



Pioneer Energy Services

Dual Induction Log

15-109-21,354-00-00

API No.

Company **Black Tea Oil, LLC**
 Well **Pahls 'E' #2**
 Field **N/A**
 County **Logan** State **Kansas**

Location **1500' FSL & 770' FWL**
 Sec: **21** Twp: **13S** Rge: **34W**

Other Services
 CNL/CDL
 MEL/BHCS

Permanent Datum **Ground Level** Elevation **2944**
 Log Measured From **Kelly Bushing** 12 Ft. Above Perm. Datum
 Drilling Measured From **Kelly Bushing**

Elevation
 K.B. 2956
 D.F. 2944
 G.L. 2944

Date	10/19/2014
Run Number	One
Depth Driller	4745
Depth Logger	4748
Bottom Logged Interval	4747
Top Log Interval	250
Casing Driller	8.625 @ 266
Casing Logger	263
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	8000
Density / Viscosity	9.2 43
pH / Fluid Loss	9.0 9.6
Source of Sample	Flowline
Rm @ Meas. Temp	0.60 @ 62
Rmf @ Meas. Temp	0.45 @ 62
Rmc @ Meas. Temp	0.81 @ 62
Source of Rmf / Rmc	Charts
Rm @ BHT	0.30 @ 123
Operating Rig Time	5 Hours
Max Rec. Temp. F	123
Equipment Number	15
Location	Hays
Recorded By	D.Kerr
Witnessed By	Richard Thomasson

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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

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www.pioneeres.com
 785 625 3858

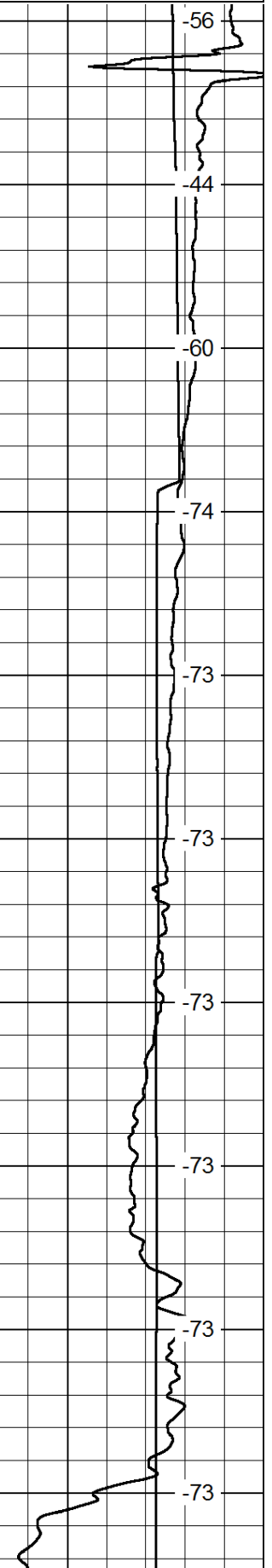
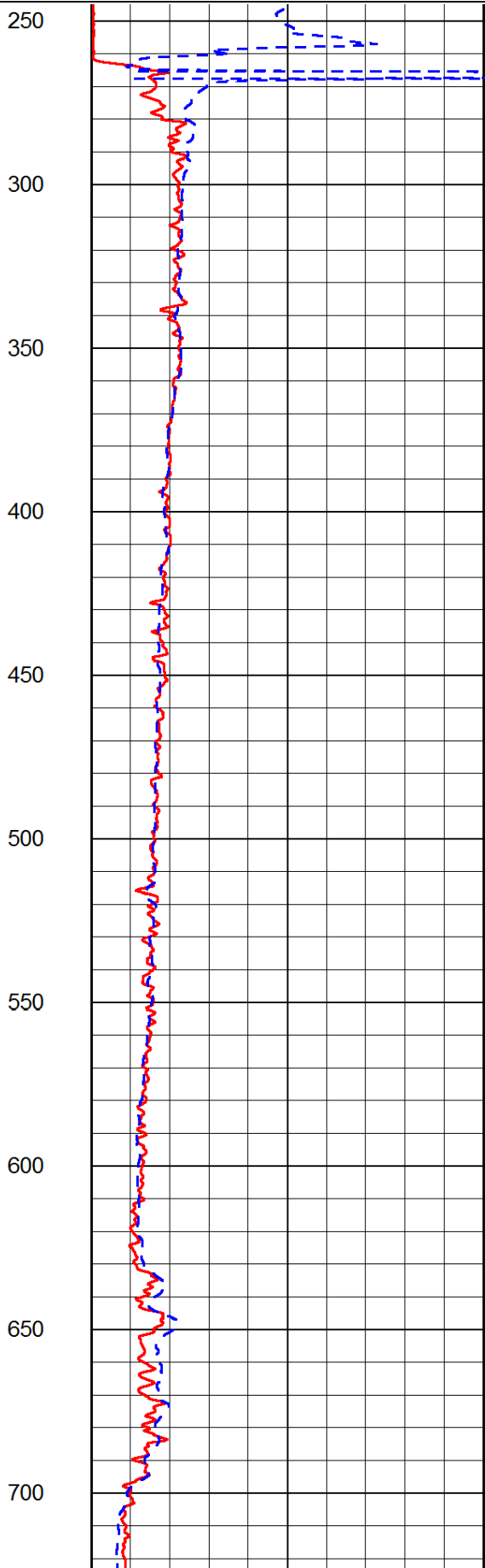
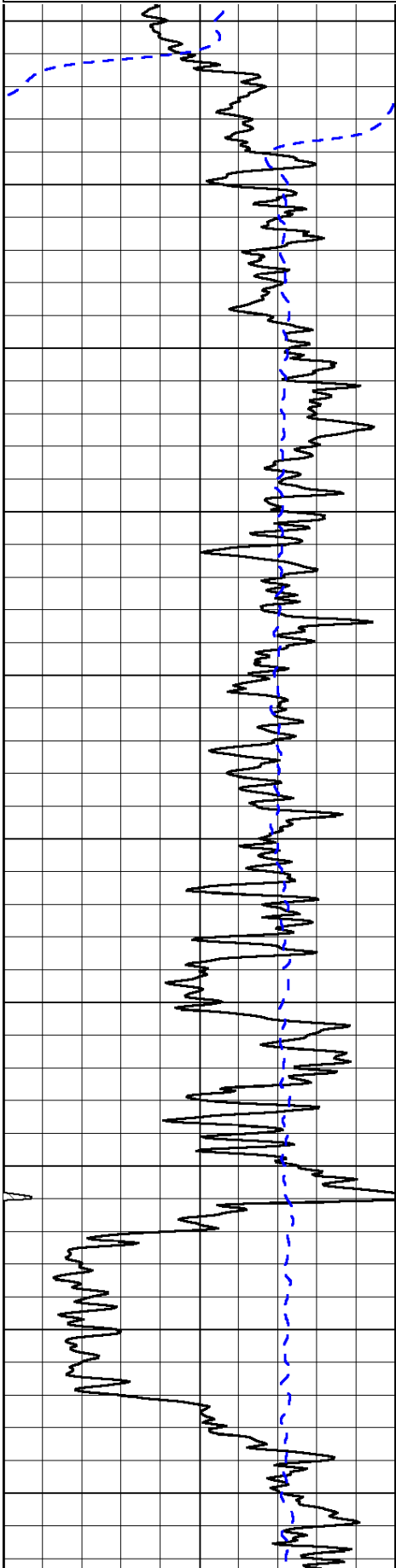
Russell Springs KS, East to 310 RD,
 1/2 South to Tanks, 3/4 West/ 1/4 South, West and North Into

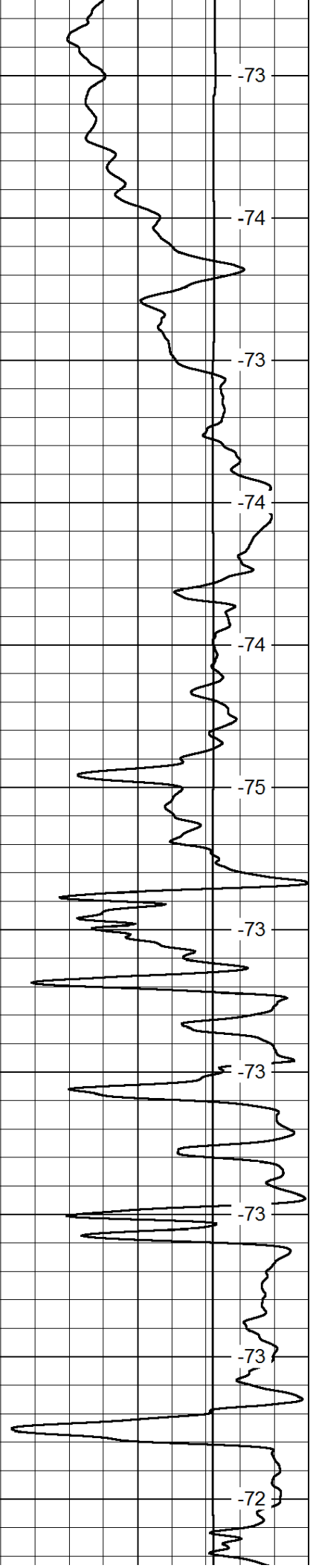
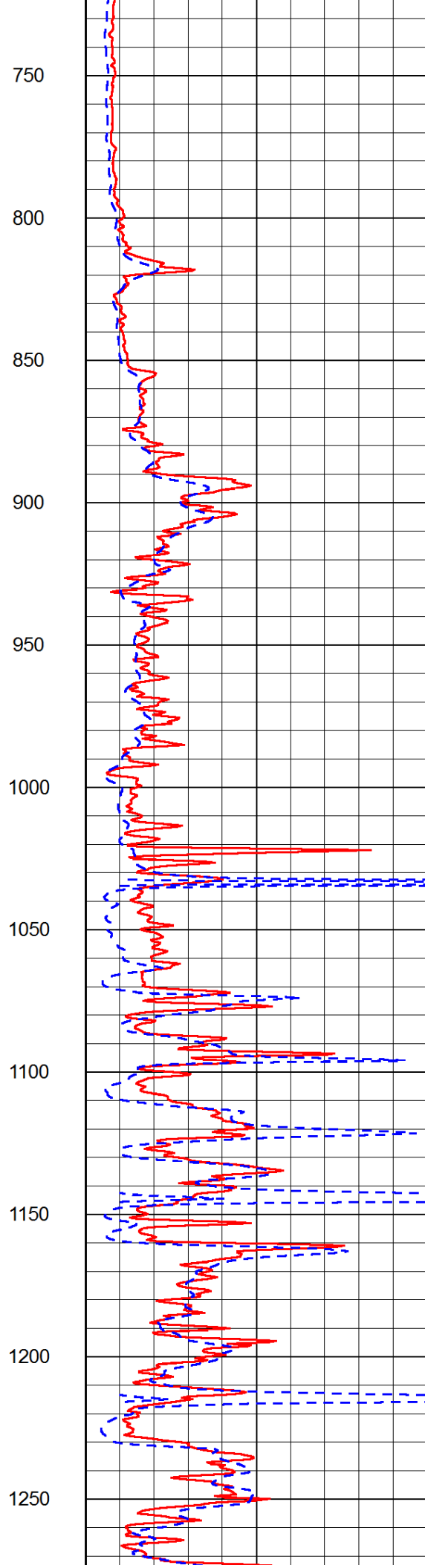
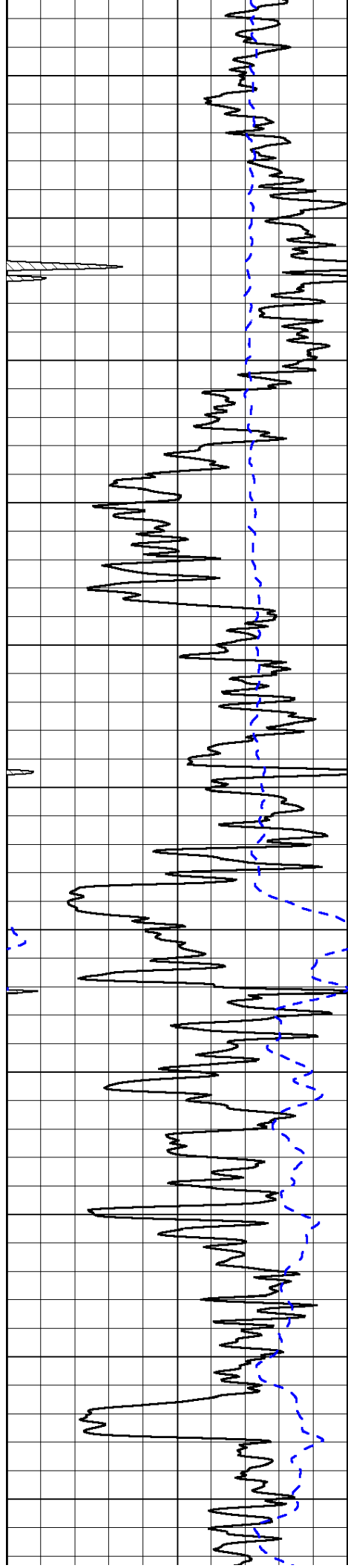
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 Charted by: Depth in Feet scaled 1:600

