



Pioneer Energy Services

Microresistivity Log

API No.

15-023-21420-00-00

Company Murfin Drilling Company, Inc.

Well Culwell "C" #3-10

Field Jones Canyon Southeast

County Cheyenne State Kansas

Location

SE SW
660' FSL / 1980' FWL

Sec: 10

Twp: 1S

Rge: 37W

Other Services
CNL/CDL
DIL/BHCS

Elevation

Permanent Datum Ground Level Elevation 3189
Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

K.B. 3200
D.F.
G.L. 3189

Date

2/15/2015

Run Number

Two

Depth Driller

4730

Depth Logger

4726

Bottom Logged Interval

4725

Top Log Interval

3500

Casing Driller

8.625 @ 225

Casing Logger

222

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

500

Density / Viscosity

9.3 62

pH / Fluid Loss

10.0 7.6

Source of Sample

Flowline

Rm @ Meas. Temp

0.90 @ 70

Rmf @ Meas. Temp

0.68 @ 70

Rmc @ Meas. Temp

1.22 @ 70

Source of Rmf / Rmc

Charts

Rm @ BHT

0.51 @ 123

Operating Rig Time

5 Hours

Max Rec. Temp. F

123

Equipment Number

51

Location

Hays

Recorded By

R. Barnhart

Witnessed By

Chuck Schmalz

<<< Fold Here >>>

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

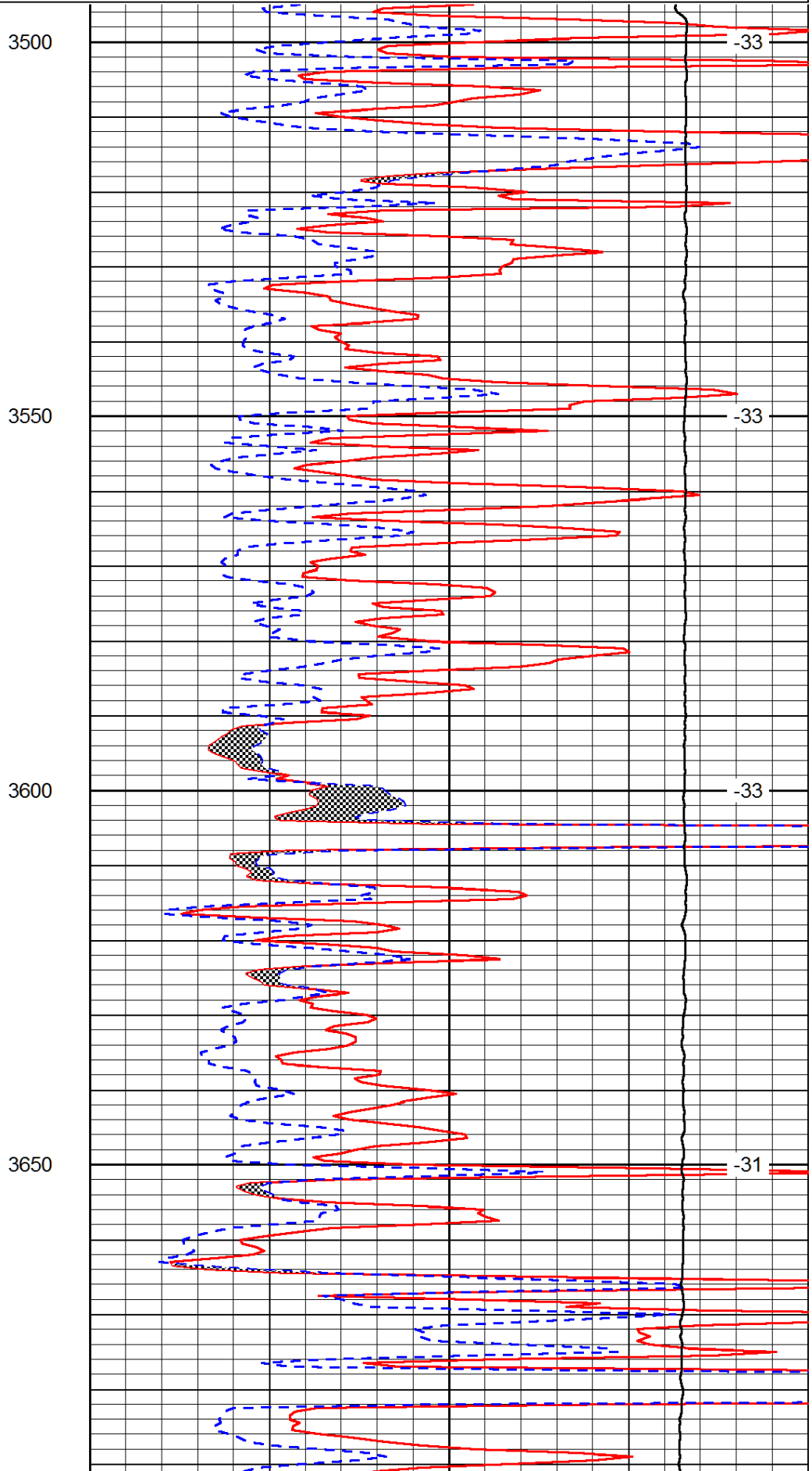
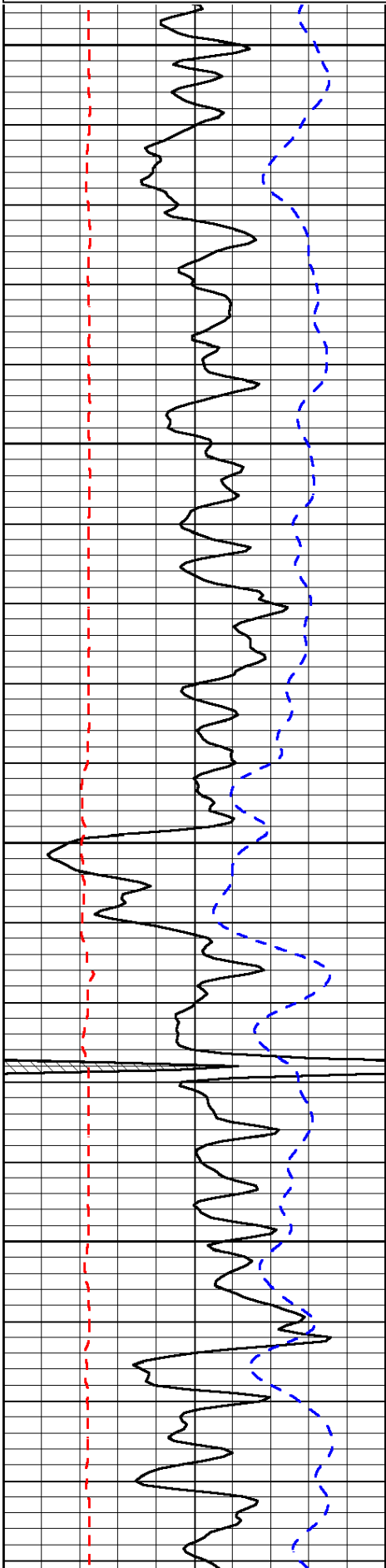
Thank you for using Log-Tech, Inc.
(785) 625-3858

