



Pioneer Energy Services

# Dual Induction Log

15-007-24,031-00-00

API No.

Company Indian Oil Company, Inc.

Well Helen Mae #3

Field Stranathan

County Barber State Kansas

Location SW SE SE  
330' FSL & 990' FEL

Sec: 10 Twp: 35S Rge: 12W

Permanant Datum Ground Level Elevation 1382  
Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum  
Drilling Measured From Kelly Bushing

Date 6/10/2013

Run Number One

Depth Driller 5100

Depth Logger 5099

Bottom Logged Interval 5098

Top Log Interval 750

Casing Driller 8.625 @ 778

Casing Logger 773

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity,ppm CL 4000

Density / Viscosity 9.5 59

pH / Fluid Loss 10.0 9.2

Source of Sample Flowline

Rm @ Meas. Temp .48 @ 80

Rmf @ Meas. Temp .36 @ 80

Rmc @ Meas. Temp .65 @ 80

Source of Rmf / Rmc Charts

Rm @ BHT .30 @ 127

Operating Rig Time 2 1/2 Hours

Max Rec. Temp. F 127

Equipment Number 108

Location Hays

Recorded By J. Long

Witnessed By Scott Alberg

Other Services  
CNL/CDL  
Elevation  
K.B. 1393  
D.F.  
G.L. 1382

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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 Pioneer Energy Services  
www.pioneerres.com  
785 625 3858

Hardtner, 2 1/2 East to Roundup Road, 1/2 South, West Into

Database File: c:\warrior\data\indian oil\_helen mae #3\indianoil\_helenmae\_3hd.db  
Dataset Pathname: dil/indstck  
Presentation Format: dil2in  
Dataset Creation: Mon Jun 10 22:39:47 2013  
Charted by: Depth in Feet scaled 1:600

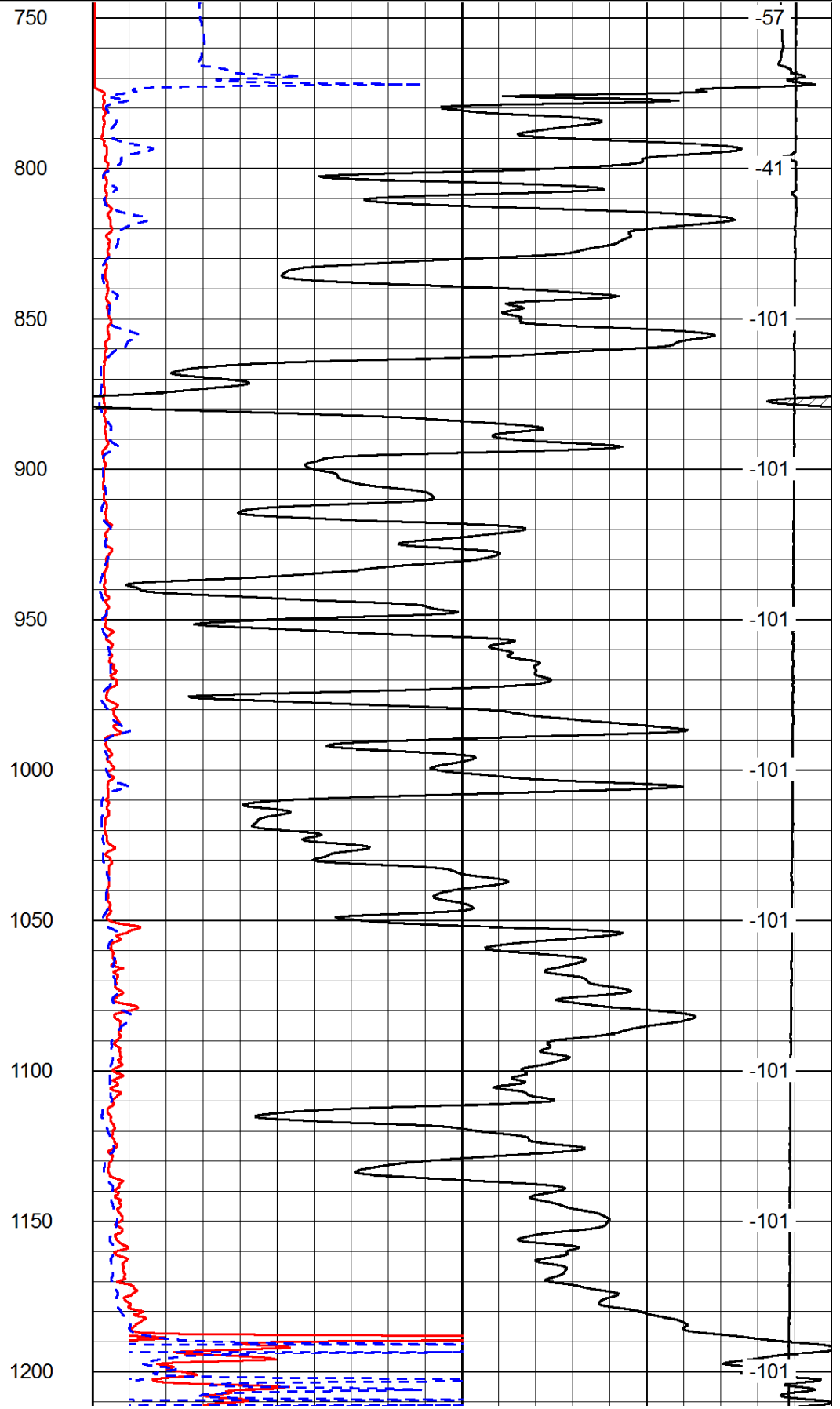
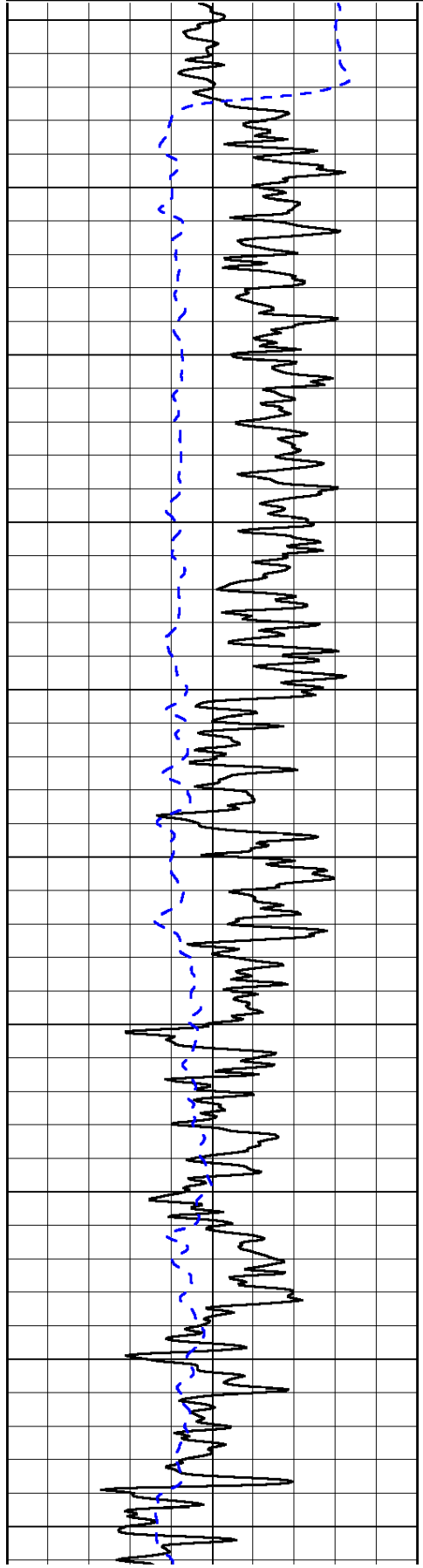
0	Gamma Ray	150
-200	SP (mV)	0

