



Dual Induction Log

Pioneer Energy Services

API No.

15-063-22,209-00-00

Company Cobalt Energy, LLC

Well Yale "A" #1-24

Field

County Gove

State

Kansas

Location

1585' FSL & 750' FWL

Sec: 24

Twp: 11S

Rge: 29W

Permanent Datum Ground Level

Elevation 2821

Log Measured From Kelly Bushing

12 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Other Services
CNL/CDL
MEL

Elevation
K.B. 2833
D.F. 2821
G.L. 2821

Date

8/22/2014

Run Number

One

Depth Driller

4650

Depth Logger

4655

Bottom Logged Interval

4654

Top Log Interval

250

Casing Driller

8.625 @ 265

Casing Logger

264

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

1,900

Density / Viscosity

9.4 56

pH / Fluid Loss

10.0 8.4

Source of Sample

Flowline

Rm @ Meas. Temp

1.3 @ 74

Rmf @ Meas. Temp

.98 @ 74

Rmc @ Meas. Temp

1.76 @ 74

Source of Rmf / Rmc

Charts

Rm @ BHT

.78 @ 123

Operating Rig Time

3 Hours

Max Rec. Temp. F

123

Equipment Number

91

Location

Hays

Recorded By

C. Desaire

Witnessed By

Cliff Ottoway

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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

Grainfield KS, 2 S,
1 W, 1/2 N, E Into

Database File: c:\warrior\data\cobalt_yale a #1-24\cobhd2.db
Dataset Pathname: dil\cobstk2
Presentation Format: dil2in
Dataset Creation: Fri Aug 22 12:23:19 2014
Charted by: Depth in Feet scaled 1:600

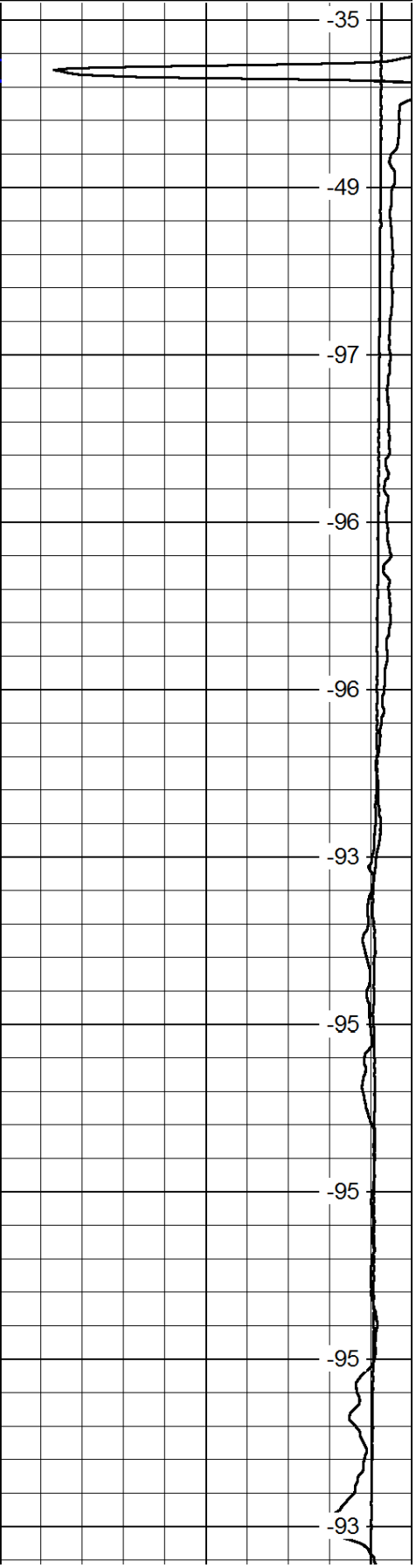
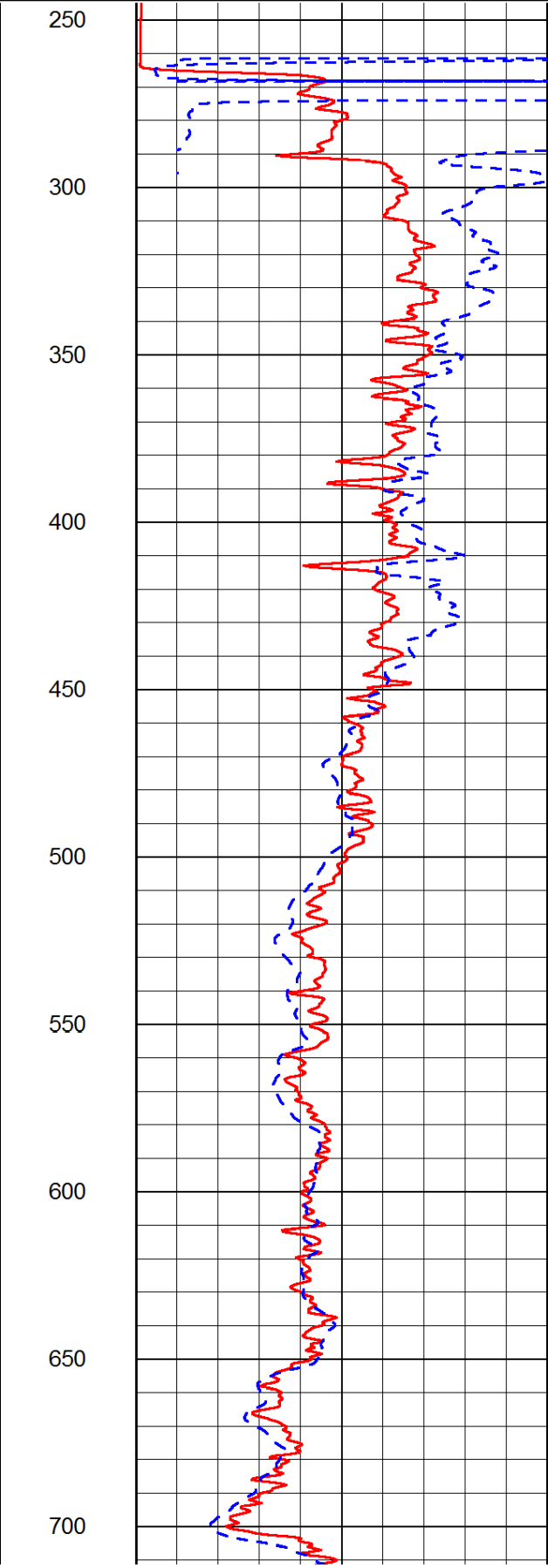
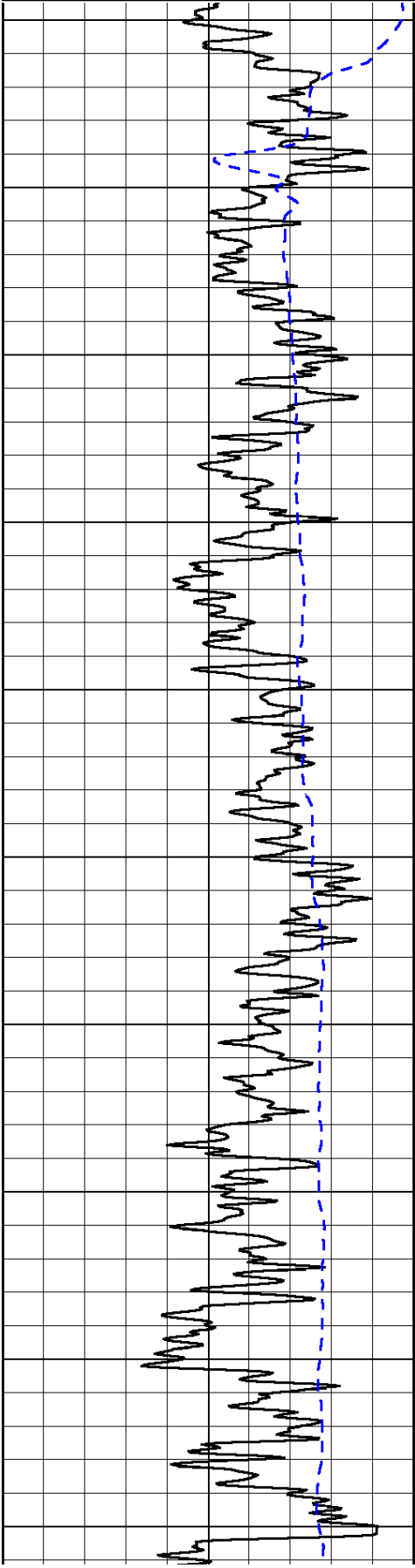
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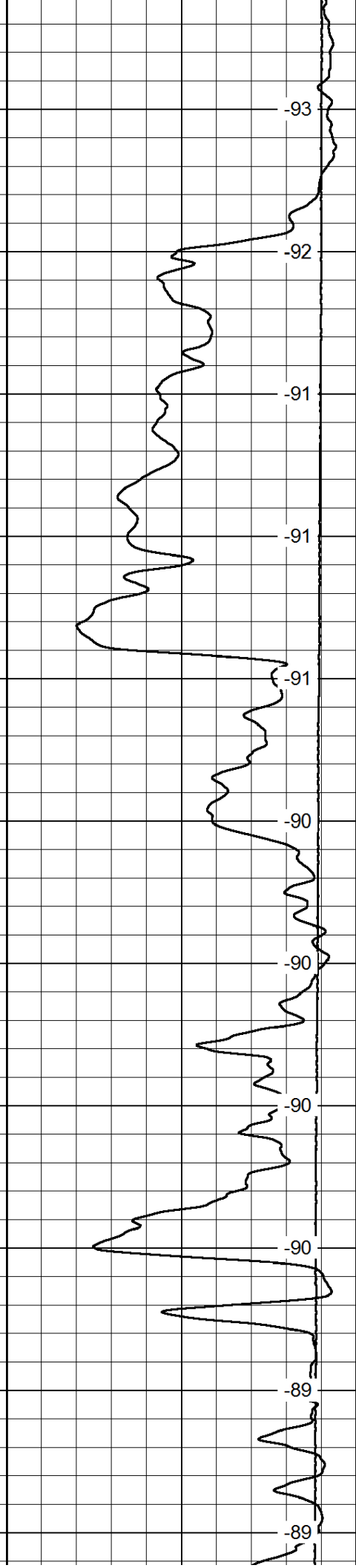
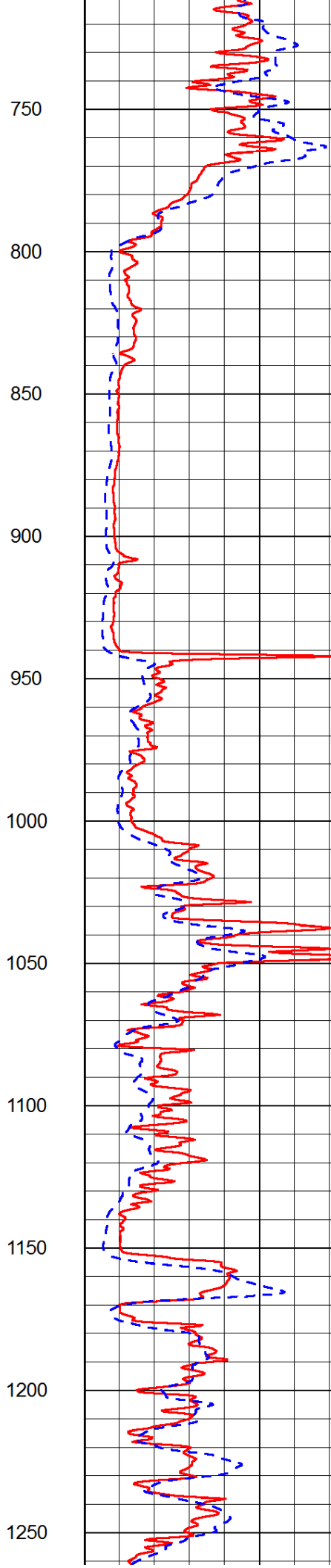
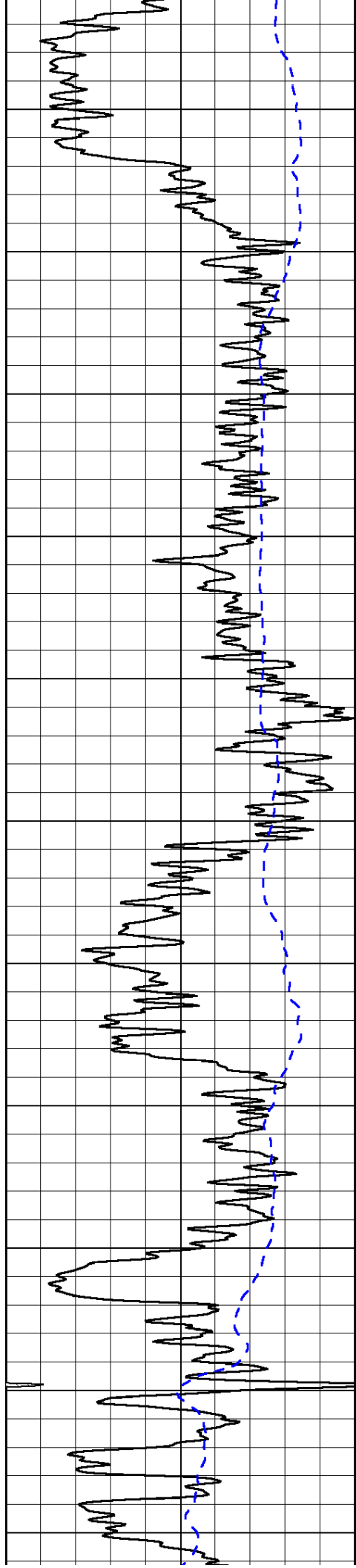
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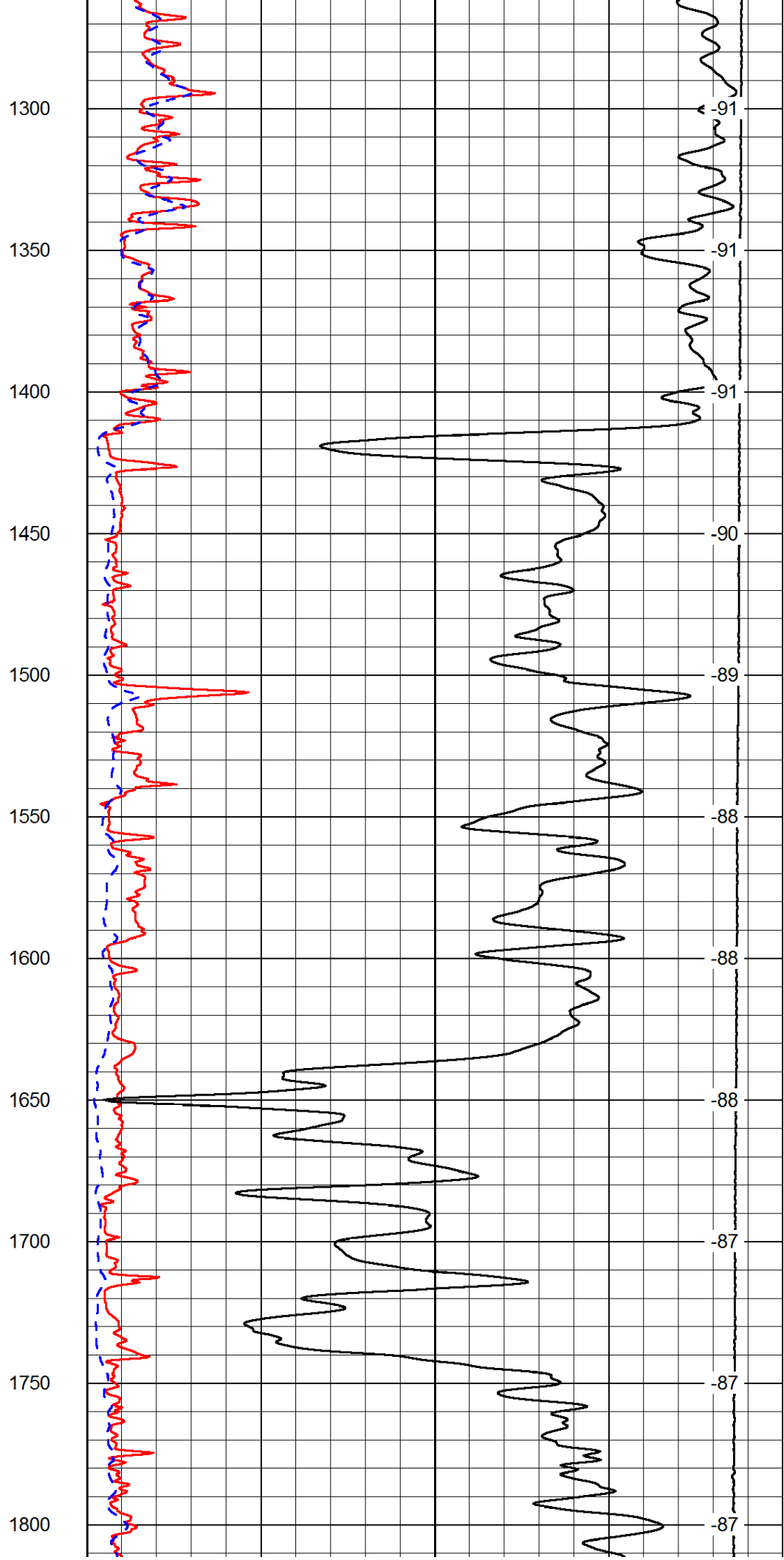
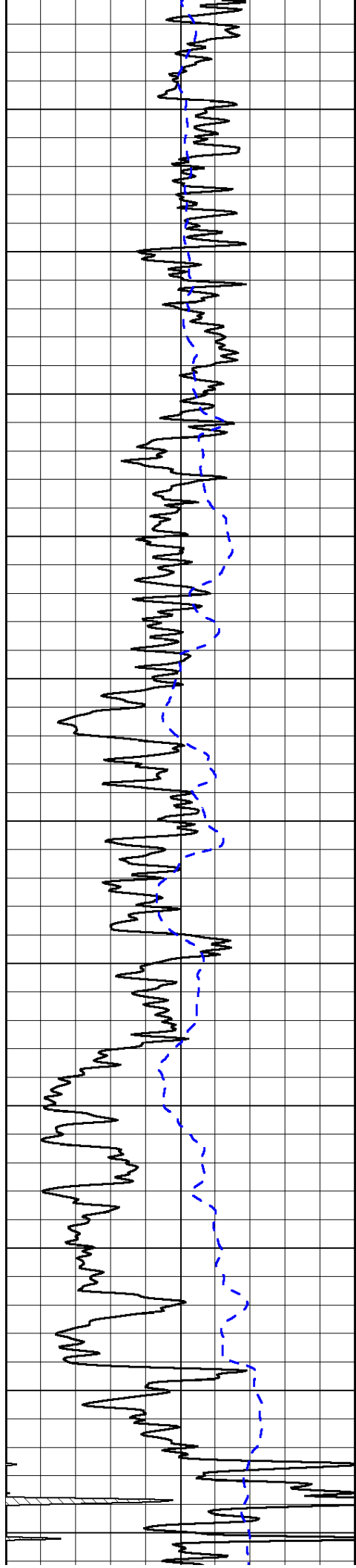
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0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0

