



MICRORESISTIVITY LOG

MIDWEST WIRELINE

Company Black Oak Exploration, LLC		Company Black Oak Exploration, LLC	
Well Argabright #1-4		Well Argabright #1-4	
Field		Field	
County	Rawlins	County	Rawlins
State	Kansas	State	Kansas
Location: API #: 15-153-21271-00-00		Other Services	
2125 FSL & 2100 FEL		CNL/CDL DIL/BHCS	
Permanent Datum	Ground Level	Elevation	2898
Log Measured From	Kelly Bushing	K.B.	2903
Drilling Measured From	Kelly Bushing	D.F.	2898
SEC 4 TWP 3S RGE 34W		Elevation	
Date 10/28/2021		Run Number One	
Depth Driller		4540	
Depth Logger		4542	
Bottom Logged Interval		4541	
Top Log Interval		0	
Casing Driller		8.625 @ 248	
Casing Logger		246	
Bit Size		7.875	
Type Fluid in Hole		Chemical	
Salinity, ppm CL		4400	
Density / Viscosity		9.4 65	
pH / Fluid Loss		11.0 8.4	
Source of Sample		FLOWLINE	
Rm @ Meas. Temp		0.40 @ 60	
Rmt @ Meas. Temp		0.30 @ 60	
Rmc @ Meas. Temp		0.54 @ 60	
Source of Rmt / Rmc		CHARTS	
Rm @ BHT		0.20 @ 121	
Operating Rig Time		6 Hours	
Max Rec. Temp. F		121	
Equipment Number		P-24	
Location		HAYS	
Recorded By		D. Schmidt	
Witnessed By		Tim Hedrick	

<<< Fold Here >>>

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.

Atwood,
West to Rd 16, 2 North, 1/2 West,
North into

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

Engineer: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Tim Hedrick
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\black oak_argabright 1-4.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	121	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	580	60	Off	4542

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



MIDWEST WIRELINE

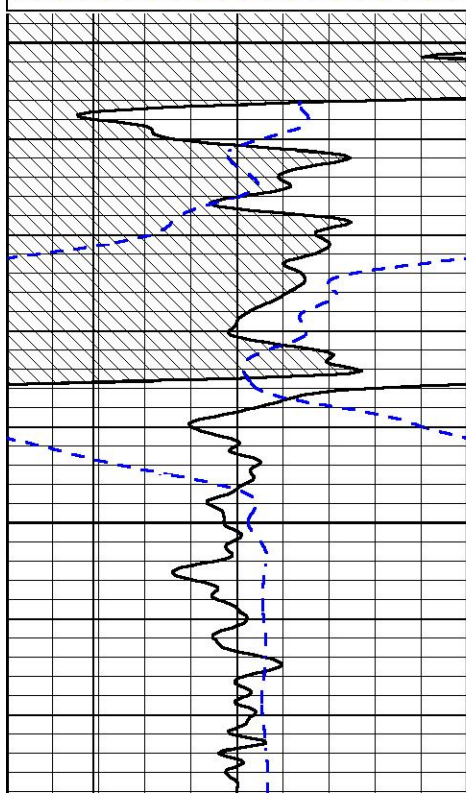
DETAIL SECTION

MAIN PASS

Database File black oak_argabright 1-4.db
Dataset Pathname stkml/pass4.1
Presentation Format _micro
Dataset Creation Thu Oct 28 03:51:44 2021
Charted by Depth in Feet scaled 1:240

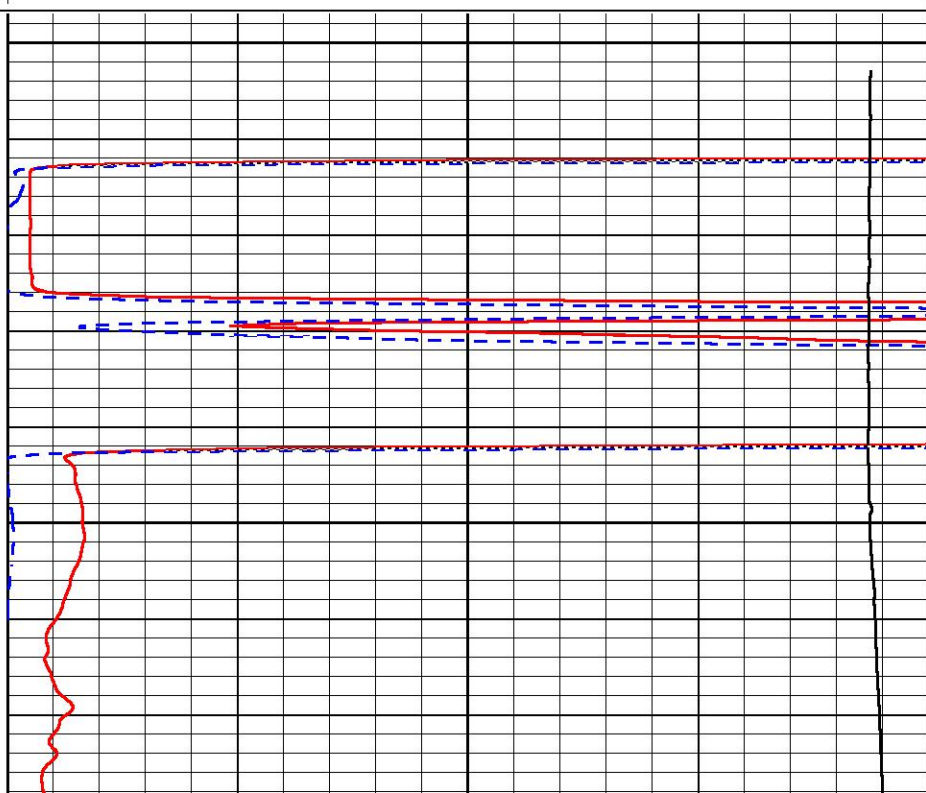
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
-200	SP (mV)	0

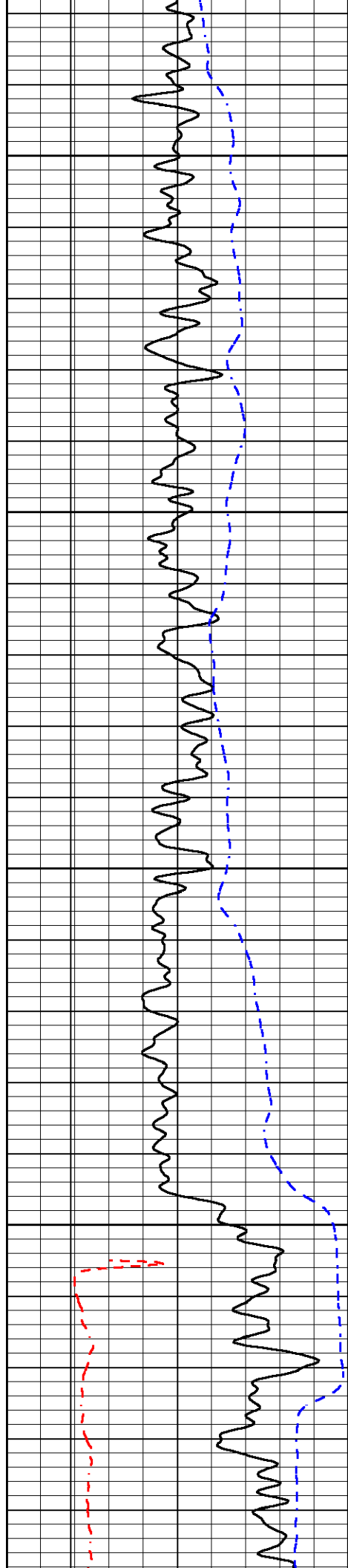
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



