



Microresistivity Log

Pioneer Energy Services

API No.

15-185-23,852-00-00

Company H&D Exploration, LLC

Well Hearn-Debes No. 1

Field

County

Stafford

State

Kansas

Location

SW-SE-SE-SW
142' FSL & 2284' FWL

Other Services
CNL/CDL
DIL/BHCS

Sec: 3

Twp: 25S

Rge: 12W

Elevation

Permanent Datum Ground Level Elevation 1868
Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Date 2/1/14

Run Number

Two

Depth Driller

4220

Depth Logger

4216

Bottom Logged Interval

4215

Top Log Interval

3200

Casing Driller

8.625 @ 680

Casing Logger

678

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

7.200

Density / Viscosity

8.9 72

pH / Fluid Loss

9.0 8.8

Source of Sample

Flowline

Rm @ Meas. Temp

.90 @ 45

Rmf @ Meas. Temp

.68 @ 45

Rmc @ Meas. Temp

1.22 @ 45

Source of Rmf / Rmc

Charts

Rm @ BHT

.34 @ 118

Operating Rig Time

5 Hours

Max Rec. Temp. F

118

Equipment Number

15

Location

Hays

Recorded By

J. Henrickson

Witnessed By

Josh Austin

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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.

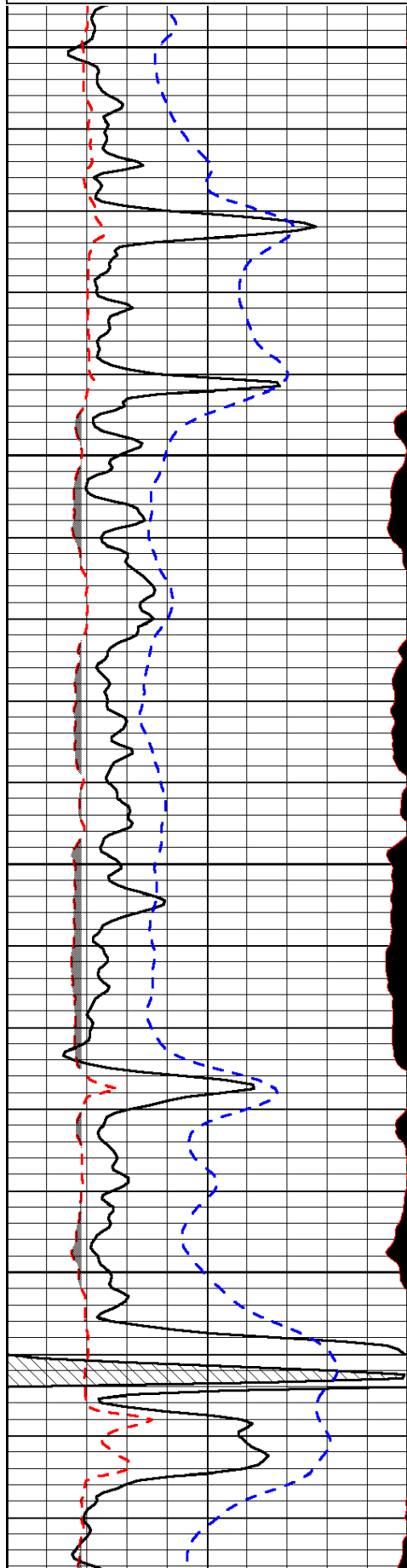
Comments

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

Stafford Kansas
4 South, 1 1/2 West, North Into

Database File: hd_hearn_debes_unit_1hd.db
Dataset Pathname: DIL/hdstk
Presentation Format: micro
Dataset Creation: Sat Feb 01 05:37:13 2014
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

