



Cathedral Energy Services
1949 North Pyrite Road
Casper, Wyoming 82604

145185

5":100' - MD

6/13/2014 8:30:45 AM

CATHEDRAL

Oper. Company: EnCana Oil & Gas (USA) Inc.

Country: U.S.A.

State / Province: Colorado

County / Parish: Weld

Started: 06/07/2014 12:00 AM

API/UWI: 05-123-384450-000

Field: Wattenberg (Niobrara)

Well: Bohrer 2E-19H-E368

Rig: Patterson UTI Drilling 326

Ended: 06/13/2014 12:00 AM

Gamma Ray
Section Plane: 90.00
Magnetic North: 8.60
Gamma Attenuation Factor: 2.82
Gamma Averaging: 7%

Personnel

Day Hand: B. Stahlecker

Night Hand: M. Andrew

Comp. Emp: Ira Cox

Maximum Temperature: 225 °f

Location

Latitude: 40.214370

Longitude: -105.052450

Elev. GL: 5060

Elev. DF:

Elev. KB: 5092

Log and Survey Depths Relative to Kelly Bushing (KB) Depth

Hole Data

Size	From	To
12-1/4	0	885
8-3/4	885	7330
6-1/8	7330	11300

Casing Data

Size	From	To
9-5/8	0	885
7	0	7330
4-1/2	0	11300

Bit Sizes

Size	From	To
12-1/4	0	885
8-3/4	885	7330
6-1/8	7330	11300

Mud Data

Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
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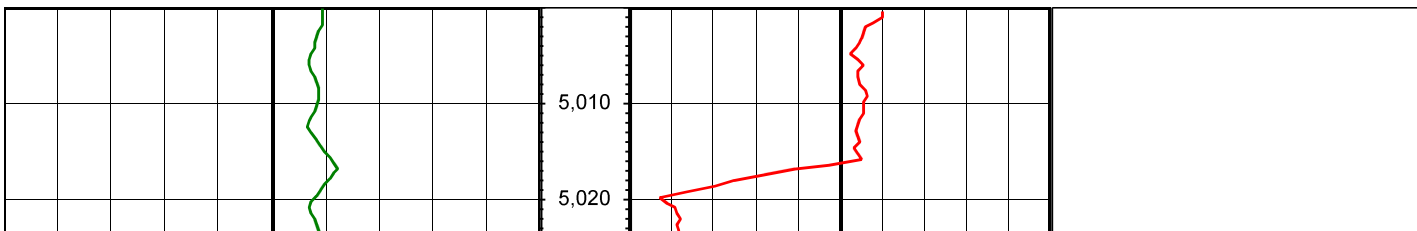
Tool Run Data

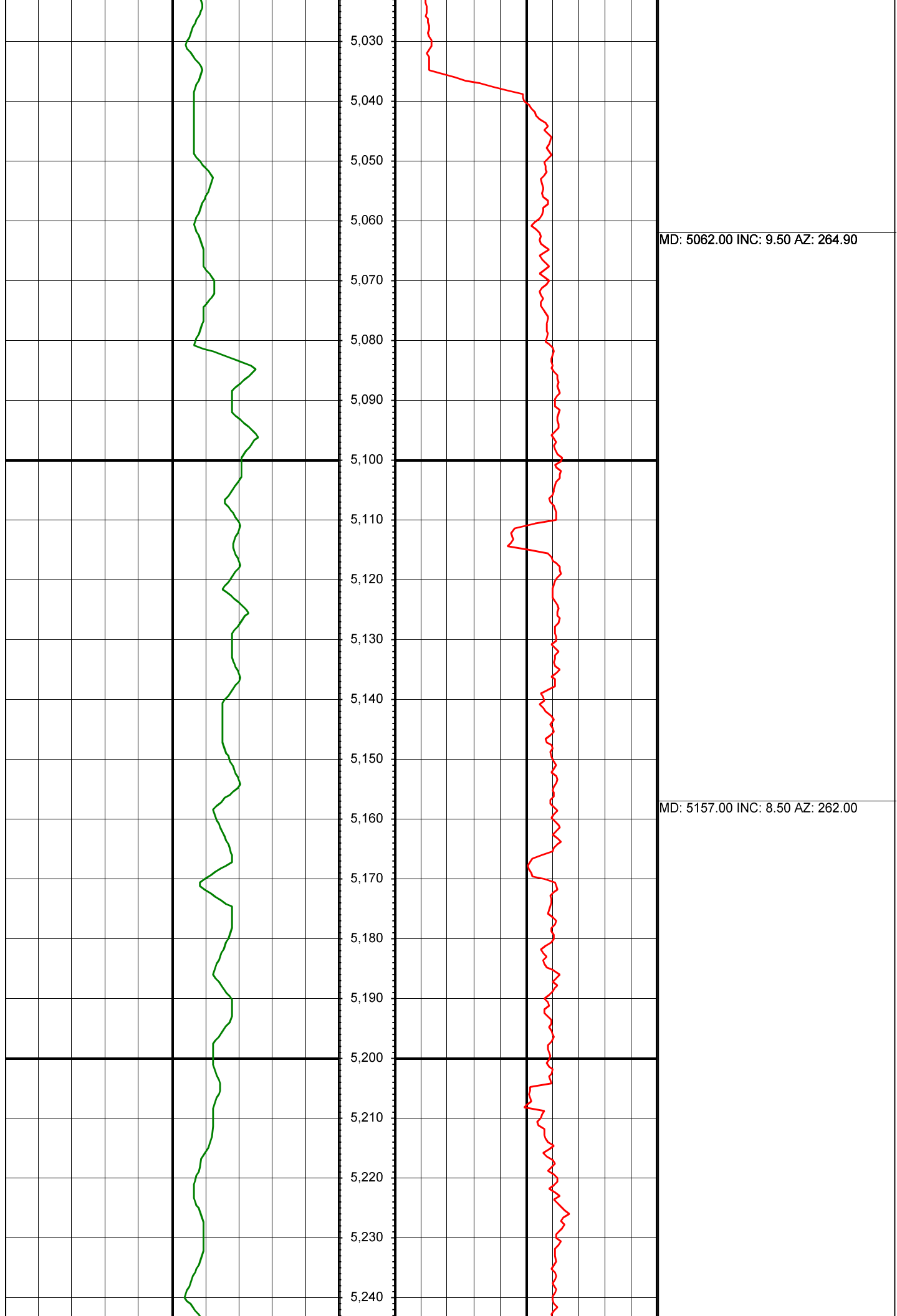
Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
1074	39.97	0	6/7/2014 2:15:18 PM	885	6/10/2014 2:15:18 PM	7330
1354	38.37	0	6/10/2014 2:16:37 PM	7330	6/13/2014 2:16:37 PM	11300

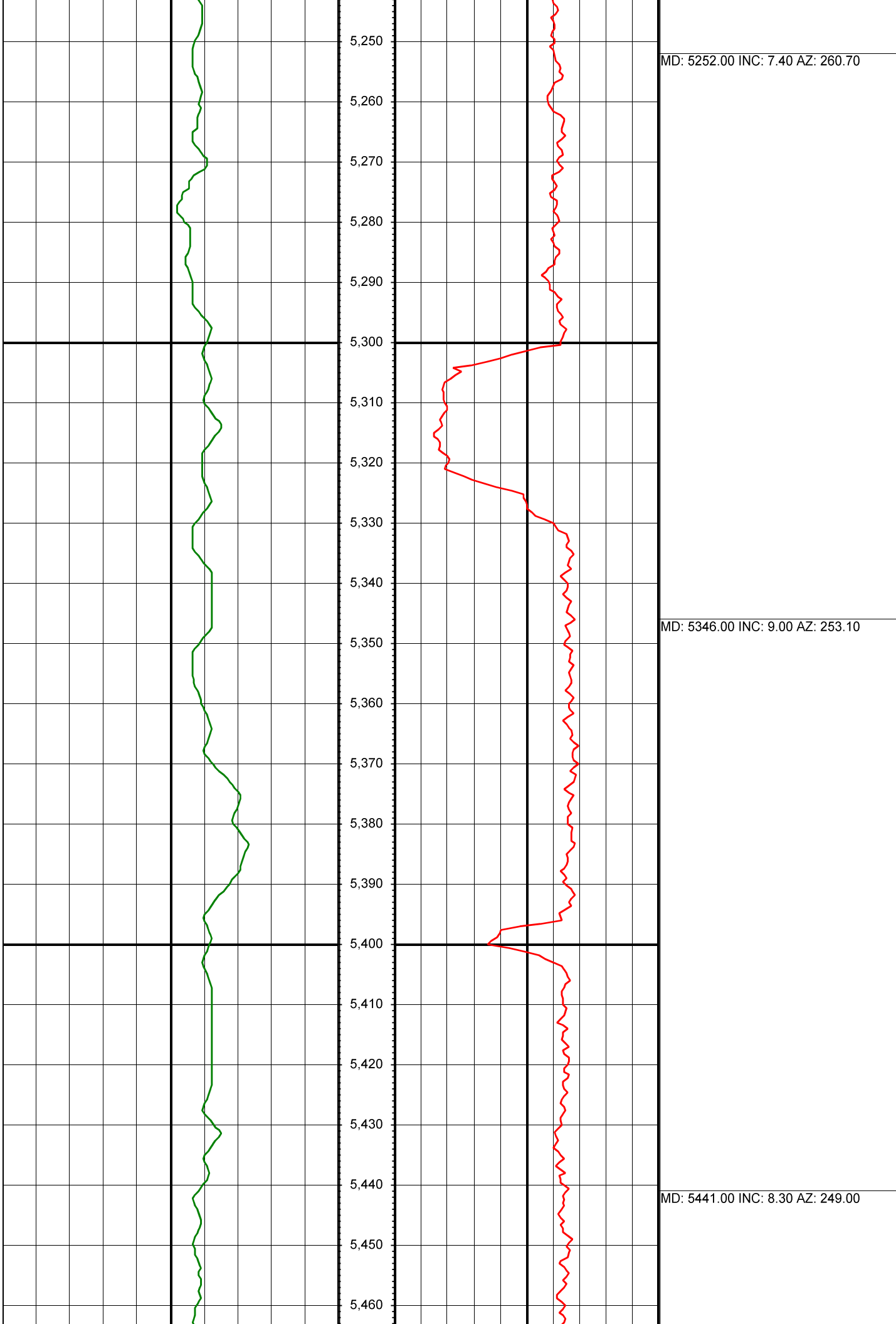
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

