



Pioneer Energy Services

Dual Induction Log

API No.	15-109-21,330-00-00	
Company	Black Tea Oil, LLC	
Well	Pahls A No. 1	
Field		
County	Logan	State
		Kansas
Location	1,980' FSL & 2,300' FEL	
Sec: 20	Twp: 13S	Rge: 34W
Permanent Datum	Ground Level	Elevation 2949
Log Measured From	Kelly Bushing	9 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
		Other Services CNL/CDL MEL/BHCS
		Elevation K.B. 2958 D.F. G.L. 2949

Date	8/12/2014
Run Number	One
Depth Driller	4600
Depth Logger	4603
Bottom Logged Interval	4602
Top Log Interval	250
Casing Driller	8.625 @ 265
Casing Logger	261
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	6000
Density / Viscosity	9.1 48
pH / Fluid Loss	10.0 8.0
Source of Sample	Flowline
Rm @ Meas. Temp	.28 @ 80
Rmf @ Meas. Temp	.21 @ 80
Rmc @ Meas. Temp	.38 @ 80
Source of Rmf / Rmc	Charts
Rm @ BHT	.18 @ 122
Operating Rig Time	4 1/2 Hours
Max Rec. Temp. F	122
Equipment Number	108
Location	Hays
Recorded By	J. Long
Witnessed By	Kevin Bailey

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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

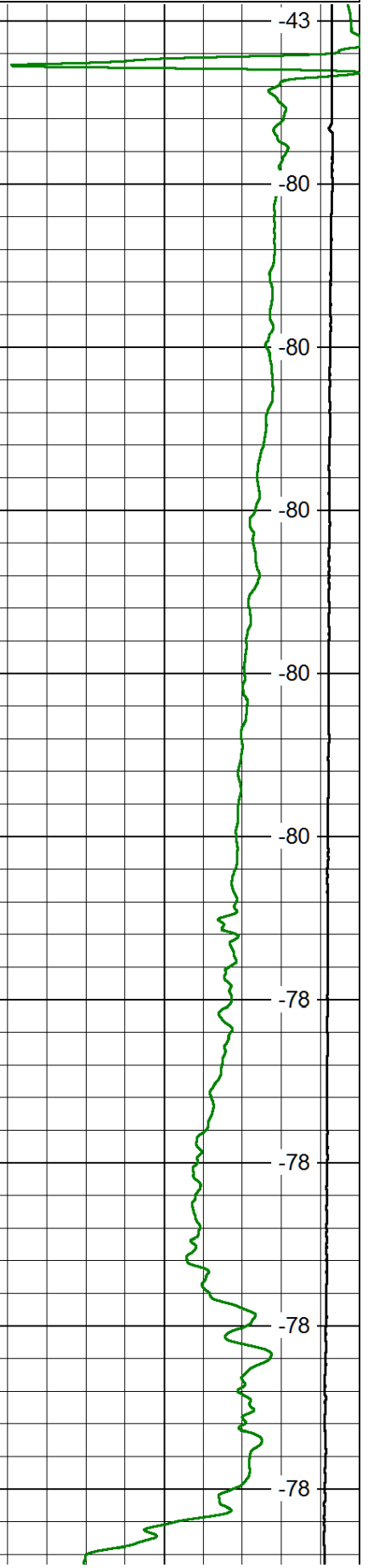
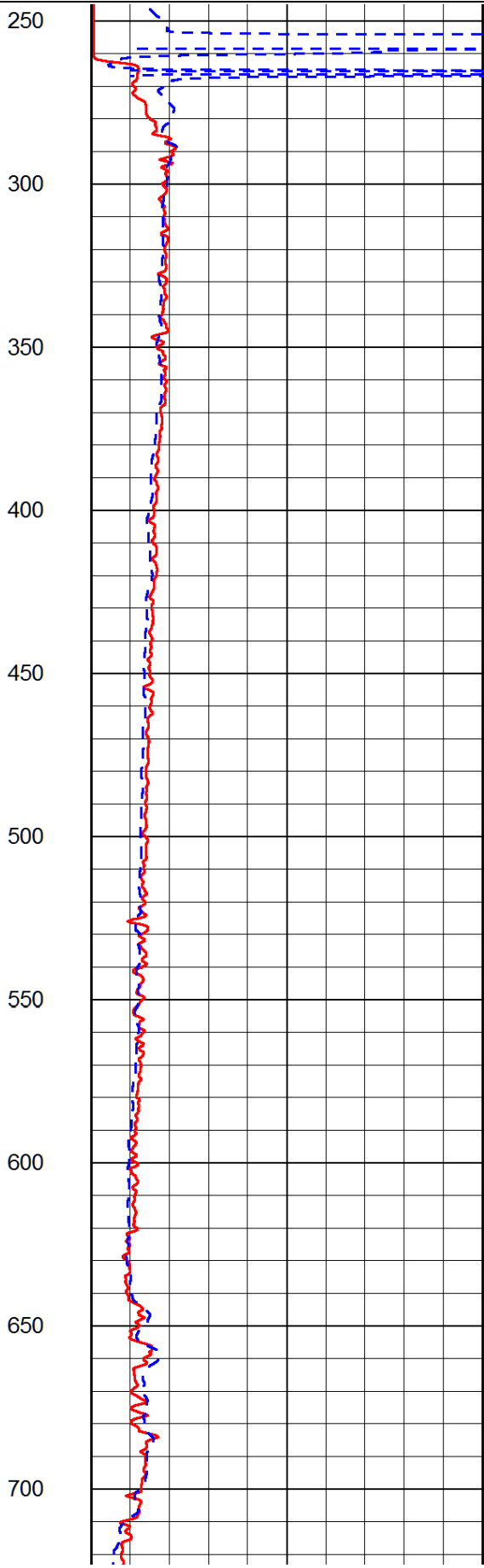
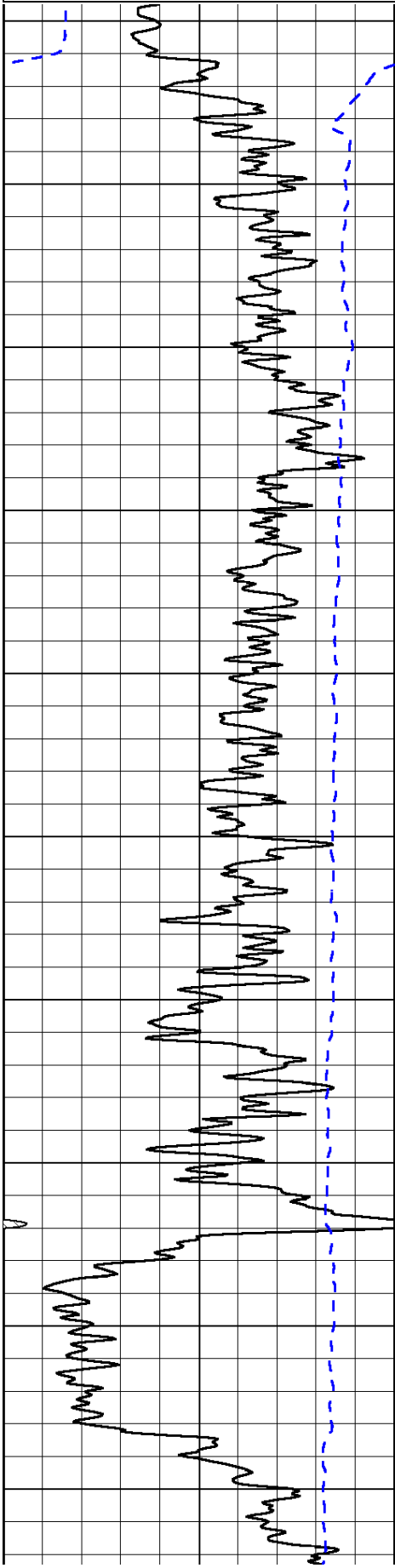
Monument, (West Edge) South on 350 Road to Plains Road, 5 West to 300 Road,
2/3 South, East Into

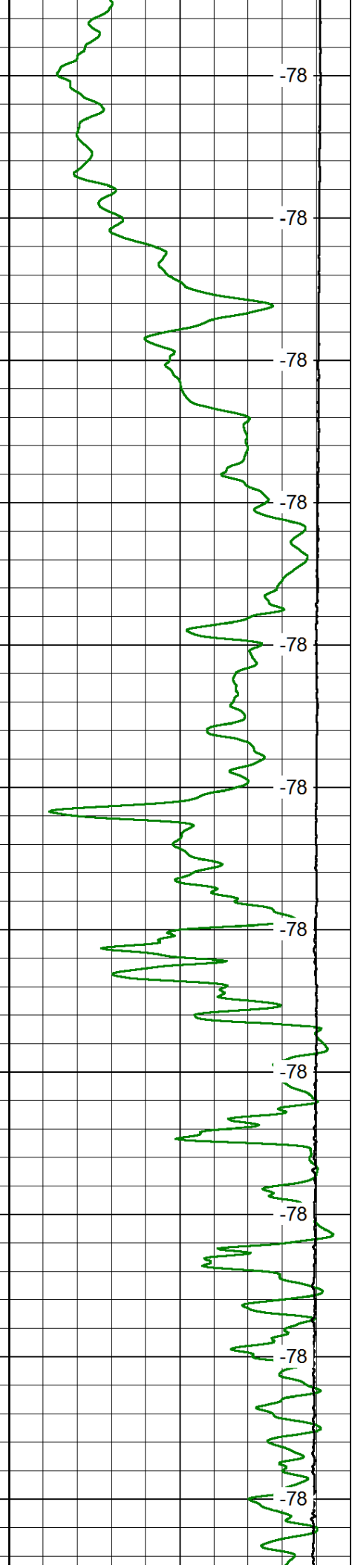
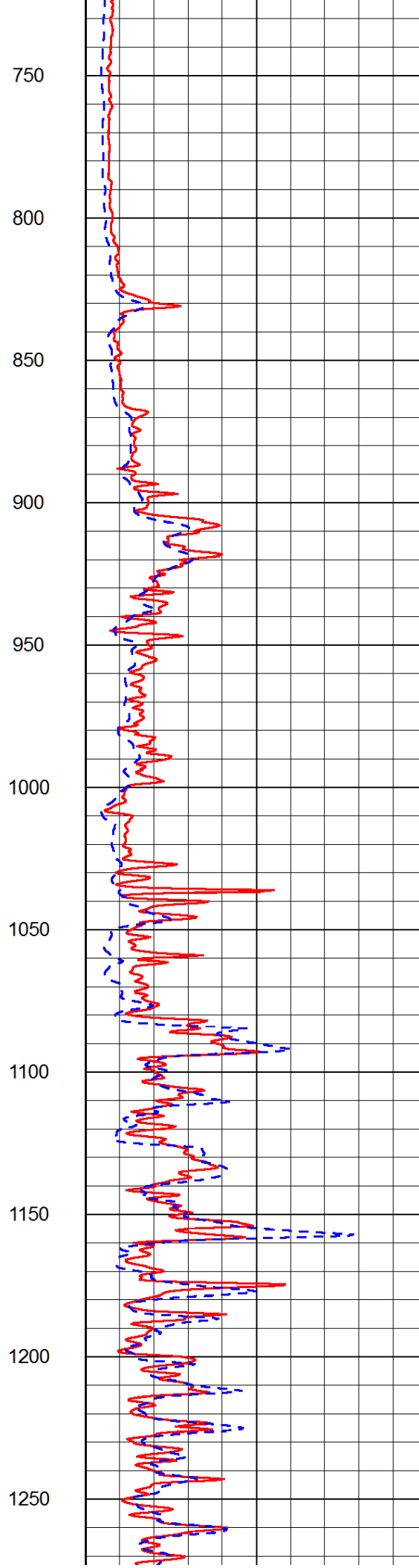
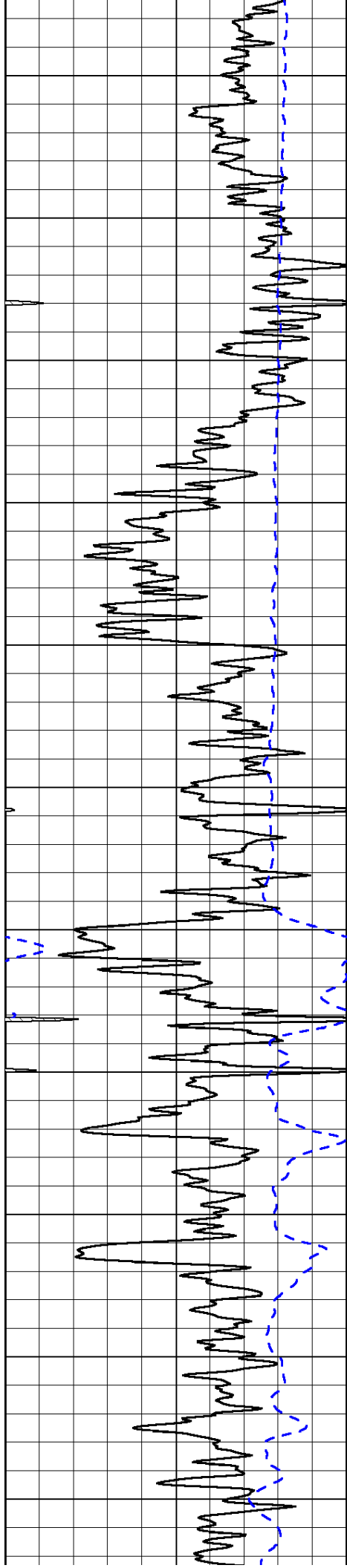
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 Presentation Format: dil2in
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 Charted by: Depth in Feet scaled 1:600

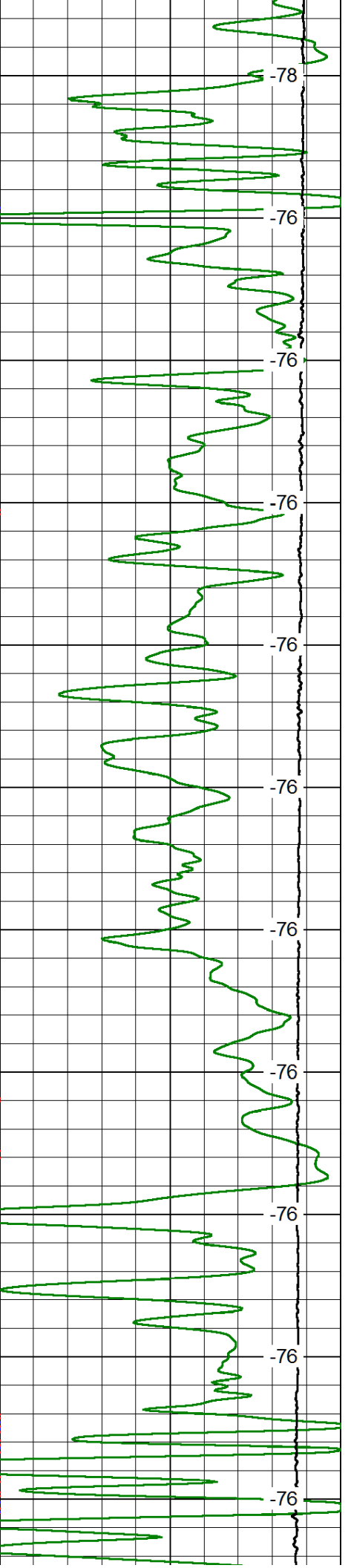
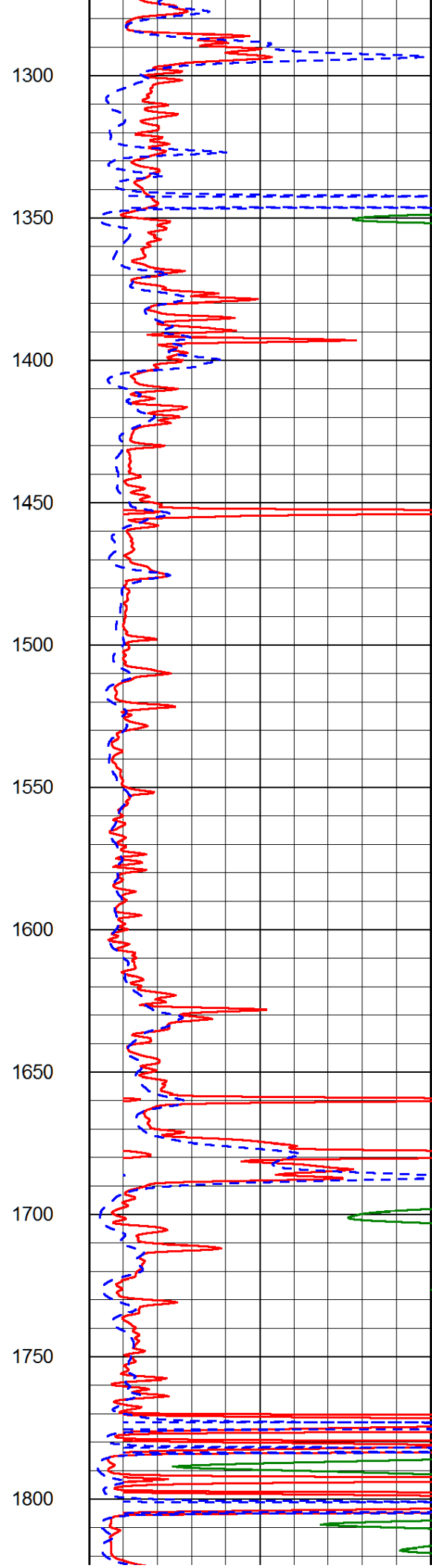
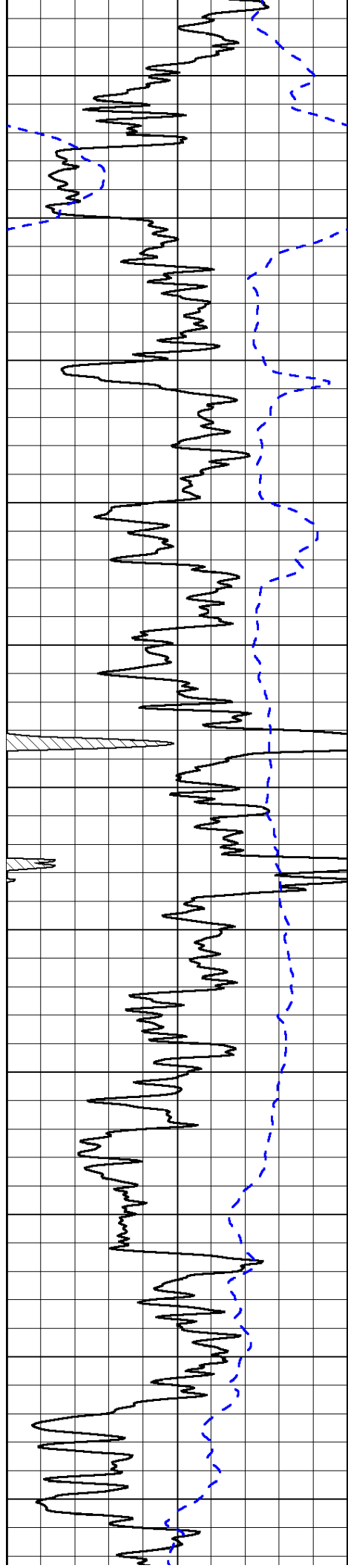
0 Gamma Ray 150
-200 SP (mV) 0

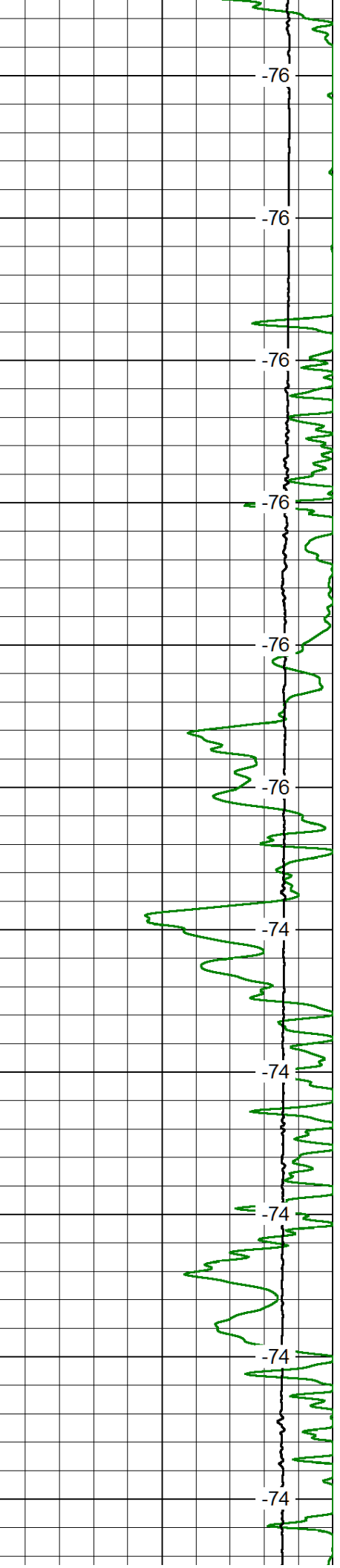
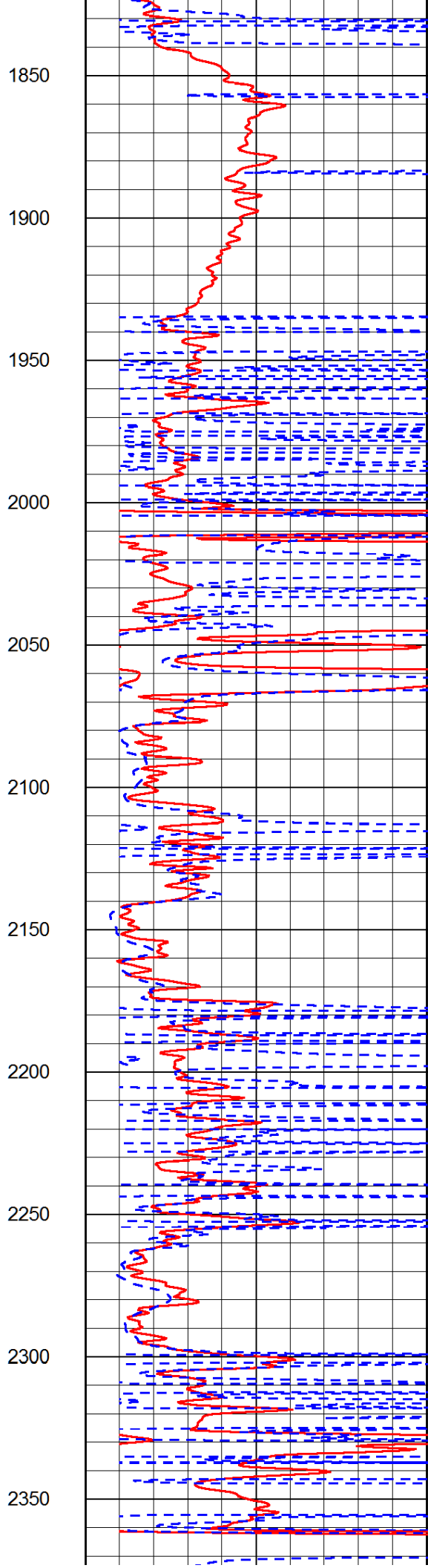
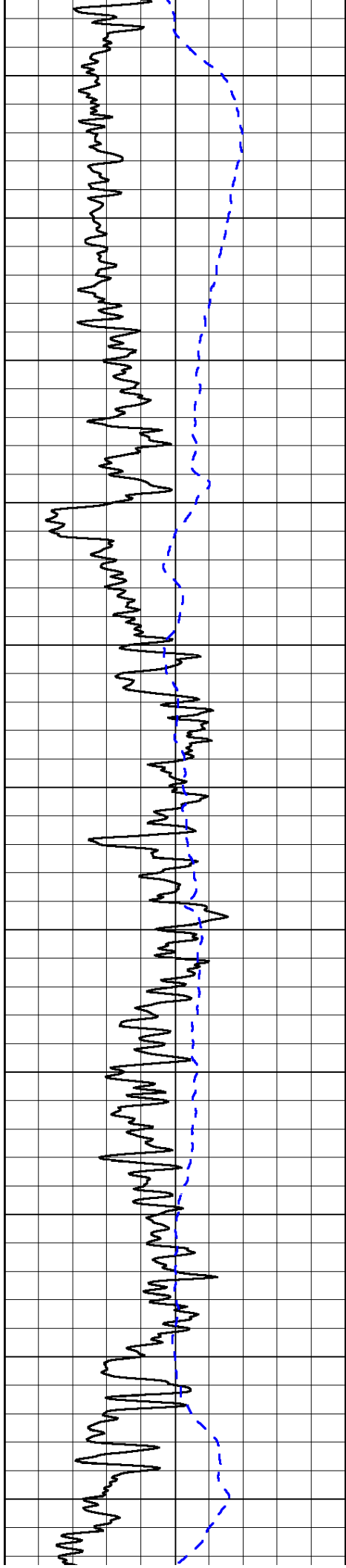
0 Shallow Resistivity 50
0 Deep Resistivity 50
1000 Conductivity 0
15000 Line Tension 0
50 Shallow Resistivity 500
50 Deep Resistivity 500

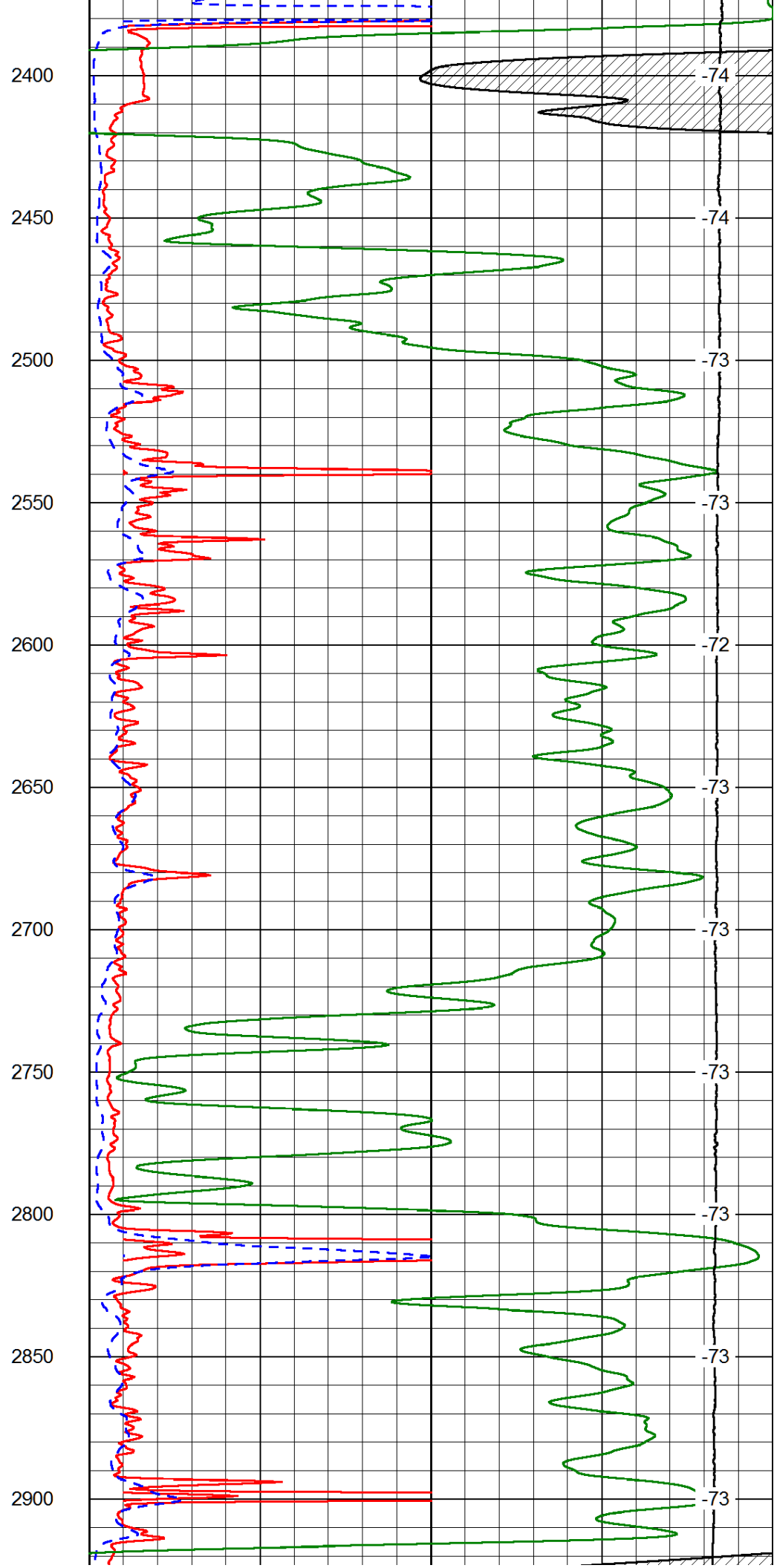
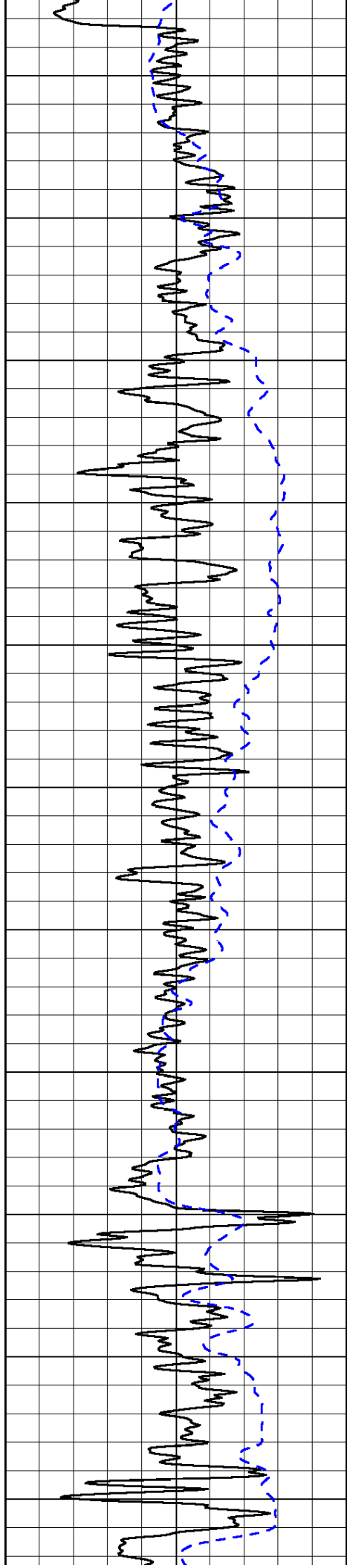
LSPD

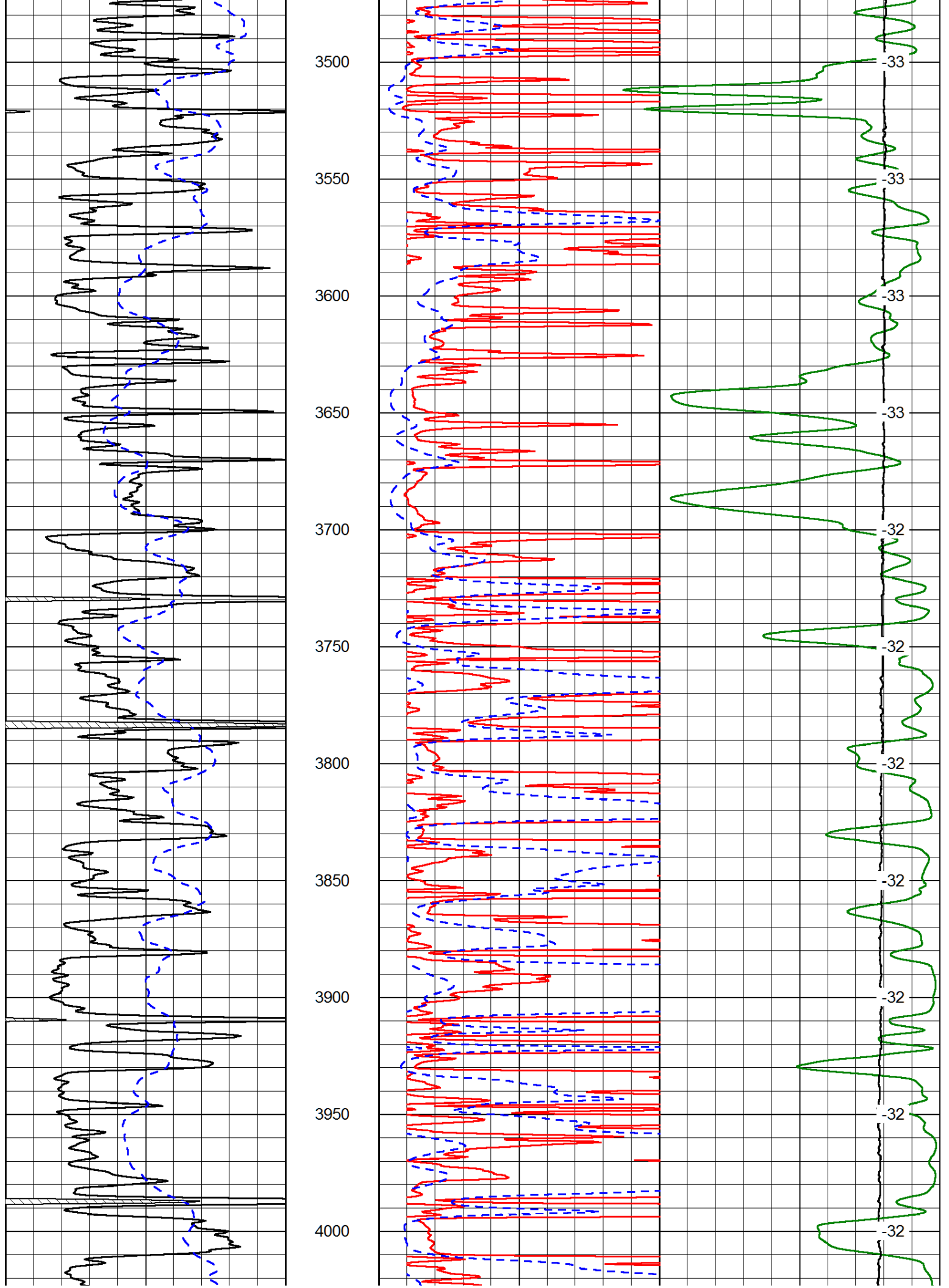


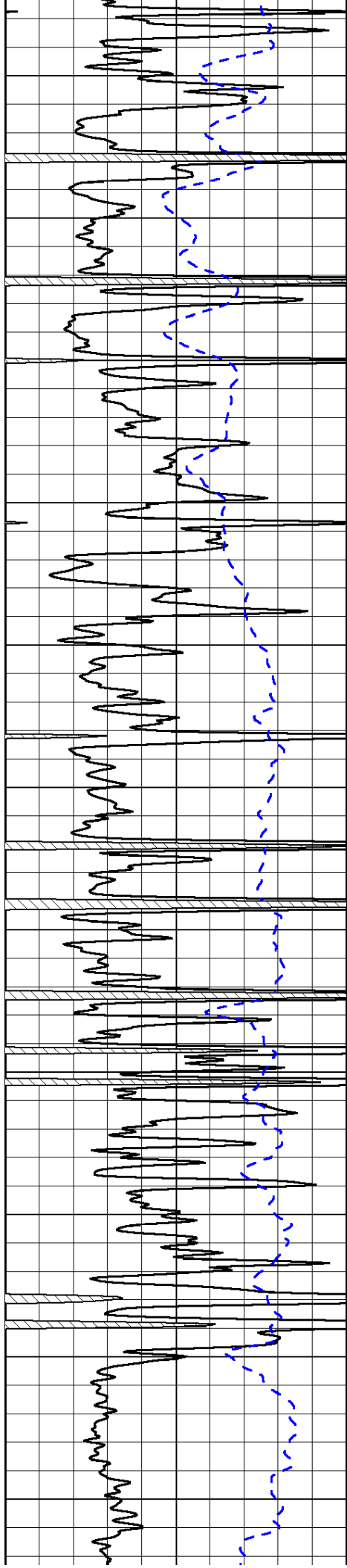












4050

4100

4150

4200

4250

4300

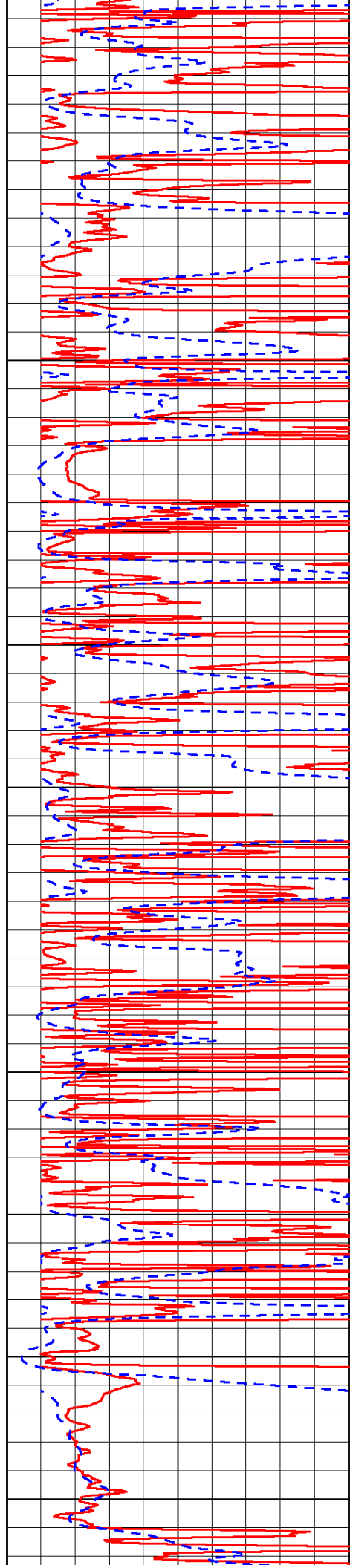
4350

4400

4450

4500

4550



-32

-33

-33

-32

-32

-32

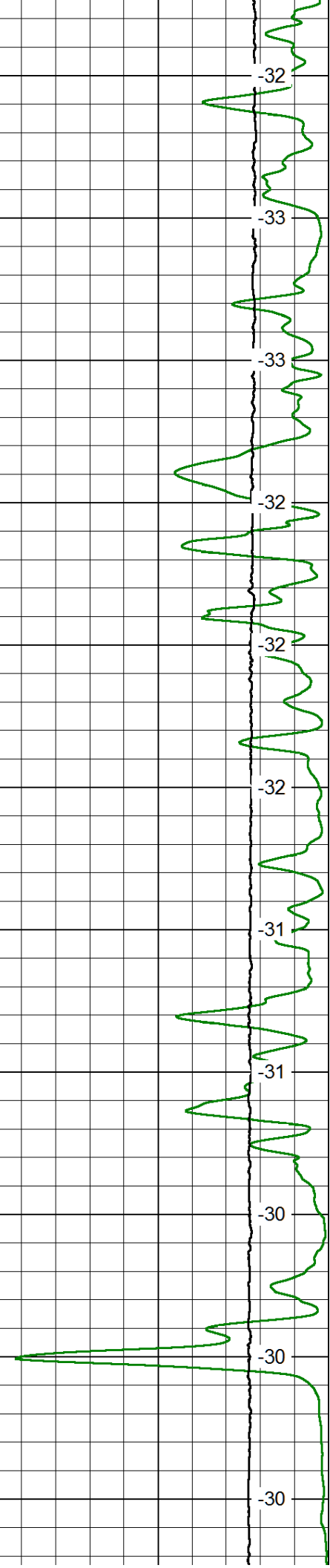
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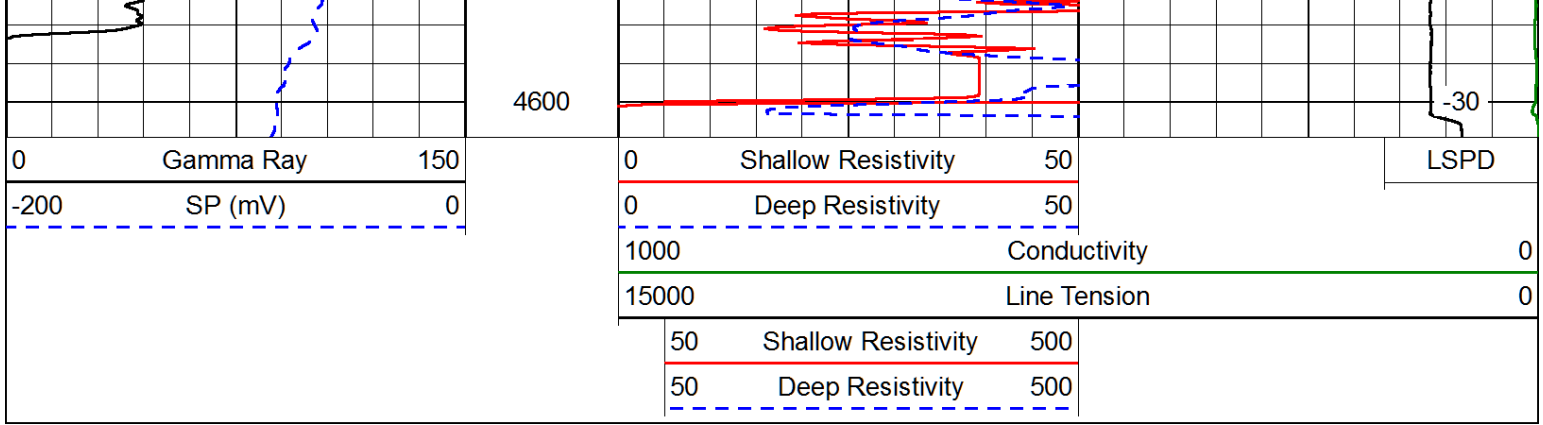
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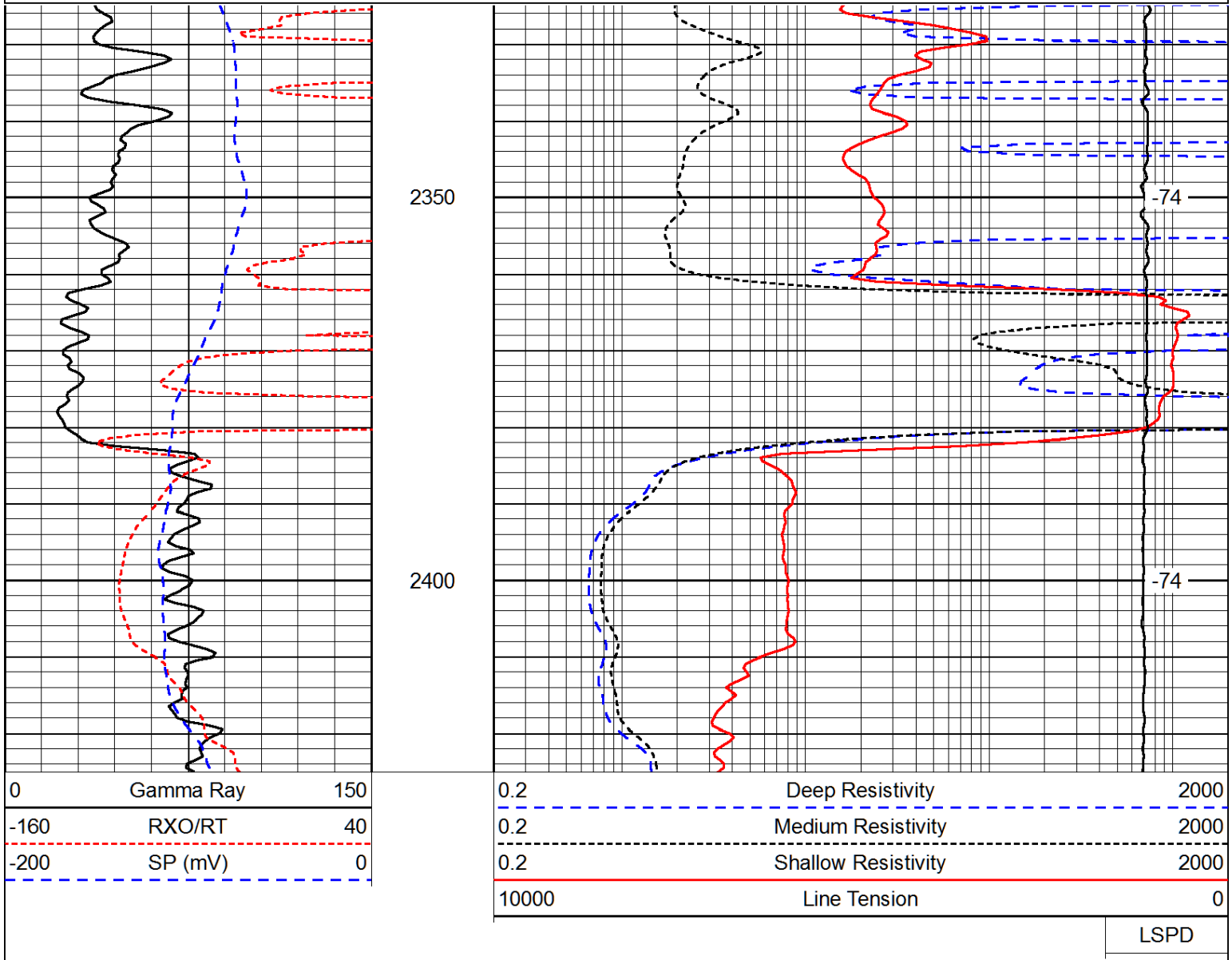
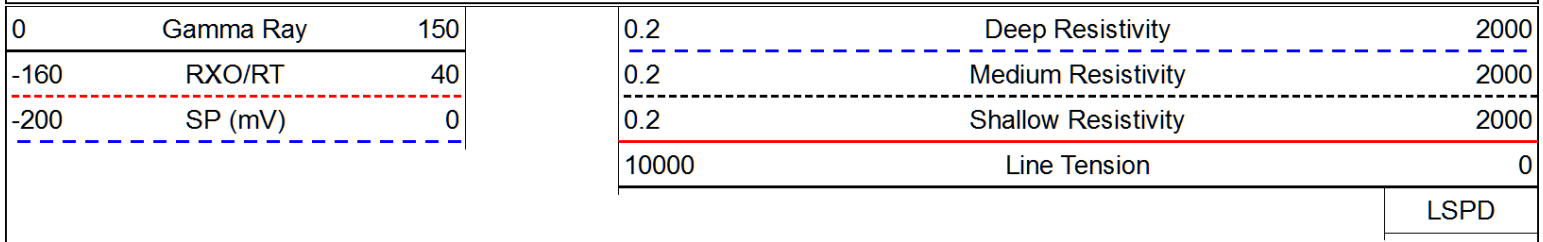
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-30





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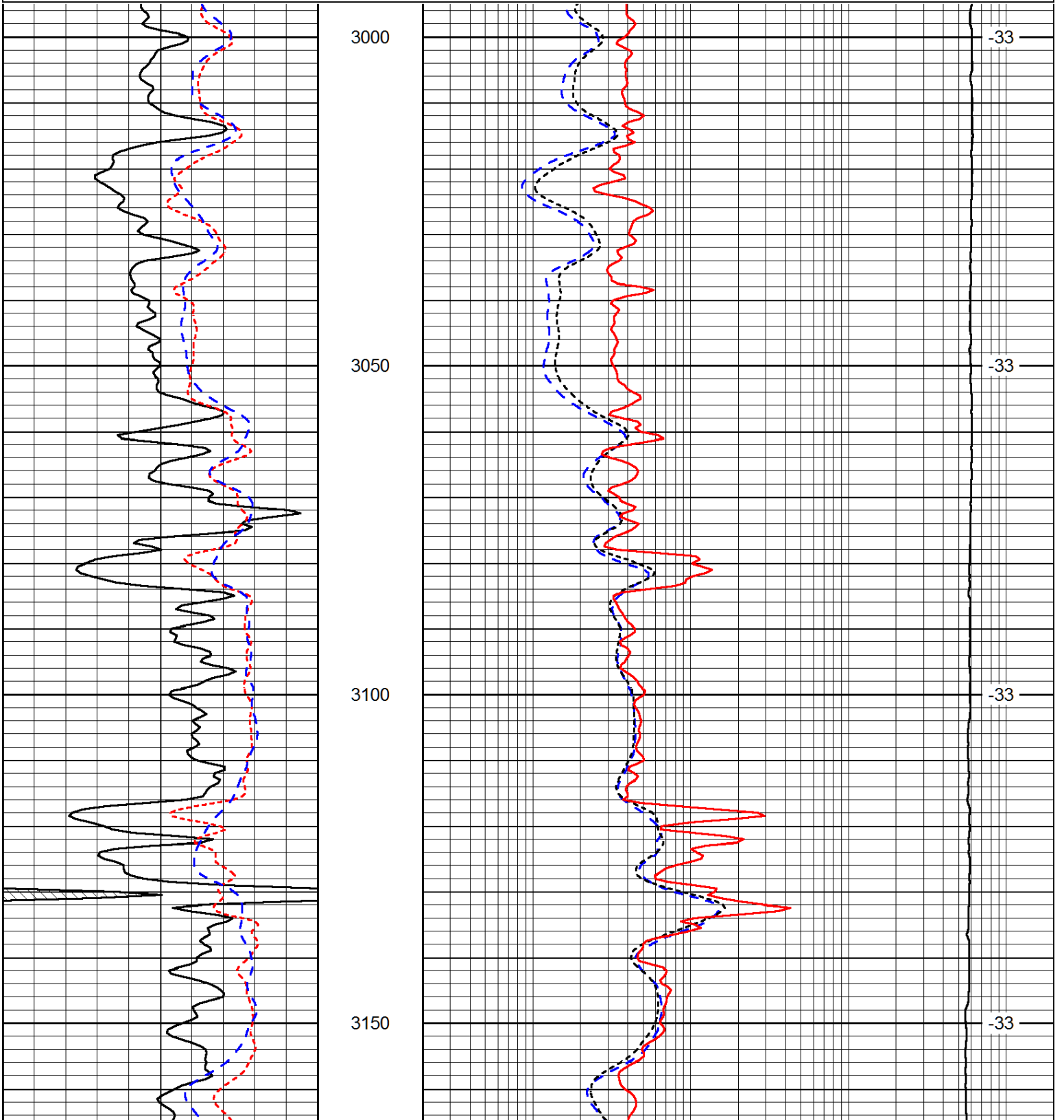


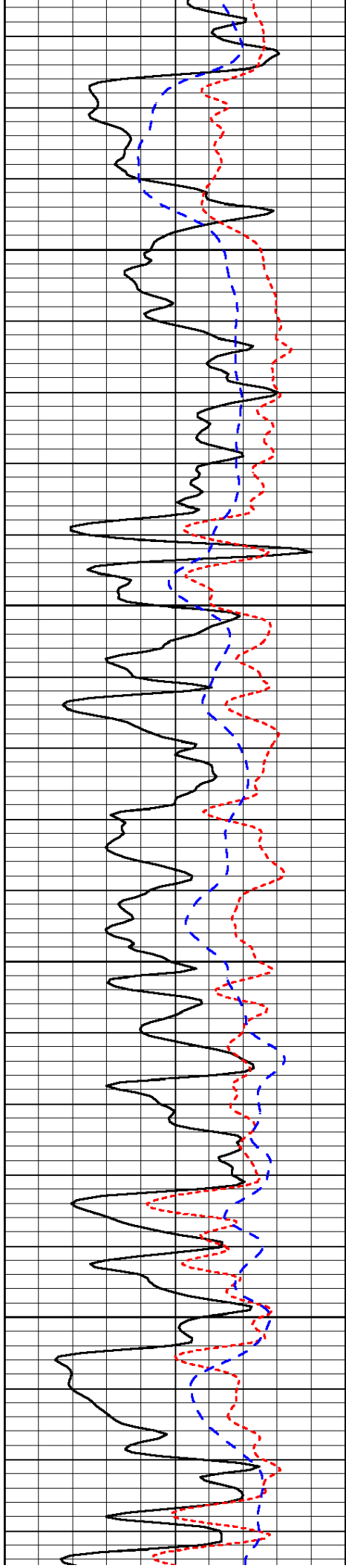
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0	Gamma Ray	150
-160	RXO/RT	40
-200	SP (mV)	0