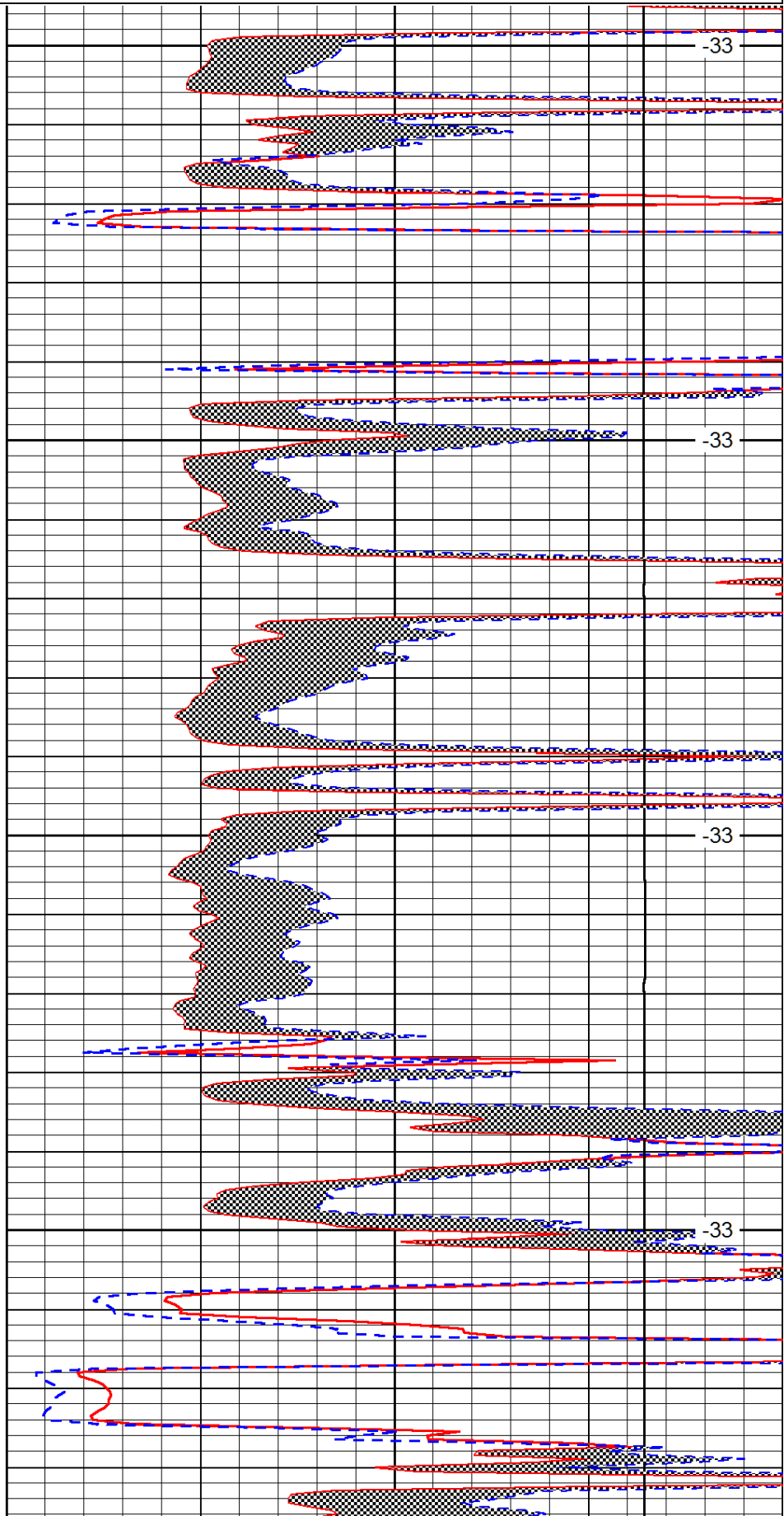


3200

3250

3300

3350

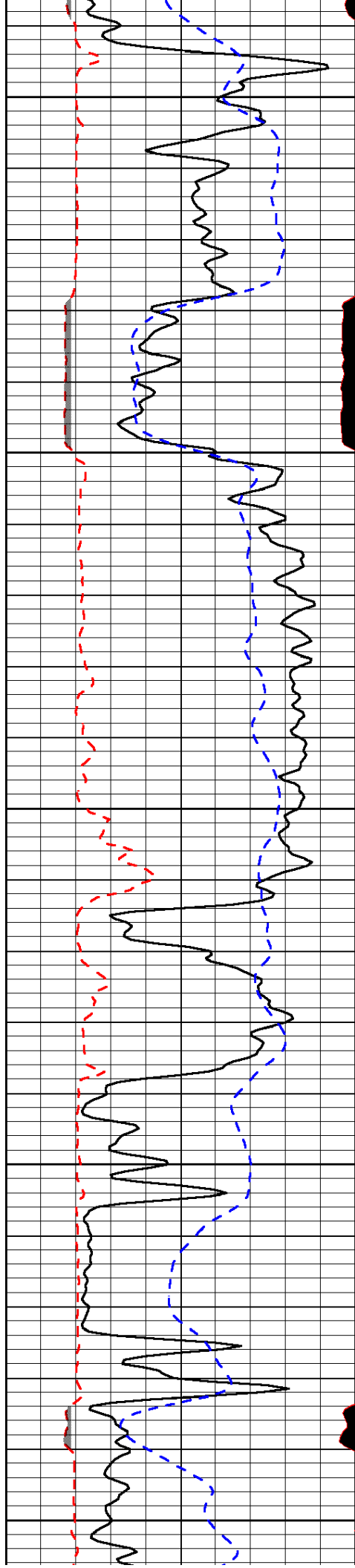


