SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

# MICRO LOG

| | |
|---|---|
| Company | CAERUS KANSAS, LLC. |
| Well | HOFFMAN #18-34 |
| Field | DECEPTION CREEK |
| County | BARTON |
| State | KANSAS |

Company CAERUS KANSAS, LLC.

Well HOFFMAN #18-34

Field DECEPTION CREEK

County BARTON State KANSAS

Location: API # : 15-009-25718-0000

1050' FSL & 1403' FEL
NE - NE - SW - SE
SEC 18 TWP 17S RGE 13W

Other Services
CDL/CNL
DIL/SONIC

Permanent Datum GROUND LEVEL Elevation 1922
Log Measured From KELLY BUSHING 13' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1935
D.F. 1933
G.L. 1922

| | | | | |
|---|---|---|---|---|
| Date | 7/30/12 | | | |
| Run Number | TWO | | | |
| Depth Driller | 3520 | | | |
| Depth Logger | 3518 | | | |
| Bottom Logged Interval | 3496 | | | |
| Top Log Interval | 2700 | | | |
| Casing Driller | 8 5/8"@845' | | | |
| Casing Logger | 846 | | | |
| Bit Size | 7 7/8" | | | |
| Type Fluid in Hole | CHEMICAL MUD | CHLORIDES 5,000 PPM | | |
| Density / Viscosity | 8.9/52 | | | |
| pH / Fluid Loss | 11.0/8.8 | | | |
| Source of Sample | FLOWLINE | | | |
| Rm @ Meas. Temp | .400@100F | | | |
| Rmf @ Meas. Temp | .300@100F | | | |
| Rmc @ Meas. Temp | .480@100F | | | |
| Source of Rmf / Rmc | MEASUREMENT | | | |
| Rm @ BHT | .357@112F | | | |
| Time Circulation Stopped | 3.5 HOURS | | | |
| Time Logger on Bottom | 3:00 P.M. | | | |
| Maximum Recorded Temperature | 112F | | | |
| Equipment Number | 4010 | | | |
| Location | HAYS, KANSAS | | | |
| Recorded By | JEFF LUEBBERS | | | |
| Witnessed By | ROGER FISHER | BRIAN KARLIN | | |

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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 SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS
RUSSELL, KS. & I-70, S. ON HWY 281 TO "RD. 150", 2E., 1S. TO "140", W. INTO

