



Cathedral Energy Services
1949 North Pyrite Road
Casper, Wyoming 82604

145054

5":100' - MD
3/1/2014 9:55:41 AM

Oper. Company: Encana
Country: USA
State / Province: Colorado
County / Parish: Weld
Started: 03/21/2014 12:00 AM

API/UWI: 05123365310000
Field: DJ Wattenburg
Well: Billings 2D-18H
Rig: Patterson 326
Ended: 03/01/2014 09:30 AM

Personnel

Day Hand: H Becker,
Night Hand: M Andrews
Comp. Emp:

Maximum Temperature: 235

Location

Latitude: 40.229310
Longitude: -105.054130
Elev. GL: 5197
Elev. DF: 5229
Elev. KB: 5229

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

Hole Data

Size	From	To
8.75	790	7011
8.75	7011	7600
6.125	7600	14290

Casing Data

Size	From	To
9.875	90	790
7	790	7011
6	7011	14290

Bit Sizes

Size	From	To
8.75	790	7011
8.75	7011	7600
6.125	7600	14290

Mud Data

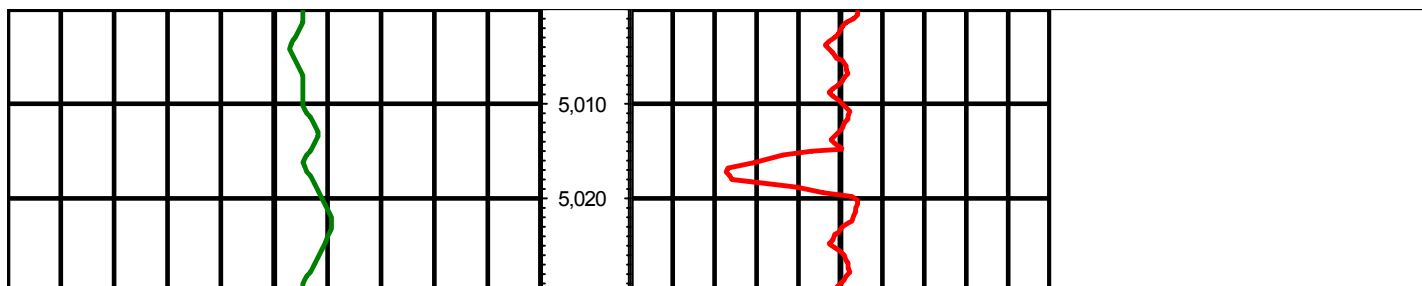
Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
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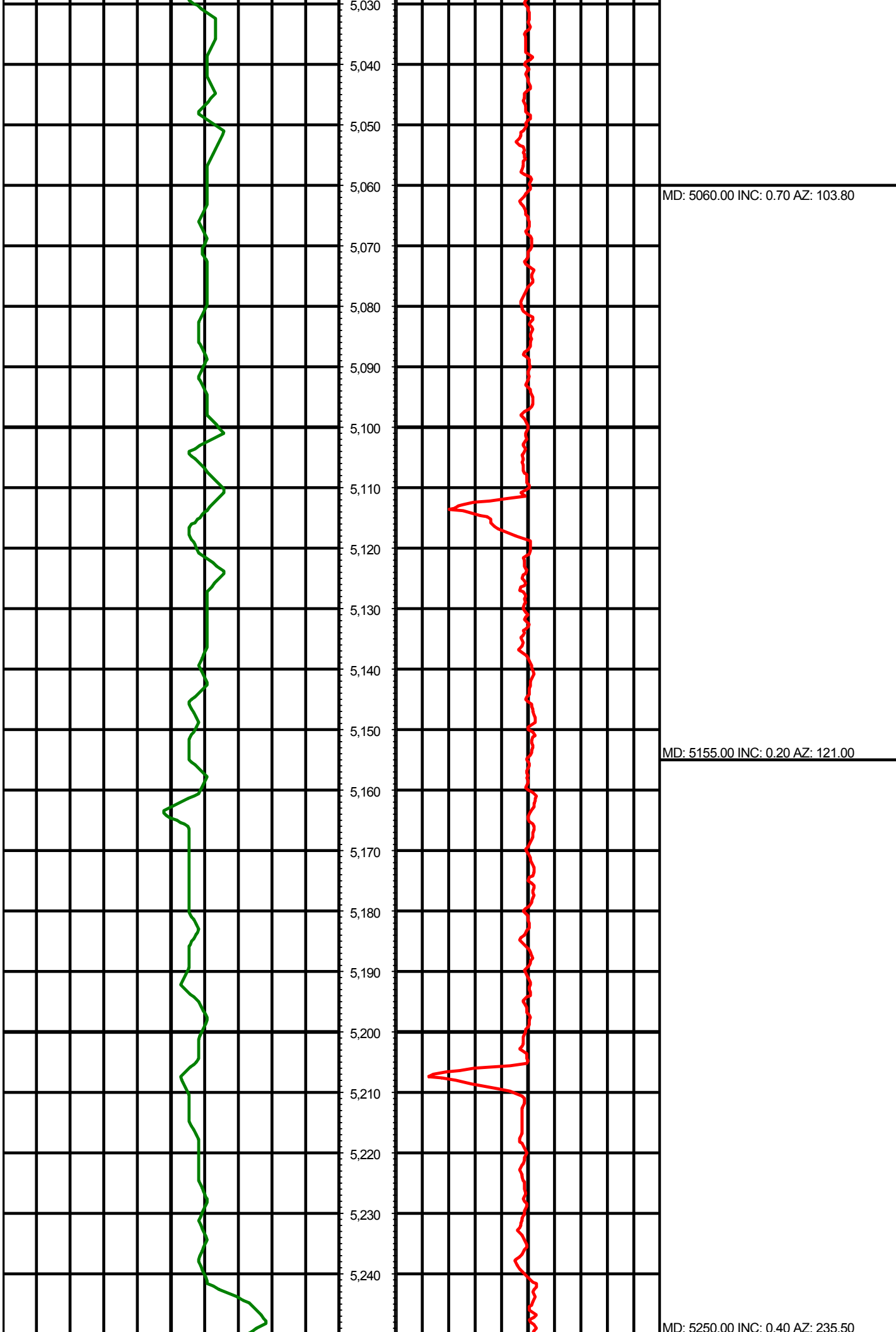
Tool Run Data

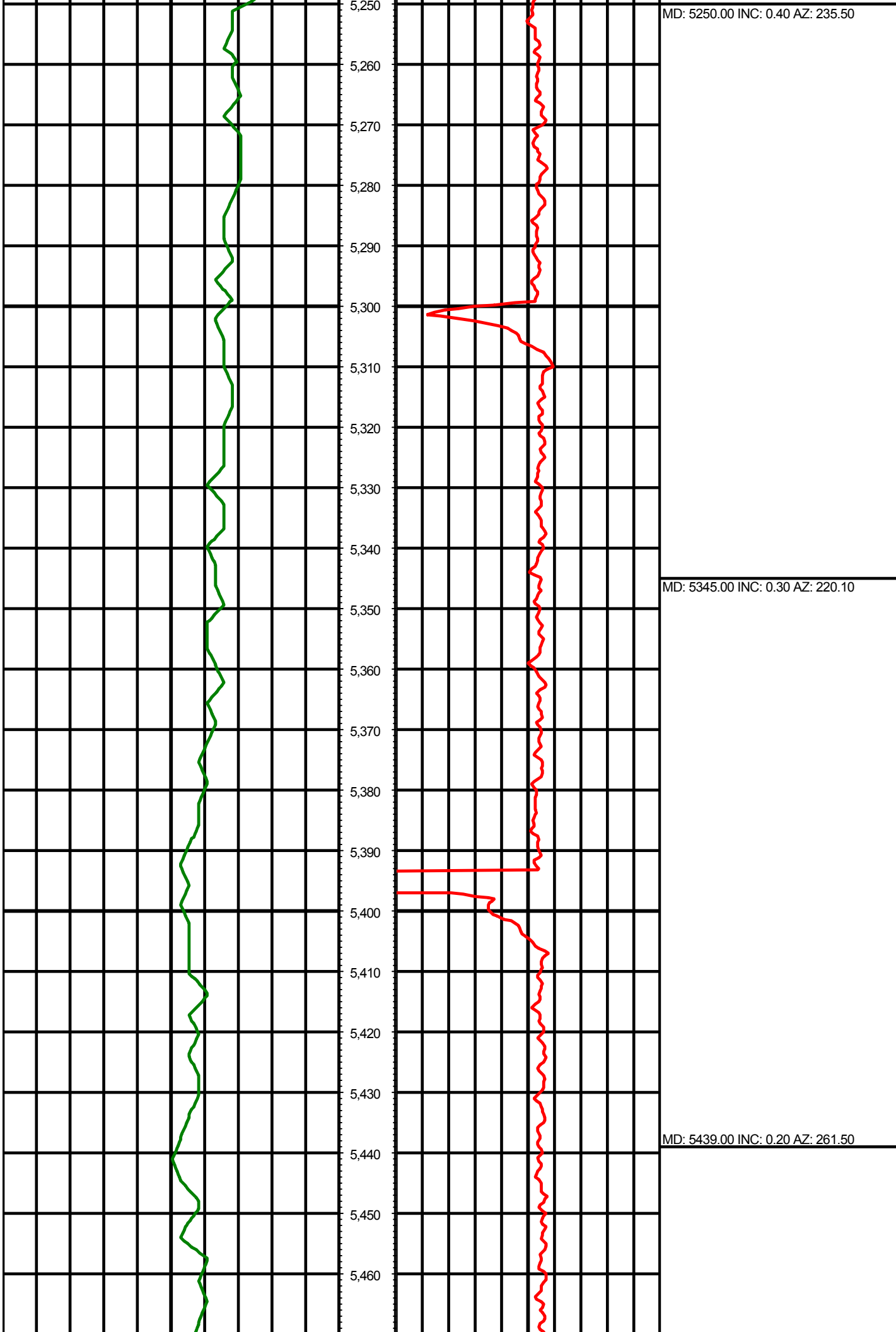
Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
1	41.03	0	3/1/2014 9:42:30 AM	790	3/1/2014 9:42:30 AM	7011
2	41.19	0	3/1/2014 9:44:12 AM	7011	3/1/2014 9:44:12 AM	7600
3	34.84	0	3/1/2014 9:44:36 AM	7600	3/1/2014 9:44:36 AM	14290

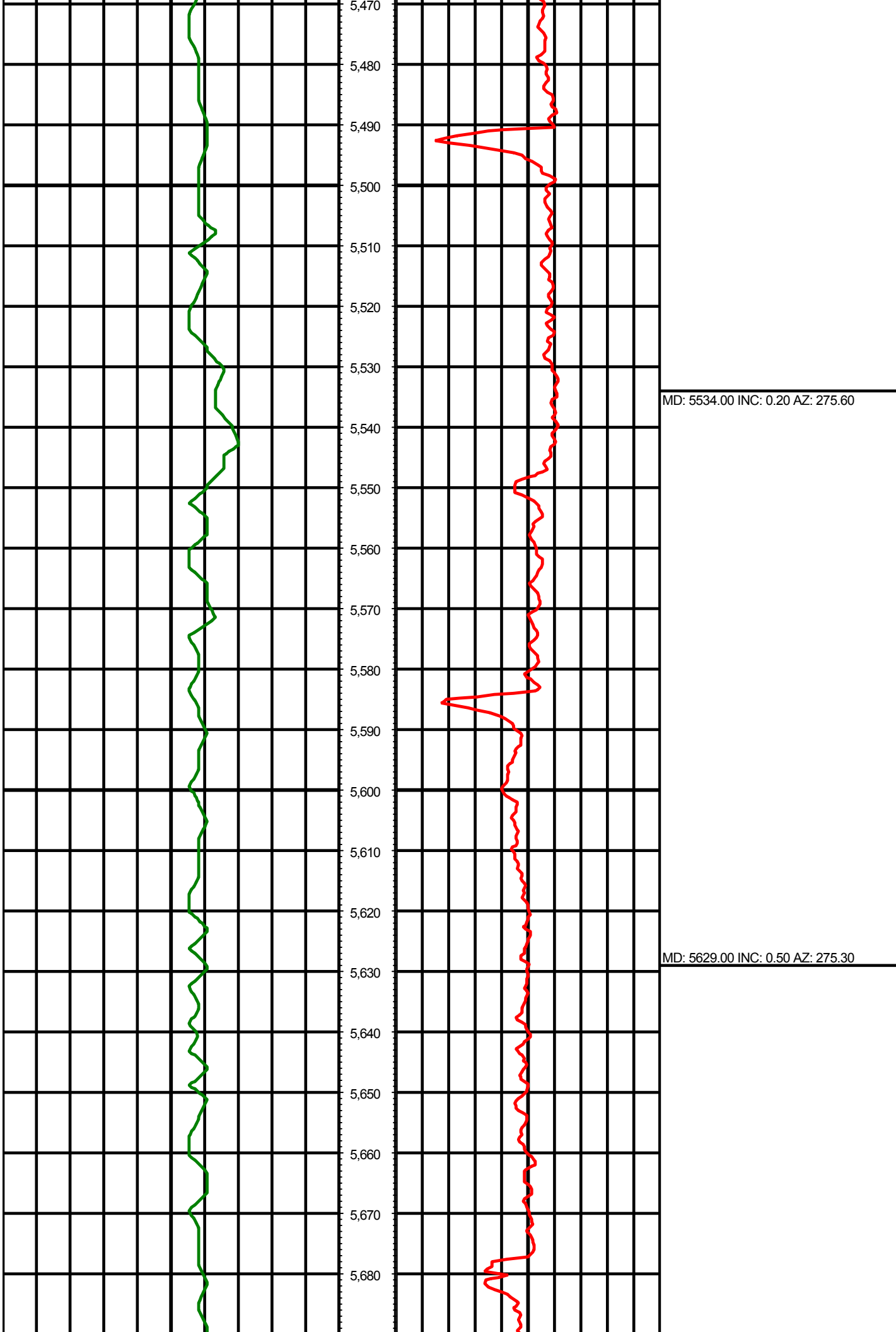
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost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

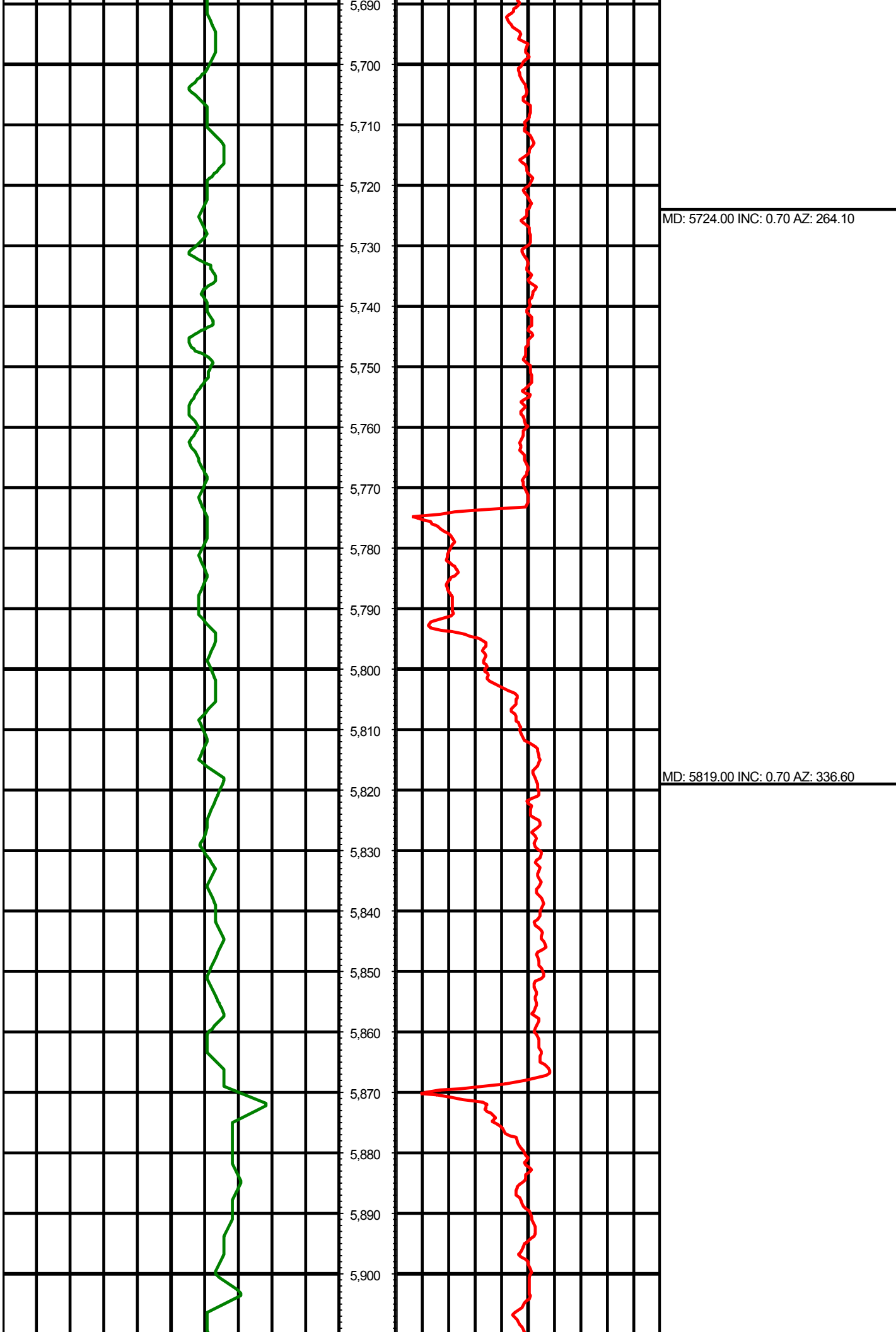
0.00 Gamma Ray (API) 150.00 MD 0.00 ROP (FT/HR) 600.00 Surveys (MD/INC/AZ)
150.00 2 300.00 FT

