



Microresistivity Log

Pioneer Energy Services

API No.

15-145-21713-00-00

Company H&D Exploration, LLC

Well Mermis #1

Field Ash Creek

County Pawnee State

Kansas

Location 2462' FNL & 1341' FEL

Sec: 2 Twp: 21 S Rge: 16 W

Other Services
CNL/CDL
DIL

Permanent Datum Ground Level Elevation 1995

Log Measured From Kelly Bushing 12 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Elevation
K.B. 2007
D.F. 1995
G.L. 1995

Date 3-29-2013

Run Number Two

Depth Driller 3915

Depth Logger 3917

Bottom Logged Interval 3916

Top Log Interval 3200

Casing Driller 8.625 @ 1000

Casing Logger 1000

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 9600

Density / Viscosity 9.2 49

pH / Fluid Loss 10 10

Source of Sample Flowline

Rm @ Meas. Temp 0.40 @ 60

Rmf @ Meas. Temp 0.30 @ 60

Rmc @ Meas. Temp 0.54 @ 60

Source of Rmf / Rmc Charts

Rm @ BHT 0.20 @ 117

Operating Rig Time 3 1/2 Hours

Max Rec. Temp. F 117

Equipment Number 91

Location Hays

Recorded By Y. Ruiz

Witnessed By D. Schmidt

Kurt Talbott

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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.