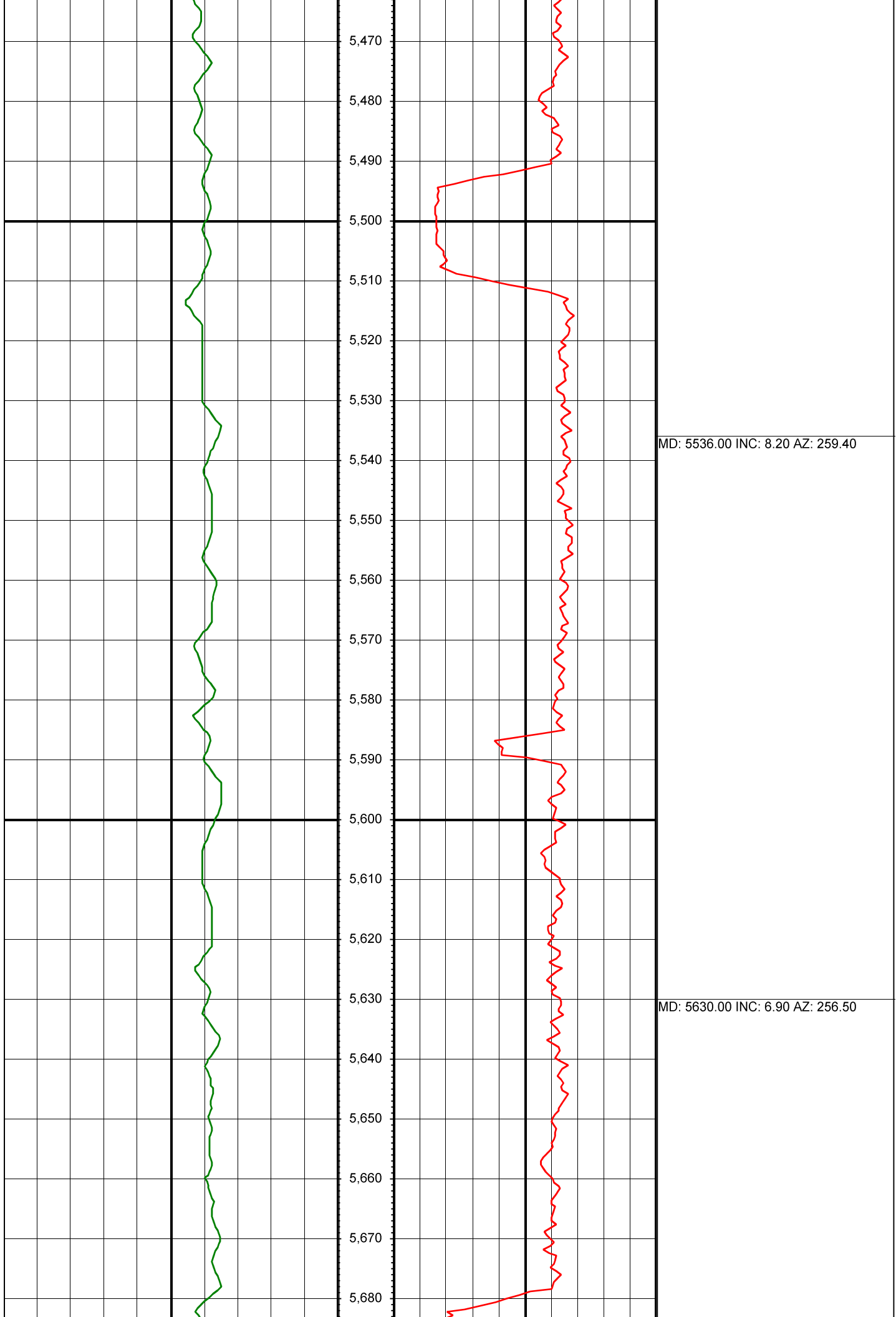
0.00 Gamma Ray (API) 150.00 MD 0.00 ROP (FT/HR) 600.00 Surveys (MD/INC/AZ)

