



GAMMA RAY

5" = 100' FEET MD

COMPANY : ENCANA OIL AND GAS (USA) INC  
WELL : NEWNAM 2C-32H-C264  
FIELD : WATTENBERG  
COUNTY : WELD  
STATE : COLORADO  
COUNTRY : U.S.A.  
UWI : 05-123-39774

COMPANY : ENCANA OIL AND GAS (USA) INC  
WELL : NEWNAM 2C-32H-C264  
FIELD : WATTENBERG  
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STATE : COLORADO  
COUNTRY : U.S.A.  
UWI : 05-123-39774

WELL LOCATION  
LAT:40°6'5.285"N LONG:104°34'43.093"W  
N:1281148.14 ft E:3257734.47 ft

OTHER SERVICES

SEC:32 TWP:2N RANGE:64W DIRECTIONAL ROP

DEPTH REF. : RKB

REF. HEIGHT : 13.000 ft

RKB to Ground Level

GROUND LEVEL : 4953.000 ft

G.L. to MEAN SEA LEVEL

BOREHOLE RECORD

DEVIATION RECORD

HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft
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12.25	132	1032	0 - 11	132	1032
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8.75	1032	7771	11 - 87	1032	7771
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6.125	7771	11625	87 - 92	7771	11625
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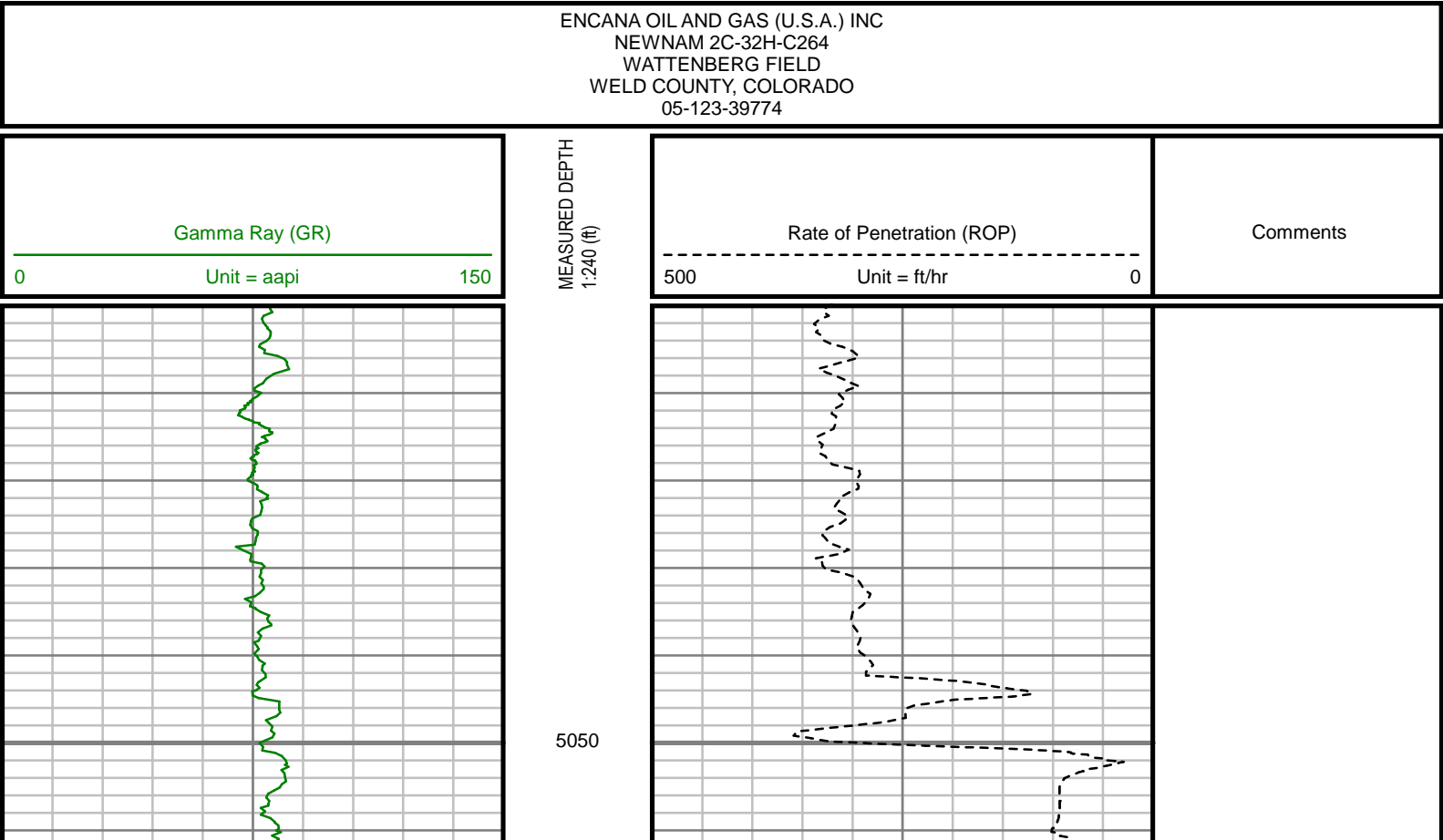
DRILLING CO. : ENSIGN  
RIG : 124  
LWD UNIT NO. : C70-EM4#83DISTRICT : CASPER  
SPUD DATE : 11/06/2014  
LWD START DATE : 11/07/2014  
LWD END DATE : 11/15/2014  
DEPTH : 5000 ft  
DEPTH : 11625 ft  
TOTAL DEPTH : 11625 ft

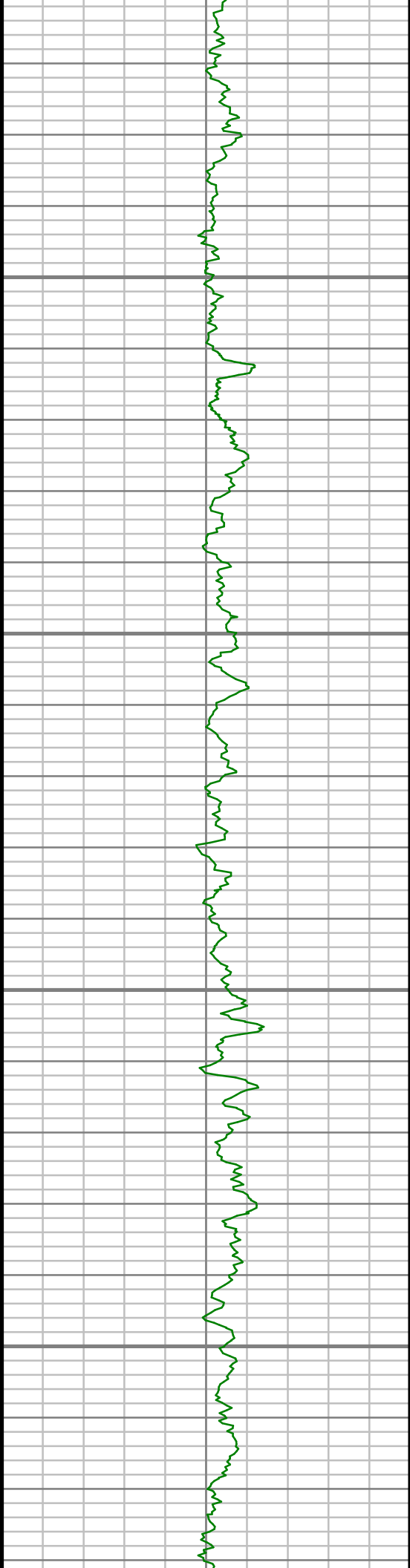
Run Data

RUN NUMBER	1	2	3			
START DATE	11/06/2014	11/07/2014	11/12/2014			
START TIME	0945	1600	0145			
END DATE	11/06/2014	11/10/2014	11/15/2014			
END TIME	1915	1130	0830			
DEPTH IN (ft)	132	1032	7771			
DEPTH OUT (ft)	1032	7771	11625			
LOG TOP (ft)	-	1032	7731			
LOG BOTTOM (ft)	-	7731	11567			
HOLE SIZE (in)	12.25	8.75	6.125			
MUD DATA @ (ft)	1032	7250	11625			
MUD TYPE	WATER-BASED	WATER-BASED	WATER-BASED			
DENSITY (lb / gal)	9.10	10.65	10.65			
VISCOSITY (s / qt)	28	39	42			
pH	8.0	8.5	8.51			
FLUID LOSS (cm3 / 30)	-	-	-			
SALINITY (ppm)	-	-	-			
Rm (ohmm @ deg F)	-	-	-			
Rmf (ohmm @ deg F)	-	-	-			
MAX TEMP (deg F)	91	179	215			
Rm @ MAX TEMP (ohmm)	-	-	-			
LWD ENGINEER #1	J. SMITH	J. SMITH	J. SMITH			
LWD ENGINEER #2	T. WHEELER	T. WHEELER	M. SMITH			
LWD ENGINEER #3	-	-	-			
LOG WTINNESS #1	M. ROANE	M. ROANE	M. ROANE			
LOG WTINNESS #2	-	-	-			

Remarks
ENCANA OIL AND GAS (USA) INC PRODUCTION AFE# 13179811
SCIENTIFIC DRILLING INTERNATIONAL JOB# 219238
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: PULSER = 128-063 / CONT = 865 / MWD EYE = 1012 / GMWD = 012
BIT TO SENSOR OFFSETS: SURVEY = 62.22 FT. / GYRO = 49.24 FT.
RUN #2: MWD / GAMMA RAY / PROPAGATION RESISTIVITY LOGGING RUN
SENSORS S/N: PULSER = 128-003 / CONT = 218 / MWD EYE = 0809 / PRT = 323 / GAMMA RAY = 1194
BIT TO SENSOR OFFSETS: SURVEY = 57.27 FT. / RESISTIVITY = 46.04 FT. / GAMMA RAY = 40.30 FT.
RUN #3: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 78-242 / CONT = 865 / MWD EYE = 1012 / GAMMA RAY = 1168
BIT TO SENSOR OFFSETS: SURVEY = 57.27 FT. / GAMMA RAY = 57.08 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.



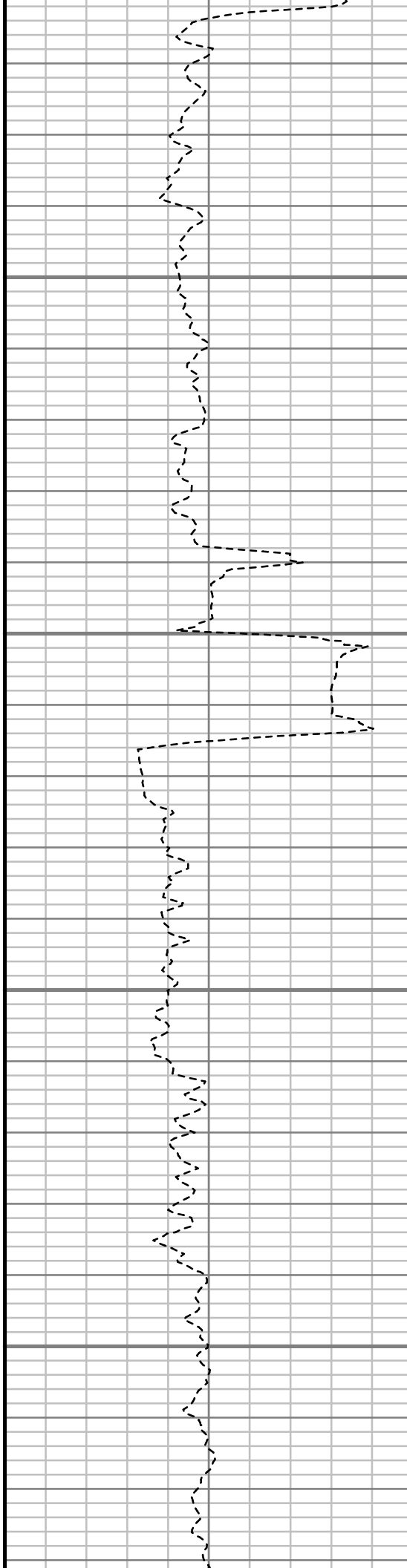


5100

5150

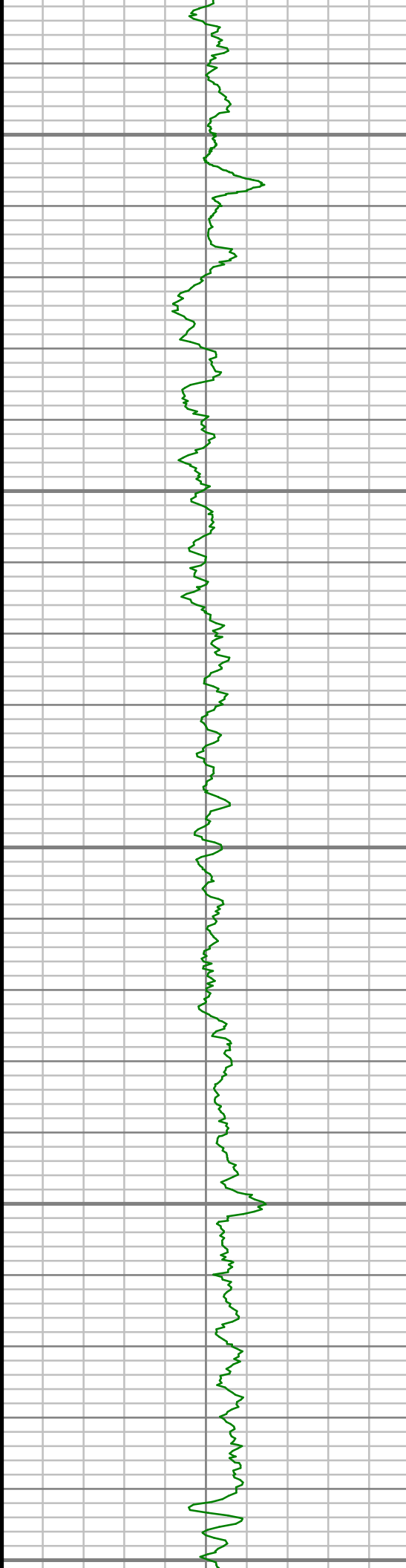
5200

5250



S: 29 MD: 5077.00 ft Inc: 6.59  
deg Az: 279.51 deg TVD:  
4949.96 ft

S: 30 MD: 5267.00 ft Inc: 4.06  
deg Az: 287.57 deg TVD:  
5139.13 ft



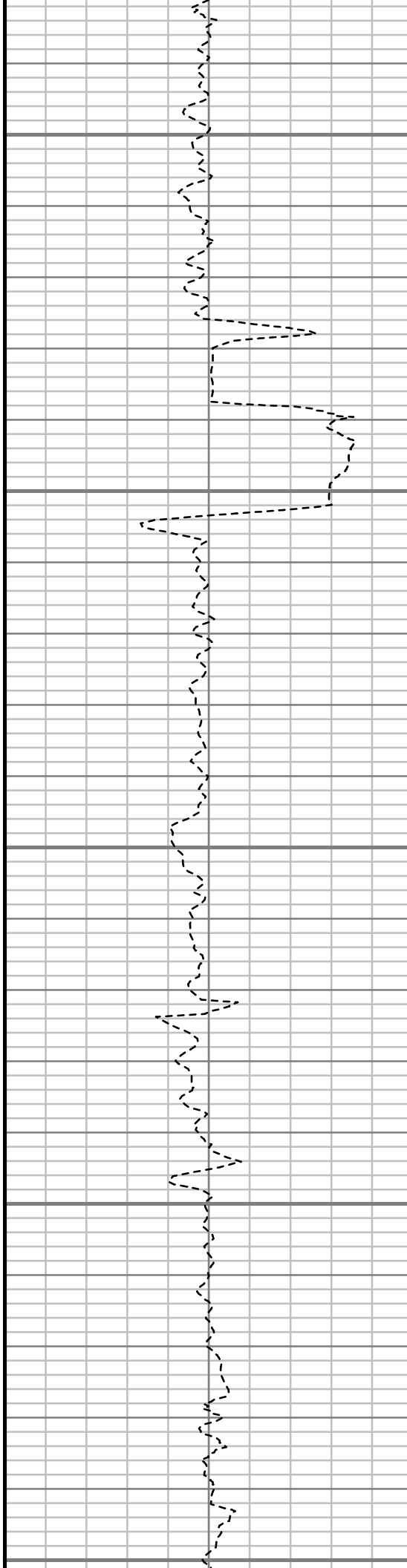
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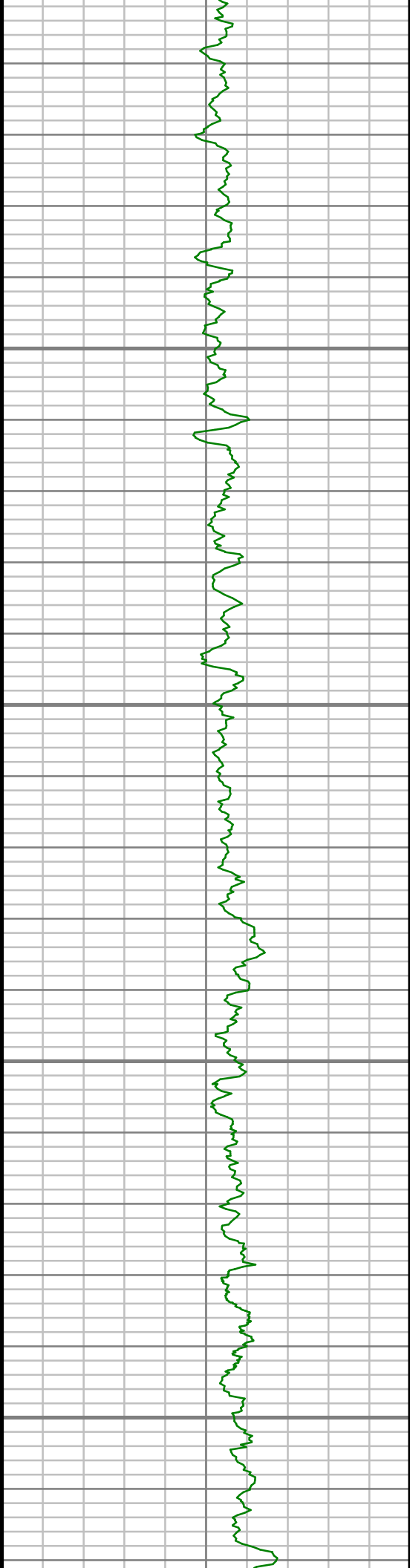
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5450

