



Pioneer Energy Services

Dual Induction Log

API No.

15-135-25402-00-00

Company **American Warrior, Inc.**

Well **Wittman #11**

Field **Schaben**

County

Ness

State

Kansas

Location
850' FSL & 1380' FWL

Other Services
CNL/CDL

Sec: **19**

Twp: **19S**

Rge: **21W**

Elevation

Permanent Datum Ground Level Elevation 2267

Log Measured From Kelly Bushing 6 Ft. Above Perm. Datum

K.B. 2273
D.F. 2267
G.L. 2267

Drilling Measured From Kelly Bushing

Date 7/31/2012

Run Number One

Depth Driller 4391

Depth Logger 4389

Bottom Logged Interval 4388

Top Log Interval 200

Casing Driller 8.625 @ 223

Casing Logger 217

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 5700

Density / Viscosity 9.4 59

pH / Fluid Loss 12.0 8.8

Source of Sample Flowline

Rm @ Meas. Temp 0.95 @ 80

Rmf @ Meas. Temp 0.71 @ 80

Rmc @ Meas. Temp 1.28 @ 80

Source of Rmf / Rmc Charts

Rm @ BHT 0.62 @ 122

Operating Rig Time 4 Hours

Max Rec. Temp. F 122

Equipment Number 91

Location Hays

Recorded By D. Schmidt

Witnessed By Jason Alm

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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 Log-Tech, Inc.
(785) 625-3858

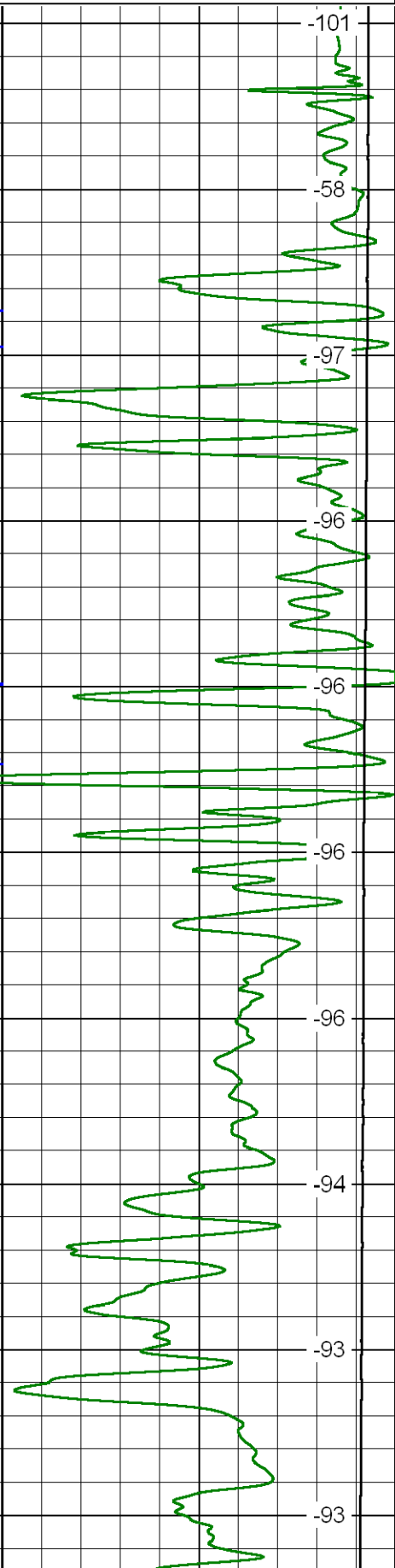
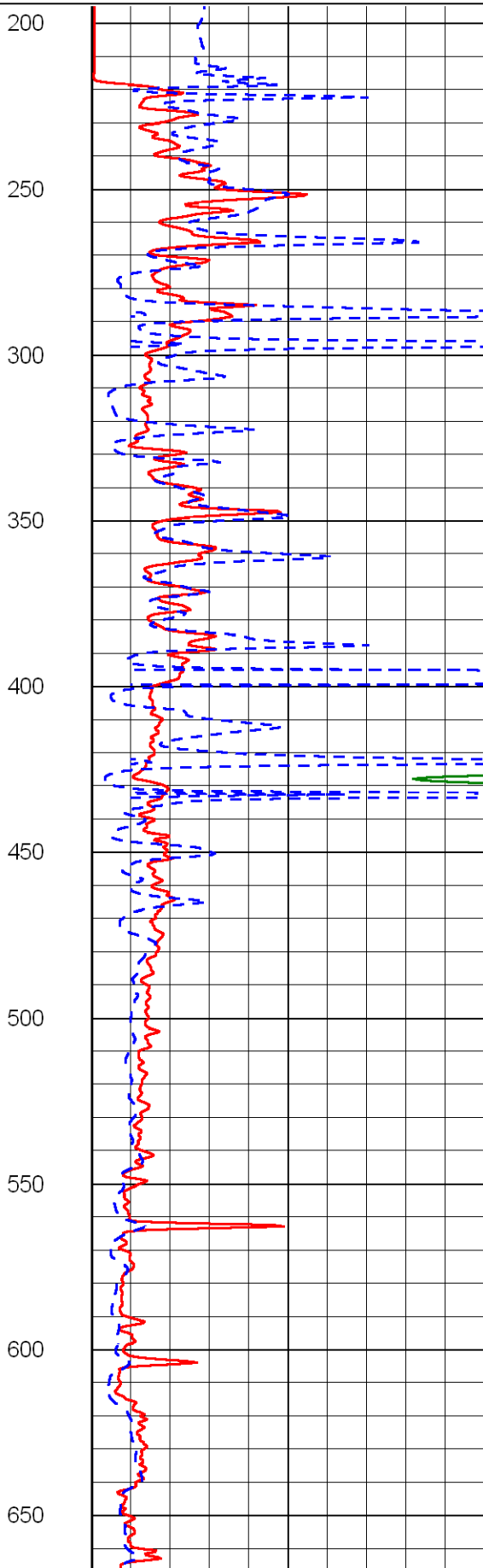
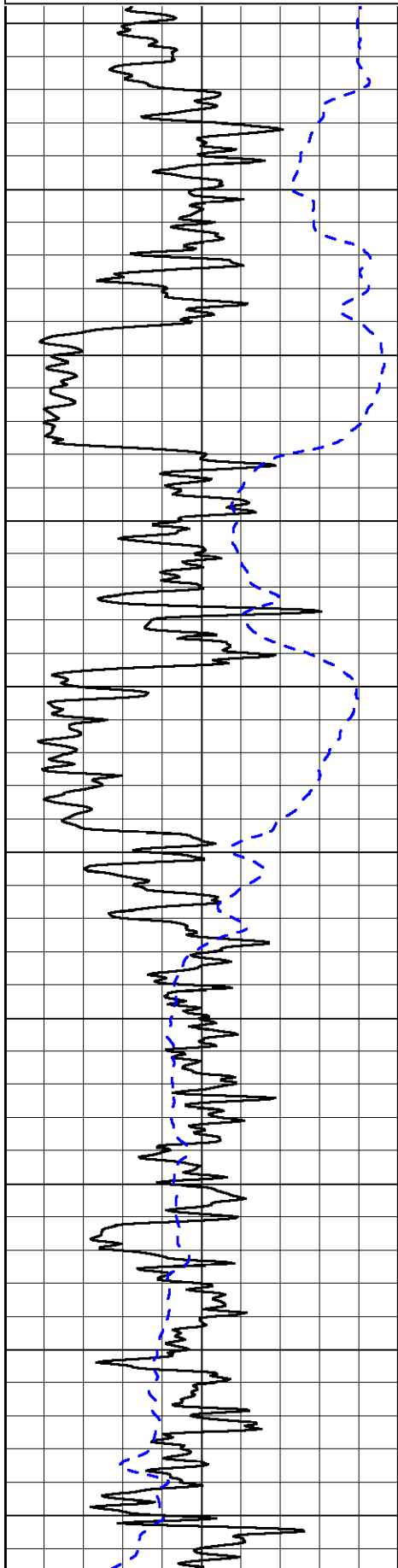
Bazine (West Edge),
5 South to 80 Rd, 1/4 East,
North into

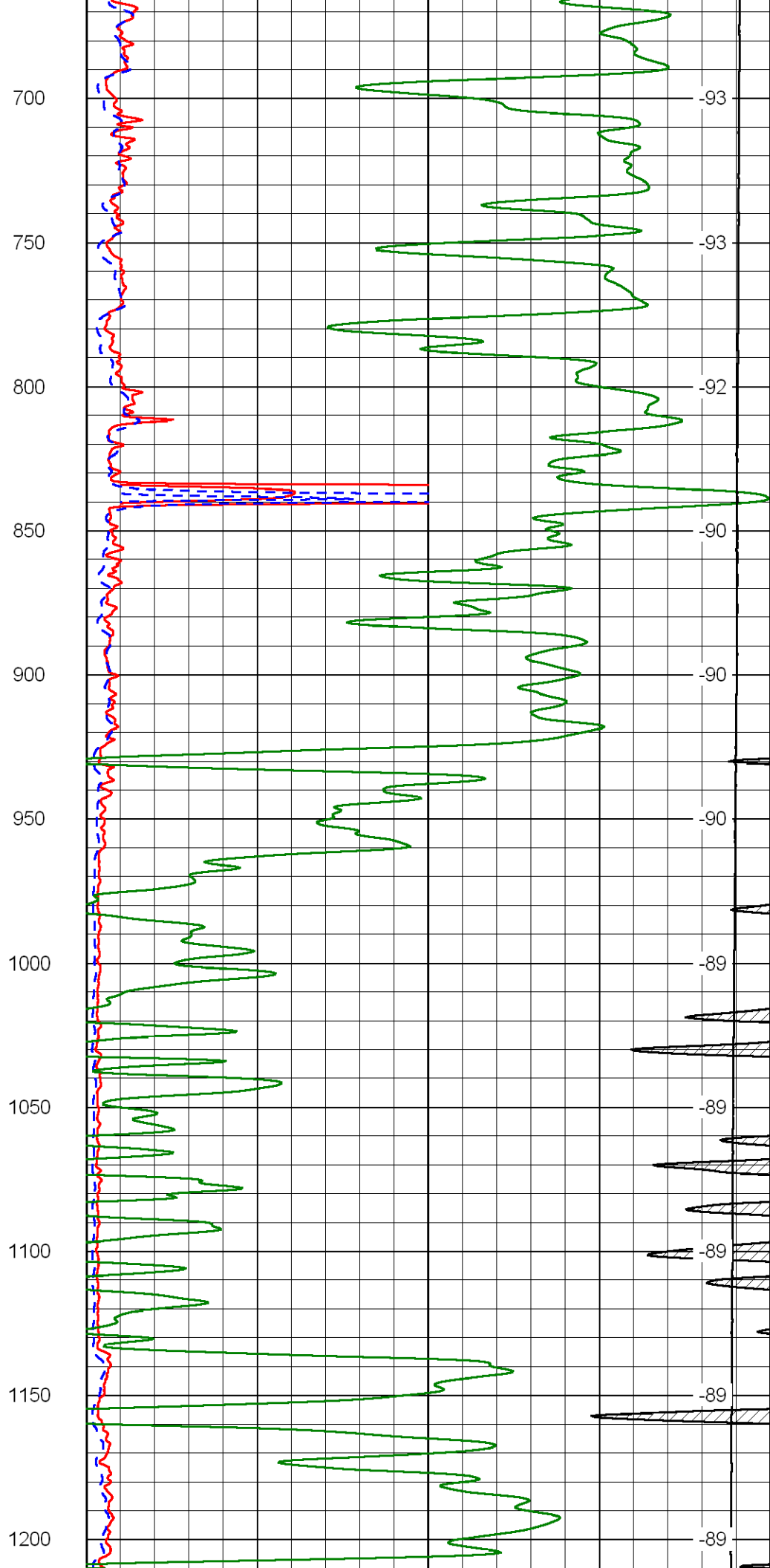
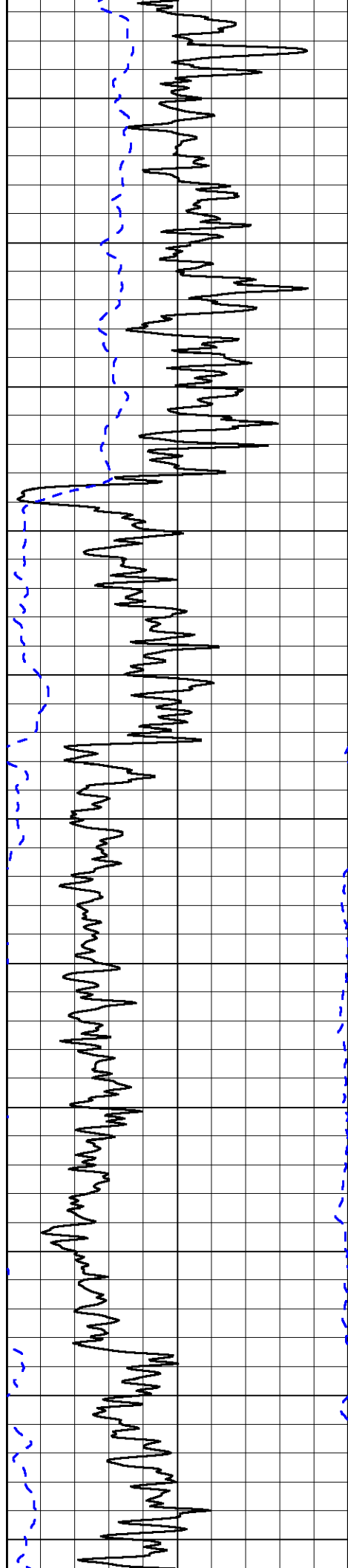
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Dataset Pathname: dil/awstack
Presentation Format: dil2in
Dataset Creation: Tue Jul 31 09:25:21 2012
Charted by: Depth in Feet scaled 1:600

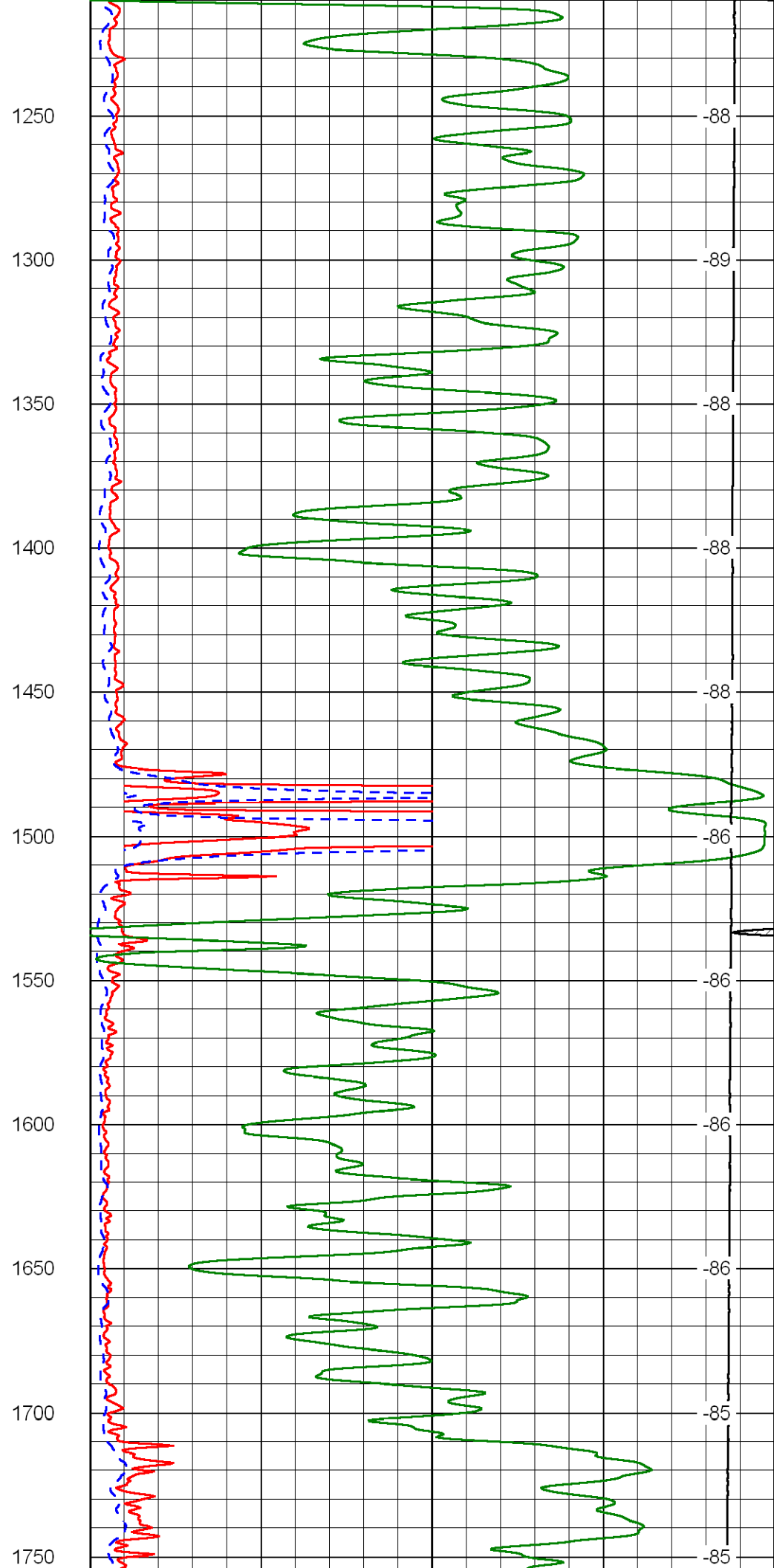
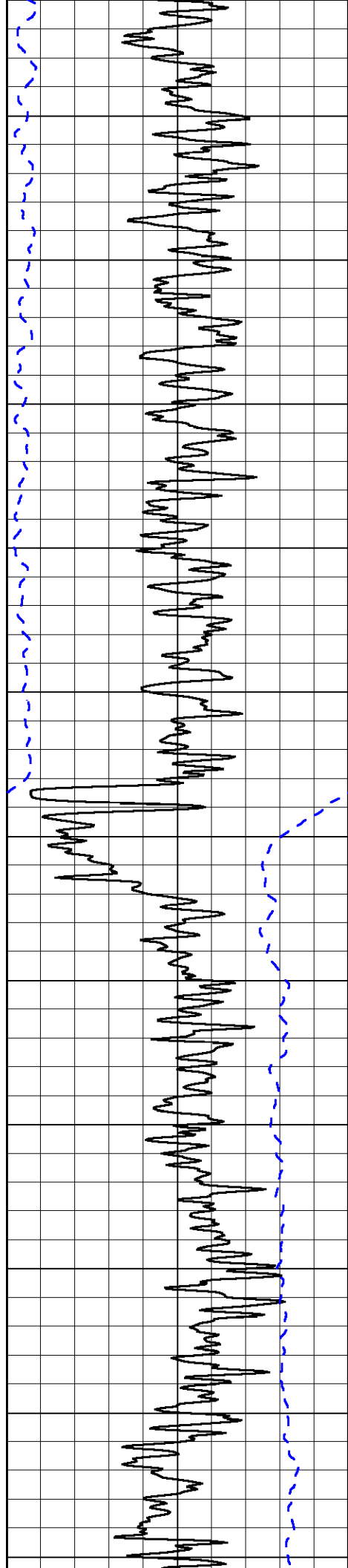
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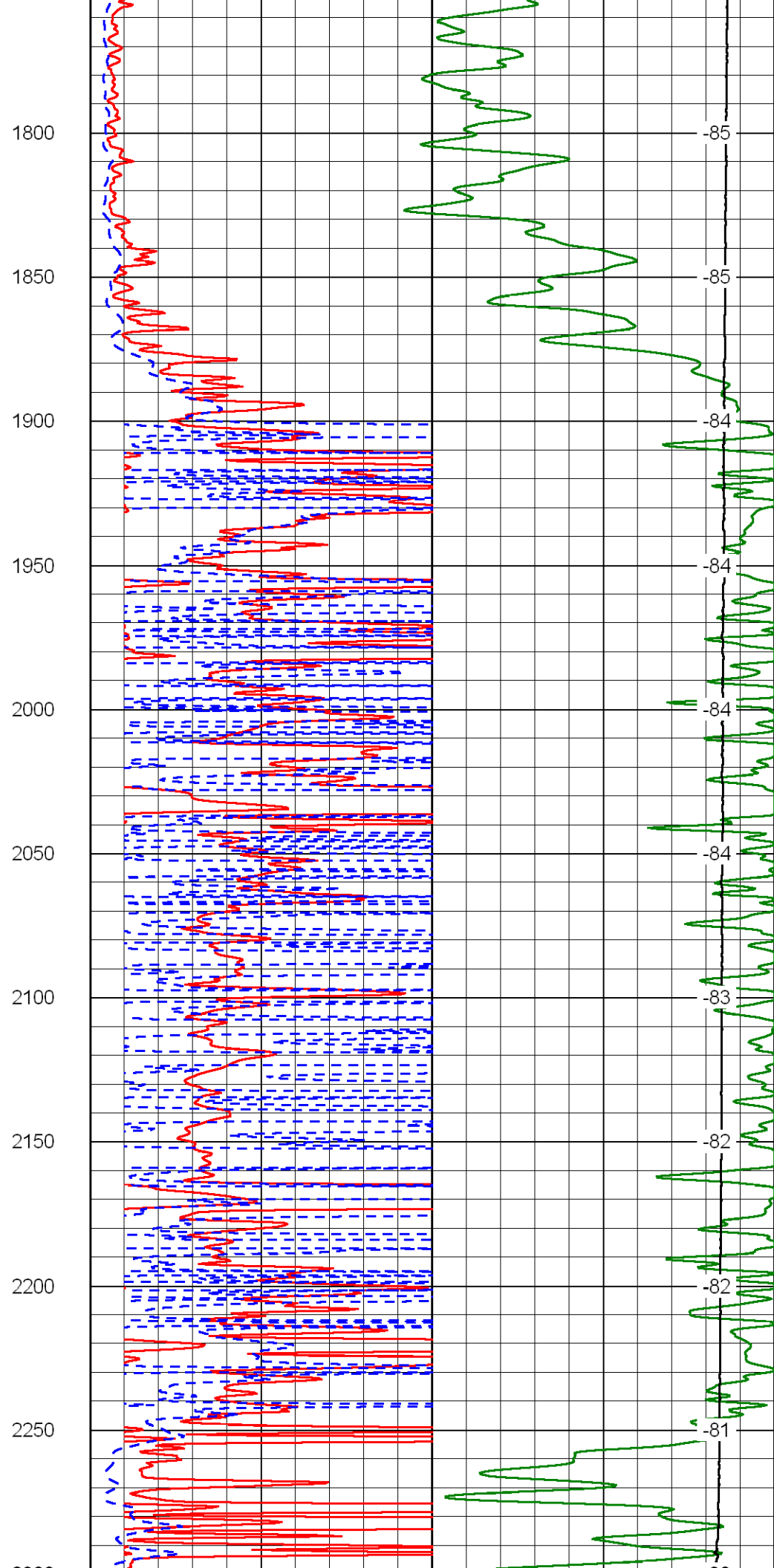
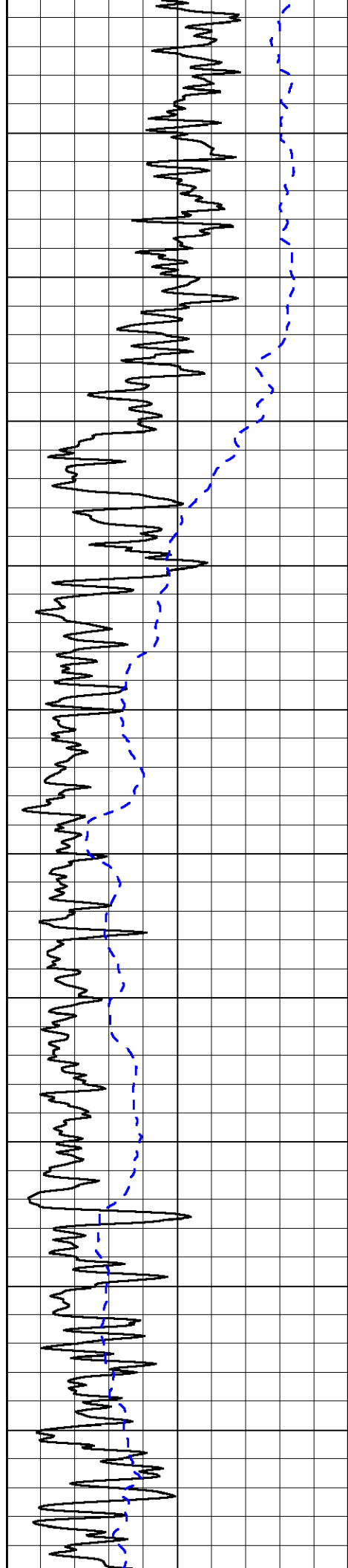
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0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0

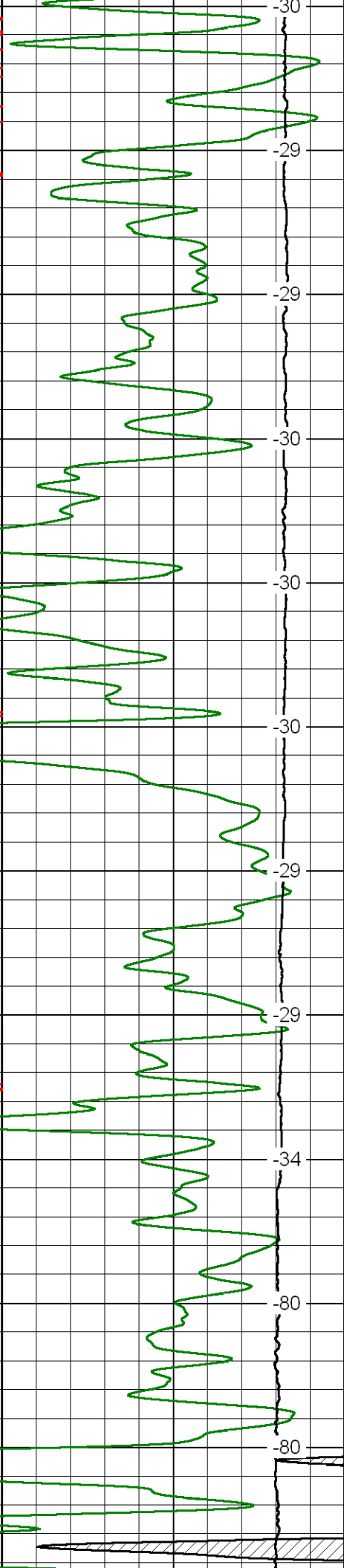
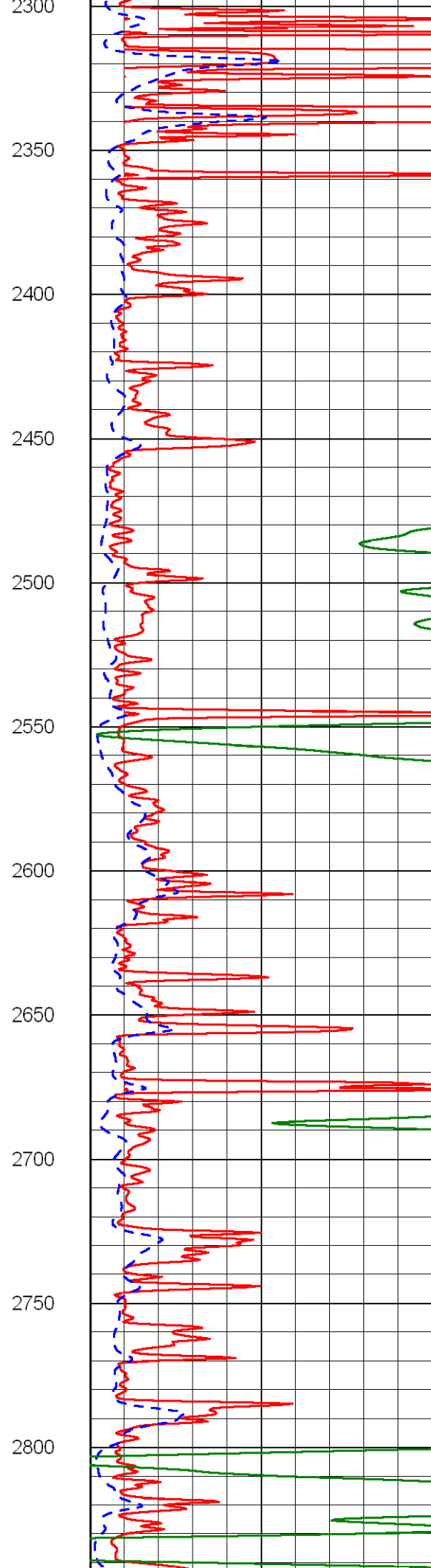
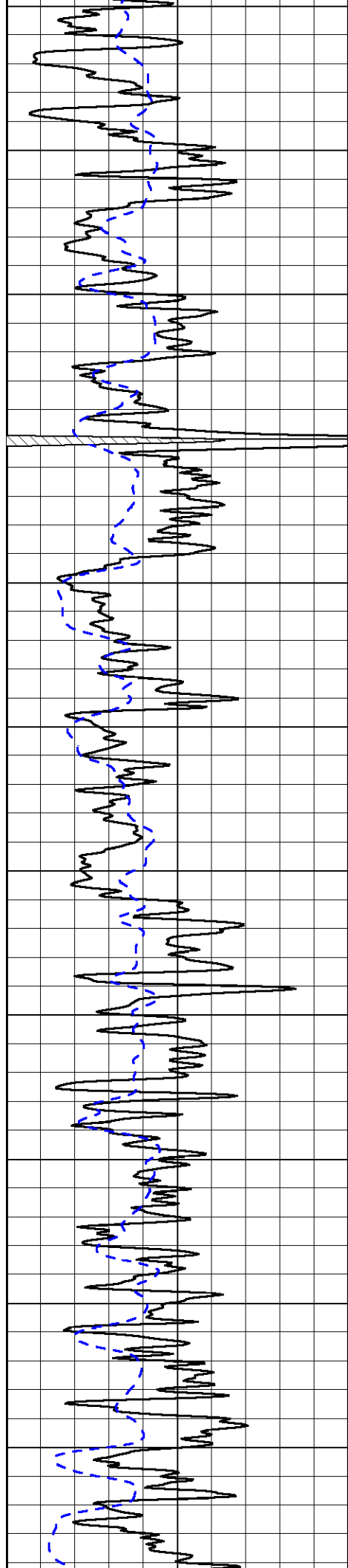
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50	Deep Resistivity	500

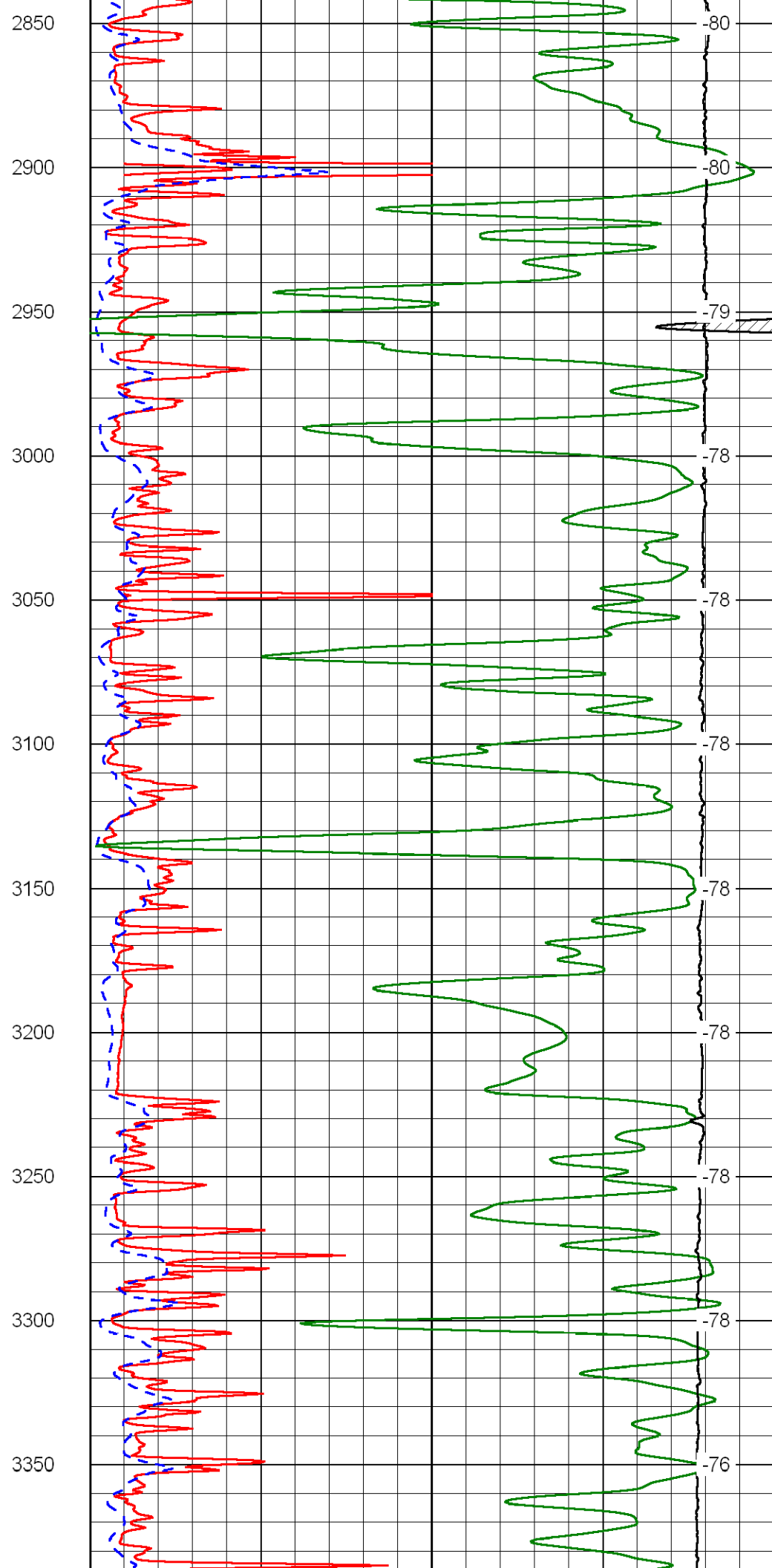
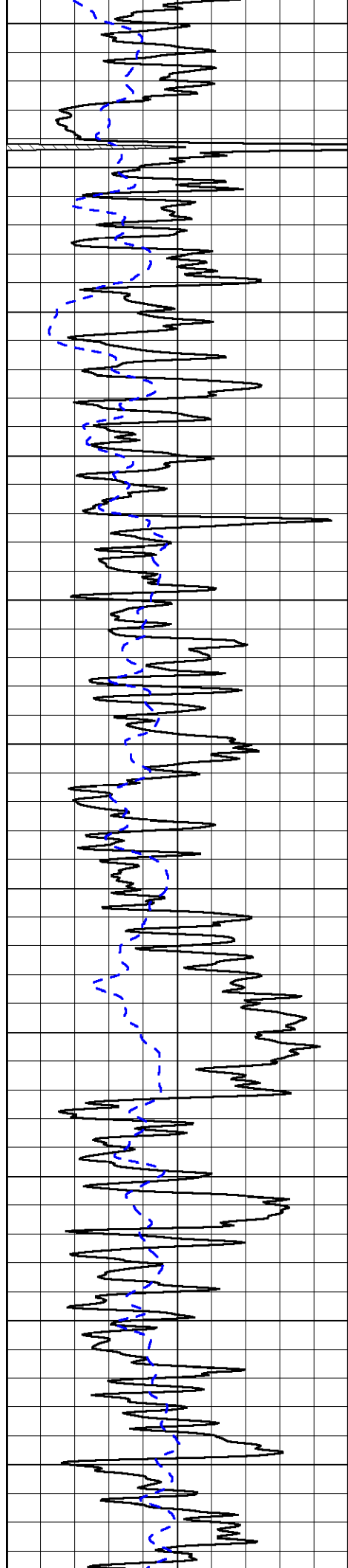


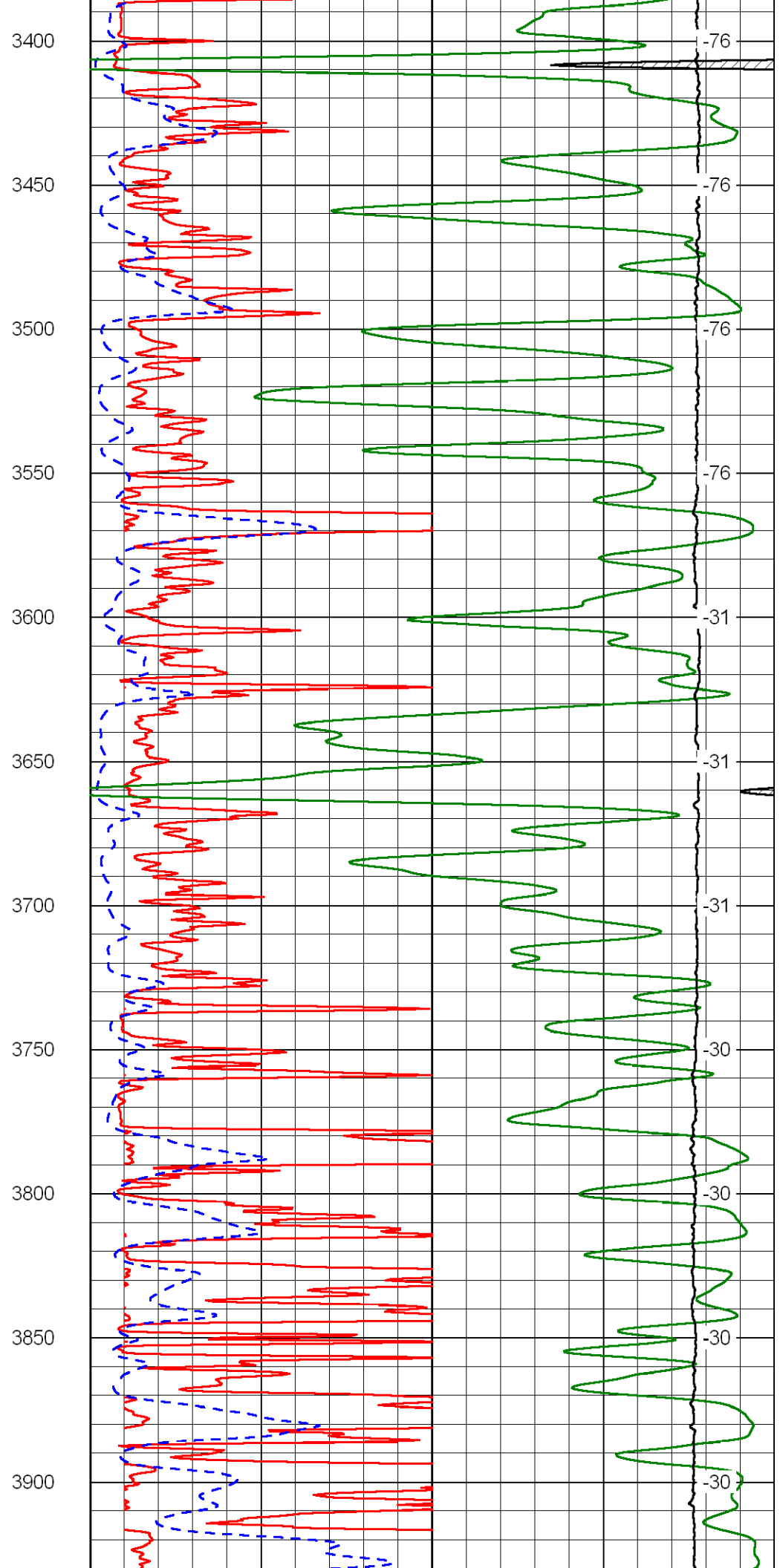
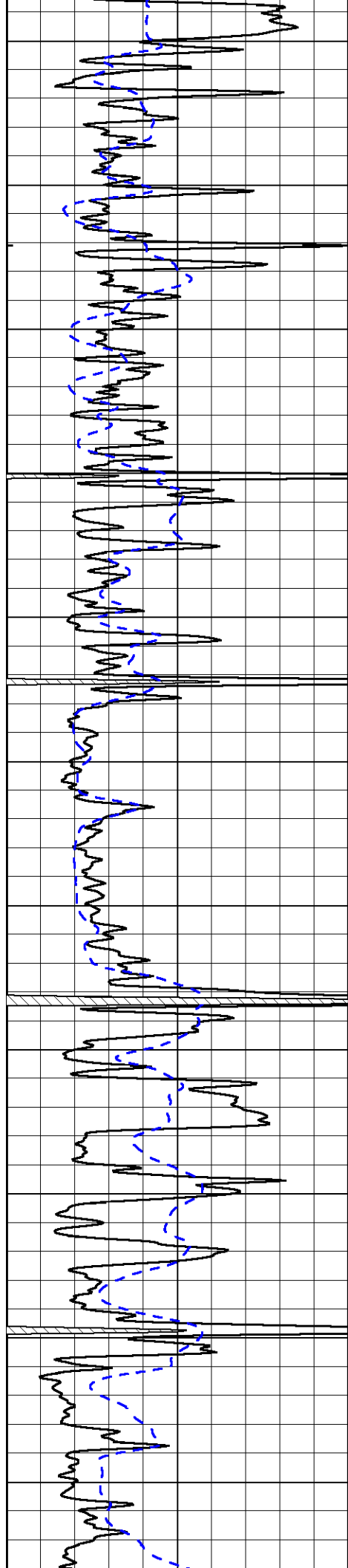


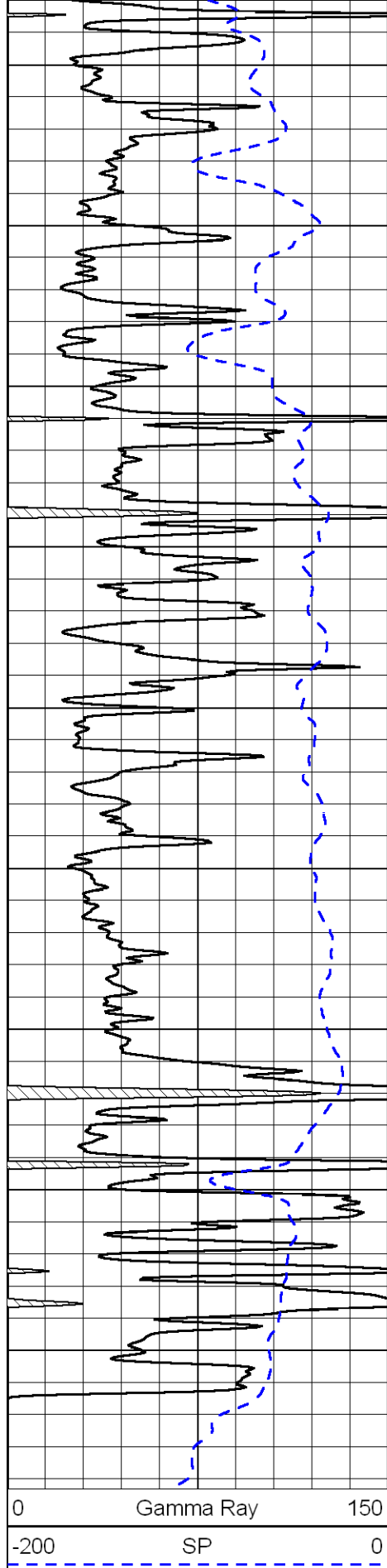




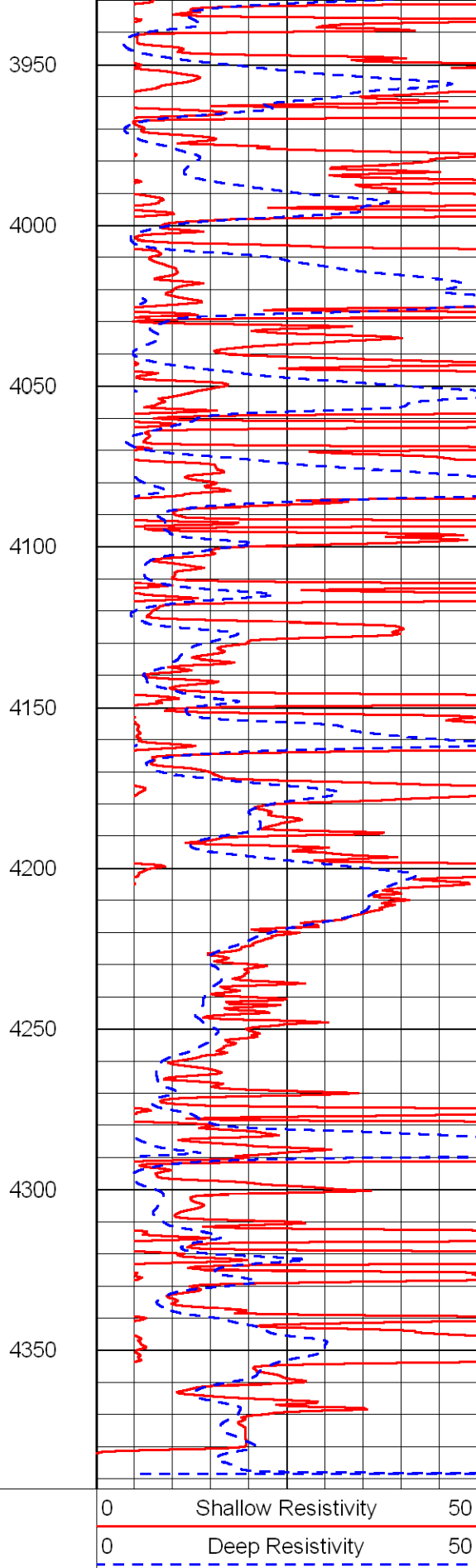








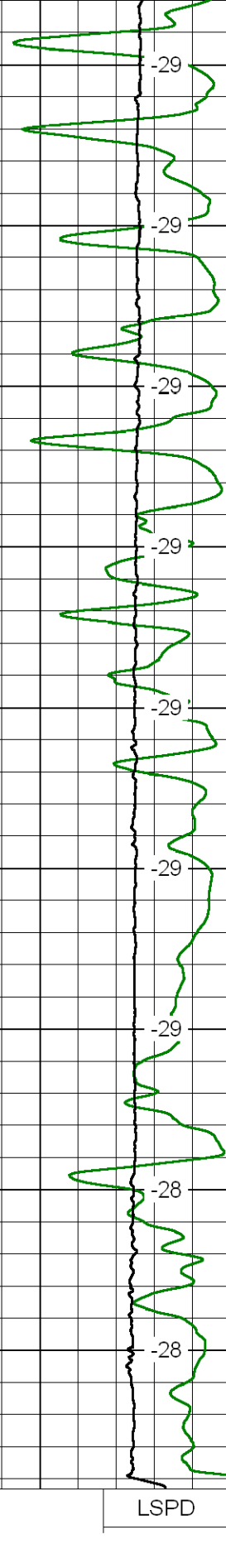
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-200 SP 0



0 Shallow Resistivity 50
0 Deep Resistivity 50

1000 Conductivity 0
15000 Line Tension 0

50 Shallow Resistivity 500
50 Deep Resistivity 500



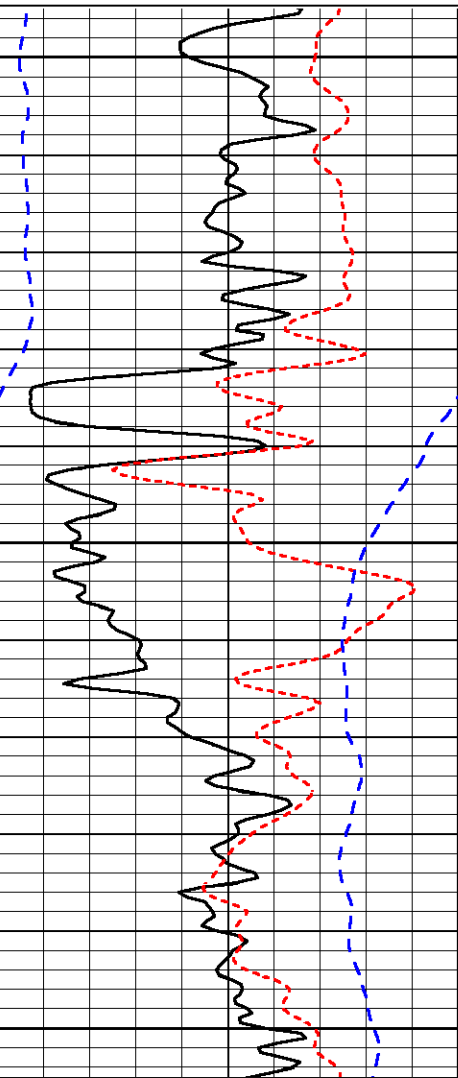
LSPD

Database File: amwar_073112hd.db
Dataset Pathname: dil/awstack
Presentation Format: dil
Dataset Creation: Tue Jul 31 09:25:21 2012
Charted by: Depth in Feet scaled 1:240

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

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

LSPD

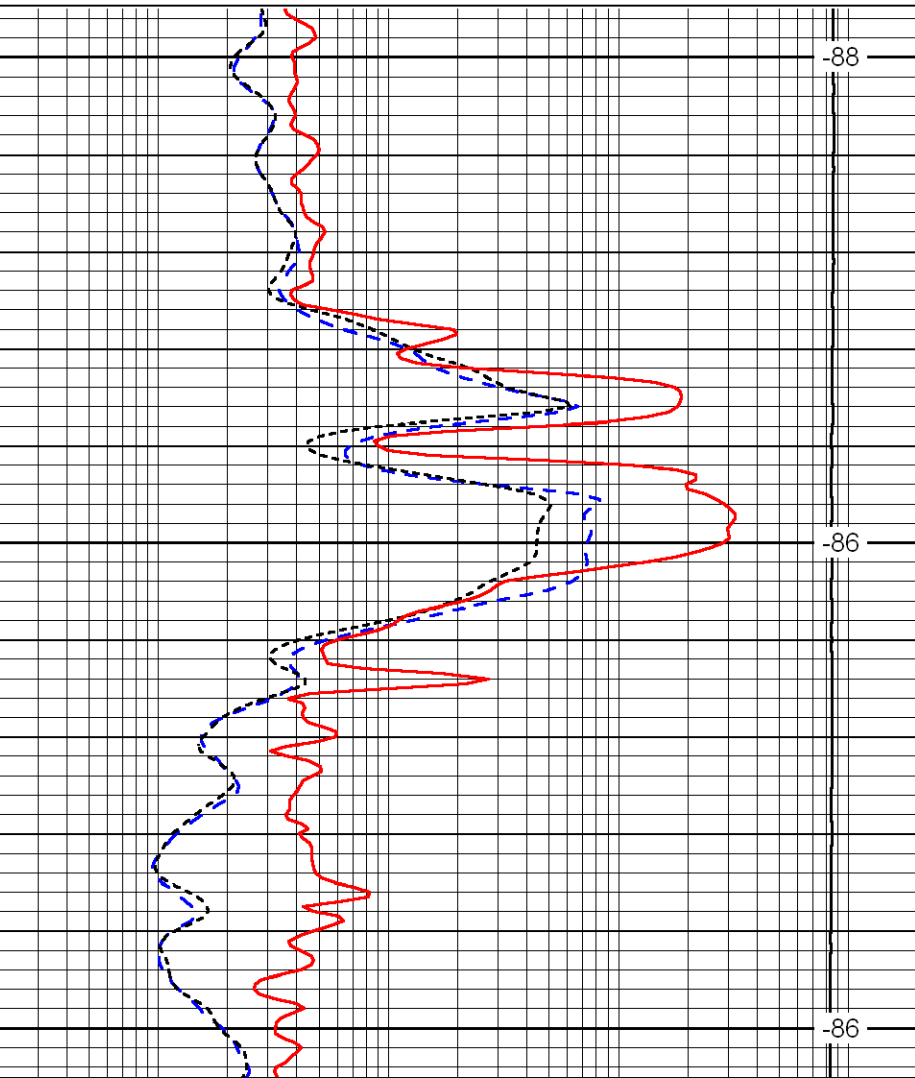


0	Gamma Ray	150
-160	RXO/RT	40
-200	SP	0

1450

1500

1550



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

LSPD

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Dataset Pathname: dil/awstack
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-160	RXO/RT	40

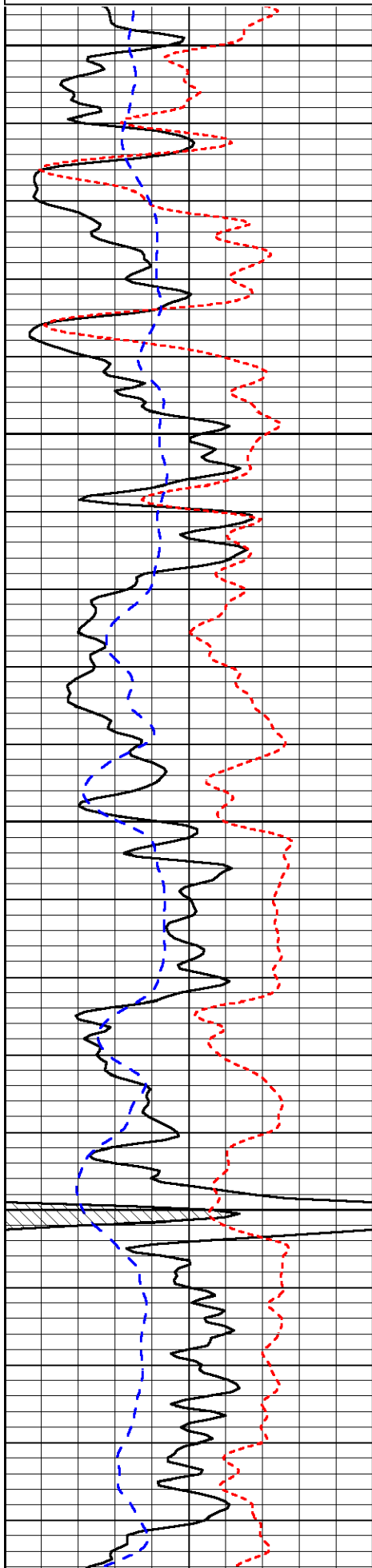
0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000

-200 SP 0

0.2 Shallow Resistivity 2000

10000 Line Tension 0

LSPD

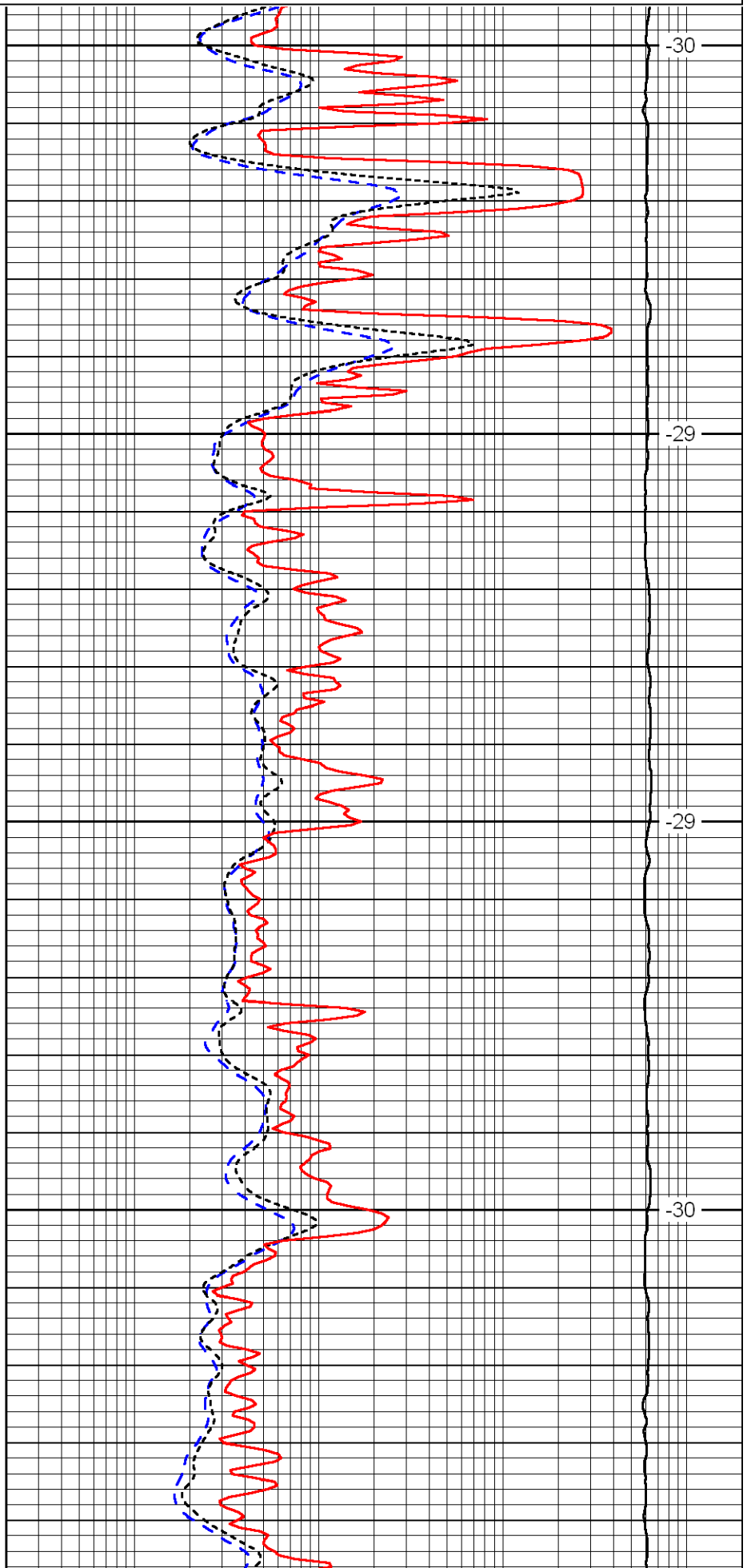


2300

2350

2400

2450

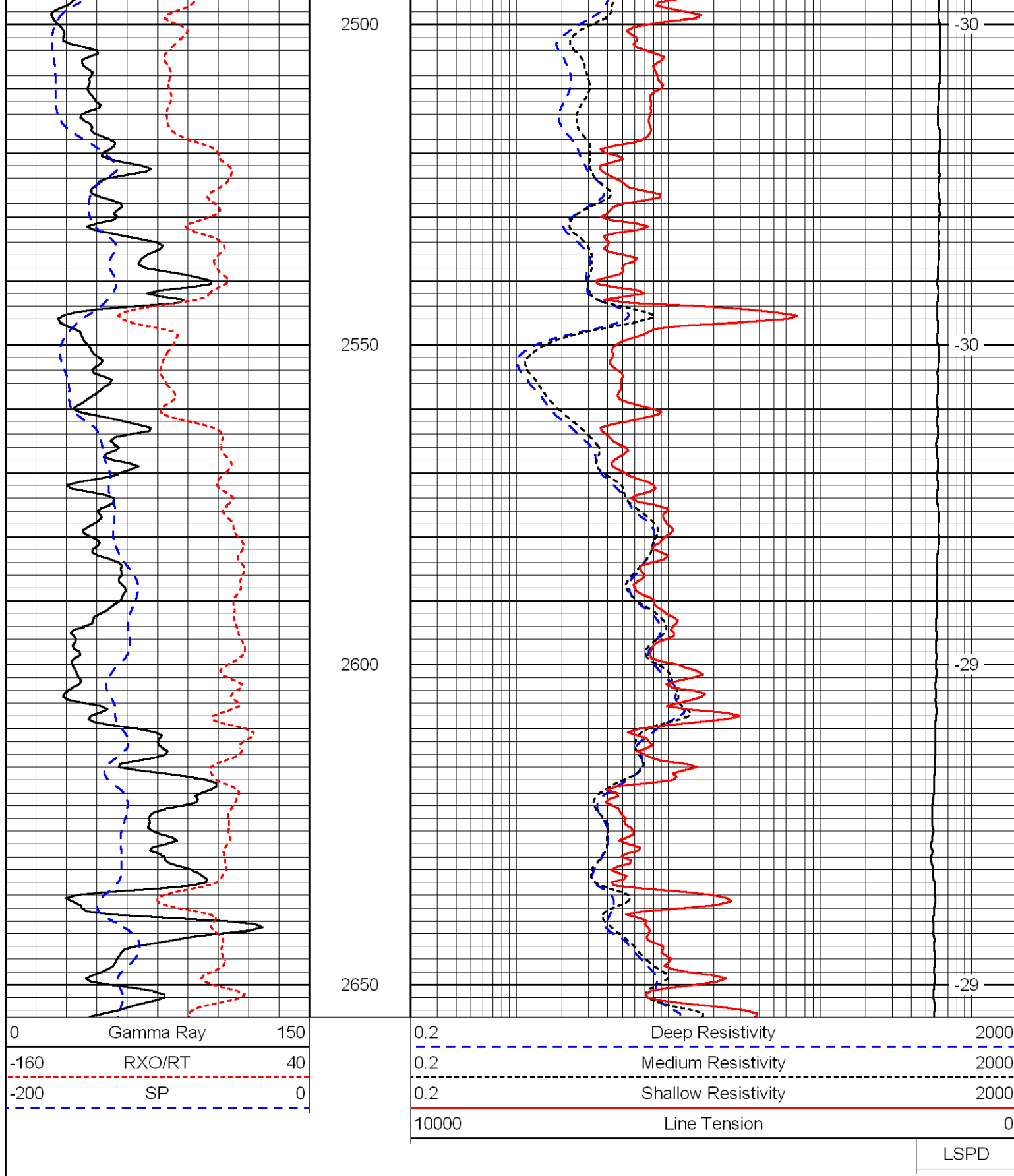


-30

-29

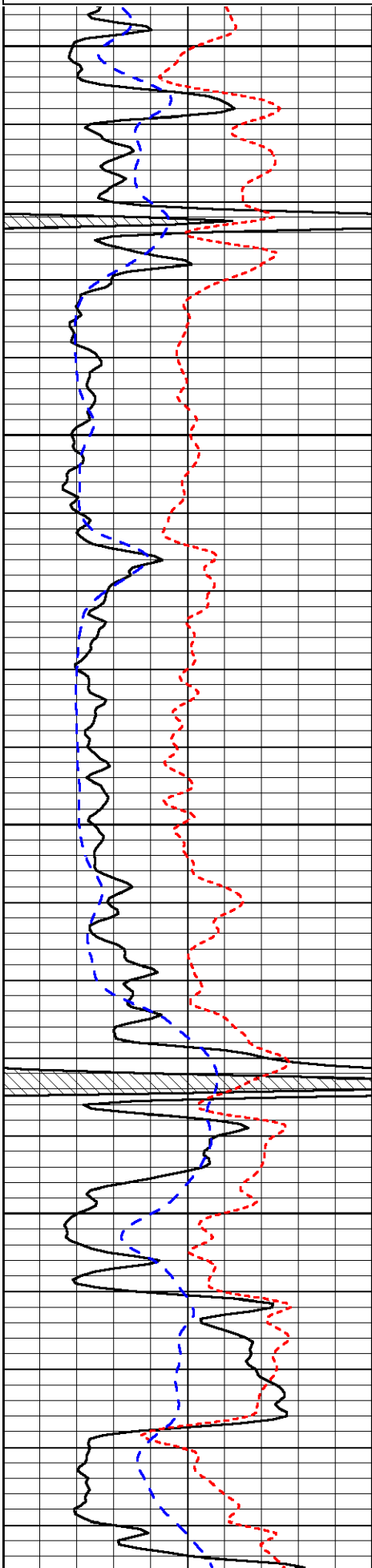
-29

-30



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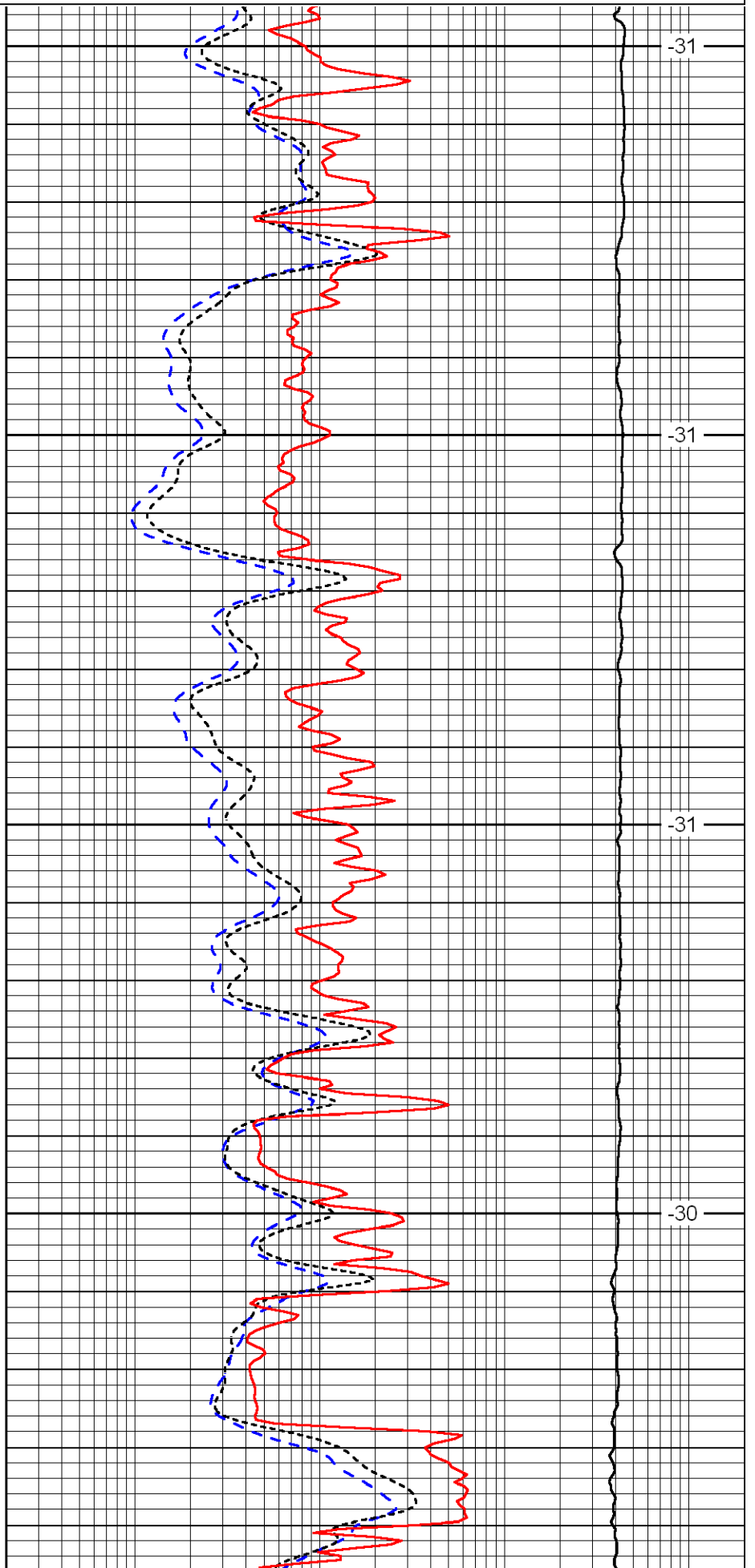


3600

3650

3700

3750

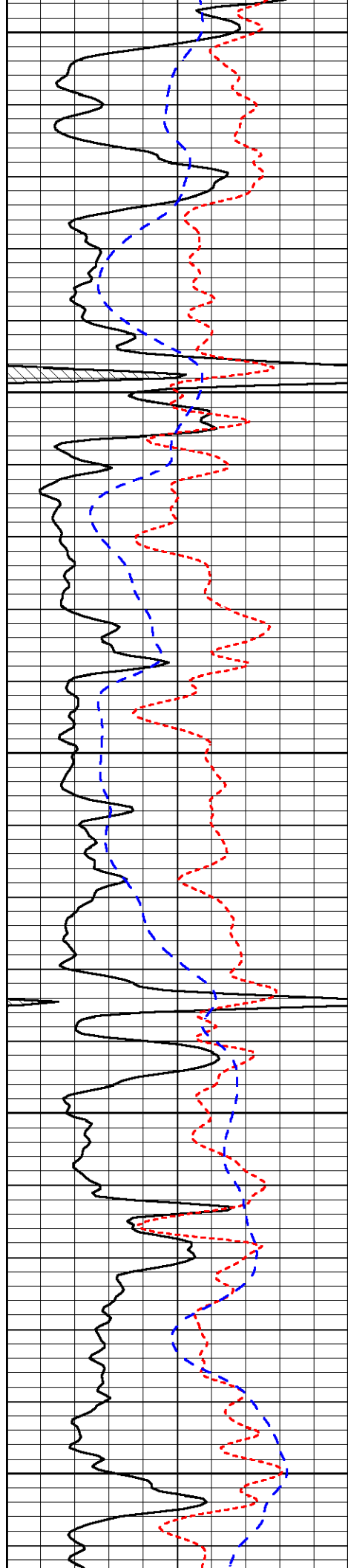


-31

-31

-31

-30



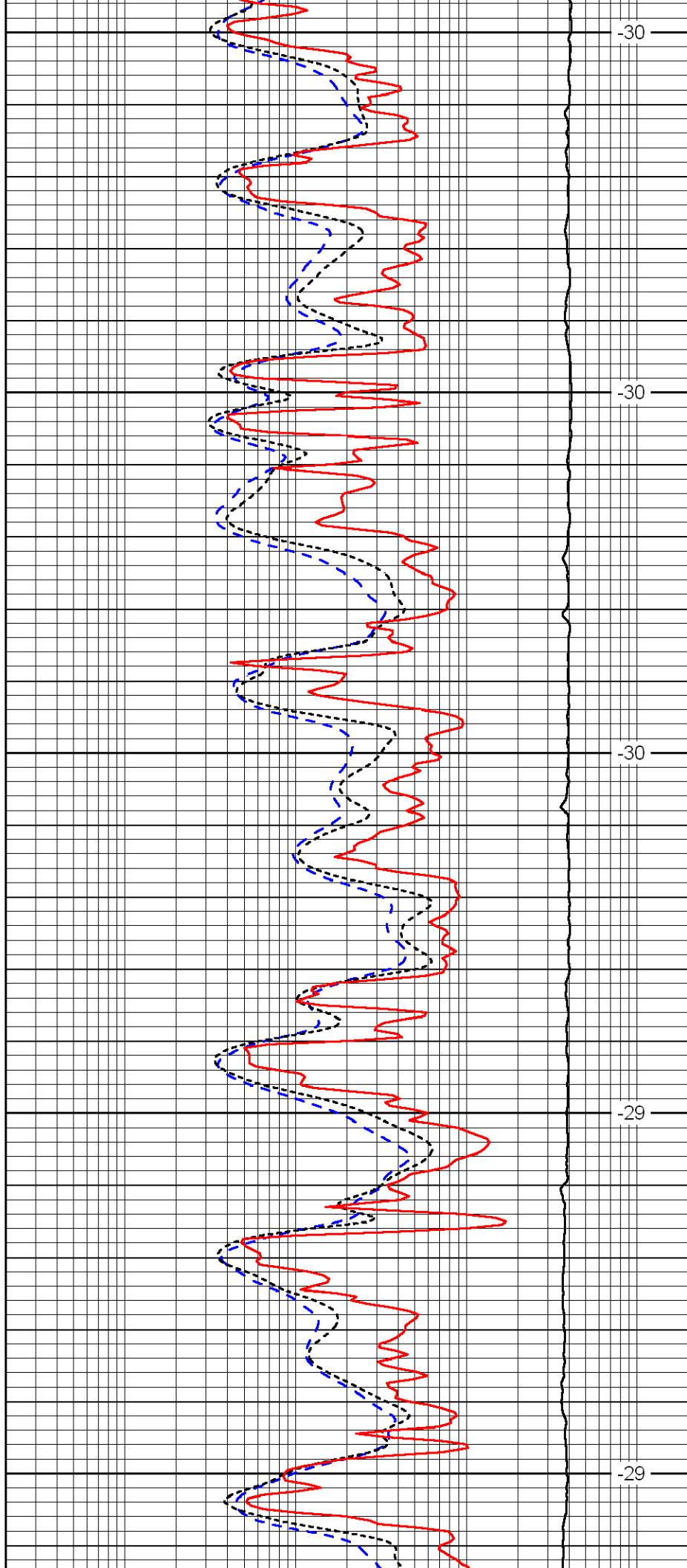
3800

3850

3900

3950

4000



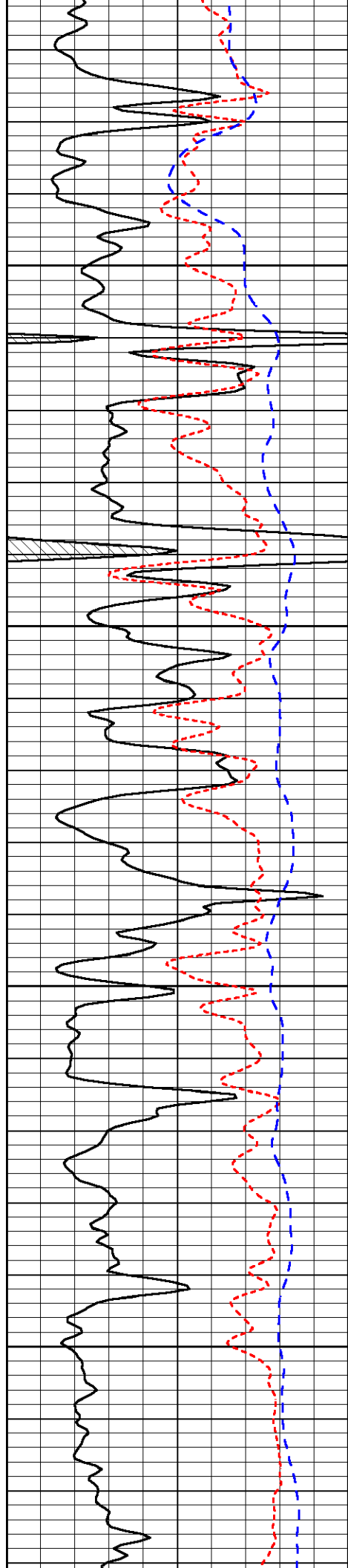
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-30

-30

-29

-29

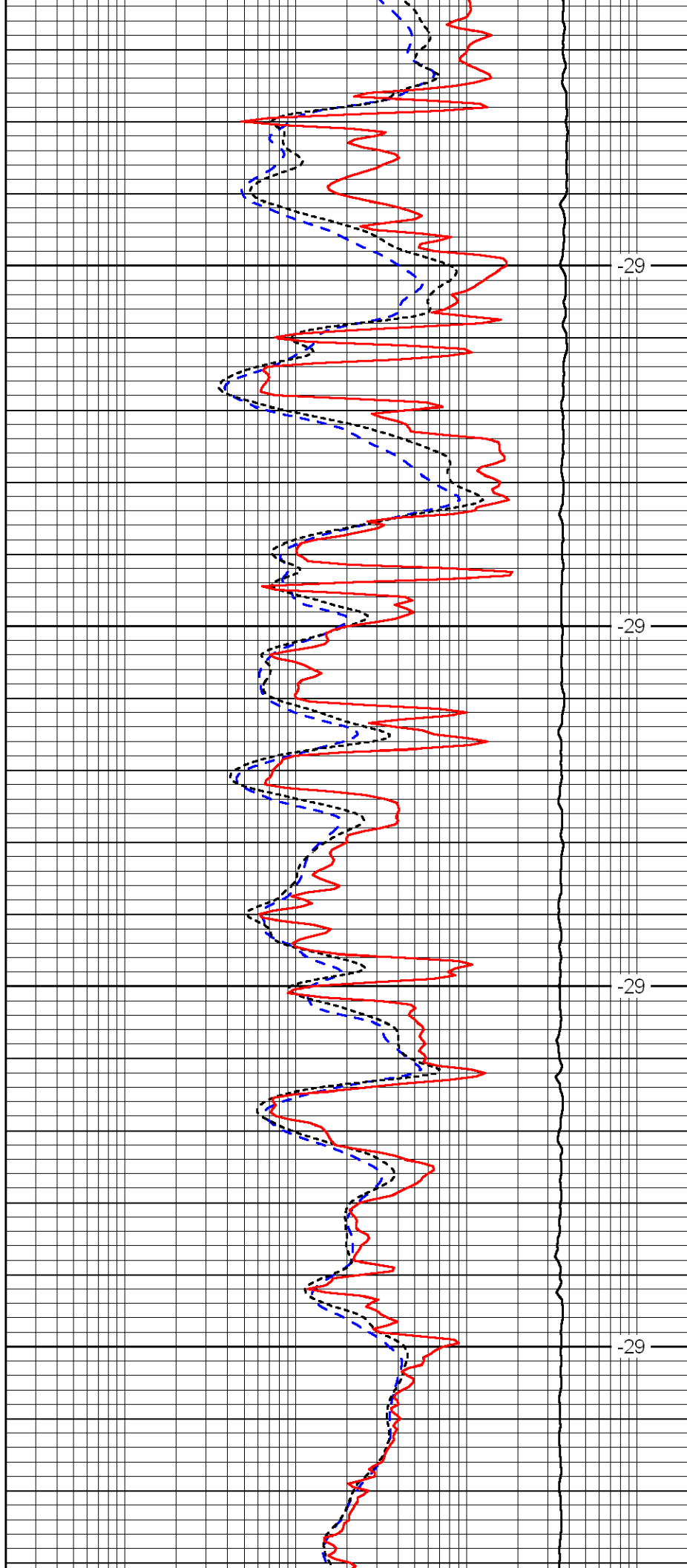


4050

4100

4150

4200

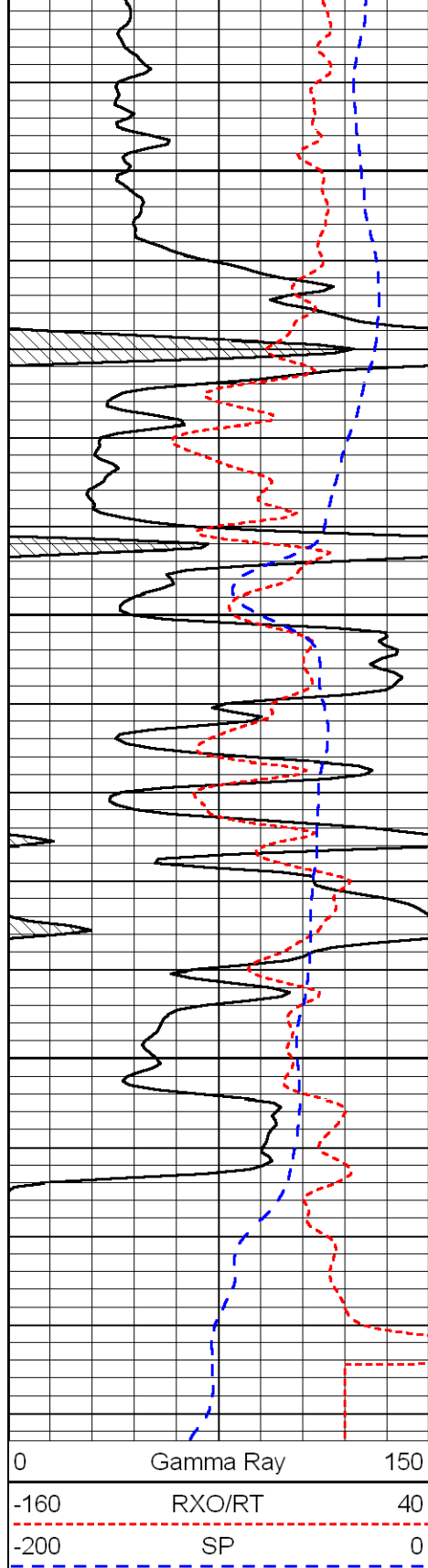


-29

-29

-29

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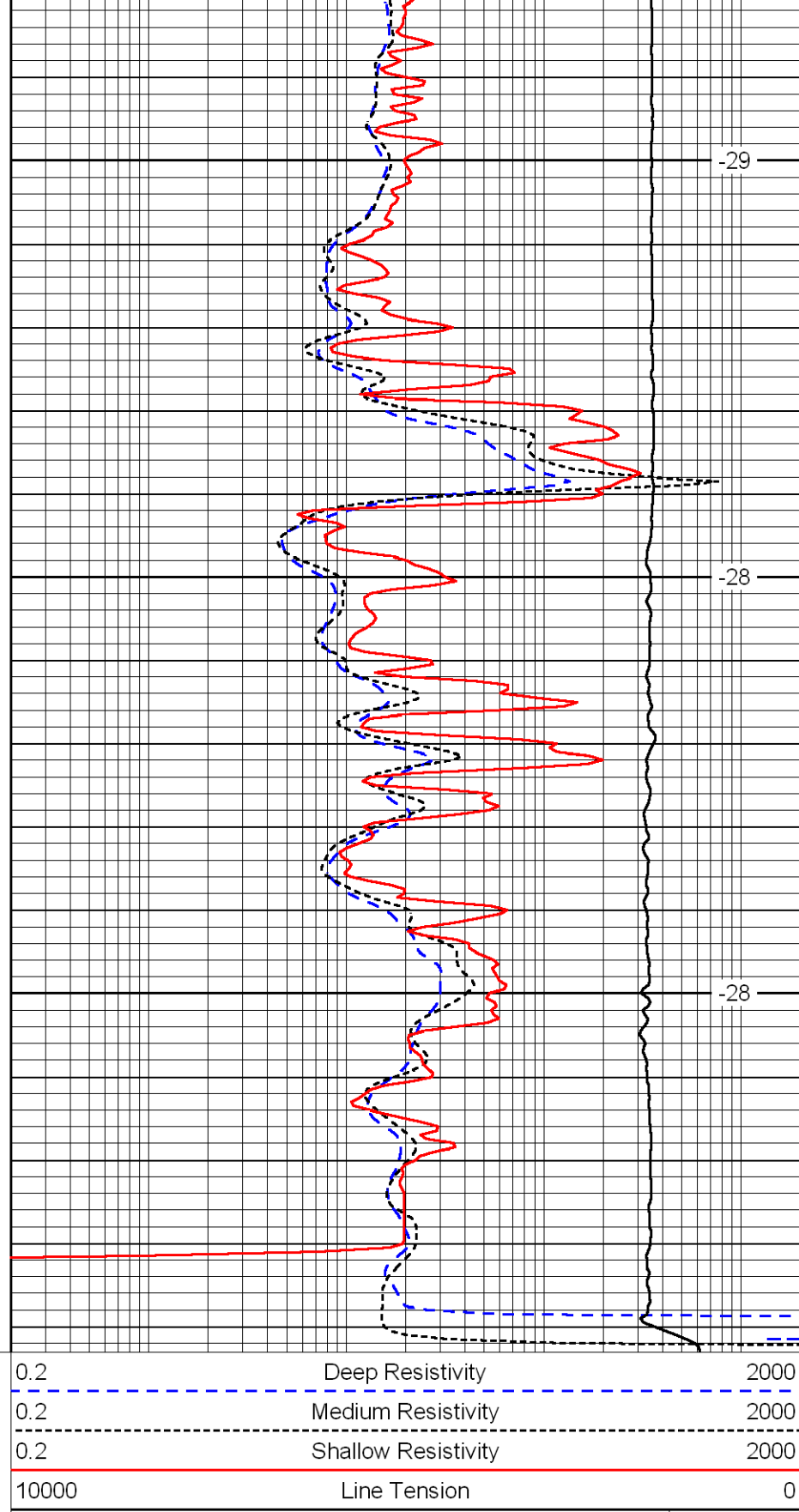


4250

4300

4350

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



-29

-28

-28

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

LSPD