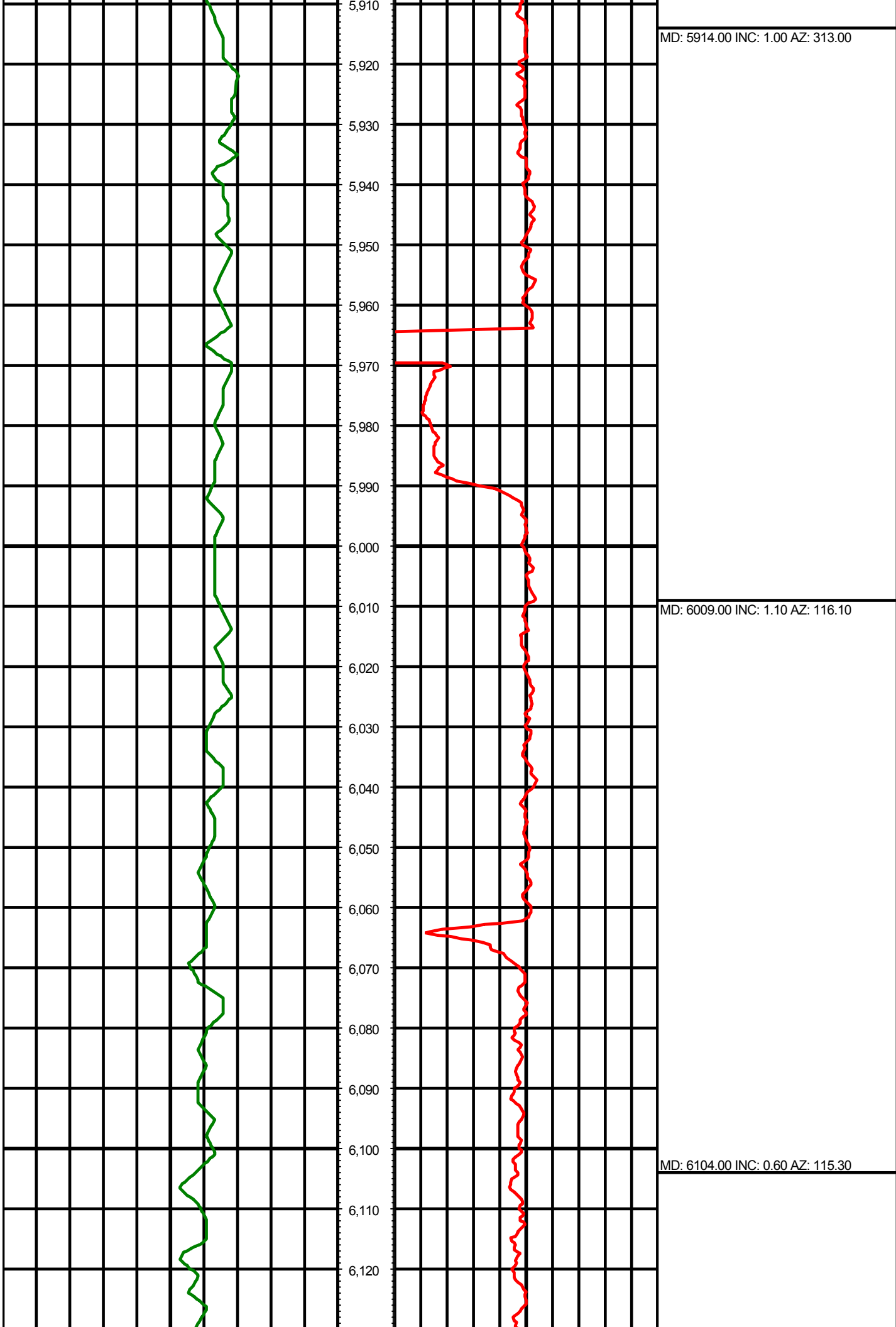


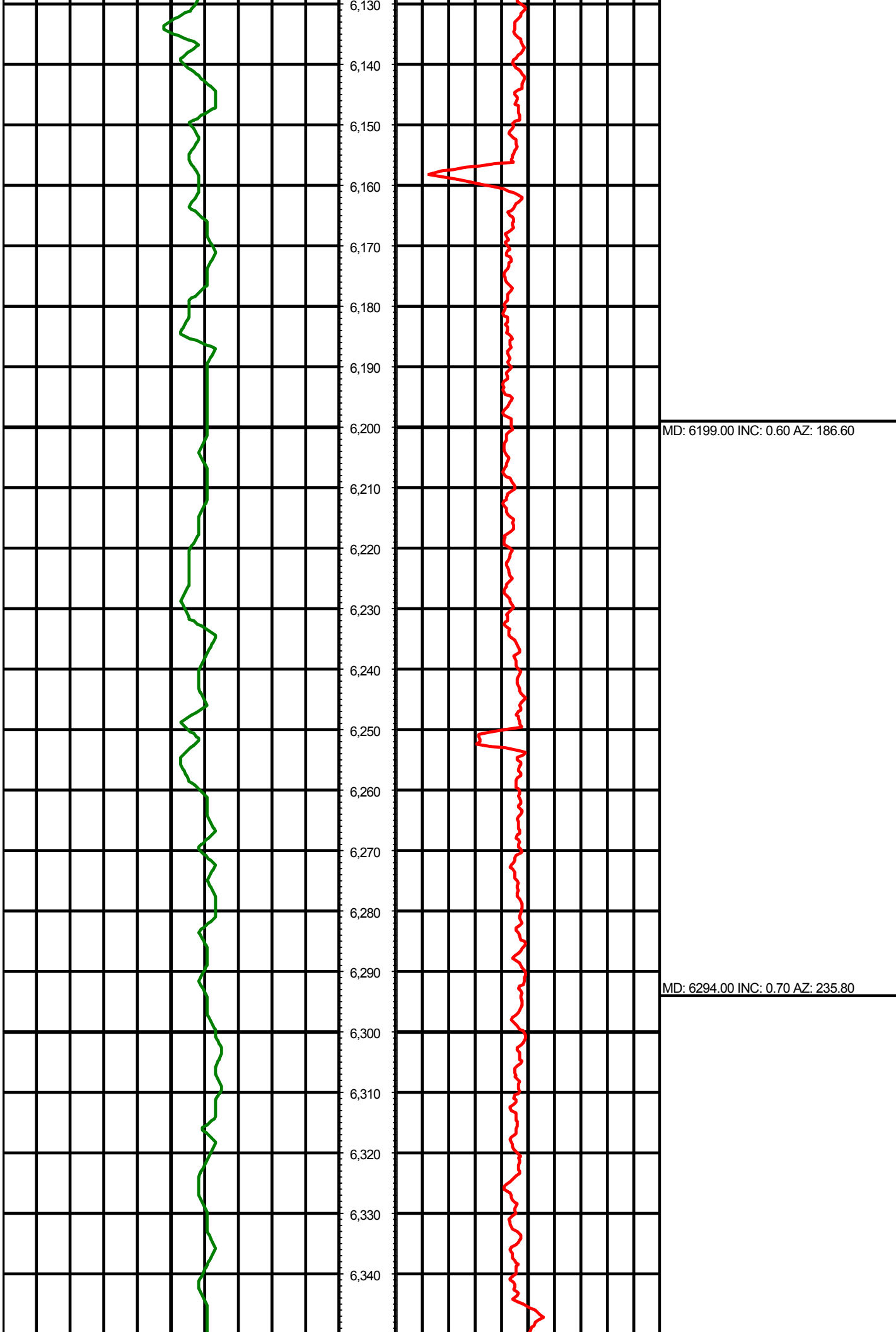








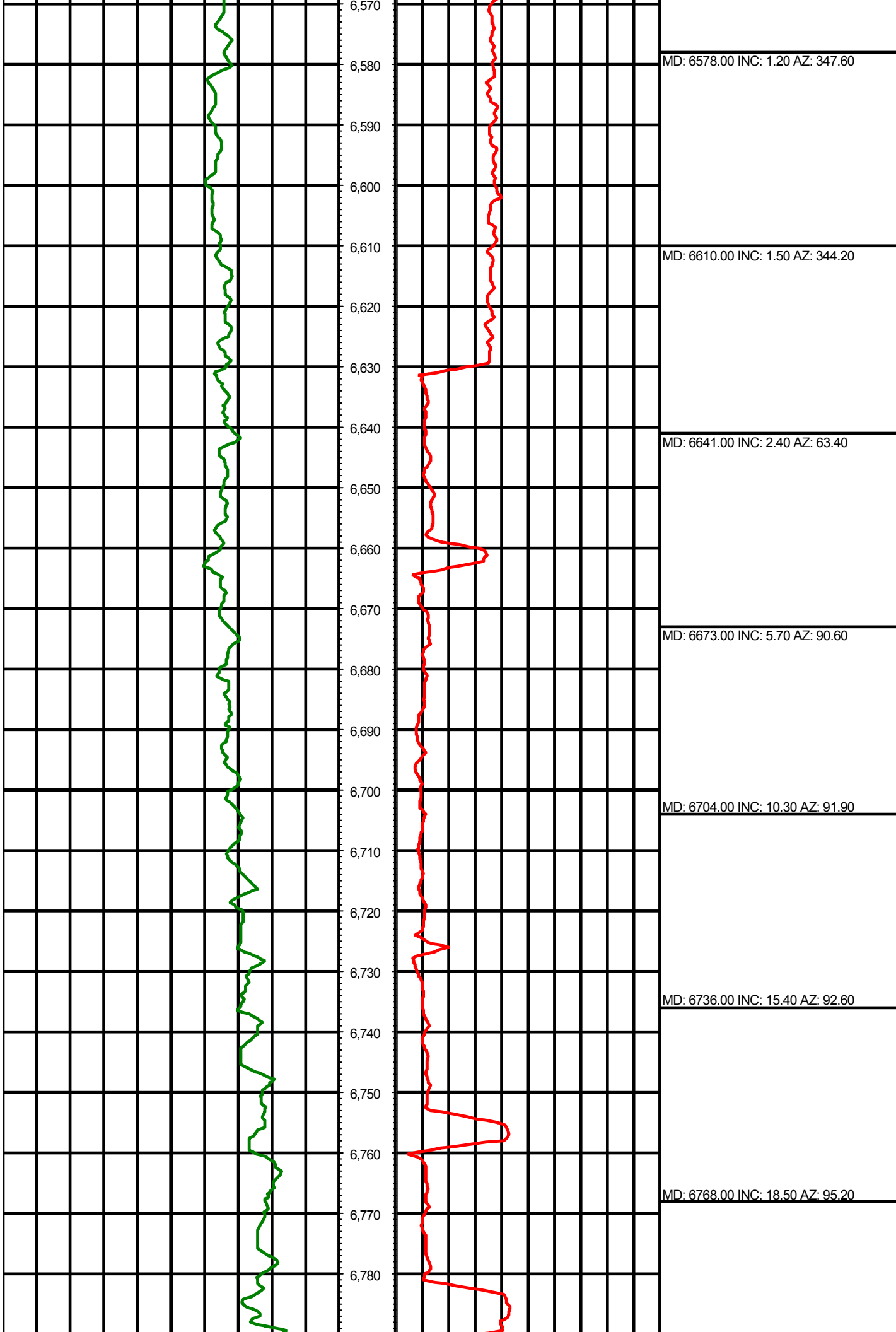


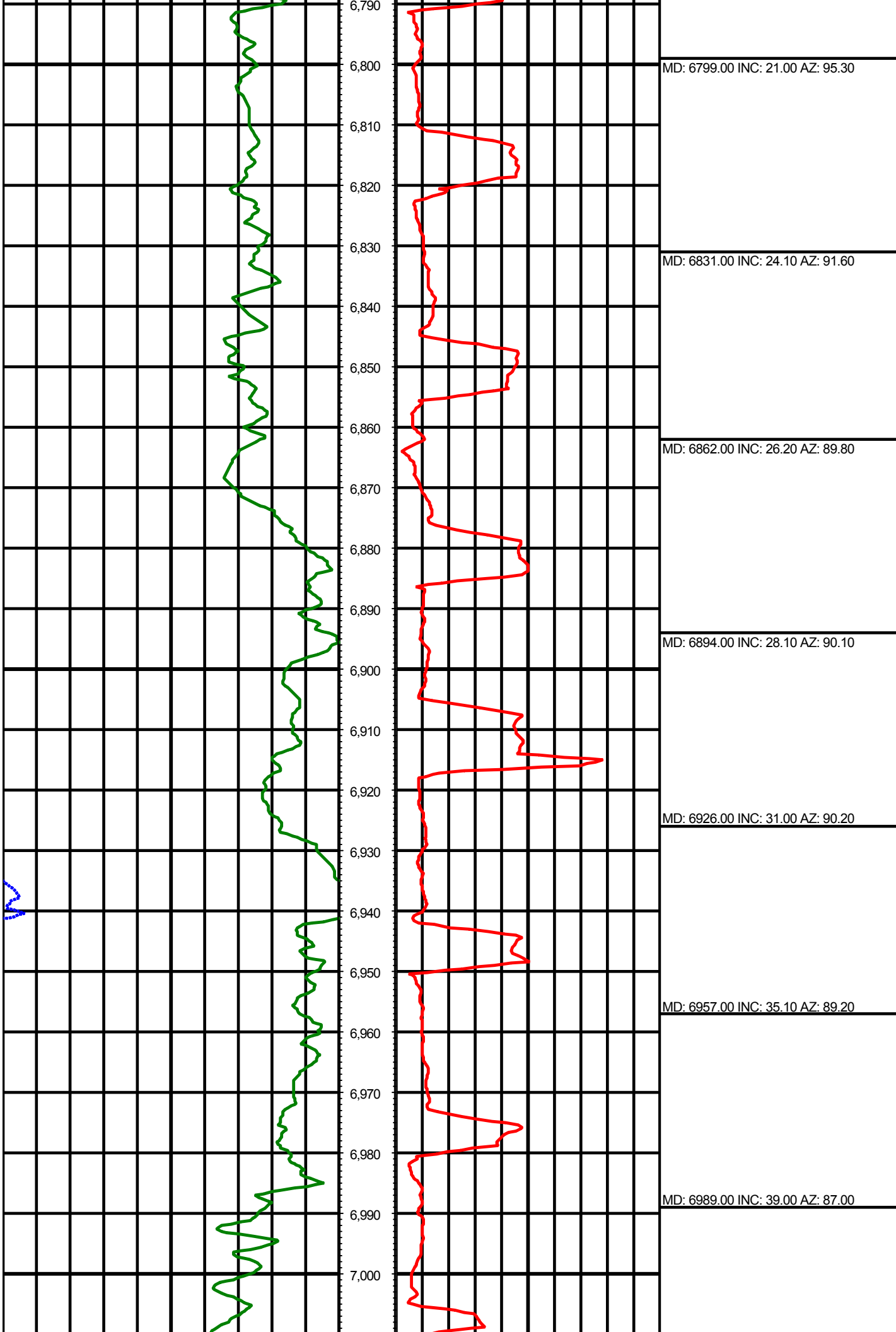


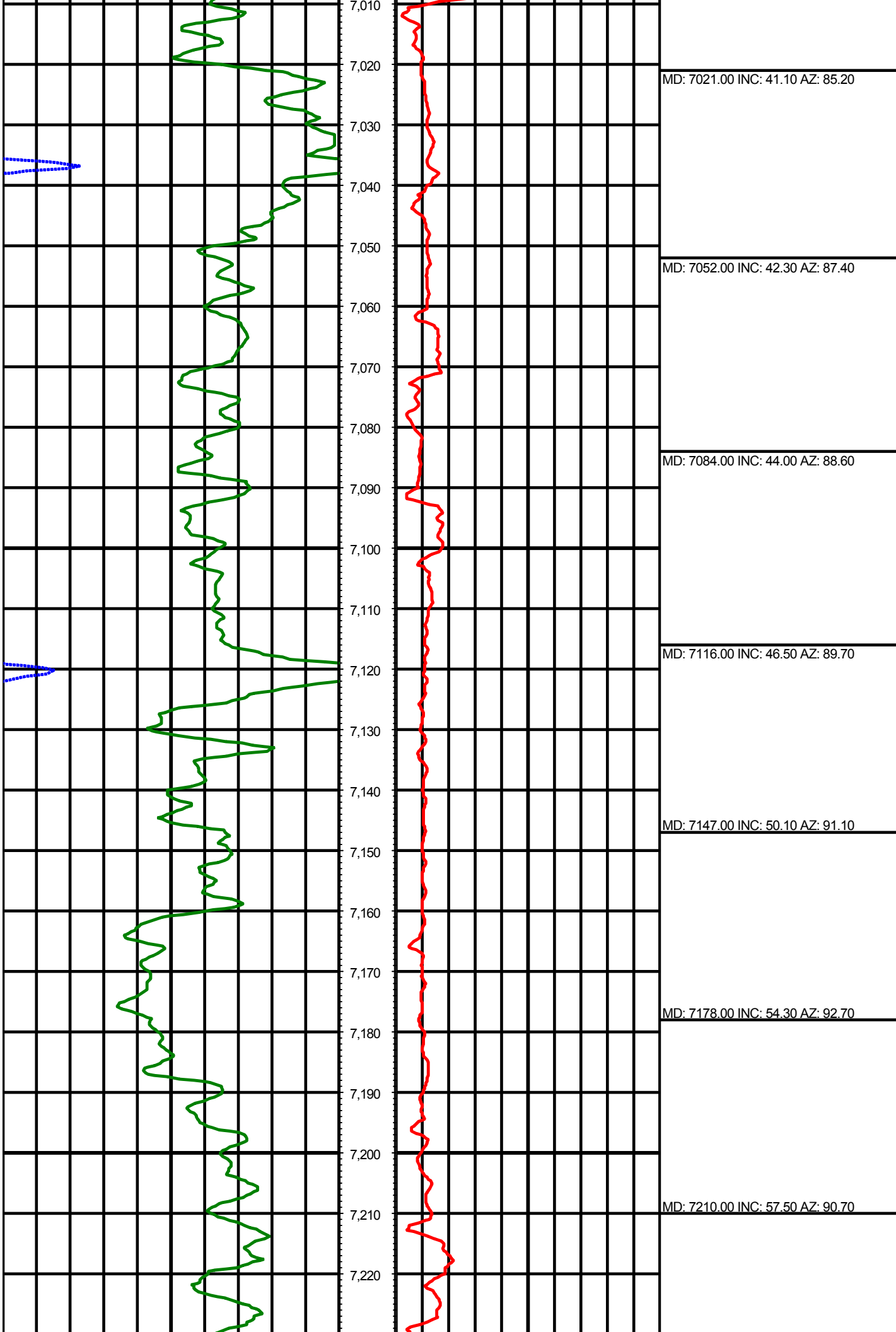


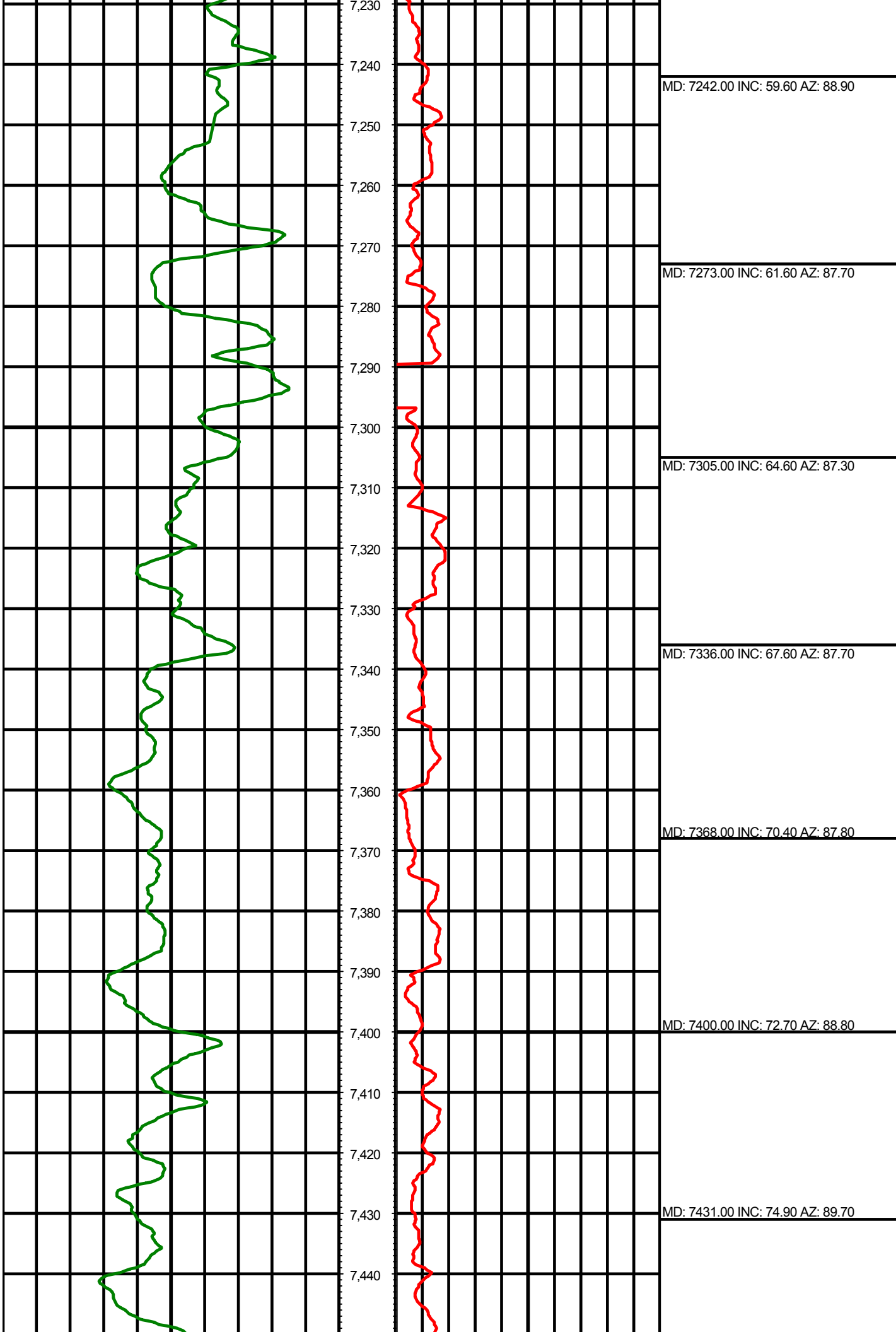
MD: 6388.00 INC: 0.90 AZ: 258.80

