



5" = 100' FEET MD

COMPANY : ANADARKO E&P LLC
WELL : POWERS 34G-22HZ
FIELD : WATTENBERG
COUNTY : WELD
STATE : COLORADO
COUNTRY : U.S.A.
UWI : 05-123-41903

COMPANY : ANADARKO E&P LLC

WELL : POWERS 34G-22HZ

FIELD : WATTENBERG

COUNTY : WELD

STATE : COLORADO

COUNTRY : U.S.A.

UWI : 05-123-41903

WELL LOCATION

LAT:40.1293330°N LONG:104.6540190°W

N:14574017.56 ft E:1737126.03 ft

SEC:22

TWP: 2N

RANGE: 65W

OTHER SERVICES

DIRECTIONAL
ROP

DEPTH REF. : RKB

REF. HEIGHT : 20.000 ft

RKB to Ground Level

GROUND LEVEL : 4883.000 ft

G.L. to MEAN SEA LEVEL

BOREHOLE RECORD

DEVIATION RECORD

[illegible]

CASING RECORD

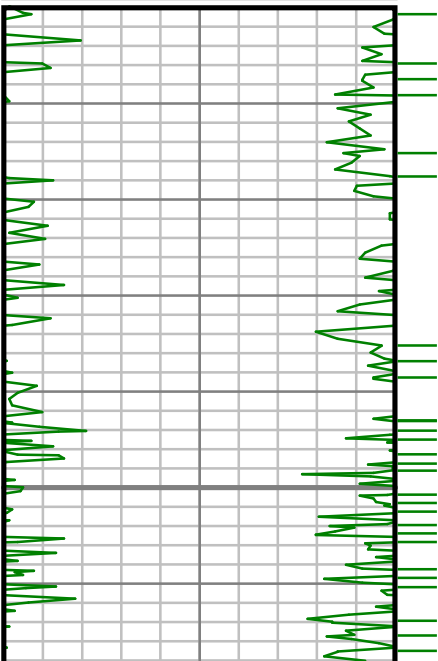
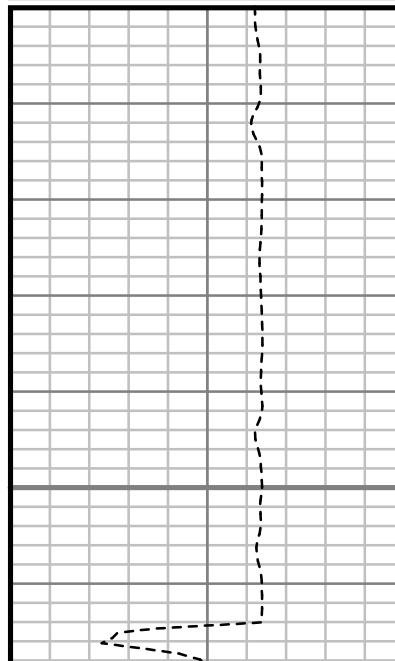
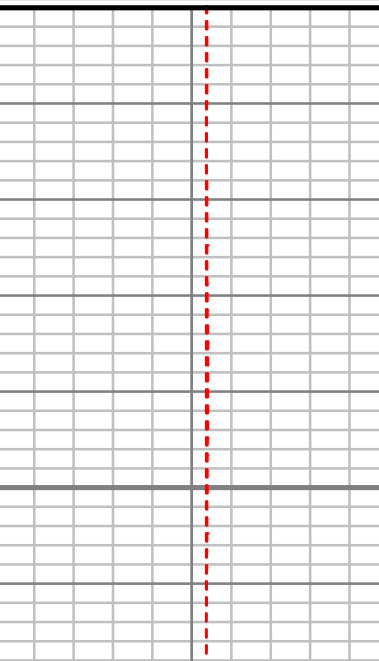
CASING SIZE in	FROM ft	TO ft			
9.625	0	1877			
			DRILLING CO. : PRECISION DRILLING		
			RIG : 461		
			LWD UNIT NO. : MWD 00282-CDISTRICT : CASPER		
			SPUD DATE : 08/15/2015		
			LWD START DATE : 10/13/2015		DEPTH : 1887 ft
			LWD END DATE : 10/16/2015		DEPTH : 12939 ft
			TOTAL DEPTH : 12939 ft		

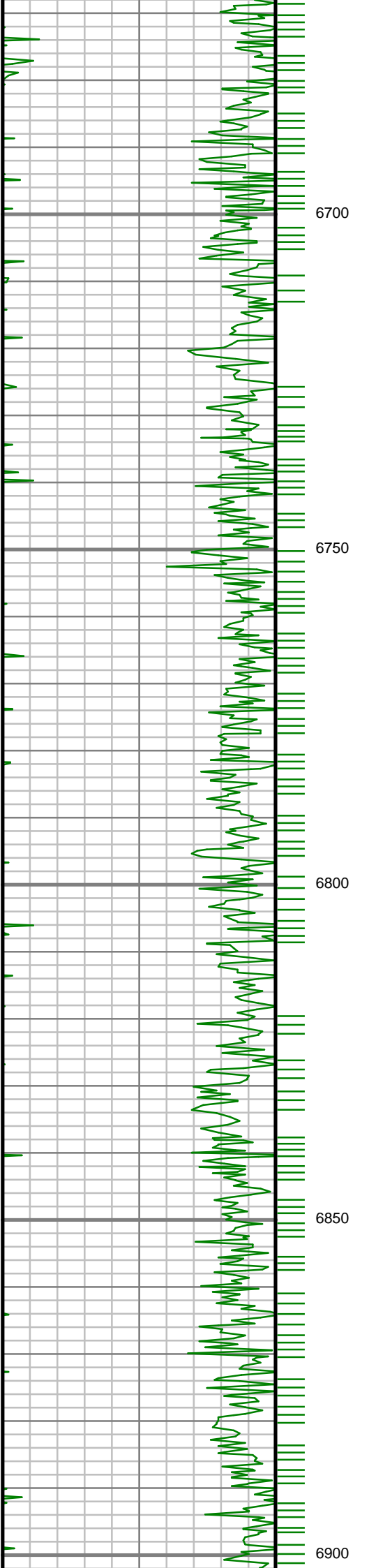
Run Data

RUN NUMBER	1						
START DATE	10/13/2015						
START TIME	2200						
END DATE	10/16/2015						
END TIME	1330						
DEPTH IN (ft)	1887						
DEPTH OUT (ft)	12939						
LOG TOP (ft)	1840						
LOG BOTTOM (ft)	12892						
HOLE SIZE (in)	8.5						
MUD DATA @ (ft)	6779						
MUD TYPE	OIL-BASED						
DENSITY (lb / gal)	9.3						
VISCOSITY (s / qt)	87						
pH	-						
FLUID LOSS (cm3 / 30)	3						
SALINITY (ppm)	61000						
Rm (ohmm @ deg F)	-						
Rmf (ohmm @ deg F)	-						
MAX TEMP (deg F)	226						
Rm @ MAX TEMP (ohmm)	-						
LWD ENGINEER #1	S. WAXLER						
LWD ENGINEER #2	H. ORAHOOD						
LWD ENGINEER #3	B. GREER						
LOG WITNESS #1	I. HARRIS						
LOG WITNESS #2	-						

[illegible]

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.

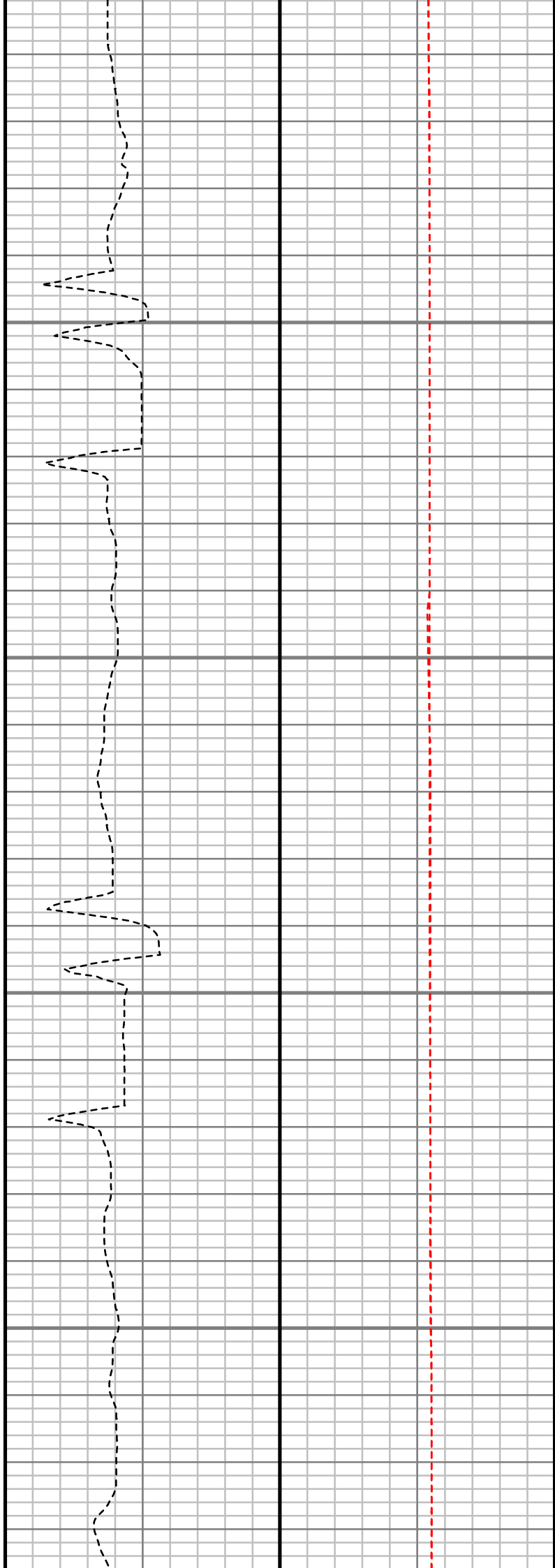
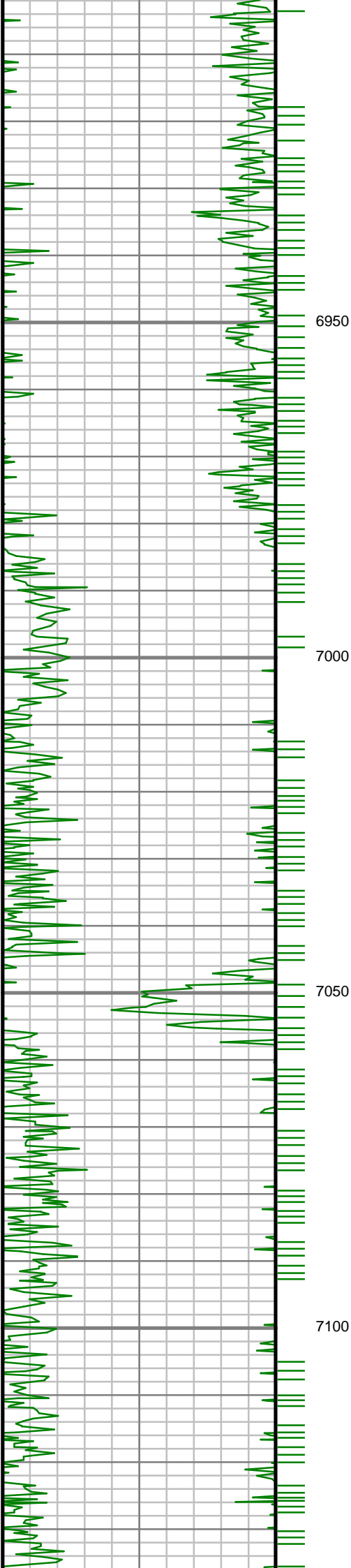
ANADARKO E&P ONSHORE LLC POWERS 34G-22HZ WATTENBERG FIELD WELD COUNTY, COLORADO 05-123-41903							
Gamma Ray (GR) Unit = aapi		MEASURED DEPTH 1:240 (ft)	Rate of Penetration (ROP) Unit = ft/hr		Tool Temperature (T-TEMP) Unit = °F		Comments
150	300		0	800	0	300	
		6650					S: 69 MD: 6609.00 ft Inc: 0.84 deg Az: 316.93 deg TVD: 6223.33 ft



S: 70 MD: 6704.00 ft
Inc: 1.95 deg Az:
225.04 deg TVD:
6318.31 ft

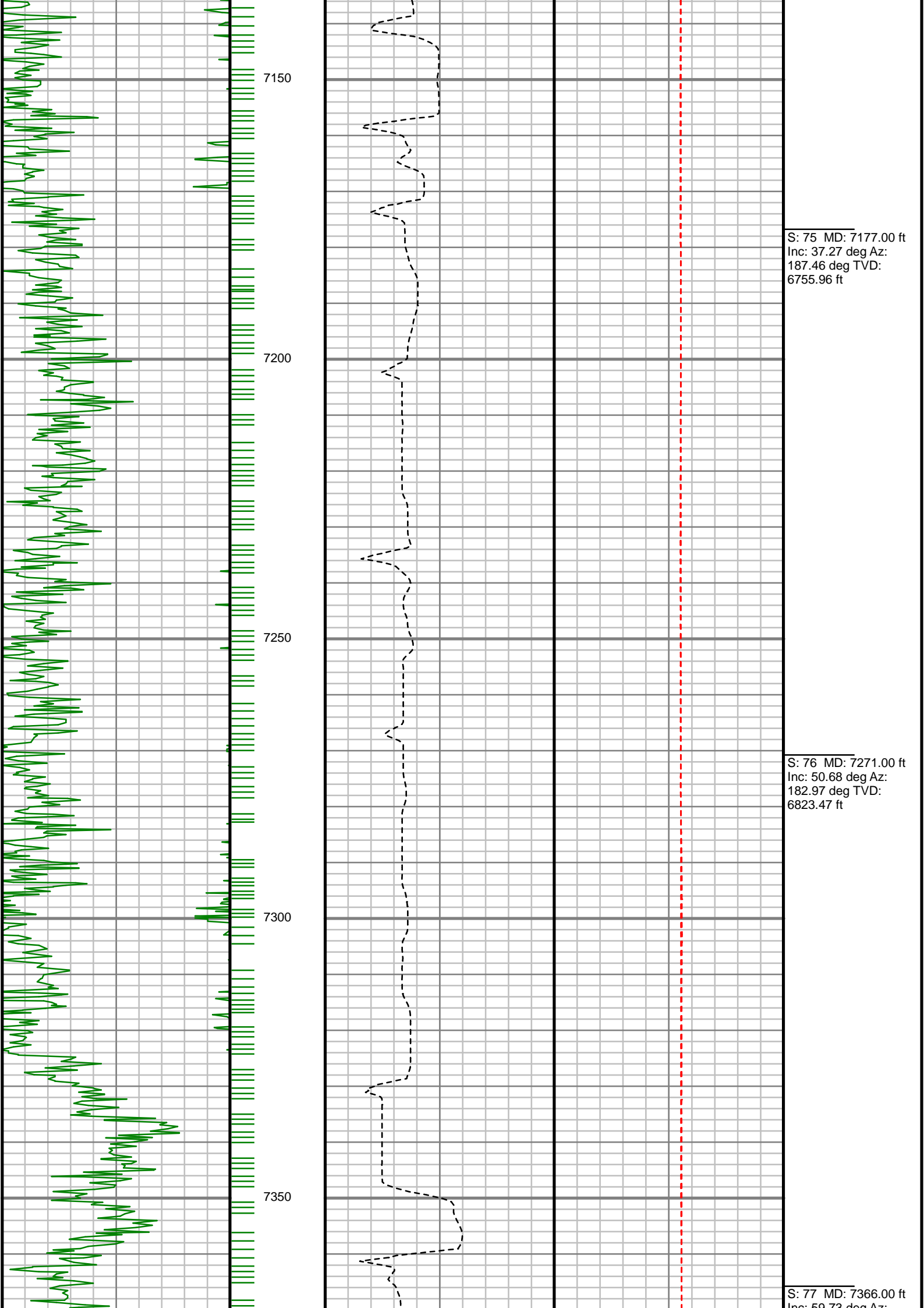
S: 71 MD: 6799.00 ft
Inc: 11.21 deg Az:
199.12 deg TVD:
6412.59 ft