0

50



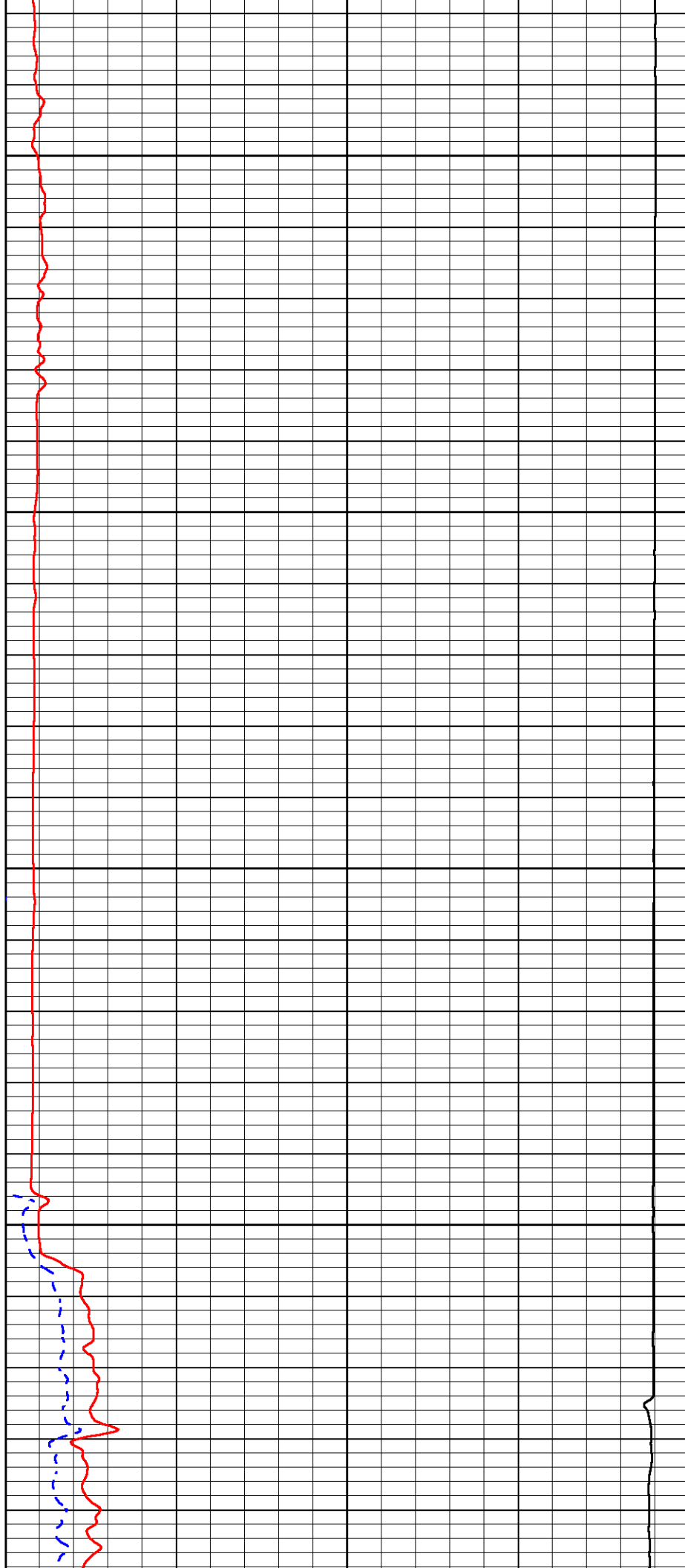


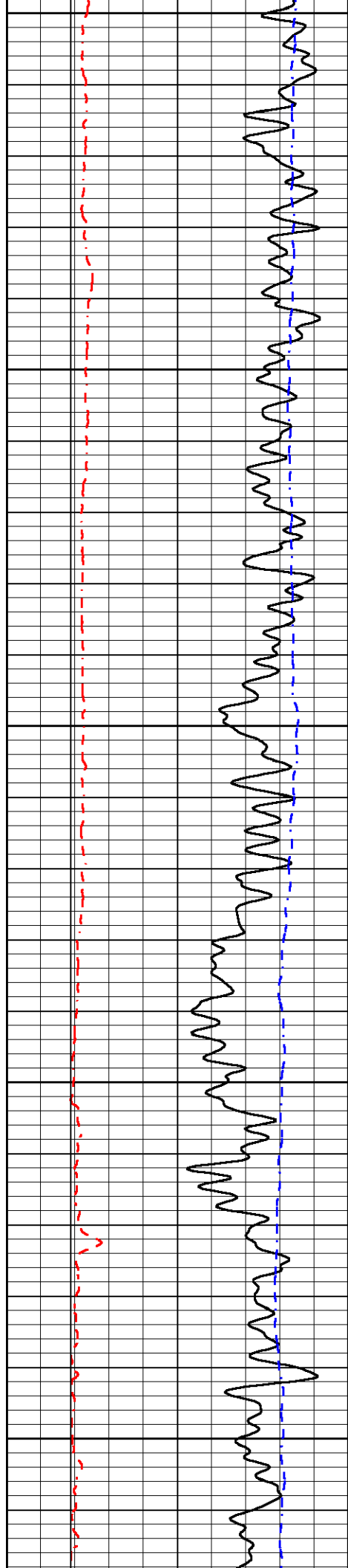
100

150

200

250





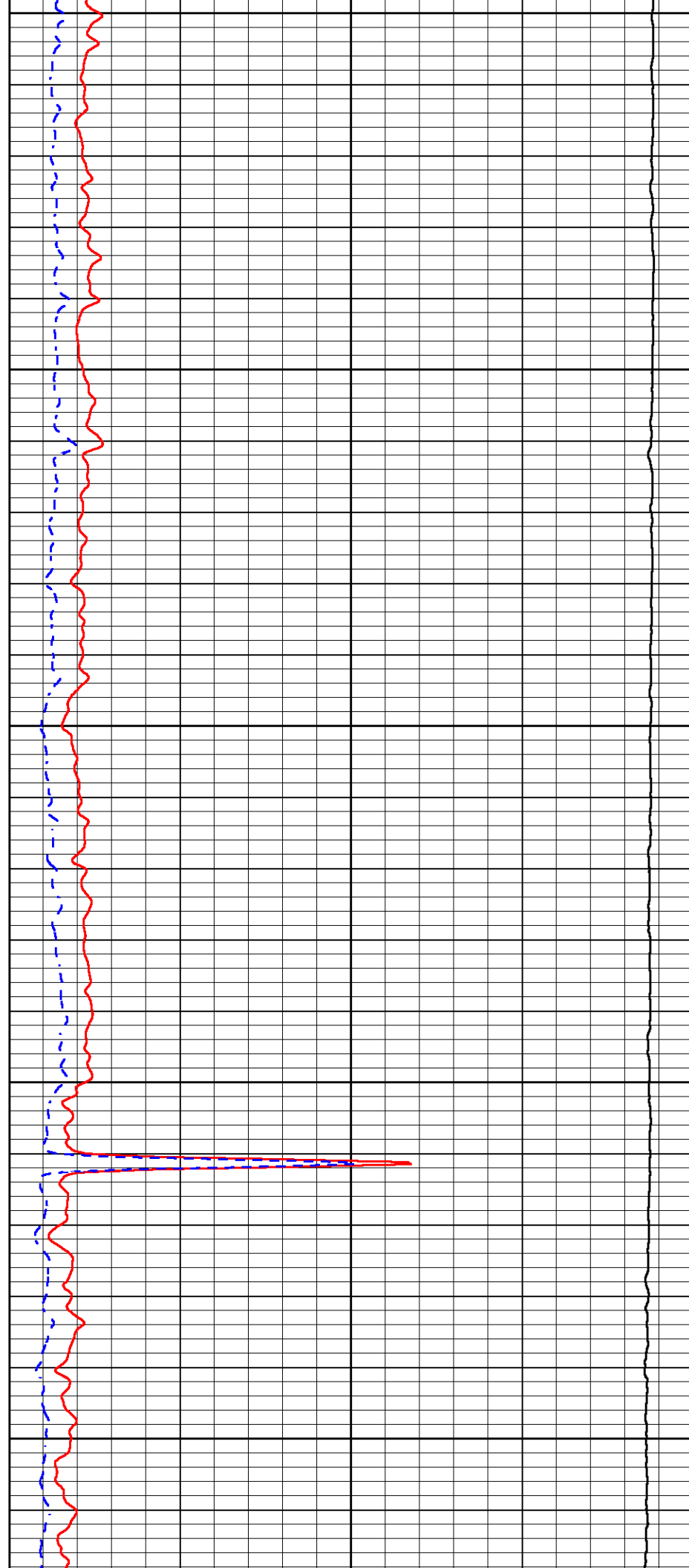
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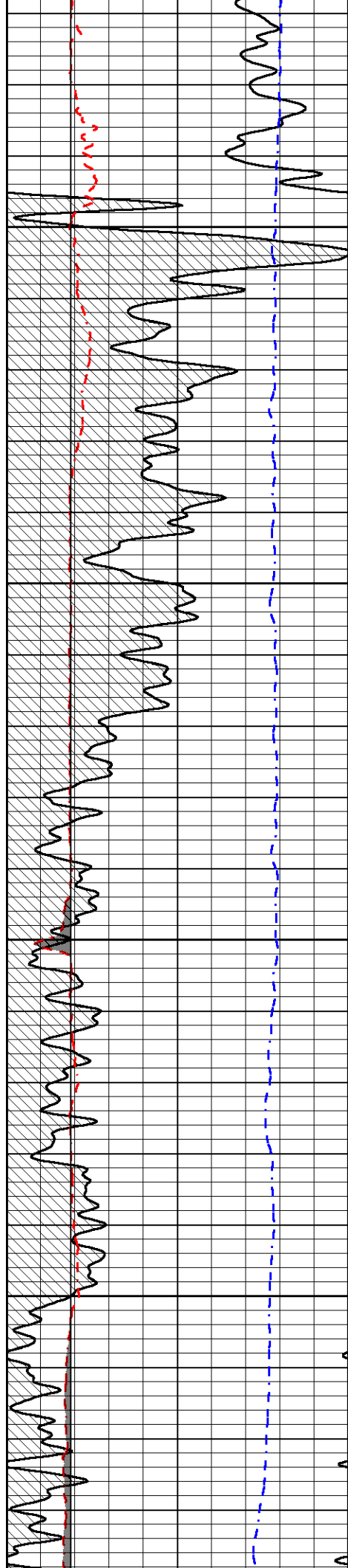
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400

450

500



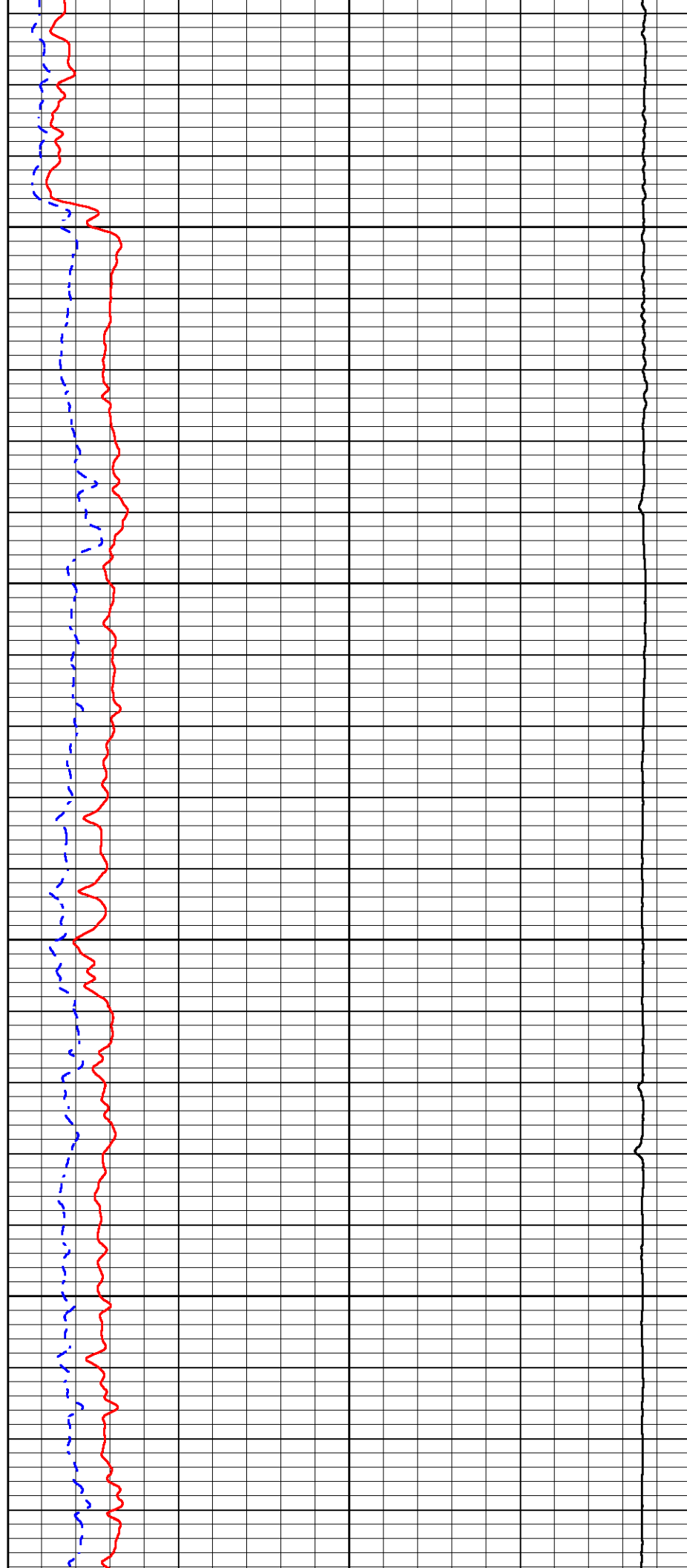


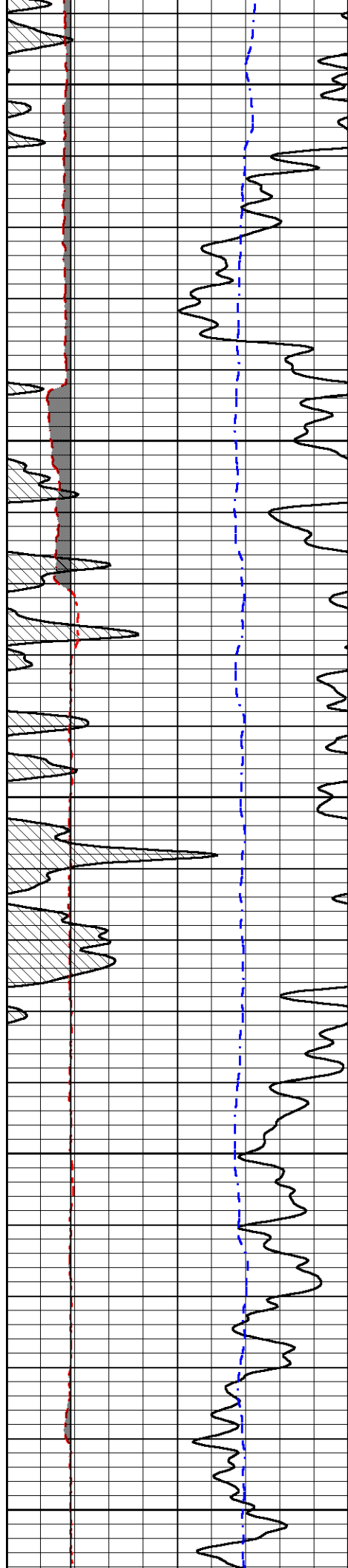
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600

650

700





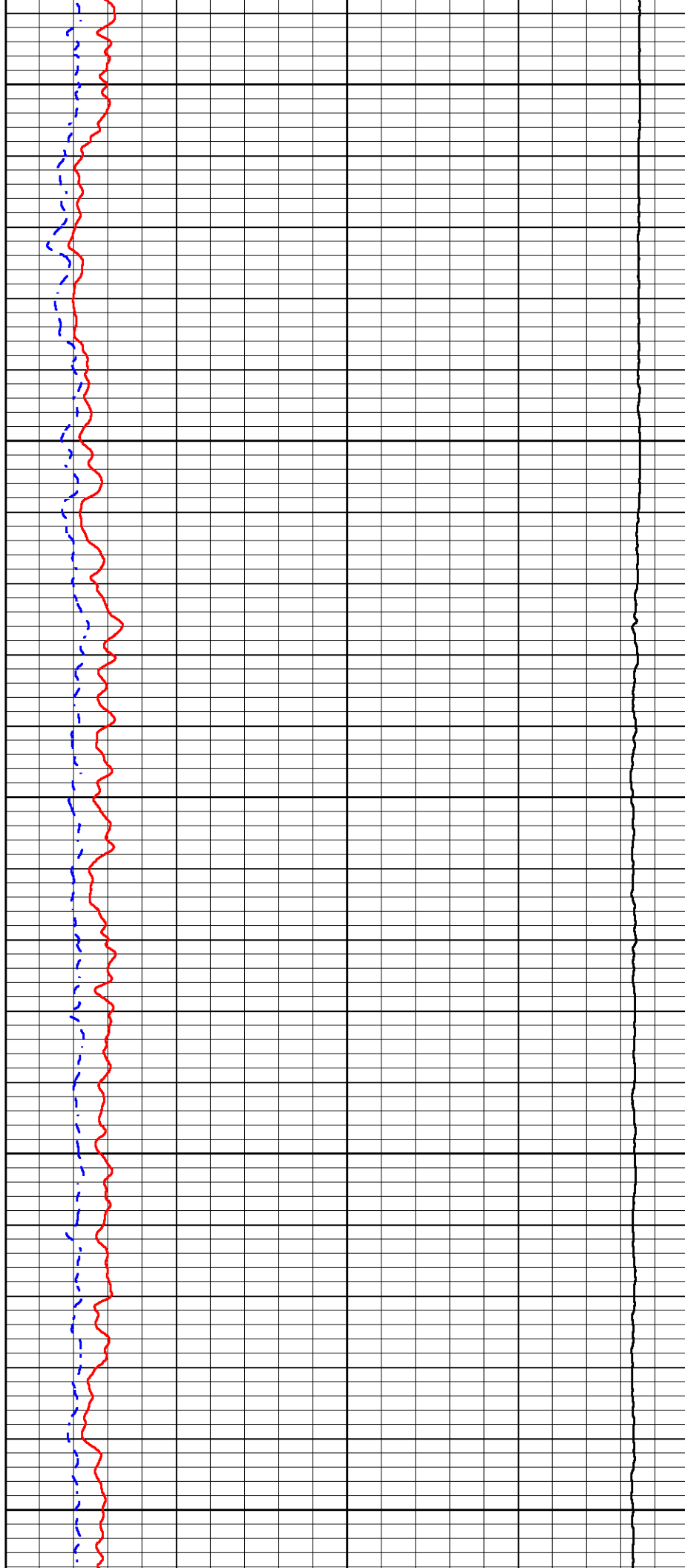
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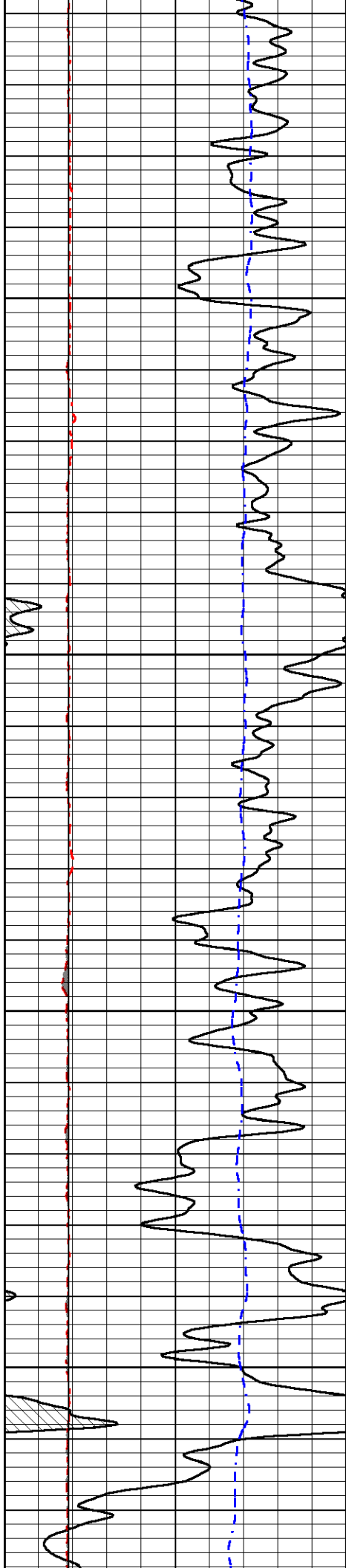
800

