



MIDWEST WIRELINE

MICRORESISTIVITY LOG

Company RAMA Operating Co., Inc.
 Well Ruthie 'T' #2-26
 Field Leiss Southeast
 County Stafford
 State Kansas

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Location: API #: 15-185-24080-00-00
 SW - SE - NE - NE
 1267' FNL& 461' FEL
 SEC 26 TWP 25S RGE 13W
 Other Services
 CNL/CDL
 DIL
 Elevation
 K.B. 1926'
 D.F. N/A
 G.L. 1915'

| | |
|------------------------|---------------|
| Date | 5/24/2021 |
| Run Number | One |
| Depth Driller | 4290' |
| Depth Logger | 4289' |
| Bottom Logged Interval | 4288' |
| Top Log Interval | 3300' |
| Casing Driller | 8.625" @ 328' |
| Casing Logger | 327' |
| Bit Size | 7.875" |
| Type Fluid in Hole | Chemical |
| Salinity, ppm CL | 6000 |
| Density / Viscosity | 9.5 54 |
| pH / Fluid Loss | 10.5 10.8 |
| Source of Sample | FLOWLINE |
| Rm @ Meas. Temp | 0.70 @ 60 |
| Rmt @ Meas. Temp | 0.60 @ 60 |
| Rmc @ Meas. Temp | 1.08 @ 60 |
| Source of Rmf / Rmc | CHARTS |
| Rm @ BHT | 0.40 @ 119 |
| Operating Rig Time | 2 Hours |
| Max Rec. Temp. F | 119 |
| Equipment Number | P-24 |
| Location | HAYS |
| Recorded By | D.Schmidt |
| Witnessed By | Josh Austin |

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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.

St. John,
 South to Hwy 50, 8 South, 2 East, 3/4 North,
 West into

Log Measured From: Kelly Bushing 11 Ft. Above Permanent Datum

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

| | | | |
|----------------------------|-----------|----------------------------------|--------------------|
| Your Midwest Wireline Crew | | This Log Record Was Witnessed By | |
| Engineer: D.Schmidt | Operator: | Primary Witness: Josh Austin | Secondary Witness: |
| Operator: | Operator: | Secondary Witness: | Secondary Witness: |
| Operator: | | Secondary Witness: | |

| | | | | | | |
|----------|-------------|-----------|-------------|-------------|-----------|-------------|
| Operator | Offset (ft) | Substrate | Description | Length (ft) | C.D. (in) | Weight (lb) |
|----------|-------------|-----------|-------------|-------------|-----------|-------------|

| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb) |
|--------------------|-------------------------|-----------|--|-------------|-----------|-------------|
| GR | 44.50 | | GR-M&W (233-M&W) | 3.00 | 3.50 | 50.00 |
| CNLSC CNSSC | 41.40 40.65 | | CNT-M&W (207-MW) | 5.50 | 3.50 | 100.00 |
| LSD DCAL SSD | 32.35 32.33 31.85 | | CDL-M&W (817-947) | 8.50 | 4.00 | 250.00 |
| MCAL MI MN | 20.87 20.87 20.87 | | ML-PSI UDM ML (UDM-01) Stackable Microlog Tools | 11.50 | 4.00 | 215.00 |
| RLL3F RLL3 | 15.80 15.80 | | DIL-PSI HIGH TEMP (952-828) | 18.50 | 3.50 | 220.00 |
| CILD | 8.00 | | | | | |
| CILM | 4.70 | | | | | |
| SP | 0.20 | | | | | |

Dataset: rama_ruthie t 2-26.db: field/well/stkml/pass4.1
 Total length: 47.00 ft
 Total weight: 835.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\rama_ruthie t 2-26.db
 Dataset field/well/stkml/pass4.1/_vars_

Top - Bottom

| | | | | | | | |
|-----------|--------------|------------------|-------------------|----------------|------------------|-------|------------------|
| A | BOREID in | BOTTEMP degF | CASEOD in | CASETHCK in | FLUIDDEN g/cc | M | MATRXDEN g/cc |
| 1 | 7.875 | 119 | 5.5 | 0 | 1 | 2 | 2.71 |
| NPORSEL | PERFS | SNDERR mmho/m | SNDERRM mmho/m | SPSHIFT mV | SRFTEMP degF | SZCOR | TDEPTH ft |
| Limestone | No | 0 | 0 | 310 | 60 | Off | 4289 |

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



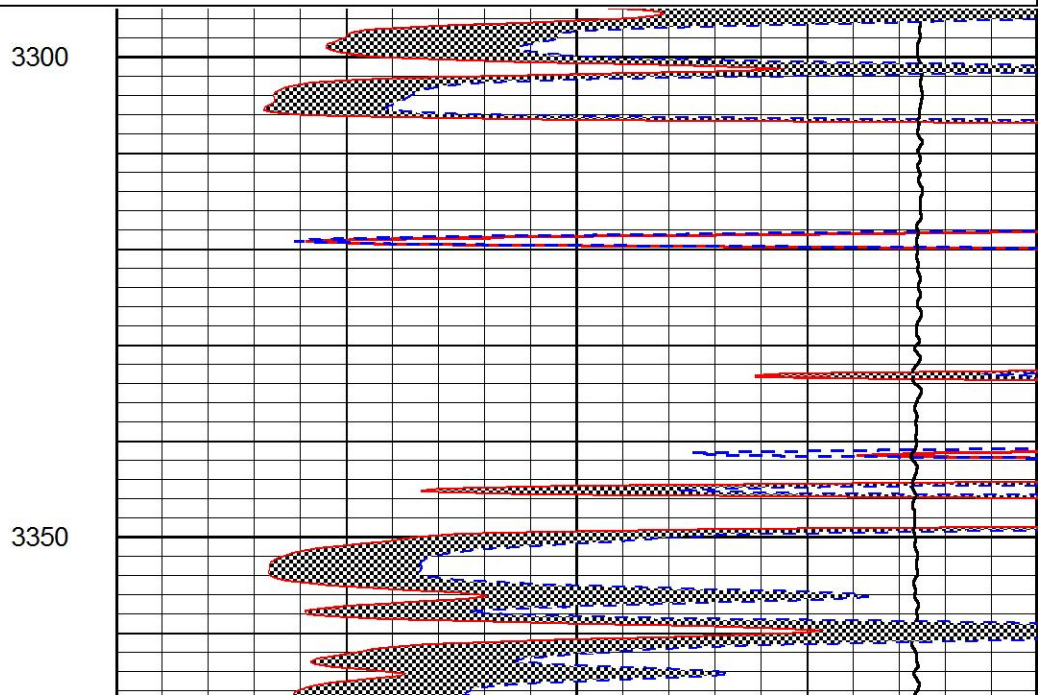
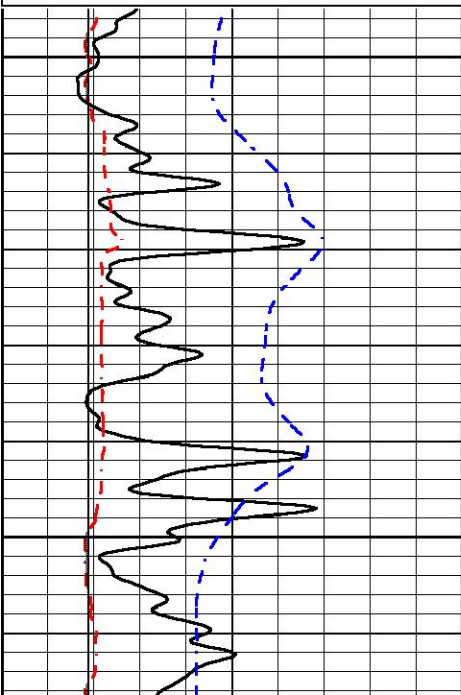
DETAIL SECTION