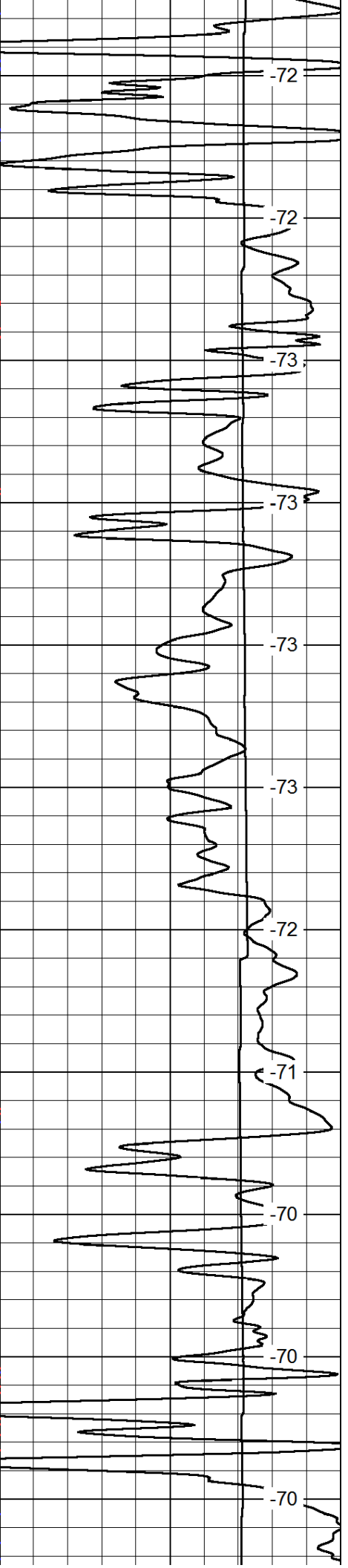
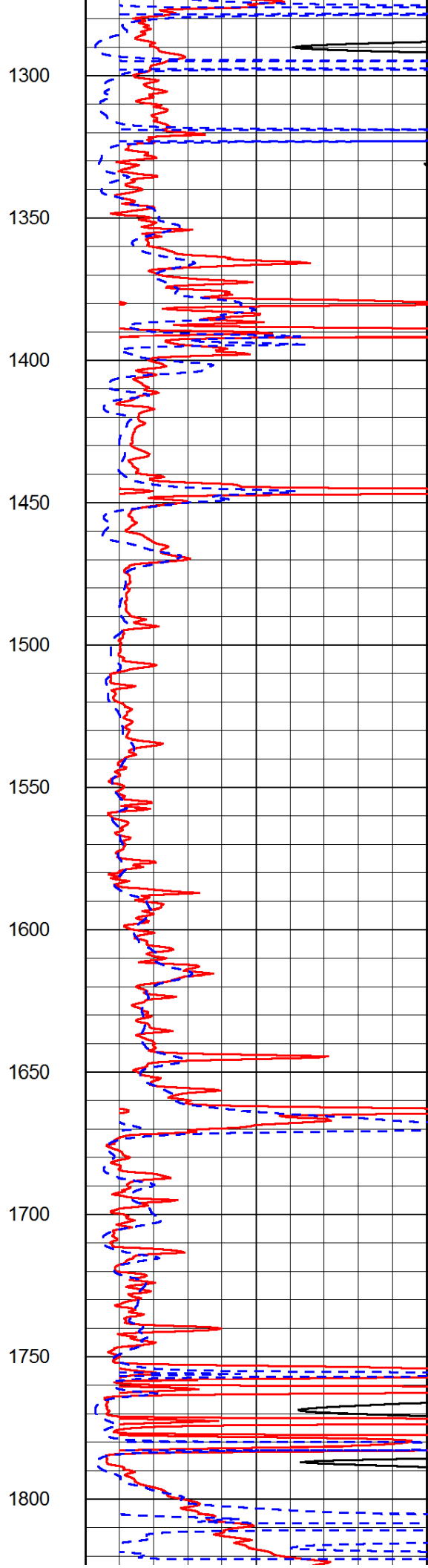
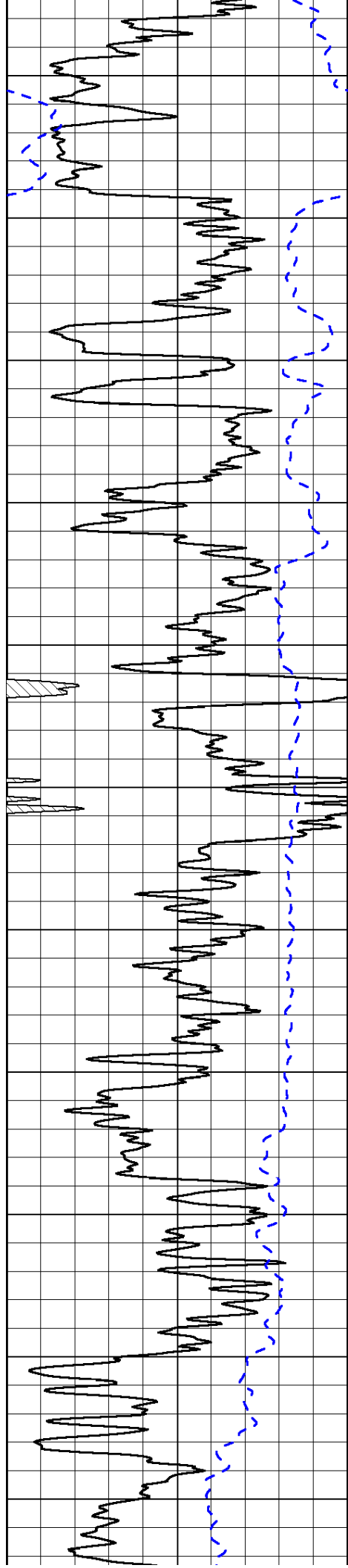
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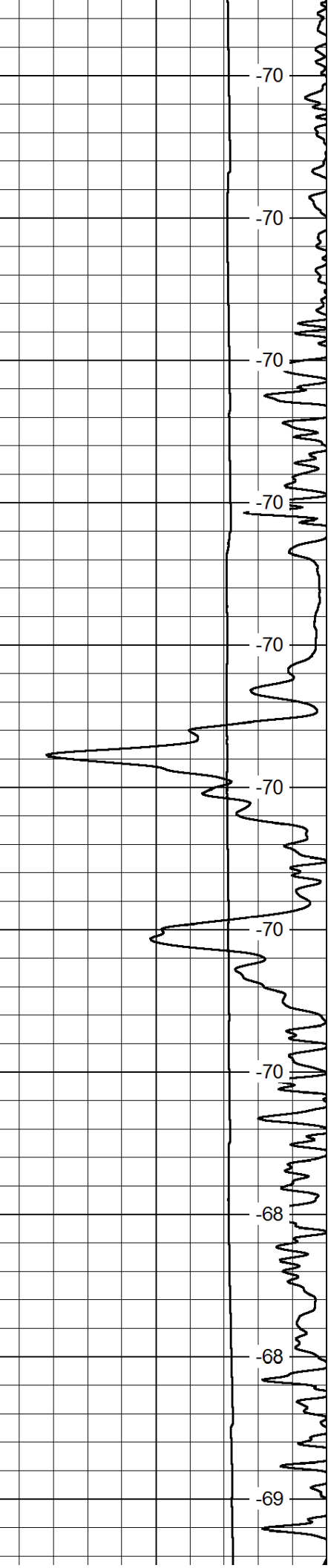
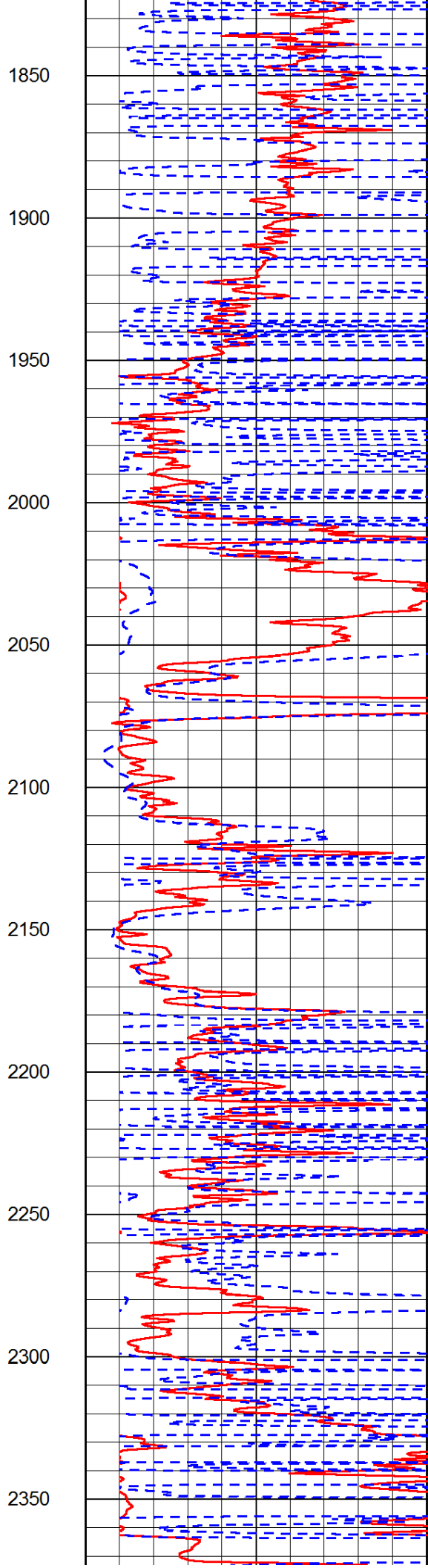
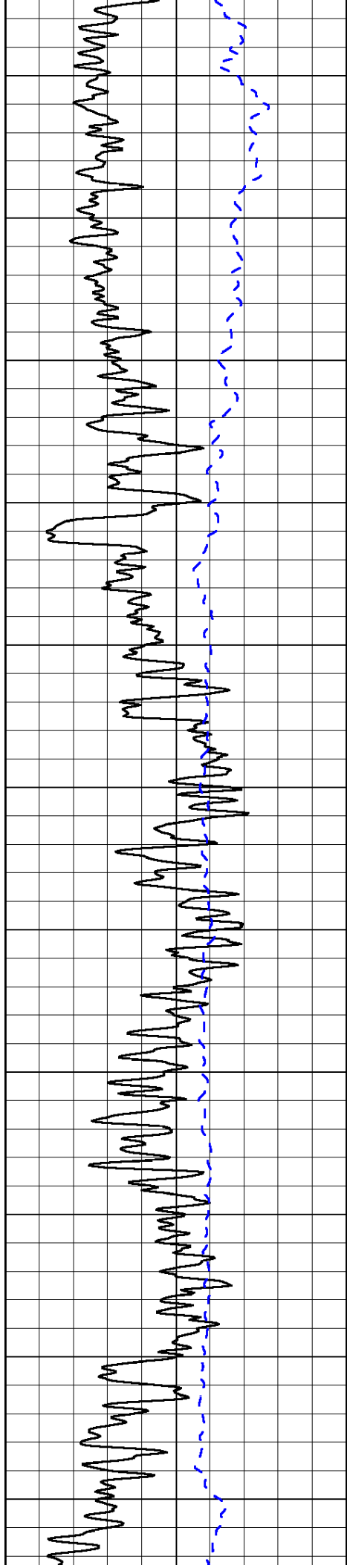
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1000	Conductivity	0
15000	Line Tension	0
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50	Deep Resistivity	500

