



Microresistivity Log

Pioneer Energy Services

API No.

15-101-22,409-00-00

Company Flatirons Resources LLC.

Well Copenhaver #13-22

Field Wildcat

County Lane State

Kansas

Location

2310' FSL & 330' FWL

Sec: 22 Twp: 16 S Rge: 28 W

Permanent Datum Ground Level Elevation 2683
Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Other Services
CNL/CDL
DIL

Elevation
K.B. 2693
D.F. 2683
G.L. 2683

Date 11/28/2012

Run Number Two

Depth Driller 4600

Depth Logger 4605

Bottom Logged Interval 4604

Top Log Interval 3600

Casing Driller 8.625 @ 225

Casing Logger 223

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 1500

Density / Viscosity 9.0 52

pH / Fluid Loss 10.0 6.6

Source of Sample Flowline

Rm @ Meas. Temp 1.30 @ 70

Rmf @ Meas. Temp .98 @ 70

Rmc @ Meas. Temp 1.76 @ 70

Source of Rmf / Rmc Charts

Rm @ BHT .75 @ 122

Operating Rig Time 4 Hours

Max Rec. Temp. F 122

Equipment Number 15

Location Hays

Recorded By D. Kerr

Witnessed By Clayton Erickson

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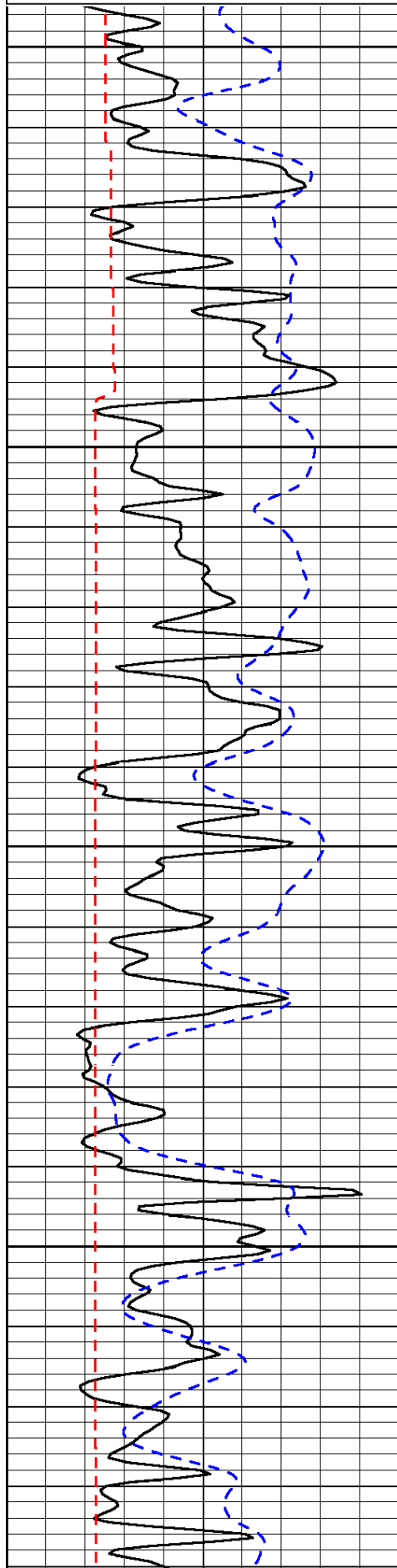
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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
Shields KS, East to Loreda RD,
2 North, 3/4 East, Left at Y through Cattle Gate,
1 East North Into

Database File: c:\warrior\data\flatirons_copenhaver #13-22\flatirons_copenhaver_1_32hd.db
Dataset Pathname: DIL/ftistk
Presentation Format: micro
Dataset Creation: Wed Nov 28 16:32:15 2012
Charted by: Depth in Feet scaled 1:240

