



5" = 100' FEET MD

COMPANY : ANADARKO E&P LLC
WELL : SUNFLOWER 40C-17HZ
FIELD : WATTENBERG
COUNTY : WELD
STATE : COLORADO
COUNTRY : U.S.A.
UWI : 05-123-42068

COMPANY : ANADARKO E&P LLC
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WELL LOCATION
LAT:40.1536950°N LONG:104.6828190°W
N:14582858.97 ft E:1729044.11 ft

SEC:8 TWP:2N RANGE:65W

OTHER SERVICES

DIRECTIONAL
ROP

DEPTH REF. : RKB

REF. HEIGHT : 20.000 ft RKB to Ground Level

GROUND LEVEL : 4901.000 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	1898	0-20	0	6740
8.5	1898	12840	20-90	6740	7740
			90-92	7740	12840

CASING RECORD

CASING SIZE in	FROM ft	TO ft			
12.25	0	1898			

DRILLING CO. : PRECISION

RIG : 461

LWD UNIT NO. : DISTRICT : CASPER

SPUD DATE : 10/24/2015

LWD START DATE : 10/25/2015 DEPTH : 1853 ft

LWD END DATE : 10/28/2015 DEPTH : 12840 ft

TOTAL DEPTH : 12840 ft

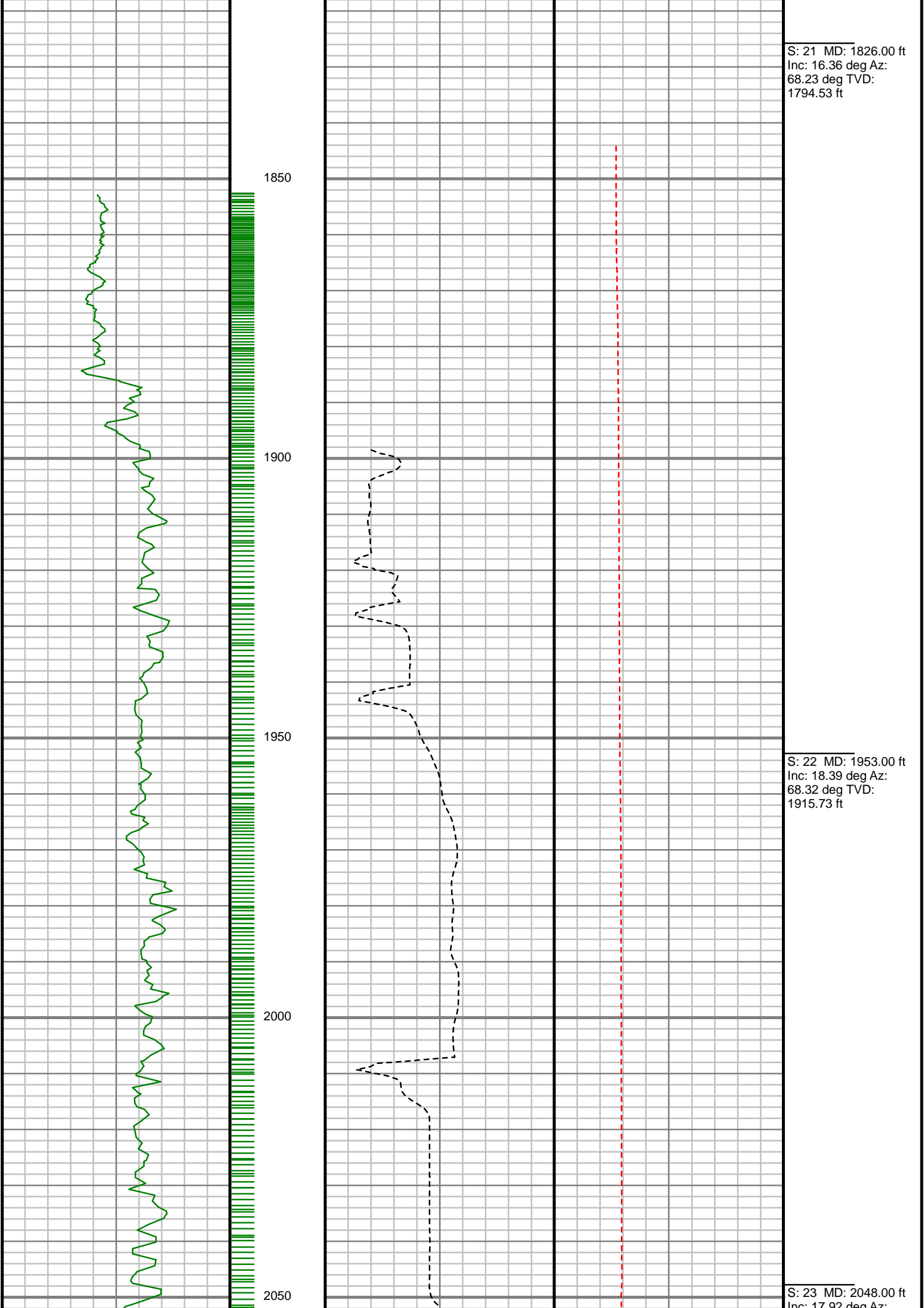
Run Data

Run Data						
RUN NUMBER	1					
START DATE	10/25/2015					
START TIME	0830					
END DATE	10/28/2015					
END TIME	0100					
DEPTH IN (ft)	1898					
DEPTH OUT (ft)	12840					
LOG TOP (ft)	1853					
LOG BOTTOM (ft)	12795					
HOLE SIZE (in)	8.5					
MUD DATA @ (ft)	12840					
MUD TYPE	WATER-BASED					
DENSITY (lb / gal)	9.7					
VISCOSITY (s / qt)	63					
pH	-					
FLUID LOSS (cm ³ / 30)	3.9					
SALINITY (ppm)	58000					
Rm (ohmm @ deg F)	-					
Rmf (ohmm @ deg F)	-					
MAX TEMP (deg F)	230					
Rm @ MAX TEMP (ohmm)	-					
LWD ENGINEER #1	B. GREER					
LWD ENGINEER #2	S. NEJAD					
LWD ENGINEER #3	-					
LOG WITNESS #1	R. CANNON					
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.

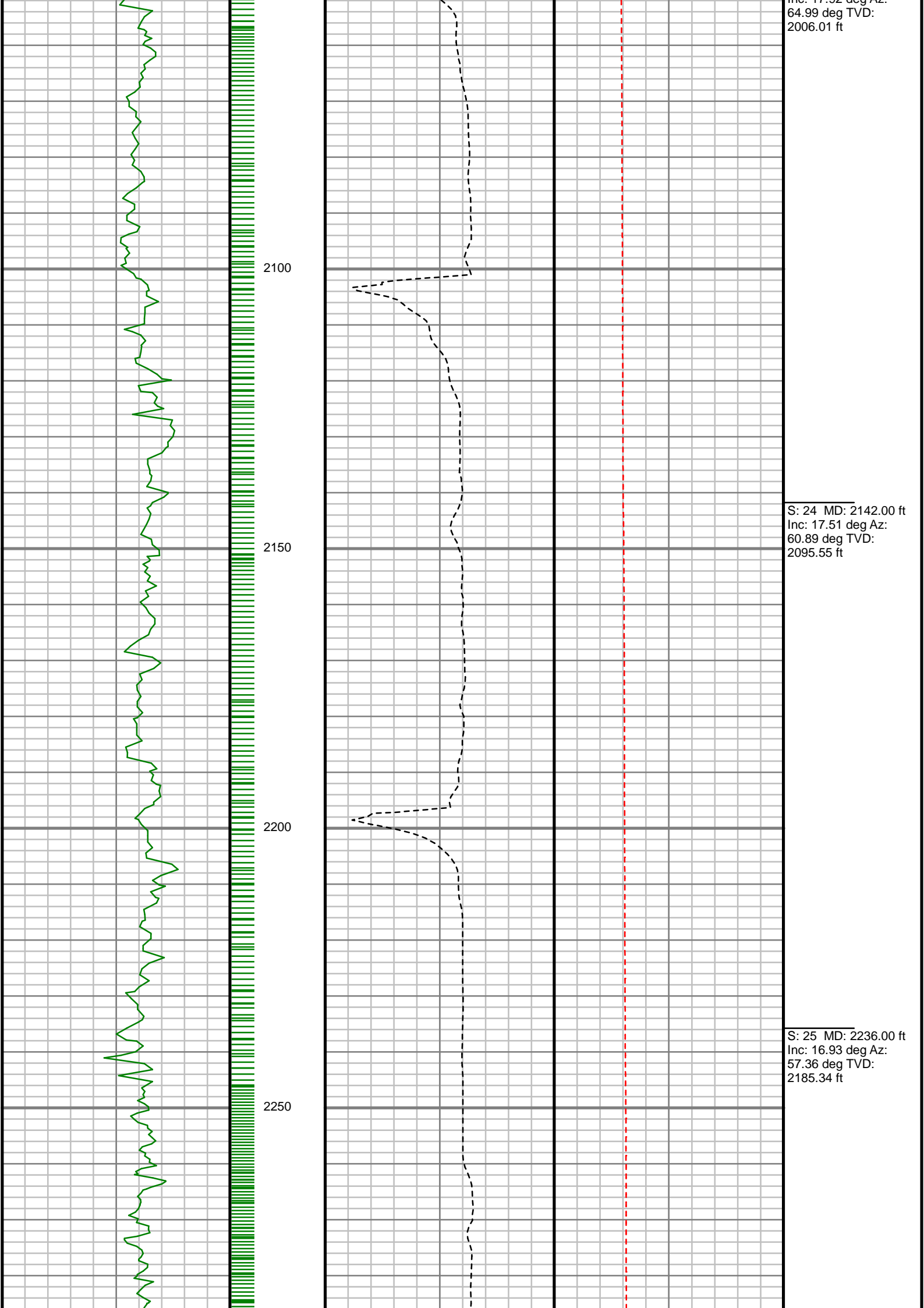
ANADARKO E&P ONSHORE LLC SUNFLOWER 40C-17HZ WATTENBERG FIELD WELD COUNTY, COLORADO 05-123-42068							
Gamma Ray (GR) Unit = aapi		MEASURED DEPTH 1:240 (ft)	Rate of Penetration (ROP) Unit = ft/hr		Tool Temperature (T-TEMP) Unit = °F		Comments
0	200		0	1200	0	300	

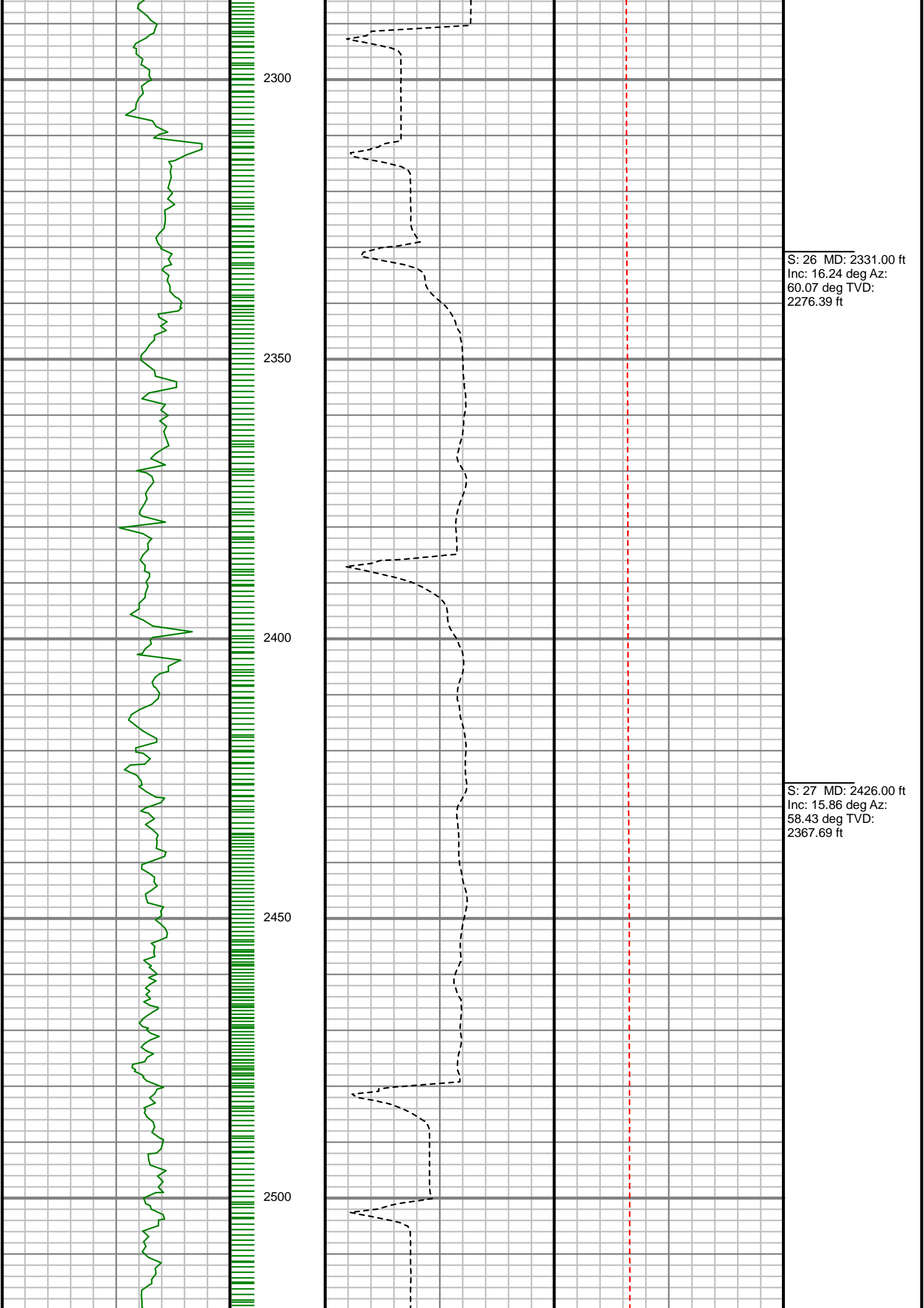


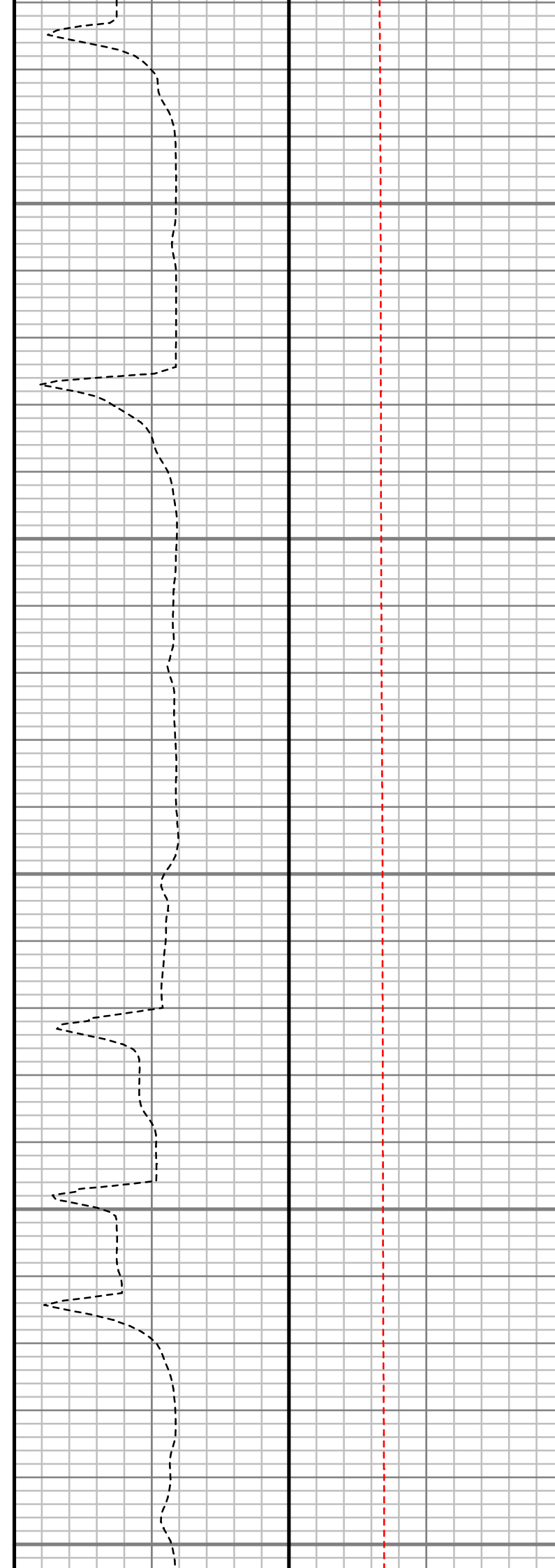
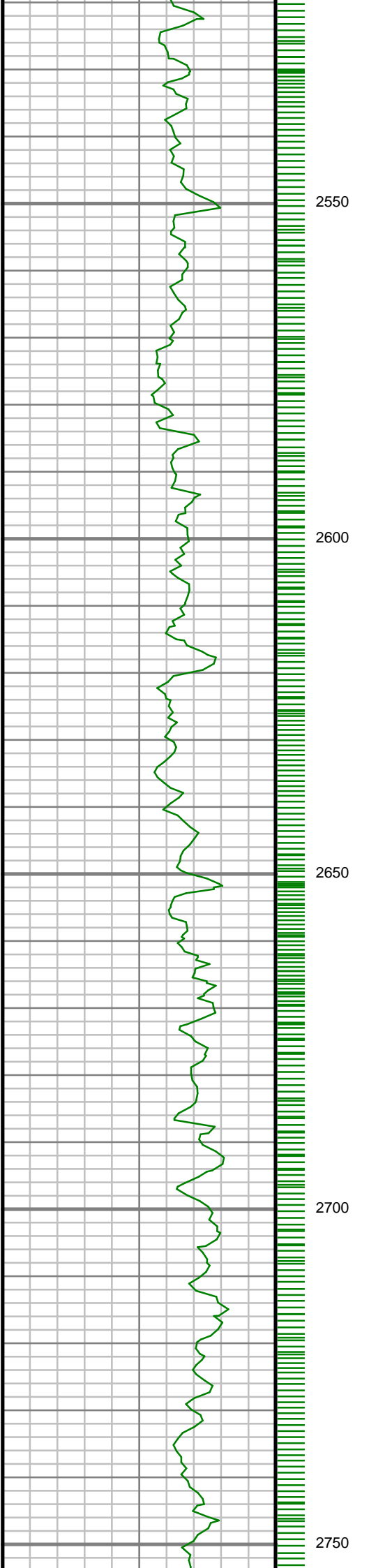
S: 21 MD: 1826.00 ft
Inc: 16.36 deg Az:
68.23 deg TVD:
1794.53 ft

S: 22 MD: 1953.00 ft
Inc: 18.39 deg Az:
68.32 deg TVD:
1915.73 ft

S: 23 MD: 2048.00 ft
Inc: 17.92 deg Az:



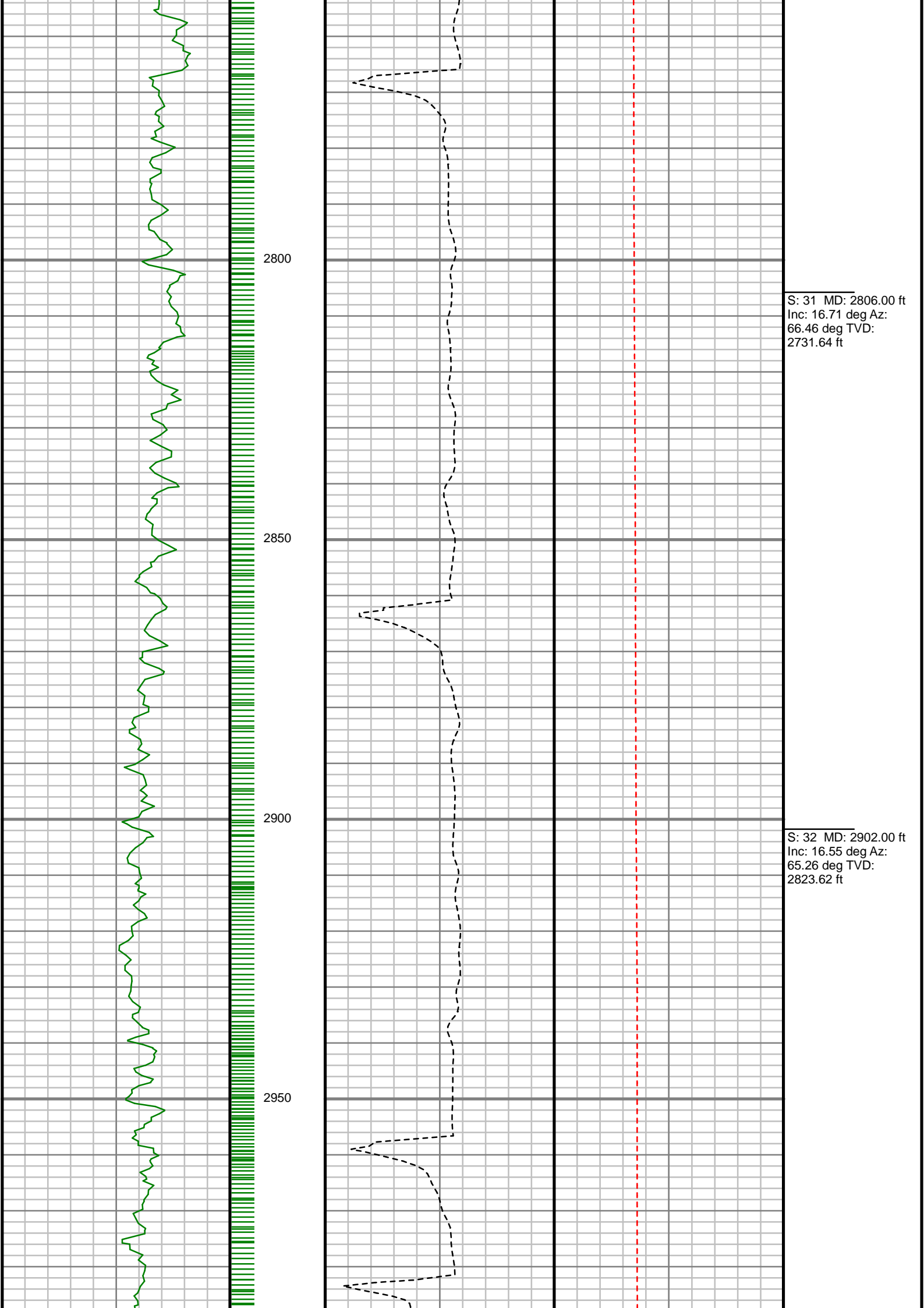




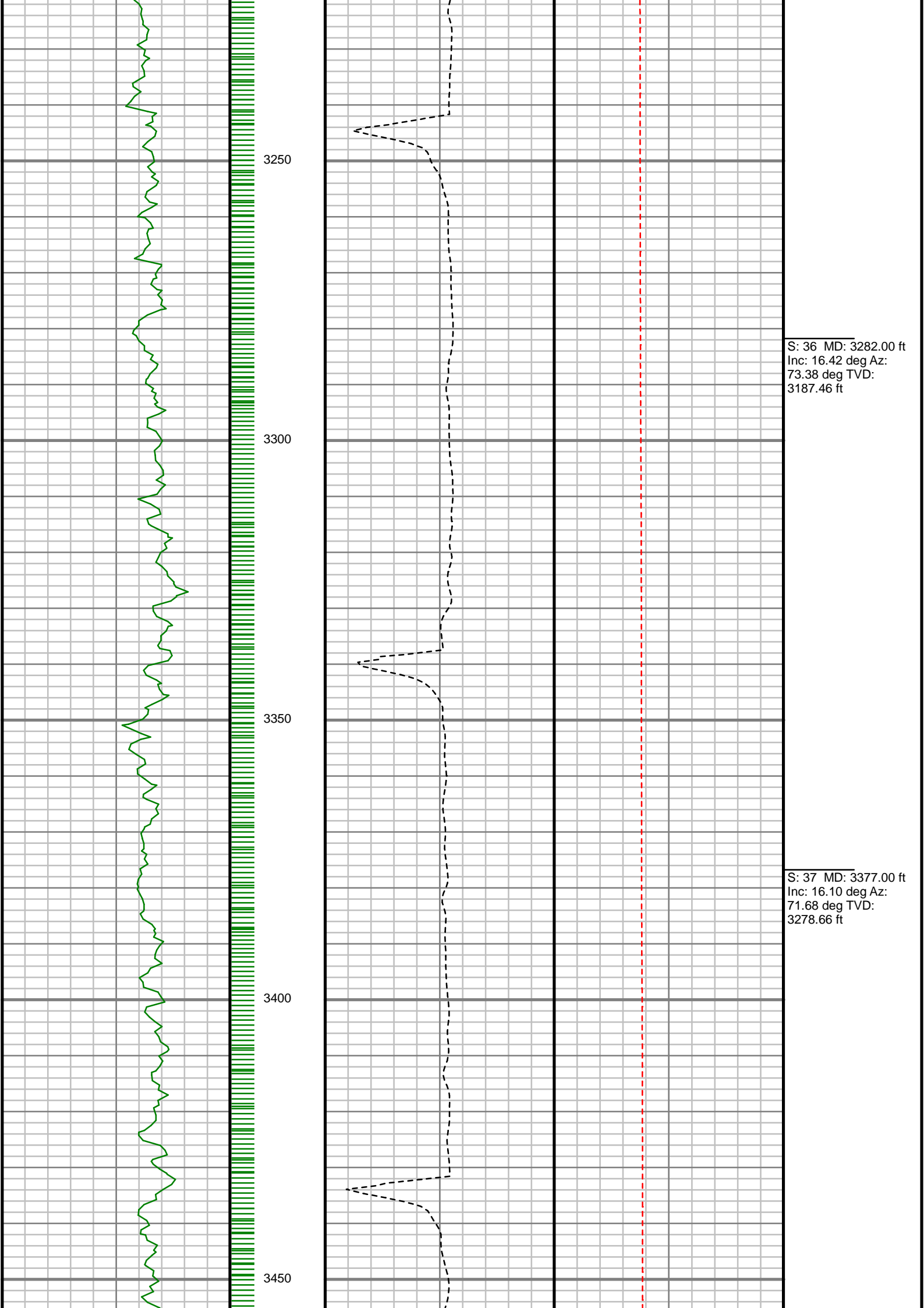
S: 28 MD: 2521.00 ft
Inc: 16.76 deg Az:
63.50 deg TVD:
2458.87 ft

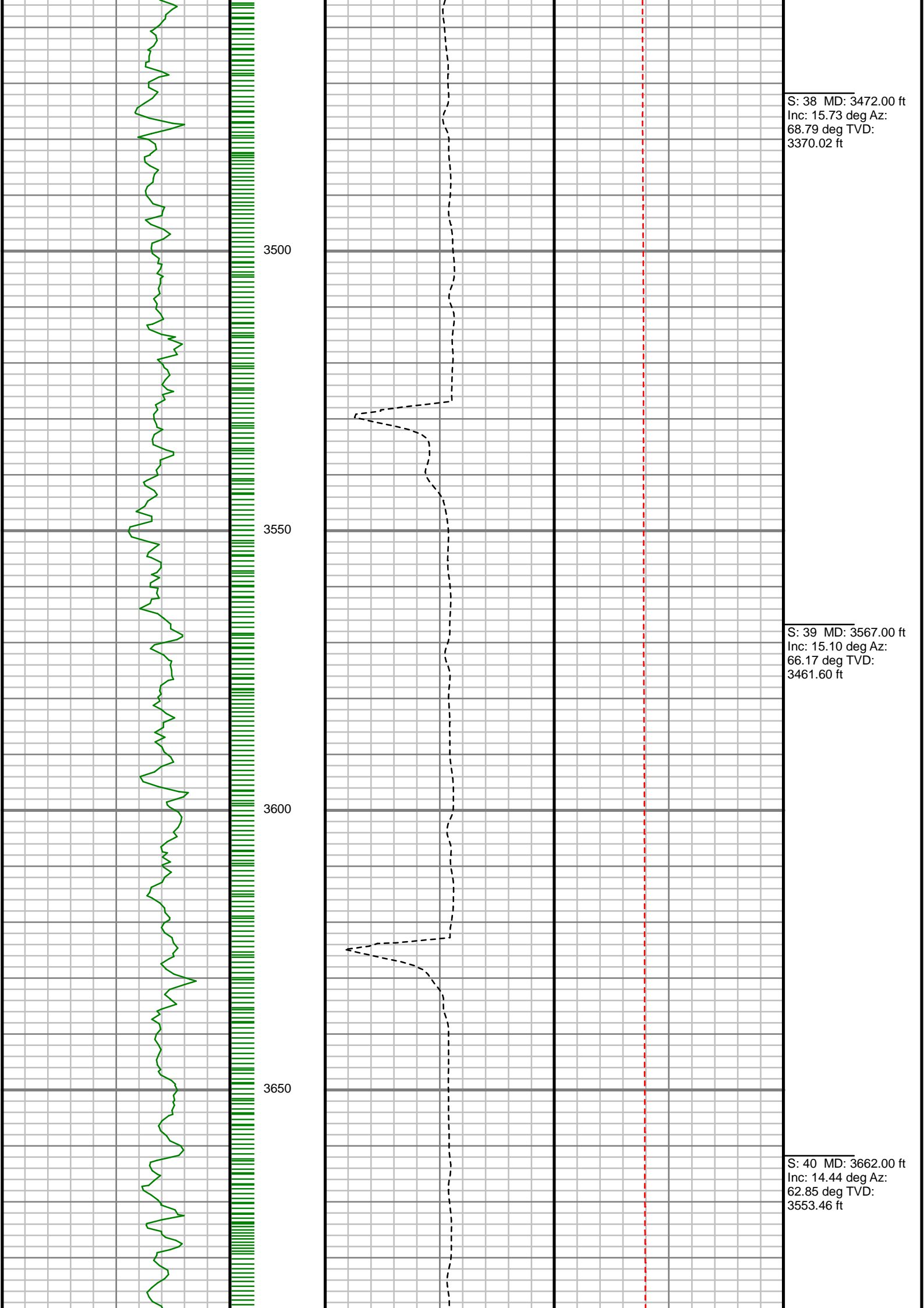
S: 29 MD: 2616.00 ft
Inc: 16.75 deg Az:
63.05 deg TVD:
2549.84 ft

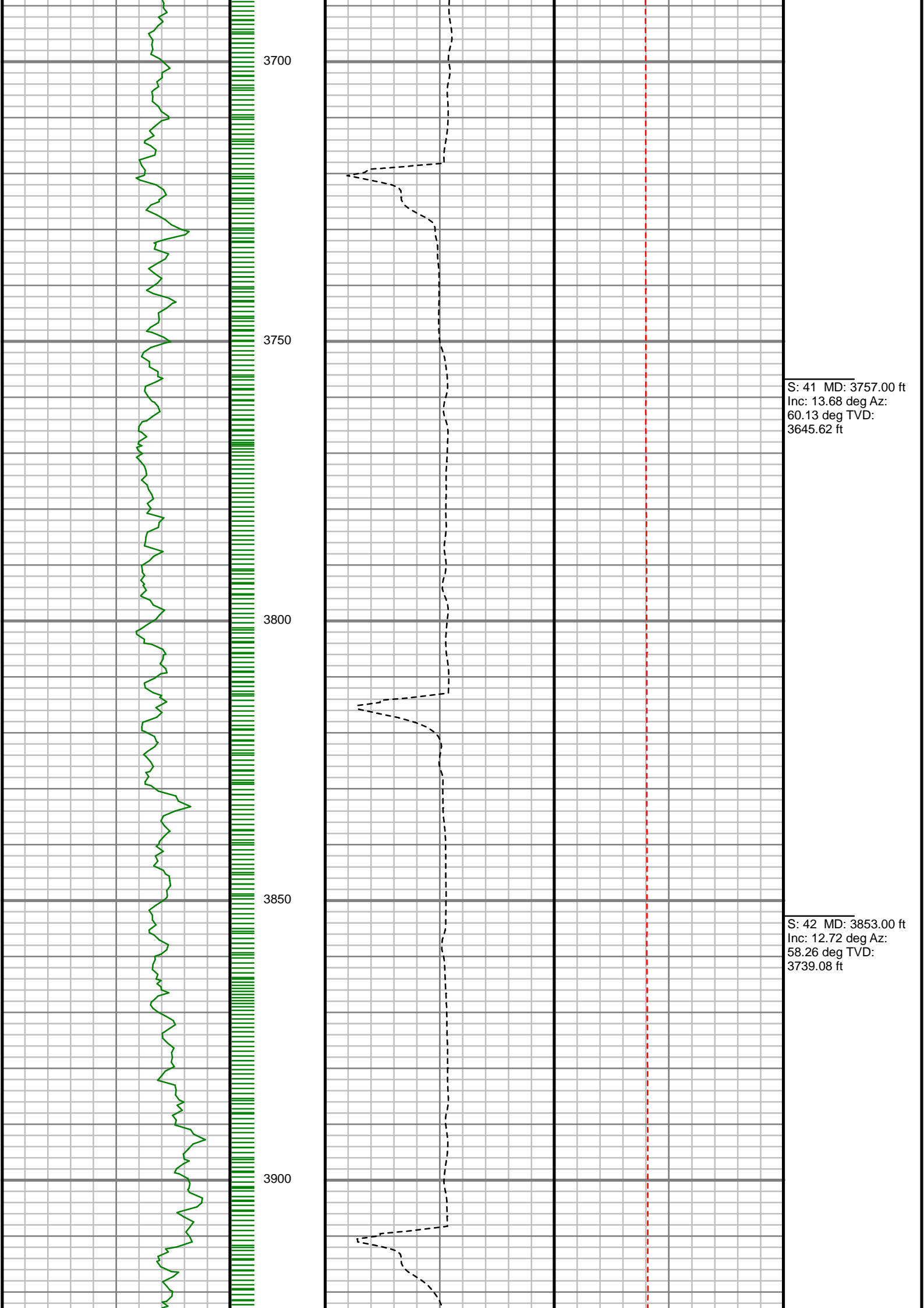
S: 30 MD: 2712.00 ft
Inc: 17.07 deg Az:
68.64 deg TVD:
2641.69 ft