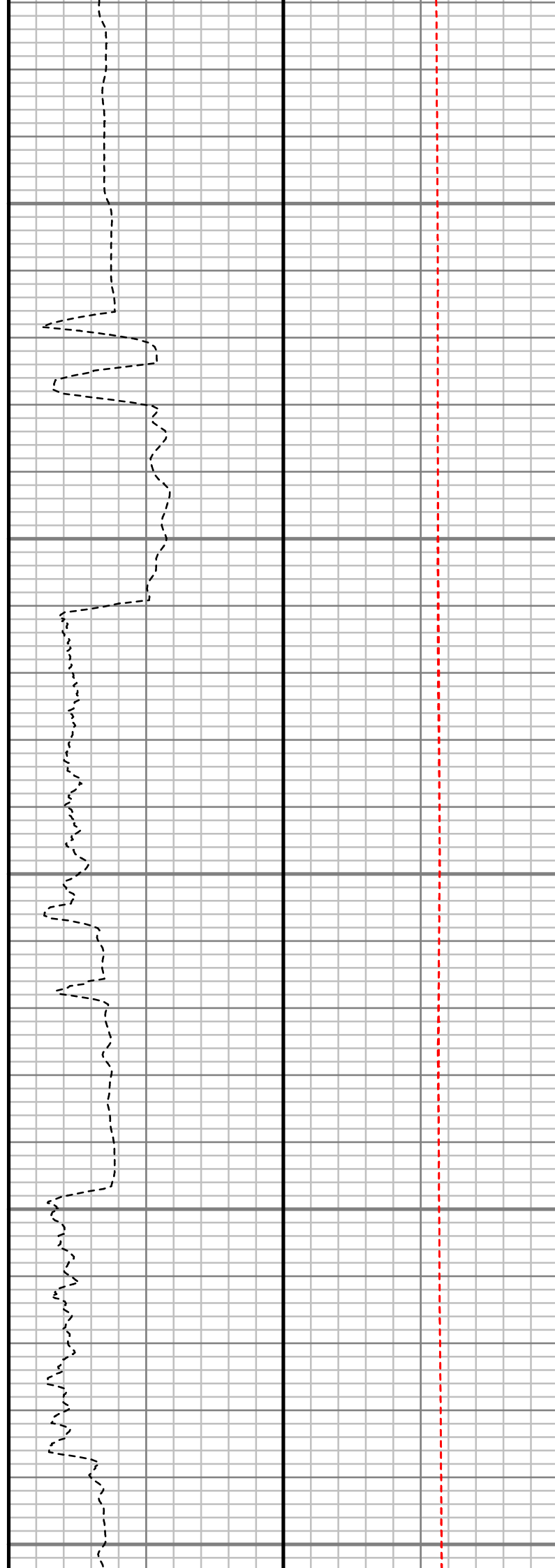
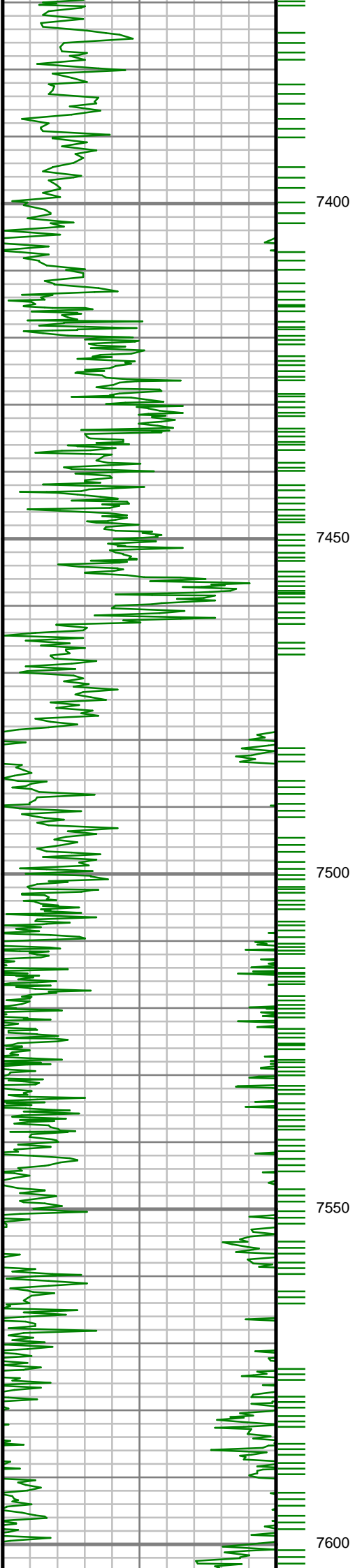
S: 72 MD: 6893.00 ft
Inc: 16.81 deg Az:
191.13 deg TVD:
6503.77 ft



S: 73 MD: 6988.00 ft
Inc: 23.03 deg Az:
192.79 deg TVD:
6593.04 ft

S: 74 MD: 7082.00 ft
Inc: 30.24 deg Az:
191.78 deg TVD:
6677.01 ft

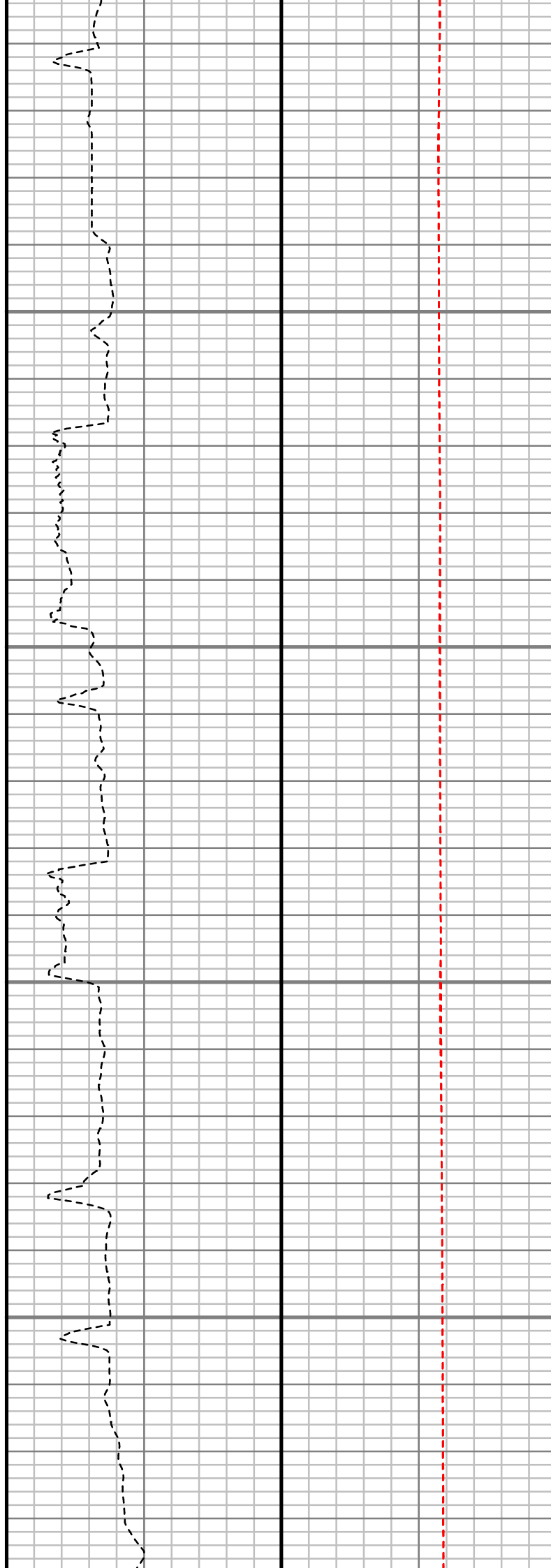
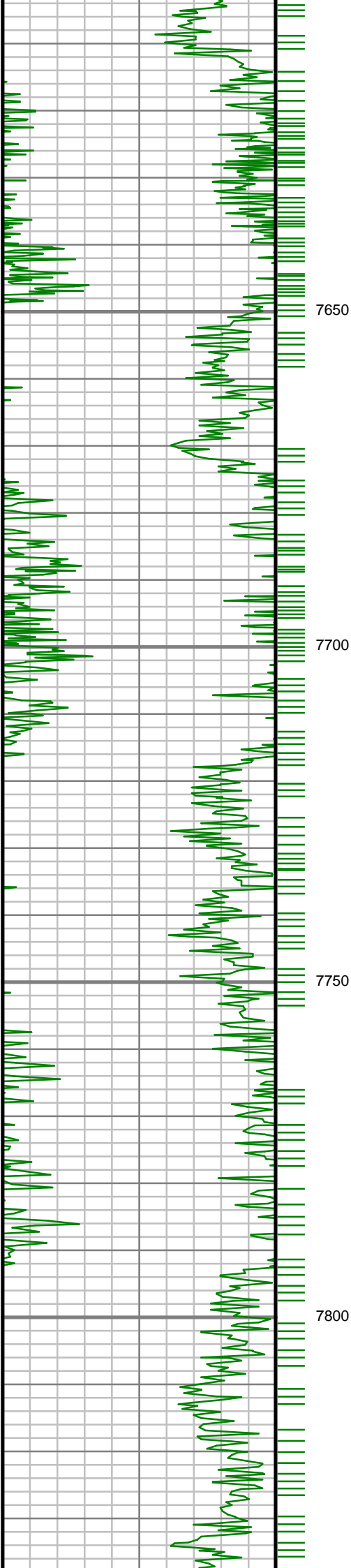




Inc: 59.73 deg Az:
179.93 deg TVD:
6877.64 ft

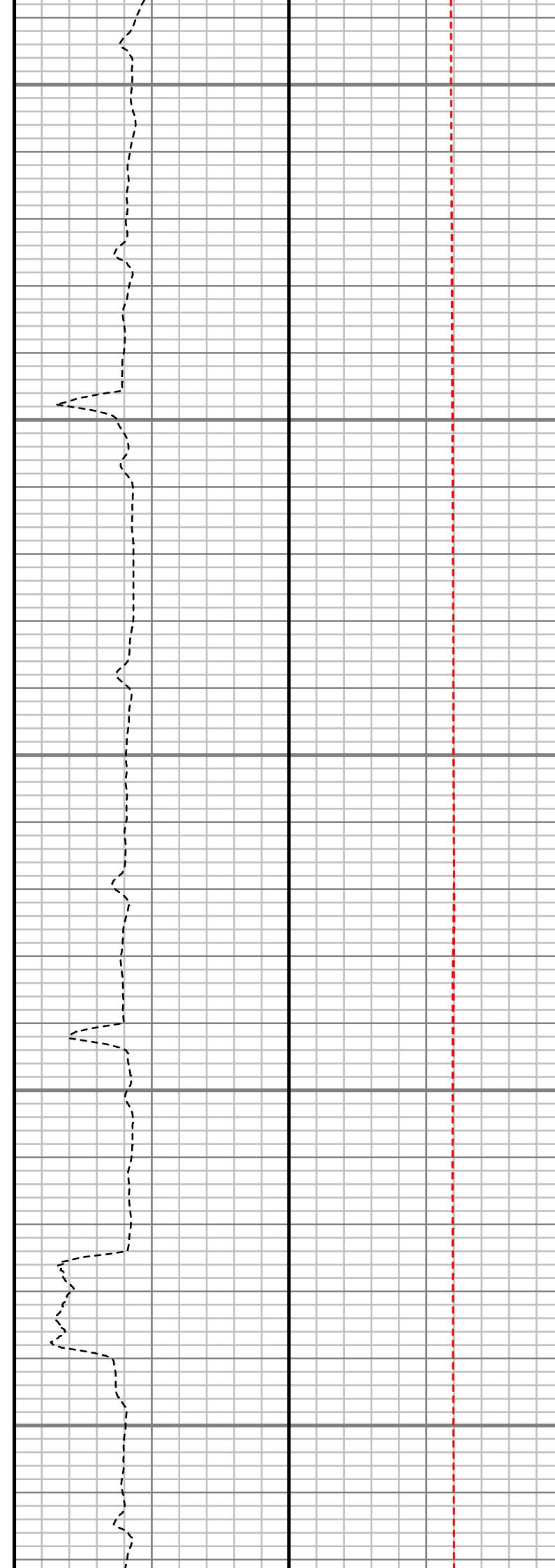
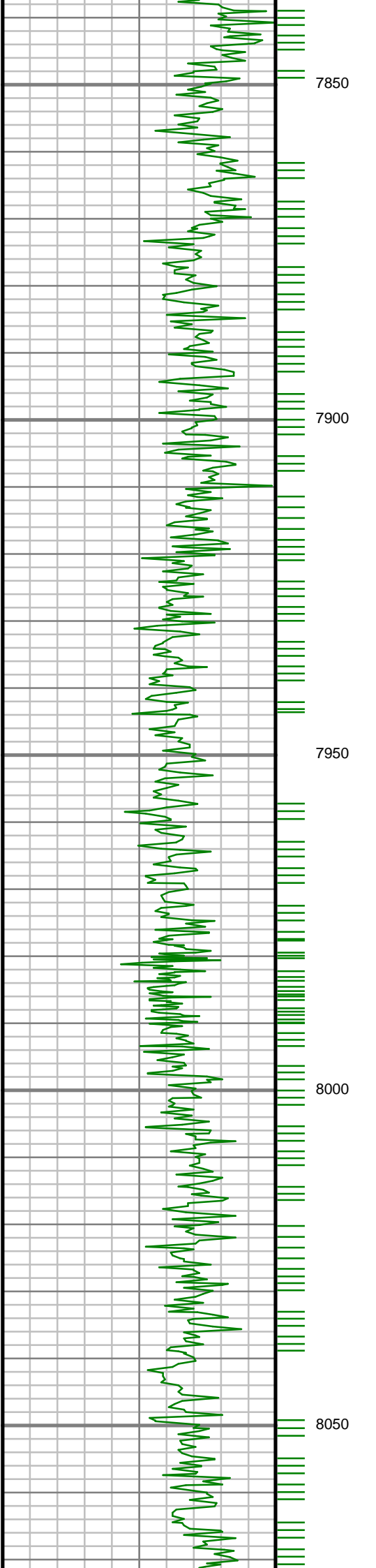
S: 78 MD: 7461.00 ft
Inc: 68.33 deg Az:
184.23 deg TVD:
6919.22 ft

S: 79 MD: 7555.00 ft
Inc: 76.50 deg Az:
181.54 deg TVD:
6947.60 ft



S: 80 MD: 7650.00 ft
Inc: 79.61 deg Az:
180.42 deg TVD:
6967.26 ft

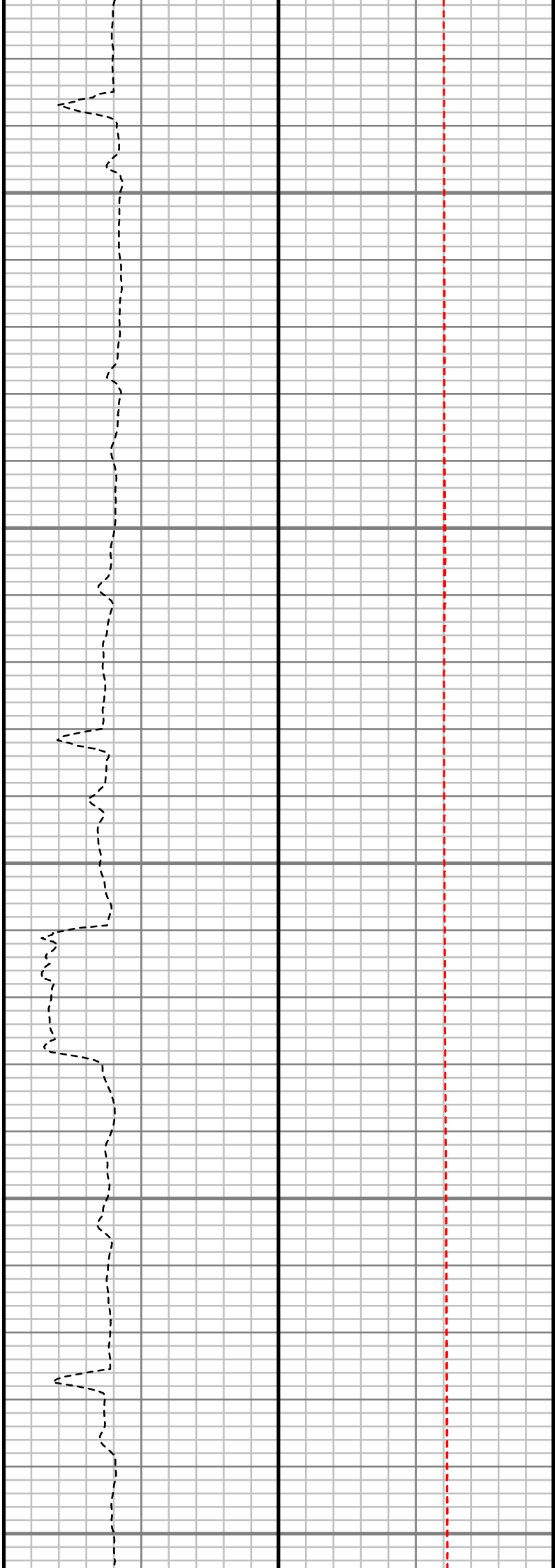
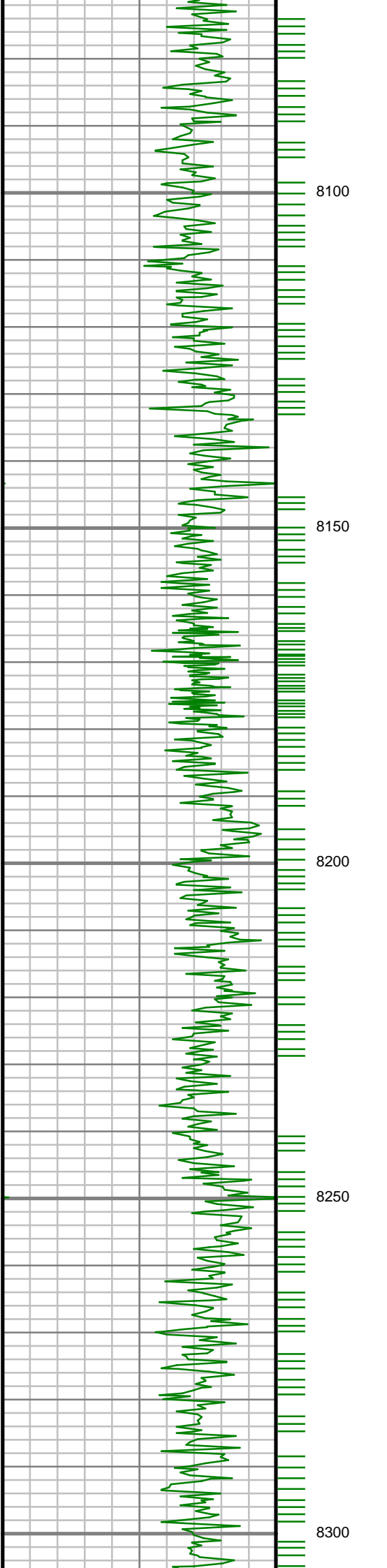
S: 81 MD: 7745.00 ft
Inc: 86.87 deg Az:
181.85 deg TVD:
6978.43 ft