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



3550

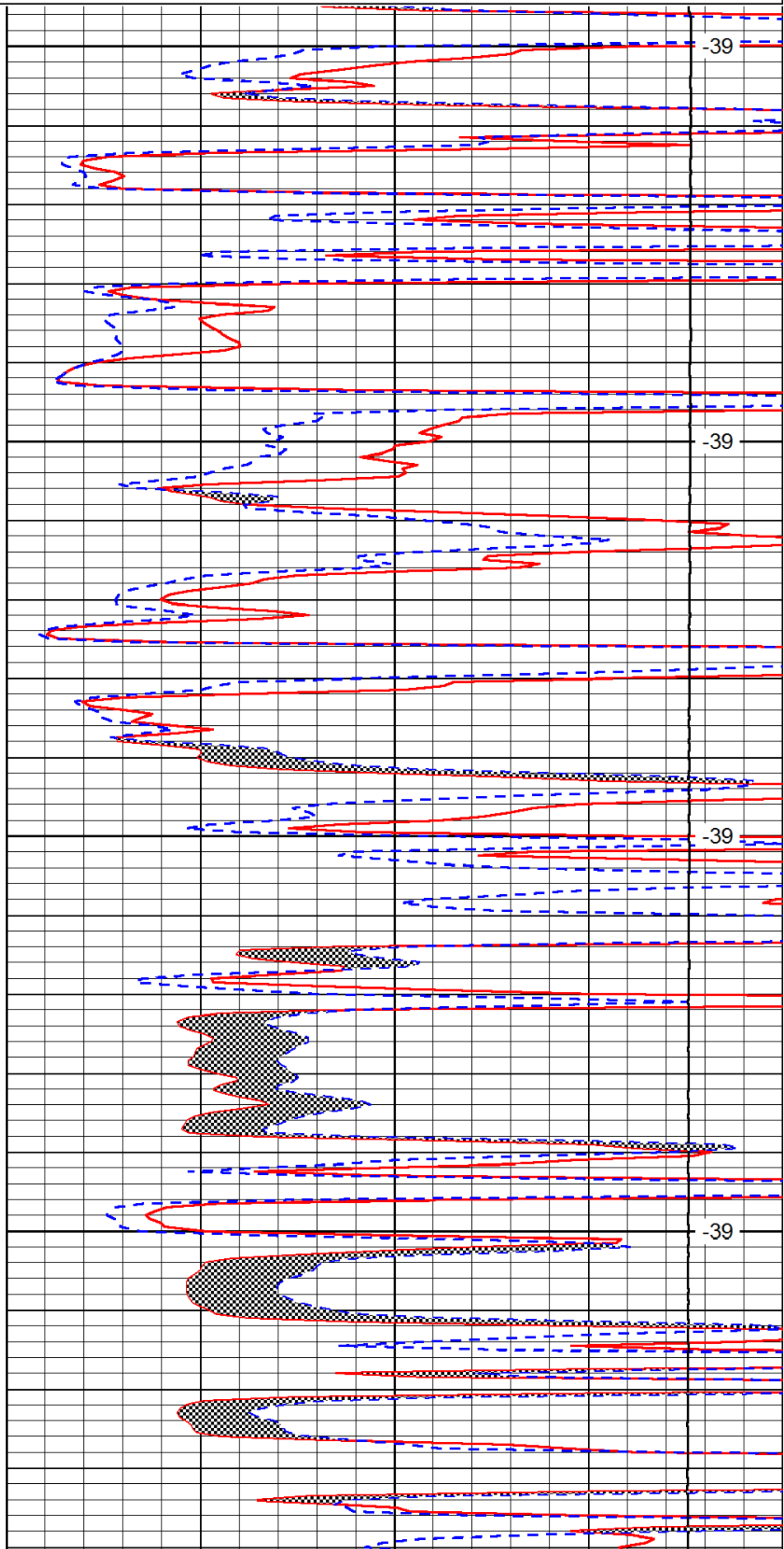
3600

3650

3700

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
