



Pioneer Energy Services

# Dual Induction Log

15-055-22381-00-00

API No.

Company **American Warrior, Inc.**

Well **O'Brate-Finney #4-5**

Field **Unknown**

County **Finney** State **Kansas**

Location **2262' FSL & 941' FWL**

Sec: **5** Twp: **23S** Rge: **32W**

Permanent Datum **Ground Level** Elevation **2851**

Log Measured From **Kelly Bushing** 11 Ft. Above Perm. Datum

Drilling Measured From **Kelly Bushing**

Other Services  
CNL/CDL  
MEL  
Elevation  
K.B. 2862  
D.F. G.L. 2851

Date	1/19/15
Run Number	One
Depth Driller	4900
Depth Logger	4902
Bottom Logged Interval	4901
Top Log Interval	1650
Casing Driller	8.625 @ 1657
Casing Logger	1658
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	3800
Density / Viscosity	9.75   54
pH / Fluid Loss	8.5   10.0
Source of Sample	Flowline
Rm @ Meas. Temp	0.50 @ 62
Rmf @ Meas. Temp	0.38 @ 62
Rmc @ Meas. Temp	0.68 @ 62
Source of Rmf / Rmc	Charts
Rm @ BHT	0.25 @ 125
Operating Rig Time	4 Hours
Max Rec. Temp. F	125
Equipment Number	15
Location	Hays
Recorded By	D.Kerr
Witnessed By	Kevin Timson

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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

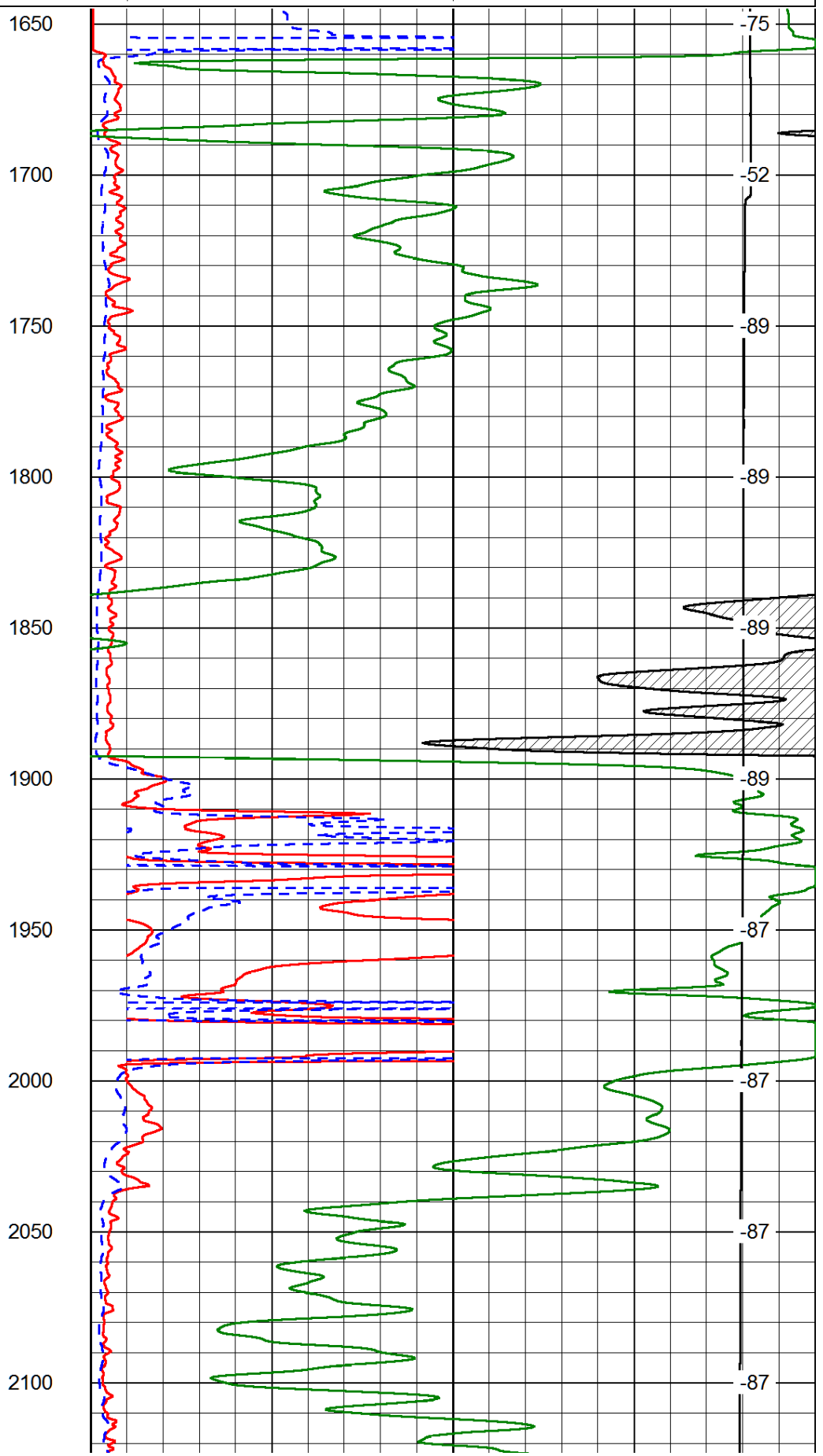
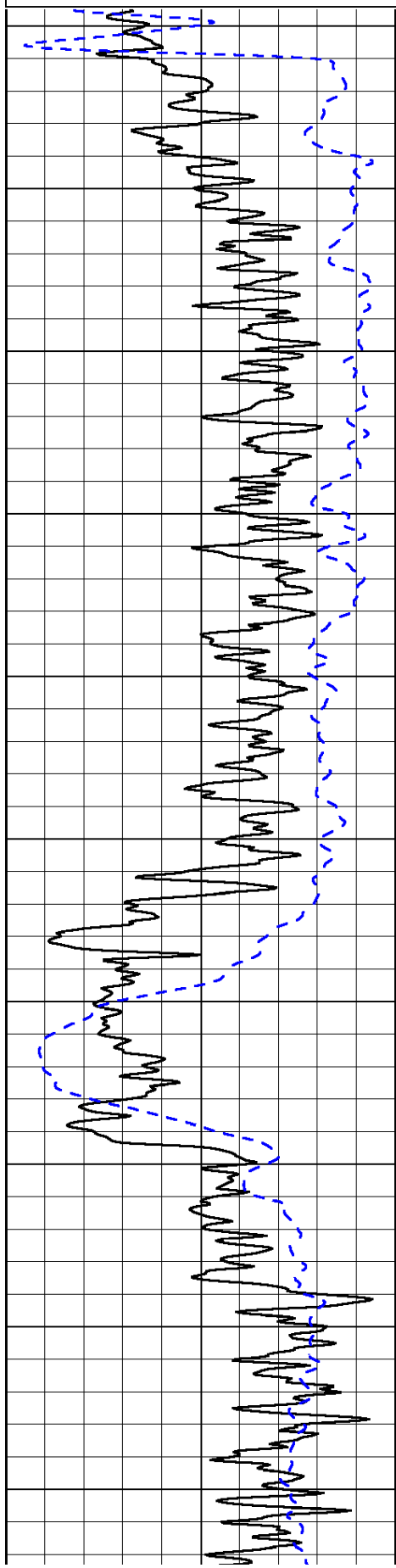
Garden City, KS 5 N to Six Mile Rd.  
1 E, 3/4 N, E into

