



SUPERIOR
Hays,
Kansas

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company MID-CONTINENT ENERGY
Well #1-21 BAHM UNIT
Field WILDCAT
County LANE
State KANSAS

Company MID - CONTINENT ENERGY OPERATING, CO.
Well #1-21 BAHM UNIT
Field WILDCAT
County LANE State KANSAS

Location: API # : 15-101-22271-0000
2428' FSL & 1255' FEL
SEC 21 TWP 19S RGE 27W
Permanent Datum GROUND LEVEL Elevation 2710
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services DIL/MEL
Elevation K.B. 2718
D.F. 2716
G.L. 2710

| | | | |
|------------------------------|---------------|---------------------|--|
| Date | 1/4/11 | | |
| Run Number | ONE | | |
| Depth Driller | 4700 | | |
| Depth Logger | 4700 | | |
| Bottom Logged Interval | 4676 | | |
| Top Log Interval | 3800 | | |
| Casing Driller | 8 5/8" @ 311' | | |
| Casing Logger | 311 | | |
| Bit Size | 7 7/8" | | |
| Type Fluid in Hole | CHEMICAL MUD | CHLORIDES 2,300 PPM | |
| Density / Viscosity | 9.5/52 | | |
| pH / Fluid Loss | 9.5/6.4 | | |
| Source of Sample | FLOWLINE | | |
| Rin @ Meas. Temp | .950 @ 82F | | |
| Rmf @ Meas. Temp | .713 @ 82F | | |
| Rmc @ Meas. Temp | 1.14 @ 82F | | |
| Source of Rmf / Rmc | MEASUREMENT | | |
| Rin @ BHT | .639 @ 122F | | |
| Time Circulation Stopped | 3 HOURS | | |
| Time Logger on Bottom | 3:00 A.M. | | |
| Maximum Recorded Temperature | 122F | | |
| Equipment Number | 0836 | | |
| Location | HAYS, KANSAS | | |
| Recorded By | JEFF LUEBBERS | | |
| Witnessed By | KEVIN KESSLER | | |

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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
ALAMOTA, KS. (HWY 96 & TURKEY RED RD.) 6 1/2S., W. INTO