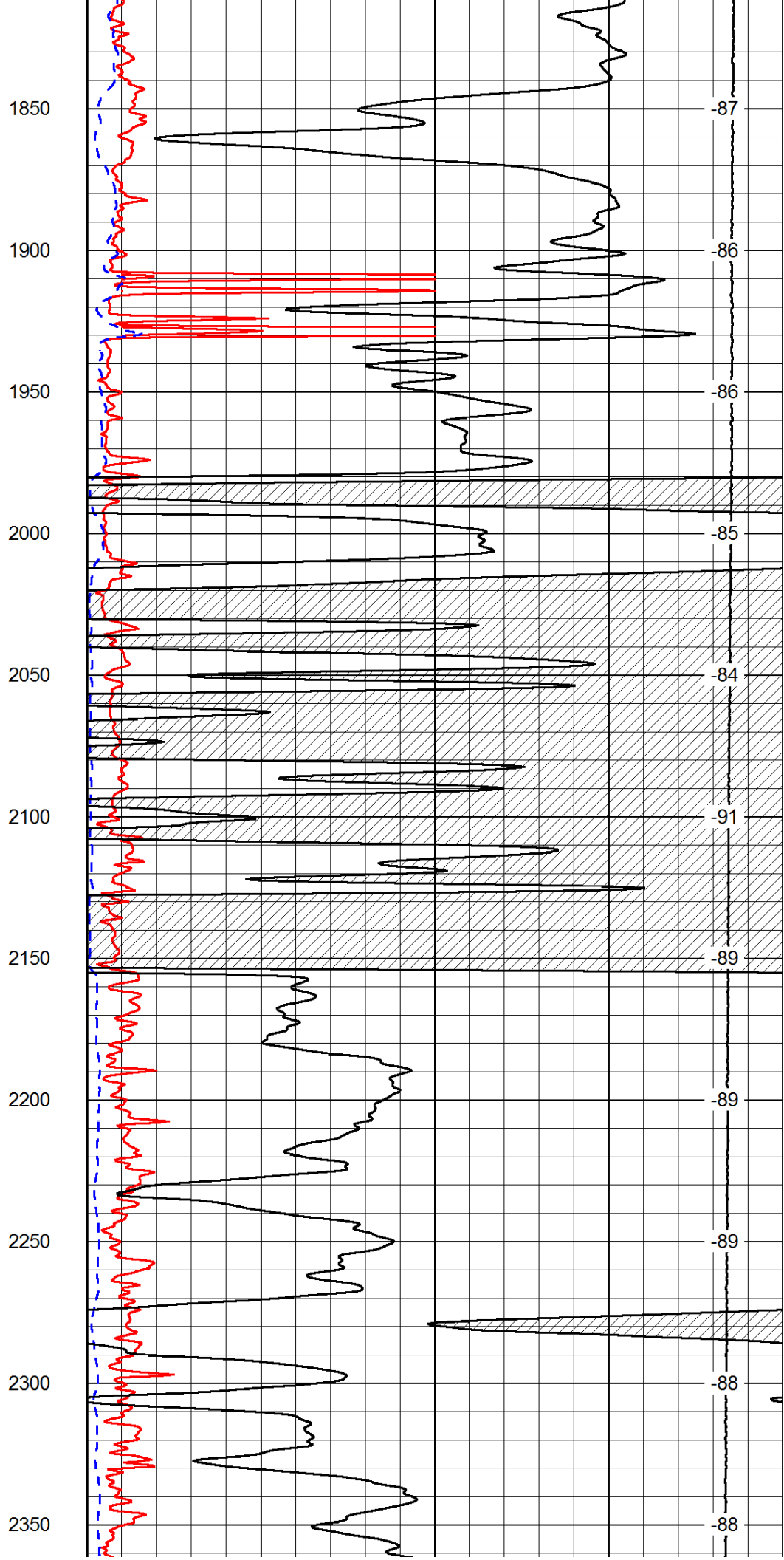
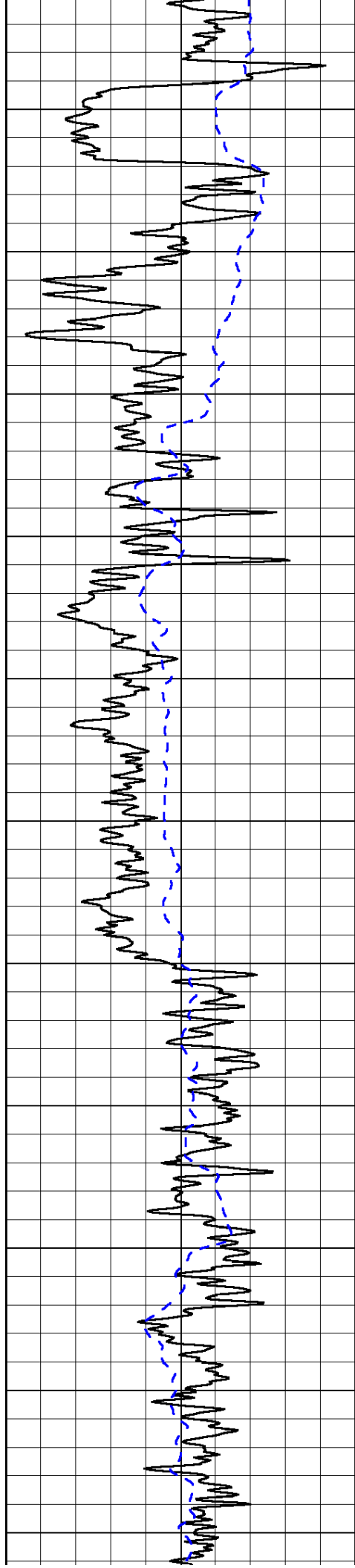
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50	Deep Resistivity	500

