



DUAL INDUCTION 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

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
MEL/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

<<< Fold Here >>>

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	28.43			CDL-M&W (817-947)	8.50	4.00	250.00	
DCAL	28.42							
SSD	27.93							
ML-PSIML (PSI-01)				GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00	
MCAL	19.83							
MI	19.83							
MN	19.83							
RLL3F	15.80							
RLL3	15.80							
CILD	8.00			DIL-PSI HIGH TEMP (933 (HT))	18.50	3.50	220.00	

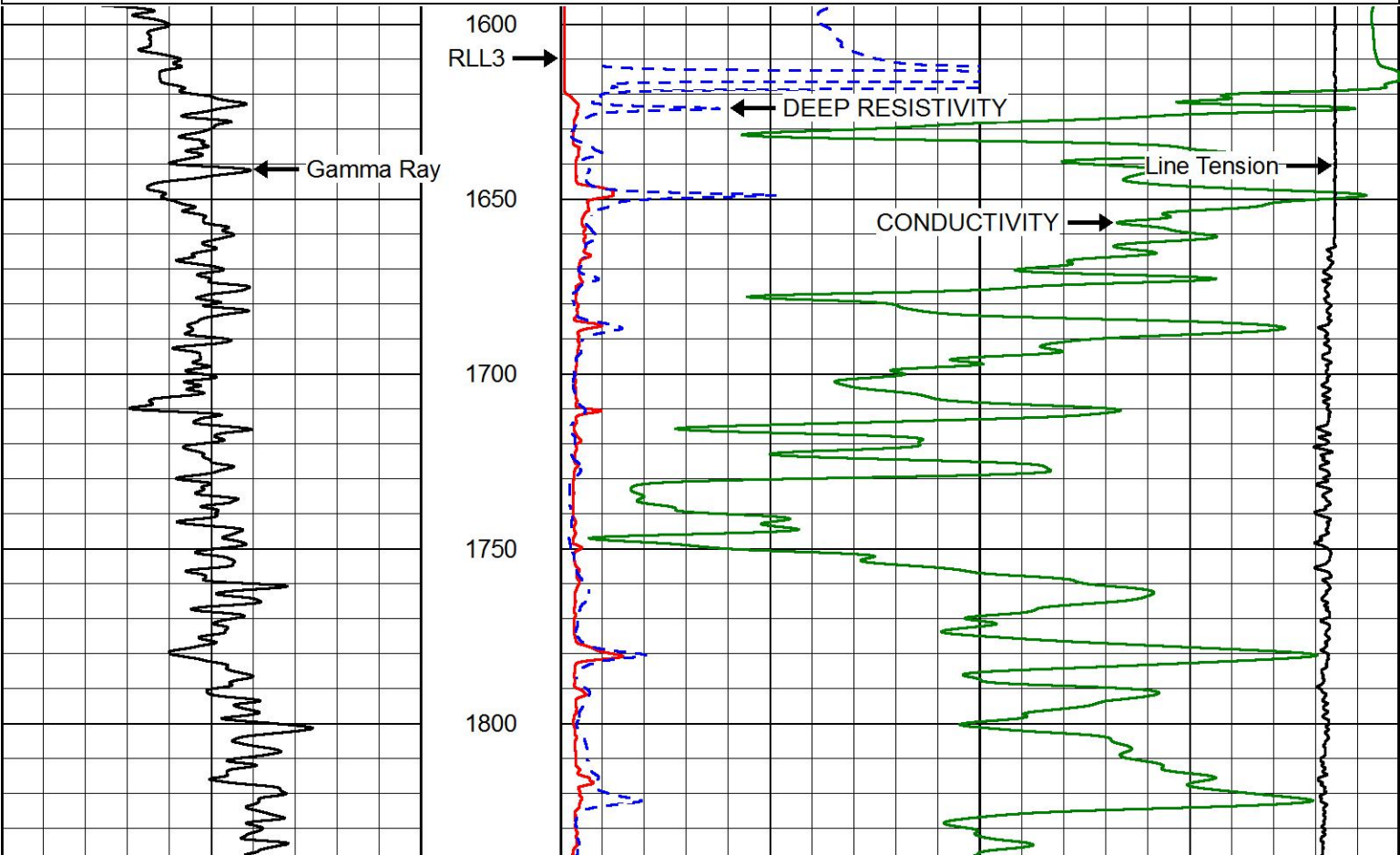
CILM	4.70								
SP	0.20								
Dataset: agricultural_energy_don_thorp_3_23.db: field/well/stkml/pass3.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in									

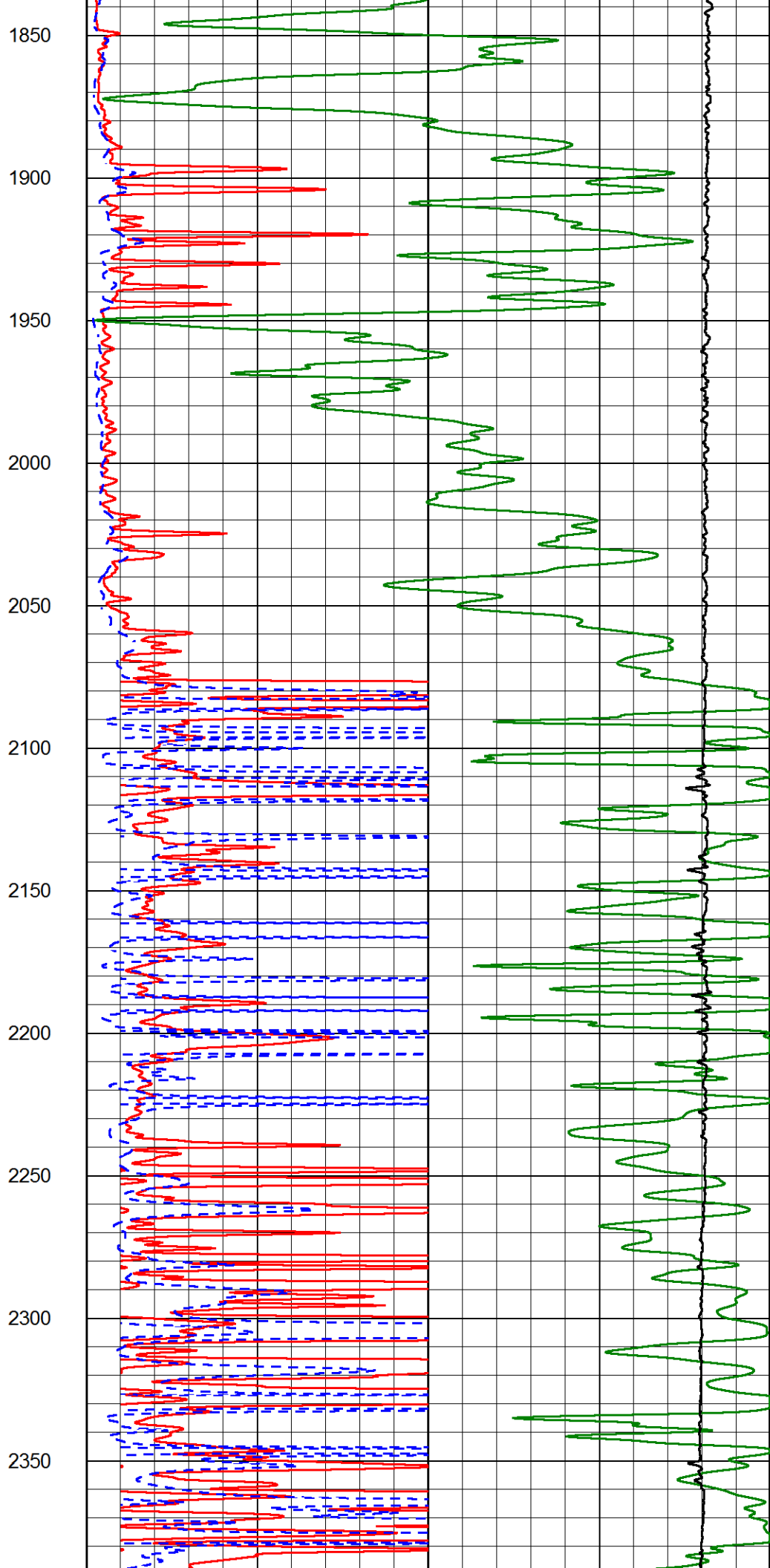
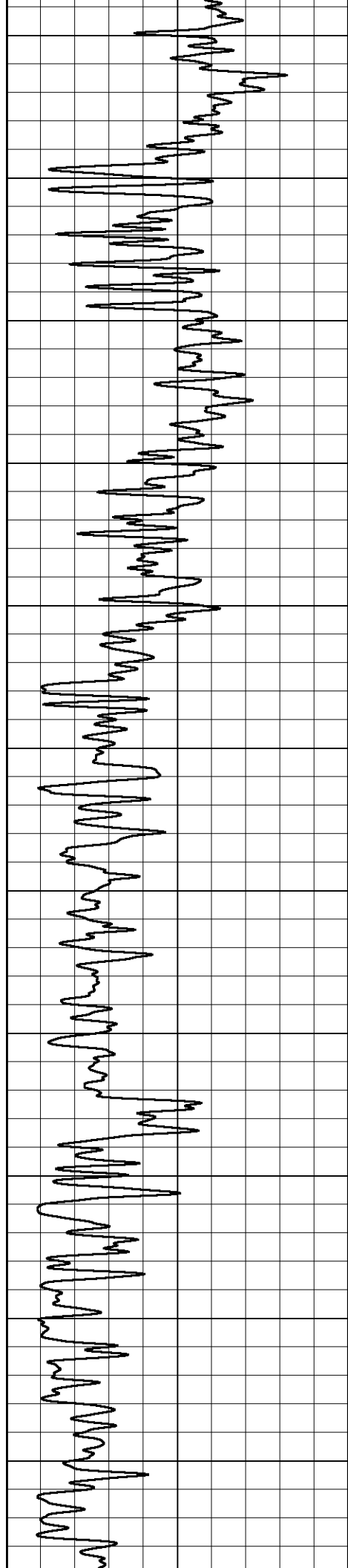


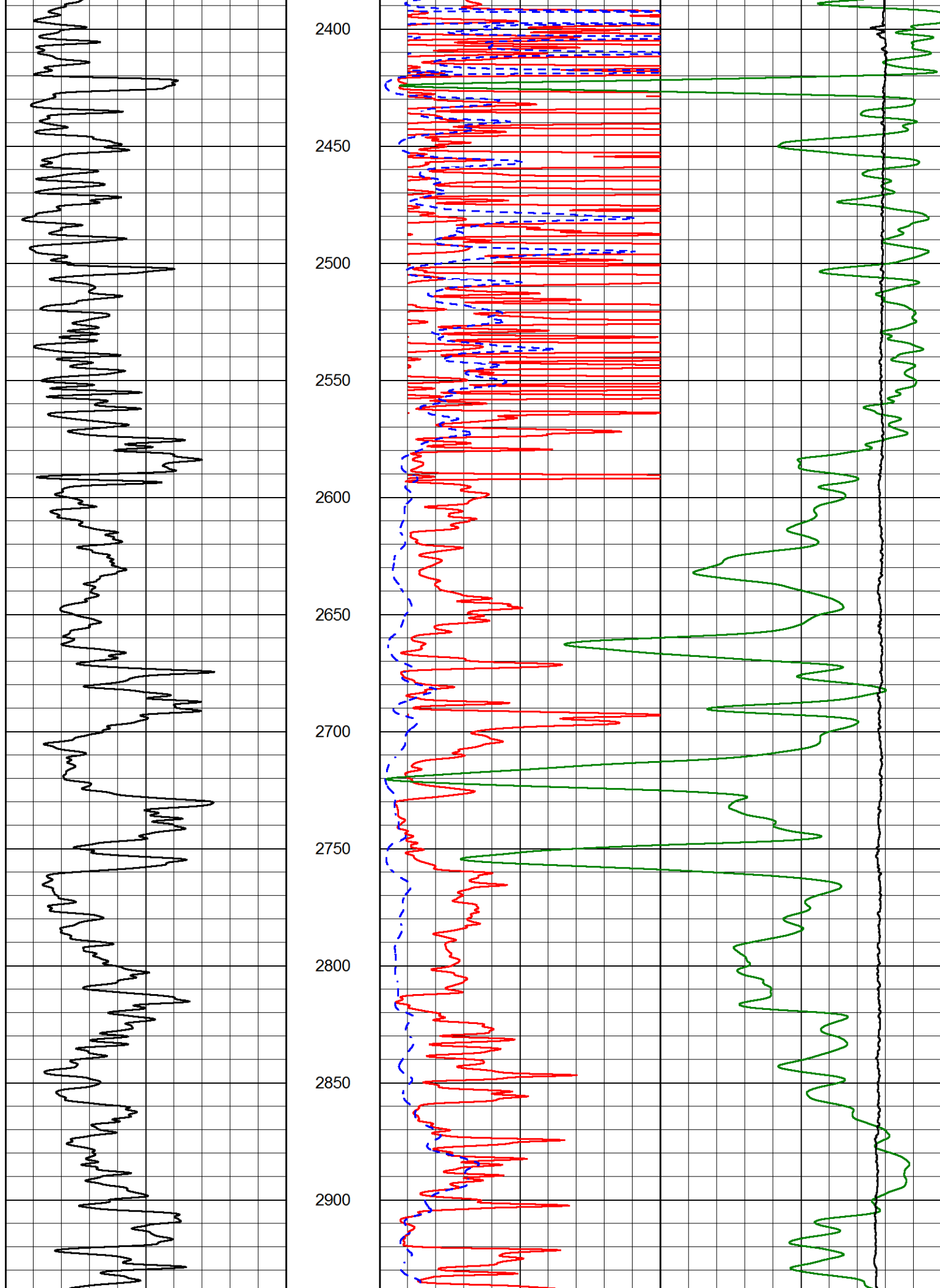
MAIN PASS

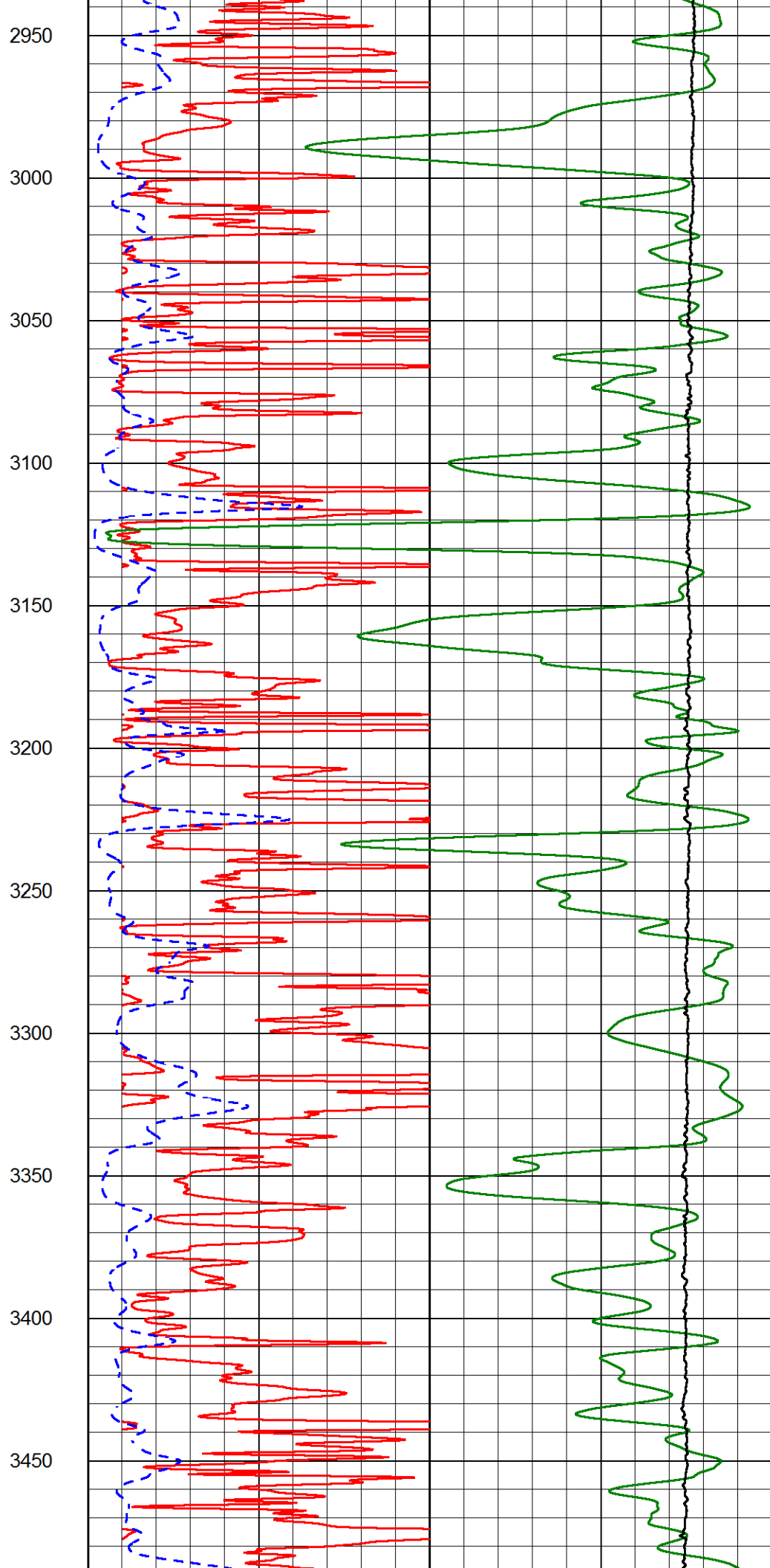
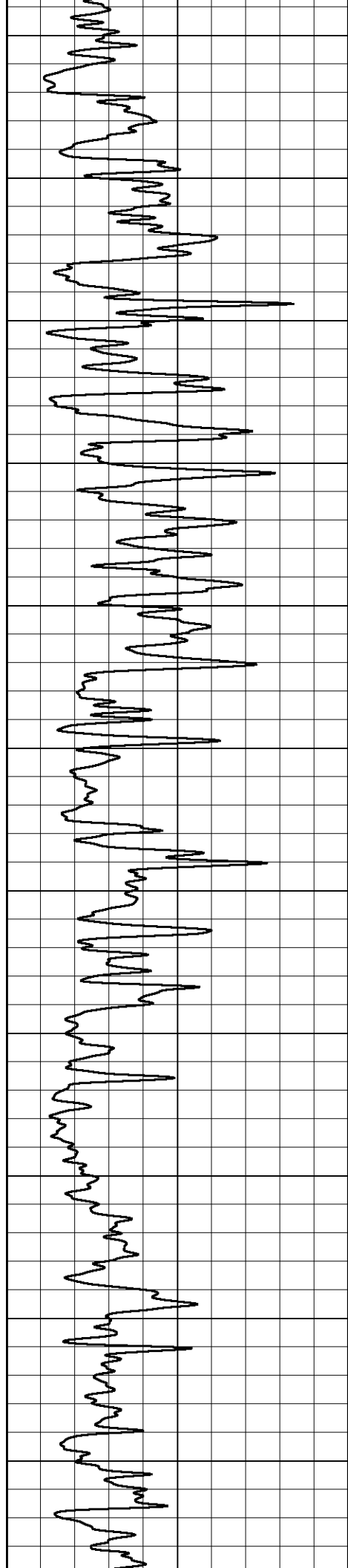
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Presentation Format	dil2in
Dataset Creation	Wed Jun 27 07:31:18 2018
Charted by	Depth in Feet scaled 1:600

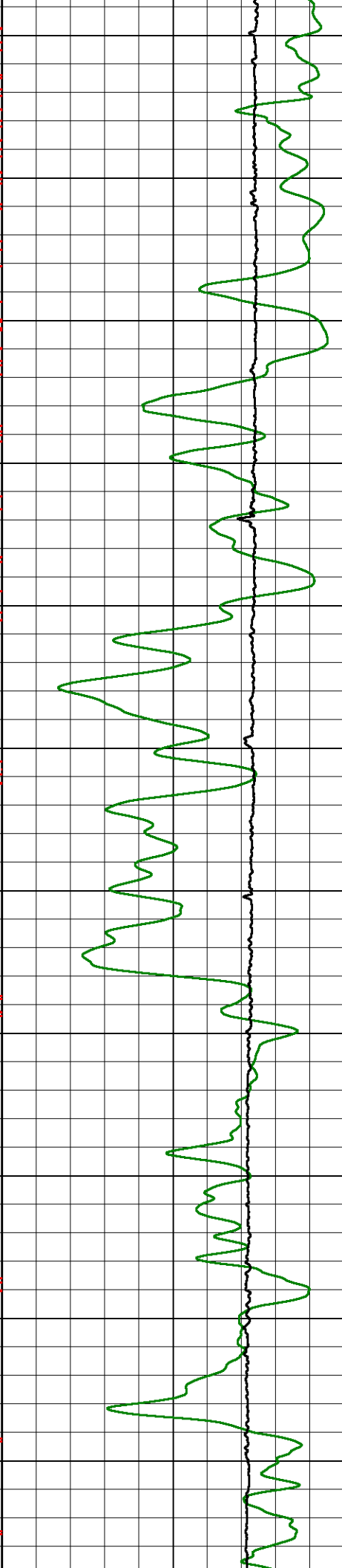
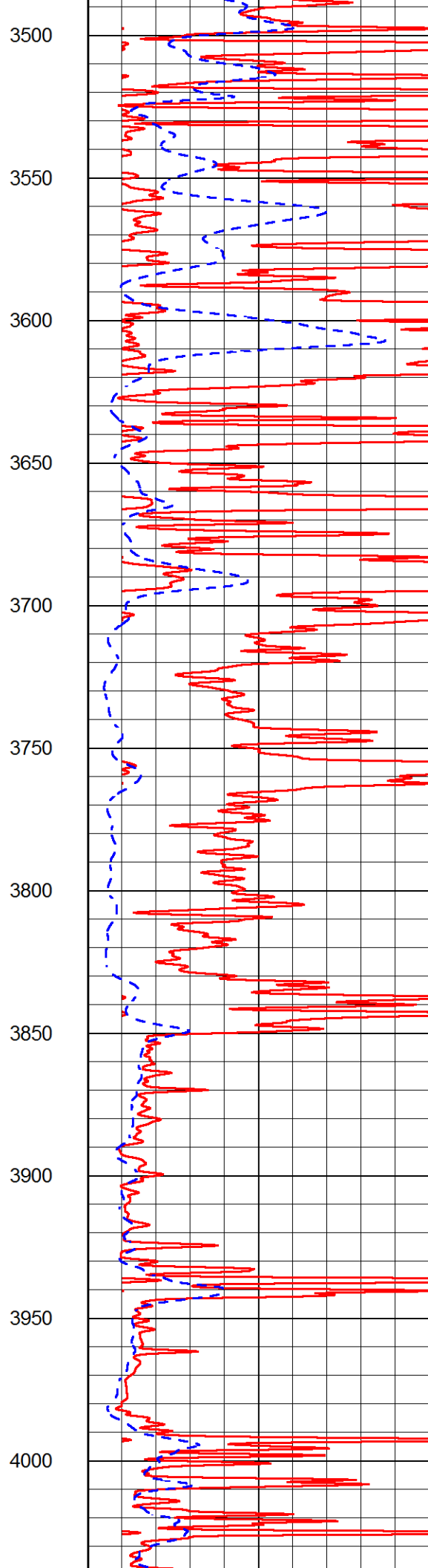
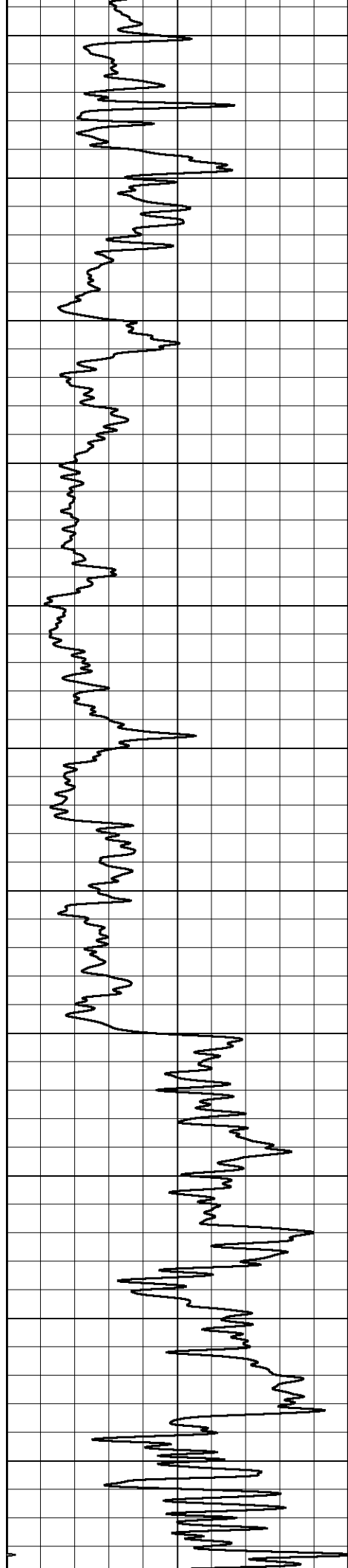
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	15000	Line Tension (lb)	0
	0	RLL3 (Ohm-m)	50
	0	DEEP RESISTIVITY (Ohm-m)	50
	50	RLL3 (Ohm-m)	500
	50	Deep Resistivity (Ohm-m)	500

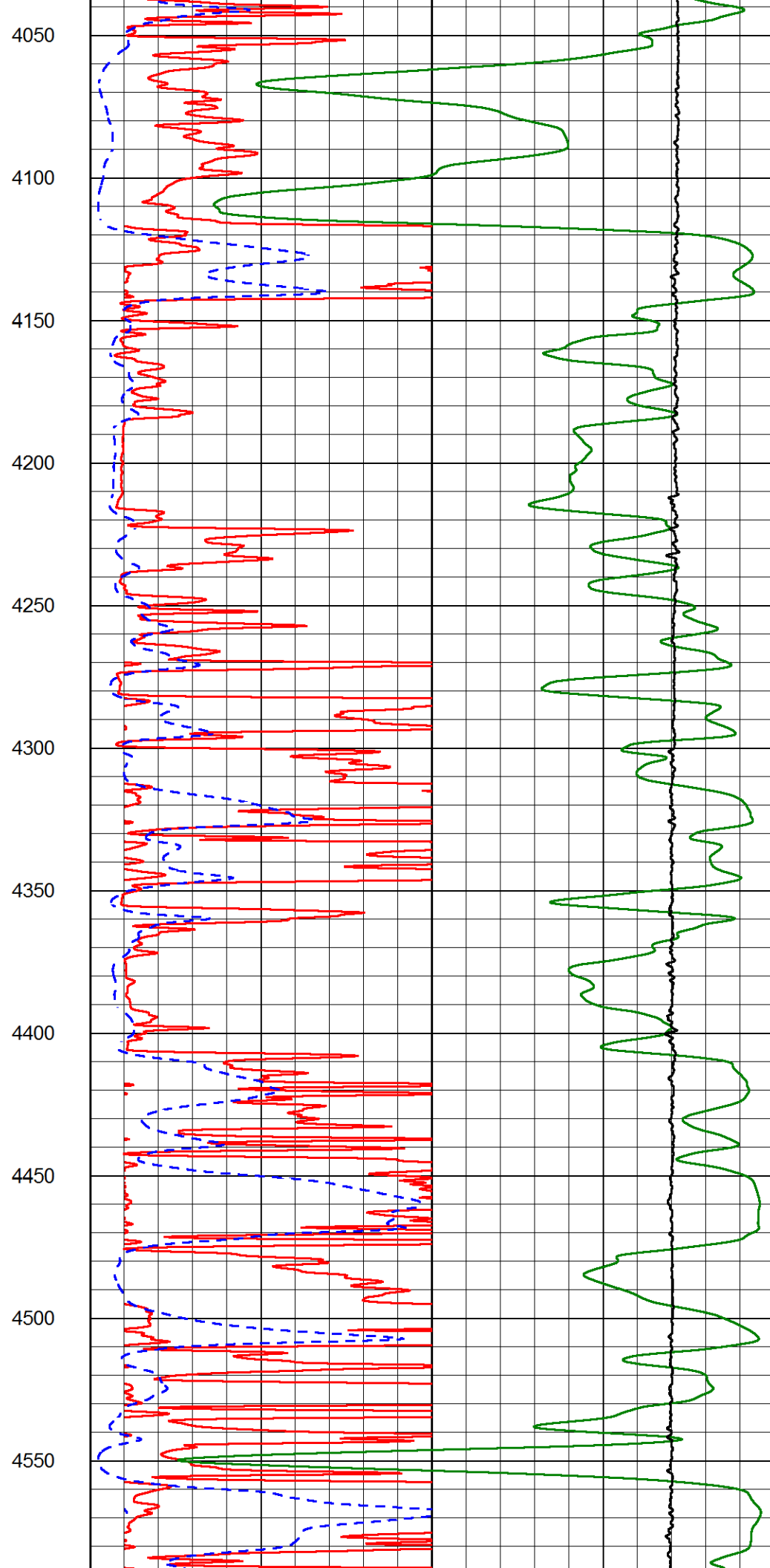
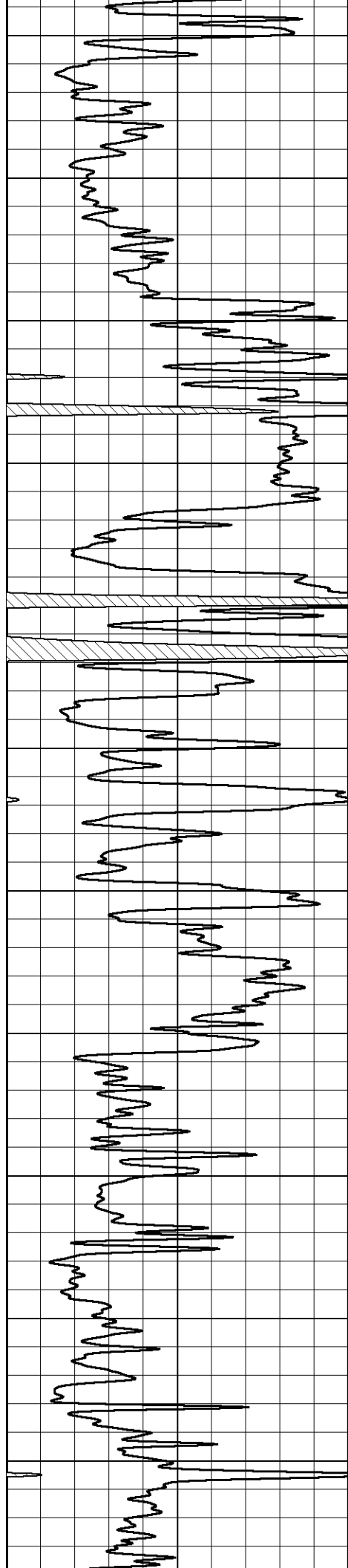


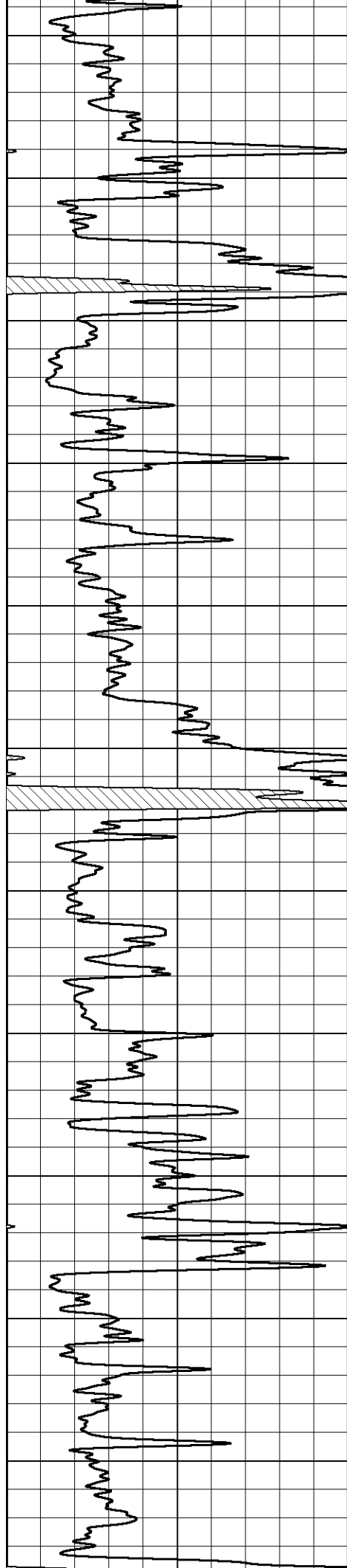












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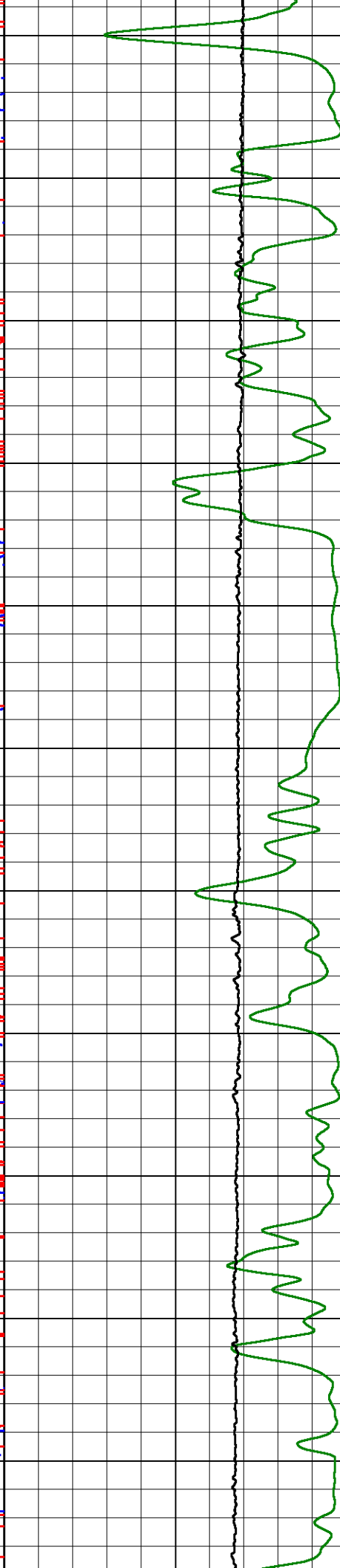
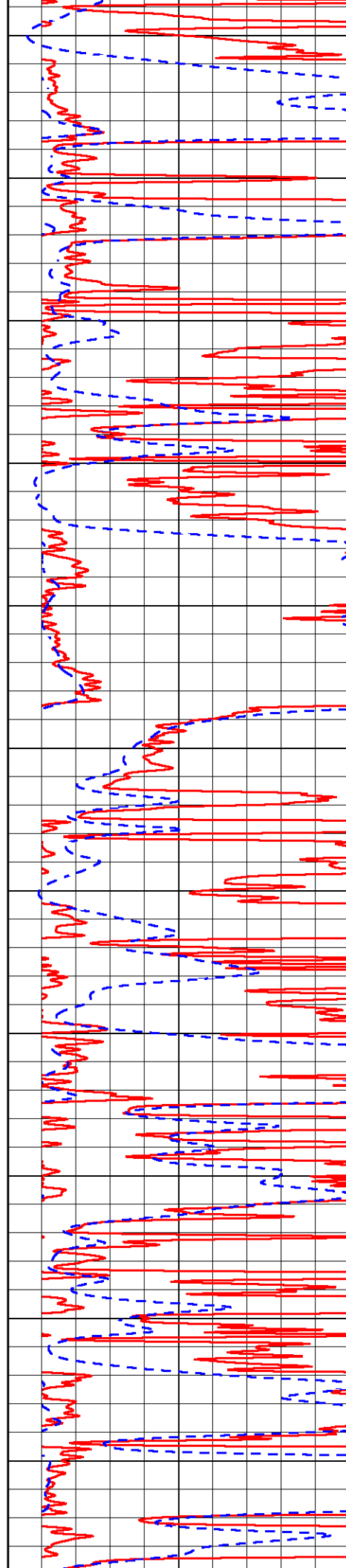
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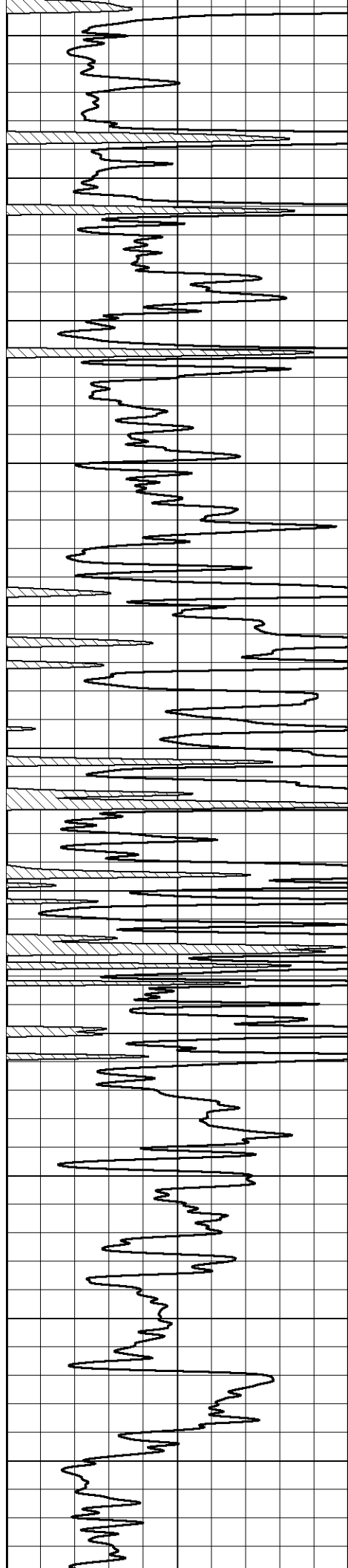
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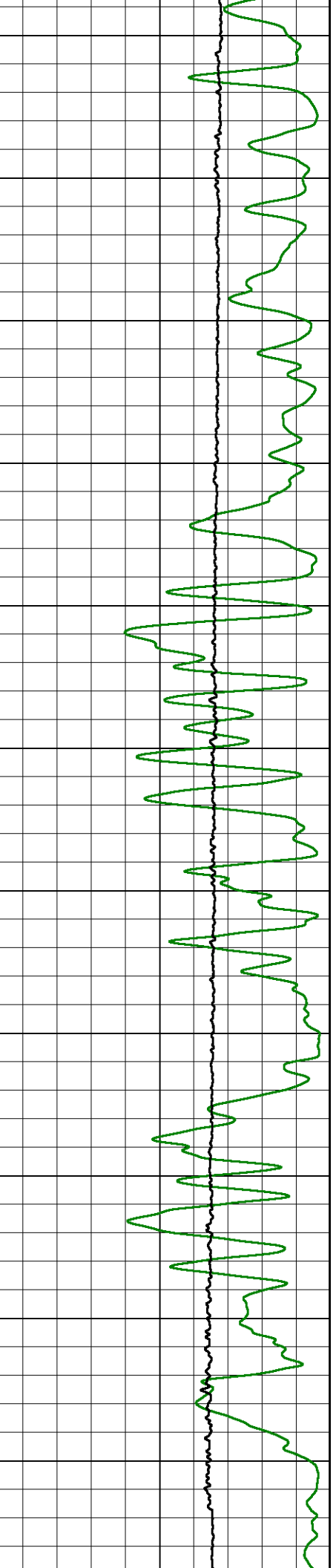
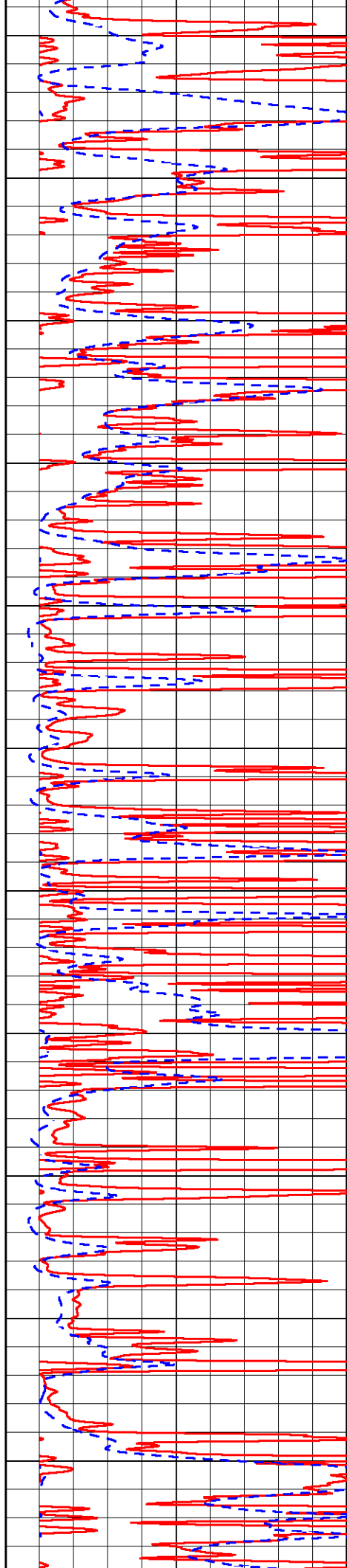
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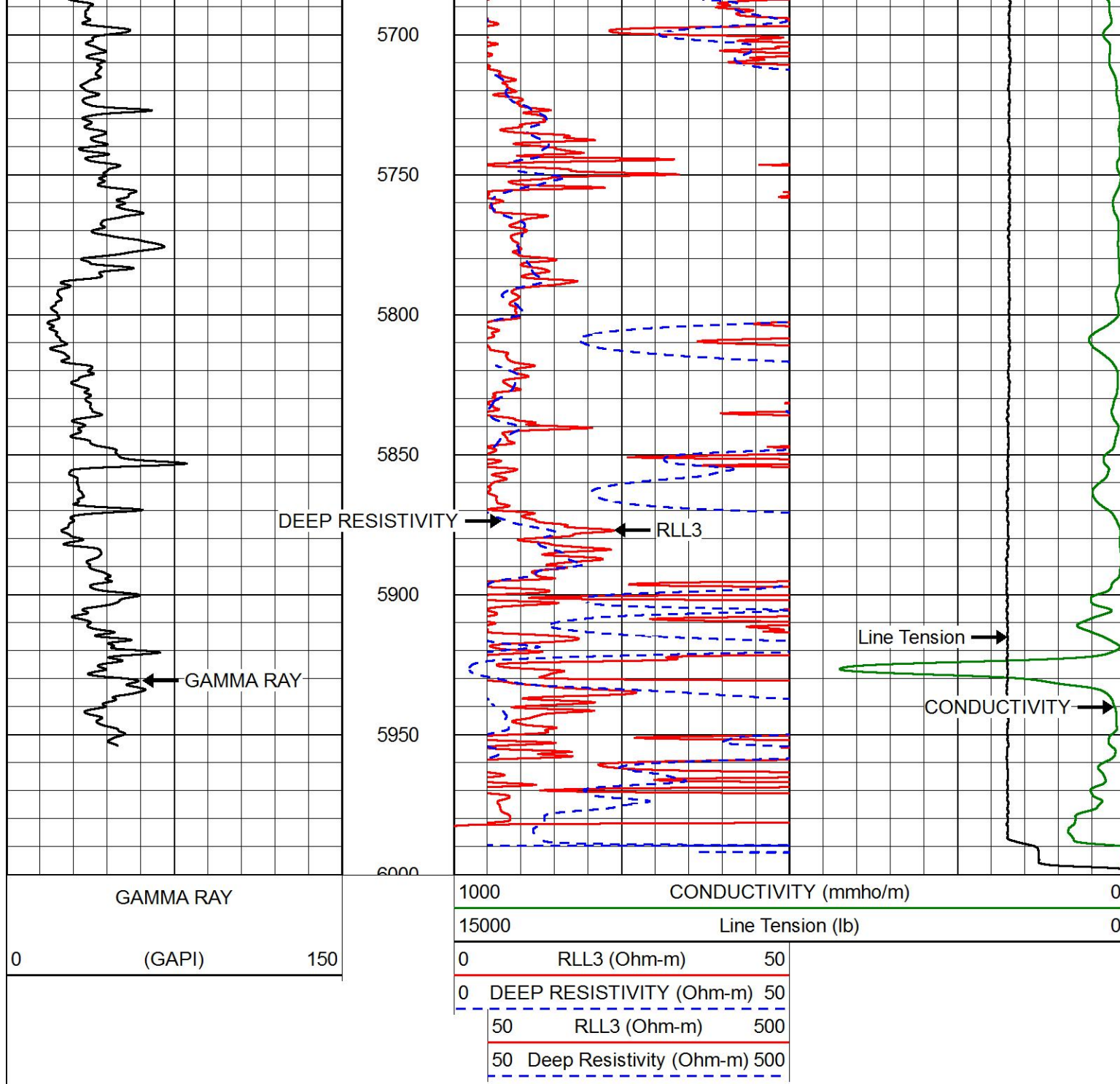
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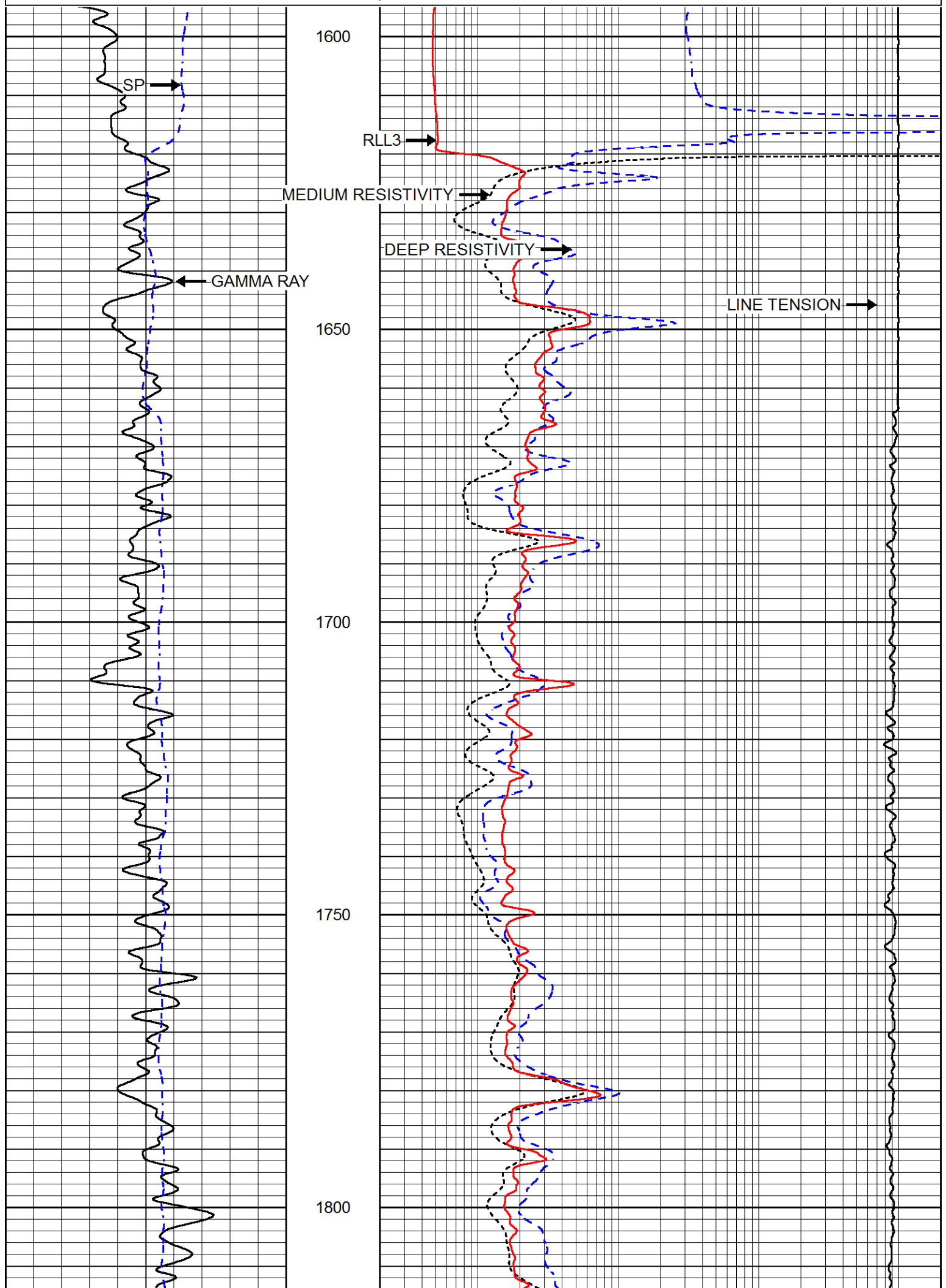


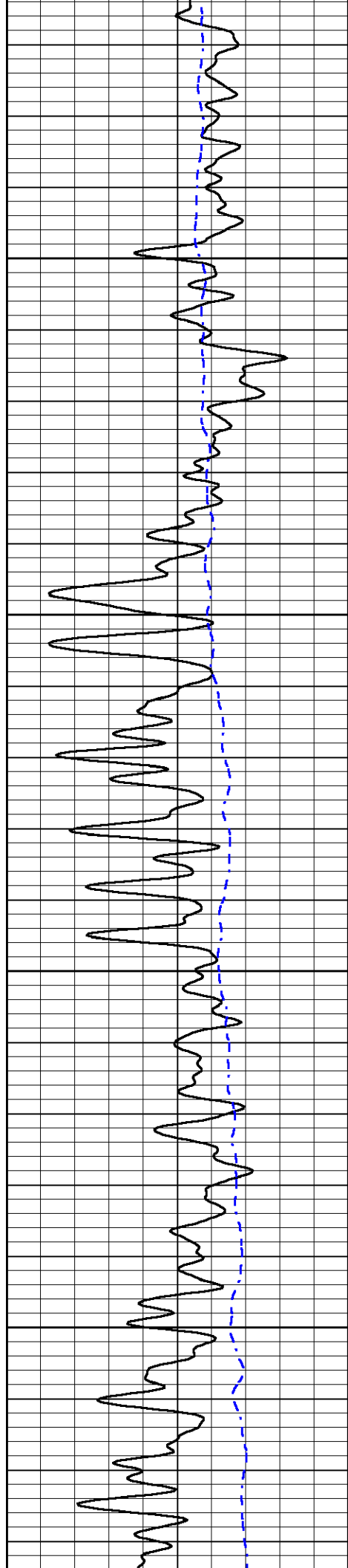
MAIN PASS

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

0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0



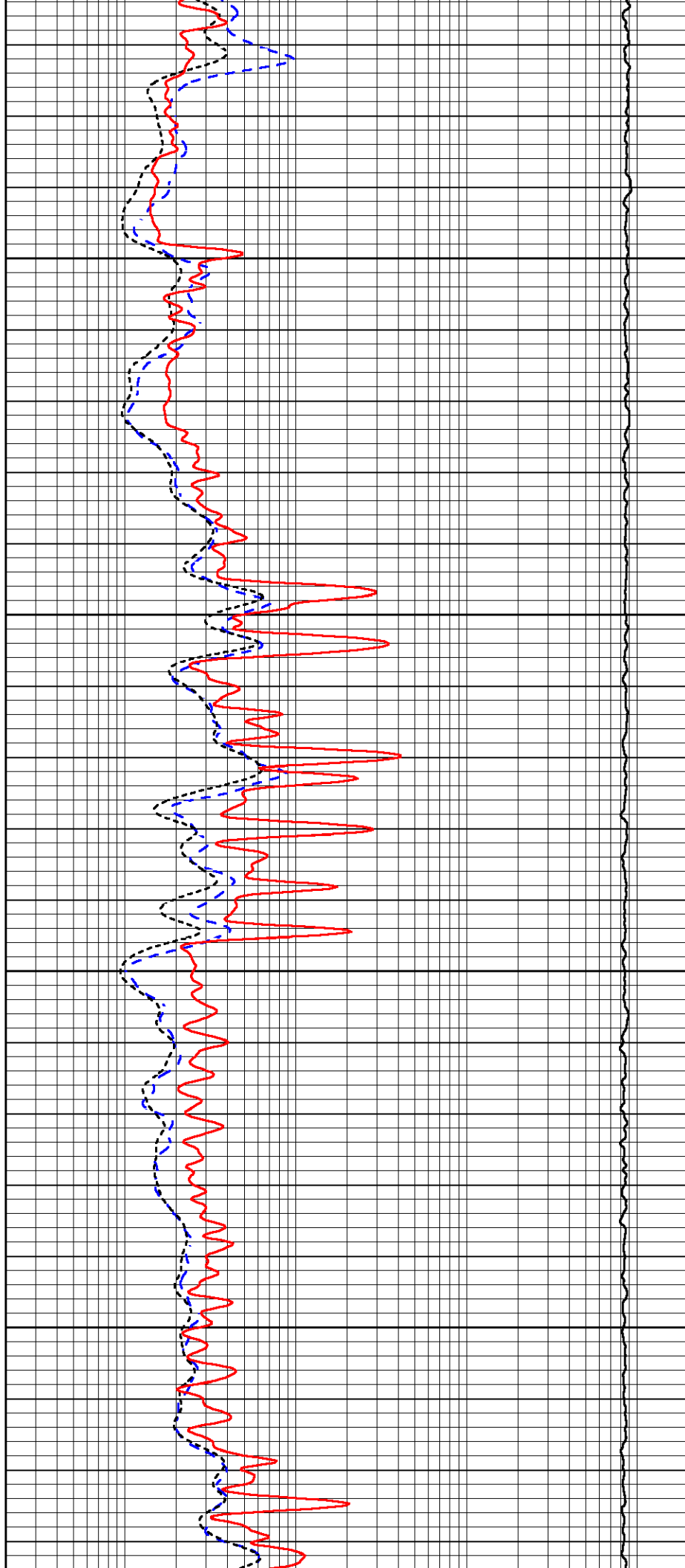


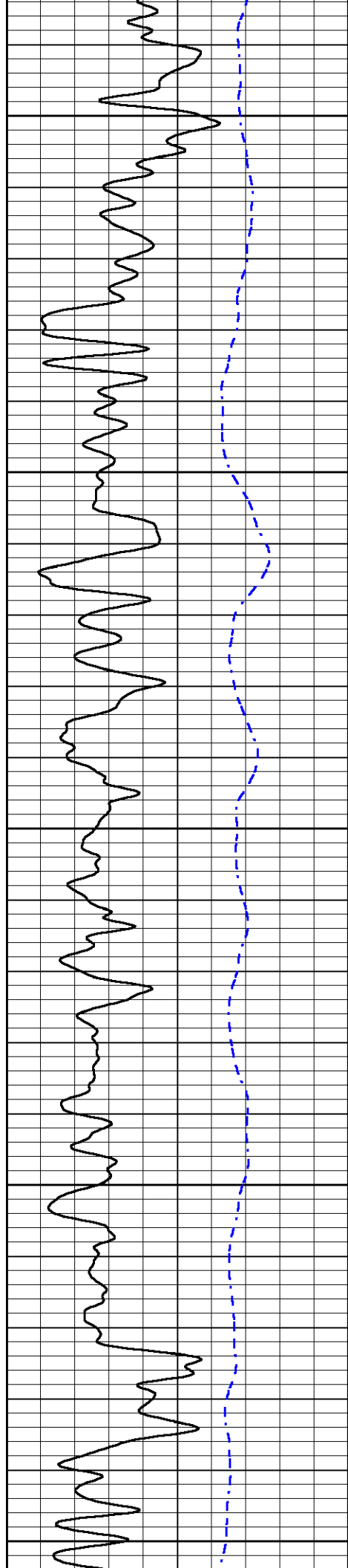
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1900

1950

2000





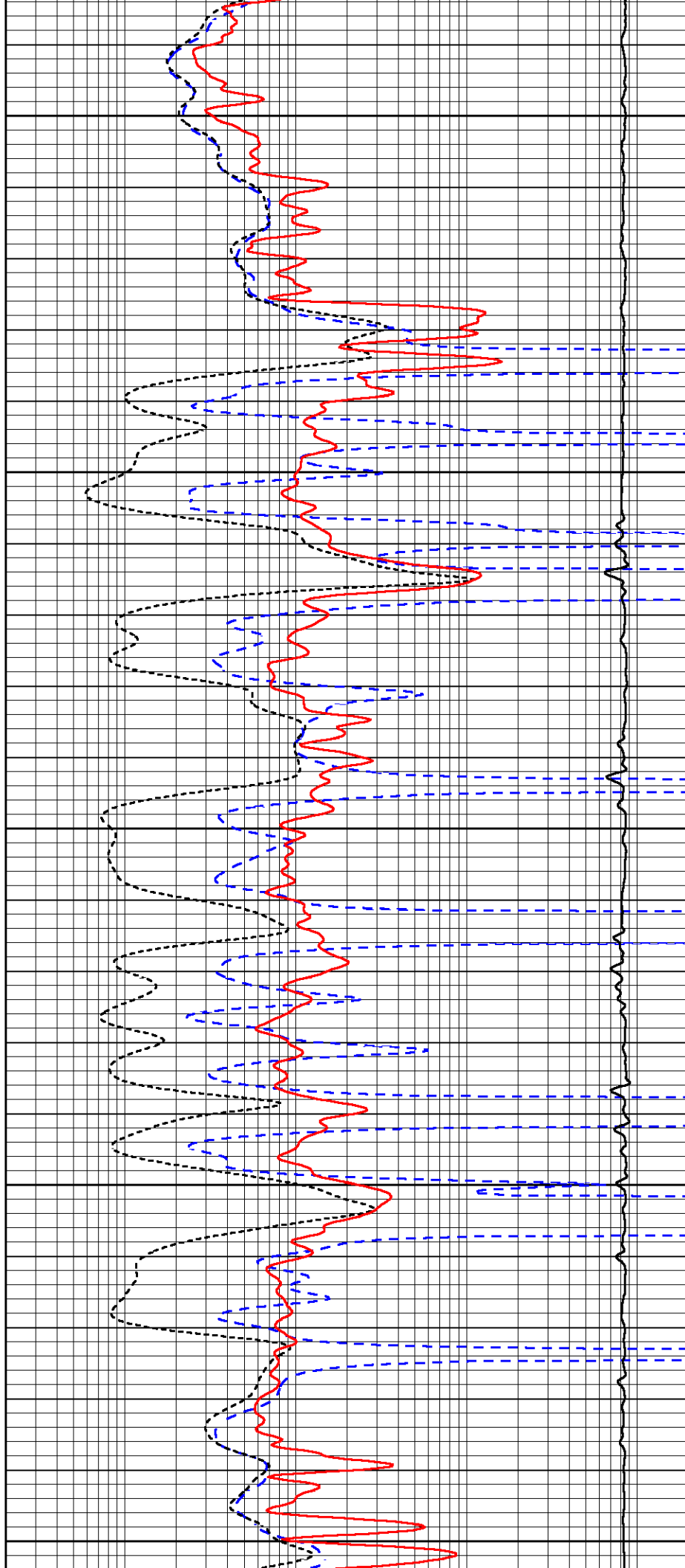
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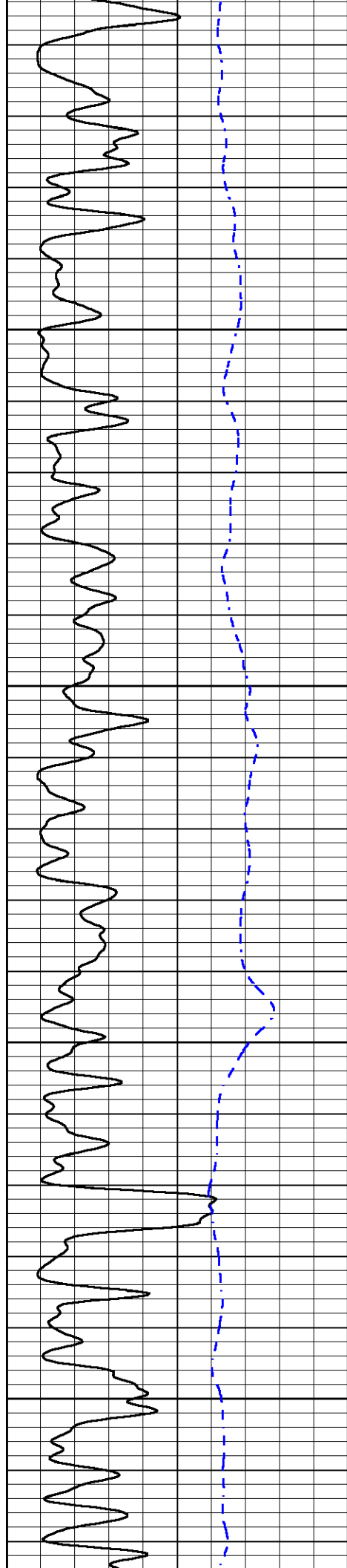
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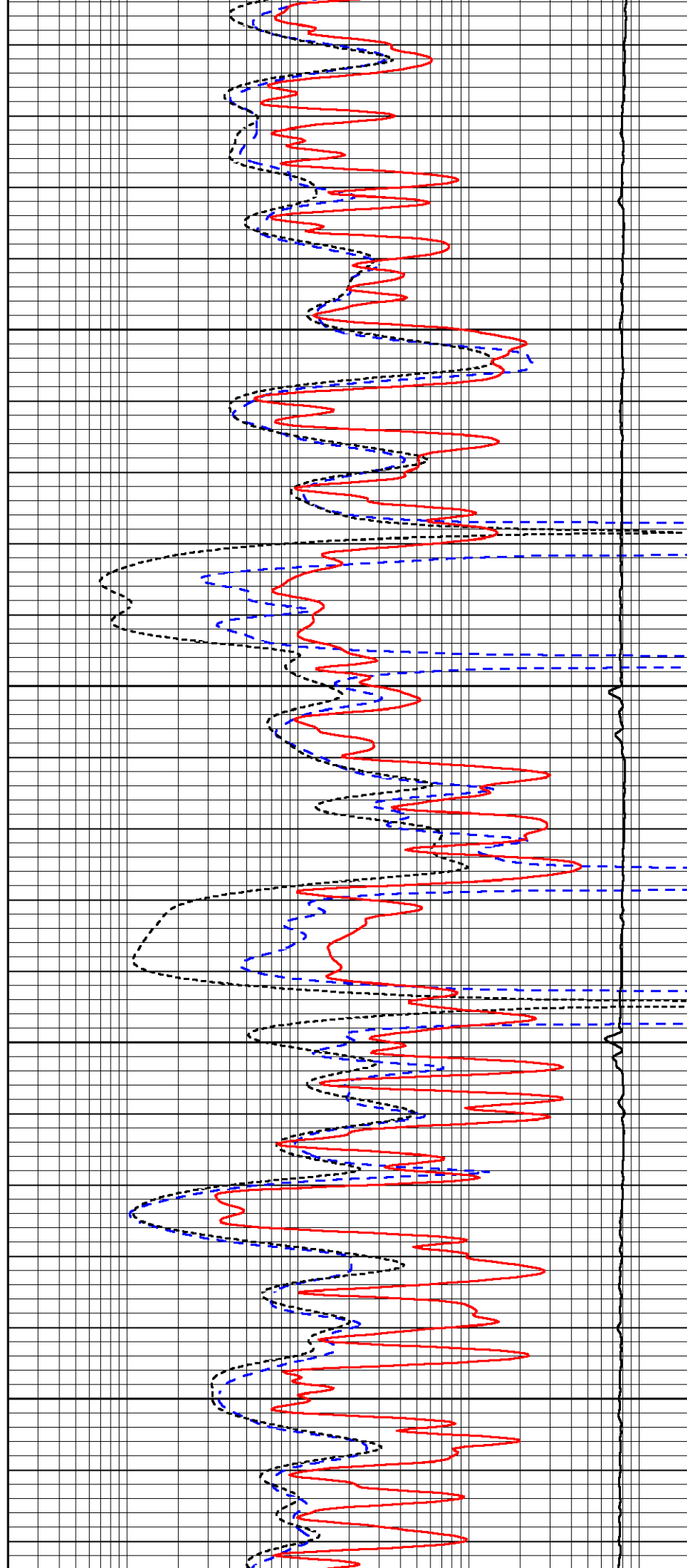


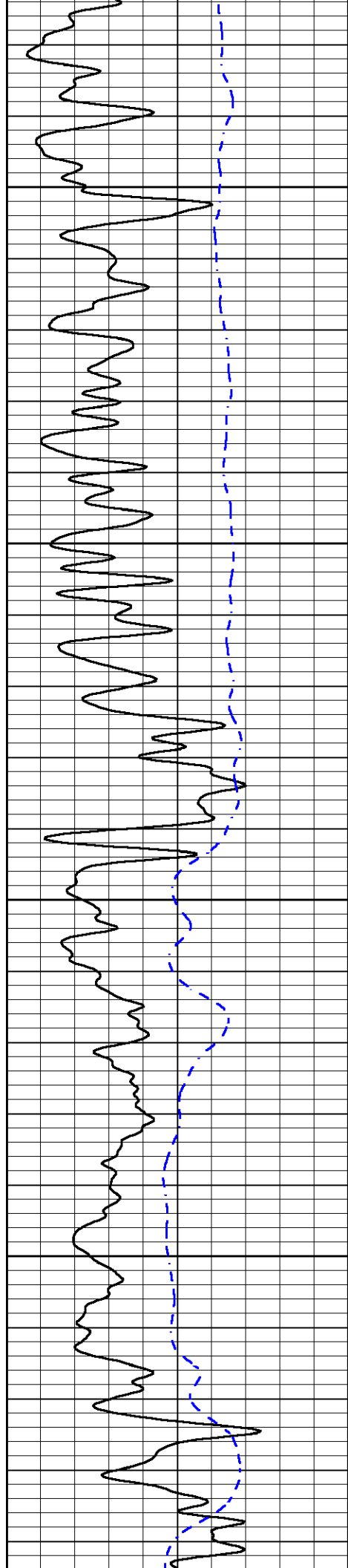
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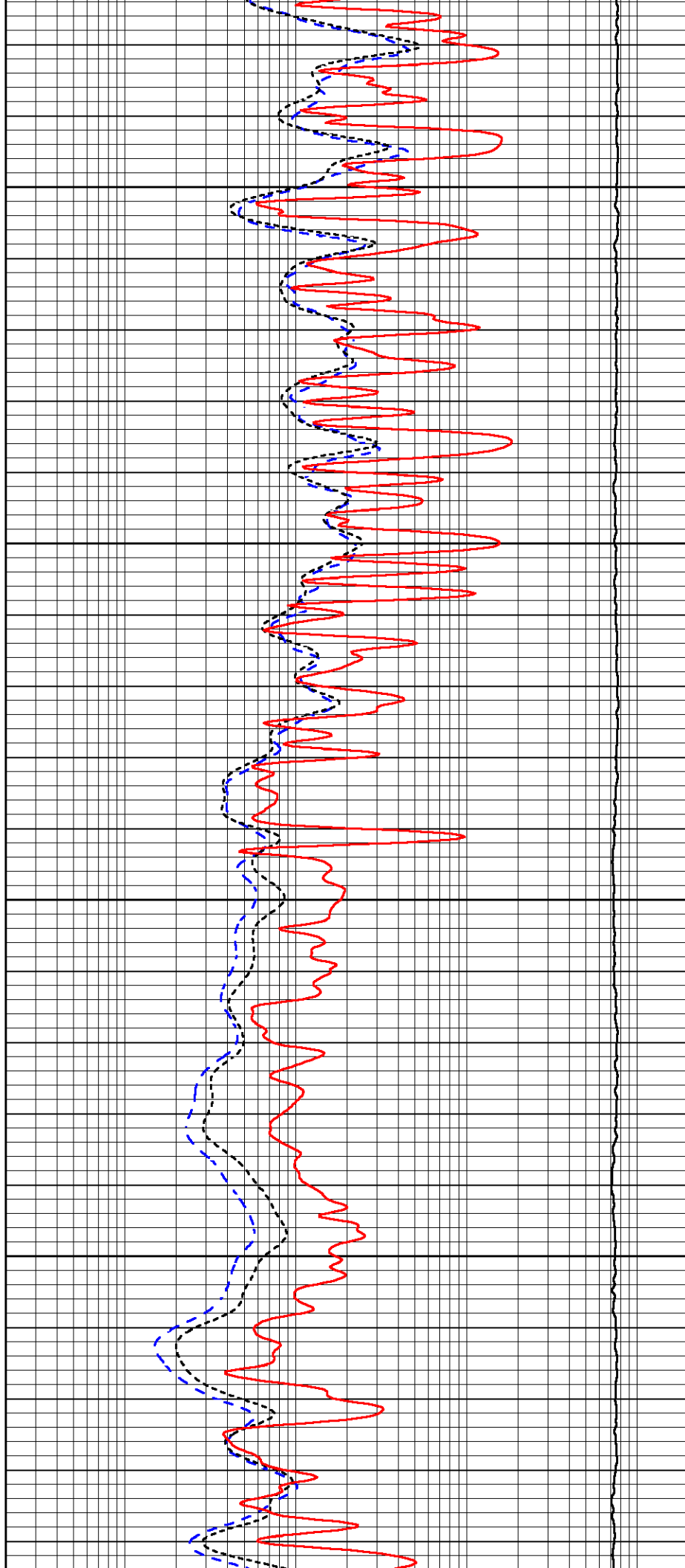


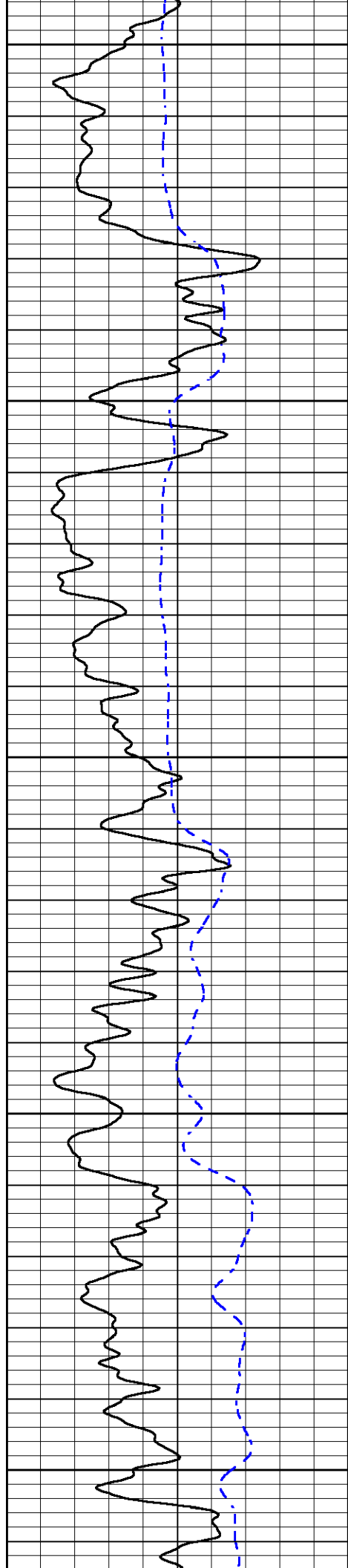
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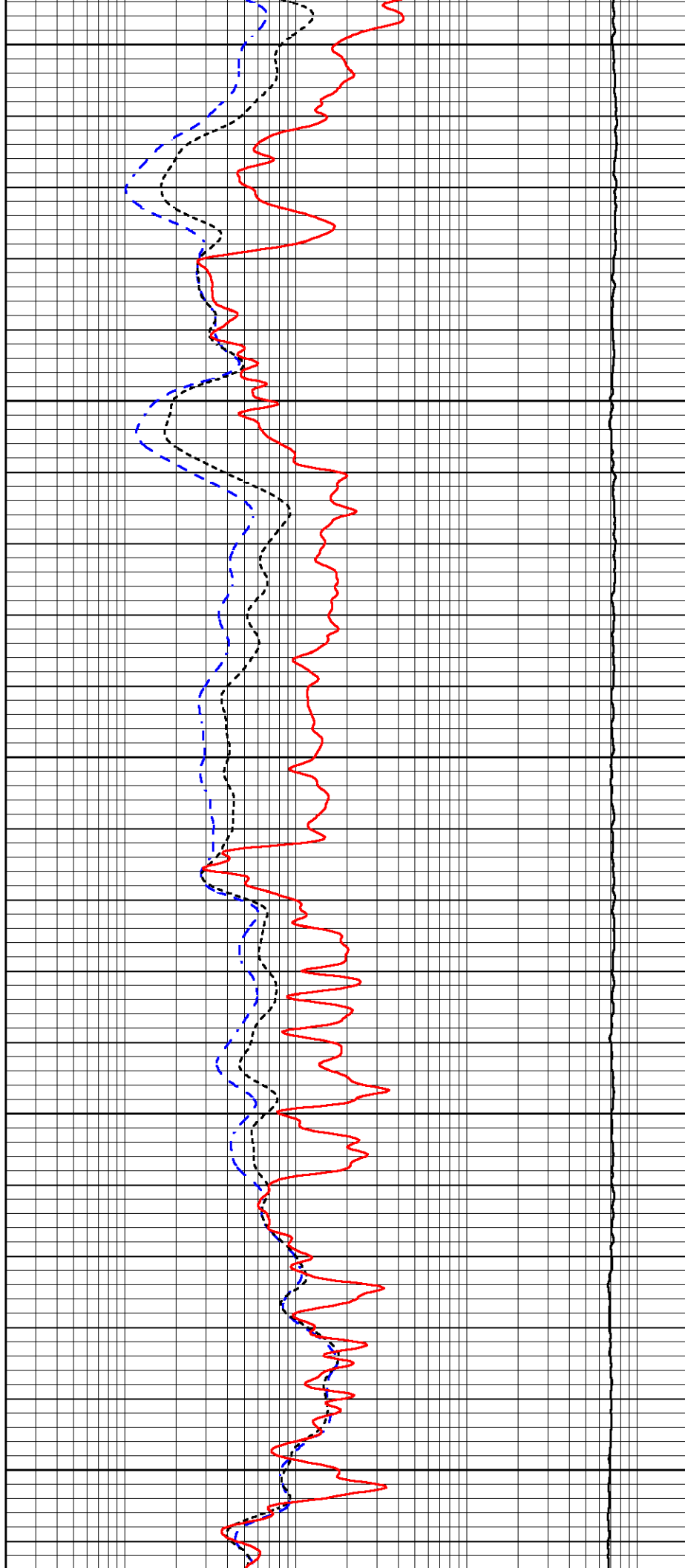
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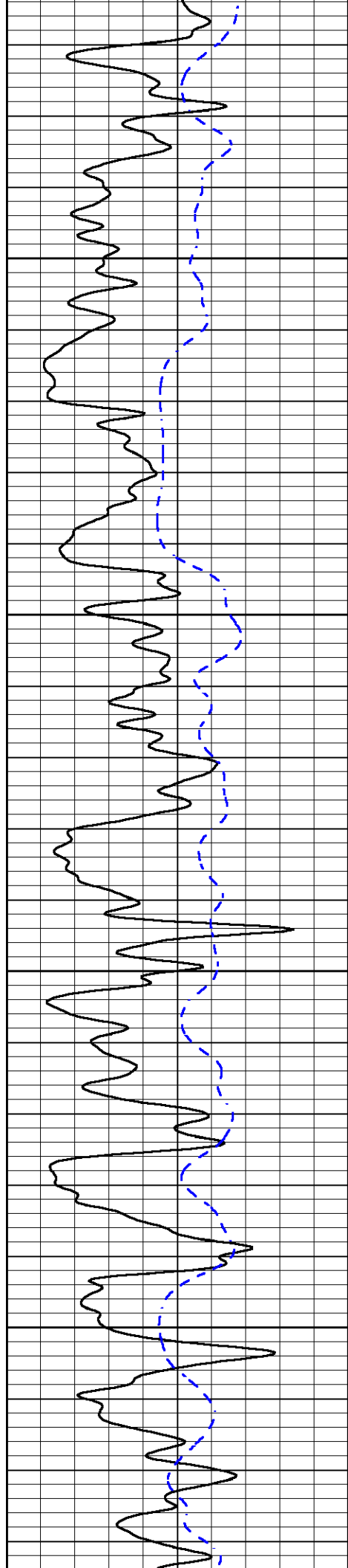
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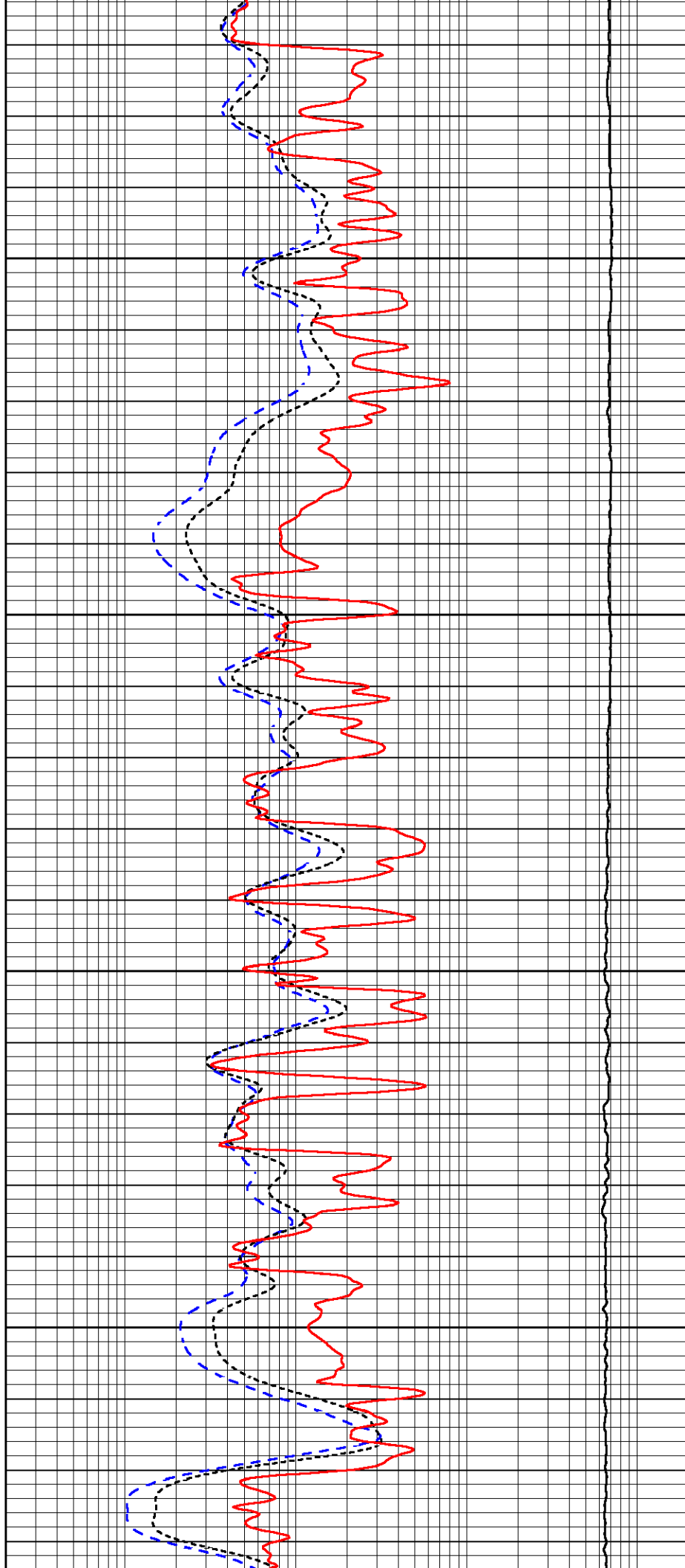


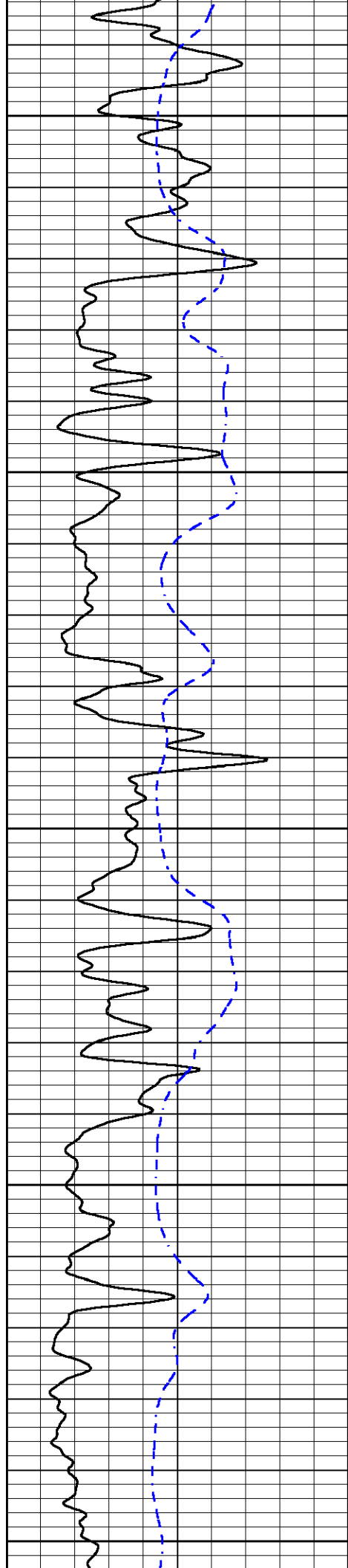
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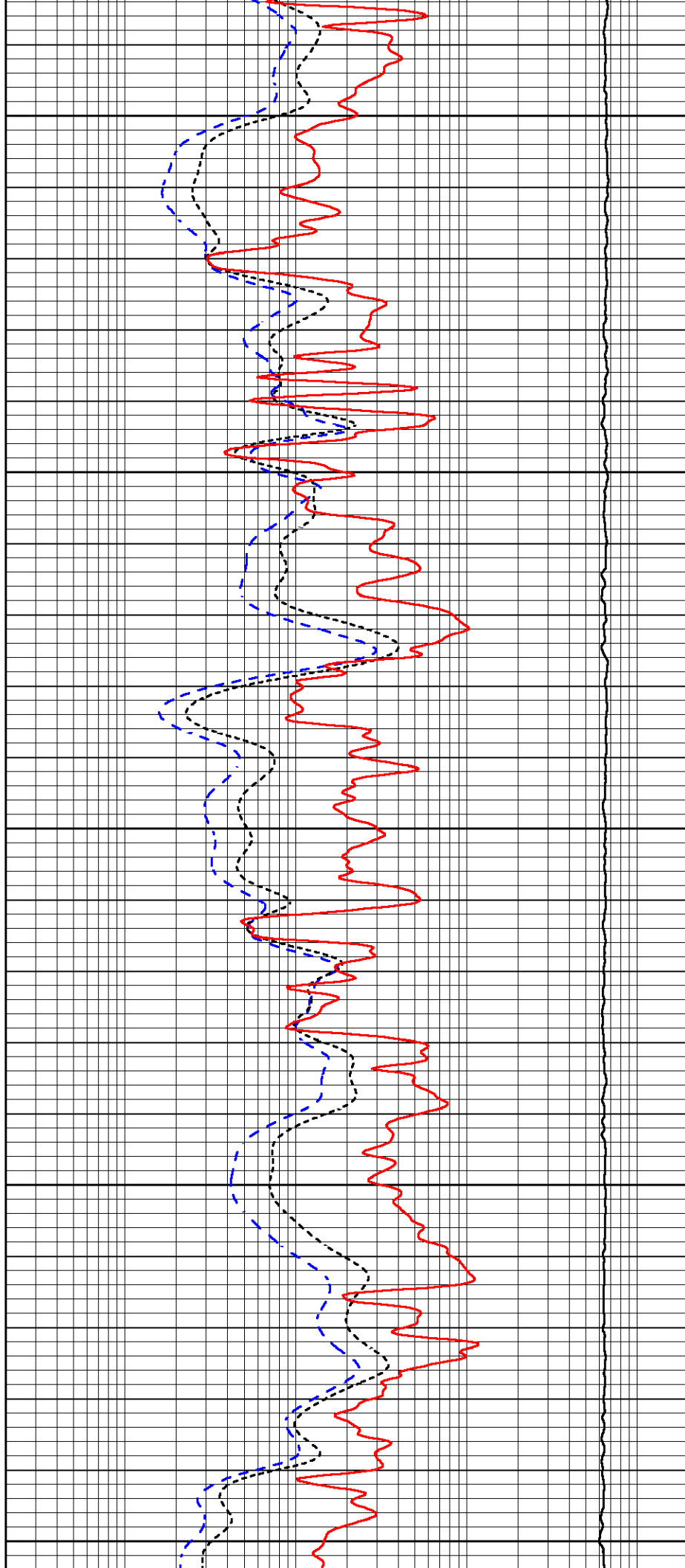
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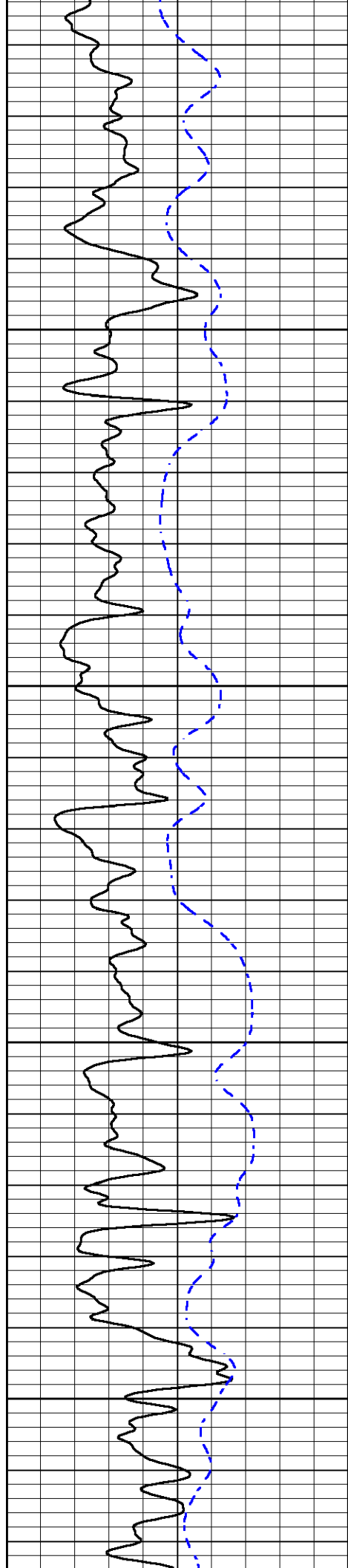
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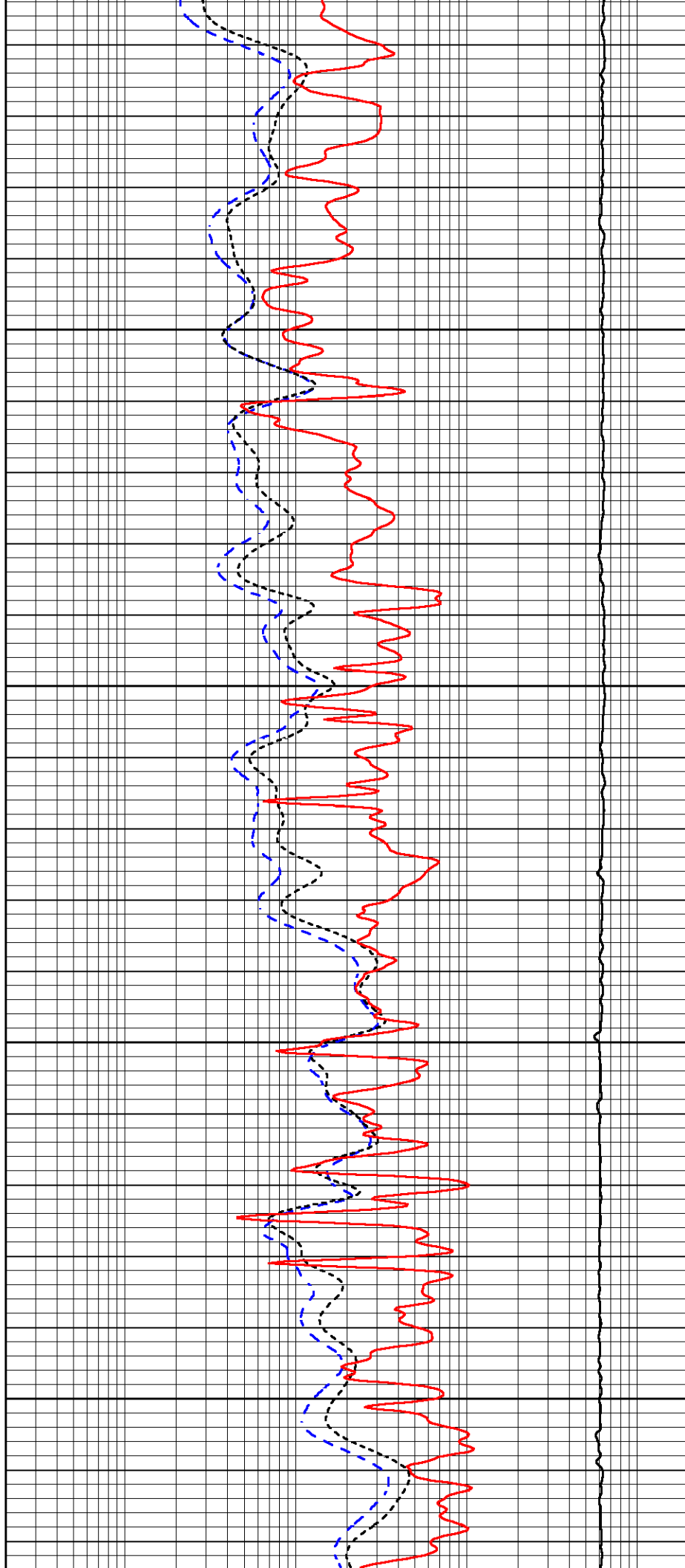


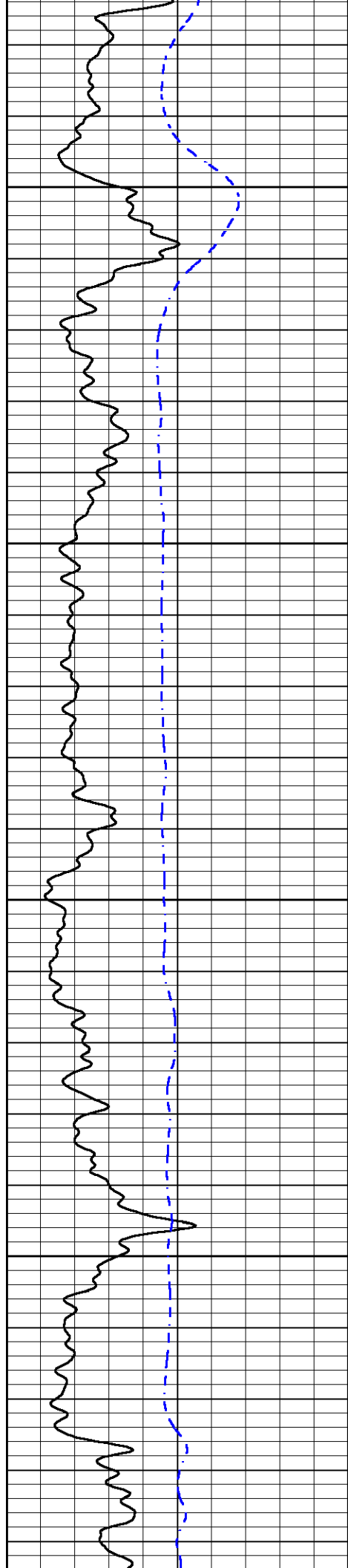
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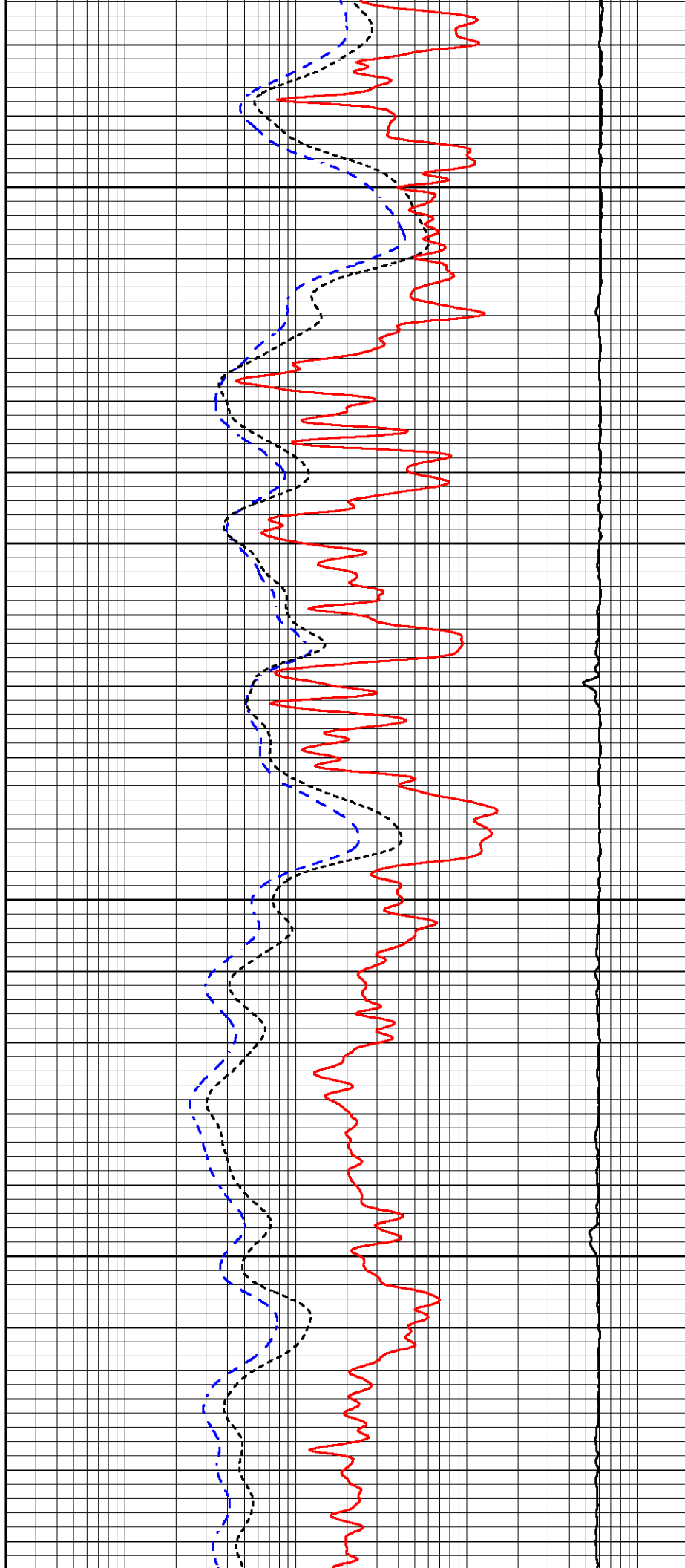


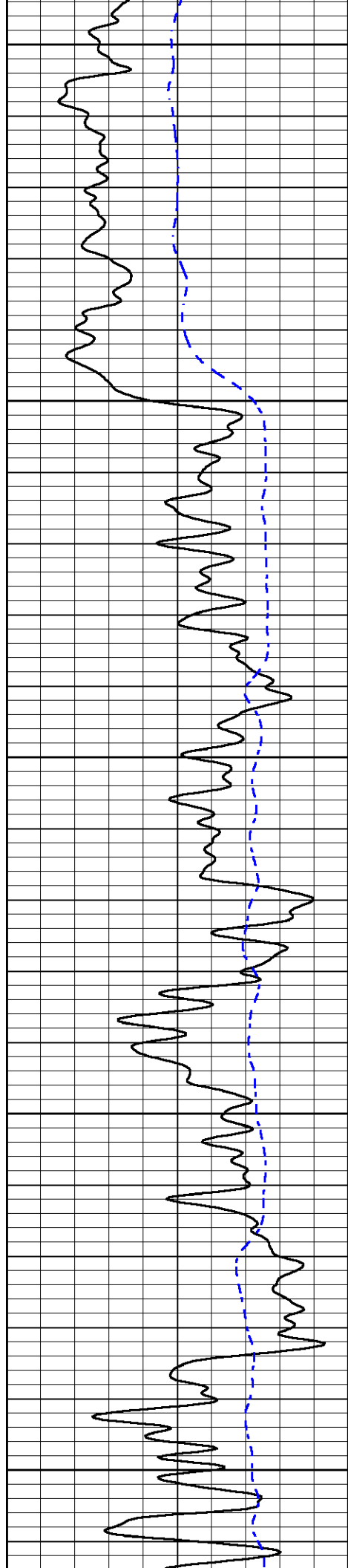
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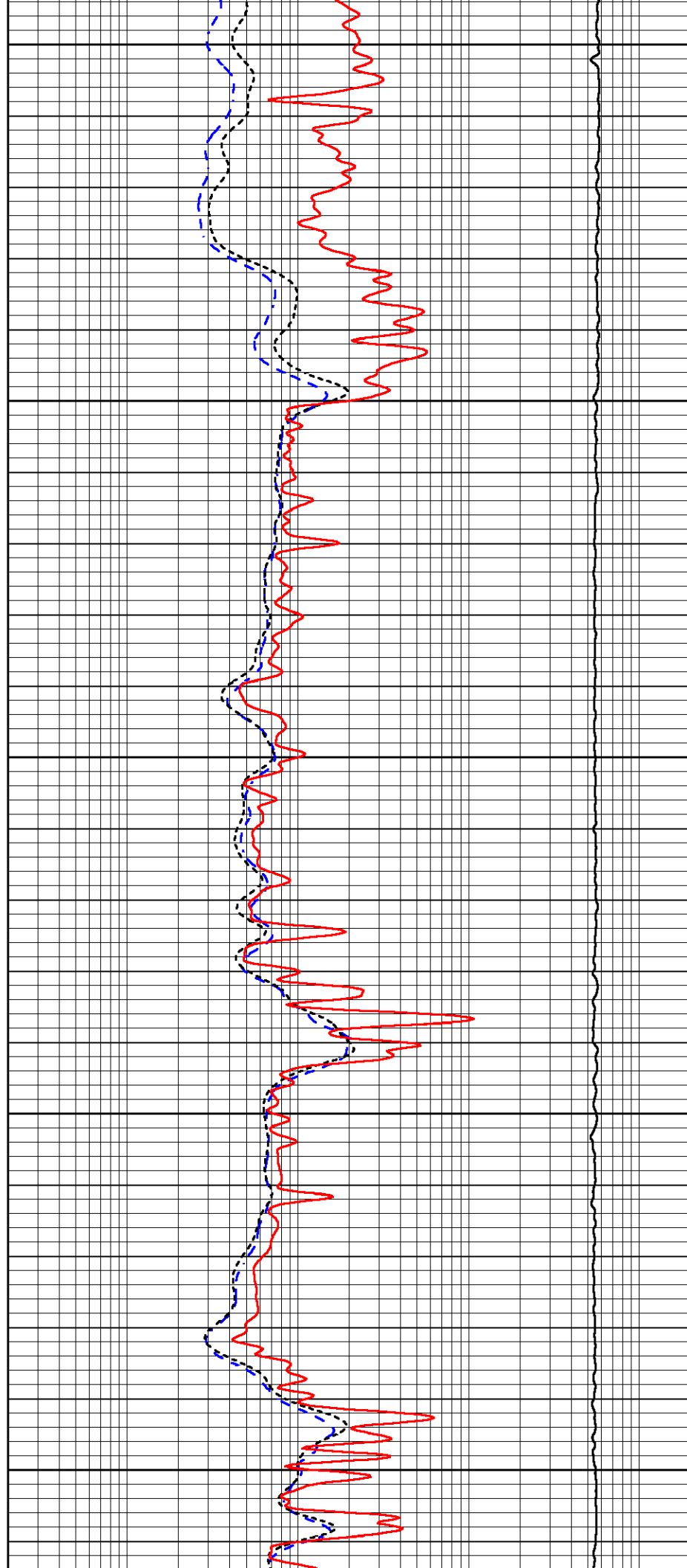
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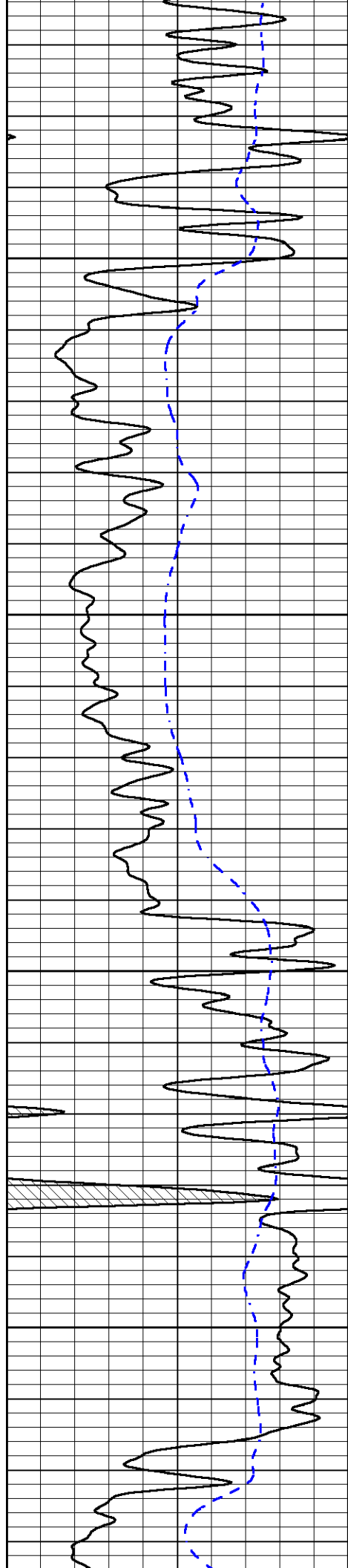
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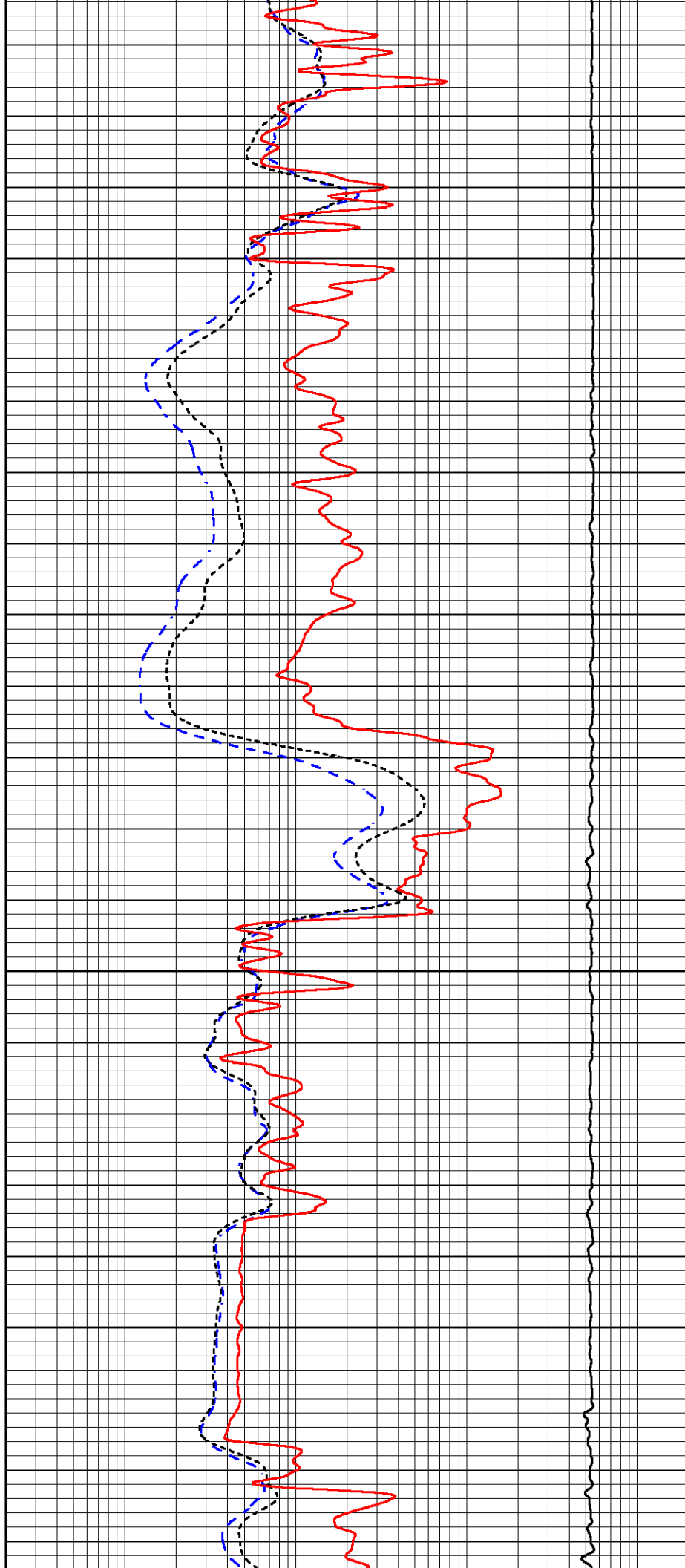


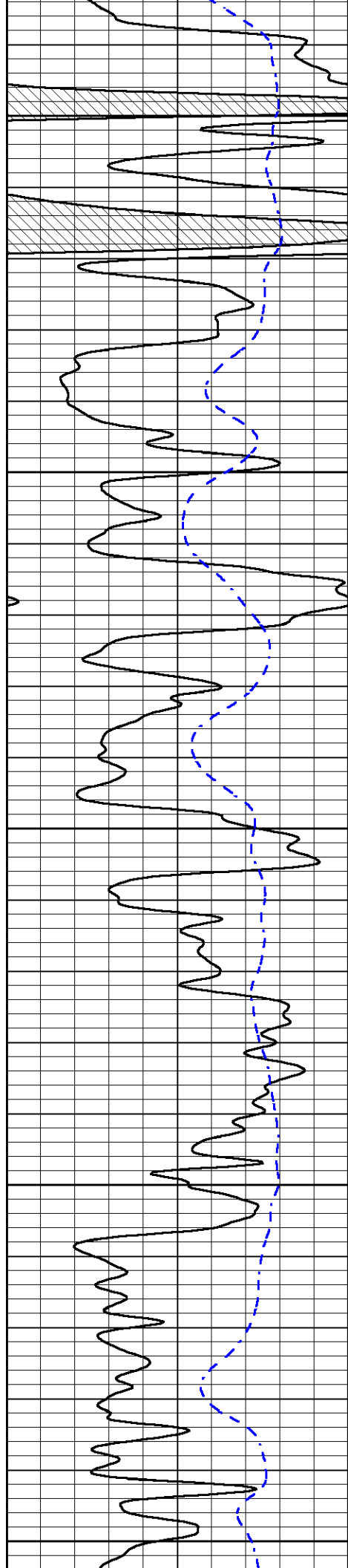
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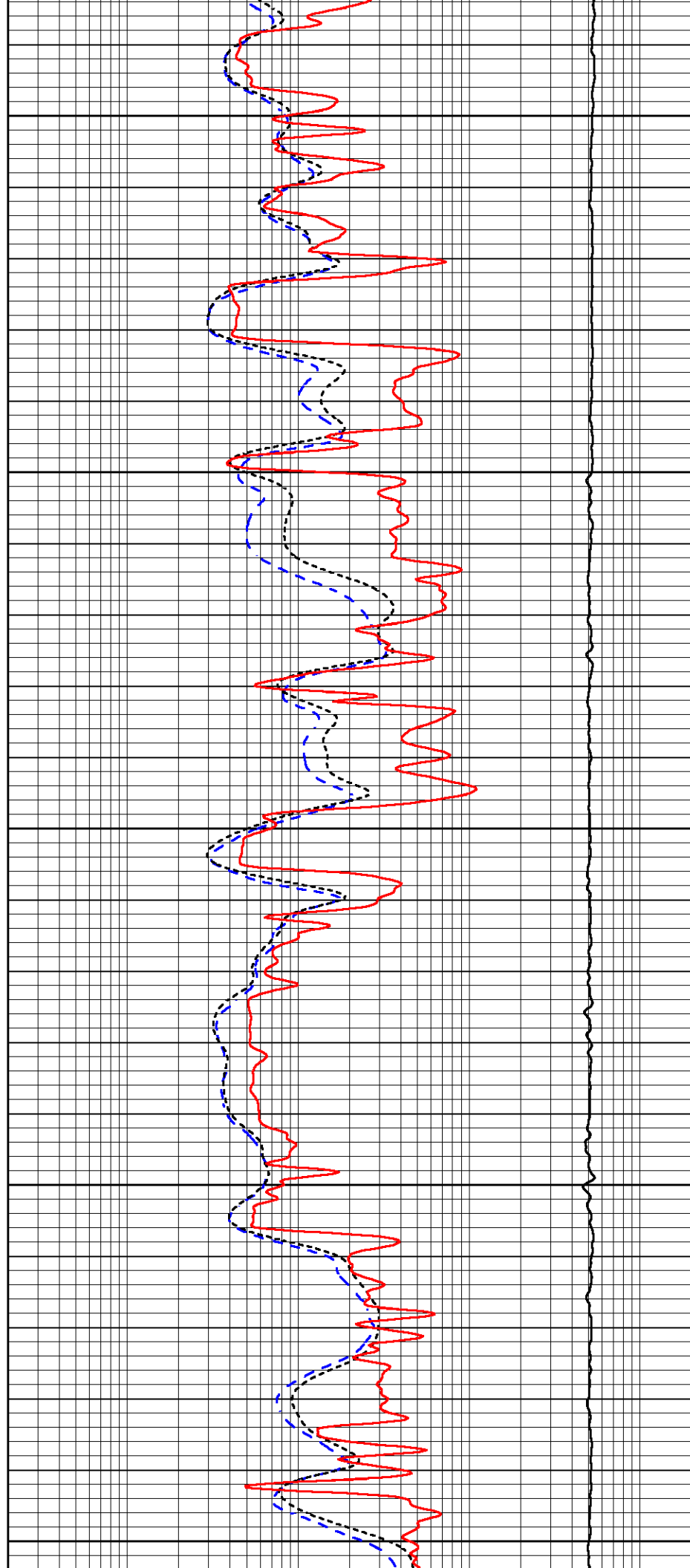
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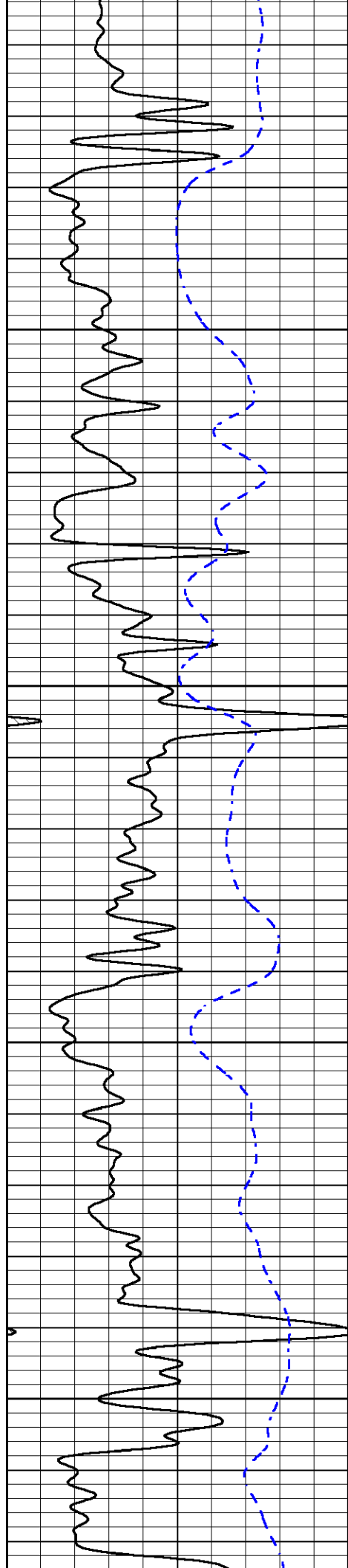
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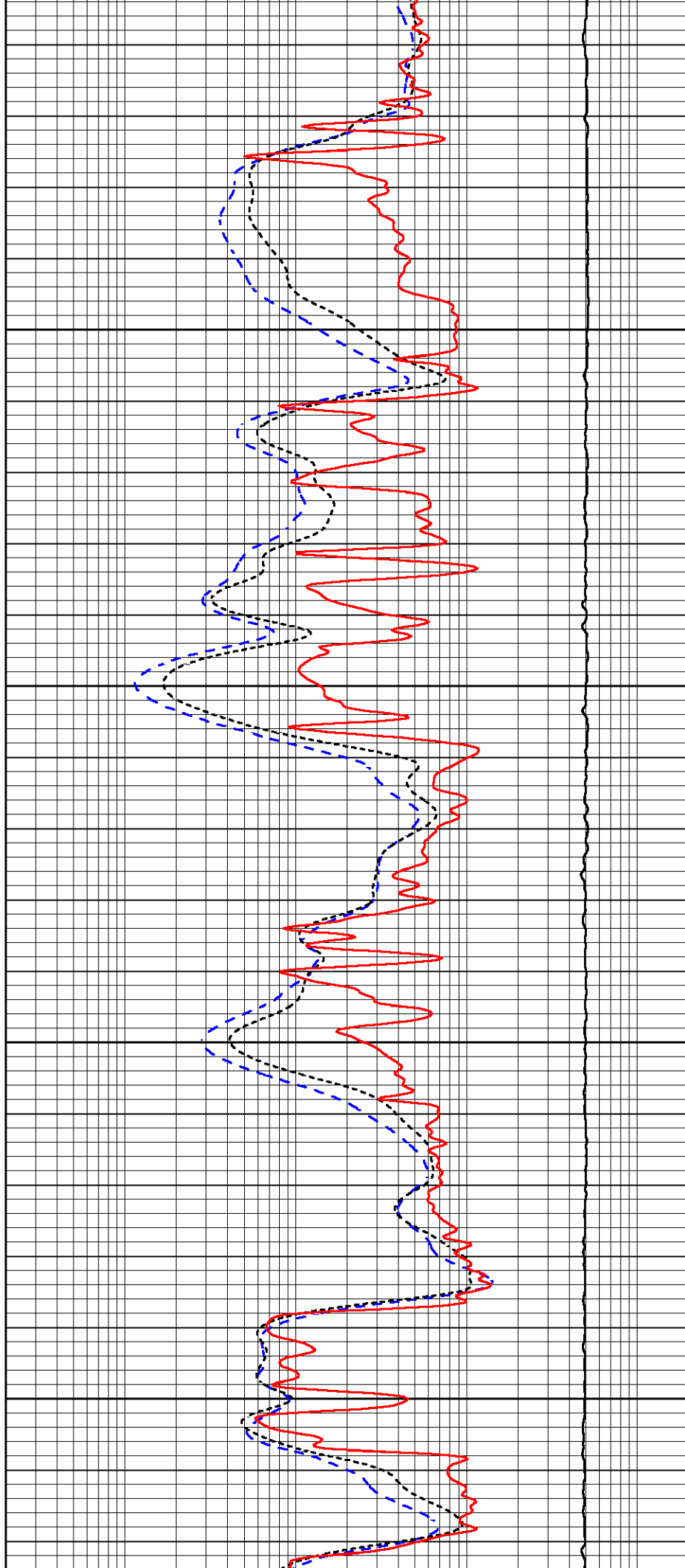


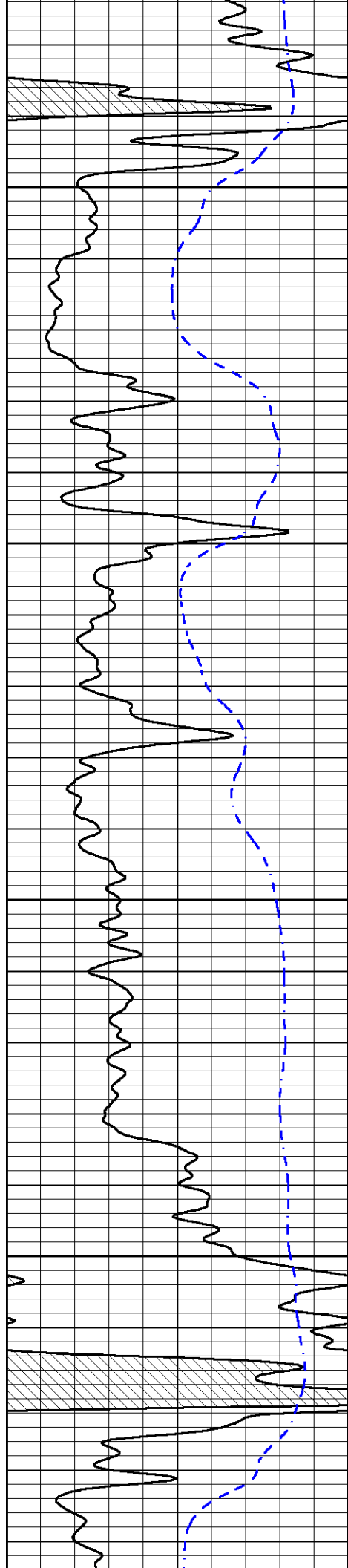
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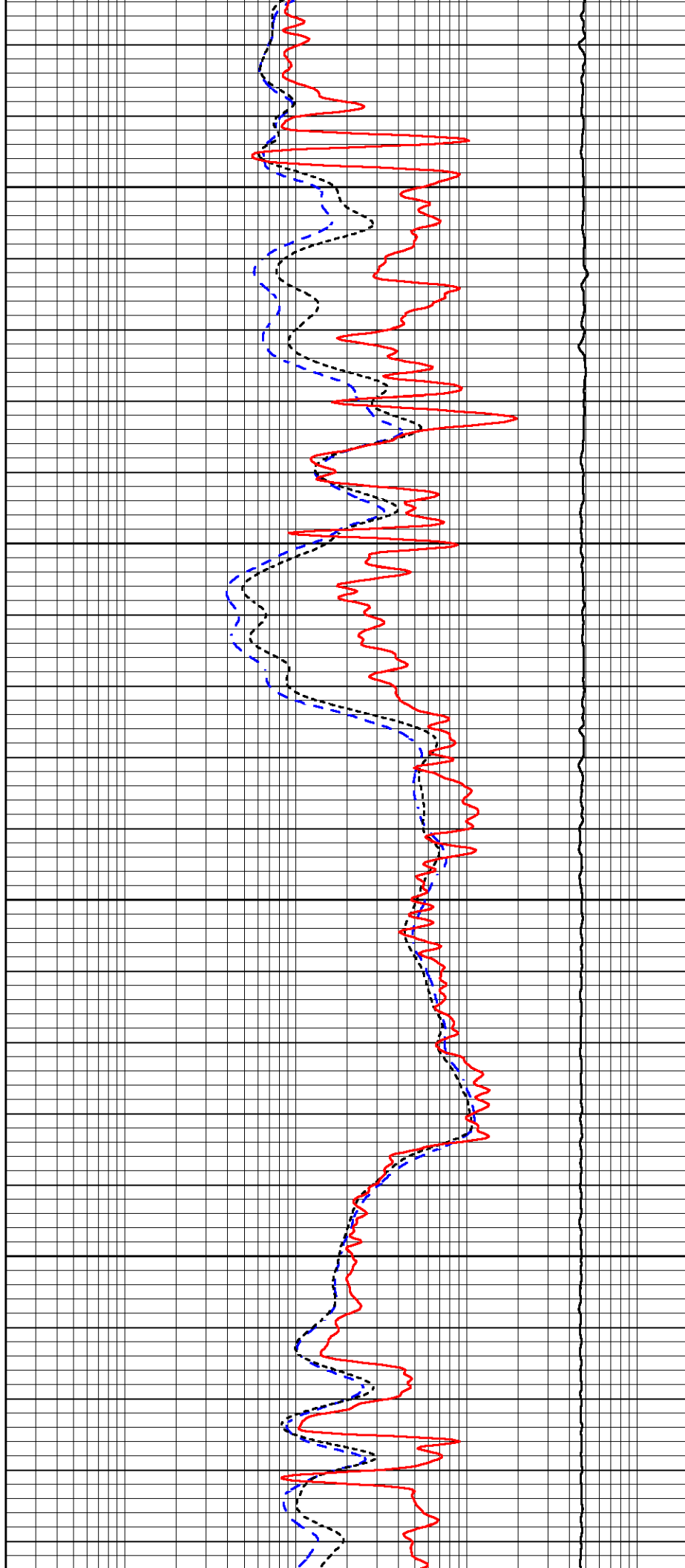


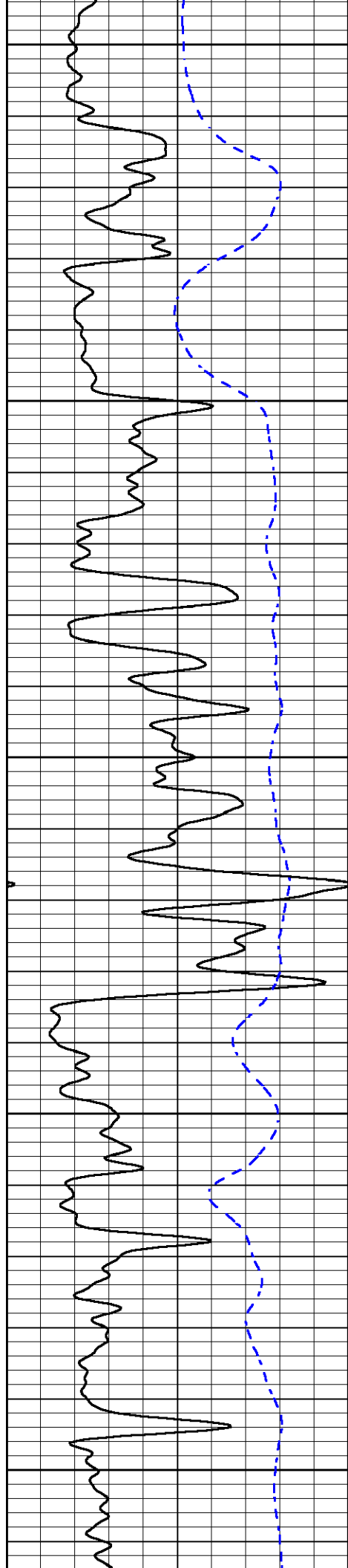
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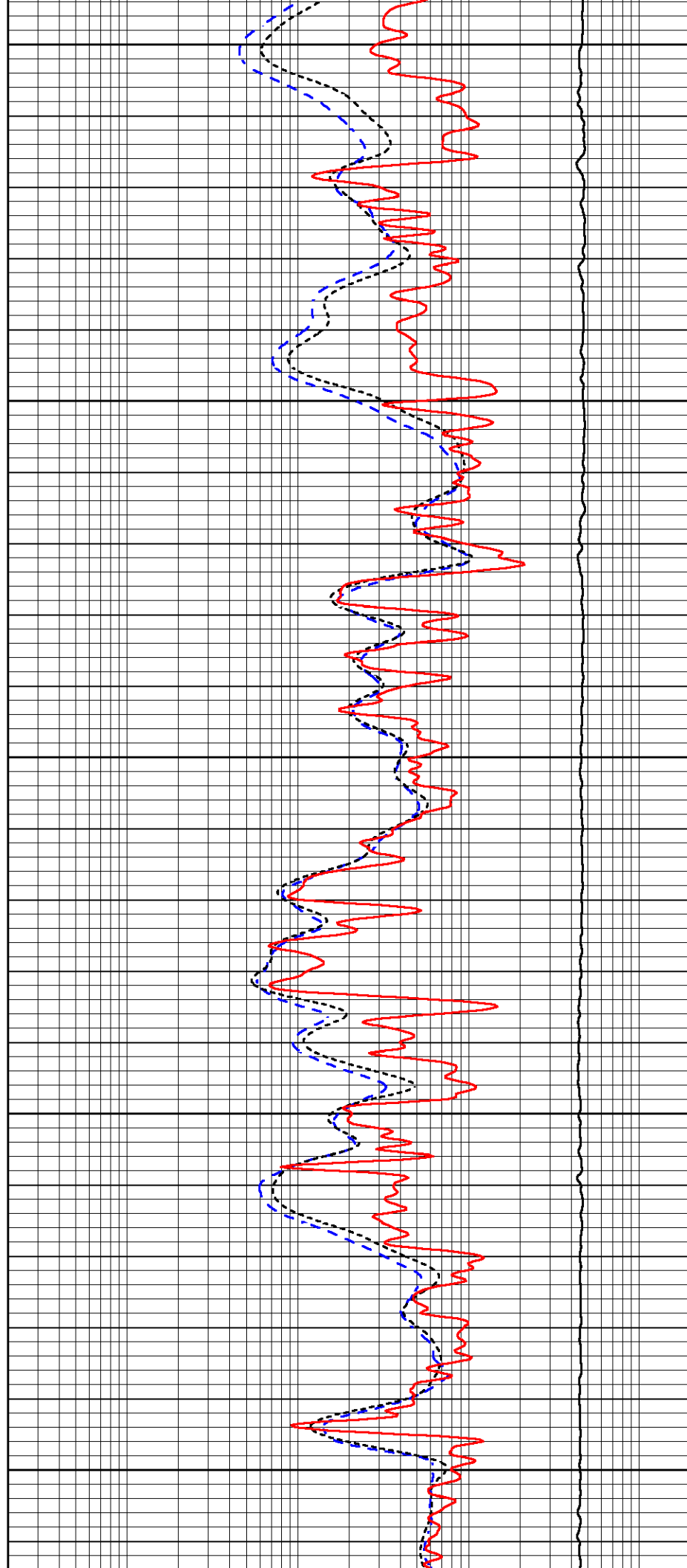
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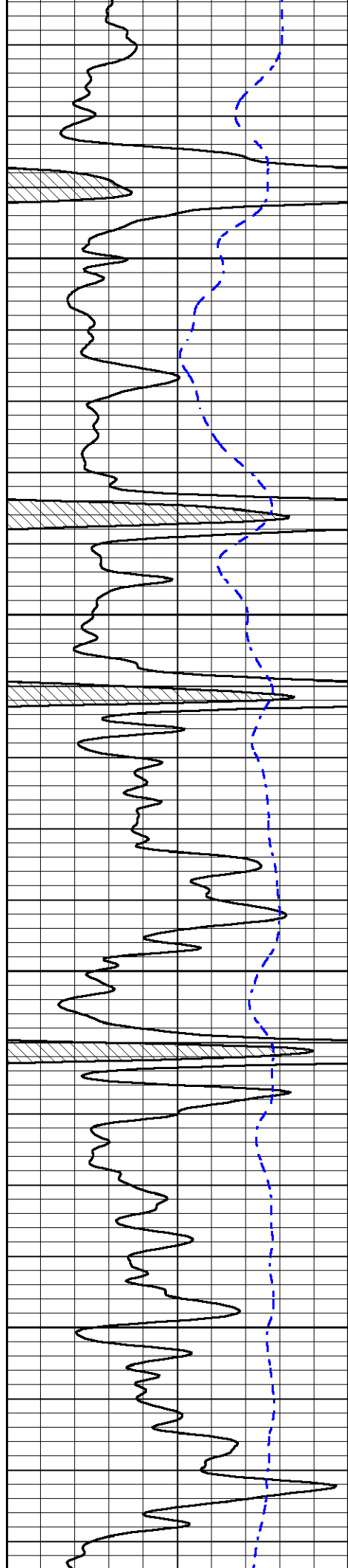
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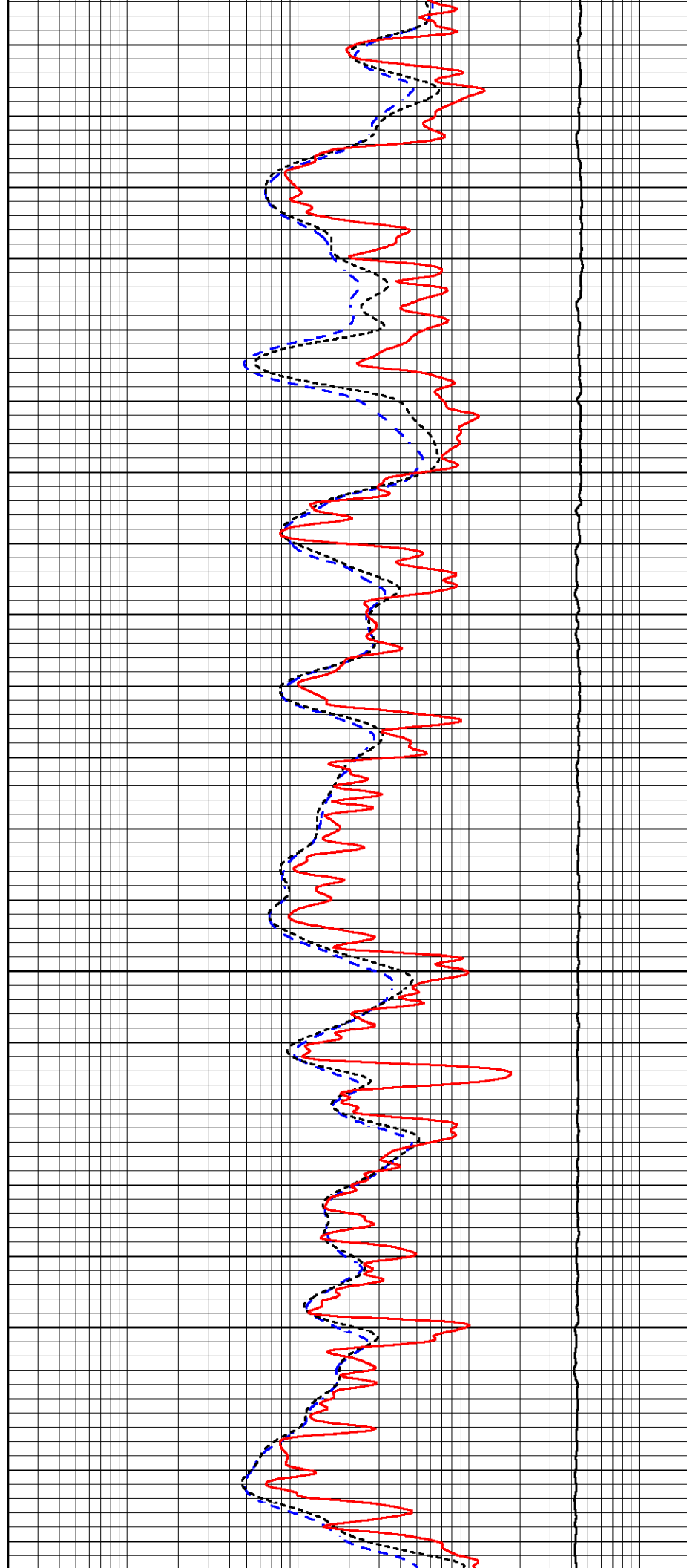


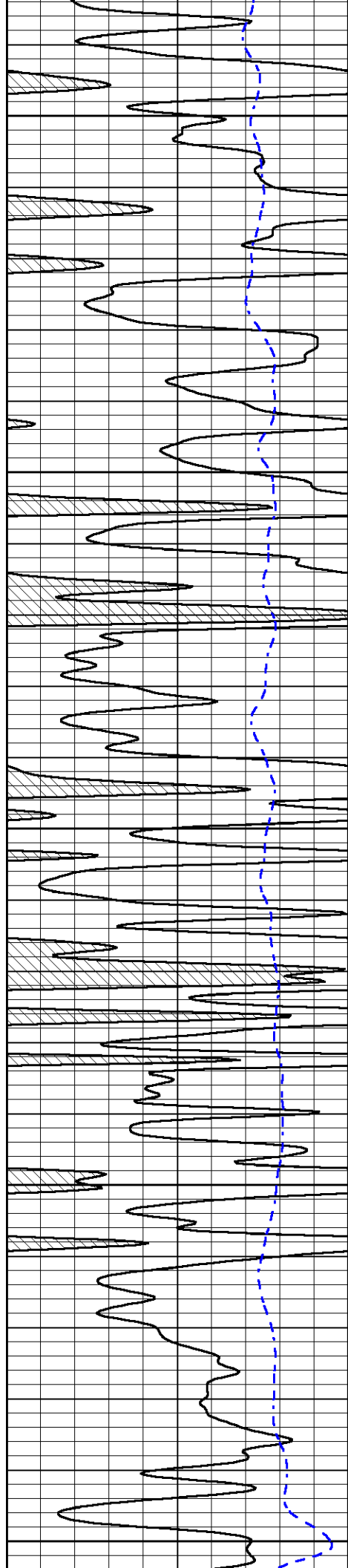
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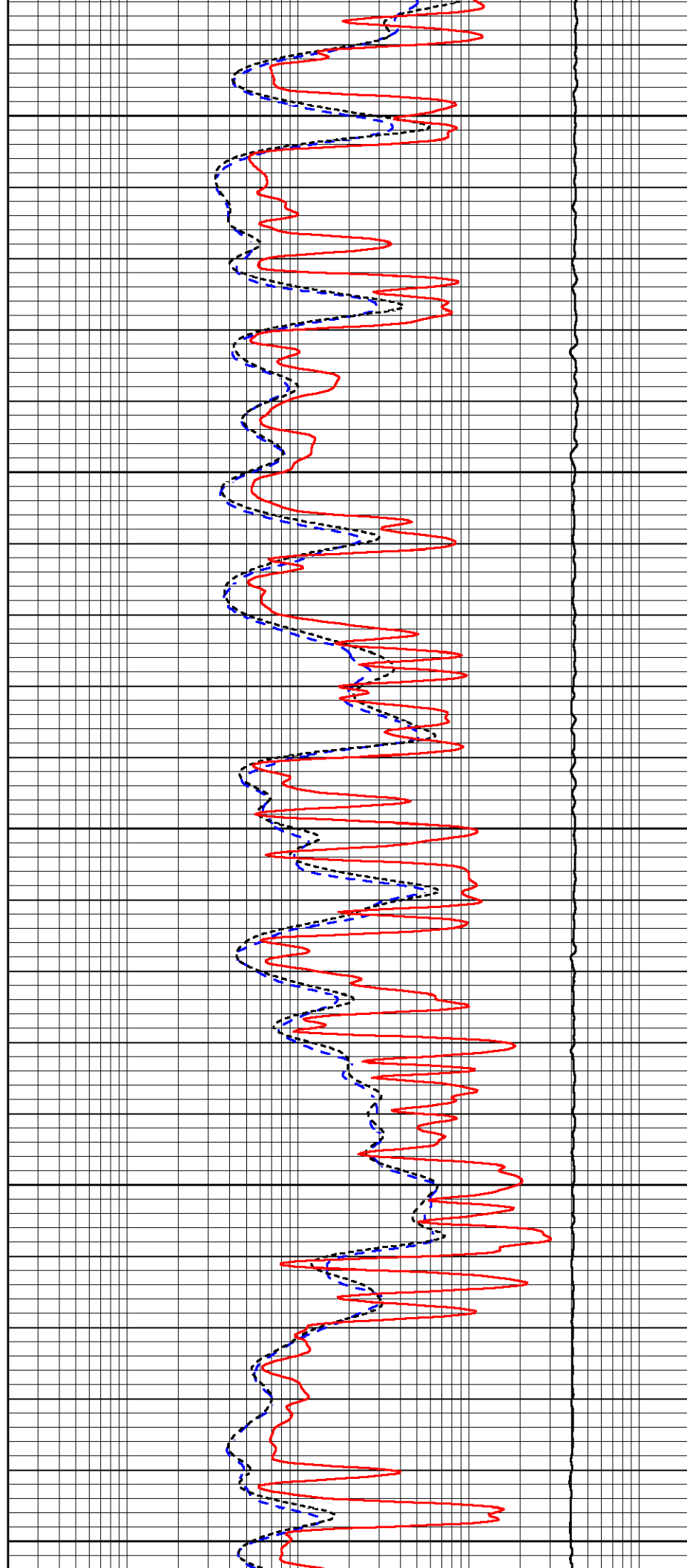
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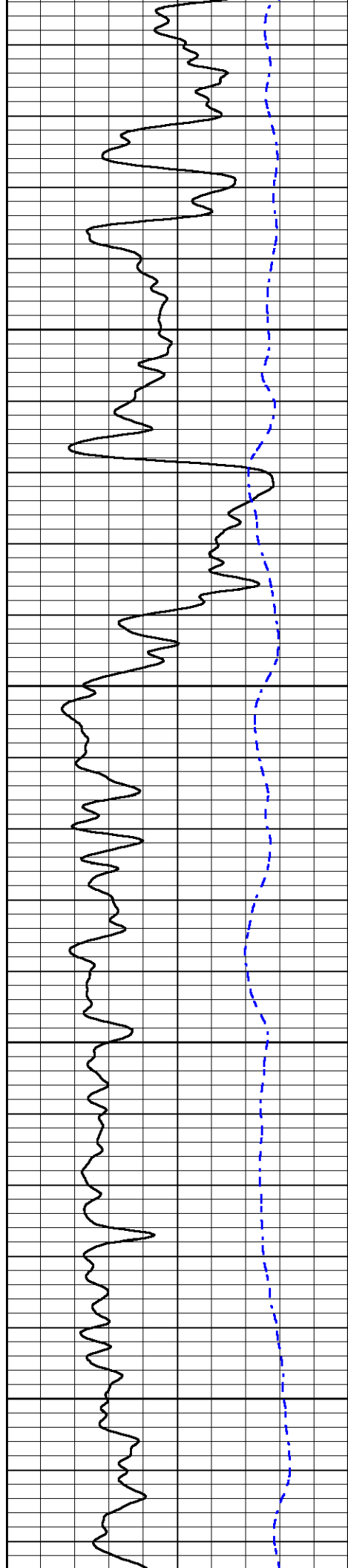
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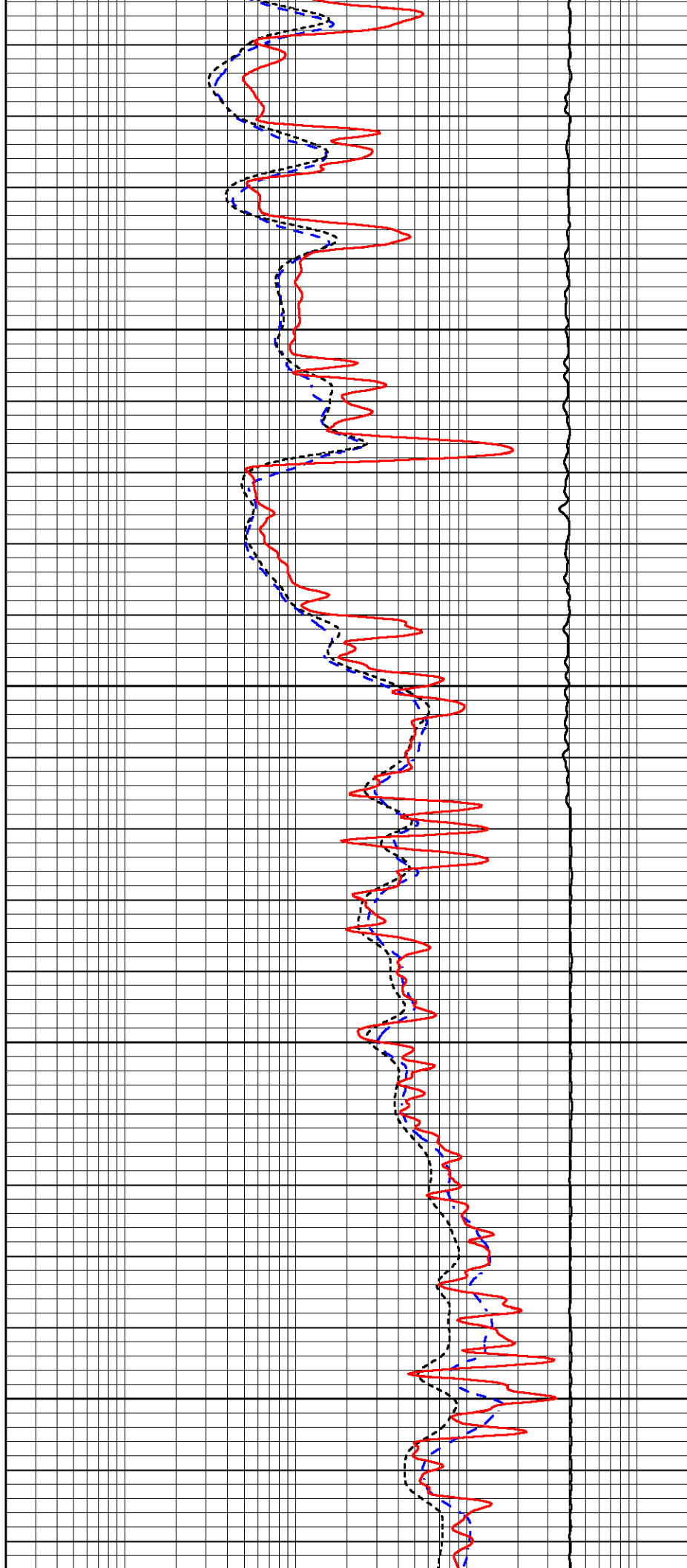


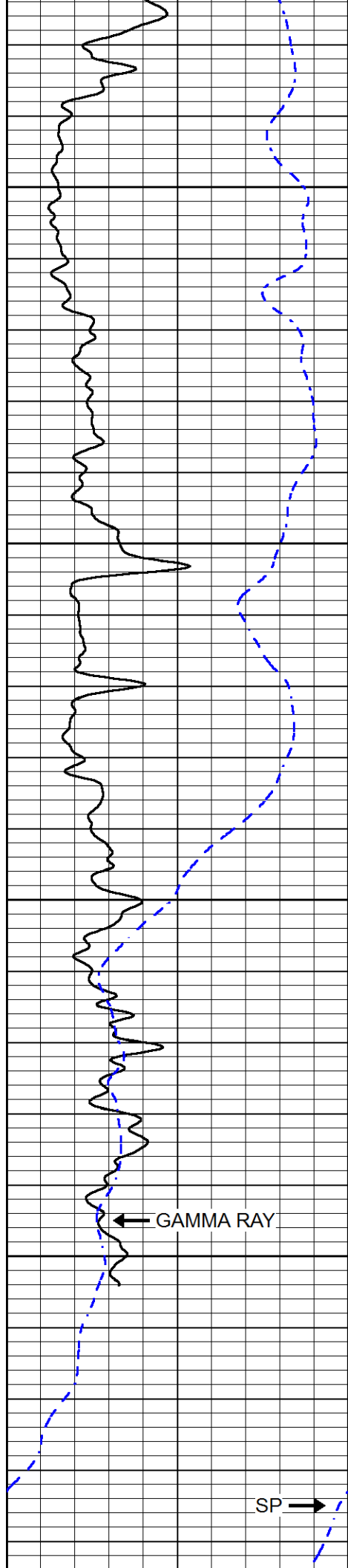
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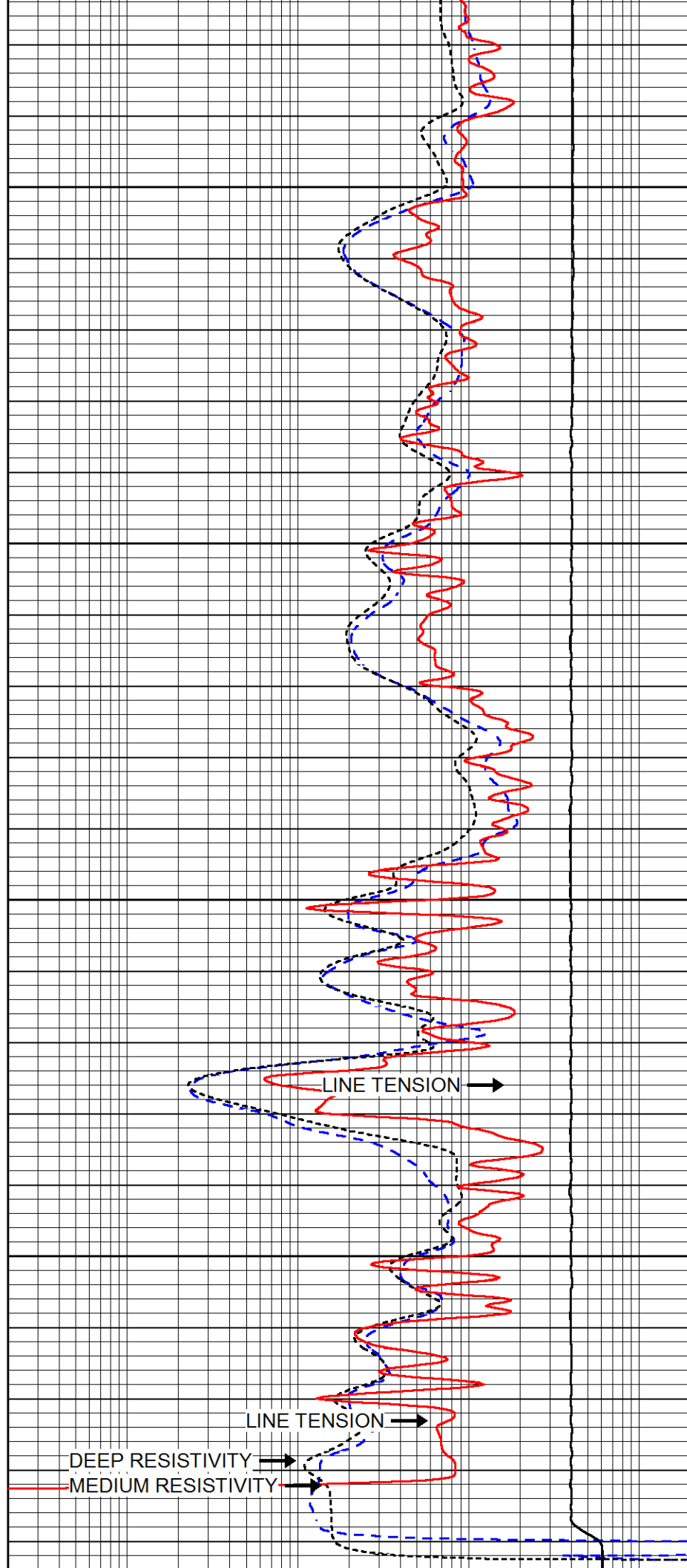


5800

5850

5900

5950



0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0

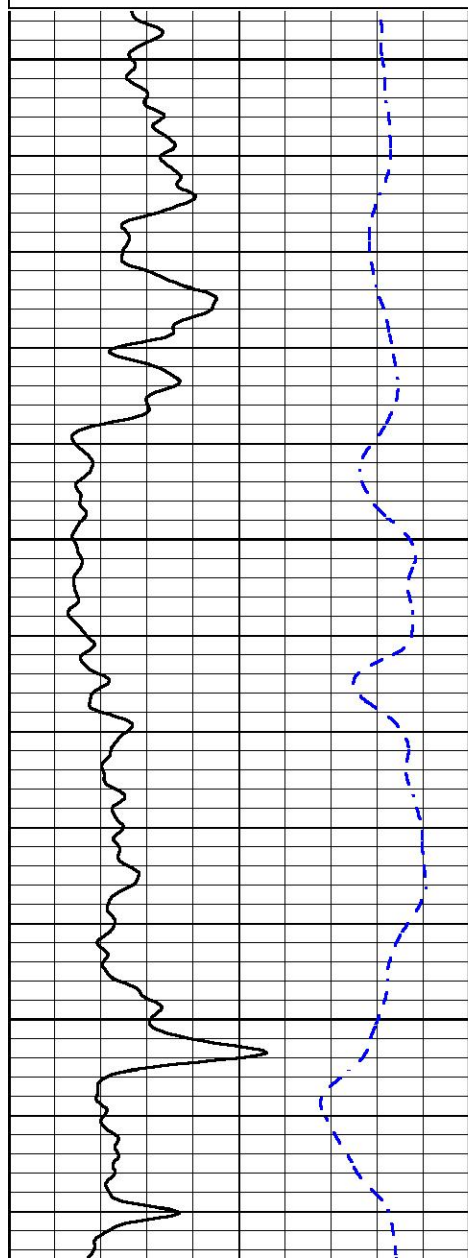


REPEAT SECTION

Database File c:\users\imabb\desktop\agricultural_energy_don_thorp_3_23.db
Dataset Pathname stkml/pass2.1
Presentation Format dil
Dataset Creation Wed Jun 27 07:45:05 2018
Charted by Depth in Feet scaled 1:240

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-200	SP (mV)	0

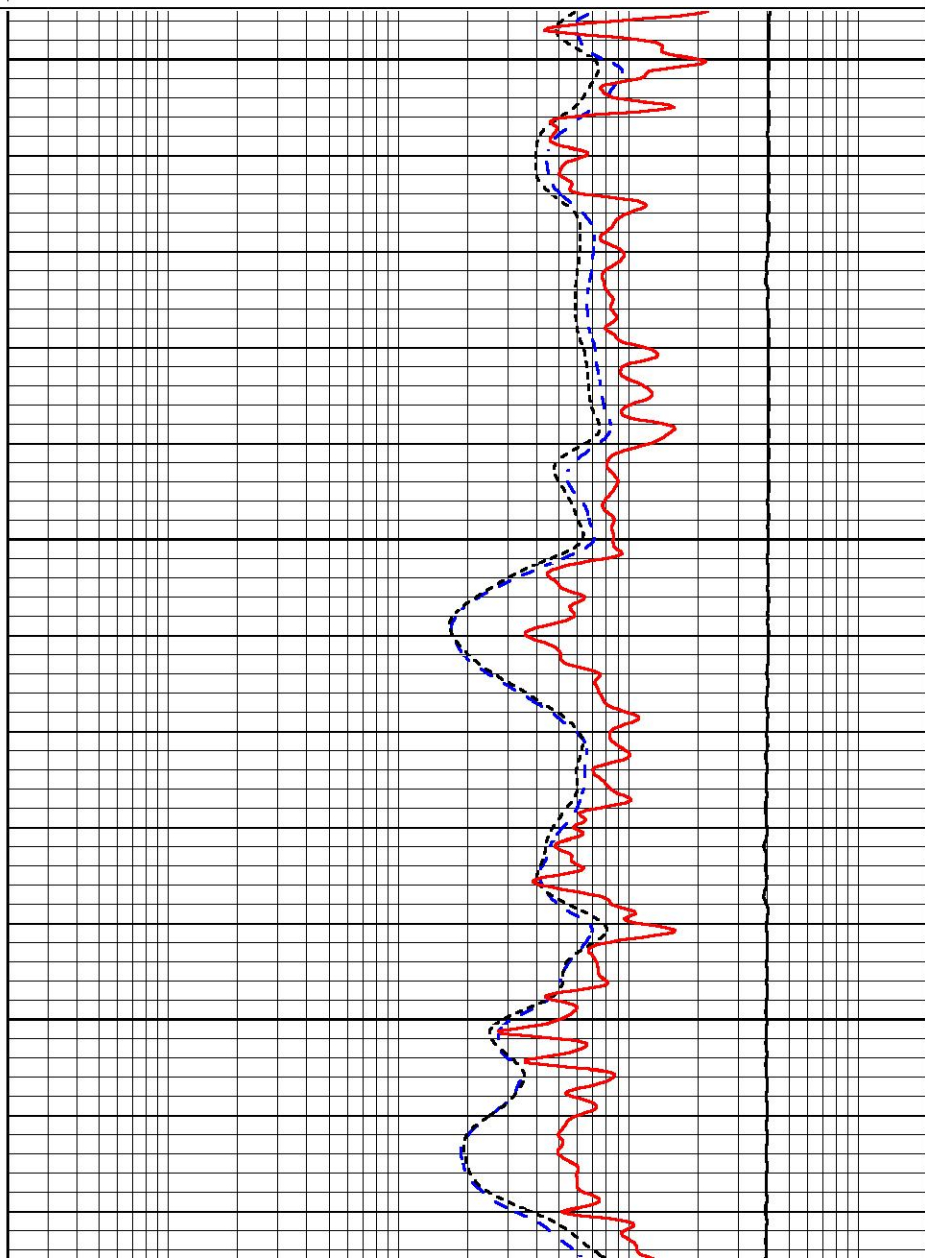
0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0

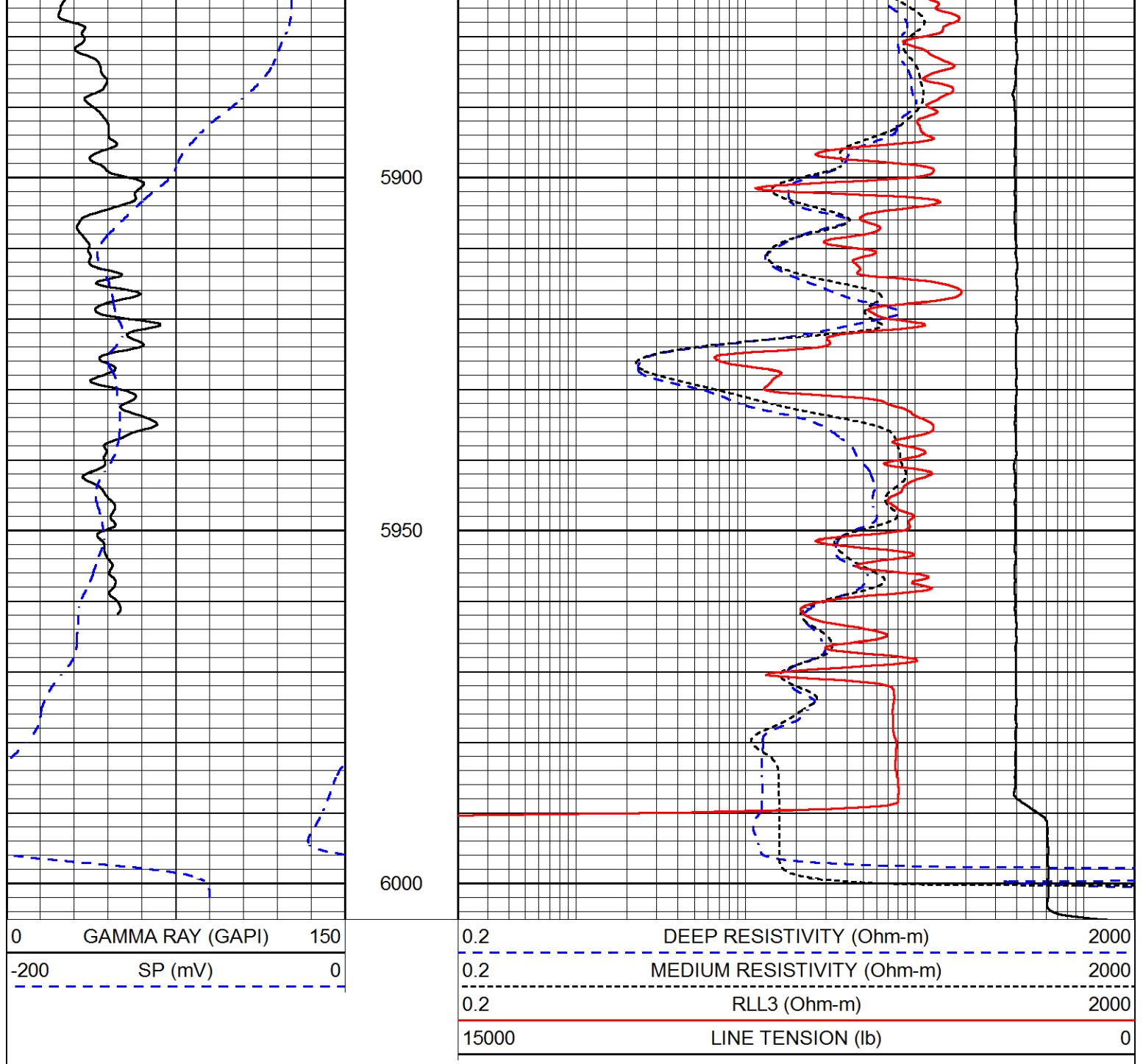


5750

5800

5850





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:
Performed:PSI-01-PSIML
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:
Source / Verifier:
Master Calibration Performed:817-947-M&W
16955B / 2ci
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

PIONEER

Pioneer Energy Services

County

SEWARD

State

KANSAS