



MIDWEST WIRELINE

MICRORESISTIVITY LOG

Company Berexco, LLC
 Well Weinman #1
 Field Dayton
 County Phillips
 State Kansas

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Location: API #: 15-147-20760-00-00
 620 FSL 1650 FWL
 SEC 25 TWP 2S RGE 19W
 Permanent Datum Ground Level Elevation 2129
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 DIL/BHCS
 Elevation
 K.B. 2139
 D.F.
 G.L. 2129

| | |
|------------------------|--------------|
| Date | 2/25/2022 |
| Run Number | Two |
| Depth Driller | 3650 |
| Depth Logger | 3642 |
| Bottom Logged Interval | 3641 |
| Top Log Interval | 2800 |
| Casing Driller | 8.625 @ 273 |
| Casing Logger | 273 |
| Bit Size | 7.875 |
| Type Fluid in Hole | Chemical |
| Salinity, ppm CL | 800 |
| Density / Viscosity | 9.3 57 |
| pH / Fluid Loss | 10 8 |
| Source of Sample | FLOWLINE |
| Rm @ Meas. Temp | .9 @ 70 |
| Rmt @ Meas. Temp | .68 @ 70 |
| Rmc @ Meas. Temp | 1.22 @ 70 |
| Source of Rmf / Rmc | CHARTS |
| Rm @ BHT | .56 @ 113 |
| Operating Rig Time | 4 Hours |
| Max Rec. Temp. F | 113 |
| Equipment Number | P-24 |
| Location | Hays |
| Recorded By | C McLaughlin |
| Witnessed By | Bryan Bynog |
| | D Schmidt |

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Phillipsburg
 5 West to 500 Rd,
 4 North to Limestone Rd
 1/4 East, North into

Log Measured From: Kelly Bushing 10 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
 785-625-3858

Your Midwest Wireline Crew

Engineer: C McLaughlin
 Operator:
 Operator:
 Operator:

This Log Record Was Witnessed By

Primary Witness: Bryan Bynog
 Secondary Witness:
 Secondary Witness:
 Secondary Witness:

| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb) |
|------------------|-------------------------|-----------|----------------------|-------------|-----------|-------------|
| MCAL MI MN | 25.42 25.42 25.42 | | ML-GO (0001G) | 5.00 | 3.50 | 100.00 |
| | | | CENT-PENGO (4-PENGO) | 4.25 | 3.00 | 70.00 |
| WVF4 WVF1 | 12.50 12.50 | | SLT-PENGO (603) | 15.92 | 3.50 | 300.00 |
| WVF3 WVF2 | 10.50 10.50 | | | | | |
| | | | CENT-PENGO (3-PENGO) | 4.25 | 3.00 | 70.00 |

Dataset: berexco_weinman #1.db: field/well/sonmel/pass2.1
 Total length: 29.42 ft
 Total weight: 540.00 lb
 O.D.: 3.50 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\berexco_weinman #1.db
 Dataset field/well/stack/pass3.1/_vars_

Top - Bottom

| | | | | | | | |
|-----------|--------------|------------------|-------------------|----------------|------------------|-------|------------------|
| A | BOREID in | BOTTEMP degF | CASEOD in | CASETHCK in | FLUIDDEN g/cc | M | MATRXDEN g/cc |
| 1 | 7.875 | 113 | 5.5 | 0 | 1 | 2 | 2.71 |
| NPORSEL | PERFS | SNDERR mmho/m | SNDERRM mmho/m | SPSHIFT mV | SRFTEMP degF | SZCOR | TDEPTH ft |
| Limestone | 0 | 0 | 0 | 240 | 10 | Off | 3642 |

Variable Description

A : Cement Factor (a)
 BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 FLUIDDEN : Fluid Density
 M : Cement Exp (m)
 MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
 PERFS : Perforation Flag
 SNDERR : Deep Sonde Error Correction
 SNDERRM : Medium Sonde Error Correction
 SPSHIFT : S.P. Baseline Offset
 SRFTEMP : Surface Temperature
 SZCOR : CN Size Cor. ?
 TDEPTH : Total Depth



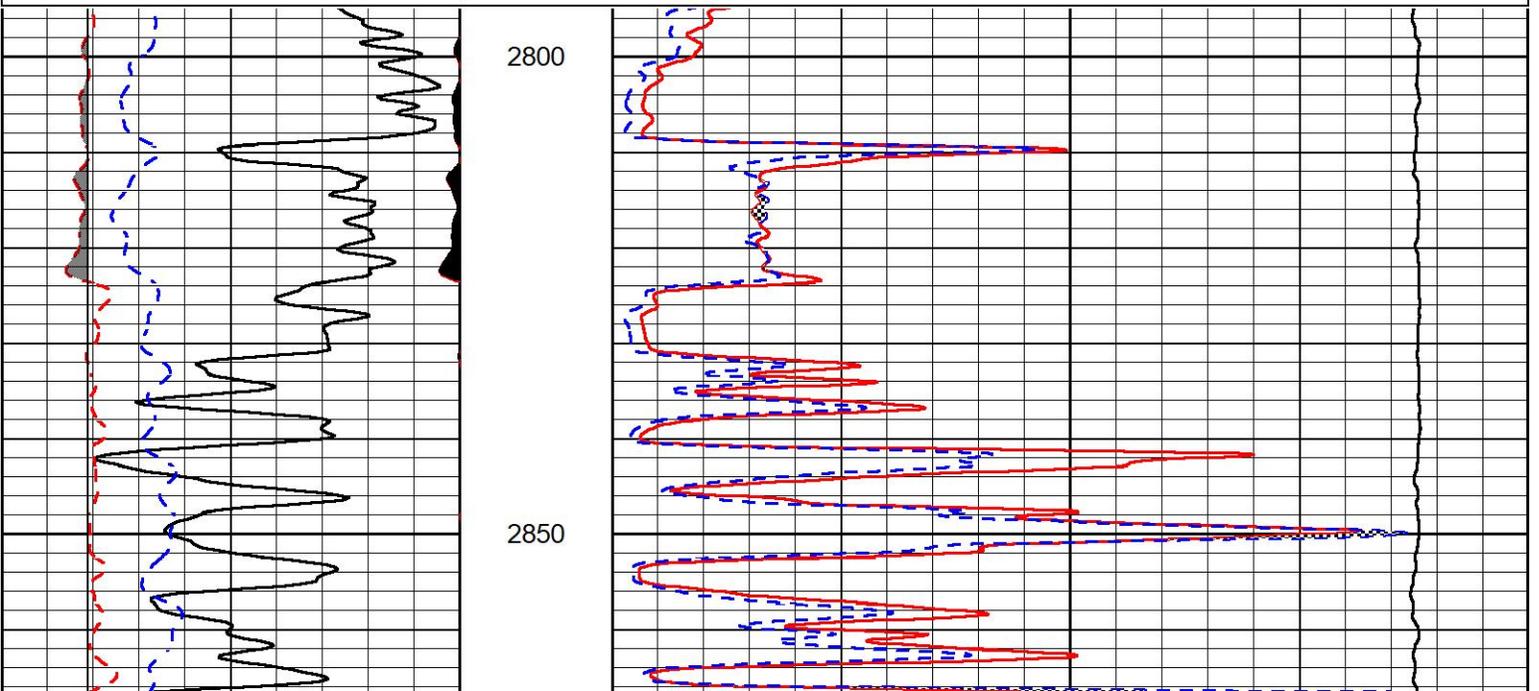
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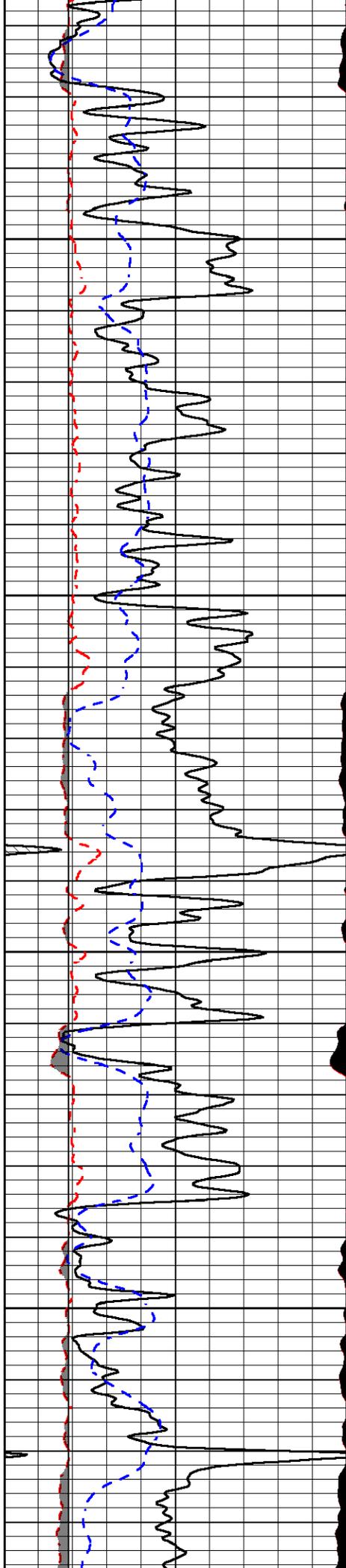
MAIN PASS

Database File berexco_weinman #1.db
 Dataset Pathname stack/pass3.1
 Presentation Format _micro
 Dataset Creation Fri Feb 25 21:54:39 2022
 Charted by Depth in Feet scaled 1:240

| | | |
|--------|------------------|-------|
| 0 | Gamma Ray (GAPI) | 150 |
| 6 | Caliper (in) | 16 |
| -2.875 | mcal (in) | 7.875 |
| -200 | SP (mV) | 0 |

| | | |
|-------|-----------------------------|----|
| 0 | Micro Inverse 1 X 1 (Ohm-m) | 40 |
| 0 | Micro Normal 2" (Ohm-m) | 40 |
| 10000 | Line Weight (lb) | 0 |



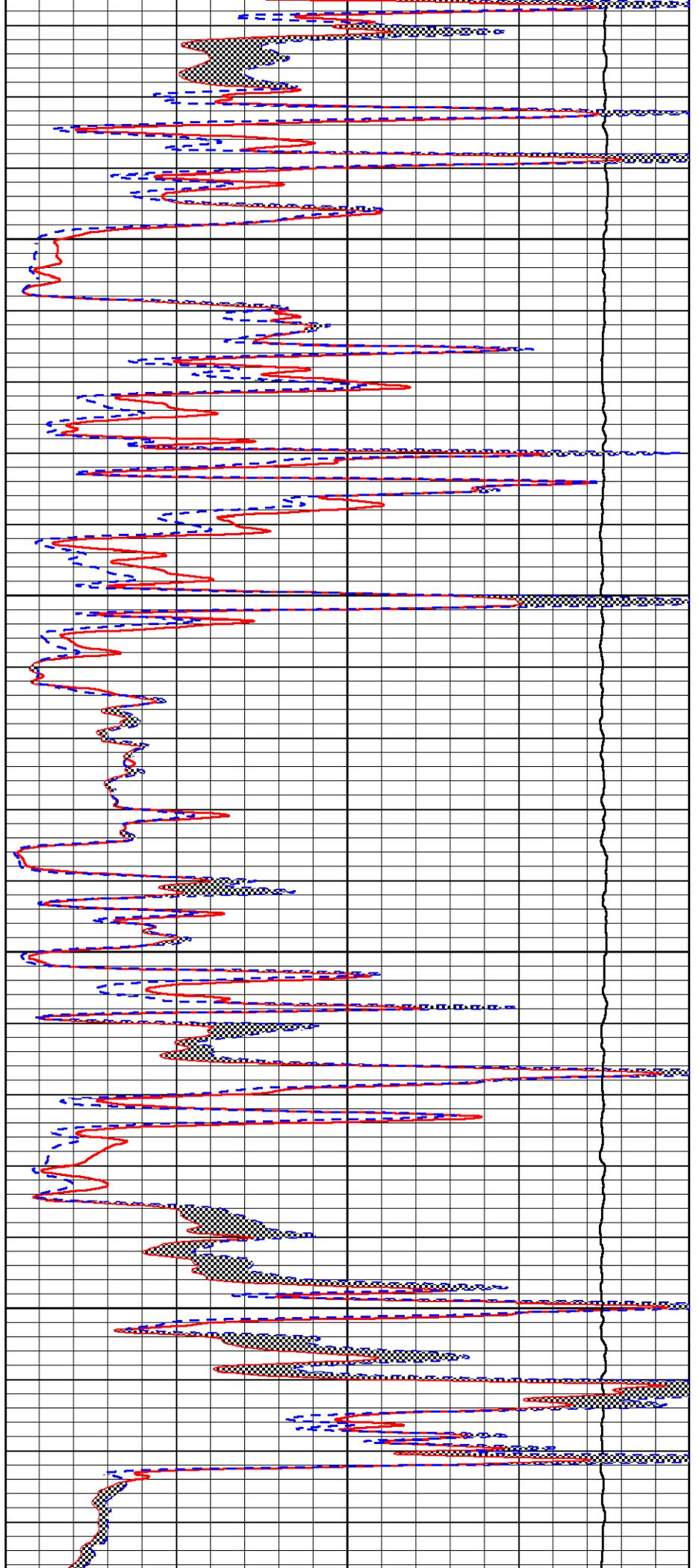


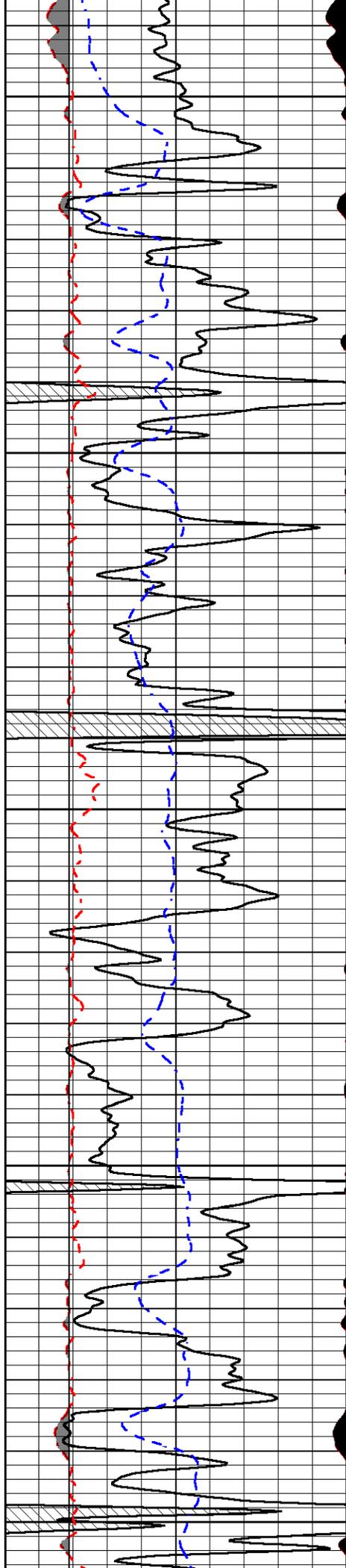
2900

2950

3000

3050





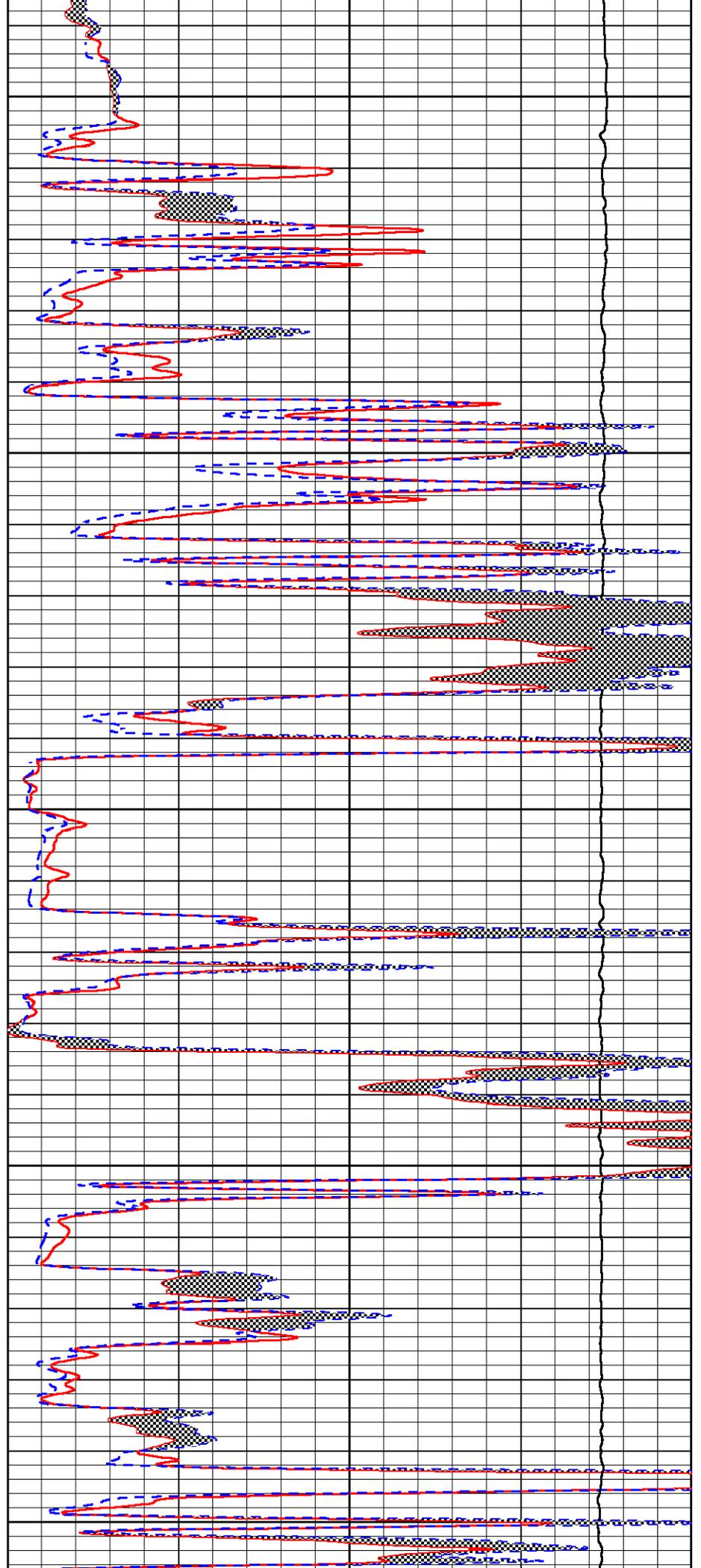
3100

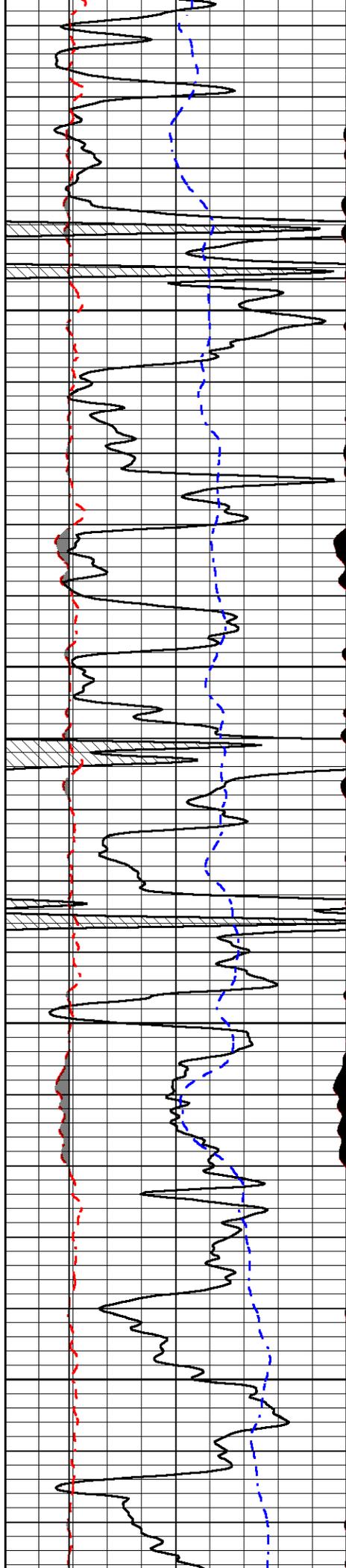
3150

3200

3250

3300



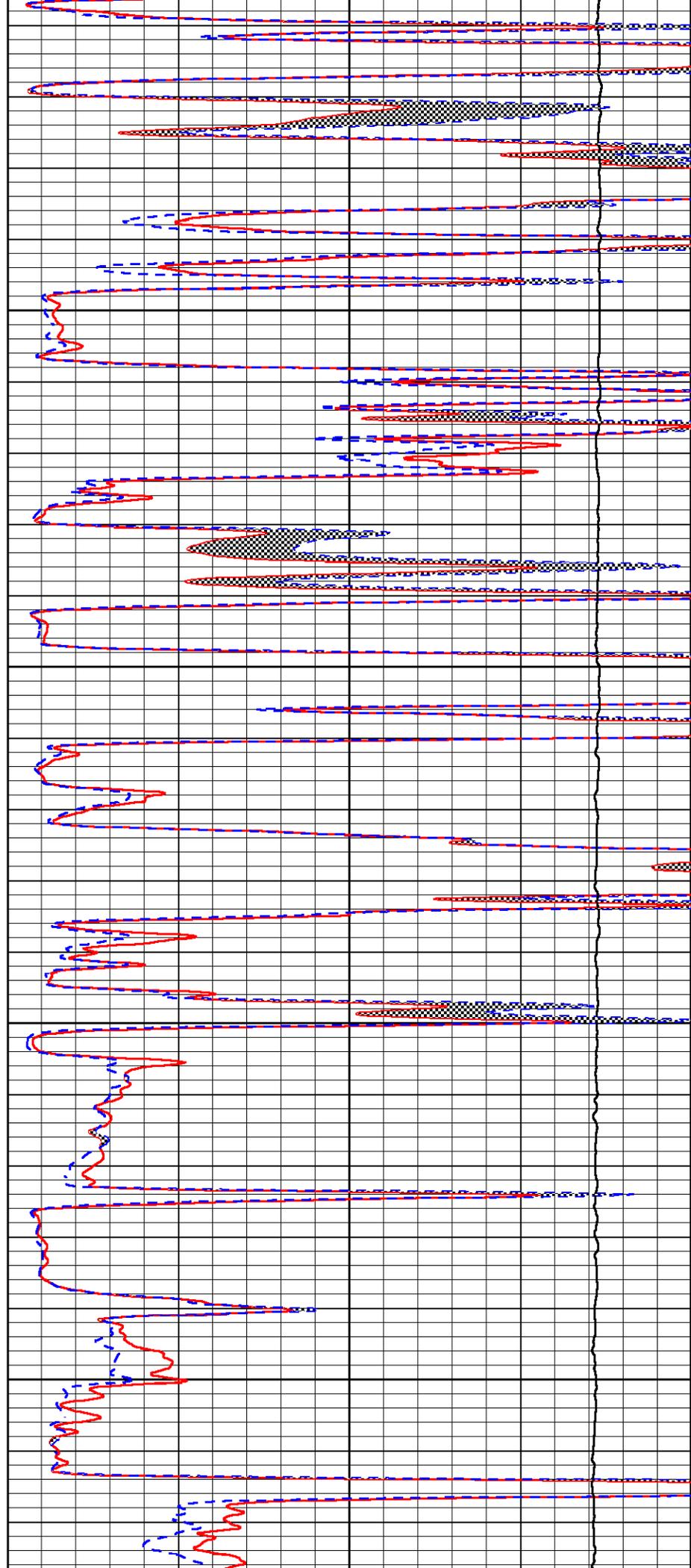


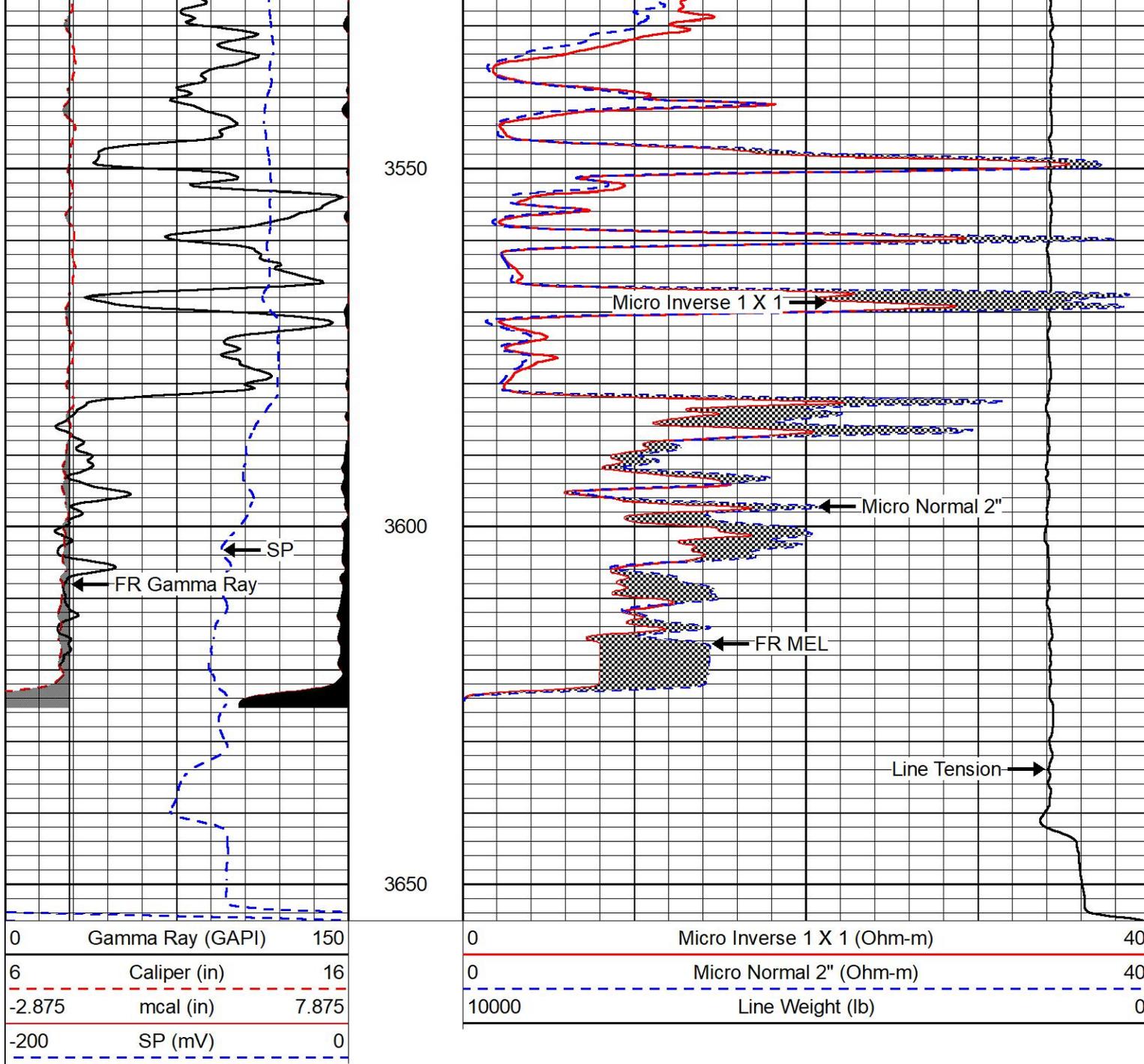
3350

3400

3450

3500

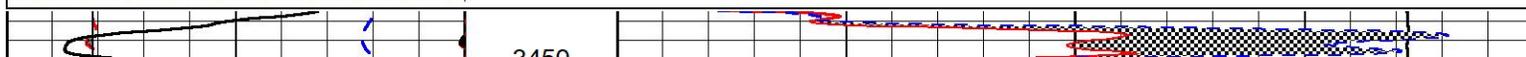
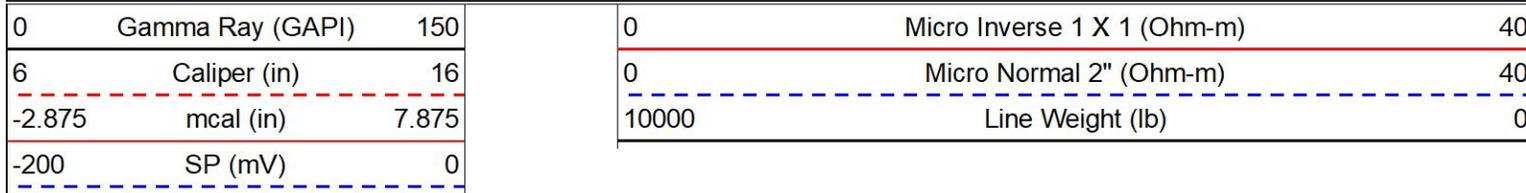


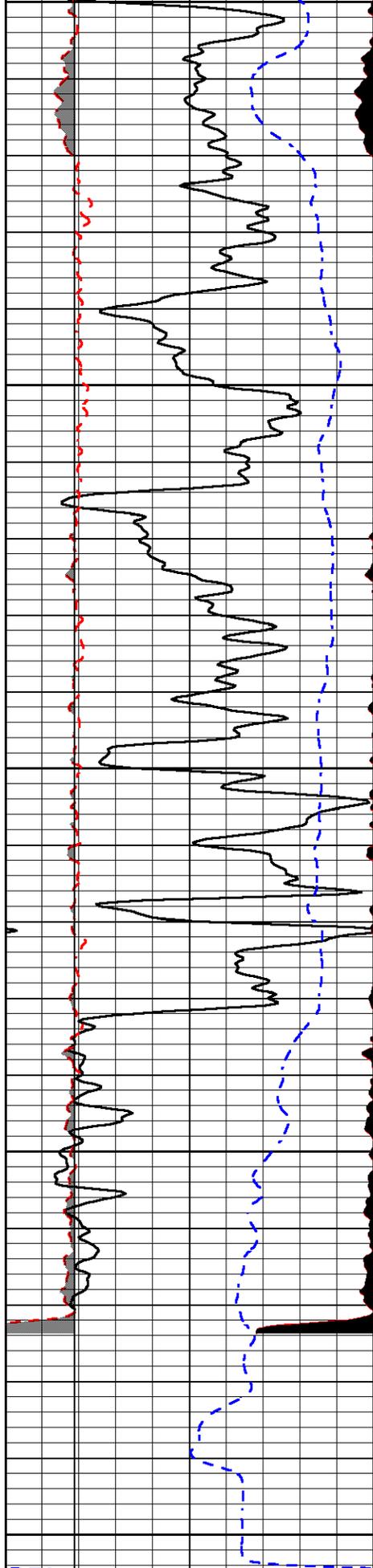


REPEAT SECTION

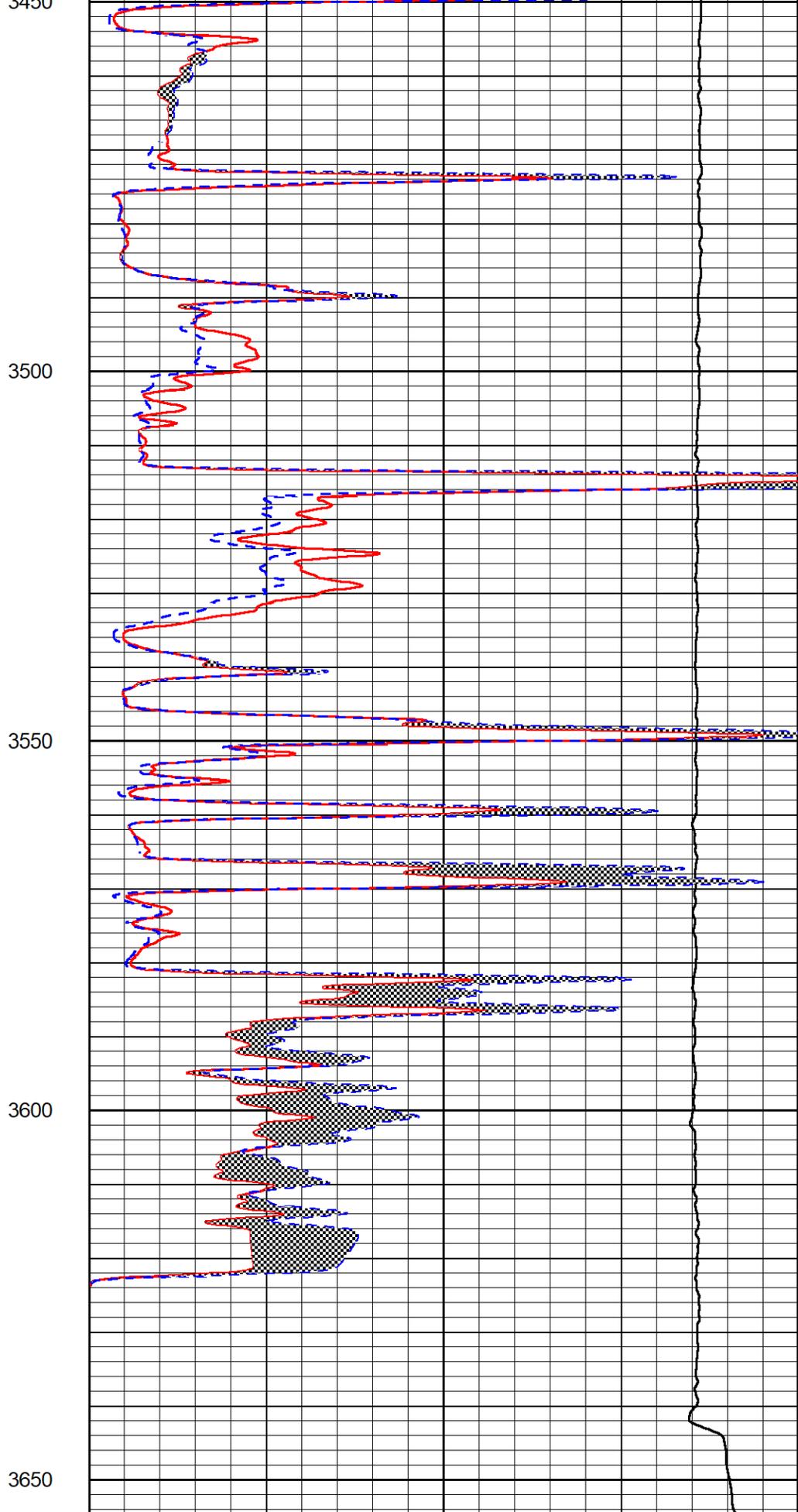
REPEAT PASS

Database File berexco_weinman #1.db
 Dataset Pathname stack/pass2.1
 Presentation Format _micro
 Dataset Creation Fri Feb 25 22:19:50 2022
 Charted by Depth in Feet scaled 1:240





| | | |
|--------|------------------|-------|
| 0 | Gamma Ray (GAPI) | 150 |
| 6 | Caliper (in) | 16 |
| -2.875 | mcal (in) | 7.875 |



| | | |
|-------|-----------------------------|----|
| 0 | Micro Inverse 1 X 1 (Ohm-m) | 40 |
| 0 | Micro Normal 2" (Ohm-m) | 40 |
| 10000 | Line Weight (lb) | 0 |

Calibration Report

Database File berexco_weinman #1.db
 Dataset Pathname sonmel/pass2.1
 Dataset Creation Fri Feb 25 23:18:28 2022

Microlog Calibration Report

Serial-Model: 0001G-GO
 Performed: Fri Nov 22 10:11:50 2013

| | Readings | | | References | | | Results | |
|---------|----------|--------|---|------------|---------|-------|----------|--------|
| | Zero | Cal | | Zero | Cal | | m | b |
| Normal | -0.3936 | 0.6257 | V | 0.0000 | 10.0000 | Ohm-m | 16.0000 | 0.1000 |
| Inverse | 0.0179 | 0.4655 | V | 0.0000 | 10.0000 | Ohm-m | 15.0000 | 0.1000 |
| Caliper | -0.0001 | 0.0841 | V | 5.0000 | 20.0000 | in | 280.0000 | 4.4500 |

Calibration Report

Database File berexco_weinman #1.db
 Dataset Pathname stack/pass3.1
 Dataset Creation Fri Feb 25 21:54:39 2022

Dual Induction Calibration Report

Serial-Model: 501 HT-M&W
 Surface Cal Performed: Wed Feb 23 19:44:50 2022

| Loop: | Readings | | References | | | Results | |
|--------|----------|----------|------------|---------|--------|---------|---------|
| | Air | Loop | Air | Loop | | m | b |
| Deep | 83.639 | 487.104 | 0.000 | 183.000 | mmho/m | 0.455 | -41.500 |
| Medium | 113.335 | 1585.690 | 0.000 | 442.000 | mmho/m | 0.320 | -35.000 |

Compensated Density Calibration Report

Serial-Model: 305-05-M&W
 Source #: 20762B
 Master Calibration Performed: Mon Jan 24 19:14:33 2022

Master Calibration

| | Density | | Far Detector | Near Detector | |
|---------------------|---------|------|-----------------------------|---------------|-----|
| Magnesium | 1.755 | g/cc | 8758.11 | 9709.36 | cps |
| Aluminum | 2.630 | g/cc | 1513.14 | 5652.54 | cps |
| Spine Angle = 72.88 | | | Density/Spine Ratio = 0.476 | | |
| | Size | | Reading | | |
| Small Ring | 4.00 | in | 1.75 | | |
| Large Ring | 14.00 | in | 1.38 | | |

Compensated Neutron Calibration Report

Serial-Model: 207-MW-M&W

Source #:
Master Calibration Performed:

100046B
Mon Nov 29 15:06:24 2021

Master Calibration

| Detector | Readings | Target | Normalization |
|-------------|-------------|-------------|---------------|
| Short Space | 6240.00 cps | 1000.00 cps | 1.6025 |
| Long Space | 460.00 cps | 1000.00 cps | 1.9500 |

Gamma Ray Calibration Report

Serial Number: 101
Tool Model: M&W
Performed: Mon Jan 24 19:14:46 2022

Calibrator Value: 500.0 GAPI

Background Reading: 24.0 cps
Calibrator Reading: 637.0 cps

Sensitivity: 0.5500 GAPI/cps



Company Berexco, LLC
Well Weinman #1
Field Dayton
County Phillips
State Kansas