



MICRORESISTIVITY LOG

PIONEER
Pioneer Energy Services

Company AGRICULTURAL ENERGY SERVICES
Well DON THORP #3-23
Field KISMET
County SEWARD
State KANSAS

Company AGRICULTURAL ENERGY SERVICES
Well DON THORP #3-23
Field KISMET
County SEWARD State KANSAS

Location: API #: 15-175-22263-00-00

1650 FNL & 710' FWL

SEC 23 TWP 33S RGE 31W

Permanent Datum GROUND LEVEL Elevation 2739'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Other Services
CNL/CDL
DIL/SON
Elevation
K.B. 2747'
D.F. N/A
G.L. 2739'

Date	6/27/2018		
Run Number	ONE		
Depth Driller	5997'		
Depth Logger	5987'		
Bottom Logged Interval	5986'		
Top Log Interval	1600'		
Casing Driller	8.625" @ 1621'		
Casing Logger	1620'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity, ppm CL	2250		
Density / Viscosity	9.0 66		
pH / Fluid Loss	10.0 8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.58 @ 82		
Rmt @ Meas. Temp	.44 @ 82		
Rmc @ Meas. Temp	.78 @ 82		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	.35 @ 136		
Operating Rig Time	5 HOURS		
Max Rec. Temp. F	136		
Equipment Number	108		
Location	HAYS		
Recorded By	IAN MABB		
Witnessed By	CHUCK SCHMIDT		

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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.

PLAINS, KS.

SOUTHWEST ON HWY 54 TO RD W - SOUTH 3 1/2 MILES EAST INTO

Log Measured From: KELLY BUSHING 6 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

Engineer: IAN MABB
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: CHUCK SCHMIDT
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 136	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
1	0	mmho/m 0	mmho/m 1	mV -80	degF 0	0	ft 5987

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	37.48			CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	36.73						
LSD DCAL SSD	28.43 28.42 27.93			CDL-M&W (817-947)	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-PSI HIGH TEMP (933 (HT))	18.50	3.50	220.00

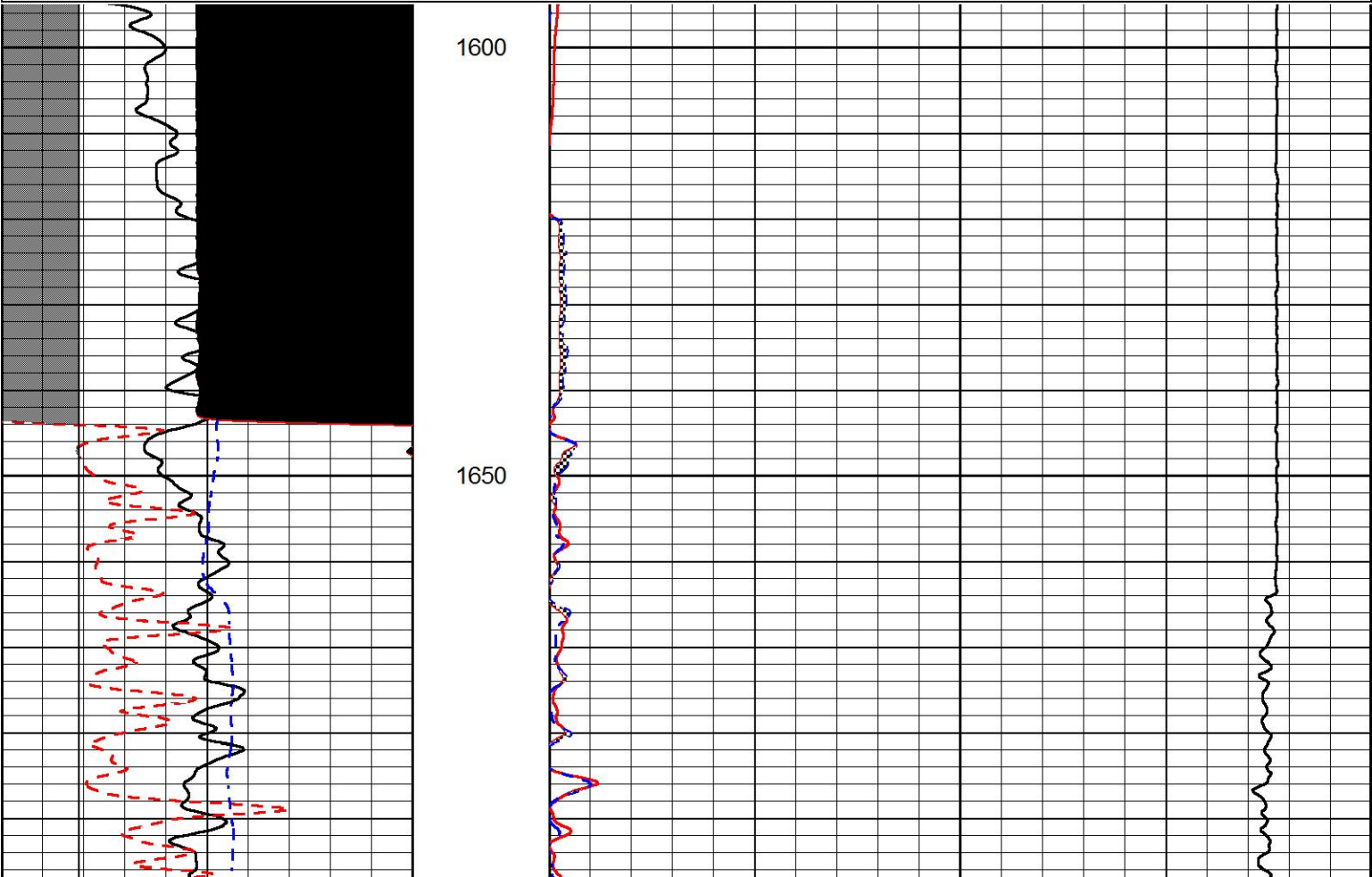
CILM	4.70								
SP	0.20								
Dataset: agricultural_energy_don_thorp_3_23.db: field/well/stkml/pass3.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in									

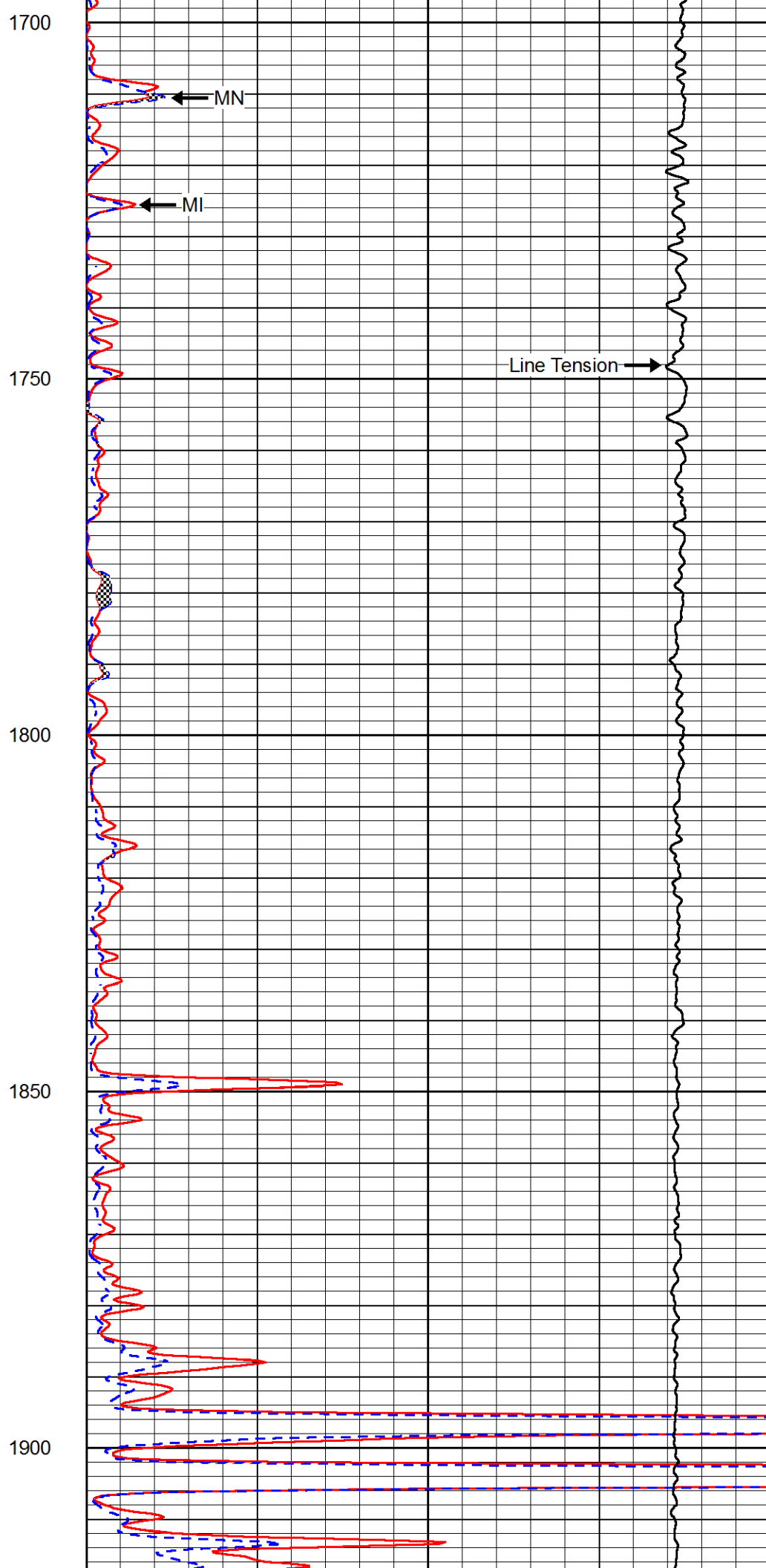
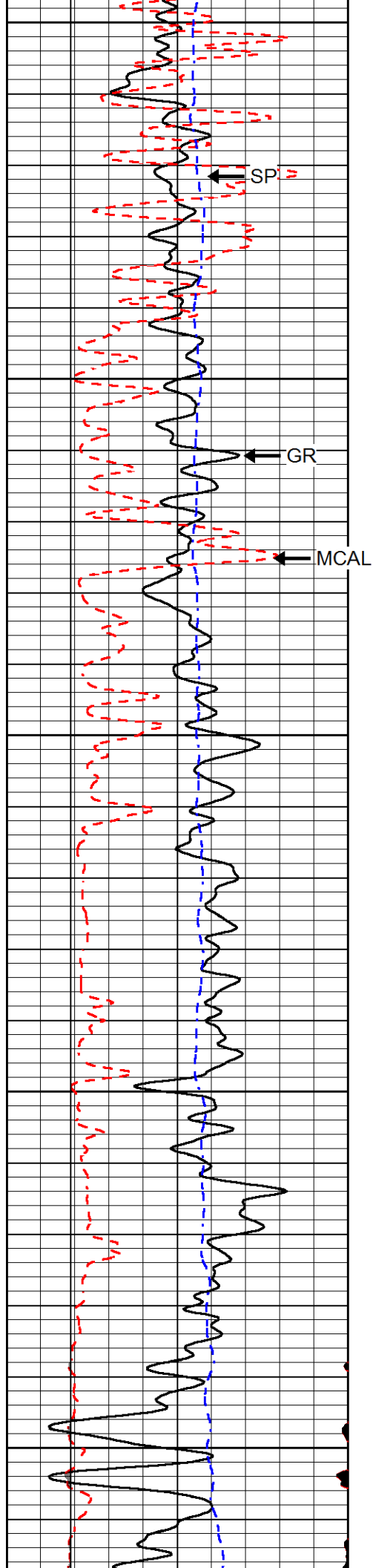


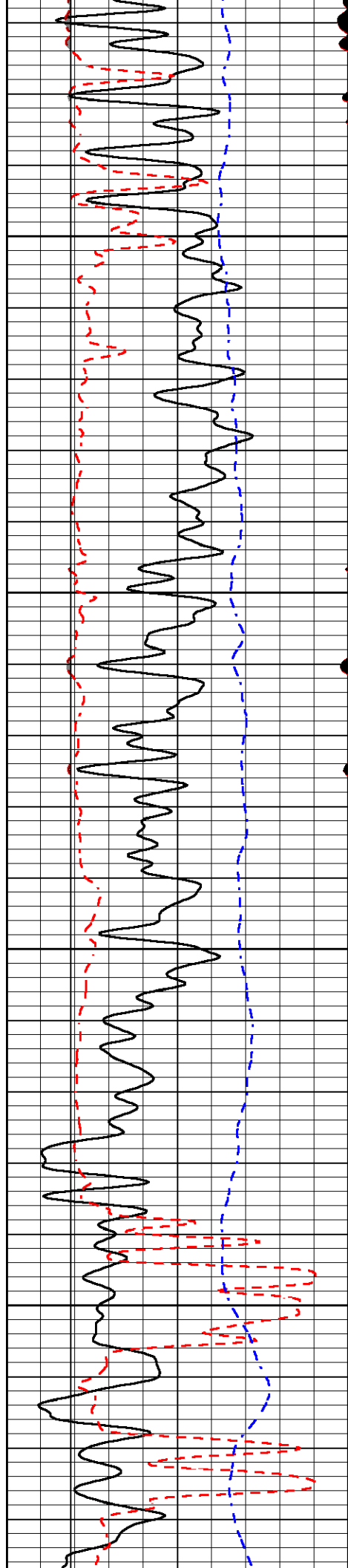
MAIN PASS

Database File	c:\users\imabb\desktop\agricultural_energy_don_thorp_3_23.db
Dataset Pathname	stkml/pass3.1
Presentation Format	micro
Dataset Creation	Wed Jun 27 07:31:18 2018
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0	MICRO INVERSE 1 X 1 (Ohm-m)	40
6	MCAL (in)	16	0	MICRO NORMAL 2" (Ohm-m)	40
2.875	mcal (in)	7.875	10000	Line Weight (lb)	0
6	Bit Size (in)	16			
-200	SP (mV)	0			





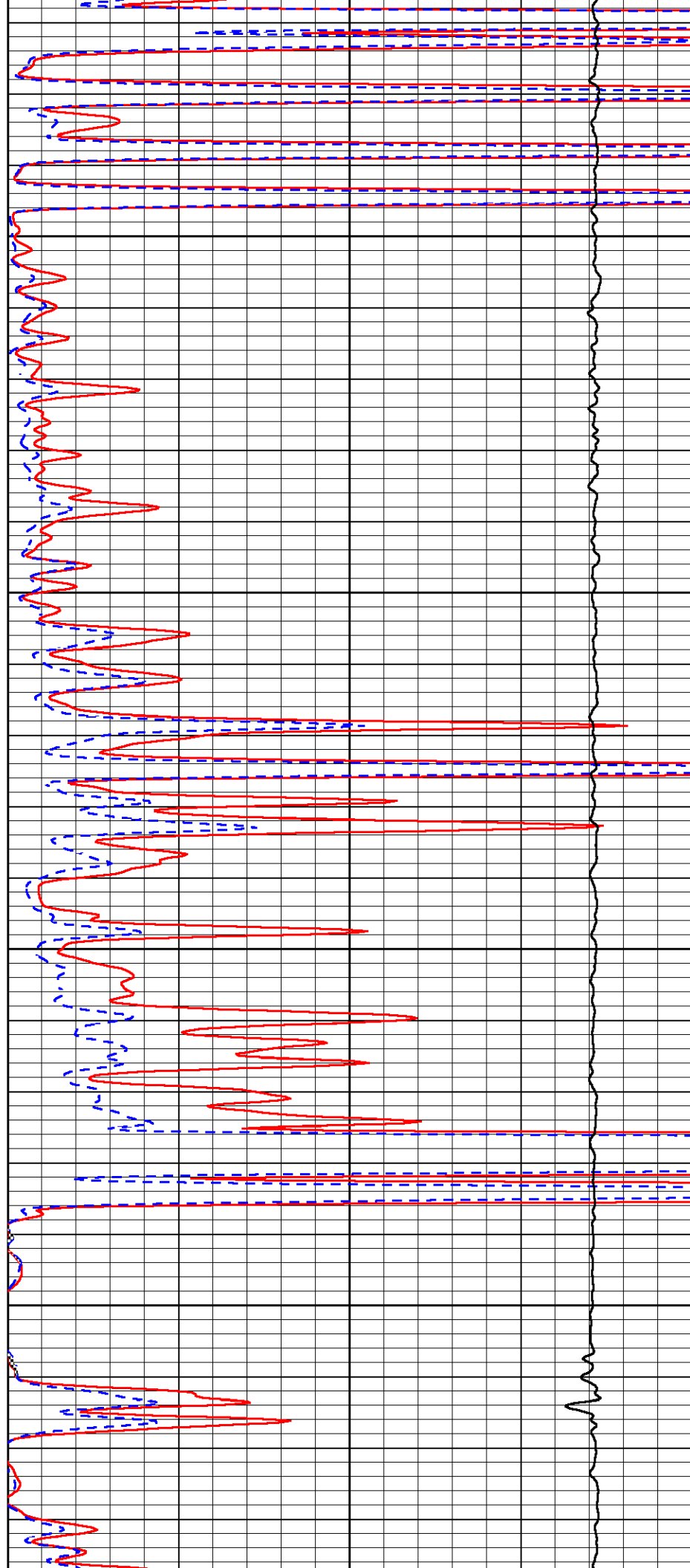


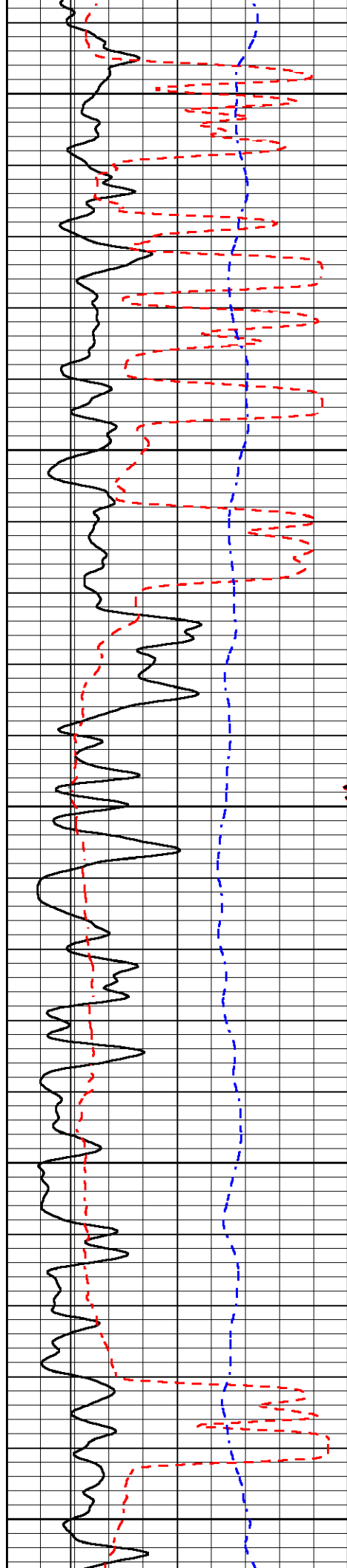
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2000

2050

2100





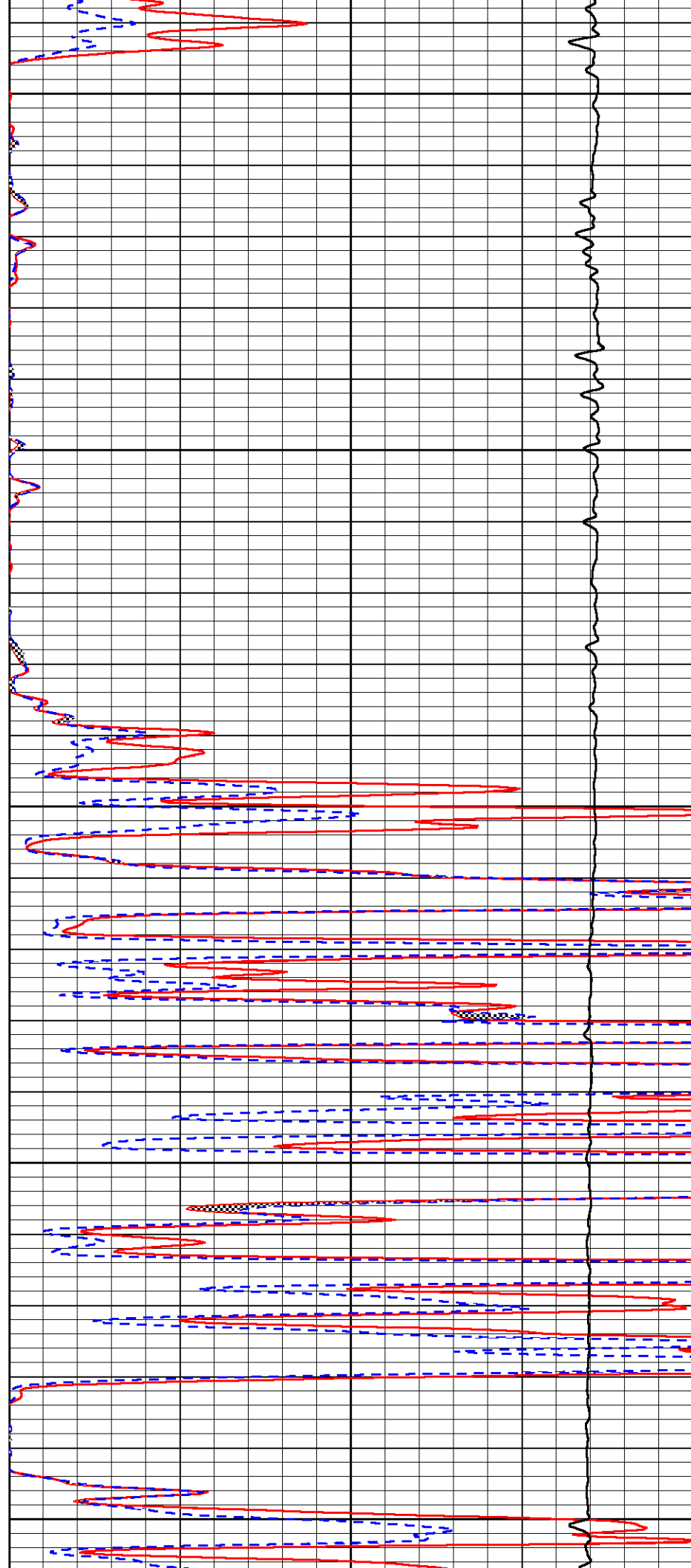
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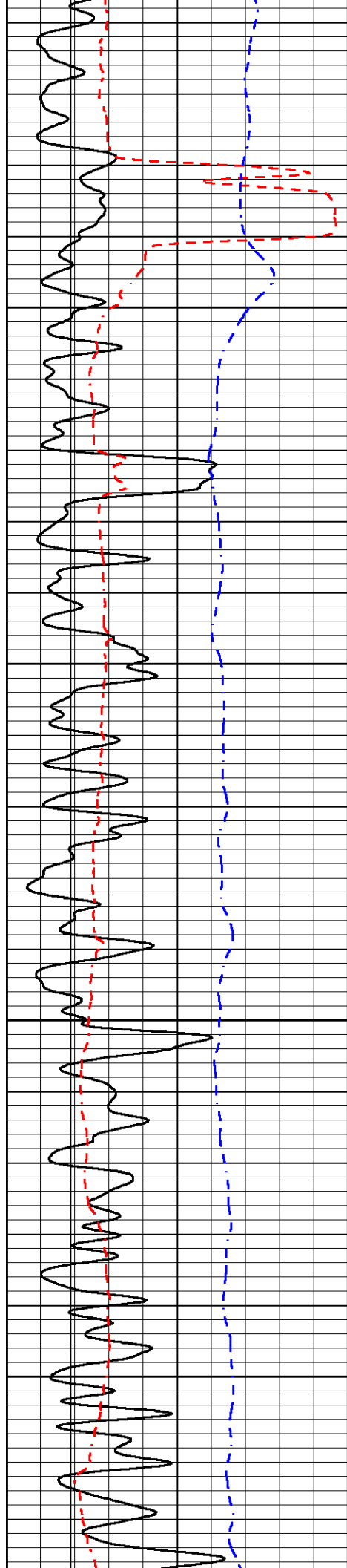
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2300

2350



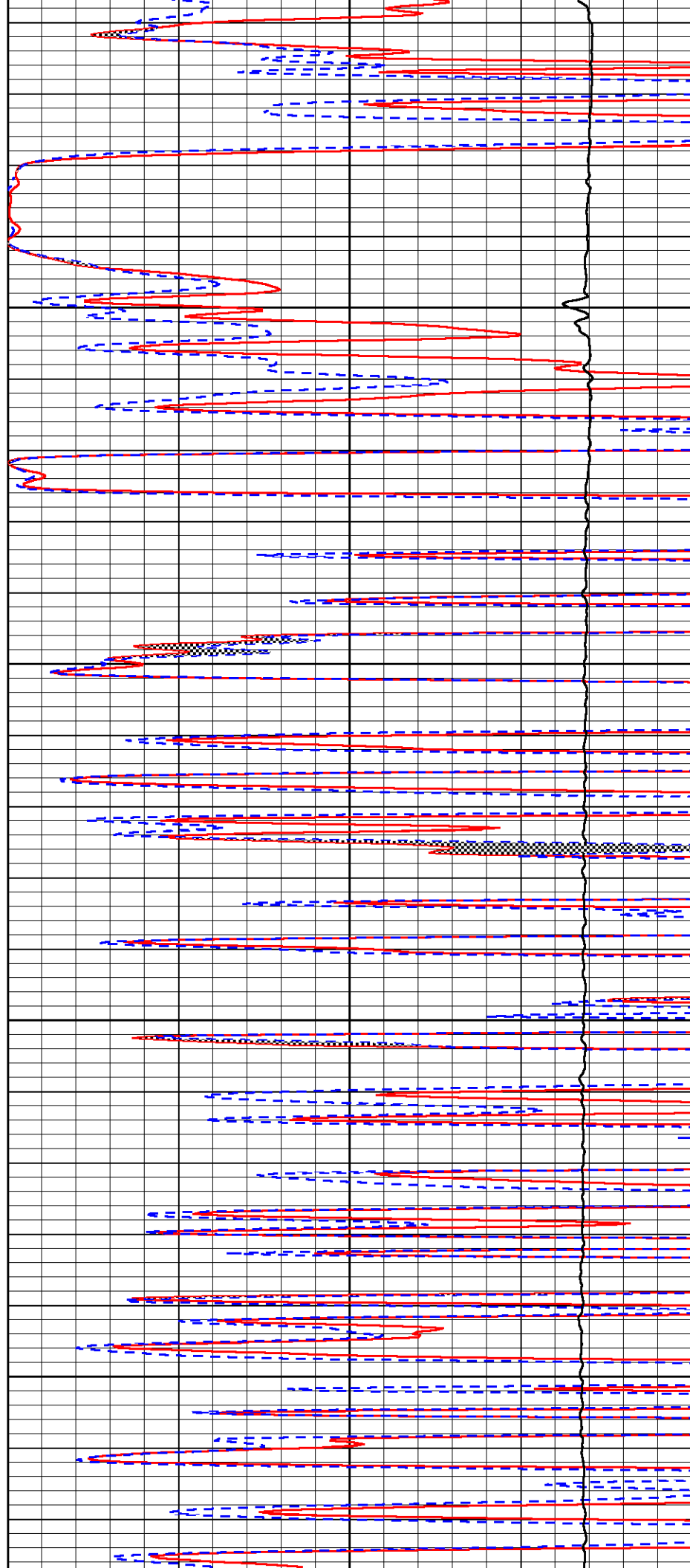


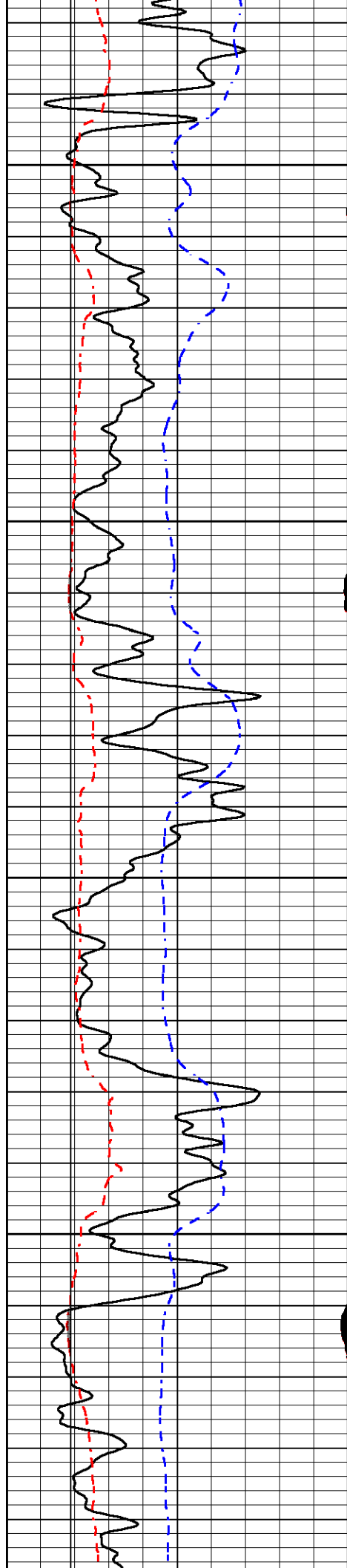
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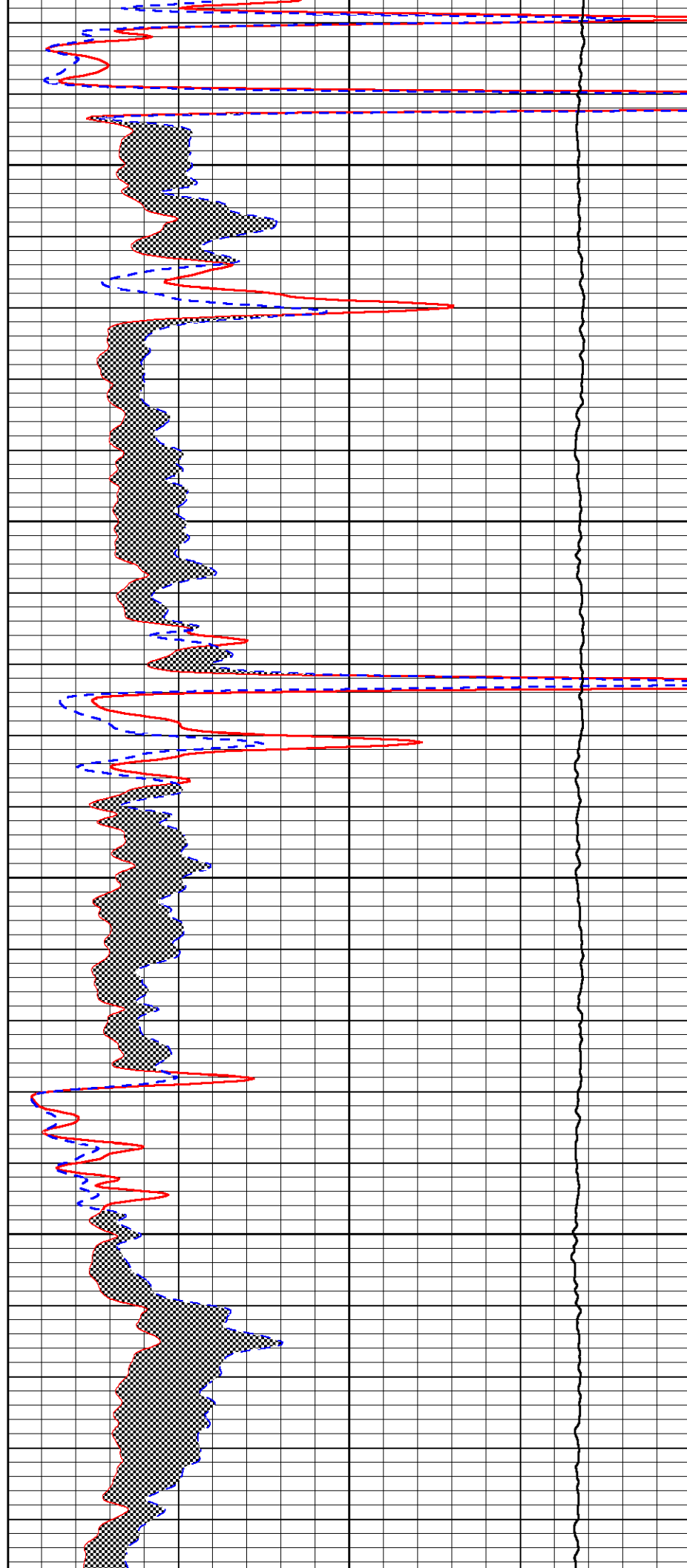


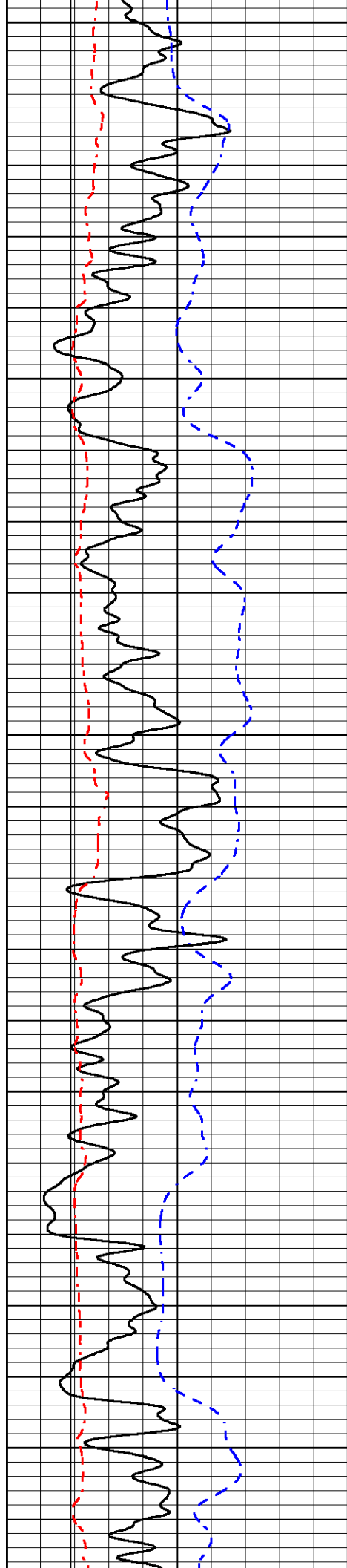
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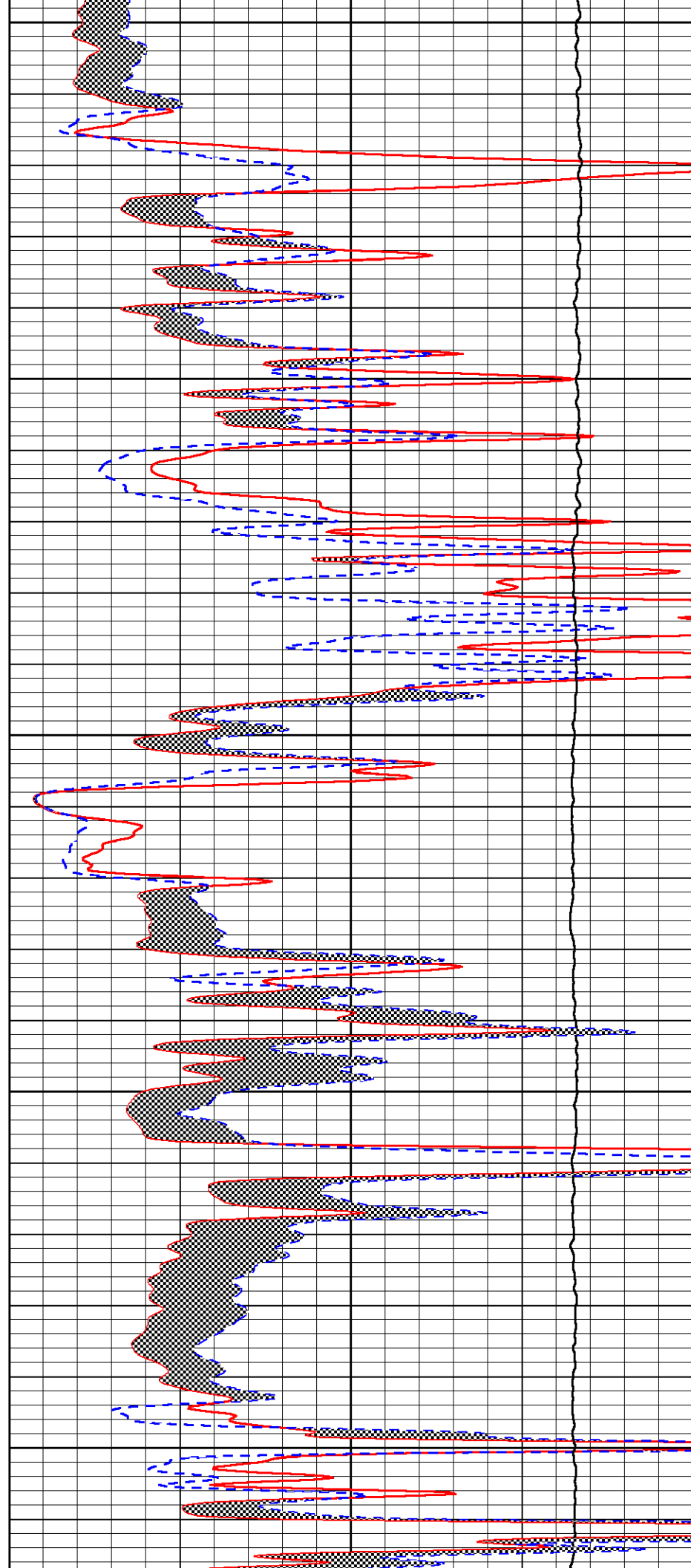
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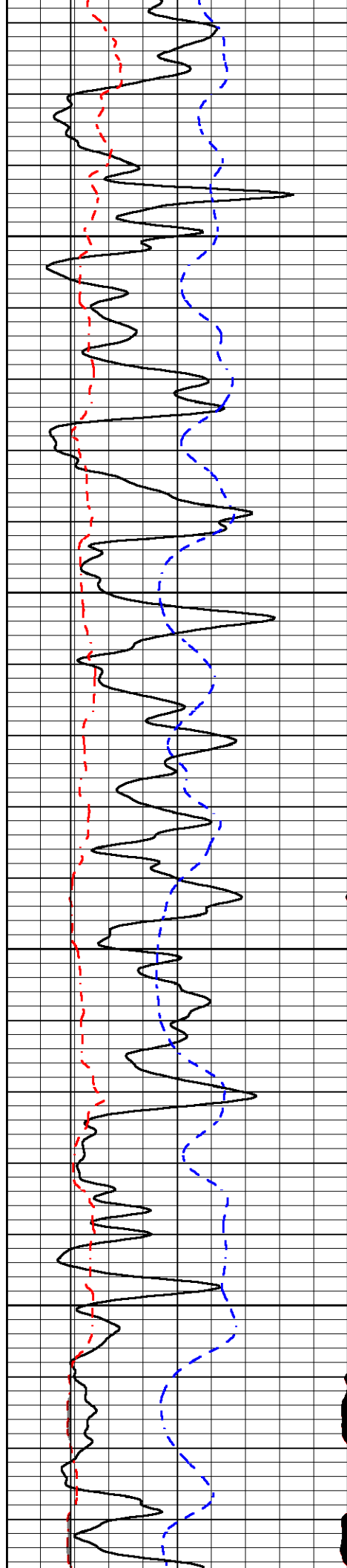
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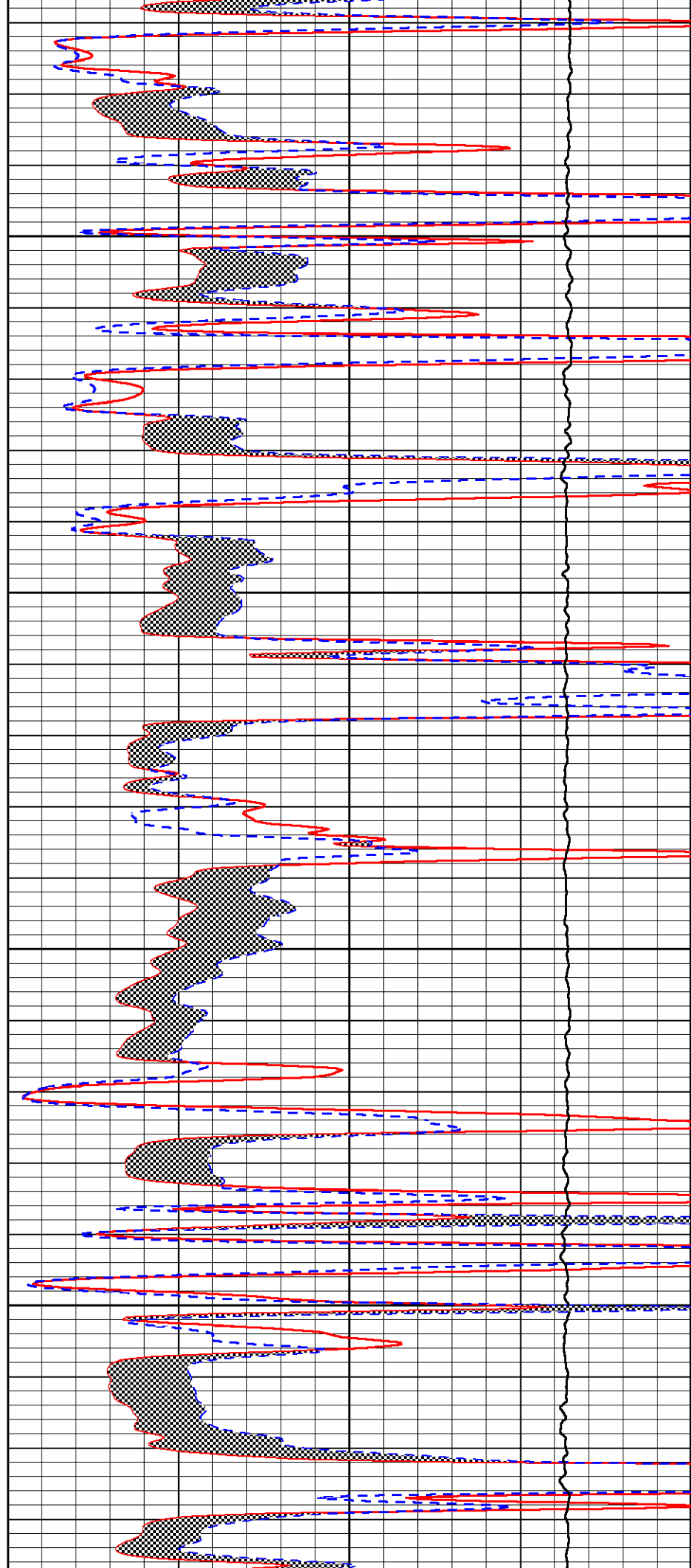


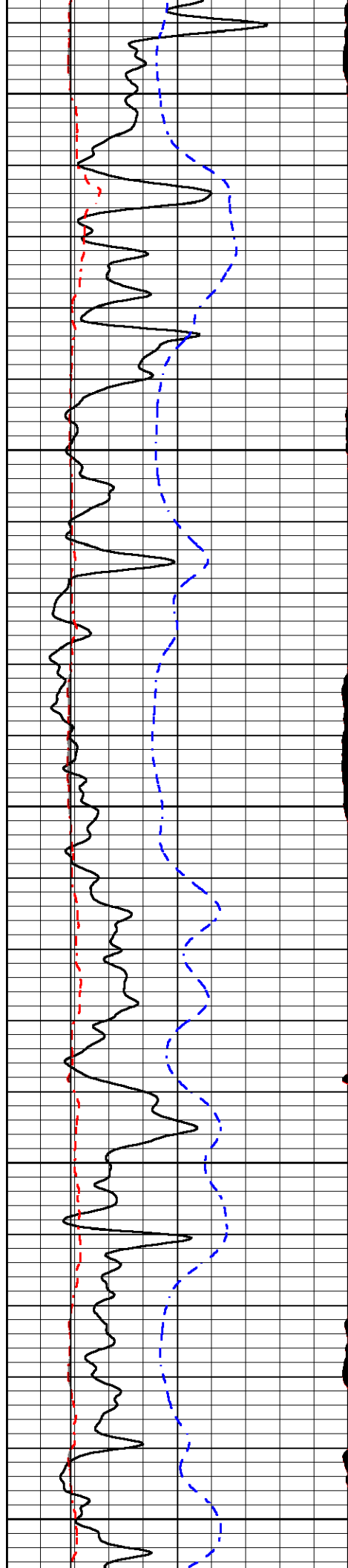
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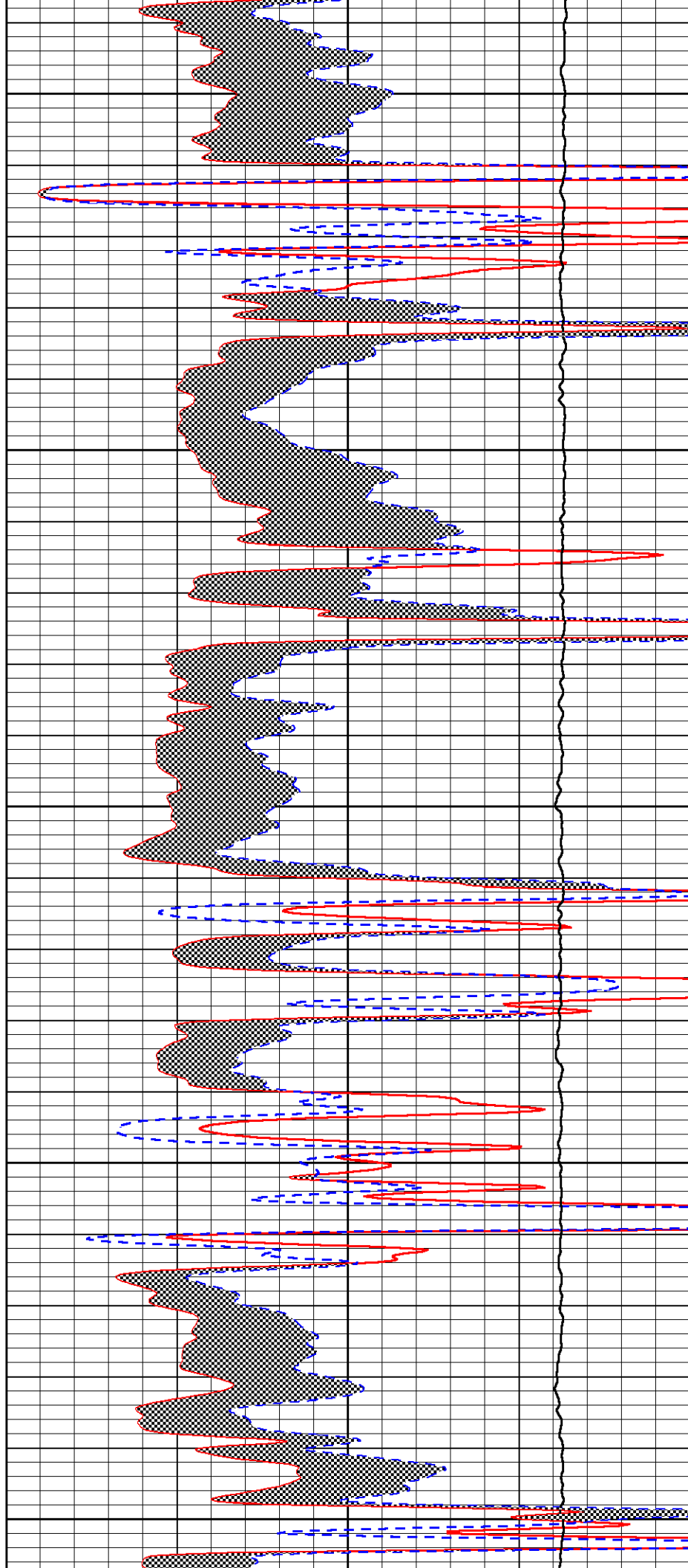
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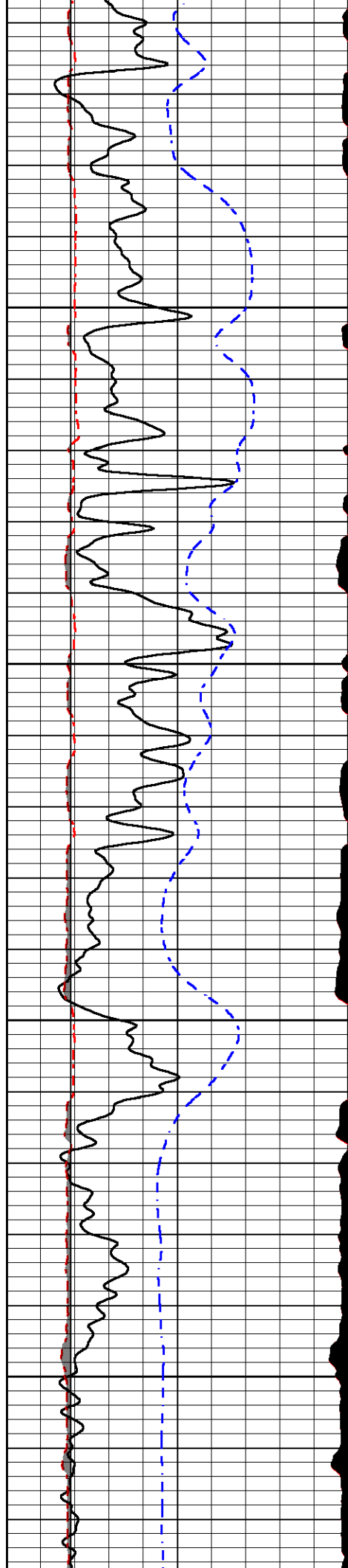
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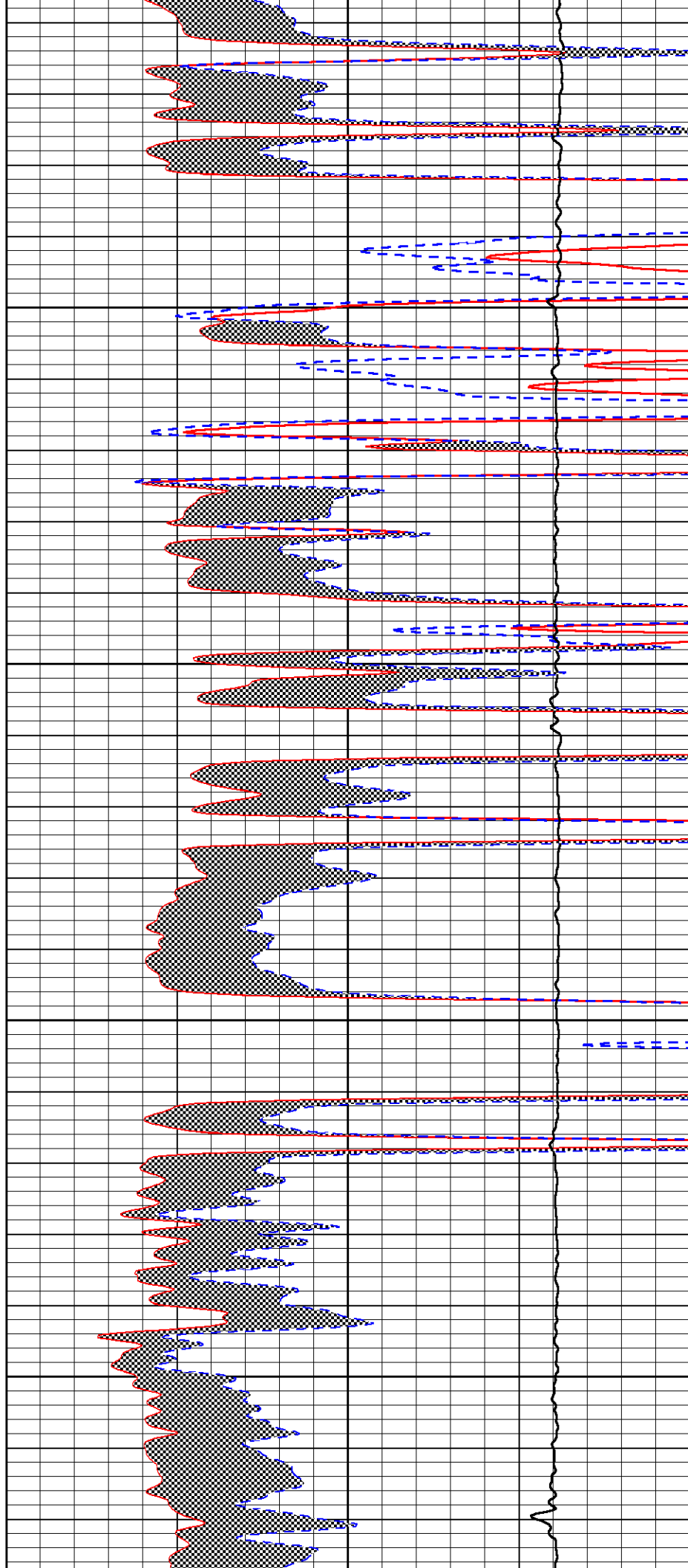


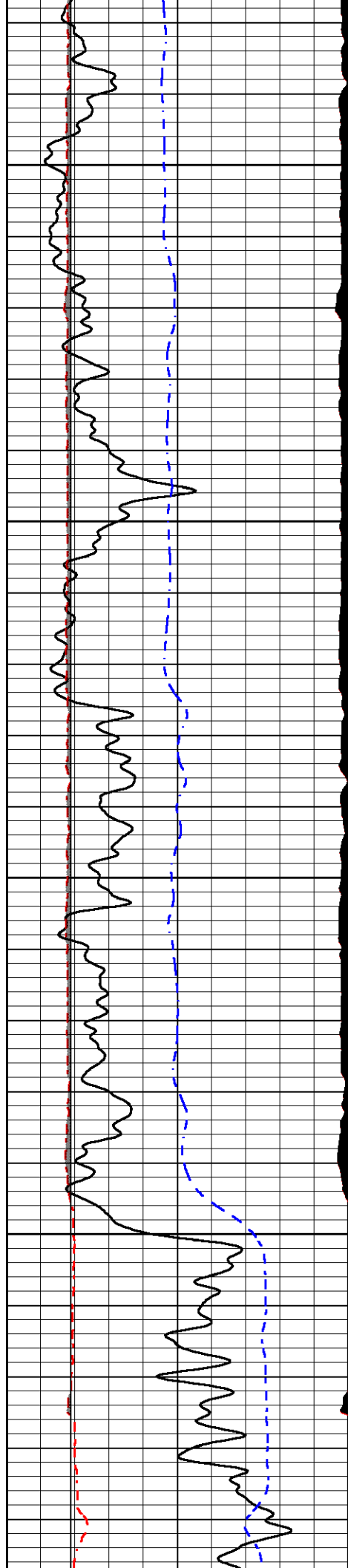
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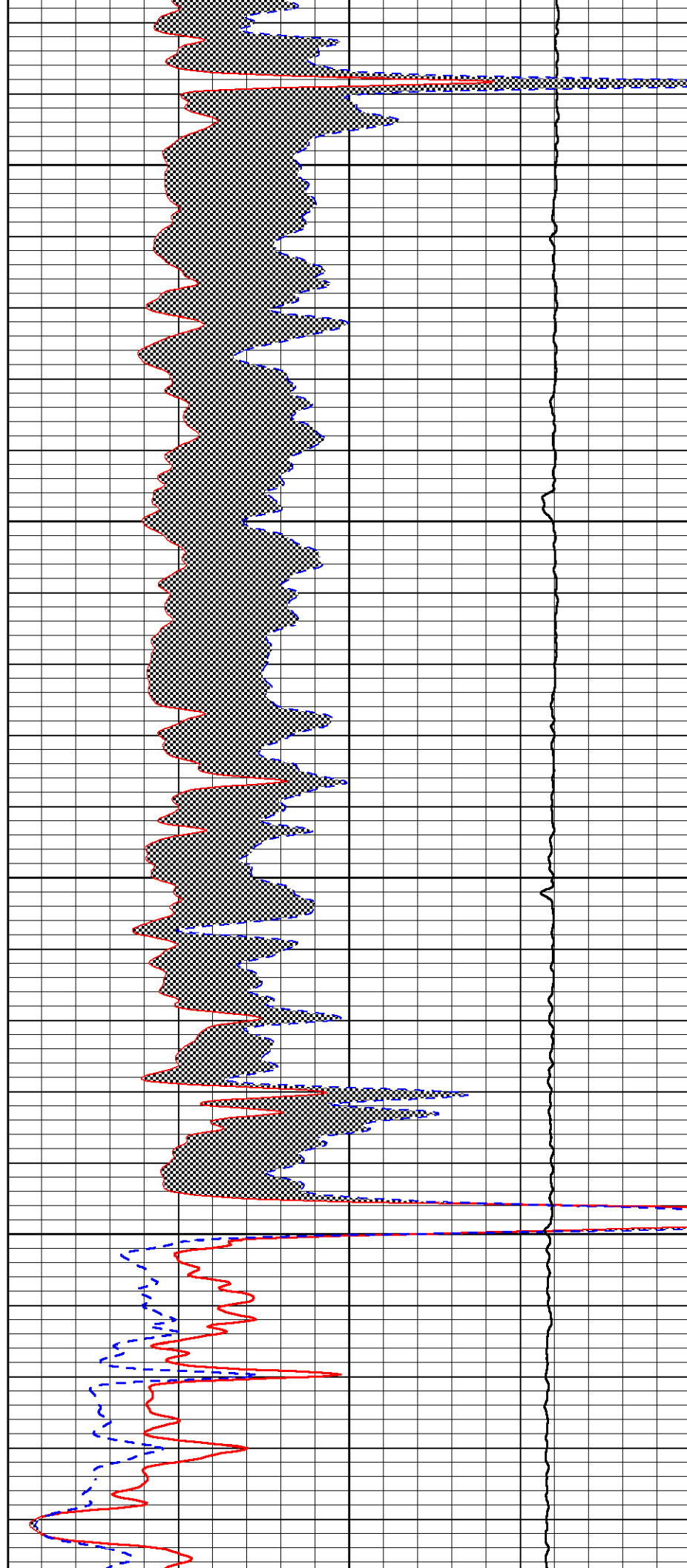


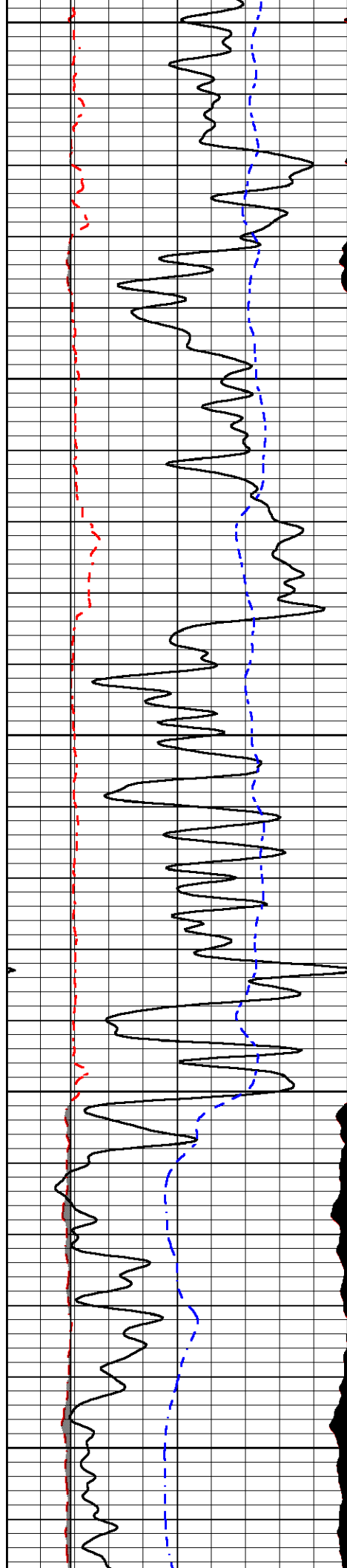
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3850





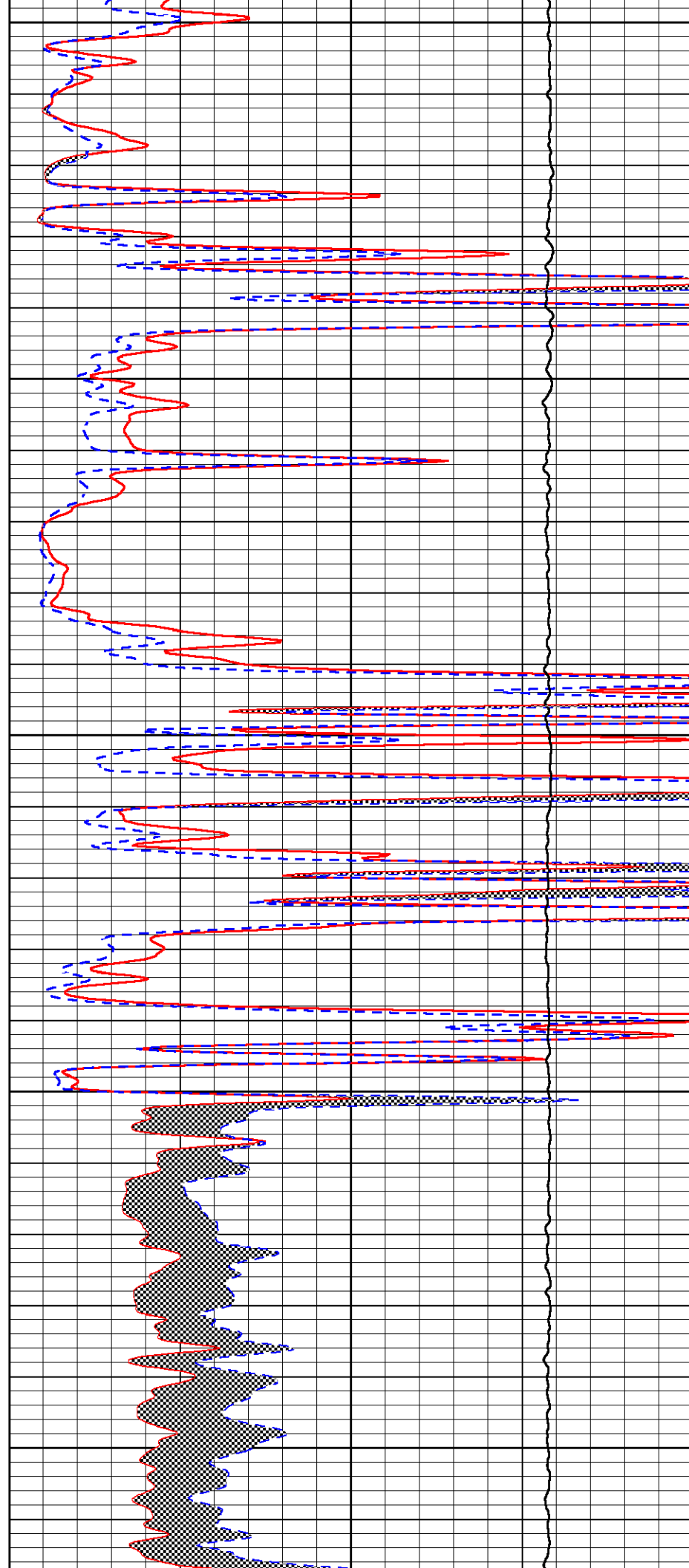
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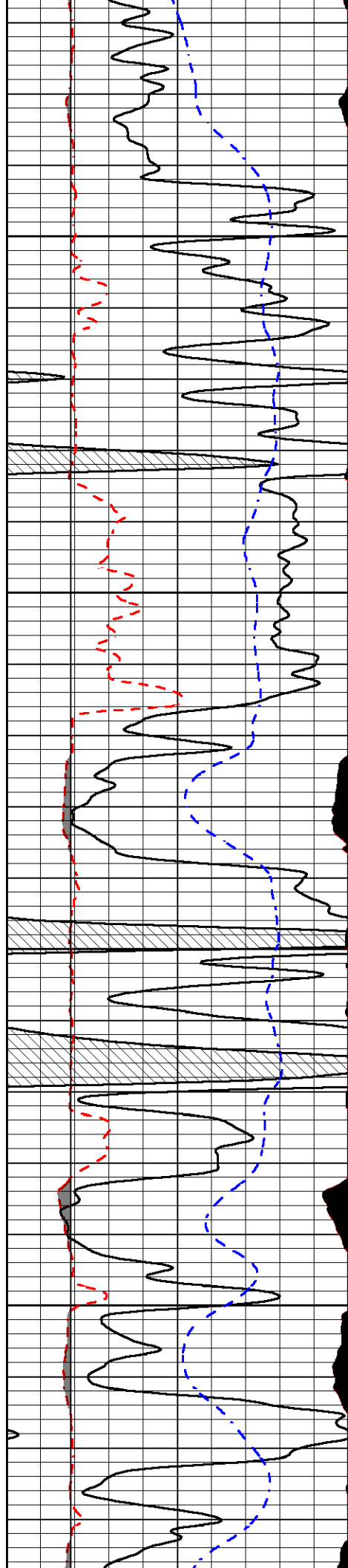
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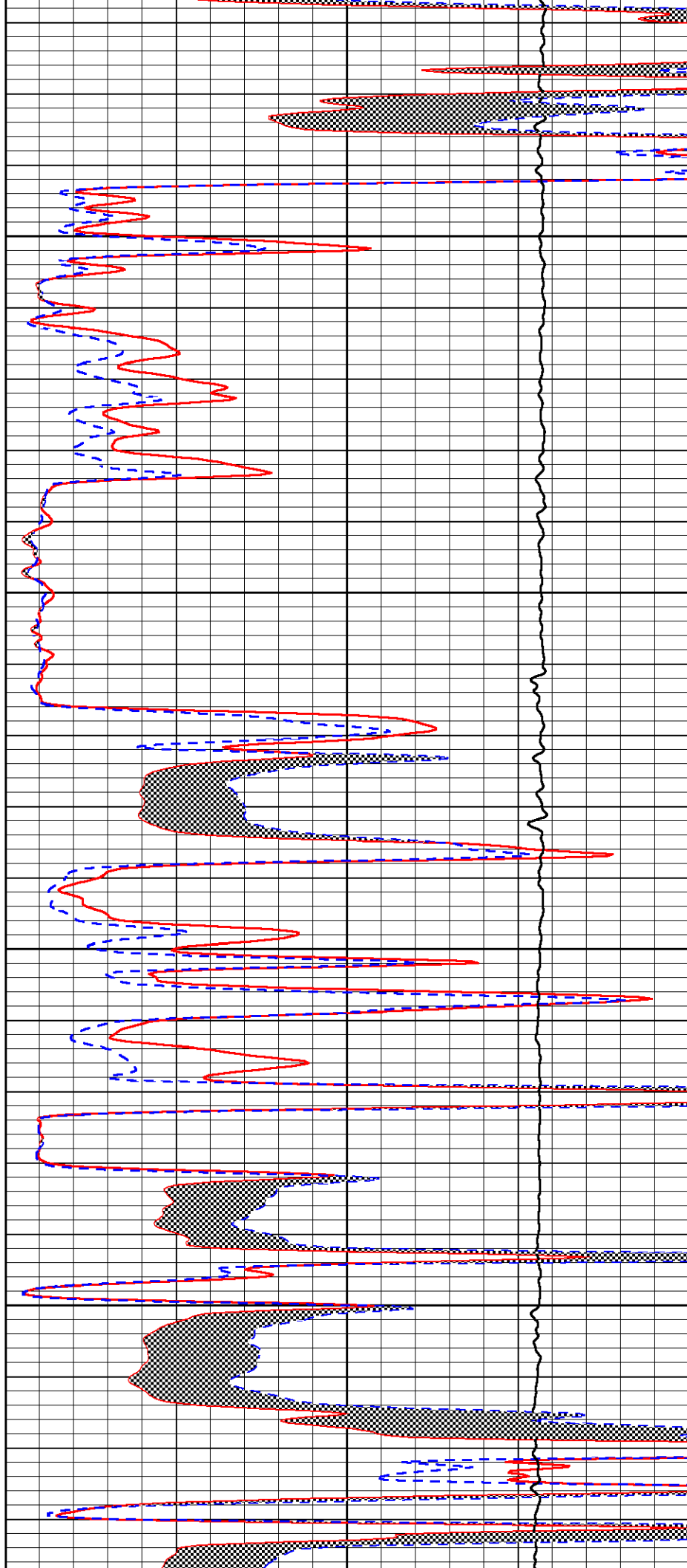


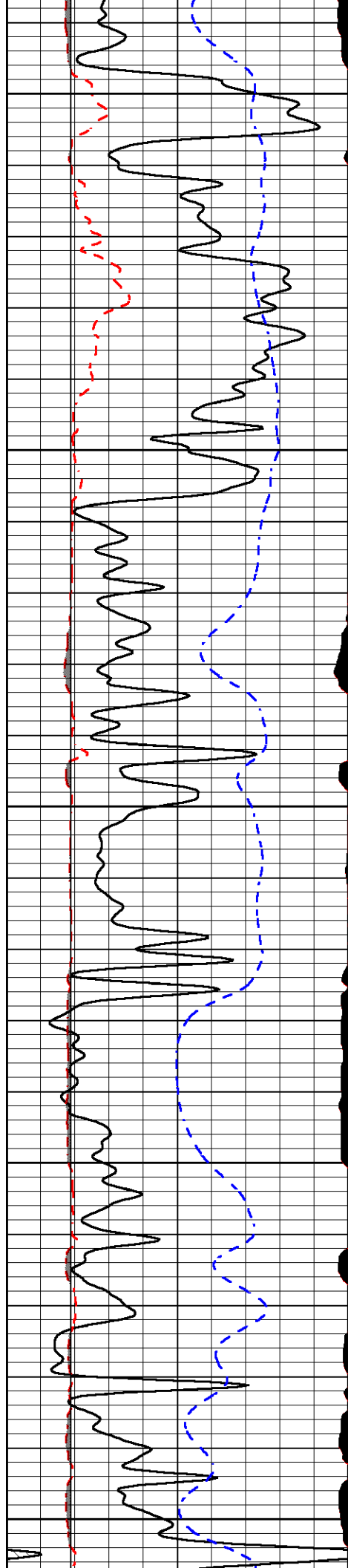
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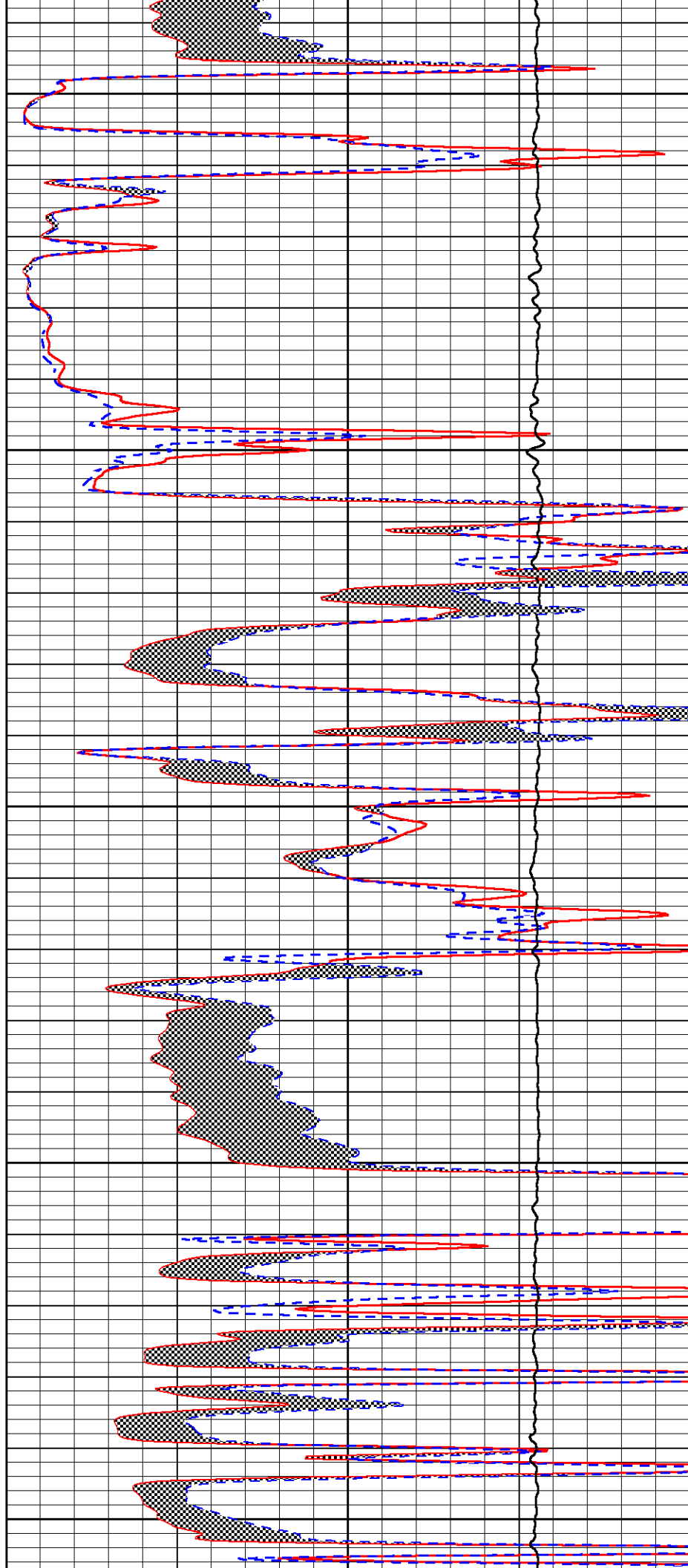
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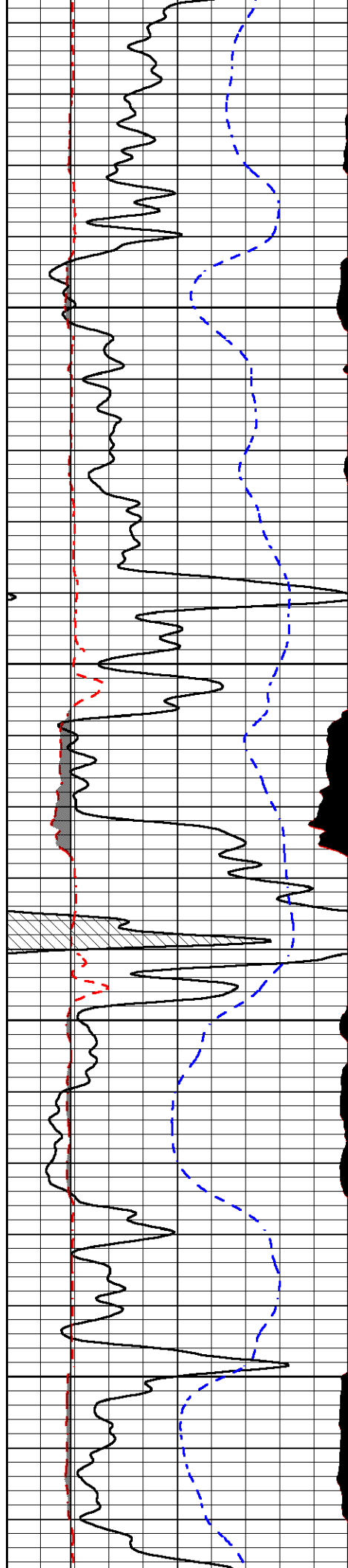
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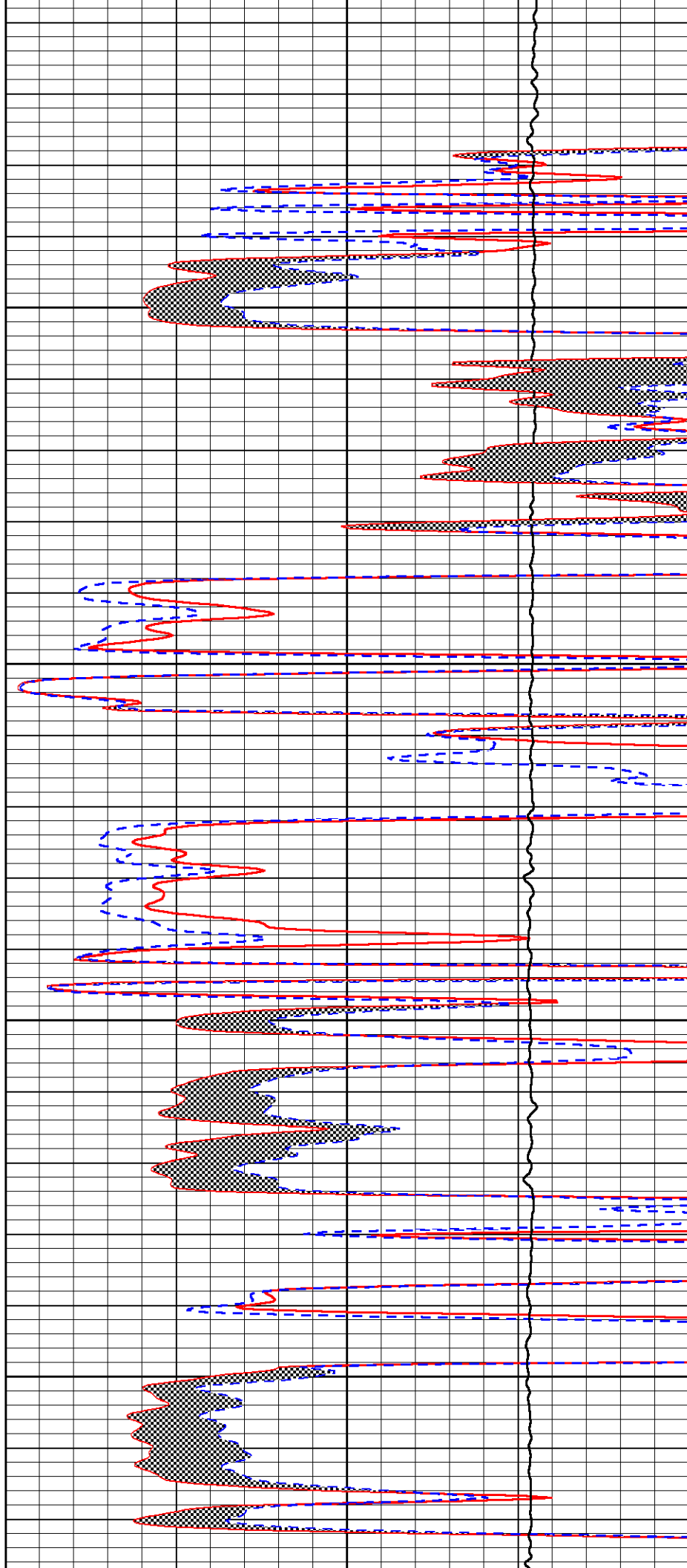


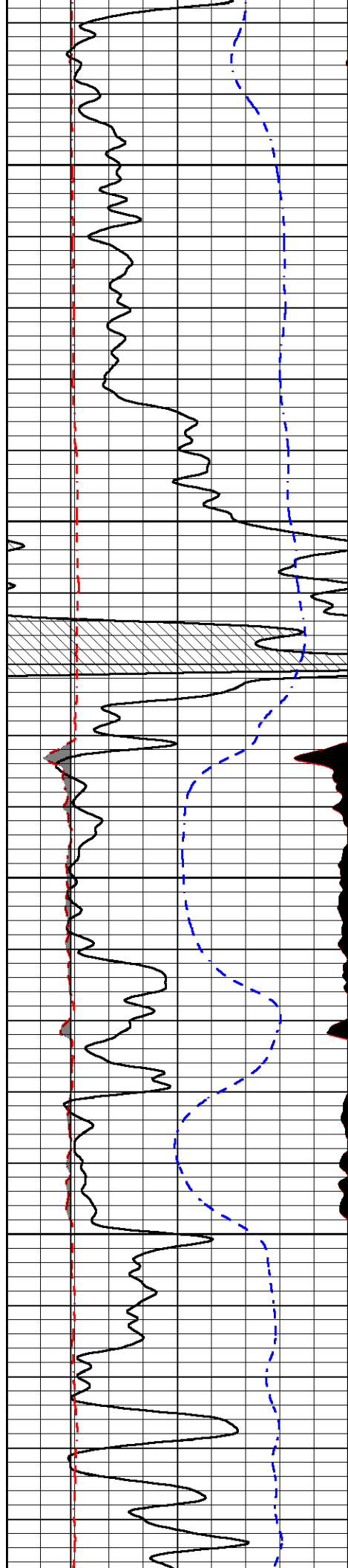
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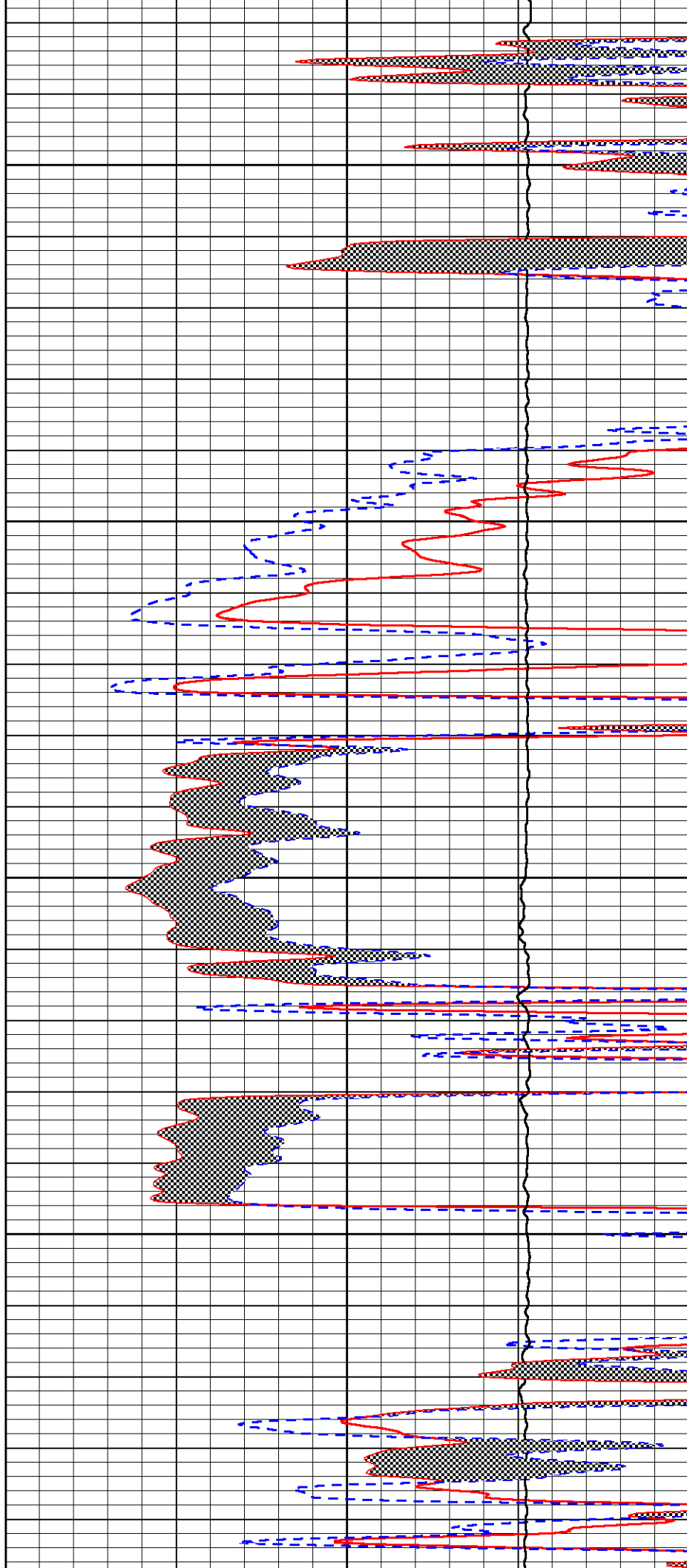


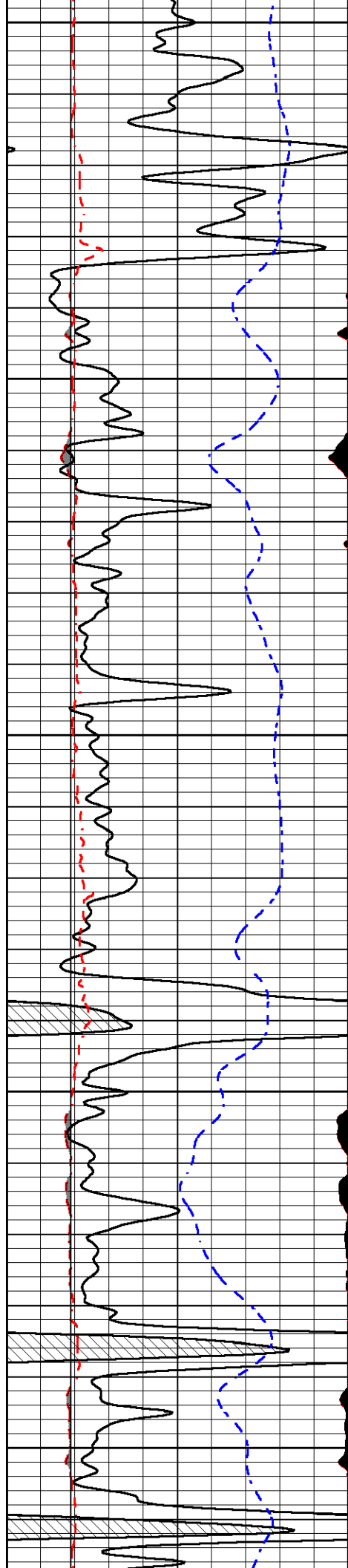
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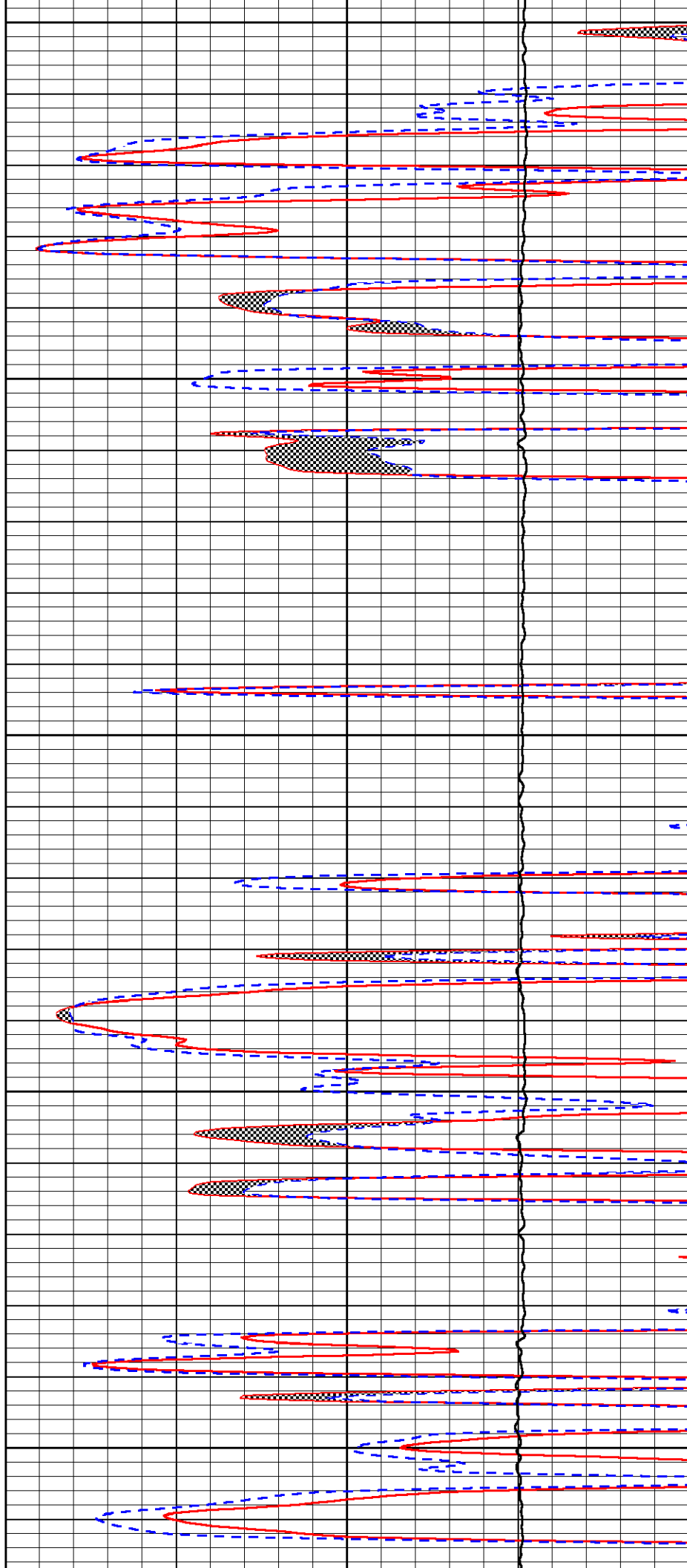
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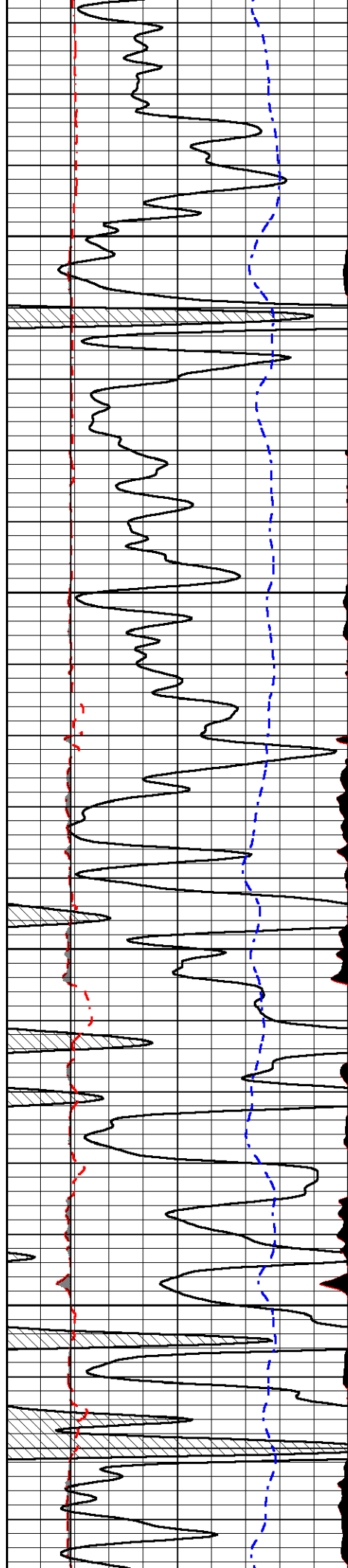
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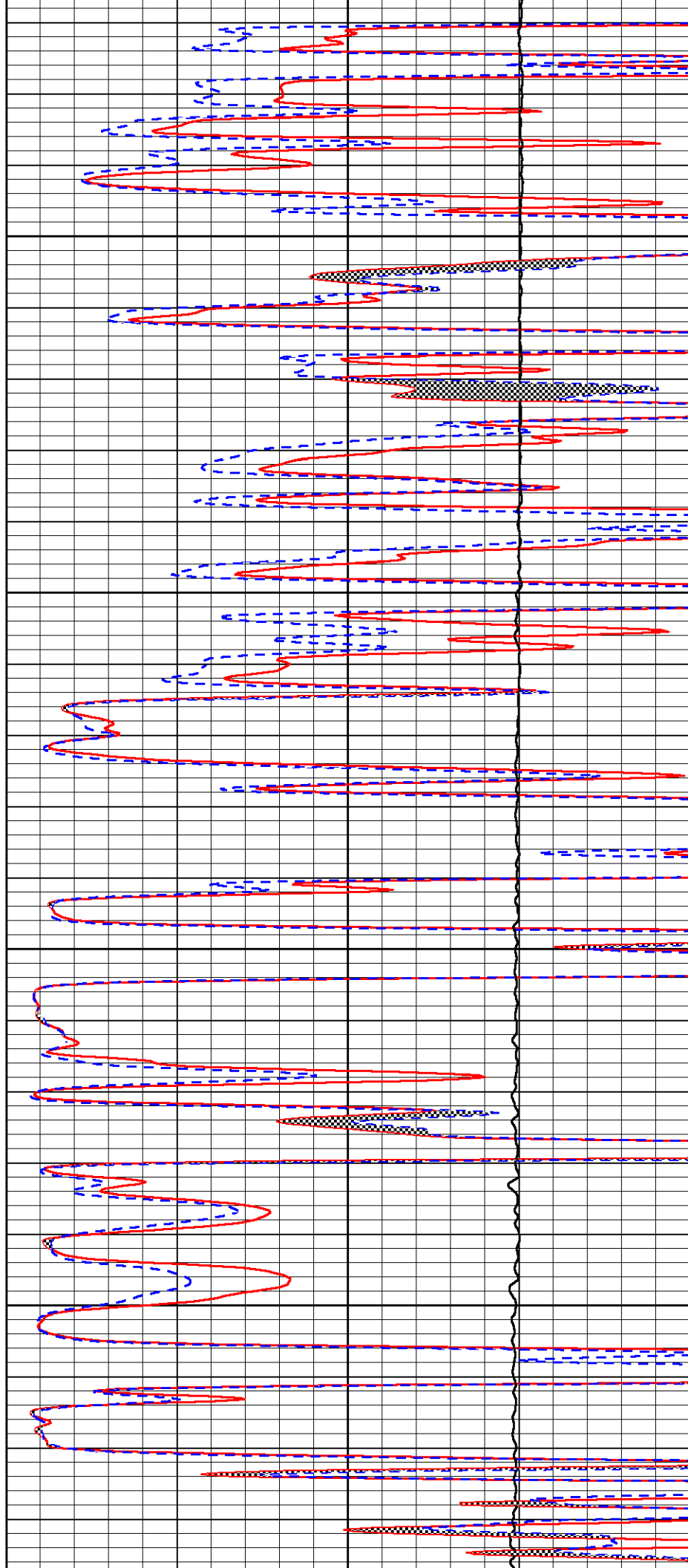


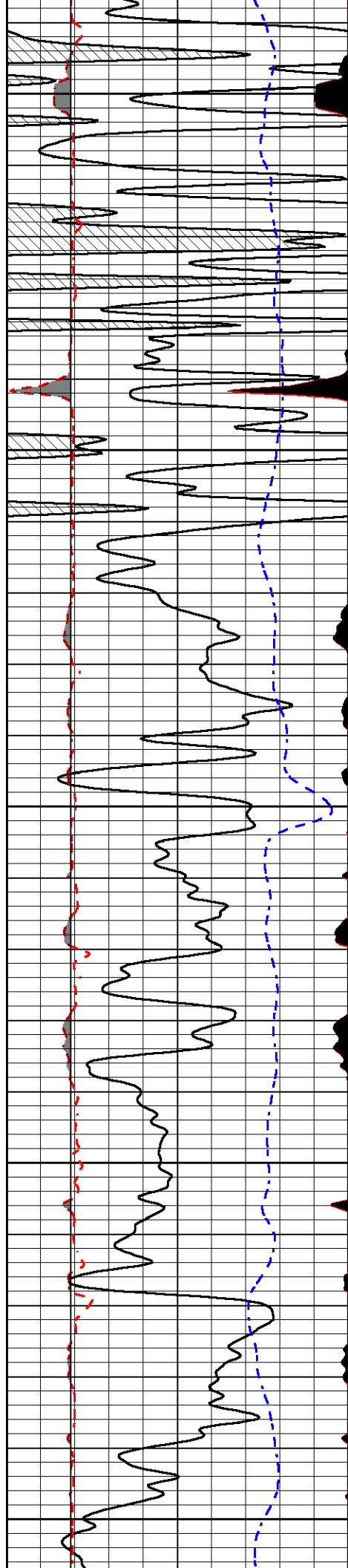
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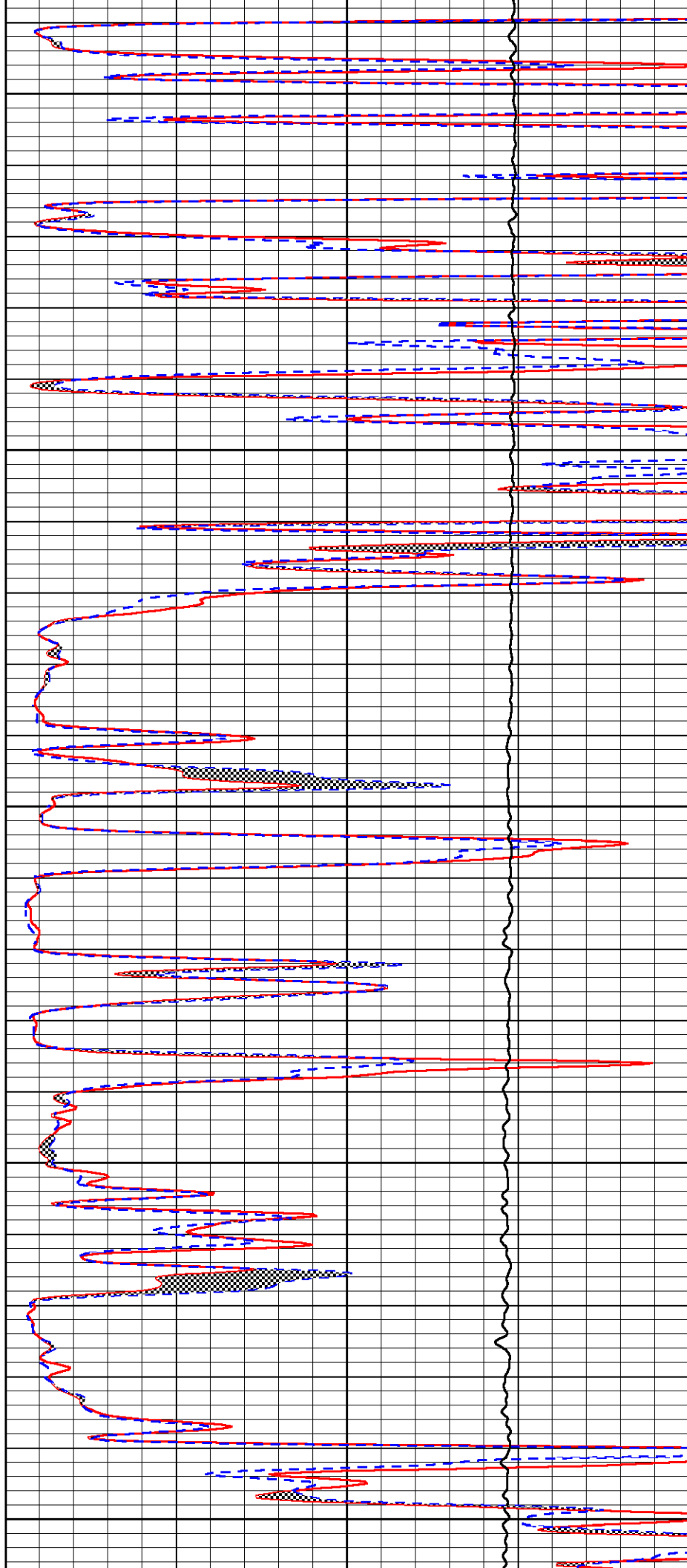
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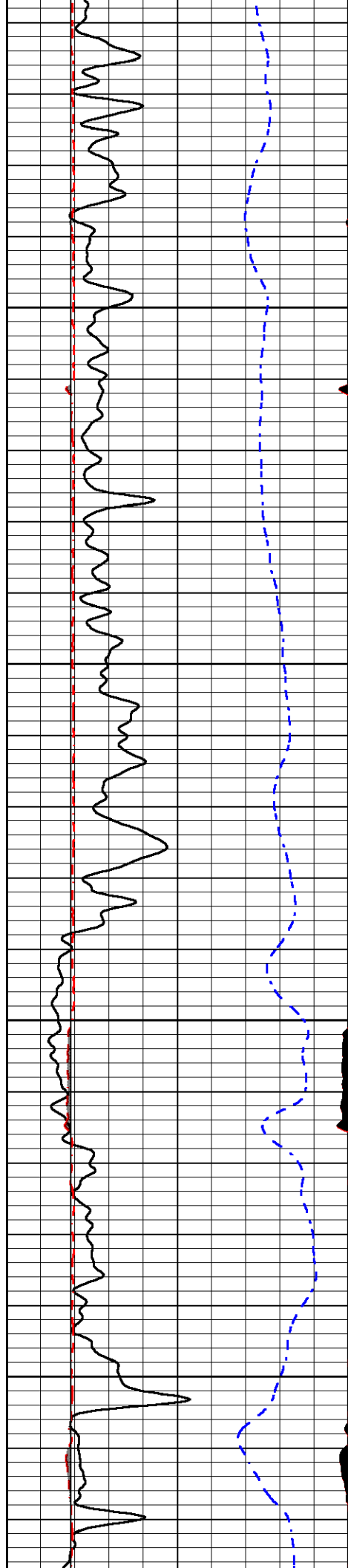
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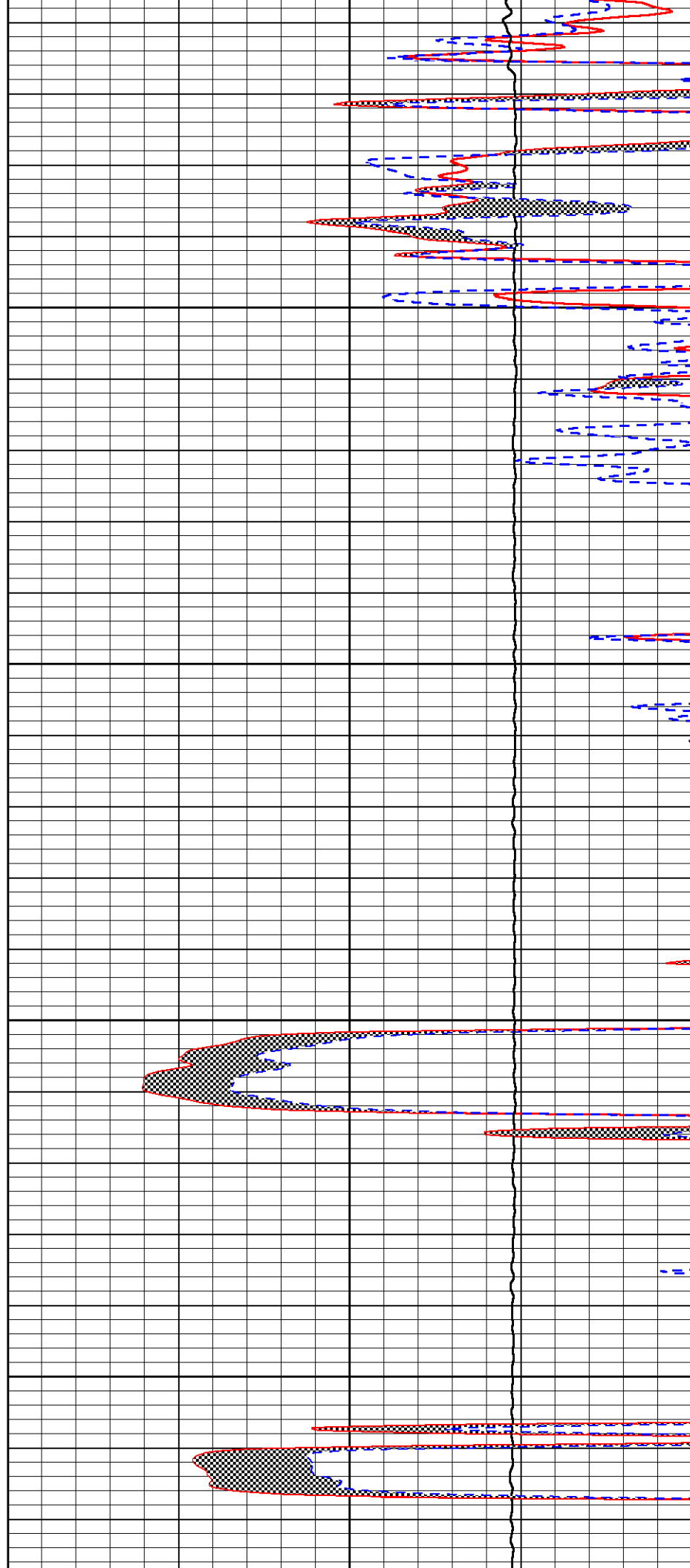


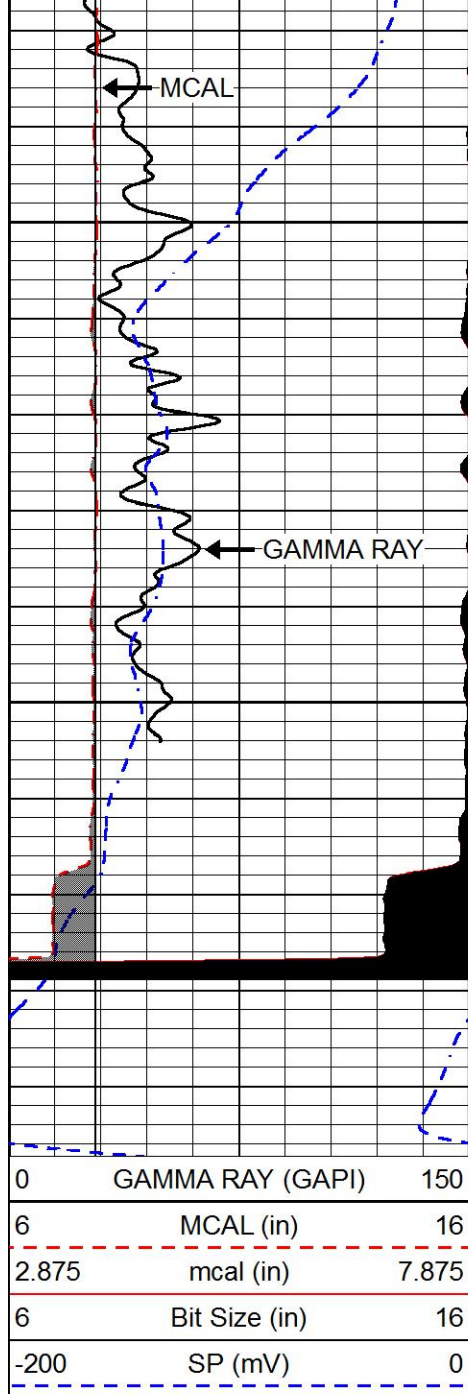
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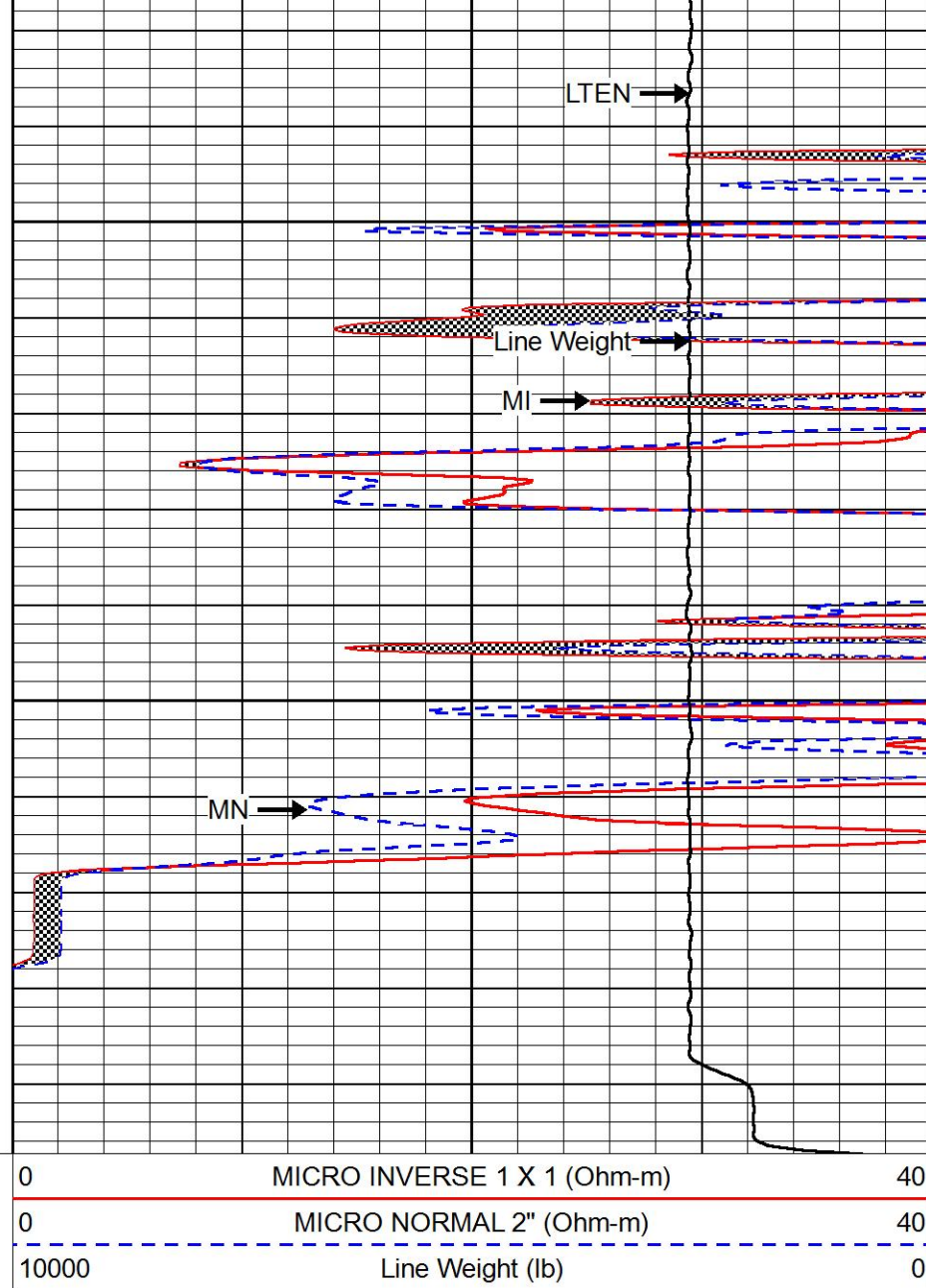
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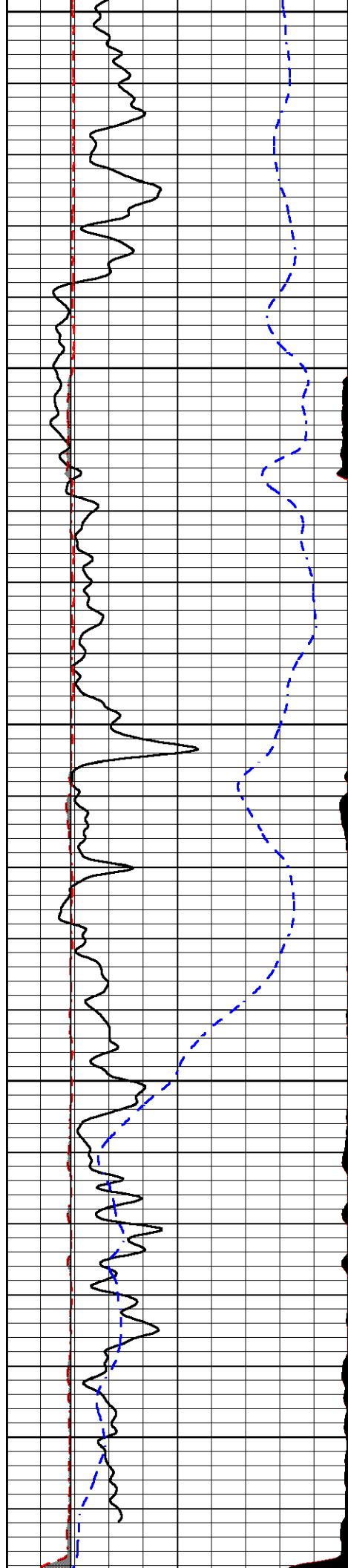


REPEAT SECTION

Database File c:\users\imabb\desktop\agricultural_energy_don_thorp_3_23.db
 Dataset Pathname stkml/pass2.1
 Presentation Format micro
 Dataset Creation Wed Jun 27 07:45:05 2018
 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



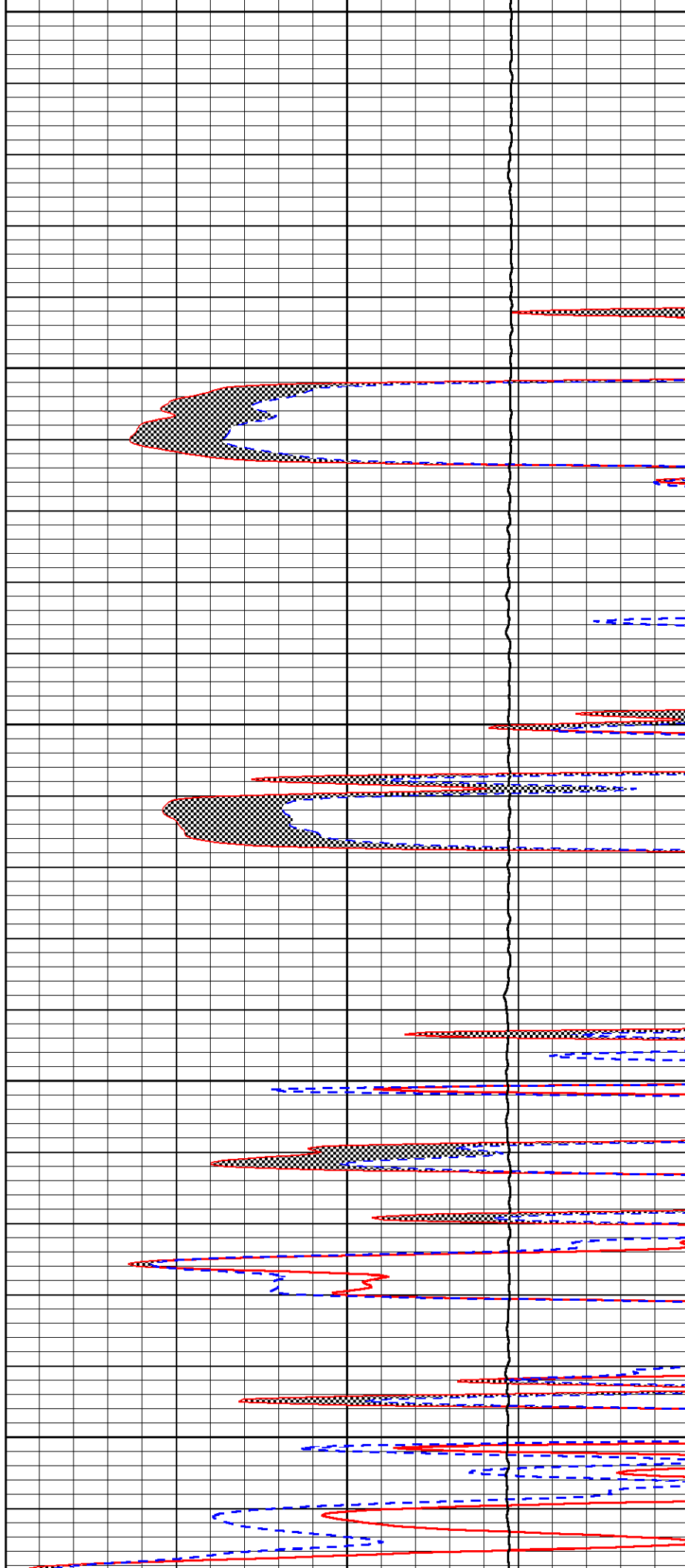
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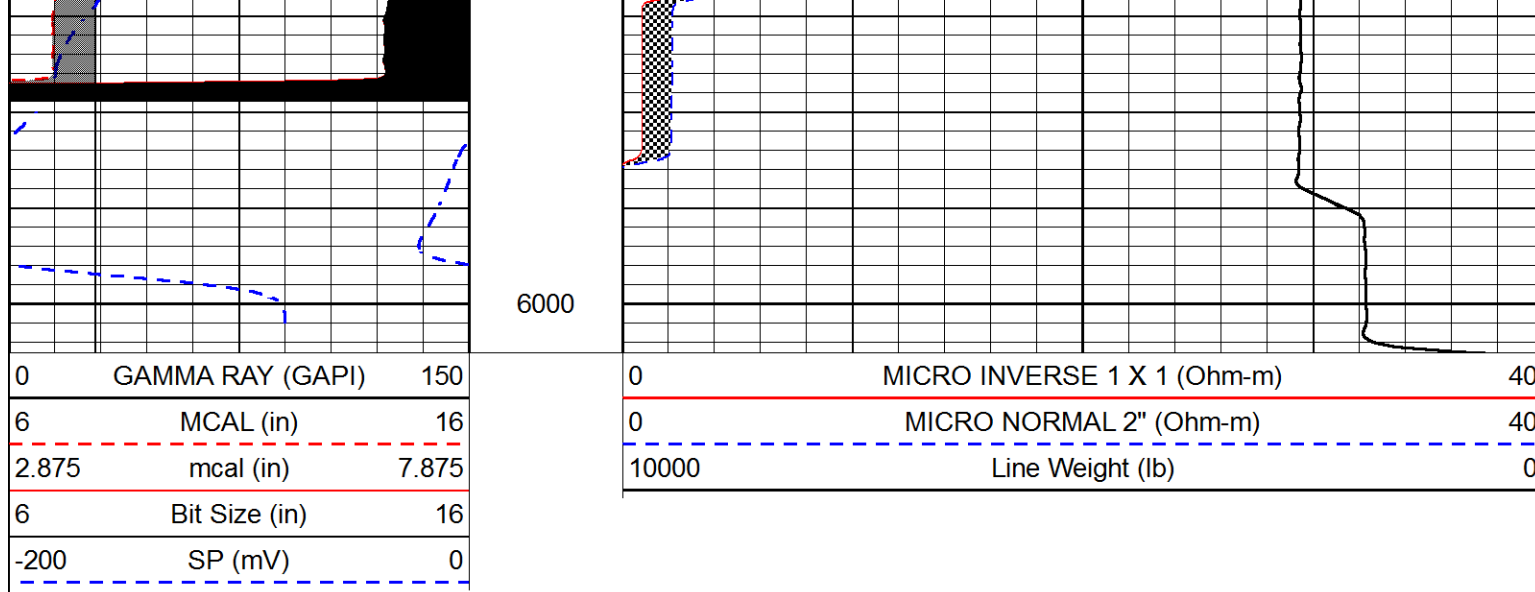
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5950





Calibration Report								
Database File	C:\Users\imabb\Desktop\agricultural_energy_don_thorp_3_23.db							
Dataset Pathname	stkml/pass3.1							
Dataset Creation	Wed Jun 27 07:31:18 2018							
Dual Induction Calibration Report								
Serial-Model:		933 (HT)-PSI HIGH TEMP						
Calibration Performed:		Mon Apr 23 14:01:41 2018						
Loop:	Readings		References			Results		
	Air	Loop	Air	Loop		Gain	Offset	
	Deep	167.000	835.000	0.000	255.000	mmho/m	0.700	-17.000
Medium	142.000	1349.000	0.000	255.000	mmho/m	0.565	-60.500	
Microlog Calibration Report								
Serial-Model:		PSI-01-PSIML						
Performed:		Sun May 27 00:33:27 2018						
	Readings		References			Results		
	Zero	Cal	Zero	Cal		m	b	
	Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	27000.0000	-0.7000
	Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	30000.0000	-0.6000
Caliper	1.0001	1.1397	6.5000	18.5000	in	70.0000	-66.0500	
Compensated Density Calibration Report								
Serial-Model:		817-947-M&W						
Source / Verifier:		16955B / 2ci						
Master Calibration Performed:		Tue May 01 14:00:17 2018						

Master Calibration						
	Density			Far Detector	Near Detector	
Magnesium	1.755	g/cc		6127.15	5922.31	cps
Aluminum	2.670	g/cc		1141.85	3762.09	cps

Spine Angle = 74.89

Density/Spine Ratio = 0.526

	Size		Reading
Small Ring	4.50	in	1.02
Large Ring	15.00	in	1.15

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: Wed Nov 16 11:21:36 2016

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 15 11:20:44 2018

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6000 GAPI/cps



Company AGRICULTURAL ENERGY SERVICES
Well DON THORP #3-23
Field KISMET
County SEWARD
State KANSAS