



PIONEER

Pioneer Energy Services

Dual Induction 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
MEL/BHCS

Elevation

Permanent Datum

Ground Level

Elevation 2316

Log Measured From

Kelly Bushing

8 Ft. Above Perm. Datum

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

Drilling Measured From

Kelly Bushing

8 Ft. Above Perm. Datum

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

Date

8/27/2012

Run Number

One

Depth Driller

4079

Depth Logger

4081

Bottom Logged Interval

4080

Top Log Interval

250

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

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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

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(785) 625-3858

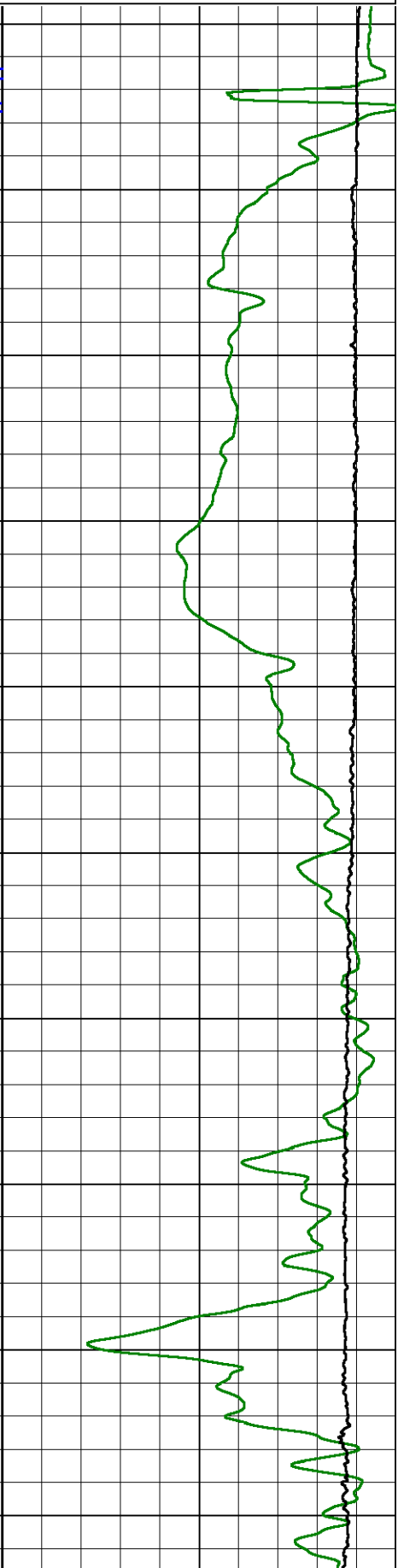
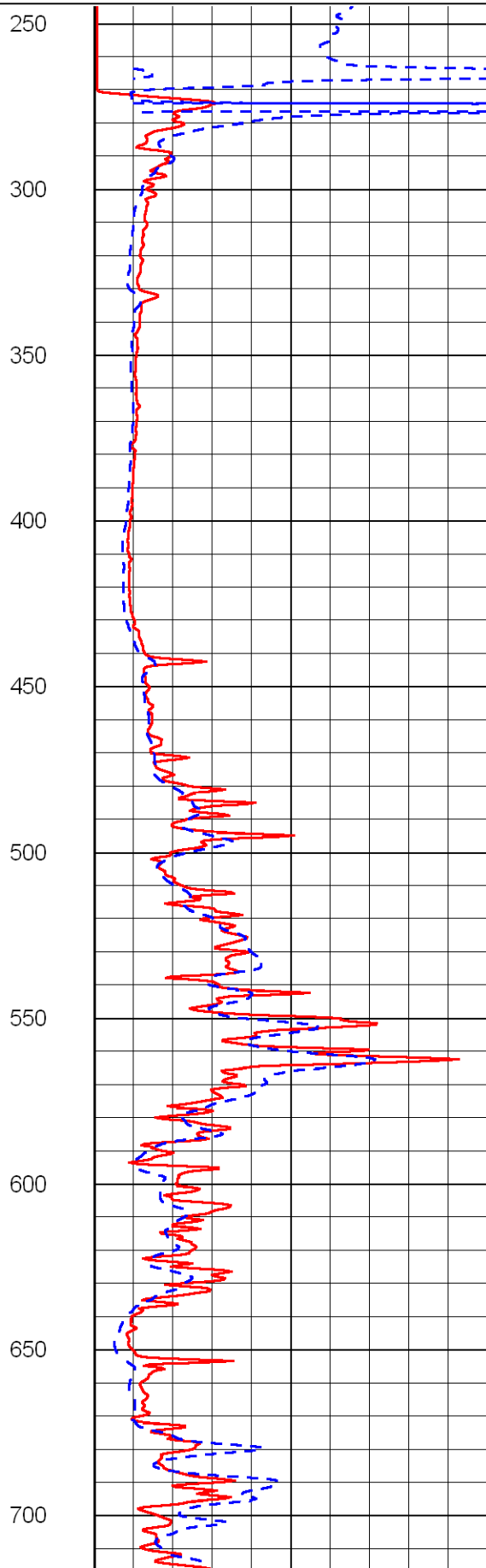
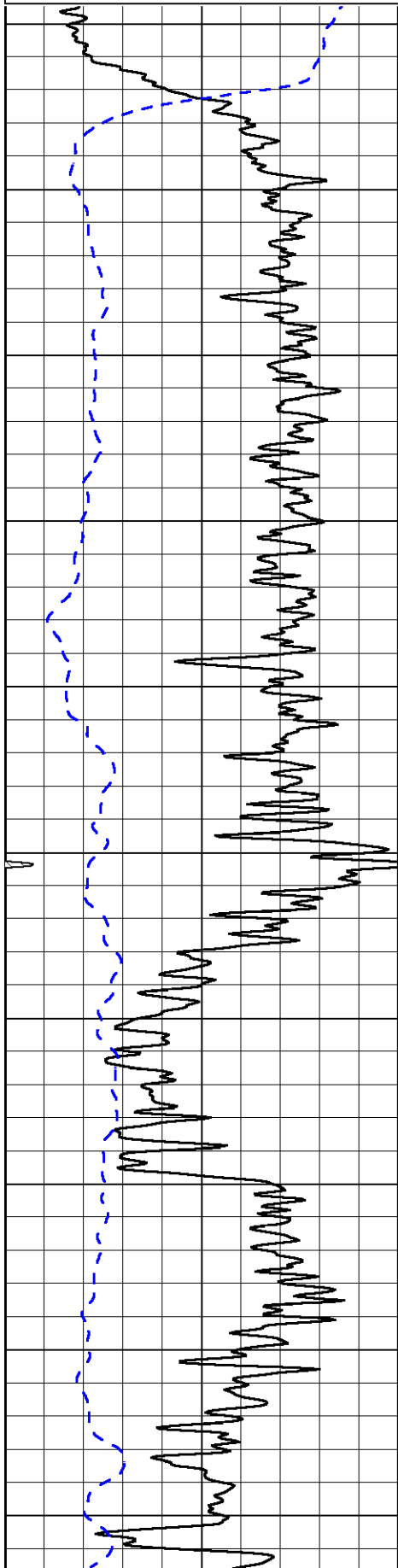
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7N, 1 1/2W, S into

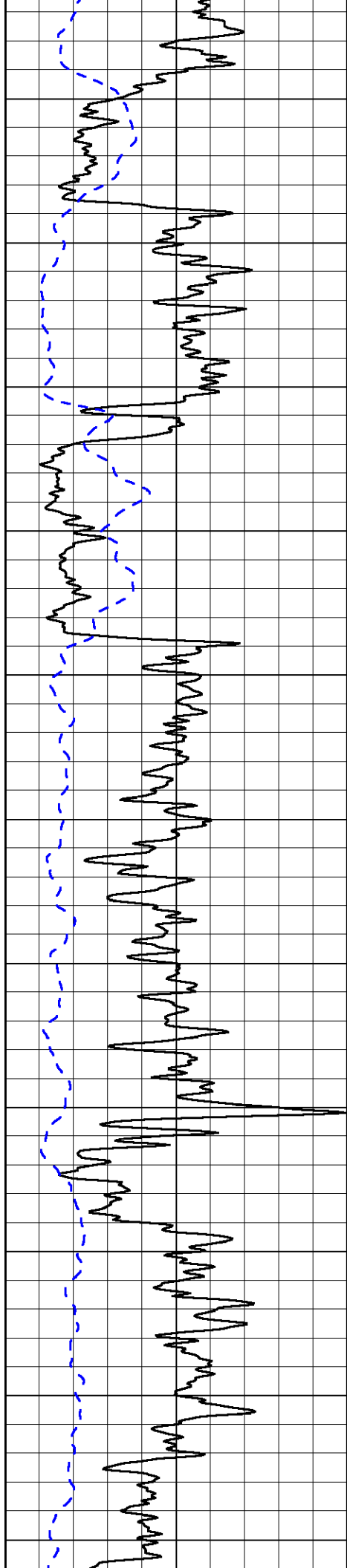
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Dataset Pathname: dil/chmain
Presentation Format: dil2in
Dataset Creation: Tue Aug 28 02:22:48 2012
Charted by: Depth in Feet scaled 1:600