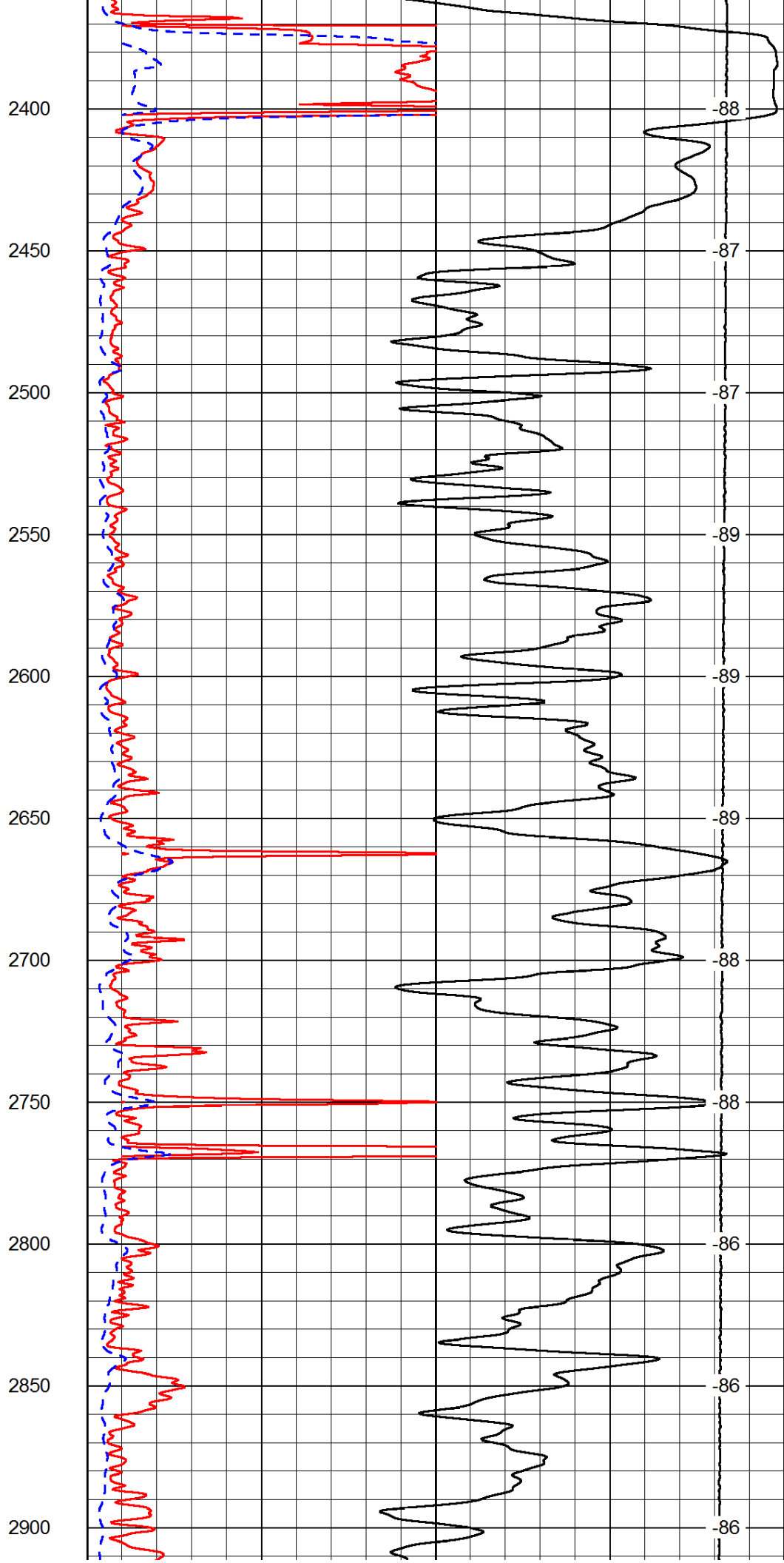
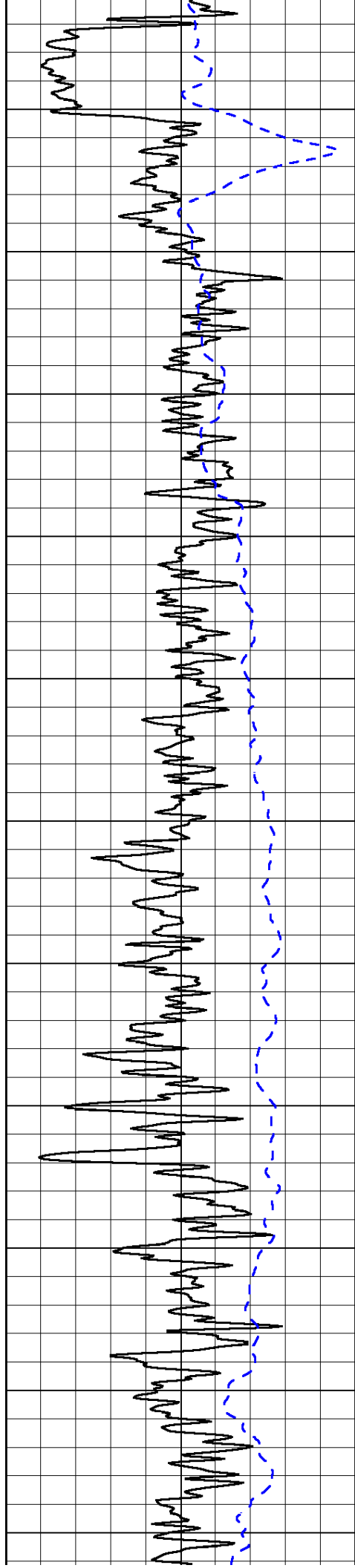
LSPD
0
0