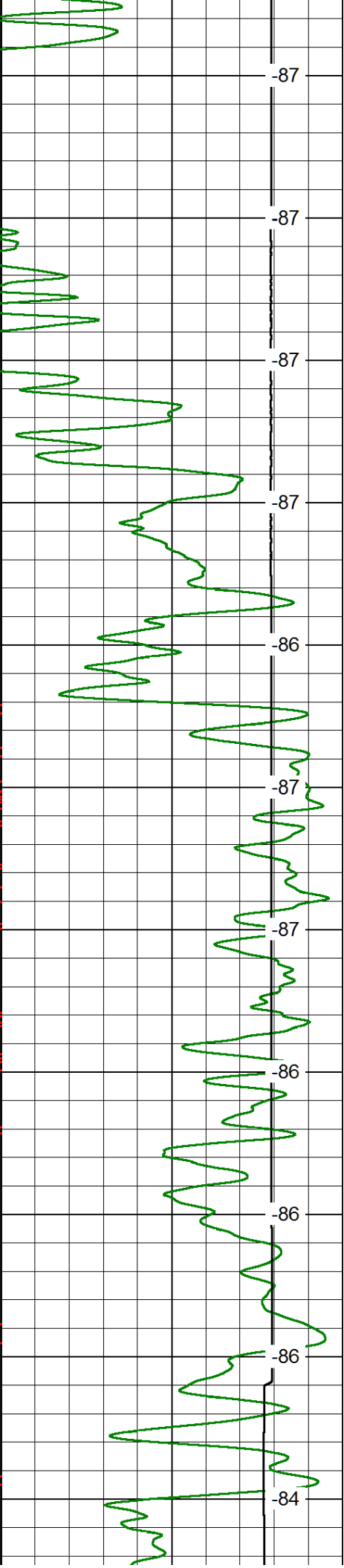
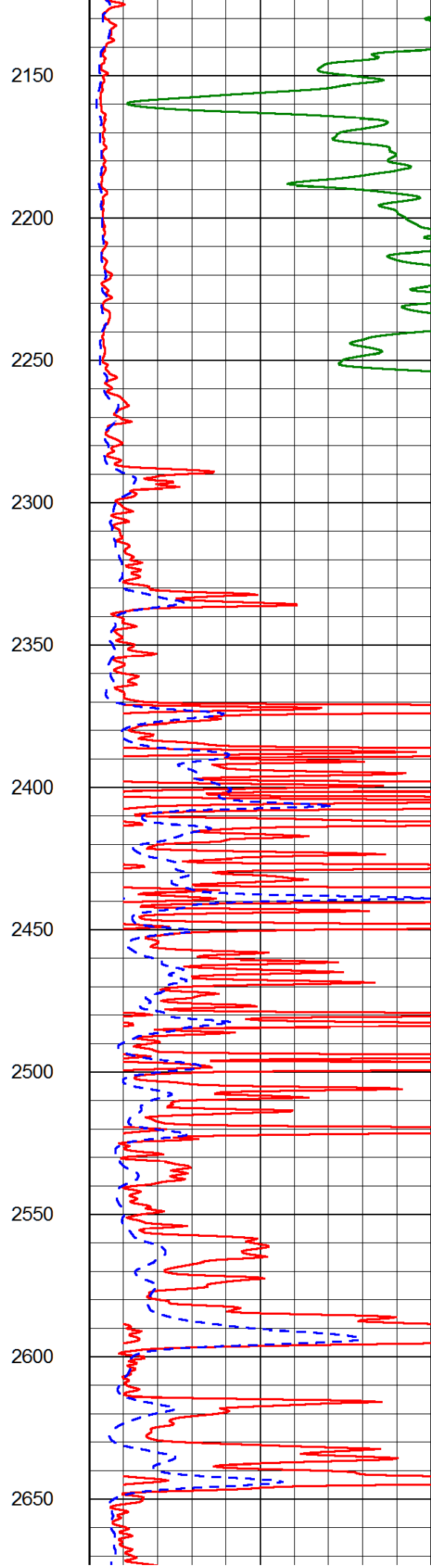
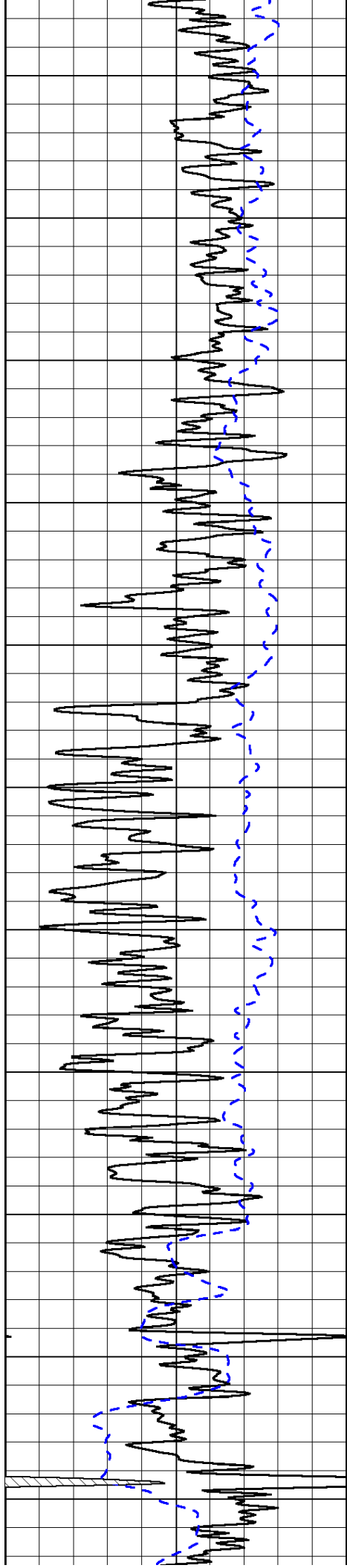
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 Dataset Creation: Mon Jan 19 09:09:04 2015  
 Charted by: Depth in Feet scaled 1:600

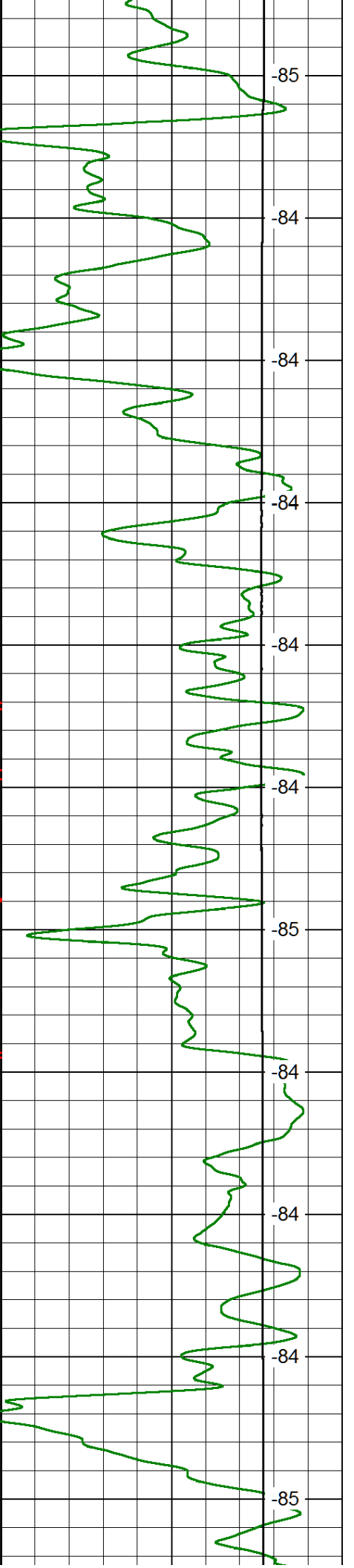
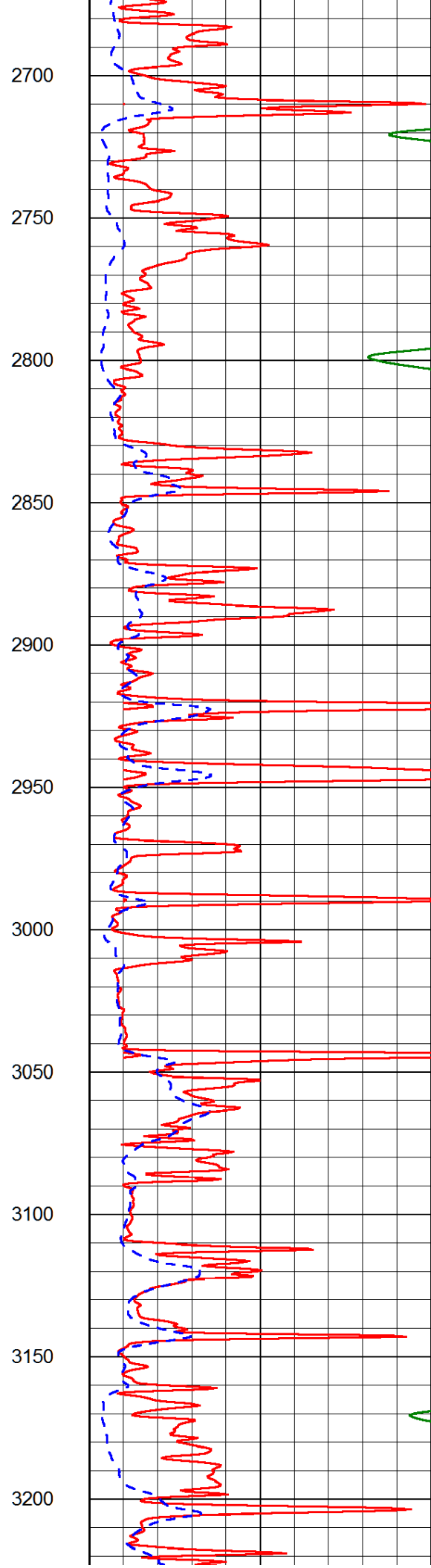
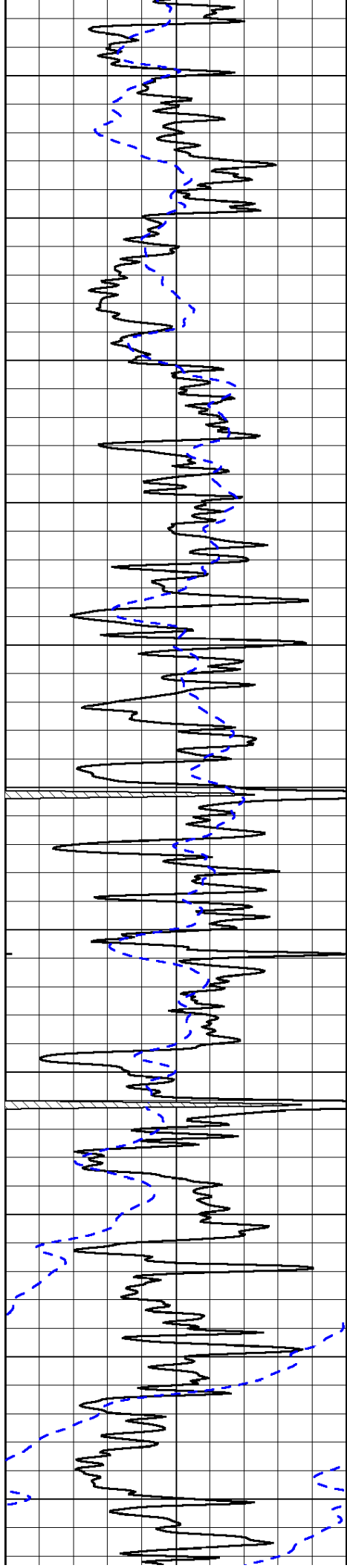
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-200 SP (mV) 0