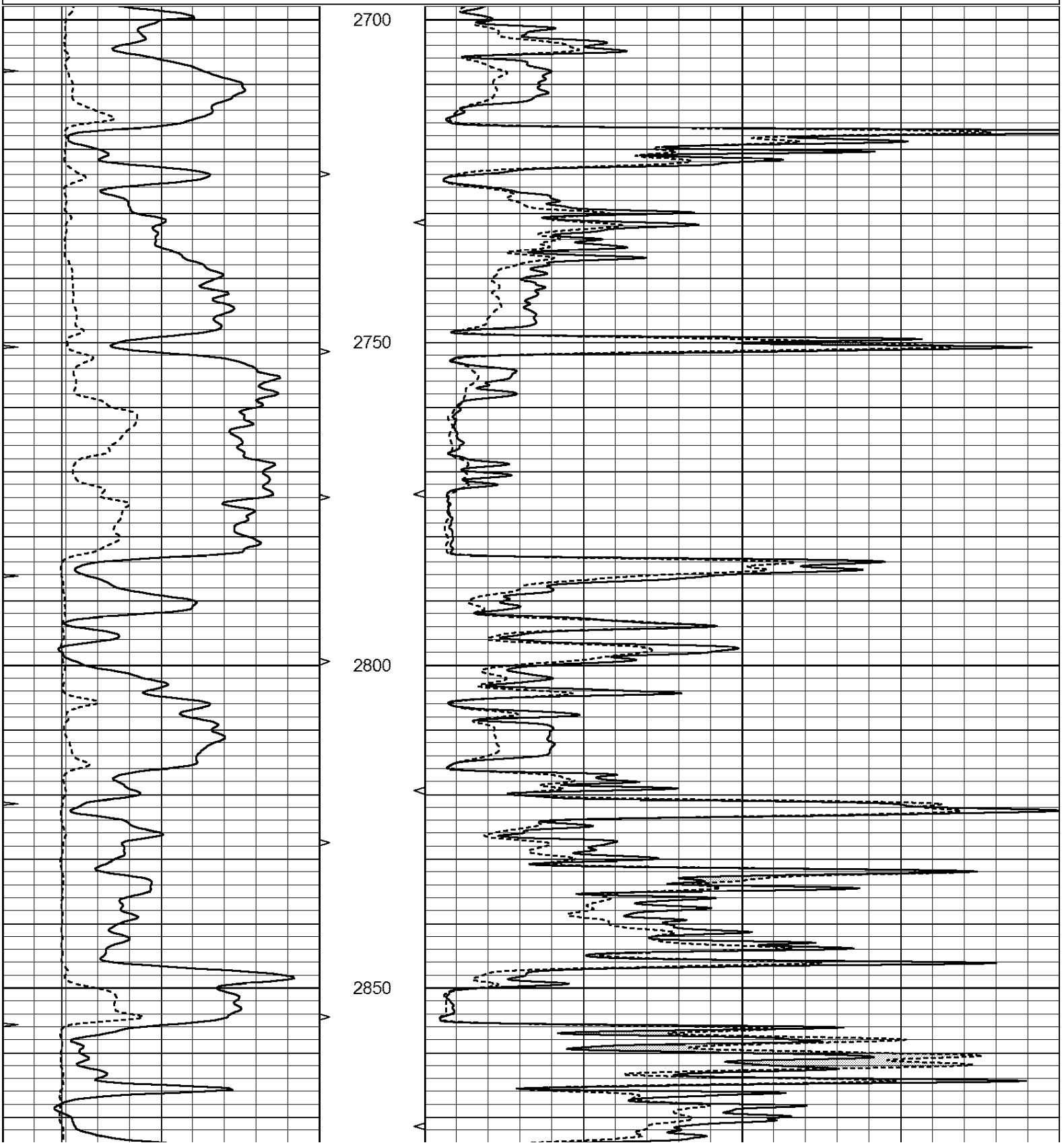
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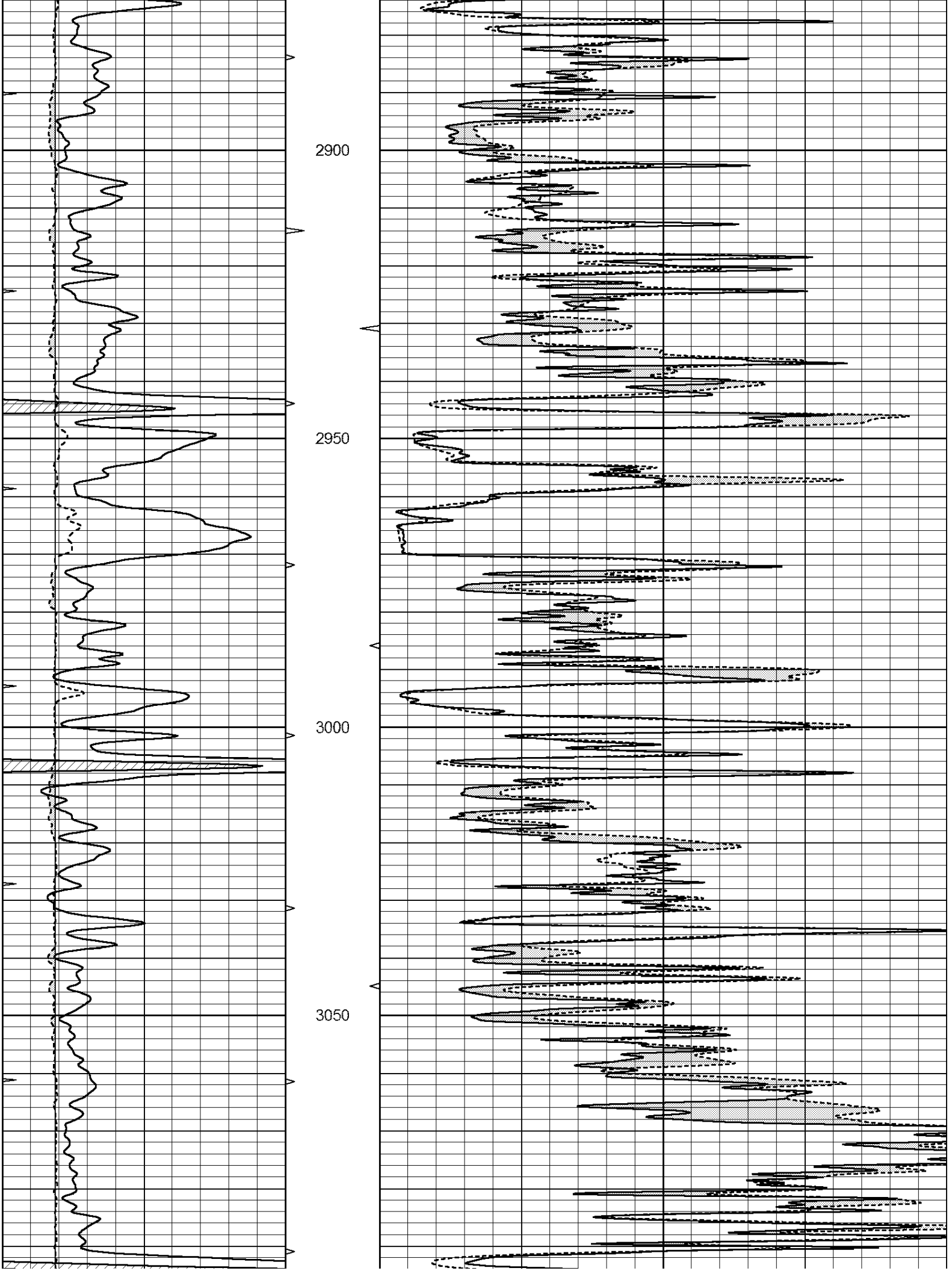