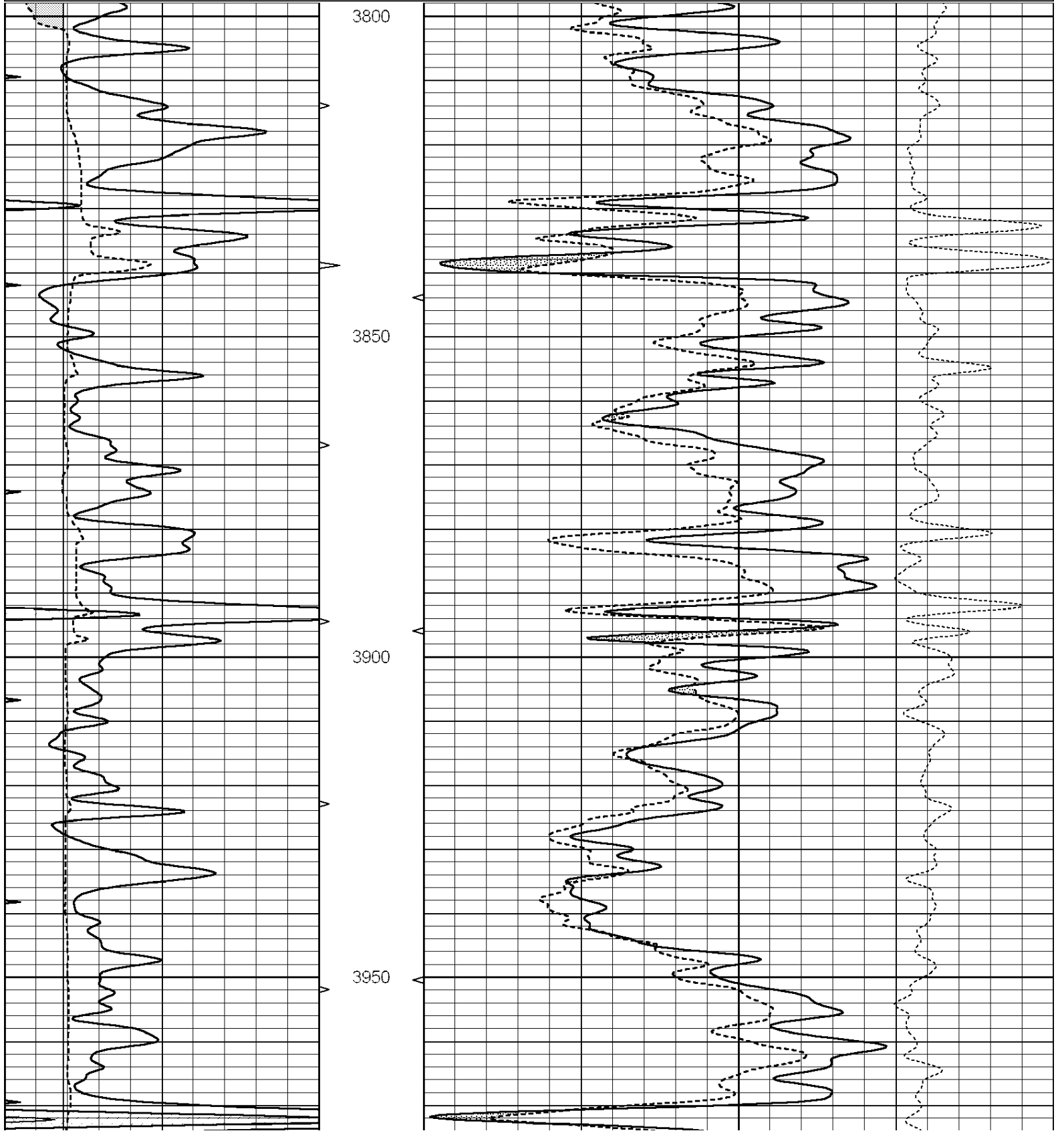


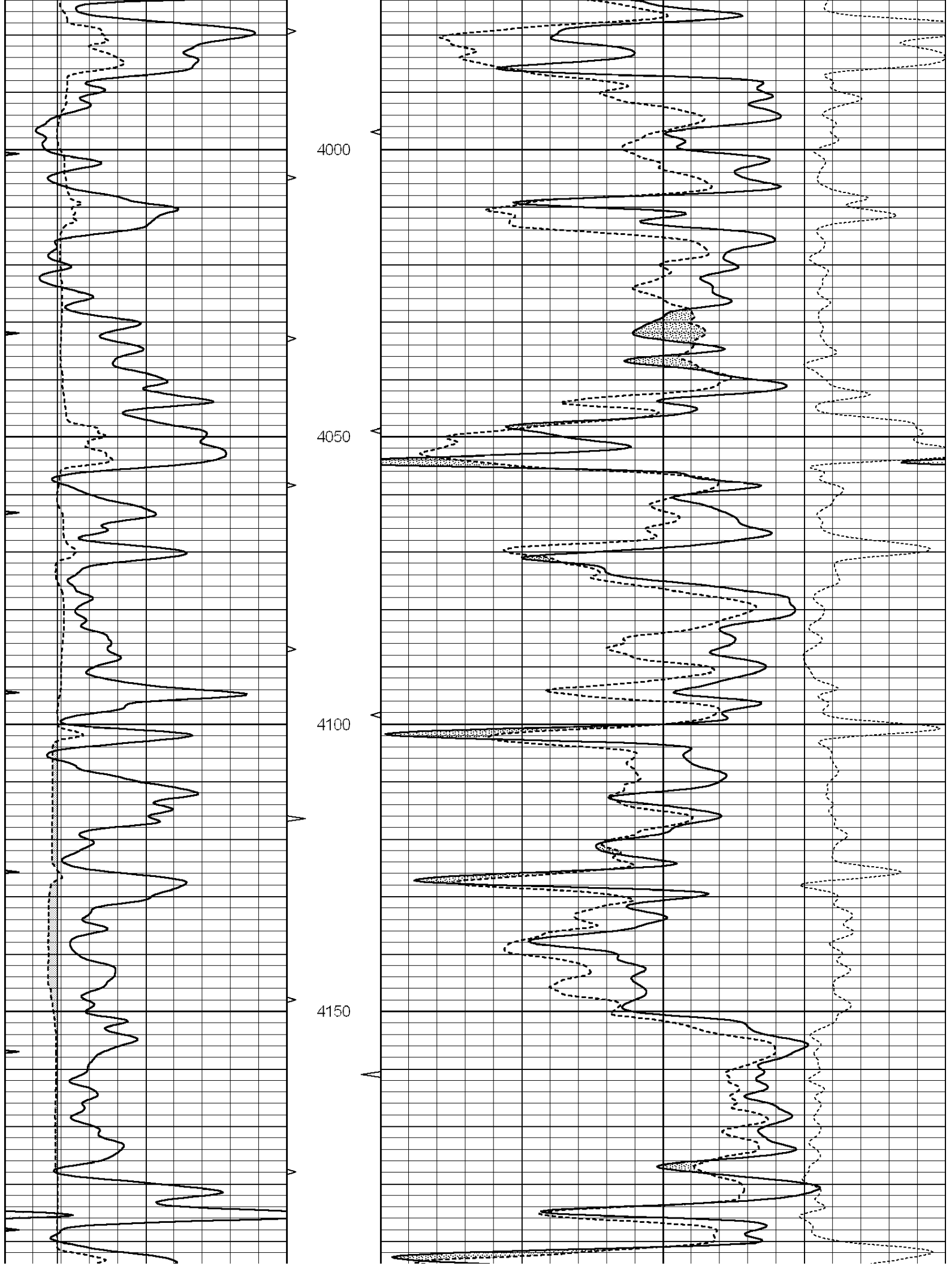
