



Microresistivity Log

Pioneer Energy Services

API No.

15-153-20,911-00-00

Company **Murfin Drilling Company, Inc.**

Well **CWA "B" #1-5**

Field **Wildcat**

County **Rawlins** State

Kansas

Location **330' FNL & 2310' FWL**

Other Services
CNL/CDL
DIL/BHCS

Sec: 5 Twp: 3S Rge: 26W

Permanent Datum Ground Level Elevation 3359
Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Elevation
K.B. 3369
D.F.
G.L. 3359

Date 11/16/2012

Run Number Two

Depth Driller 5100

Depth Logger 5102

Bottom Logged Interval 5101

Top Log Interval 3500

Casing Driller 8.625 @ 392

Casing Logger 388

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 1,200

Density / Viscosity 9.3 75

pH / Fluid Loss 11.5 6.0

Source of Sample Flowline

Rm @ Meas. Temp 1.45 @ 57

Rmf @ Meas. Temp 1.09 @ 57

Rmc @ Meas. Temp 1.96 @ 57

Source of Rmf / Rmc Charts

Rm @ BHT .65 @ 127

Operating Rig Time 5 Hours

Max Rec. Temp. F 127

Equipment Number 17

Location Hays

Recorded By C. Desaire

Witnessed By Terry McLeod

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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.

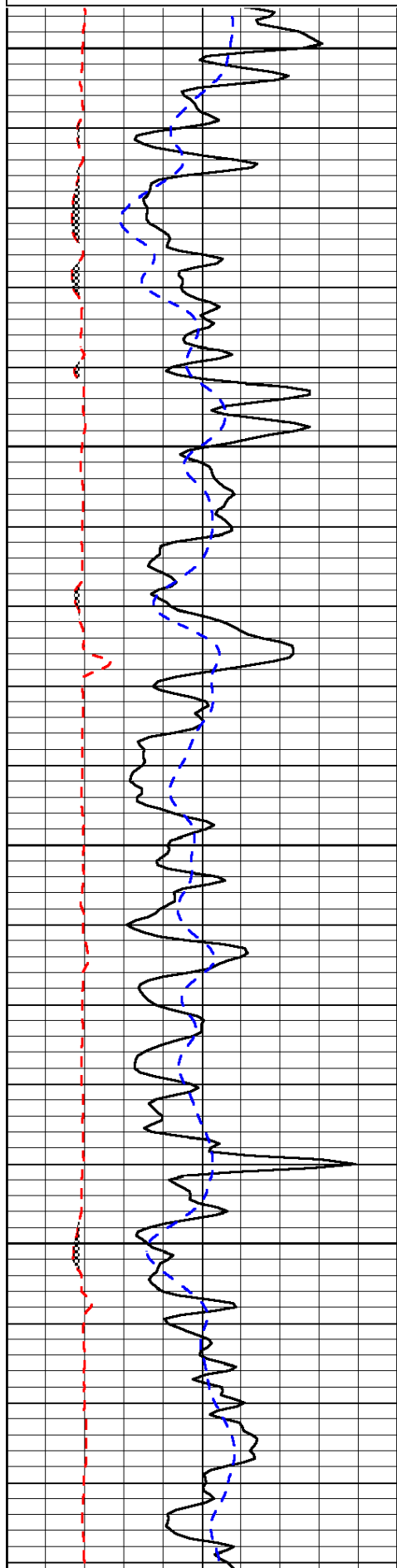
Comments

Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858

McDonald KS, 3 N,
1/2 W, S Into

Database File: c:\warrior\data\murfin_cwa b #1-5\murfinhd.db
Dataset Pathname: dil\murfstk
Presentation Format: micro
Dataset Creation: Fri Nov 16 22:59:16 2012
Charted by: Depth in Feet scaled 1:240

Charted by: Depth in Feet scaled 1:2.15		
0	Gamma Ray	150
6	Micro Log Caliper (GAPI)	16
-200	SP (mV)	0