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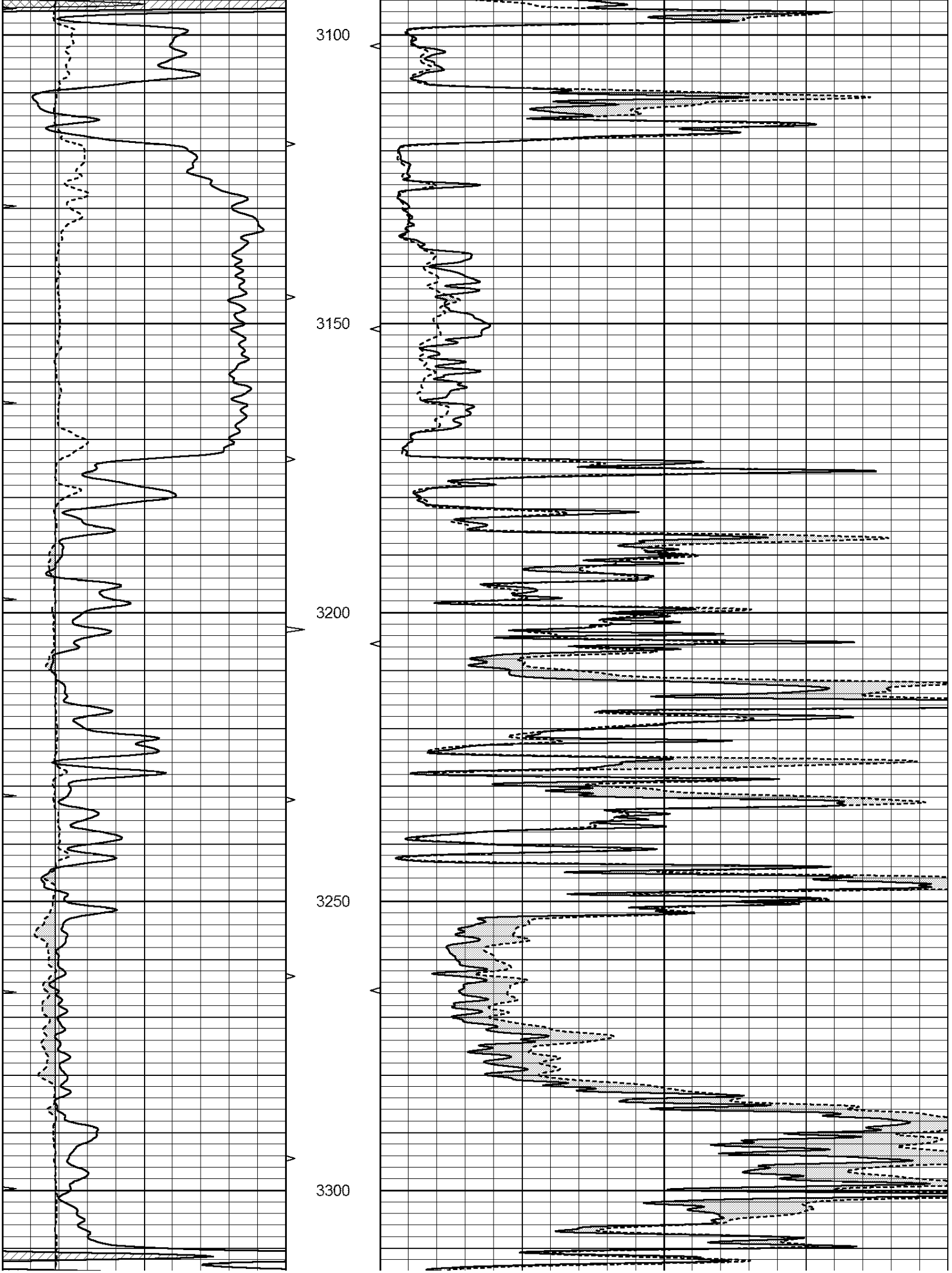
# MAIN SECTION

