



5" = 100' FEET MD

COMPANY : ANADARKO E&P ONSHORE LLC
WELL : POWERS 14N-22HZ
FIELD : WATTENBERG
COUNTY : WELD
STATE : COLORADO
COUNTRY : U.S.A.
UWI : 05-123-41908

COMPANY : ANADARKO E&P ONSHORE LLC

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UWI : 05-123-41908

WELL LOCATION

LAT:40°7'45.599"N LONG:104°39'12.920"W
N:14574018.03 ft E:1737246.22 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

HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft
12.25	0	1885	0 - 18	0	5097
8.5	1885	12739	18 - 0	5097	6421
			0 - 82	6421	7462
			82 - 91	7462	12739

CASING RECORD

CASING SIZE	in	FROM	ft	TO	ft
9.625		0		1875	

DRILLING CO. : PRECISION

RIG : 461

LWD UNIT NO. : MWD 00282-CDISTRICT : CASPER

SPUD DATE : 08/19/2015


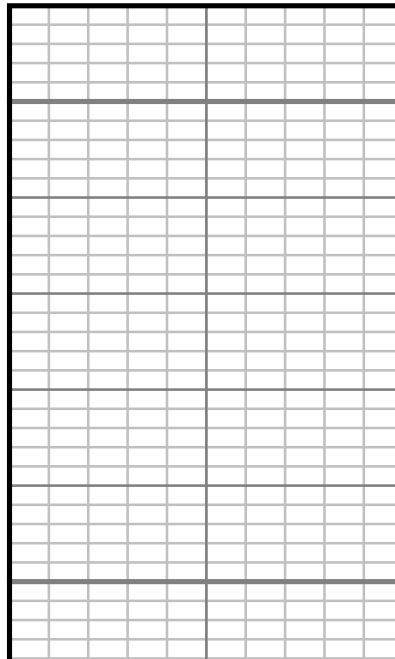

LWD START DATE : 09/27/2015 DEPTH : 1783 ft

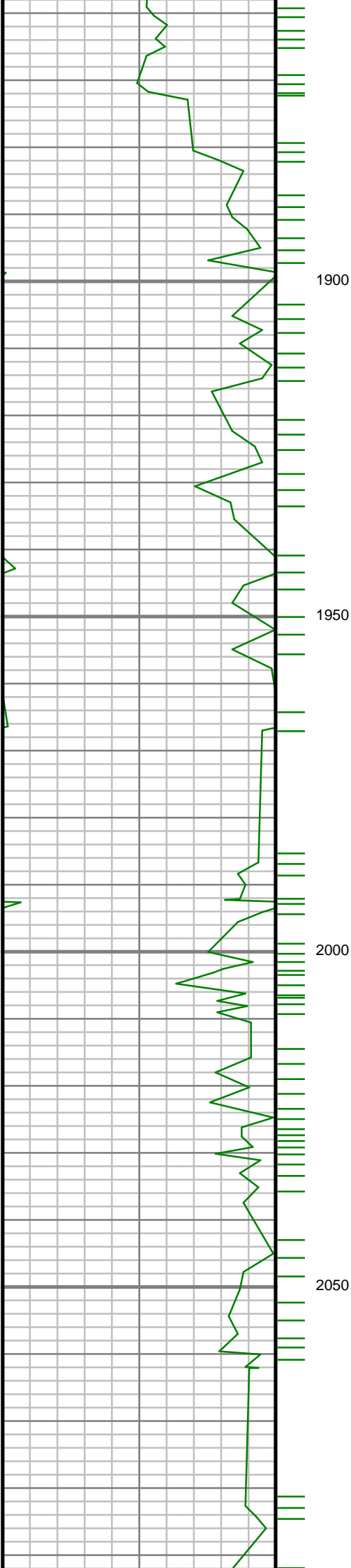
LWD END DATE : 09/29/2015 DEPTH : 12739 ft

TOTAL DEPTH : 12739 ft

[illegible]

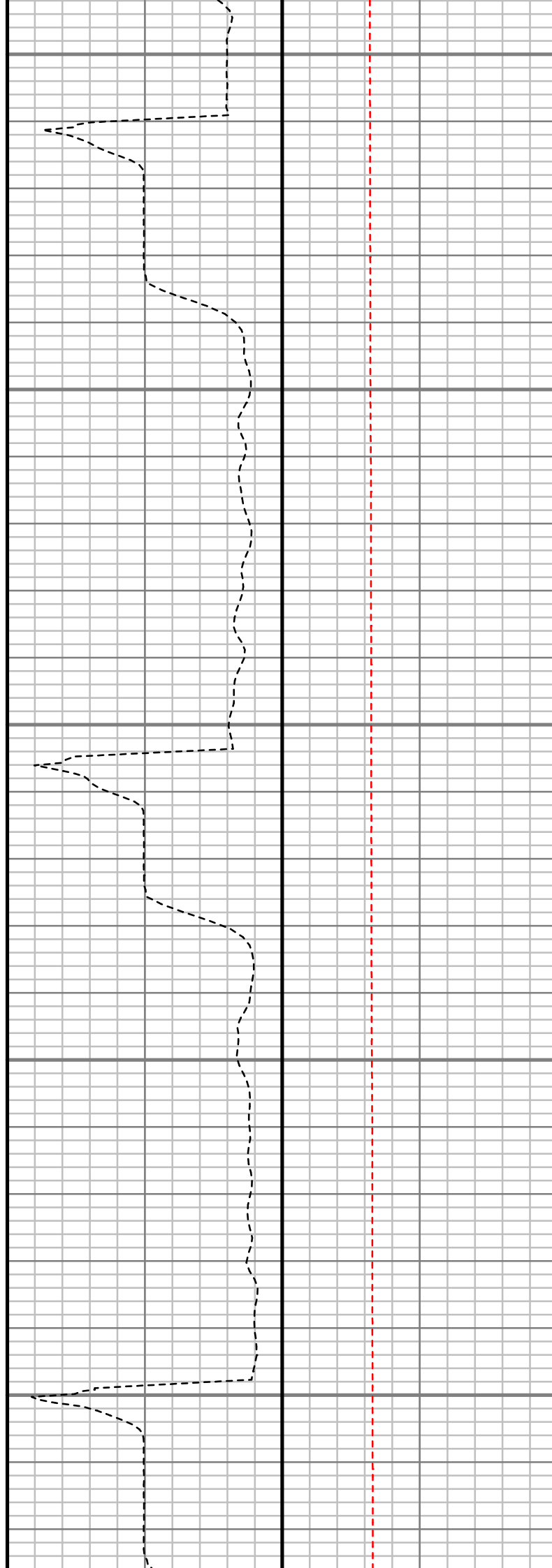
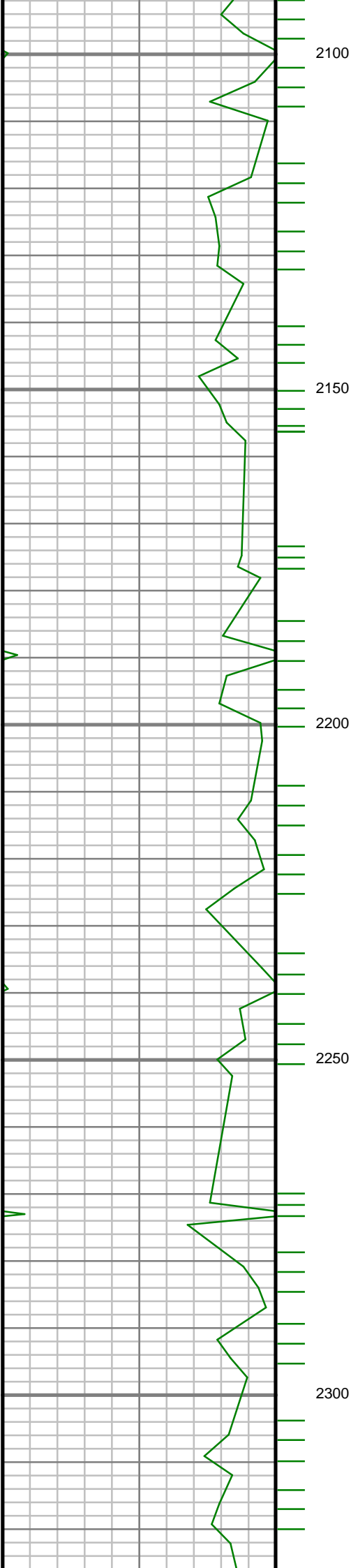
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 14N-22HZ WATTENBERG FIELD WELD COUNTY, COLORADO 05-123-41908							
Gamma Ray (GR) Unit = aapi		MEASURED DEPTH 1240 (ft)	Rate of Penetration (ROP) Unit = ft/hr		Tool Temperature (T-TEMP) Unit = °F		Comments
0	150		0	1000	0	300	
							S: 20 MD: 1826.00 ft Inc: 15.70 deg Az: 6.46 deg TVD: 1795.69 ft



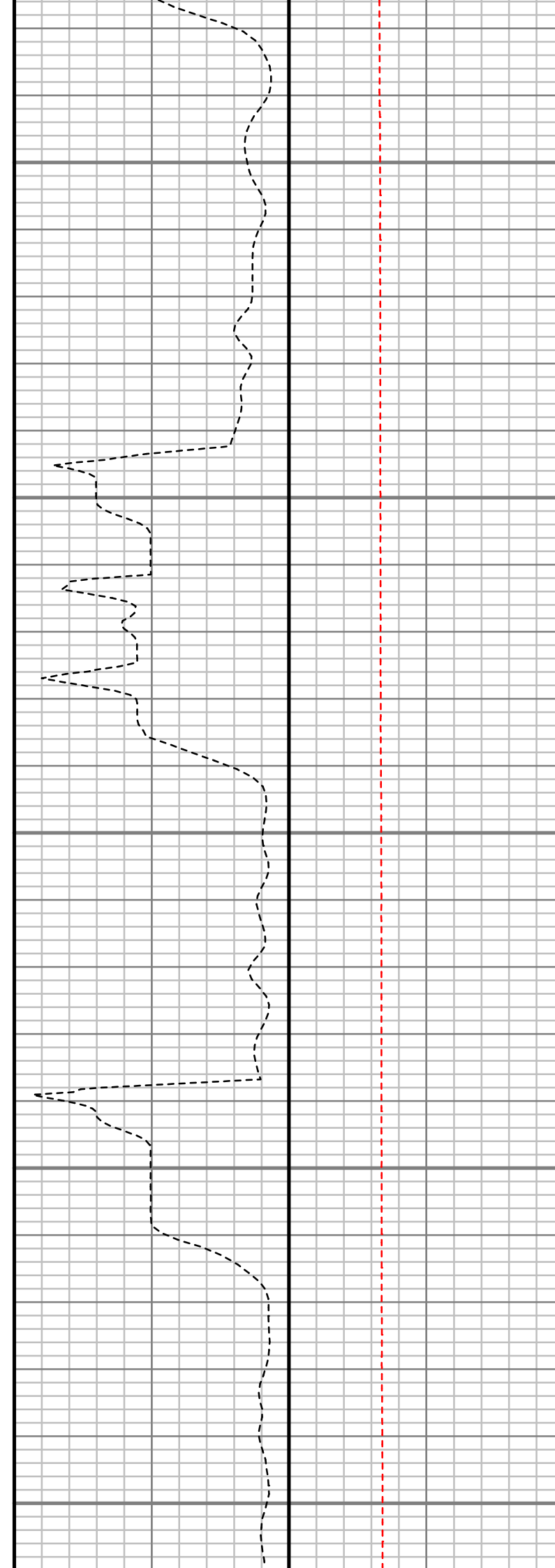
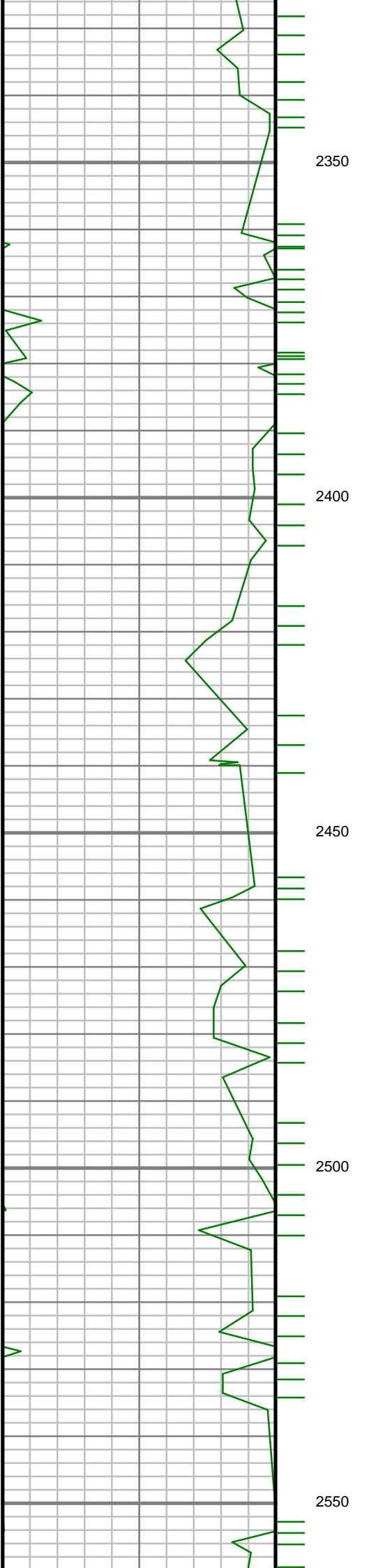
S: 21 MD: 1959.00 ft
Inc: 14.71 deg Az: 6.06
deg TVD: 1924.04 ft

S: 22 MD: 2054.00 ft
Inc: 15.65 deg Az: 8.38
deg TVD: 2015.72 ft



S: 23 MD: 2149.00 ft
Inc: 17.79 deg Az: 3.30
deg TVD: 2106.71 ft

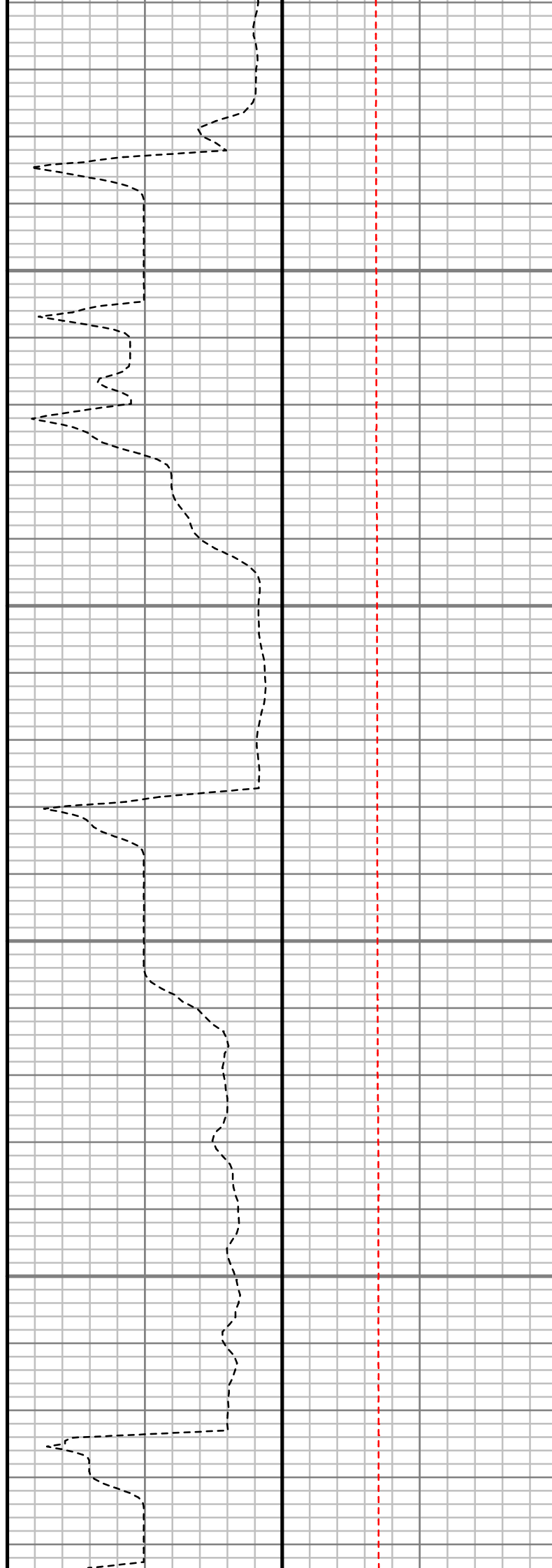
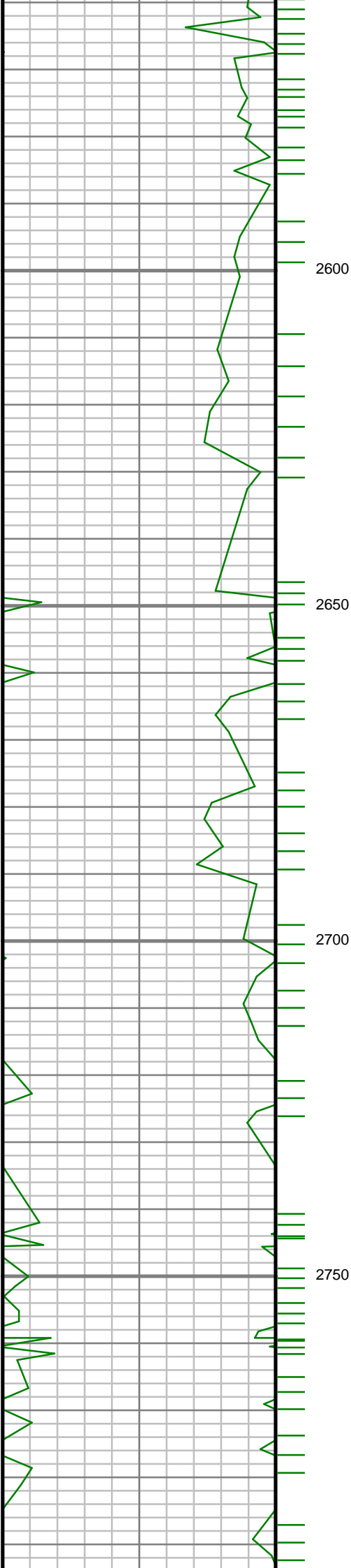
S: 24 MD: 2244.00 ft
Inc: 17.19 deg Az: 359.61 deg
TVD: 2197.32 ft



S: 25 MD: 2338.00 ft
Inc: 16.41 deg Az:
356.31 deg TVD:
2287.31 ft

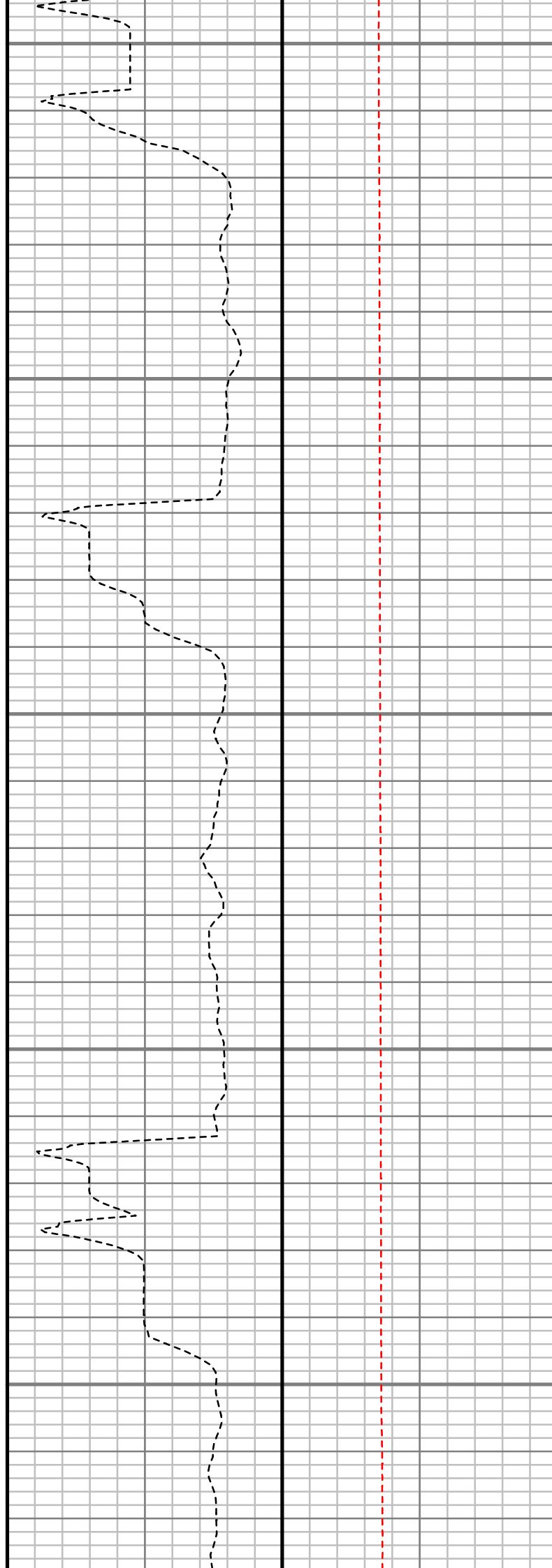
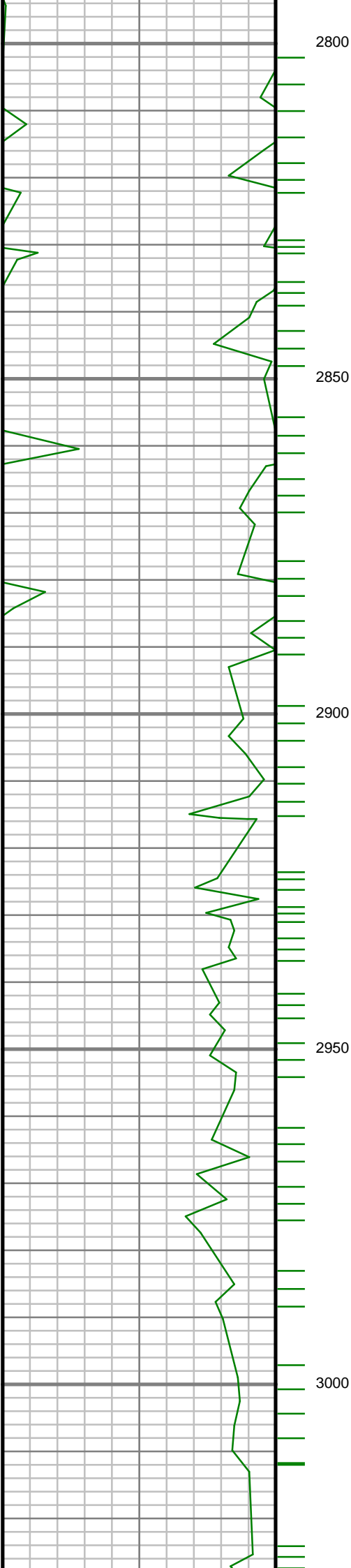
S: 26 MD: 2433.00 ft
Inc: 17.66 deg Az:
358.48 deg TVD:
2378.14 ft

S: 27 MD: 2528.00 ft
Inc: 17.73 deg Az:
355.56 deg TVD:
2468.65 ft



S: 28 MD: 2624.00 ft
Inc: 17.63 deg Az:
359.22 deg TVD:
2560.11 ft

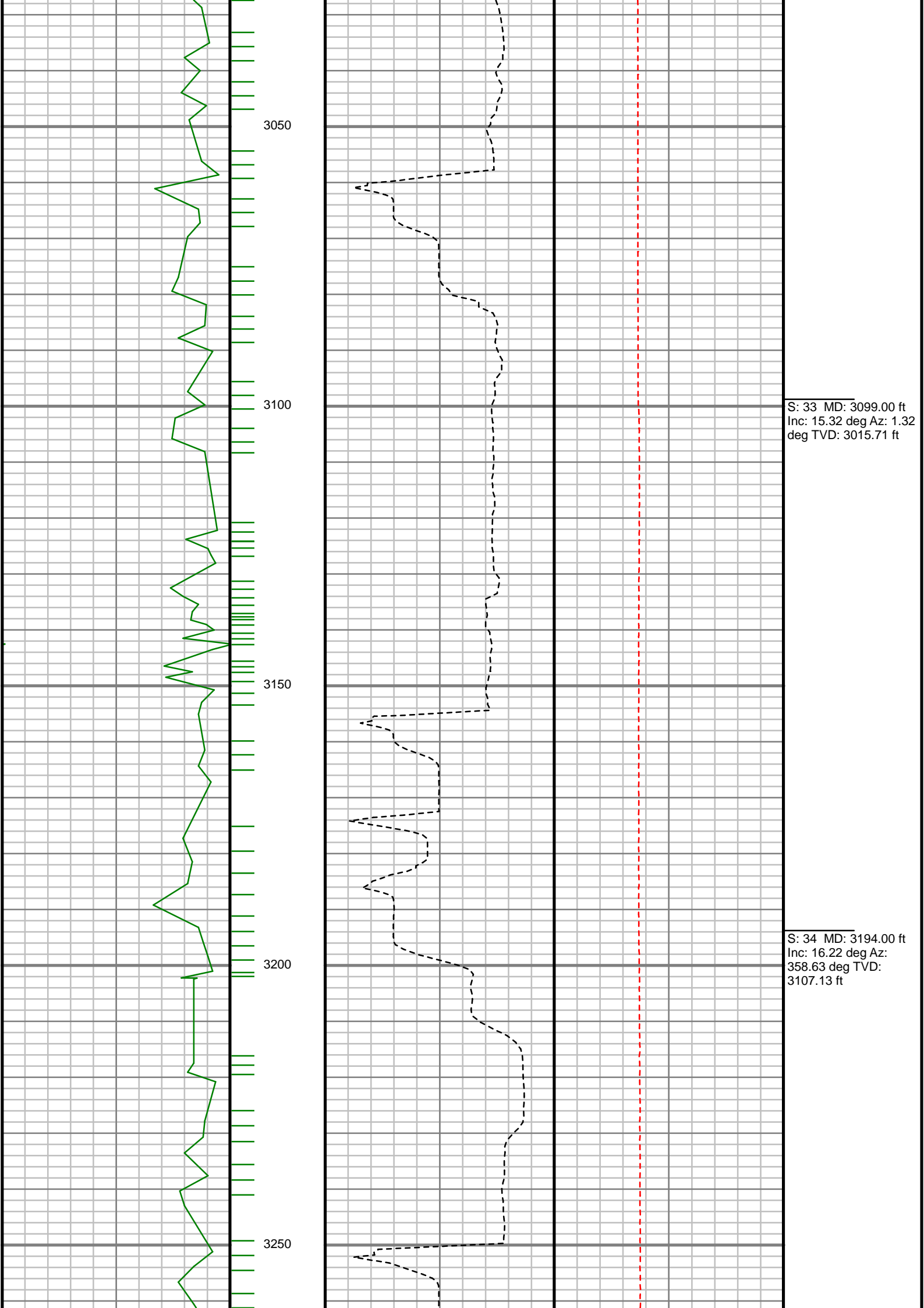
S: 29 MD: 2718.00 ft
Inc: 17.40 deg Az:
358.98 deg TVD:
2649.75 ft