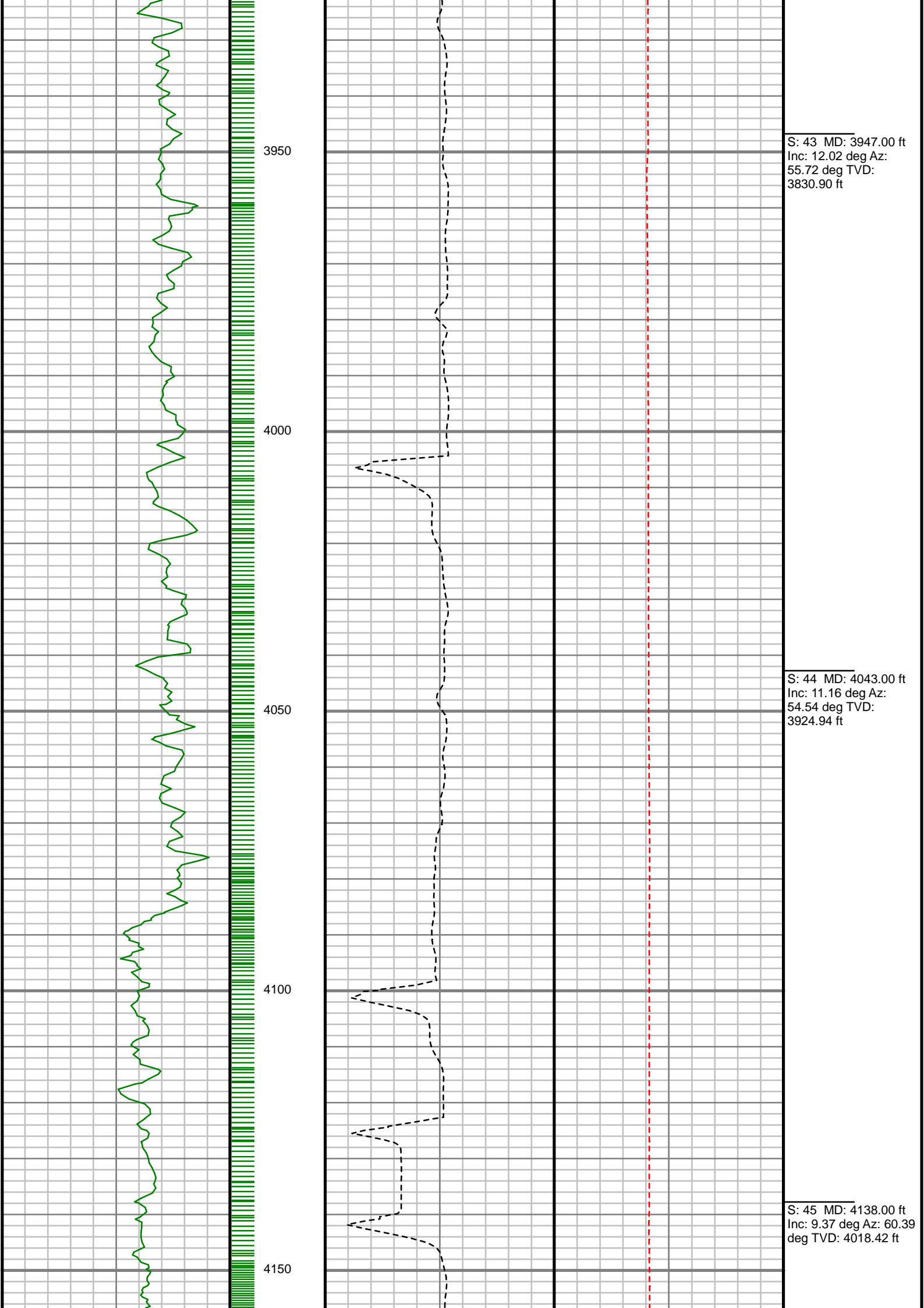


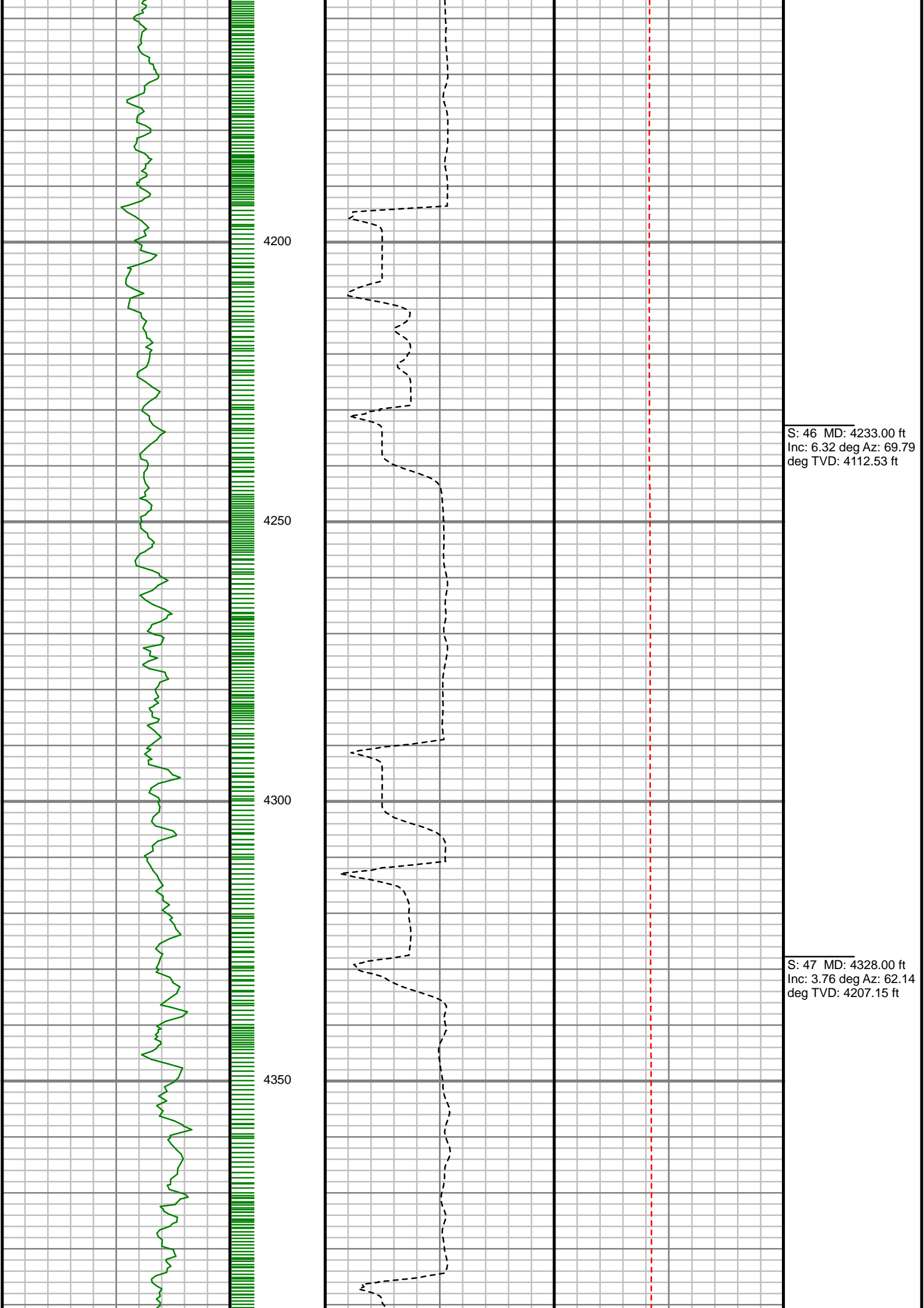


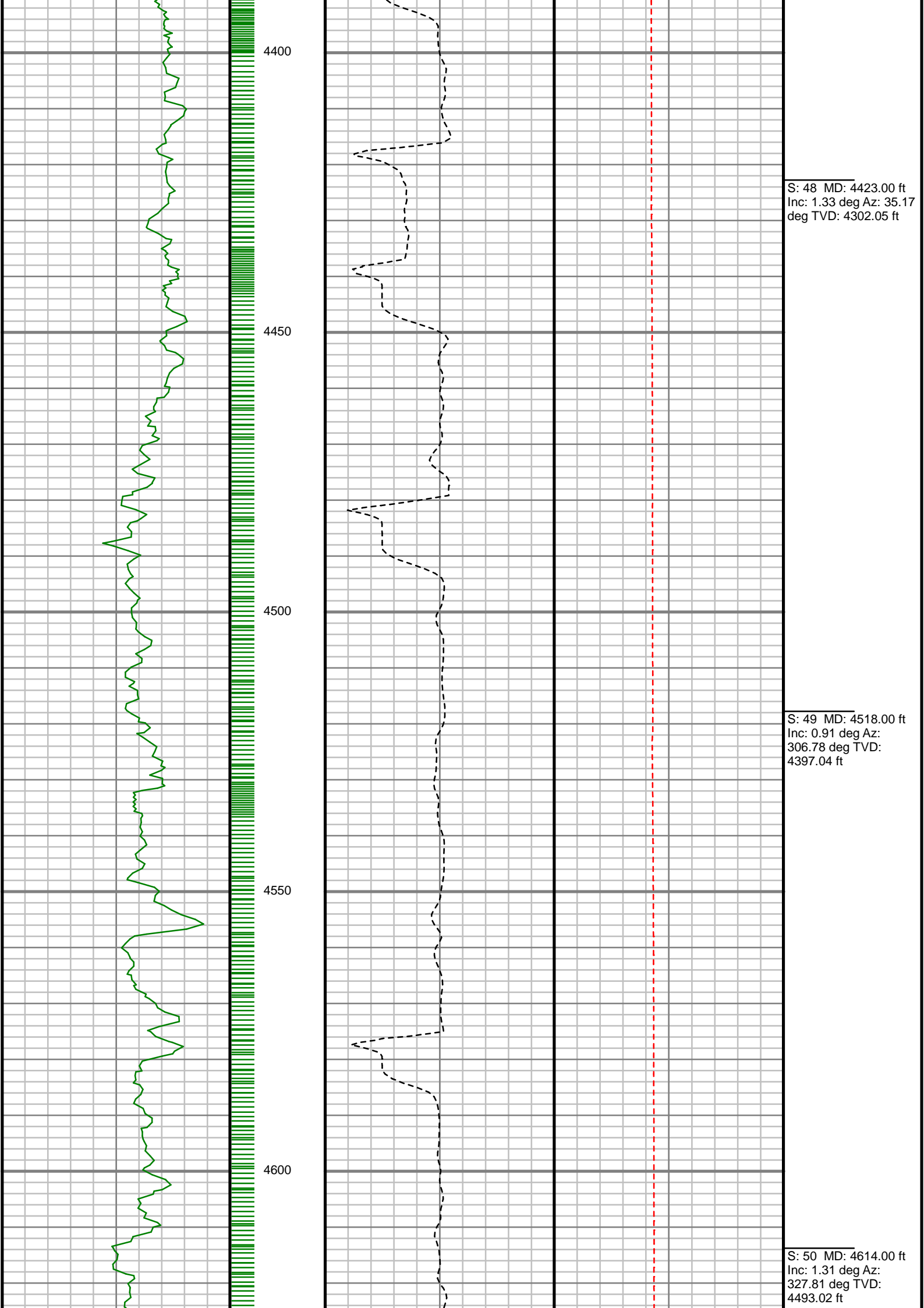


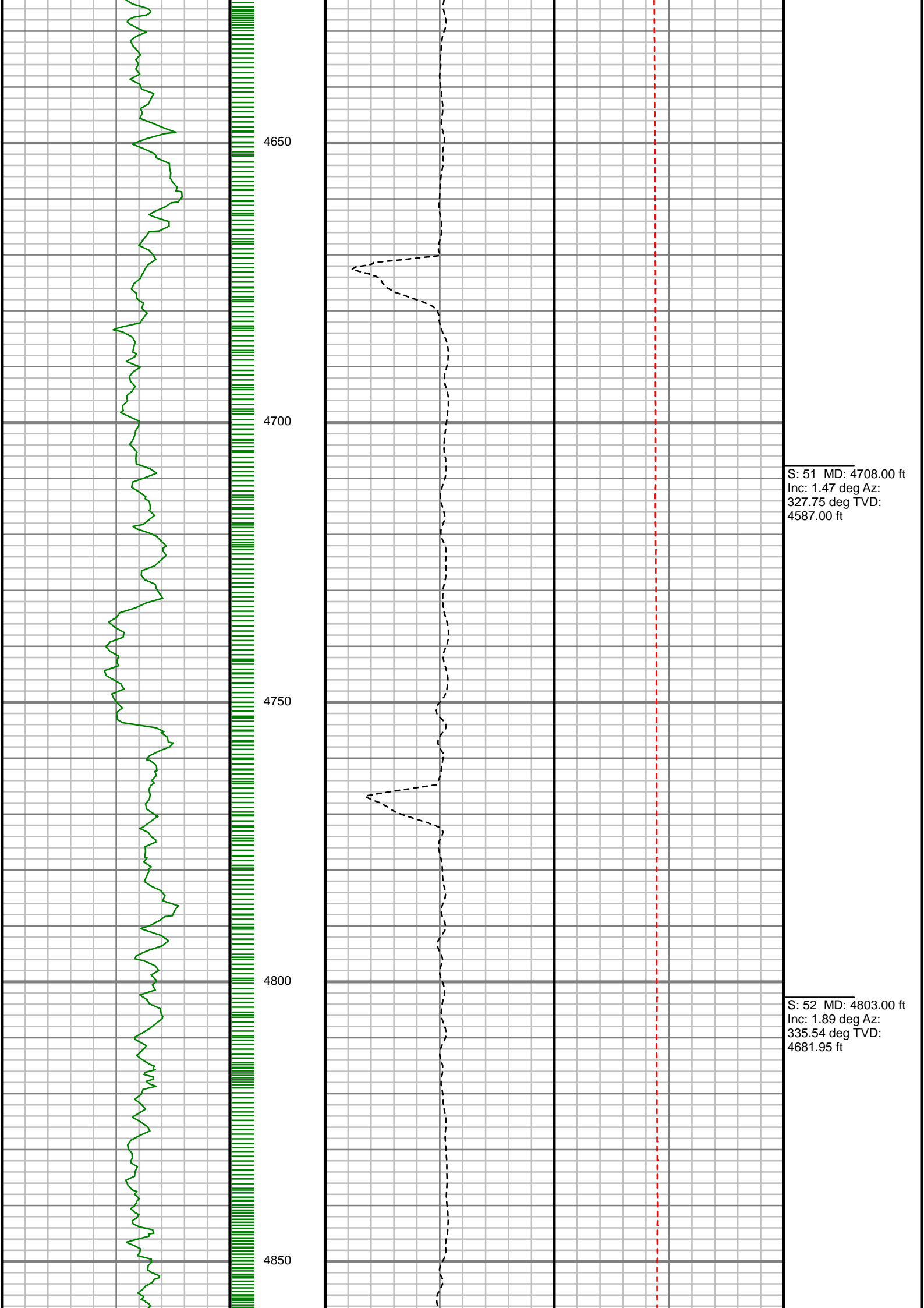


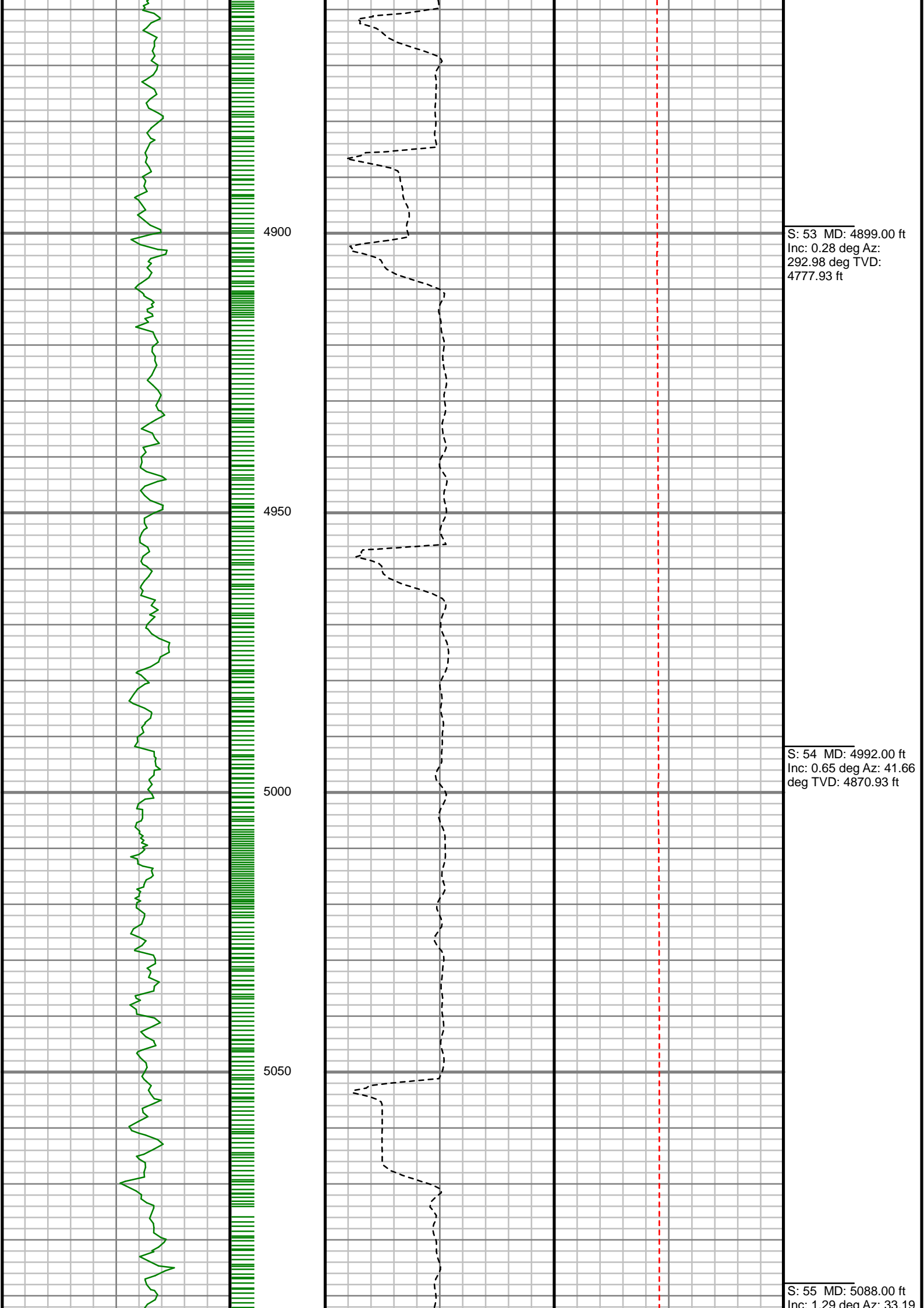


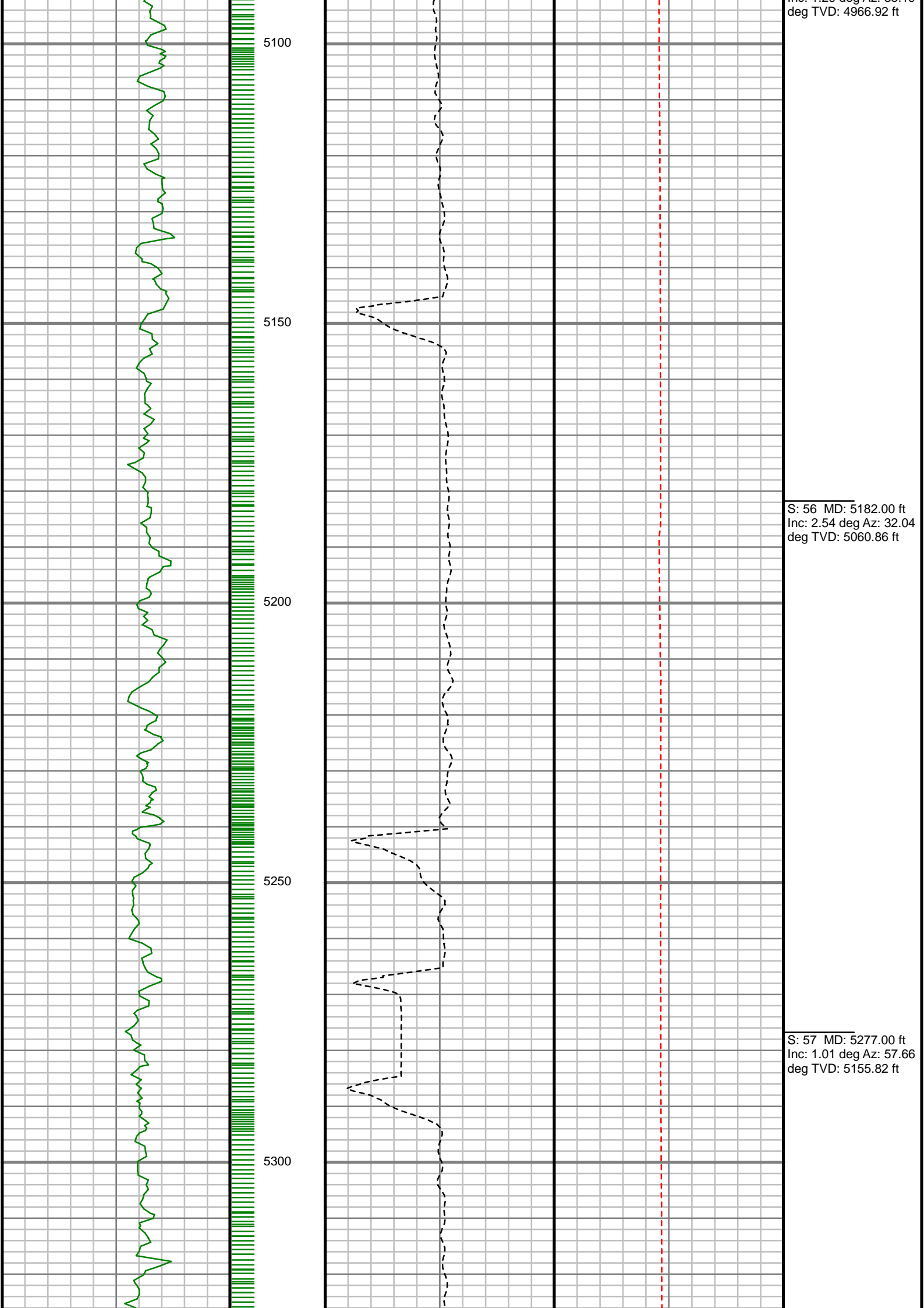




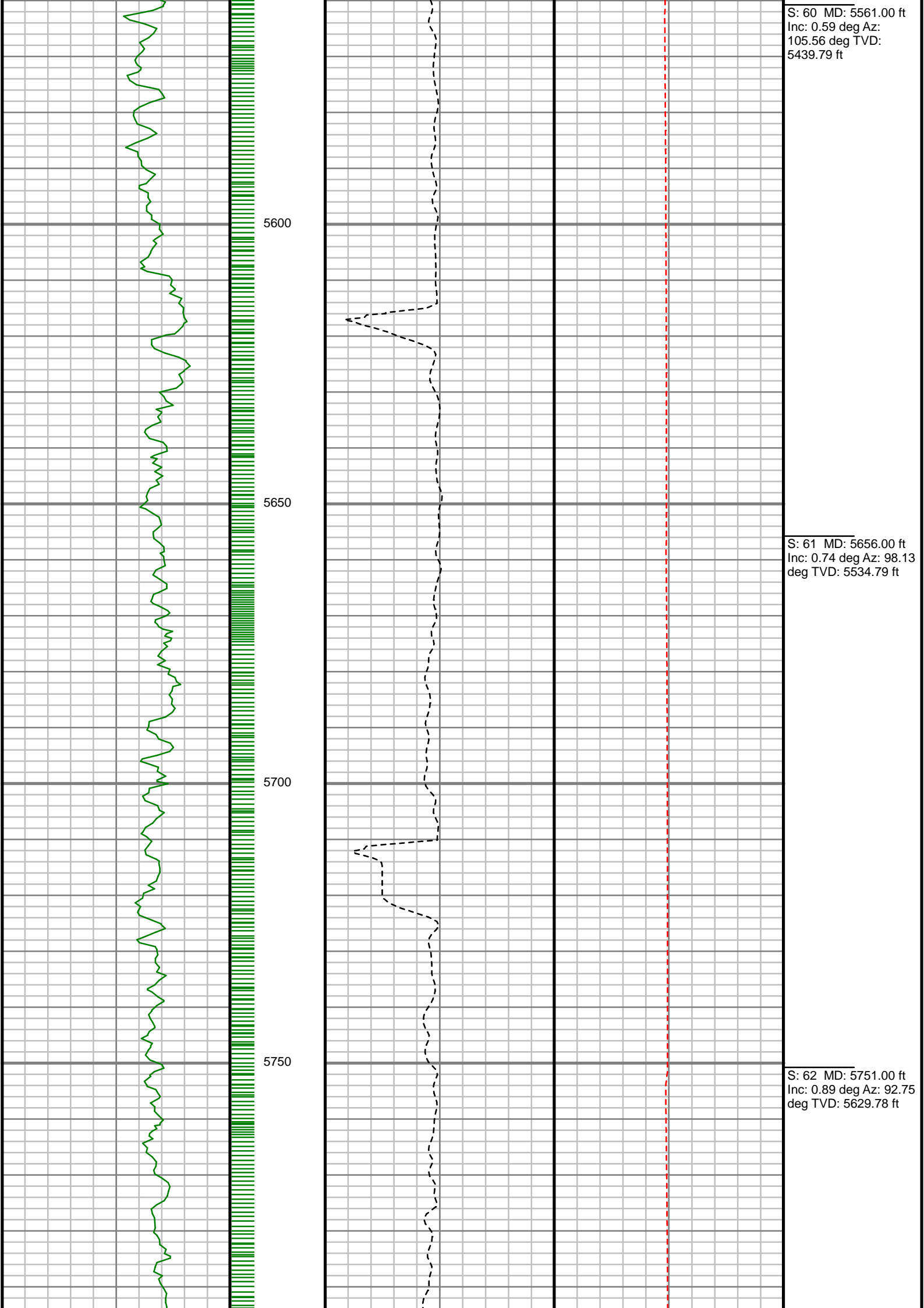


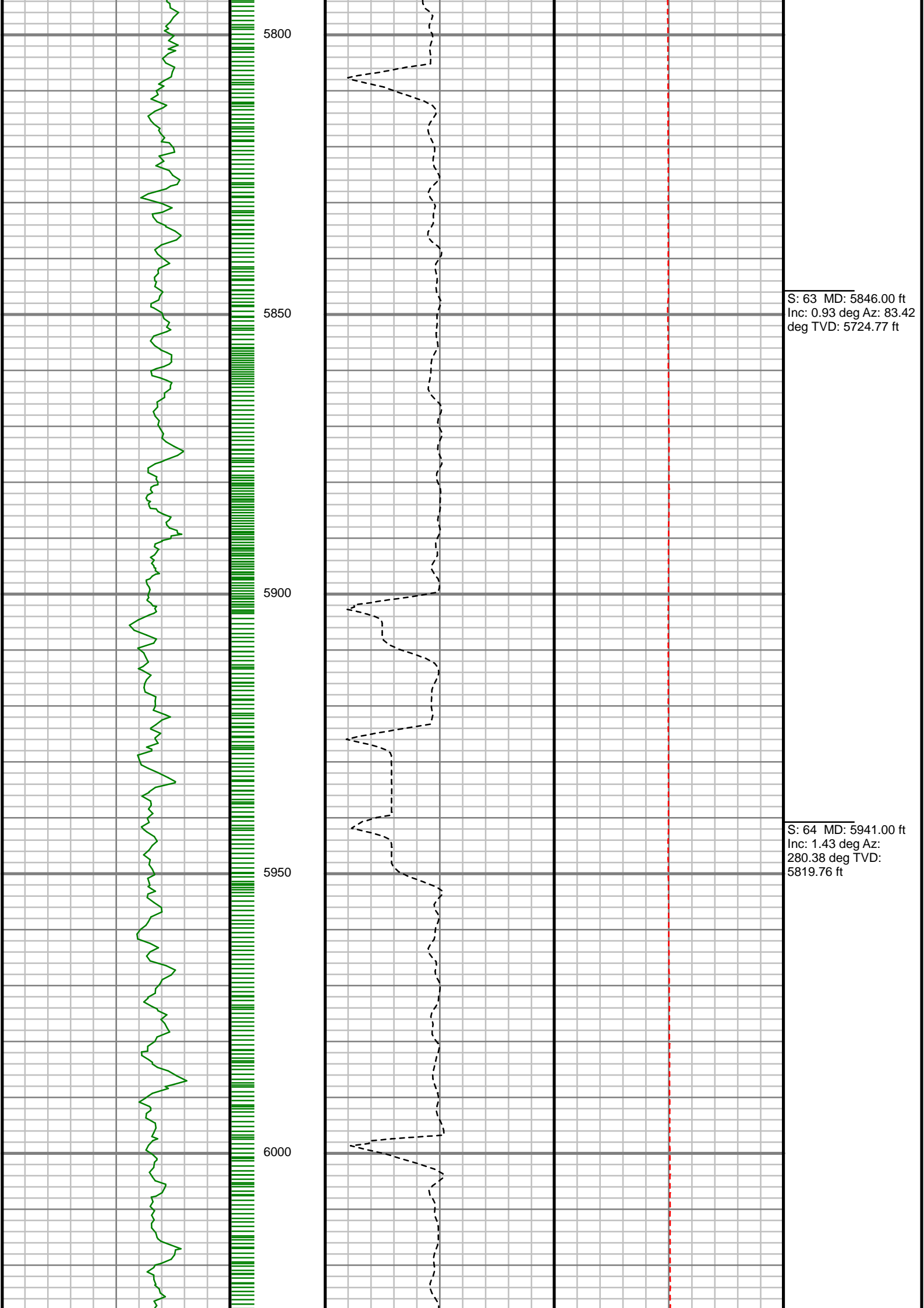


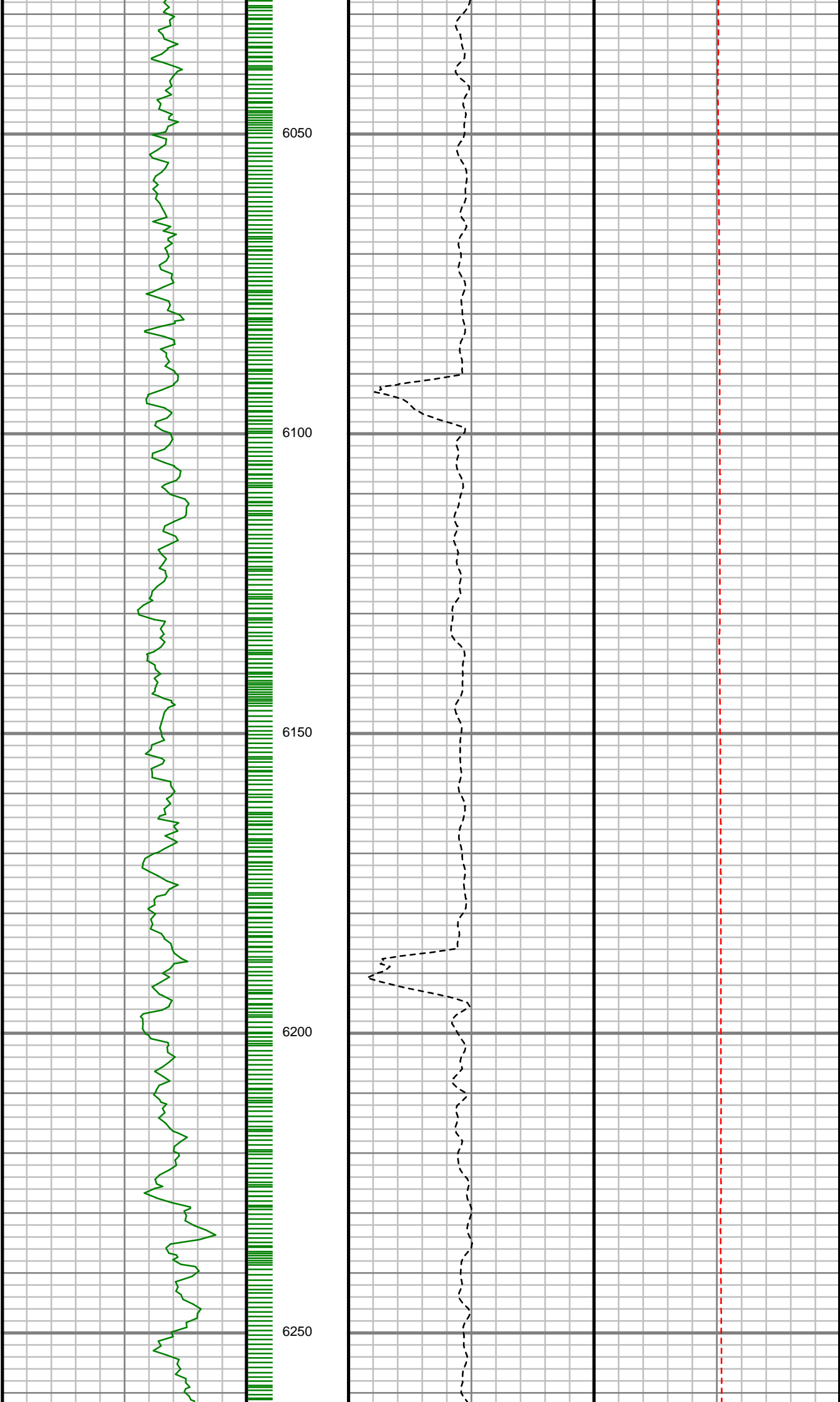