5500



S: 31 MD: 5457.00 ft Inc: 2.48  
deg Az: 284.06 deg TVD:  
5328.81 ft

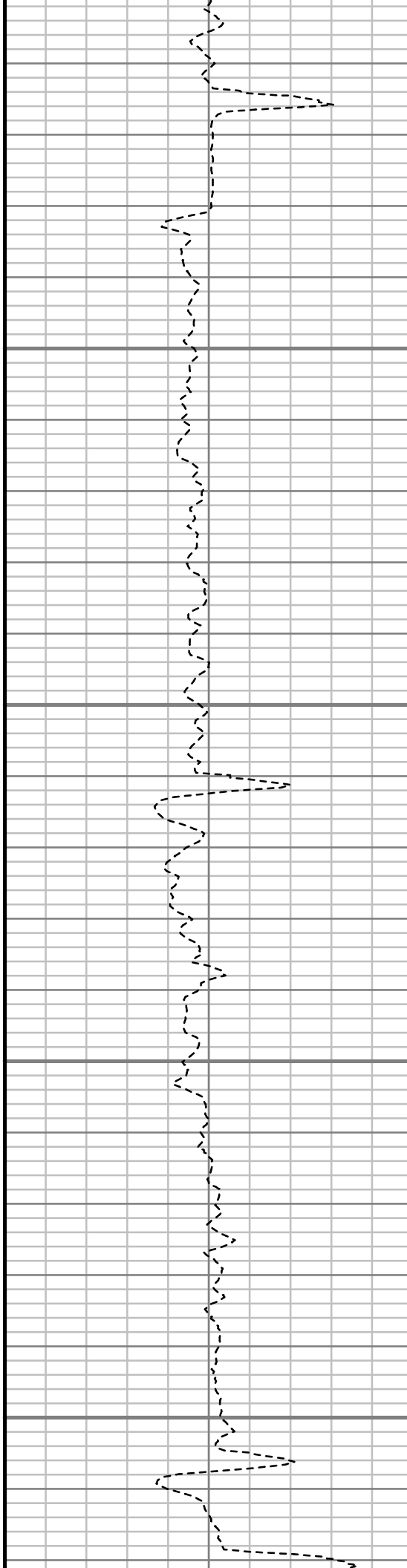


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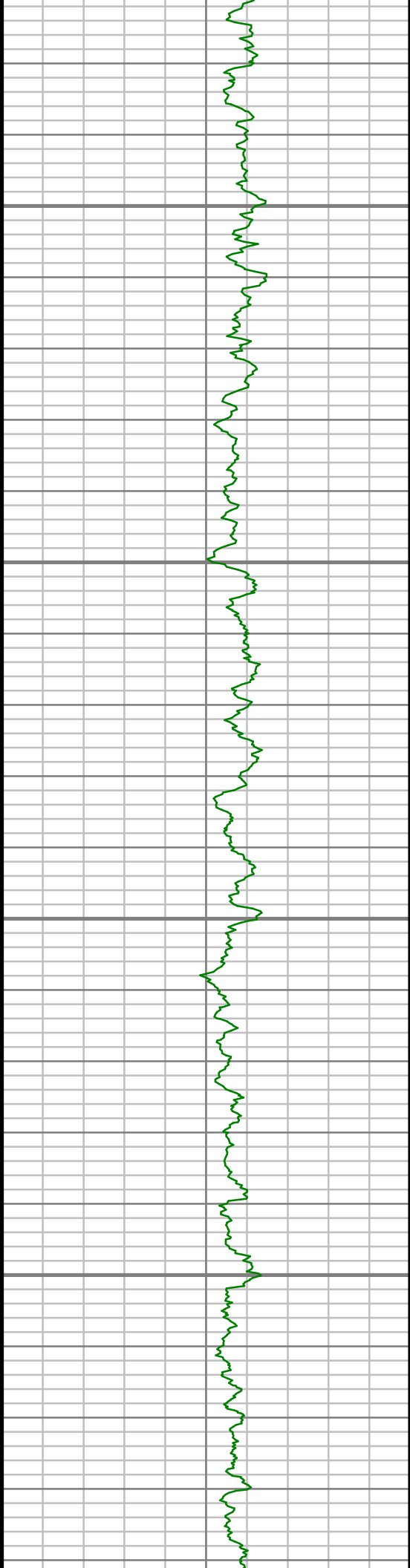
5600

5650

5700



S: 32 MD: 5647.00 ft Inc: 1.95  
deg Az: 266.90 deg TVD:  
5518.67 ft

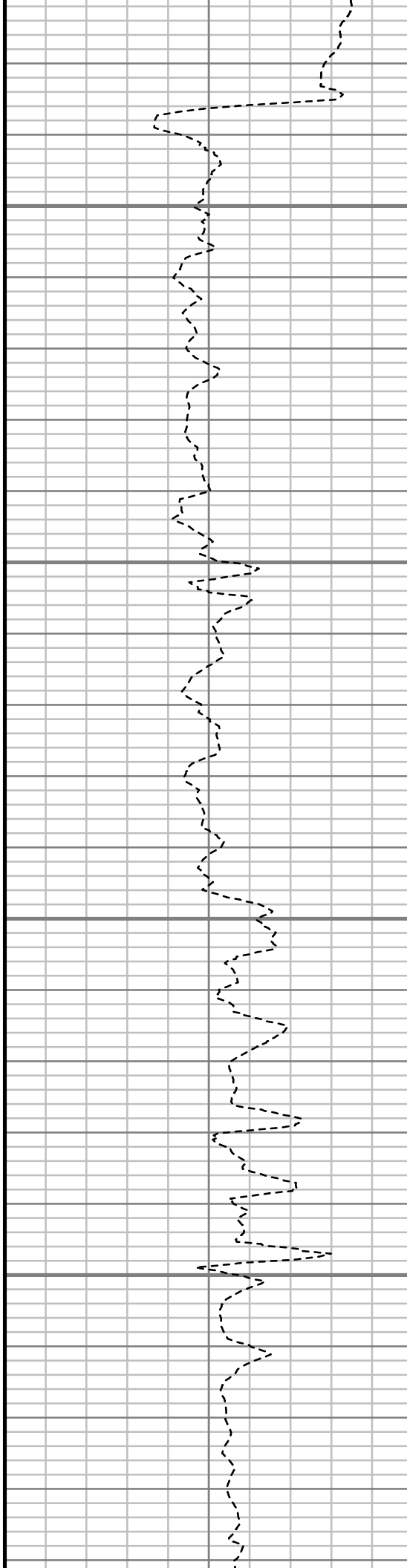


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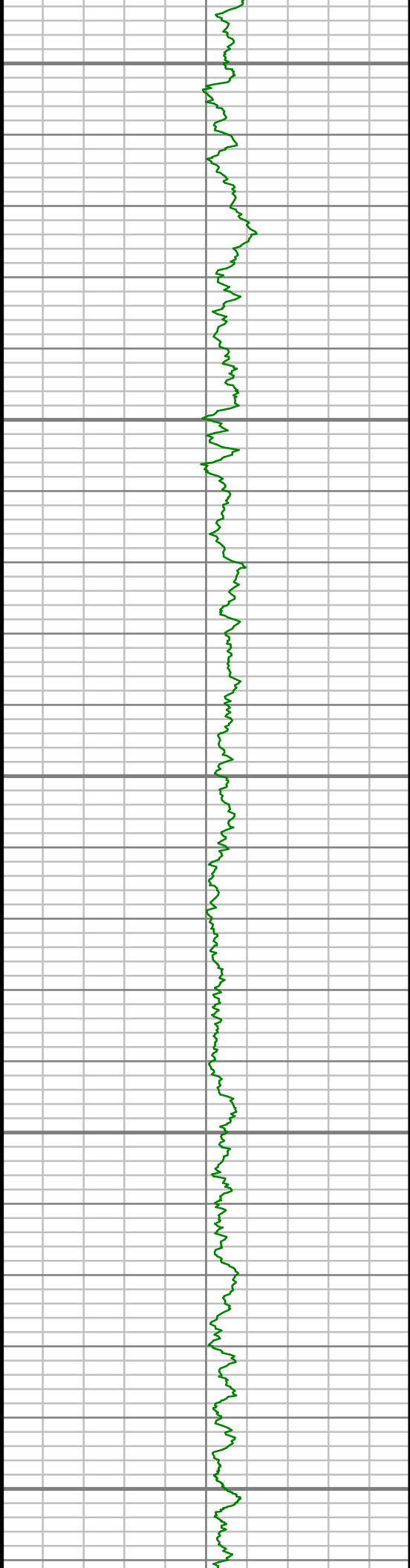
5800

5850

5900



S: 33 MD: 5837.00 ft Inc: 1.17  
deg Az: 177.64 deg TVD:  
5708.62 ft



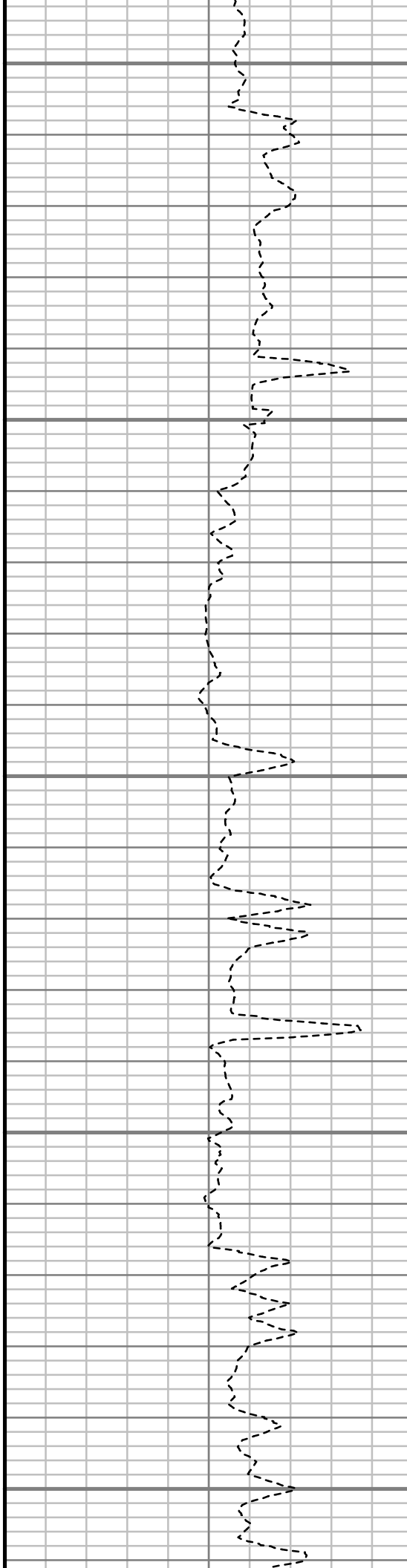
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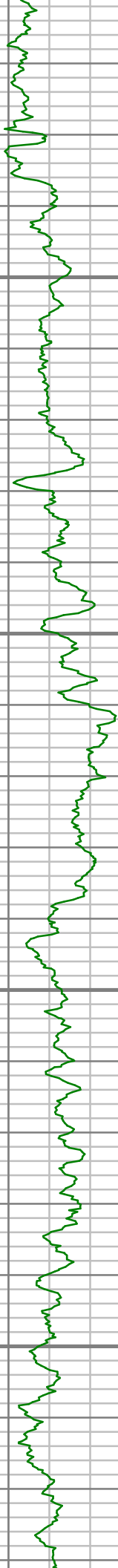
6050

6100

6150



S: 34 MD: 6027.00 ft Inc: 1.50  
deg Az: 149.22 deg TVD:  
5898.57 ft

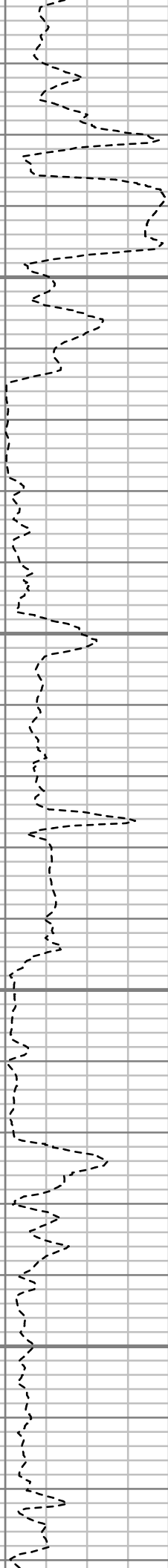


6200

6250

6300

6350



S: 35 MD: 6218.00 ft Inc: 1.22  
deg Az: 99.69 deg TVD:  
6089.53 ft





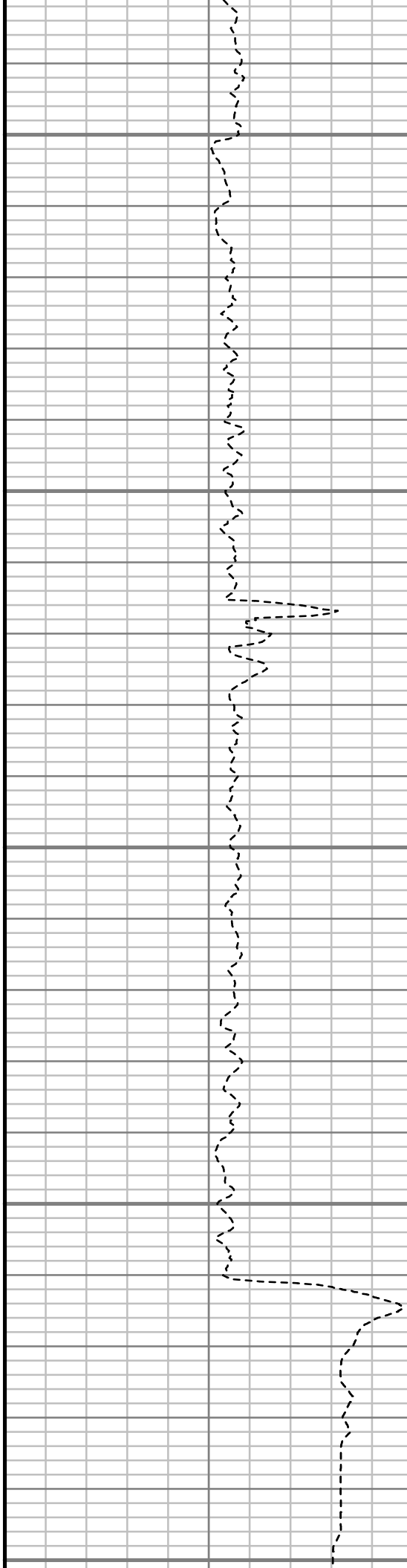
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6450

6500

6550

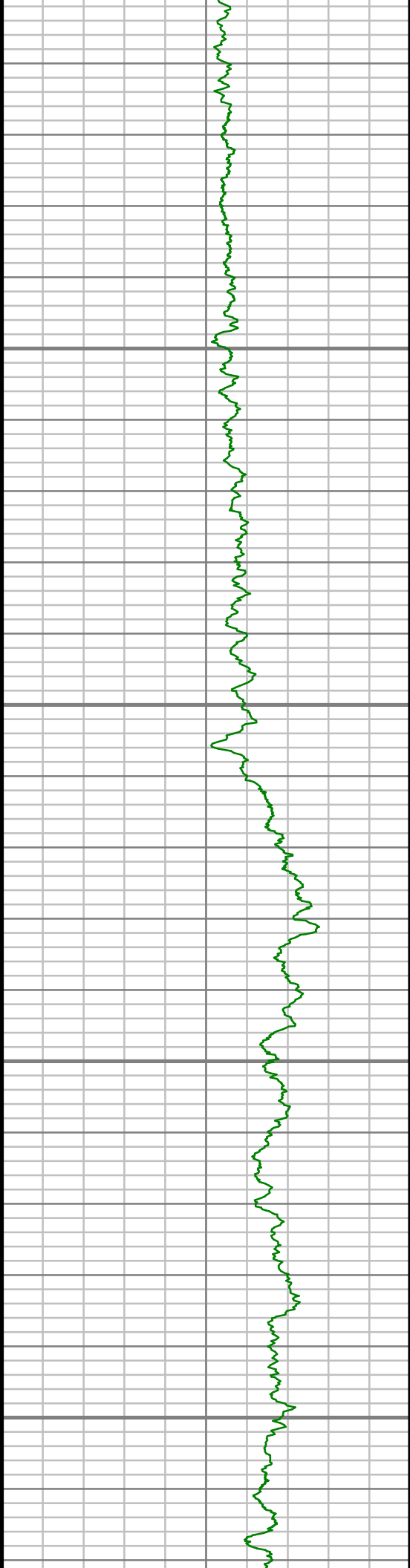
6600



S: 36 MD: 6408.00 ft Inc: 1.46  
deg Az: 112.90 deg TVD:  
6279.47 ft

S: 37 MD: 6503.00 ft Inc: 1.53  
deg Az: 125.99 deg TVD:  
6374.44 ft

S: 38 MD: 6597.00 ft Inc: 7.37  
deg Az: 161.04 deg TVD:

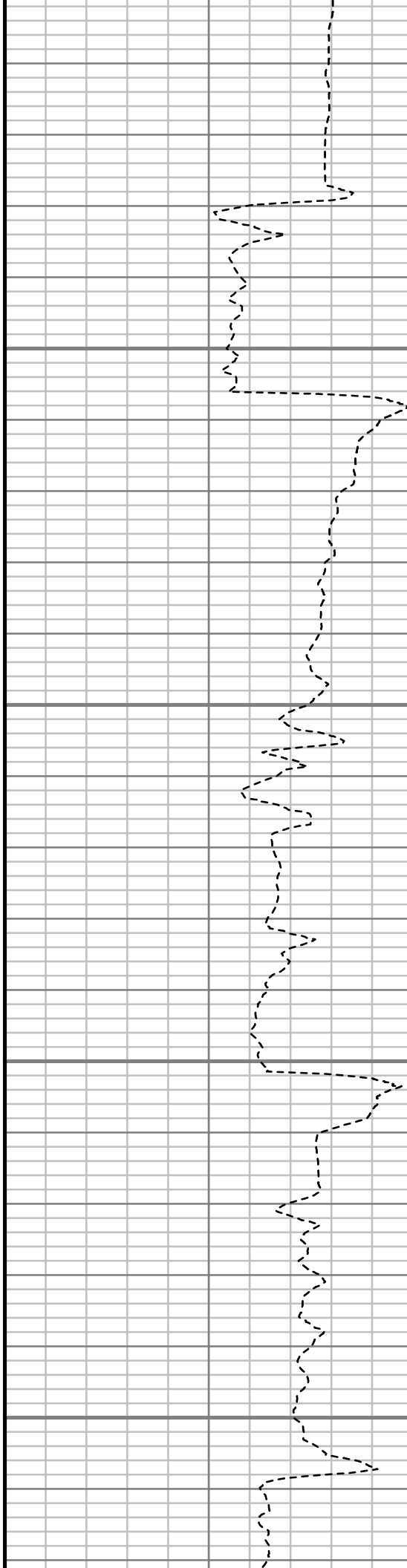


6650

6700

6750

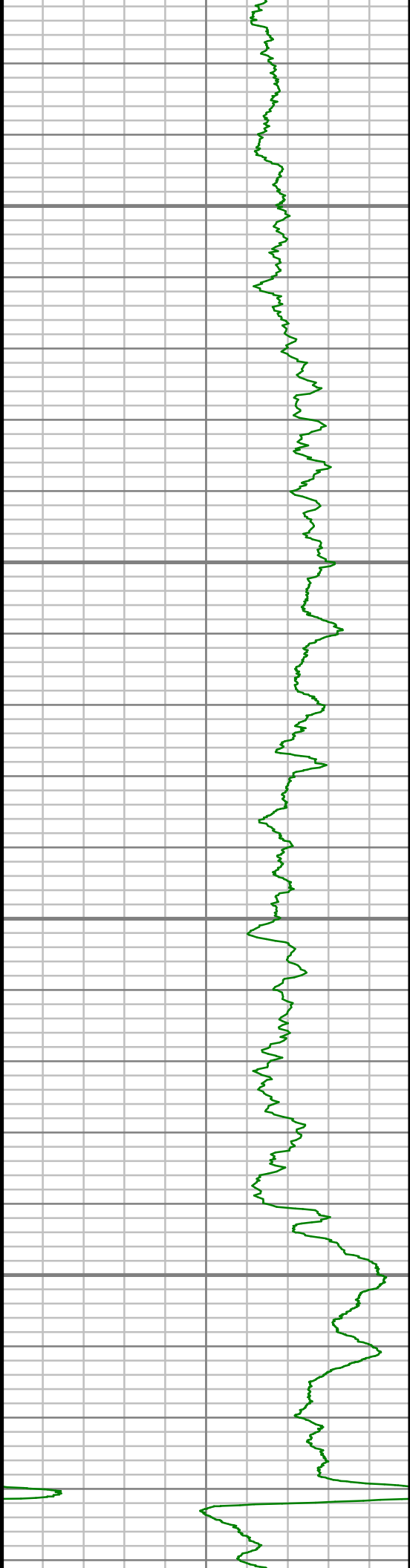
6800



deg Az: 161.04 deg TVD:  
6468.13 ft

S: 39 MD: 6693.00 ft Inc: 16.50  
deg Az: 166.72 deg TVD:  
6561.96 ft

S: 40 MD: 6788.00 ft Inc: 23.48  
deg Az: 171.05 deg TVD:  
6651.18 ft

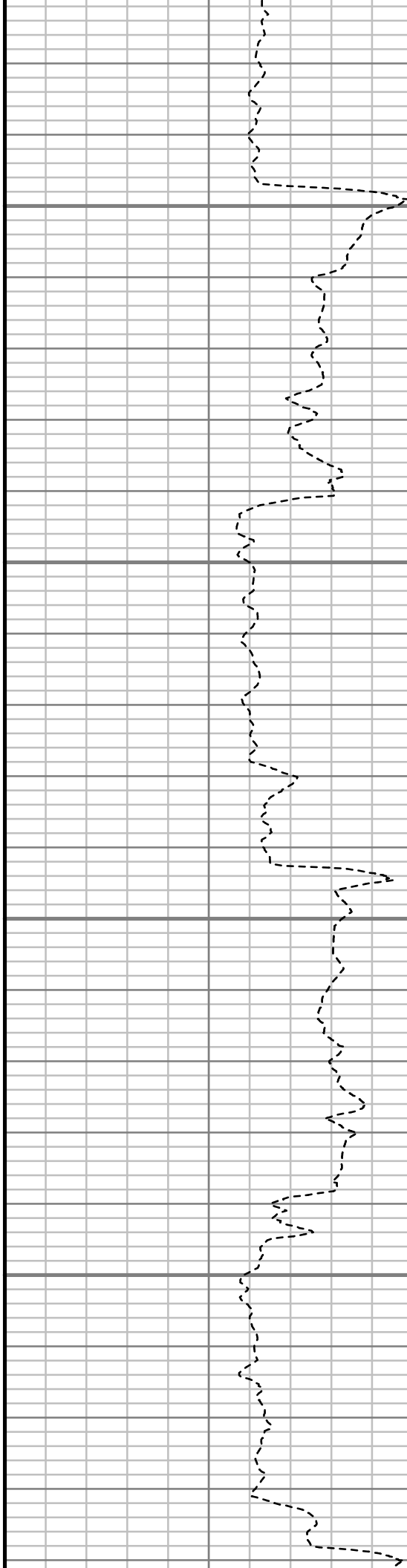


6850

6900

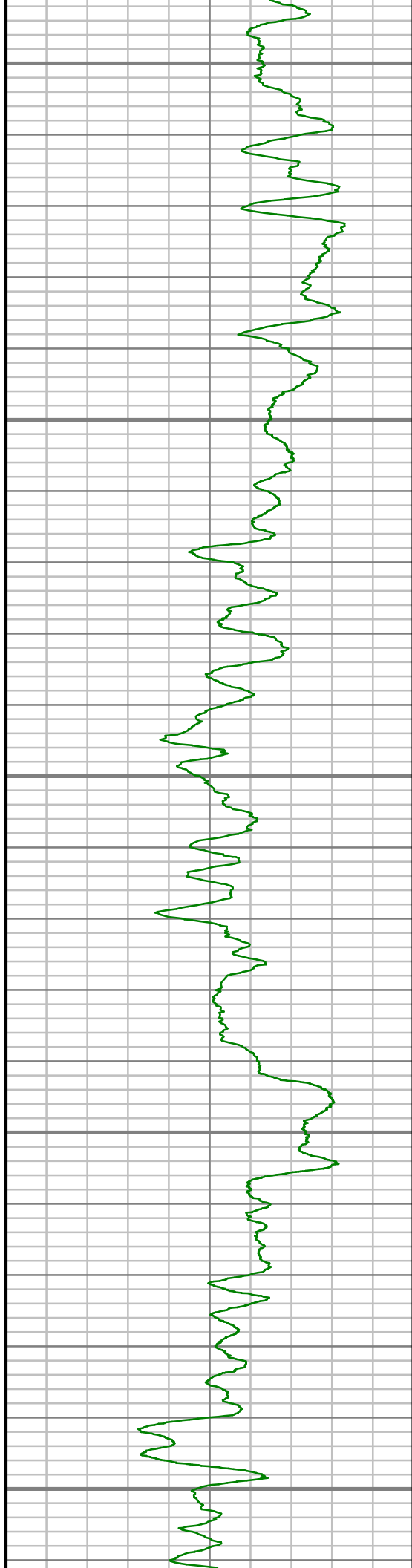
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7000



S: 41 MD: 6883.00 ft Inc: 29.85  
deg Az: 177.12 deg TVD:  
6736.05 ft

S: 42 MD: 6978.00 ft Inc: 35.79  
deg Az: 179.51 deg TVD:  
6815.86 ft



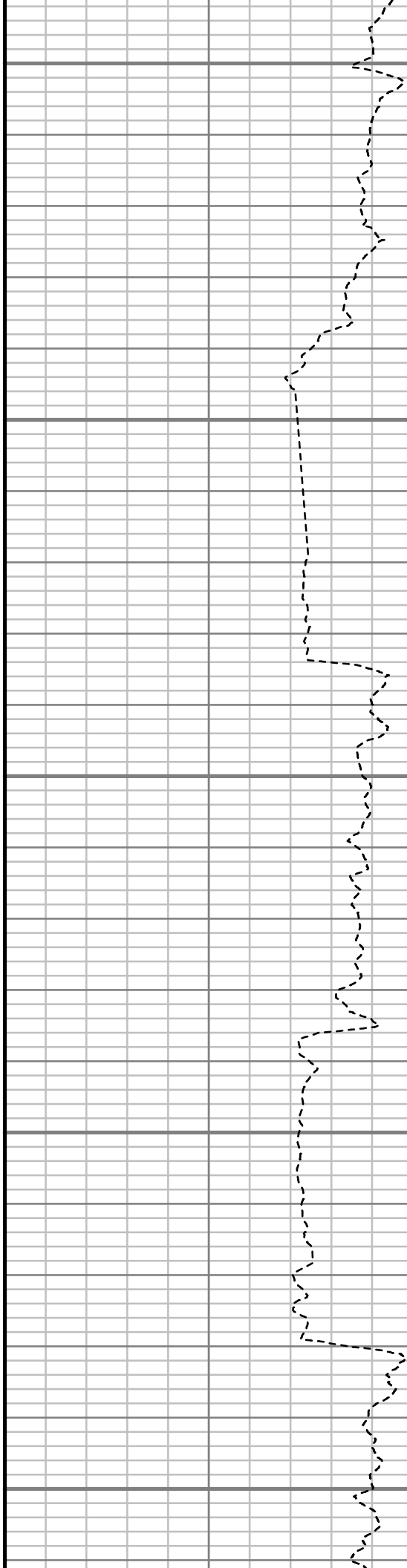
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7100

7150

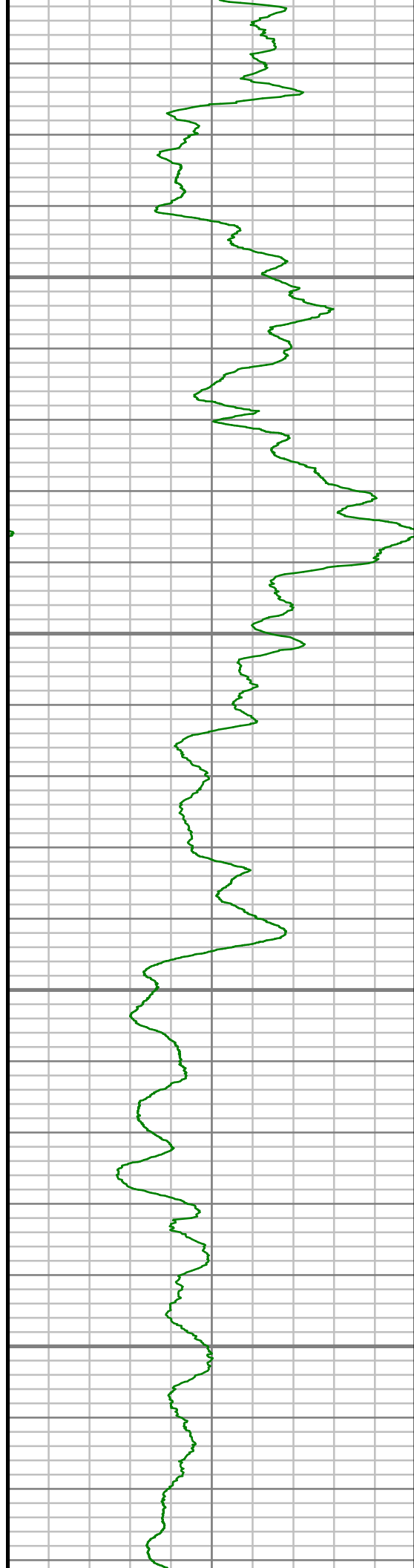
7200

7250



S: 43 MD: 7074.00 ft Inc: 41.28  
deg Az: 180.86 deg TVD:  
6890.93 ft

S: 44 MD: 7169.00 ft Inc: 47.33  
deg Az: 181.95 deg TVD:  
6958.88 ft

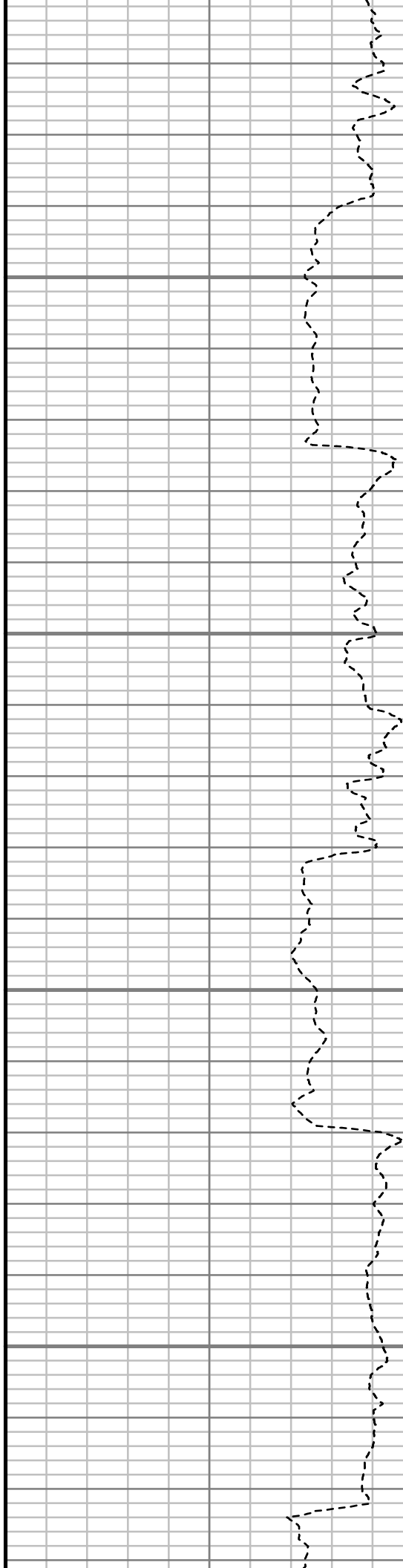


7300

7350

7400

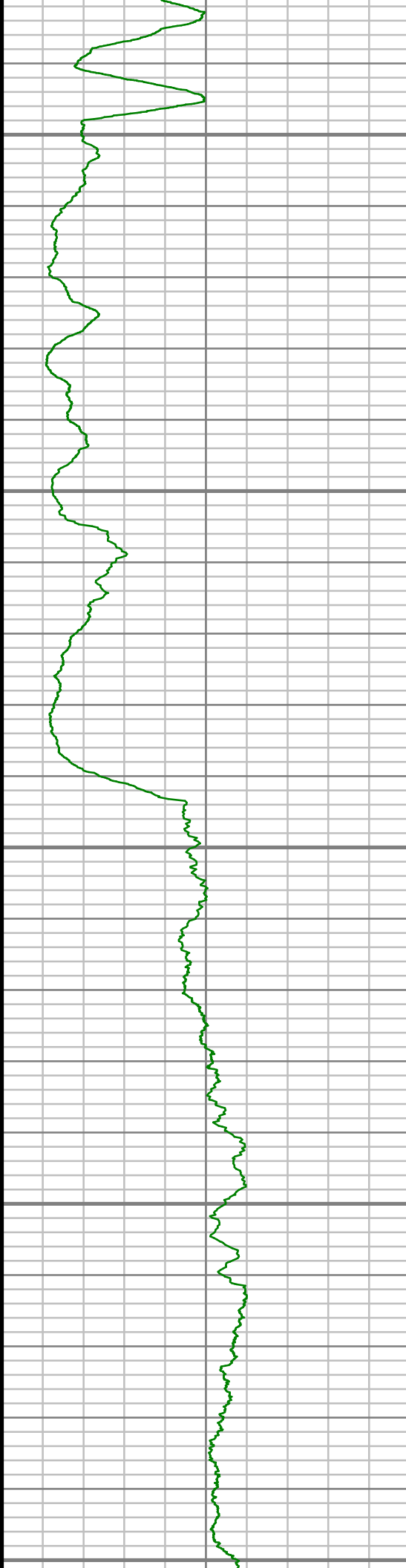
7450



S: 45 MD: 7264.00 ft Inc: 54.01  
deg Az: 182.90 deg TVD:  
7019.06 ft

S: 46 MD: 7360.00 ft Inc: 62.27  
deg Az: 181.71 deg TVD:  
7069.69 ft

S: 47 MD: 7455.00 ft Inc: 70.01  
deg Az: 181.12 deg TVD:  
7108.09 ft



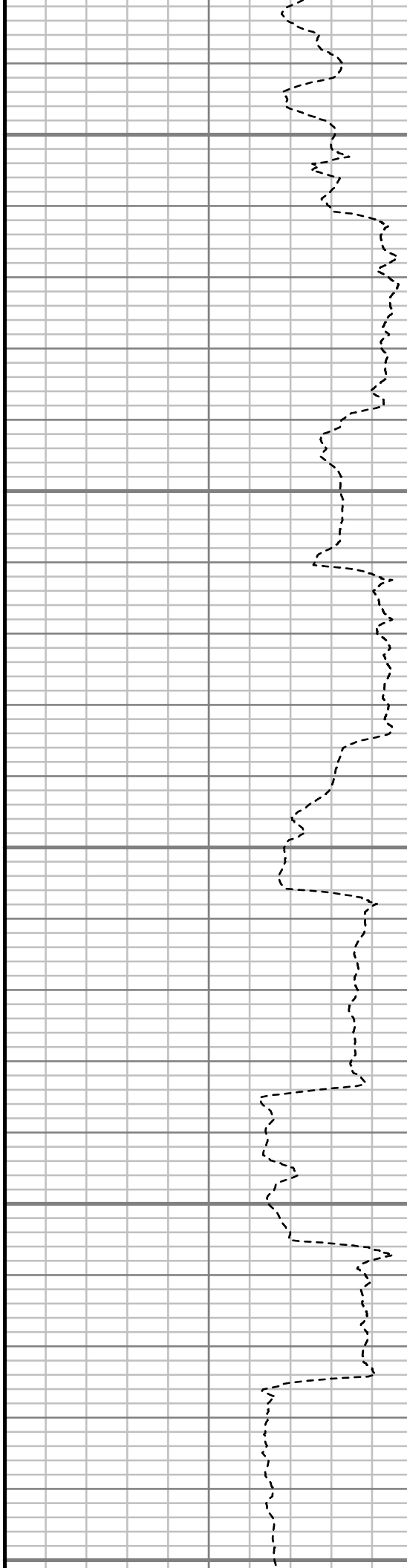
7500

7550

7600

7650

7700

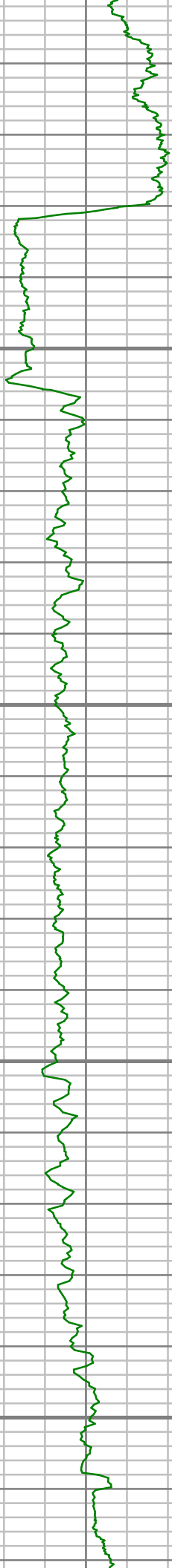


S: 48 MD: 7502.00 ft Inc: 72.56  
deg Az: 181.25 deg TVD:  
7123.17 ft

S: 49 MD: 7550.00 ft Inc: 76.14  
deg Az: 180.95 deg TVD:  
7136.12 ft

S: 50 MD: 7597.00 ft Inc: 79.52  
deg Az: 181.44 deg TVD:  
7146.03 ft

S: 51 MD: 7645.00 ft Inc: 82.90  
deg Az: 182.12 deg TVD:  
7153.36 ft



7750

7800

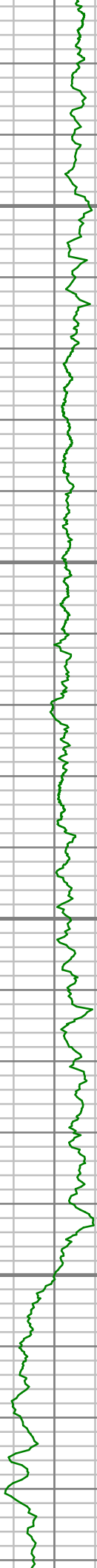
7850

7900

S: 52 MD: 7712.00 ft Inc: 87.61  
deg Az: 183.40 deg TVD:  
7158.91 ft

S: 53 MD: 7817.00 ft Inc: 90.90  
deg Az: 183.02 deg TVD:  
7160.27 ft

S: 54 MD: 7910.00 ft Inc: 90.47  
deg Az: 182.43 deg TVD:  
7159.16 ft

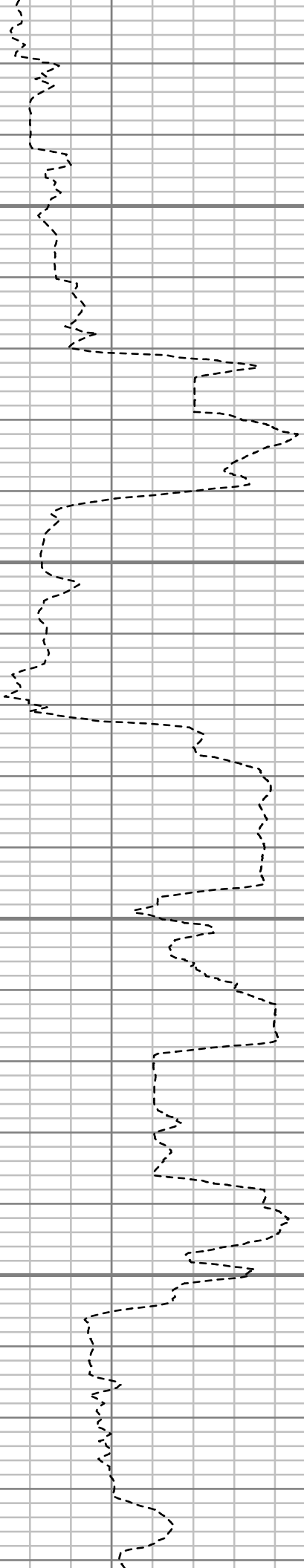


7950

8000

8050

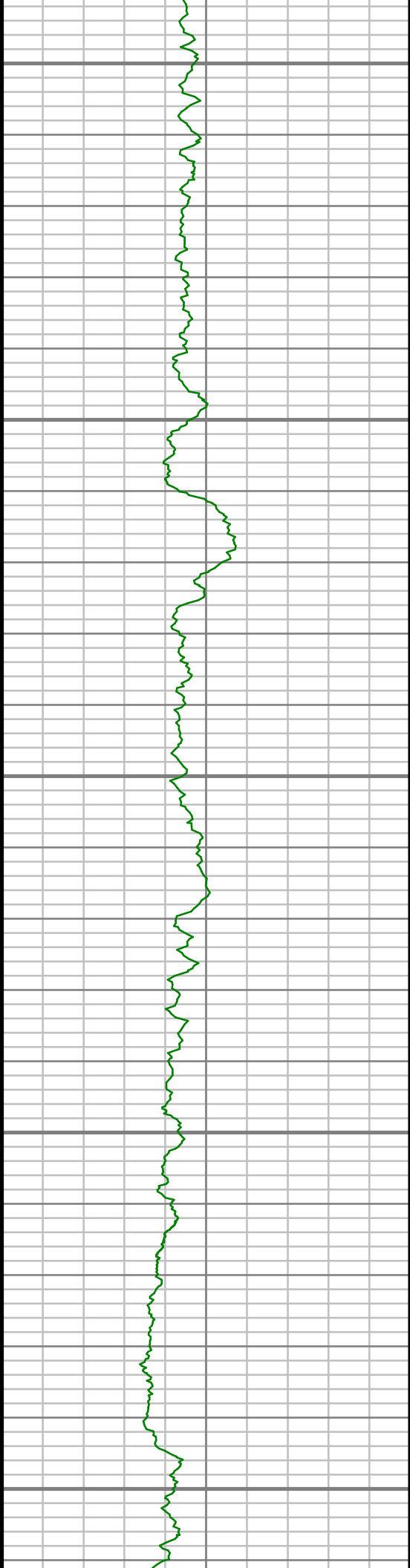
8100



S: 55 MD: 8005.00 ft Inc: 91.04  
deg Az: 182.02 deg TVD:  
7157.91 ft

S: 56 MD: 8101.00 ft Inc: 92.01  
deg Az: 181.79 deg TVD:  
7155.35 ft





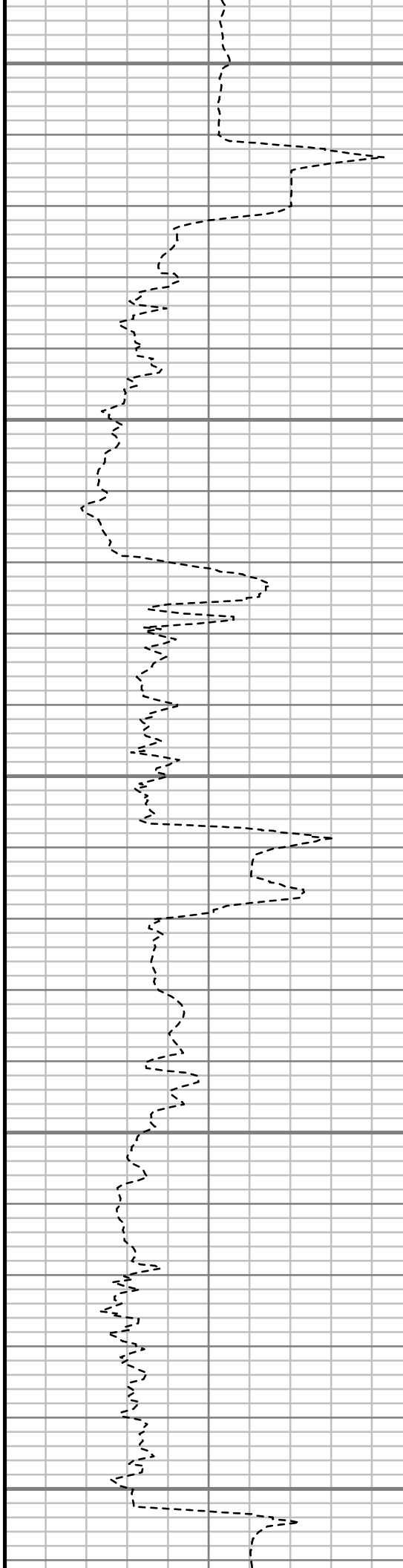
8150

8200

8250

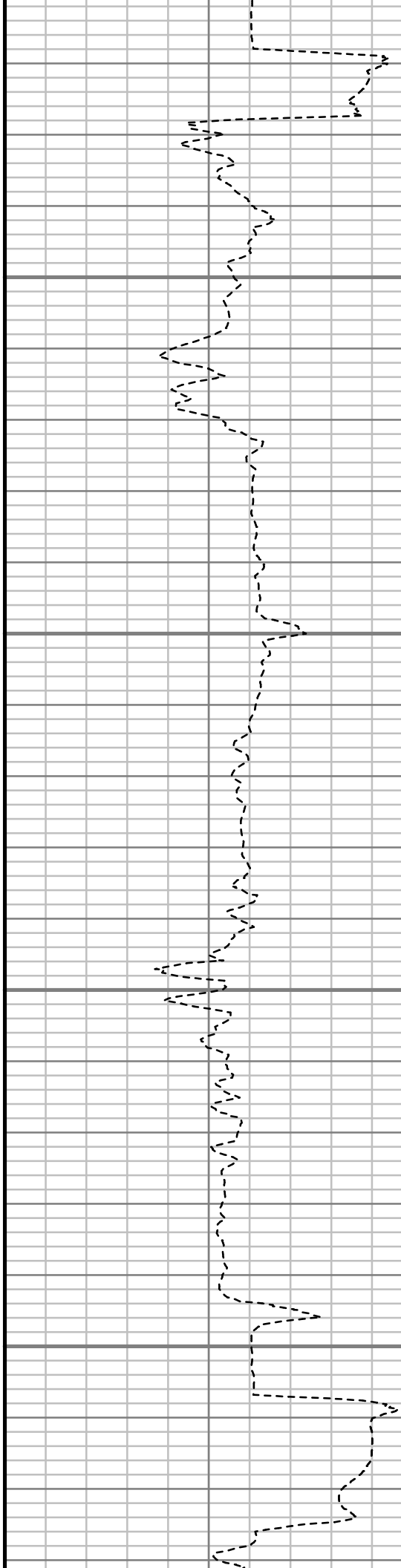
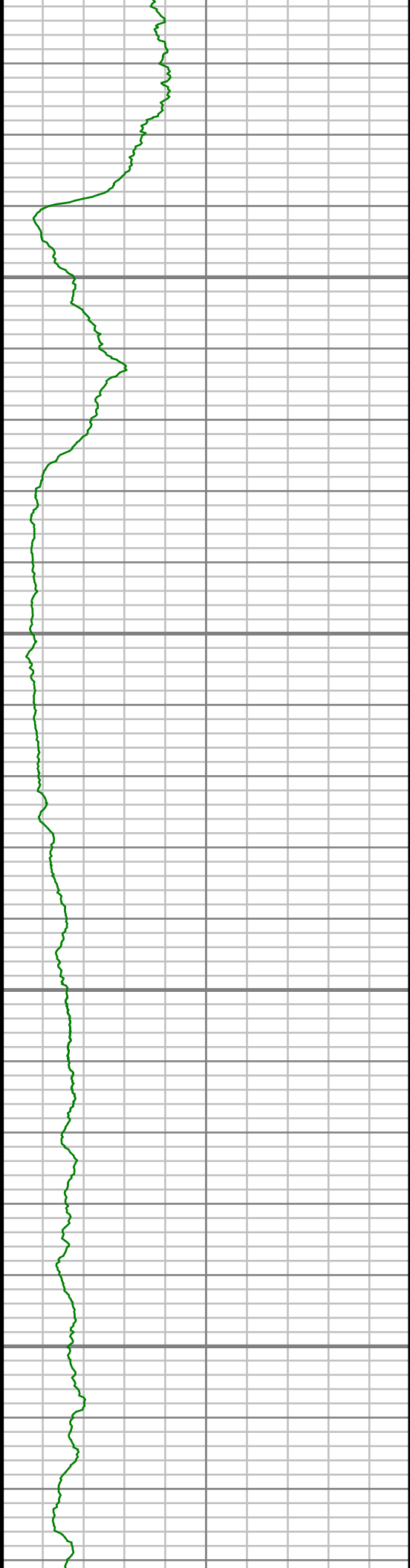
8300

8350



S: 57 MD: 8196.00 ft Inc: 91.95  
deg Az: 181.41 deg TVD:  
7152.07 ft

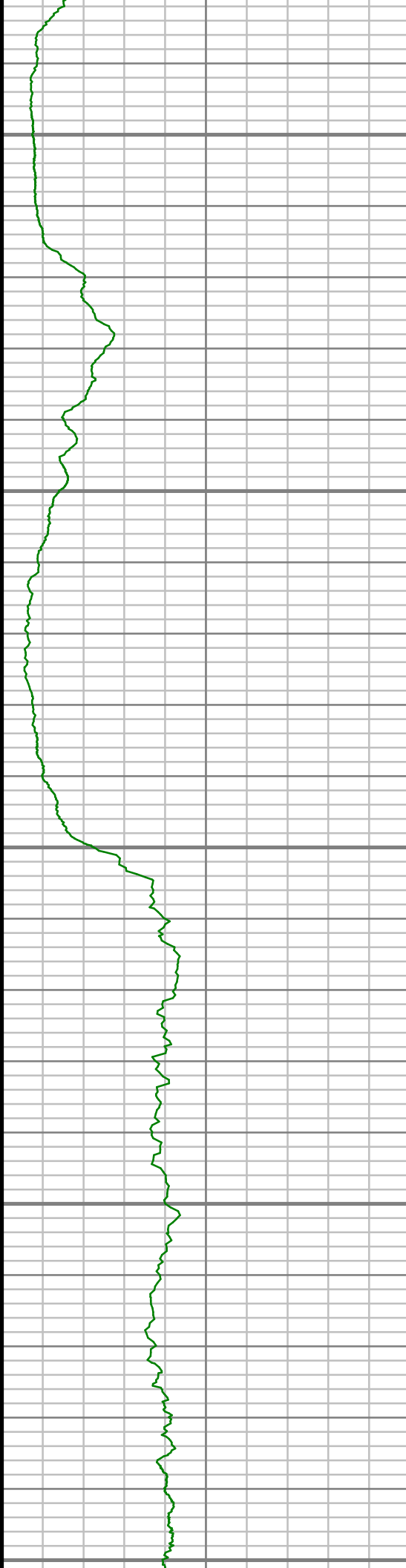
S: 58 MD: 8291.00 ft Inc: 92.12  
deg Az: 180.96 deg TVD:  
7148.71 ft



S: 59 MD: 8387.00 ft Inc: 90.50  
deg Az: 180.49 deg TVD:  
7146.51 ft

S: 60 MD: 8482.00 ft Inc: 91.41  
deg Az: 180.58 deg TVD:  
7144.93 ft

S: 61 MD: 8577.00 ft Inc: 86.38  
deg Az: 176.87 deg TVD:



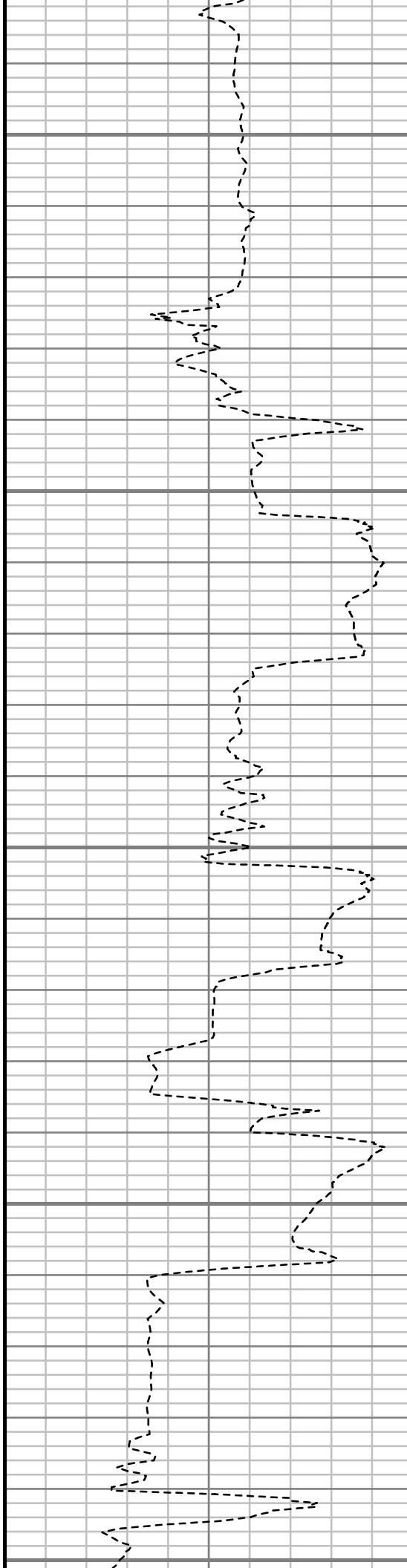
8600

8650

8700

8750

8800



deg Az: 176.87 deg TVD:  
7146.76 ft

S: 62 MD: 8673.00 ft Inc: 88.49  
deg Az: 177.54 deg TVD:  
7151.06 ft

S: 63 MD: 8768.00 ft Inc: 89.97  
deg Az: 180.59 deg TVD:  
7152.34 ft

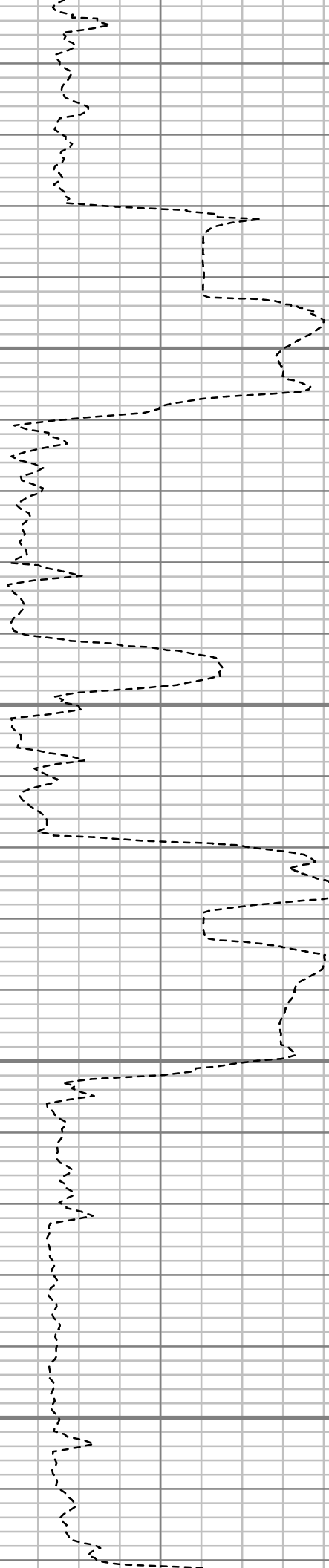


8850

8900

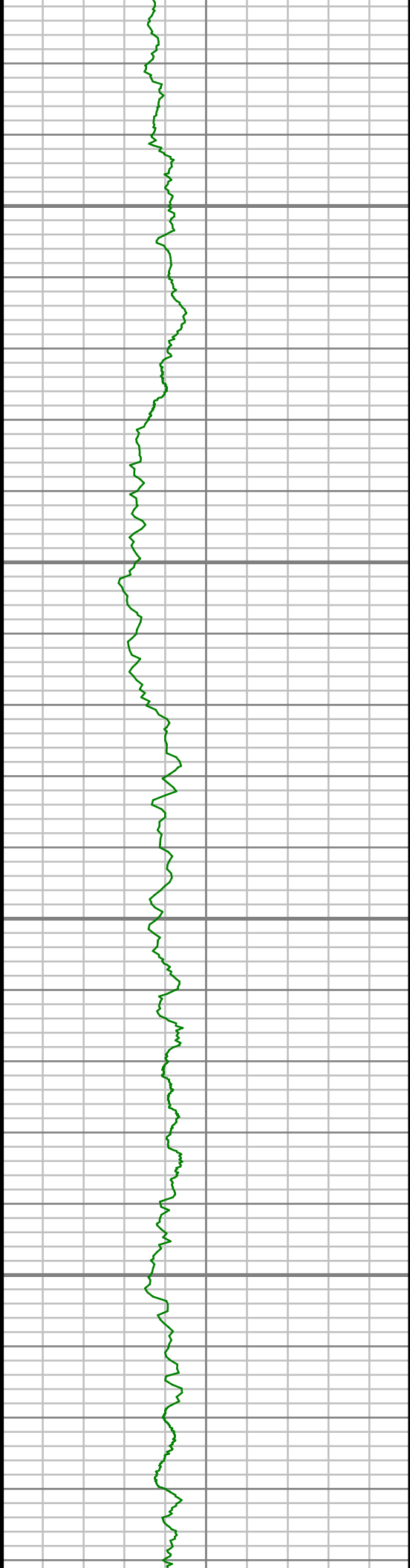
8950

9000



S: 64 MD: 8863.00 ft Inc: 90.97  
deg Az: 180.56 deg TVD:  
7151.56 ft

S: 65 MD: 8959.00 ft Inc: 92.31  
deg Az: 181.98 deg TVD:  
7148.81 ft

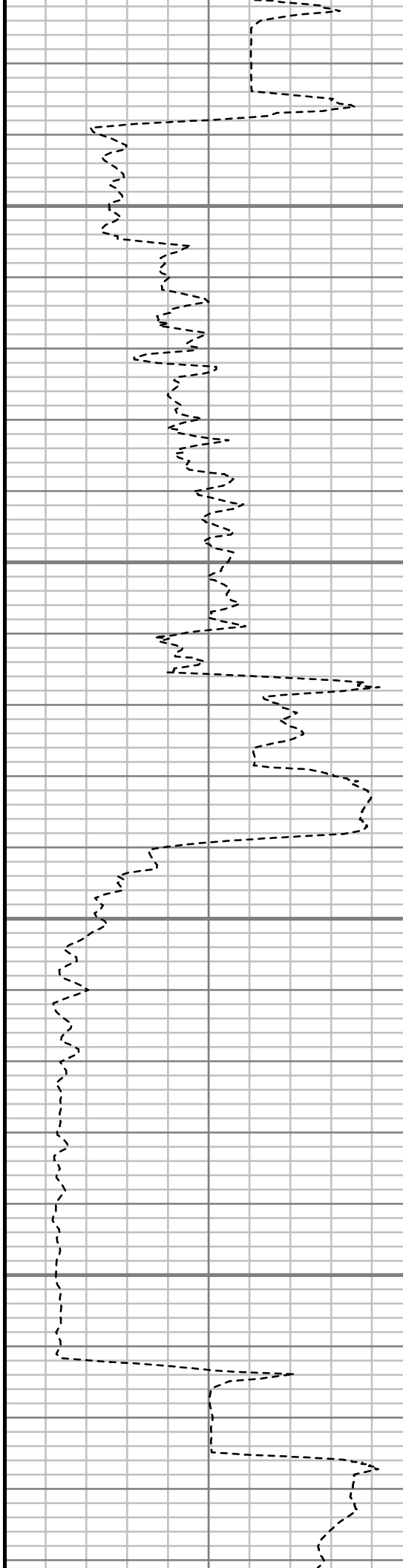


9050

9100

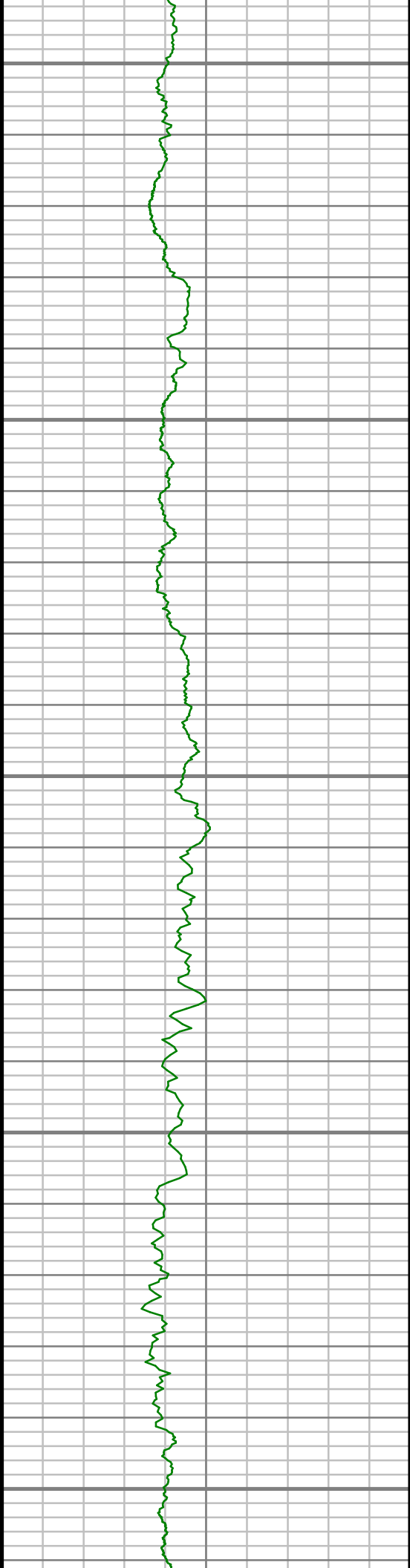
9150

9200



S: 66 MD: 9054.00 ft Inc: 92.61  
deg Az: 181.37 deg TVD:  
7144.73 ft

S: 67 MD: 9149.00 ft Inc: 88.06  
deg Az: 179.04 deg TVD:  
7144.17 ft



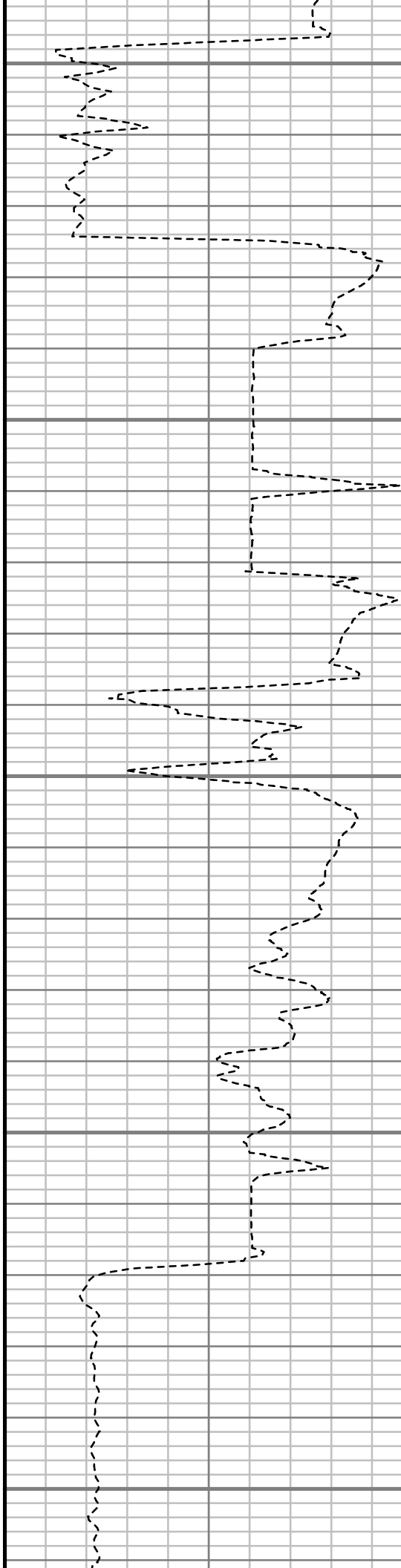
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9300

9350

9400

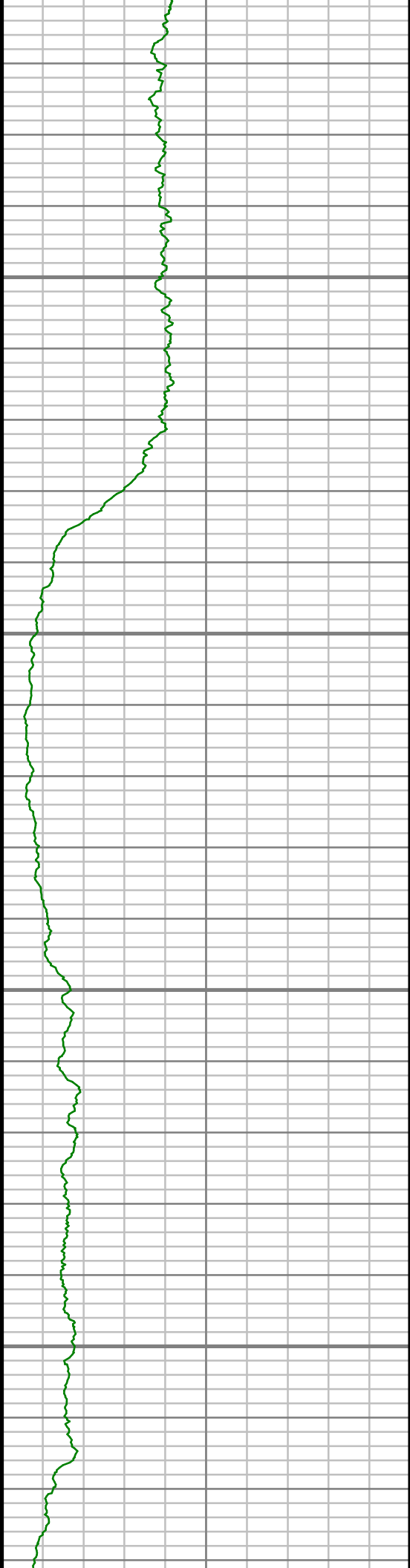
9450



S: 68 MD: 9245.00 ft Inc: 89.80  
deg Az: 180.15 deg TVD:  
7145.97 ft

S: 69 MD: 9340.00 ft Inc: 91.61  
deg Az: 182.16 deg TVD:  
7144.80 ft

S: 70 MD: 9435.00 ft Inc: 91.84  
deg Az: 181.43 deg TVD:  
7141.94 ft

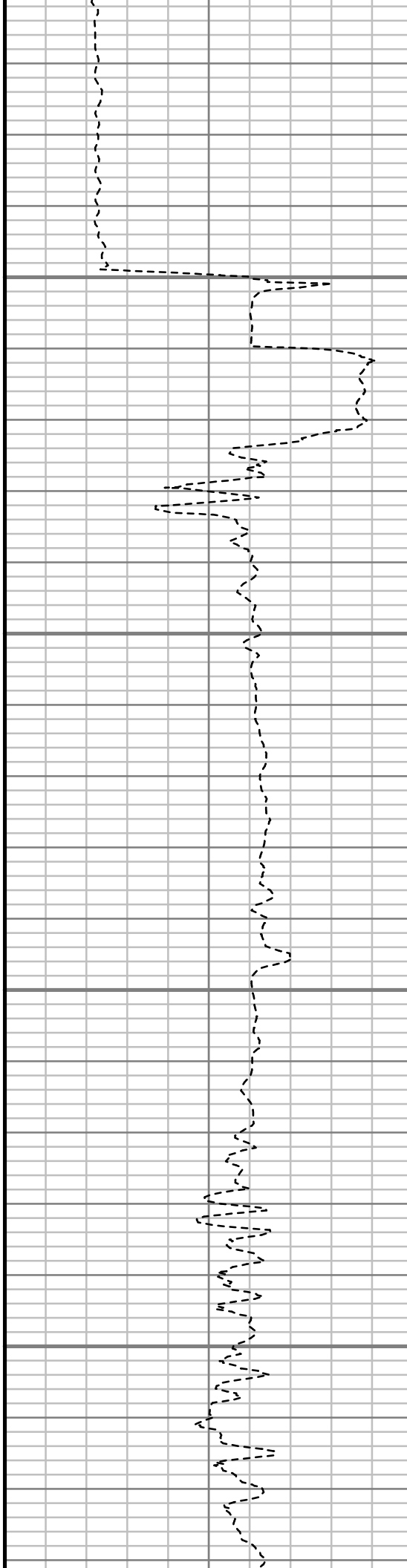


9500

9550

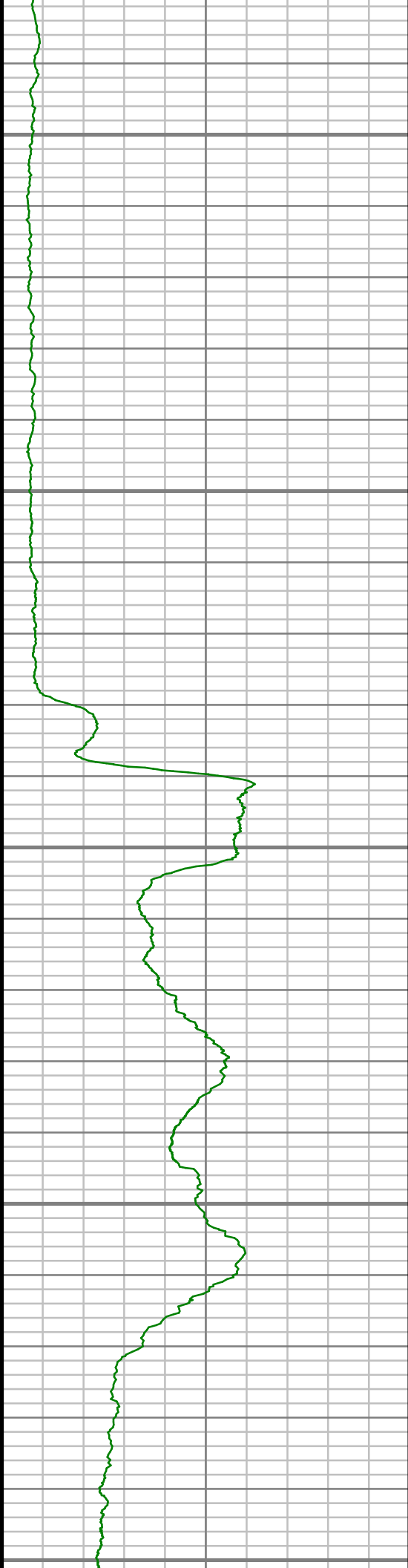
9600

9650



S: 71 MD: 9530.00 ft Inc: 91.04  
deg Az: 181.56 deg TVD:  
7139.55 ft

S: 72 MD: 9626.00 ft Inc: 91.14  
deg Az: 180.88 deg TVD:  
7137.72 ft



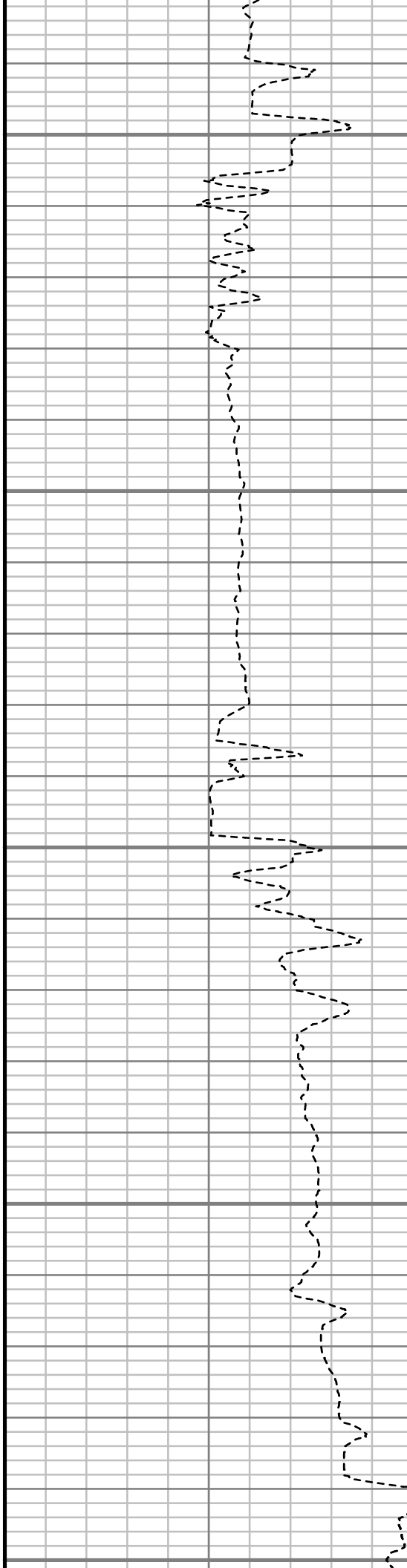
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9750

9800

9850

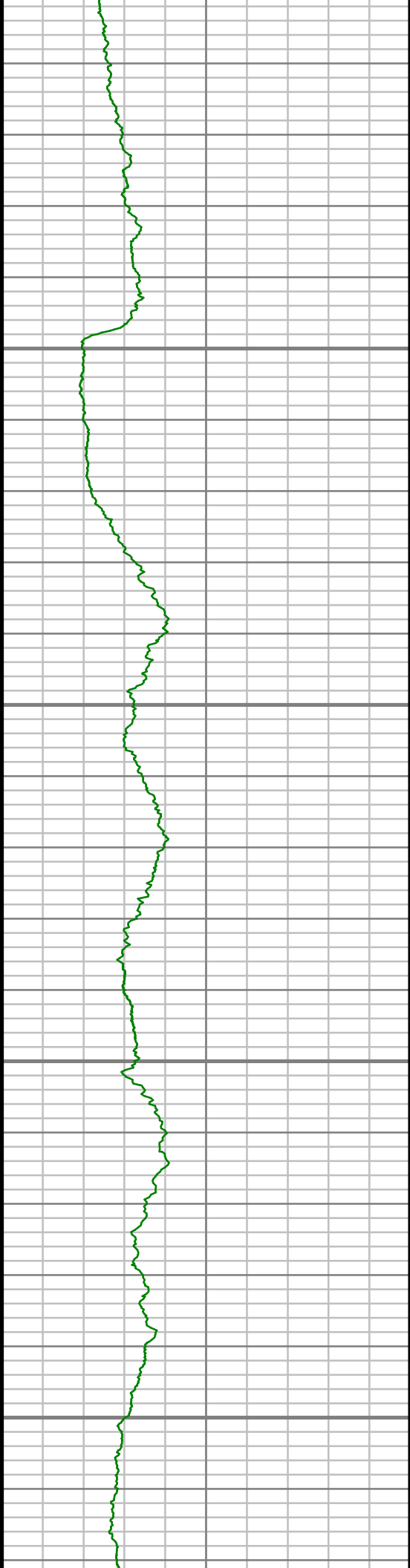
9900



S: 73 MD: 9721.00 ft Inc: 91.61  
deg Az: 181.07 deg TVD:  
7135.44 ft

S: 74 MD: 9816.00 ft Inc: 91.24  
deg Az: 180.36 deg TVD:  
7133.07 ft



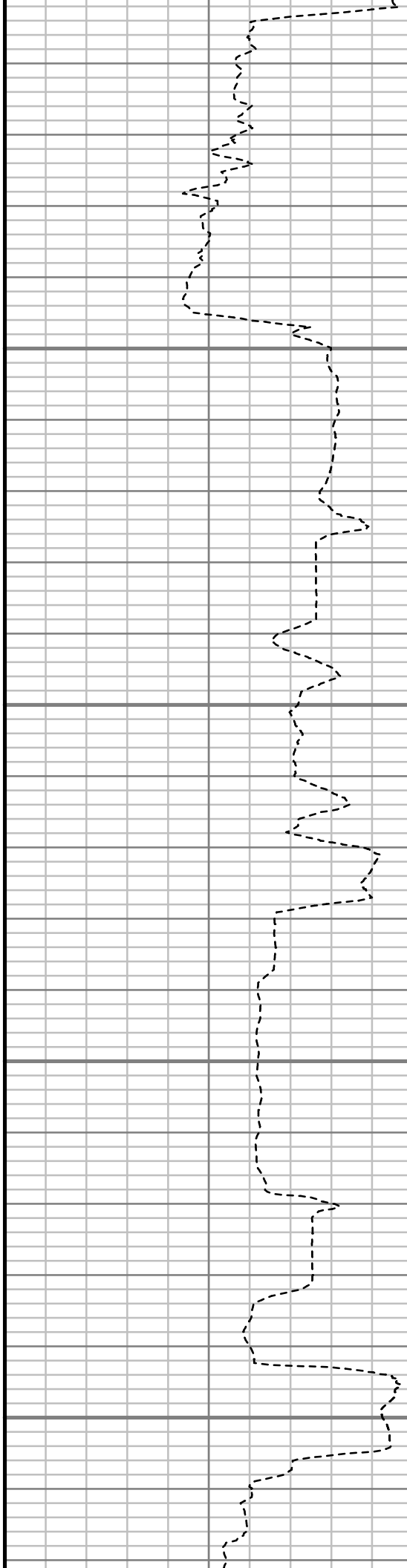


9950

10000

10050

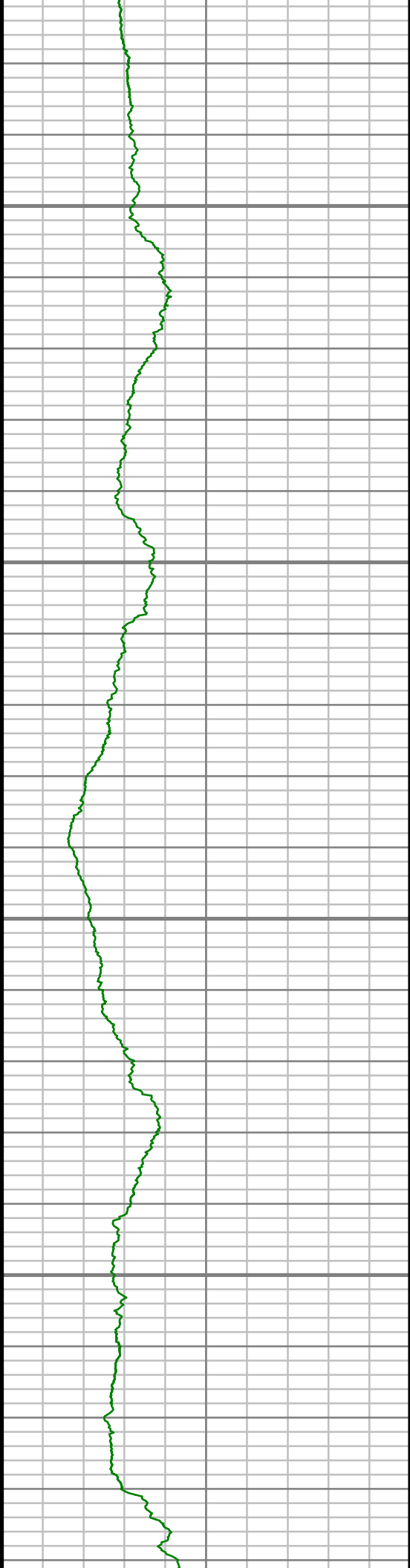
10100



S: 75 MD: 9911.00 ft Inc: 91.24  
deg Az: 181.12 deg TVD:  
7131.02 ft

S: 76 MD: 10006.00 ft Inc:  
90.10 deg Az: 180.04 deg TVD:  
7129.91 ft

S: 77 MD: 10101.00 ft Inc:  
89.06 deg Az: 180.12 deg TVD:  
7130.60 ft

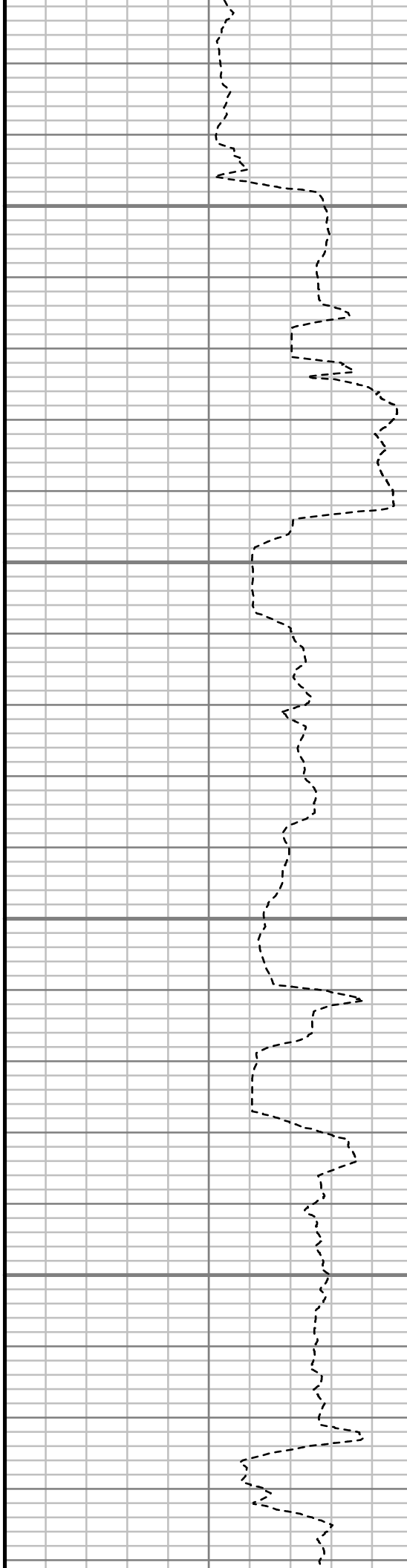


10150

10200

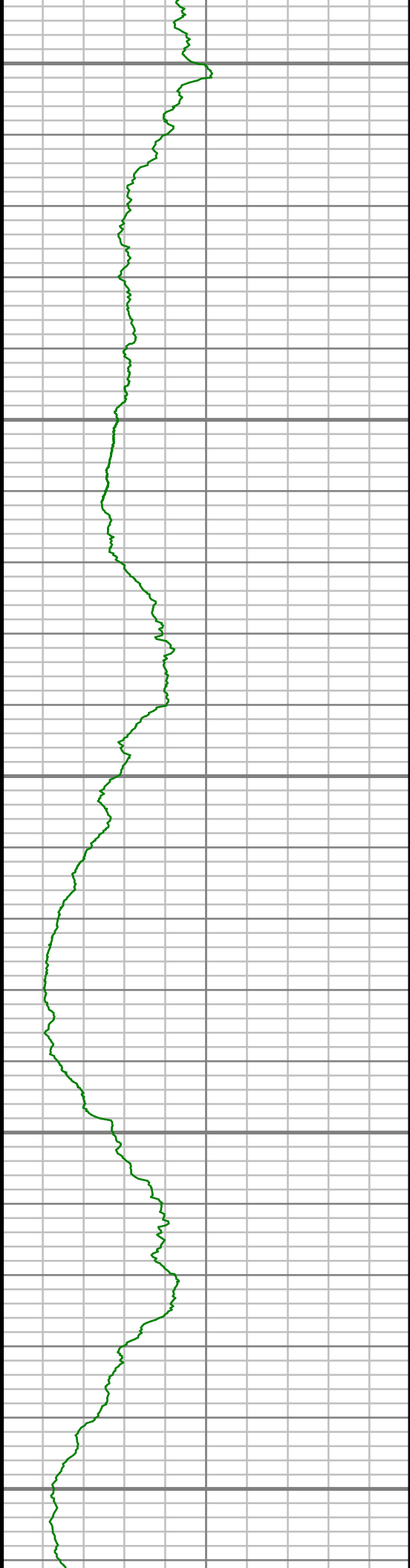
10250

10300



S: 78 MD: 10196.00 ft Inc:  
89.66 deg Az: 180.89 deg TVD:  
7131.66 ft

S: 79 MD: 10292.00 ft Inc:  
88.76 deg Az: 180.24 deg TVD:  
7132.98 ft



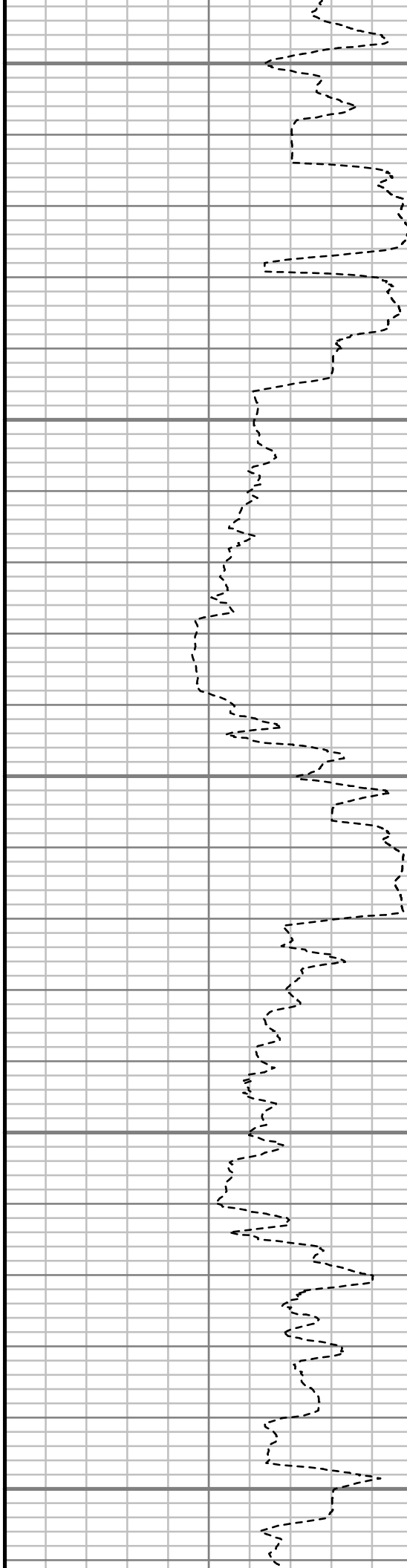
10350

10400

10450

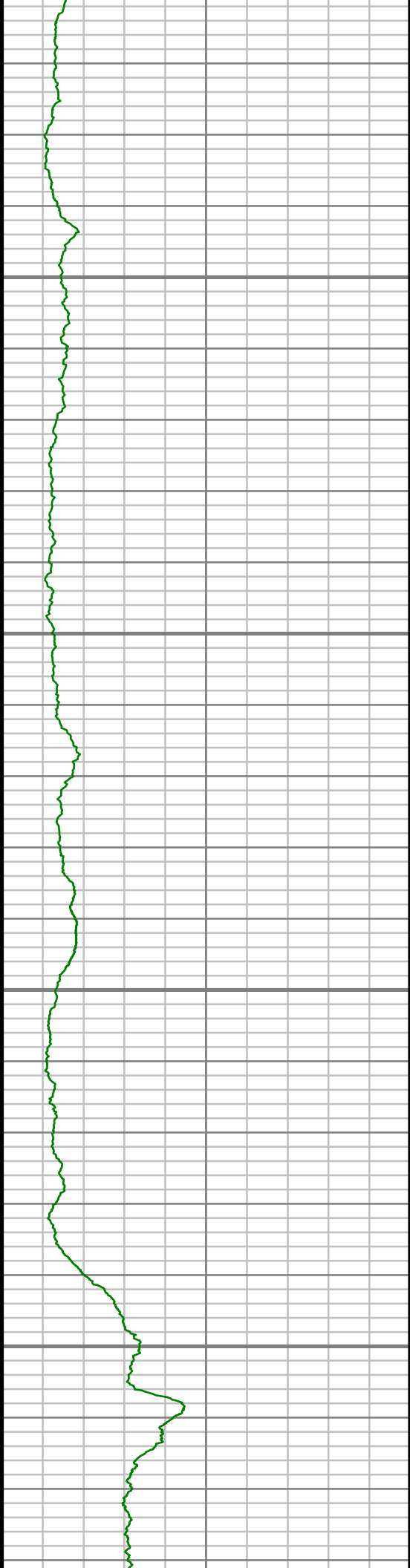
10500

10550



S: 80 MD: 10387.00 ft Inc:  
89.70 deg Az: 180.18 deg TVD:  
7134.26 ft

S: 81 MD: 10482.00 ft Inc:  
90.87 deg Az: 181.75 deg TVD:  
7133.79 ft

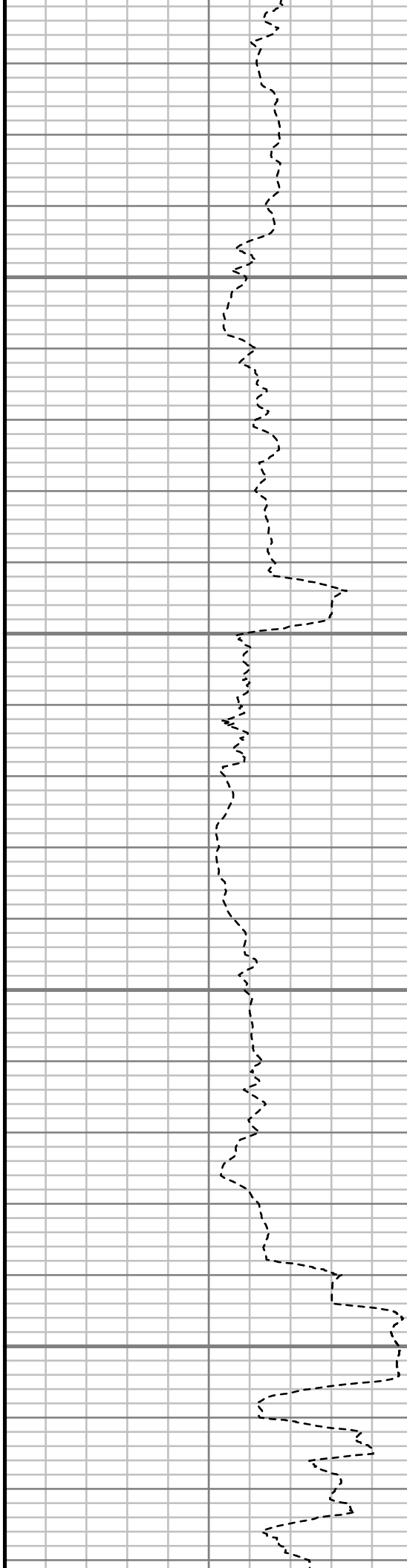


10600

10650

10700

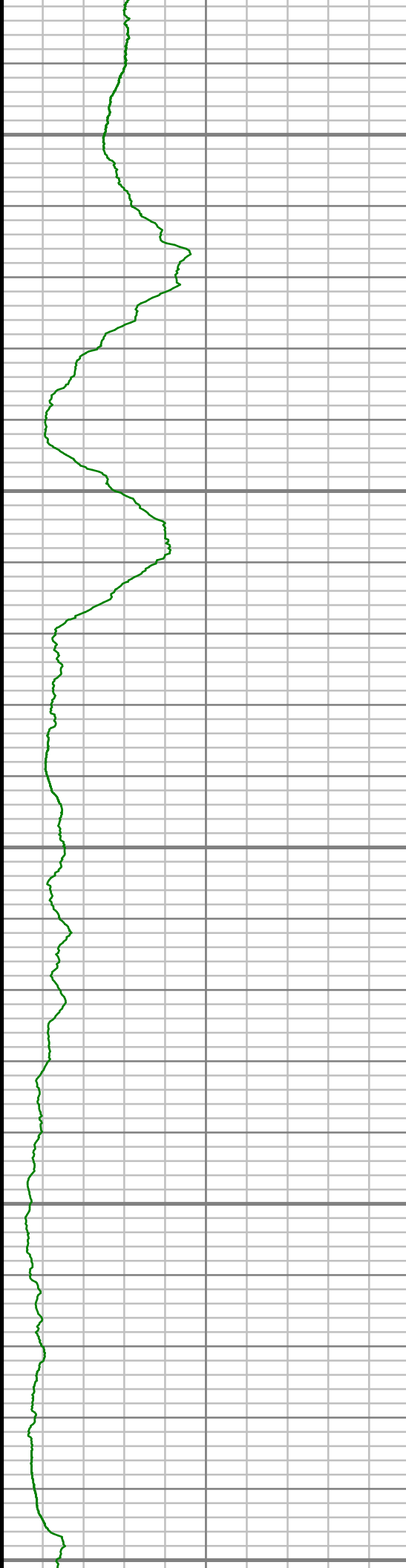
10750



S: 82 MD: 10577.00 ft Inc:  
90.77 deg Az: 181.40 deg TVD:  
7132.43 ft

S: 83 MD: 10673.00 ft Inc:  
92.68 deg Az: 181.66 deg TVD:  
7129.53 ft

S: 84 MD: 10768.00 ft Inc:  
91.11 deg Az: 180.26 deg TVD:  
7126.39 ft



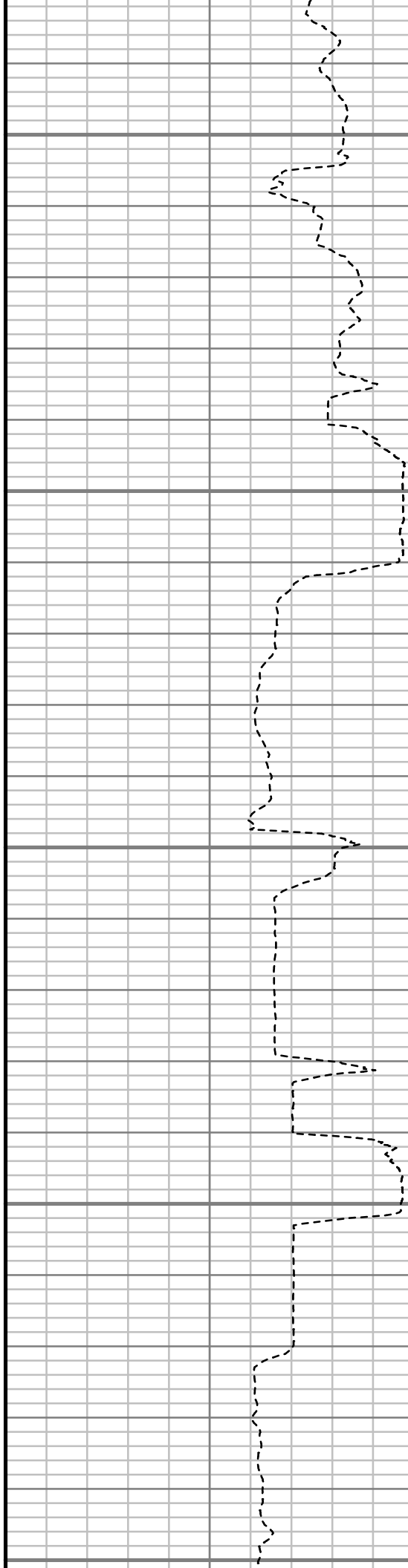
10800

10850

10900

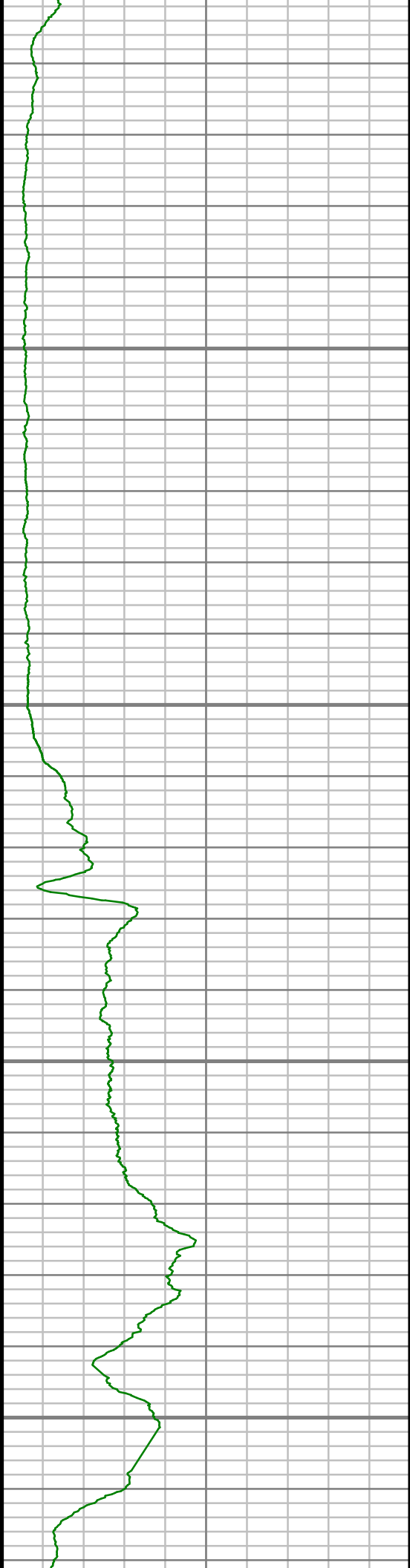
10950

11000



S: 85 MD: 10863.00 ft Inc:  
89.09 deg Az: 180.44 deg TVD:  
7126.23 ft

S: 86 MD: 10959.00 ft Inc:  
89.23 deg Az: 181.16 deg TVD:  
7127.63 ft

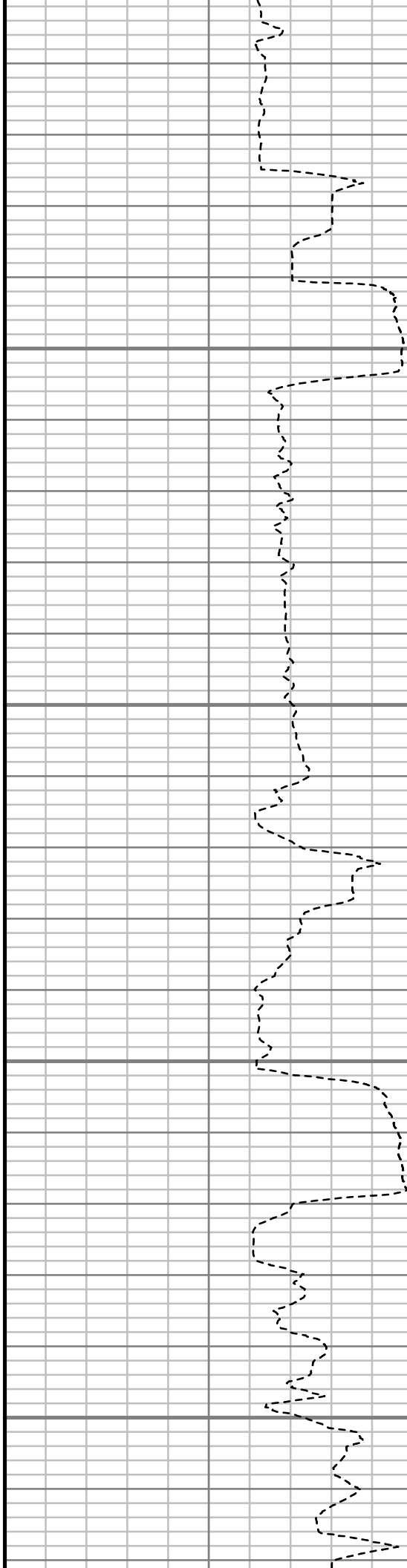


11050

11100

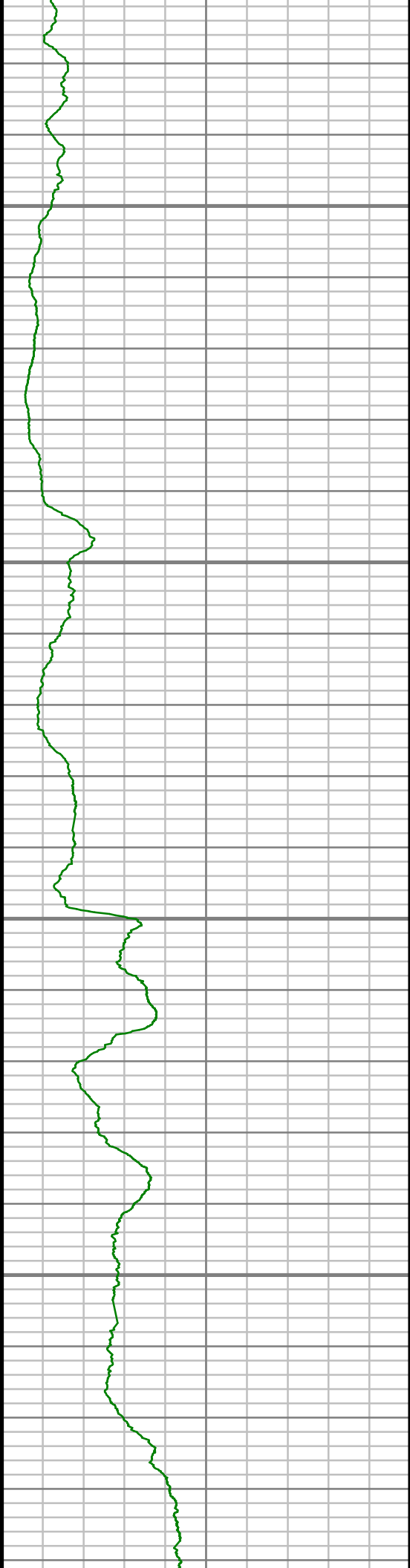
11150

11200



S: 87 MD: 11054.00 ft Inc:  
89.09 deg Az: 181.84 deg TVD:  
7129.02 ft

S: 88 MD: 11149.00 ft Inc:  
88.02 deg Az: 181.21 deg TVD:  
7131.41 ft

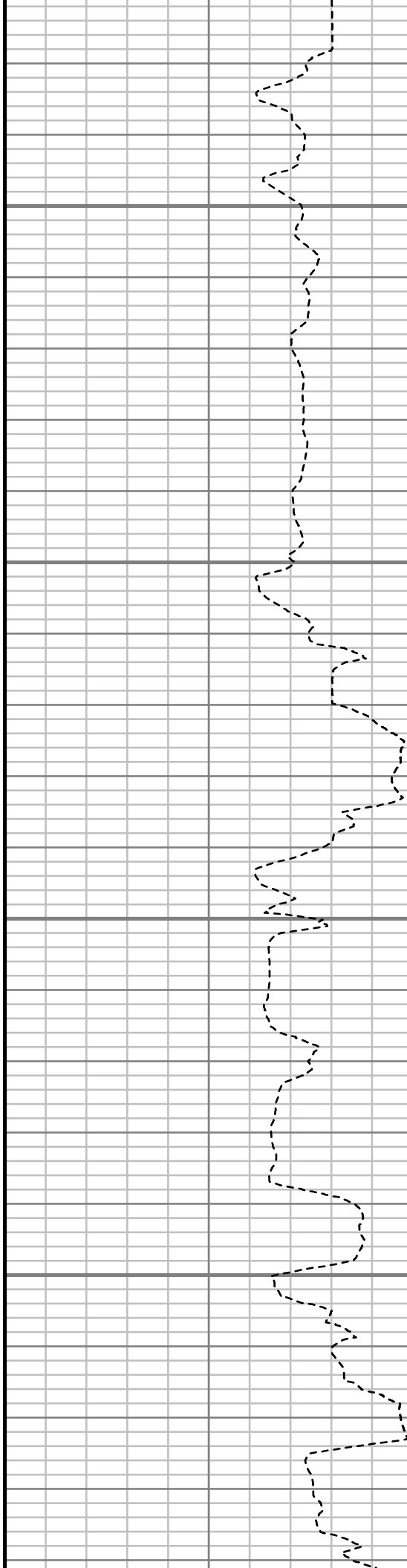


11250

11300

11350

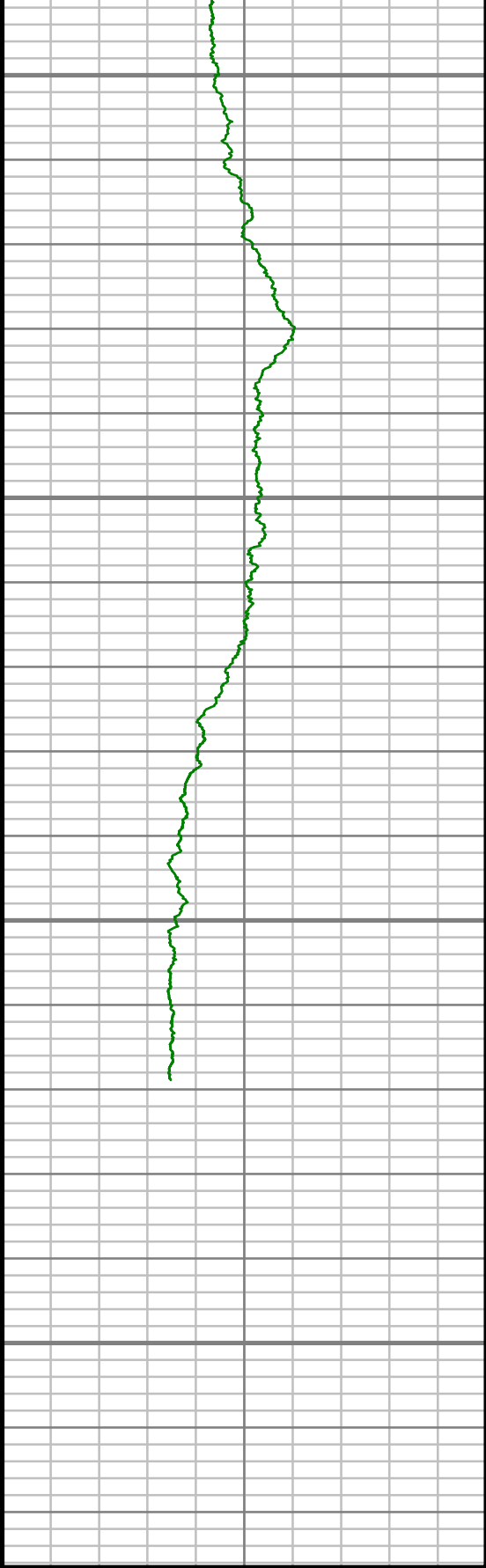
11400



S: 89 MD: 11244.00 ft Inc:  
87.52 deg Az: 181.62 deg TVD:  
7135.11 ft

S: 90 MD: 11340.00 ft Inc:  
90.87 deg Az: 182.59 deg TVD:  
7136.46 ft

S: 91 MD: 11435.00 ft Inc:  
88.69 deg Az: 181.74 deg TVD:  
7136.82 ft



Gamma Ray (GR)

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0 Unit = aapi 150

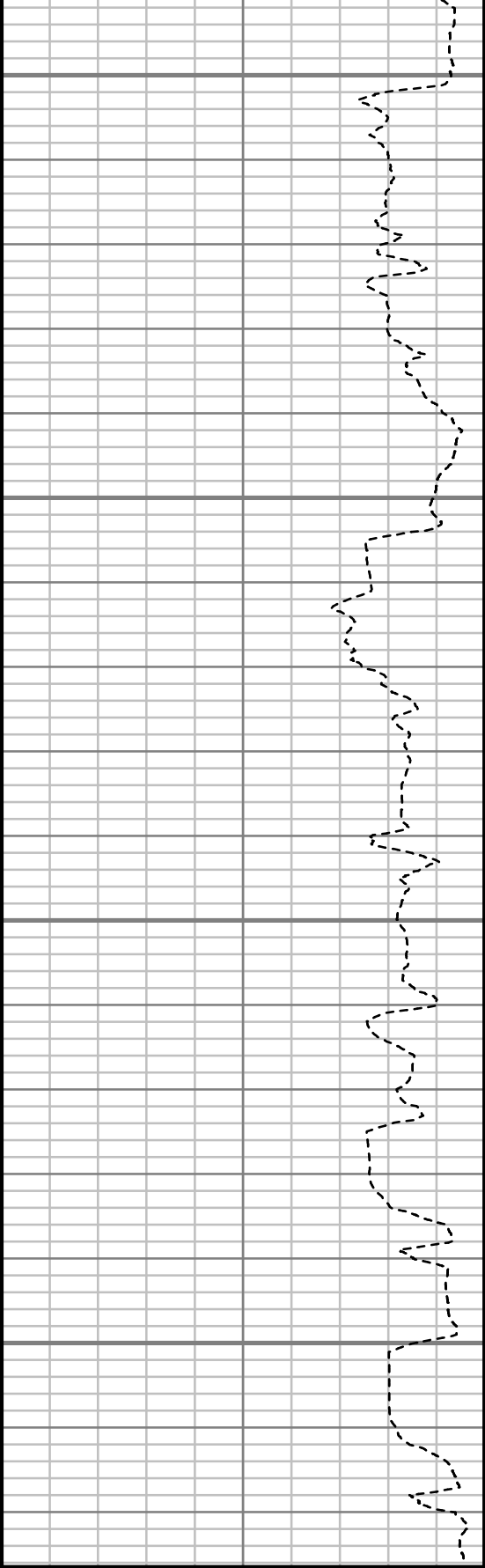
11450

11500

11550

11600

MEASURED DEPTH  
1:240 (ft)



Rate of Penetration (ROP)

---

500 Unit = ft/hr 0

7138.82 ft

S: 92 MD: 11530.00 ft Inc:  
89.60 deg Az: 182.59 deg TVD:  
7138.24 ft

S: 93 MD: 11561.00 ft Inc:  
90.80 deg Az: 183.19 deg TVD:  
7138.13 ft

Comments



## MWD Survey Report

<b>Well Location</b>	NEWNAM
<b>Well Name</b>	NEWNAM 2C-32H-C264
<b>Survey Date</b>	11/6/2014
<b>Latitude</b>	40°6'5.285"N
<b>Longitude</b>	104°34'43.093"W
<b>Btotal</b>	52524 nT
<b>Dip</b>	66.72 deg
<b>Magnetic Declination</b>	8.38 deg
<b>North Reference</b>	True North
<b>Grid Correction</b>	None
<b>Depth Reference</b>	RKB (13.00 ft)
<b>Calculation Method</b>	Minimum Curvature
<b>Section (VS) Ref</b>	0.00N (ft), 0.00E (ft), 194.03Azim (deg)
<b>Operator(s)</b>	J. SMITH, M. SMITH, T. WHEELER

### 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
159.00	0.35	266.75	159.00	0.15	-0.03	-0.49	0.49	266.75	0.22
251.00	1.06	272.81	250.99	0.39	0.00	-1.62	1.62	269.92	0.77
344.00	2.20	284.50	343.95	0.55	0.49	-4.20	4.23	276.61	1.27
424.00	3.71	293.80	423.84	0.09	1.92	-8.05	8.28	283.38	1.97
517.00	5.58	289.83	516.54	-0.87	4.66	-15.06	15.76	287.21	2.04
795.00	9.77	282.41	791.99	-1.57	14.32	-50.82	52.80	285.74	1.55
888.00	11.29	277.02	883.42	-0.24	17.13	-67.57	69.71	284.23	1.95
968.00	11.49	275.58	961.85	1.89	18.86	-83.27	85.38	282.76	0.44
1271.00	14.54	286.67	1257.08	4.57	32.71	-149.77	153.30	282.32	1.30
1457.00	14.64	285.46	1437.08	2.91	45.68	-194.79	200.07	283.20	0.17
1648.00	14.89	282.39	1621.77	3.01	57.38	-242.02	248.73	283.34	0.43
1838.00	15.01	278.24	1805.35	6.19	66.14	-290.22	297.66	282.84	0.57
2029.00	14.97	286.78	1989.87	7.51	76.80	-338.32	346.93	282.79	1.15
2220.00	15.20	283.26	2174.29	6.66	89.67	-386.32	396.59	283.07	0.49
2410.00	14.11	279.78	2358.11	8.71	99.32	-433.40	444.63	282.91	0.74
2601.00	13.97	285.92	2543.41	9.68	109.60	-478.52	490.91	282.90	0.78
2791.00	12.66	282.09	2728.30	9.63	120.25	-520.93	534.63	283.00	0.83
2982.00	13.28	285.41	2914.43	9.81	130.46	-562.54	577.47	283.06	0.51

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS °/100ft
3173.00	15.31	287.87	3099.51	7.59	144.03	-607.69	624.53	283.33	1.11
3363.00	14.42	287.02	3283.15	4.68	158.65	-654.18	673.15	283.63	0.48
3553.00	14.59	285.20	3467.10	2.95	171.85	-699.90	720.69	283.80	0.26
3743.00	12.08	282.70	3651.96	2.92	182.50	-742.40	764.50	283.81	1.36
3934.00	12.48	284.38	3838.59	3.26	192.02	-781.89	805.12	283.80	0.28
4124.00	13.84	284.12	4023.60	3.10	202.66	-823.82	848.38	283.82	0.72
4315.00	16.16	280.35	4208.08	4.77	213.01	-872.12	897.76	283.73	1.32
4505.00	15.54	278.86	4390.86	8.76	221.69	-923.28	949.52	283.50	0.39
4696.00	13.97	284.09	4575.56	11.04	231.24	-970.93	998.08	283.40	1.08
4886.00	10.67	279.52	4761.17	12.40	239.73	-1010.52	1038.57	283.35	1.81
5077.00	6.59	279.51	4949.96	14.65	244.47	-1038.79	1067.17	283.24	2.14
5267.00	4.06	287.57	5139.13	15.10	248.31	-1055.96	1084.77	283.23	1.38
5457.00	2.48	284.06	5328.81	14.68	251.34	-1066.37	1095.59	283.26	0.84
5647.00	1.95	266.90	5518.67	15.63	252.16	-1073.60	1102.82	283.22	0.44
5837.00	1.17	177.64	5708.62	18.44	250.06	-1076.76	1105.41	283.07	1.19
6027.00	1.50	149.22	5898.57	22.06	245.99	-1075.40	1103.18	282.88	0.38
6218.00	1.22	99.69	6089.53	23.69	243.49	-1072.13	1099.43	282.80	0.61
6408.00	1.46	112.90	6279.47	23.91	242.21	-1067.91	1095.04	282.78	0.21

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS °/100ft
6503.00	1.53	125.99	6374.44	24.57	241.00	-1065.77	1092.68	282.74	0.37
6597.00	7.37	161.04	6468.13	30.10	234.55	-1062.80	1088.37	282.45	6.57
6693.00	16.50	166.72	6561.96	47.41	215.43	-1057.65	1079.37	281.51	9.58
6788.00	23.48	171.05	6651.18	76.86	183.56	-1051.60	1067.50	279.90	7.51
6883.00	29.85	177.12	6736.05	116.95	141.20	-1047.47	1056.94	277.68	7.28
6978.00	35.79	179.51	6815.86	166.51	89.76	-1046.04	1049.88	274.90	6.39
7074.00	41.28	180.86	6890.93	224.56	29.99	-1046.27	1046.70	271.64	5.79
7169.00	47.33	181.95	6958.88	289.28	-36.32	-1047.93	1048.56	268.02	6.42
7264.00	54.01	182.90	7019.06	361.23	-109.69	-1051.07	1056.77	264.04	7.07
7360.00	62.27	181.71	7069.69	440.98	-191.09	-1054.30	1071.48	259.73	8.66
7455.00	70.01	181.12	7108.09	525.70	-277.87	-1056.43	1092.37	255.26	8.17
7502.00	72.56	181.25	7123.17	569.09	-322.38	-1057.35	1105.41	253.04	5.43
7550.00	76.14	180.95	7136.12	614.13	-368.58	-1058.24	1120.59	250.80	7.49
7597.00	79.52	181.44	7146.03	658.92	-414.51	-1059.20	1137.42	248.63	7.27
7645.00	82.90	182.12	7153.36	705.27	-461.91	-1060.67	1156.89	246.47	7.17
7712.00	87.61	183.40	7158.91	770.73	-528.58	-1063.89	1187.97	243.58	7.28
7817.00	90.90	183.02	7160.27	873.84	-633.40	-1069.77	1243.22	239.37	3.16
7910.00	90.47	182.43	7159.16	965.03	-726.28	-1074.18	1296.67	235.94	0.79

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS °/100ft
8005.00	91.04	182.02	7157.91	1058.01	-821.20	-1077.87	1355.06	232.70	0.73
8101.00	92.01	181.79	7155.35	1151.84	-917.11	-1081.07	1417.68	229.69	1.04
8196.00	91.95	181.41	7152.07	1244.56	-1012.02	-1083.72	1482.78	226.96	0.42
8291.00	92.12	180.96	7148.71	1337.12	-1106.94	-1085.68	1550.49	224.44	0.50
8387.00	90.50	180.49	7146.51	1430.51	-1202.90	-1086.89	1621.20	222.10	1.75
8482.00	91.41	180.58	7144.93	1522.88	-1297.89	-1087.77	1693.45	219.97	0.96
8577.00	86.38	176.87	7146.76	1614.45	-1392.80	-1085.66	1765.94	217.94	6.58
8673.00	88.49	177.54	7151.06	1706.24	-1488.58	-1080.99	1839.68	215.99	2.31
8768.00	89.97	180.59	7152.34	1798.00	-1583.55	-1079.45	1916.46	214.28	3.56
8863.00	90.97	180.56	7151.56	1890.39	-1678.54	-1080.40	1996.18	212.77	1.06
8959.00	92.31	181.98	7148.81	1983.97	-1774.47	-1082.52	2078.60	211.39	2.04
9054.00	92.61	181.37	7144.73	2076.69	-1869.34	-1085.30	2161.55	210.14	0.71
9149.00	88.06	179.04	7144.17	2168.90	-1964.31	-1085.64	2244.35	208.93	5.39
9245.00	89.80	180.15	7145.97	2261.85	-2060.28	-1084.96	2328.50	207.77	2.15
9340.00	91.61	182.16	7144.80	2354.45	-2155.25	-1086.88	2413.79	206.76	2.85
9435.00	91.84	181.43	7141.94	2447.25	-2250.16	-1089.86	2500.20	205.84	0.80
9530.00	91.04	181.56	7139.55	2539.95	-2345.09	-1092.34	2587.02	204.98	0.86
9626.00	91.14	180.88	7137.72	2633.55	-2441.05	-1094.39	2675.15	204.15	0.72

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Distance ft	Closure Direction deg	DLS °/100ft
9721.00	91.61	181.07	7135.44	2726.07	-2536.01	-1096.01	2762.72	203.37	0.54
9816.00	91.24	180.36	7133.07	2818.48	-2630.98	-1097.20	2850.59	202.64	0.84
9911.00	91.24	181.12	7131.02	2910.92	-2725.94	-1098.43	2938.93	201.95	0.80
10006.00	90.10	180.04	7129.91	3003.30	-2820.93	-1099.39	3027.59	201.29	1.65
10101.00	89.06	180.12	7130.60	3095.50	-2915.93	-1099.52	3116.34	200.66	1.10
10196.00	89.66	180.89	7131.66	3187.86	-3010.92	-1100.36	3205.68	200.08	1.03
10292.00	88.76	180.24	7132.98	3281.21	-3106.90	-1101.30	3296.31	199.52	1.16
10387.00	89.70	180.18	7134.26	3373.45	-3201.89	-1101.65	3386.11	198.99	0.99
10482.00	90.87	181.75	7133.79	3465.98	-3296.87	-1103.25	3476.57	198.50	2.07
10577.00	90.77	181.40	7132.43	3558.74	-3391.82	-1105.87	3567.55	198.06	0.39
10673.00	92.68	181.66	7129.53	3652.41	-3487.74	-1108.43	3659.64	197.63	2.01
10768.00	91.11	180.26	7126.39	3744.90	-3582.67	-1110.01	3750.69	197.21	2.22
10863.00	89.09	180.44	7126.23	3837.20	-3677.66	-1110.60	3841.70	196.80	2.12
10959.00	89.23	181.16	7127.63	3930.64	-3773.64	-1111.94	3934.06	196.42	0.76
11054.00	89.09	181.84	7129.02	4023.37	-3868.60	-1114.43	4025.92	196.07	0.72
11149.00	88.02	181.21	7131.41	4116.08	-3963.54	-1116.95	4117.91	195.74	1.30
11244.00	87.52	181.62	7135.11	4208.72	-4058.43	-1119.30	4209.95	195.42	0.68
11340.00	90.87	182.59	7136.46	4302.62	-4154.34	-1122.82	4303.41	195.12	3.64

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
11435.00	88.69	181.74	7136.82	4395.58	-4249.27	-1126.41	4396.03	194.85	2.46
11530.00	89.60	182.59	7138.24	4488.54	-4344.19	-1130.00	4488.75	194.58	1.30
11561.00	90.80	183.19	7138.13	4518.96	-4375.15	-1131.56	4519.11	194.50	4.36

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft

5" = 100' FEET MD