15000	Line Weight	0

LSPD

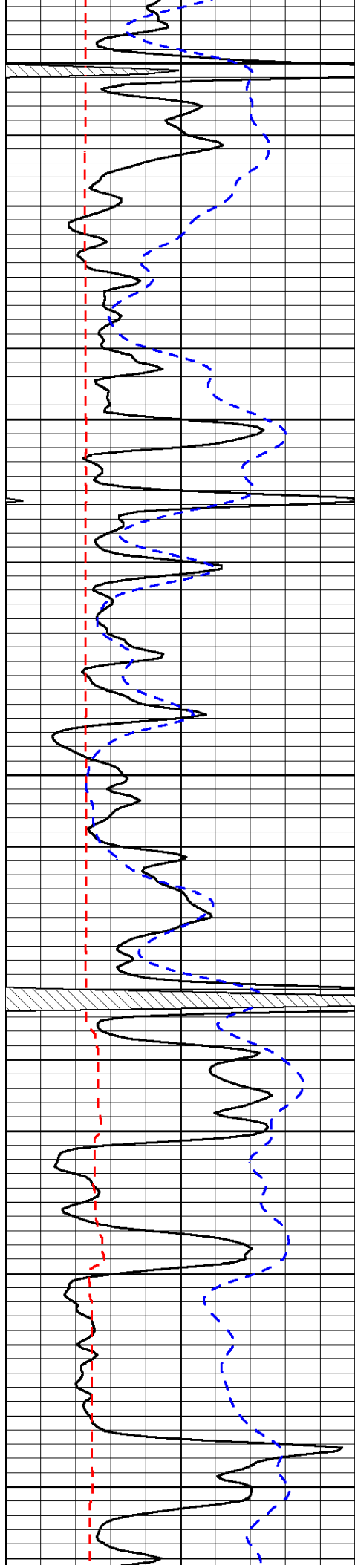


-39

-39

-39

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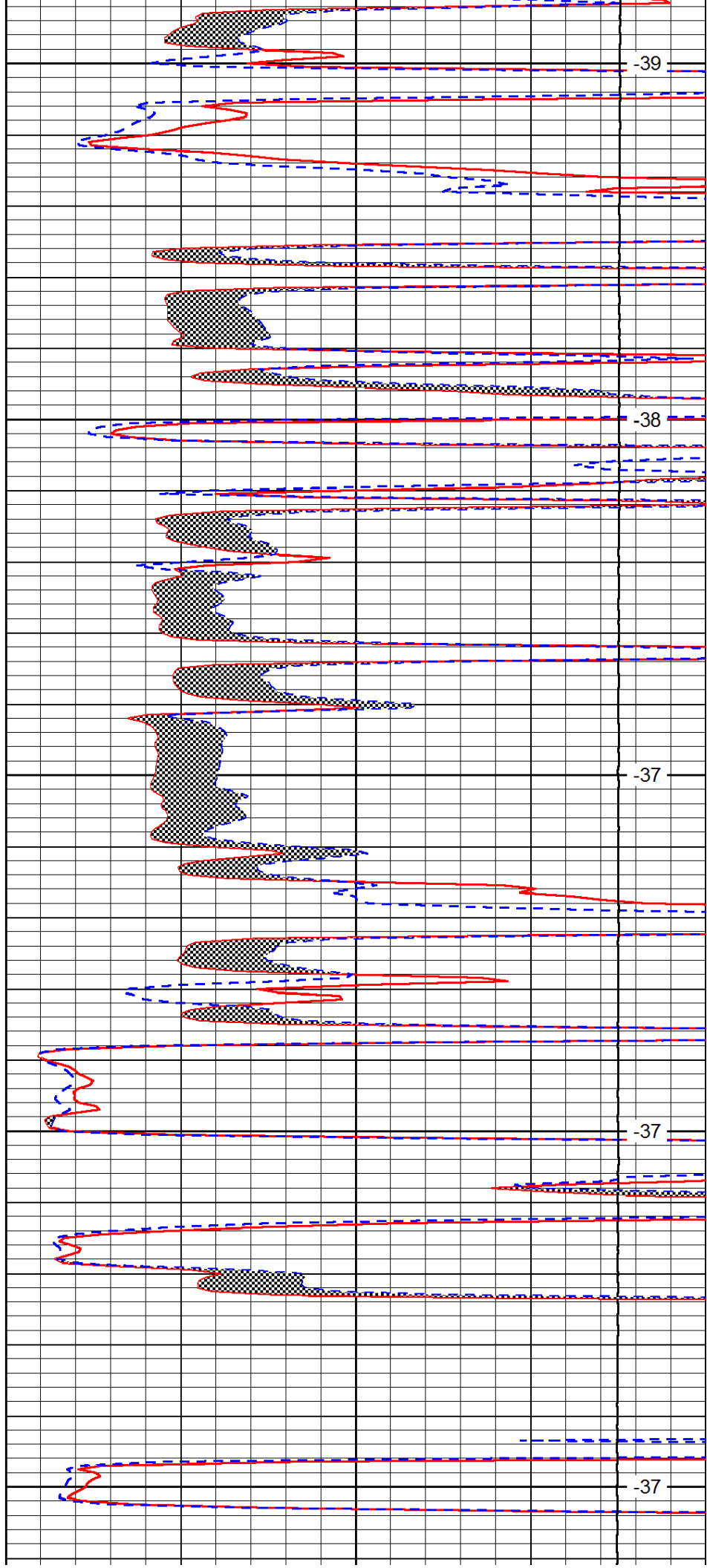
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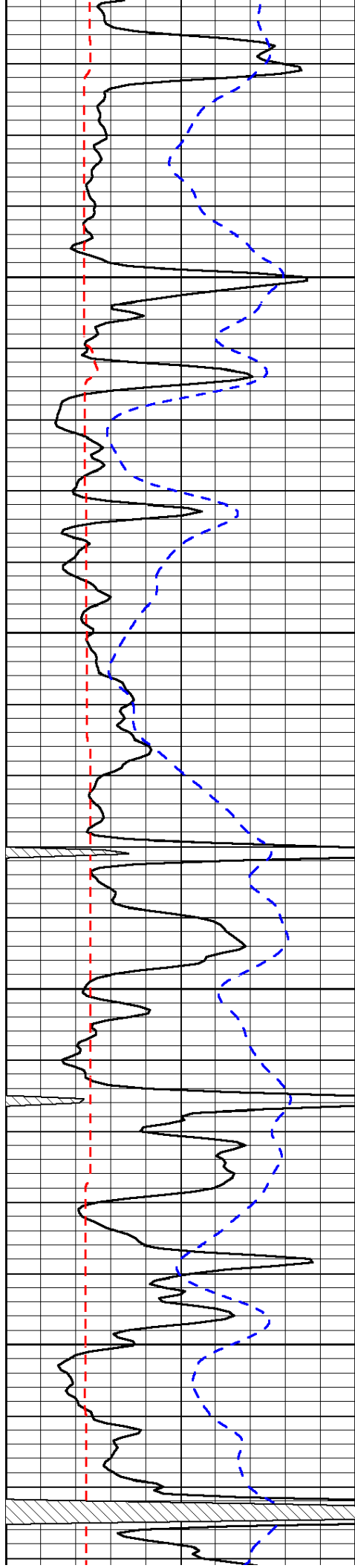
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3850

