



MICRORESISTIVITY LOG

Company AMERICAN WARRIOR, INC.
 Well LEE A #6-28
 Field LAKIN
 County KEARNY
 State KANSAS

Company AMERICAN WARRIOR, INC.
 Well LEE A #6-28
 Field LAKIN
 County KEARNY
 State KANSAS

Location: API #: 15-093-21952-00-00
 381' FSL & 335' FWL
 SEC 28 TWP 25S RGE 36W
 Permanent Datum GROUND LEVEL Elevation 3045'
 Log Measured From KELLY BUSHING
 Drilling Measured From KELLY BUSHING
 Other Services
 CNL/CDL
 DIL
 Elevation
 K.B. 3056'
 D.F. N/A
 G.L. 3045'

Date	1/25/2017
Run Number	ONE
Depth Driller	5050'
Depth Logger	5050'
Bottom Logged Interval	5049'
Top Log Interval	3500'
Casing Driller	8.625" @ 1817'
Casing Logger	1817'
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	775
Density / Viscosity	9.3 69
pH / Fluid Loss	10.0 7.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.90 @ 44
Rmt @ Meas. Temp	0.68 @ 44
Rmc @ Meas. Temp	1.22 @ 44
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.31 @ 127
Operating Rig Time	3 HOURS
Max Rec. Temp. F	127
Equipment Number	91
Location	COLBY
Recorded By	D. SCHMIDT
Witnessed By	LUKE THOMPSON

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

LAKIN,
 SOUTH ON HWY 25 TO R RD, 3/4 SOUTH,
 EAST INTO

Log Measured From: KELLY BUSHING 11 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew

Engineer: D. SCHMIDT
 Operator:
 Operator:
 Operator:

This Log Record Was Witnessed By

Primary Witness: LUKE THOMPSON
 Secondary Witness:
 Secondary Witness:
 Secondary Witness:

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	70	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	22	0	5.5	0	5050	127	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (89)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (90-1031)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
RLL3F RLL3	15.80 15.80					

CILD	8.00		DIL-M&W (PSI 13)	18.50	3.50	220.00
CILM	4.70					
SP	0.20					
Dataset: american_warrior_lee_a_6-28.db: field/well/STKML/pass3.3 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in						

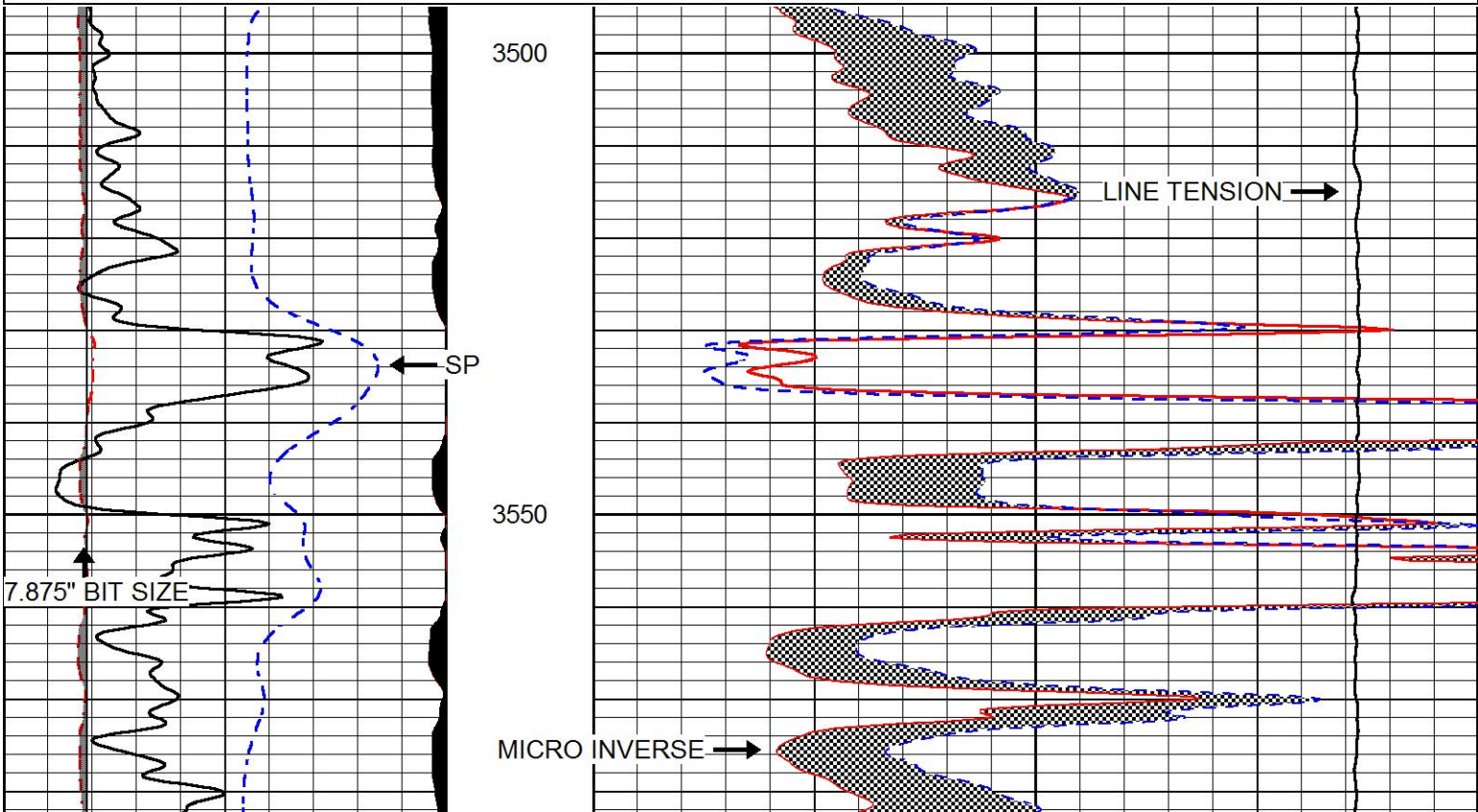


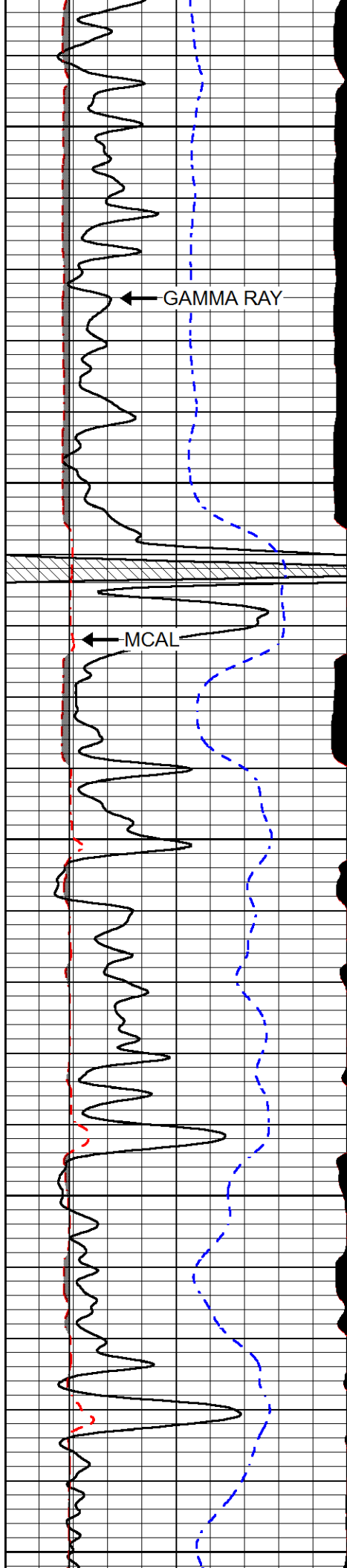
MAIN PASS

Database File	american_warrior_lee_a_6-28.db
Dataset Pathname	STKML/pass3.1
Presentation Format	micro
Dataset Creation	Wed Jan 25 07:18:59 2017
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
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





3600

GAMMA RAY

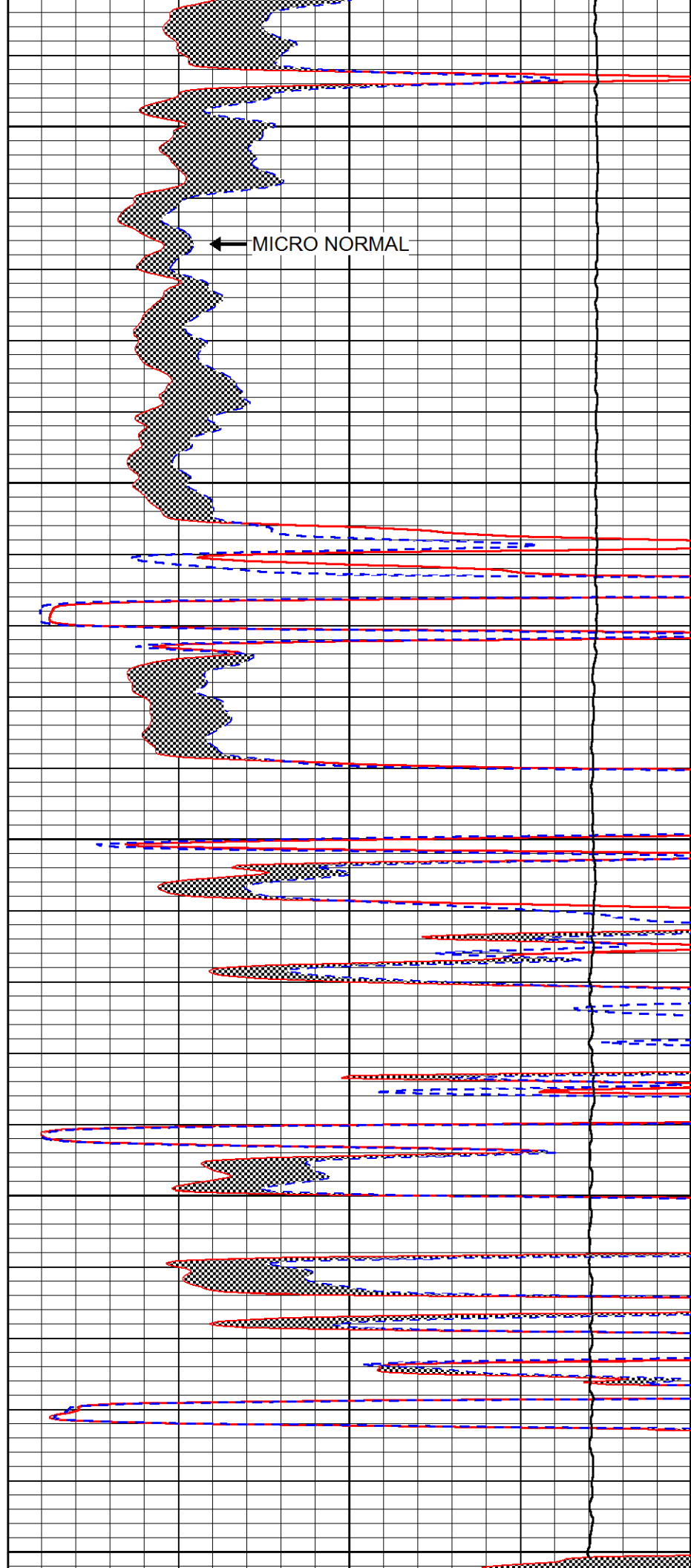
MCAL

3650

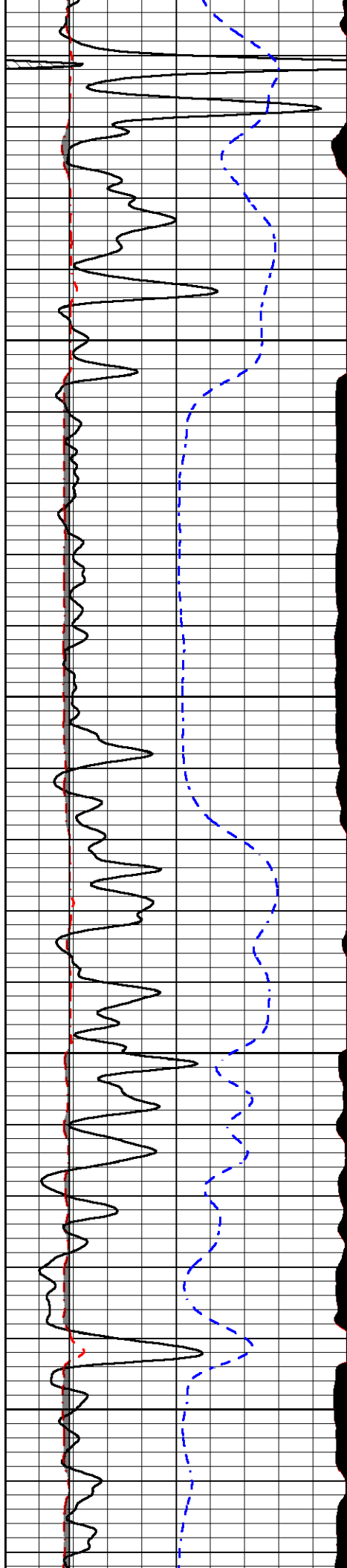
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3750

3800



MICRO NORMAL

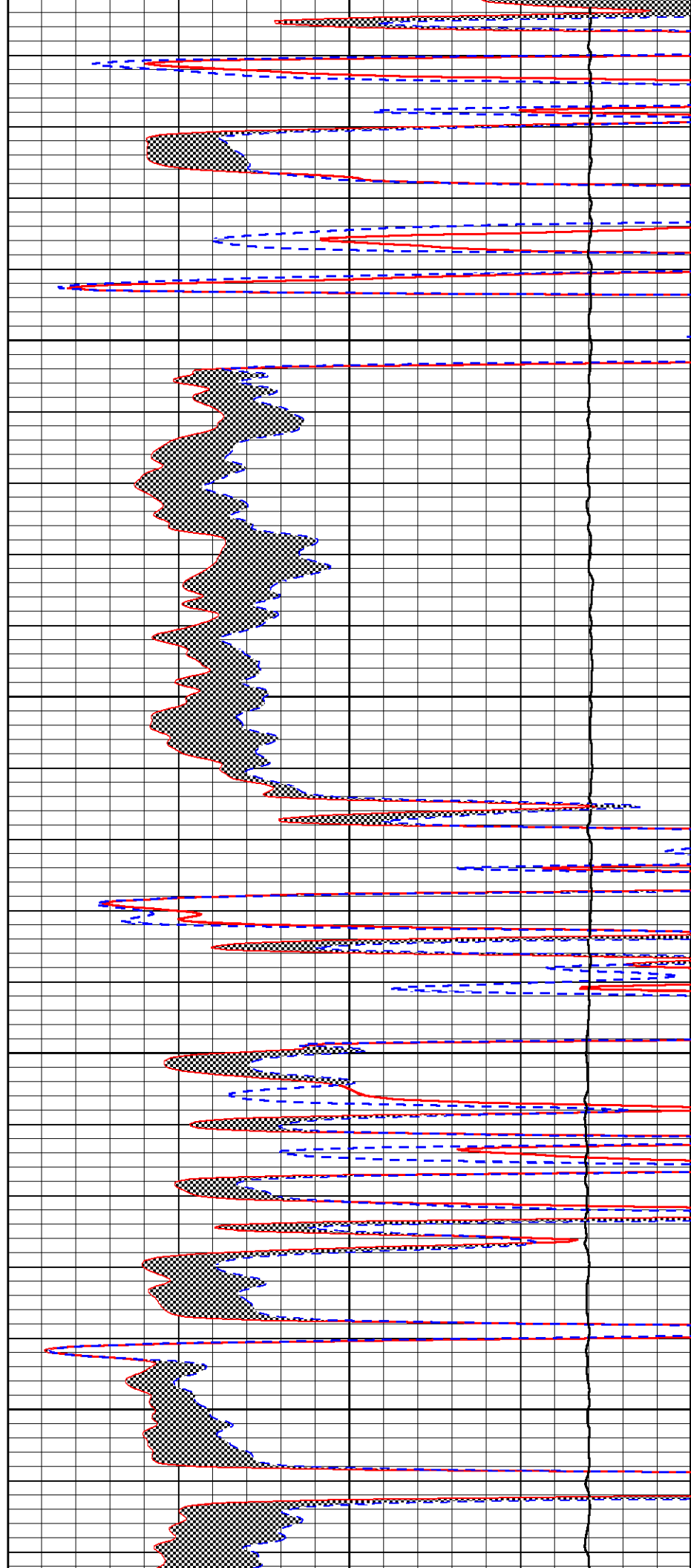


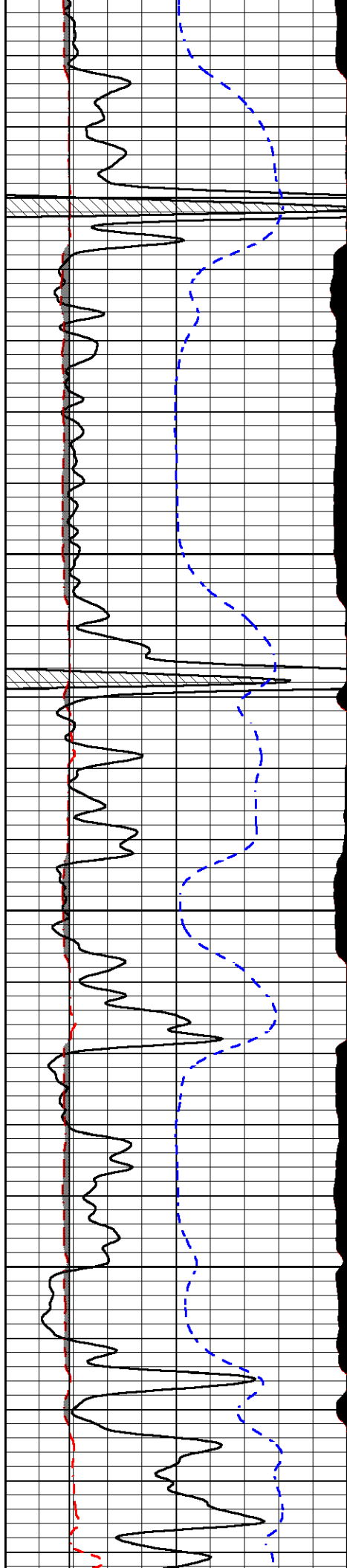
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3900

3950

4000



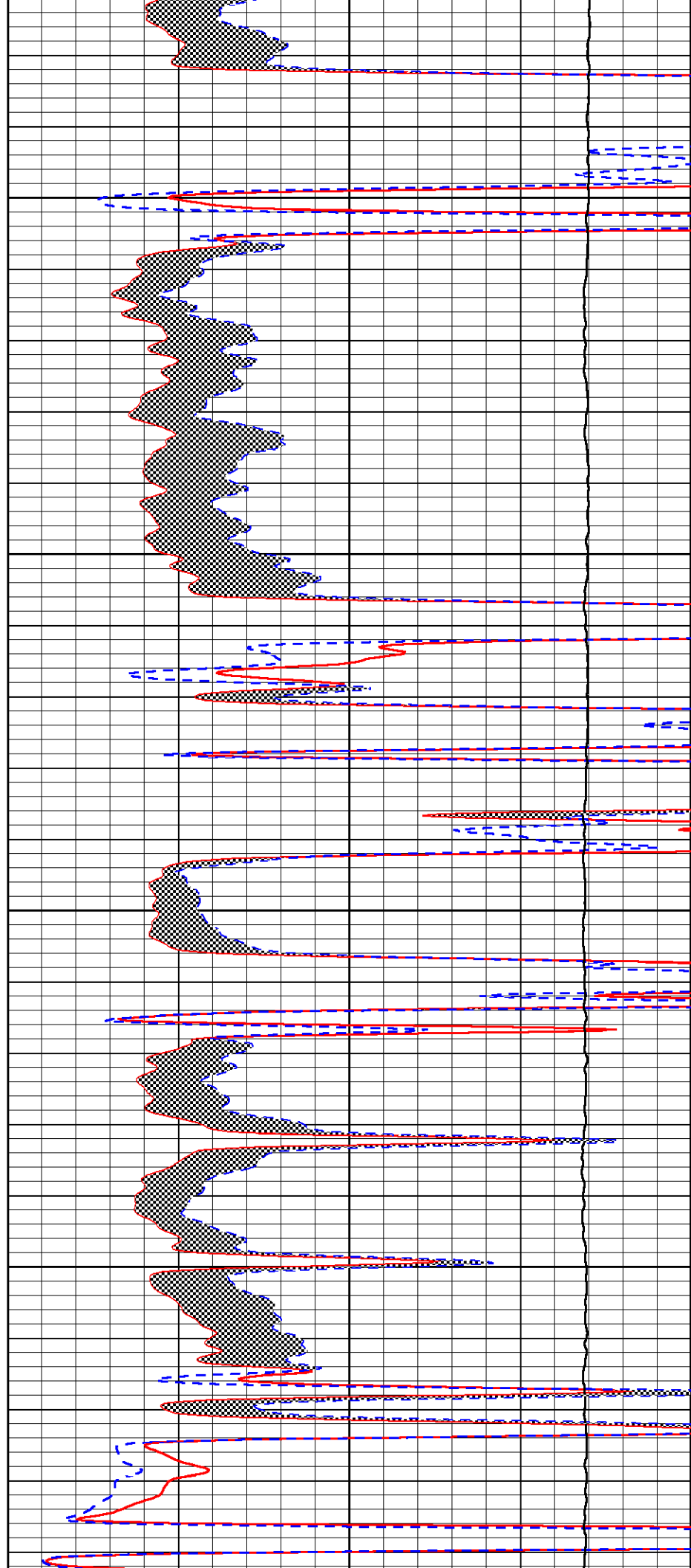


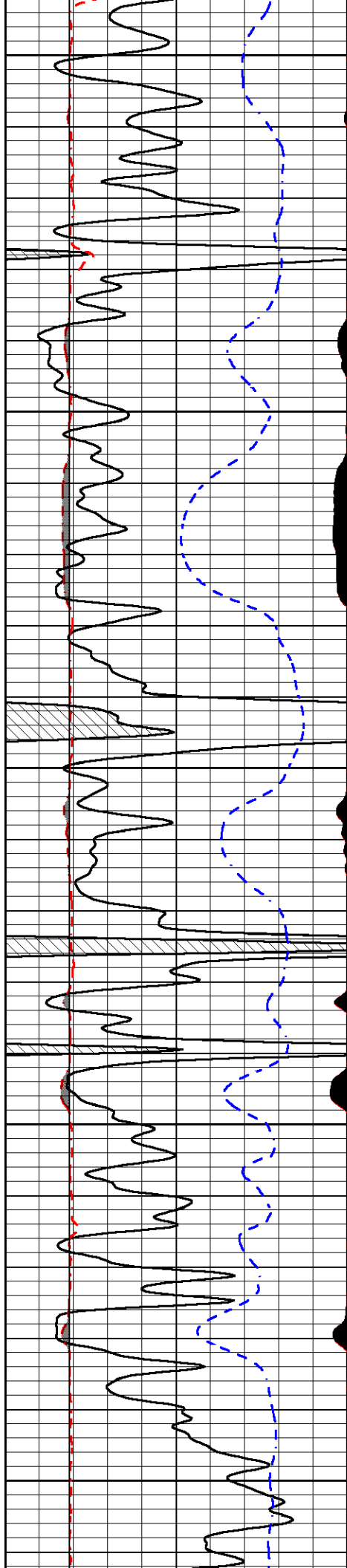
4050

4100

4150

4200





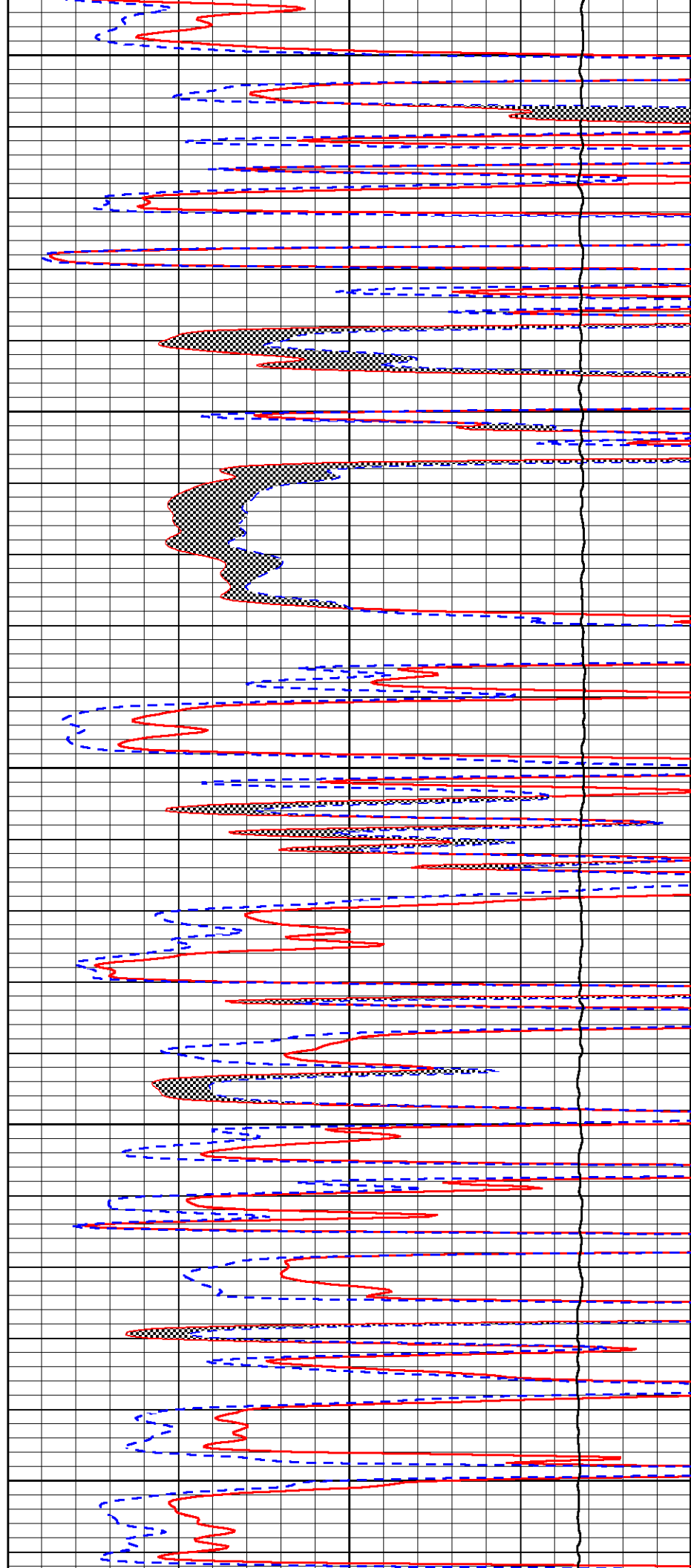
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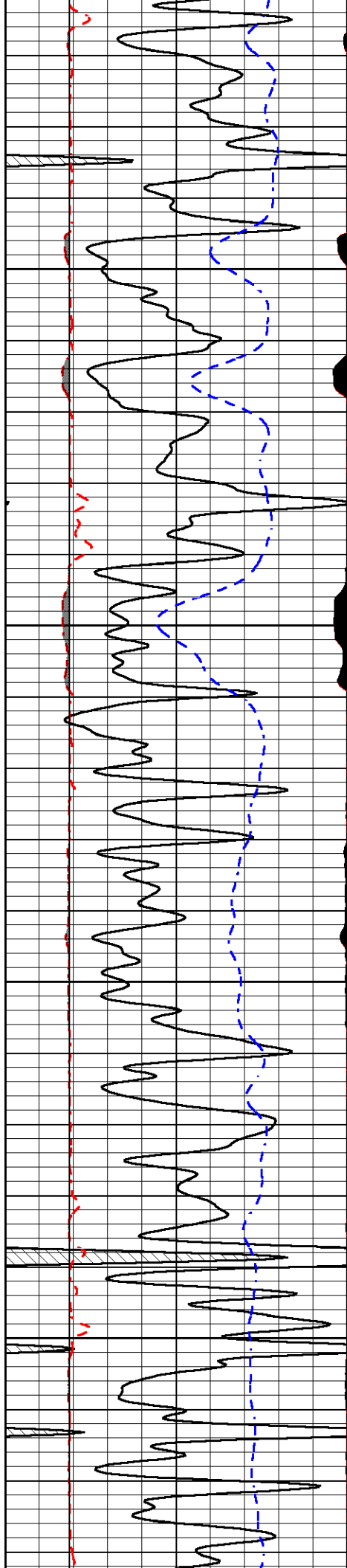
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4350

4400

4450



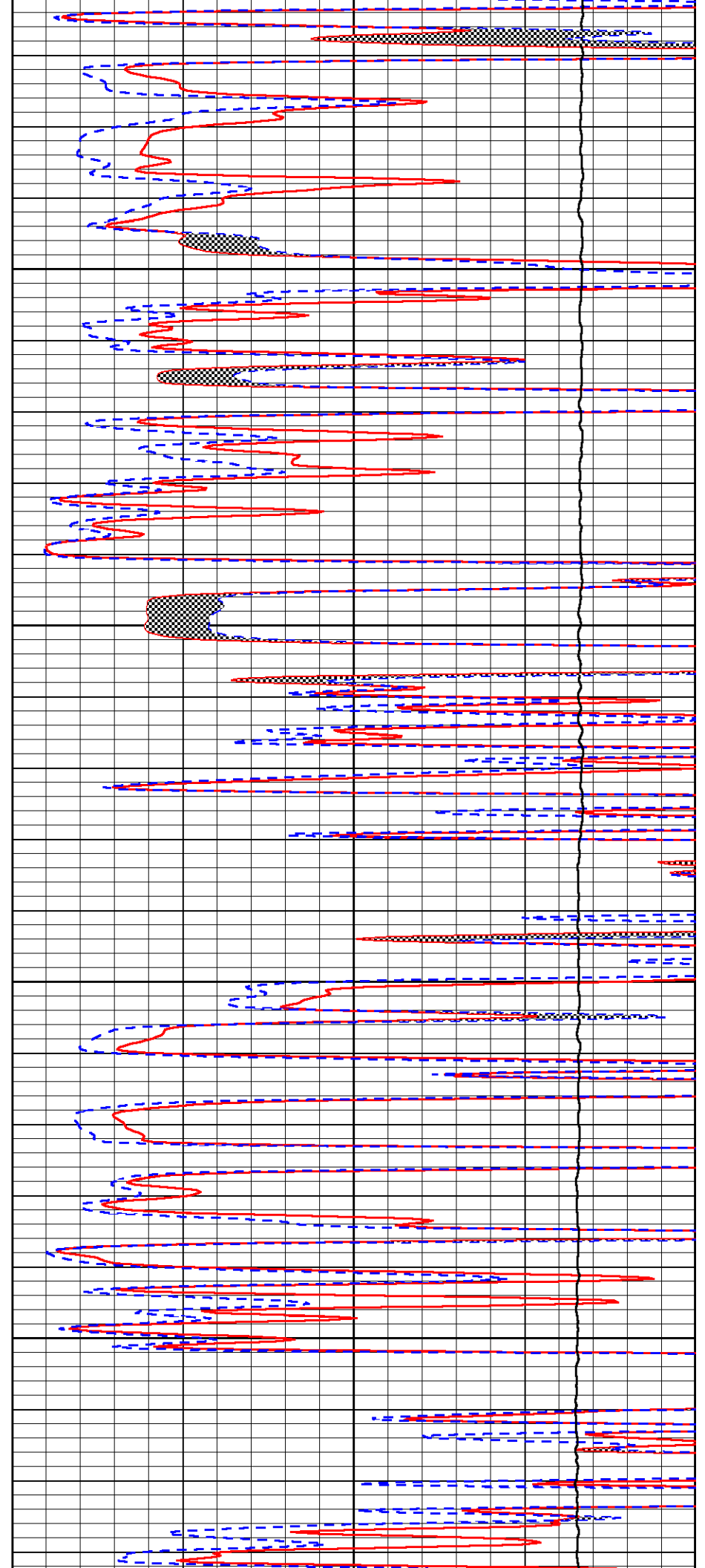


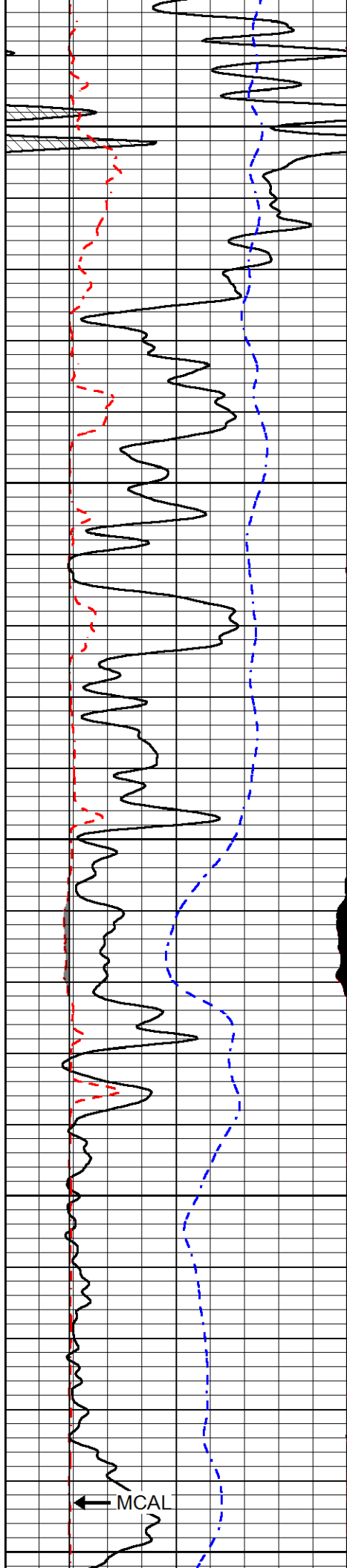
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4550

4600

4650





4700

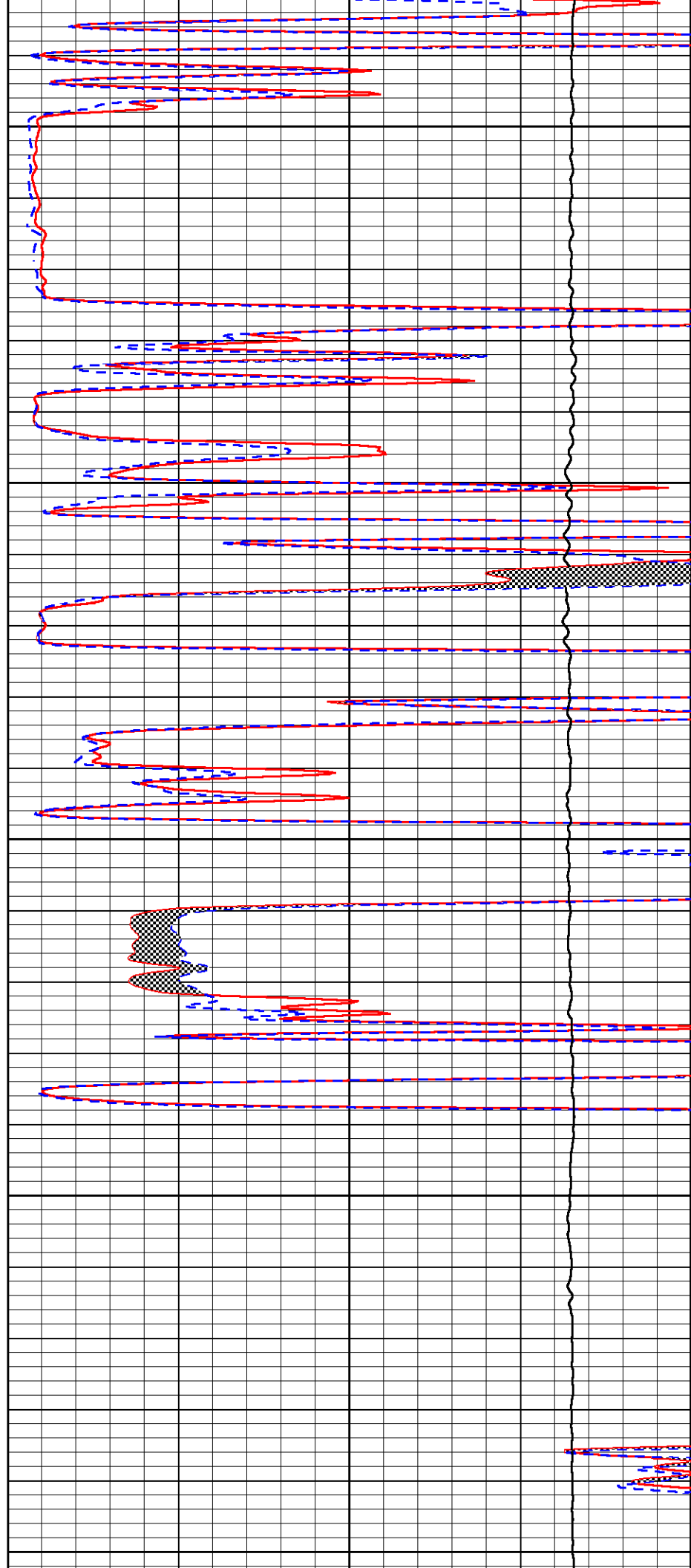
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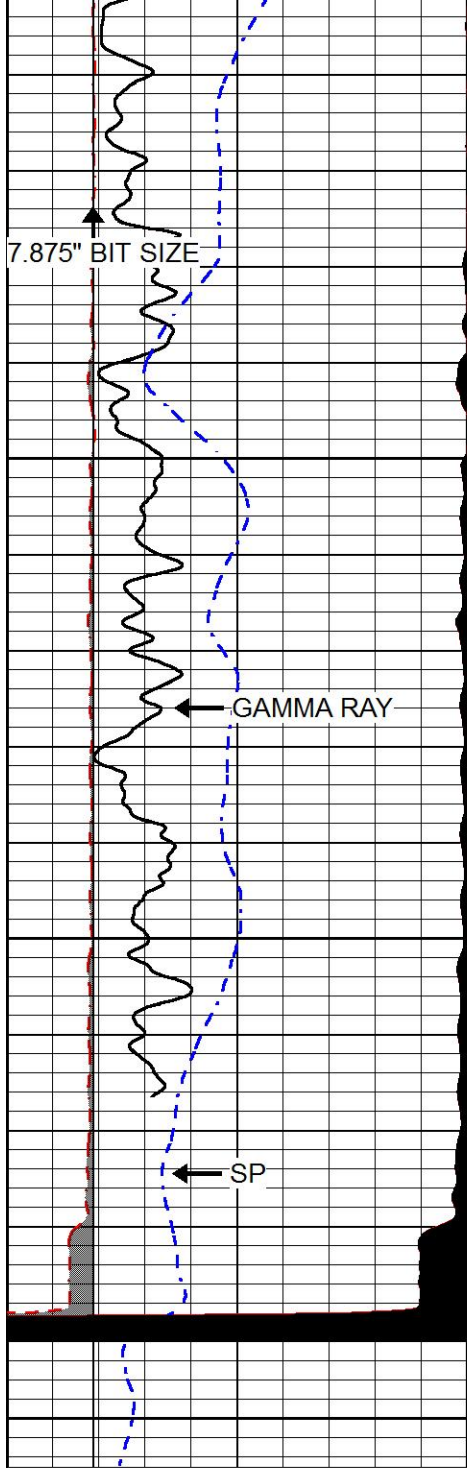
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4850

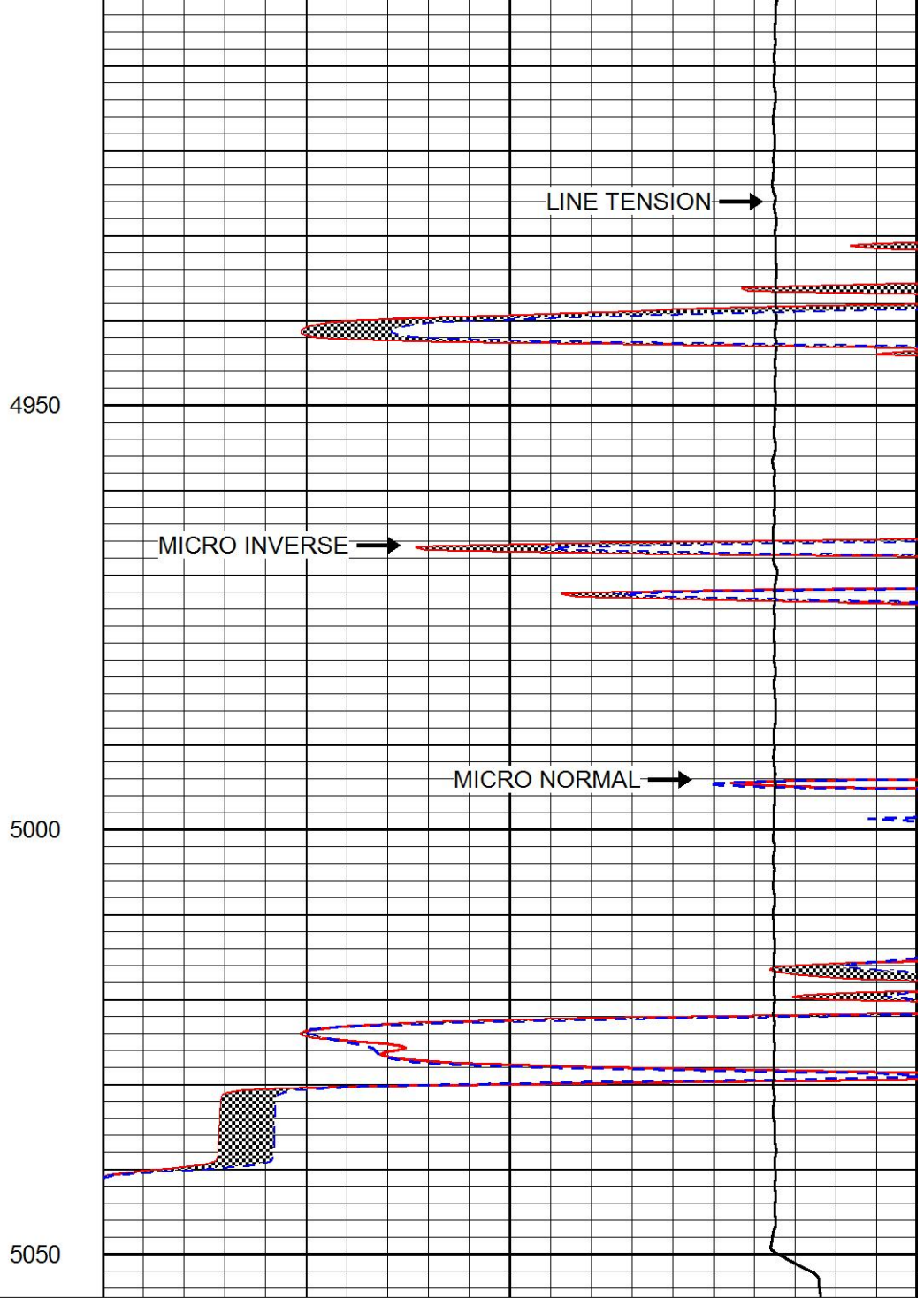
4900

MCAL





0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
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

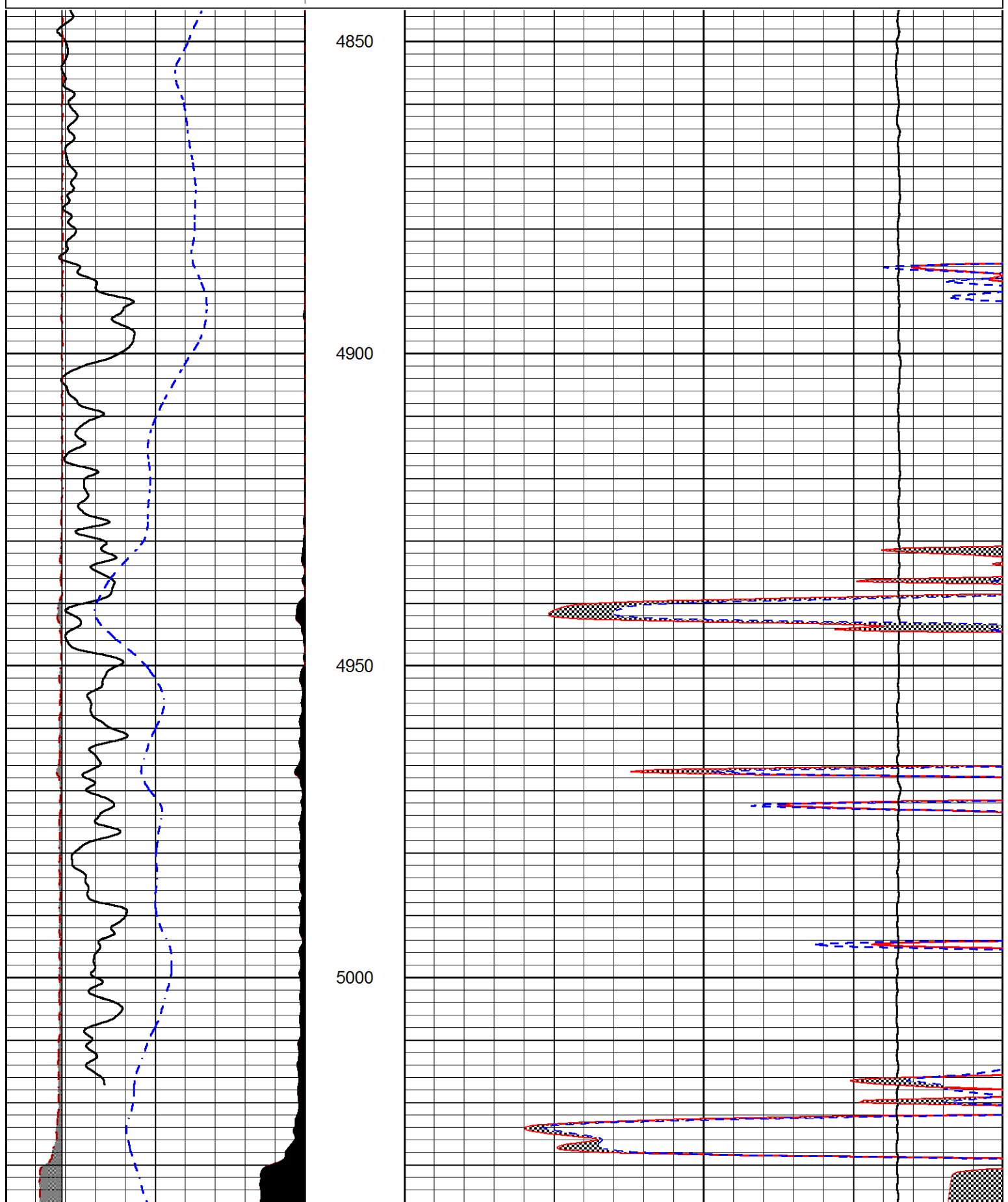


REPEAT SECTION

Database File	american warrior_lee_a_6-28.db
Dataset Pathname	STKML/pass2.3
Presentation Format	micro
Dataset Creation	Wed Jan 25 07:06:09 2017
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
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



Small Ring	6.00	in	1.83
Large Ring	16.00	in	1.48

Compensated Neutron Calibration Report

Serial Number:	207-MW
Tool Model:	M&W
Calibration Performed:	Mon Jan 2 10:30:30 2017

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:	89
Tool Model:	M&W
Calibration Performed:	Mon Jan 02 18:08:34 2017
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.6000 GAPI/cps



PIONEER
Pioneer Energy Services

Company	AMERICAN WARRIOR, INC.
Well	LEE A #6-28
Field	LAKIN
County	KEARNY
State	KANSAS