



# NABORS

**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**MICRO  
LOG**

|                              |  |                                                    |  |
|------------------------------|--|----------------------------------------------------|--|
| Company                      |  | MULL DRILLING CO., INC.                            |  |
| Well                         |  | NEWBERRY FARMS #1-36                               |  |
| Field                        |  | SPIVEY-GRABS-BASIL                                 |  |
| County                       |  | HARPER                                             |  |
| State                        |  | KANSAS                                             |  |
| Location:                    |  | APL # : 15-077-22112-00-00<br>575' FNL & 1675' FWL |  |
| Permanent Datum              |  | GROUND LEVEL Elevation 1574                        |  |
| Log Measured From            |  | KELLY BUSHING 10' A.G.L.                           |  |
| Drilling Measured From       |  | KELLY BUSHING                                      |  |
| SEC 36 TWP 31S RGE 9W        |  | Other Services<br>CNL/CDL<br>DIL/SON               |  |
| Date                         |  | 11/6/14                                            |  |
| Run Number                   |  | TWO                                                |  |
| Depth Driller                |  | 4600                                               |  |
| Depth Logger                 |  | 4601                                               |  |
| Bottom Logged Interval       |  | 4583                                               |  |
| Top Log Interval             |  | 3100                                               |  |
| Casing Driller               |  | 8 5/8" @ 225                                       |  |
| Casing Logger                |  | 218                                                |  |
| Bit Size                     |  | 7 7/8"                                             |  |
| Type Fluid in Hole           |  | CHEMICAL MUD                                       |  |
| Density / Viscosity          |  | 9.4/45                                             |  |
| pH / Fluid Loss              |  | 10.0/9.2                                           |  |
| Source of Sample             |  | FLOWLINE                                           |  |
| Rm @ Meas. Temp              |  | 0.75 @ 70F                                         |  |
| Rmt @ Meas. Temp             |  | 0.56 @ 70F                                         |  |
| Rmc @ Meas. Temp             |  | 0.90 @ 70F                                         |  |
| Source of Rmt / Rmc          |  | MEASUREMENT                                        |  |
| Rm @ BHT                     |  | 0.43 @ 121F                                        |  |
| Time Circulation Stopped     |  | 2 HOURS                                            |  |
| Time Logger on Bottom        |  | 121F                                               |  |
| Maximum Recorded Temperature |  | 4010                                               |  |
| Equipment Number             |  | HAYS, KANSAS                                       |  |
| Location                     |  | IAN MABB                                           |  |
| Recorded By                  |  | JERRY A. SMITH                                     |  |
| Witnessed By                 |  |                                                    |  |

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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.

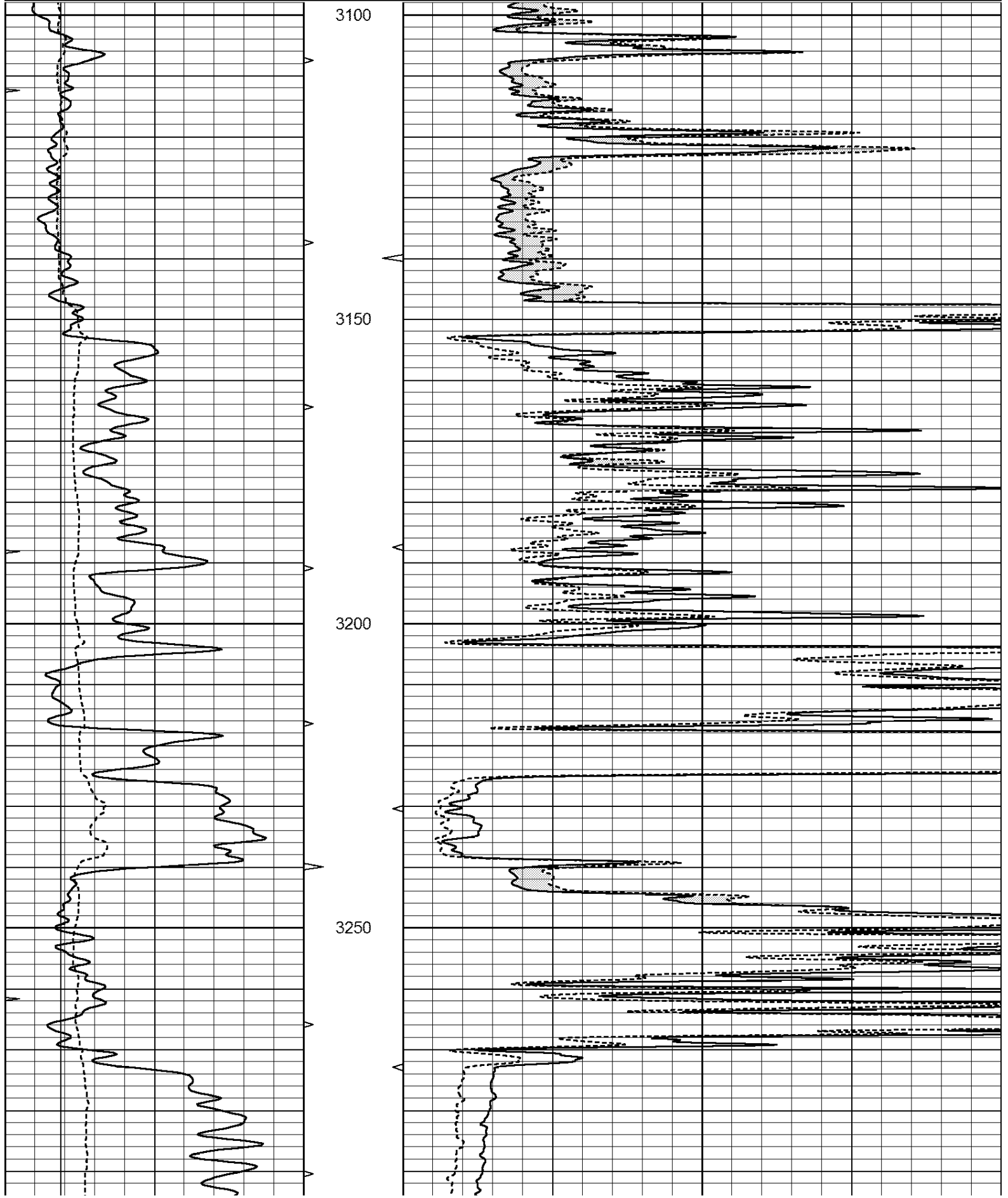
## Comments

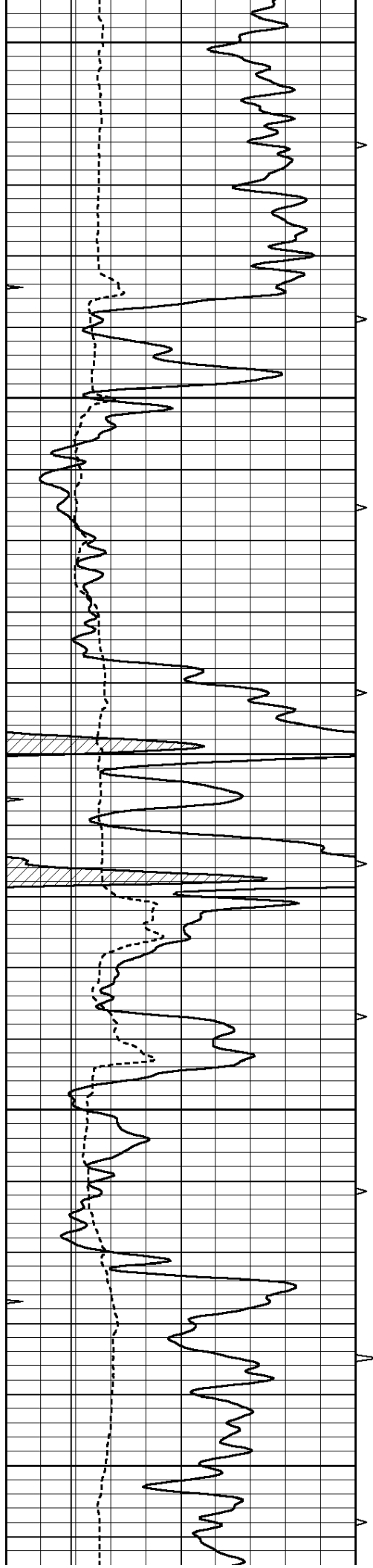
THANK YOU FOR USING NABORS, HAYS, KS. (785) 628-6395  
DIRECTIONS:

ZENDA, KS. - SOUTH TO NW 150 RD - EAST TO 1 MILE TO NW 120 AVE - SOUTH 4 1/4 - EAST INTO

Database File: 26224ddn.db  
Dataset Pathname: pass6.1  
Presentation Format: \_micro  
Dataset Creation: Thu Nov 06 09:29:04 2014 by Calc Open-Cased 090629  
Charted by: Depth in Feet scaled 1:240

|   |                  |     |          |     |                |    |
|---|------------------|-----|----------|-----|----------------|----|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV     | 0   | MEL1.5 (Ohm-m) | 40 |
| 6 | CALIPER (in)     | 16  | 10 (ft3) | 0 0 | MEL2.0 (Ohm-m) | 40 |
| 0 | MINMK            | 20  | TBHV     |     |                |    |
|   |                  |     | 0 (ft3)  | 10  |                |    |





