



QES

13000 West Hwy 80 East  
Odessa, Texas 79765  
Office: (432)-563-0200

Rojo AE 7811 Fed Com #2 H

Scale 5":100' - MD

7/24/2018 8:17 AM

Oper. Company: BTA Oil

Well: Rojo AE 7811 Fed Com #2 H

Field: Upper Avalon

Rig: Patterson #597

Well ID: 30-025-43843

Job Number: WT-180684

State: NM

County: Lea

Country: USA

Location: Lea County, NM

Start Date: 07/15/2018 09:00:00

End Date: 07/24/2018 08:00:00

Latitude: 32 6' 29.655 N

Longitude: 103 33' 46.546 W

Elev GL: 3344'

Elev DF: 3369'

Elev KB: 3369'

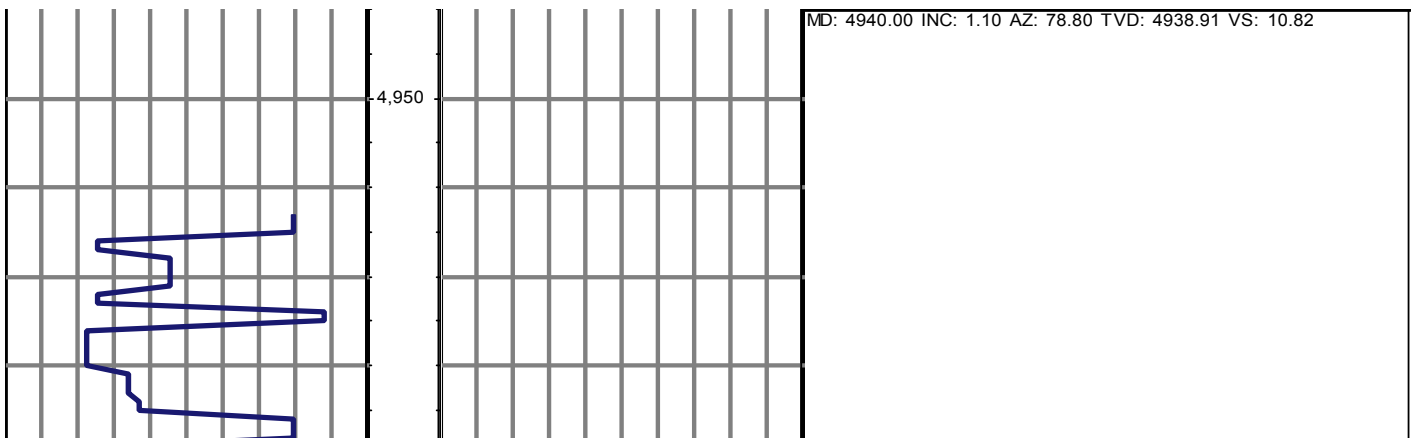
Operator 1: A.Carrasco

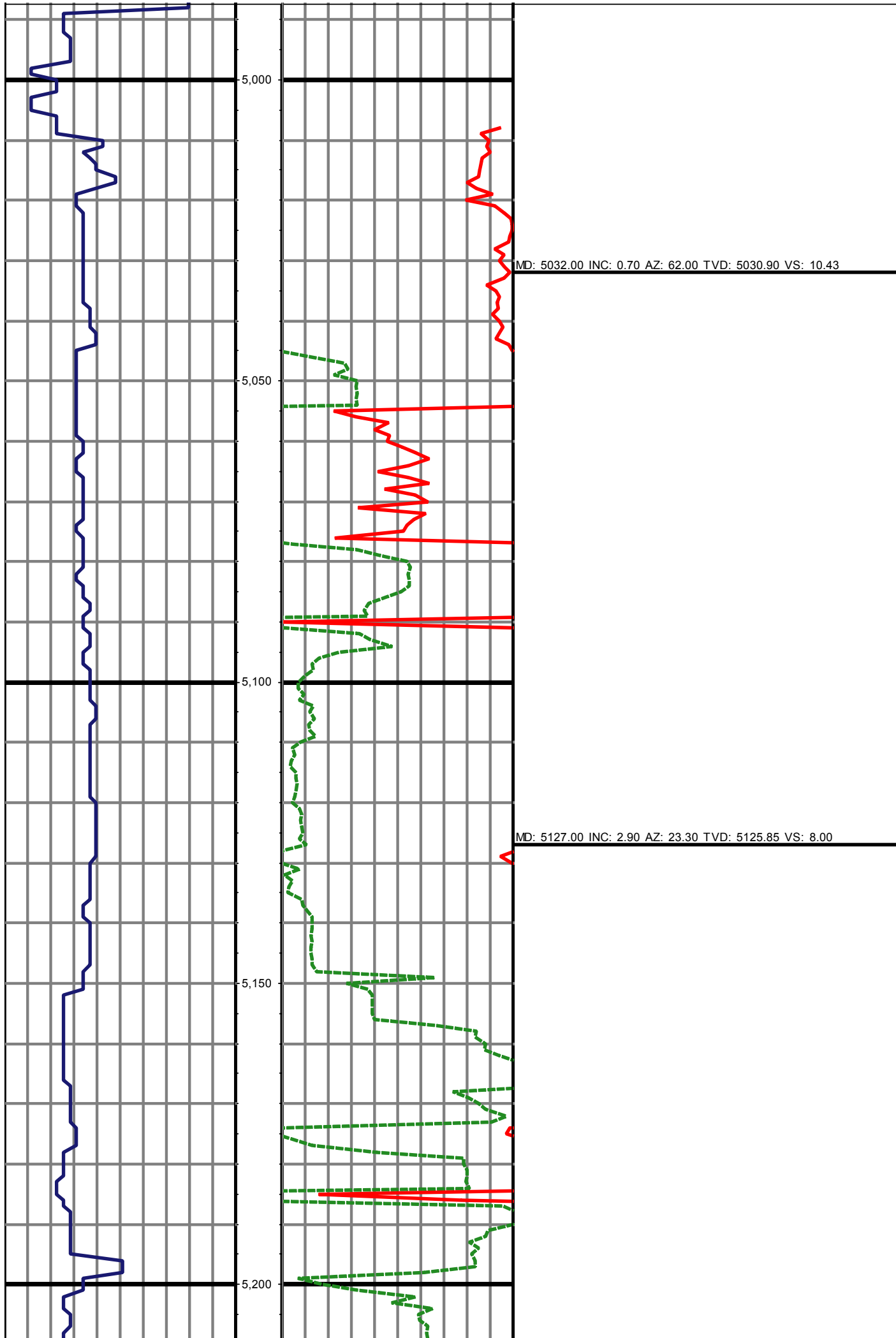
Operator 2: D.Mayhue

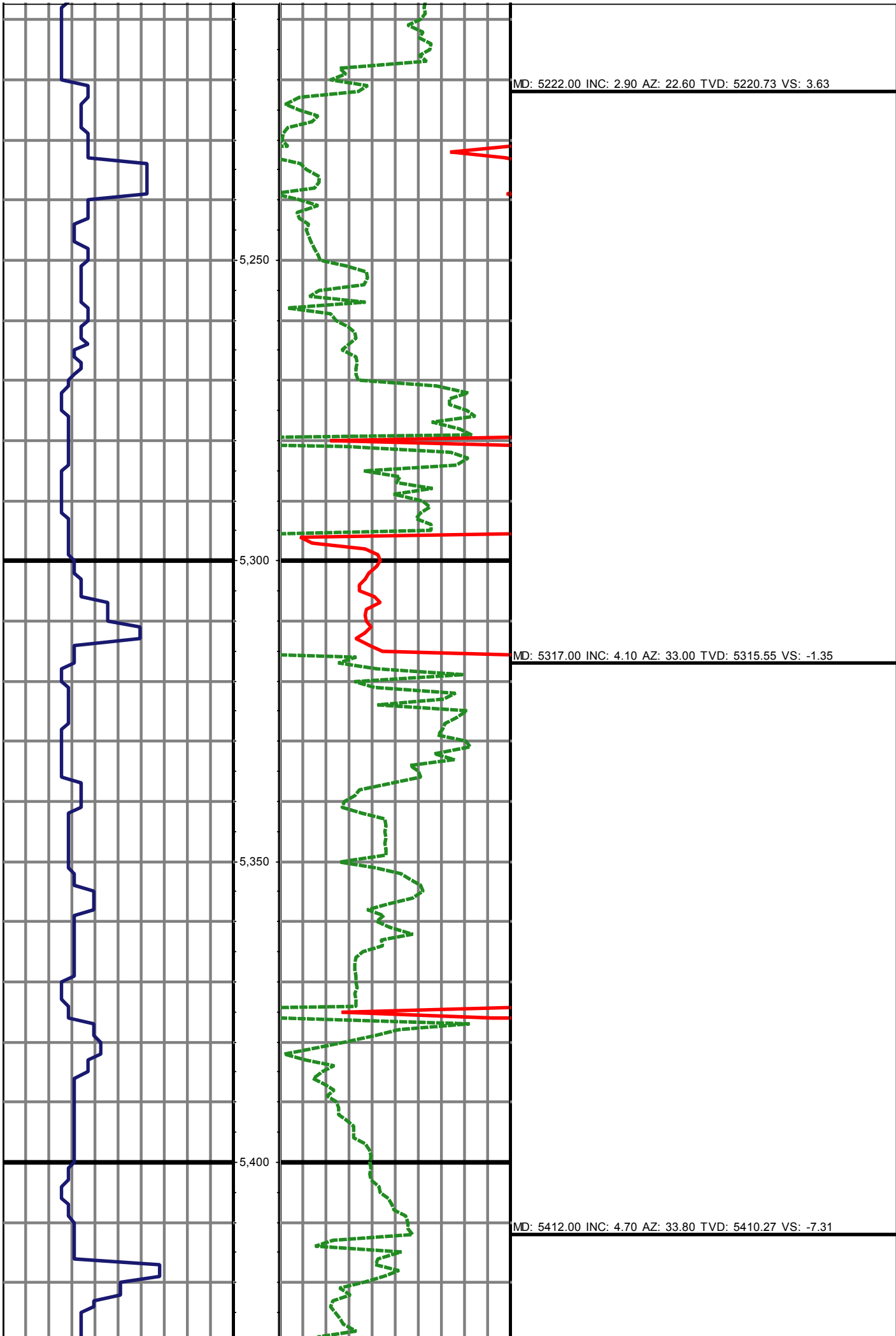
| Tool Run Data      | Run #1    | Run #2    | Run #3      | Run #4 | Run #5  |
|--------------------|-----------|-----------|-------------|--------|---------|
| Tool S/N           | 802CBG    | 853CMG    |             |        |         |
| Bit Size           | 8 3/4     | 8 3/4     |             |        |         |
| Cal Factor         | 4.25      | 4.25      |             |        |         |
| Survey Offset      | 58.00     | 60.00     |             |        |         |
| Gamma Offset       | 45.00     | 50.00     |             |        |         |
| Resistivity Offset | 0.00      | 0.00      |             |        |         |
| Start Depth        | 4965.00   | 9484.00   |             |        |         |
| StartDate          | 7/15/2018 | 7/18/2018 |             |        |         |
| StartTime          | 09:00     | 12:00     |             |        |         |
| EndDepth           | 9484.00   | 16901.00  |             |        |         |
| EndDate            | 7/18/2018 | 7/23/2018 |             |        |         |
| EndTime            | 23:00     | 21:30     |             |        |         |
| Mud Type           | WBM       | WBM       |             |        |         |
| Mud Weight         | 9.1-9.4   | 9.1-9.4   |             |        |         |
| Funnel Viscosity   | 27-29     | 27-29     |             |        |         |
| Hole Data          |           |           | Casing Data |        |         |
| Size               | From      | To        | Size        | From   | To      |
| 12 1/4             | 1125.00   | 4965.00   | 13 3/8      | 0.00   | 1112.00 |
| 8 3/4              | 4965.00   | 16901.00  | 9 5/8       | 0.00   | 4988.00 |

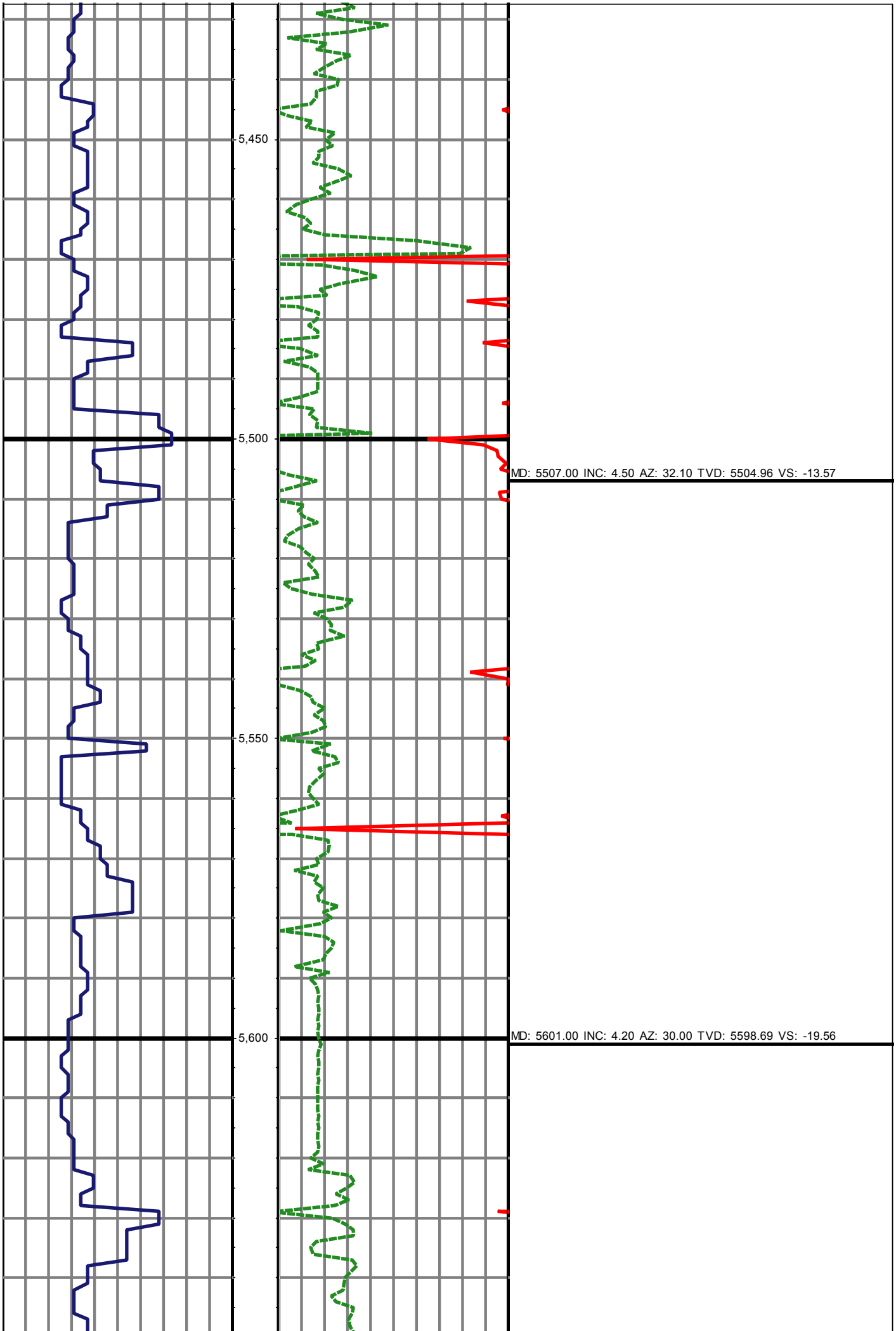
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost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

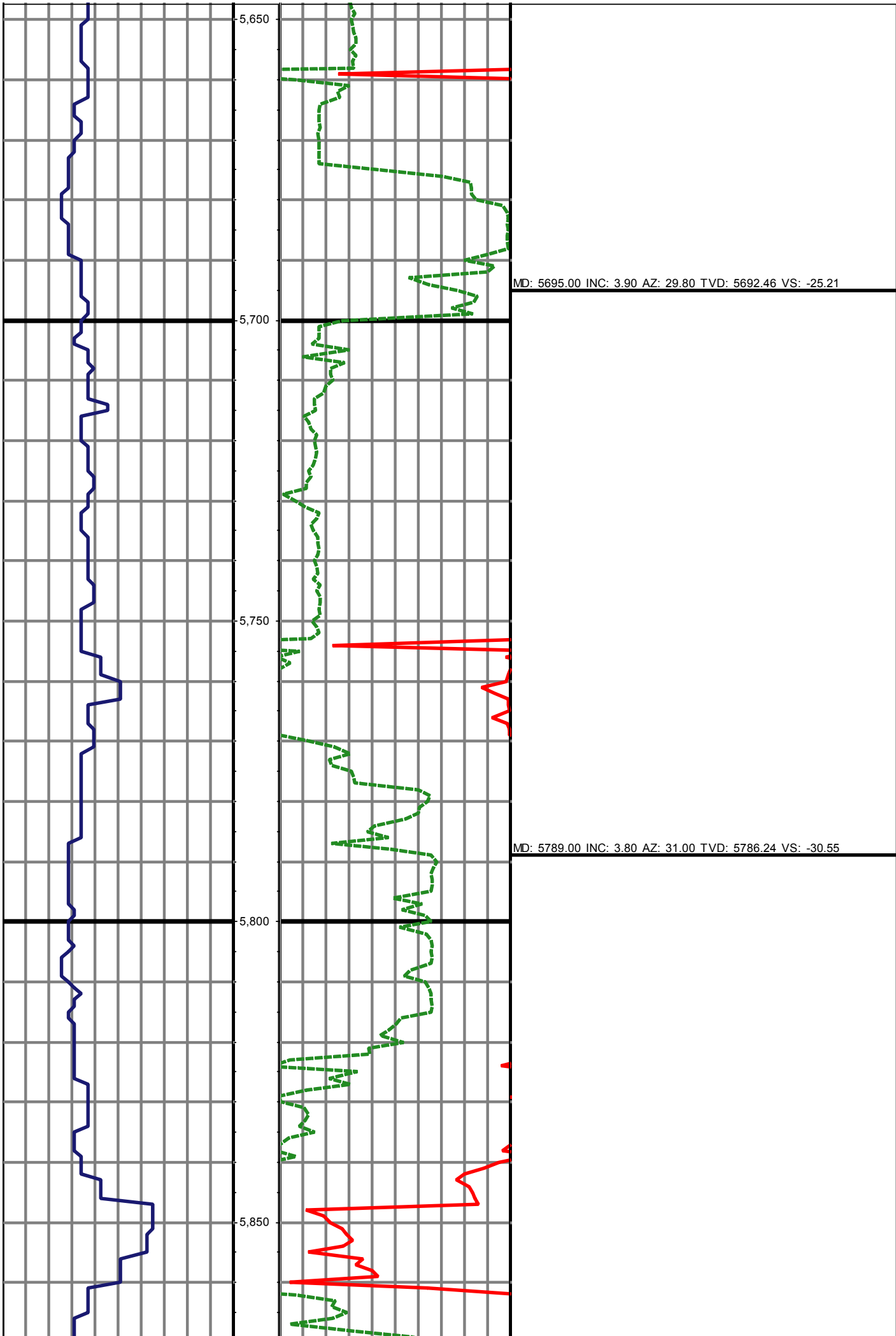
0.00 GR(API) 150.00 MD 0.00 ROP(FT/HR) 150.00 Surveys (MD/INC/AZ/TVD/VS)  
150.00 2 300.00 FT 150.00 2 300.00

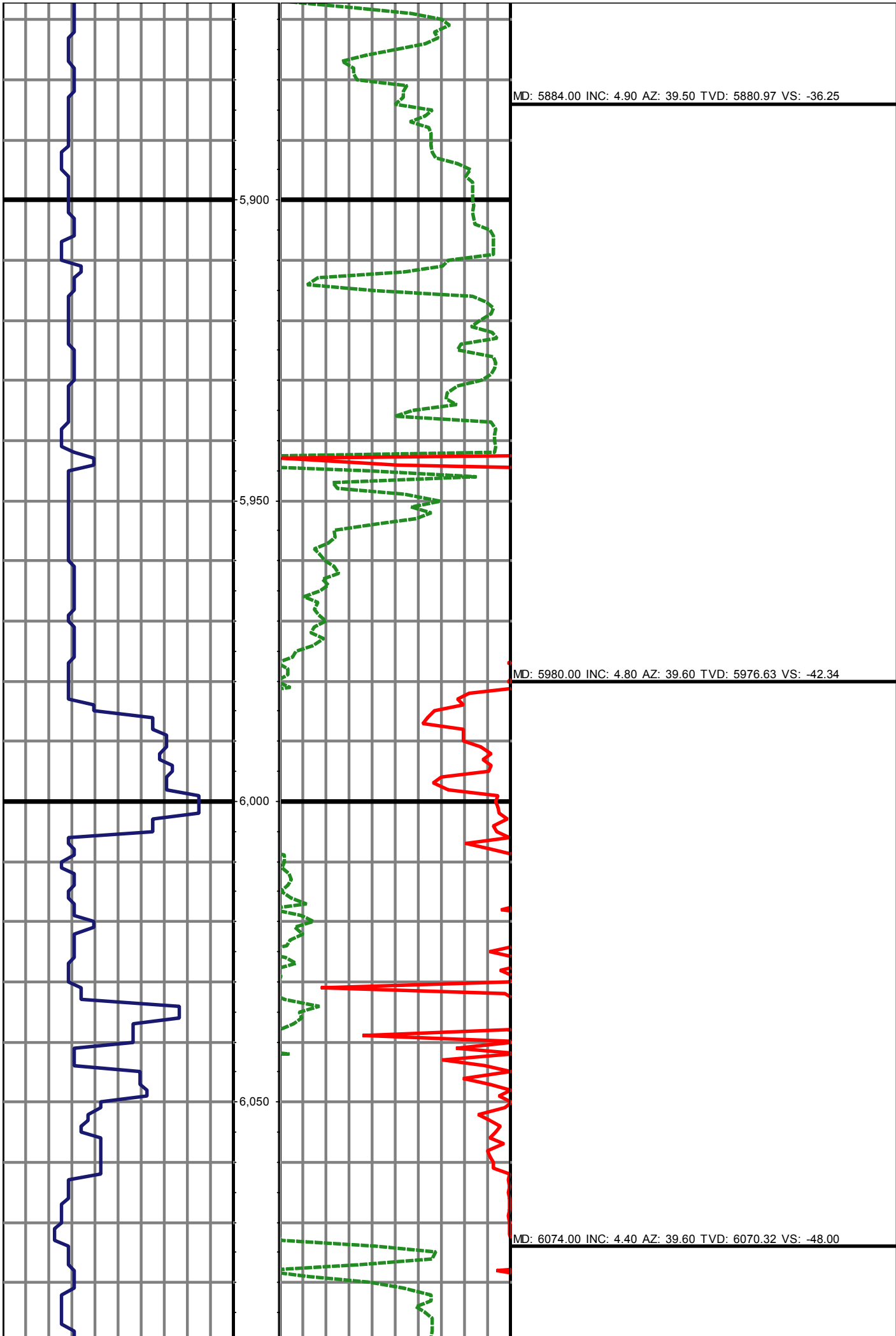


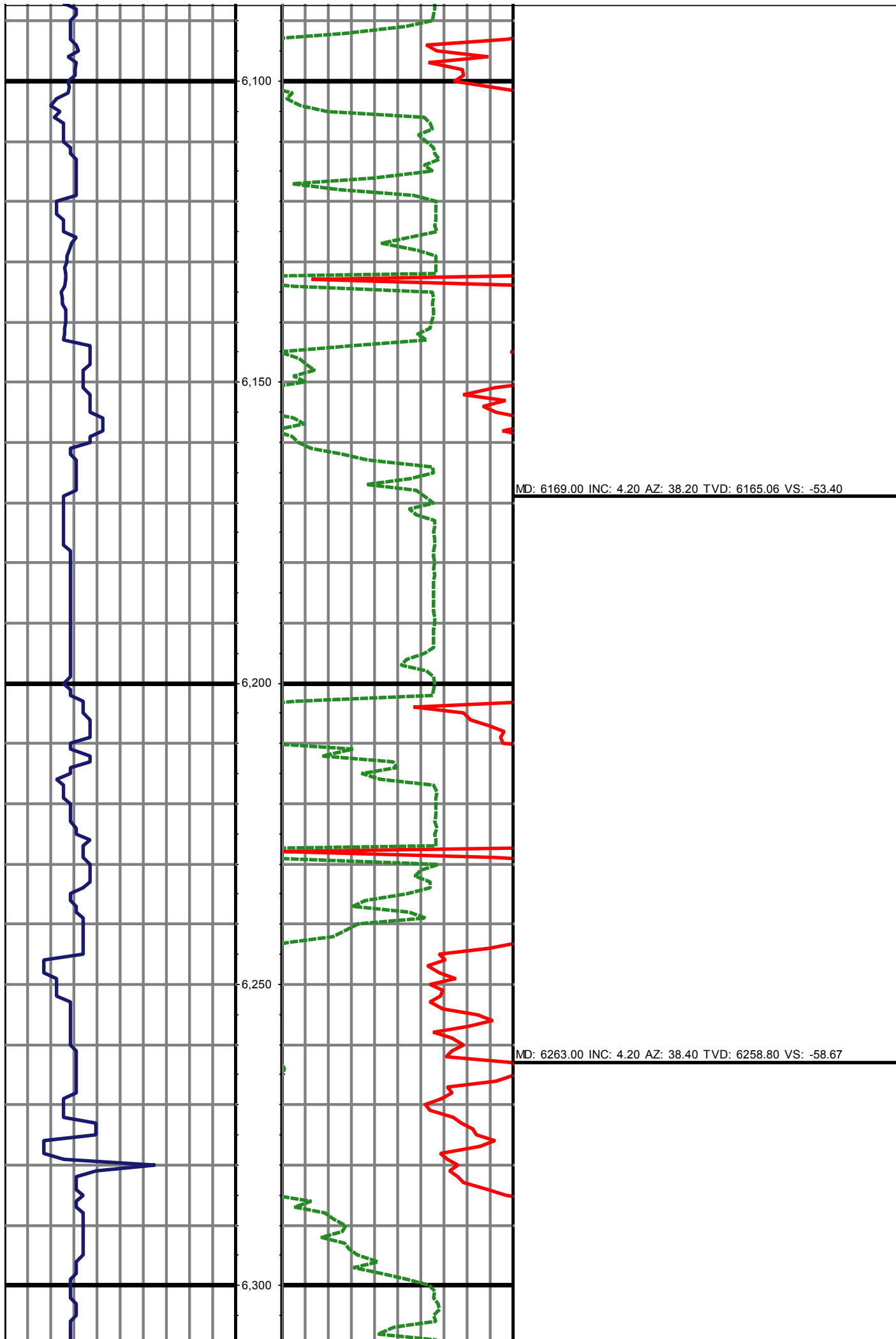


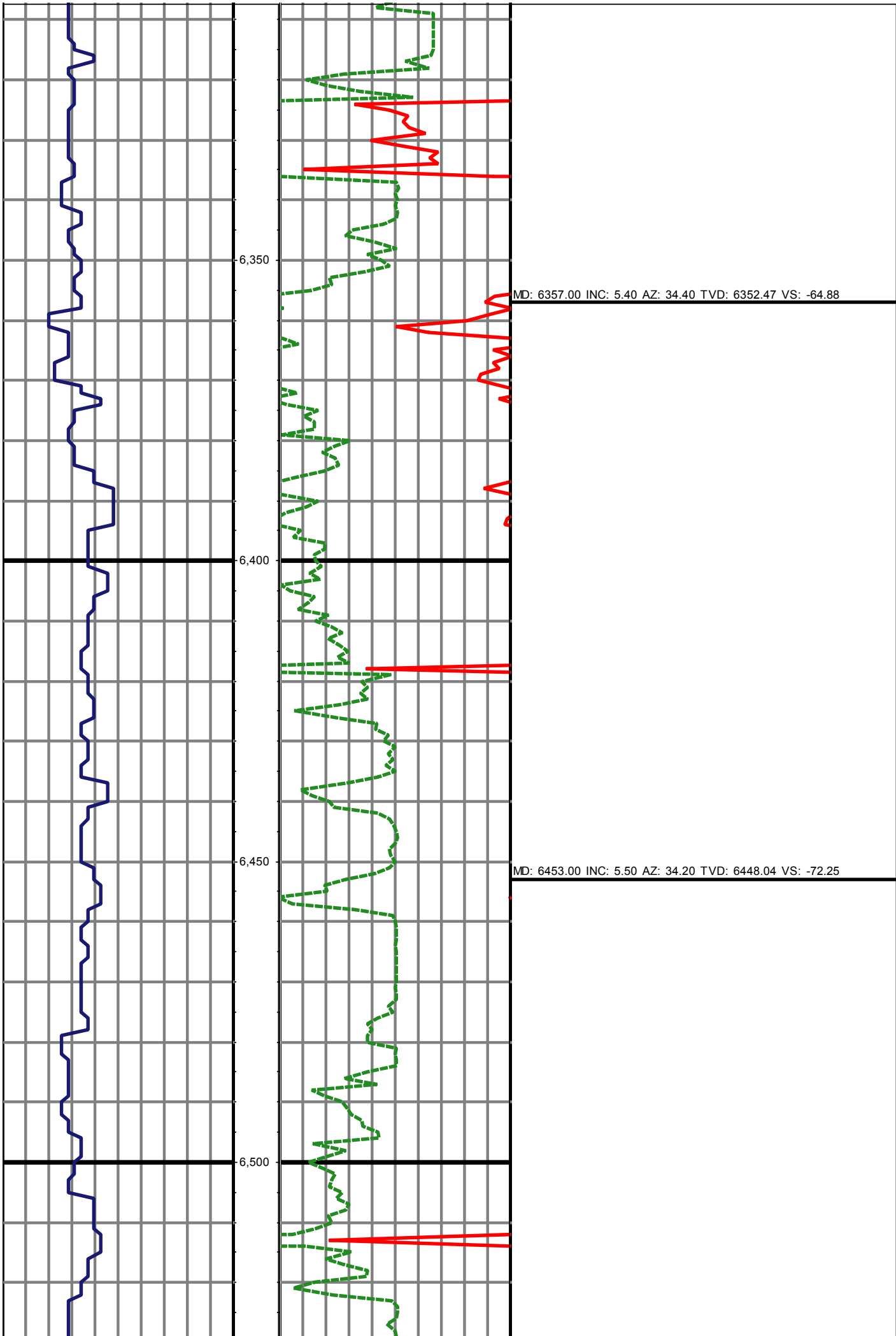




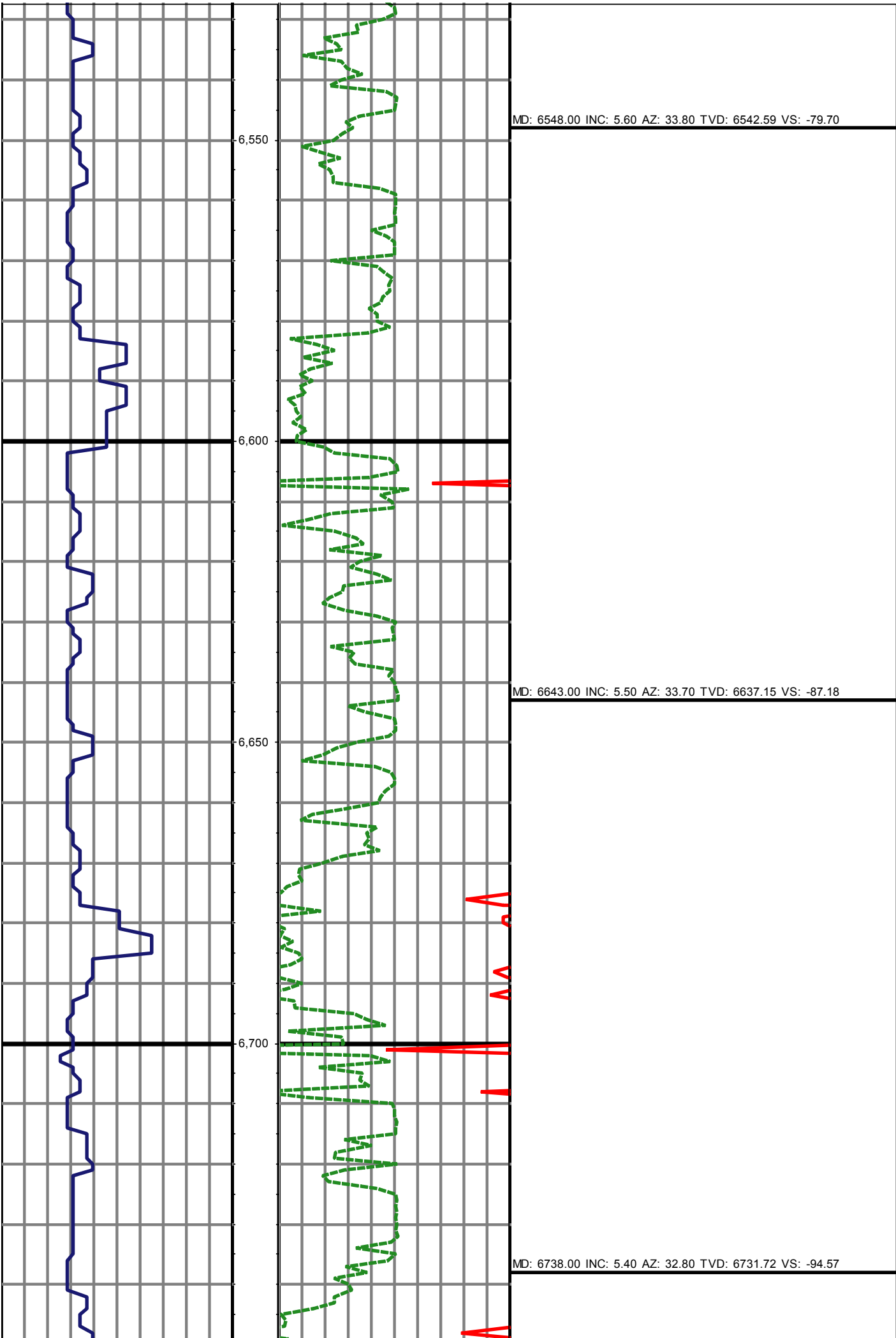


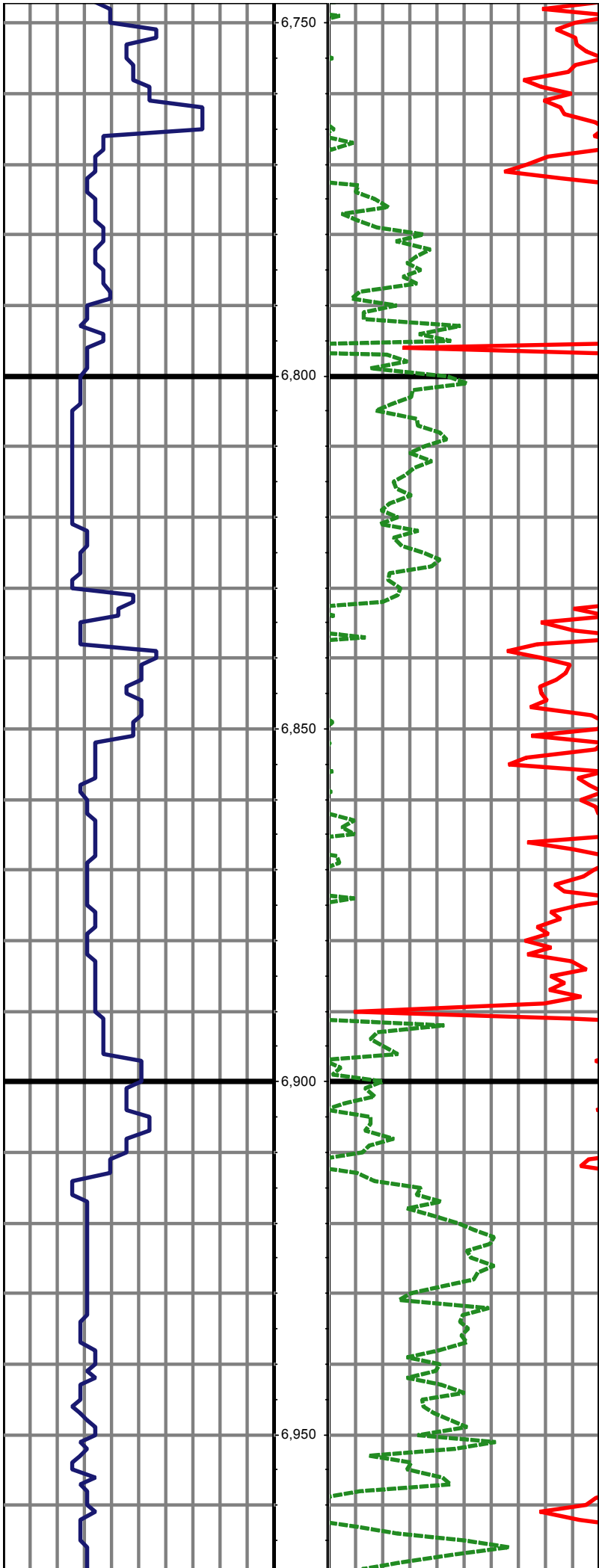






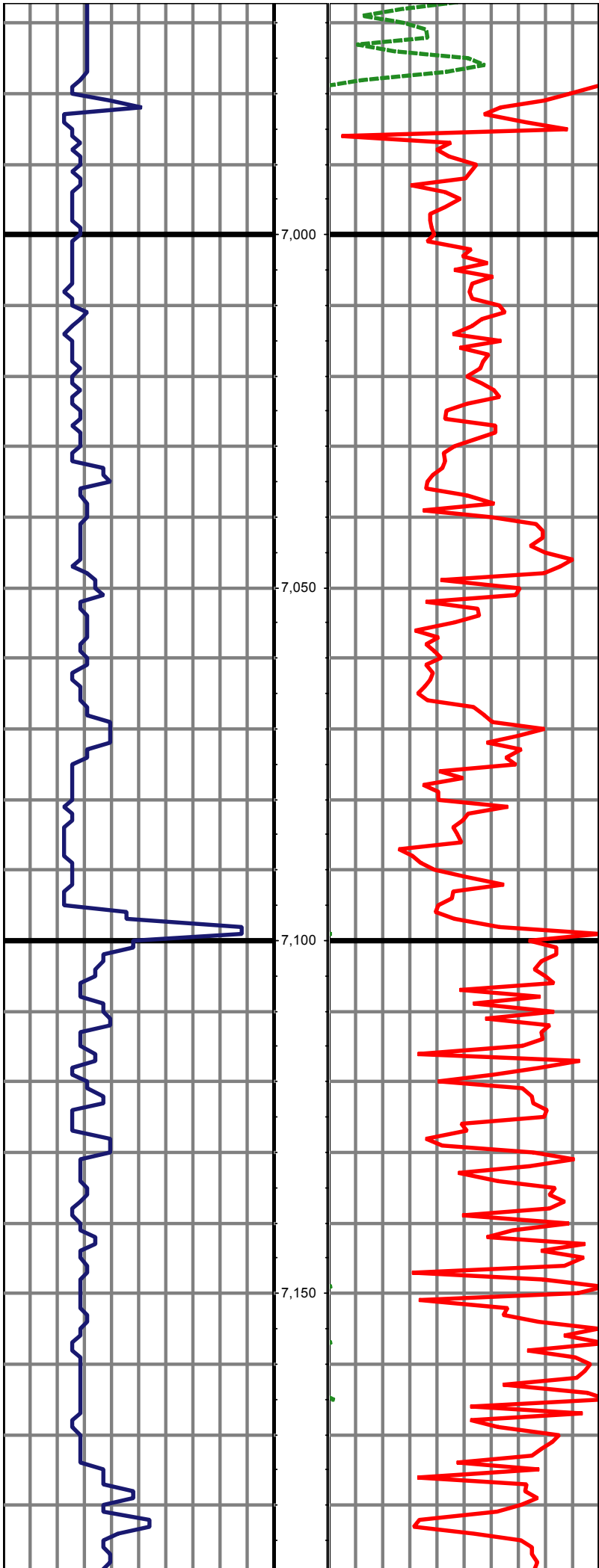






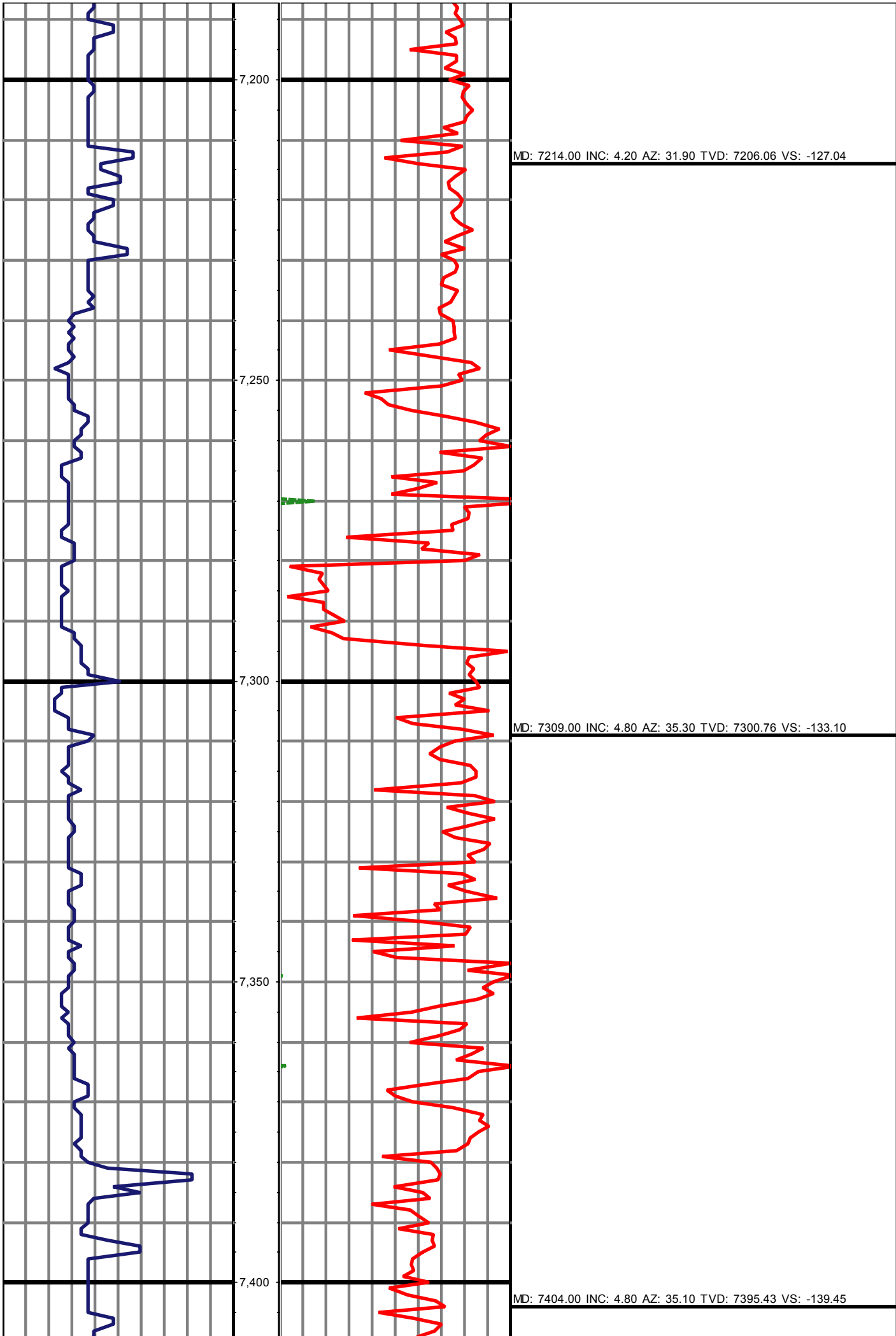
MD: 6833.00 INC: 5.10 AZ: 32.80 TVD: 6826.32 VS: -101.73

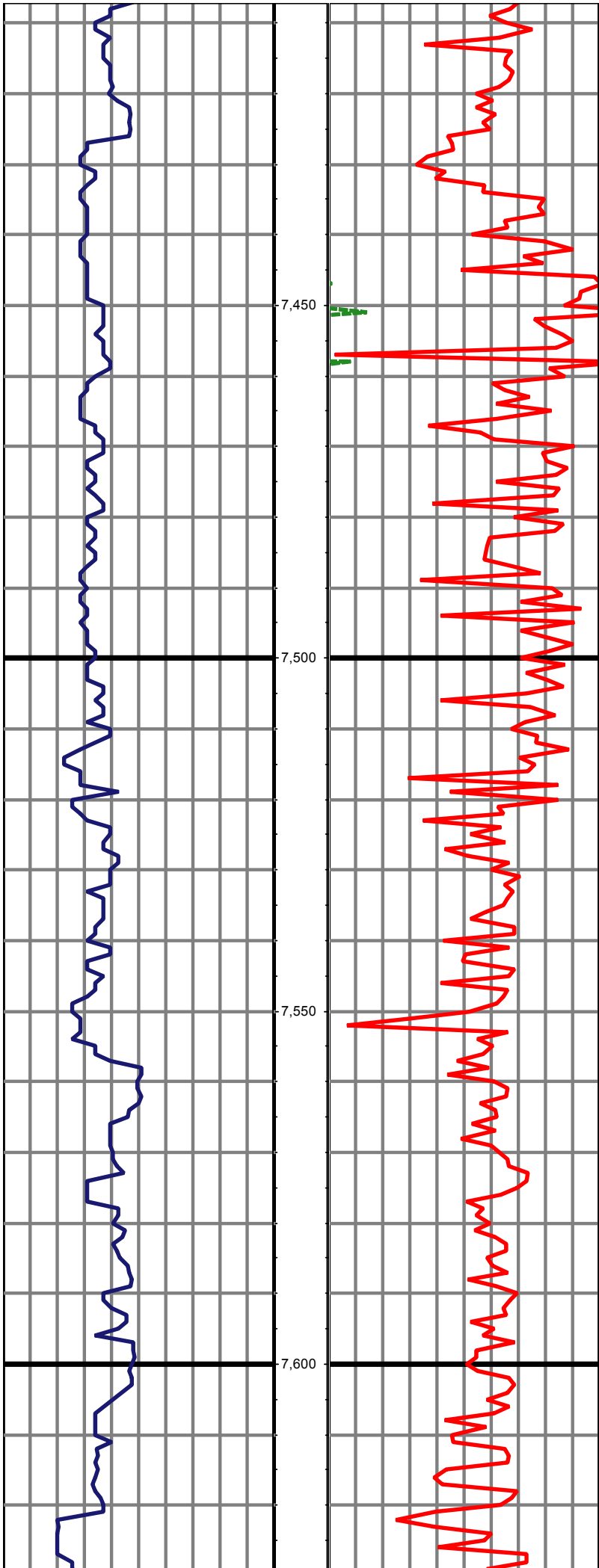
MD: 6928.00 INC: 4.80 AZ: 33.70 TVD: 6920.97 VS: -108.44