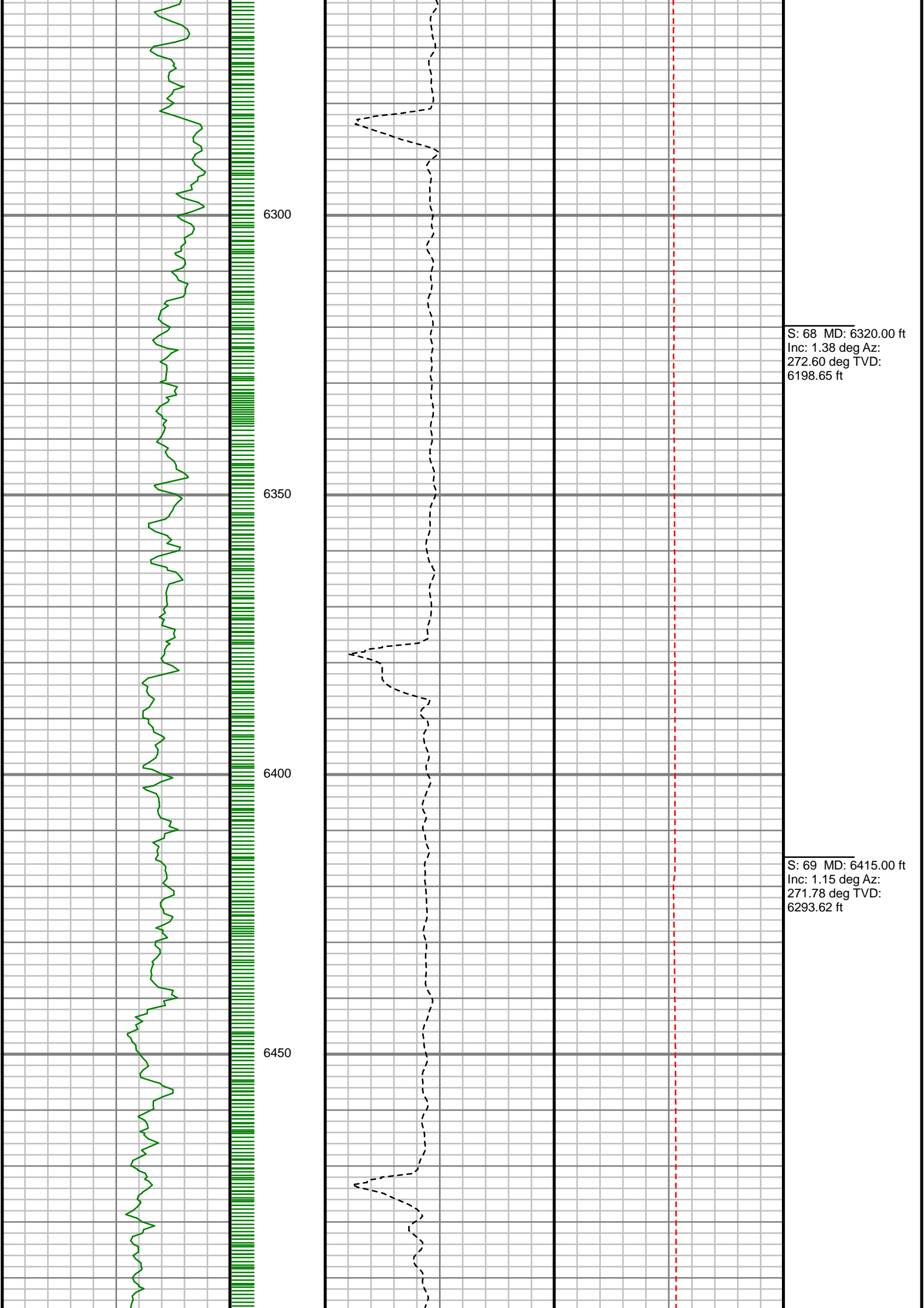


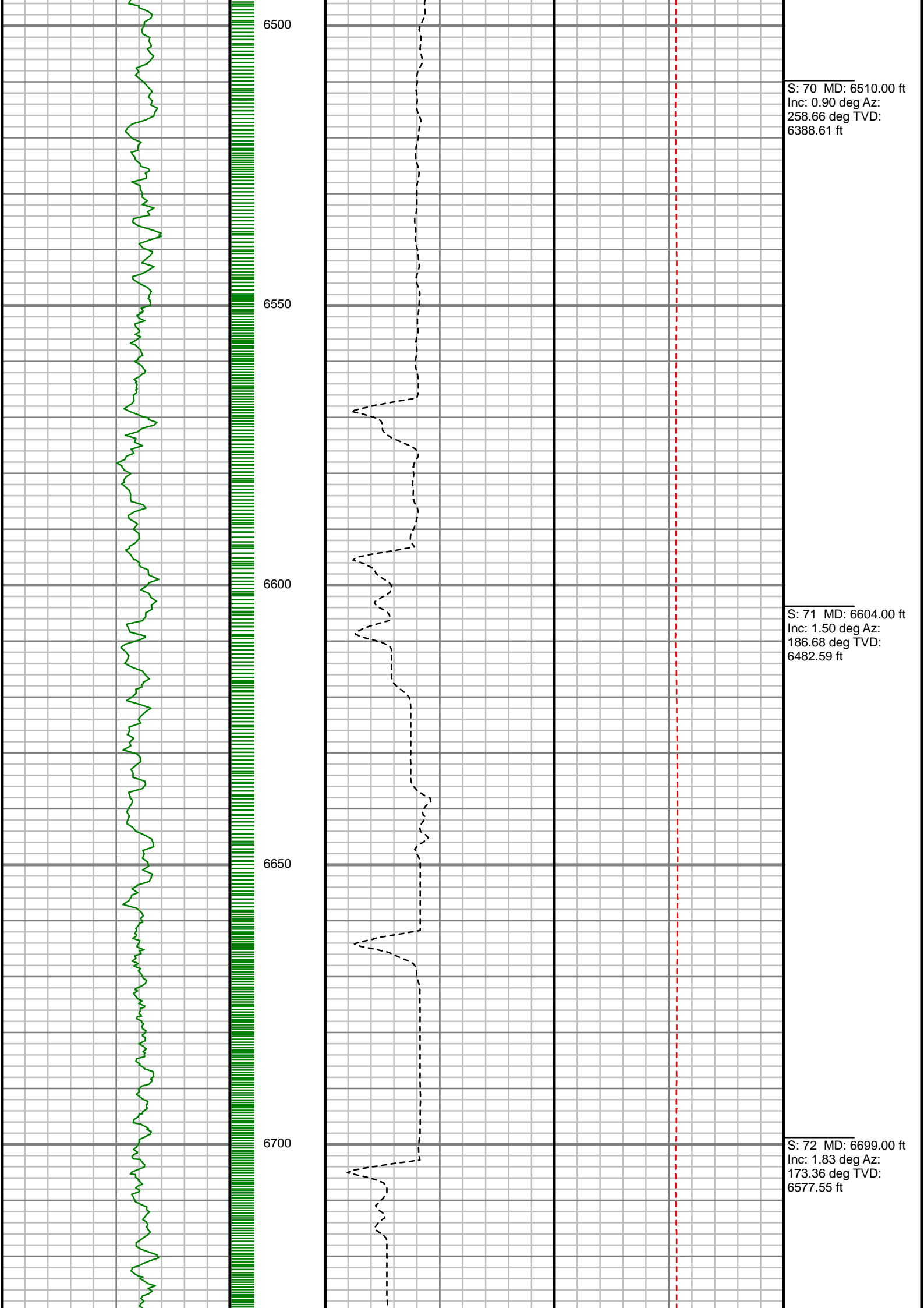


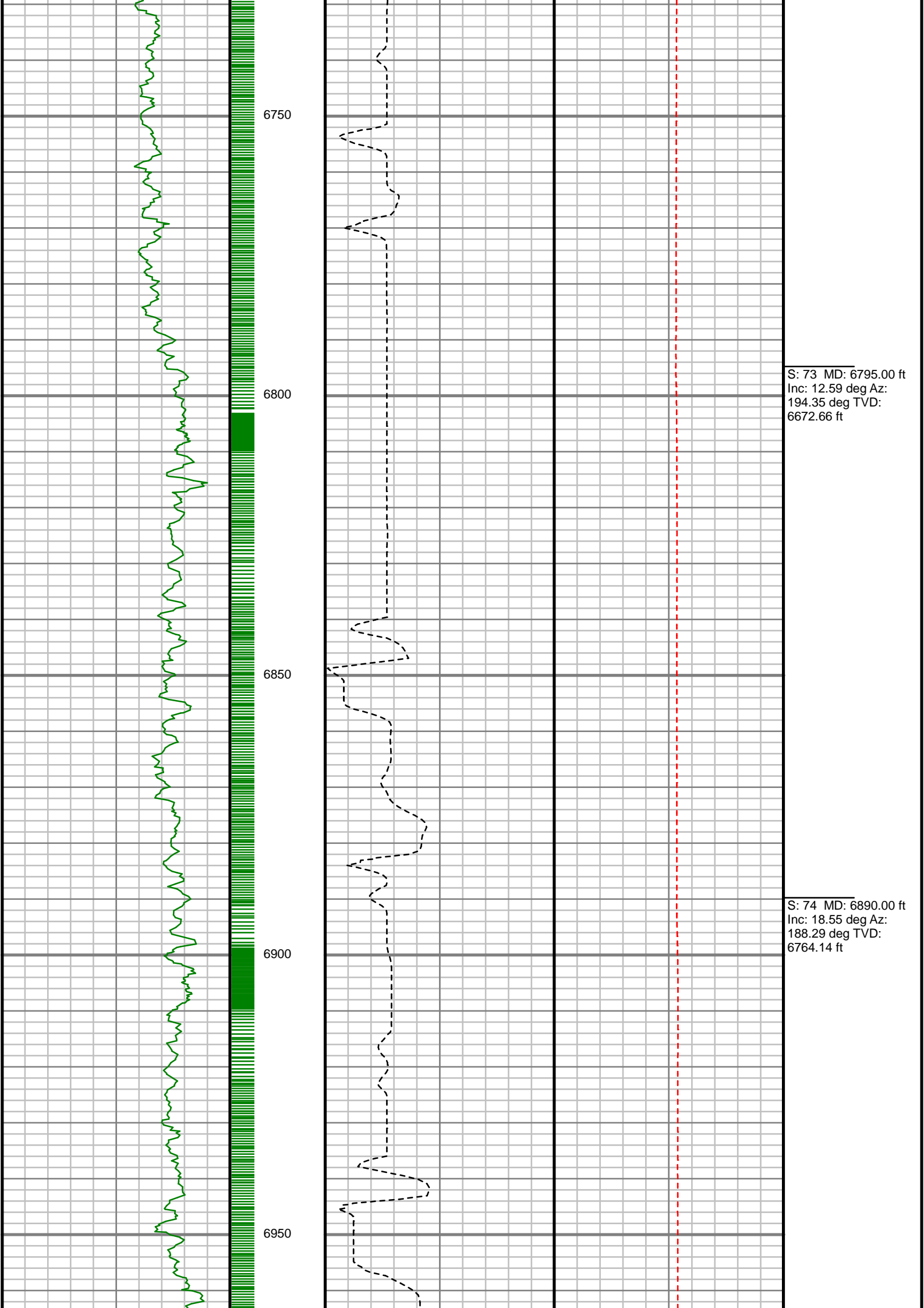
S: 65 MD: 6035.00 ft
Inc: 1.38 deg Az:
292.42 deg TVD:
5913.73 ft

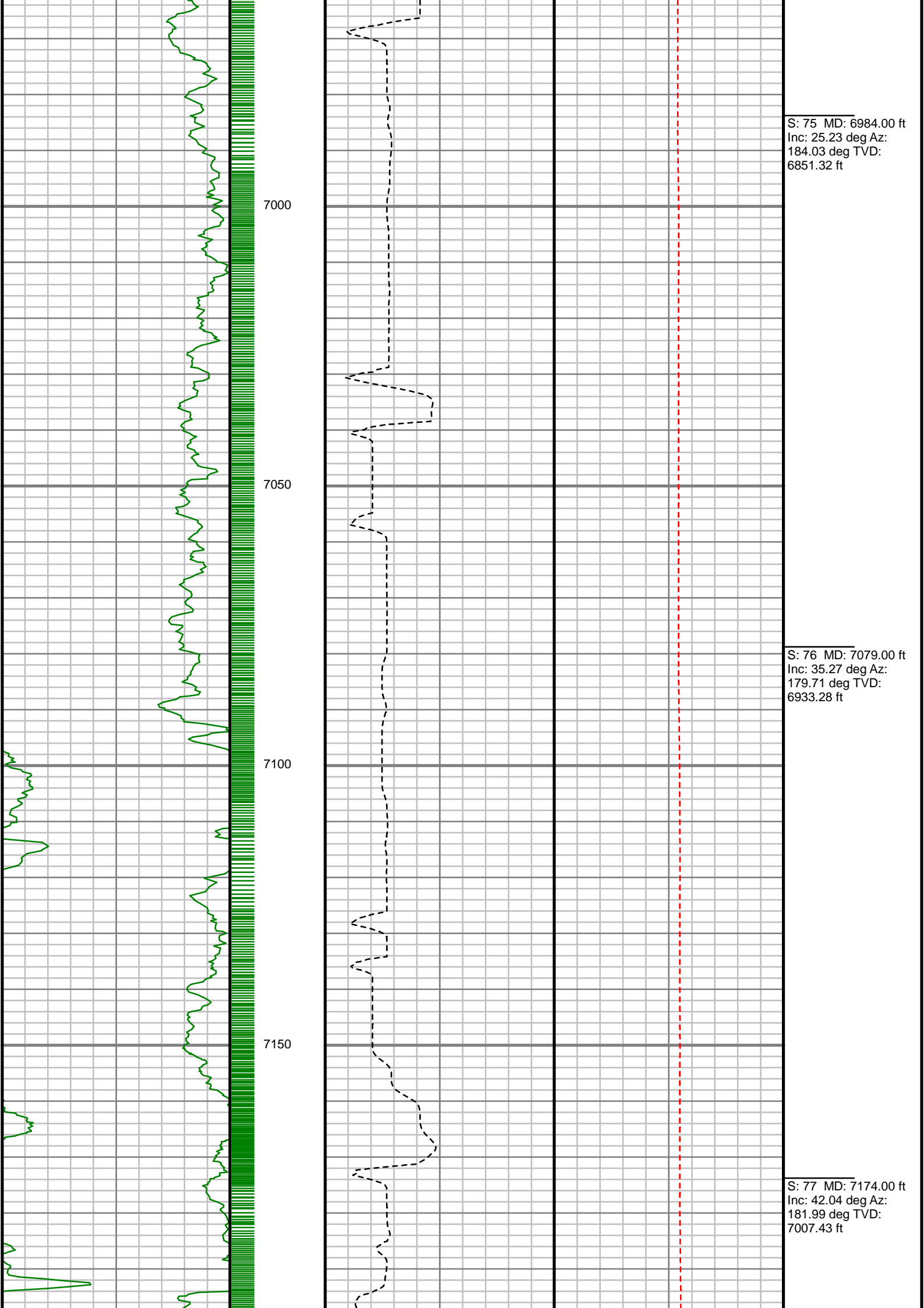
S: 66 MD: 6131.00 ft
Inc: 1.33 deg Az:
282.75 deg TVD:
6009.70 ft

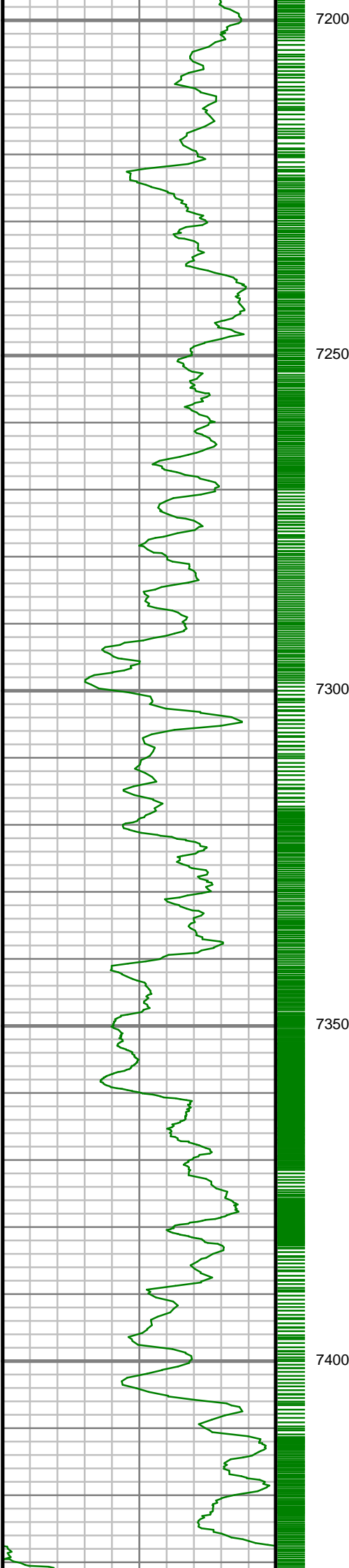
S: 67 MD: 6225.00 ft
Inc: 1.48 deg Az:
287.68 deg TVD:
6103.68 ft











