

**Premier Directional Drilling**

12941 North Freeway
#400
Houston, TX 77060
281-673-4000

Bat 29C-9HZ**Scale 5":100' - MD****6/15/2015 12:09 AM****Oper. Company:** Anadarko Petroleum Corporation**State:** Colorado**Well:** Bat 29C-9HZ**County:** Weld**Field:** Wattenberg/ Codell**Country:** USA**Rig:** H&P 311**Location:** 1N-65W- Sect 09**Well ID:** 05123412850000**Start Date:** 06/13/2015 14:30:00**Job Number:** R15240**End Date:** 06/14/2015 23:30:00**Notes:** LWD Real Time

Gamma Correction Determined by Pipe ID & OD, Mud Weight & Bit Size

Latitude: 40.060444**Elev KB:** 4956'**Longitude:** -104.669292**Elev DF:** 4956'**Elev GL:** 4931'**Notes:** Datum: NAD 1983 Map Zone: 13N (108 W to 102 W) Total Correction: 8.13° (Mean MagVar) Grid Convergence: 0.0° (True)**Operator 1:** Jon Buist**Operator 2:** Robert Grossman**Notes:** Smoothing: 7Gap Fill: 10Survey Tool Type: Mud Pulse Calculation Method: Minimum Curvature

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	286				
Bit Size	7 7/8				
Cal Factor	5.393				
Gamma Offset	50.00				
Resistivity Offset	0.00				
Start Depth	1580.00				
StartDate	6/12/2015				
StartTime	6:45 PM				
EndDepth	12198.00				
EndDate	6/15/2015				
EndTime	6:00 AM				
Mud Type	OBM				
Mud Weight	9.6				
Funnel Viscosity	59				
Plastic Viscosity	27				
Yield Point	15				
Gel Strength	NA				
Solids Content	9.12				
Sand Content	NA				
Mud Alkalinity	1.9				
Filtrate Alkalinity	NA				
Chlorides	38000				
Mud RM	NA				
Mud RMF	NA				
Mud RMC	NA				
Mud RM at BHT	NA				
Temperature	NA				
Hole Data			Casing Data		
Size	From	To	Size	From	To
13.50	0.00	1580.00	9.625	0.00	1570.00
7.875	1580.00	12198.00	5.5	0.00	12198.00

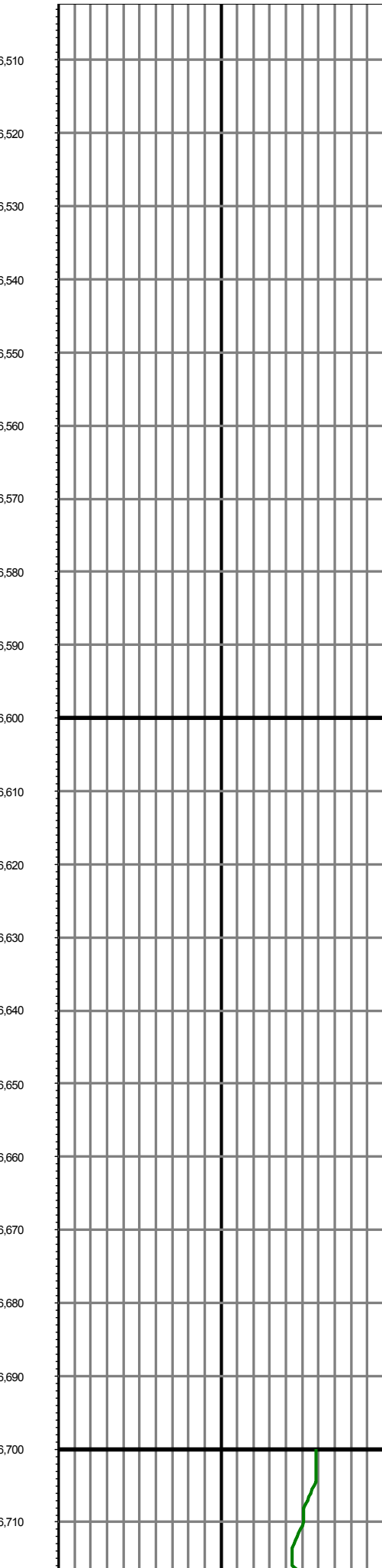
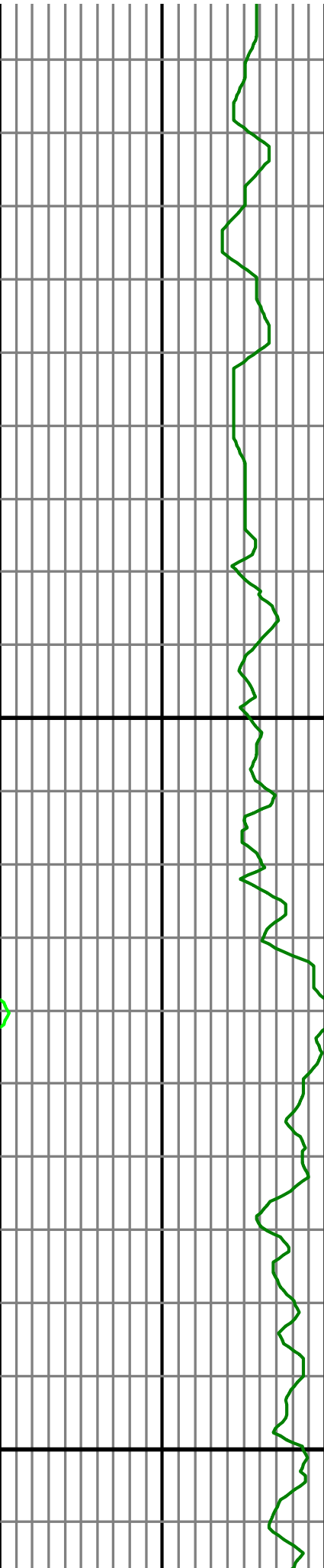
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost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

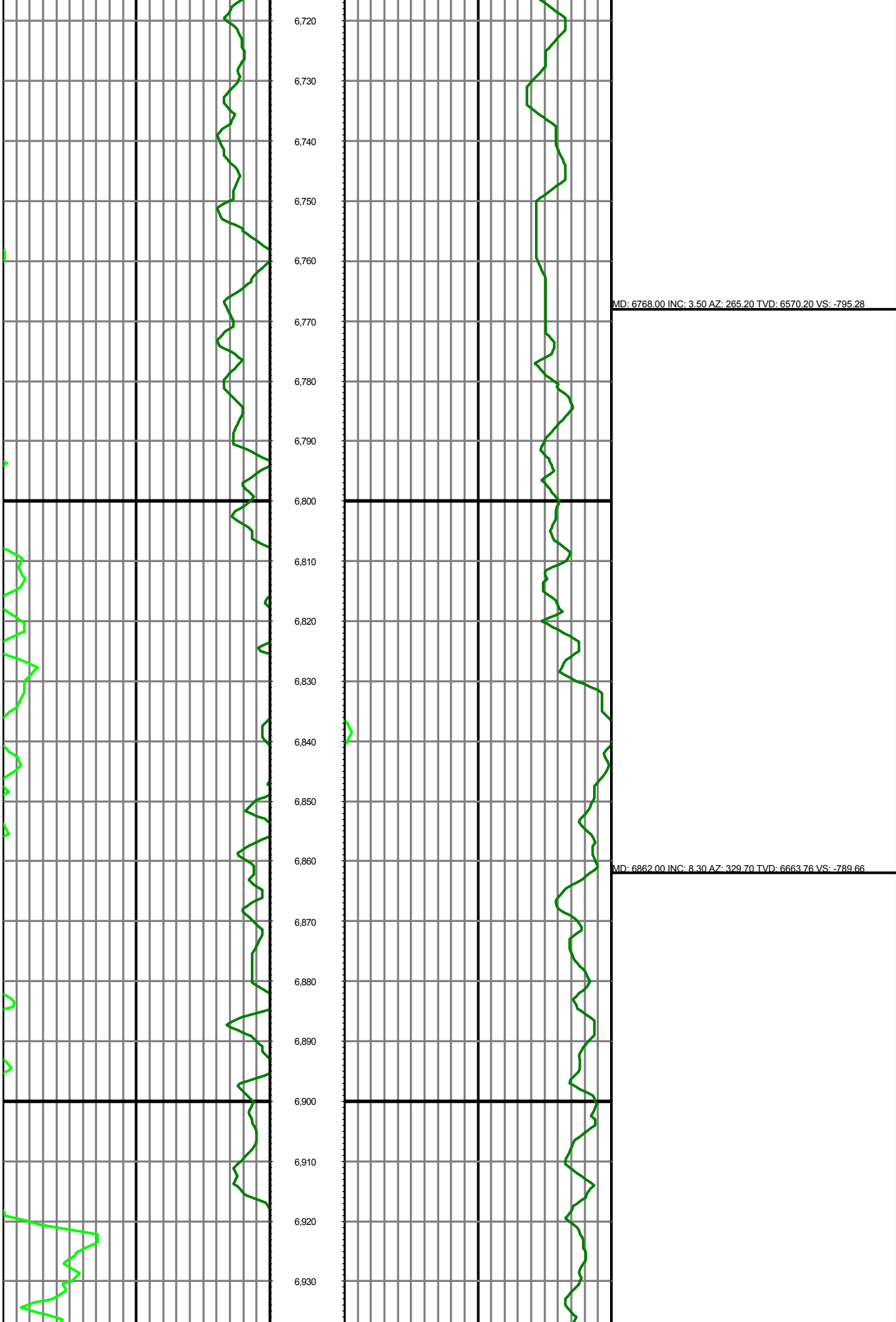
0.00 GR RT(API) on TVD 150.00
150.00 2 300.00

