



Cathedral Energy Services
1949 North Pyrite Road
Casper, Wyoming 82604

145256

5":100' - MD

9/20/2014 3:05:46 PM

CATHEDRAL

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

Country: U.S.A.

State / Province: Colorado

County / Parish: Weld

Started: 08/06/2014 05:00 AM

API/UWI: 05-123-37793-00

Field: Wattenberg (Codell)

Well: Boyd 3B-19H-M368

Rig: Ensign Drilling 135

Ended: 08/11/2014 10:00 AM

Gamma Ray
Section Plane: 90.00
Magnetic North: 8.58
Gamma Averaging: 7%

Personnel

Day Hand: K. Wagoner

Night Hand: J. Corby

Comp. Emp:

Maximum Temperature: 212°F

Location

Latitude: 40.206570

Longitude: -105.052980

Elev. GL: 5004

Elev. DF:

Elev. KB: 5017

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

Hole Data

Size	From	To
8-3/4	870	7461
6-1/8	7461	11588

Casing Data

Size	From	To
9-5/8	0	860
7	0	7443

Bit Sizes

Size	From	To
8-3/4	870	7461
6-1/8	7461	11588

Mud Data

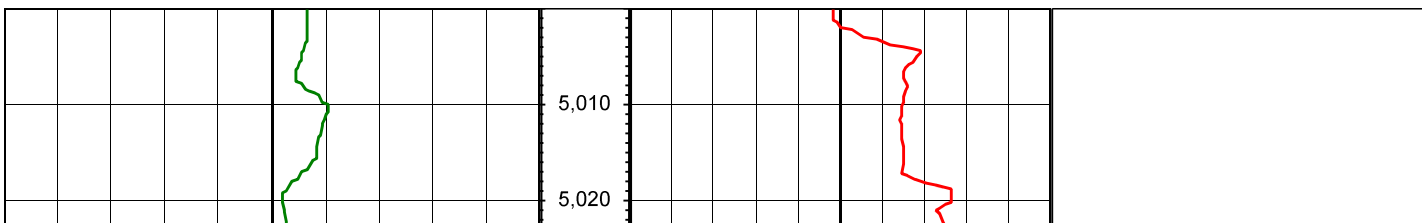
Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
Water/LSND	9.3						870	7461
Water/LSND	10.8						7461	11588

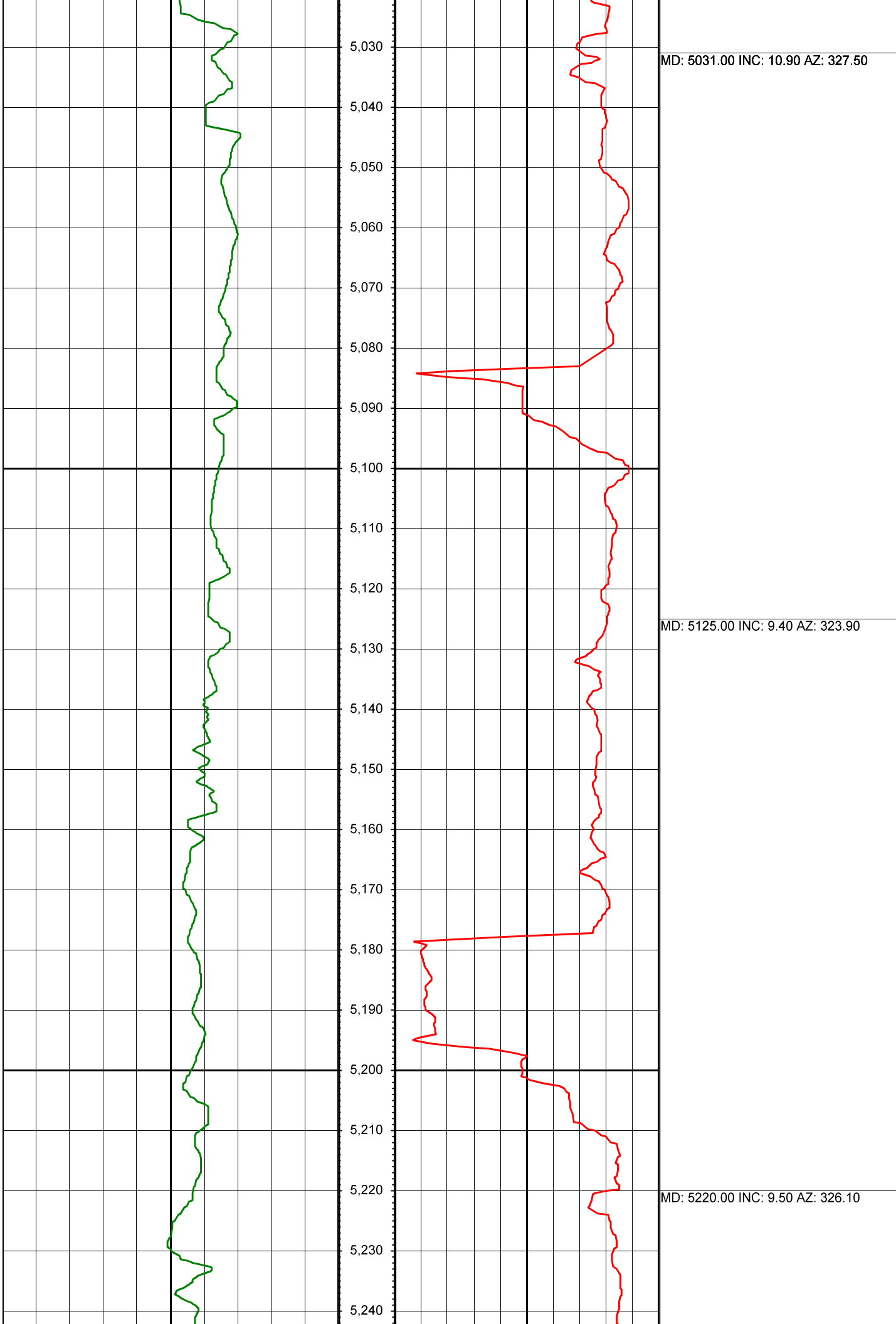
Tool Run Data

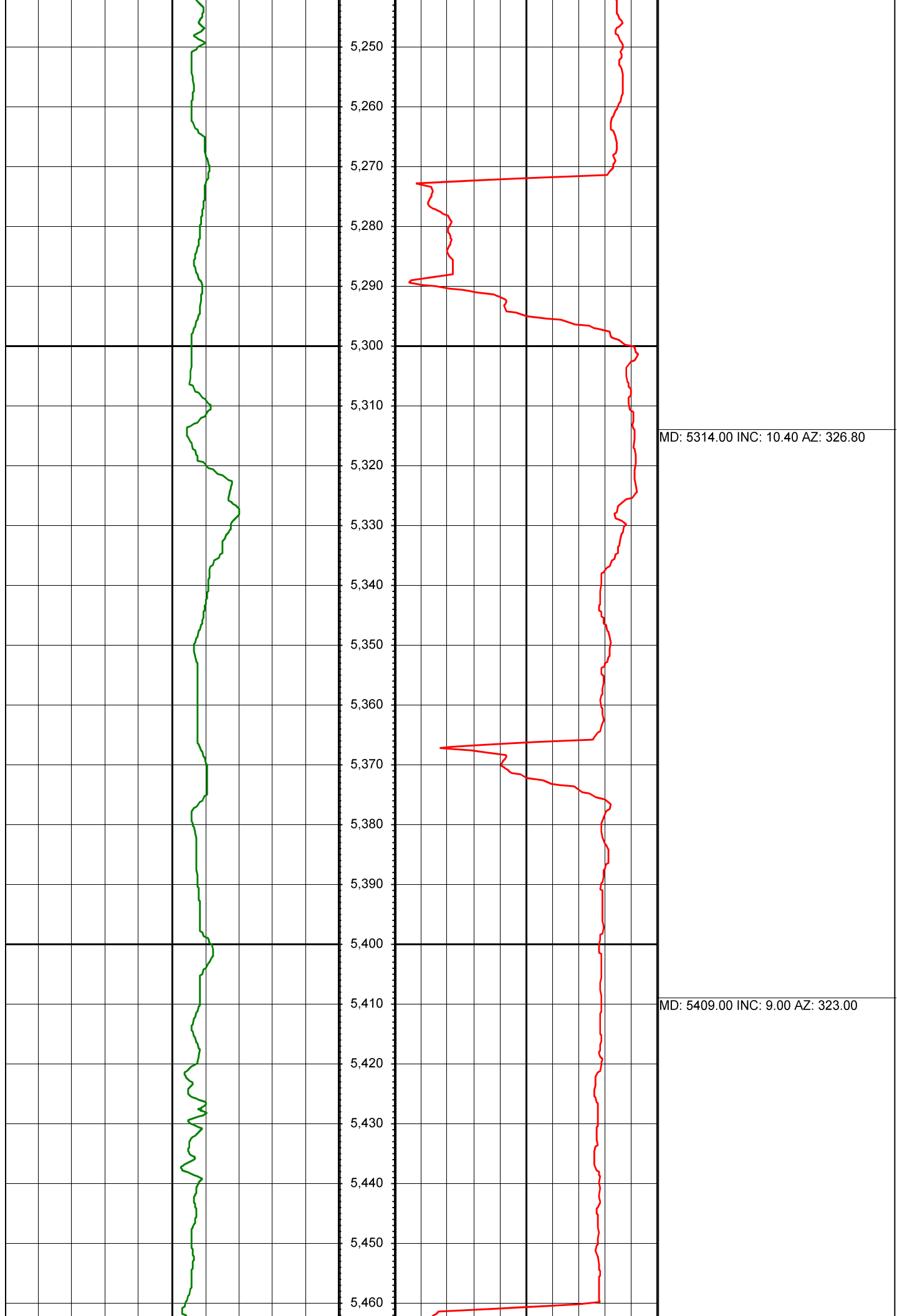
Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
1493	39.97	0	8/5/2014 6:00:17 AM	5000	8/7/2014 6:00:17 PM	7461
1493	40.41	0	8/9/2014 1:00:44 AM	7461	8/11/2014 10:00:44 AM	11588

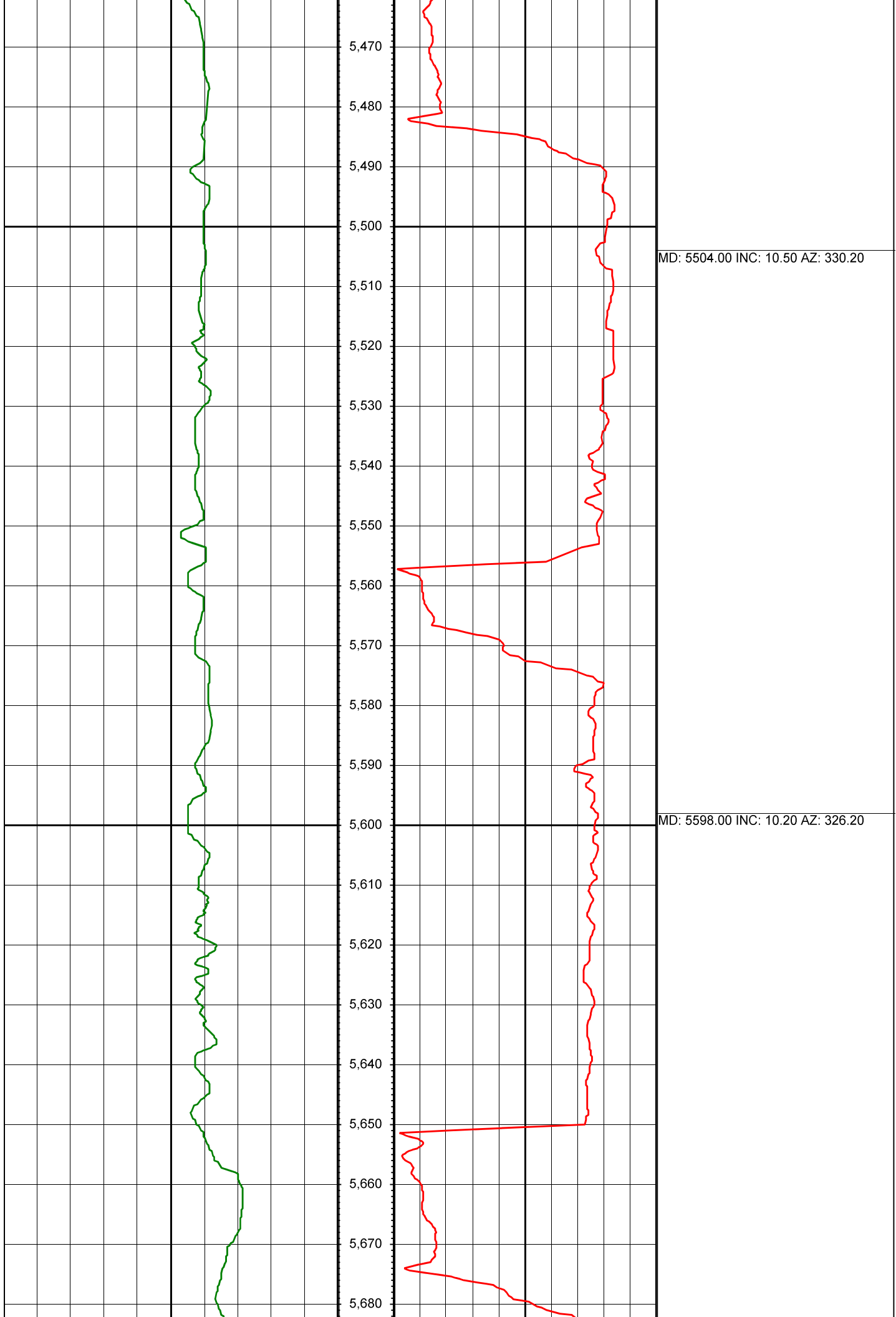
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost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

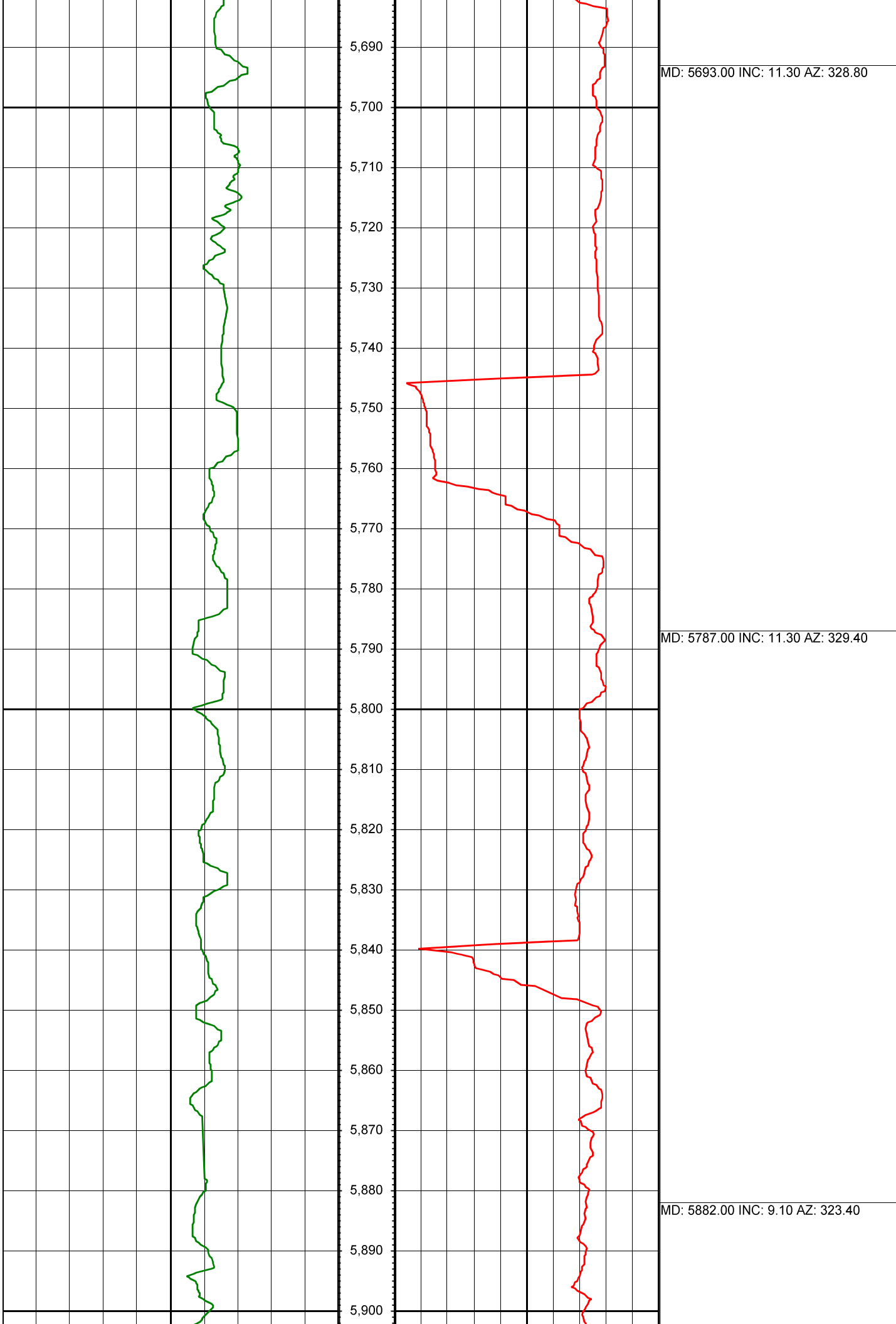
0.00 Gamma Ray (API) 150.00 MD 0.00 ROP (FT/HR) 600.00 Surveys (MD/INC/AZ)
150.00 2 300.00 FT