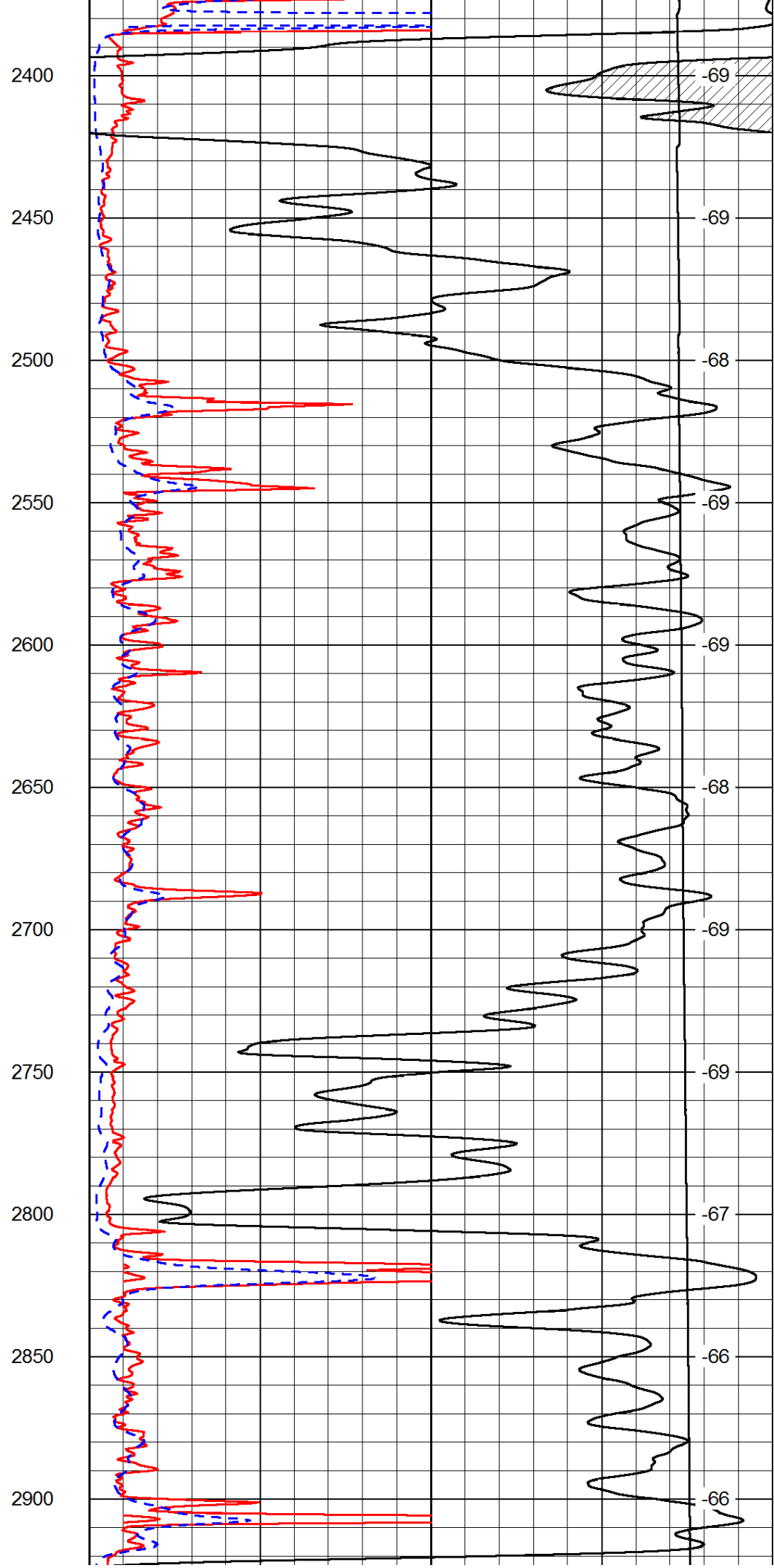
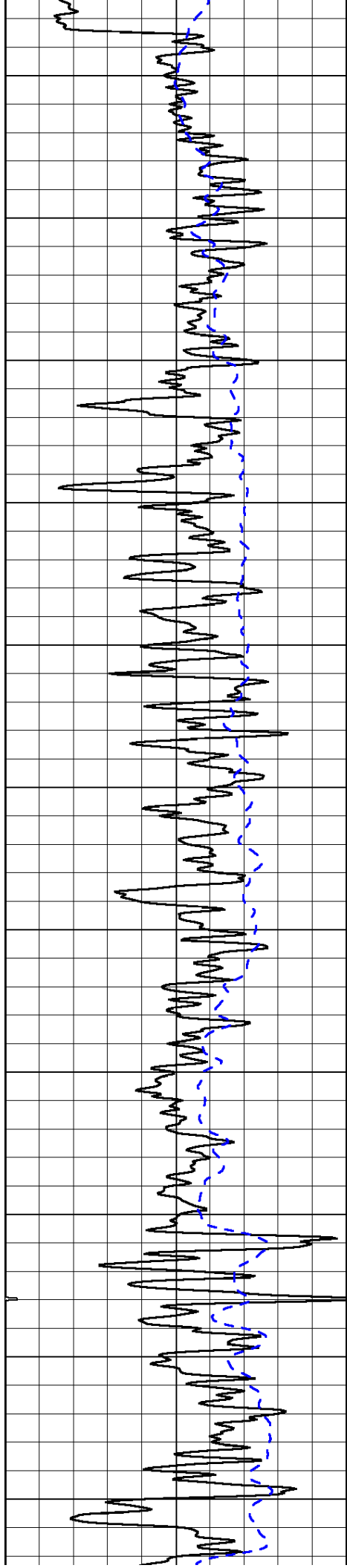
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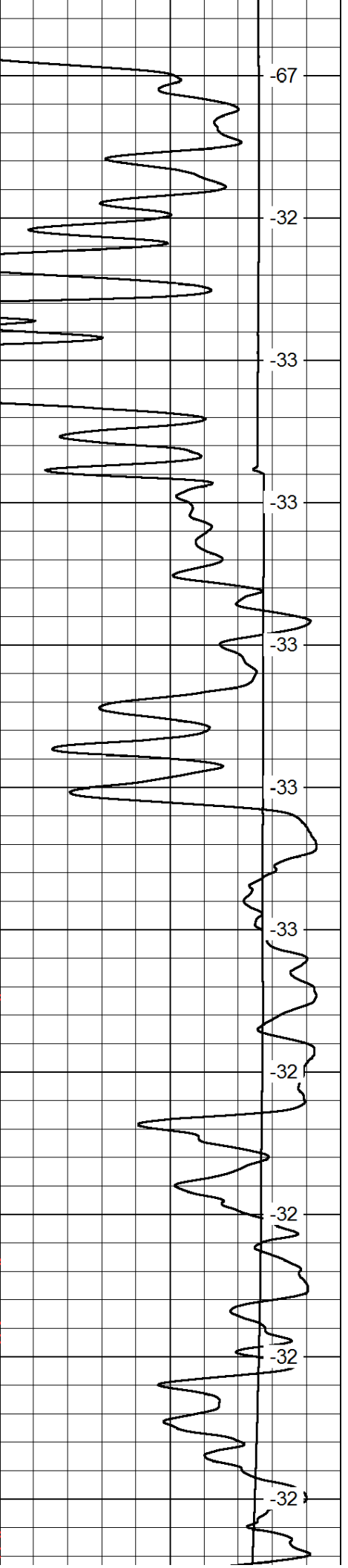
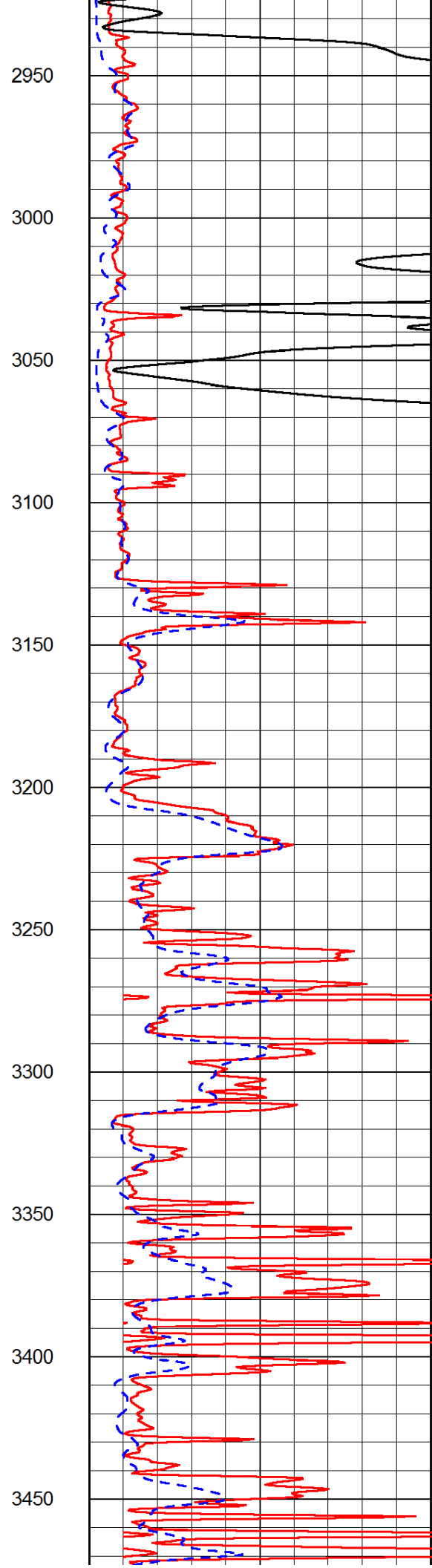
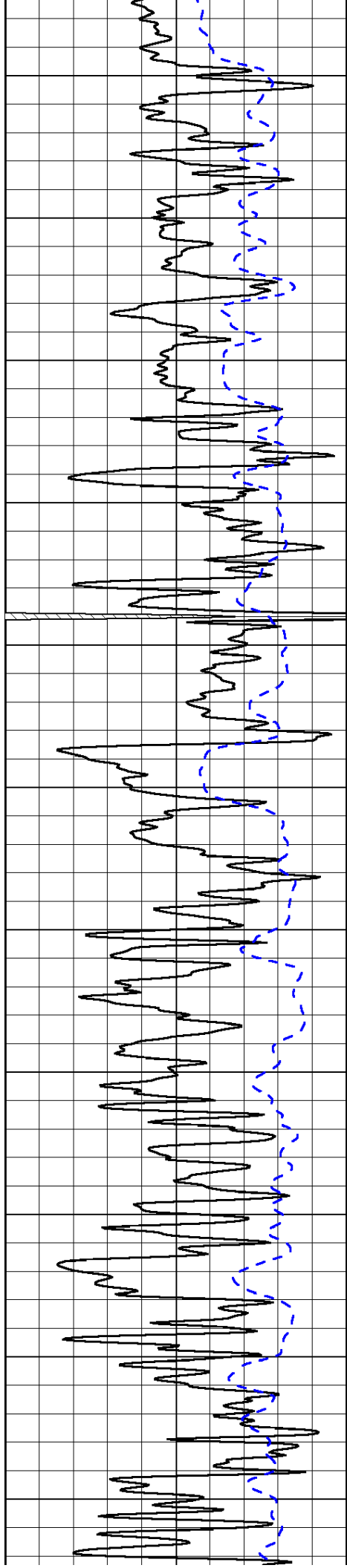


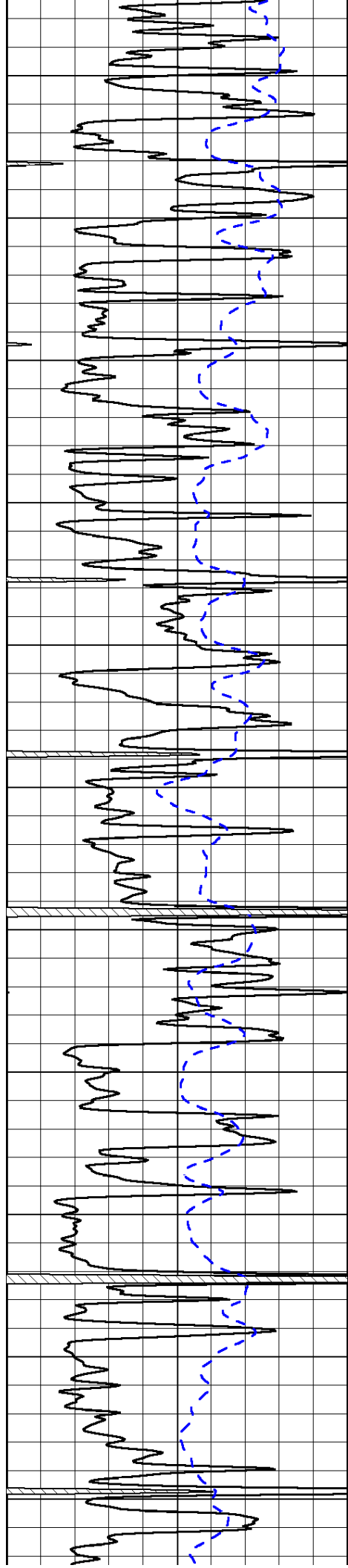












3500

3550

3600

3650

3700

3750

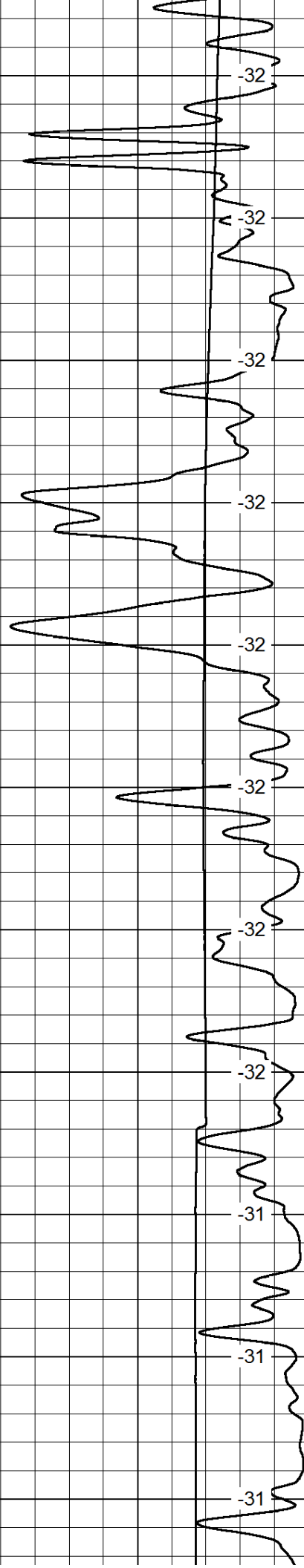
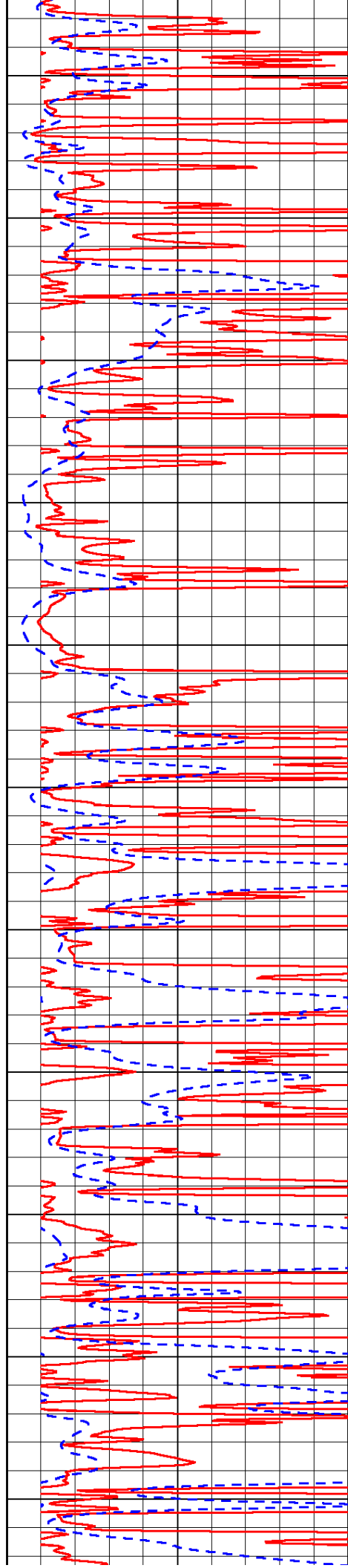
3800

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3900

3950

4000



-32

-32

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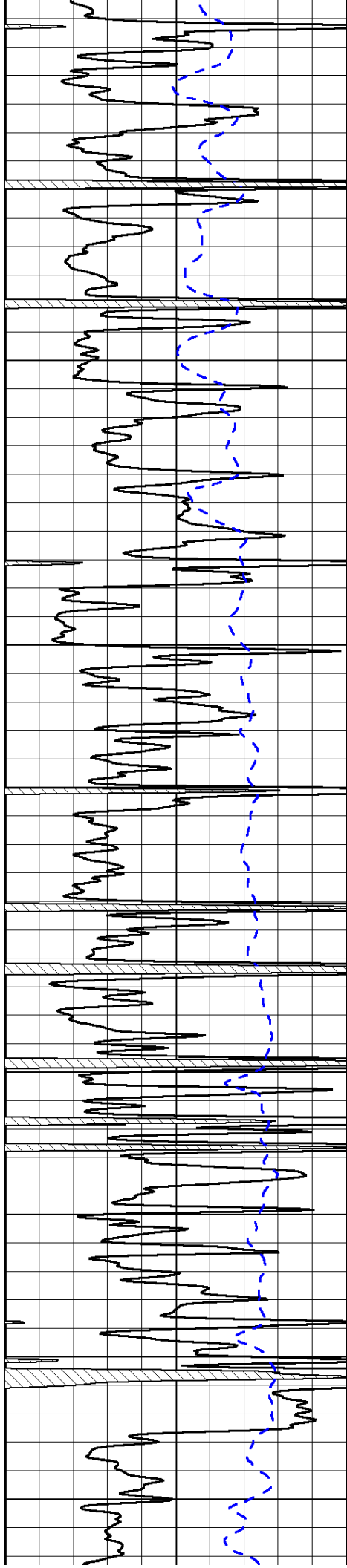
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-32

-31

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-31



4050

4100

4150

4200

4250

4300

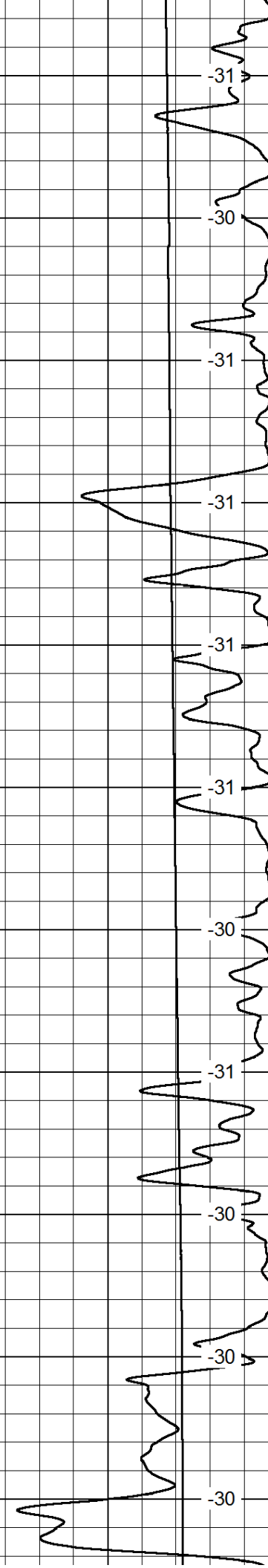
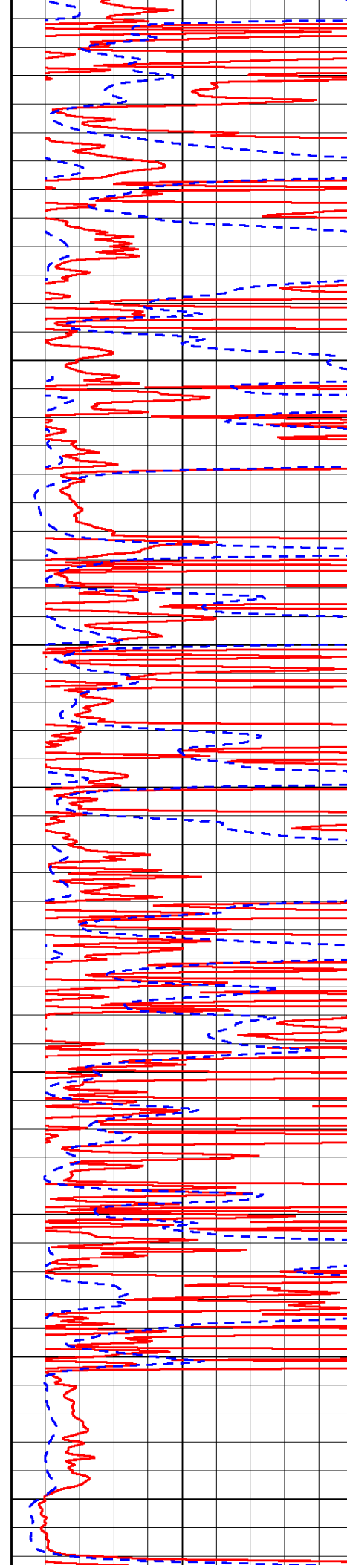
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4500

4550



-31

-30

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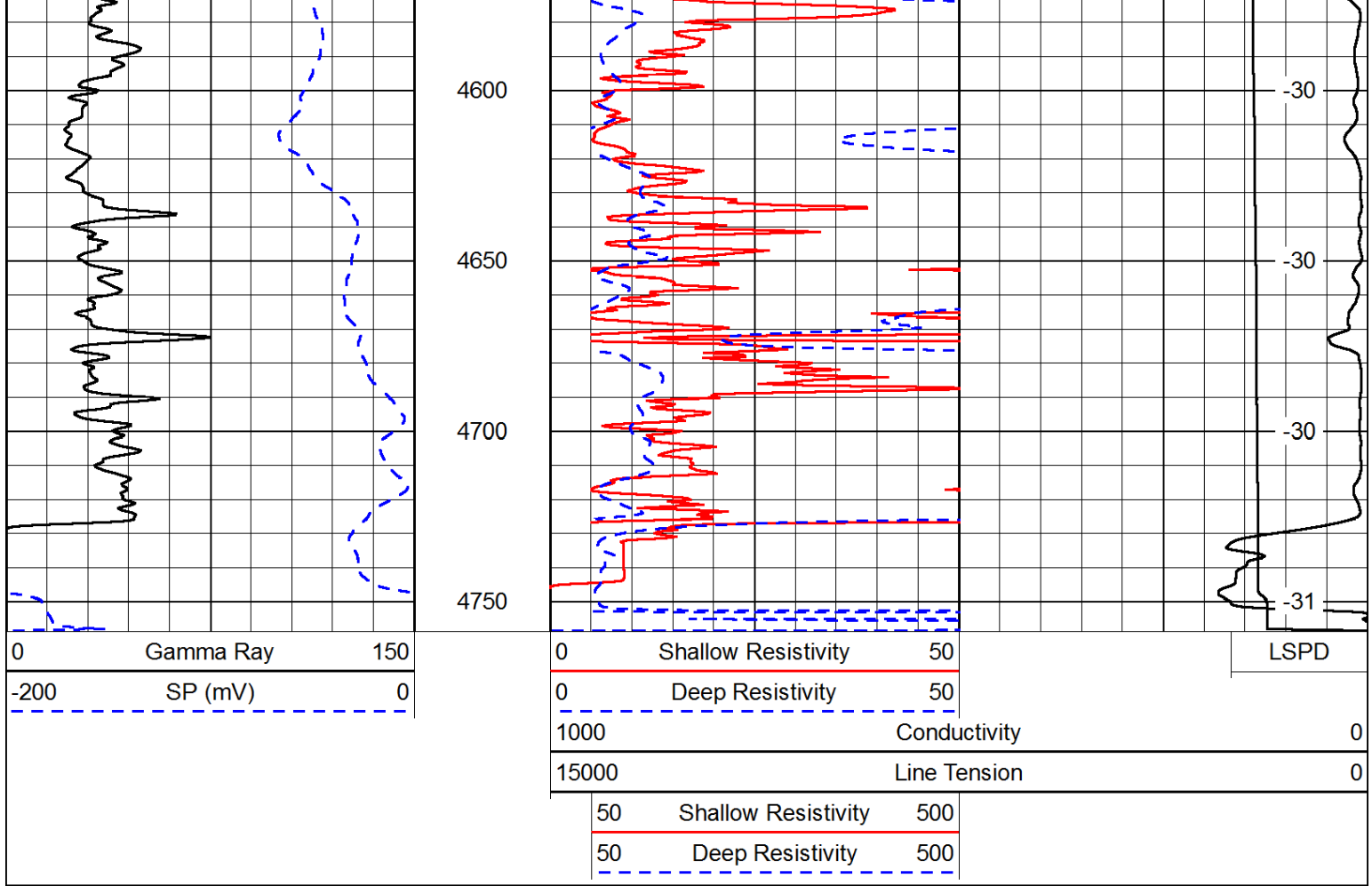
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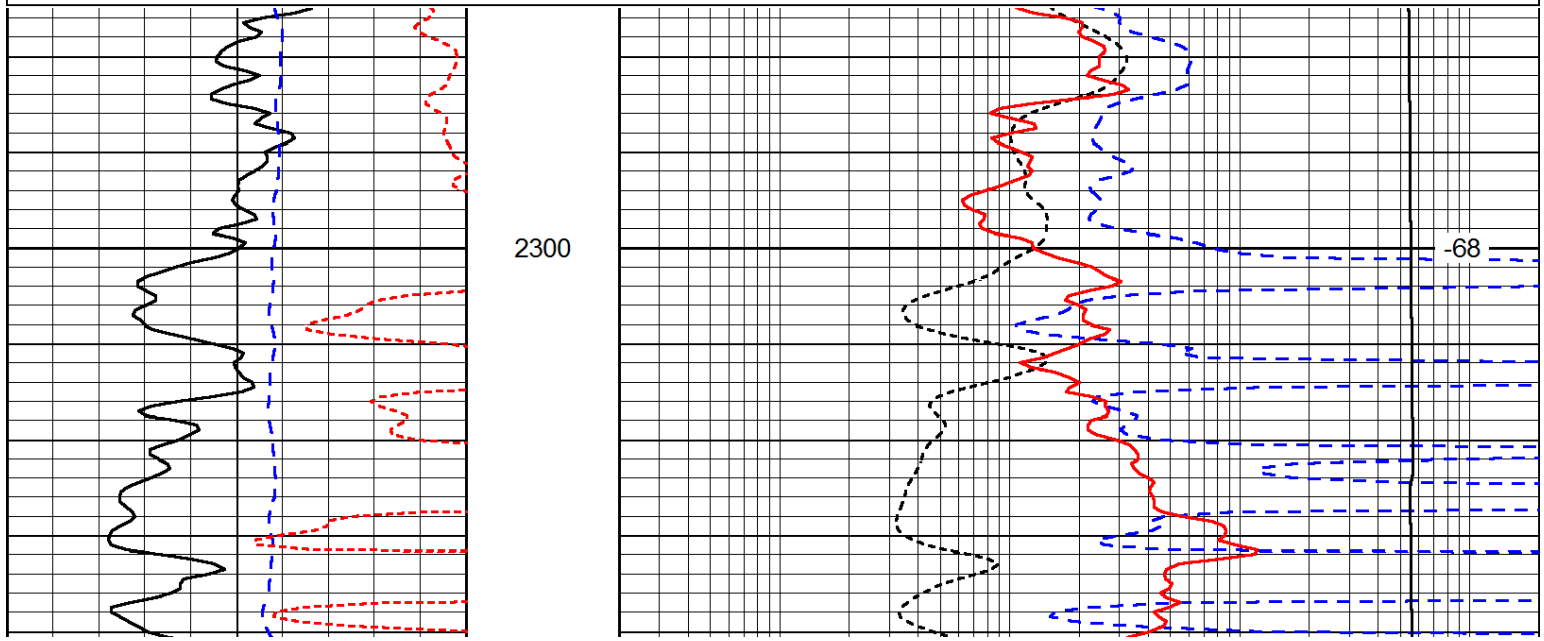
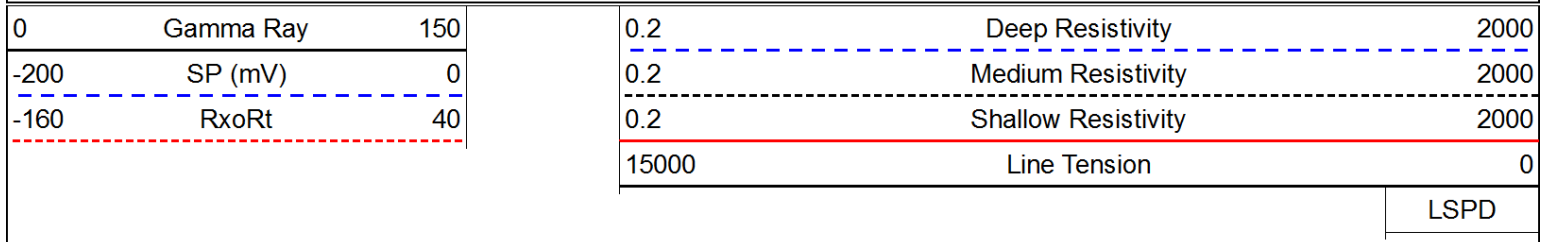
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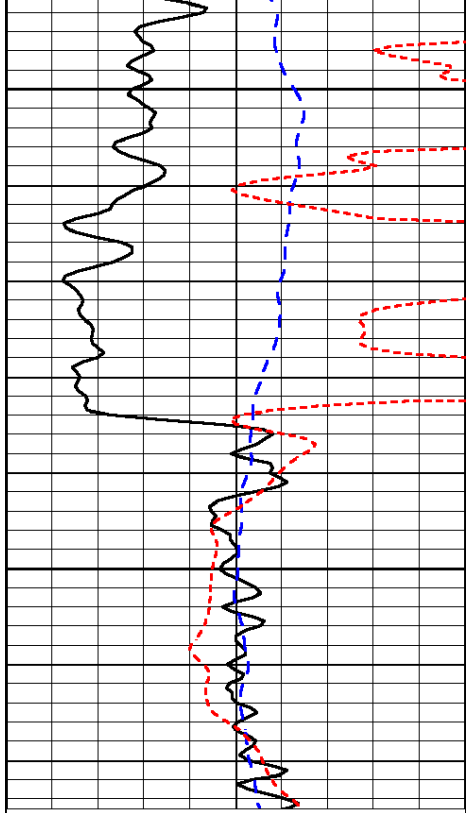
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Database File: c:\warrior\data\black tea_pahls 'e' #2\blacktea_pahls_e_2hd.db
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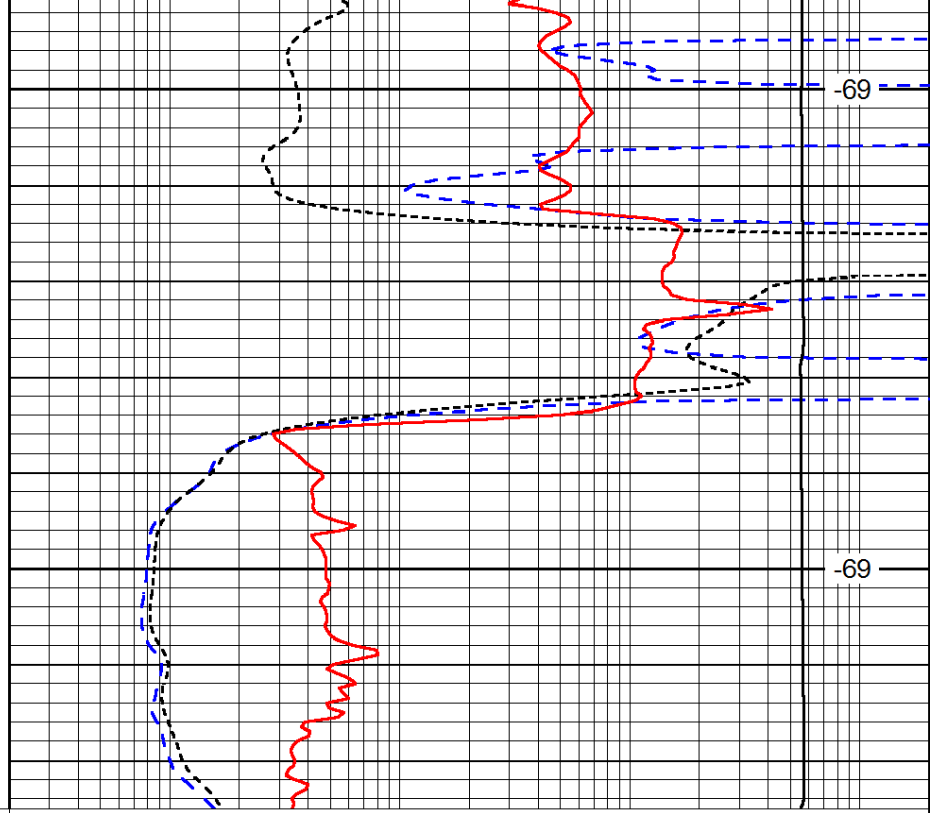




2350

2400

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



-69

-69

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

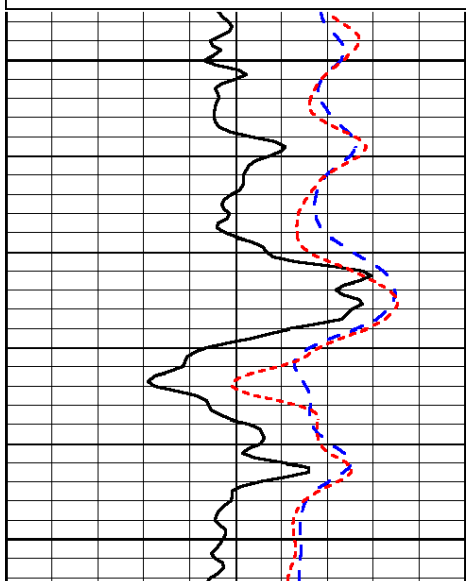
LSPD

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 Charted by: Depth in Feet scaled 1:240

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

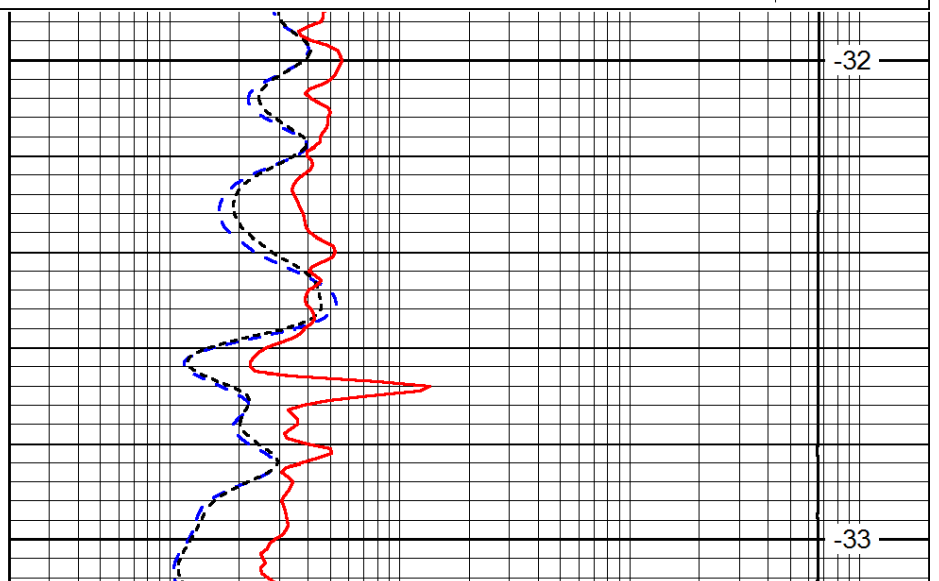
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0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD



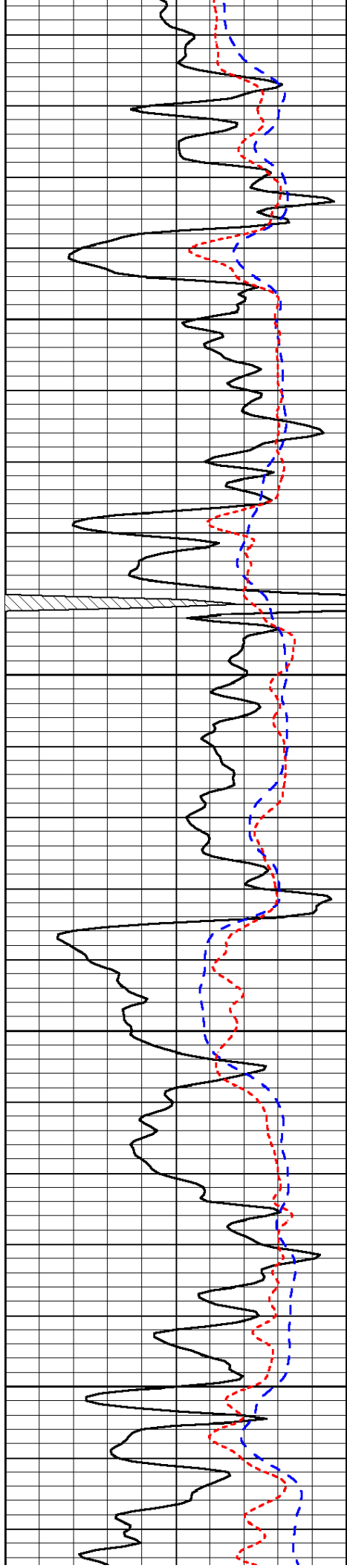
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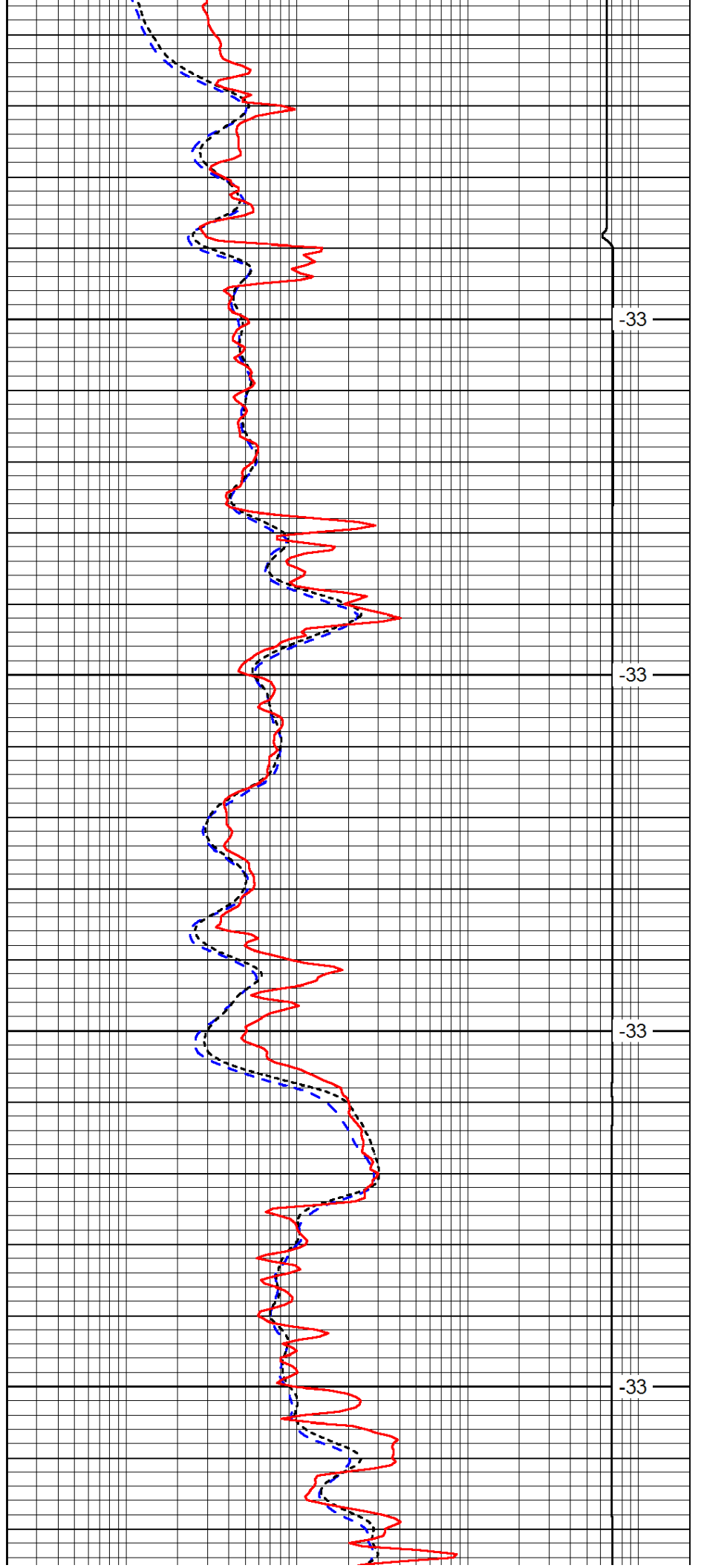


3100

3150

3200

3250

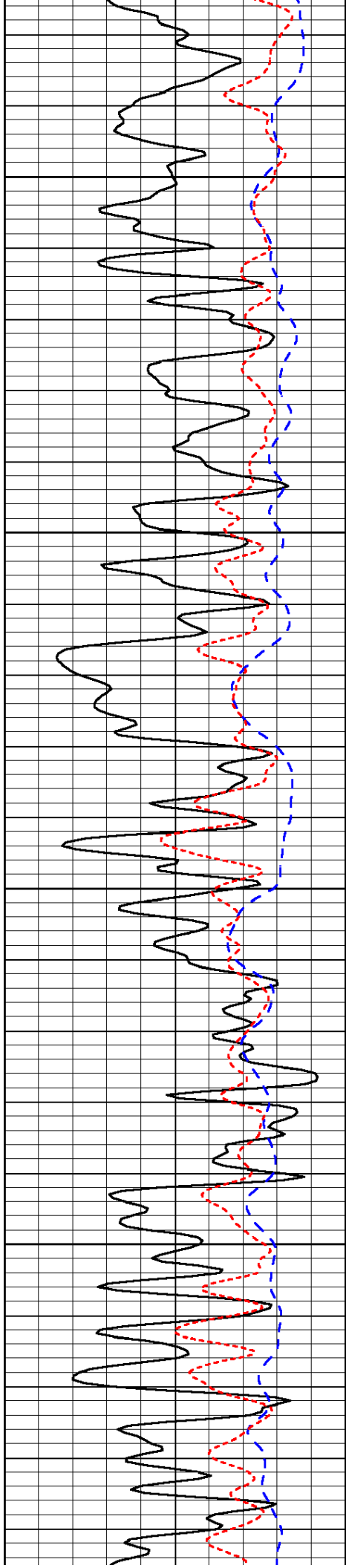


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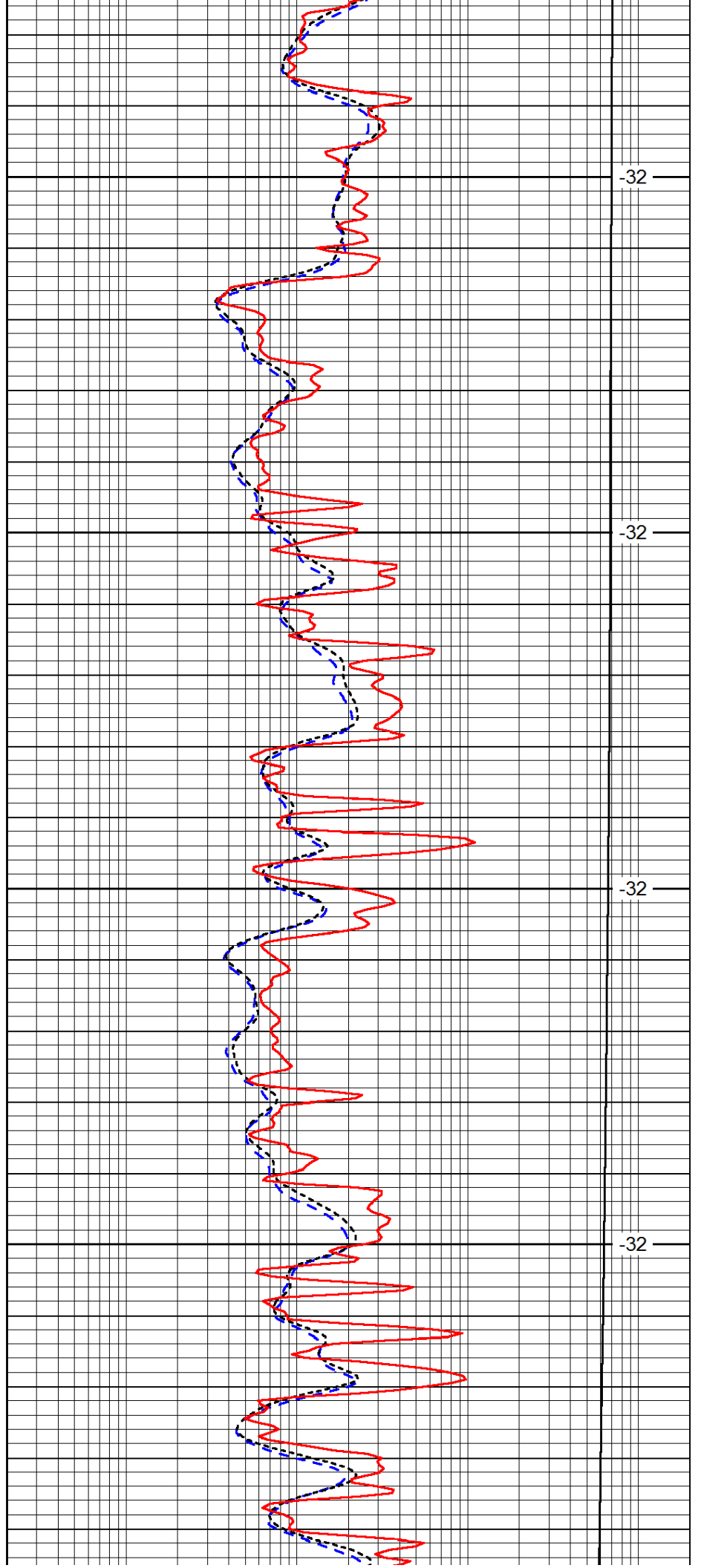


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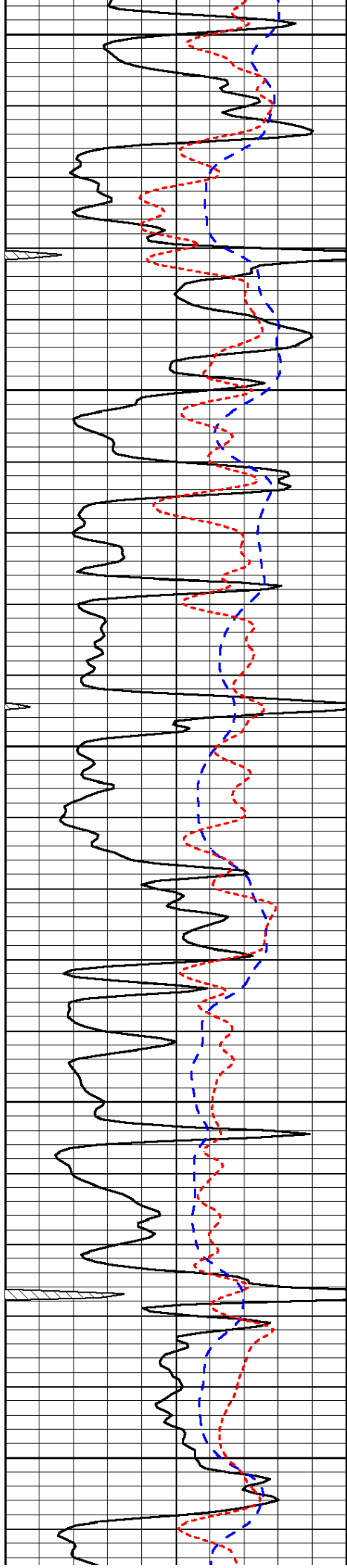


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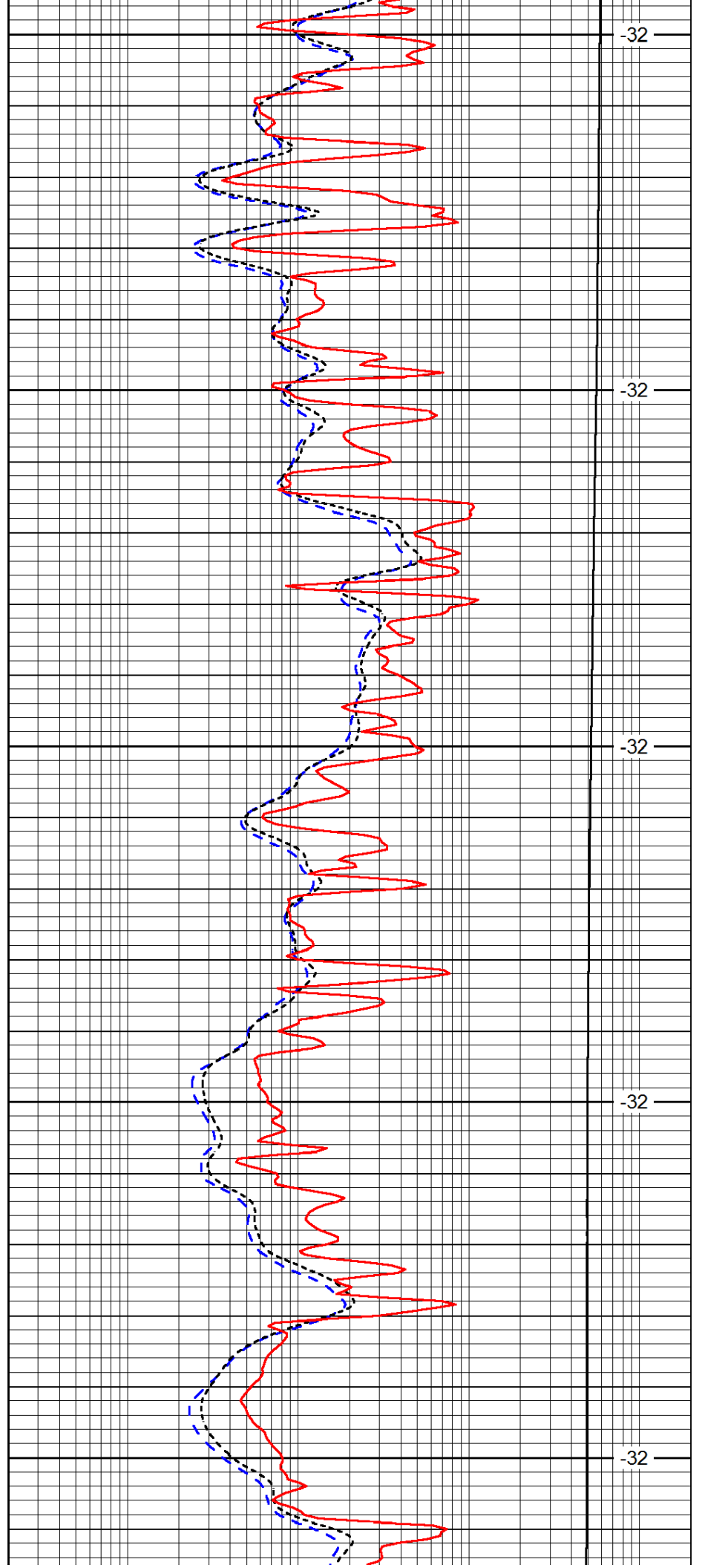
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3600

3650

3700



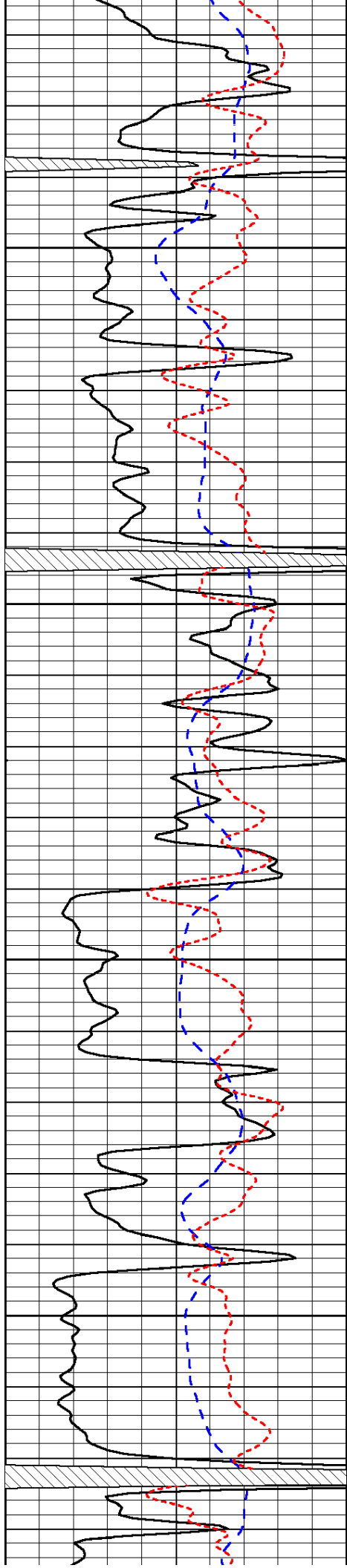
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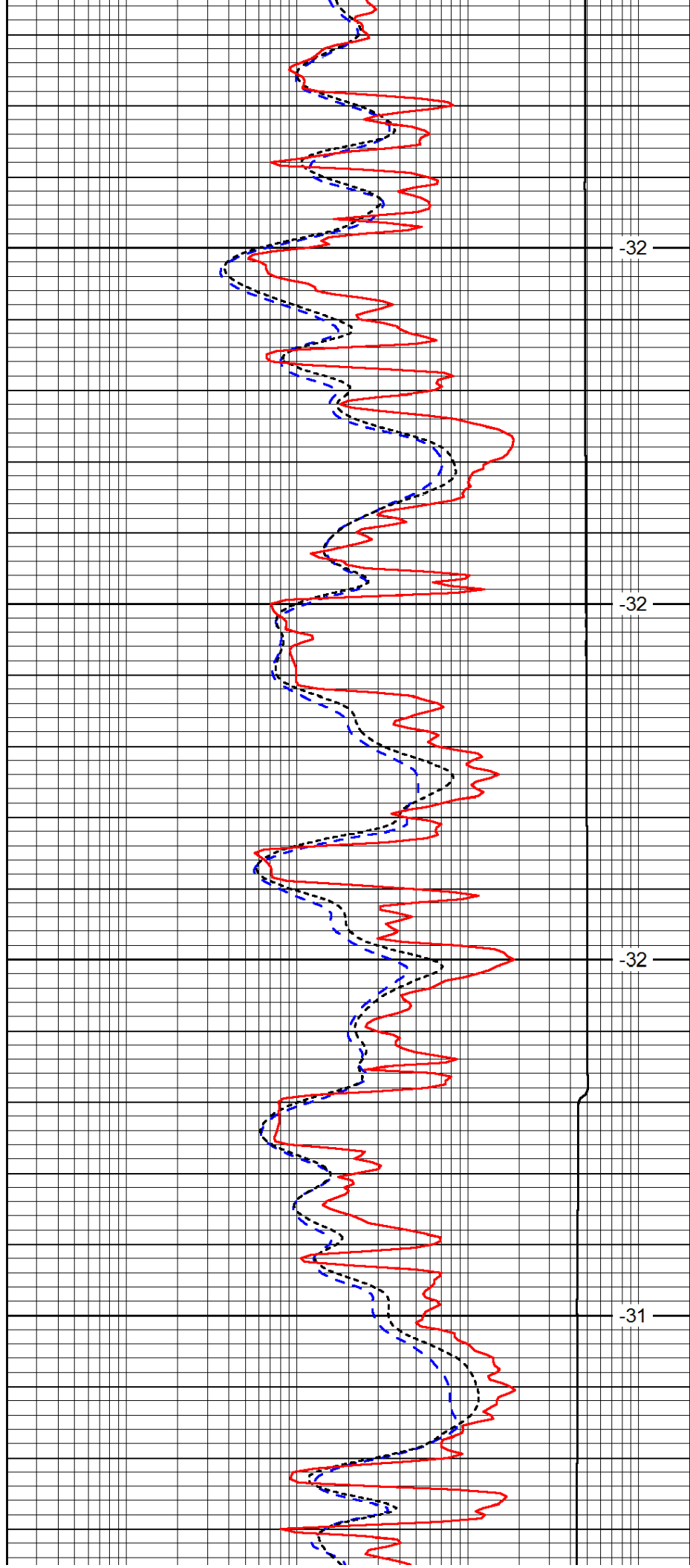


3750

3800

3850

3900

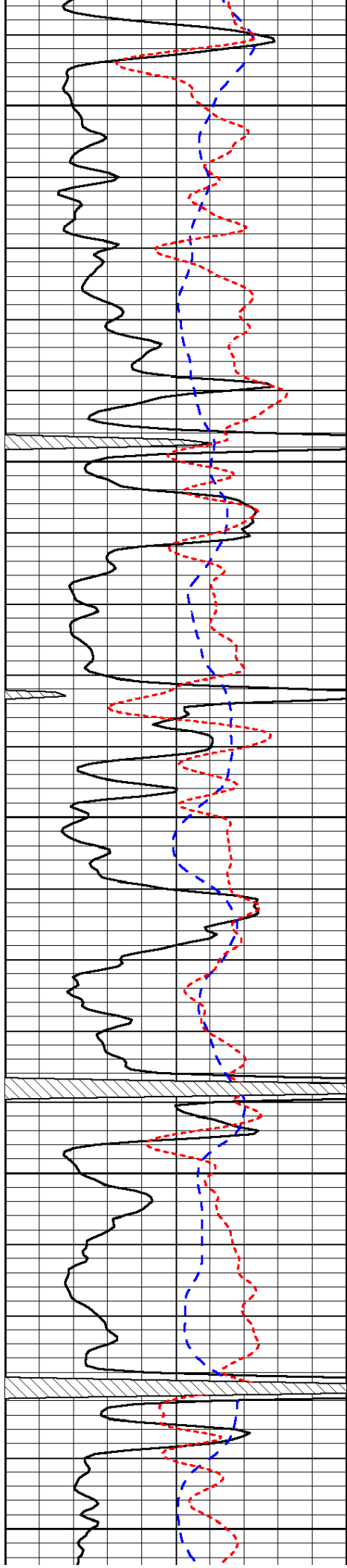


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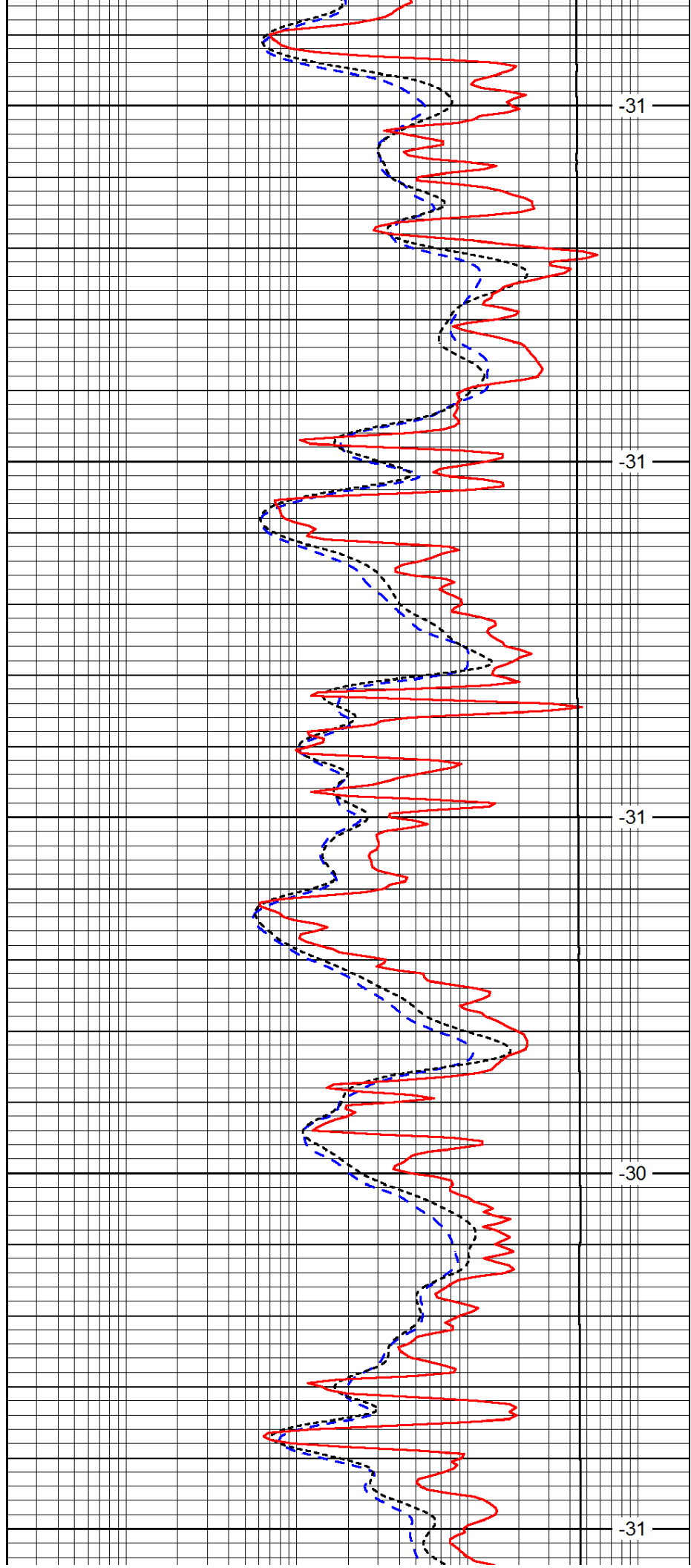
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4100

4150



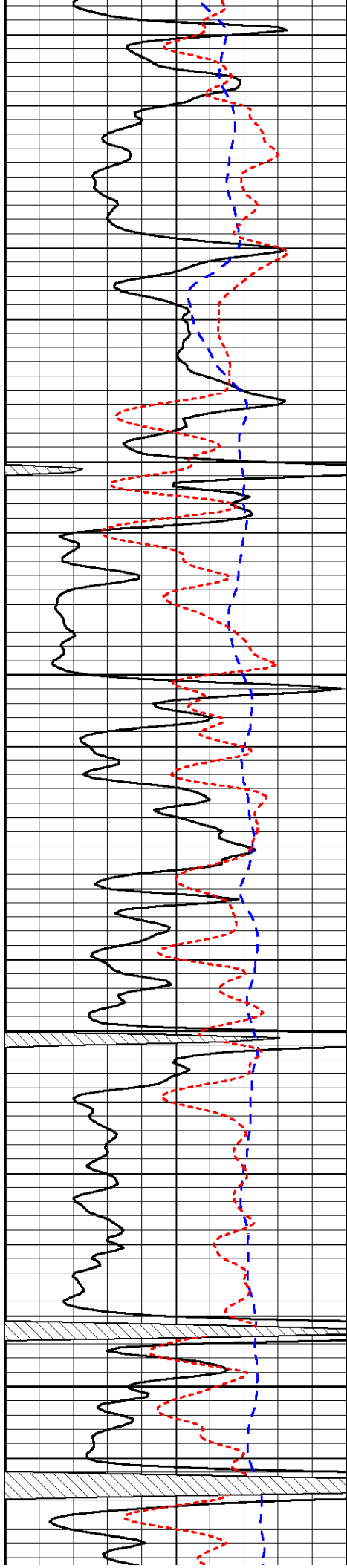
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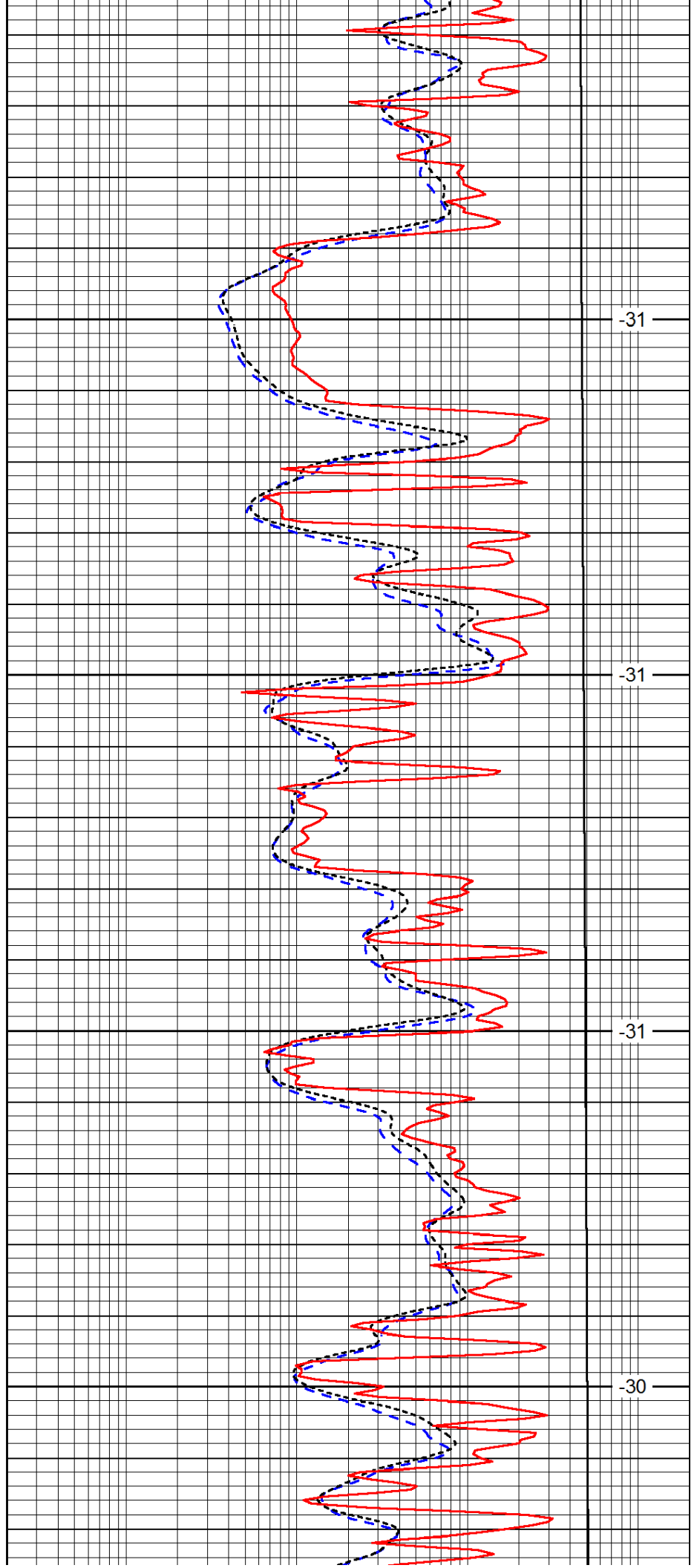


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4250

4300

4350

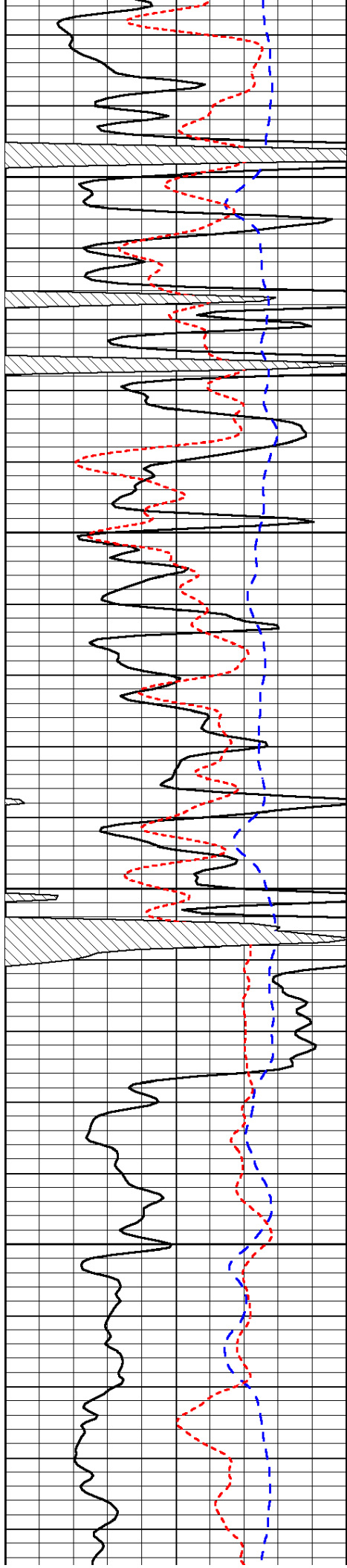


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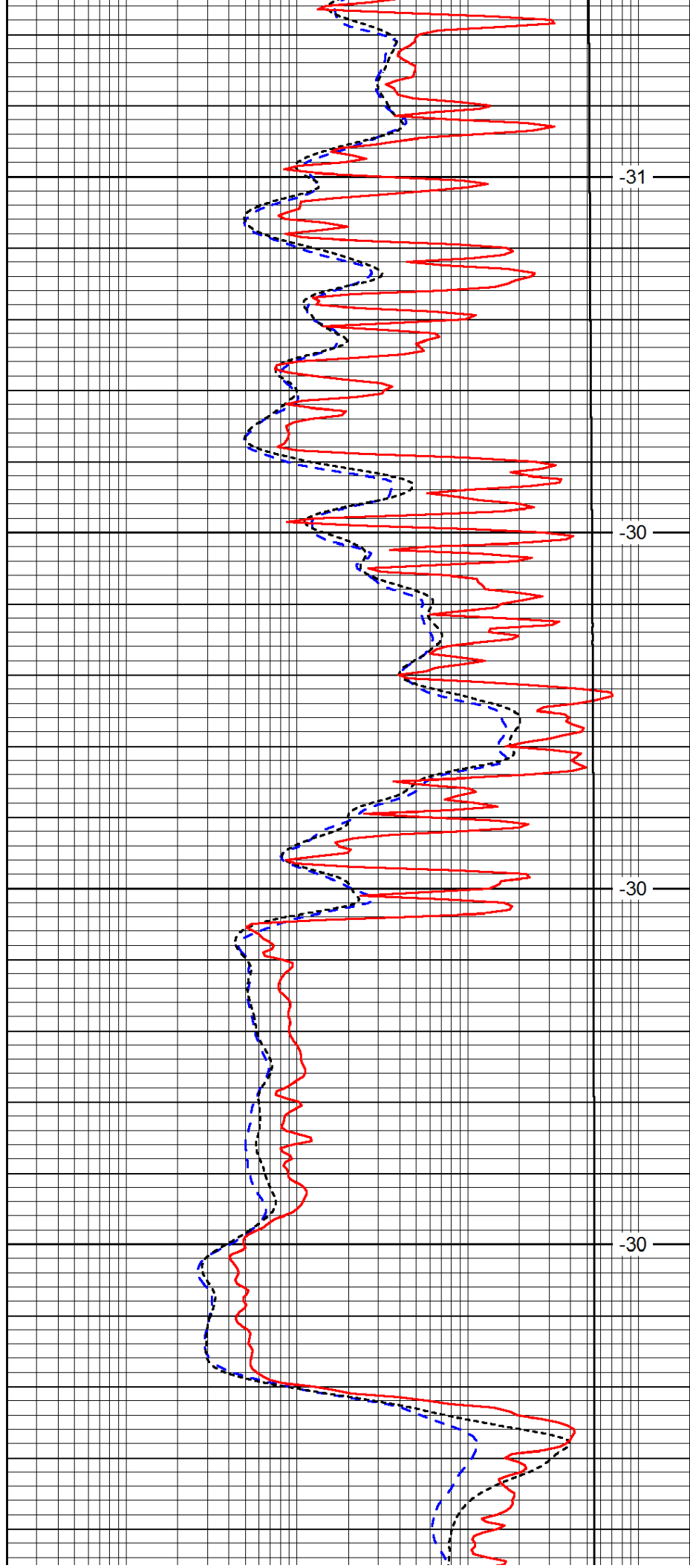


4400

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4500

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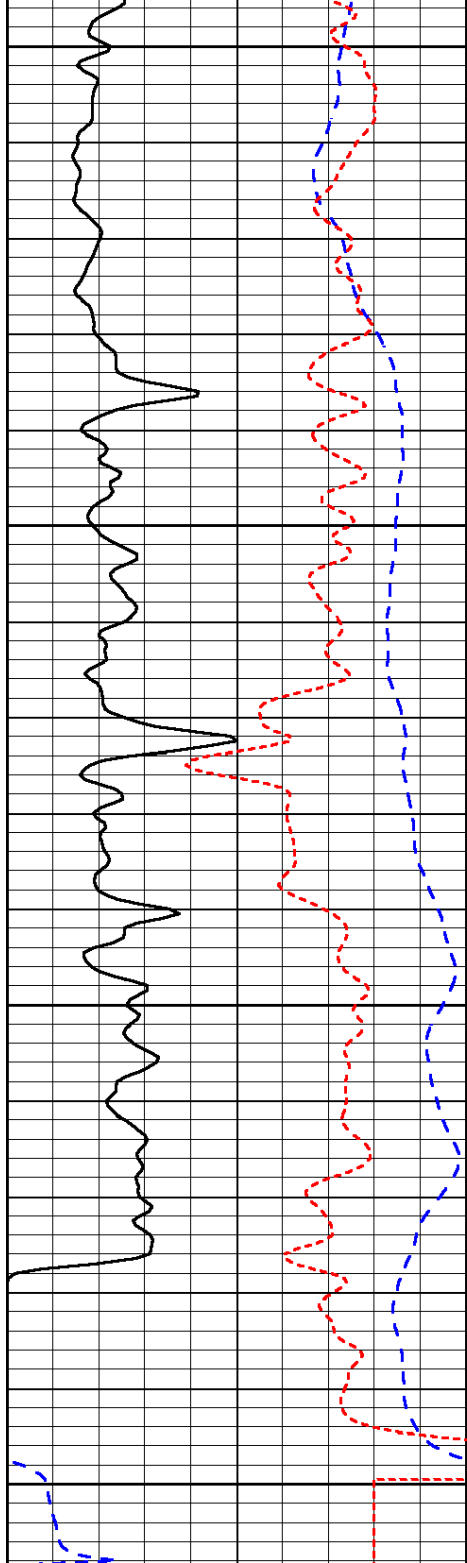


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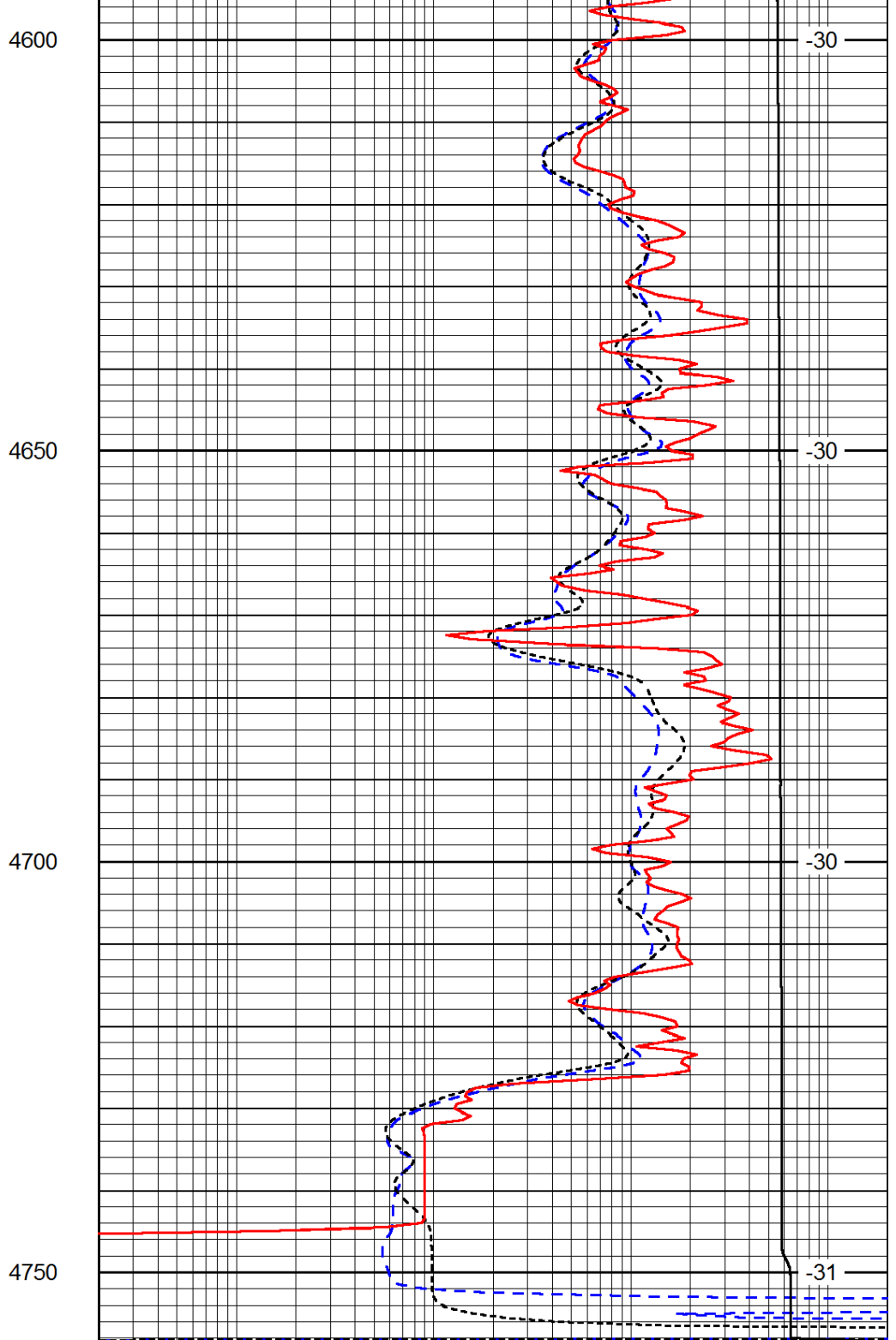
-30

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



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

LSPD