0	Gamma Ray	150
-200	SP	0

0	Shallow Resistivity	50
0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0

50	Shallow Resistivity	500
50	Deep Resistivity	500





750

800

850

900

950

1000

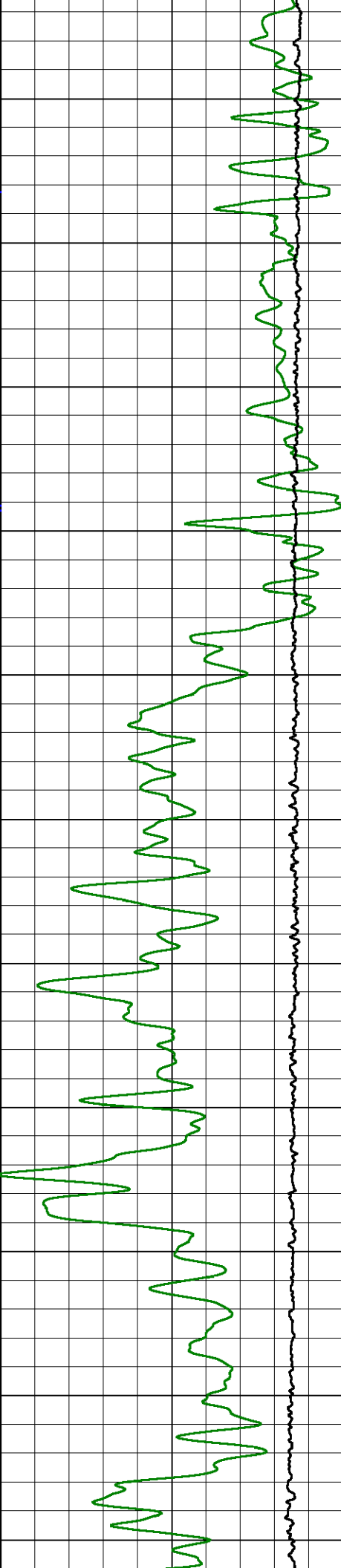
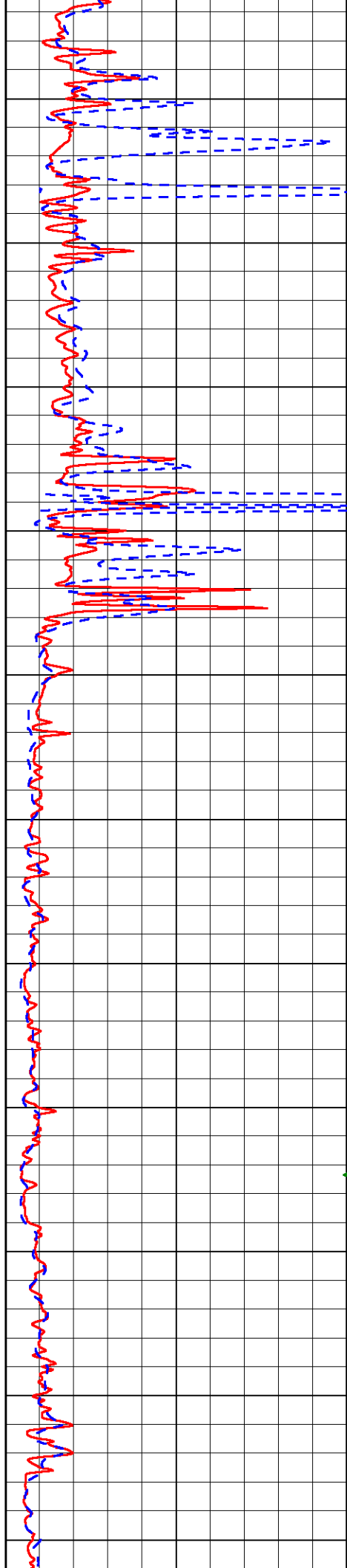
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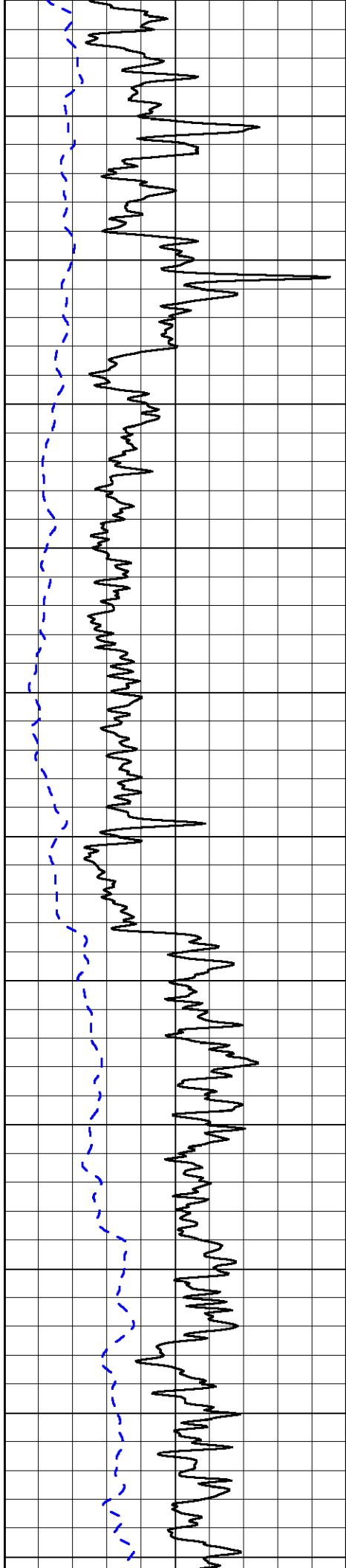
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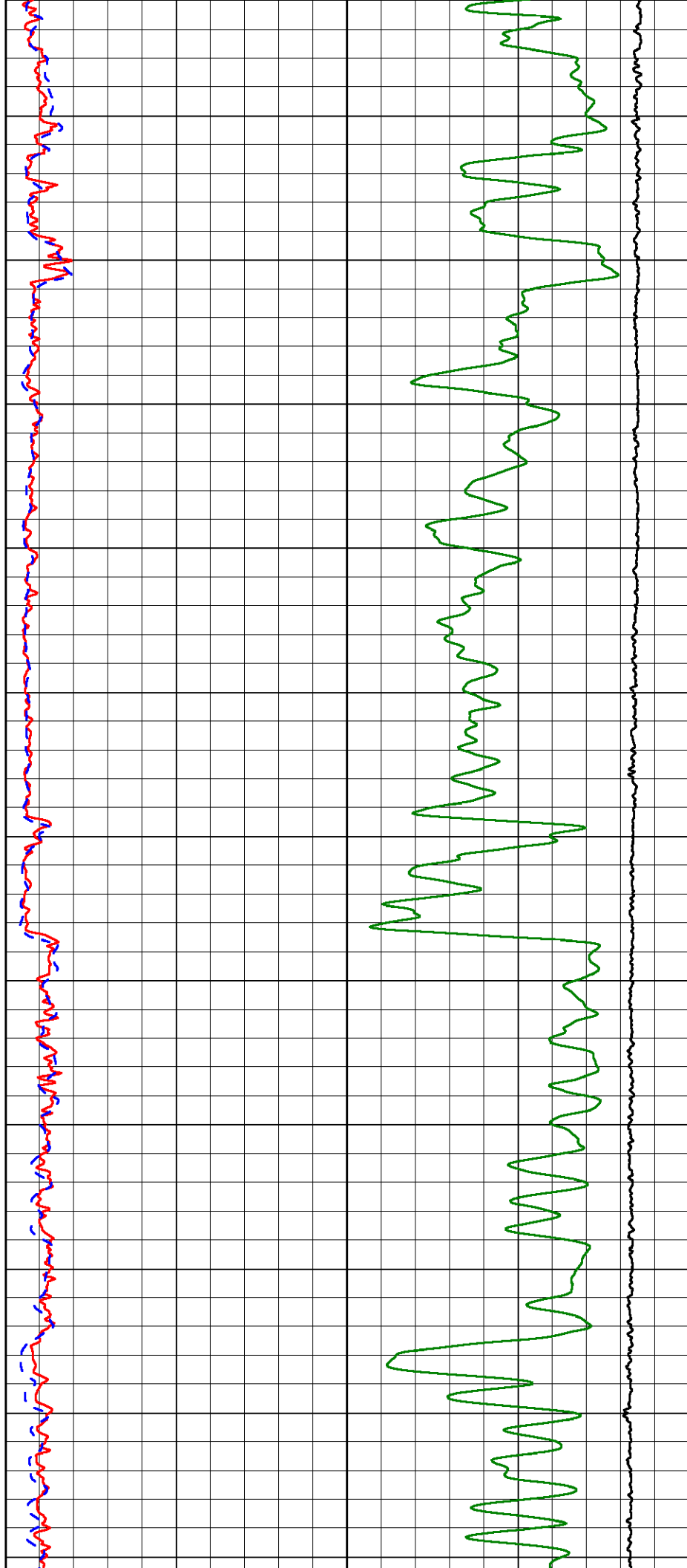
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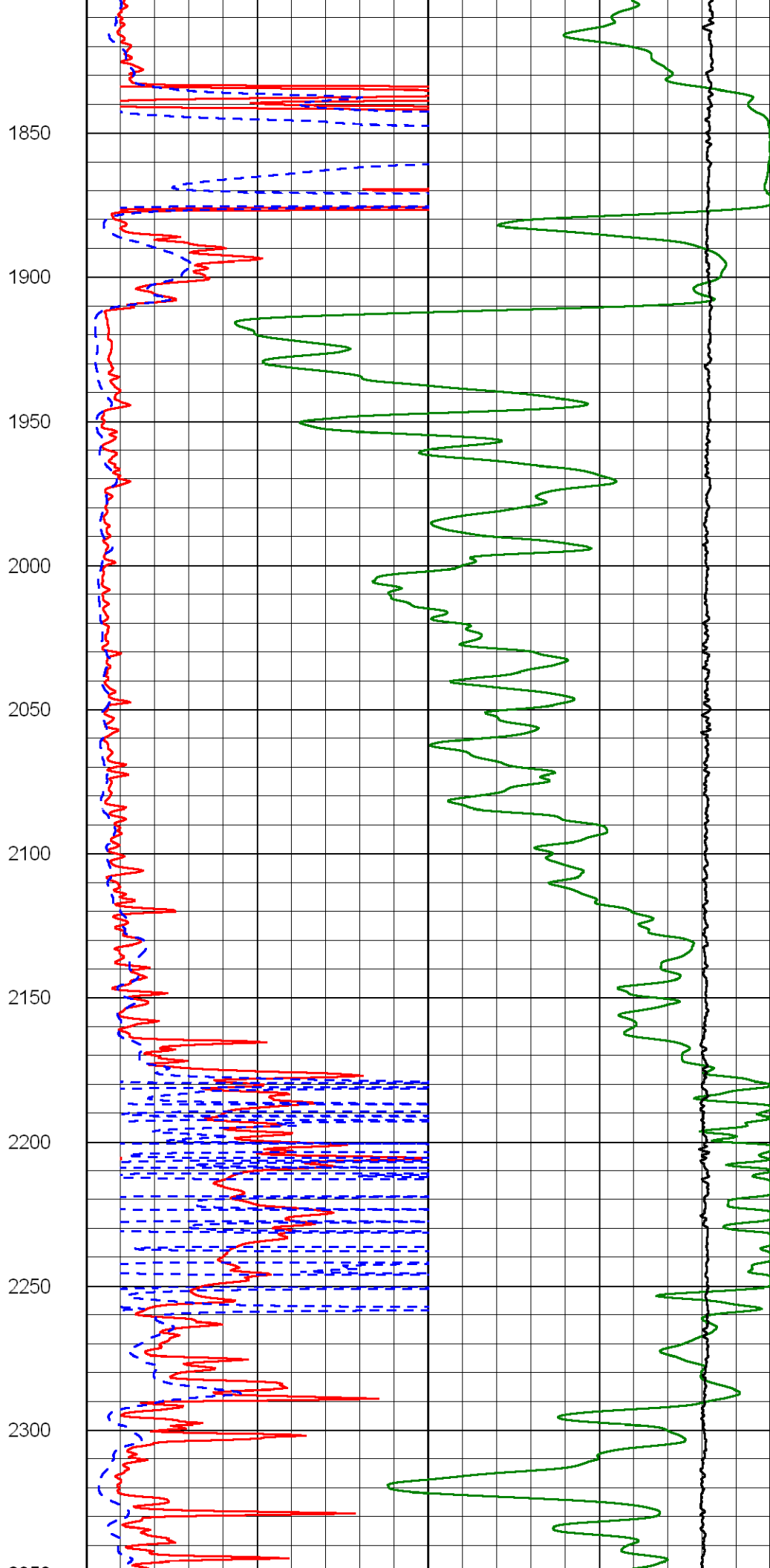
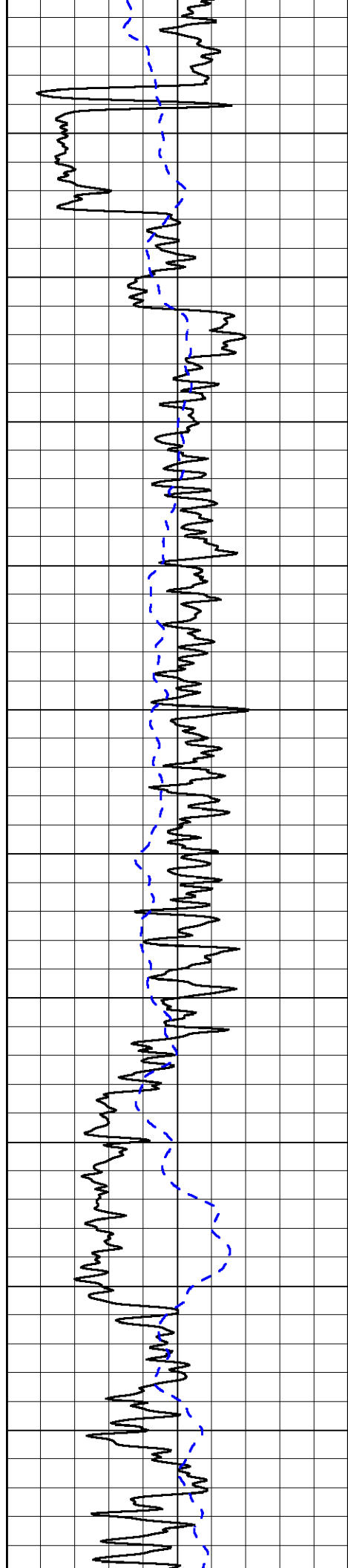
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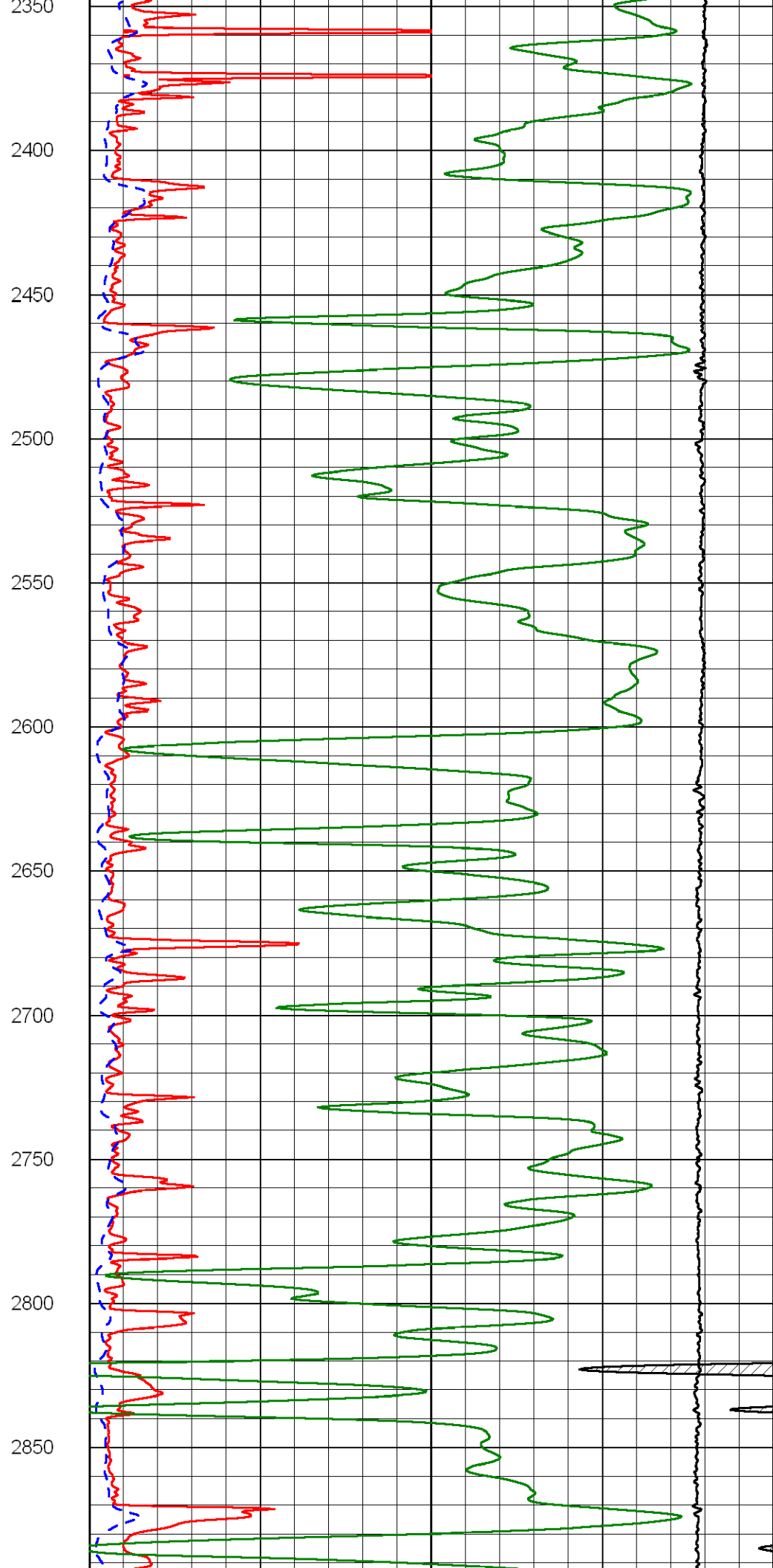
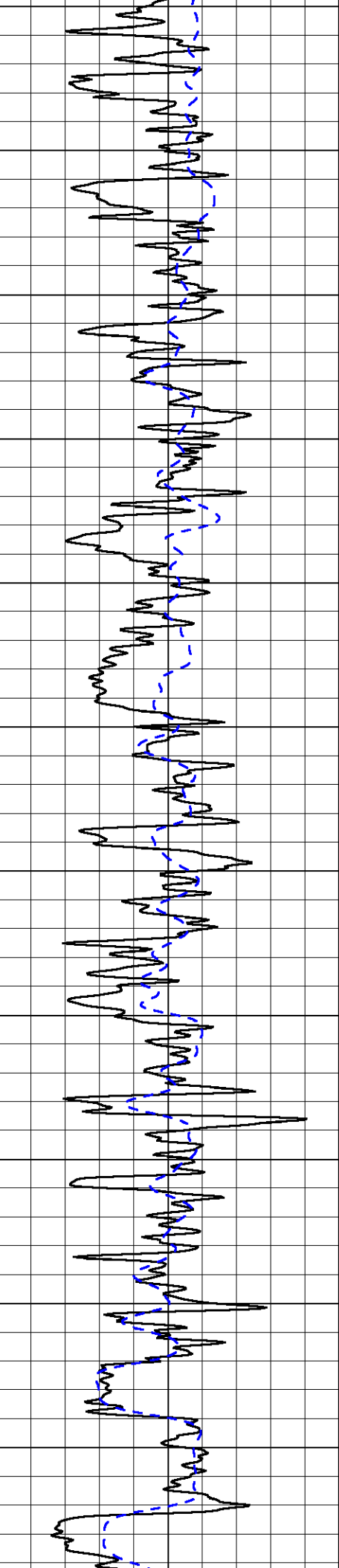


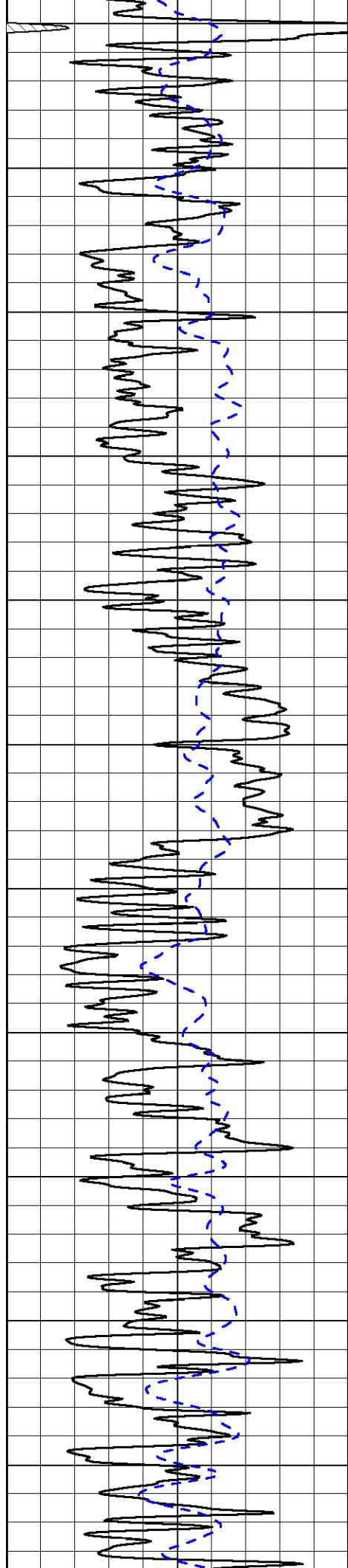


1300
1350
1400
1450
1500
1550
1600
1650
1700
1750
1800









2900

2950

3000

3050

3100

3150

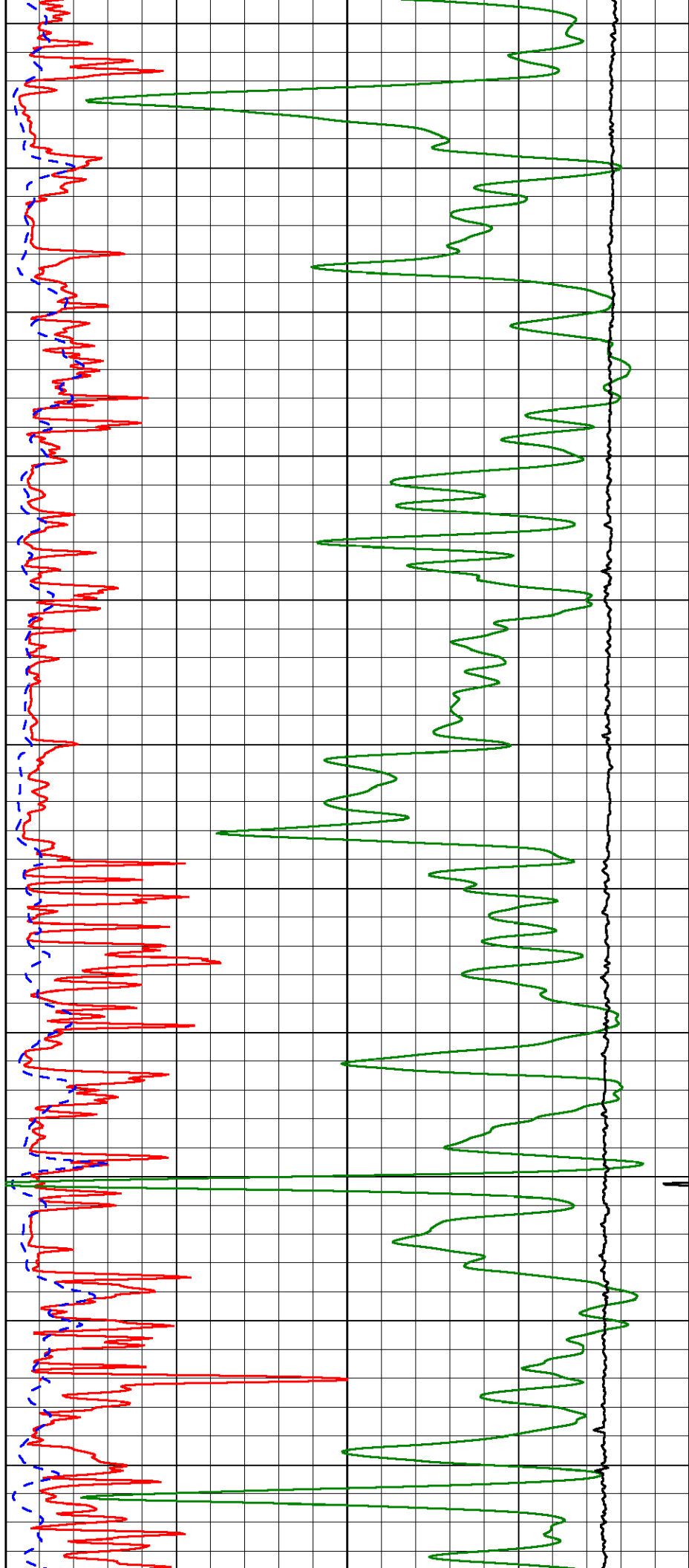
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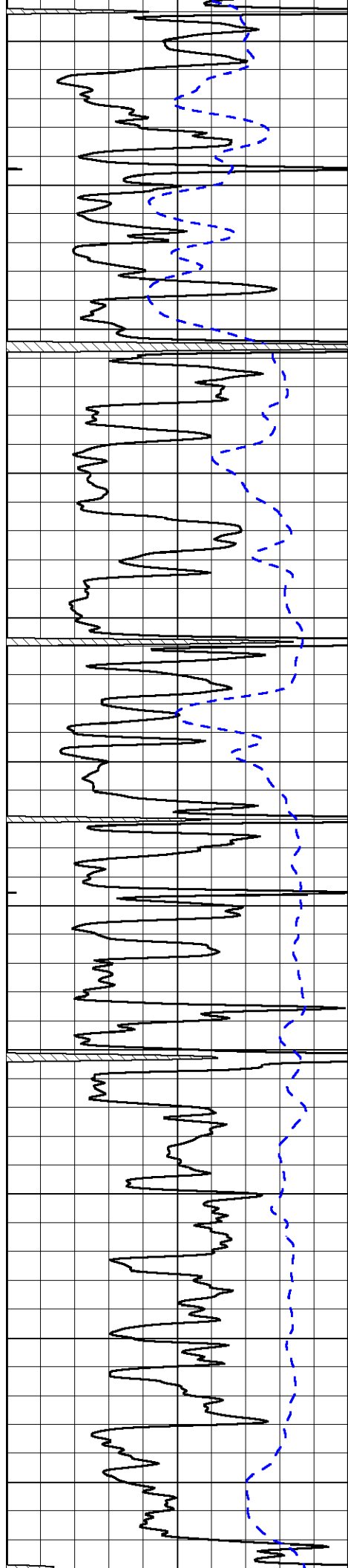
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3350

3400





3450

3500

3550

3600

3650

3700

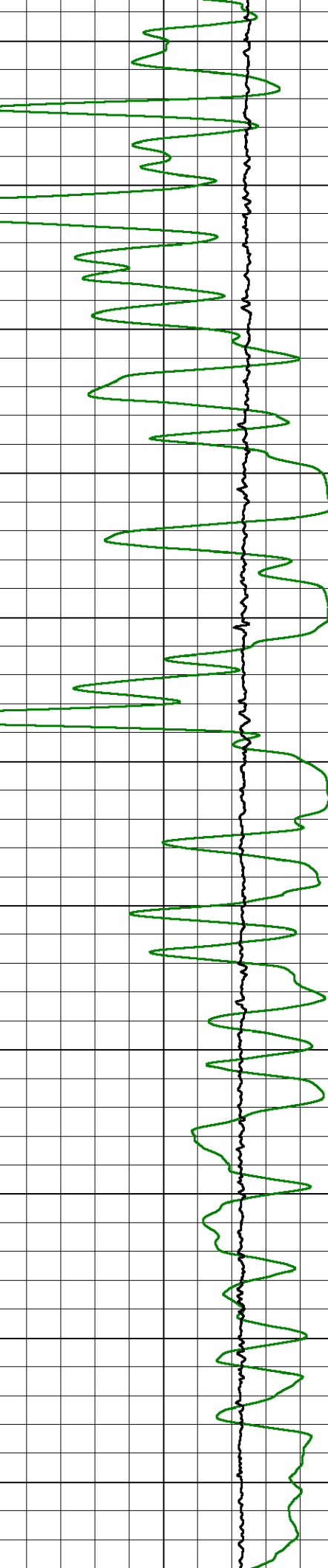
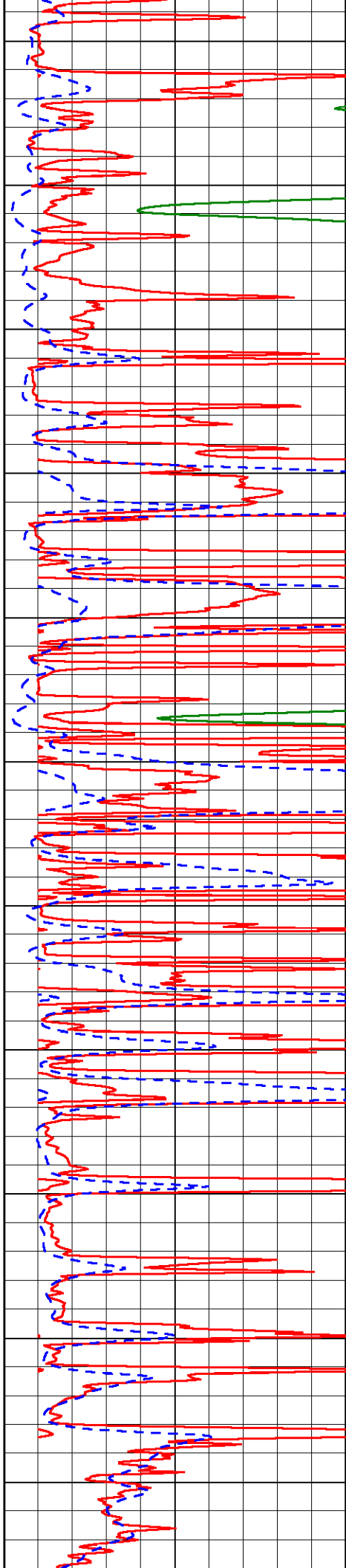
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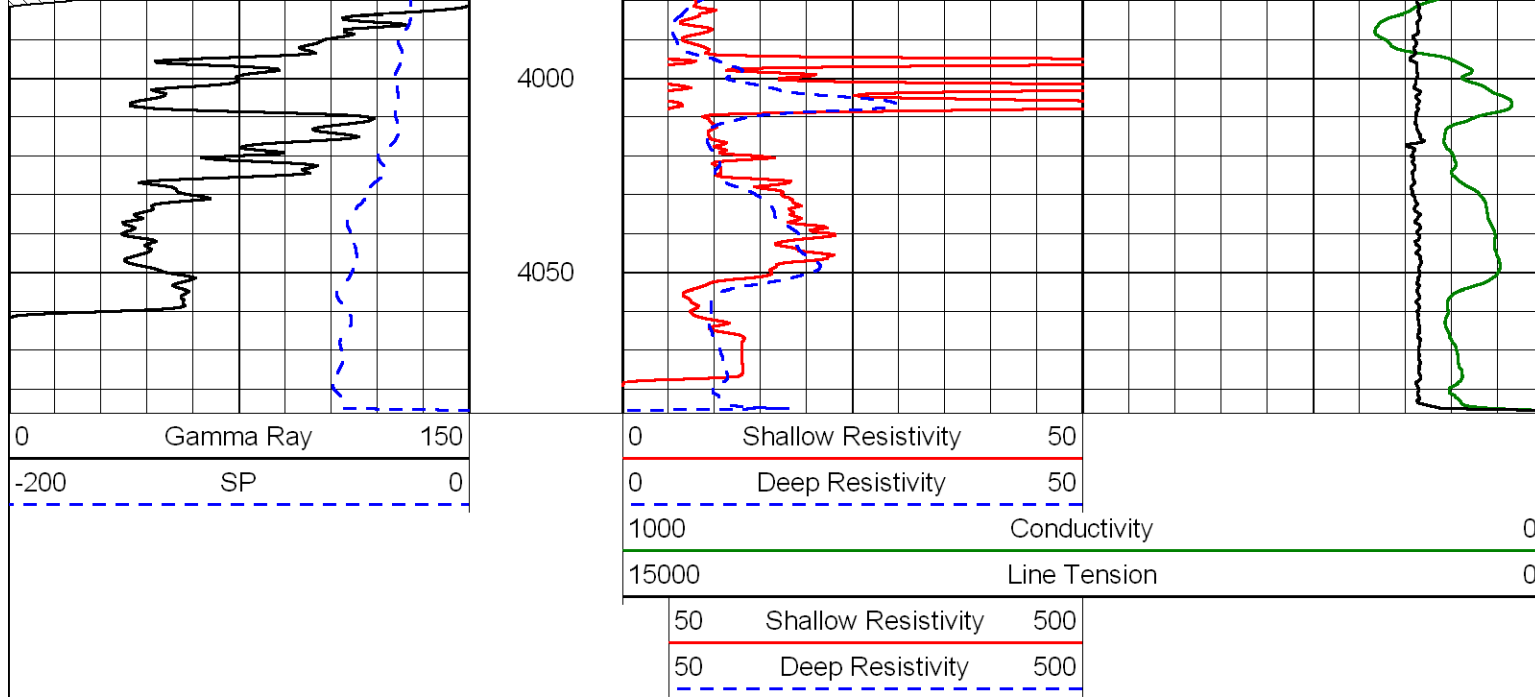
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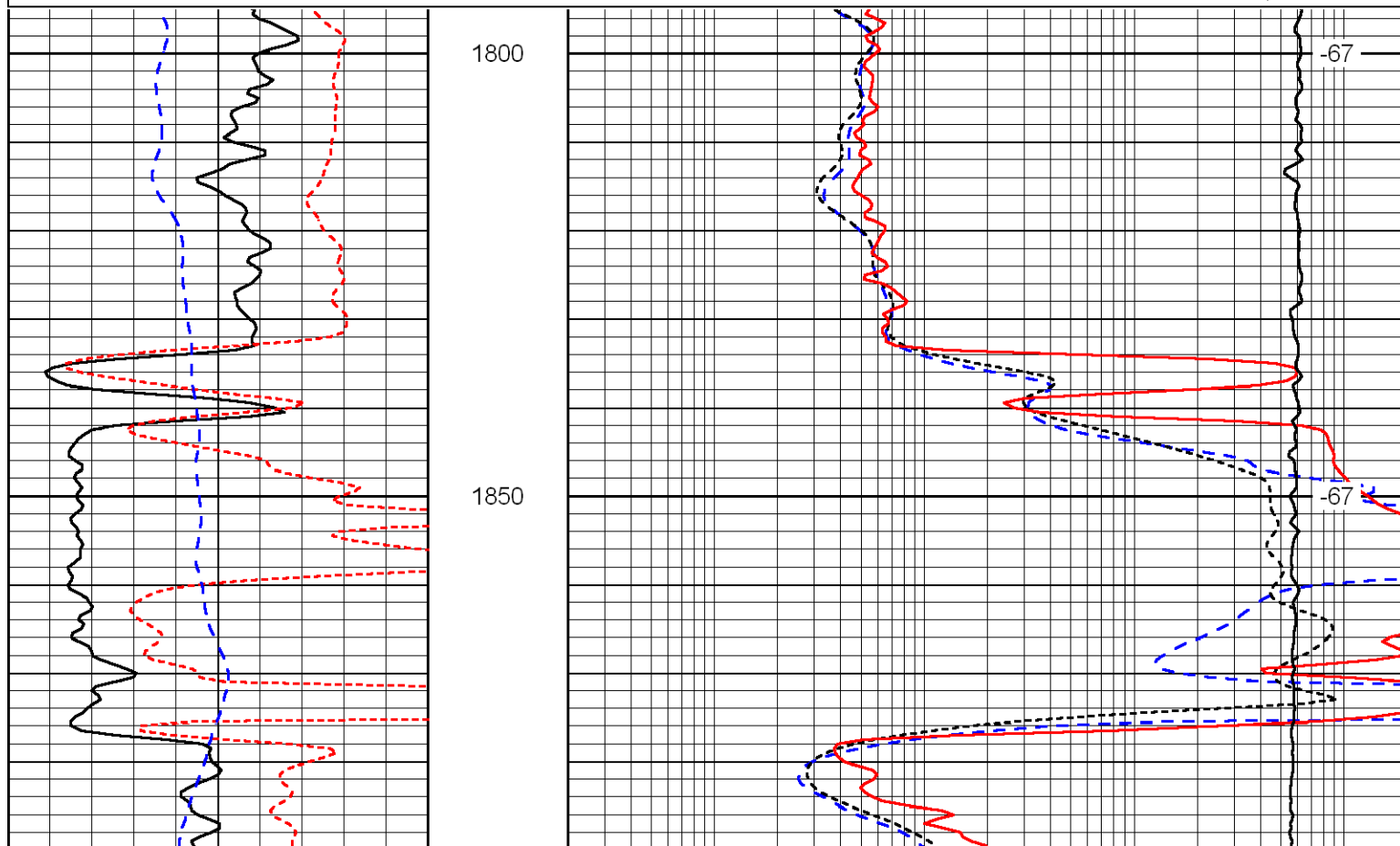
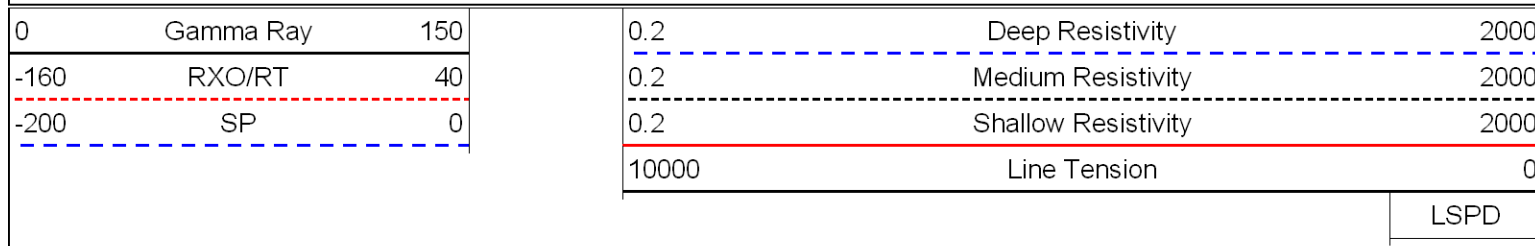
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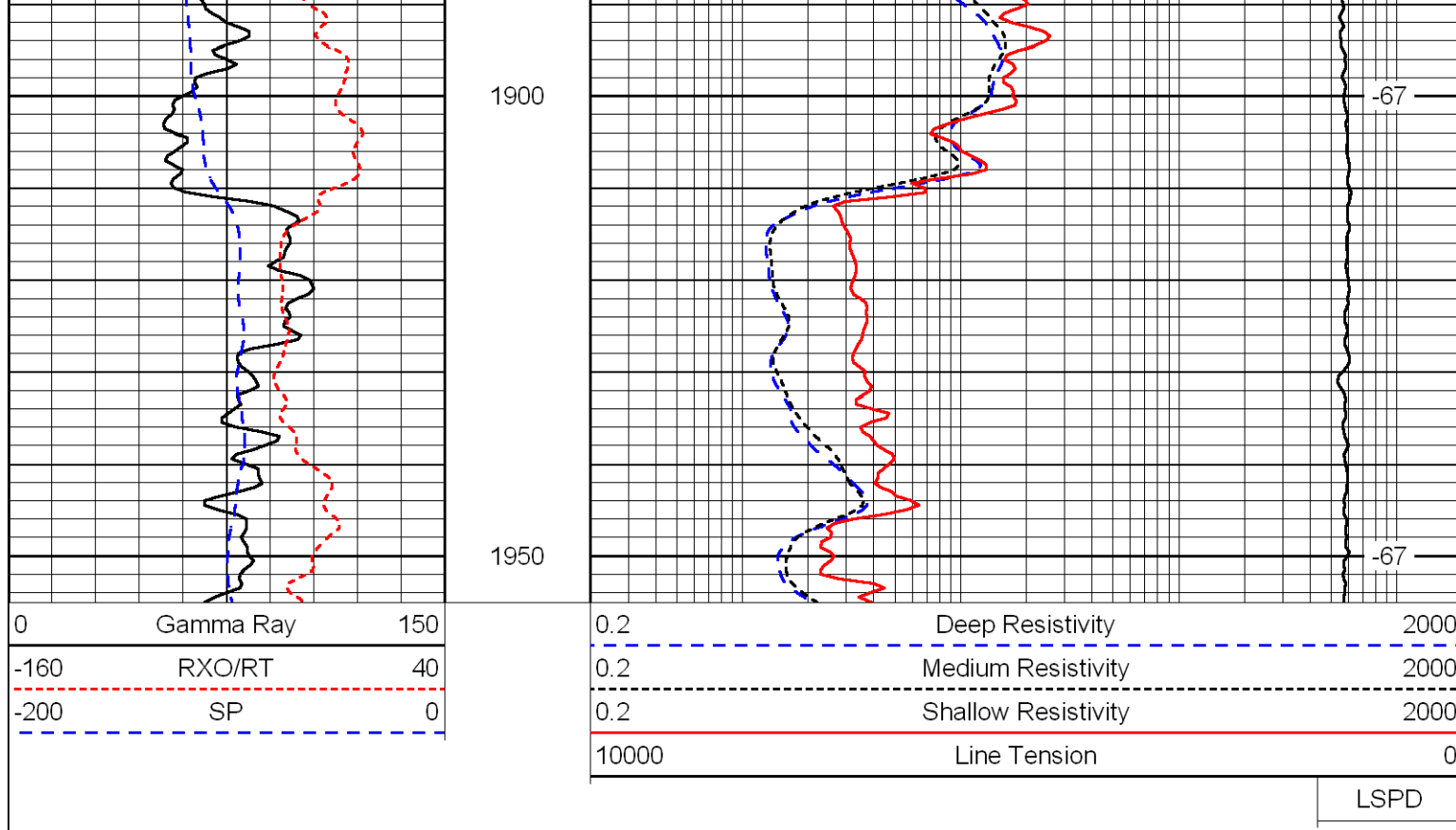
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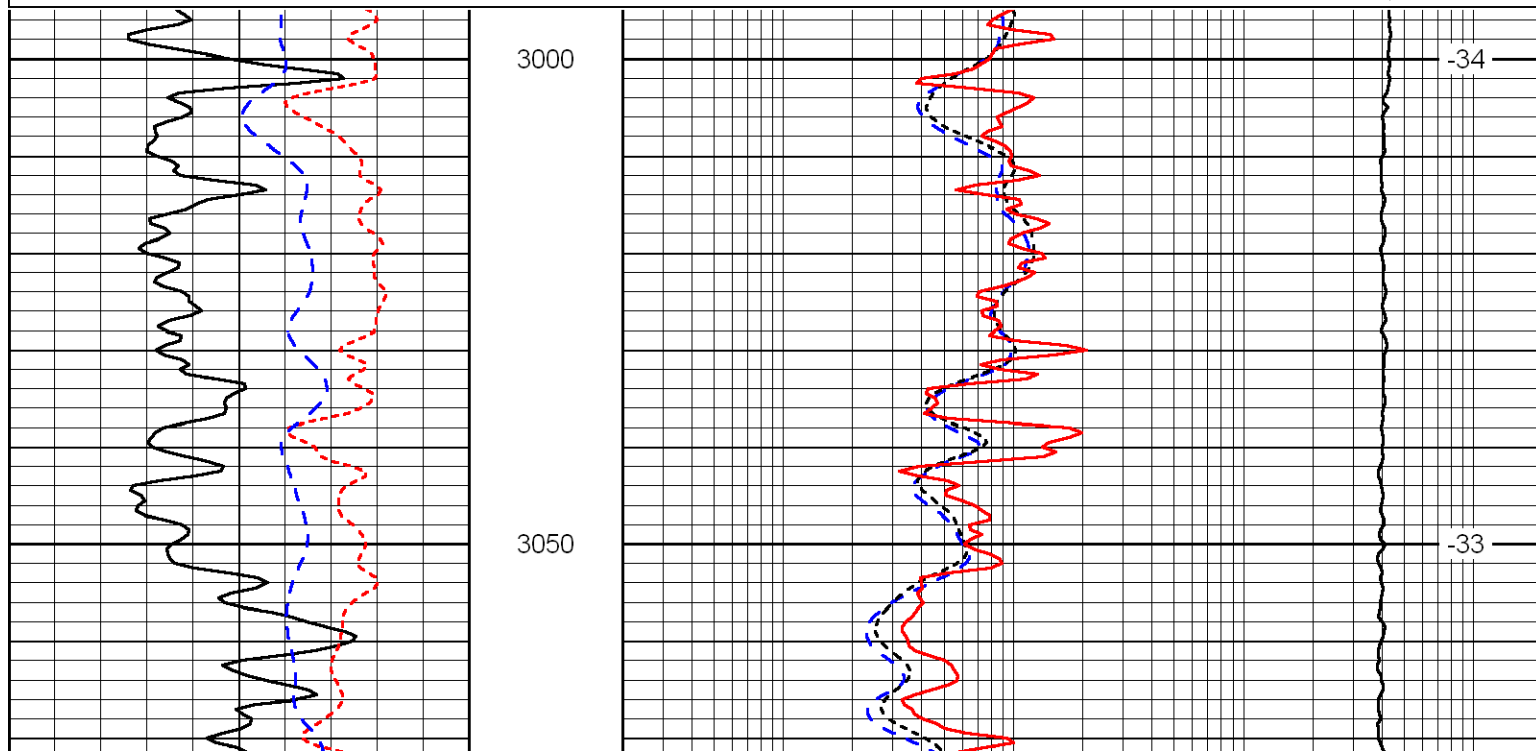
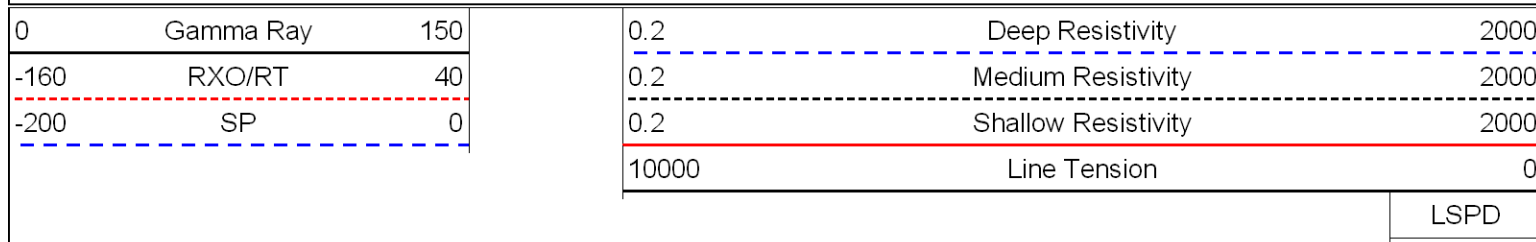


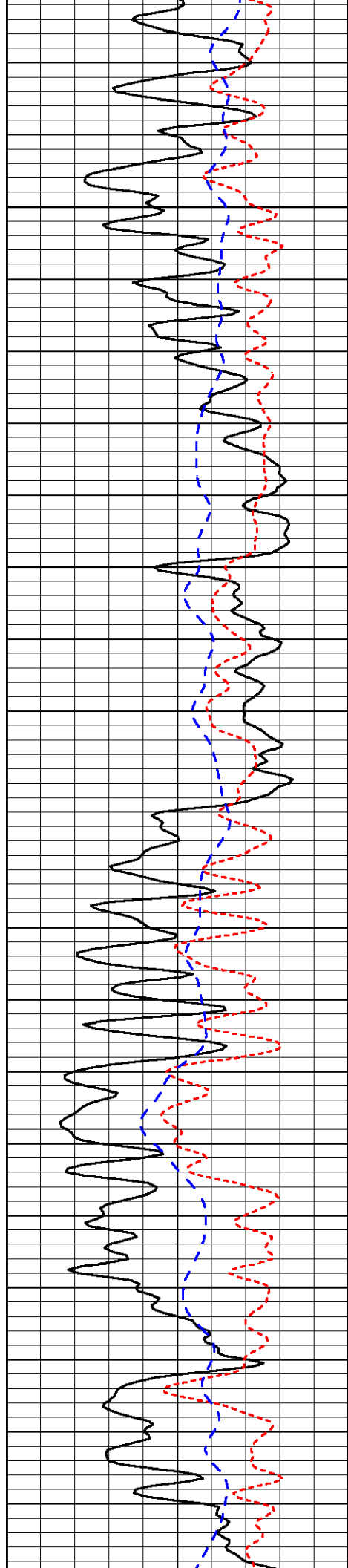
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 Dataset Pathname: dil/chmain
 Presentation Format: dil
 Dataset Creation: Tue Aug 28 02:22:48 2012
 Charted by: Depth in Feet scaled 1:240





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



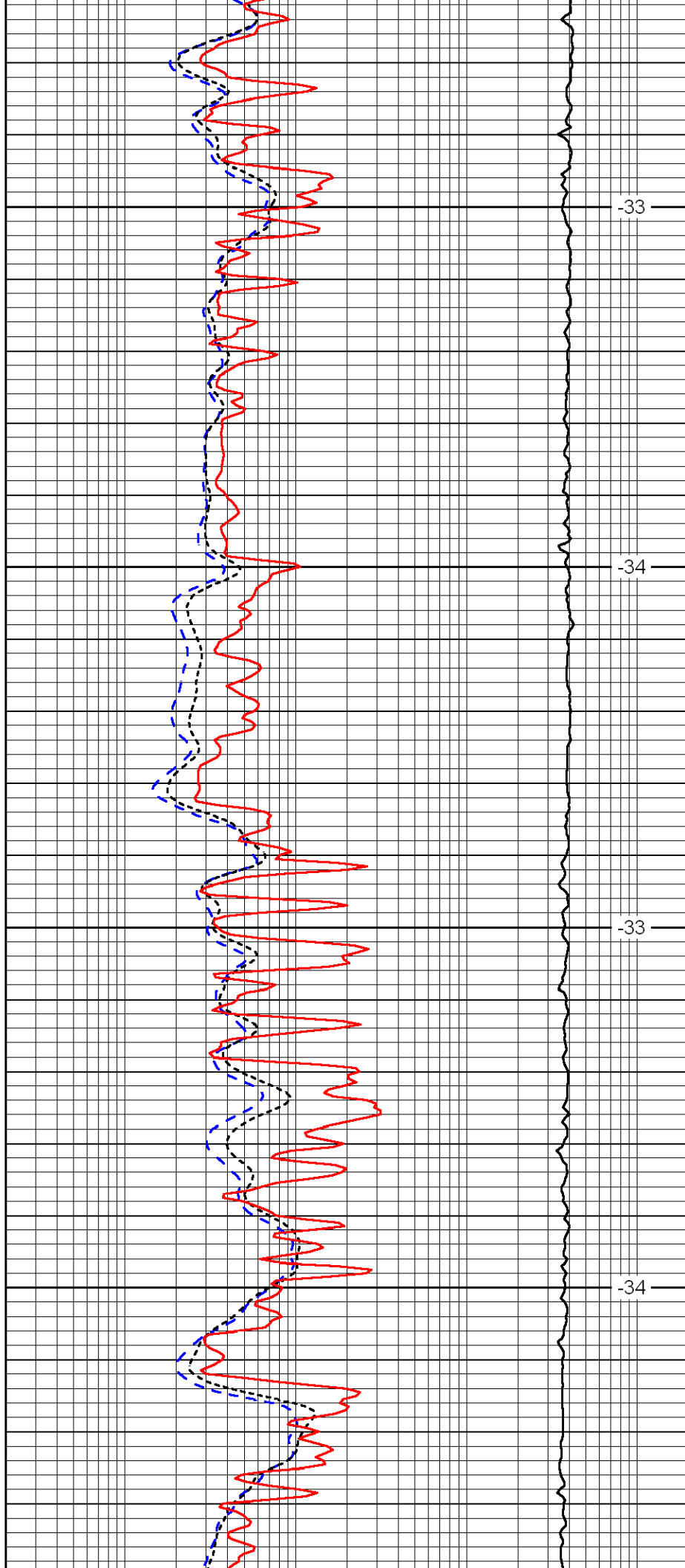


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3150

3200

3250

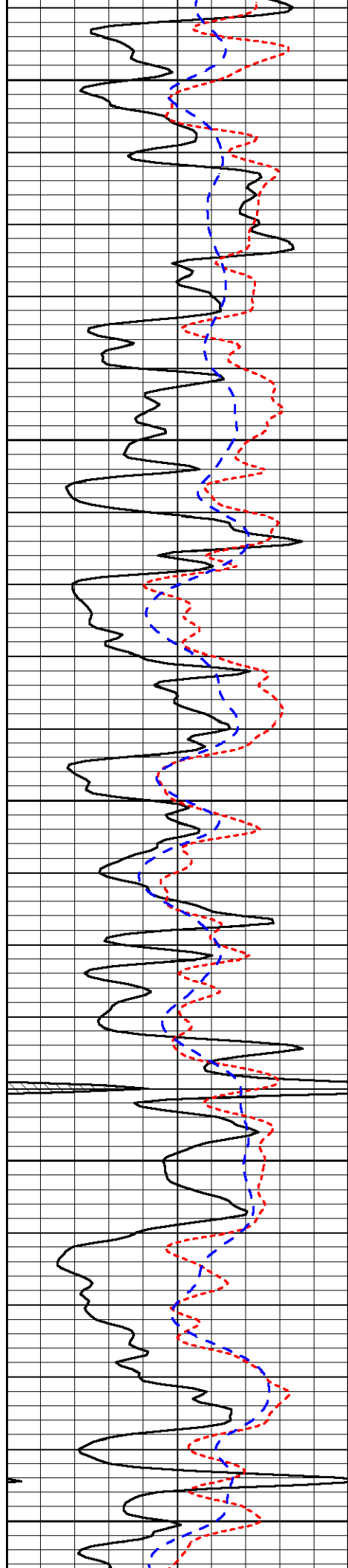


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-34

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-34



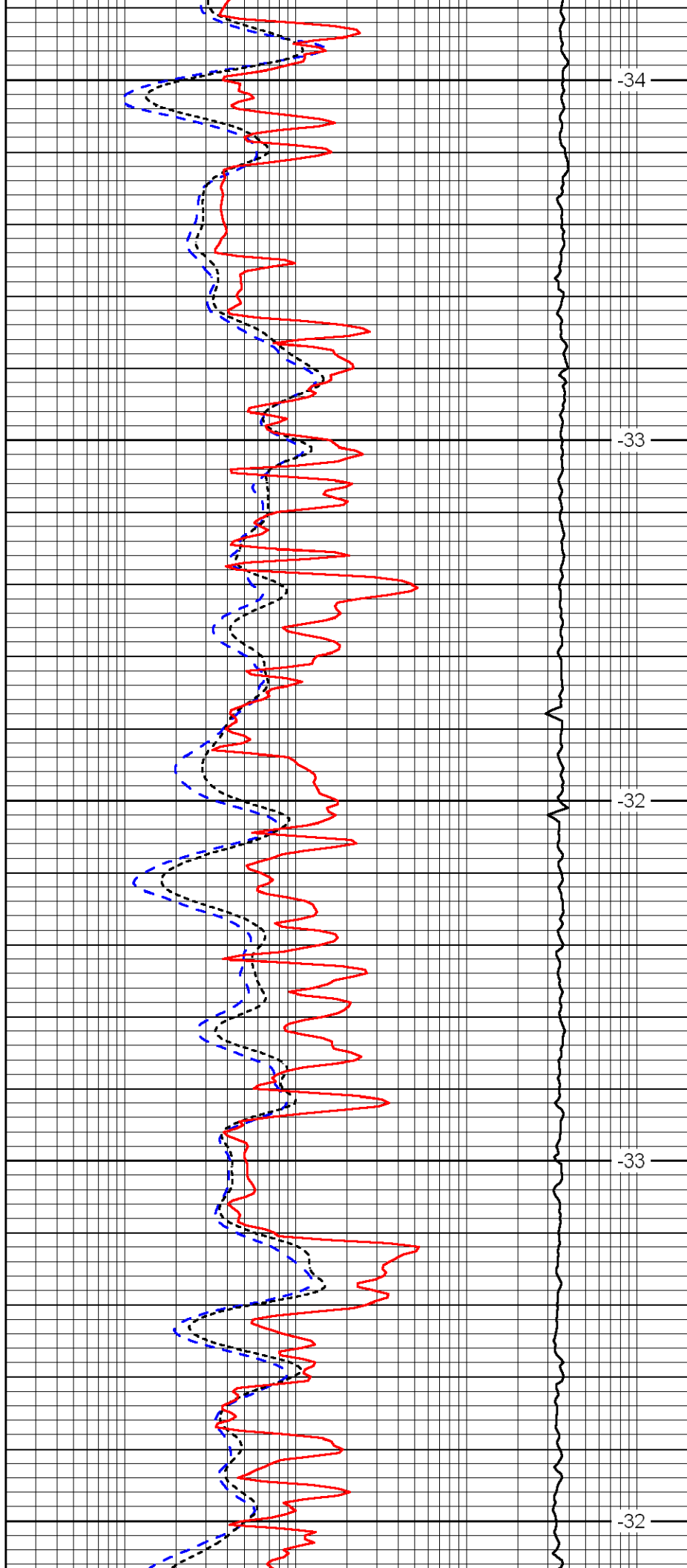
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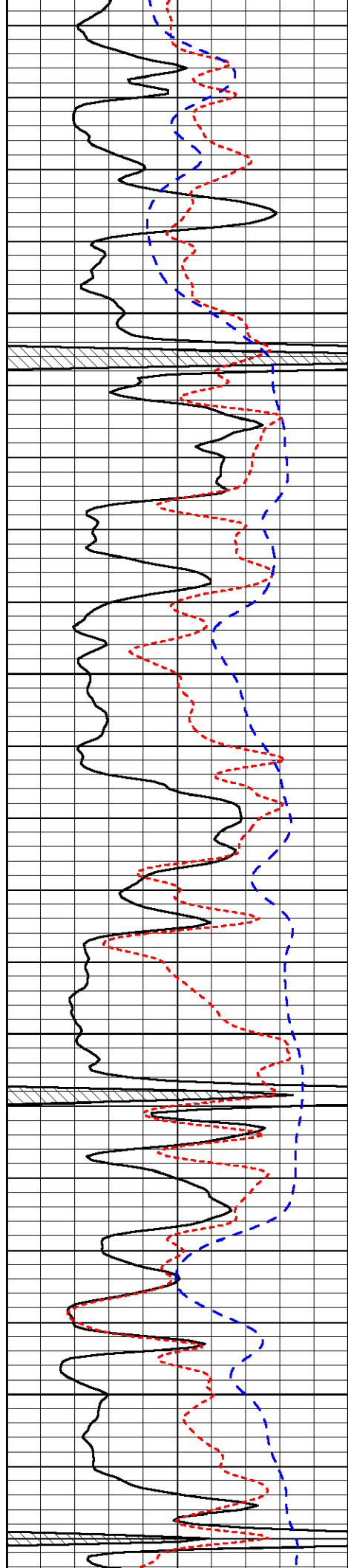
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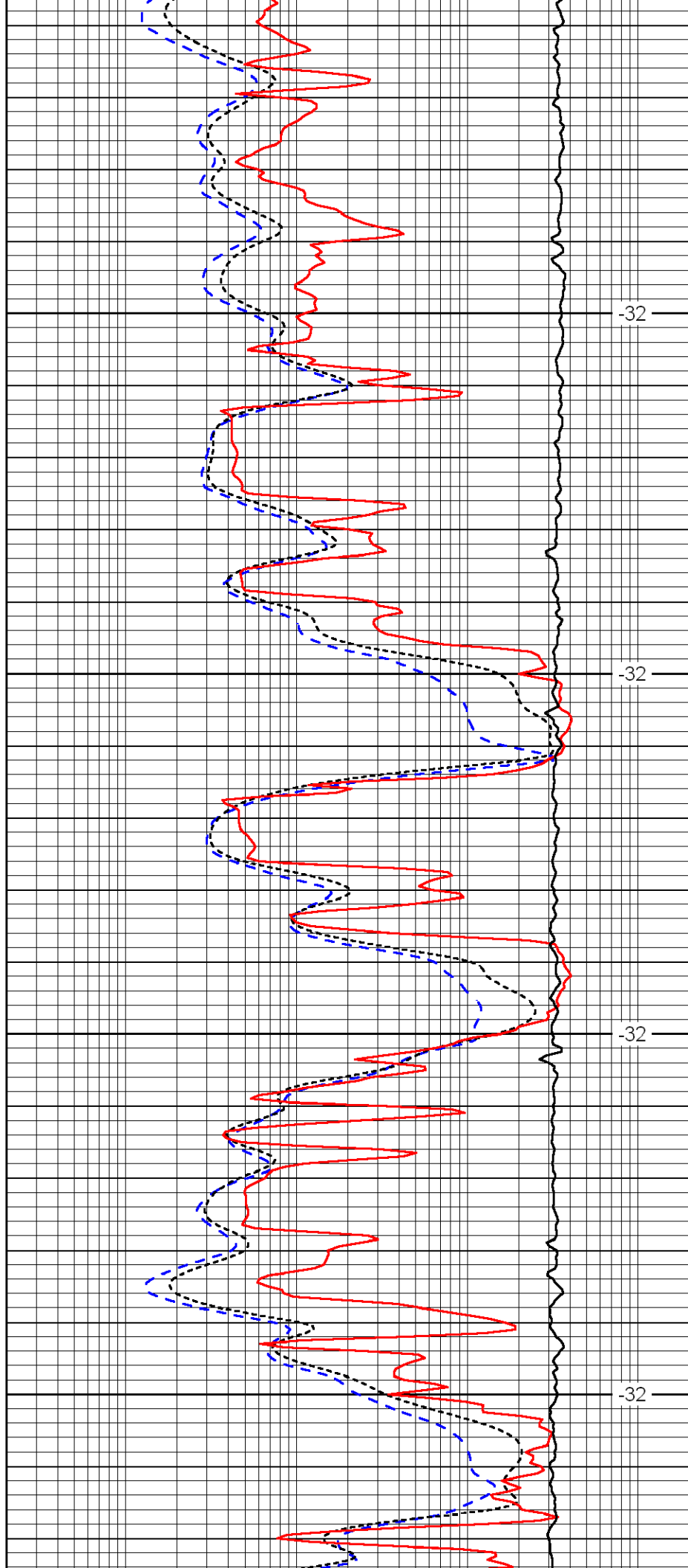


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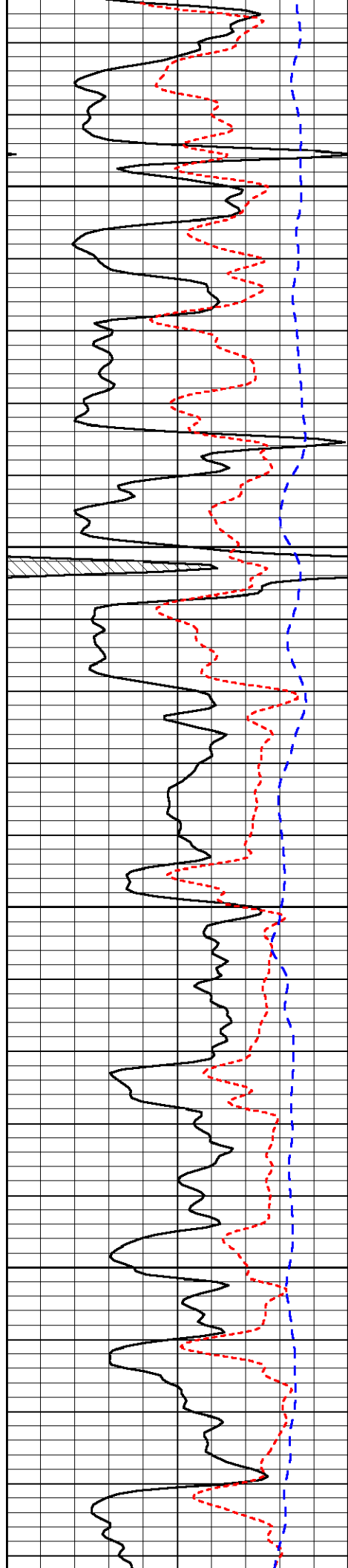


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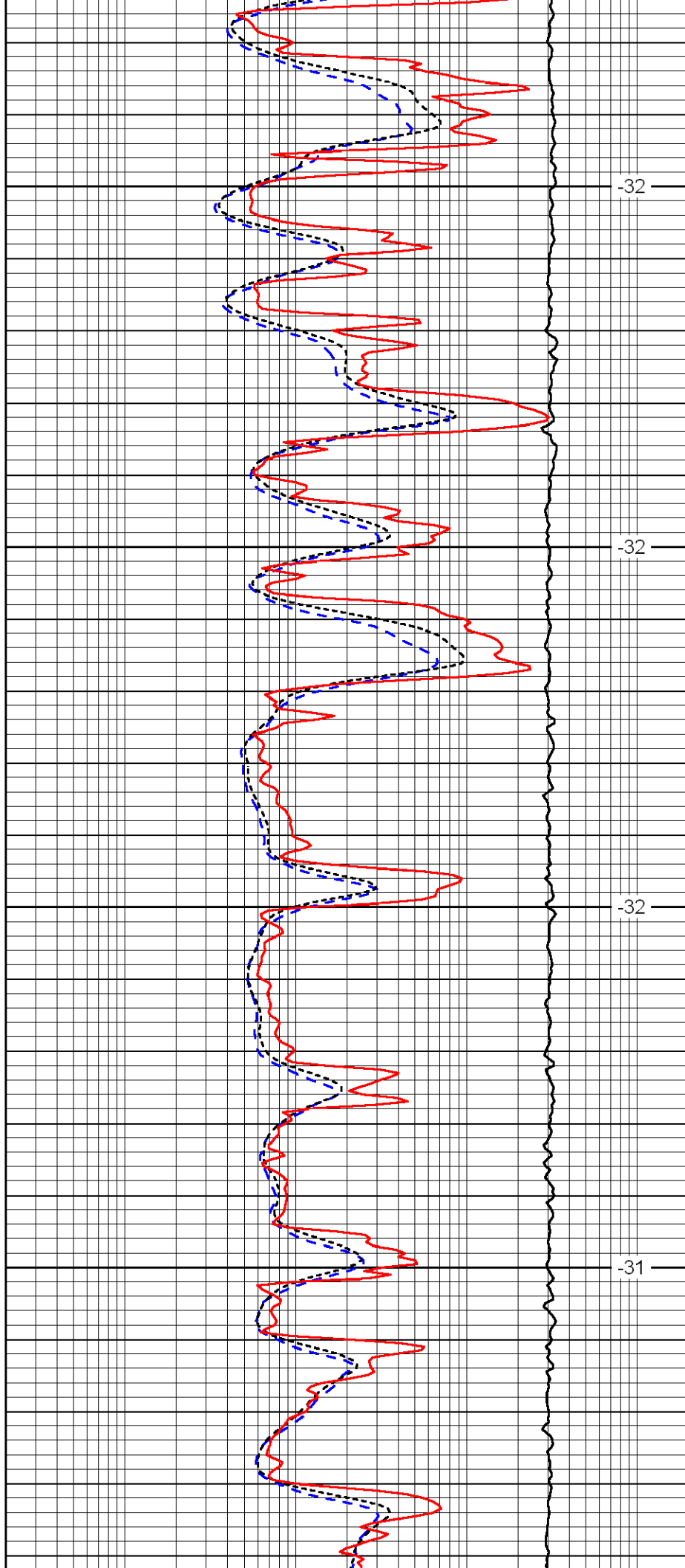


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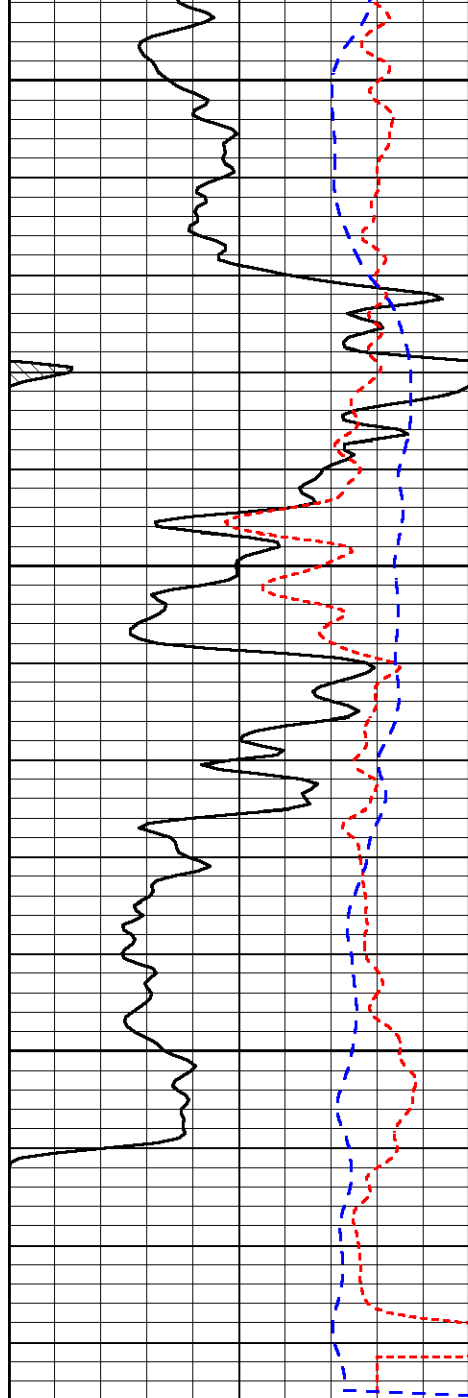


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-32

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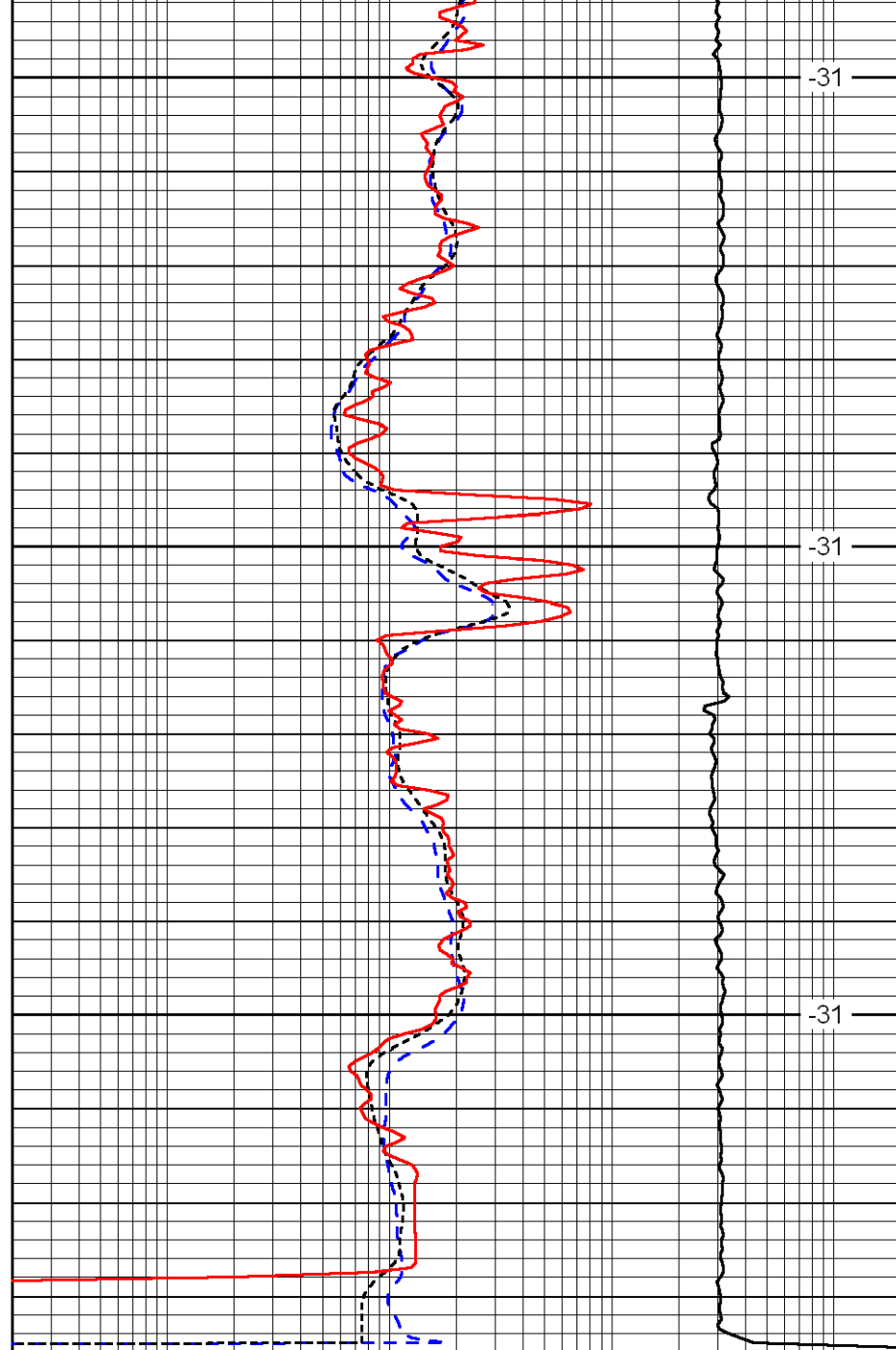


0	Gamma Ray	150
-160	RXO/RT	40
-200	SP	0

3950

4000

4050



0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD