



5" = 100' FEET MD

COMPANY : ENCANA OIL AND GAS (U.S.A.) INC
 WELL : DALE 4I-20H-0264
 FIELD : WATTENBERG
 COUNTY : WELD
 STATE : COLORADO
 COUNTRY : U.S.A.
 UWI : 05-123-39727

COMPANY : ENCANA OIL AND GAS (U.S.A.) INC
 WELL : DALE 4I-20H-0264
 FIELD : WATTENBERG
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 UWI : 05-123-39727

WELL LOCATION
 LAT:40°7'3.508"N LONG:104°34'18.502"W
 N:1287059.21 ft E:3259583.58 ft
 SEC:20 TWP:2N RANGE:64W
 OTHER SERVICES
 DIRECTIONAL
 ROP

DEPTH REF. : RKB
 REF. HEIGHT : 25,000 ft
 GROUND LEVEL : 4957,000 ft
 RKB to Ground Level
 G.L. to MEAN SEA LEVEL

BOREHOLE RECORD				DEVIATION RECORD			
HOLE SIZE in	FROM Ft	TO Ft	INCLINATION deg	FROM Ft	TO Ft	FROM Ft	TO Ft
12.25	0	1111	0 - 14	0	4226		
8.75	1111	7352	14 - 0	4226	6415		
6.125	7352	11504	0 - 78	6415	7352		
			78 - 92	7352	11504		
CASING RECORD							
CASING SIZE in	FROM Ft	TO Ft					
9.625	0	1094					
7	0	7345					
DRILLING CO. : H&P RIG : 278 LMD UNIT NO. : MWD-00046-DISTRICT : CASPER, CASP SPUD DATE : 08/17/2014 LMD START DATE : 09/15/2014 LMD END DATE : 09/20/2014 DEPTH : 5000 Ft DEPTH : 11504 Ft TOTAL DEPTH : 11504 Ft							

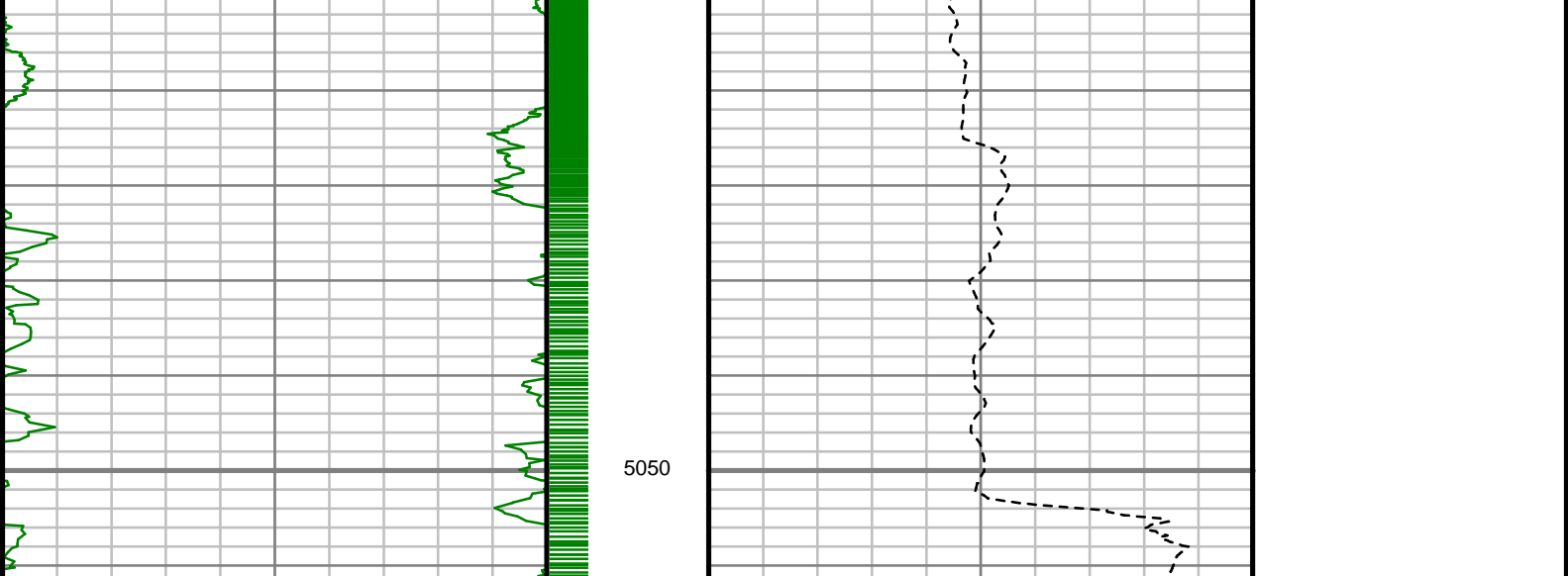
Run Data			
RUN NUMBER	1	2	3
START DATE	08/17/2014	09/15/2014	09/18/2014
START TIME	1745	0530	1930
END DATE	08/18/2014	09/17/2014	09/20/2014
END TIME	0220	1630	0930
DEPTH IN (ft)	0	1111	7352
DEPTH OUT (ft)	1111	7352	11504
LOG TOP (ft)	-	5000	7298
LOG BOTTOM (ft)	-	7298	11451
HOLE SIZE (in)	12.25	8.75	6.125
MUD DATA @ (ft)	1111	7035	10805
MUD TYPE	WATER-BASED	WATER-BASED	WATER-BASED
DENSITY (lb / gal)	8.5	10.5	10.1
VISCOSITY (s / qt)	26	36	44
pH	-	8.1	7.7
FLUID LOSS (cm3 / 30)	-	-	-
SALINITY (ppm)	-	-	-
Rm (ohmm @ deg F)	-	-	-
Rmf (ohmm @ deg F)	-	-	-
MAX TEMP (deg F)	120	175	222
Rm @ MAX TEMP (ohmm)	-	-	-
LWD ENGINEER #1	S. WAXLER	C. WILSON	S. WAXLER
LWD ENGINEER #2	C. WILSON	T. LE	T. LE
LWD ENGINEER #3	T. LE	-	-
LOG WITNESS #1	P. KRUGER	P. KRUGER	P. KRUGER
LOG WITNESS #2	C. NAKOS	C. NAKOS	C. NAKOS

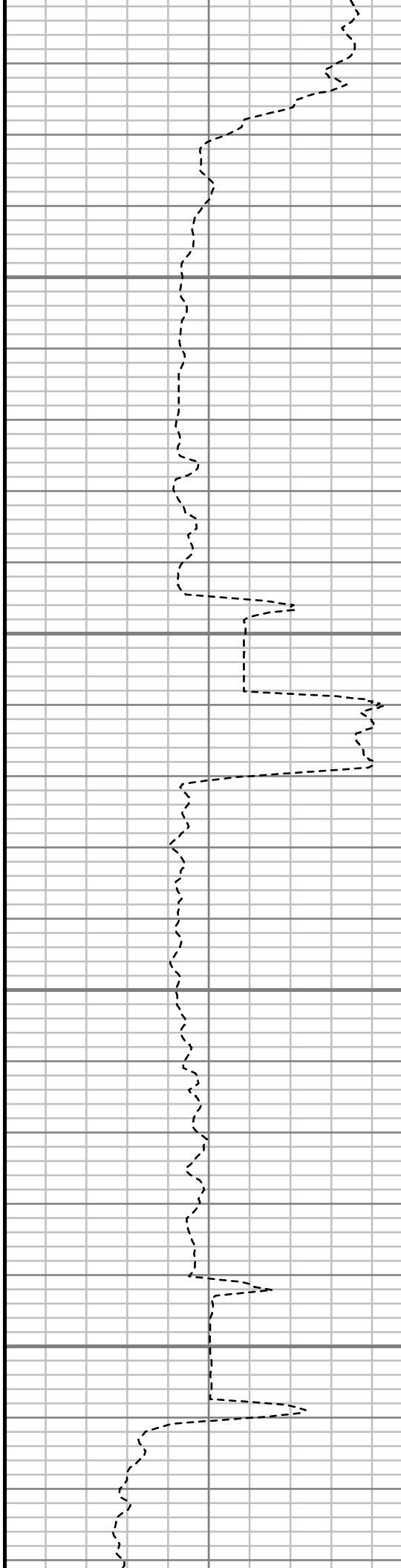
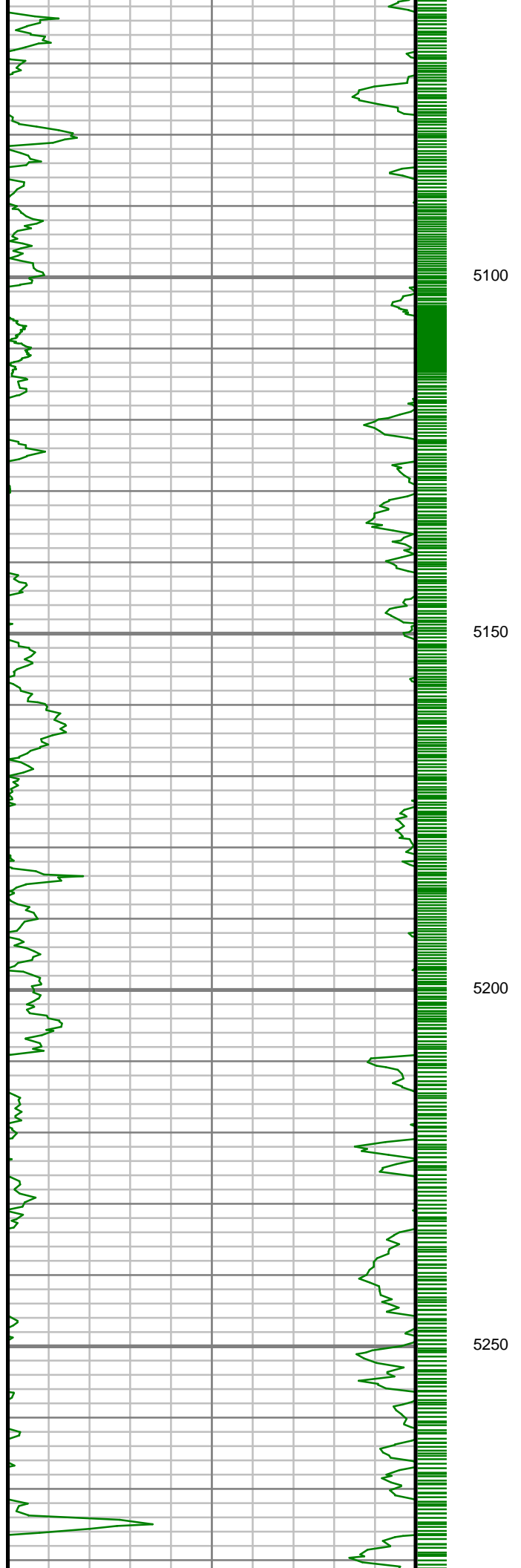
Remarks
ENCANA OIL AND GAS (U.S.A.) INC PRODUCTION AFE# 14182132
SCIENTIFIC DRILLING INTERNATIONAL JOB# 186338, 198465
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO GAMMA RAY CURVE
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO RATE OF PENETRATION CURVE
RUN #1 : GYRO DIRECTIONAL RUN
SENSORS S/N: EM 5 PULSER = 890 / GYRO = 034
BIT TO SENSOR OFFSET: SURVEY = 44.64 FT.
RUN #2 : MWD / GYRO / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 128-094 / CONT = 858 / MWD EYE = 738 / GAMMA RAY = 1076 / GYRO = 012
BIT TO SENSOR OFFSETS: SURVEY = 63.23 FT. / GAMMA RAY = 54.57 FT. / GYRO = 43.09 FT.
RUN #3 : MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 78-133 / CONT = 706 / MWD EYE = 0862 / GAMMA RAY = 1054
BIT TO SENSOR OFFSETS: SURVEY = 61.53 FT. / GAMMA RAY = 52.87 FT.
REMARK #1: GAMMA RAY FROM 7300 FT. - 7344 FT. WAS LOGGED BEHIND CASING.
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.

ENCANA OIL AND GAS (U.S.A.) INC
DALE 4I-20H-O264
WATTENBERG FIELD
WELD COUNTY, COLORADO
05-123-39727

Gamma Ray (GR) 0 Unit = aapi 150	MEASURED DEPTH 1:240 (ft)	Rate of Penetration (ROP) 600 Unit = ft/hr 0	Comments
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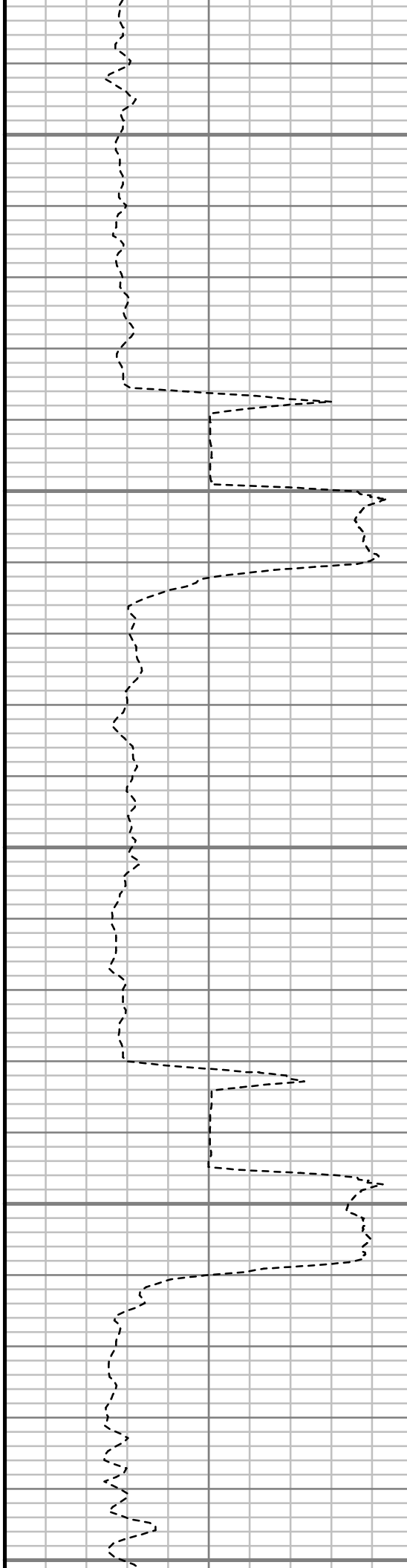
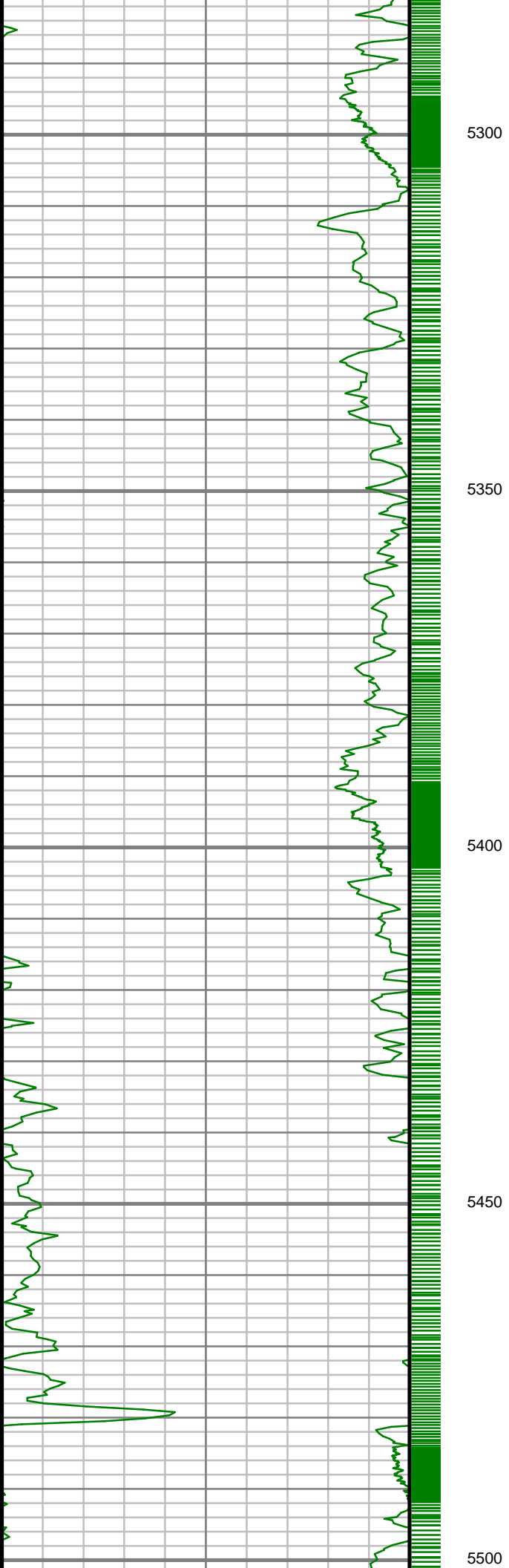
5100

5150

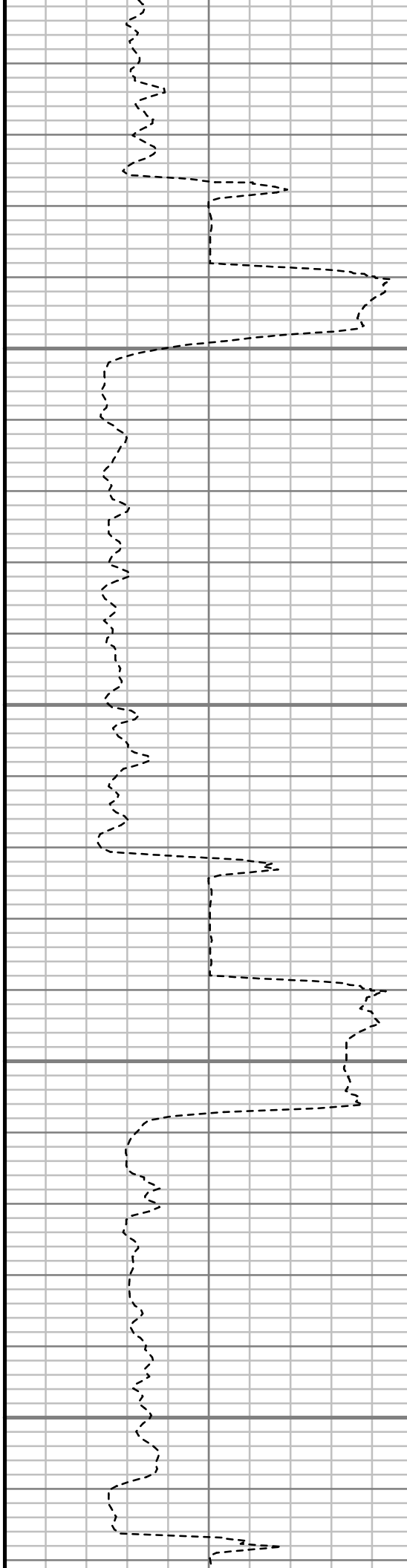
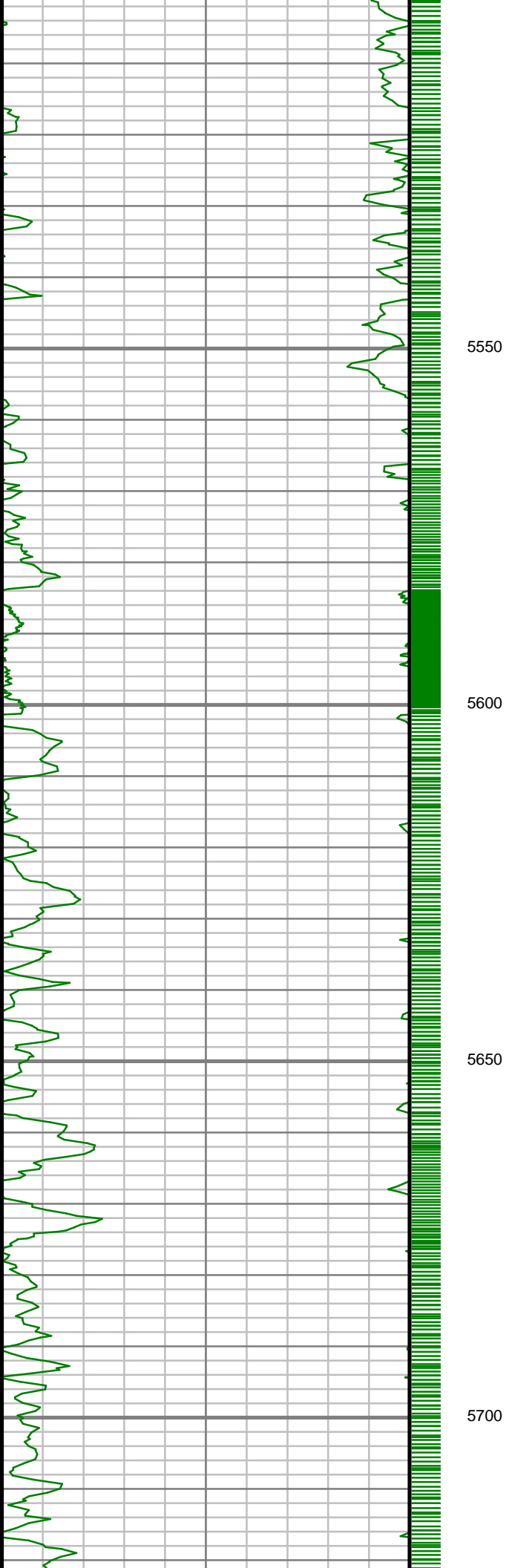
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5250

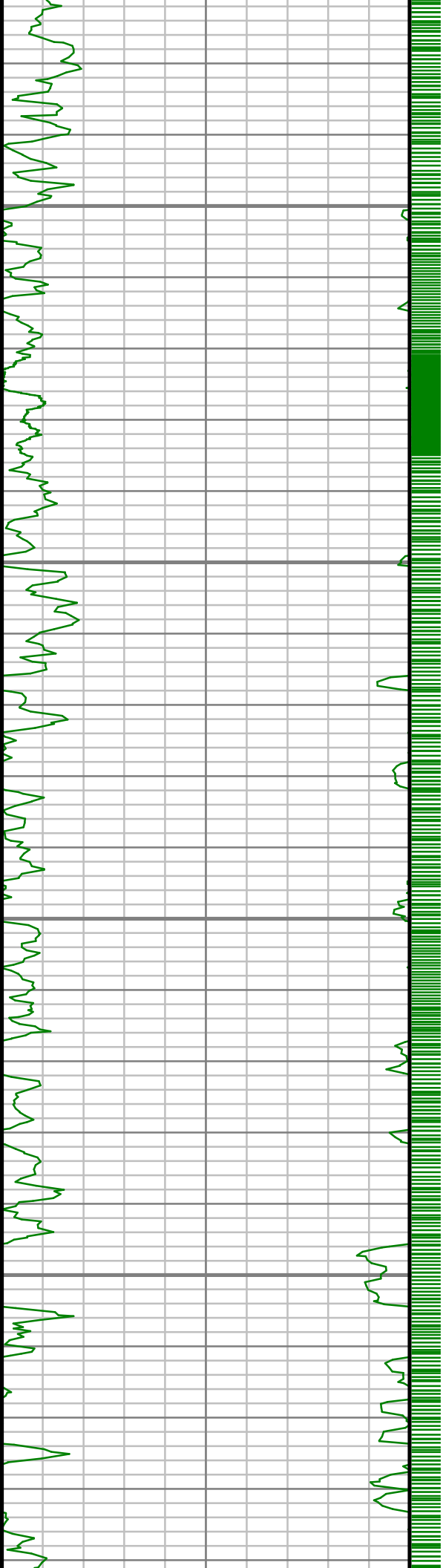
S: 44 MD: 5177.00 ft Inc: 11.04
deg Az: 104.22 deg TVD:
5066.25 ft



S: 45 MD: 5367.00 ft Inc: 9.49
deg Az: 112.91 deg TVD:
5253.21 ft



S: 46 MD: 5557.00 ft Inc: 4.97
deg Az: 108.09 deg TVD:
5441.66 ft

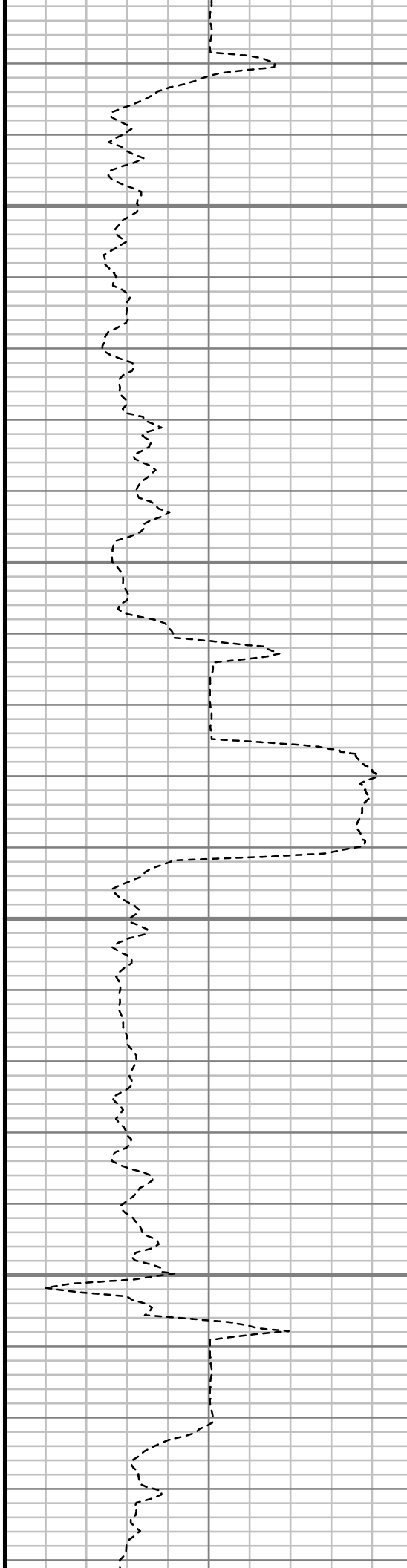


5750

5800

5850

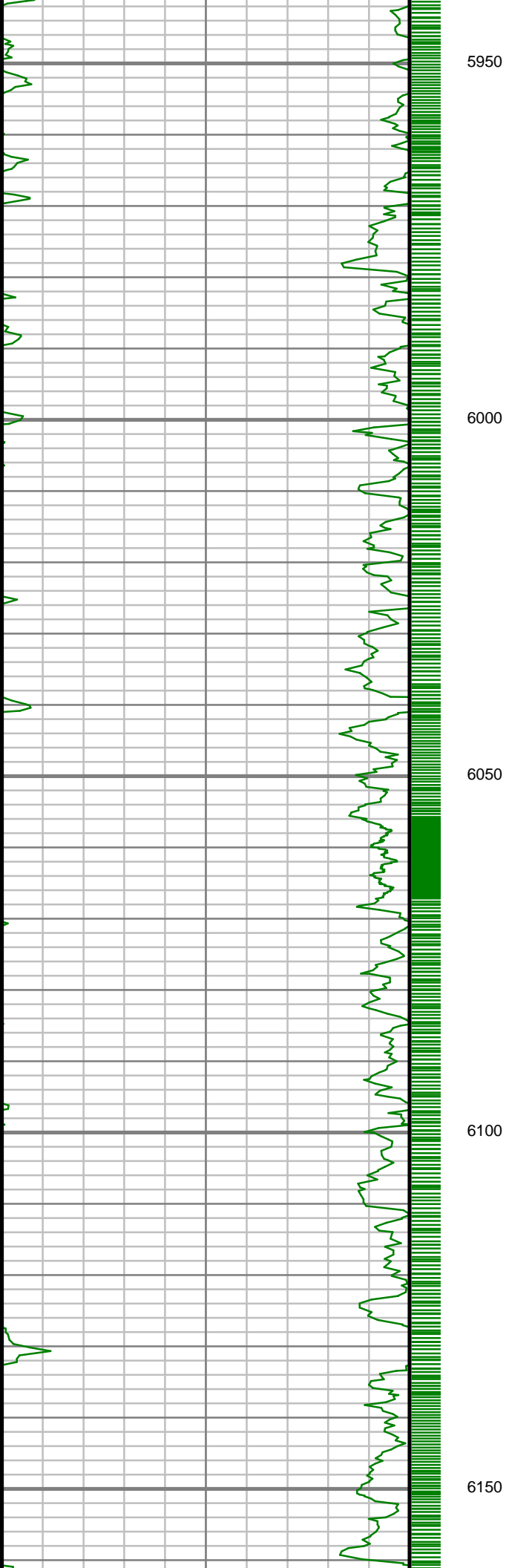
5900



S: 47 MD: 5748.00 ft Inc: 2.55
deg Az: 102.47 deg TVD:
5632.23 ft

S: 48 MD: 5938.00 ft Inc: 0.74

deg Az: 106.51 deg IVD:
5822.15 ft



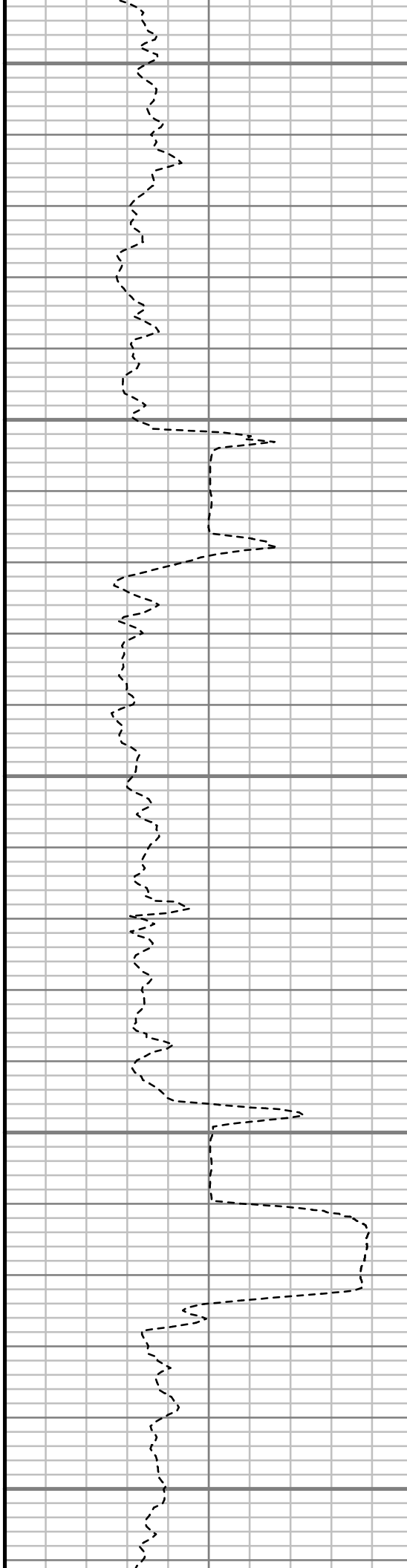
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6000

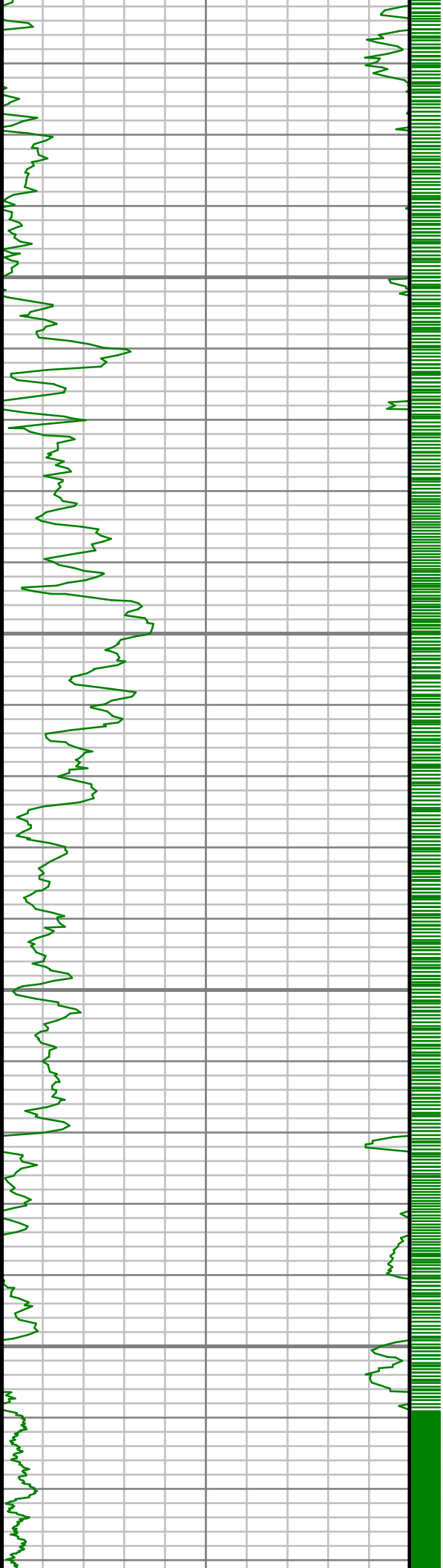
6050

6100

6150



S: 49 MD: 6129.00 ft Inc: 1.26
deg Az: 238.43 deg TVD:
6013.13 ft

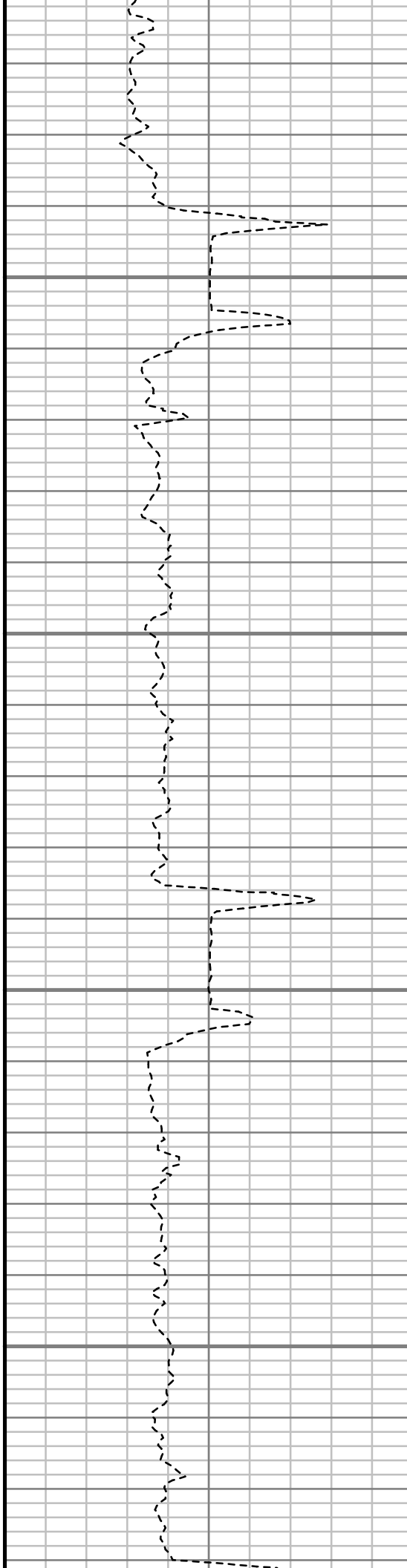


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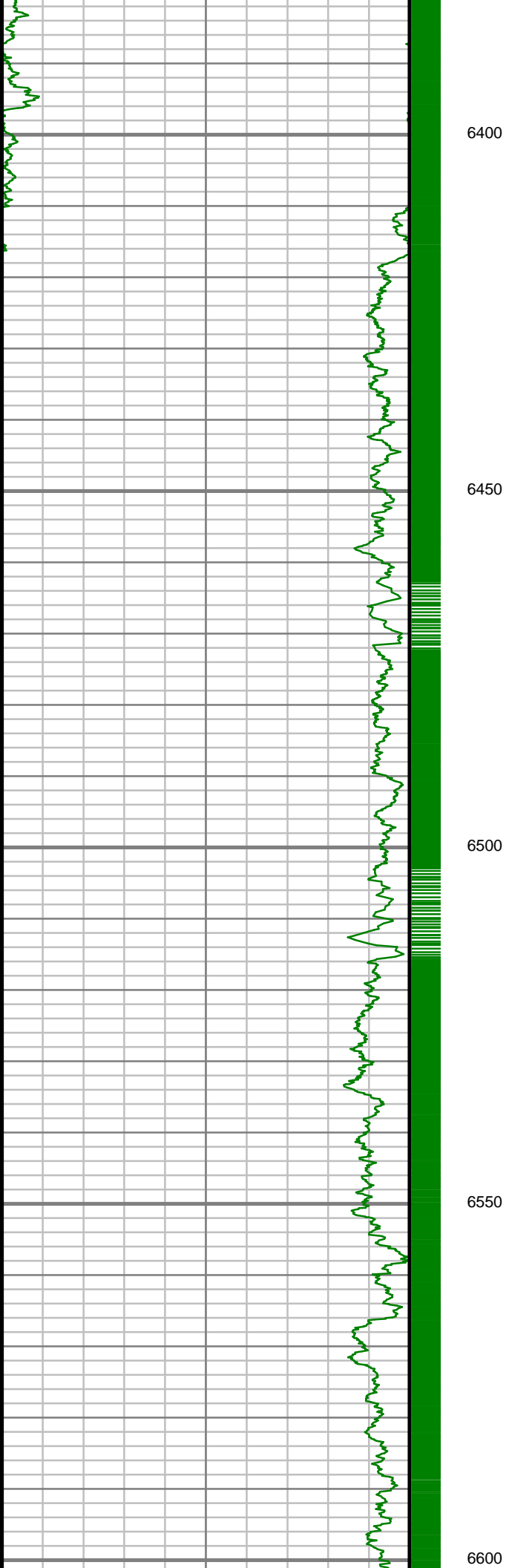
6250