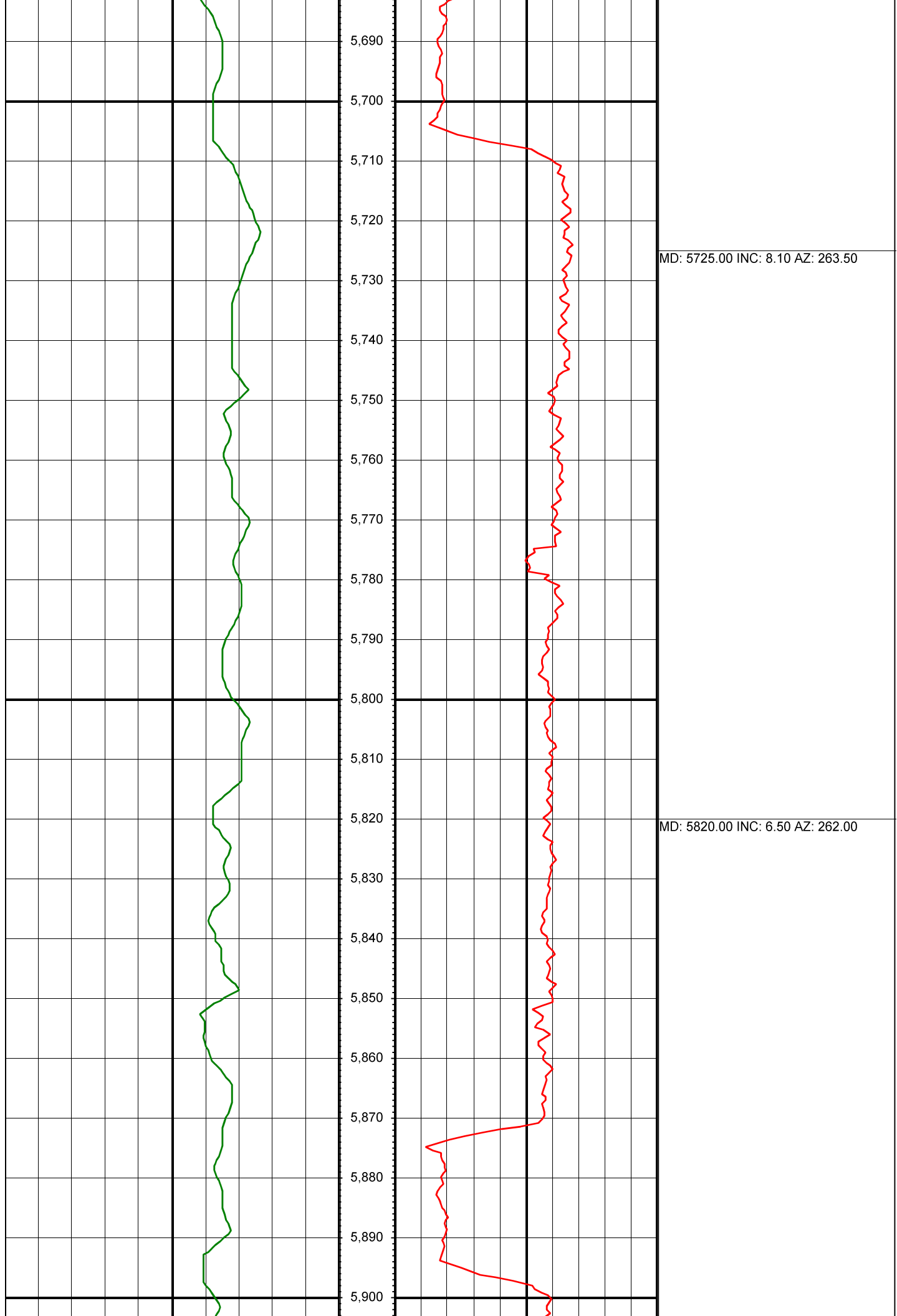
150.00 2 300.00 FT

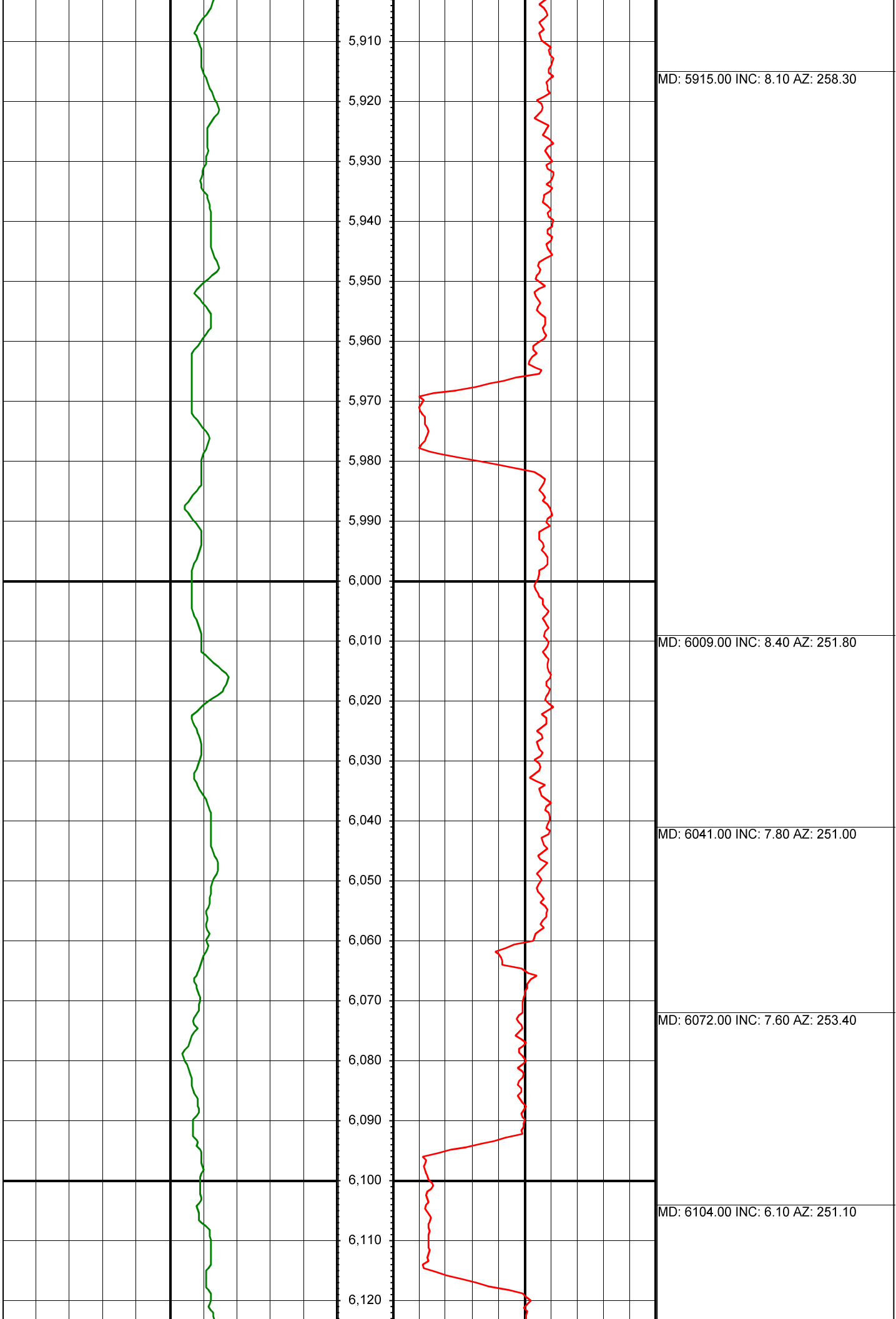


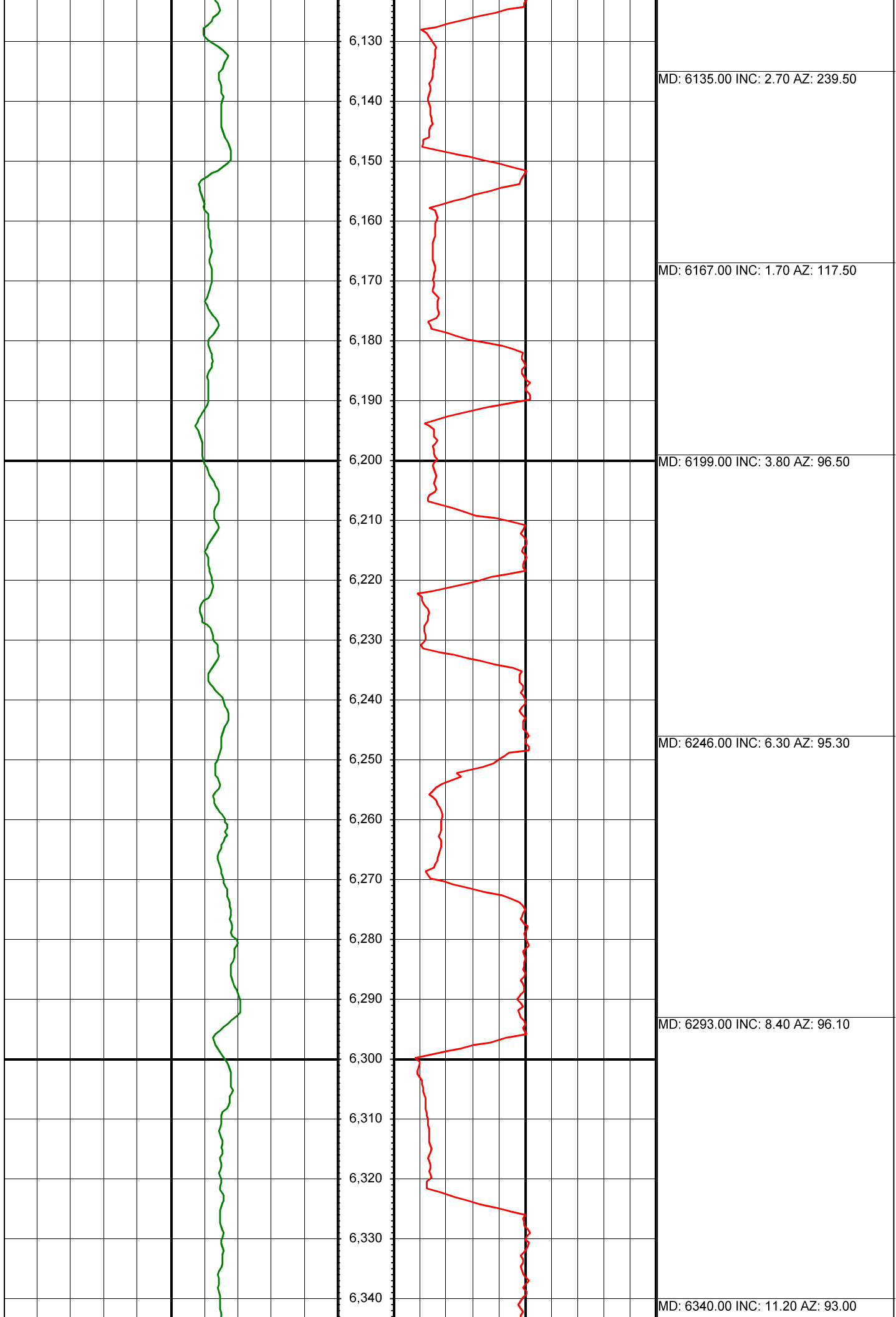


