



Pioneer Energy Services

Dual Induction Log

15-007-24197-00-00

API No.

Company Indian Oil Company, Inc.

Well Banks North # 1

Field Amber Creek

County Barber State Kansas

Location 2310' FNL & 2450' FWL

Sec: 36

Twp: 30 S Rge: 12 W

Permanent Datum Ground Level Elevation 1669
 Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum
 Drilling Measured From Kelly Bushing

Other Services
 CNL/CDL
 Elevation
 K.B. 1677
 D.F. 1669
 G.L. 1669

Date	07-15-2014
Run Number	One
Depth Driller	4510
Depth Logger	4509
Bottom Logged Interval	4508
Top Log Interval	300
Casing Driller	8.625 @ 356
Casing Logger	352
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	8500
Density / Viscosity	9.3 68
pH / Fluid Loss	11.5 10.0
Source of Sample	Flowline
Rm @ Meas. Temp	0.58 @ 74
Rmf @ Meas. Temp	0.44 @ 74
Rmc @ Meas. Temp	0.78 @ 74
Source of Rmf / Rmc	Charts
Rm @ BHT	0.35 @ 121
Operating Rig Time	3 Hours
Max Rec. Temp. F	121
Equipment Number	17
Location	Hays
Recorded By	Y. Ruiz
Witnessed By	Scott Alberg

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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
 Medicine Lodge,
 North to 99 Spring Rd, 1 East,
 South into

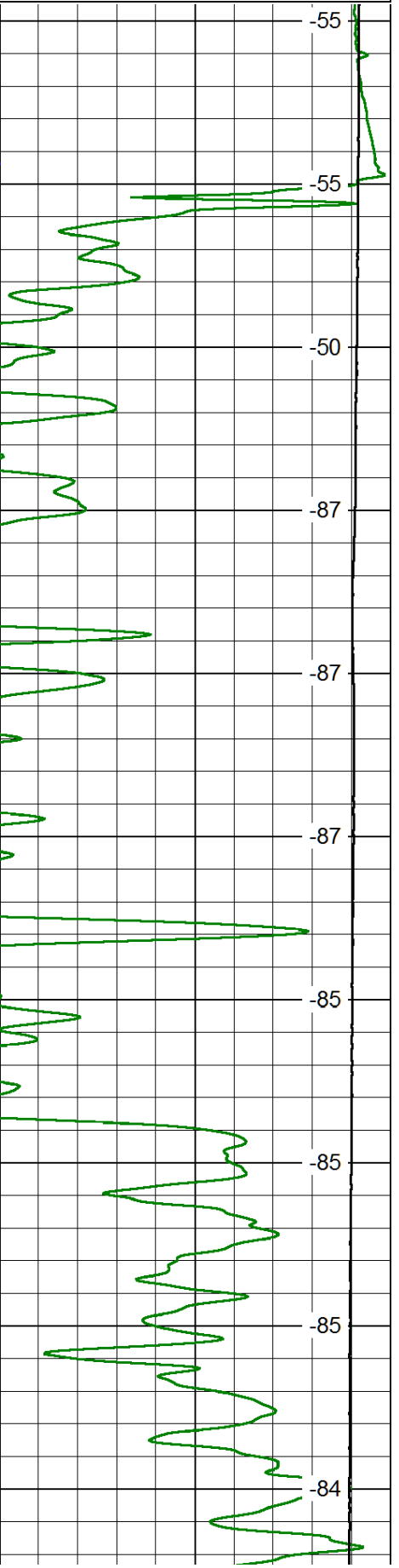
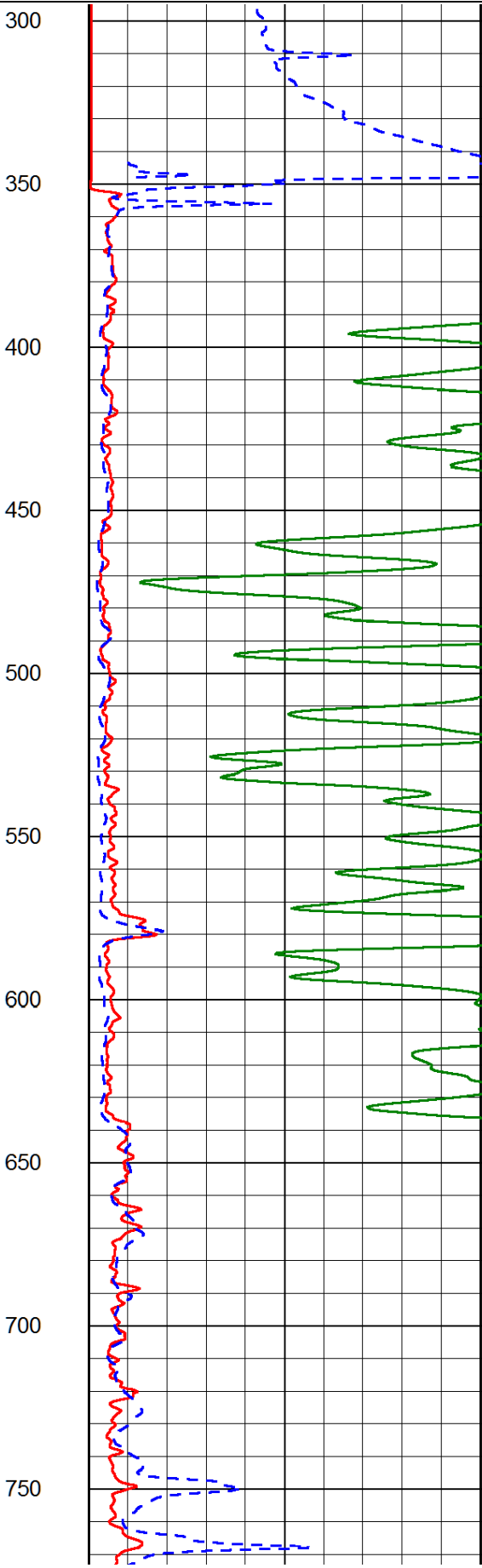
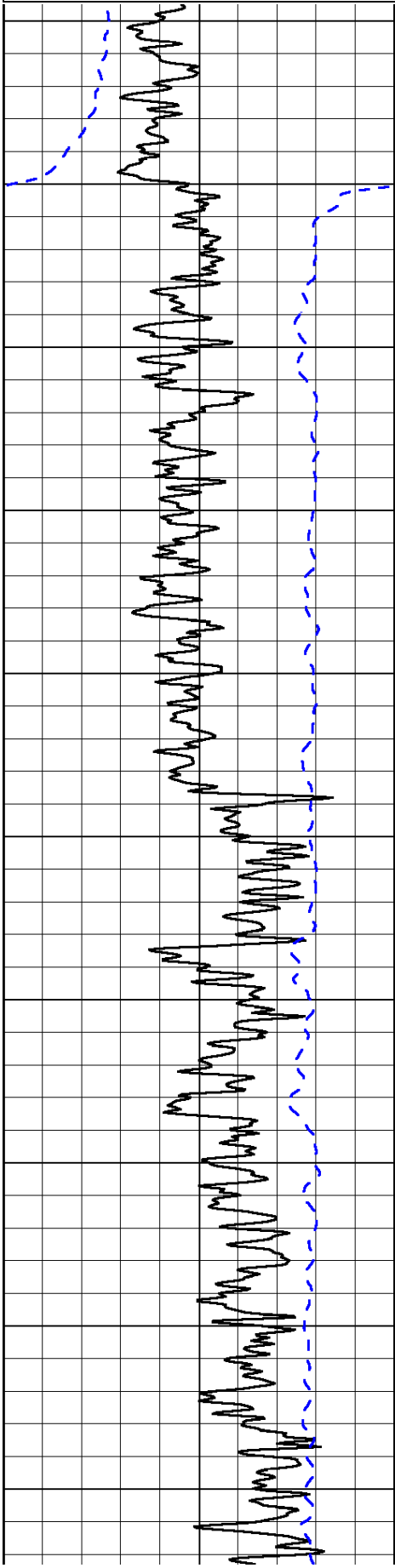
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 Presentation Format: dil2in
 Dataset Creation: Tue Jul 15 15:10:54 2014
 Charted by: Depth in Feet scaled 1:600