S: 82 MD: 7840.00 ft
Inc: 88.19 deg Az:
181.18 deg TVD:
6982.53 ft

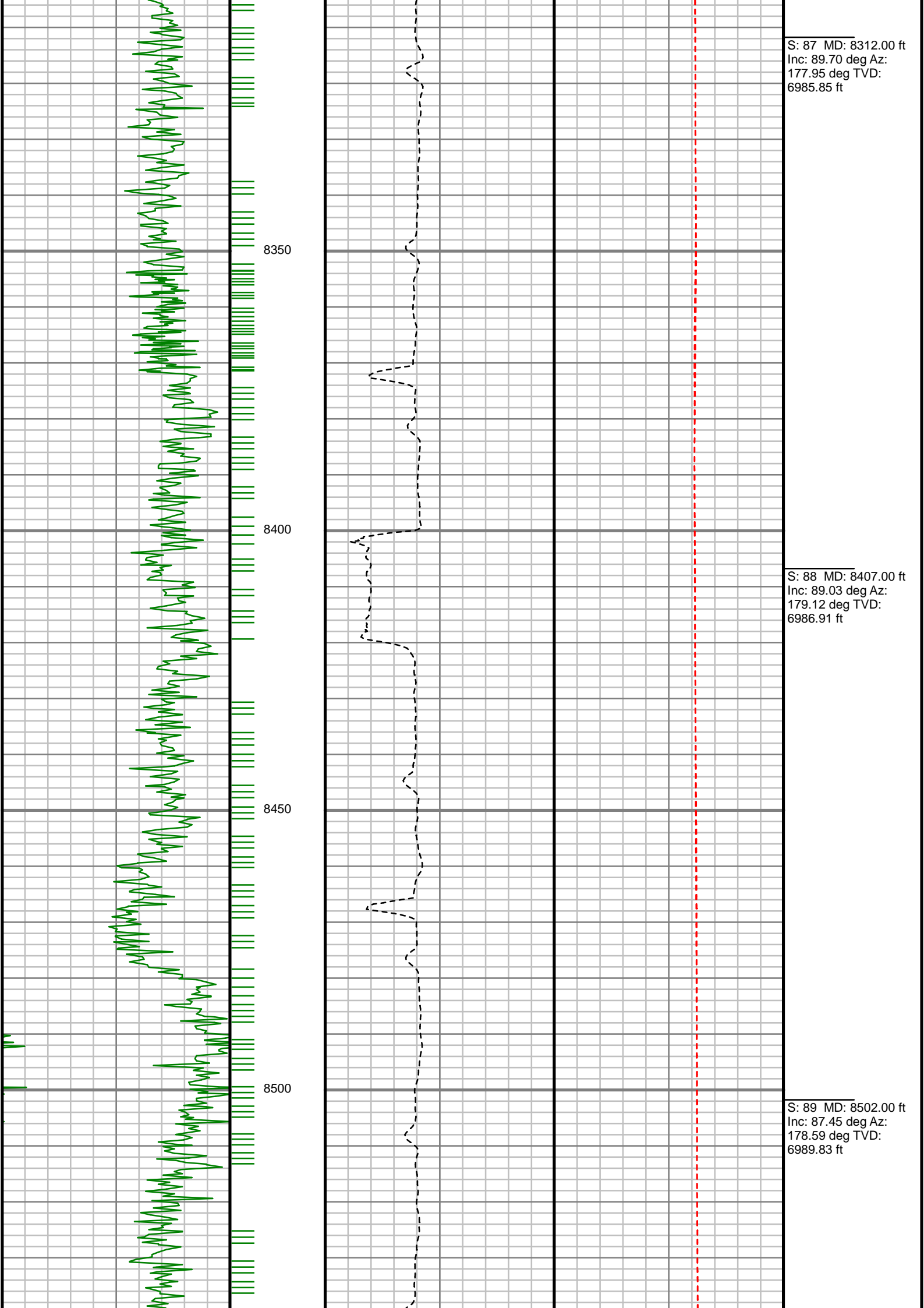
S: 83 MD: 7933.00 ft
Inc: 89.29 deg Az:
180.87 deg TVD:
6984.57 ft

S: 84 MD: 8028.00 ft
Inc: 90.10 deg Az:
180.98 deg TVD:
6985.07 ft



S: 85 MD: 8122.00 ft
Inc: 90.27 deg Az:
179.70 deg TVD:
6984.77 ft

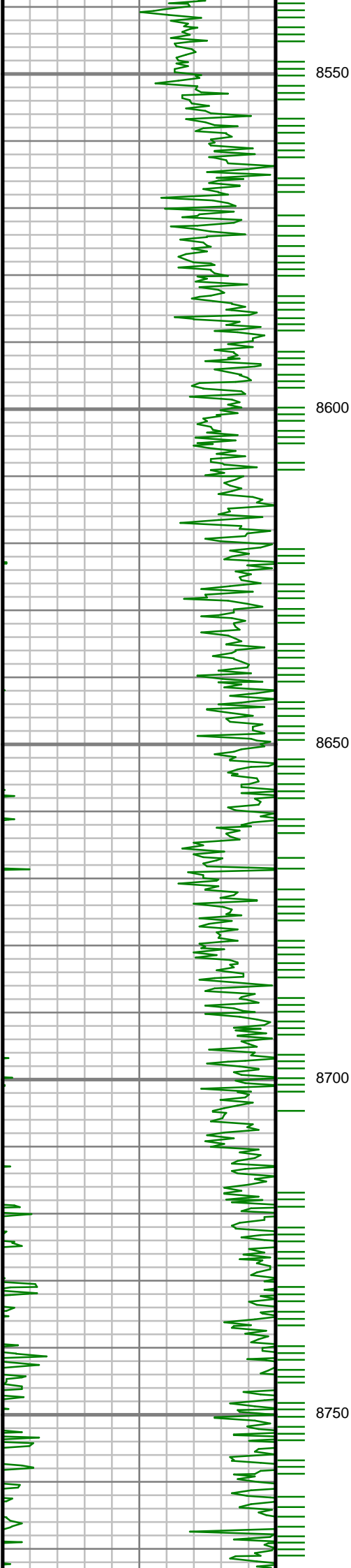
S: 86 MD: 8217.00 ft
Inc: 89.36 deg Az:
179.20 deg TVD:
6985.08 ft



S: 87 MD: 8312.00 ft
Inc: 89.70 deg Az:
177.95 deg TVD:
6985.85 ft

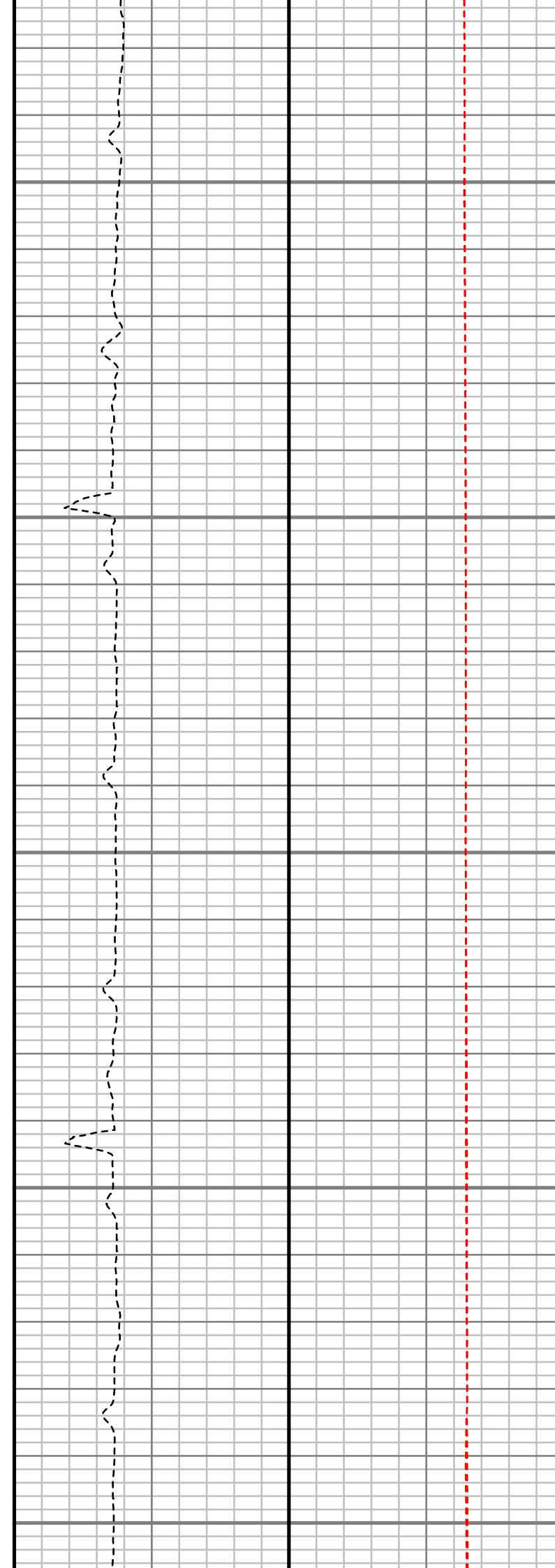
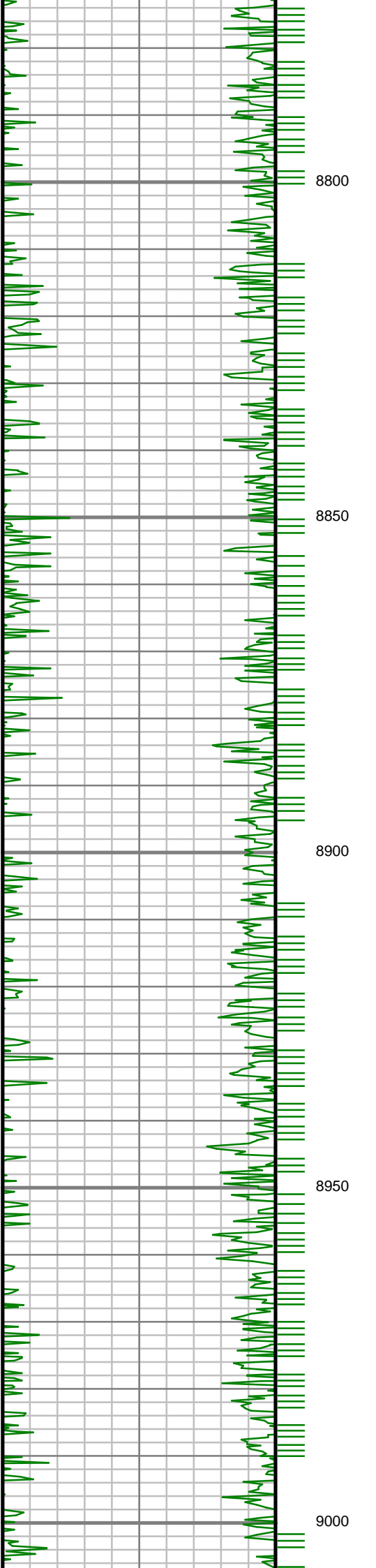
S: 88 MD: 8407.00 ft
Inc: 89.03 deg Az:
179.12 deg TVD:
6986.91 ft

S: 89 MD: 8502.00 ft
Inc: 87.45 deg Az:
178.59 deg TVD:
6989.83 ft



S: 90 MD: 8596.00 ft
Inc: 87.99 deg Az:
179.38 deg TVD:
6993.58 ft

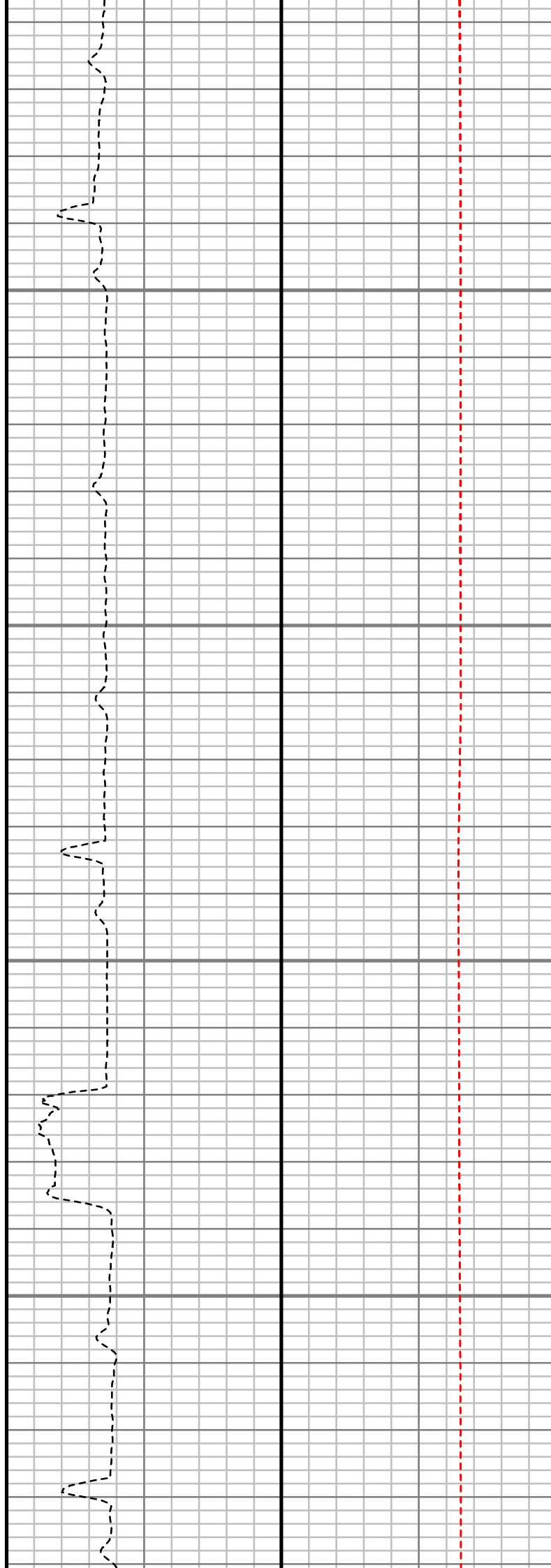
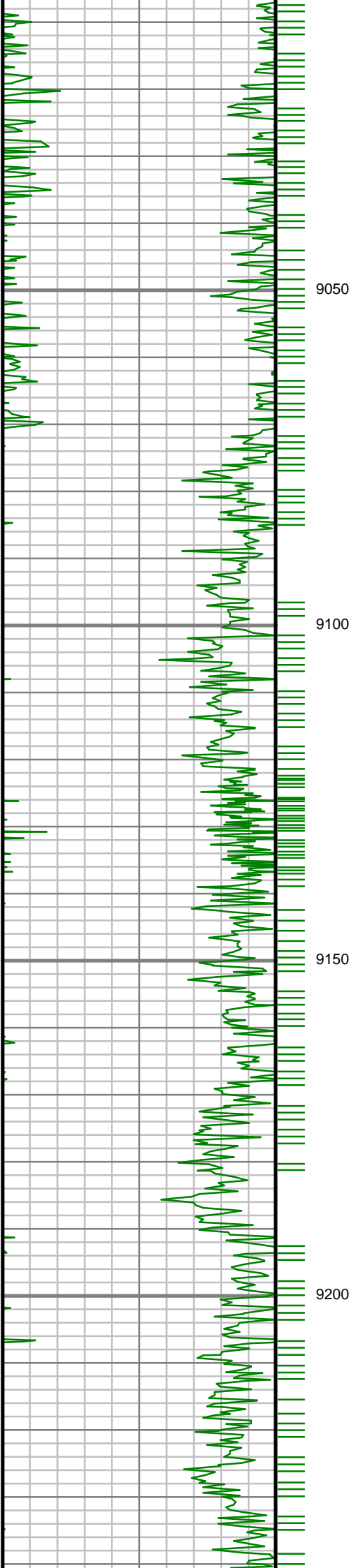
S: 91 MD: 8691.00 ft
Inc: 89.23 deg Az:
179.86 deg TVD:
6995.89 ft



S: 92 MD: 8786.00 ft
Inc: 90.07 deg Az:
179.66 deg TVD:
6996.47 ft

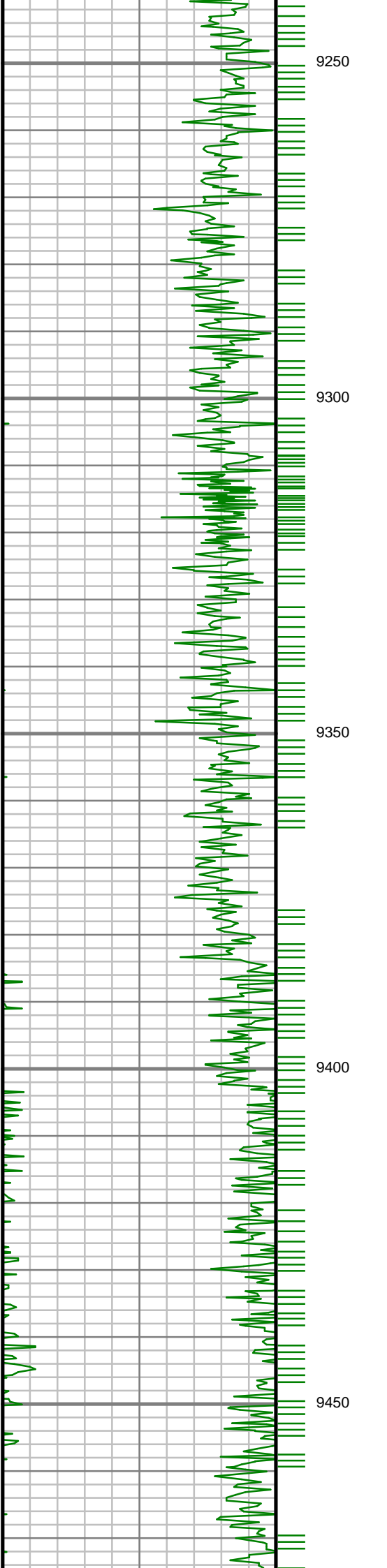
S: 93 MD: 8881.00 ft
Inc: 90.23 deg Az:
180.45 deg TVD:
6996.22 ft

S: 94 MD: 8976.00 ft
Inc: 90.40 deg Az:
180.02 deg TVD:
6995.69 ft



S: 95 MD: 9071.00 ft
Inc: 90.91 deg Az:
179.83 deg TVD:
6994.61 ft

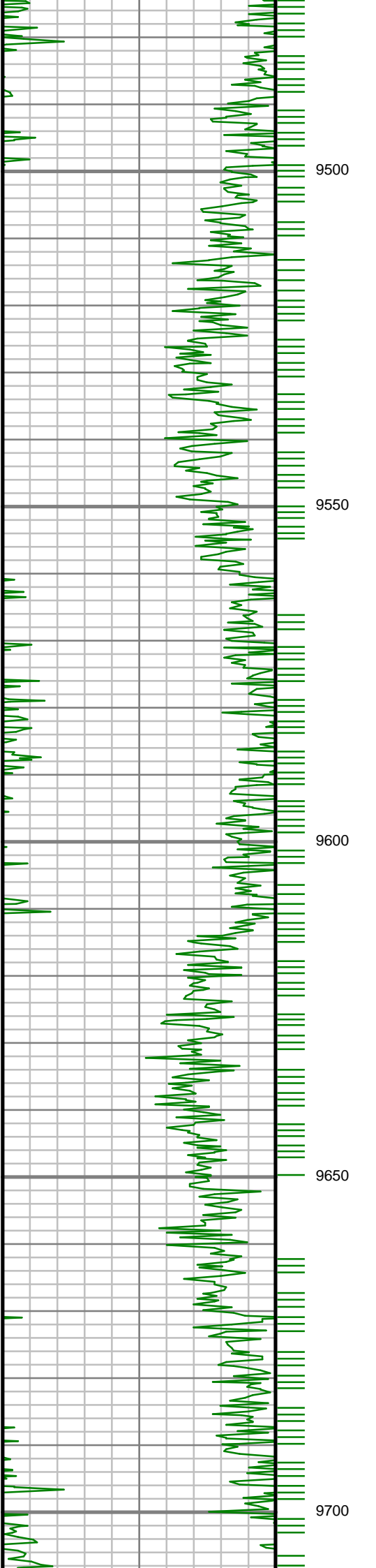
S: 96 MD: 9166.00 ft
Inc: 90.71 deg Az:
179.97 deg TVD:
6993.27 ft



S: 97 MD: 9261.00 ft
Inc: 89.19 deg Az:
180.37 deg TVD:
6993.35 ft

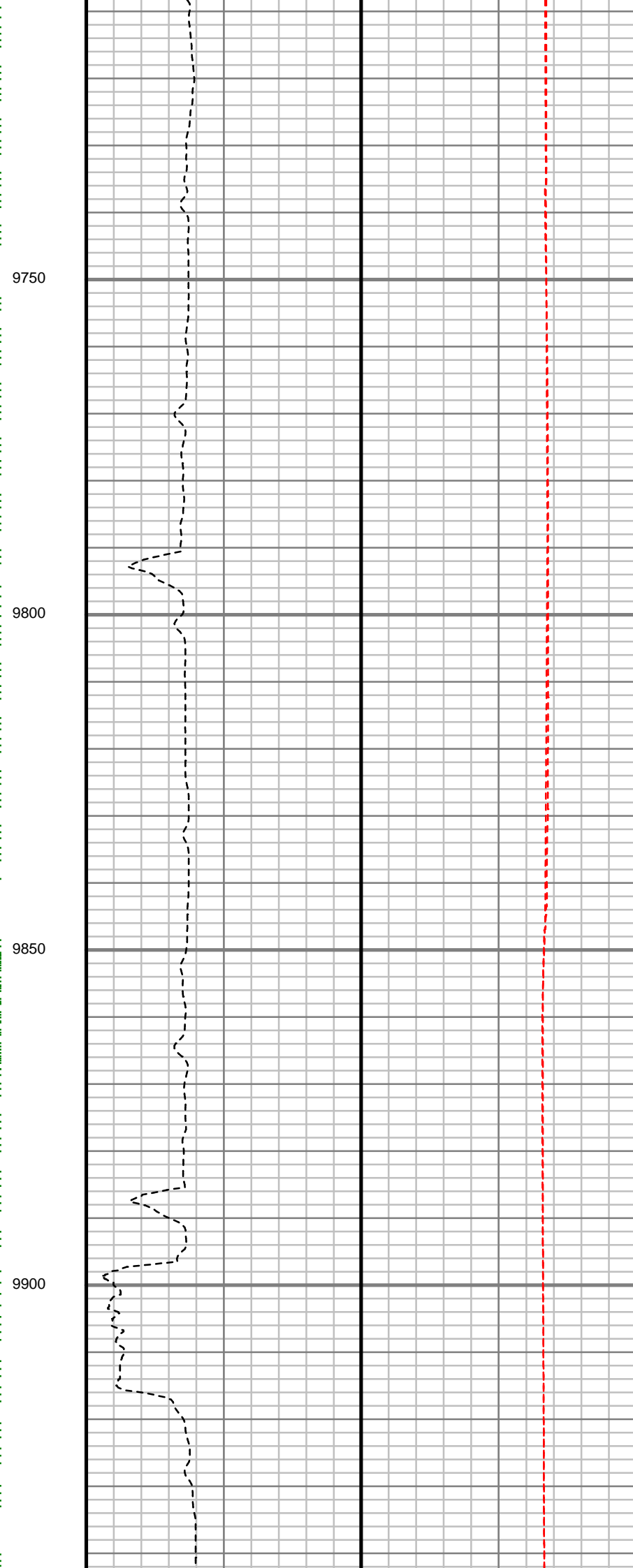
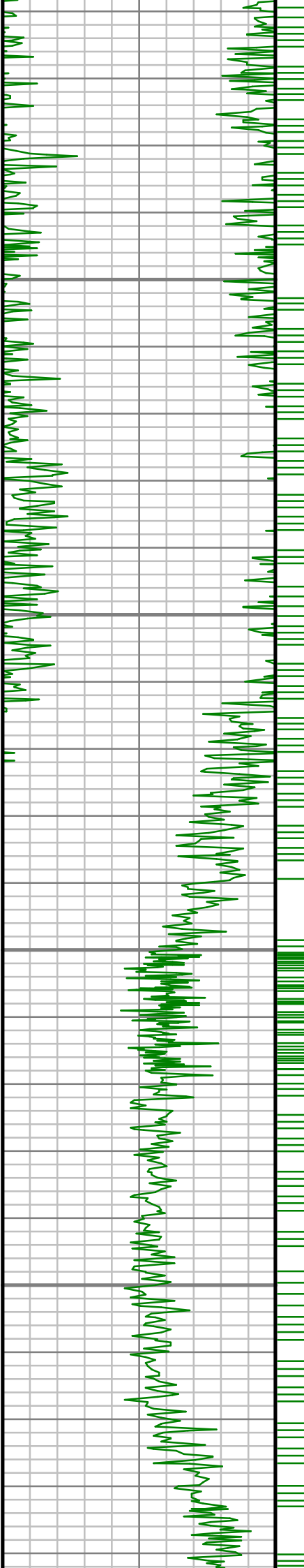
S: 98 MD: 9356.00 ft
Inc: 90.03 deg Az:
180.35 deg TVD:
6993.99 ft

S: 99 MD: 9451.00 ft
Inc: 88.62 deg Az:
179.80 deg TVD:
6995.10 ft



S: 100 MD: 9546.00 ft
Inc: 88.15 deg Az:
179.61 deg TVD:
6997.78 ft

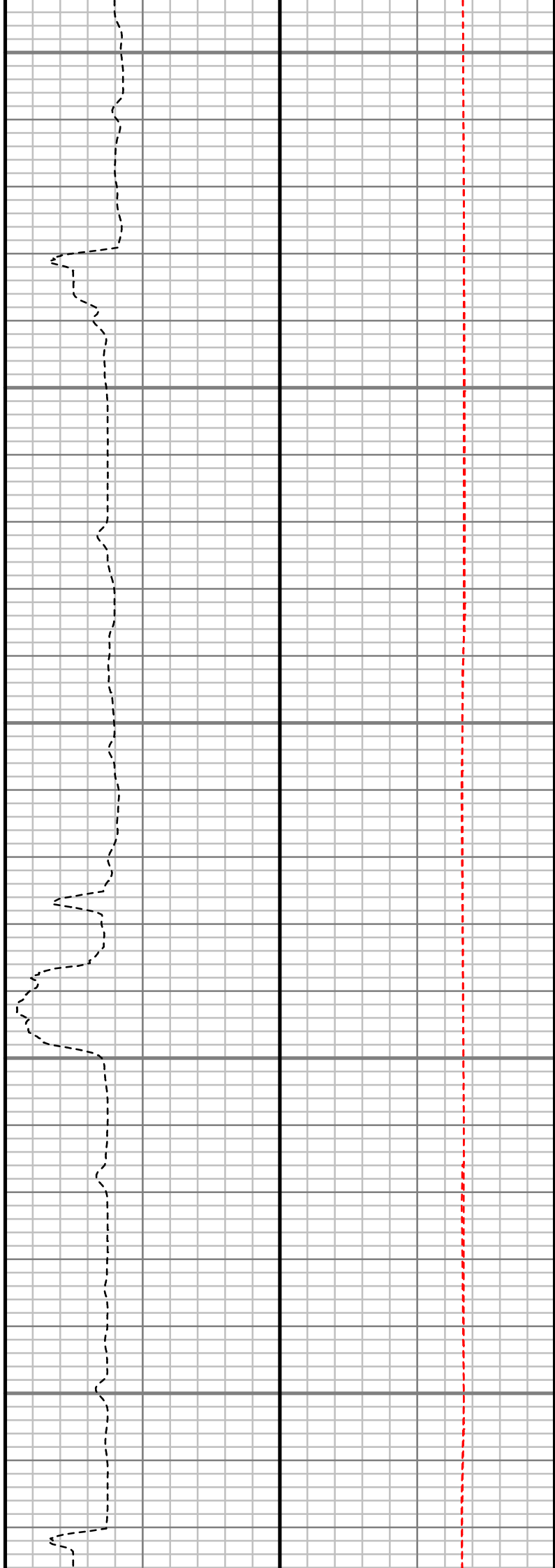
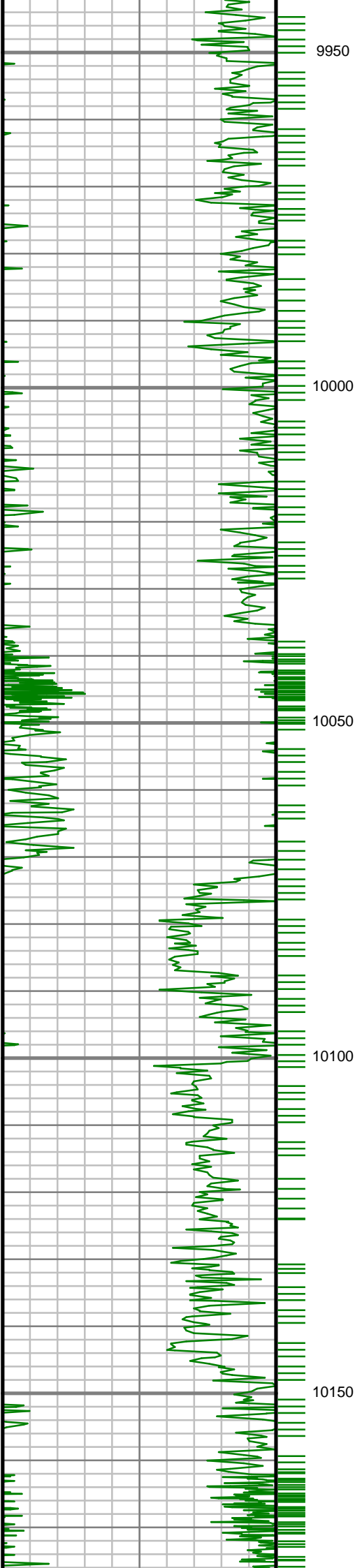
S: 101 MD: 9640.00 ft
Inc: 88.42 deg Az:
179.41 deg TVD:
7000.59 ft



S: 102 MD: 9735.00 ft
Inc: 88.52 deg Az:
179.90 deg TVD:
7003.13 ft

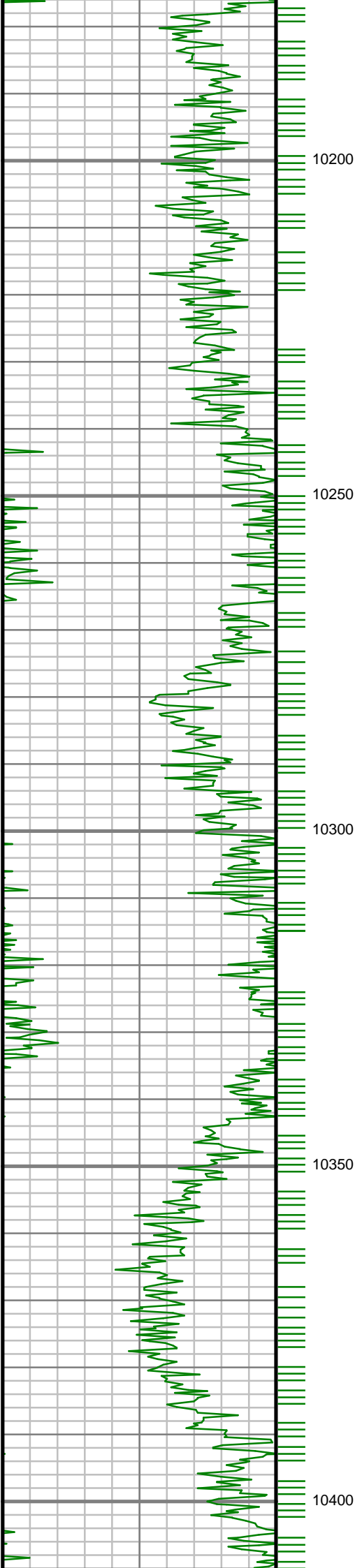
S: 103 MD: 9830.00 ft
Inc: 89.56 deg Az:
179.25 deg TVD:
7004.71 ft

S: 104 MD: 9924.00 ft
Inc: 88.25 deg Az:
178.72 deg TVD:
7006.50 ft



S: 105 MD: 10019.00 ft
Inc: 88.55 deg Az:
178.26 deg TVD:
7009.15 ft

S: 106 MD: 10115.00 ft
Inc: 88.89 deg Az:
179.47 deg TVD:
7011.29 ft



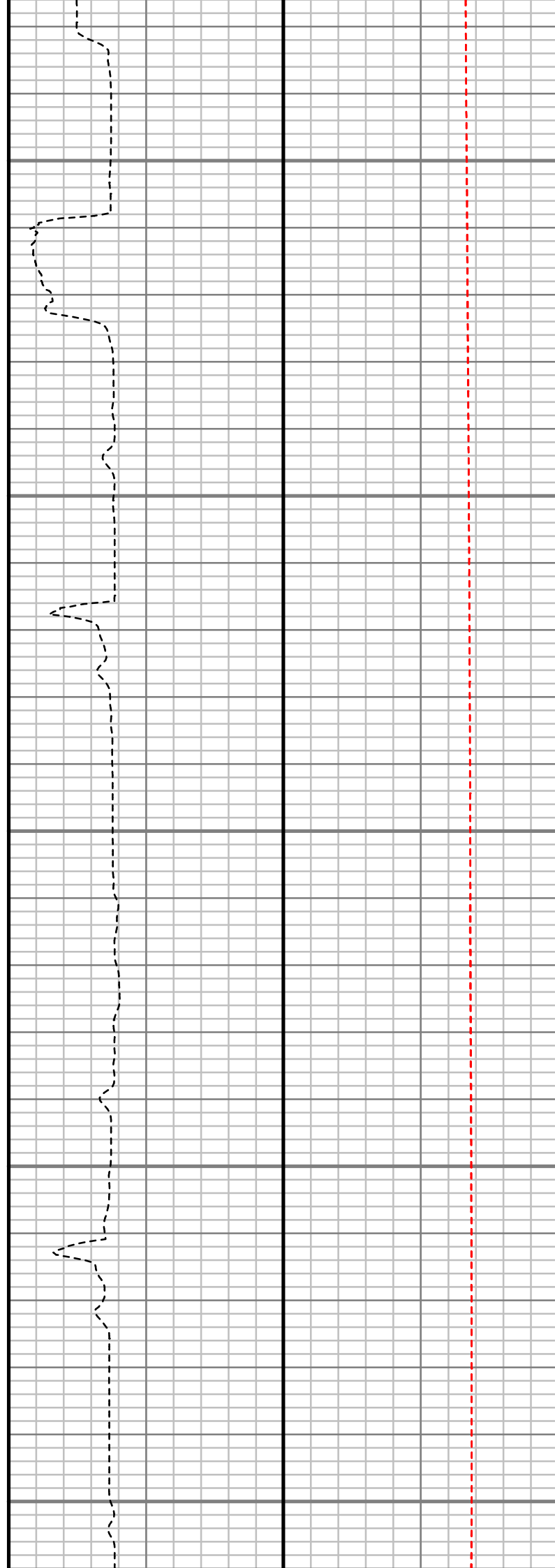
10200

10250

10300

10350

10400

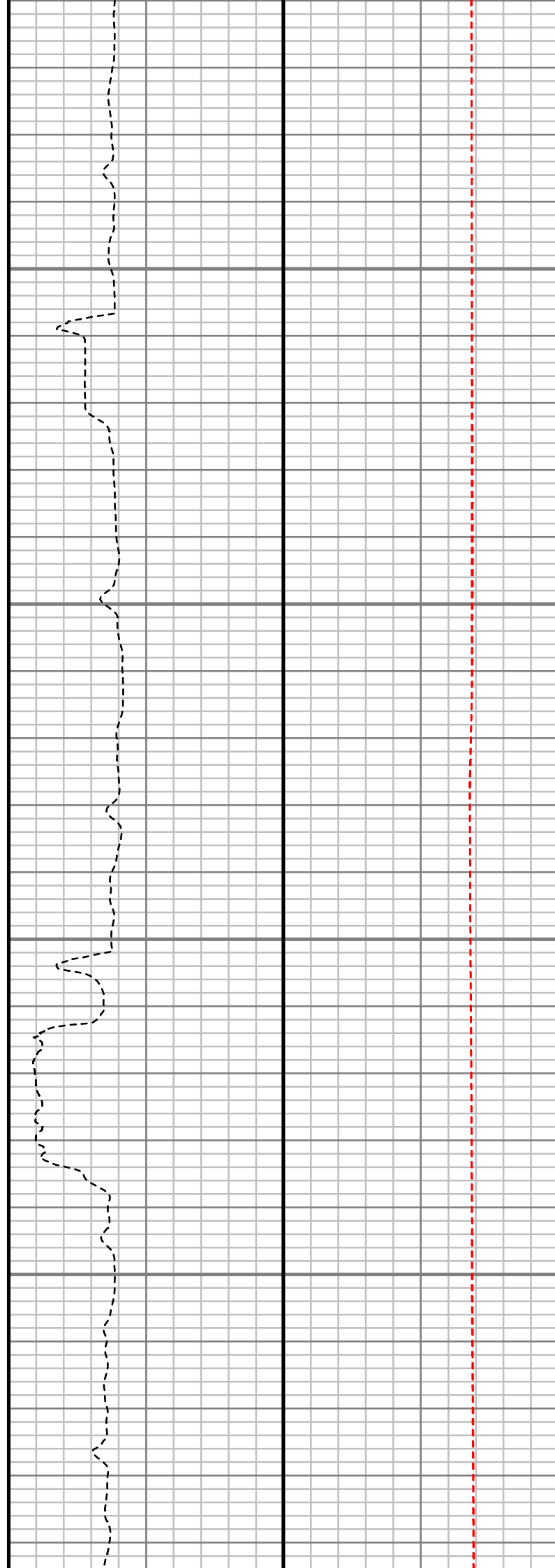
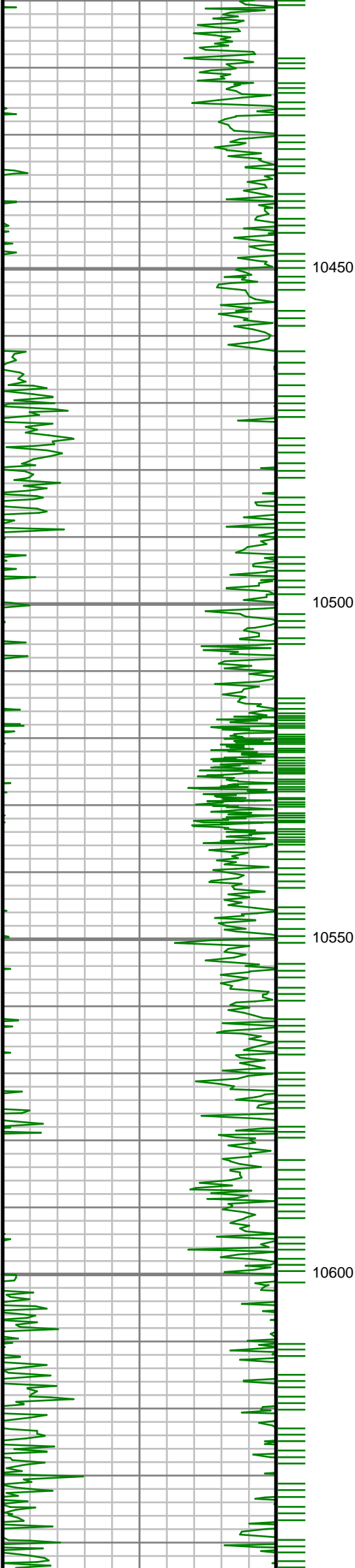


S: 107 MD: 10209.00 ft
Inc: 88.32 deg Az:
179.76 deg TVD:
7013.58 ft

S: 108 MD: 10304.00 ft
Inc: 87.62 deg Az:
179.13 deg TVD:
7016.95 ft

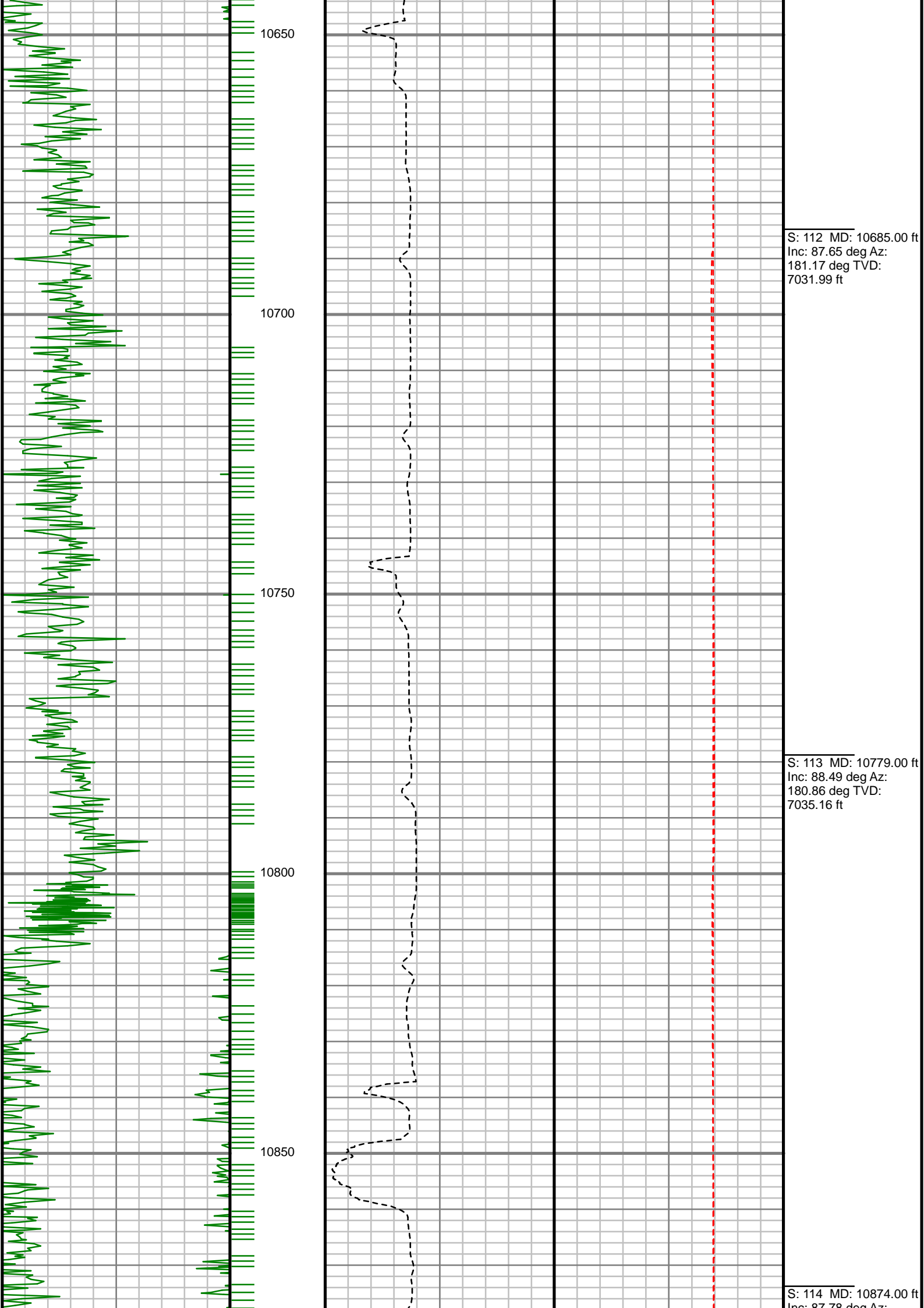
S: 109 MD: 10400.00 ft
Inc: 87.82 deg Az:
178.93 deg TVD:
7020.77 ft





S: 110 MD: 10495.00 ft
Inc: 88.39 deg Az:
178.42 deg TVD:
7023.92 ft

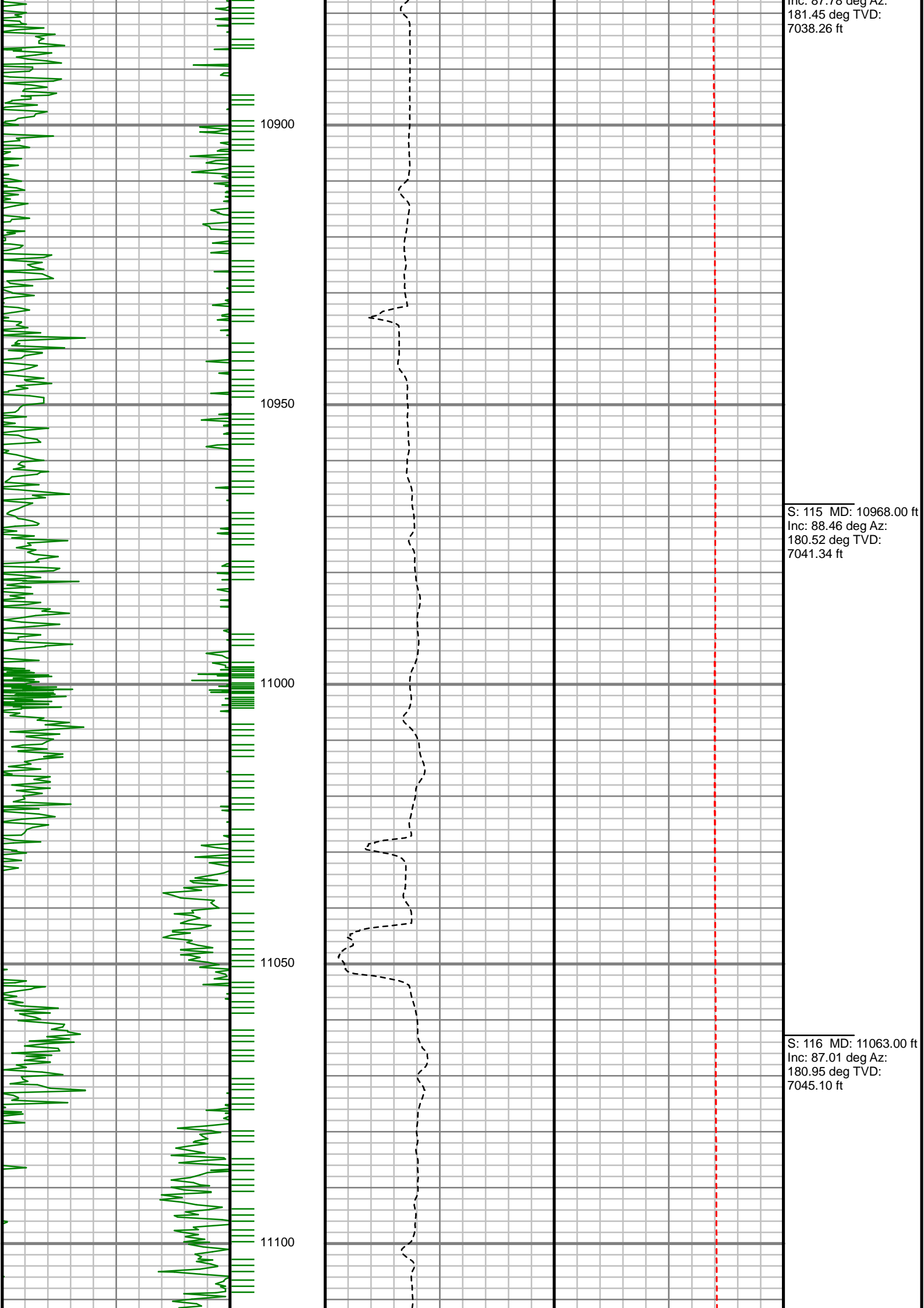
S: 111 MD: 10590.00 ft
Inc: 87.11 deg Az:
180.91 deg TVD:
7027.65 ft

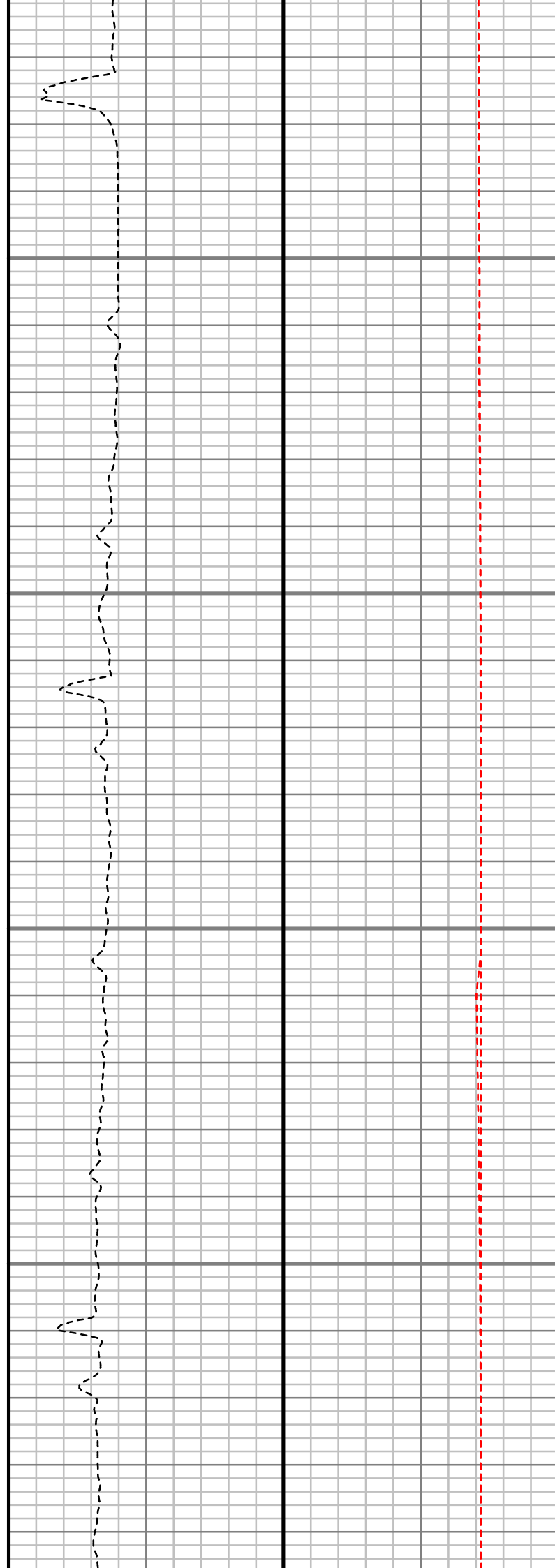
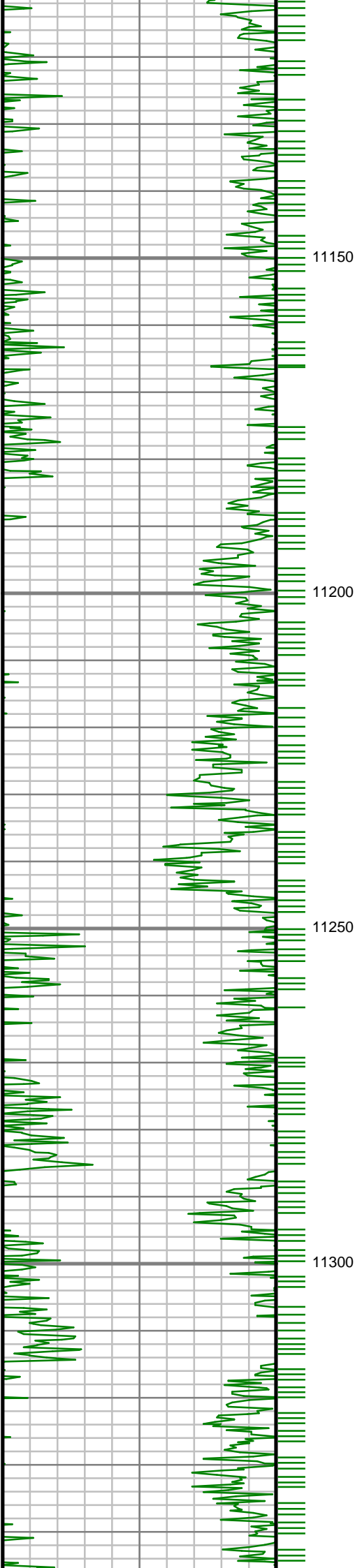


S: 112 MD: 10685.00 ft
Inc: 87.65 deg Az:
181.17 deg TVD:
7031.99 ft

S: 113 MD: 10779.00 ft
Inc: 88.49 deg Az:
180.86 deg TVD:
7035.16 ft

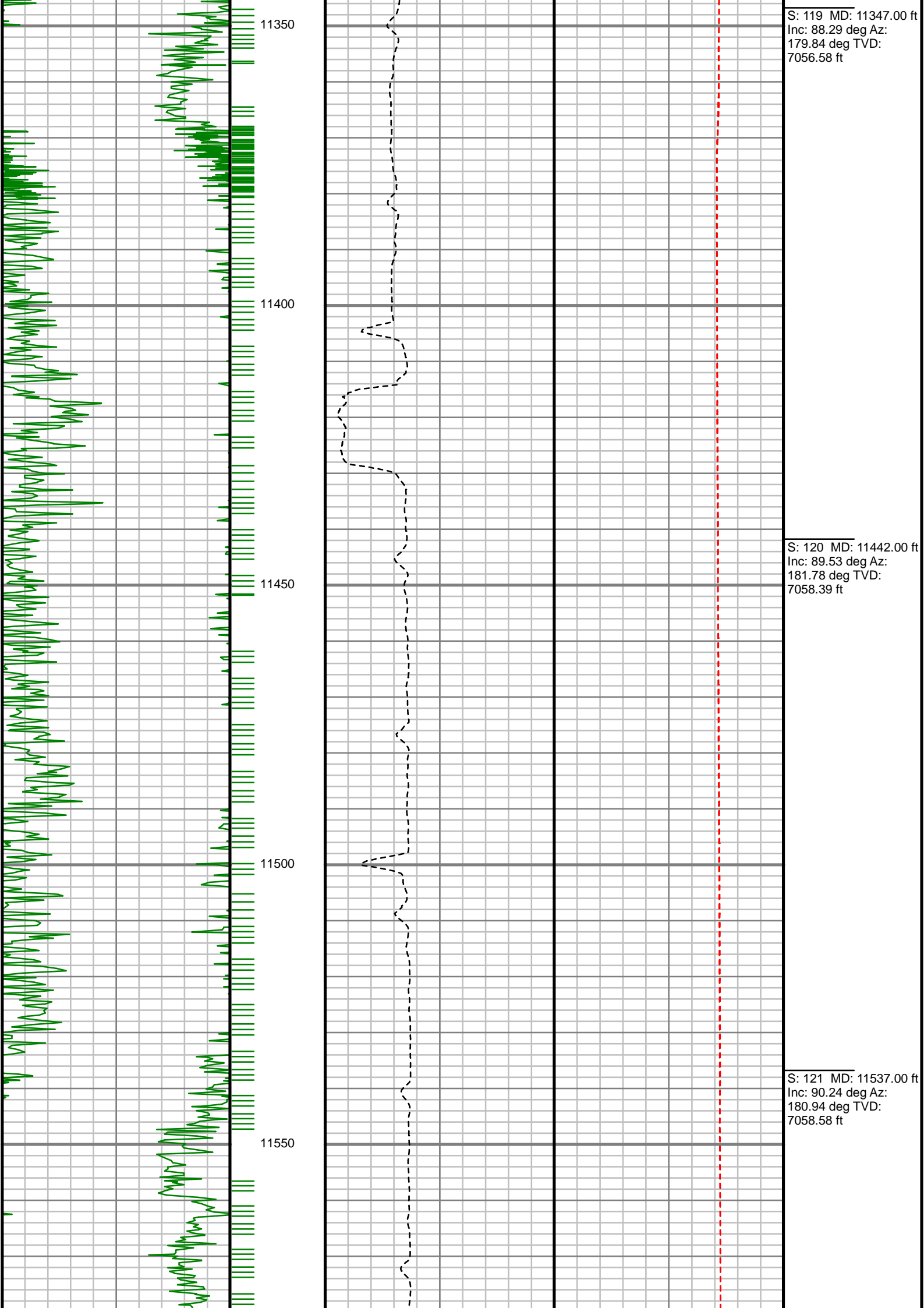
S: 114 MD: 10874.00 ft
Inc: 87.78 deg Az:

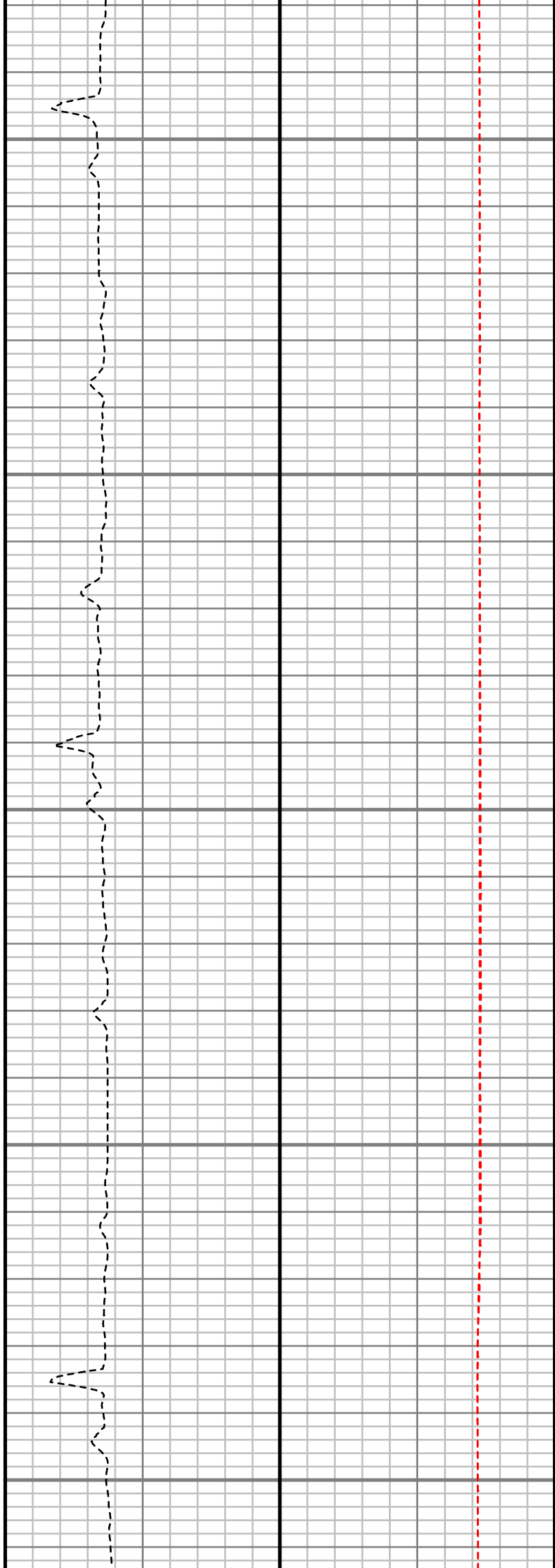
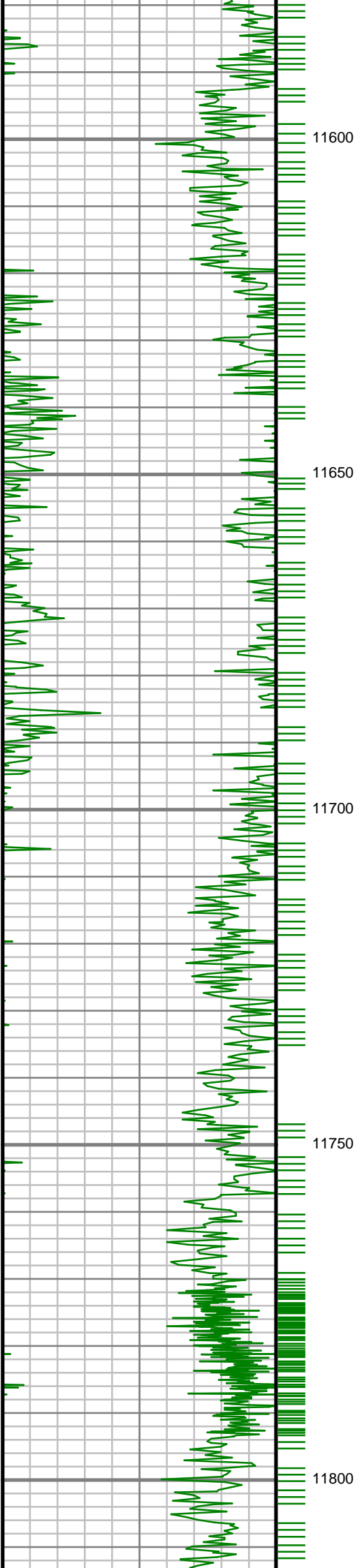




S: 117 MD: 11158.00 ft
Inc: 87.38 deg Az:
180.22 deg TVD:
7049.74 ft

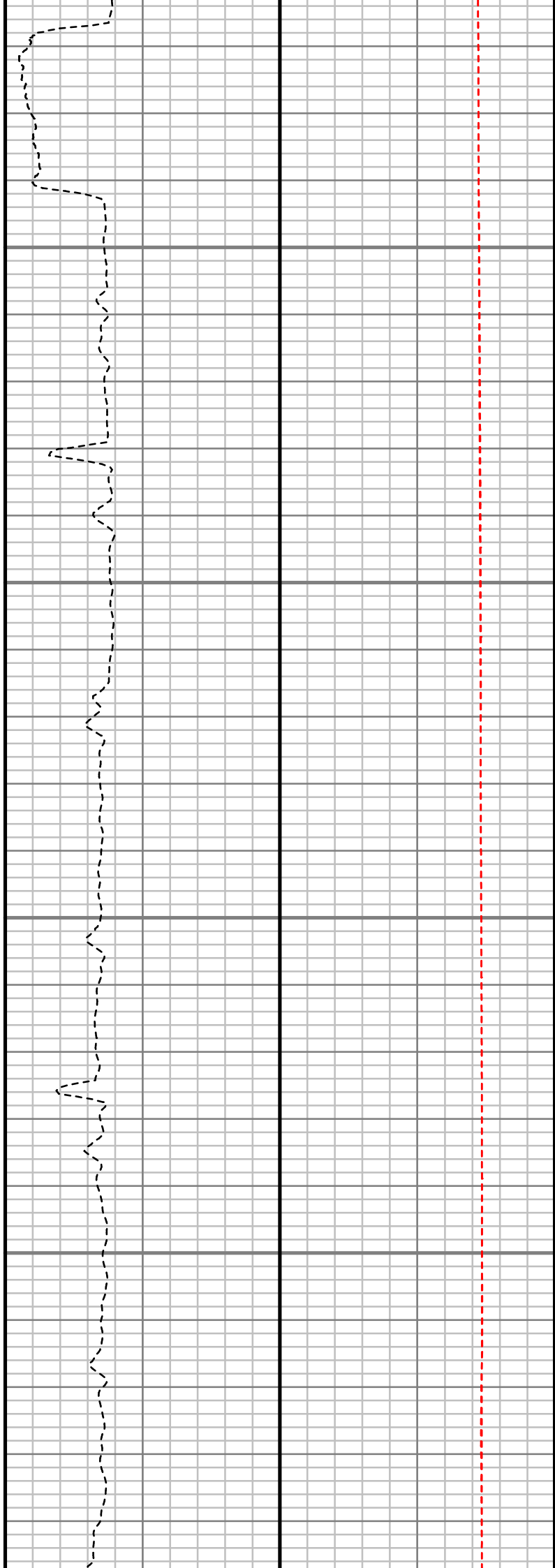
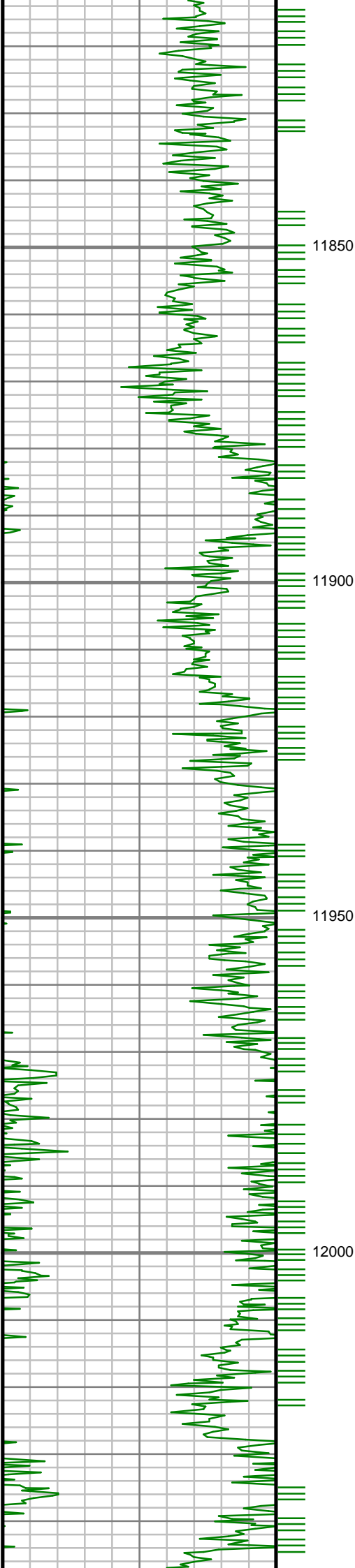
S: 118 MD: 11253.00 ft
Inc: 88.02 deg Az:
180.23 deg TVD:
7053.55 ft