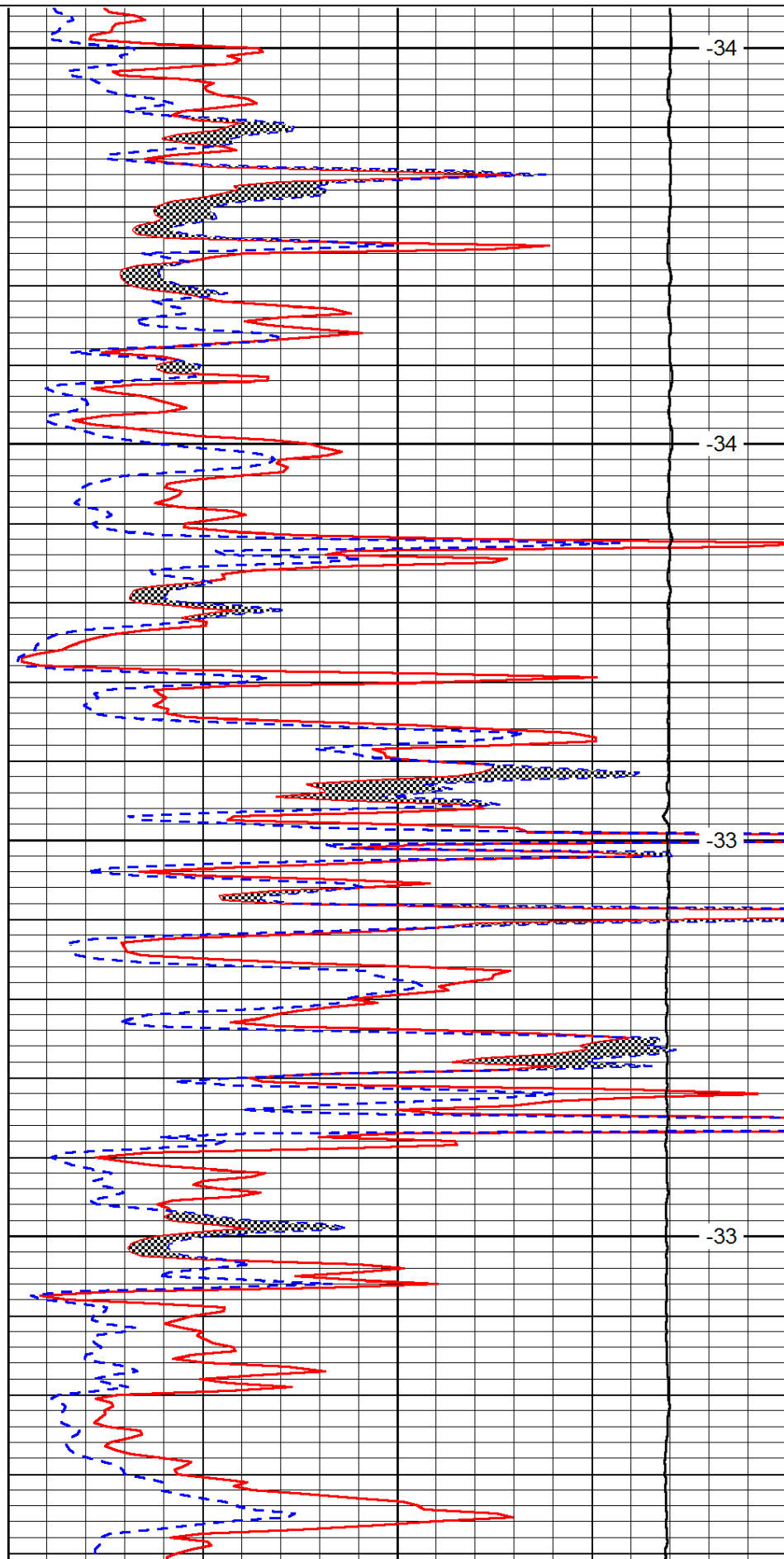


3500

3550

3600

3650



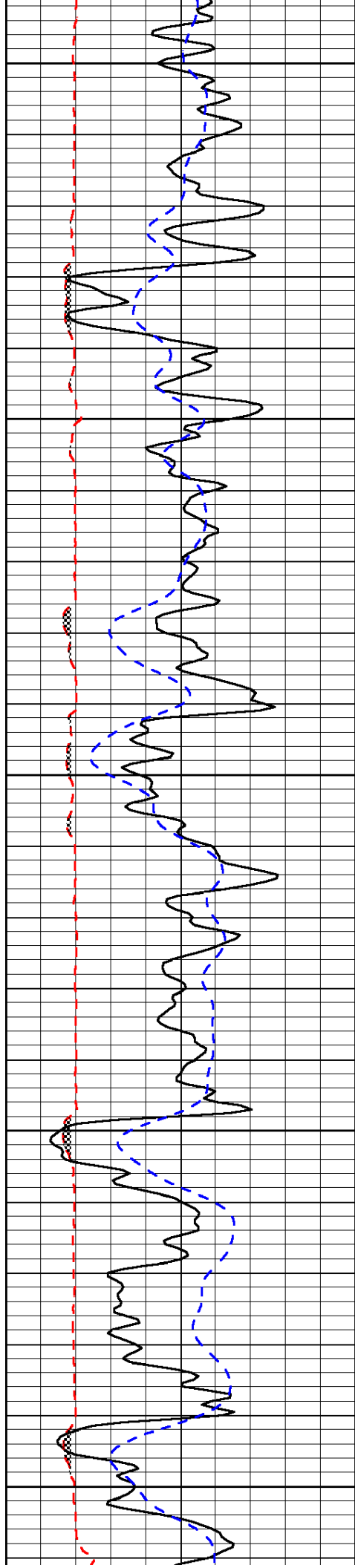
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-34

-33

-33

LSPD



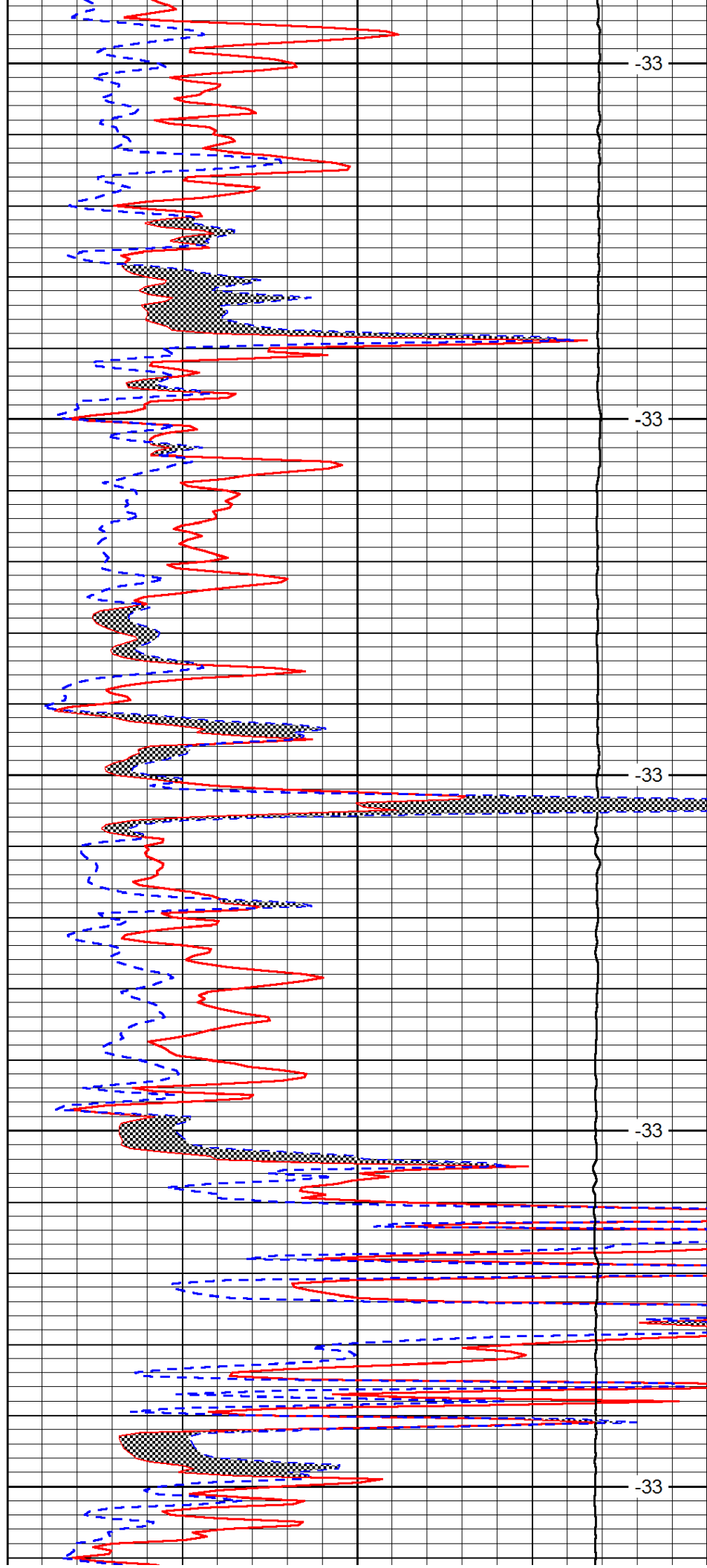
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3750