850

900

950



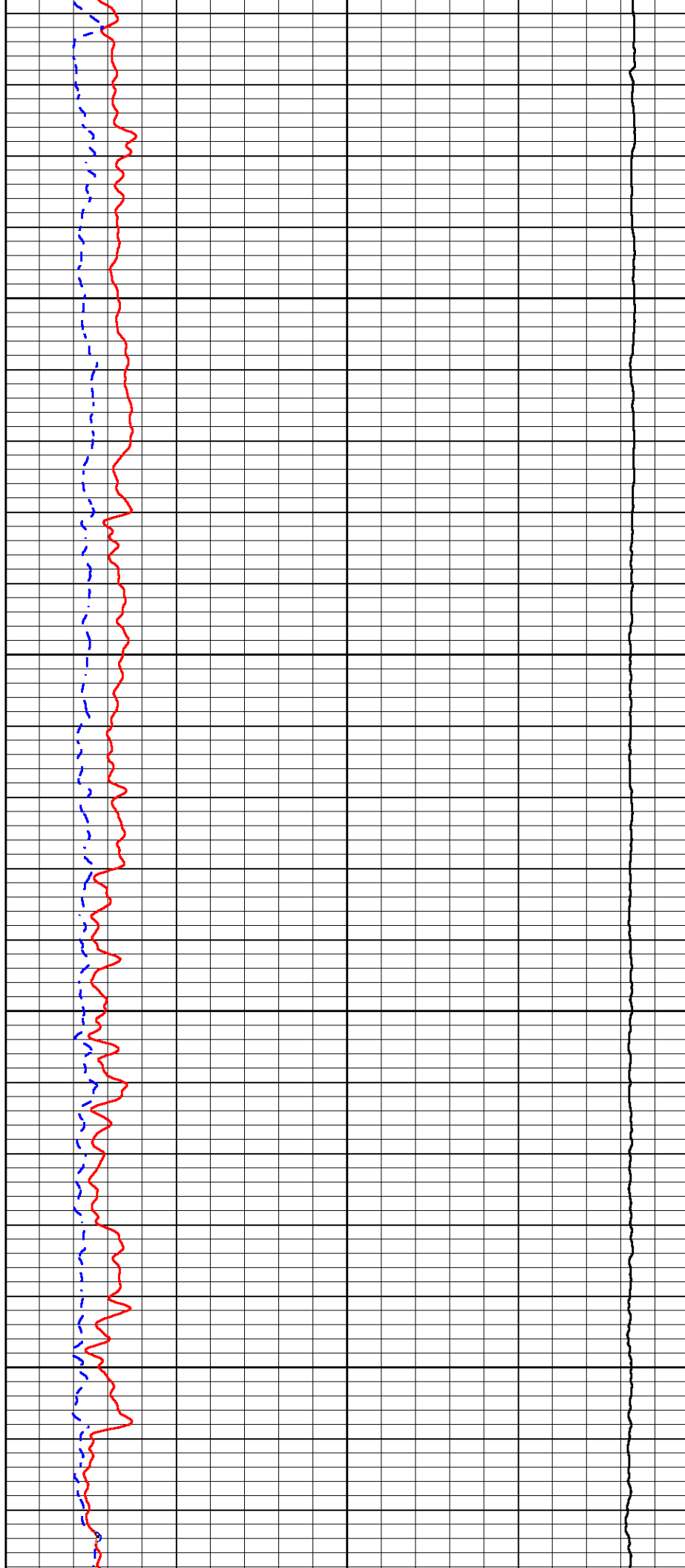


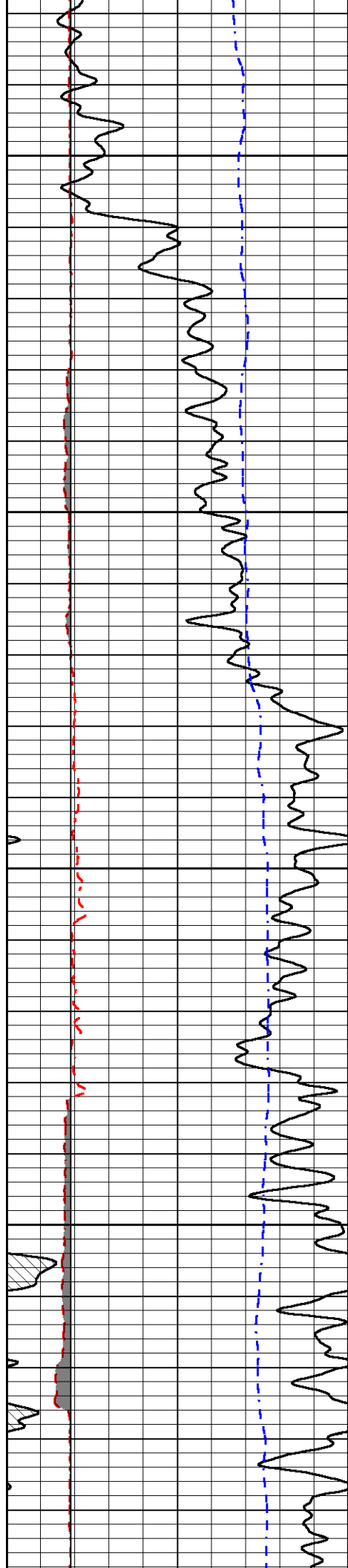
1000

1050

1100

1150



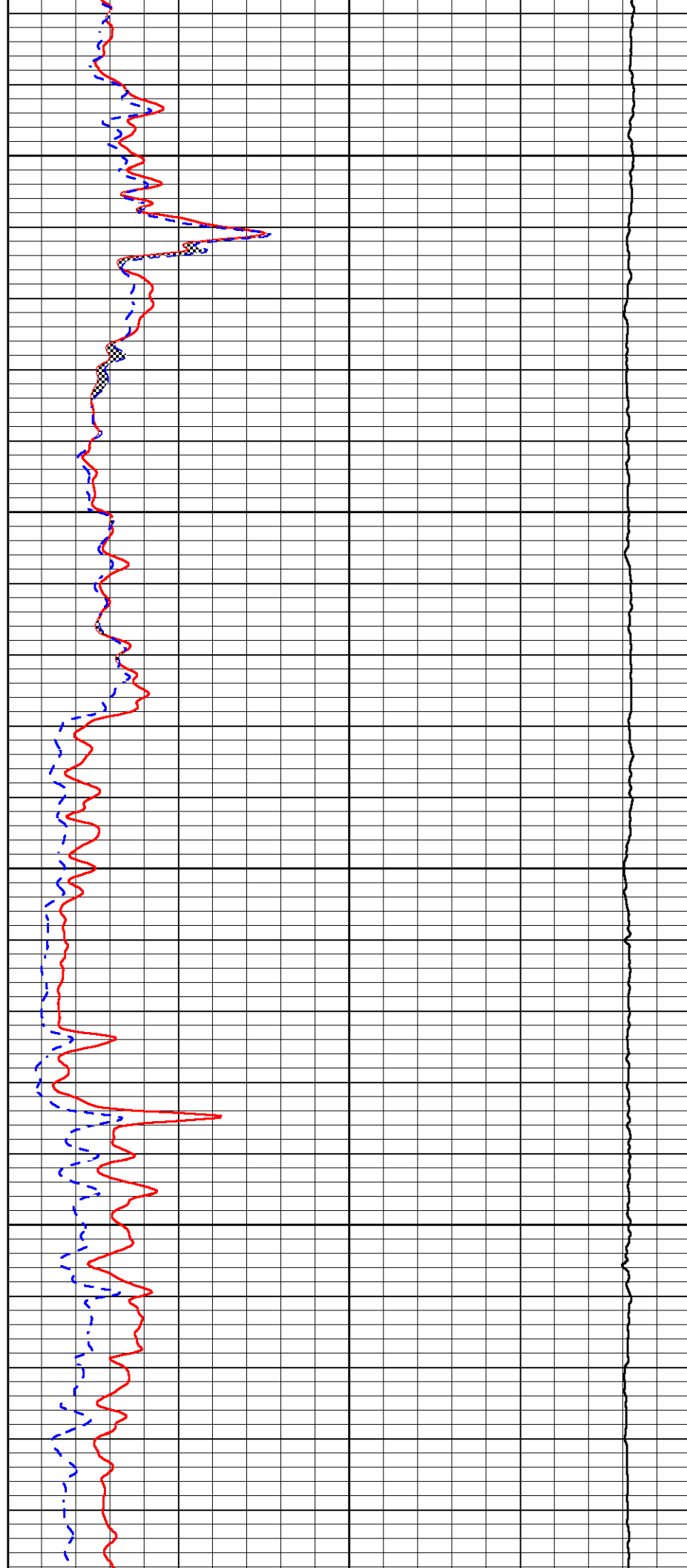


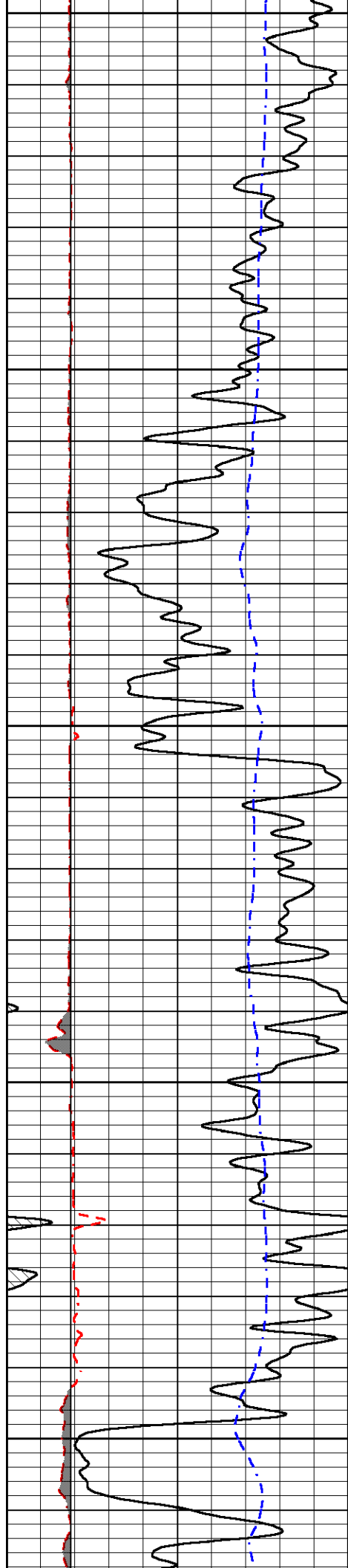
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1250

1300

1350





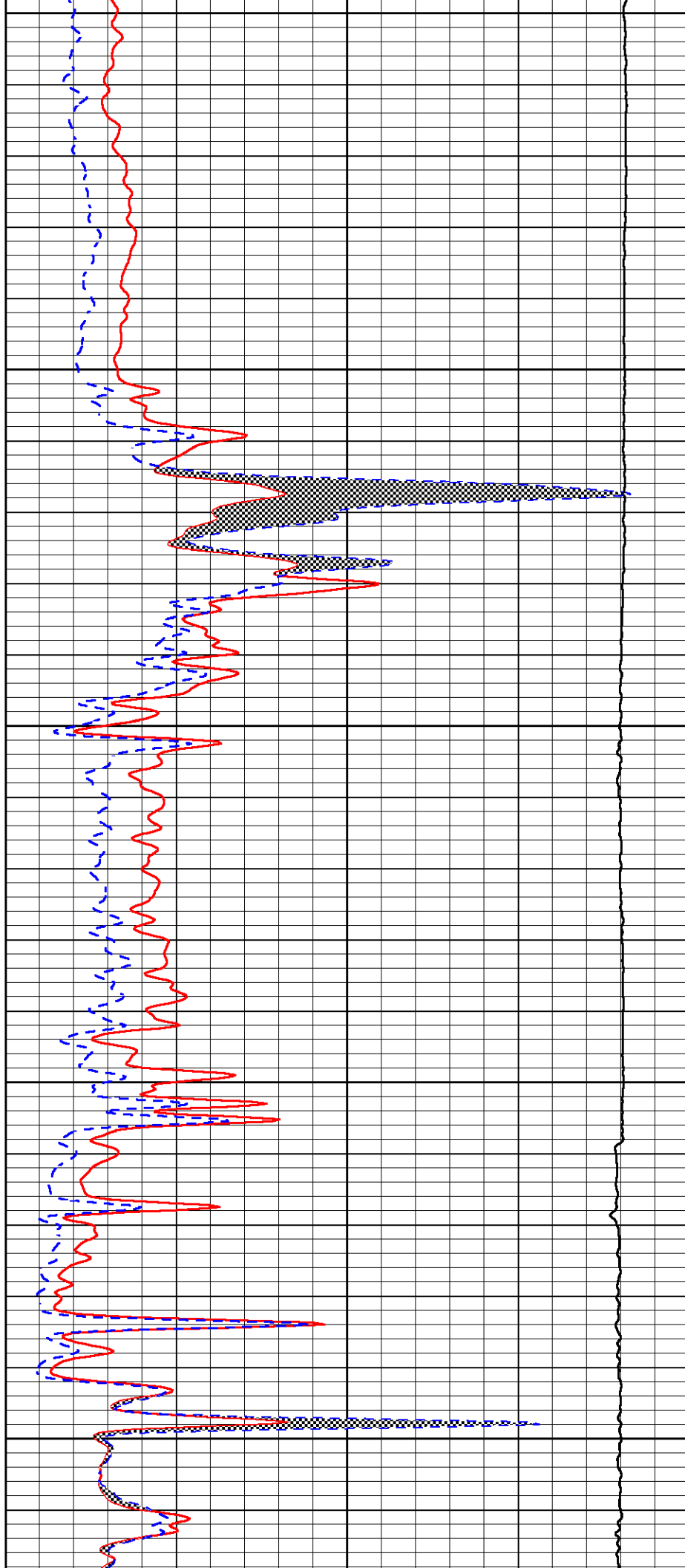
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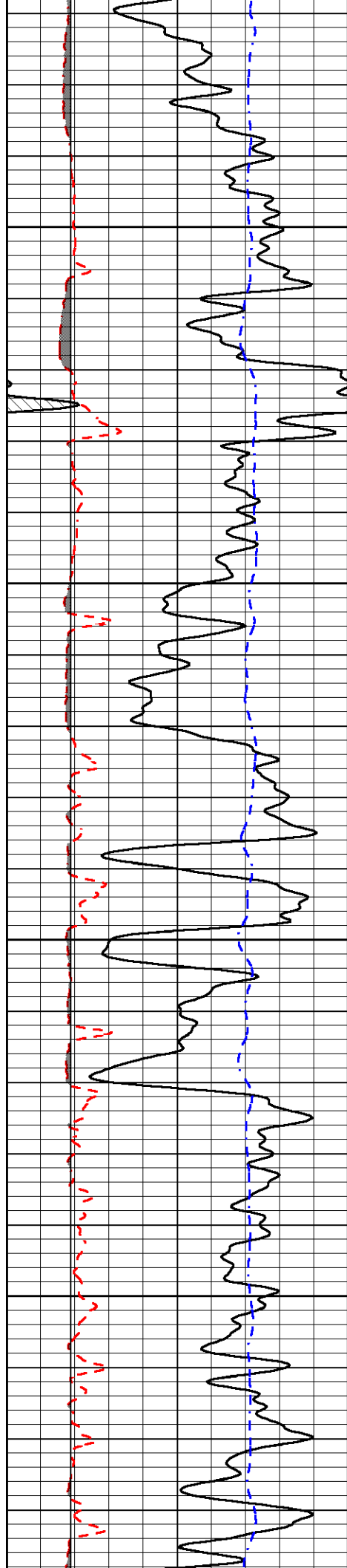
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1500

1550

1600



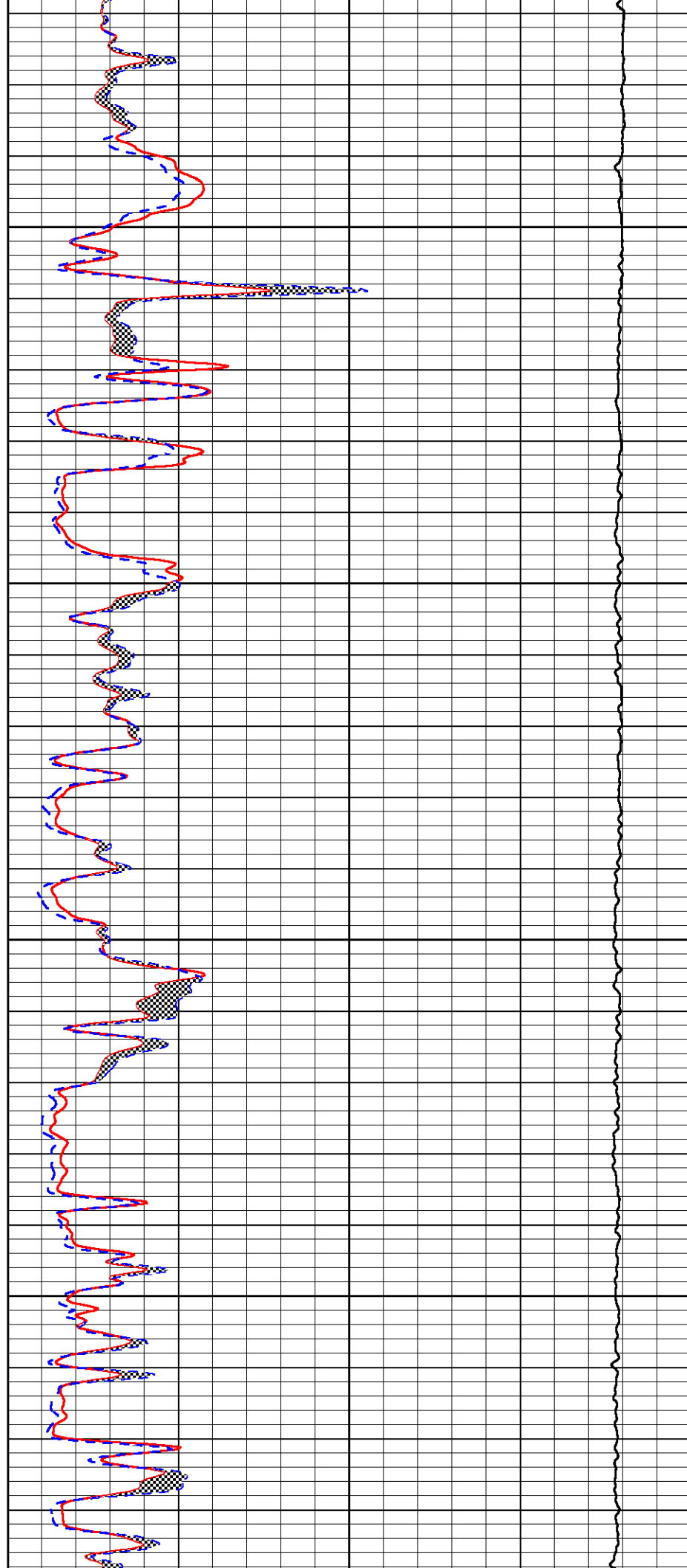


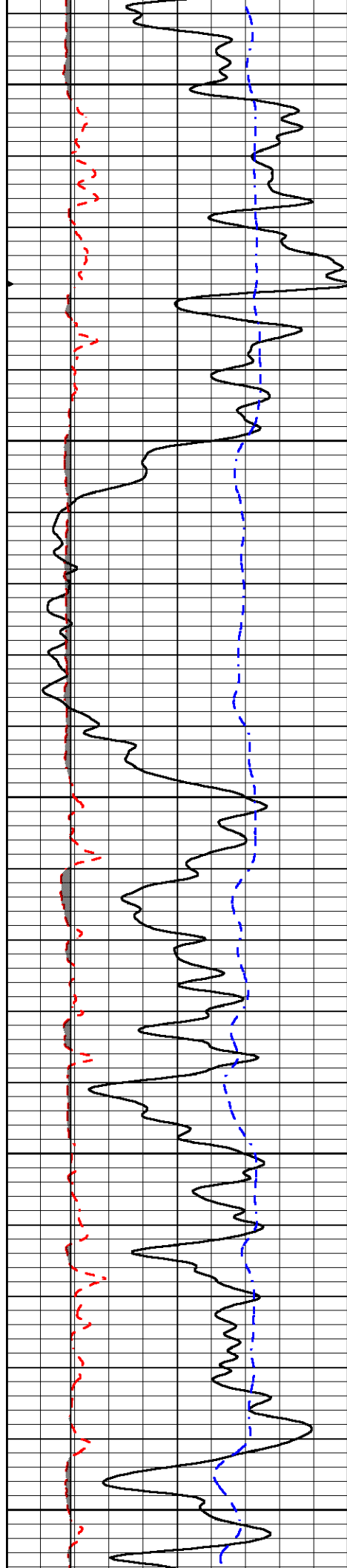
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1700

1750

1800





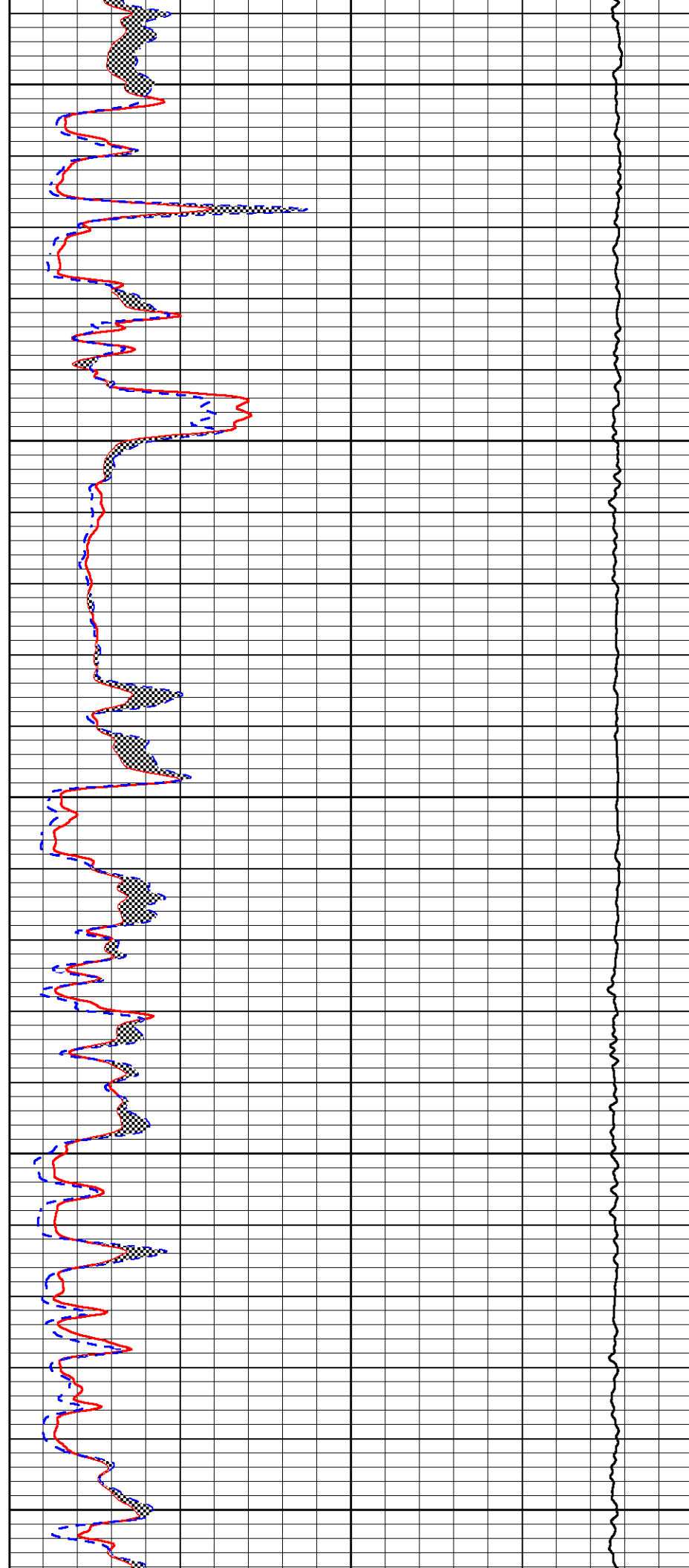
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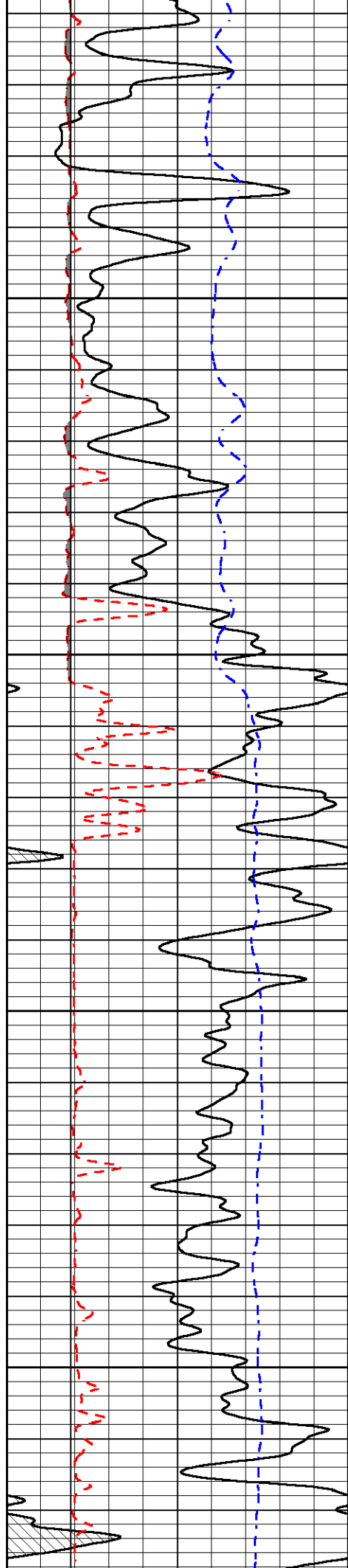
1900

1950

2000

2050



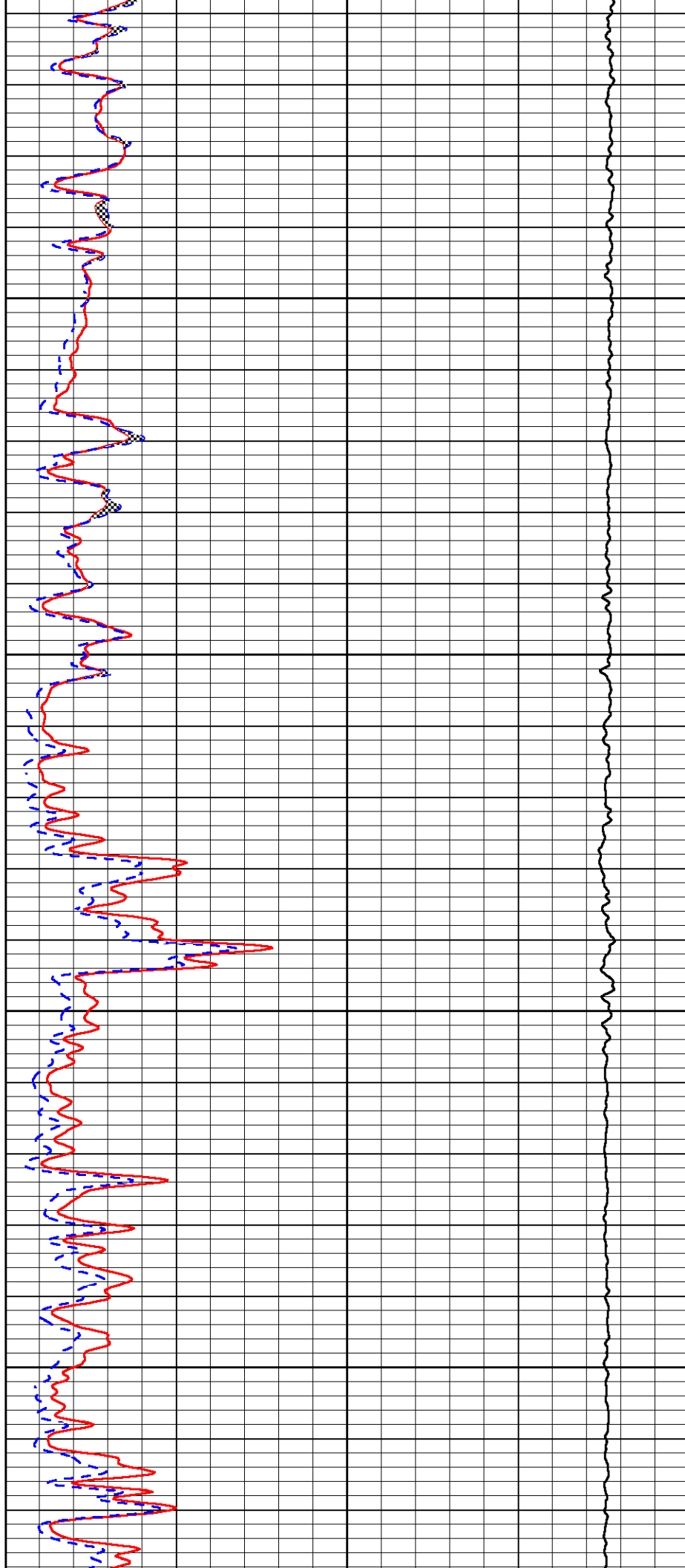


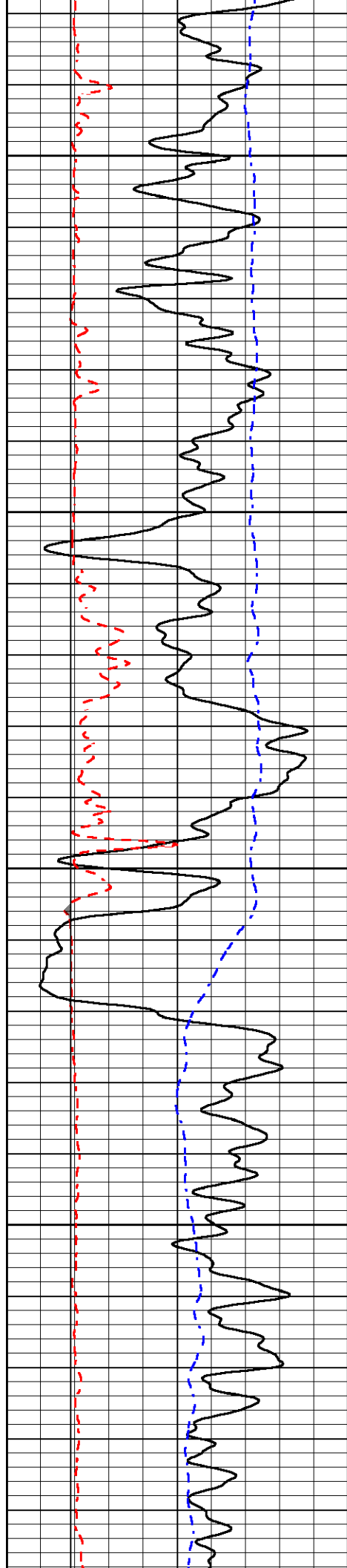
2100

2150

2200

2250



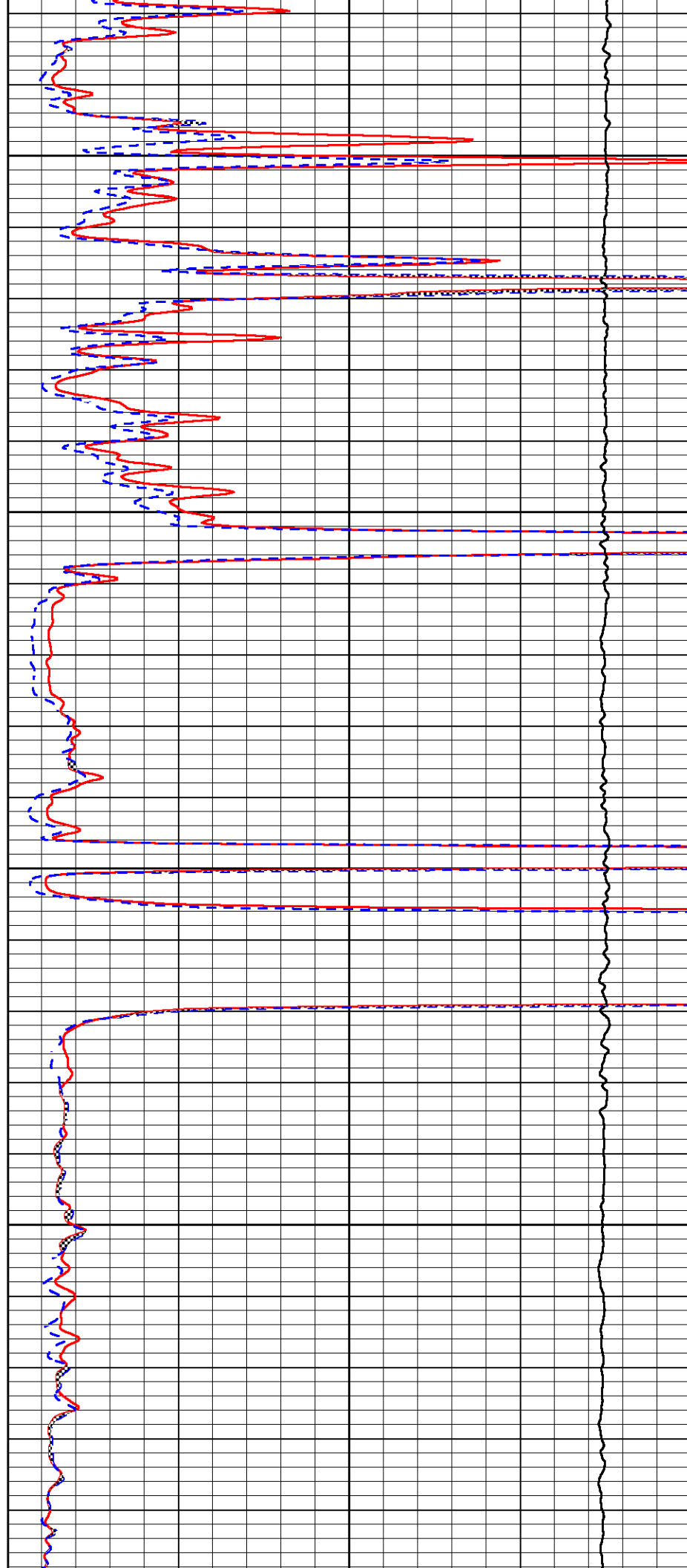


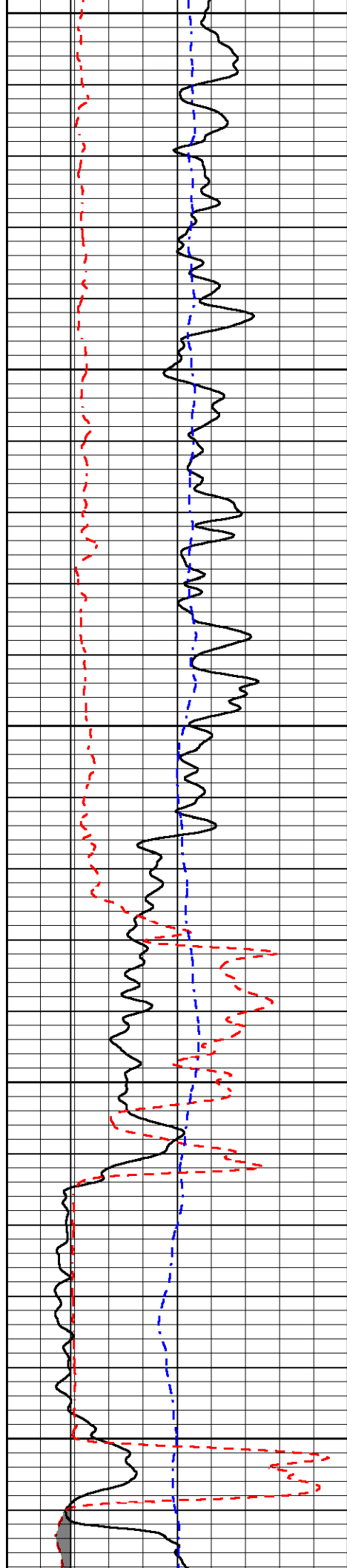
2300

2350

2400

2450





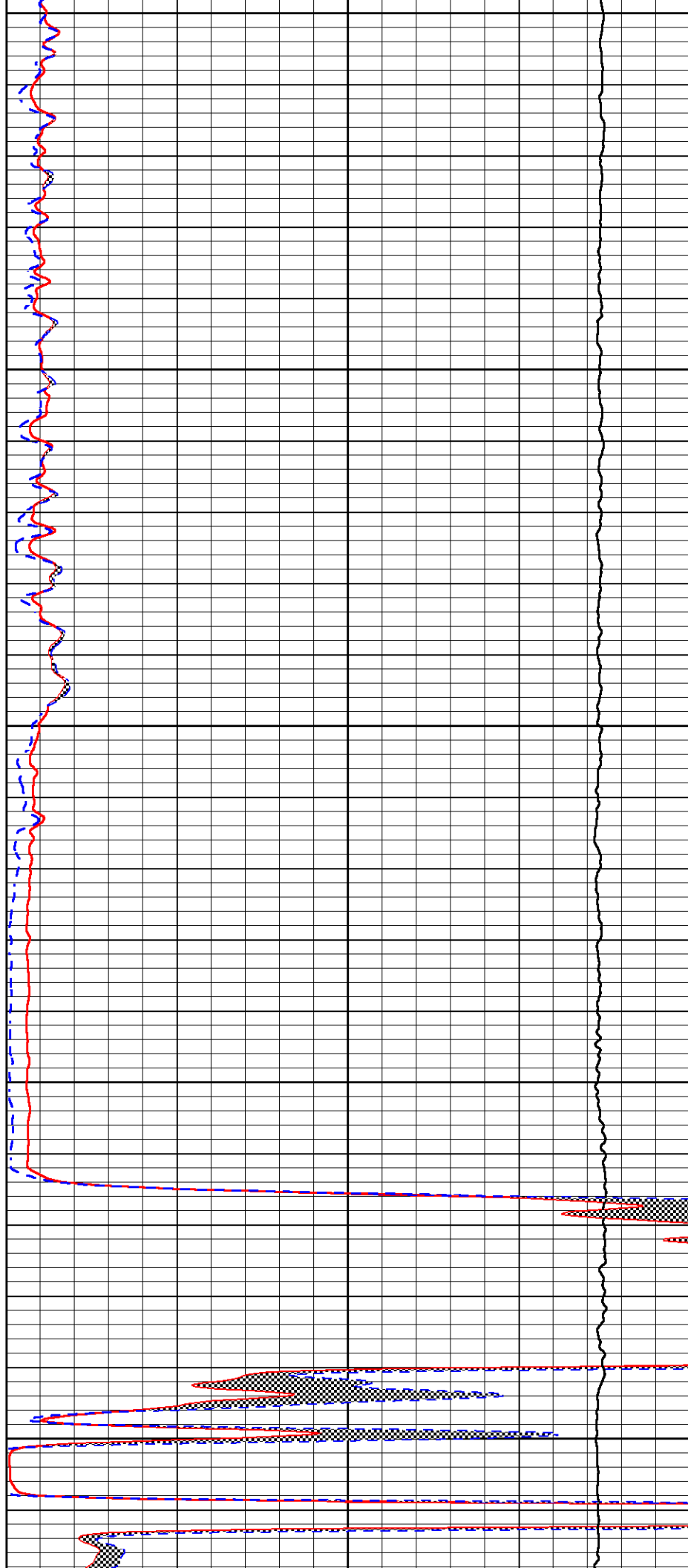
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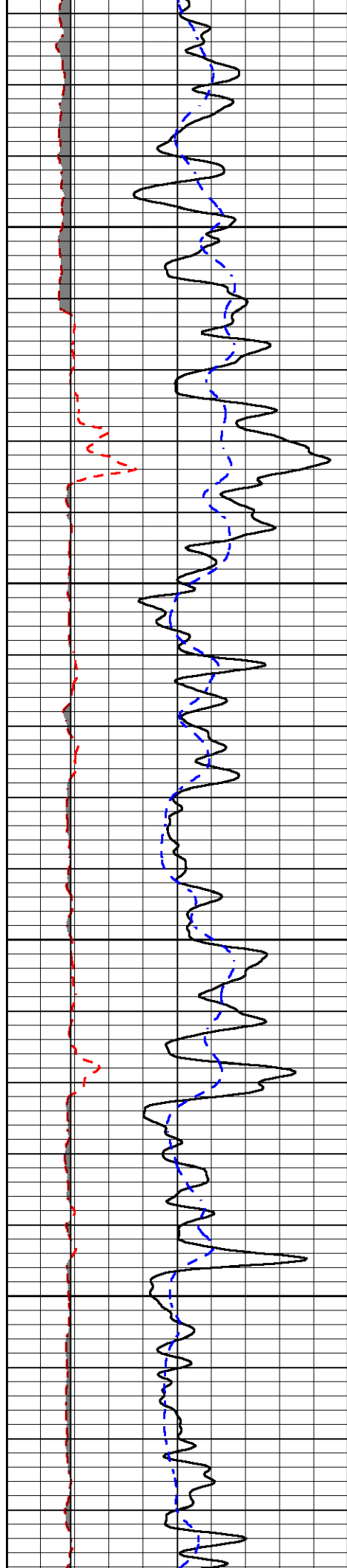
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2600

2650

2700



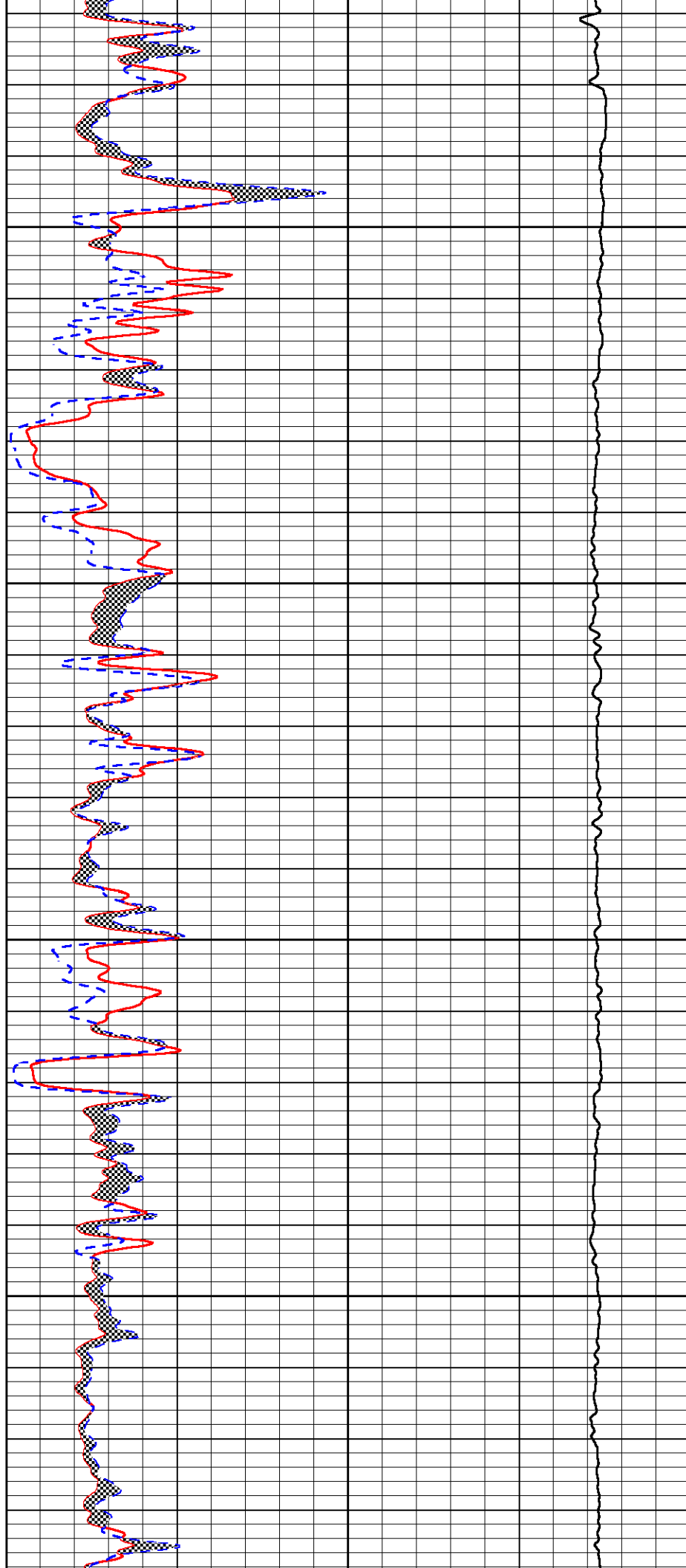


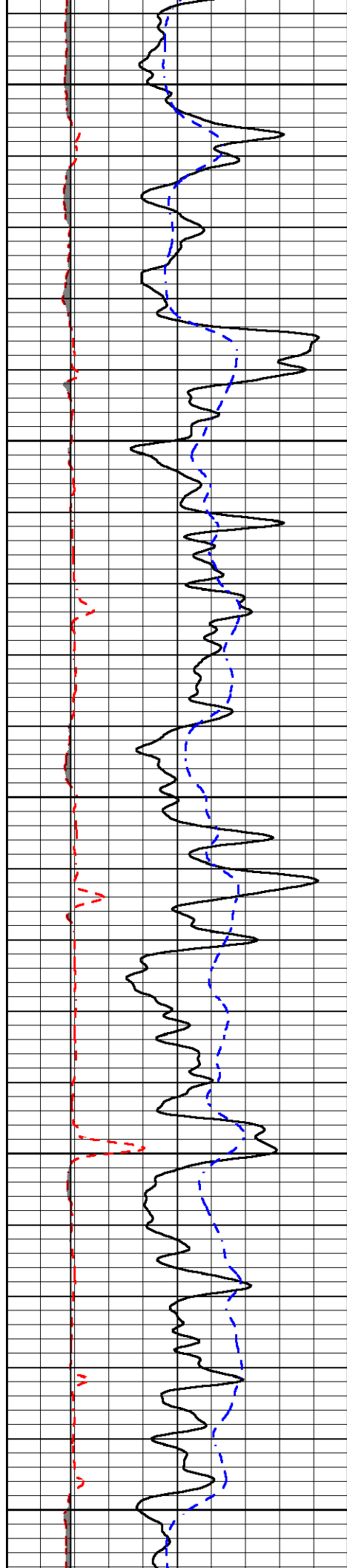
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2850

2900





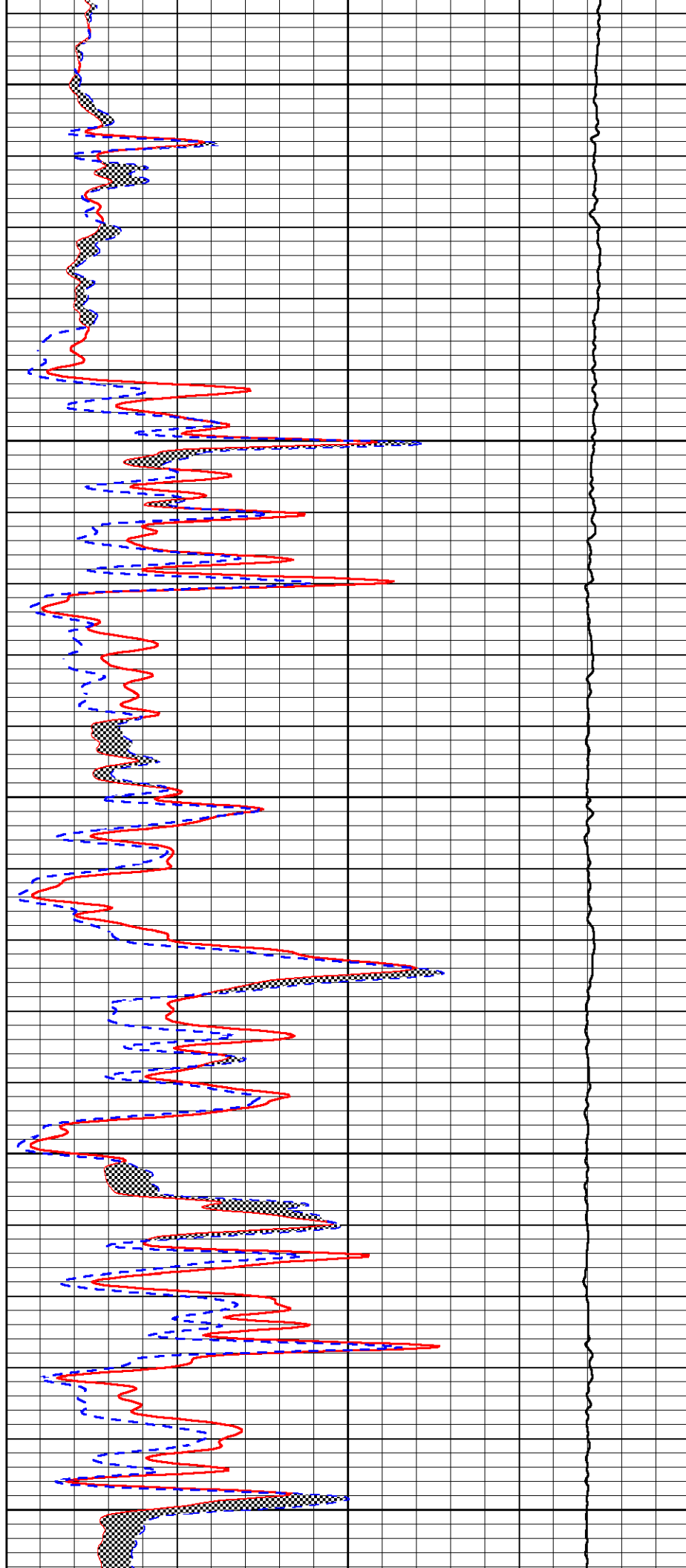
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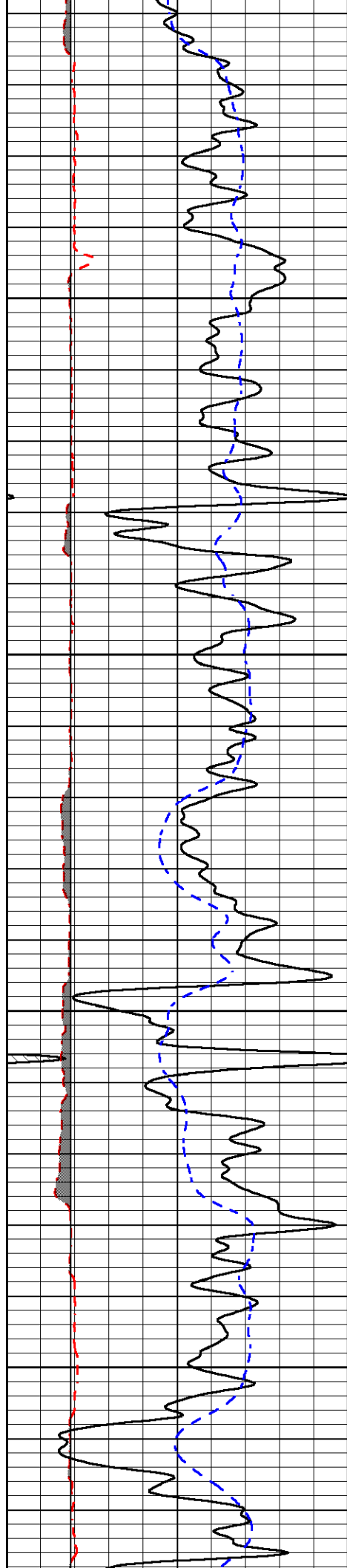
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3050

3100

3150



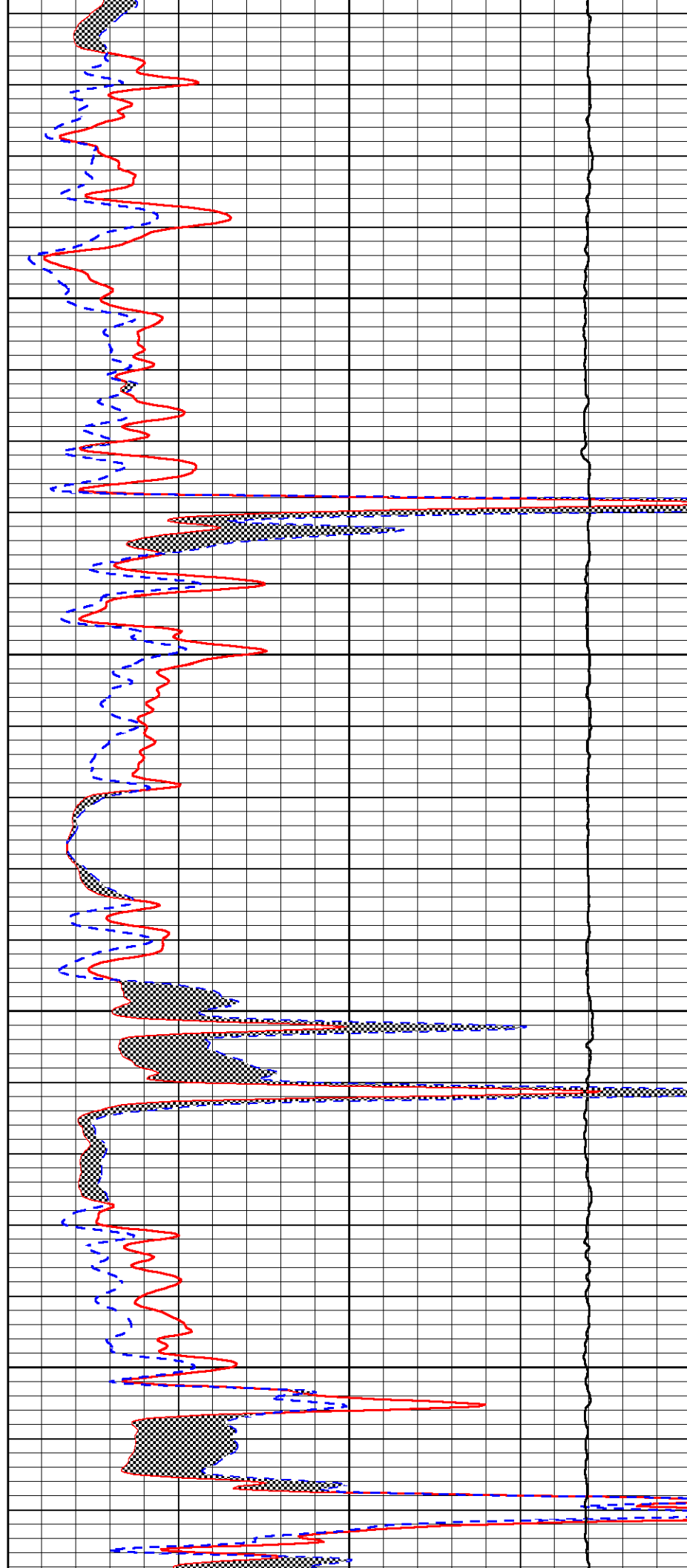


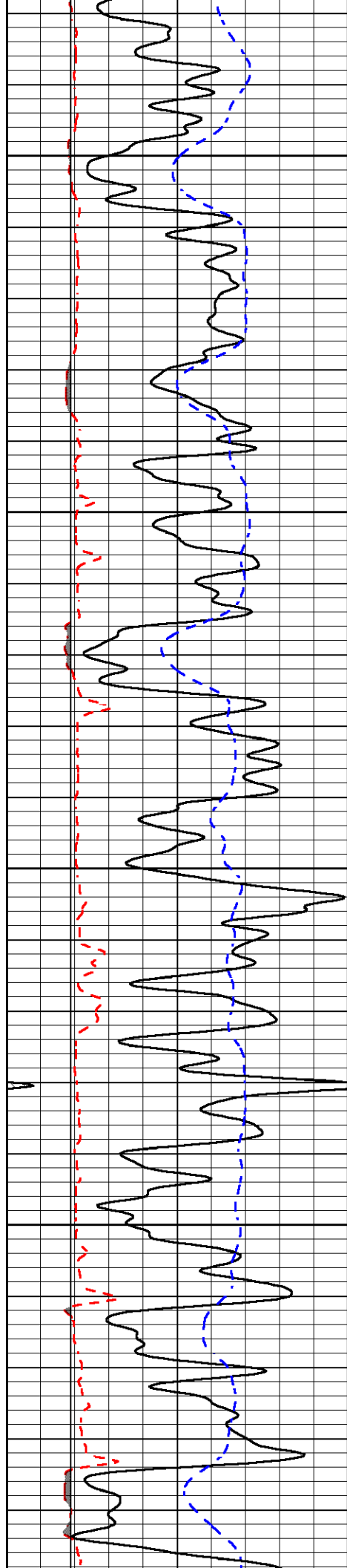
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3250

3300

3350



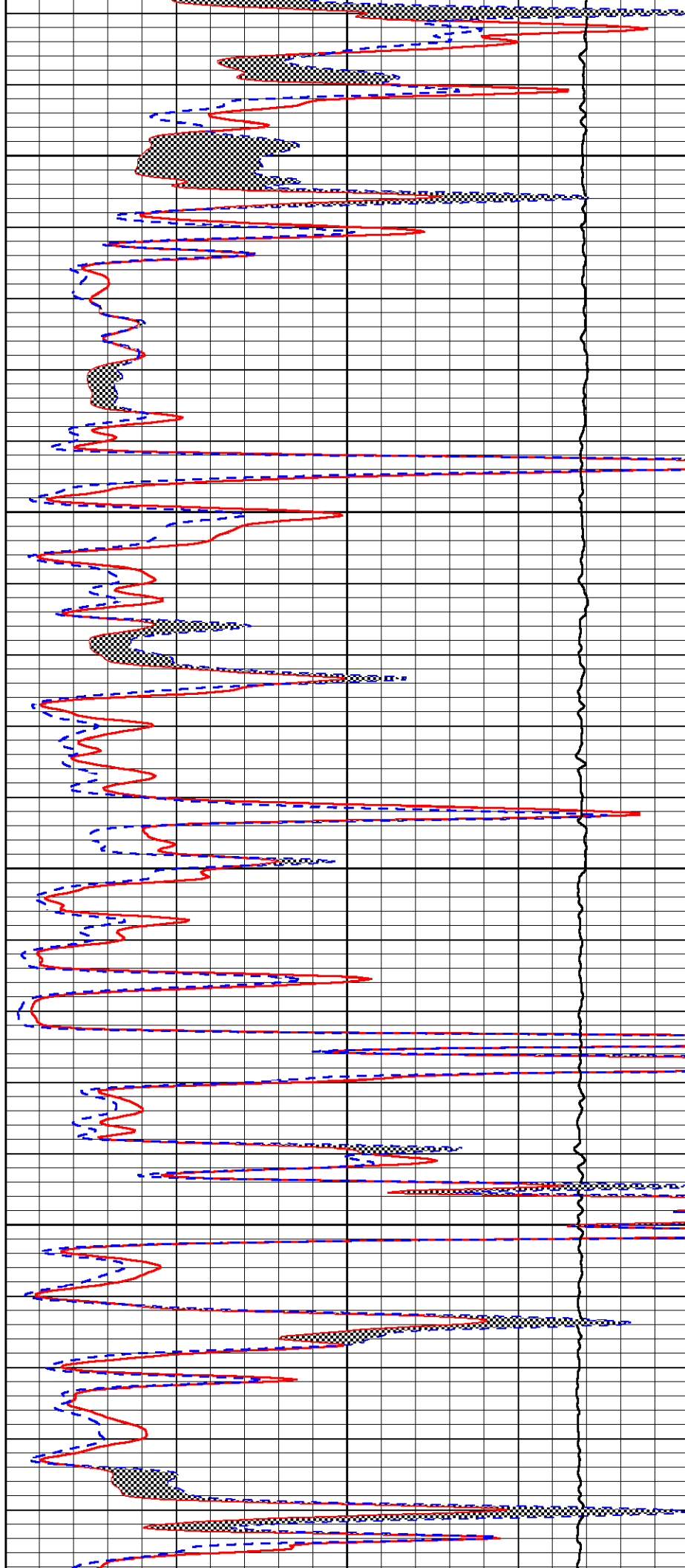


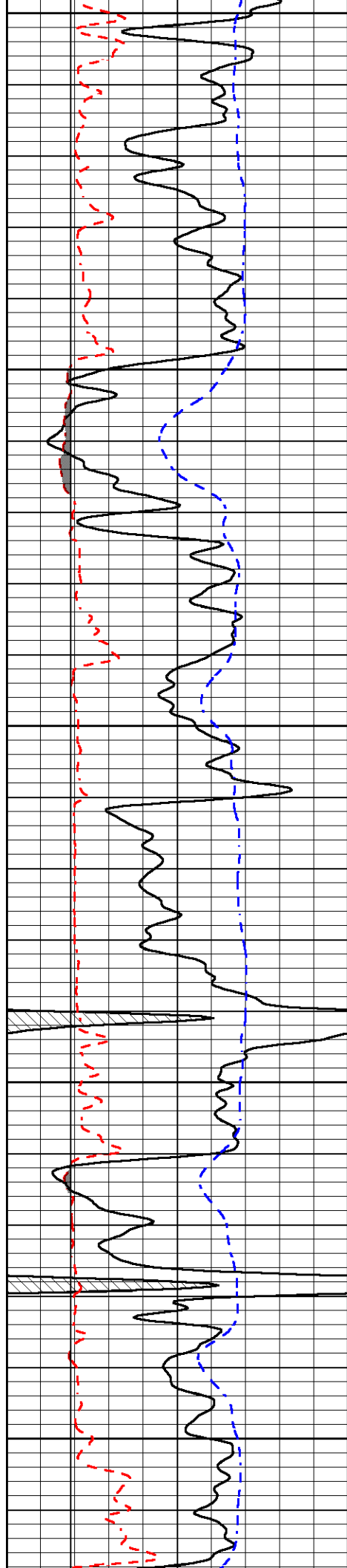
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3450

3500

3550





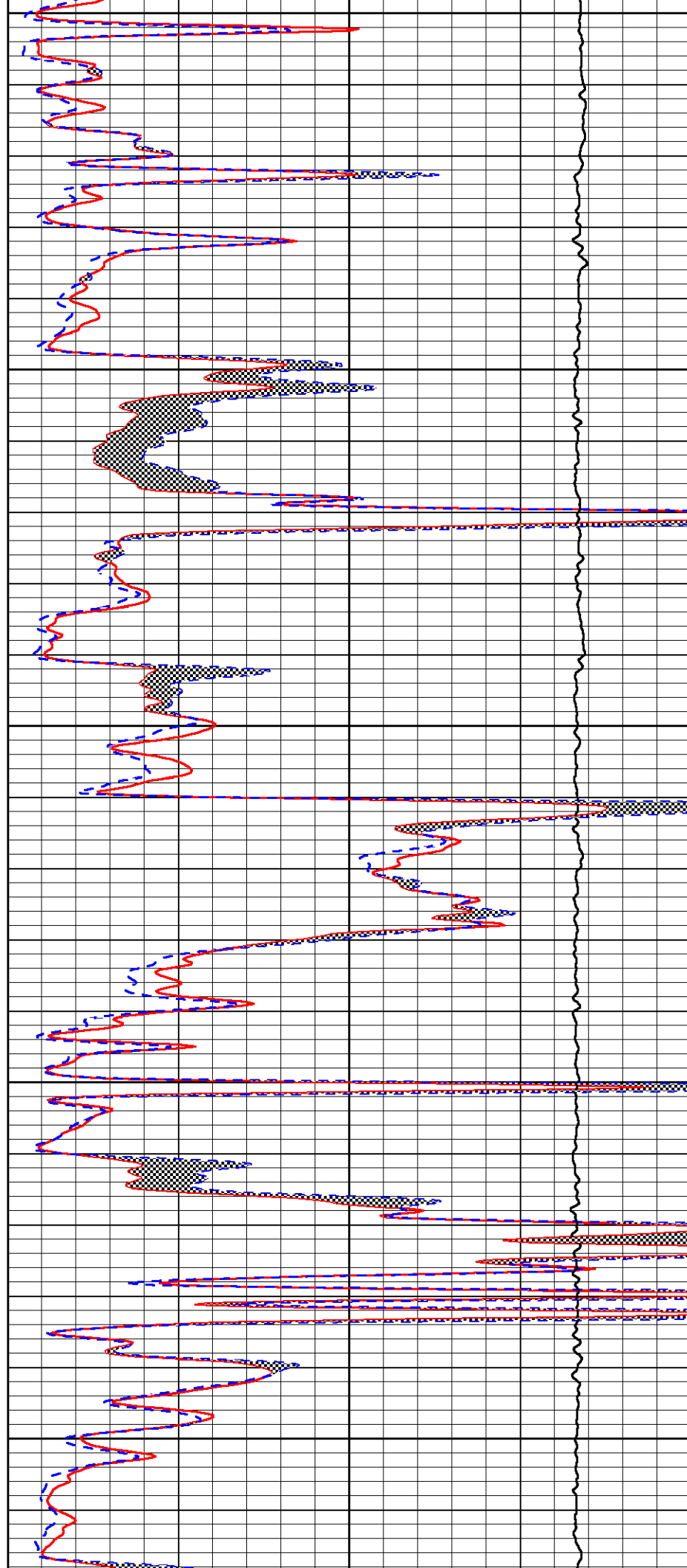
3600

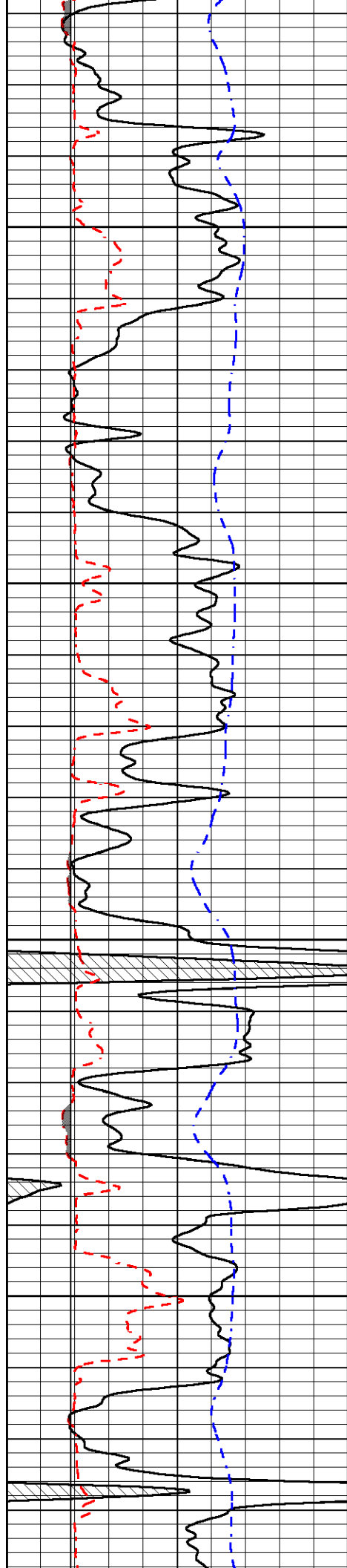
3650

3700

3750

3800



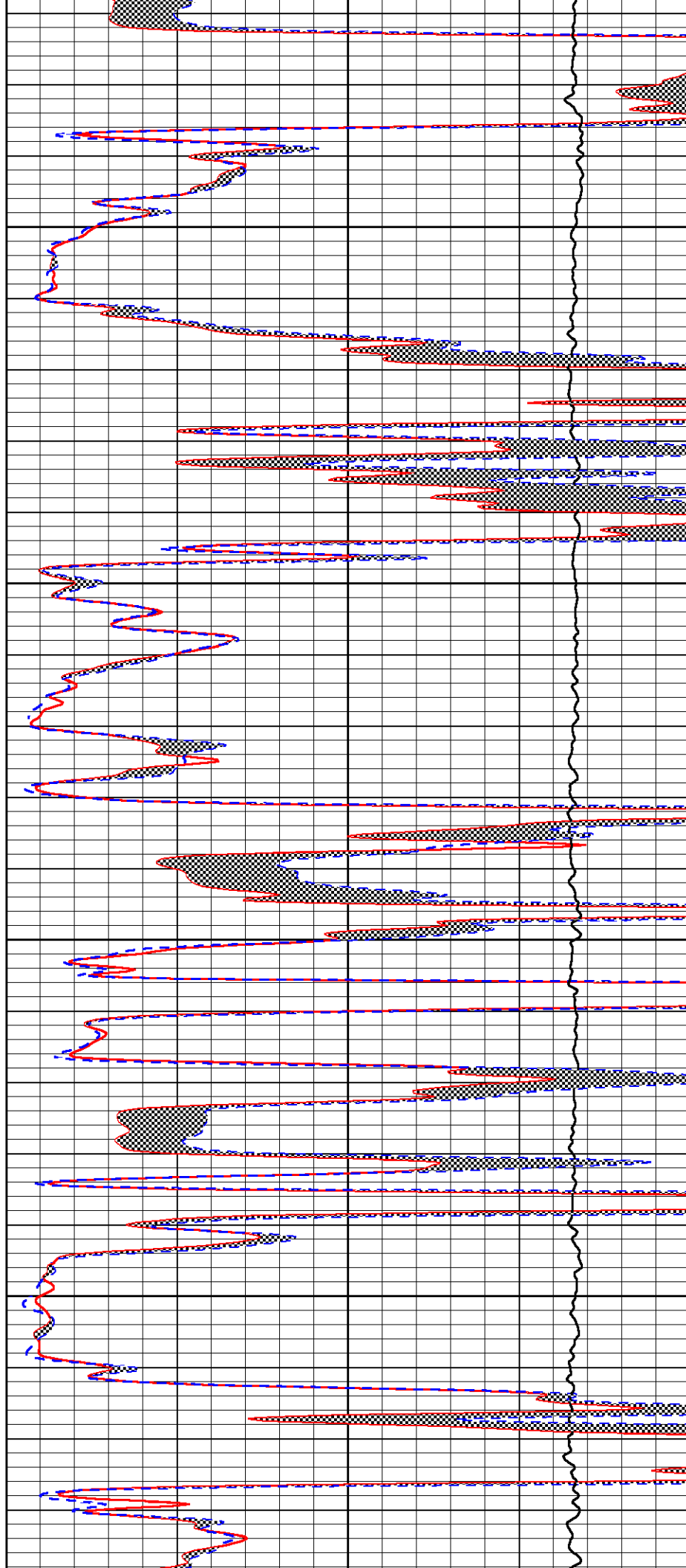


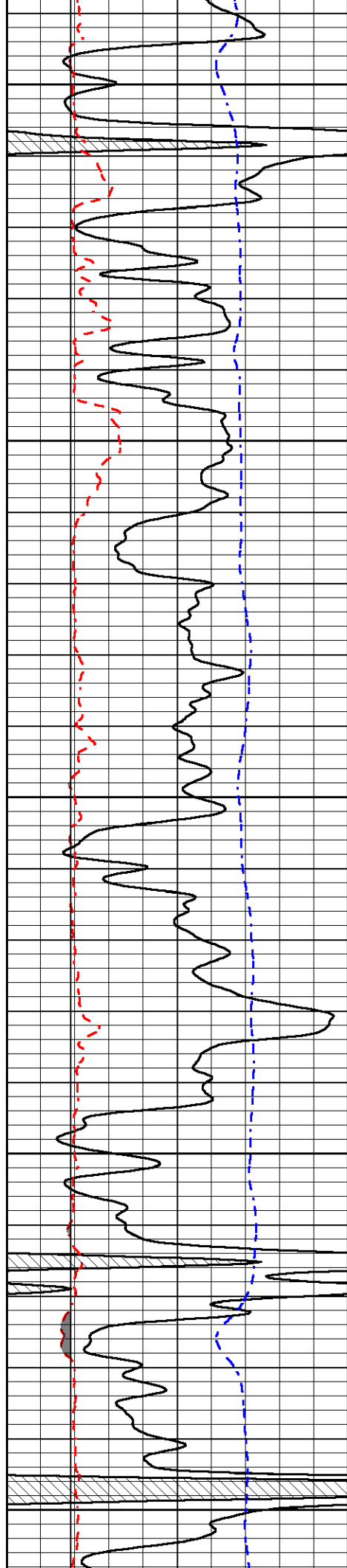
3850

3900

3950

4000





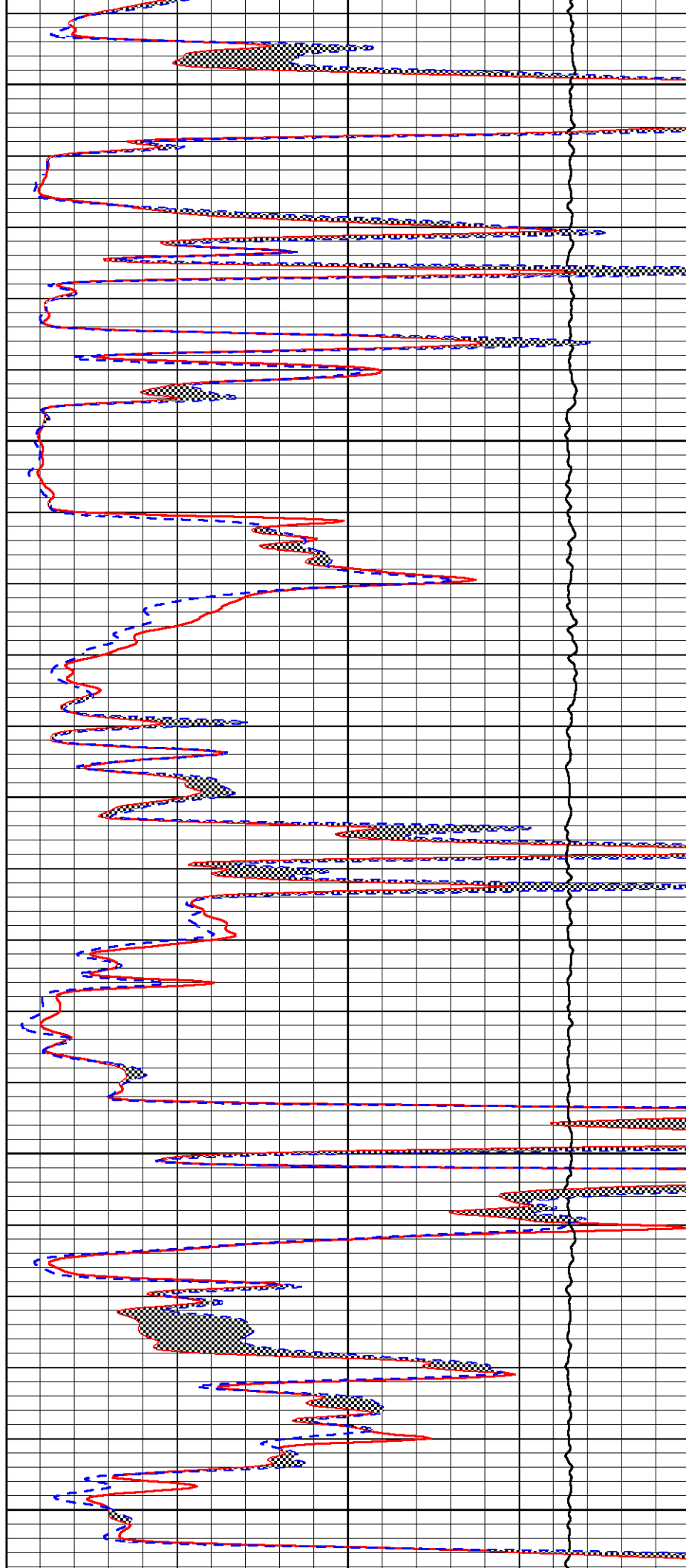
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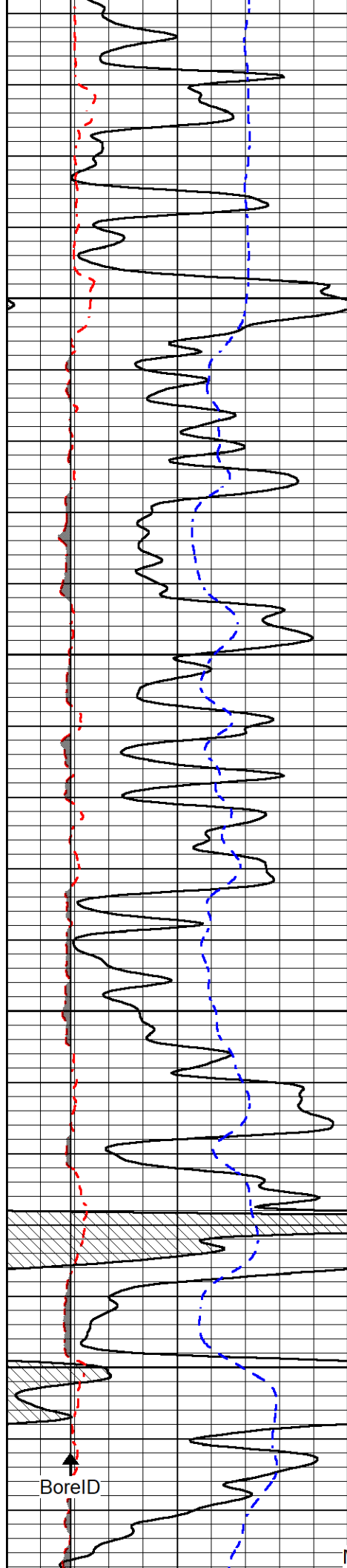
4100

4150

4200

4250





4300

4350

4400

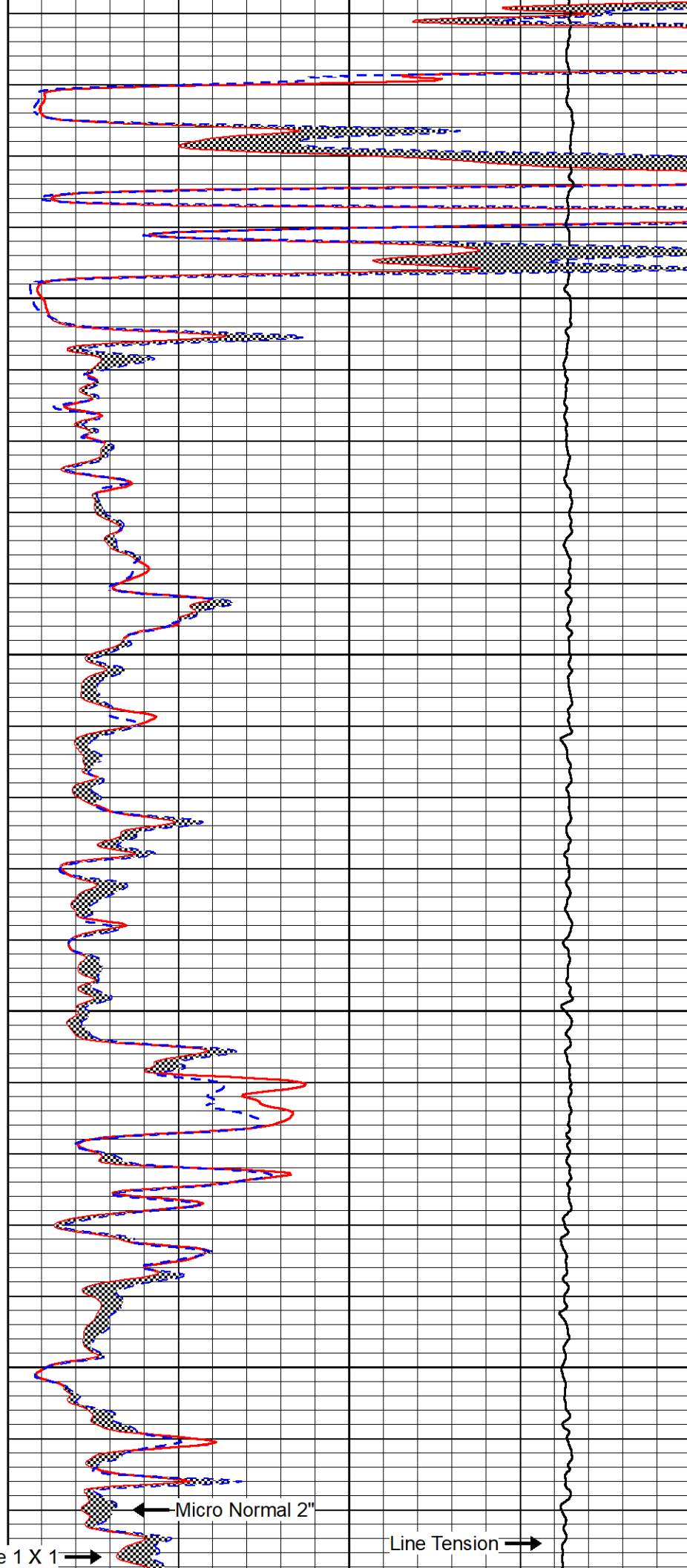
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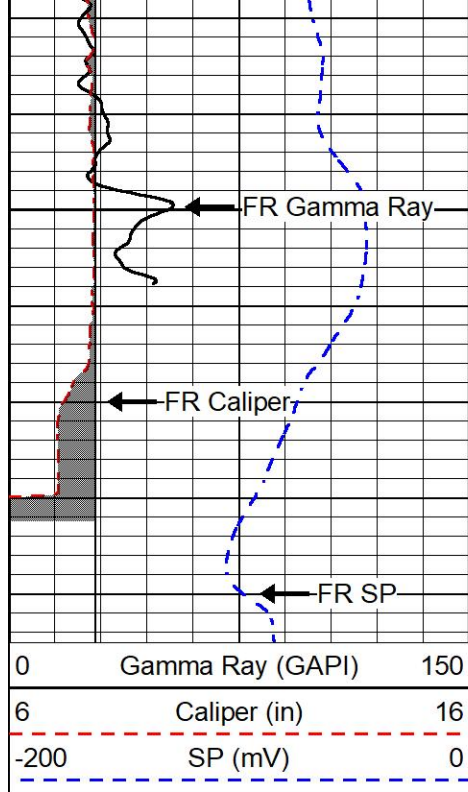
BoreID

Micro Inverse 1 X 1

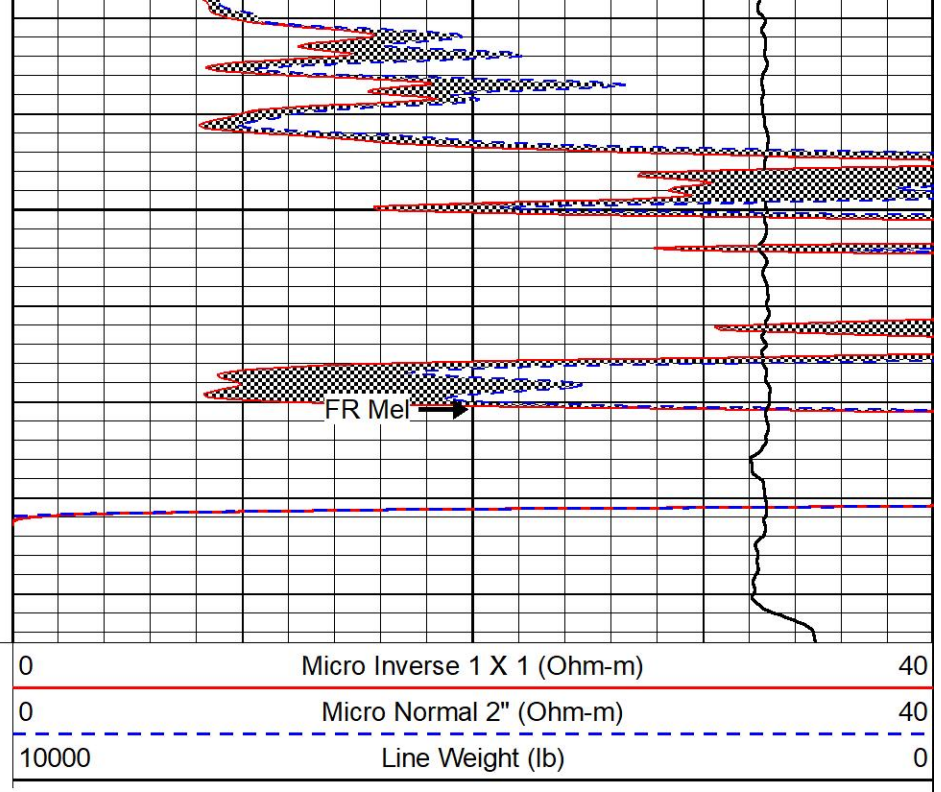
Micro Normal 2"

Line Tension





4500

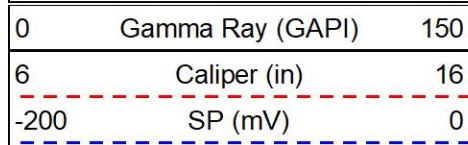


MIDWEST WIRELINE

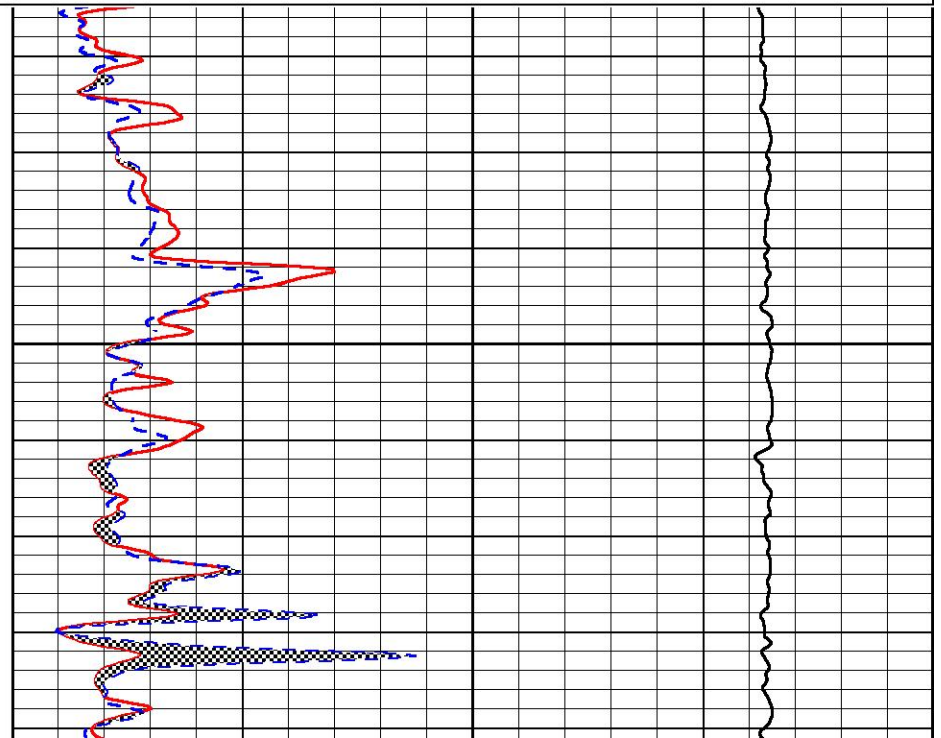
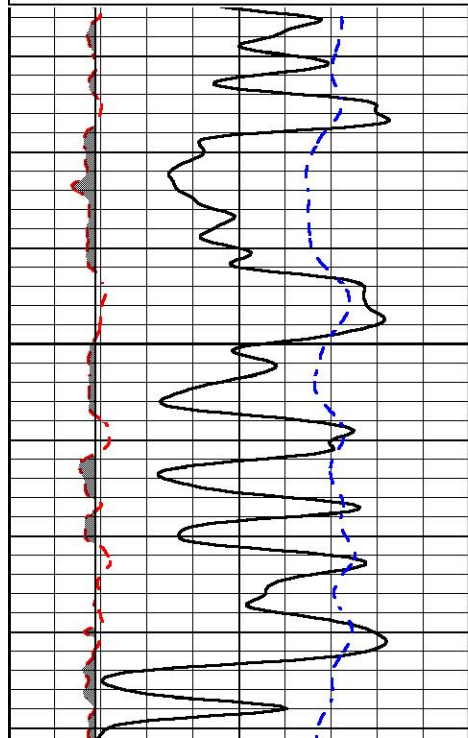
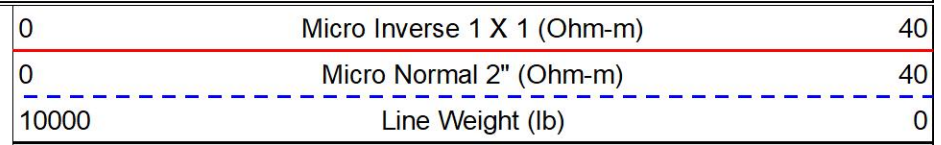
REPEAT SECTION

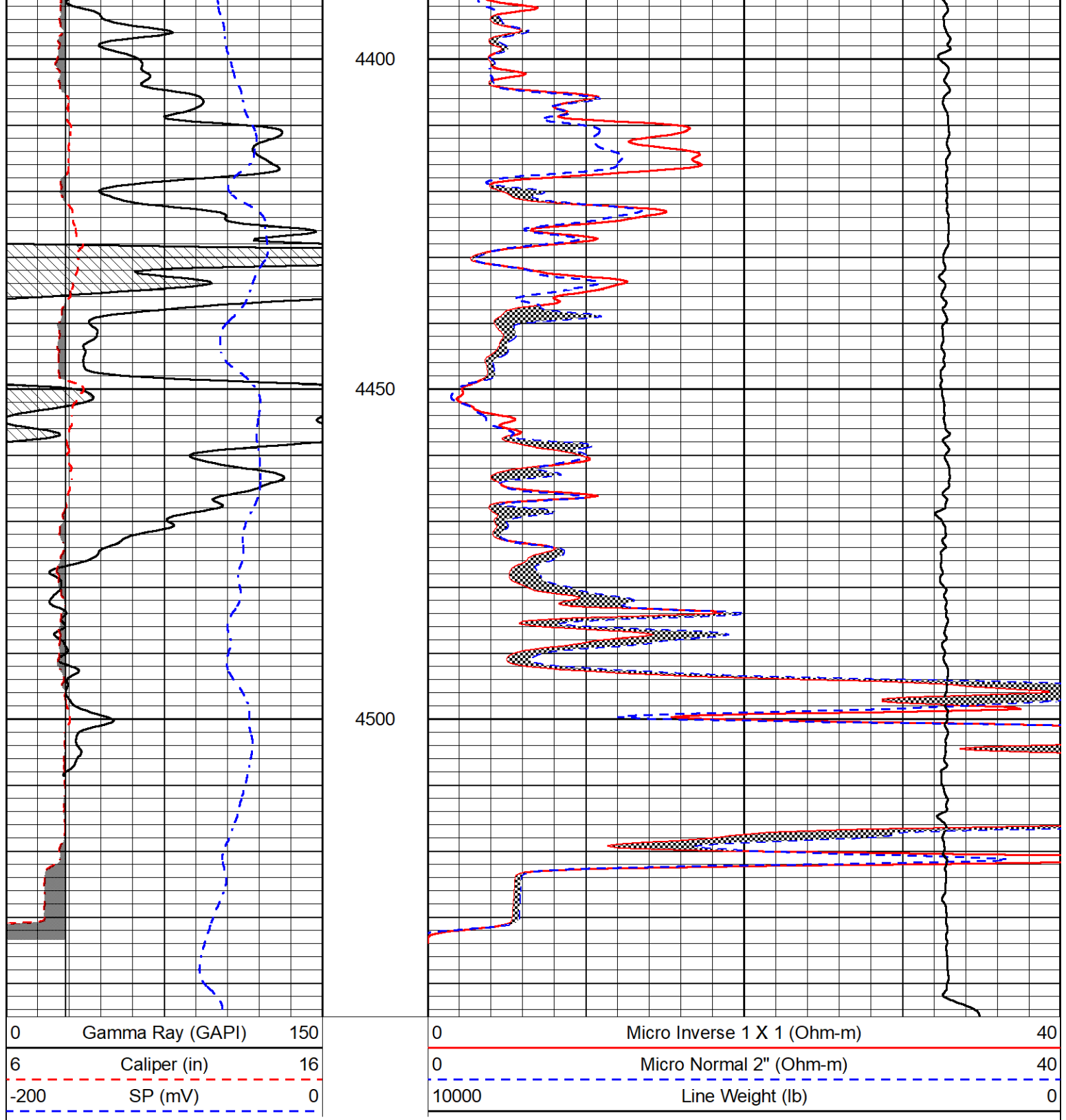
REPEAT PASS

Database File black oak_argabright 1-4.db
 Dataset Pathname stkml/pass3.1
 Presentation Format _micro
 Dataset Creation Thu Oct 28 04:10:34 2021
 Charted by Depth in Feet scaled 1:240



4350





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (233-M&W)	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 (934-226)	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					
			DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					
Dataset: black oak_argabright 1-4.db: field/well/stkml/pass4.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in						



Company

Black Oak Exploration, LLC

Well

Argabright #1-4

Field

County

Rawlins

State

Kansas