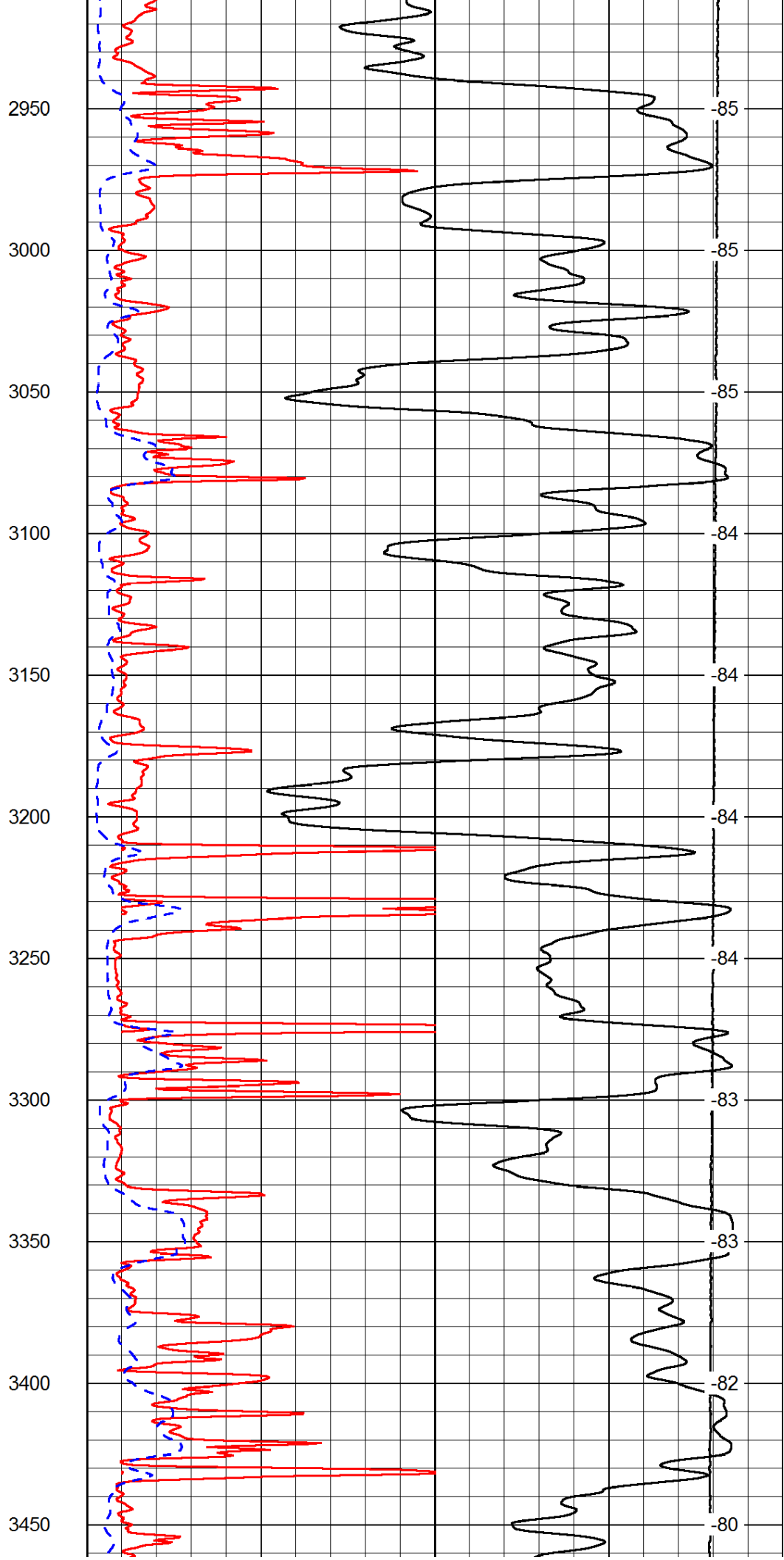
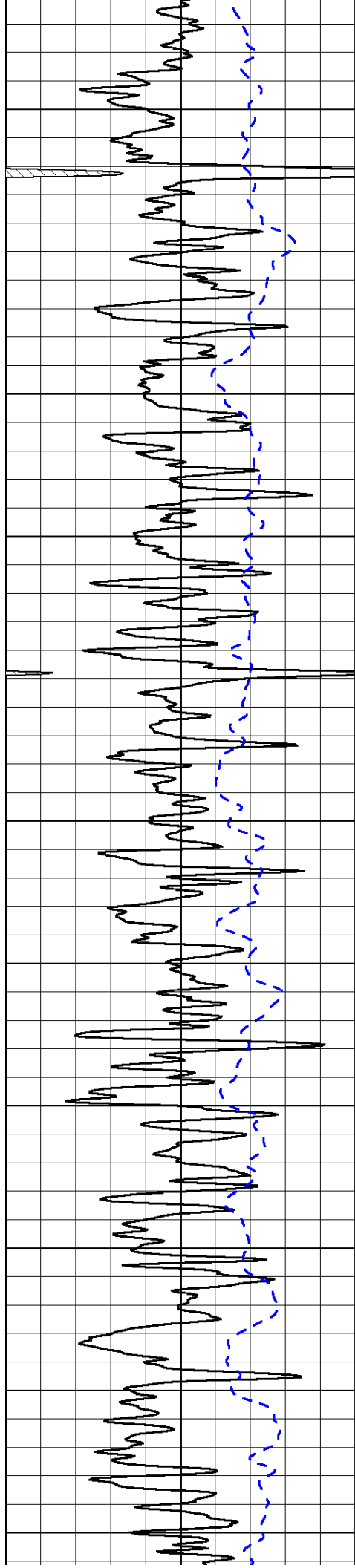


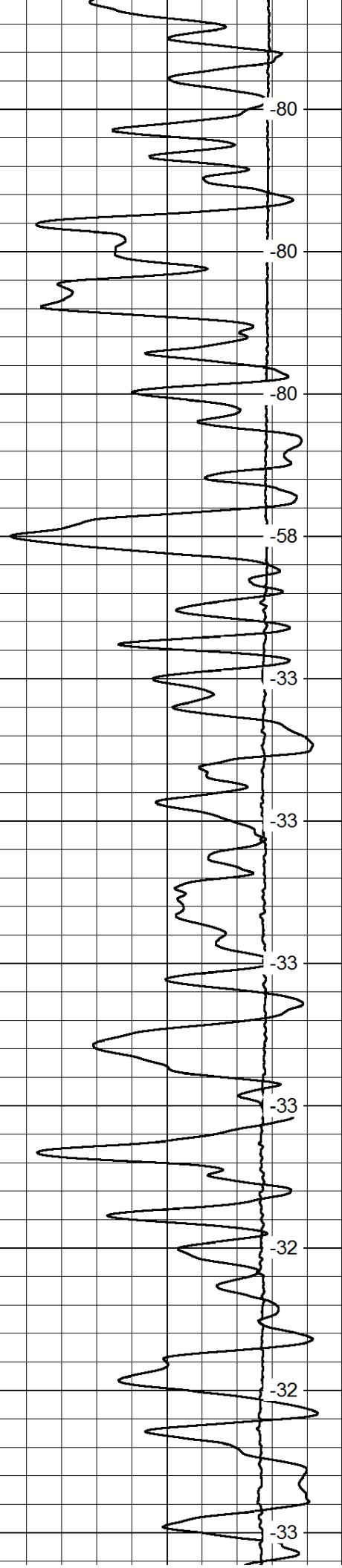
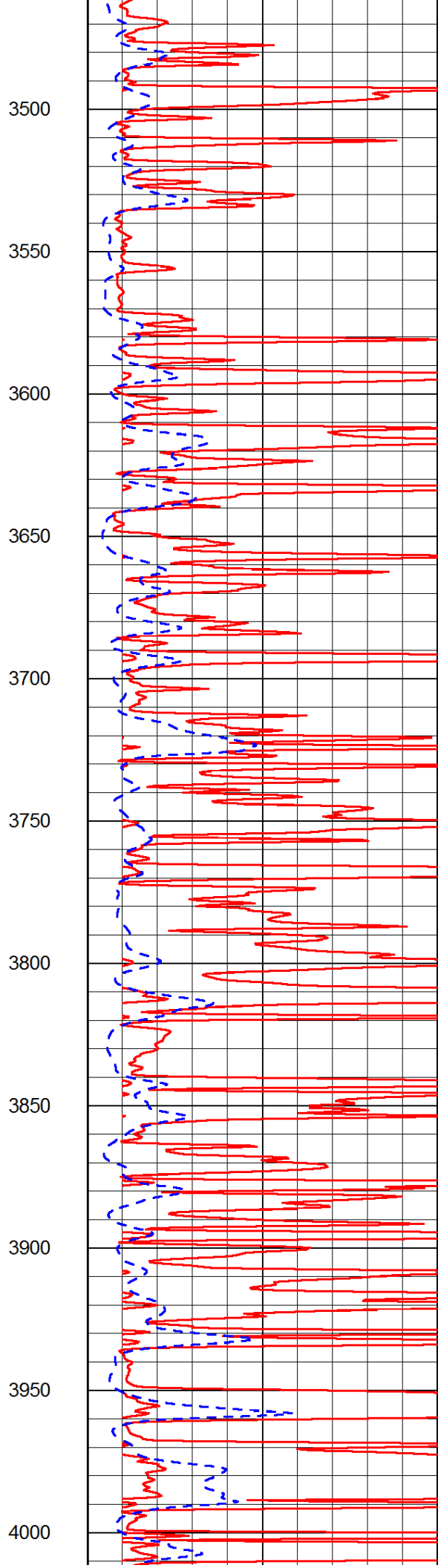
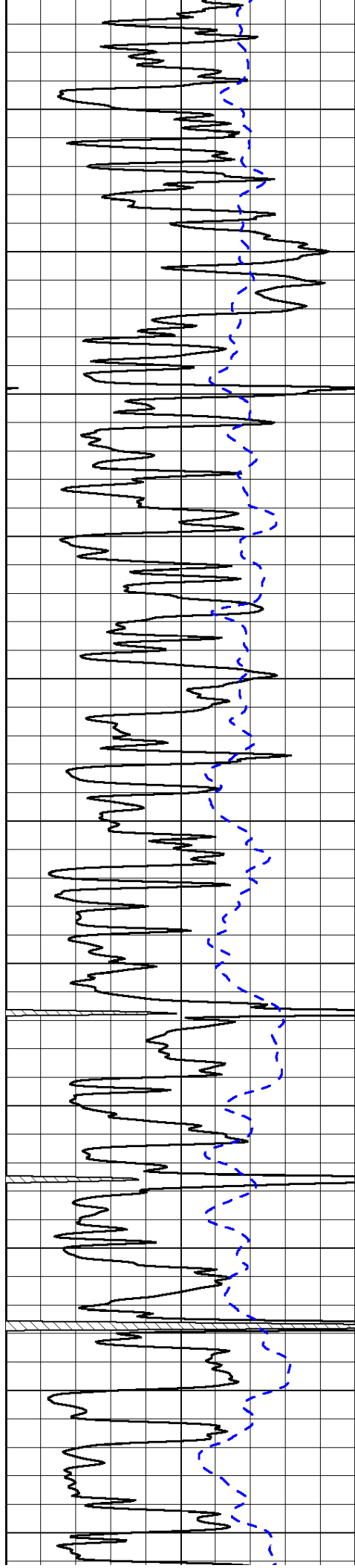