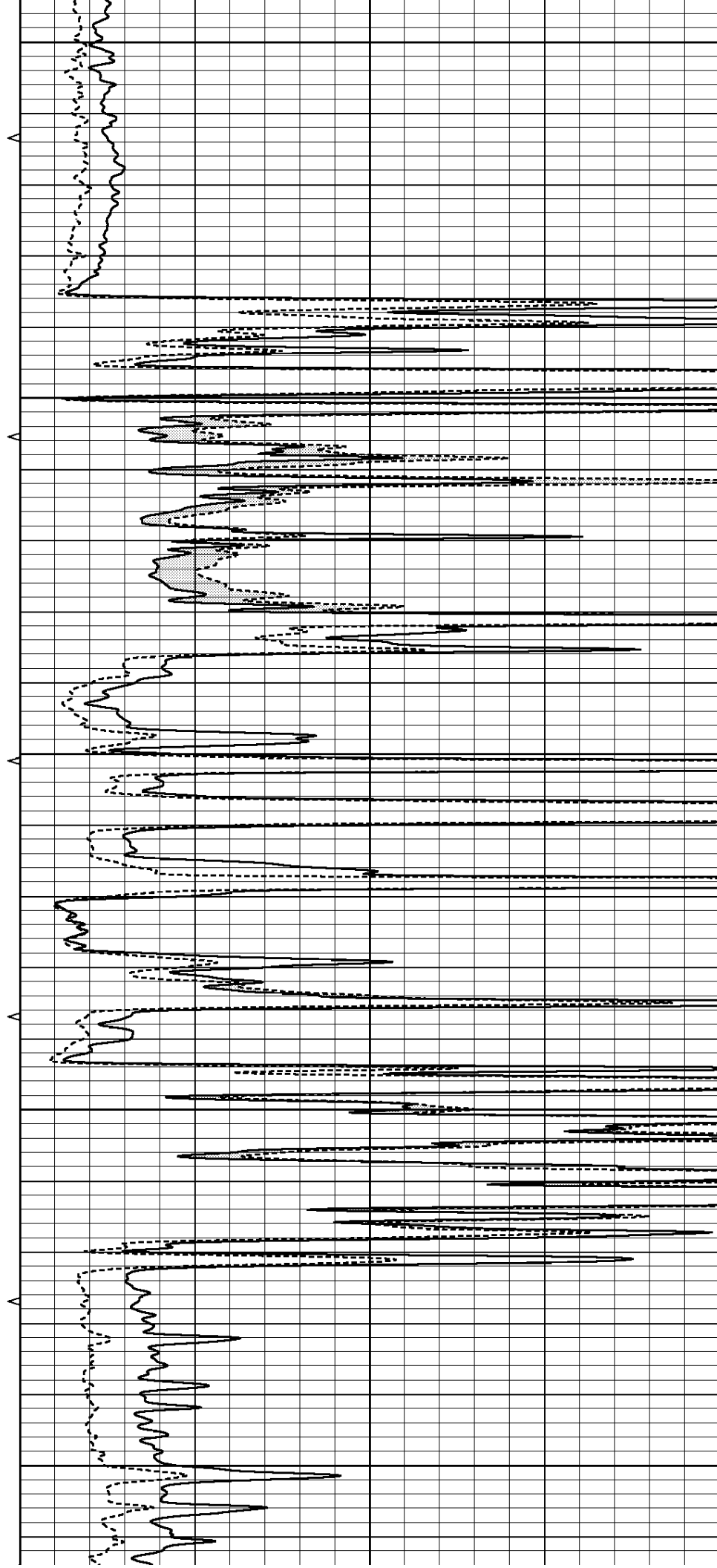
3300

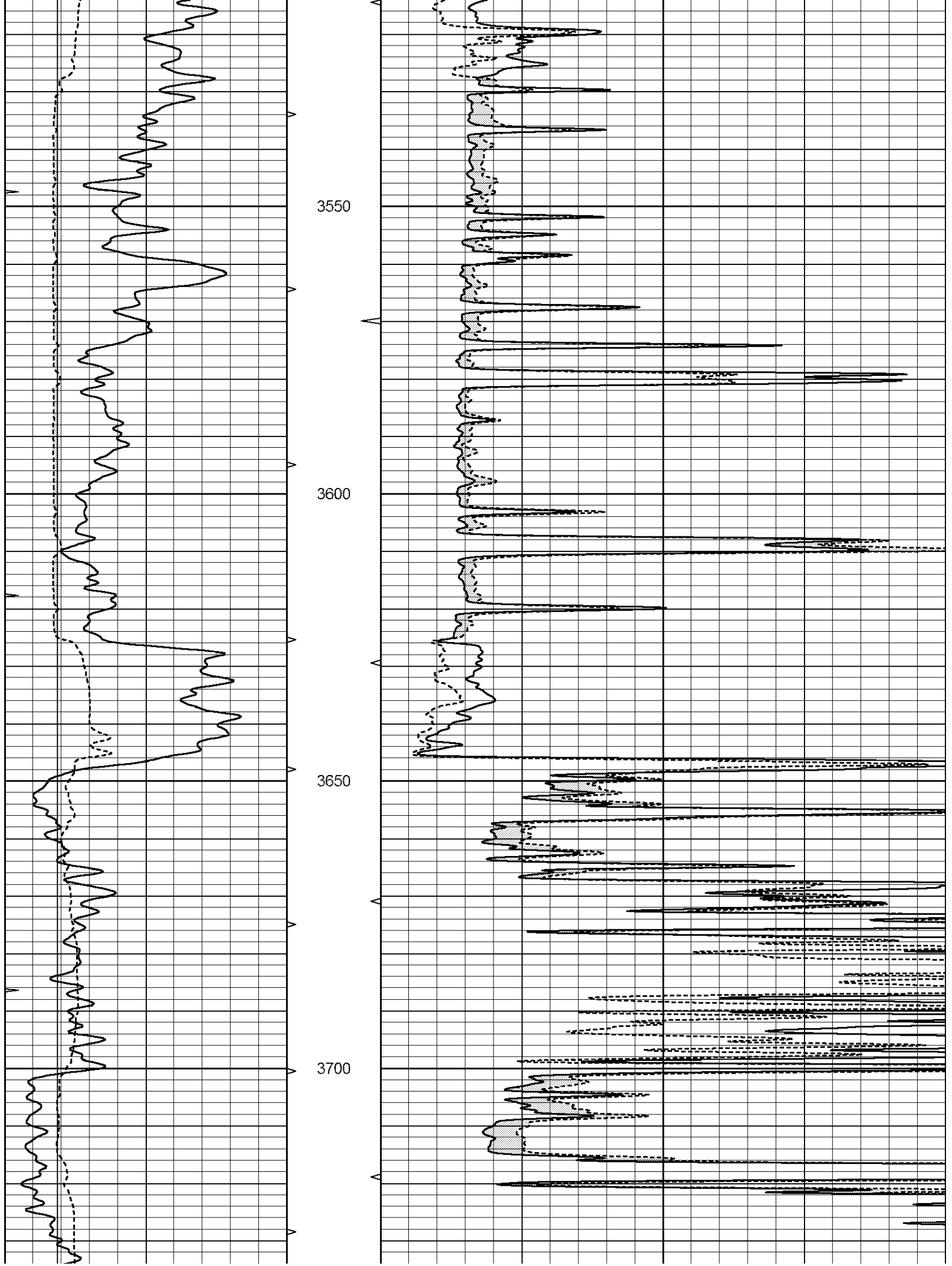