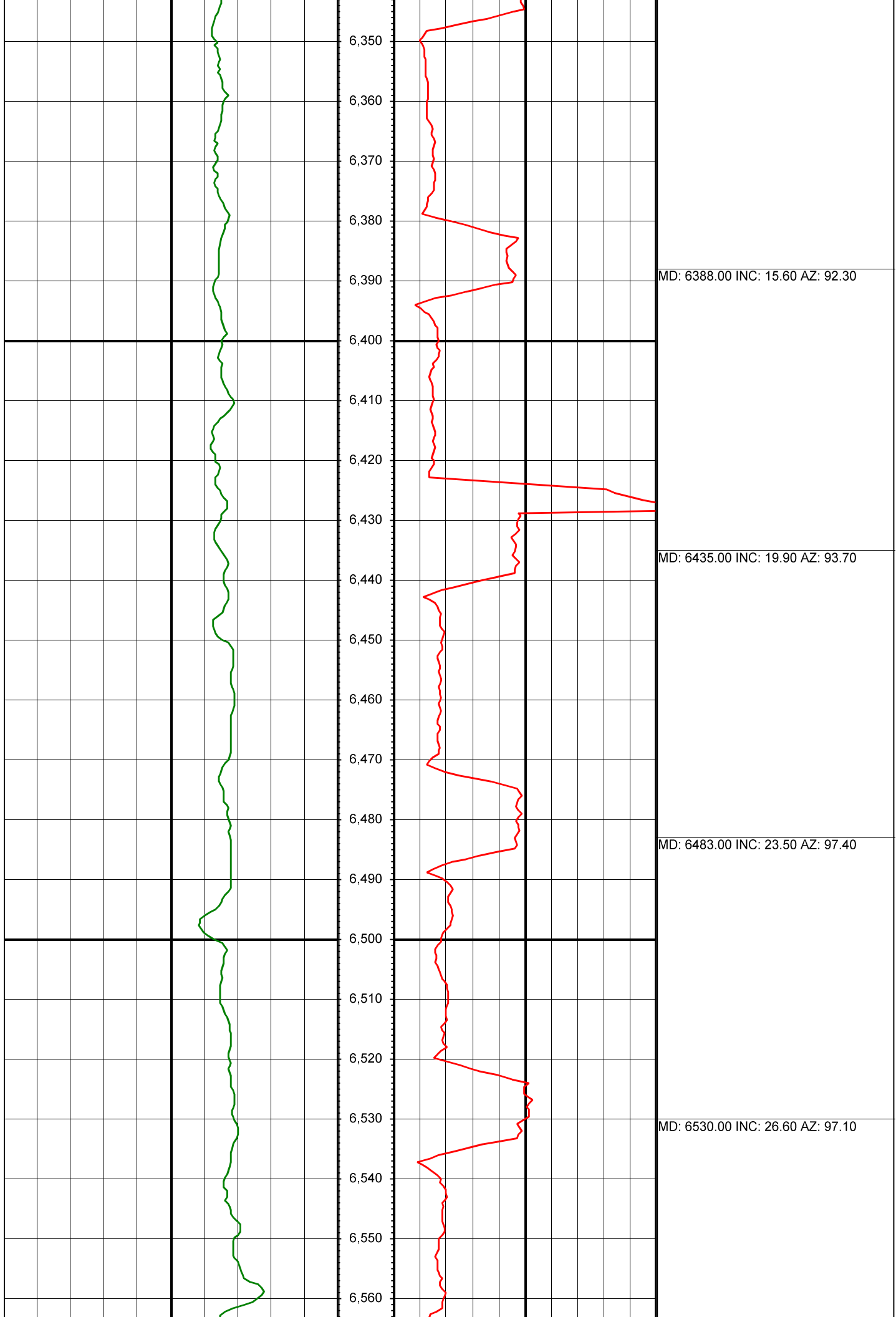


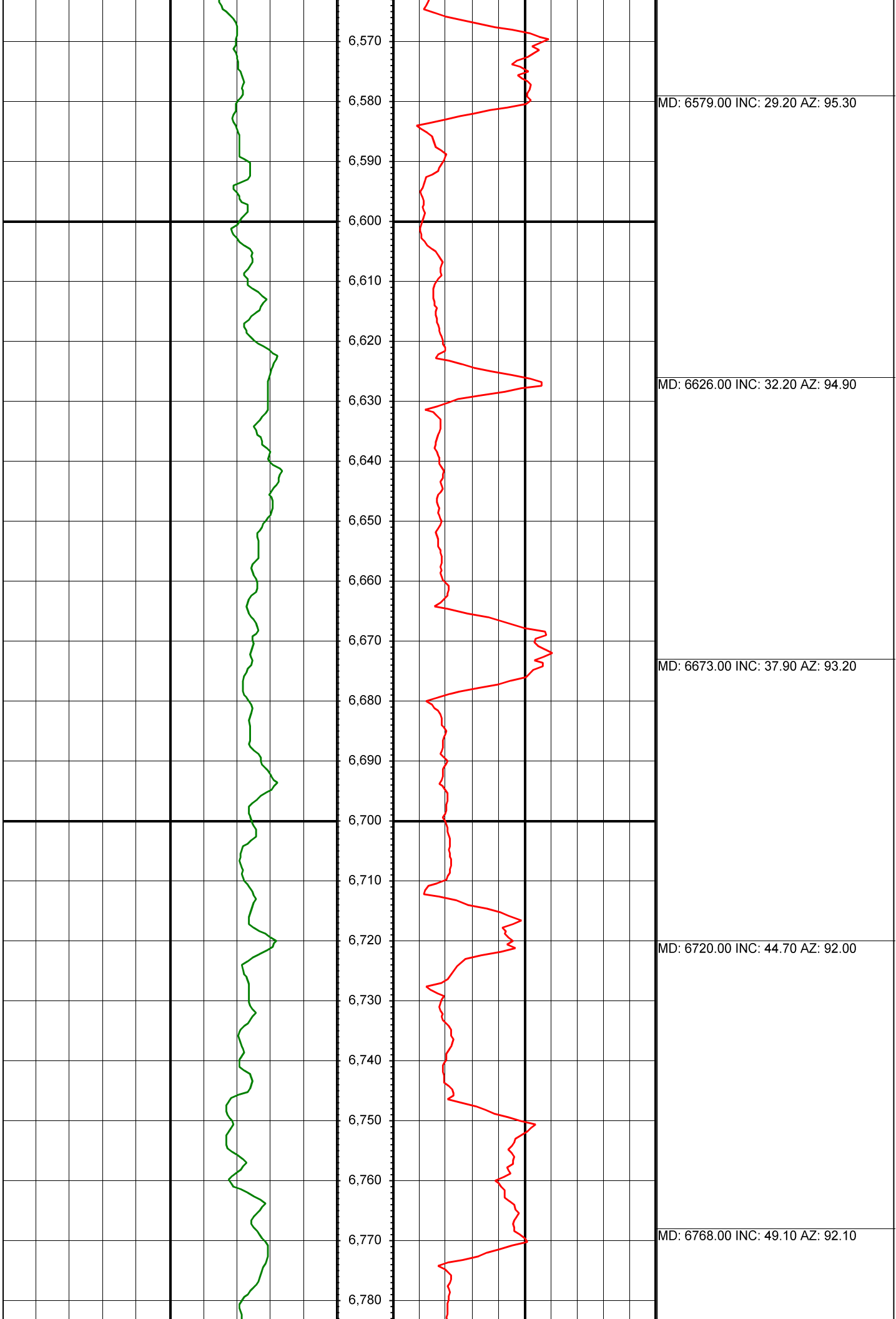


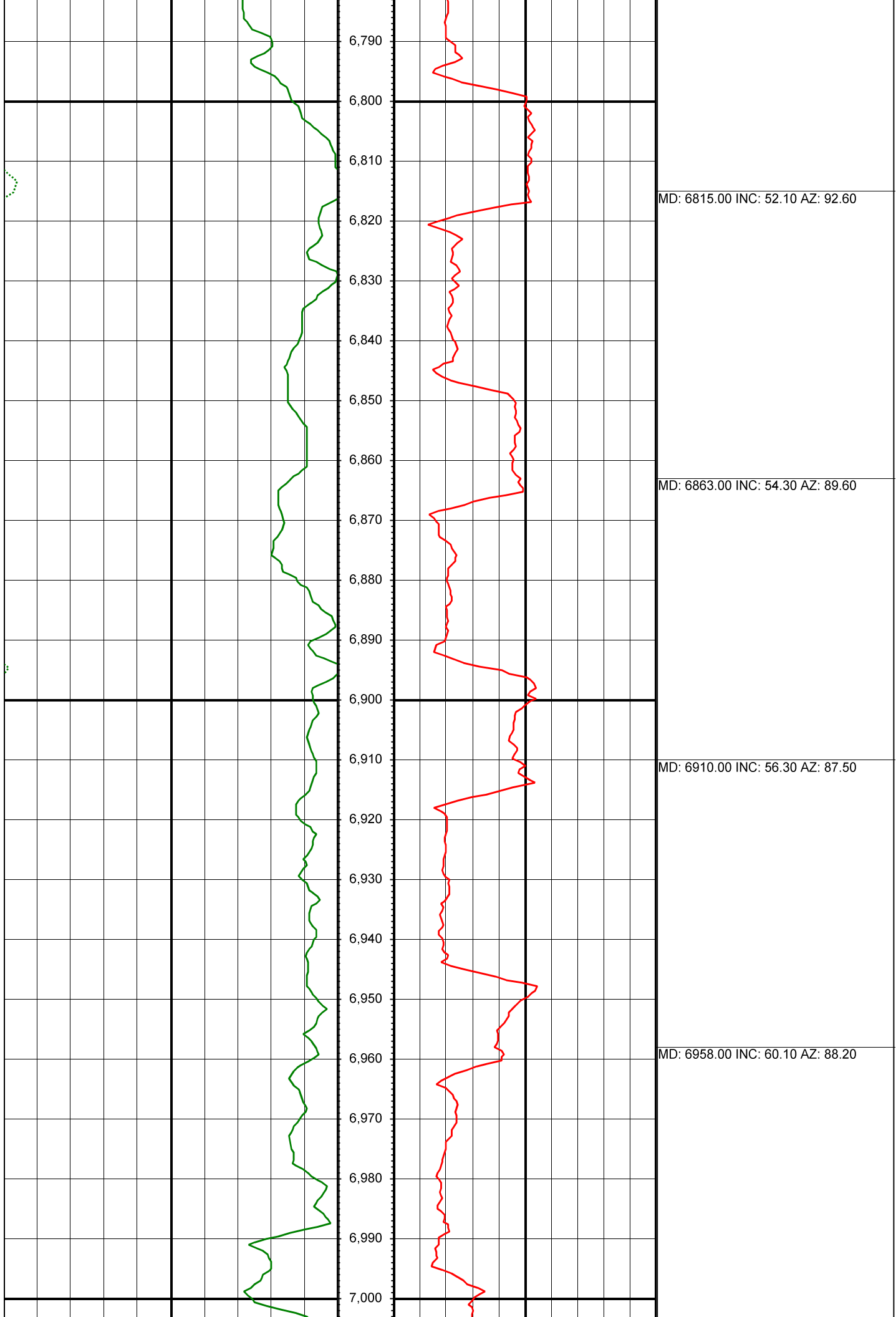


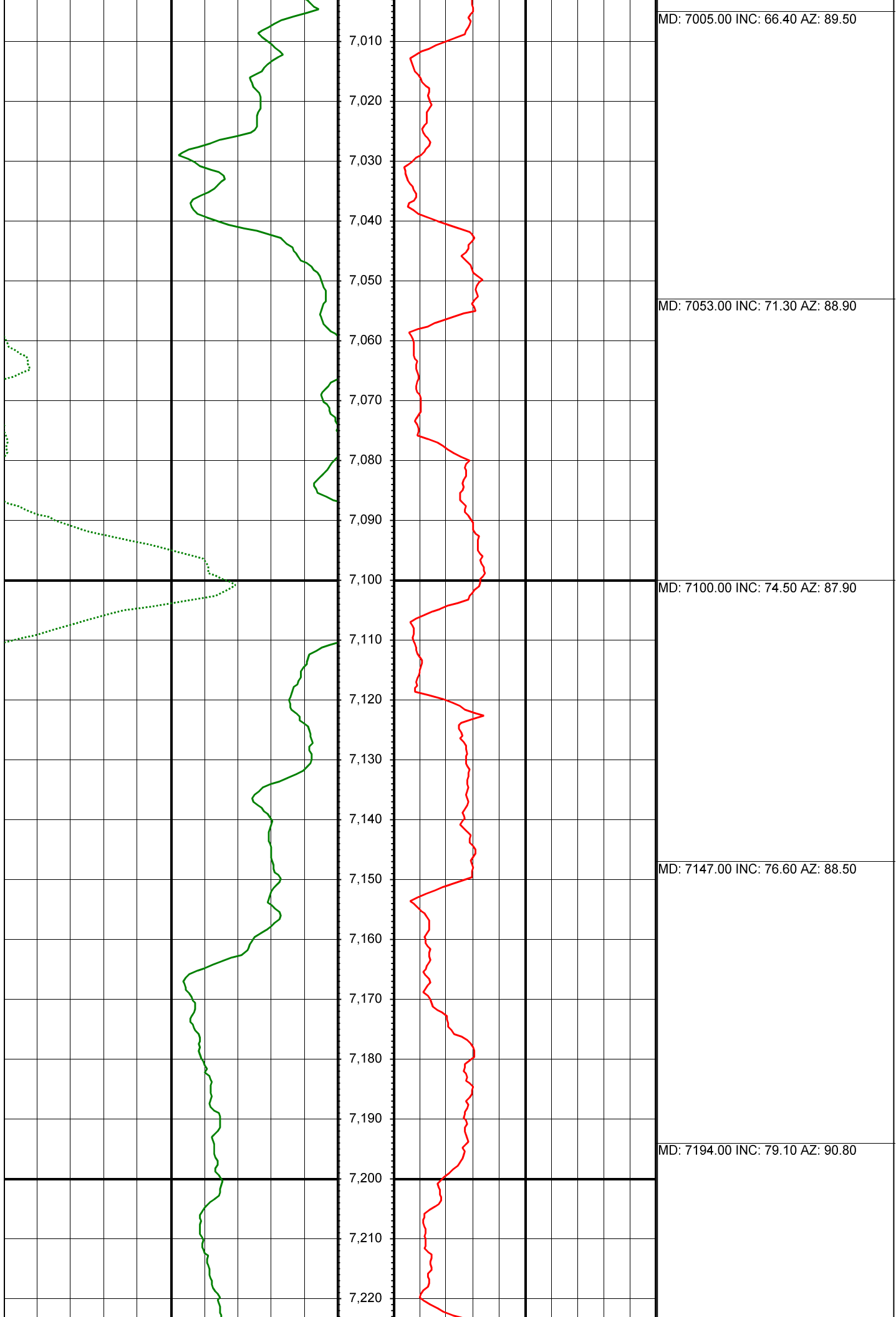


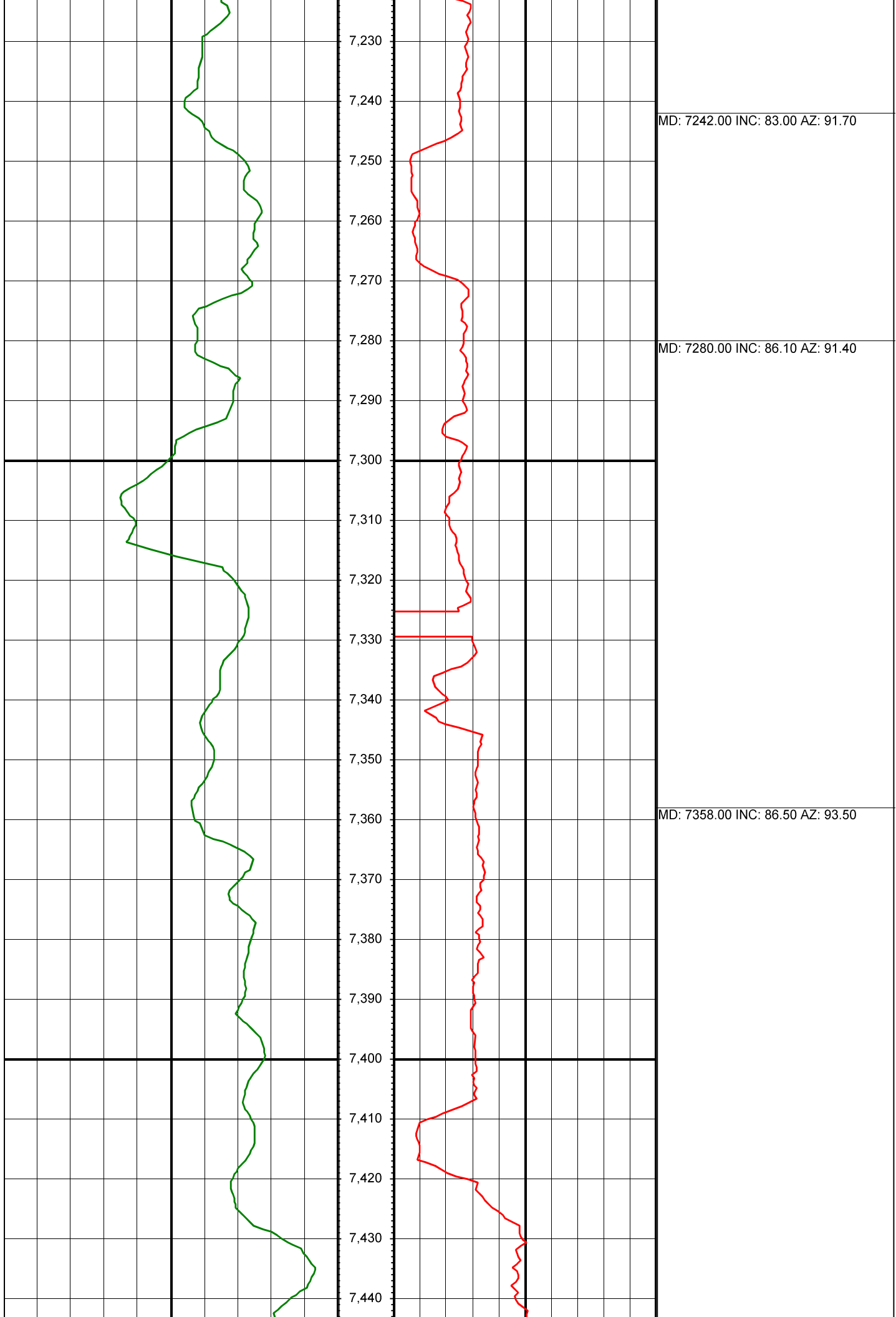


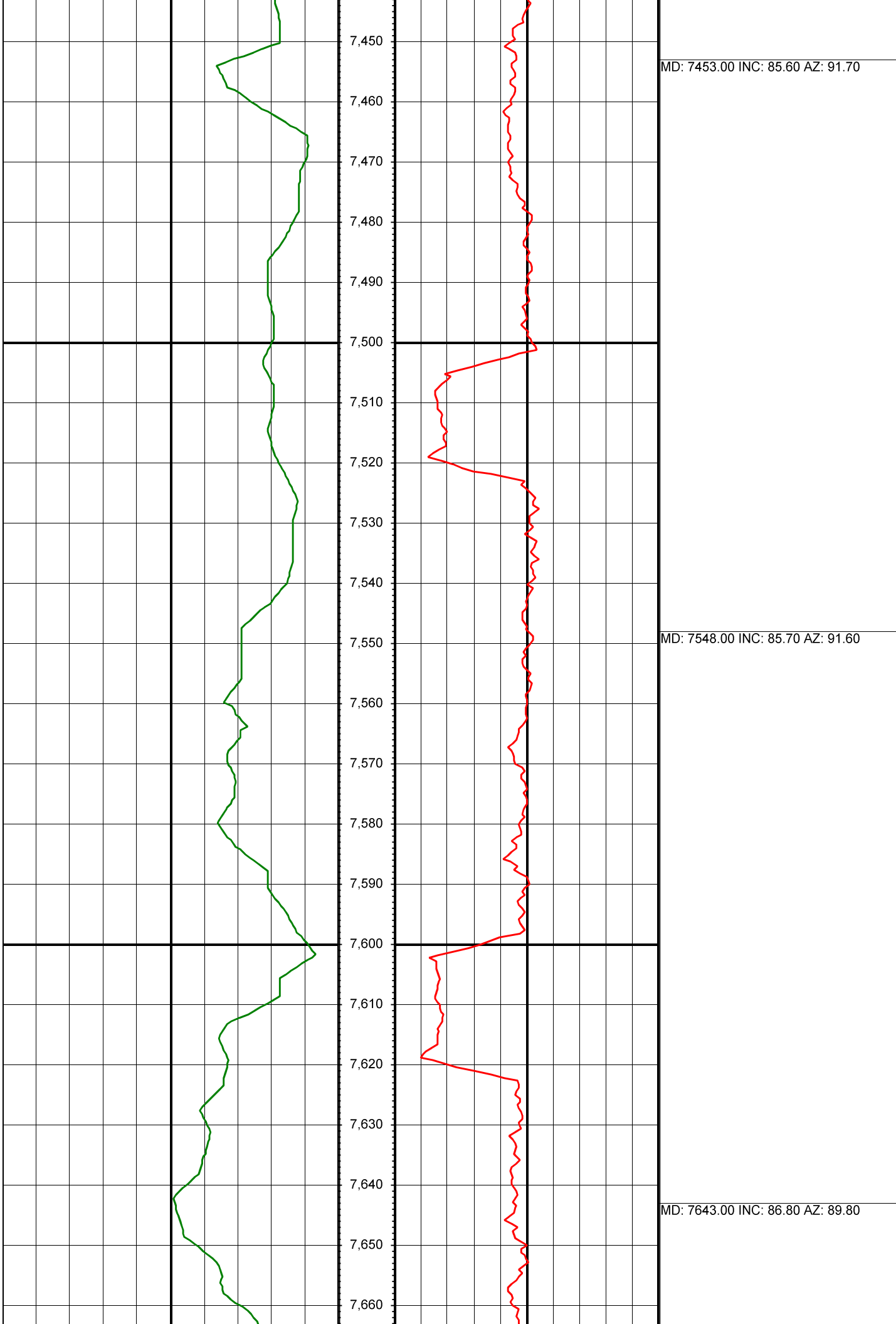


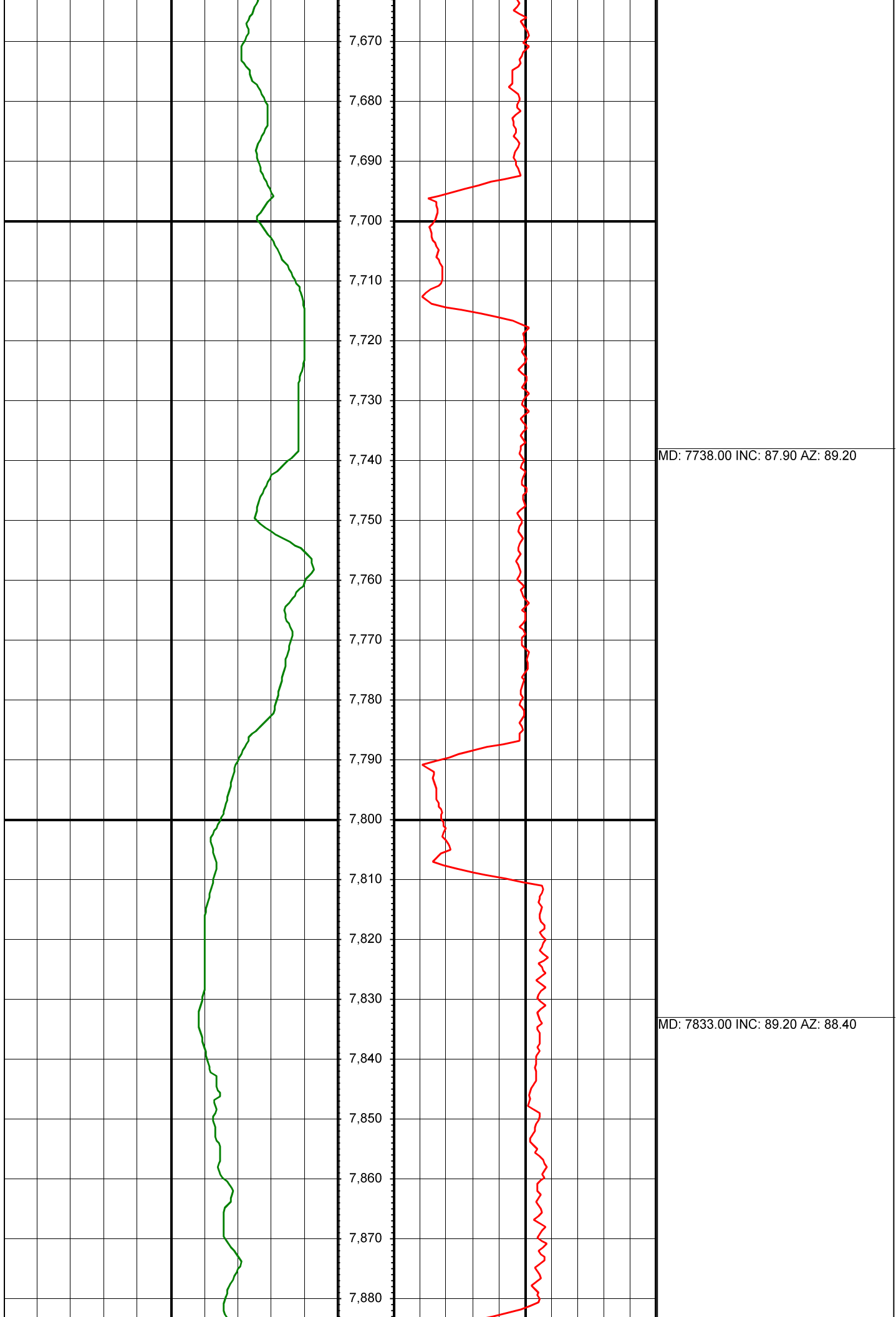