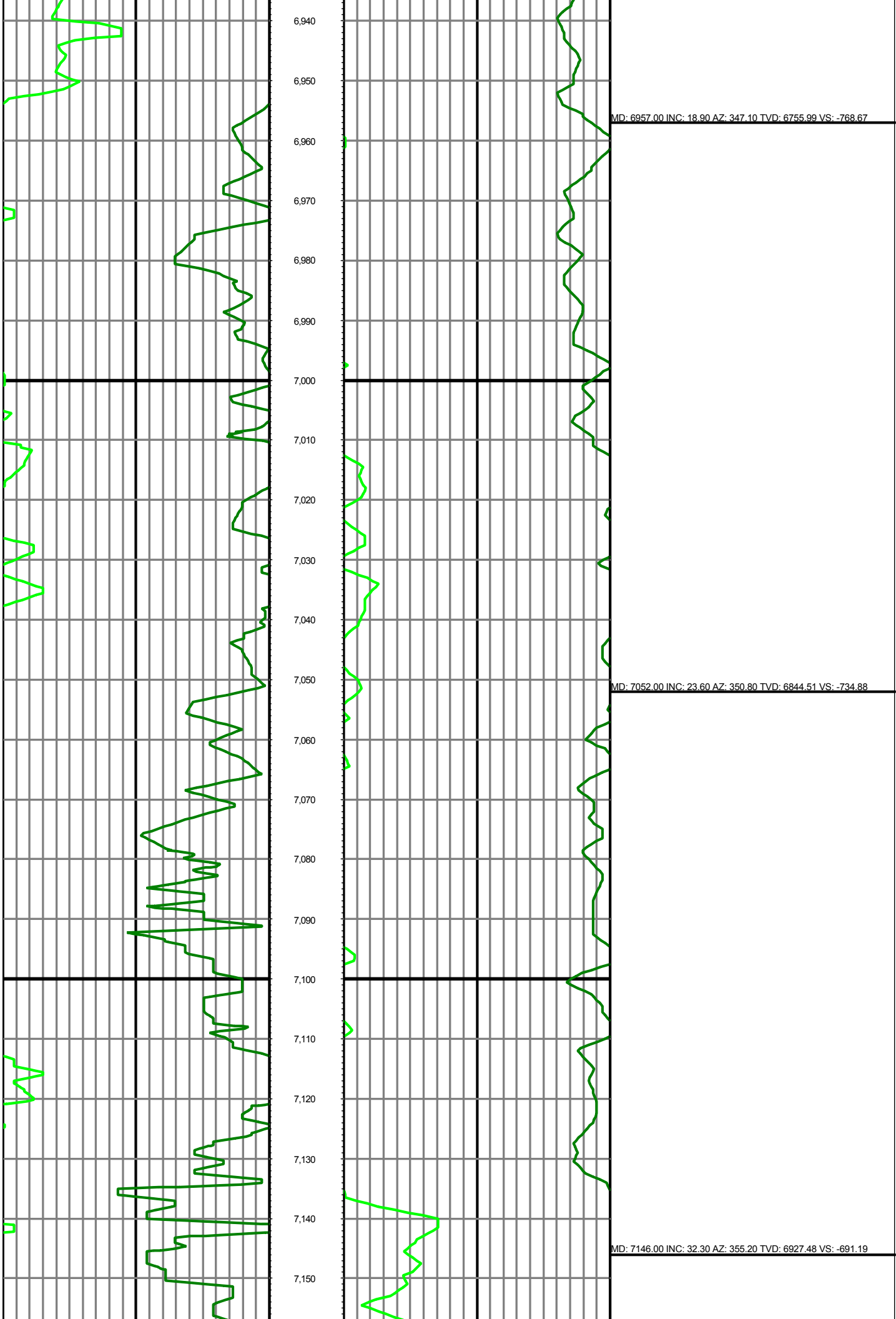
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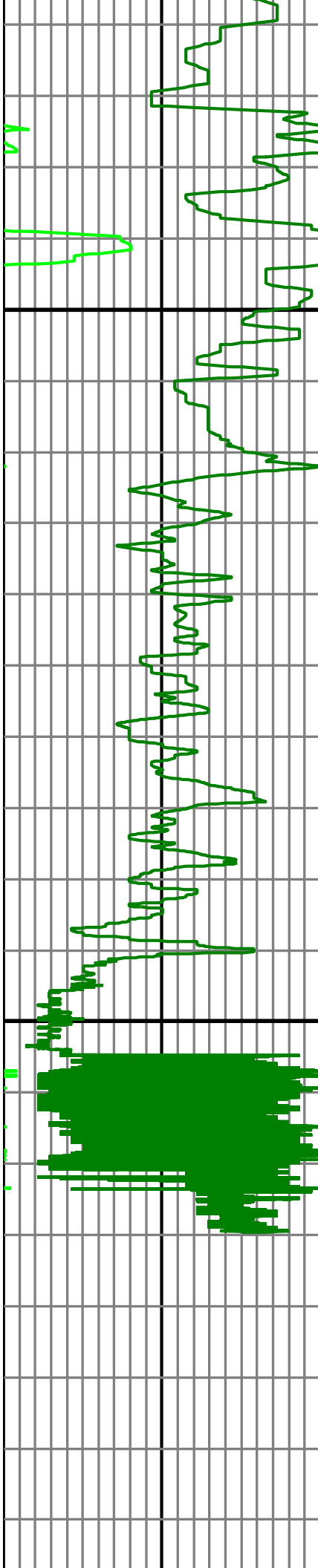
0.00 GR RT(API) on MD 150.00
150.00 2 300.00

Surveys (MD/INC/AZ/TVD/VS)