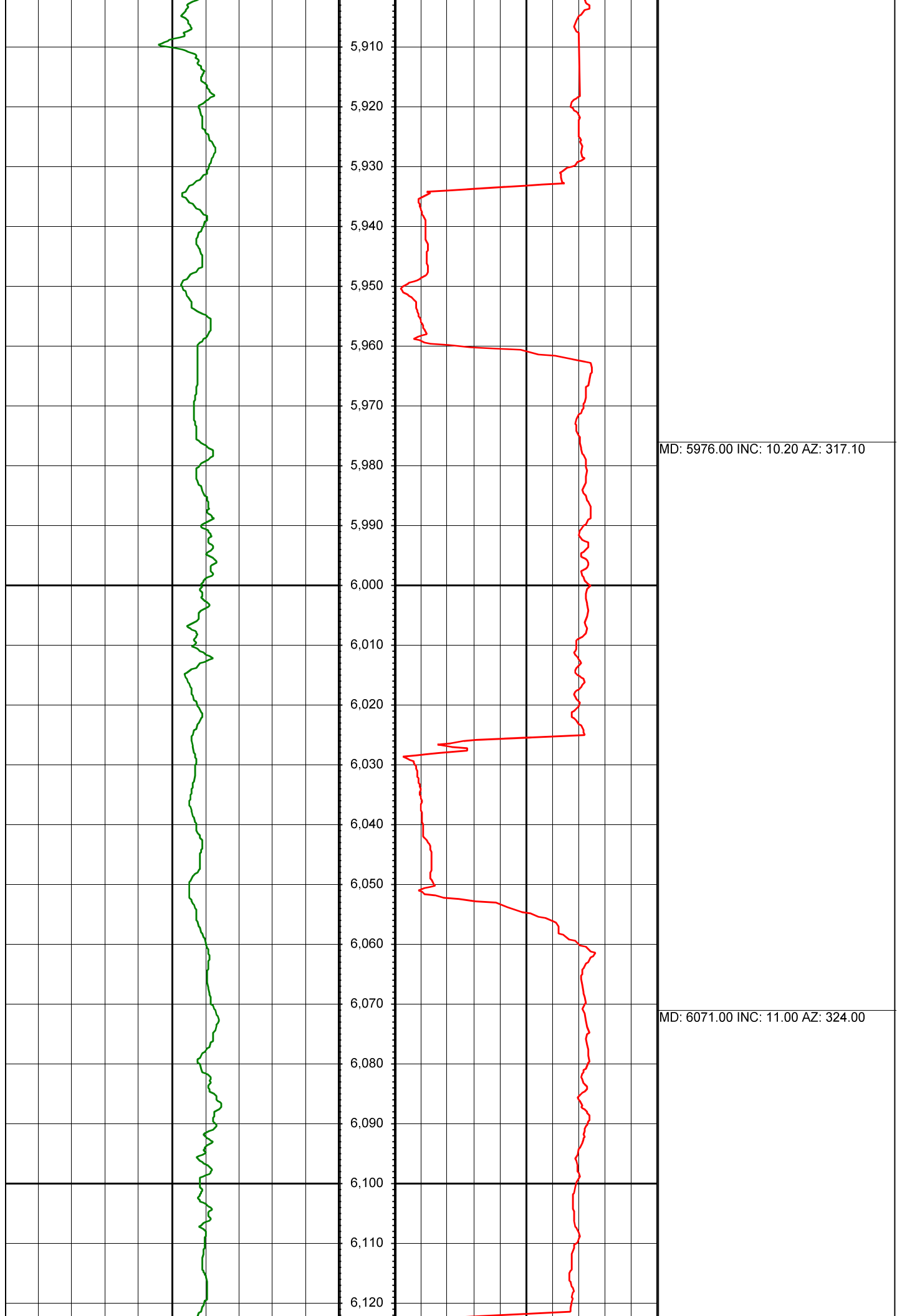


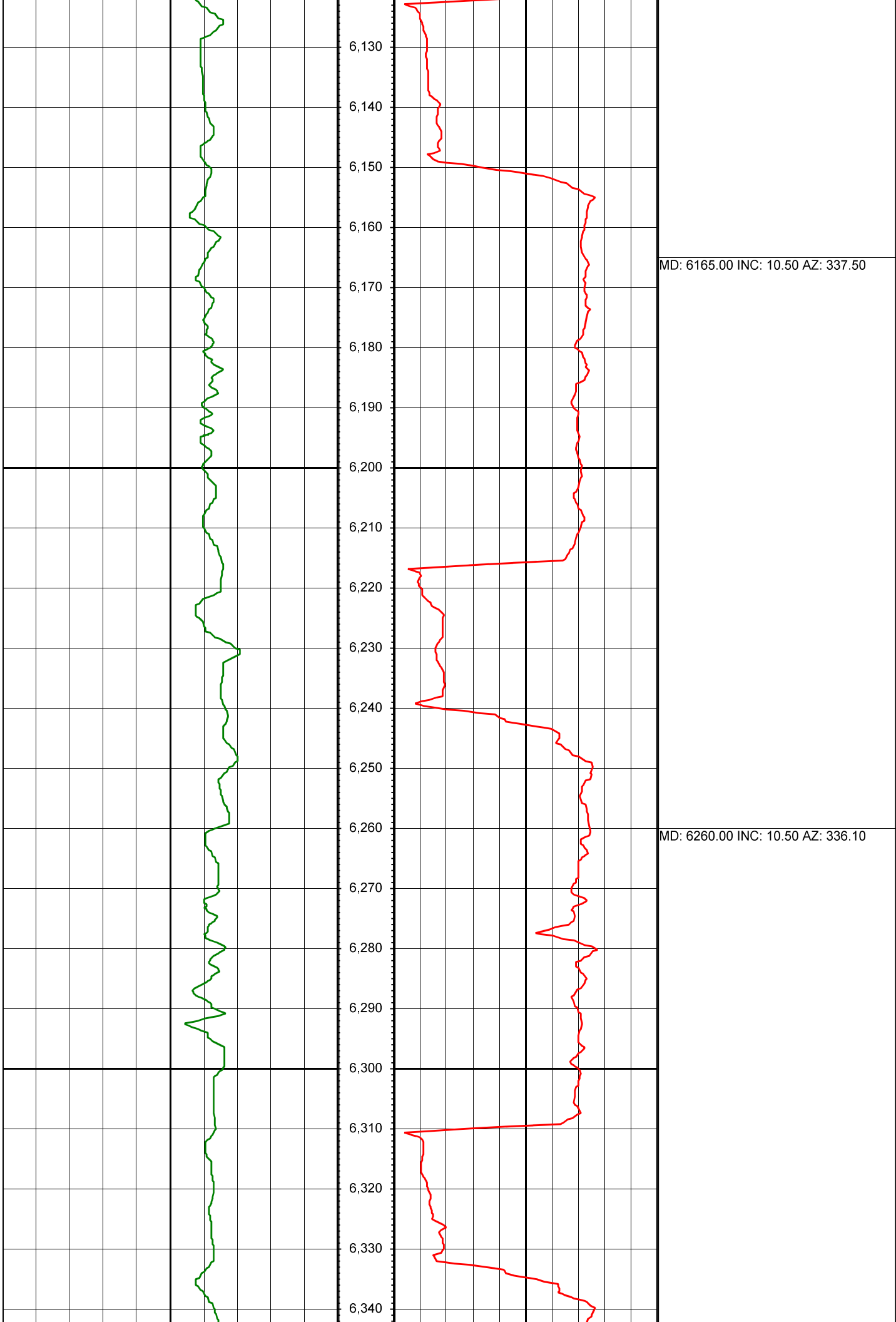


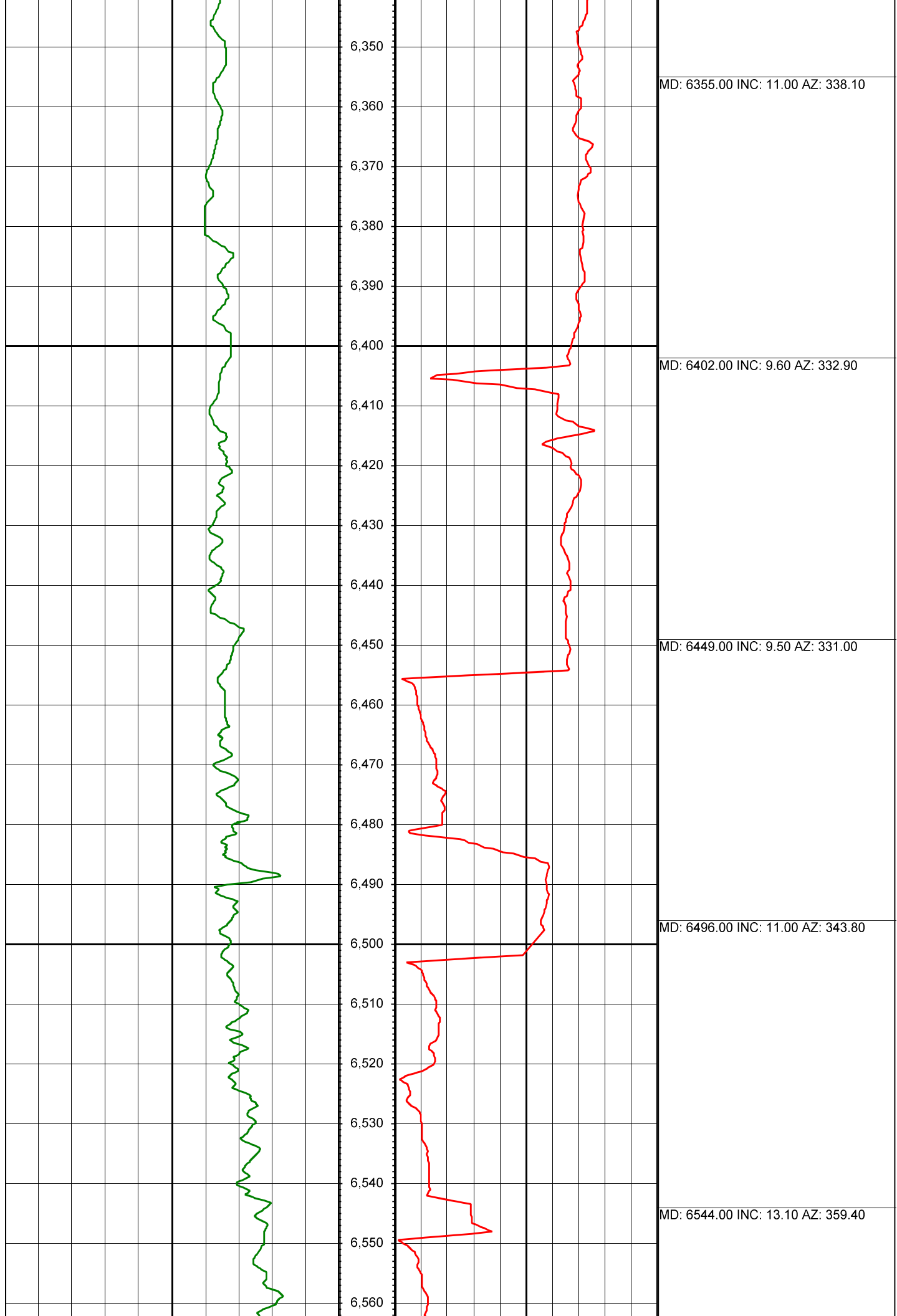


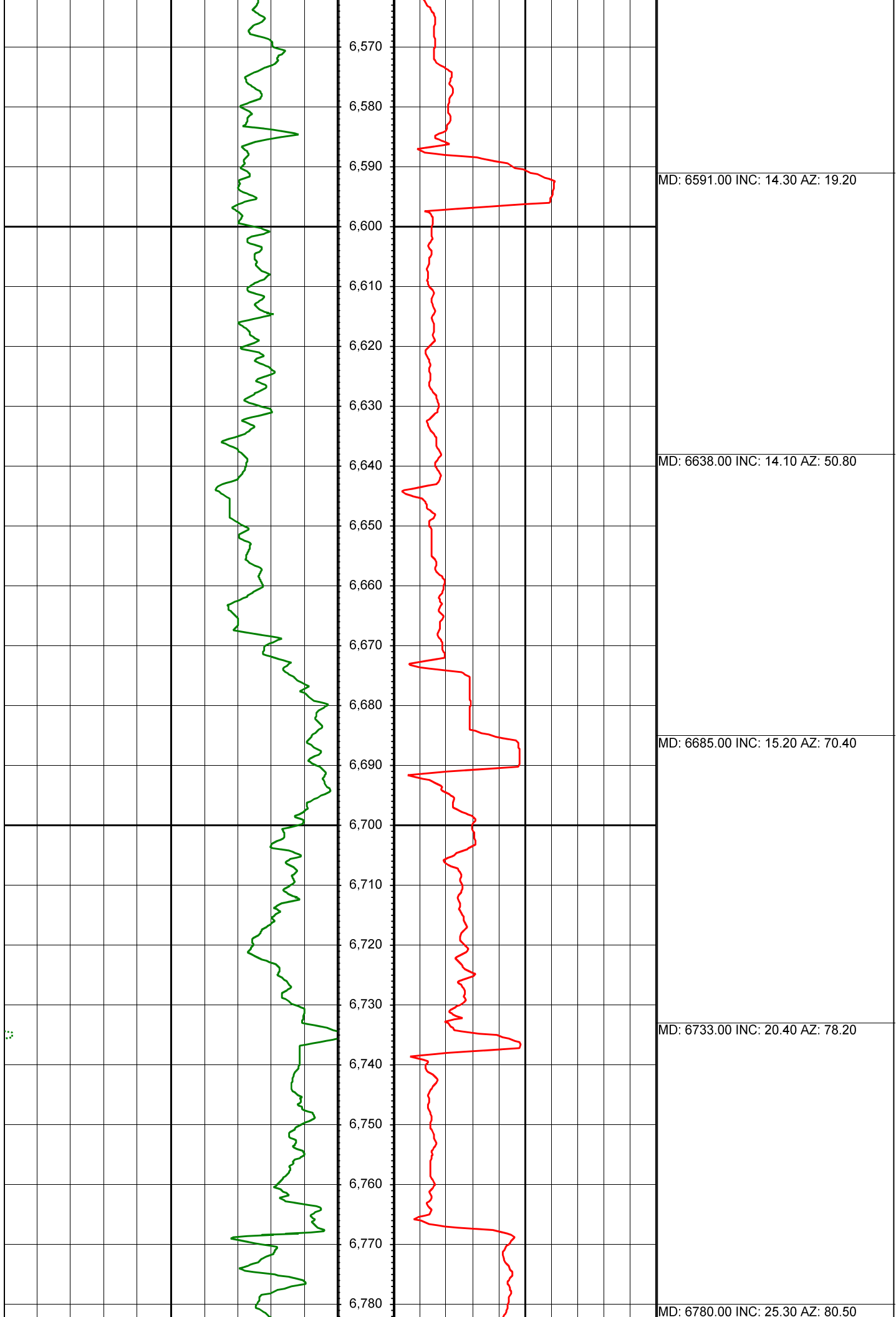