3800

3850

3900



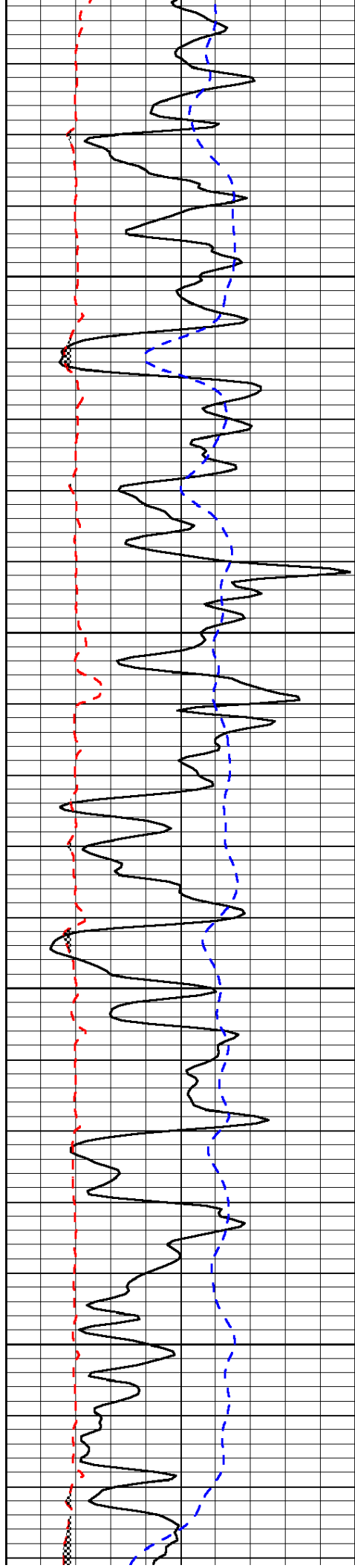
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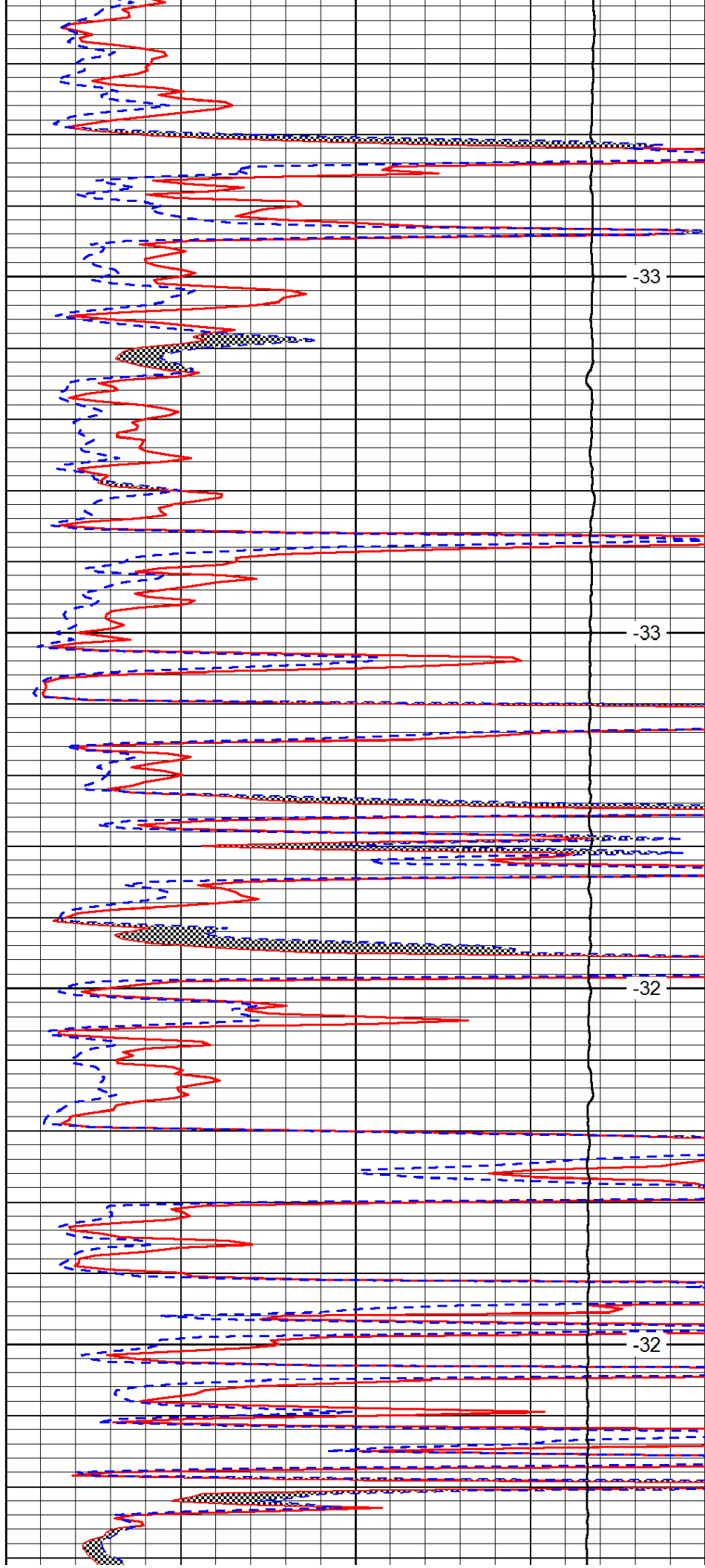


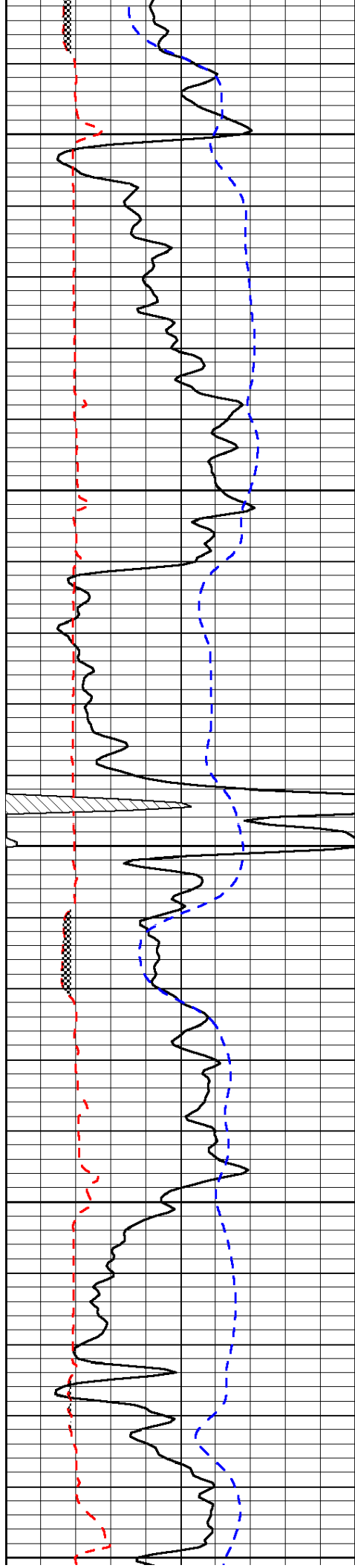
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4000

4050

4100





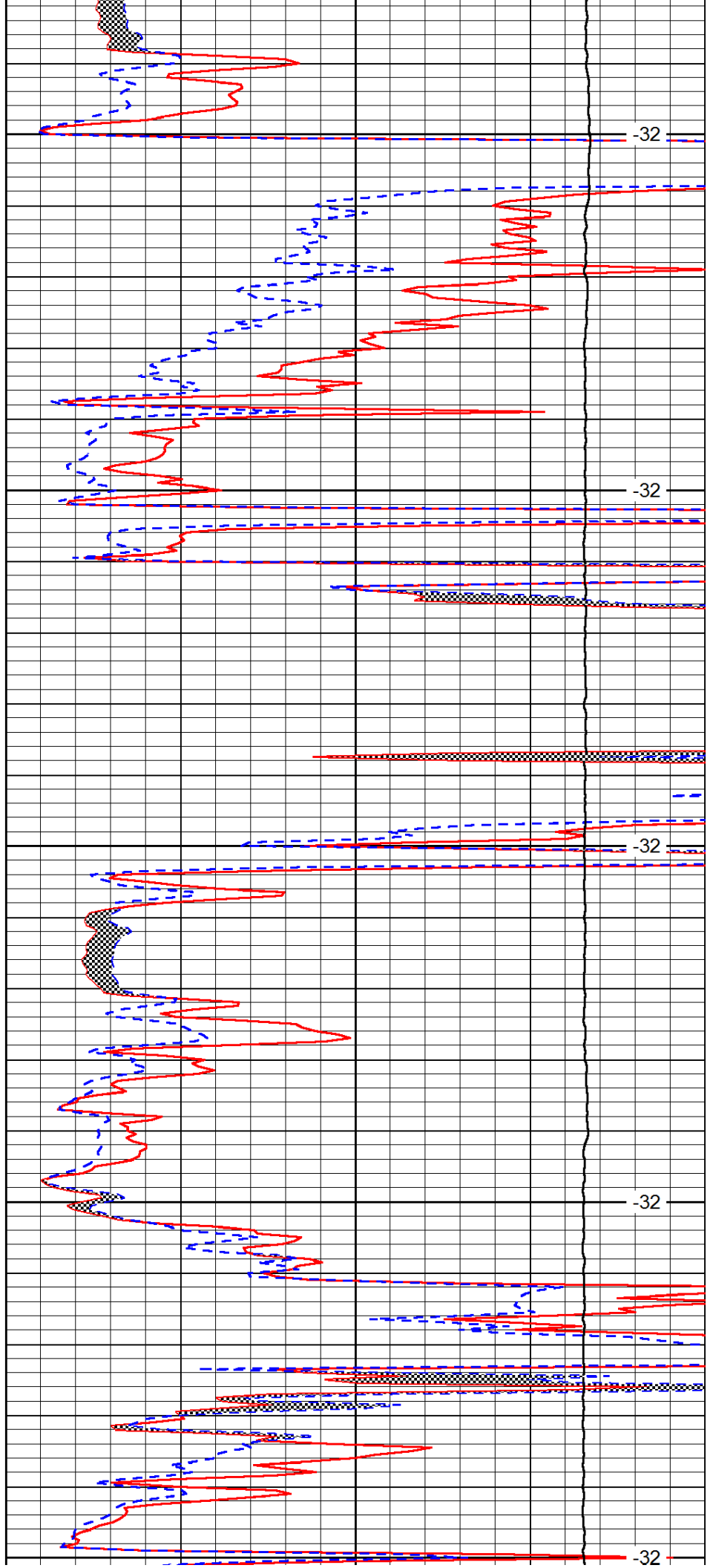
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4200

4250

4300

4350



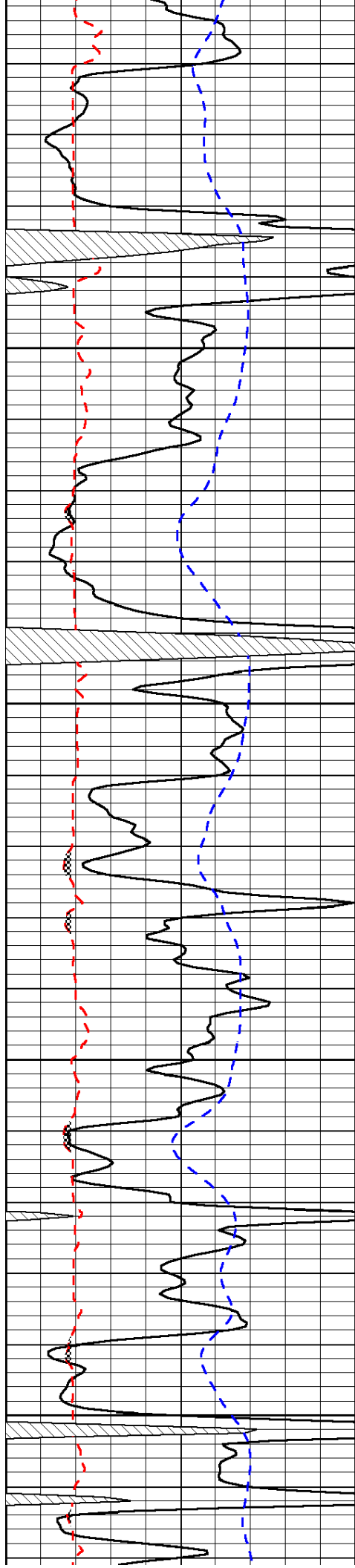
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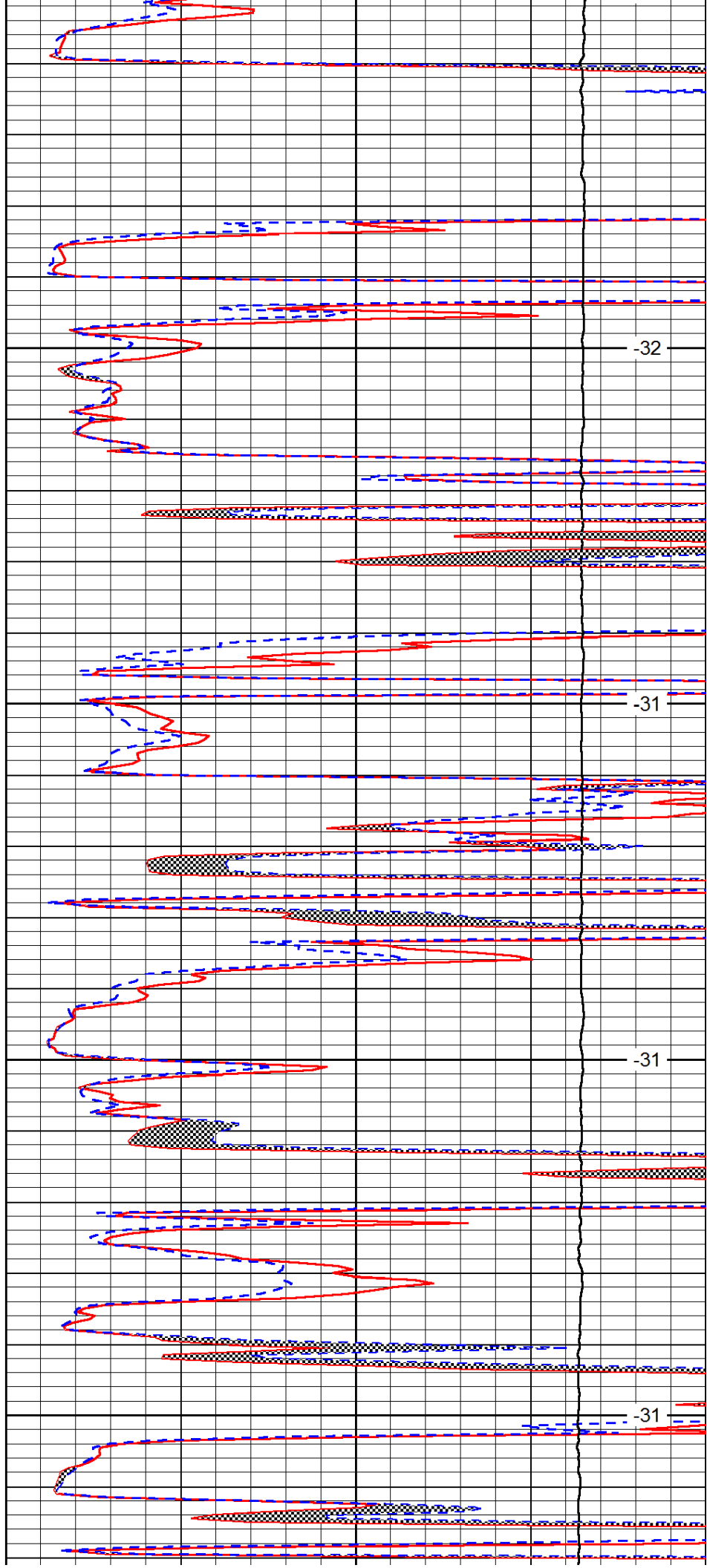


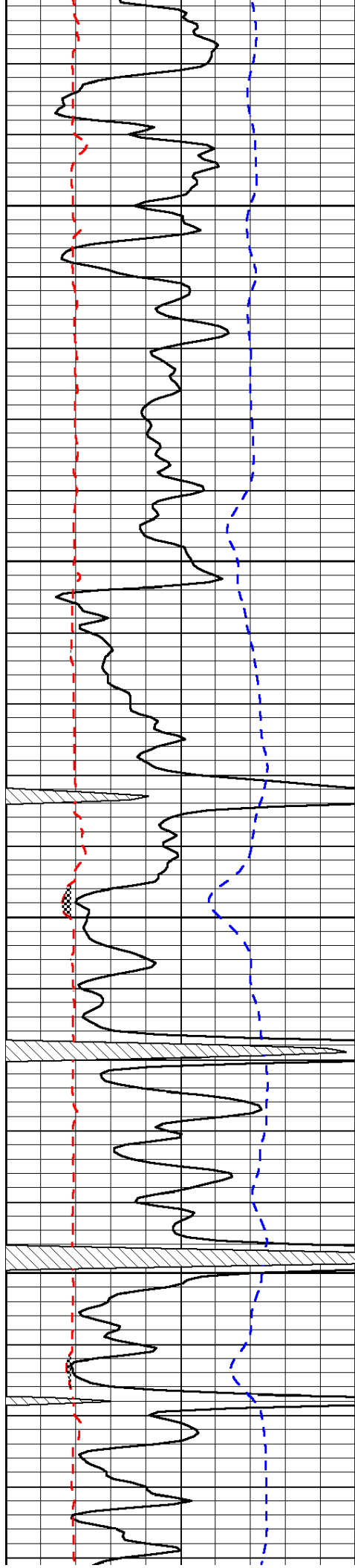
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4500

4550



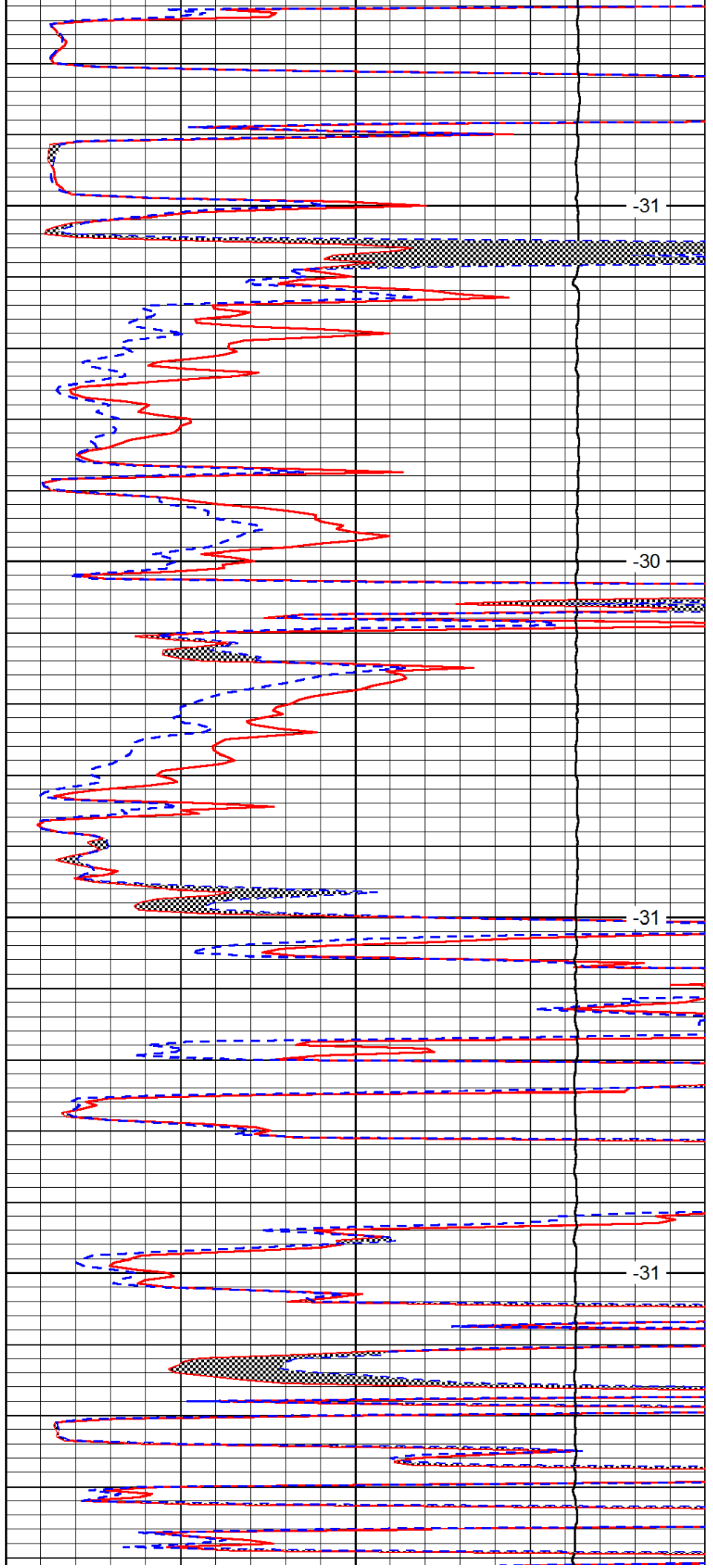


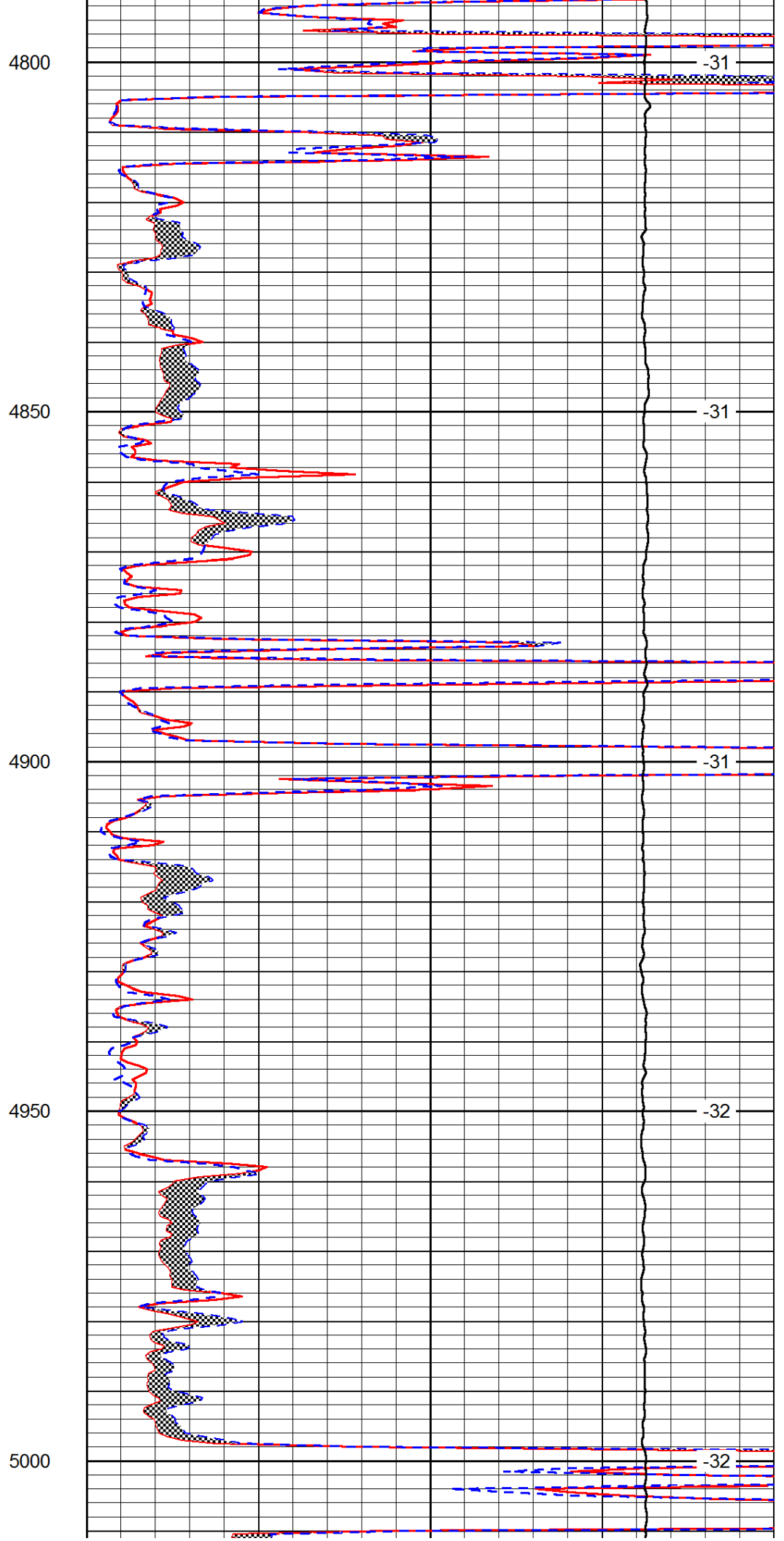
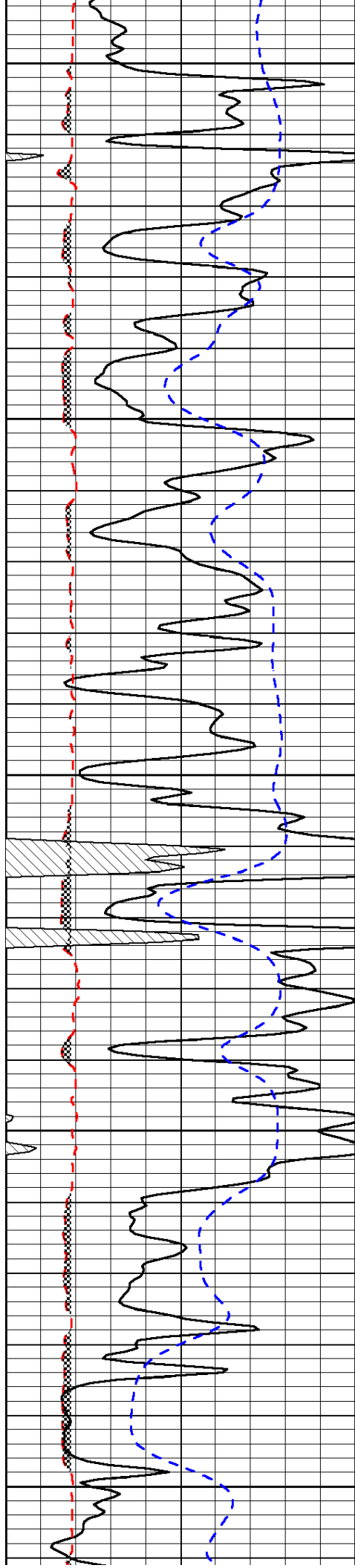
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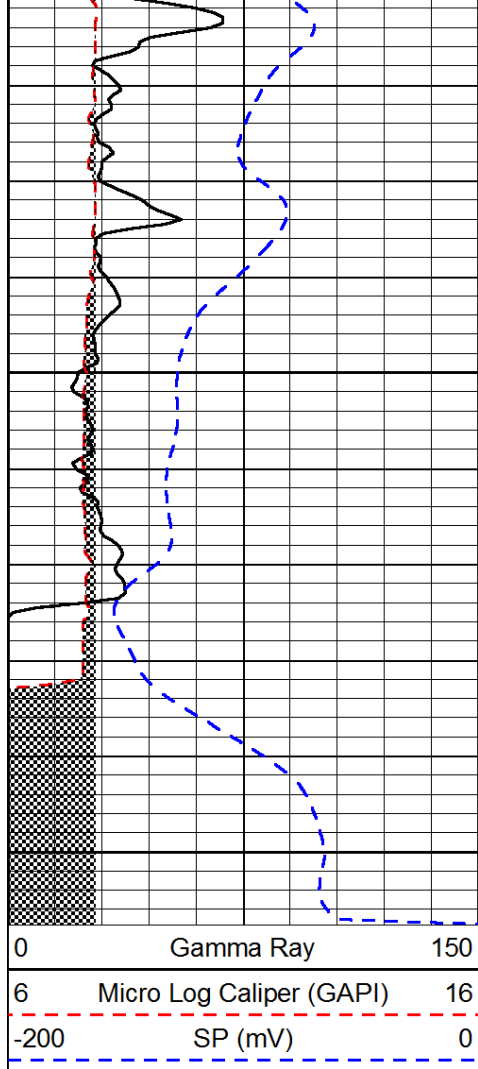
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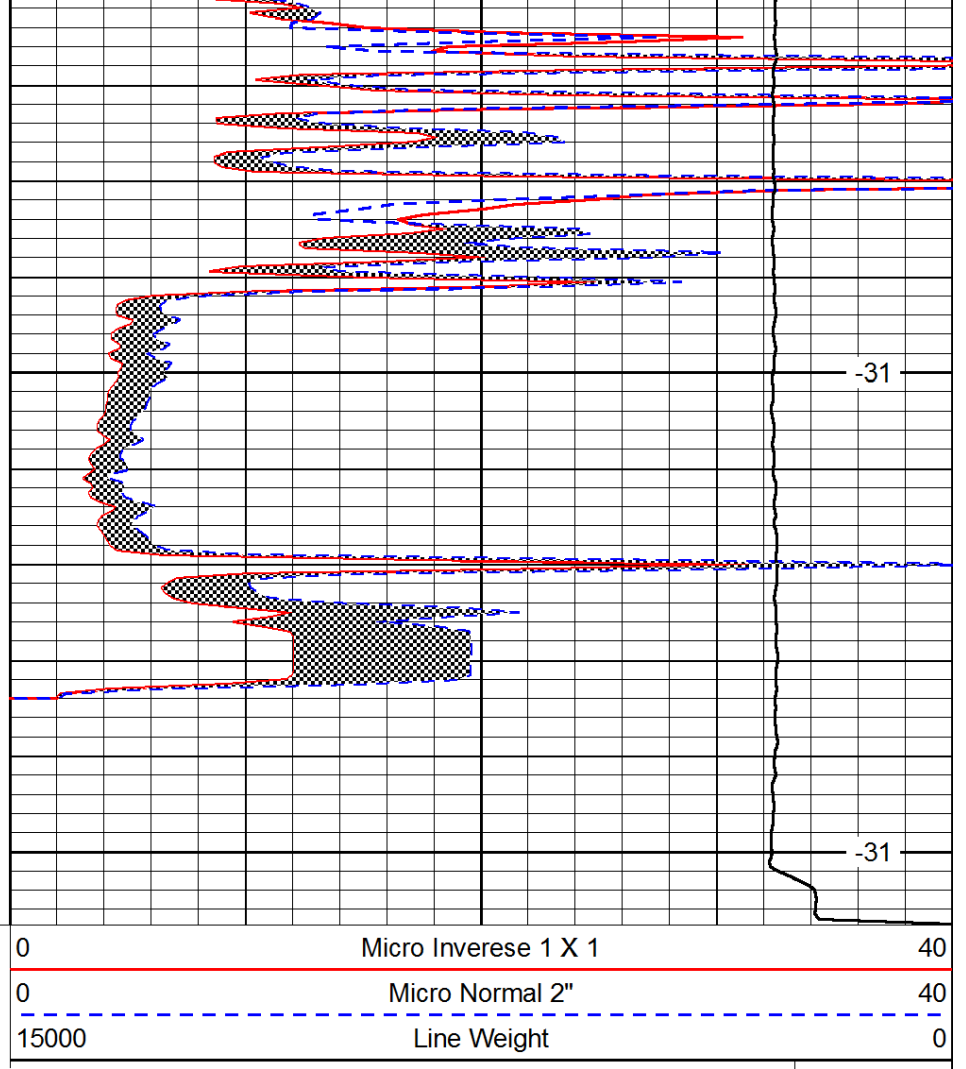






5050

5100



-31

-31

LSPD