



# NABORS

**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**MICRO  
LOG**

Company EDISON OPERATING COMPANY, LLC.  
Well KUHN #1-24  
Field OSCAR  
County STAFFORD  
State KANSAS

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Location: API # : 15-185-23870-0000

550' FNL & 660' FWL

SEC 24 TWP 22S RGE 14W

Permanent Datum GROUND LEVEL Elevation 1923  
Log Measured From KELLY BUSHING 5' A.G.L.  
Drilling Measured From KELLY BUSHING

Other Services  
CDL/CNL/PE  
DIL/SONIC  
Elevation  
K.B. 1928  
D.F. 1926  
G.L. 1923

Date 5/11/14

Run Number TWO

Depth Driller 3923

Depth Logger 3920

Bottom Logged Interval 3904

Top Log Interval 2900

Casing Driller 8 5/8"@454'

Casing Logger 454

Bit Size 7 7/8"

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 8.9/43

pH / Fluid Loss 9.0/12.8

Source of Sample FLOWLINE

Rim @ Meas. Temp .300@90F

Rmf @ Meas. Temp .225@90F

Rmc @ Meas. Temp .360@90F

Source of Rmf / Rmc MEASUREMENT

Rim @ BHT .235@115F

Time Circulation Stopped 4.5 HOURS

Time Logger on Bottom 2:15 P.M.

Maximum Recorded Temperature 115F

Equipment Number 4854

Location HAYS, KANSAS

Recorded By JEFF LUEBBERS

Witnessed By ADAM NIGHSWONGER

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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, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

## Comments

THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
SEWARD, KS. & K-19, 2W. ON HWY 19 TO "RD. 40", 2S., S.E. INTO @CORNER



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# MAIN SECTION

Database File:

24151pe.db

Dataset Pathname:

pass6.21

Presentation Format:

micro

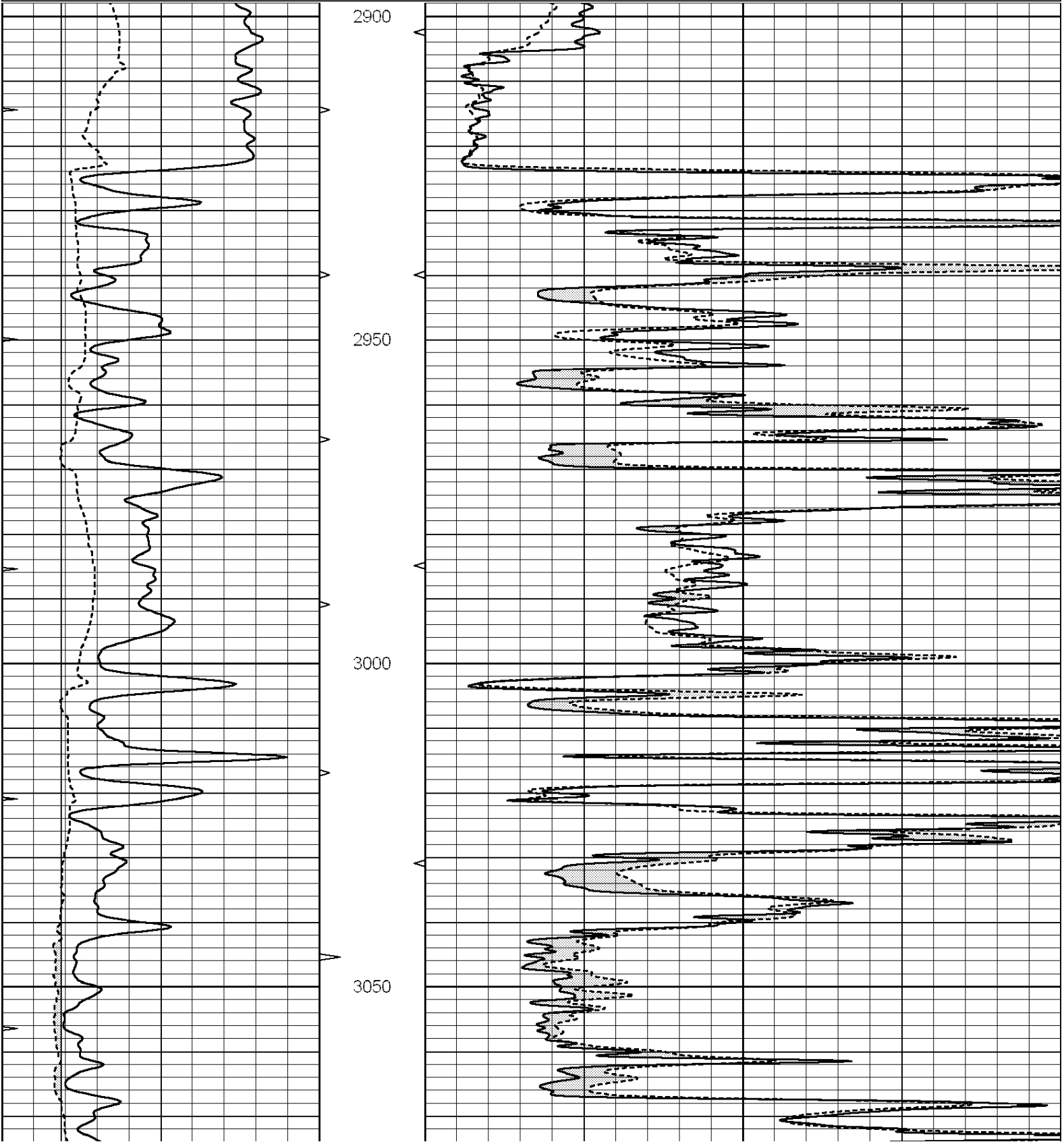
Dataset Creation:

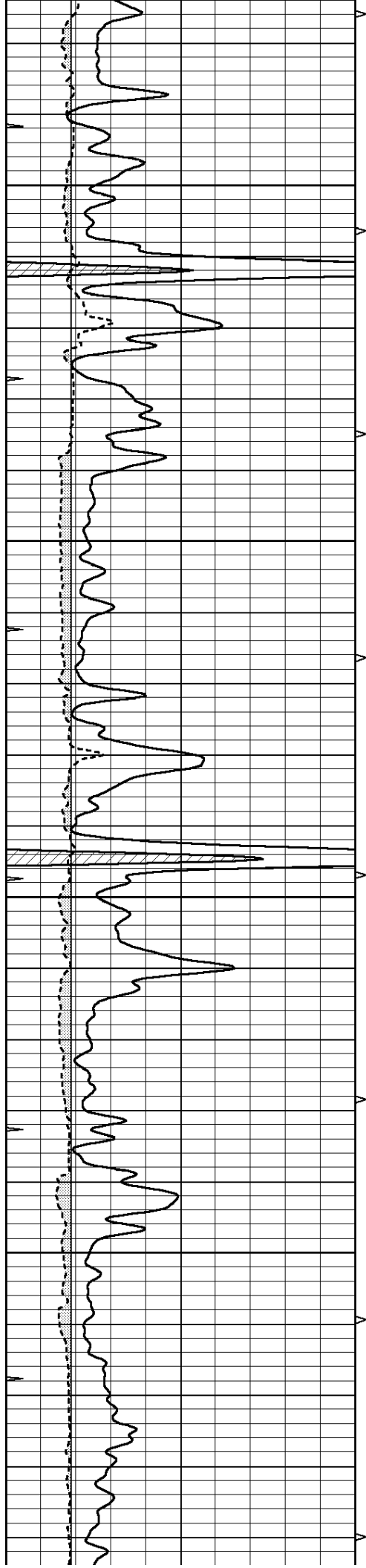
Sun May 11 19:15:38 2014

Charted by:

Depth in Feet scaled 1:240

|   |                  |     |          |     |                |    |
|---|------------------|-----|----------|-----|----------------|----|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV     | 0   | MEL1.5 (Ohm-m) | 20 |
| 6 | CALIPER (in)     | 16  | 10 (ft3) | 0 0 | MEL2.0 (Ohm-m) | 20 |
| 0 | MINMK            | 20  | TBHV     |     |                |    |
|   |                  |     | 0 (ft3)  | 10  |                |    |



