



SUPERIOR  
Hays,  
Kansas

COMPENSATED  
DENSITY / NEUTRON  
LOG

Company BUFFALO RESOURCES, LLC.  
Well MOG #1-27  
Field WILDCAT  
County RUSSELL  
State KANSAS

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Field WILDCAT  
County RUSSELL State KANSAS

Location: API # : 15-167-23568-0000  
340' FSL & 830' FWL  
SW/4  
SEC 27 TWP 15S RGE 11W  
Permanent Datum GROUND LEVEL Elevation 1795  
Log Measured From KELLY BUSHING 8' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
DIL/MEL  
Elevation  
K.B. 1803  
D.F. 1801  
G.L. 1795

|                              |               |                     |  |
|------------------------------|---------------|---------------------|--|
| Date                         | 4/15/09       |                     |  |
| Run Number                   | CNE           |                     |  |
| Depth Driller                | 3320          |                     |  |
| Depth Logger                 | 3322          |                     |  |
| Bottom Logged Interval       | 3298          |                     |  |
| Top Log Interval             | 2200          |                     |  |
| Casing Driller               | 8 5/8"@421'   |                     |  |
| Casing Logger                | 420           |                     |  |
| Bit Size                     | 7 7/8         |                     |  |
| Type Fluid in Hole           | CHEMICAL MUD  | CHLORIDES 5,100 PPM |  |
| Density / Viscosity          | 9.0/65        |                     |  |
| pH / Fluid Loss              | 8.8/11.0      |                     |  |
| Source of Sample             | FLOWLINE      |                     |  |
| Rm @ Meas. Temp              | .800@72F      |                     |  |
| Rmf @ Meas. Temp             | .600@72F      |                     |  |
| Rmc @ Meas. Temp             | .960@72F      |                     |  |
| Source of Rmf / Rmc          | MEASUREMENT   |                     |  |
| Rm @ BHT                     | .524@110F     |                     |  |
| Time Circulation Stopped     | 2 HOURS       |                     |  |
| Time Logger on Bottom        | 6:00 P.M.     |                     |  |
| Maximum Recorded Temperature | 110F          |                     |  |
| Equipment Number             | 0836          |                     |  |
| Location                     | HAYS, KANSAS  |                     |  |
| Recorded By                  | JEFF LUEBBERS |                     |  |
| Witnessed By                 | CURTIS COVEY  | DARON PATTERSON     |  |

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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  
WILSON, KS. 7S. ON BLKTOP TO STICKNEY RD. (K AVE.) 2W., 1S., 3/4W., N. INTO

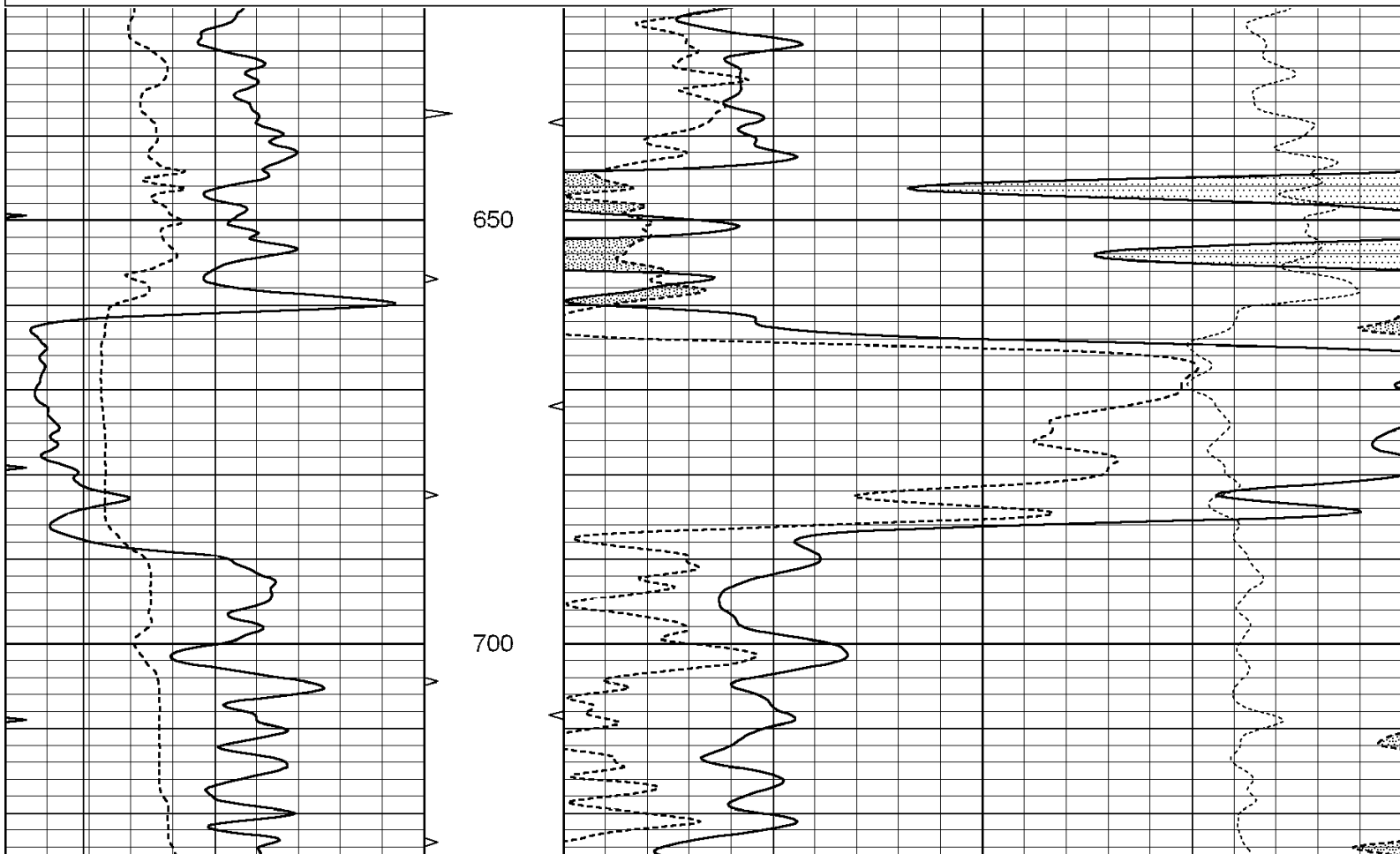


SUPERIOR  
Hays,  
Kansas

ANHYDRITE

Database File: 003258ddn.db  
 Dataset Pathname: pass3.3  
 Presentation Format: den\_neu  
 Dataset Creation: Wed Apr 15 19:28:52 2009 by Calc Open-Cased 060407  
 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 |    |                          |      |



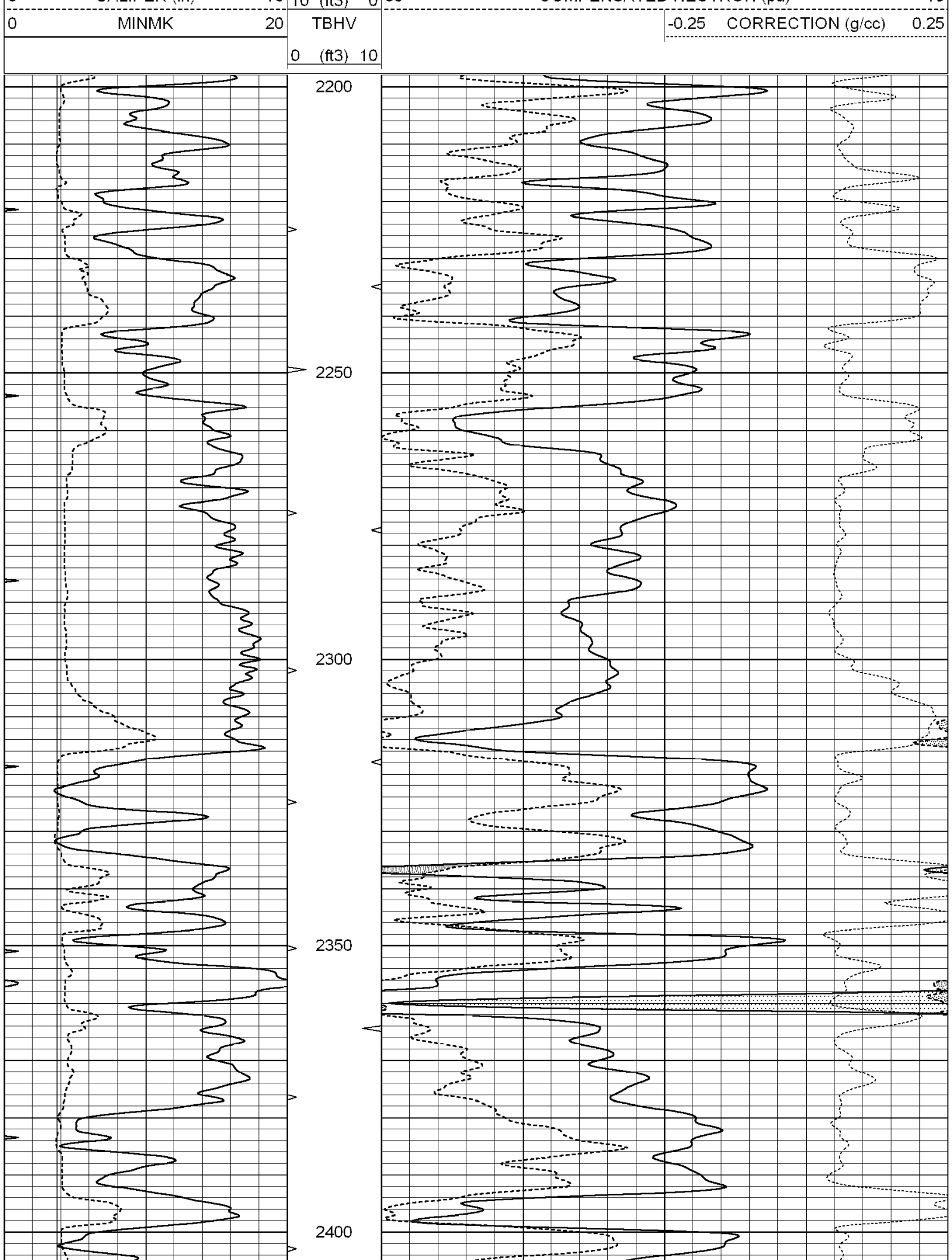
|   |                  |     |            |    |                          |      |
|---|------------------|-----|------------|----|--------------------------|------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV       | 30 | COMPENSATED DENSITY (pu) | -10  |
| 6 | CALIPER (in)     | 16  | 10 (ft3) 0 | 30 | COMPENSATED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