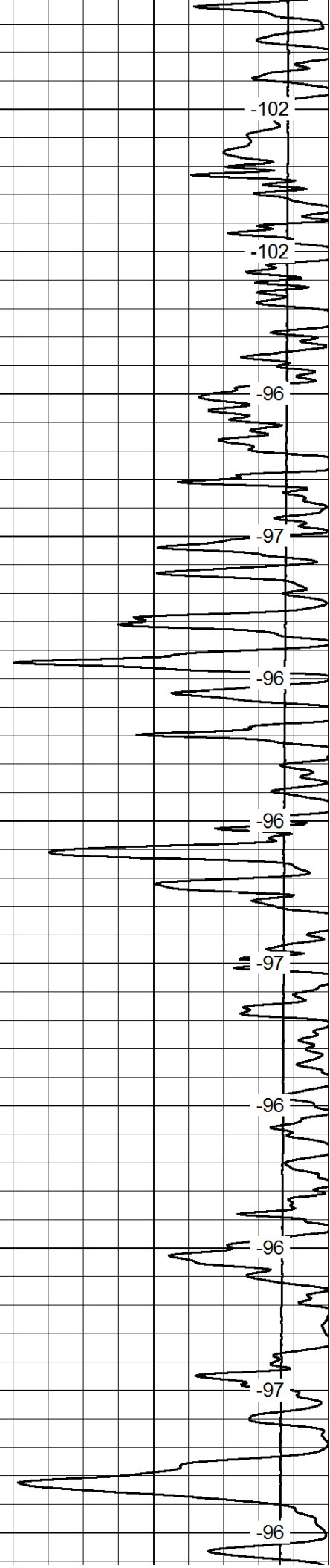
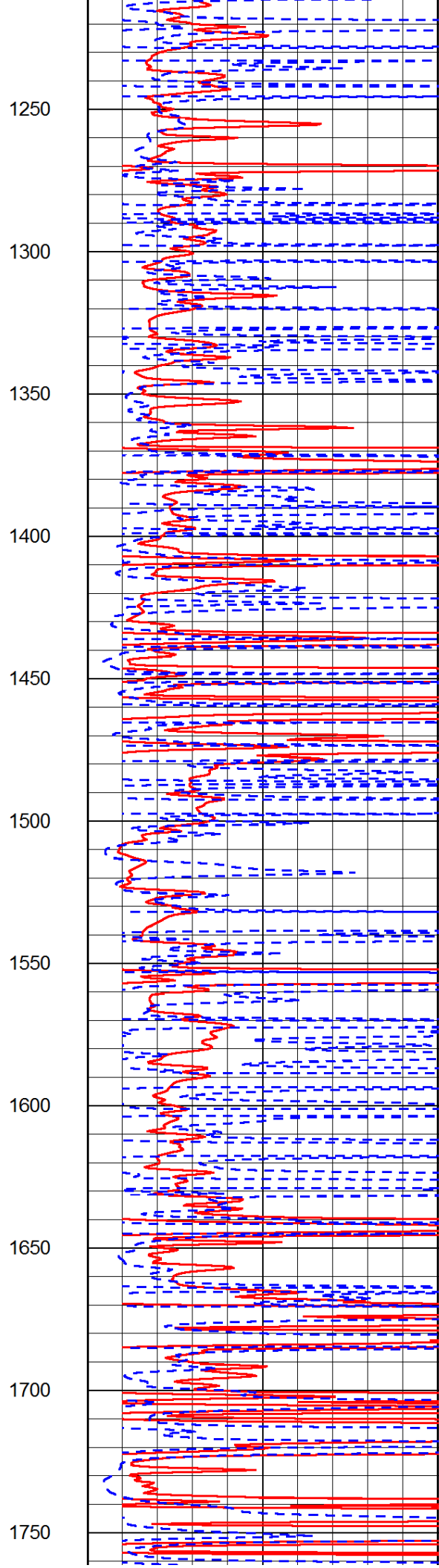
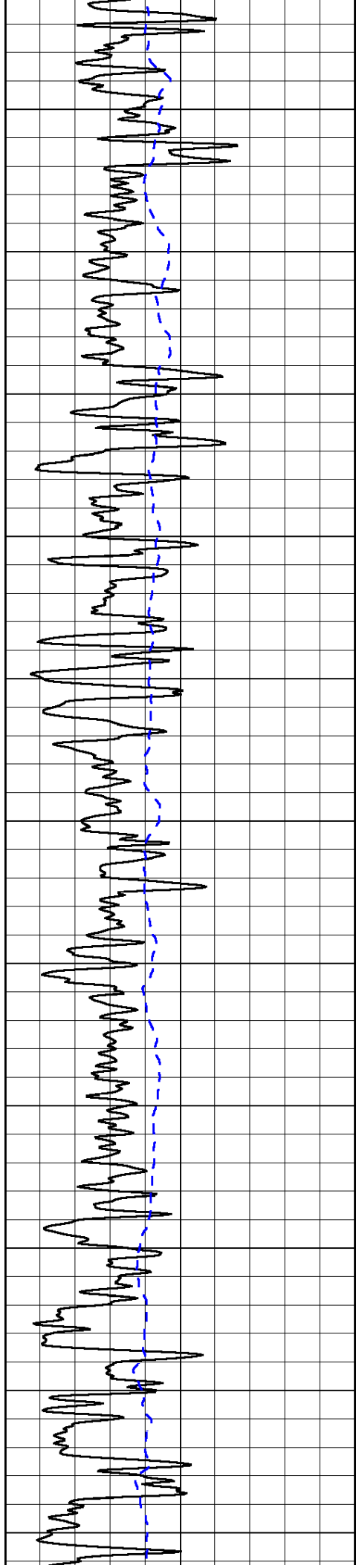
0	Shallow Resistivity	50
0	Deep Resistivity	50

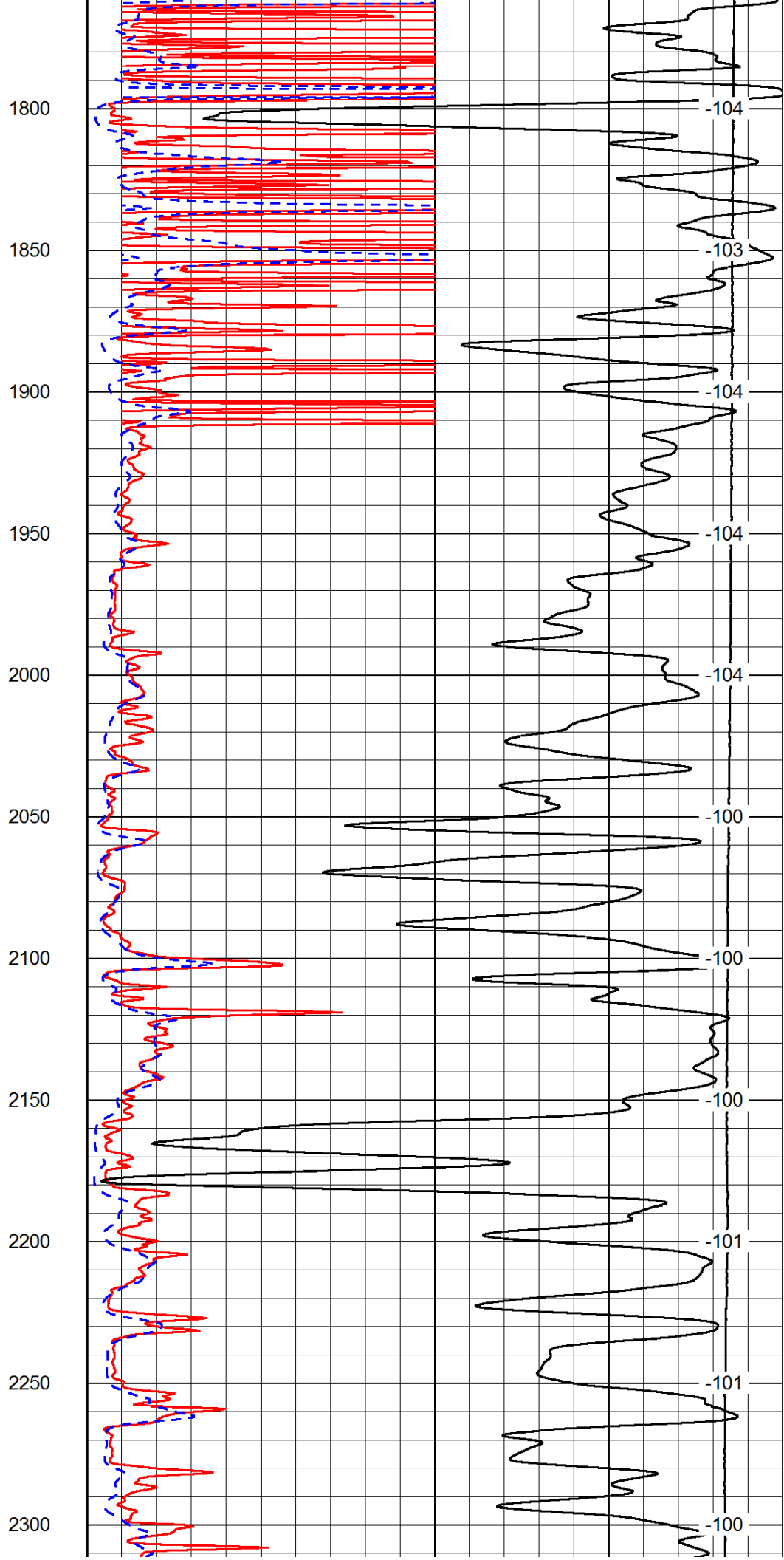
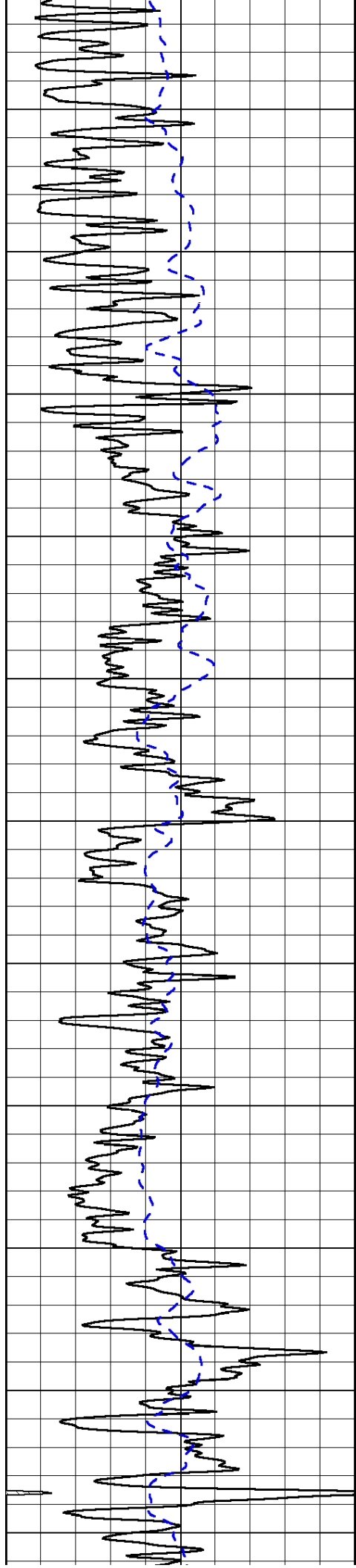
LSPD