S: 122 MD: 11632.00 ft
Inc: 90.91 deg Az:
181.49 deg TVD:
7057.64 ft

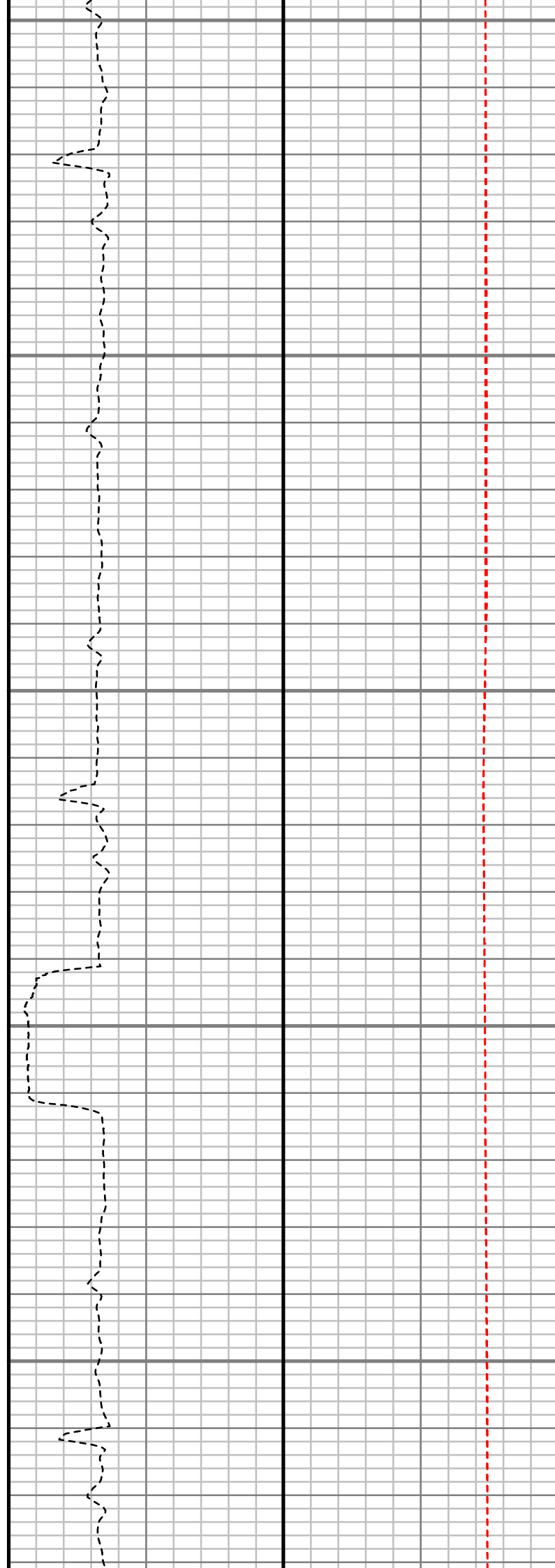
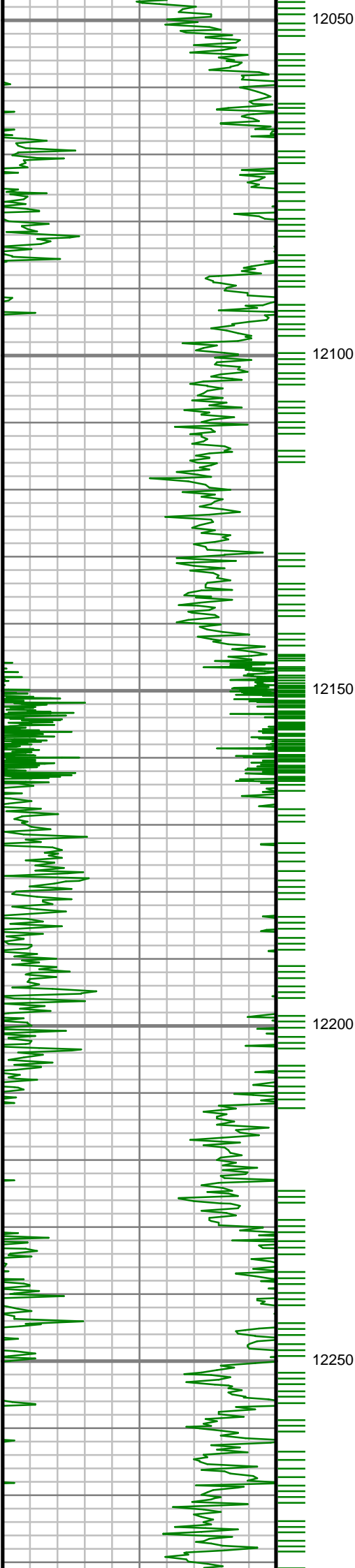
S: 123 MD: 11727.00 ft
Inc: 92.39 deg Az:
181.15 deg TVD:
7054.91 ft



S: 124 MD: 11822.00 ft
Inc: 91.51 deg Az:
180.80 deg TVD:
7051.67 ft

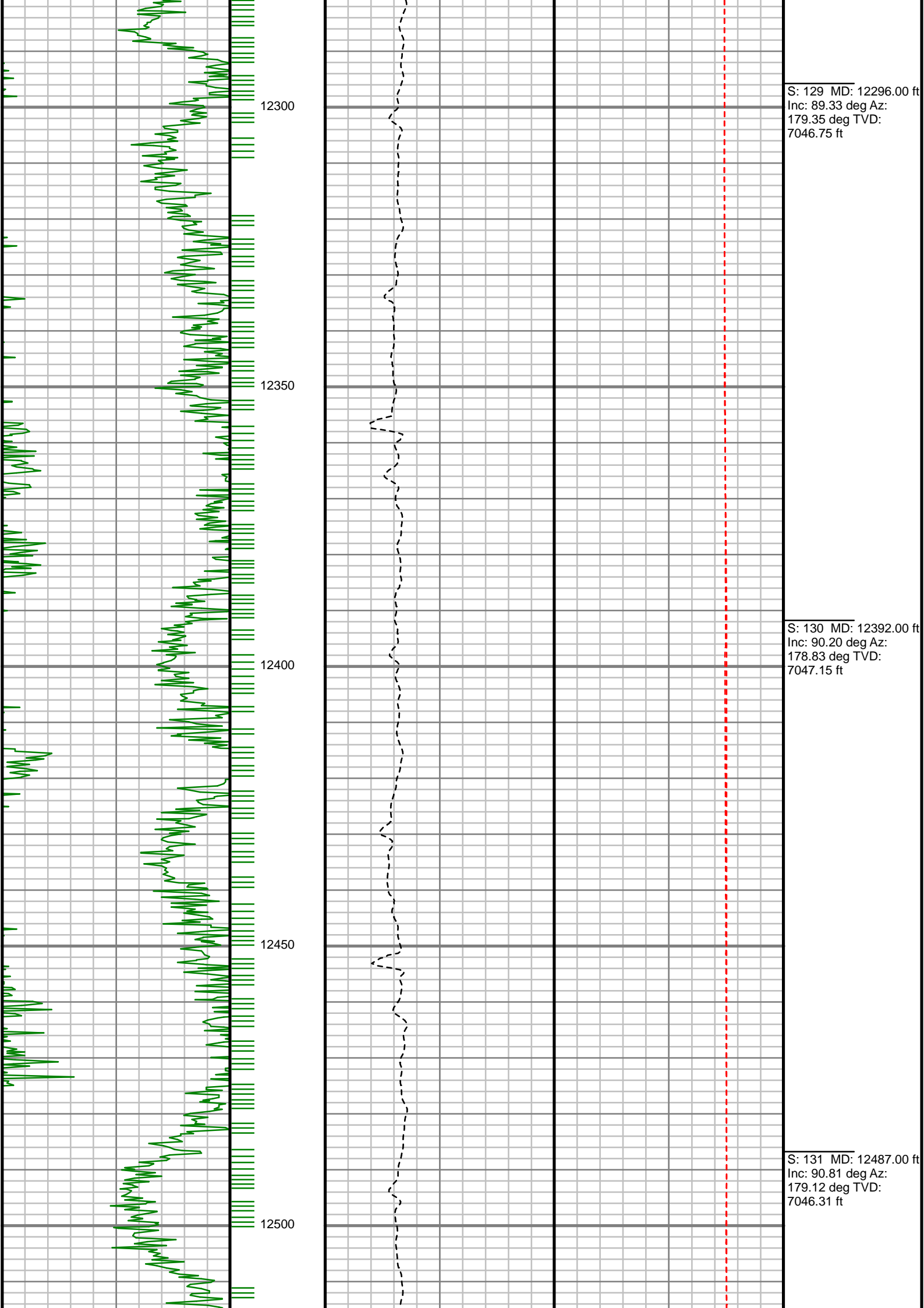
S: 125 MD: 11917.00 ft
Inc: 89.90 deg Az:
179.79 deg TVD:
7050.51 ft

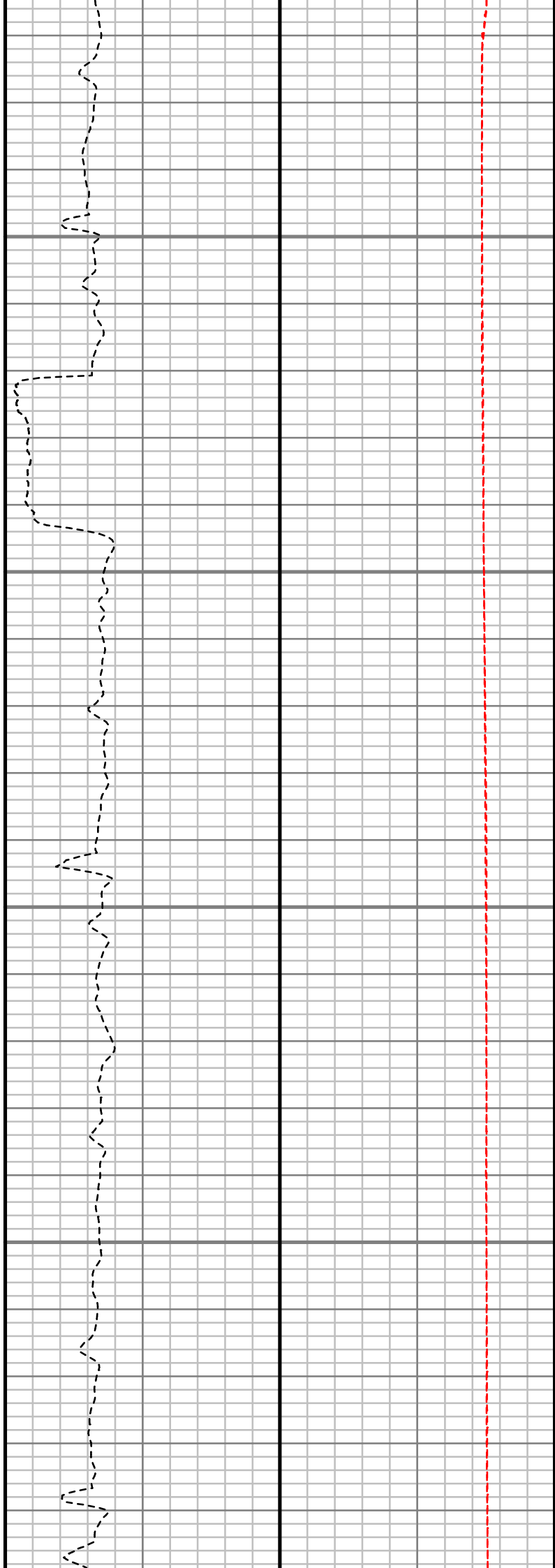
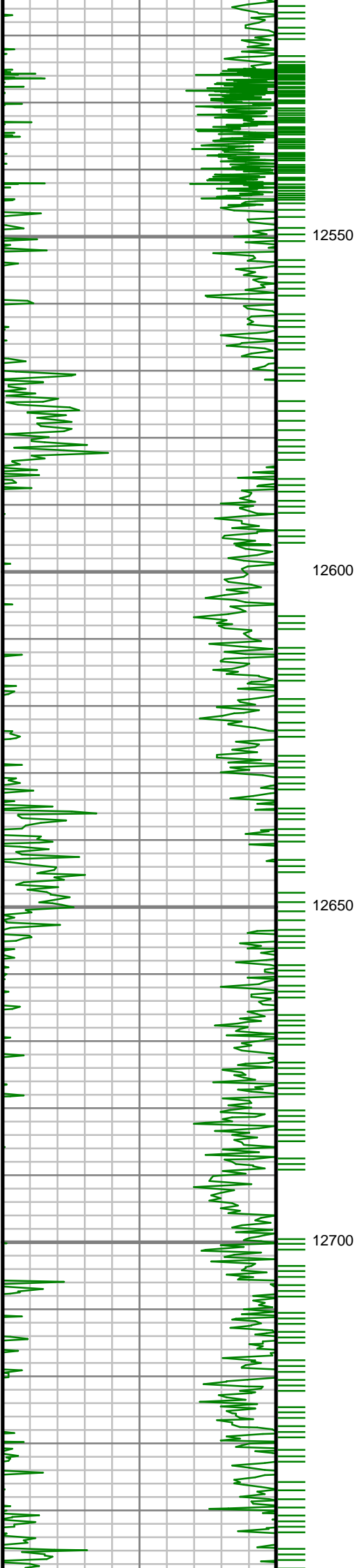
S: 126 MD: 12011.00 ft
Inc: 90.81 deg Az:
179.90 deg TVD:
7049.93 ft



S: 127 MD: 12106.00 ft
Inc: 91.81 deg Az:
179.40 deg TVD:
7047.76 ft

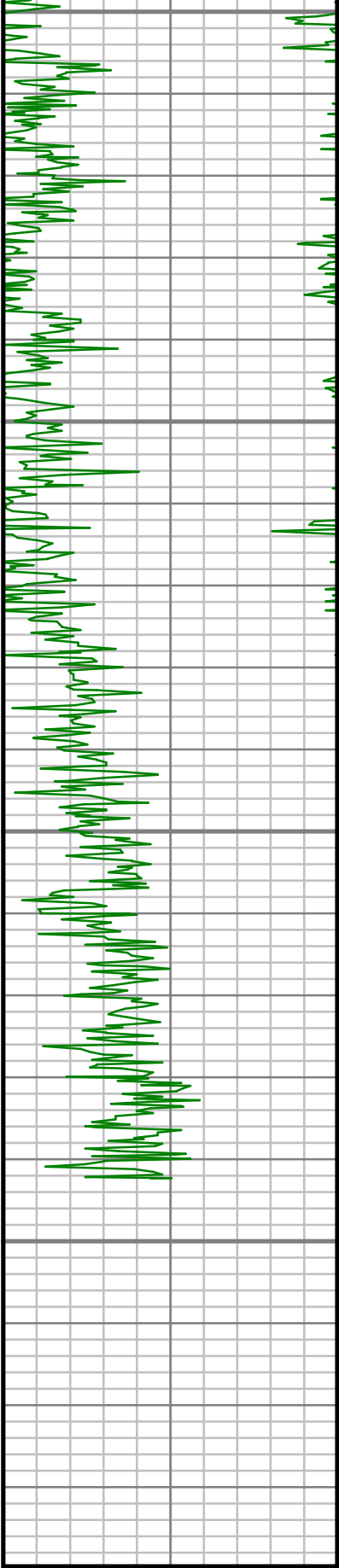
S: 128 MD: 12201.00 ft
Inc: 90.03 deg Az:
179.34 deg TVD:
7046.22 ft





S: 132 MD: 12582.00 ft
Inc: 89.36 deg Az:
178.90 deg TVD:
7046.18 ft

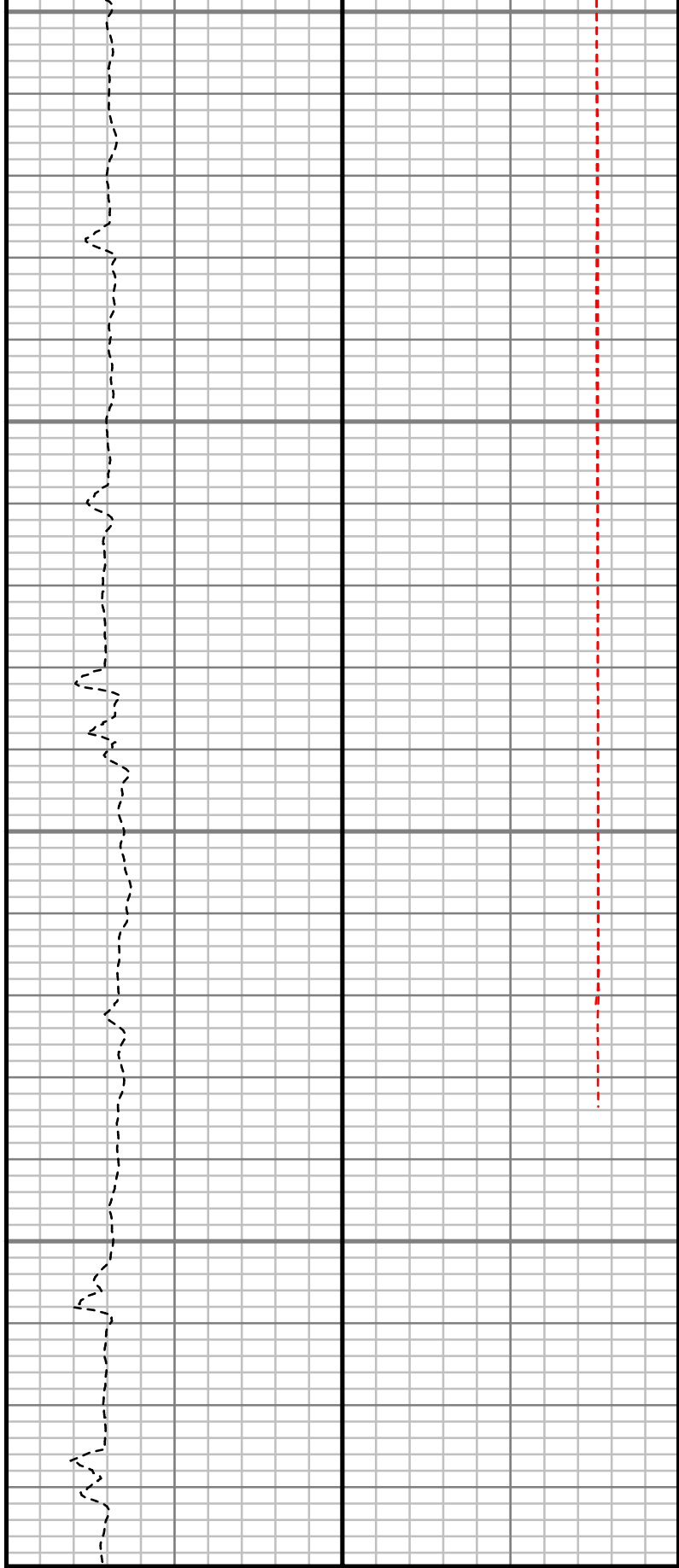
S: 133 MD: 12677.00 ft
Inc: 89.23 deg Az:
179.00 deg TVD:
7047.35 ft