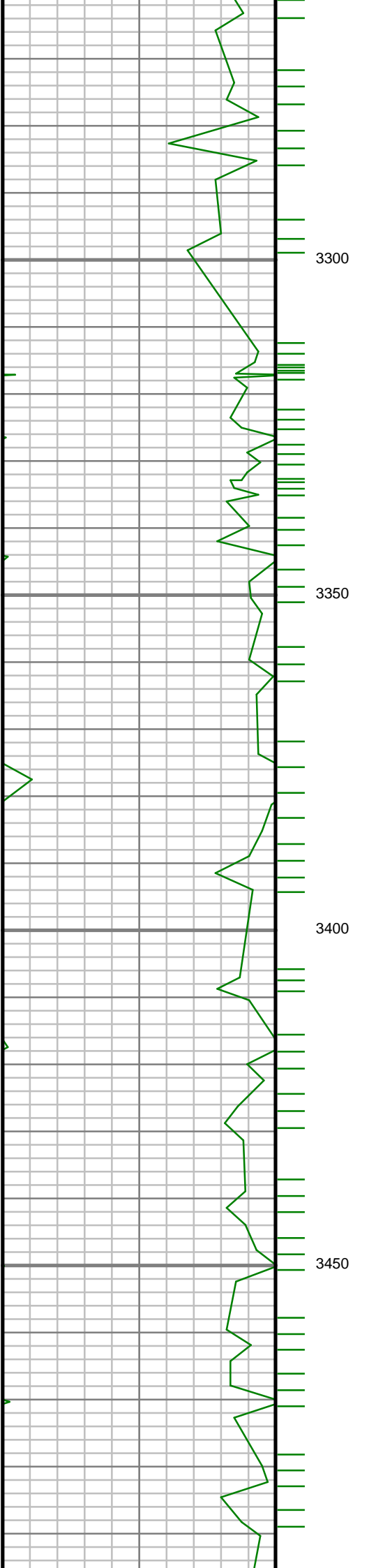


S: 30 MD: 2813.00 ft
Inc: 16.45 deg Az: 4.18
deg TVD: 2740.65 ft

S: 31 MD: 2908.00 ft
Inc: 15.97 deg Az: 3.60
deg TVD: 2831.87 ft

S: 32 MD: 3004.00 ft
Inc: 15.83 deg Az: 1.89
deg TVD: 2924.20 ft

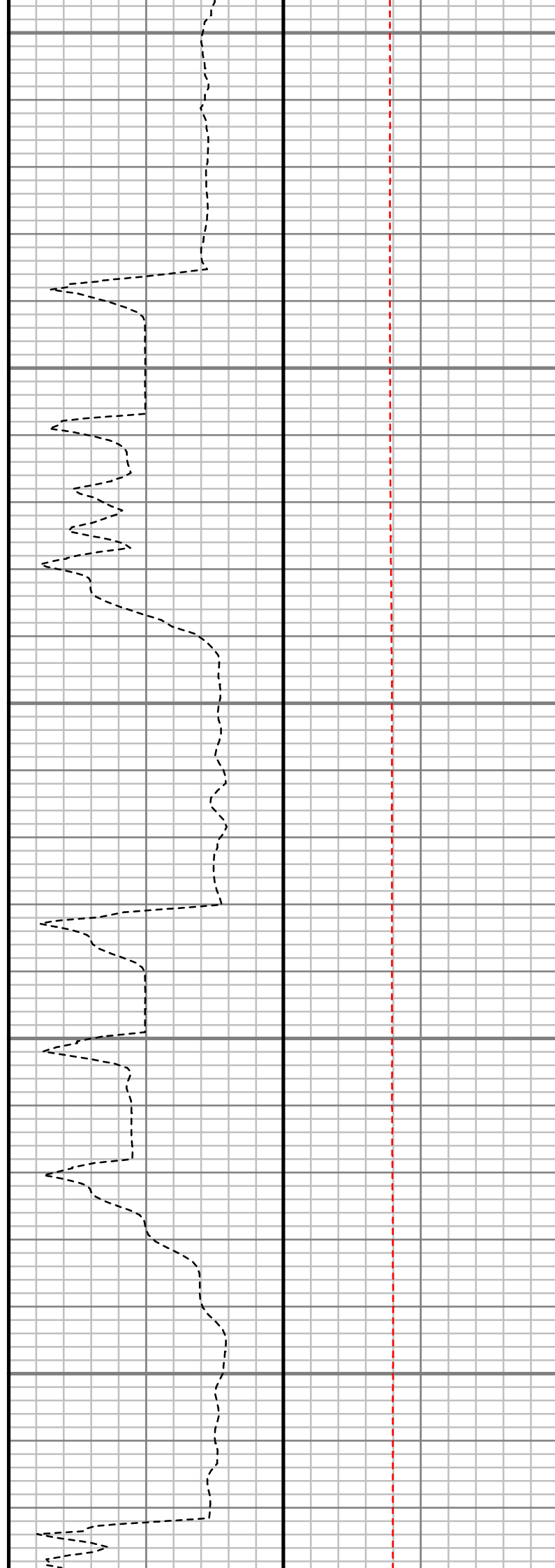
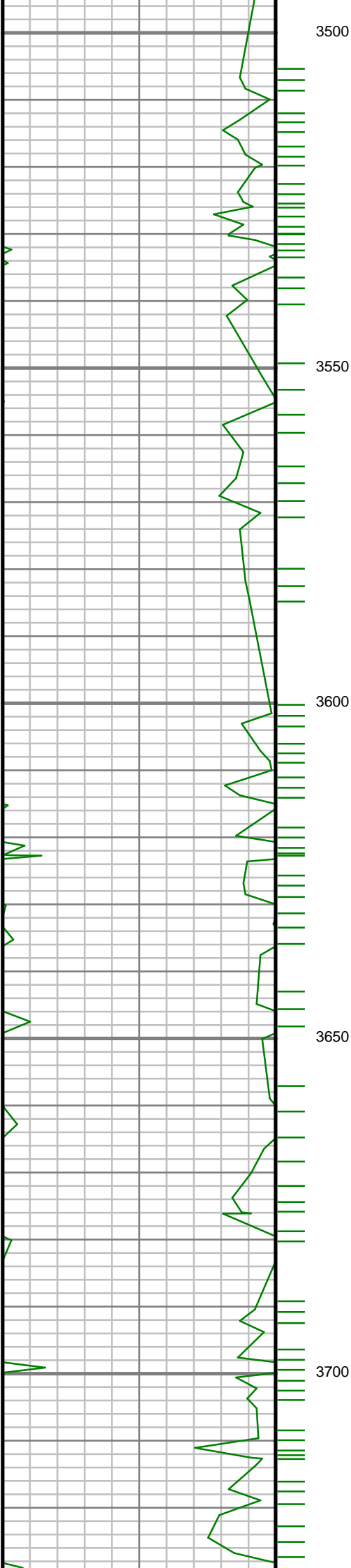




S: 35 MD: 3289.00 ft
Inc: 16.22 deg Az:
356.09 deg TVD:
3198.35 ft

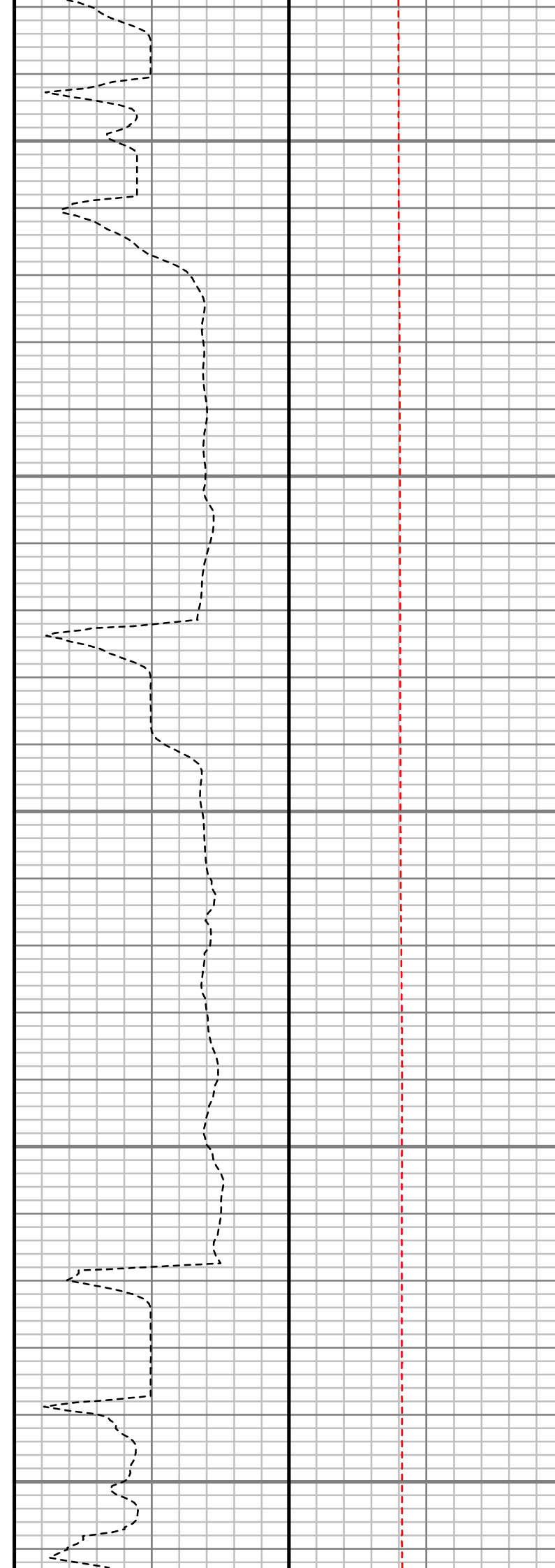
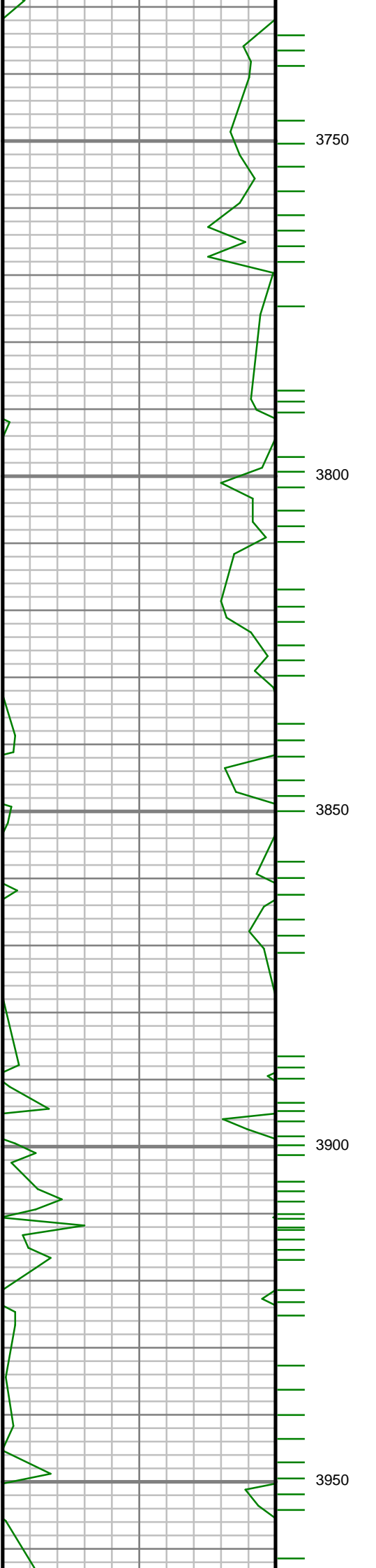
S: 36 MD: 3385.00 ft
Inc: 15.82 deg Az: 0.42
deg TVD: 3290.63 ft

S: 37 MD: 3479.00 ft
Inc: 15.19 deg Az: 0.67
deg TVD: 3381.21 ft



S: 38 MD: 3575.00 ft
Inc: 15.28 deg Az:
355.25 deg TVD:
3473.84 ft

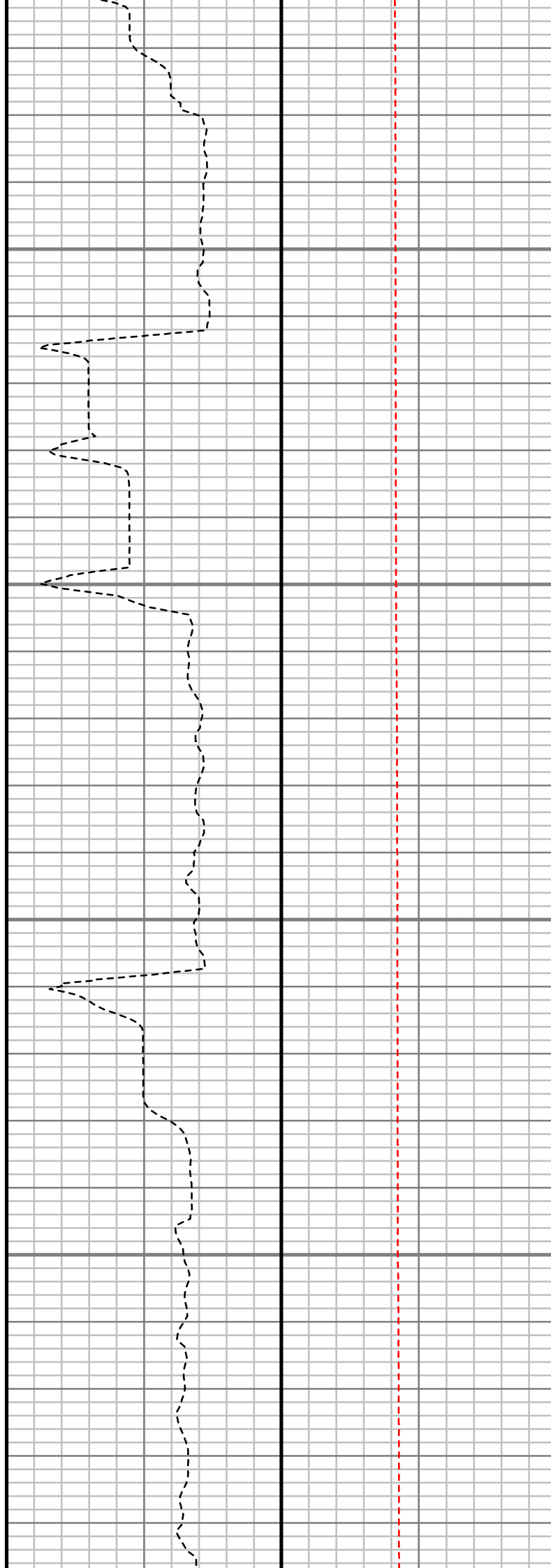
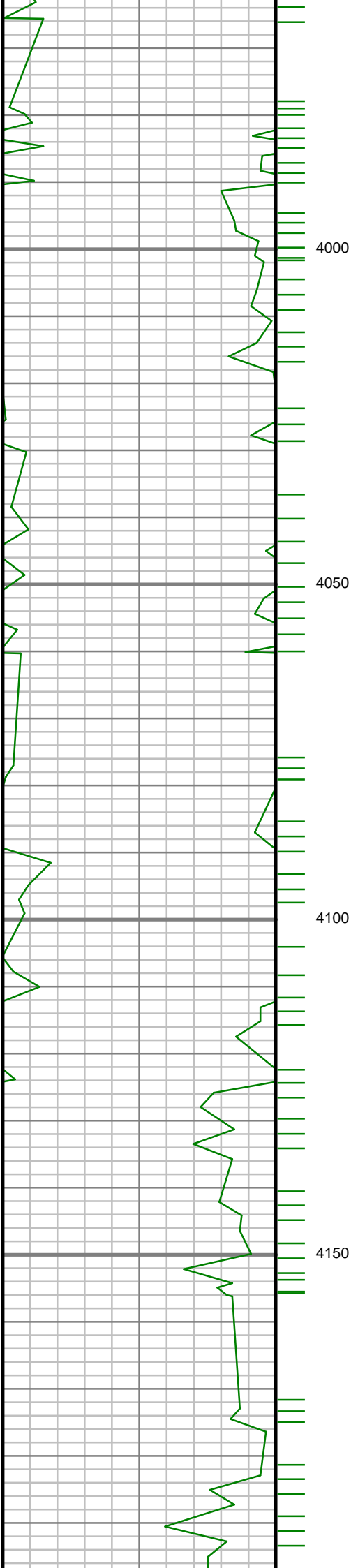
S: 39 MD: 3670.00 ft
Inc: 15.81 deg Az: 0.44
deg TVD: 3565.37 ft



S: 40 MD: 3765.00 ft
Inc: 16.85 deg Az: 3.98
deg TVD: 3656.53 ft

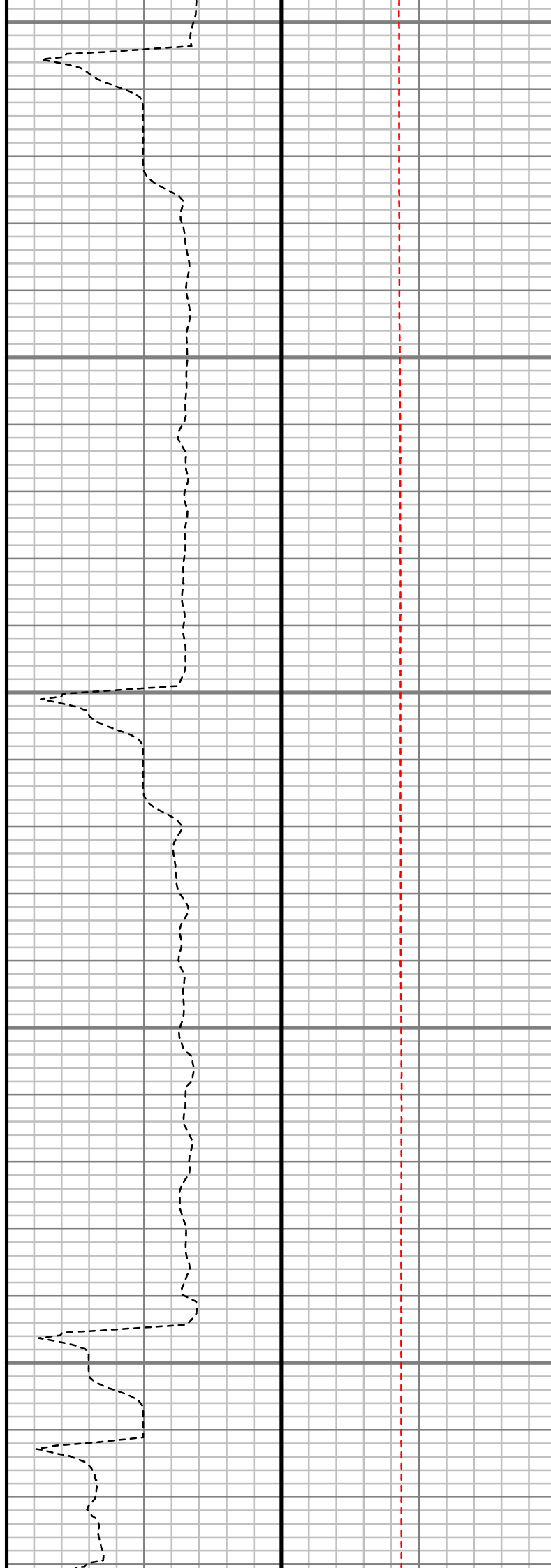
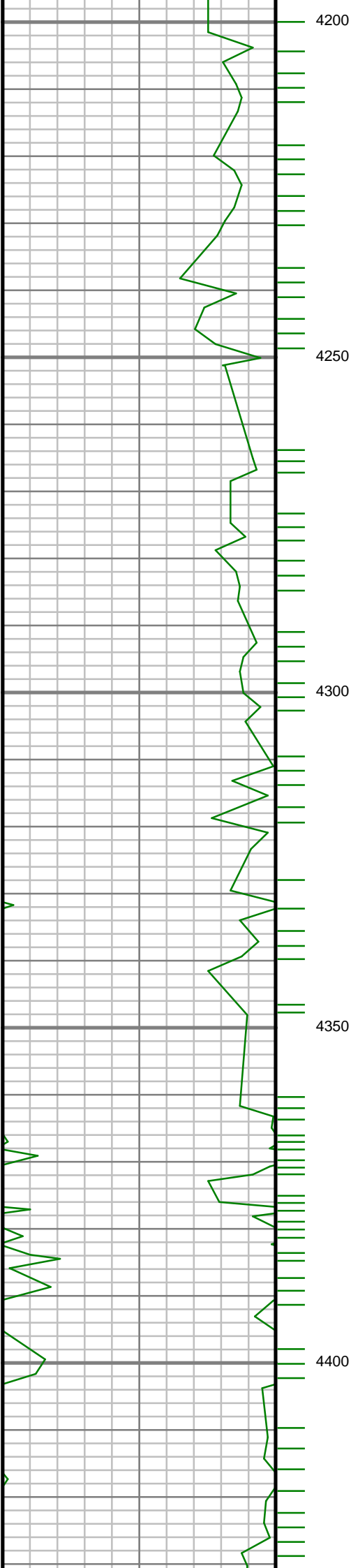
S: 41 MD: 3860.00 ft
Inc: 14.88 deg Az: 2.24
deg TVD: 3747.91 ft

S: 42 MD: 3955.00 ft
Inc: 15.29 deg Az: 2.02
deg TVD: 3839.64 ft



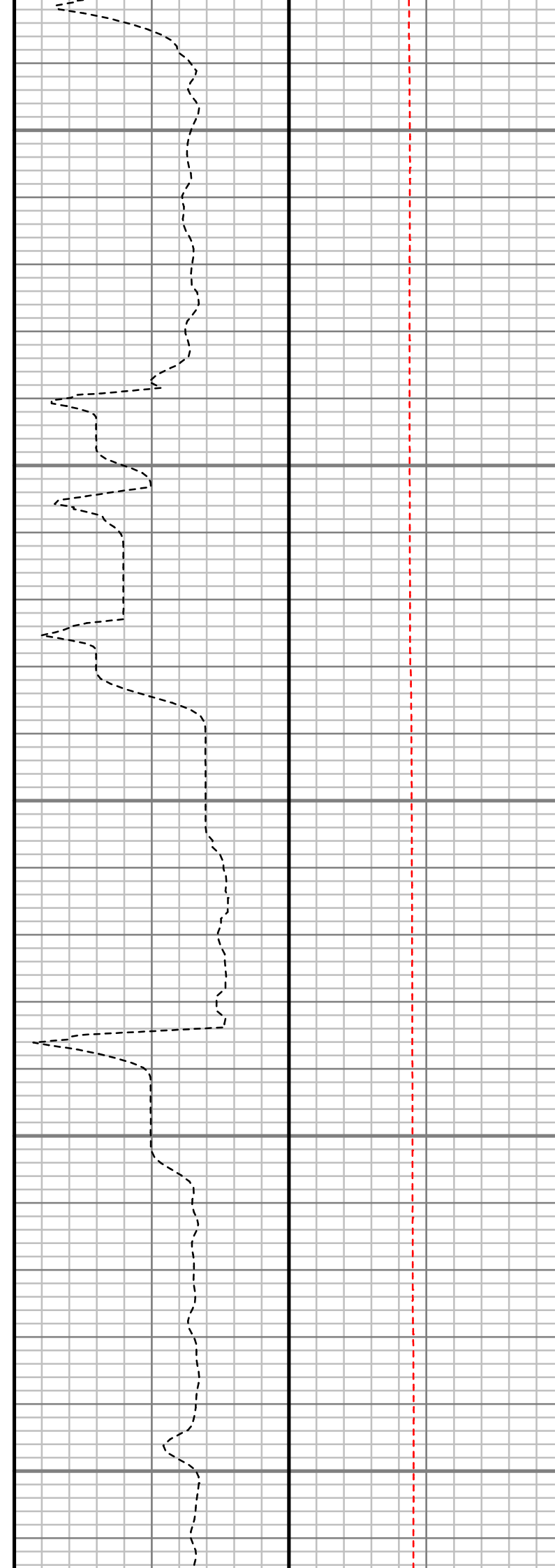
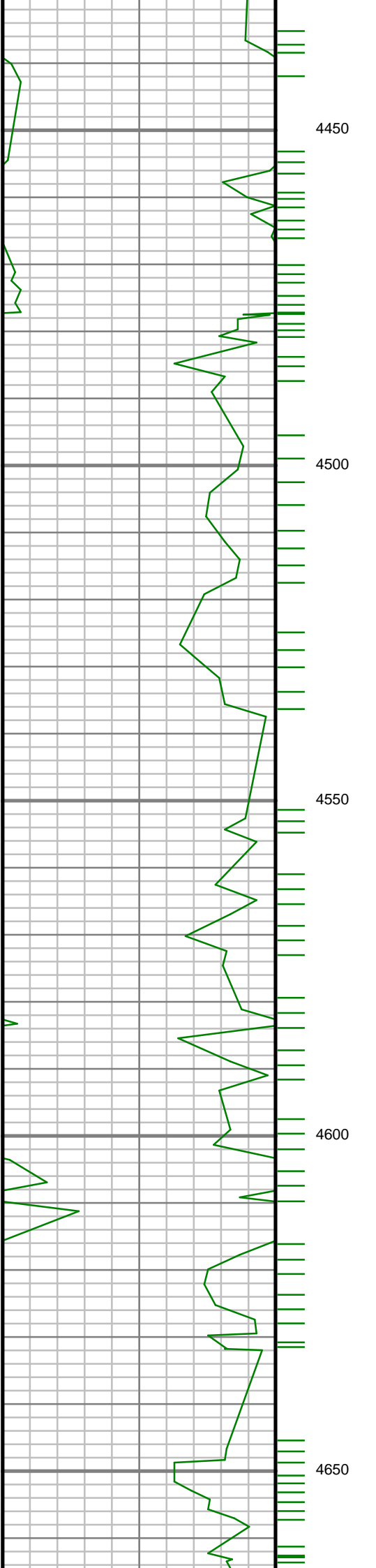
S: 43 MD: 4051.00 ft
Inc: 17.29 deg Az: 3.05
deg TVD: 3931.78 ft

