



WELLS RANCH AA21-69-1HN

TVD 5":100'

Company: NOBLE ENERGY
Well Name: WELLS RANCH AA21-69-1HN
API: 05-123-37702
Rig Id: H&P 277
State: CO
County/Parish: WELD COUNTY
Country: USA
Survey Company: DRILTECH, LLC
Job number: 2014-099-IDDT-CO
JOSH CAYLOR MWD OPERATOR
MARK LARUE MWD OPERATOR

Log measurements:
Depth measured from:
Maximum temperature:

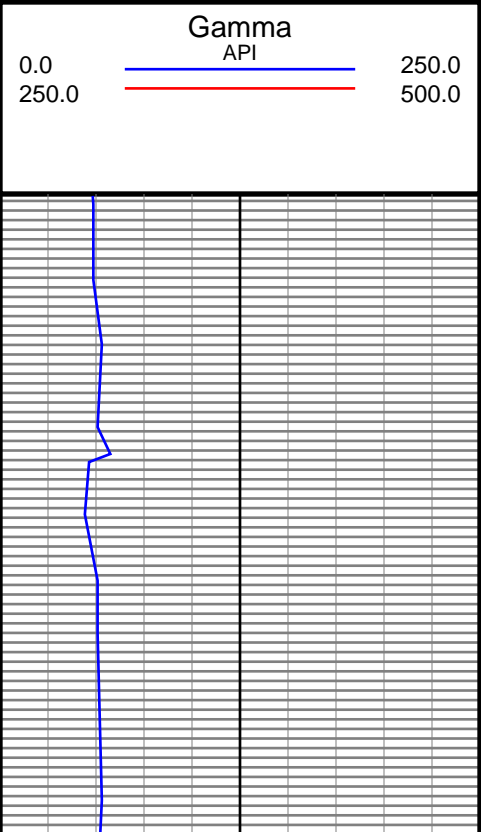
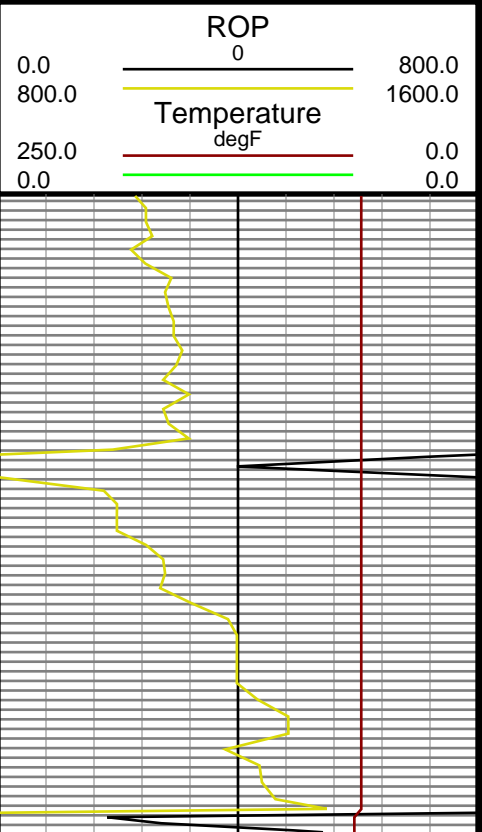
Depth Date
Start: 963 ft 3/13/2014
End: 10950 ft 3/18/2014

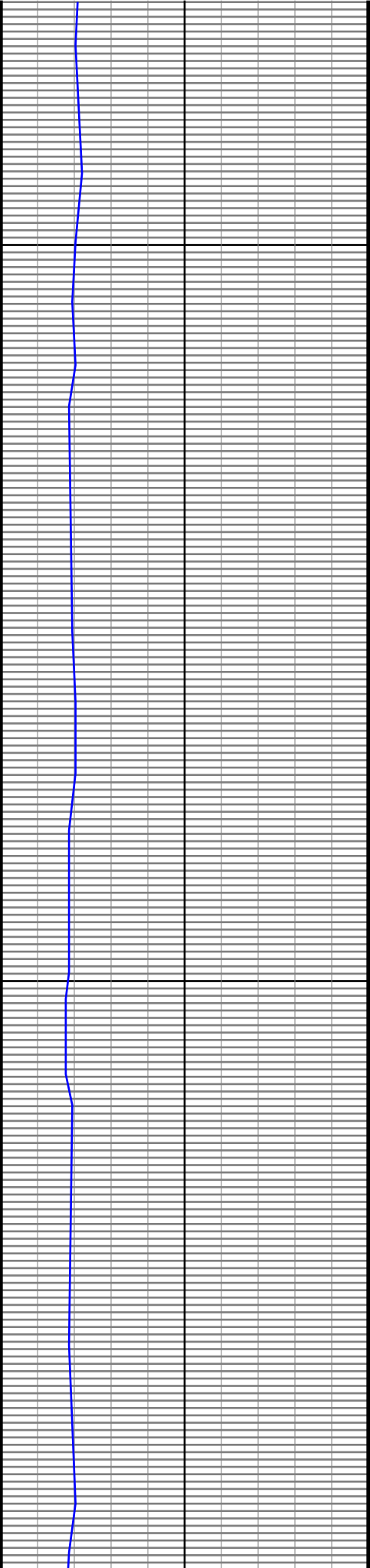
| | | |
|------------------------|----------------------|------------|
| Casing Depth Size | Mud Type: WATER BASE | Elevations |
| Surface: 953 9.625 | Density: 9.4 | KB: 4727 |
| Intermediate: 7198 7.0 | Viscosity: 35 | DF: 4751 |
| | Rm: Rmf: Rmc: | |

| Run | Bit Size | Offsets | Gamma Survey | Start | End | Start | End | Dates | End |
|-----|----------|---------|--------------|-------|-------|-----------|-----------|-------|-----|
| 1 | 8 3/4 | 37.00 | 54.00 | 963 | 5349 | 3/13/2014 | 3/14/2014 | | |
| 2 | 8 3/4 | 45.00 | 62.00 | 5349 | 7208 | 3/14/2014 | 3/15/2014 | | |
| 3 | 6 1/8 | 46.00 | 63.00 | 7208 | 10950 | 3/17/2014 | 3/18/2014 | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |

DRILTECH, LLC uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.

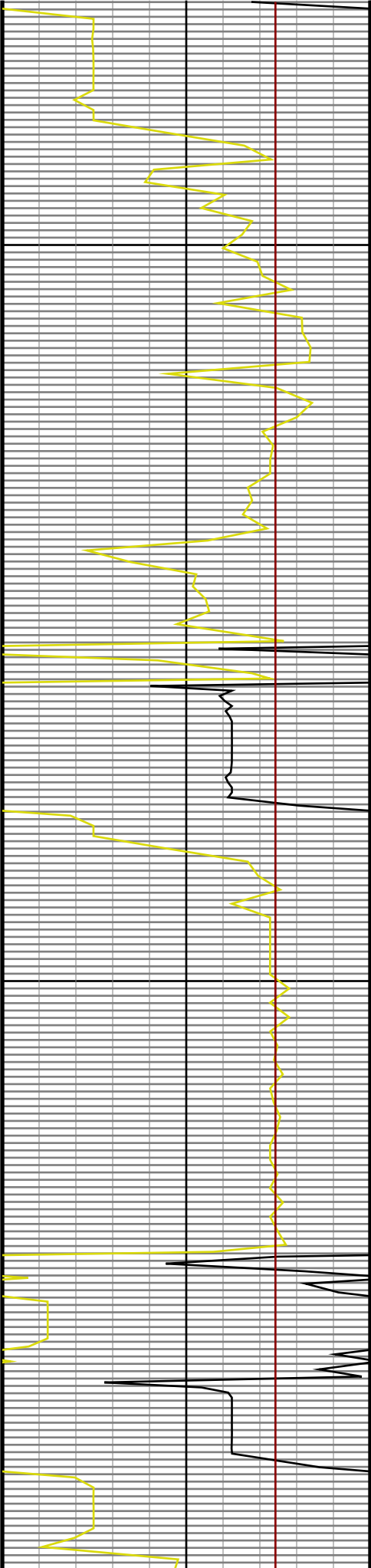
TVD

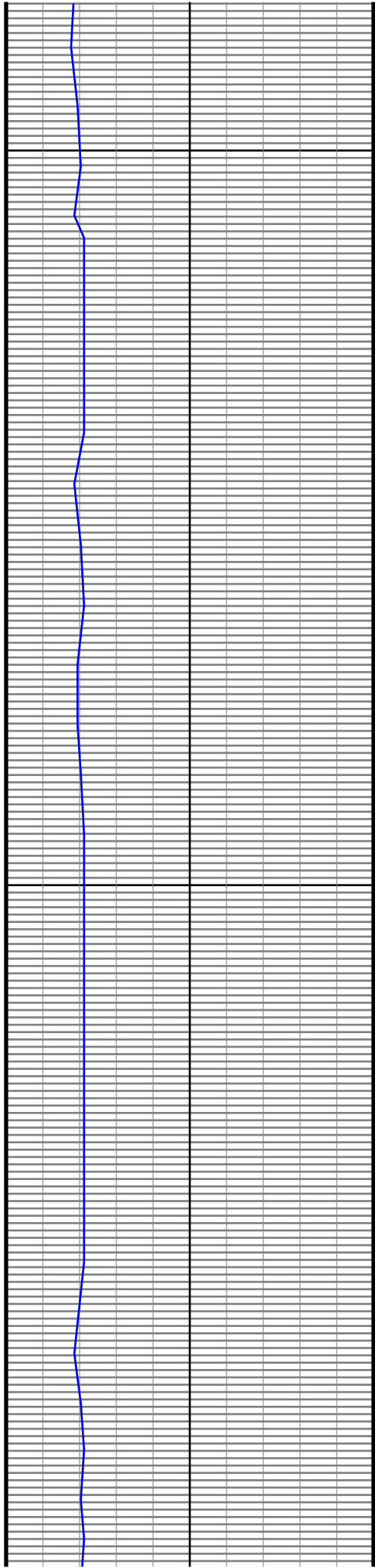




1200

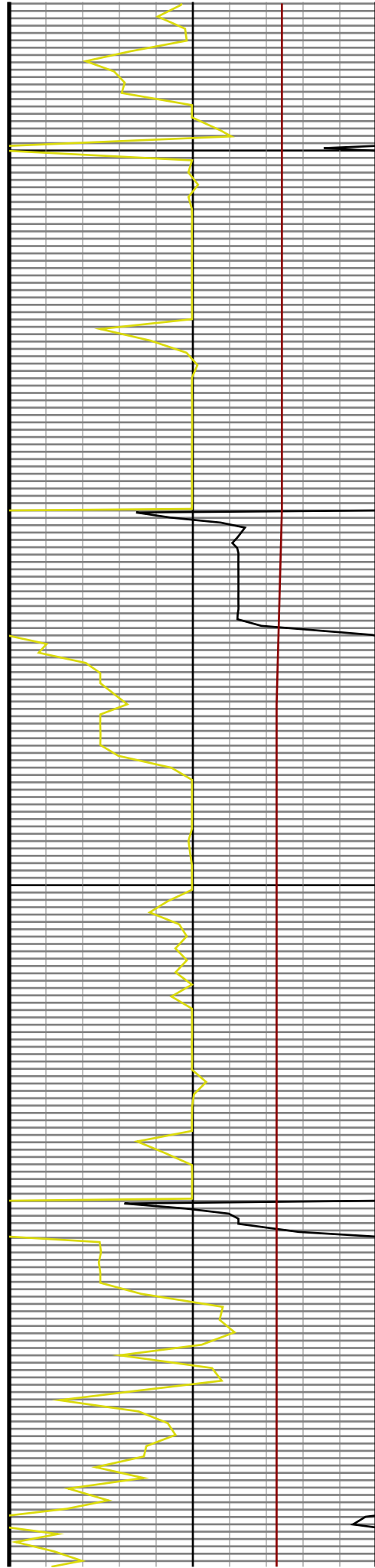
1300

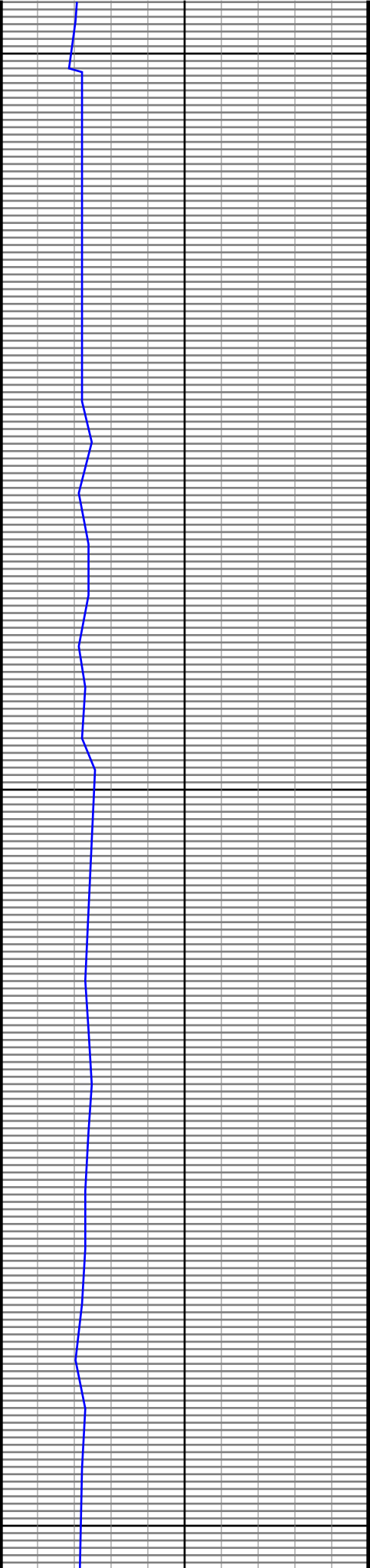




1400

1500

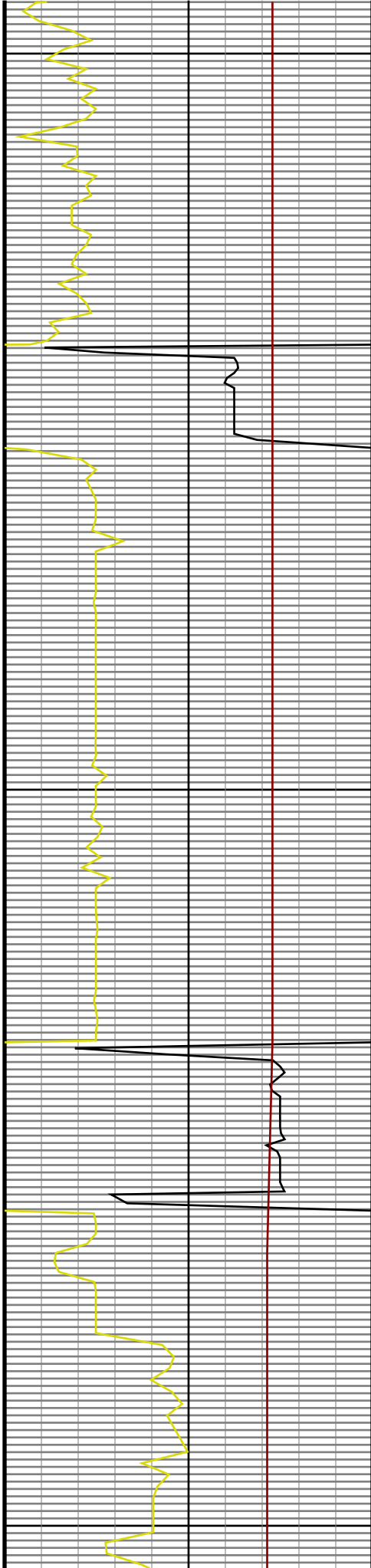


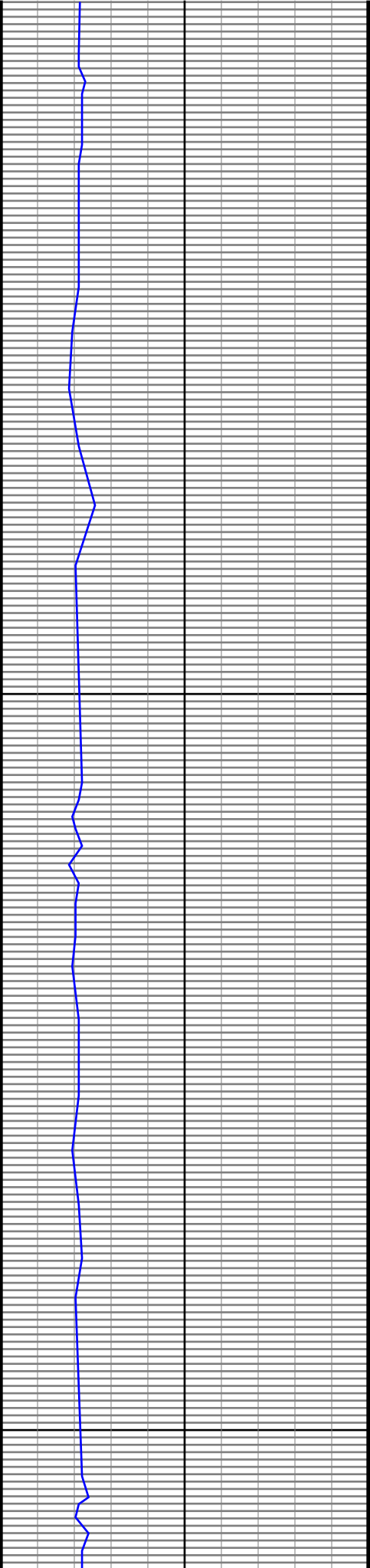


1600

1700

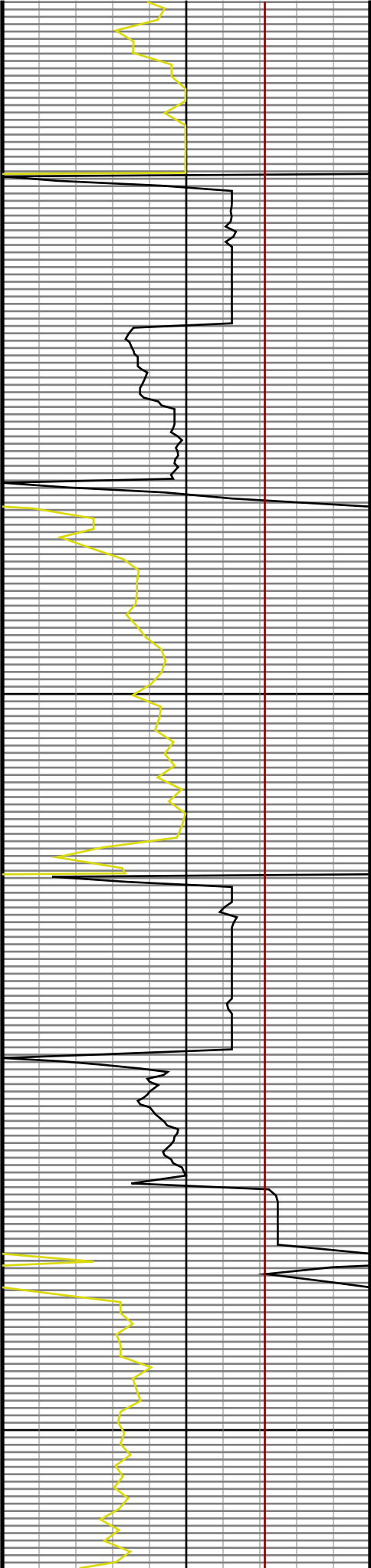
1800

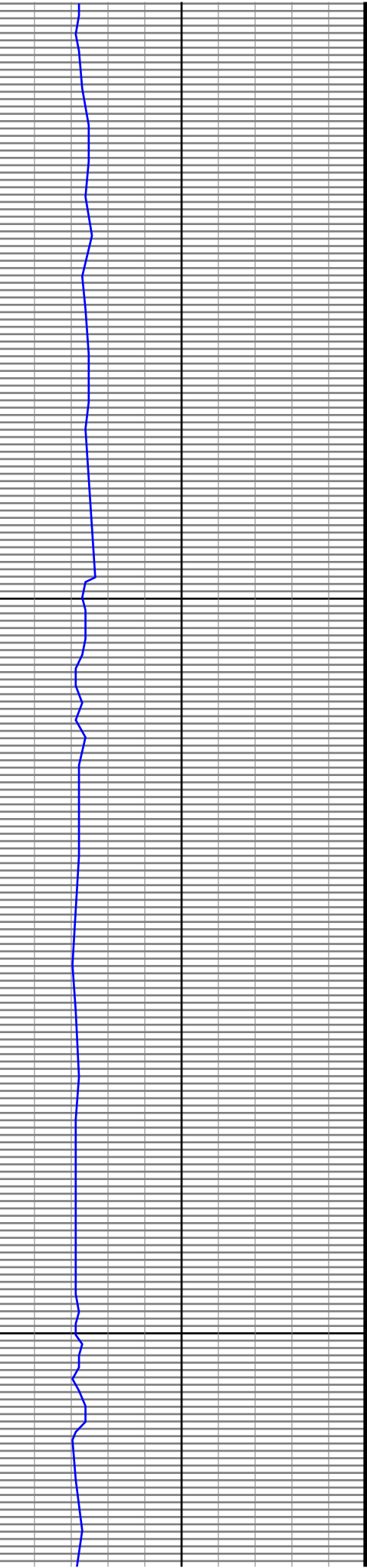




1900

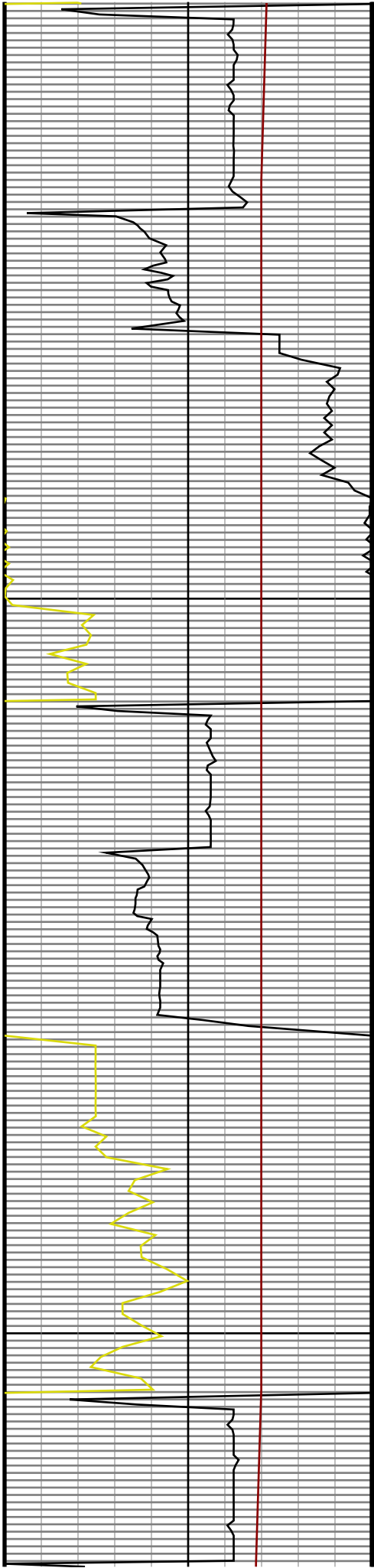
2000

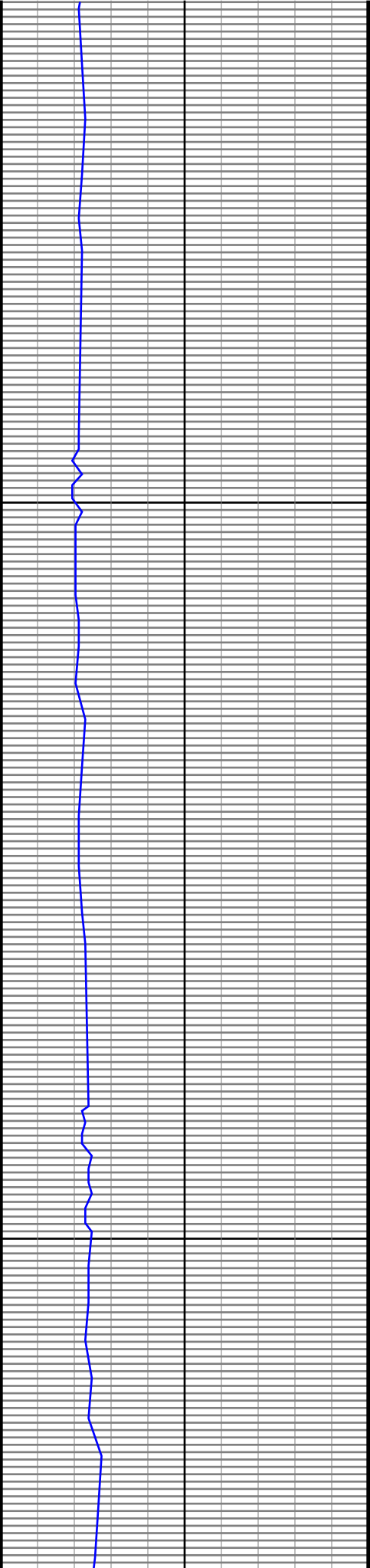




2100

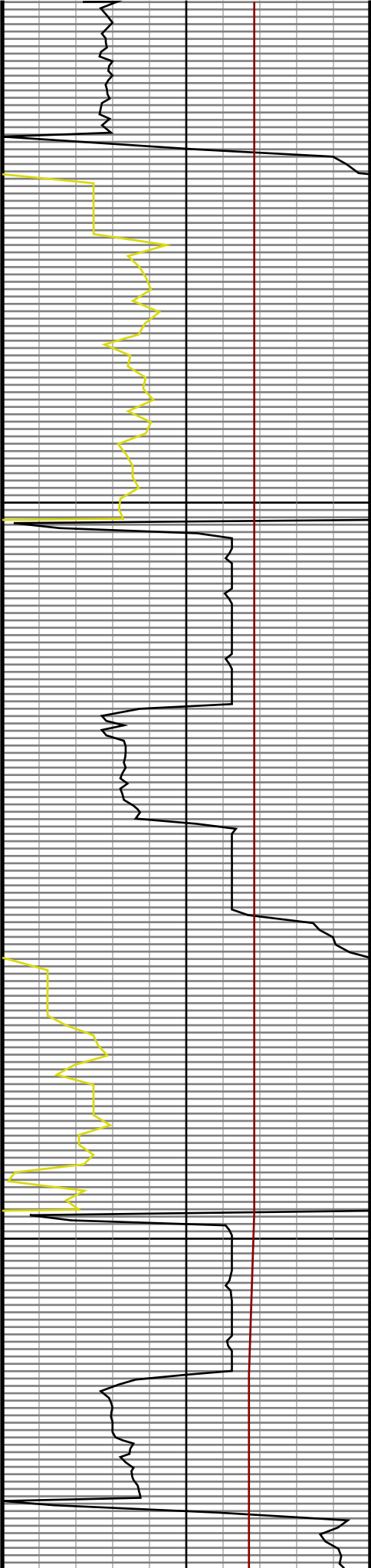
2200

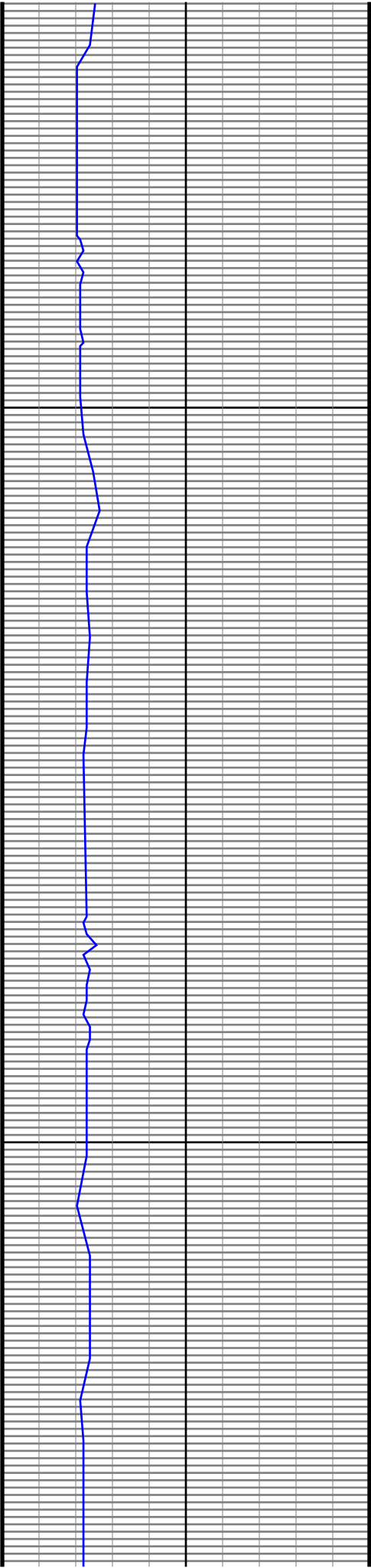




2300

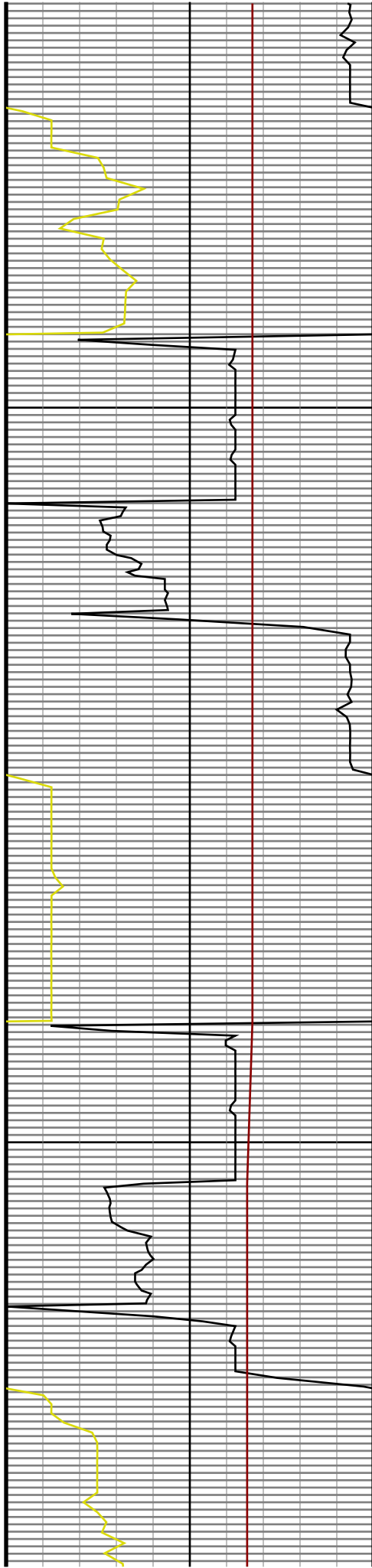
2400

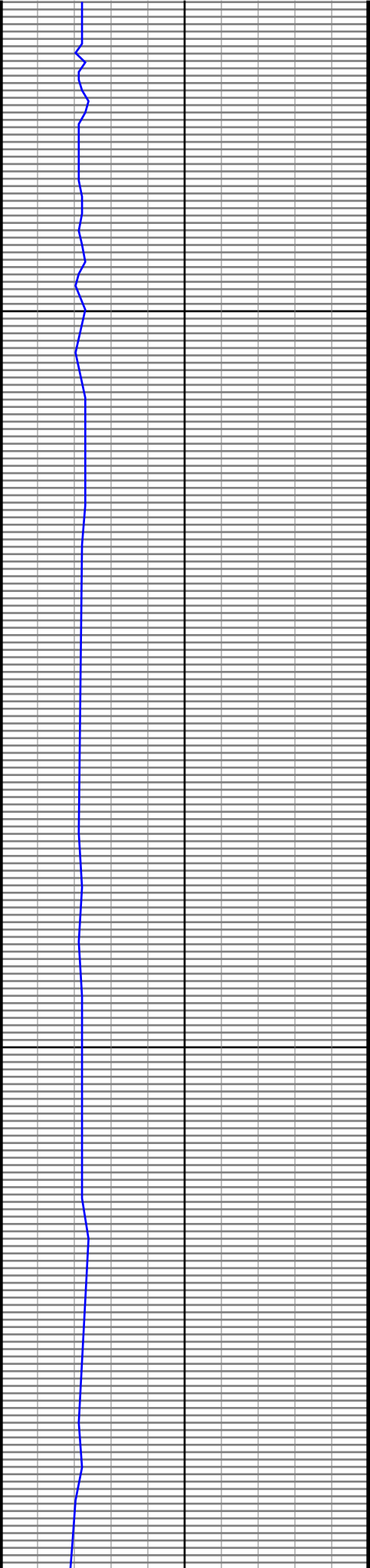




2500

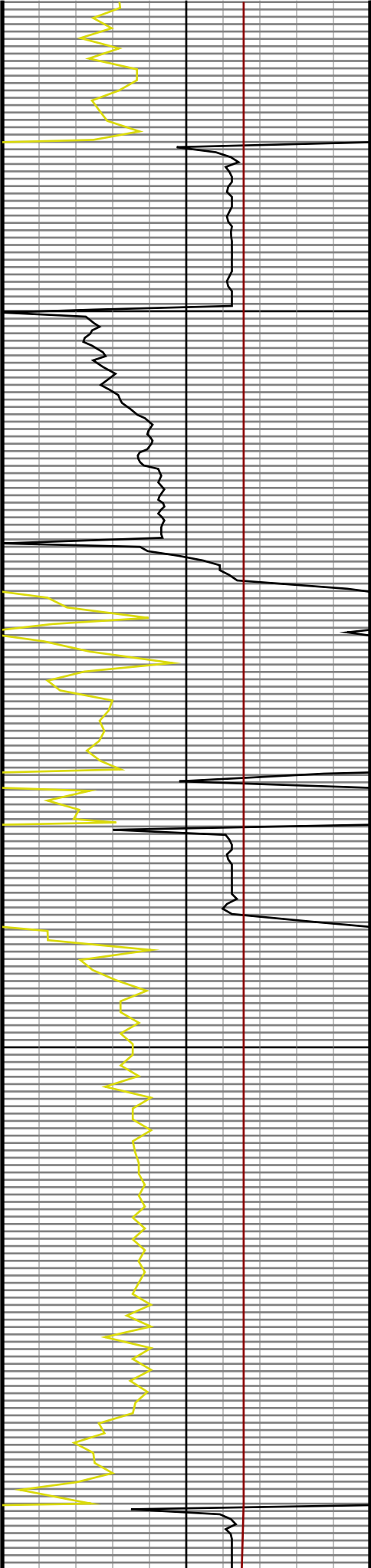
2600

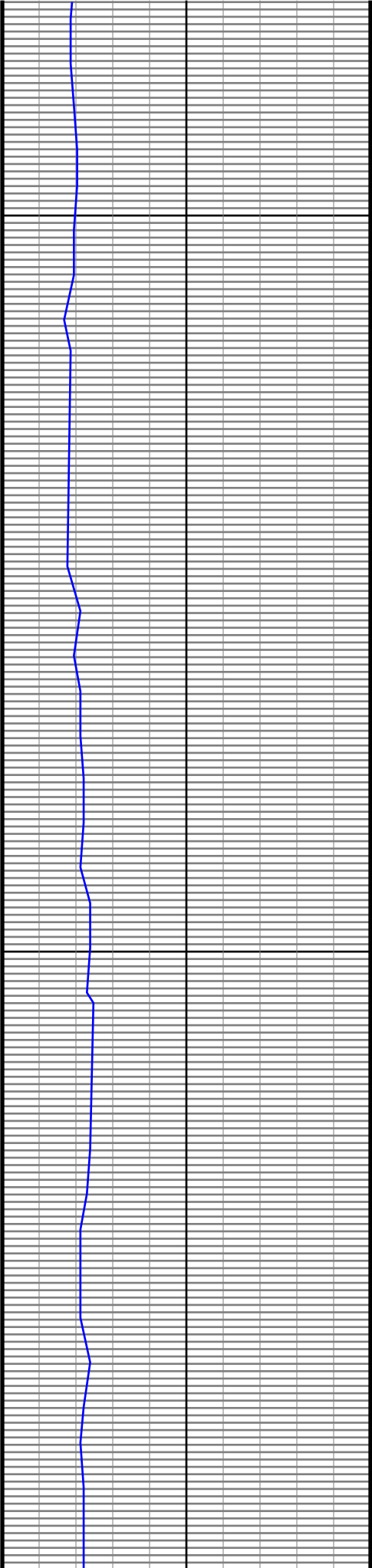




2700

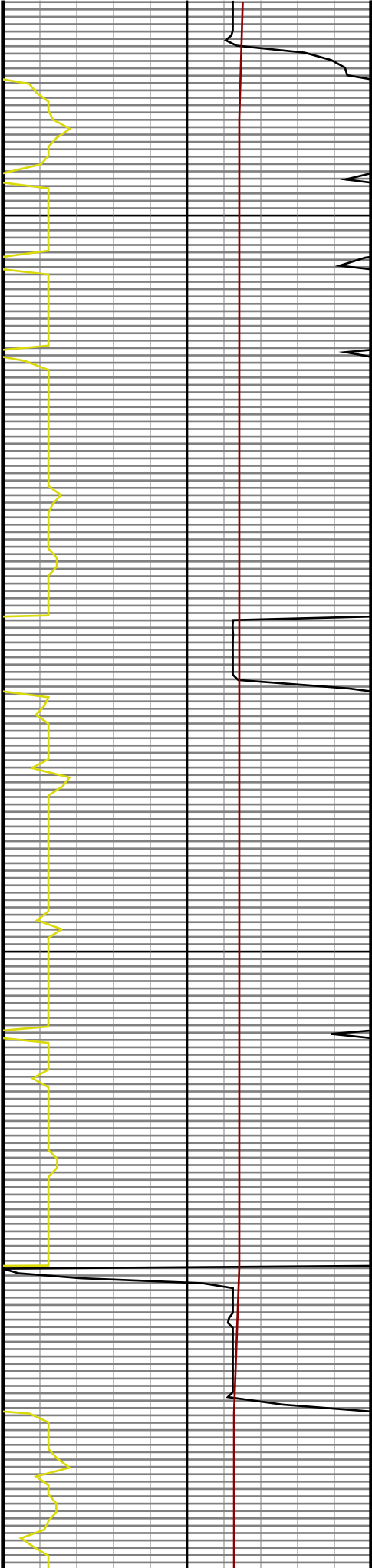
2800

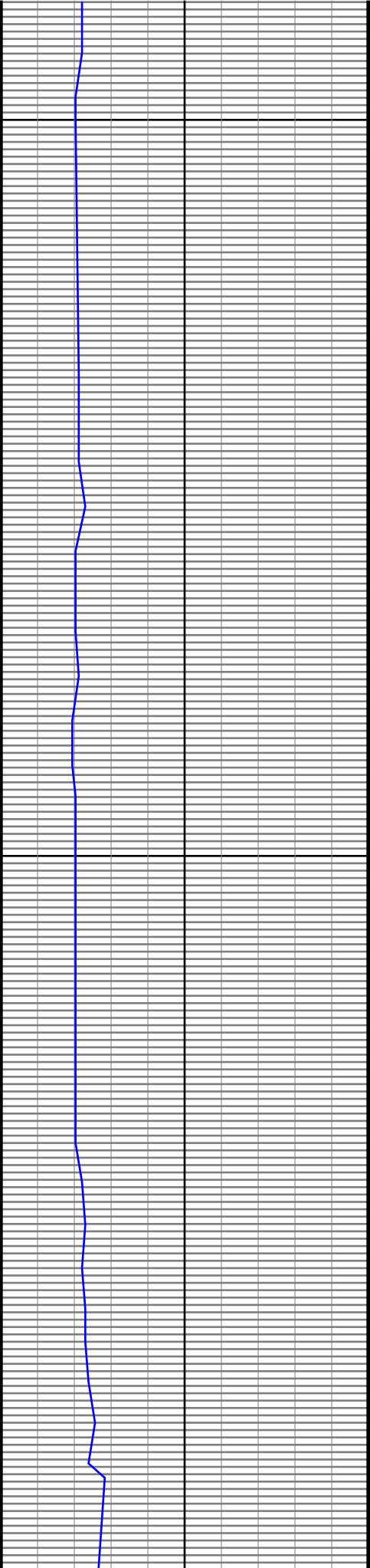




2900

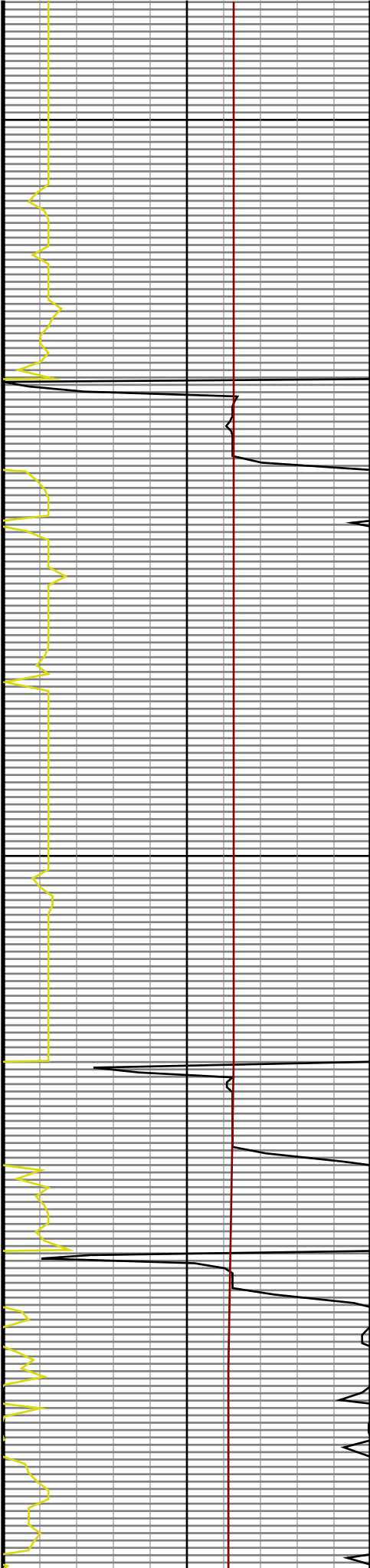
3000

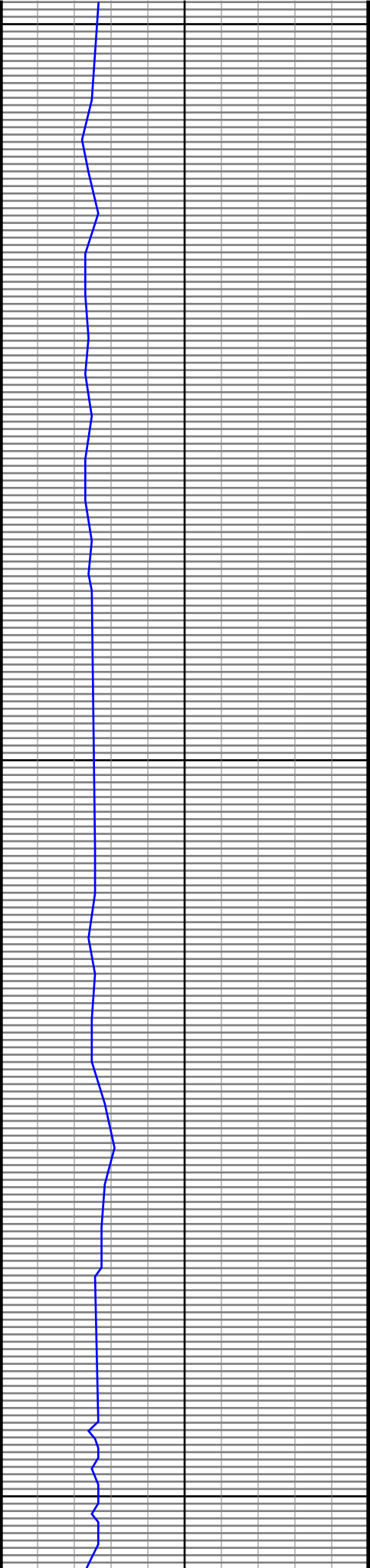




3100

3200

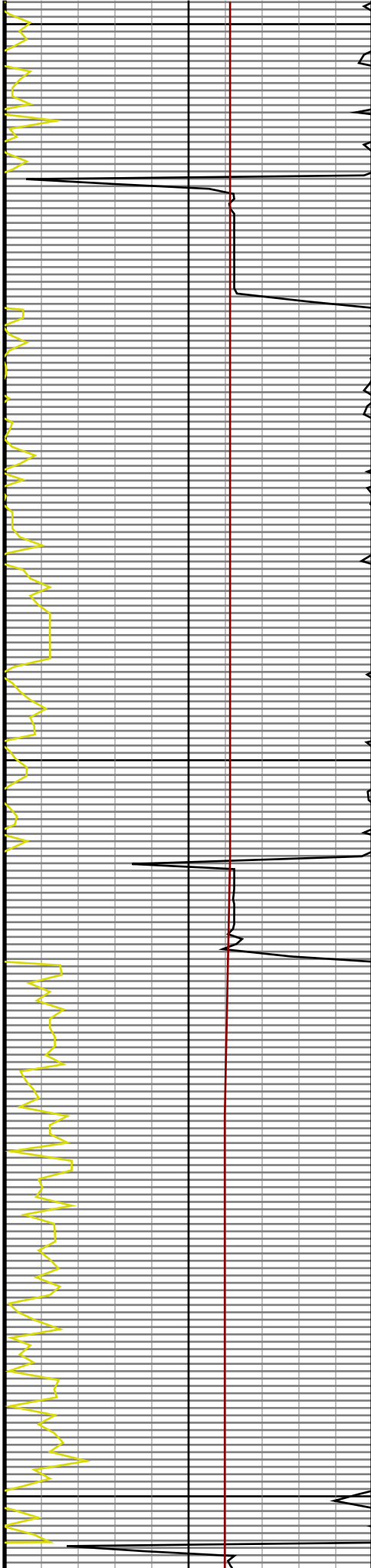




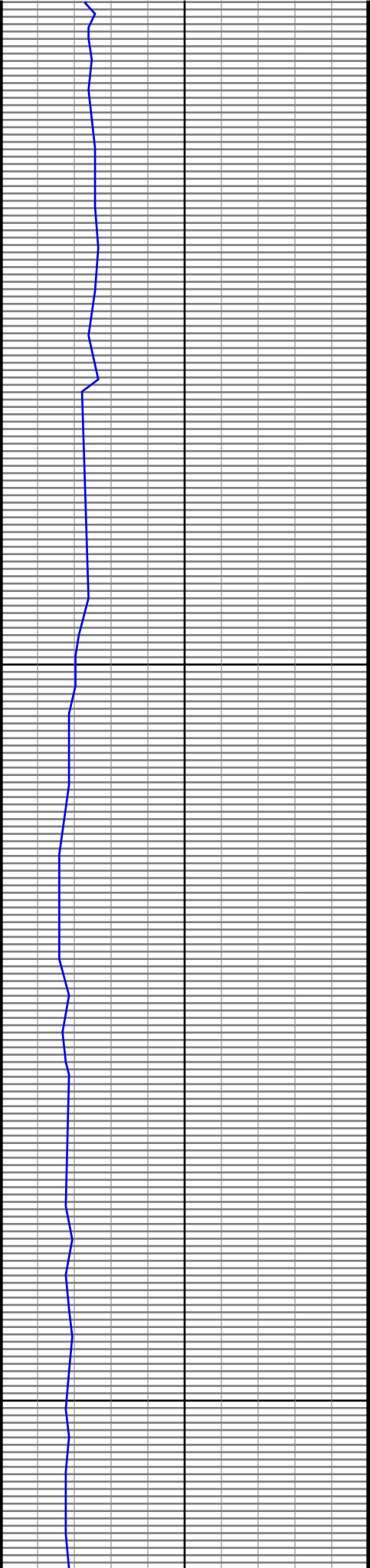
3300

3400

3500

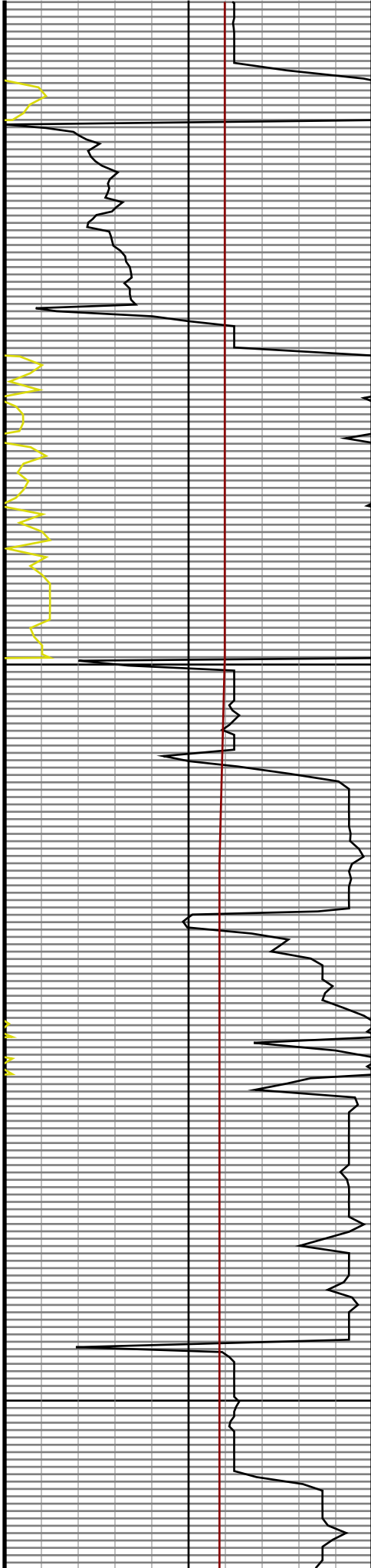


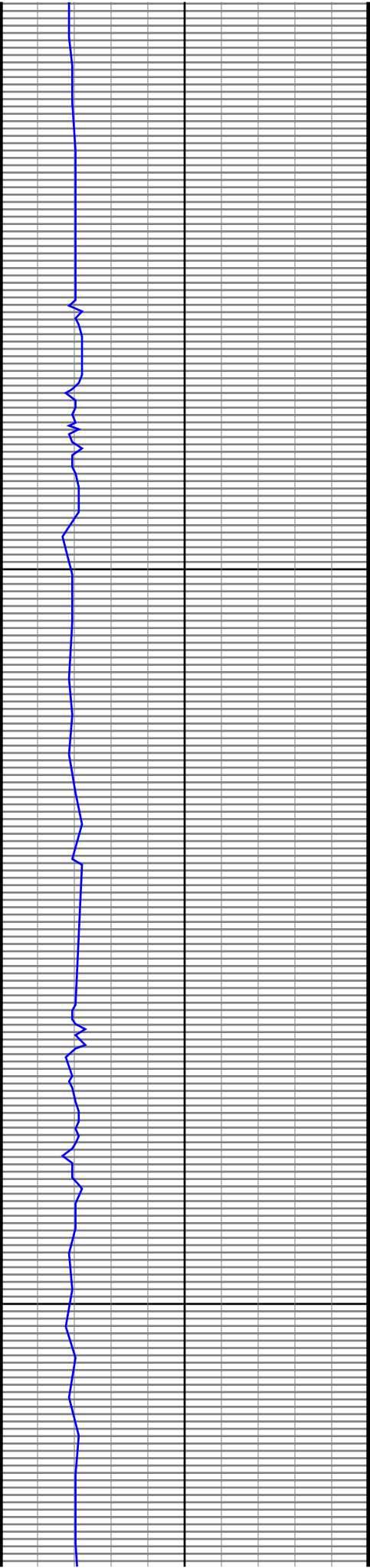
κ



3600

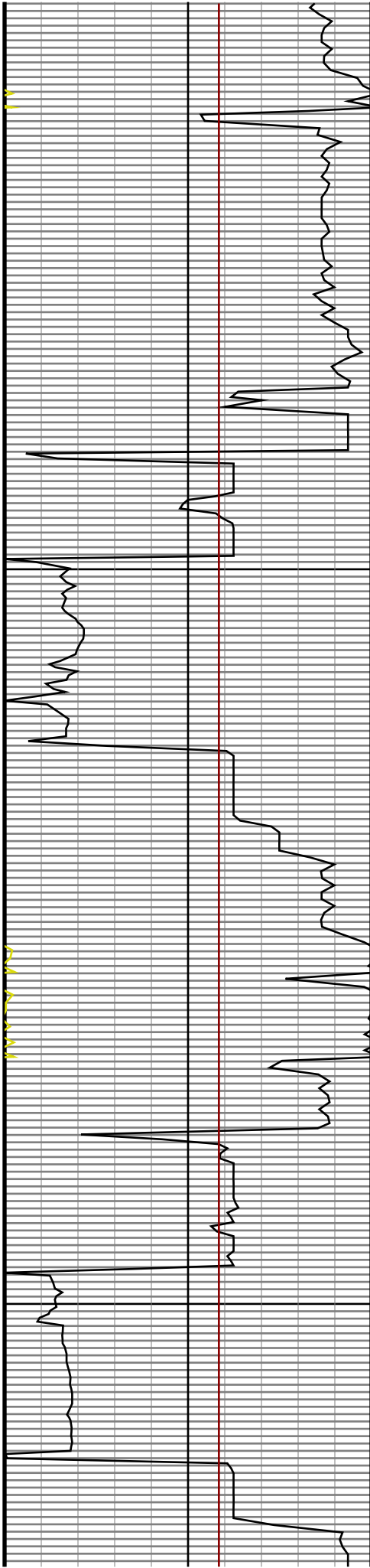
3700

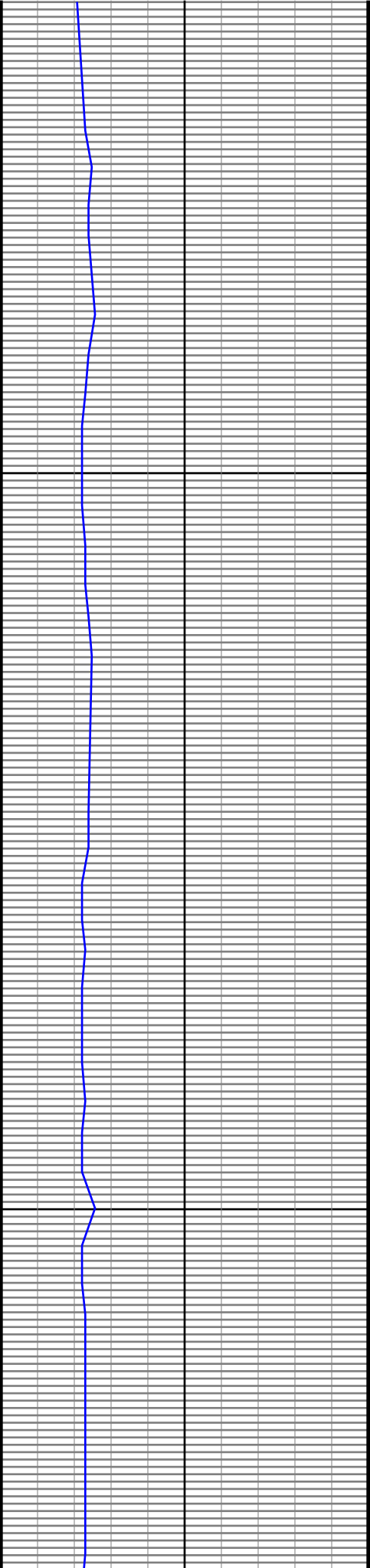




3800

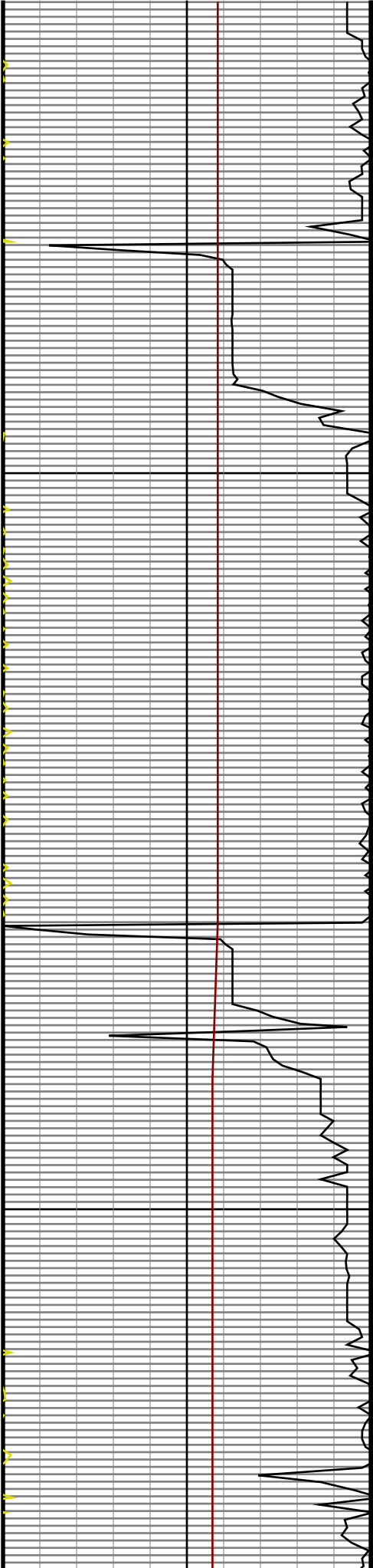
3900

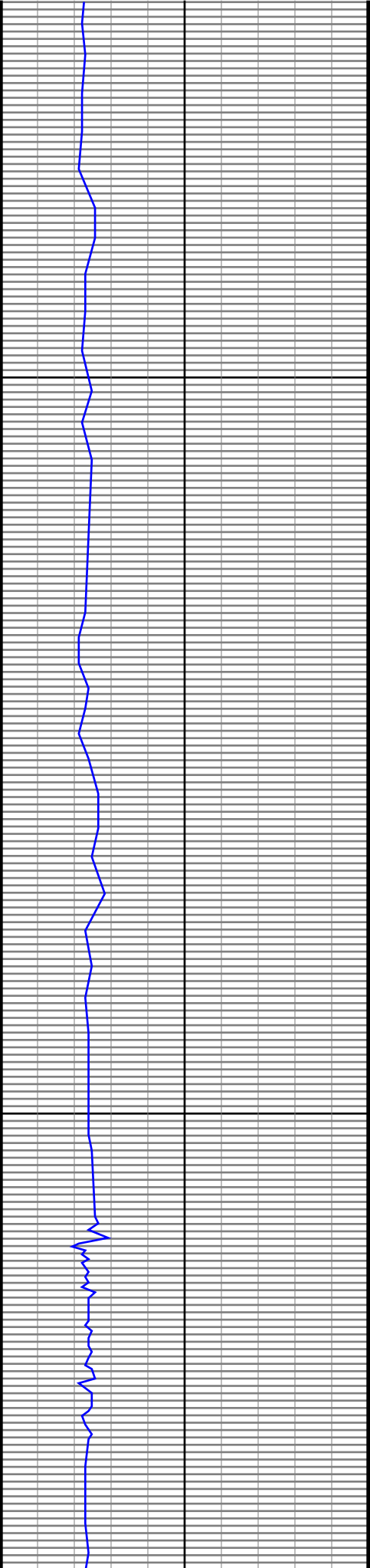




4000

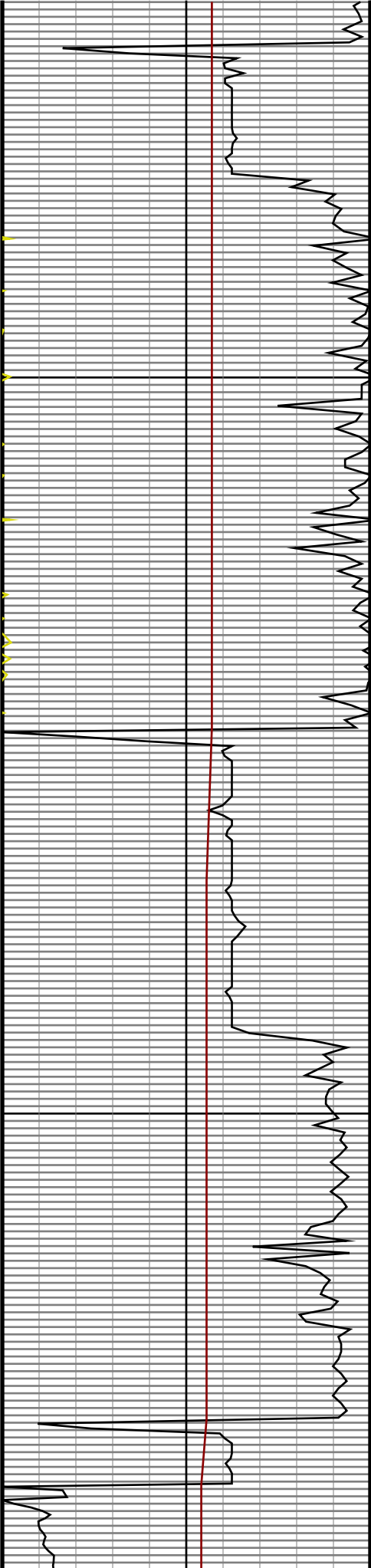
4100

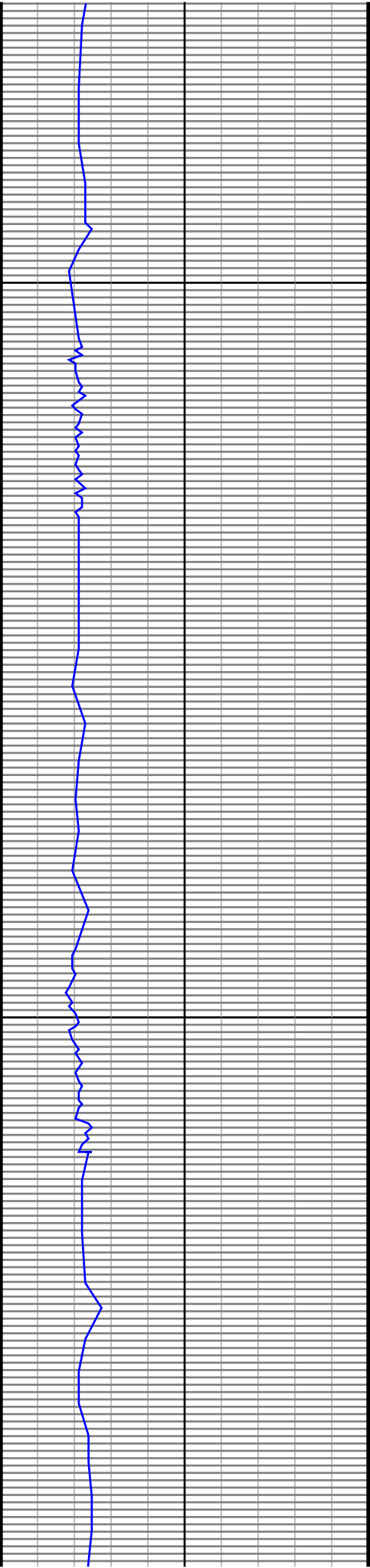




4200

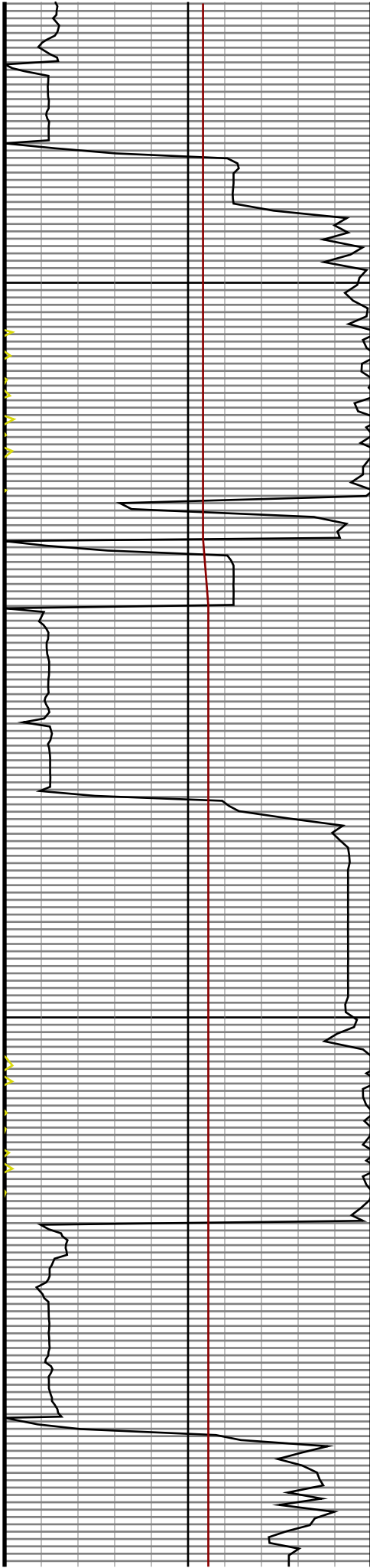
4300

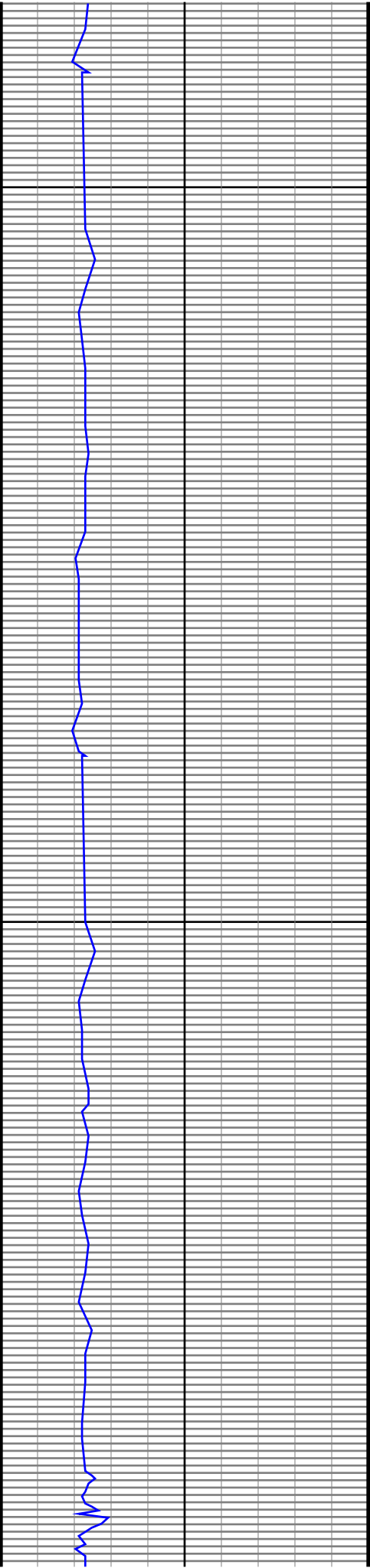




4400

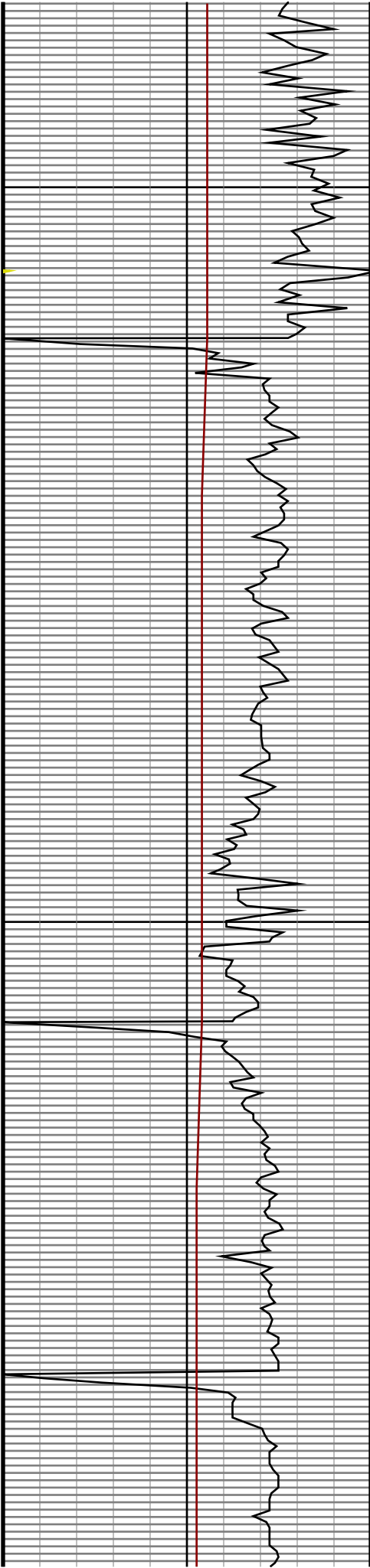
4500

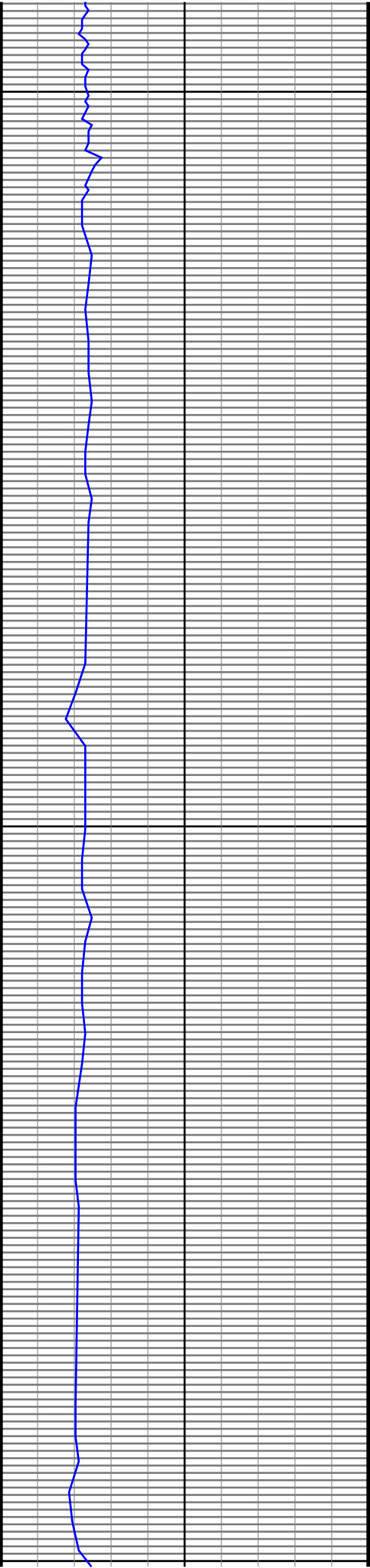




4600

4700

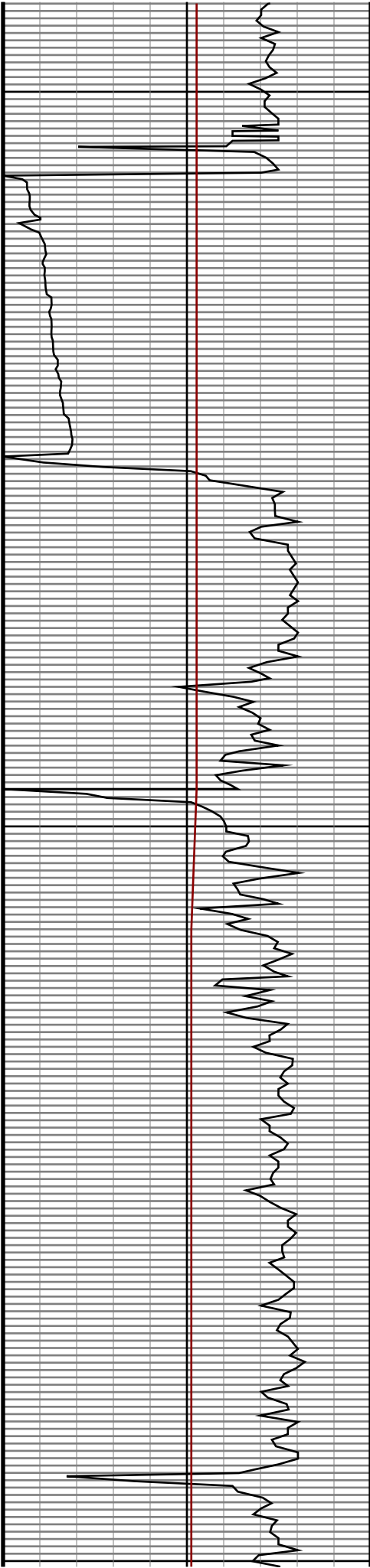


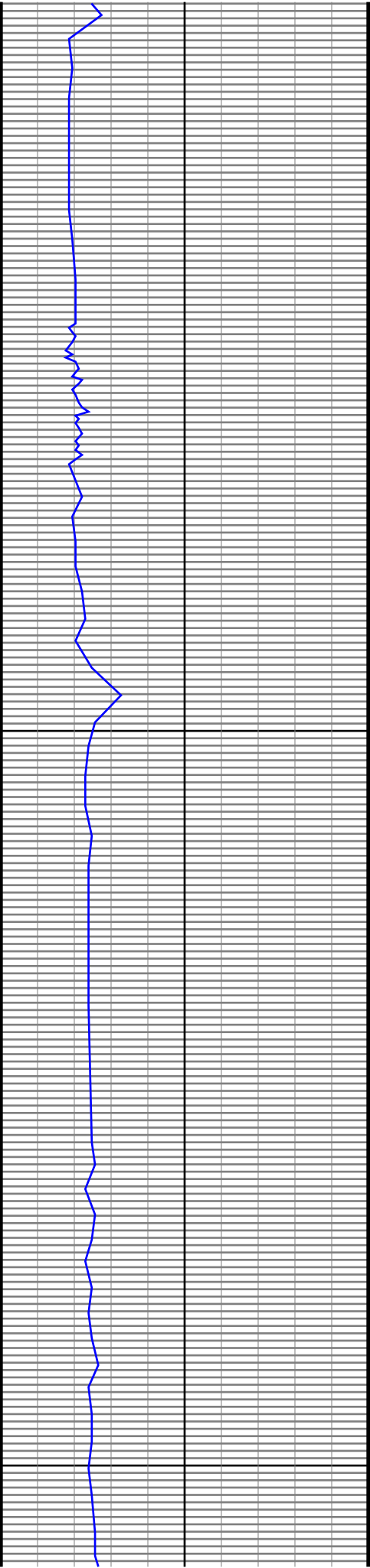


4800

4900

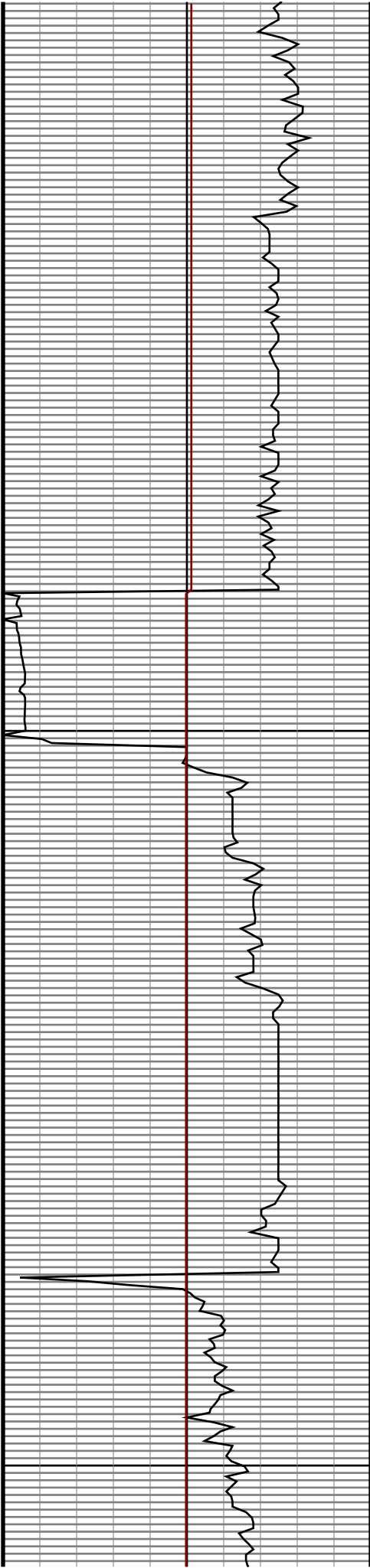
5000

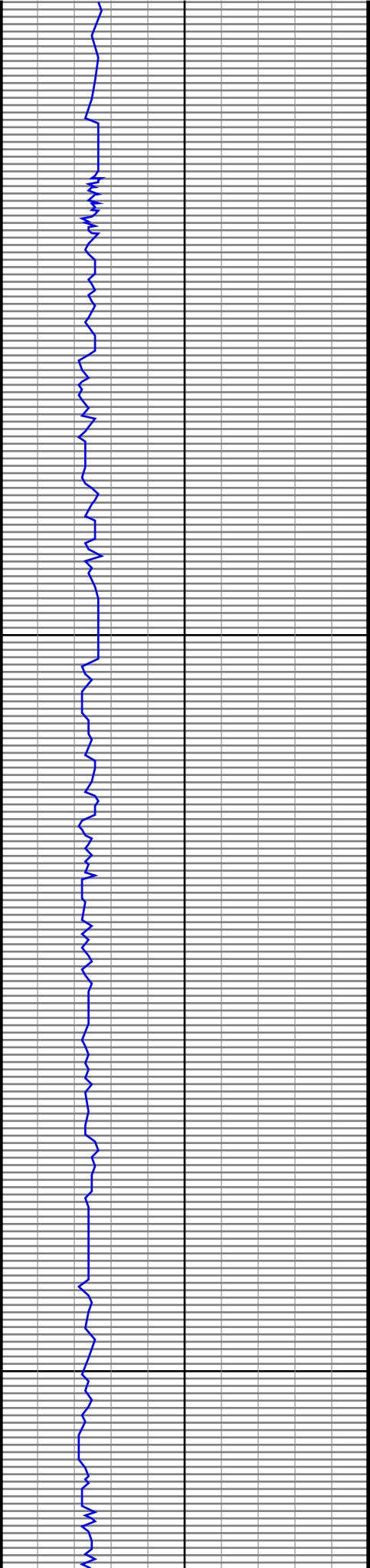




5100

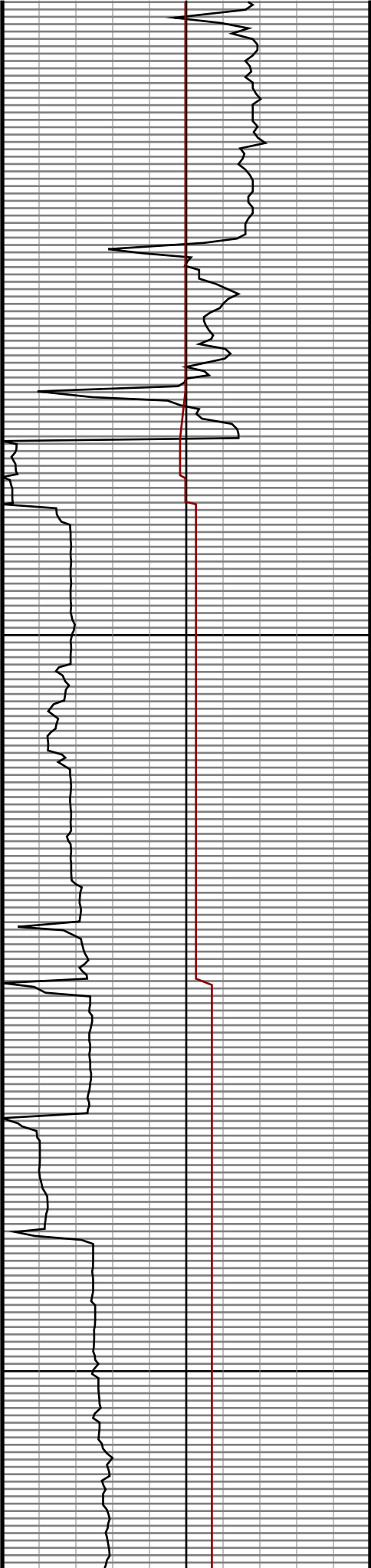
5200

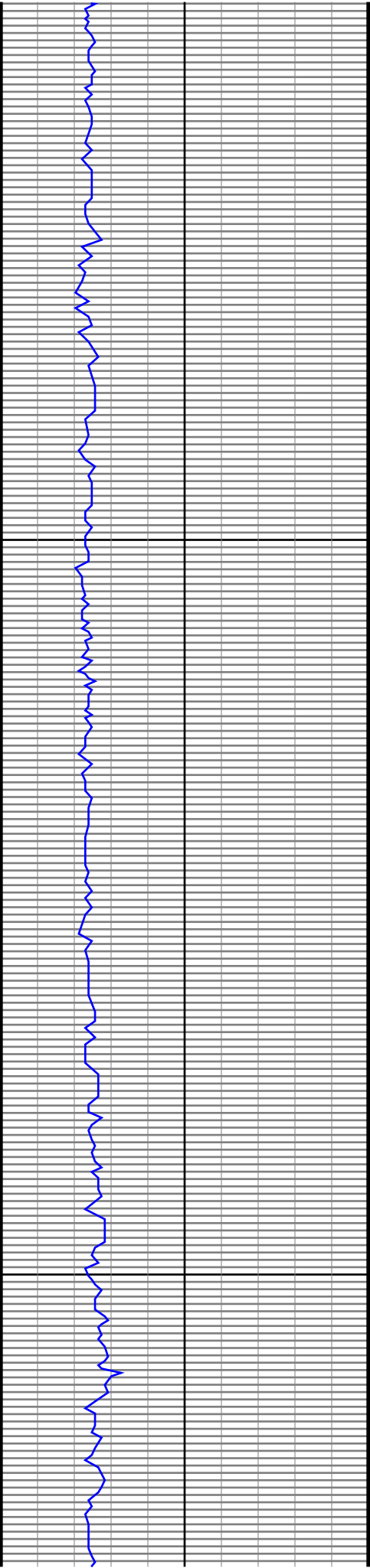




5300

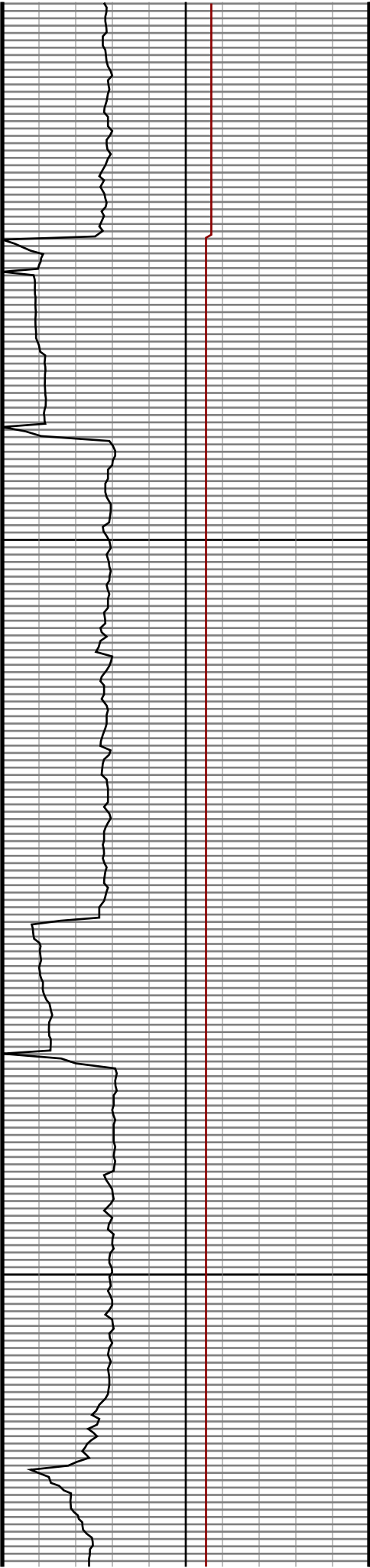
5400

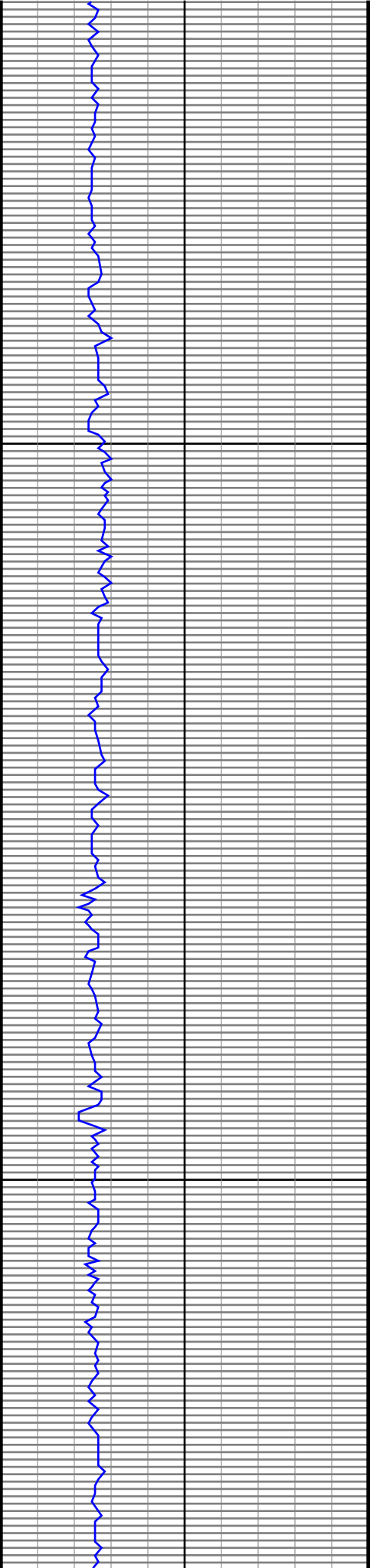




5500

5600

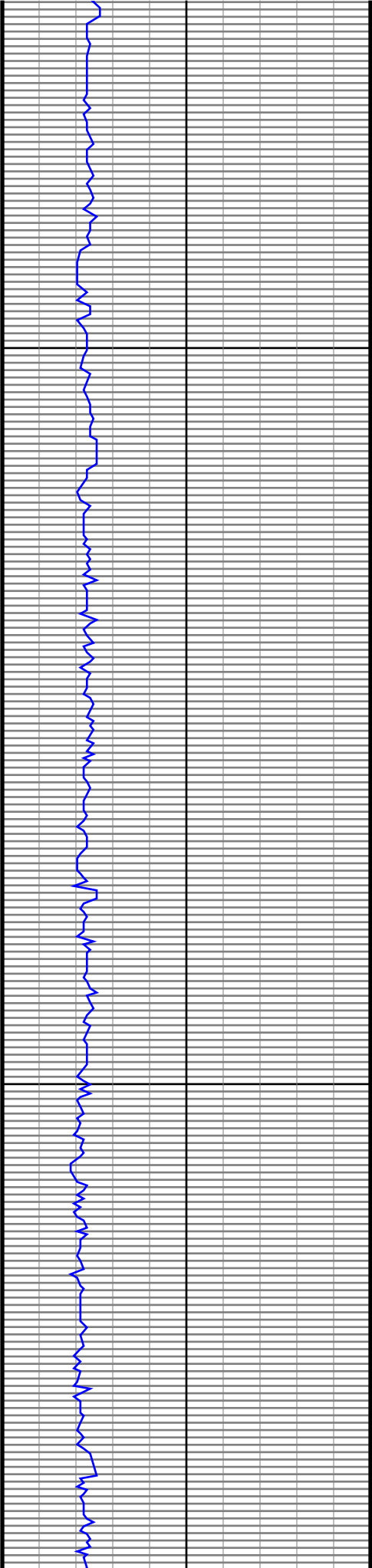




5700

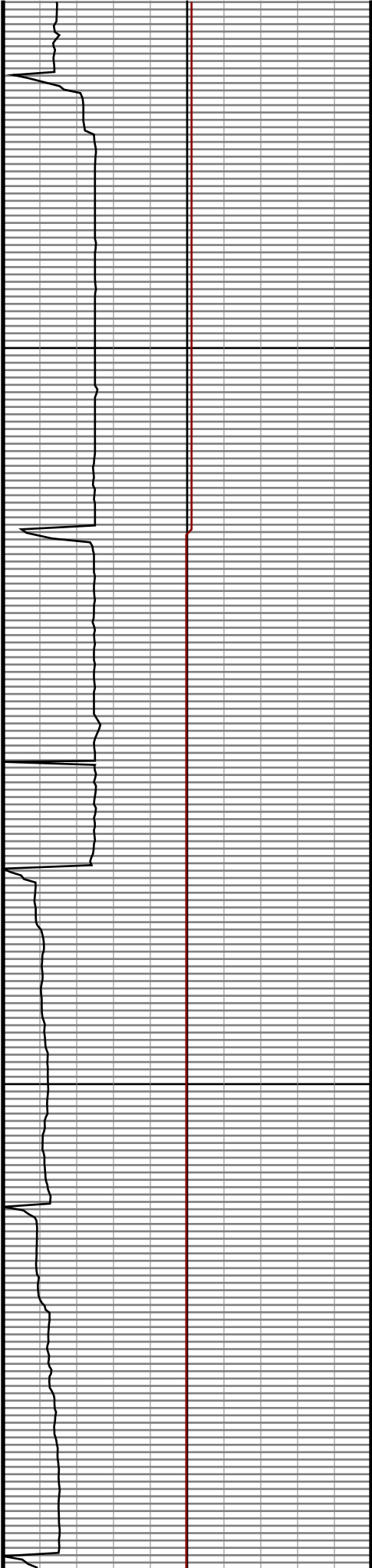
5800

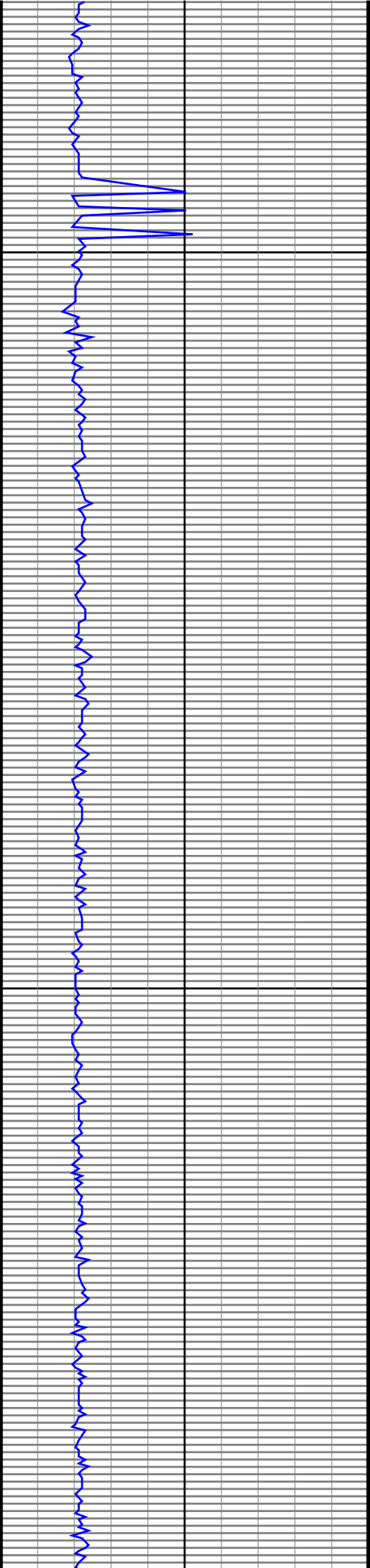




5900

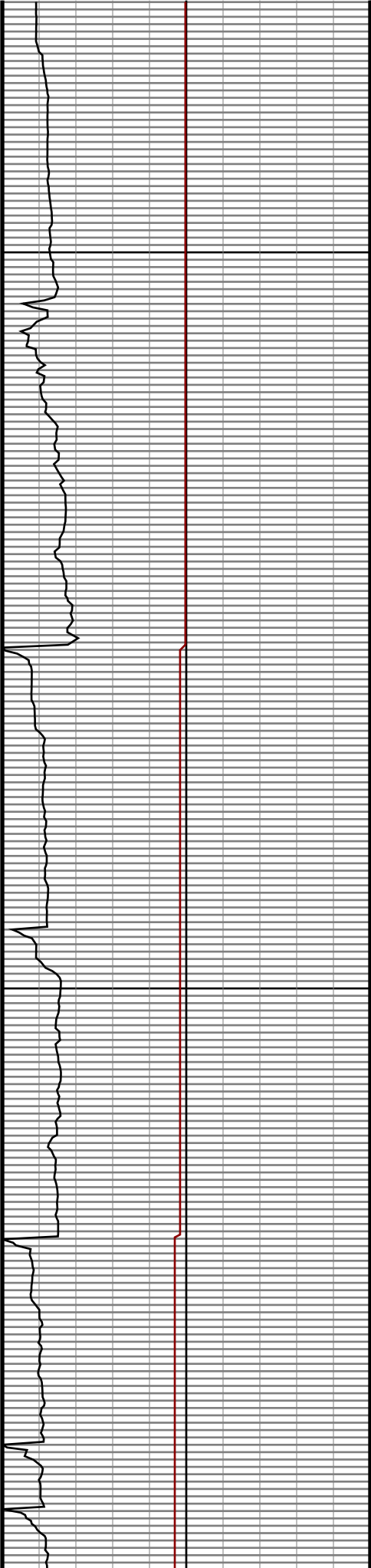
6000

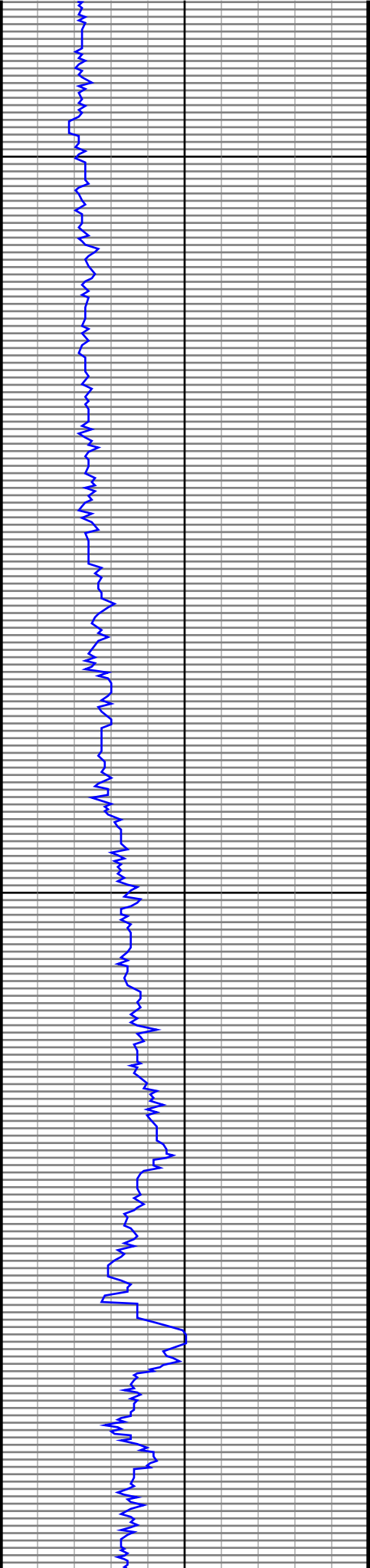




6100

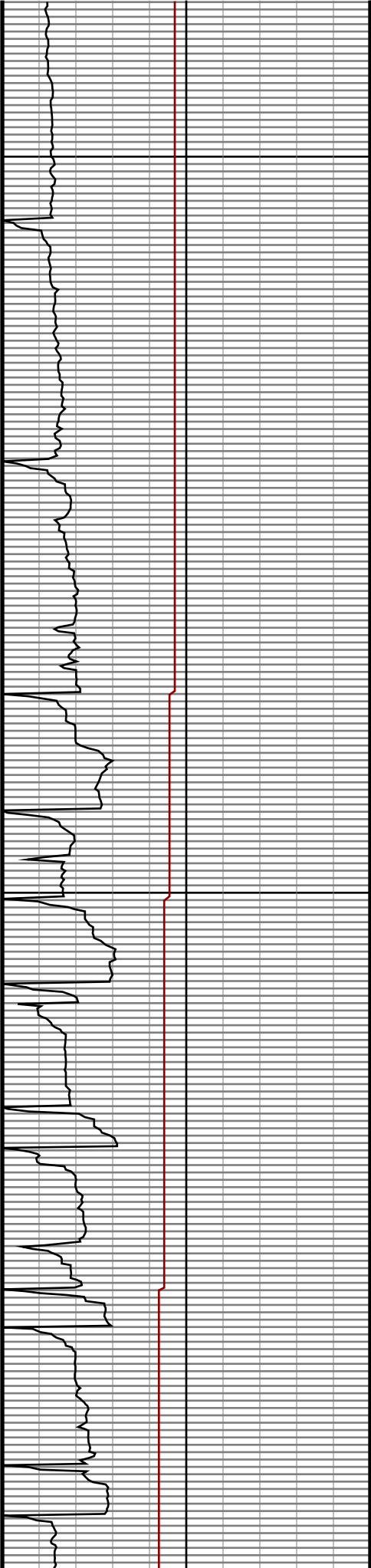
6200

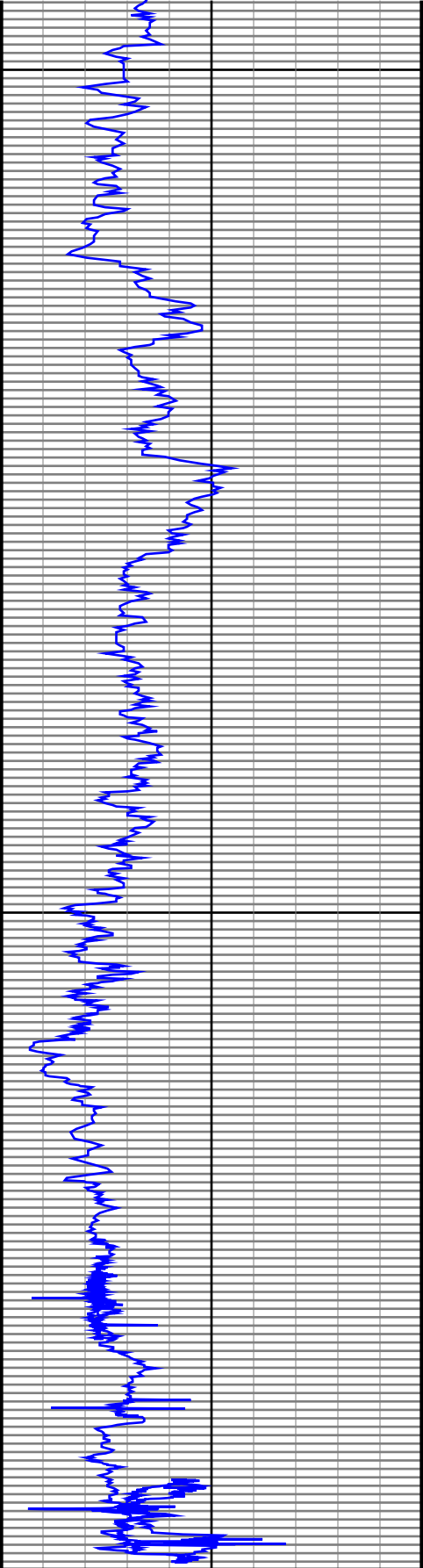




6300

6400



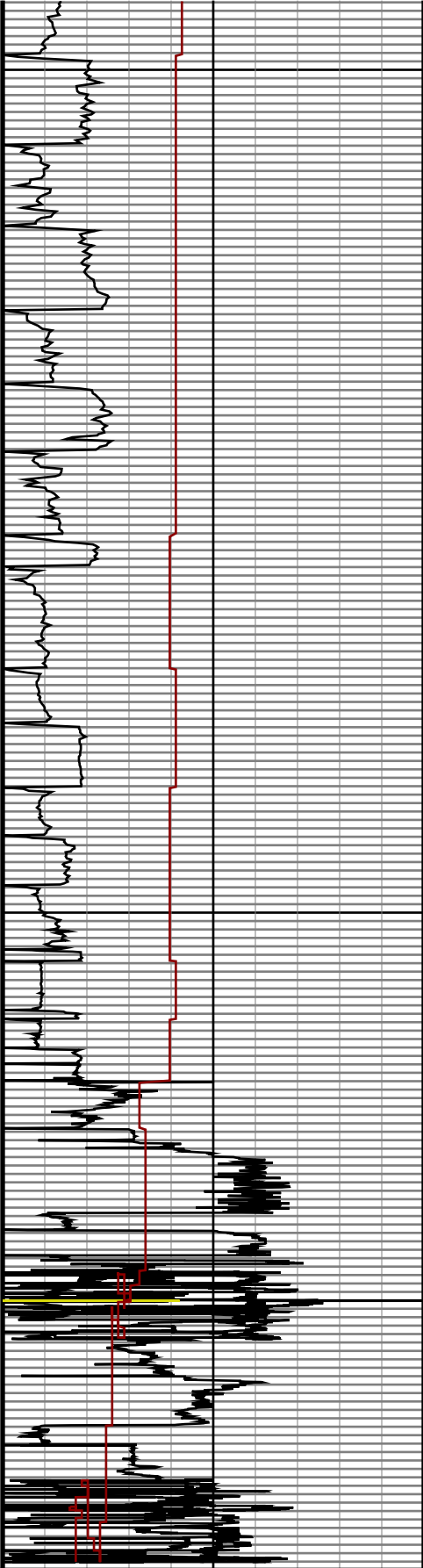


6500

6600

0.0 250.0
250.0 500.0

Gamma
API



0.0 800.0
800.0 1600.0

250.0 0.0
0.0 0.0

ROP
0

Temperature
degF