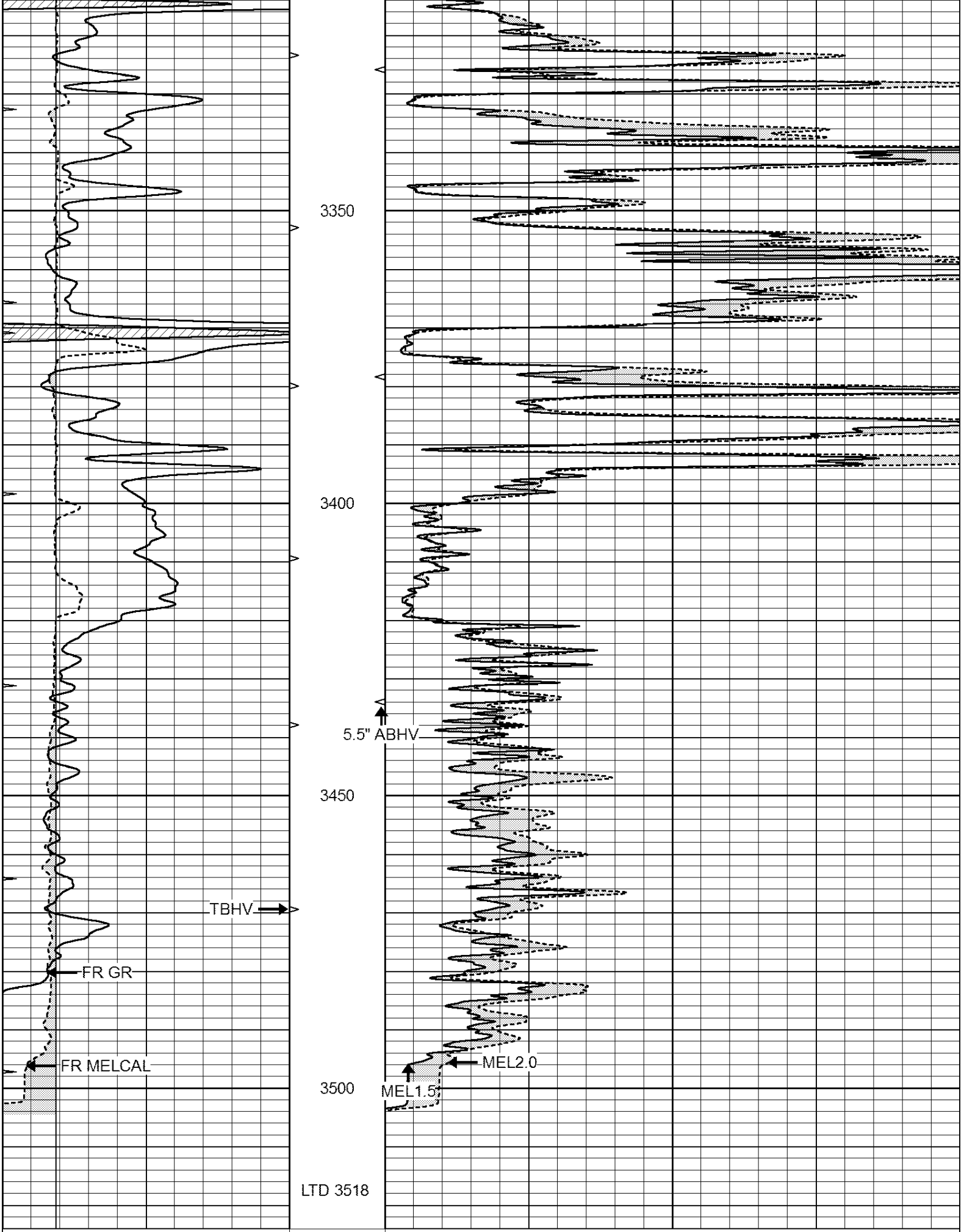
| | |
|---|---|
| Database File: | 409442ddn.db |
| Dataset Pathname: | pass7.3 |
| Presentation Format: | micro |
| Dataset Creation: | Mon Jul 30 18:16:24 2012 |
| Charted by: | Depth in Feet scaled 1:240 |

