# COMPENSATED DENSITY/NEUTRON LOG

Company CHARTER ENERGY, INC.
Well MILLER #1
Field CHEYENNE VIEW
County BARTON State KANSAS

Location: API # : 15-009-26351-0000
660' FSL & 660' FWL
SW - SW

SEC 24 TWP 19S RGE 12W

Other Services
DIL/MEL

Elevation
K.B. 1810
D.F. 1808
G.L. 1800

Permanent Datum GROUND LEVEL Elevation 1800
Log Measured From KELLY BUSHING 10' A.G.L.
Drilling Measured From KELLY BUSHING

| | | | |
|---|---|---|---|
| Date | 5/24/22 | | |
| Run Number | ONE | | |
| Depth Driller | 3455 | | |
| Depth Logger | 3456 | | |
| Bottom Logged Interval | 3432 | | |
| Top Log Interval | 2700 | | |
| Casing Driller | 8 5/8"@362' | | |
| Casing Logger | 362 | | |
| Bit Size | 7 7/8" | | |
| Type Fluid in Hole | CHEMICAL MUD | CHLORIDES: 4,500 PPM | |
| Density / Viscosity | 9.2/59 | | |
| pH / Fluid Loss | 10.0/5.8 | | |
| Source of Sample | FLOWLINE | | |
| Rm @ Meas. Temp | .420@74F | | |
| Rmf @ Meas. Temp | .315@74F | | |
| Rmc @ Meas. Temp | .504@74F | | |
| Source of Rmf / Rmc | MEASURED | | |
| Rm @ BHT | .280@111F | | |
| Time Circulation Stopped | 2 HOURS | | |
| Time Logger on Bottom | 3:30 A.M. | | |
| Maximum Recorded Temperature | 111F | | |
| Equipment Number | 8916 | | |
| Location | HAYS, KANSAS | | |
| Recorded By | JEFF LUEBBERS | | |
| Witnessed By | JOSH AUSTIN | | |