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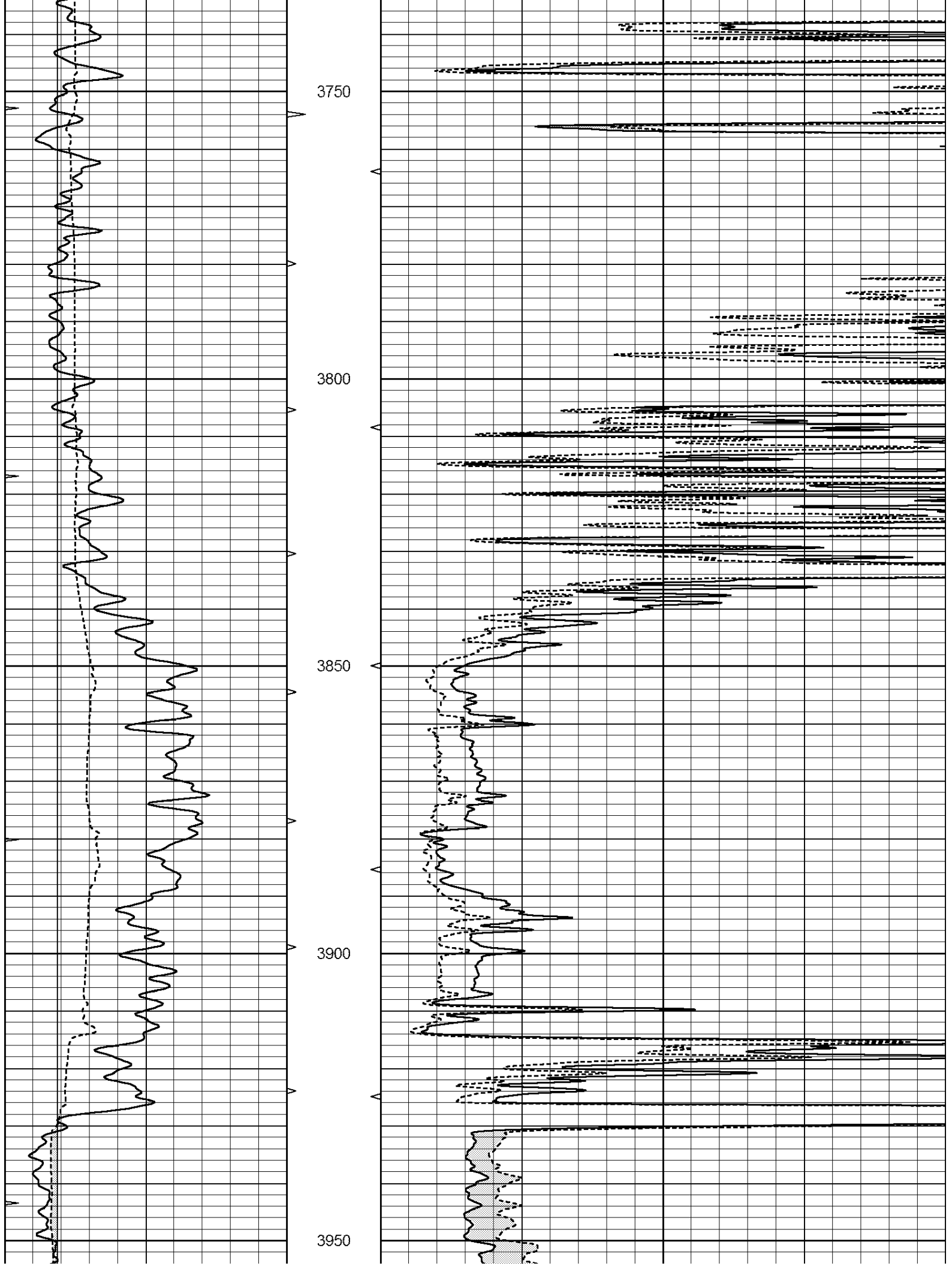
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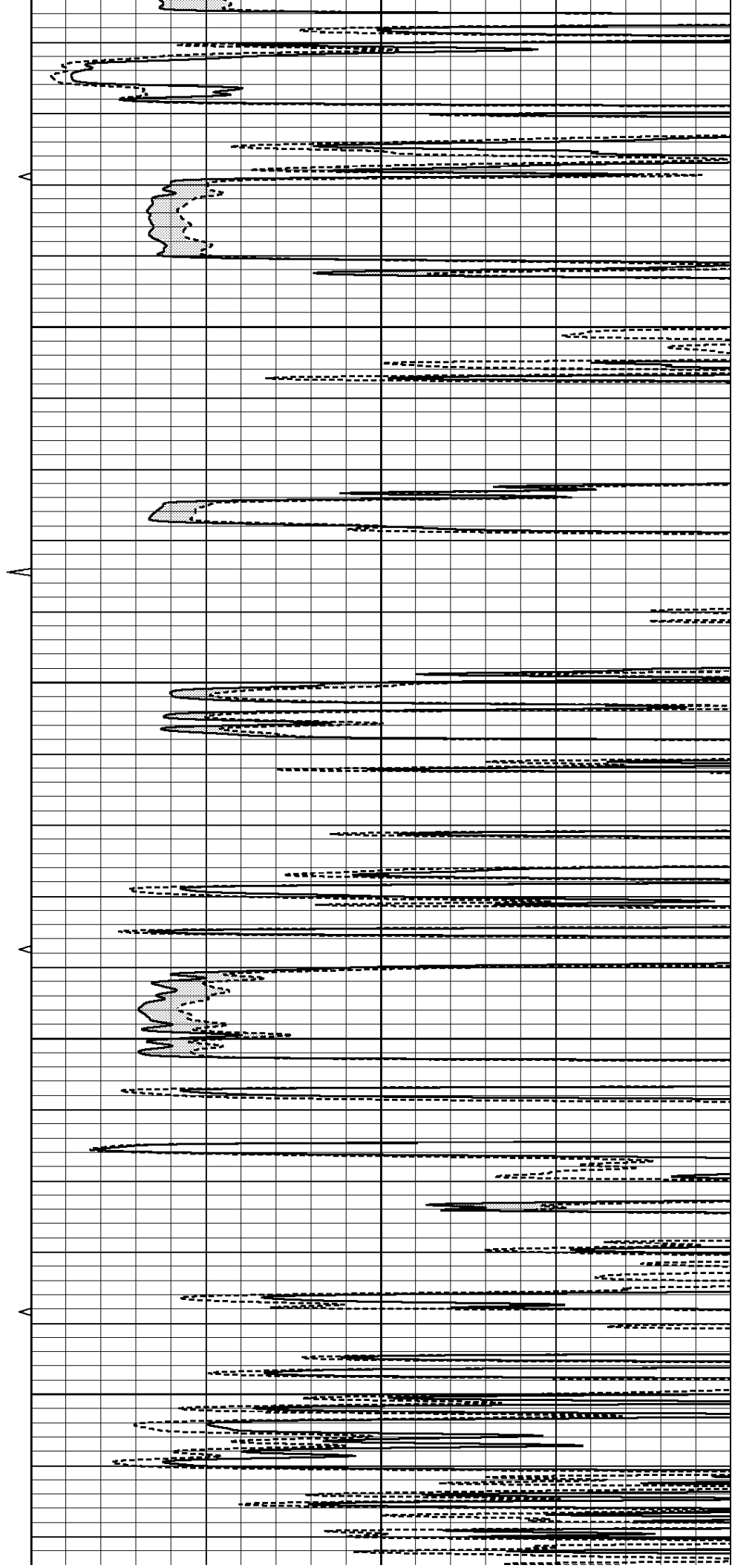
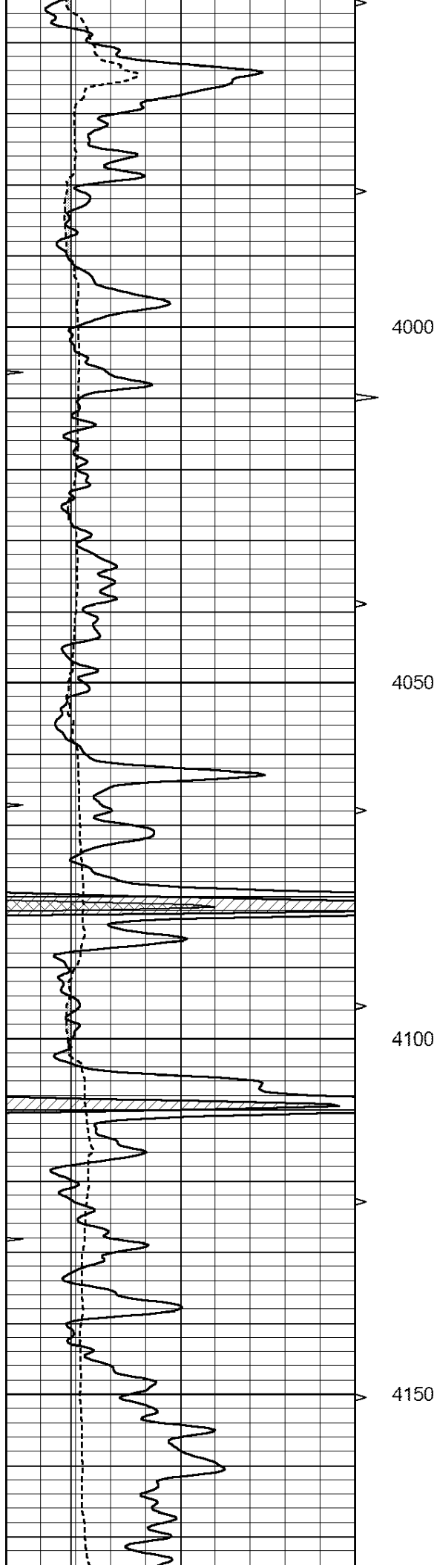
3450

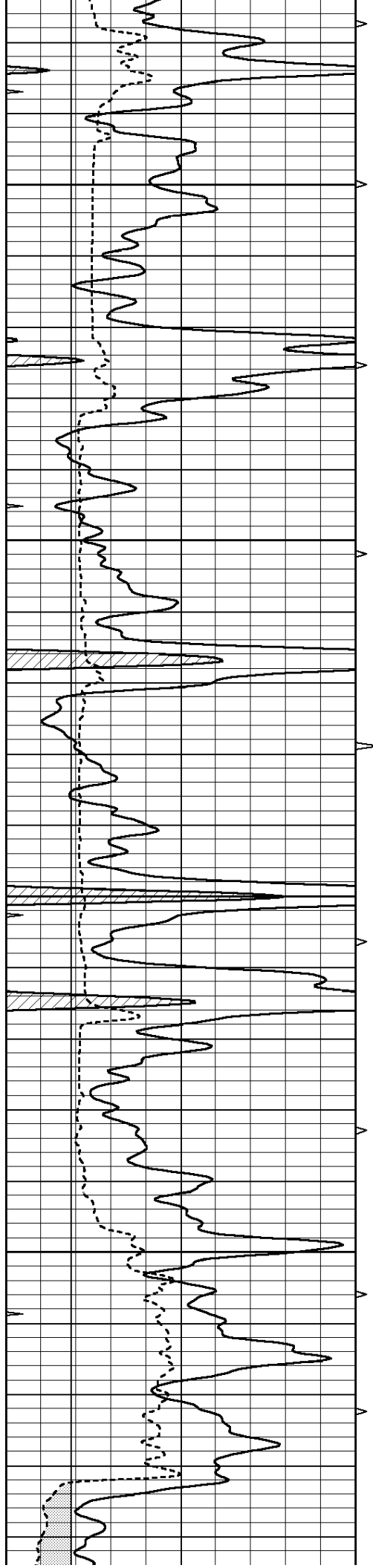
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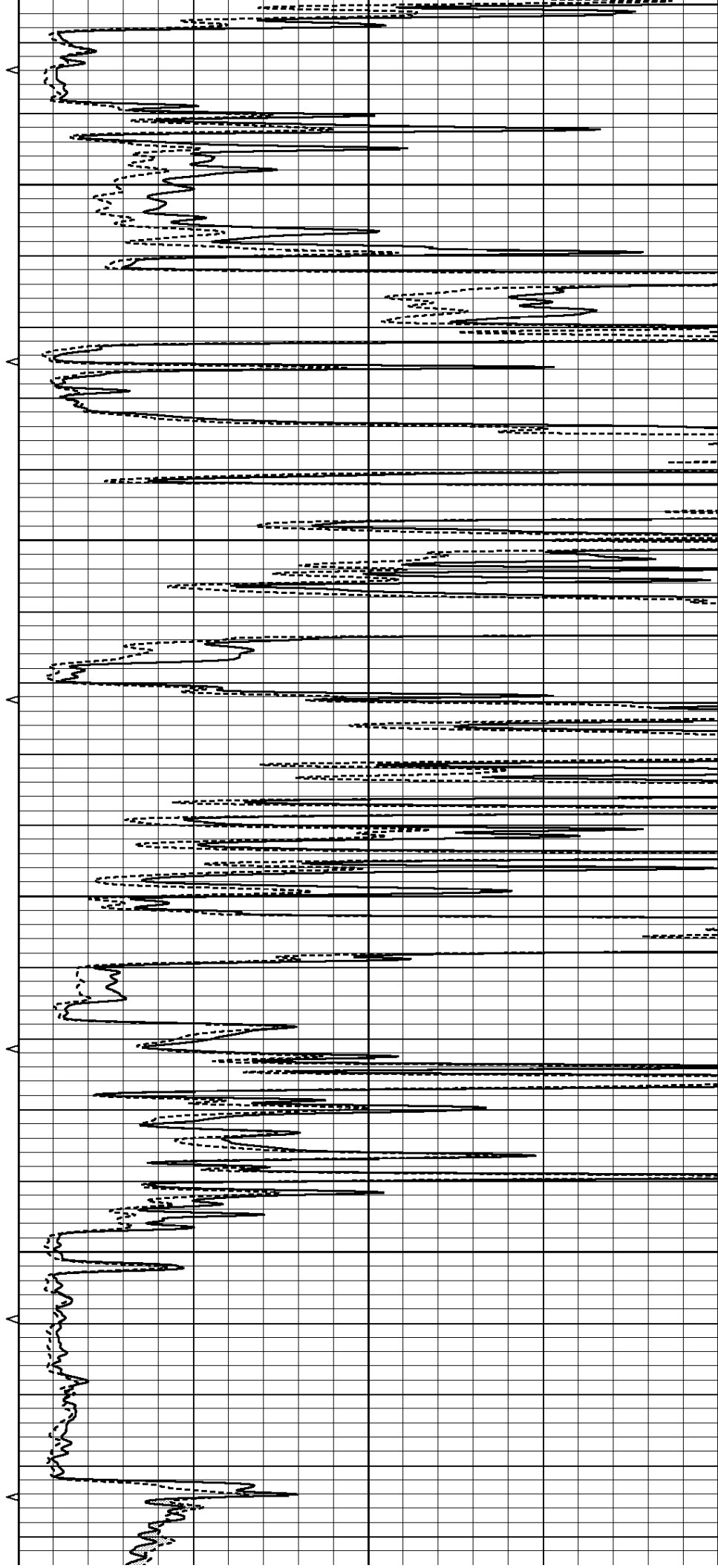


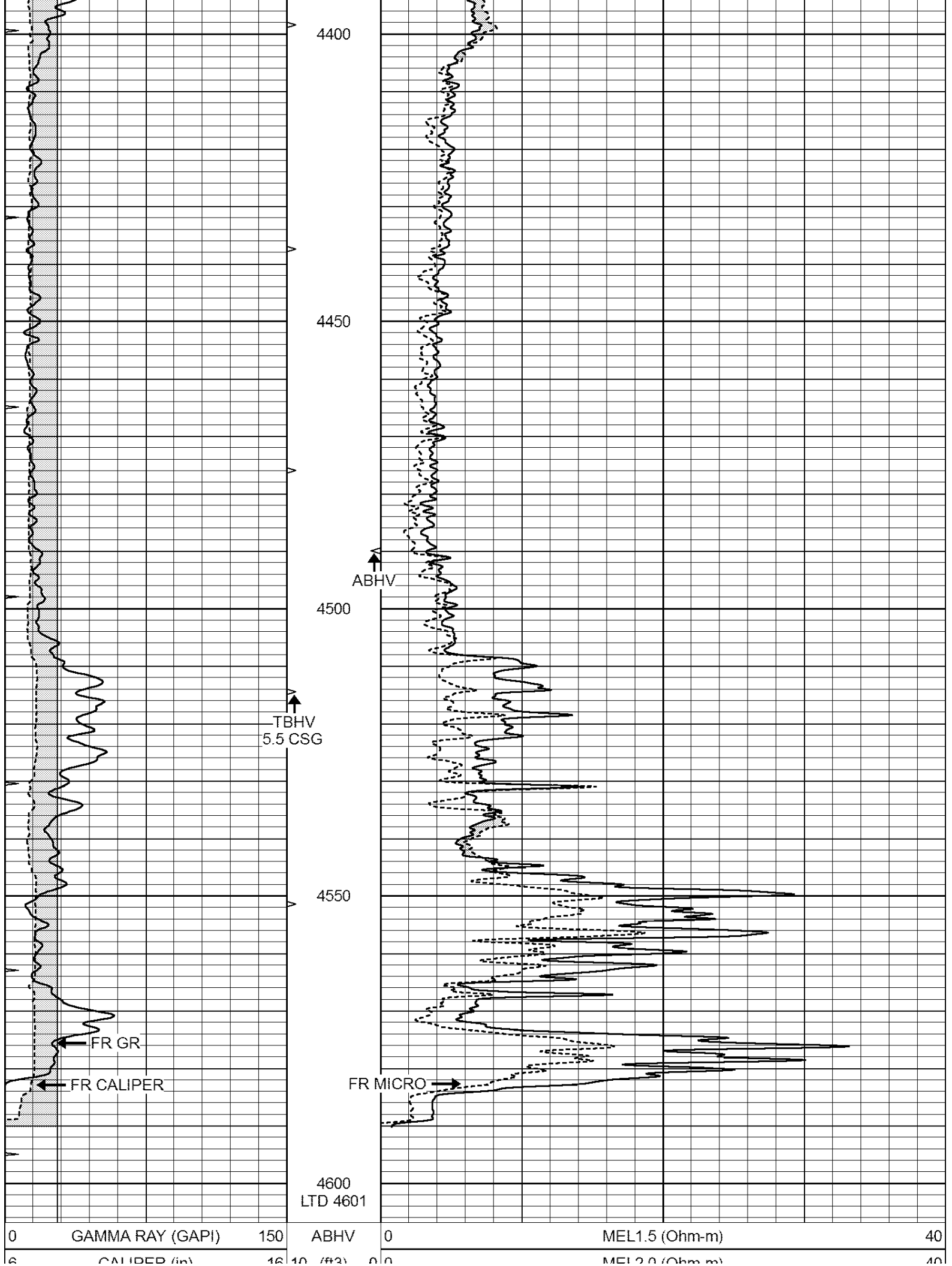
4200

4250

4300

4350







|              |       |          |          |                |    |
|--------------|-------|----------|----------|----------------|----|
| CALIPER (in) | 10    | 10 (ft3) | 0 0      | MEL2.0 (Ohm-m) | 40 |
| 0            | MINMK | 20       | TBHV     |                |    |
|              |       | 0        | (ft3) 10 |                |    |

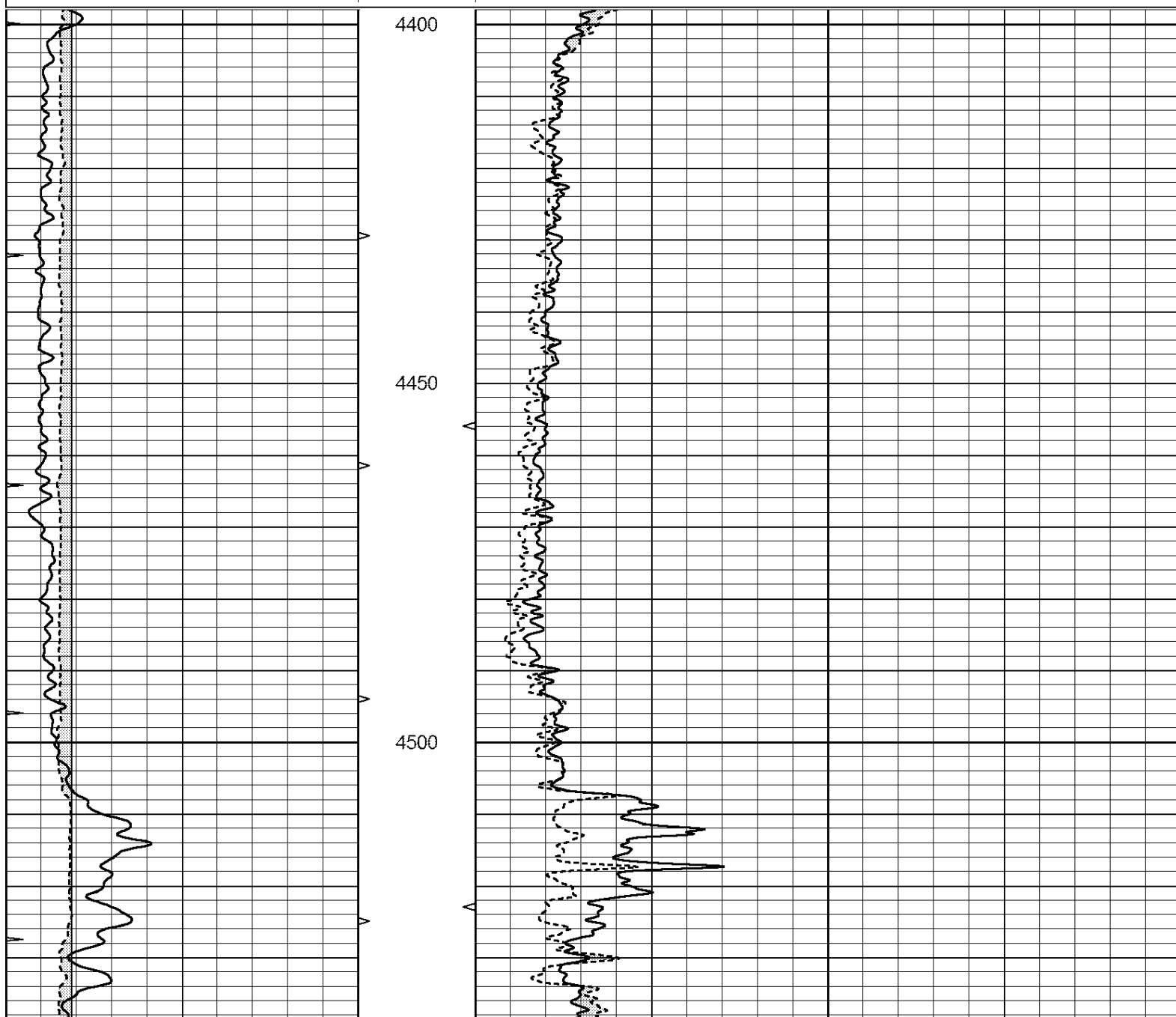


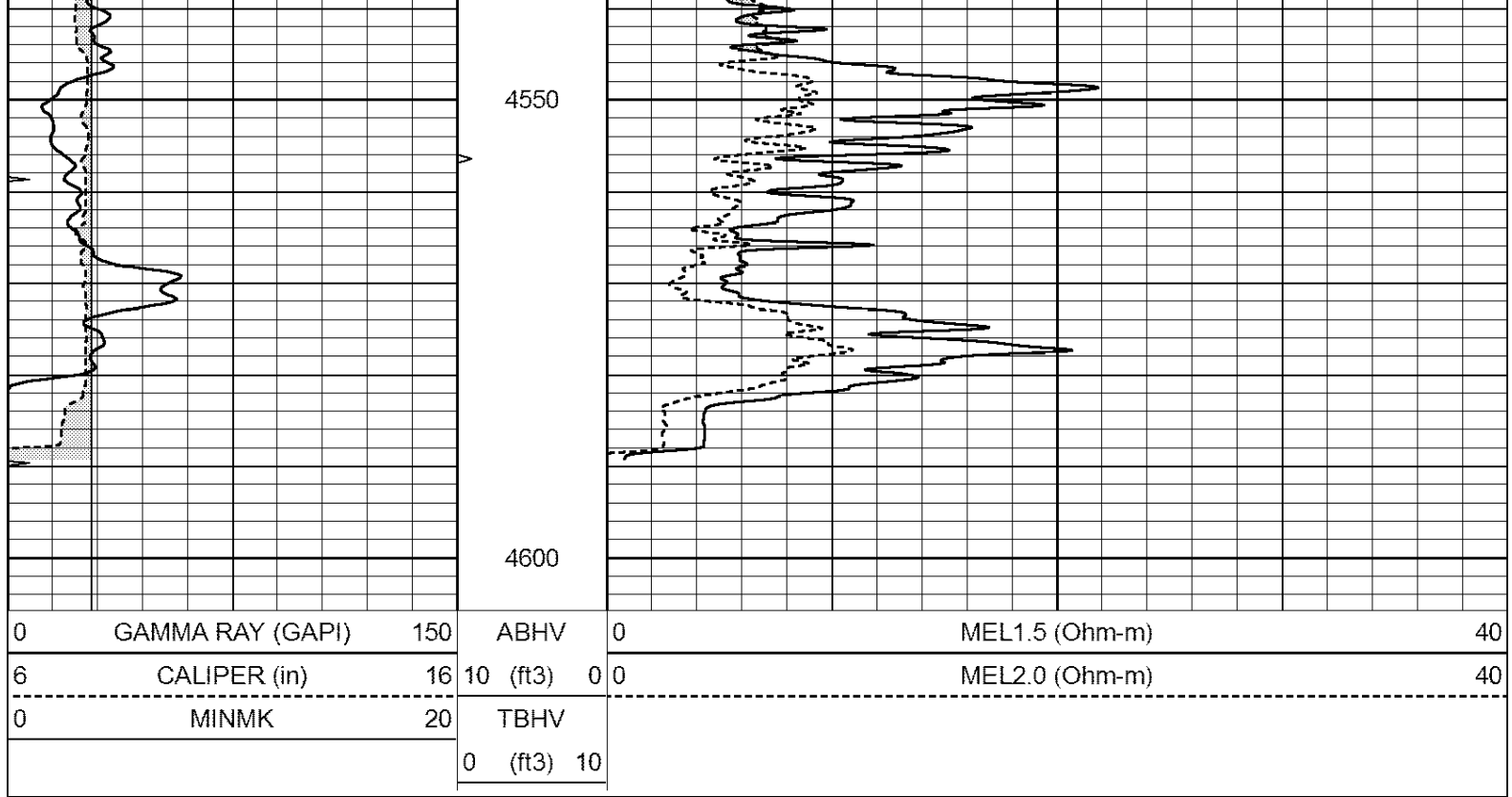
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# REPEAT SECTION

Database File: 26224ddn.db  
Dataset Pathname: pass5.1  
Presentation Format: \_micro  
Dataset Creation: Thu Nov 06 08:57:22 2014 by Calc Open-Cased 090629  
Charted by: Depth in Feet scaled 1:240

|   |                  |     |            |   |                |    |
|---|------------------|-----|------------|---|----------------|----|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV       | 0 | MEL1.5 (Ohm-m) | 40 |
| 6 | CALIPER (in)     | 16  | 10 (ft3) 0 | 0 | MEL2.0 (Ohm-m) | 40 |
| 0 | MINMK            | 20  | TBHV       |   |                |    |
|   |                  | 0   | (ft3) 10   |   |                |    |





| Calibration Report           |                                                    |               |  |
|------------------------------|----------------------------------------------------|---------------|--|
| Database File:               | 26224ddn.db                                        |               |  |
| Dataset Pathname:            | pass6.1                                            |               |  |
| Dataset Creation:            | Thu Nov 06 09:29:04 2014 by Calc Open-Cased 090629 |               |  |
| MICRO Calibration Report     |                                                    |               |  |
| Serial Number:               | MICRO3                                             |               |  |
| Tool Model:                  | PROBE                                              |               |  |
| Performed:                   | Thu Nov 17 03:06:31 2011                           |               |  |
| Caliper Calibration:         | Gain=3.916                                         | Offset=-9.771 |  |
|                              | Low Cal                                            | High Cal      |  |
| References                   | 8.000                                              | 14.000        |  |
| Readings                     | 4.257                                              | 5.789         |  |
| 1.5" Calibration:            | Gain=130.000                                       | Offset=0.800  |  |
|                              | Low Cal                                            | High Cal      |  |
| References                   | 0.000                                              | 20.000        |  |
| Readings                     | 0.004                                              | 0.228         |  |
| 2" Calibration:              | Gain=200.553                                       | Offset=-1.220 |  |
|                              | Low Cal                                            | High Cal      |  |
| References                   | 0.000                                              | 20.000        |  |
| Readings                     | 0.005                                              | 0.175         |  |
| Gamma Ray Calibration Report |                                                    |               |  |
| Serial Number:               | GR6                                                |               |  |
| Tool Model:                  | OPEN                                               |               |  |
| Performed:                   | Sun Aug 17 15:23:09 2014                           |               |  |
| Calibrator Value:            | 150.0                                              | GAPI          |  |
| Background Reading:          | 0.0                                                | cps           |  |
| Calibrator Reading:          | 276.0                                              | cps           |  |

Sensitivity:

0.7000

GAPI/cps