3900

3950



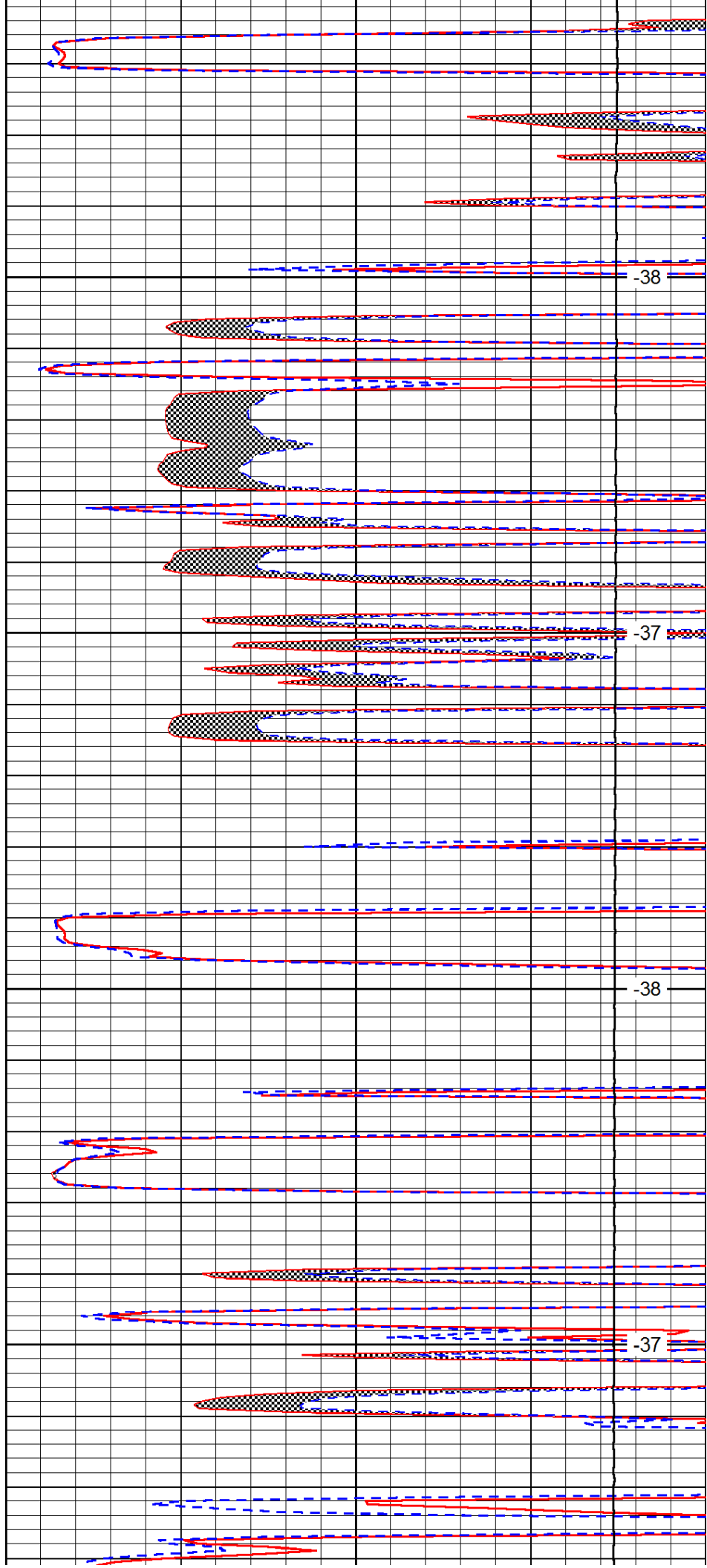


4000

4050

4100

4150

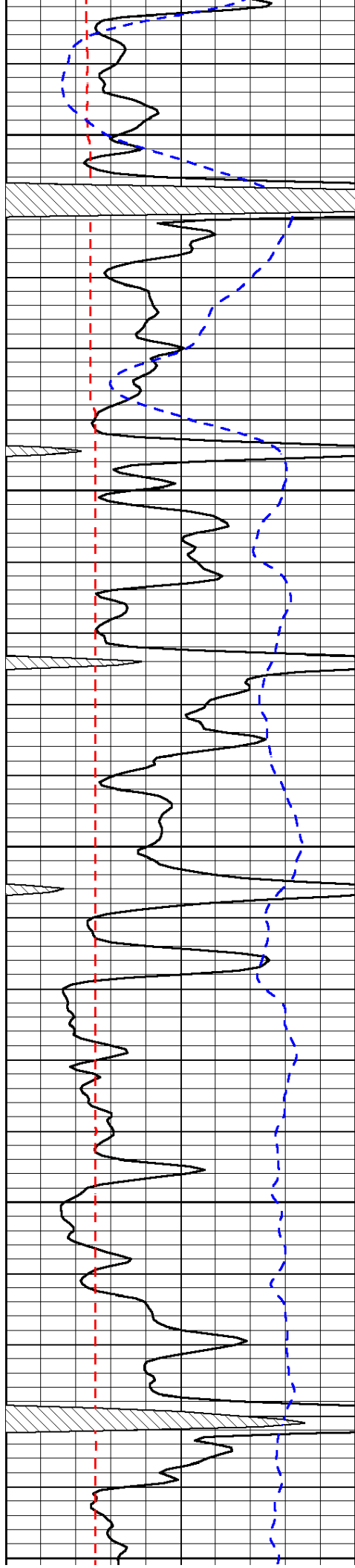