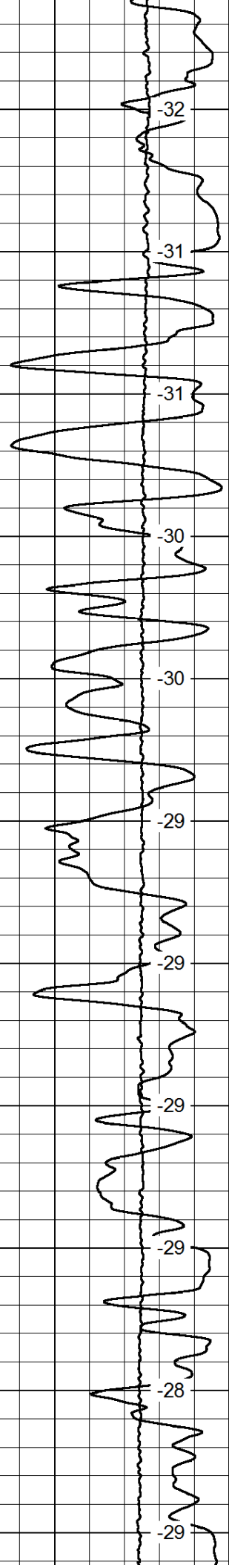
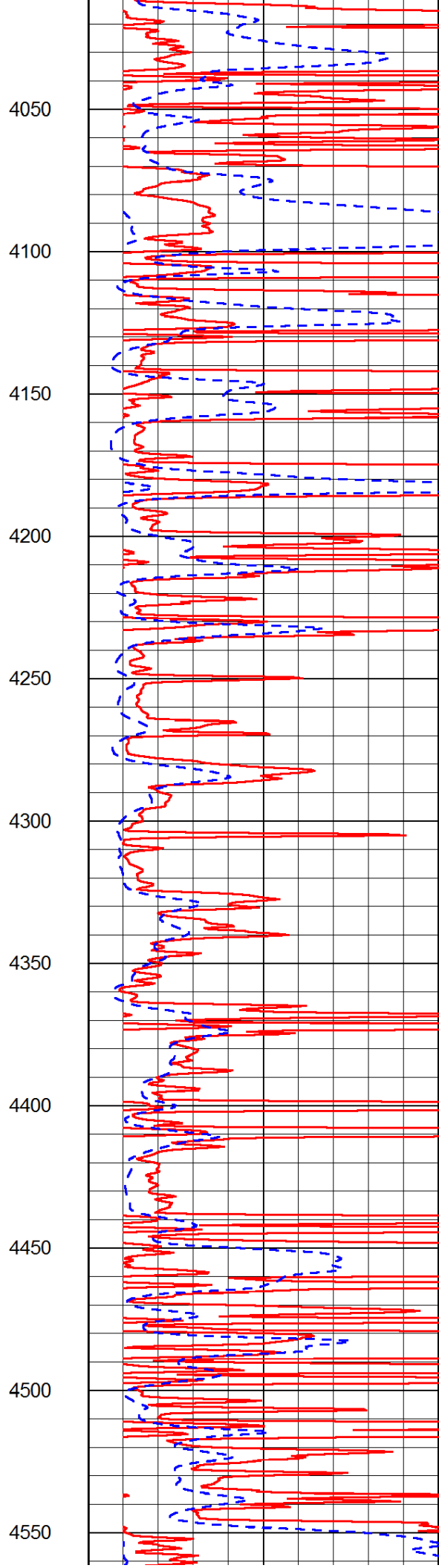
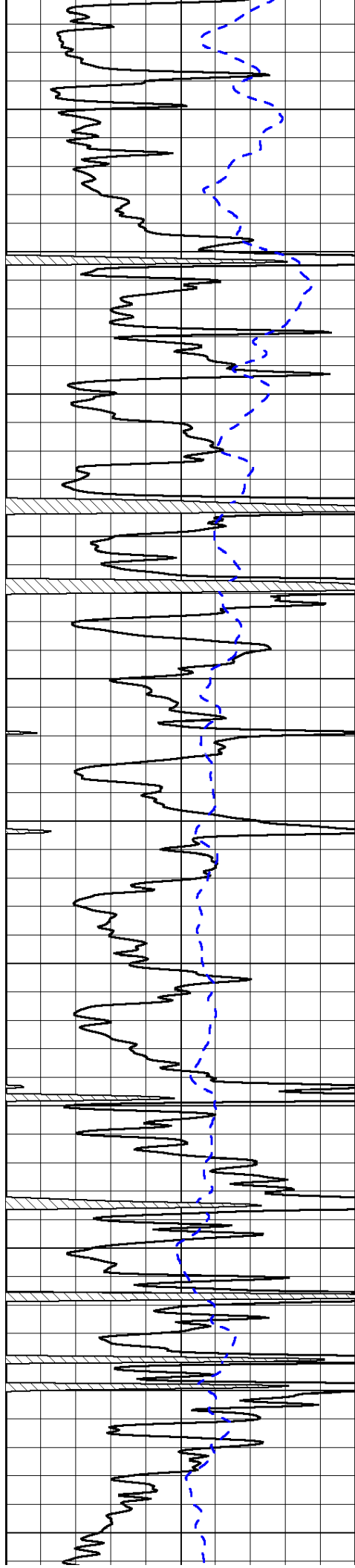


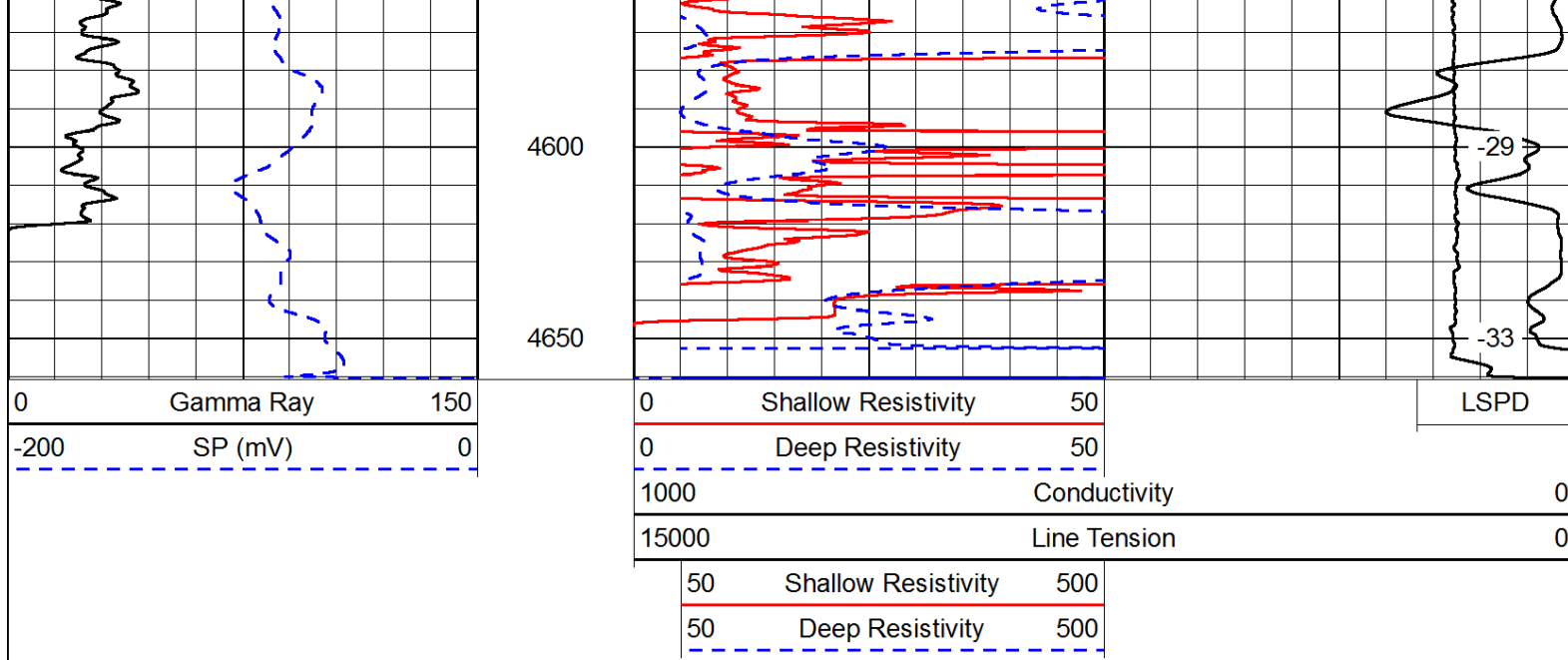




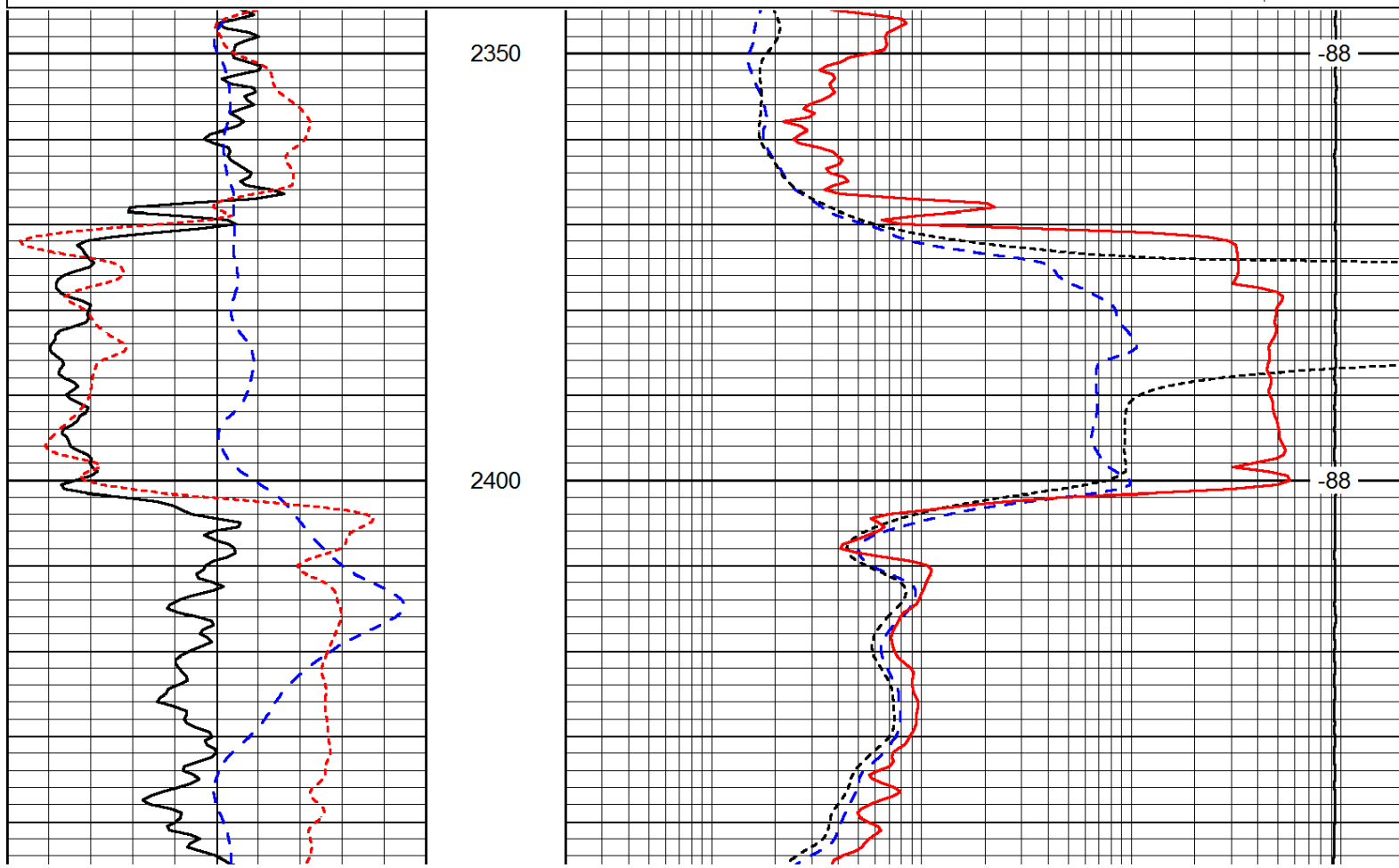
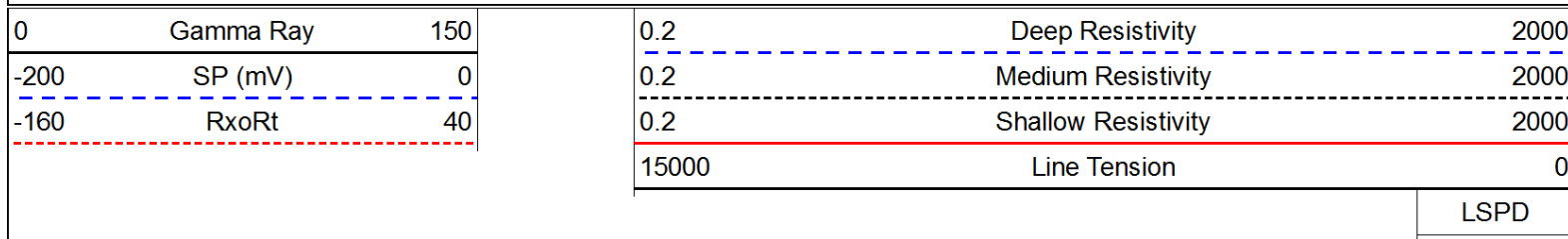


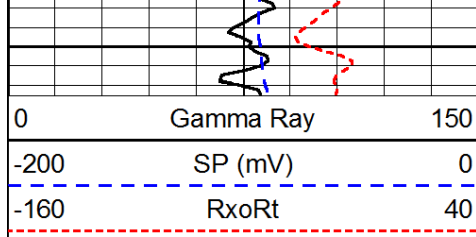




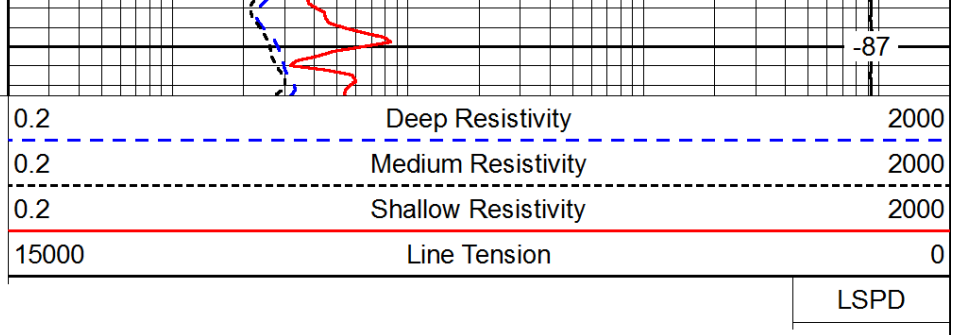


Database File: c:\warrior\data\cobalt_yale a #1-24\cobhd2.db
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 Presentation Format: dil
 Dataset Creation: Fri Aug 22 12:23:19 2014
 Charted by: Depth in Feet scaled 1:240

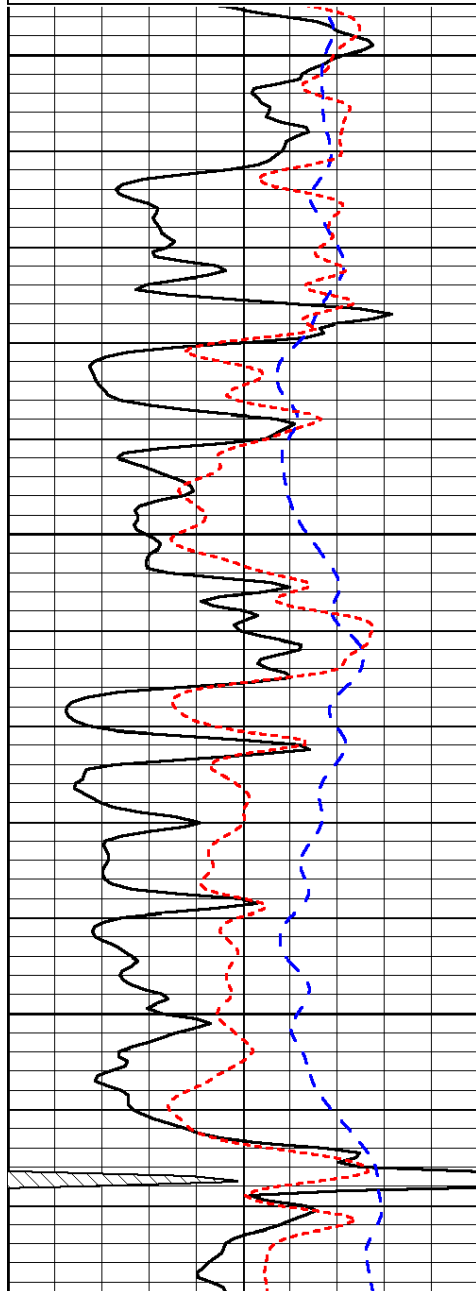
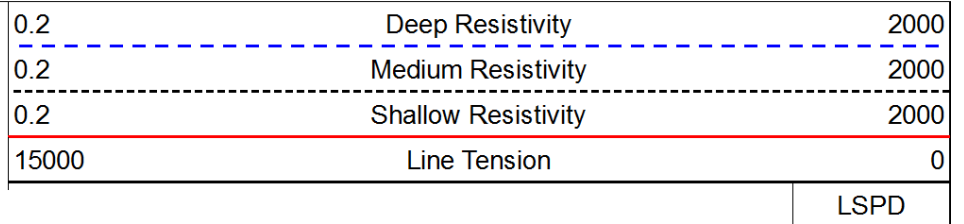
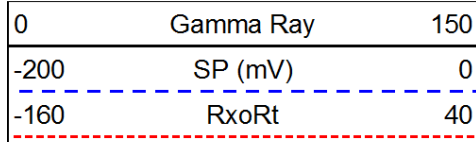




2450



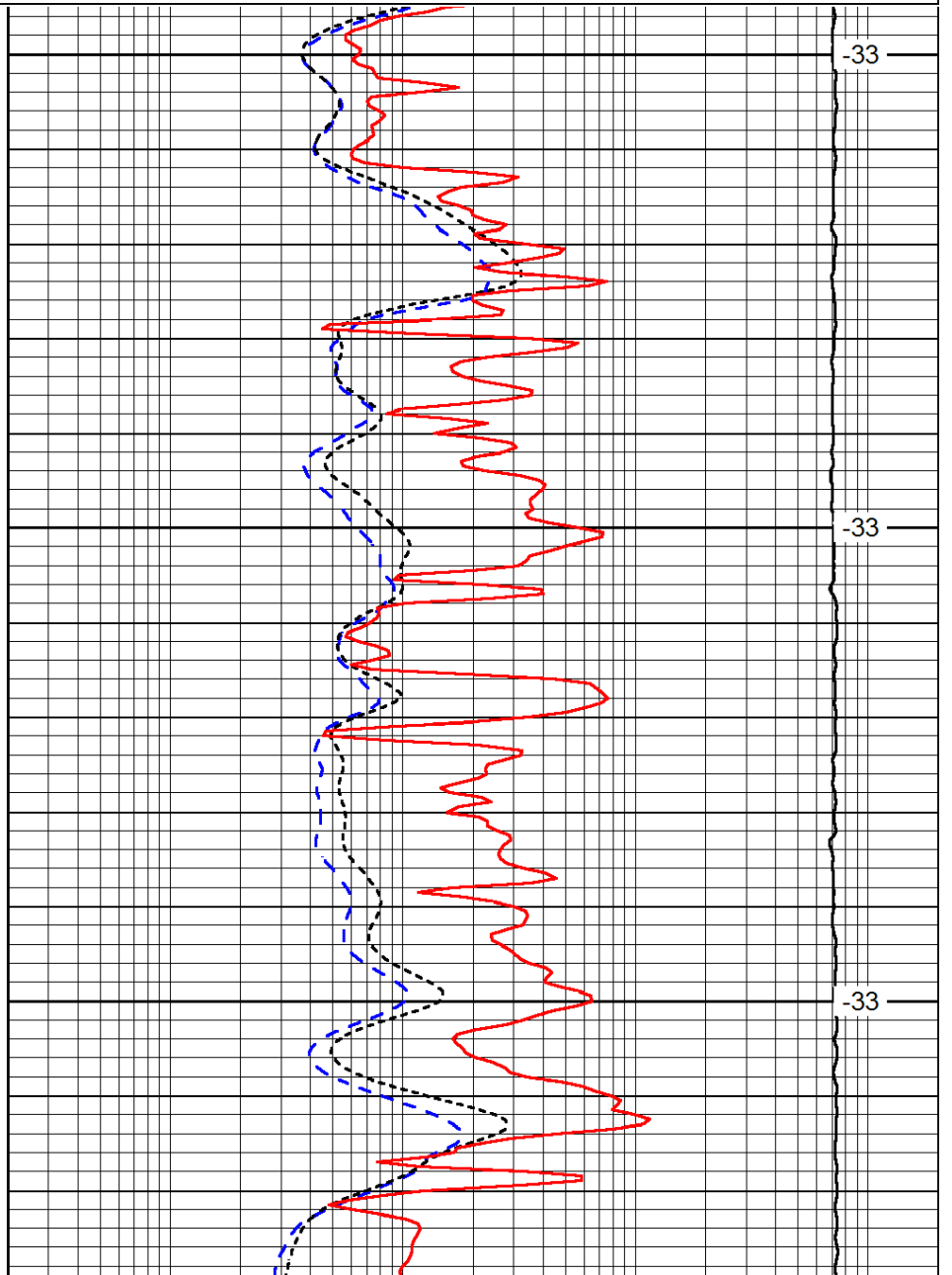
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 Presentation Format: dil
 Dataset Creation: Fri Aug 22 12:23:19 2014
 Charted by: Depth in Feet scaled 1:240



3700

3750

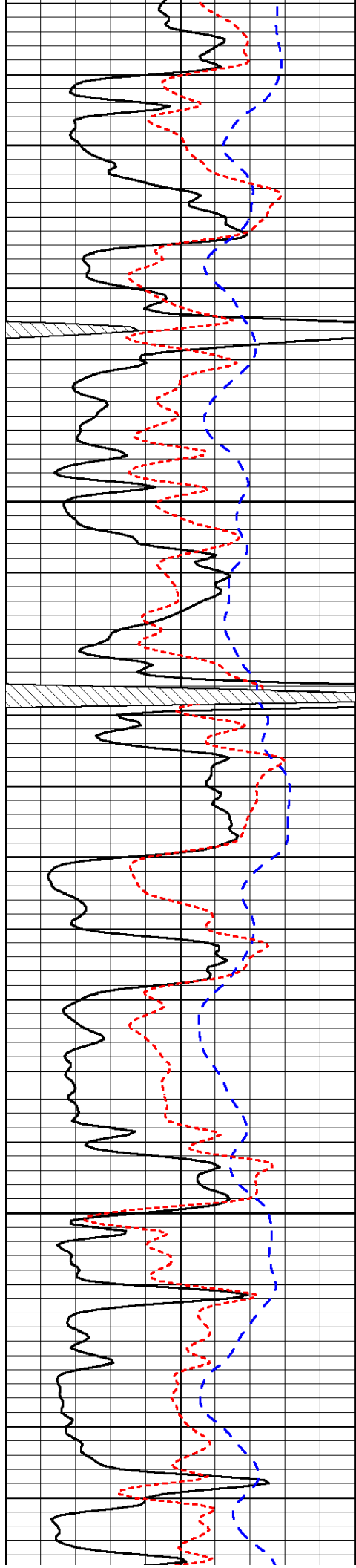
3800



-33

-33

-33



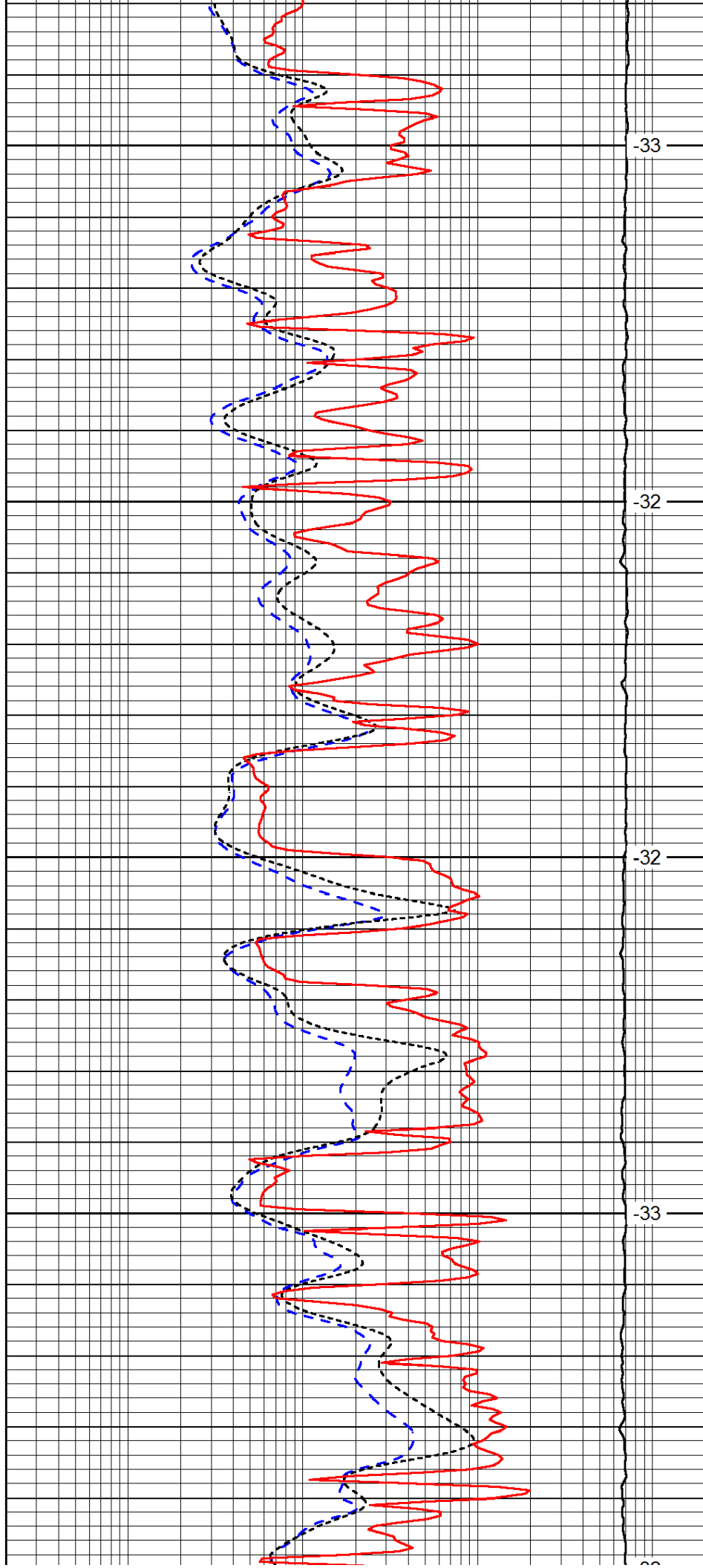
3850

3900

3950

4000

4050



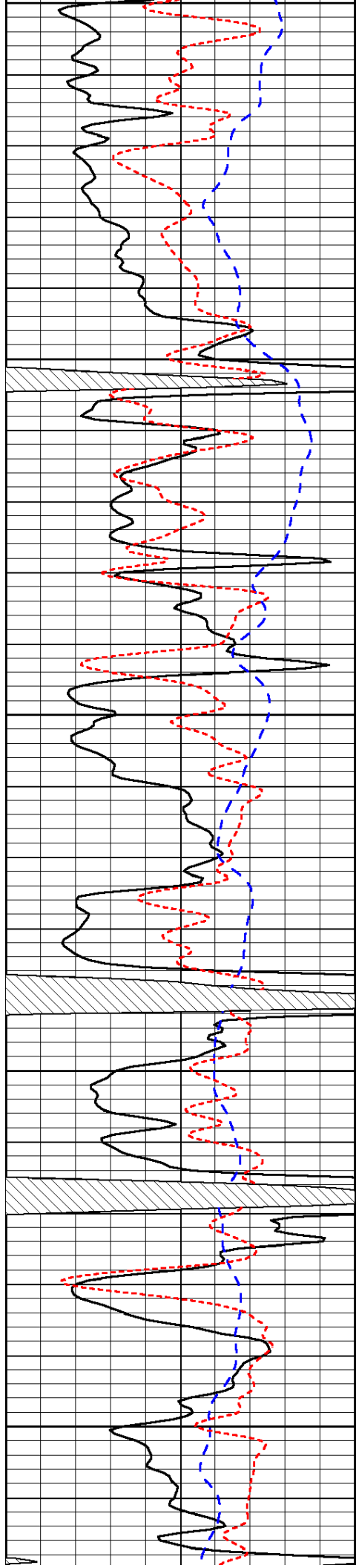
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-32

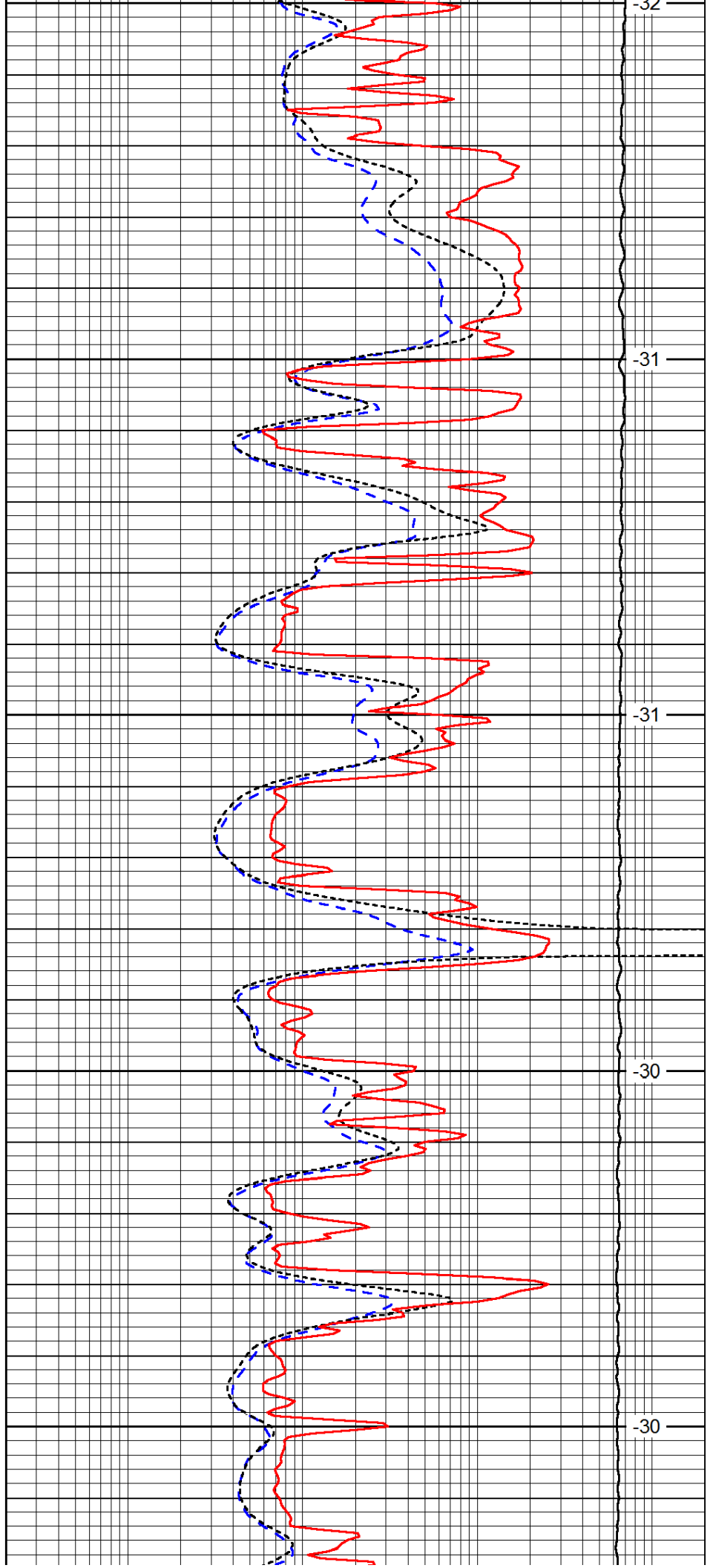
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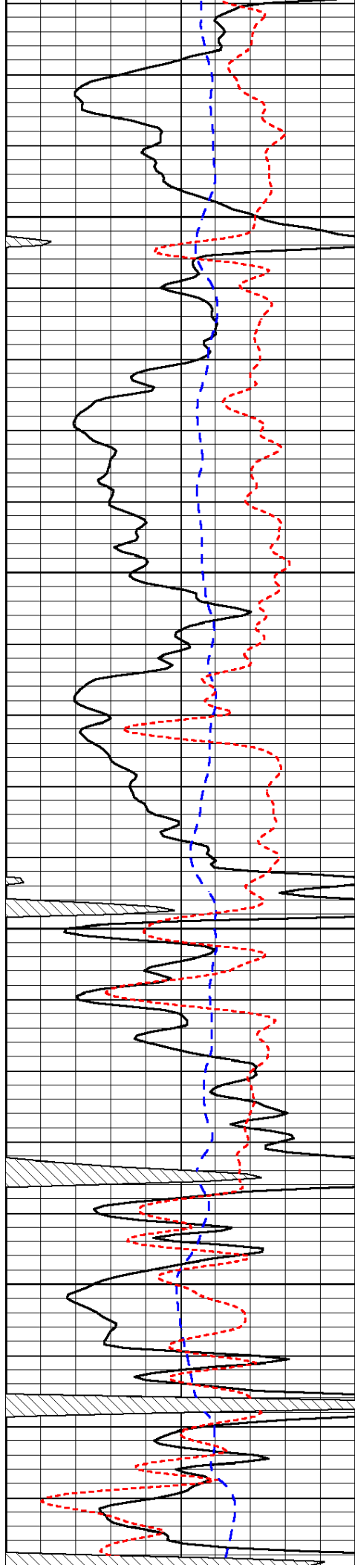
-33

-33



4050
4100
4150
4200
4250



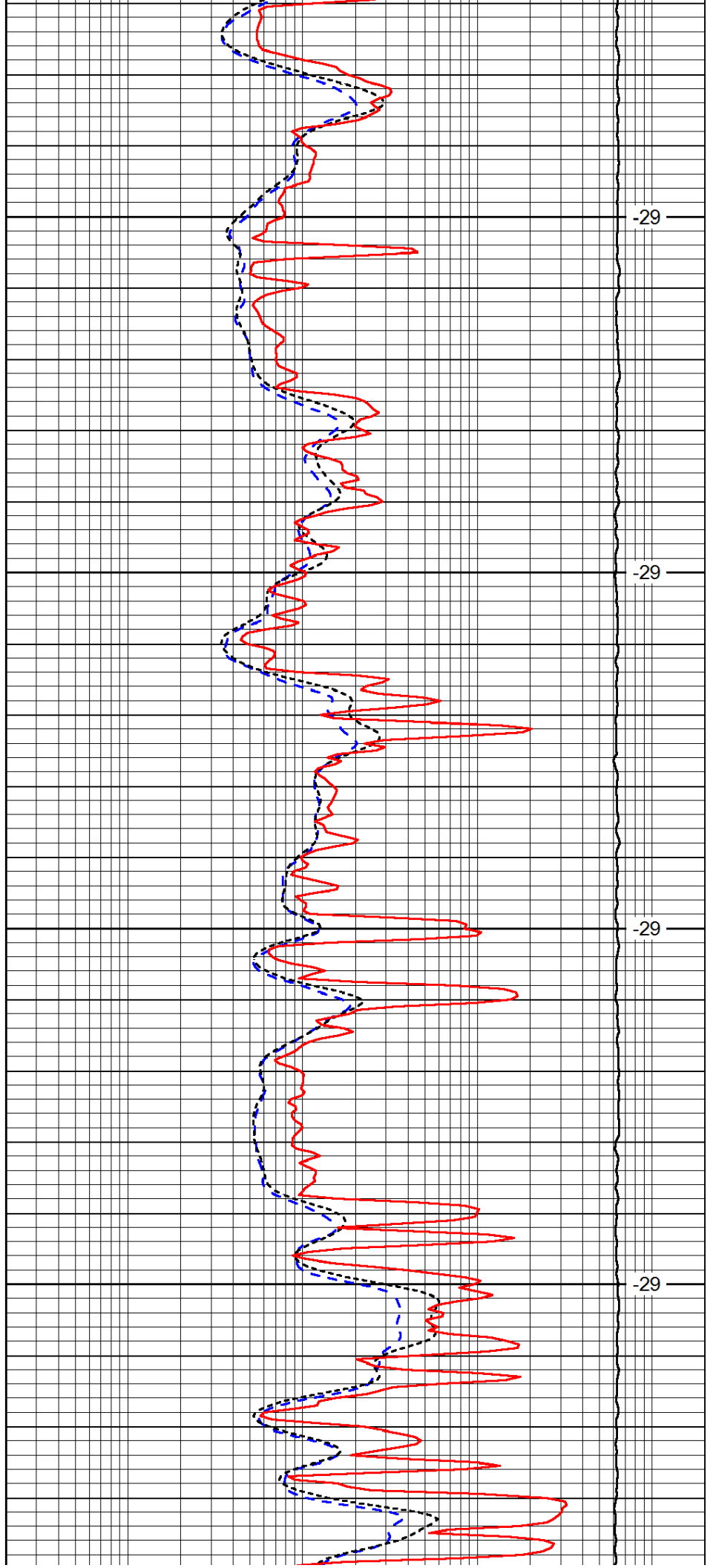


4300

4350

4400

4450

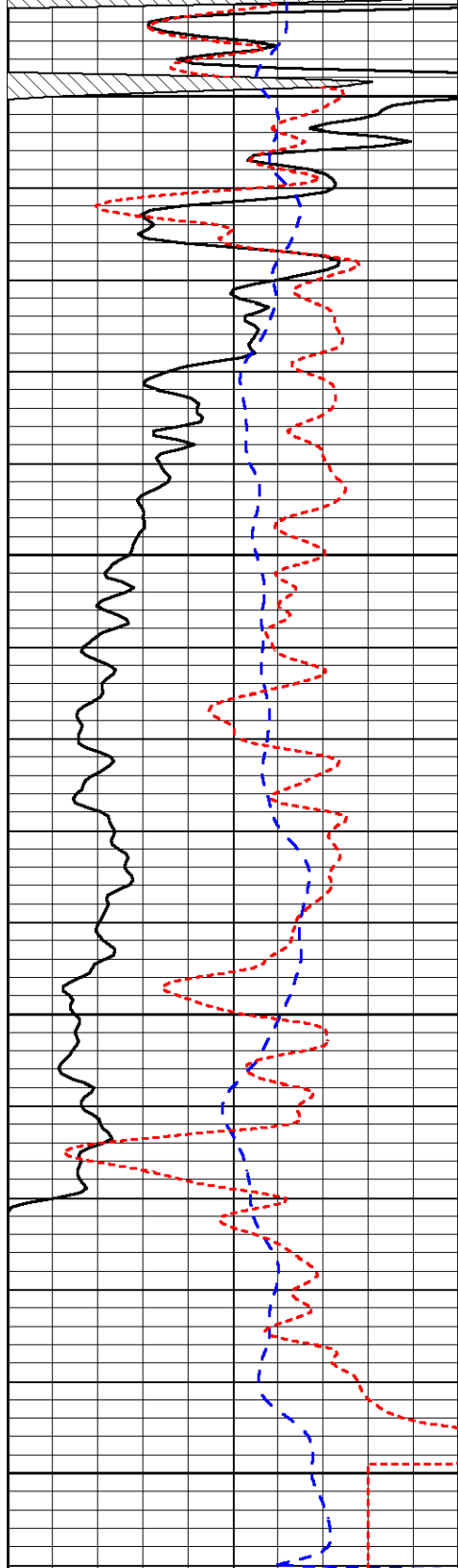


-29

-29

-29

-29



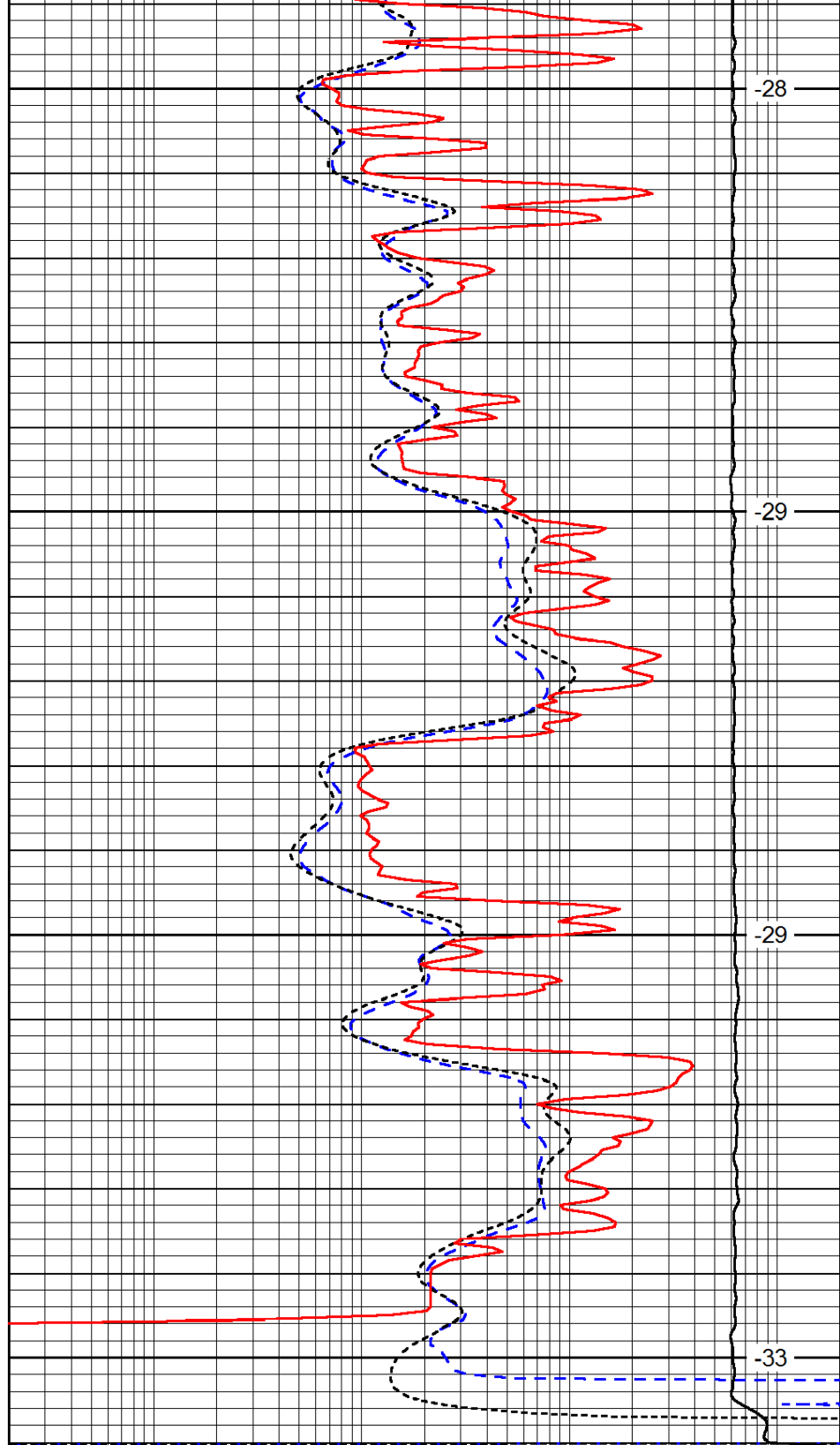
0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

4500

4550

4600

4650



-28

-29

-29

-33

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD