



Pioneer Energy Services

Microresistivity
Log

API No.

15-191-22754-00-00

Company Jolen Operating Company

Well Renner #4A SWD

Field Anson

County Sumner State

Kansas

Location

875' FSL & 1652' FEL

Other Services
CNI/CDL
DIL/BHCS

Sec: 35

Twp: 30S

Rge: 2W

Elevation

Permanent Datum Ground Level Elevation 1317
Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

K.B. 1328
D.F.
G.L. 1317

Date

7/4/2014

Run Number

Two

Depth Driller

4850

Depth Logger

4844

Bottom Logged Interval

4843

Top Log Interval

1900

Casing Driller

13.375 @ 220

Casing Logger

220

Bit Size

9.50

Type Fluid in Hole

Chemical

Salinity, ppm CL

2500

Density / Viscosity

9.5

pH / Fluid Loss

10.0

Source of Sample

Flowline

Rm @ Meas. Temp

0.59 @ 85

Rmf @ Meas. Temp

0.44 @ 85

Rmc @ Meas. Temp

0.80 @ 85

Source of Rmf / Rmc

Charts

Rm @ BHT

0.40 @ 125

Operating Rig Time

6 Hours

Max Rec. Temp. F

125

Equipment Number

91

Location

Hays

Recorded By

D. Schmidt

Witnessed By

Perry Henman

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

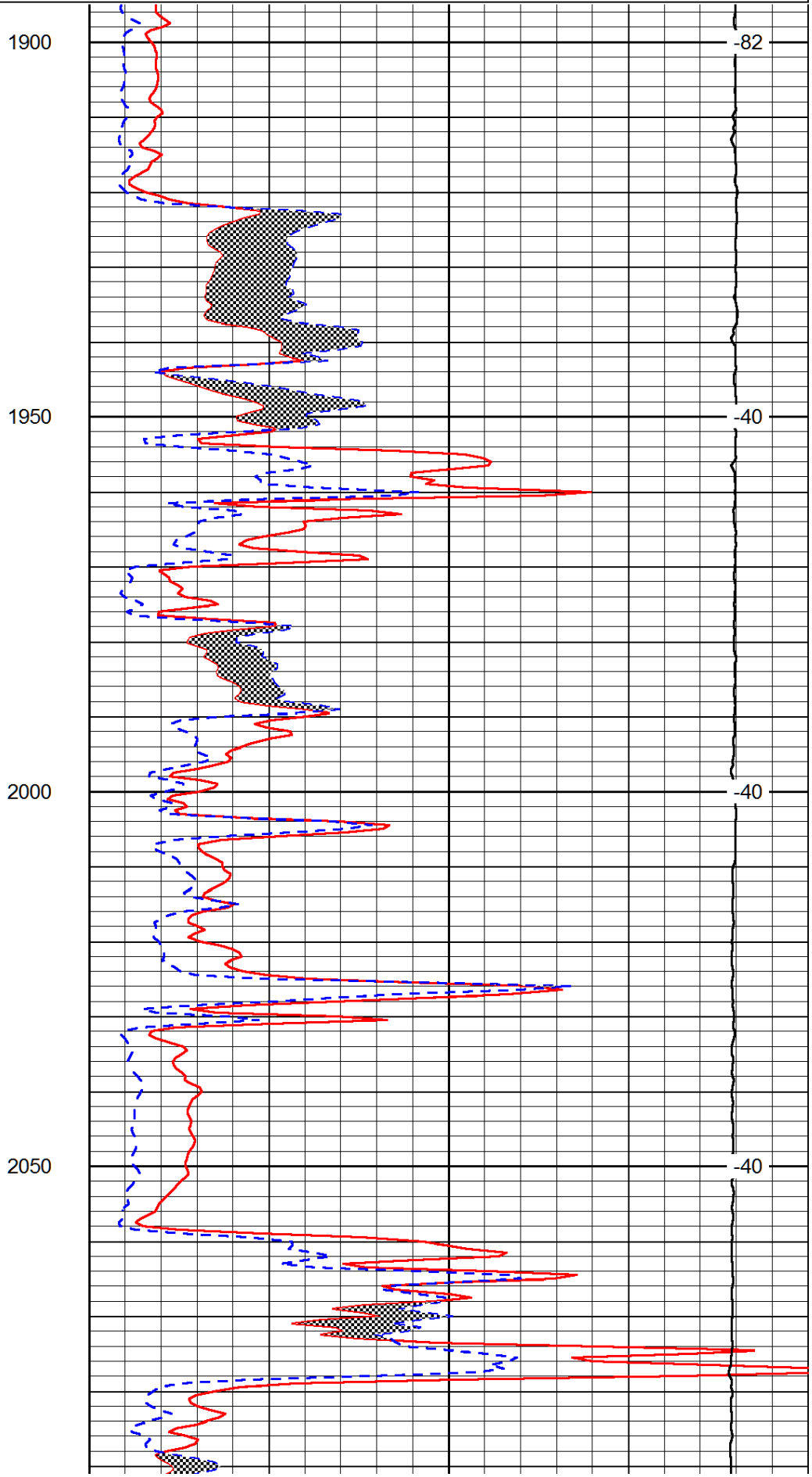
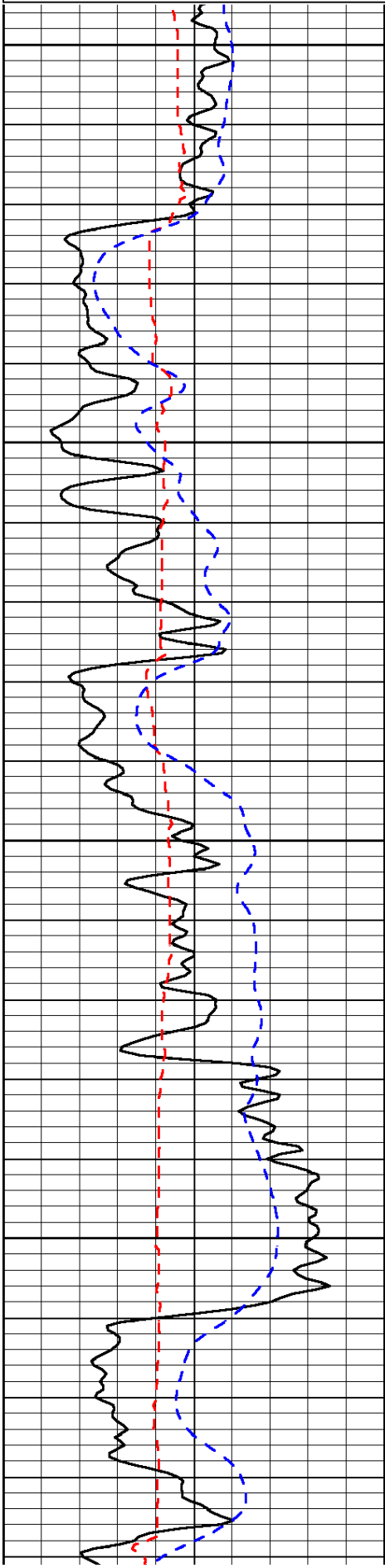
Comments

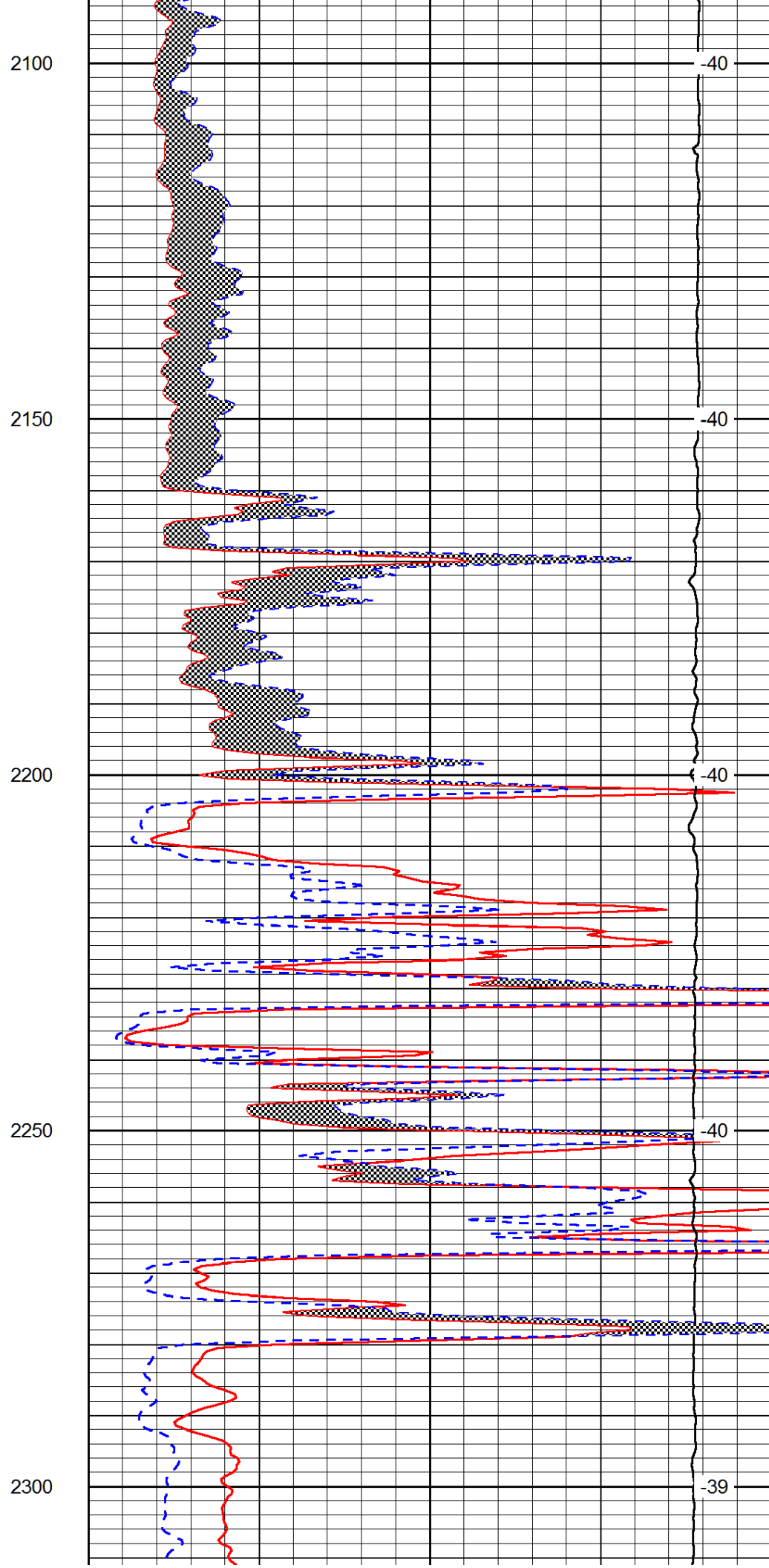
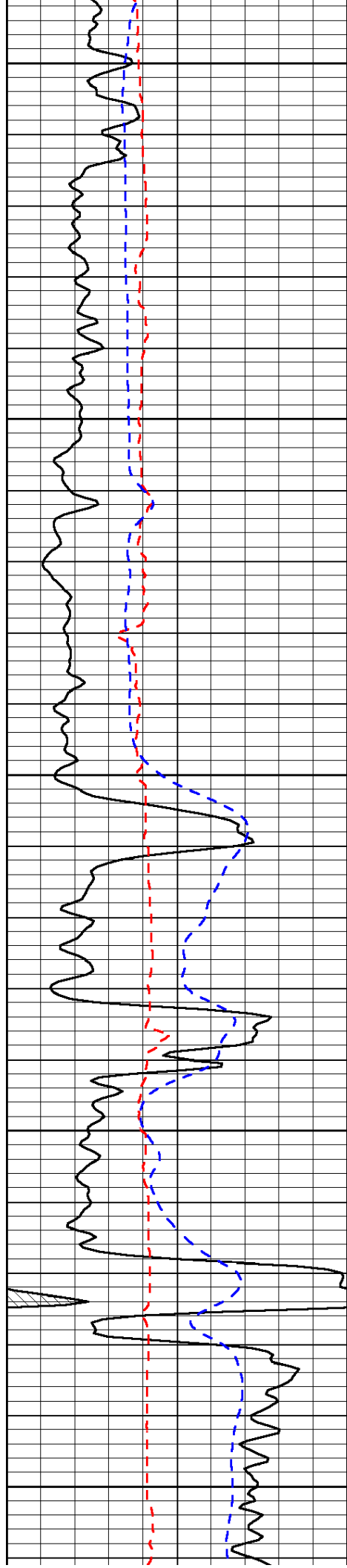
Thank you for using Log-Tech, Inc.
(785) 625-3858
I-35 Turnpike & Mulvane Exit,
West to Hwy 81, South on highway, road curves West,
when highway curves back South continue West on Conway Springs blktop,
6 West to Perth Rd, 1/4 North,
West into

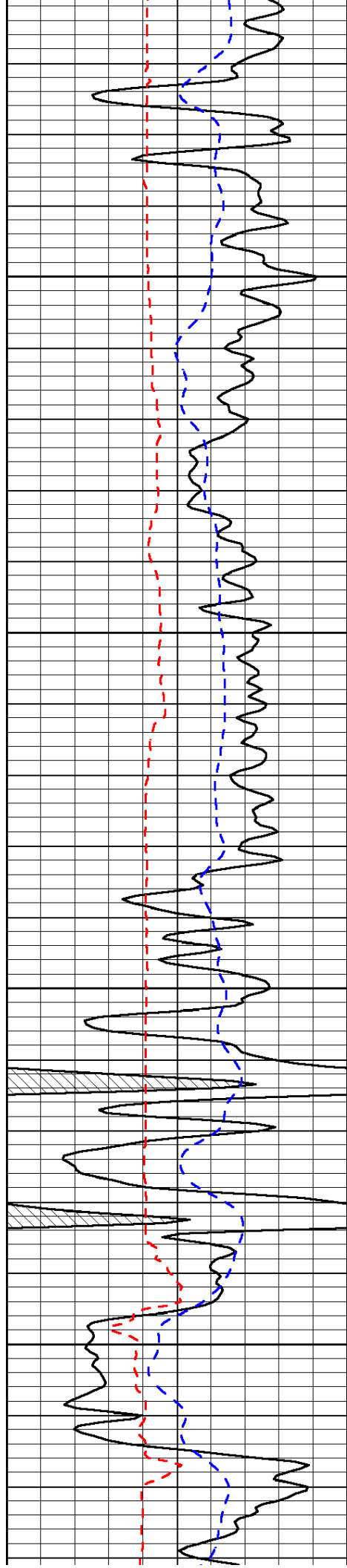
Database File: jolen_renner_4a_swdhd.db
Dataset Pathname: dil/jostack
Presentation Format: micro
Dataset Creation: Sat Jul 05 00:04:44 2014
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
6	MCAL (GAPI)	16
2.875	Mud Cake (GAPI)	7.875
-200	SP (mV)	0

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
10000	Line Weight	0
LSPD		





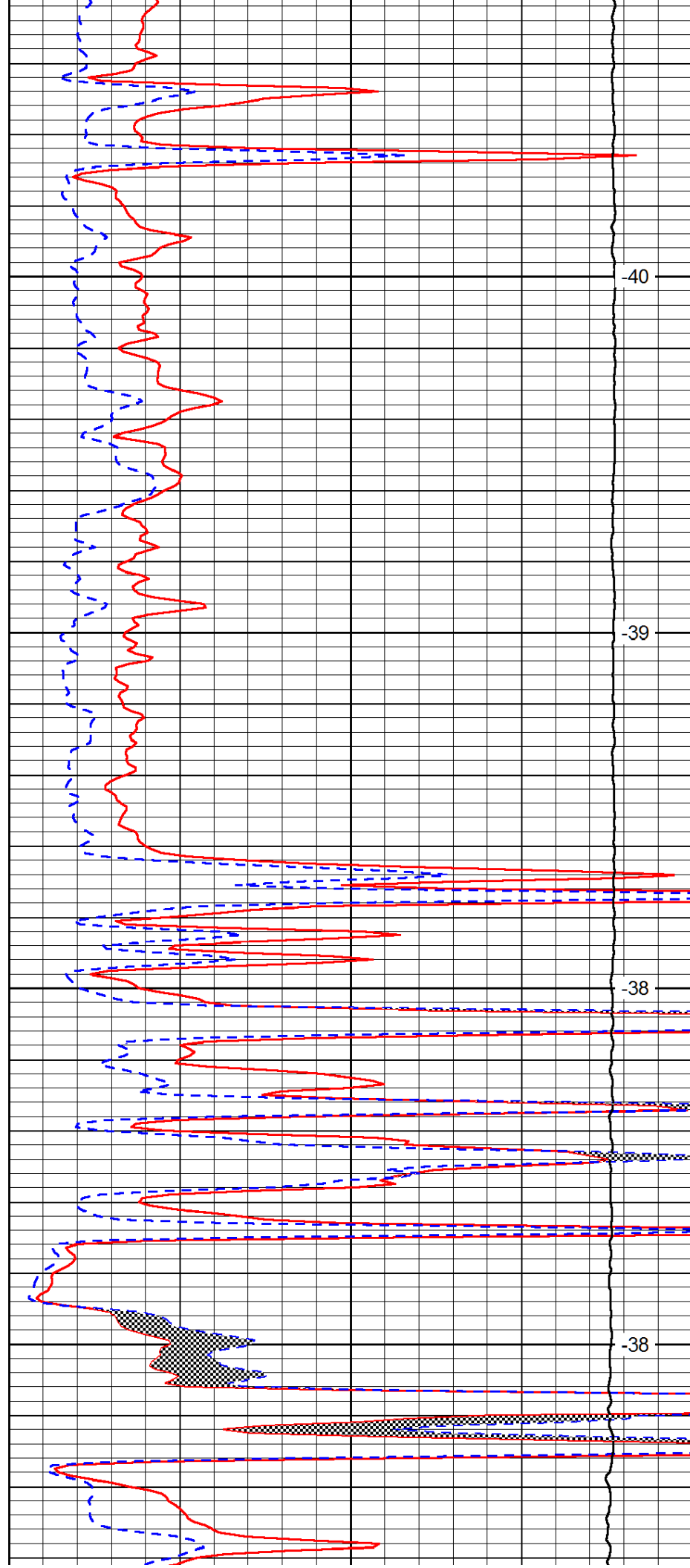


2350

2400

2450

2500

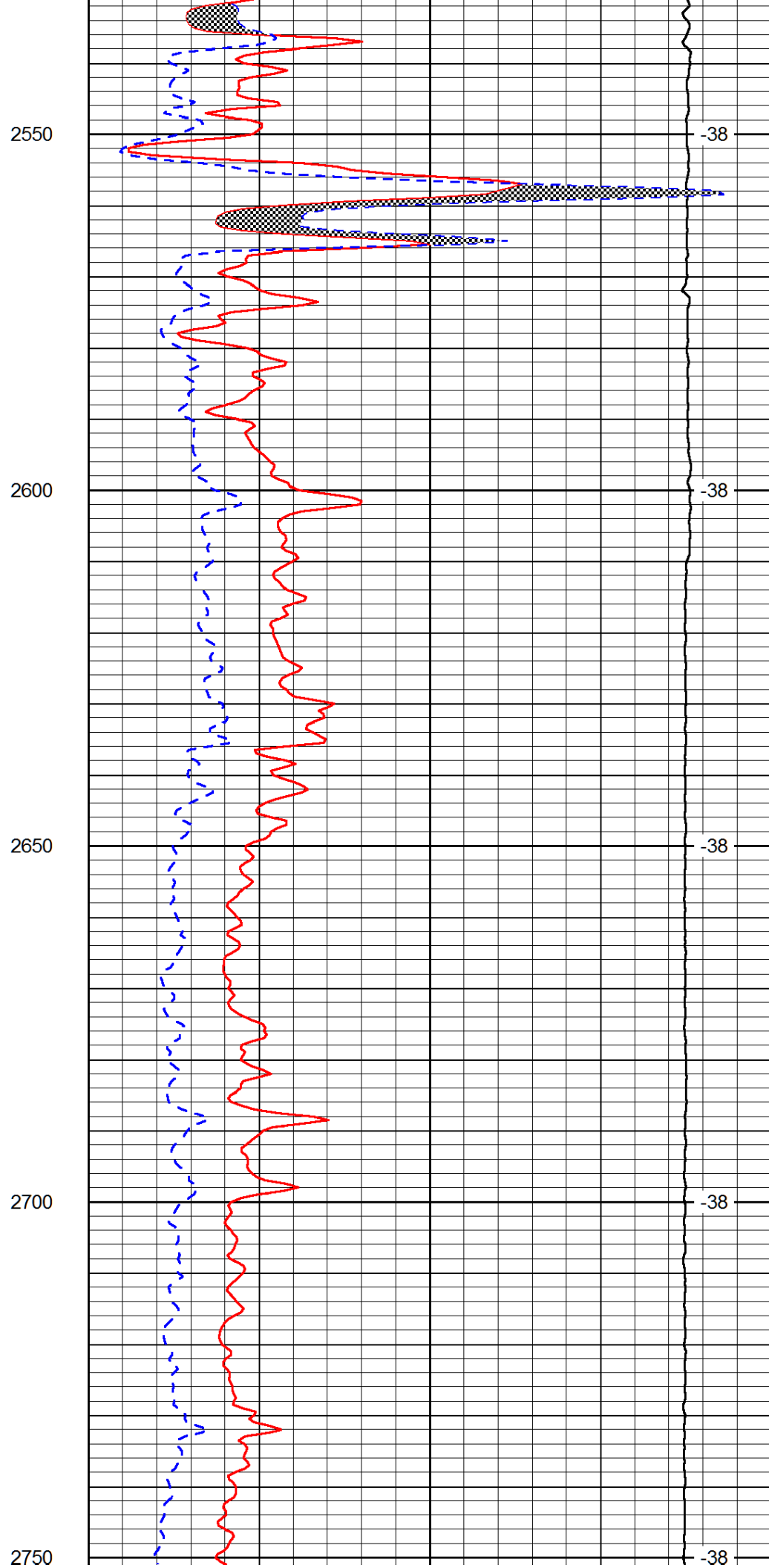
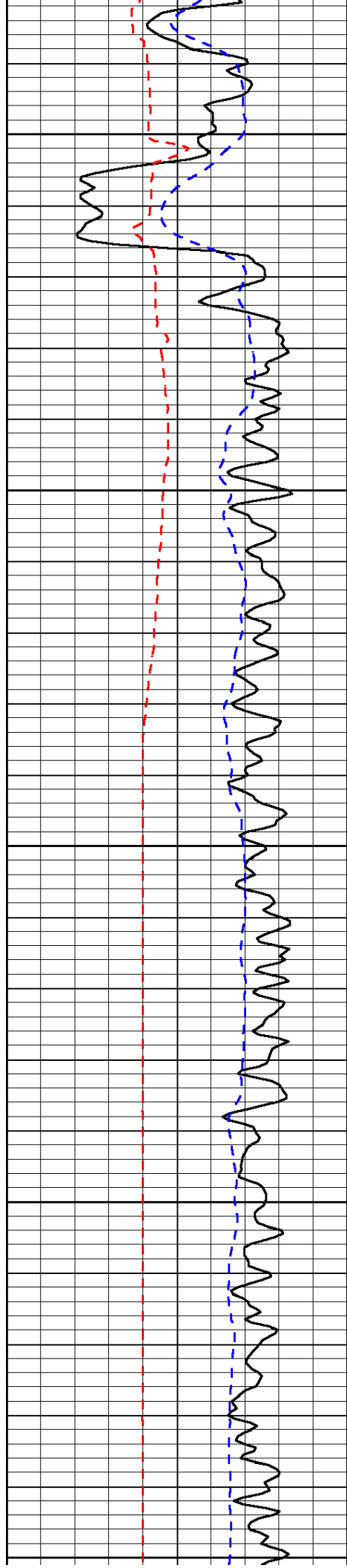


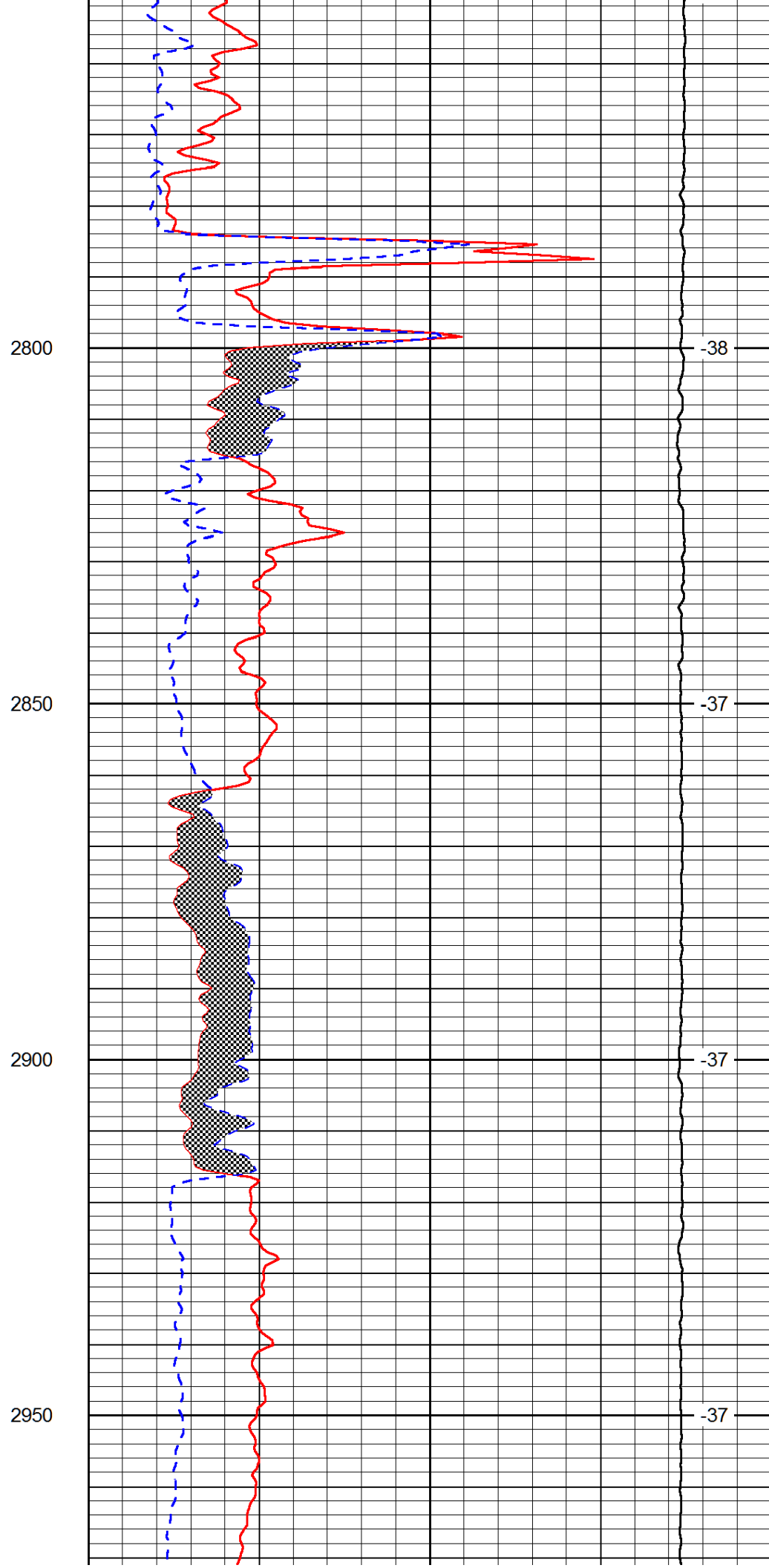
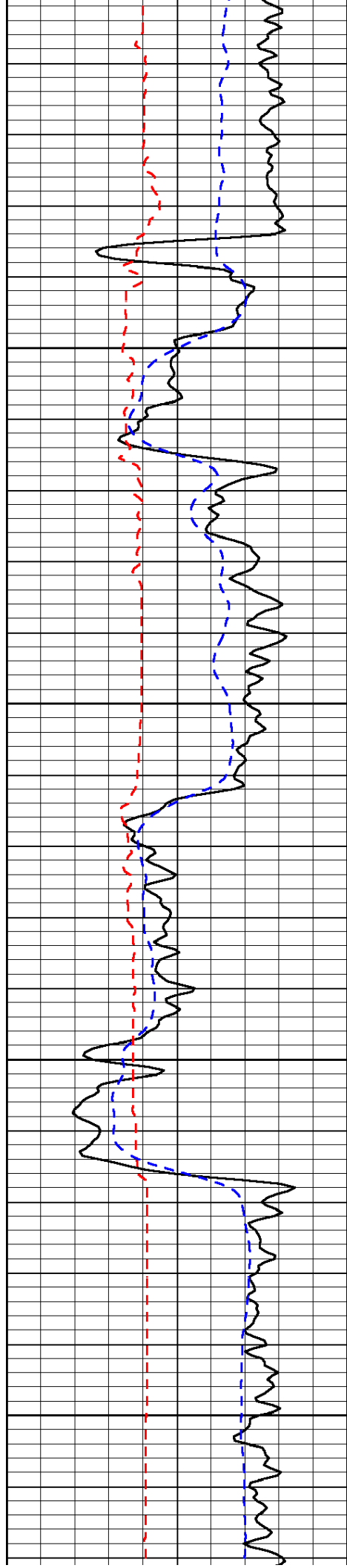
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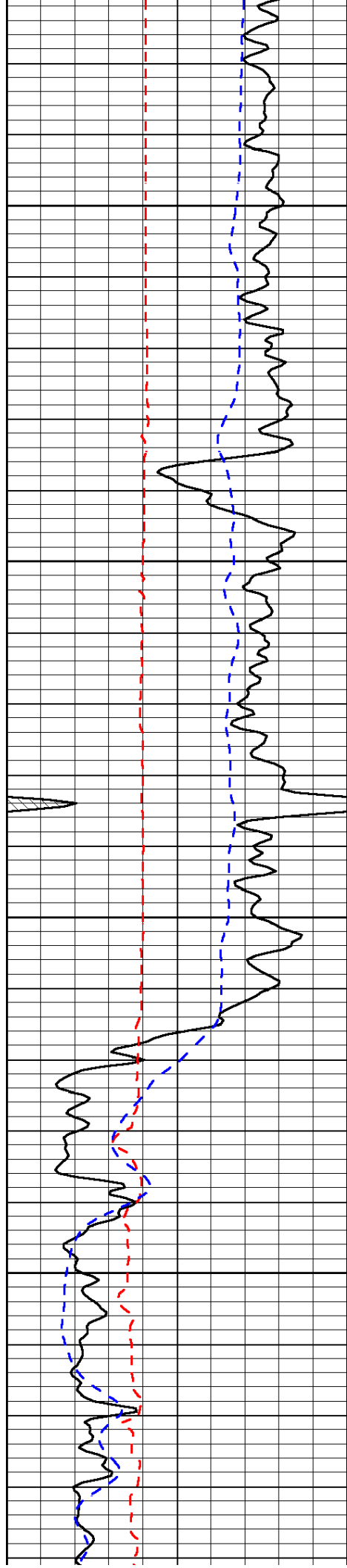
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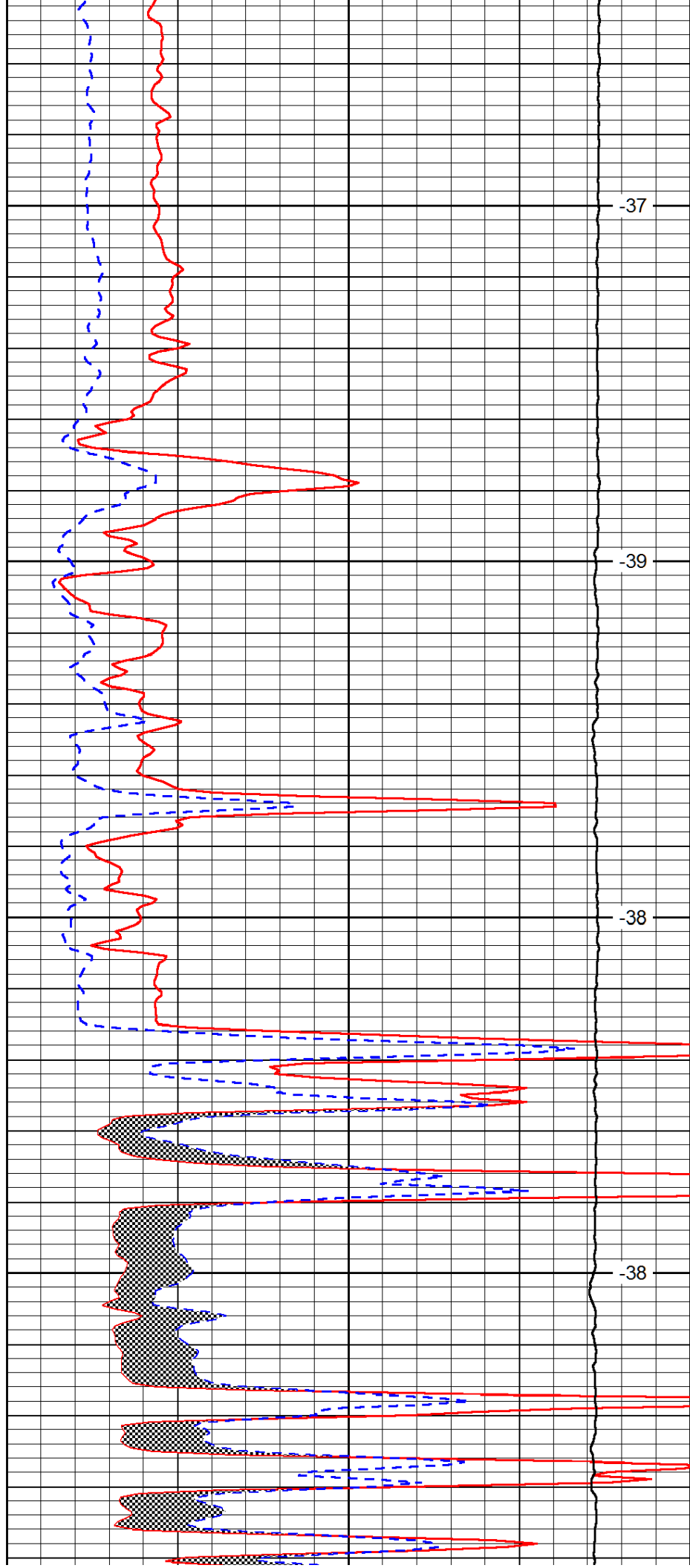


3000

3050

3100

3150

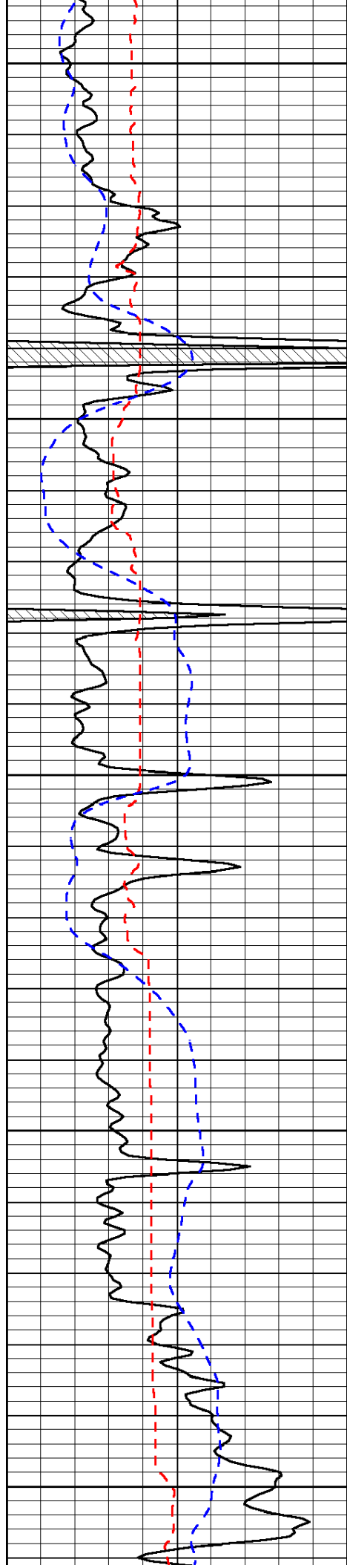


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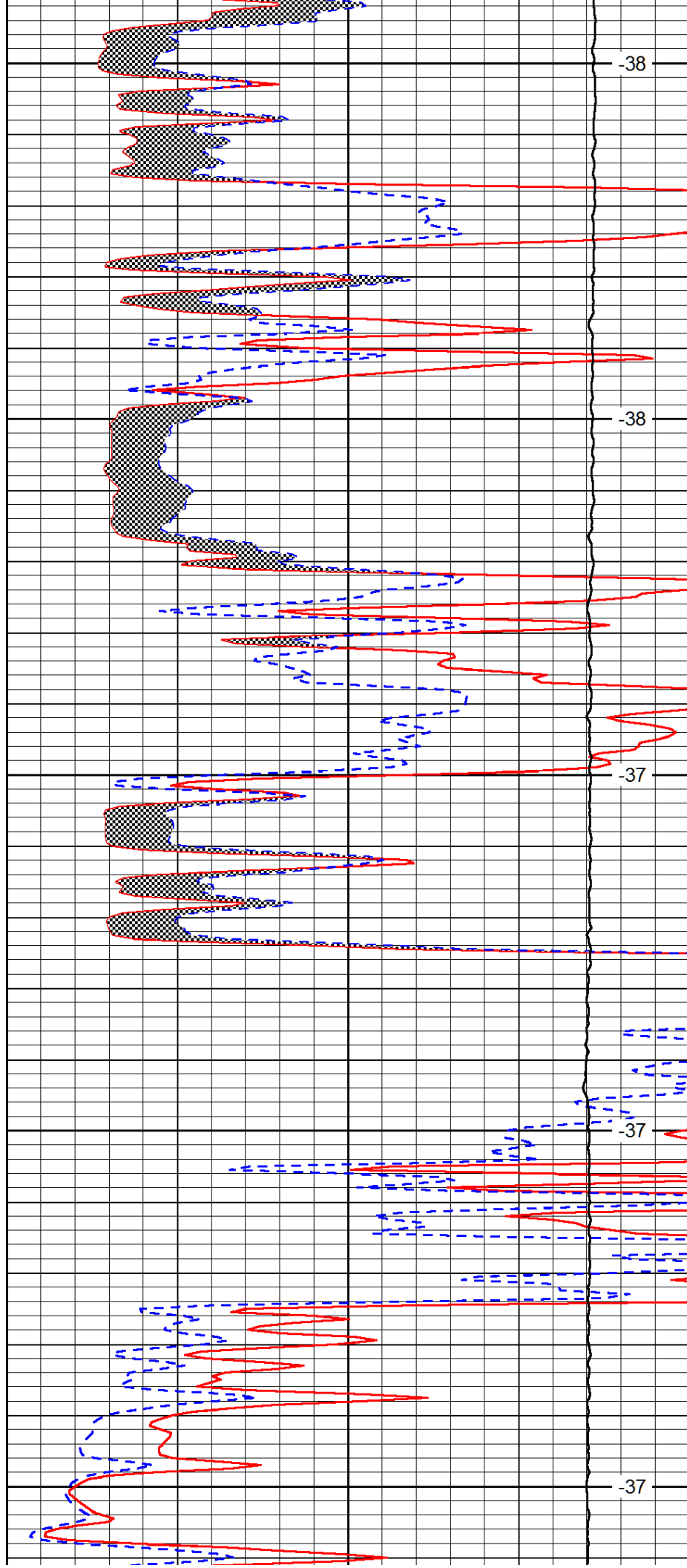
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3250

3300

3350

3400



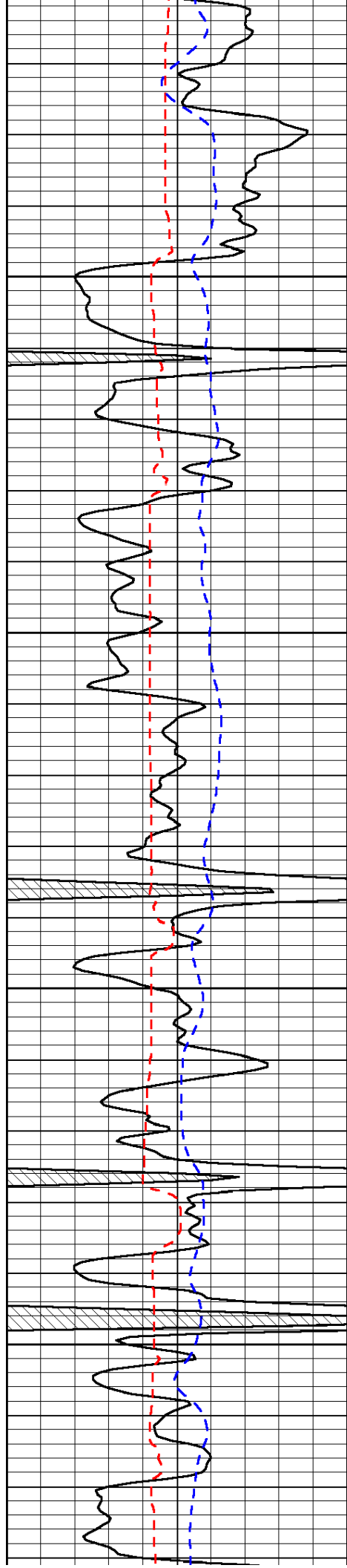
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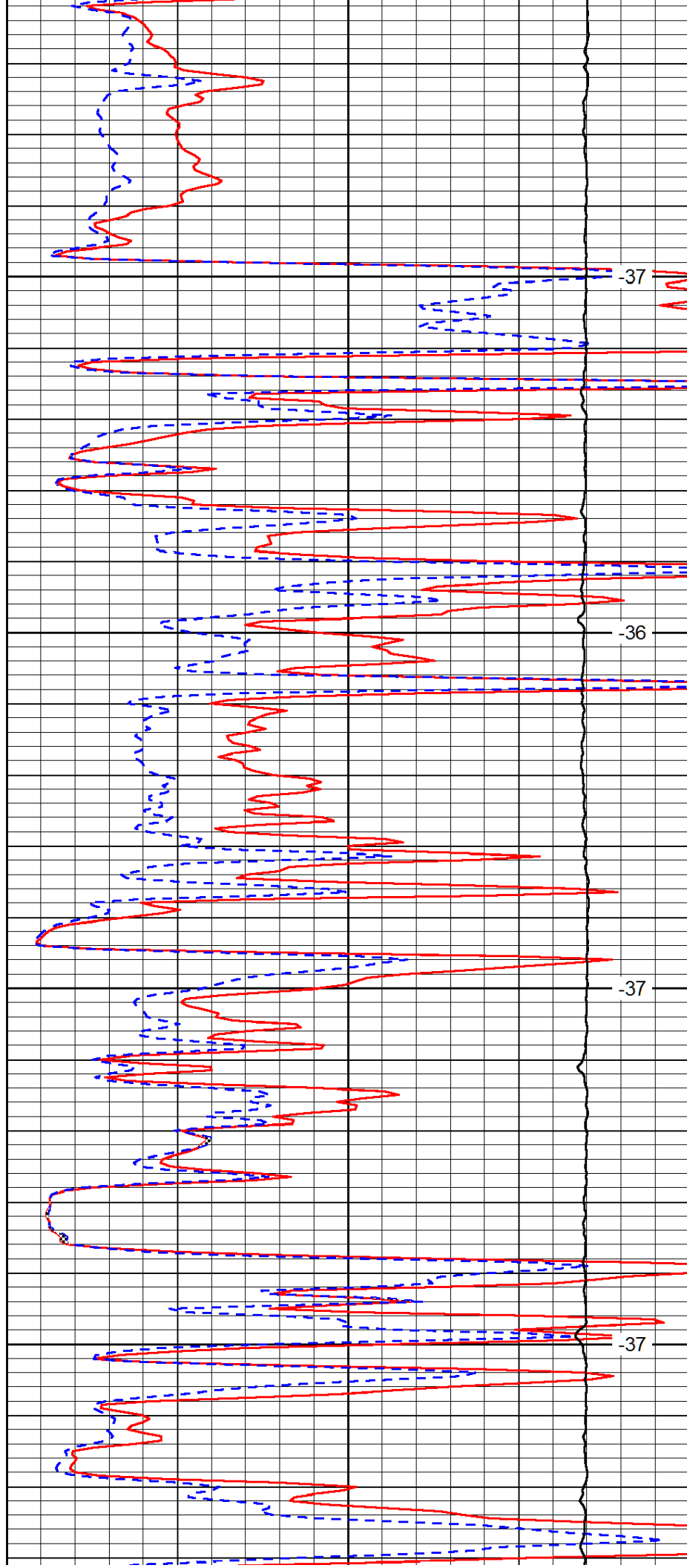


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3500

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3600

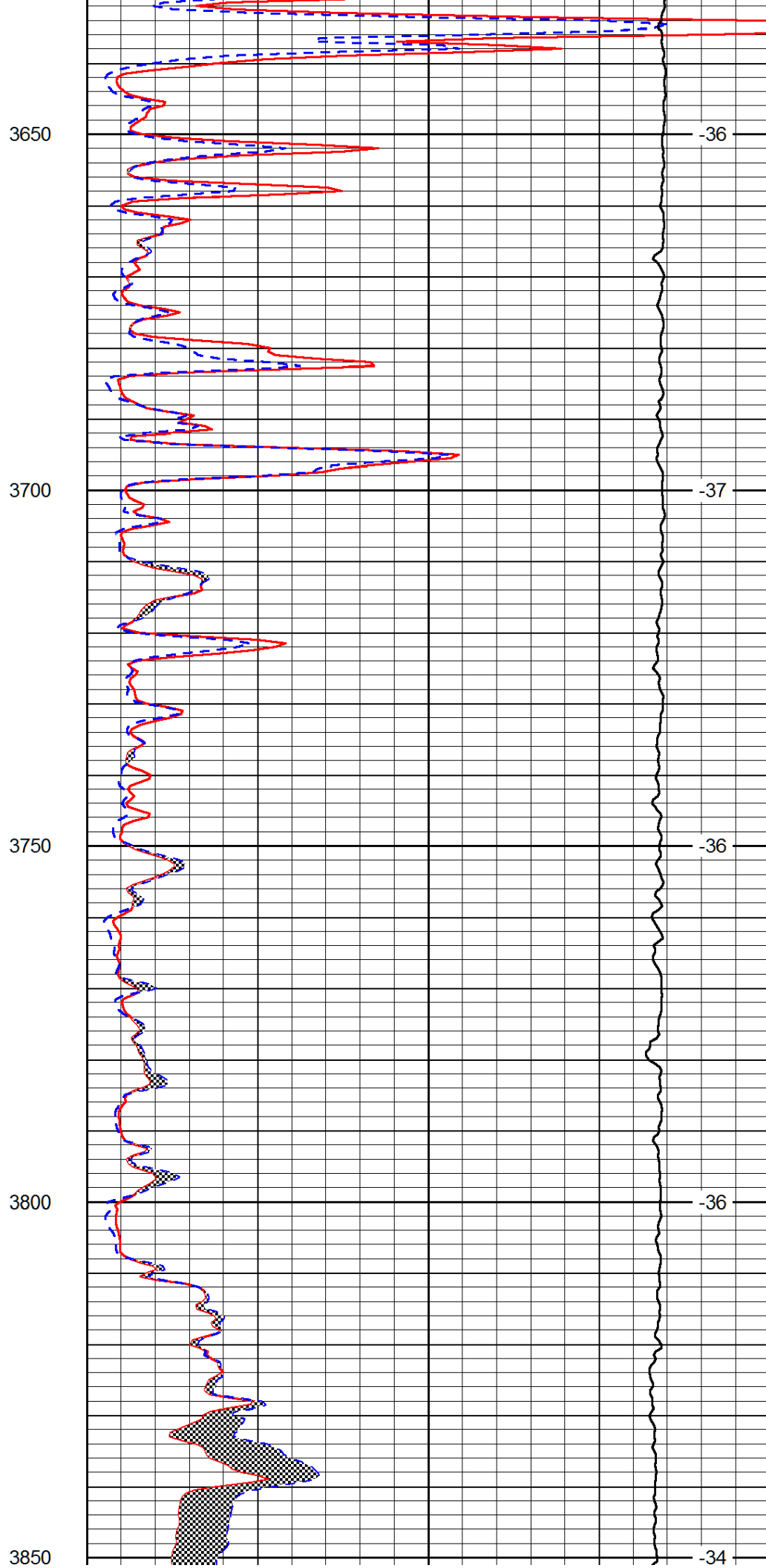
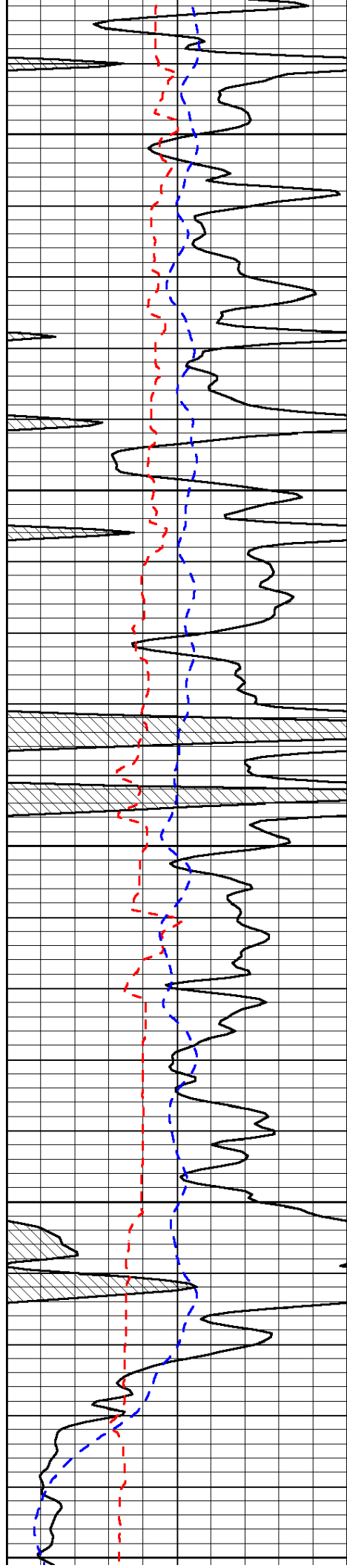


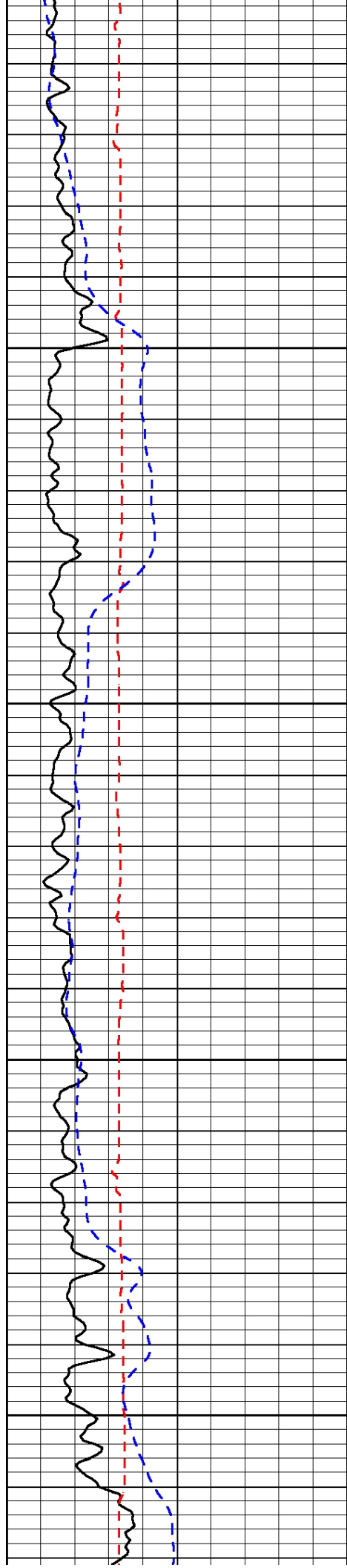
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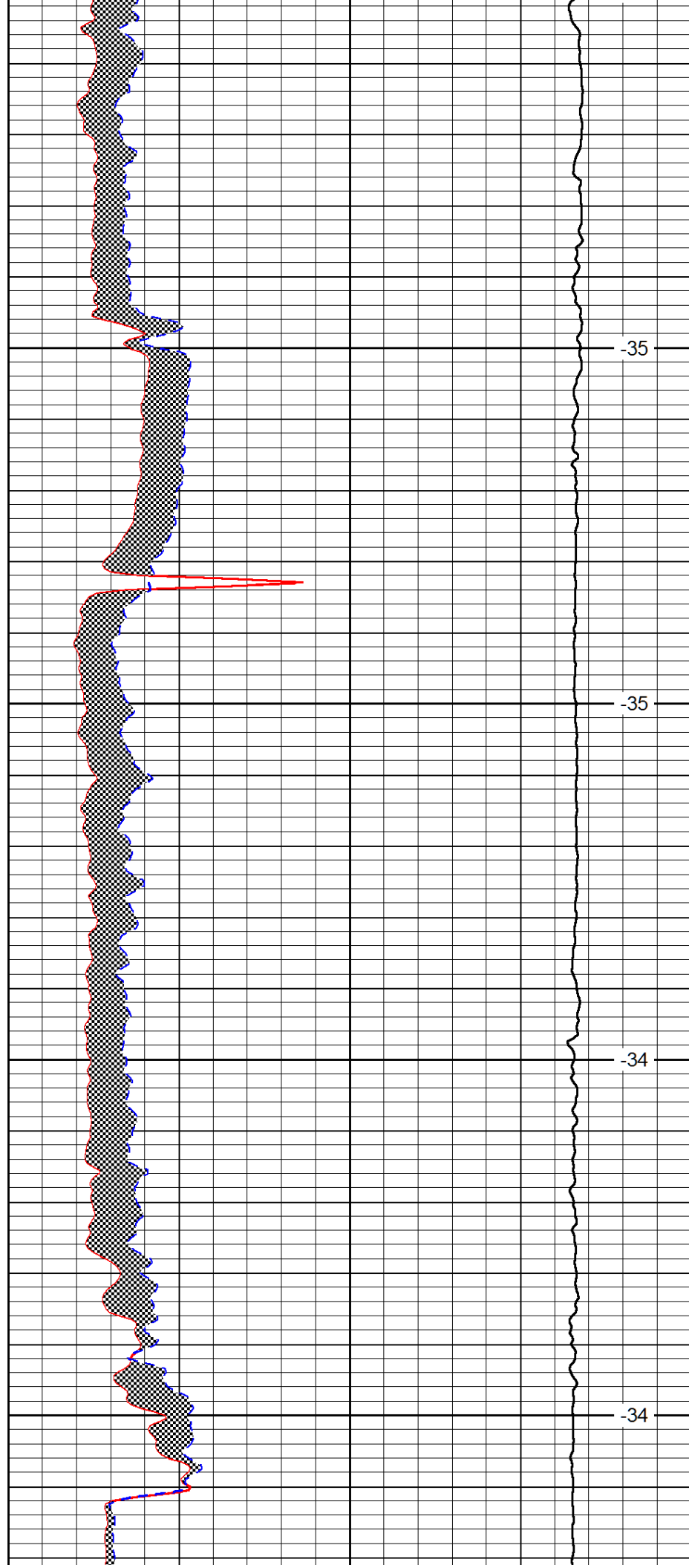


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3950

4000

4050

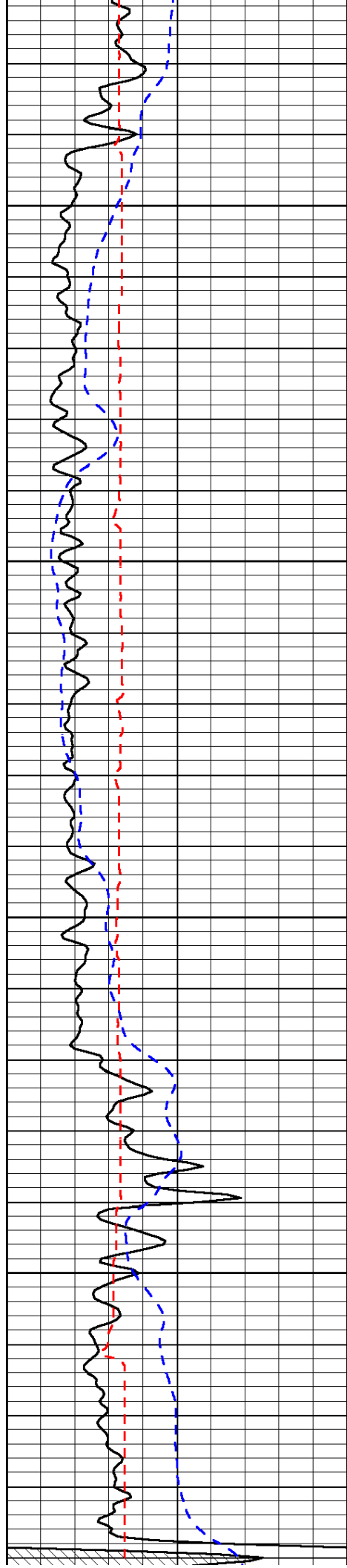


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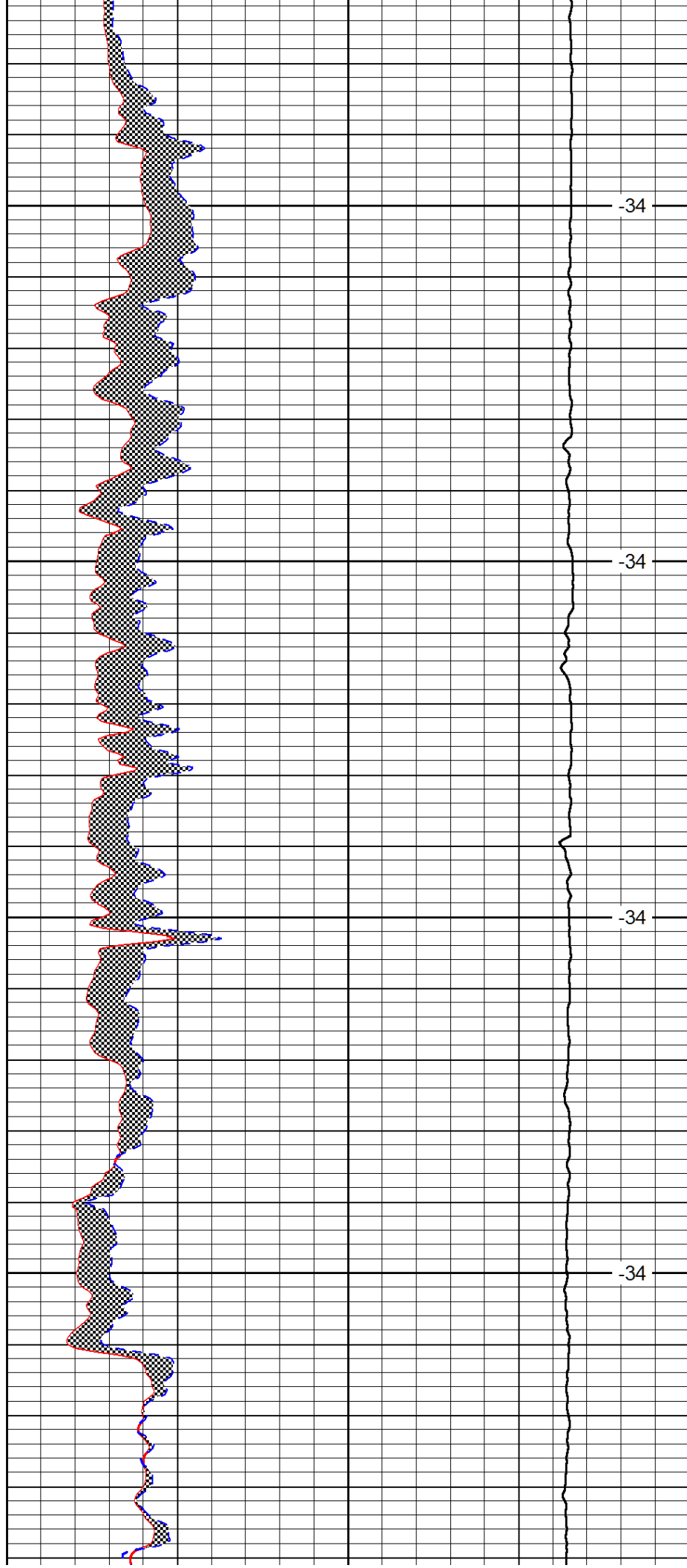


4100

4150

4200

4250

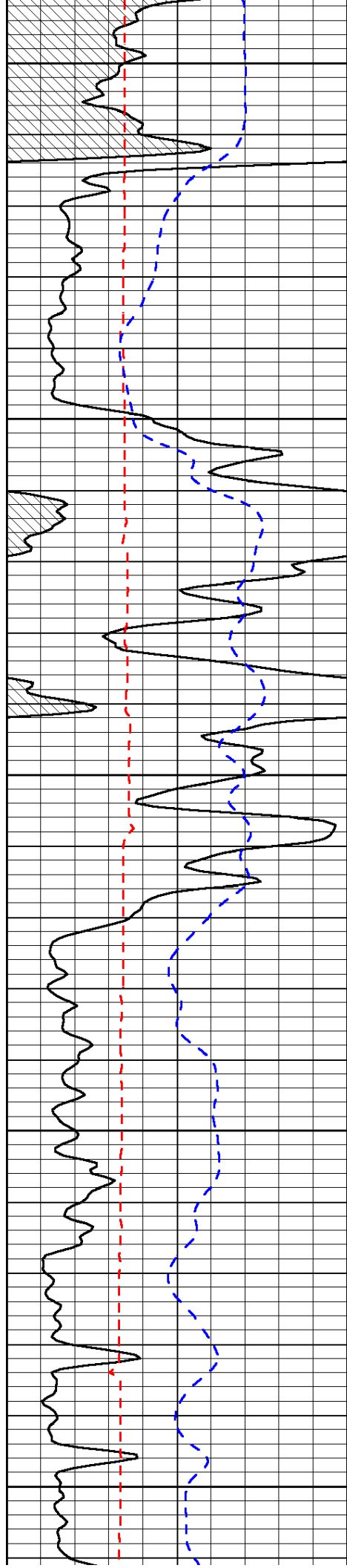


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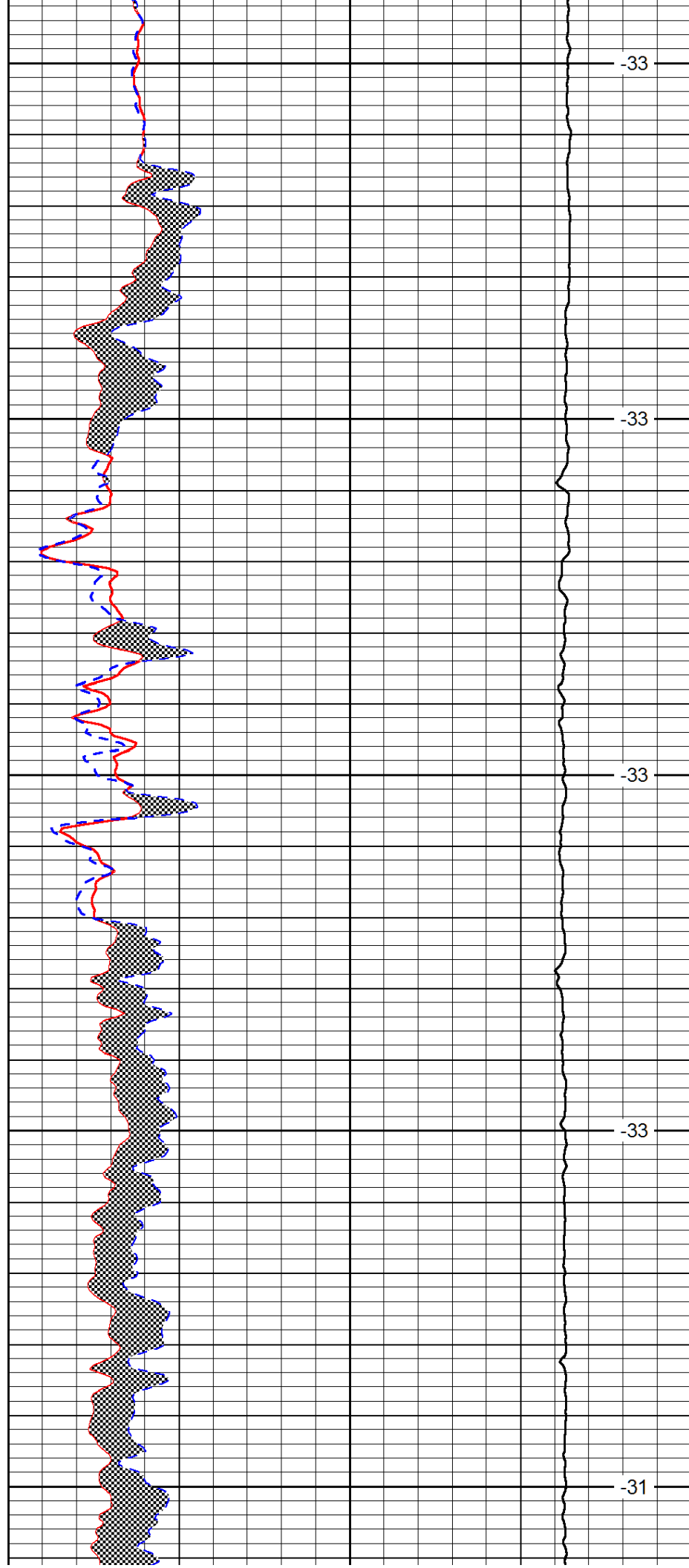
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4350

4400

4450

4500



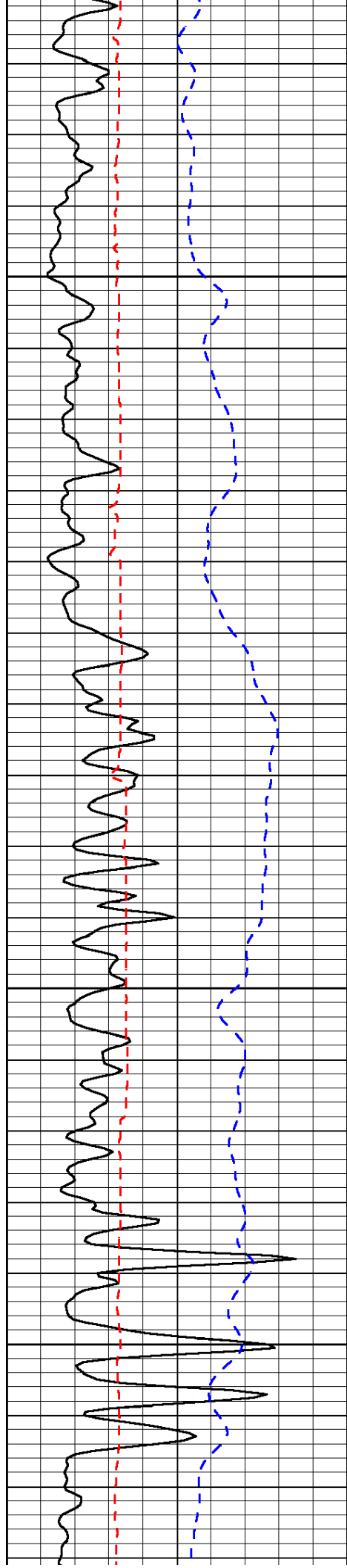
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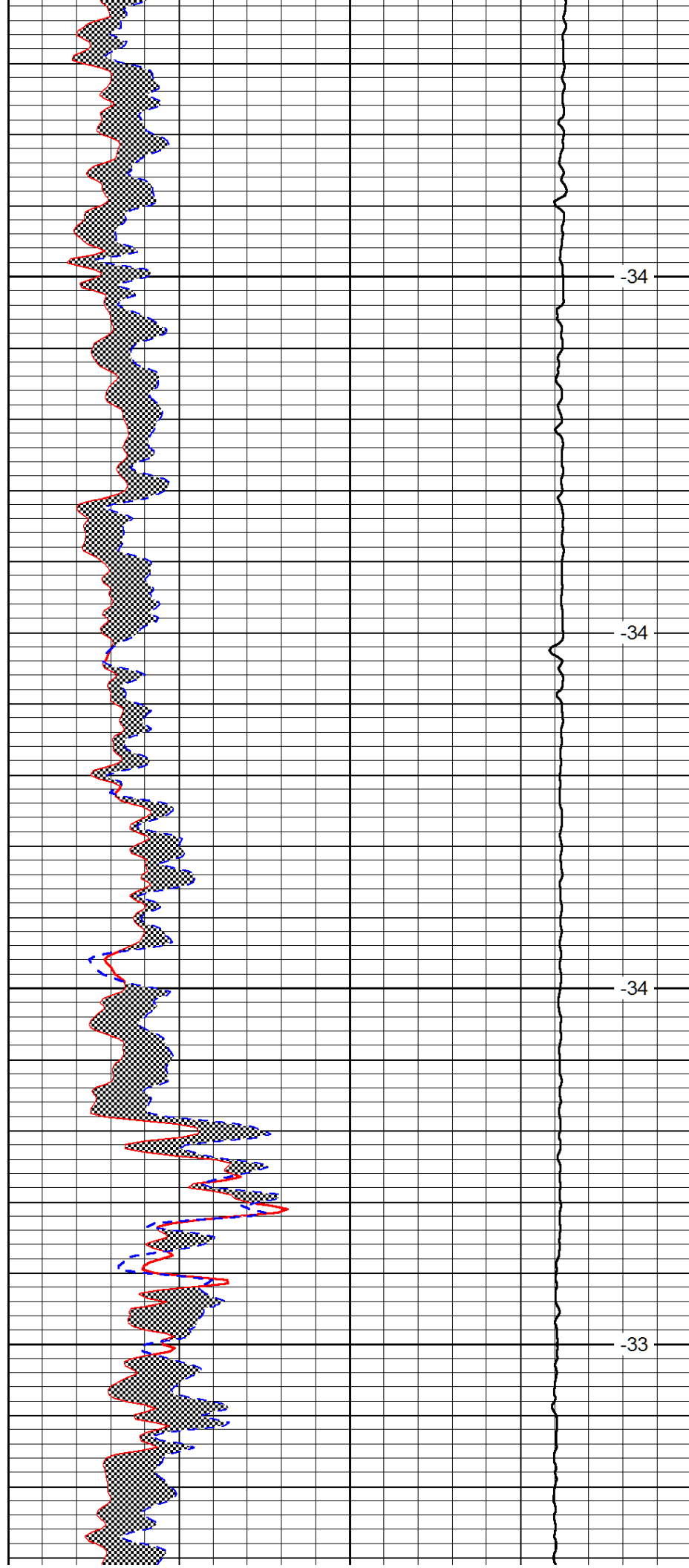


4550

4600

4650

4700



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