



Pioneer Energy Services

Dual Induction Log

15-007-23,991-00-00

API No.	Company Indian Oil Company		Other Services CNL/CDL
	Well Blackstock No.1		
	Field Stranathan	State Kansas	
	County Barber		
	Location S/2 SW NW NW 1155' FNL & 330' FWL		
	Sec: 12	Twp: 35S	Rge: 12W
Permanent Datum	Ground Level	Elevation 1395	
Log Measured From	Kelly Bushing	11 Ft. Above Perm. Datum	
Drilling Measured From	Kelly Bushing	K.B. 1406 D.F. 1395 G.L. 1395	

Date	3/13/2013
Run Number	One
Depth Driller	5275
Depth Logger	5277
Bottom Logged Interval	5276
Top Log Interval	750
Casing Driller	8.625 @ 764
Casing Logger	762
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	4,500
Density / Viscosity	9.4 46
pH / Fluid Loss	9.5 9.6
Source of Sample	Flowline
Rm @ Meas. Temp	.4 @ 42
Rmf @ Meas. Temp	.3 @ 42
Rmc @ Meas. Temp	.54 @ 42
Source of Rmf / Rmc	Charts
Rm @ BHT	.13 @ 129
Operating Rig Time	2 1/2 Hours
Max Rec. Temp. F	129
Equipment Number	17
Location	Hays
Recorded By	C. Desaire
Witnessed By	Scott Alberg

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