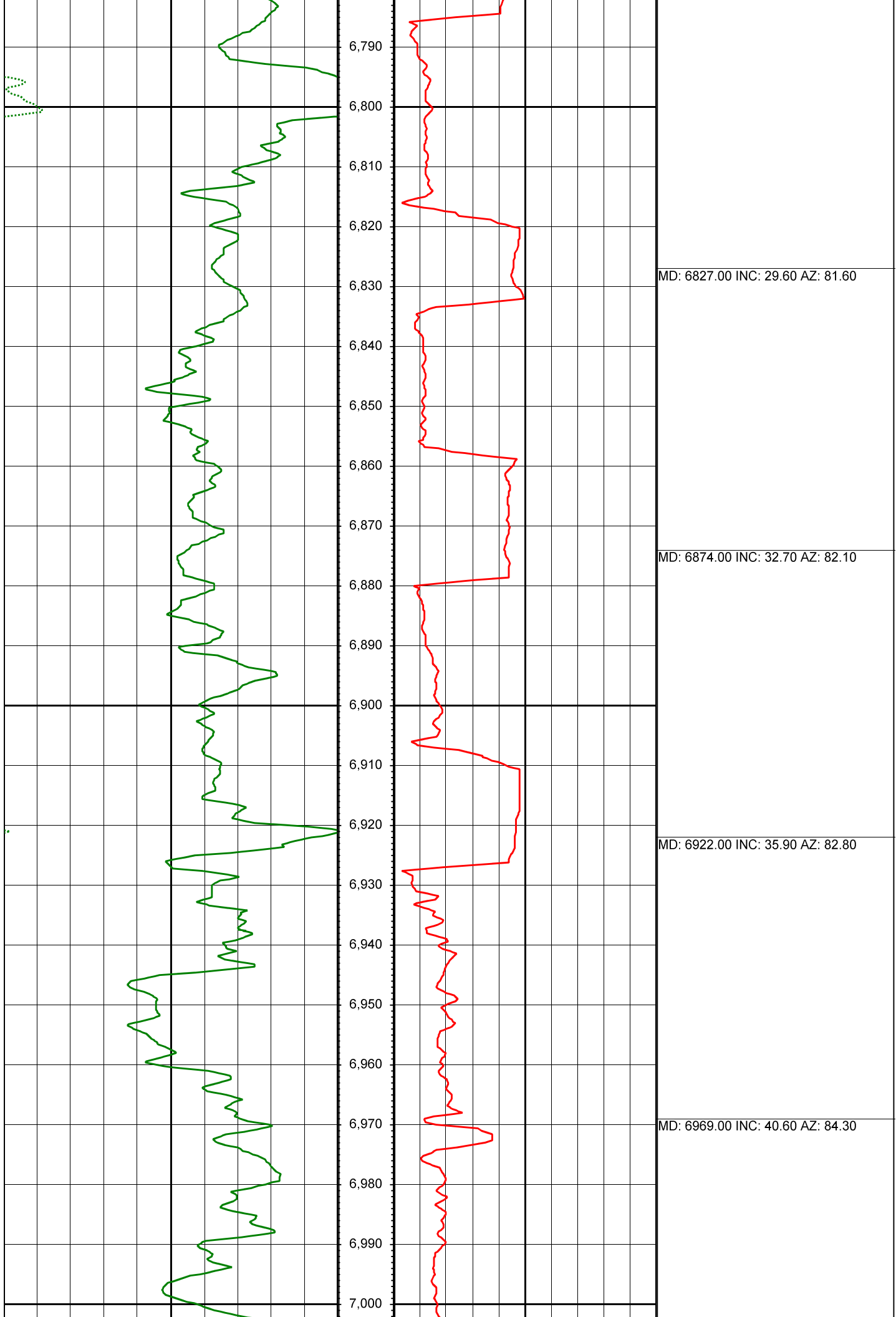


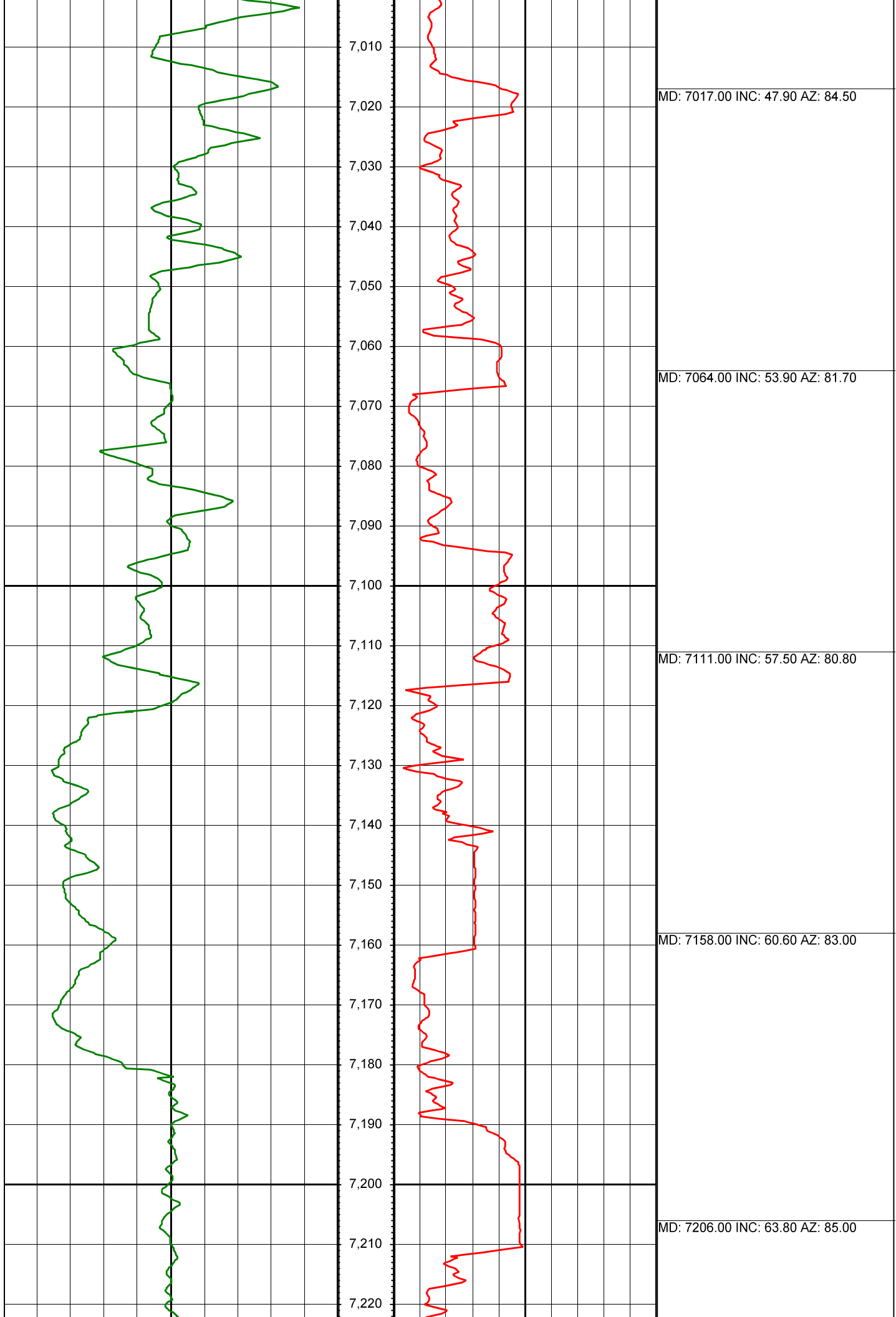


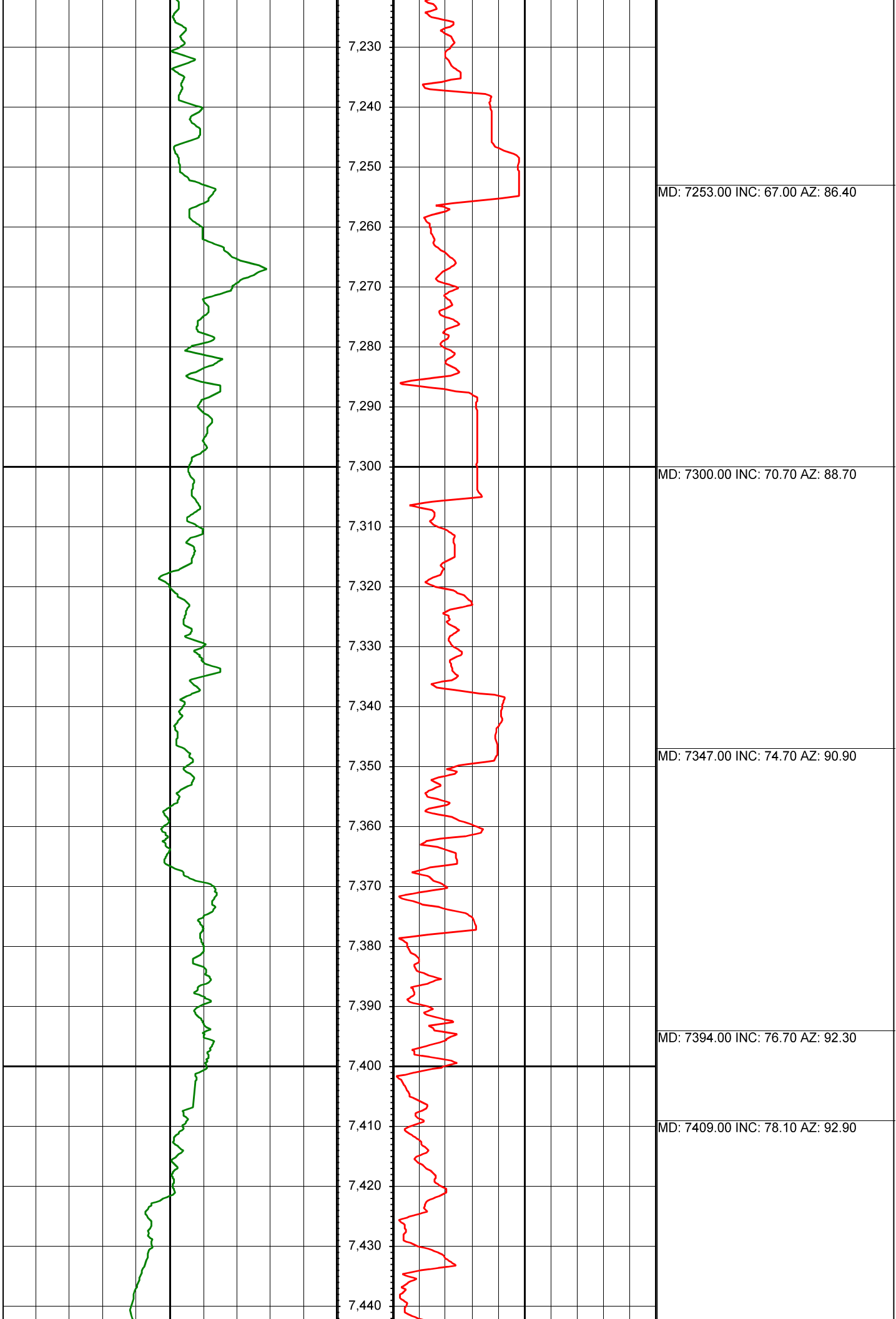