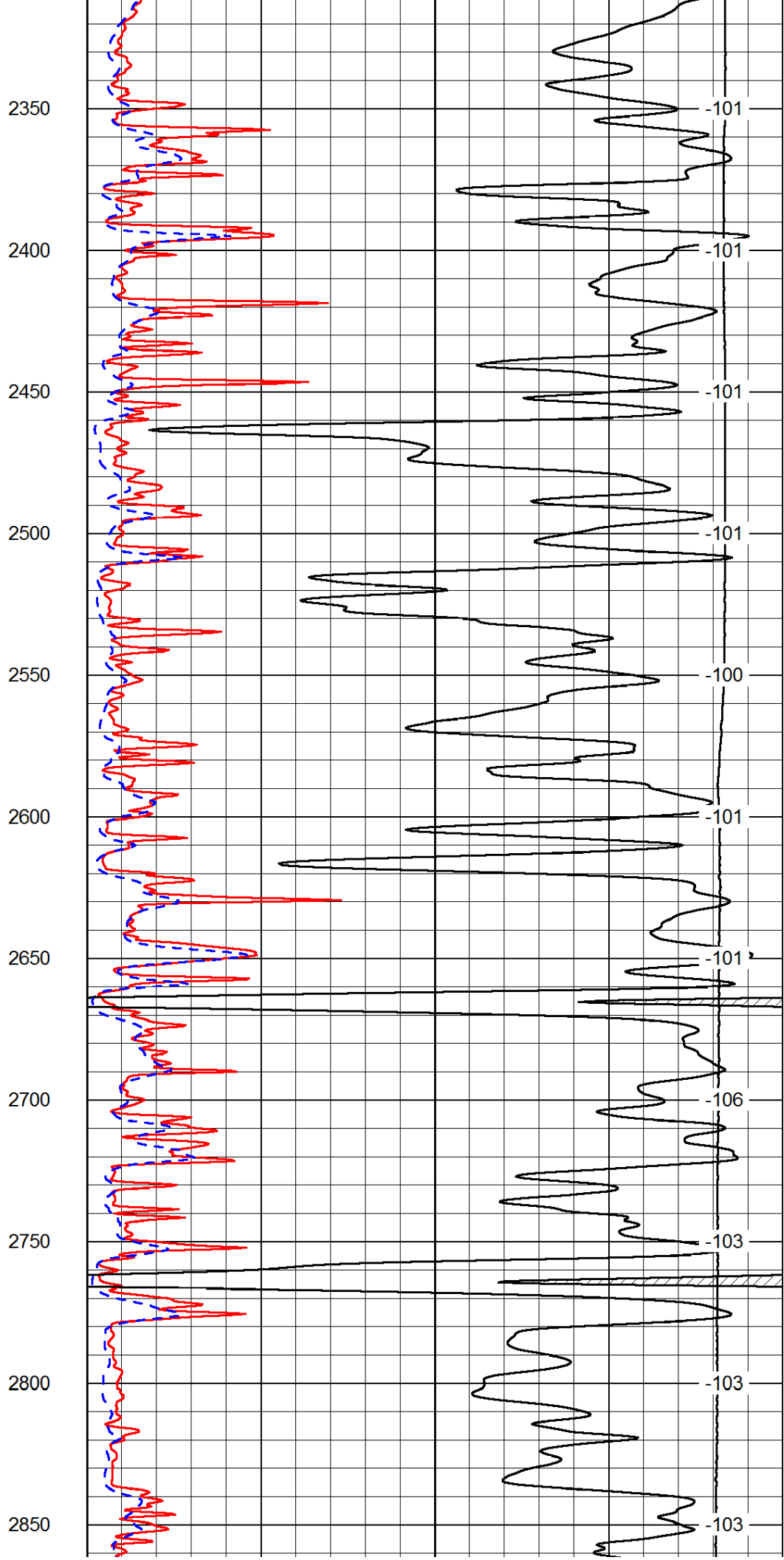
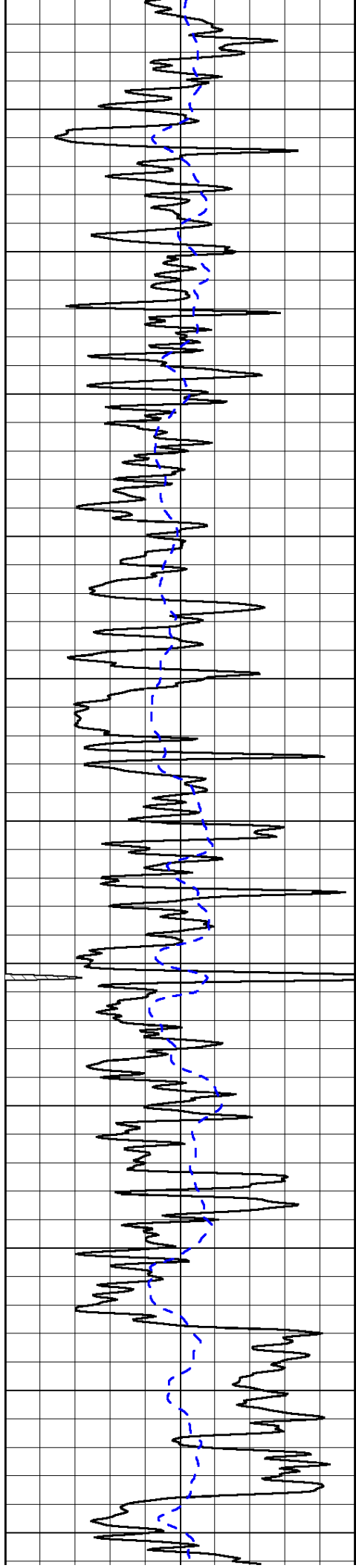
1000	Conductivity	0
15000	Line Tension	0

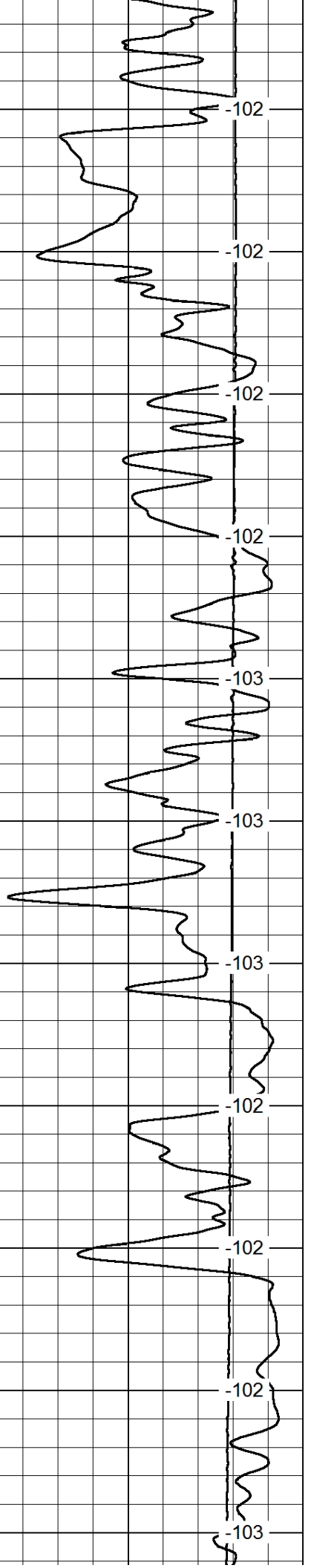
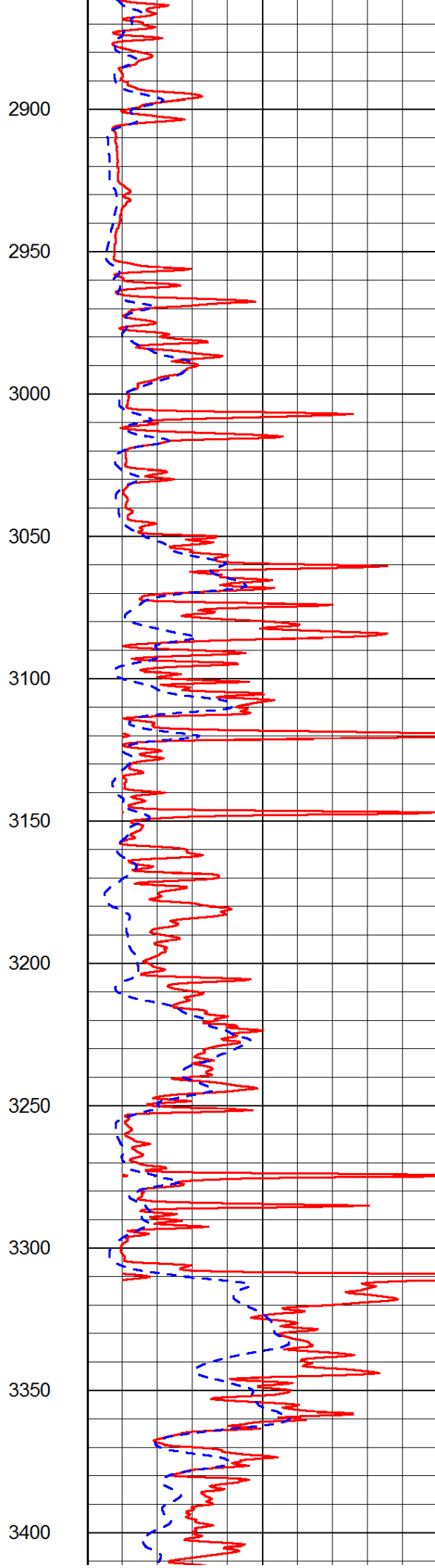
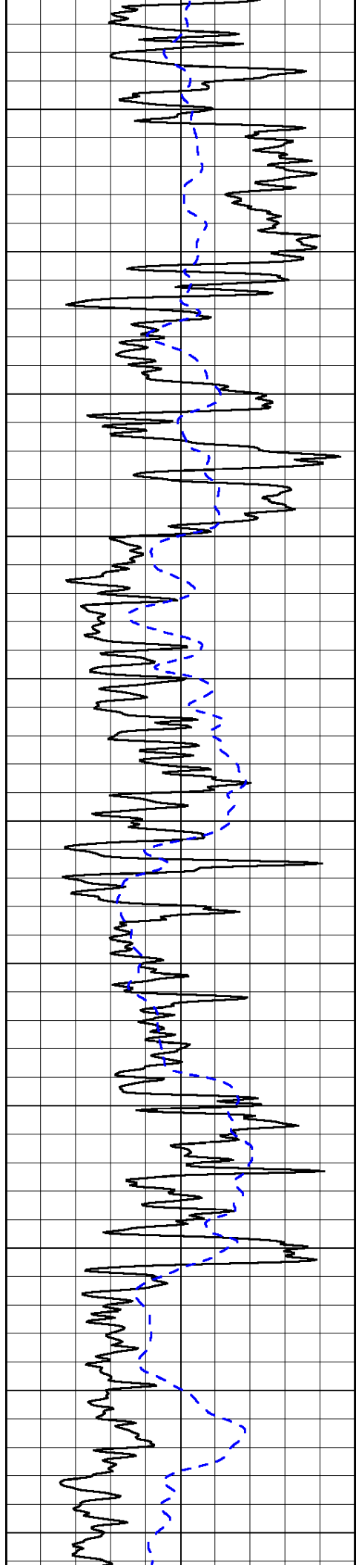
50	Shallow Resistivity	500
50	Deep Resistivity	500

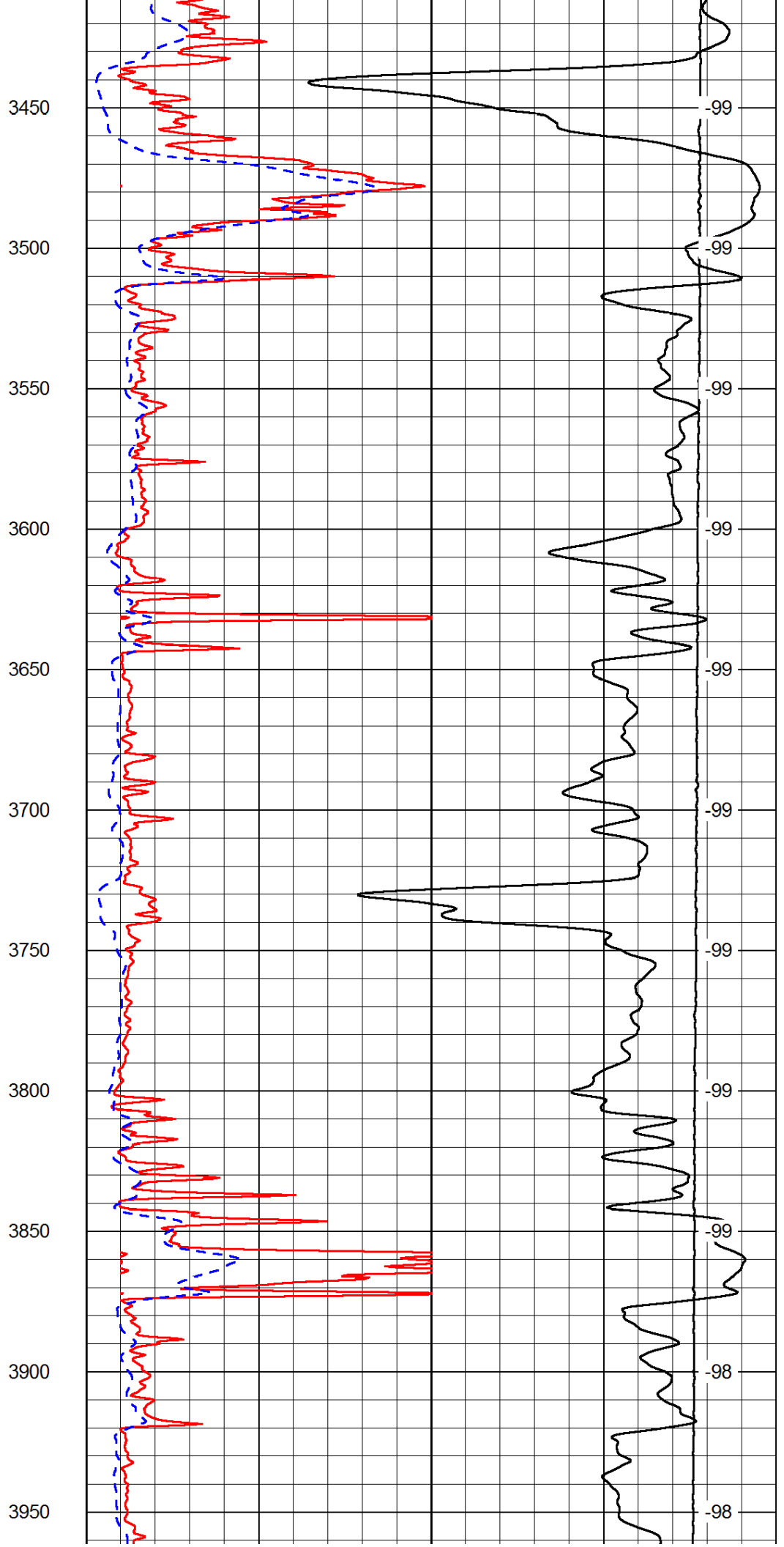
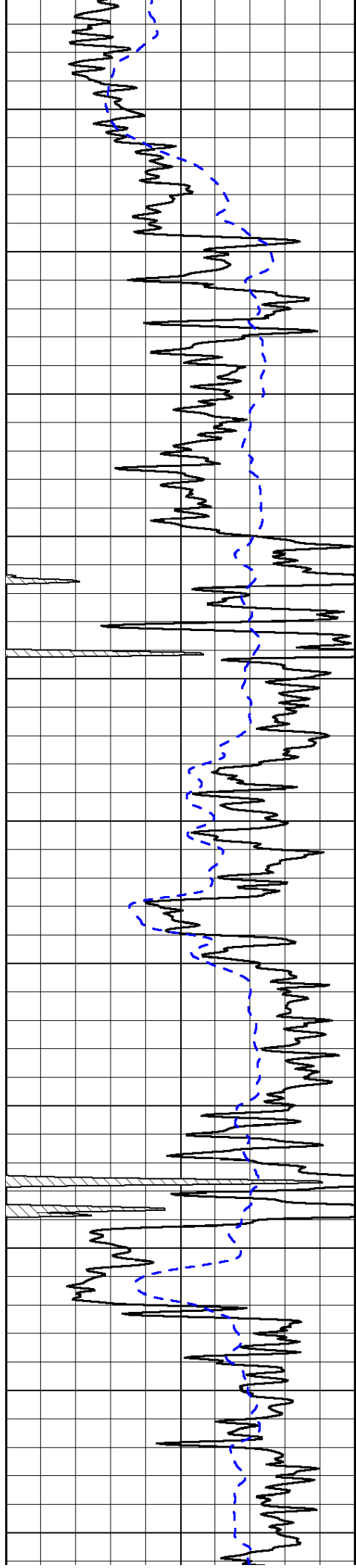