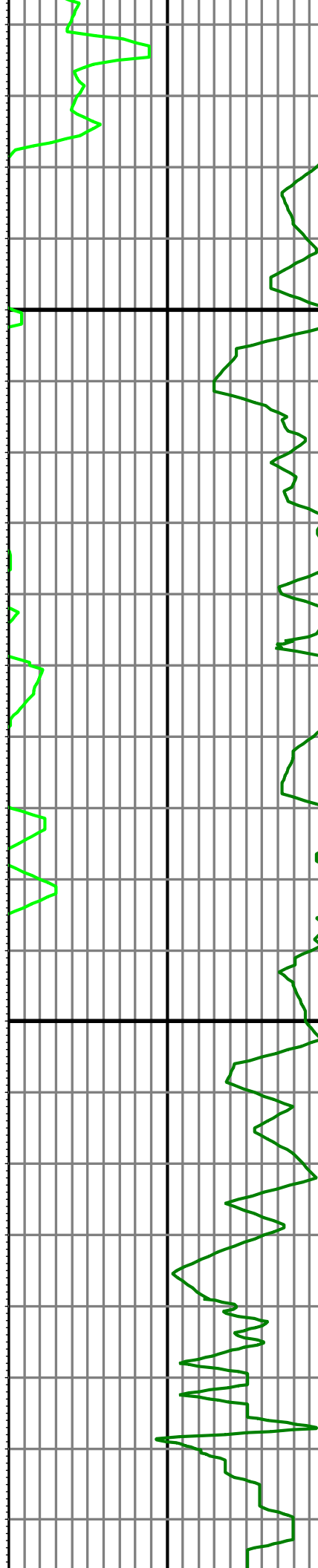






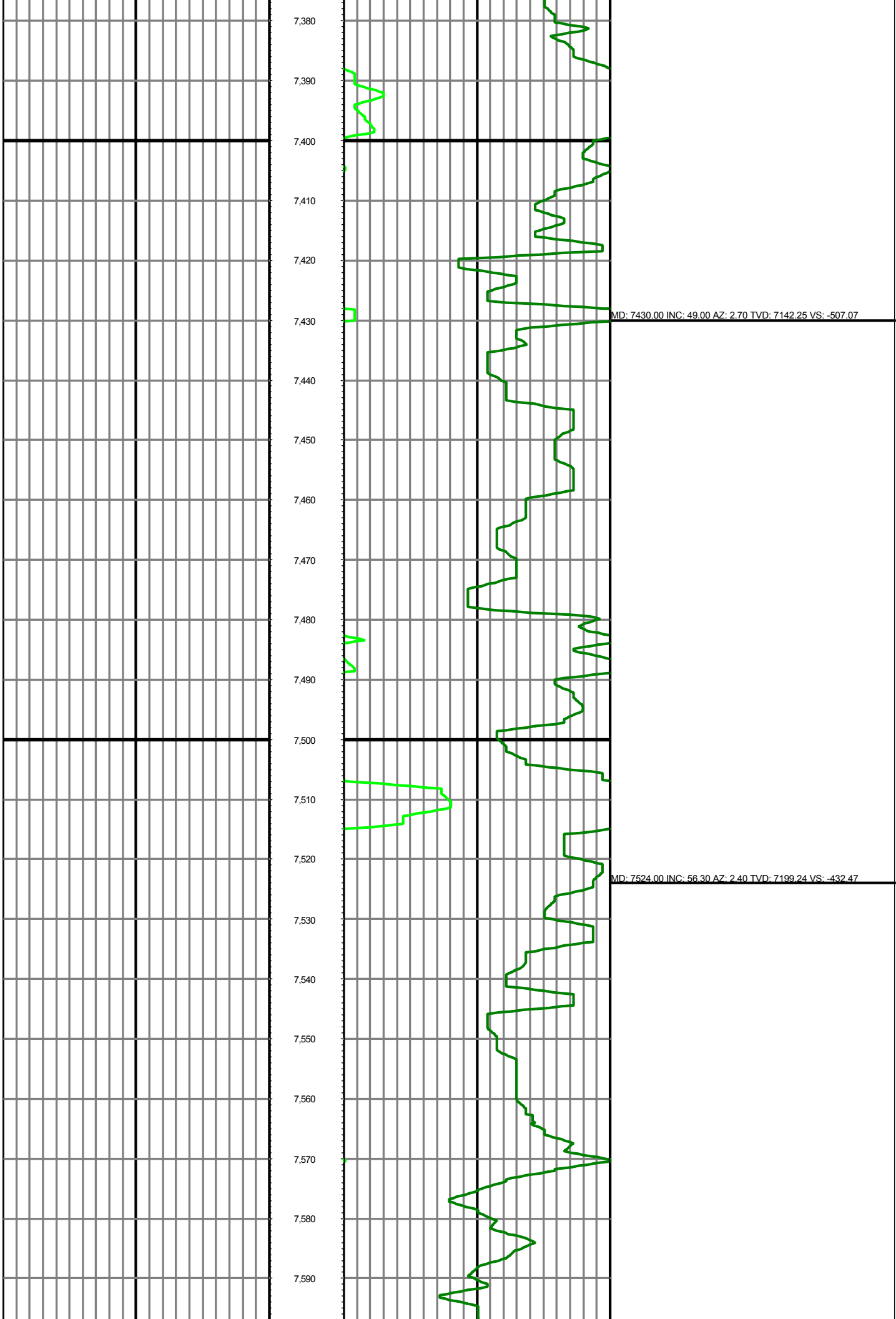


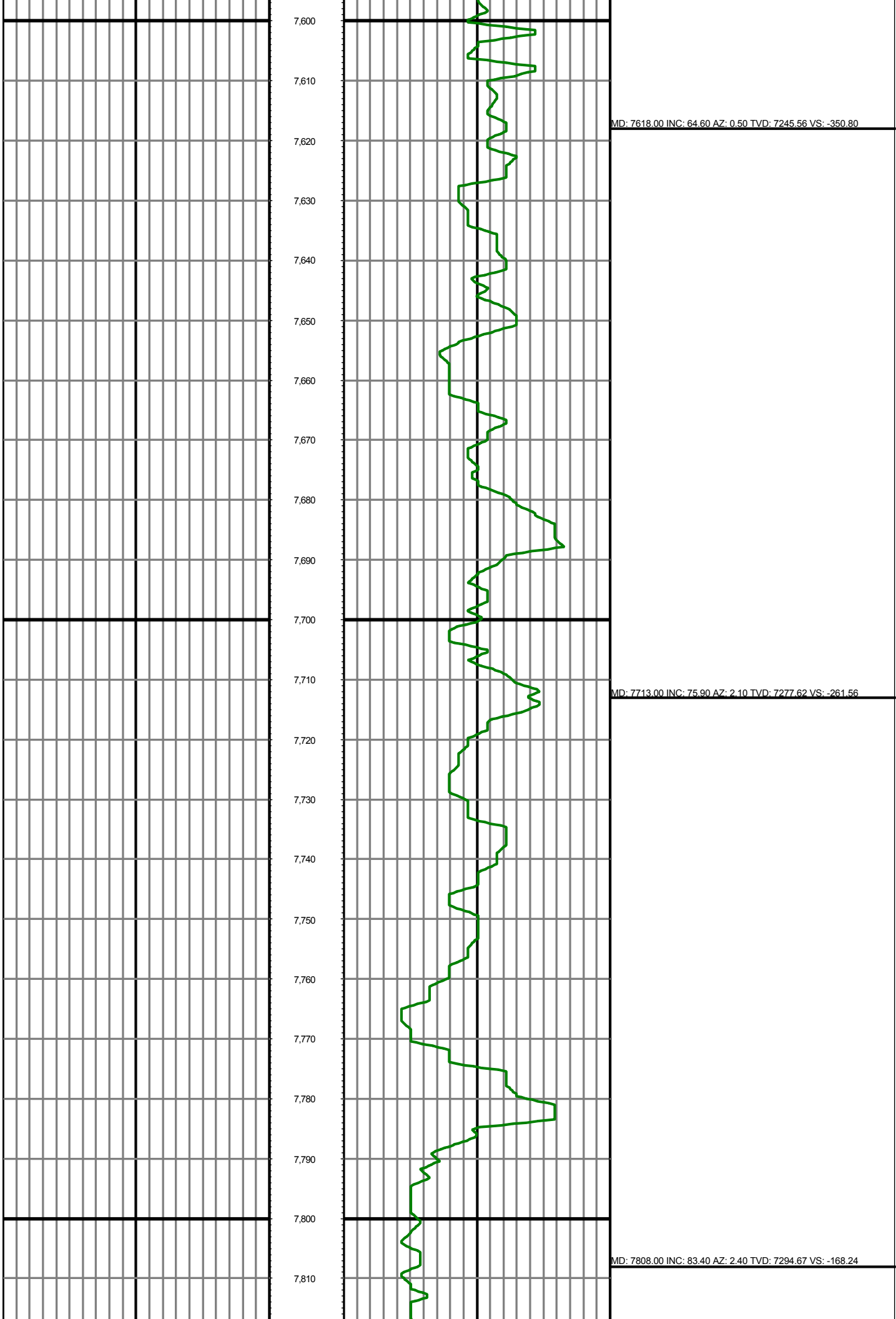
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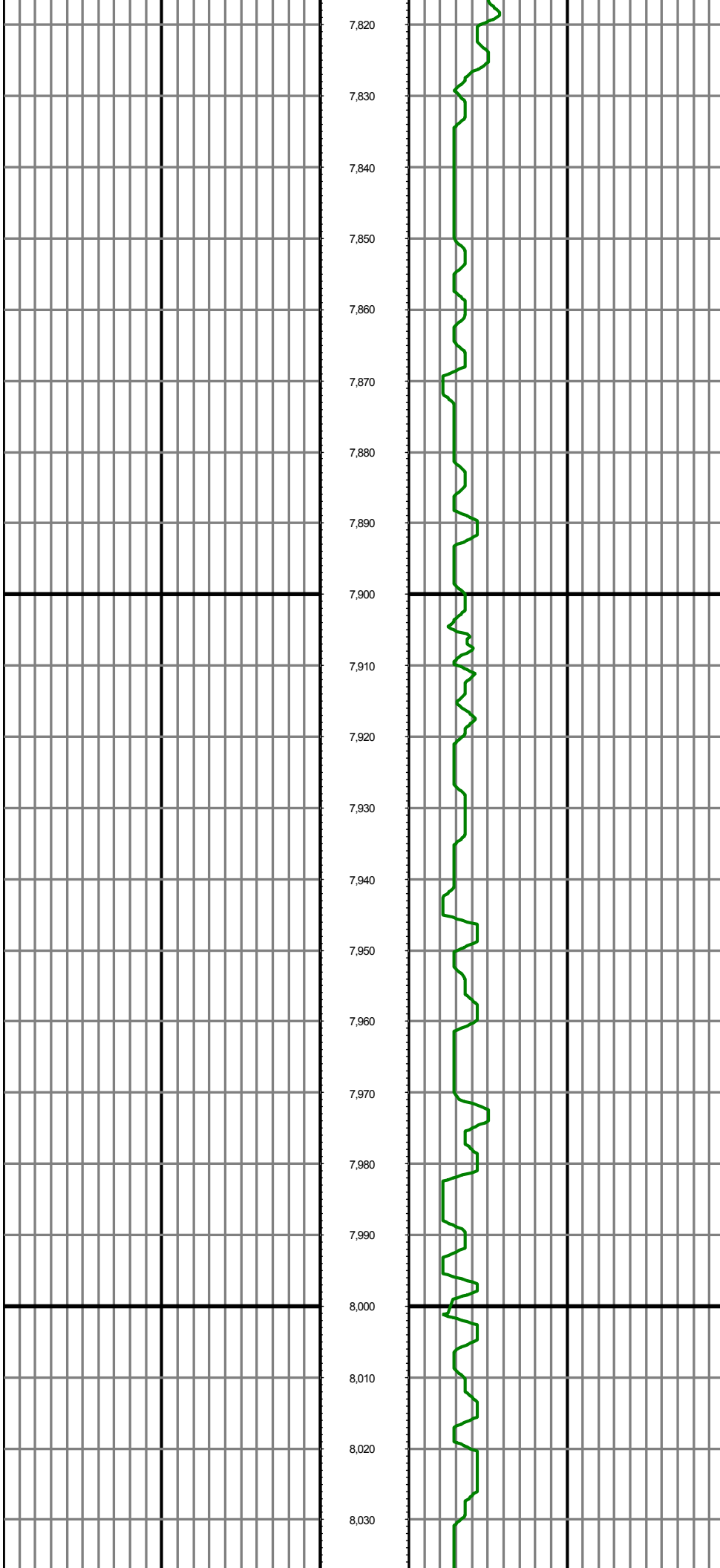


MD: 7240.00 INC: 39.30 AZ: 356.60 TVD: 7003.67 VS: -636.38

MD: 7335.00 INC: 42.10 AZ: 353.60 TVD: 7075.69 VS: -574.68

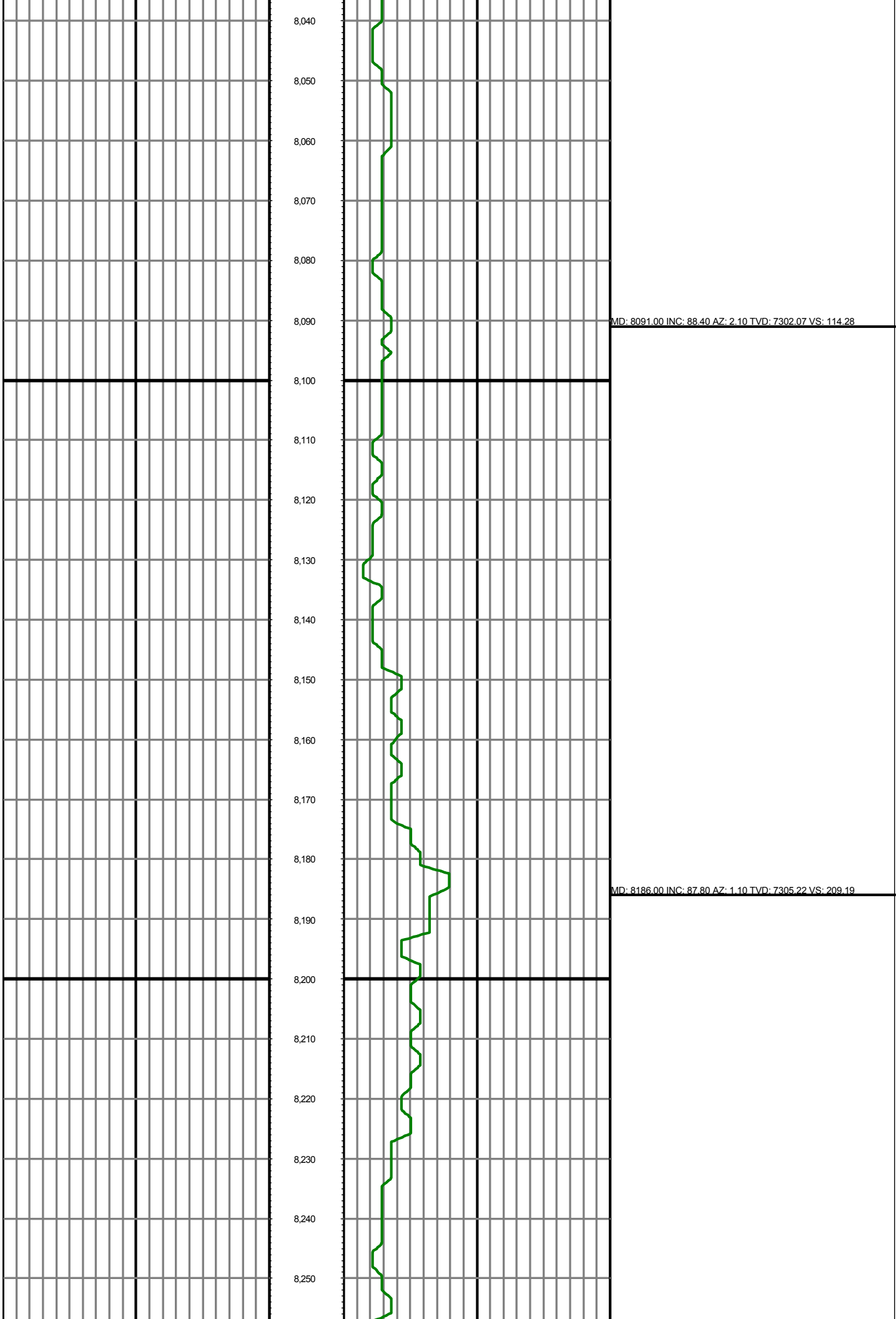


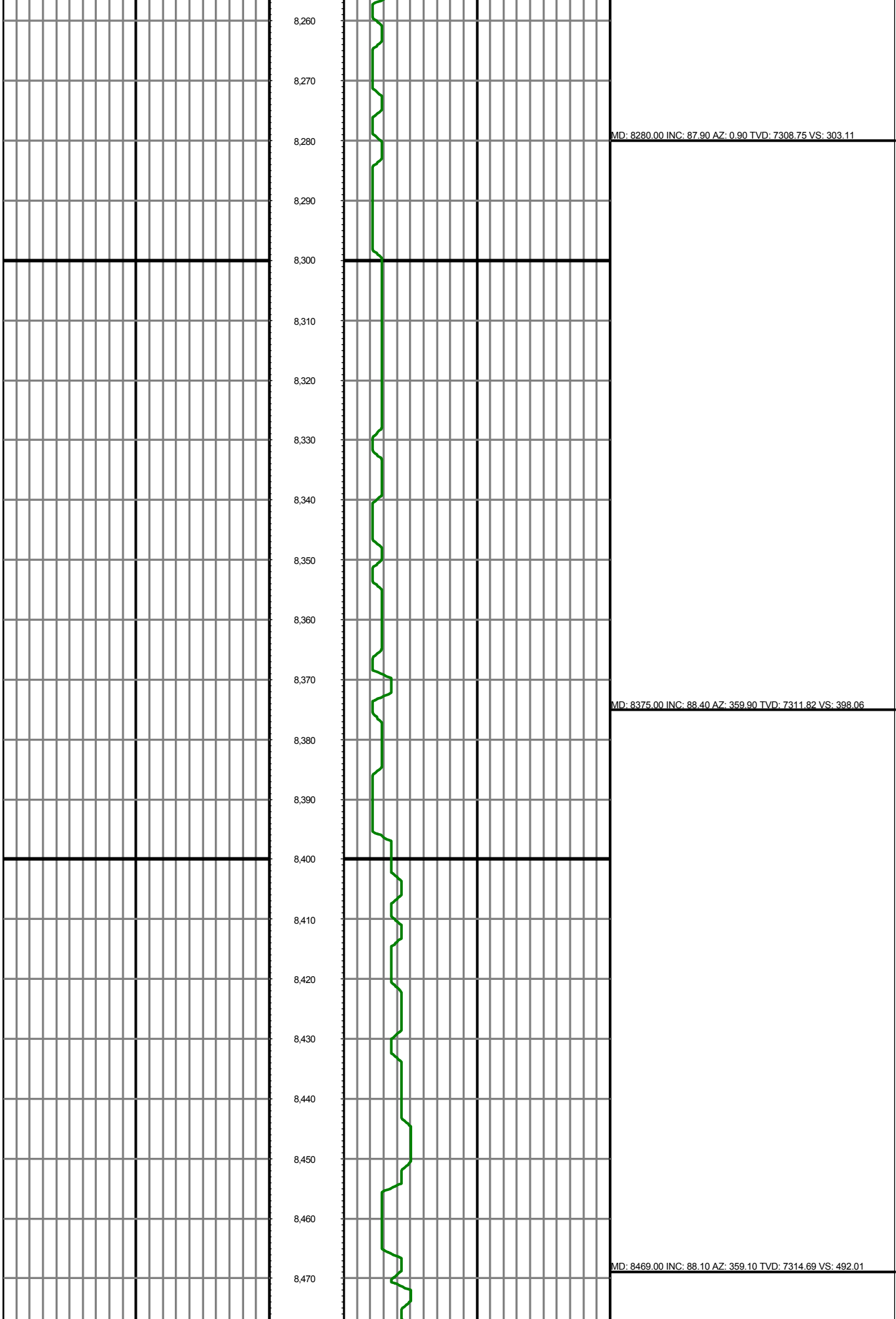


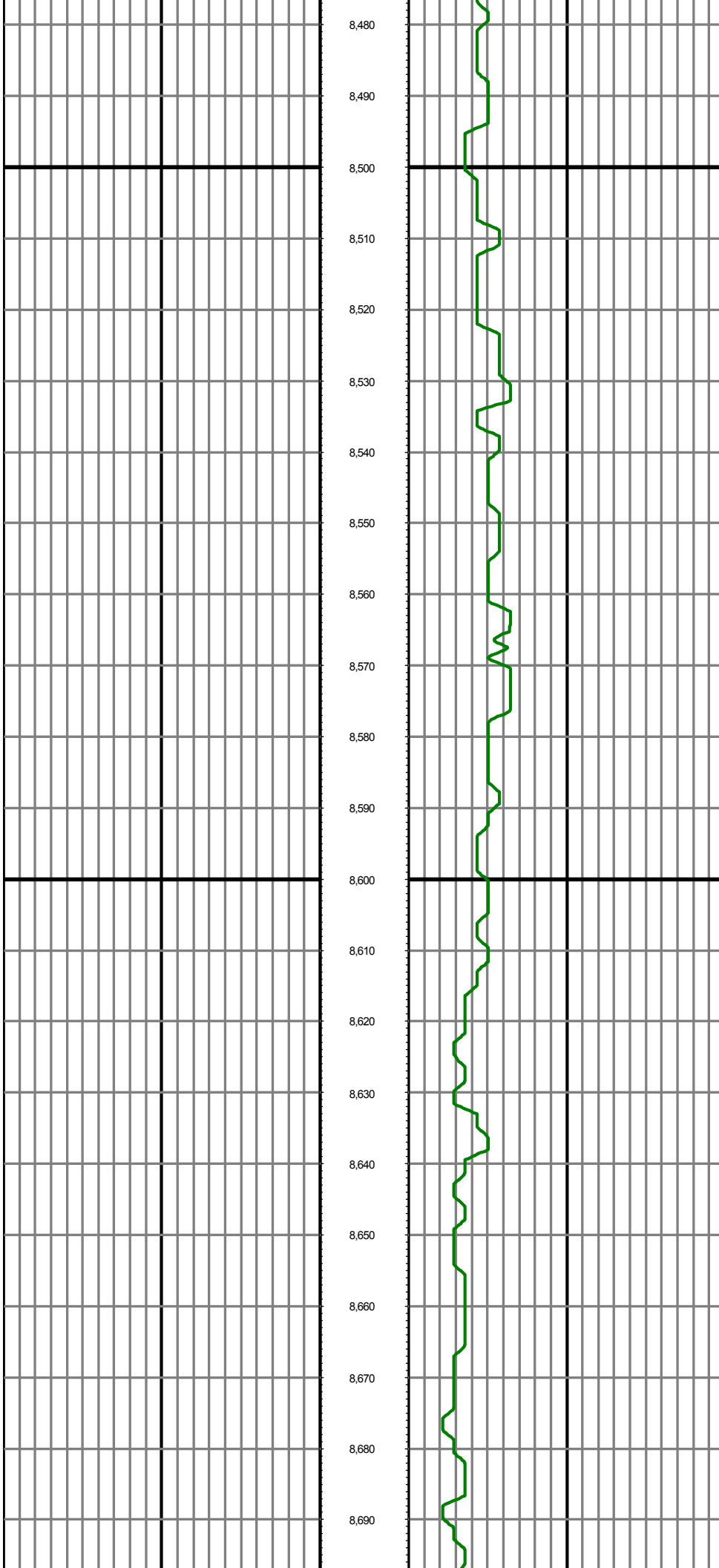


MD: 7902.00 INC: 90.90 AZ: 2.30 TVD: 7299.34 VS: -74.51

MD: 7996.00 INC: 88.70 AZ: 2.70 TVD: 7299.67 VS: 19.40

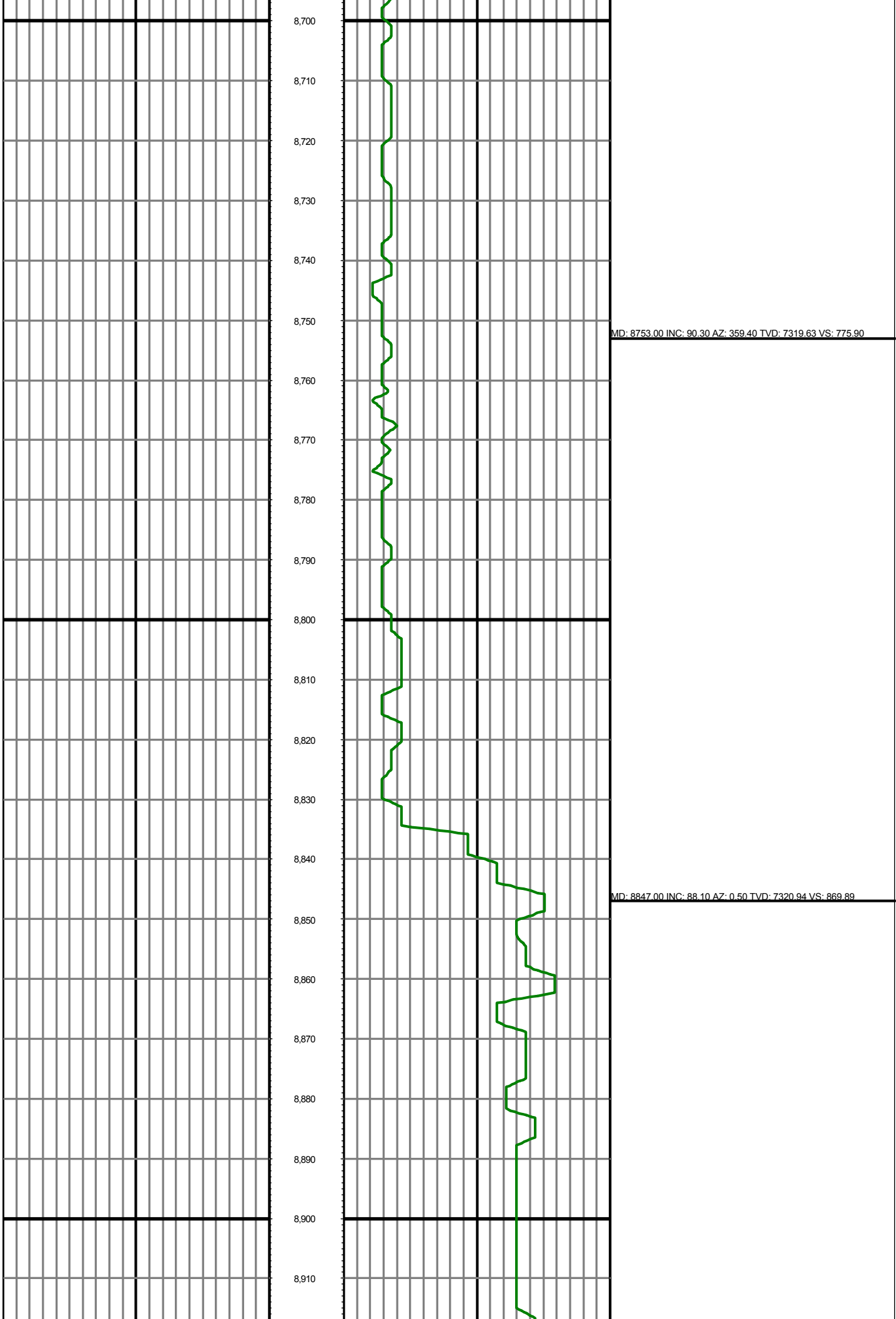


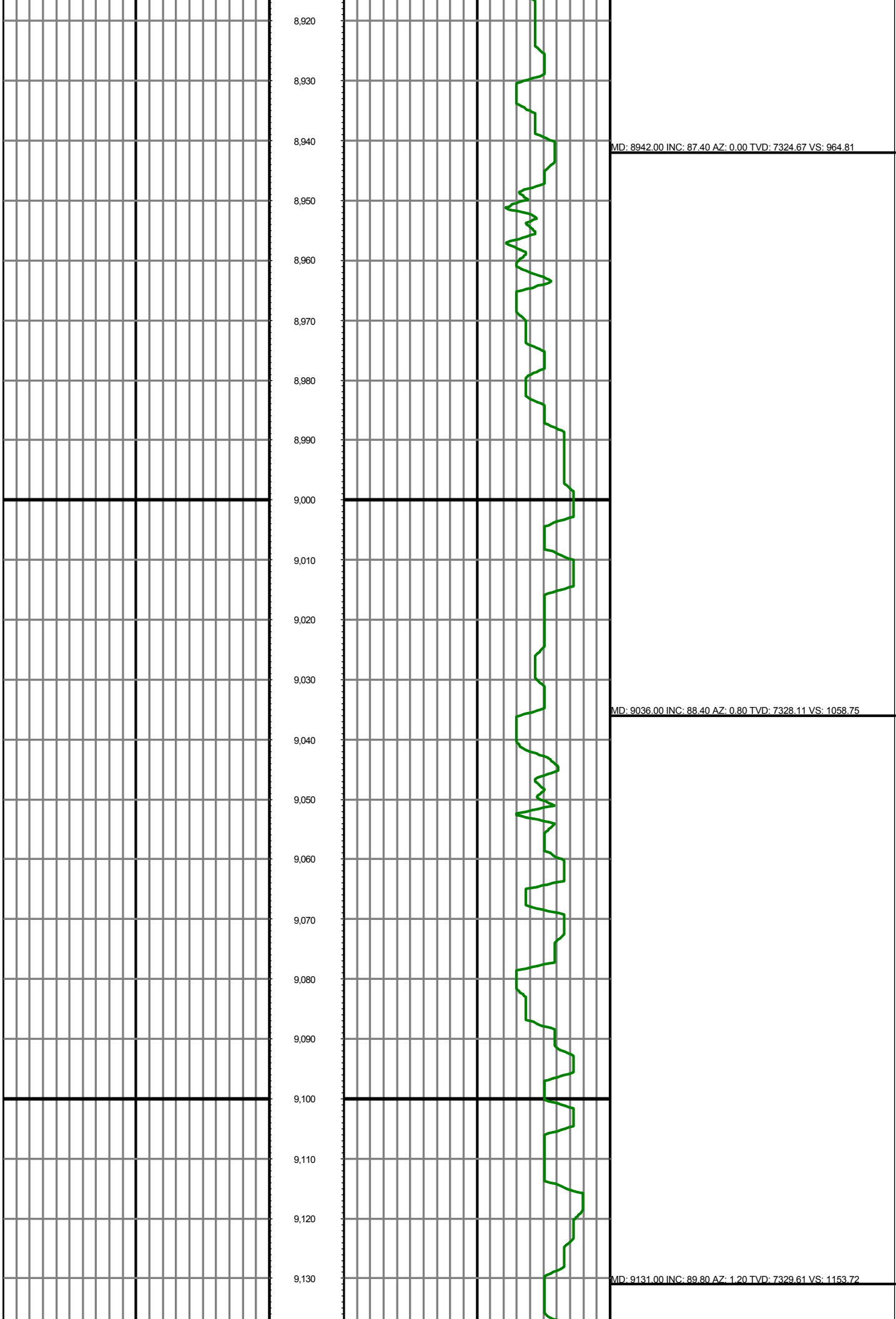


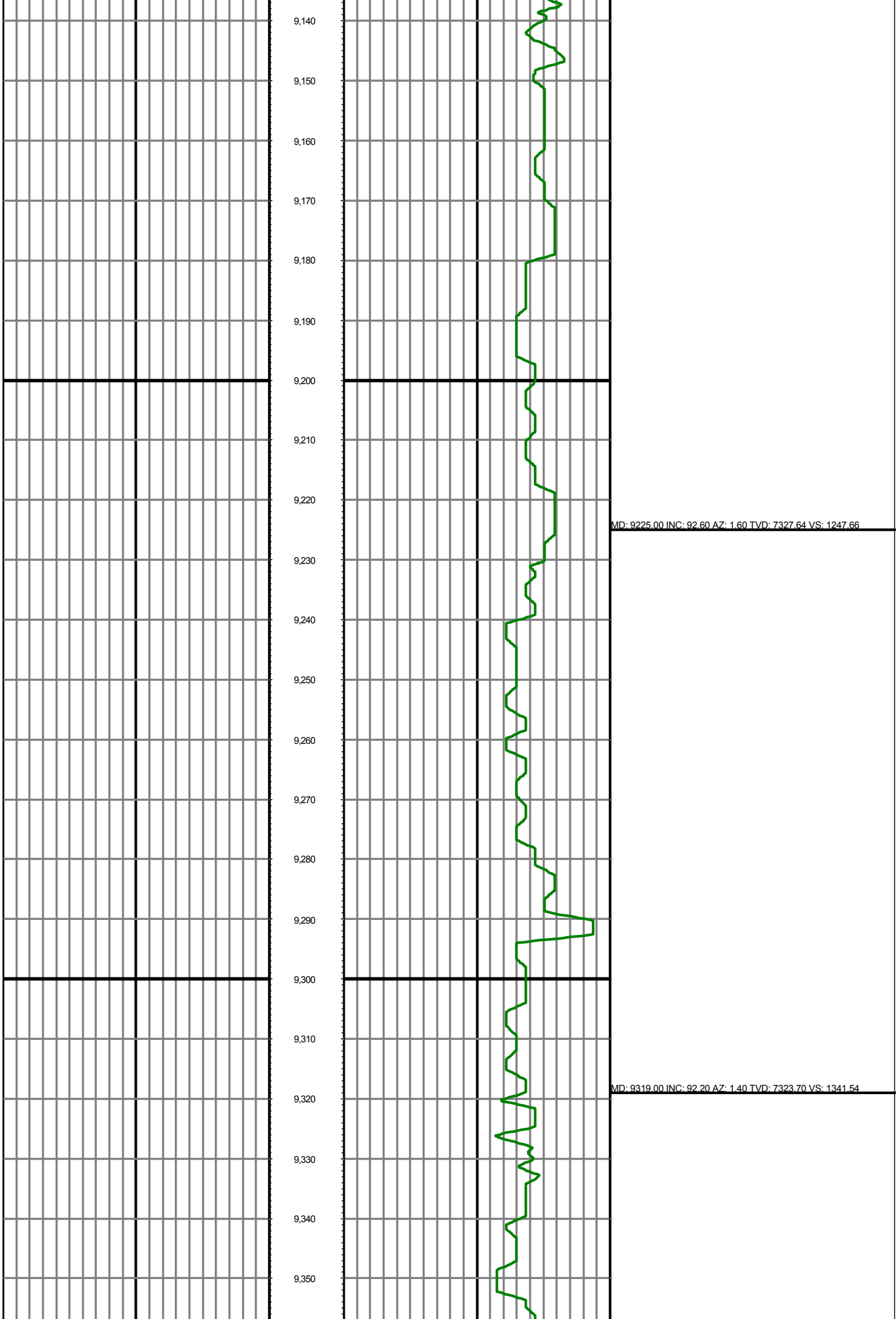


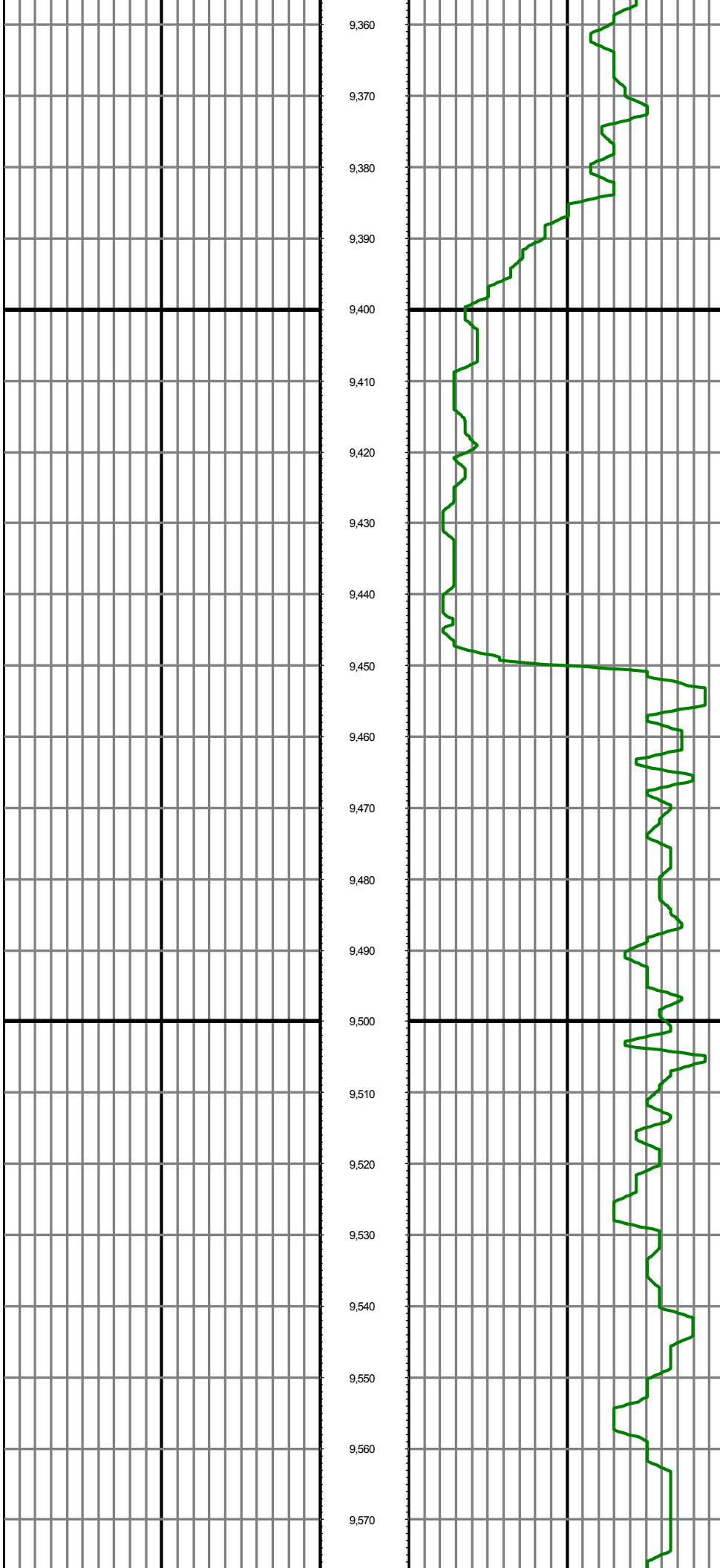
MD: 8563.00 INC: 88.00 AZ: 358.60 TVD: 7317.89 VS: 585.94

