



Cathedral Energy Services
1949 North Pyrite Road
Casper, Wyoming 82604

155093

5":100' - MD

2/23/2015 1:49:27 PM

CATHEDRAL

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

Country: U.S.A.

State / Province: Colorado

County / Parish: Weld

Started: 02/15/2015 01:00 PM

API/UWI: 05-123-40276-00

Field: Wattenberg (C Chalk)

Well: Ruhl 1J-32H-B264

Rig: Ensign Drilling 135

Ended: 02/21/2015 07:30 PM

Gamma Ray
Section Plane: 180.00
Magnetic North: 8.32:
Gamma Averaging: 7%

Personnel

Day Hand: J. Corby
Night Hand: J. Starkey
Comp. Emp: Gage Soehner

Location

Latitude: 40.101448
Longitude: -104.570801
Elev. GL: 4998
Elev. DF:
Elev. KB: 5011

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

Hole Data

Size	From	To
8-3/4	1159	7573
6-1/8	7573	11550

Casing Data

Size	From	To
9-5/8	0	1149
7	0	7553

Bit Sizes

Size	From	To
8-3/4	1159	7573
6-1/8	7573	11550

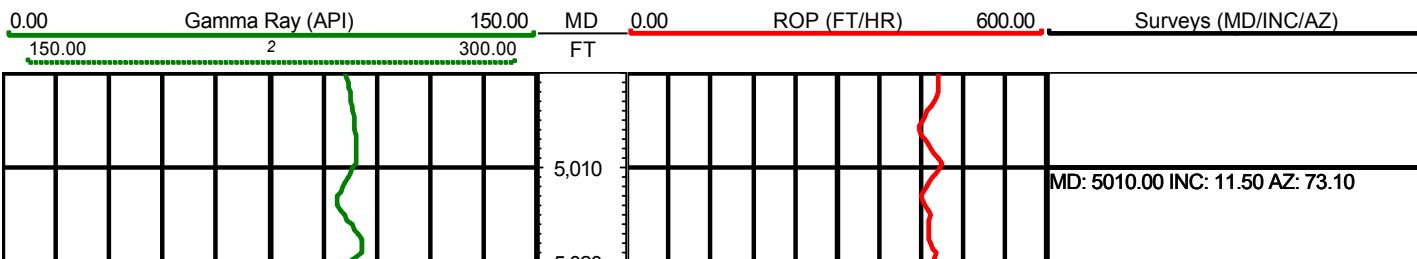
Mud Data

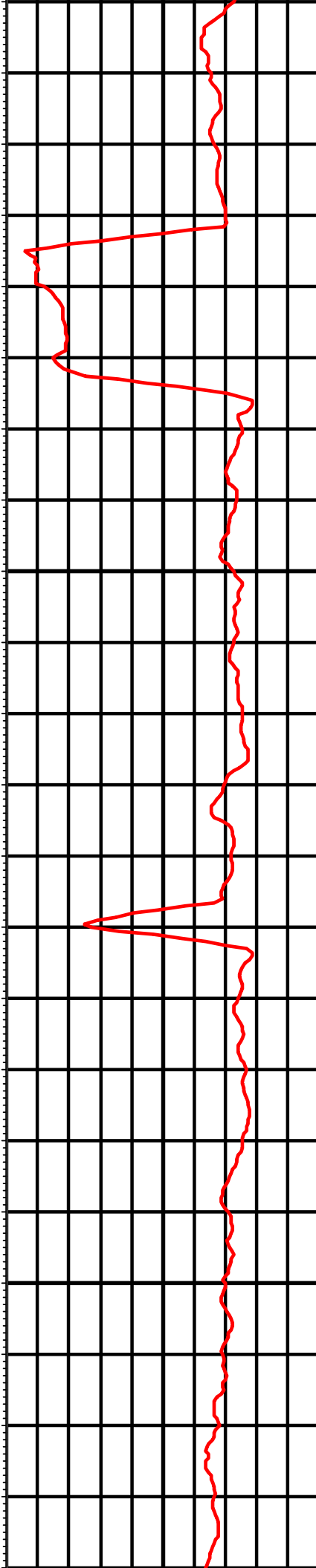
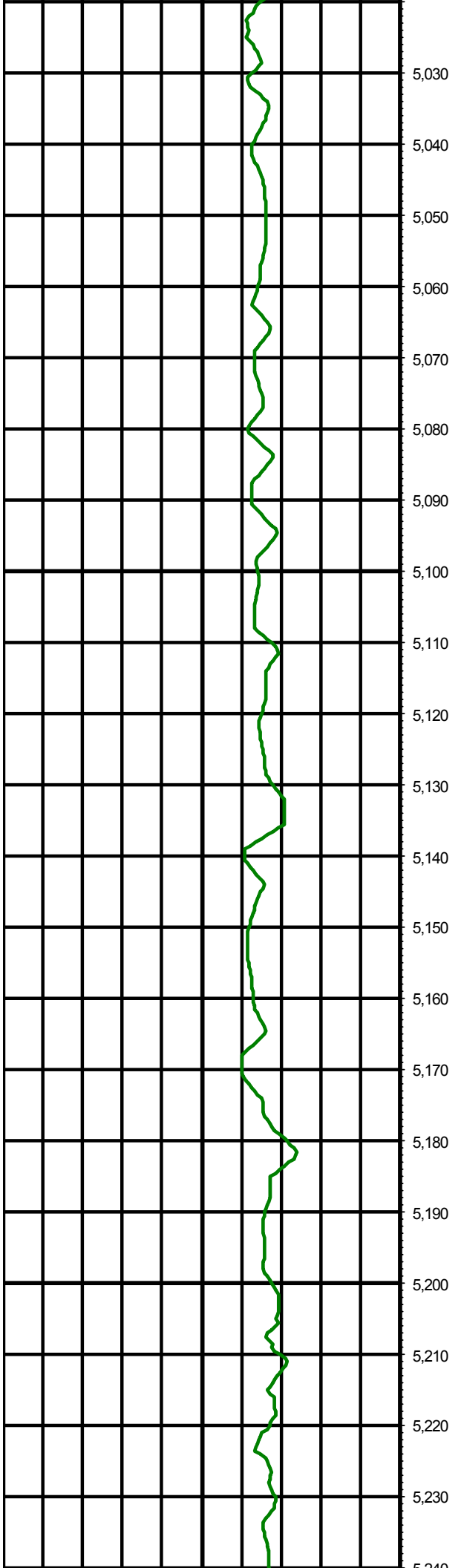
Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
Water/LSND	10.1	10.1	45				1159	7573
Water/LSND	10.75	10.75	30				7573	11550

Tool Run Data

Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
1218	36.24	0	2/15/2015 1:00:51 PM	1159	2/18/2015 12:00:51 AM	7573
1218	40.01	0	2/18/2015 11:30:37 PM	7573	2/19/2015 6:00:37 PM	7714
1595	43.18	0	2/22/2015 8:00:57 PM	7714	2/22/2015 12:00:57 PM	11550

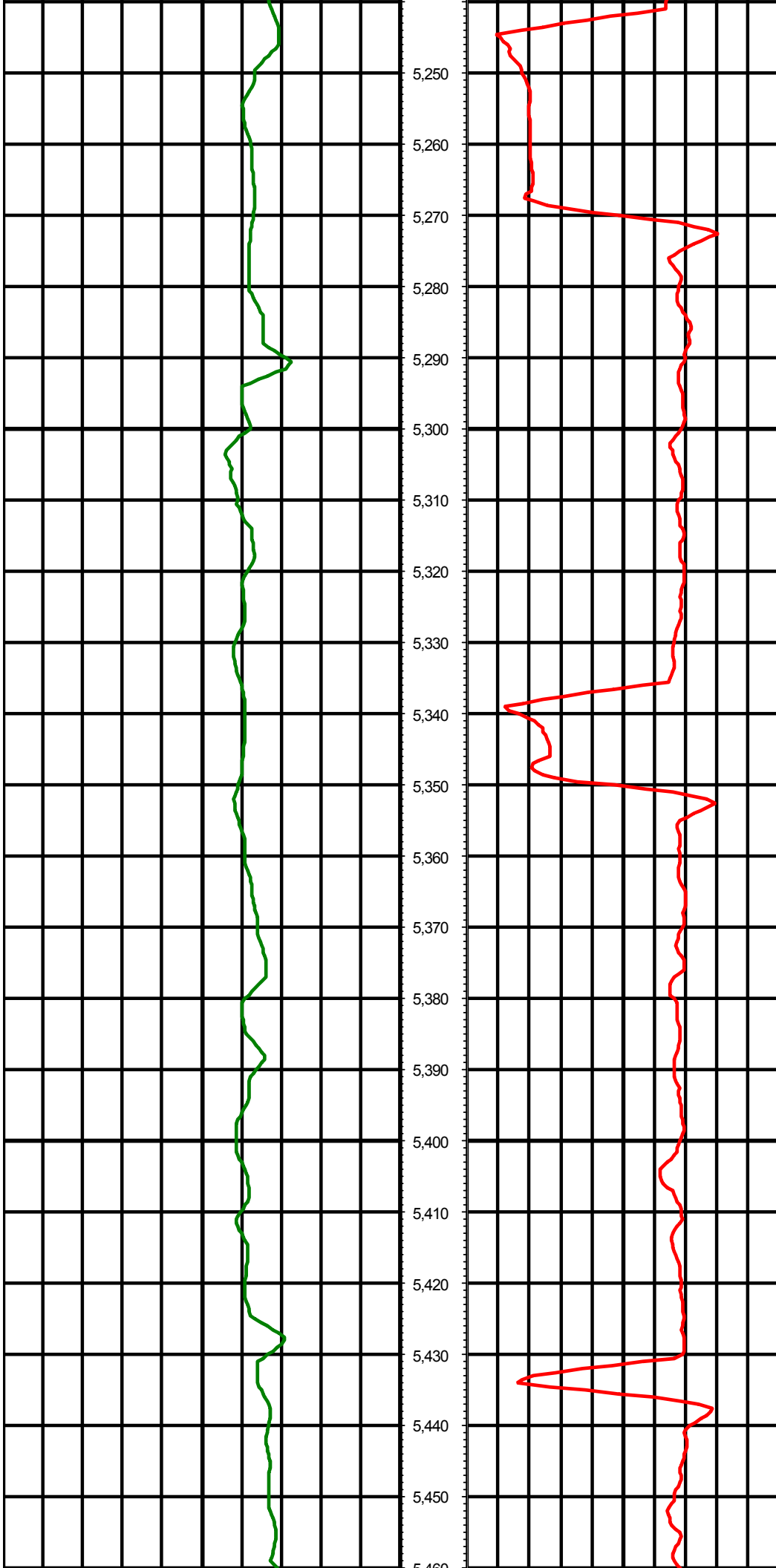
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost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





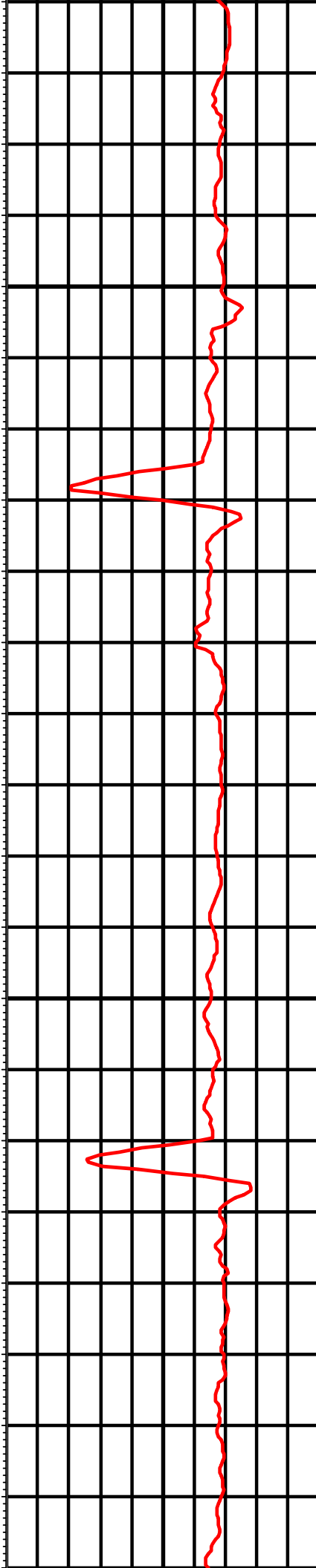
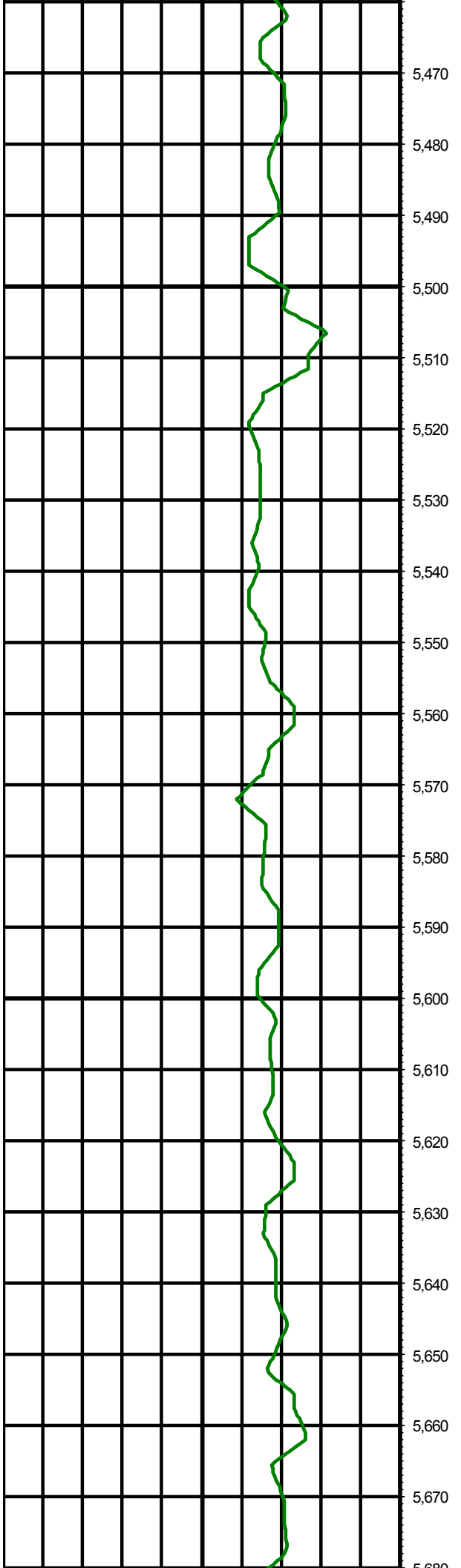
MD: 5104.00 INC: 12.00 AZ: 76.50

