

# Rohn State LD09-69HN

**MD**  
2":100'

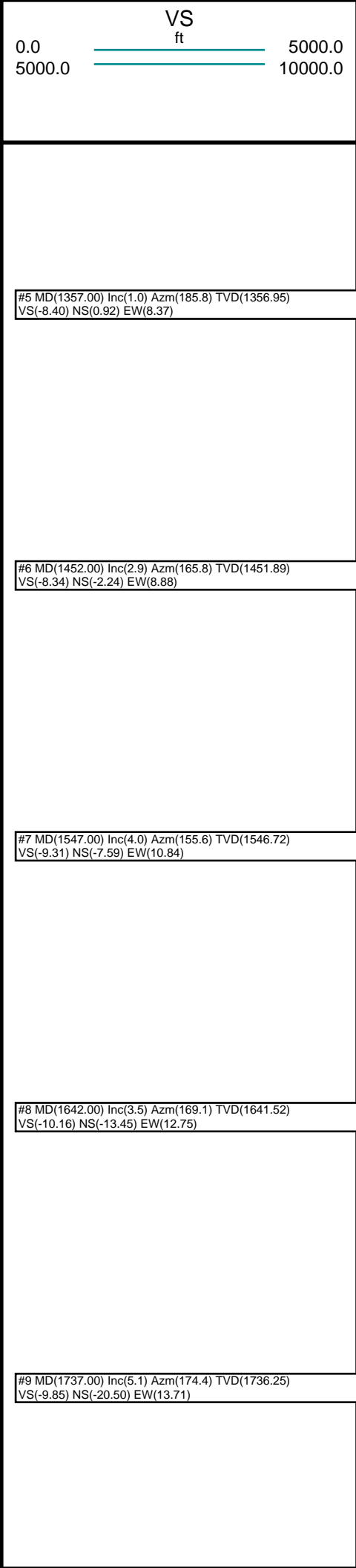
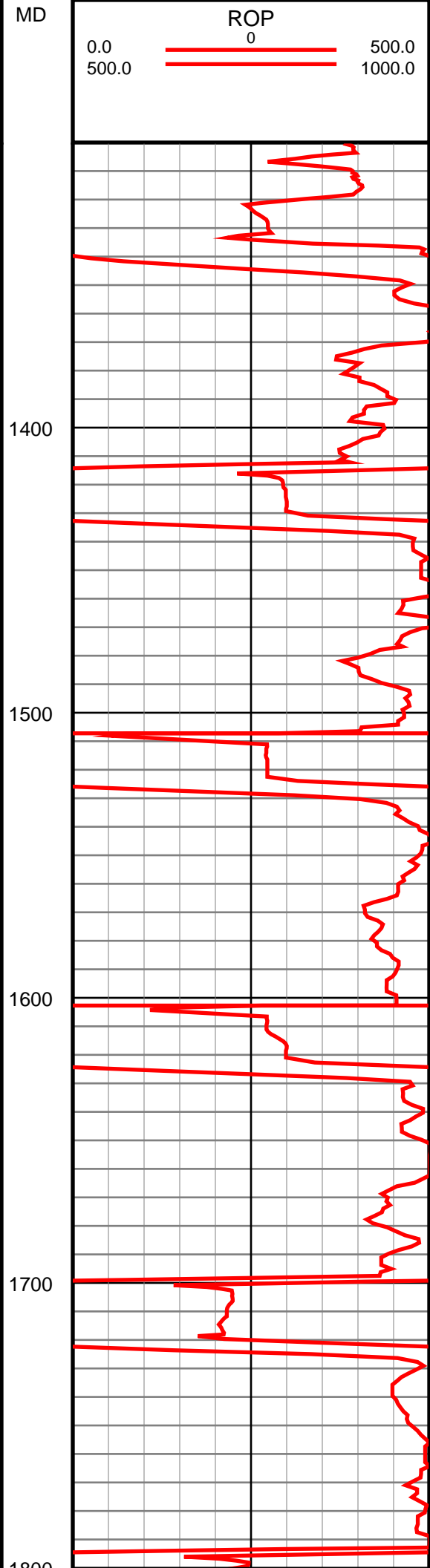
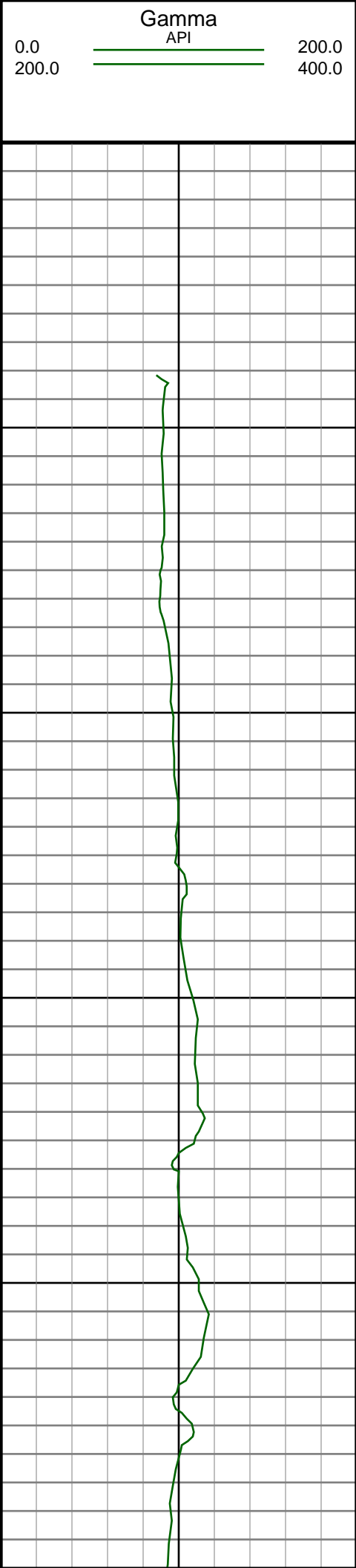
**Company:** Noble Energy Inc  
**Well Name:** Rohn State LD09-69HN  
**UWI or LSD:** 05-123-37472  
**Rig Id:** H&P 273  
**State:** Colorado  
**County/Parish:** Weld  
**Country:** USA  
**Survey Company:** Ensign Directional  
**Job number:** 139452  
**Dir. Driller Days** Kody Wood  
**Dir. Driller Nights** Mike David  
**MWD/LWD Days** Nathan McClain  
**MWD/LWD Nights** Ryan Prue

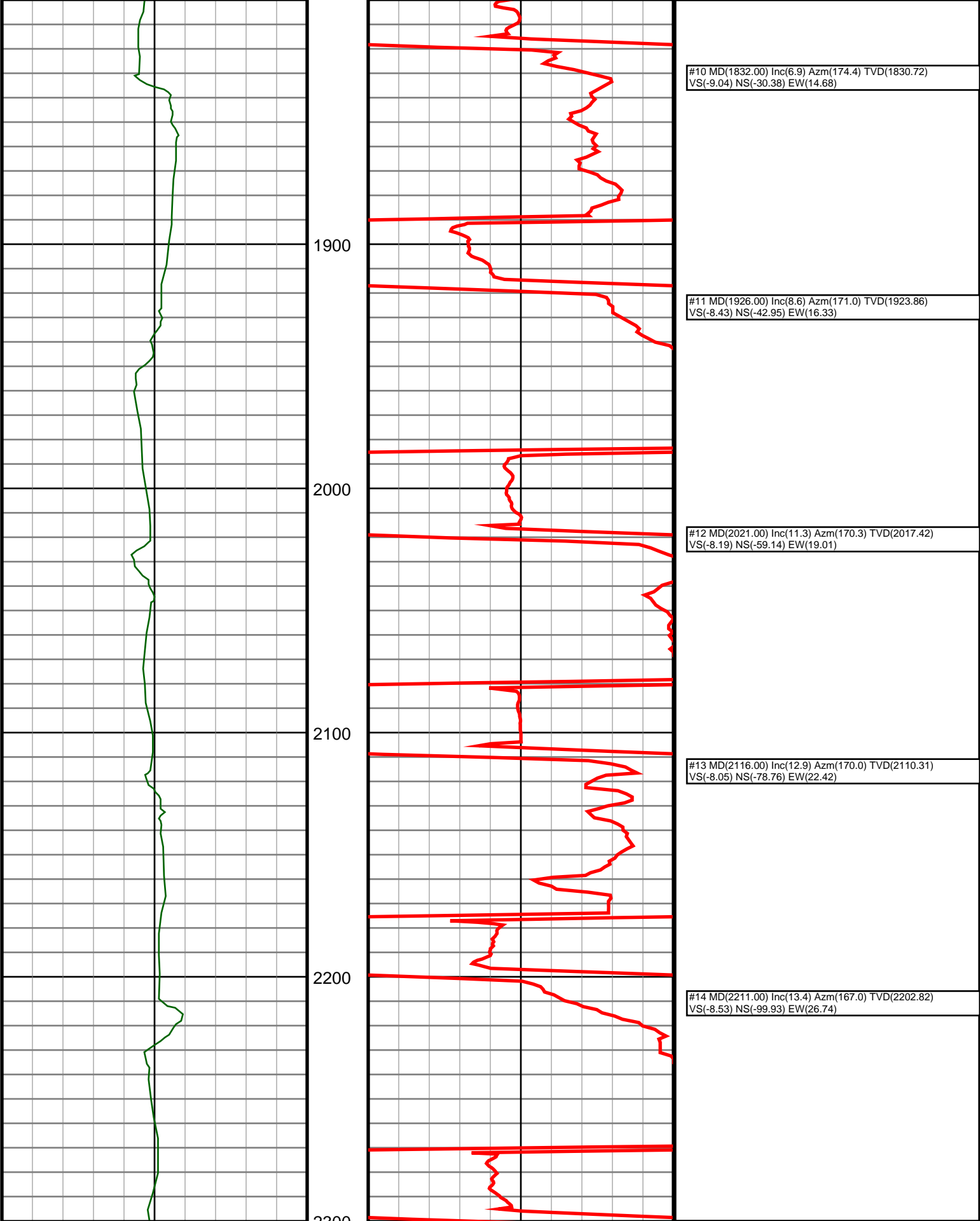
**Log measurements:**  
**Depth measured from:**  
**Maximum temperature:**

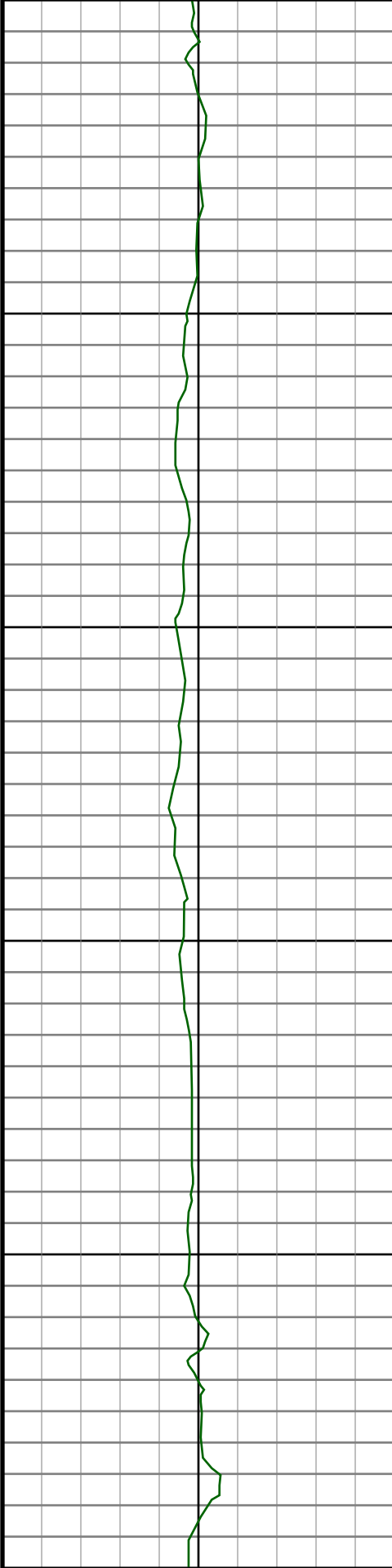
**Depth** **Date**  
**Start:** 1249 ft 9/24/2013  
**End:** 9710 ft 9/29/2013

| Casing        | Depth | Size  | Mud Type:  | Elevations |
|---------------|-------|-------|------------|------------|
| Surface:      | 1249  | 9.625 | Density:   | KB: 4736   |
| Intermediate: |       |       | Viscosity: | GL: 4712   |
|               |       |       | Rm:        | DF: 4736   |
|               |       |       | Rmf:       |            |
|               |       |       | Rmc:       |            |

| Run | Bit Size | Offsets | Gamma | Survey | Start | Depths    | End       | Start | Dates | End |
|-----|----------|---------|-------|--------|-------|-----------|-----------|-------|-------|-----|
| 1   | 8.75     | 57.31   | 52.31 | 1249   | 5039  | 9/24/2013 | 9/24/2013 |       |       |     |
| 2   | 8.75     | 61.94   | 56.94 | 5039   | 6178  | 9/24/2013 | 9/25/2013 |       |       |     |
| 3   | 6.125    | 75.60   | 70.60 | 6178   | 6324  | 9/26/2013 | 9/26/2013 |       |       |     |
| 4   | 6.125    | 57.48   | 70.48 | 6324   | 9029  | 9/27/2013 | 9/28/2013 |       |       |     |
| 5   | 6.125    | 71.79   | 66.79 | 9029   | 9710  | 9/28/2013 | 9/29/2013 |       |       |     |
| 6   |          |         |       |        |       |           |           |       |       |     |
| 7   |          |         |       |        |       |           |           |       |       |     |
| 8   |          |         |       |        |       |           |           |       |       |     |
| 9   |          |         |       |        |       |           |           |       |       |     |
| 10  |          |         |       |        |       |           |           |       |       |     |







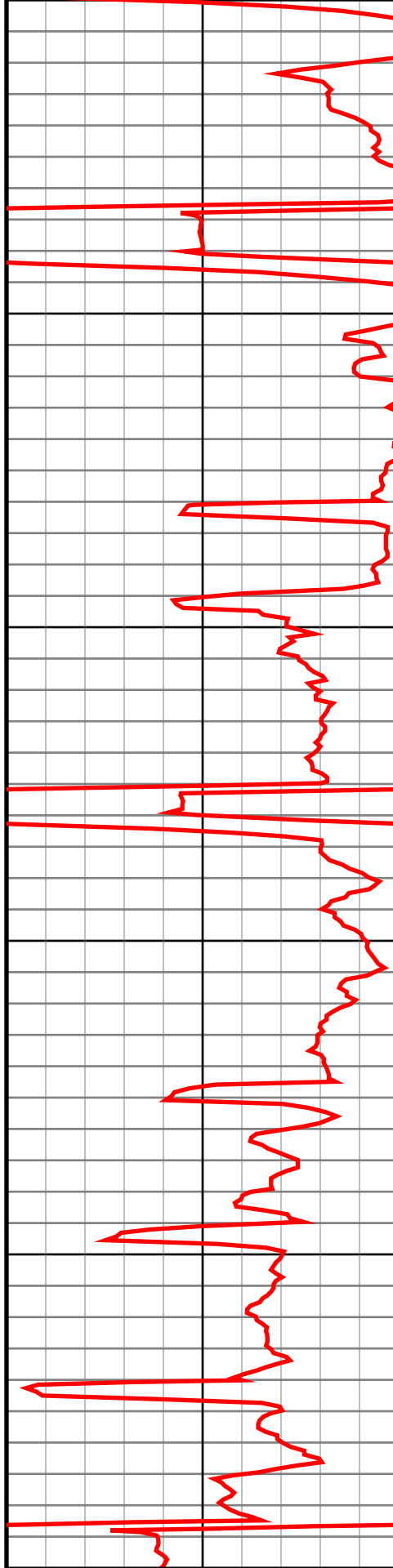
2400

2500

2600

2700

2800



#15 MD(2306.00) Inc(14.7) Azm(170.0) TVD(2294.98)  
VS(-9.01) NS(-122.53) EW(31.31)

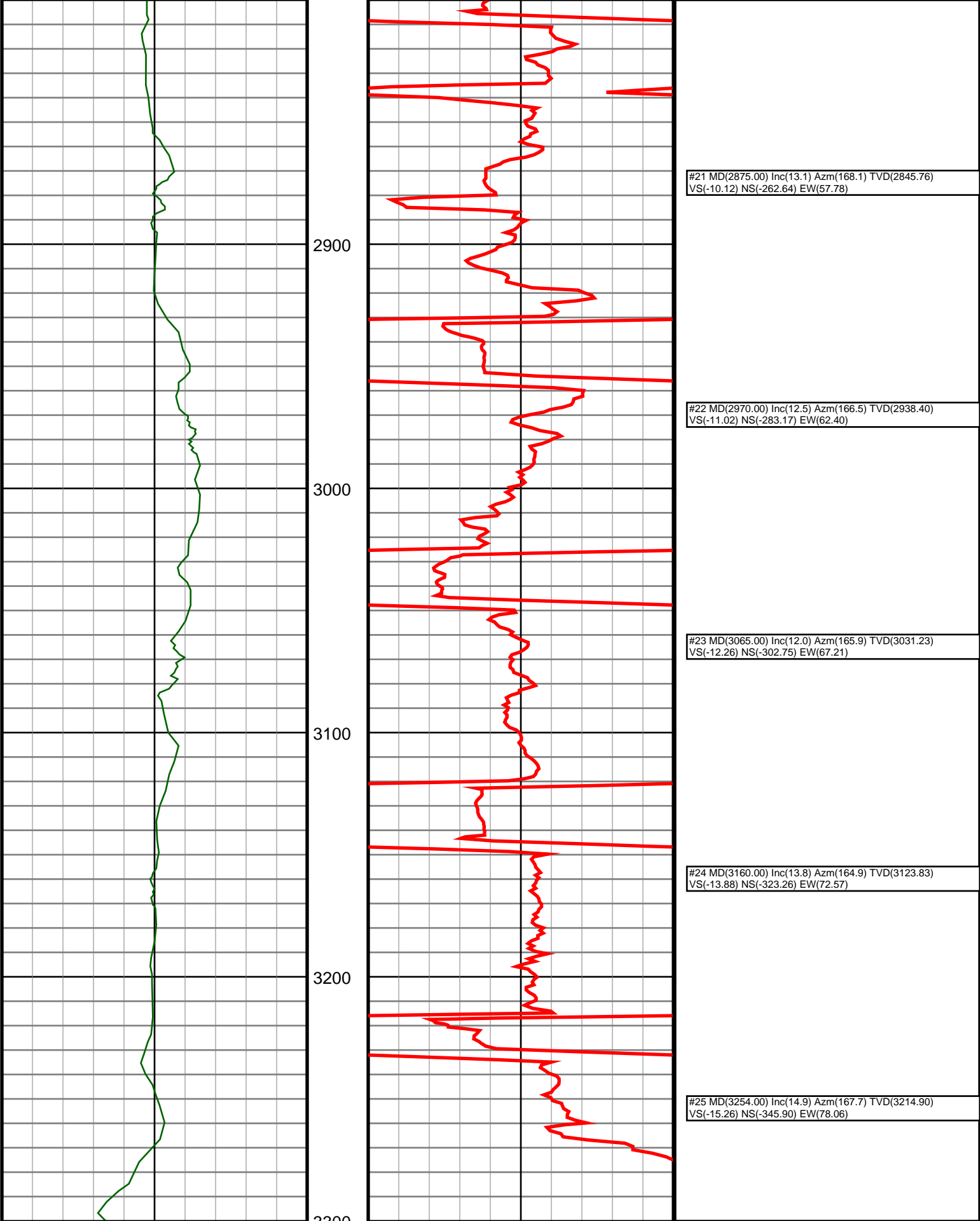
#16 MD(2401.00) Inc(15.3) Azm(170.0) TVD(2386.74)  
VS(-8.90) NS(-146.74) EW(35.58)

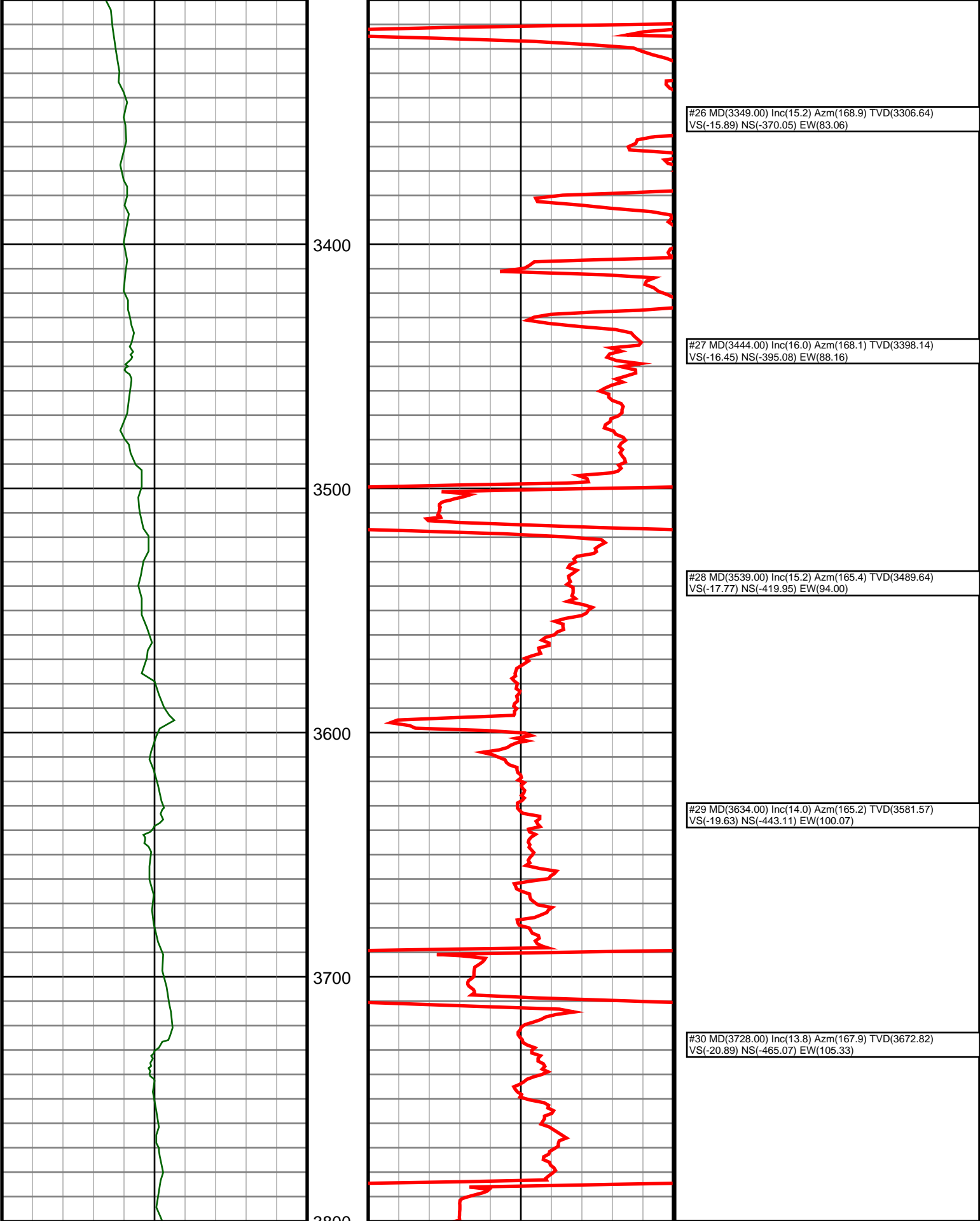
#17 MD(2496.00) Inc(15.7) Azm(169.3) TVD(2478.28)  
VS(-8.95) NS(-171.71) EW(40.14)

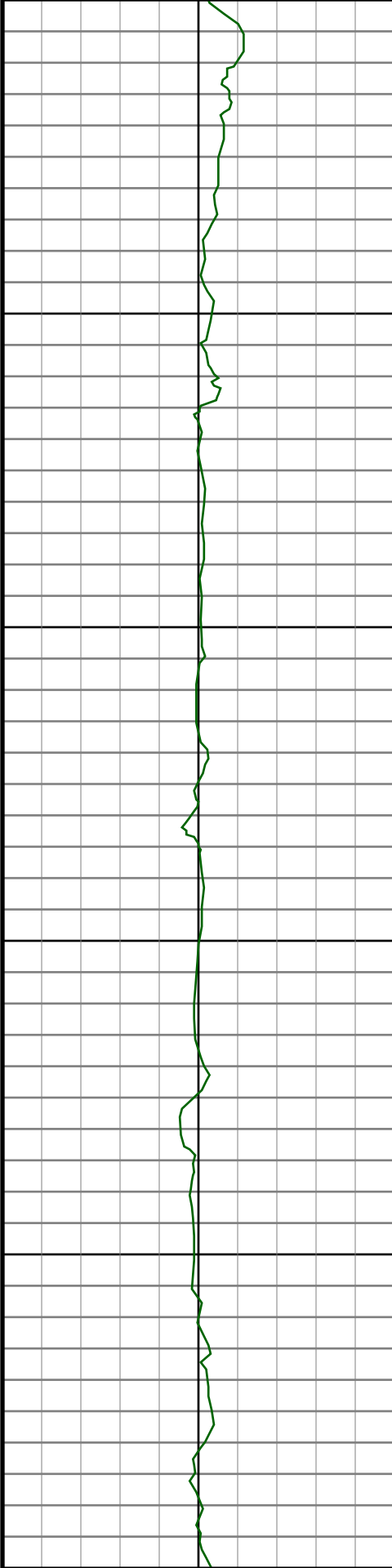
#18 MD(2590.00) Inc(14.6) Azm(169.3) TVD(2569.01)  
VS(-9.14) NS(-195.85) EW(44.71)

#19 MD(2685.00) Inc(14.1) Azm(169.8) TVD(2661.05)  
VS(-9.22) NS(-219.01) EW(48.98)

#20 MD(2780.00) Inc(13.5) Azm(168.2) TVD(2753.31)  
VS(-9.51) NS(-241.25) EW(53.29)







3900

4000

4100

4200

4300



#31 MD(3823.00) Inc(13.9) Azm(168.4) TVD(3765.06)  
VS(-21.52) NS(-487.32) EW(110.00)

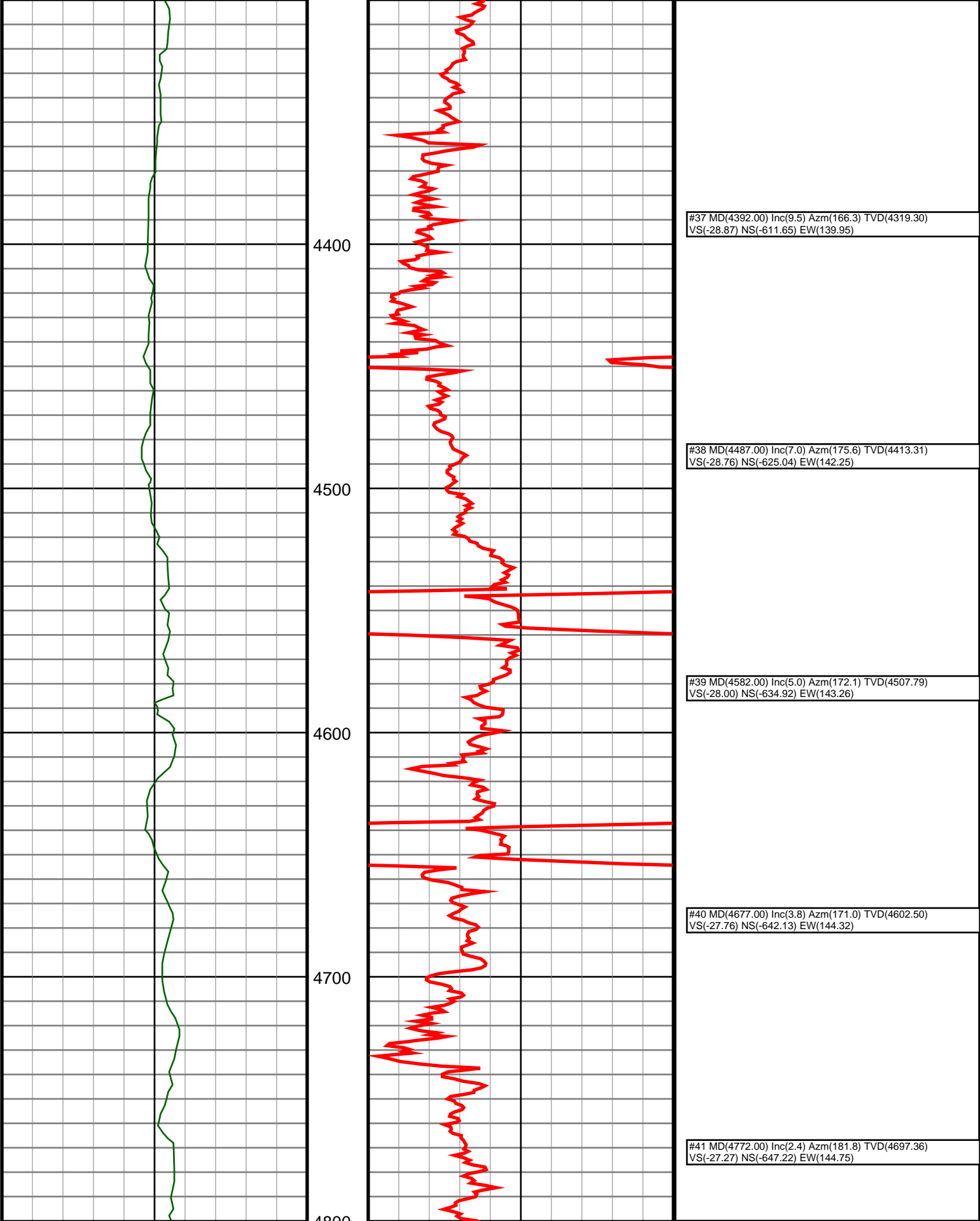
#32 MD(3918.00) Inc(14.0) Azm(169.3) TVD(3857.26)  
VS(-21.88) NS(-509.79) EW(114.42)

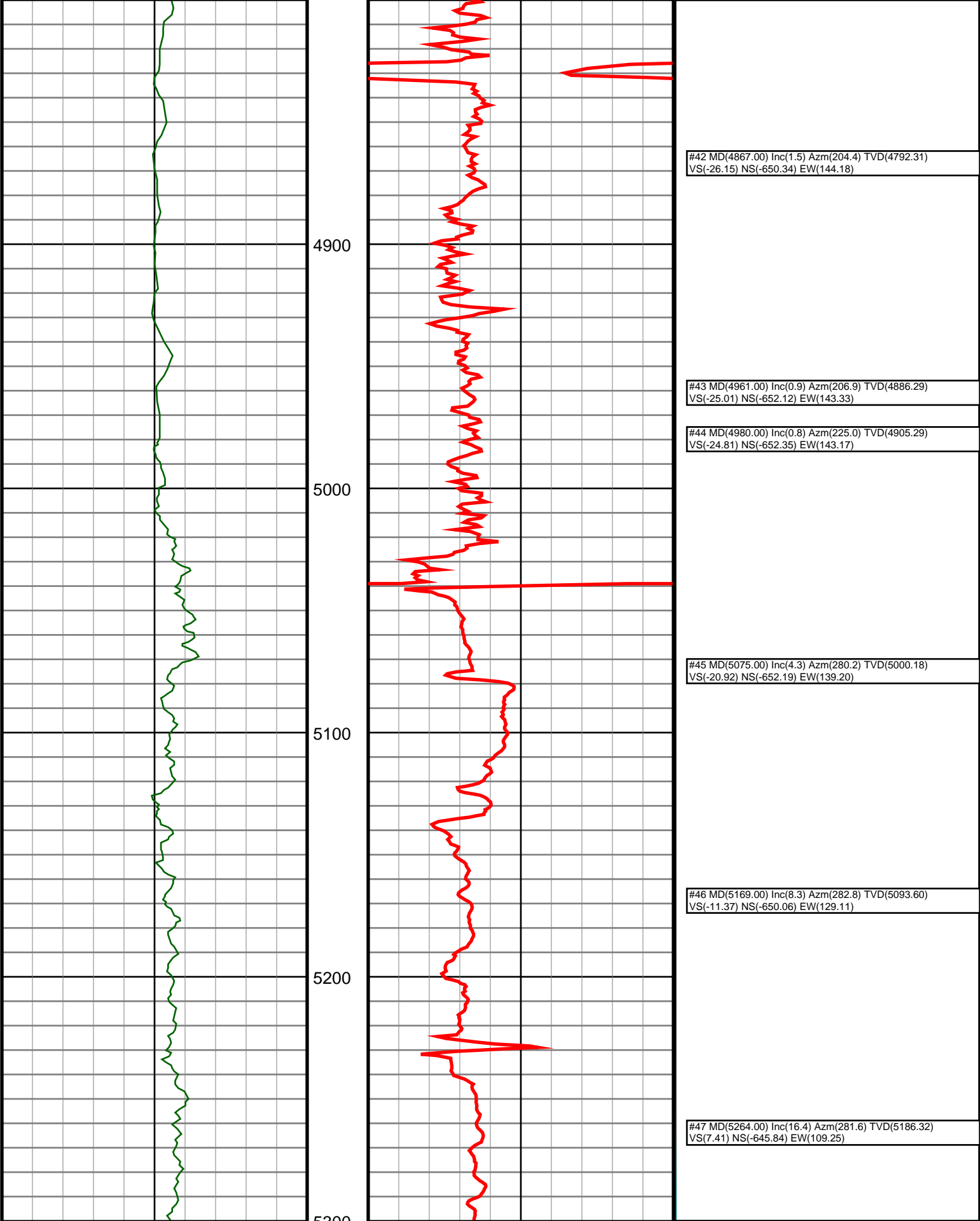
#33 MD(4013.00) Inc(14.5) Azm(168.1) TVD(3949.33)  
VS(-22.32) NS(-532.72) EW(119.01)

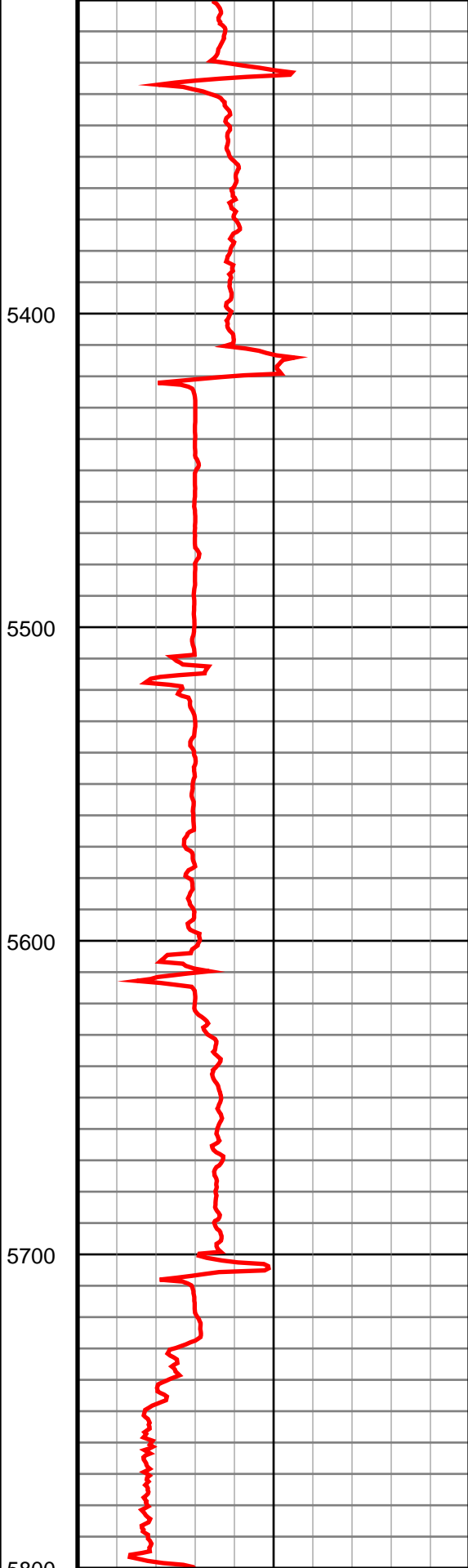
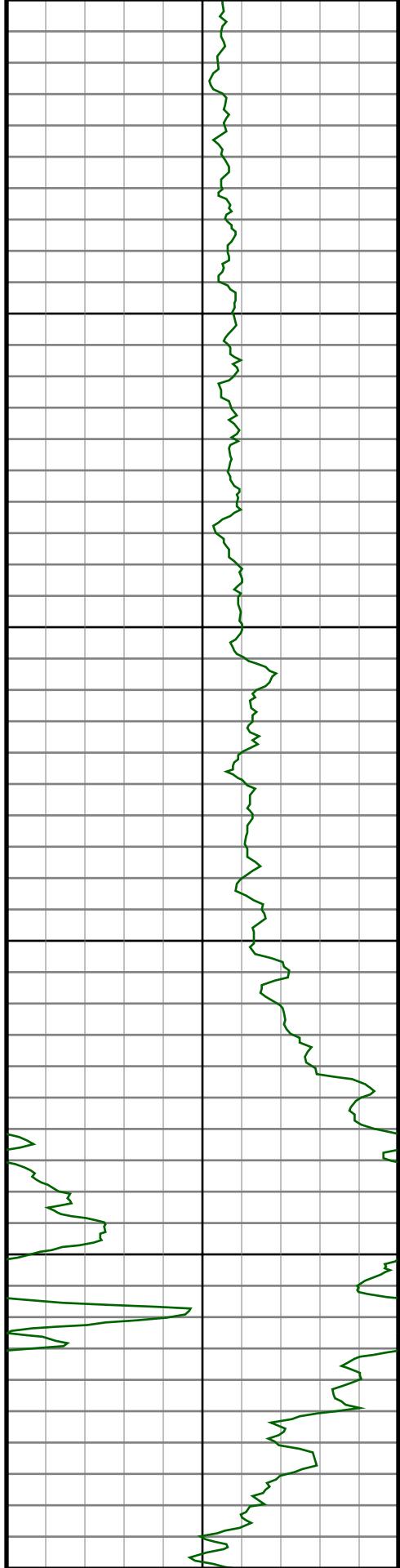
#34 MD(4108.00) Inc(13.5) Azm(165.4) TVD(4041.51)  
VS(-23.50) NS(-555.09) EW(124.26)

#35 MD(4203.00) Inc(13.3) Azm(163.8) TVD(4133.93)  
VS(-25.47) NS(-576.31) EW(130.10)

#36 MD(4297.00) Inc(11.0) Azm(164.0) TVD(4225.81)  
VS(-27.49) NS(-595.32) EW(135.59)







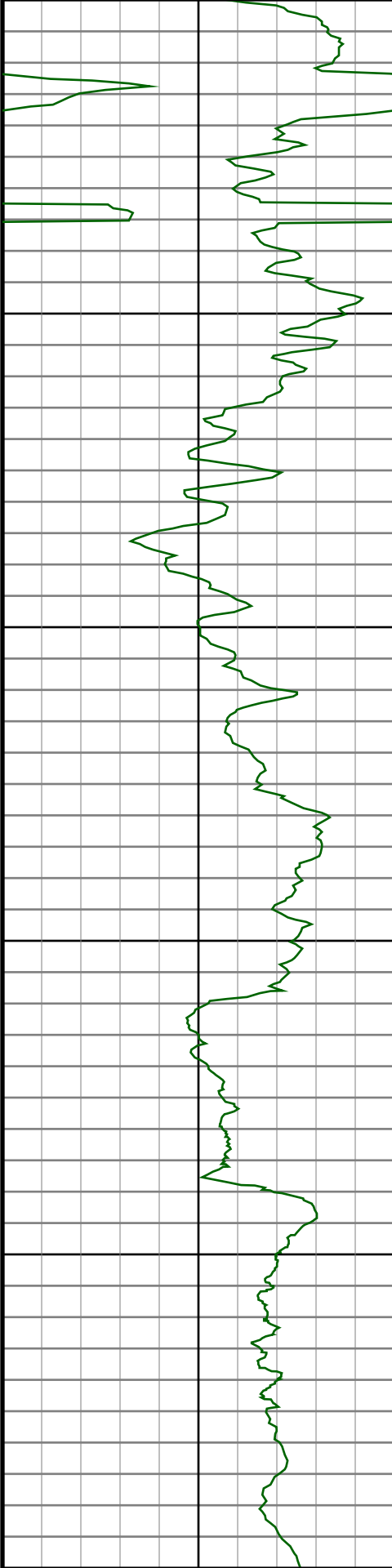
#48 MD(5359.00) Inc(22.3) Azm(281.6) TVD(5275.92)  
VS(36.62) NS(-639.51) EW(78.43)

#49 MD(5454.00) Inc(27.1) Azm(273.7) TVD(5362.22)  
VS(74.38) NS(-634.49) EW(39.15)

#50 MD(5549.00) Inc(33.1) Azm(266.3) TVD(5444.40)  
VS(121.21) NS(-634.76) EW(-8.39)

#51 MD(5644.00) Inc(40.3) Azm(266.5) TVD(5520.52)  
VS(177.56) NS(-638.32) EW(-65.02)

#52 MD(5738.00) Inc(49.2) Azm(265.4) TVD(5587.21)  
VS(243.29) NS(-643.04) EW(-130.96)



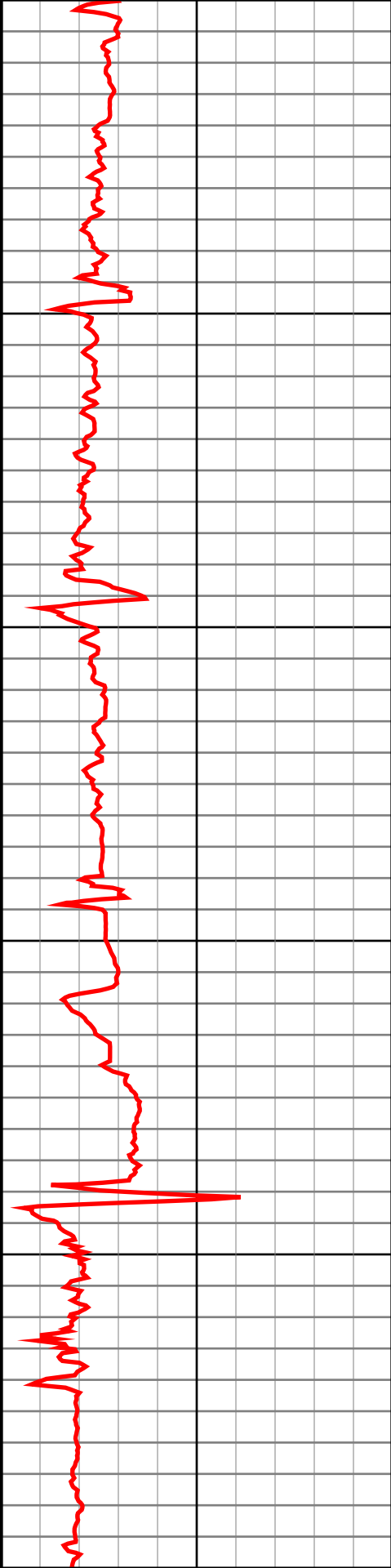
5900

6000

6100

6200

6300



#53 MD(5833.00) Inc(58.4) Azm(267.0) TVD(5643.26)  
VS(319.37) NS(-648.05) EW(-207.37)

#54 MD(5928.00) Inc(66.6) Azm(266.3) TVD(5687.09)  
VS(402.96) NS(-652.99) EW(-291.42)

#55 MD(6023.00) Inc(75.8) Azm(267.4) TVD(5717.67)  
VS(492.10) NS(-657.90) EW(-381.11)

#56 MD(6118.00) Inc(85.8) Azm(269.1) TVD(5732.85)  
VS(584.73) NS(-660.74) EW(-474.73)

#57 MD(6163.00) Inc(87.3) Azm(271.4) TVD(5735.55)  
VS(628.89) NS(-660.54) EW(-519.64)

6215.0:Gama logged through 7" casing from 6191 to 6248

#58 MD(6256.00) Inc(87.4) Azm(270.5) TVD(5739.85)  
VS(720.02) NS(-659.00) EW(-612.53)