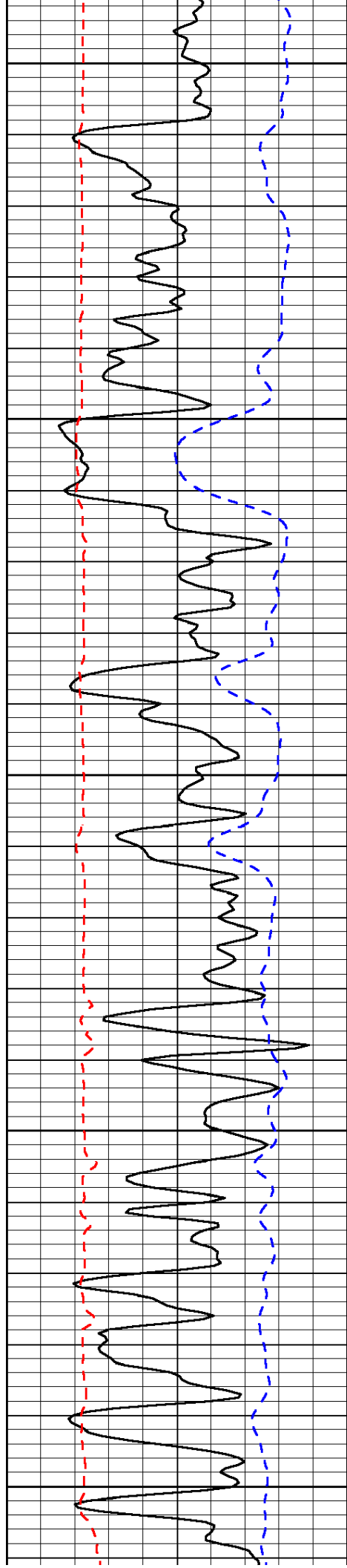
Bird City, KS:
N to AA Rd., 3 1/2E to a T, 2N to a Y, E past CG to rig

Database File: murfin_hd.db
Dataset Pathname: dil/mrfmain
Presentation Format: micro
Dataset Creation: Sun Feb 15 06:15:23 2015
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





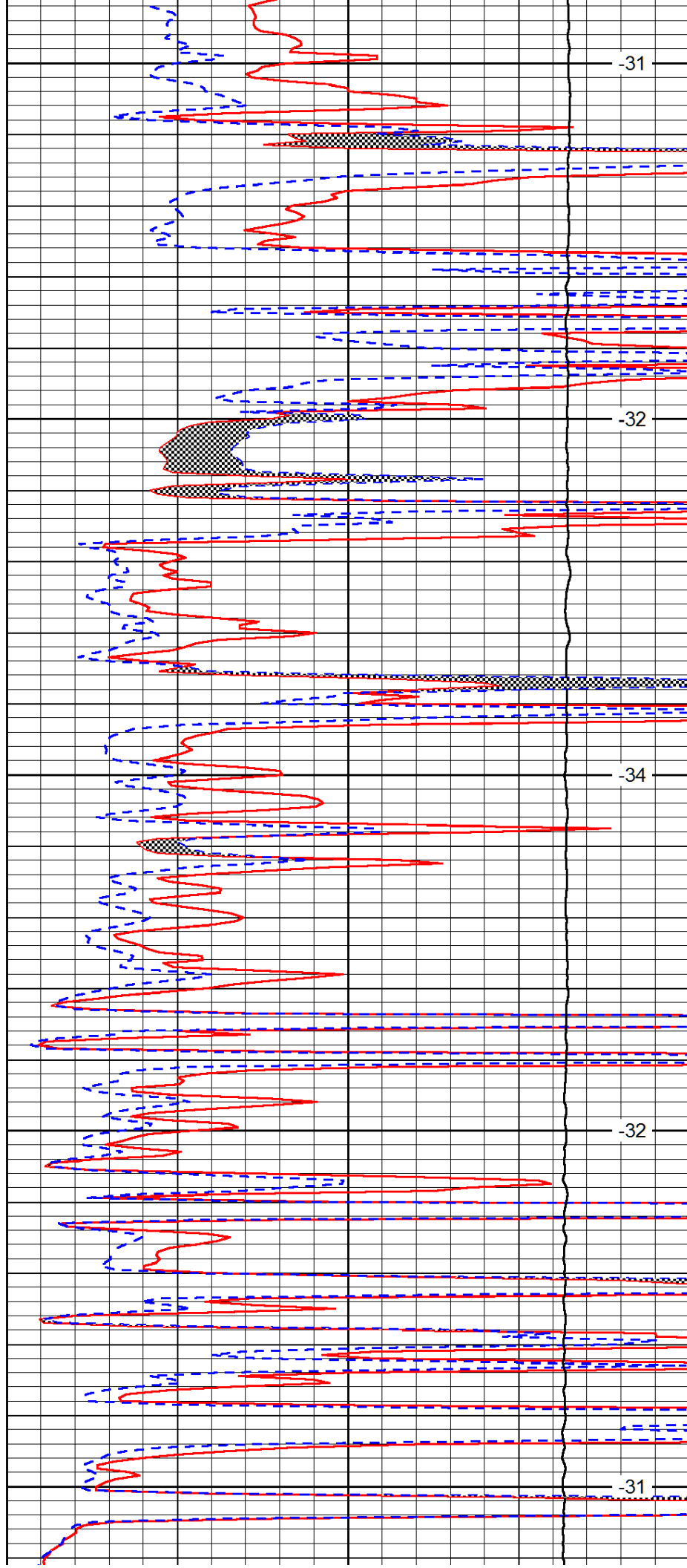
3700

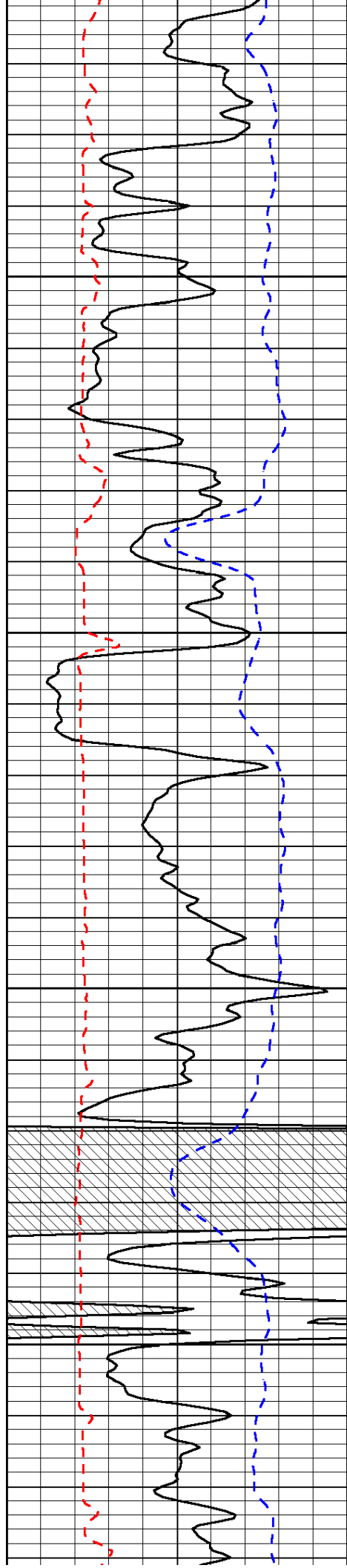
3750

3800

3850

3900



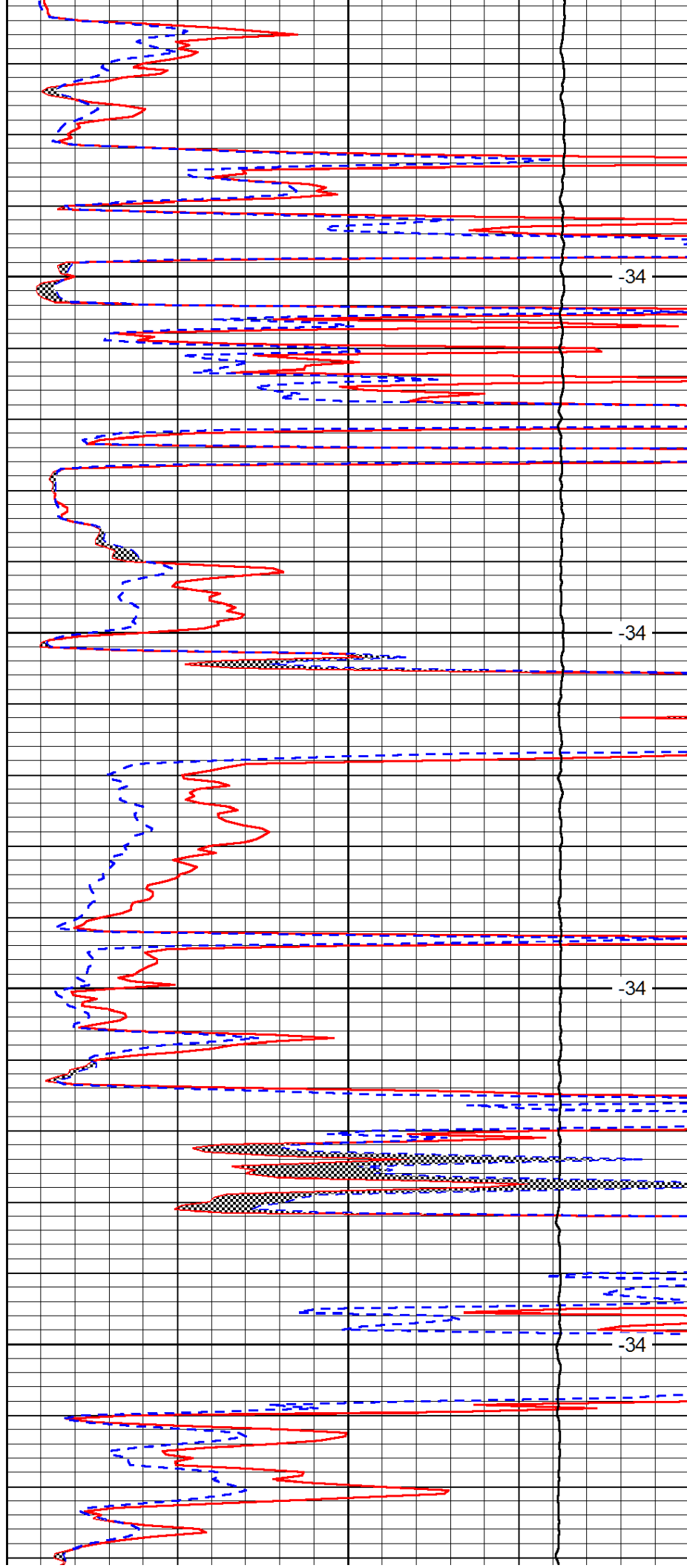


3950

4000

4050

4100

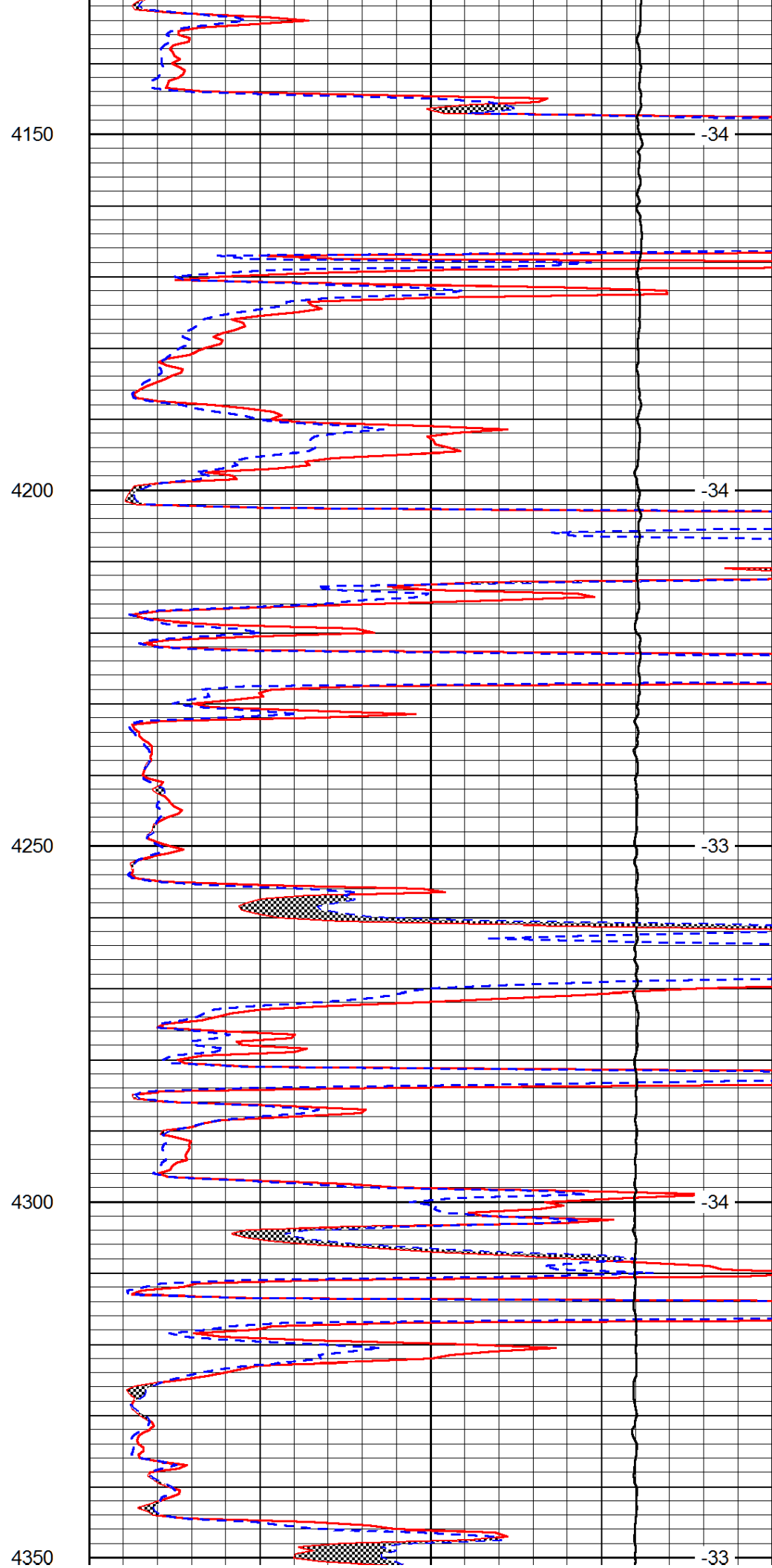
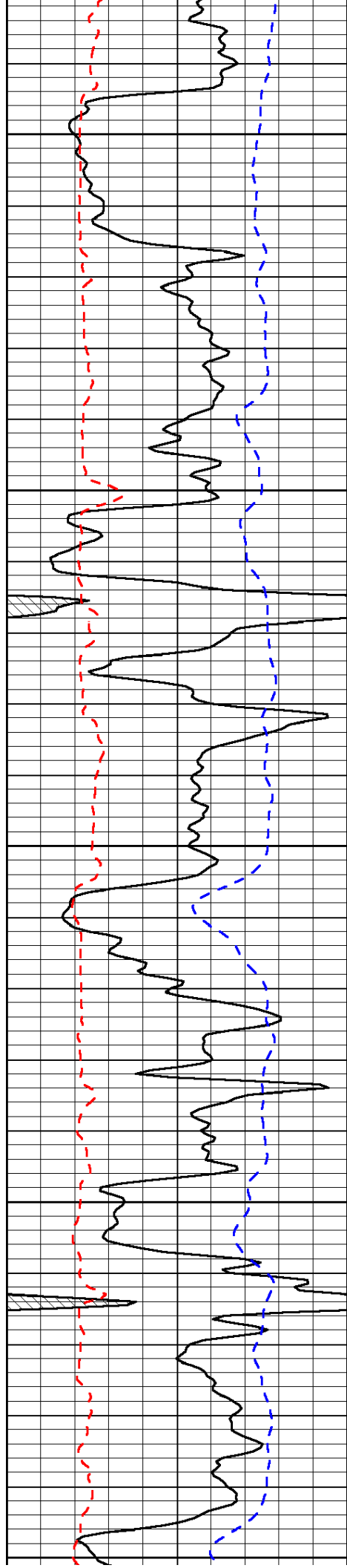


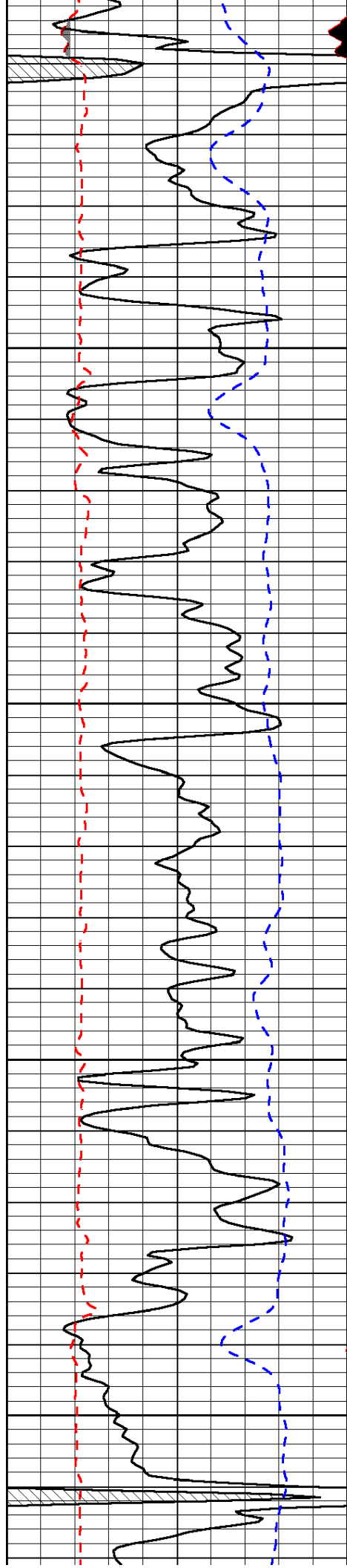
-34

-34

-34

-34



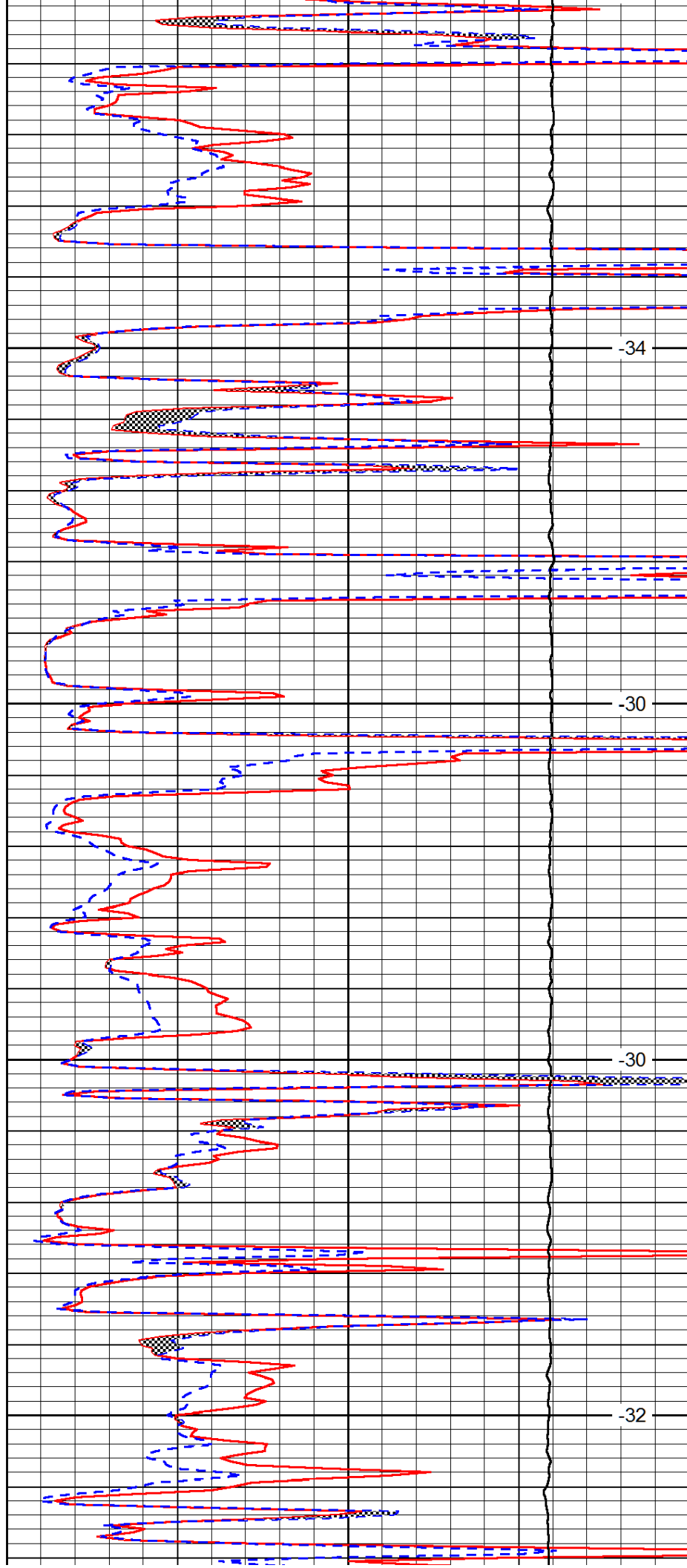


4400

4450

4500

4550

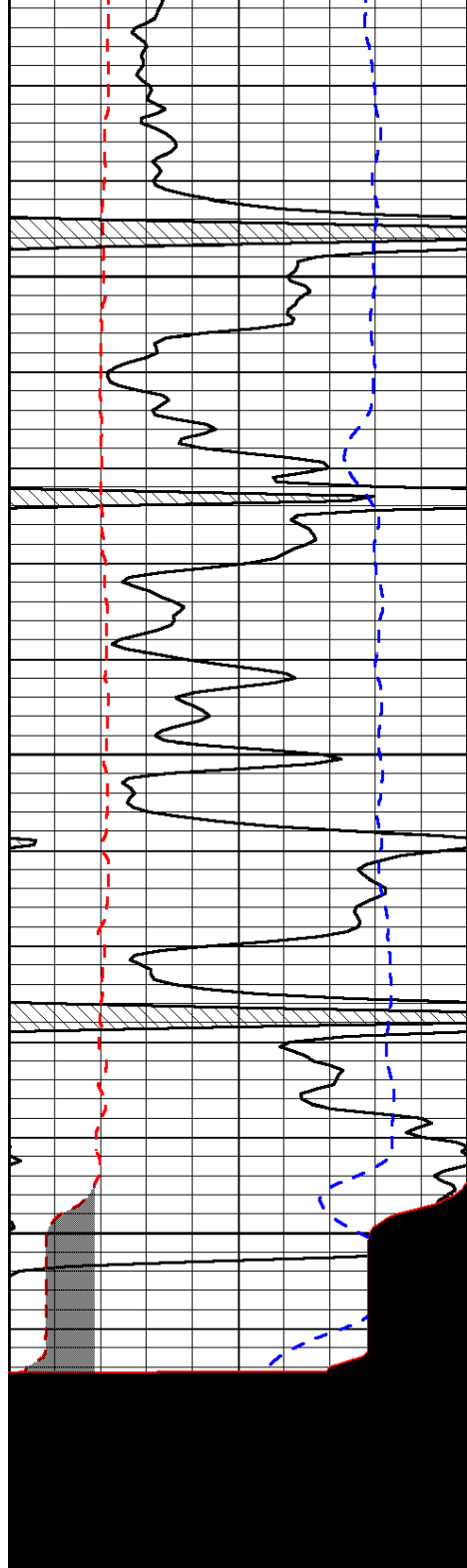


-34

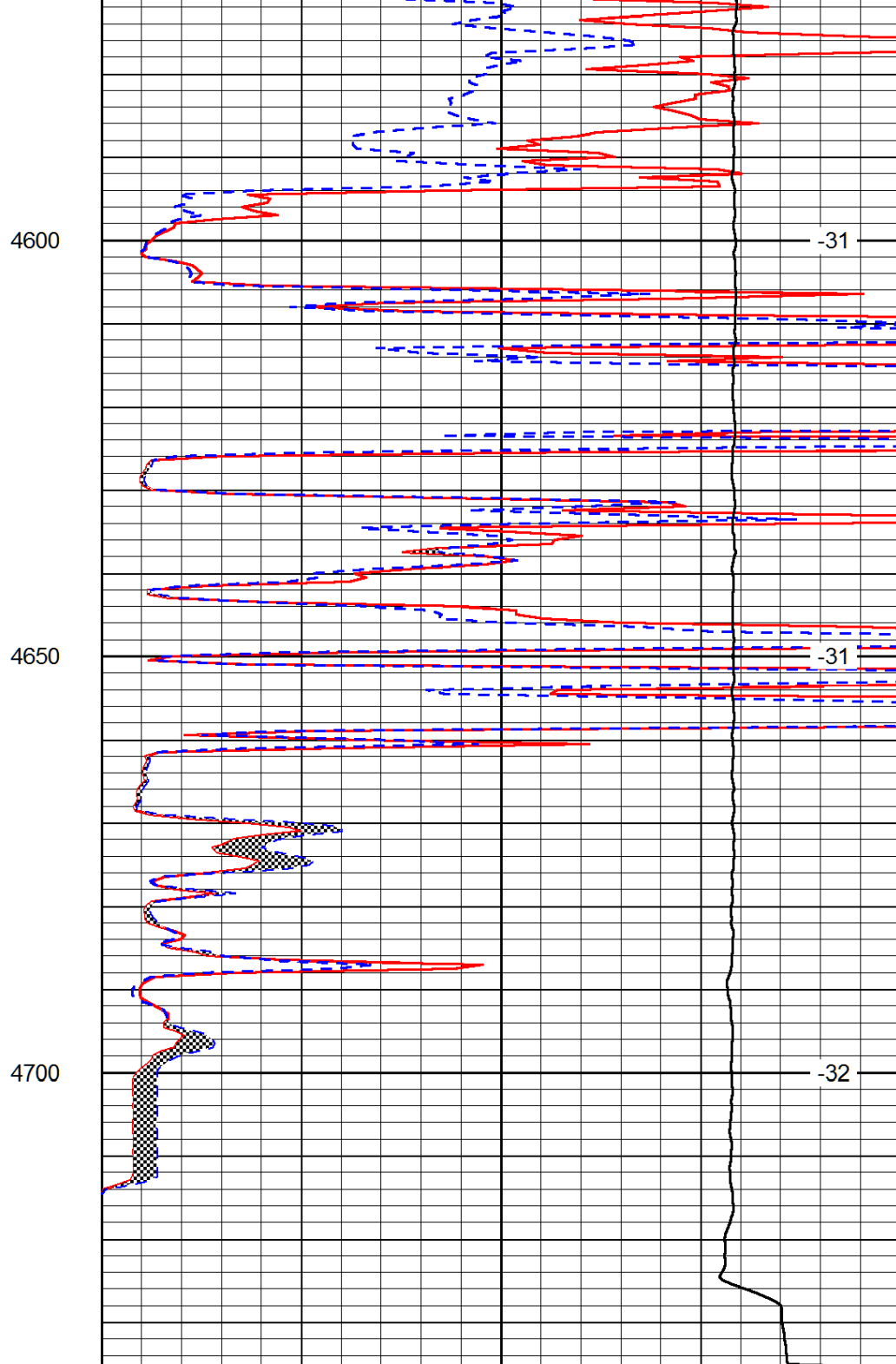
-30

-30

-32



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