MD: 5199.00 INC: 10.20 AZ: 71.80



MD: 5294.00 INC: 12.60 AZ: 77.00

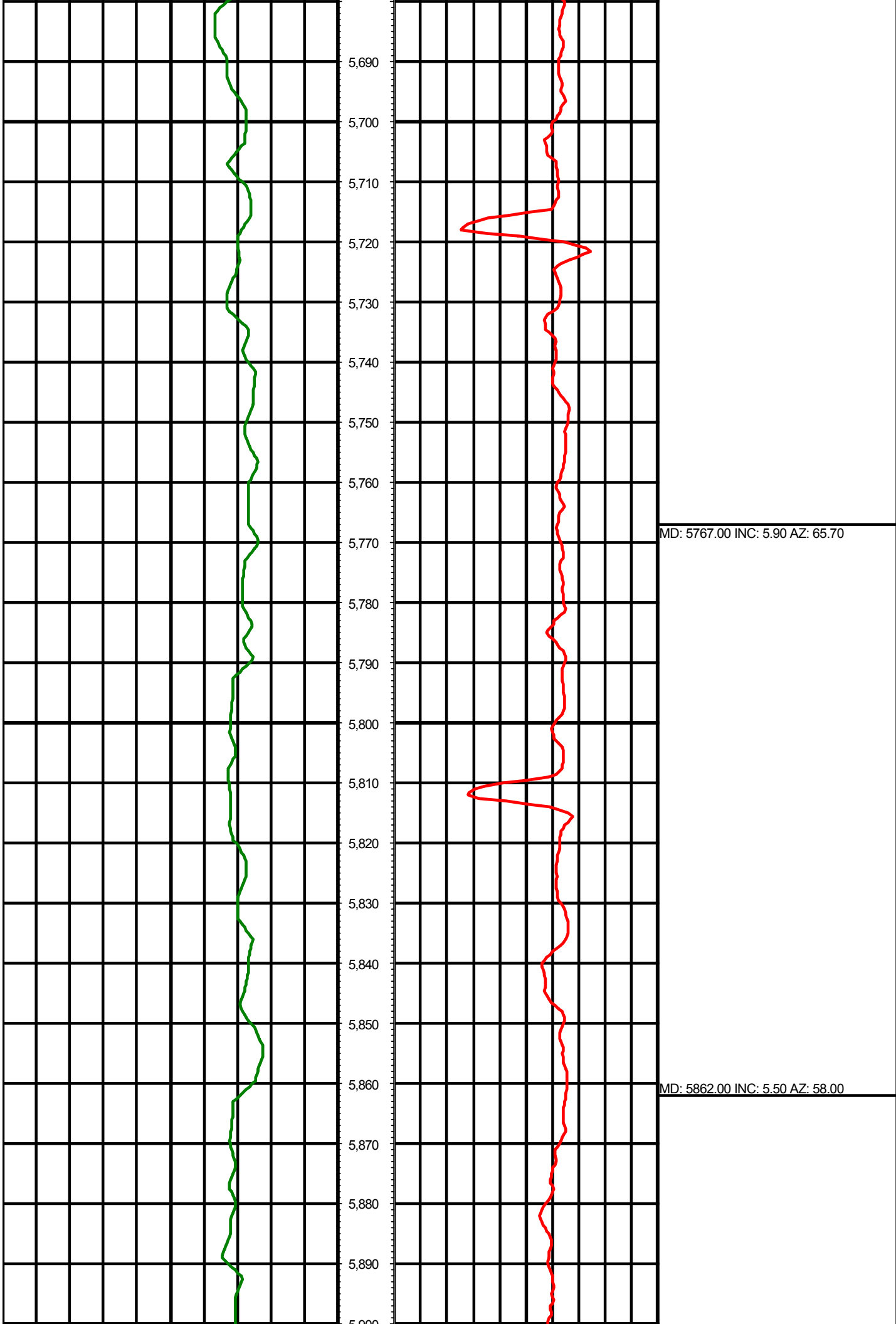
MD: 5389.00 INC: 11.90 AZ: 79.70



MD: 5483.00 INC: 10.20 AZ: 77.90

MD: 5578.00 INC: 8.70 AZ: 75.40

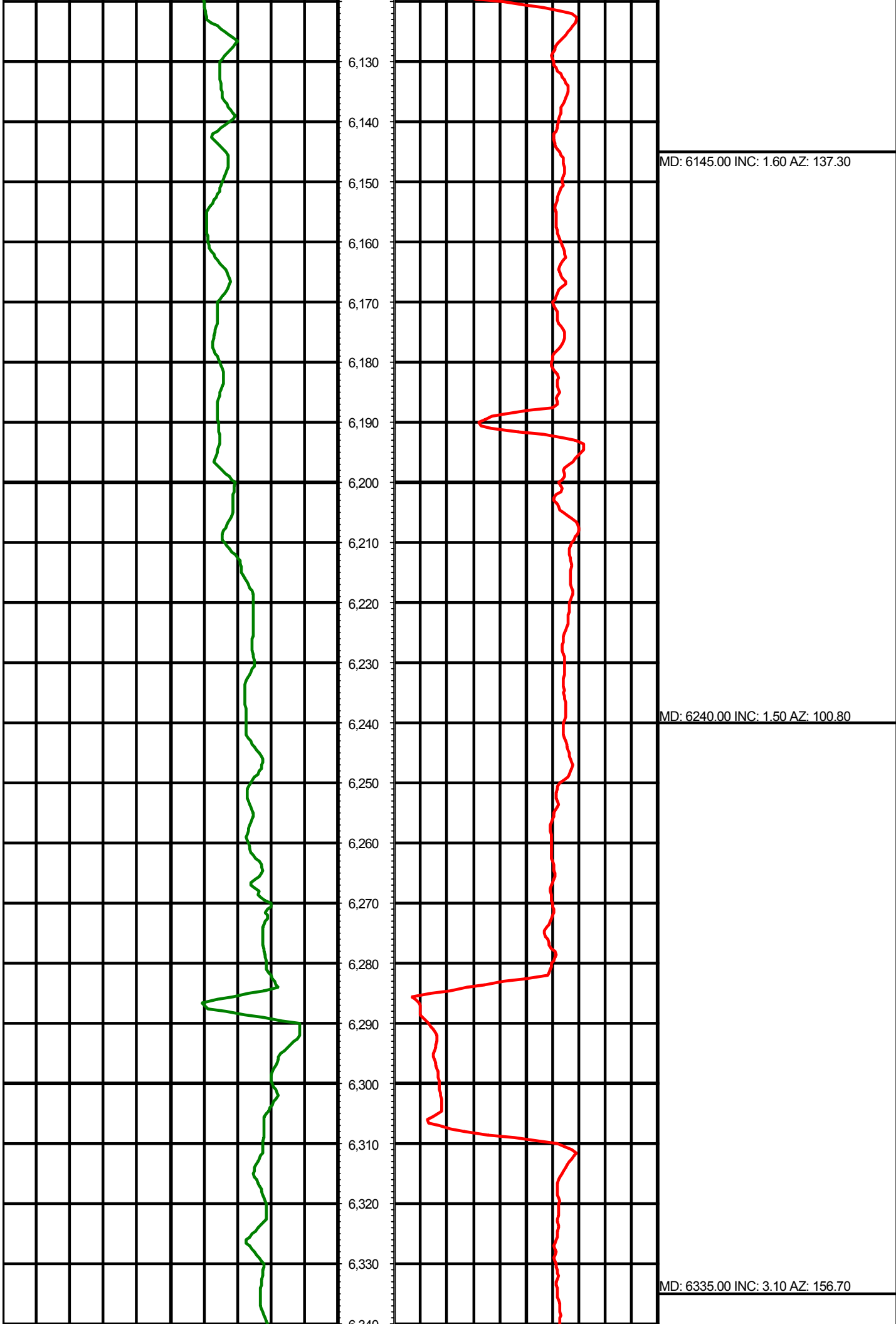
MD: 5672.00 INC: 7.20 AZ: 69.90

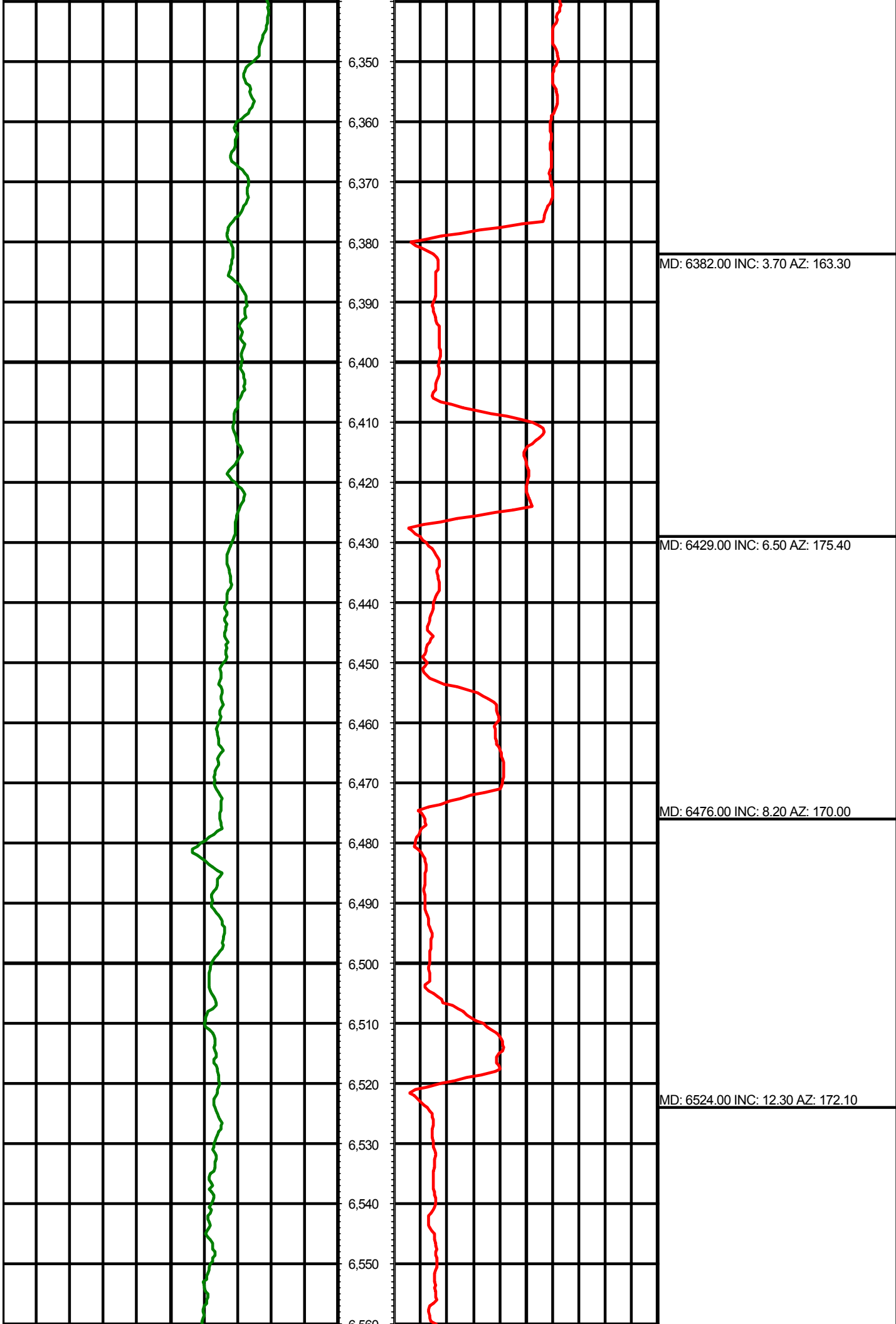


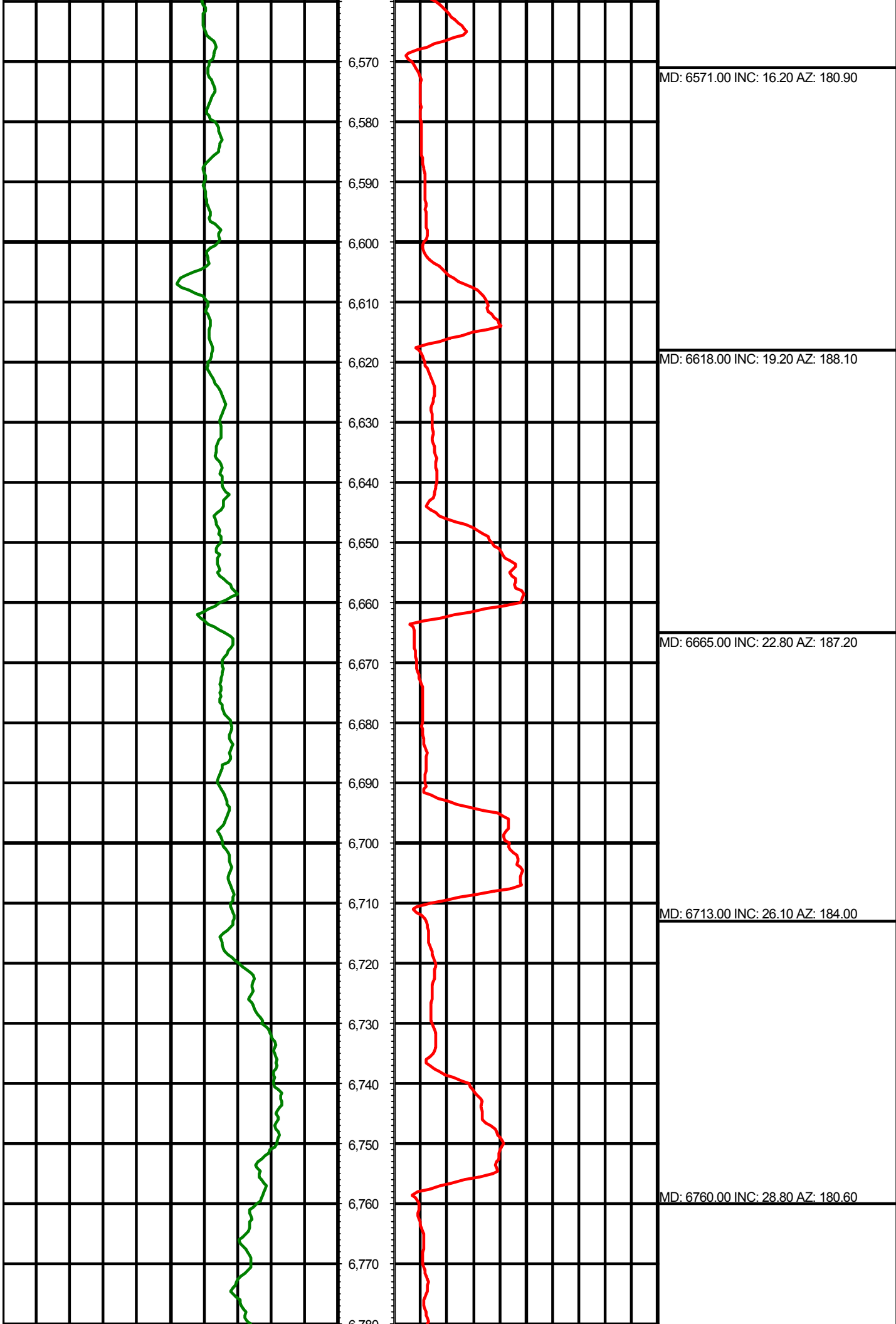


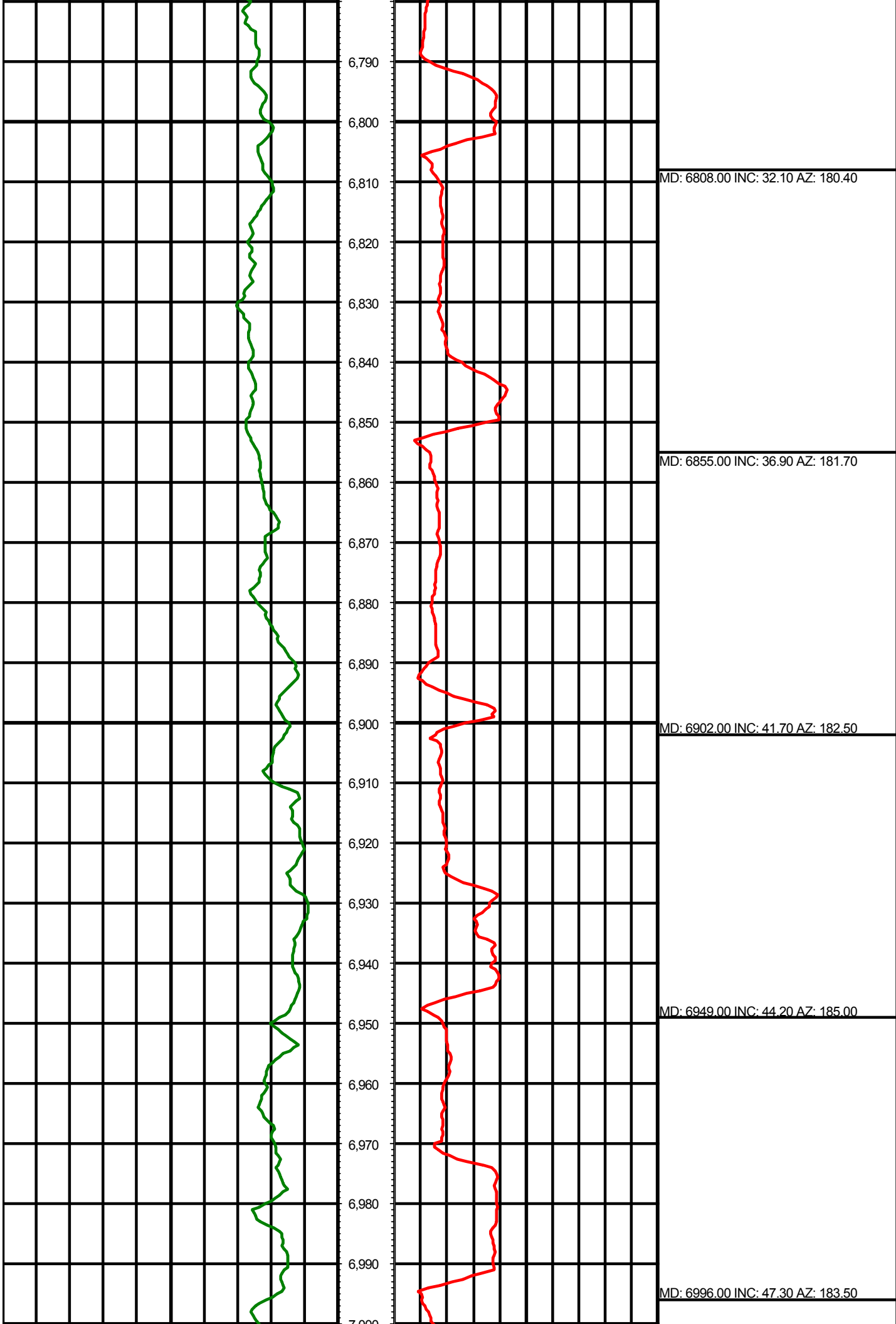
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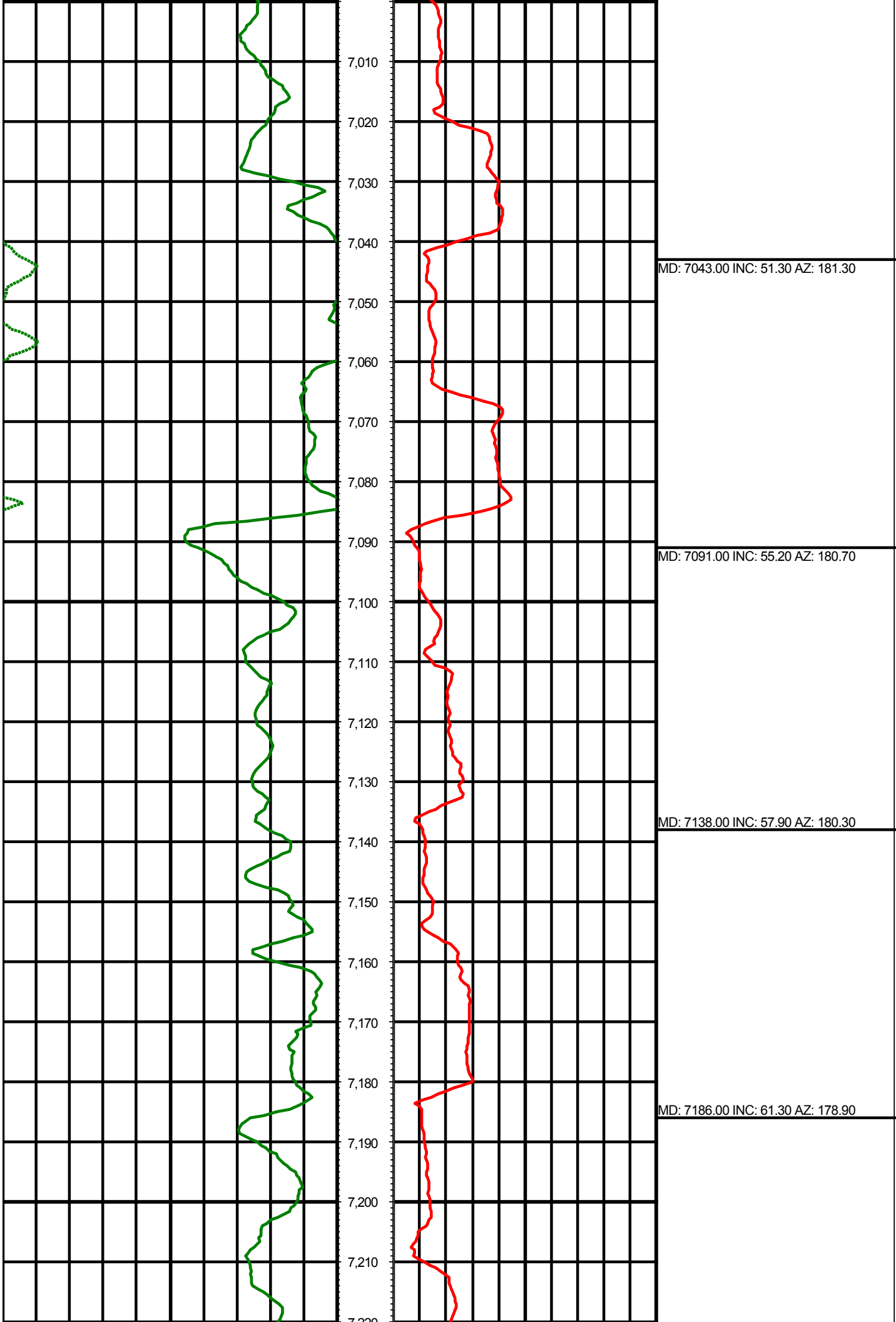
MD: 6051.00 INC: 3.10 AZ: 72.60

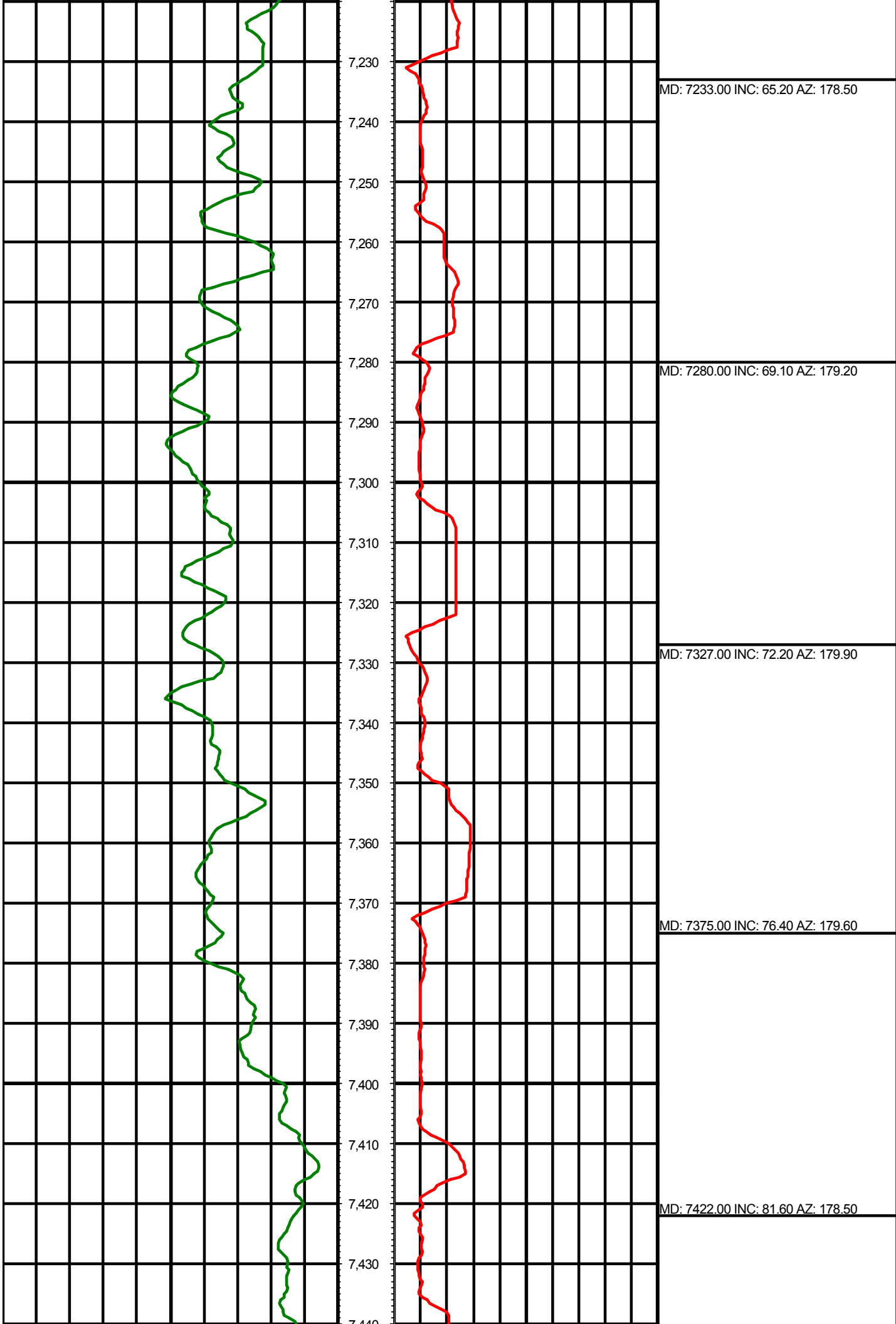


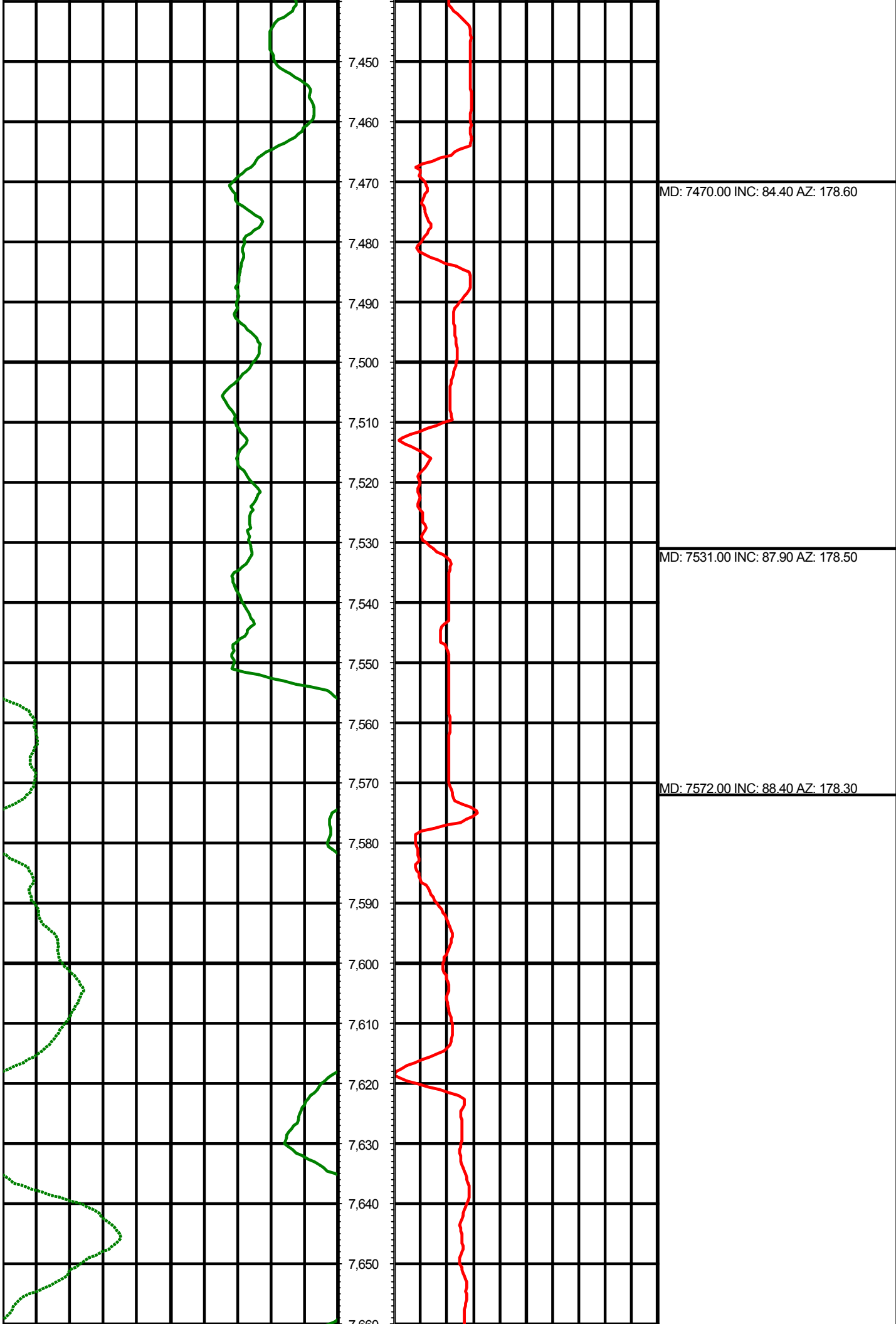


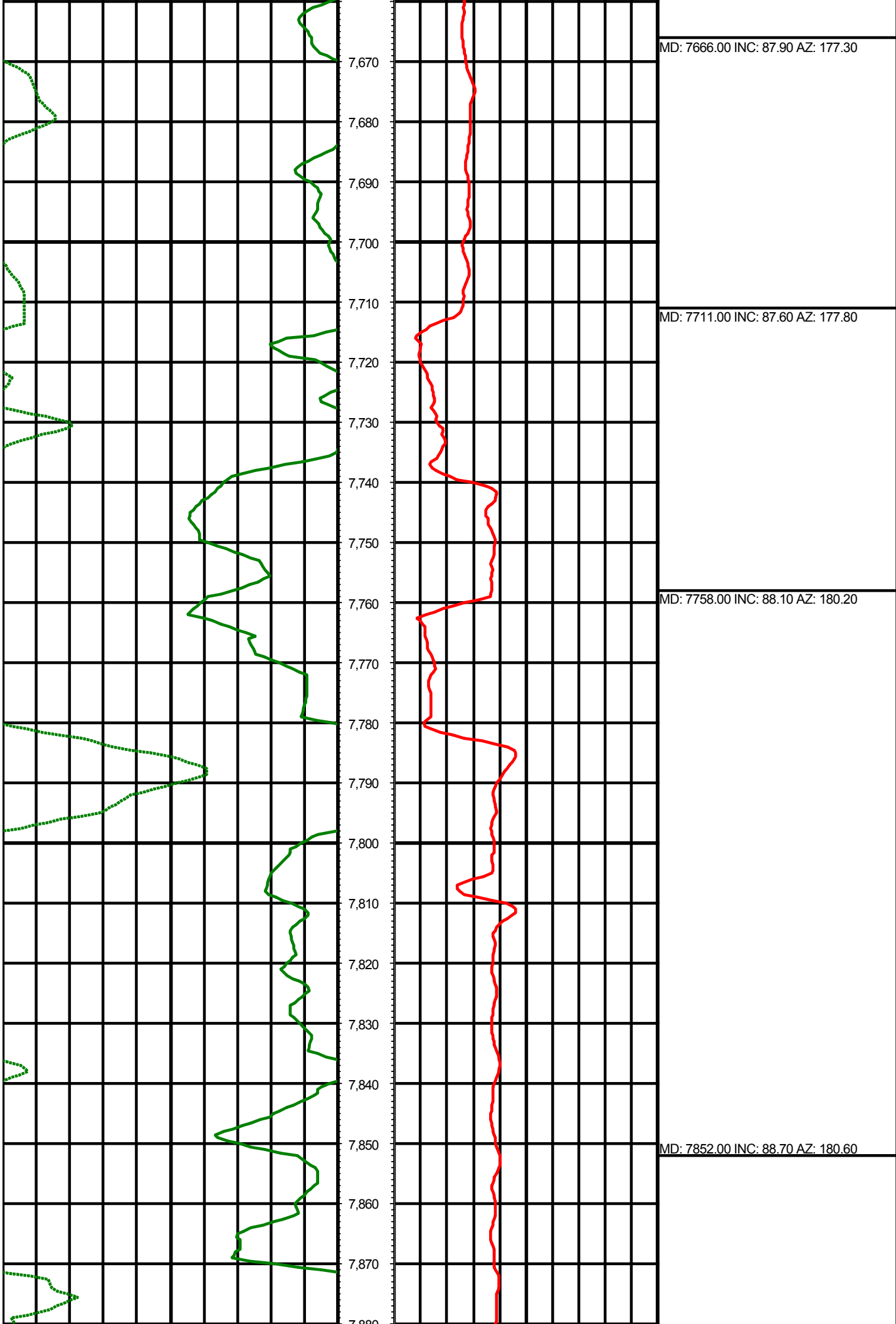


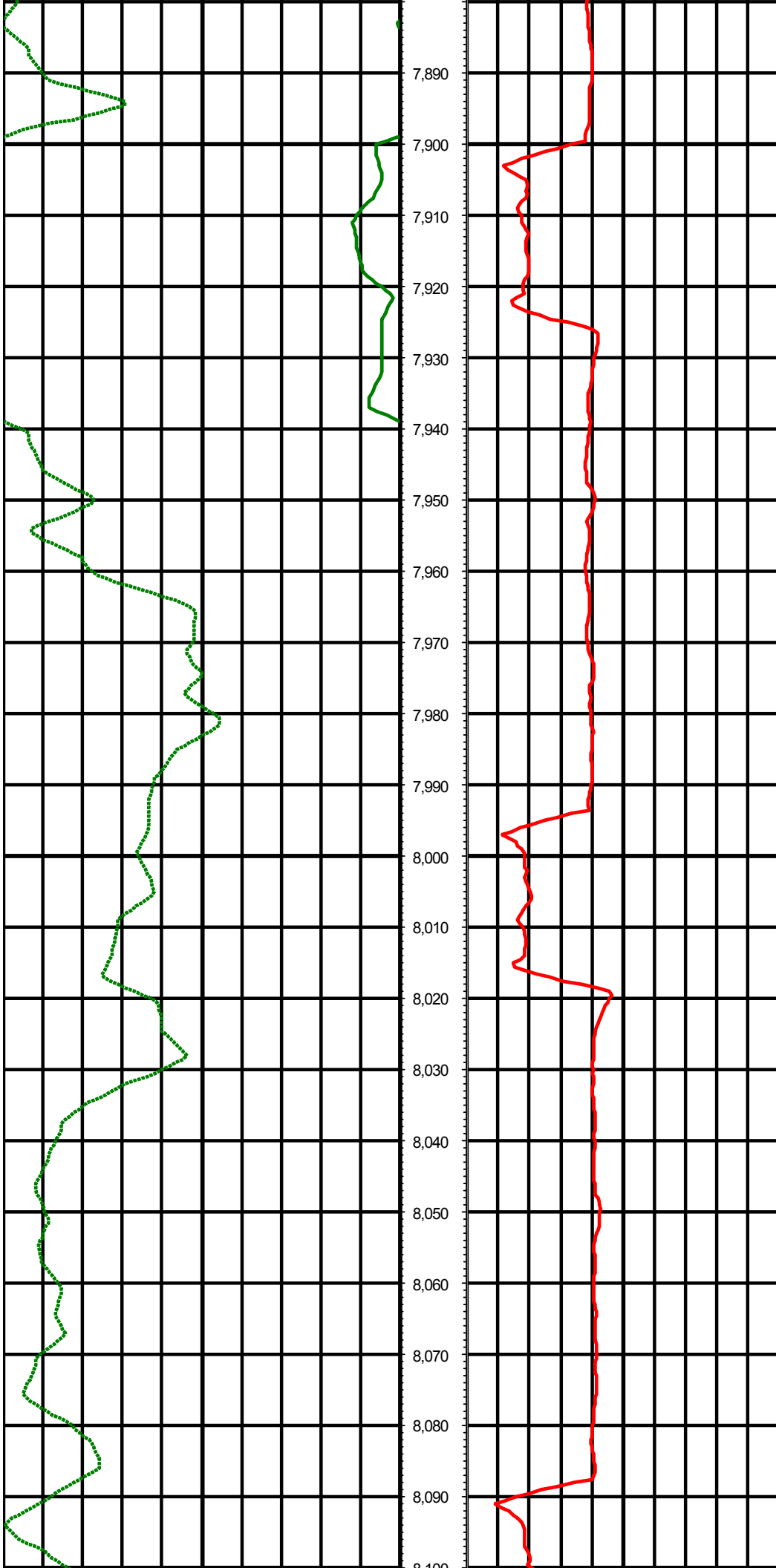












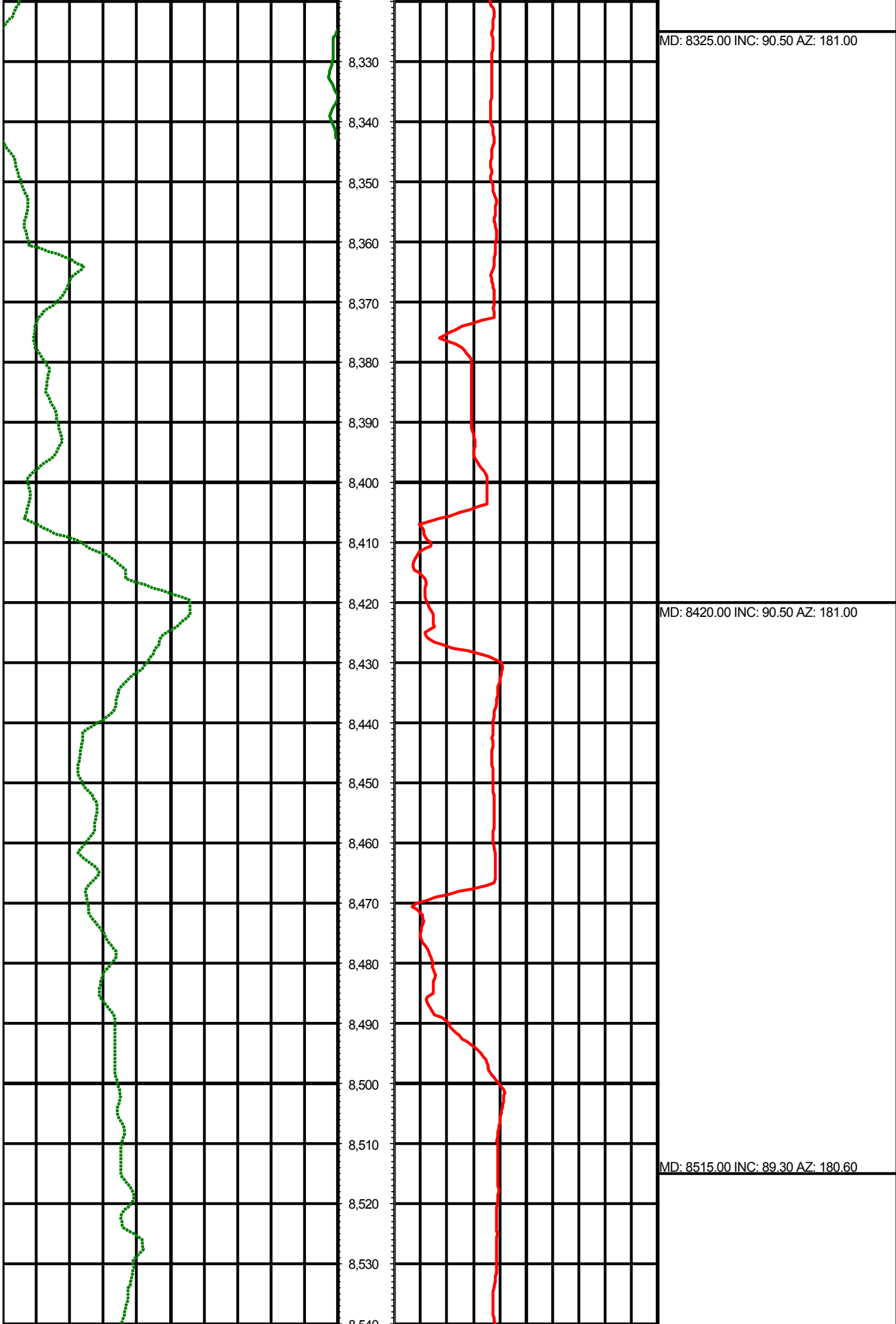
MD: 7947.00 INC: 87.80 AZ: 184.10

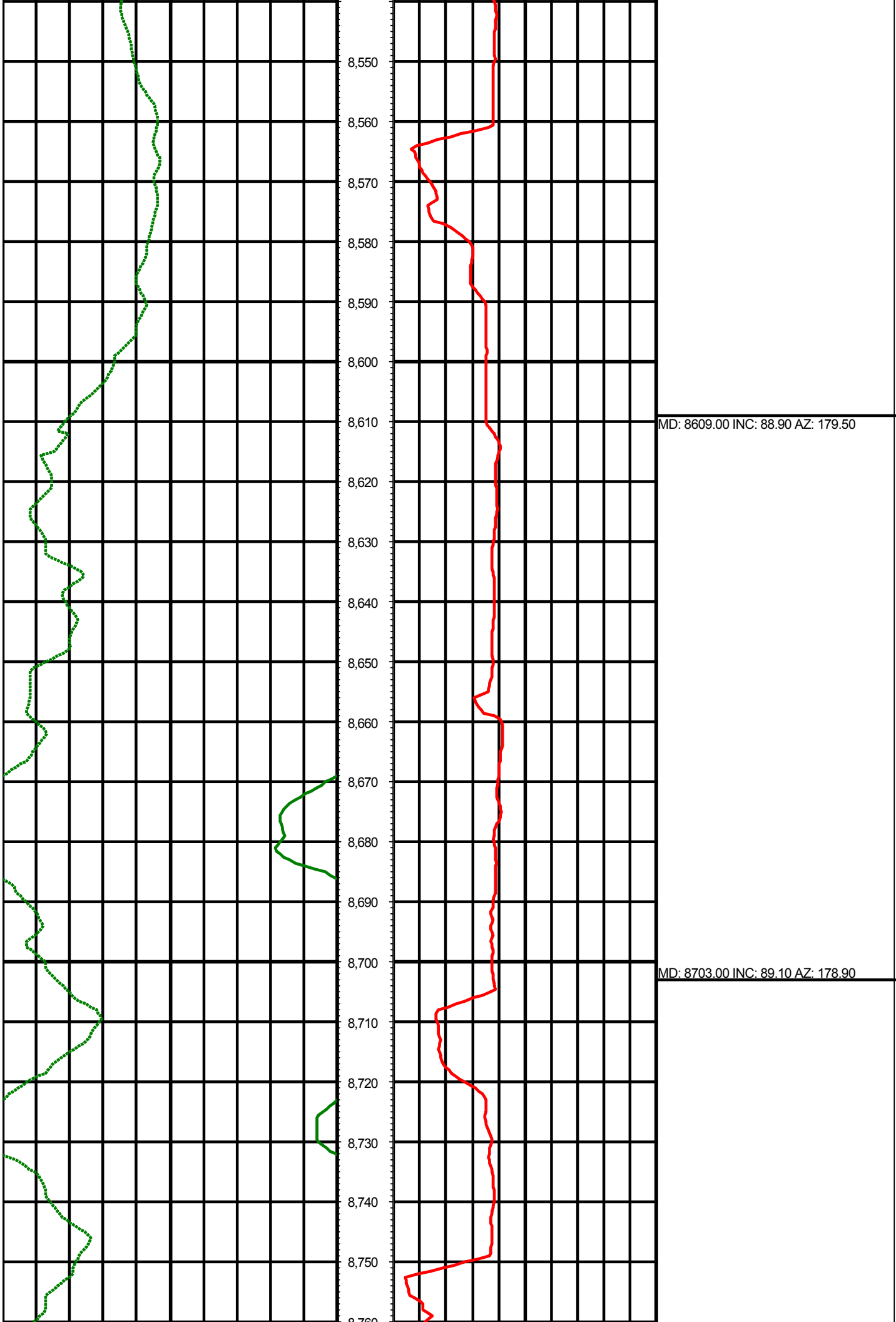
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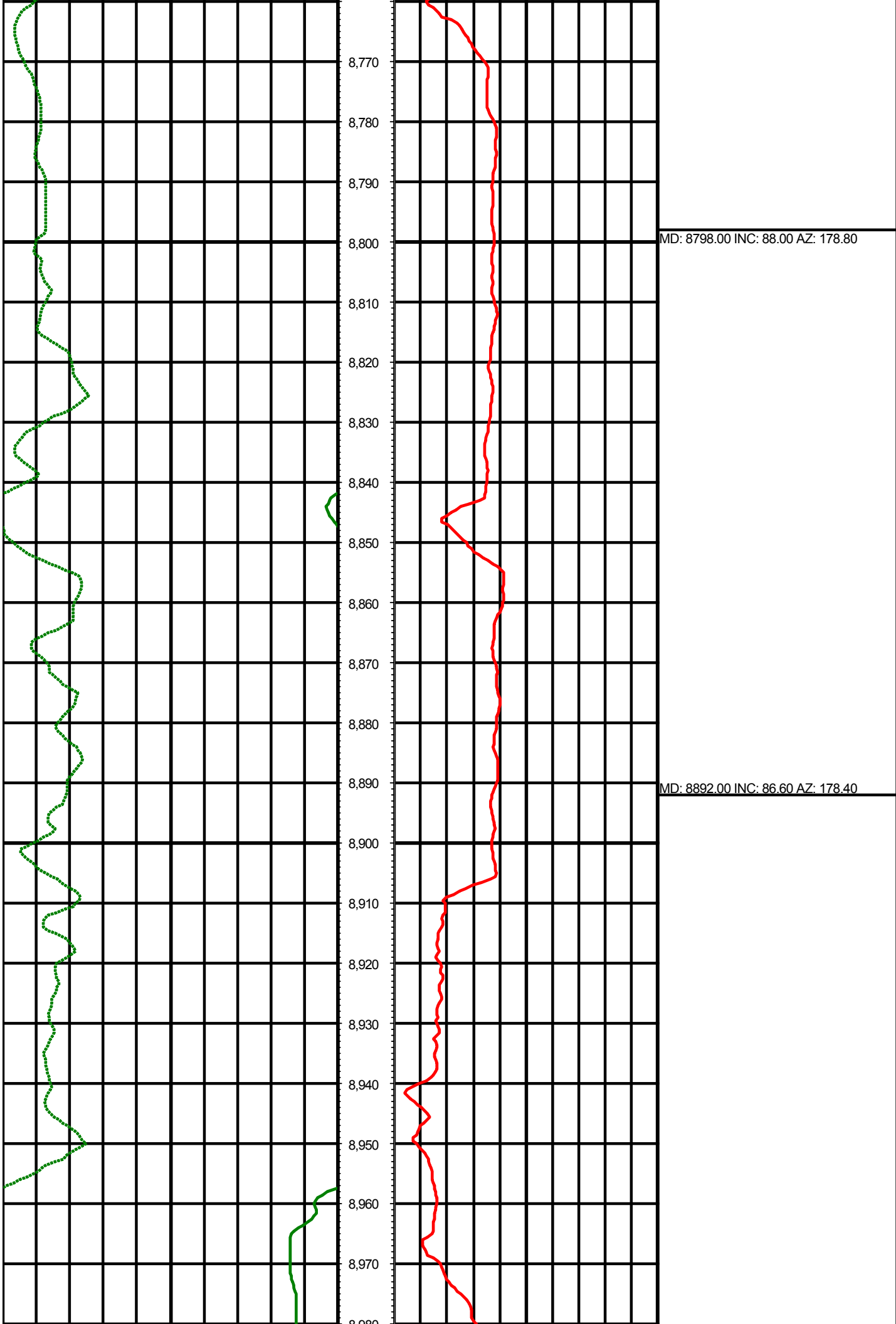


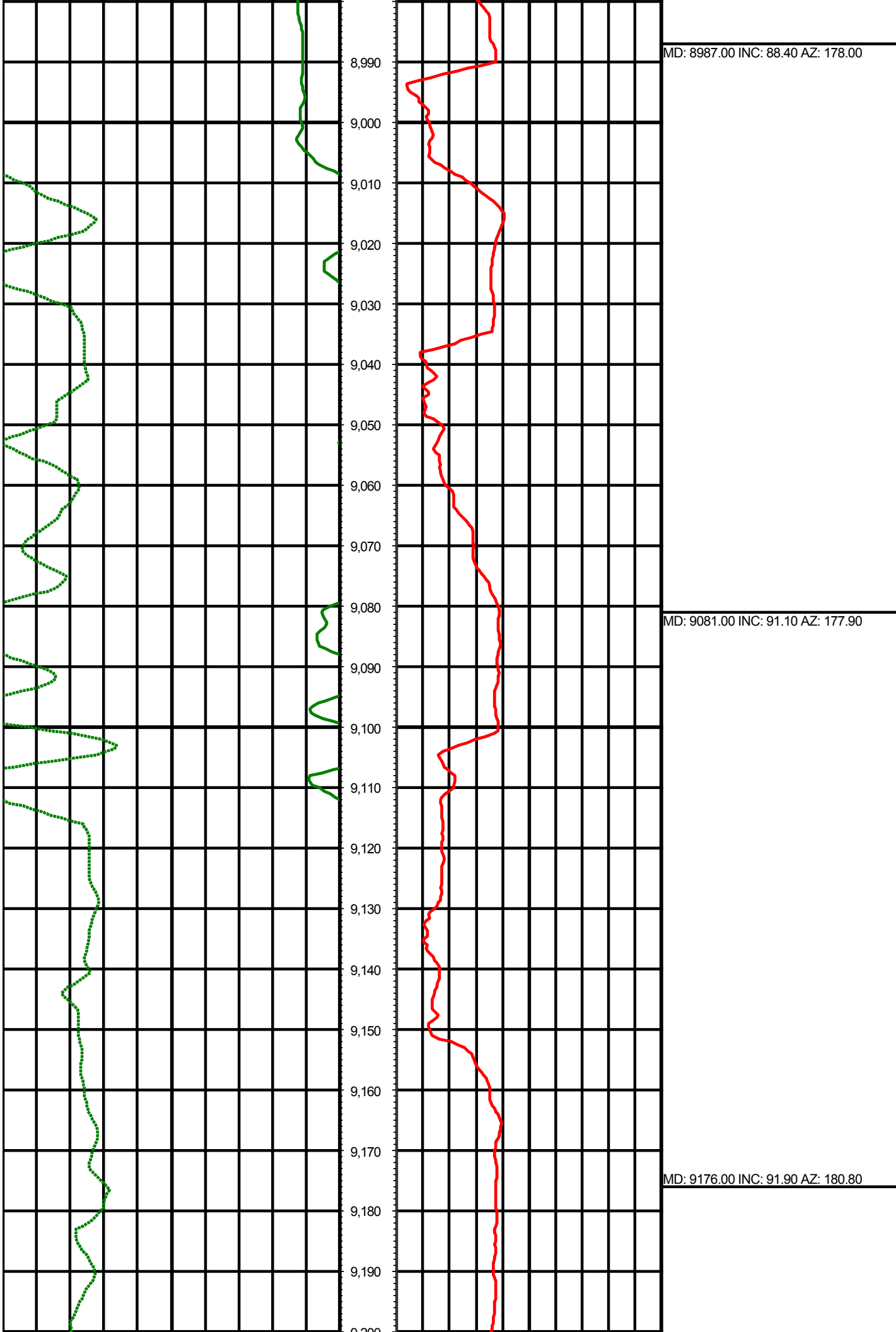
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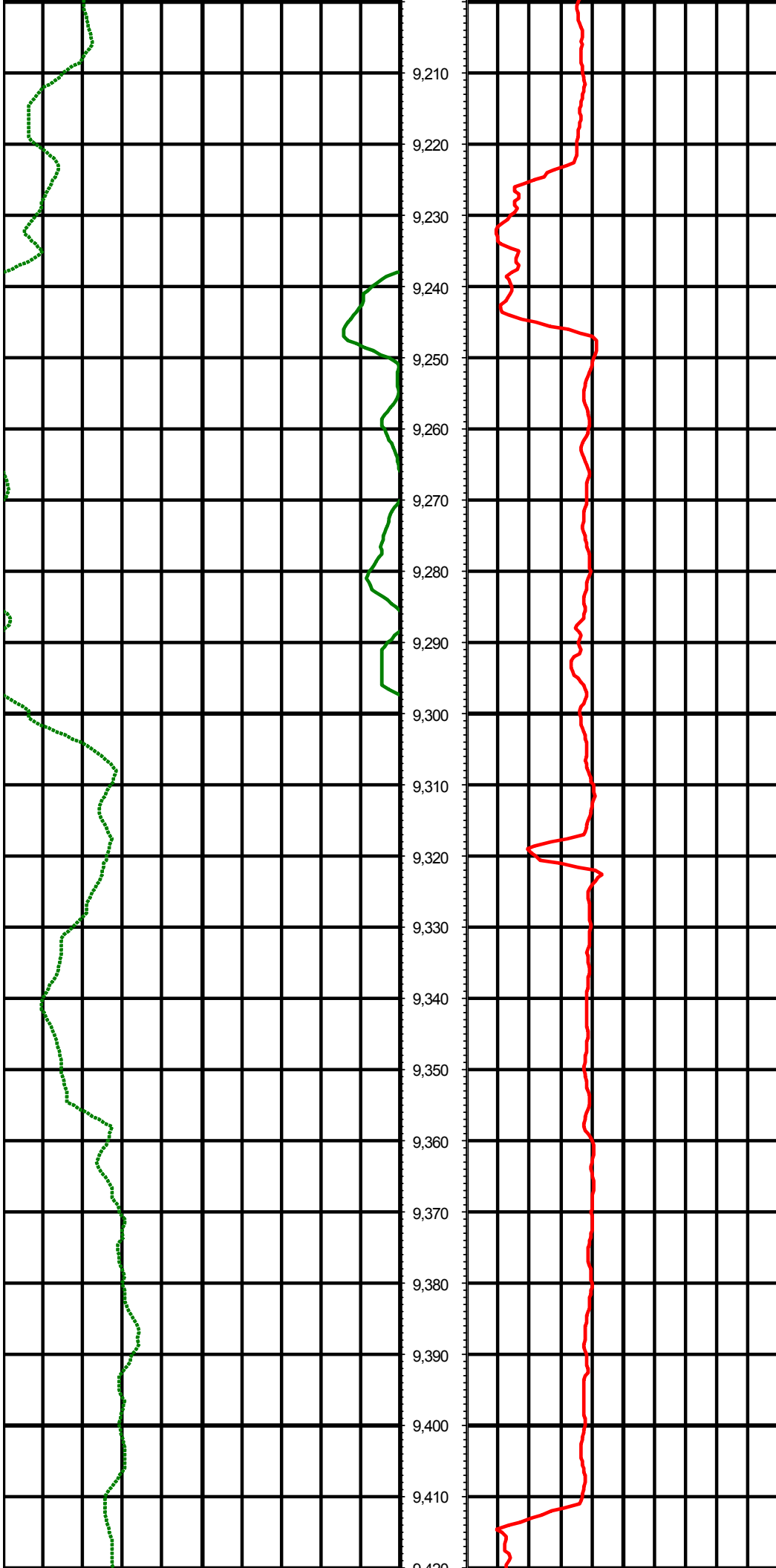
MD: 8231.00 INC: 90.30 AZ: 182.00





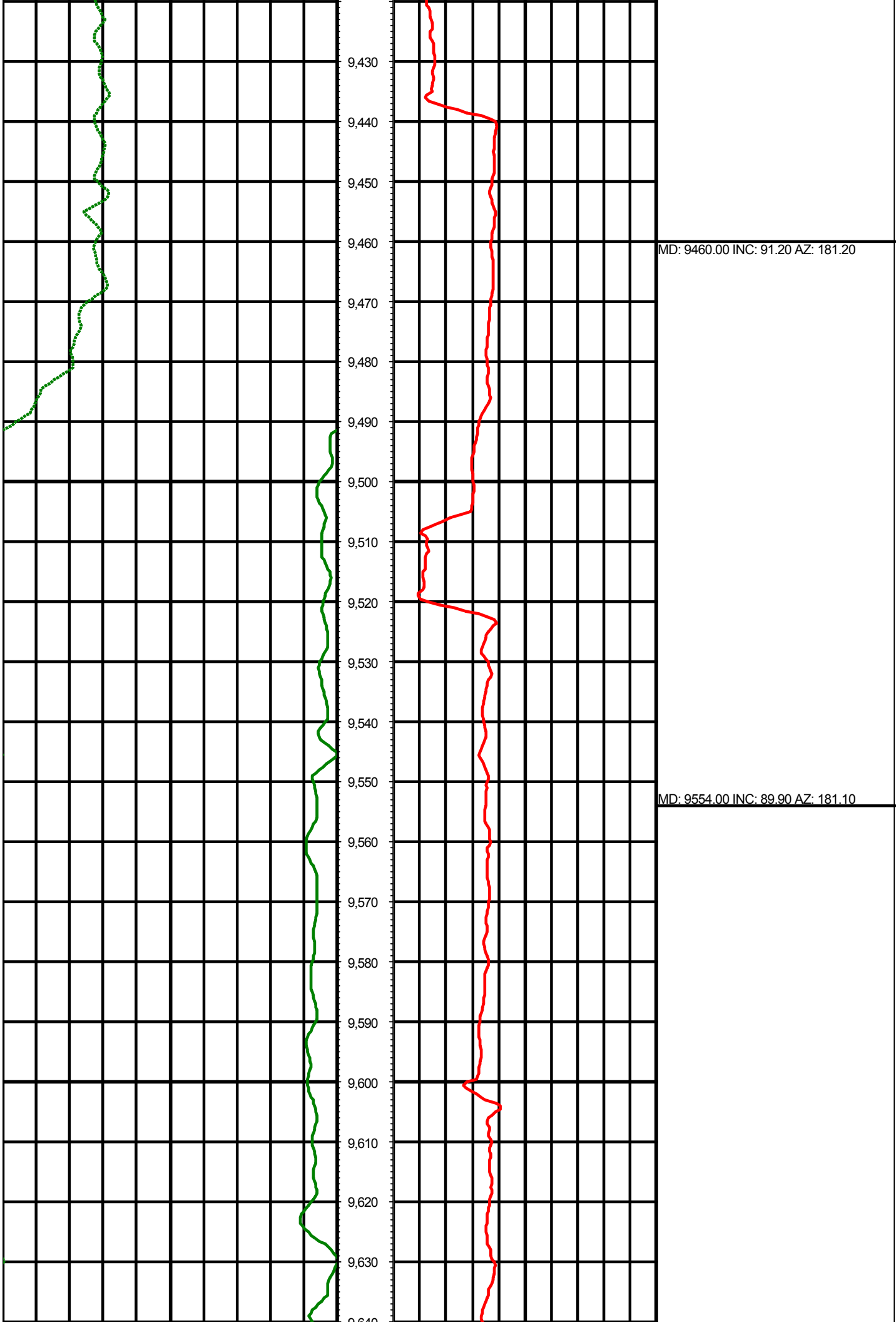


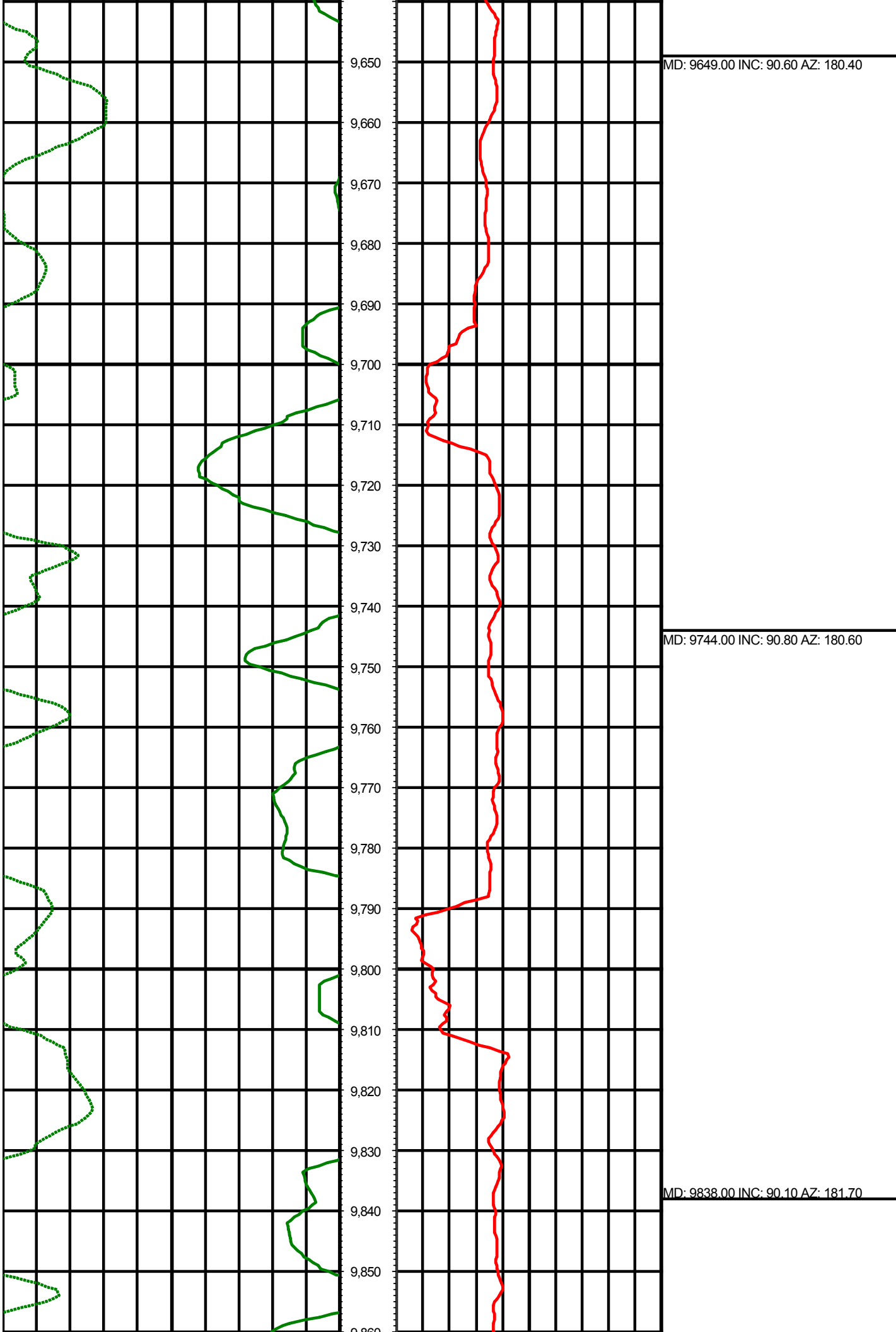




MD: 9271.00 INC: 90.50 AZ: 180.50

MD: 9365.00 INC: 89.50 AZ: 178.80

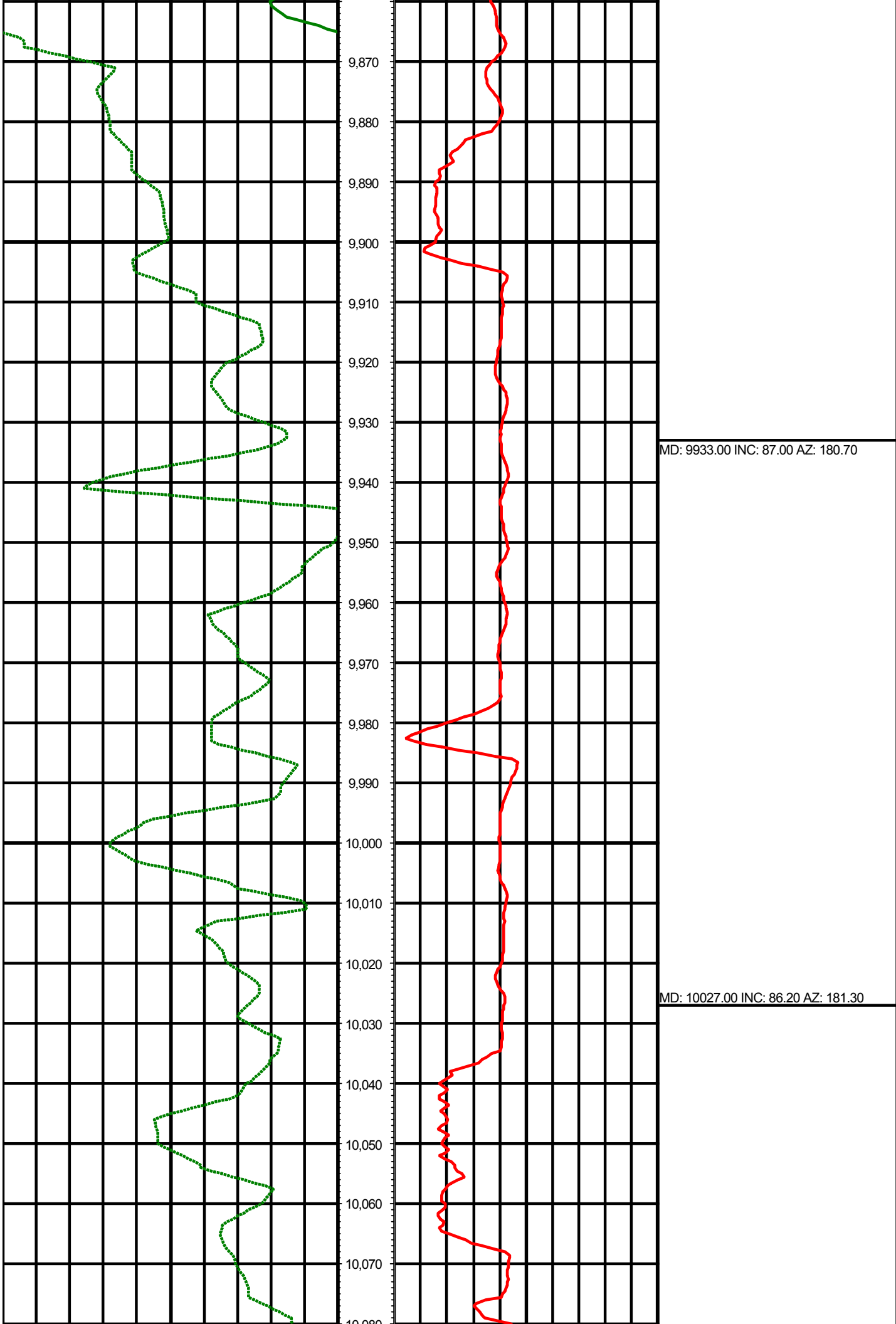


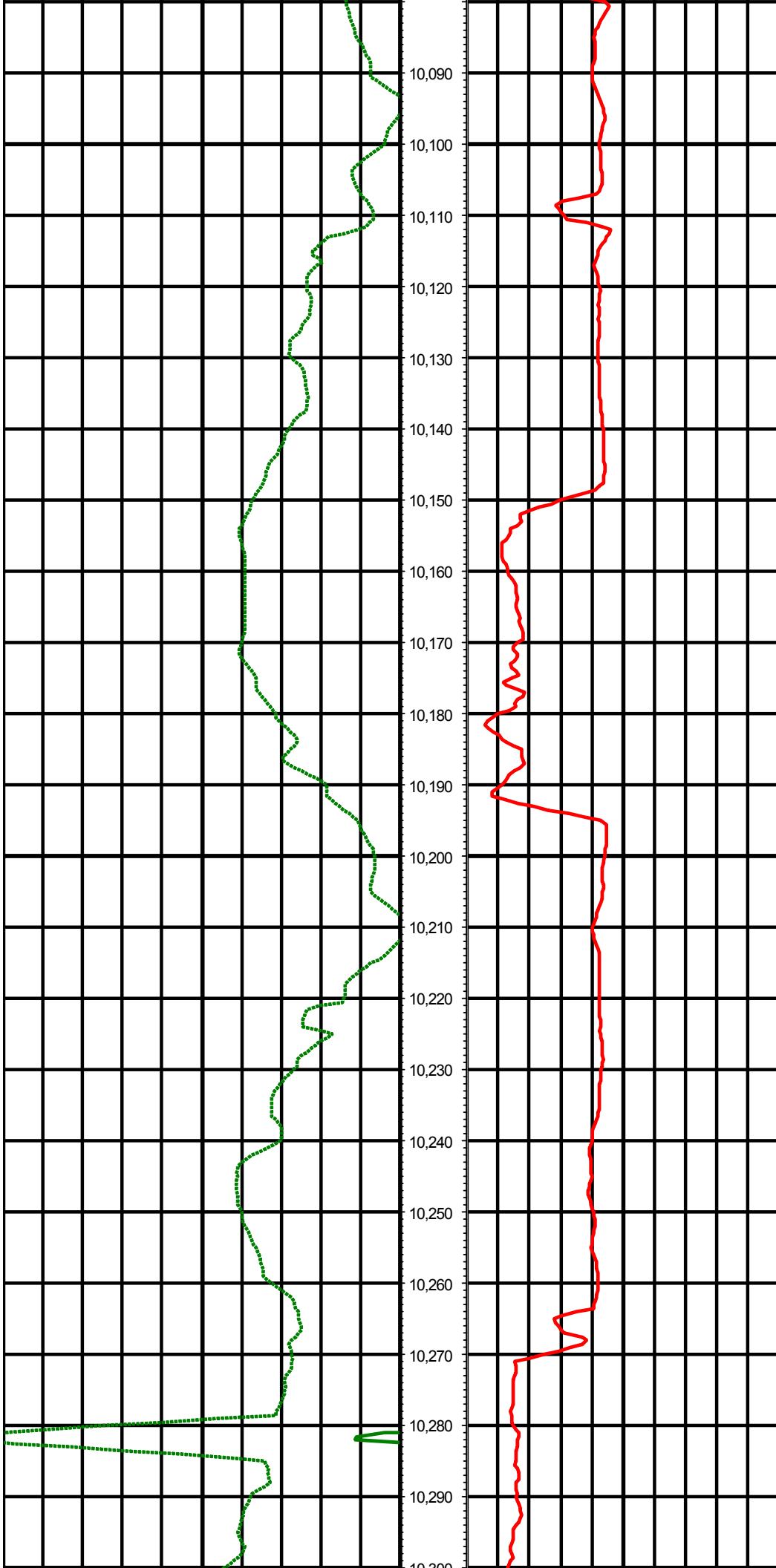


MD: 9649.00 INC: 90.60 AZ: 180.40

MD: 9744.00 INC: 90.80 AZ: 180.60

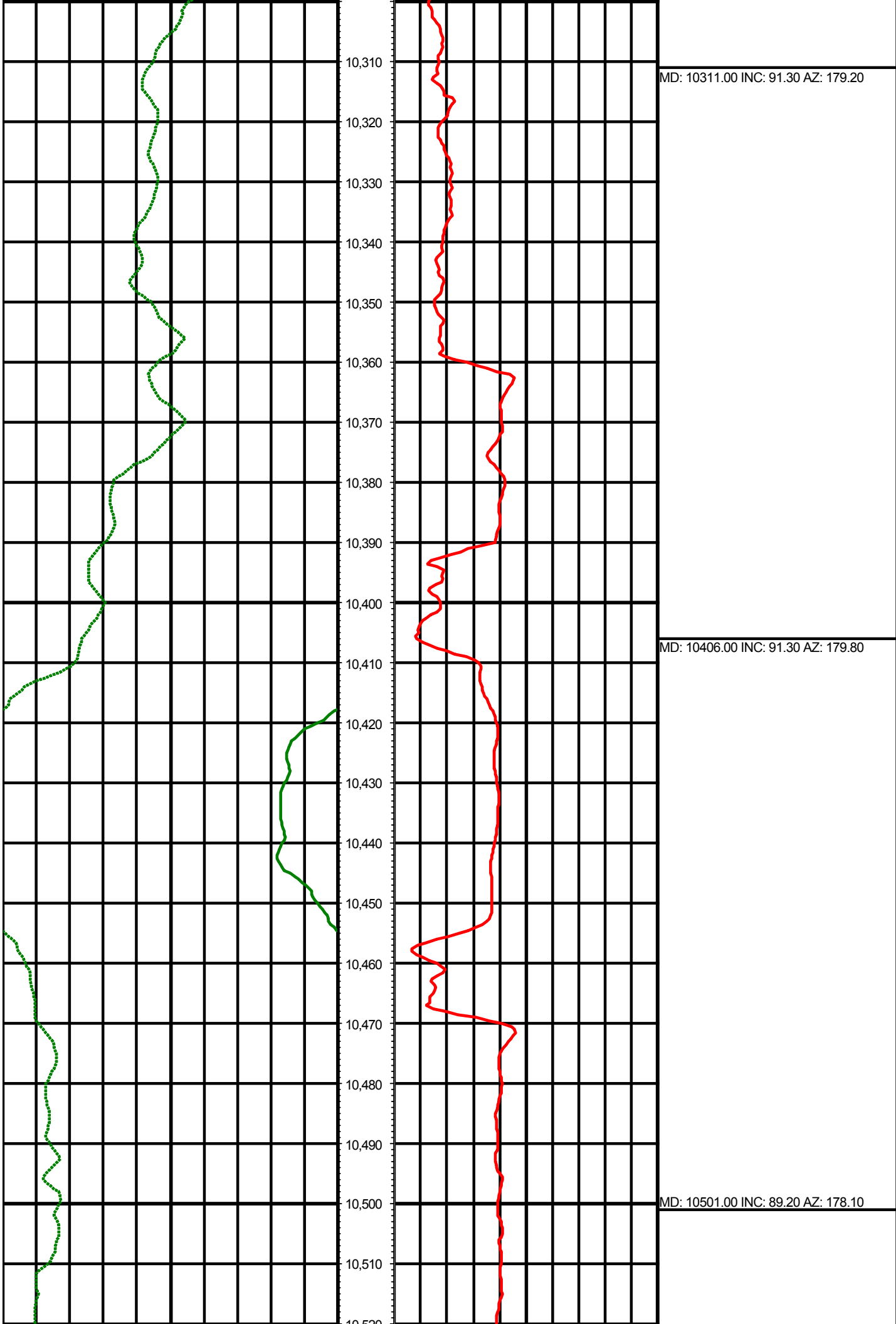
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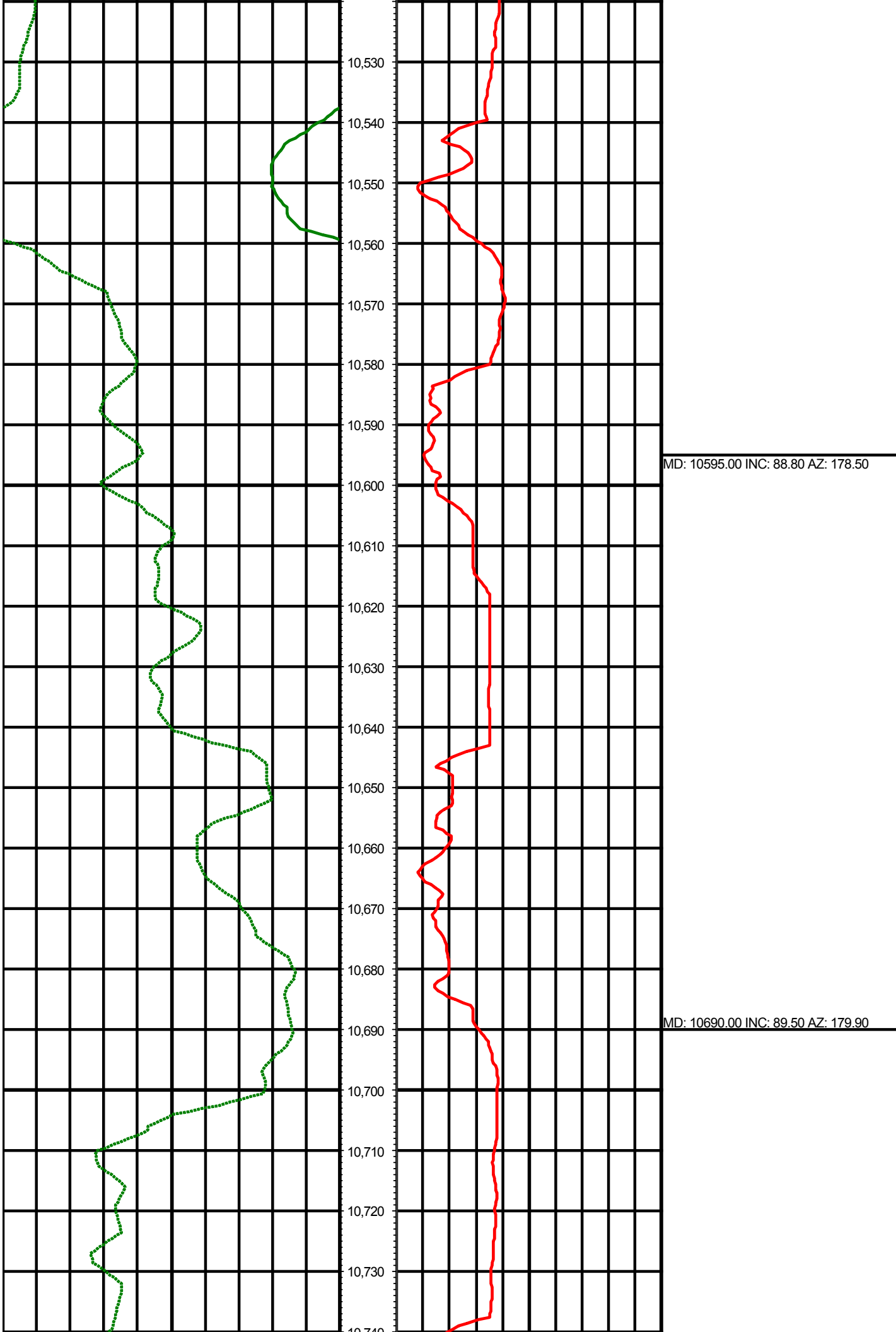


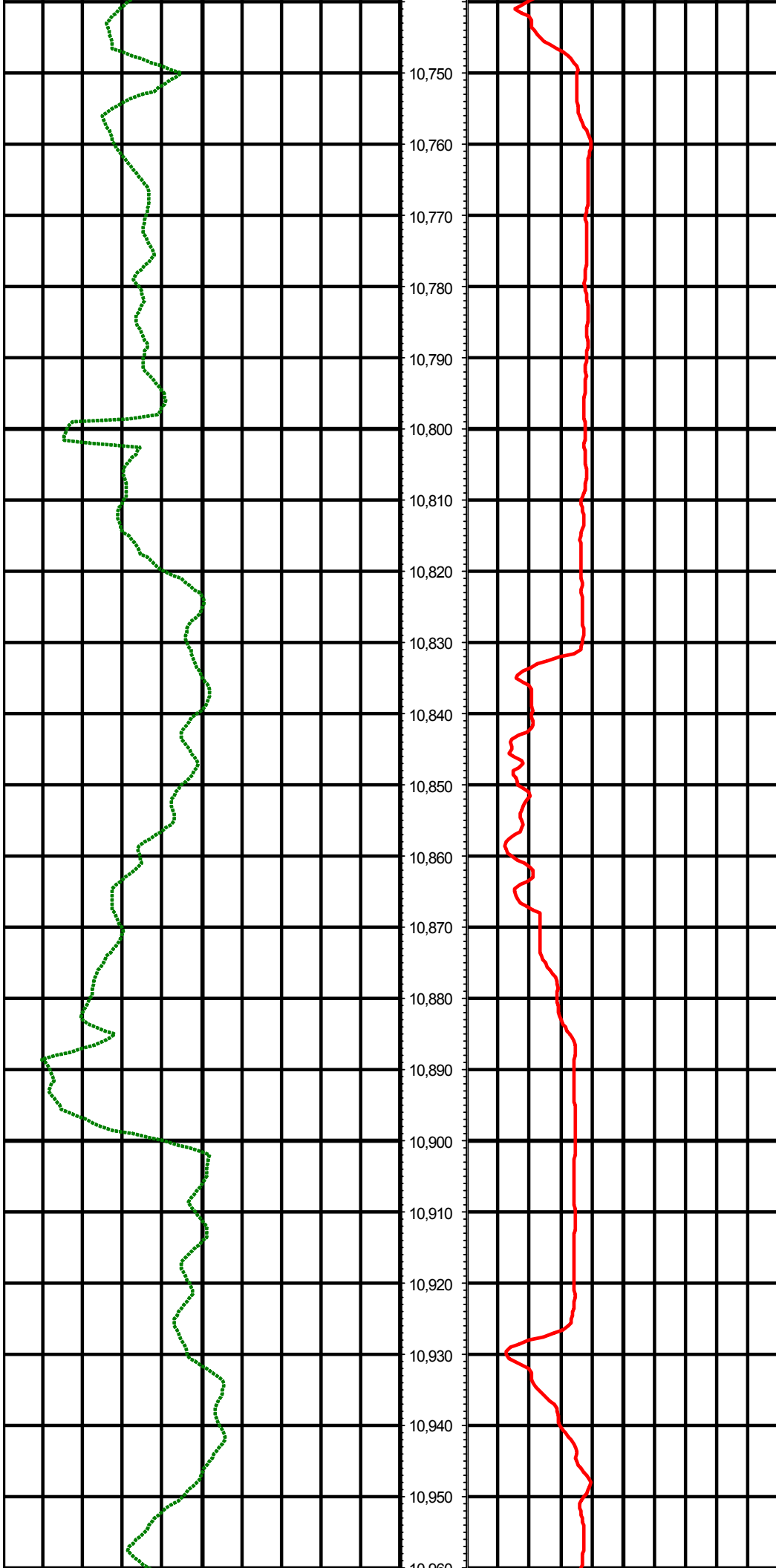


MD: 10122.00 INC: 89.30 AZ: 180.70

MD: 10217.00 INC: 91.80 AZ: 179.40







MD: 10785.00 INC: 89.30 AZ: 180.10

MD: 10879.00 INC: 91.10 AZ: 180.70