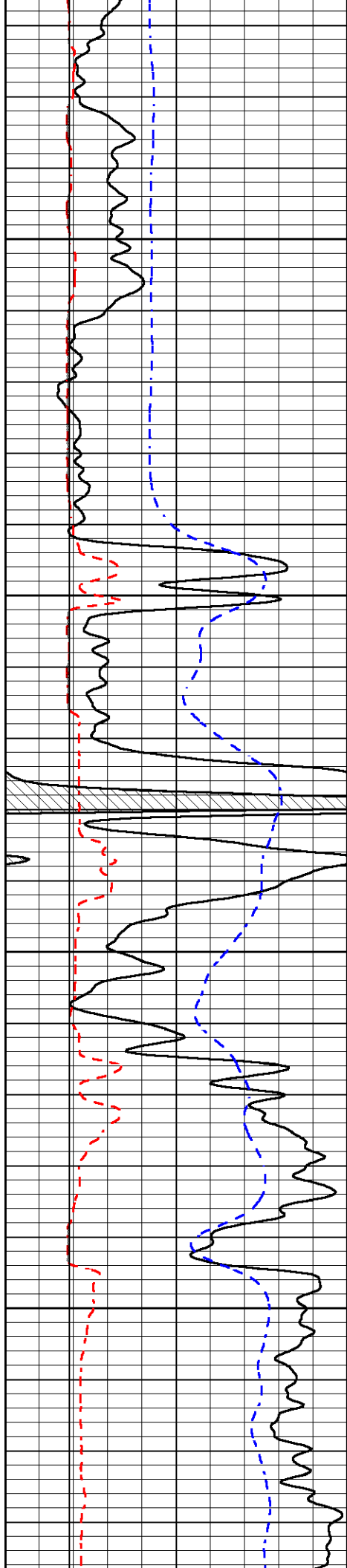
MAIN PASS

Database File rama_ruthie t 2-26.db
 Dataset Pathname stkml/pass4.1
 Presentation Format _micro
 Dataset Creation Mon May 24 14:25:55 2021
 Charted by Depth in Feet scaled 1:240

| | | |
|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| 6 | MCAL (in) | 16 |
| 6 | Bit Size (in) | 16 |
| -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 |



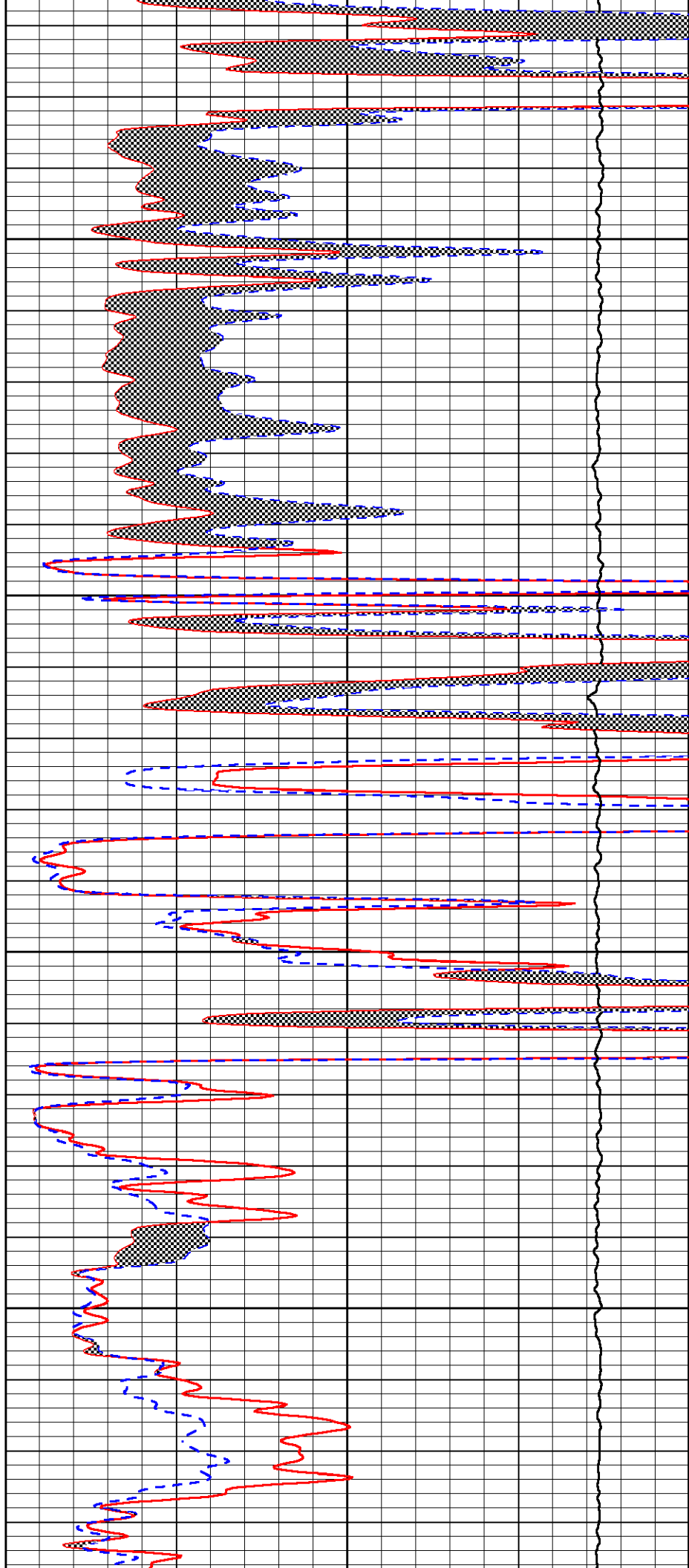


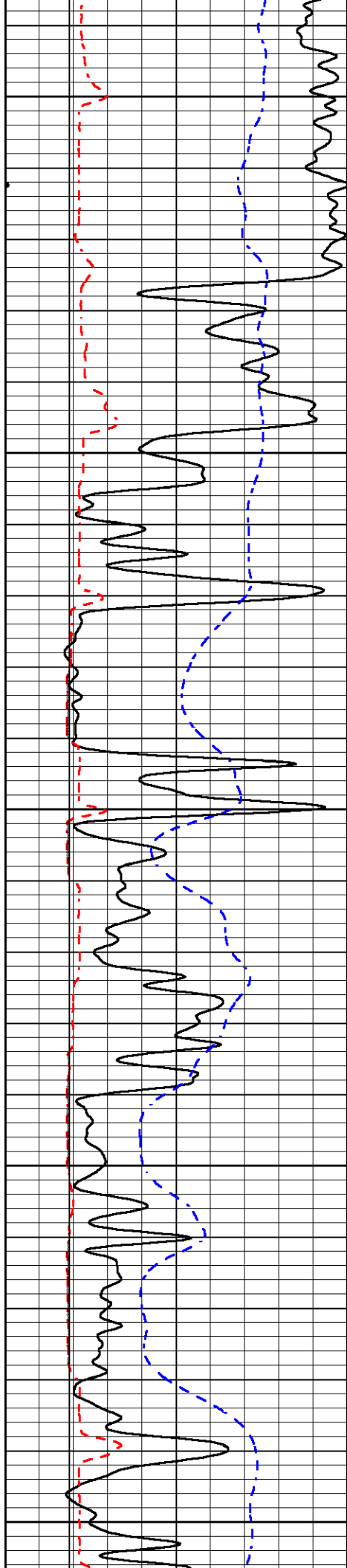
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3450

3500

3550





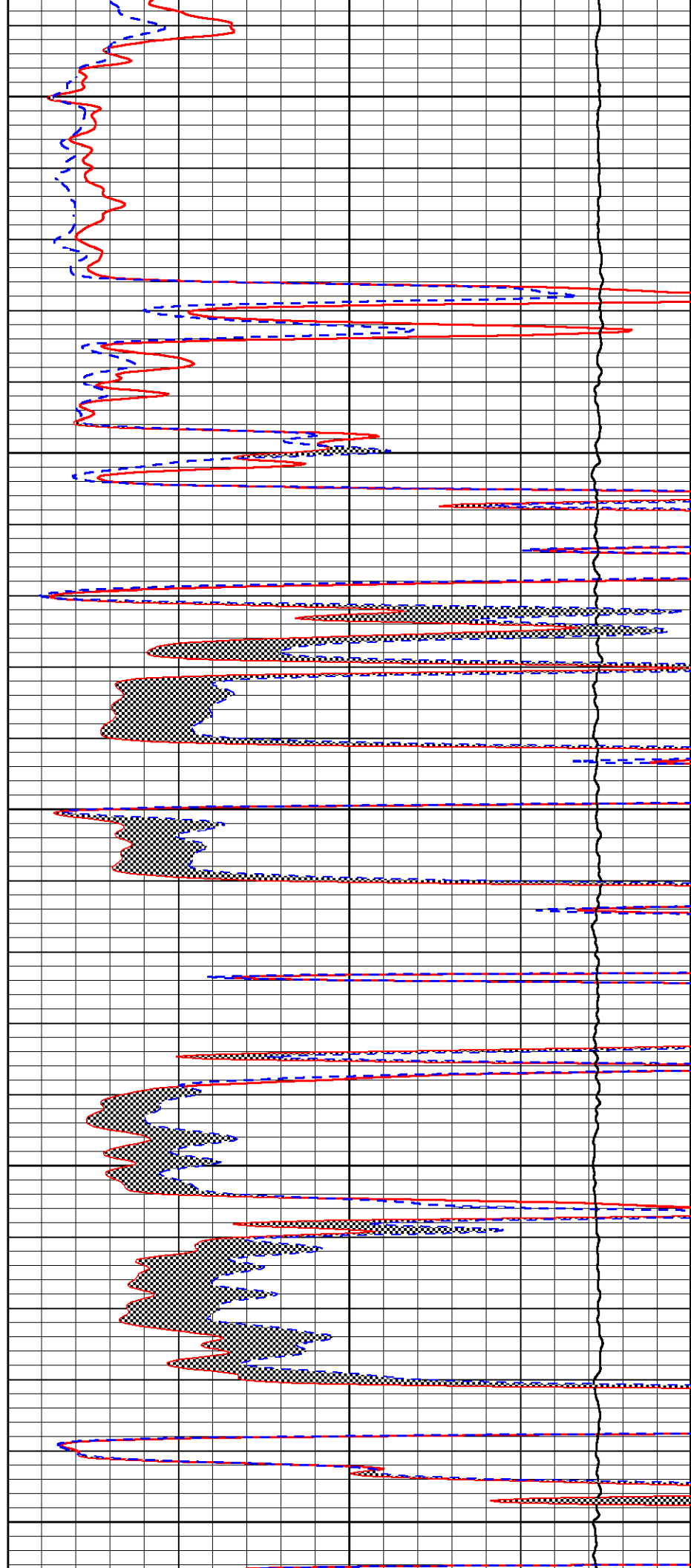
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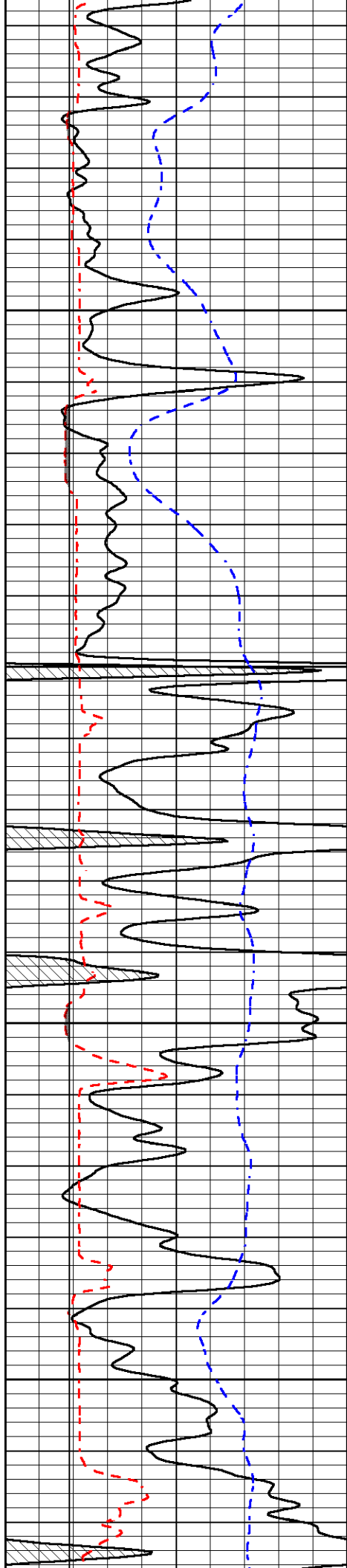
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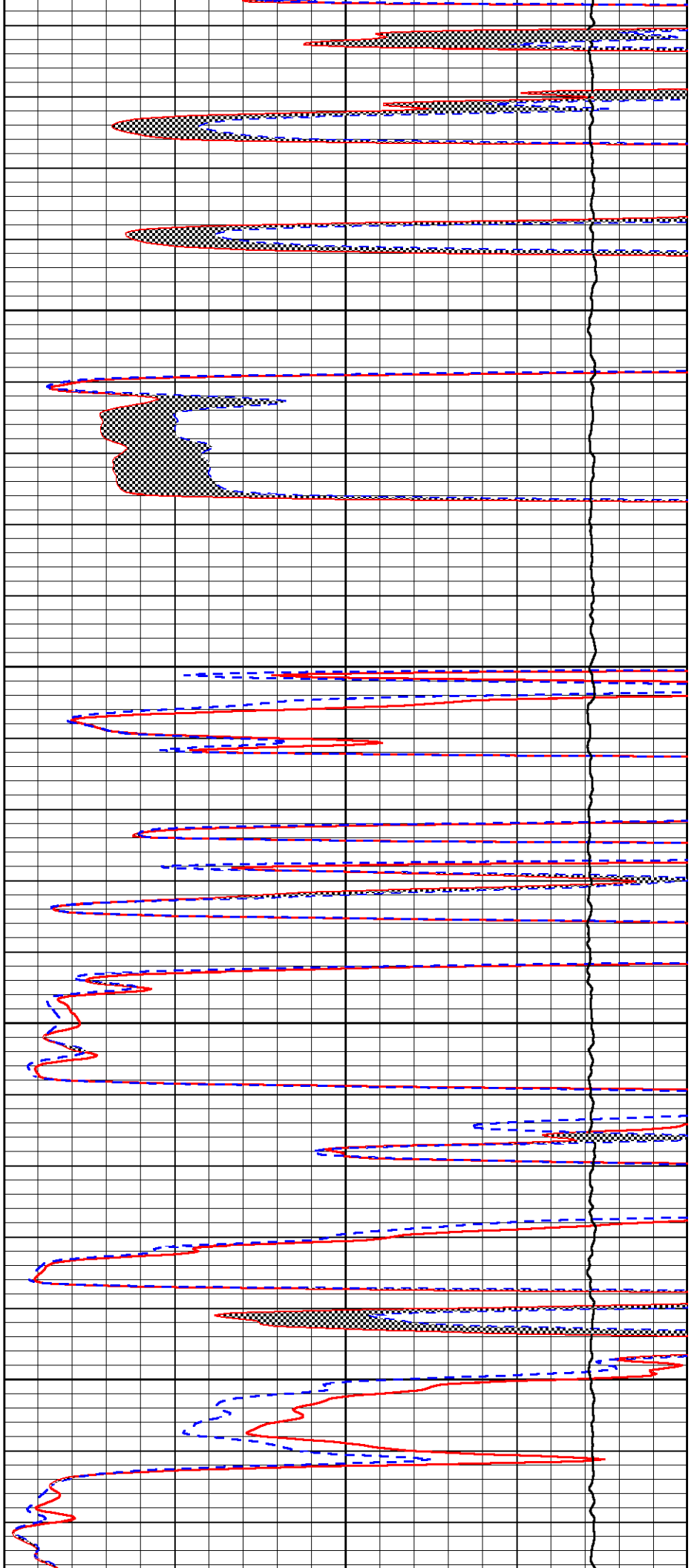


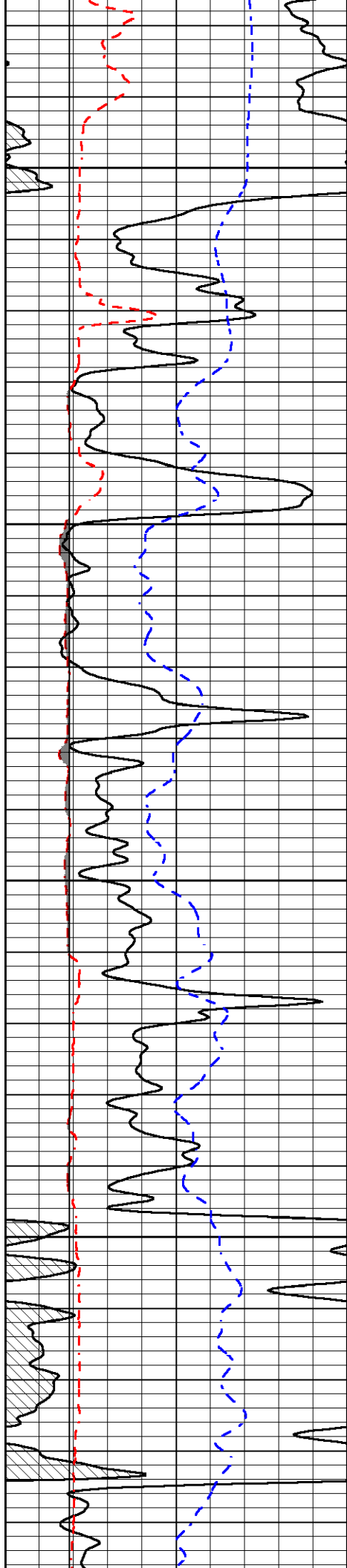
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3950

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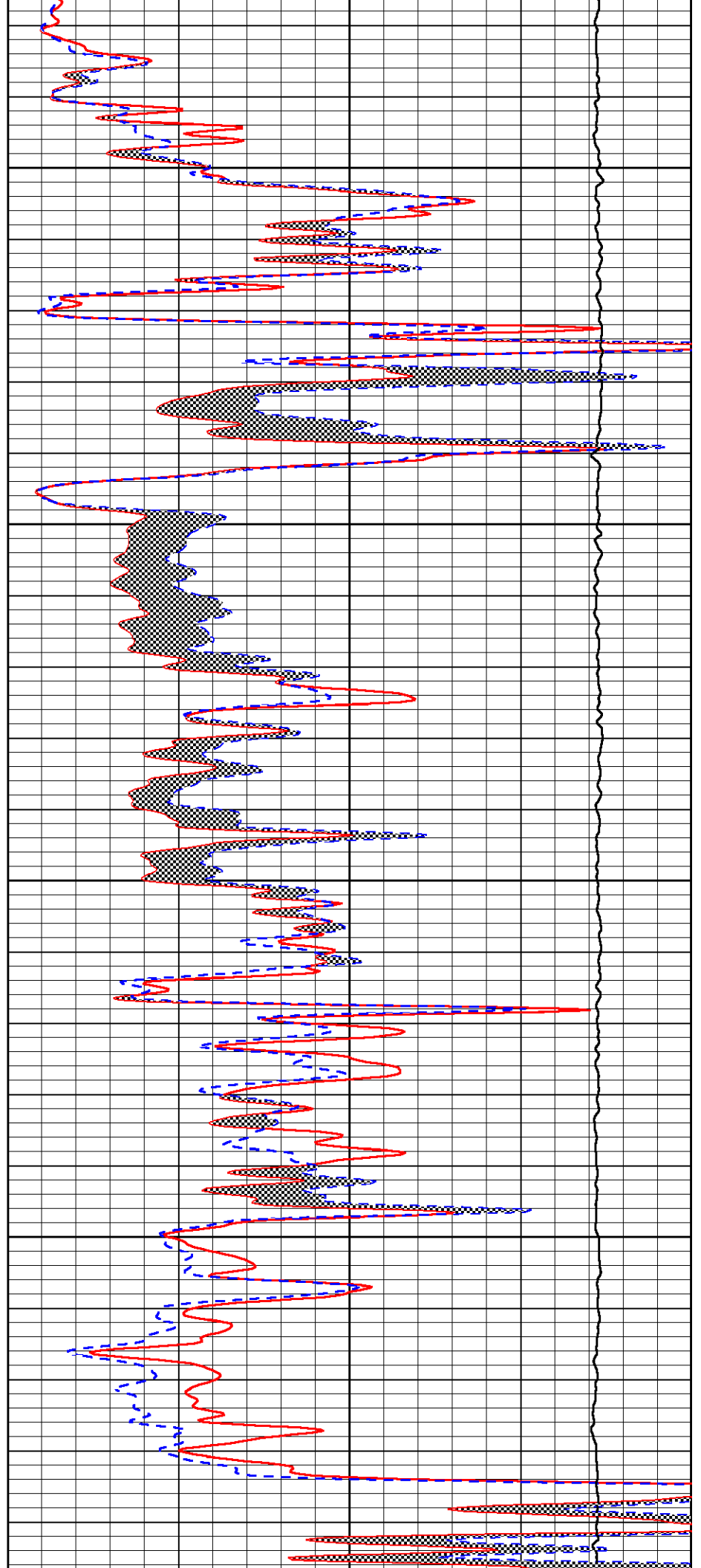


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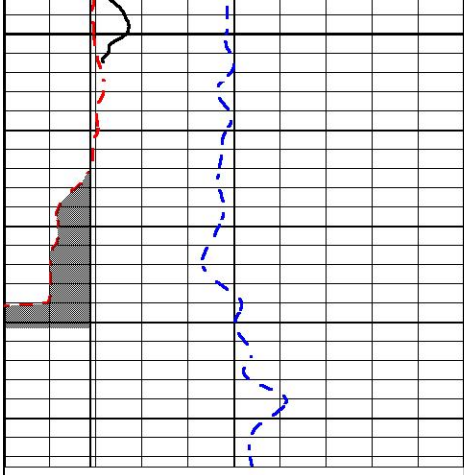
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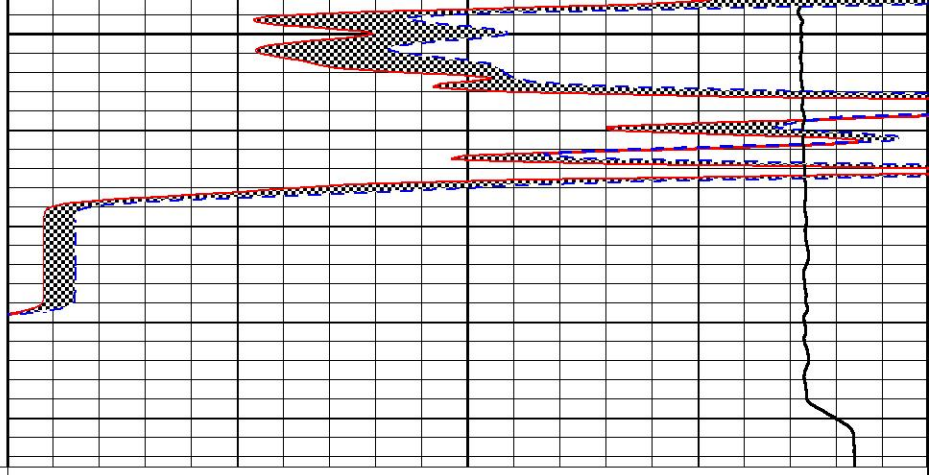
4200



4250



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| 0 | MICRO NORMAL 2" (Ohm-m) | 40 |
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