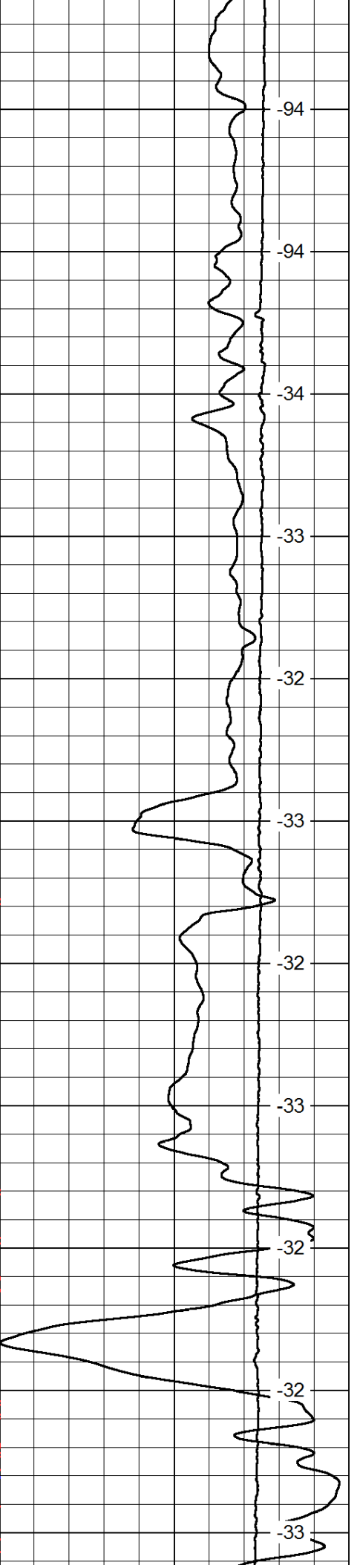
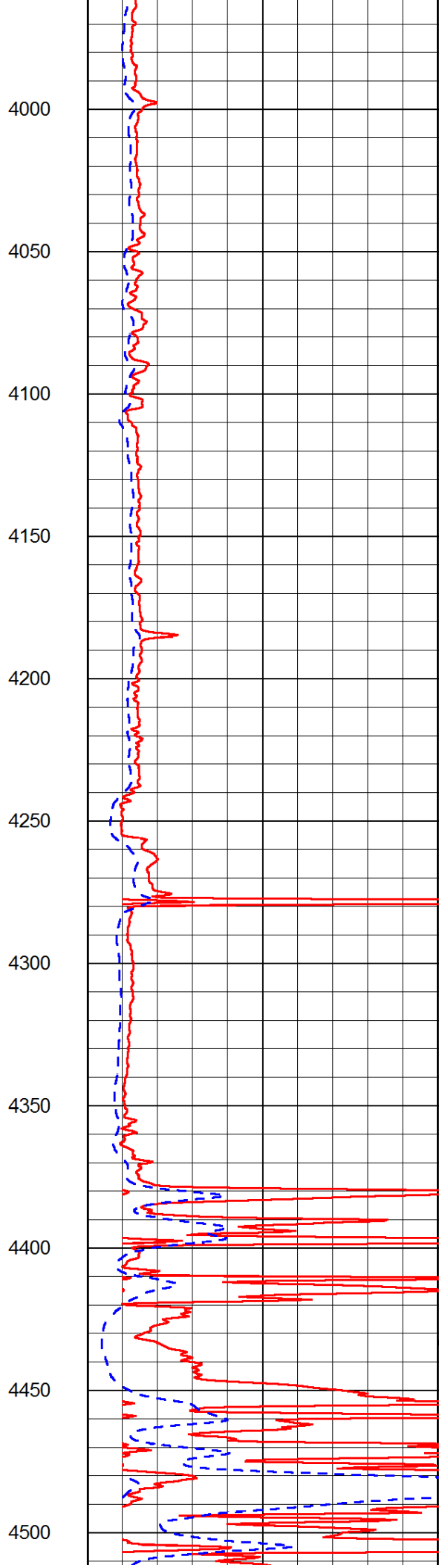
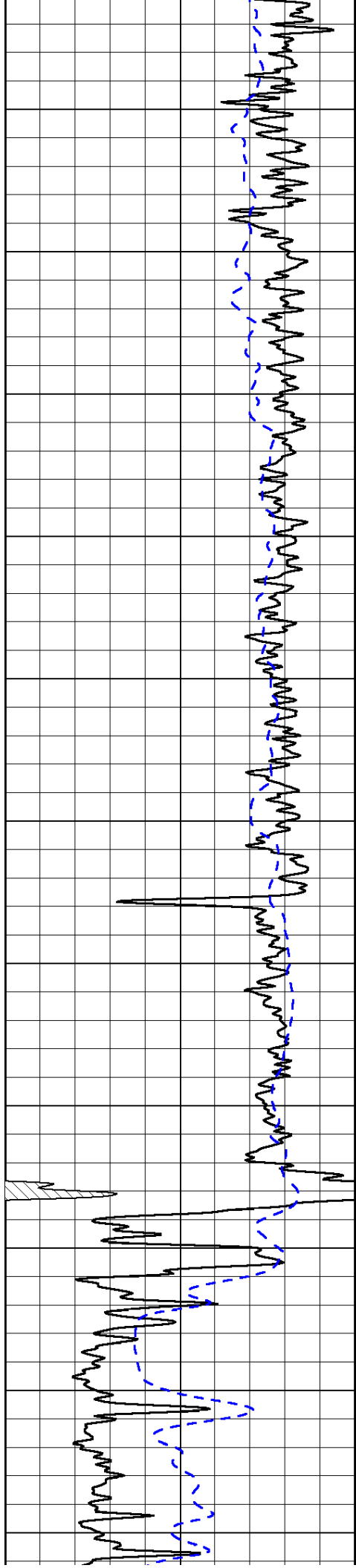




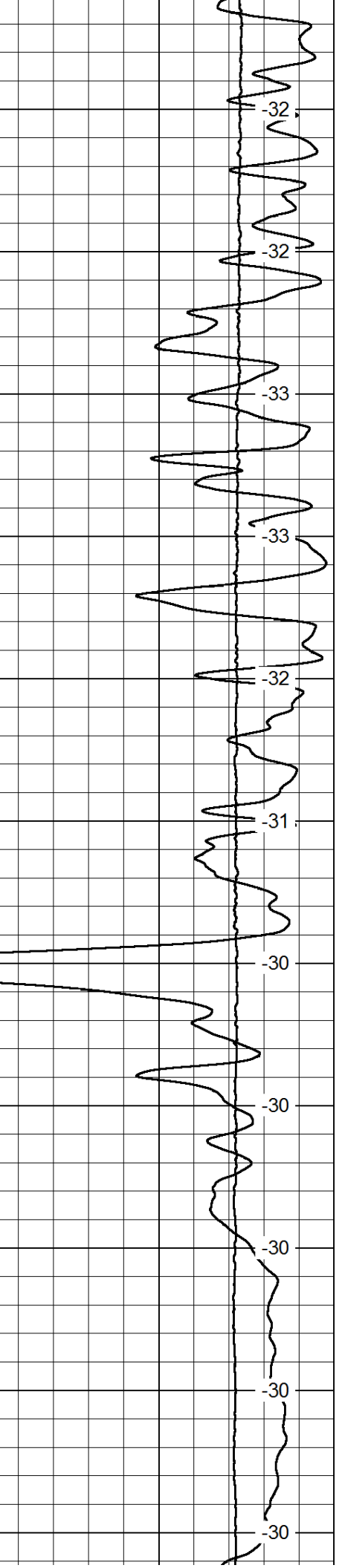
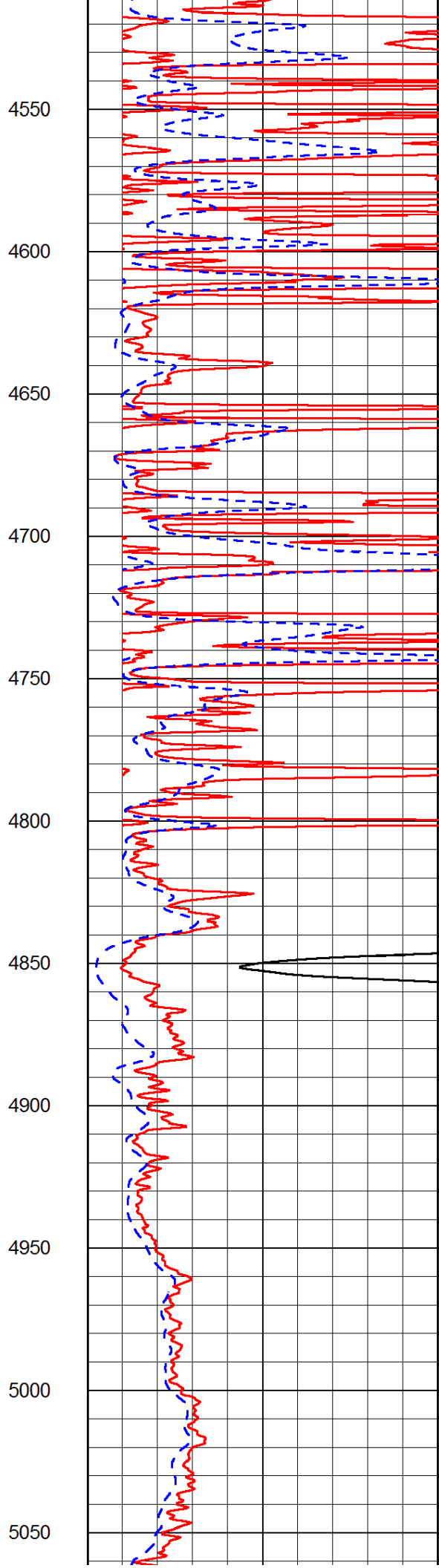
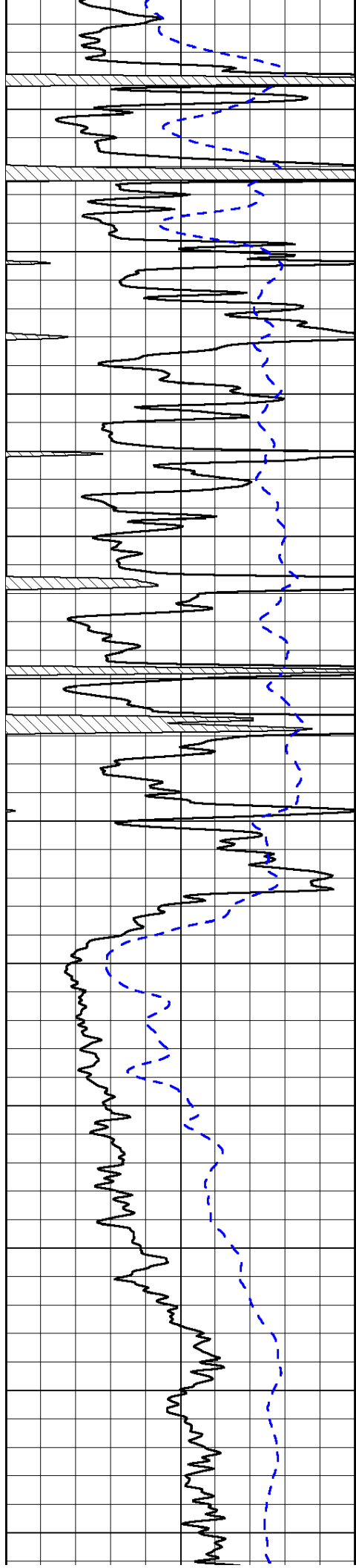