6300

6350



S: 50 MD: 6320.00 ft Inc: 0.77
deg Az: 260.26 deg TVD:
6204.10 ft



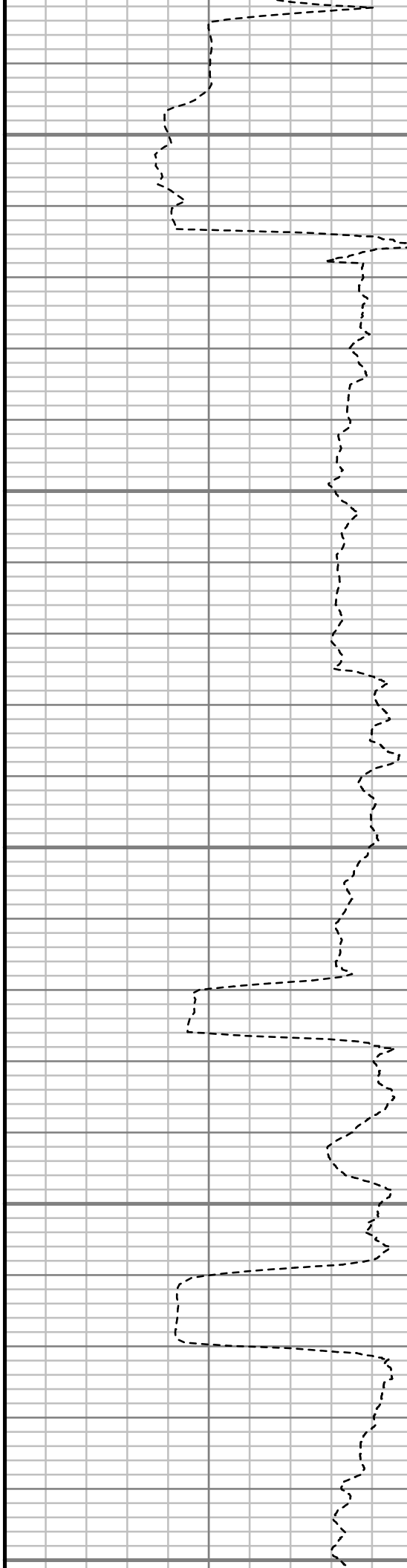
6400

6450

6500

6550

6600

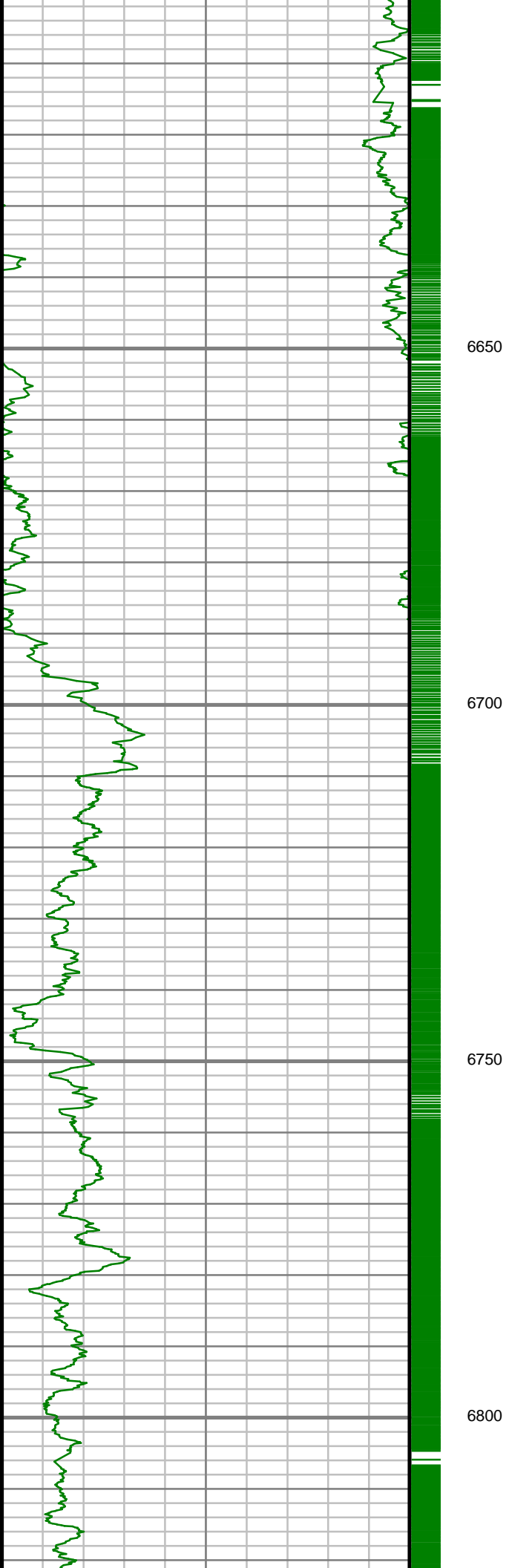


S: 51 MD: 6415.00 ft Inc: 0.82
deg Az: 327.74 deg TVD:
6299.09 ft

S: 52 MD: 6462.00 ft Inc: 7.87
deg Az: 344.45 deg TVD:
6345.93 ft

S: 53 MD: 6510.00 ft Inc: 11.58
deg Az: 348.83 deg TVD:
6393.23 ft

S: 54 MD: 6557.00 ft Inc: 14.81
deg Az: 352.68 deg TVD:
6438.99 ft



6650

6700

6750

6800

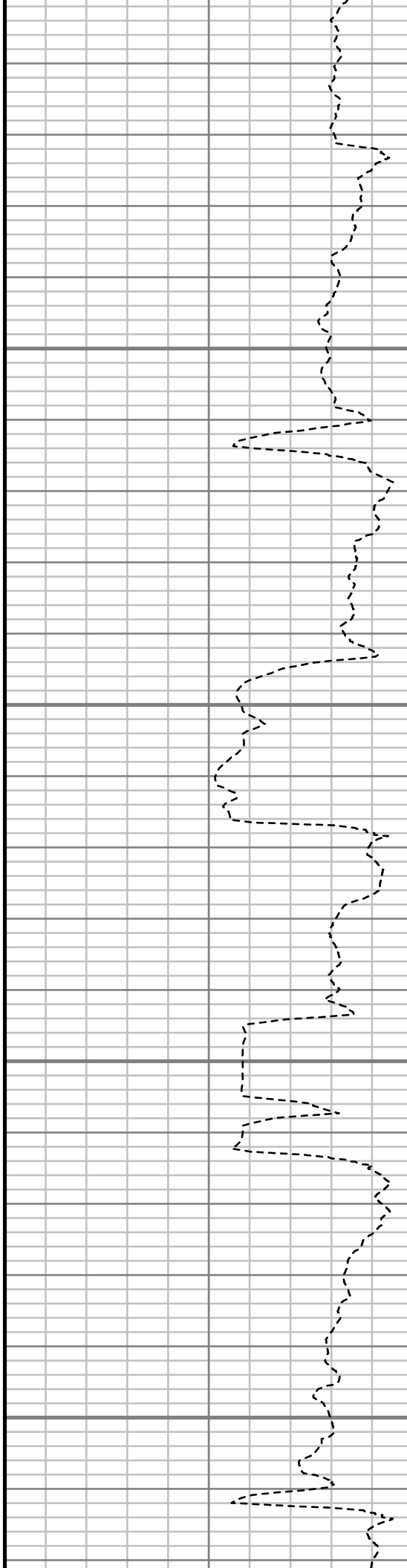
S: 55 MD: 6605.00 ft Inc: 19.64
deg Az: 354.95 deg TVD:
6484.82 ft

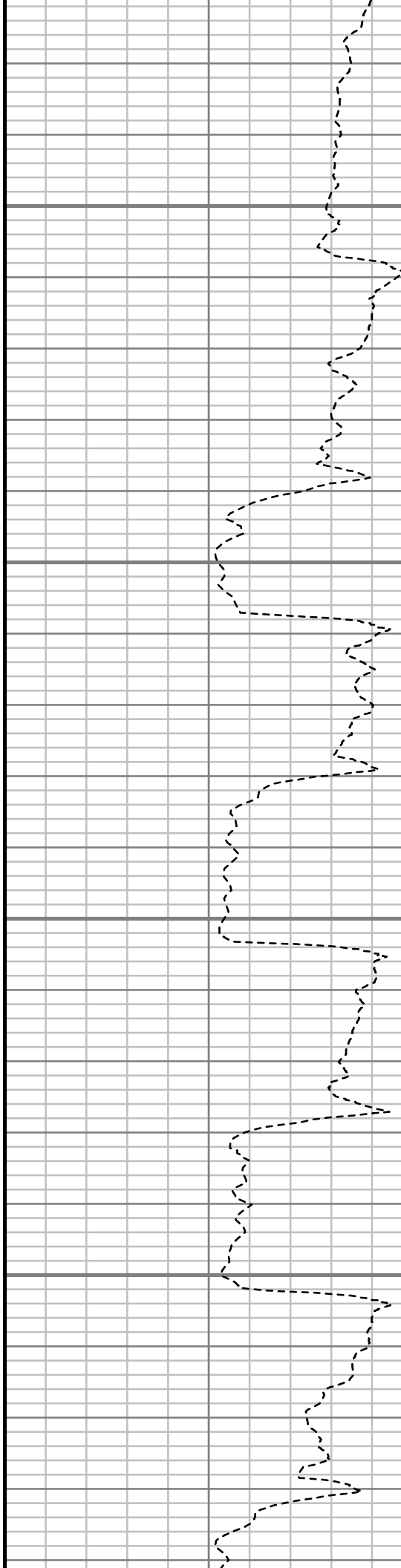
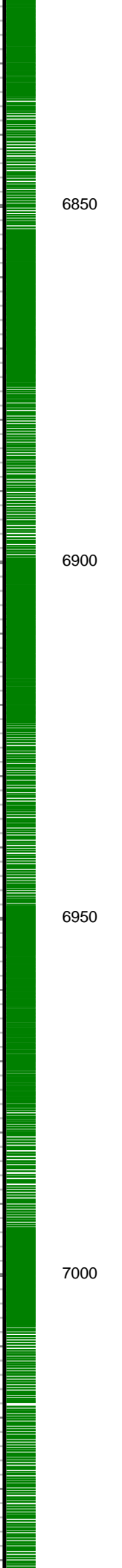
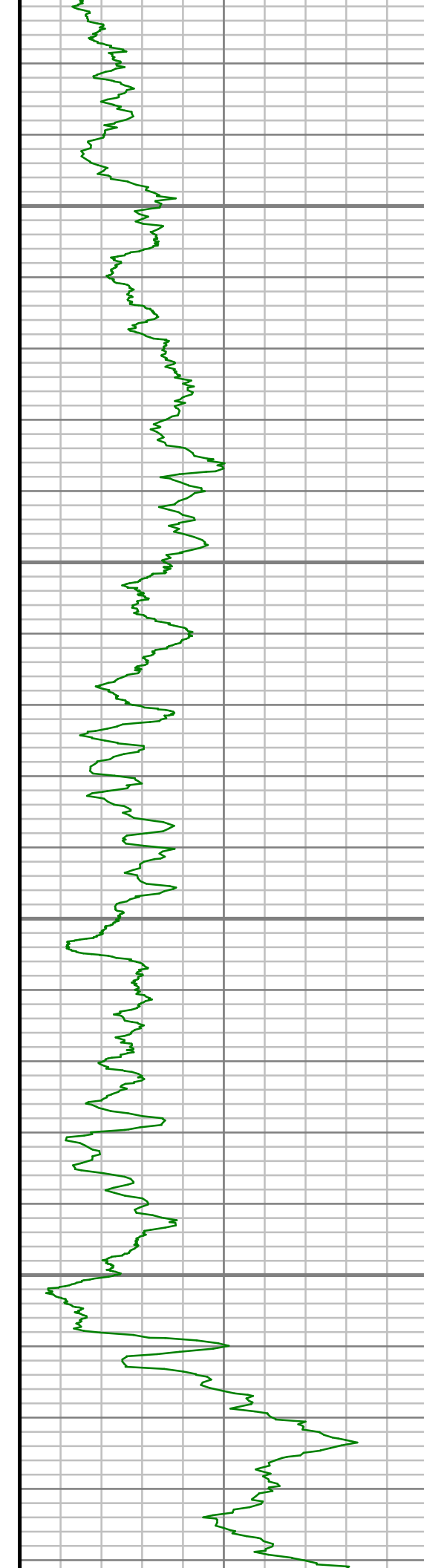
S: 56 MD: 6652.00 ft Inc: 26.60
deg Az: 357.28 deg TVD:
6528.02 ft

S: 57 MD: 6701.00 ft Inc: 30.13
deg Az: 0.24 deg TVD: 6571.13
ft

S: 58 MD: 6748.00 ft Inc: 32.85
deg Az: 0.65 deg TVD: 6611.21
ft

S: 59 MD: 6796.00 ft Inc: 37.79
deg Az: 1.23 deg TVD: 6650.36
ft





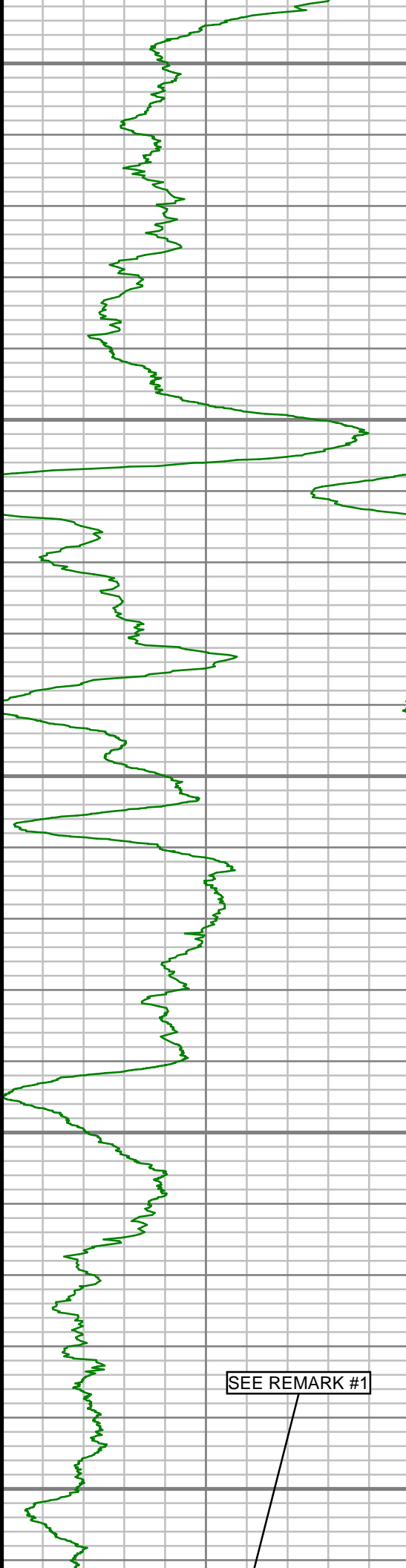
S: 60 MD: 6843.00 ft Inc: 43.99
deg Az: 1.12 deg TVD: 6685.87
ft

S: 61 MD: 6891.00 ft Inc: 49.64
deg Az: 1.24 deg TVD: 6718.71
ft

S: 62 MD: 6938.00 ft Inc: 52.75
deg Az: 0.58 deg TVD: 6748.16
ft

S: 63 MD: 6986.00 ft Inc: 56.40
deg Az: 359.31 deg TVD:
6775.98 ft

S: 64 MD: 7033.00 ft Inc: 60.72
deg Az: 359.58 deg TVD:
6800.49 ft



7050

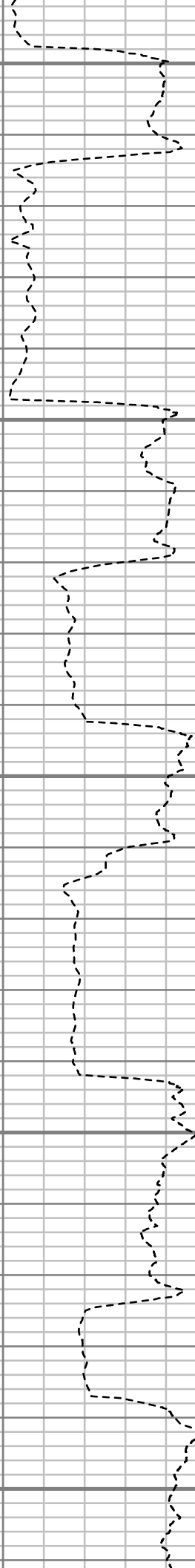
7100

7150

7200

7250

SEE REMARK #1

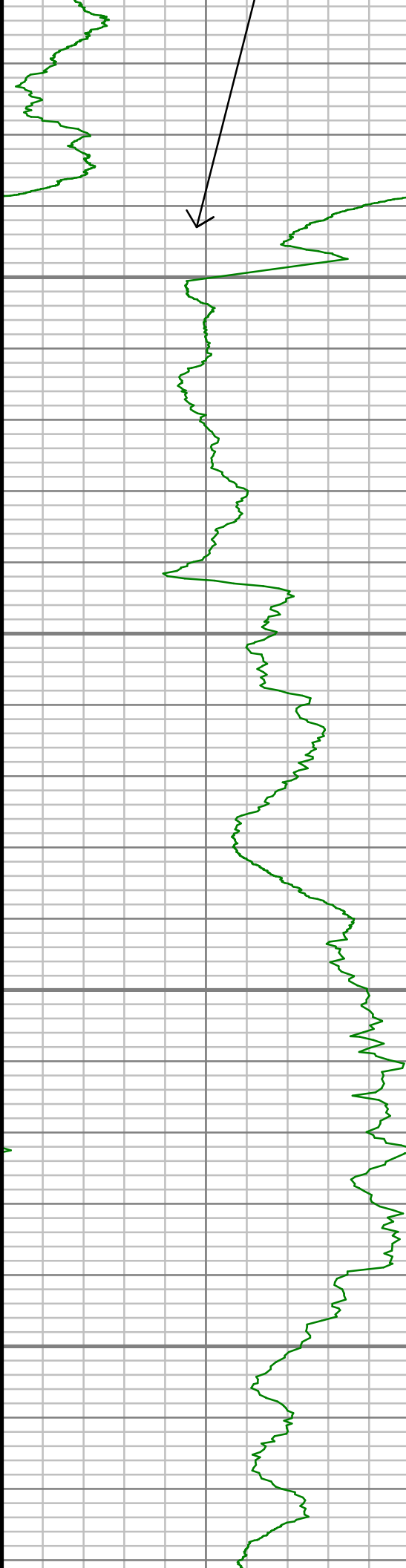


S: 65 MD: 7081.00 ft Inc: 63.26
deg Az: 359.39 deg TVD:
6823.03 ft

S: 66 MD: 7128.00 ft Inc: 67.00
deg Az: 0.29 deg TVD: 6842.80
ft

S: 67 MD: 7177.00 ft Inc: 69.80
deg Az: 1.08 deg TVD: 6860.84
ft

S: 68 MD: 7224.00 ft Inc: 74.21
deg Az: 359.98 deg TVD:
6875.35 ft



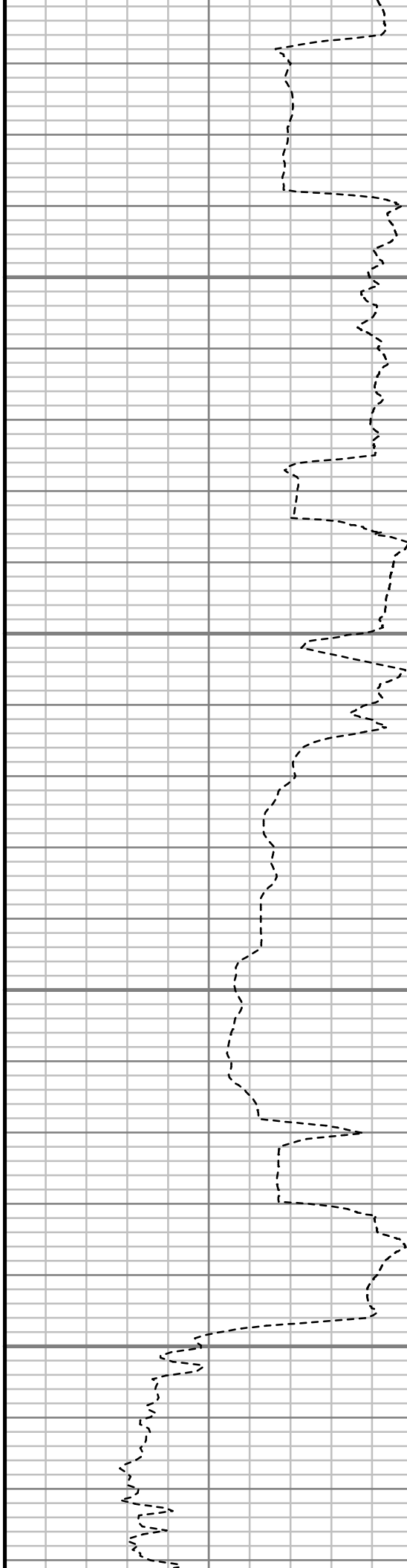
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7350

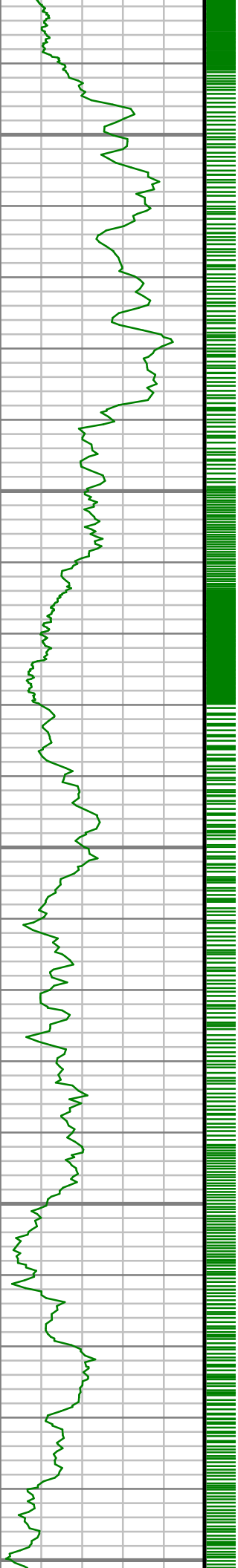
7400

7450

S: 69 MD: 7272.00 ft Inc: 78.15
deg Az: 359.01 deg TVD:
6886.82 ft



S: 70 MD: 7448.00 ft Inc: 86.87
deg Az: 358.20 deg TVD:
6909.73 ft



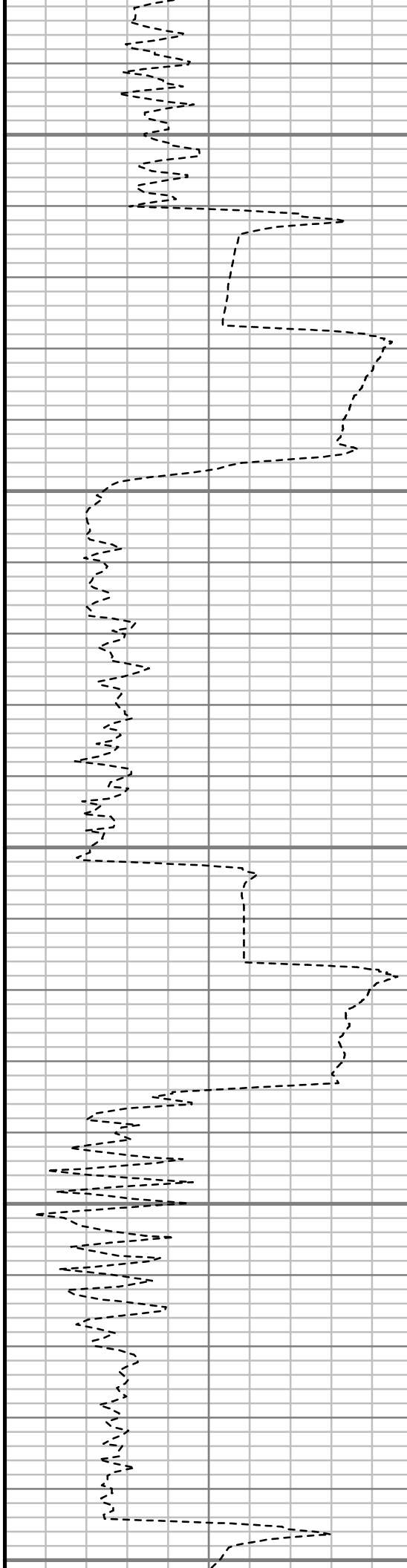
7500

7550

7600

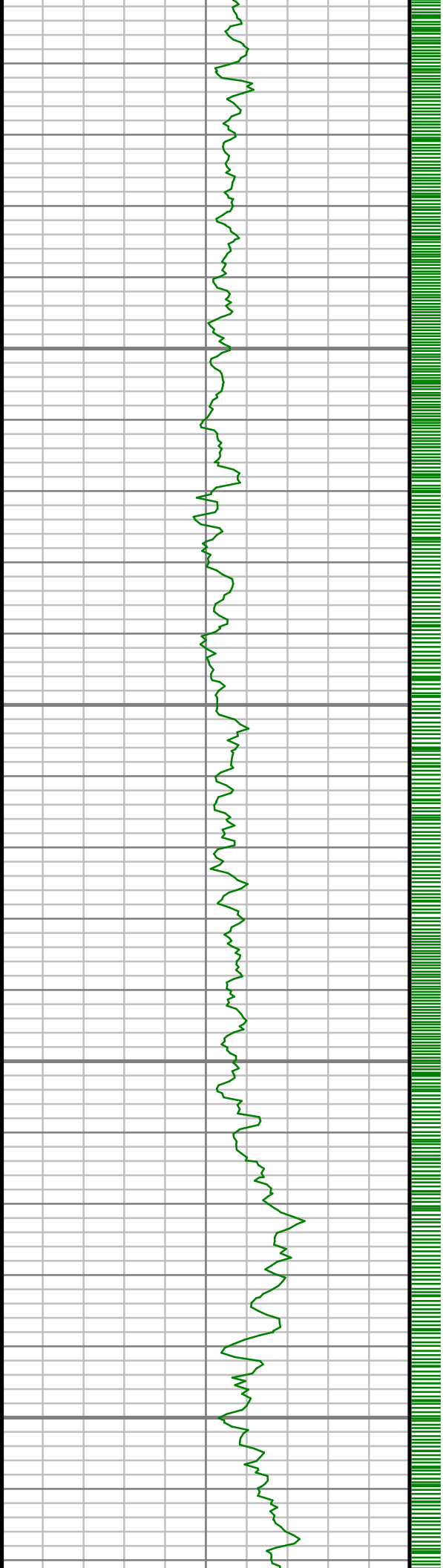
7650

7700



S: 71 MD: 7540.00 ft Inc: 88.25
deg Az: 358.64 deg TVD:
6913.65 ft

S: 72 MD: 7631.00 ft Inc: 88.89
deg Az: 0.28 deg TVD:
6915.92 ft

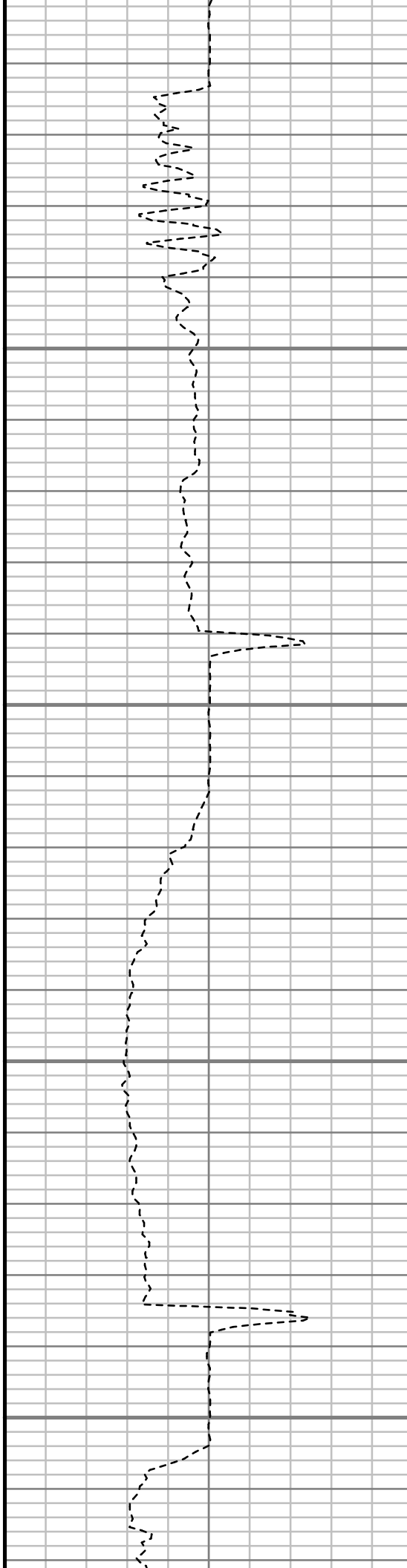


7750

7800

7850

7900

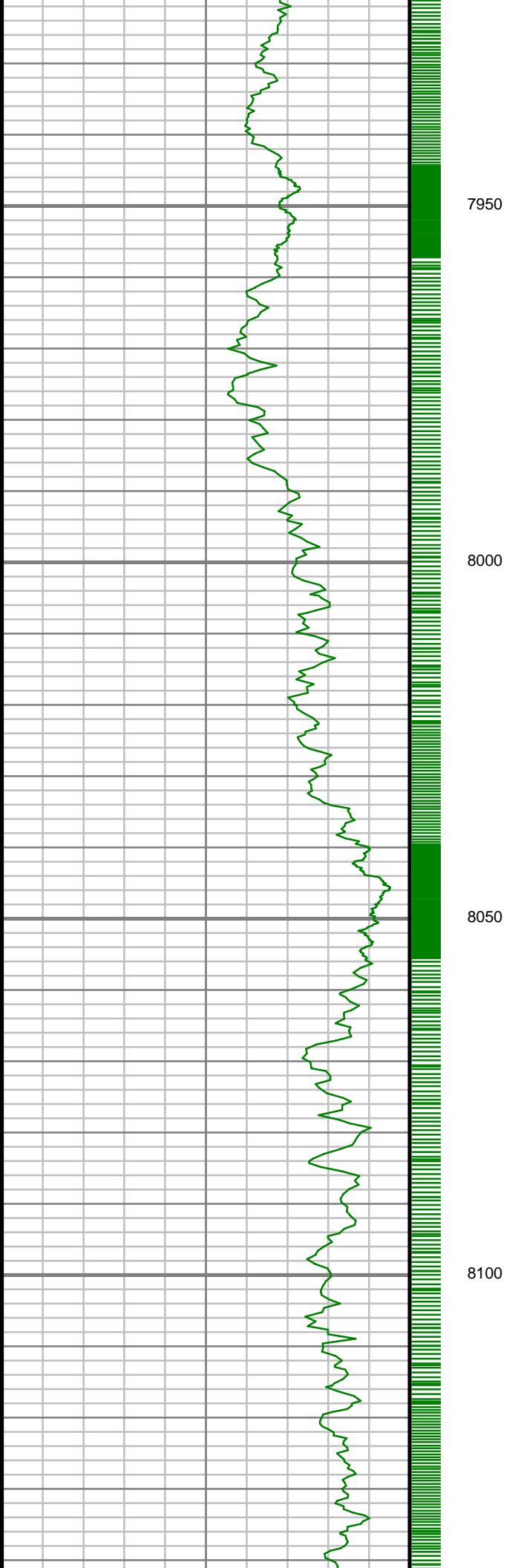


S: 73 MD: 7727.00 ft Inc: 89.40
deg Az: 0.94 deg TVD: 6917.36
ft

S: 74 MD: 7821.00 ft Inc: 90.17
deg Az: 0.46 deg TVD: 6917.71
ft

S: 75 MD: 7916.00 ft Inc: 91.08
deg Az: 359.71 deg TVD:

6916.68 ft

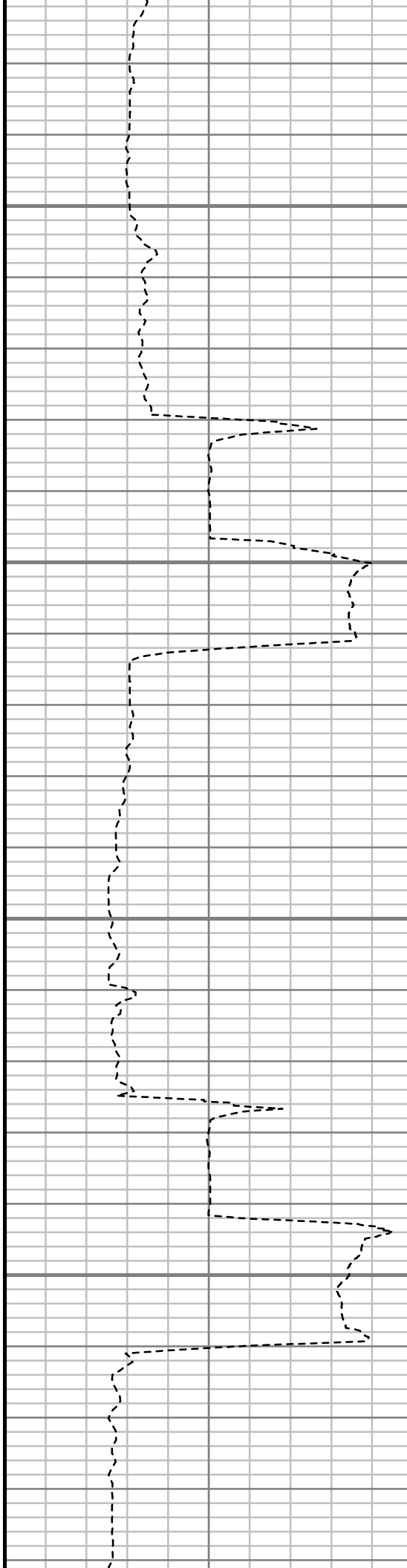


7950

8000

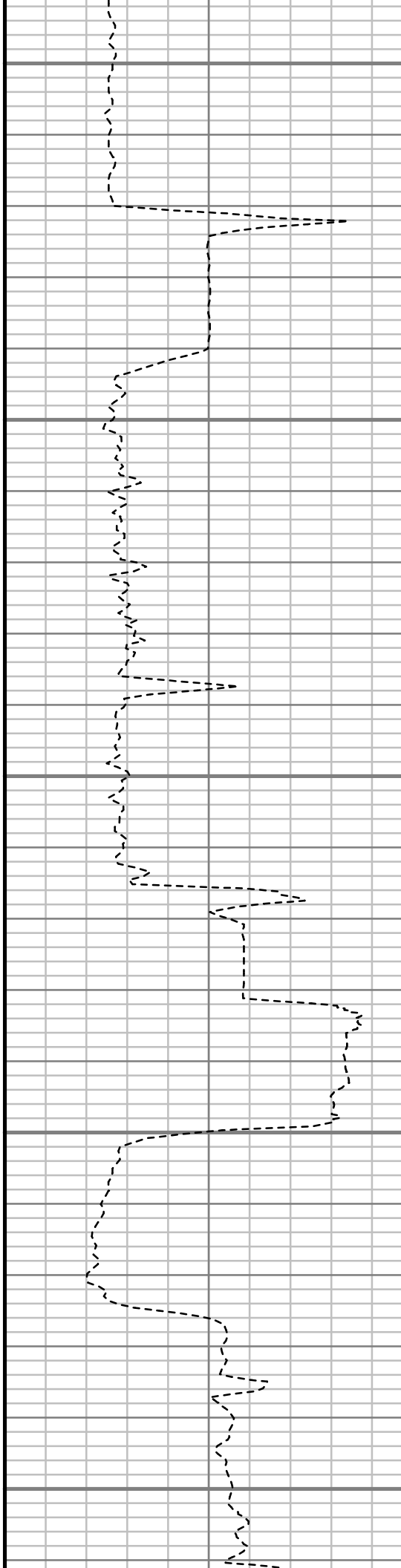
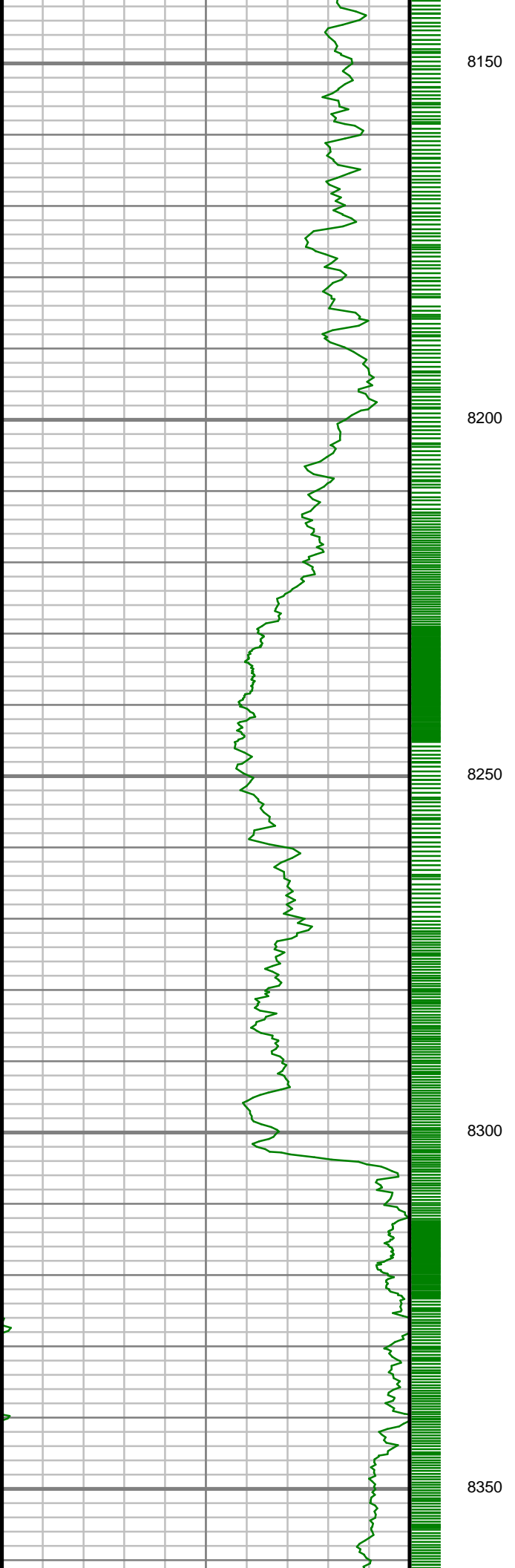
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8100



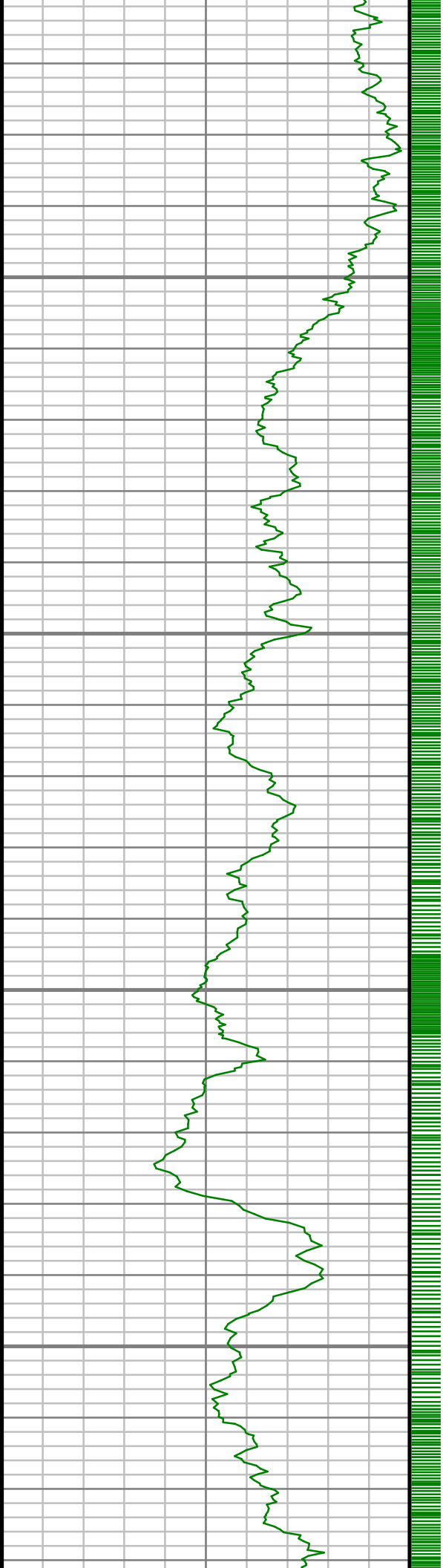
S: 76 MD: 8011.00 ft Inc: 90.84
deg Az: 0.01 deg TVD: 6915.09
ft

S: 77 MD: 8105.00 ft Inc: 89.93
deg Az: 1.10 deg TVD: 6914.46
ft



S: 78 MD: 8200.00 ft Inc: 91.01
deg Az: 0.75 deg TVD: 6913.68
ft

S: 79 MD: 8295.00 ft Inc: 90.23
deg Az: 1.98 deg TVD: 6912.65
ft

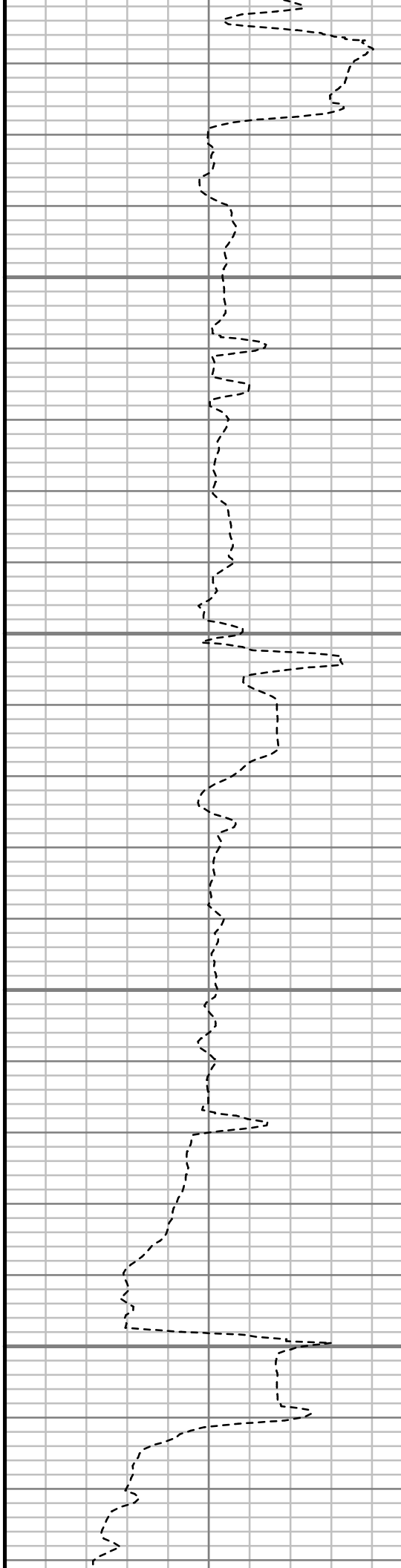


8400

8450

8500

8550

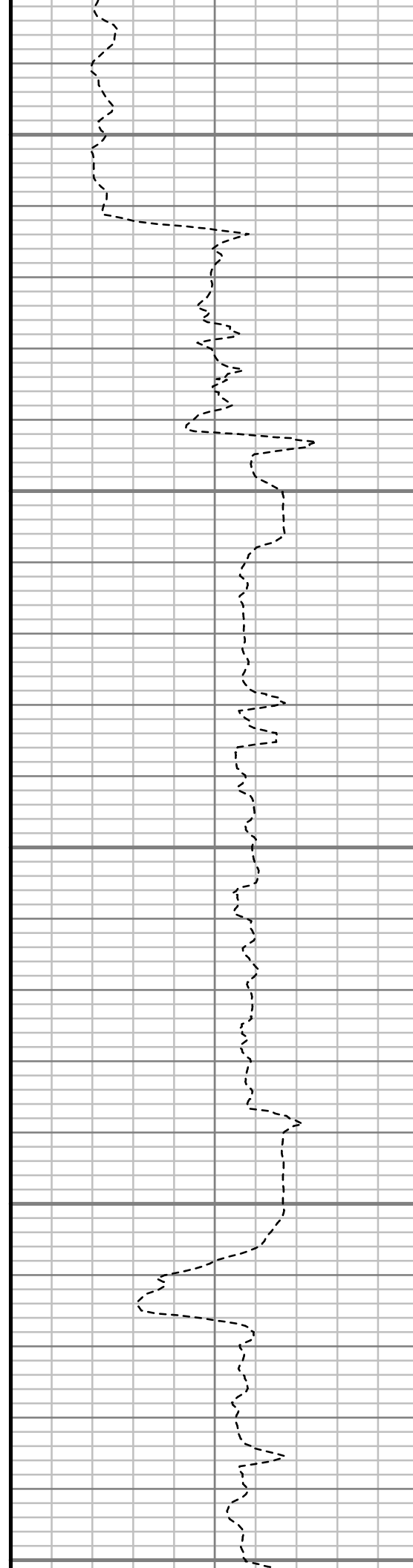
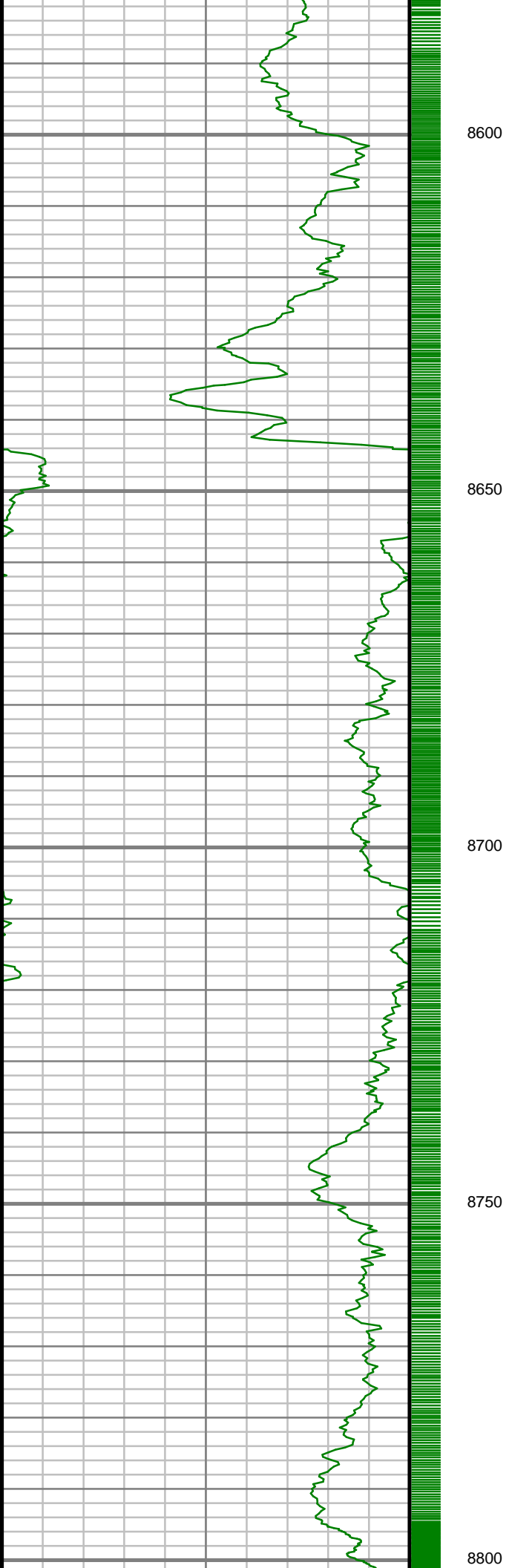


S: 80 MD: 8390.00 ft Inc: 88.96
deg Az: 0.57 deg TVD: 6913.31
ft

S: 81 MD: 8485.00 ft Inc: 89.09
deg Az: 359.47 deg TVD:
6914.93 ft

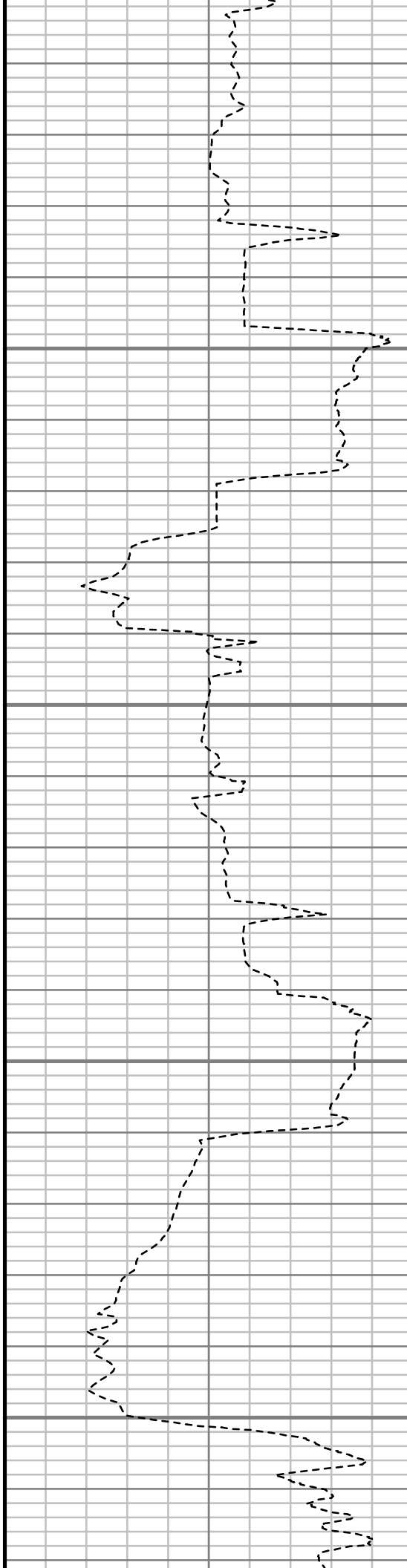
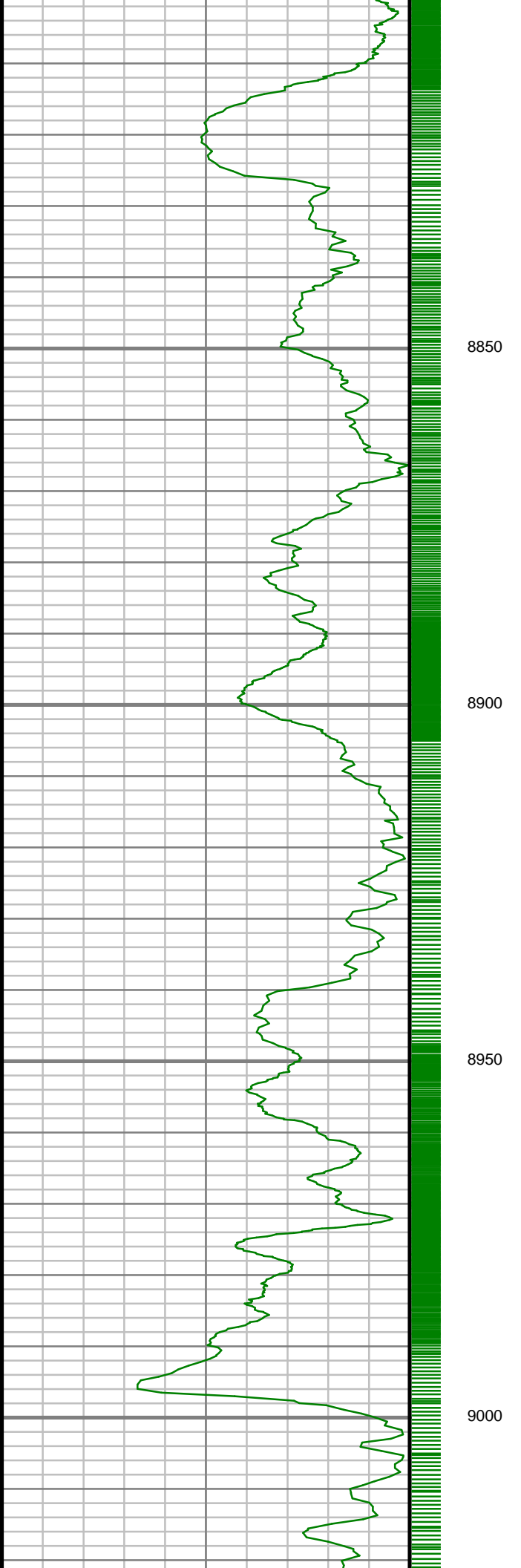
S: 82 MD: 8580.00 ft Inc: 89.06

S: 82 MD: 8580.00 ft Inc: 89.06
deg Az: 359.58 deg TVD:
6916.46 ft



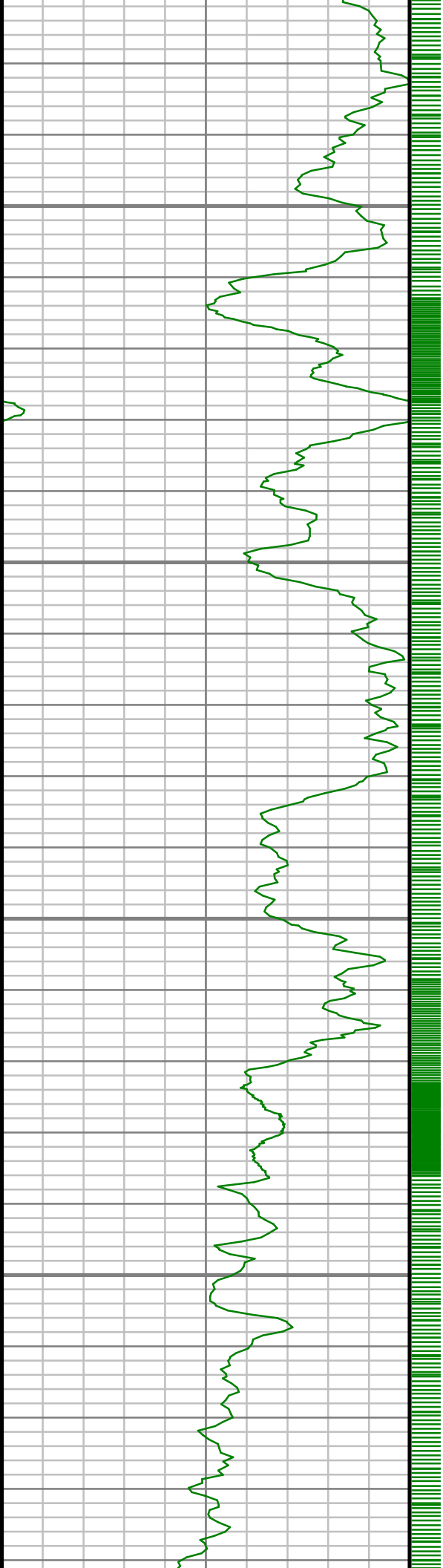
S: 83 MD: 8674.00 ft Inc: 88.56
deg Az: 359.36 deg TVD:
6918.42 ft

S: 84 MD: 8769.00 ft Inc: 87.72
deg Az: 358.51 deg TVD:
6921.51 ft



S: 85 MD: 8864.00 ft Inc: 88.15
deg Az: 359.48 deg TVD:
6924.93 ft

S: 86 MD: 8958.00 ft Inc: 89.03
deg Az: 1.04 deg TVD: 6927.24
ft



9050

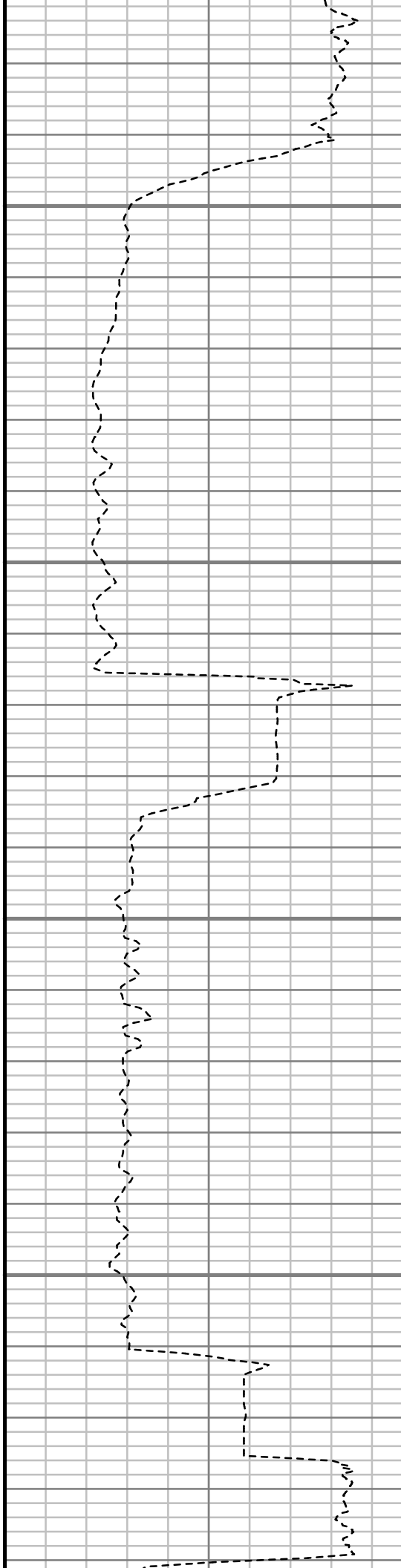
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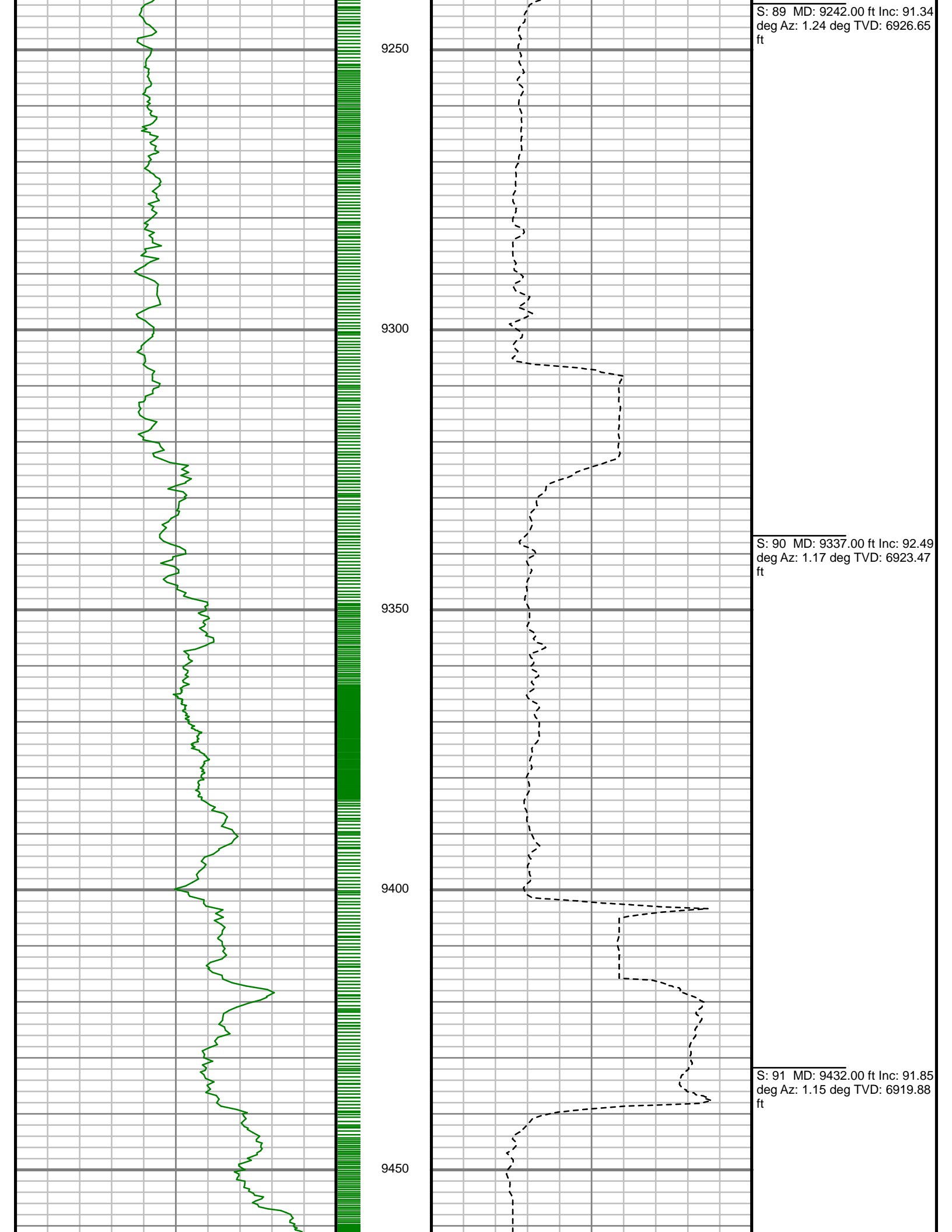
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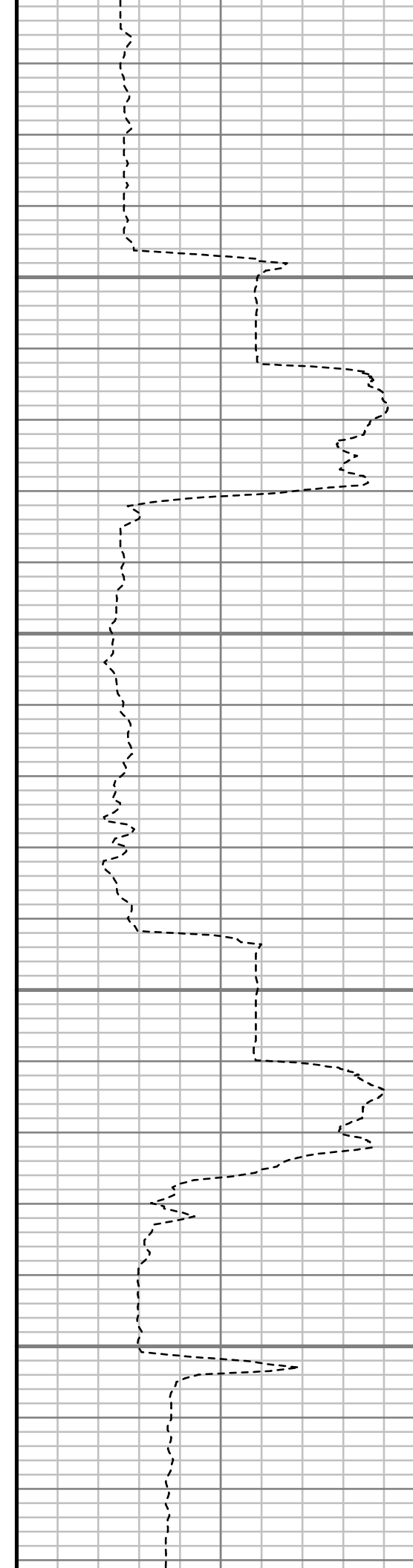
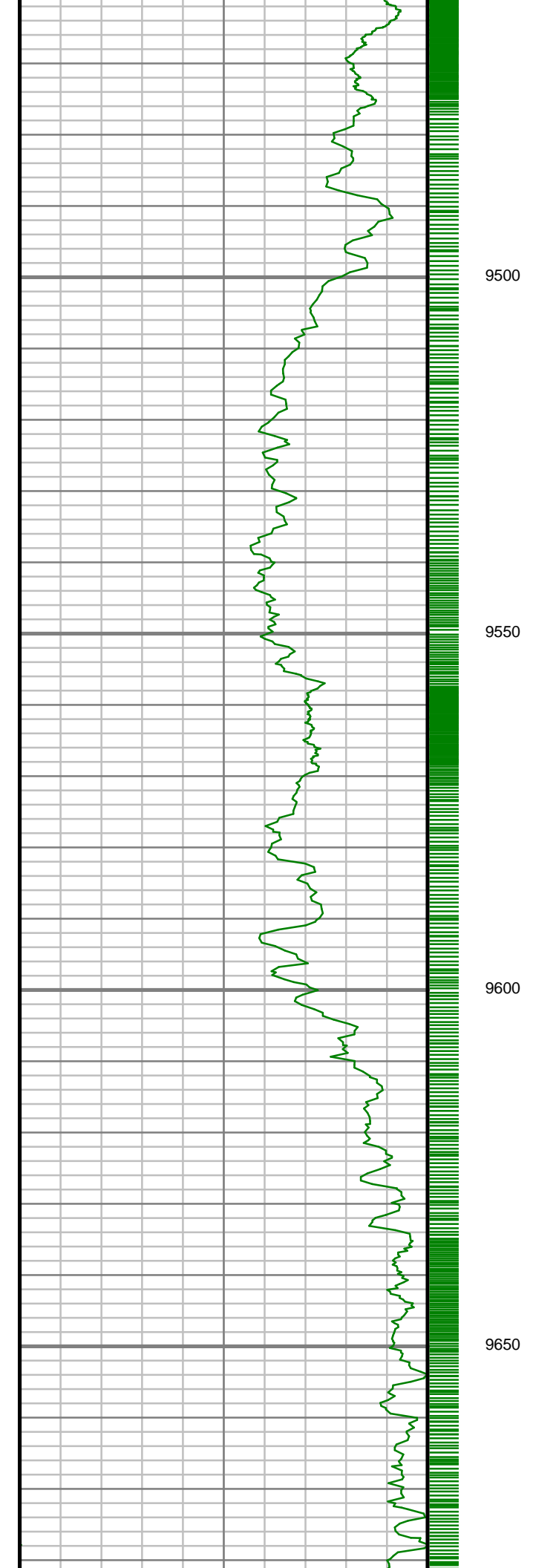
9200

S: 87 MD: 9052.00 ft Inc: 90.34
deg Az: 1.76 deg TVD: 6927.76
ft

S: 88 MD: 9147.00 ft Inc: 89.83
deg Az: 1.95 deg TVD: 6927.63
ft

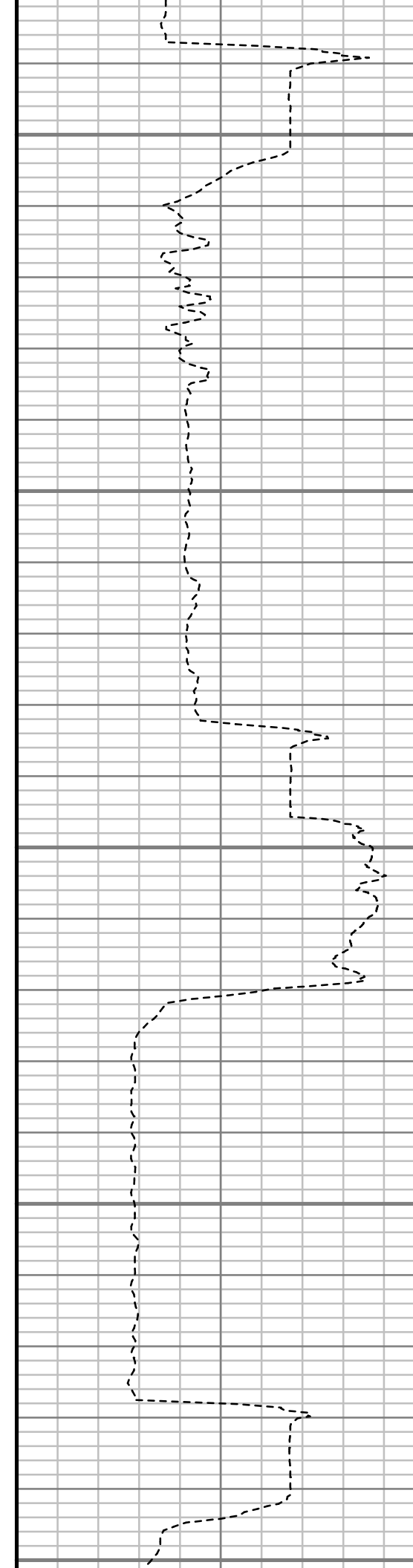
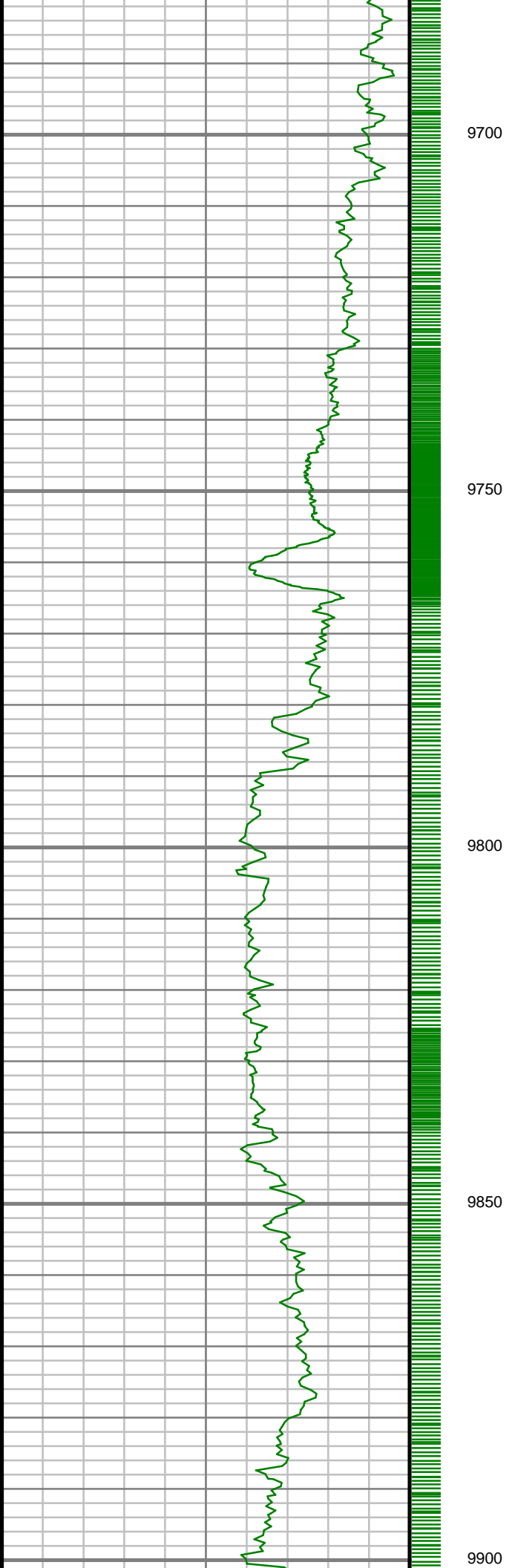






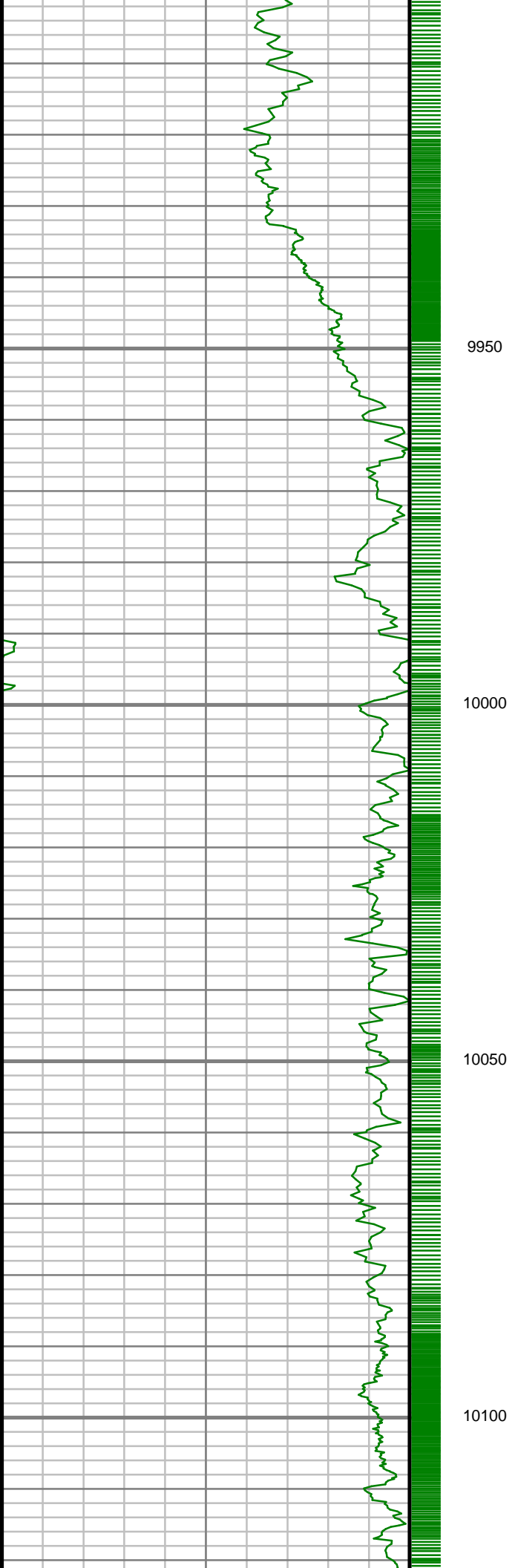
S: 92 MD: 9527.00 ft Inc: 90.84
deg Az: 1.37 deg TVD: 6917.65
ft

S: 93 MD: 9622.00 ft Inc: 90.64
deg Az: 359.41 deg TVD:
6916.43 ft



S: 94 MD: 9717.00 ft Inc: 89.60
deg Az: 358.48 deg TVD:
6916.24 ft

S: 95 MD: 9813.00 ft Inc: 90.10
deg Az: 359.21 deg TVD:
6916.49 ft



9950

10000

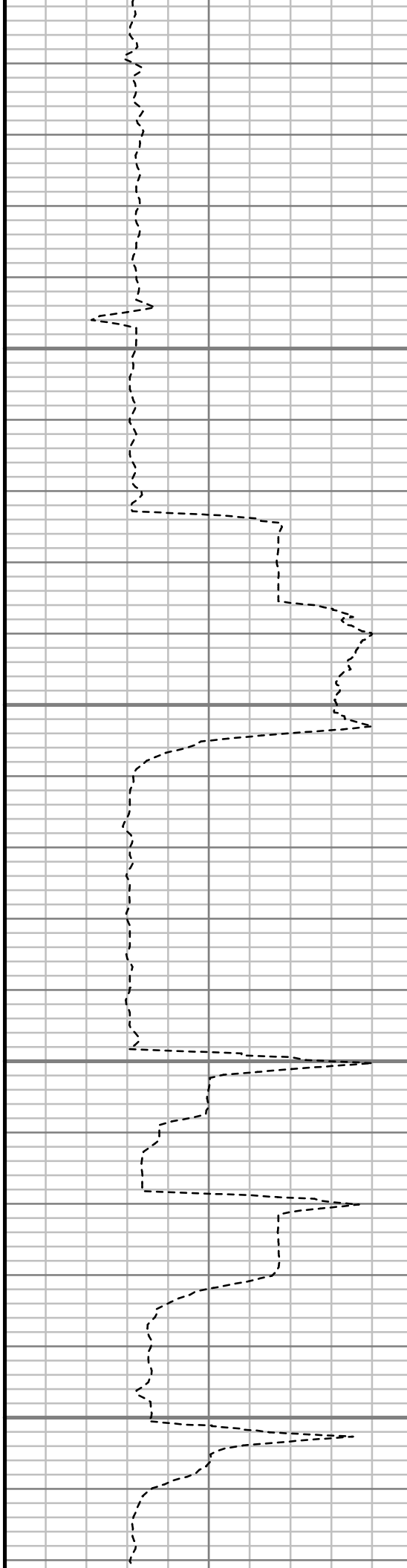
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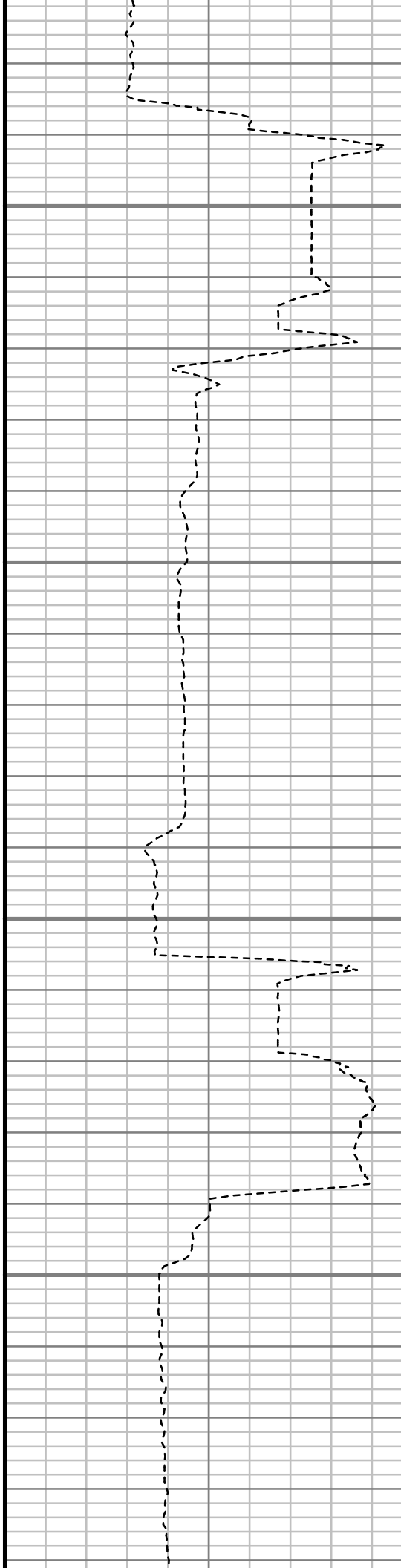
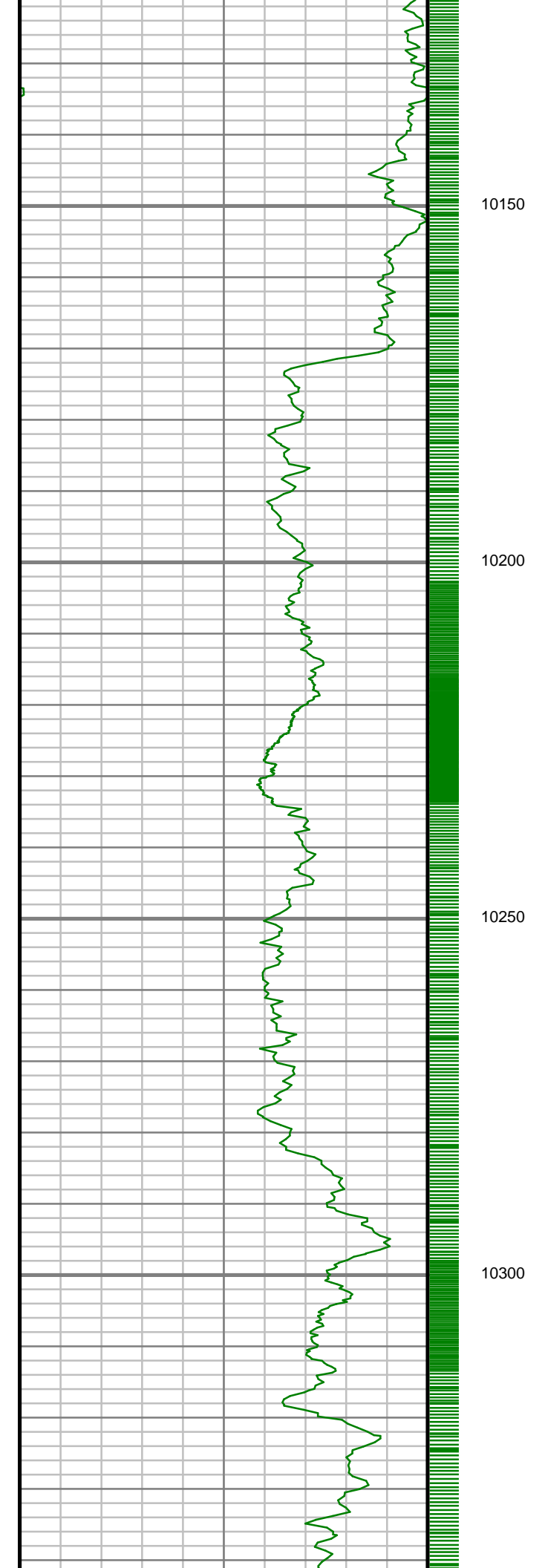
10100

S: 96 MD: 9908.00 ft Inc: 90.84
deg Az: 359.68 deg TVD:
6915.71 ft

S: 97 MD: 10003.00 ft Inc:
89.87 deg Az: 359.75 deg TVD:
6915.13 ft

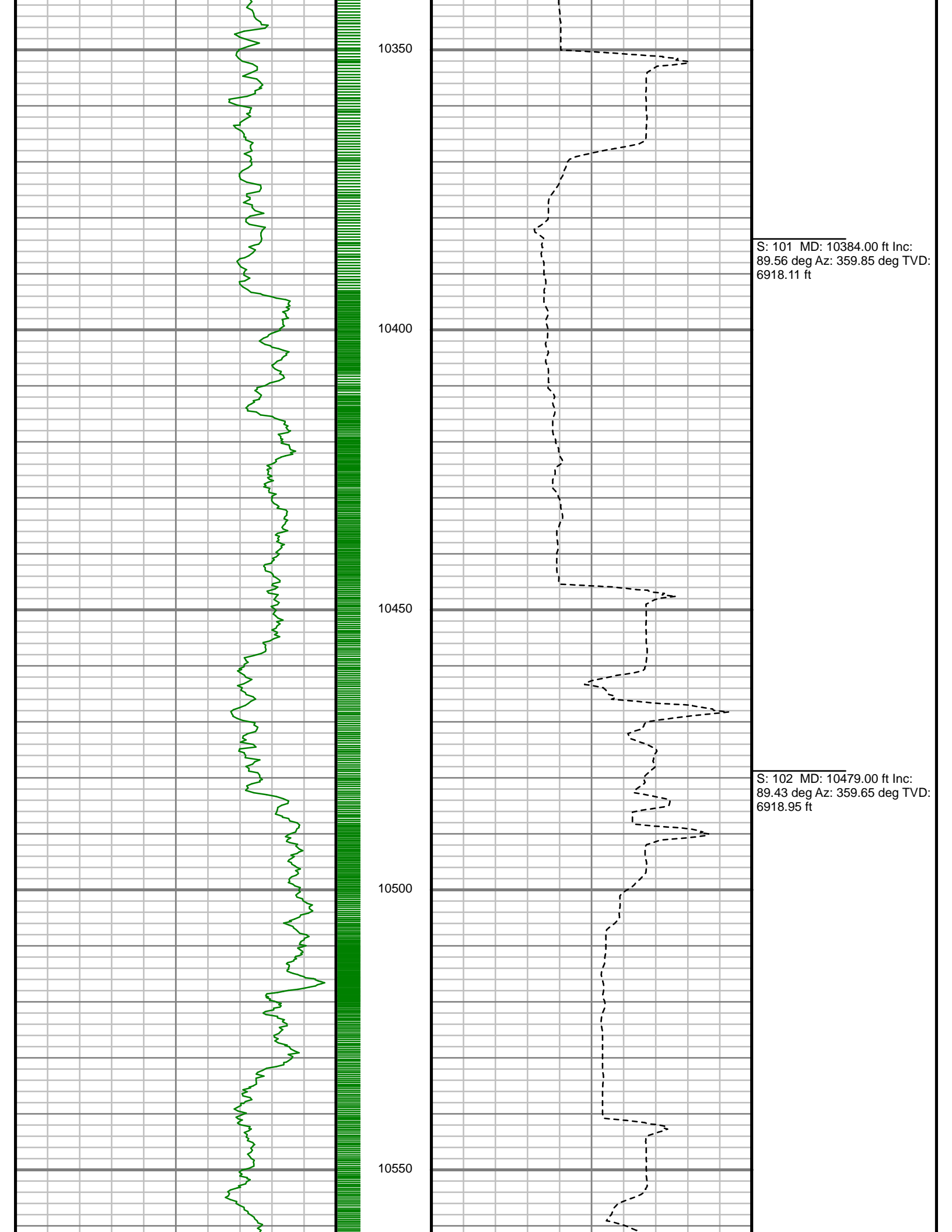
S: 98 MD: 10098.00 ft Inc:
89.60 deg Az: 359.21 deg TVD:
6915.57 ft





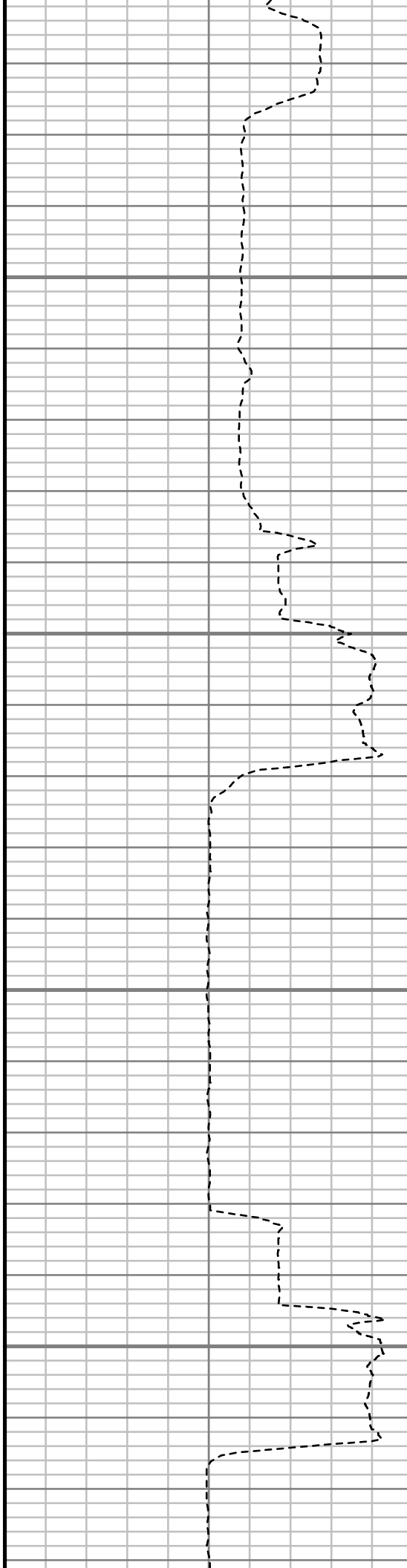
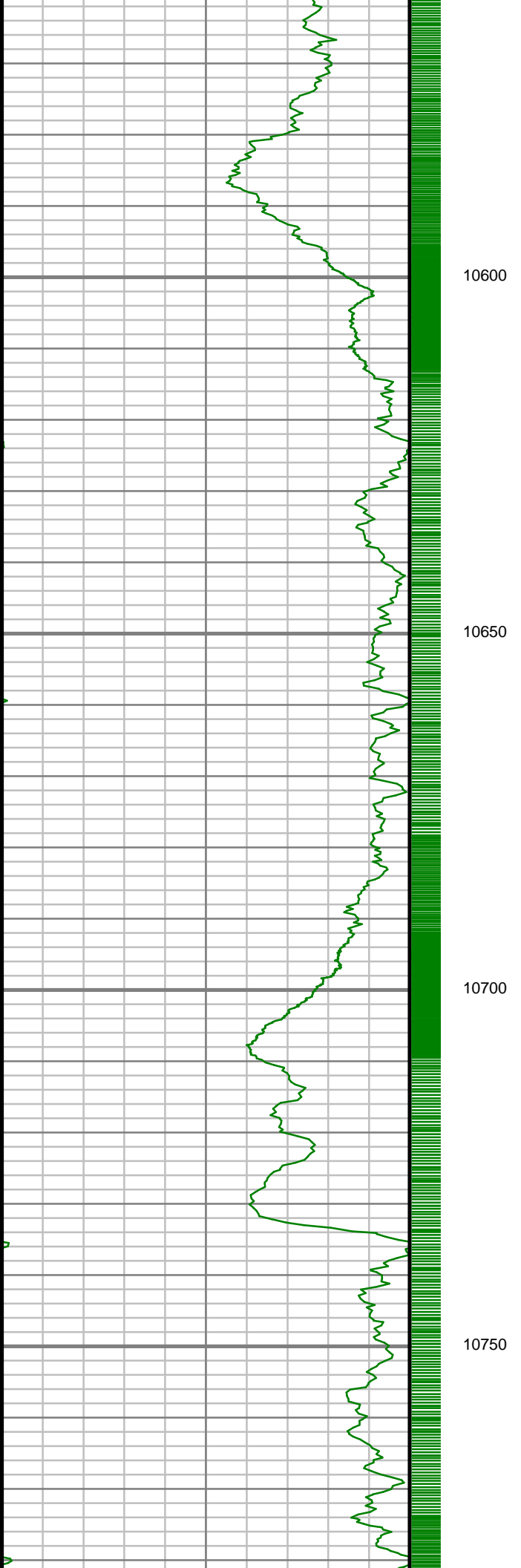
S: 99 MD: 10193.00 ft Inc:
89.33 deg Az: 358.92 deg TVD:
6916.46 ft

S: 100 MD: 10288.00 ft Inc:
89.56 deg Az: 0.18 deg TVD:
6917.38 ft



S: 101 MD: 10384.00 ft Inc:
89.56 deg Az: 359.85 deg TVD:
6918.11 ft

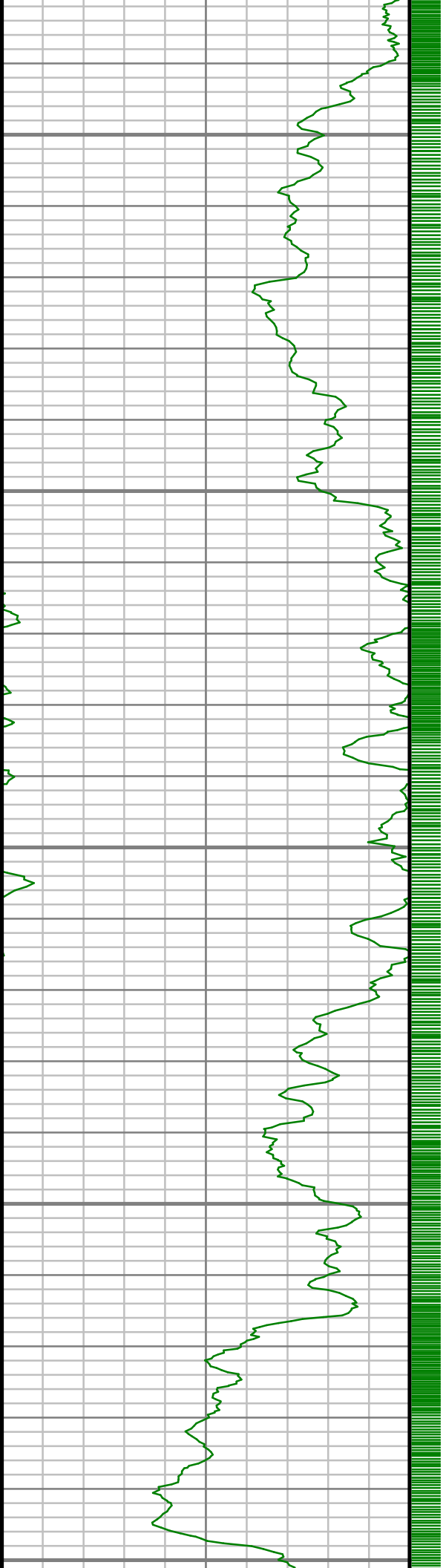
S: 102 MD: 10479.00 ft Inc:
89.43 deg Az: 359.65 deg TVD:
6918.95 ft



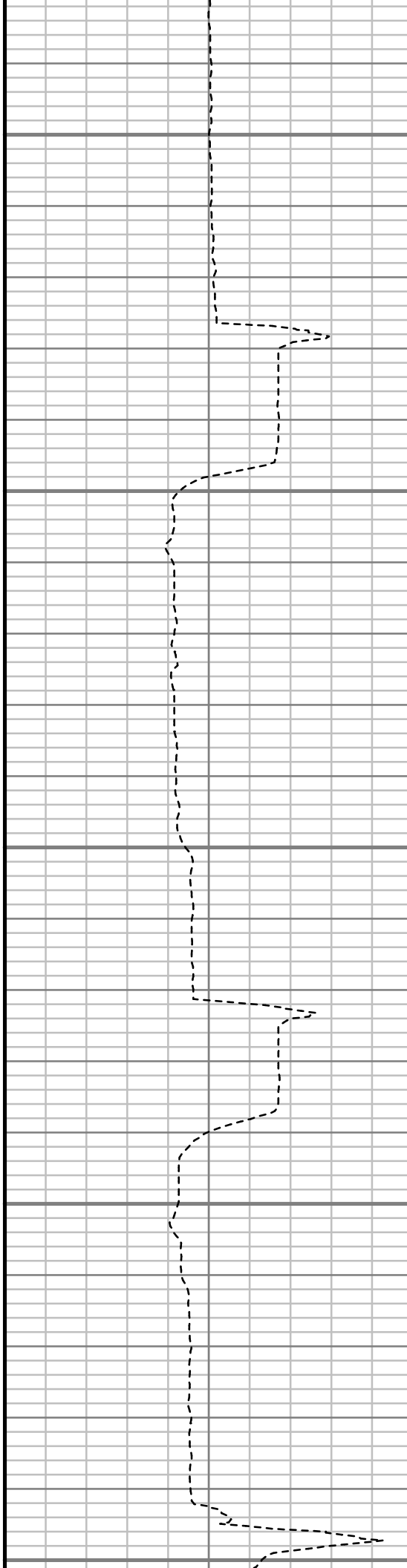
S: 103 MD: 10574.00 ft Inc:
89.23 deg Az: 358.96 deg TVD:
6920.06 ft