S: 44 MD: 4146.00 ft
Inc: 16.42 deg Az: 1.46
deg TVD: 4022.70 ft



S: 45 MD: 4241.00 ft
Inc: 15.88 deg Az: 0.39
deg TVD: 4113.95 ft

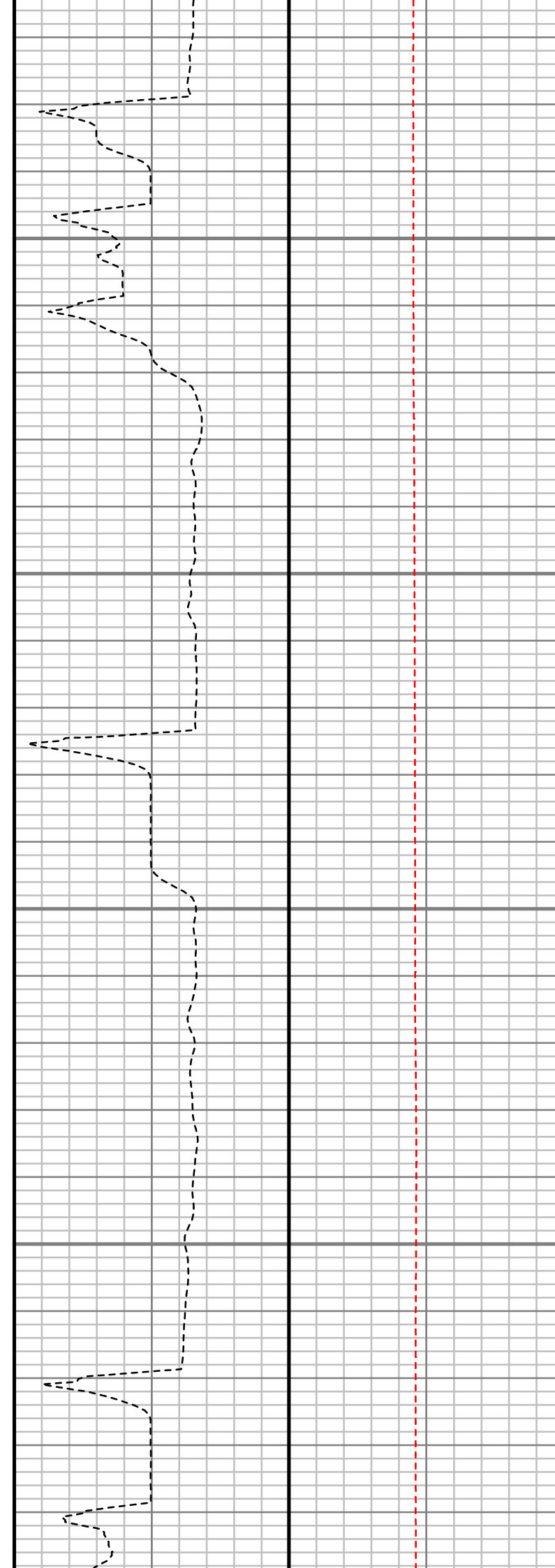
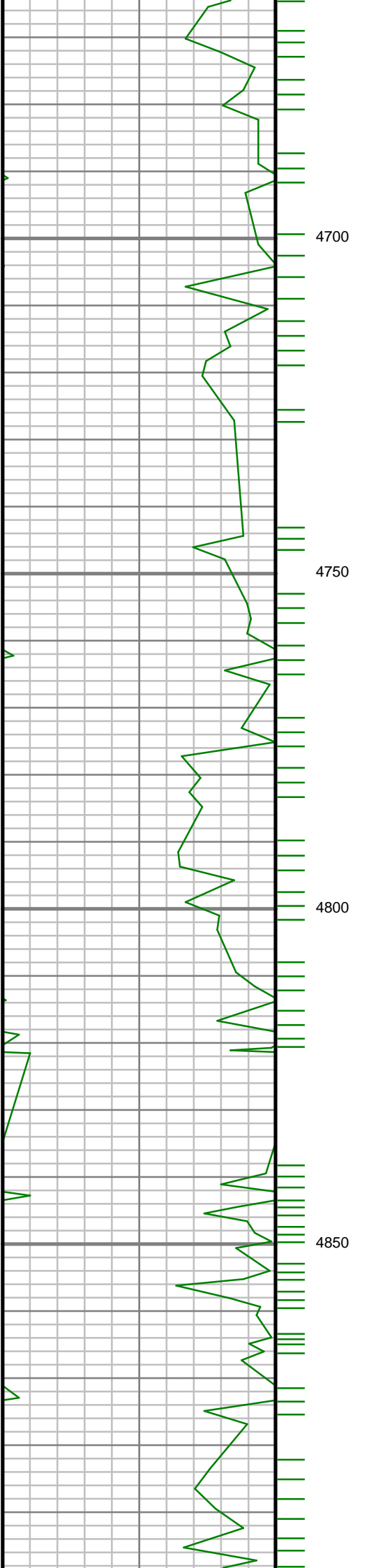
S: 46 MD: 4336.00 ft
Inc: 14.83 deg Az:
357.74 deg TVD:
4205.56 ft



S: 47 MD: 4431.00 ft
Inc: 15.08 deg Az: 0.66
deg TVD: 4297.34 ft

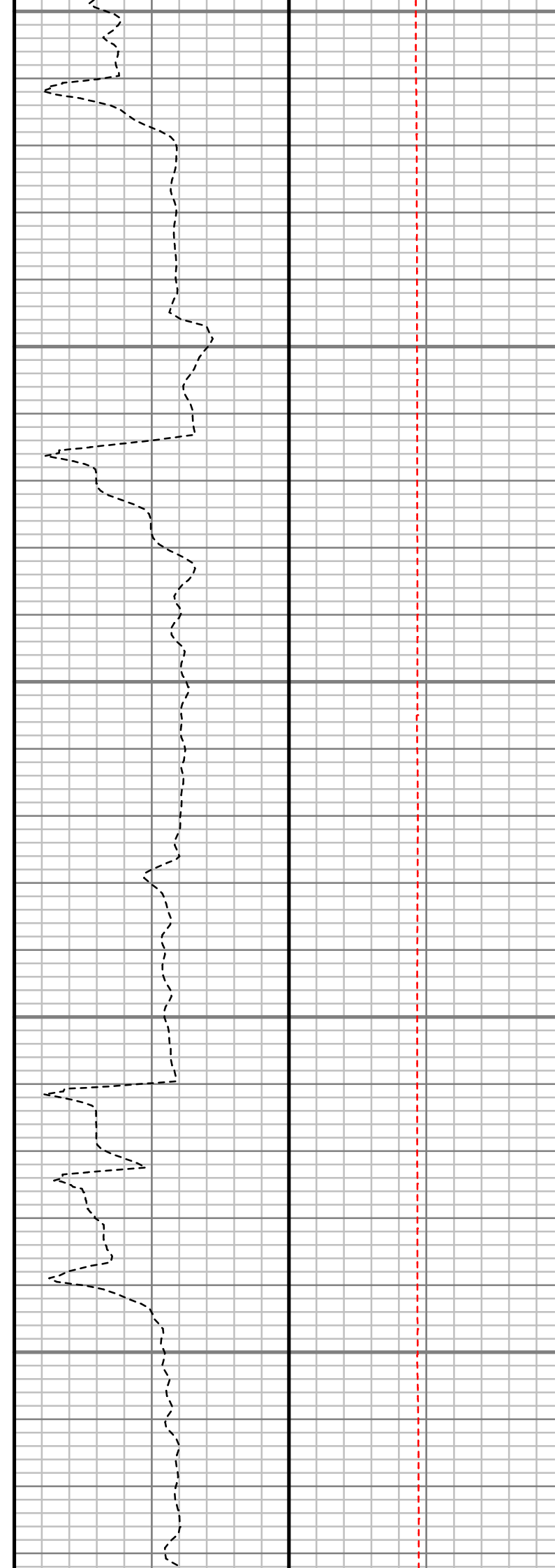
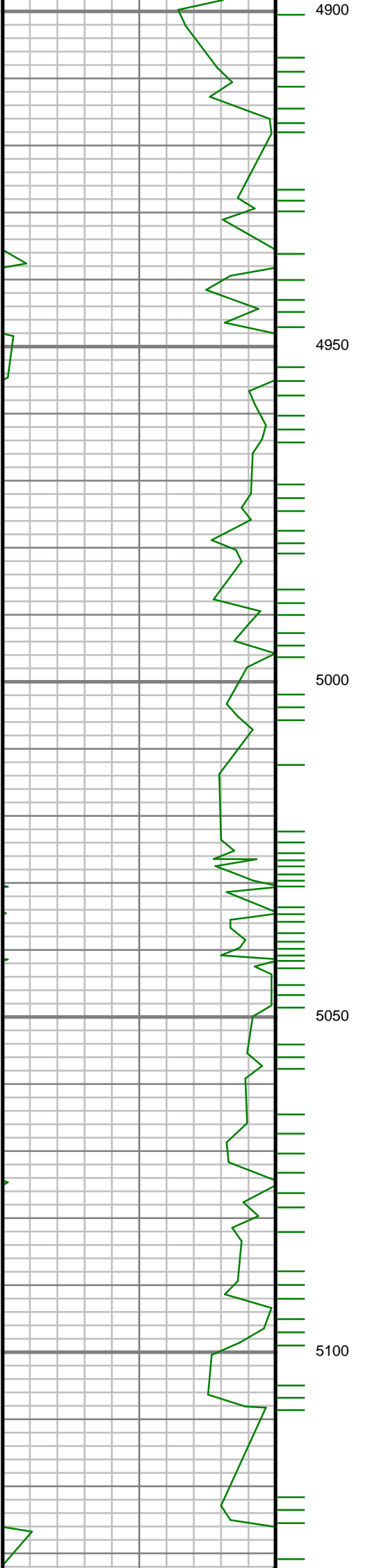
S: 48 MD: 4526.00 ft
Inc: 16.64 deg Az: 2.30
deg TVD: 4388.72 ft

S: 49 MD: 4621.00 ft
Inc: 15.85 deg Az: 0.18
deg TVD: 4479.93 ft



S: 50 MD: 4716.00 ft
Inc: 16.25 deg Az: 0.86
deg TVD: 4571.23 ft

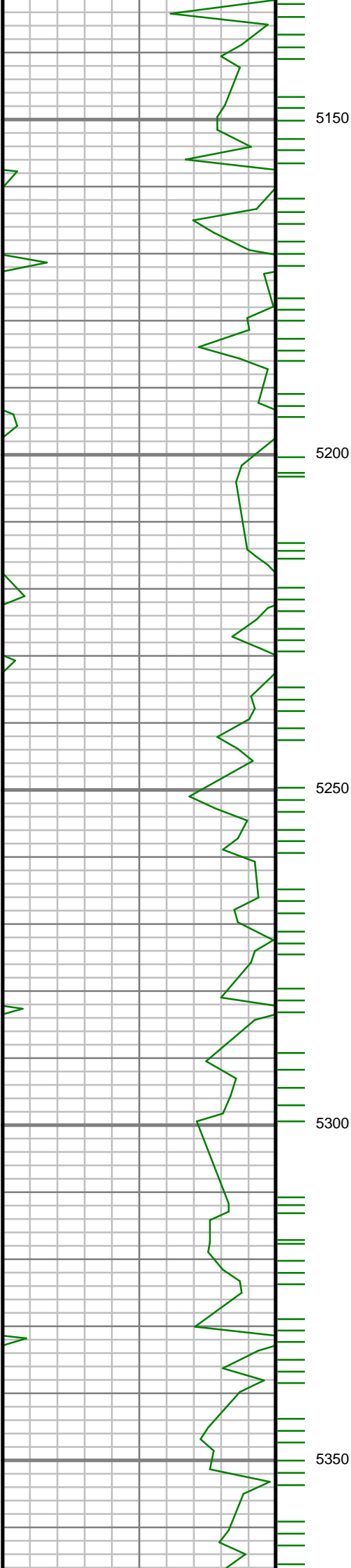
S: 51 MD: 4811.00 ft
Inc: 15.60 deg Az:
357.88 deg TVD:
4662.58 ft



S: 52 MD: 4906.00 ft
Inc: 16.42 deg Az: 2.00
deg TVD: 4753.90 ft

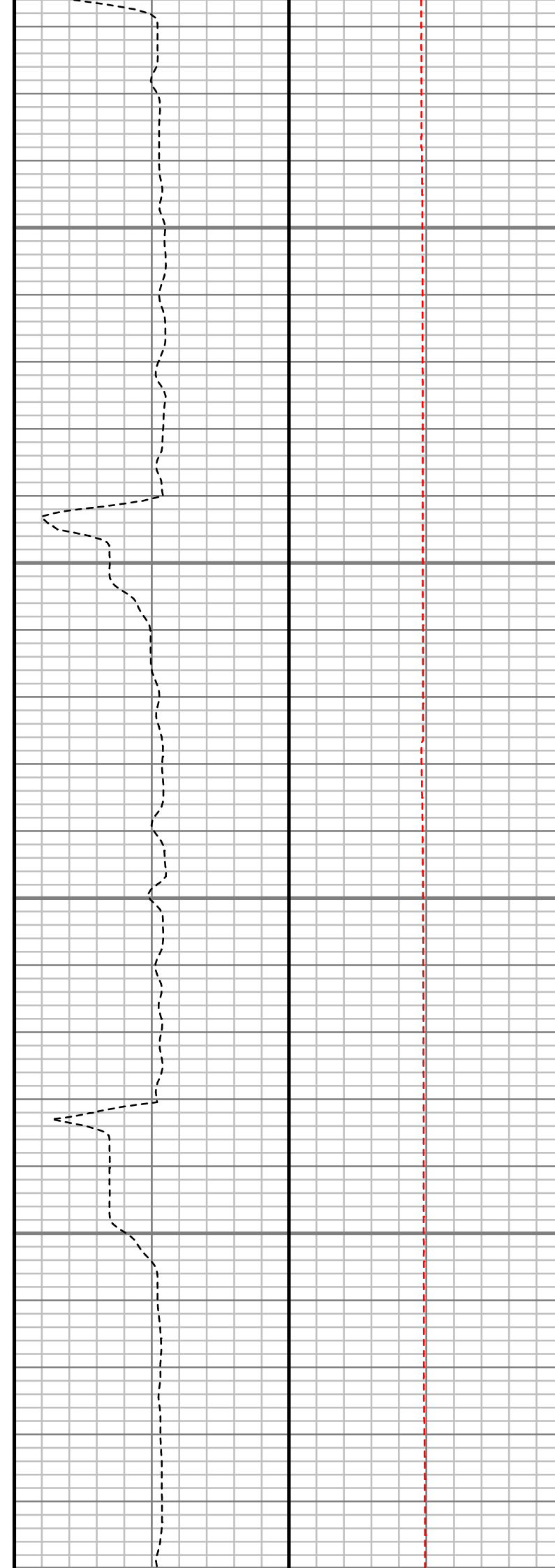
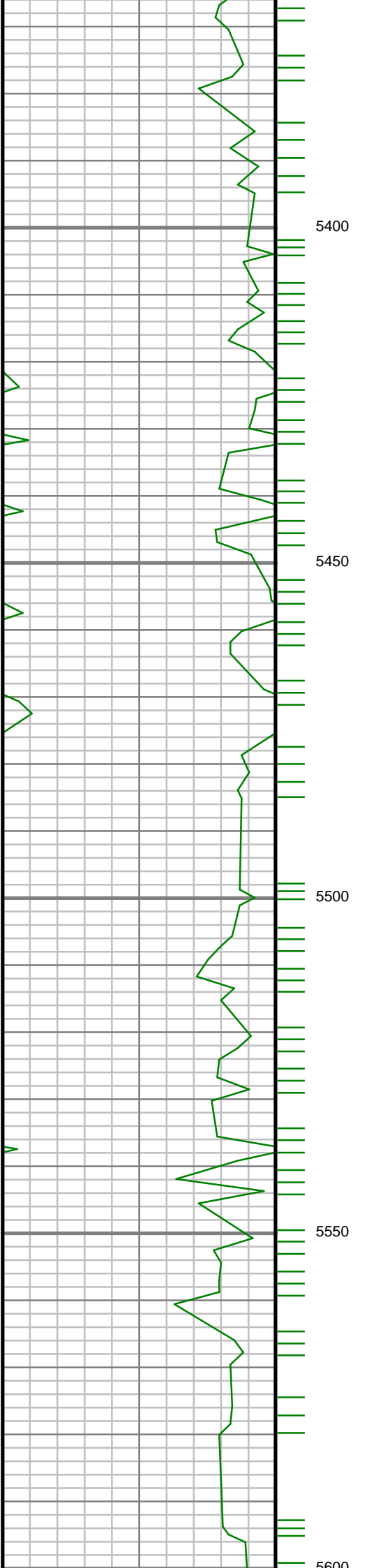
S: 53 MD: 5001.00 ft
Inc: 15.55 deg Az: 2.66
deg TVD: 4845.23 ft

S: 54 MD: 5097.00 ft
Inc: 15.92 deg Az: 1.79
deg TVD: 4937.63 ft



S: 55 MD: 5191.00 ft
Inc: 14.19 deg Az: 0.31
deg TVD: 5028.40 ft

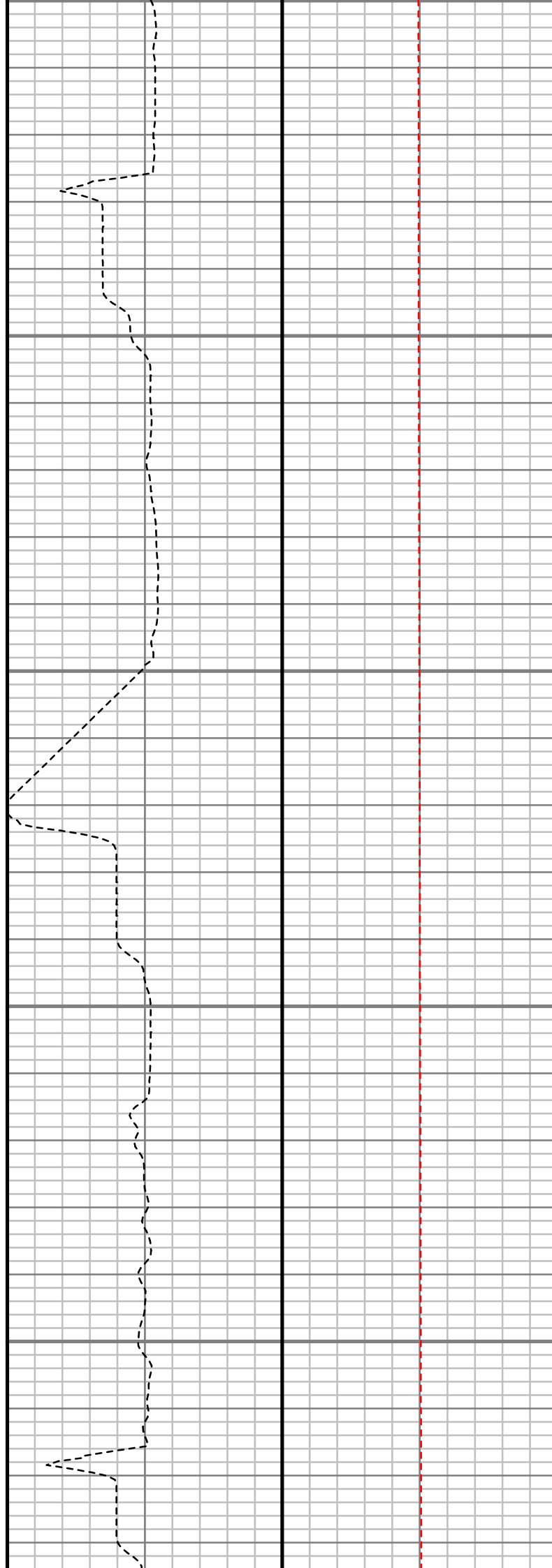
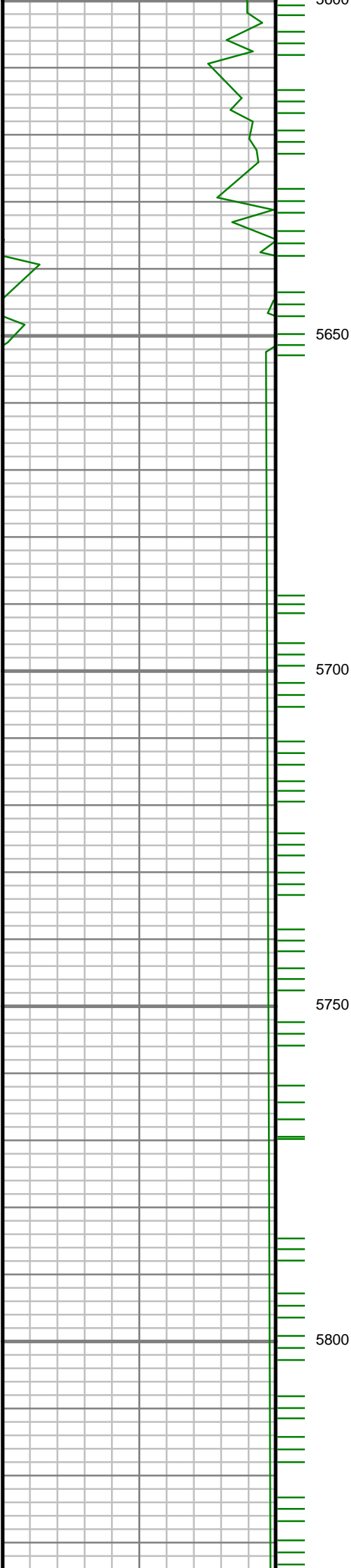
S: 56 MD: 5286.00 ft
Inc: 13.56 deg Az:
359.94 deg TVD:
5120.63 ft



S: 57 MD: 5382.00 ft
Inc: 12.96 deg Az:
358.75 deg TVD:
5214.07 ft

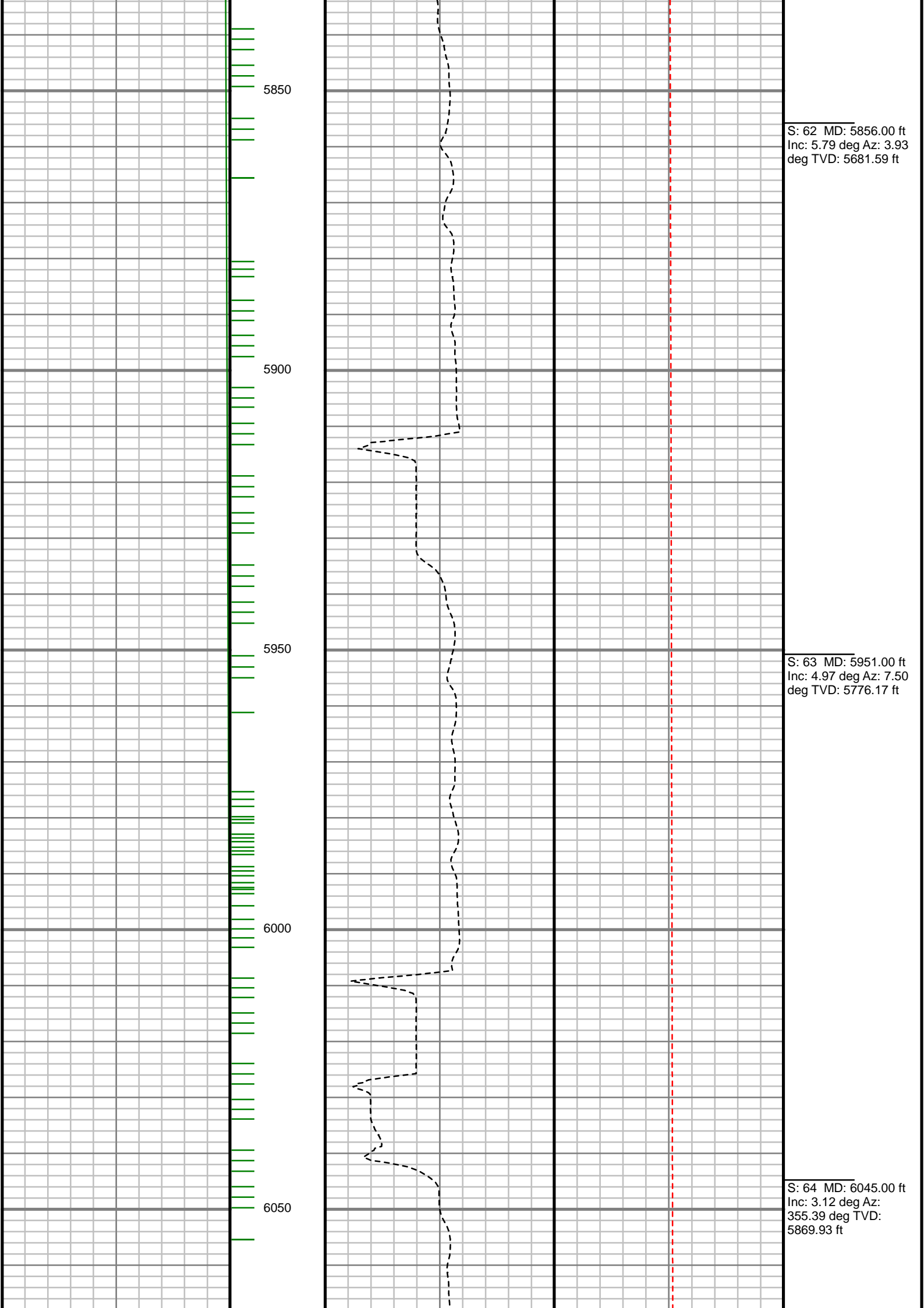
S: 58 MD: 5476.00 ft
Inc: 11.11 deg Az:
358.78 deg TVD:
5305.99 ft

S: 59 MD: 5570.00 ft
Inc: 10.00 deg Az:
358.84 deg TVD:
5398.40 ft



S: 60 MD: 5666.00 ft
Inc: 8.81 deg Az:
358.52 deg TVD:
5493.11 ft

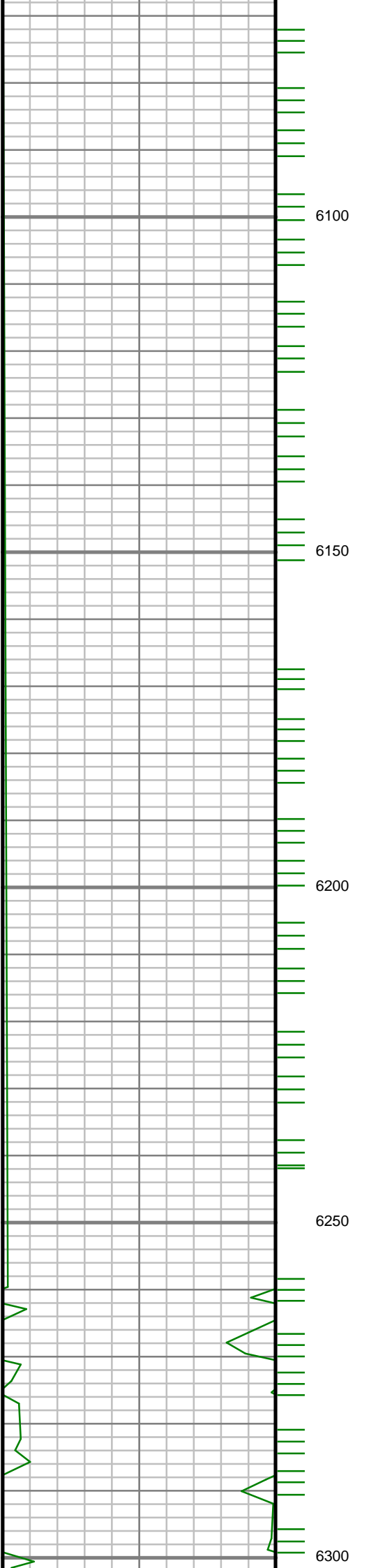
S: 61 MD: 5760.00 ft
Inc: 7.13 deg Az:
359.62 deg TVD:
5586.20 ft



S: 62 MD: 5856.00 ft
Inc: 5.79 deg Az: 3.93
deg TVD: 5681.59 ft

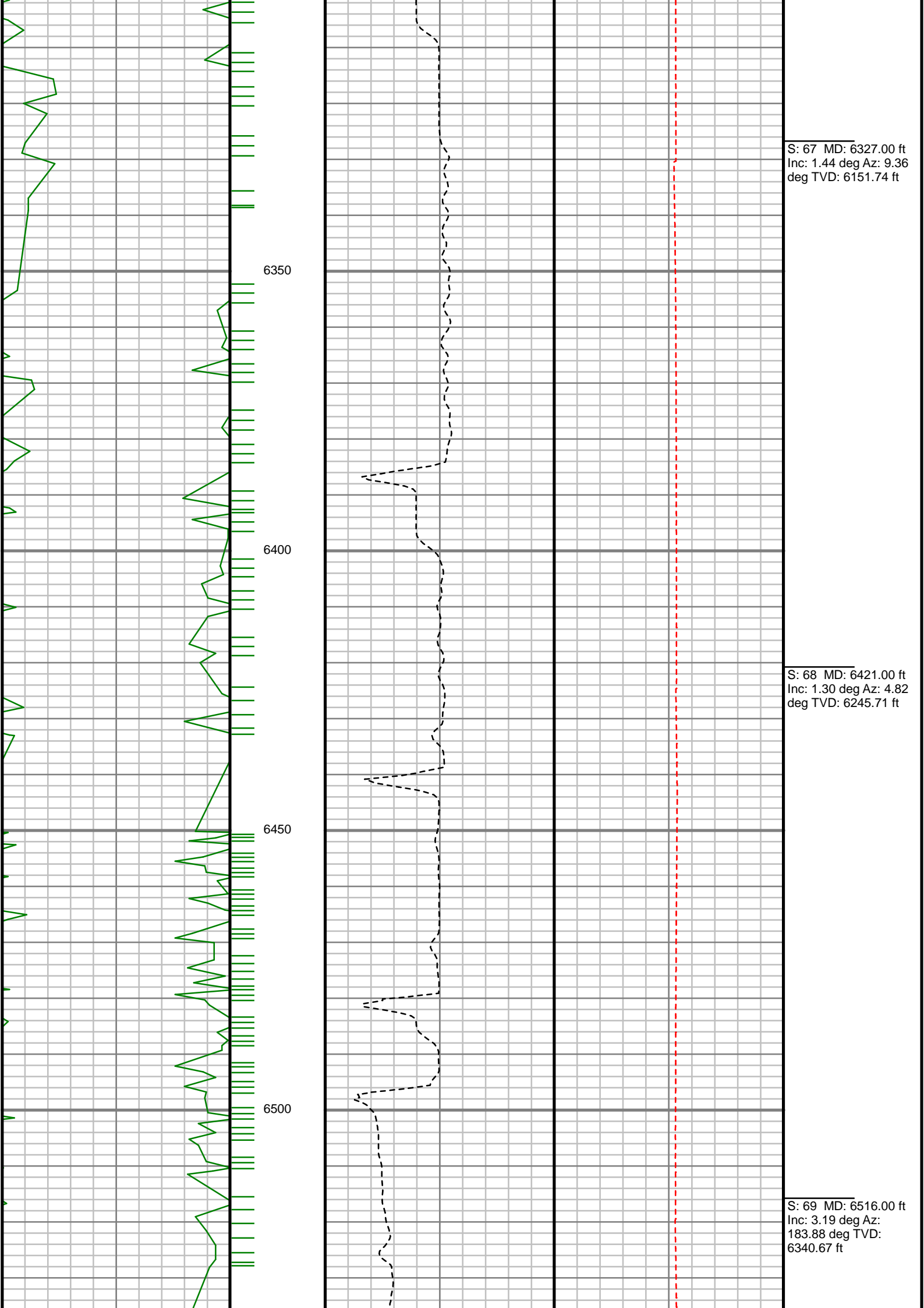
S: 63 MD: 5951.00 ft
Inc: 4.97 deg Az: 7.50
deg TVD: 5776.17 ft

S: 64 MD: 6045.00 ft
Inc: 3.12 deg Az: 355.39 deg
TVD: 5869.93 ft



S: 65 MD: 6138.00 ft
Inc: 2.19 deg Az: 3.32
deg TVD: 5962.83 ft

S: 66 MD: 6232.00 ft
Inc: 1.79 deg Az: 2.51
deg TVD: 6056.78 ft



S: 67 MD: 6327.00 ft
Inc: 1.44 deg Az: 9.36
deg TVD: 6151.74 ft

6350

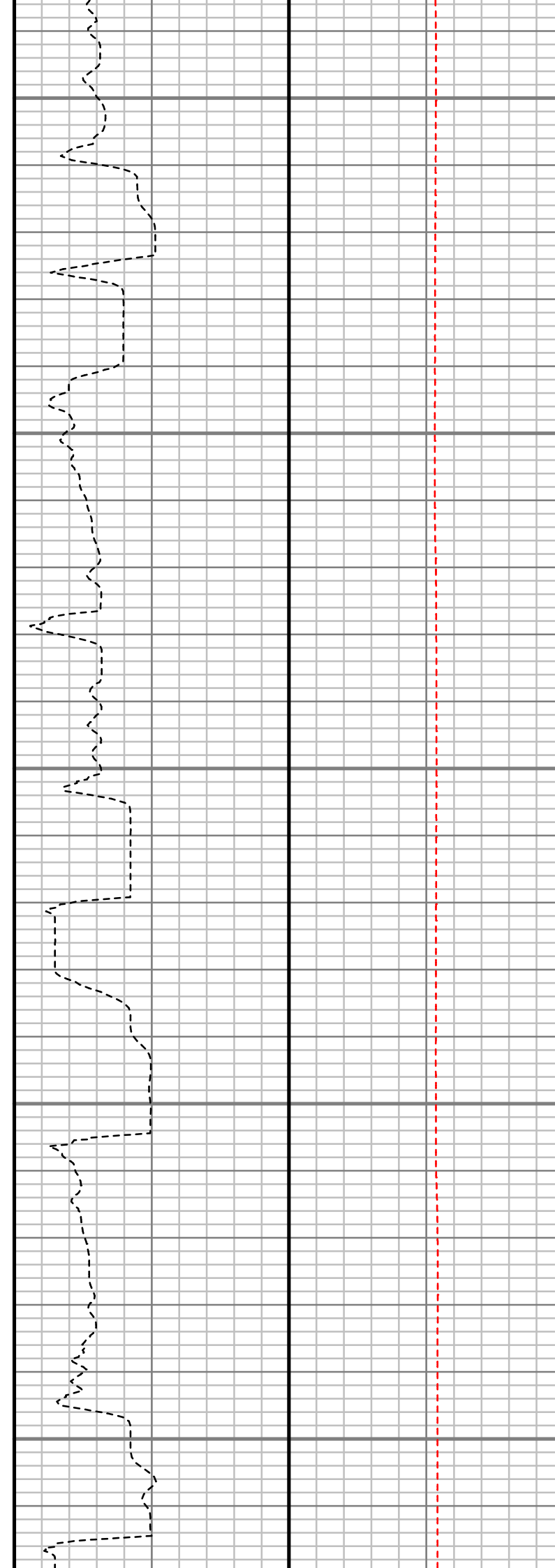
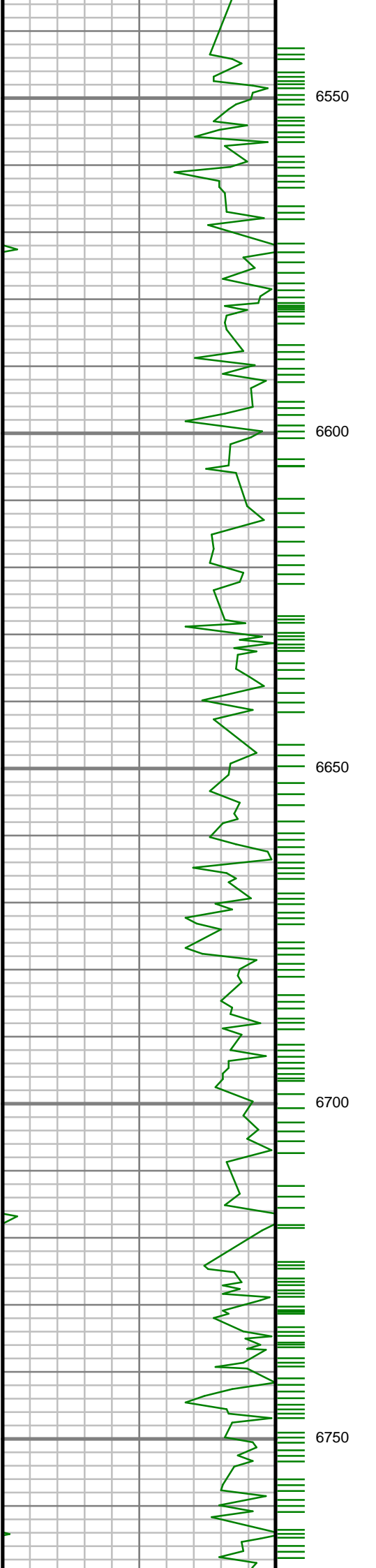
6400

S: 68 MD: 6421.00 ft
Inc: 1.30 deg Az: 4.82
deg TVD: 6245.71 ft

6450

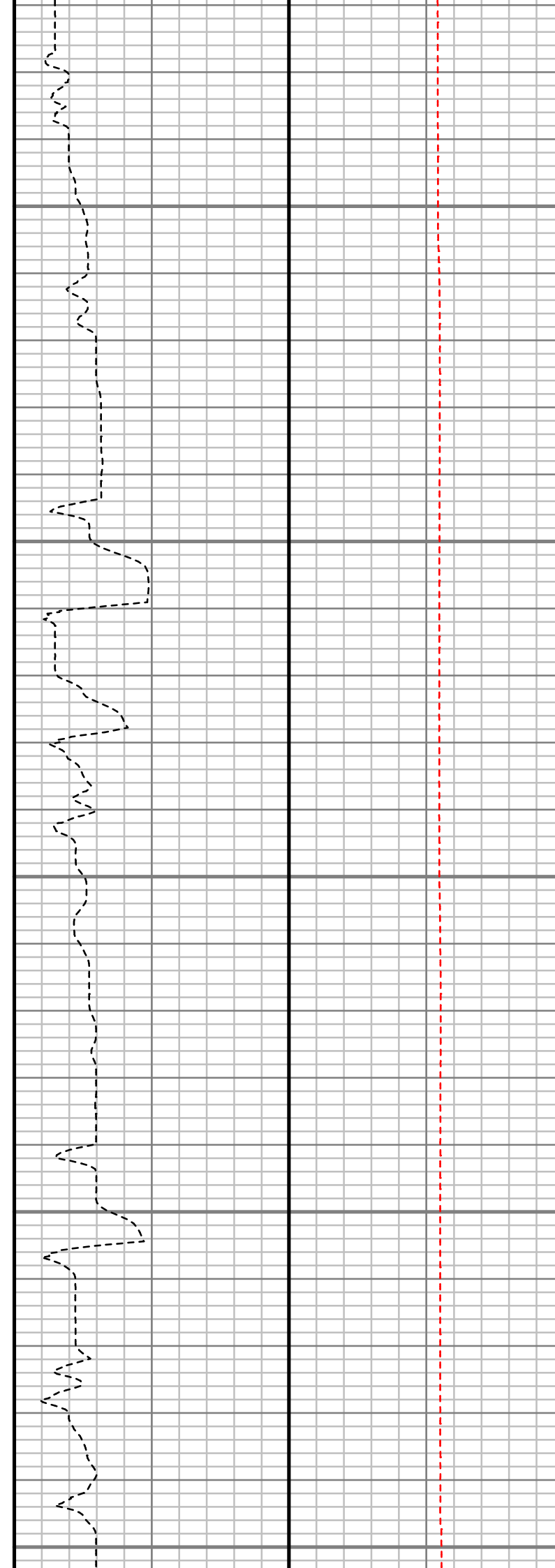
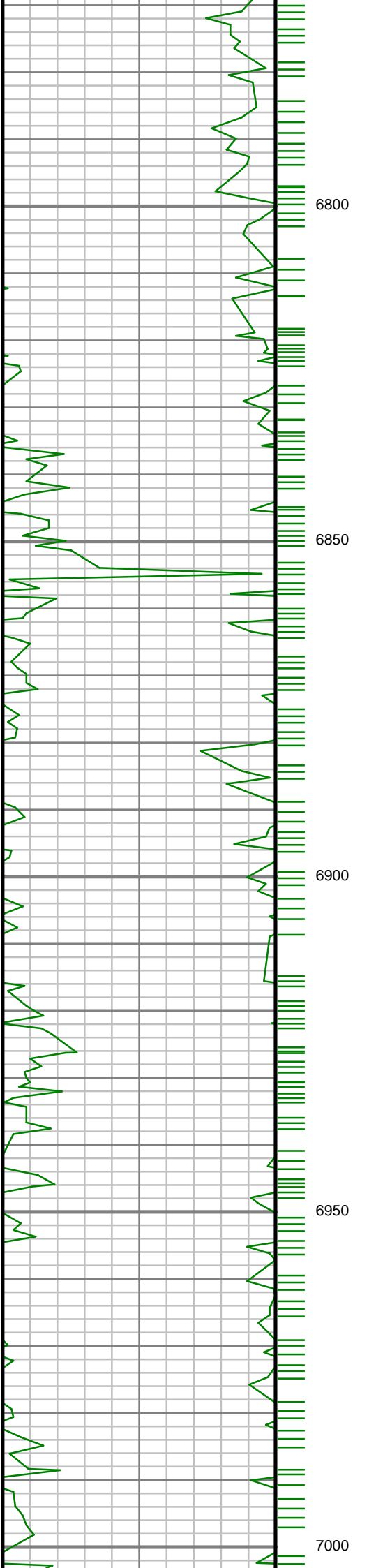
6500

S: 69 MD: 6516.00 ft
Inc: 3.19 deg Az:
183.88 deg TVD:
6340.67 ft



S: 70 MD: 6611.00 ft
Inc: 12.02 deg Az:
177.62 deg TVD:
6434.75 ft

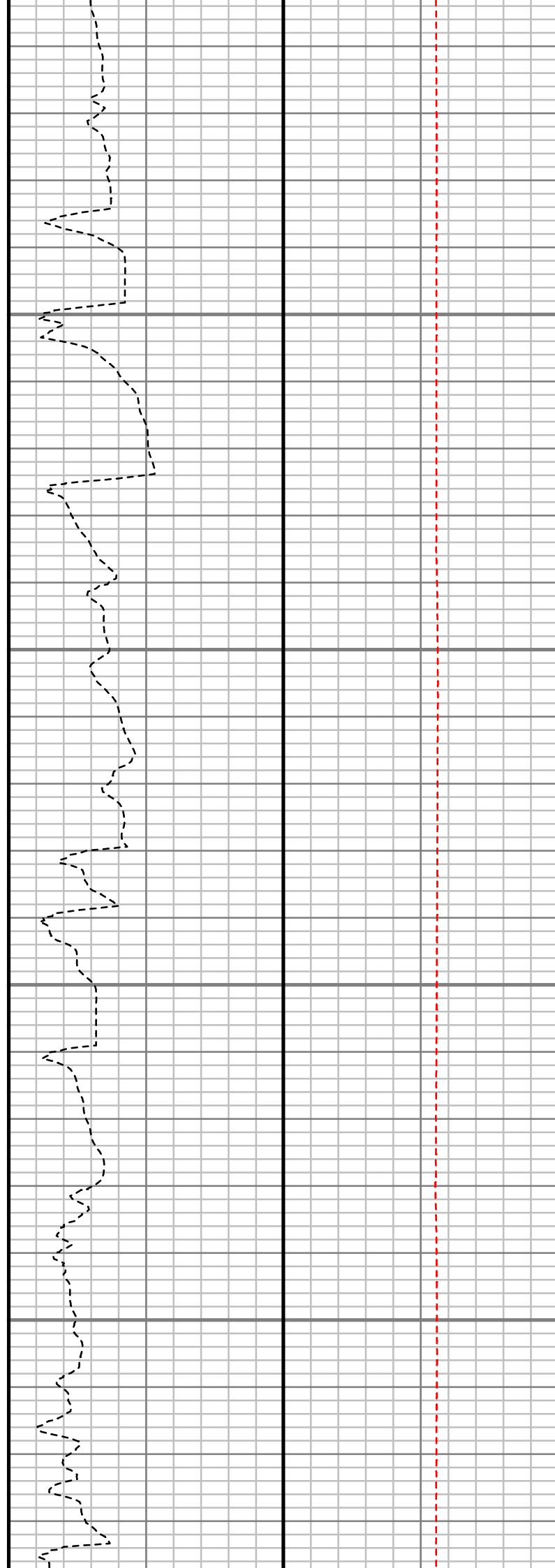
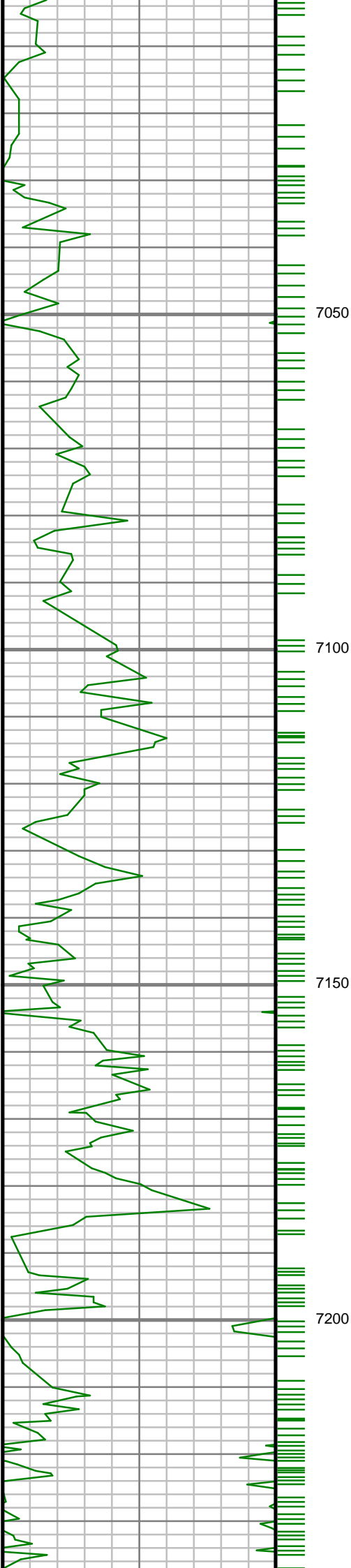
S: 71 MD: 6706.00 ft
Inc: 17.47 deg Az:
175.97 deg TVD:
6526.58 ft



S: 72 MD: 6800.00 ft
Inc: 24.46 deg Az:
182.44 deg TVD:
6614.32 ft

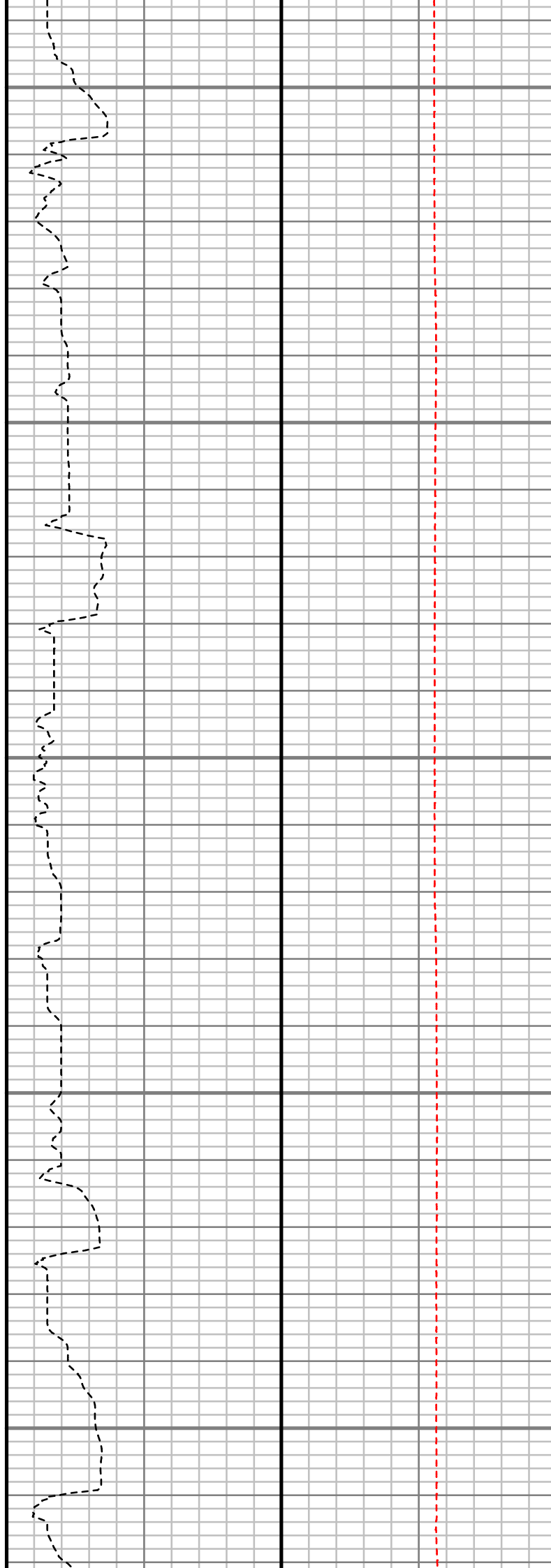
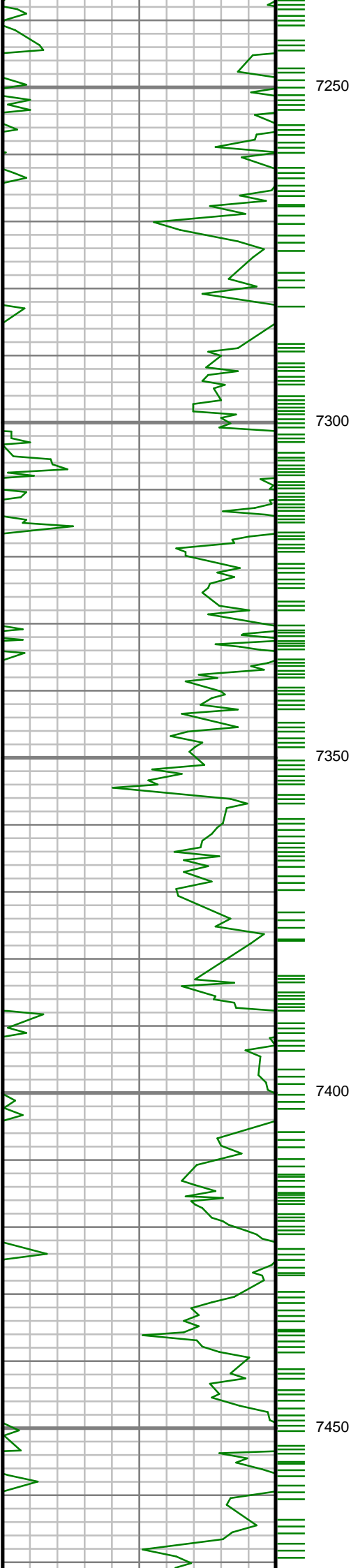
S: 73 MD: 6895.00 ft
Inc: 31.94 deg Az:
182.46 deg TVD:
6697.99 ft

S: 74 MD: 6989.00 ft
Inc: 40.86 deg Az:
181.81 deg TVD:
6773.57 ft



S: 75 MD: 7084.00 ft
Inc: 47.07 deg Az:
184.24 deg TVD:
6841.91 ft

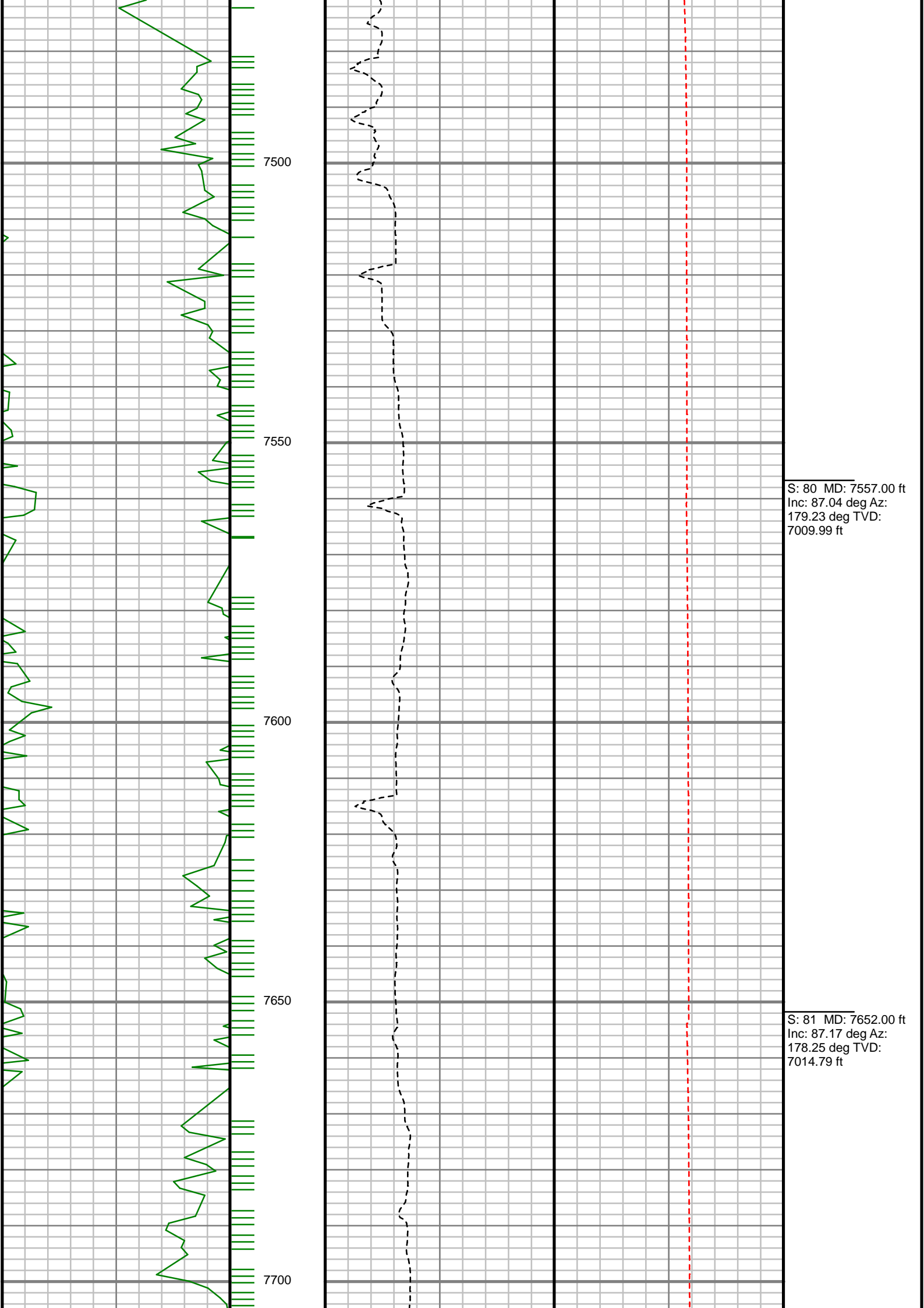
S: 76 MD: 7178.00 ft
Inc: 56.34 deg Az:
183.35 deg TVD:
6900.10 ft



S: 77 MD: 7273.00 ft
Inc: 63.61 deg Az:
180.74 deg TVD:
6947.61 ft

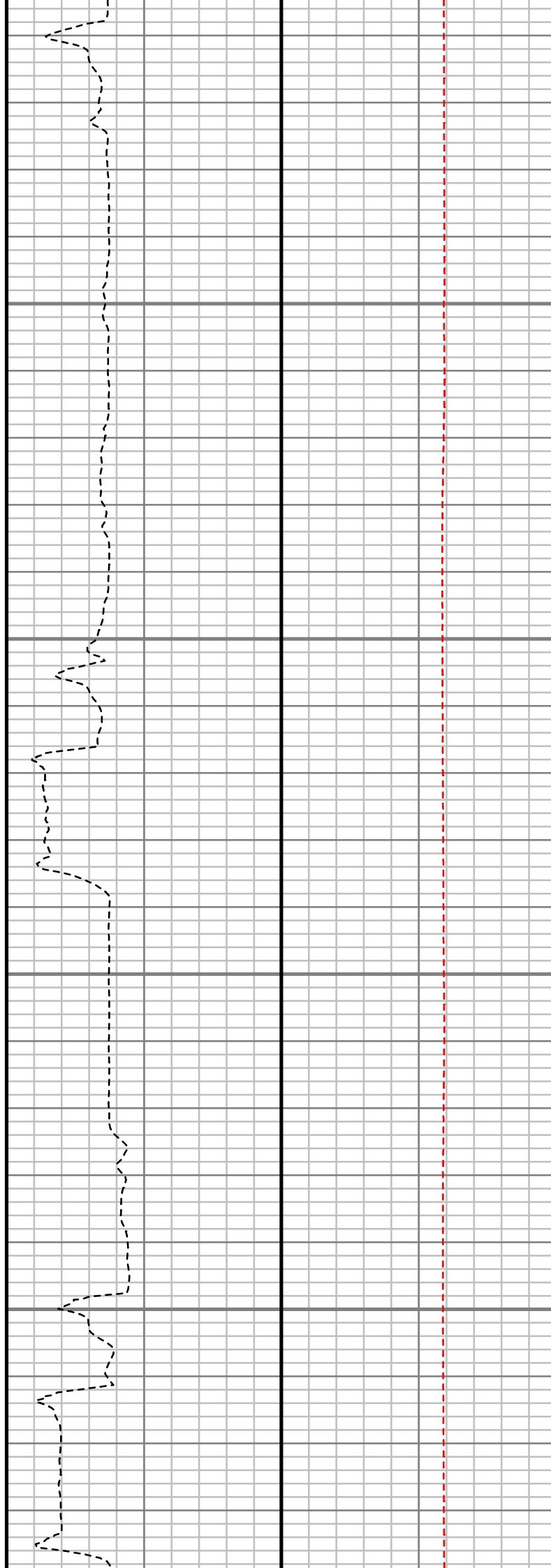
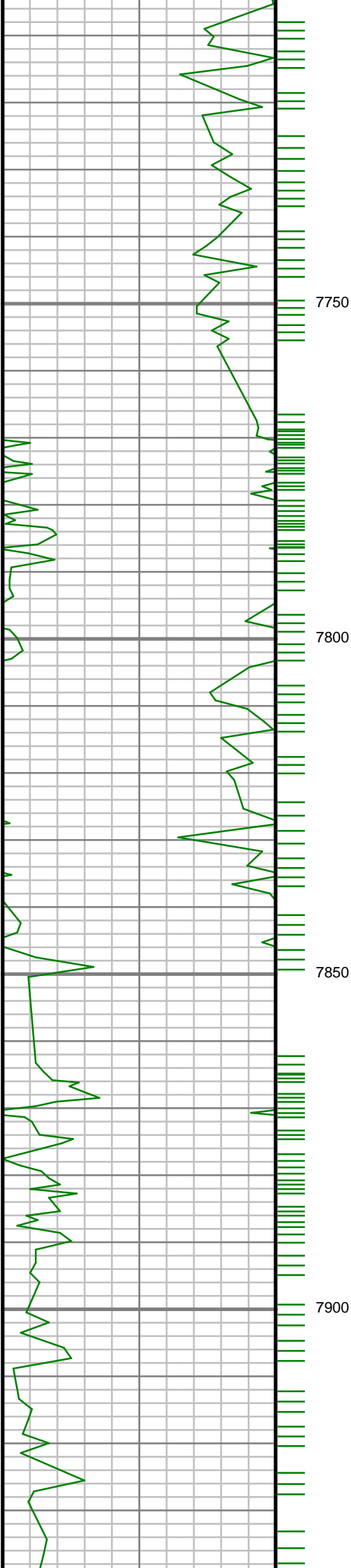
S: 78 MD: 7368.00 ft
Inc: 74.35 deg Az:
178.21 deg TVD:
6981.65 ft

S: 79 MD: 7462.00 ft
Inc: 81.98 deg Az:
178.79 deg TVD:
7000.91 ft



S: 80 MD: 7557.00 ft
Inc: 87.04 deg Az:
179.23 deg TVD:
7009.99 ft

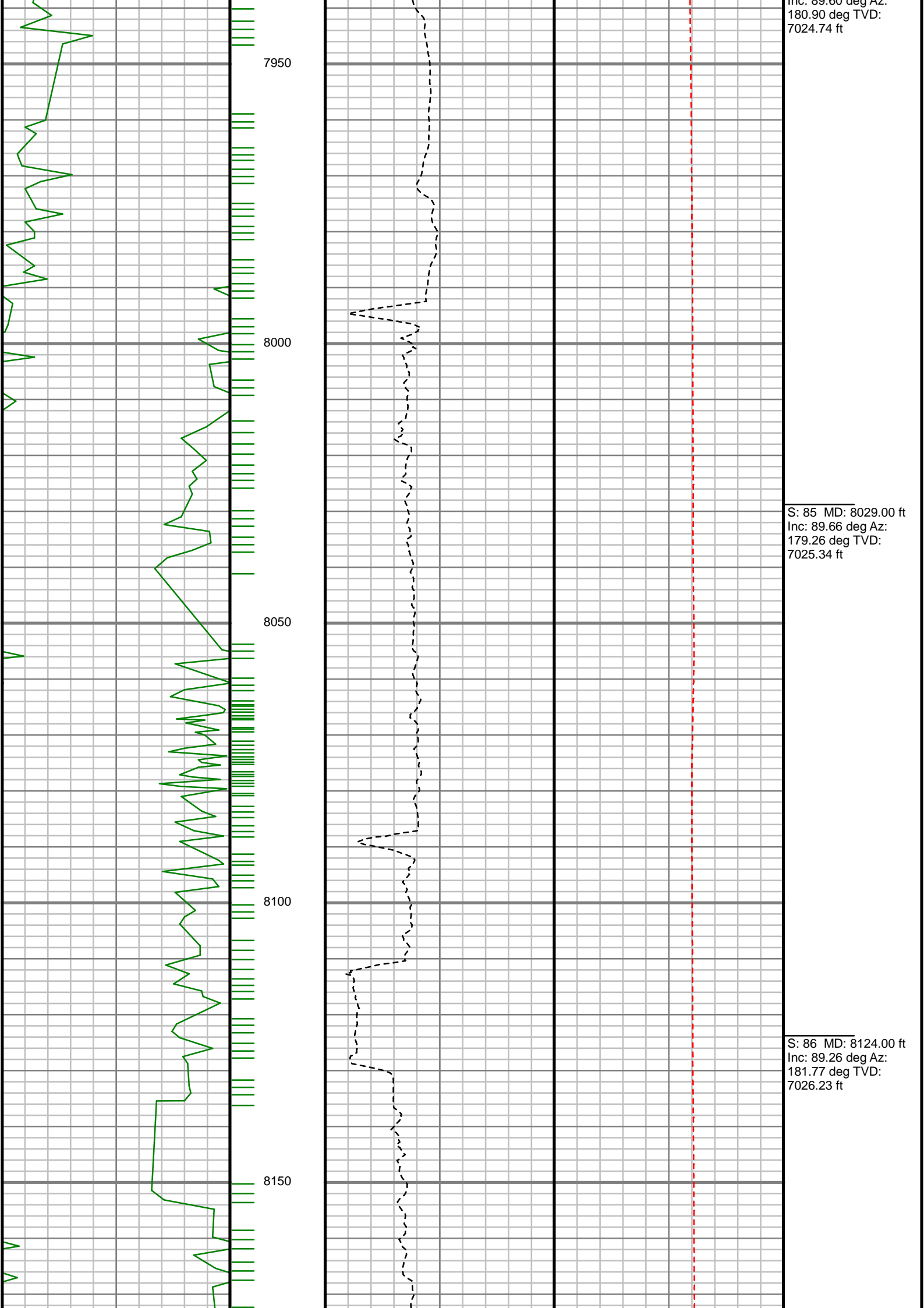
S: 81 MD: 7652.00 ft
Inc: 87.17 deg Az:
178.25 deg TVD:
7014.79 ft



S: 82 MD: 7746.00 ft
Inc: 87.38 deg Az:
176.36 deg TVD:
7019.26 ft

S: 83 MD: 7840.00 ft
Inc: 88.19 deg Az:
177.23 deg TVD:
7022.90 ft

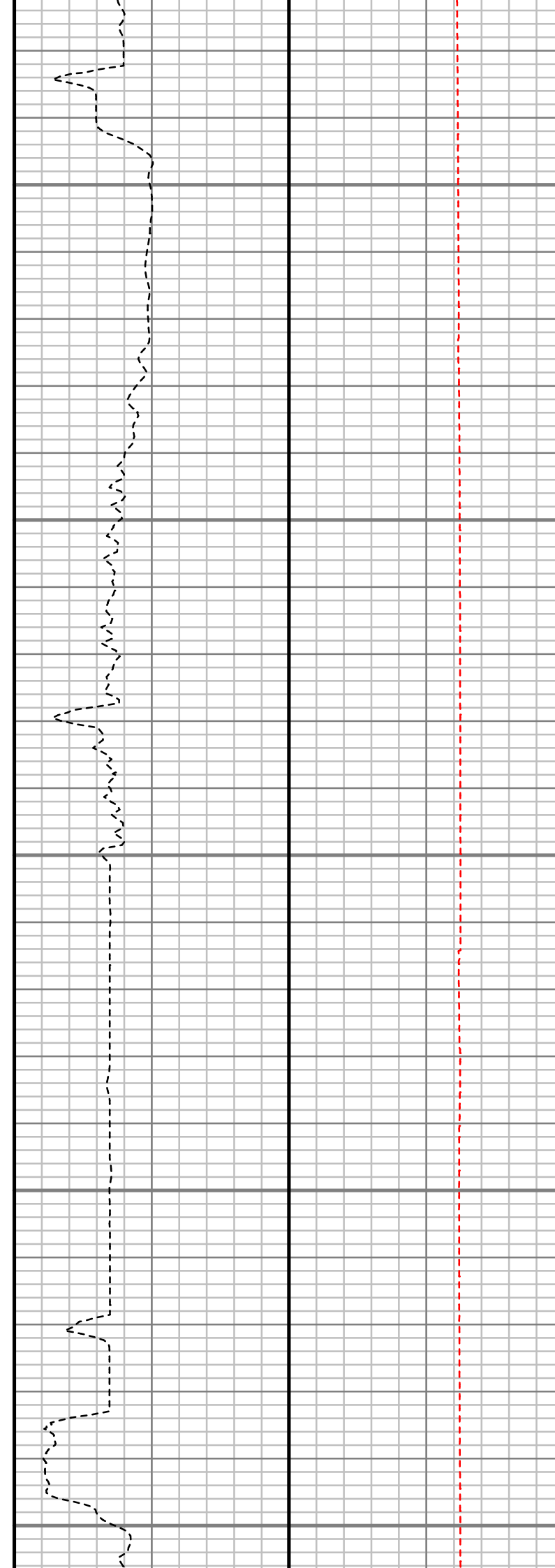
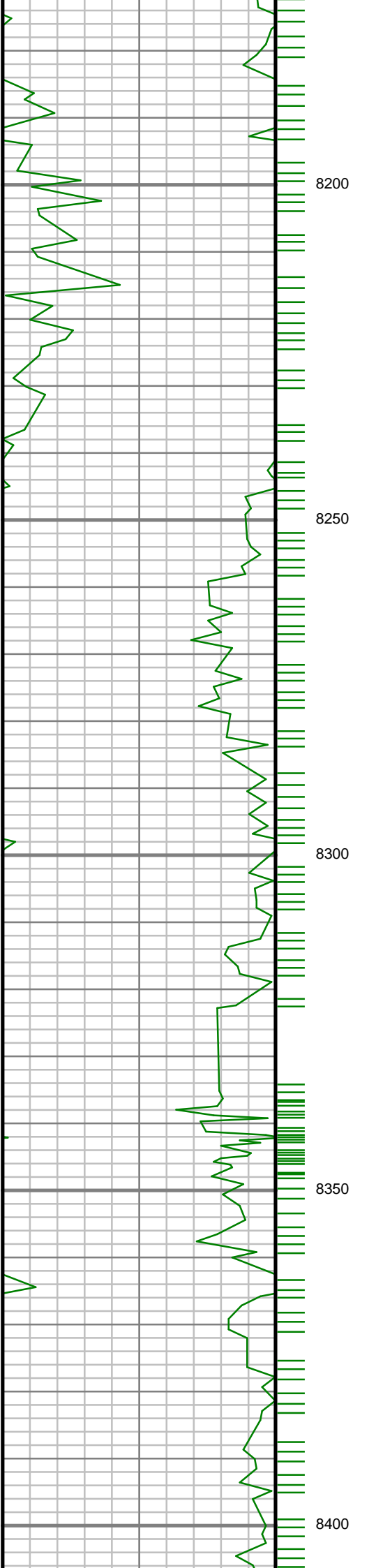
S: 84 MD: 7935.00 ft
Inc: 89.60 deg Az:



Inc: 89.60 deg Az:
180.90 deg TVD:
7024.74 ft

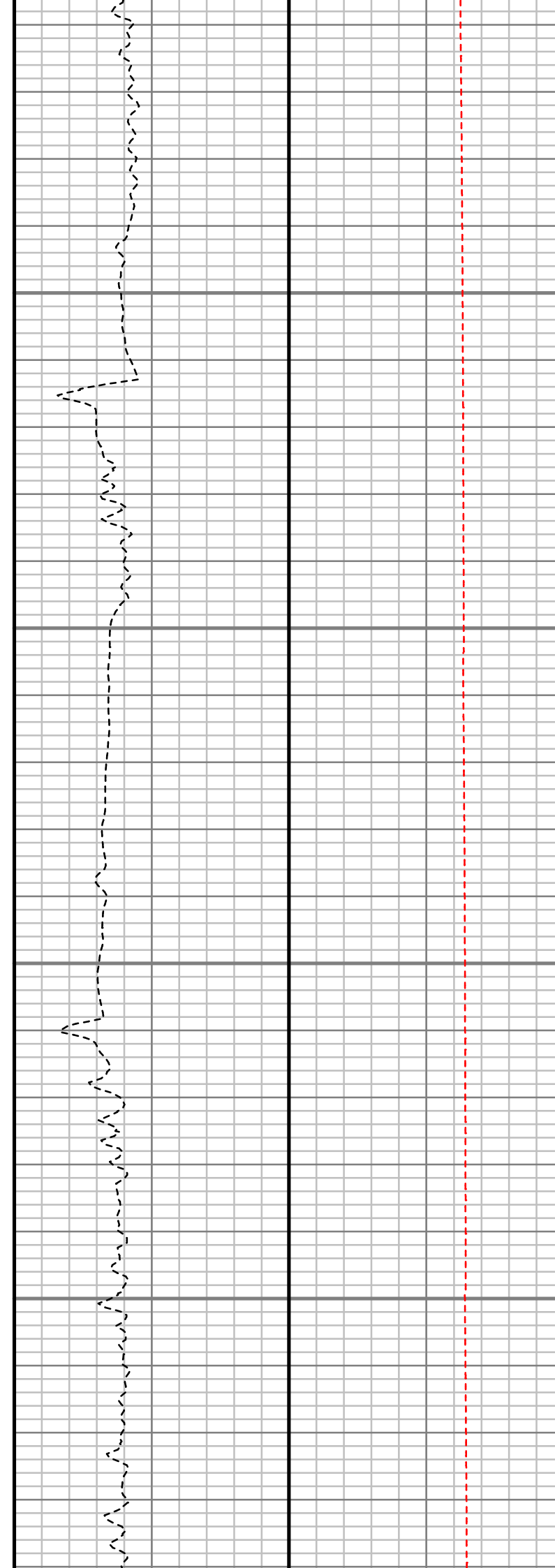
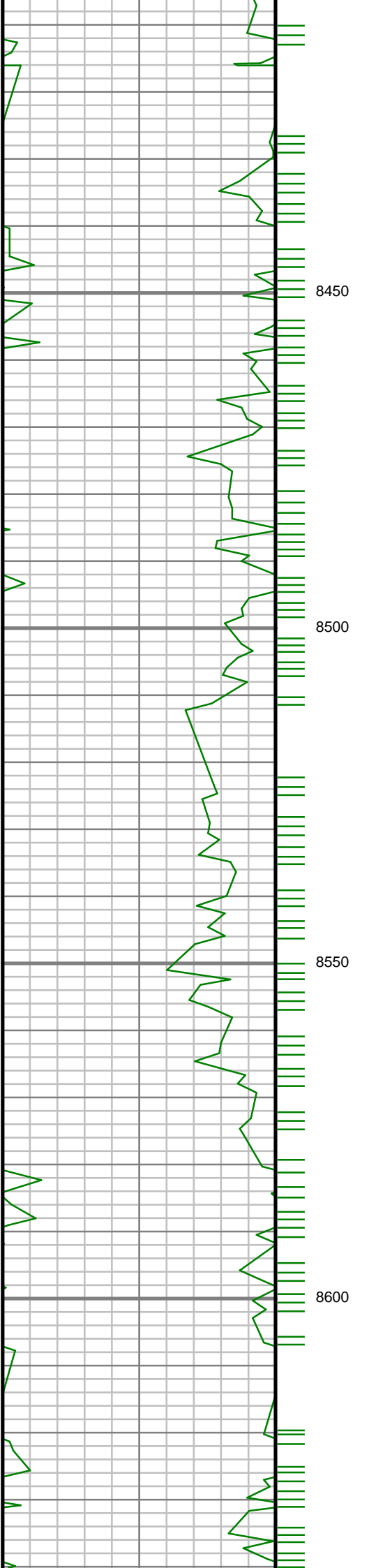
S: 85 MD: 8029.00 ft
Inc: 89.66 deg Az:
179.26 deg TVD:
7025.34 ft

S: 86 MD: 8124.00 ft
Inc: 89.26 deg Az:
181.77 deg TVD:
7026.23 ft

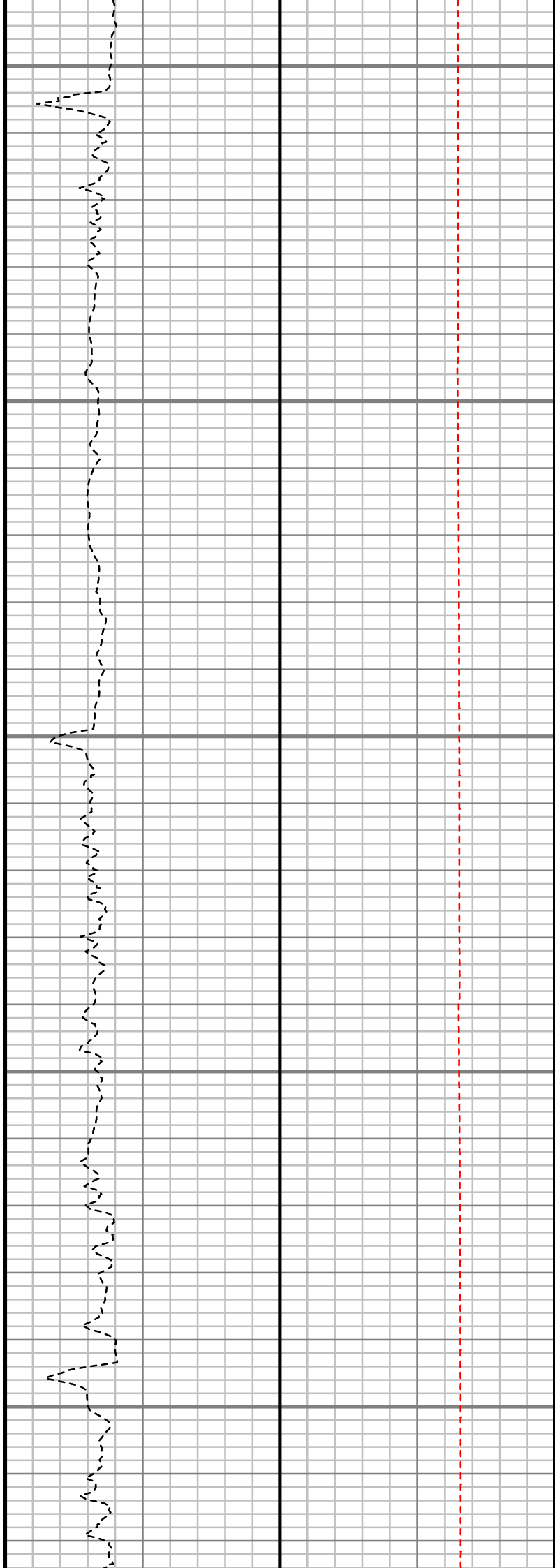
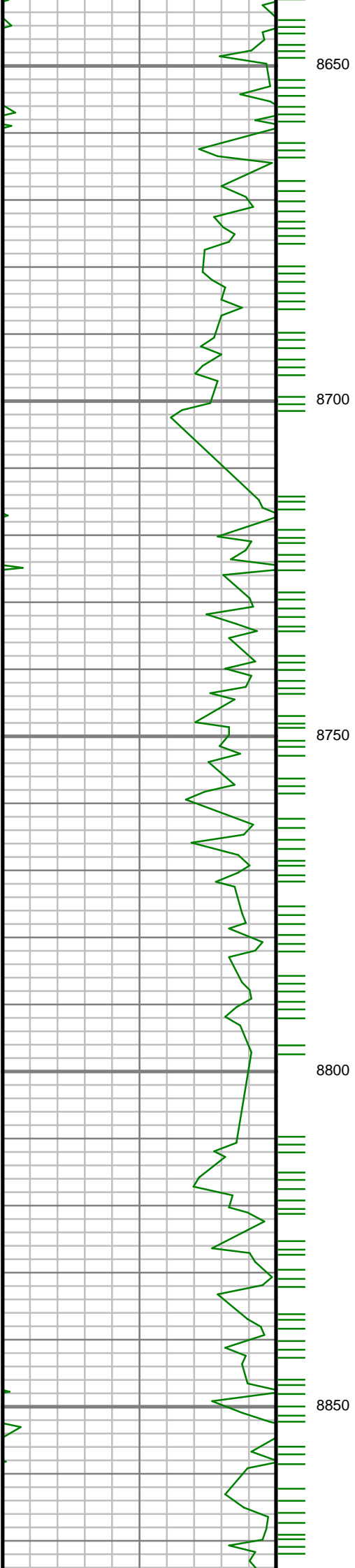


S: 87 MD: 8219.00 ft
Inc: 89.36 deg Az:
180.86 deg TVD:
7027.38 ft

S: 88 MD: 8314.00 ft
Inc: 89.16 deg Az:
181.04 deg TVD:
7028.60 ft

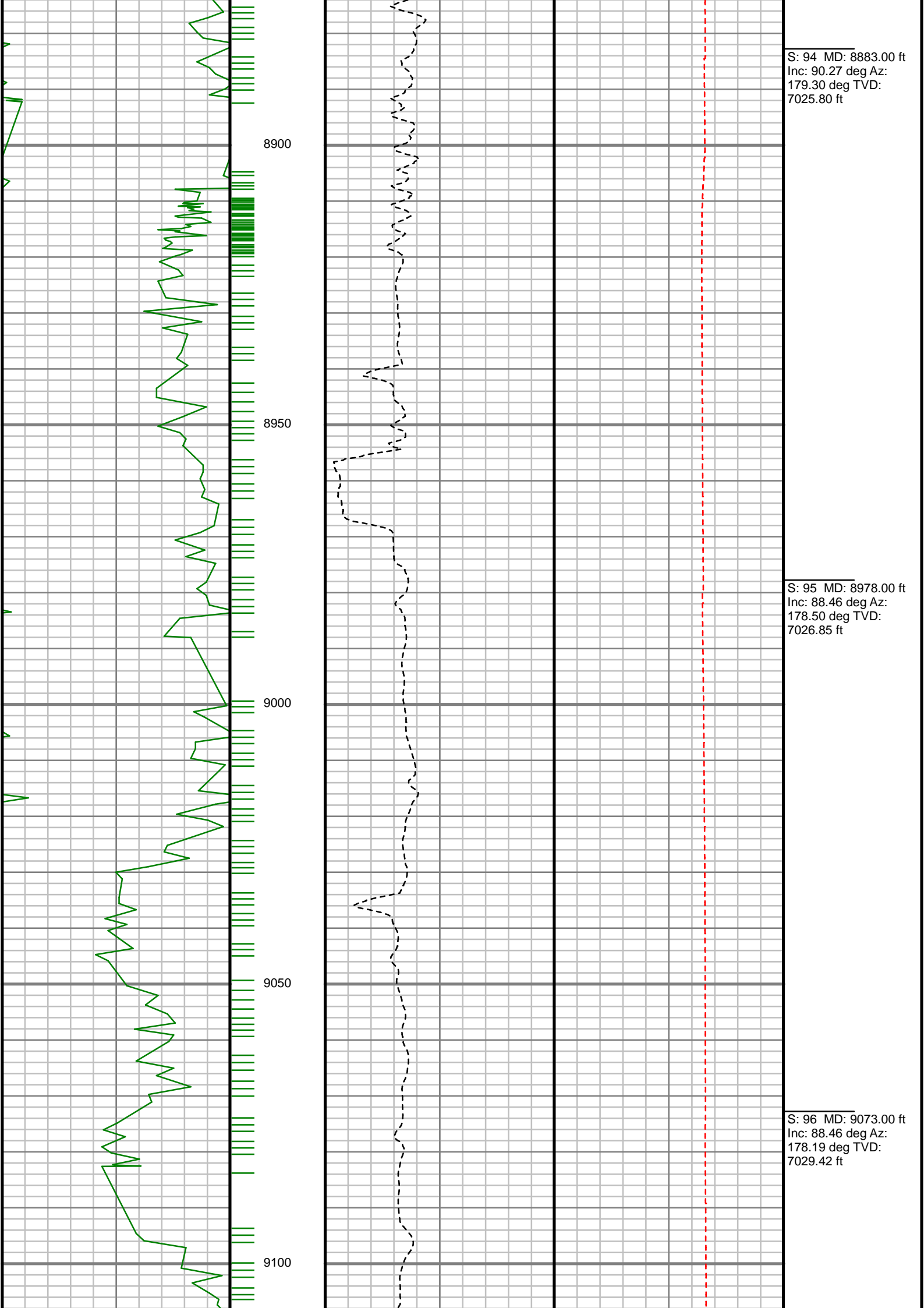


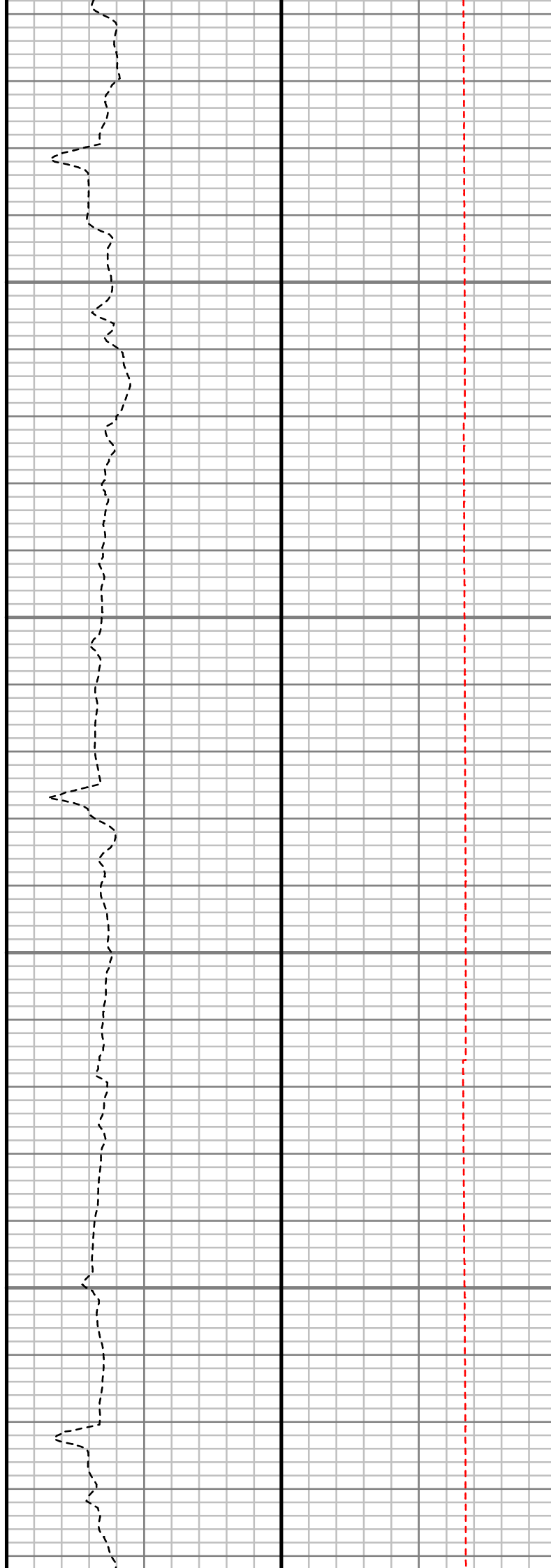
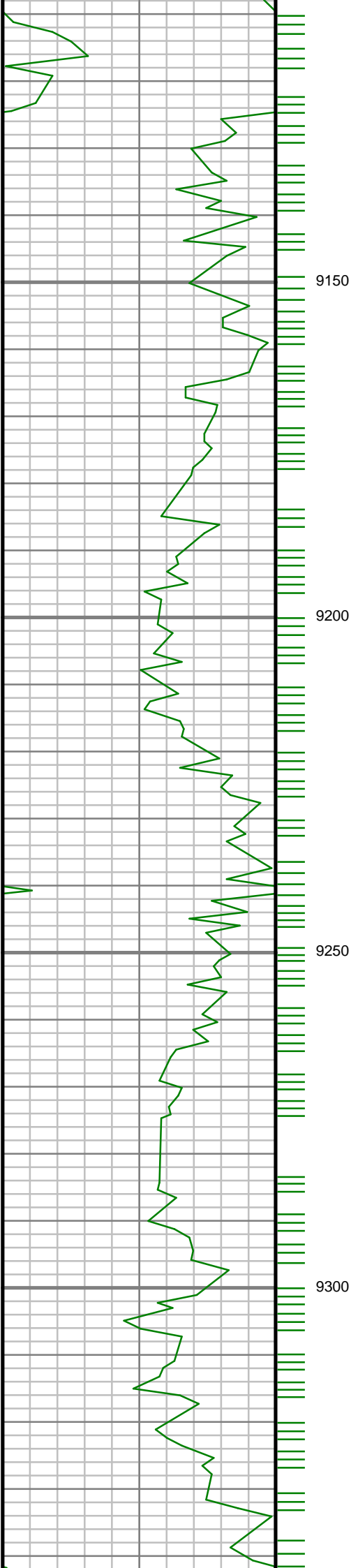
S: 89 MD: 8409.00 ft Inc: 90.67 deg Az: 179.10 deg TVD: 7028.74 ft
S: 90 MD: 8503.00 ft Inc: 89.93 deg Az: 178.89 deg TVD: 7028.25 ft
S: 91 MD: 8598.00 ft Inc: 90.37 deg Az: 179.23 deg TVD: 7027.99 ft



S: 92 MD: 8693.00 ft
Inc: 90.57 deg Az:
179.70 deg TVD:
7027.22 ft

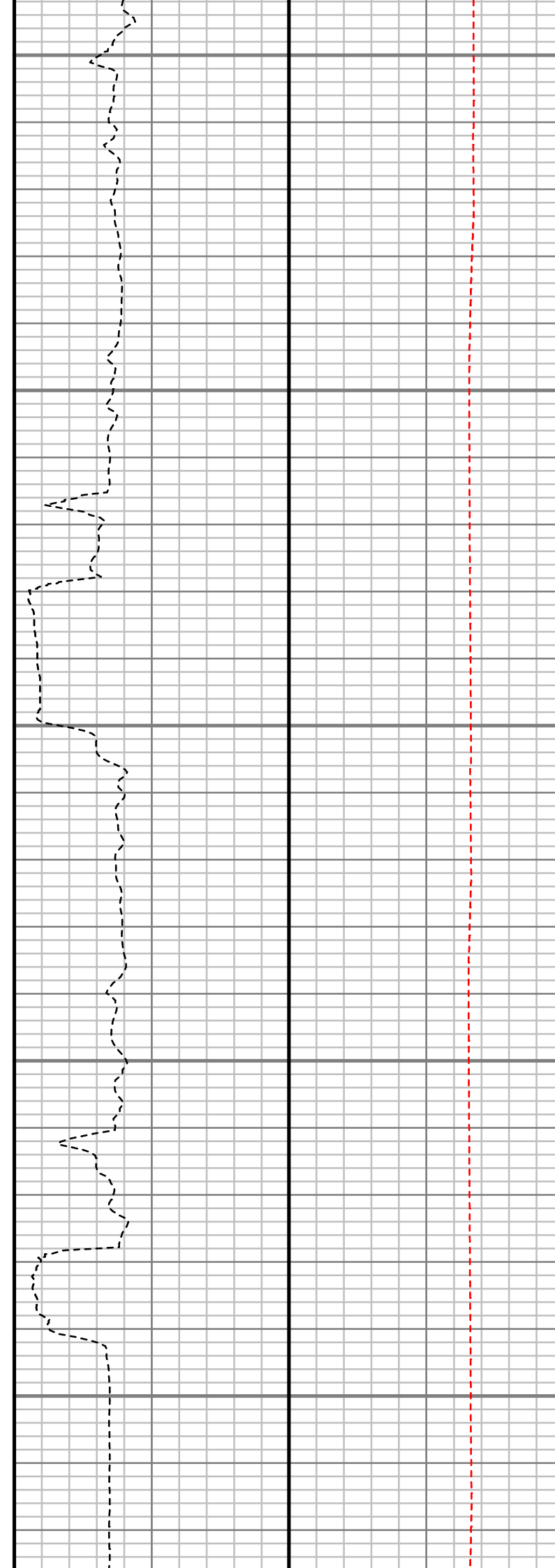
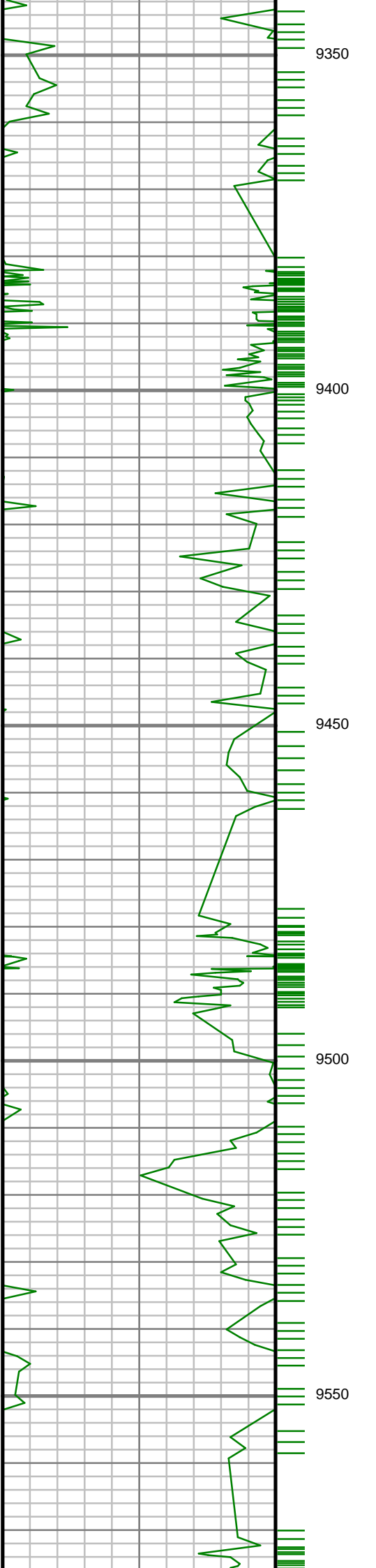
S: 93 MD: 8788.00 ft
Inc: 90.44 deg Az:
179.83 deg TVD:
7026.38 ft





S: 97 MD: 9168.00 ft
Inc: 88.26 deg Az:
177.64 deg TVD:
7032.14 ft

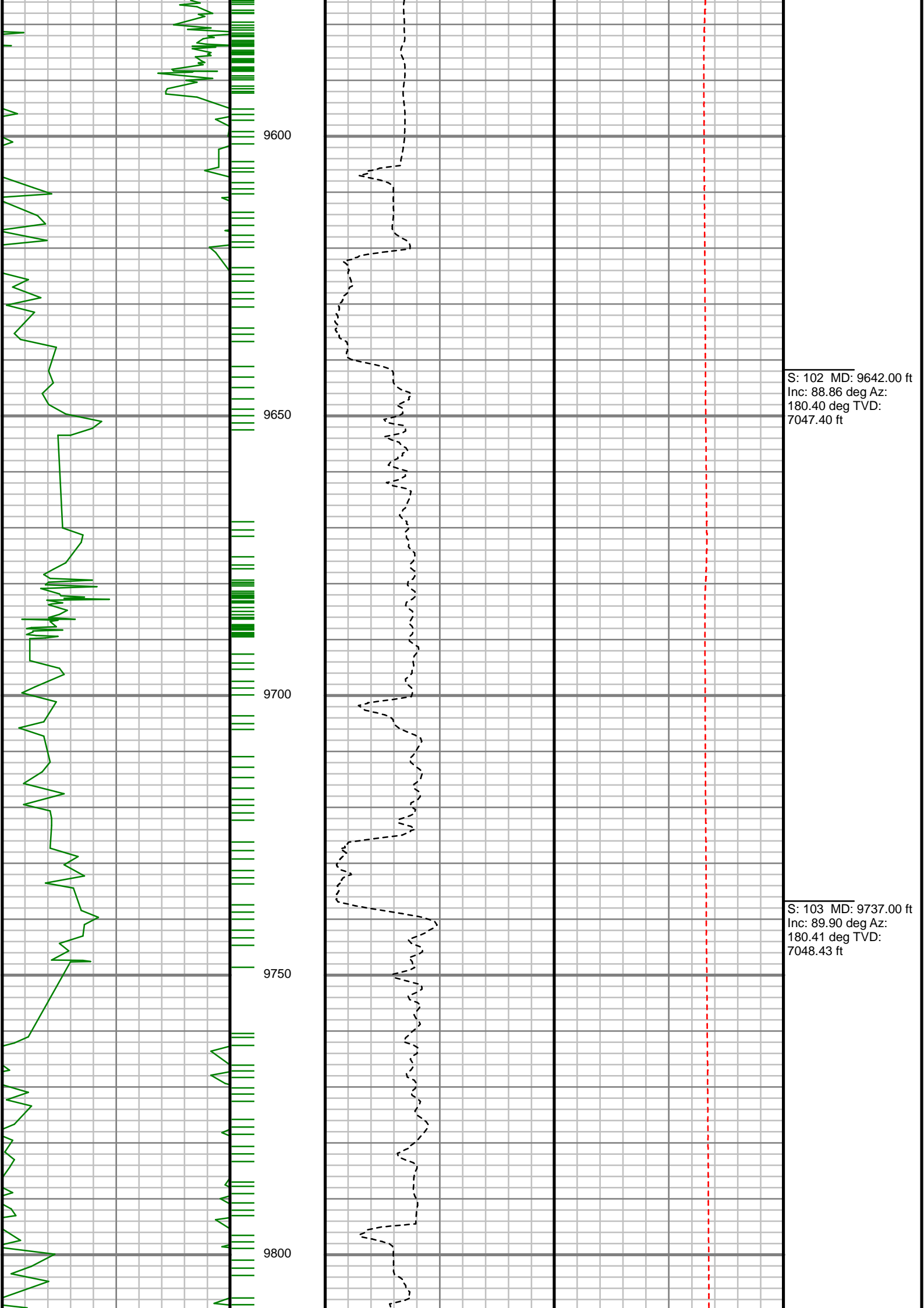
S: 98 MD: 9263.00 ft
Inc: 88.93 deg Az:
177.64 deg TVD:
7034.48 ft

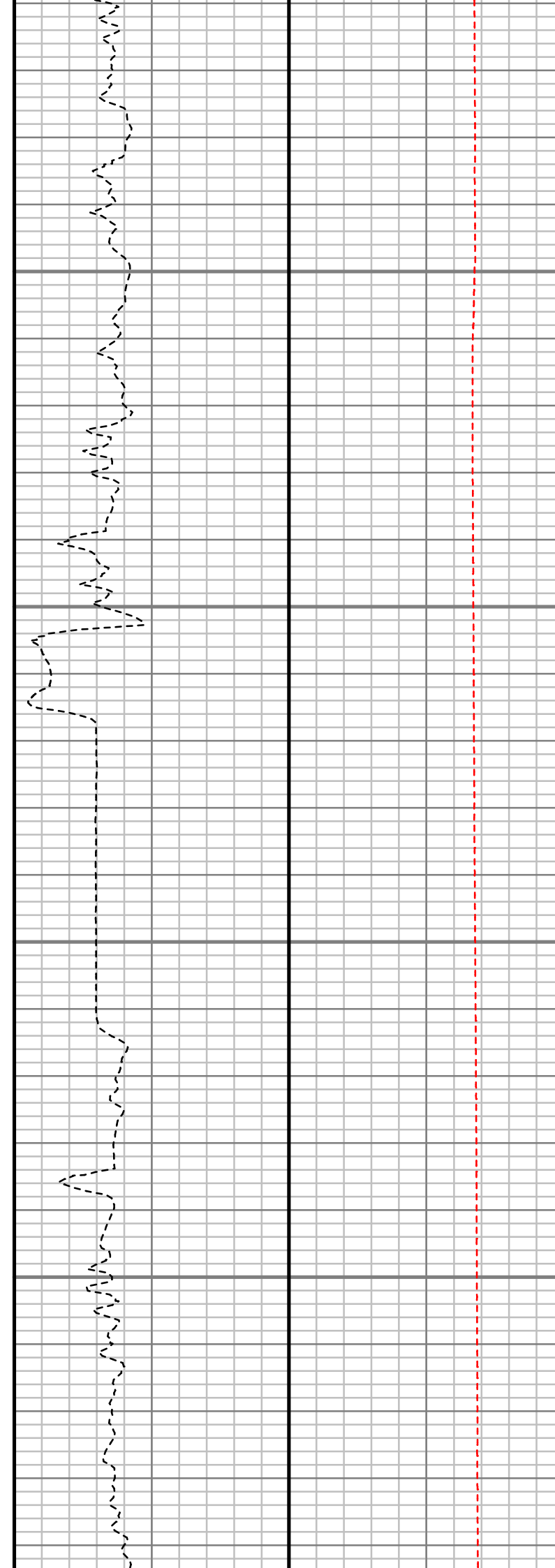
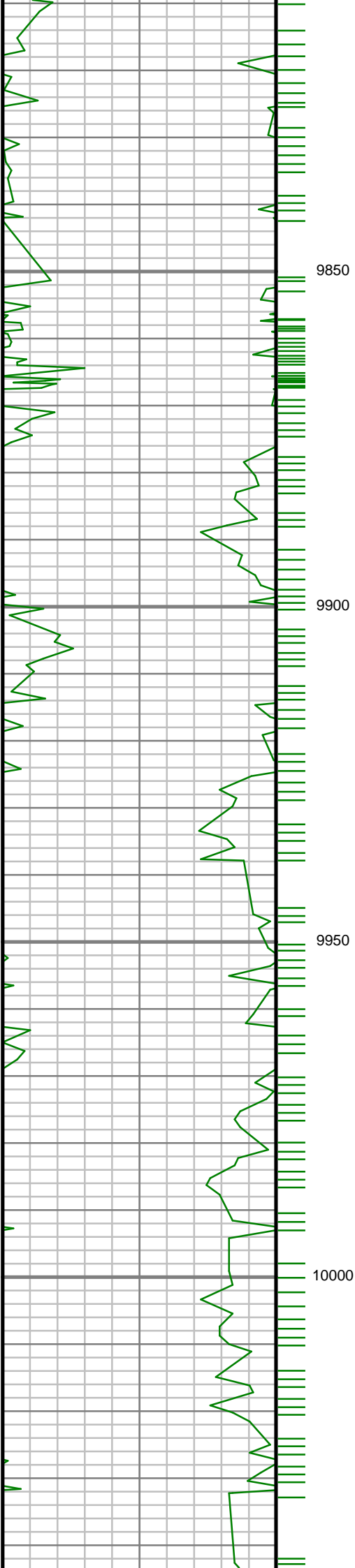


S: 99 MD: 9358.00 ft
Inc: 89.30 deg Az:
176.74 deg TVD:
7035.96 ft

S: 100 MD: 9453.00 ft
Inc: 86.78 deg Az:
178.92 deg TVD:
7039.21 ft

S: 101 MD: 9547.00 ft
Inc: 87.21 deg Az:
179.68 deg TVD:
7044.14 ft

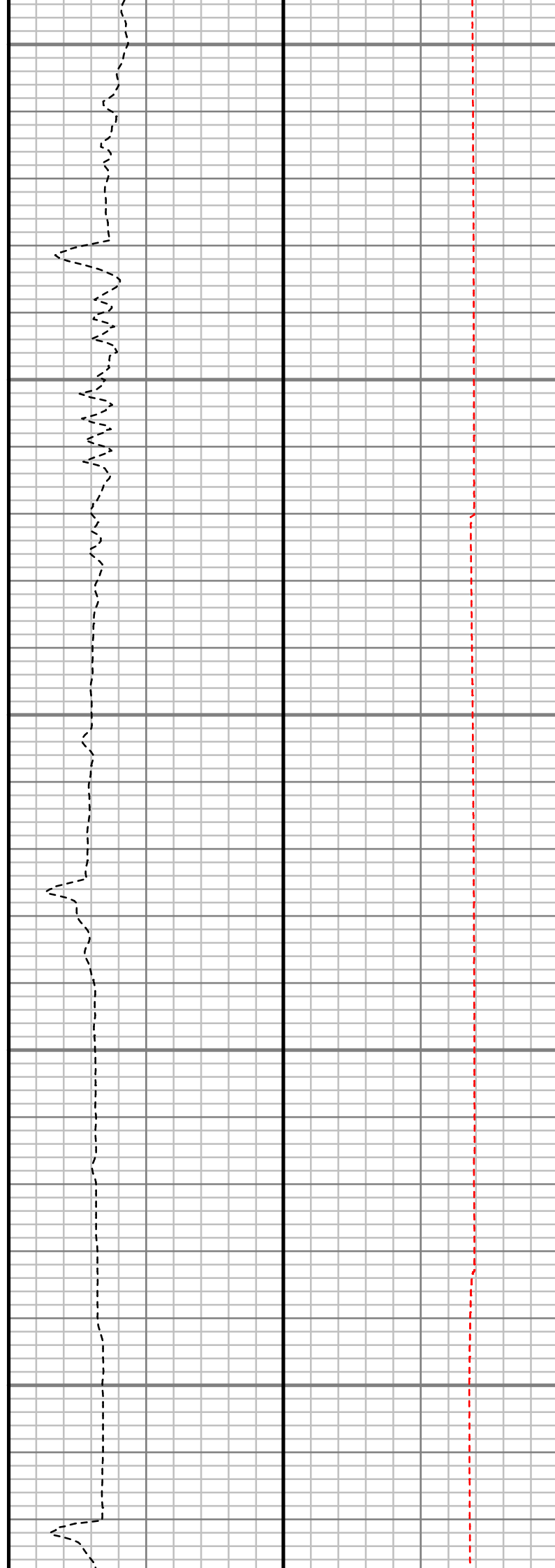
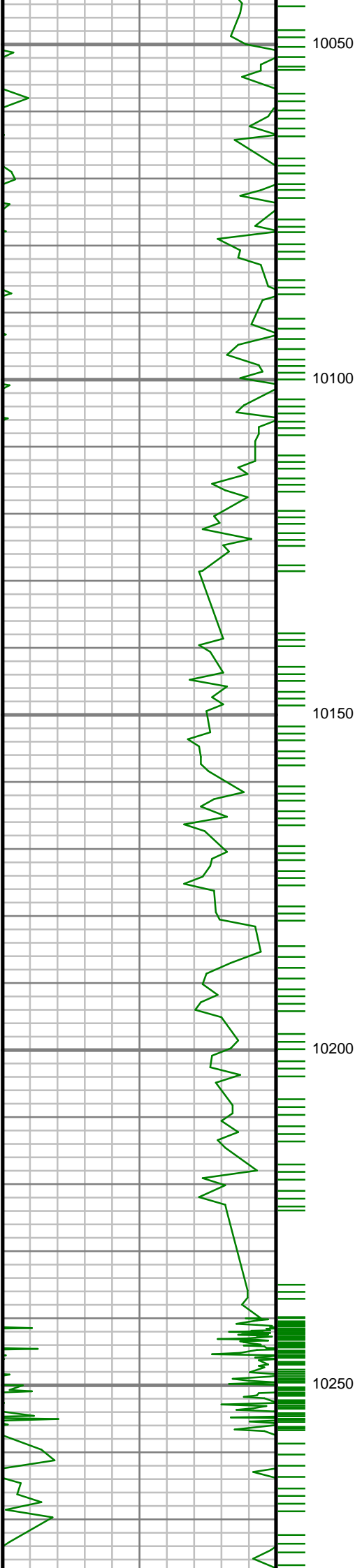




S: 104 MD: 9831.00 ft
Inc: 89.43 deg Az:
180.12 deg TVD:
7048.98 ft

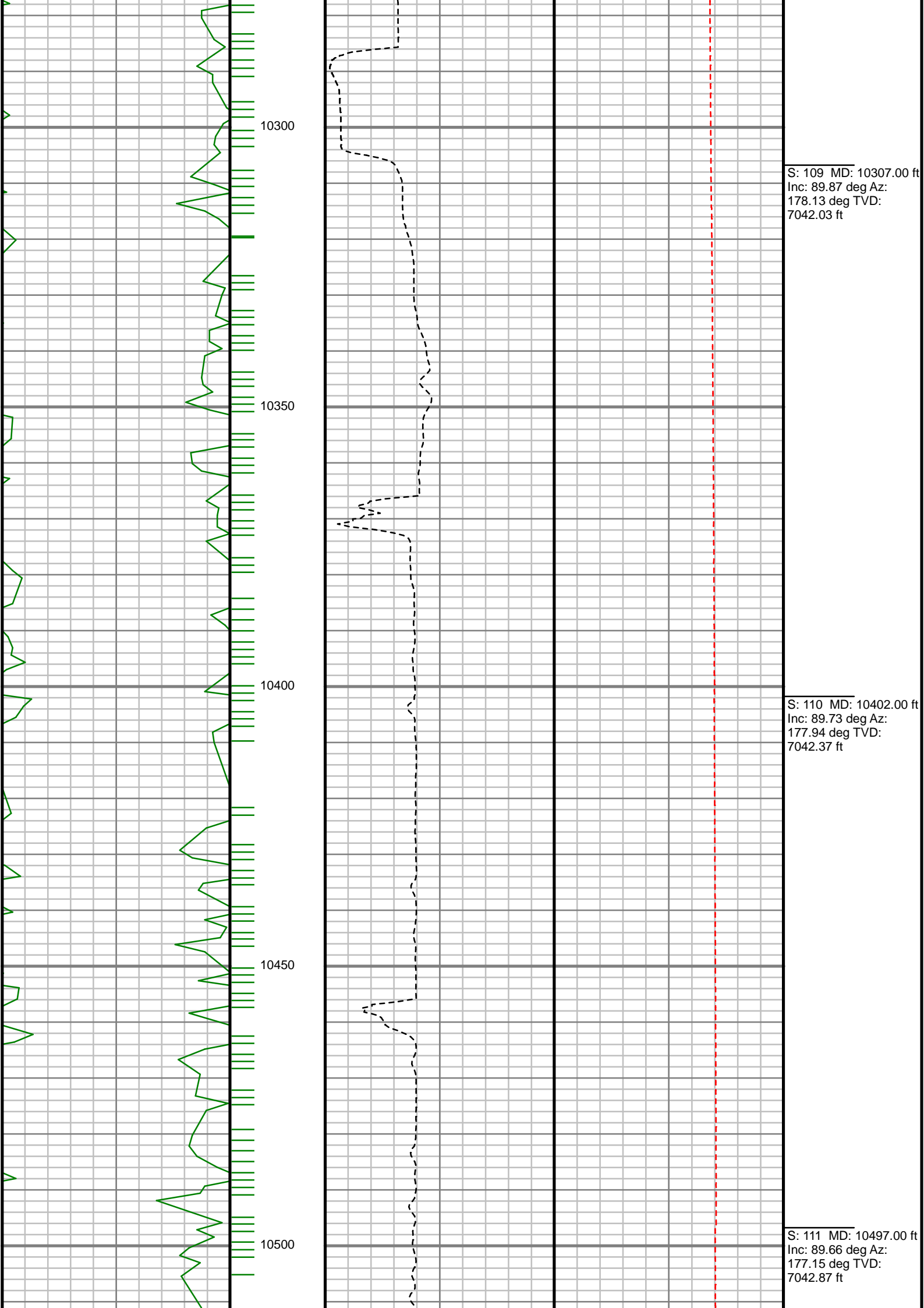
S: 105 MD: 9926.00 ft
Inc: 90.77 deg Az:
179.75 deg TVD:
7048.81 ft

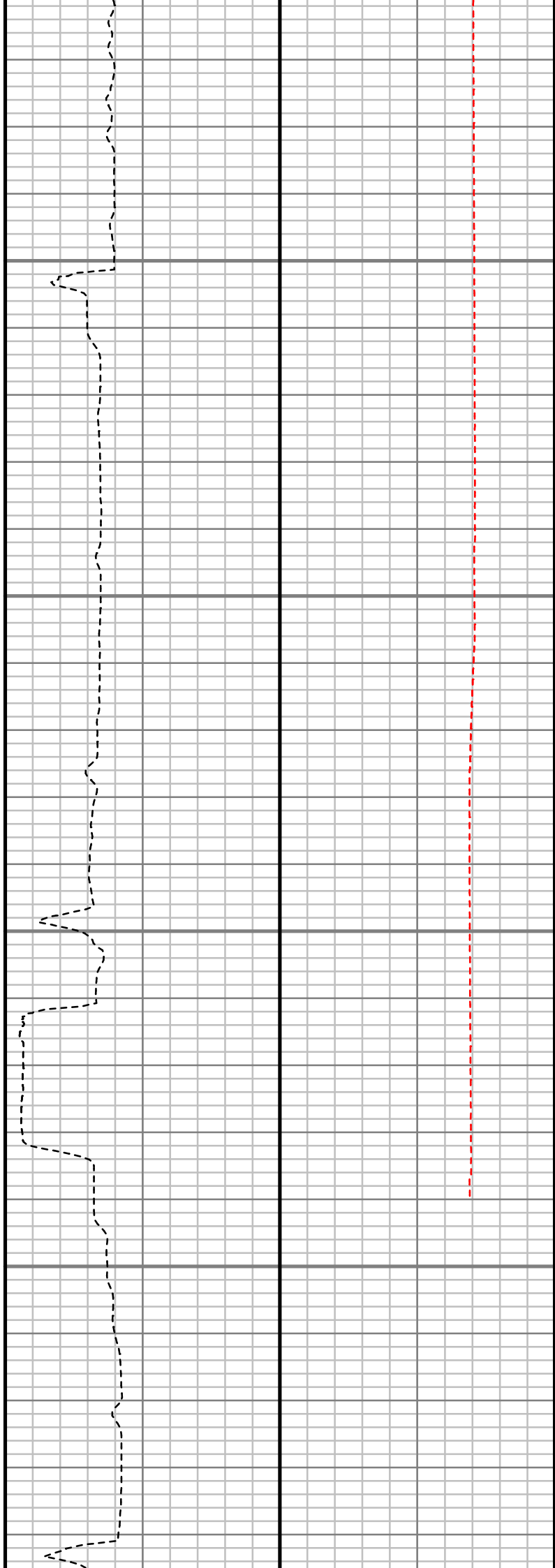
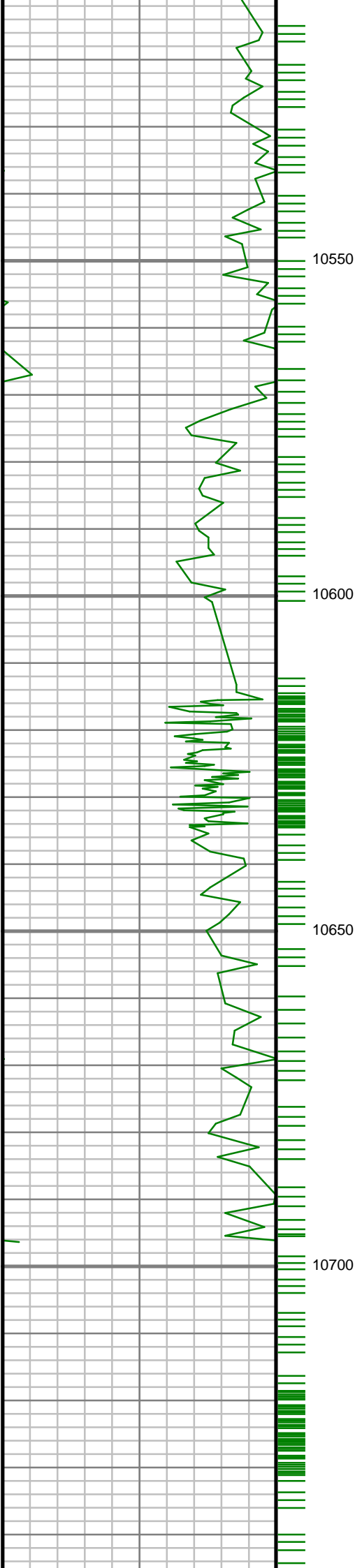
S: 106 MD: 10021.00 ft
Inc: 90.94 deg Az:
178.99 deg TVD:
7047.39 ft



S: 107 MD: 10116.00 ft
Inc: 90.84 deg Az:
178.47 deg TVD:
7045.92 ft

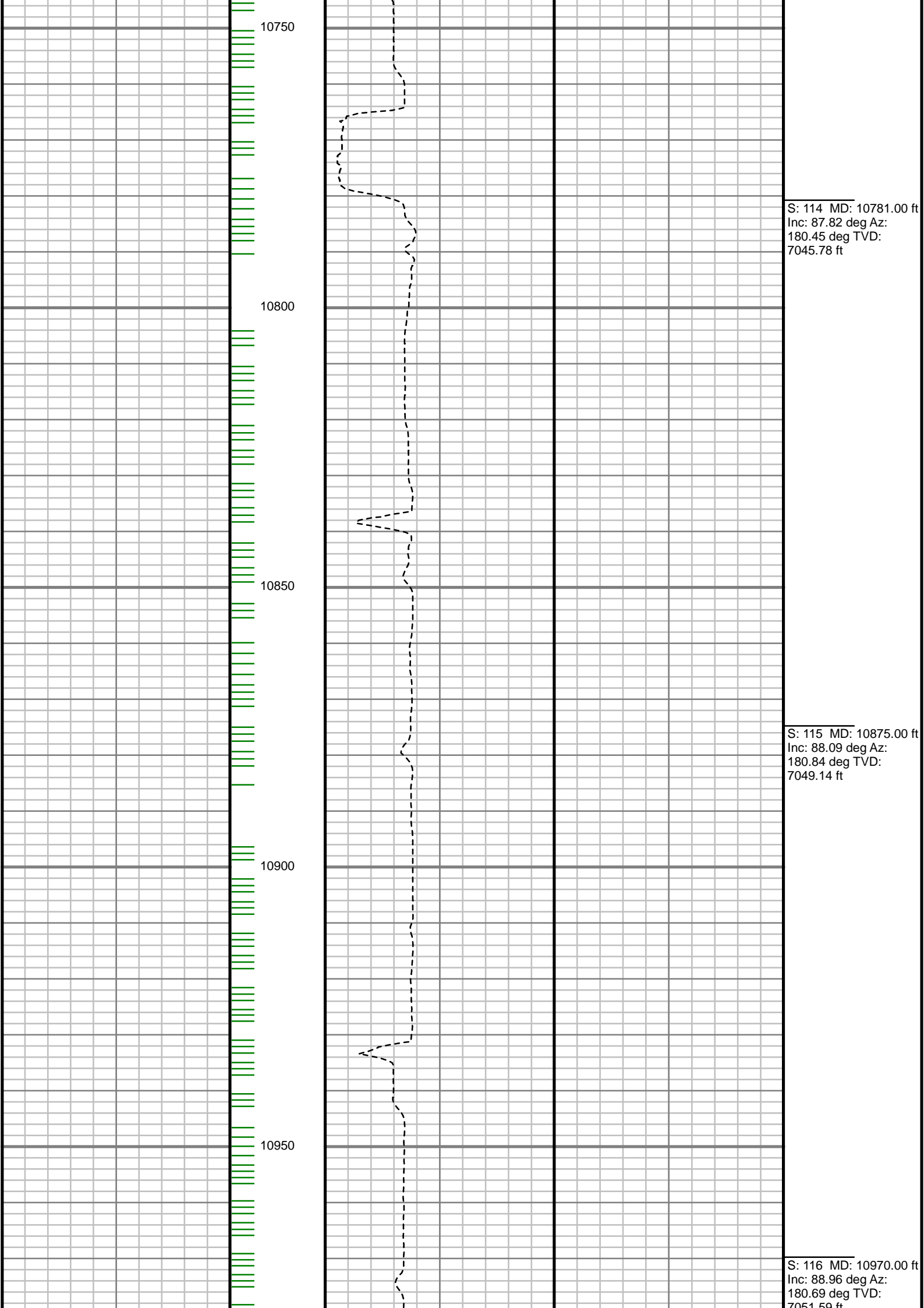
S: 108 MD: 10211.00 ft
Inc: 91.98 deg Az:
178.91 deg TVD:
7043.58 ft

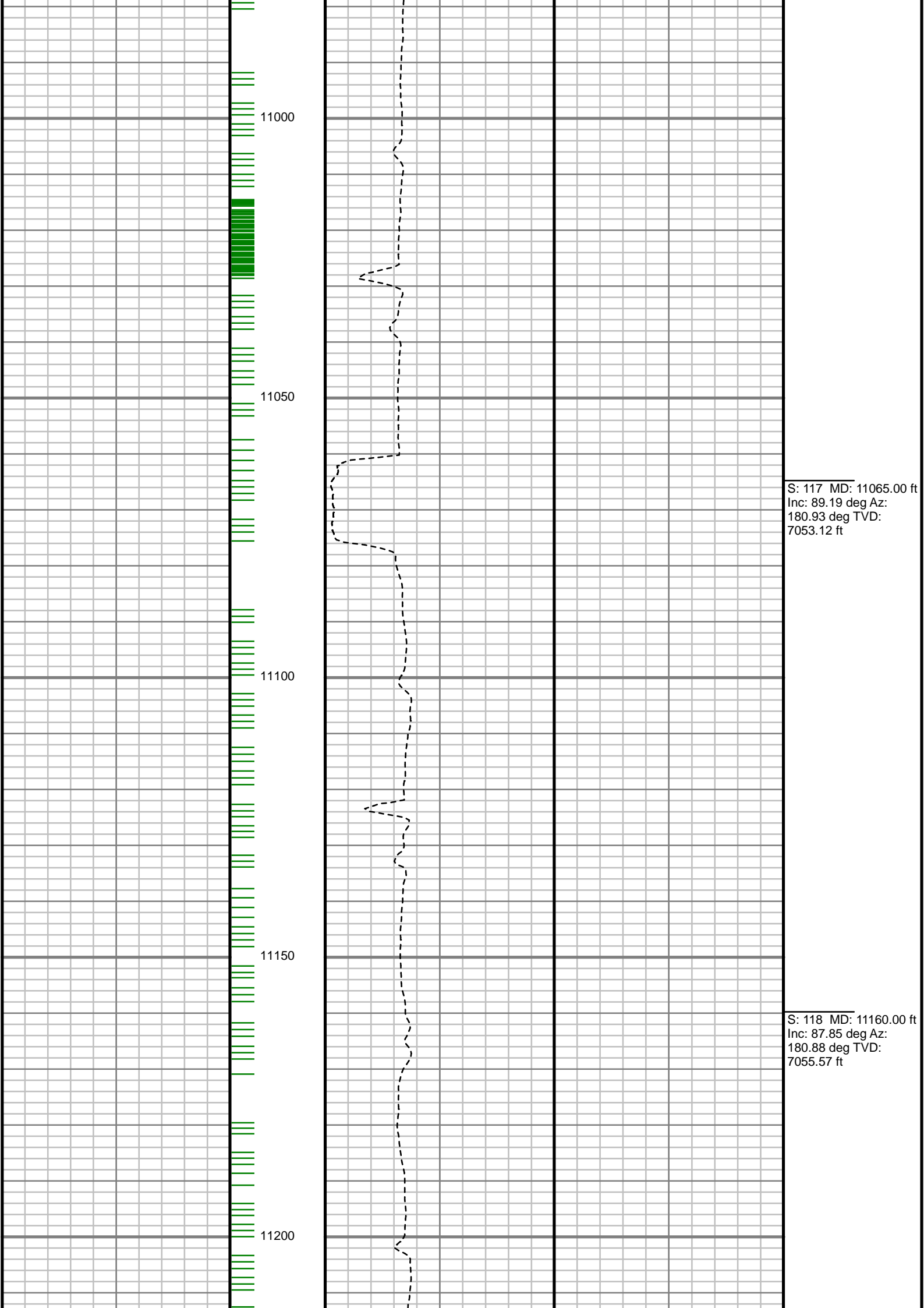


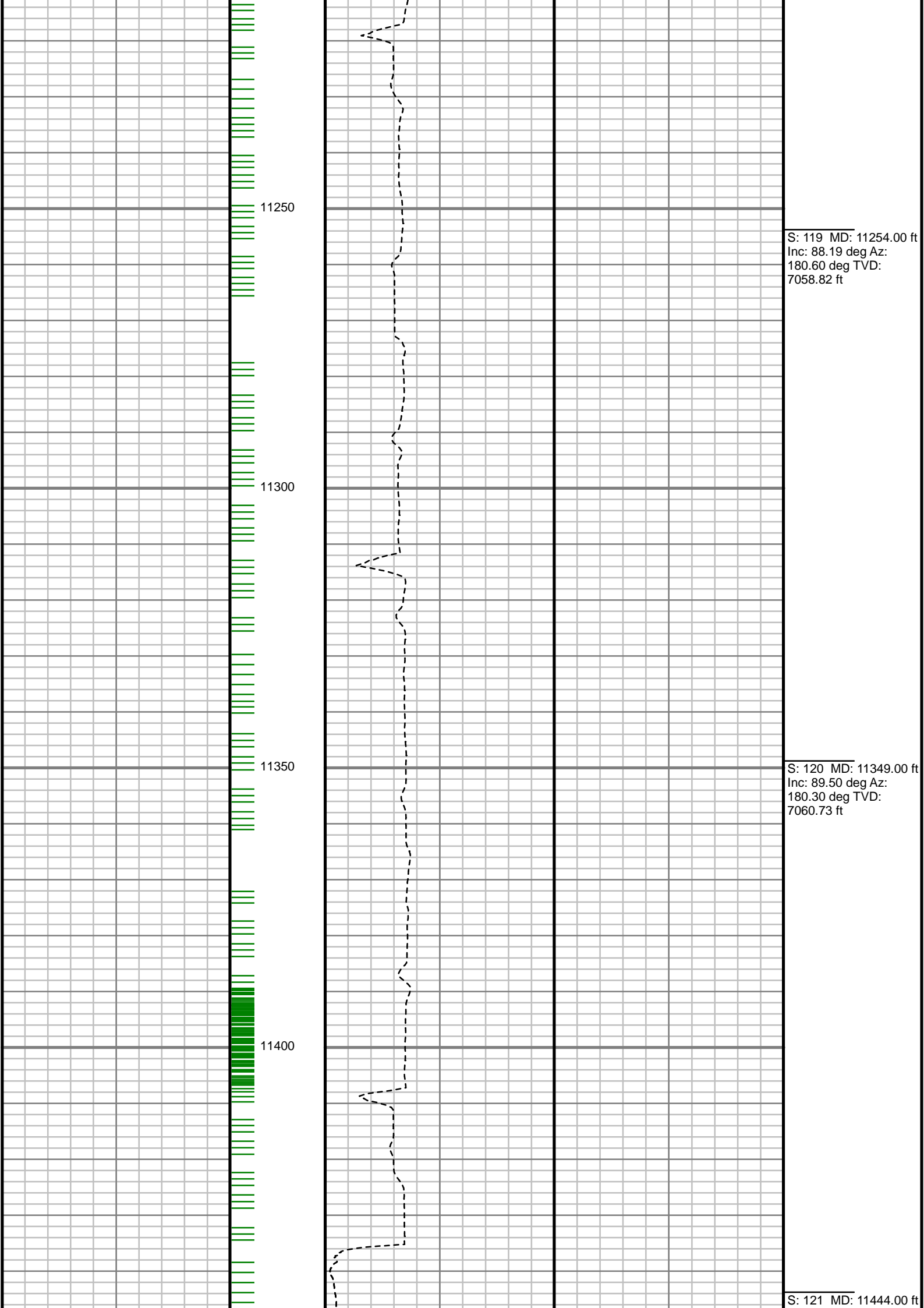


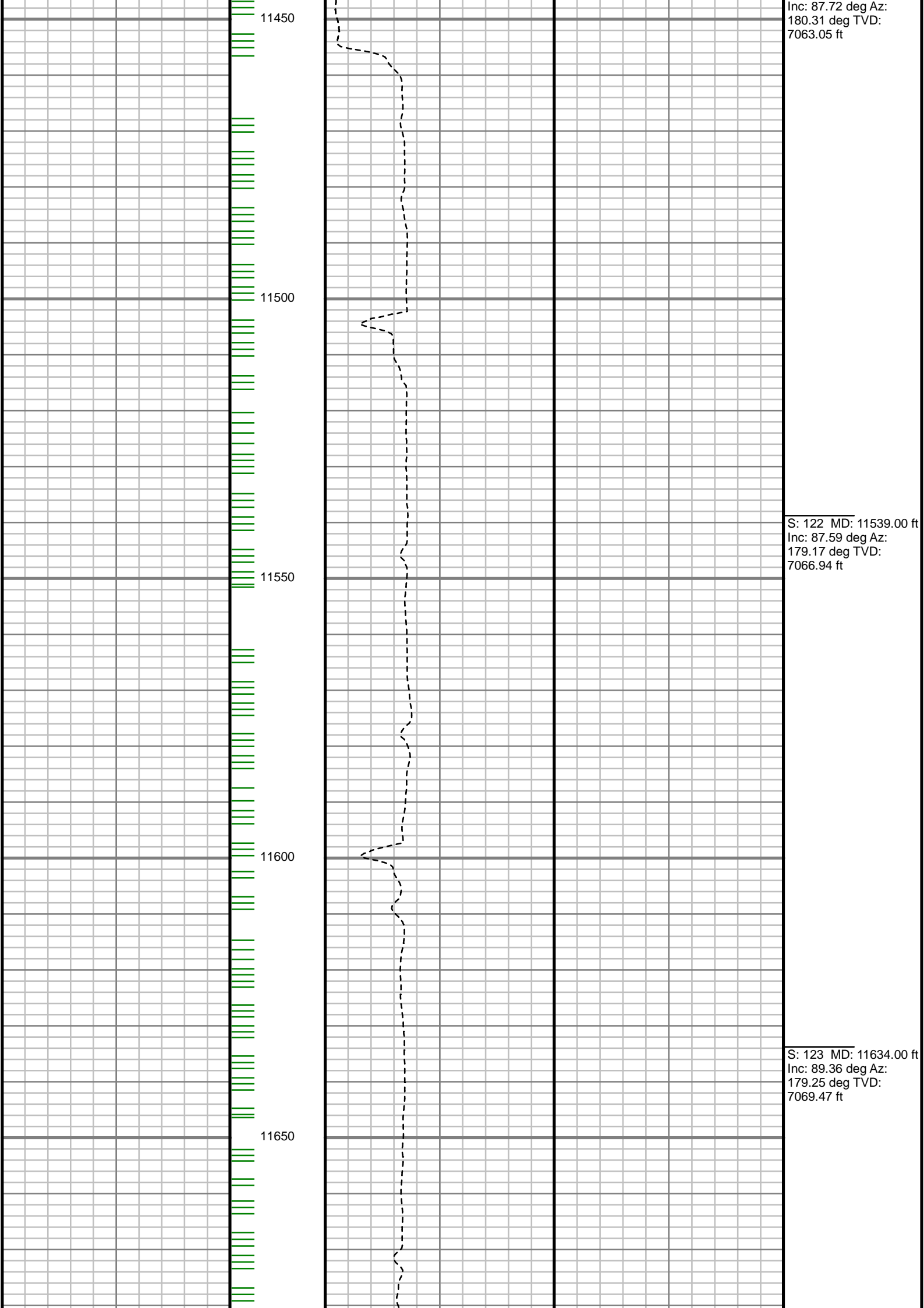
S: 112 MD: 10592.00 ft
Inc: 90.13 deg Az:
176.75 deg TVD:
7043.03 ft

S: 113 MD: 10686.00 ft
Inc: 89.36 deg Az:
179.65 deg TVD:
7043.45 ft





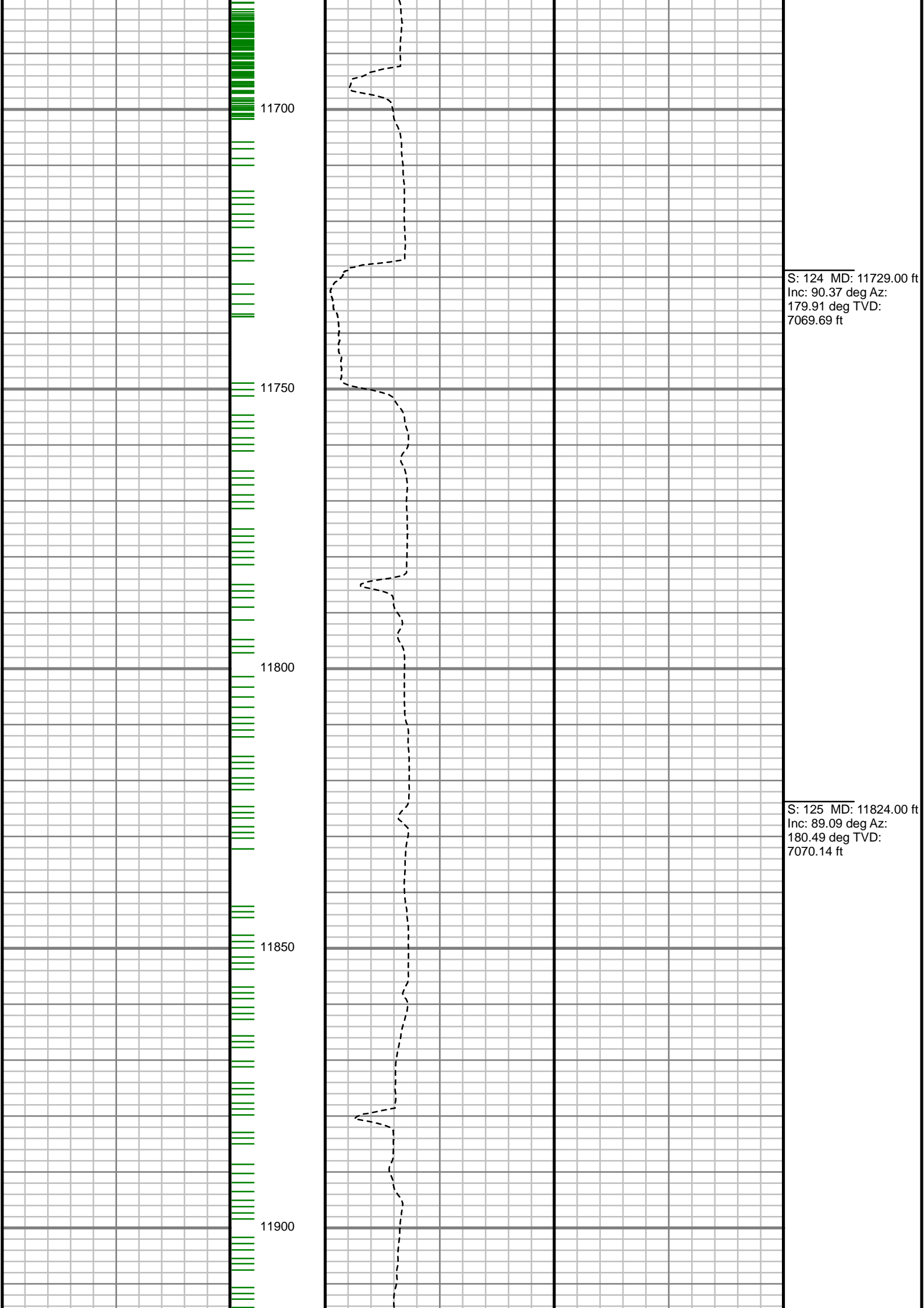


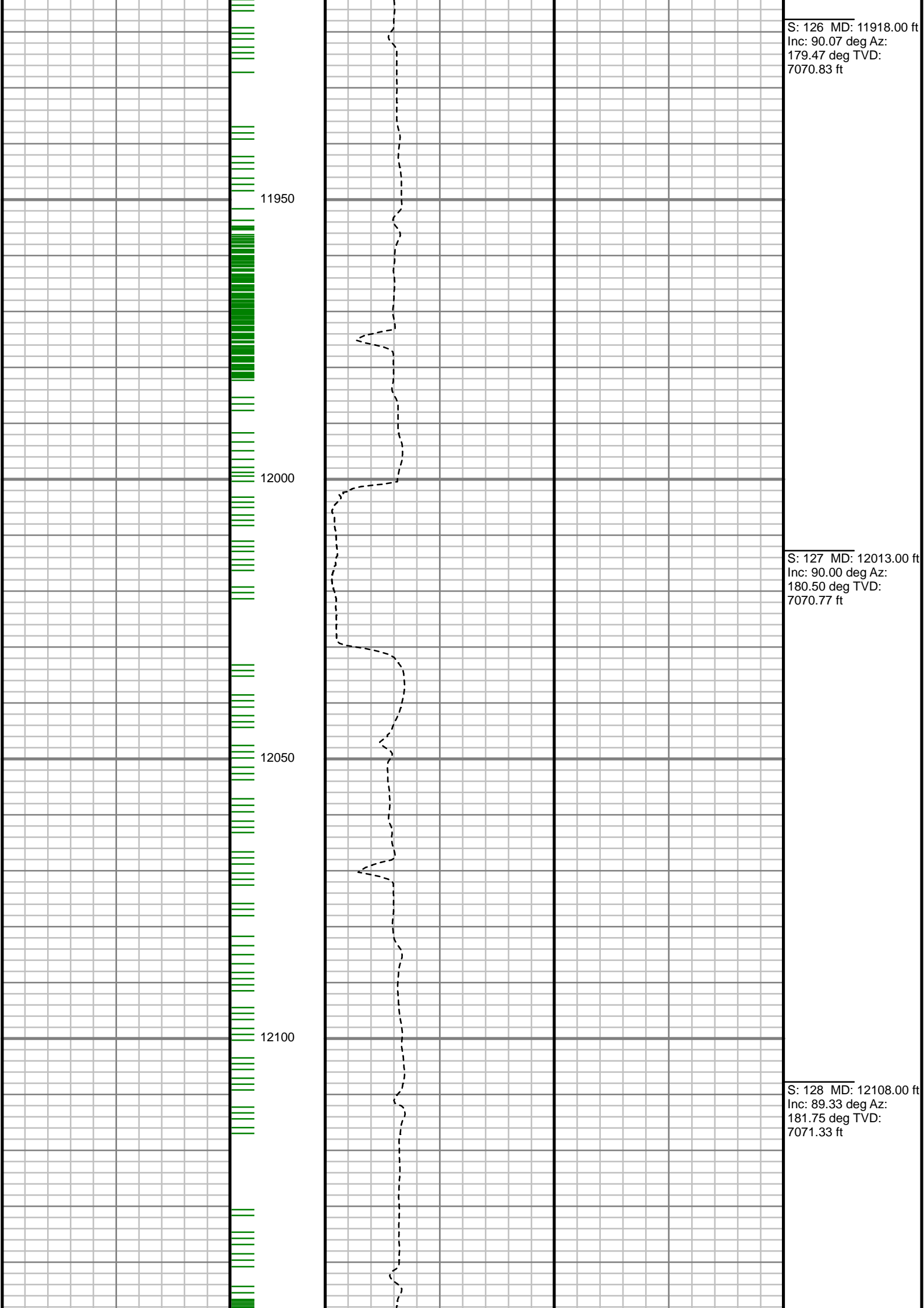


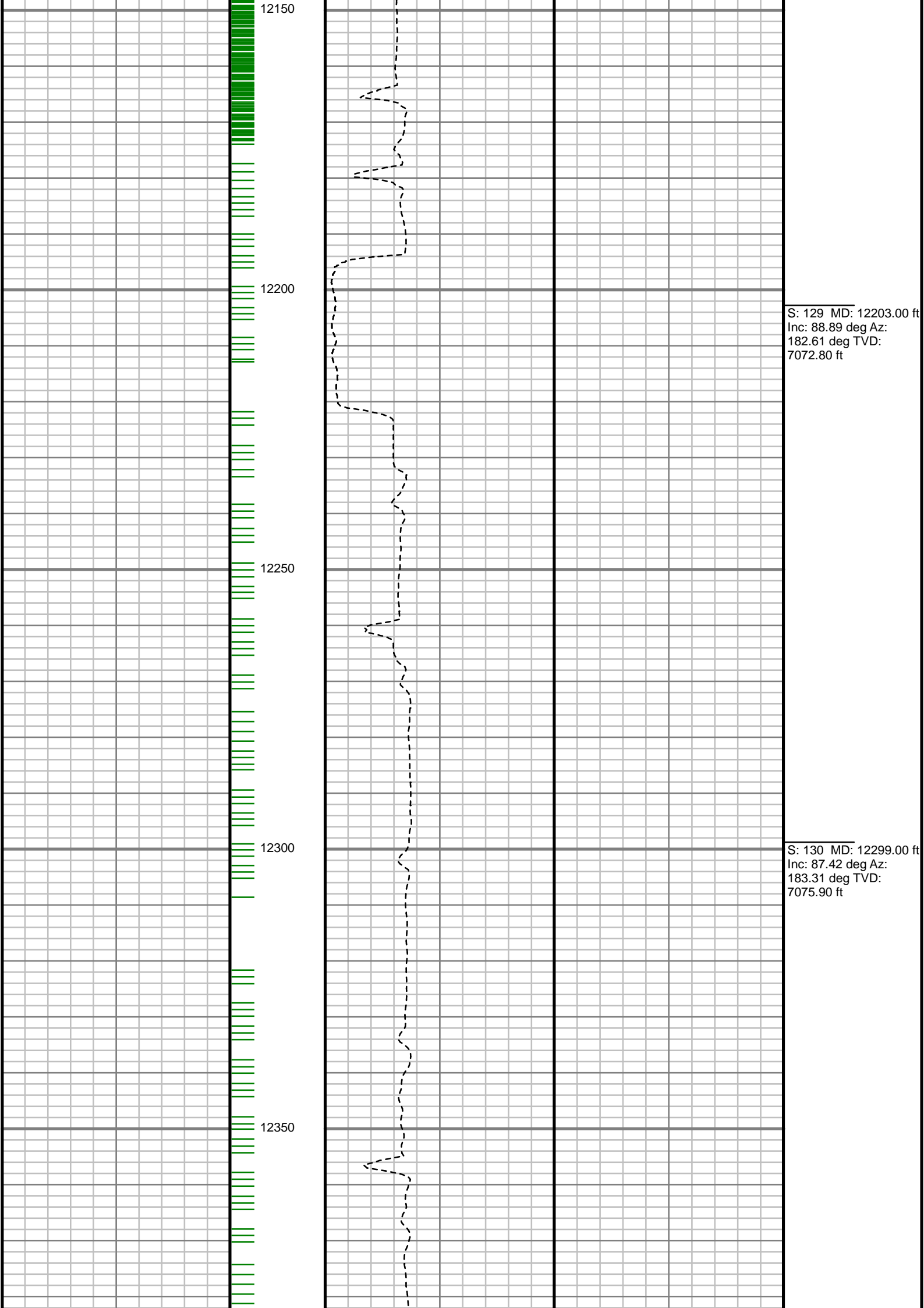
Inc: 87.72 deg Az:
180.31 deg TVD:
7063.05 ft

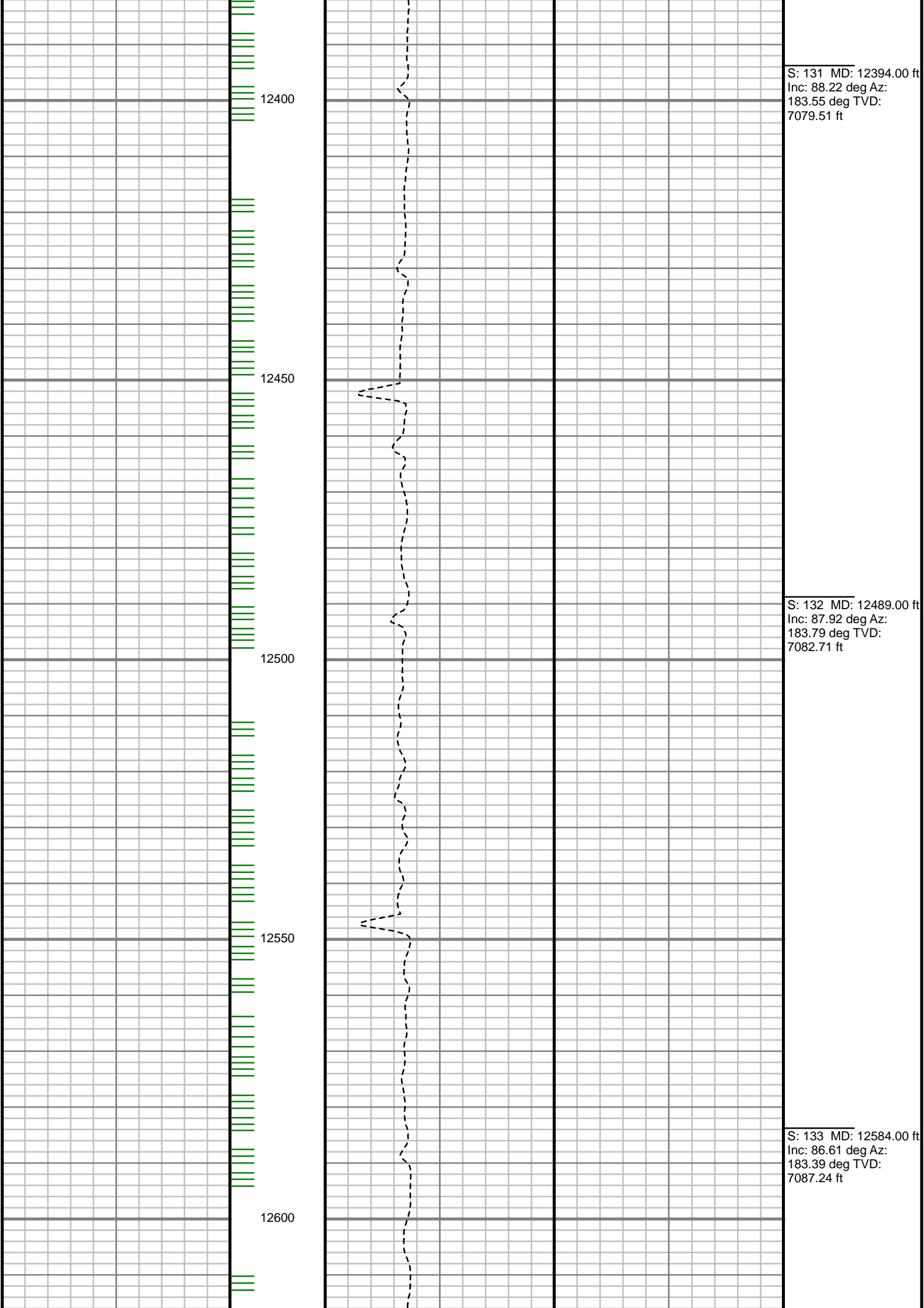
S: 122 MD: 11539.00 ft
Inc: 87.59 deg Az:
179.17 deg TVD:
7066.94 ft

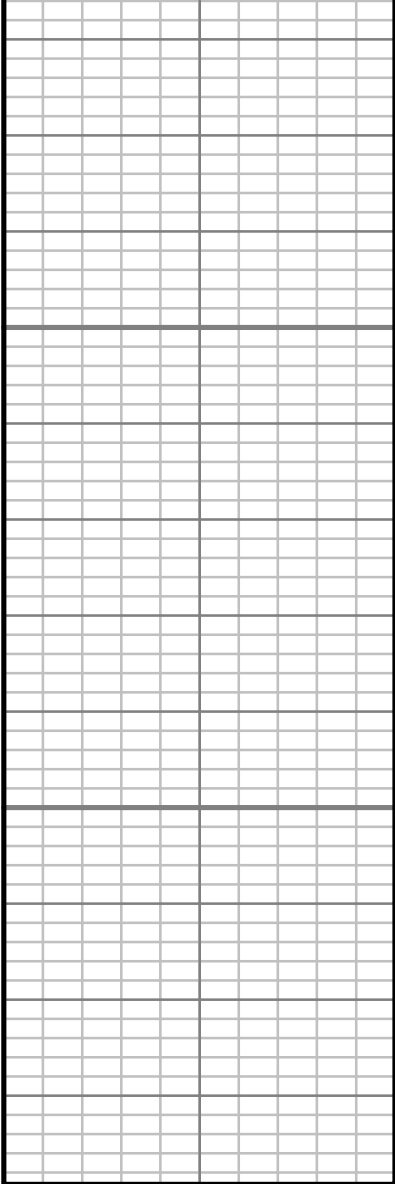
S: 123 MD: 11634.00 ft
Inc: 89.36 deg Az:
179.25 deg TVD:
7069.47 ft





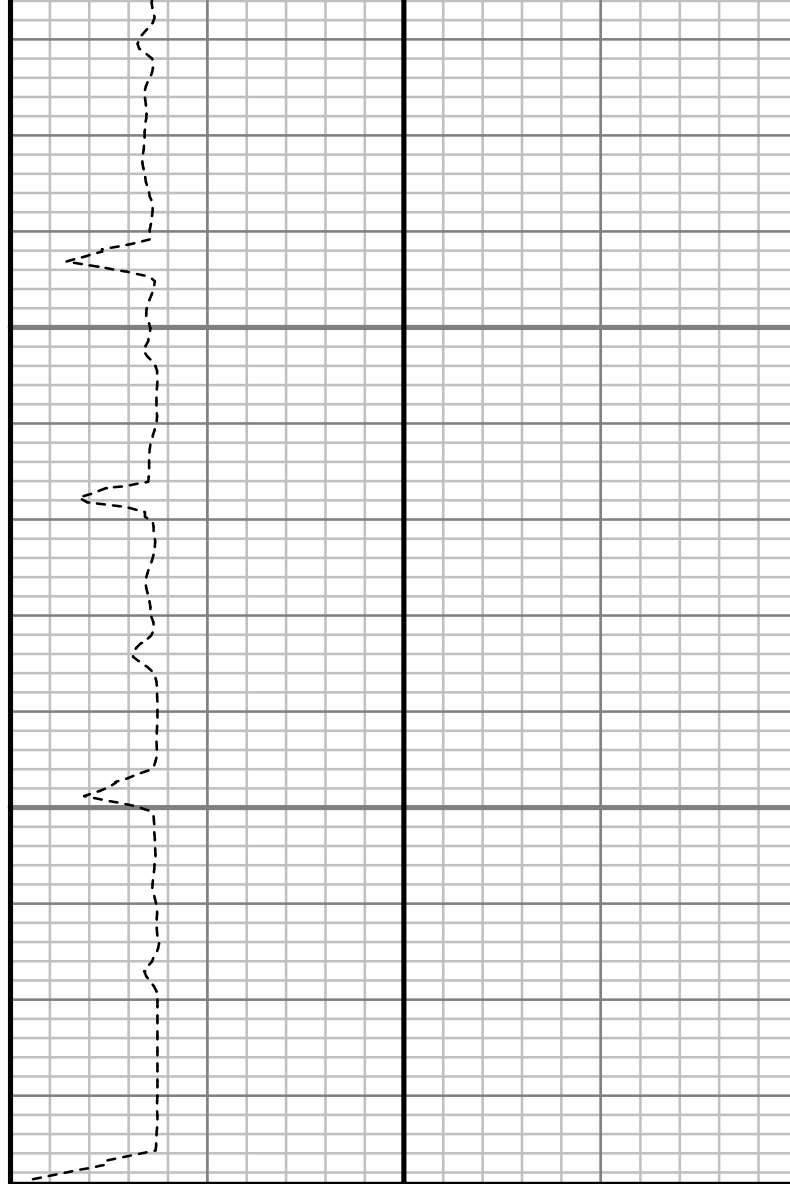






Gamma Ray (GR)		
150	Unit = aapi	300

MEASURED DEPTH
1240 (ft)



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

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

Comments



Well Location	POWERS 3-22 PAD
Well Name	POWERS 14N-22HZ
Survey Date	9/25/2015
Latitude	40°7'45.599"N
Longitude	104°39'12.920"W
Btotal	52581, 52625 nT
Dip	66.80, 66.90 deg
Magnetic Declination	8.21, 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), 179.80Azim (deg)
Operator(s)	B. GREER, H. ORAHOOD

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
159.00	0.35	341.97	159.00	-0.42	0.42	-0.14	0.24	146.00
249.00	1.91	8.43	248.98	-2.17	2.17	0.00	1.78	90.00
341.00	2.76	10.57	340.90	-5.86	5.86	0.63	0.93	92.00
431.00	4.00	3.09	430.74	-11.12	11.13	1.19	1.46	90.00
521.00	4.58	4.27	520.49	-17.84	17.85	1.63	0.65	90.00
656.00	7.10	10.51	654.78	-31.41	31.43	3.55	1.92	135.00
746.00	7.82	4.90	744.02	-42.98	43.00	5.09	1.14	90.00
837.00	9.43	359.67	833.99	-56.60	56.62	5.58	1.97	91.00
927.00	9.19	354.96	922.81	-71.13	71.15	4.90	0.89	90.00
1017.00	10.18	356.95	1011.52	-86.24	86.25	3.85	1.16	90.00
1107.00	11.07	0.12	1099.98	-102.82	102.84	3.44	1.18	90.00
1197.00	11.85	2.25	1188.18	-120.70	120.71	3.83	0.99	90.00
1287.00	13.41	5.74	1276.00	-140.31	140.33	5.23	1.93	90.00
1377.00	13.82	2.88	1363.48	-161.43	161.45	6.82	0.88	90.00
1467.00	15.08	3.16	1450.63	-183.85	183.88	8.00	1.40	90.00
1557.00	15.17	4.16	1537.51	-207.28	207.31	9.50	0.31	90.00
1647.00	16.85	2.42	1624.02	-232.05	232.09	10.91	1.94	90.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
1737.00	16.61	4.95	1710.21	-257.89	257.94	12.57	0.85	90.00
1826.00	15.70	6.46	1795.69	-282.52	282.58	15.02	1.13	89.00
1959.00	14.71	6.06	1924.04	-317.18	317.25	18.83	0.75	133.00
2054.00	15.65	8.38	2015.72	-341.83	341.91	21.97	1.18	95.00
2149.00	17.79	3.30	2106.71	-368.99	369.08	24.67	2.72	95.00
2244.00	17.19	359.61	2197.32	-397.51	397.60	25.41	1.32	95.00
2338.00	16.41	356.31	2287.31	-424.66	424.75	24.46	1.31	94.00
2433.00	17.66	358.48	2378.14	-452.46	452.55	23.22	1.48	95.00
2528.00	17.73	355.56	2468.65	-481.30	481.38	21.72	0.94	95.00
2624.00	17.63	359.22	2560.11	-510.42	510.49	20.38	1.16	96.00
2718.00	17.40	358.98	2649.75	-538.70	538.78	19.94	0.26	94.00
2813.00	16.45	4.18	2740.65	-566.32	566.39	20.67	1.88	95.00
2908.00	15.97	3.60	2831.87	-592.77	592.85	22.47	0.53	95.00
3004.00	15.83	1.89	2924.20	-619.03	619.12	23.73	0.51	96.00
3099.00	15.32	1.32	3015.71	-644.52	644.61	24.44	0.56	95.00
3194.00	16.22	358.63	3107.13	-670.33	670.42	24.41	1.22	95.00
3289.00	16.22	356.09	3198.35	-696.84	696.92	23.19	0.75	95.00
3385.00	15.82	0.42	3290.63	-723.31	723.39	22.37	1.31	96.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
3479.00	15.19	0.67	3381.21	-748.43	748.52	22.61	0.68	94.00
3575.00	15.28	355.25	3473.84	-773.62	773.70	21.70	1.49	96.00
3670.00	15.81	0.44	3565.37	-799.04	799.12	20.77	1.57	95.00
3765.00	16.85	3.98	3656.53	-825.72	825.80	21.82	1.52	95.00
3860.00	14.88	2.24	3747.91	-851.64	851.72	23.25	2.14	95.00
3955.00	15.29	2.02	3839.64	-876.34	876.43	24.17	0.43	95.00
4051.00	17.29	3.05	3931.78	-903.23	903.32	25.38	2.11	96.00
4146.00	16.42	1.46	4022.70	-930.74	930.84	26.47	1.04	95.00
4241.00	15.88	0.39	4113.95	-957.16	957.26	26.90	0.65	95.00
4336.00	14.83	357.74	4205.56	-982.31	982.41	26.51	1.33	95.00
4431.00	15.08	0.66	4297.34	-1006.82	1006.92	26.17	0.83	95.00
4526.00	16.64	2.30	4388.72	-1032.76	1032.86	26.86	1.71	95.00
4621.00	15.85	0.18	4479.93	-1059.33	1059.43	27.45	1.04	95.00
4716.00	16.25	0.86	4571.23	-1085.59	1085.69	27.69	0.47	95.00
4811.00	15.60	357.88	4662.58	-1111.65	1111.75	27.41	1.10	95.00
4906.00	16.42	2.00	4753.90	-1137.83	1137.93	27.41	1.48	95.00
5001.00	15.55	2.66	4845.23	-1163.97	1164.08	28.47	0.94	95.00
5097.00	15.92	1.79	4937.63	-1189.98	1190.09	29.48	0.45	96.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
5191.00	14.19	0.31	5028.40	-1214.38	1214.50	29.94	1.88	94.00
5286.00	13.56	359.94	5120.63	-1237.17	1237.28	30.00	0.67	95.00
5382.00	12.96	358.75	5214.07	-1259.19	1259.30	29.75	0.69	96.00
5476.00	11.11	358.78	5305.99	-1278.79	1278.90	29.33	1.97	94.00
5570.00	10.00	358.84	5398.40	-1296.00	1296.11	28.97	1.18	94.00
5666.00	8.81	358.52	5493.11	-1311.68	1311.79	28.61	1.24	96.00
5760.00	7.13	359.62	5586.20	-1324.71	1324.82	28.39	1.80	94.00
5856.00	5.79	3.93	5681.59	-1335.49	1335.60	28.68	1.48	96.00
5951.00	4.97	7.50	5776.17	-1344.35	1344.47	29.54	0.93	95.00
6045.00	3.12	355.39	5869.93	-1350.94	1351.05	29.87	2.17	94.00
6138.00	2.19	3.32	5962.83	-1355.24	1355.35	29.77	1.06	93.00
6232.00	1.79	2.51	6056.78	-1358.50	1358.62	29.94	0.43	94.00
6327.00	1.44	9.36	6151.74	-1361.17	1361.28	30.20	0.42	95.00
6421.00	1.30	4.82	6245.71	-1363.40	1363.52	30.48	0.19	94.00
6516.00	3.19	183.88	6340.67	-1361.84	1361.96	30.39	4.73	95.00
6611.00	12.02	177.62	6434.75	-1349.29	1349.41	30.63	9.32	95.00
6706.00	17.47	175.97	6526.58	-1325.17	1325.29	32.04	5.75	95.00
6800.00	24.46	182.44	6614.32	-1291.61	1291.73	32.20	7.82	94.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
6895.00	31.94	182.46	6697.99	-1246.80	1246.91	30.29	7.88	95.00
6989.00	40.86	181.81	6773.57	-1191.11	1191.22	28.25	9.50	94.00
7084.00	47.07	184.24	6841.91	-1125.31	1125.40	24.69	6.77	95.00
7178.00	56.34	183.35	6900.10	-1051.79	1051.87	19.85	9.88	94.00
7273.00	63.61	180.74	6947.61	-969.67	969.73	16.99	8.01	95.00
7368.00	74.35	178.21	6981.65	-881.13	881.20	17.88	11.58	95.00
7462.00	81.98	178.79	7000.91	-789.22	789.30	20.28	8.14	94.00
7557.00	87.04	179.23	7009.99	-694.70	694.78	21.92	5.35	95.00
7652.00	87.17	178.25	7014.79	-599.83	599.92	24.00	1.04	95.00
7746.00	87.38	176.36	7019.26	-506.03	506.14	28.41	2.02	94.00
7840.00	88.19	177.23	7022.90	-412.23	412.35	33.66	1.26	94.00
7935.00	89.60	180.90	7024.74	-317.28	317.40	35.21	4.14	95.00
8029.00	89.66	179.26	7025.34	-223.29	223.41	35.08	1.75	94.00
8124.00	89.26	181.77	7026.23	-128.30	128.42	34.23	2.68	95.00
8219.00	89.36	180.86	7027.38	-33.35	33.46	32.05	0.96	95.00
8314.00	89.16	181.04	7028.60	61.63	-61.52	30.46	0.28	95.00
8409.00	90.67	179.10	7028.74	156.62	-156.51	30.35	2.59	95.00
8503.00	89.93	178.89	7028.25	250.61	-250.50	32.00	0.82	94.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
8598.00	90.37	179.23	7027.99	345.60	-345.48	33.56	0.58	95.00
8693.00	90.57	179.70	7027.22	440.59	-440.48	34.45	0.54	95.00
8788.00	90.44	179.83	7026.38	535.59	-535.47	34.84	0.20	95.00
8883.00	90.27	179.30	7025.80	630.59	-630.47	35.57	0.59	95.00
8978.00	88.46	178.50	7026.85	725.56	-725.44	37.39	2.08	95.00
9073.00	88.46	178.19	7029.42	820.50	-820.36	40.13	0.33	95.00
9168.00	88.26	177.64	7032.14	915.41	-915.26	43.58	0.61	95.00
9263.00	88.93	177.64	7034.48	1010.31	-1010.15	47.49	0.71	95.00
9358.00	89.30	176.74	7035.96	1105.20	-1105.03	52.15	1.03	95.00
9453.00	86.78	178.92	7039.21	1200.08	-1199.89	55.75	3.50	95.00
9547.00	87.21	179.68	7044.14	1293.94	-1293.75	56.89	0.94	94.00
9642.00	88.86	180.40	7047.40	1388.88	-1388.69	56.82	1.89	95.00
9737.00	89.90	180.41	7048.43	1483.87	-1483.68	56.16	1.10	95.00
9831.00	89.43	180.12	7048.98	1577.86	-1577.68	55.72	0.58	94.00
9926.00	90.77	179.75	7048.81	1672.86	-1672.68	55.83	1.47	95.00
10021.00	90.94	178.99	7047.39	1767.85	-1767.66	56.87	0.82	95.00
10116.00	90.84	178.47	7045.92	1862.82	-1862.62	58.98	0.56	95.00
10211.00	91.98	178.91	7043.58	1957.77	-1957.57	61.15	1.29	95.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
10307.00	89.87	178.13	7042.03	2053.73	-2053.52	63.63	2.35	96.00
10402.00	89.73	177.94	7042.37	2148.68	-2148.46	66.89	0.25	95.00
10497.00	89.66	177.15	7042.87	2243.61	-2243.37	70.96	0.83	95.00
10592.00	90.13	176.75	7043.03	2338.49	-2338.24	76.01	0.65	95.00
10686.00	89.36	179.65	7043.45	2432.44	-2432.18	78.96	3.20	94.00
10781.00	87.82	180.45	7045.78	2527.41	-2527.15	78.87	1.83	95.00
10875.00	88.09	180.84	7049.14	2621.34	-2621.08	77.81	0.50	94.00
10970.00	88.96	180.69	7051.59	2716.29	-2716.04	76.55	0.93	95.00
11065.00	89.19	180.93	7053.12	2811.26	-2811.02	75.21	0.35	95.00
11160.00	87.85	180.88	7055.57	2906.21	-2905.97	73.71	1.41	95.00
11254.00	88.19	180.60	7058.82	3000.14	-2999.91	72.50	0.47	94.00
11349.00	89.50	180.30	7060.73	3095.11	-3094.88	71.76	1.41	95.00
11444.00	87.72	180.31	7063.05	3190.08	-3189.85	71.26	1.88	95.00
11539.00	87.59	179.17	7066.94	3285.00	-3284.77	71.69	1.21	95.00
11634.00	89.36	179.25	7069.47	3379.96	-3379.72	73.00	1.87	95.00
11729.00	90.37	179.91	7069.69	3474.95	-3474.72	73.69	1.27	95.00
11824.00	89.09	180.49	7070.14	3569.95	-3569.71	73.36	1.47	95.00
11918.00	90.07	179.47	7070.83	3663.94	-3663.71	73.40	1.50	94.00

5" = 100' FEET MD