MD: 7024.00 INC: 4.80 AZ: 34.50 TVD: 7016.63 VS: -114.95

MD: 7119.00 INC: 4.40 AZ: 33.10 TVD: 7111.32 VS: -121.15





7,450

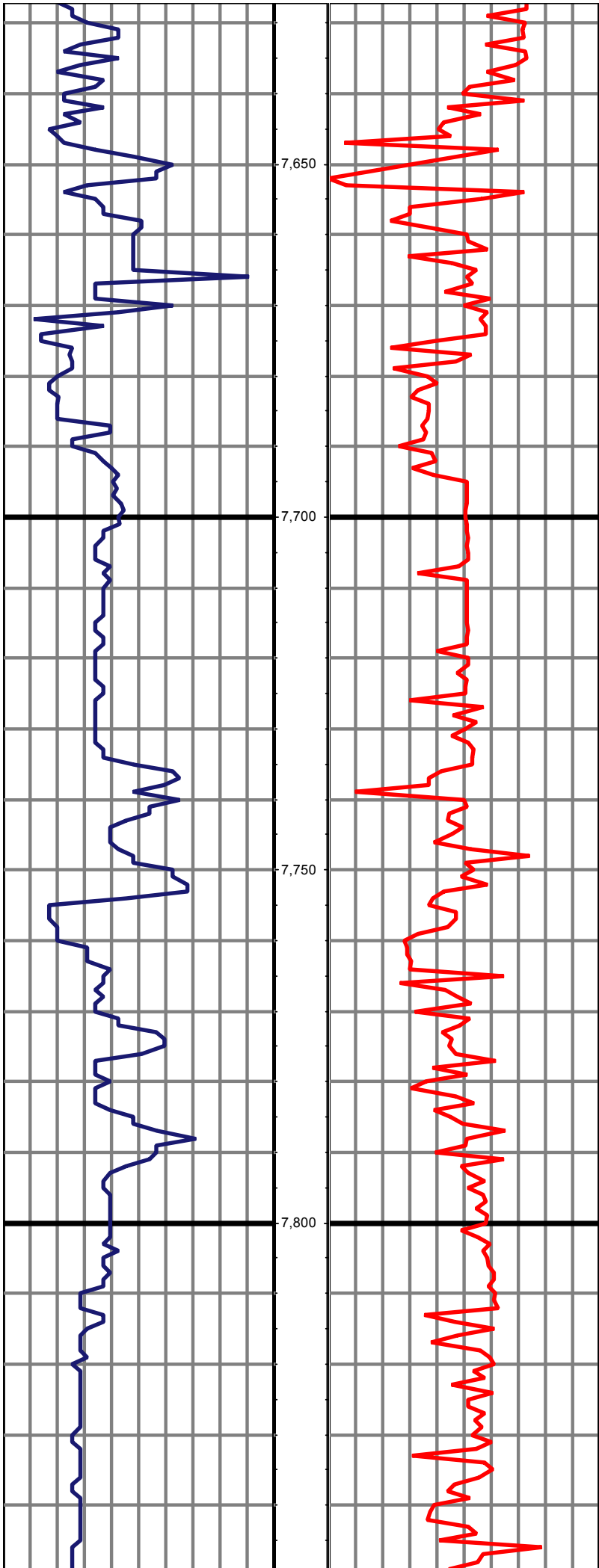
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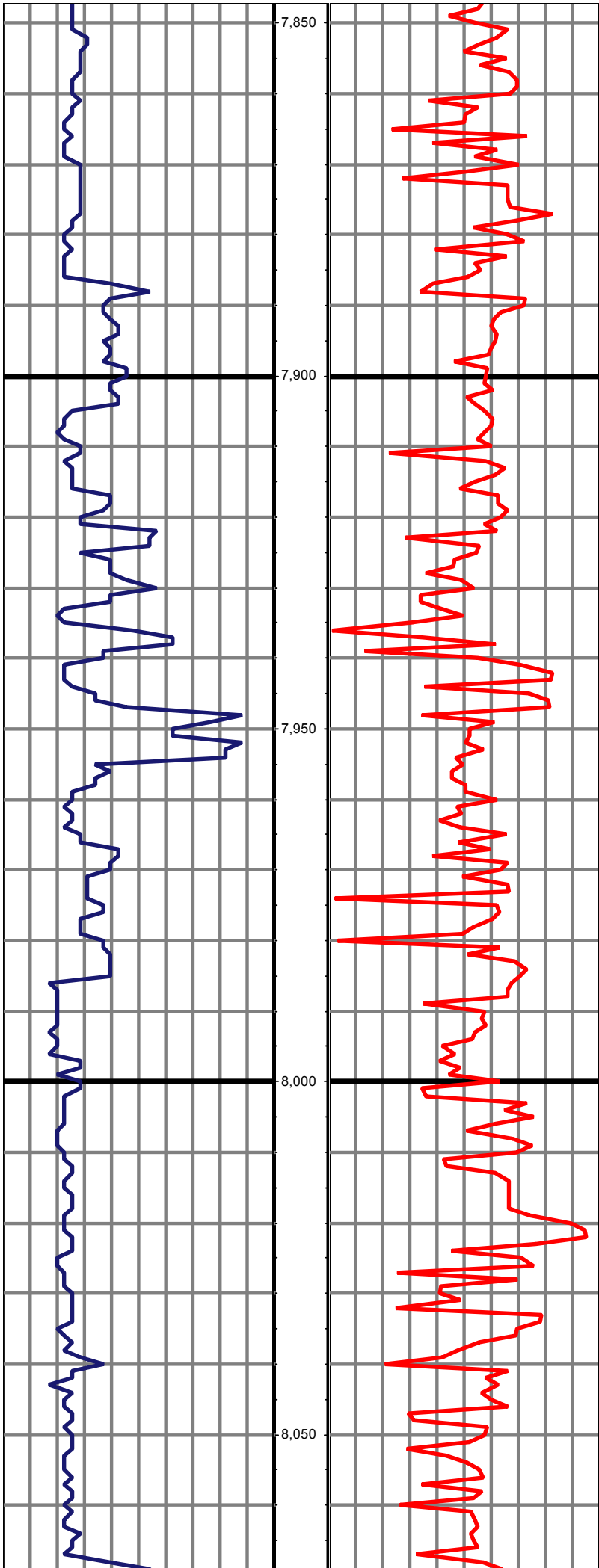
MD: 7498.00 INC: 4.60 AZ: 36.50 TVD: 7489.11 VS: -145.56

MD: 7594.00 INC: 4.20 AZ: 36.00 TVD: 7584.83 VS: -151.36



MD: 7689.00 INC: 3.80 AZ: 36.10 TVD: 7679.60 VS: -156.60

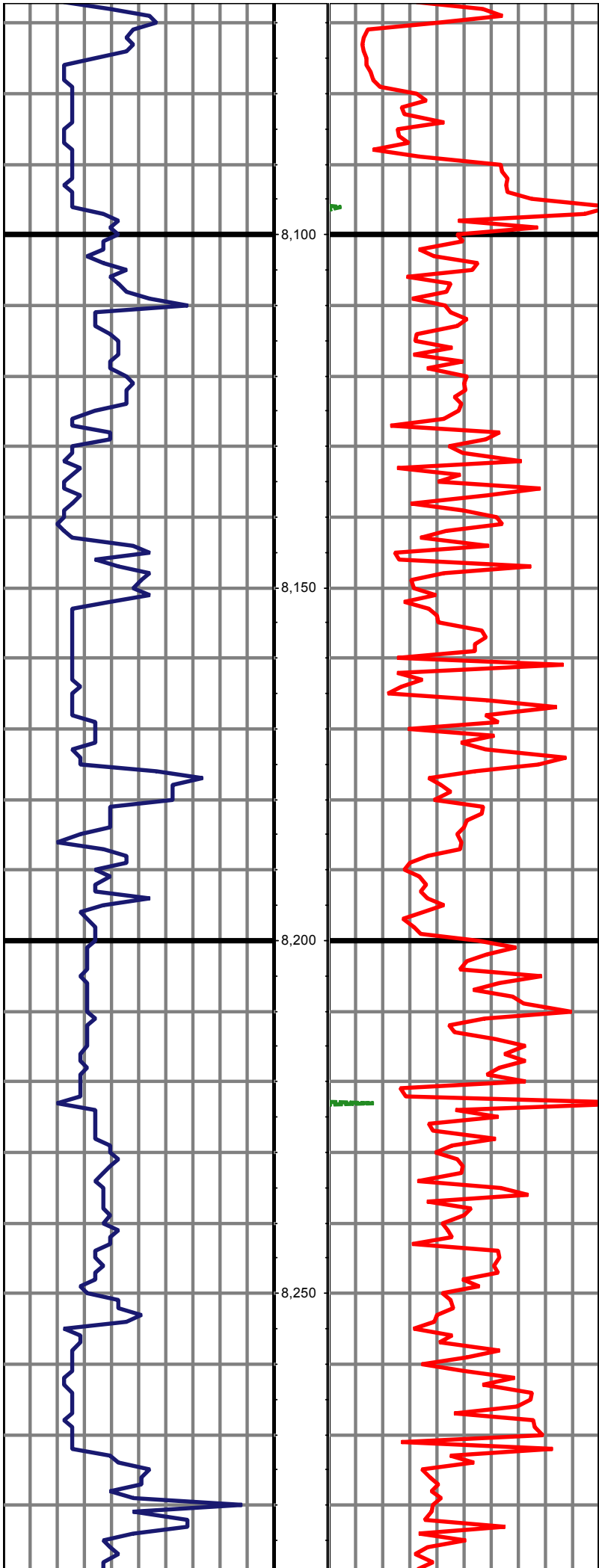
MD: 7783.00 INC: 3.40 AZ: 36.00 TVD: 7773.41 VS: -161.26



MD: 7879.00 INC: 3.10 AZ: 35.30 TVD: 7869.26 VS: -165.58

MD: 7974.00 INC: 2.70 AZ: 37.50 TVD: 7964.14 VS: -169.37

MD: 8069.00 INC: 1.80 AZ: 48.30 TVD: 8059.06 VS: -172.06

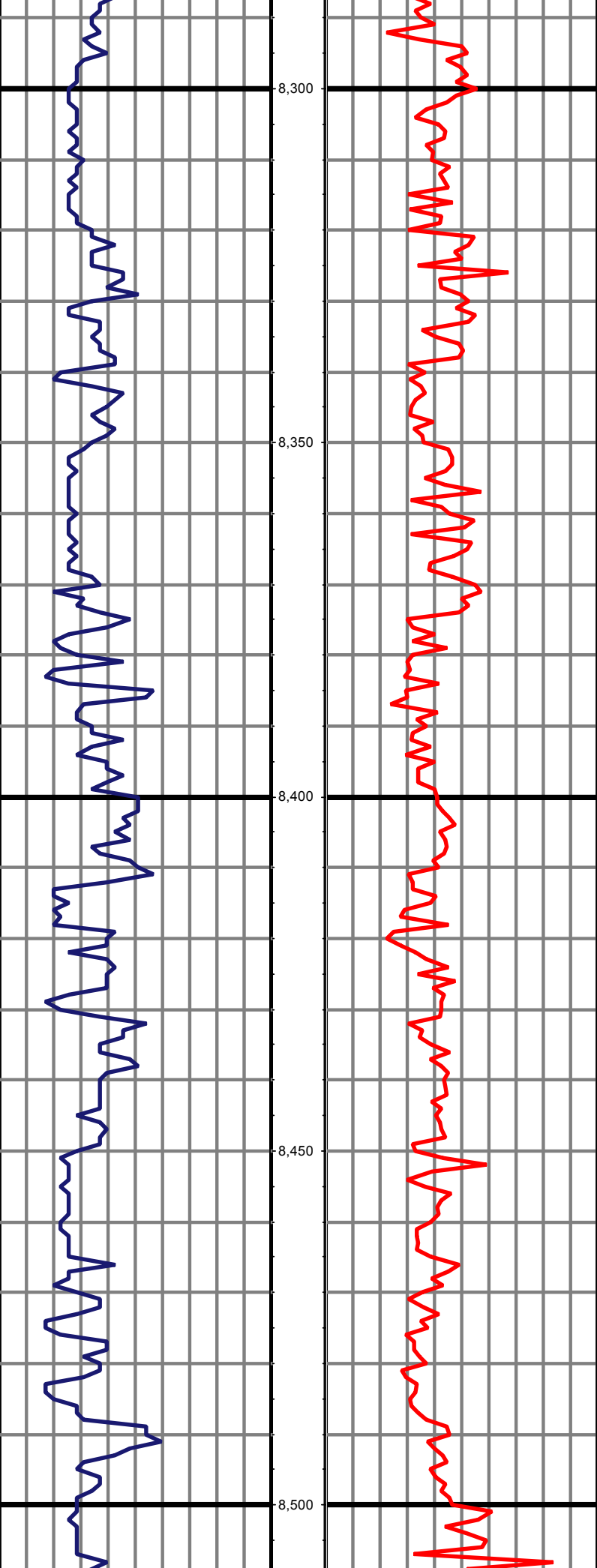


MD: 8069.00 INC: 1.80 AZ: 48.30 TVD: 8059.06 VS: -172.06

MD: 8164.00 INC: 1.00 AZ: 83.60 TVD: 8154.03 VS: -173.08

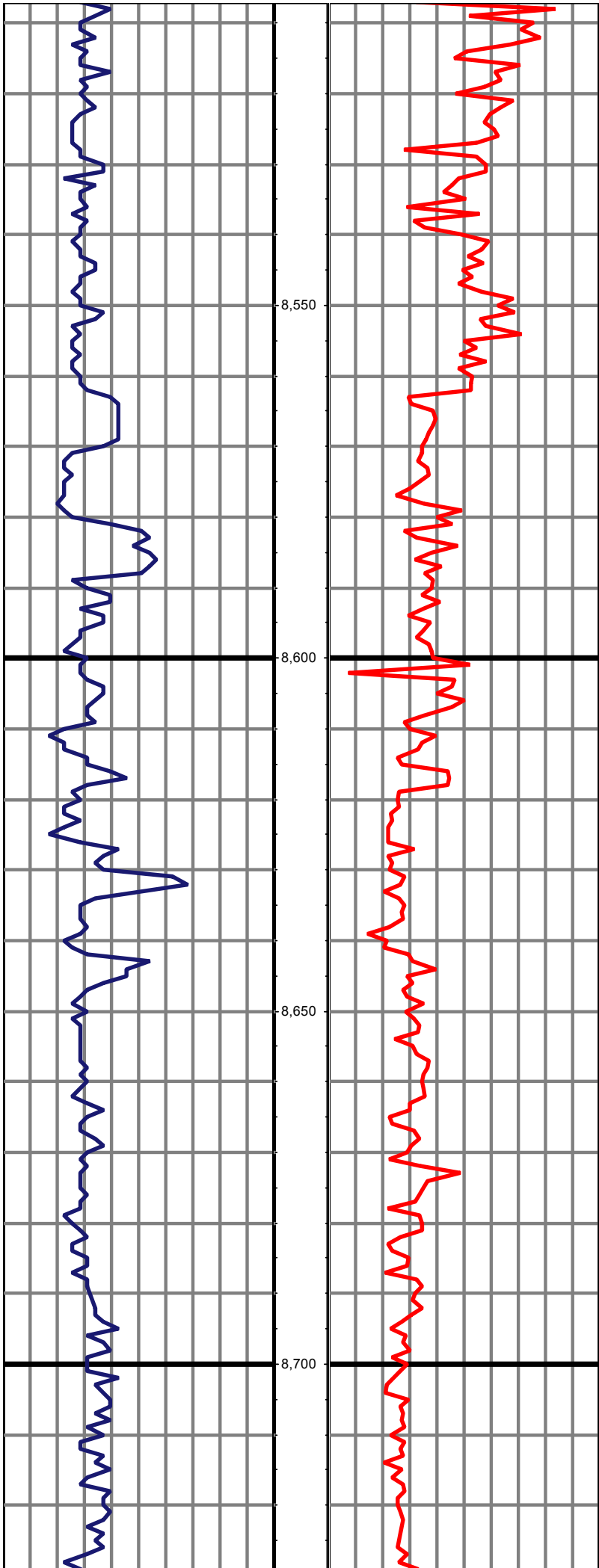
MD: 8259.00 INC: 1.00 AZ: 84.10 TVD: 8249.02 VS: -173.21





MD: 8354.00 INC: 0.80 AZ: 90.30 TVD: 8344.01 VS: -173.24

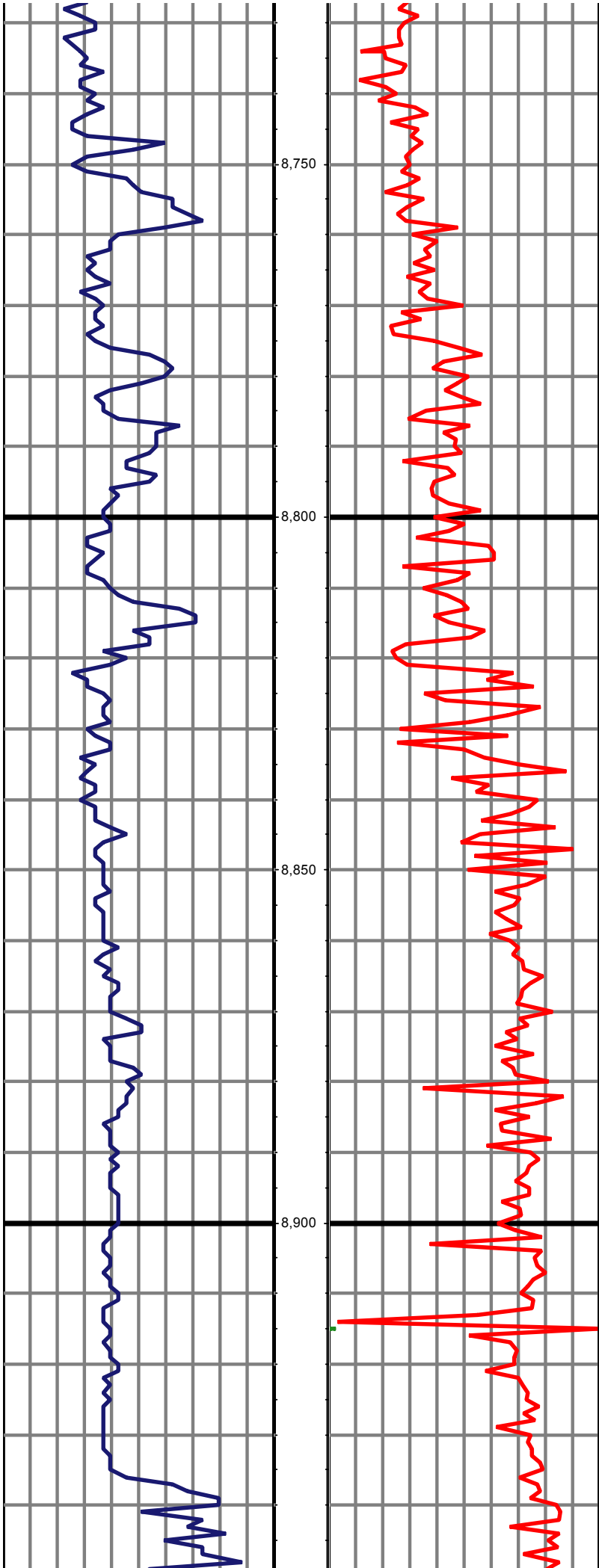
MD: 8449.00 INC: 0.80 AZ: 52.00 TVD: 8439.00 VS: -173.61



MD: 8544.00 INC: 0.60 AZ: 50.50 TVD: 8533.99 VS: -174.31

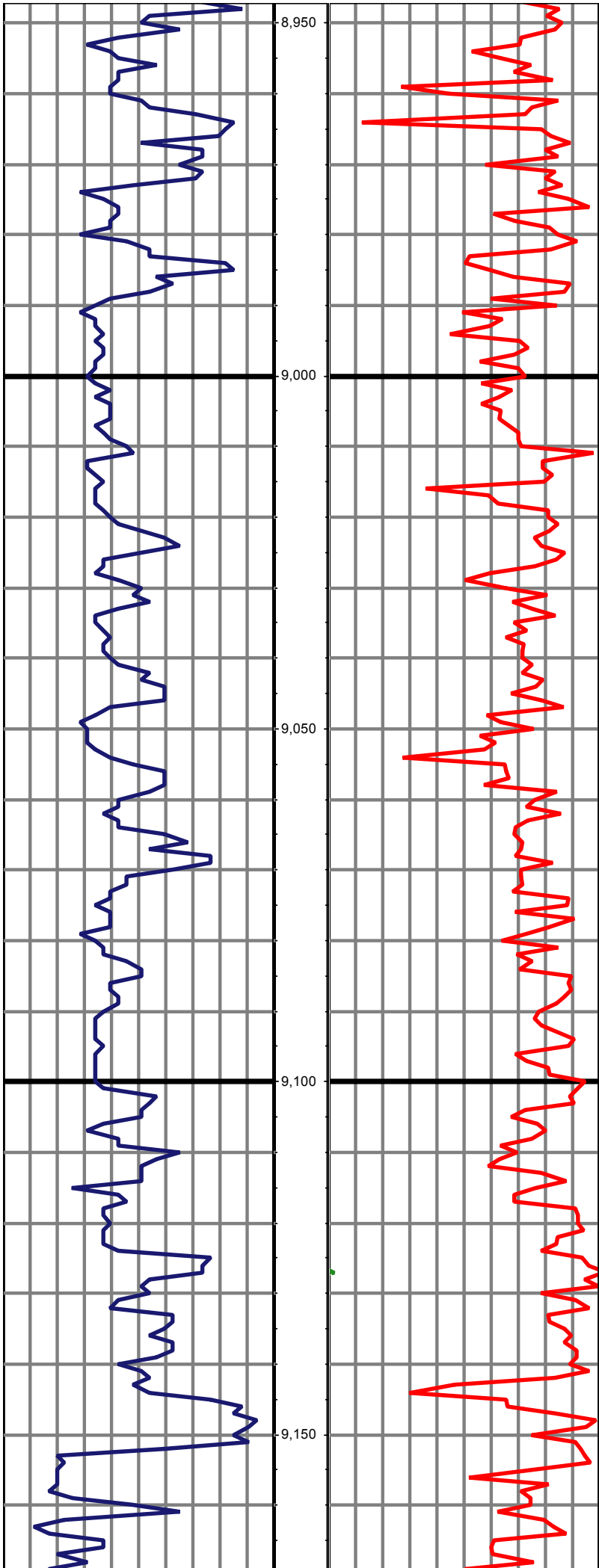
MD: 8637.00 INC: 0.30 AZ: 60.70 TVD: 8626.99 VS: -174.72

MD: 8677.00 INC: 0.30 AZ: 75.70 TVD: 8666.99 VS: -174.79



MD: 8764.00 INC: 4.90 AZ: 179.20 TVD: 8753.88 VS: -171.12

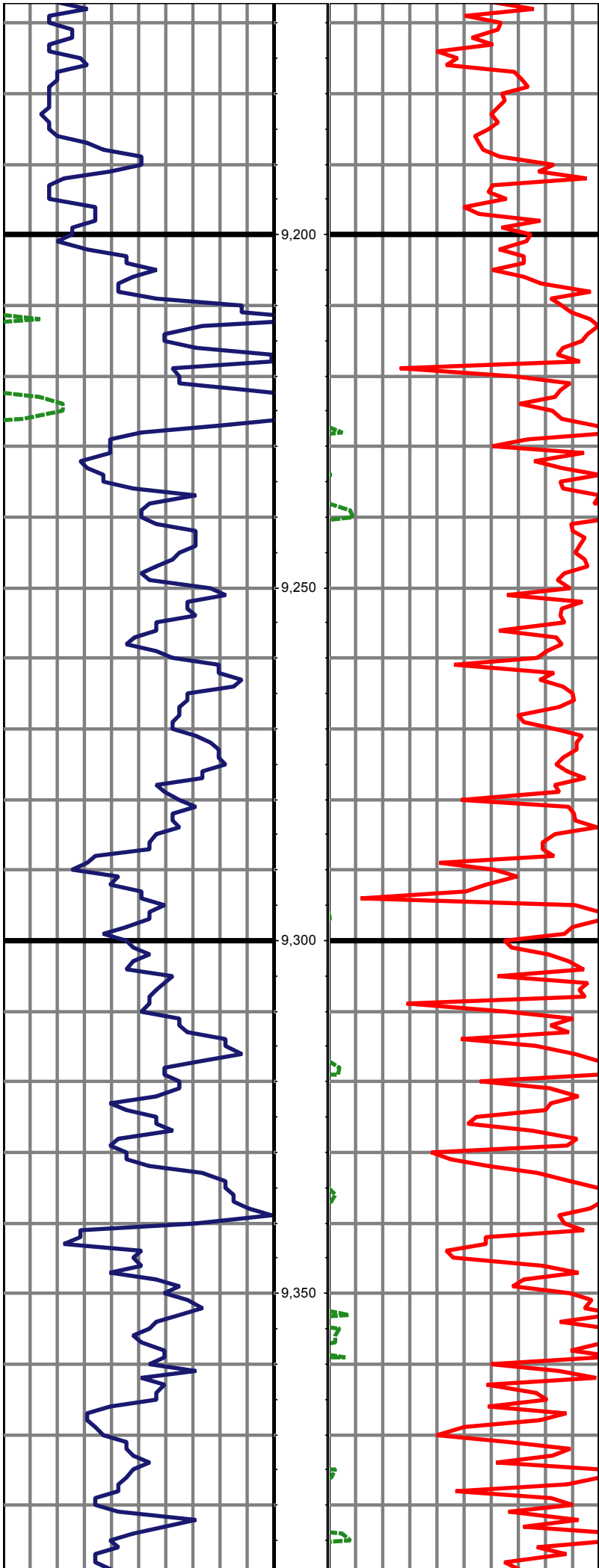
MD: 8860.00 INC: 18.60 AZ: 180.40 TVD: 8847.65 VS: -151.63



MD: 8955.00 INC: 27.10 AZ: 181.50 TVD: 8935.11 VS: -114.82

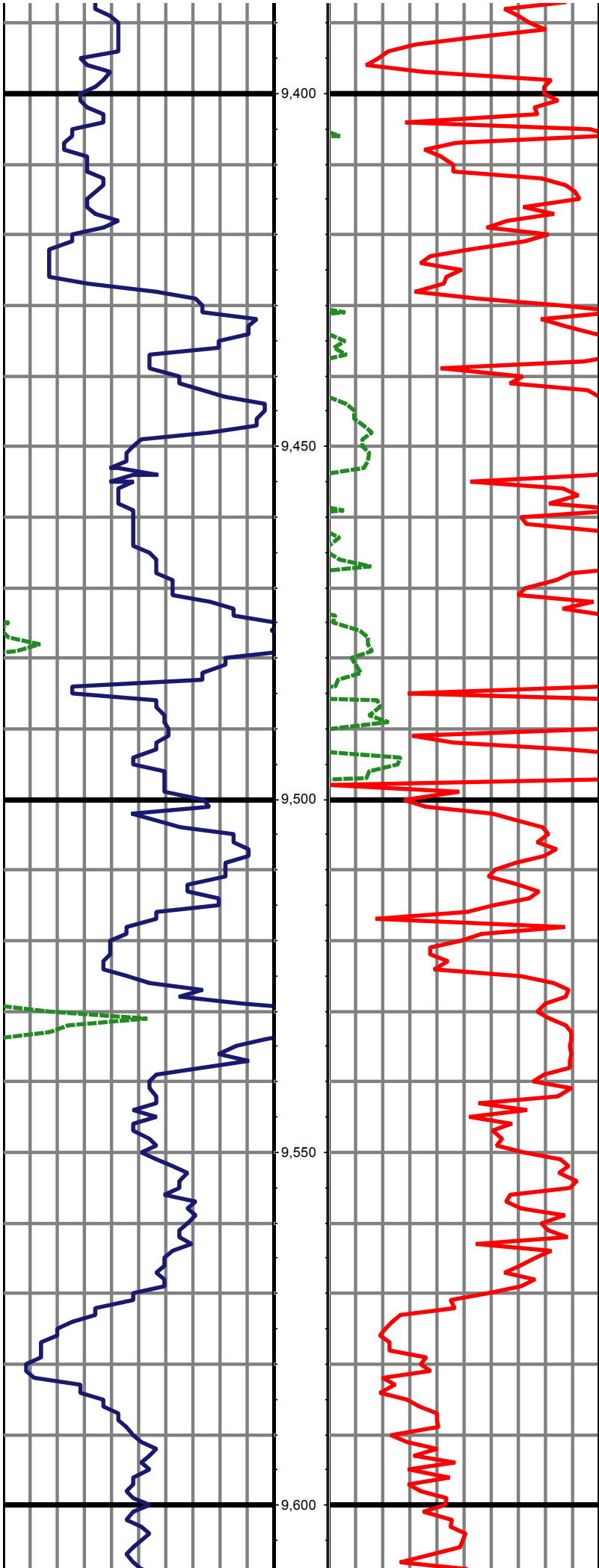
MD: 9050.00 INC: 33.20 AZ: 182.20 TVD: 9017.22 VS: -67.22

MD: 9144.00 INC: 38.70 AZ: 180.10 TVD: 9093.29 VS: -12.14



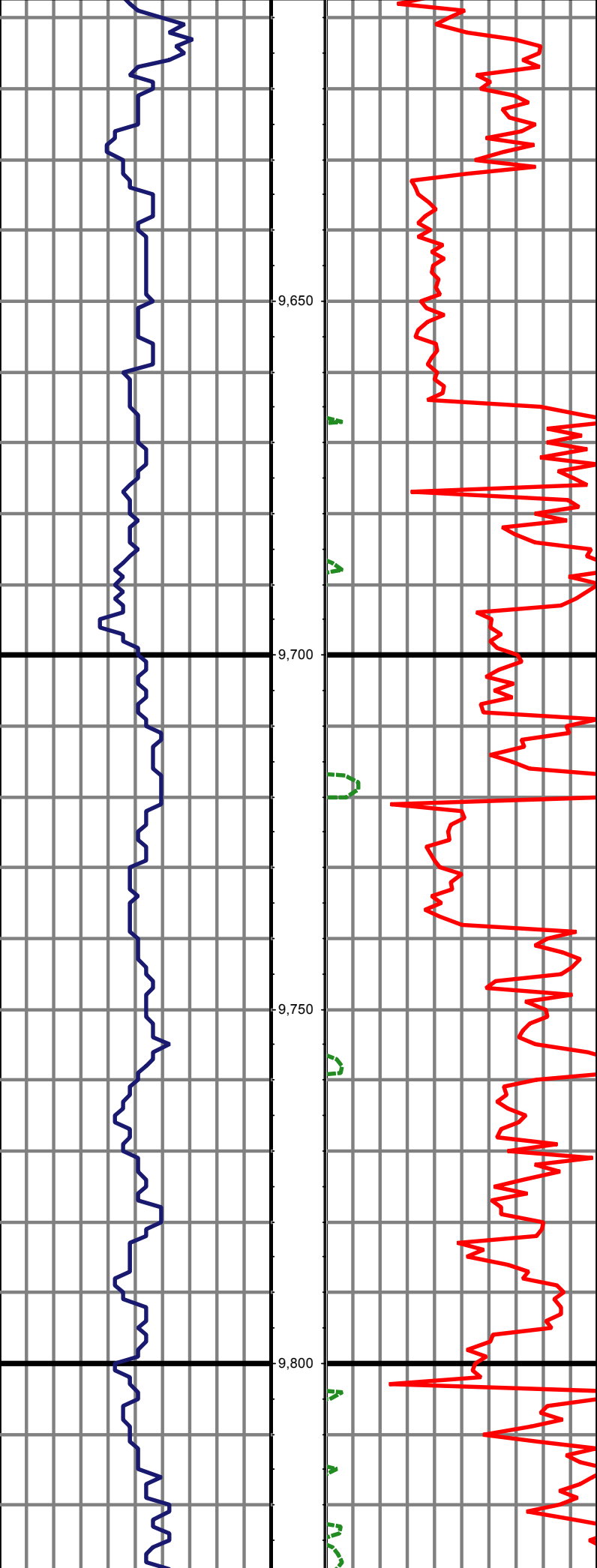
MD: 9239.00 INC: 47.20 AZ: 178.50 TVD: 9162.77 VS: 52.52

MD: 9334.00 INC: 57.20 AZ: 180.30 TVD: 9220.92 VS: 127.47



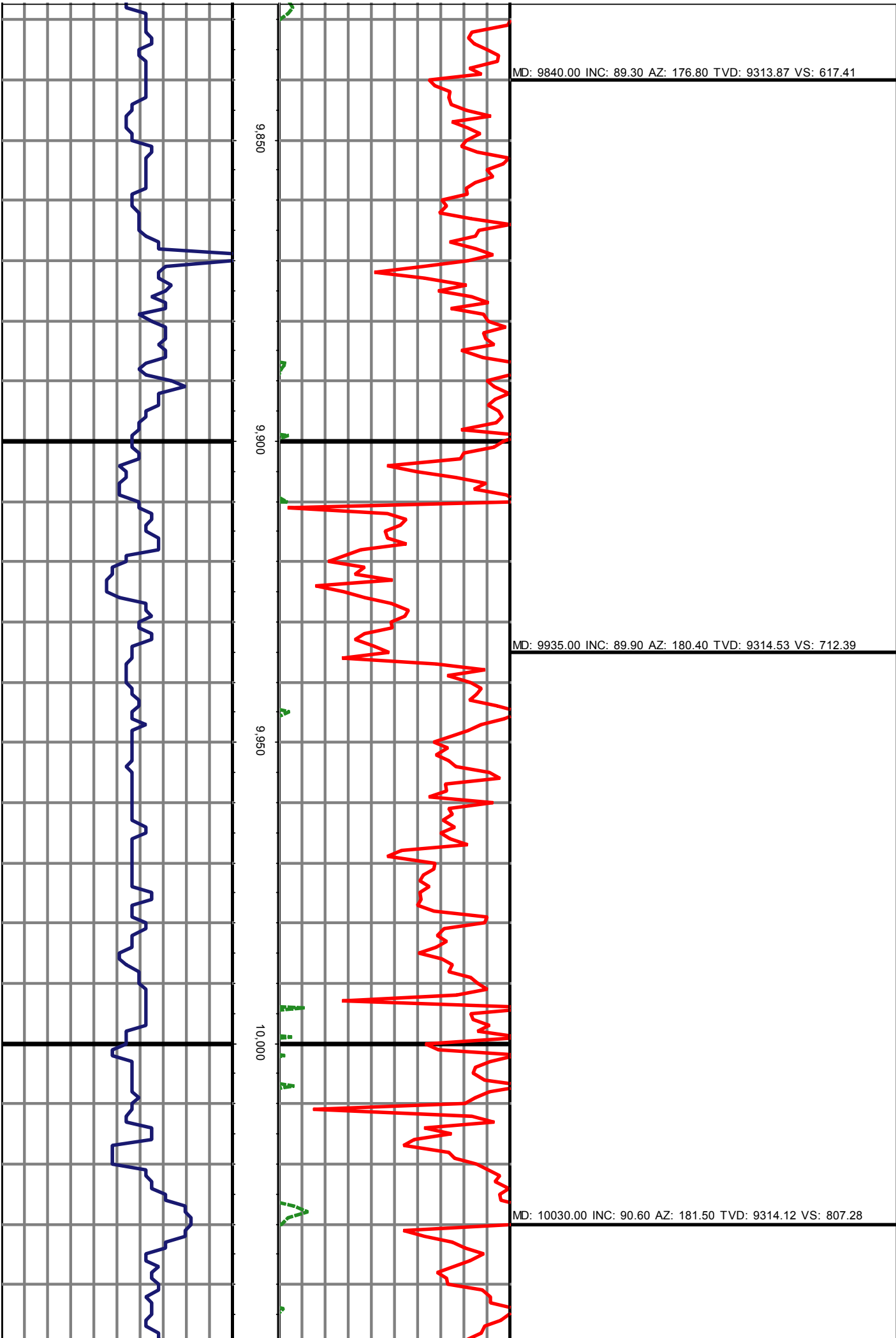
MD: 9429.00 INC: 69.80 AZ: 181.10 TVD: 9263.23 VS: 212.23

MD: 9554.00 INC: 79.30 AZ: 181.10 TVD: 9296.49 VS: 332.43

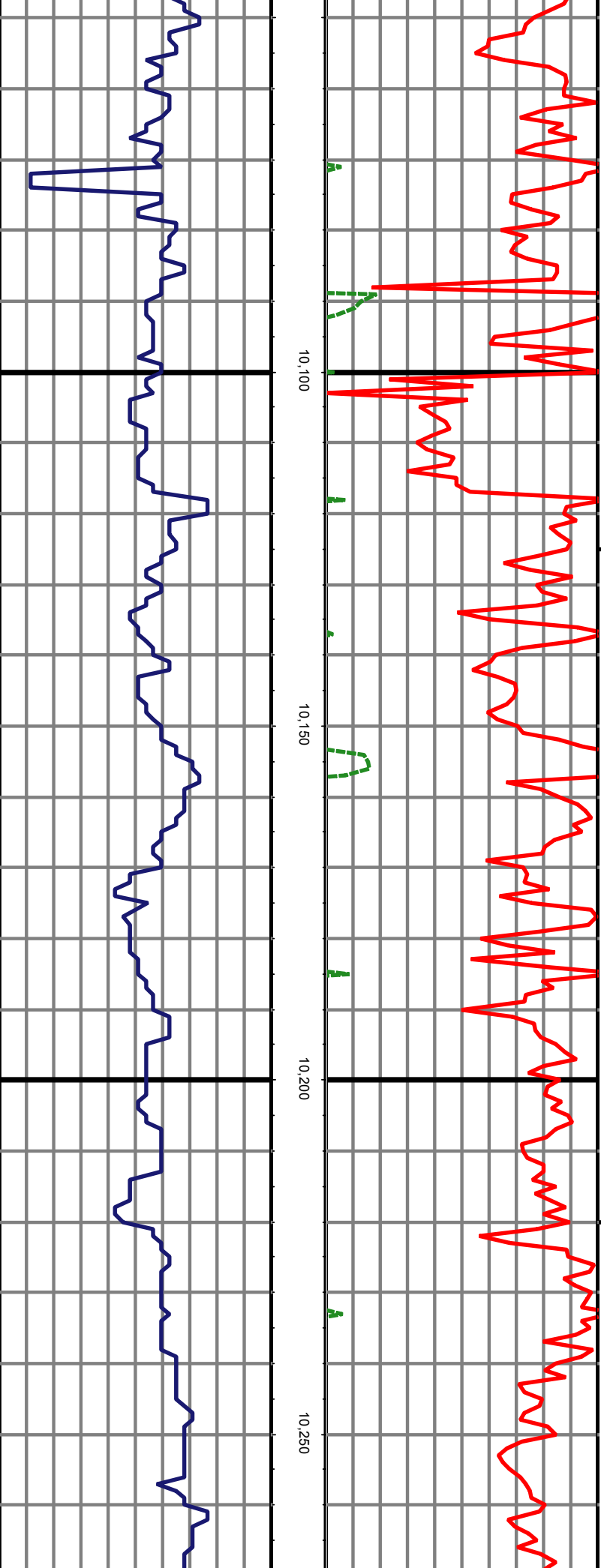


MD: 9649.00 INC: 86.00 AZ: 178.90 TVD: 9308.63 VS: 426.55

MD: 9744.00 INC: 89.20 AZ: 177.10 TVD: 9312.61 VS: 521.44

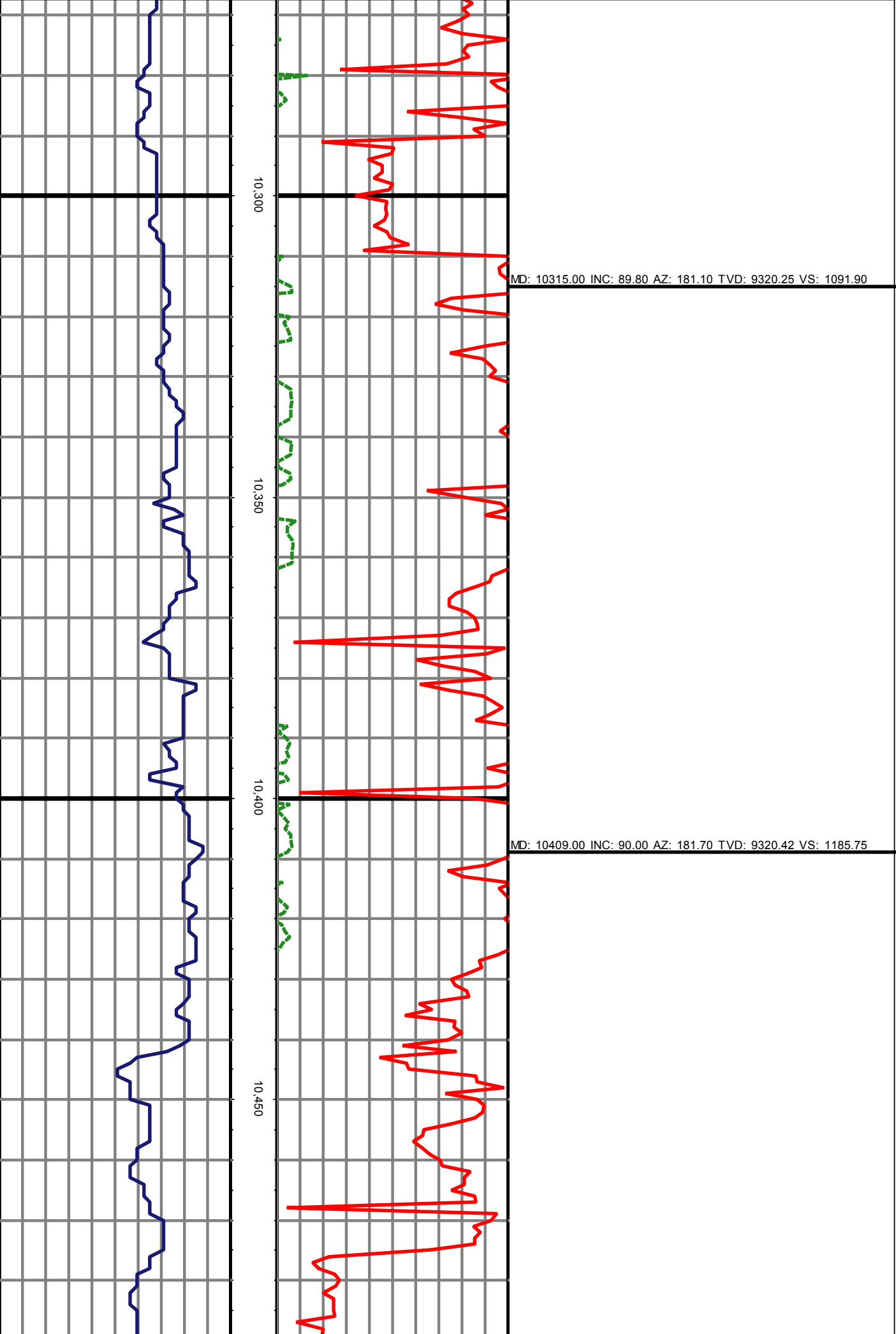


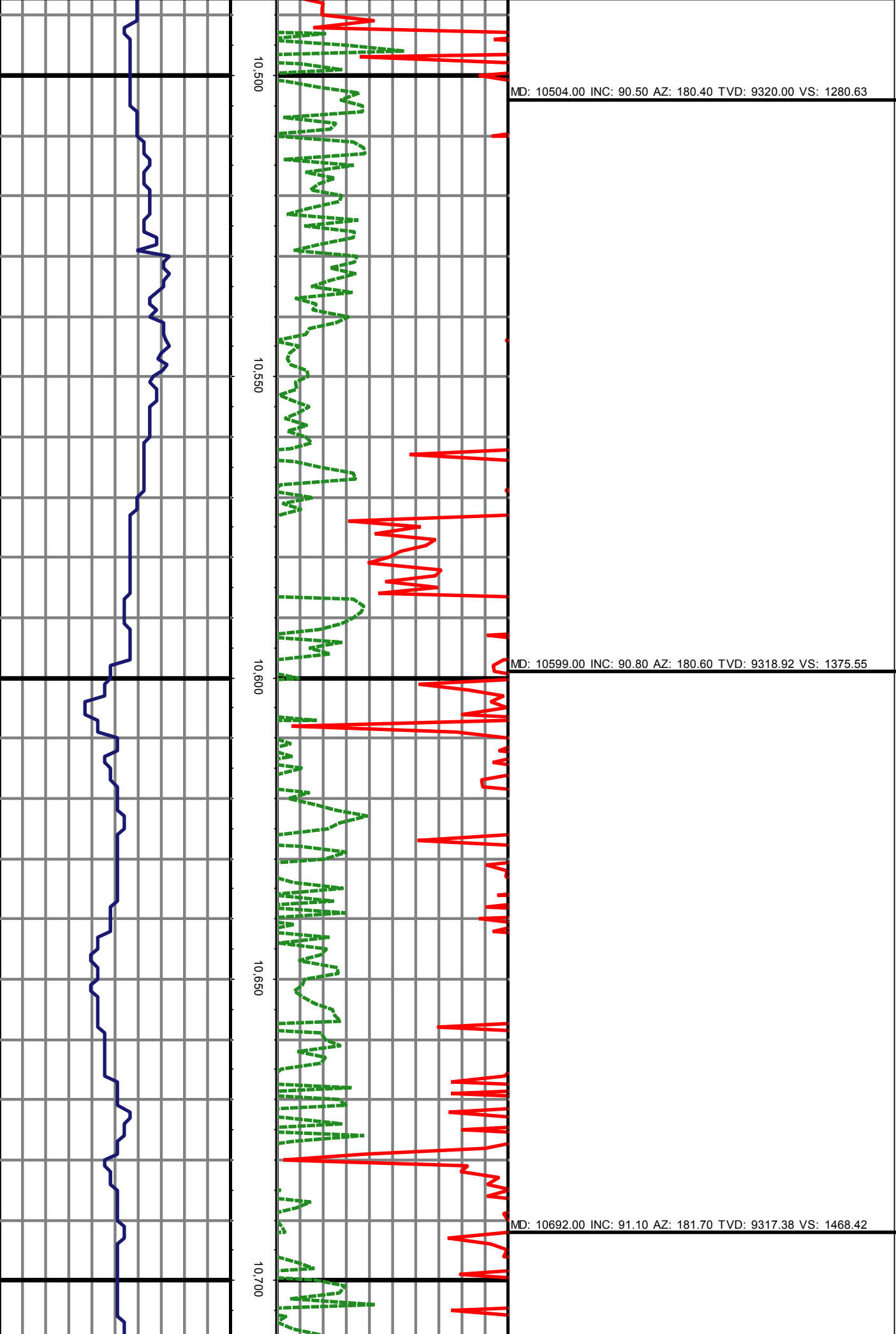




MD: 10125.00 INC: 88.30 AZ: 180.80 TVD: 9315.03 VS: 902.15

MD: 10220.00 INC: 87.80 AZ: 180.40 TVD: 9318.26 VS: 997.01





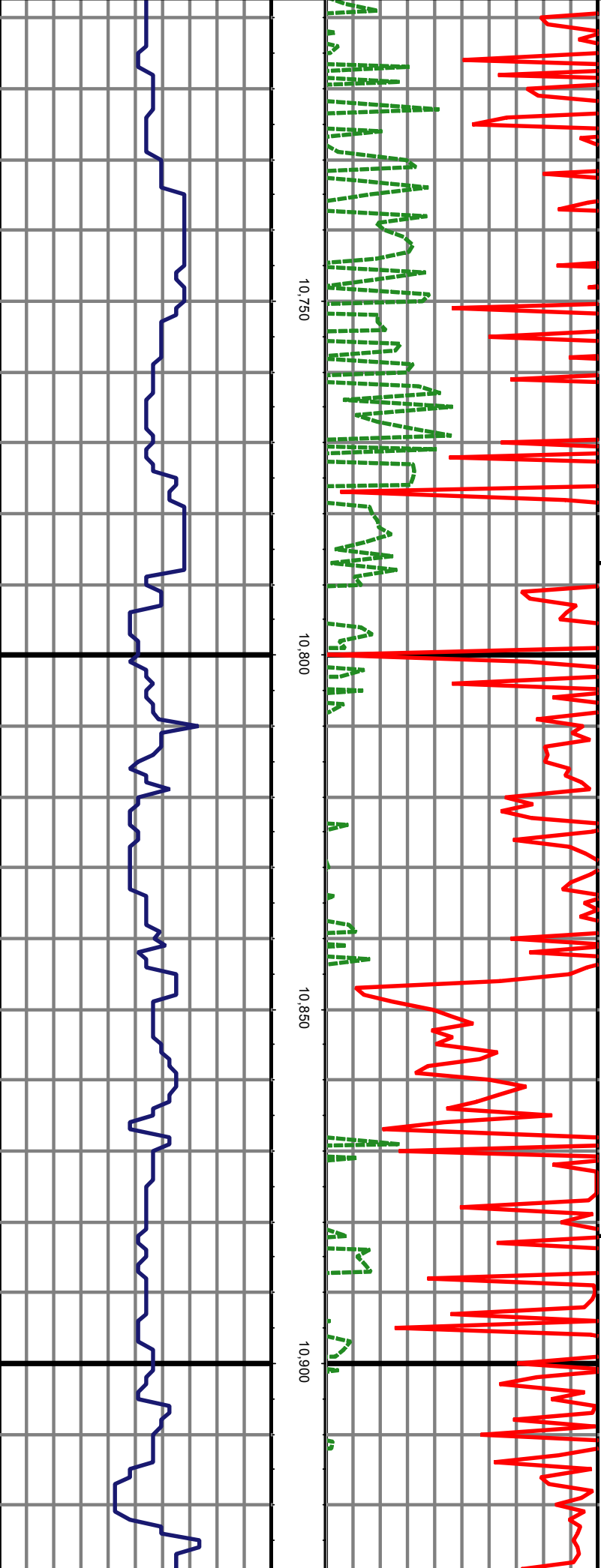
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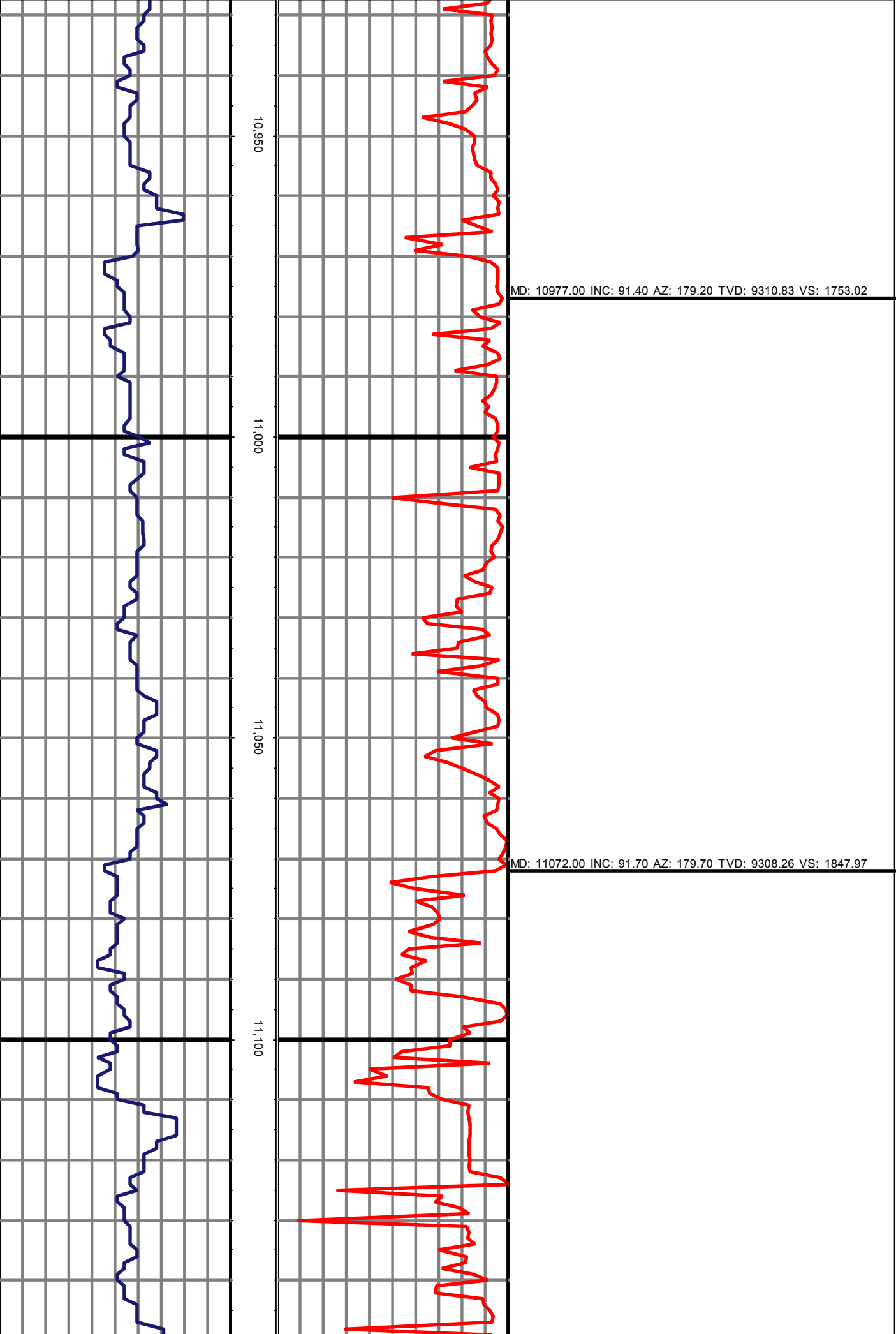
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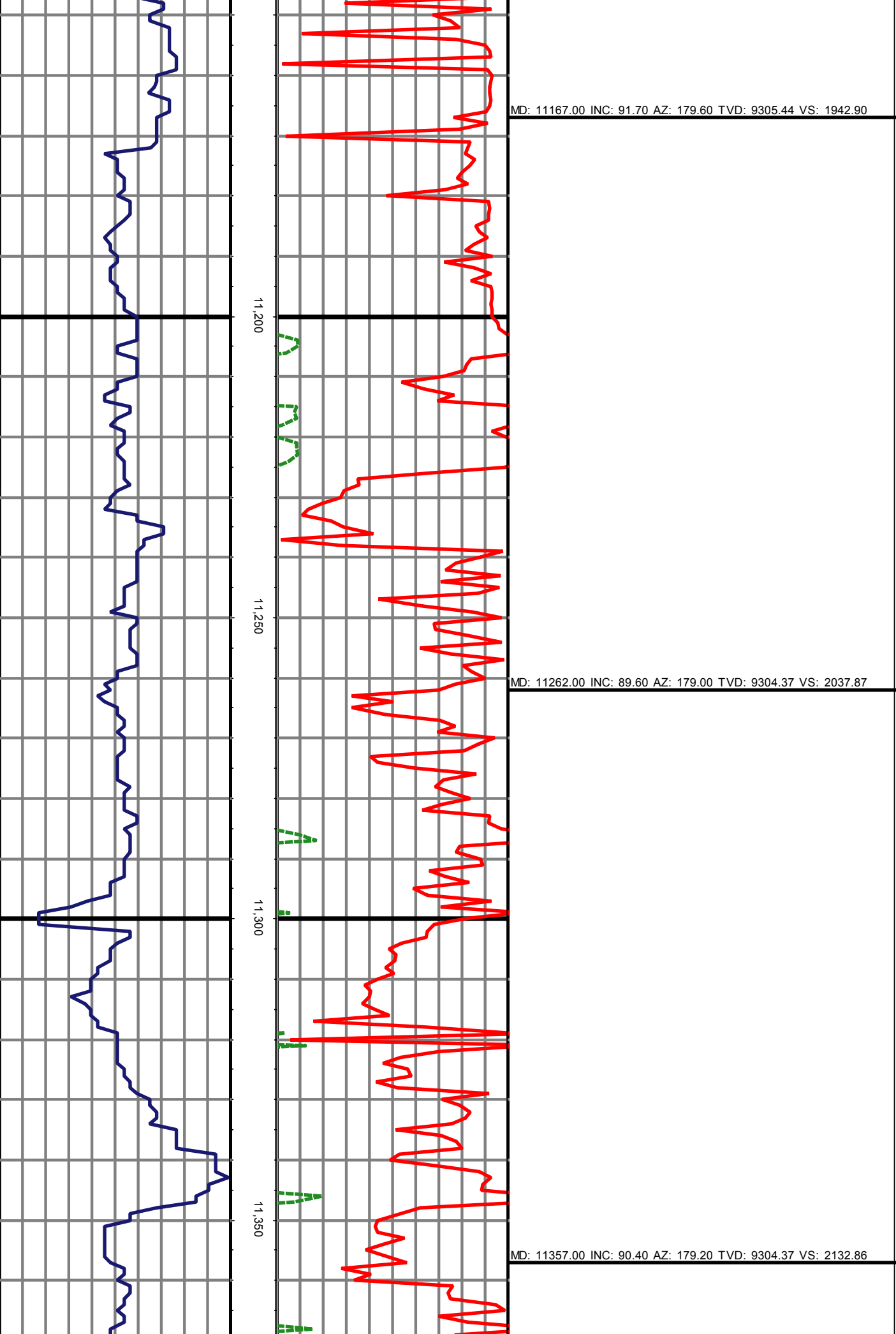
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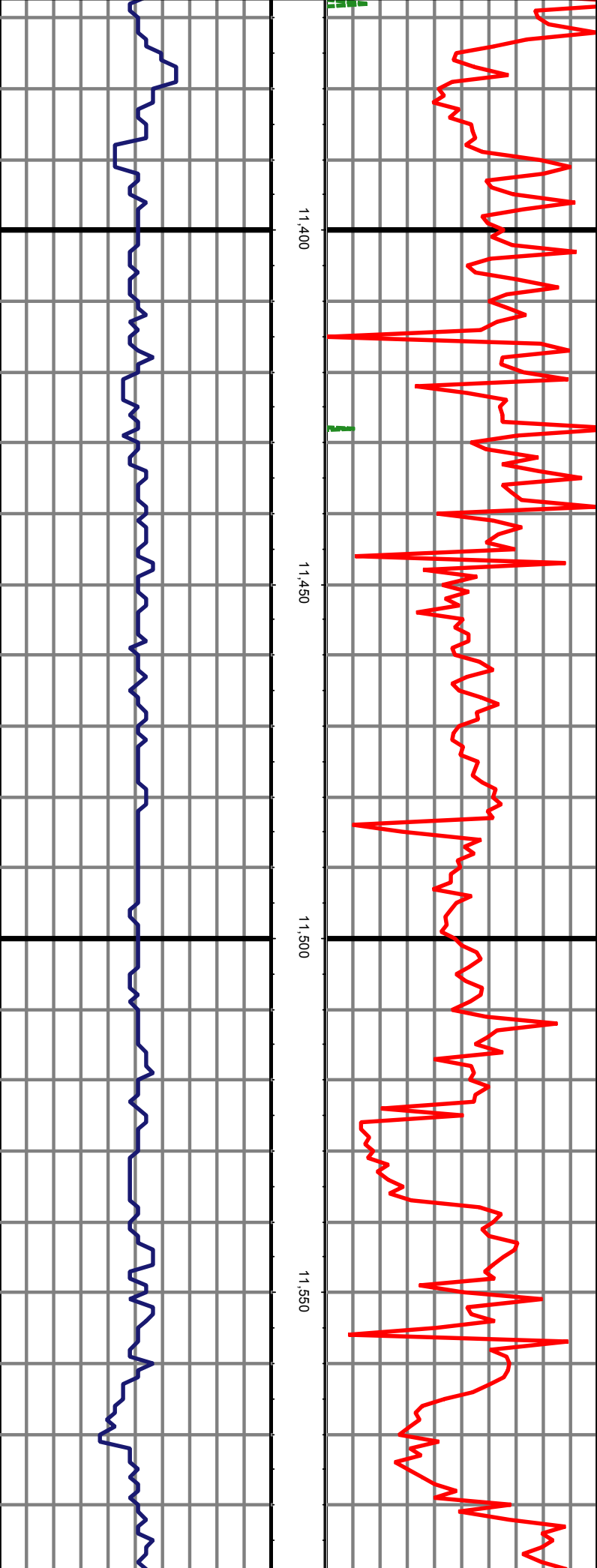


MD: 10787.00 INC: 91.60 AZ: 182.20 TVD: 9315.14 VS: 1563.19

MD: 10882.00 INC: 91.10 AZ: 179.40 TVD: 9312.91 VS: 1658.06





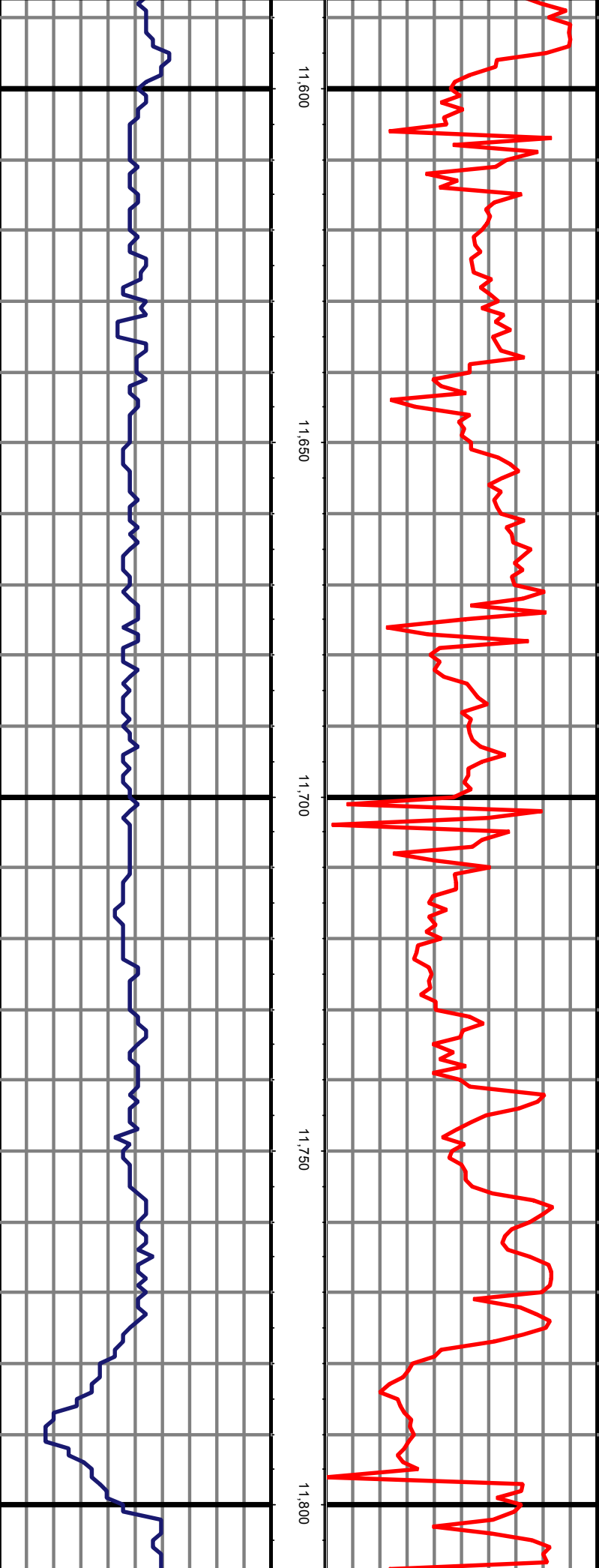


MD: 11452.00 INC: 90.20 AZ: 179.20 TVD: 9303.87 VS: 2227.84

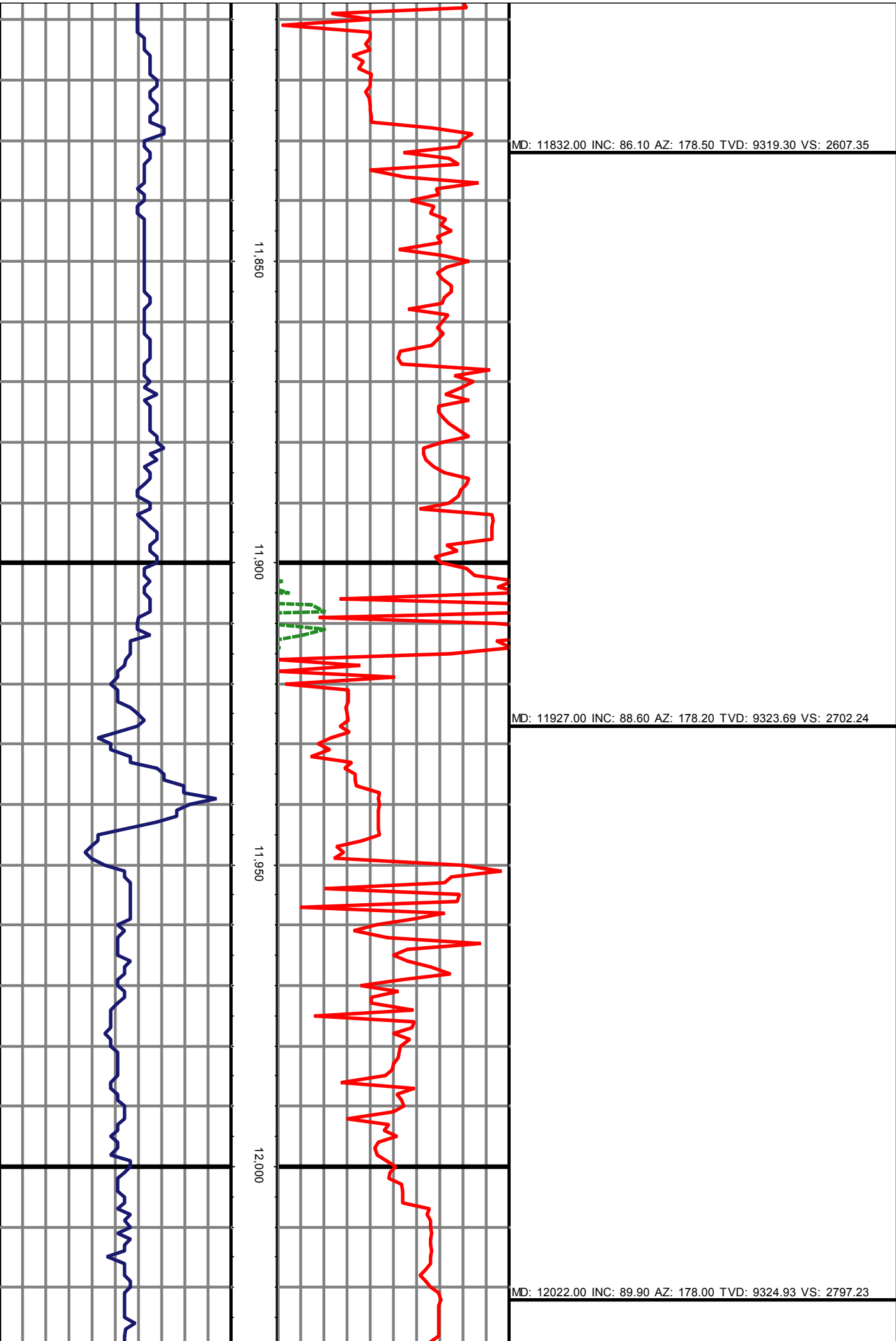
MD: 11548.00 INC: 88.60 AZ: 178.70 TVD: 9304.88 VS: 2323.83

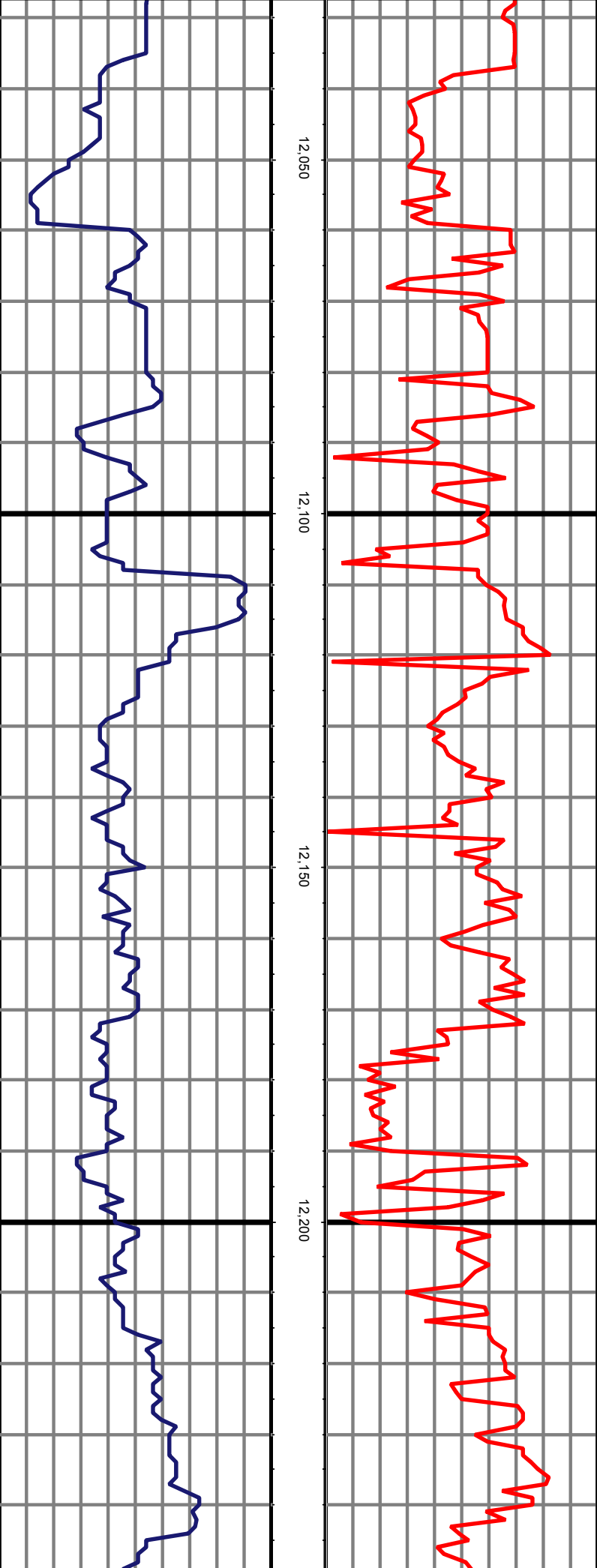
MD: 11643.00 INC: 88.70 AZ: 179.00 TVD: 9307.11 VS: 2418.79

MD: 11738.00 INC: 85.20 AZ: 179.40 TVD: 9312.17 VS: 2513.63









MD: 12117.00 INC: 88.90 AZ: 178.00 TVD: 9325.93 VS: 2892.22

MD: 12213.00 INC: 90.00 AZ: 177.80 TVD: 9326.85 VS: 2988.22

MD: 12307.00 INC: 90.00 AZ: 178.20 TVD: 9326.85 VS: 3082.22

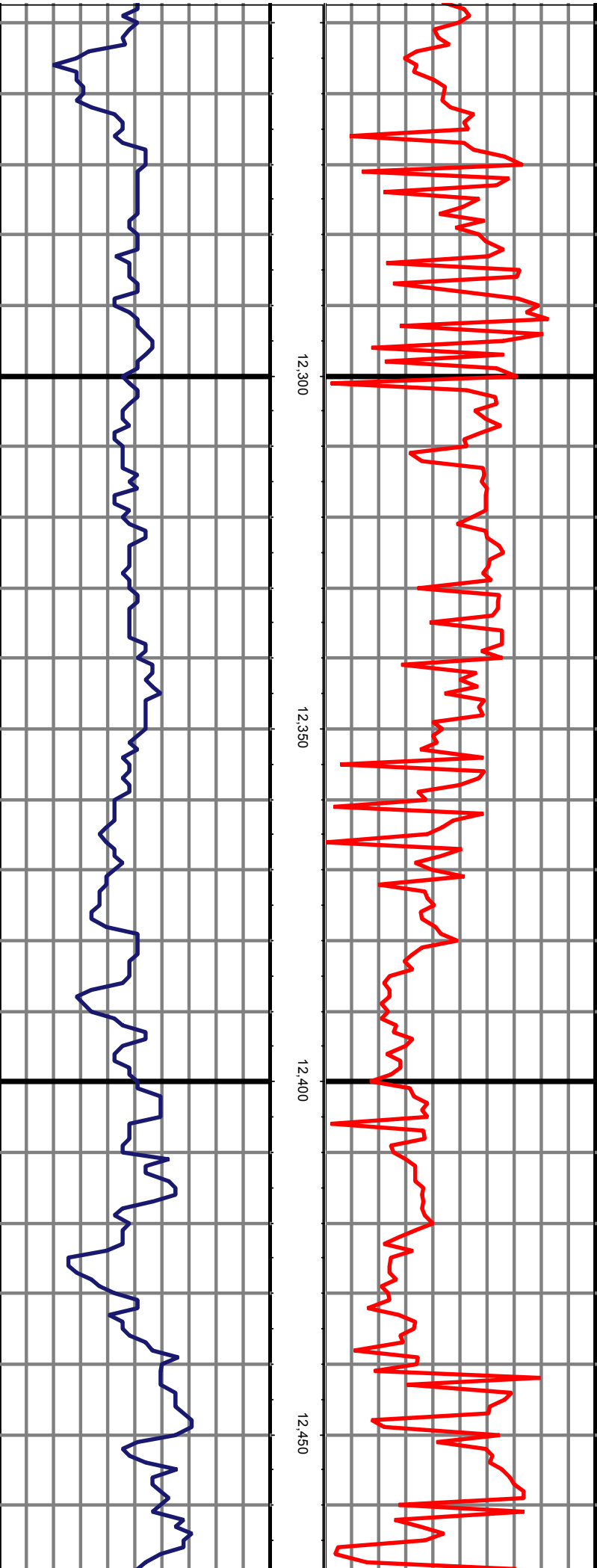
MD: 12402.00 INC: 89.70 AZ: 178.20 TVD: 9327.10 VS: 3177.22

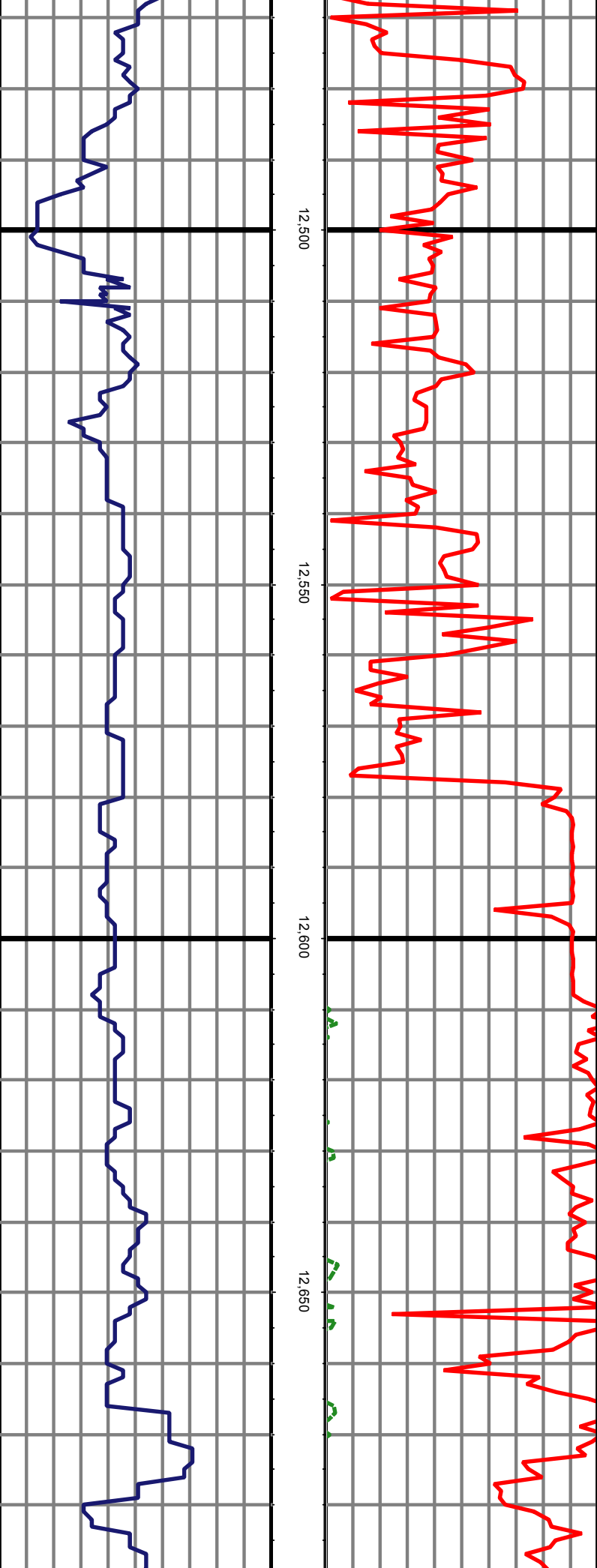
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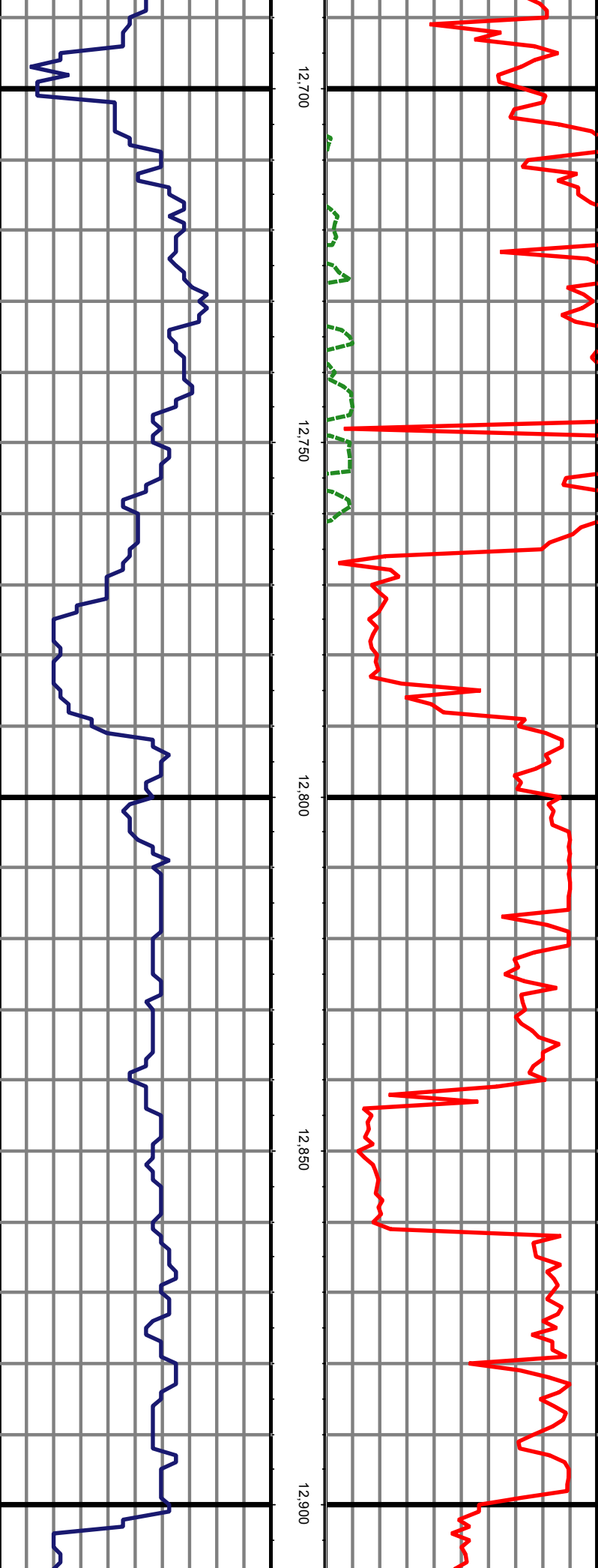


MD: 12496.00 INC: 89.60 AZ: 178.20 TVD: 9327.67 VS: 3271.21

MD: 12594.00 INC: 92.20 AZ: 179.60 TVD: 9326.13 VS: 3369.18

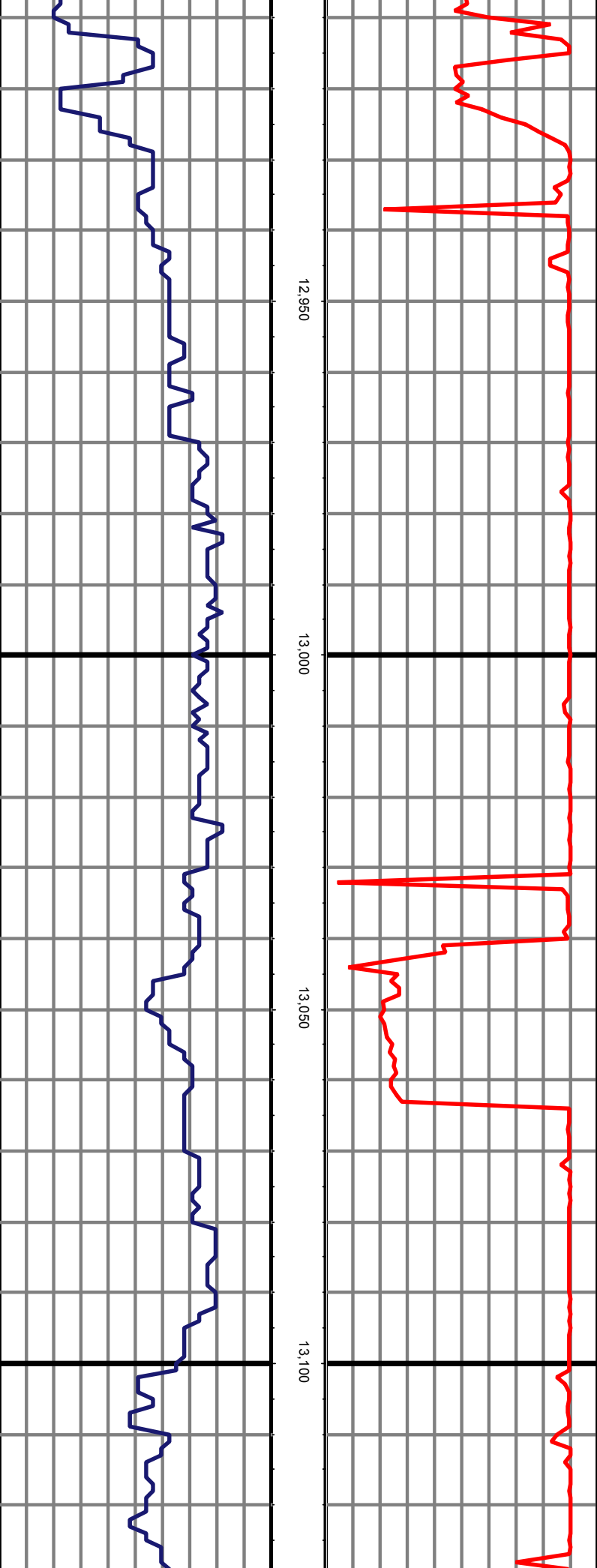
MD: 12689.00 INC: 92.90 AZ: 179.60 TVD: 9321.91 VS: 3464.06

MD: 12689.00 INC: 92.90 AZ: 179.60 TVD: 9321.91 VS: 3464.06



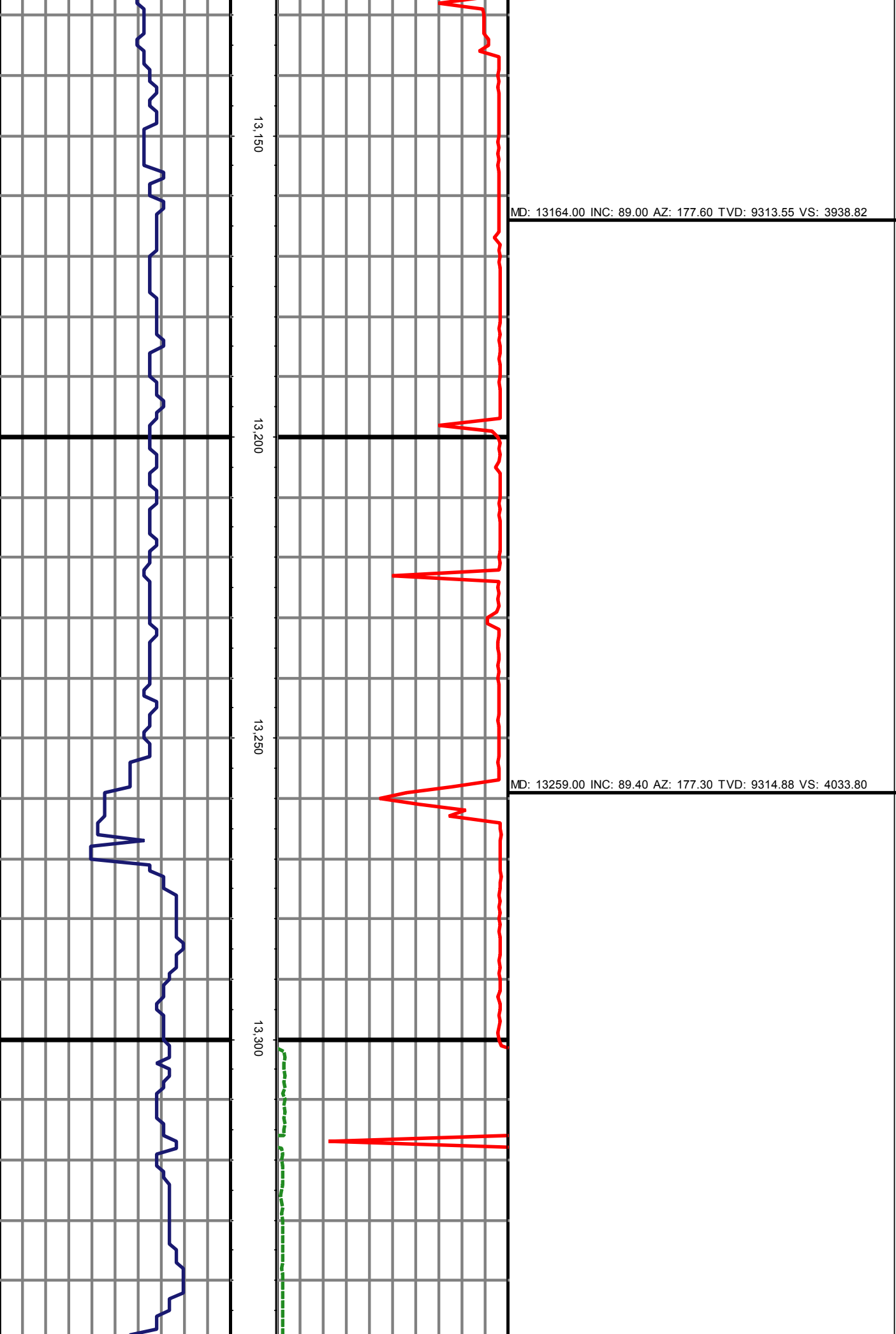
MD: 12783.00 INC: 93.00 AZ: 179.00 TVD: 9317.07 VS: 3557.92

MD: 12879.00 INC: 90.70 AZ: 178.30 TVD: 9313.97 VS: 3653.86

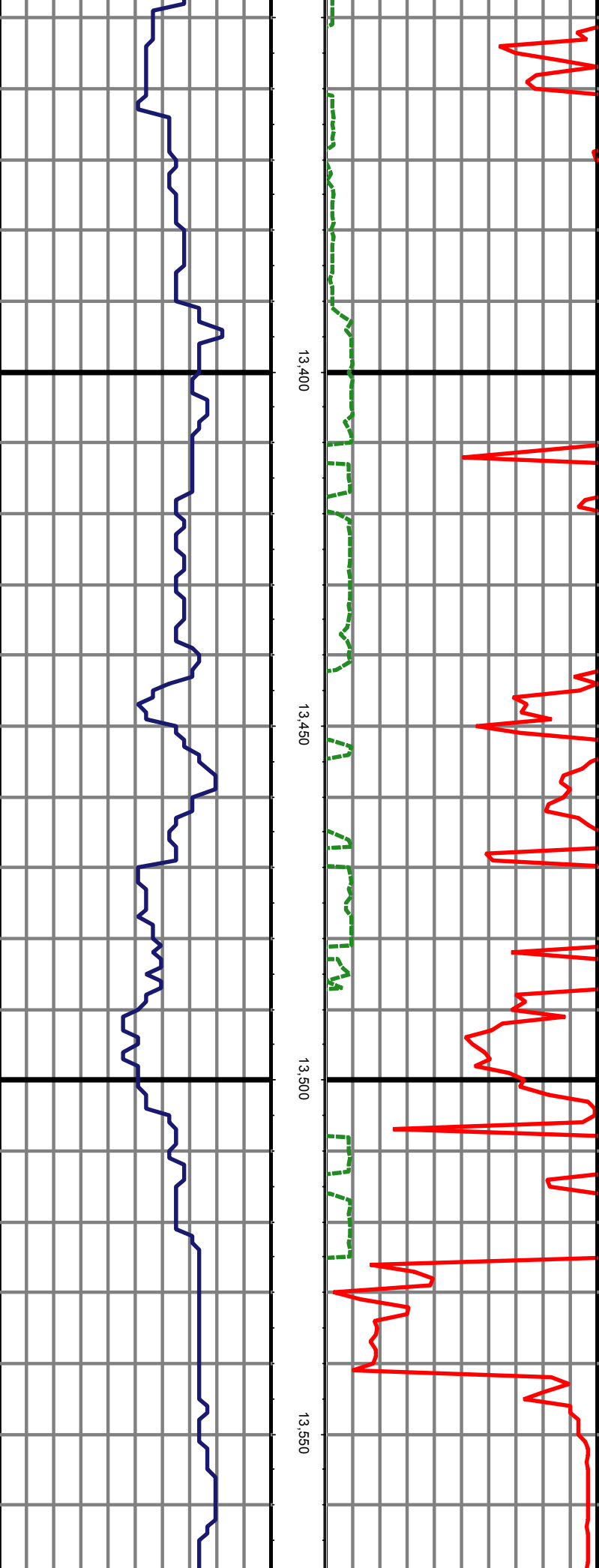


MD: 12974.00 INC: 91.40 AZ: 178.50 TVD: 9312.23 VS: 3748.85

MD: 13069.00 INC: 89.00 AZ: 178.00 TVD: 9311.90 VS: 3843.84



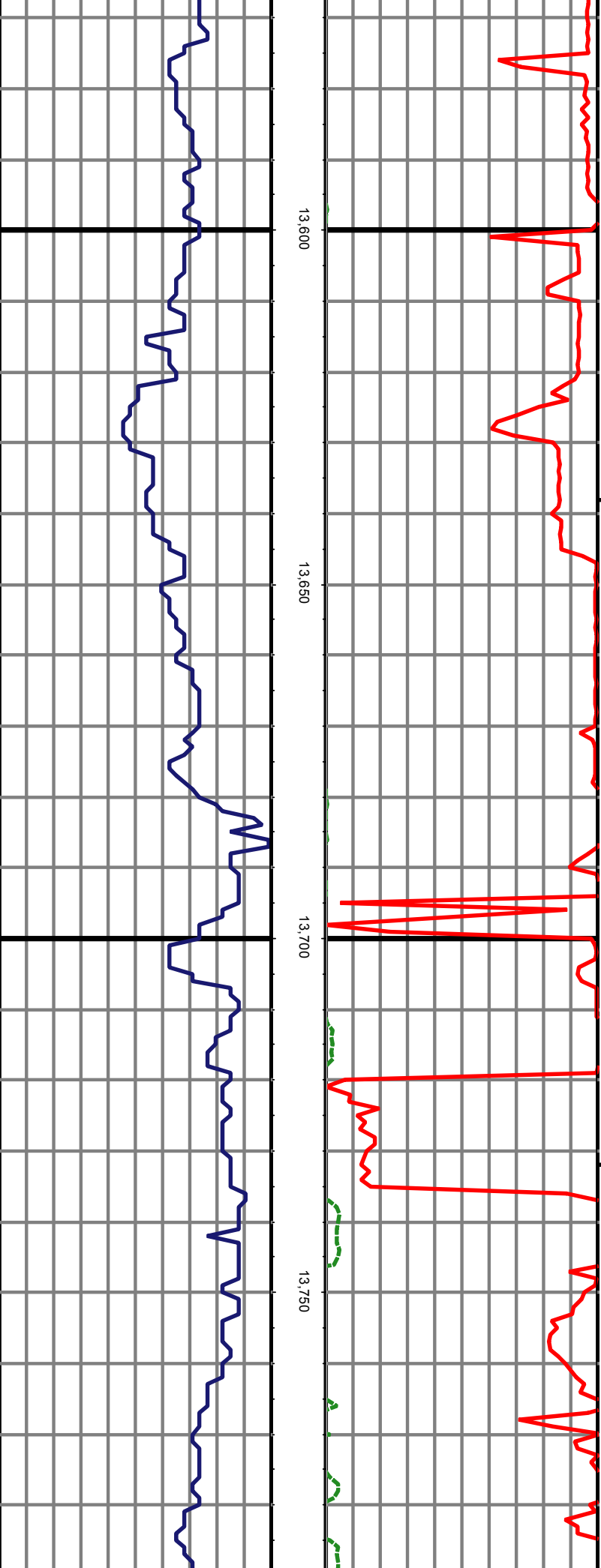
MD: 13354.00 INC: 90.30 AZ: 177.60 TVD: 9315.13 VS: 4128.79



MD: 13449.00 INC: 90.60 AZ: 177.80 TVD: 9314.38 VS: 4223.78

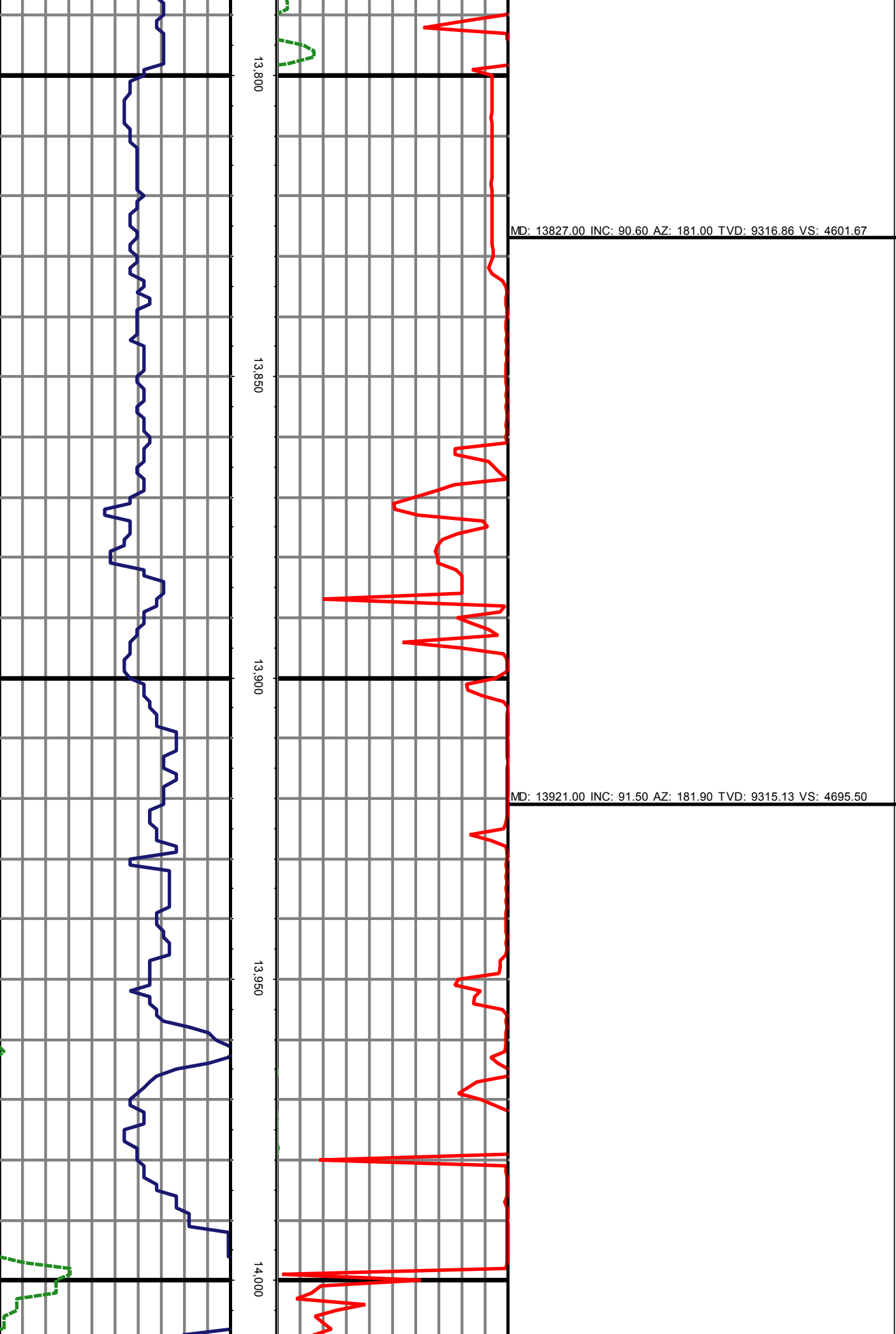
MD: 13543.00 INC: 88.50 AZ: 177.10 TVD: 9315.12 VS: 4317.77

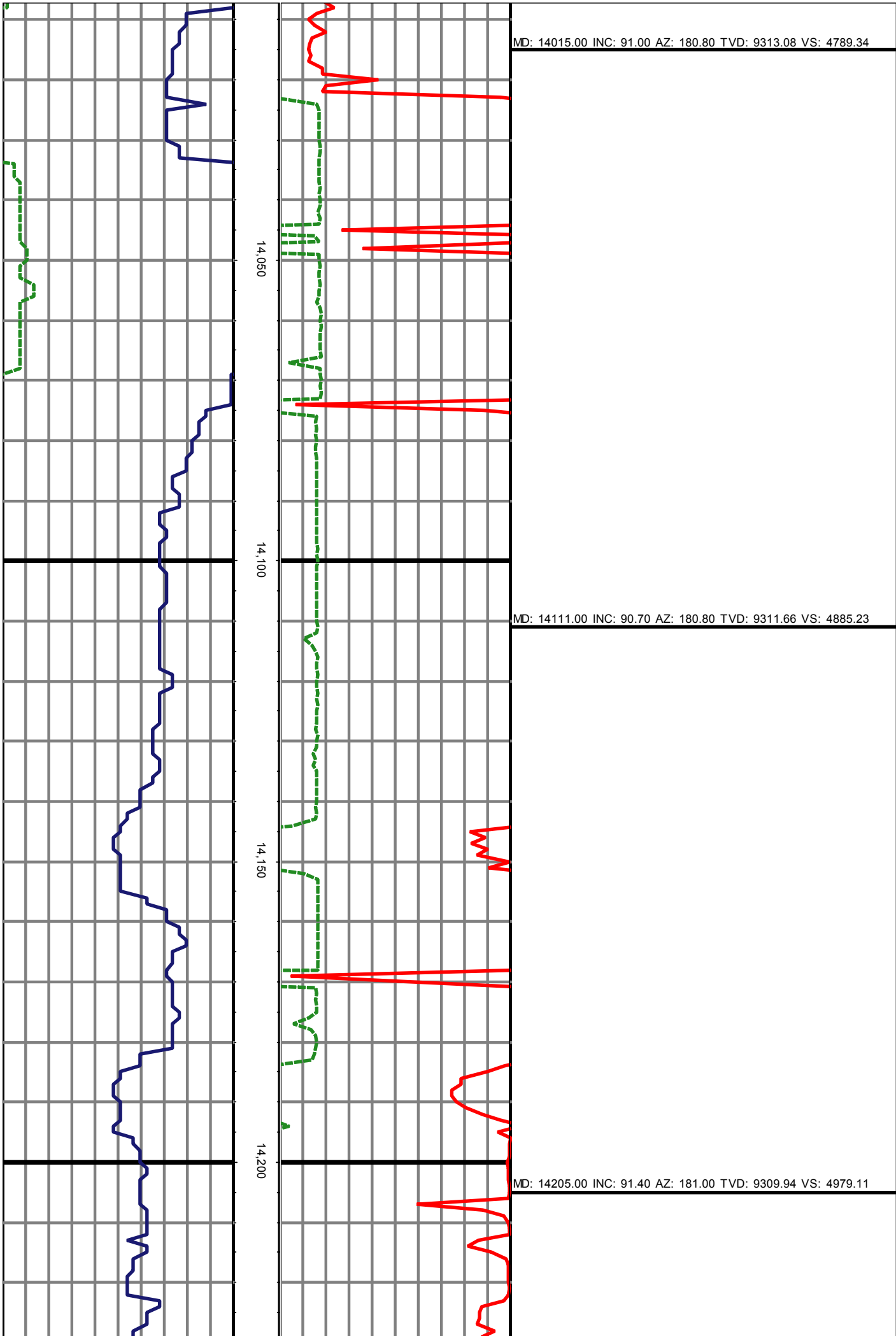


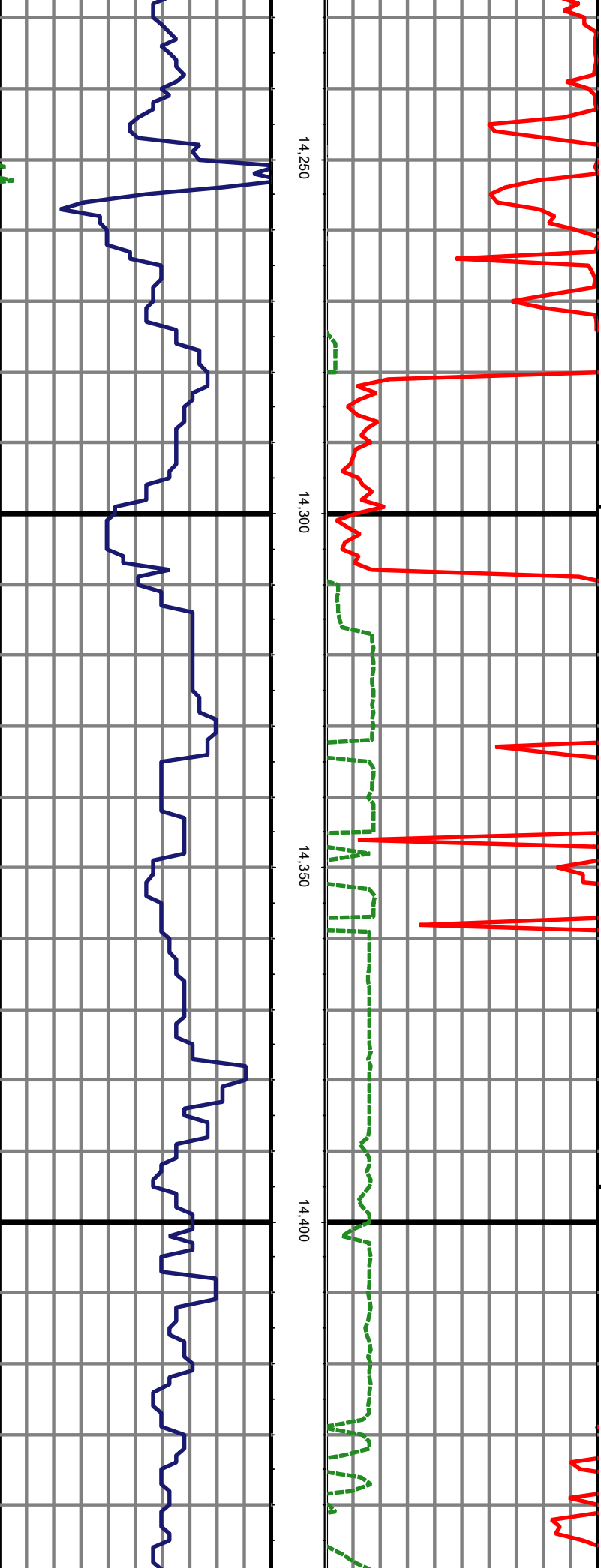


MD: 13638.00 INC: 89.40 AZ: 177.30 TVD: 9316.86 VS: 4412.73

MD: 13732.00 INC: 90.00 AZ: 179.40 TVD: 9317.35 VS: 4506.73

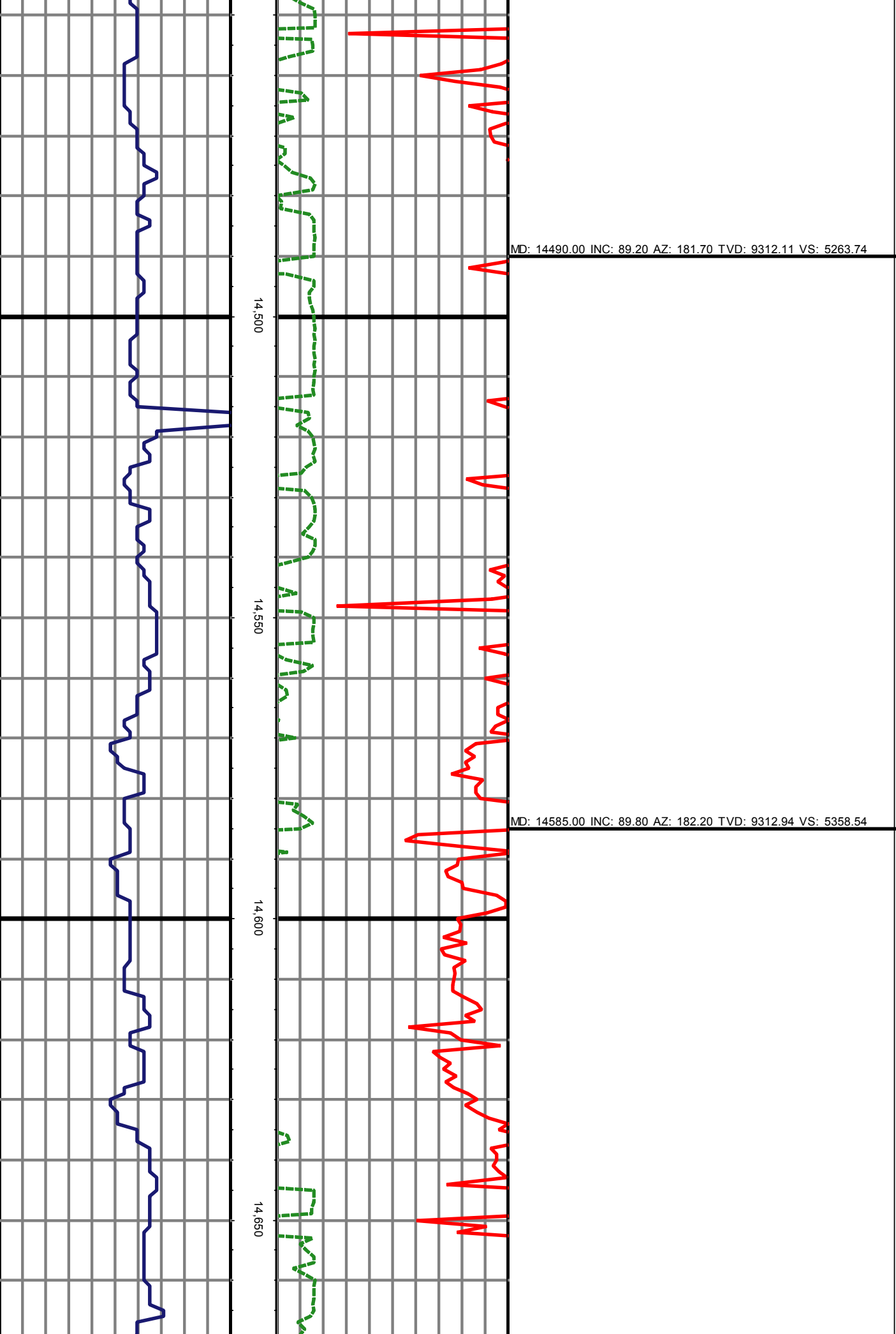


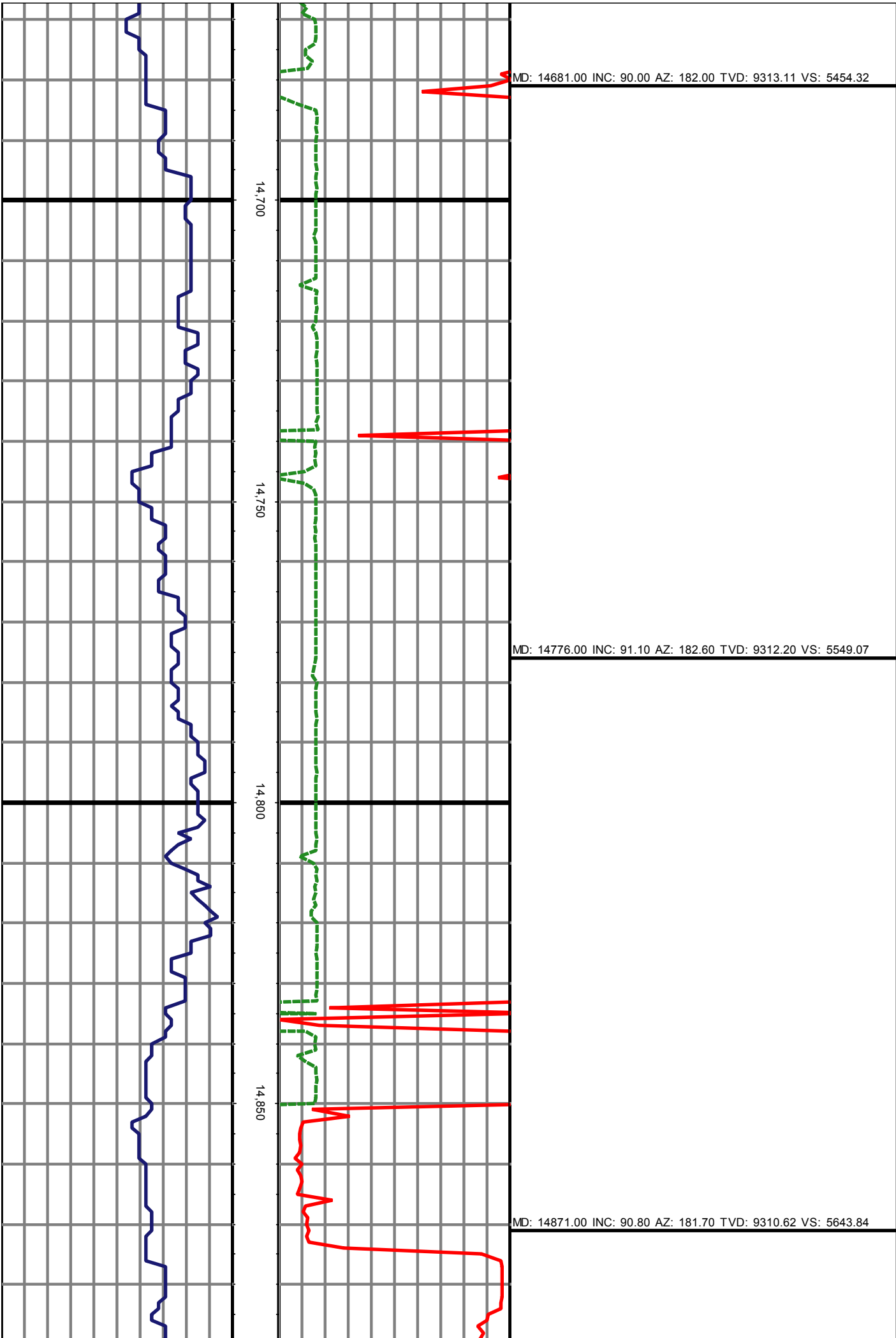


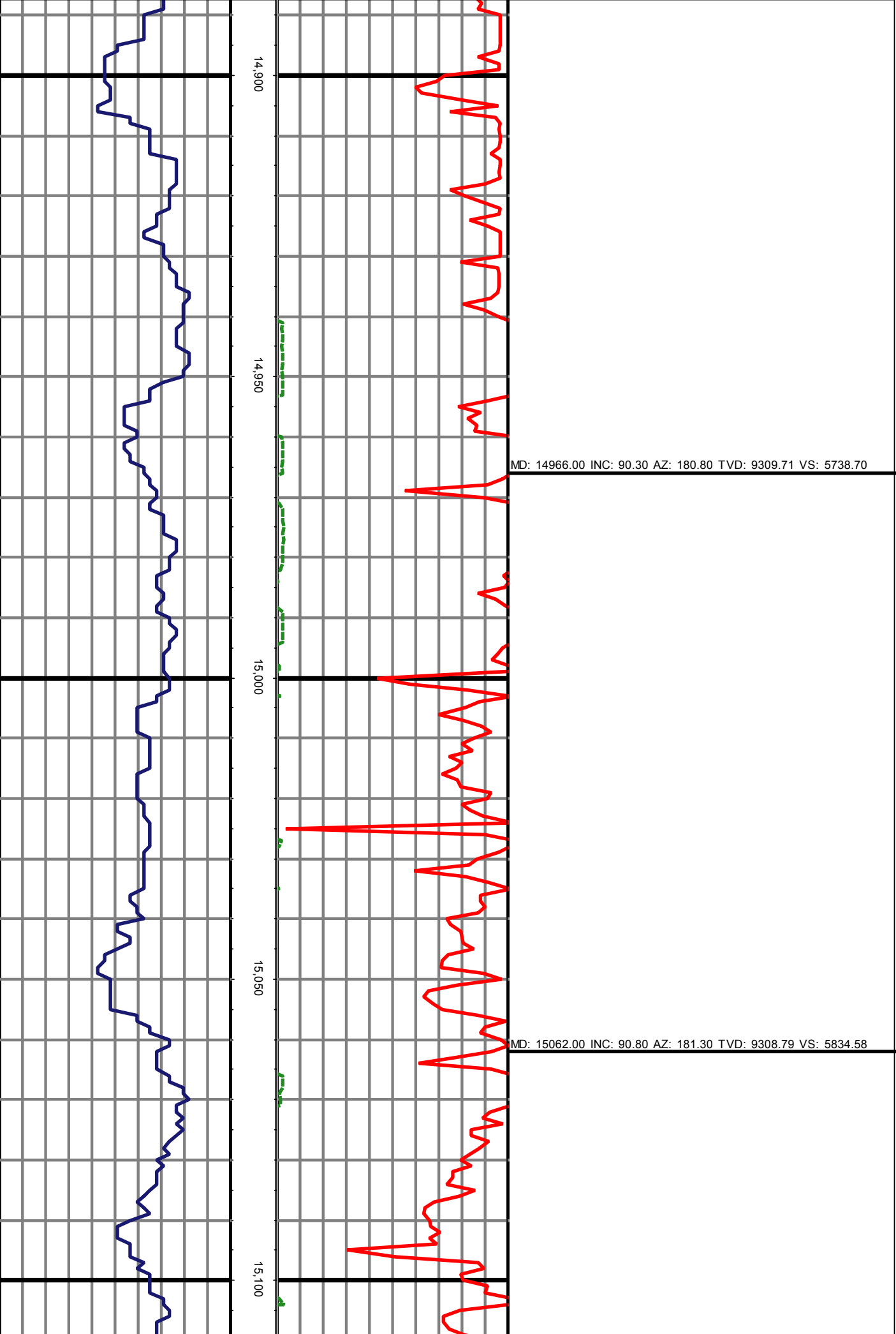


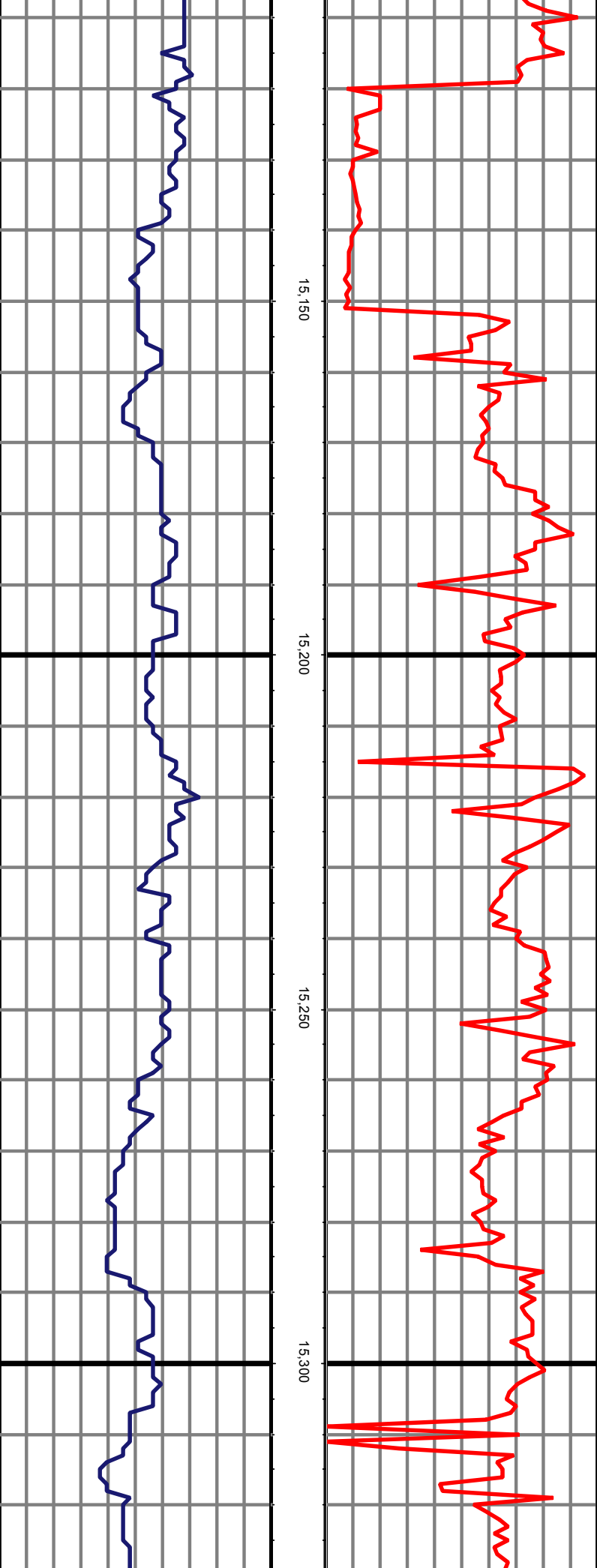
MD: 14299.00 INC: 89.50 AZ: 180.80 TVD: 9309.20 VS: 5073.01

MD: 14395.00 INC: 88.90 AZ: 181.00 TVD: 9310.54 VS: 5168.89







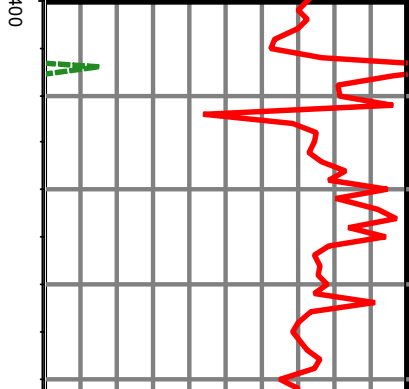
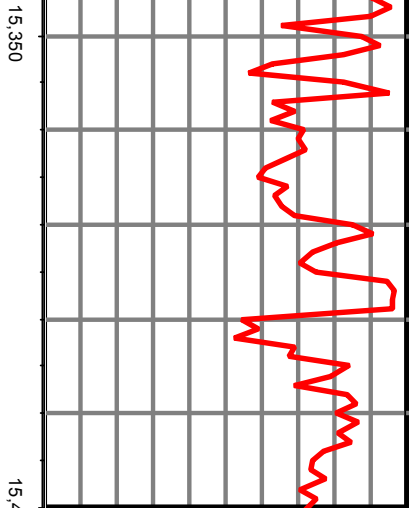


MD: 15157.00 INC: 89.40 AZ: 178.90 TVD: 9308.63 VS: 5929.52

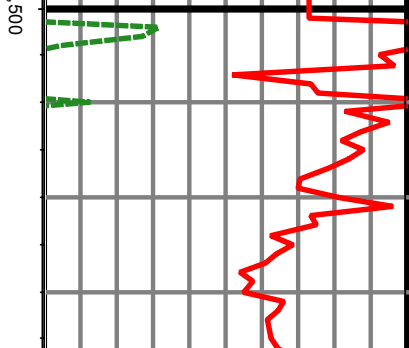
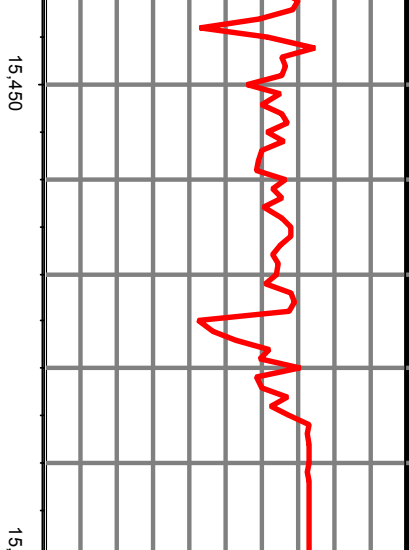
MD: 15251.00 INC: 90.00 AZ: 178.90 TVD: 9309.12 VS: 6023.51



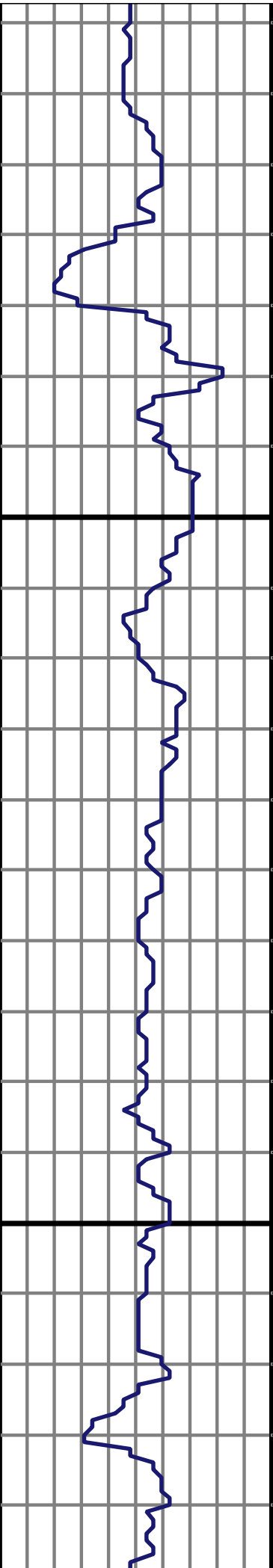
MD: 15346.00 INC: 90.00 AZ: 178.90 TVD: 9309.12 VS: 6118.51

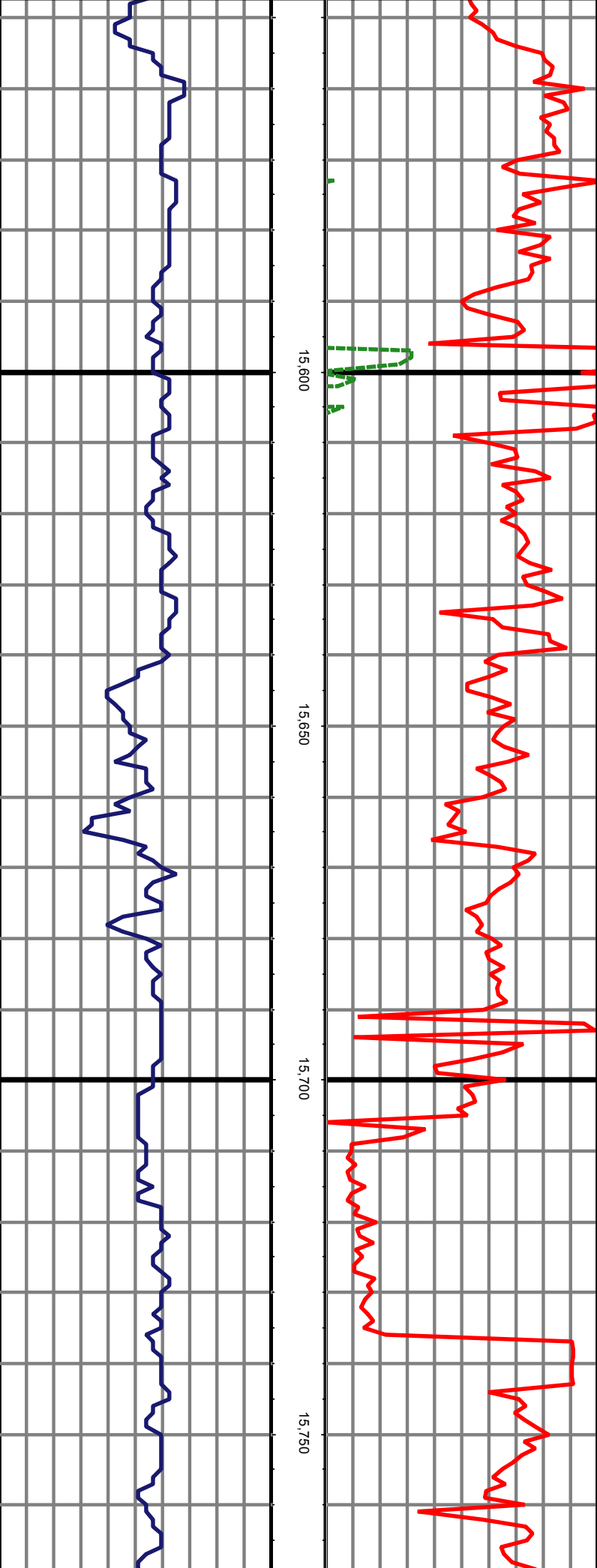


MD: 15441.00 INC: 89.70 AZ: 179.00 TVD: 9309.37 VS: 6213.50



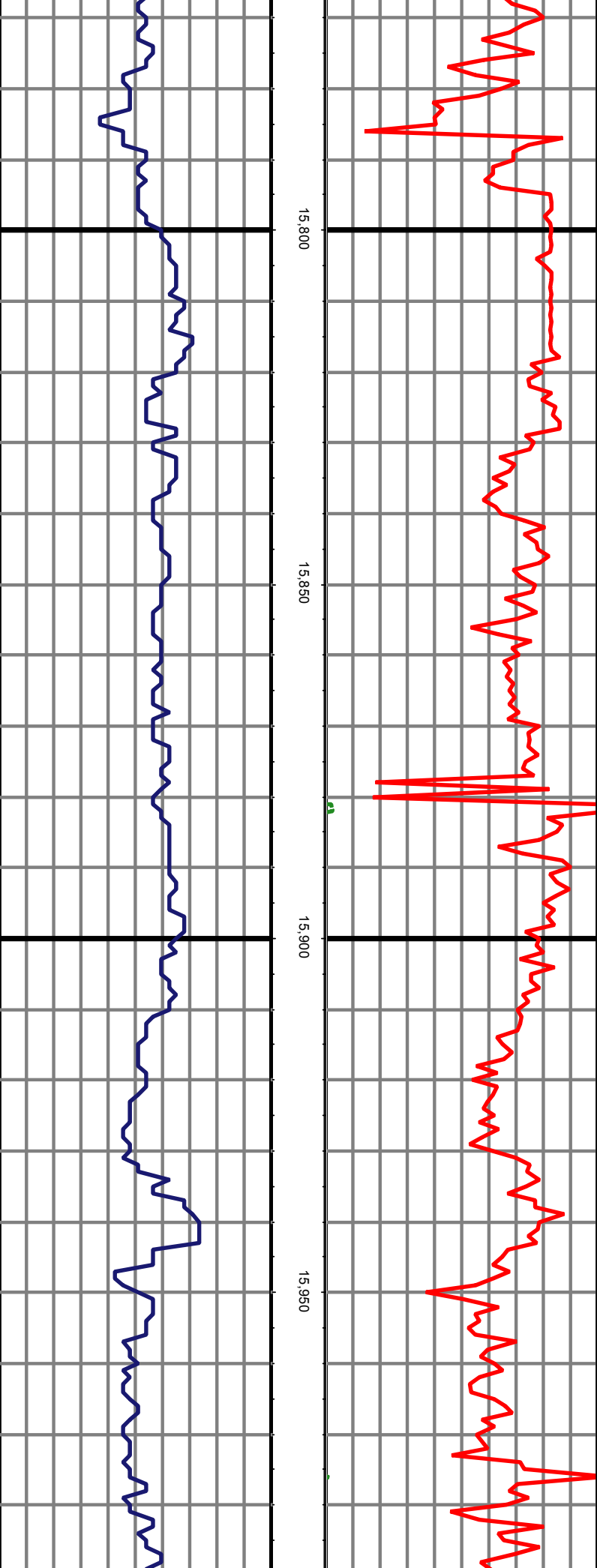
MD: 15536.00 INC: 90.40 AZ: 179.20 TVD: 9309.28 VS: 6308.49





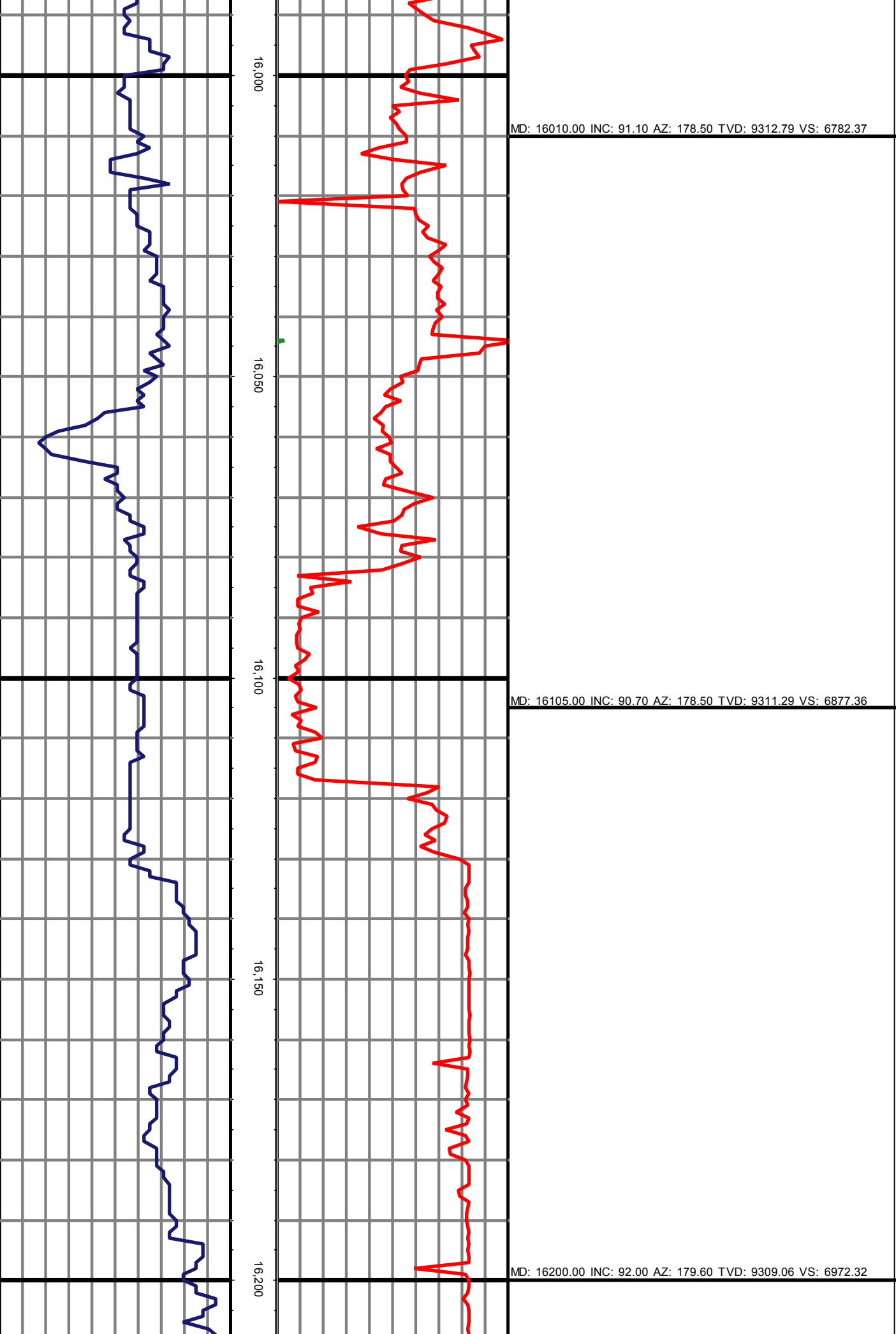
MD: 15632.00 INC: 90.90 AZ: 179.20 TVD: 9308.19 VS: 6404.47

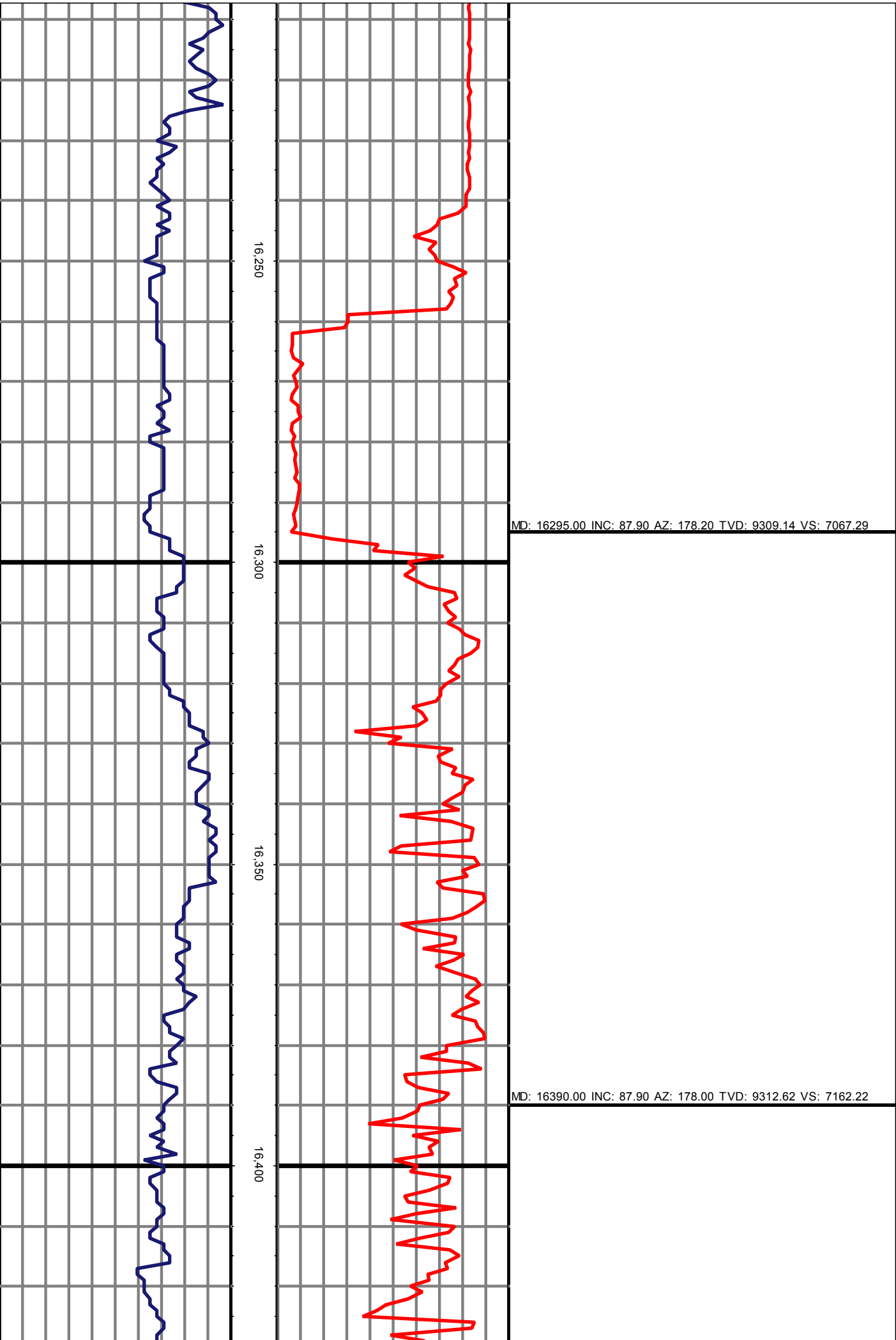
MD: 15727.00 INC: 88.50 AZ: 177.80 TVD: 9308.69 VS: 6499.46

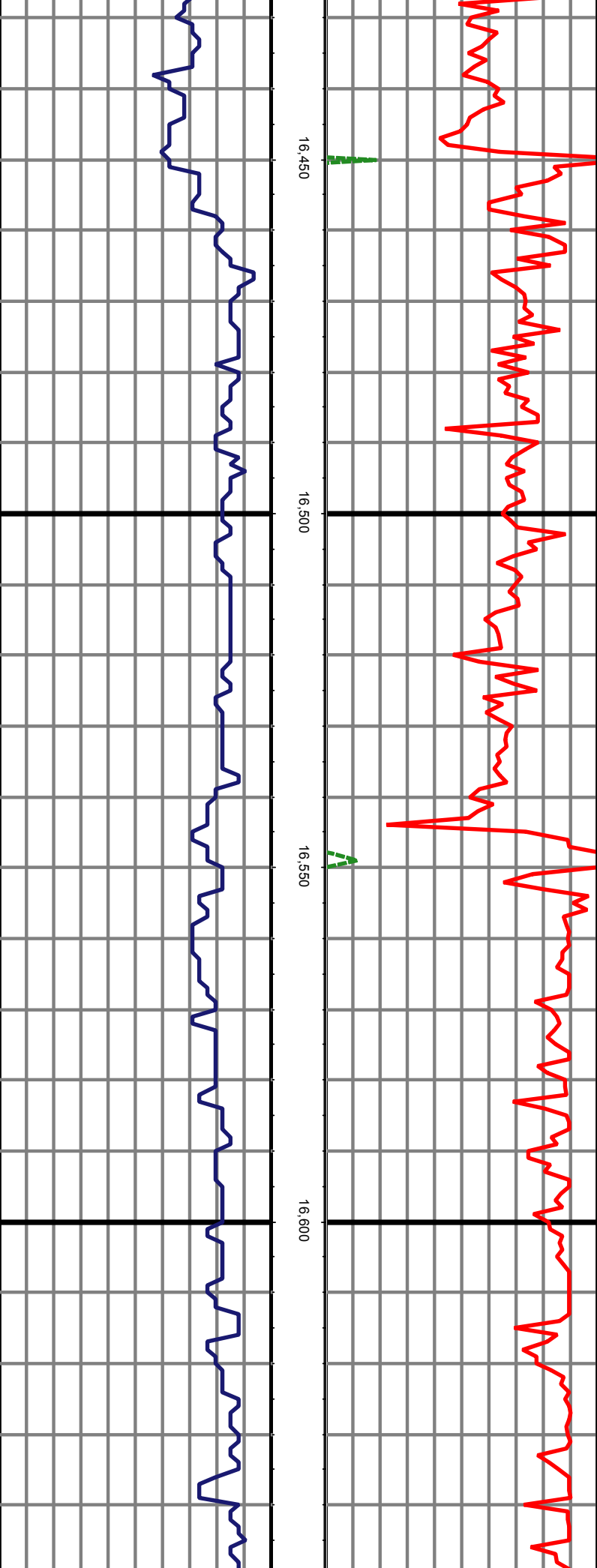


MD: 15821.00 INC: 88.10 AZ: 177.10 TVD: 9311.48 VS: 6593.40

MD: 15915.00 INC: 89.60 AZ: 177.80 TVD: 9313.37 VS: 6687.37







MD: 16485.00 INC: 88.20 AZ: 178.50 TVD: 9315.85 VS: 7257.17

MD: 16580.00 INC: 88.90 AZ: 178.90 TVD: 9318.26 VS: 7352.13