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

Hardtner KS, 3 E to Claremont Rd,
 1/2 N, E Into

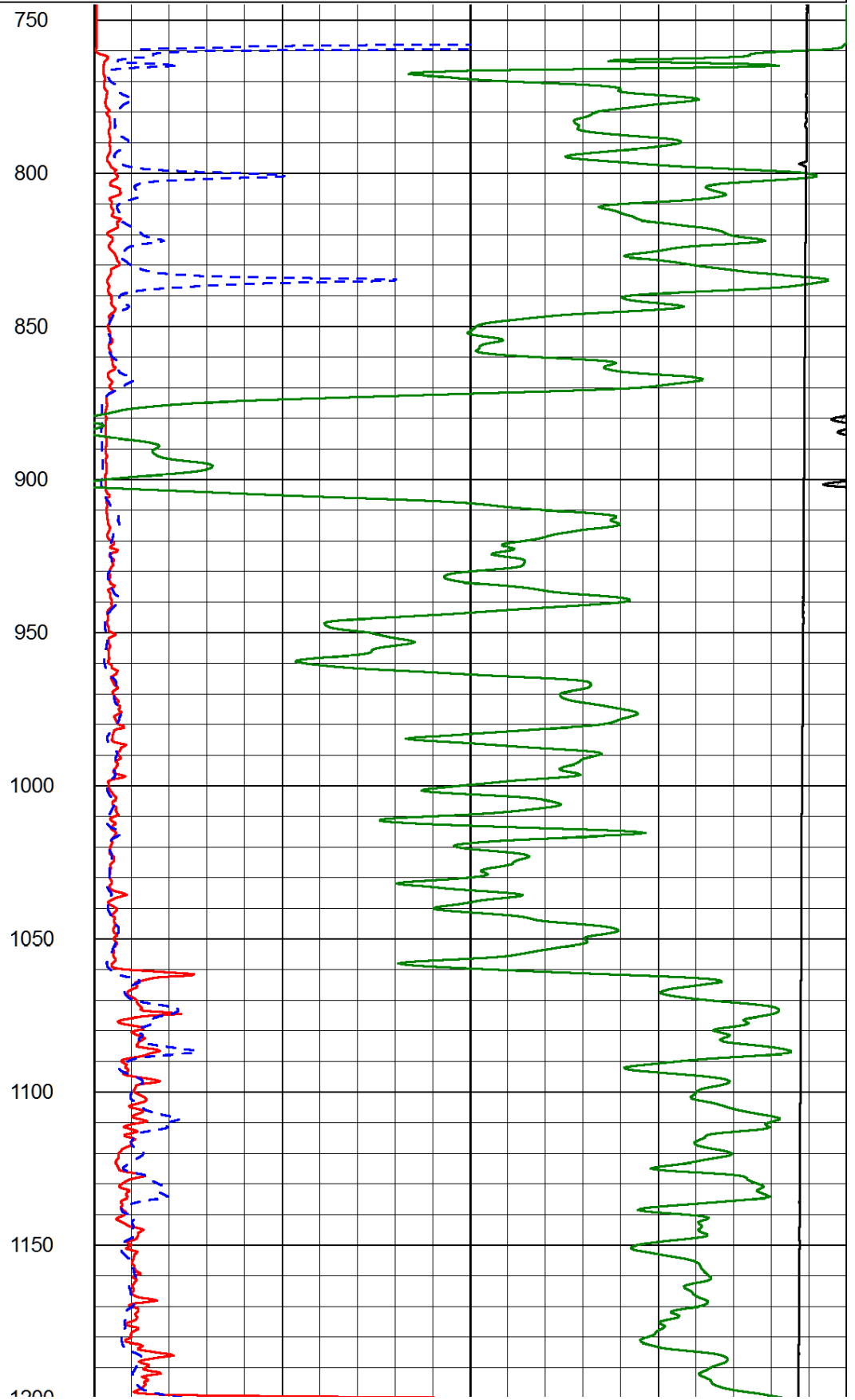
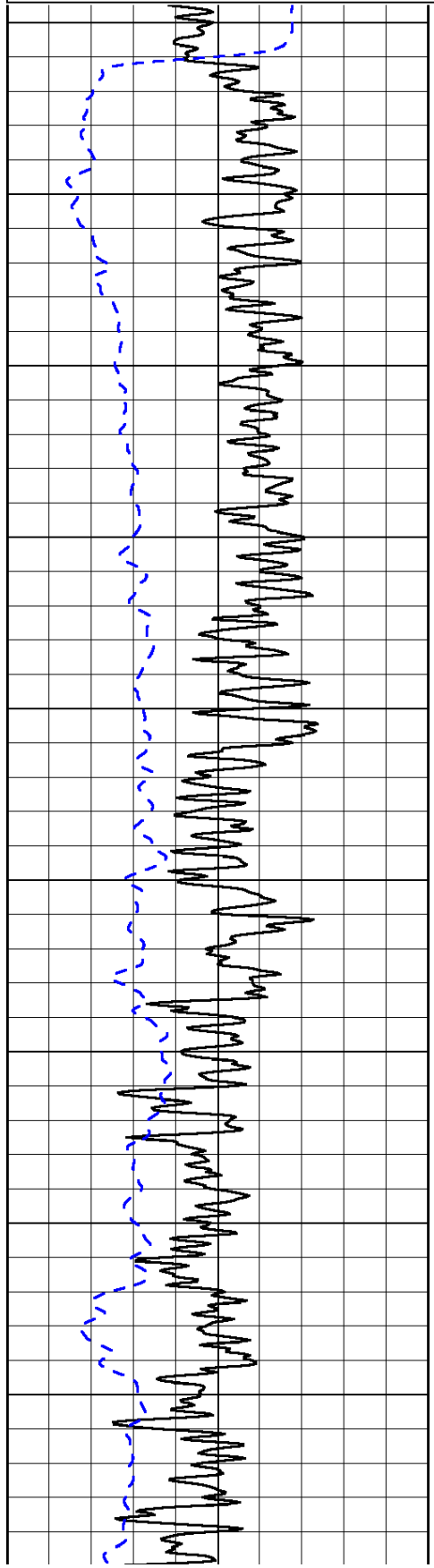
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 Presentation Format: dil2in
 Dataset Creation: Wed Mar 13 07:47:59 2013
 Charted by: Depth in Feet scaled 1:600

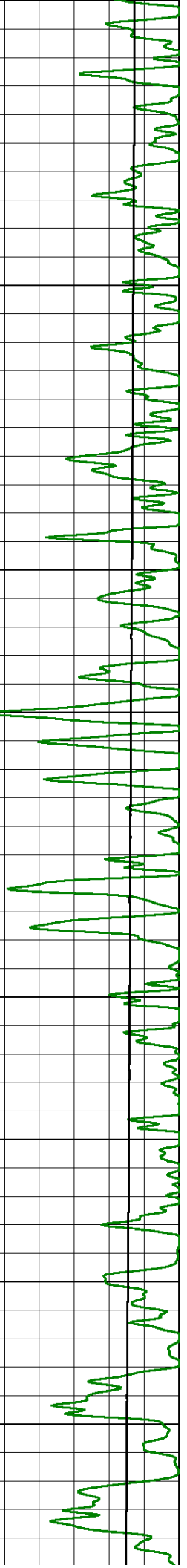
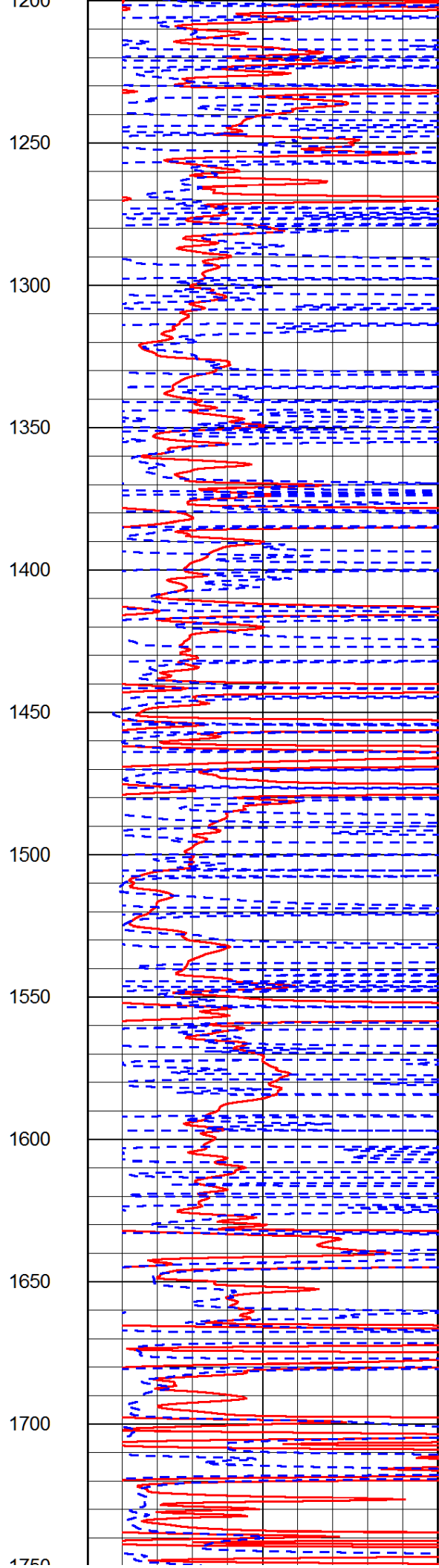
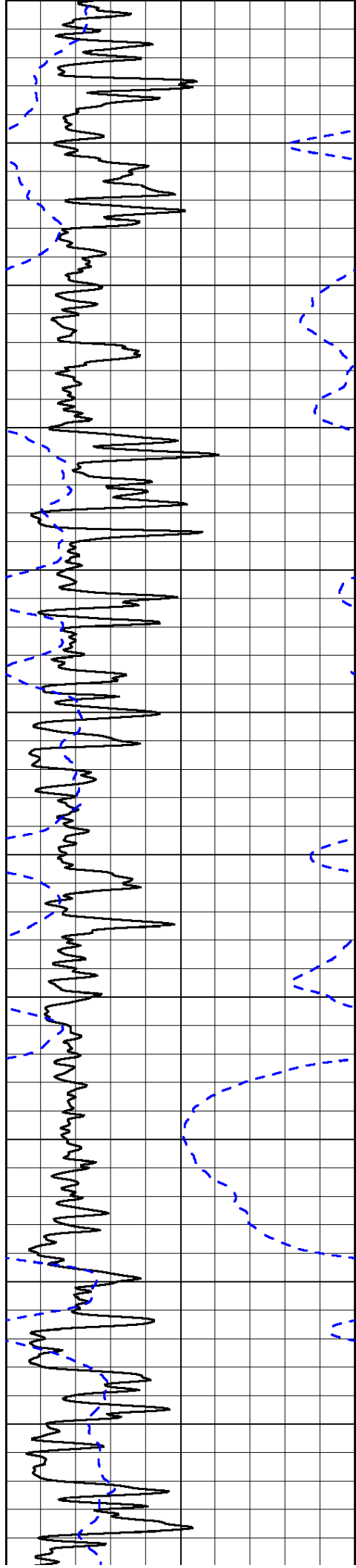
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-200	SP (mV)	0

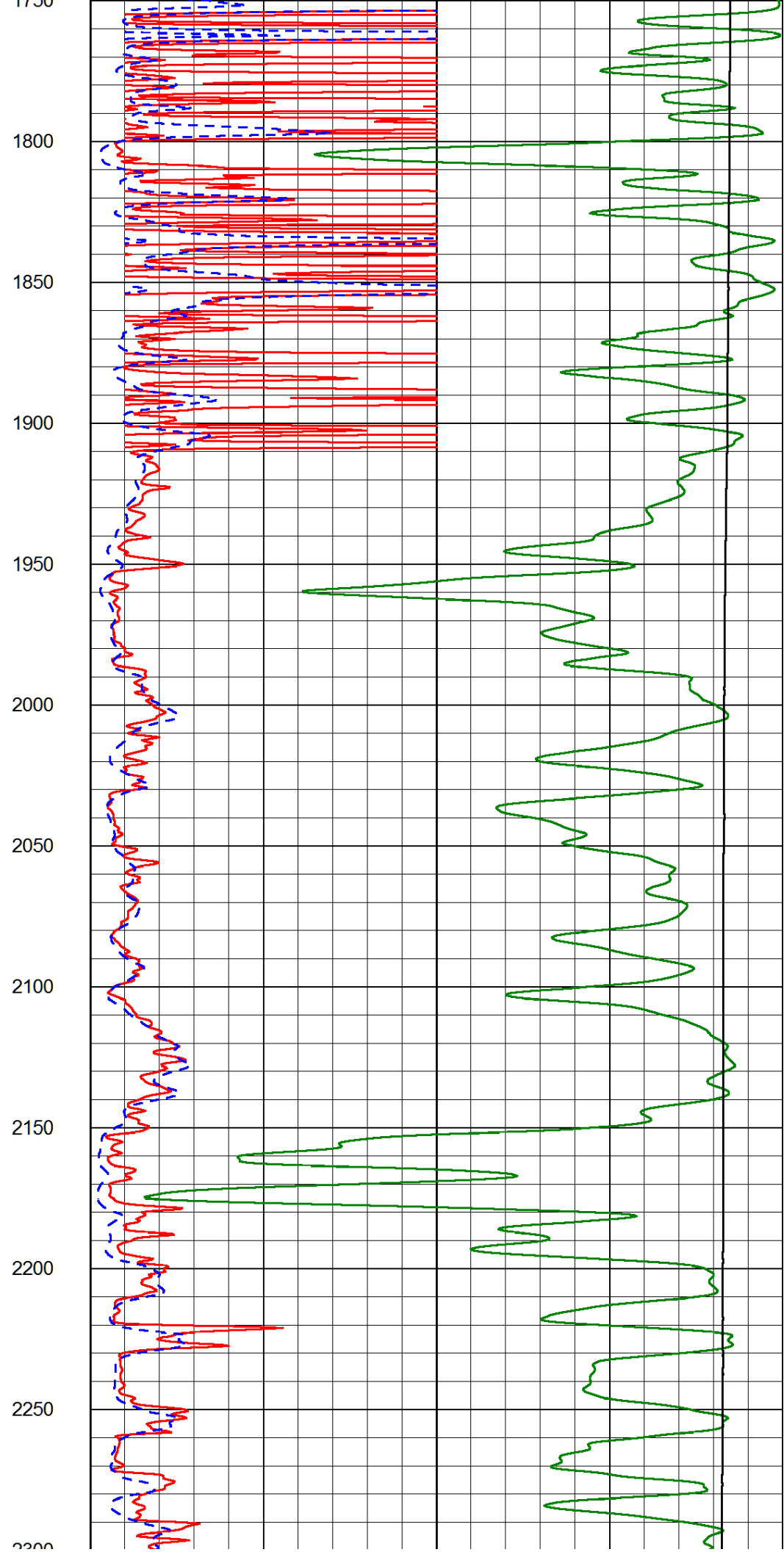
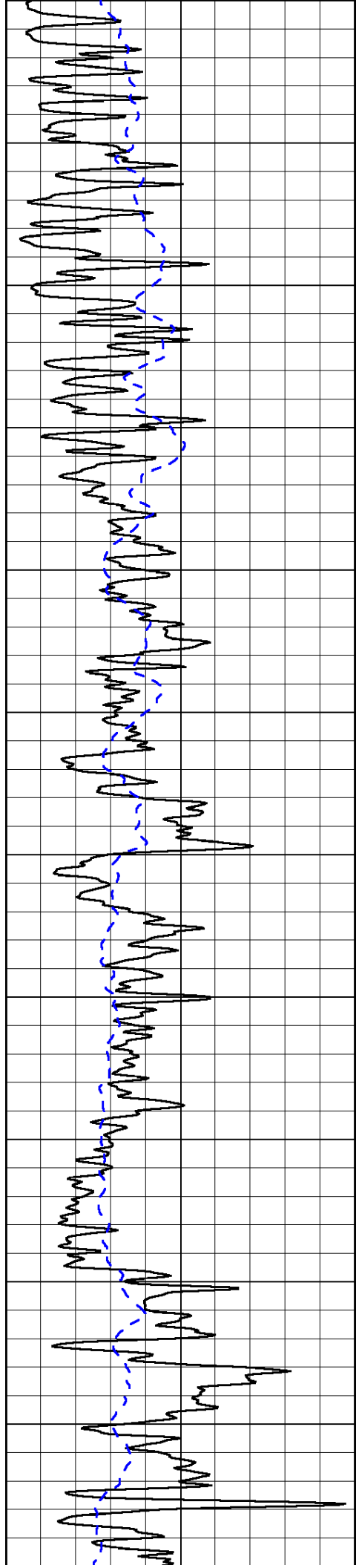
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50

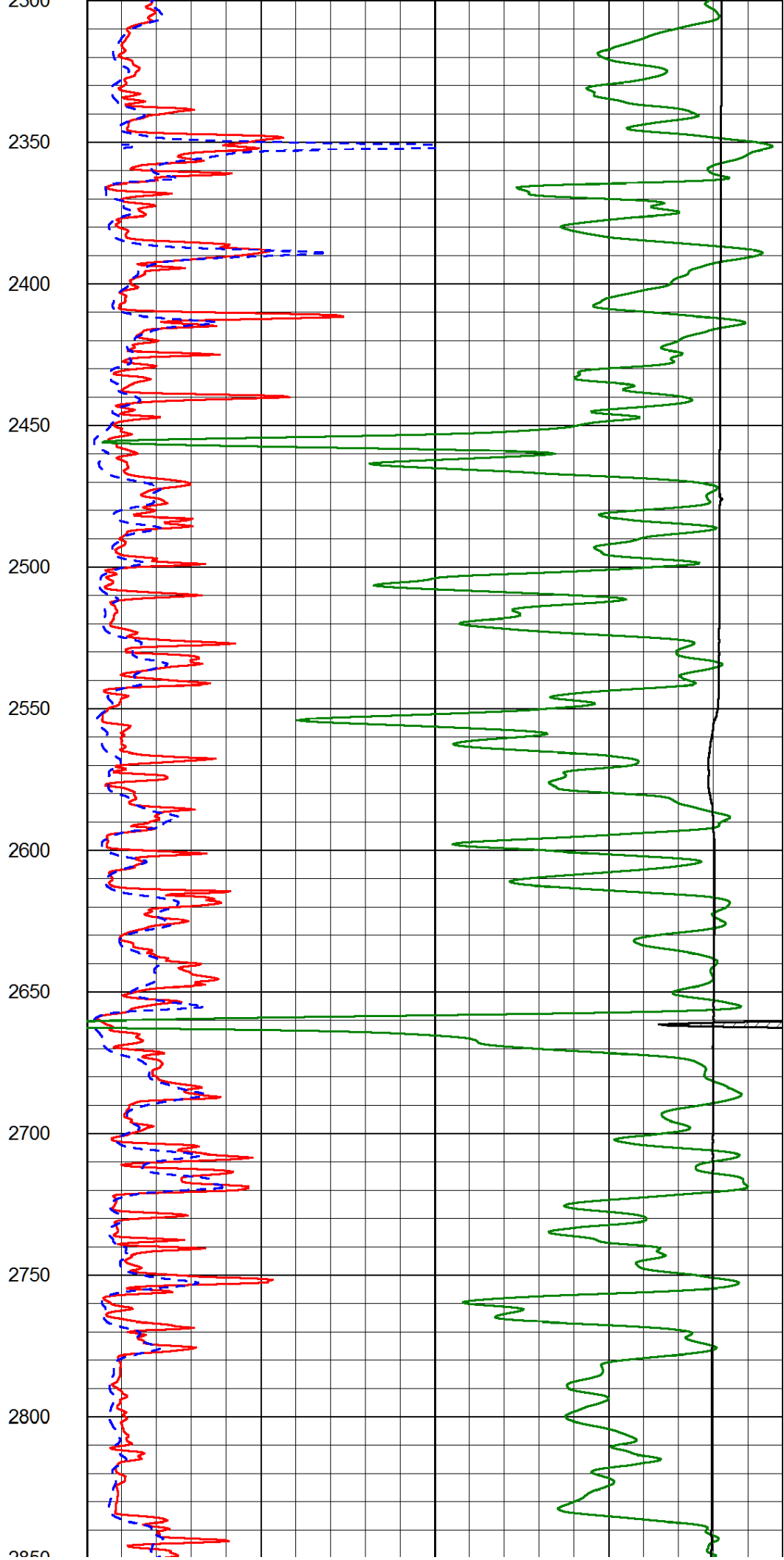
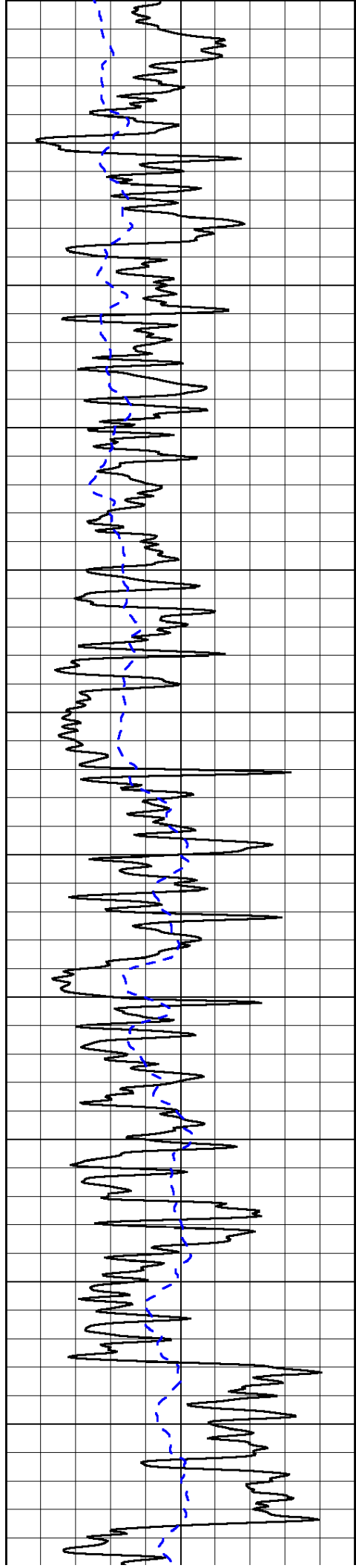