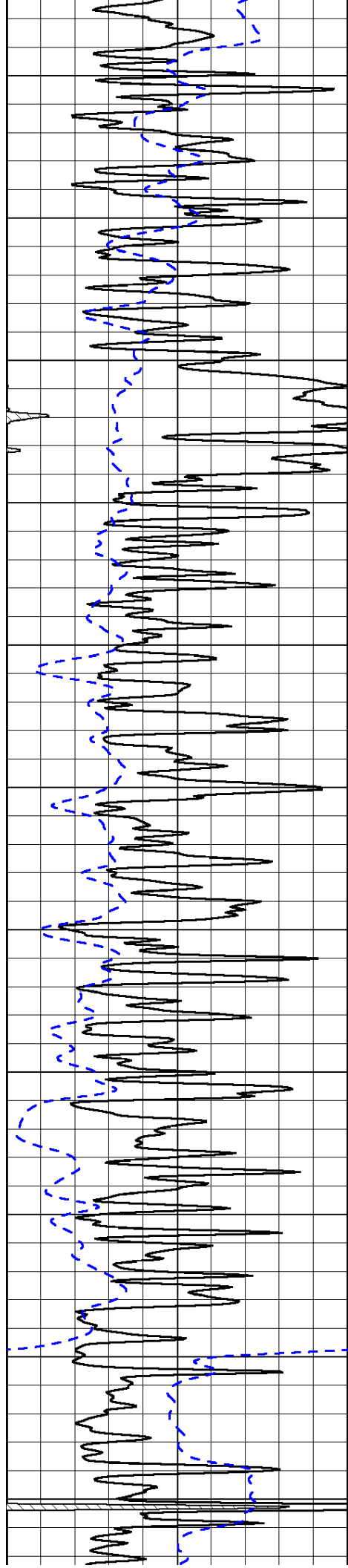
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0 Deep Resistivity 50  
1000 Conductivity 0  
15000 Line Tension 0  
50 Shallow Resistivity 500  
50 Deep Resistivity 500

LSPD

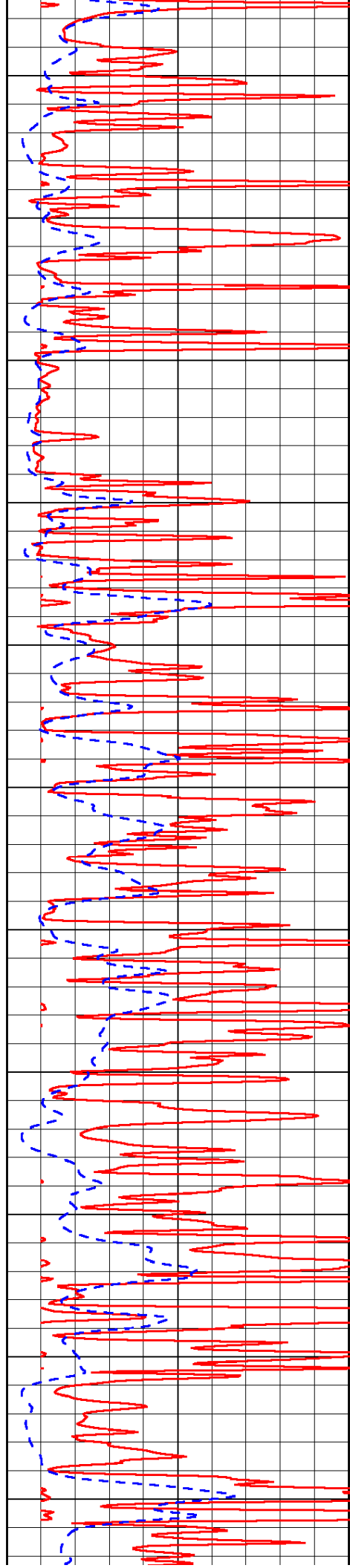




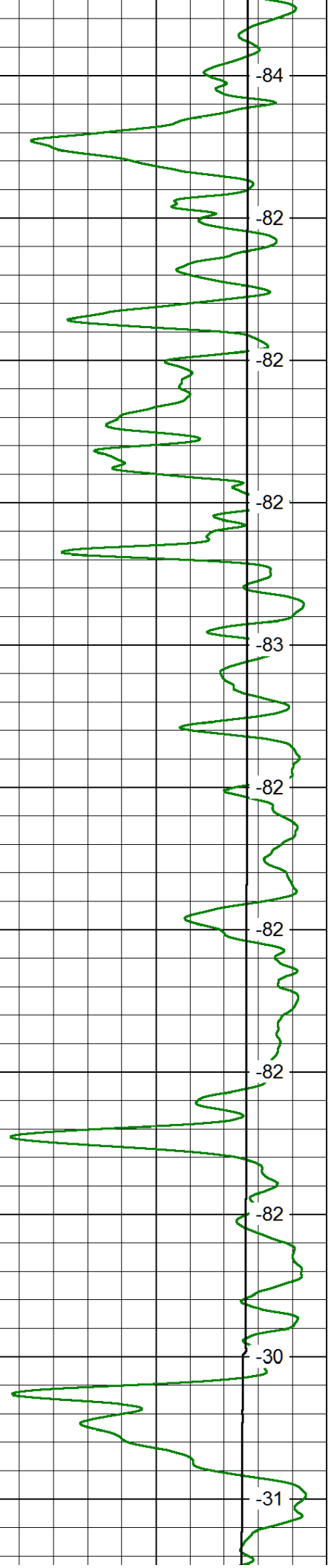


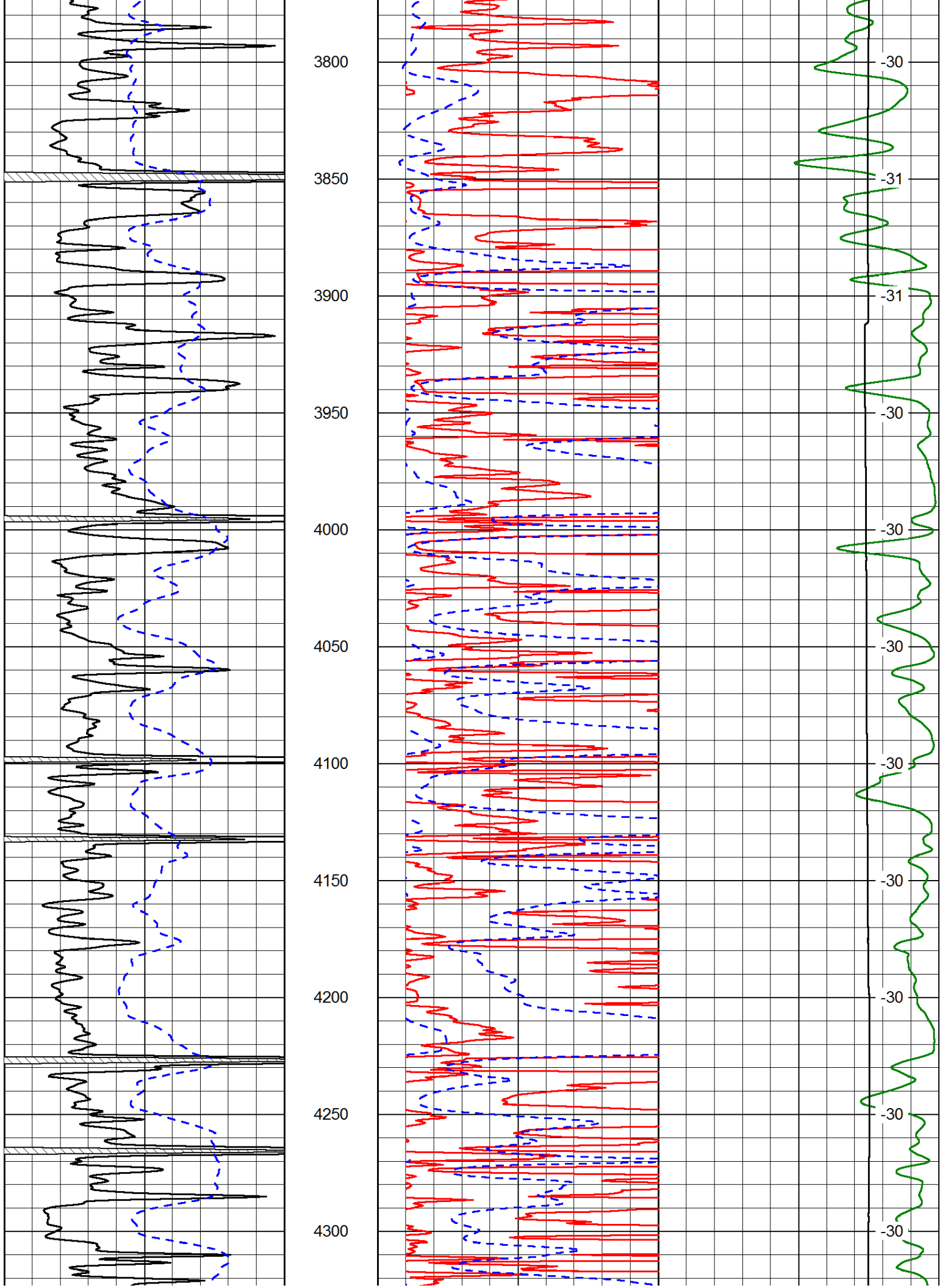


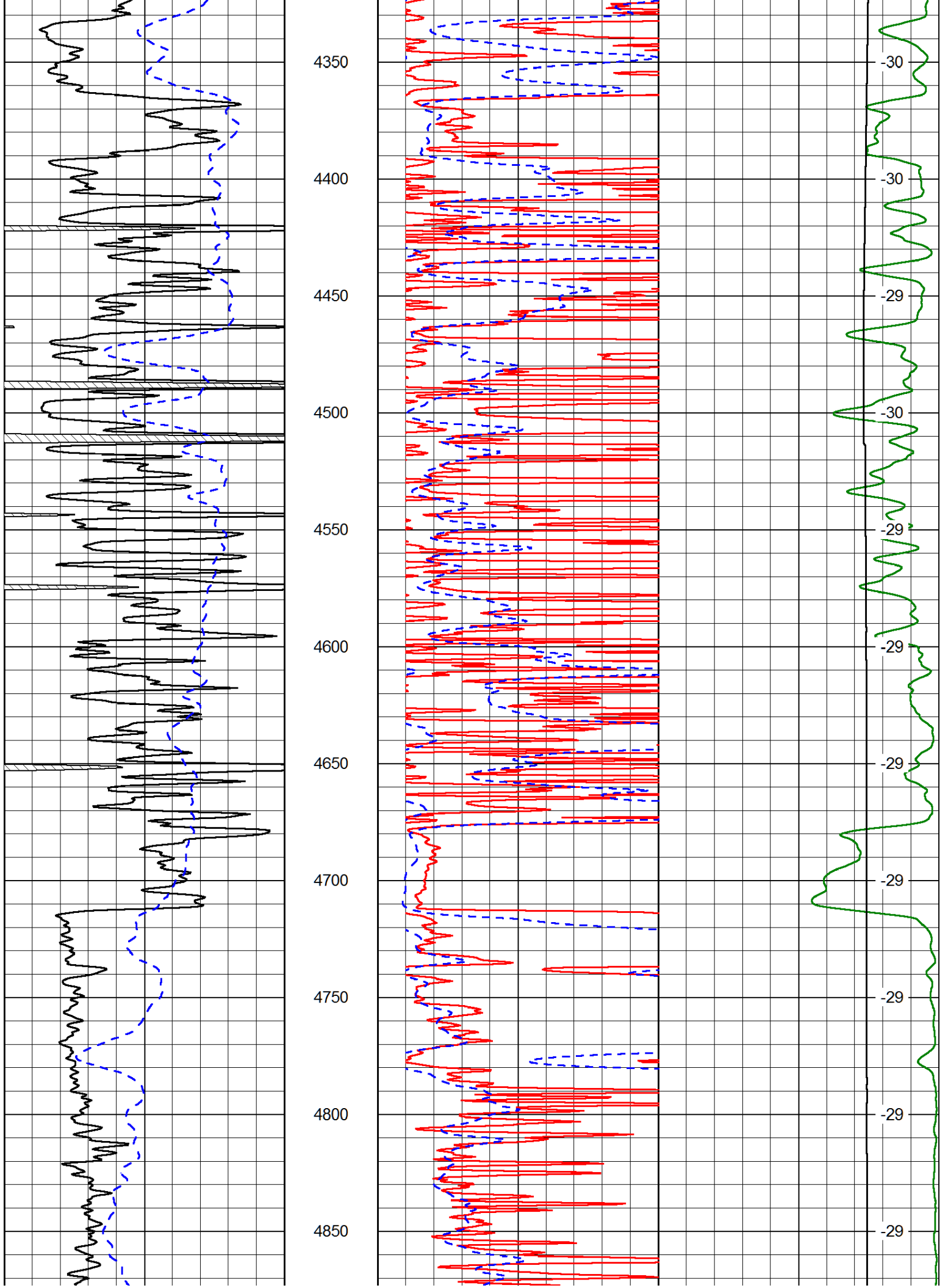
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3600  
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3700  
3750

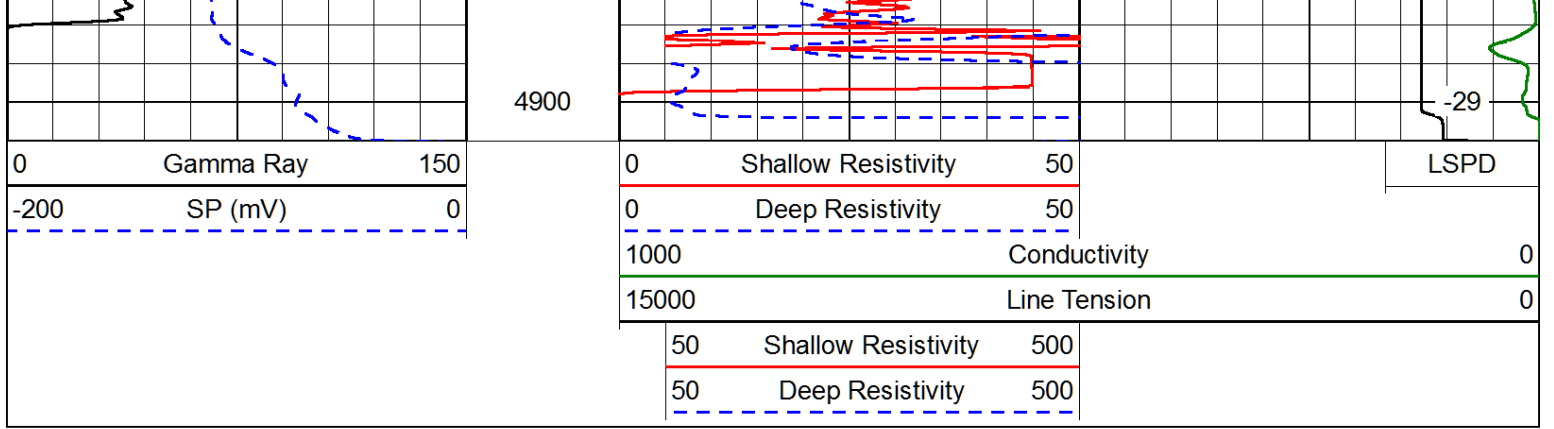


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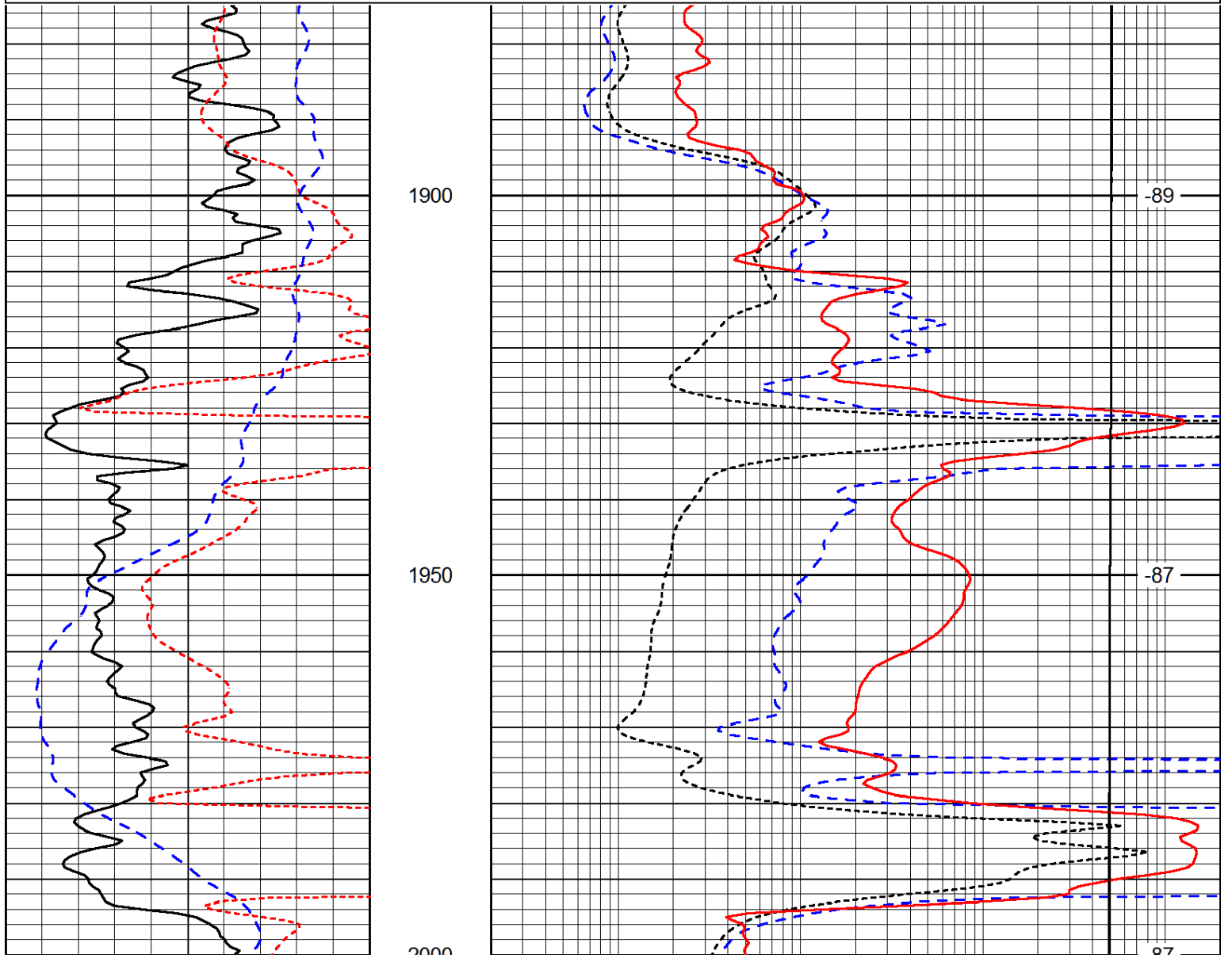
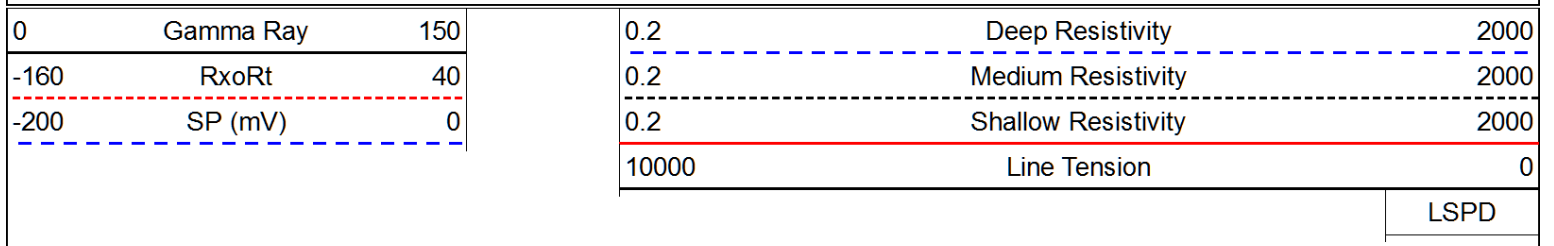


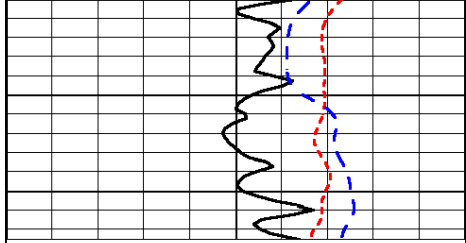






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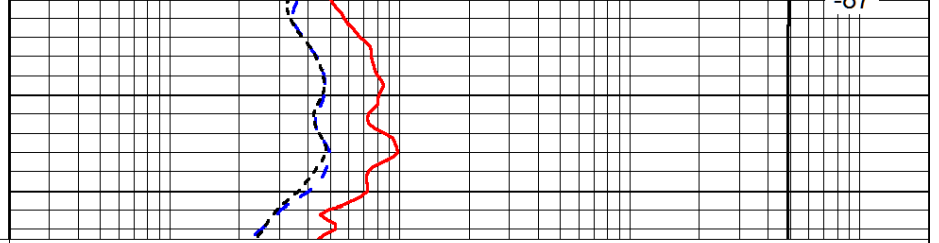




0 Gamma Ray 150

-160 RxoRt 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

Database File: amwarrior\_obratefinney\_4\_5hd.db  
 Dataset Pathname: DIL/awstk  
 Presentation Format: dil  
 Dataset Creation: Mon Jan 19 09:09:04 2015  
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0 Gamma Ray 150

-160 RxoRt 40

-200 SP (mV) 0

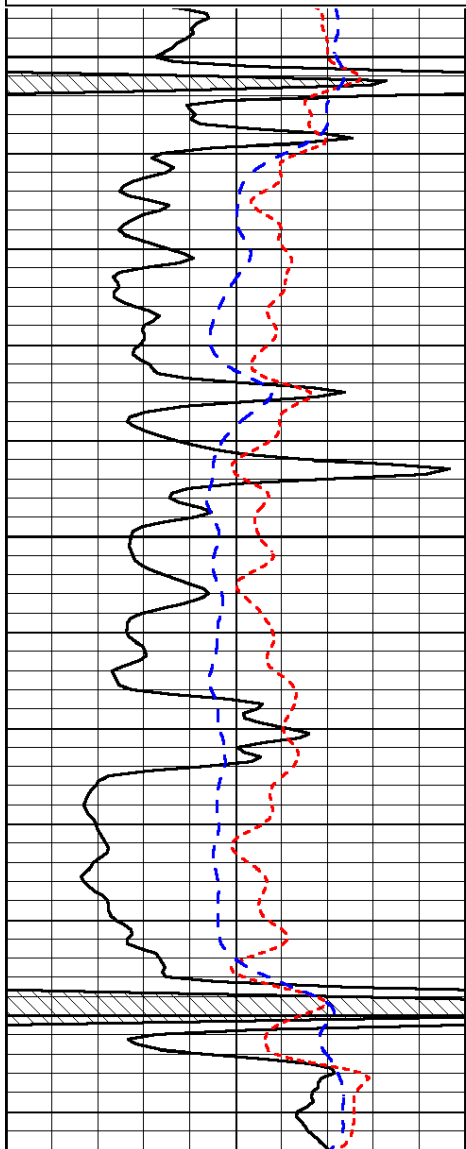
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0.2 Medium Resistivity 2000

0.2 Shallow Resistivity 2000

10000 Line Tension 0

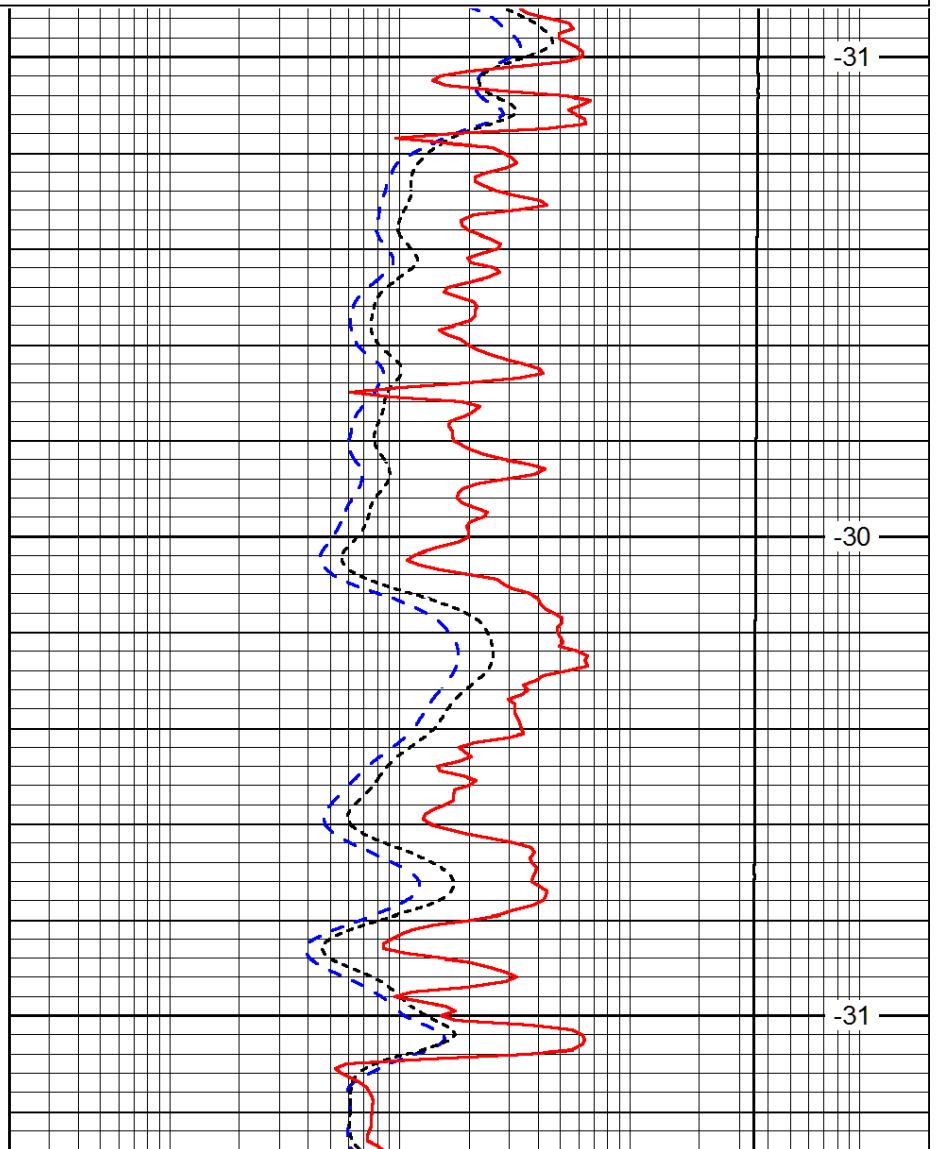
LSPD



3750

3800

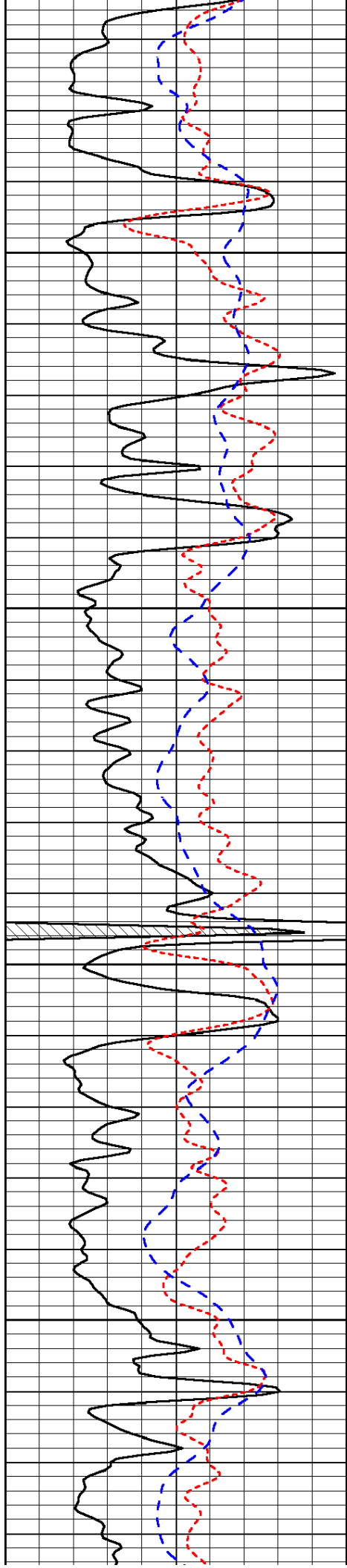
3850



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-30

-31

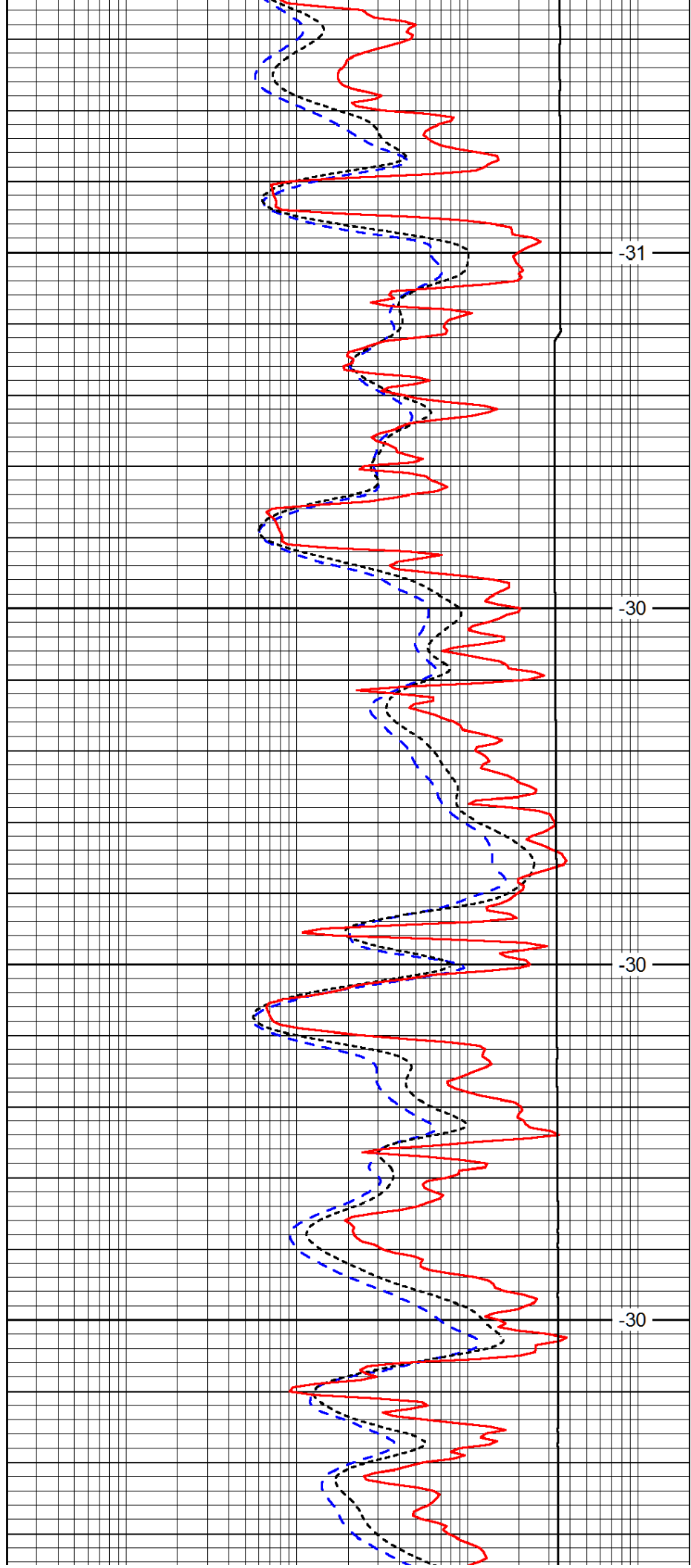


3900

3950

4000

4050

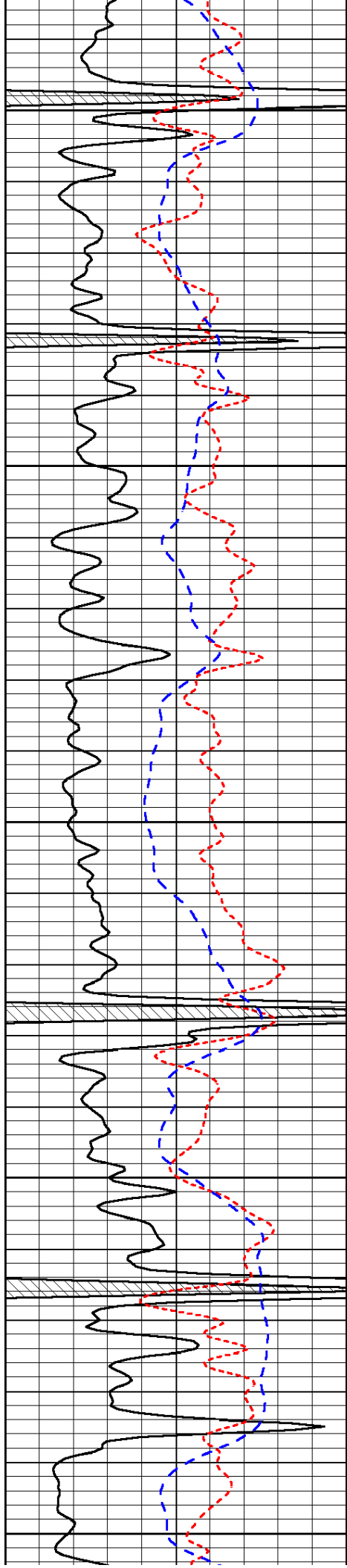


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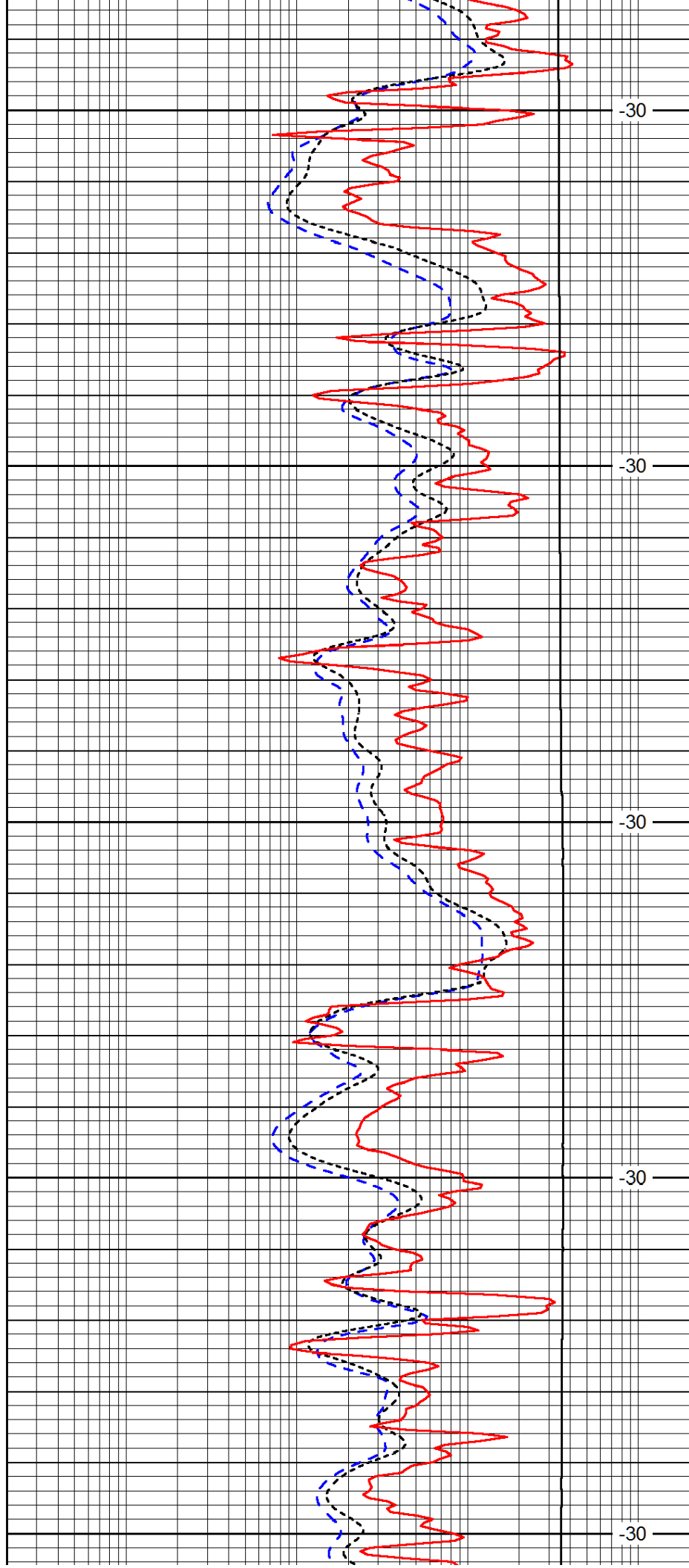
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4150

4200

4250

4300



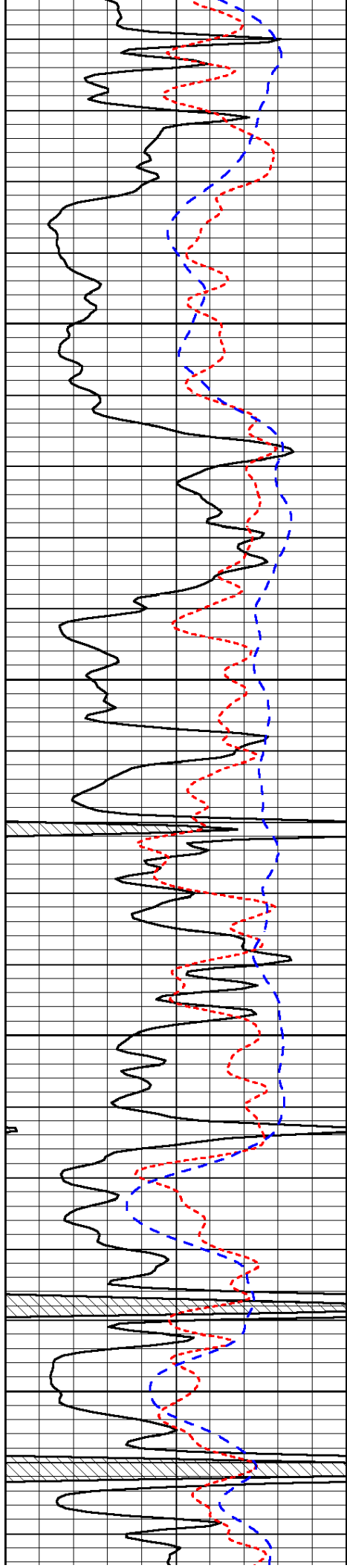
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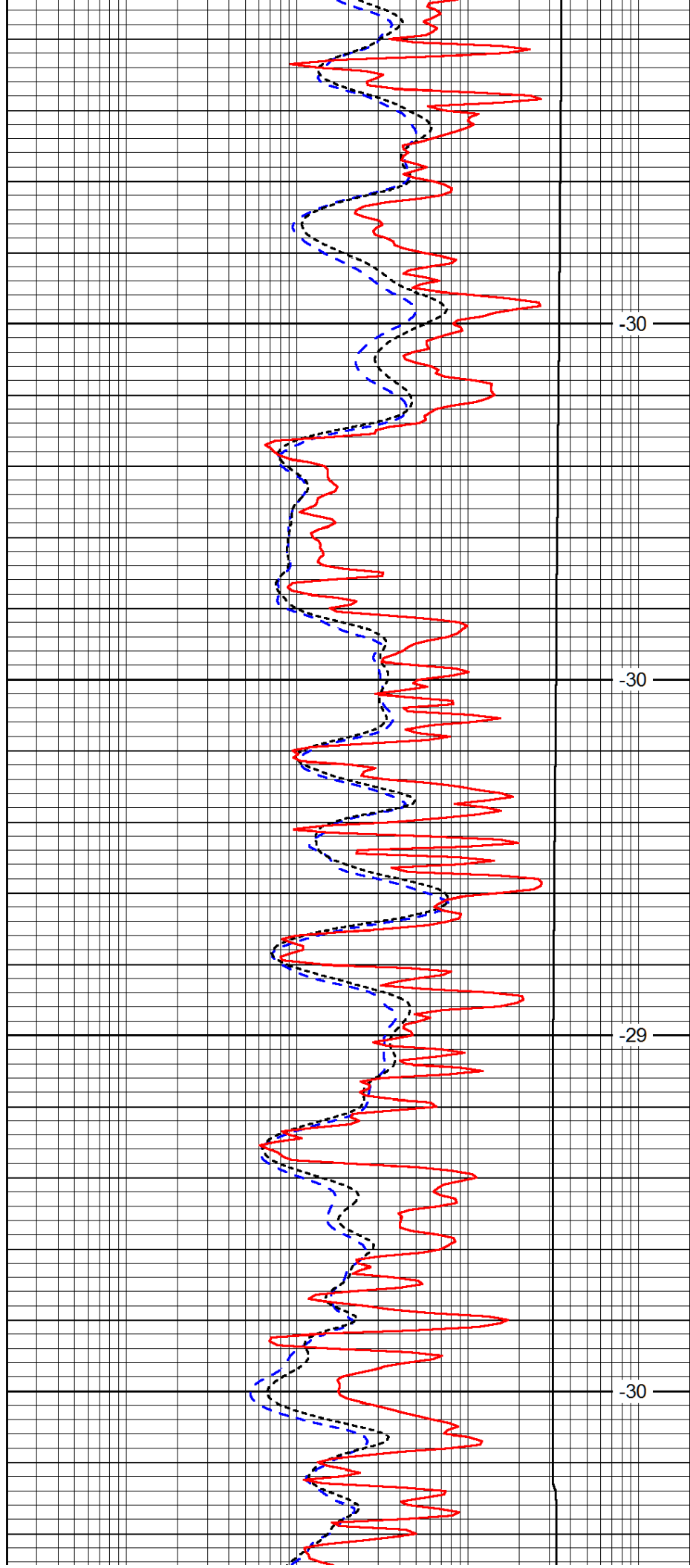


4350

4400

4450

4500

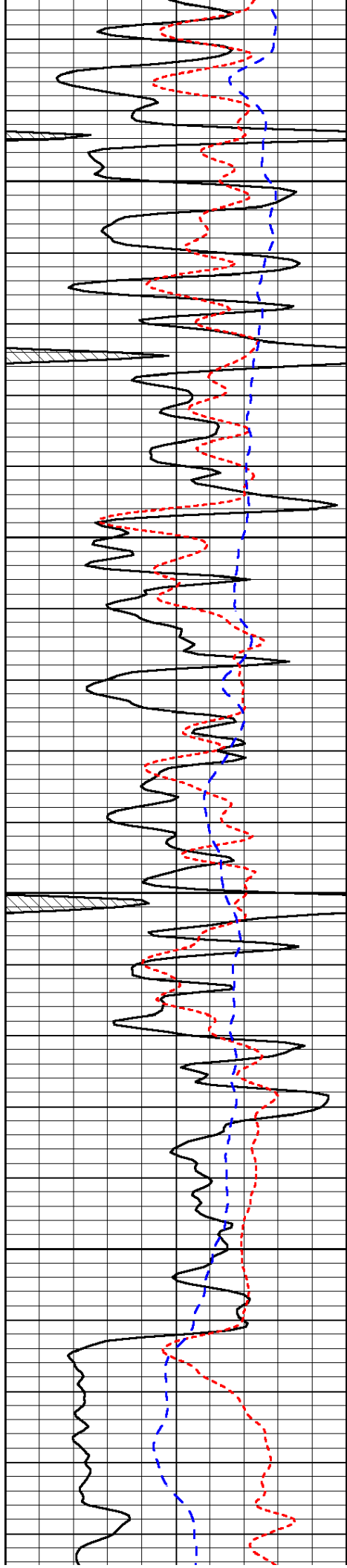


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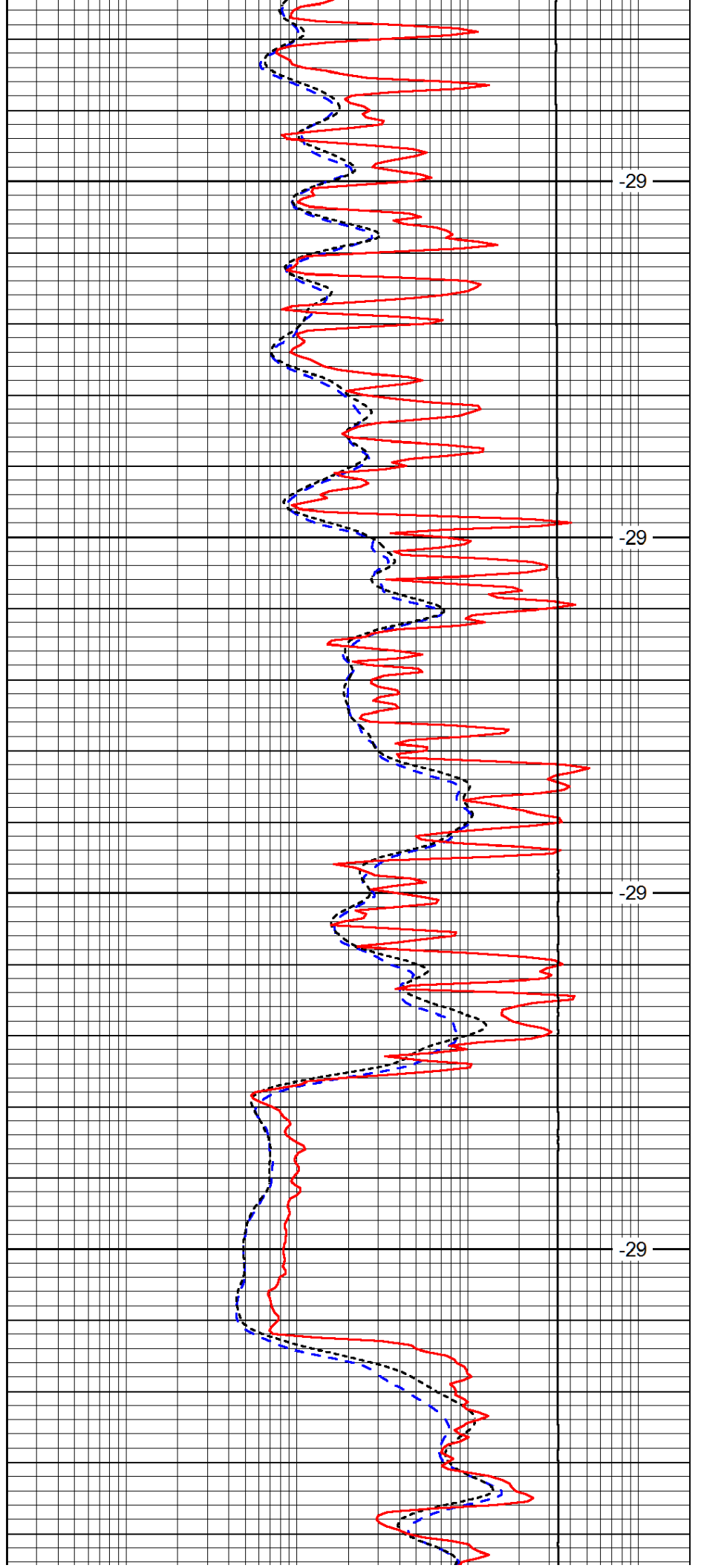


4550

4600

4650

4700

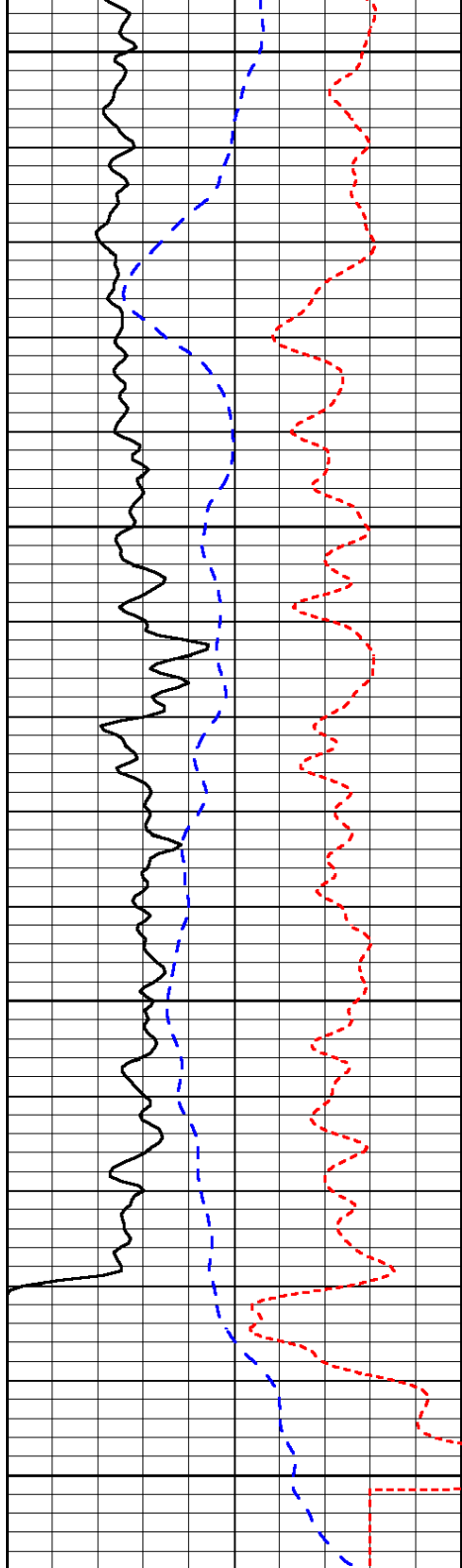


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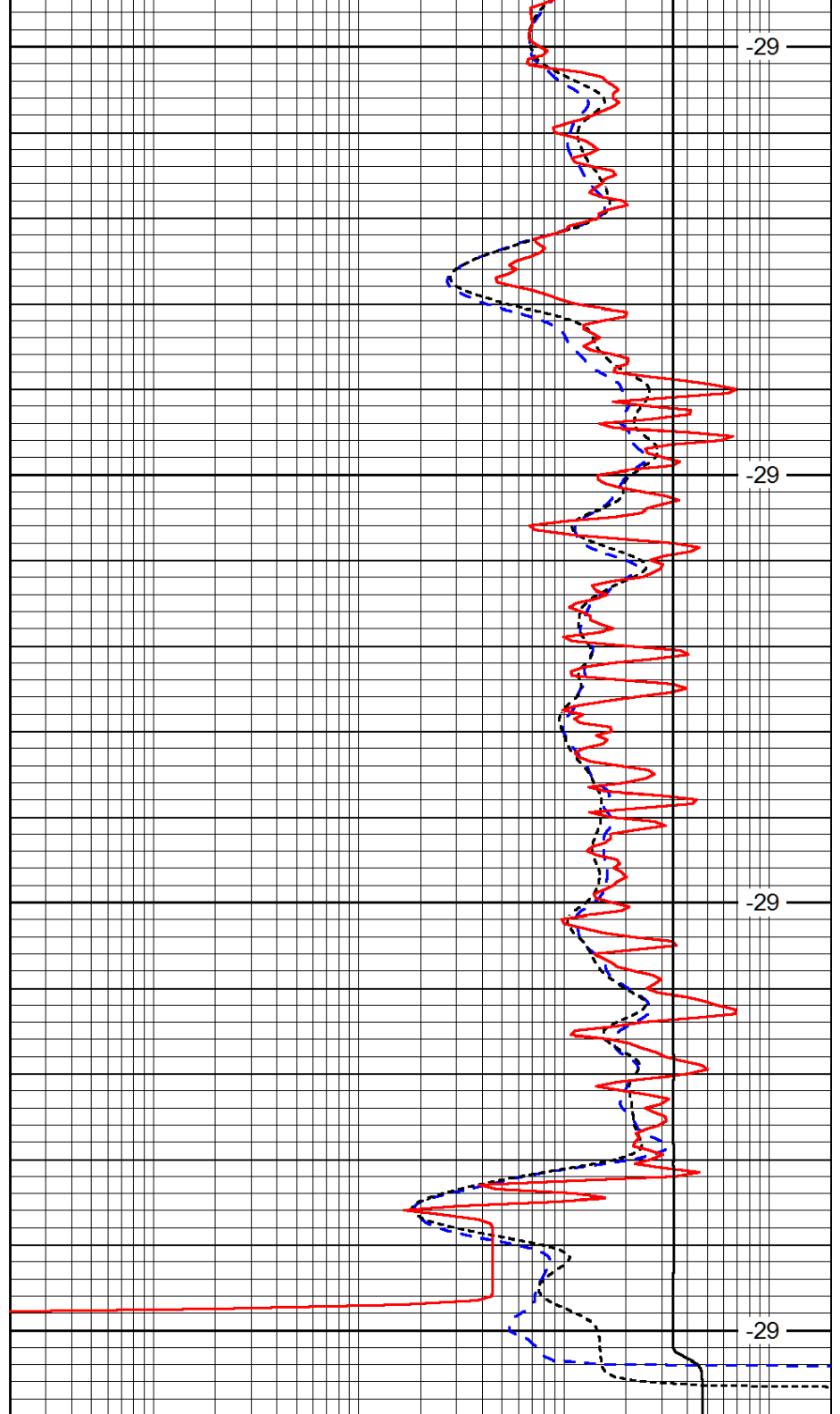
-29

-29



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

4750  
4800  
4850  
4900



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

LSPD