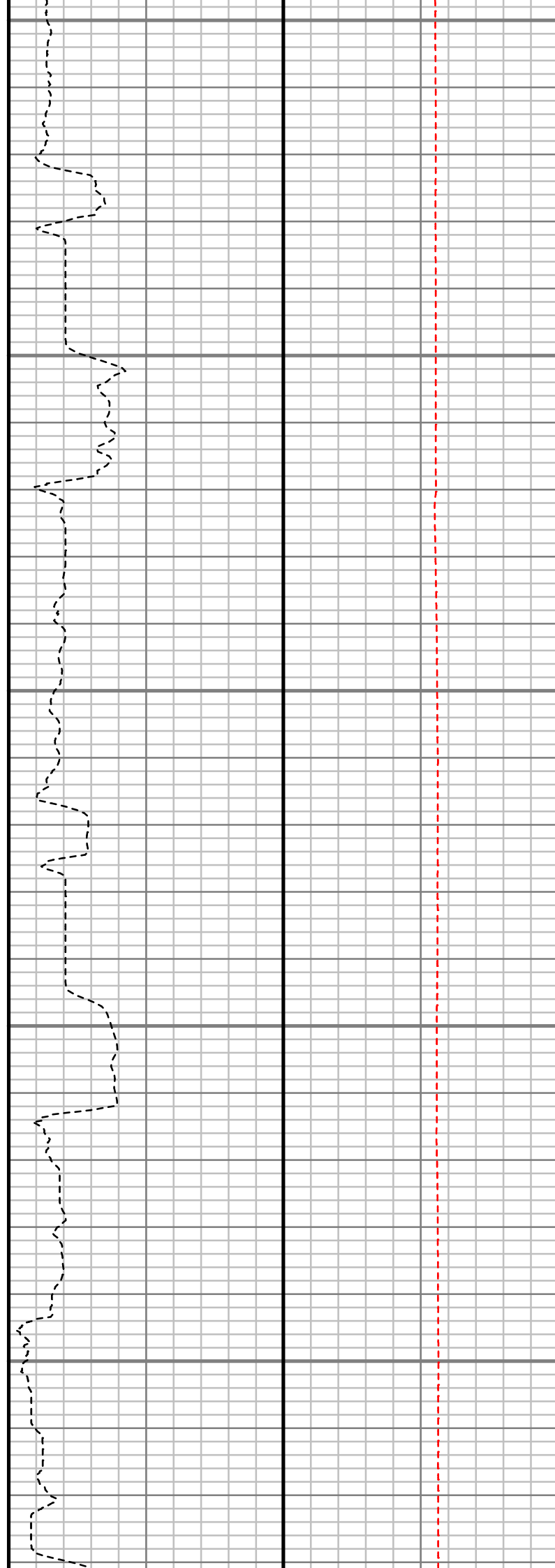
7200

7250

7300

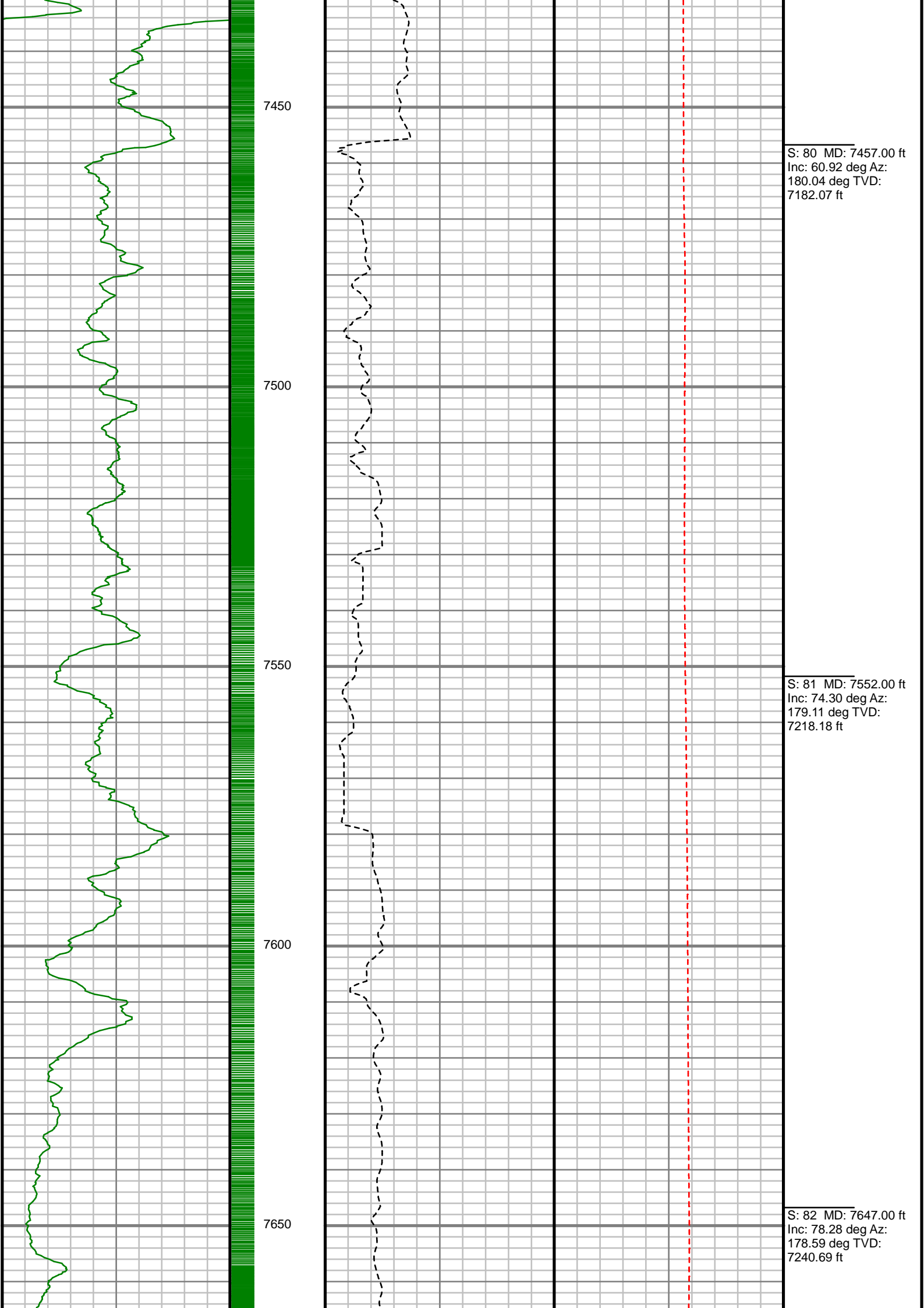
7350

7400



S: 78 MD: 7269.00 ft
Inc: 48.56 deg Az:
179.32 deg TVD:
7074.22 ft

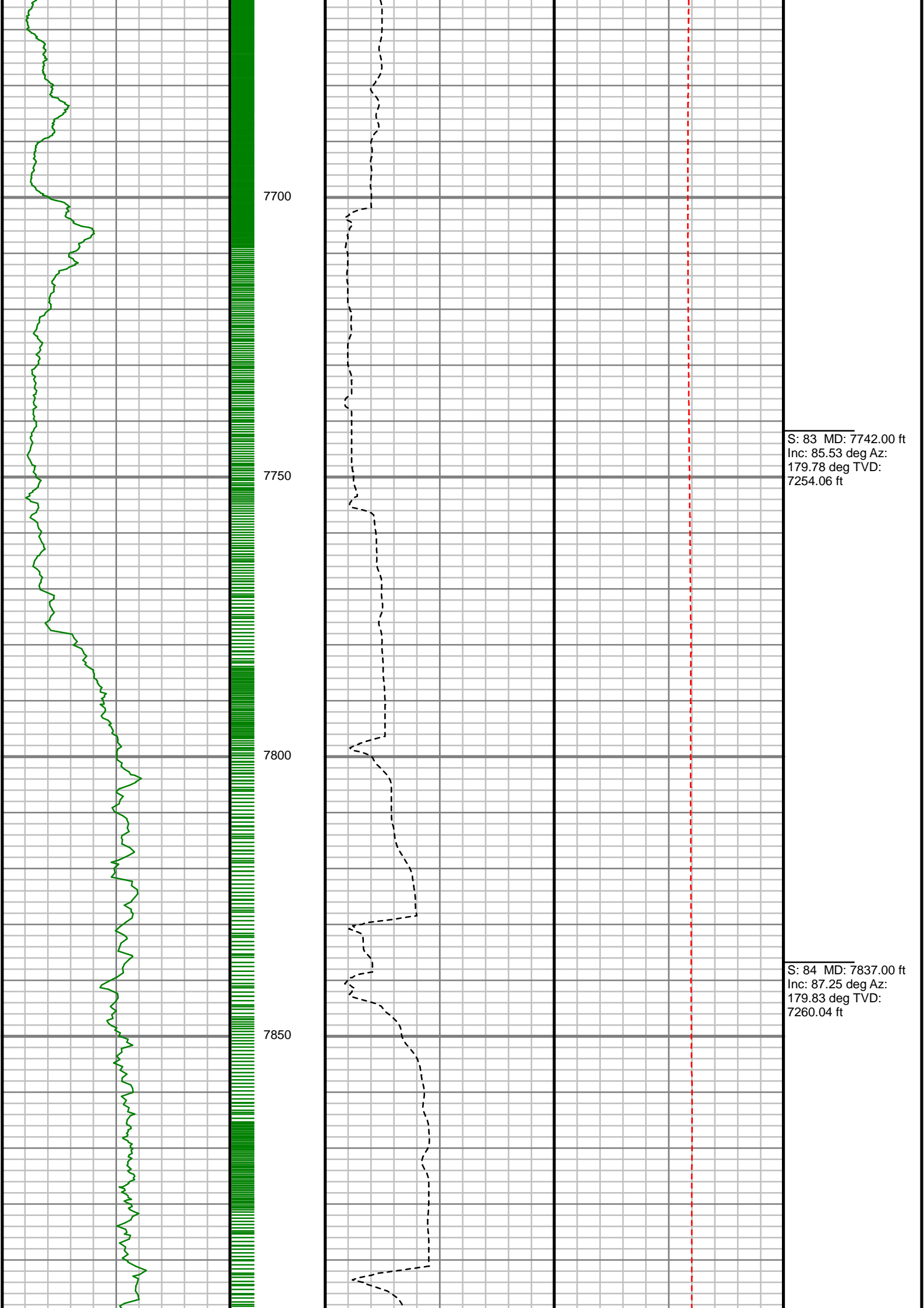
S: 79 MD: 7363.00 ft
Inc: 55.09 deg Az:
178.54 deg TVD:
7132.29 ft



S: 80 MD: 7457.00 ft
Inc: 60.92 deg Az:
180.04 deg TVD:
7182.07 ft

S: 81 MD: 7552.00 ft
Inc: 74.30 deg Az:
179.11 deg TVD:
7218.18 ft

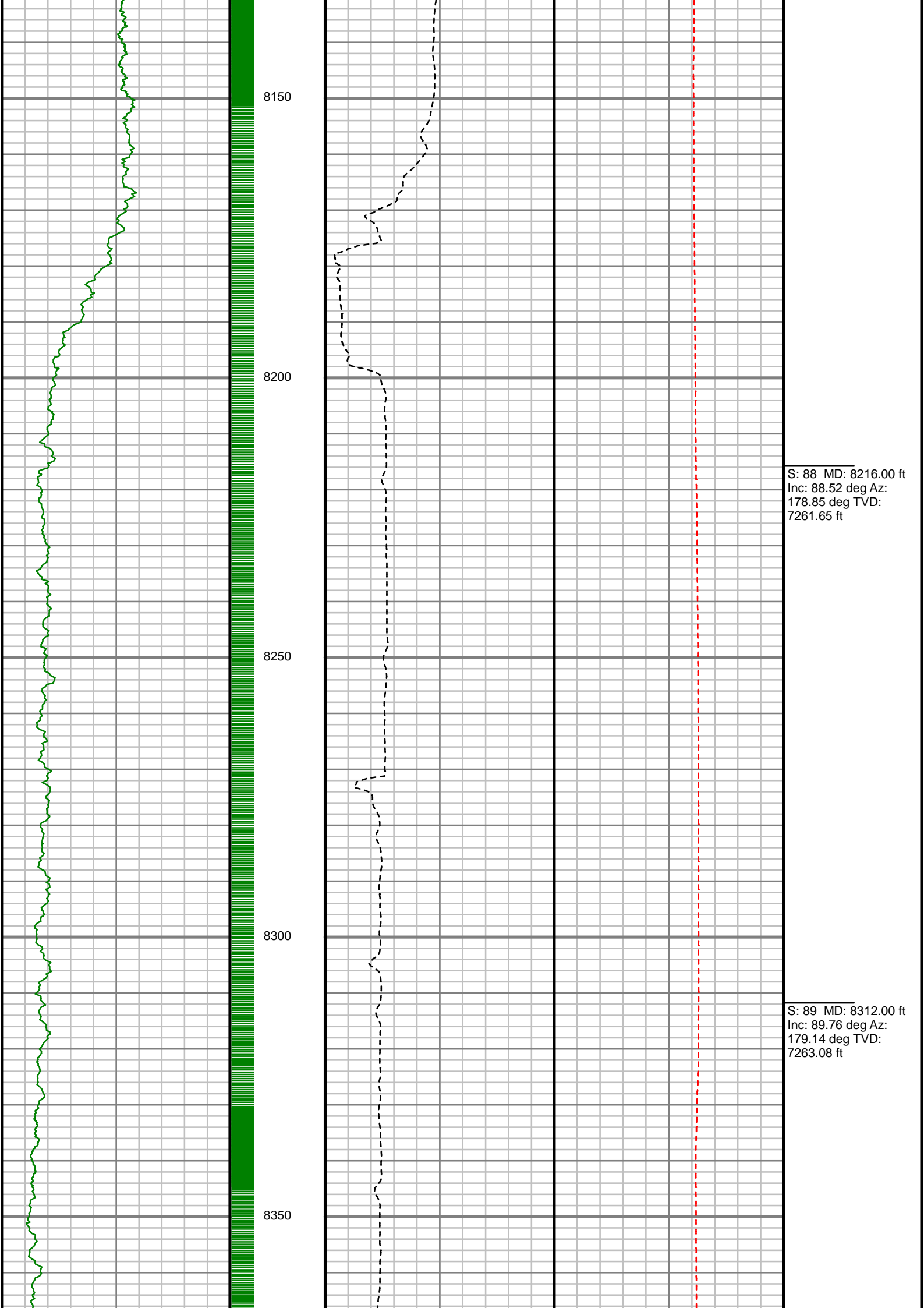
S: 82 MD: 7647.00 ft
Inc: 78.28 deg Az:
178.59 deg TVD:
7240.69 ft

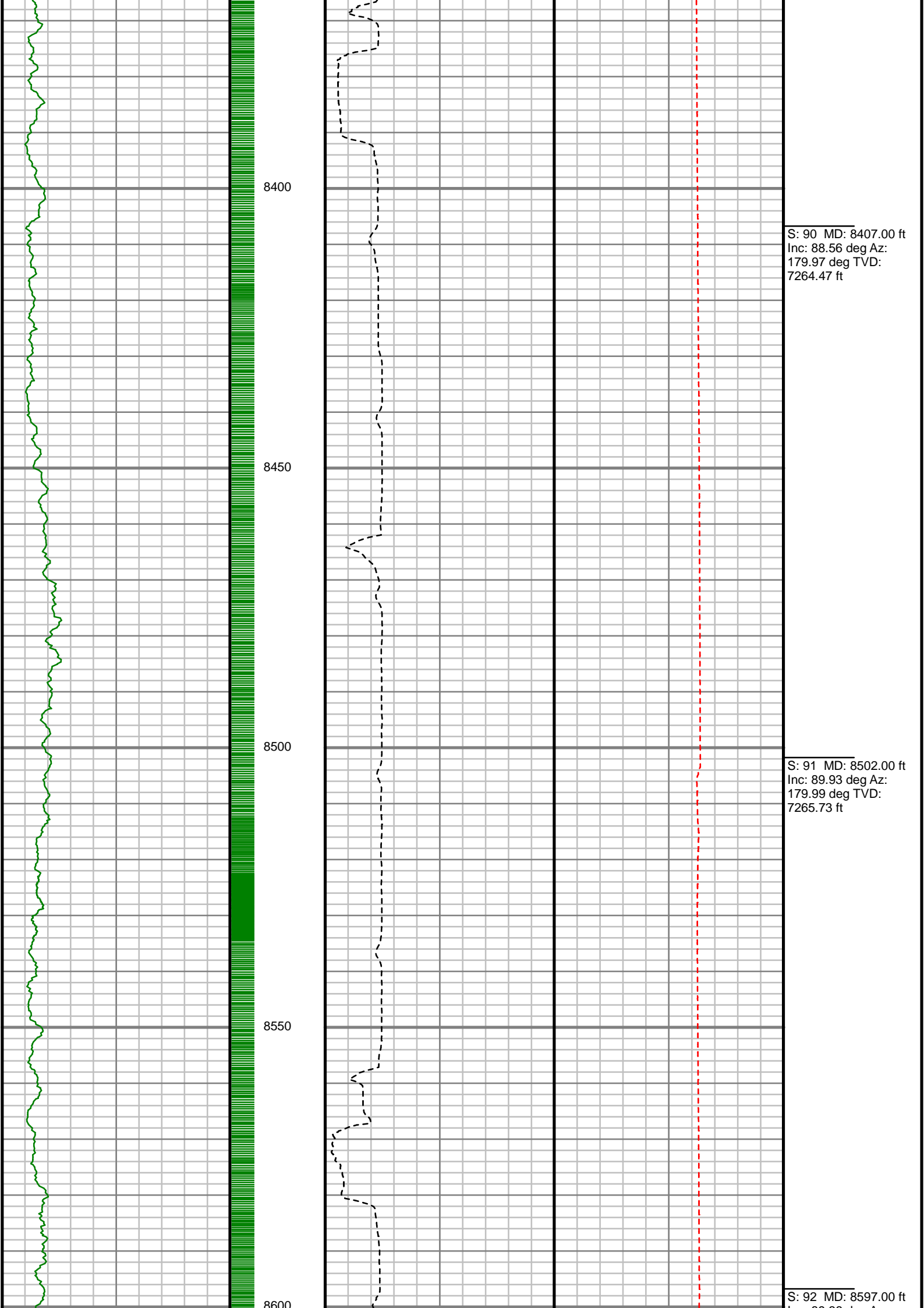


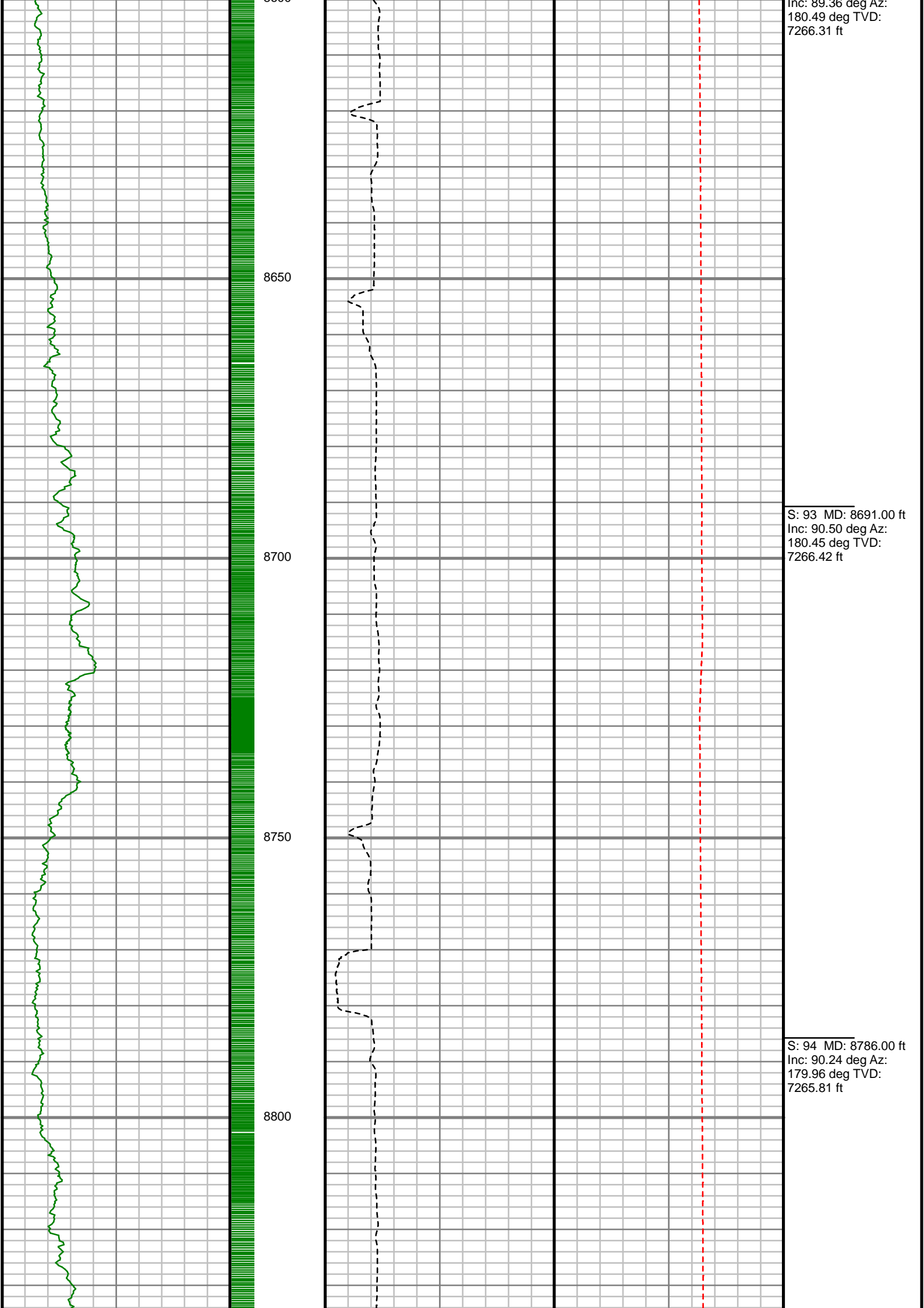
S: 83 MD: 7742.00 ft
Inc: 85.53 deg Az:
179.78 deg TVD:
7254.06 ft

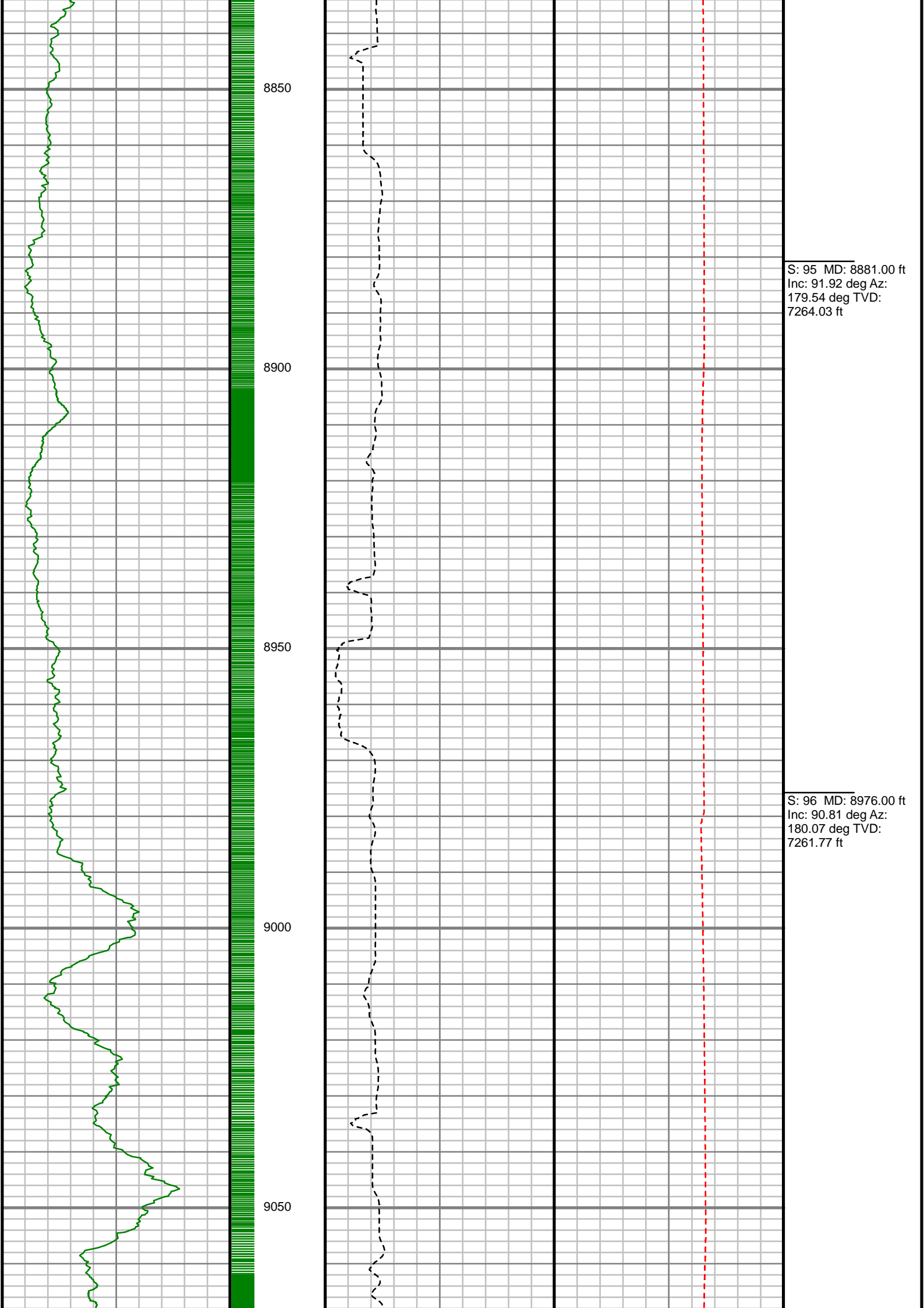
S: 84 MD: 7837.00 ft
Inc: 87.25 deg Az:
179.83 deg TVD:
7260.04 ft





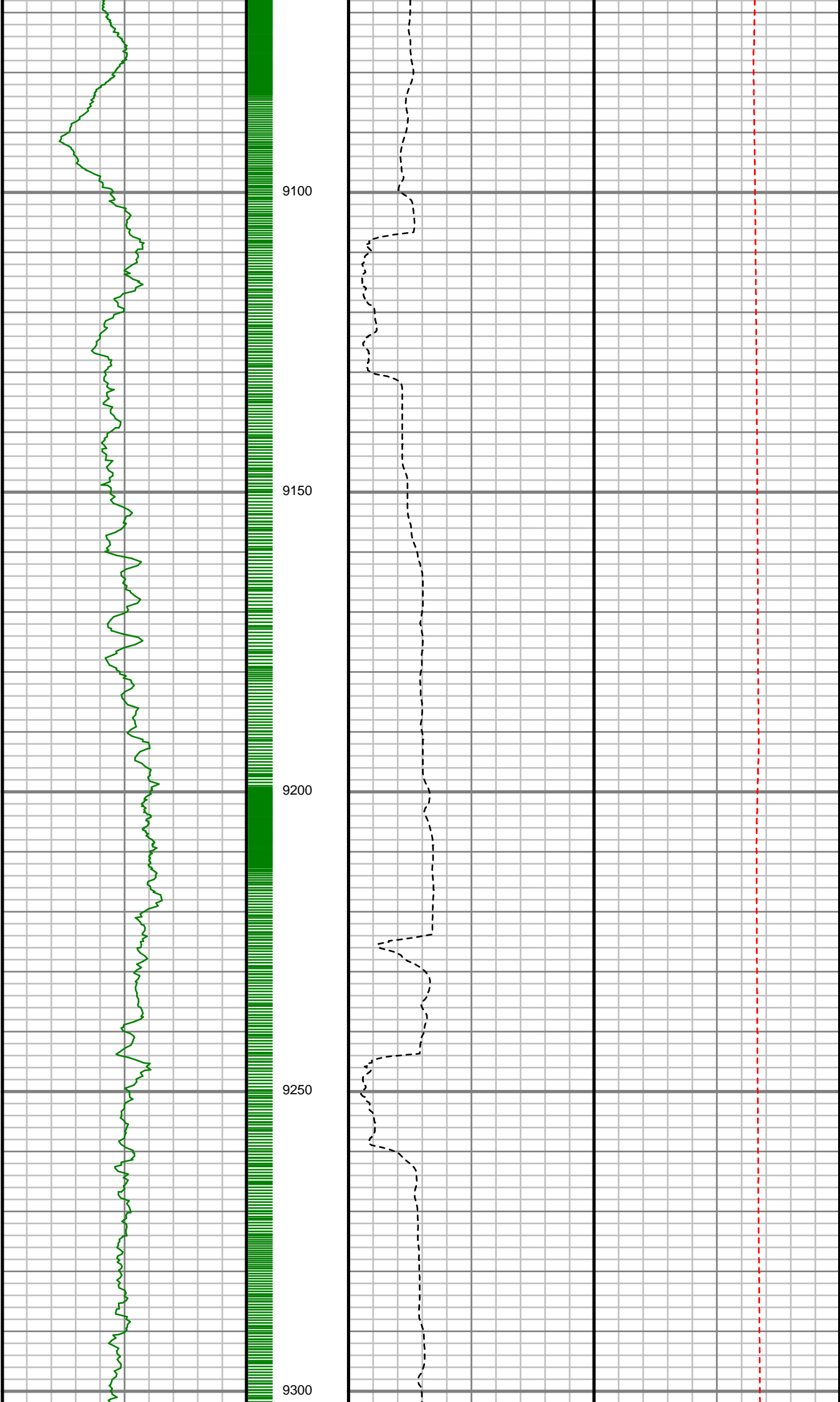






S: 95 MD: 8881.00 ft
Inc: 91.92 deg Az:
179.54 deg TVD:
7264.03 ft

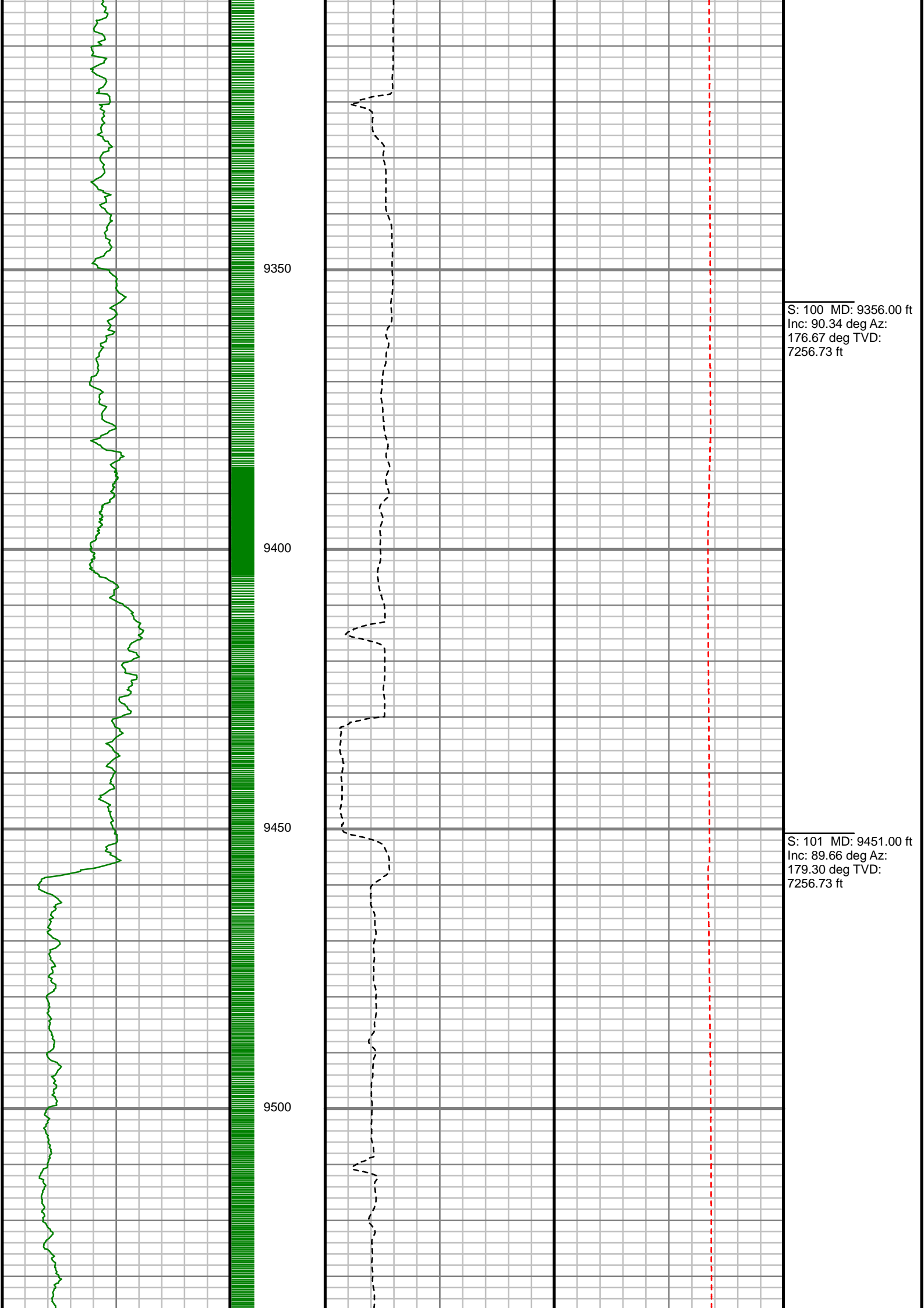
S: 96 MD: 8976.00 ft
Inc: 90.81 deg Az:
180.07 deg TVD:
7261.77 ft

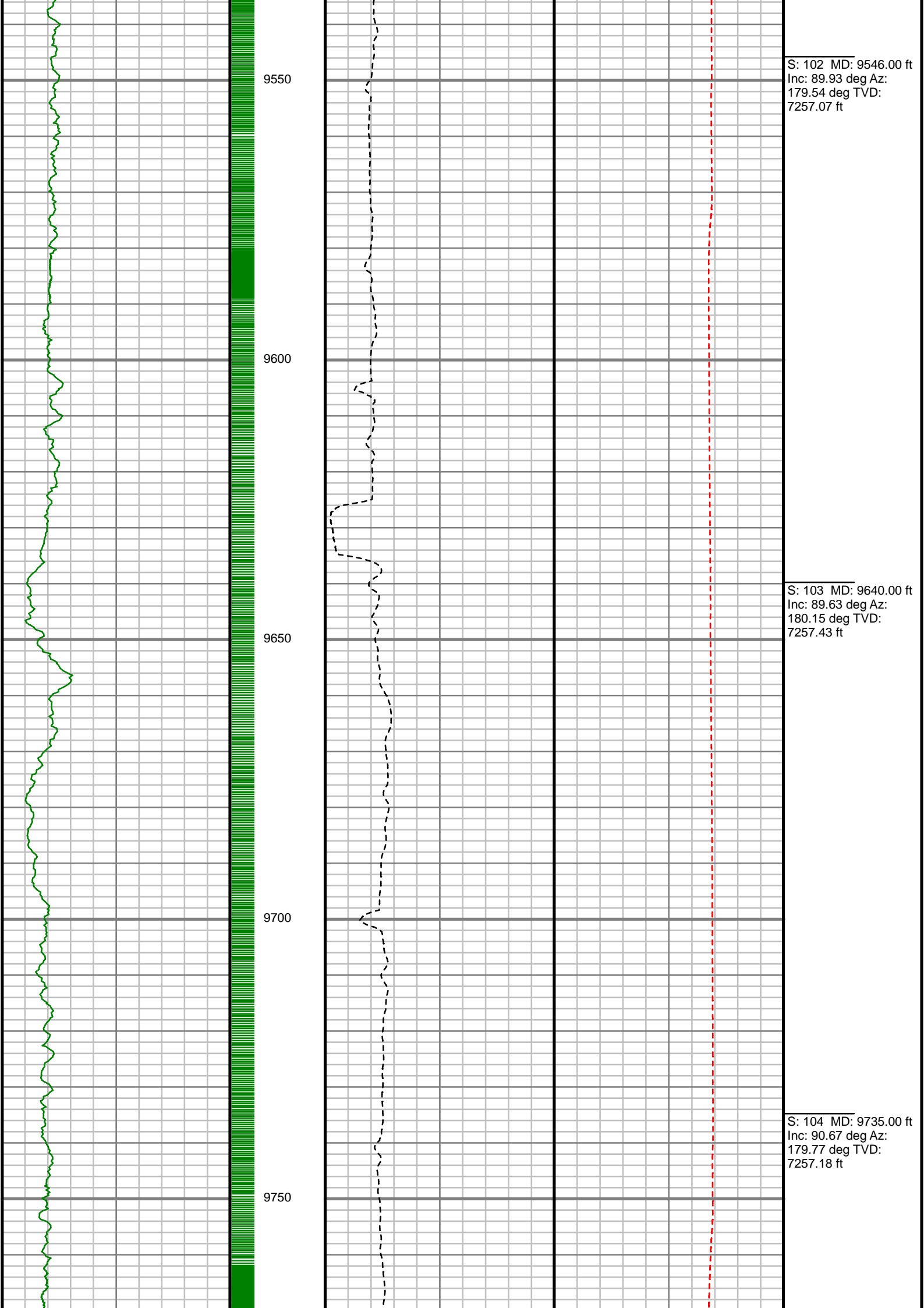


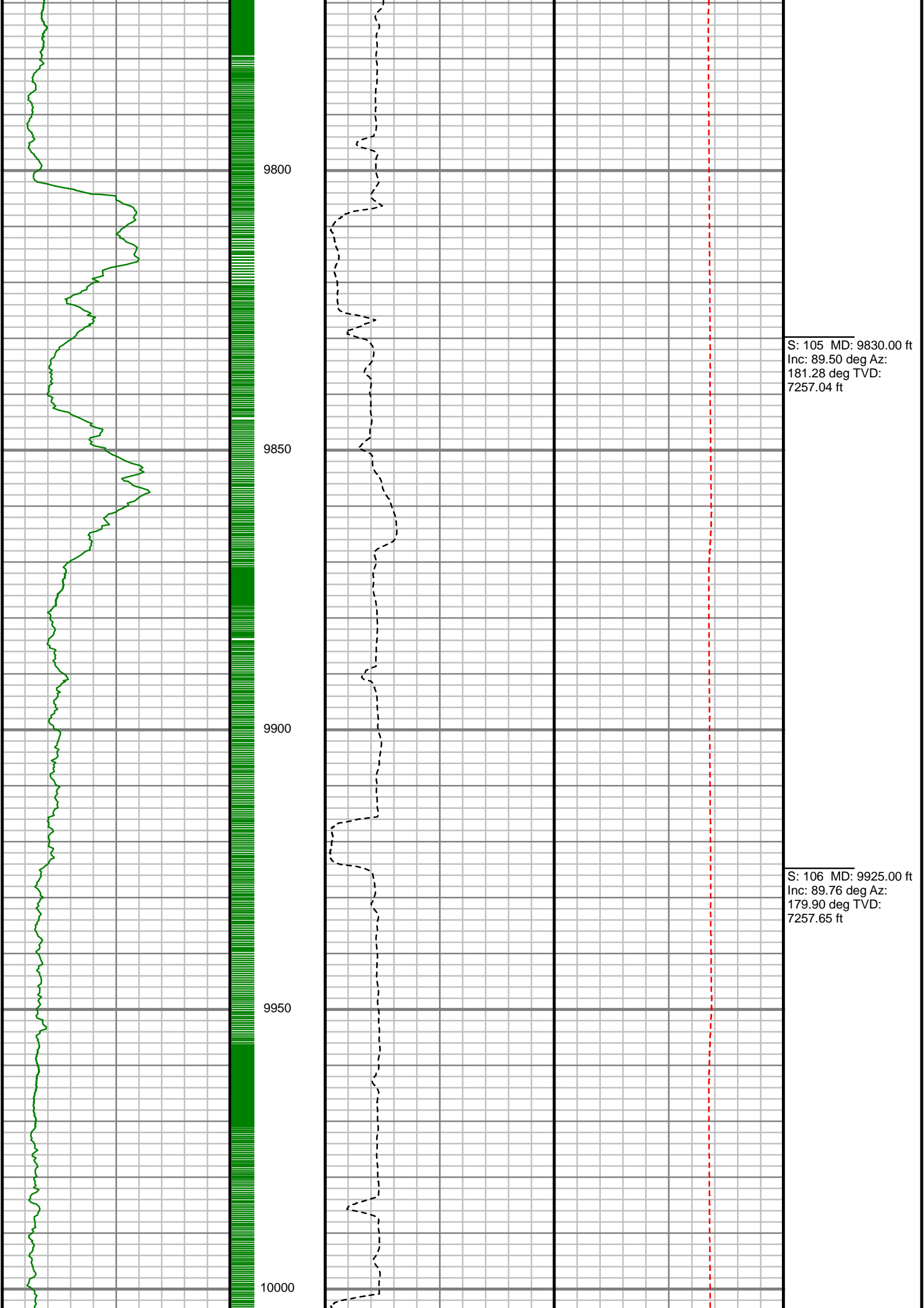
S: 97 MD: 9071.00 ft
Inc: 92.62 deg Az:
178.77 deg TVD:
7258.93 ft

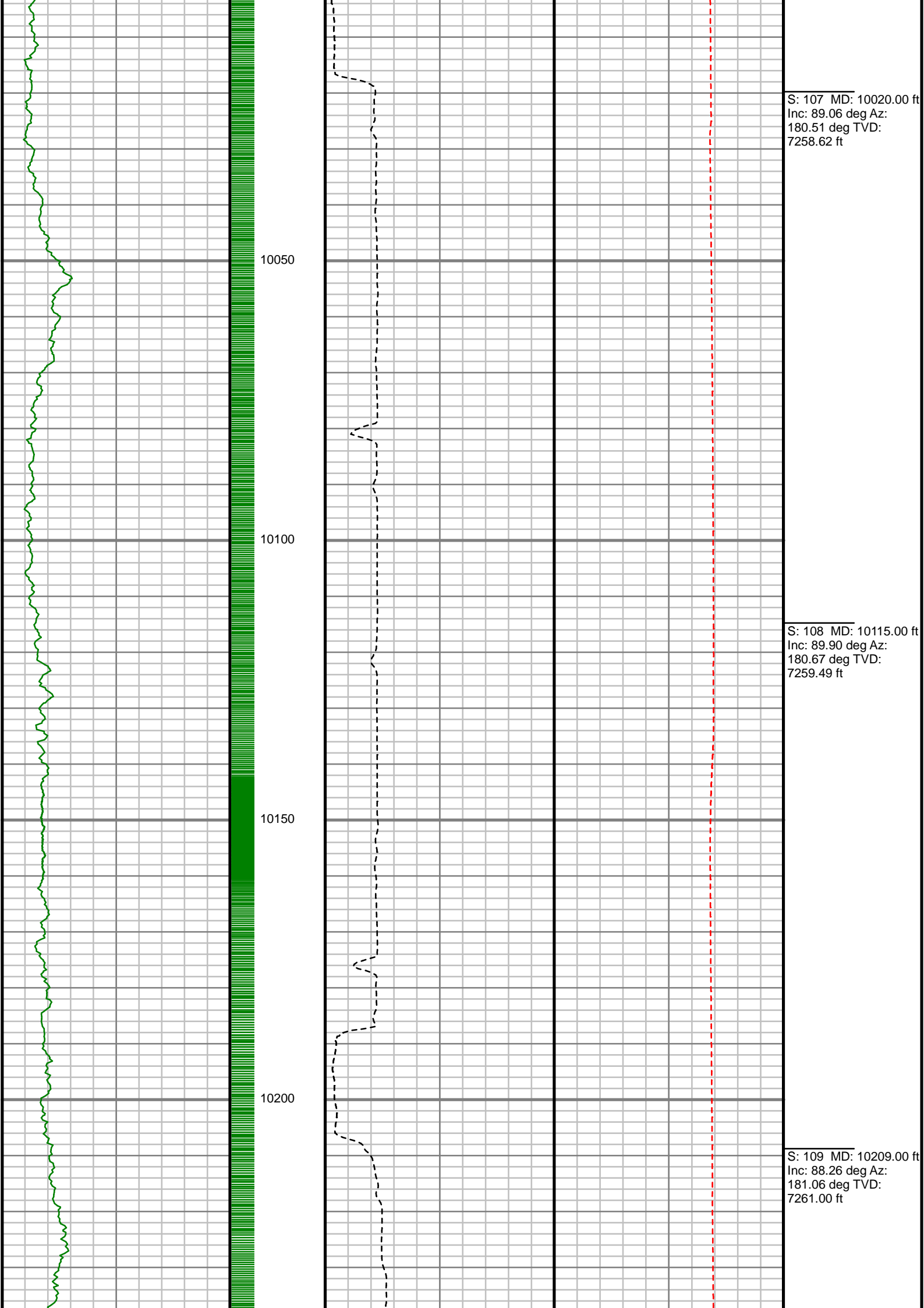
S: 98 MD: 9167.00 ft
Inc: 90.17 deg Az:
178.91 deg TVD:
7256.59 ft