<<< Fold Here >>>



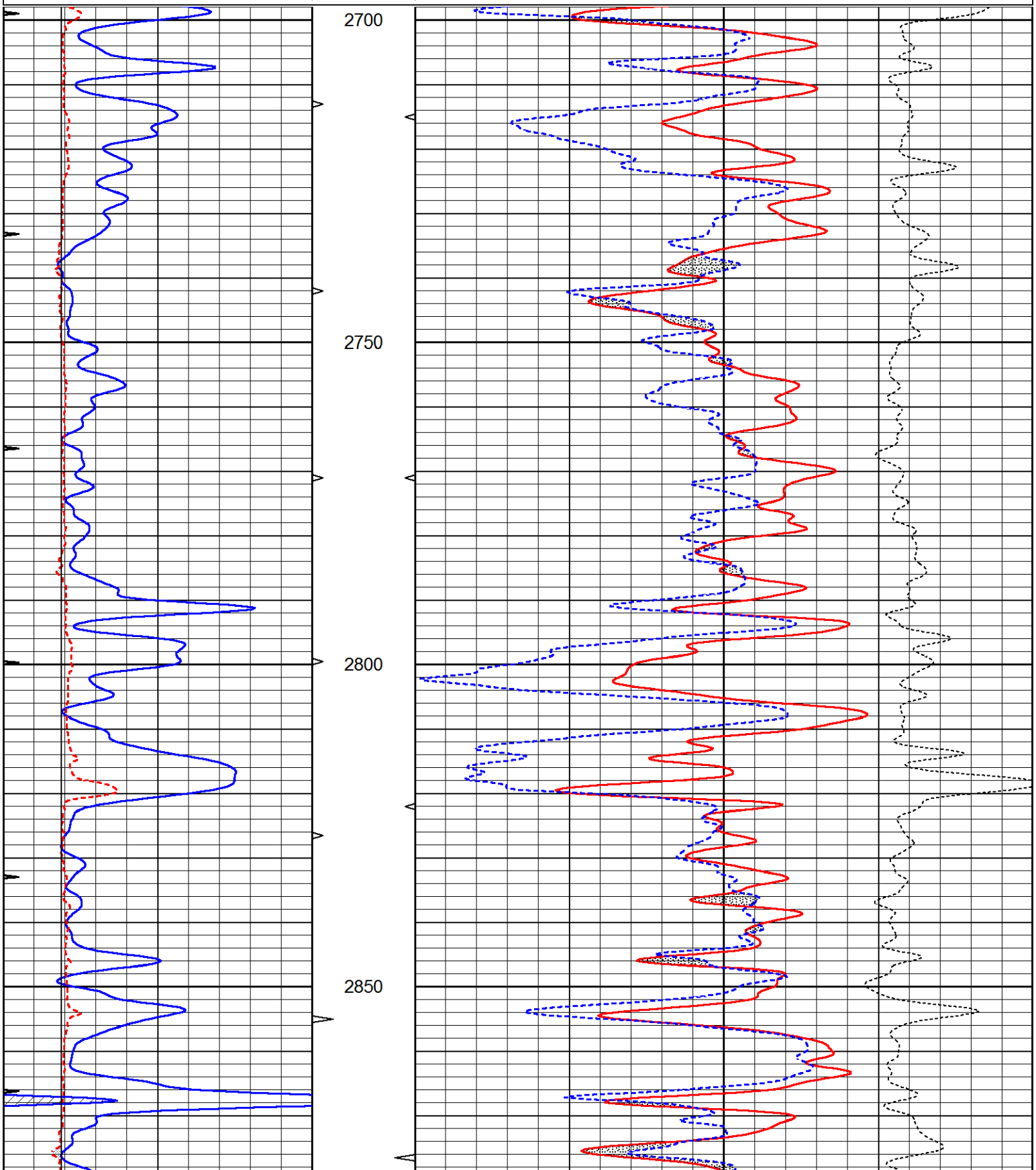
Comments

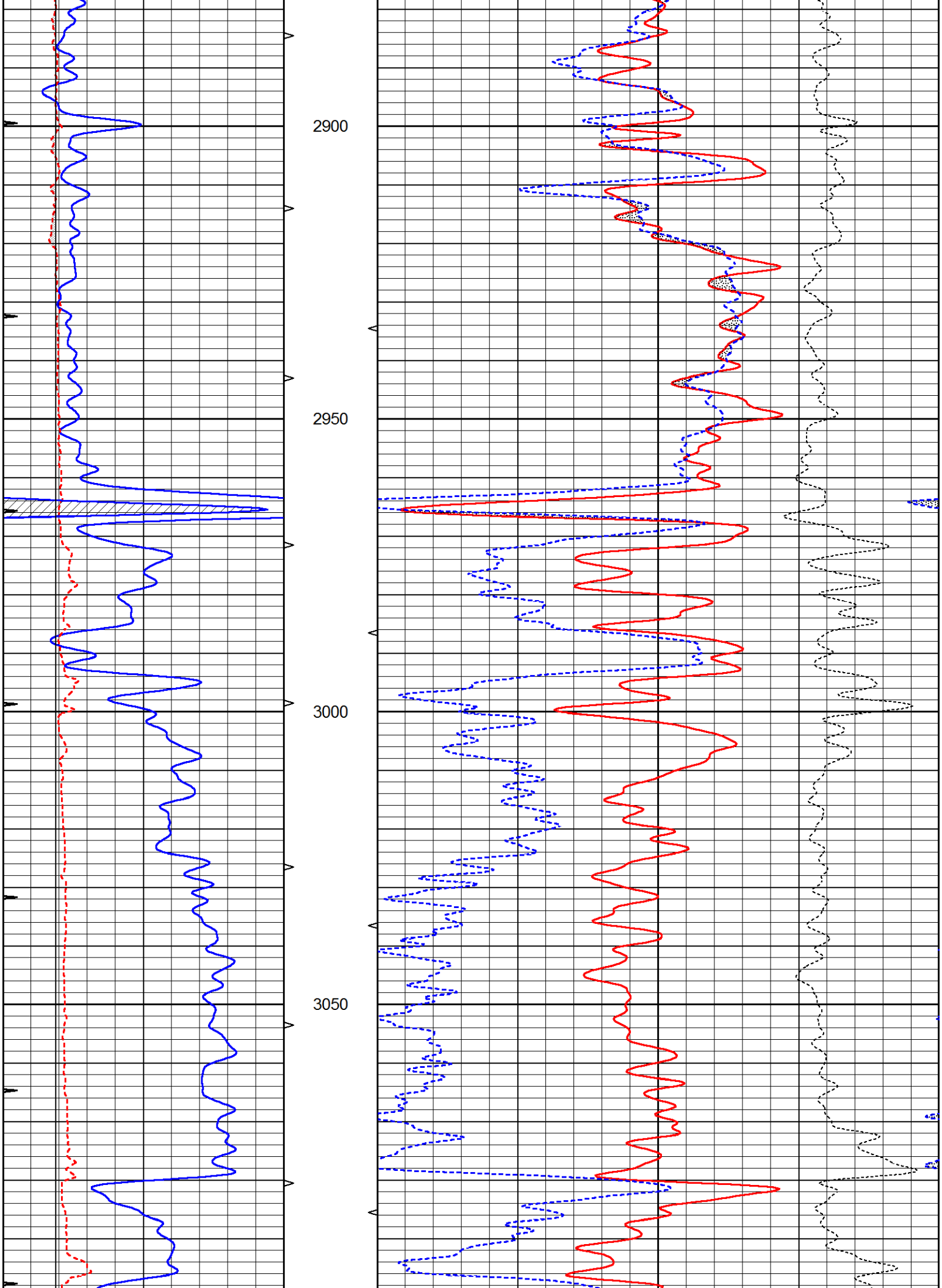
THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395
DIRECTIONS:
ELLINWOOD, KS., E. TO "SOUTHWINDS YARD", 1 1/4N., E. INTO

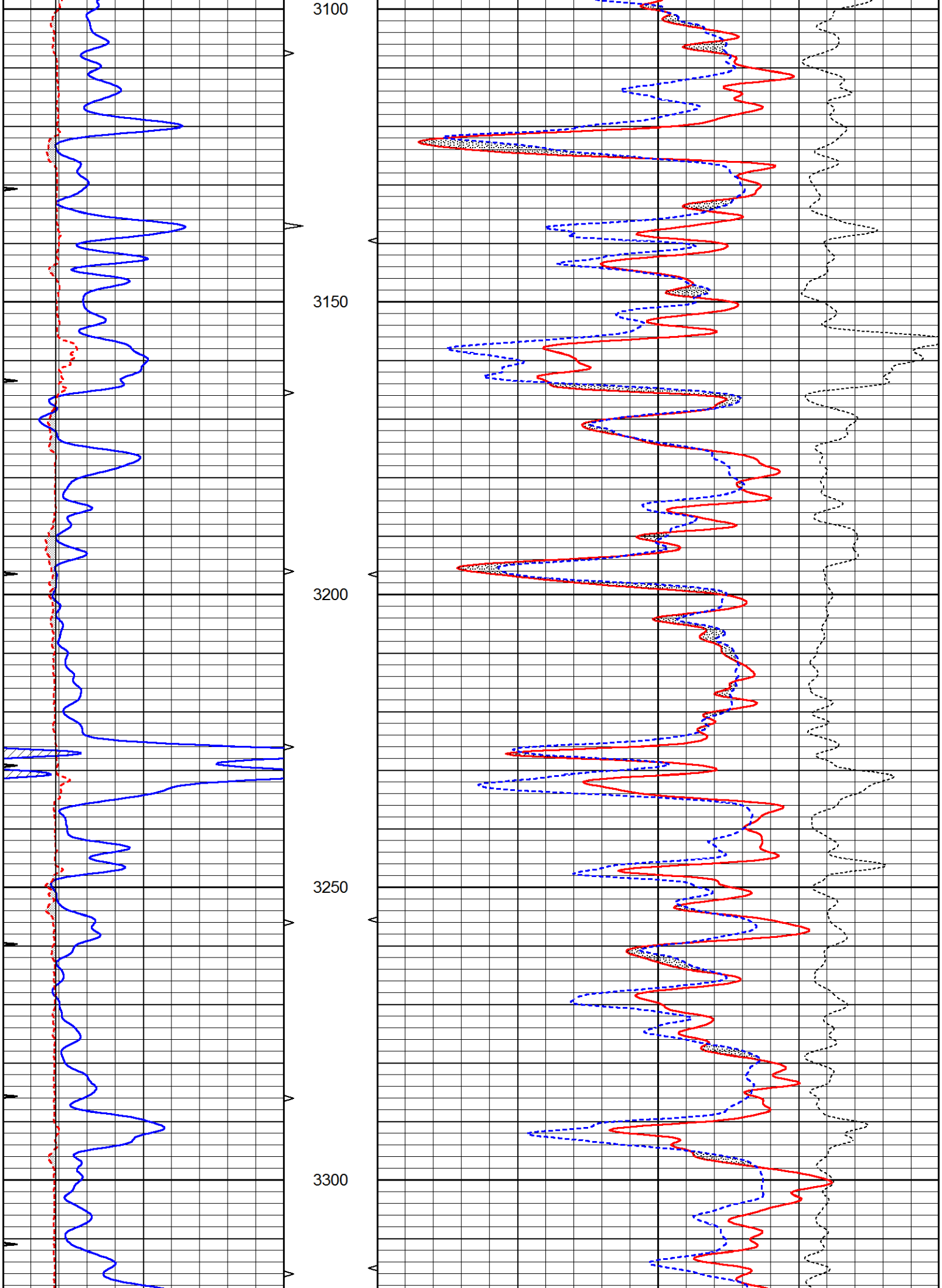
MAIN SECTION

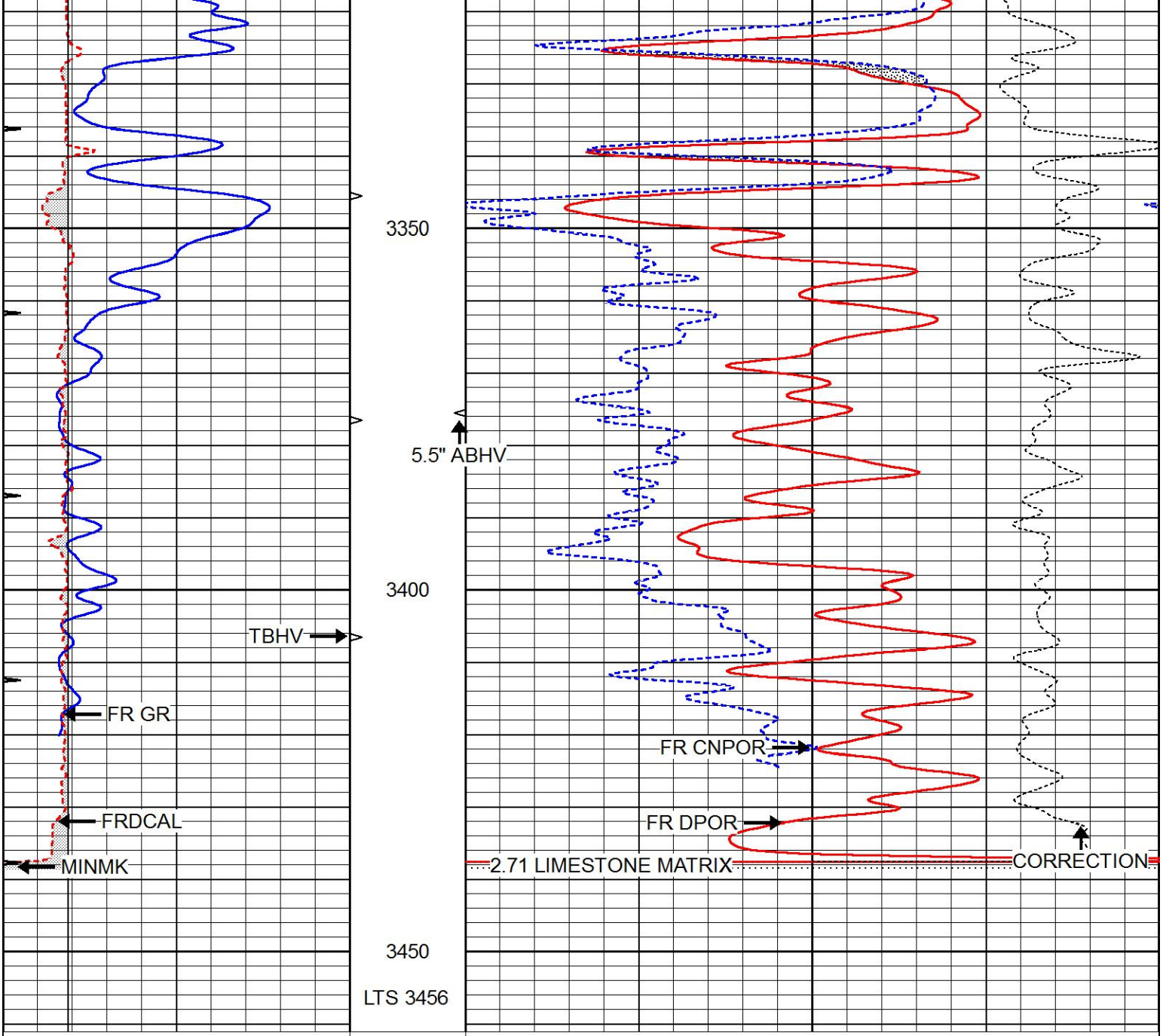
| | |
|---|---|
| Database File | 6554ddn.db |
| Dataset Pathname | pass3.1M |
| Presentation Format | den_neu |
| Dataset Creation | Tue May 24 05:17:10 2022 |
| Charted by | Depth in Feet scaled 1:240 |

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




2900
2950
3000
3050

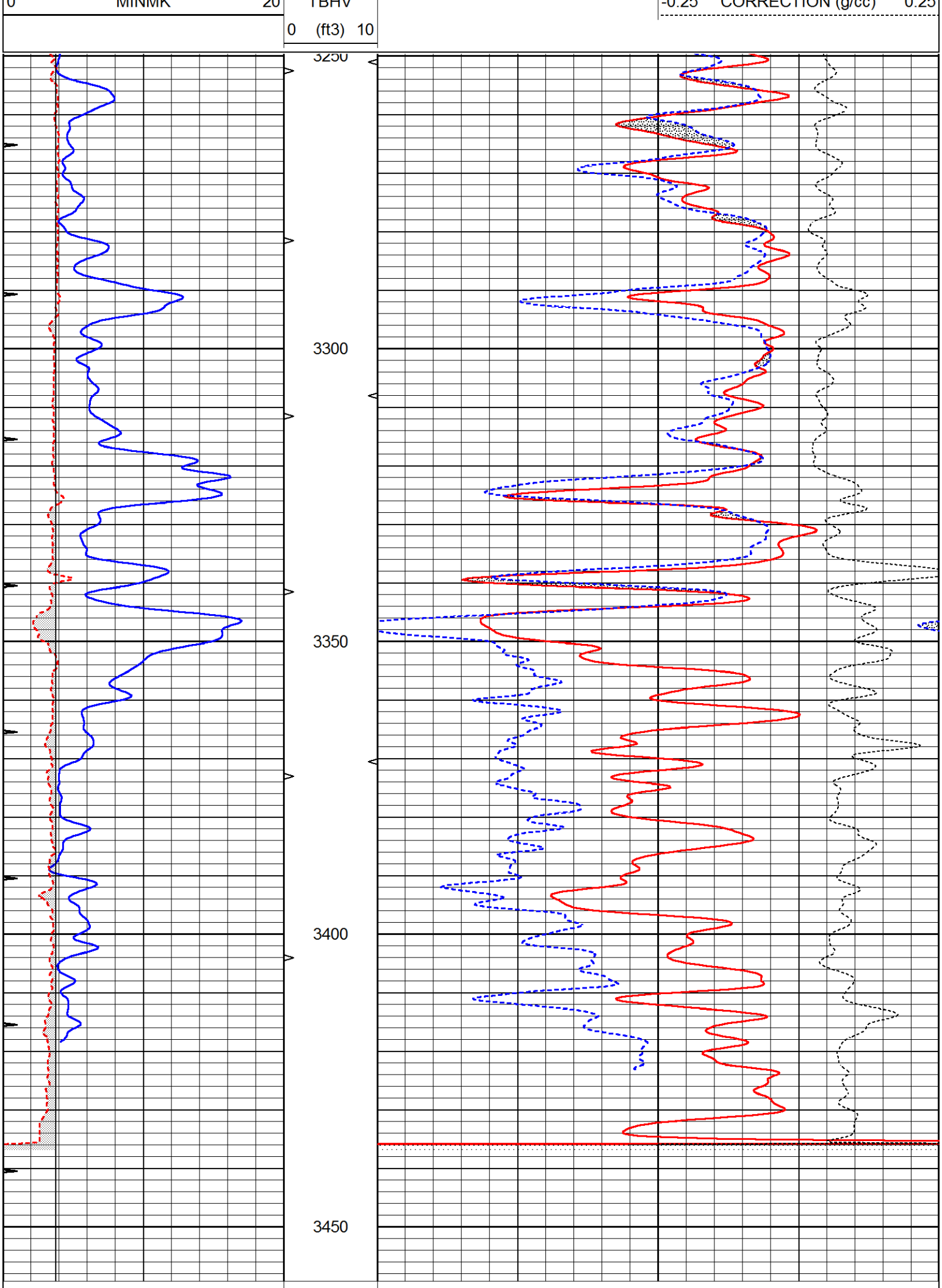

3100
3150
3200
3250
3300




# REPEAT SECTION

| | |
|---|---|
| Database File | 6554ddn.db |
| Dataset Pathname | pass2.1R |
| Presentation Format | den_neu |
| Dataset Creation | Tue May 24 04:43:20 2022 |
| 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
MINMK
20
TBHV
0 (ft3) 10
-0.25 CORRECTION (g/cc) 0.25
3250
3300
3350
3400
3450

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 6554ddn.db
Dataset Pathname pass3.1M
Dataset Creation Tue May 24 05:17:10 2022

## Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
Surface Cal Performed: Sat May 21 18:54:58 2022
Downhole Cal Performed: Mon Sep 10 14:28:38 2018
After Survey Verification Performed: Mon Sep 10 14:28:40 2018

### Surface Calibration

| | Readings | | | References | | | Results | |
|---|---|---|---|---|---|---|---|---|
| Loop: | Air | Loop | | Air | Loop | | m | b |
| Deep | 0.015 | 0.648 | V | 0.000 | 400.000 | mmho/m | 600.000 | 2.000 |
| Medium | 0.029 | 0.796 | V | 0.000 | 464.000 | mmho/m | 590.000 | -10.000 |
| Internal: | Zero | Cal | | Zero | Cal | | m | b |
| Deep | 0.017 | 0.657 | V | 0.000 | 400.000 | mmho/m | 625.153 | -10.619 |
| Medium | 0.016 | 0.757 | V | 0.000 | 464.000 | mmho/m | 625.992 | -9.739 |

### Downhole Calibration

| | Readings | | | References | | | Results | |
|---|---|---|---|---|---|---|---|---|
| | Zero | Cal | | Zero | Cal | | m' | b' |
| Deep | 0.000 | 0.000 | mmho/m | 2.011 | 405.777 | mmho/m | 1.000 | 0.000 |
| Medium | 0.000 | 0.000 | mmho/m | 7.590 | 503.393 | mmho/m | 1.000 | 0.000 |
| LL3 | | 7.500 | V | | 1500.000 | Ohm-m | | |
| | | 0.000 | V | | 20.000 | Ohm-m | | |
| | | -7.200 | V | | 3800.000 | mmho-m | | |

### After Survey Verification

| | Readings | | | Targets | | | Results | |
|---|---|---|---|---|---|---|---|---|
| | Zero | Cal | | Zero | Cal | | m' | b' |
| Deep | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 |
| Medium | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 |
| LL3 | | 1.000 | Ohm-m | | 1.000 | Ohm-m | | |
| | | 0.000 | Ohm-m | | 0.000 | Ohm-m | | |
| | | 1.000 | mmho-m | | 1.000 | mmho-m | | |

## Litho Density Calibration Report

Serial: 001N Model: PRB

### Master Calibration

Performed Thu Mar 19 11:30:16 2020

| | Background | Magnesium | Aluminum | Aluminum+Fe | |
|---|---|---|---|---|---|
| Window 1 | 1572.2 | 7510.8 | 2837.3 | 2643.1 | cps |
| Window 2 | 1446.2 | 6523.9 | 2552.8 | 2409.9 | cps |
| Window 3 | 1060.9 | 3611.4 | 1731.5 | 1684.8 | cps |
| Window 4 | 145.5 | 363.4 | 363.2 | 368.1 | cps |
| Long Space | 0.0 | 5077.7 | 1106.6 | 963.7 | cps |
| Short Space | 3.1 | 1709.3 | 1103.4 | 916.9 | cps |

| | | | | |
|---|---|---|---|---|
| Rho | 1.7100 | 2.5900 | 0.0000 | g/cc |
| Pe | 2.0000 | 2.7500 | 5.7900 | |

| | | | | | |
|---|---|---|---|---|---|
| Rib Angle | : 44.0 | Rib Slope | : 0.965 | Density/Spine Ratio | : 0.555 |
| Spine Angle | : 74.0 | Spine Slope | : 3.481 | Spine Intercept | : -17.4 |

Before Survey Verification — Performed Wed Dec 31 18:00:00 1969

| | | | | | |
|---|---|---|---|---|---|
| Window 1 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 2 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 3 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 4 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Long Space | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Short Space | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Measured Rho | | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Correction | | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Pe | | | 0.0000 | 0.0000 | |

After Survey Verification — Performed Wed Dec 31 18:00:00 1969

| | | | | | |
|---|---|---|---|---|---|
| Window 1 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 2 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 3 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 4 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Long Space | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Short Space | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Measured Rho | | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Correction | | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Pe | | | 0.0000 | 0.0000 | |

## Compensated Neutron Calibration Report

Serial Number: 6I
Tool Model: G

### CALIBRATION

| Detector | Readings | | Target | | Normalization |
|---|---|---|---|---|---|
| Short Space | 1.00 | cps | 1.00 | cps | 1.0000 |
| Long Space | 1.00 | cps | 1.00 | cps | 1.0000 |

### PRE-SURVEY VERIFICATION

| | Detector | Readings | | Measured | | Target |
|---|---|---|---|---|---|---|
| 1) | Short Space | | cps | | | |
| | Long Space | | cps | | pu | pu |
| 2) | Short Space | | cps | | | |
| | Long Space | | cps | | pu | |
| 3) | Short Space | | cps | | | |
| | Long Space | | cps | | pu | |

### POST-SURVEY VERIFICATION

| | Detector | Readings | | Measured | | Target |
|---|---|---|---|---|---|---|
| 1) | Short Space | | cps | | | |
| | Long Space | | cps | | pu | pu |

| | | | | |
|---|---|---|---|---|
| 2) | Short Space | cps | | |
| | Long Space | cps | pu | pu |
| 3) | Short Space | cps | | |
| | Long Space | cps | pu | pu |

## Gamma Ray Calibration Report

| | | |
|---|---|---|
| Serial Number: | GR6 | |
| Tool Model: | OPEN | |
| Performed: | Tue May 24 04:39:42 2022 | |
| Calibrator Value: | 150.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 276.0 | cps |
| Sensitivity: | 0.8500 | GAPI/cps |