MD: 8658.00 INC: 89.80 AZ: 0.10 TVD: 7319.71 VS: 680.91



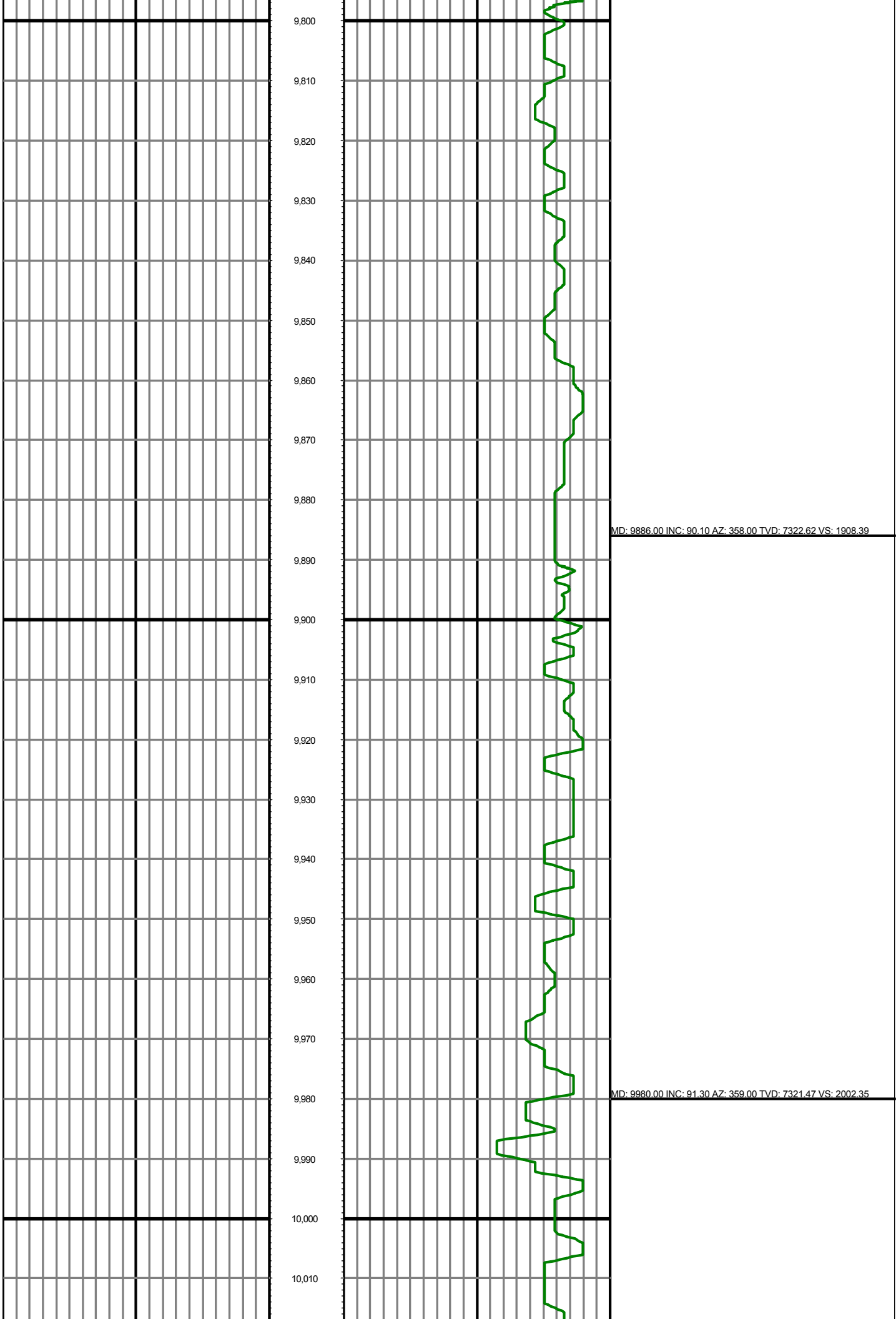


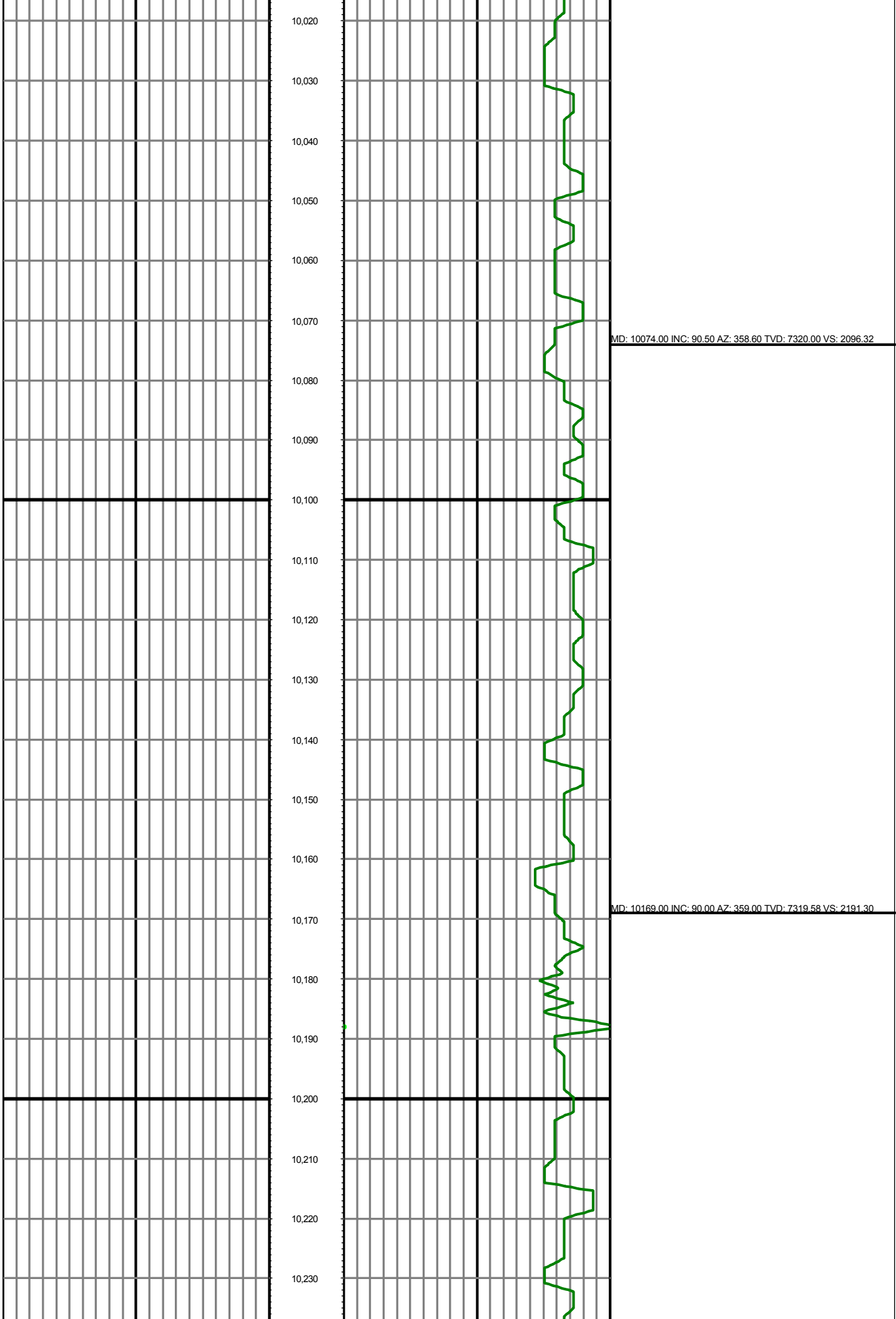


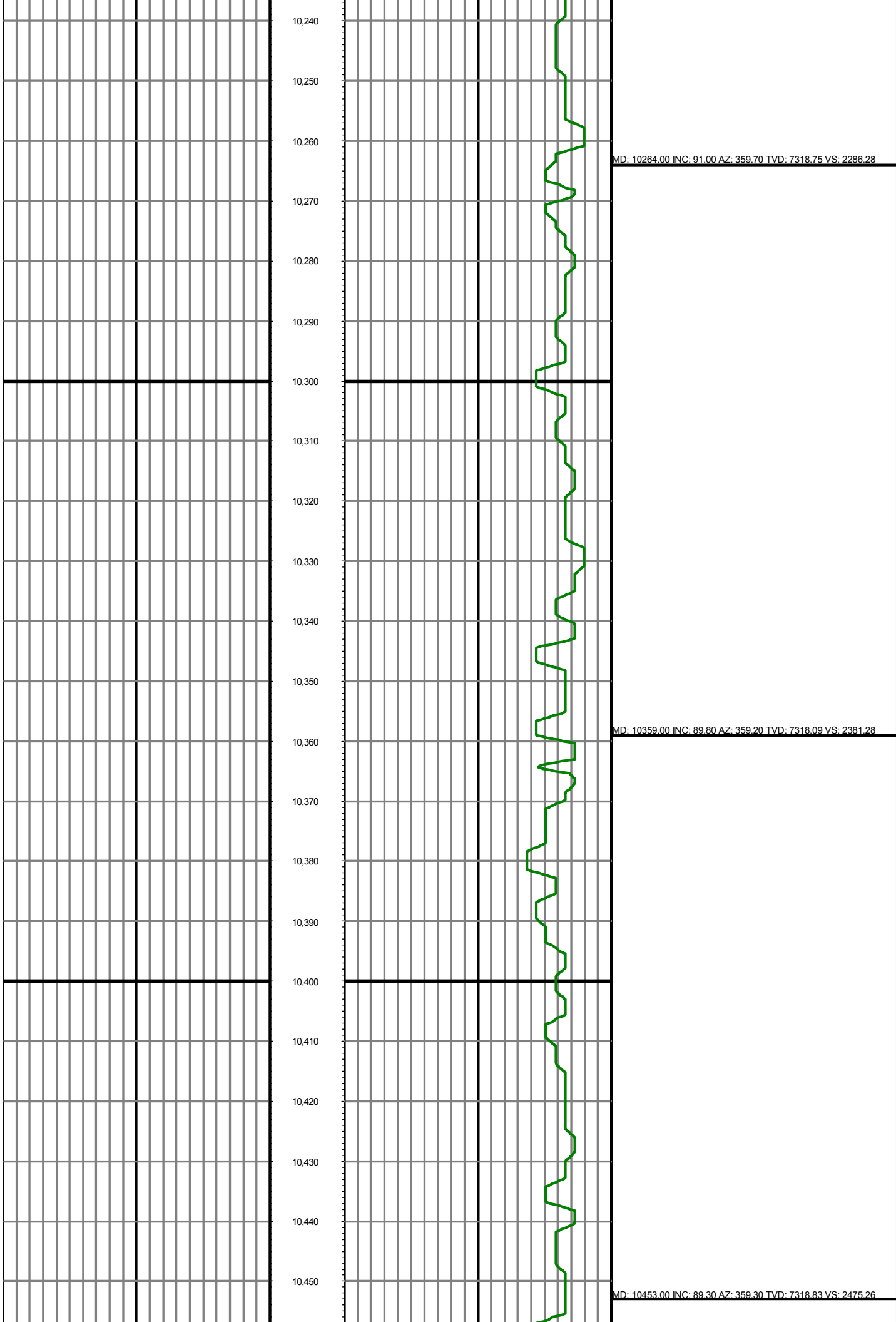


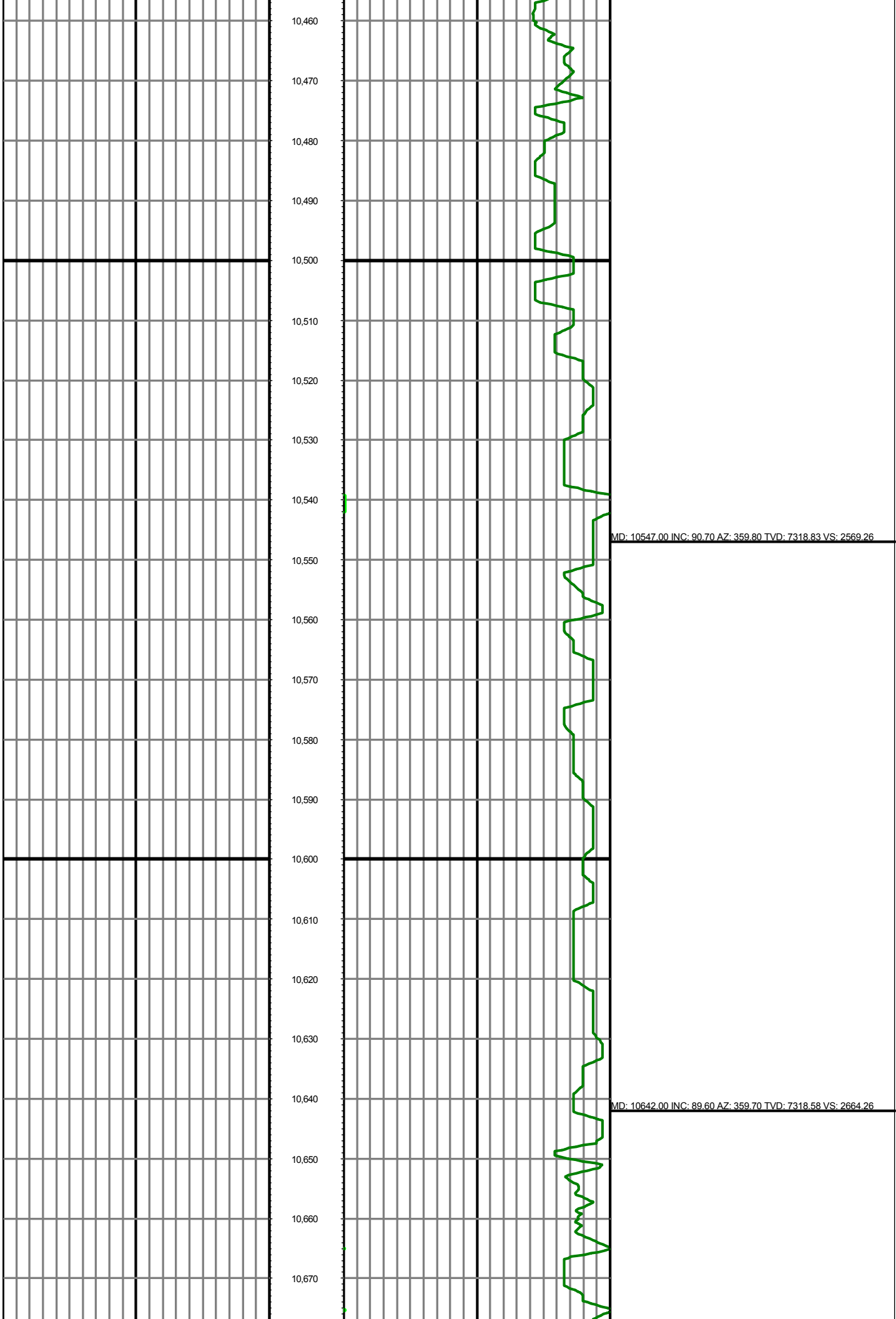
MD: 9414.00 INC: 90.10 AZ: 0.60 TVD: 7321.79 VS: 1436.50

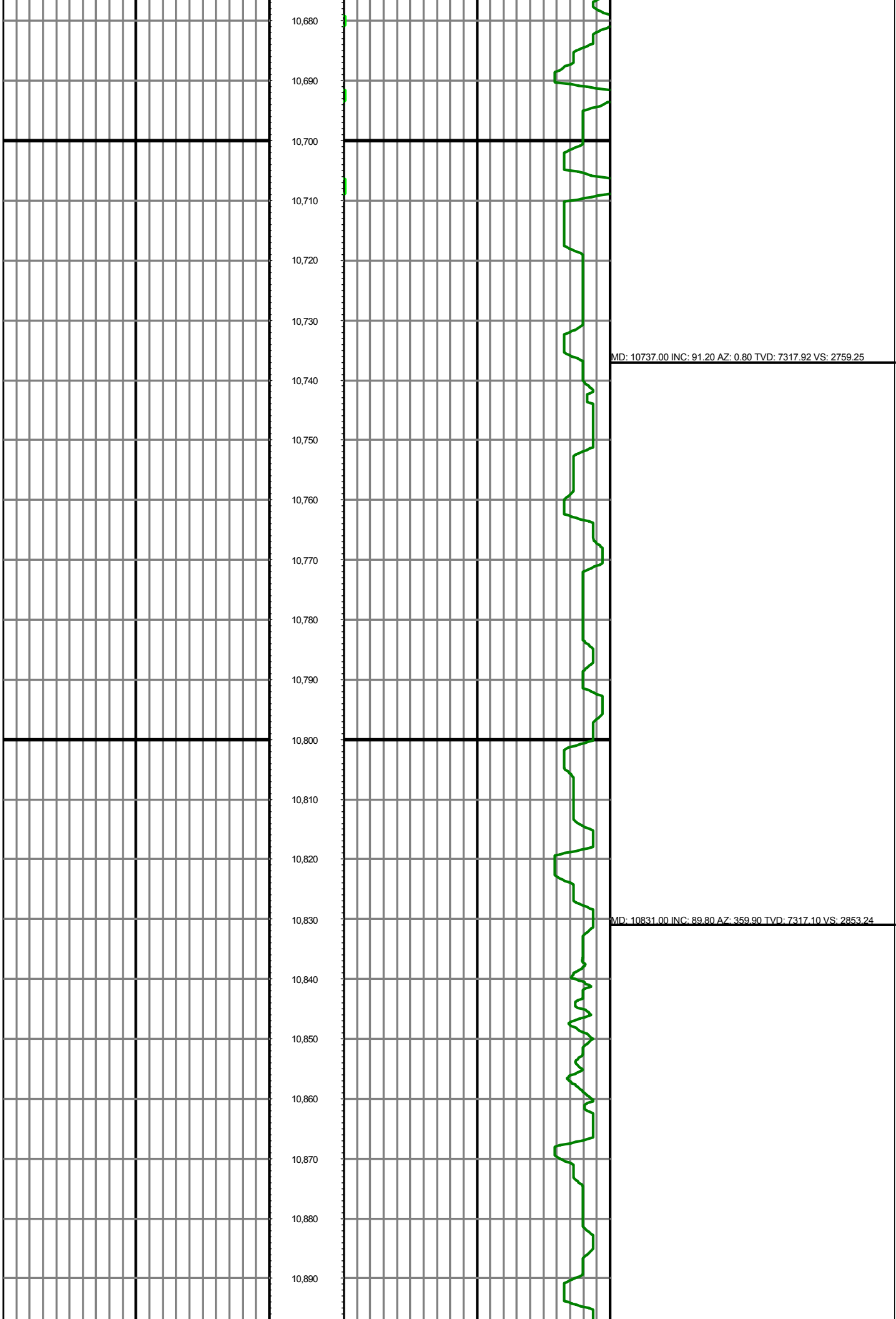
MD: 9508.00 INC: 89.50 AZ: 0.30 TVD: 7322.12 VS: 1530.50

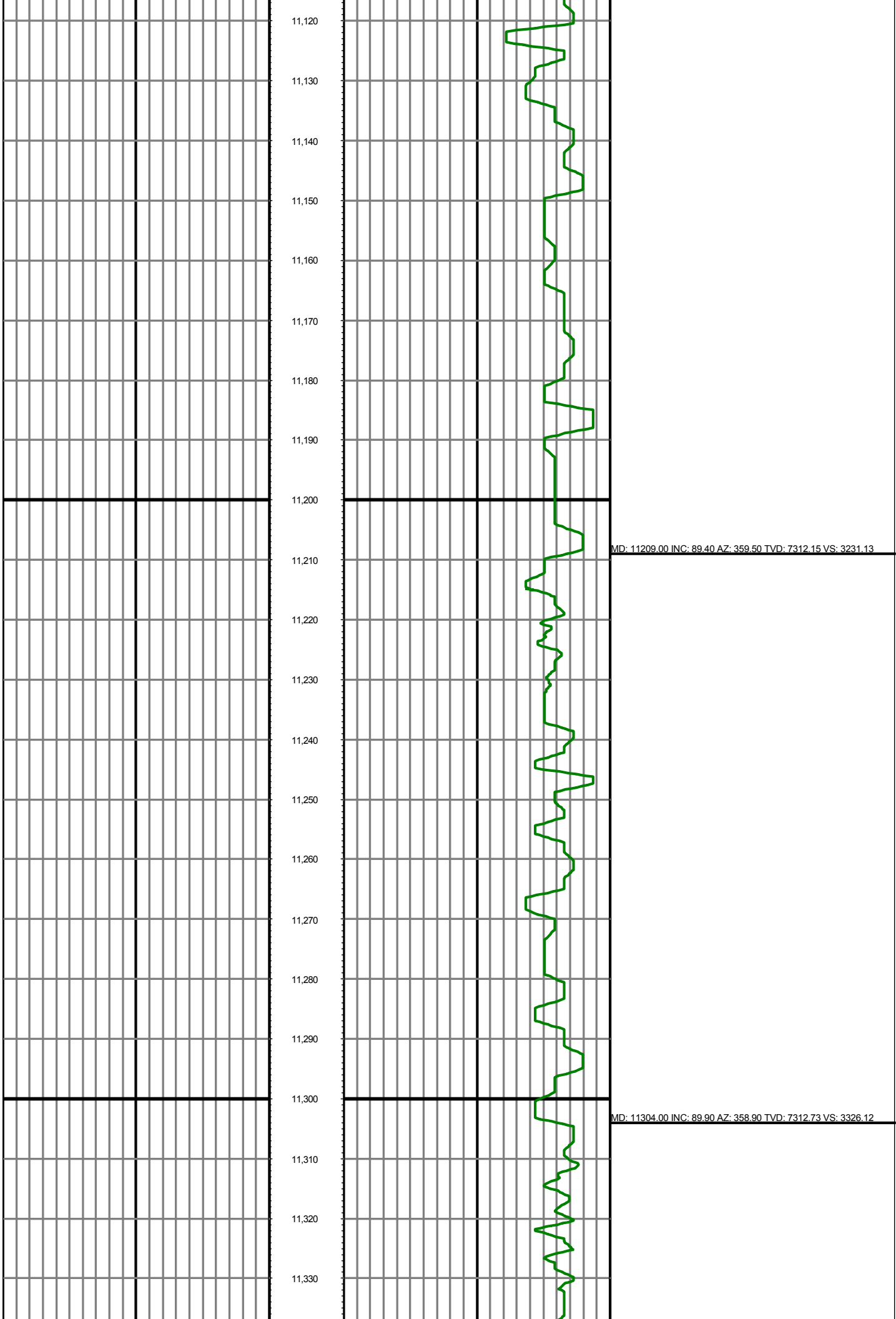


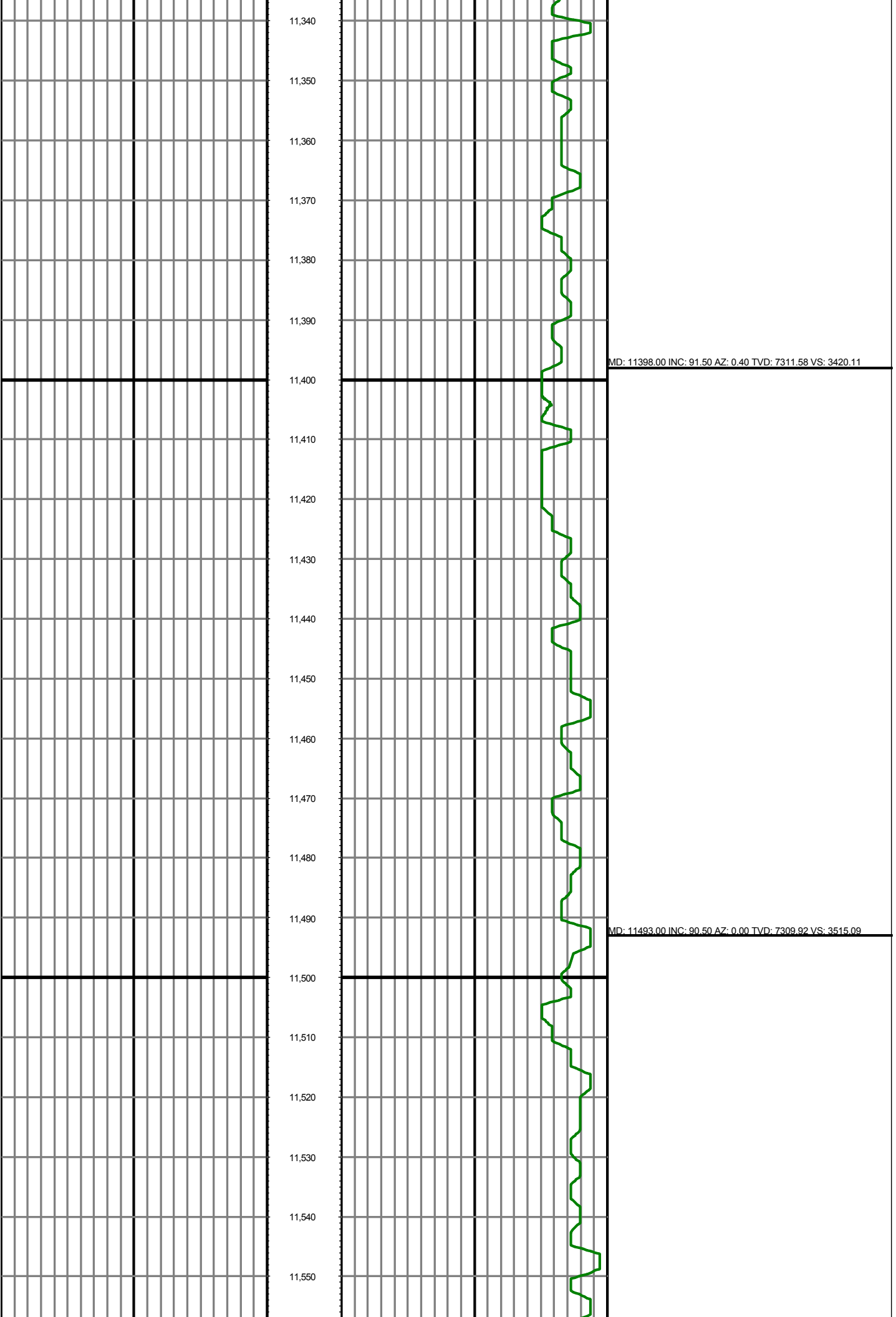


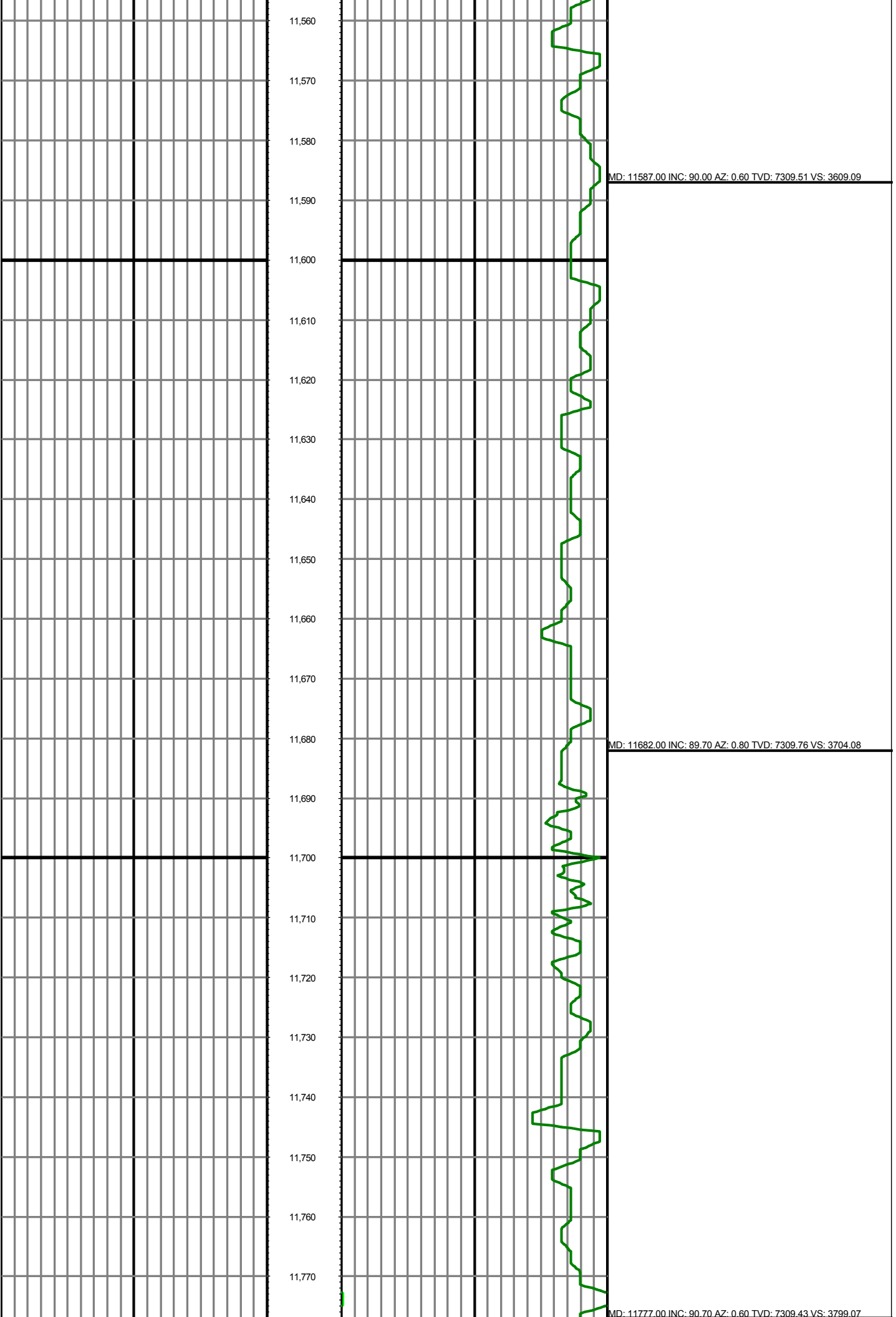












MD: 11777.00 INC: 90.70 AZ: 0.60 TVD: 7309.43 VS: 3799.07

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MD: 11871.00 INC: 91.50 AZ: 1.10 TVD: 7307.62 VS: 3893.04

MD: 11965.00 INC: 90.90 AZ: 0.10 TVD: 7305.65 VS: 3987.01