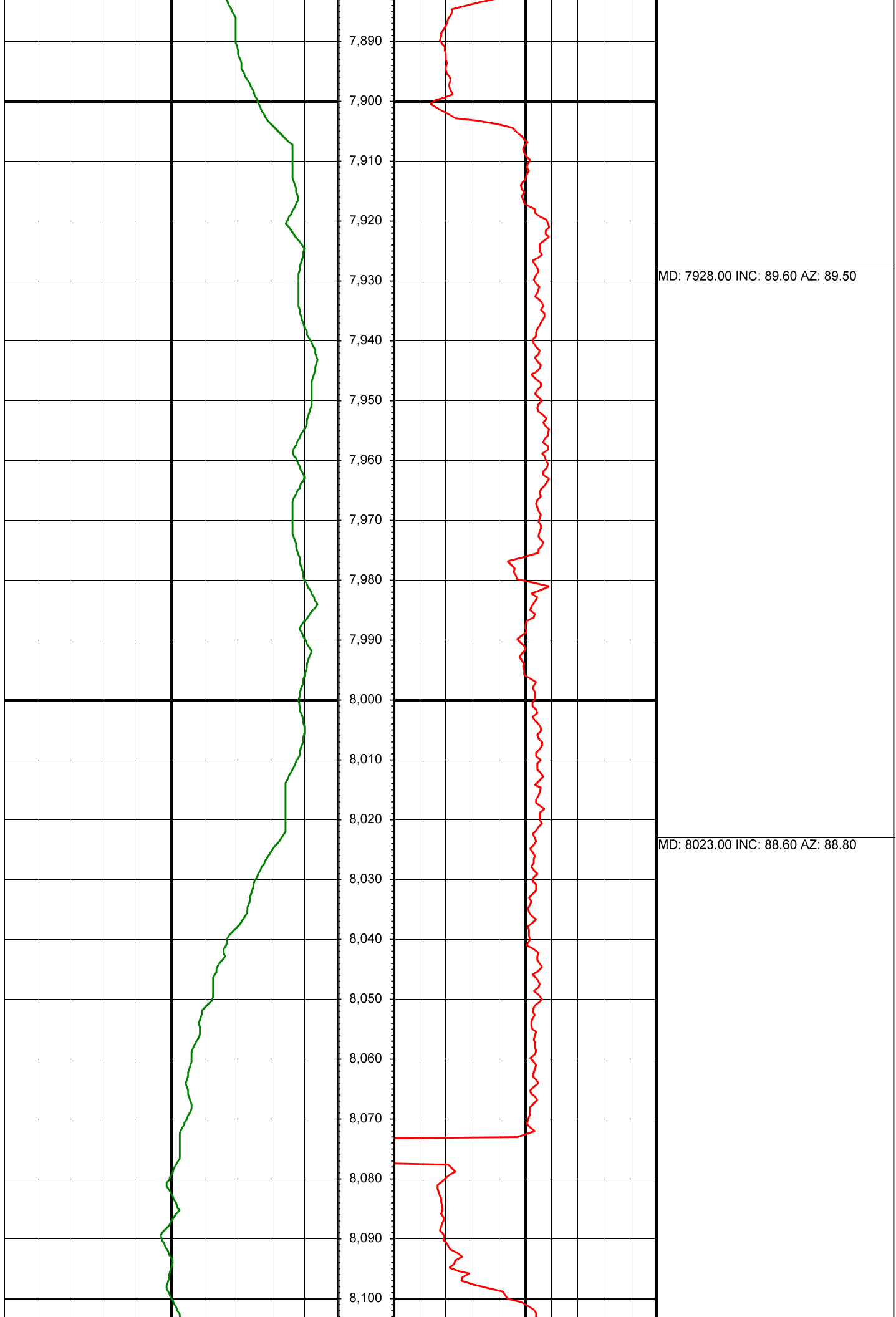


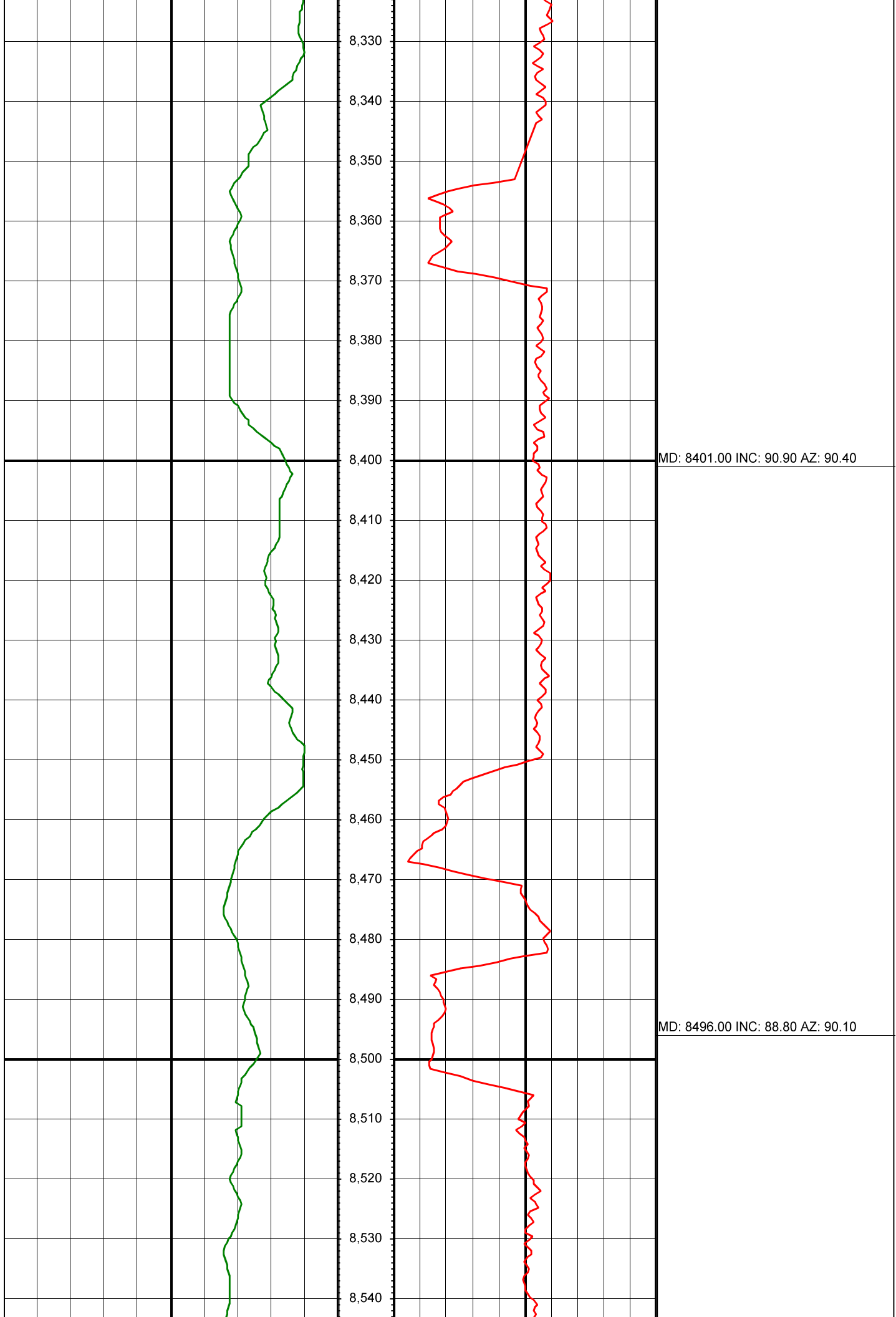


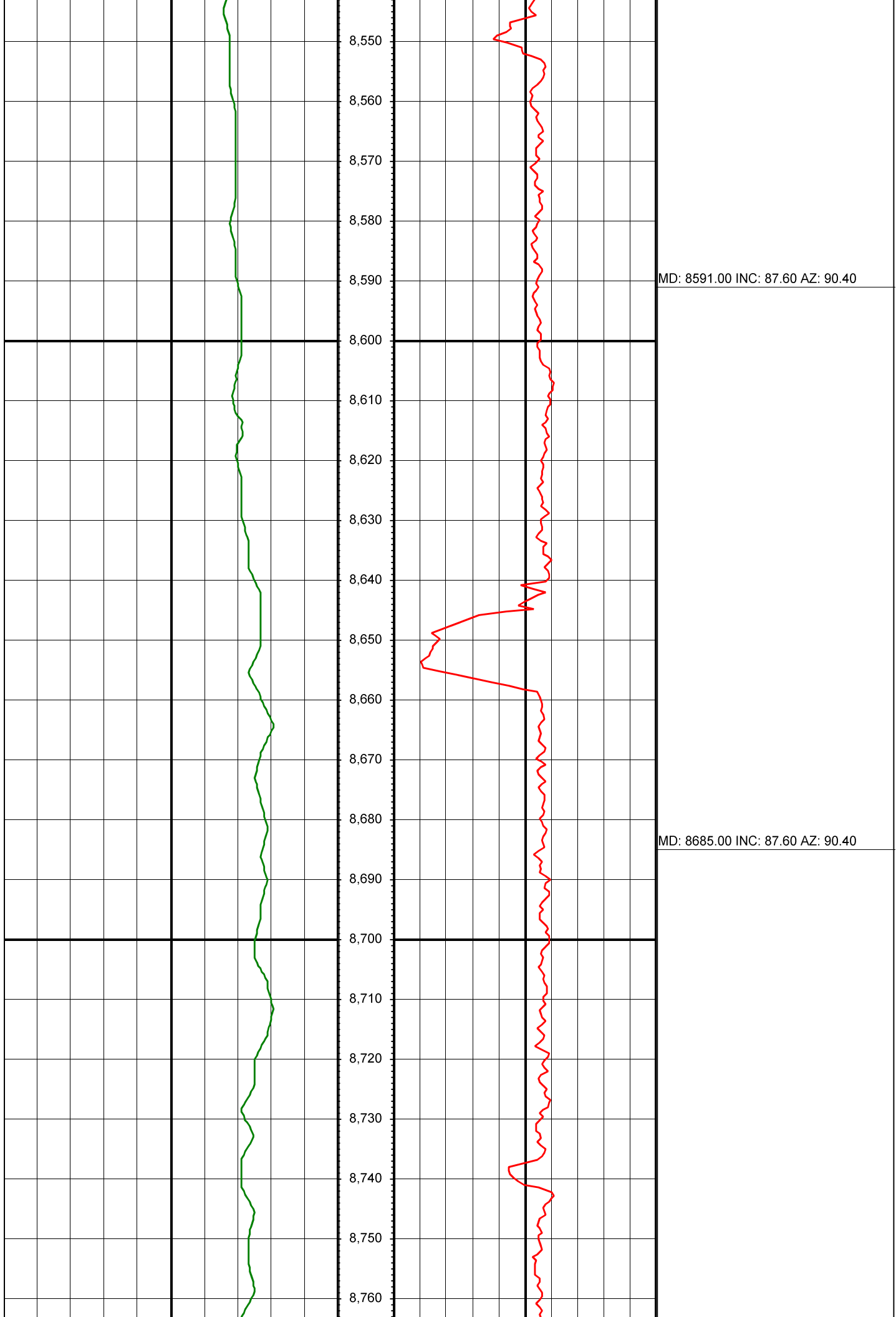


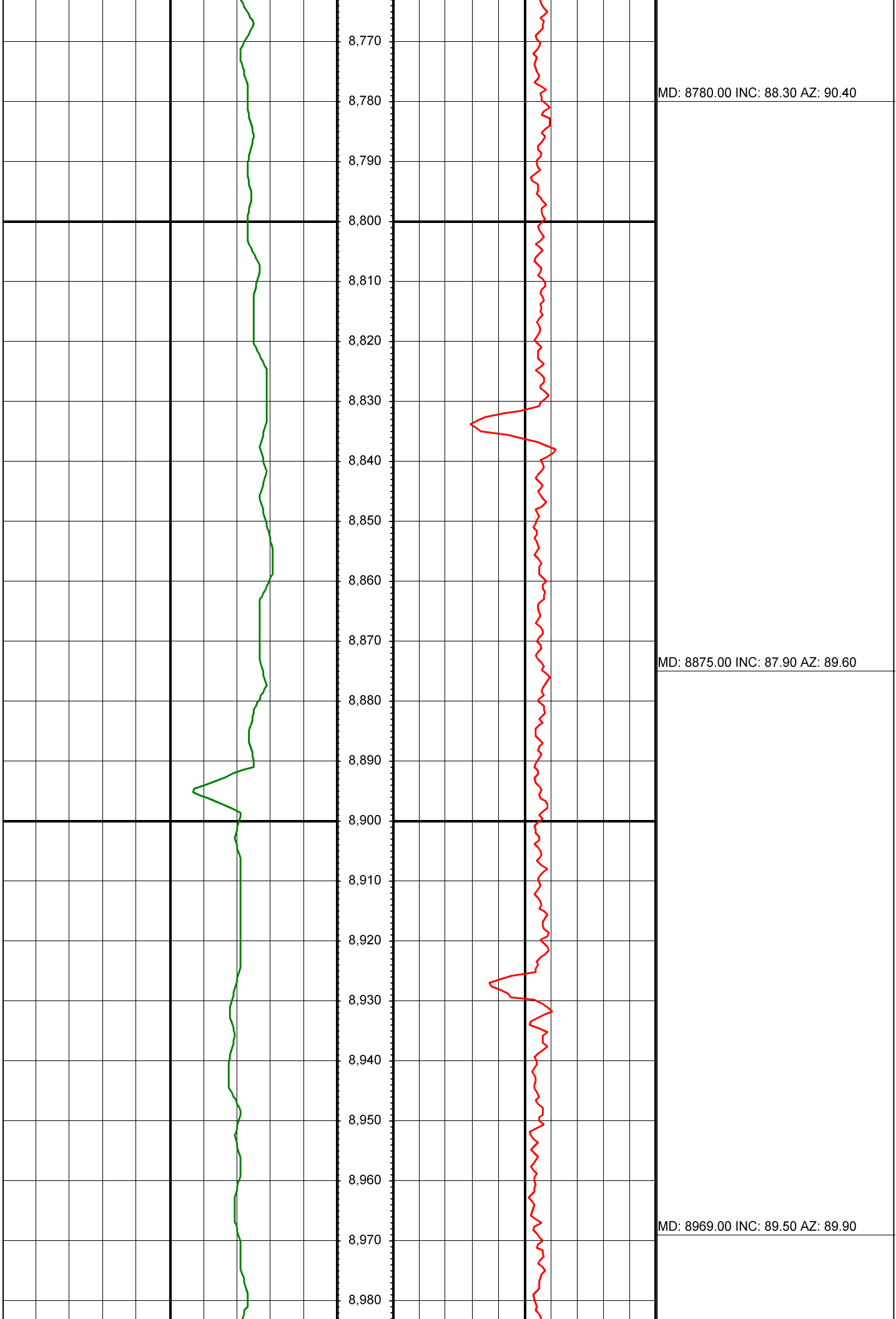