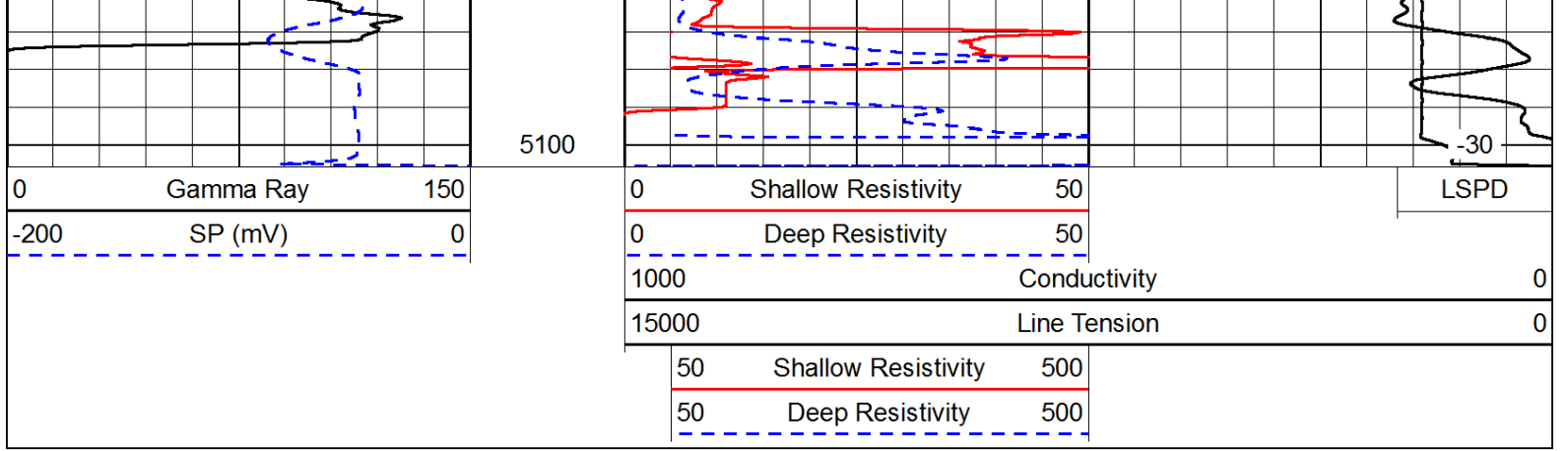




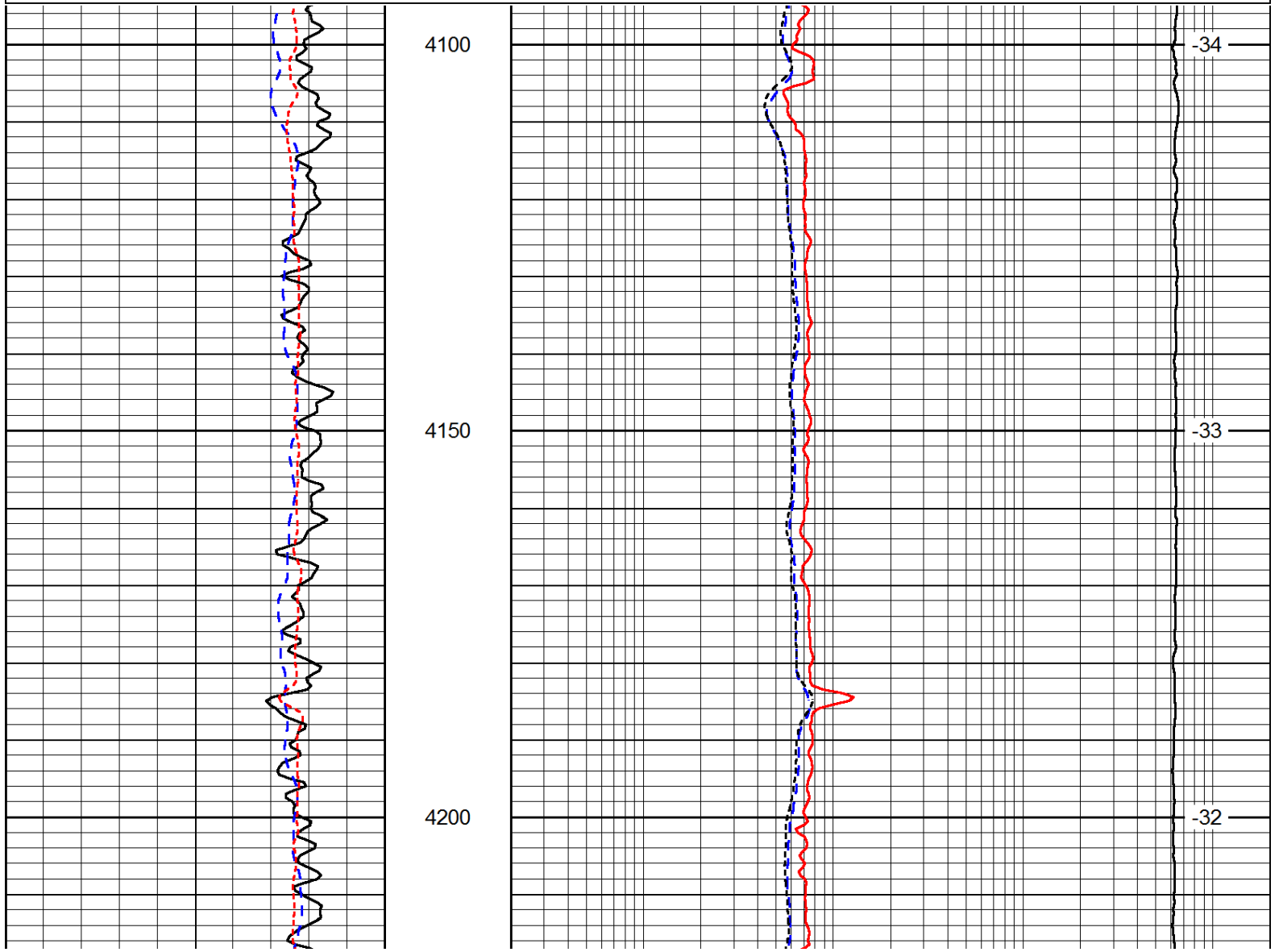
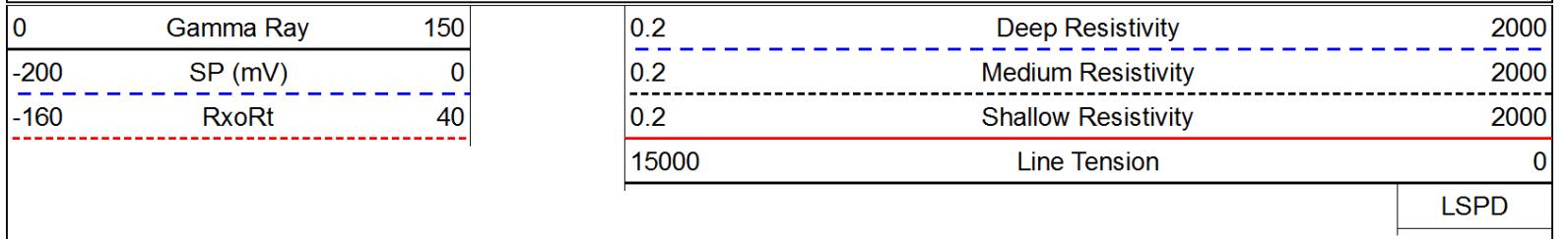