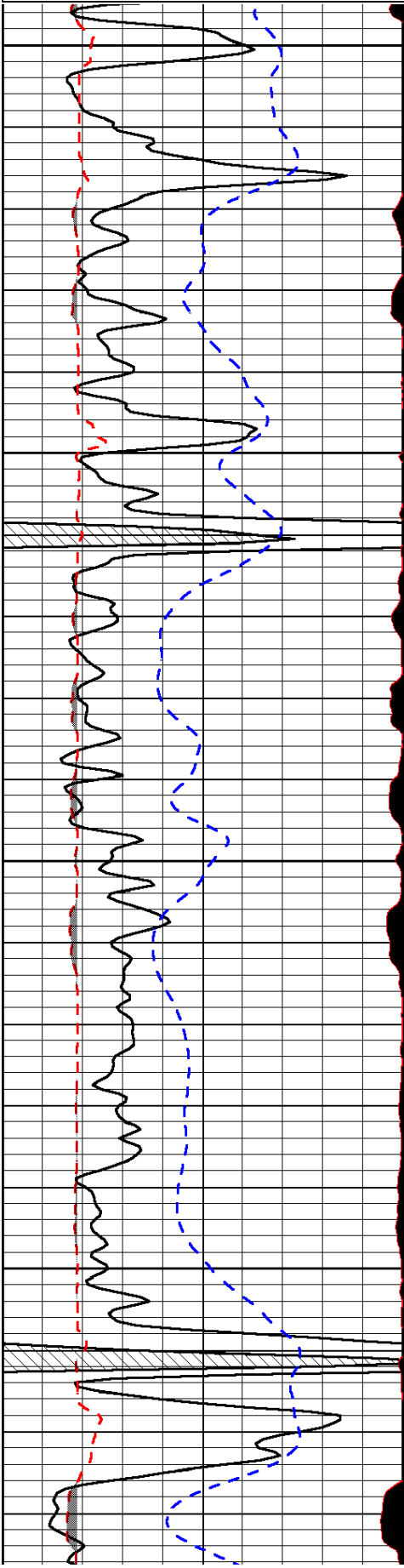
Comments

Thank you for using Log-Tech, Inc.
(785) 625-3858

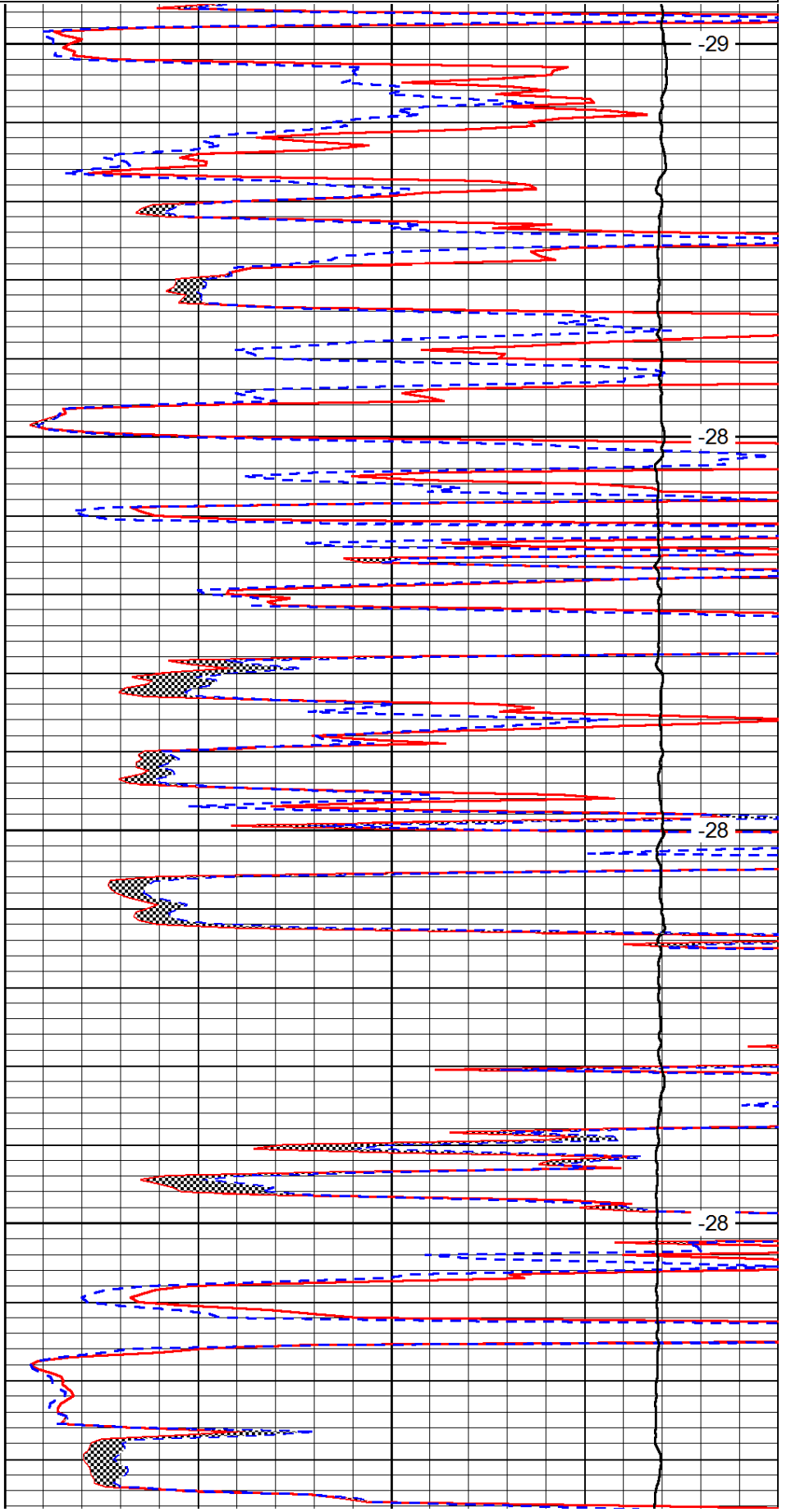
Pawnee Rock,
3 West on T Rd, 1/2 South,
West into

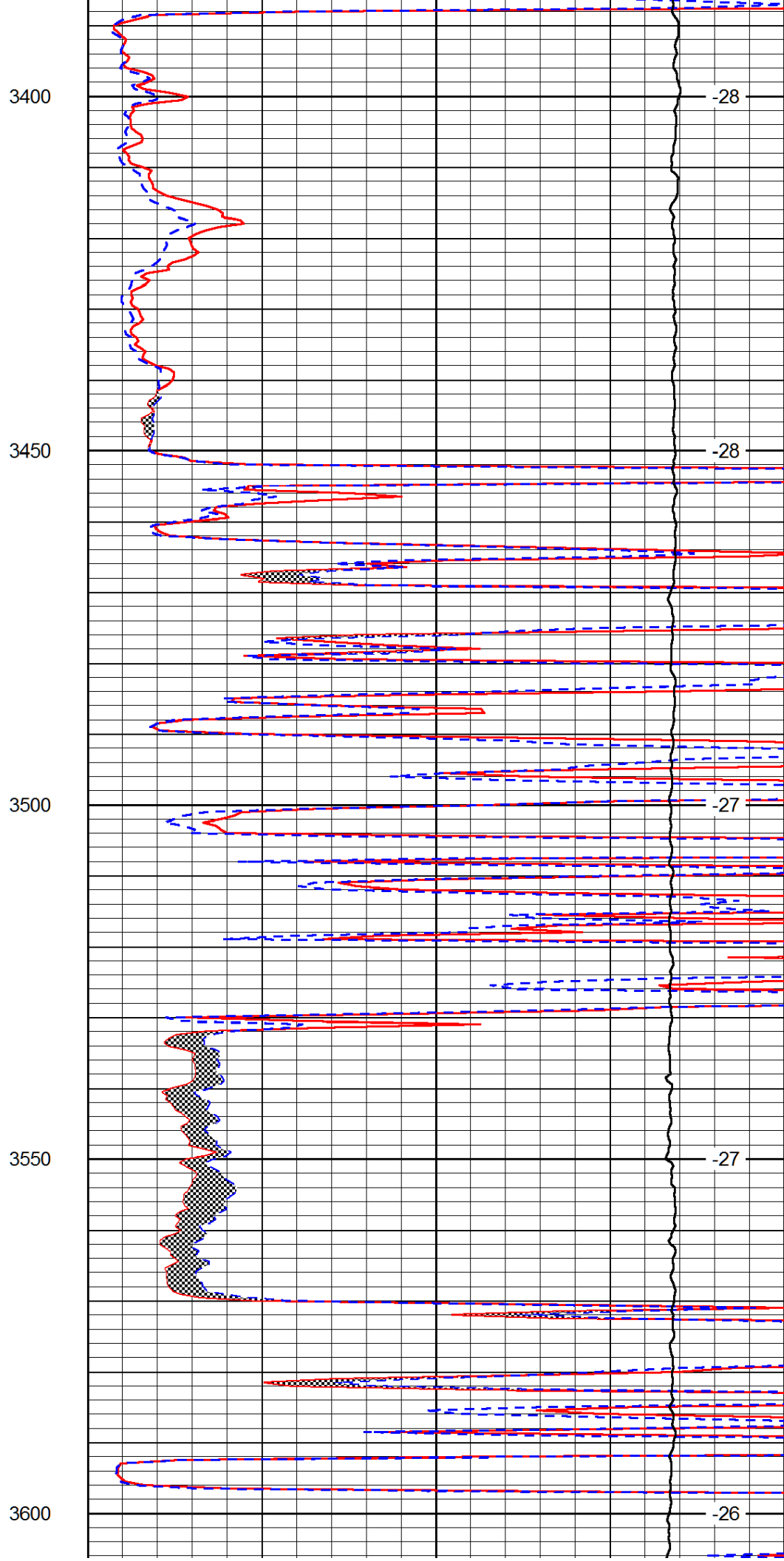
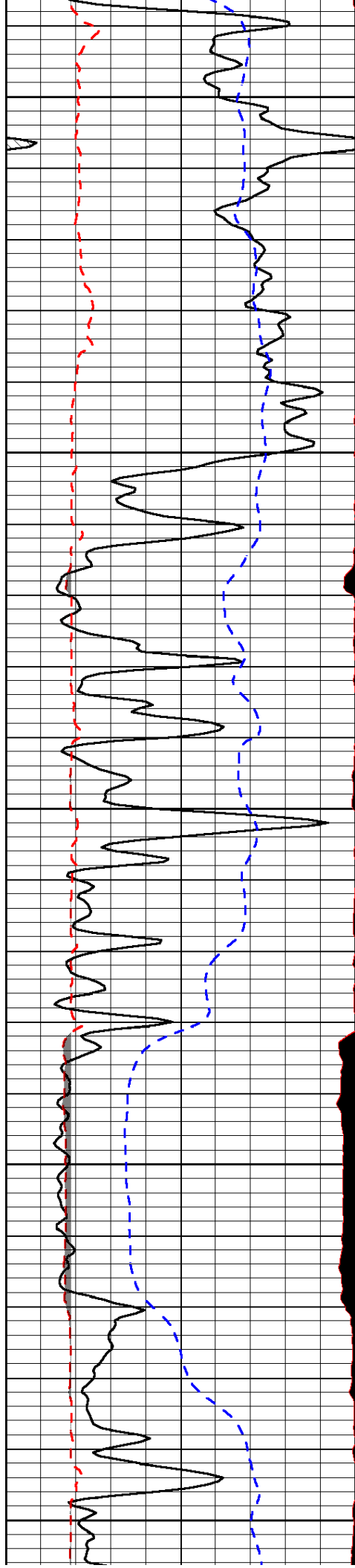
Database File: hdexploration_32913hd.db
Dataset Pathname: dil/hdstck
Presentation Format: micro
Dataset Creation: Fri Mar 29 13:50:27 2013
Charted by: Depth in Feet scaled 1:240