| | | | | | |
|---|---|---|---|---|---|
| 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 | | | |




2900
2950
3000
3050


3100
3150
3200
3250
3300


3350
3400
5.5" ABHV
3450
TBHV
FR GR
FR MELCAL
3500
MEL1.5
MEL2.0
LTD 3518
0 GAMMA RAY (GAPI) 150
6 CALIPER (in) 16
ABHV
10 (ft3) 0
0 MEL1.5 (Ohm-m) 40
0 MEL2.0 (Ohm-m) 40

| | | | | | |
|---|---|---|---|---|---|
| 0 | MINMK | 20 | TBHV | | |
| | | | 0 (ft3) 10 | | |

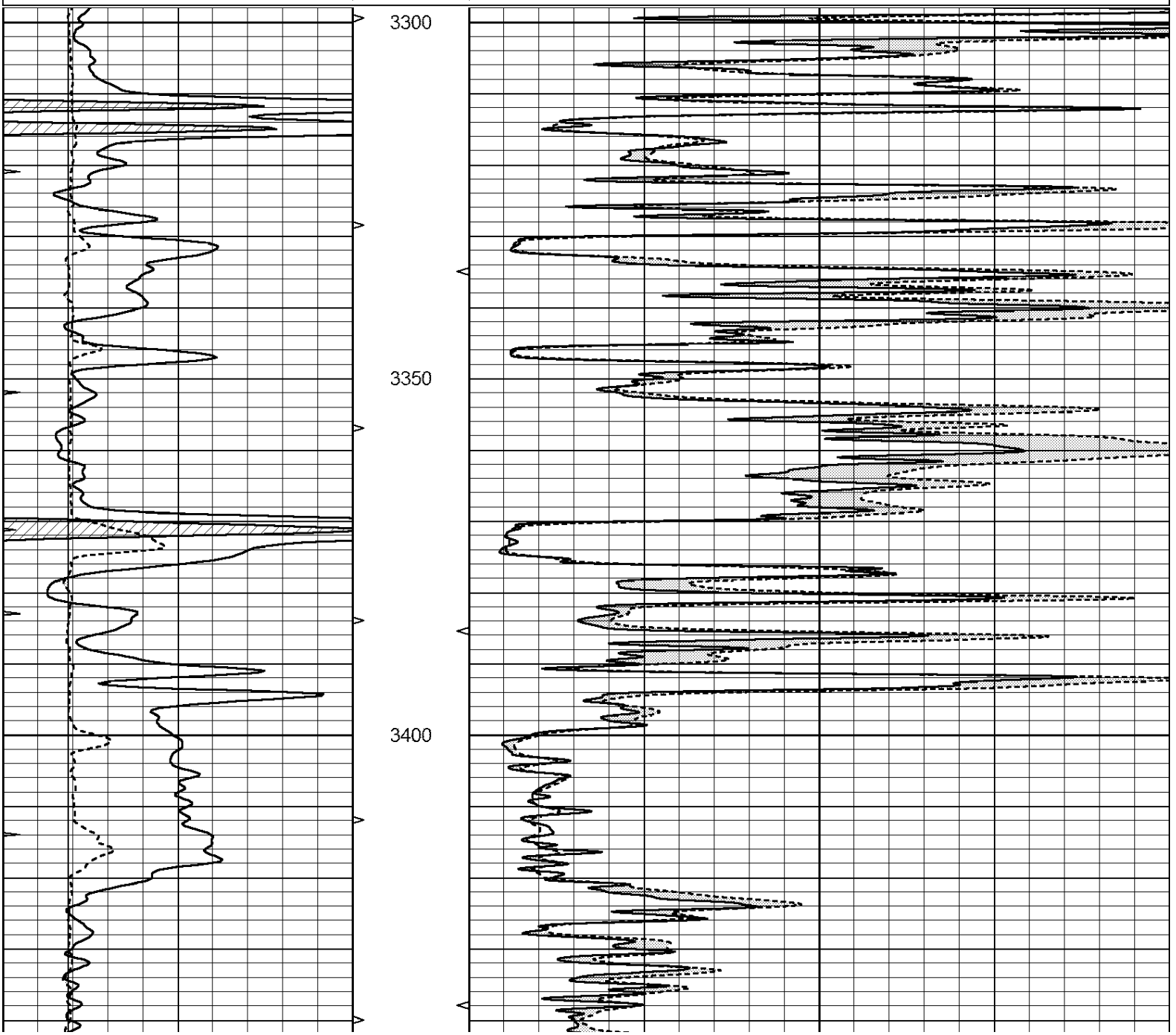
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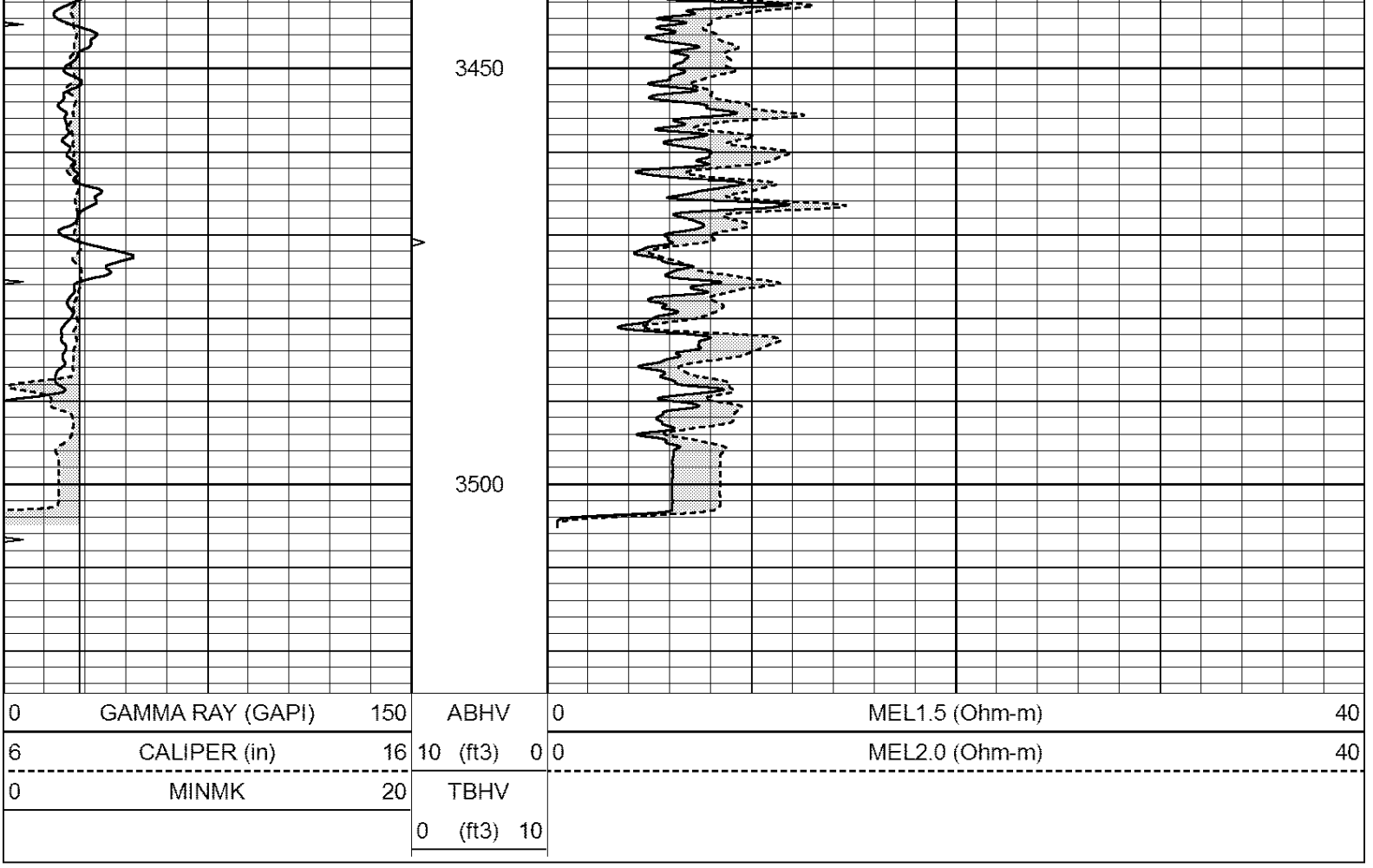
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# REPEAT SECTION