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

LSPD



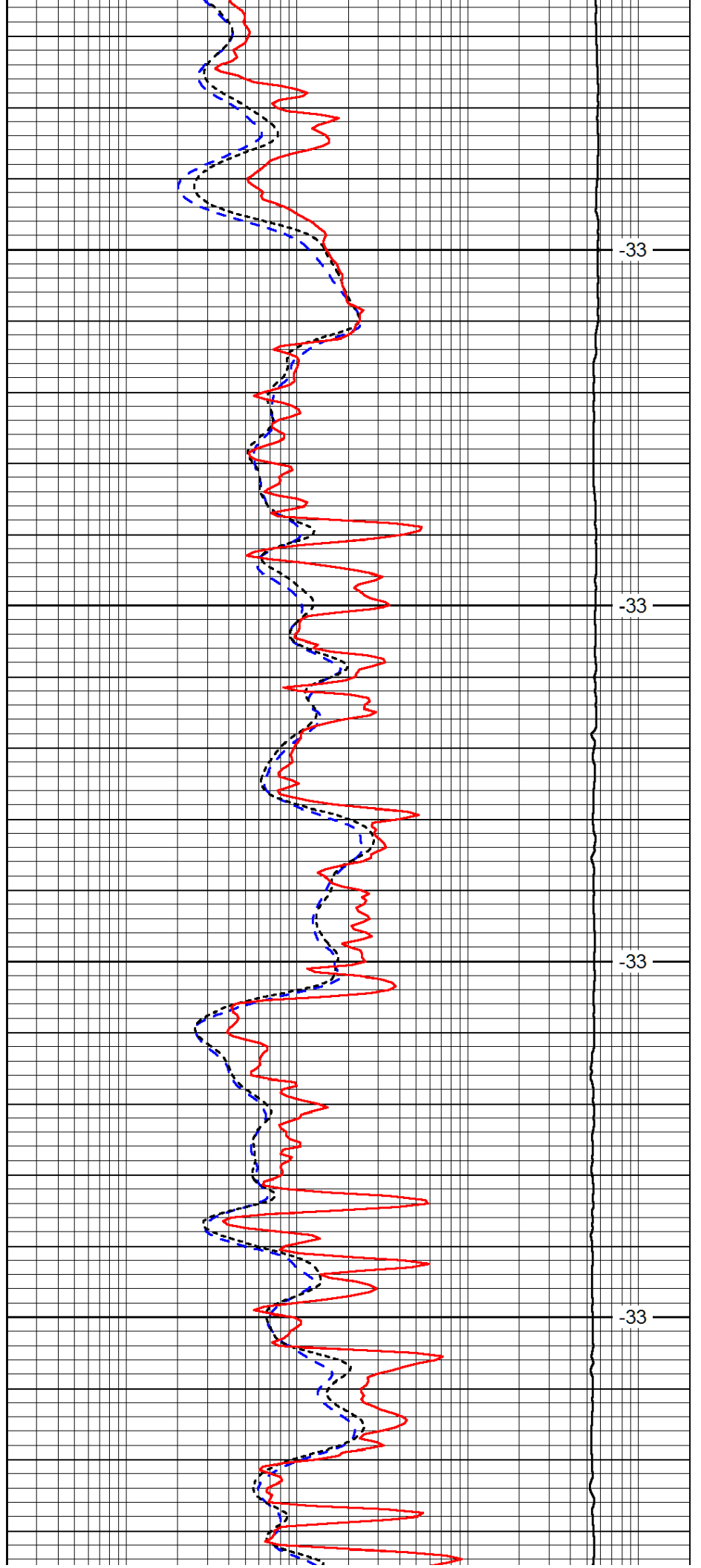


3200

3250

3300

3350

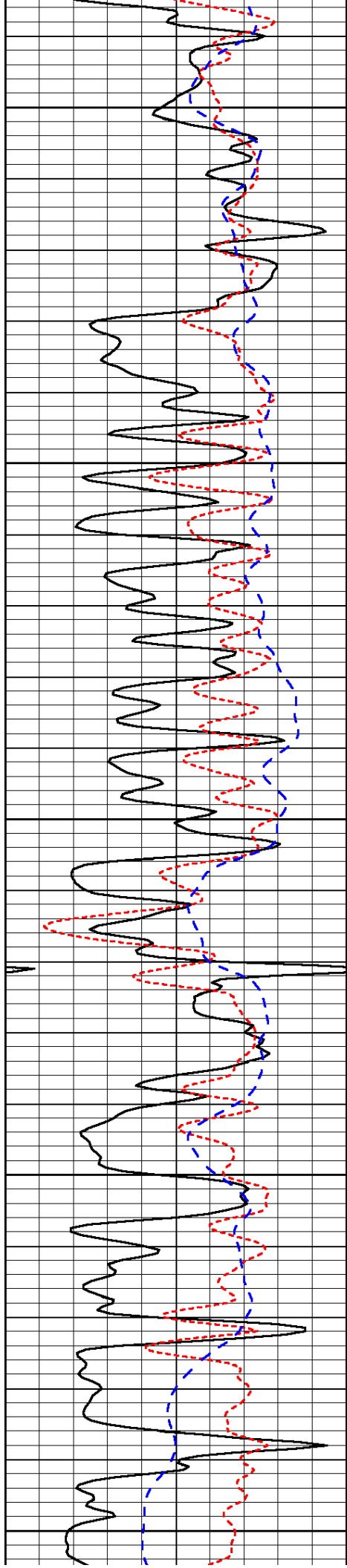


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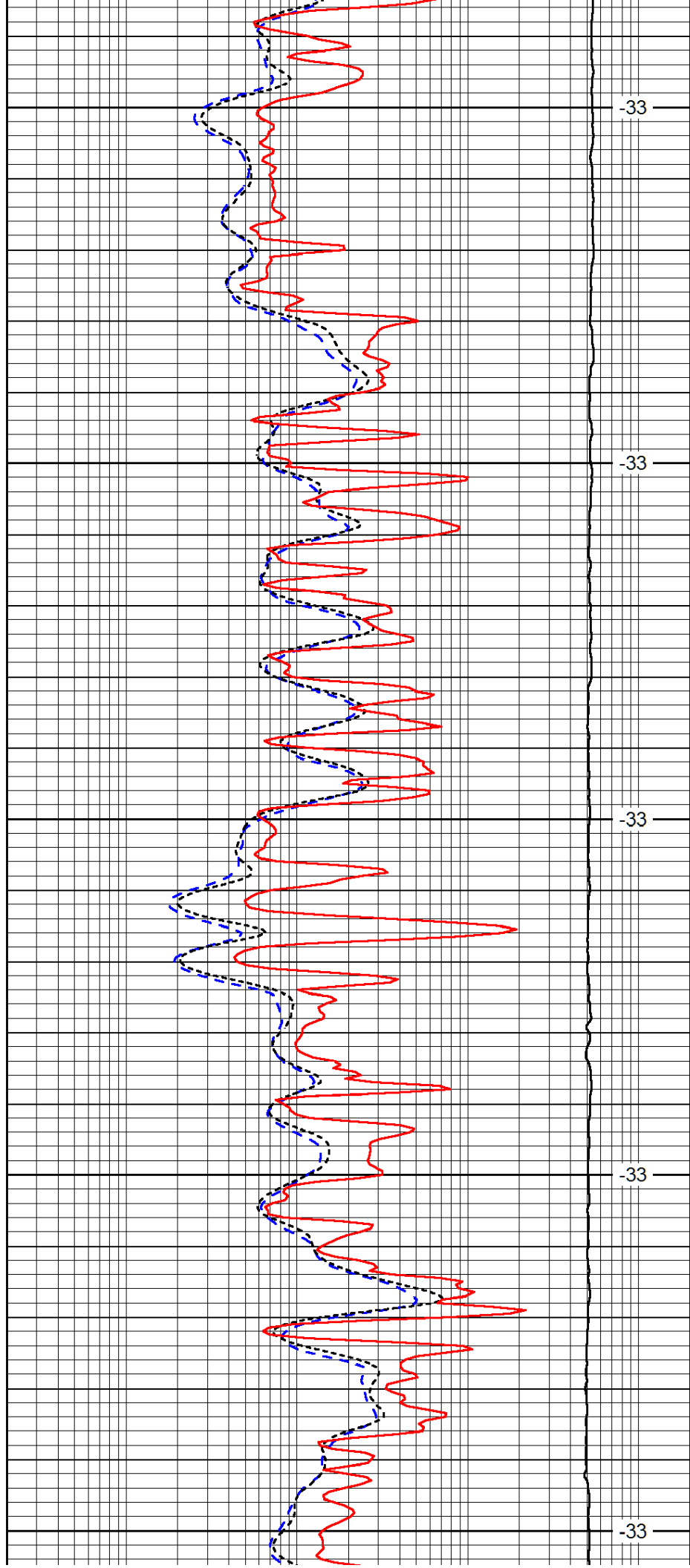
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3450

3500

3550

3600



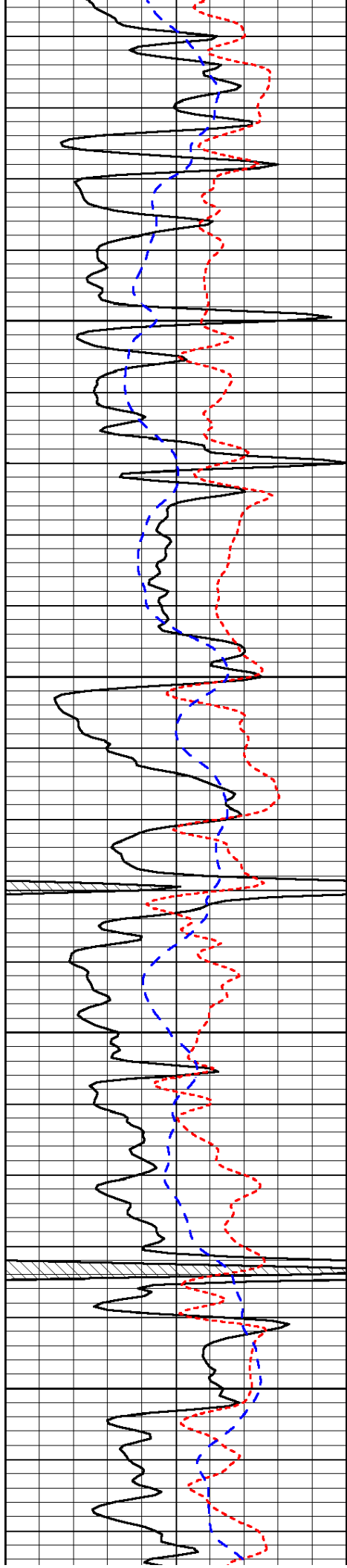
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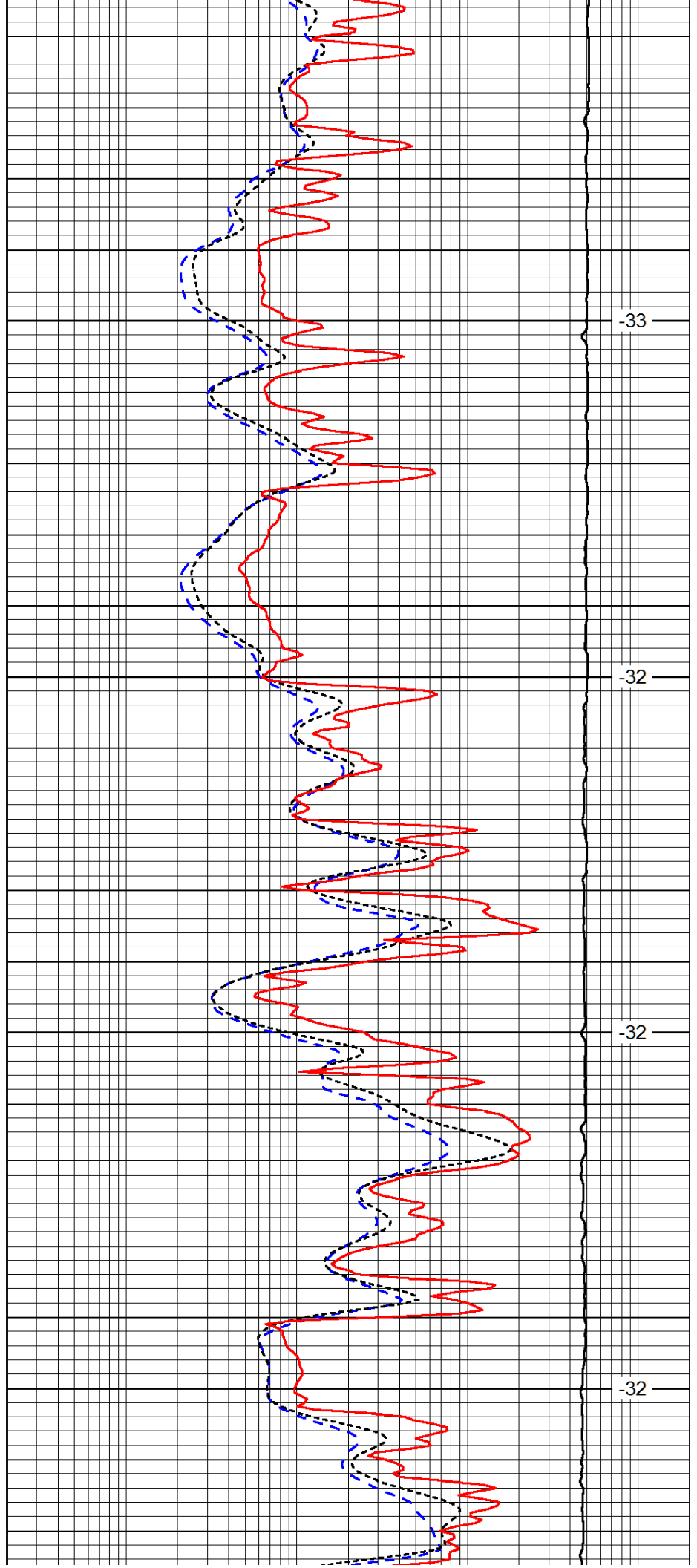


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3700

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3800

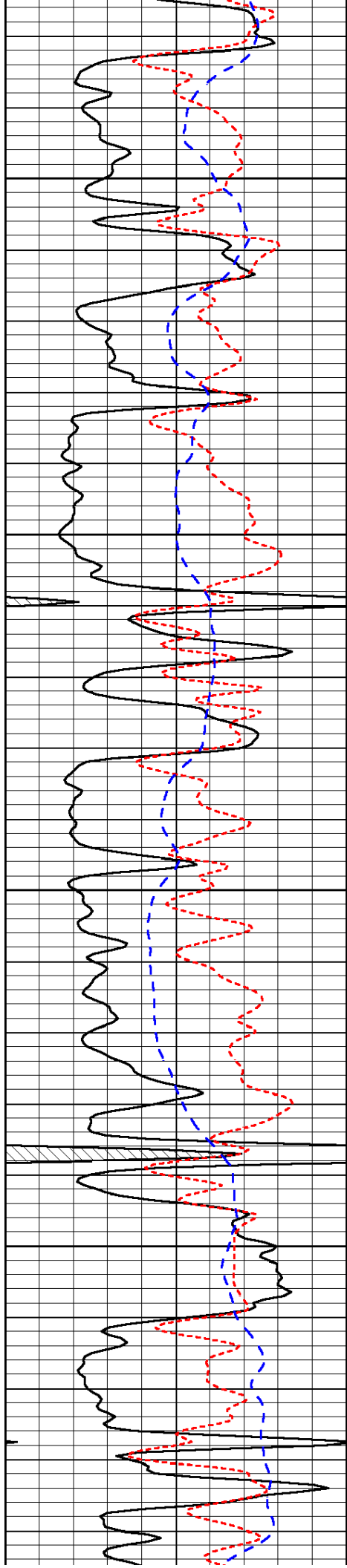


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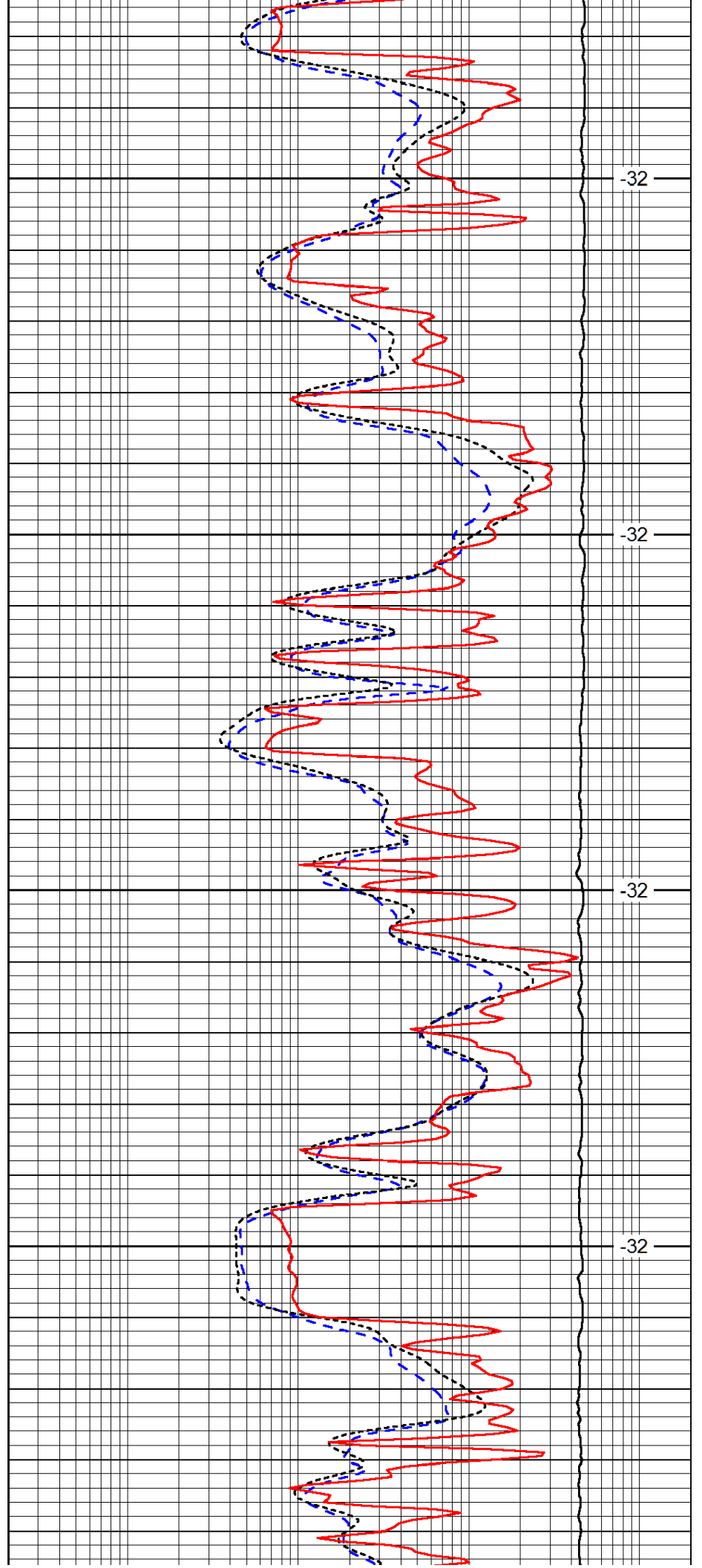


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3900

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4000

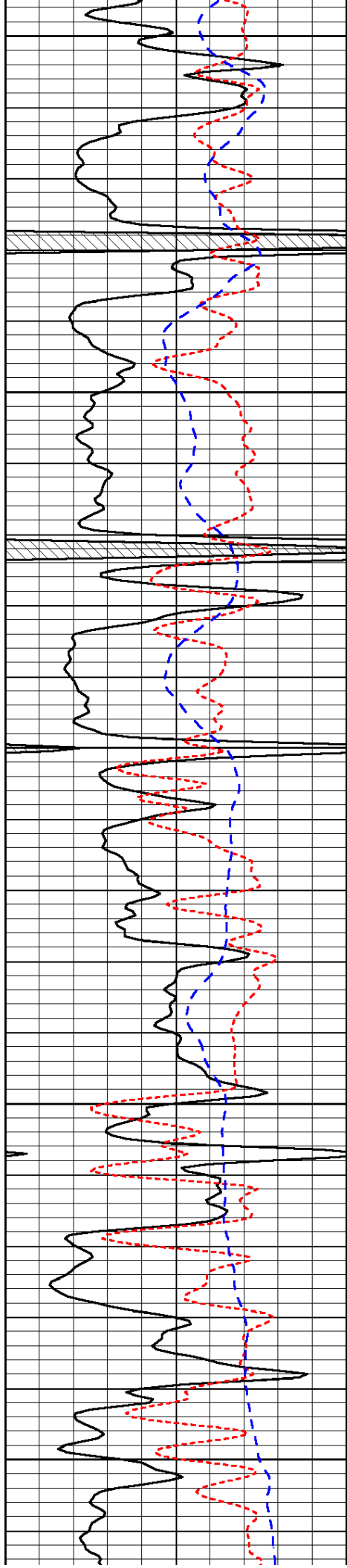


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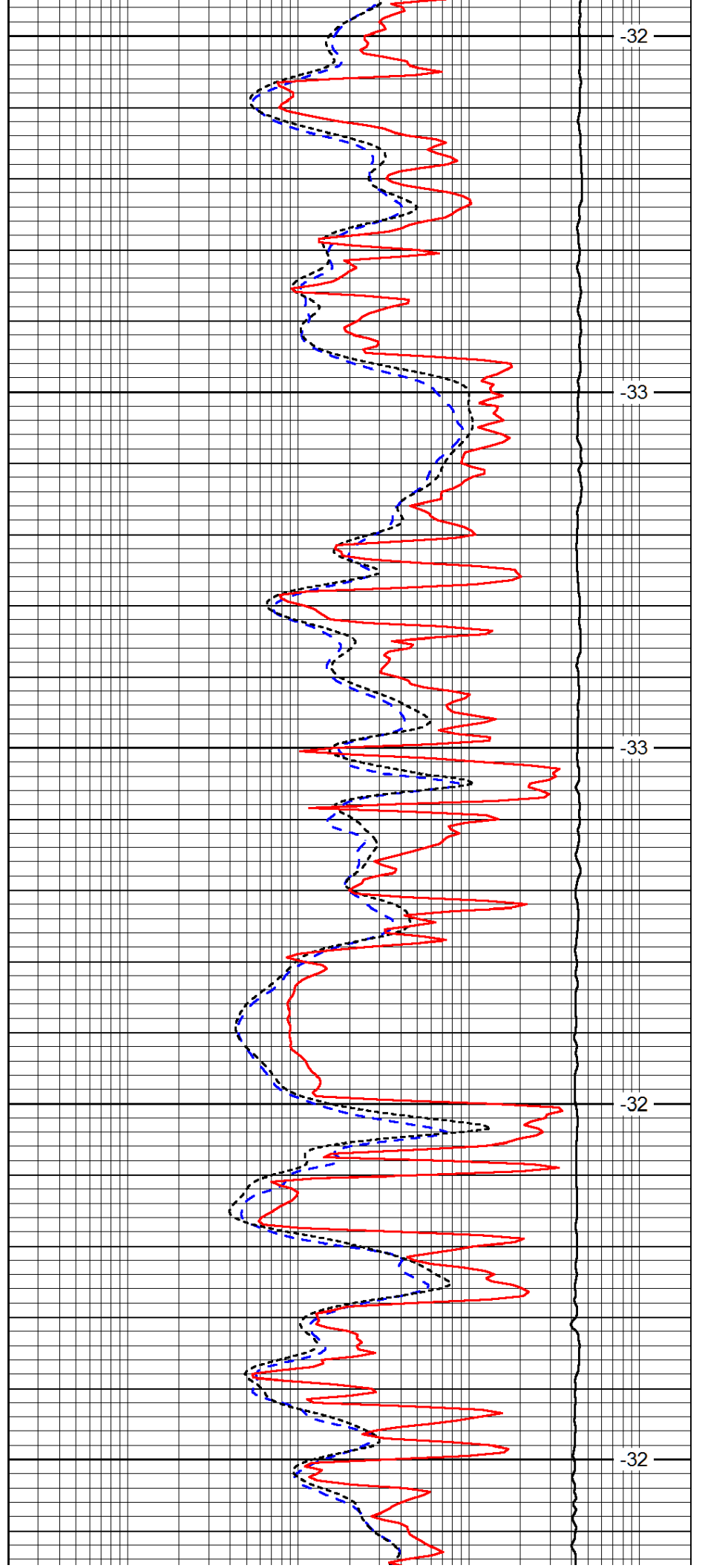
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4100

4150

4200

4250



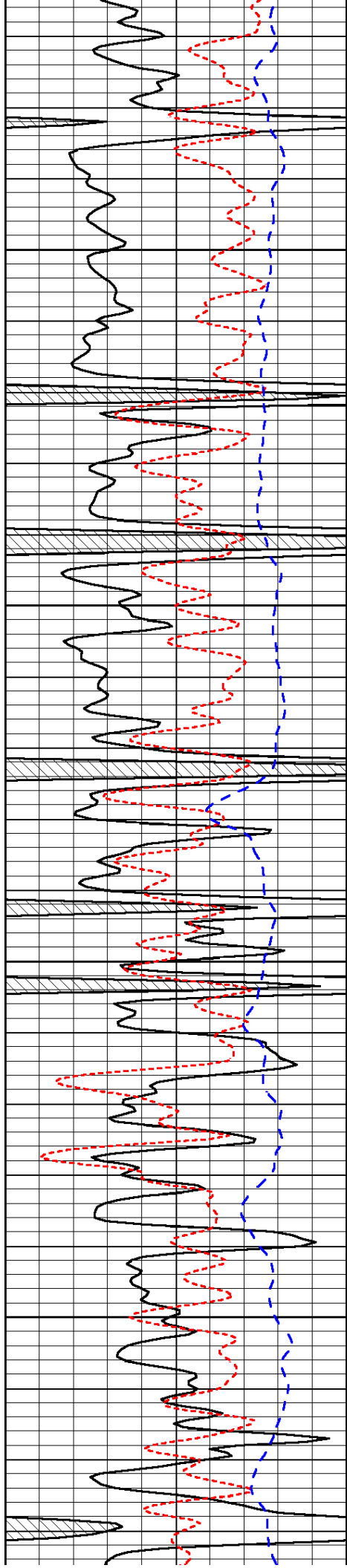
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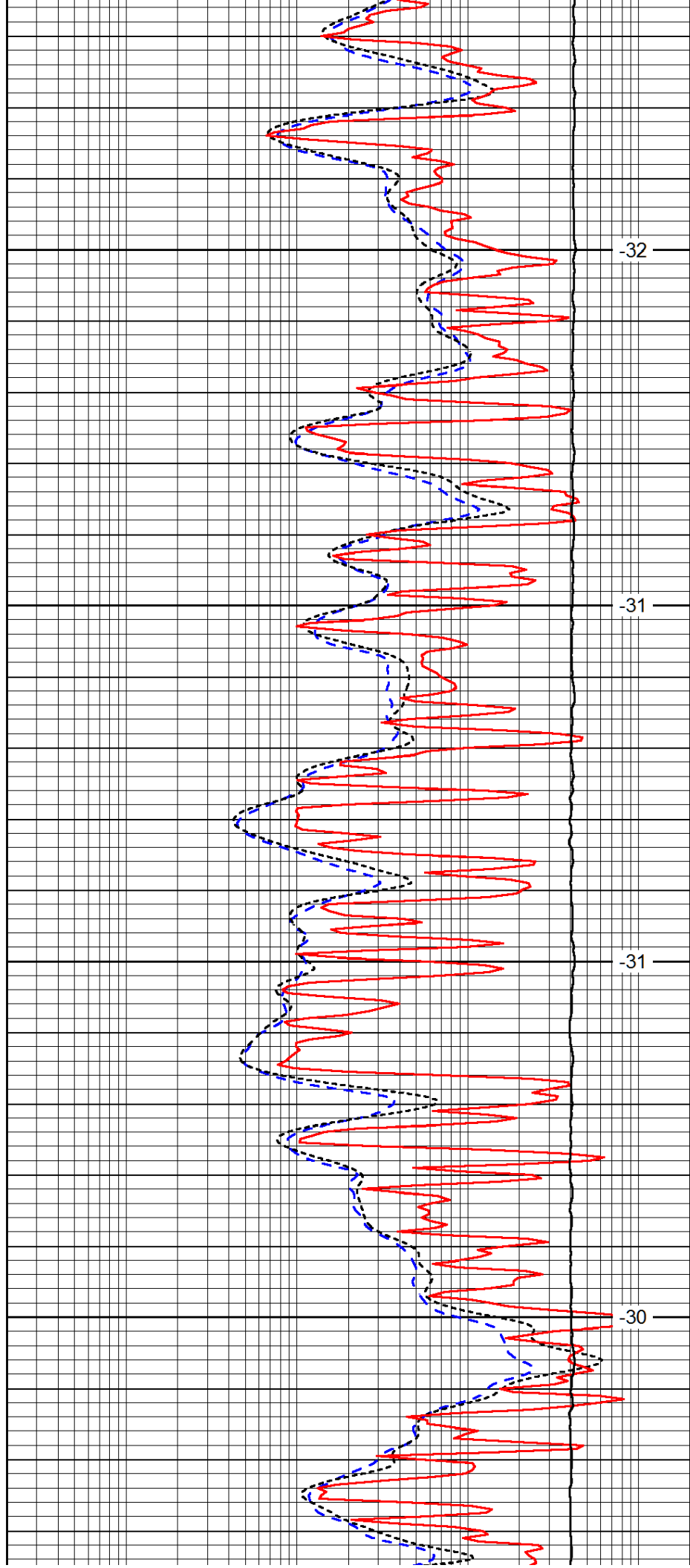


4300

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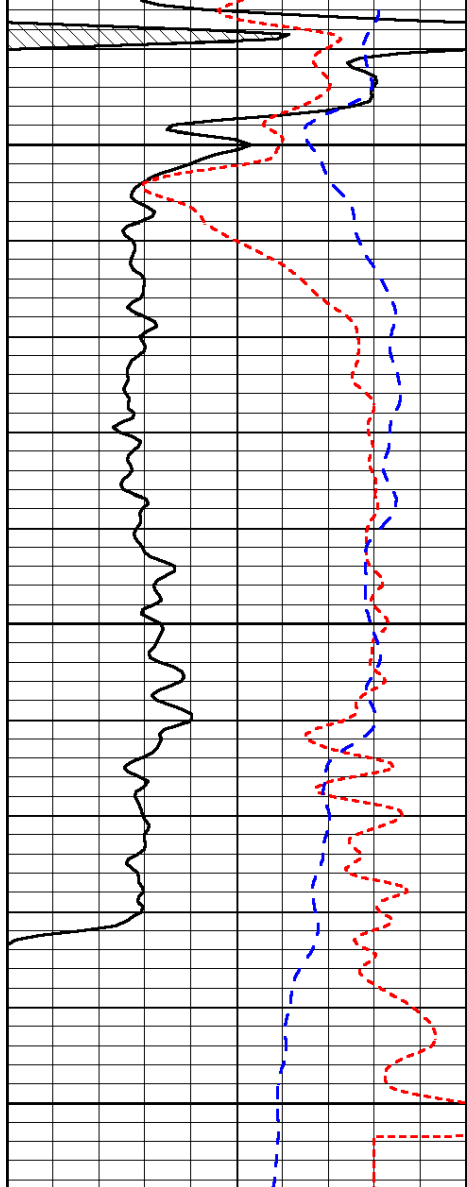


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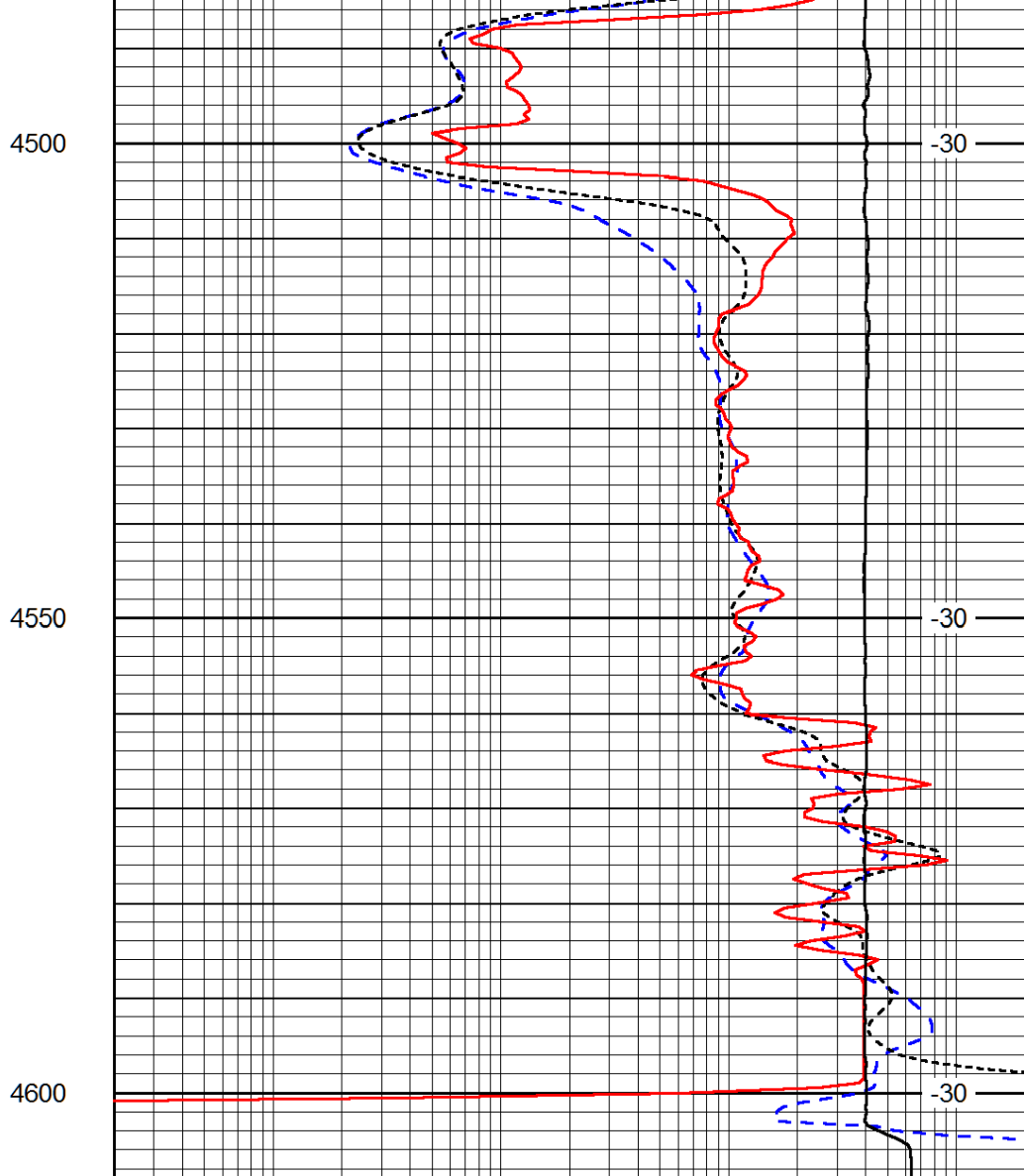
-31

-31

-30



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