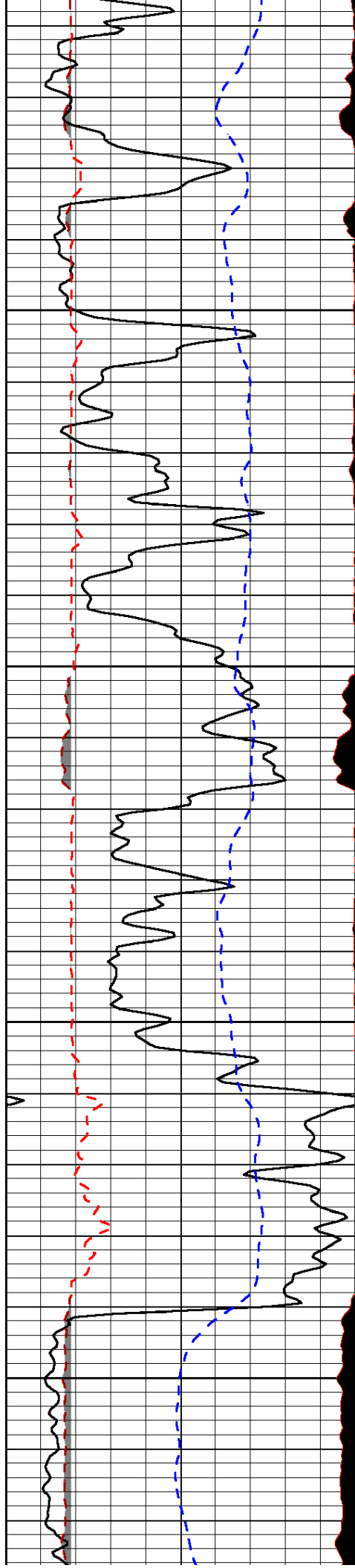
0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	Mud Cake (in)	7.875
-200	SP (mV)	0



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





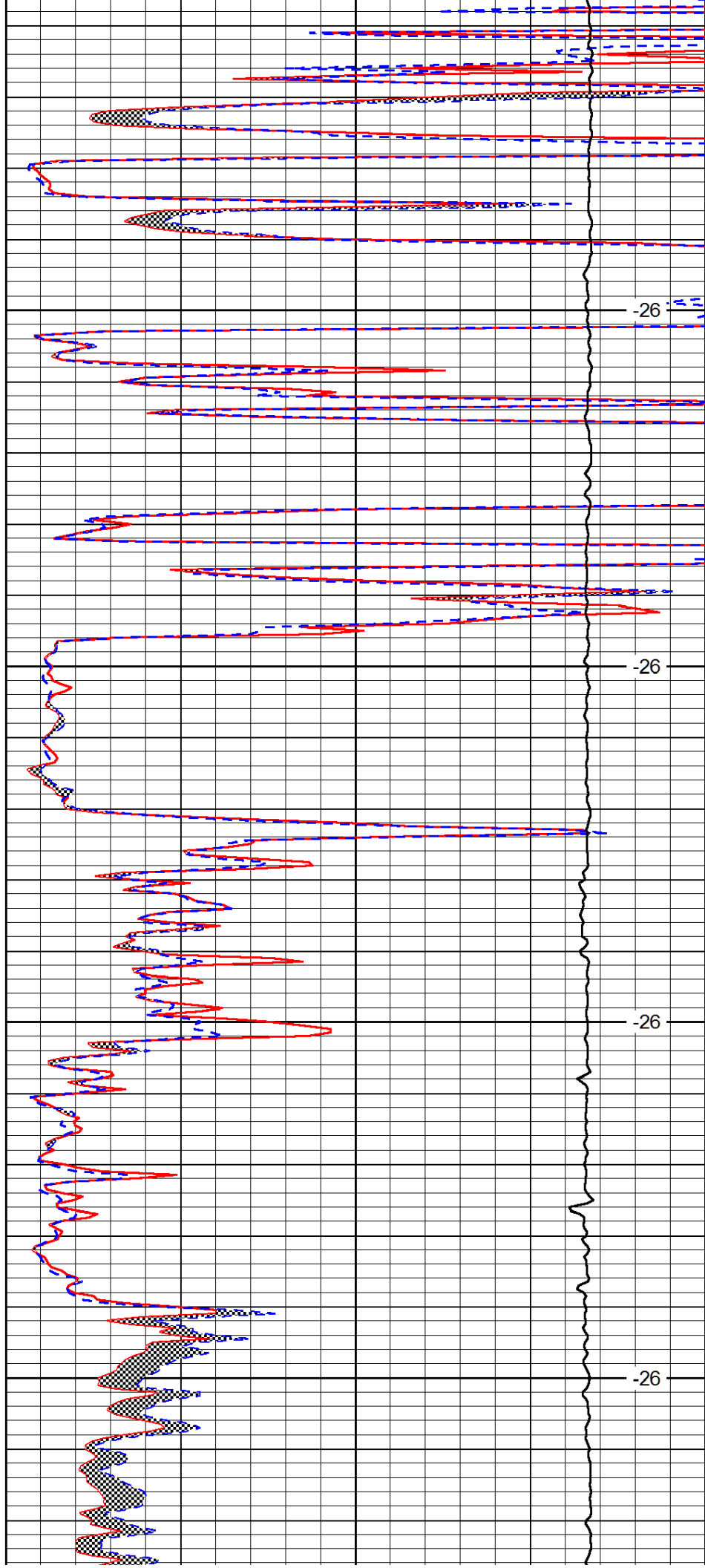


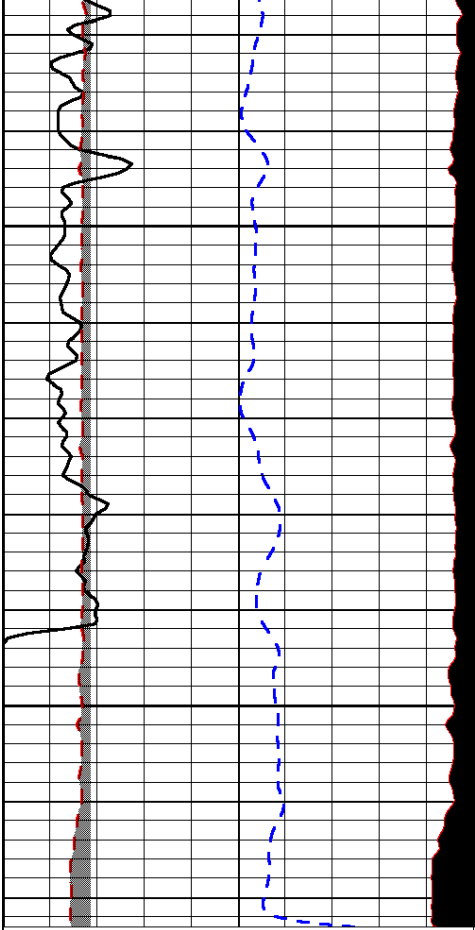