| | |
|---|---|
| Database File: | 409442ddn.db |
| Dataset Pathname: | pass6.4 |
| Presentation Format: | micro |
| Dataset Creation: | Mon Jul 30 17:46:19 2012 |
| 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: 409442ddn.db
Dataset Pathname: pass7.3
Dataset Creation: Mon Jul 30 18:16:24 2012

### MICRO Calibration Report

| | | |
|---|---|---|
| Serial Number: | MICRO5 | |
| Tool Model: | PROBE | |
| Performed: | Mon Jul 30 17:41:30 2012 | |
| Caliper Calibration: | Gain=3.522 | Offset=-6.187 |
| | Low Cal | High Cal |
| References | 7.900 | 16.000 |
| Readings | 4.000 | 6.300 |
| 1.5" Calibration: | Gain=38.000 | Offset=-0.500 |
| | Low Cal | High Cal |
| References | 0.000 | 20.000 |
| Readings | -0.002 | 0.981 |
| 2" Calibration: | Gain=42.000 | Offset=-0.500 |
| | Low Cal | High Cal |
| References | 0.000 | 20.000 |
| Readings | 0.002 | 0.898 |

### Gamma Ray Calibration Report

| | |
|---|---|
| Serial Number: | GR4 |
| Tool Model: | OPEN |
| Performed: | Sun Jul 29 13:25:01 2012 |

| | | |
|---|---|---|
| Calibrator Value: | 200.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 189.0 | cps |
| Sensitivity: | 2.2000 | GAPI/cps |