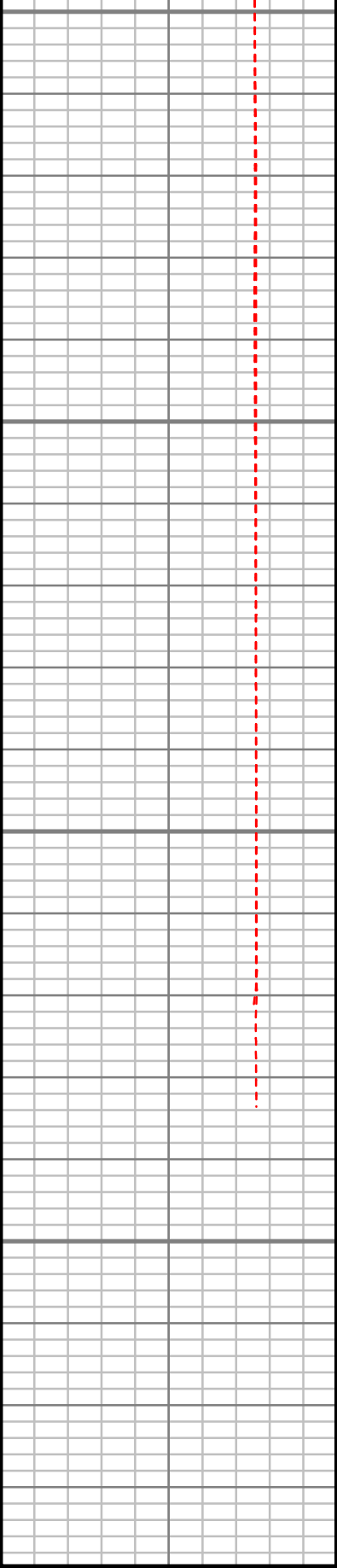
12750
12800
12850
12900

MEASURED DEPTH
1:240 (ft)

Gamma Ray (GR)		
150	Unit = aapi	300



Rate of Penetration (ROP)		
0	Unit = ft/hr	800



Tool Temperature (T-TEMP)		
0	Unit = °F	300
Tool Temperature (T-TEMP)		
0	Unit = °F	300

S: 134 MD: 12771.00 ft
Inc: 90.07 deg Az:
178.70 deg TVD:
7047.92 ft

S: 135 MD: 12866.00 ft
Inc: 90.91 deg Az:
178.80 deg TVD:
7047.12 ft

Comments



Well Location	POWERS 3-22 PAD
Well Name	POWERS 34G-22HZ
Survey Date	10/13/2015
Latitude	40.1293330°N
Longitude	104.6540190°W
Btotal	52577, 52623 nT
Dip	66.80 deg
Magnetic Declination	8.20, 8.23 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (20.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 180.00Azim (deg)
Operator(s)	H. ORAHOOD, S. WAXLER

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	Invalid
13.00	0.00	0.00	13.00	0.00	0.00	0.00	0.00	13.00
128.00	0.81	355.67	128.00	-0.81	0.81	-0.06	0.70	115.00
218.00	0.79	316.85	217.99	-1.90	1.90	-0.53	0.59	90.00
309.00	1.50	312.27	308.97	-3.16	3.16	-1.84	0.79	91.00
386.00	2.65	308.83	385.92	-4.95	4.95	-3.98	1.50	77.00
476.00	3.44	306.61	475.79	-7.87	7.87	-7.76	0.89	90.00
611.00	5.21	311.13	610.40	-14.31	14.31	-15.63	1.33	135.00
701.00	5.68	301.74	700.00	-19.34	19.34	-22.50	1.12	90.00
837.00	8.03	296.60	835.02	-27.14	27.14	-36.72	1.78	136.00
927.00	8.67	295.21	924.06	-32.84	32.84	-48.48	0.75	90.00
1017.00	10.36	295.94	1012.82	-39.27	39.27	-61.89	1.88	90.00
1152.00	12.30	302.54	1145.19	-52.32	52.32	-84.93	1.73	135.00
1242.00	12.13	309.42	1233.16	-63.48	63.48	-100.32	1.63	90.00
1377.00	14.33	313.90	1364.57	-84.07	84.07	-123.32	1.80	135.00
1467.00	15.31	315.73	1451.57	-100.31	100.31	-139.64	1.21	90.00
1557.00	16.71	317.05	1538.08	-118.29	118.29	-156.75	1.61	90.00
1647.00	17.79	316.10	1624.03	-137.66	137.66	-175.10	1.24	90.00
1737.00	18.89	314.23	1709.46	-157.73	157.73	-195.07	1.39	90.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
1828.00	19.98	315.30	1795.27	-179.06	179.06	-216.56	1.26	91.00
1957.00	23.63	318.04	1915.03	-213.96	213.96	-249.36	2.93	129.00
2052.00	27.22	318.22	2000.82	-244.33	244.33	-276.57	3.78	95.00
2148.00	27.25	316.31	2086.18	-276.59	276.59	-306.38	0.91	96.00
2242.00	25.83	314.50	2170.27	-306.50	306.50	-335.85	1.74	94.00
2337.00	26.72	313.25	2255.46	-335.64	335.64	-366.17	1.10	95.00
2431.00	26.04	310.18	2339.67	-363.43	363.43	-397.32	1.62	94.00
2526.00	25.25	309.26	2425.32	-389.70	389.70	-428.94	0.93	95.00
2621.00	26.50	307.83	2510.79	-415.52	415.52	-461.37	1.48	95.00
2717.00	25.71	304.80	2597.00	-440.55	440.55	-495.39	1.62	96.00
2811.00	24.77	307.12	2682.03	-464.07	464.07	-527.84	1.46	94.00
2906.00	25.69	310.70	2767.97	-489.51	489.51	-559.31	1.87	95.00
3002.00	28.26	317.24	2853.54	-519.77	519.77	-590.53	4.09	96.00
3097.00	28.11	317.85	2937.28	-552.88	552.88	-620.81	0.34	95.00
3192.00	27.01	316.34	3021.50	-585.08	585.08	-650.73	1.36	95.00
3287.00	26.20	315.55	3106.44	-615.66	615.66	-680.31	0.94	95.00
3382.00	25.13	314.92	3192.07	-644.87	644.87	-709.28	1.16	95.00
3478.00	24.84	312.81	3279.09	-672.97	672.97	-738.50	0.98	96.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
3573.00	25.07	315.62	3365.22	-700.91	700.91	-767.22	1.27	95.00
3668.00	24.39	317.19	3451.51	-729.68	729.68	-794.63	0.99	95.00
3763.00	23.85	319.05	3538.22	-758.58	758.58	-820.54	0.98	95.00
3858.00	24.40	321.42	3624.92	-788.42	788.42	-845.37	1.17	95.00
3953.00	24.55	322.44	3711.39	-819.40	819.40	-869.64	0.47	95.00
4049.00	24.98	322.24	3798.56	-851.24	851.24	-894.21	0.46	96.00
4144.00	26.15	323.16	3884.26	-883.85	883.85	-919.04	1.30	95.00
4239.00	26.43	320.60	3969.43	-916.94	916.94	-945.02	1.23	95.00
4334.00	27.68	318.36	4054.04	-949.77	949.77	-973.10	1.69	95.00
4429.00	28.63	313.18	4137.81	-981.84	981.84	-1004.36	2.76	95.00
4524.00	26.78	312.32	4221.92	-1011.82	1011.82	-1036.78	1.99	95.00
4619.00	24.80	312.03	4307.45	-1039.57	1039.57	-1067.41	2.09	95.00
4714.00	25.24	312.72	4393.54	-1066.65	1066.65	-1097.09	0.56	95.00
4809.00	25.74	311.31	4479.29	-1094.01	1094.01	-1127.46	0.83	95.00
4904.00	24.61	311.28	4565.27	-1120.68	1120.68	-1157.82	1.19	95.00
4999.00	23.62	311.81	4651.97	-1146.42	1146.42	-1186.88	1.06	95.00
5094.00	22.37	312.65	4739.42	-1171.35	1171.35	-1214.36	1.37	95.00
5190.00	19.63	313.54	4829.04	-1194.84	1194.84	-1239.49	2.88	96.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
5284.00	18.08	308.36	4918.00	-1214.77	1214.77	-1262.37	2.43	94.00
5379.00	15.76	310.04	5008.88	-1232.21	1232.21	-1283.81	2.50	95.00
5475.00	15.60	310.29	5101.31	-1248.95	1248.95	-1303.64	0.17	96.00
5569.00	14.22	310.97	5192.14	-1264.69	1264.69	-1322.00	1.49	94.00
5663.00	11.18	311.68	5283.83	-1278.33	1278.33	-1337.53	3.24	94.00
5759.00	9.27	313.52	5378.30	-1289.84	1289.84	-1350.09	2.02	96.00
5854.00	10.70	310.96	5471.86	-1300.90	1300.90	-1362.30	1.58	95.00
5949.00	9.25	307.01	5565.43	-1311.27	1311.27	-1375.06	1.69	95.00
6044.00	7.06	305.25	5659.46	-1319.24	1319.24	-1385.92	2.32	95.00
6138.00	5.28	304.50	5752.91	-1325.03	1325.03	-1394.21	1.89	94.00
6232.00	3.81	305.94	5846.61	-1329.31	1329.31	-1400.30	1.58	94.00
6325.00	2.77	307.90	5939.46	-1332.50	1332.50	-1404.57	1.12	93.00
6421.00	1.75	311.67	6035.38	-1334.91	1334.91	-1407.50	1.07	96.00
6515.00	1.26	318.00	6129.35	-1336.63	1336.63	-1409.27	0.55	94.00
6609.00	0.84	316.93	6223.33	-1337.91	1337.91	-1410.44	0.45	94.00
6704.00	1.95	225.04	6318.31	-1337.28	1337.28	-1412.05	2.26	95.00
6799.00	11.21	199.12	6412.59	-1327.38	1327.38	-1416.23	10.00	95.00
6893.00	16.81	191.13	6503.77	-1305.39	1305.39	-1421.85	6.29	94.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
6988.00	23.03	192.79	6593.04	-1273.76	1273.76	-1428.62	6.57	95.00
7082.00	30.24	191.78	6677.01	-1232.60	1232.60	-1437.54	7.69	94.00
7177.00	37.27	187.46	6755.96	-1180.59	1180.59	-1446.17	7.81	95.00
7271.00	50.68	182.97	6823.47	-1115.75	1115.75	-1451.77	14.64	94.00
7366.00	59.73	179.93	6877.64	-1037.86	1037.86	-1453.62	9.88	95.00
7461.00	68.33	184.23	6919.22	-952.62	952.62	-1456.83	9.93	95.00
7555.00	76.50	181.54	6947.60	-863.21	863.21	-1461.28	9.11	94.00
7650.00	79.61	180.42	6967.26	-770.29	770.29	-1462.87	3.47	95.00
7745.00	86.87	181.85	6978.43	-676.04	676.04	-1464.74	7.80	95.00
7840.00	88.19	181.18	6982.53	-581.16	581.16	-1467.25	1.55	95.00
7933.00	89.29	180.87	6984.57	-488.20	488.20	-1468.92	1.24	93.00
8028.00	90.10	180.98	6985.07	-393.22	393.22	-1470.45	0.86	95.00
8122.00	90.27	179.70	6984.77	-299.22	299.22	-1471.00	1.37	94.00
8217.00	89.36	179.20	6985.08	-204.23	204.23	-1470.09	1.09	95.00
8312.00	89.70	177.95	6985.85	-109.26	109.26	-1467.73	1.37	95.00
8407.00	89.03	179.12	6986.91	-14.30	14.30	-1465.30	1.42	95.00
8502.00	87.45	178.59	6989.83	80.63	-80.63	-1463.40	1.75	95.00
8596.00	87.99	179.38	6993.58	174.54	-174.54	-1461.74	1.02	94.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
8691.00	89.23	179.86	6995.89	269.51	-269.51	-1461.11	1.40	95.00
8786.00	90.07	179.66	6996.47	364.51	-364.51	-1460.71	0.91	95.00
8881.00	90.23	180.45	6996.22	459.50	-459.50	-1460.81	0.85	95.00
8976.00	90.40	180.02	6995.69	554.50	-554.50	-1461.20	0.48	95.00
9071.00	90.91	179.83	6994.61	649.50	-649.50	-1461.07	0.57	95.00
9166.00	90.71	179.97	6993.27	744.49	-744.49	-1460.91	0.26	95.00
9261.00	89.19	180.37	6993.35	839.48	-839.48	-1461.19	1.65	95.00
9356.00	90.03	180.35	6993.99	934.48	-934.48	-1461.79	0.88	95.00
9451.00	88.62	179.80	6995.10	1029.47	-1029.47	-1461.91	1.59	95.00
9546.00	88.15	179.61	6997.78	1124.43	-1124.43	-1461.41	0.54	95.00
9640.00	88.42	179.41	7000.59	1218.38	-1218.38	-1460.61	0.35	94.00
9735.00	88.52	179.90	7003.13	1313.35	-1313.35	-1460.04	0.53	95.00
9830.00	89.56	179.25	7004.71	1408.33	-1408.33	-1459.34	1.29	95.00
9924.00	88.25	178.72	7006.50	1502.30	-1502.30	-1457.67	1.50	94.00
10019.00	88.55	178.26	7009.15	1597.23	-1597.23	-1455.17	0.57	95.00
10115.00	88.89	179.47	7011.29	1693.18	-1693.18	-1453.28	1.31	96.00
10209.00	88.32	179.76	7013.58	1787.15	-1787.15	-1452.65	0.68	94.00
10304.00	87.62	179.13	7016.95	1882.09	-1882.09	-1451.72	1.00	95.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
10400.00	87.82	178.93	7020.77	1978.00	-1978.00	-1450.10	0.30	96.00
10495.00	88.39	178.42	7023.92	2072.92	-2072.92	-1447.90	0.80	95.00
10590.00	87.11	180.91	7027.65	2167.83	-2167.83	-1447.35	2.95	95.00
10685.00	87.65	181.17	7031.99	2262.72	-2262.72	-1449.07	0.63	95.00
10779.00	88.49	180.86	7035.16	2356.65	-2356.65	-1450.74	0.95	94.00
10874.00	87.78	181.45	7038.26	2451.58	-2451.58	-1452.65	0.96	95.00
10968.00	88.46	180.52	7041.34	2545.51	-2545.51	-1454.26	1.22	94.00
11063.00	87.01	180.95	7045.10	2640.43	-2640.43	-1455.47	1.59	95.00
11158.00	87.38	180.22	7049.74	2735.31	-2735.31	-1456.44	0.86	95.00
11253.00	88.02	180.23	7053.55	2830.23	-2830.23	-1456.80	0.67	95.00
11347.00	88.29	179.84	7056.58	2924.18	-2924.18	-1456.86	0.50	94.00
11442.00	89.53	181.78	7058.39	3019.15	-3019.15	-1458.20	2.42	95.00
11537.00	90.24	180.94	7058.58	3114.12	-3114.12	-1460.46	1.15	95.00
11632.00	90.91	181.49	7057.64	3209.09	-3209.09	-1462.47	0.91	95.00
11727.00	92.39	181.15	7054.91	3304.02	-3304.02	-1464.66	1.60	95.00
11822.00	91.51	180.80	7051.67	3398.95	-3398.95	-1466.28	1.00	95.00
11917.00	89.90	179.79	7050.51	3493.94	-3493.94	-1466.76	2.00	95.00
12011.00	90.81	179.90	7049.93	3587.94	-3587.94	-1466.50	0.97	94.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
12106.00	91.81	179.40	7047.76	3682.91	-3682.91	-1465.92	1.18	95.00
12201.00	90.03	179.34	7046.22	3777.89	-3777.89	-1464.87	1.88	95.00
12296.00	89.33	179.35	7046.75	3872.88	-3872.88	-1463.78	0.74	95.00
12392.00	90.20	178.83	7047.15	3968.87	-3968.87	-1462.26	1.06	96.00
12487.00	90.81	179.12	7046.31	4063.85	-4063.85	-1460.57	0.71	95.00
12582.00	89.36	178.90	7046.18	4158.83	-4158.83	-1458.93	1.54	95.00
12677.00	89.23	179.00	7047.35	4253.81	-4253.81	-1457.20	0.18	95.00
12771.00	90.07	178.70	7047.92	4347.79	-4347.79	-1455.31	0.95	94.00
12866.00	90.91	178.80	7047.12	4442.76	-4442.76	-1453.23	0.89	95.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft

5" = 100' FEET MD