-33

-33

-33

-33



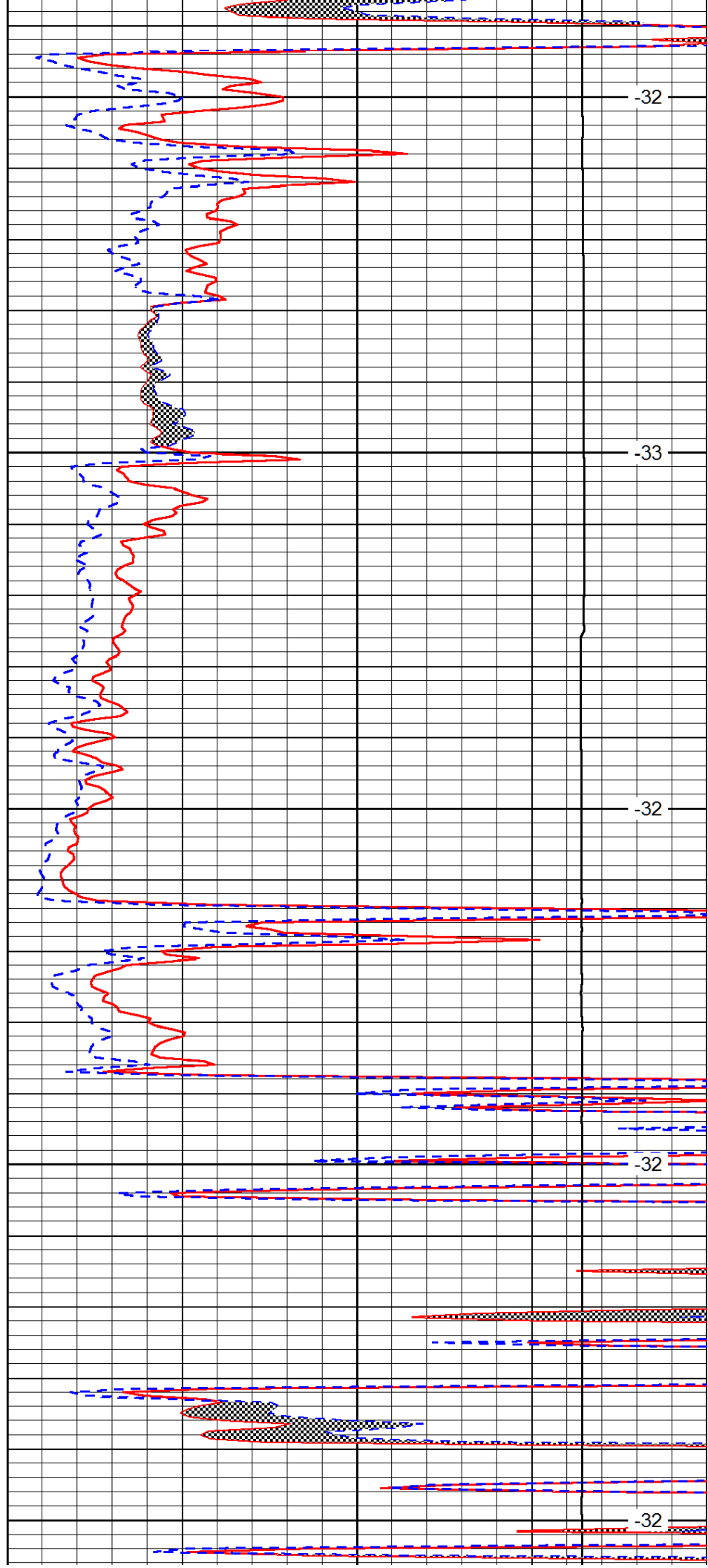
3400

3450

3500

3550

3600



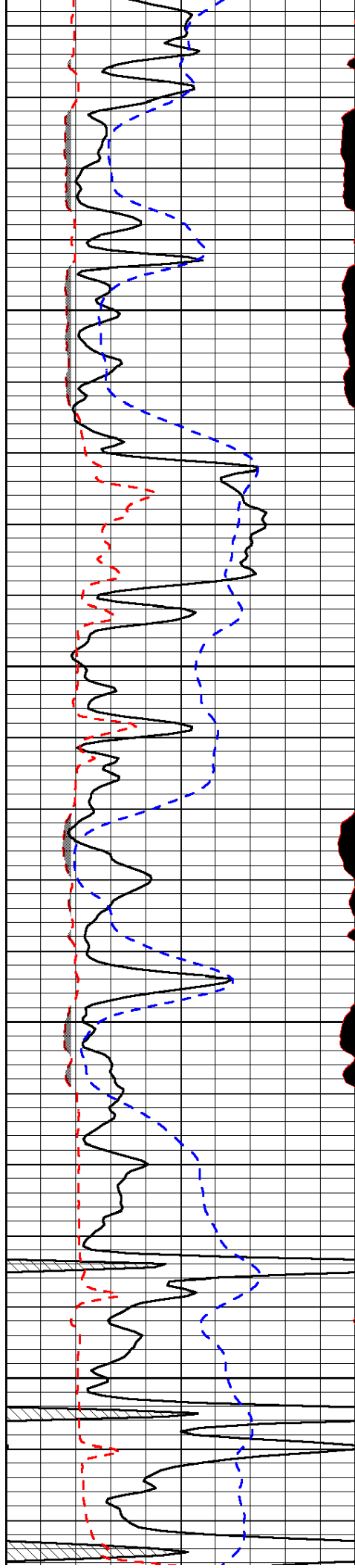
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-33

-32

-32

-32

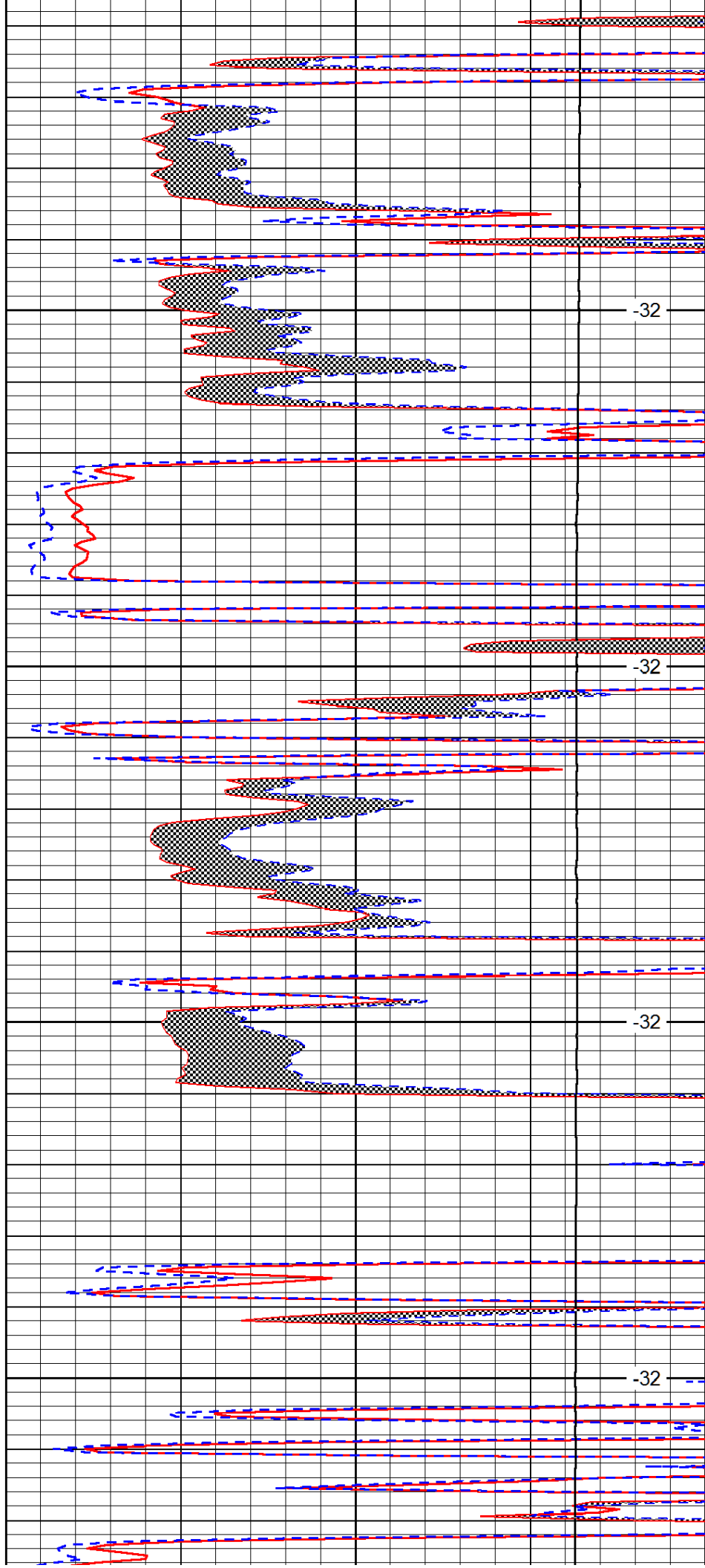


3650

3700

3750

3800

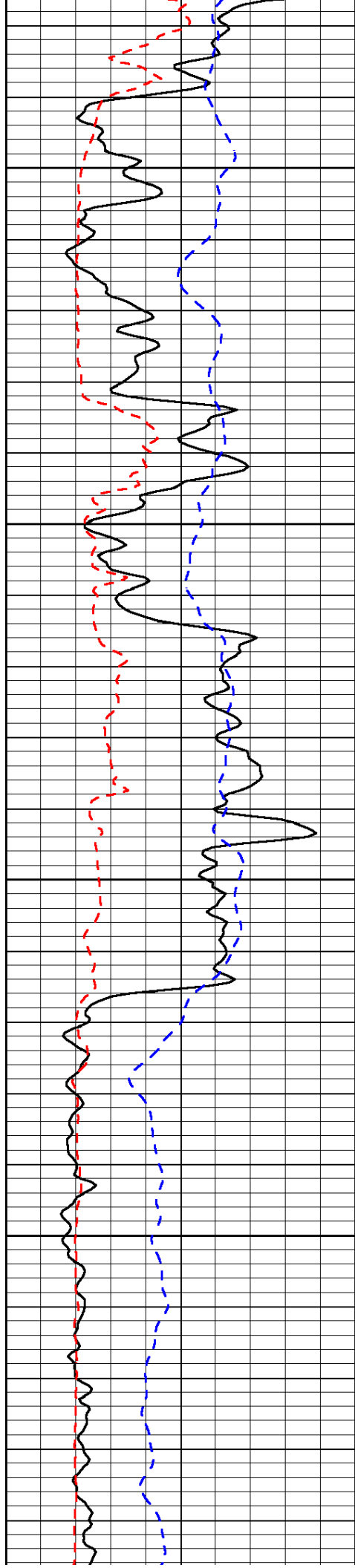


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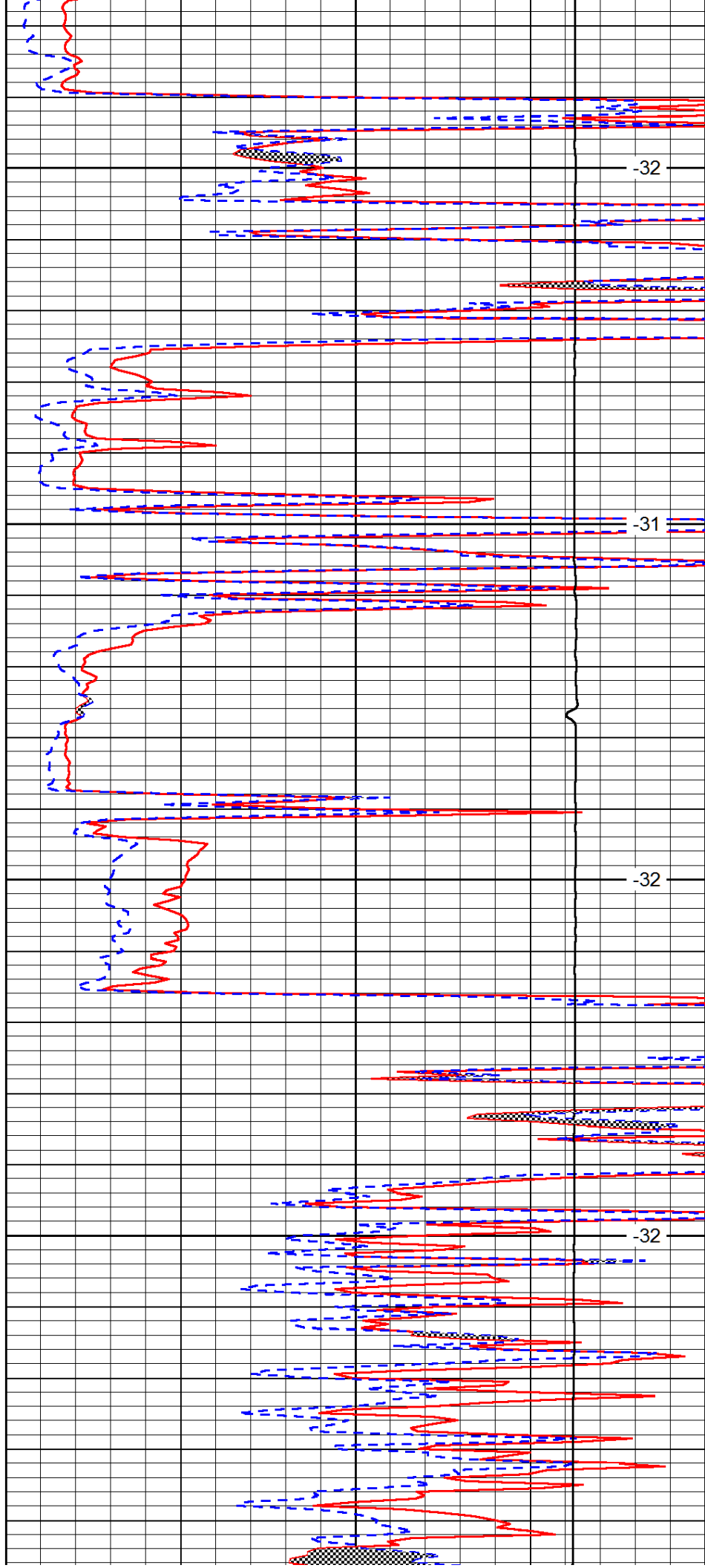


3850

3900

3950

4000

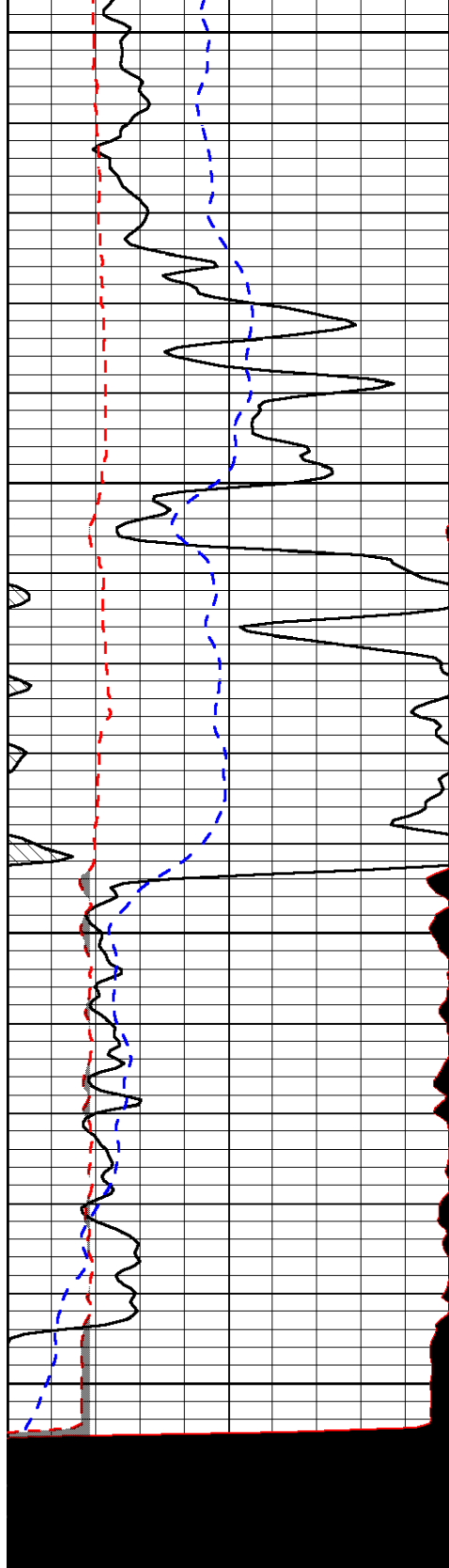


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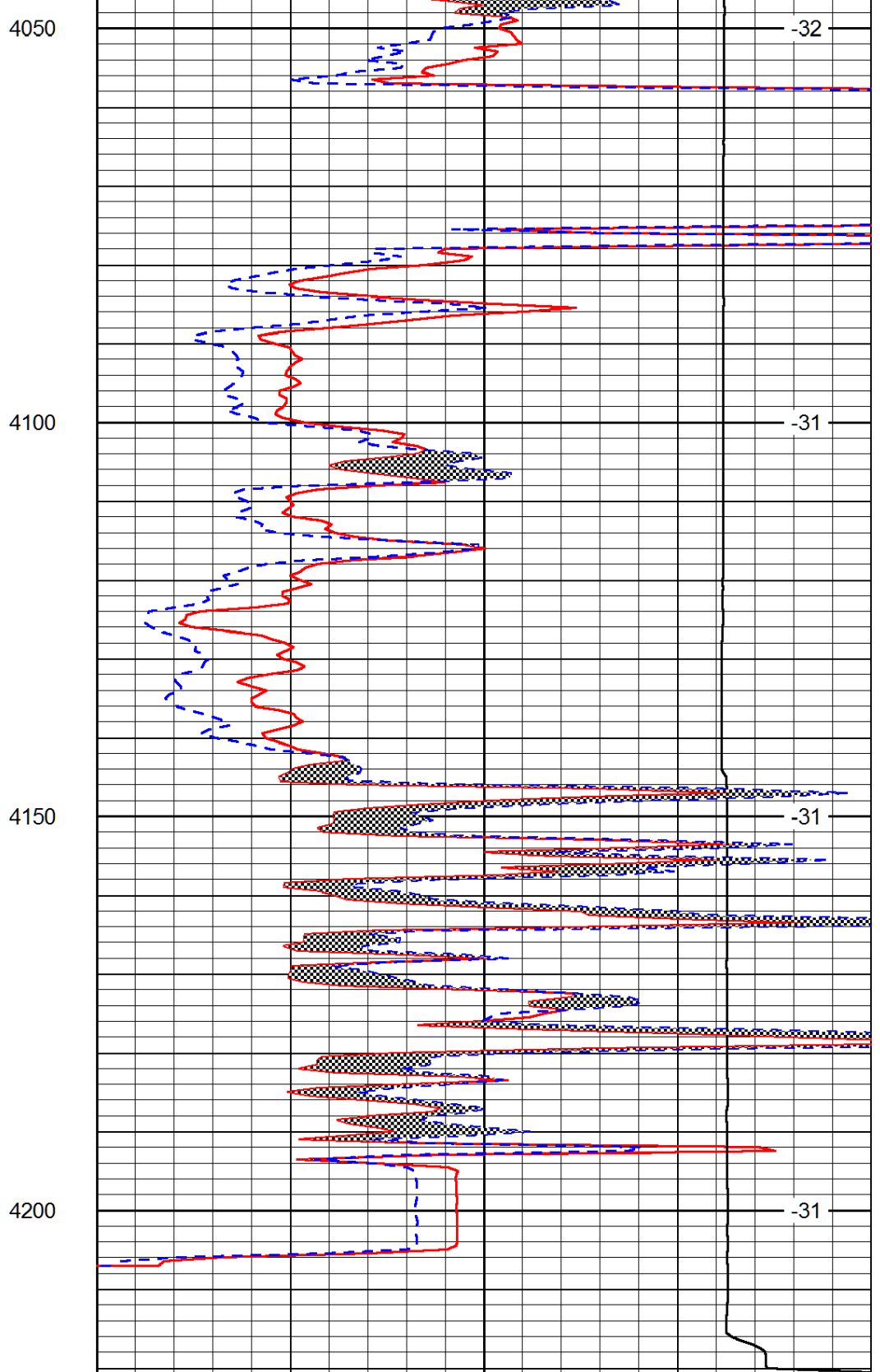
-31

-32

-32



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)