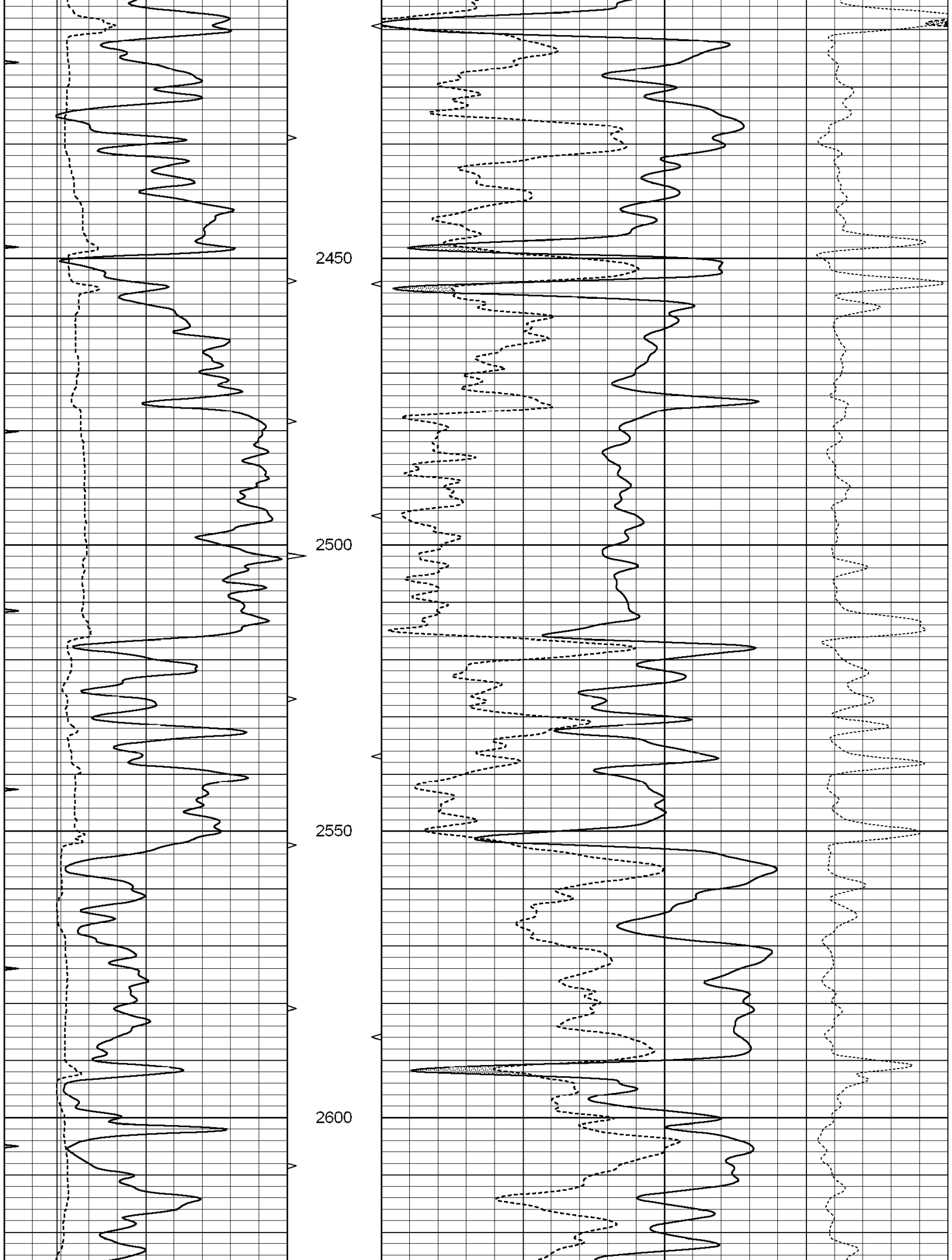


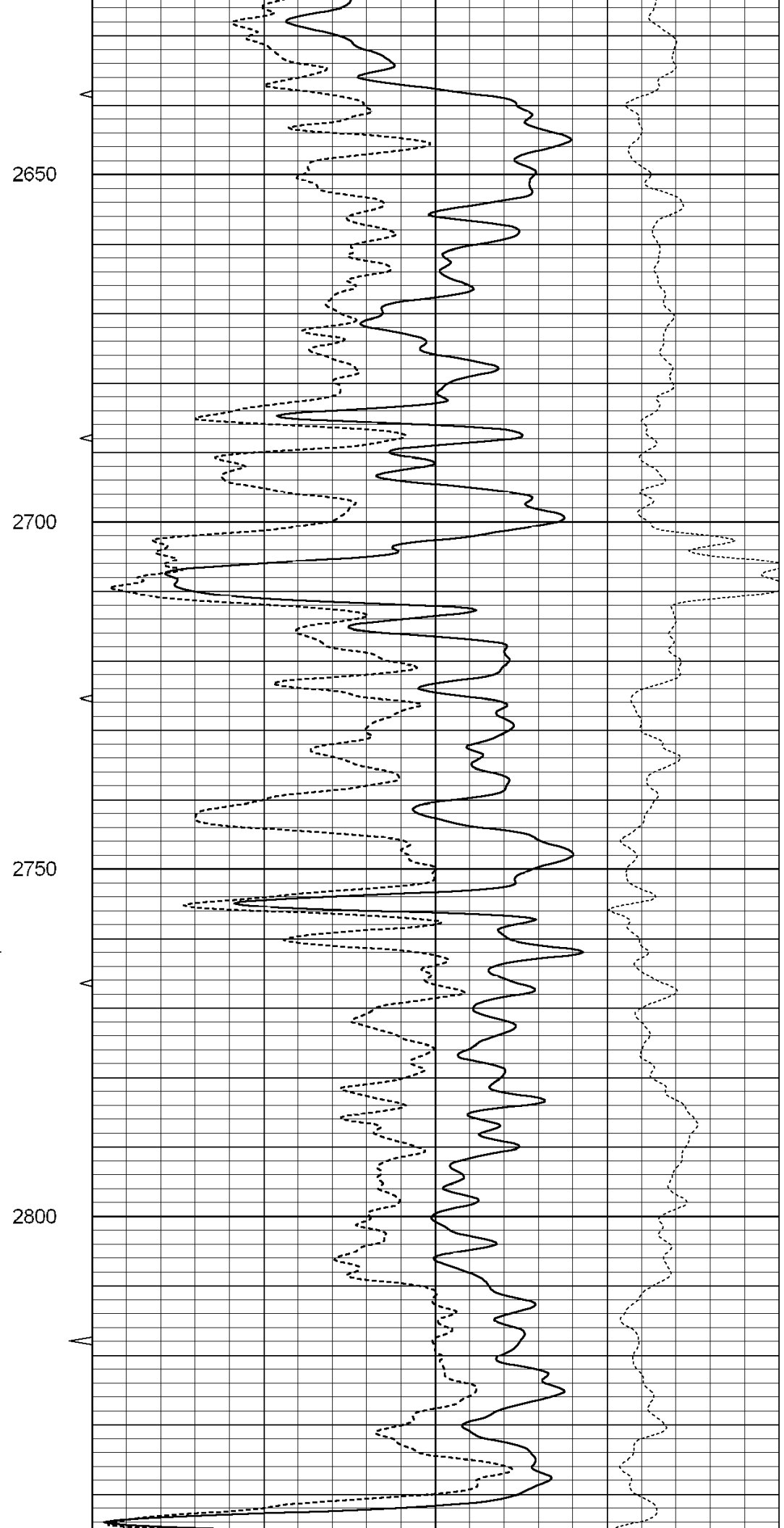
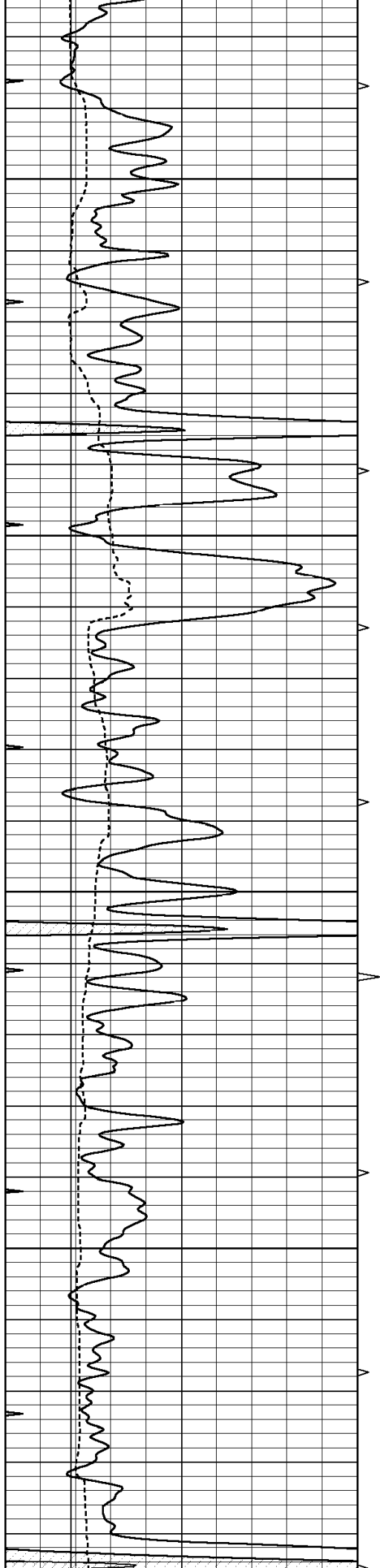
# MAIN SECTION