3650

3700

3750

3800

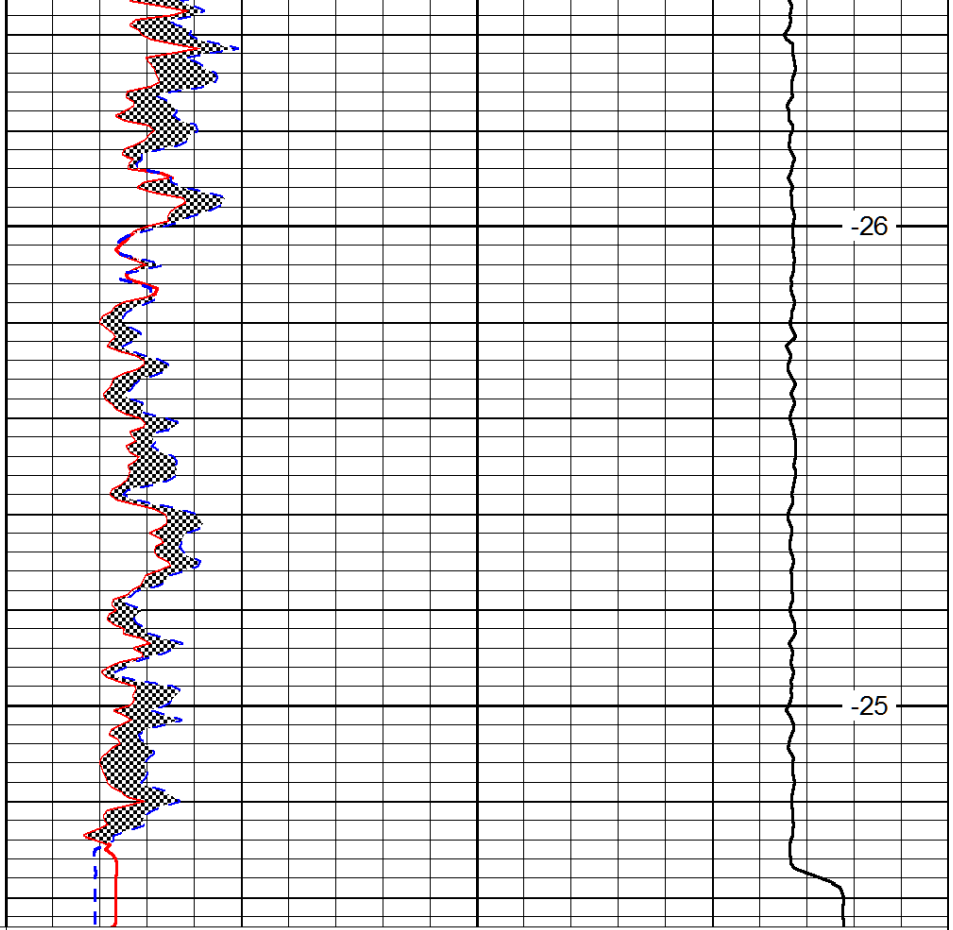




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-26

-25