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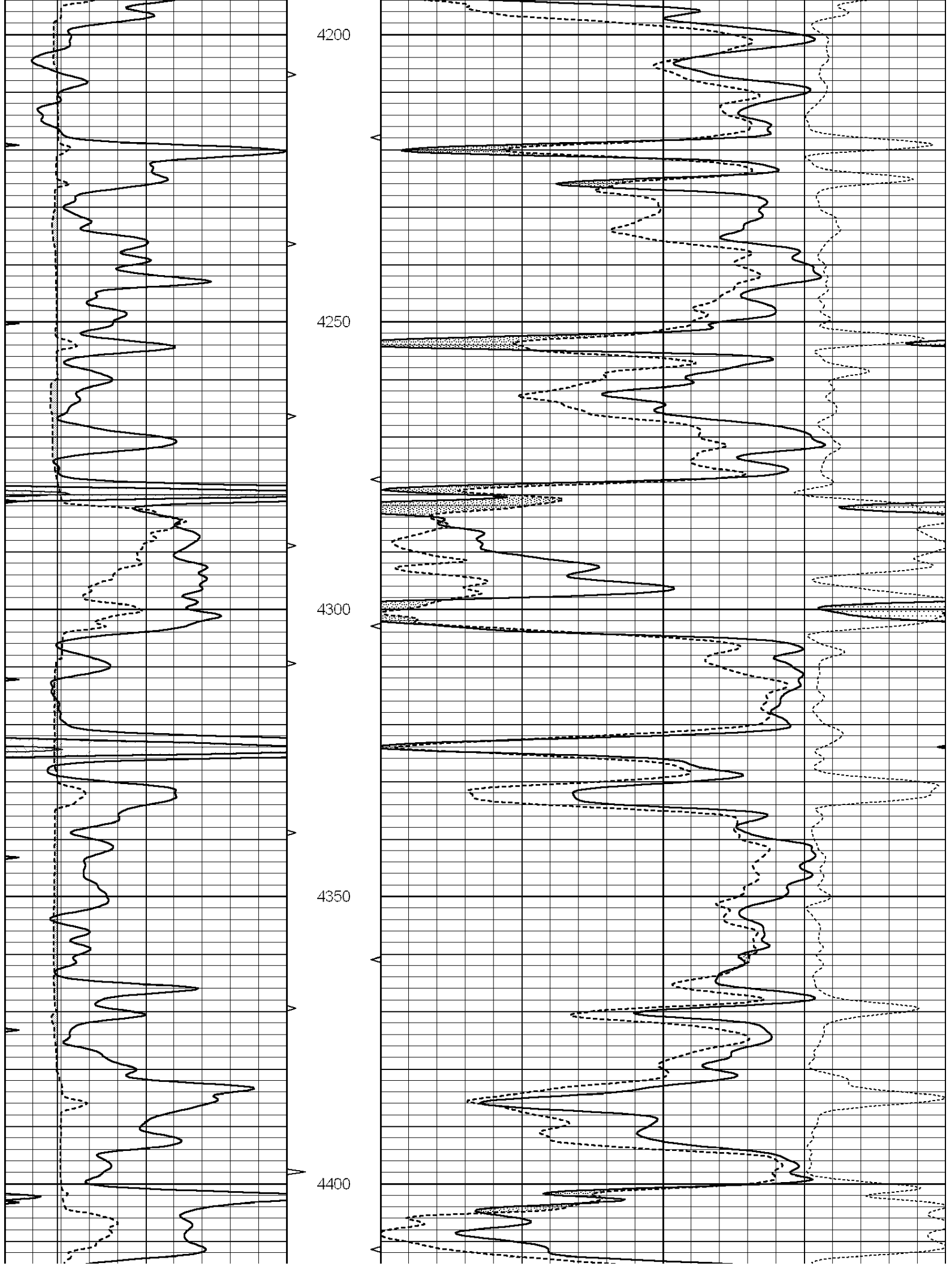
MAIN SECTION

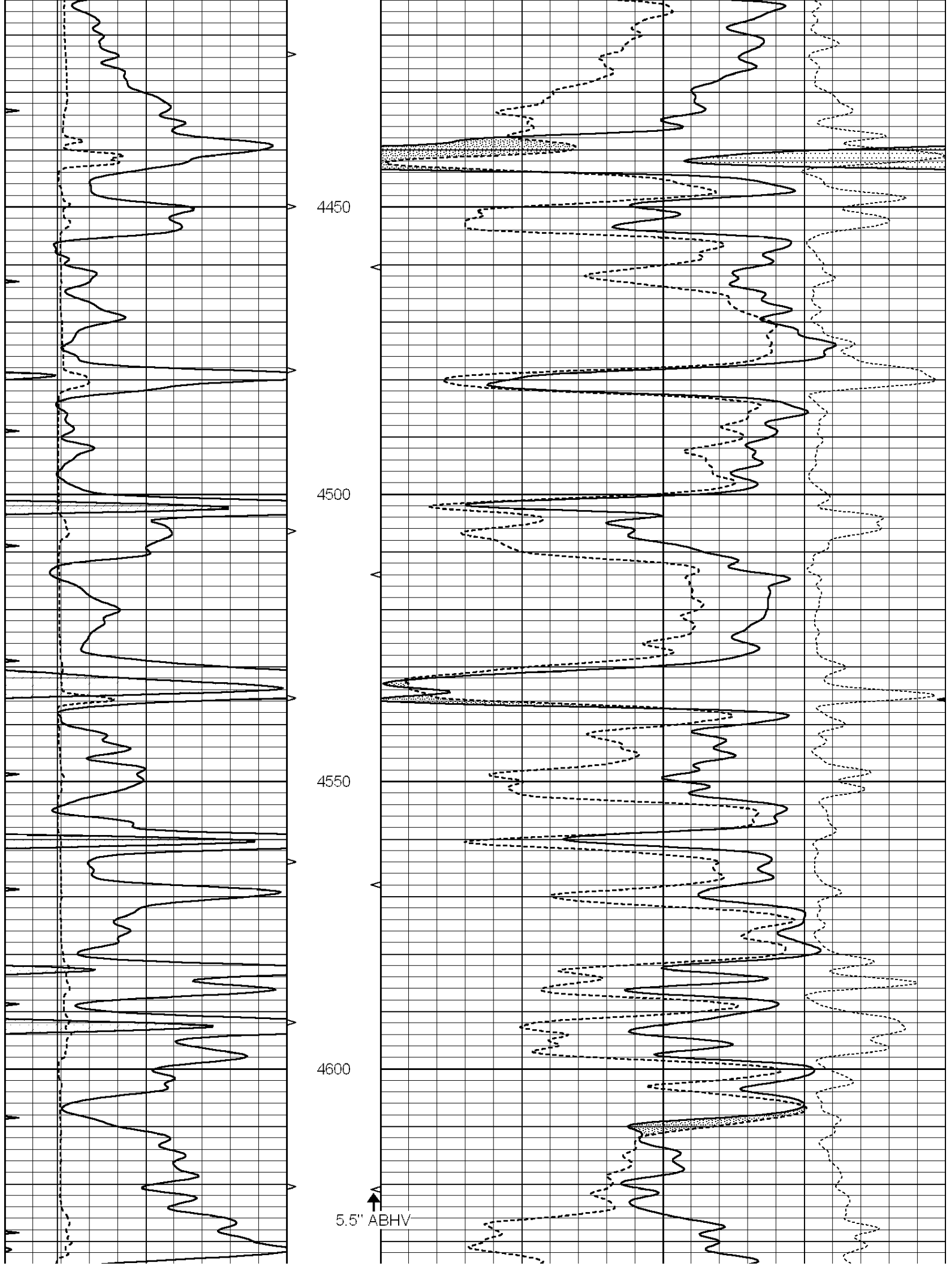
Database File: 006263ddn.db
 Dataset Pathname: pass3.6
 Presentation Format: den_neu
 Dataset Creation: Tue Jan 04 03:55:07 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

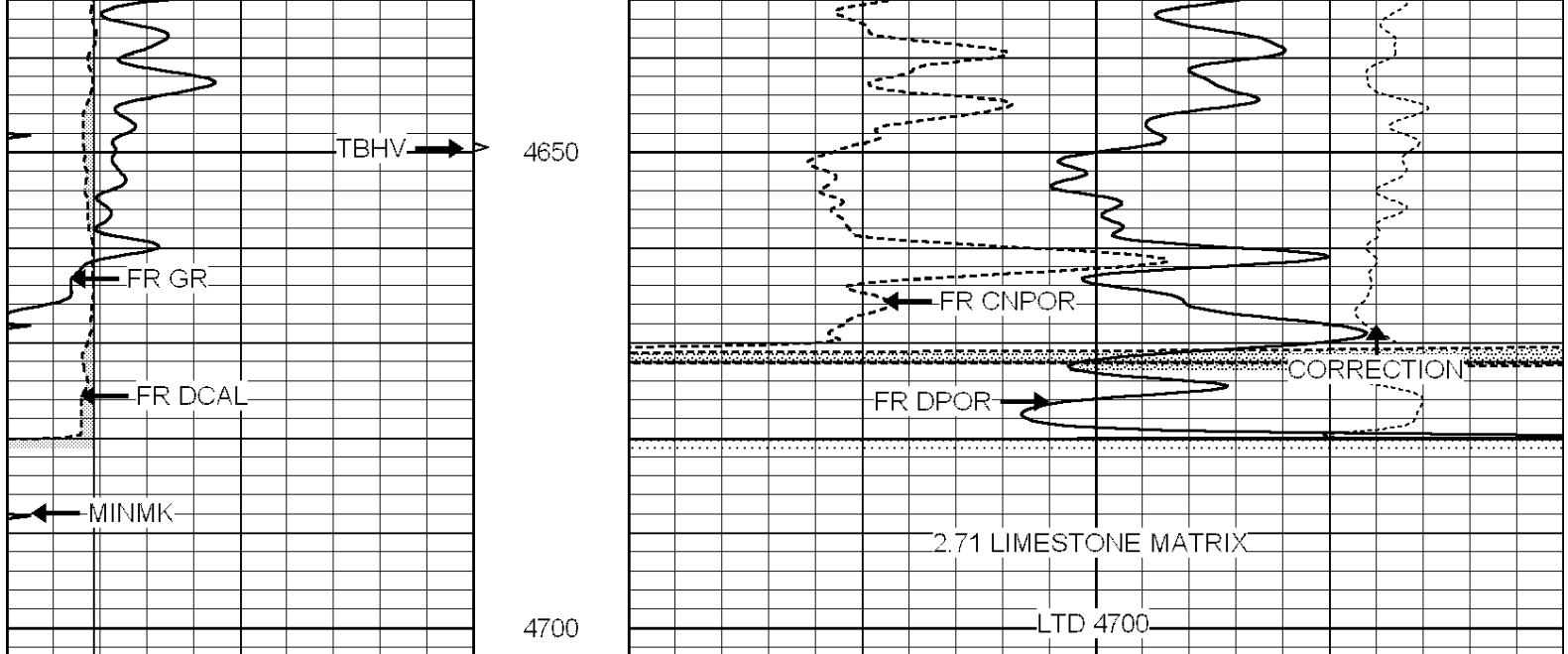
| | | | | | | |
|---|------------------|-----|----------|------|--------------------------|------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | -10 |
| 6 | CALIPER (in) | 16 | 10 (ft3) | 0 30 | COMPENSATED NEUTRON (pu) | -10 |
| 0 | MINMK | 20 | TBHV | | -0.25 CORRECTION (g/cc) | 0.25 |
| | | | 0 (ft3) | 10 | | |











| | | | | | | |
|---|------------------|-----|----------|------|--------------------------|------------------------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | -10 |
| 6 | CALIPER (in) | 16 | 10 (ft3) | 0 30 | COMPENSATED NEUTRON (pu) | -10 |
| 0 | MINMK | 20 | TBHV | | -0.25 | CORRECTION (g/cc) 0.25 |
| | | | 0 (ft3) | 10 | | |

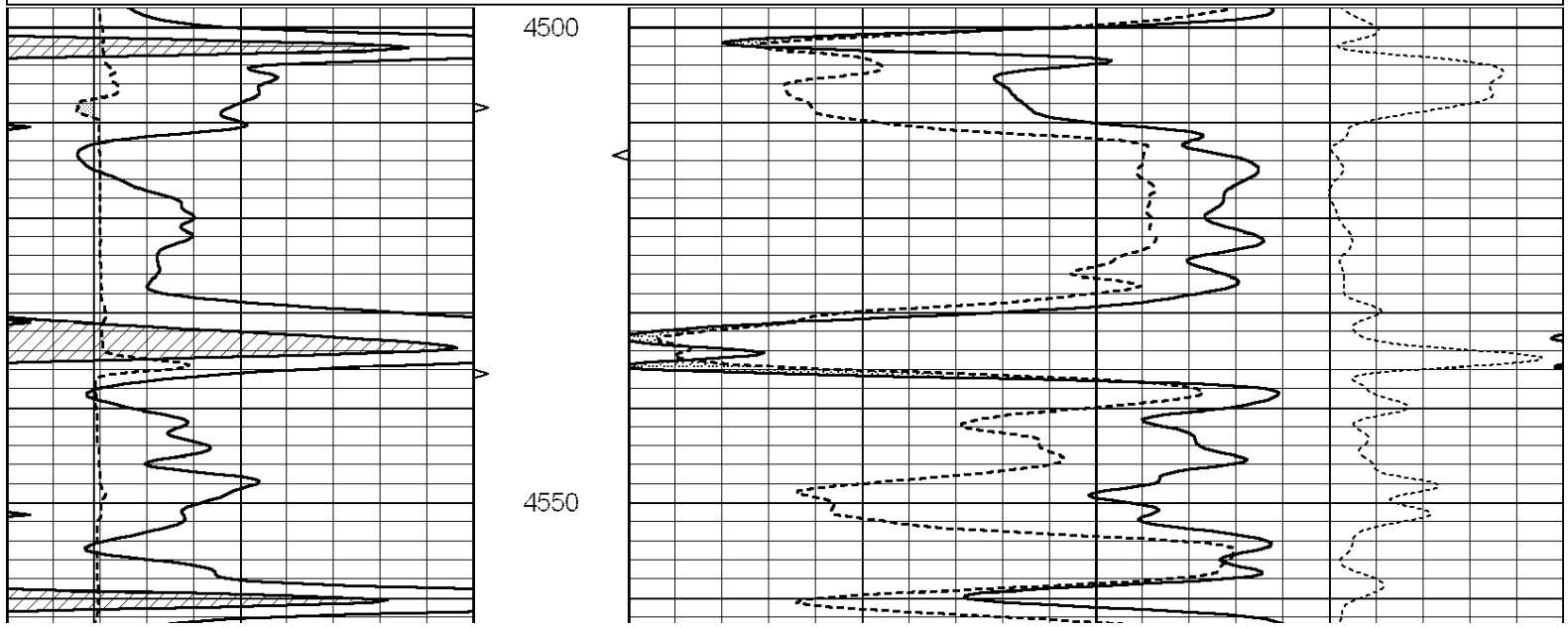


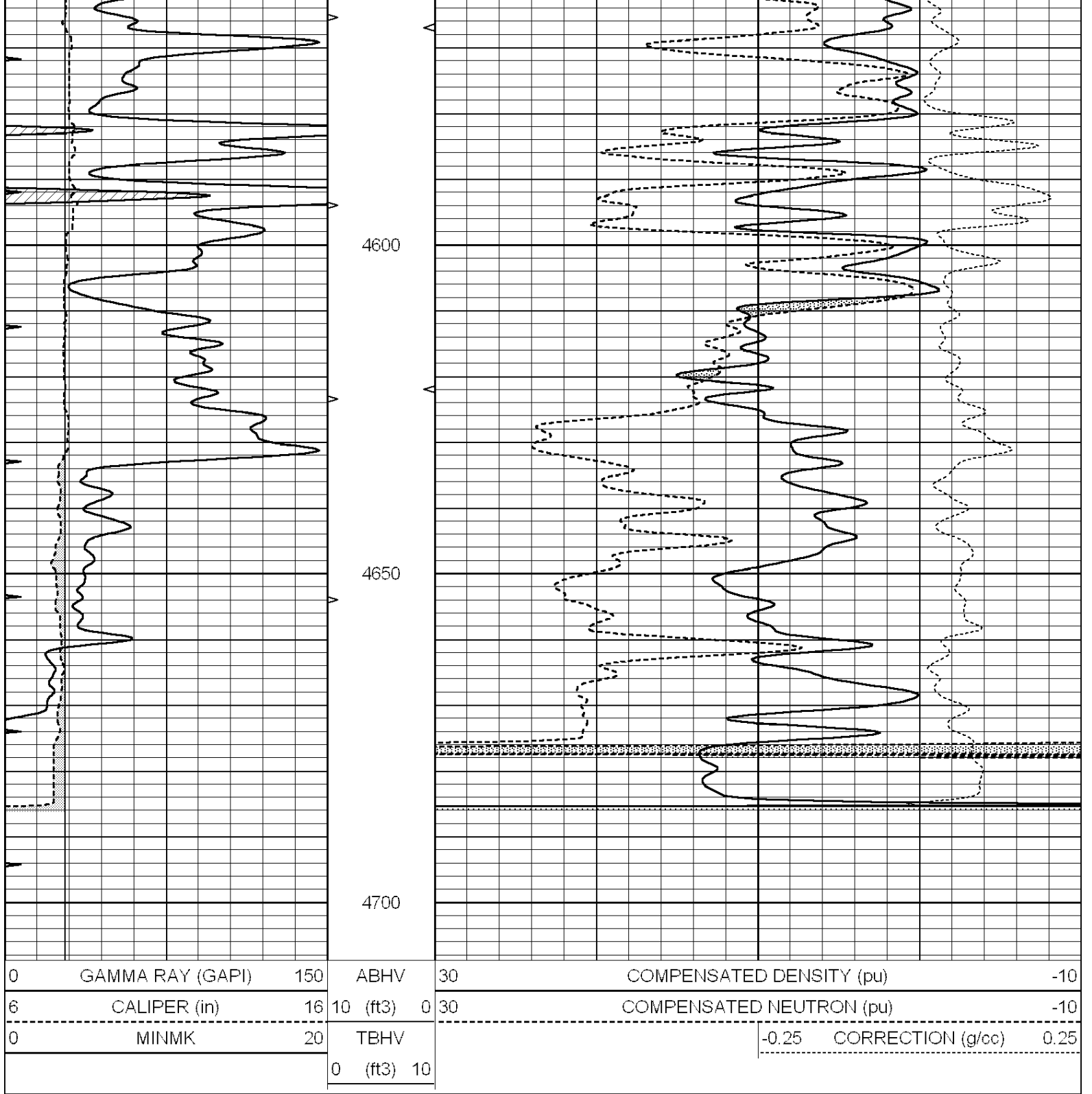
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REPEAT SECTION

Database File: 006263ddn.db
 Dataset Pathname: pass2.3
 Presentation Format: den_neu
 Dataset Creation: Tue Jan 04 03:58:23 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

| | | | | | | |
|---|------------------|-----|----------|------|--------------------------|------------------------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 30 | COMPENSATED DENSITY (pu) | -10 |
| 6 | CALIPER (in) | 16 | 10 (ft3) | 0 30 | COMPENSATED NEUTRON (pu) | -10 |
| 0 | MINMK | 20 | TBHV | | -0.25 | CORRECTION (g/cc) 0.25 |
| | | | 0 (ft3) | 10 | | |





Calibration Report

Database File: 006263ddn.db
 Dataset Pathname: pass3.6
 Dataset Creation: Tue Jan 04 03:55:07 2011 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
 Performed: Sun Jan 02 04:03:49 2011

| Readings | | | References | | | Results | | |
|----------|-------|-------|------------|-------|---------|---------|---------|-------|
| Loop: | Air | Loop | Air | Loop | | m | b | |
| Deep | 0.011 | 0.656 | V | 0.000 | 400.000 | mmho/m | 640.000 | 3.000 |

| | | | | | | | | |
|-----------|-------|-------|---|-------|---------|--------|---------|---------|
| Deep | 0.013 | 0.740 | V | 0.000 | 462.500 | mmho/m | 700.000 | -15.000 |
| Medium | | | | | | | | |
| Internal: | Zero | Cal | | Zero | Cal | | m | b |
| Deep | 0.002 | 0.645 | V | 0.000 | 400.000 | mmho/m | 622.059 | -1.071 |
| Medium | 0.007 | 0.740 | V | 0.000 | 462.500 | mmho/m | 631.393 | -4.555 |

Litho Density Calibration Report
Serial: 003N Model: PRB
Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

| | Background | Magnesium | Aluminum | Sandstone | |
|-------------|------------|-------------|----------|---------------------|---------|
| Window 1 | 2042.6 | 12312.8 | 4225.8 | 13758.4 | cps |
| Window 2 | 1855.8 | 10134.7 | 3624.2 | 11113.1 | cps |
| Window 3 | 1639.4 | 6760.2 | 2716.3 | 7260.3 | cps |
| Window 4 | 466.4 | 469.2 | 466.1 | 476.5 | cps |
| Long Space | 0.0 | 8278.9 | 1768.4 | 9257.4 | cps |
| Short Space | 2.2 | 2377.3 | 1544.1 | 2574.2 | cps |
| Rho | | 1.7100 | 2.5900 | 1.3800 | g/cc |
| Pe | | | 2.5700 | 1.5500 | |
| Rib Angle | : 44.4 | Rib Slope | : 0.979 | Density/Spine Ratio | : 0.549 |
| Spine Angle | : 74.4 | Spine Slope | : 3.577 | Spine Intercept | : -18.8 |

Caliper

| | Readings | Reference | |
|-----------|----------|-----------|-------------|
| Low Ref | 2.1 | 6.7 | |
| High Ref | 4.6 | 14.0 | |
| Gain: 3.0 | | | Offset: 0.6 |

Compensated Neutron Calibration Report

Serial Number: NEU_3I
Tool Model: G

CALIBRATION

| Detector | Readings | Target | Normalization |
|-------------|------------|-------------|---------------|
| Short Space | 997.00 cps | 1000.00 cps | 1.0000 |
| Long Space | 986.00 cps | 1000.00 cps | 1.0000 |

Gamma Ray Calibration Report

Serial Number: GR3
Tool Model: OPEN
Performed: Tue Jan 04 02:53:40 2011

Calibrator Value: 200.0 GAPI

Background Reading: 3.0 cps
Calibrator Reading: 186.0 cps

Sensitivity: 0.6500 GAPI/cps