



Cathedral Energy Services  
 1949 Pyrite Rd Casper Wyo 82609

**135522**

5":100' - MD

11/26/2013 8:24:08 PM

**Oper. Company:** Encana Oil & Gas  
**Country:** U.S.  
**State / Province:** Colorado  
**County / Parish:** Weld  
**Started:** 11/16/2013 11:30 PM

**API/UWI:**  
**Field:** DJ Basin  
**Well:** Billings 1D-34H  
**Rig:** Ensign 135  
**Ended:** 11/20/2013 07:00 AM

**Personnel**

**Day Hand:** Brett Giannino  
**Night Hand:** Eric McClay  
**Comp. Emp:** Cathedral Energy Service

**Location**

**Latitude:** 40.101570  
**Longitude:** -104.985540  
**Elev. GL:** 4995  
**Elev. DF:** 5008  
**Elev. KB:** 5008

**Hole Data**

Size	From	To
8.75	0	7836

**Casing Data**

Size	From	To
9.58	0	7819

**Bit Sizes**

Size	From	To
8.75	1040	7836

**Mud Data**

Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
LSND	8.5	8.5	28				1040	7836

**Tool Run Data**

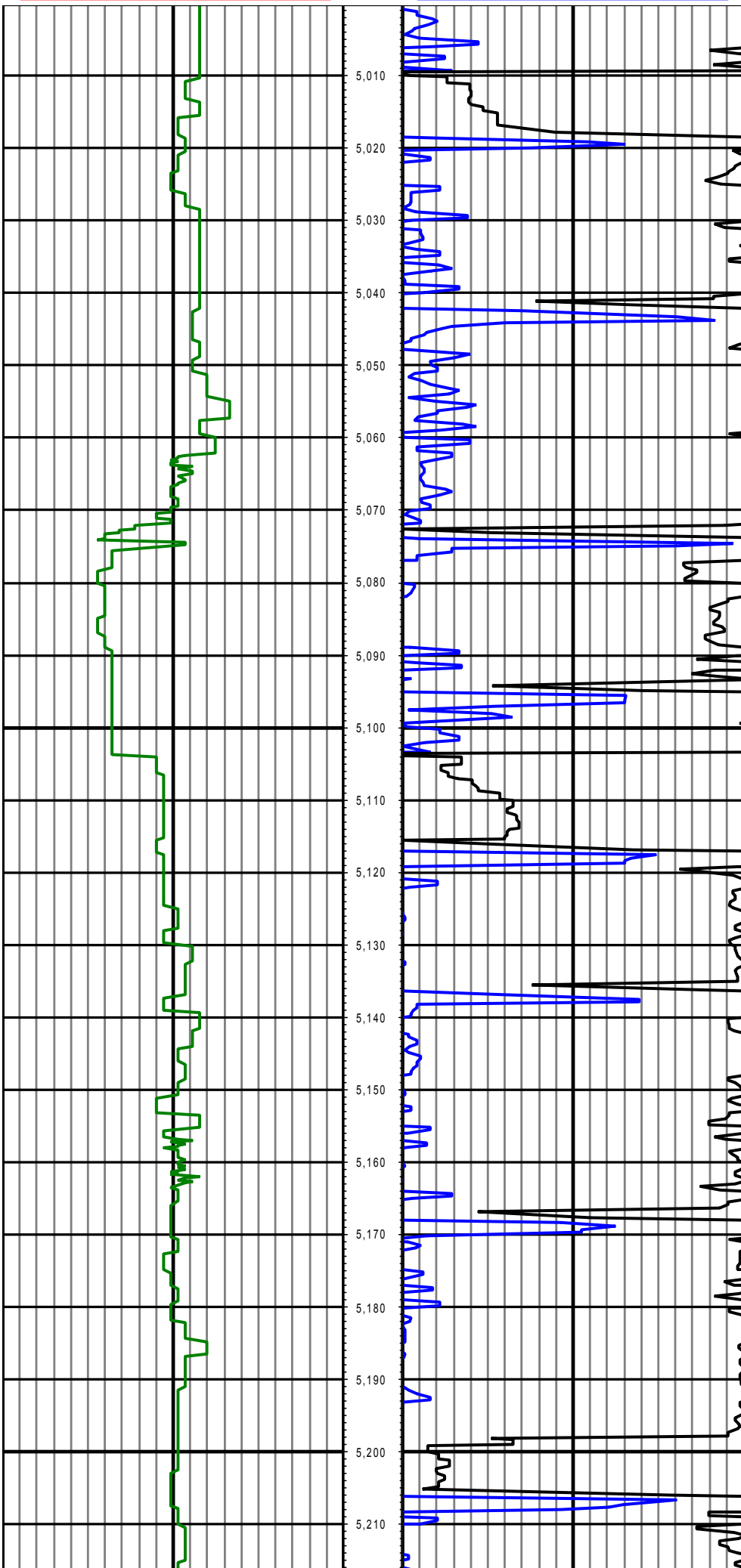
Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
1403	41.26	0	11/16/2013 11:30:05 PM	5000	11/20/2013 7:00:05 AM	7836

*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(API) 01 MD 150.00 300.00

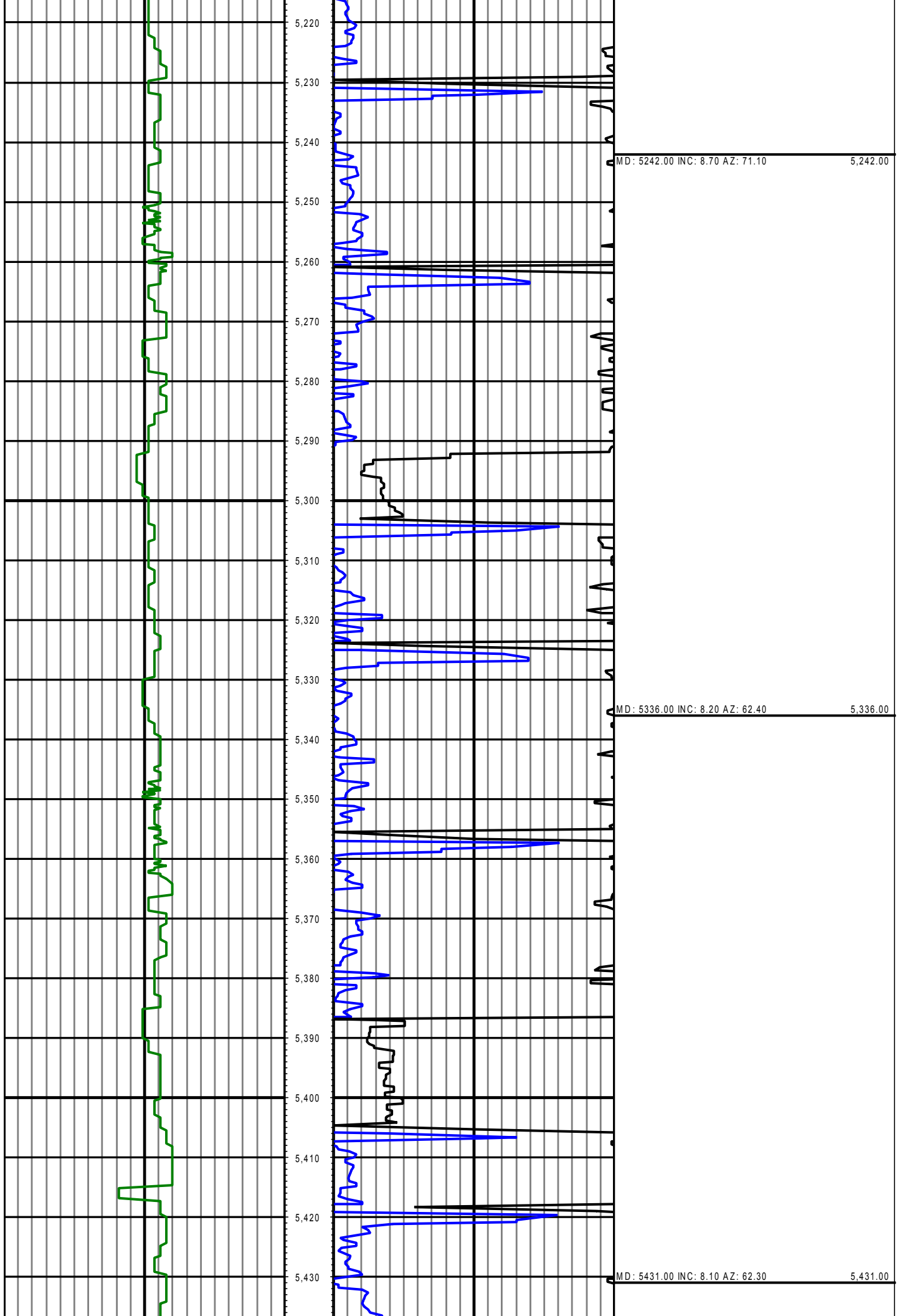
FT 300.00 2 600.00

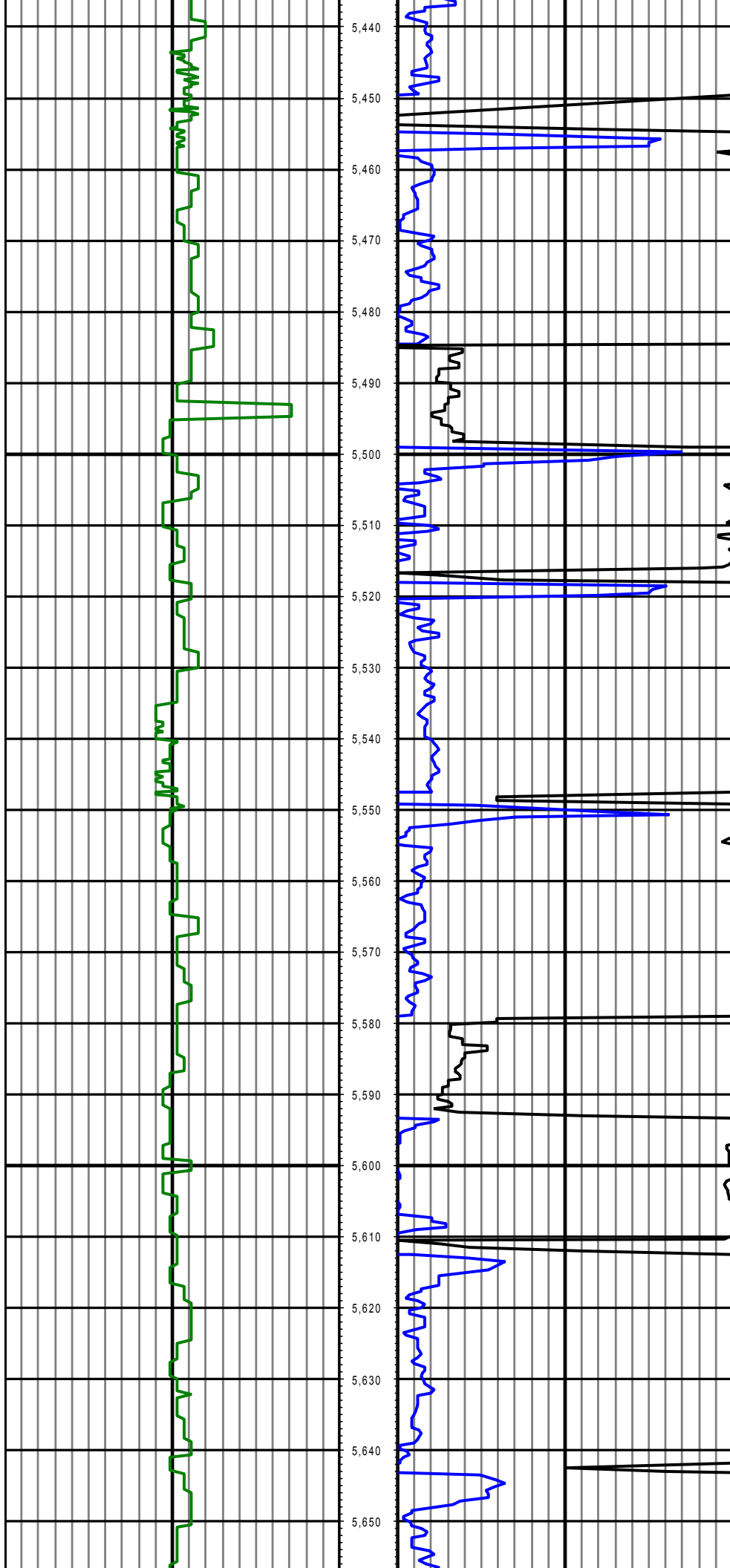
Surveys (MD/INC/AZ)



MD: 5052.00 INC: 9.10 AZ: 69.60 5,052.00

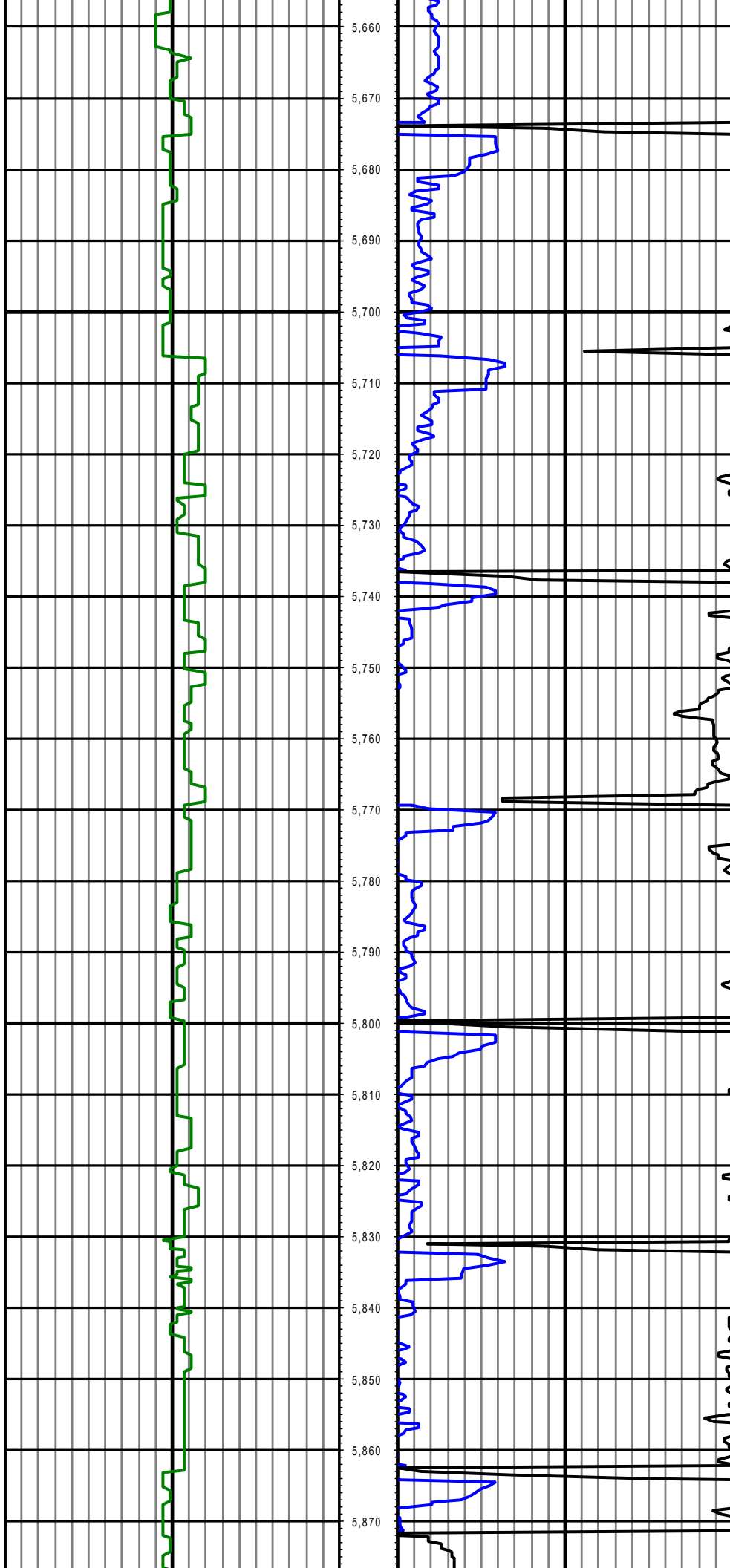
MD: 5147.00 INC: 9.50 AZ: 75.80 5,147.00





MD: 5526.00 INC: 8.00 AZ: 63.30 5,526.00

MD: 5621.00 INC: 5.90 AZ: 73.90 5,621.00

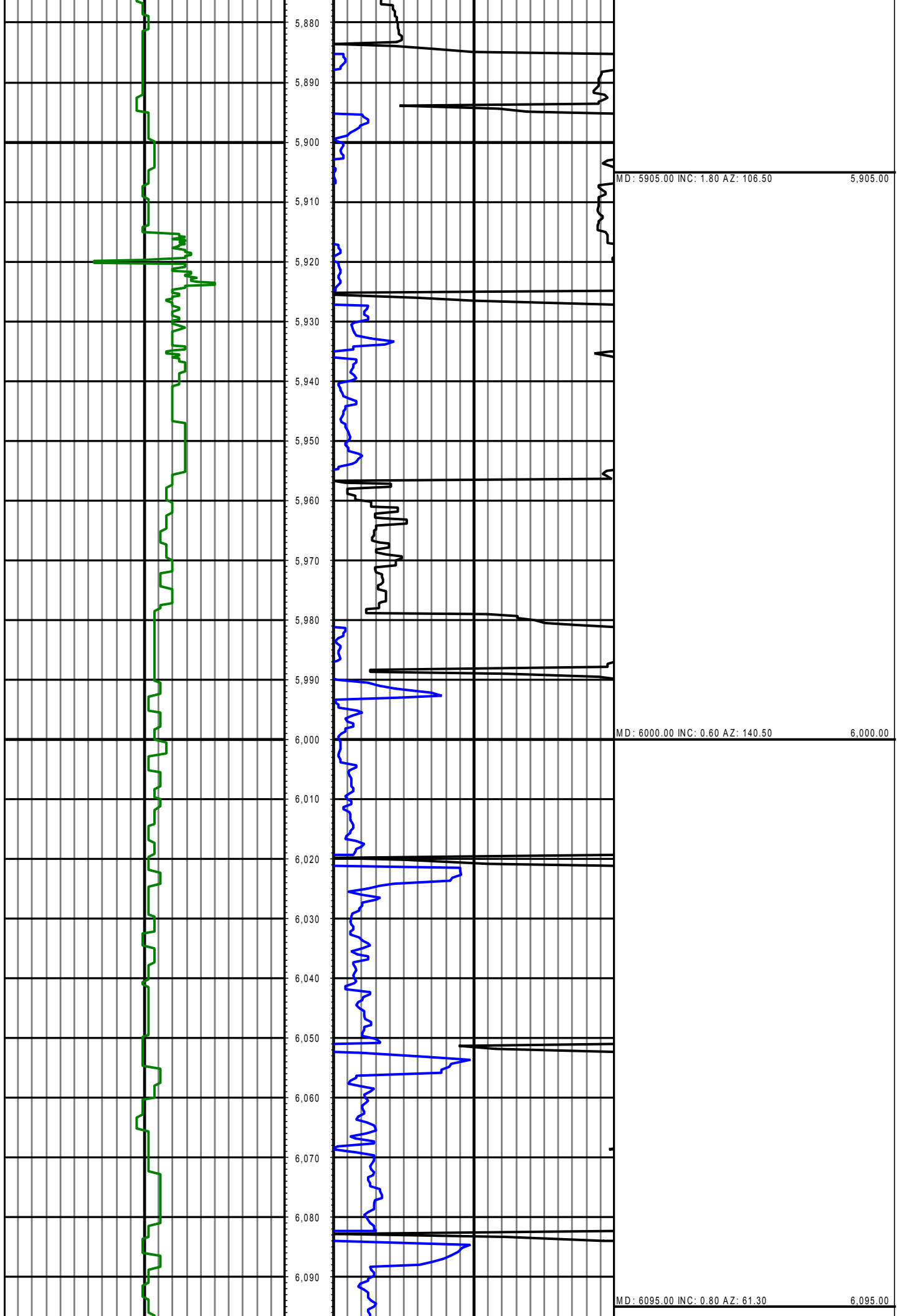


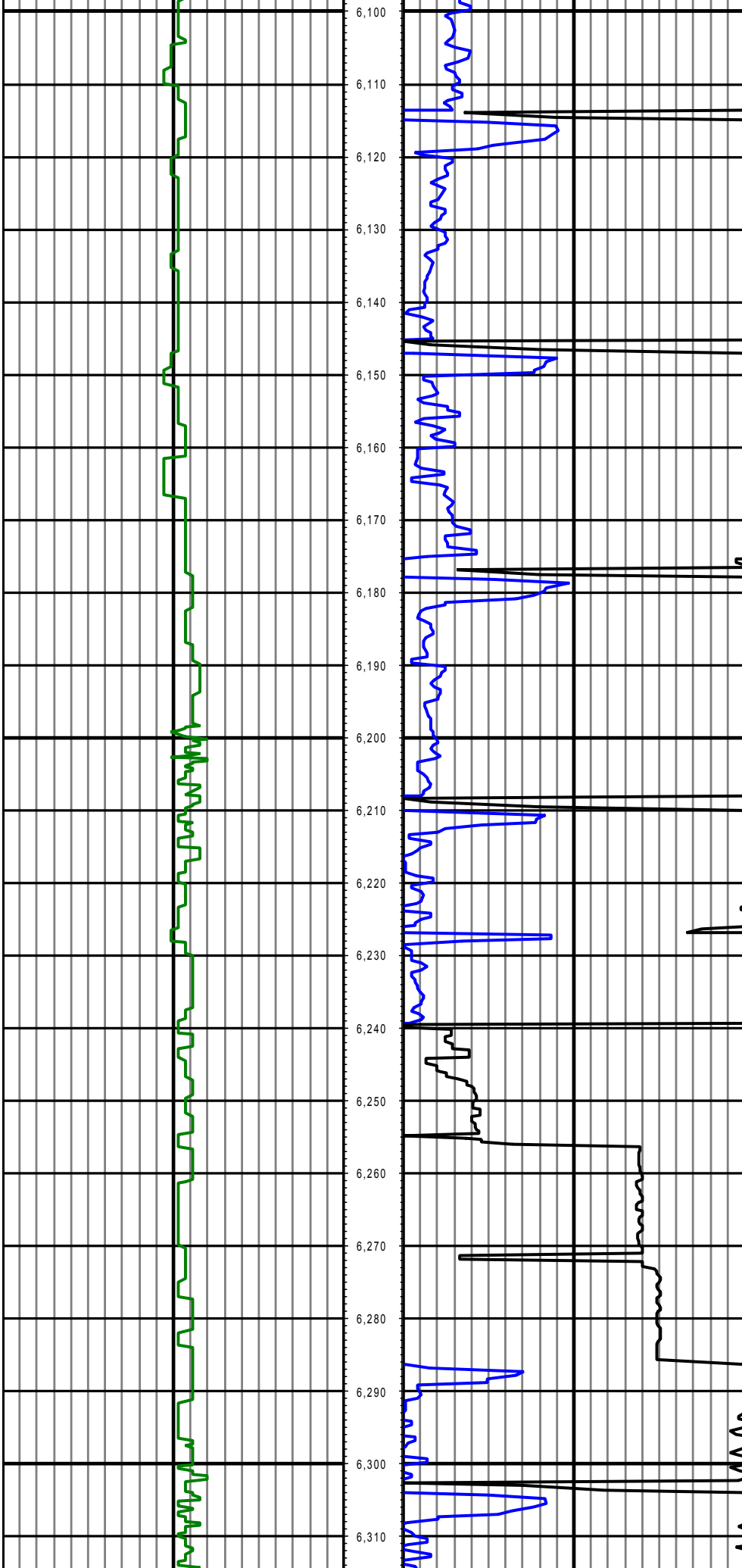
MD: 5716.00 INC: 4.00 AZ: 64.40

5,716.00

MD: 5810.00 INC: 4.30 AZ: 60.60

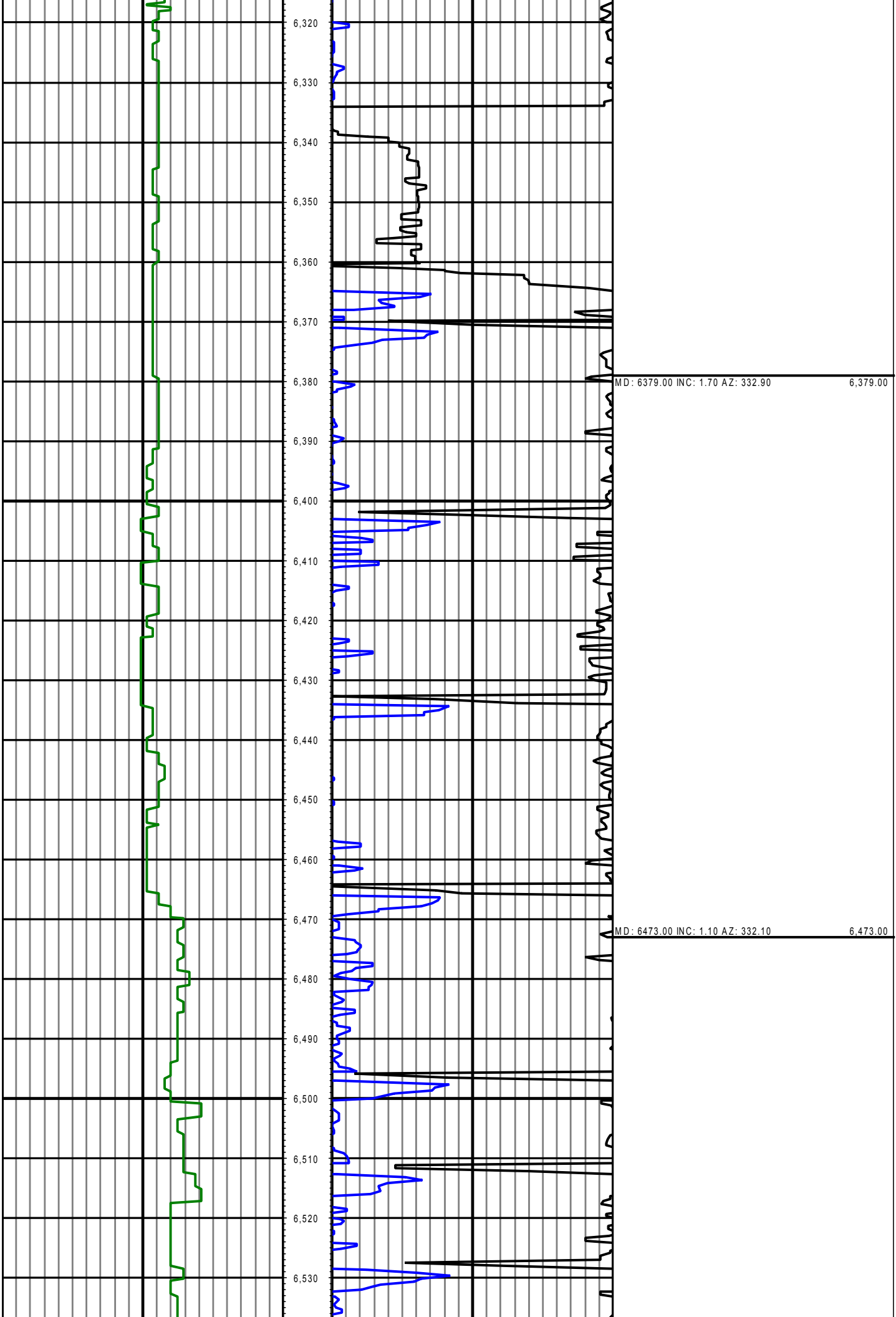
5,810.00

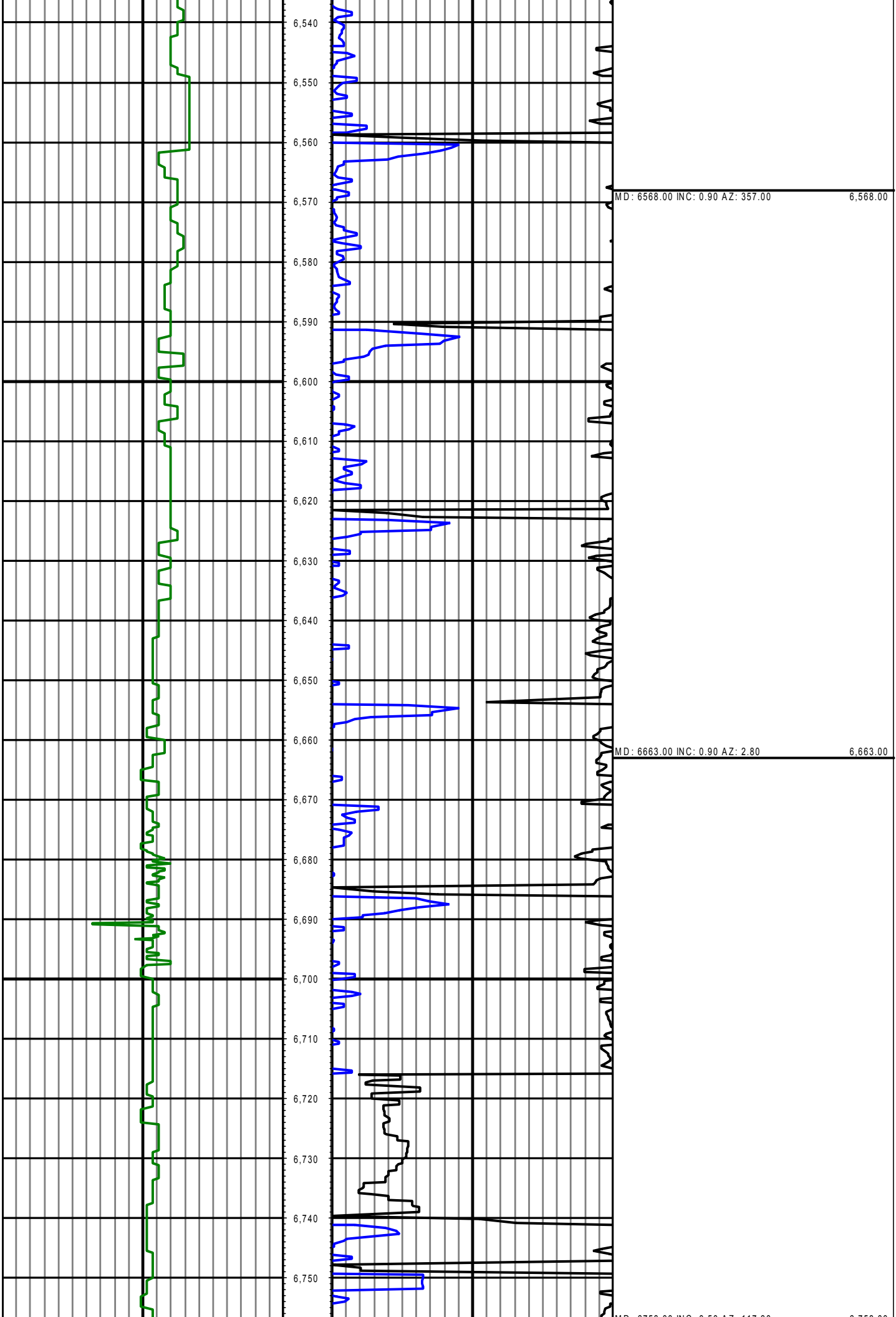




MD: 6189.00 INC: 1.10 AZ: 47.00 6,189.00

MD: 6284.00 INC: 0.70 AZ: 101.20 6,284.00

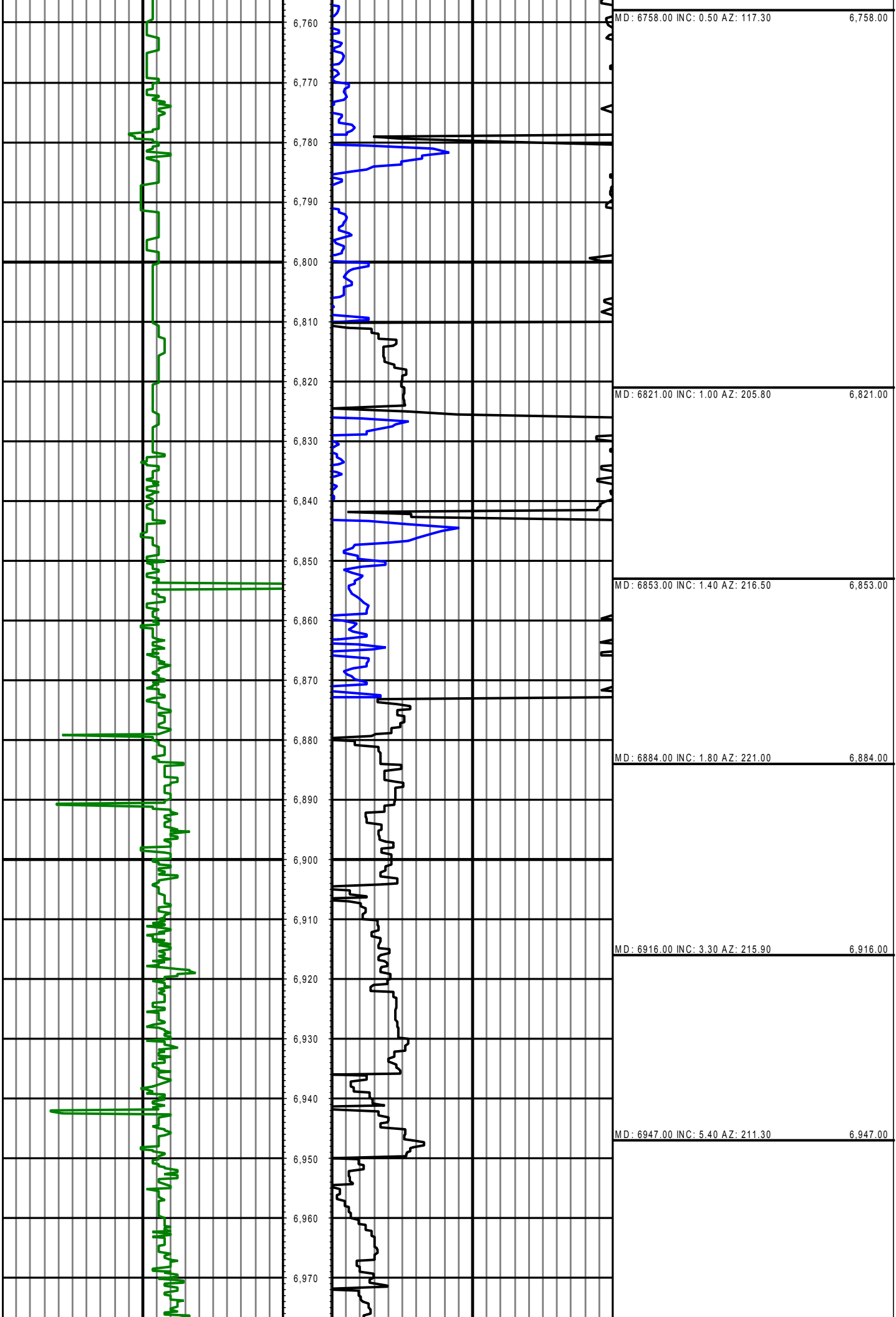


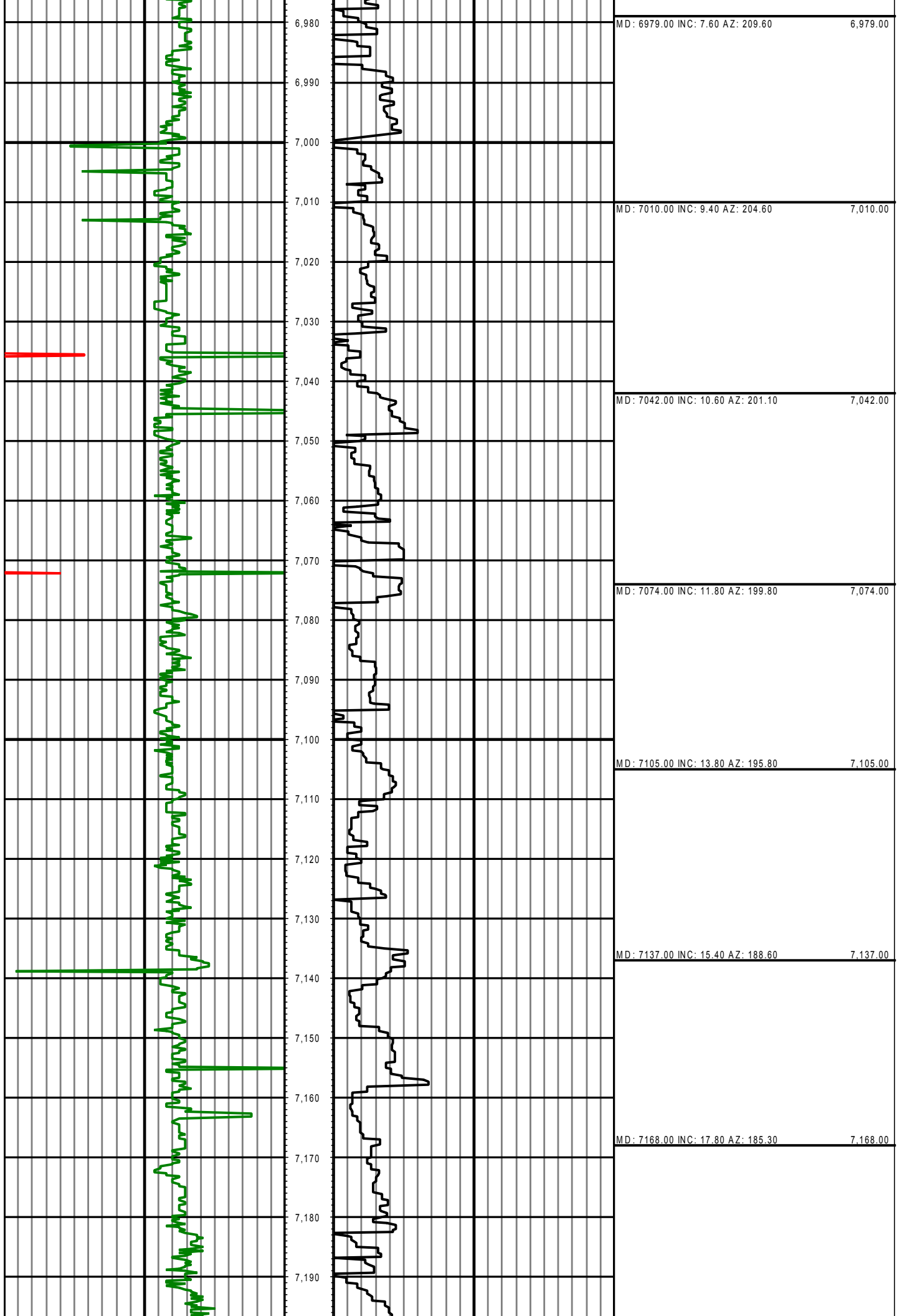


MD: 6568.00 INC: 0.90 AZ: 357.00 6,568.00

MD: 6663.00 INC: 0.90 AZ: 2.80 6,663.00

MD: 6750.00 INC: 0.90 AZ: 117.00 6,750.00





MD: 6979.00 INC: 7.60 AZ: 209.60 6,979.00

MD: 7010.00 INC: 9.40 AZ: 204.60 7,010.00

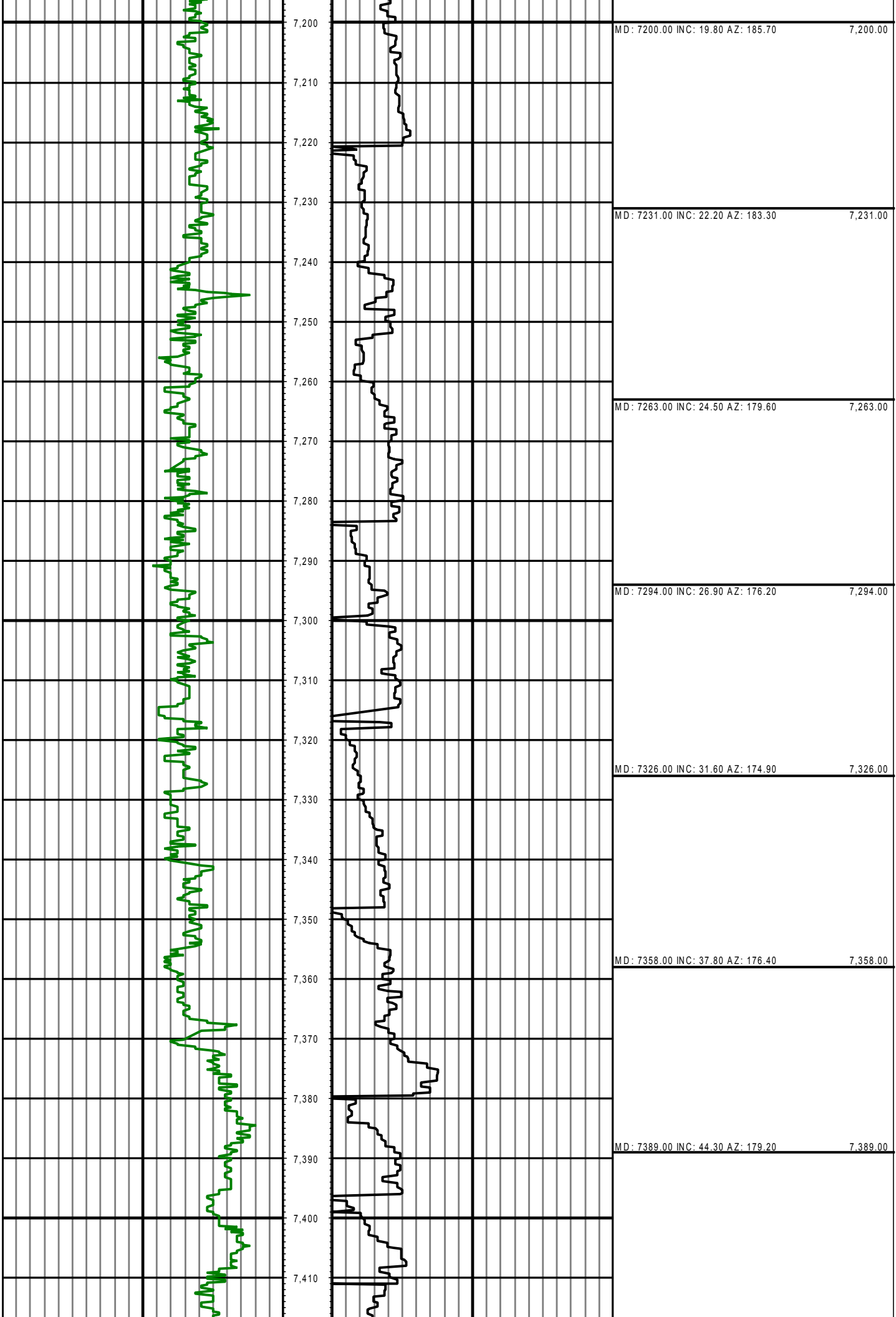
MD: 7042.00 INC: 10.60 AZ: 201.10 7,042.00

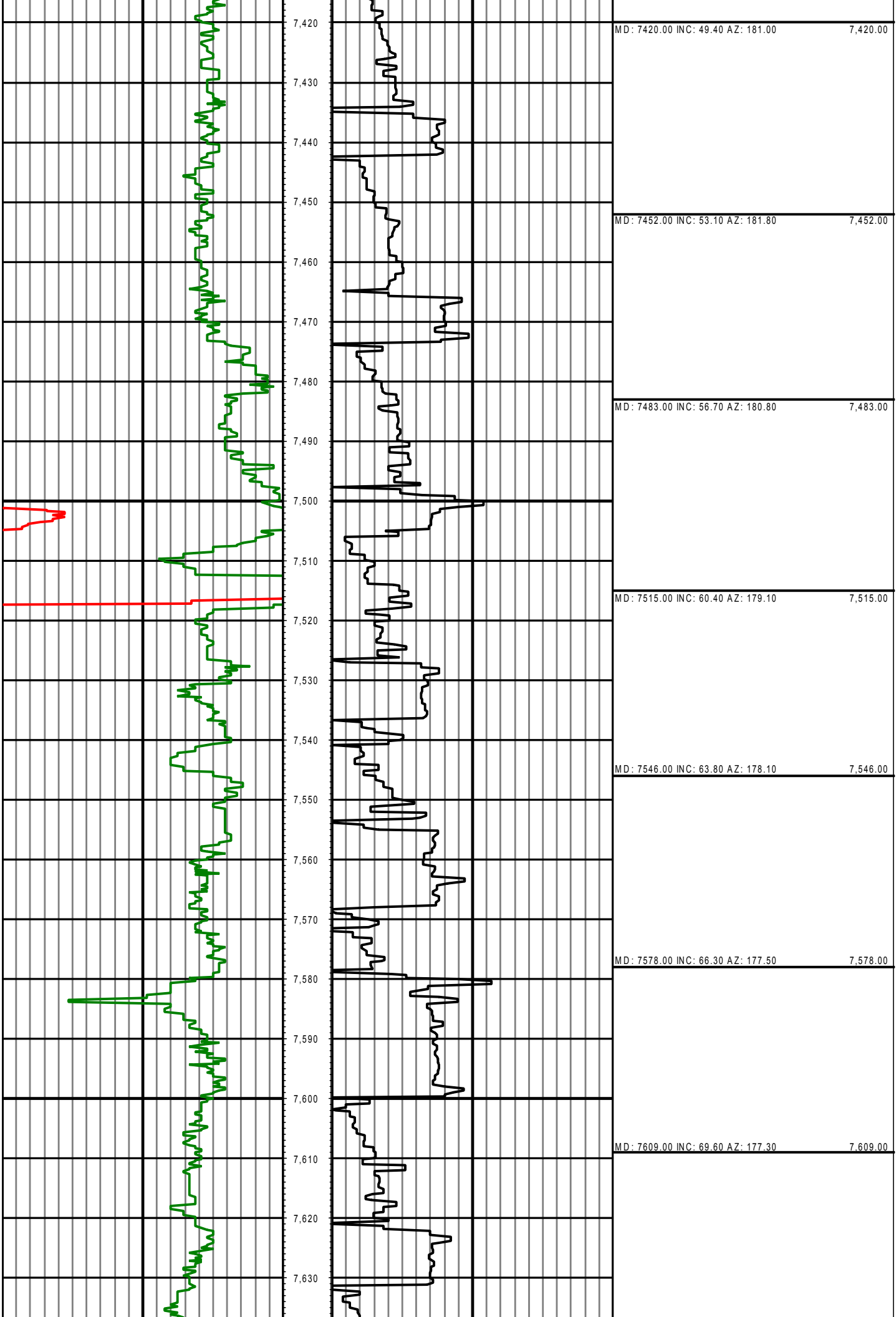
MD: 7074.00 INC: 11.80 AZ: 199.80 7,074.00

MD: 7105.00 INC: 13.80 AZ: 195.80 7,105.00

MD: 7137.00 INC: 15.40 AZ: 188.60 7,137.00

MD: 7168.00 INC: 17.80 AZ: 185.30 7,168.00





MD: 7420.00 INC: 49.40 AZ: 181.00 7,420.00

MD: 7452.00 INC: 53.10 AZ: 181.80 7,452.00

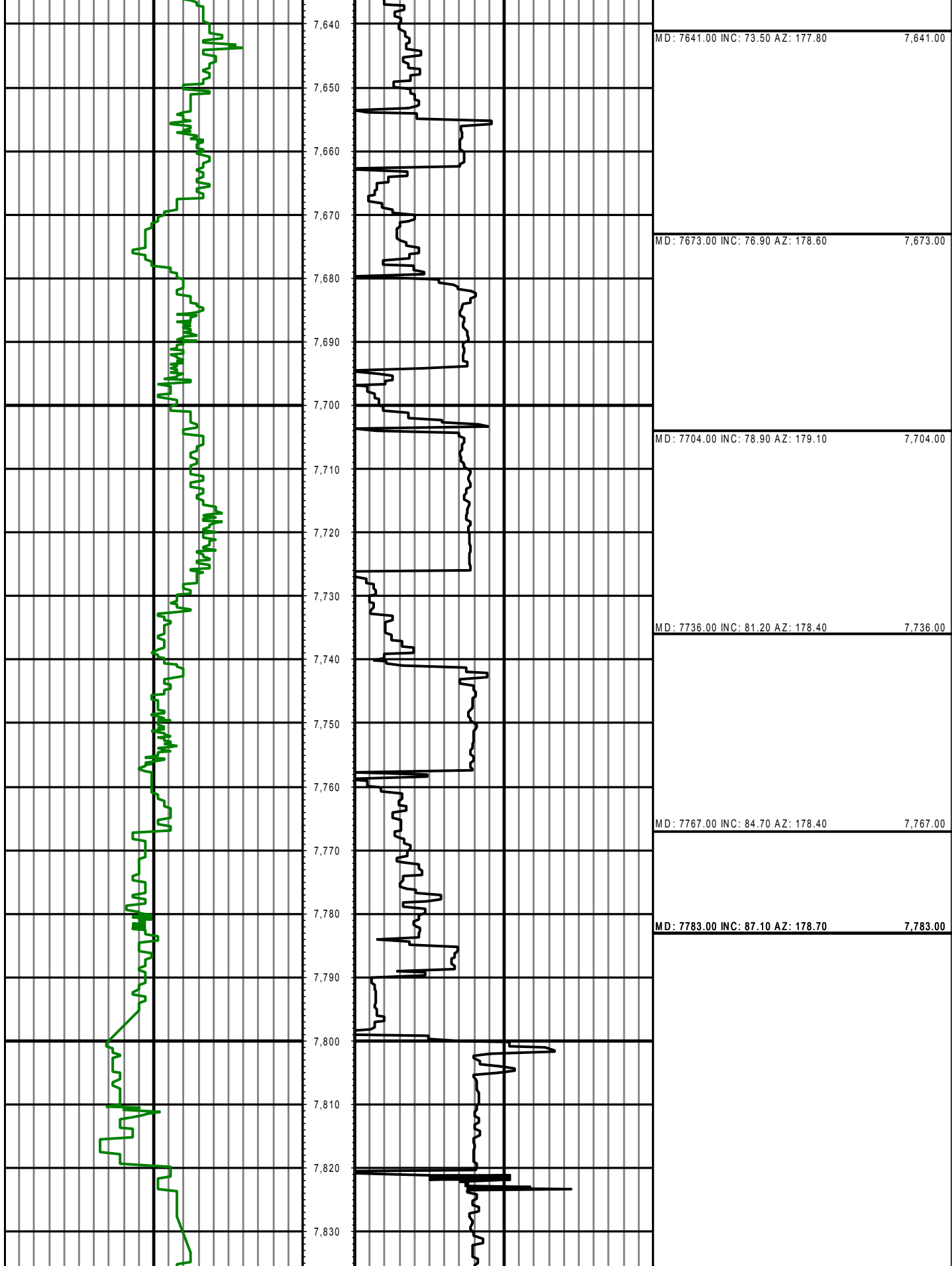
MD: 7483.00 INC: 56.70 AZ: 180.80 7,483.00

MD: 7515.00 INC: 60.40 AZ: 179.10 7,515.00

MD: 7546.00 INC: 63.80 AZ: 178.10 7,546.00

MD: 7578.00 INC: 66.30 AZ: 177.50 7,578.00

MD: 7609.00 INC: 69.60 AZ: 177.30 7,609.00



0.00 GR(API) on MD 150.00  
 150.00 2 300.00

MD 0.00 ROP(FT/HR) on MD 300.00  
 300.00 2 600.00

Surveys (MD/INC/AZ)