S: 104 MD: 10669.00 ft Inc:
89.36 deg Az: 0.77 deg TVD:
6921.23 ft

S: 105 MD: 10765.00 ft Inc:
91.18 deg Az: 0.70 deg TVD:
6920.78 ft

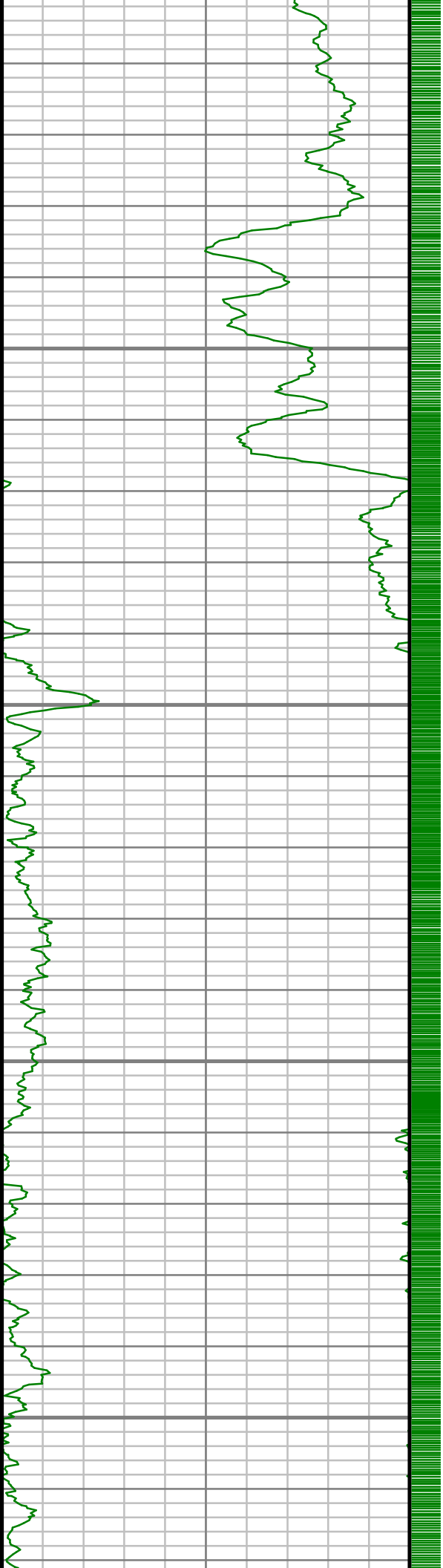


10800
10850
10900
10950
11000



S: 106 MD: 10860.00 ft Inc:
90.94 deg Az: 0.70 deg TVD:
6919.02 ft

S: 107 MD: 10955.00 ft Inc:
90.74 deg Az: 0.58 deg TVD:
6917.63 ft



11050

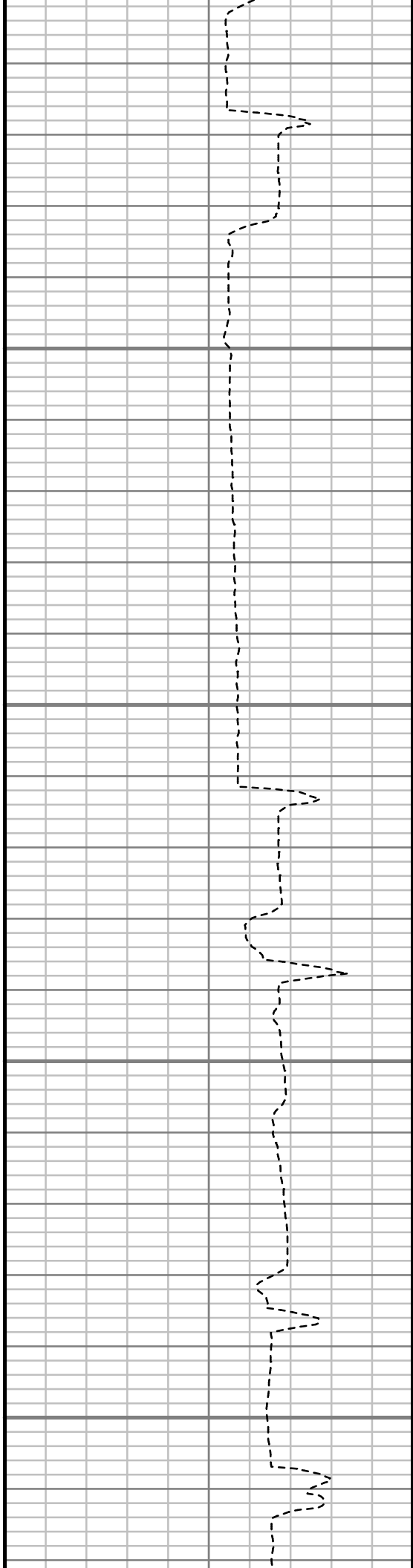
11100

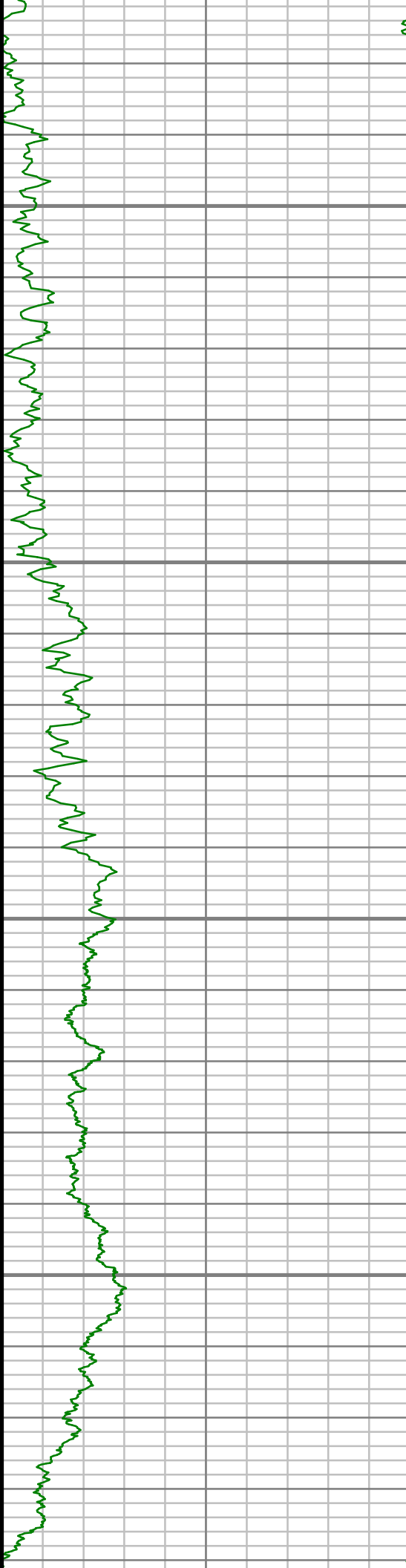
11150

11200

S: 108 MD: 11050.00 ft Inc:
90.50 deg Az: 359.73 deg TVD:
6916.60 ft

S: 109 MD: 11146.00 ft Inc:
90.30 deg Az: 359.25 deg TVD:
6915.92 ft



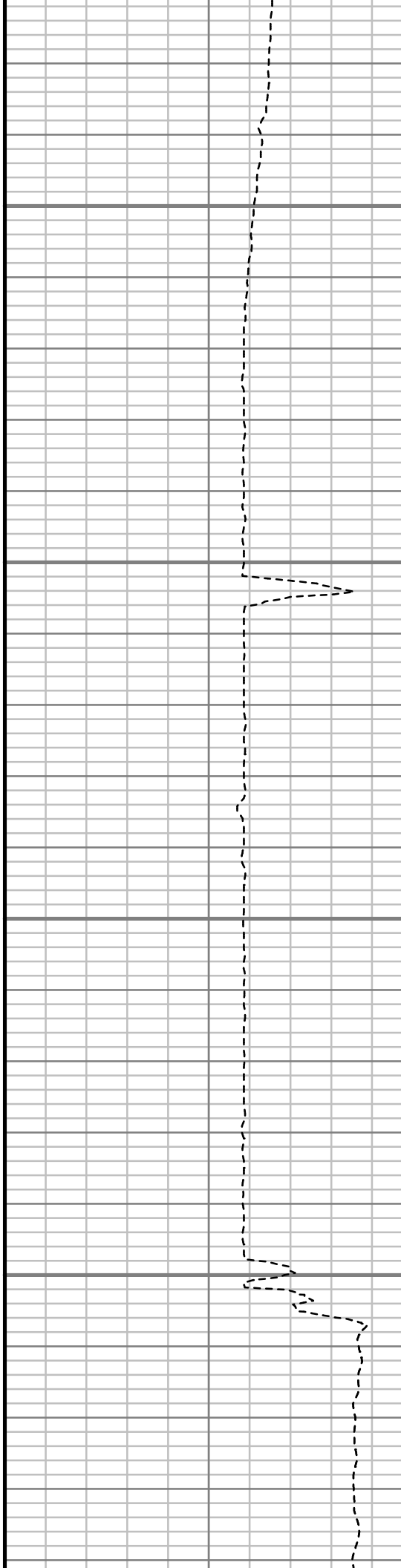


11250

11300

11350

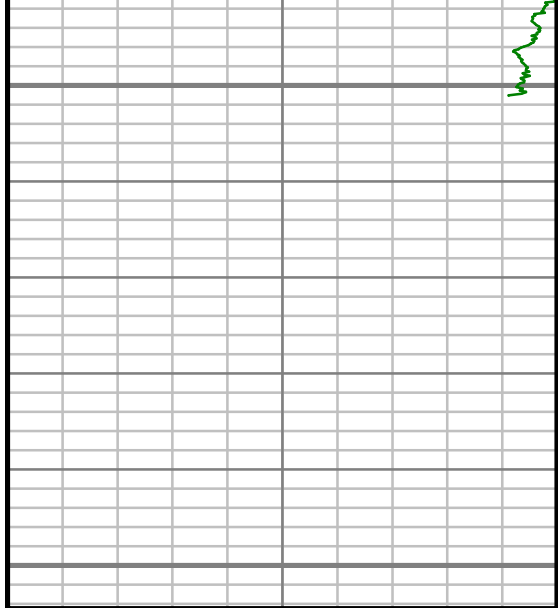
11400



S: 110 MD: 11241.00 ft Inc:
89.80 deg Az: 358.31 deg TVD:
6915.84 ft

S: 111 MD: 11336.00 ft Inc:
89.56 deg Az: 358.86 deg TVD:
6916.37 ft

S: 112 MD: 11432.00 ft Inc:
89.63 deg Az: 358.39 deg TVD:
6917.04 ft

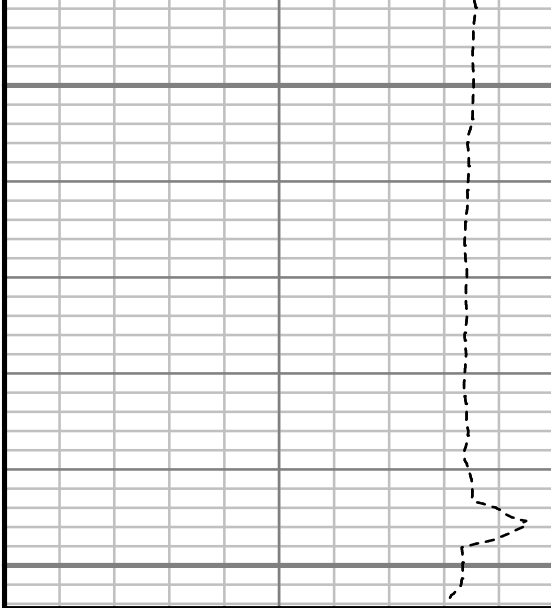


Gamma Ray (GR)		
0	Unit = aapi	150

11450

11500

MEASURED DEPTH
1:240 (H)



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

Comments



MWD Survey Report

Well Location	DALE 4I-20H-O264
Well Name	DALE 4I-20H-O264
Survey Date	8/17/2014
Latitude	40°7'3.508"N
Longitude	104°34'18.502"W
Btotal	52553 nT
Dip	66.74 deg
Magnetic Declination	8.39 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (25.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 12.97Azim (deg)
Operator(s)	C. WILSON, S. WAXLER, T. LE

Well Notes

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
140.00	0.62	298.12	140.00	0.20	0.35	-0.66	0.75	298.12	0.44
201.00	0.53	60.91	201.00	0.47	0.65	-0.71	0.96	312.41	1.65
263.00	0.70	96.24	262.99	0.71	0.74	-0.08	0.75	353.93	0.66
323.00	1.58	110.74	322.98	0.64	0.41	1.06	1.14	68.92	1.53
384.00	2.82	99.40	383.93	0.62	-0.13	3.33	3.33	92.30	2.13
445.00	4.13	100.72	444.82	0.80	-0.79	6.97	7.01	96.45	2.17
506.00	4.40	103.27	505.65	0.87	-1.73	11.41	11.54	98.64	0.53
568.00	5.54	108.19	567.42	0.59	-3.21	16.56	16.87	100.98	1.97
629.00	6.95	107.05	628.05	0.05	-5.22	22.89	23.48	102.84	2.32
689.00	7.57	108.90	687.57	-0.61	-7.56	30.10	31.03	104.10	1.10
751.00	8.53	110.74	748.96	-1.66	-10.51	38.26	39.68	105.36	1.62
812.00	10.12	110.92	809.15	-3.01	-14.03	47.50	49.53	106.45	2.60
873.00	11.17	109.60	869.10	-4.43	-17.92	58.07	60.78	107.15	1.78
934.00	12.23	106.61	928.83	-5.52	-21.75	69.83	73.14	107.30	2.00
995.00	12.84	108.37	988.38	-6.57	-25.74	82.46	86.38	107.33	1.19
1064.00	12.32	105.47	1055.72	-7.62	-30.12	96.83	101.41	107.28	1.19
1117.00	11.88	106.44	1107.55	-8.19	-33.17	107.51	112.51	107.15	0.91
1177.00	11.61	106.00	1166.29	-8.88	-36.58	119.24	124.72	107.05	0.46

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
1269.00	12.49	106.00	1256.26	-9.90	-41.87	137.70	143.93	106.91	0.96
1361.00	12.67	104.33	1346.05	-10.66	-47.11	157.04	163.96	106.70	0.44
1453.00	12.40	106.52	1435.86	-11.51	-52.42	176.29	183.92	106.56	0.59
1544.00	12.49	104.24	1524.72	-12.34	-57.62	195.20	203.53	106.44	0.55
1635.00	12.23	107.58	1613.61	-13.33	-62.95	213.93	223.00	106.40	0.84
1727.00	13.64	109.25	1703.28	-15.30	-69.47	233.46	243.57	106.57	1.58
1818.00	13.99	107.84	1791.65	-17.40	-76.37	254.05	265.29	106.73	0.53
1910.00	13.72	108.02	1880.97	-19.31	-83.16	275.02	287.31	106.82	0.29
1981.00	13.71	107.75	1949.94	-20.75	-88.33	291.04	304.15	106.88	0.09
2165.00	12.70	104.68	2129.08	-23.17	-100.10	331.37	346.16	106.81	0.67
2346.00	12.26	105.77	2305.80	-24.71	-110.37	369.12	385.26	106.65	0.27
2530.00	11.29	110.98	2485.93	-28.17	-122.13	404.75	422.77	106.79	0.78
2713.00	12.83	112.48	2664.89	-34.02	-136.31	440.25	460.87	107.20	0.85
2900.00	12.21	112.04	2847.44	-40.57	-151.67	477.75	501.25	107.61	0.34
3090.00	14.22	108.34	3032.41	-45.92	-166.55	518.52	544.61	107.81	1.15
3279.00	13.64	106.36	3215.85	-49.41	-180.12	561.92	590.08	107.77	0.40
3469.00	12.03	102.20	3401.10	-50.47	-190.62	602.77	632.19	107.55	0.97
3658.00	11.85	102.07	3586.01	-49.90	-198.84	641.00	671.13	107.23	0.10

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
3848.00	13.29	104.44	3771.46	-50.15	-208.36	681.22	712.37	107.01	0.81
4037.00	12.82	107.51	3955.58	-52.37	-220.09	722.24	755.03	106.95	0.44
4226.00	14.19	104.40	4139.35	-54.61	-232.15	764.66	799.13	106.89	0.82
4415.00	13.72	101.98	4322.78	-54.80	-242.56	809.02	844.60	106.69	0.40
4606.00	13.46	105.77	4508.44	-55.49	-253.31	852.57	889.40	106.55	0.49
4796.00	13.41	107.30	4693.24	-58.24	-265.87	894.89	933.55	106.55	0.19
4986.00	11.26	99.96	4878.85	-58.93	-275.63	934.20	974.01	106.44	1.40
5177.00	11.04	104.22	5066.25	-58.35	-283.35	970.29	1010.82	106.28	0.45
5367.00	9.49	112.91	5253.21	-61.45	-293.92	1002.36	1044.56	106.34	1.15
5557.00	4.97	108.09	5441.66	-64.89	-302.57	1024.62	1068.36	106.45	2.40
5748.00	2.55	102.47	5632.23	-65.59	-306.06	1036.64	1080.87	106.45	1.28
5938.00	0.74	106.51	5822.15	-65.63	-307.32	1041.94	1086.32	106.43	0.96
6129.00	1.26	238.43	6013.13	-67.17	-308.77	1041.34	1086.15	106.52	0.96
6320.00	0.77	260.26	6204.10	-69.13	-310.08	1038.30	1083.61	106.63	0.32
6415.00	0.82	327.74	6299.09	-68.90	-309.62	1037.31	1082.53	106.62	0.93
6462.00	7.87	344.45	6345.93	-65.83	-306.23	1036.27	1080.57	106.46	15.09
6510.00	11.58	348.83	6393.23	-58.55	-298.33	1034.45	1076.61	106.09	7.87
6557.00	14.81	352.68	6438.99	-48.60	-287.74	1032.77	1072.11	105.57	7.13

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	"/100ft
6605.00	19.64	354.95	6484.82	-35.17	-273.61	1031.28	1066.96	104.86	10.15
6652.00	26.60	357.28	6528.02	-17.51	-255.21	1030.08	1061.23	103.92	14.92
6701.00	30.13	0.24	6571.13	5.05	-231.95	1029.61	1055.42	102.70	7.75
6748.00	32.85	0.65	6611.21	29.02	-207.40	1029.81	1050.48	101.39	5.81
6796.00	37.79	1.23	6650.36	56.15	-179.67	1030.27	1045.82	99.89	10.32
6843.00	43.99	1.12	6685.87	86.25	-148.92	1030.90	1041.60	98.22	13.19
6891.00	49.64	1.24	6718.71	120.50	-113.94	1031.62	1037.89	96.30	11.77
6938.00	52.75	0.58	6748.16	156.31	-77.32	1032.20	1035.09	94.28	6.70
6986.00	56.40	359.31	6775.98	194.41	-38.22	1032.15	1032.86	92.12	7.90
7033.00	60.72	359.58	6800.49	233.39	1.87	1031.77	1031.77	89.90	9.21
7081.00	63.26	359.39	6823.03	274.59	44.24	1031.38	1032.33	87.54	5.30
7128.00	67.00	0.29	6842.80	316.11	86.87	1031.27	1034.92	85.18	8.16
7177.00	69.80	1.08	6860.84	360.62	132.42	1031.81	1040.28	82.69	5.89
7224.00	74.21	359.98	6875.35	404.26	177.11	1032.22	1047.30	80.26	9.65
7272.00	78.15	359.01	6886.82	449.58	223.71	1031.81	1055.78	77.77	8.43
7448.00	86.87	358.20	6909.73	618.46	397.98	1027.56	1101.94	68.83	4.98
7540.00	88.25	358.64	6913.65	707.42	489.86	1025.02	1136.06	64.46	1.57
7631.00	88.89	0.28	6915.92	795.87	580.83	1024.16	1177.40	60.44	1.94

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	"/100ft
7727.00	89.40	0.94	6917.36	889.64	676.81	1025.19	1228.44	56.57	0.86
7821.00	90.17	0.46	6917.71	981.49	770.80	1026.34	1283.55	53.09	0.97
7916.00	91.08	359.71	6916.68	1074.09	865.79	1026.48	1342.86	49.85	1.24
8011.00	90.84	0.01	6915.09	1166.60	960.78	1026.25	1405.80	46.89	0.40
8105.00	89.93	1.10	6914.46	1258.40	1054.77	1027.16	1472.28	44.24	1.51
8200.00	91.01	0.75	6913.68	1351.30	1149.75	1028.69	1542.77	41.82	1.19
8295.00	90.23	1.98	6912.65	1444.35	1244.72	1030.95	1616.22	39.63	1.53
8390.00	88.96	0.57	6913.31	1537.37	1339.69	1033.05	1691.73	37.64	2.00
8485.00	89.09	359.47	6914.93	1629.94	1434.67	1033.08	1767.92	35.76	1.16
8580.00	89.06	359.58	6916.46	1722.32	1529.66	1032.30	1845.40	34.01	0.12
8674.00	88.56	359.36	6918.42	1813.71	1623.63	1031.43	1923.55	32.43	0.58
8769.00	87.72	358.51	6921.51	1905.82	1718.57	1029.67	2003.42	30.93	1.26
8864.00	88.15	359.48	6924.93	1997.95	1813.49	1028.00	2084.59	29.55	1.13
8958.00	89.03	1.04	6927.24	2089.61	1907.45	1028.43	2167.04	28.33	1.90
9052.00	90.34	1.76	6927.76	2181.70	2001.42	1030.73	2251.24	27.25	1.59
9147.00	89.83	1.95	6927.63	2274.92	2096.37	1033.80	2337.42	26.25	0.57
9242.00	91.34	1.24	6926.65	2368.04	2191.33	1036.44	2424.07	25.31	1.76
9337.00	92.49	1.17	6923.47	2460.99	2286.25	1038.44	2511.04	24.43	1.21

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS °/100ft
9432.00	91.85	1.15	6919.88	2553.91	2381.16	1040.37	2598.52	23.60	0.68
9527.00	90.84	1.37	6917.65	2646.91	2476.11	1042.45	2686.60	22.83	1.09
9622.00	90.64	359.41	6916.43	2739.62	2571.10	1043.10	2774.64	22.08	2.07
9717.00	89.60	358.48	6916.24	2831.79	2666.08	1041.36	2862.24	21.34	1.47
9813.00	90.10	359.21	6916.49	2924.88	2762.06	1039.43	2951.17	20.62	0.92
9908.00	90.84	359.68	6915.71	3017.24	2857.05	1038.51	3039.94	19.98	0.92
10003.00	89.87	359.75	6915.13	3109.71	2952.05	1038.03	3129.23	19.37	1.03
10098.00	89.60	359.21	6915.57	3202.09	3047.04	1037.17	3218.72	18.80	0.64
10193.00	89.33	358.92	6916.46	3294.30	3142.02	1035.62	3308.30	18.24	0.42
10288.00	89.56	0.18	6917.38	3386.70	3237.01	1034.87	3398.41	17.73	1.35
10384.00	89.56	359.85	6918.11	3480.25	3333.01	1034.89	3489.98	17.25	0.34
10479.00	89.43	359.65	6918.95	3572.73	3428.01	1034.47	3580.69	16.79	0.25
10574.00	89.23	358.96	6920.06	3665.03	3522.99	1033.32	3671.41	16.35	0.75
10669.00	89.36	0.77	6921.23	3757.55	3617.98	1033.10	3762.59	15.94	1.91
10765.00	91.18	0.70	6920.78	3851.36	3713.97	1034.33	3855.31	15.56	1.89
10860.00	90.94	0.70	6919.02	3944.17	3808.94	1035.48	3947.19	15.21	0.25
10955.00	90.74	0.58	6917.63	4036.97	3903.93	1036.54	4039.19	14.87	0.24
11050.00	90.50	359.73	6916.60	4129.60	3998.92	1036.80	4131.14	14.54	0.93

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS °/100ft
11146.00	90.30	359.25	6915.92	4222.95	4094.92	1035.95	4223.92	14.20	0.55
11241.00	89.80	358.31	6915.84	4315.05	4189.89	1033.93	4315.58	13.86	1.13
11336.00	89.56	358.86	6916.37	4407.07	4284.86	1031.58	4407.29	13.54	0.63
11432.00	89.63	358.39	6917.04	4500.08	4380.83	1029.27	4500.12	13.22	0.50



GAMMA RAY

5" = 100' FEET MD