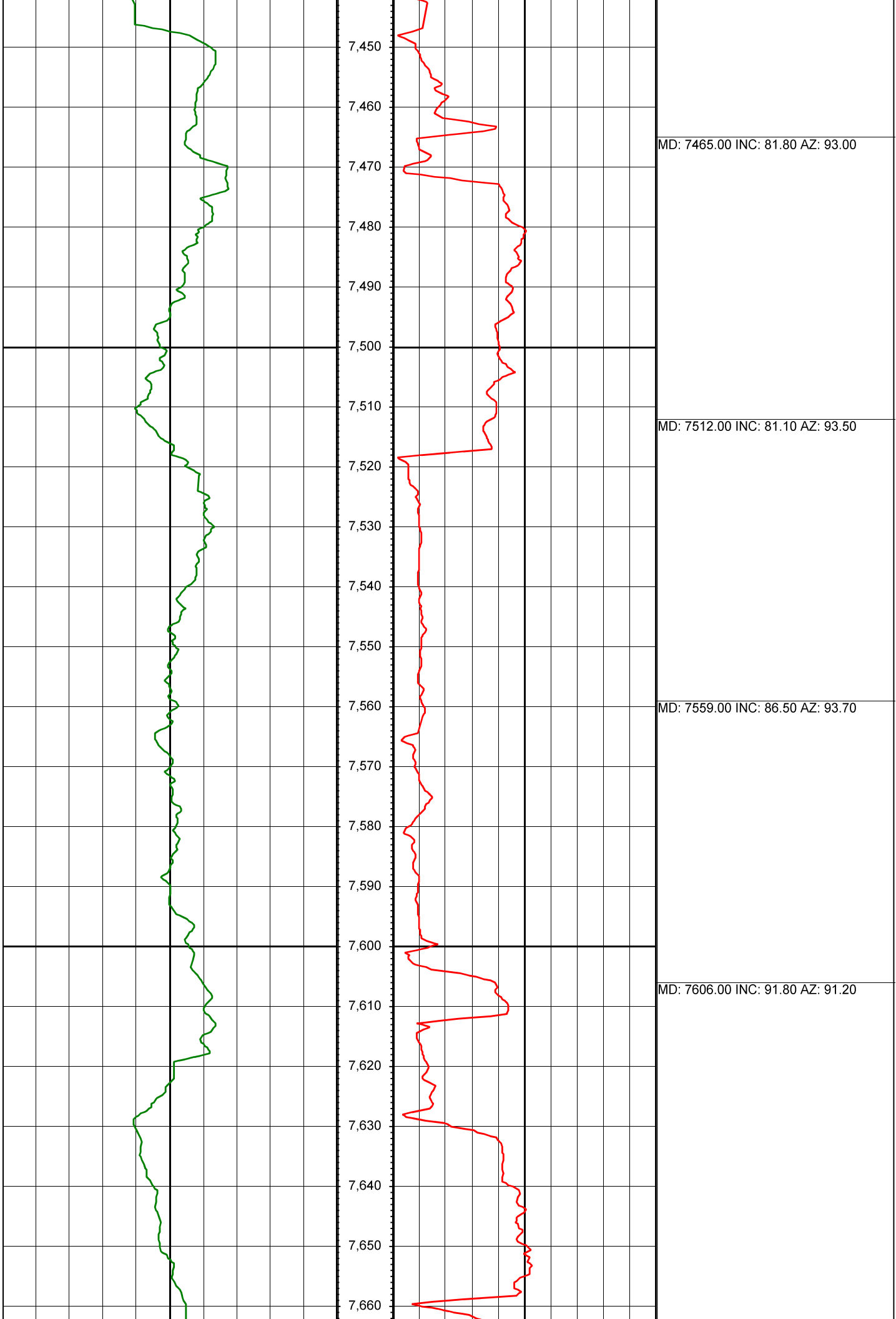


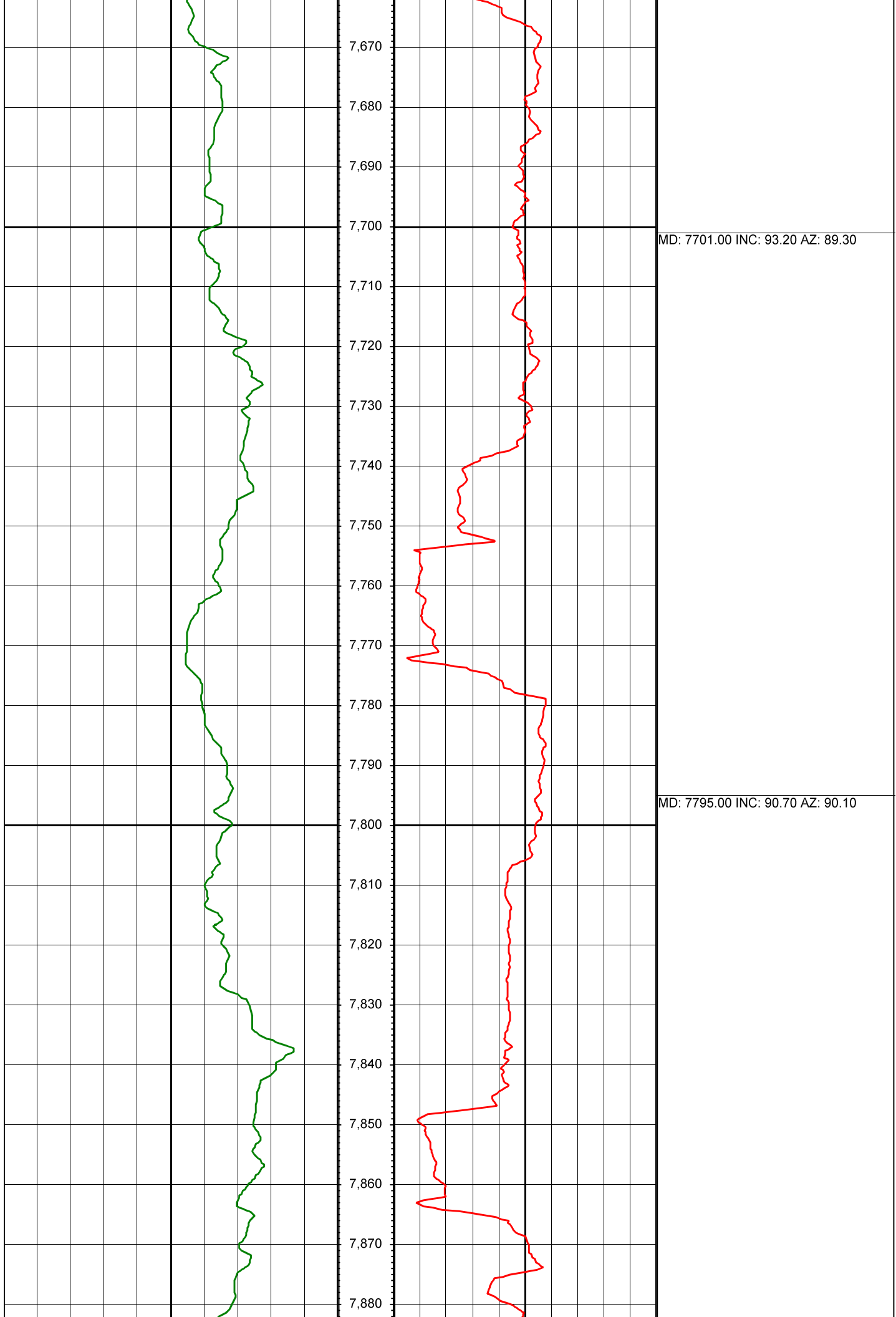


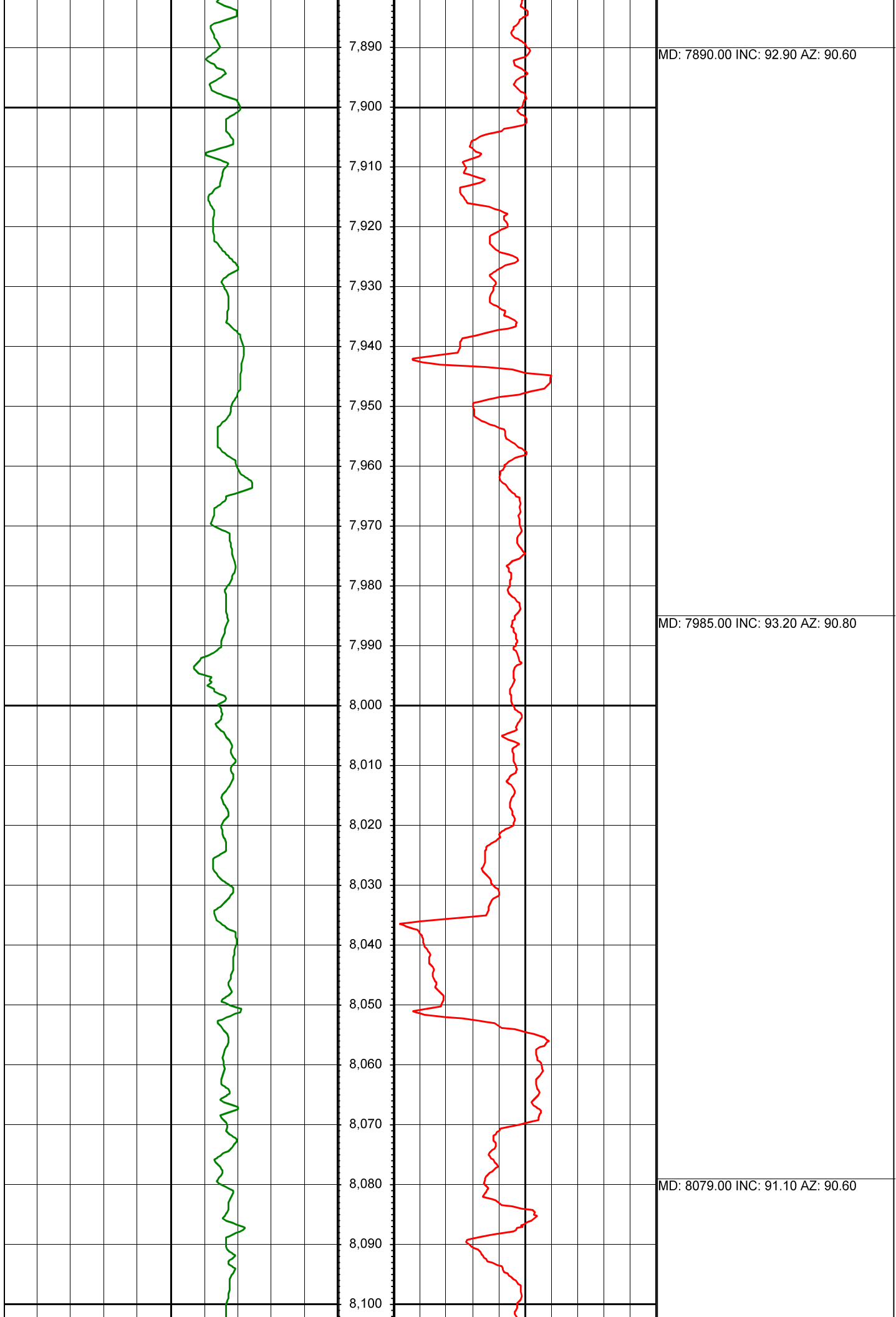


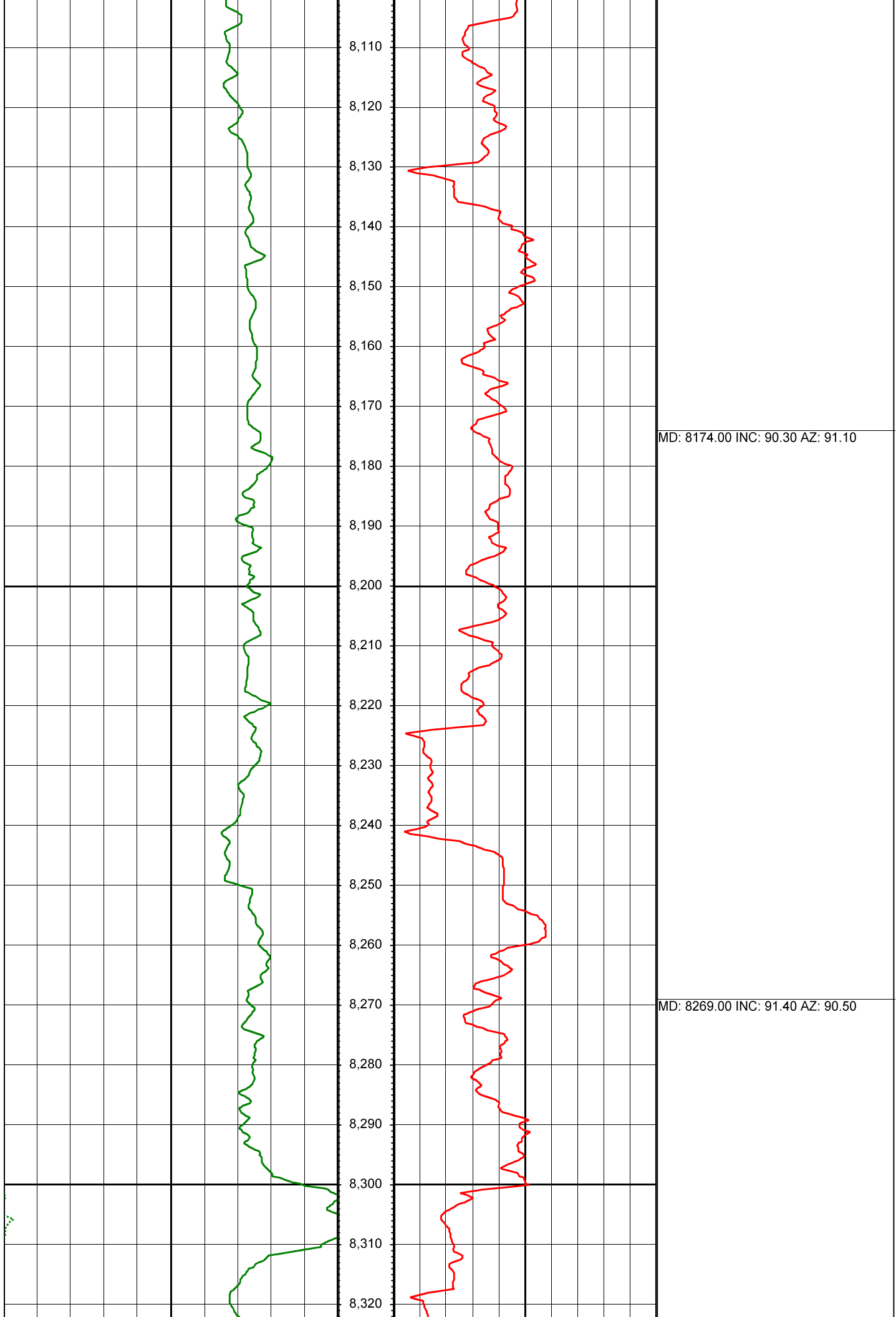


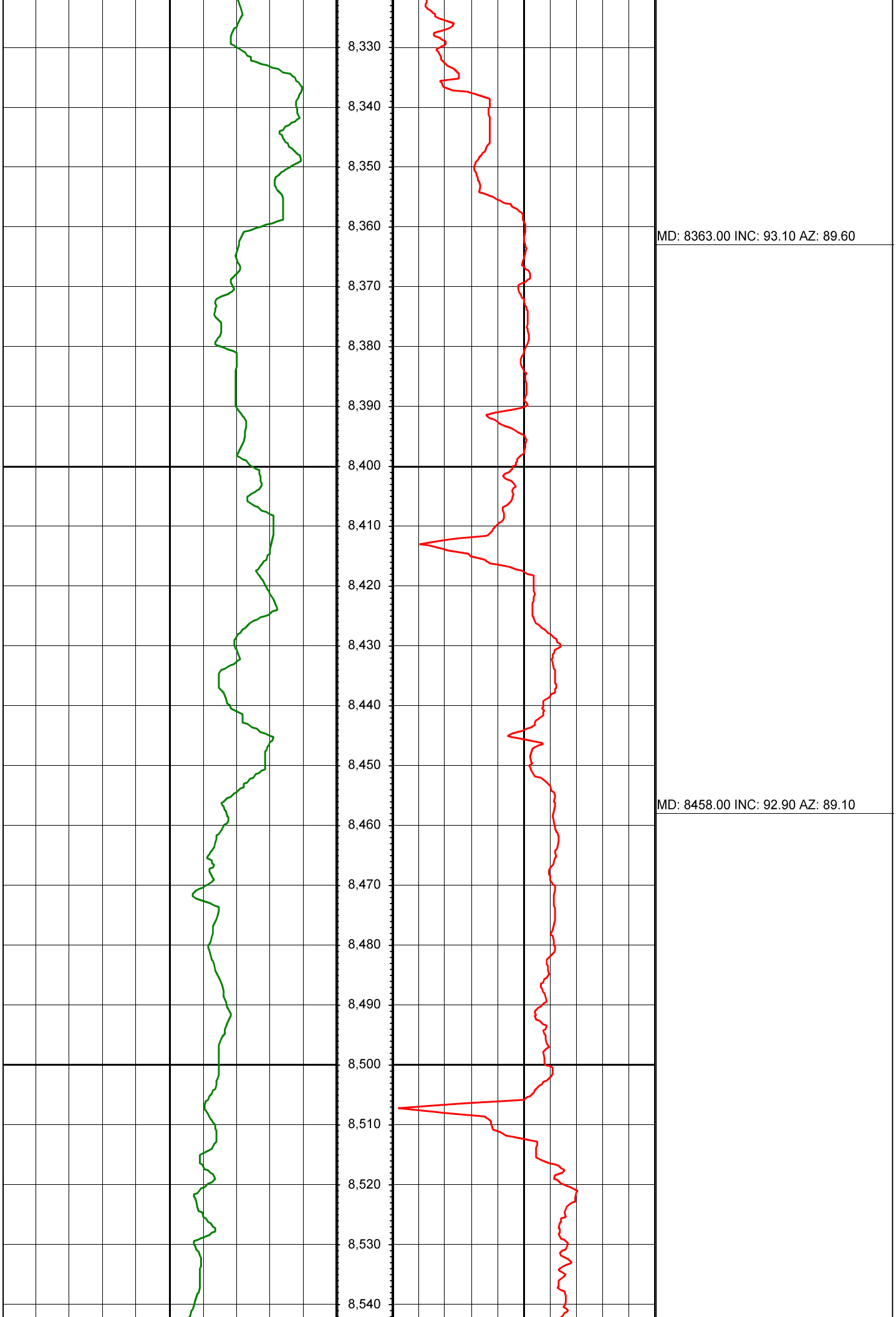


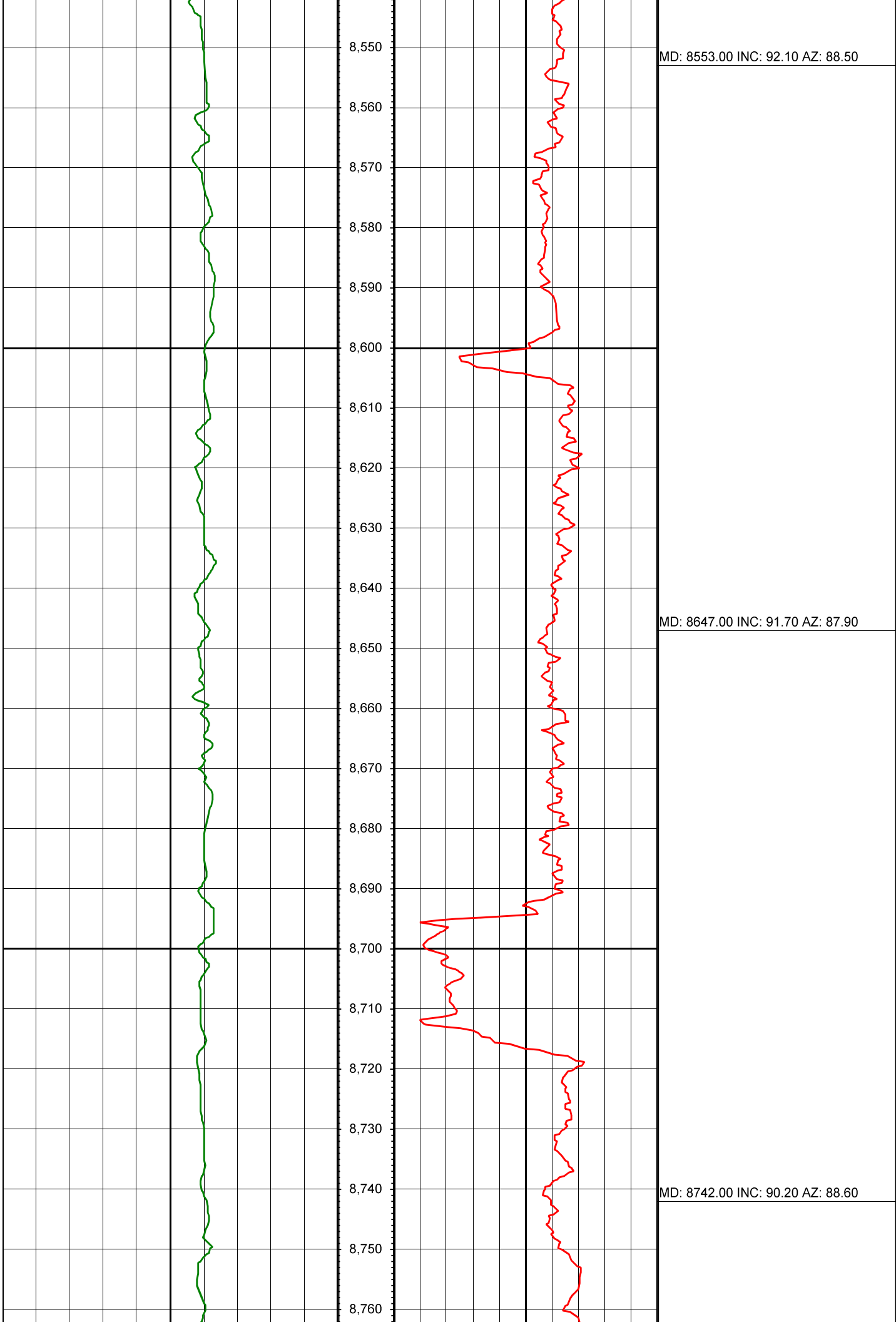


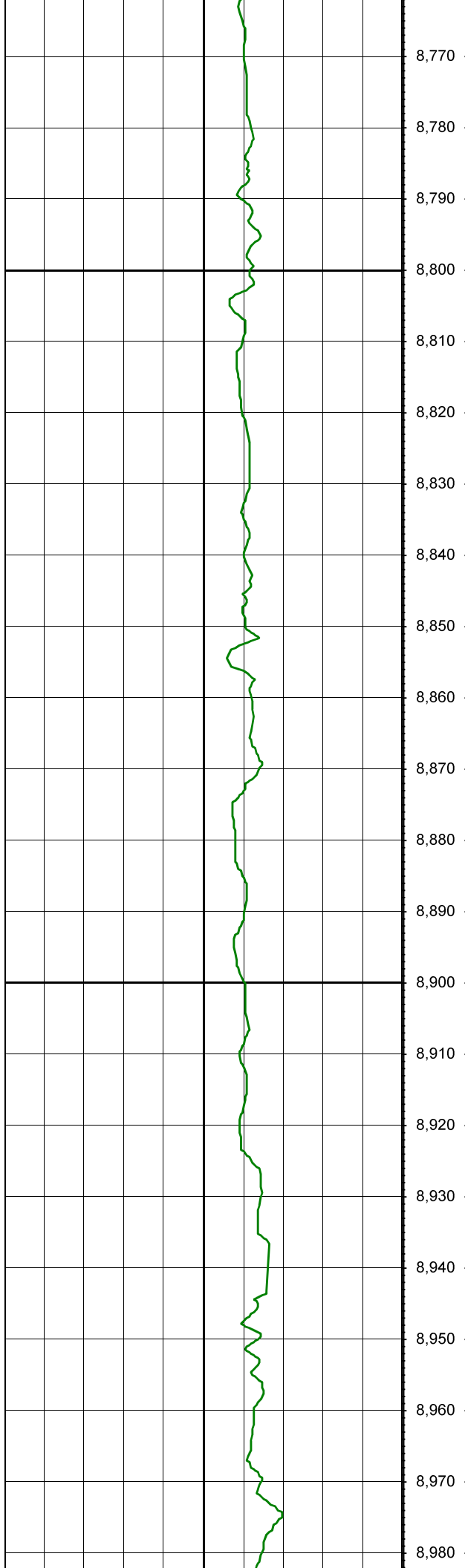












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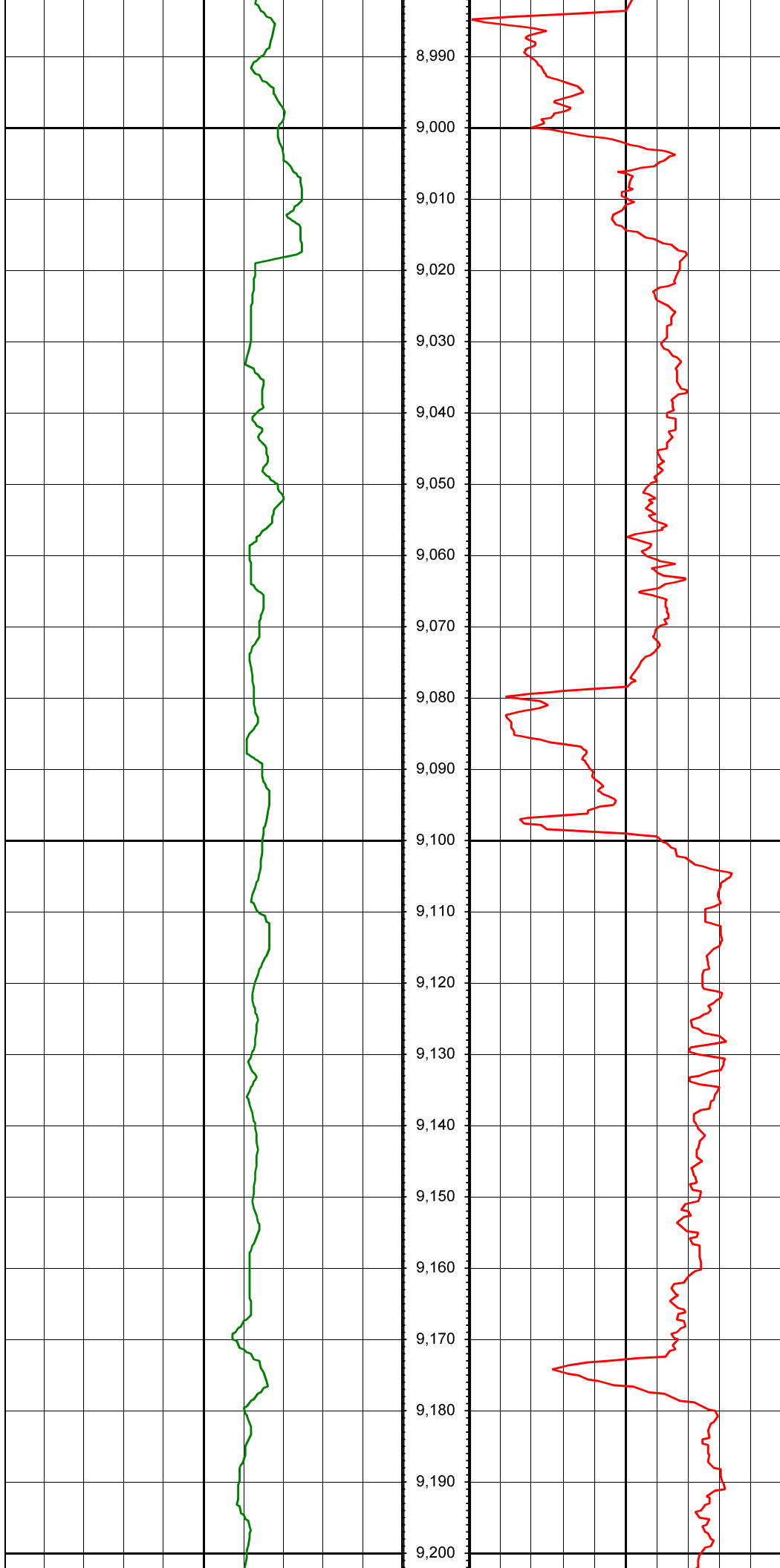
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8,980

MD: 8836.00 INC: 89.10 AZ: 88.10

MD: 8931.00 INC: 86.70 AZ: 89.50



MD: 9026.00 INC: 88.00 AZ: 88.70

MD: 9121.00 INC: 89.40 AZ: 89.50