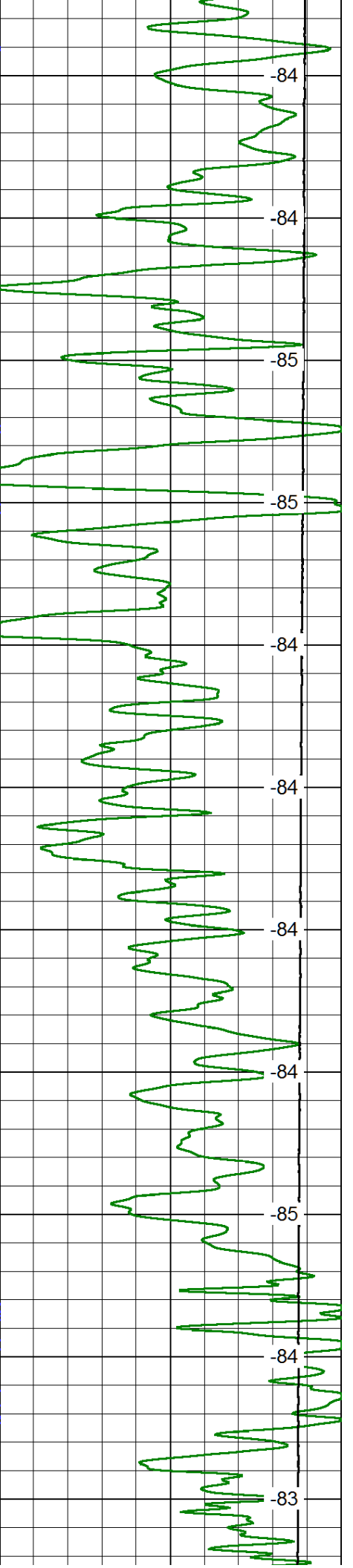
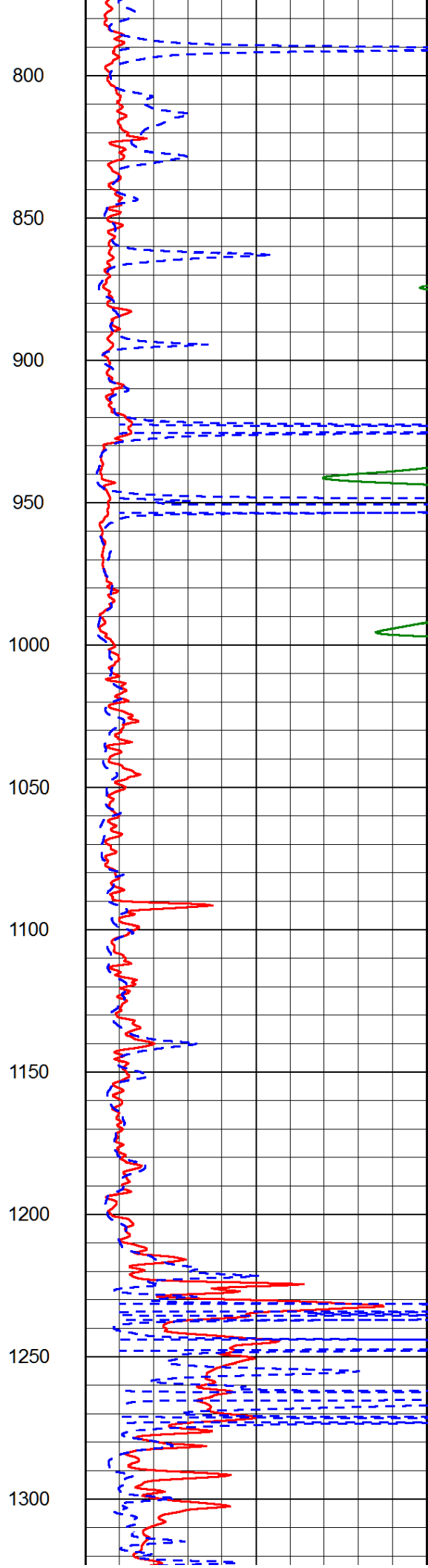
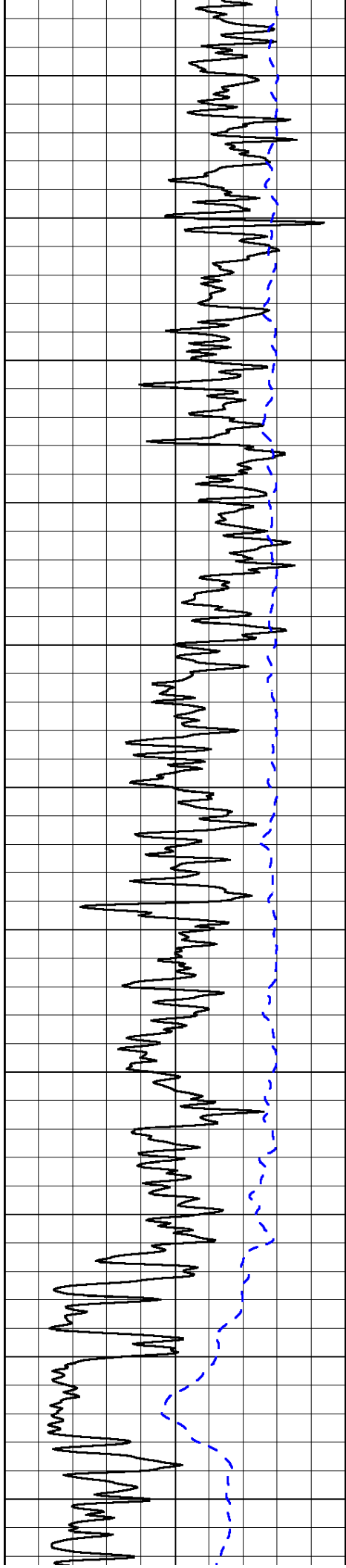
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-200	SP (mV)	0

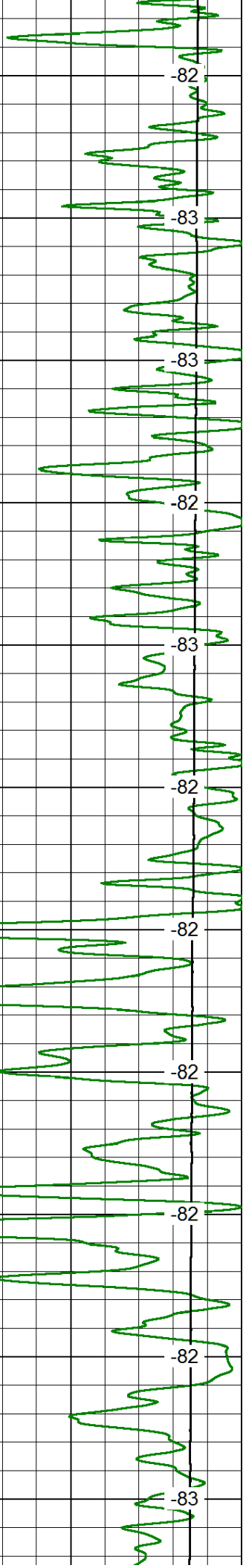
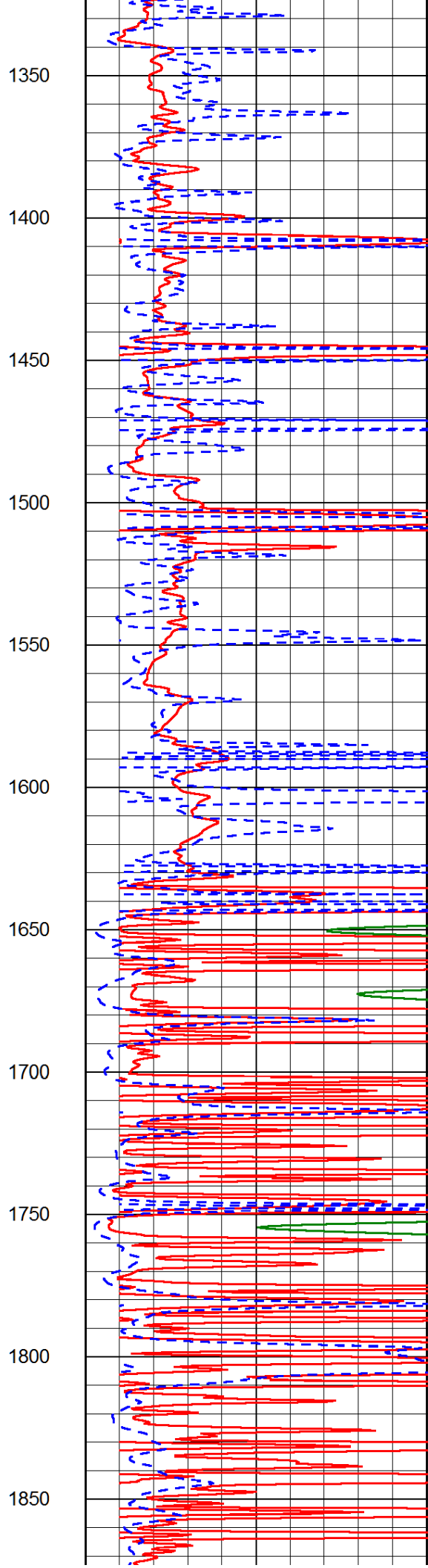
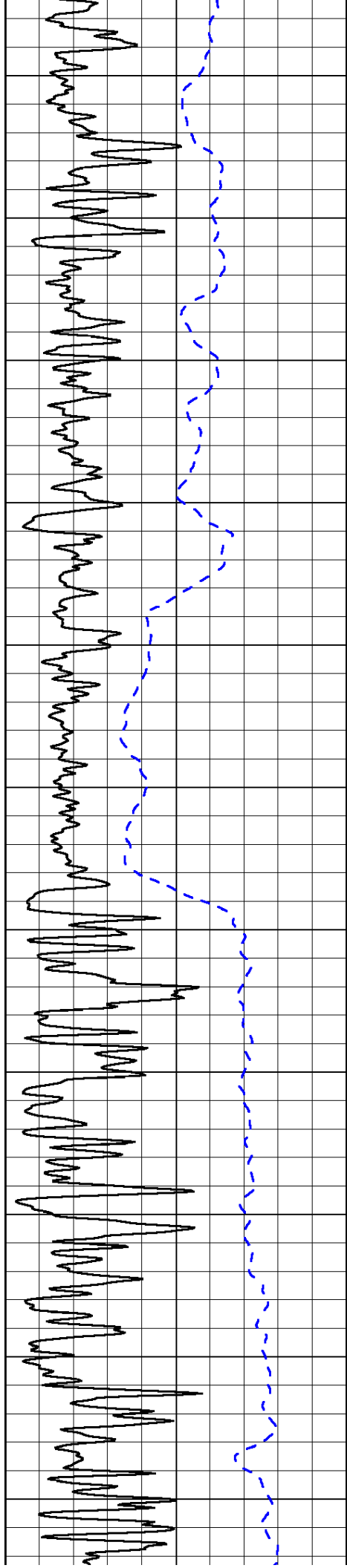
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0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0