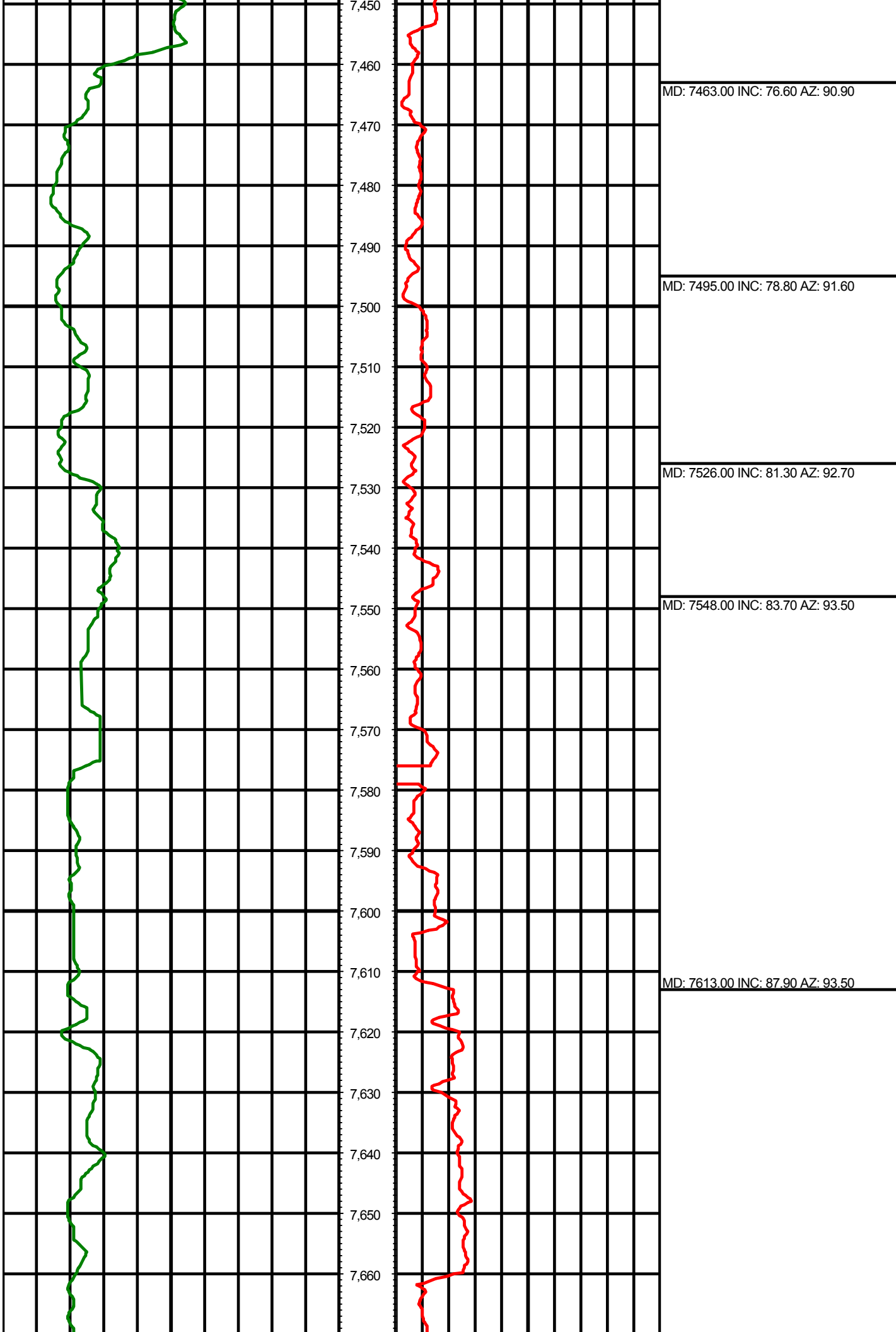
MD: 6483.00 INC: 0.90 AZ: 52.20

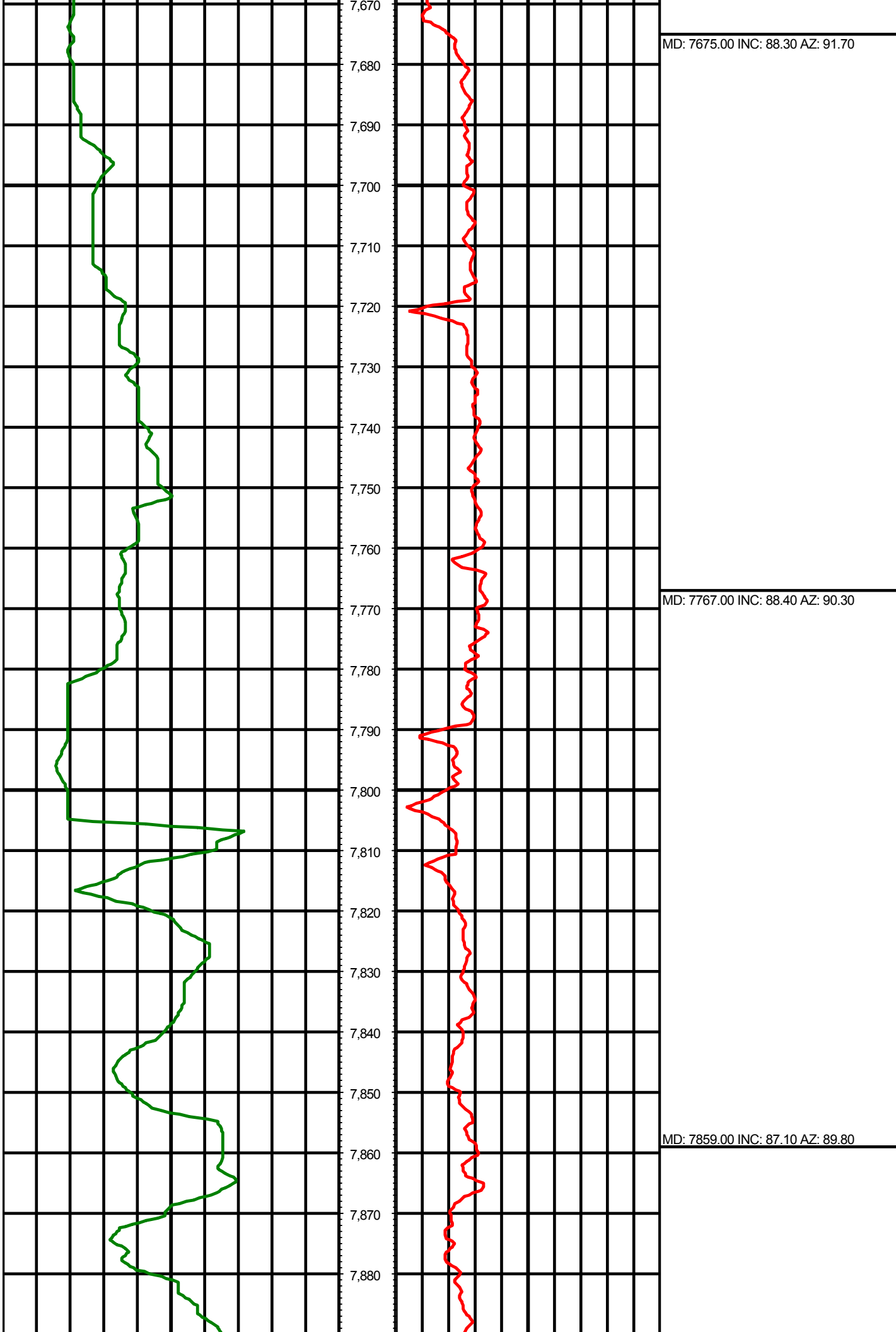








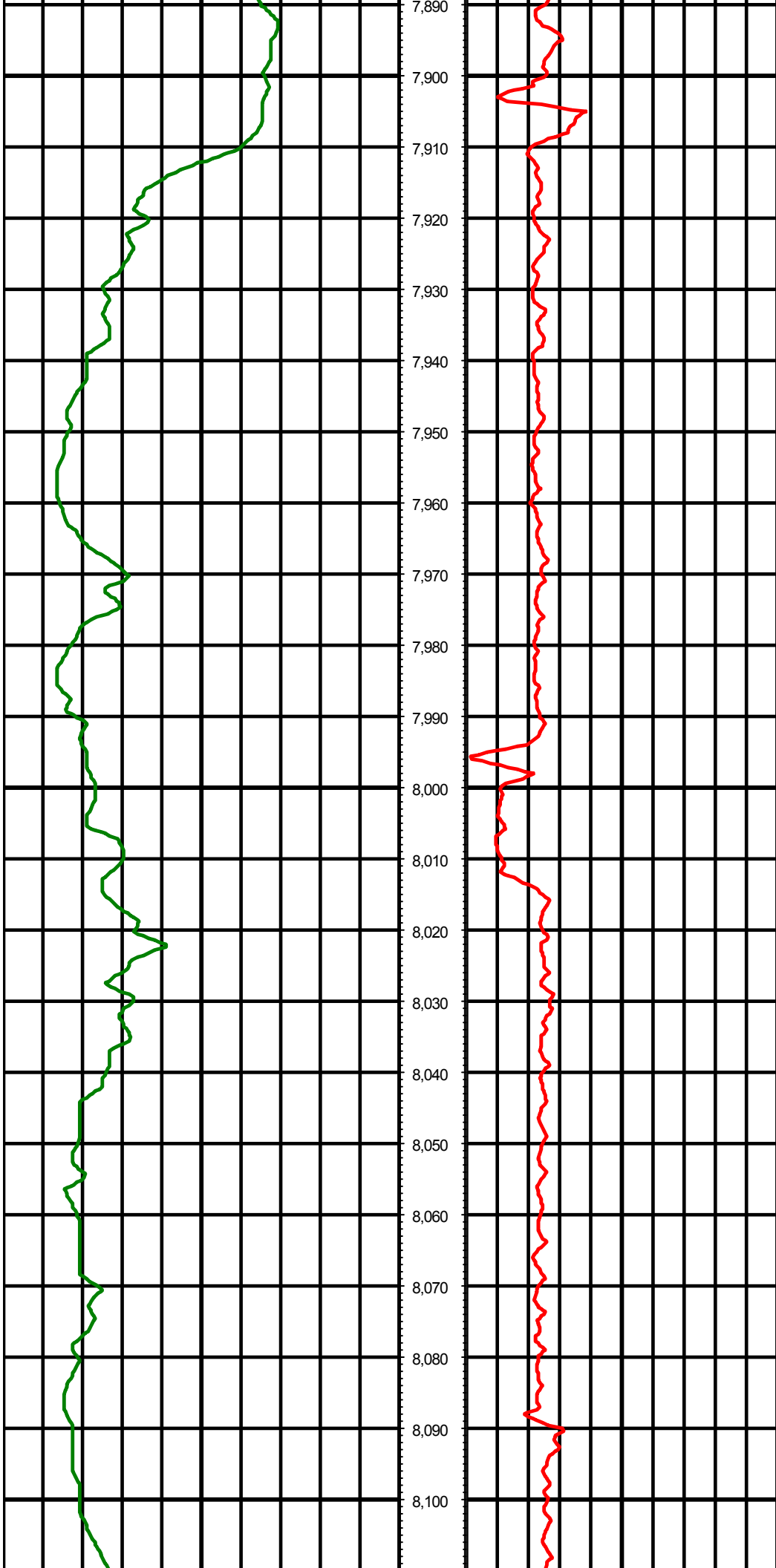




MD: 7675.00 INC: 88.30 AZ: 91.70

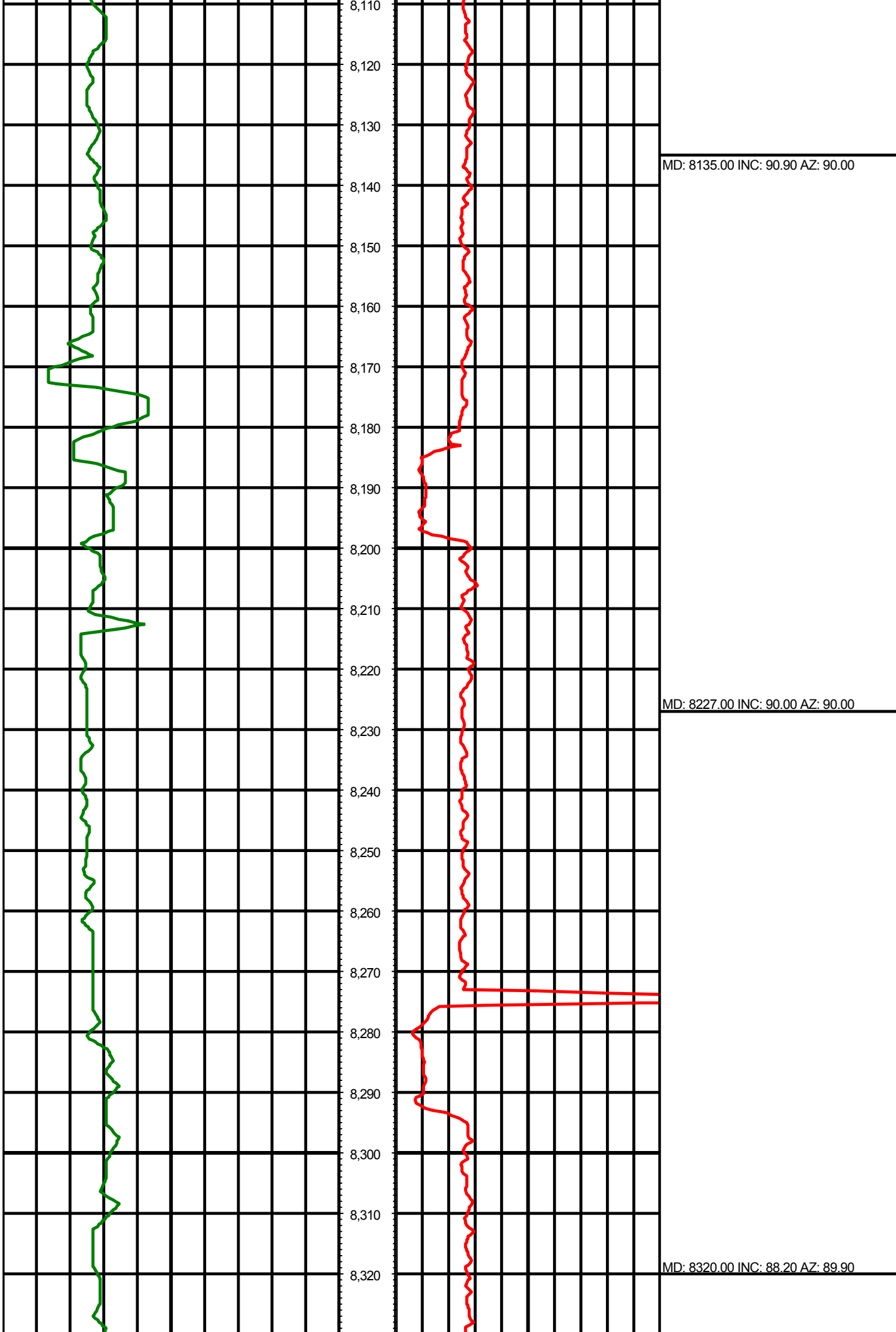
MD: 7767.00 INC: 88.40 AZ: 90.30

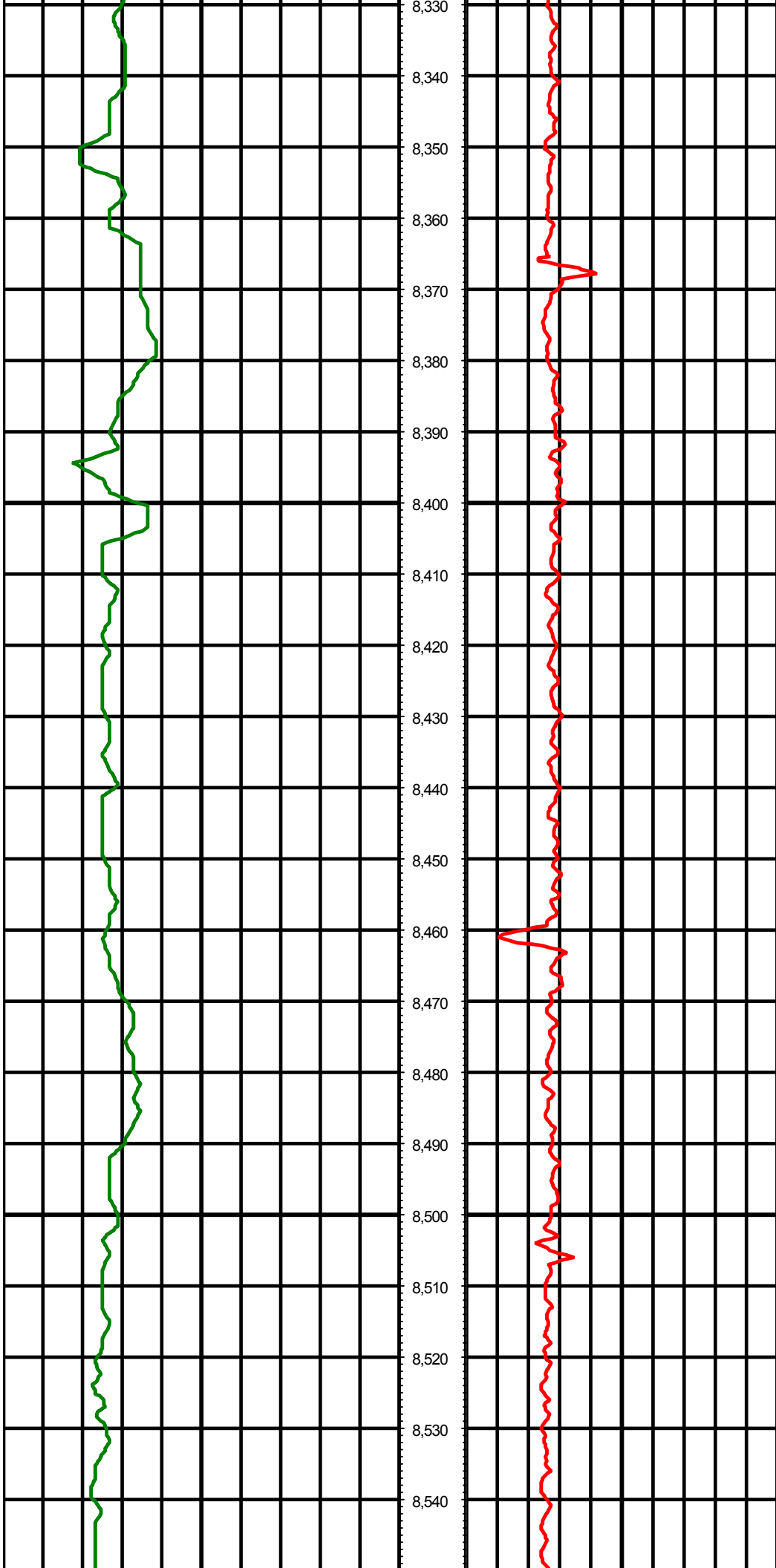
MD: 7859.00 INC: 87.10 AZ: 89.80



MD: 7952.00 INC: 86.80 AZ: 89.70

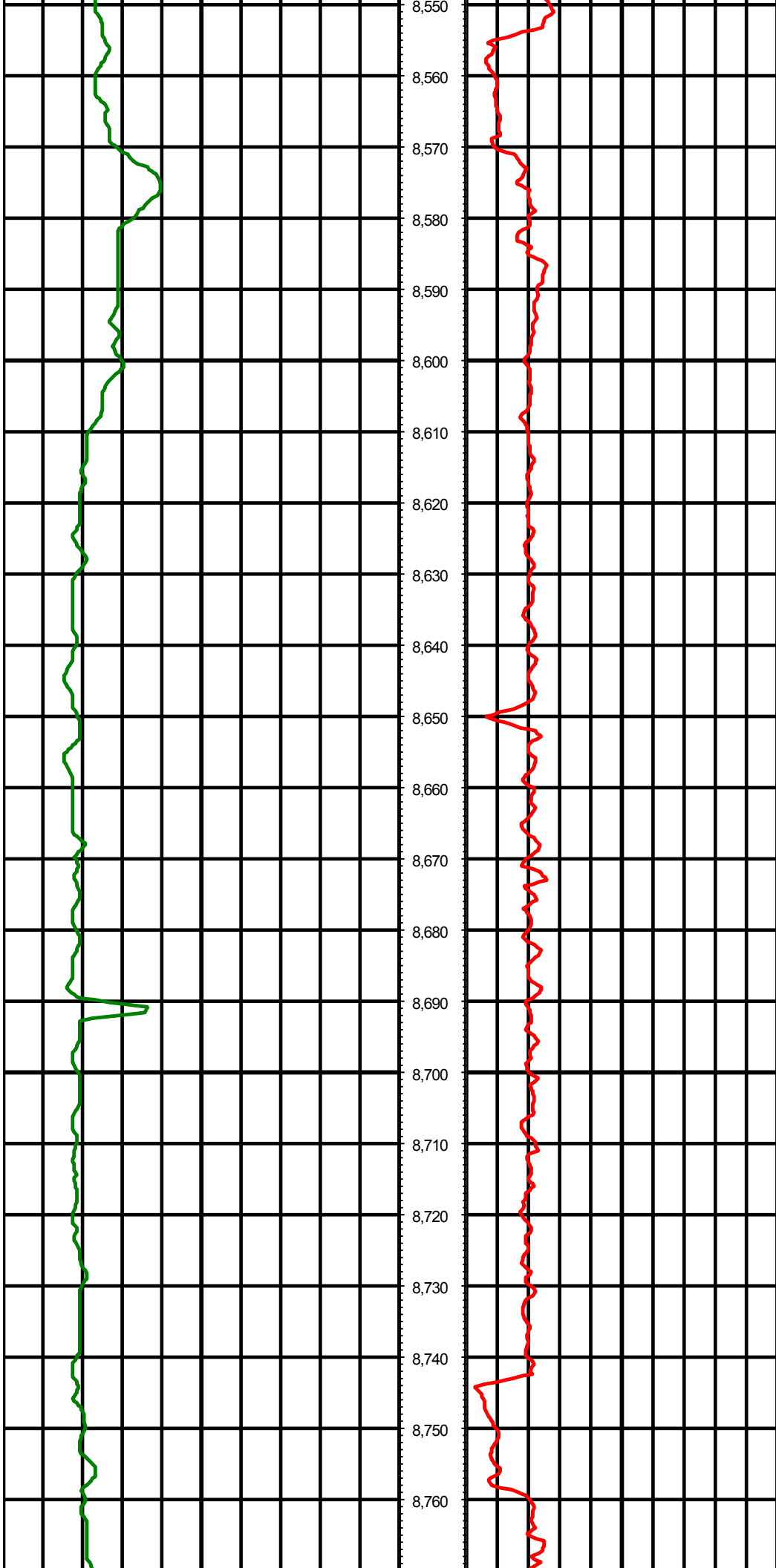
MD: 8043.00 INC: 88.70 AZ: 89.20





MD: 8411.00 INC: 88.30 AZ: 89.00

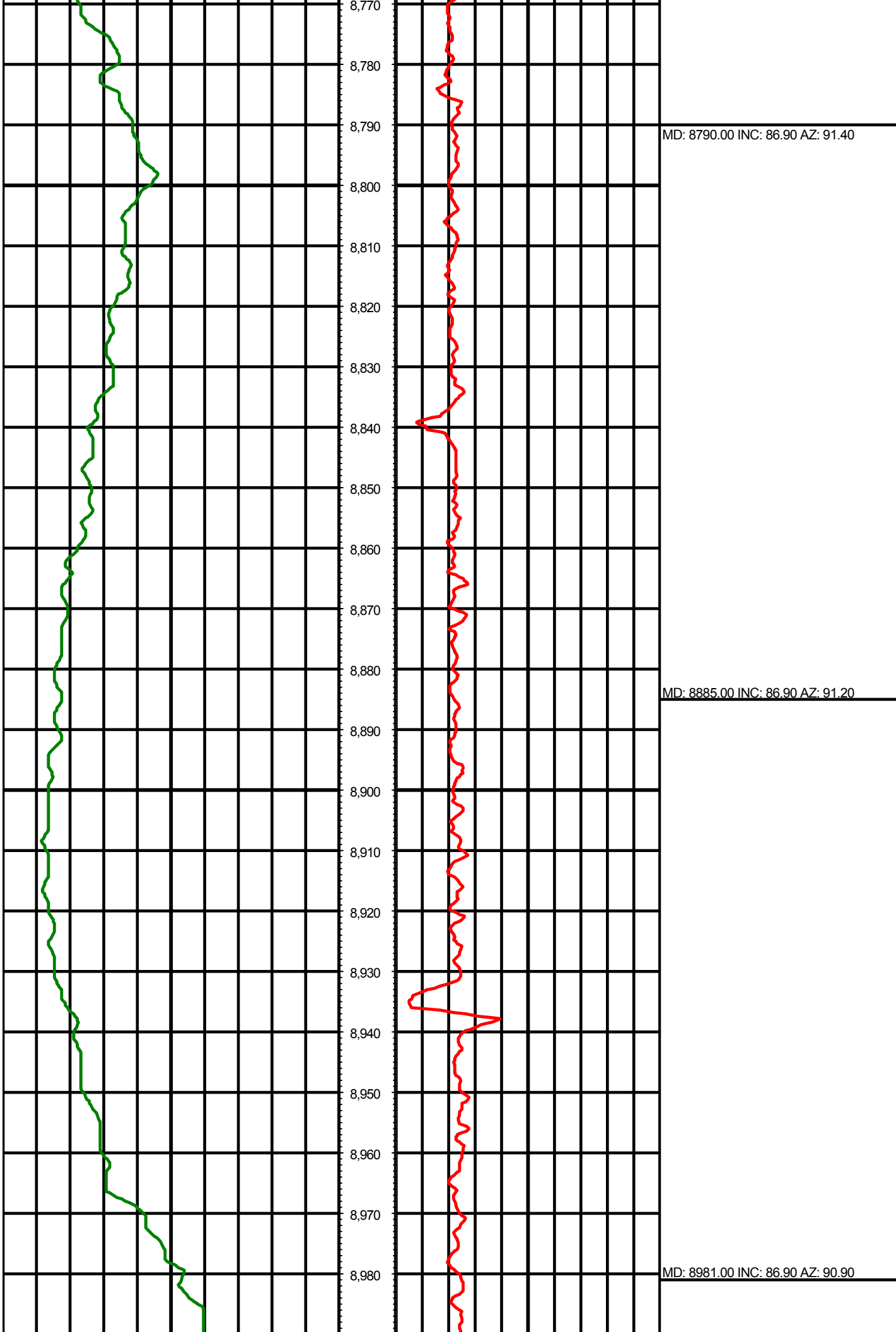
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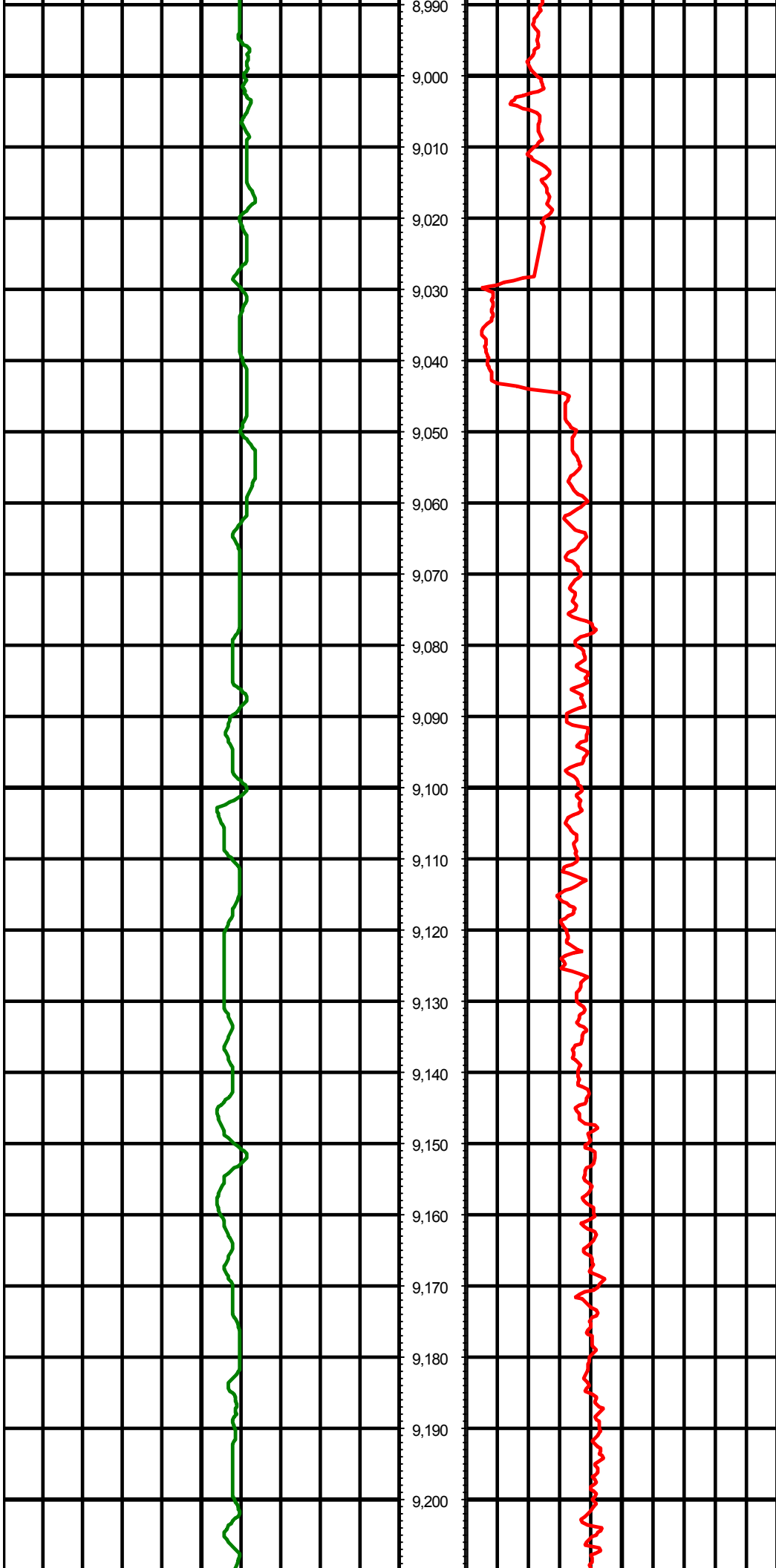


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MD: 8601.00 INC: 87.40 AZ: 89.30

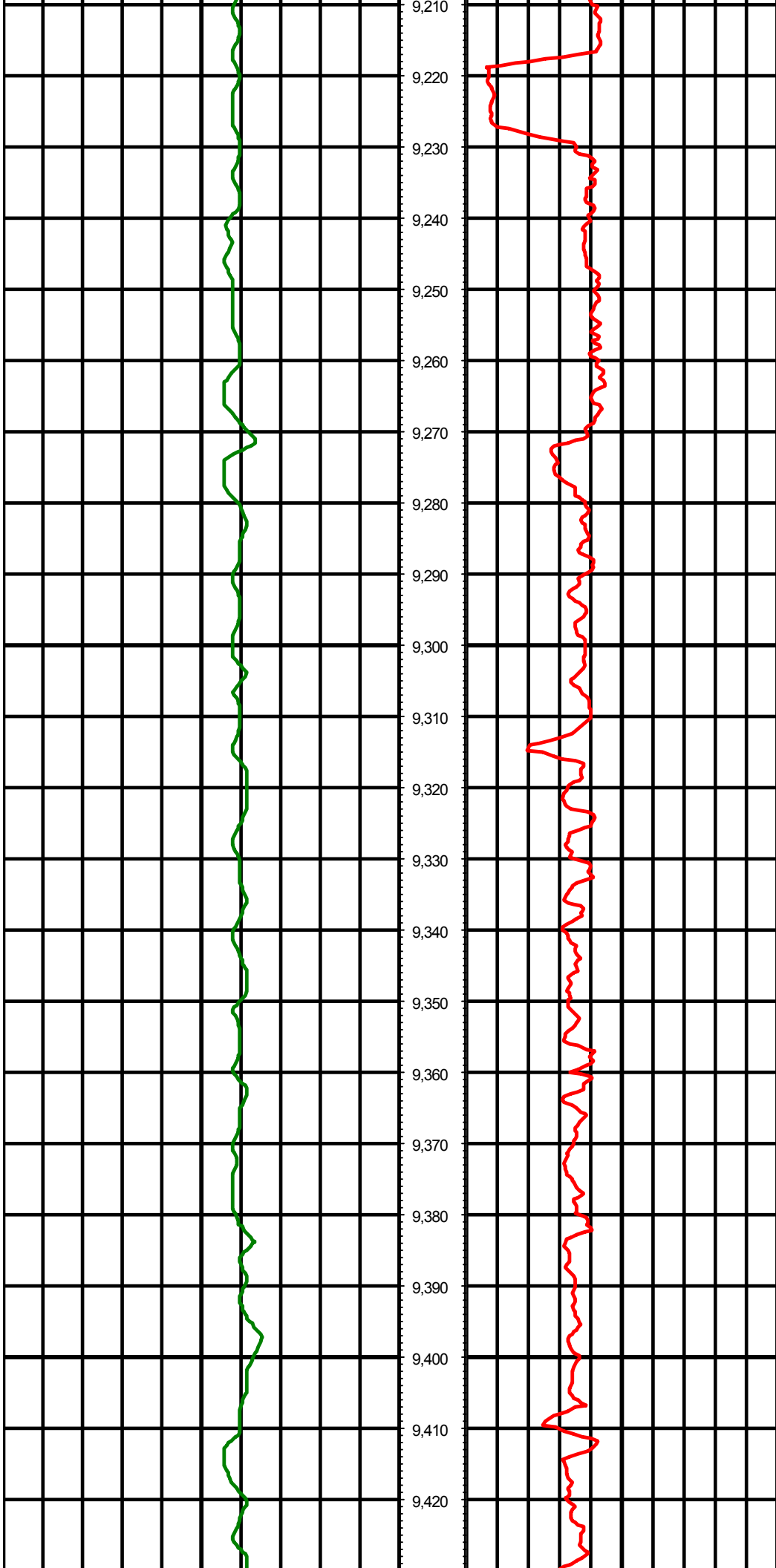
MD: 8696.00 INC: 87.70 AZ: 89.40





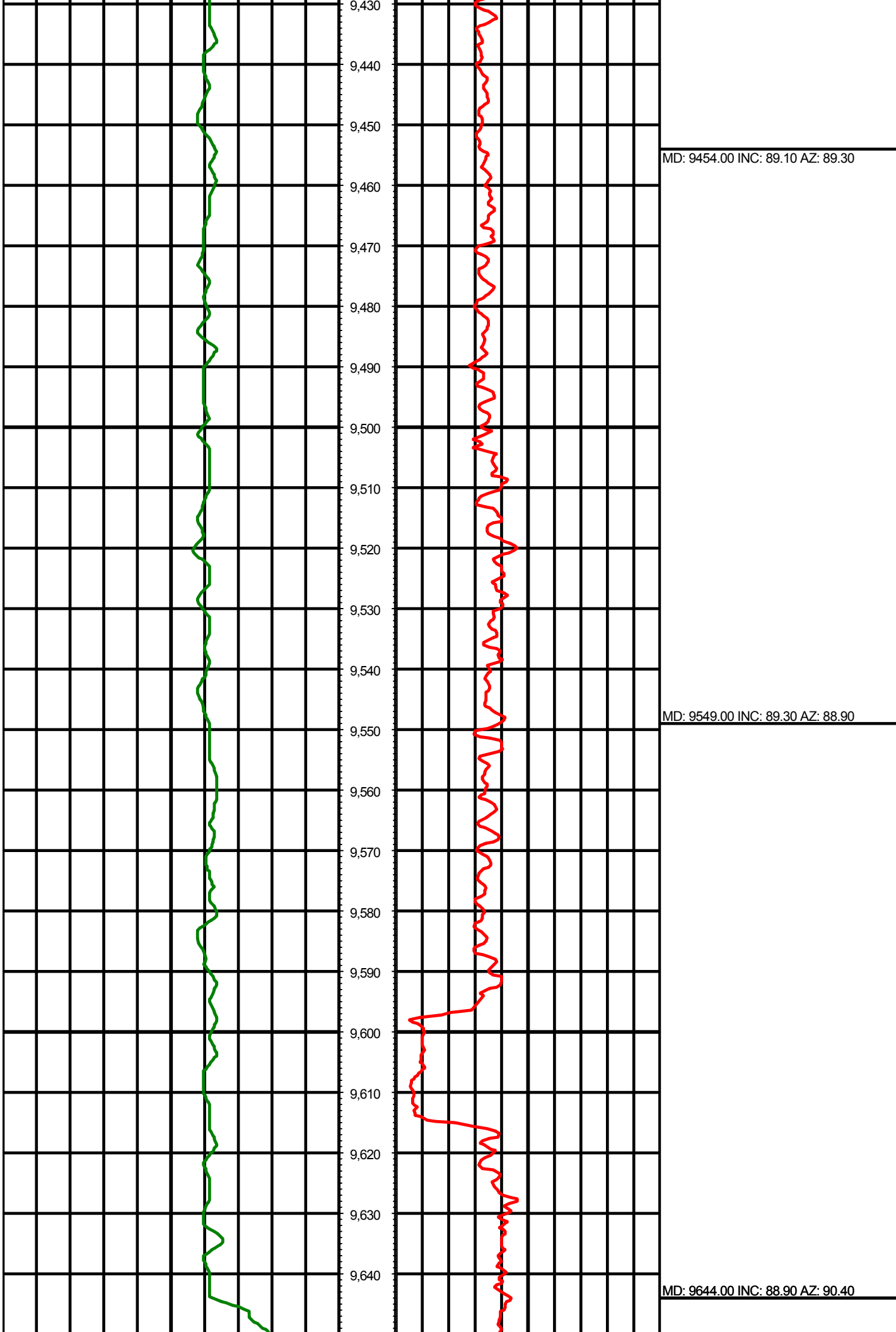
MD: 9075.00 INC: 87.60 AZ: 90.80

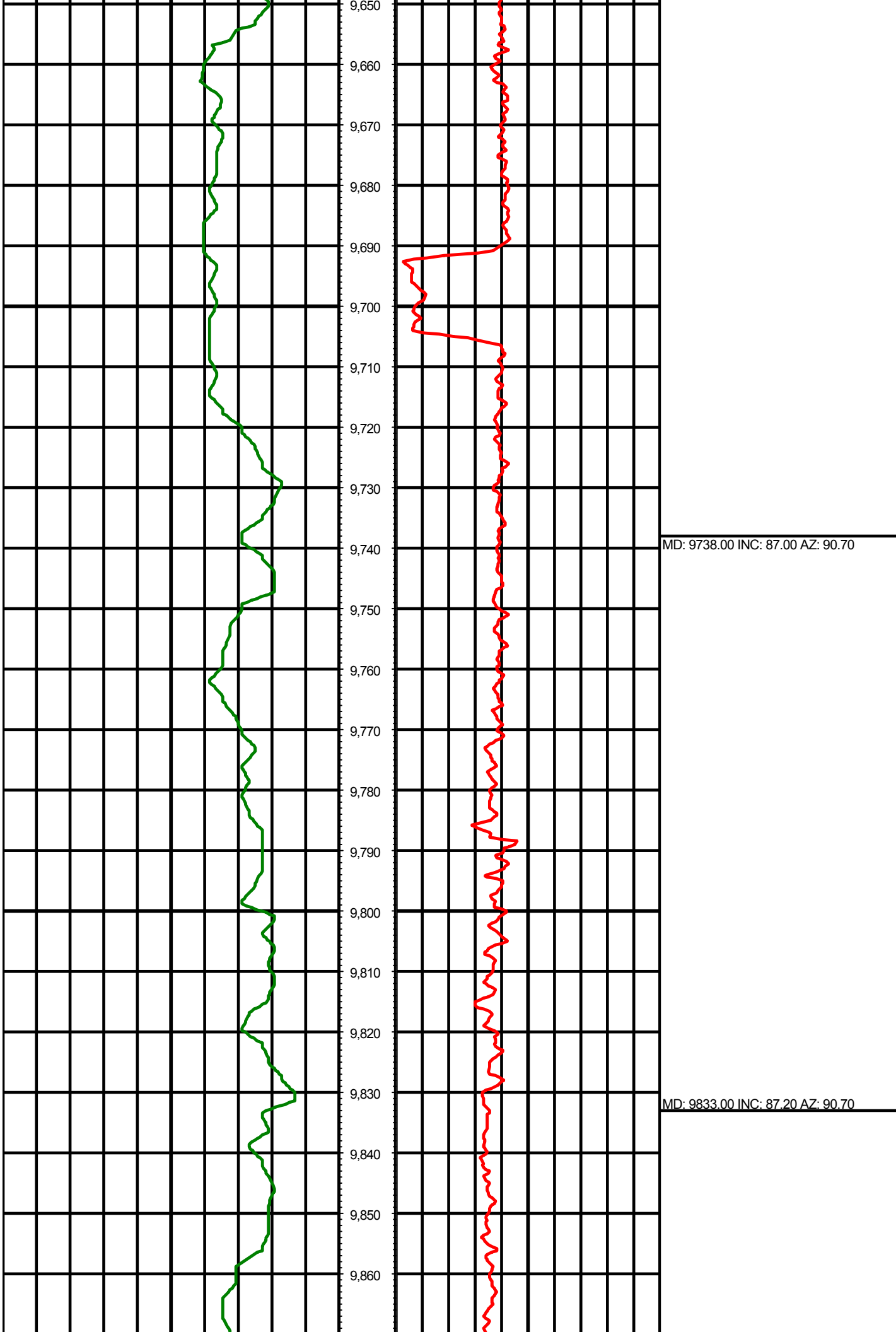
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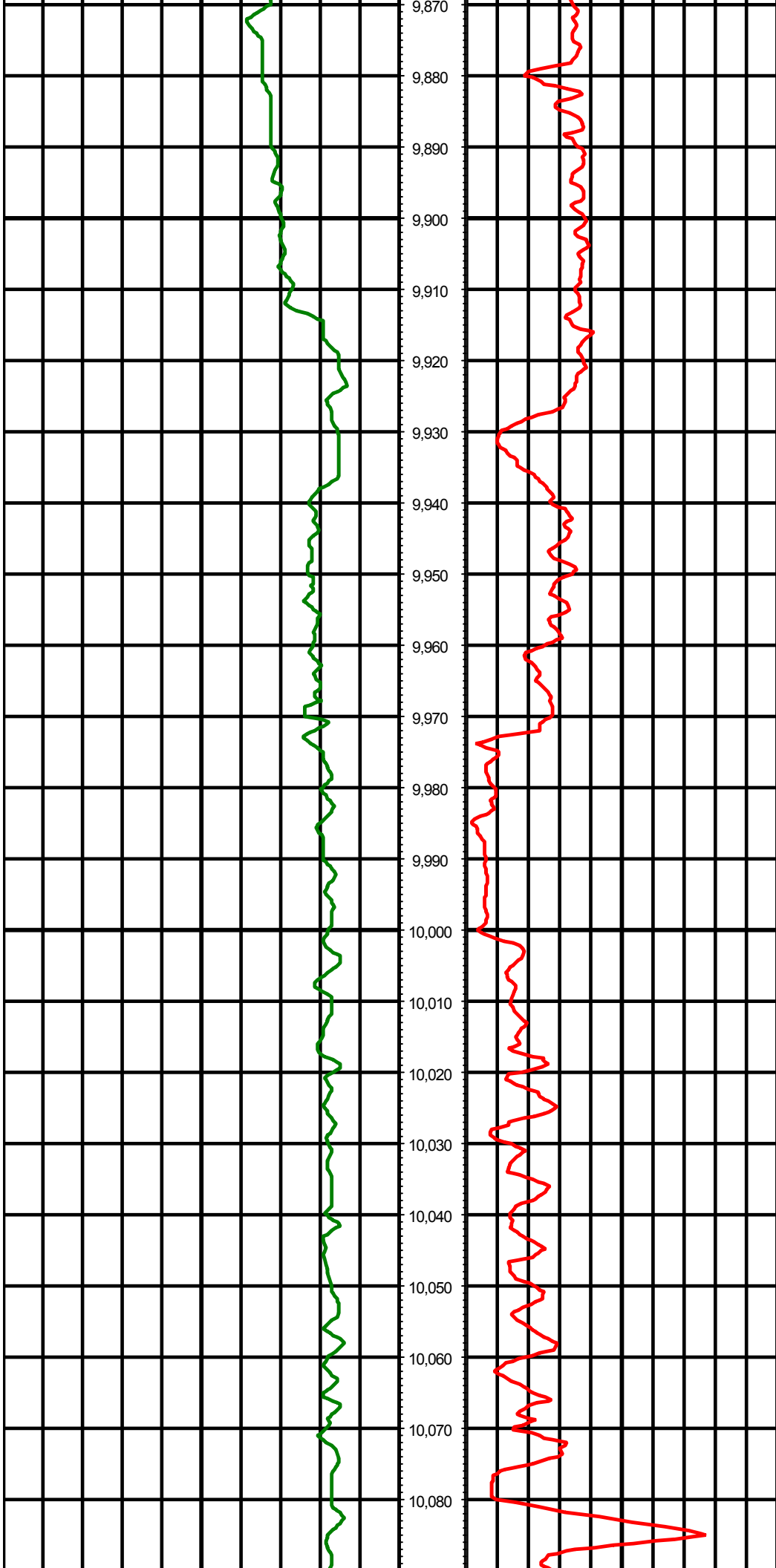


MD: 9265.00 INC: 89.10 AZ: 90.30

MD: 9360.00 INC: 89.00 AZ: 90.00



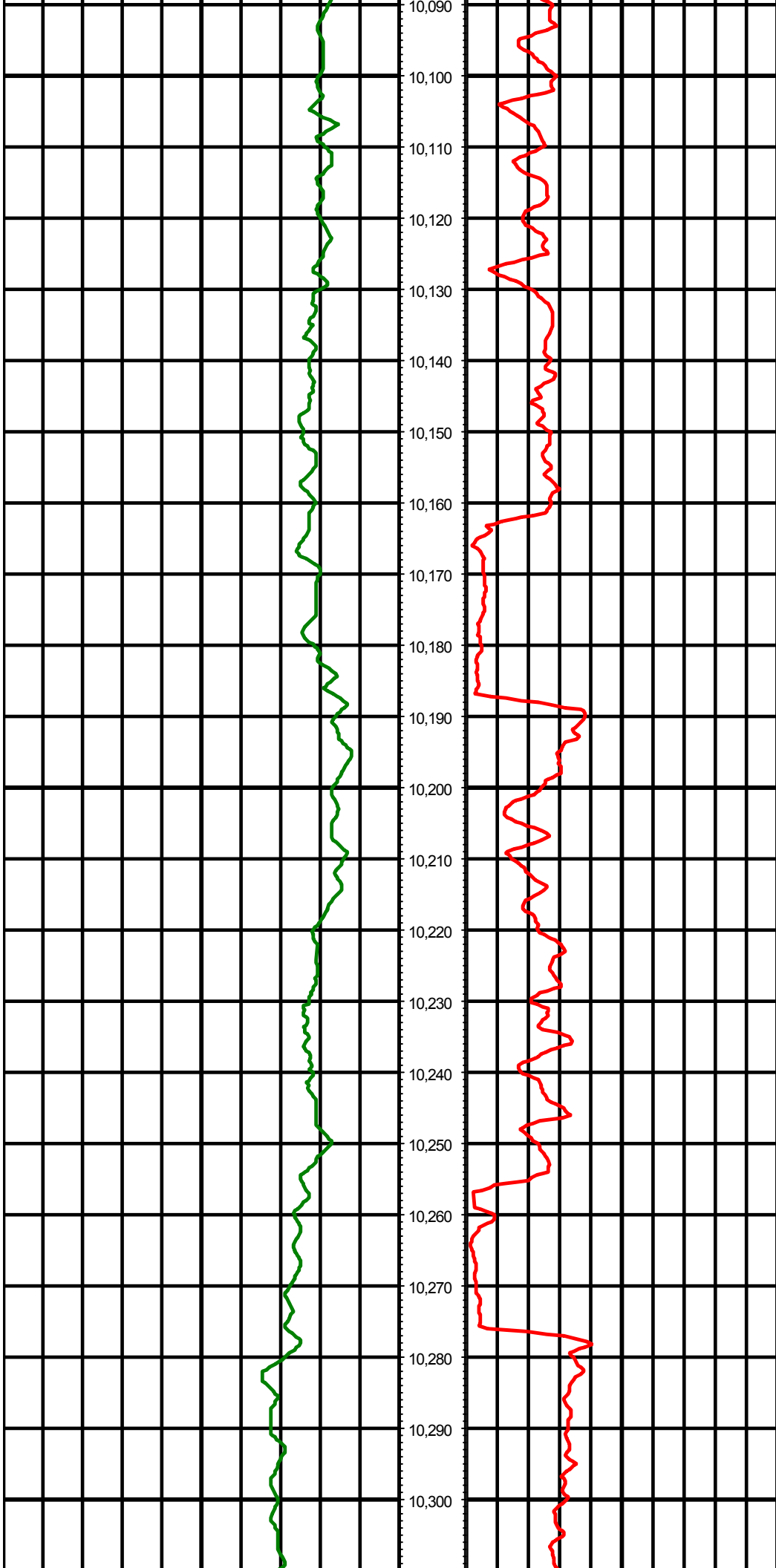




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MD: 9928.00 INC: 86.50 AZ: 90.30

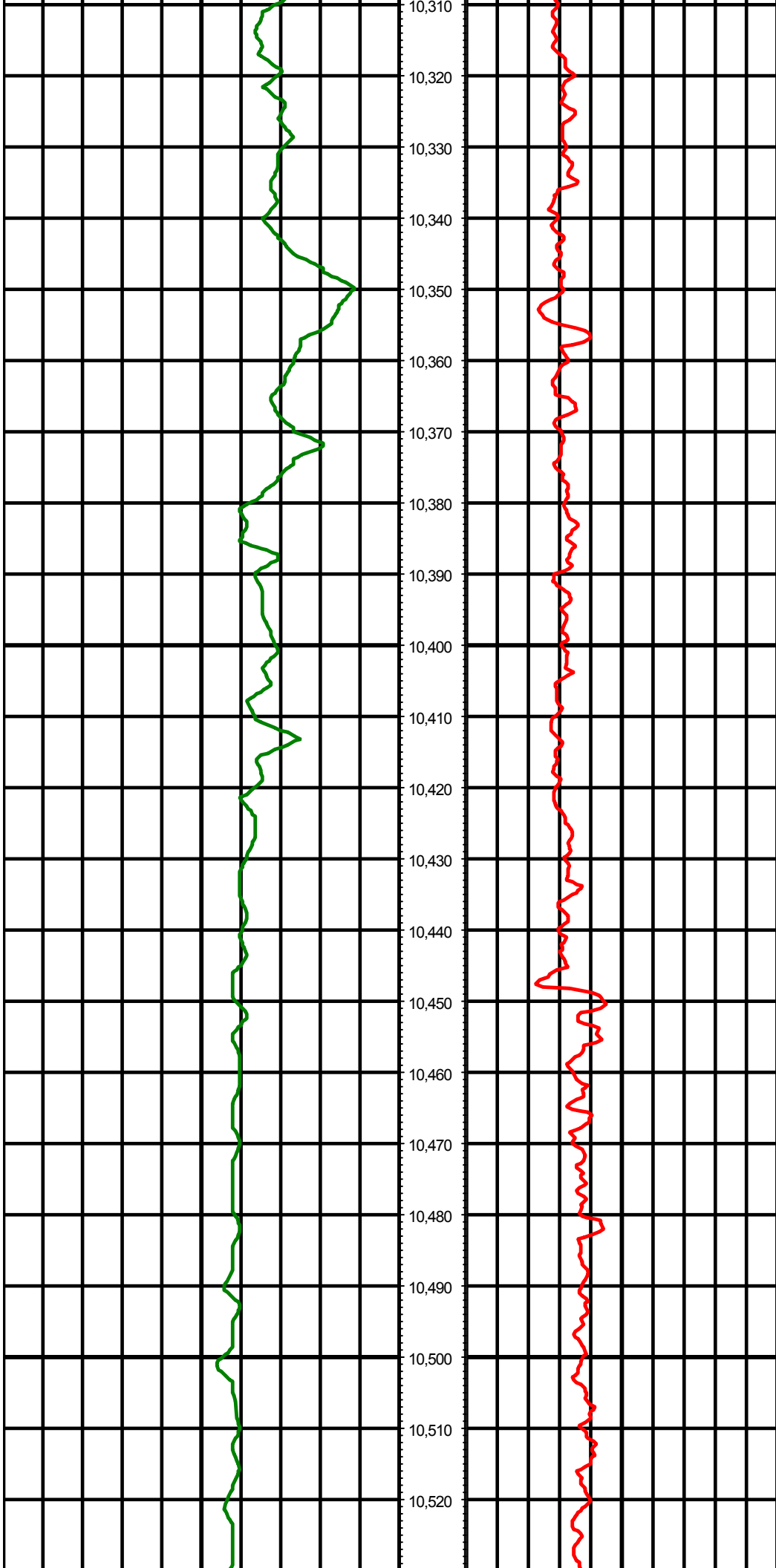
MD: 10022.00 INC: 88.20 AZ: 89.90

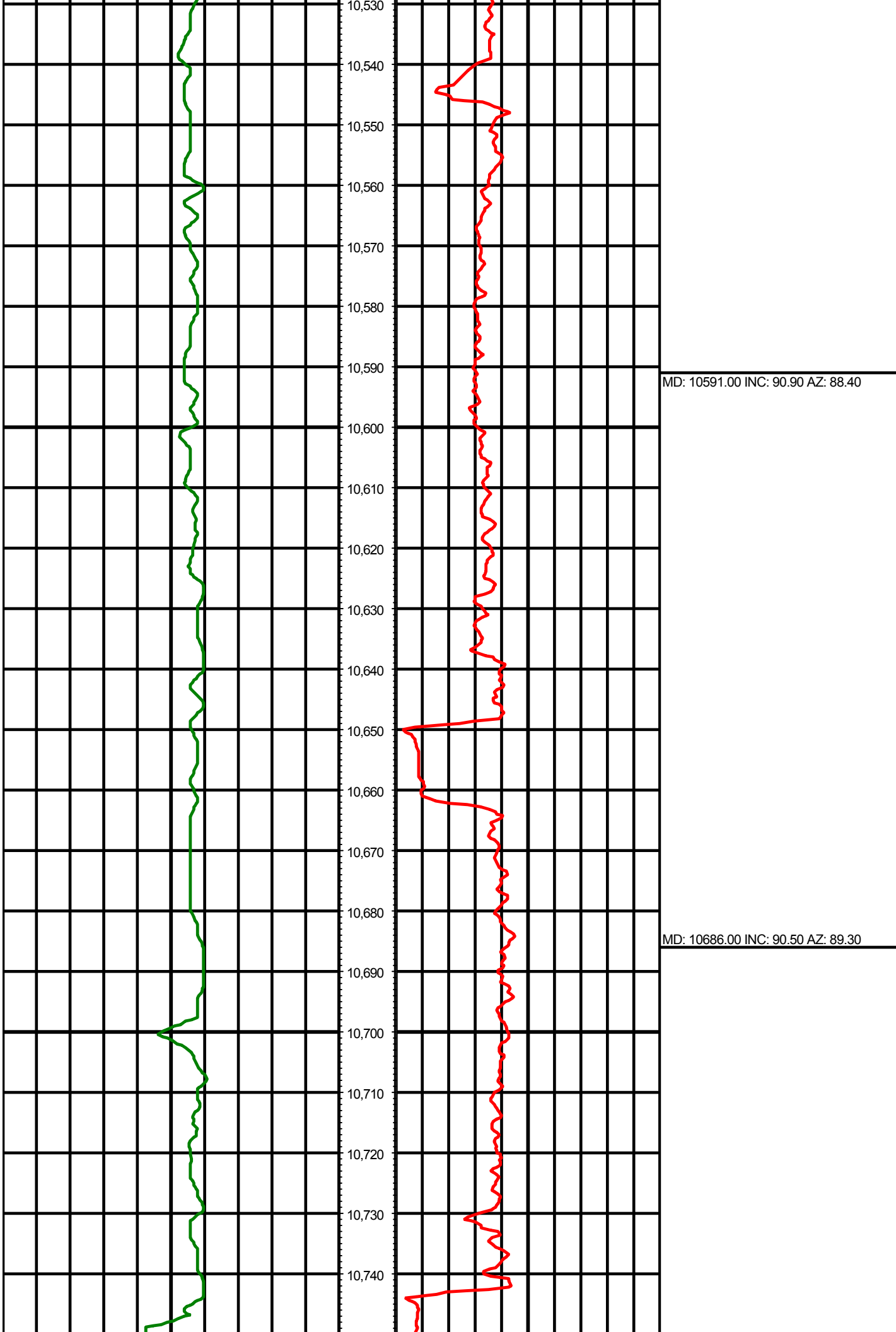


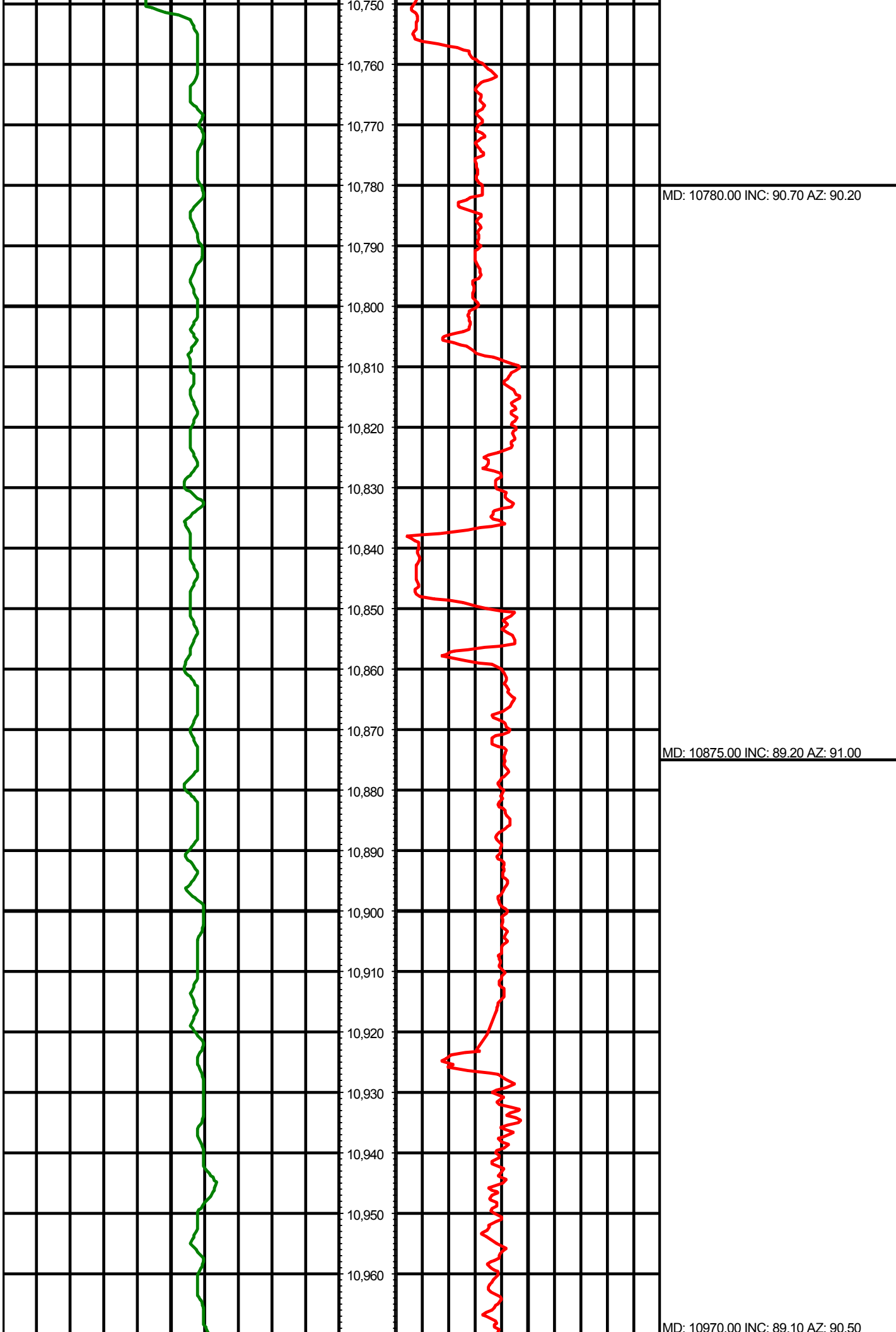
MD: 10117.00 INC: 87.90 AZ: 89.60

MD: 10211.00 INC: 89.40 AZ: 90.80

MD: 10306.00 INC: 91.20 AZ: 89.50



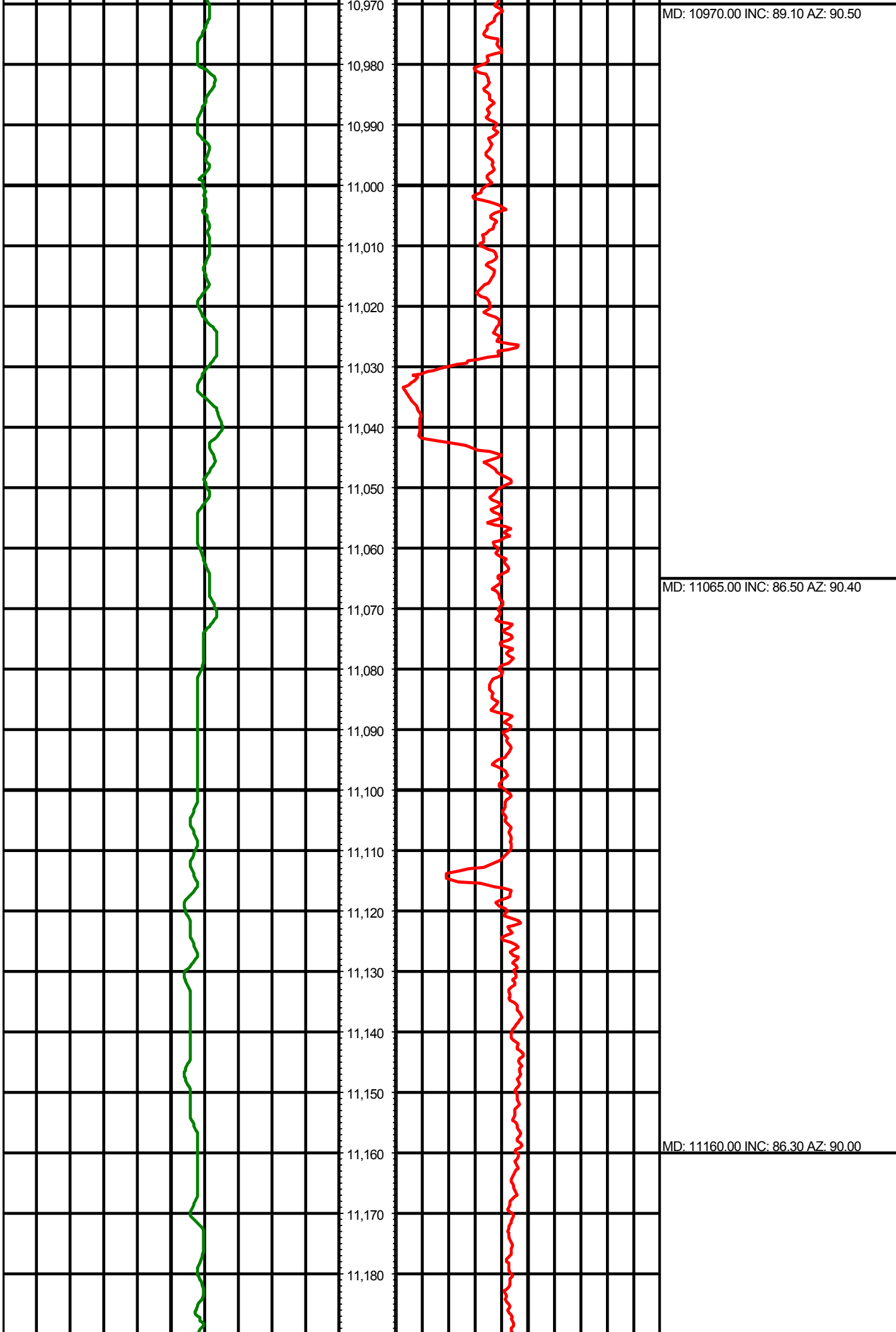


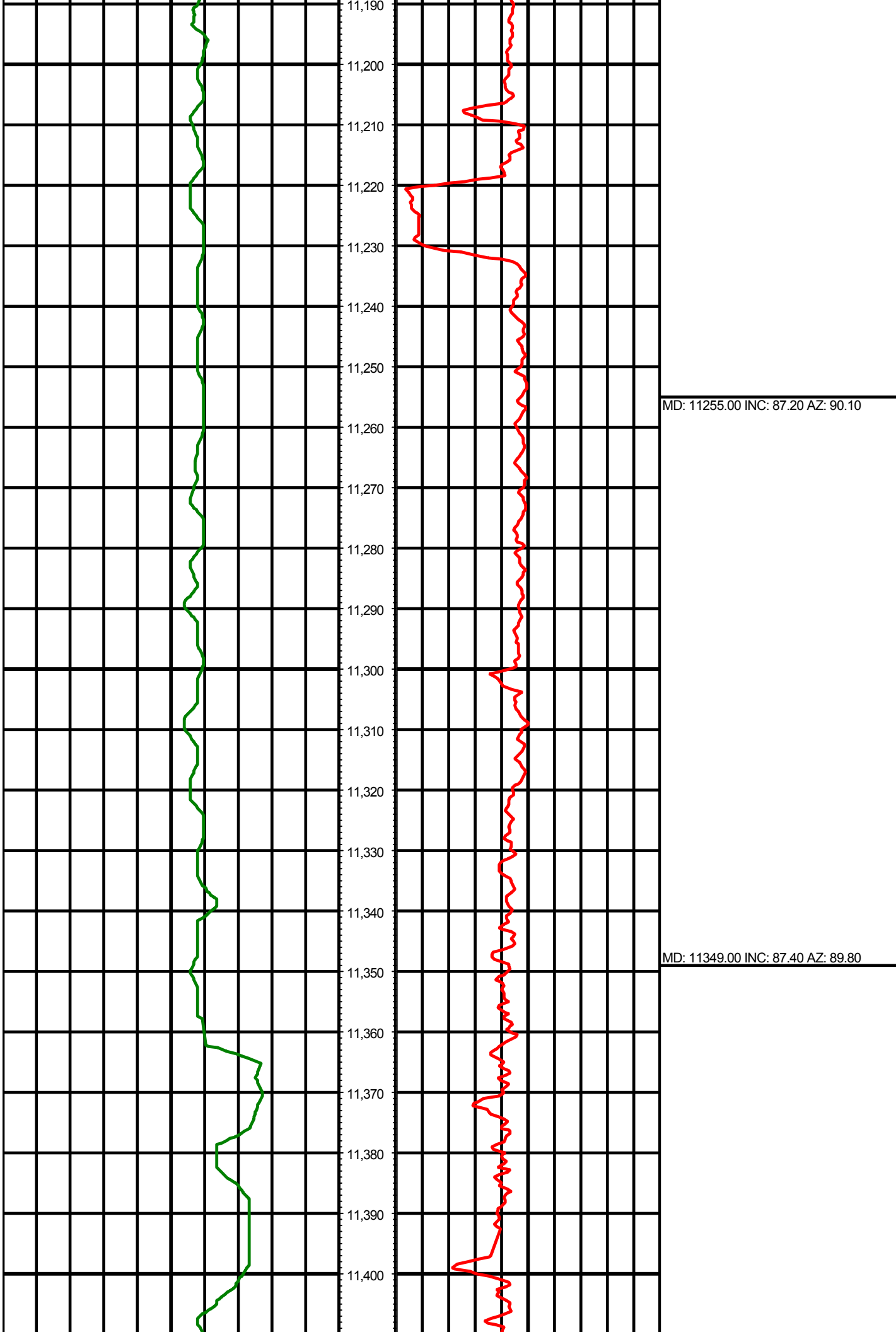


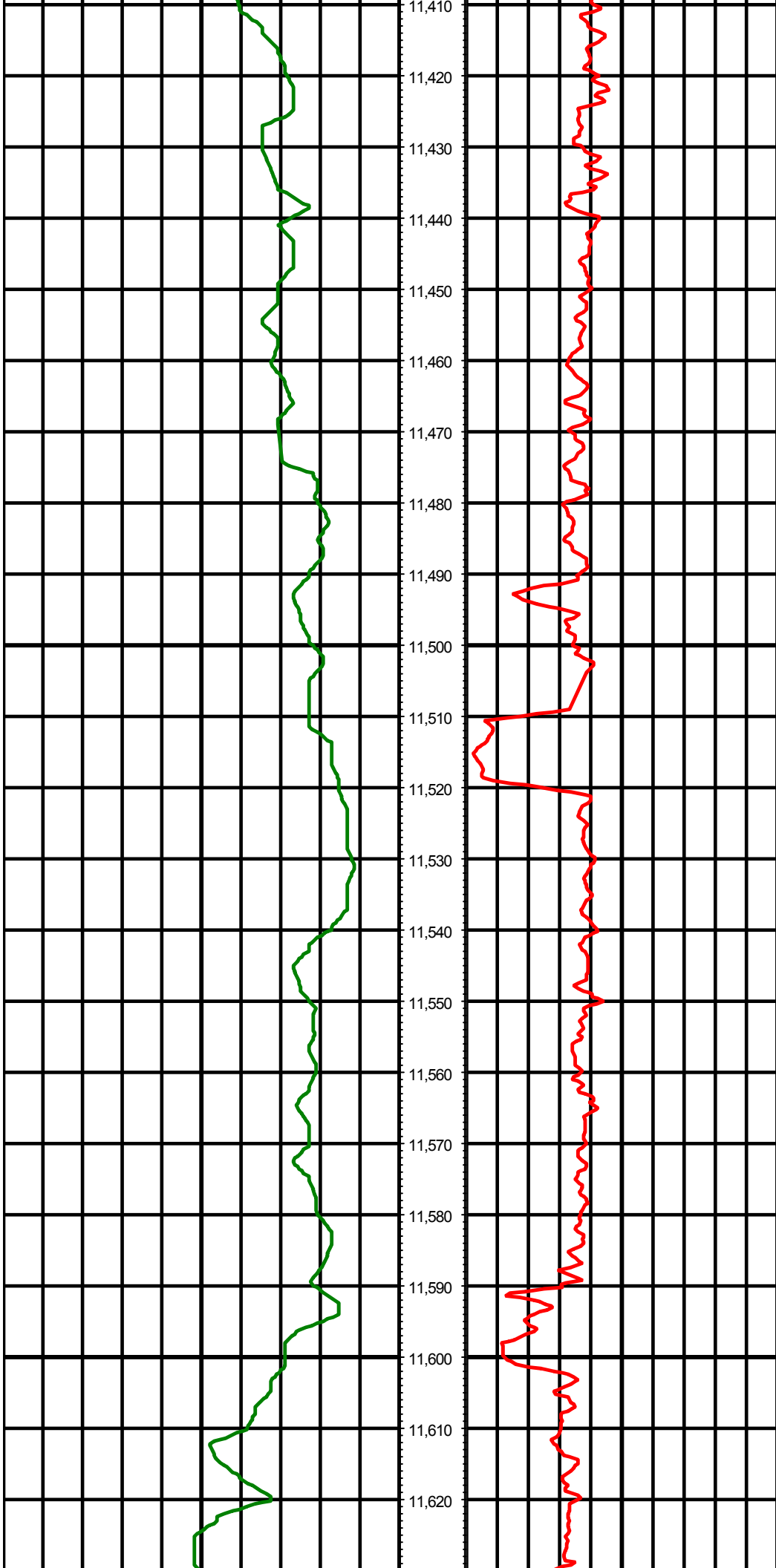
MD: 10780.00 INC: 90.70 AZ: 90.20

MD: 10875.00 INC: 89.20 AZ: 91.00

MD: 10970.00 INC: 89.10 AZ: 90.50

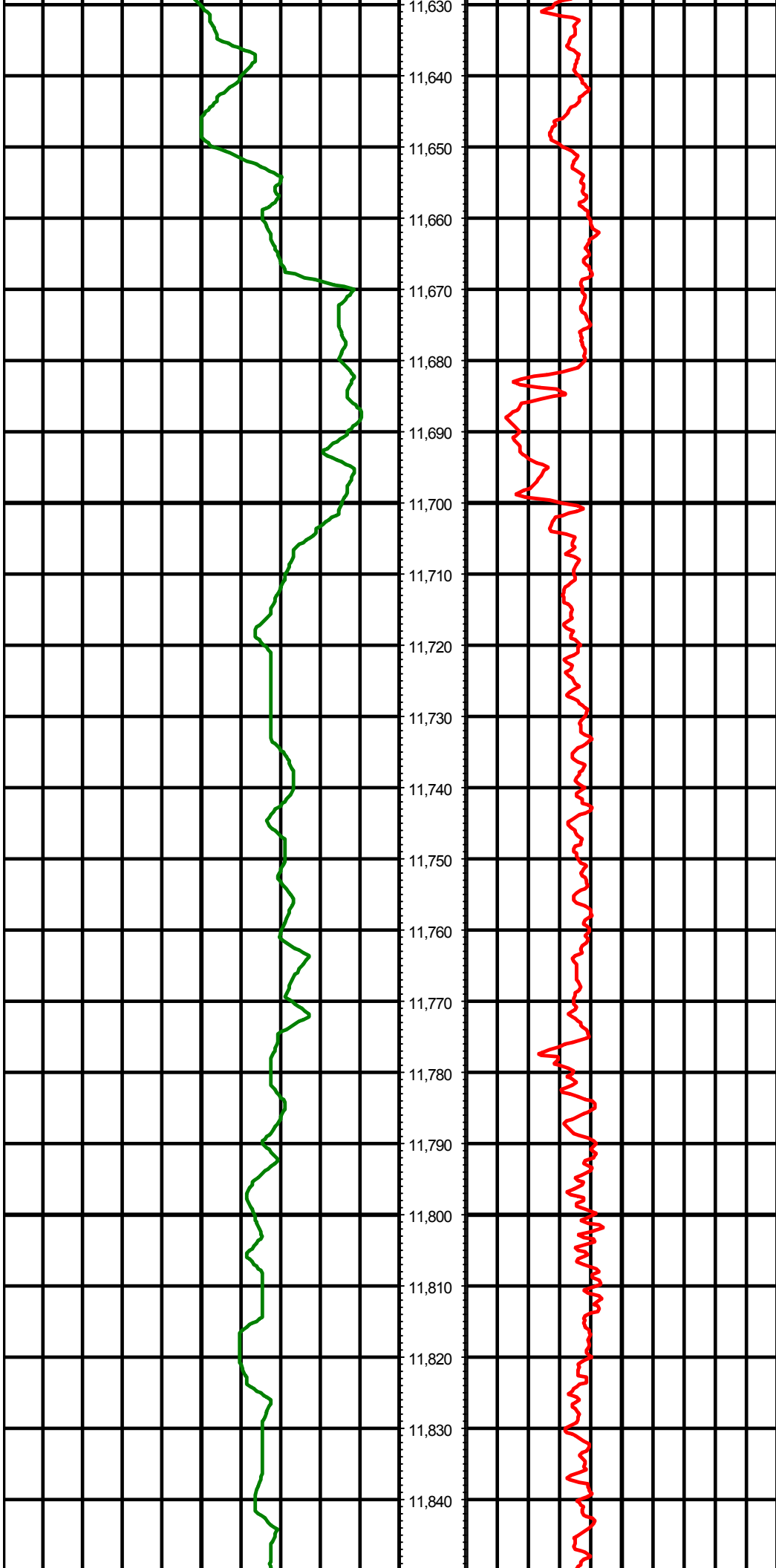






MD: 11444.00 INC: 87.30 AZ: 89.50

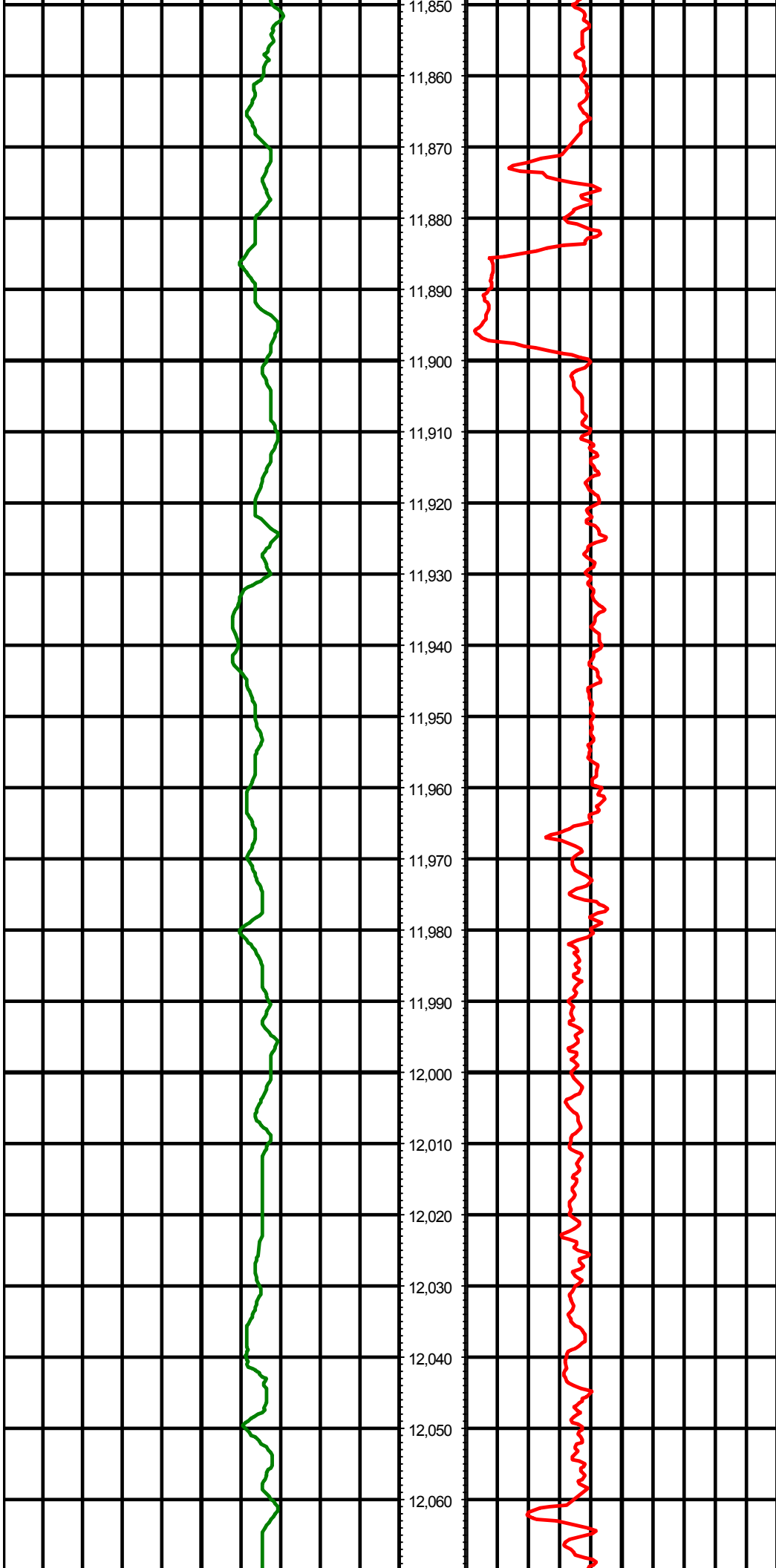
MD: 11539.00 INC: 88.10 AZ: 90.80



MD: 11634.00 INC: 88.40 AZ: 91.00

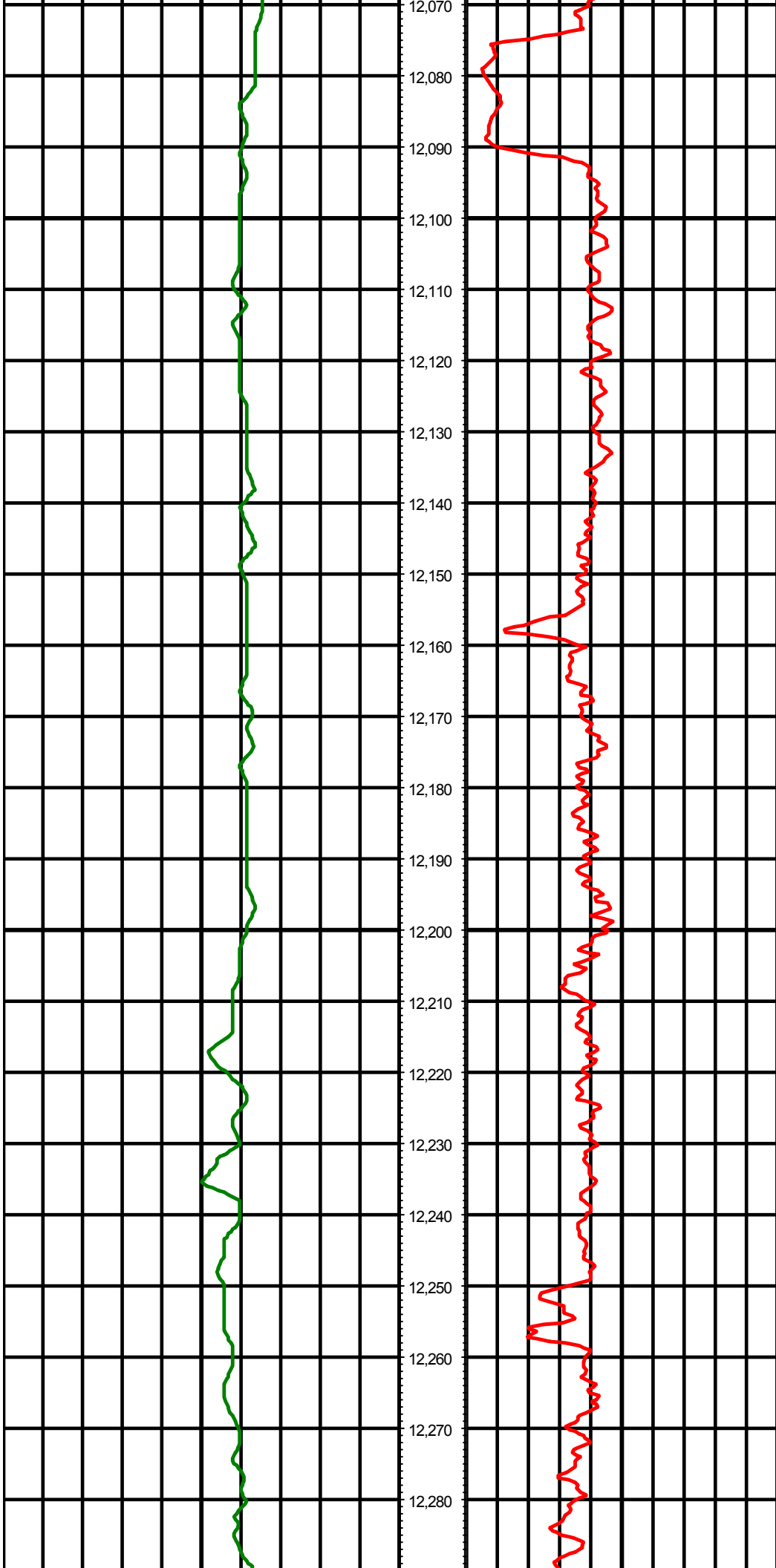
MD: 11729.00 INC: 88.30 AZ: 91.20

MD: 11823.00 INC: 87.60 AZ: 89.70



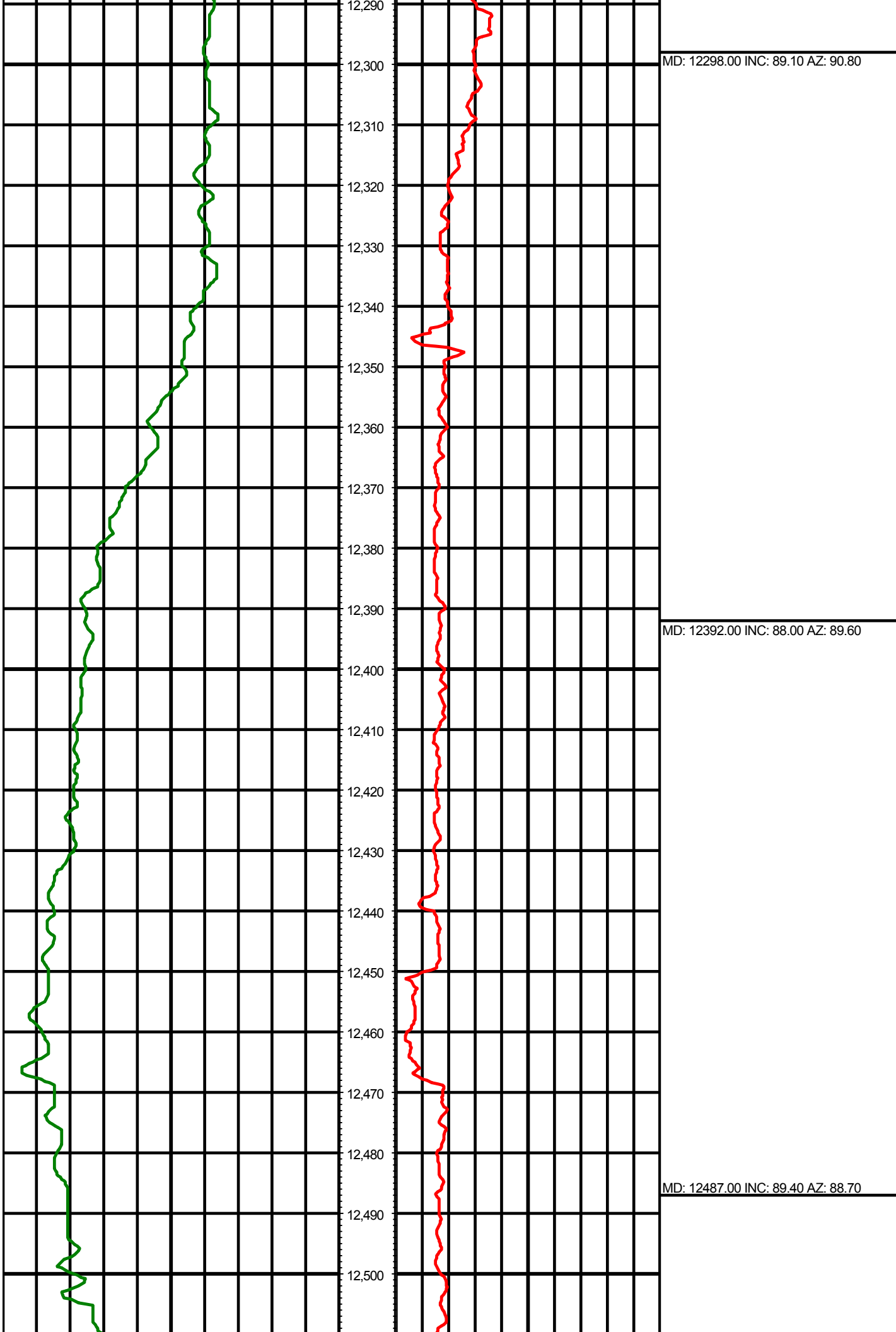
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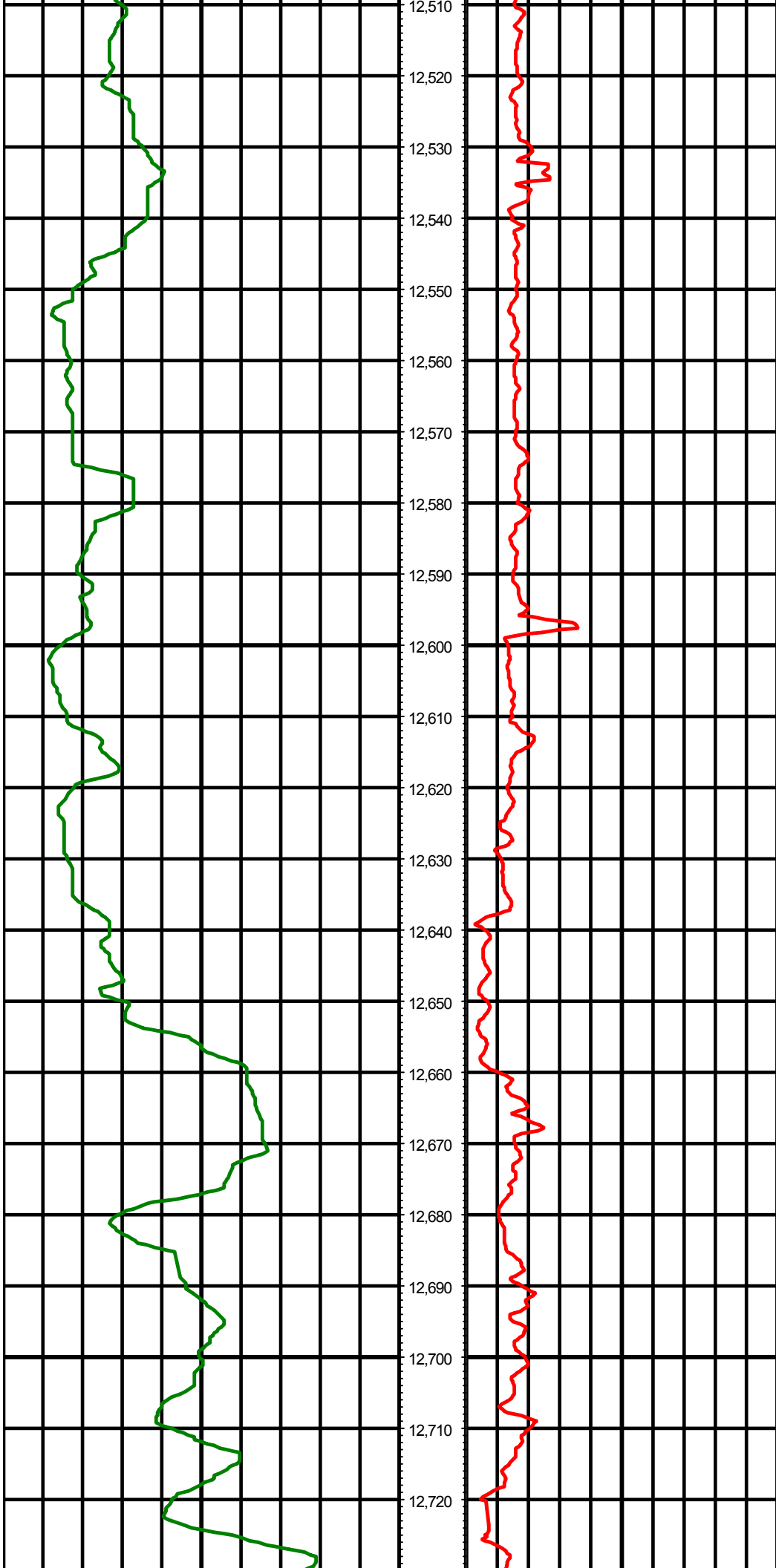
MD: 12013.00 INC: 87.80 AZ: 89.40

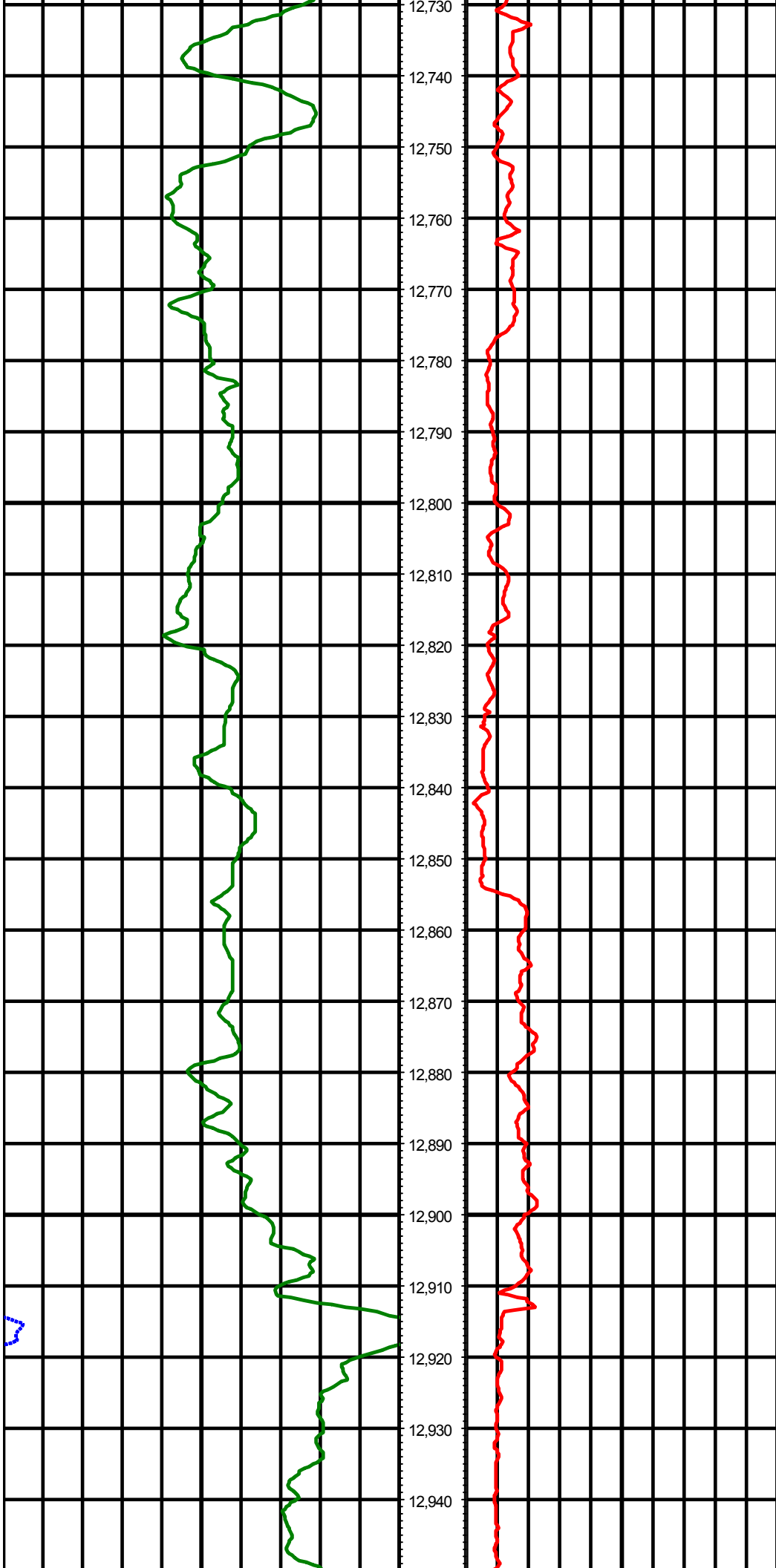


MD: 12108.00 INC: 89.30 AZ: 91.60

MD: 12203.00 INC: 89.40 AZ: 91.40







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MD: 12772.00 INC: 91.60 AZ: 90.80

MD: 12867.00 INC: 89.80 AZ: 90.10