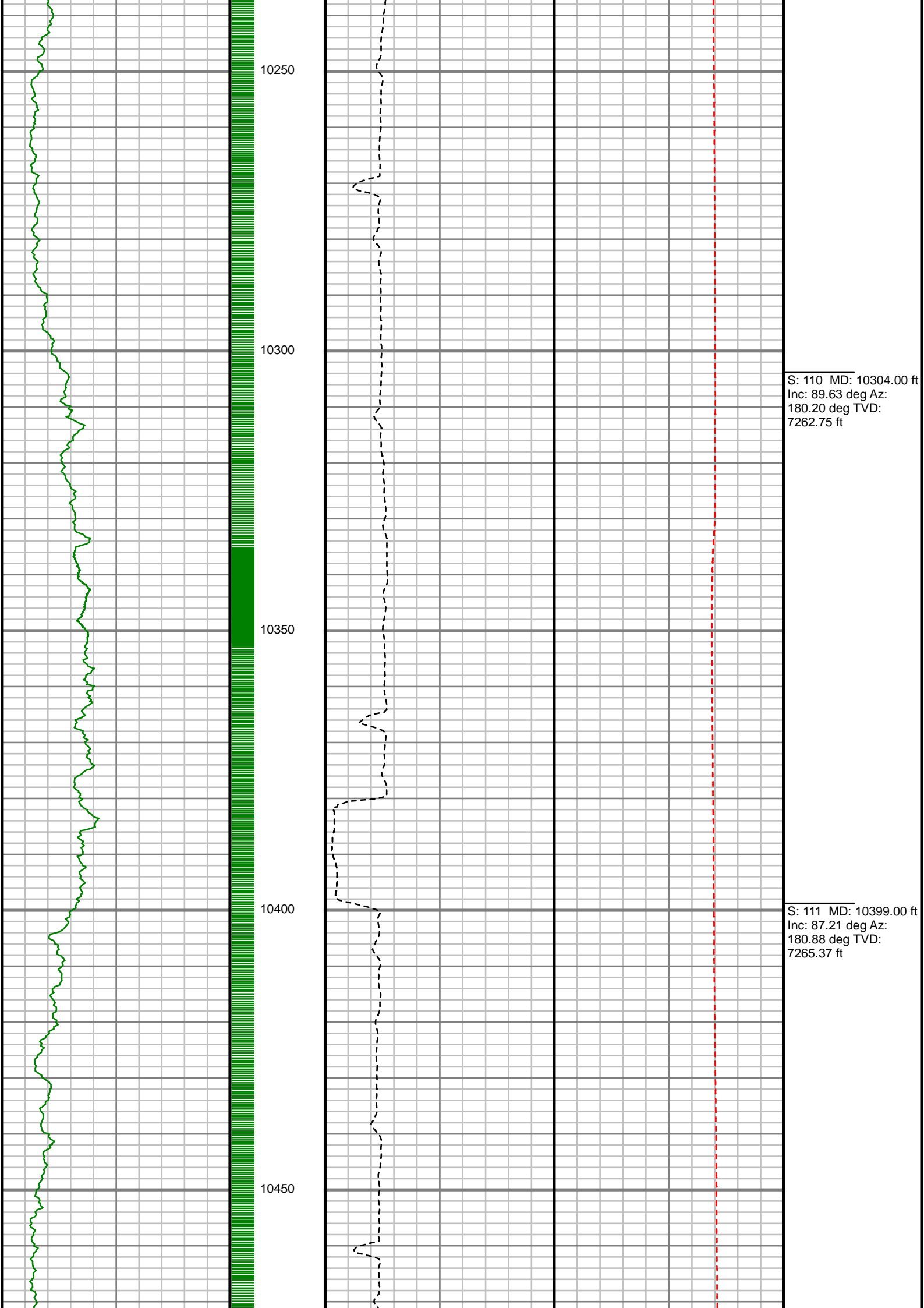
S: 99 MD: 9262.00 ft
Inc: 89.66 deg Az:
178.44 deg TVD:
7256.73 ft