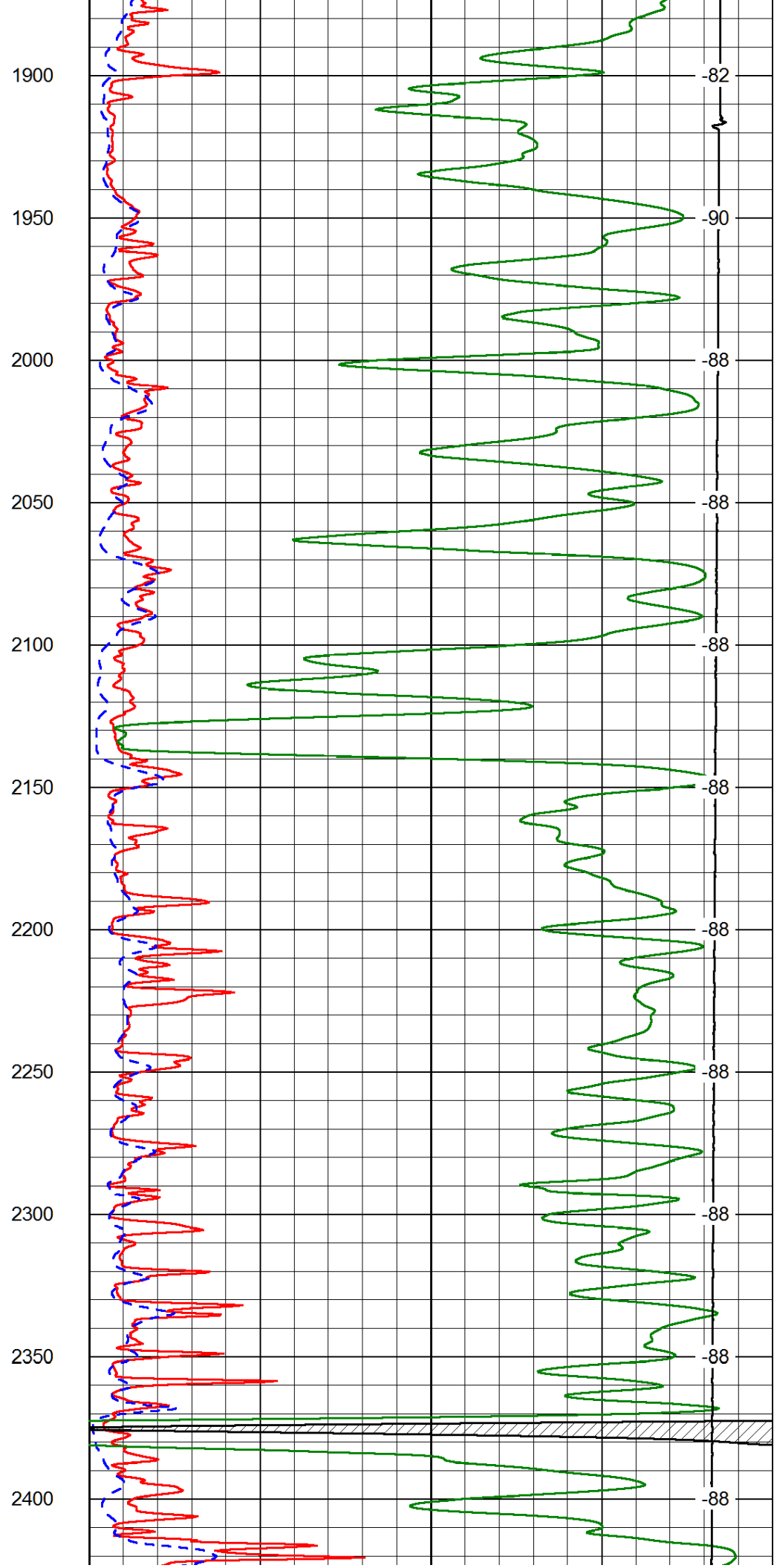
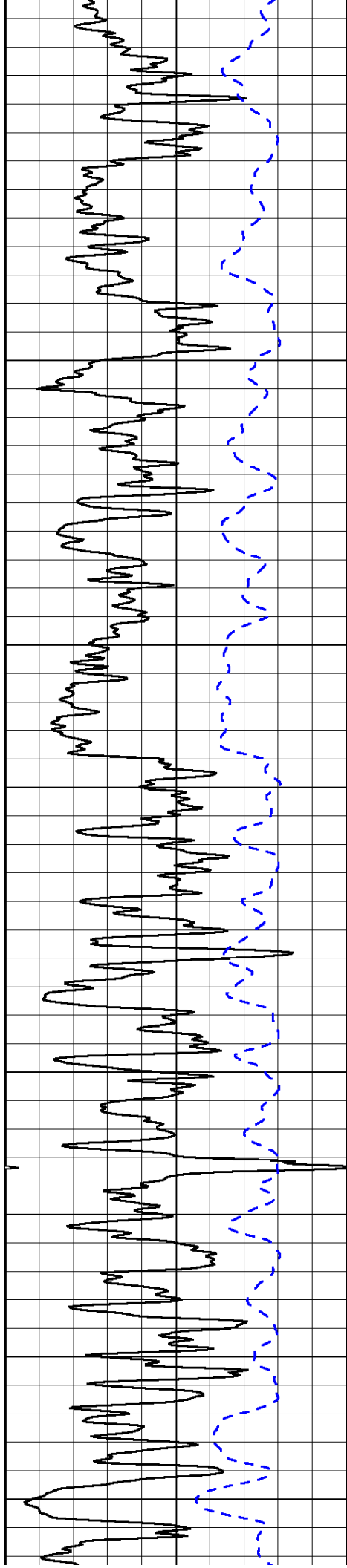
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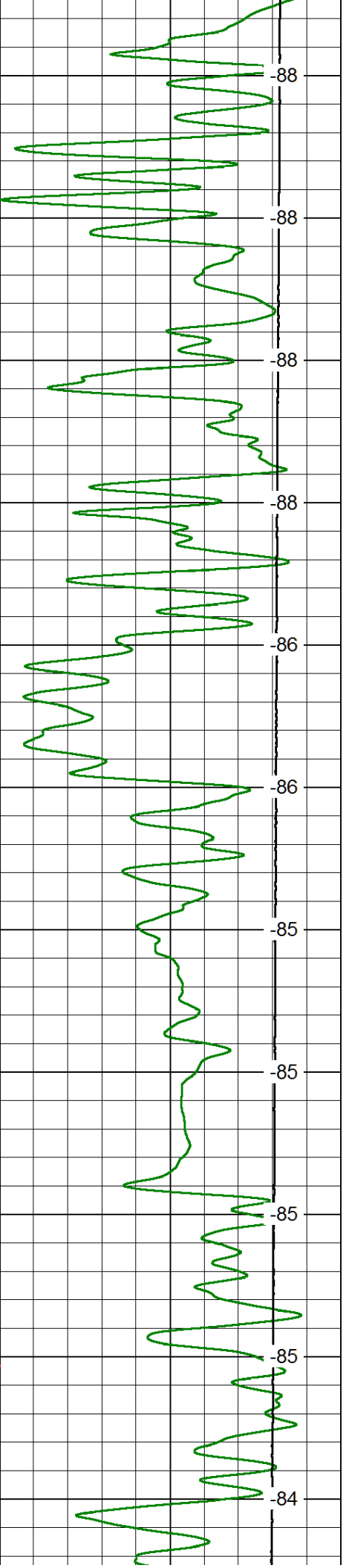
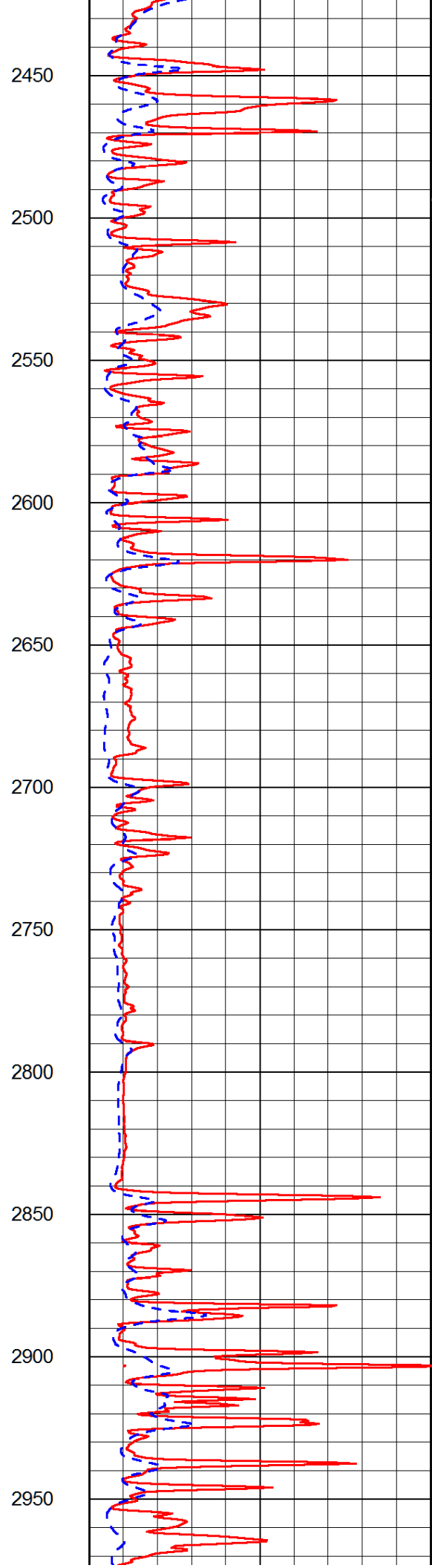
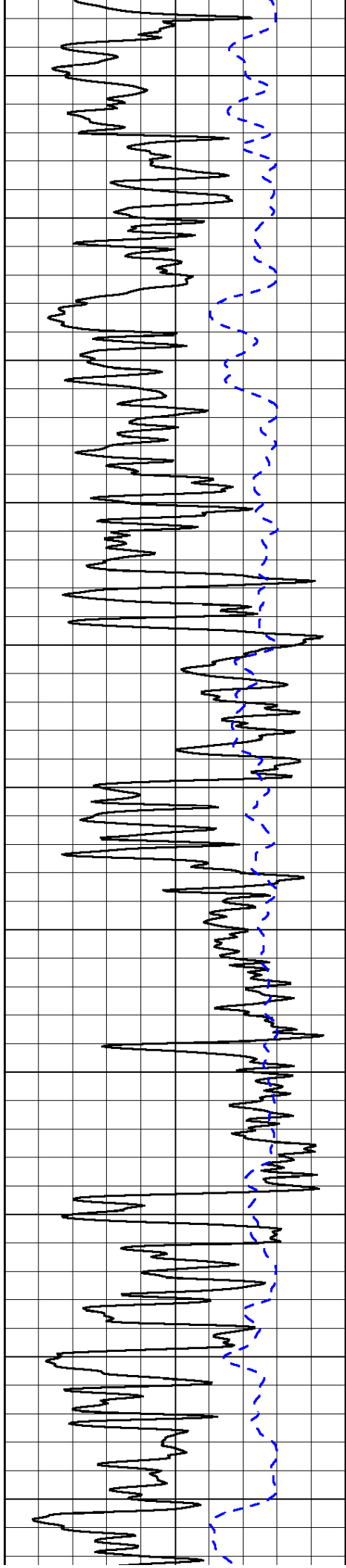
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50	Deep Resistivity	500

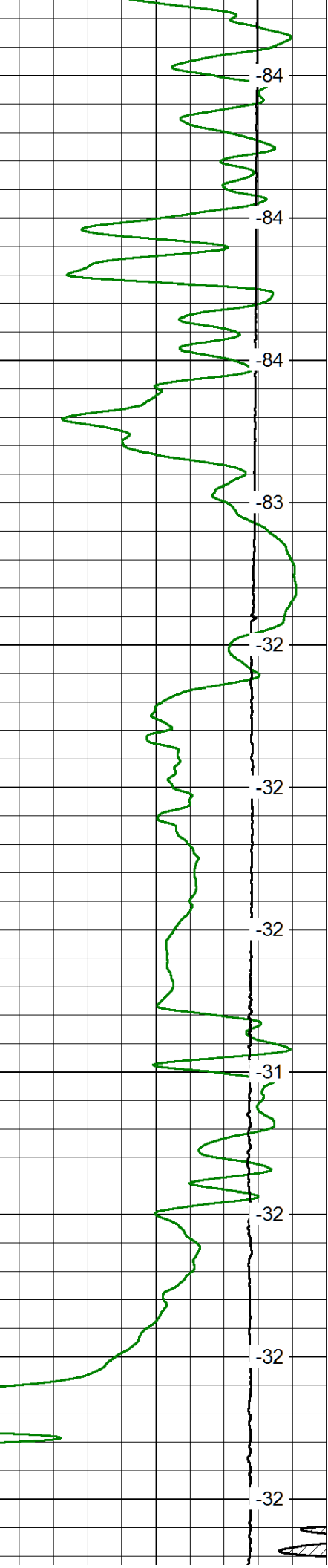
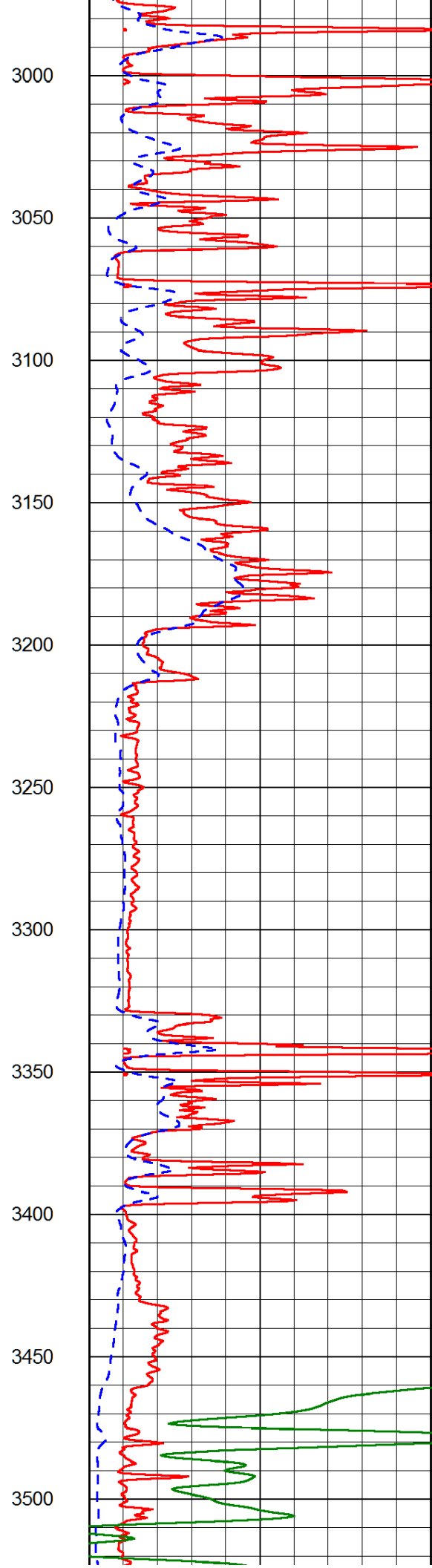
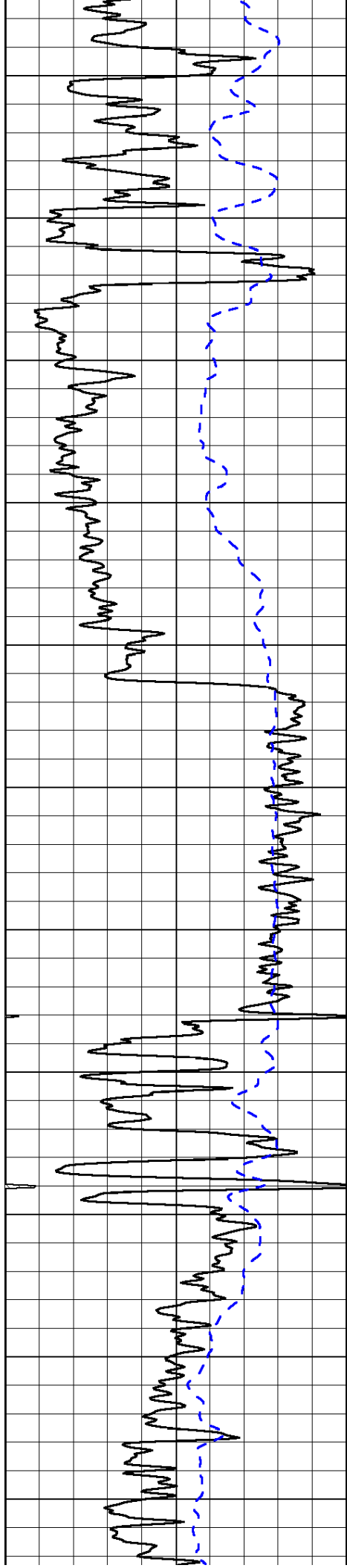


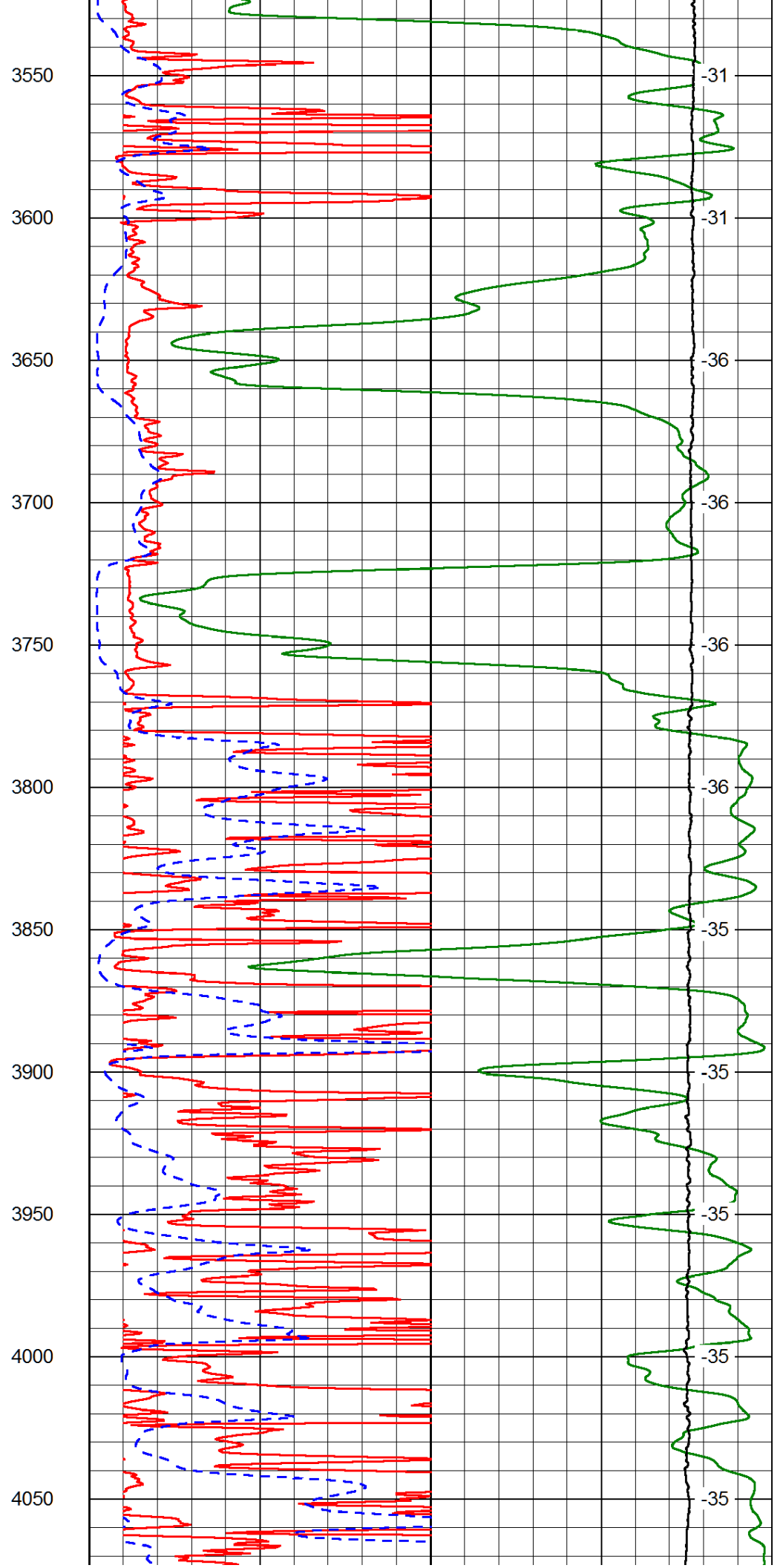
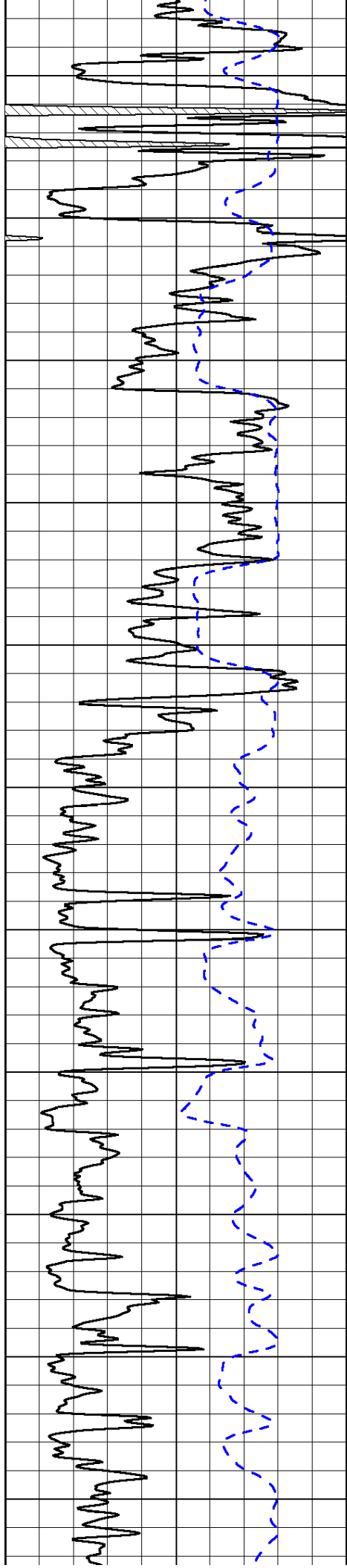


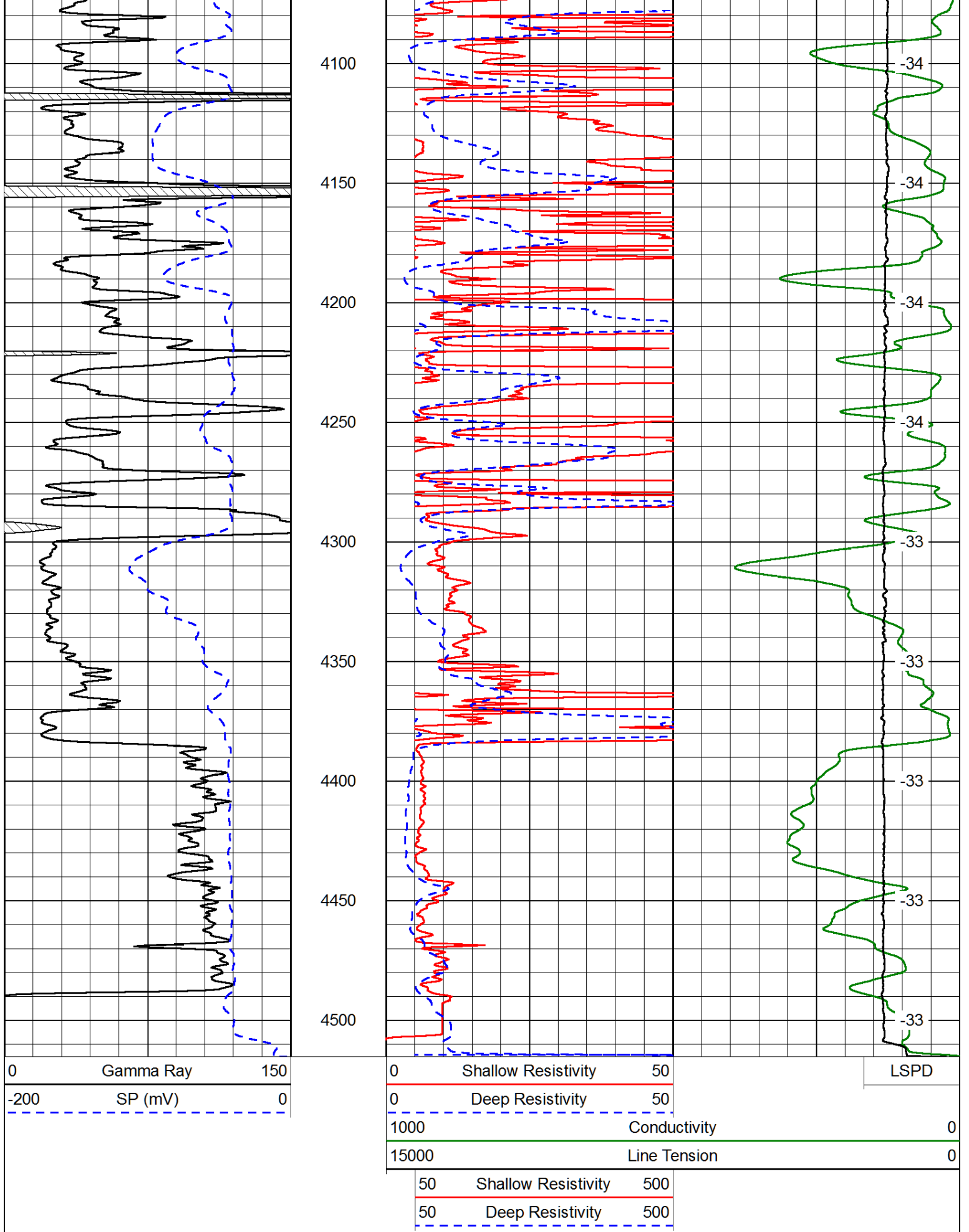








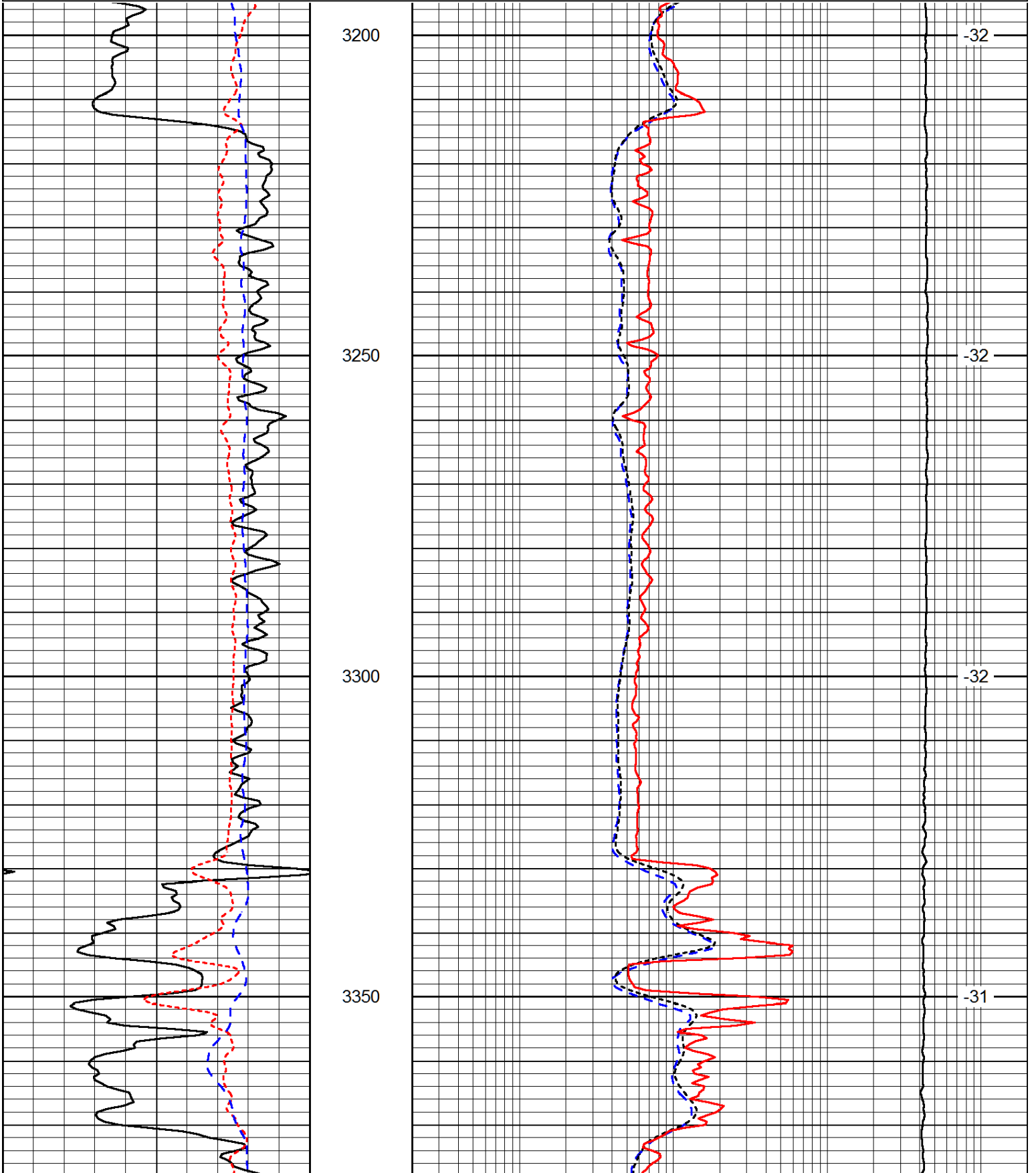


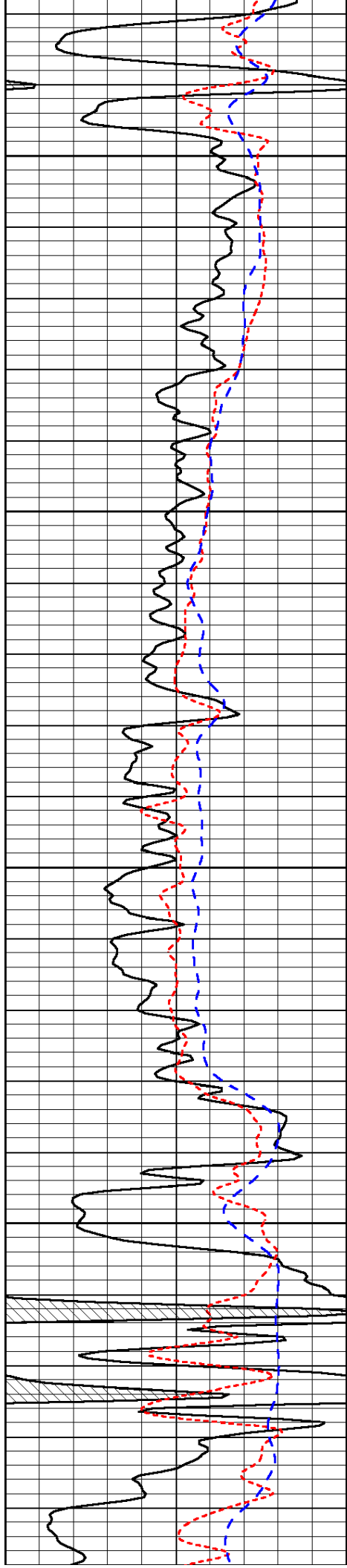


0	Gamma Ray	150
-160	RXO/RT	40
-200	SP (mV)	0

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

LSPD



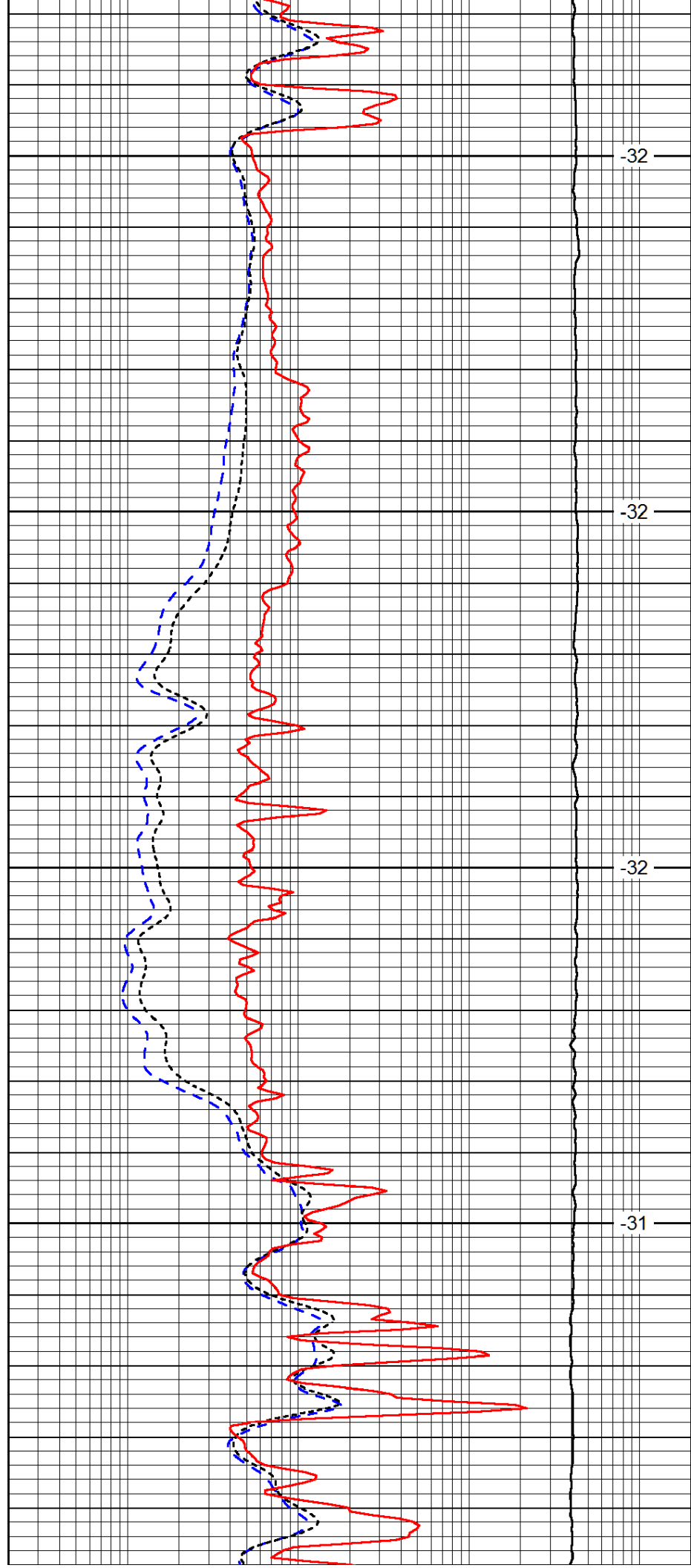


3400

3450

3500

3550

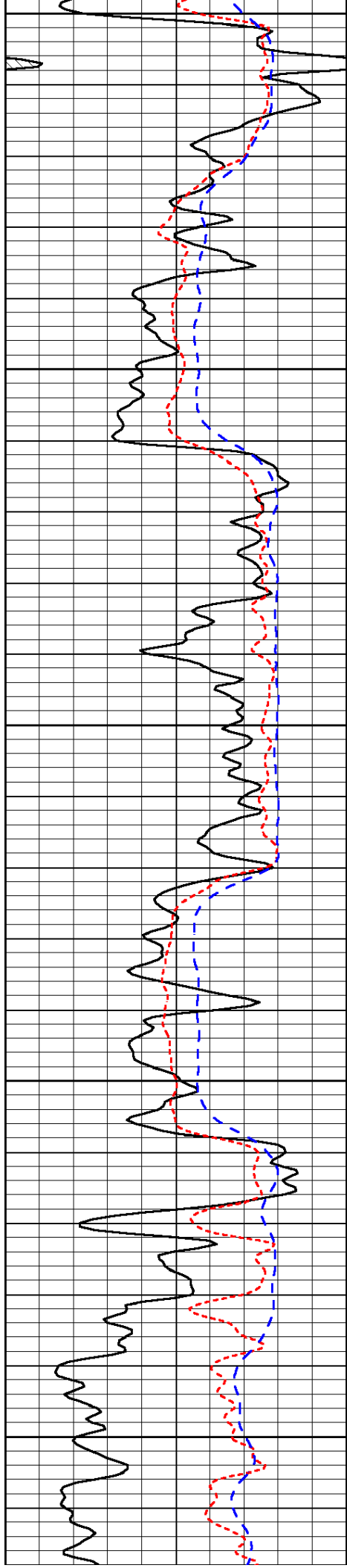


-32

-32

-32

-31



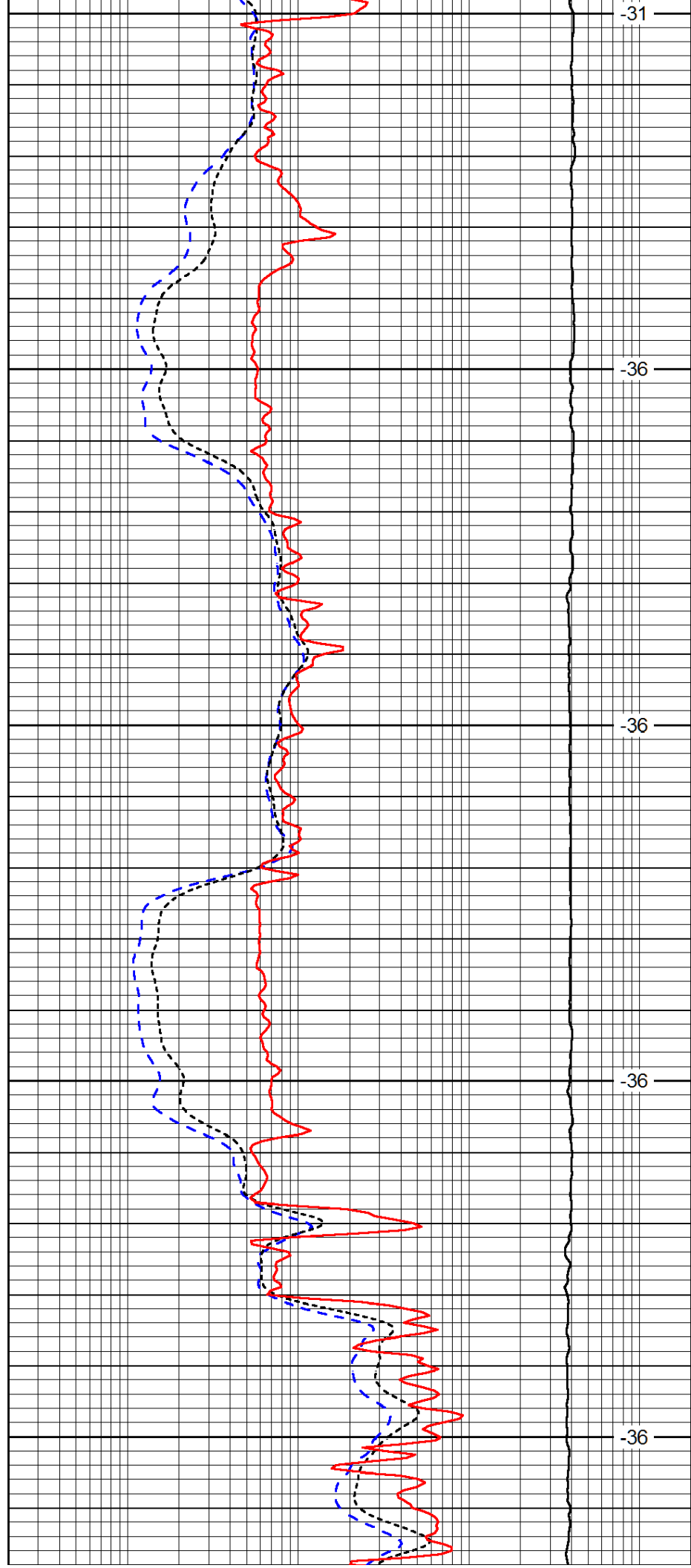
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3650

3700

3750

3800



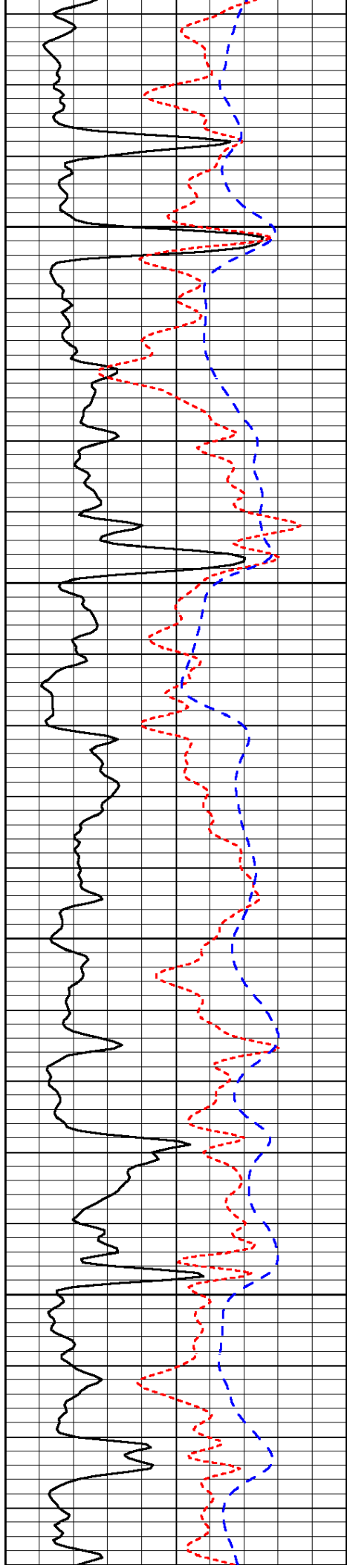
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-36

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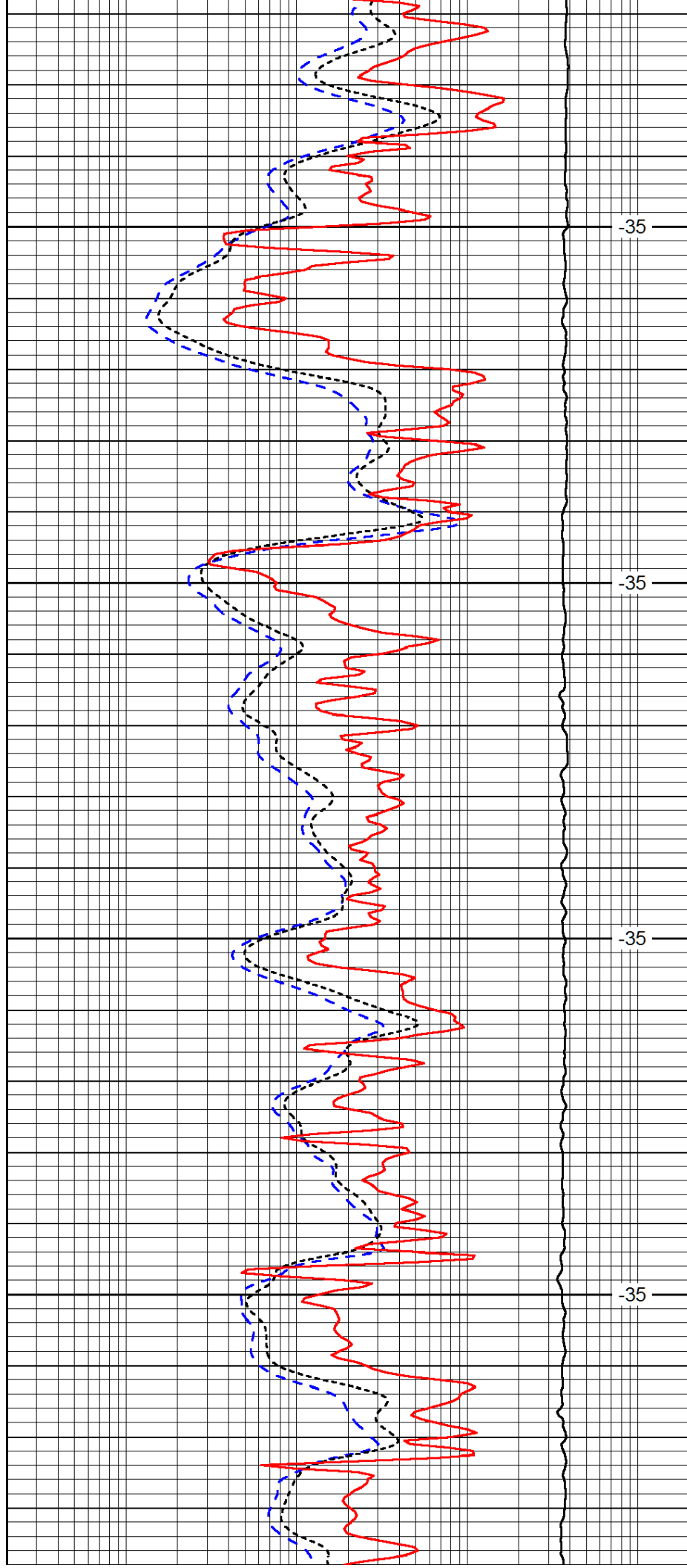


3850

3900

3950

4000

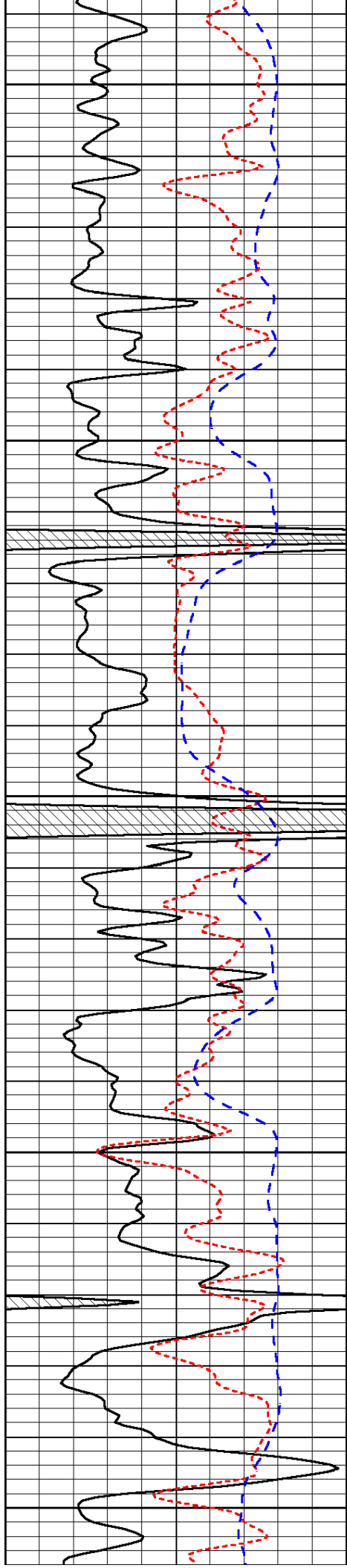


-35

-35

-35

-35



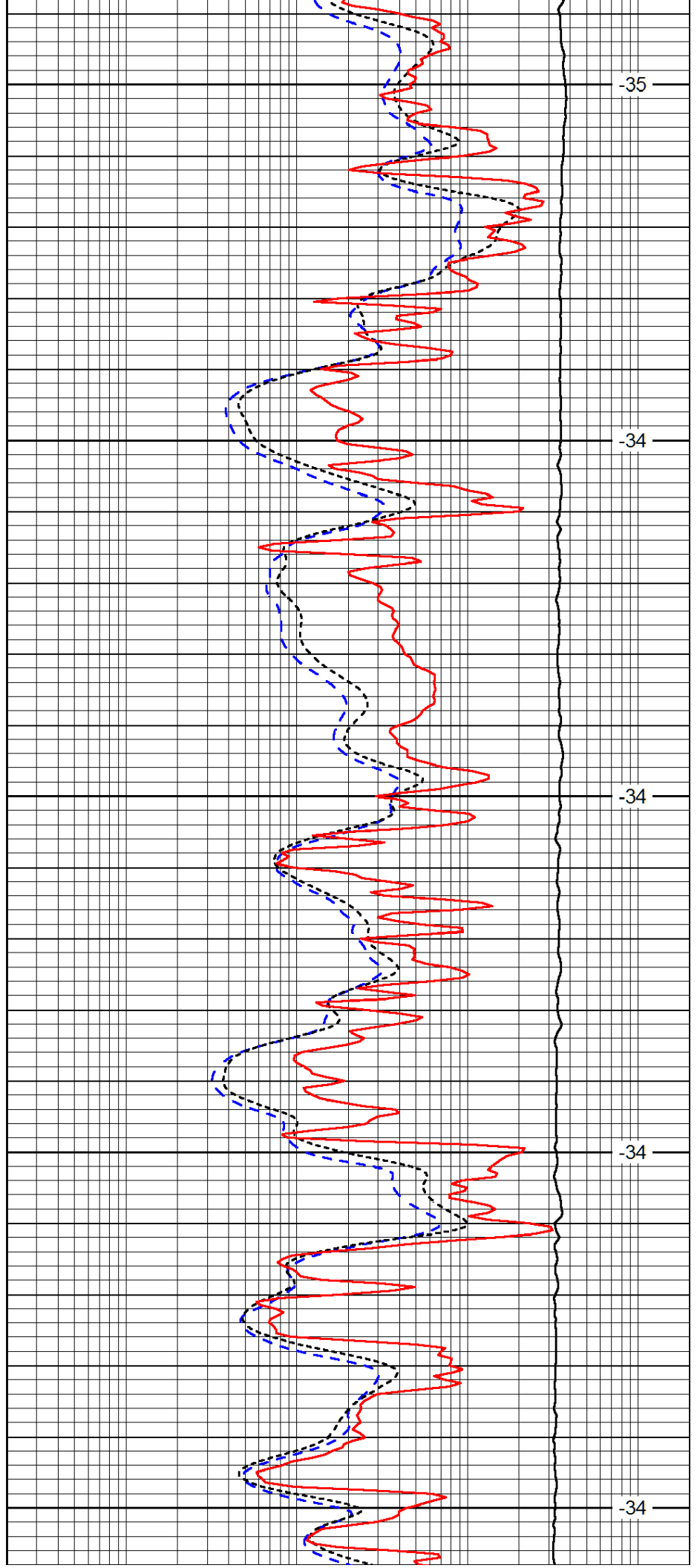
4050

4100

4150

4200

4250



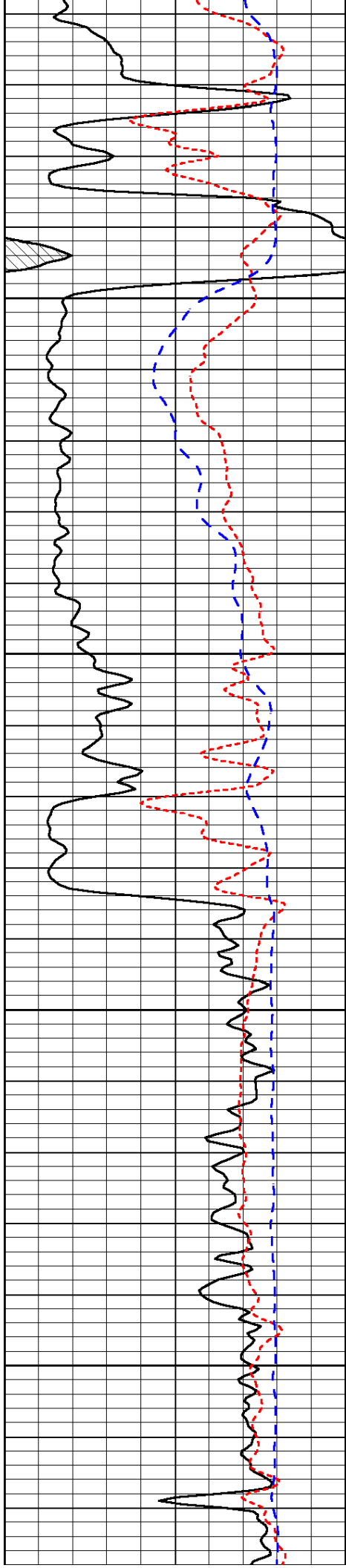
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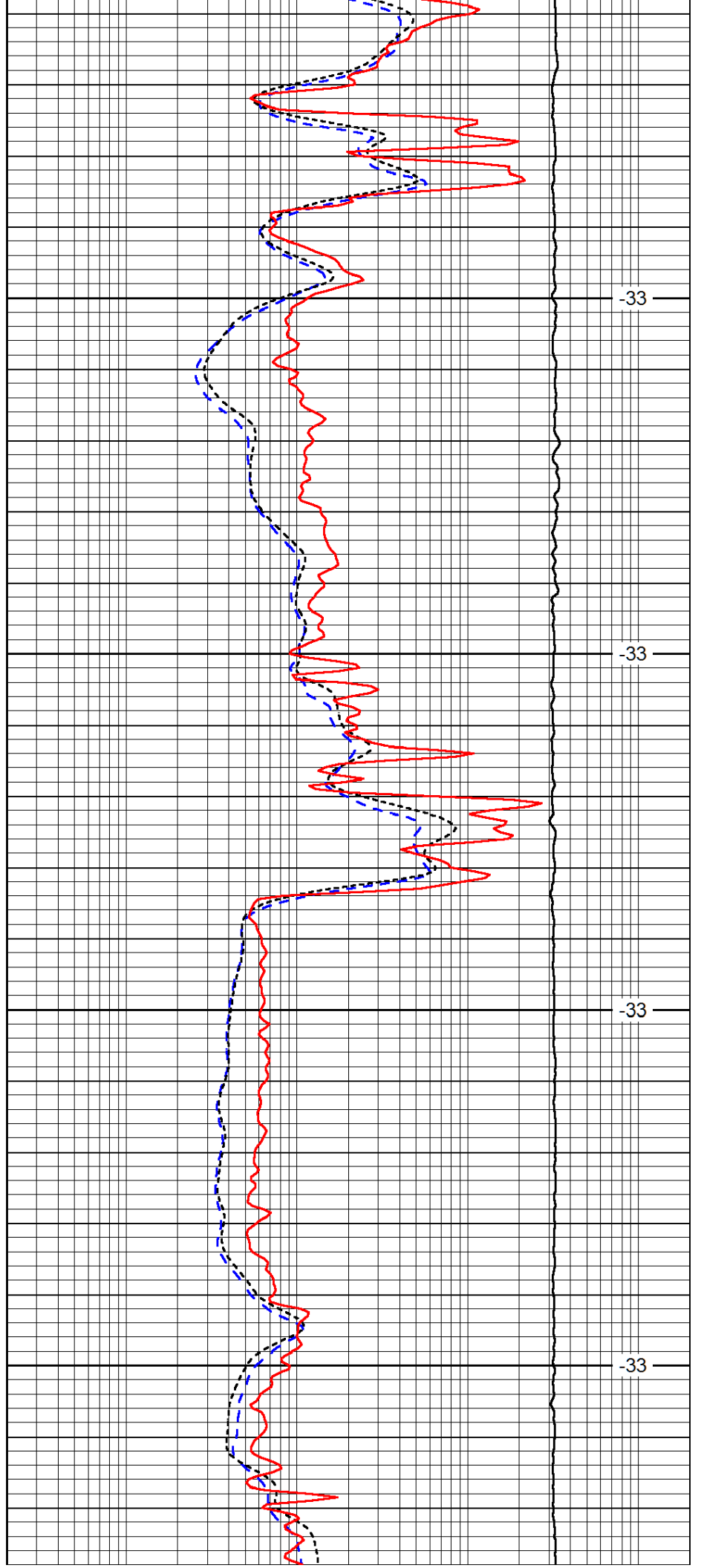


4300

4350

4400

4450

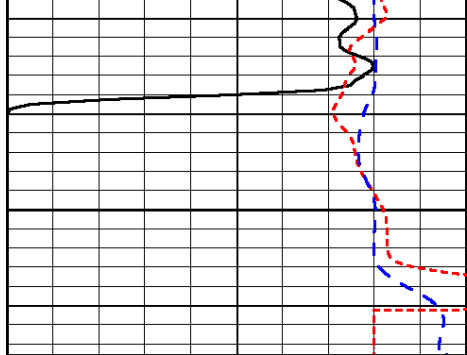


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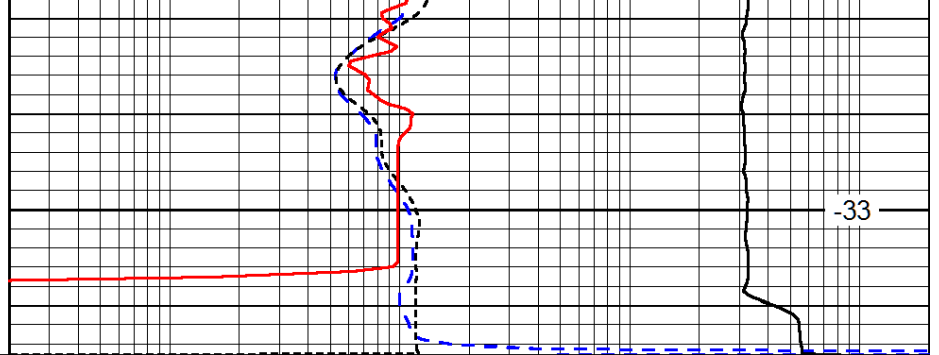
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-33



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

4500



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

-33

LSPD