



Pioneer Energy Services

# Dual Induction Log

15-035-23,980-00-01

API No.

Company **Alton Oil, LLC**  
 Well **Century Farm #1**  
 Field **Nauman**  
 County **Cowley** State **Kansas**

Location  
 Sec: **20** Twp: **30S** Rge: **5E**

Other Services  
 CNL/CDL  
 MEL

Permanent Datum **Ground Level** Elevation **1320**  
 Log Measured From **Kelly Bushing** **8** Ft. Above Perm. Datum  
 Drilling Measured From **Kelly Bushing**

Elevation  
 K.B. 1328  
 D.F.  
 G.L. 1320

Date	1/7/2015
Run Number	One
Depth Driller	3173
Depth Logger	3170
Bottom Logged Interval	3169
Top Log Interval	250
Casing Driller	8.625 @ 260
Casing Logger	263
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	13,000
Density / Viscosity	8.6 39
pH / Fluid Loss	9.0 12.8
Source of Sample	Flowline
Rm @ Meas. Temp	.4 @ 55
Rmf @ Meas. Temp	.3 @ 55
Rmc @ Meas. Temp	.54 @ 55
Source of Rmf / Rmc	Charts
Rm @ BHT	.2 @ 108
Operating Rig Time	3 Hours
Max Rec. Temp. F	108
Equipment Number	51
Location	Hays
Recorded By	C. Desaire
Witnessed By	Mike Pressnall

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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

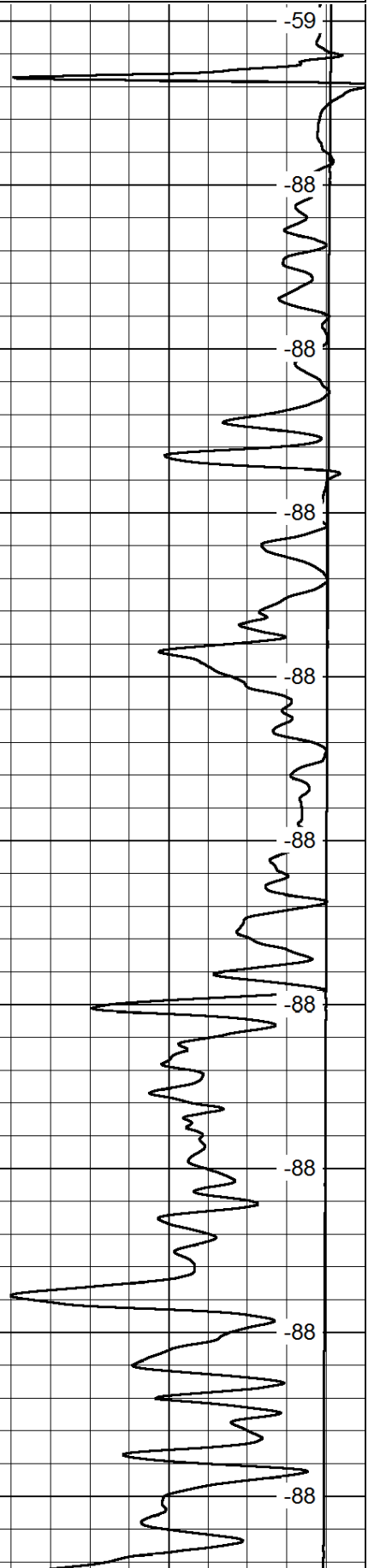
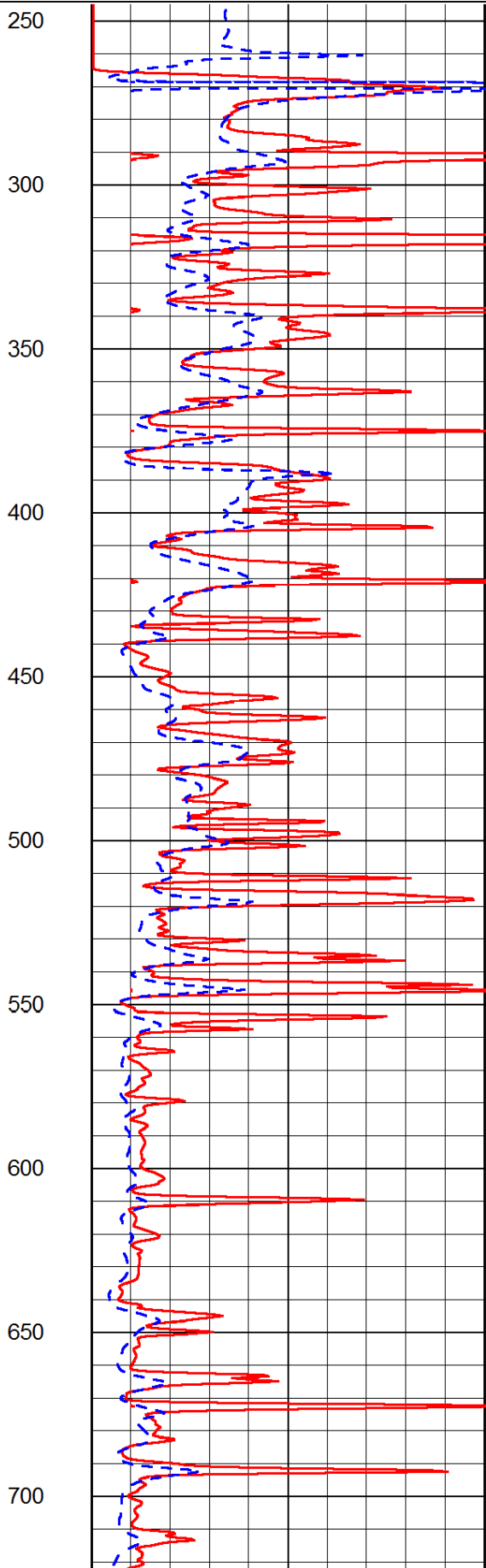
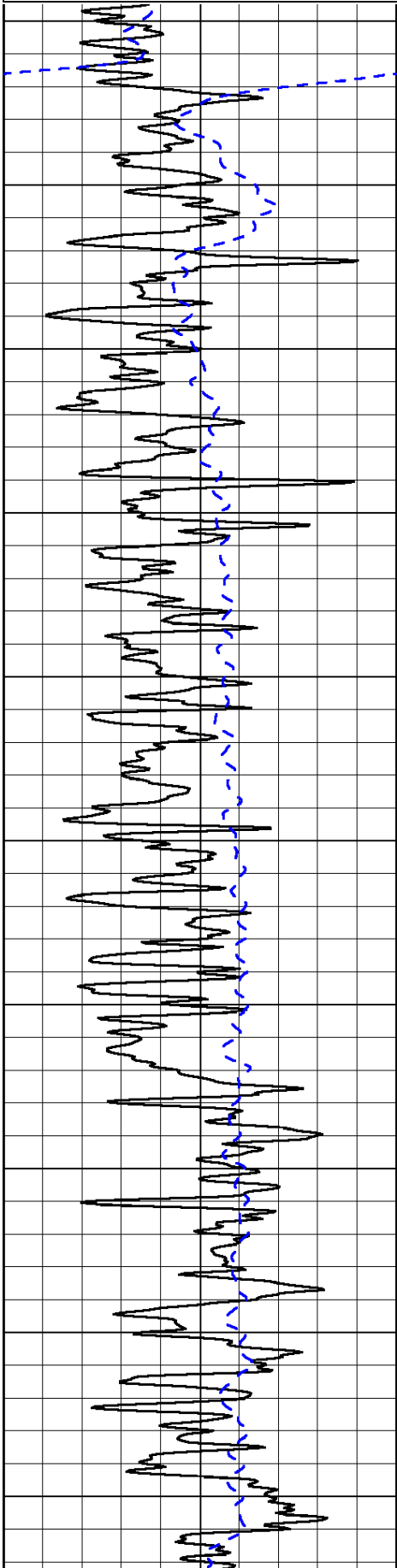
Thank you for using Pioneer Energy Services  
[www.pioneeres.com](http://www.pioneeres.com)  
 785 625 3858  
 Rock KS, E to 141st St,  
 1/2 S, W Into

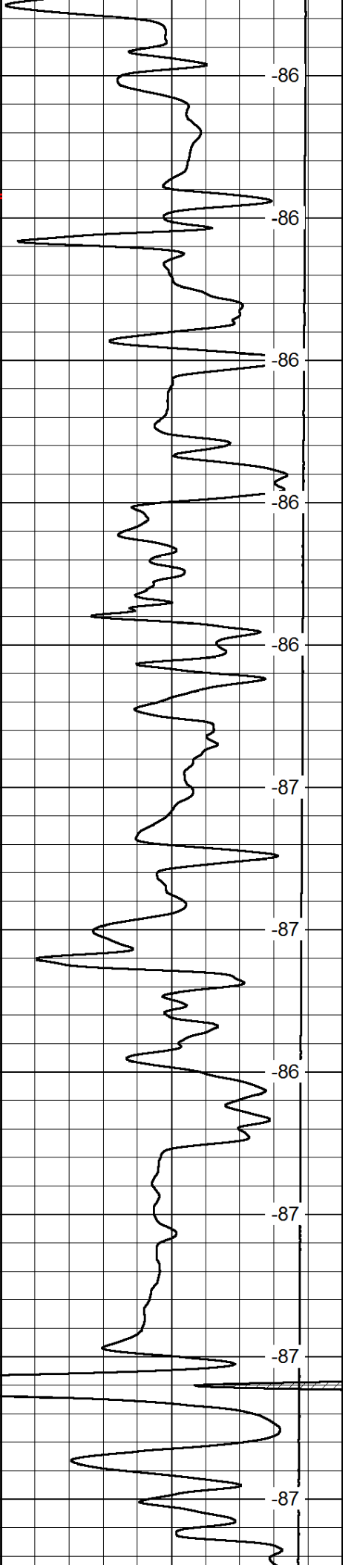
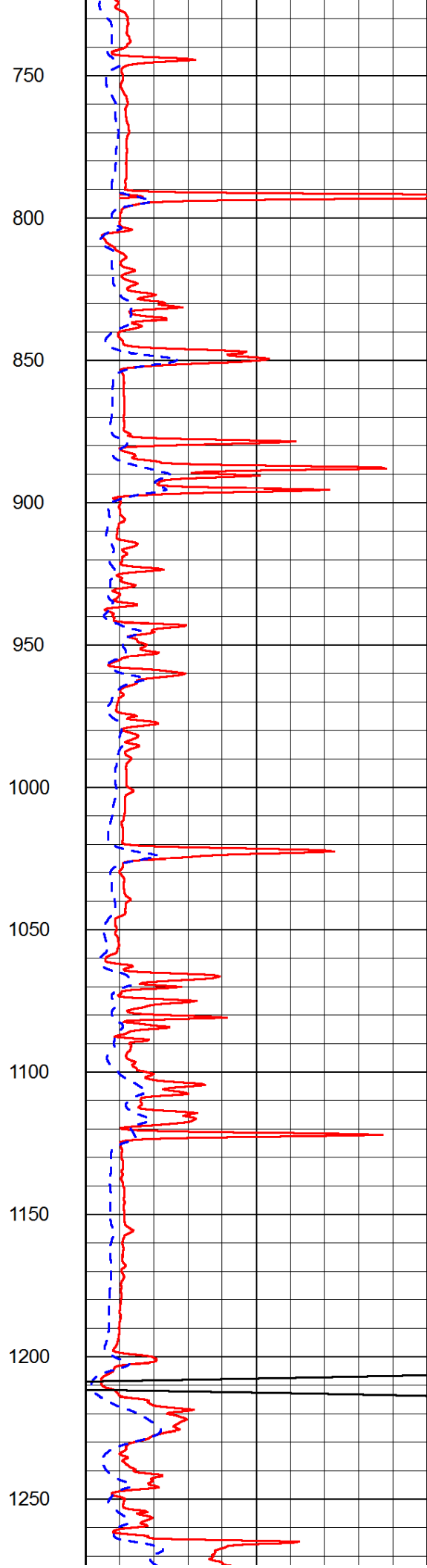
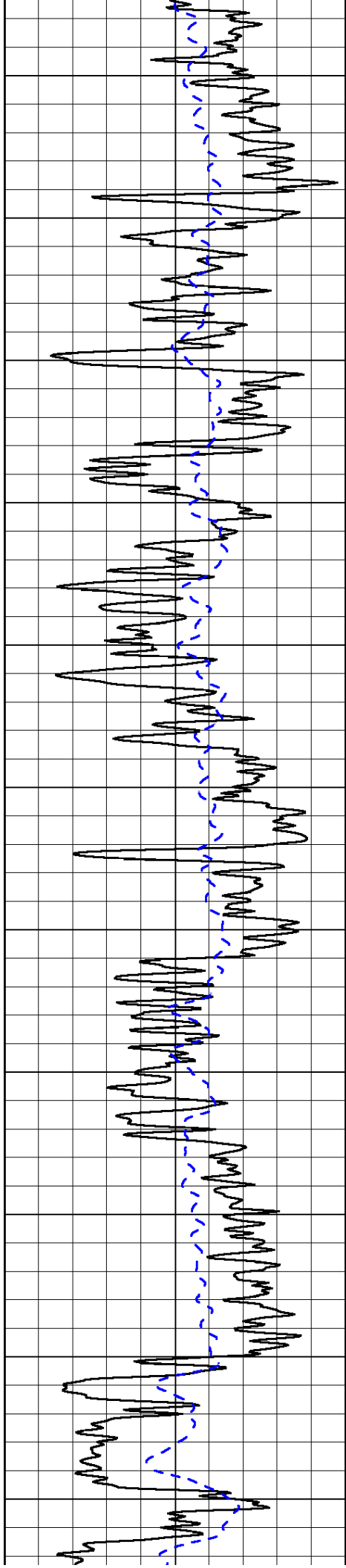
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 Presentation Format: dil2in  
 Dataset Creation: Wed Jan 07 00:58:50 2015  
 Charted by: Depth in Feet scaled 1:600

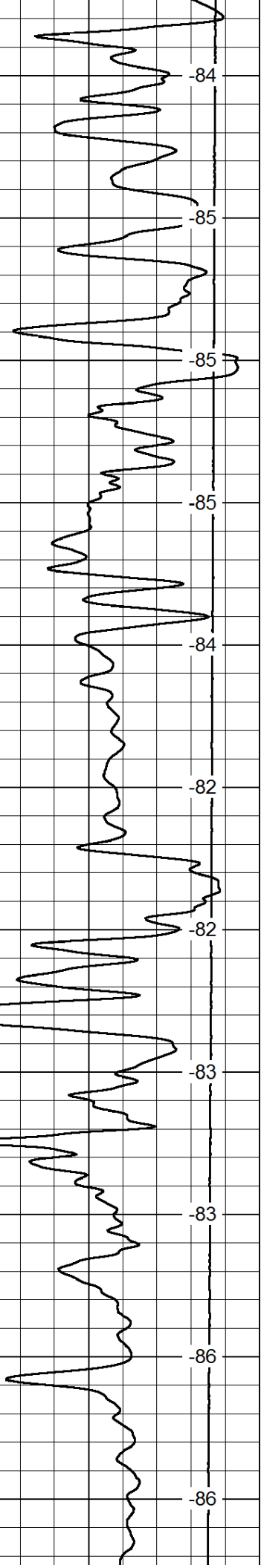
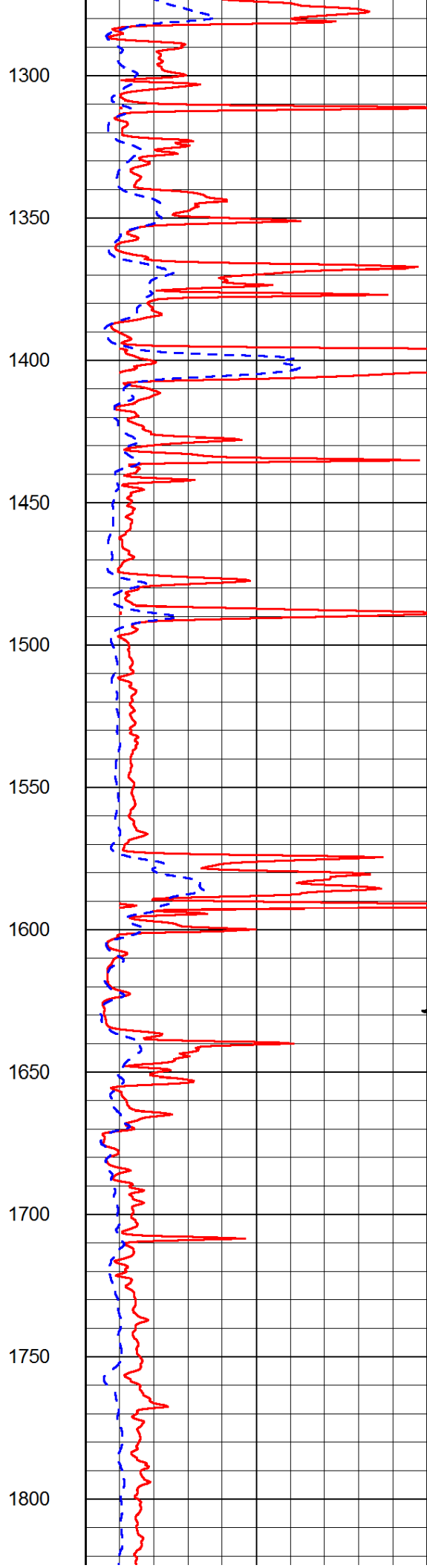
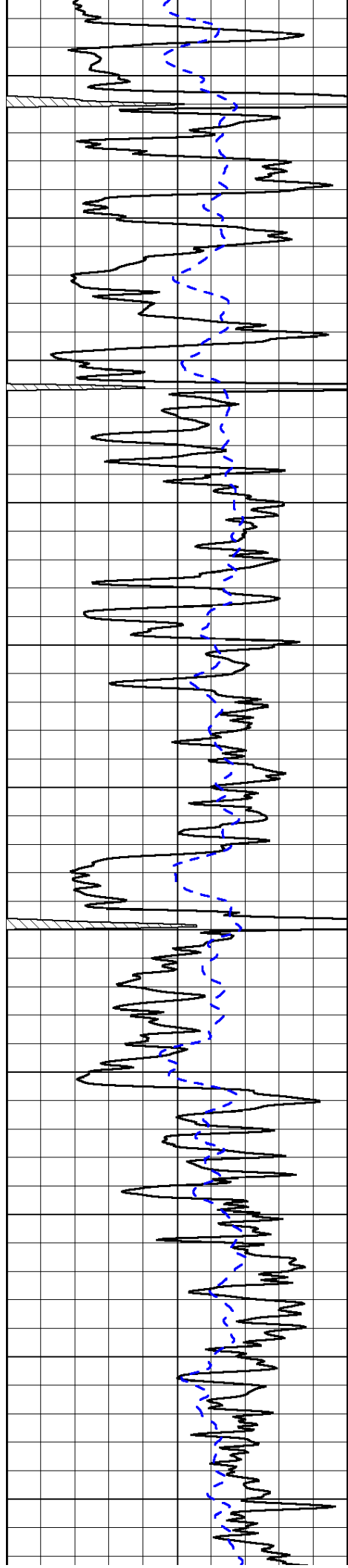
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-200 SP (mV) 0

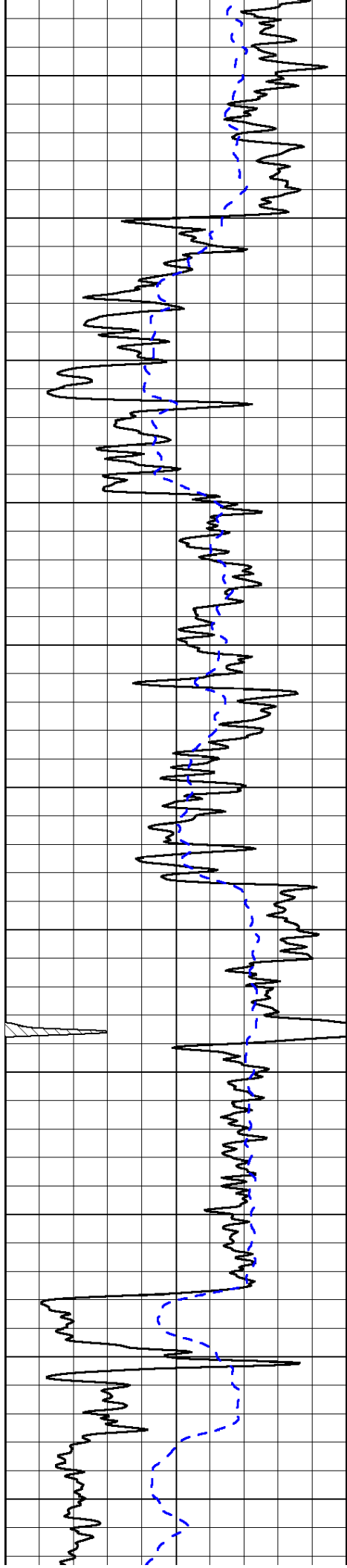
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0 Deep Resistivity 50  
1000 Conductivity 0  
15000 Line Tension 0  
50 Shallow Resistivity 500  
50 Deep Resistivity 500

LSPD









1850

1900

1950

2000

2050

2100

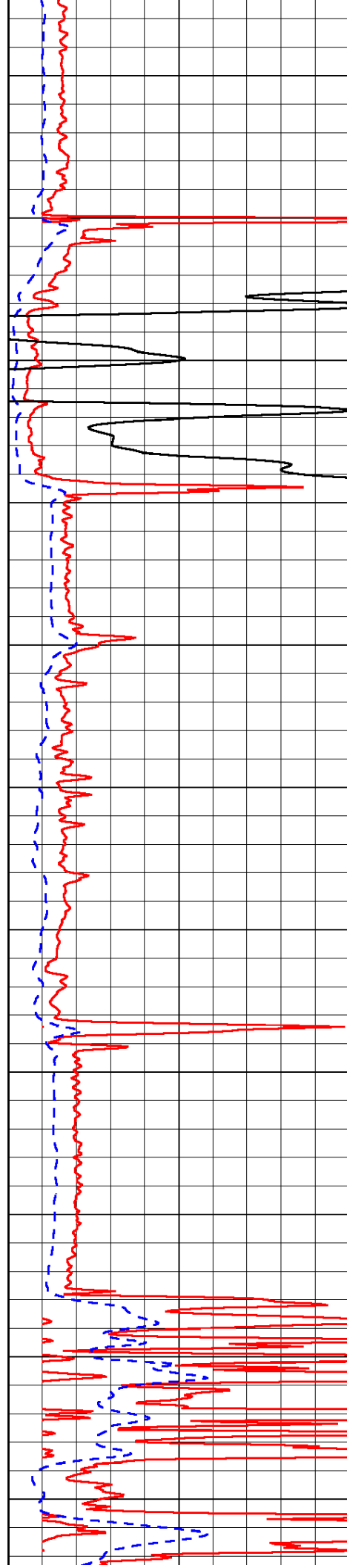
2150

2200

2250

2300

2350



-94

-34

-34

-34

-34

-34

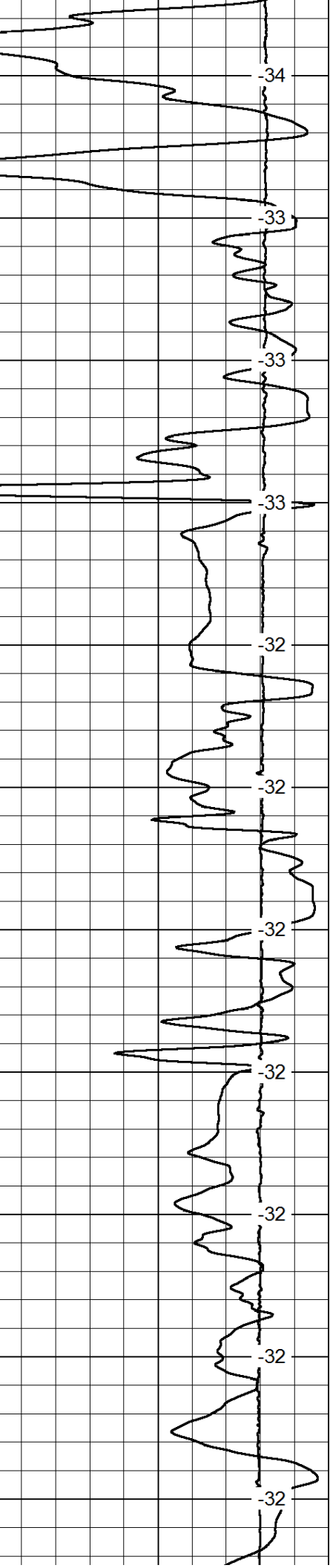
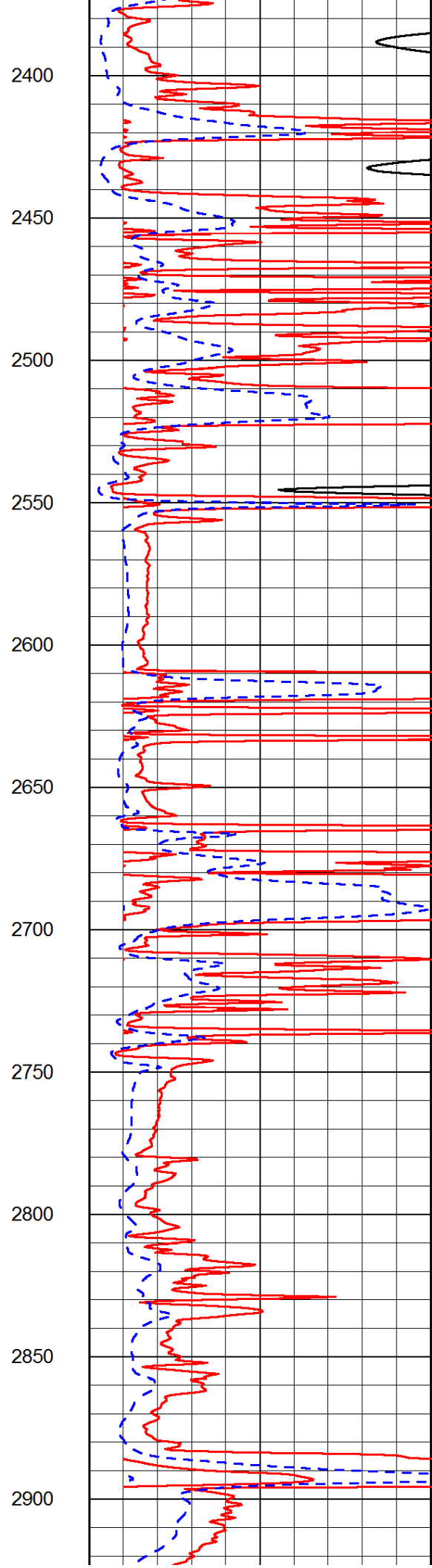
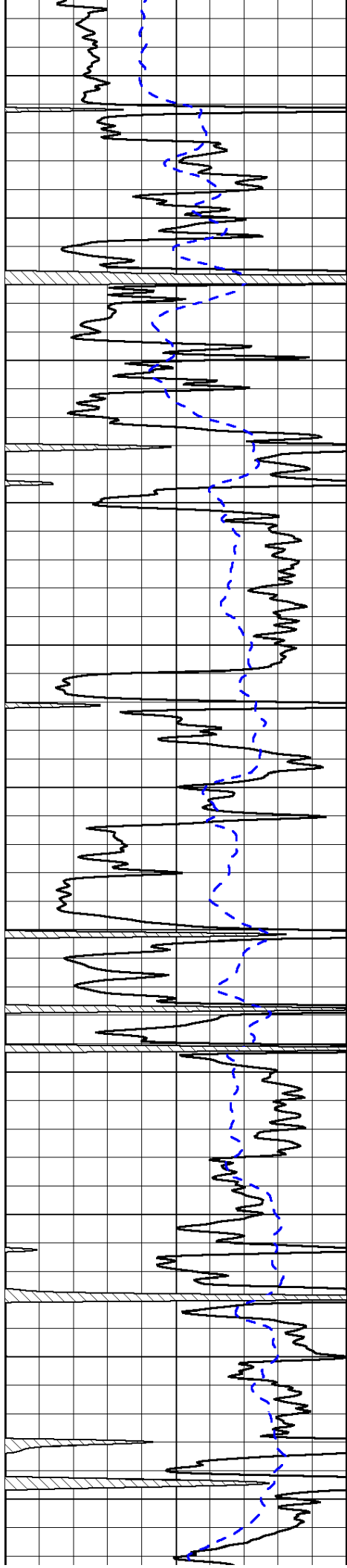
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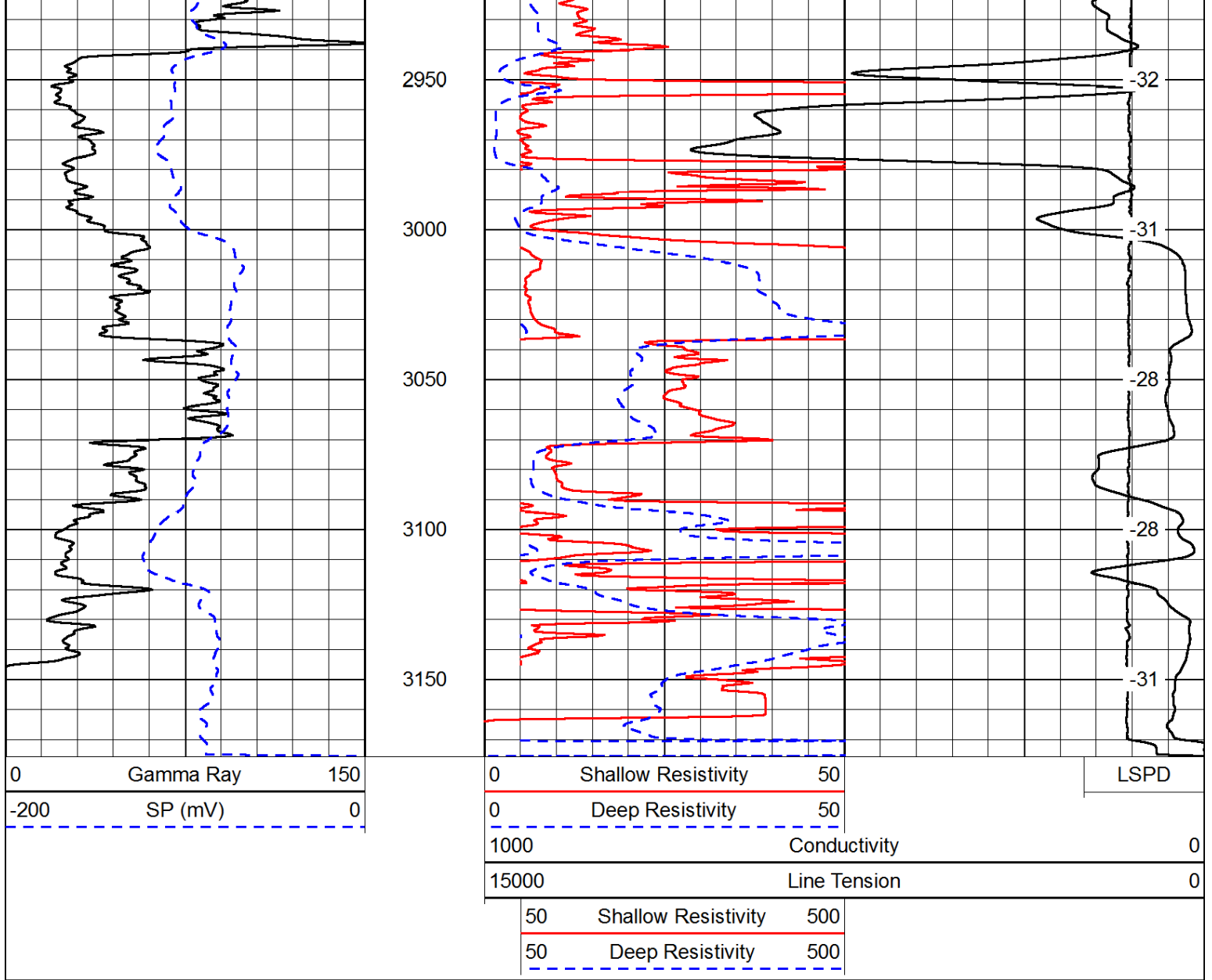
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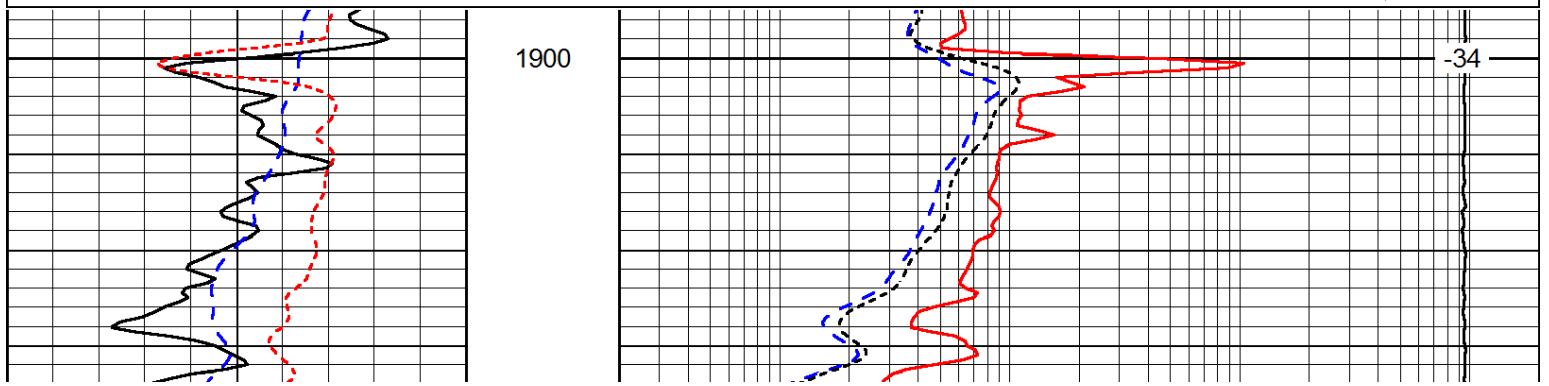
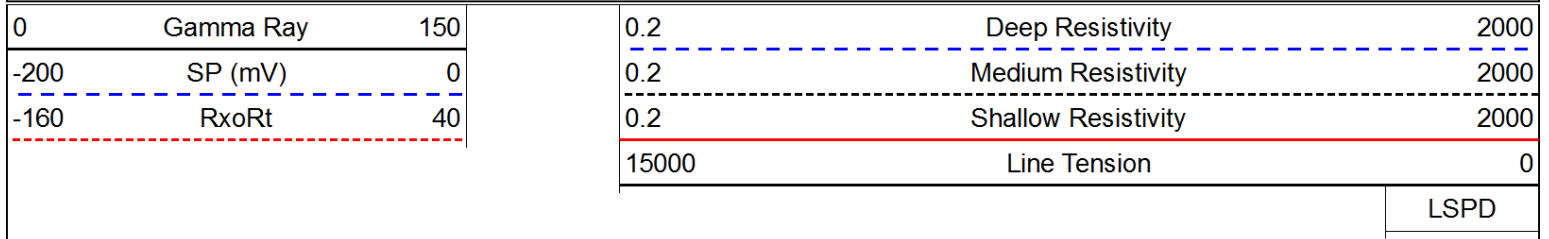
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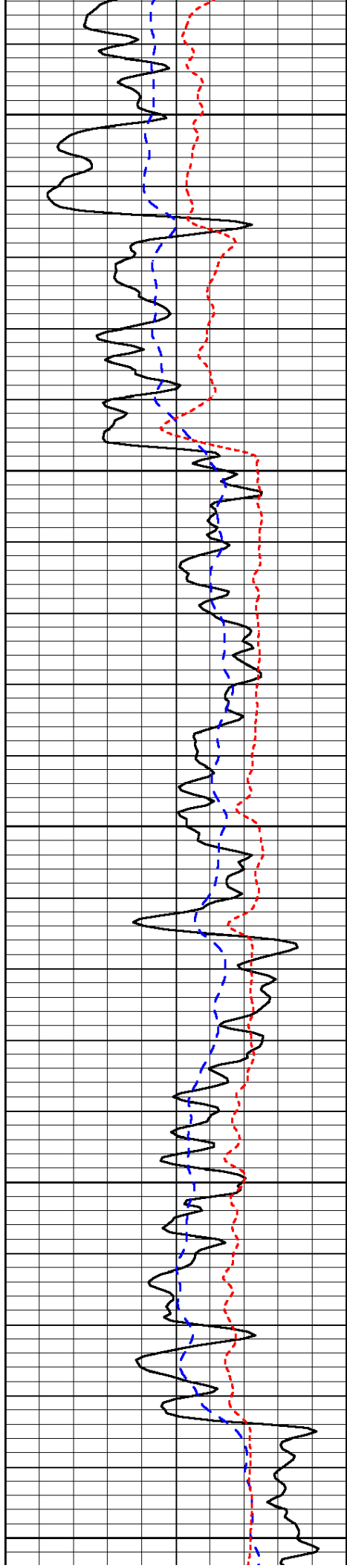
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 Charted by: Depth in Feet scaled 1:240





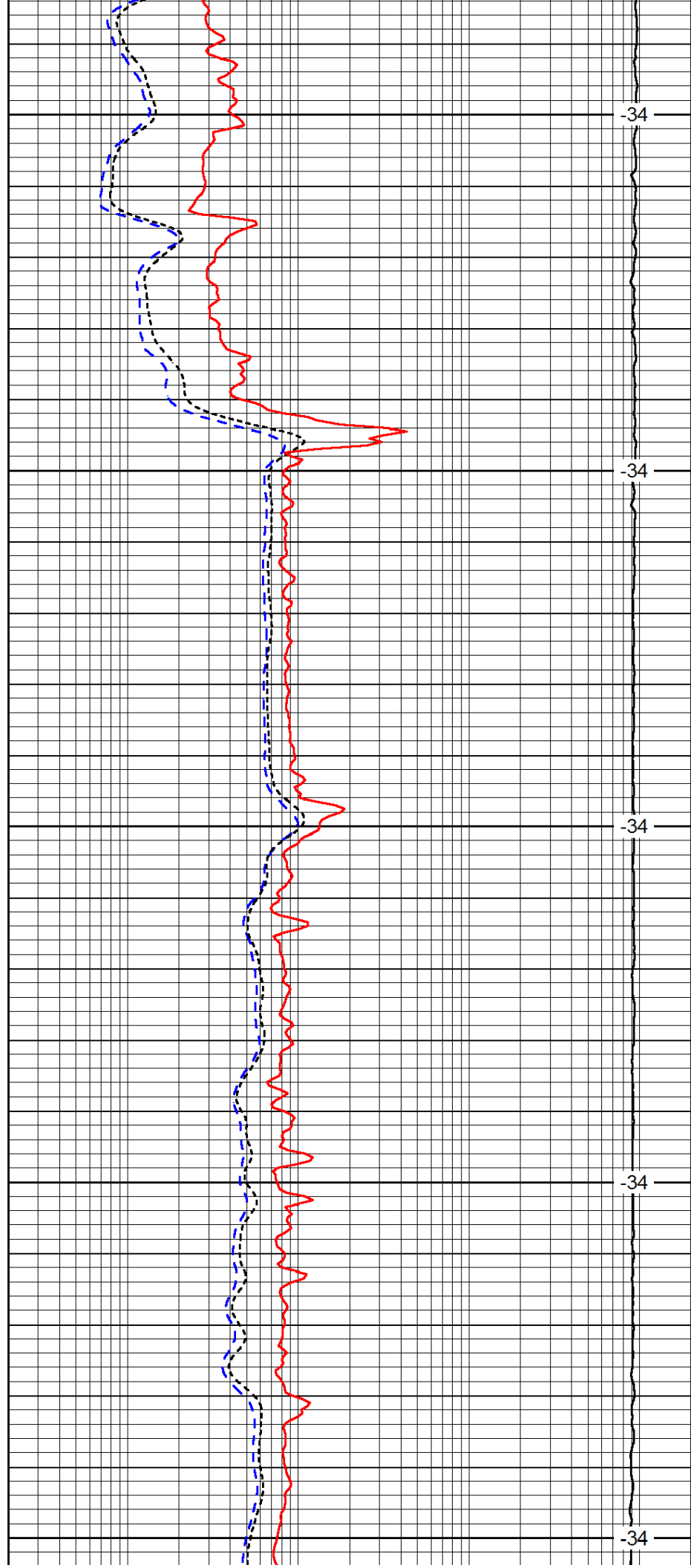
1950

2000

2050

2100

2150



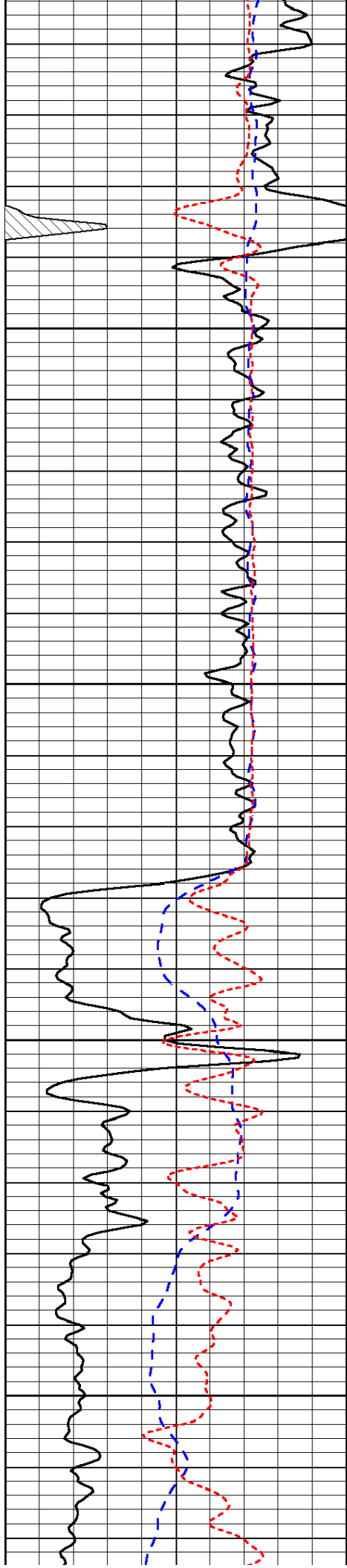
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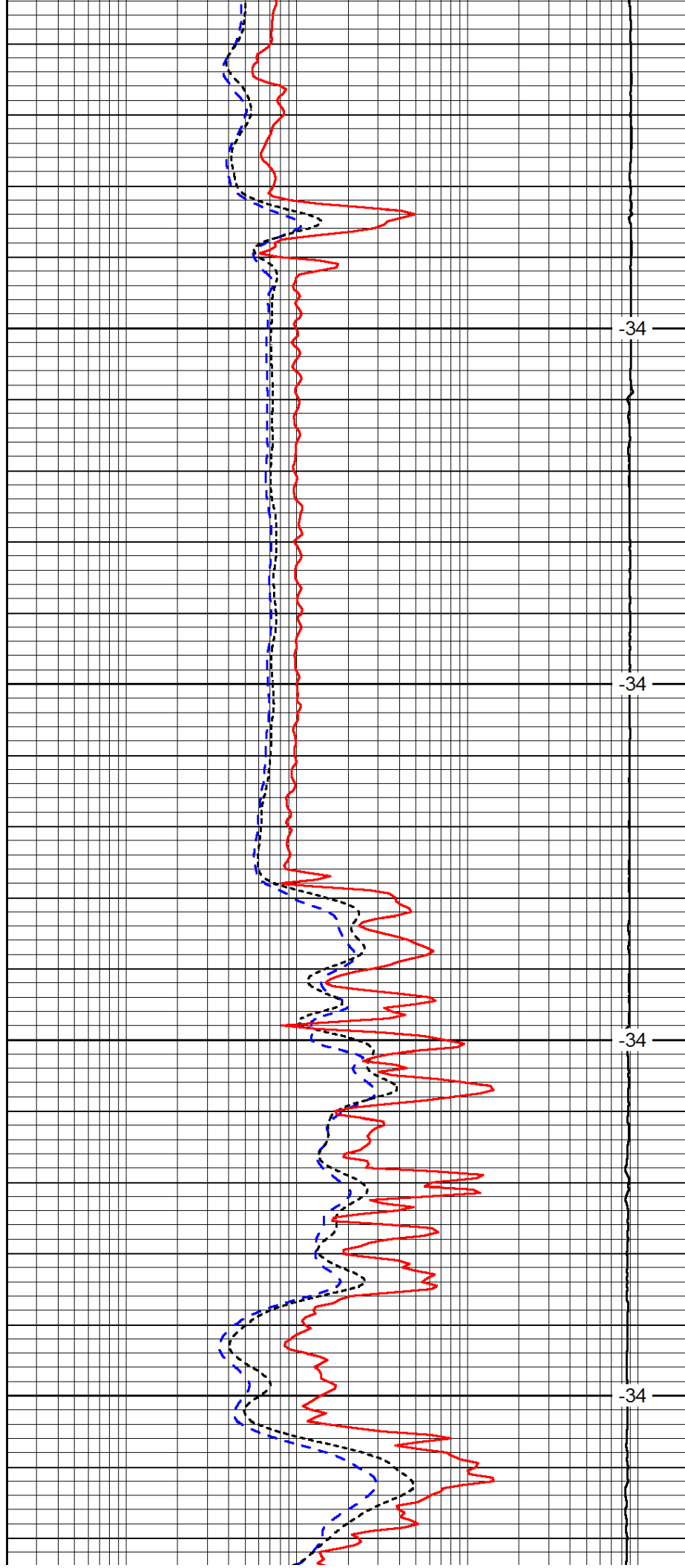


2200

2250

2300

2350

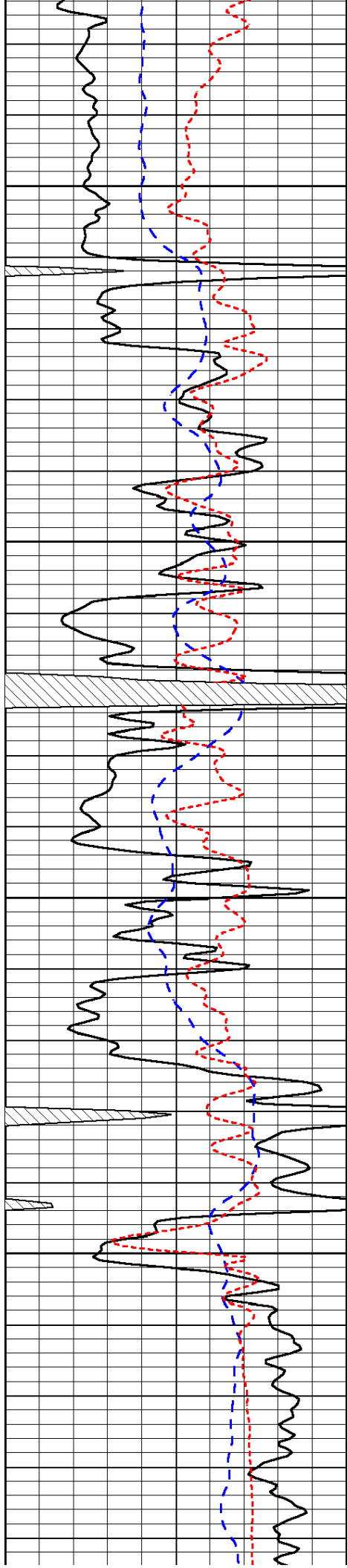


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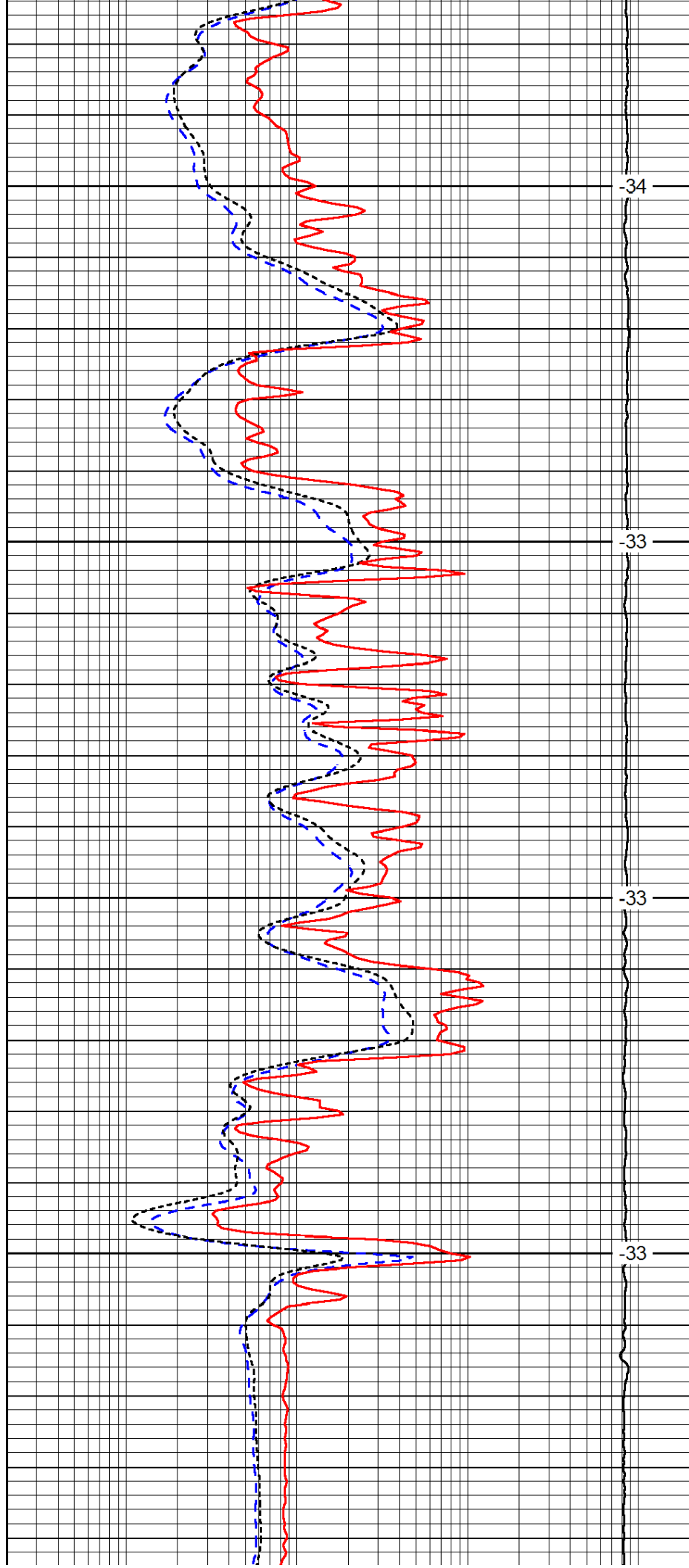


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2450

2500

2550

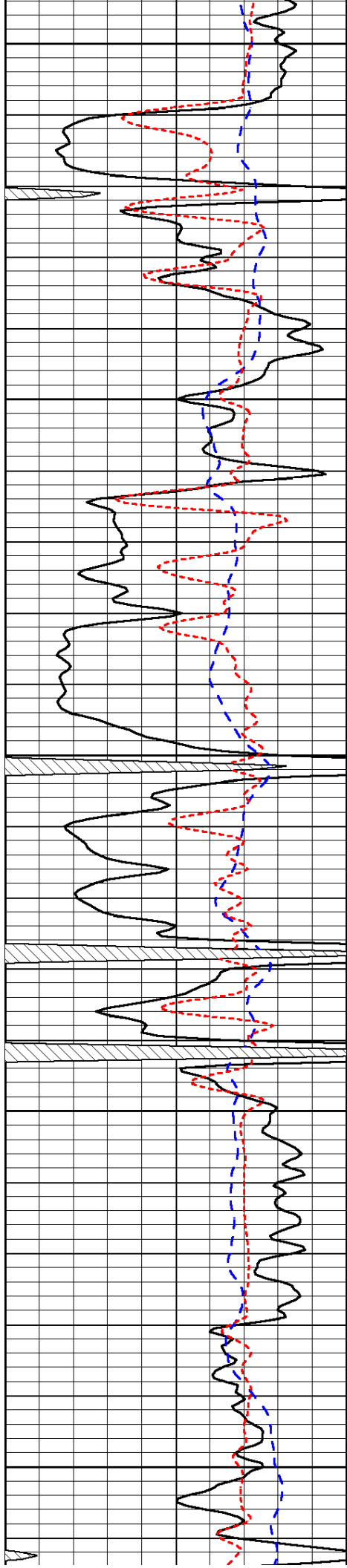


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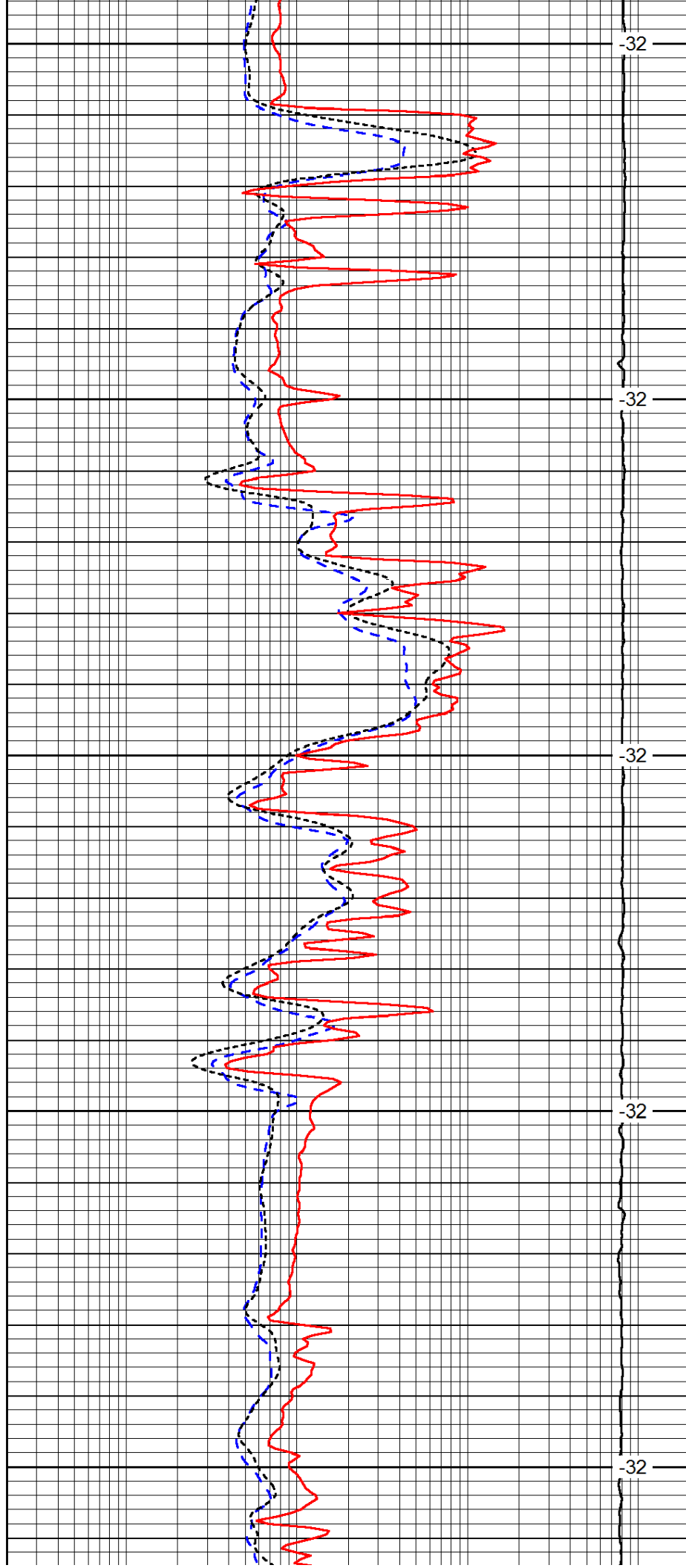
2600

2650

2700

2750

2800



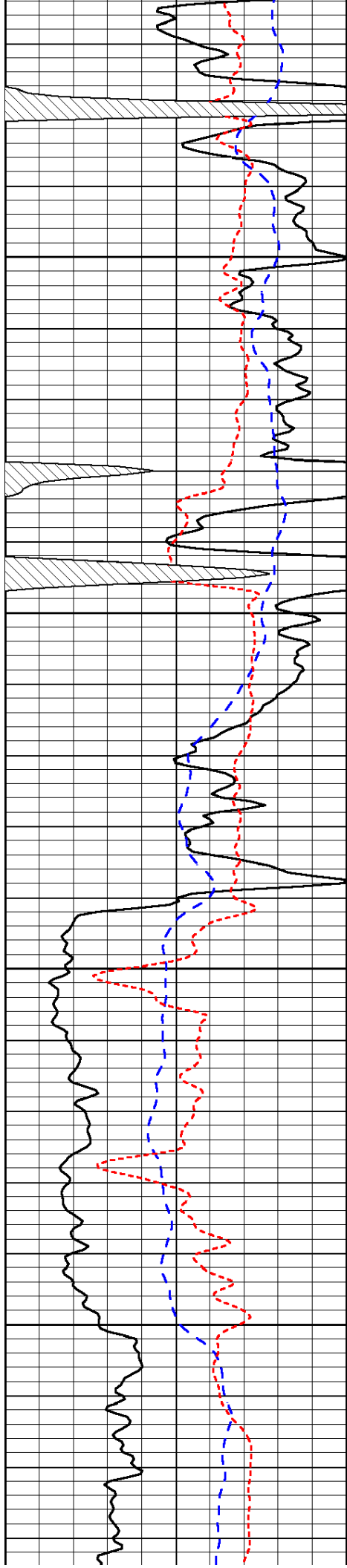
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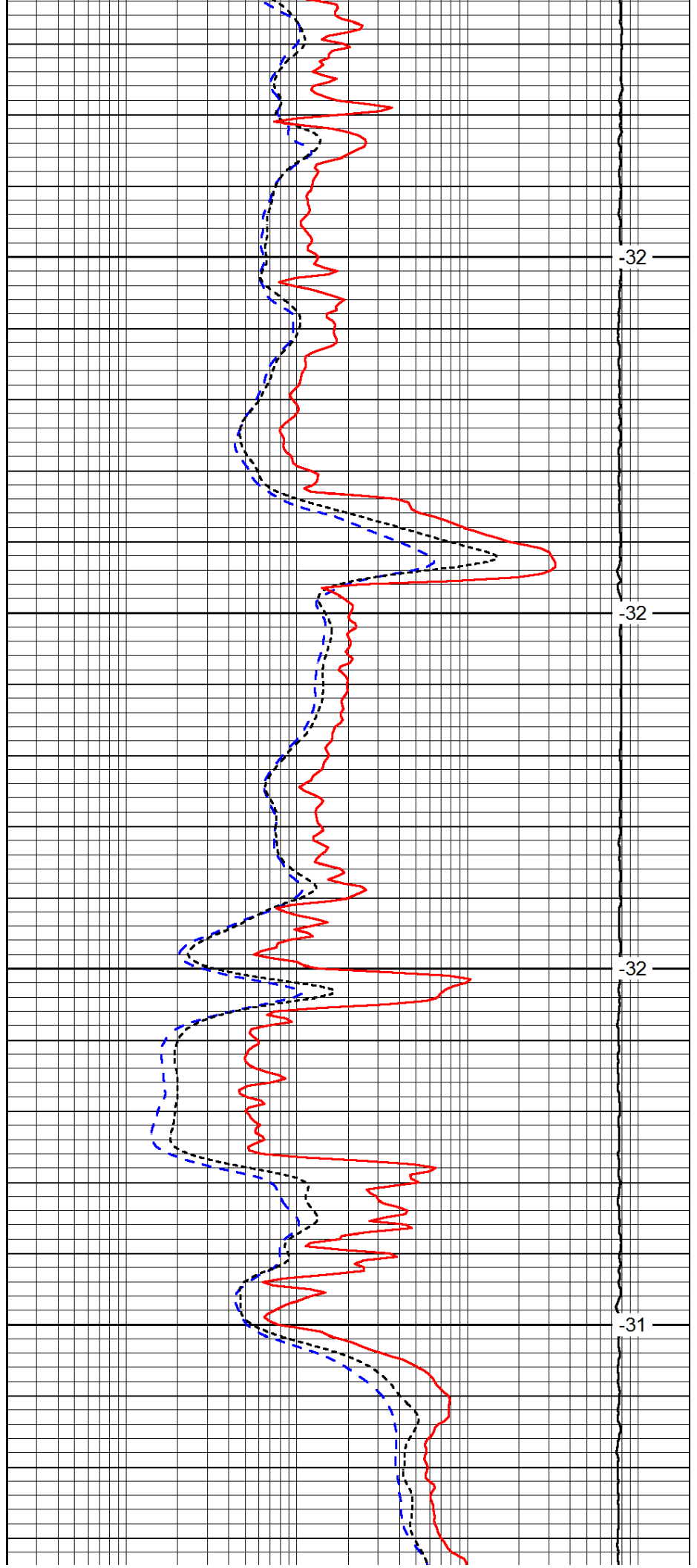


2850

2900

2950

3000

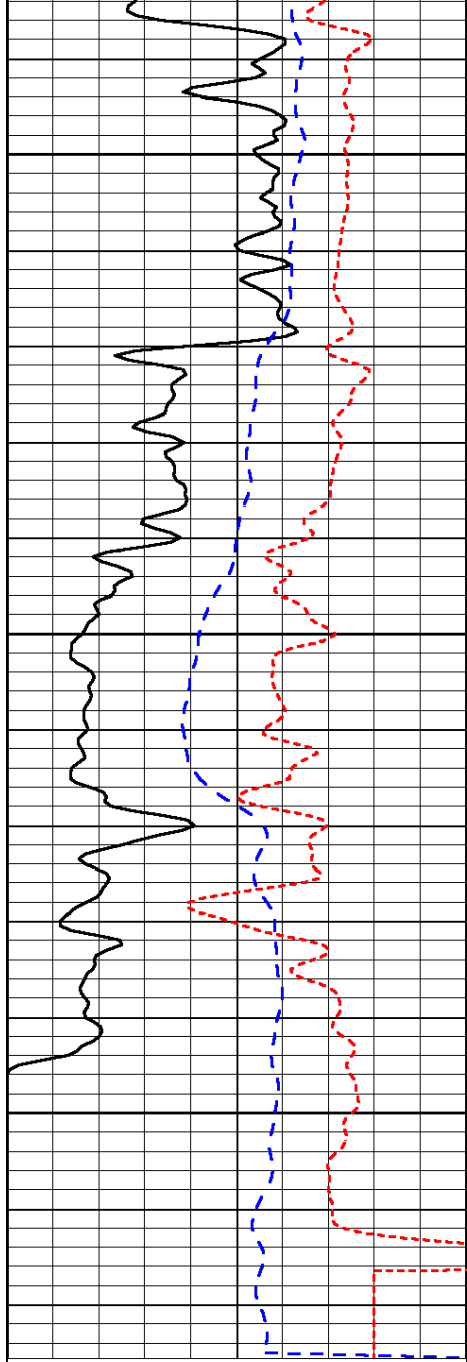


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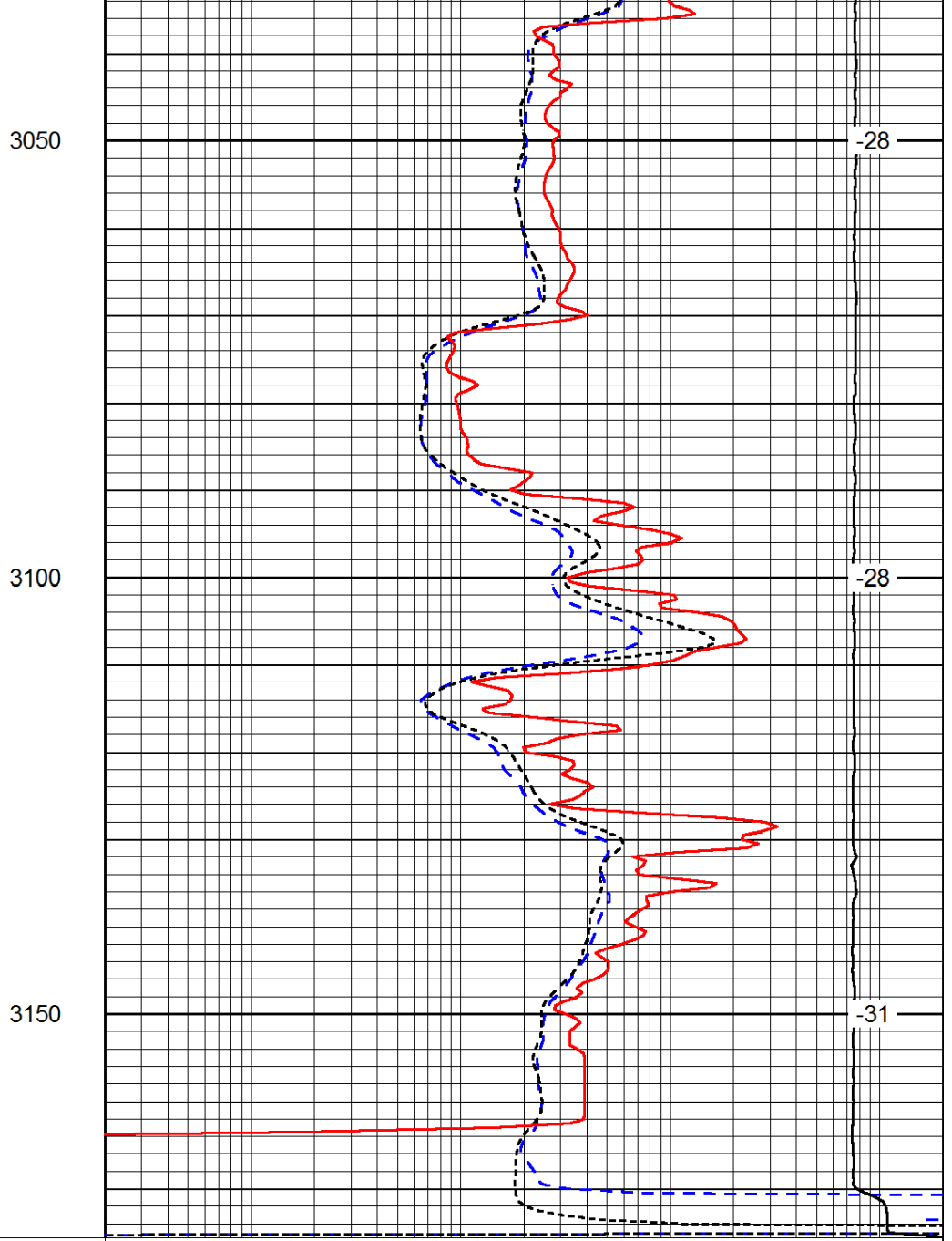
-32

-32

-31



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