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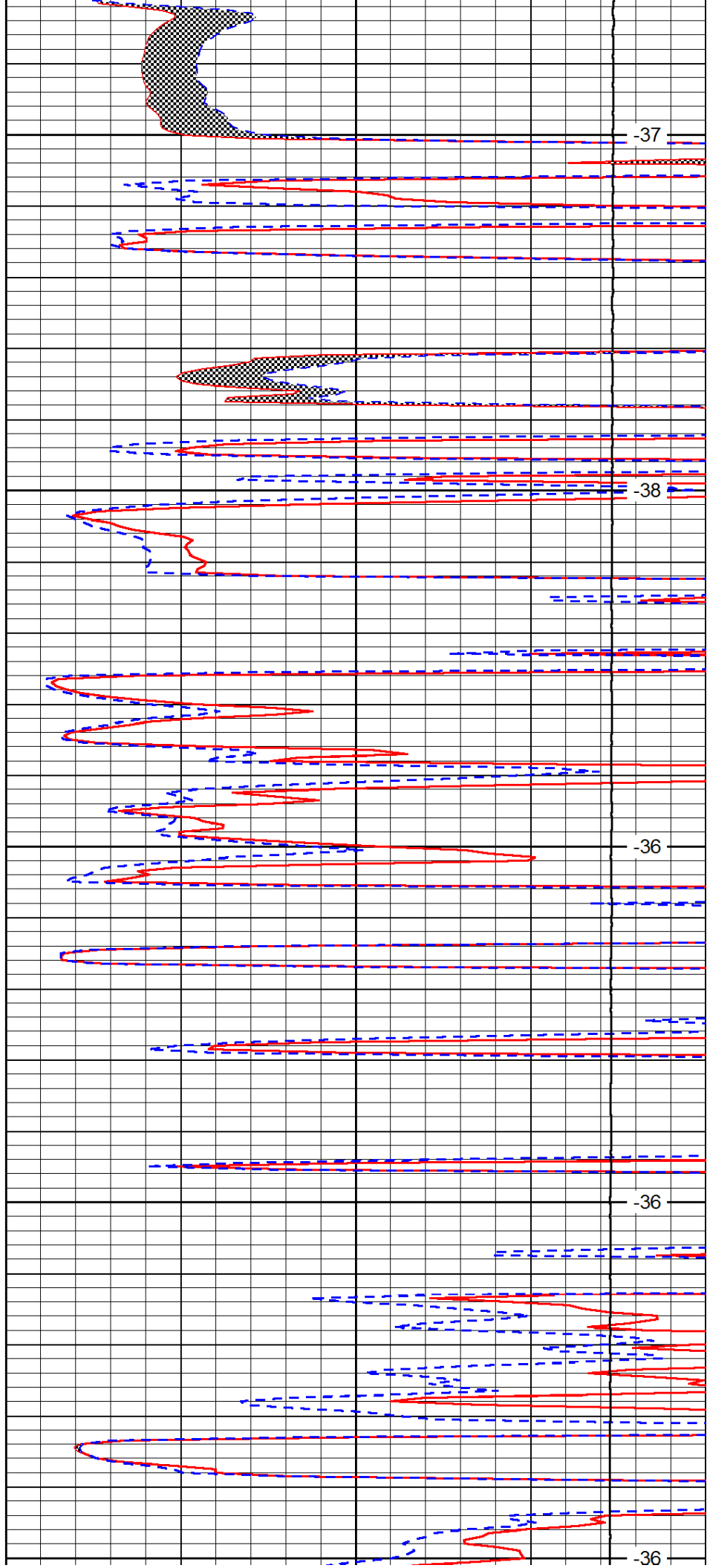
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4250

4300

4350

4400



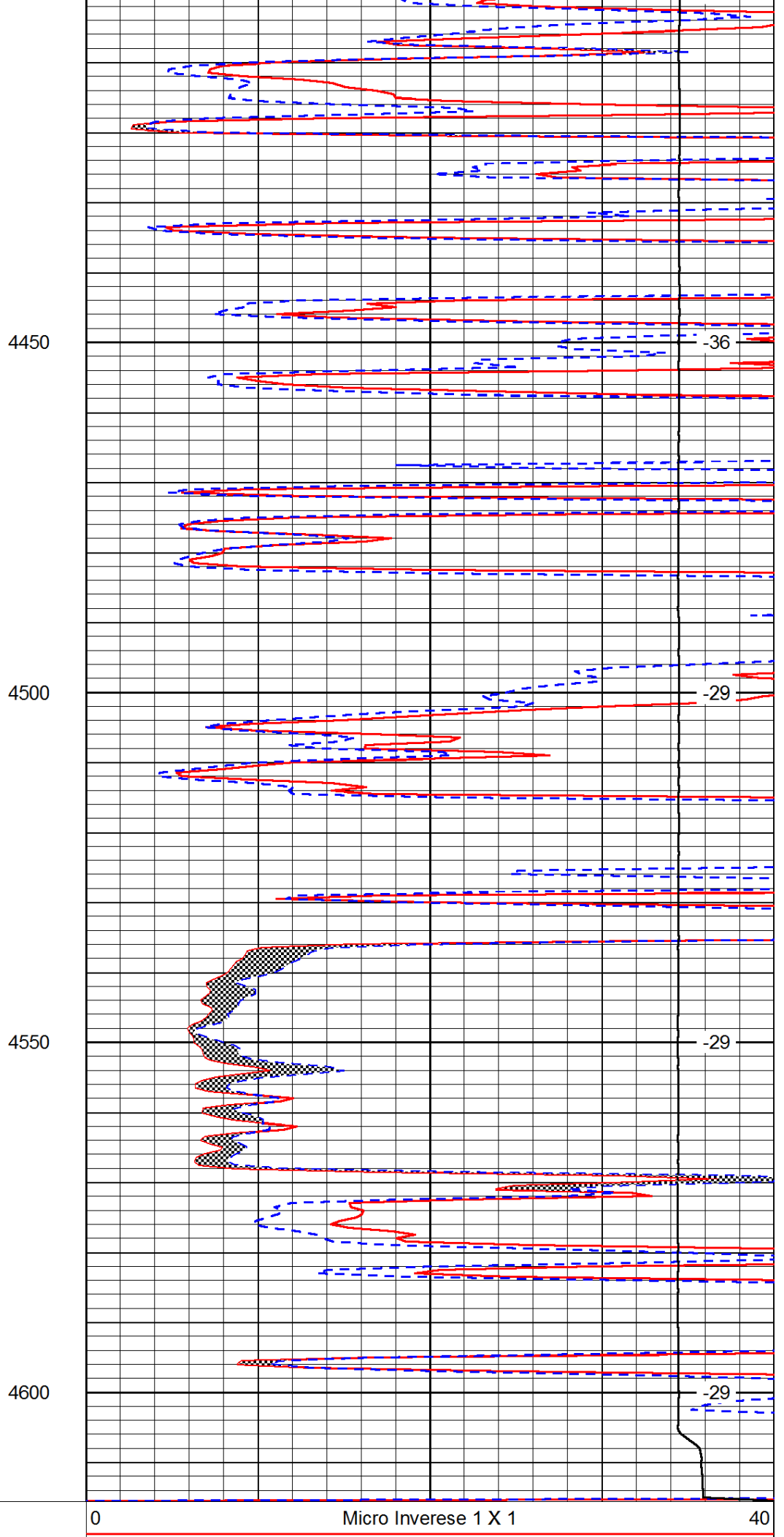
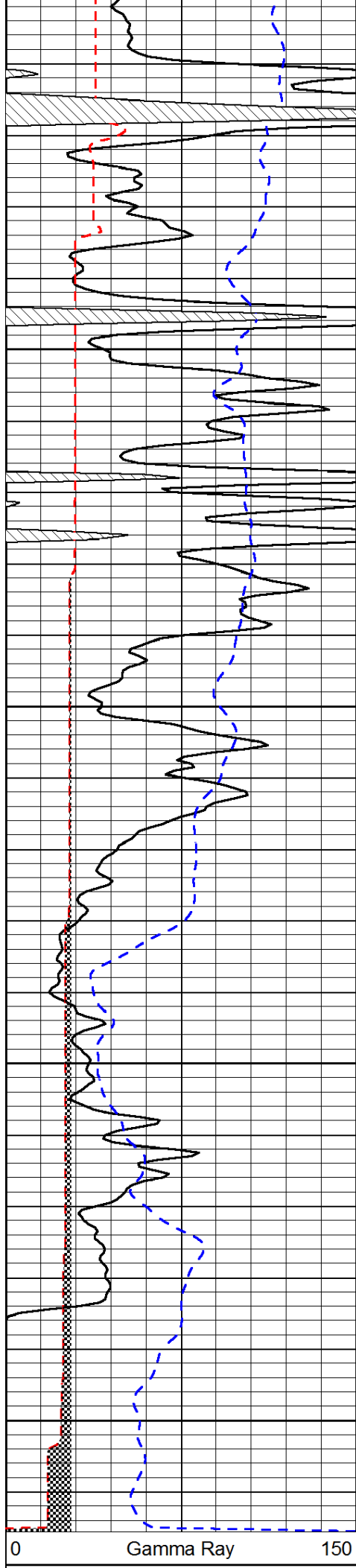
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