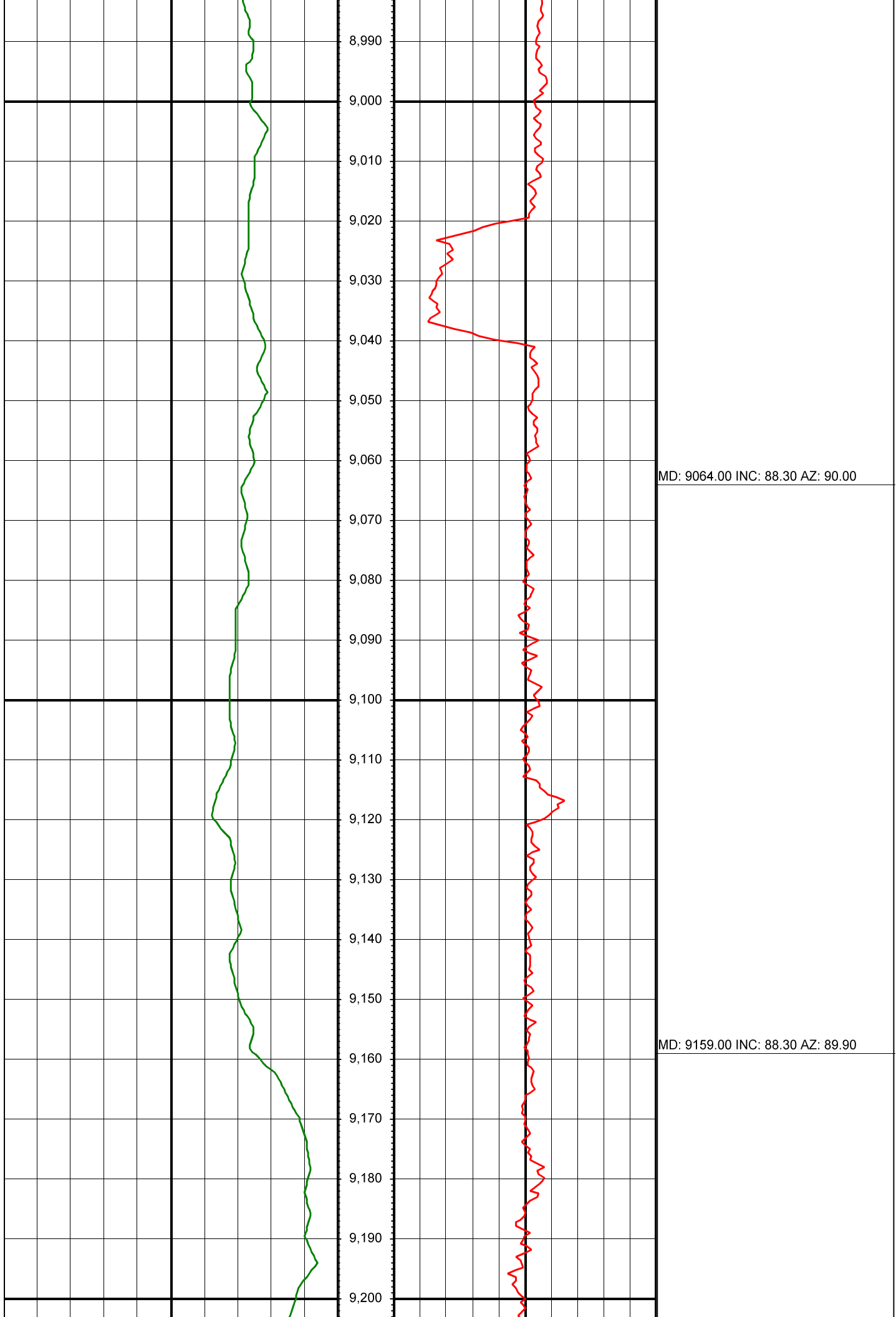


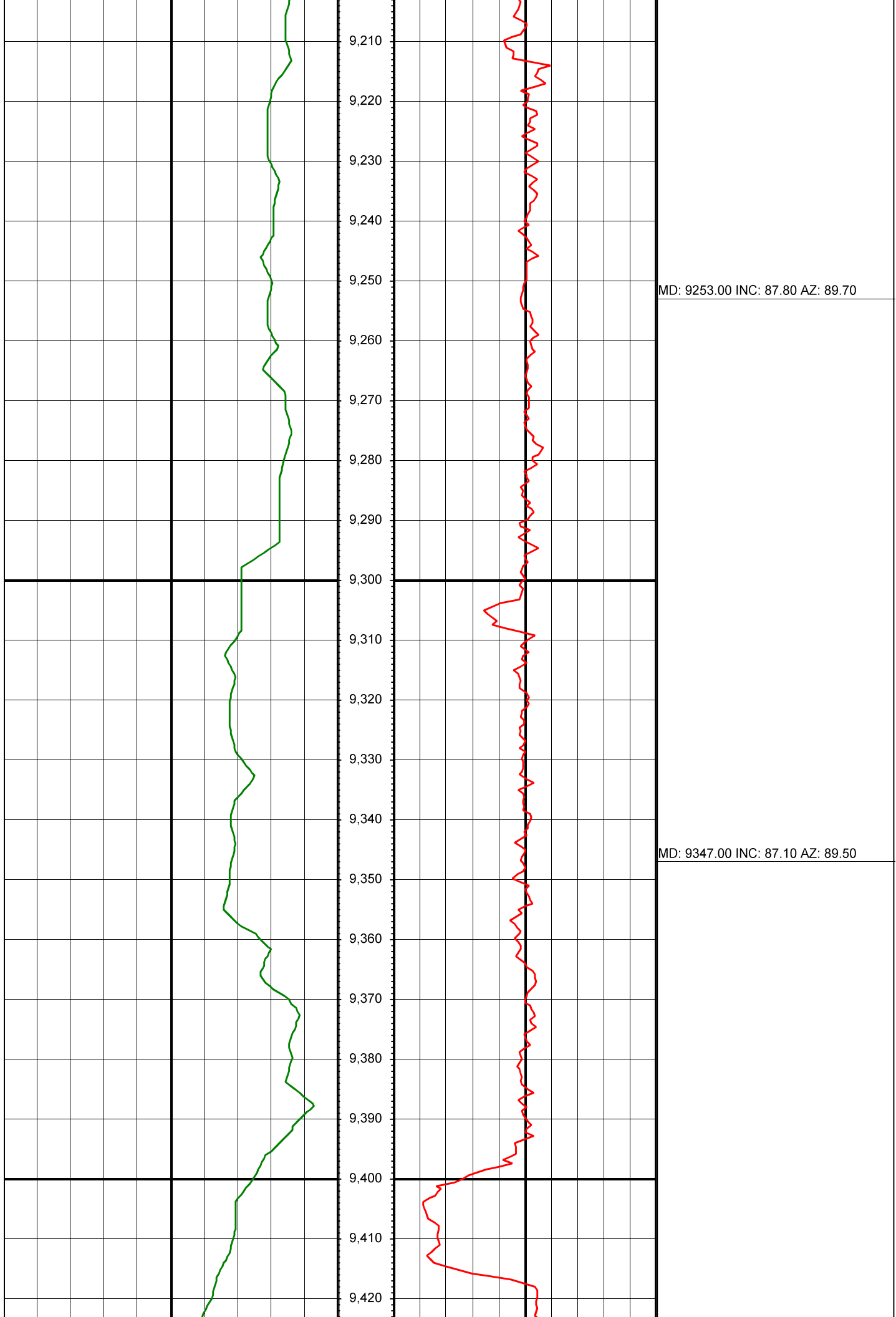


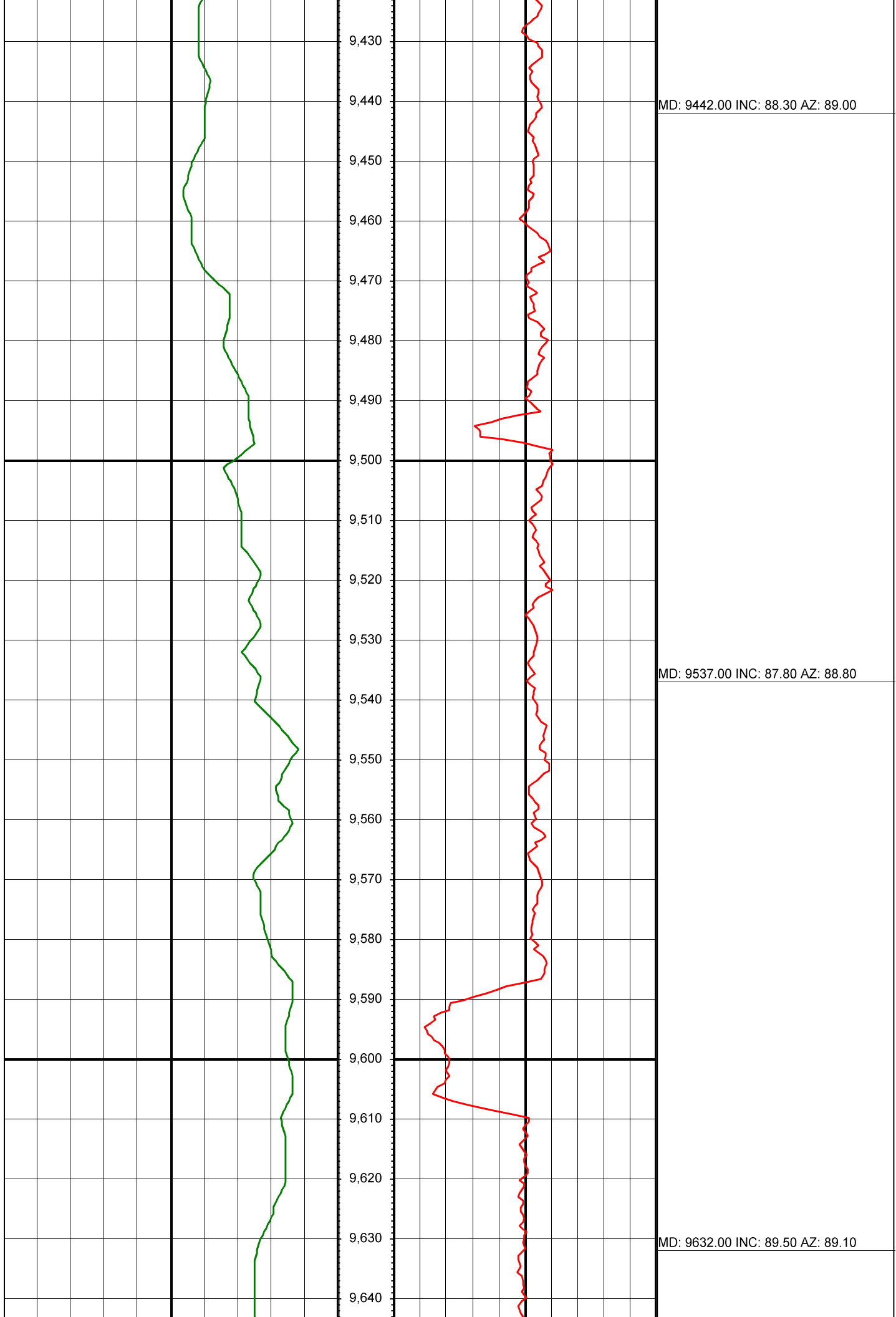