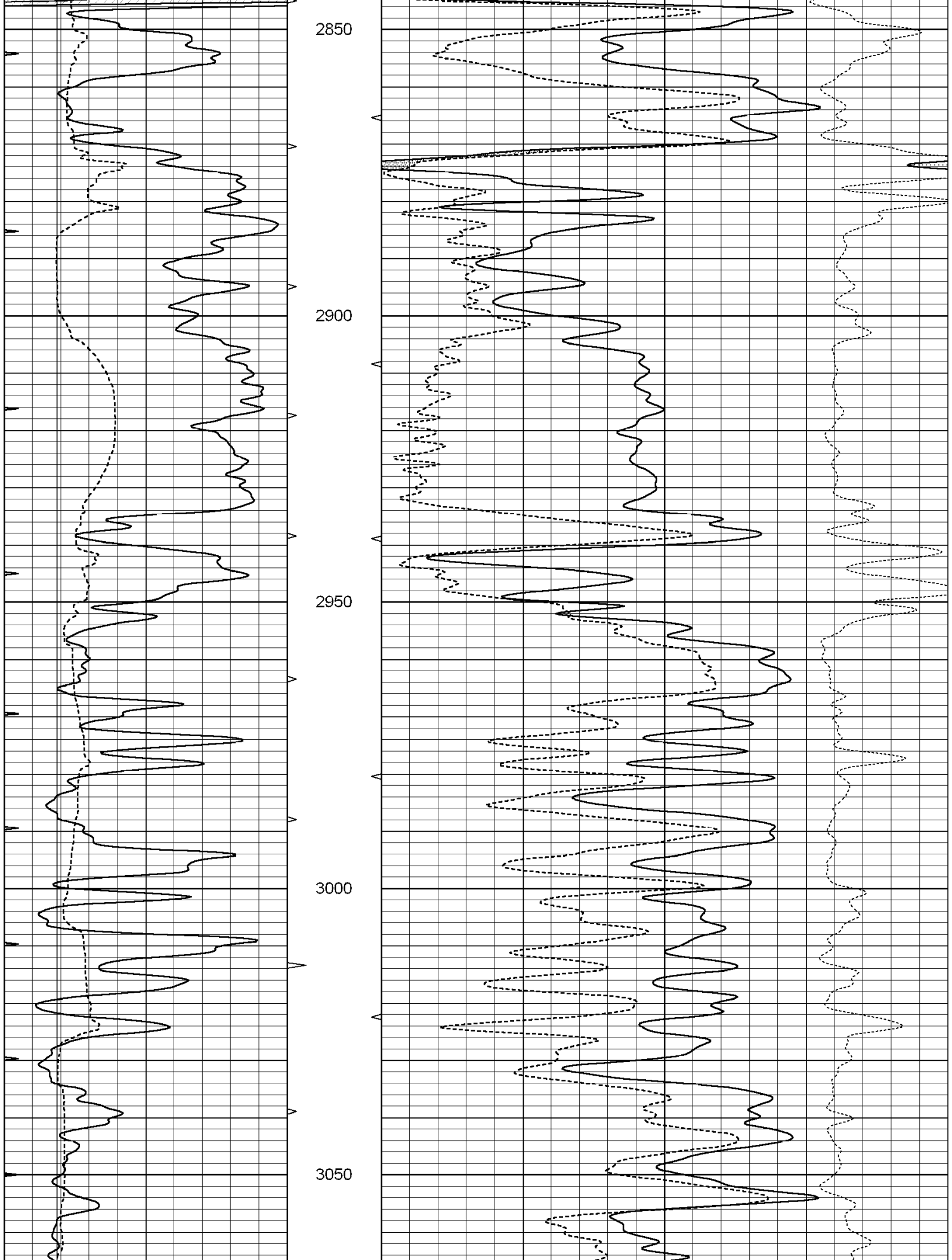
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 Charted by: Depth in Feet scaled 1:240

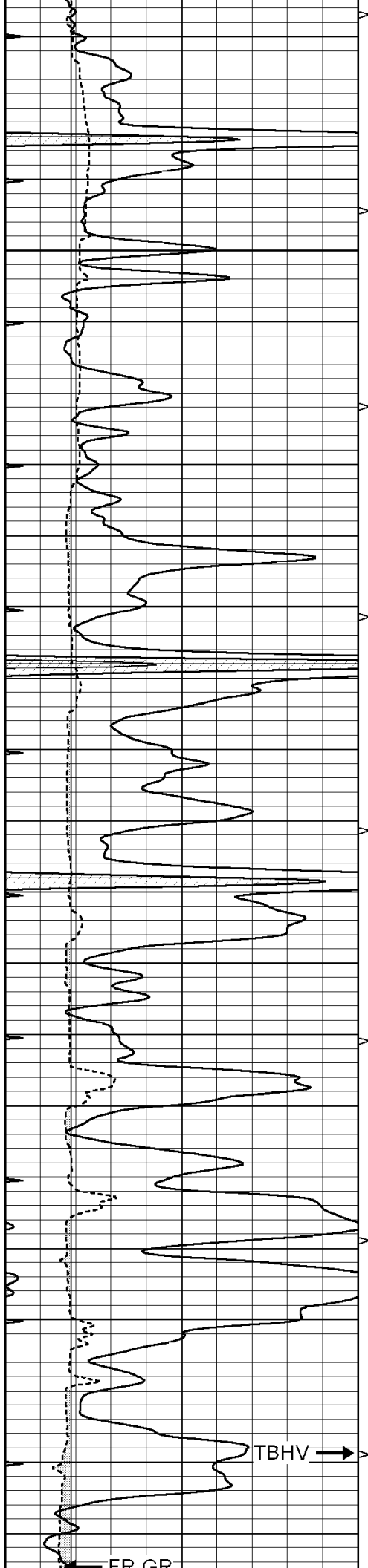
|   |                  |     |            |    |                          |     |
|---|------------------|-----|------------|----|--------------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV       | 30 | COMPENSATED DENSITY (pu) | -10 |
| 6 | CALIPER (in)     | 16  | 10 (ft3) 0 | 30 | COMPENSATED NEUTRON (pu) | -10 |











3100

3150

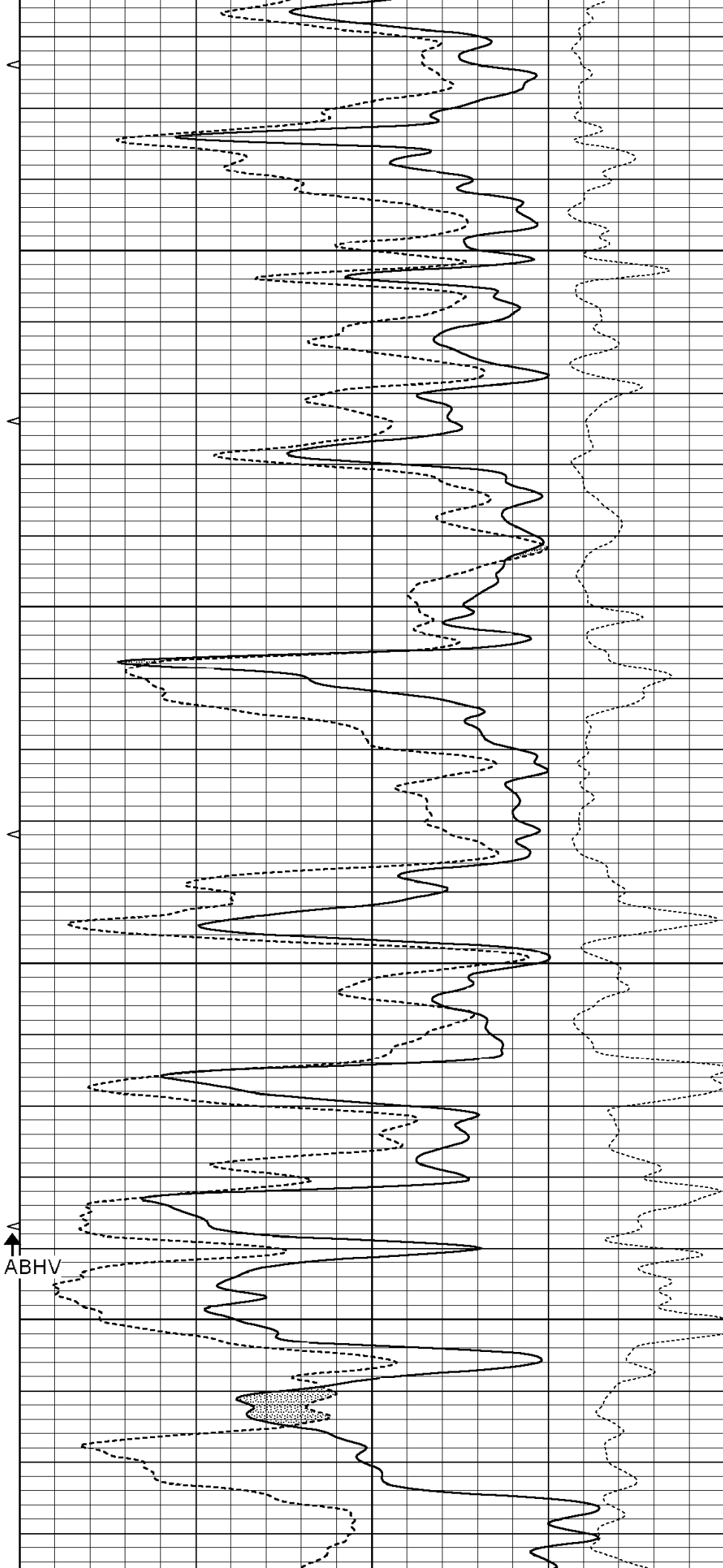
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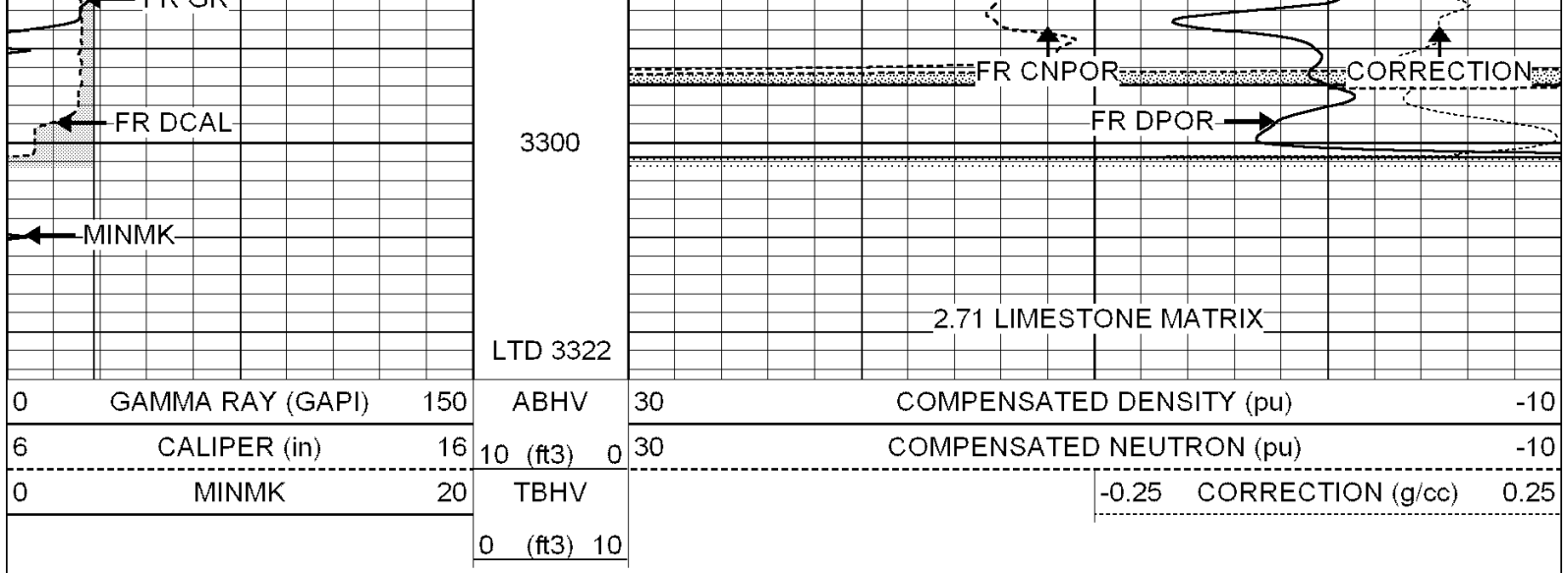
3250

5.5" ABHV

TBHV →

FR GR



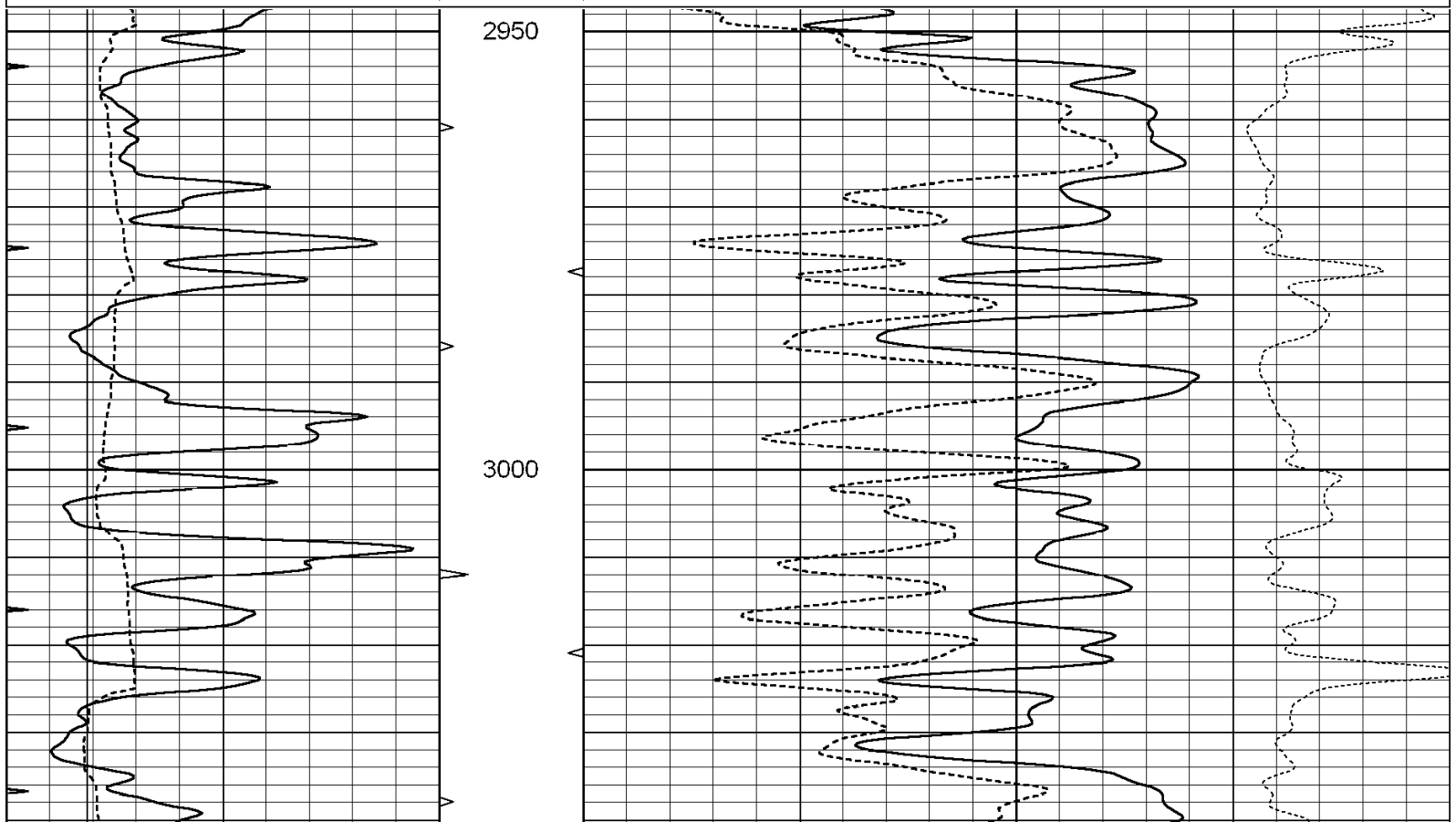


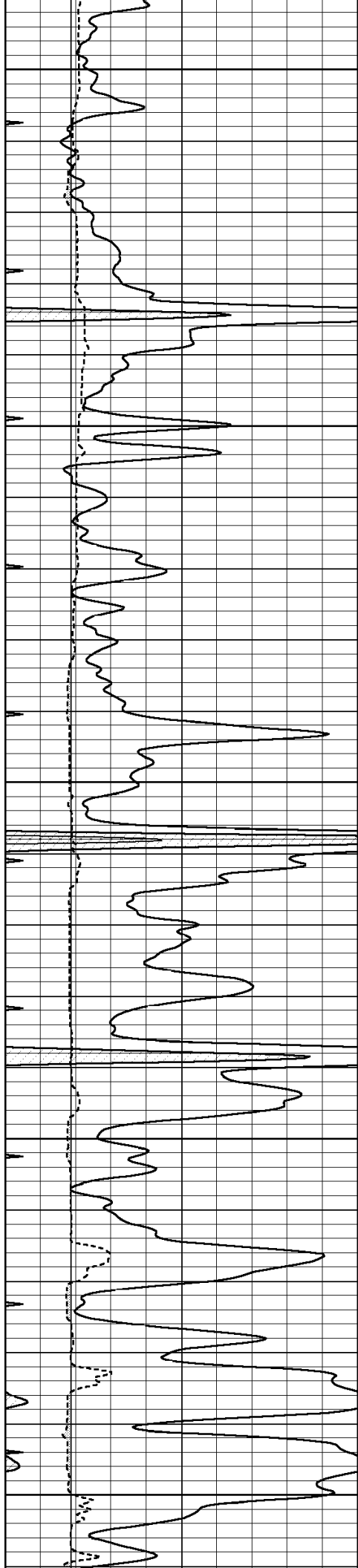
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Hays,  
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# REPEAT SECTION

Database File: 003258ddn.db  
 Dataset Pathname: pass2.6  
 Presentation Format: den\_neu  
 Dataset Creation: Wed Apr 15 18:37:25 2009 by Calc Open-Cased 060407  
 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 |                          |                          |                   |      |





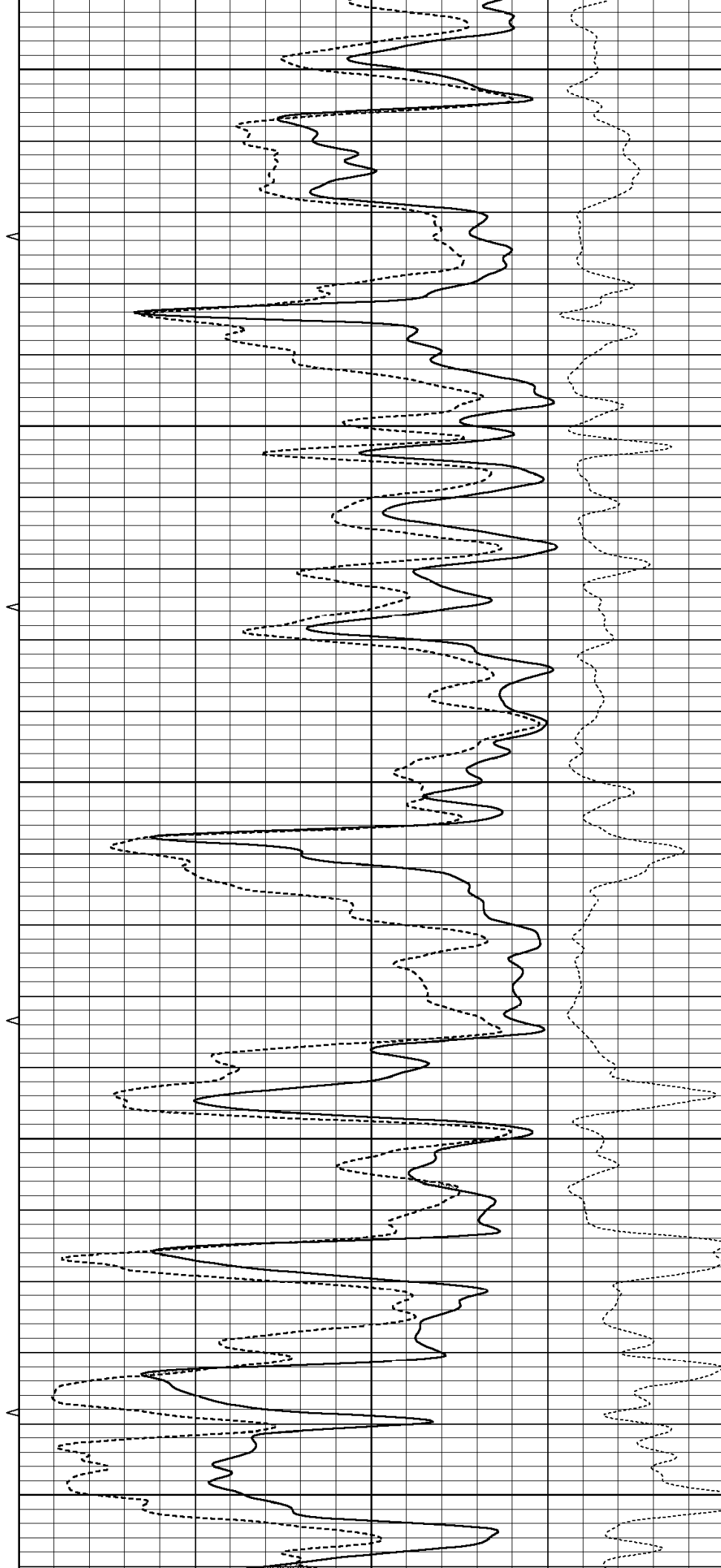
3050

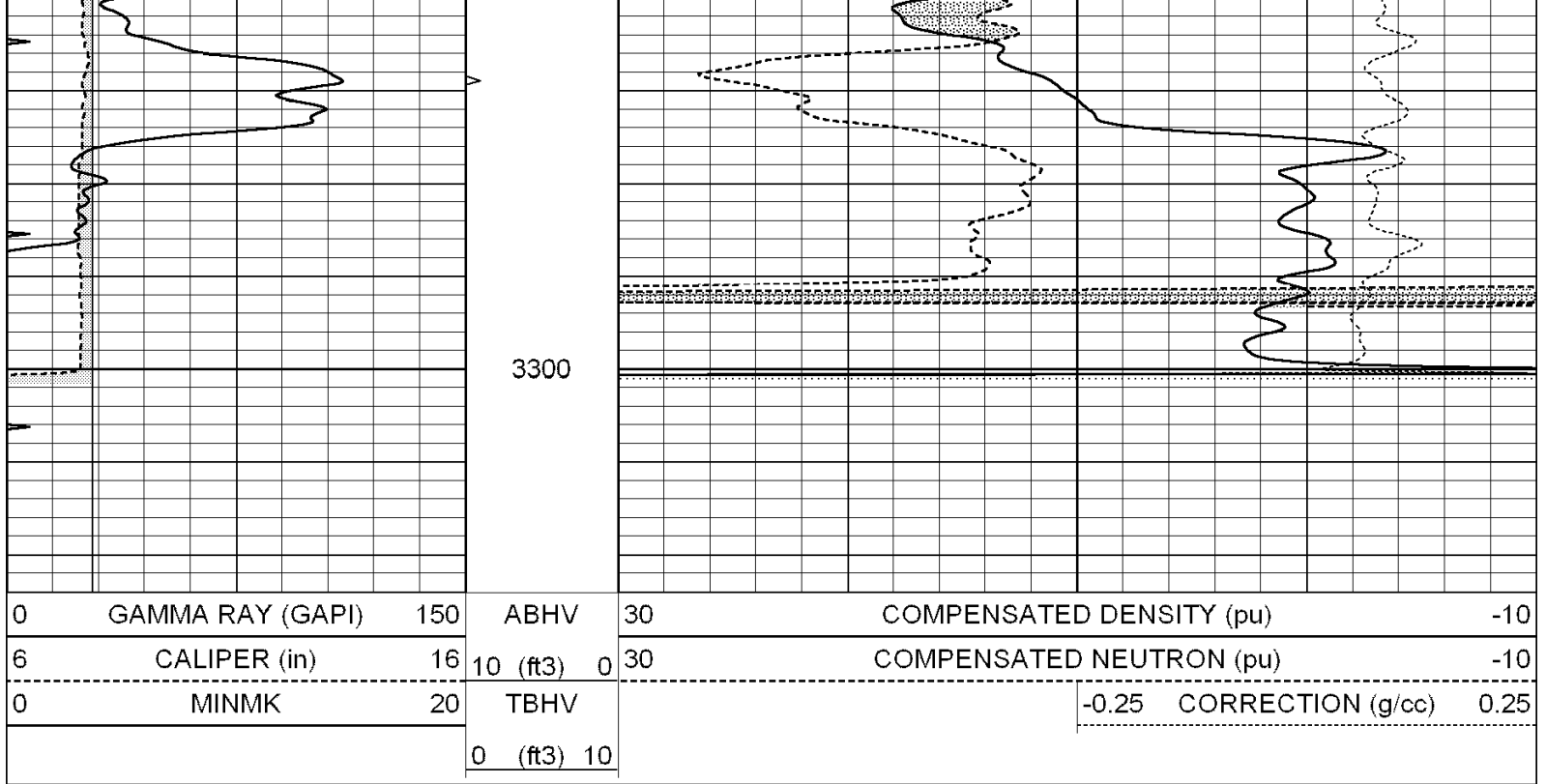
3100

3150

3200

3250





### Calibration Report

Database File: 003258ddn.db  
Dataset Pathname: pass3.2  
Dataset Creation: Wed Apr 15 19:28:10 2009 by Calc Open-Cased 060407

### Dual Induction Calibration Report

Serial-Model: DIL2-GEAR  
Performed: Wed Apr 15 17:17:07 2009

| Readings  |        |       |   | References |         |        | Results |         |
|-----------|--------|-------|---|------------|---------|--------|---------|---------|
| Loop:     | Air    | Loop  |   | Air        | Loop    |        | m       | b       |
| Deep      | 0.002  | 0.667 | V | 0.000      | 400.000 | mmho-m | 650.000 | 5.000   |
| Medium    | -0.003 | 0.739 | V | 0.000      | 462.500 | mmho-m | 750.000 | -16.000 |
| Internal: | Zero   | Cal   |   | Zero       | Cal     |        | m       | b       |
| Deep      | 0.001  | 0.658 | V | 0.000      | 400.000 | mmho-m | 609.010 | -0.700  |
| Medium    | 0.015  | 0.761 | V | 0.000      | 462.500 | mmho-m | 620.392 | -9.326  |

### Litho Density Calibration Report

Serial: 003N Model: PRB  
Performed Wed Feb 18 13:47:54 2009

#### Litho Density Calibration

|             | Background | Magnesium | Aluminum | Sandstone |      |
|-------------|------------|-----------|----------|-----------|------|
| Window 1    | 2040.8     | 12807.7   | 4363.1   | 13737.9   | cps  |
| Window 2    | 1833.5     | 9910.0    | 3570.0   | 10363.1   | cps  |
| Window 3    | 1572.8     | 6142.6    | 2530.0   | 6298.3    | cps  |
| Window 4    | 471.2      | 473.7     | 466.8    | 470.3     | cps  |
| Long Space  | 0.0        | 8076.4    | 1736.5   | 8529.6    | cps  |
| Short Space | 2.2        | 3464.4    | 2249.4   | 3602.7    | cps  |
| Rho         |            | 1.7100    | 2.5900   | 1.3800    | g/cc |
| Pe          |            |           | 2.5700   | 1.5500    |      |

Rib Angle : 44.3 Rib Slope : 0.976 Density/Spine Ratio : 0.551

|                                        |  |                          |                |          |              |                 |  |         |
|----------------------------------------|--|--------------------------|----------------|----------|--------------|-----------------|--|---------|
| Spine Angle                            |  | : 74.3                   | Spine Slope    |          | : 3.559      | Spine Intercept |  | : -20.0 |
| Caliper                                |  |                          |                |          |              |                 |  |         |
| Low Ref                                |  | Readings                 | Reference      |          |              |                 |  |         |
| High Ref                               |  | 2.1                      | 6.3            |          |              |                 |  |         |
|                                        |  | 4.4                      | 14.0           |          |              |                 |  |         |
|                                        |  | Gain: 3.3                |                |          | Offset: -0.5 |                 |  |         |
| 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:                             |  | Wed Apr 15 18:50:35 2009 |                |          |              |                 |  |         |
| Calibrator Value:                      |  | 200.0                    |                | GAPI     |              |                 |  |         |
| Background Reading:                    |  | 3.0                      |                | cps      |              |                 |  |         |
| Calibrator Reading:                    |  | 186.0                    |                | cps      |              |                 |  |         |
| Sensitivity:                           |  | 0.4500                   |                | GAPI/cps |              |                 |  |         |