



# Dual Induction Log

DIGITAL LOG (785) 625-3858

API No.	15-109-20,839-00-00	
Company	Murfin Drilling Company, Inc.	
Well	KWS No. 2 - 32	
Field	Unknown	
County	Logan	State Kansas
Location	1780' FNL & 1140' FWL	
Sec: 32	Twp: 12 S	Rge: 32 W
Permanent Datum	Ground Level	Elevation 3070
Log Measured From	Kelly Bushing	10 Ft. Above Perm. Datum
Drilling Measured From	Frotkelly Bushing	K.B. 3080 D.F. 3070 G.L. 3070

Date	5/16/2009
Run Number	One
Depth Driller	4730
Depth Logger	4729
Bottom Logged Interval	4728
Top Log Interval	0
Casing Driller	8.625 @ 216
Casing Logger	213
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	7.900
Density / Viscosity	9.2 62
pH / Fluid Loss	11.5 6.8
Source of Sample	Flowline
Rm @ Meas. Temp	0.98 @ 75
Rmf @ Meas. Temp	0.74 @ 75
Rmc @ Meas. Temp	1.32 @ 75
Source of Rmf / Rmc	Charts
Rm @ BHT	0.60 @ 123
Operating Rig Time	5 Hours
Max Rec. Temp. F	123
Equipment Number	15
Location	Havs
Recorded By	B. Becker
Witnessed By	Jeff Christian

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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

Oakley, Ks; 11 South; 3 West; 1/2 North; East into

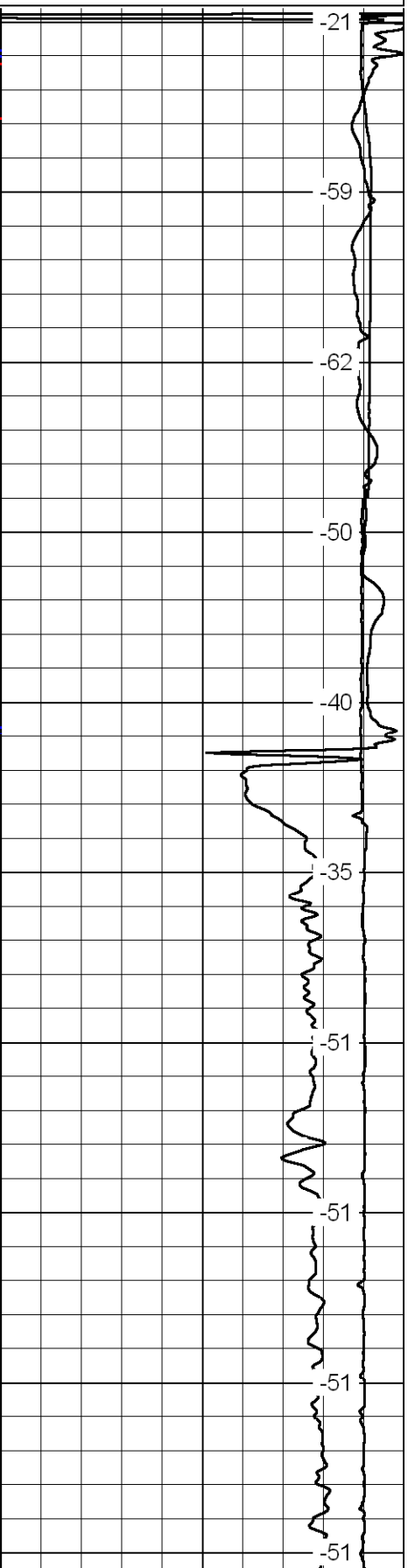
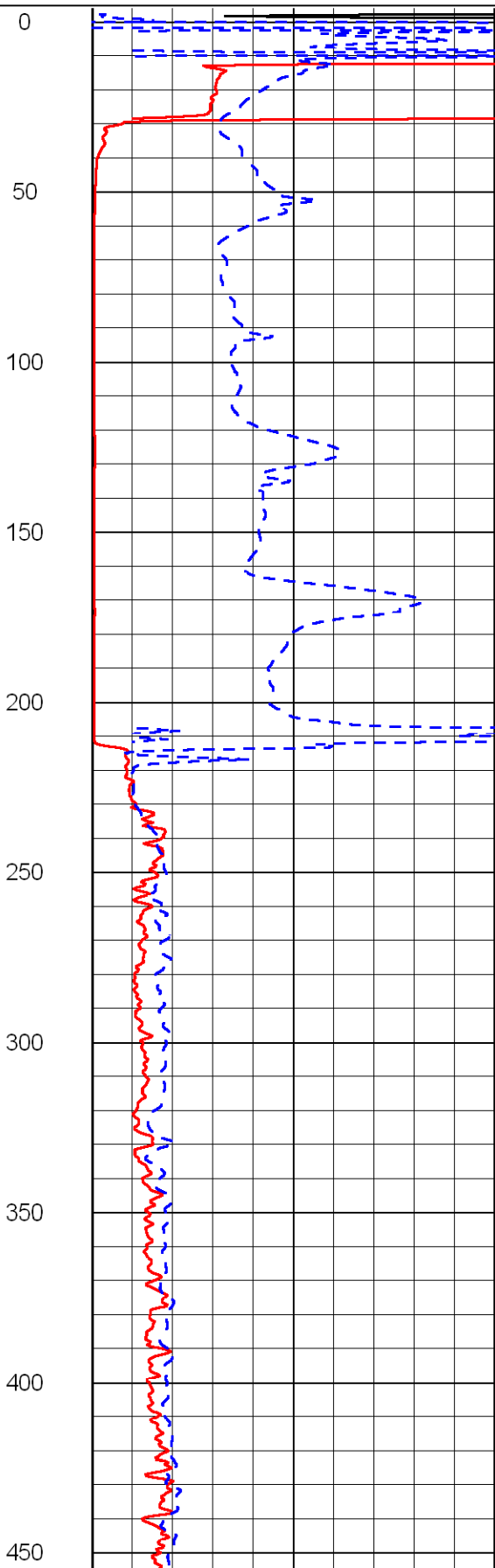
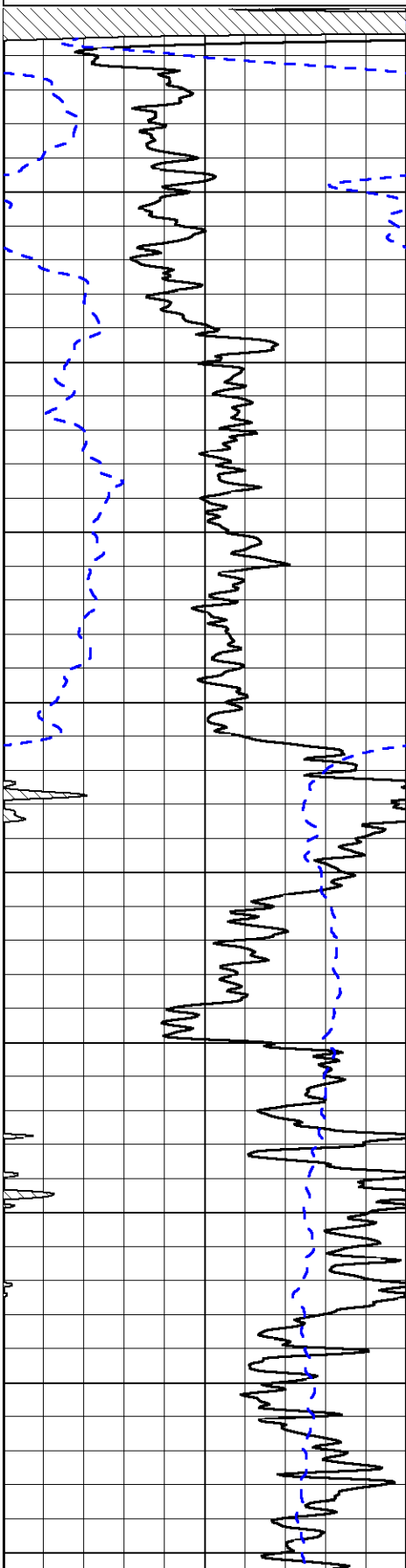
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 Presentation Format: dil2in  
 Dataset Creation: Sat May 16 10:25:39 2009  
 Charted by: Depth in Feet scaled 1:600

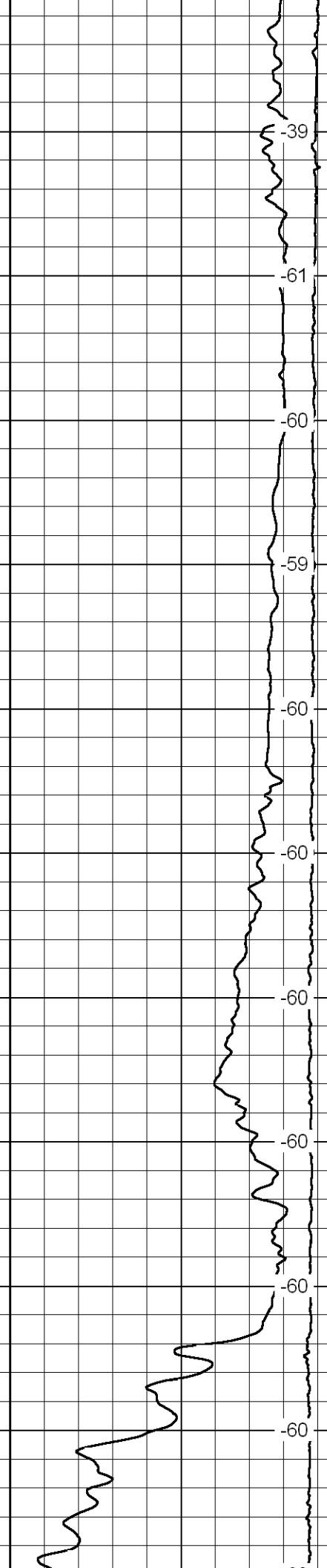
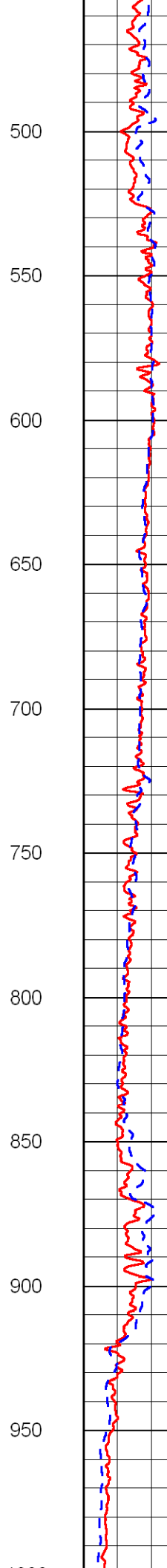
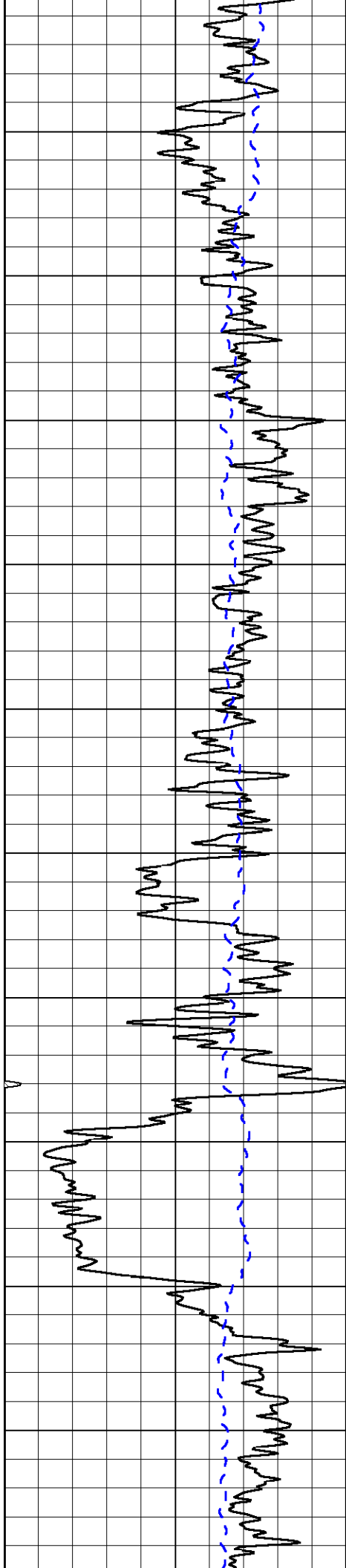
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-200 SP (MV) 0

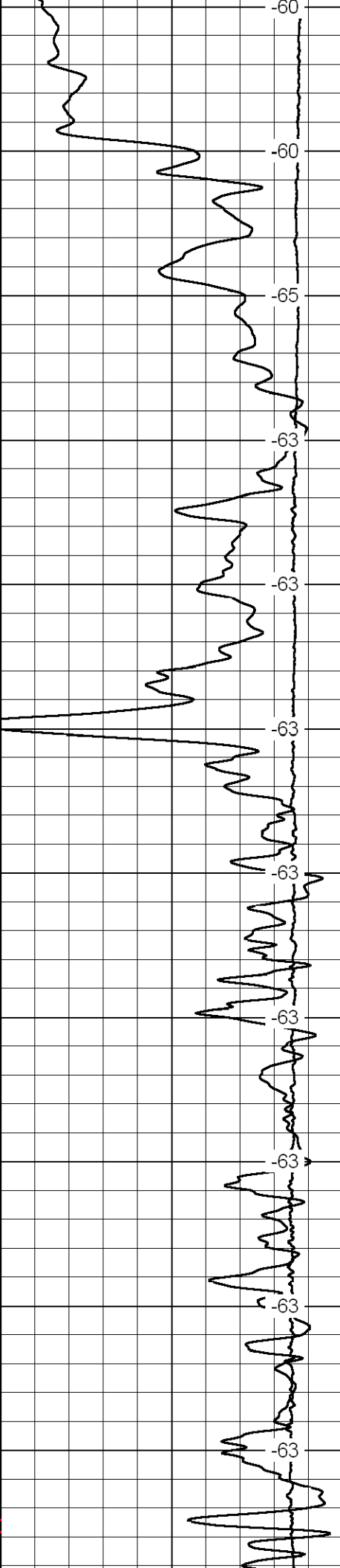
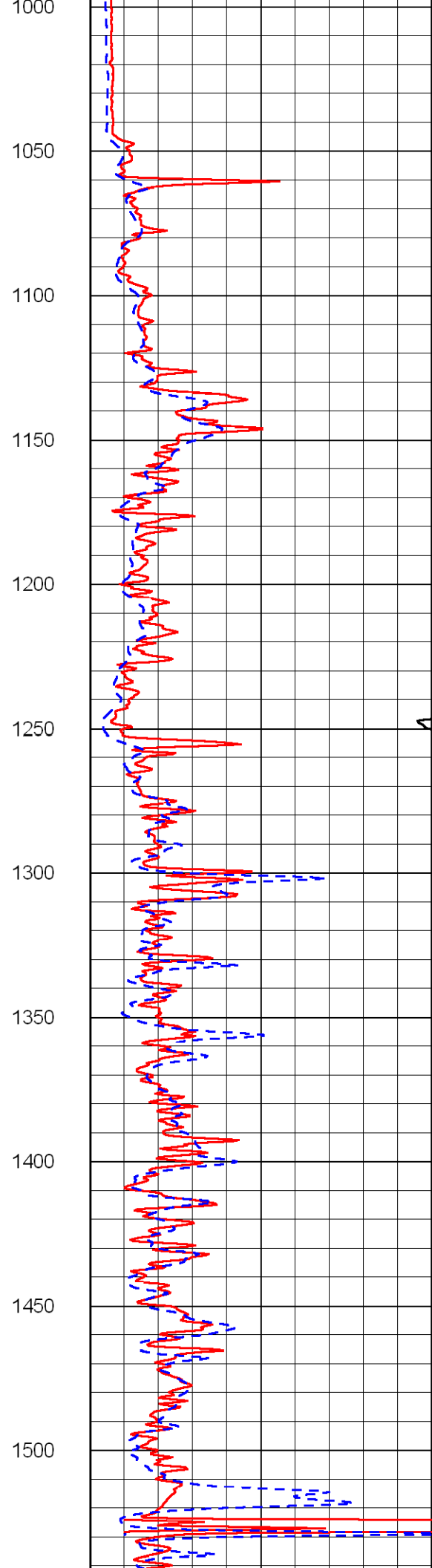
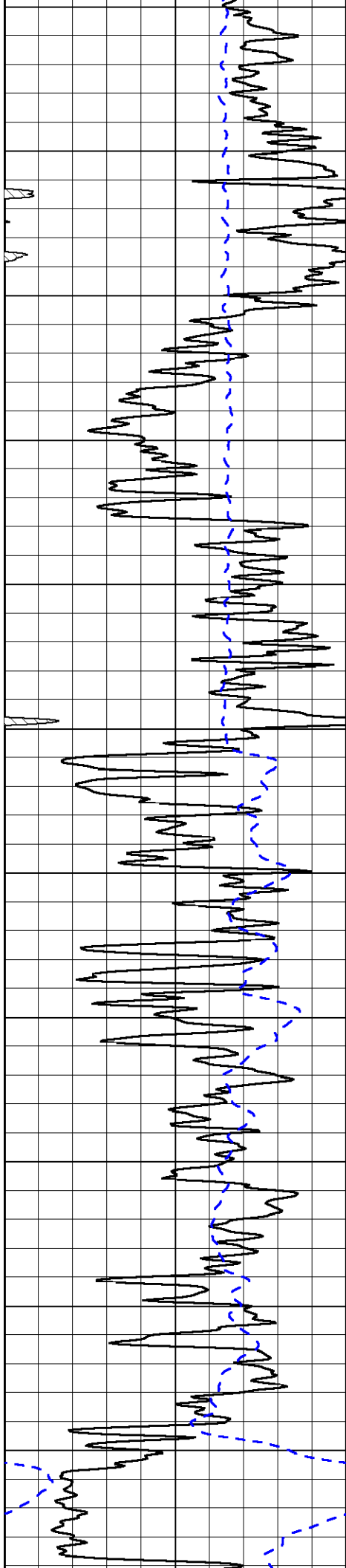
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1000 Conductivity (mmho/m) 0  
15000 Line Tension (lb) 0

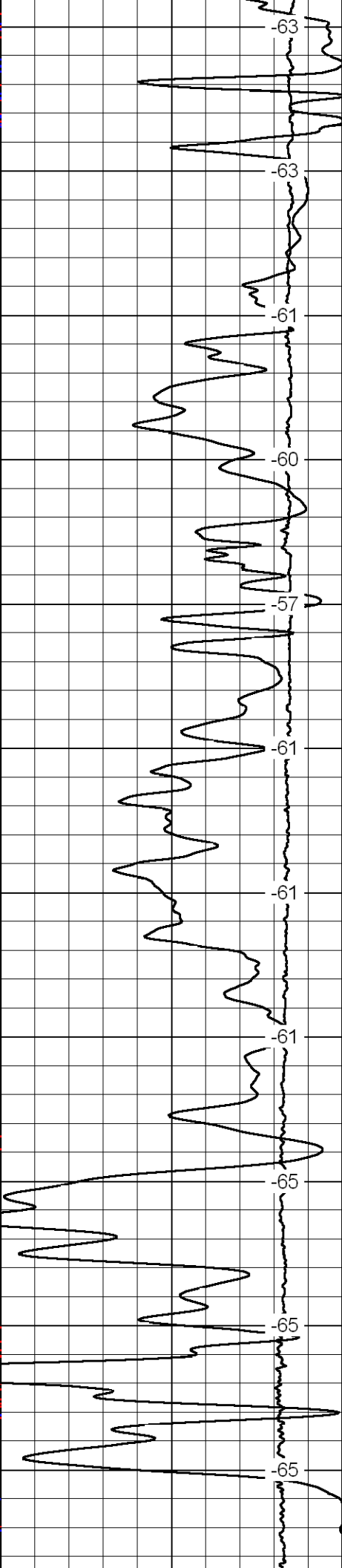
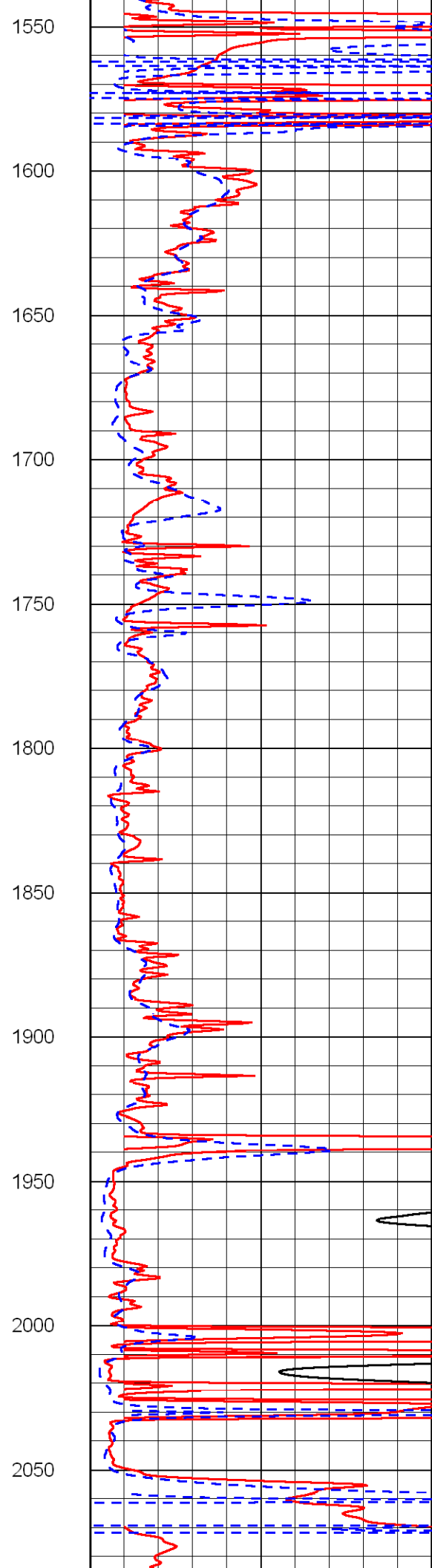
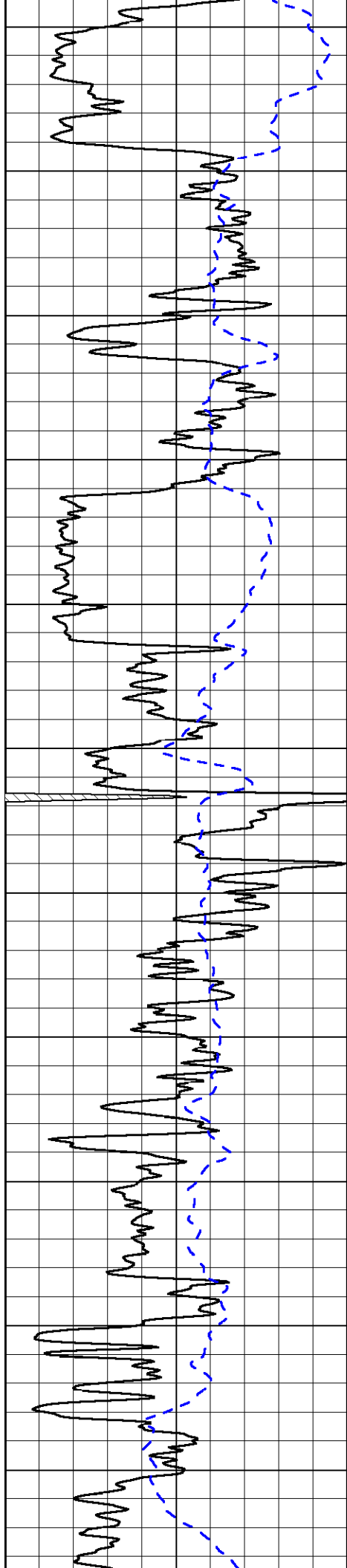
LSPD  
(ft/min) 0

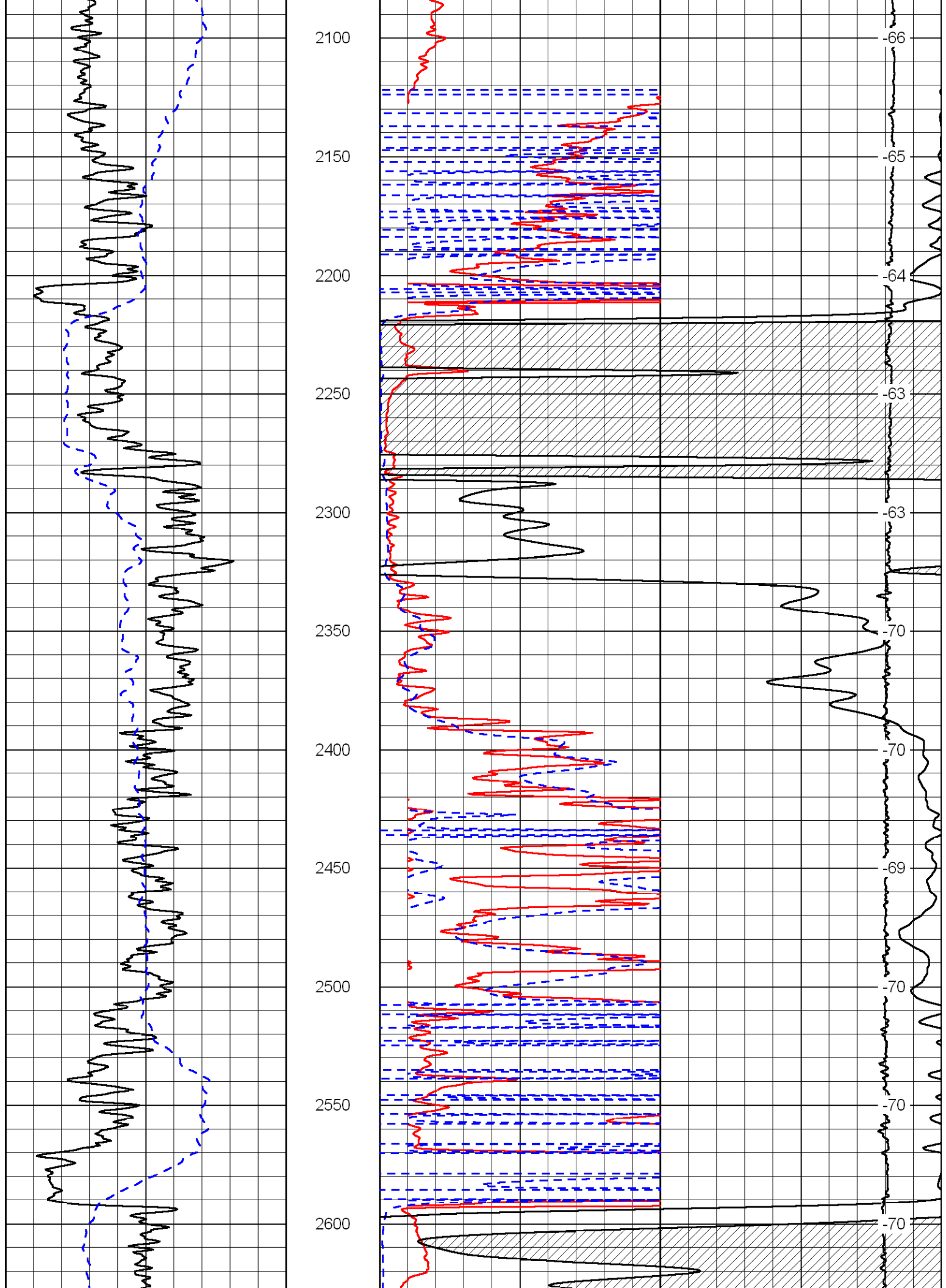
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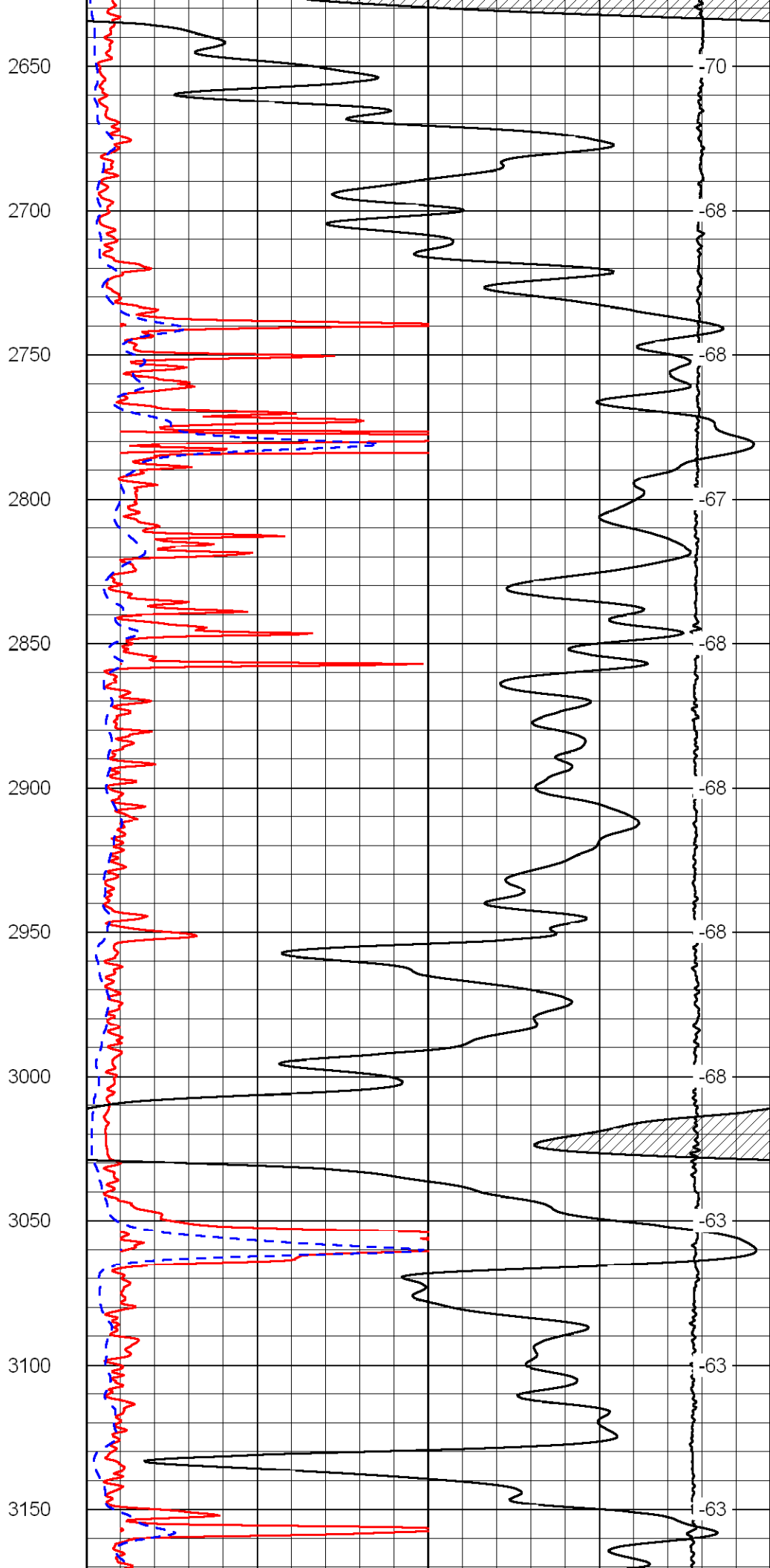
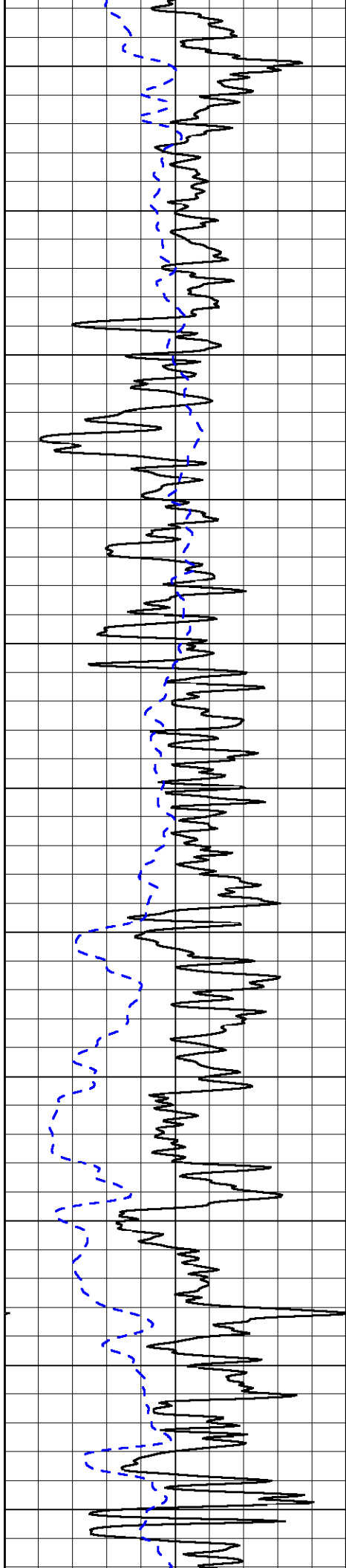




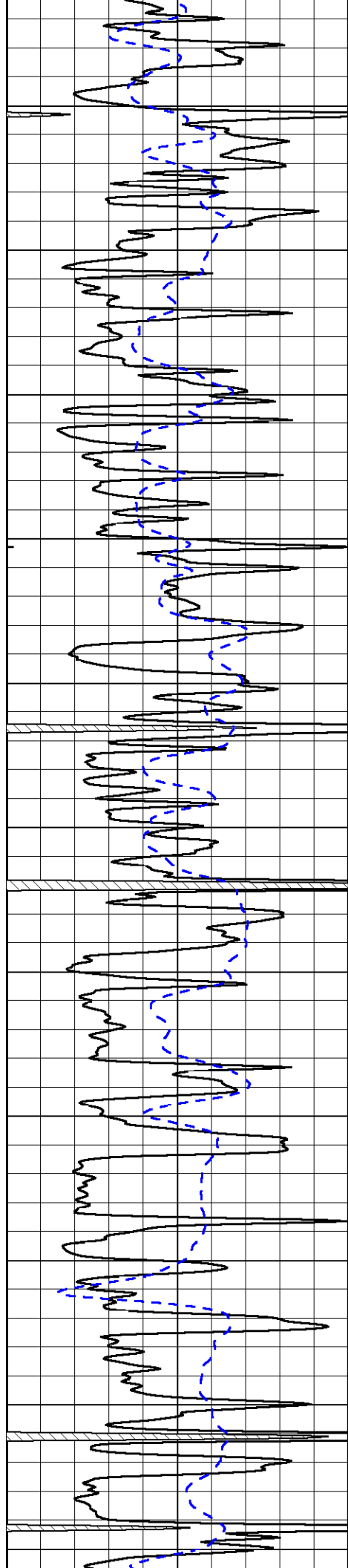












3750

3800

3850

3900

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4000

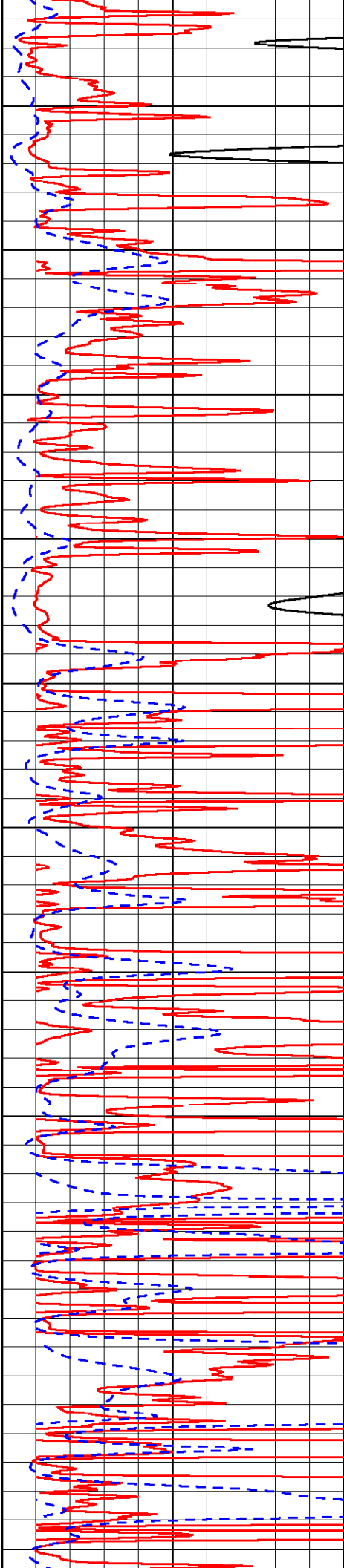
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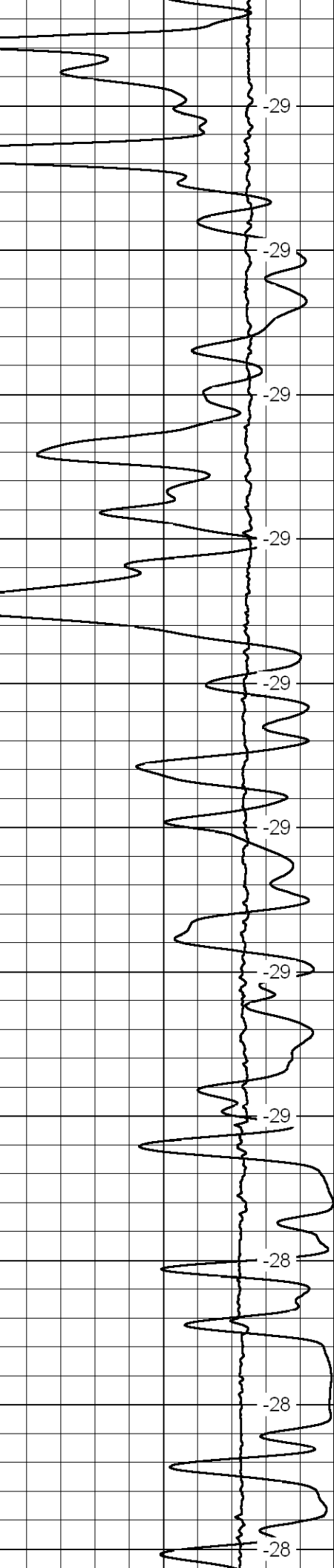
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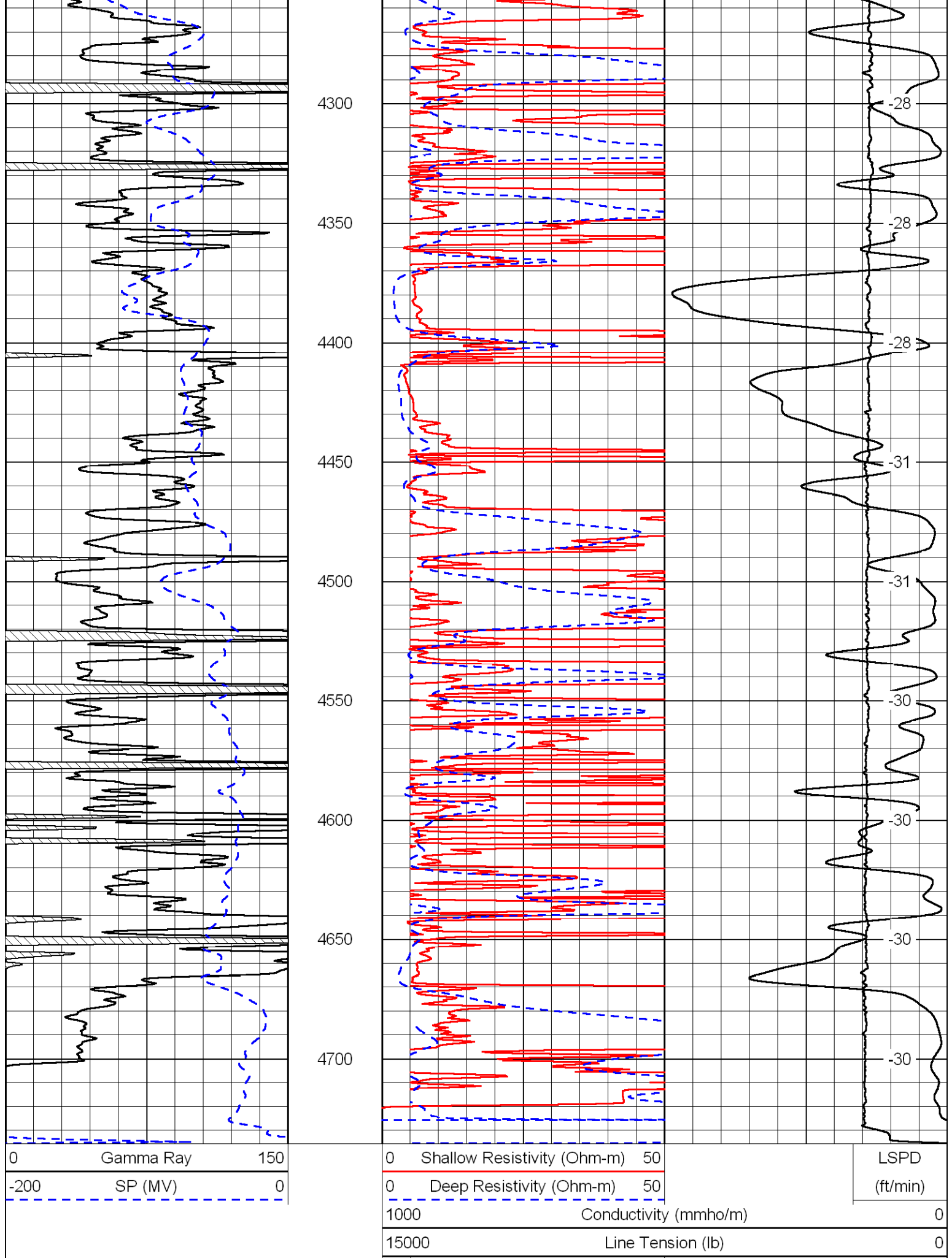
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Shallow Resistivity (Ohm-m) 50  
 Deep Resistivity (Ohm-m) 50  
 Conductivity (mmho/m) 0  
 Line Tension (lb) 0  
 LSPD (ft/min) 0

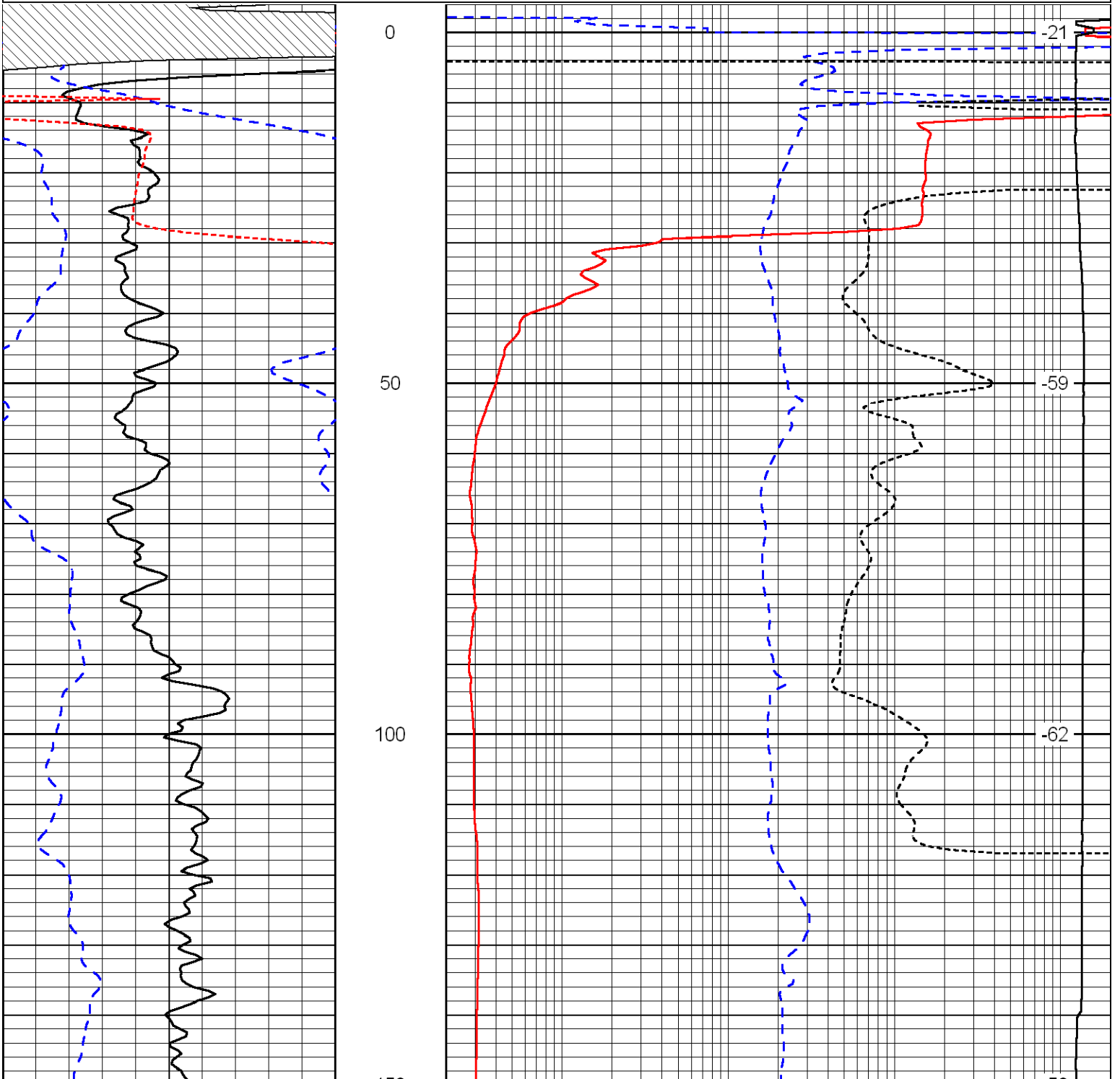
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 50 Deep Resistivity (Ohm-m) 500

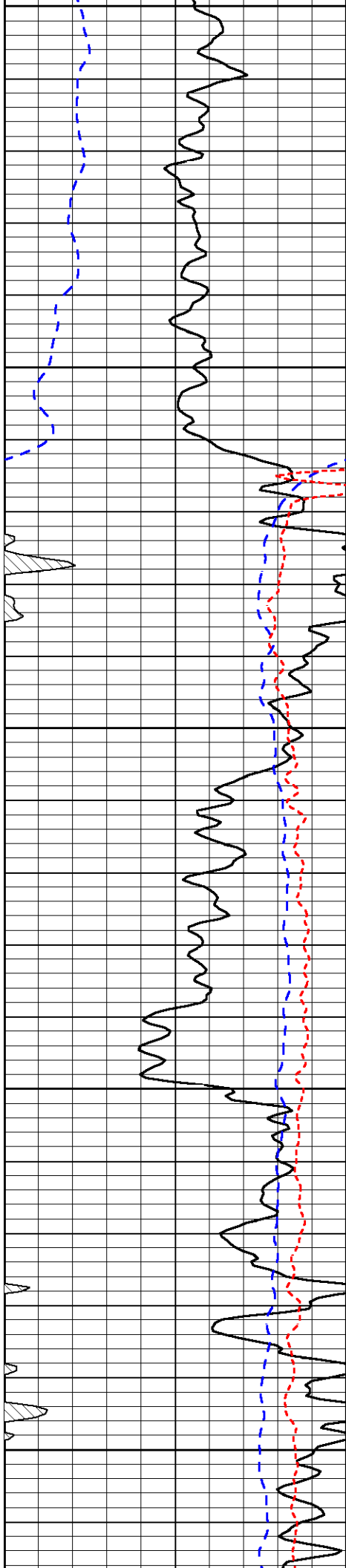
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 Dataset Pathname: DIL/murfstk  
 Presentation Format: dil  
 Dataset Creation: Sat May 16 10:25:39 2009  
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
-200	SP (MV)	0
-160	Rxo / Rt	40

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
15000	Line Tension (lb)	0

LSPD  
(ft/min)





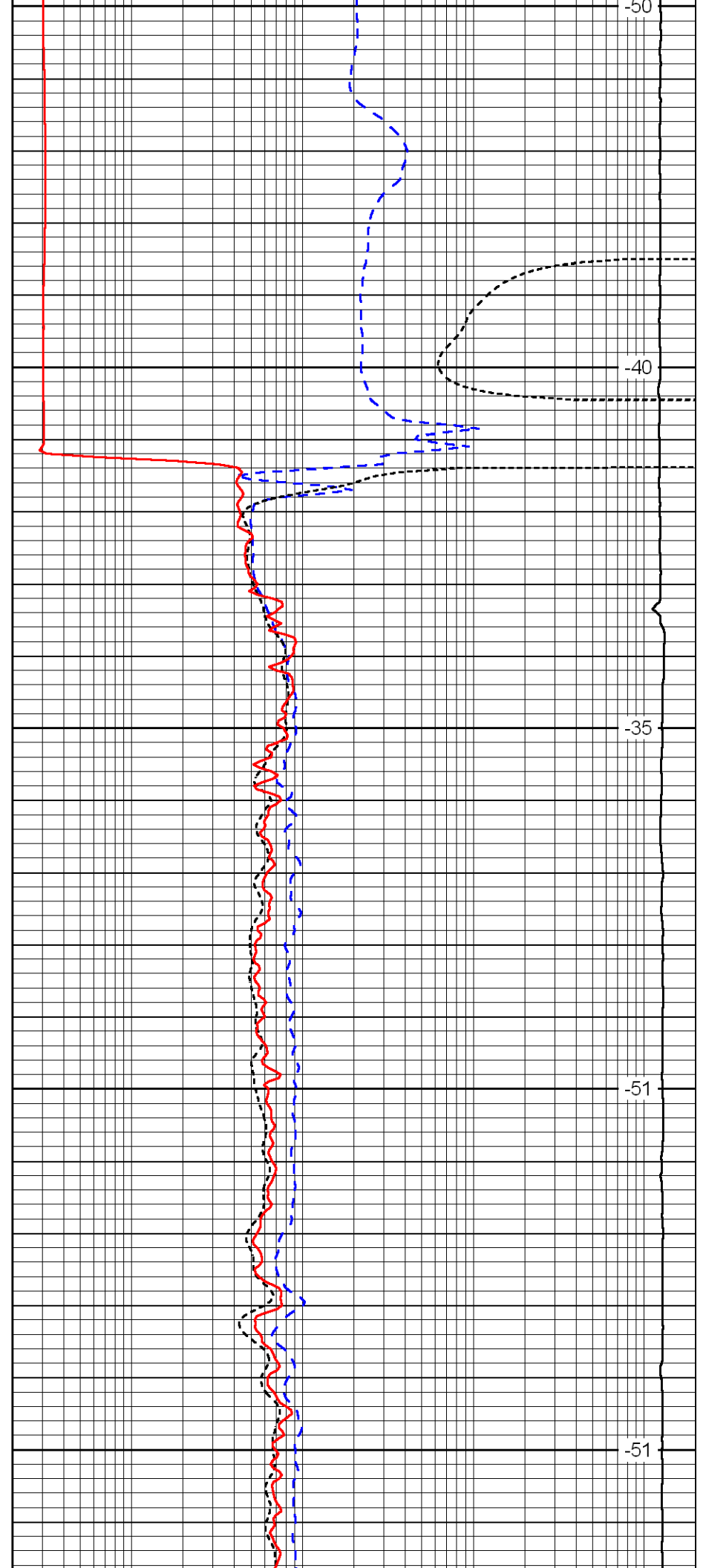
150

200

250

300

350



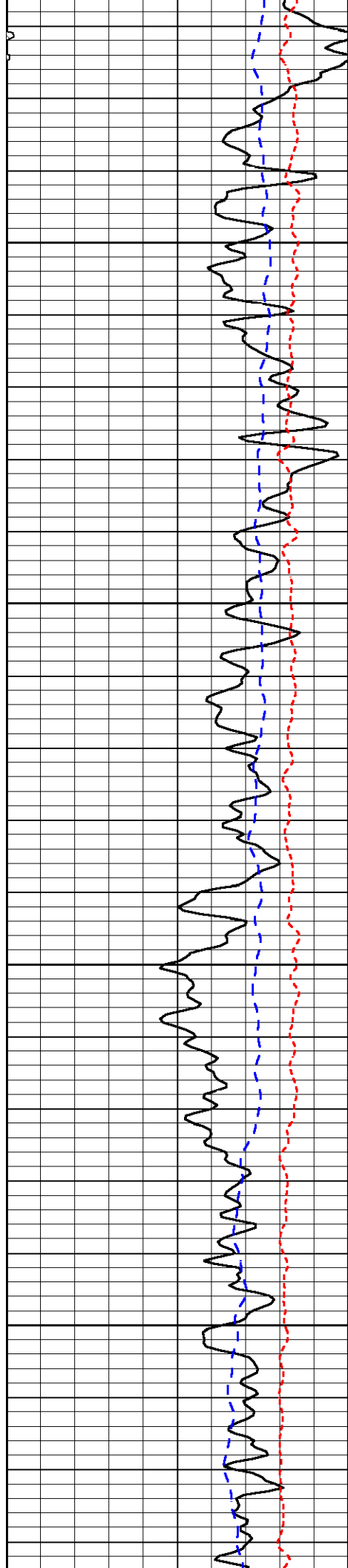
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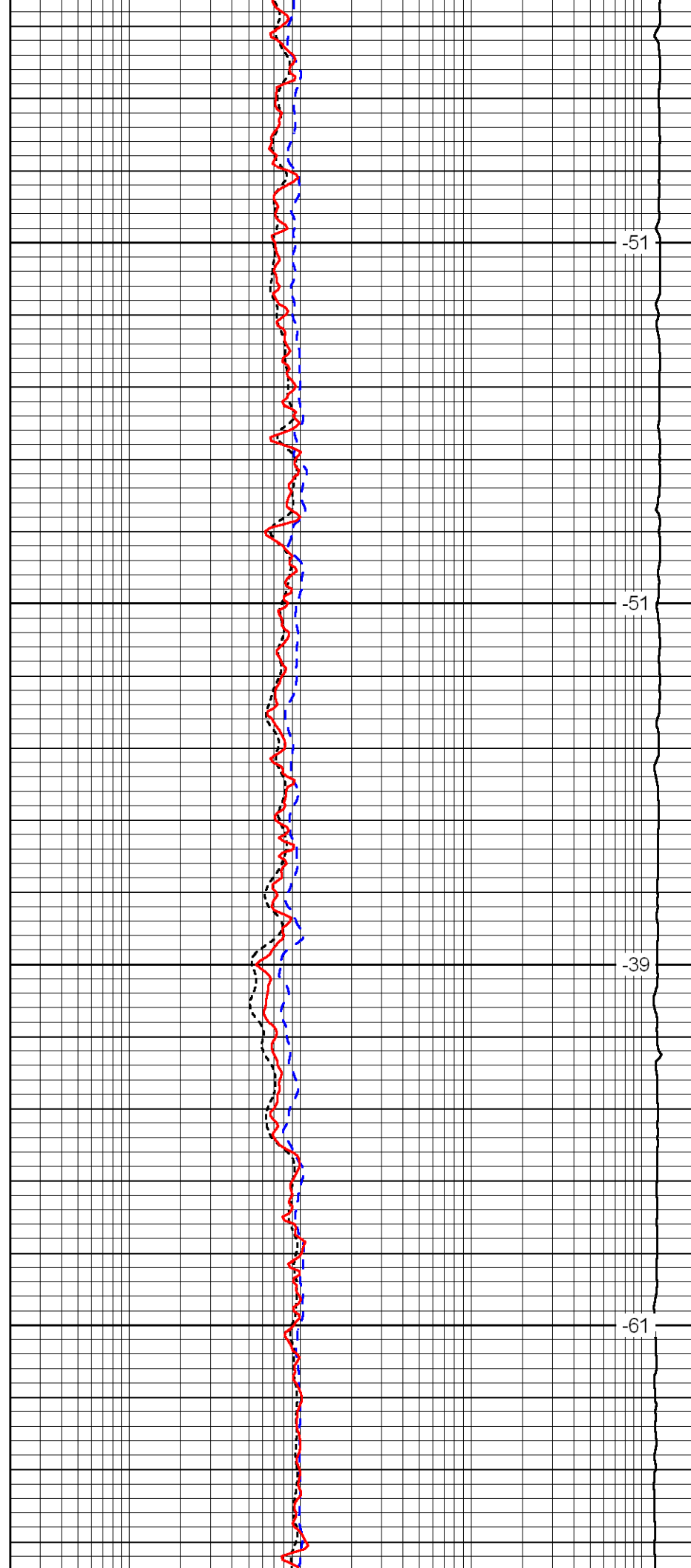


400

450

500

550

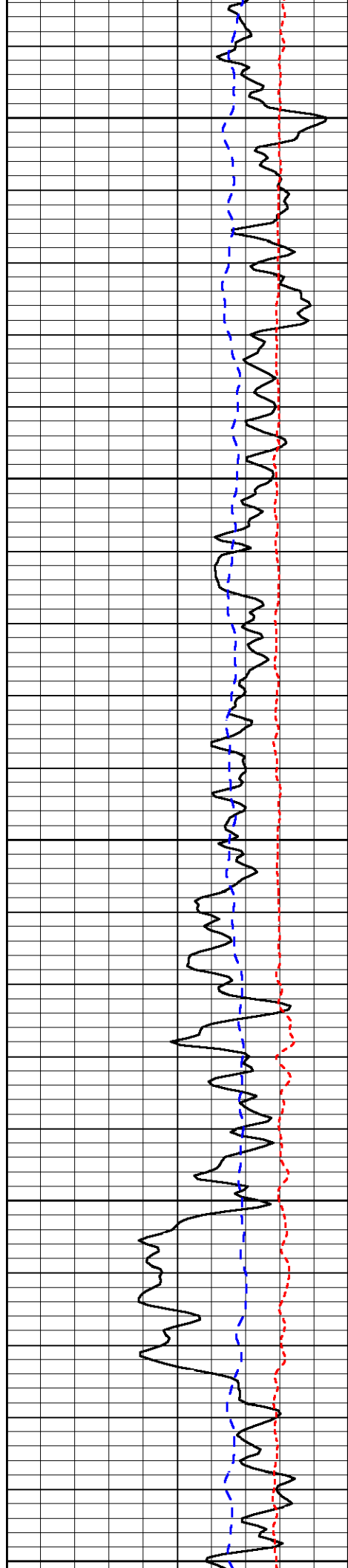


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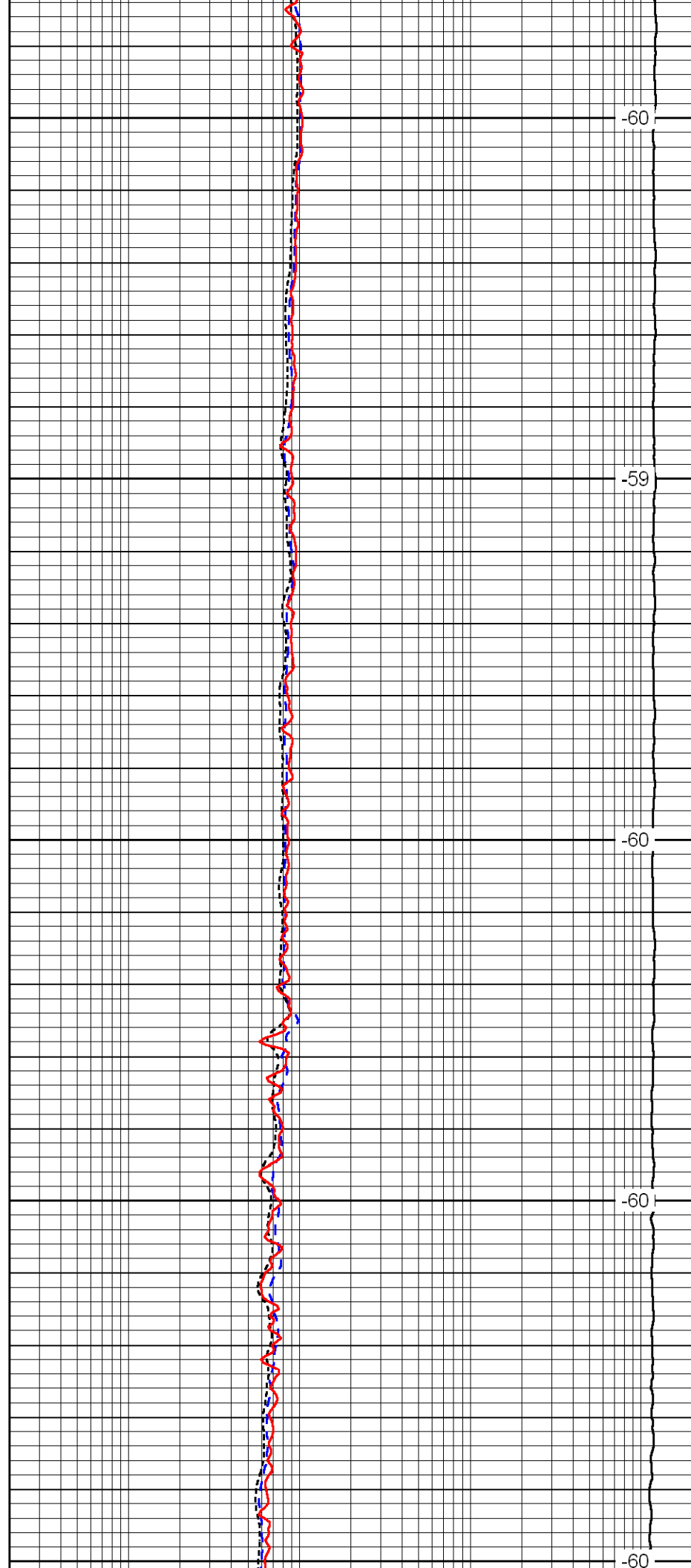
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650

700

750

800



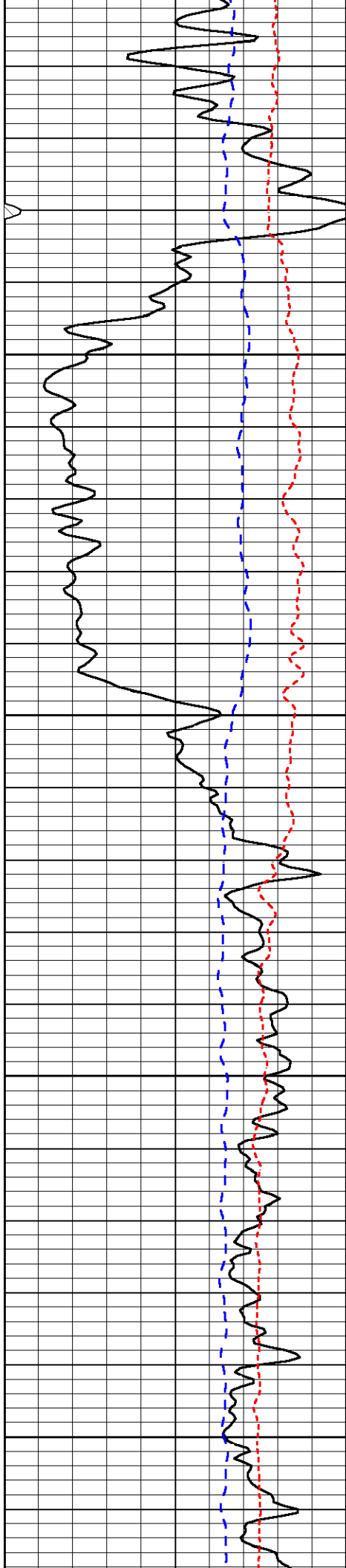
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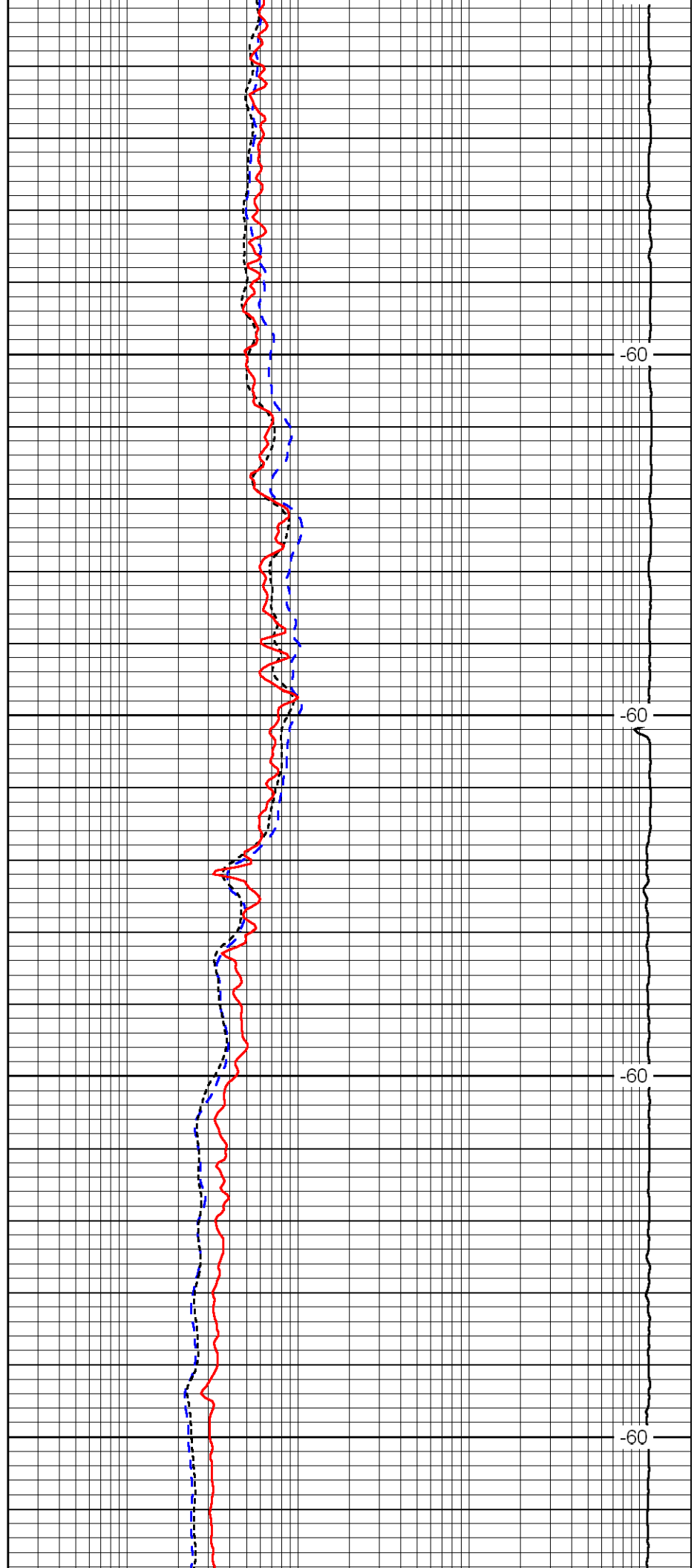


850

900

950

1000

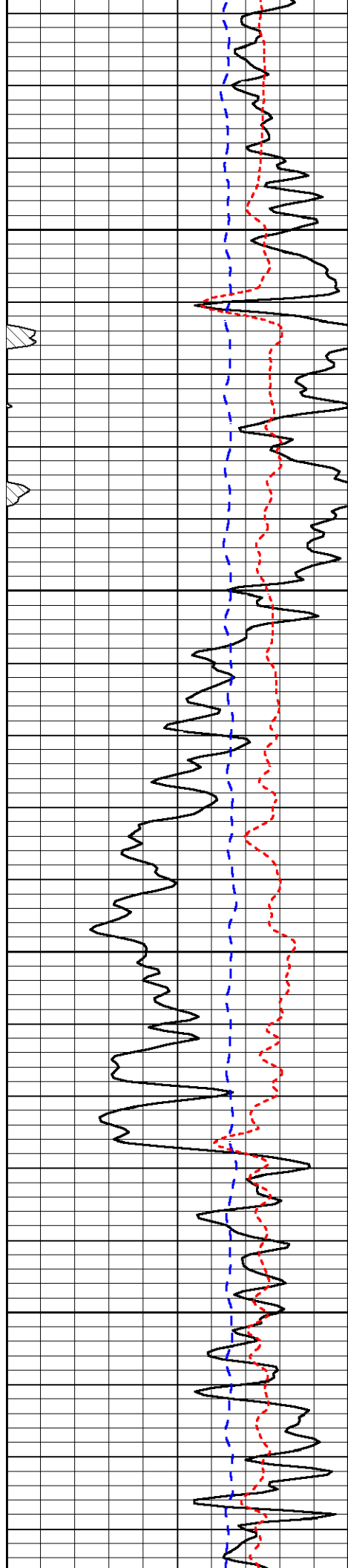


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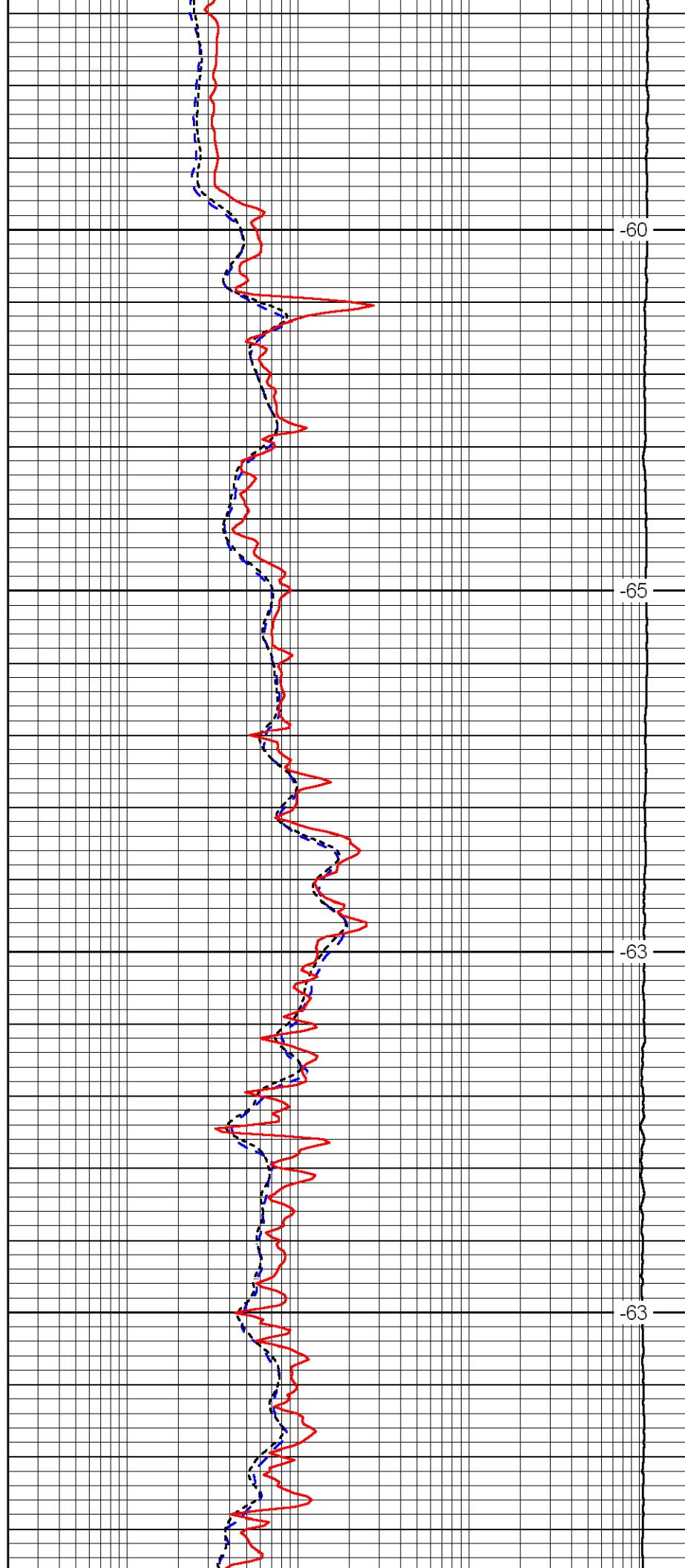


1050

1100

1150

1200

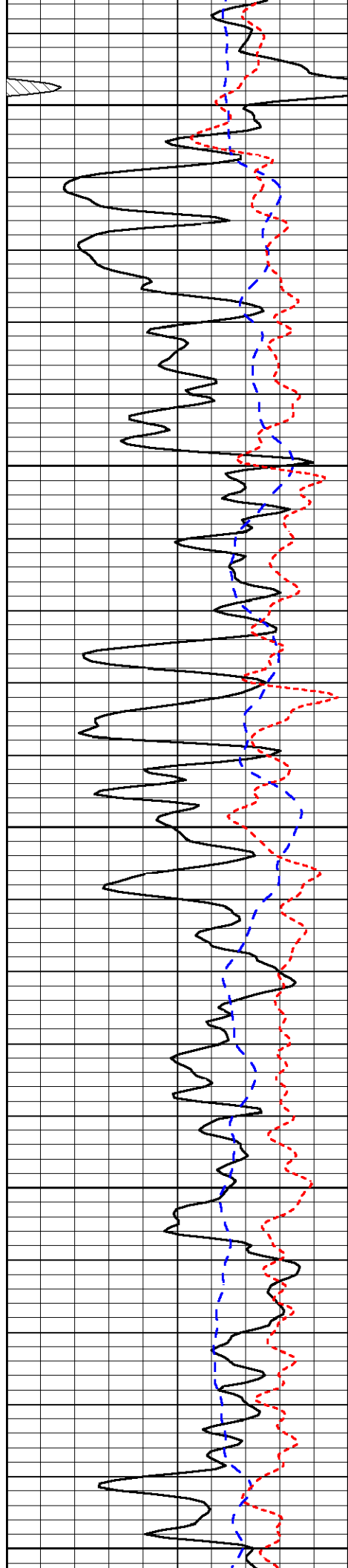


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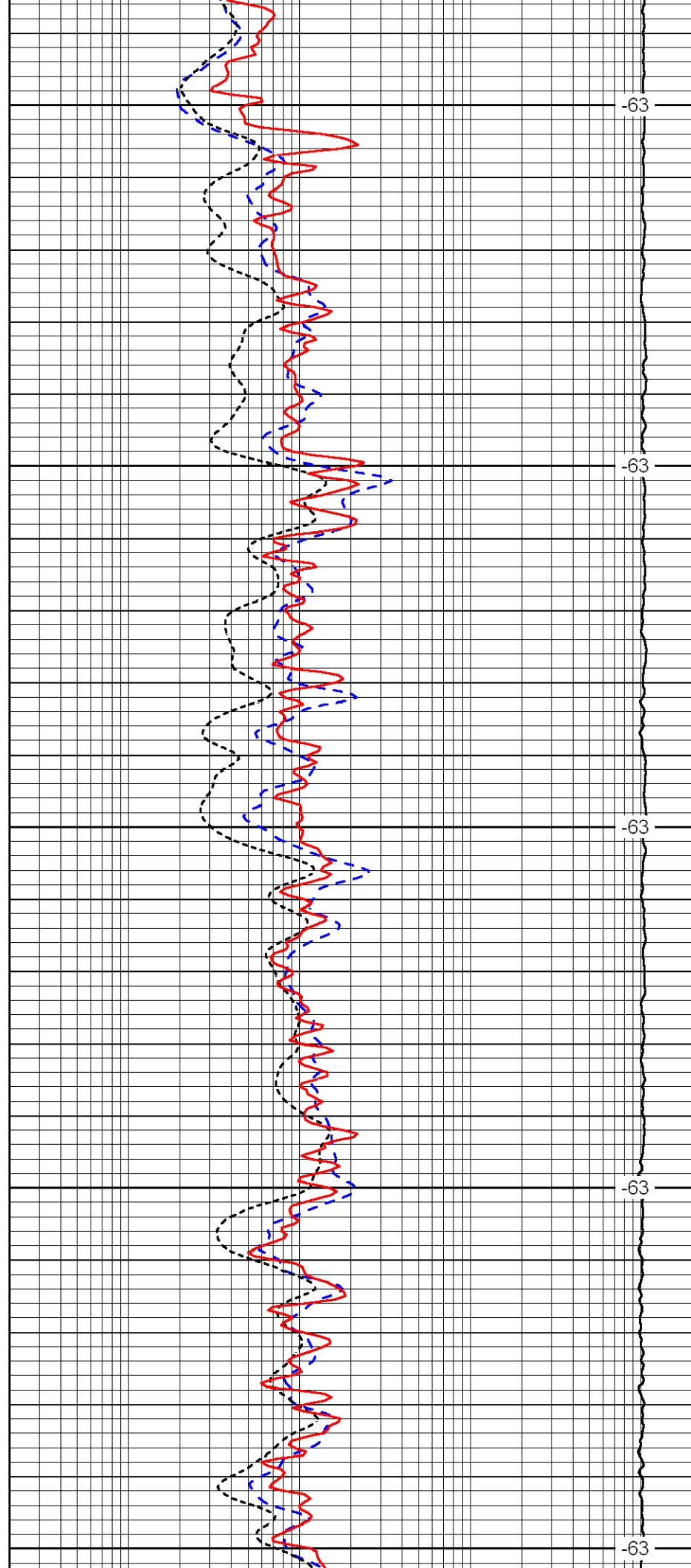
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1300

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1400

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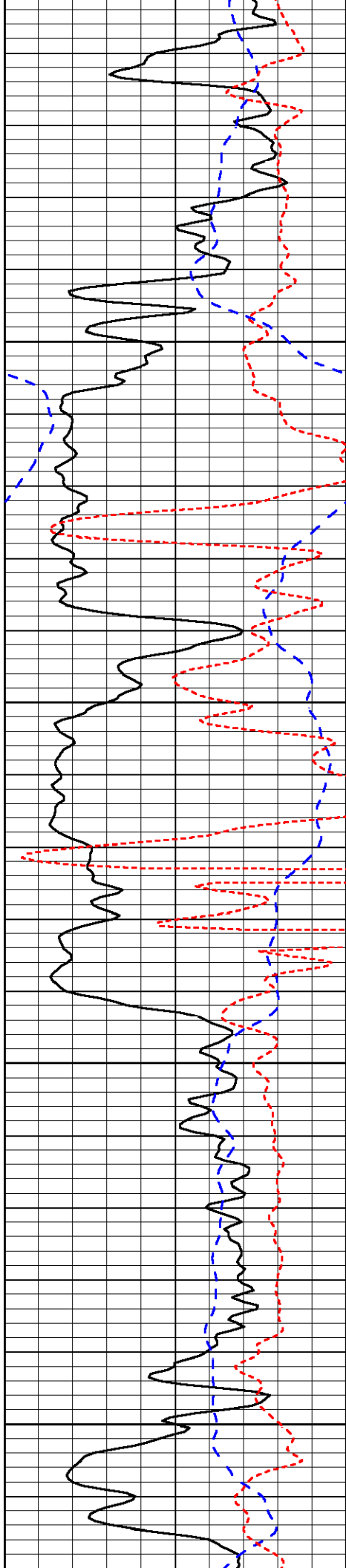
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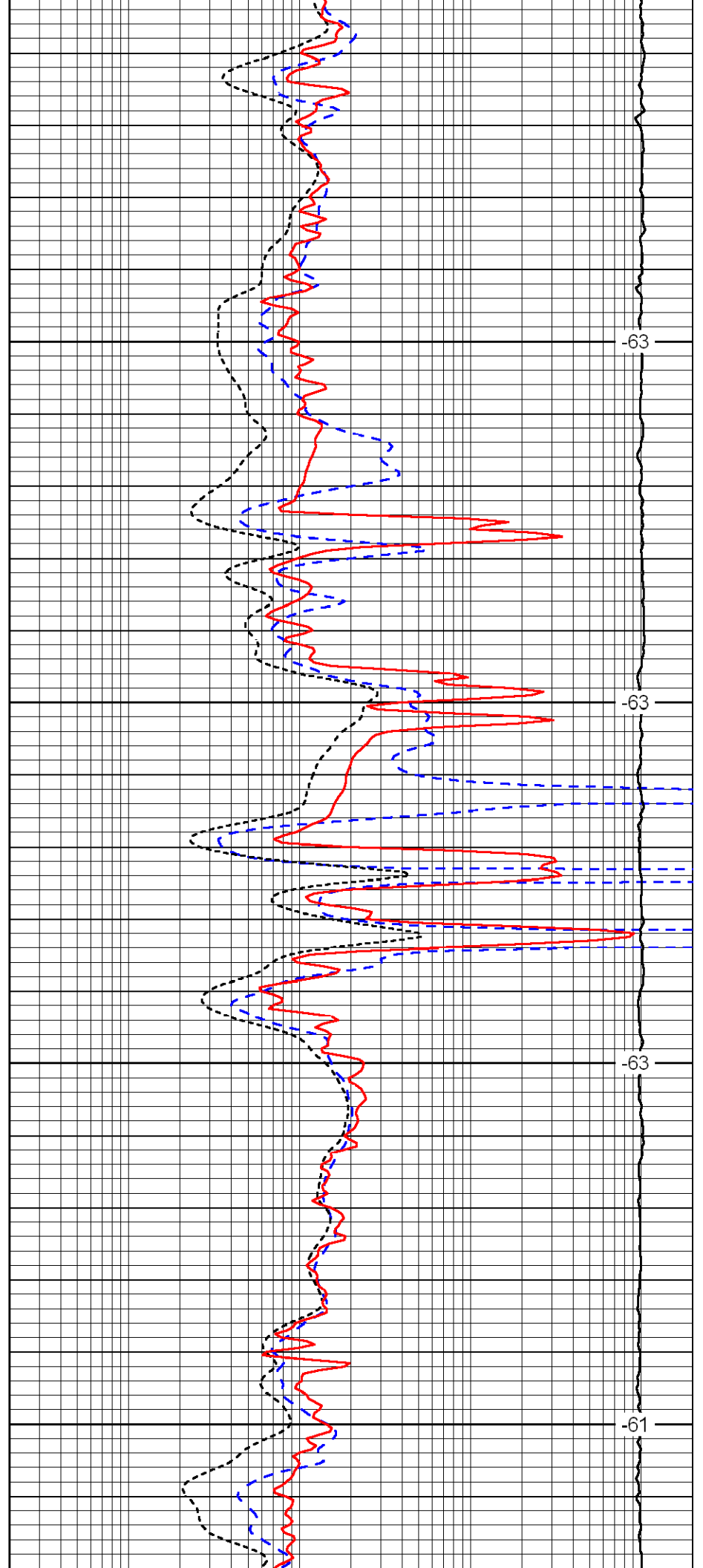


1500

1550

1600

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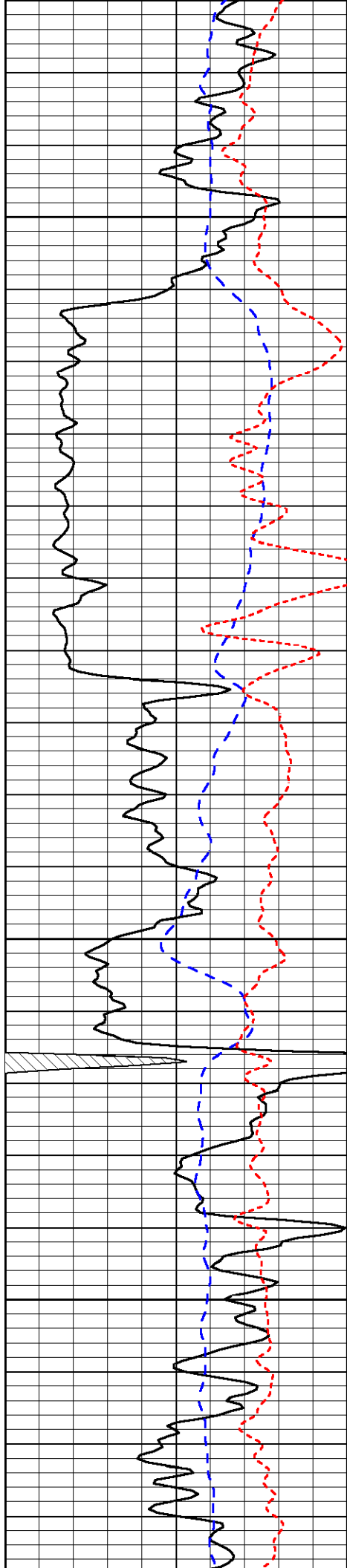


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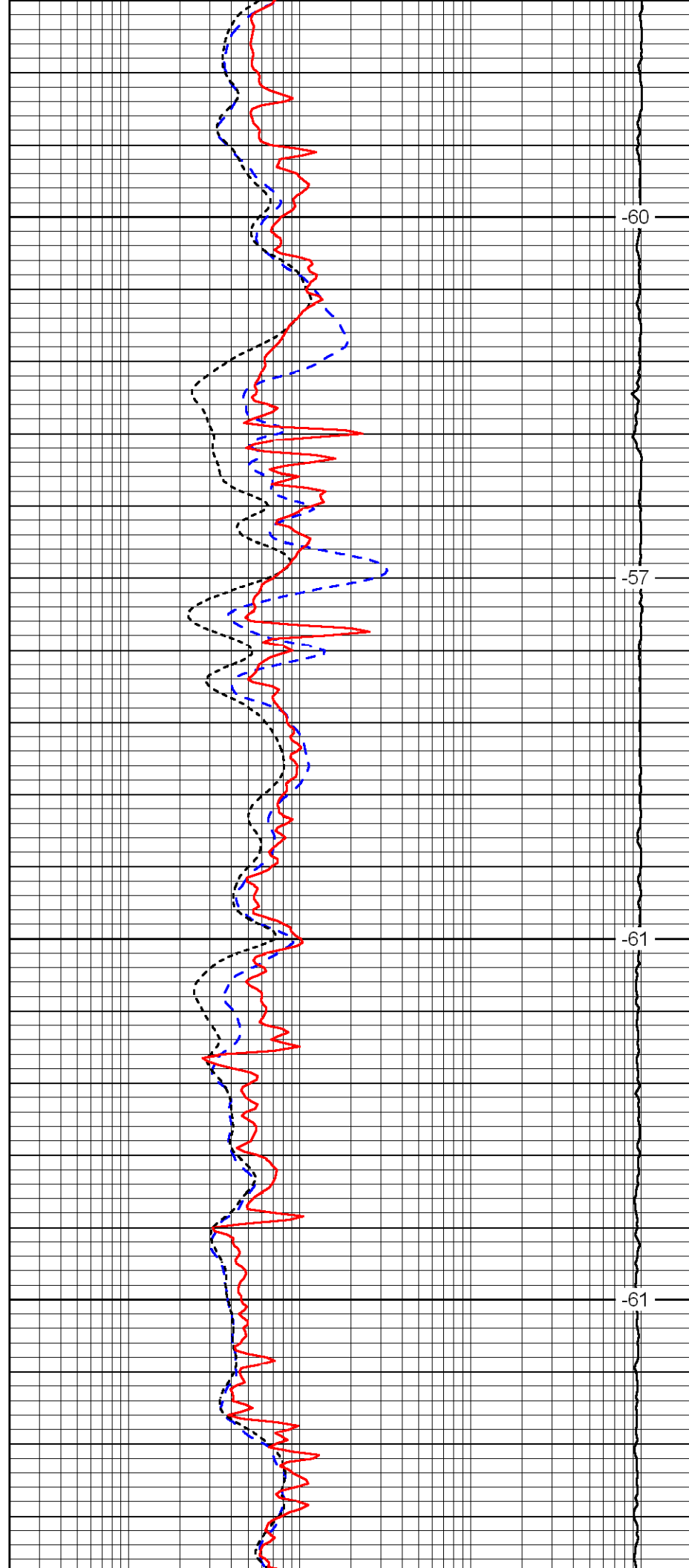


1700

1750

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1850

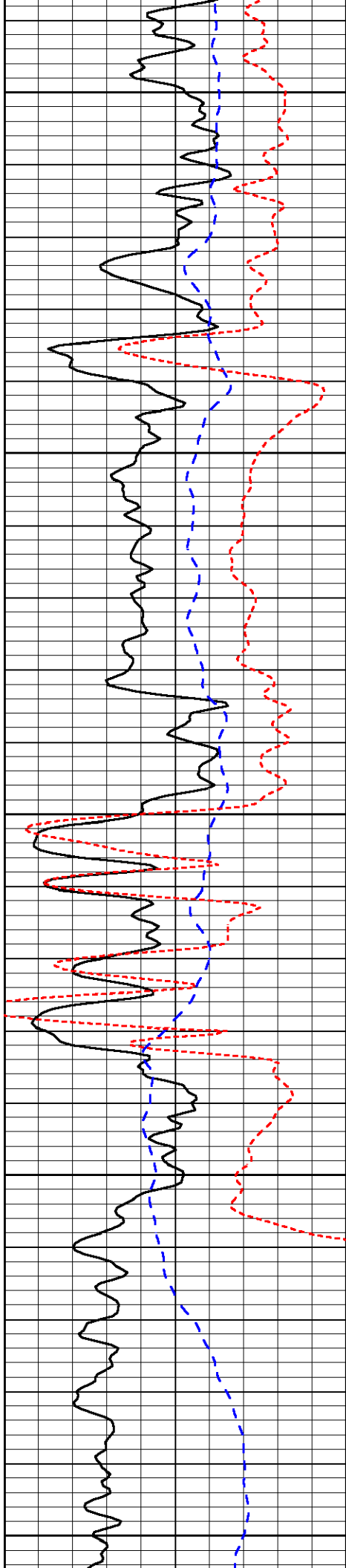


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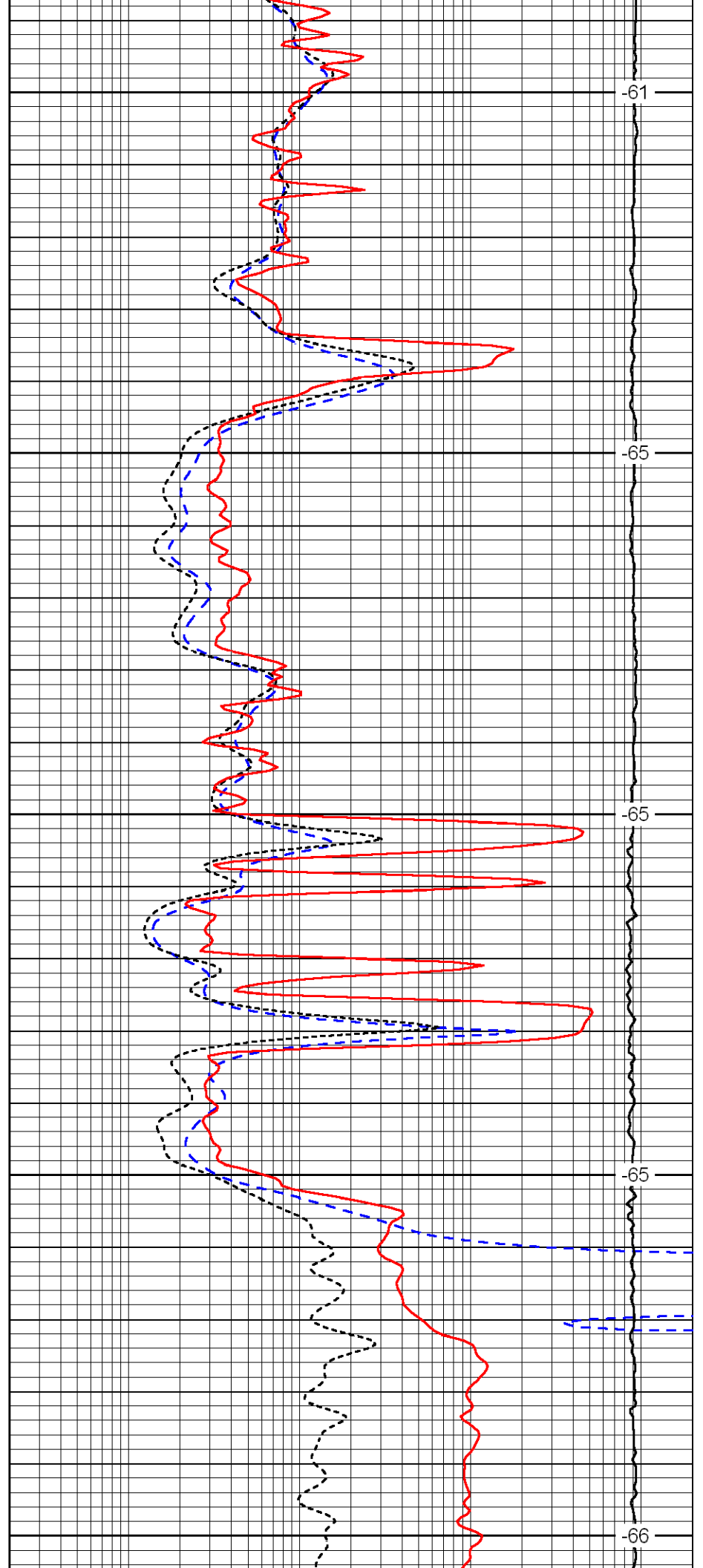
1900

1950

2000

2050

2100



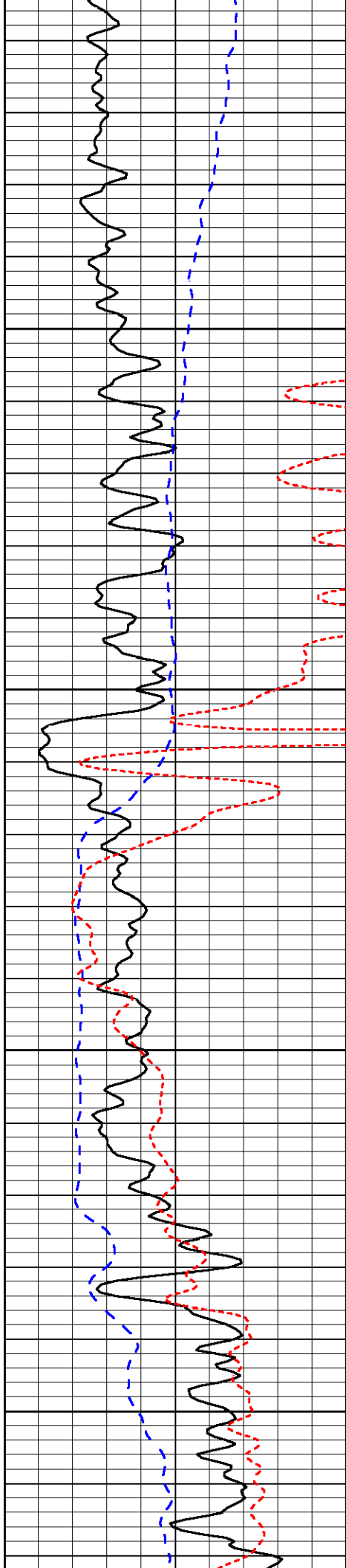
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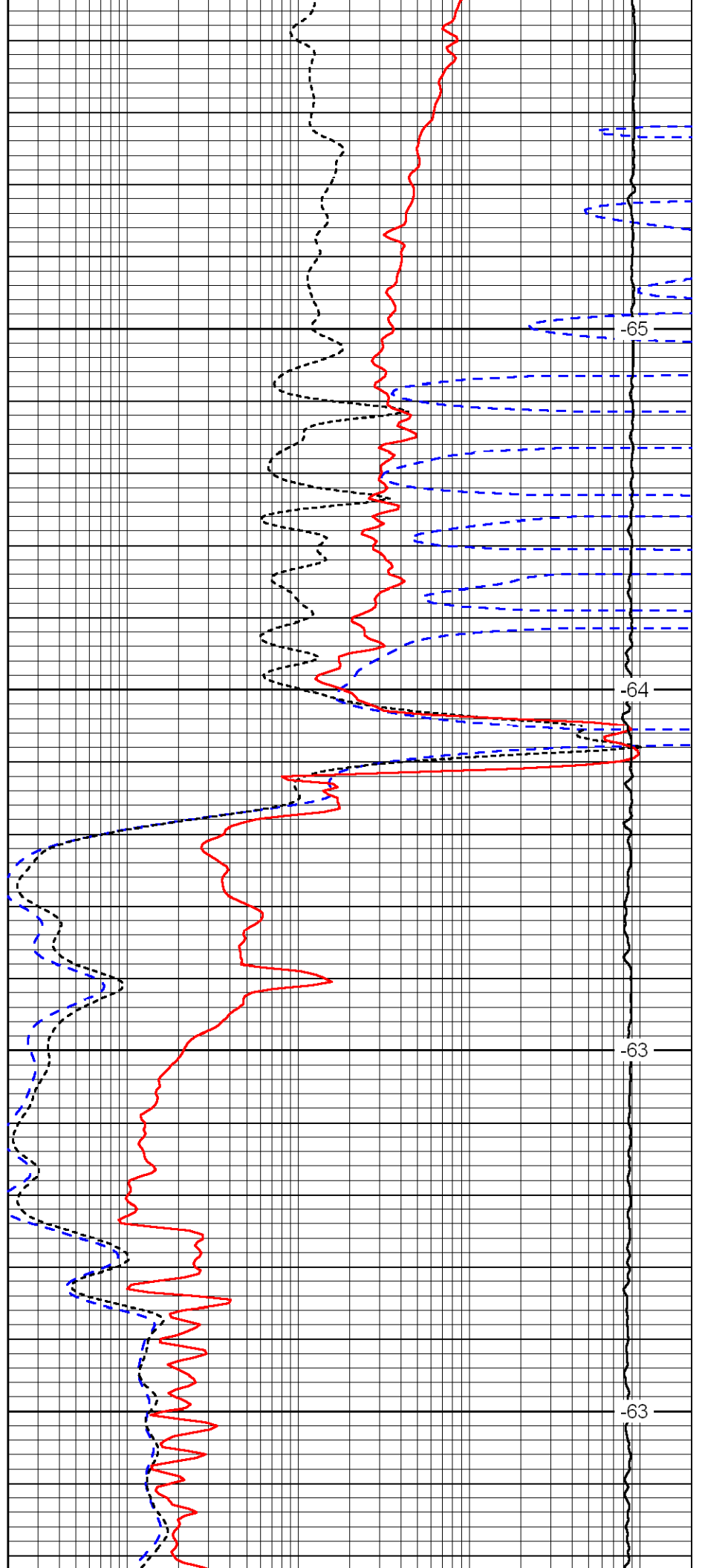


2150

2200

2250

2300

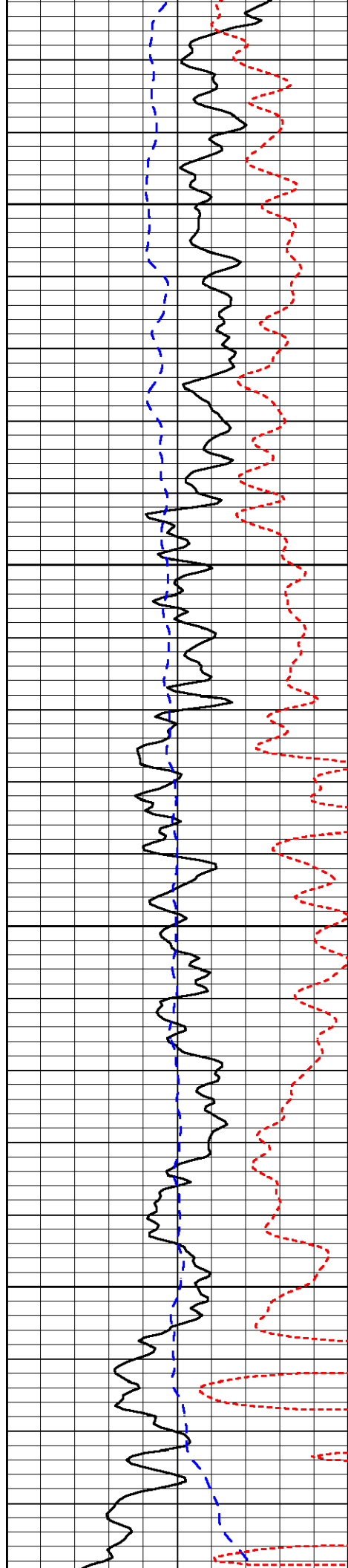


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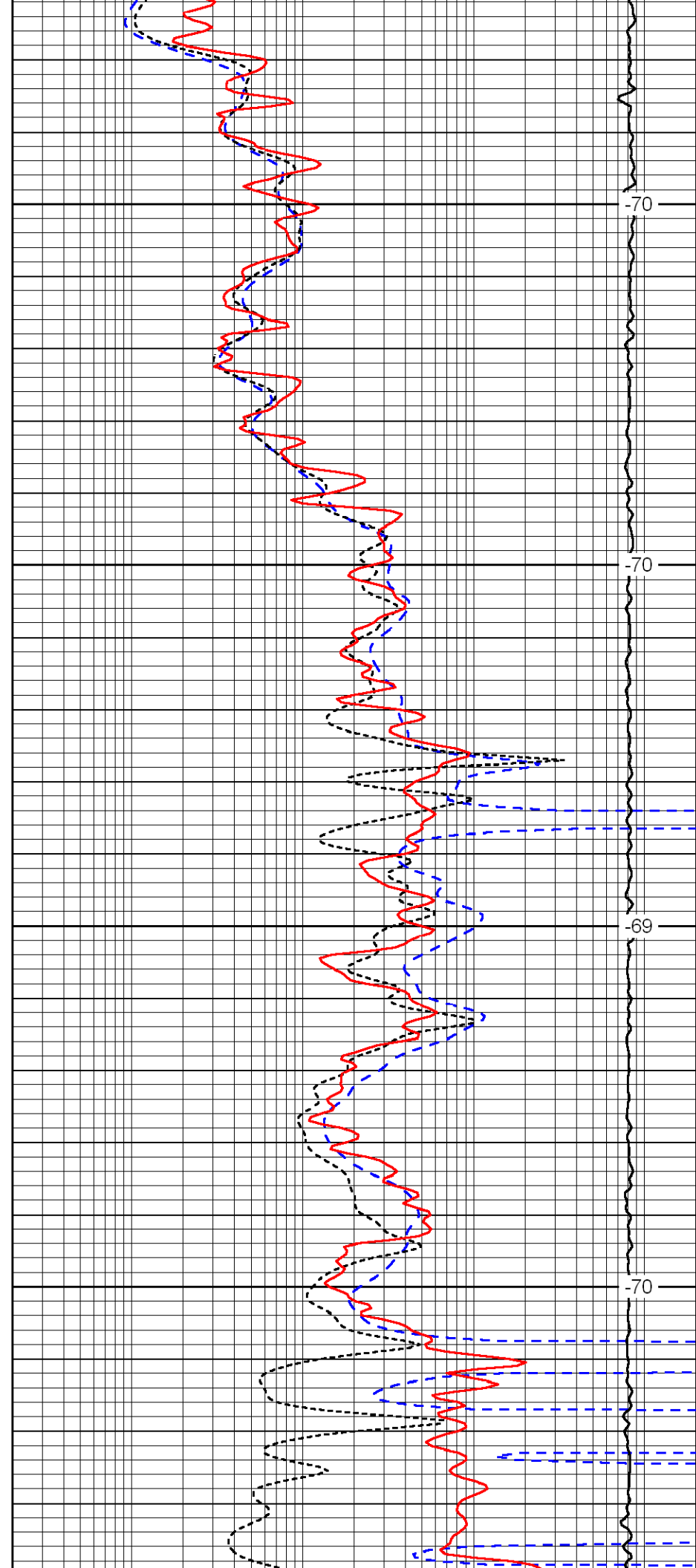


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2400

2450

2500

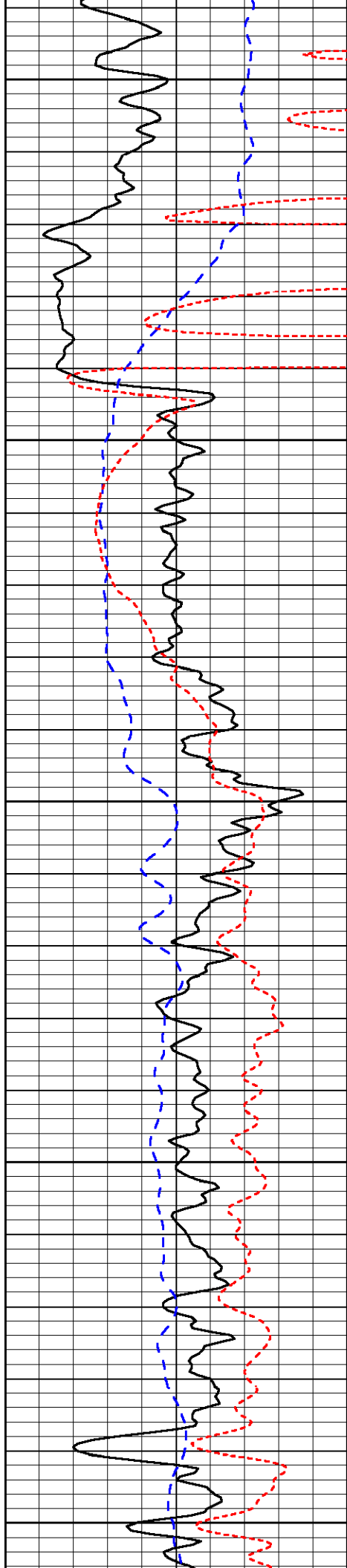


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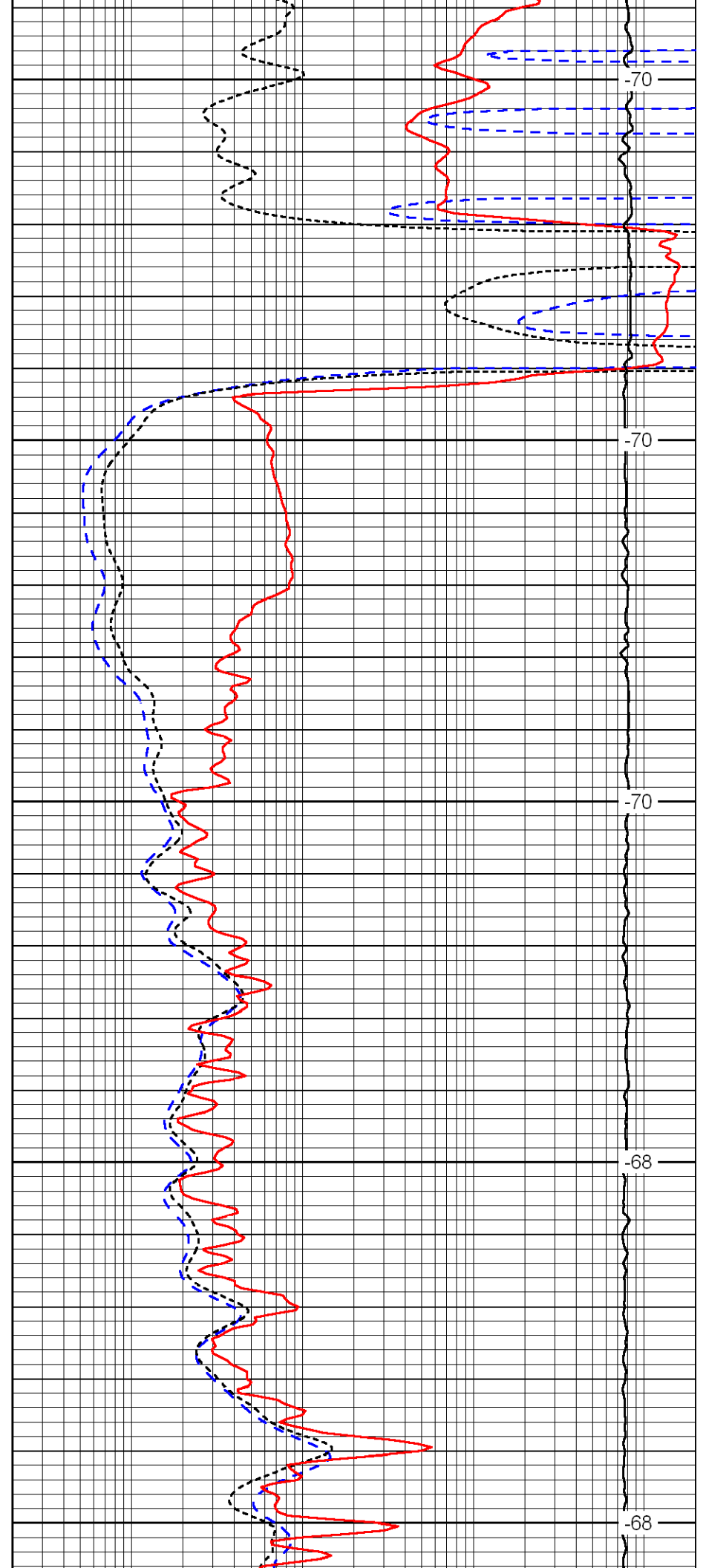
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2600

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2700

2750



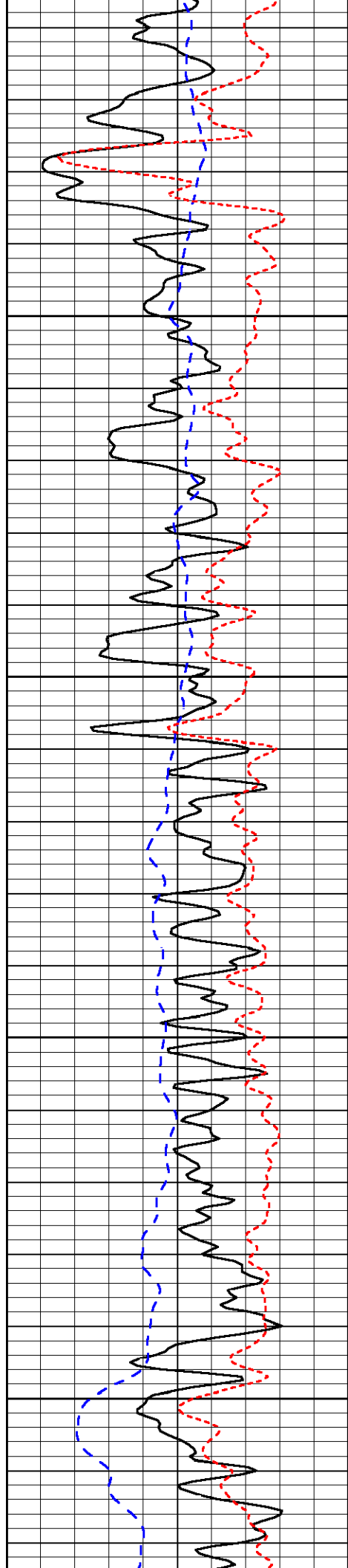
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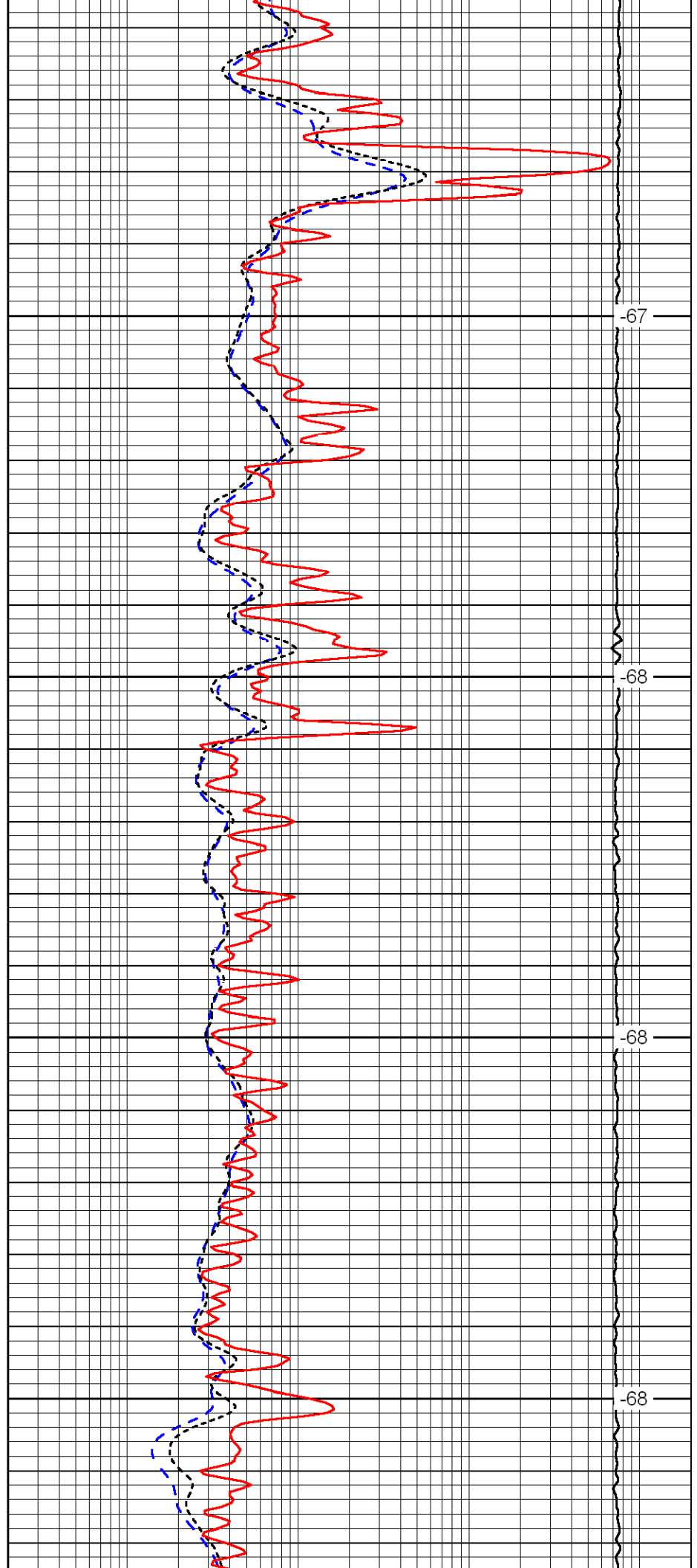


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2850

2900

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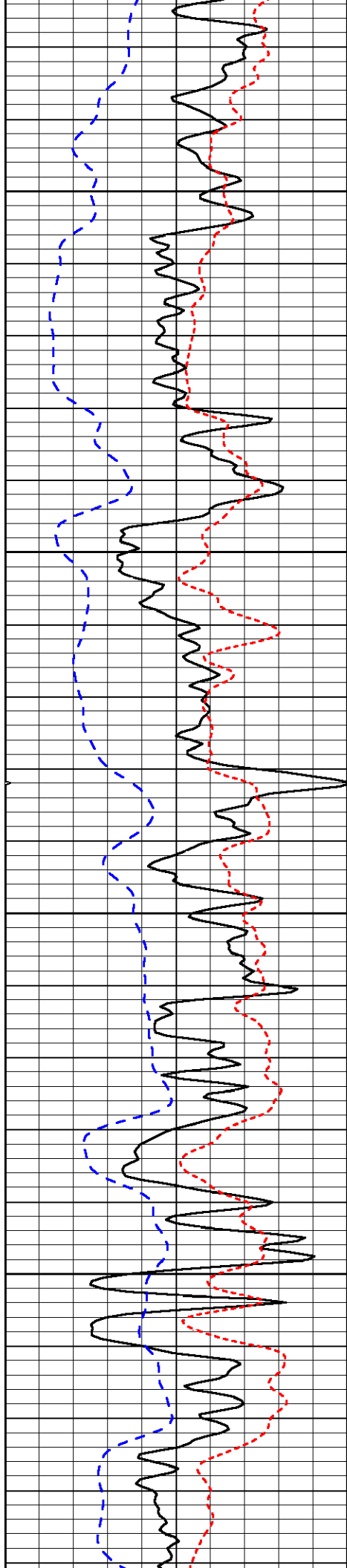


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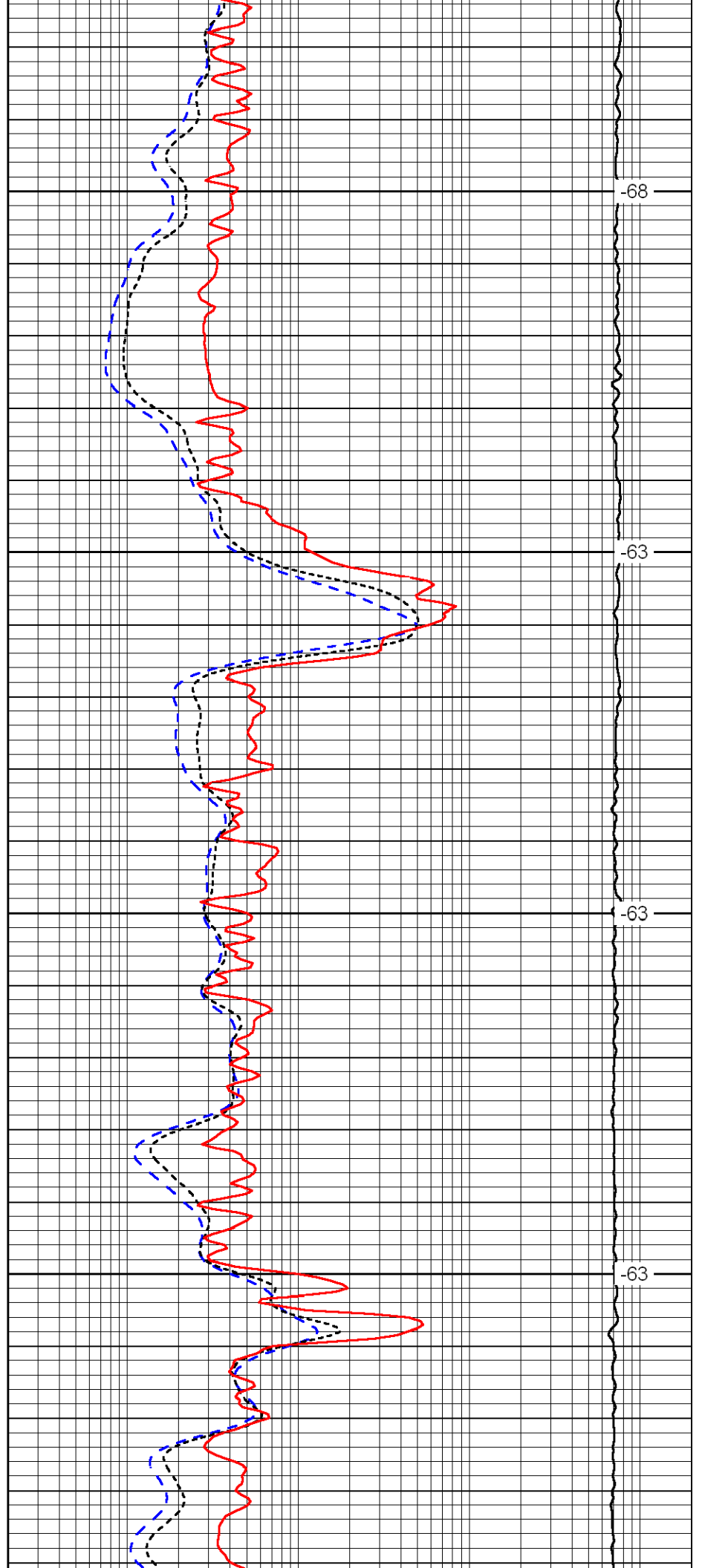


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3050

3100

3150

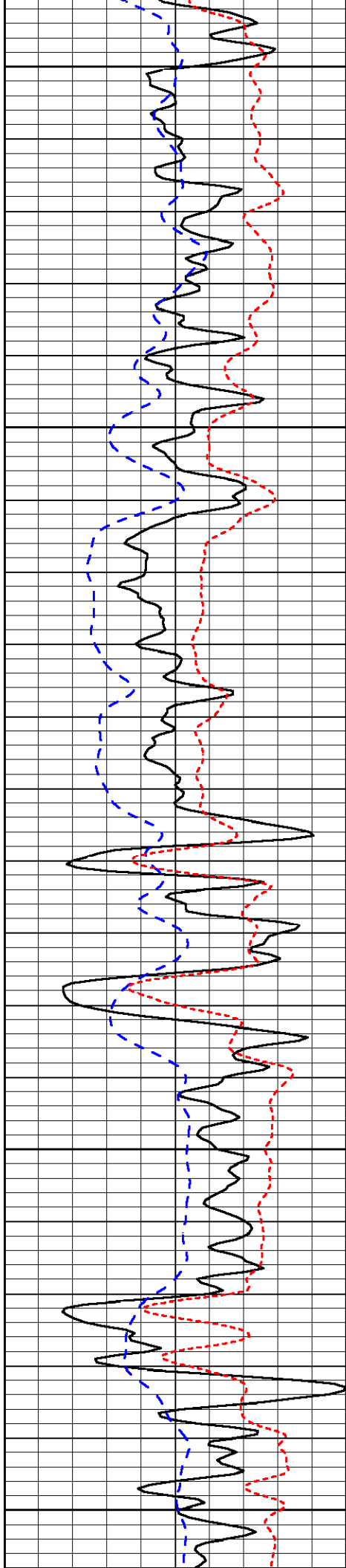


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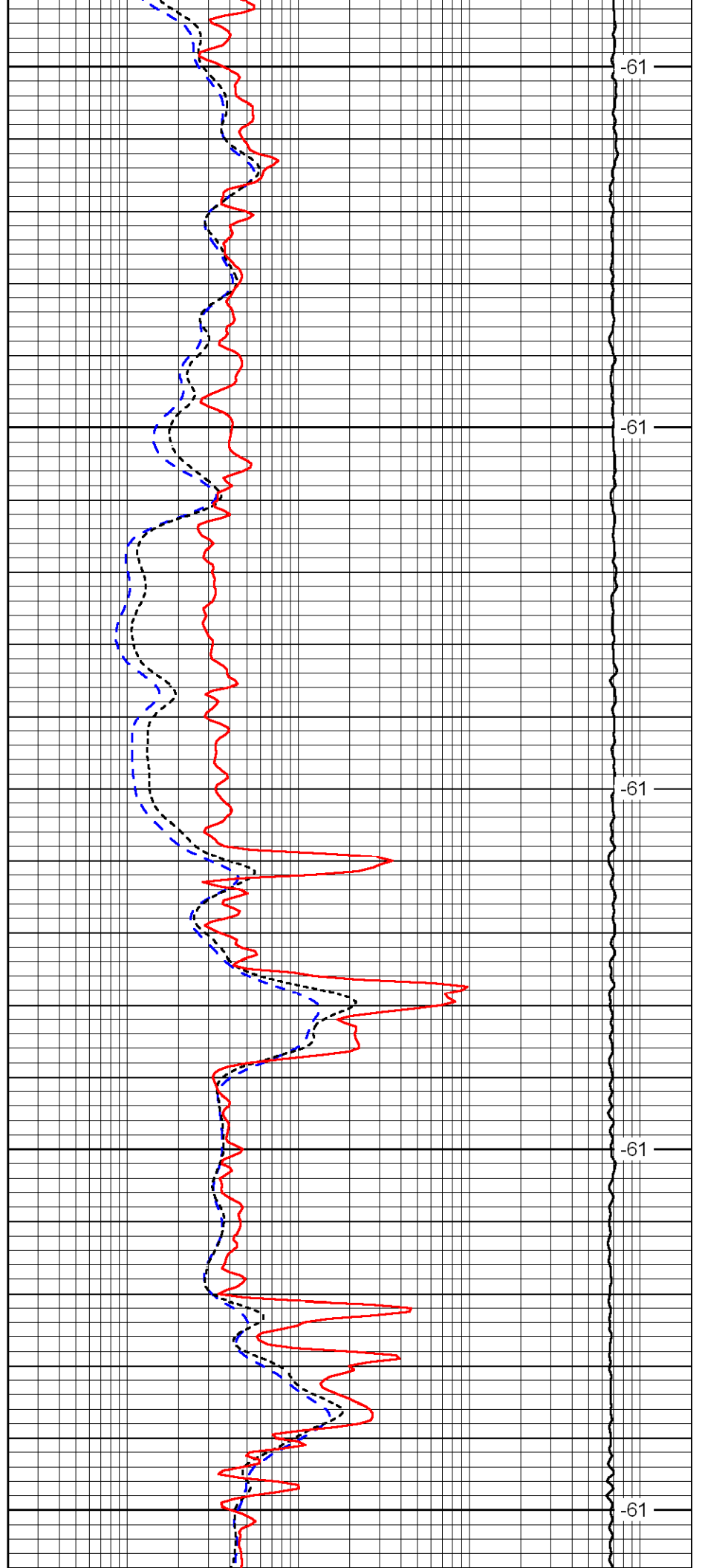
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3250

3300

3350

3400



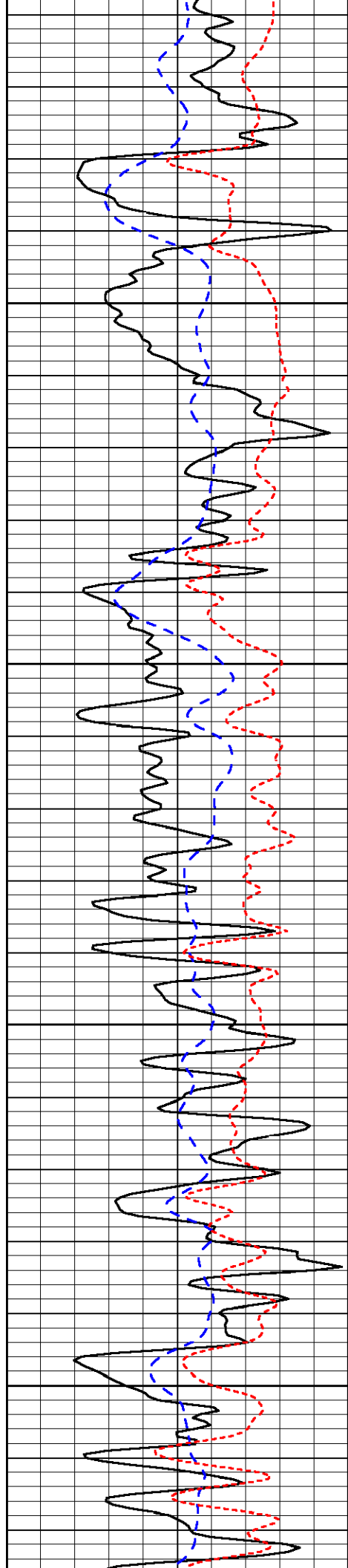
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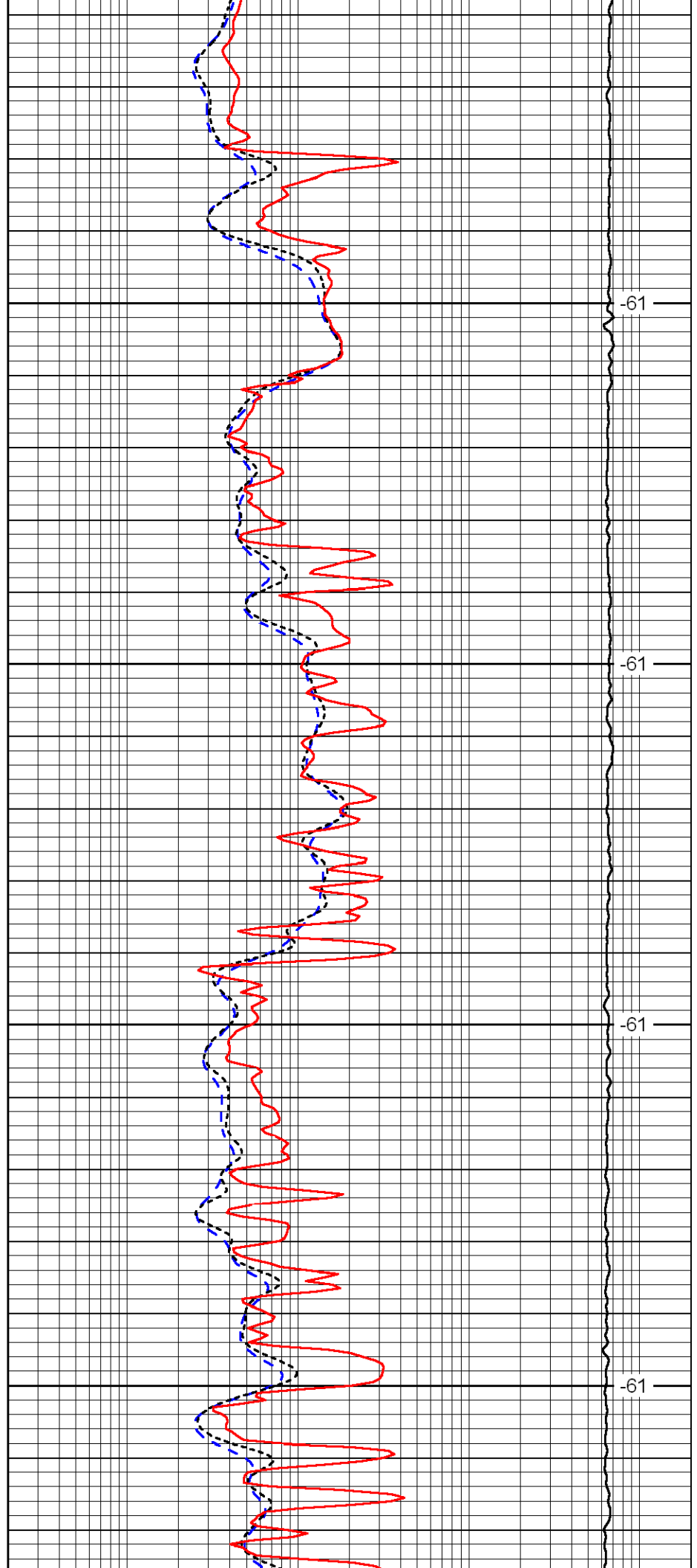


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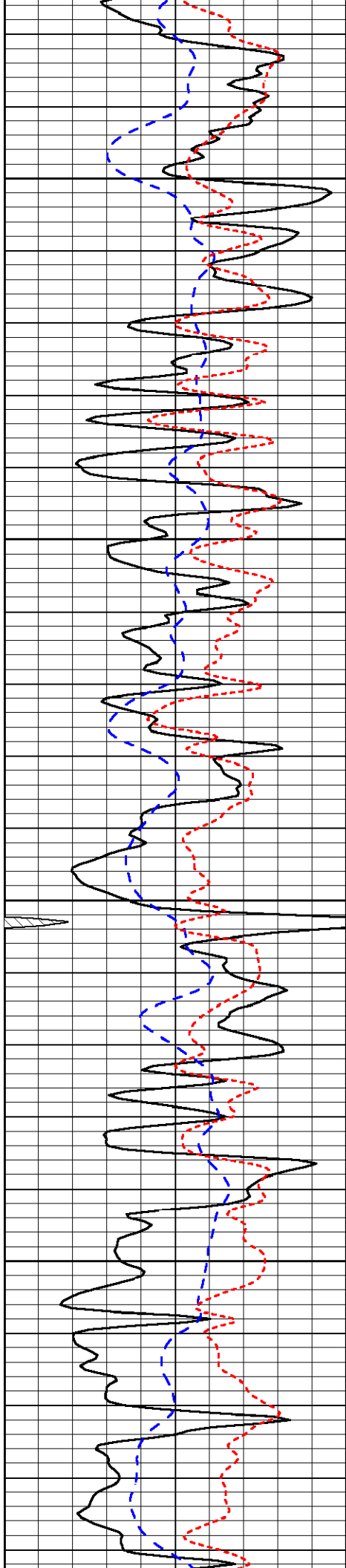


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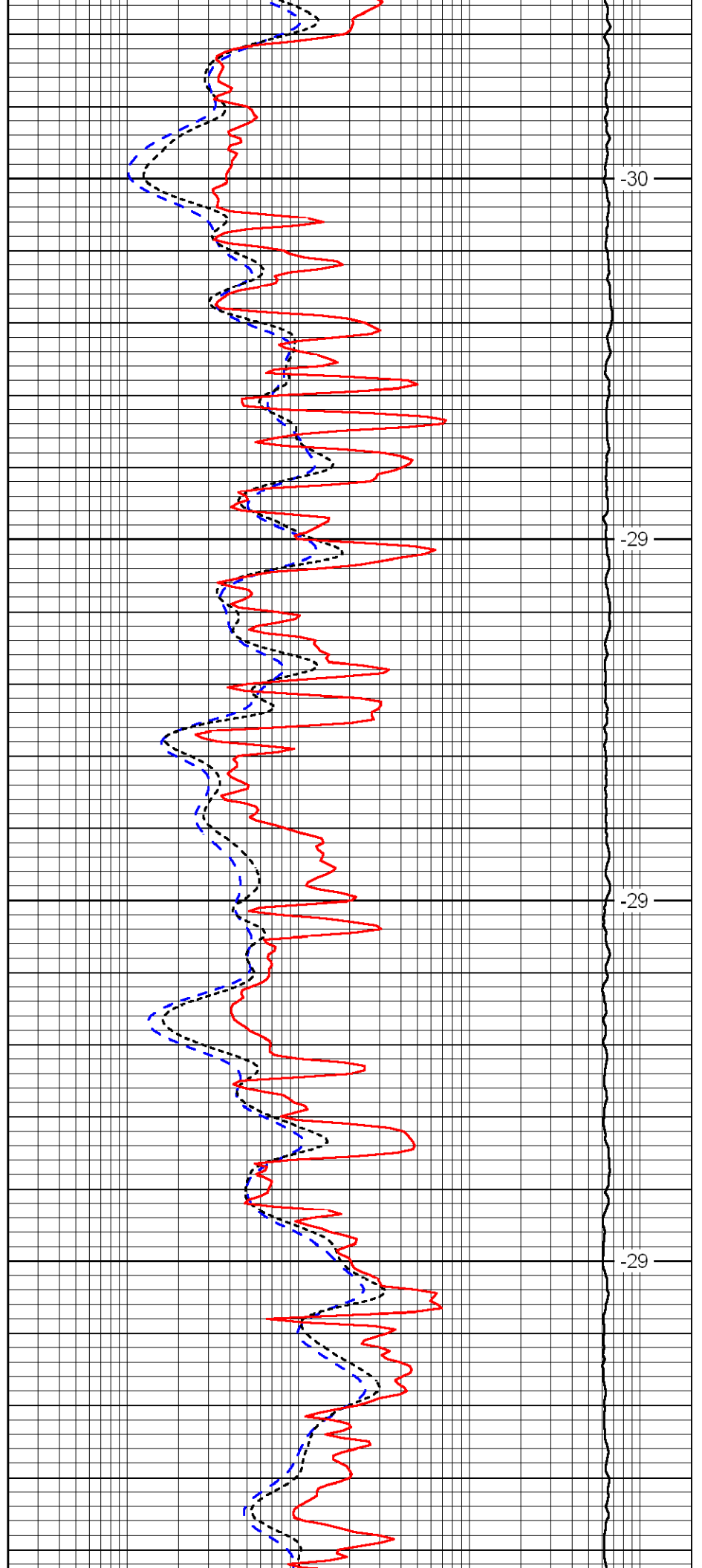


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3700

3750

3800

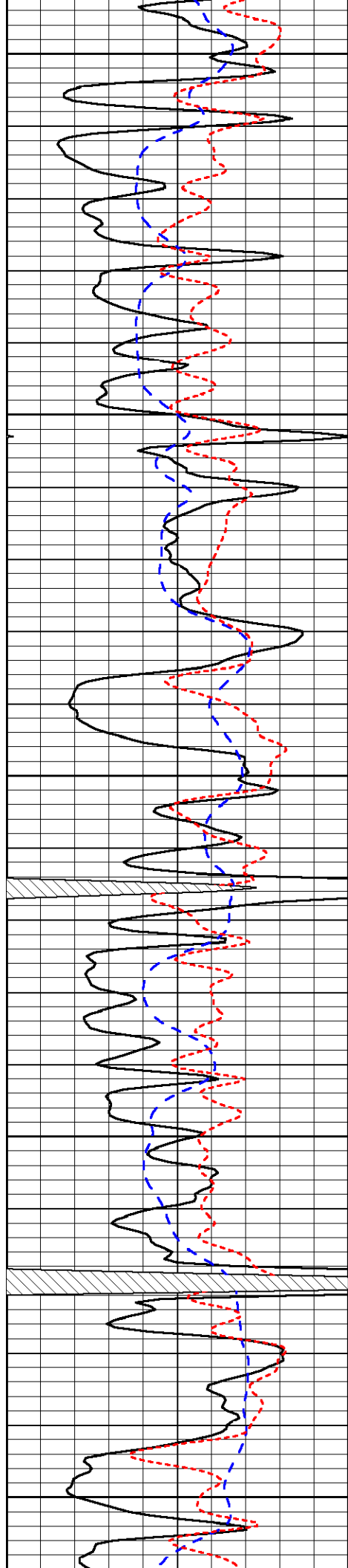


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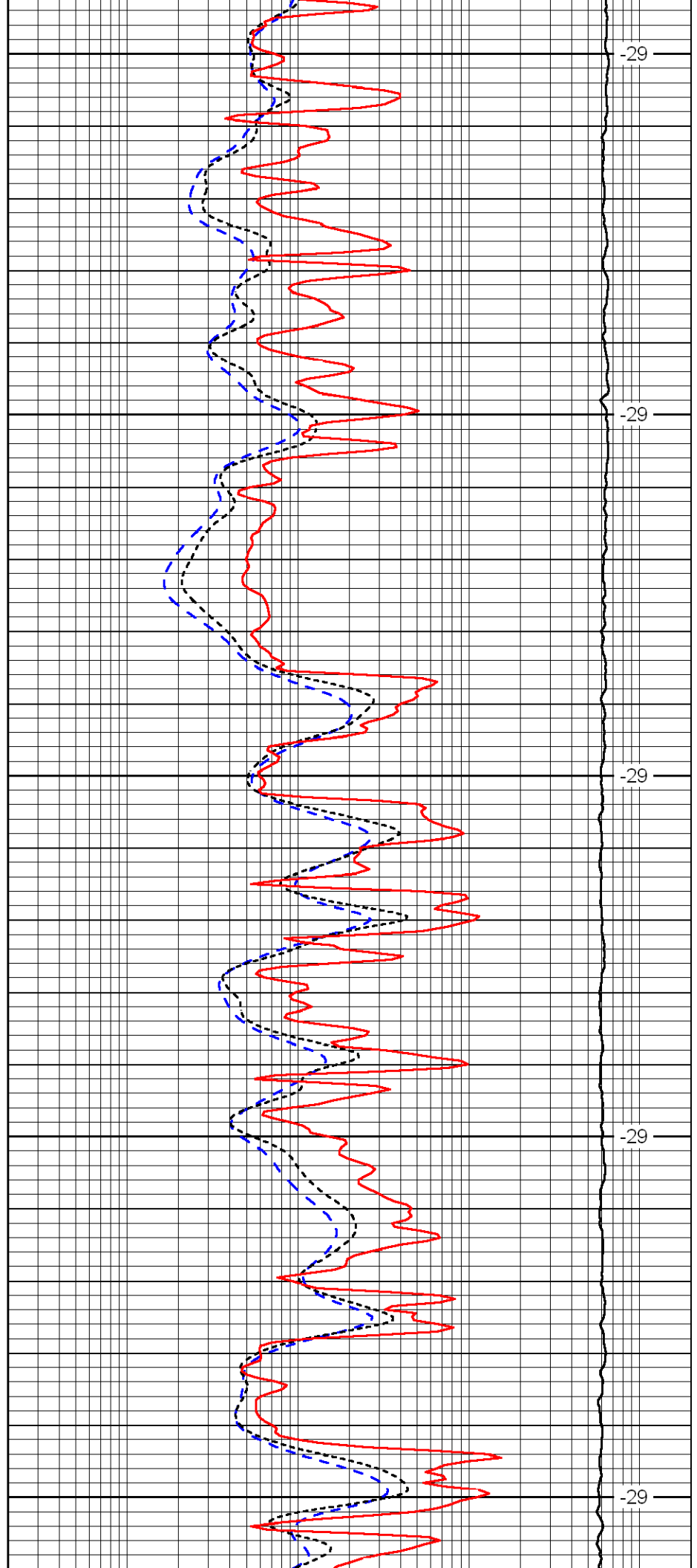
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3900

3950

4000

4050



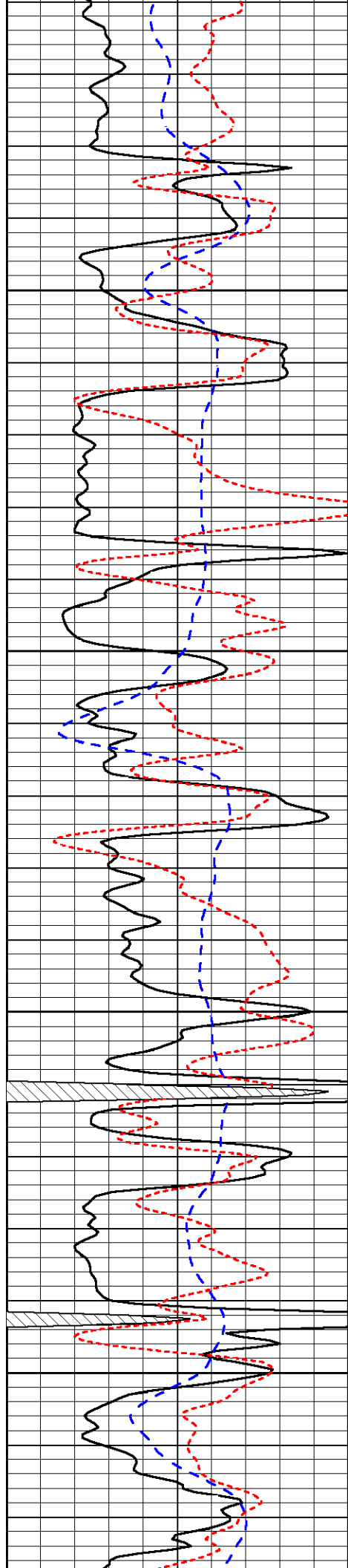
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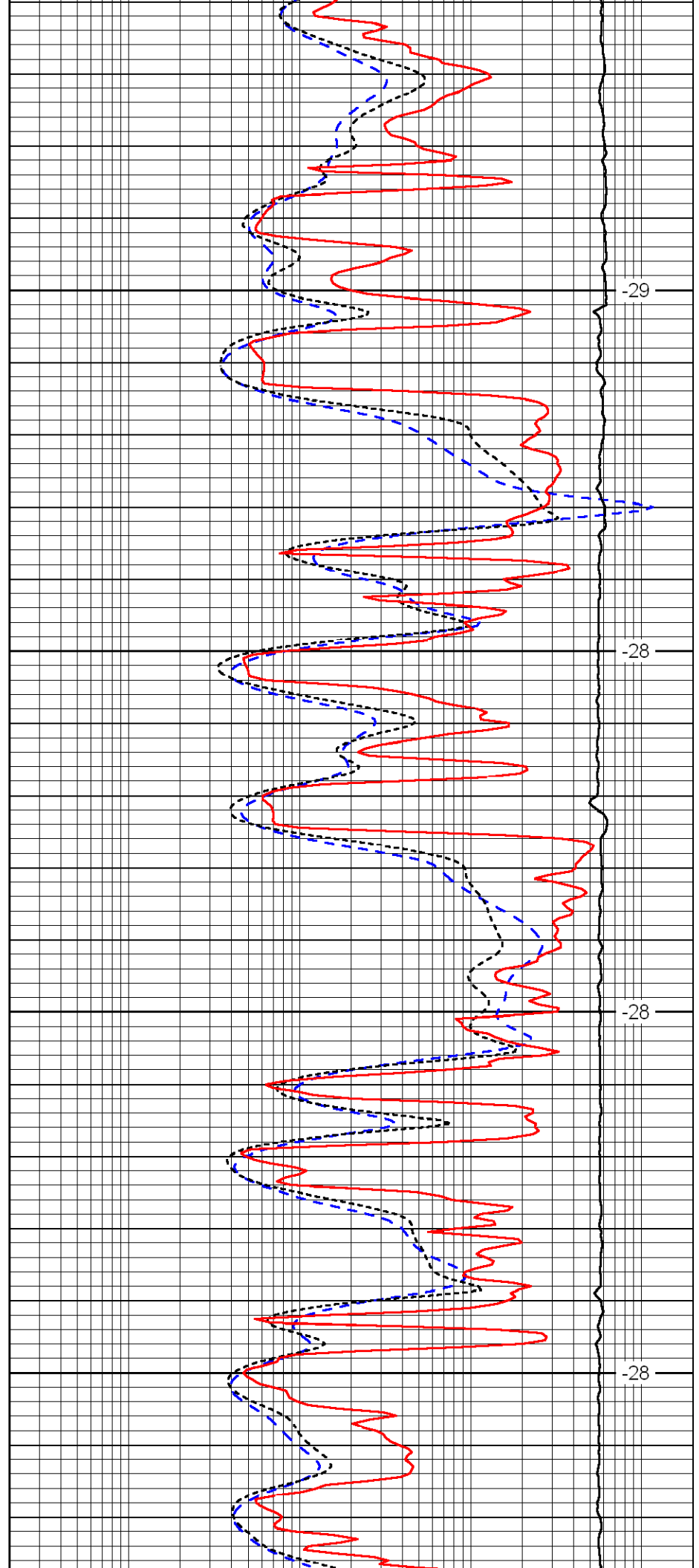


4100

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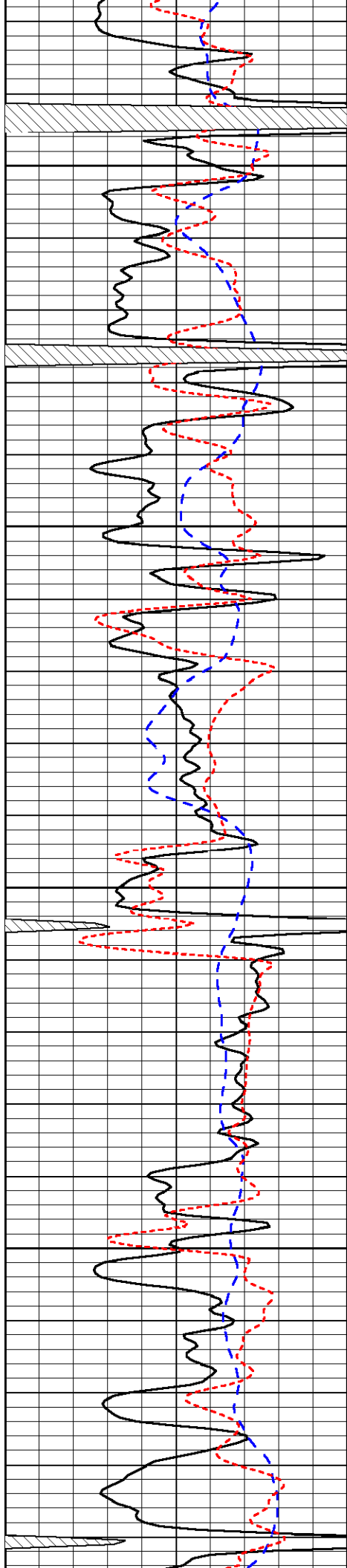


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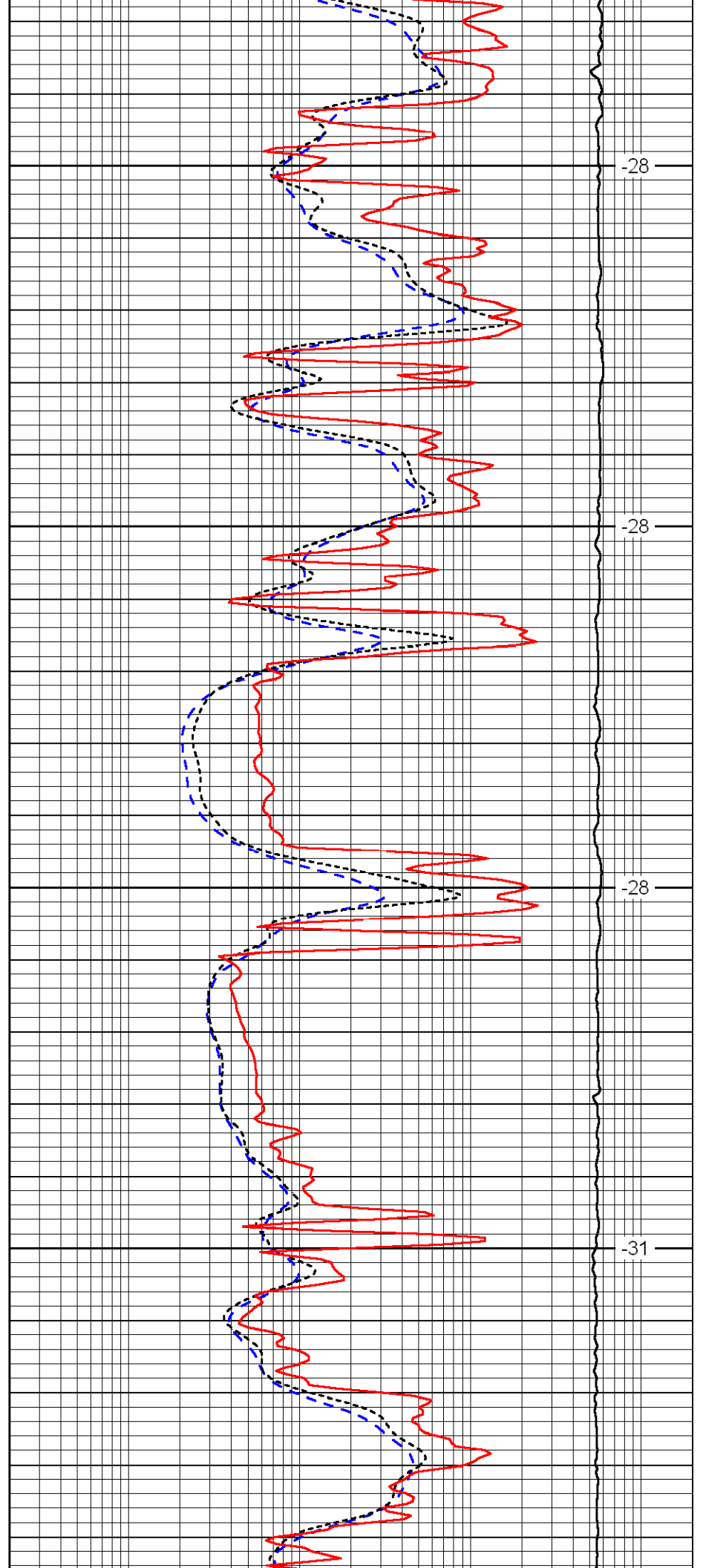


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4400

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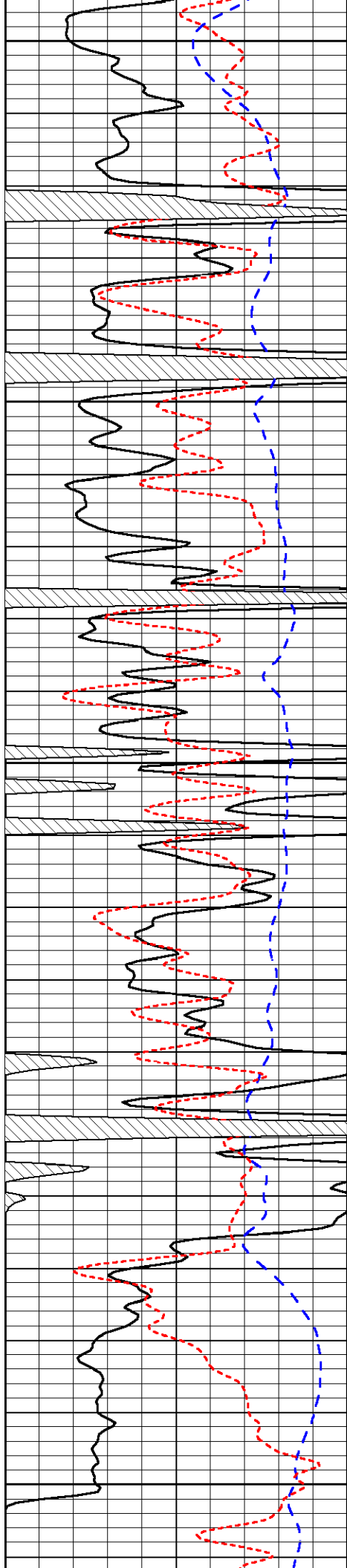


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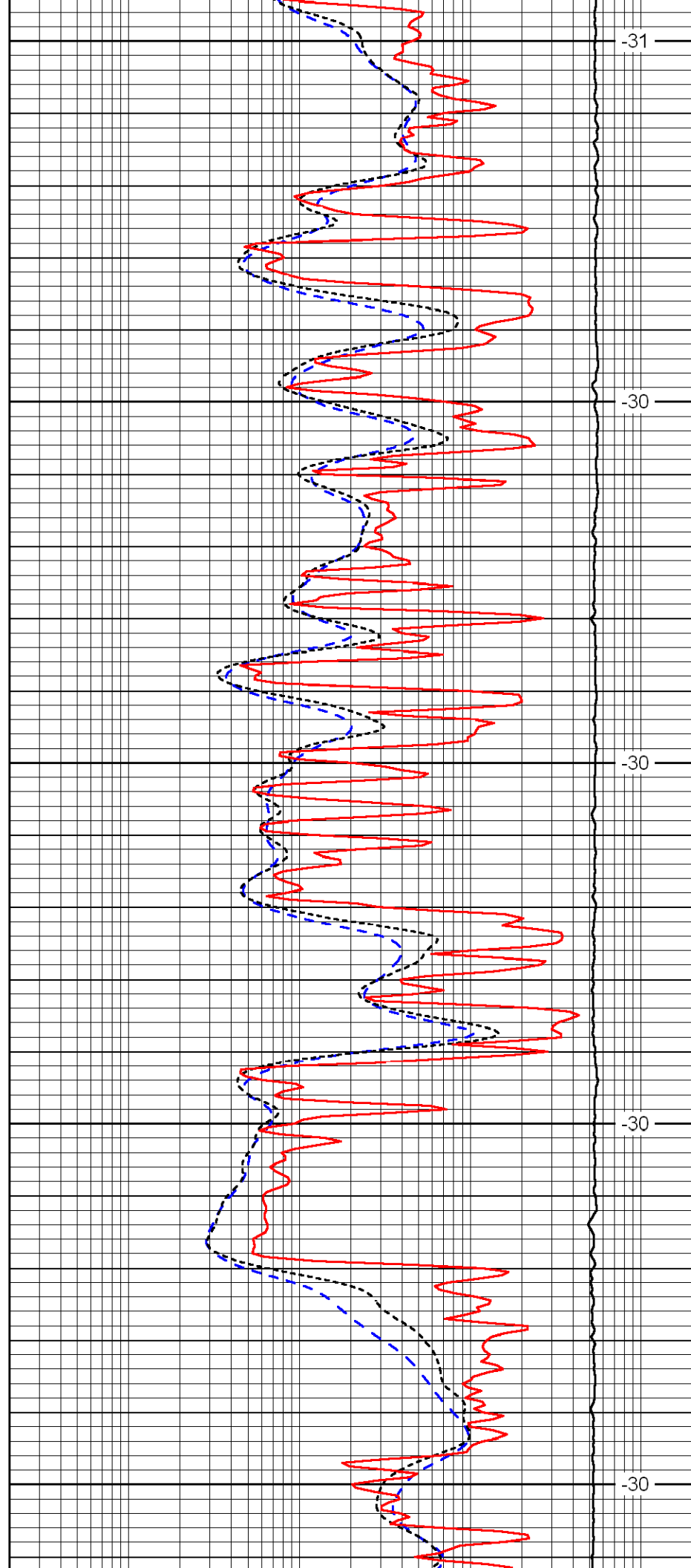
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4550

4600

4650

4700



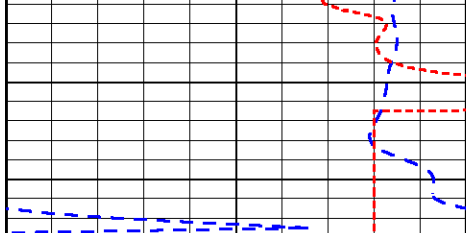
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-30

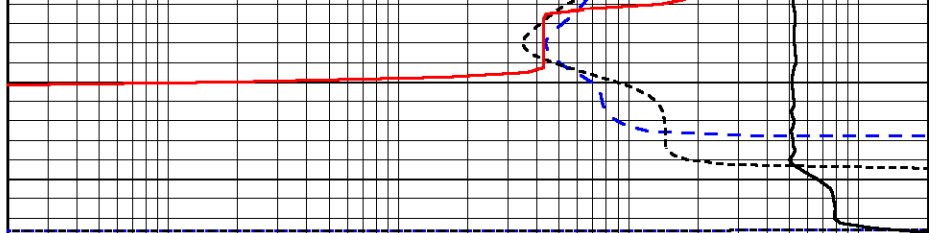
-30

-30

-30



0	Gamma Ray	150
-200	SP (MV)	0
-160	Rxo / Rt	40



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
15000	Line Tension (lb)	0

LSPD  
(ft/min)