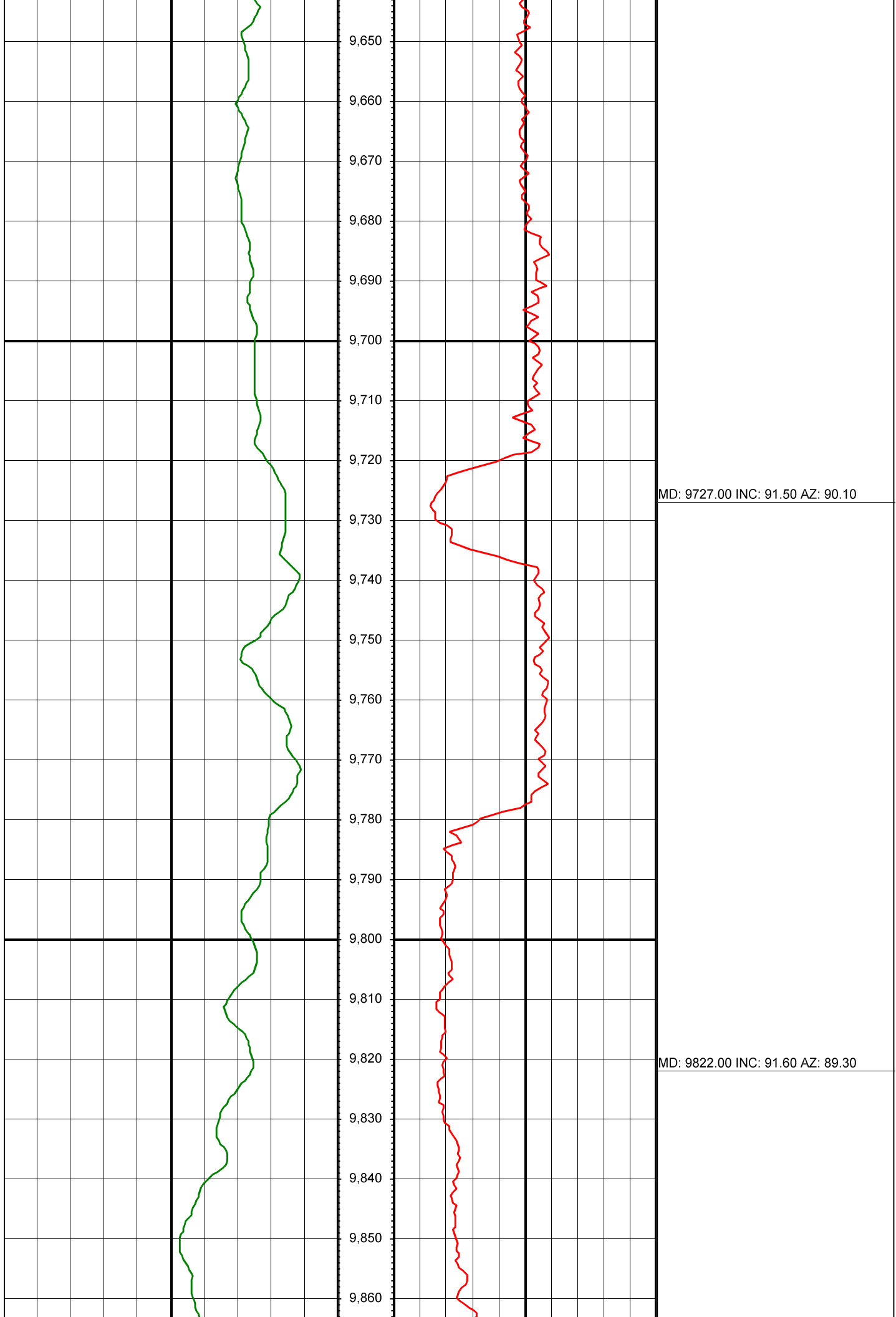


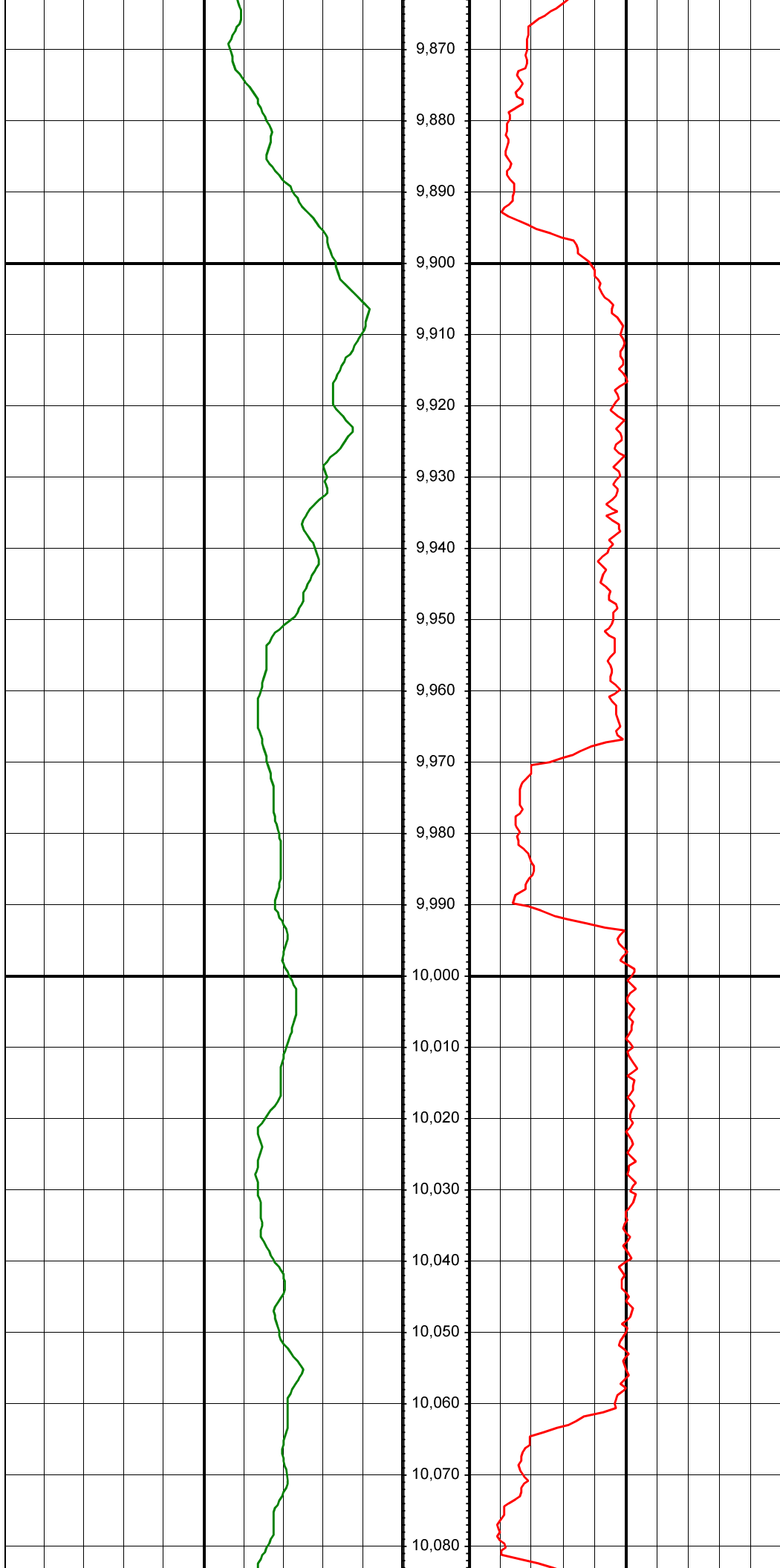












MD: 9917.00 INC: 92.10 AZ: 90.10

MD: 10012.00 INC: 90.80 AZ: 90.80