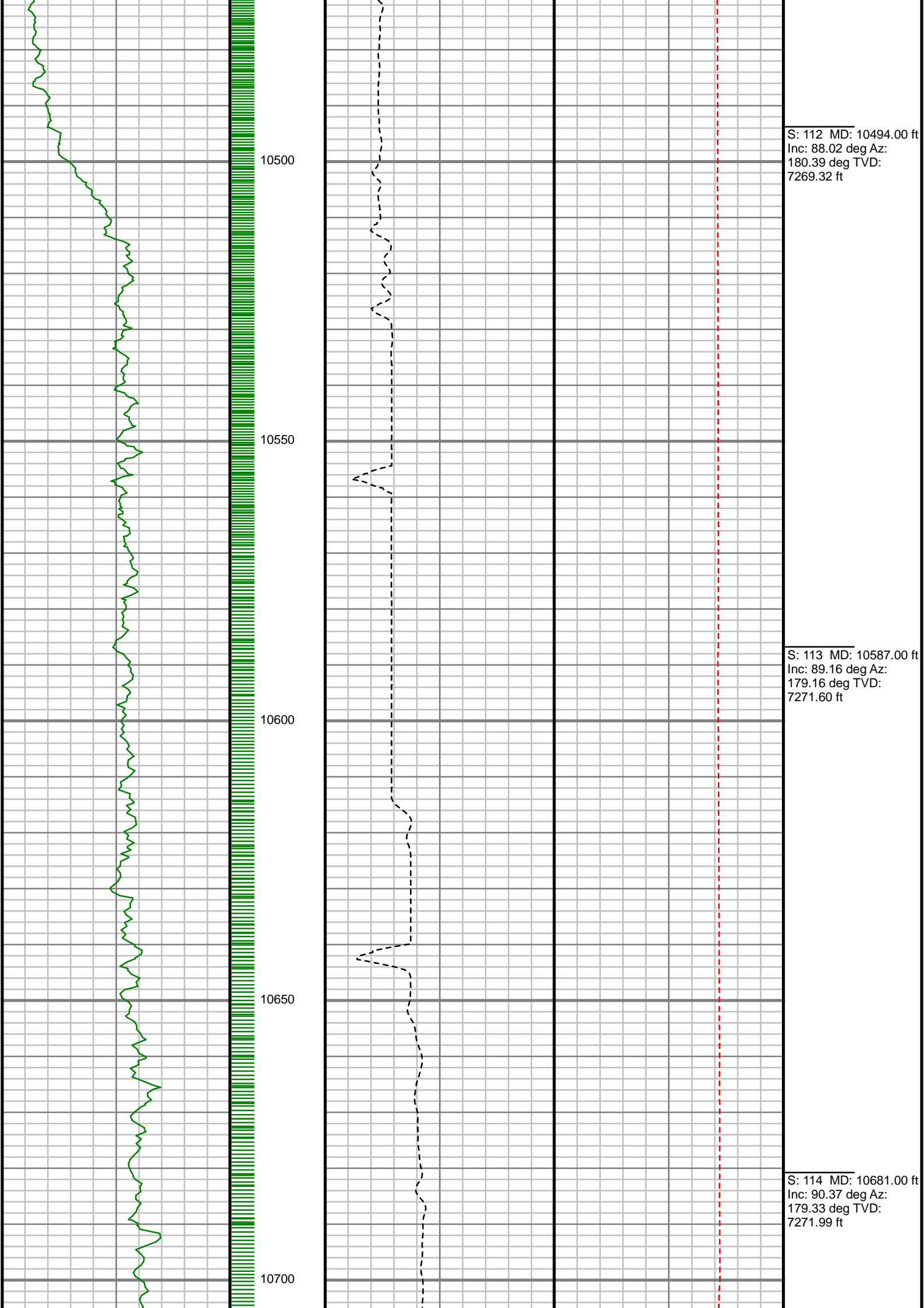


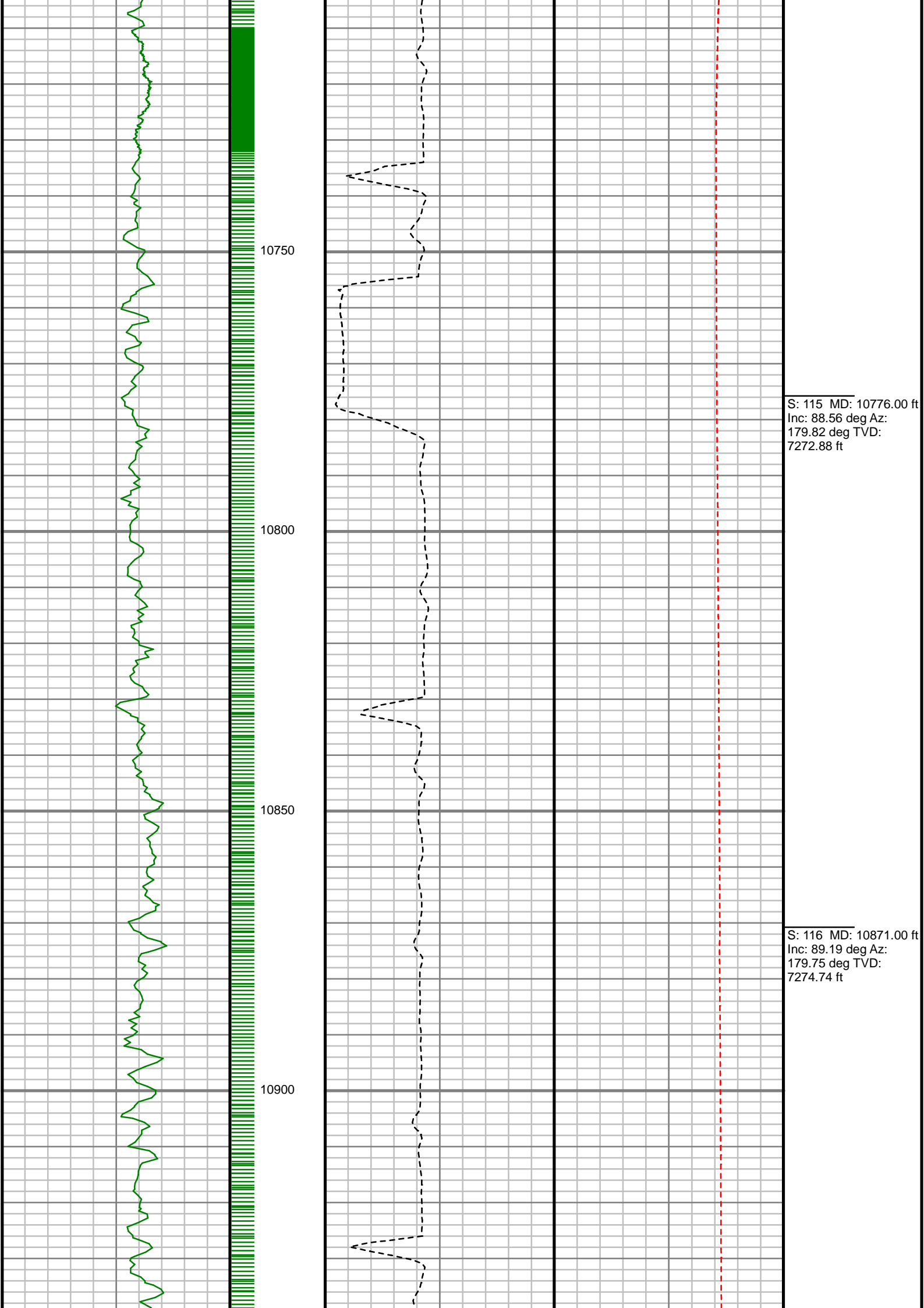


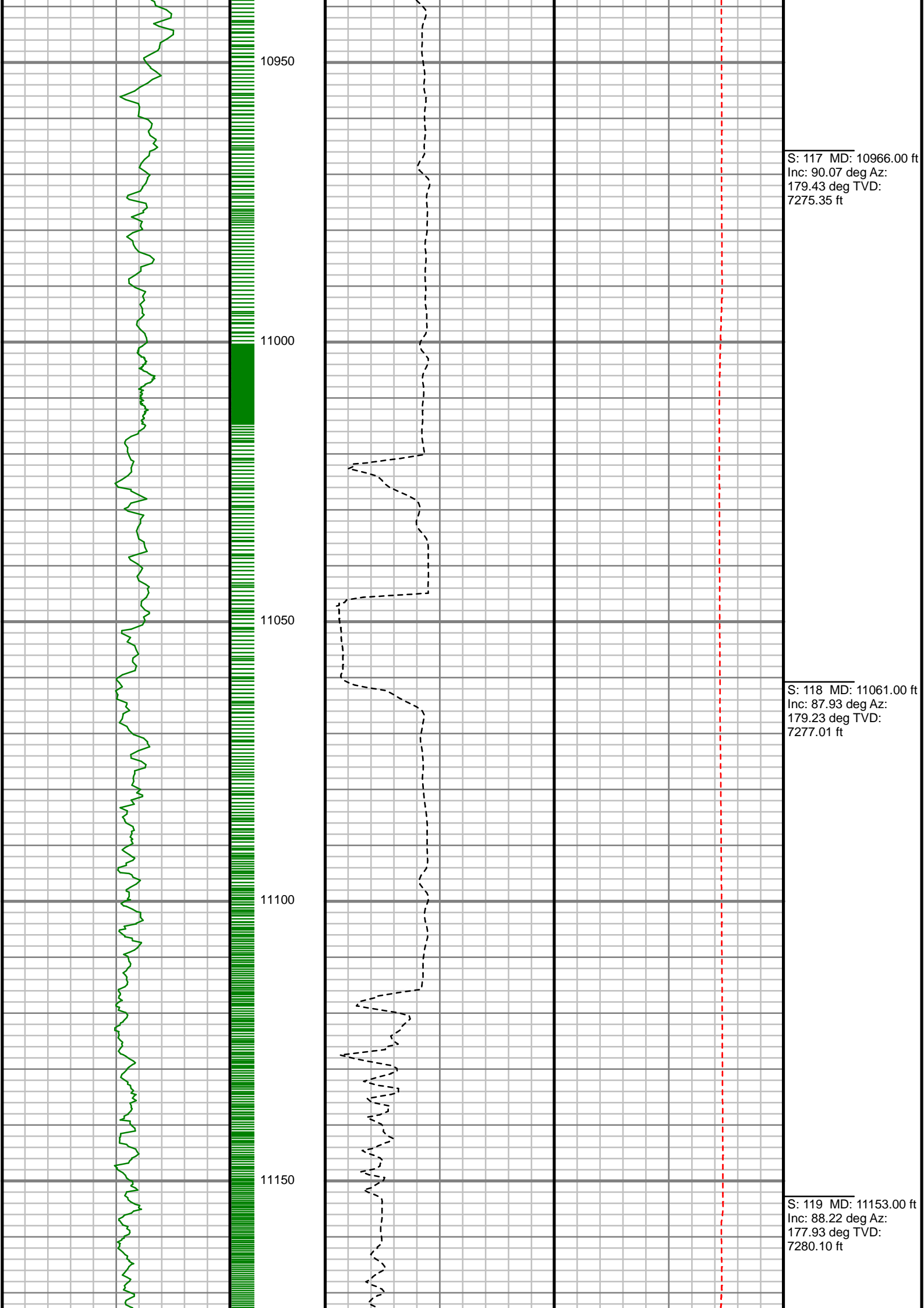


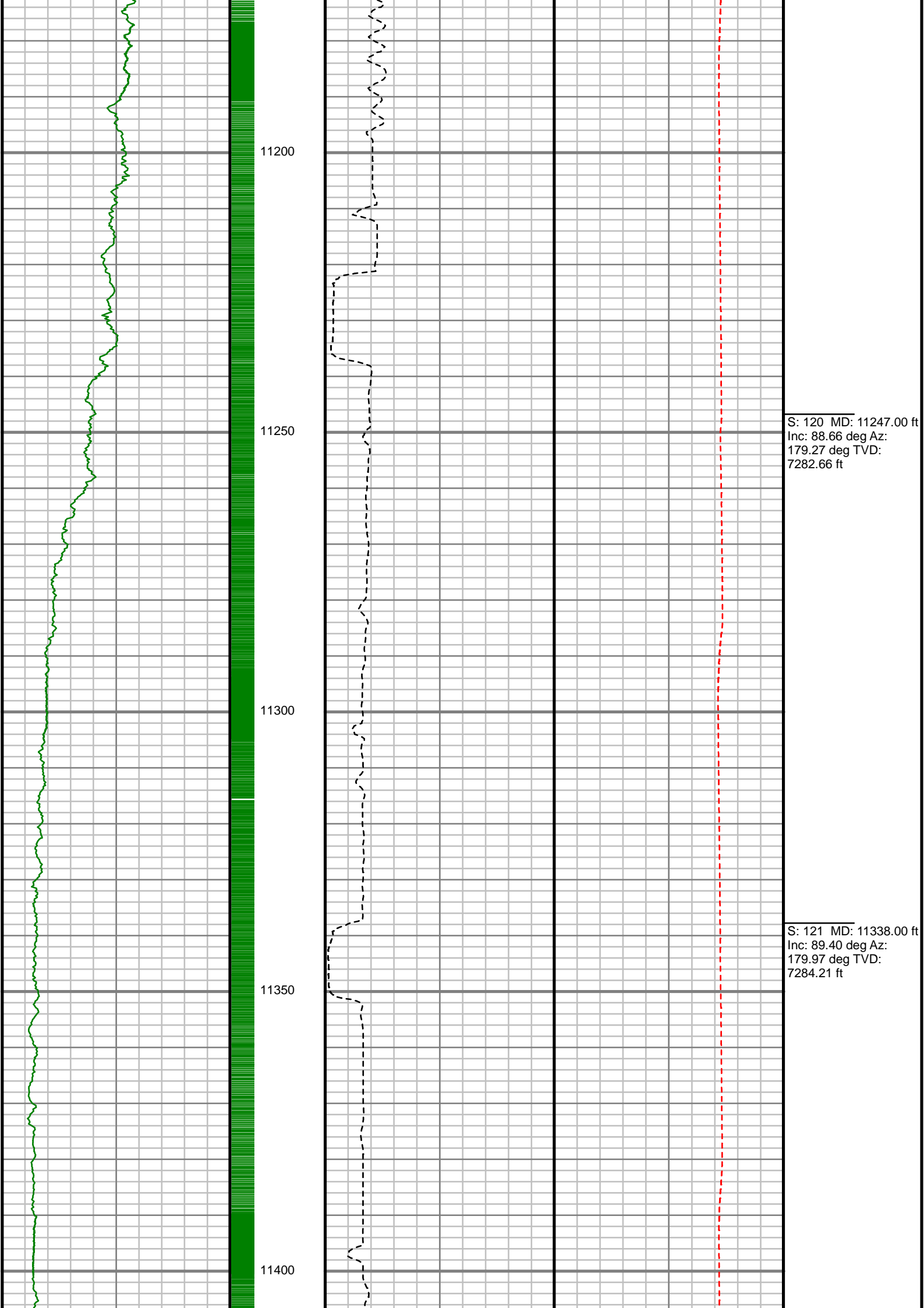


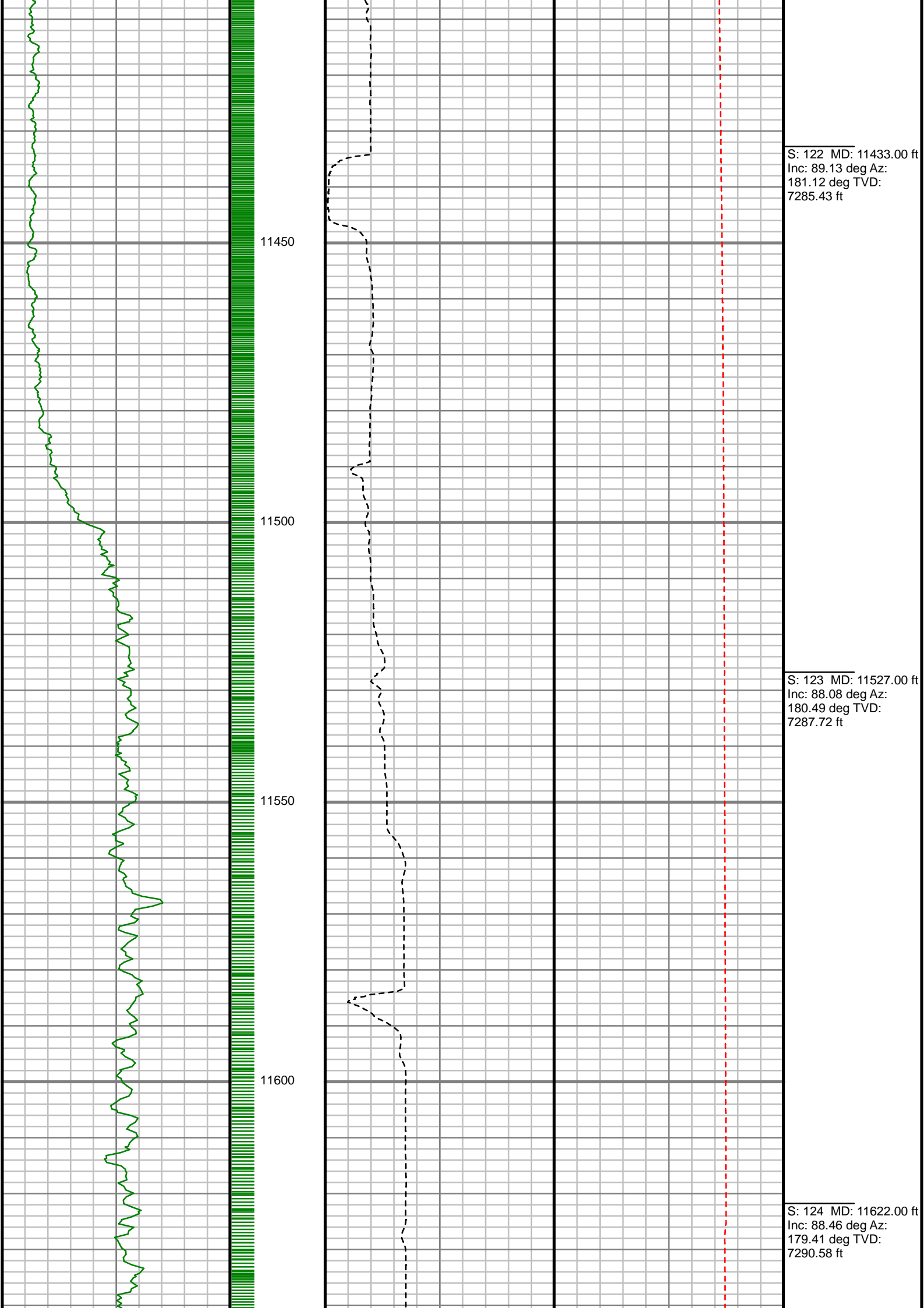


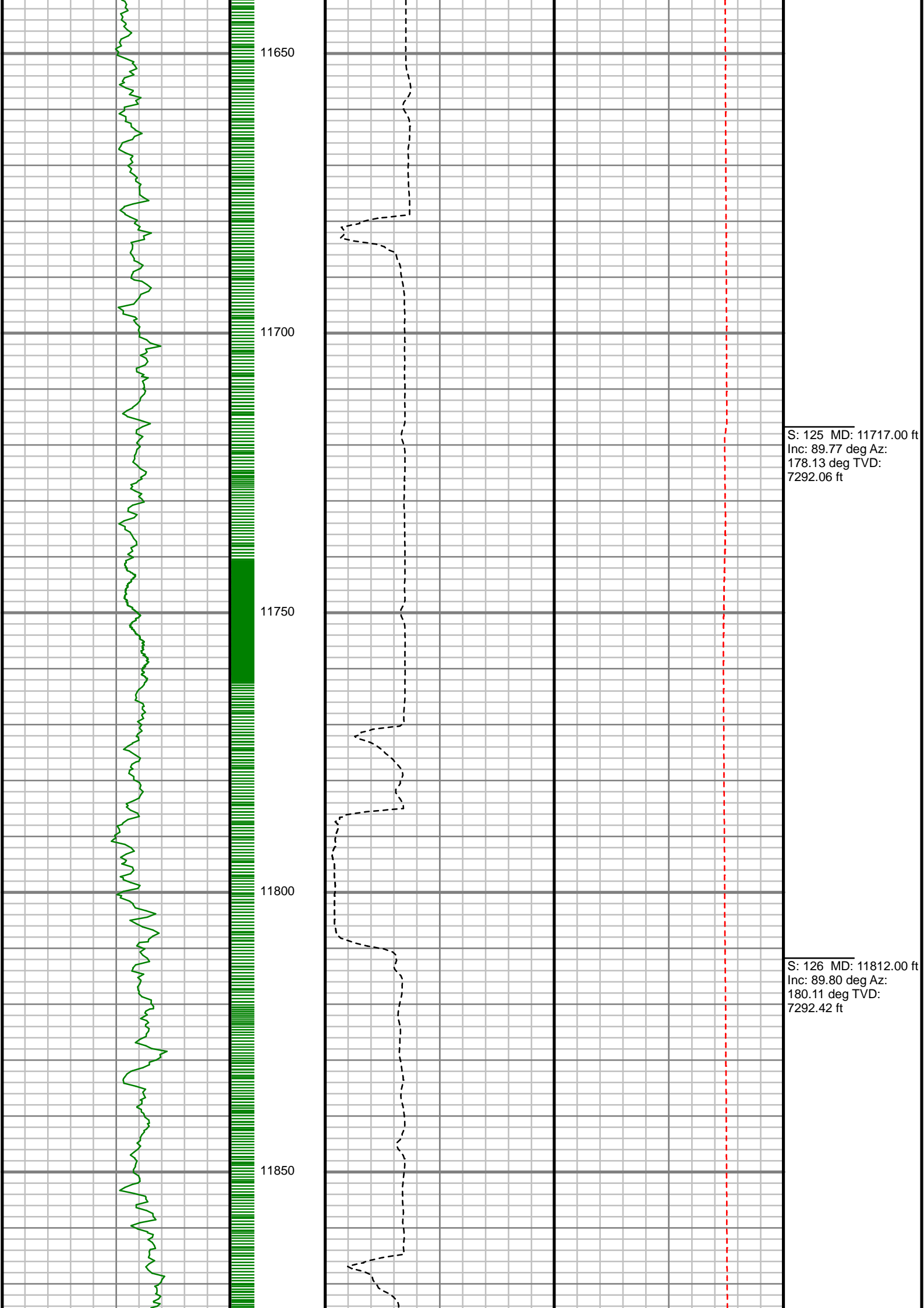


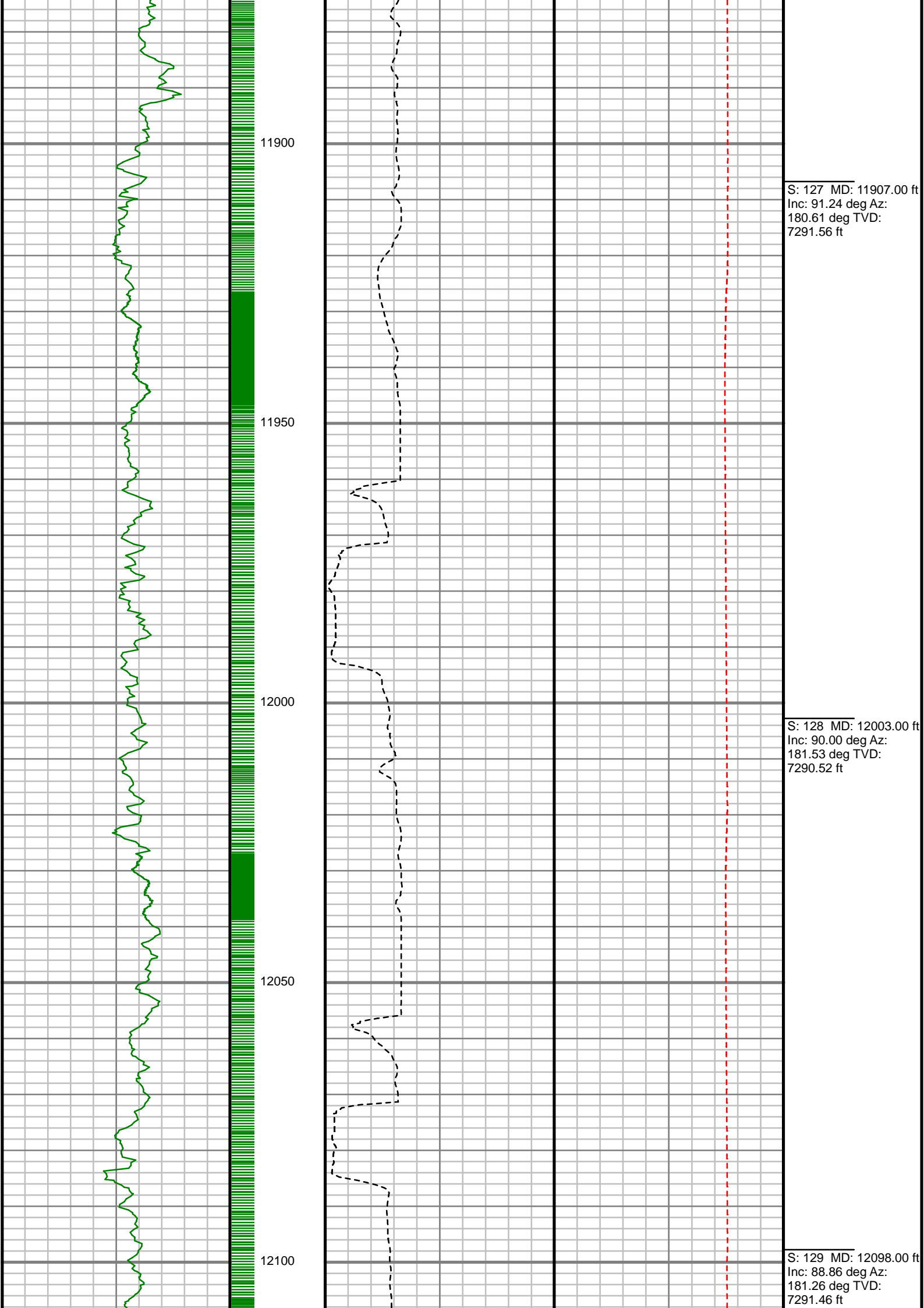


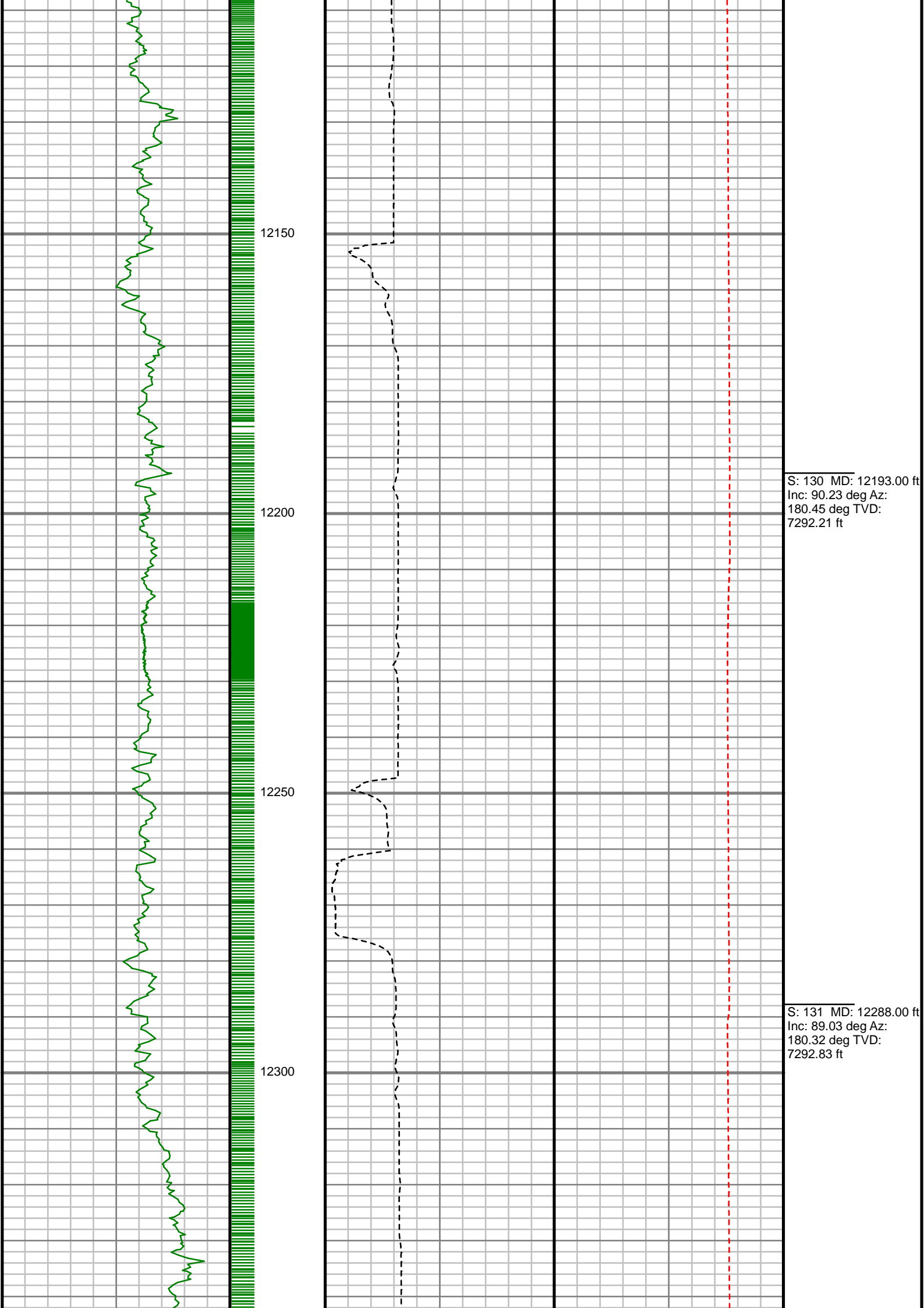






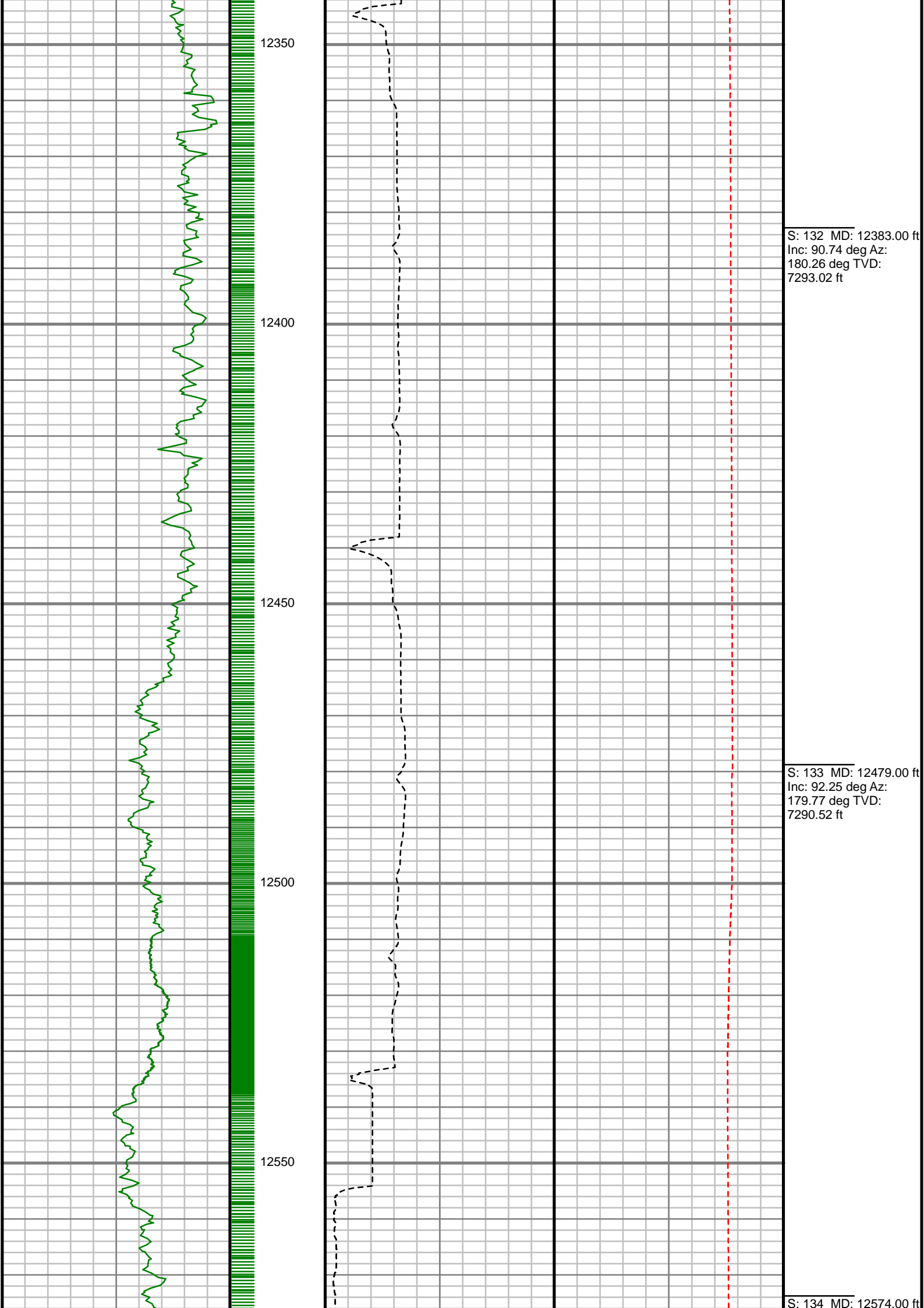


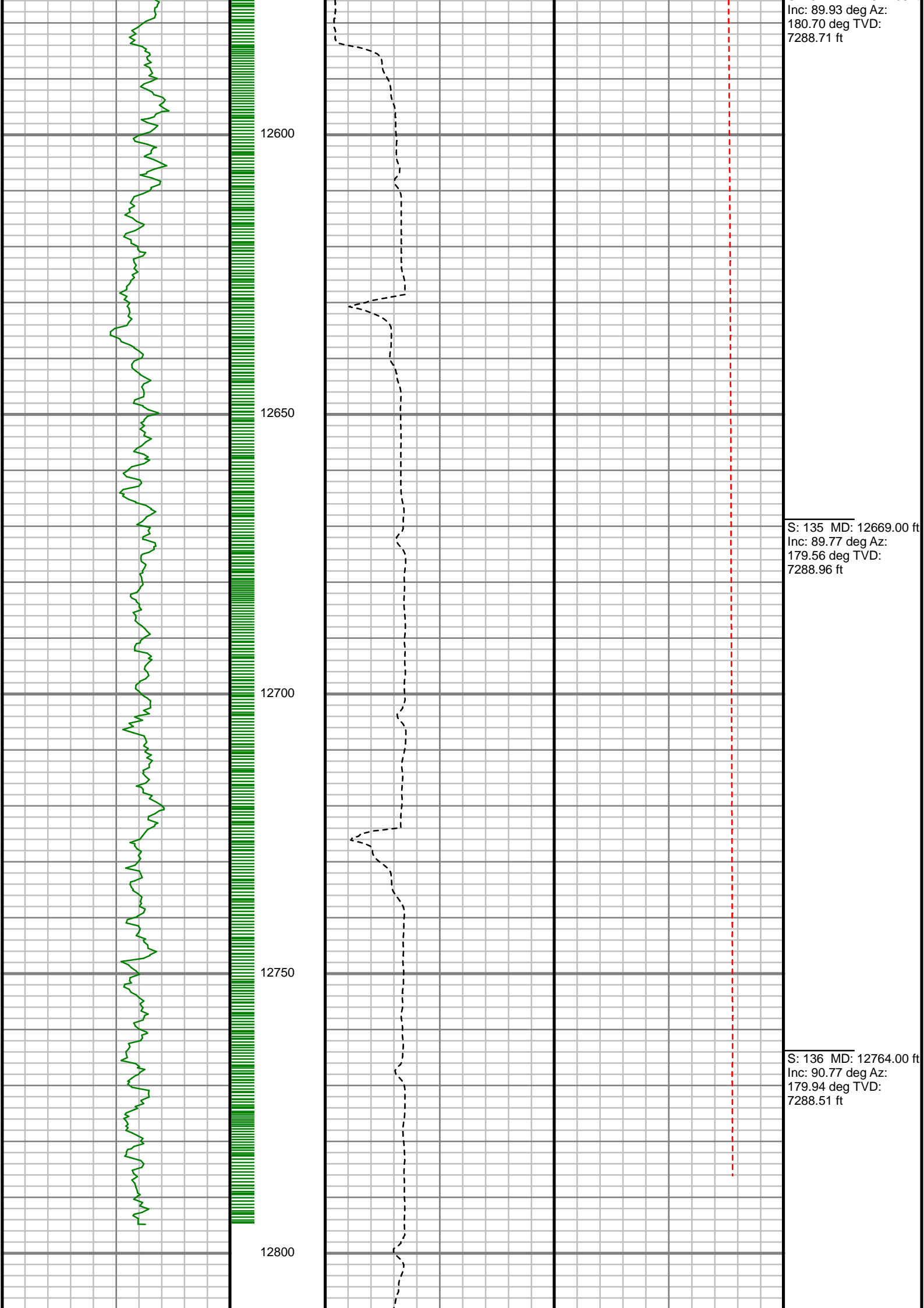




S: 130 MD: 12193.00 ft
Inc: 90.23 deg Az:
180.45 deg TVD:
7292.21 ft

S: 131 MD: 12288.00 ft
Inc: 89.03 deg Az:
180.32 deg TVD:
7292.83 ft

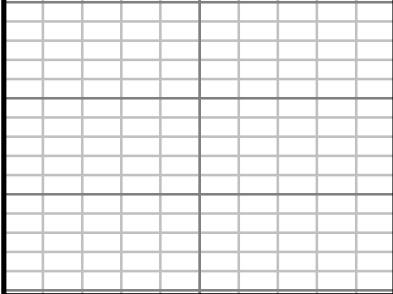




S: 137 MD: 12800.00 ft
Inc: 89.93 deg Az: 180.70 deg TVD: 7288.71 ft

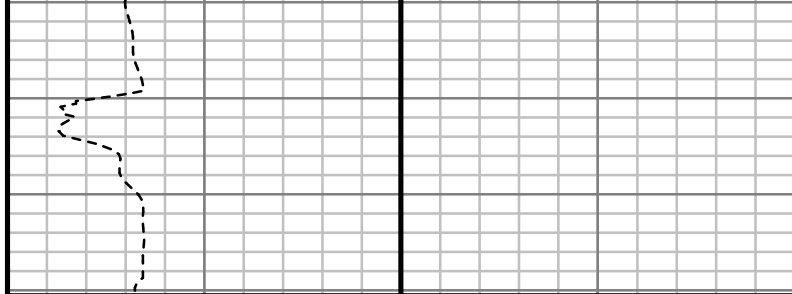
S: 135 MD: 12669.00 ft
Inc: 89.77 deg Az: 179.56 deg TVD: 7288.96 ft

S: 136 MD: 12764.00 ft
Inc: 90.77 deg Az: 179.94 deg TVD: 7288.51 ft



Gamma Ray (GR)		
0	Unit = aapi	200

MEASURED DEPTH
1:240 (ft)



Rate of Penetration (ROP)		
0	Unit = ft/hr	1200

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

Comments



GAMMA RAY

5" = 100' FEET MD