



PIONEER

Pioneer Energy Services

Microresistivity Log

API No.

15-195-22802-00-00

Company **Cholla Production, LLC**

Well **Ruder #1-5**

Field **Diebolt**

County **Trego**

State

Kansas

Location

**NE SE NW NE
775' FNL / 1555' FEL**

Sec: **5**

Twp: **11S**

Rge: **23W**

Other Services
CNL/CDL
DIL/BHCS

Permanent Datum

Ground Level

Elevation 2316

Log Measured From

Kelly Bushing

8 Ft. Above Perm. Datum

K.B. 2324
D.F.
G.L. 2316

Drilling Measured From

Kelly Bushing

Date

8/27/2012

Run Number

Two

Depth Driller

4079

Depth Logger

4081

Bottom Logged Interval

4080

Top Log Interval

3000

Casing Driller

8.625 @ 272

Casing Logger

270

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

3500

Density / Viscosity

9.3 57

pH / Fluid Loss

10.0 7.8

Source of Sample

Flowline

Rm @ Meas. Temp

0.30 @ 82

Rmf @ Meas. Temp

0.23 @ 82

Rmc @ Meas. Temp

0.41 @ 82

Source of Rmf / Rmc

Charts

Rm @ BHT

0.21 @ 117

Operating Rig Time

5 Hours

Max Rec. Temp. F

117

Equipment Number

15

Location

Hays

Recorded By

R. Barnhart

Witnessed By

Bill Goff

<<< 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.

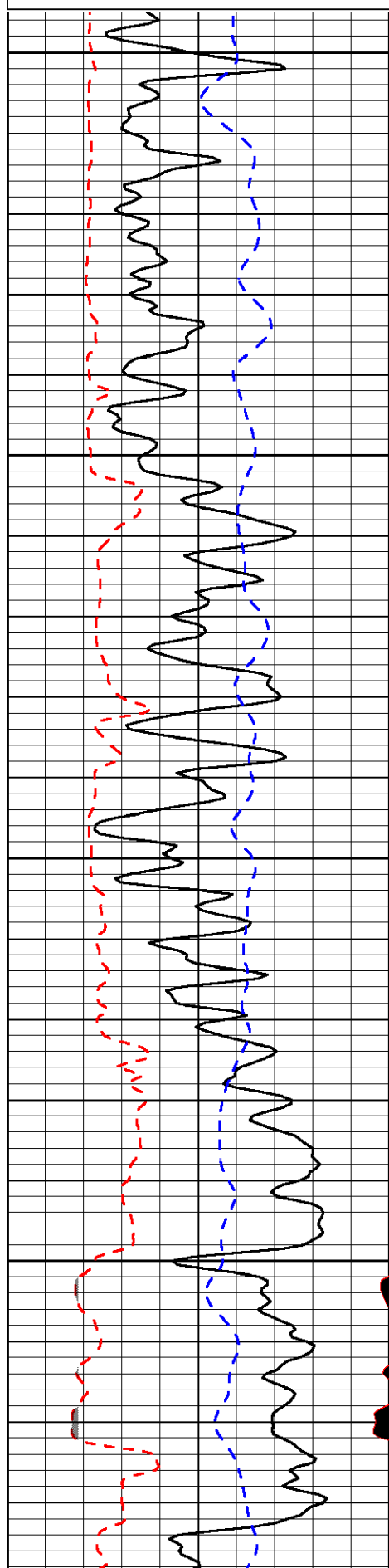
Comments

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

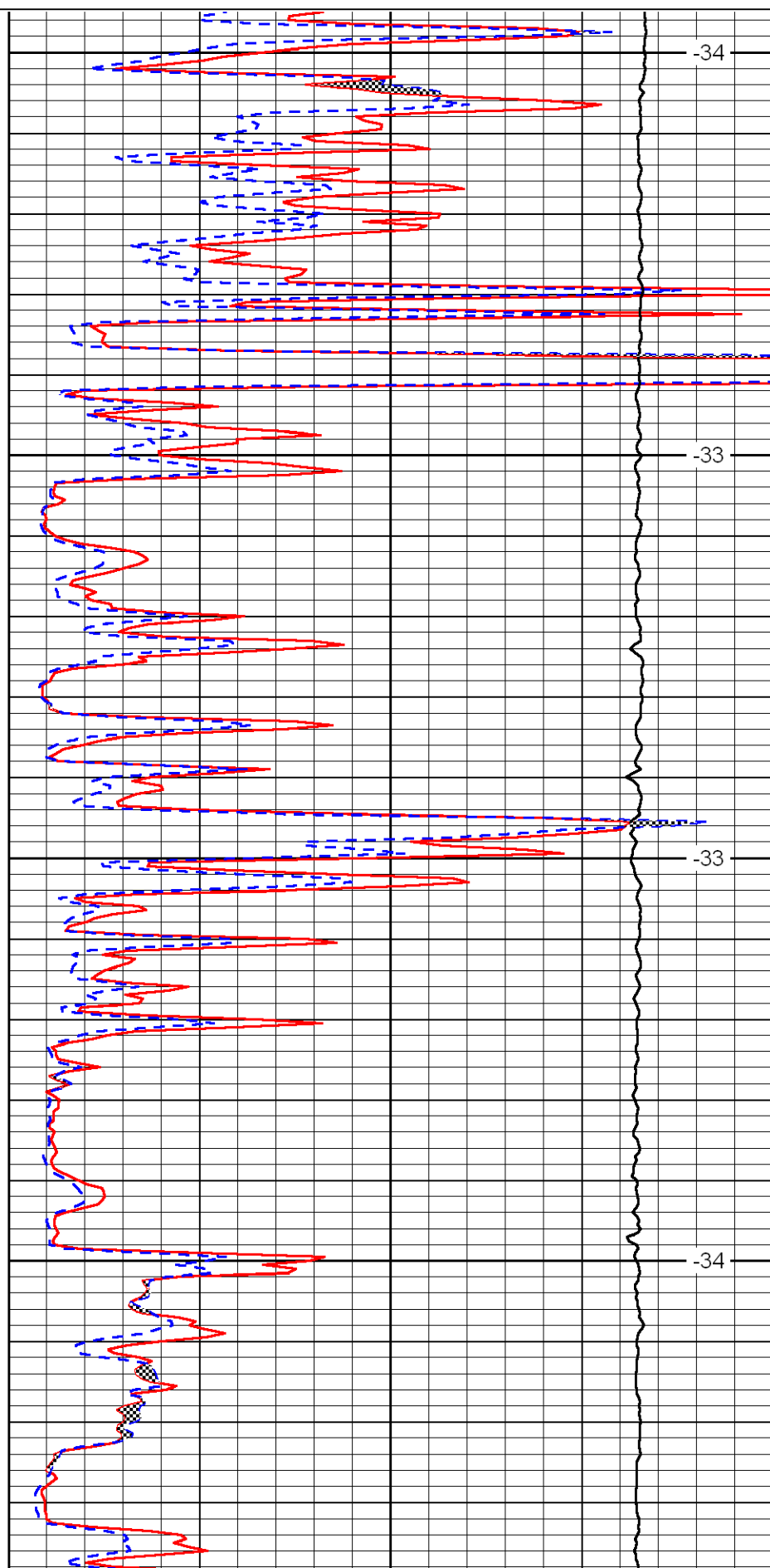
Wakeeney, KS:
7N, 1 1/2W, S into

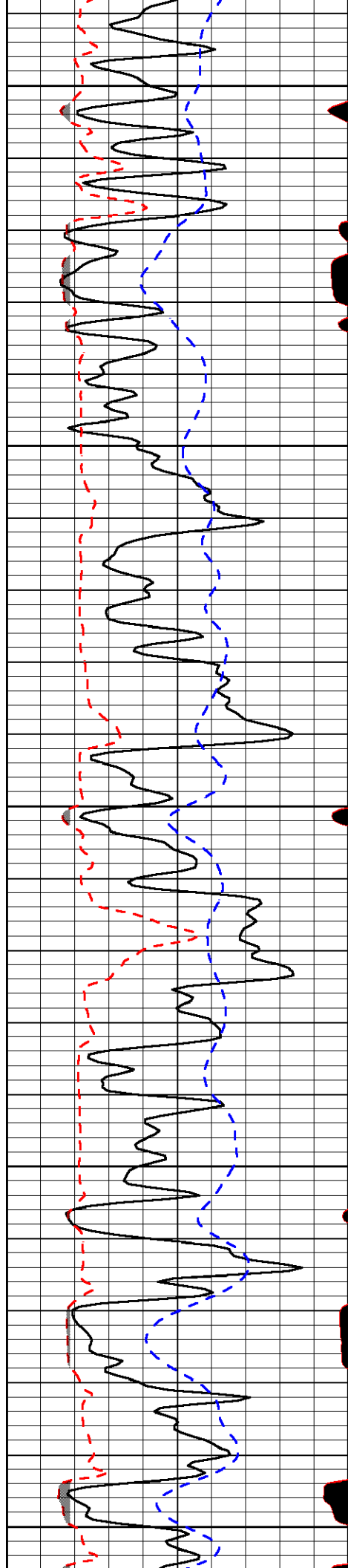
Database File: chollahd.db
Dataset Pathname: dil/chmain
Presentation Format: micro
Dataset Creation: Tue Aug 28 02:22:48 2012
Charted by: Depth in Feet scaled 1:240

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



0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
10000	Line Weight	0





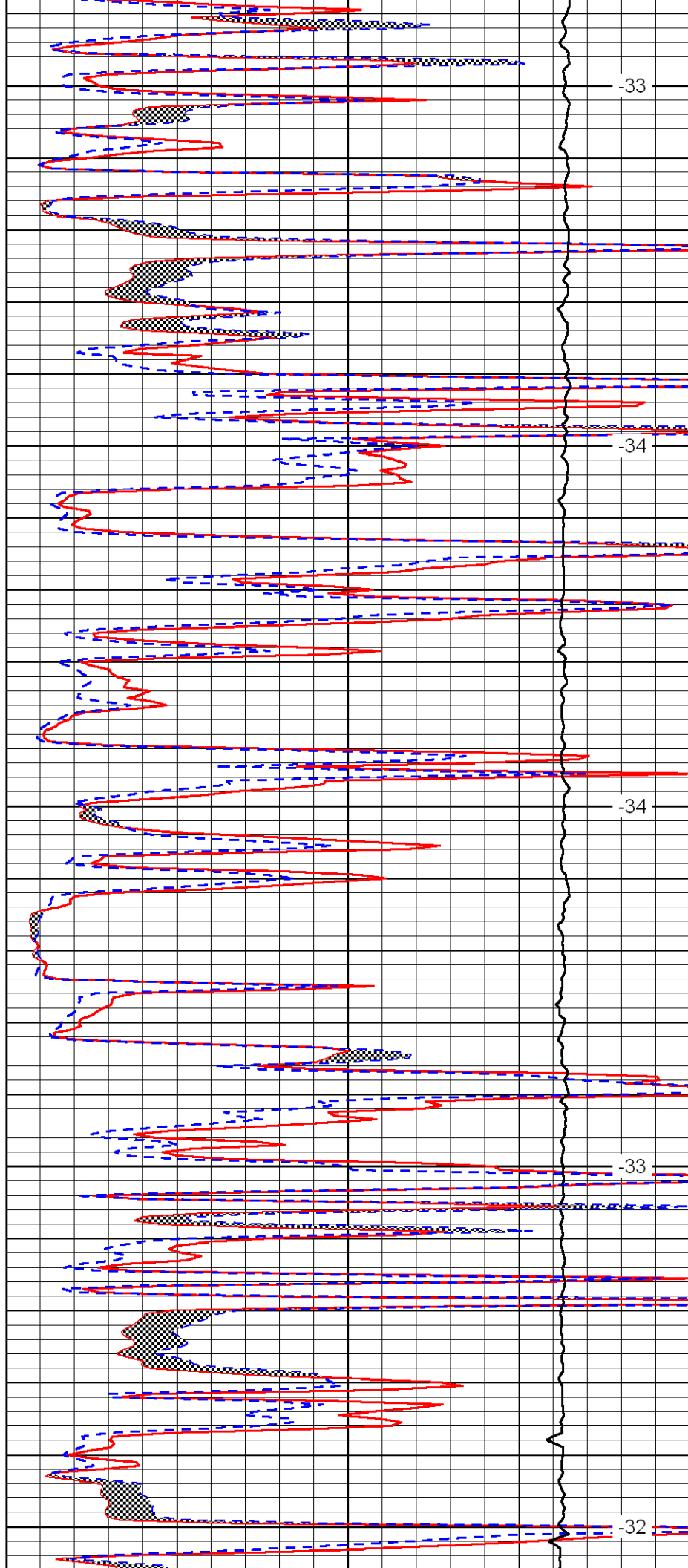
3200

3250

3300

3350

3400



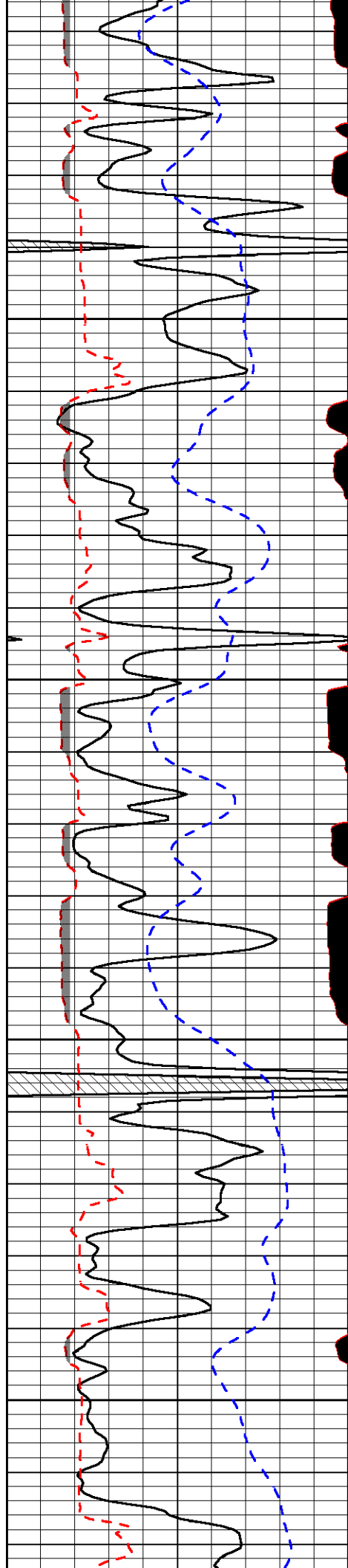
-33

-34

-34

-33

-32

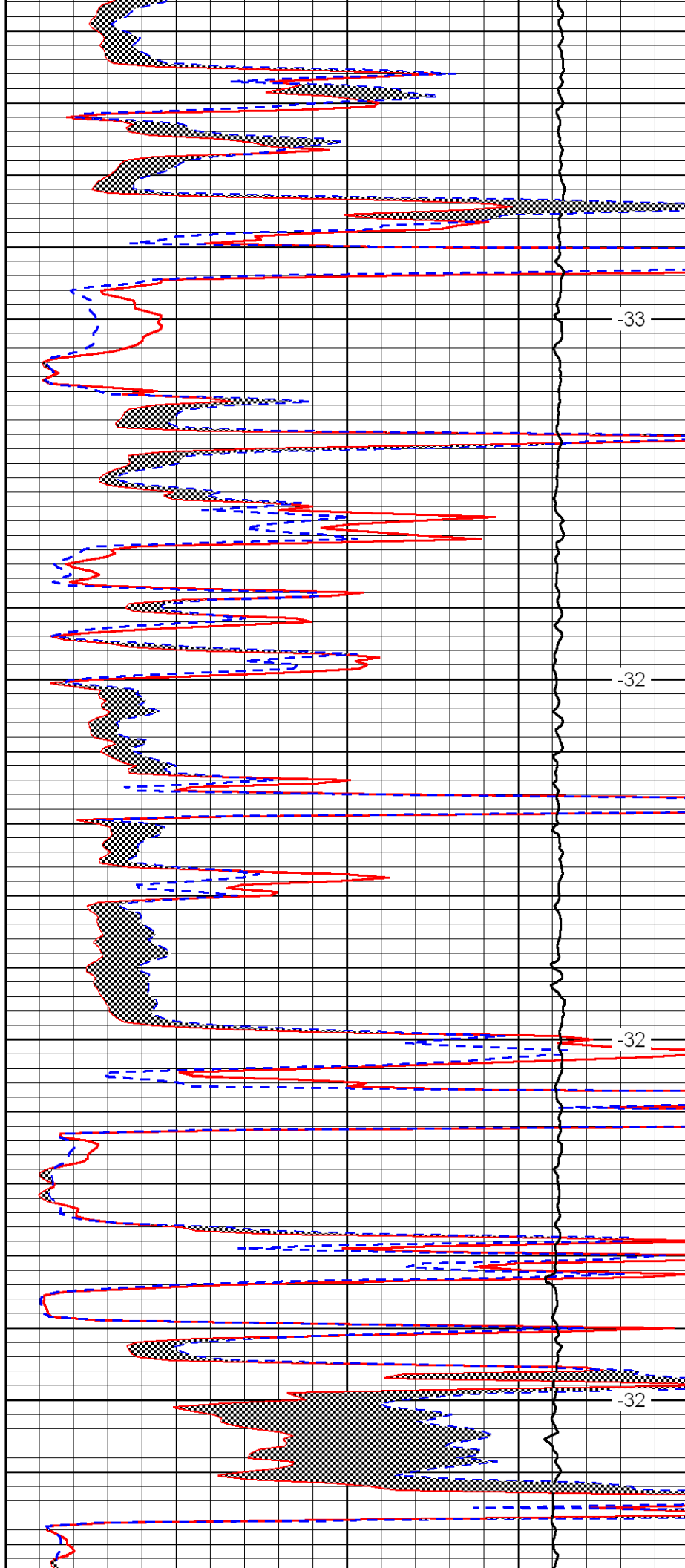


3450

3500

3550

3600

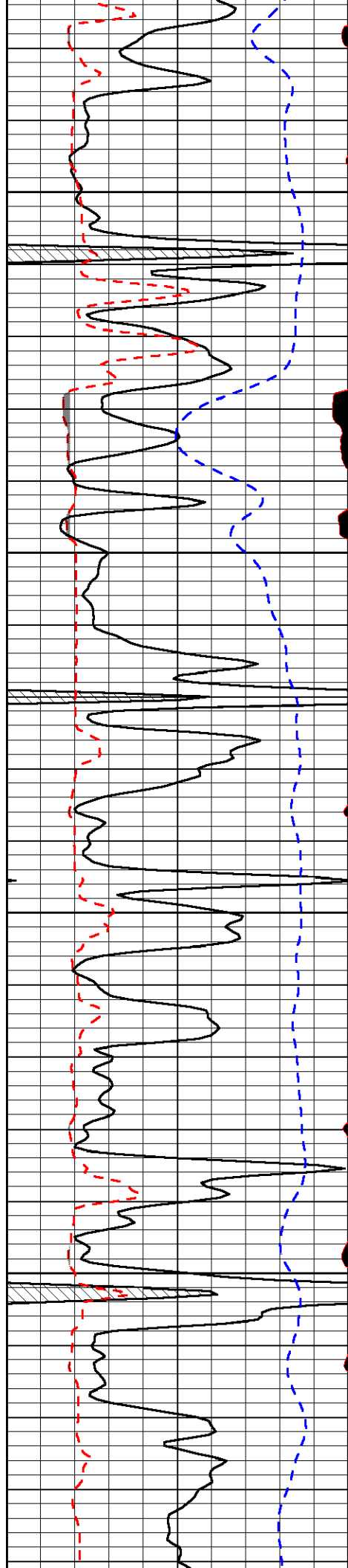


-33

-32

-32

-32

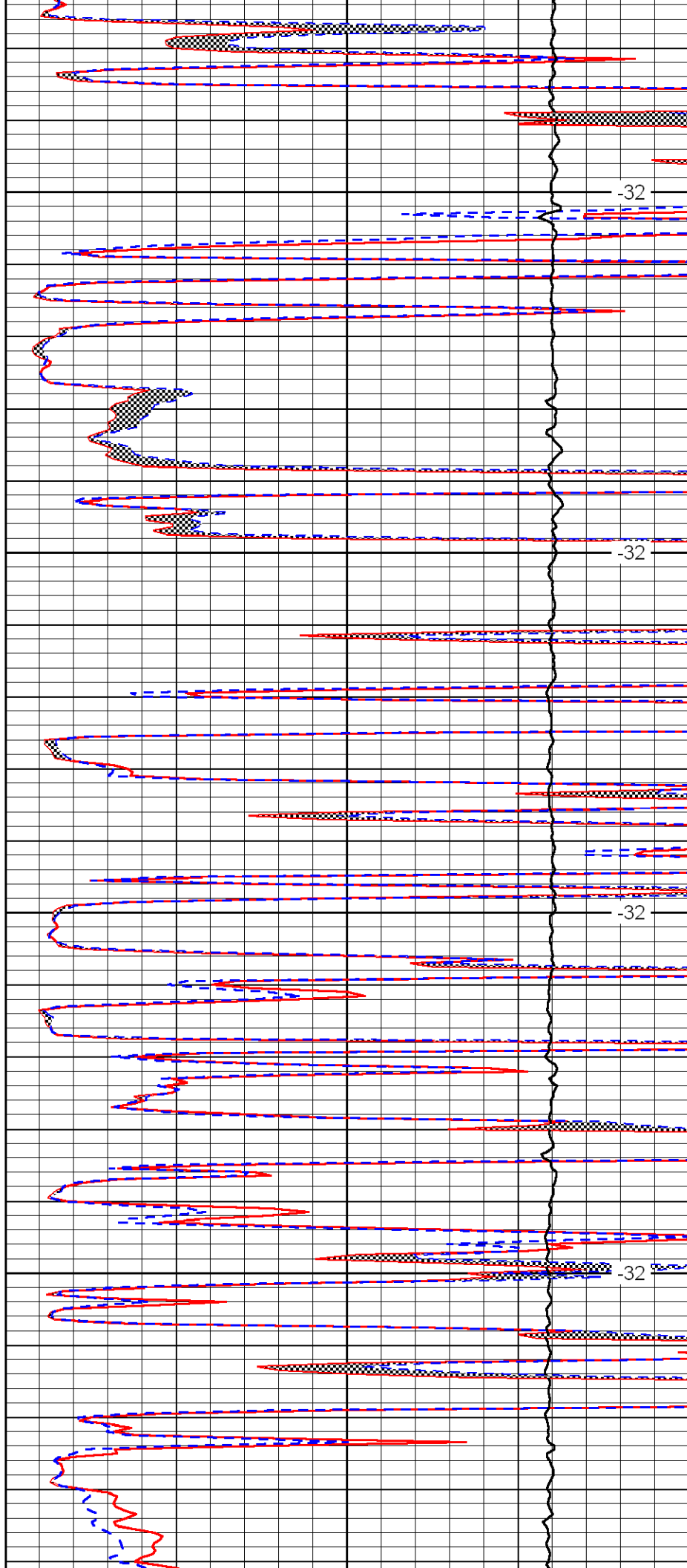


3650

3700

3750

3800

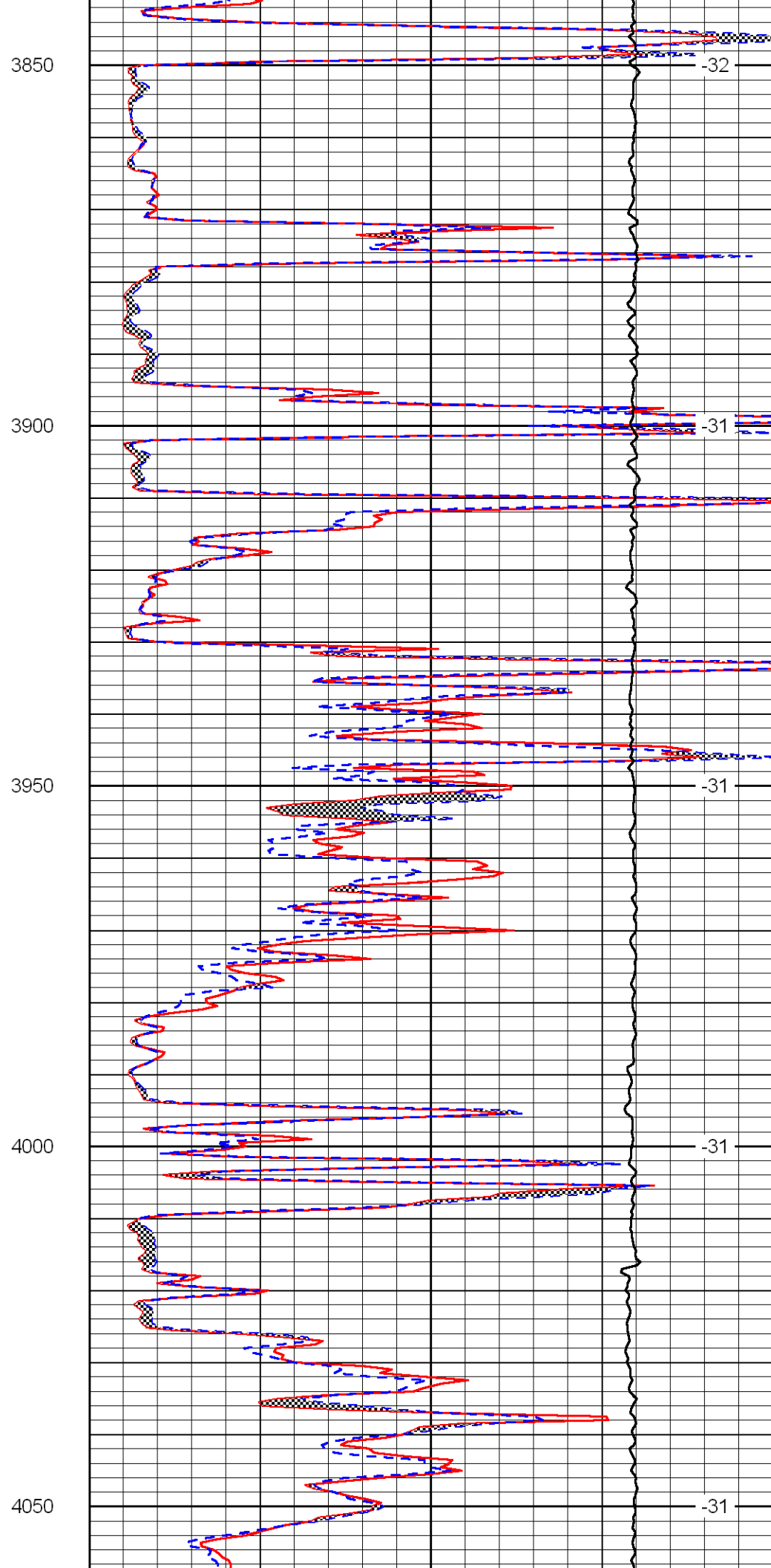
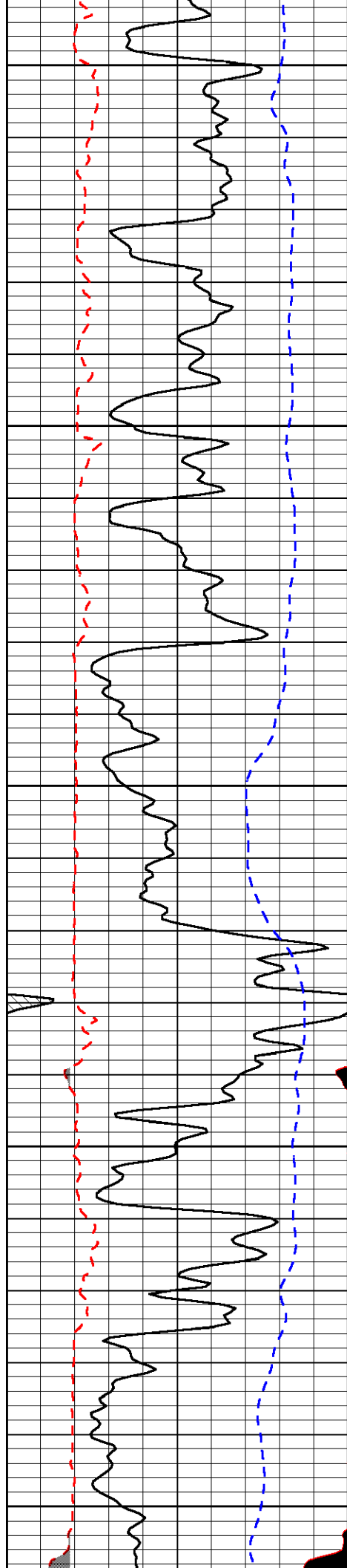


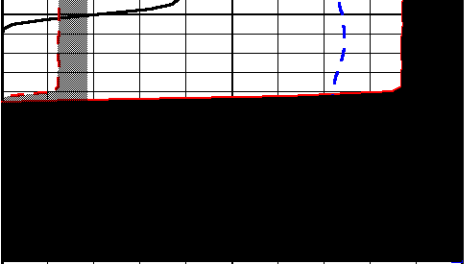
32

32

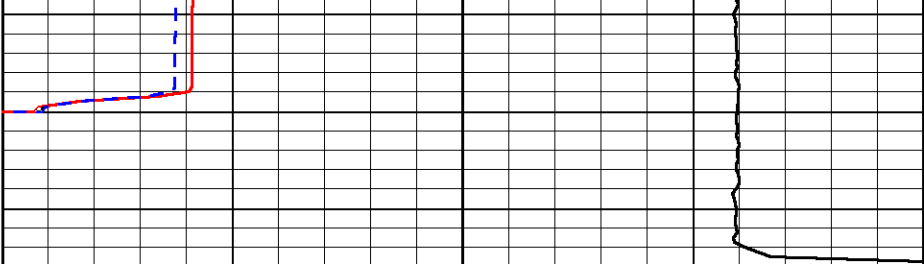
32

32





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



0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
10000	Line Weight	0

LSPD