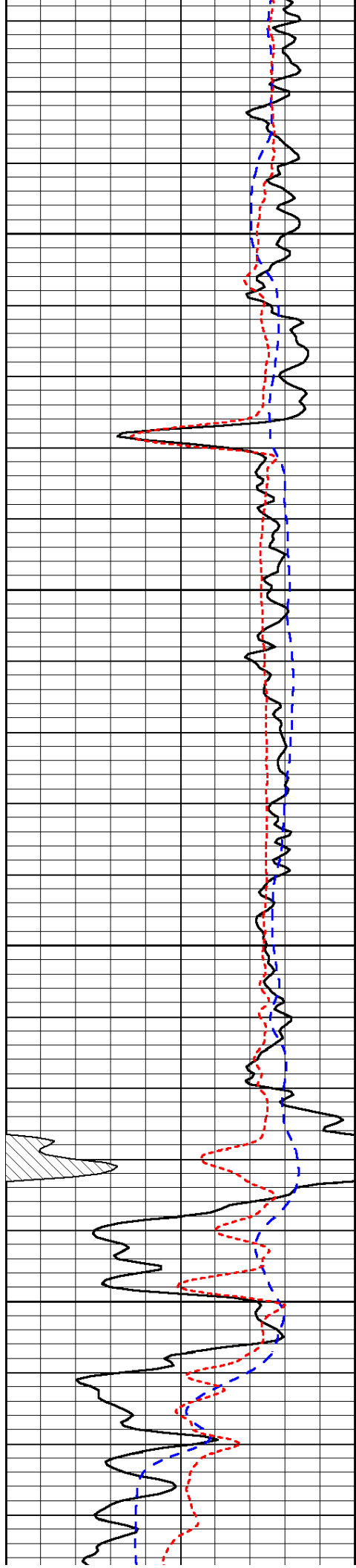






Database File: c:\warrior\data\indian oil\_helen mae #3\indianoil\_helenmae\_3hd.db  
 Dataset Pathname: dil/indstok  
 Presentation Format: dil  
 Dataset Creation: Mon Jun 10 22:39:47 2013  
 Charted by: Depth in Feet scaled 1:240





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4300

4350

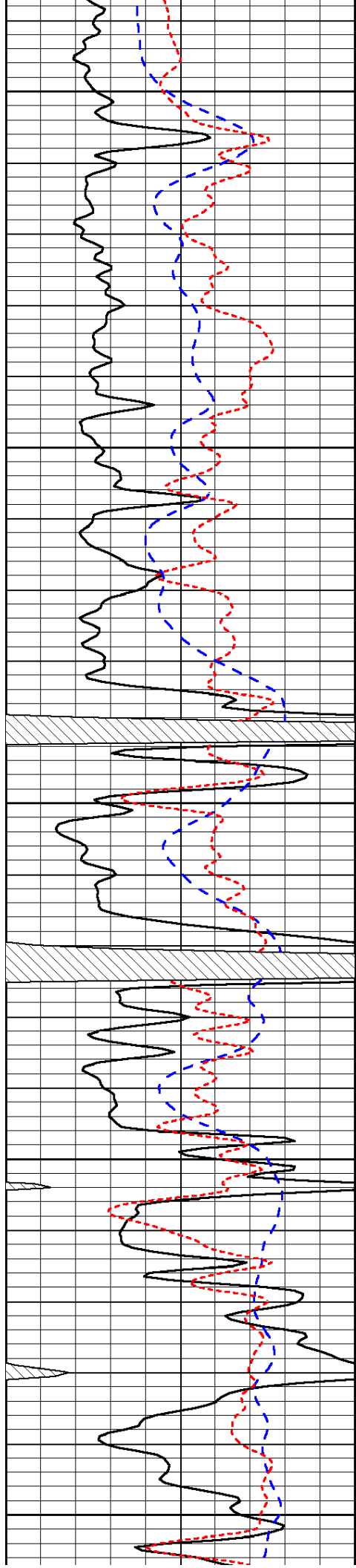
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-32



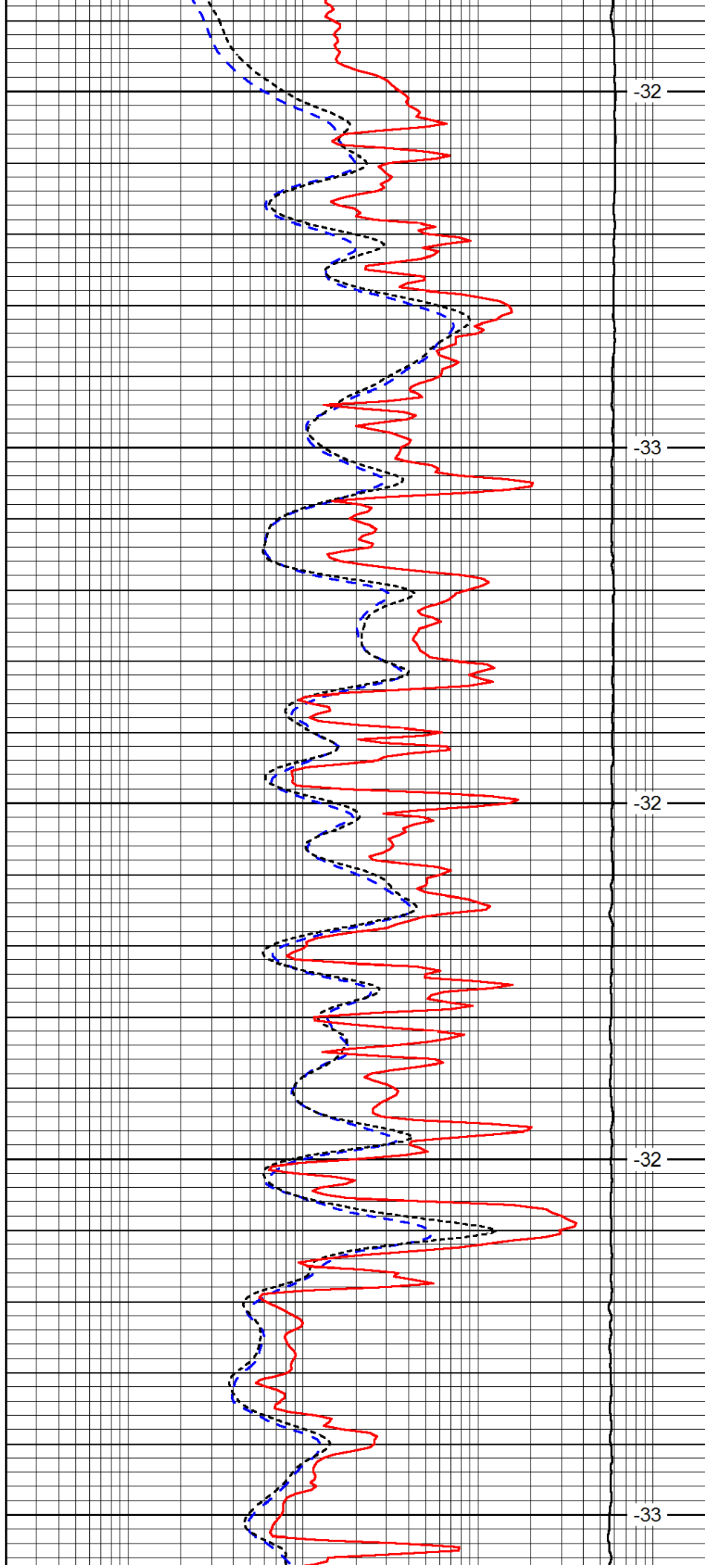
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4600

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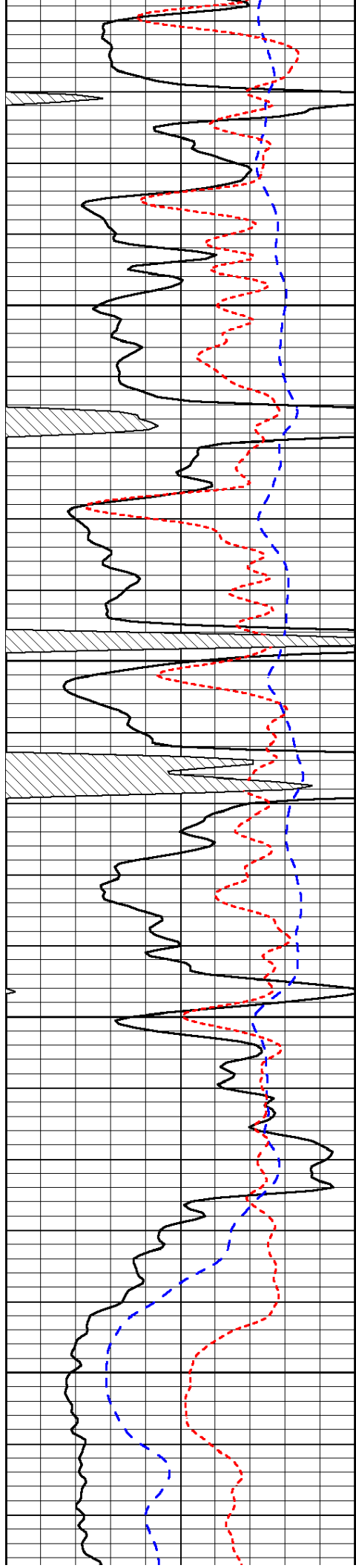
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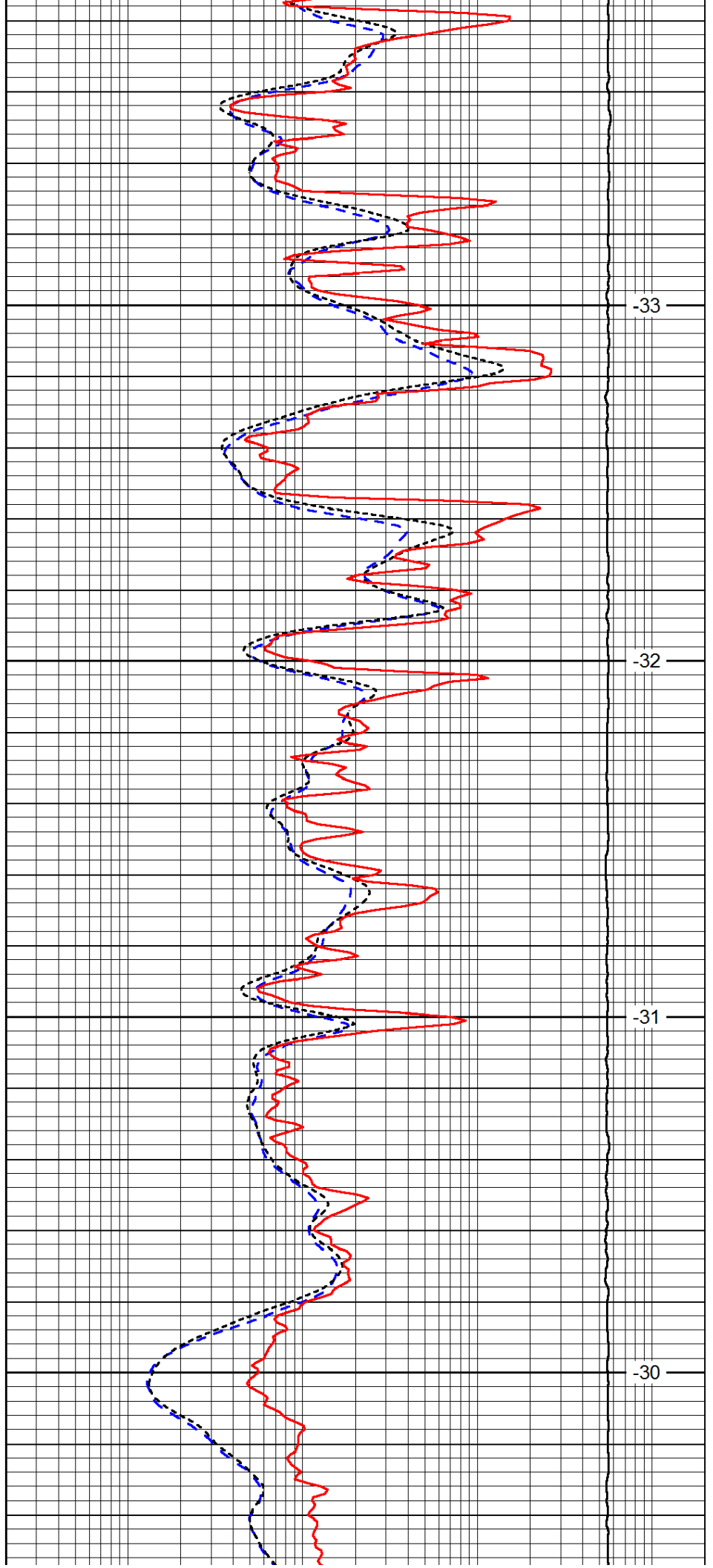


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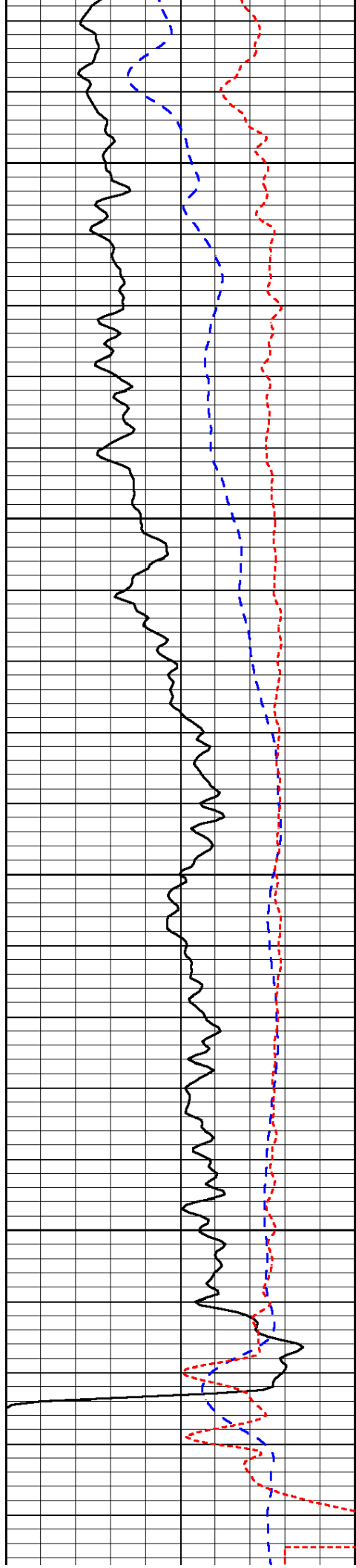


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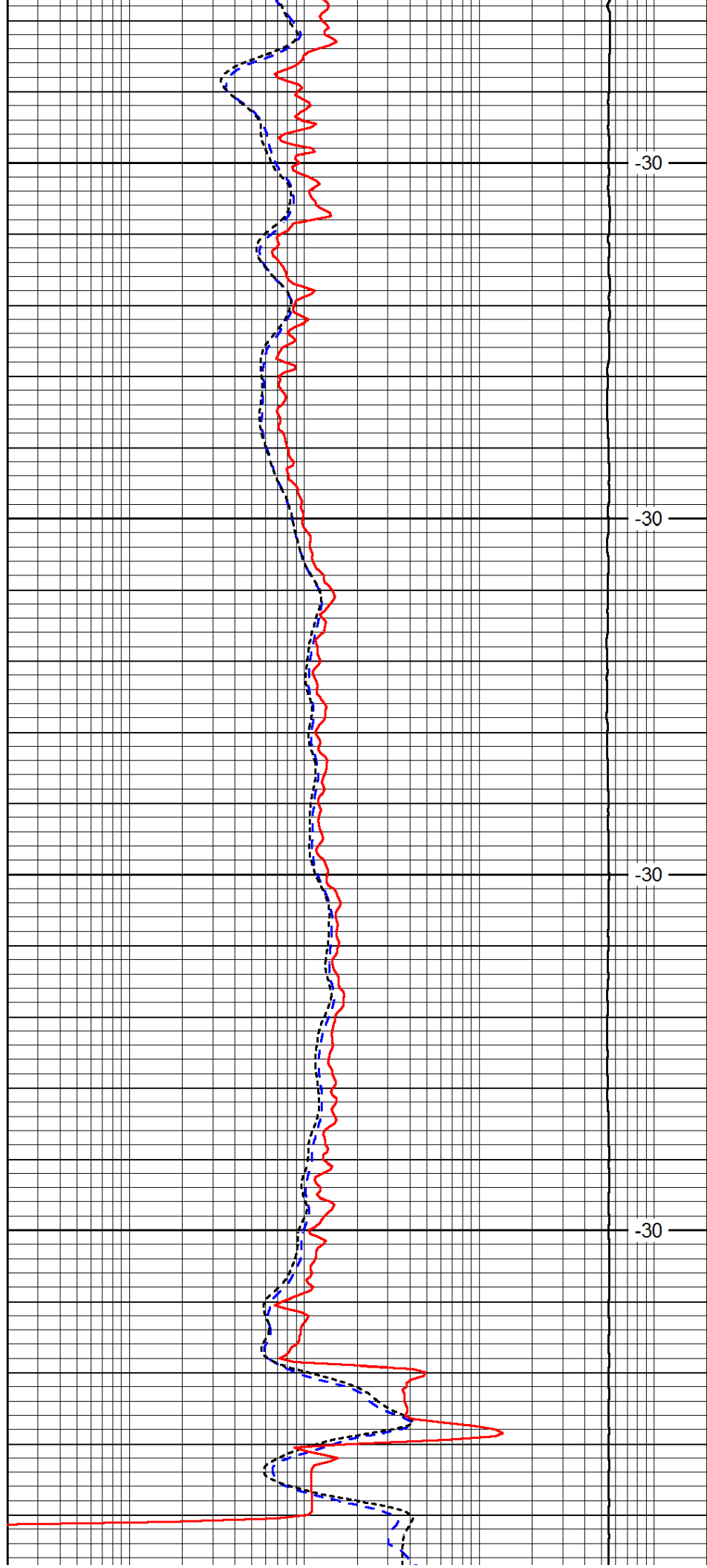


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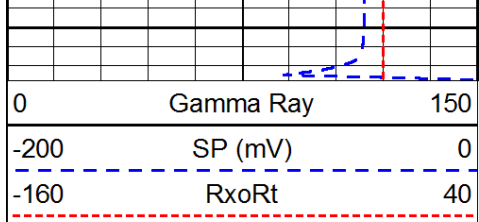


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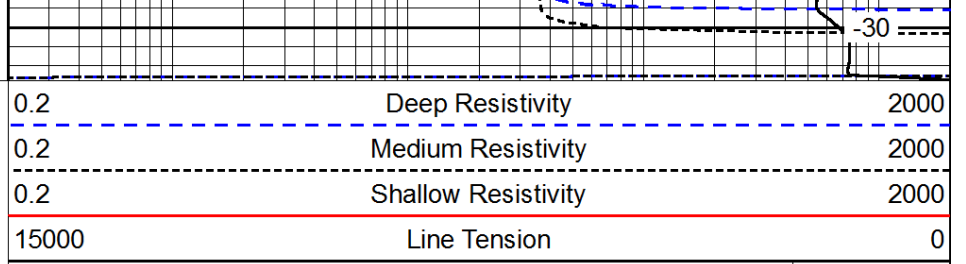
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-30



5100



LSPD