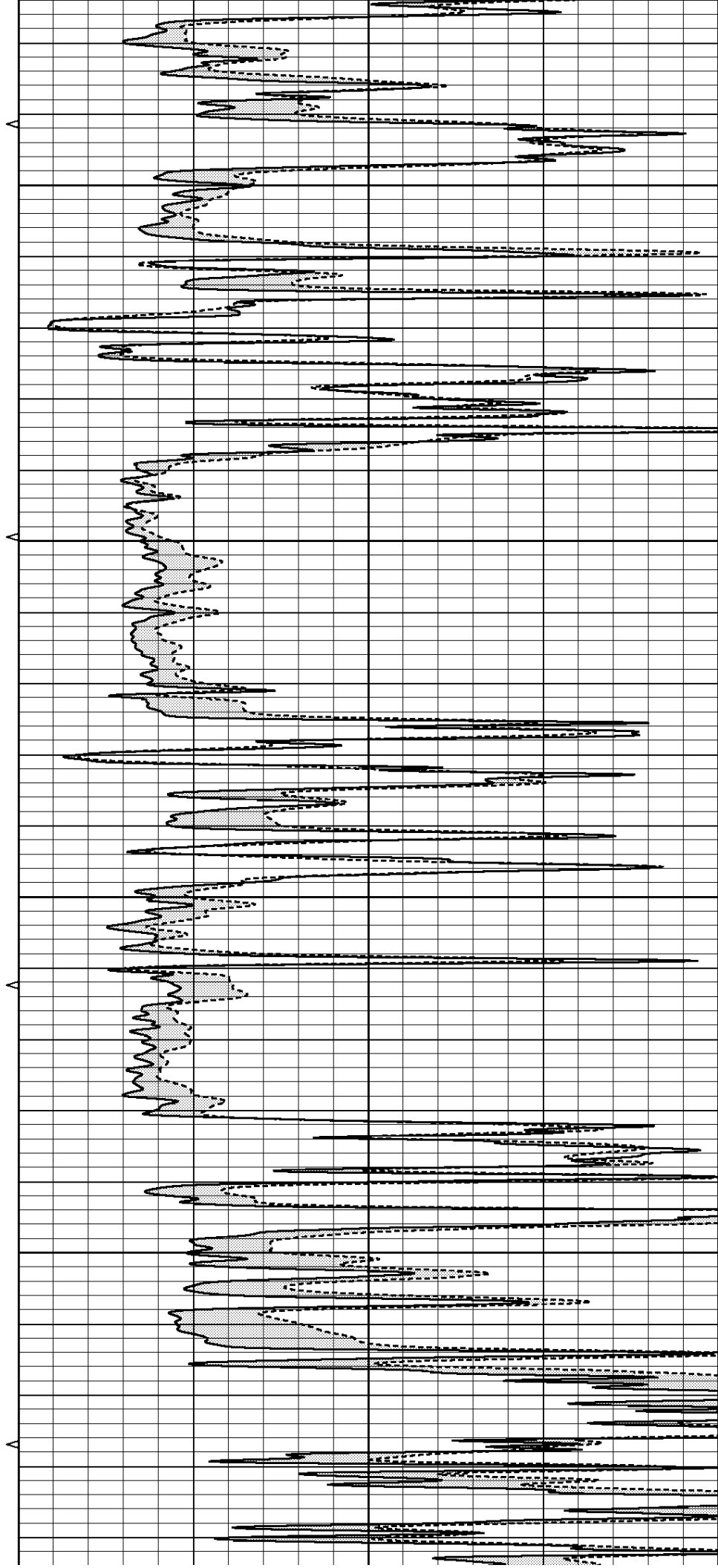


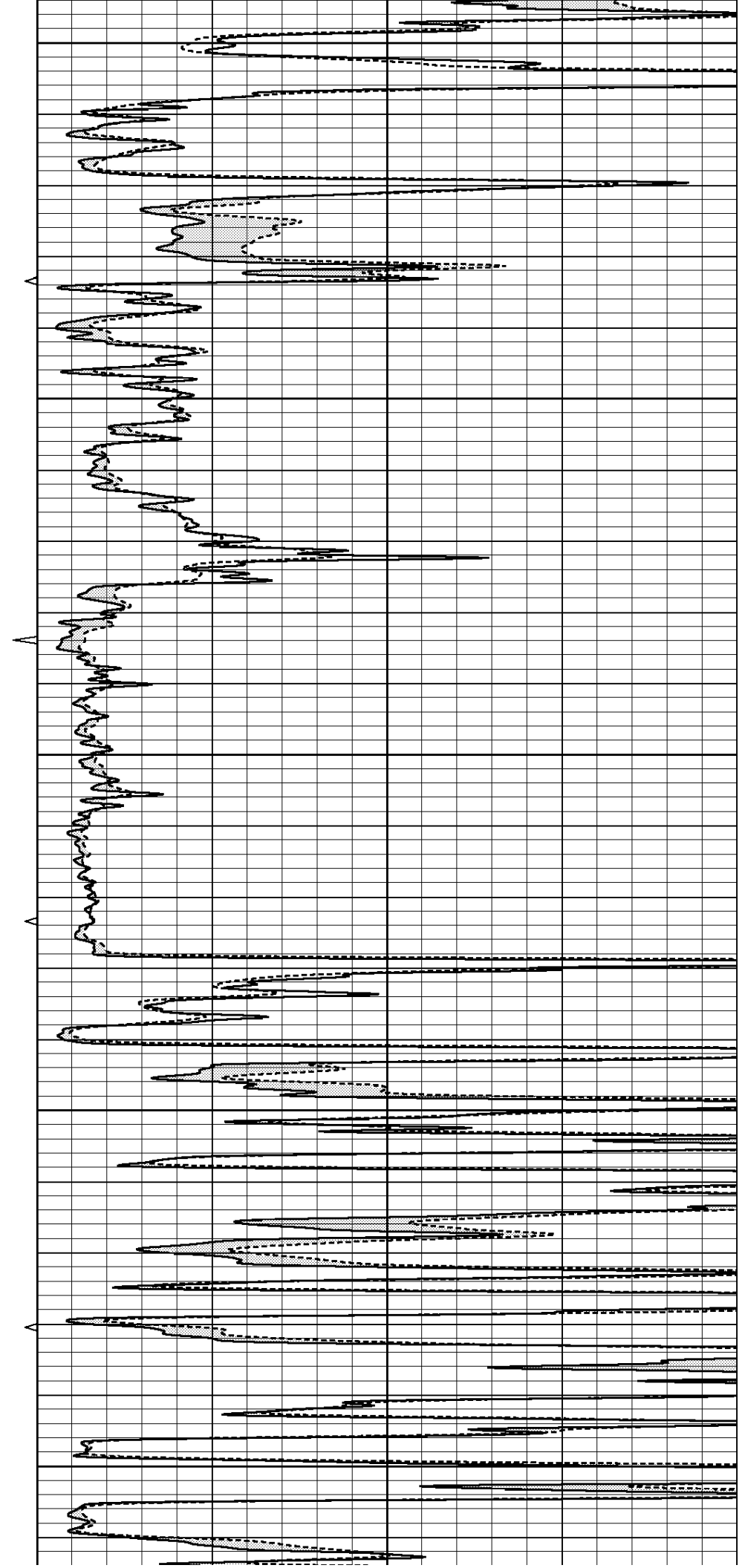
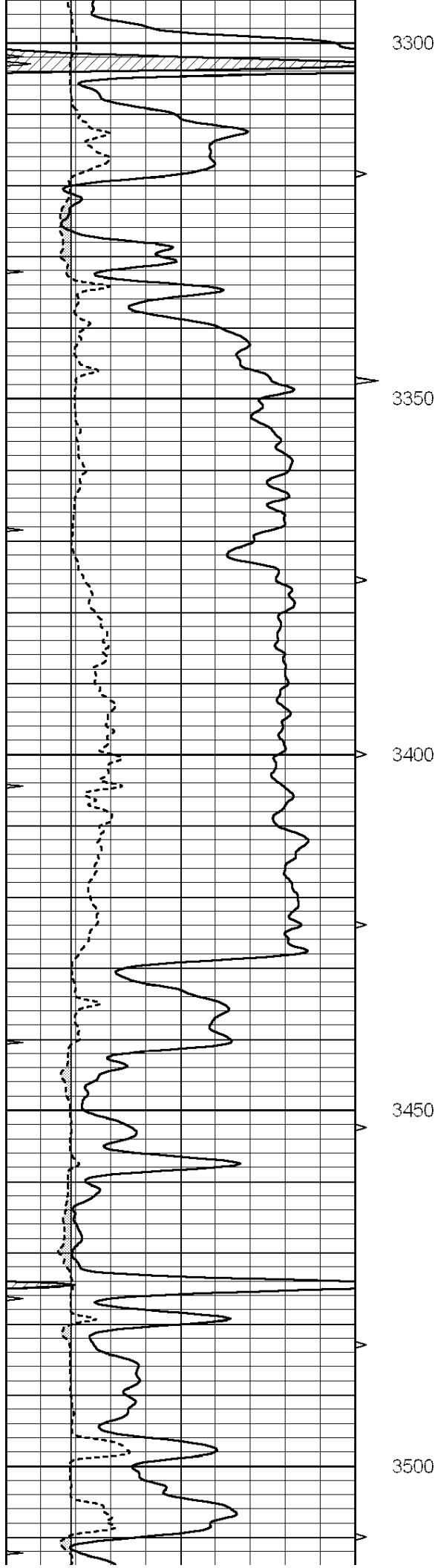
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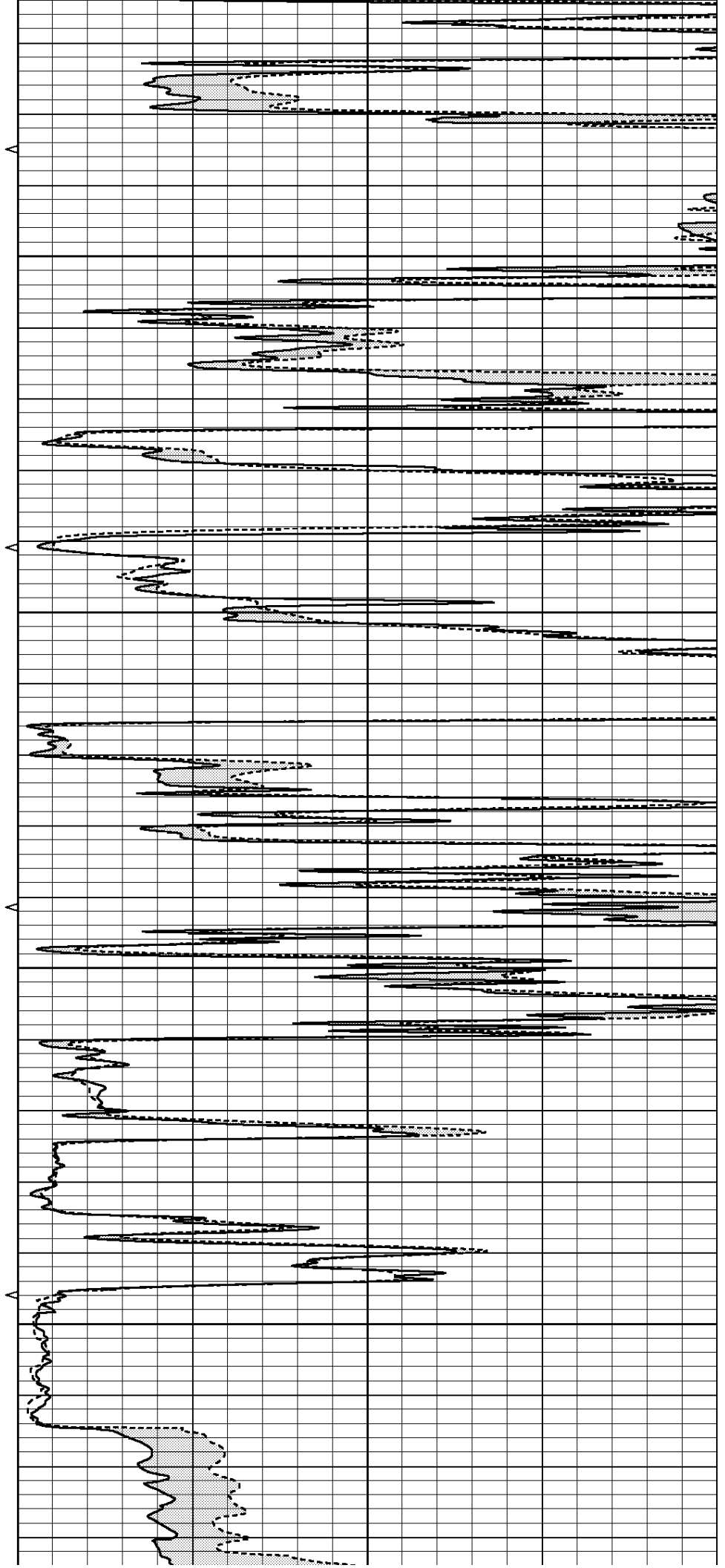
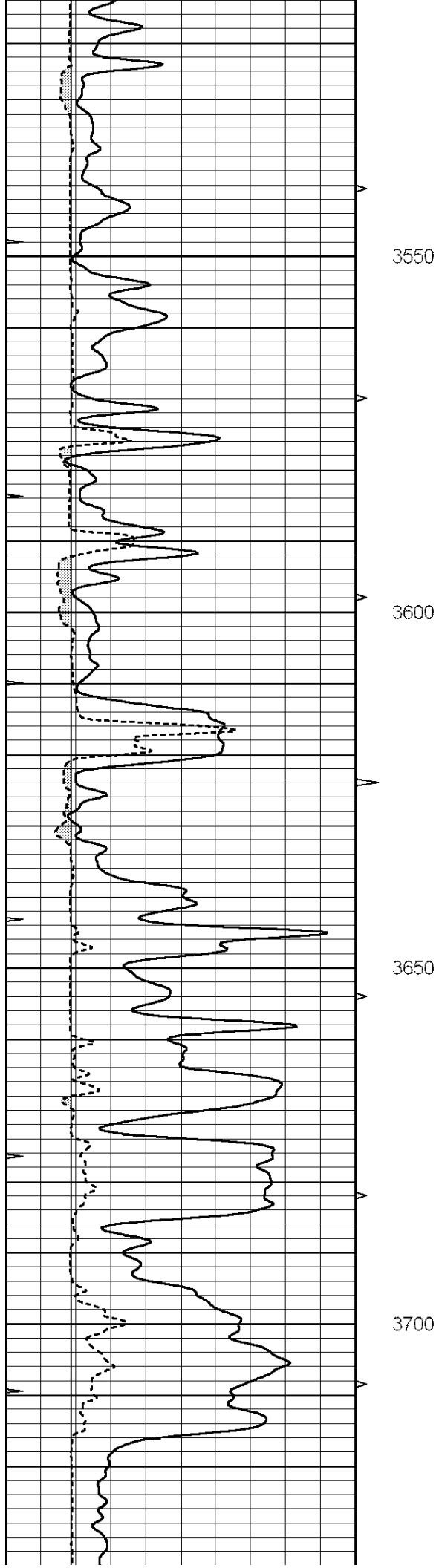
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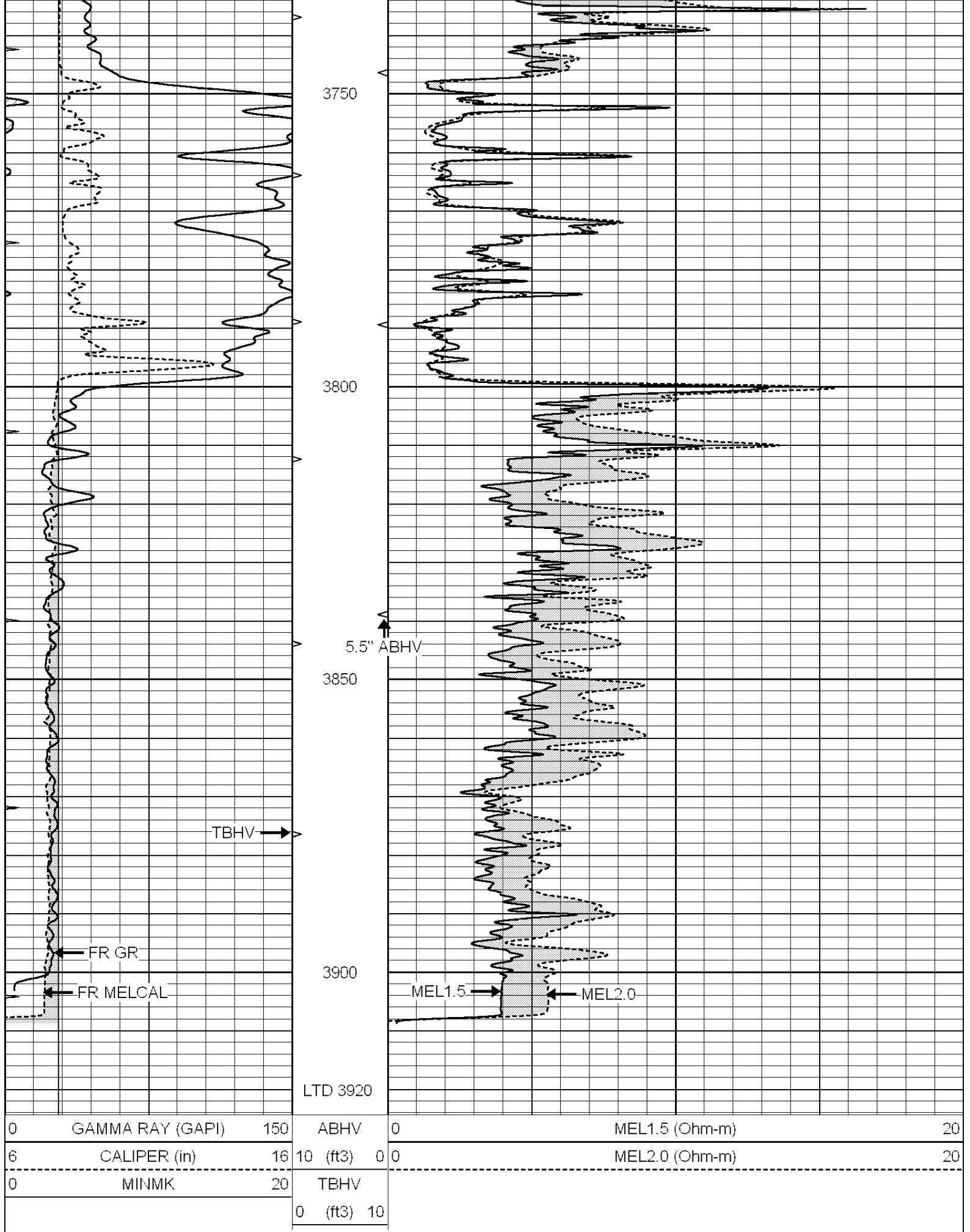
3200

3250





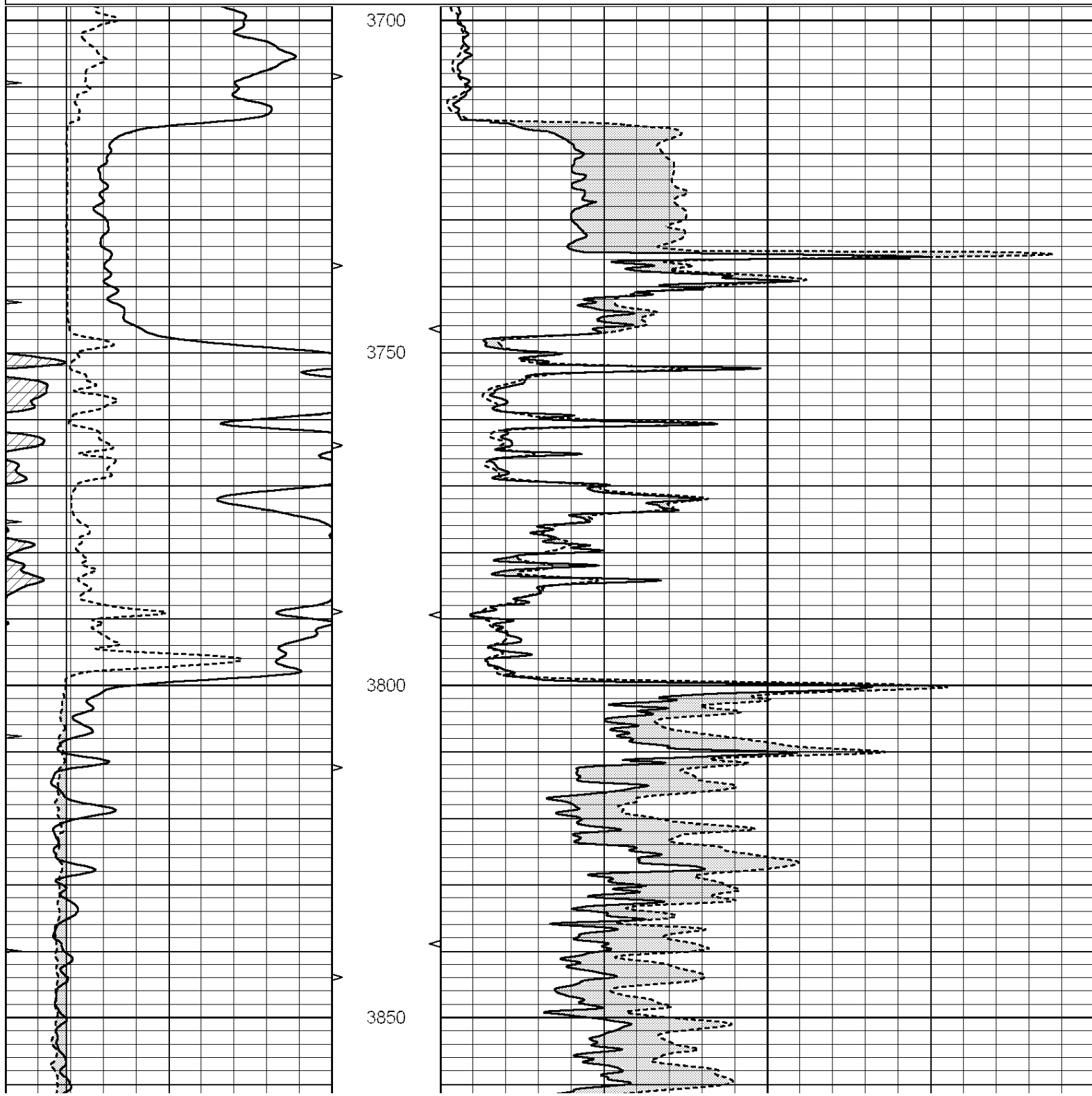


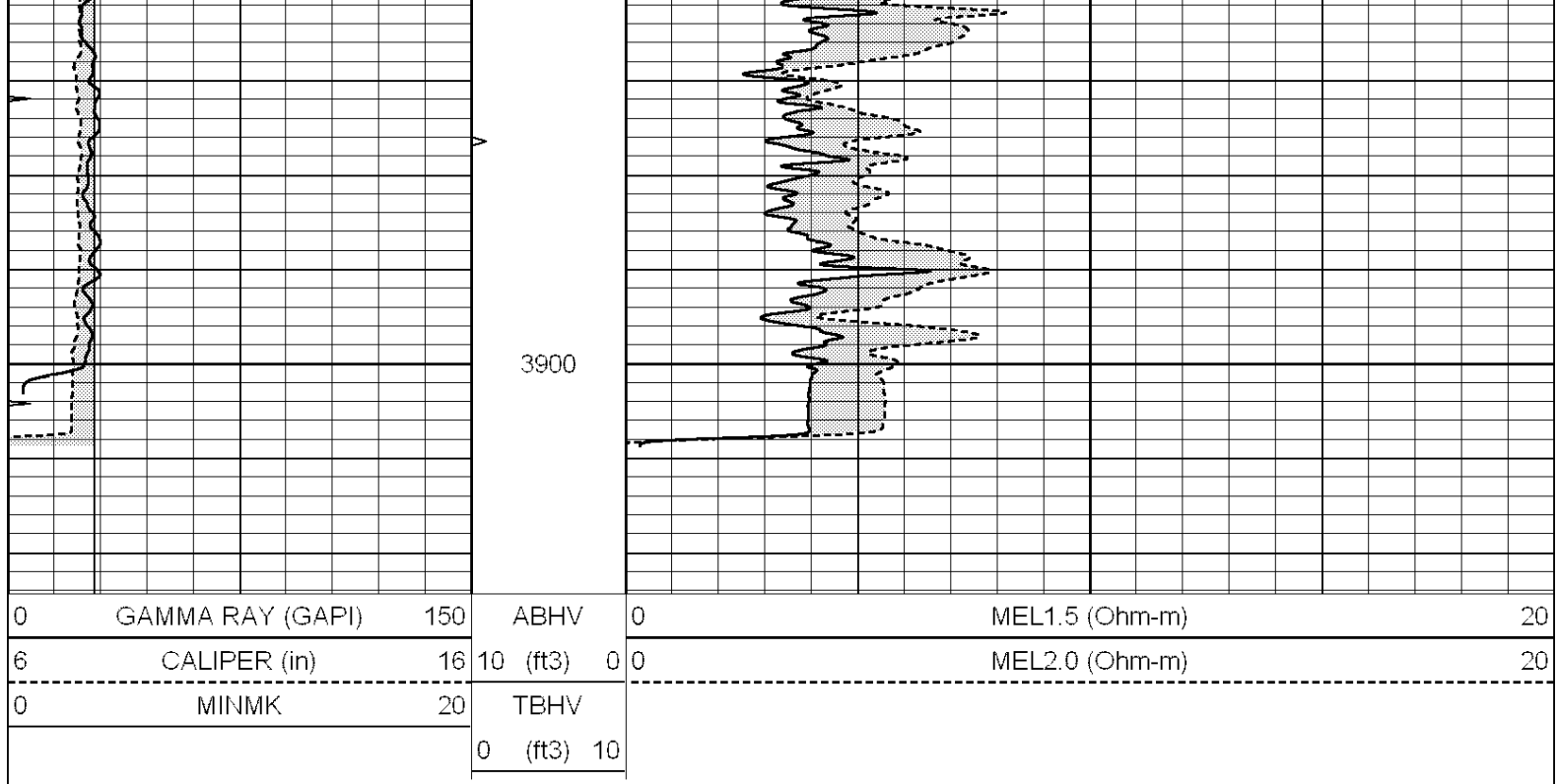


# REPEAT SECTION

Database File: 24151pe.db  
 Dataset Pathname: pass5.16  
 Presentation Format: micro  
 Dataset Creation: Sun May 11 19:33:10 2014  
 Charted by: Depth in Feet scaled 1:240

|   |                  |     |          |    |                |    |
|---|------------------|-----|----------|----|----------------|----|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV     | 0  | MEL1.5 (Ohm-m) | 20 |
| 6 | CALIPER (in)     | 16  | 10 (ft3) | 0  | MEL2.0 (Ohm-m) | 20 |
| 0 | MINMK            | 20  | TBHV     |    |                |    |
|   |                  |     | 0 (ft3)  | 10 |                |    |





| Calibration Report       |                          |               |  |
|--------------------------|--------------------------|---------------|--|
| Database File:           | 24151pe.db               |               |  |
| Dataset Pathname:        | pass6.21                 |               |  |
| Dataset Creation:        | Sun May 11 19:15:38 2014 |               |  |
| MICRO Calibration Report |                          |               |  |
| Serial Number:           | 070911                   |               |  |
| Tool Model:              | ProbeN                   |               |  |
| Performed:               | Sun Apr 13 16:44:42 2014 |               |  |
| Caliper Calibration:     | Gain=3.919               | Offset=2.379  |  |
|                          | Low Cal                  | High Cal      |  |
| References               | 7.400                    | 15.000        |  |
| Readings                 | 1.281                    | 3.221         |  |
| 1.5" Calibration:        | Gain=85.000              | Offset=0.300  |  |
|                          | Low Cal                  | High Cal      |  |
| References               | 0.000                    | 20.000        |  |
| Readings                 | 0.001                    | 1.276         |  |
| 2" Calibration:          | Gain=40.000              | Offset=-0.500 |  |
|                          | Low Cal                  | High Cal      |  |
| References               | 0.000                    | 20.000        |  |
| Readings                 | 0.003                    | 1.108         |  |

| Gamma Ray Calibration Report |                          |          |  |
|------------------------------|--------------------------|----------|--|
| Serial Number:               | 070559                   |          |  |
| Tool Model:                  | OPEN_GR                  |          |  |
| Performed:                   | Mon Mar 24 02:01:13 2014 |          |  |
| Calibrator Value:            | 1.0                      | GAPI     |  |
| Background Reading:          | 0.0                      | cps      |  |
| Calibrator Reading:          | 1.0                      | cps      |  |
| Sensitivity:                 | 0.2000                   | GAPI/cps |  |