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0

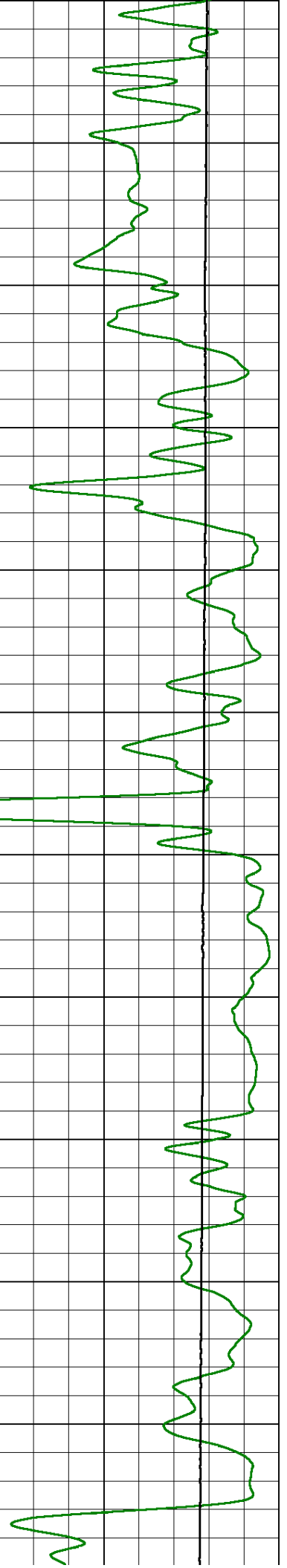
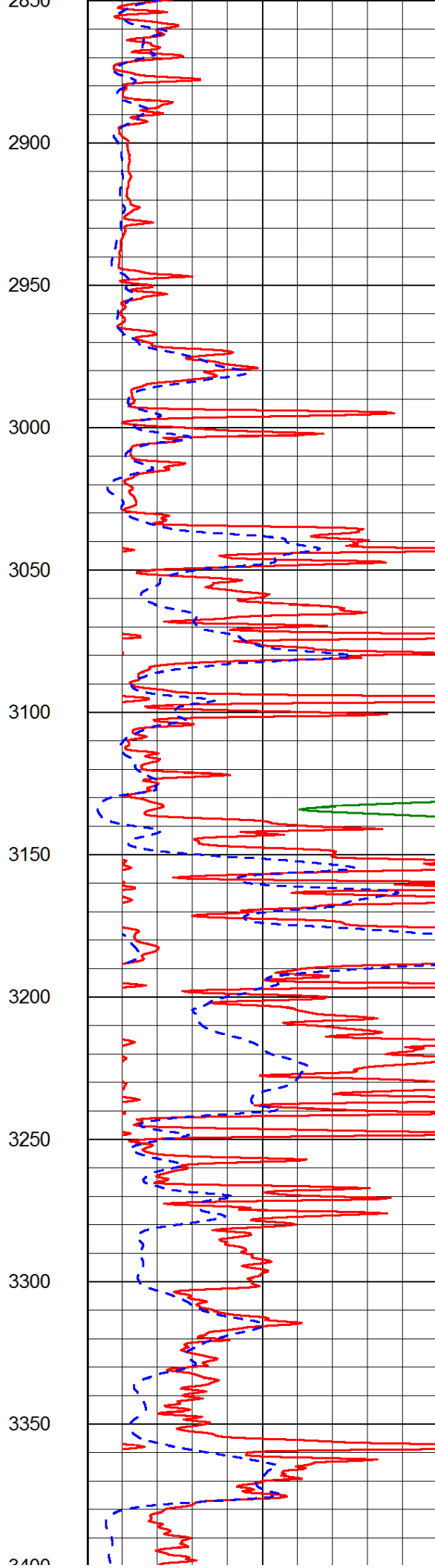
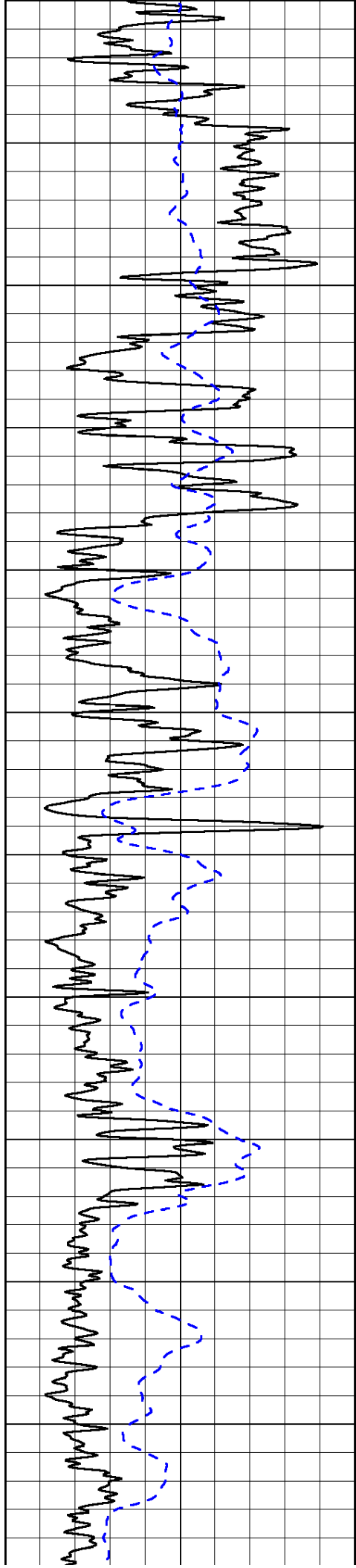
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

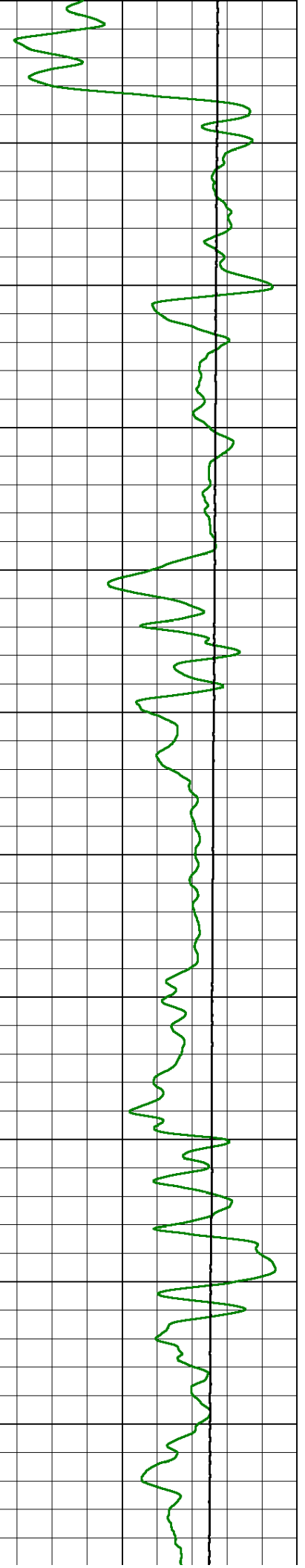
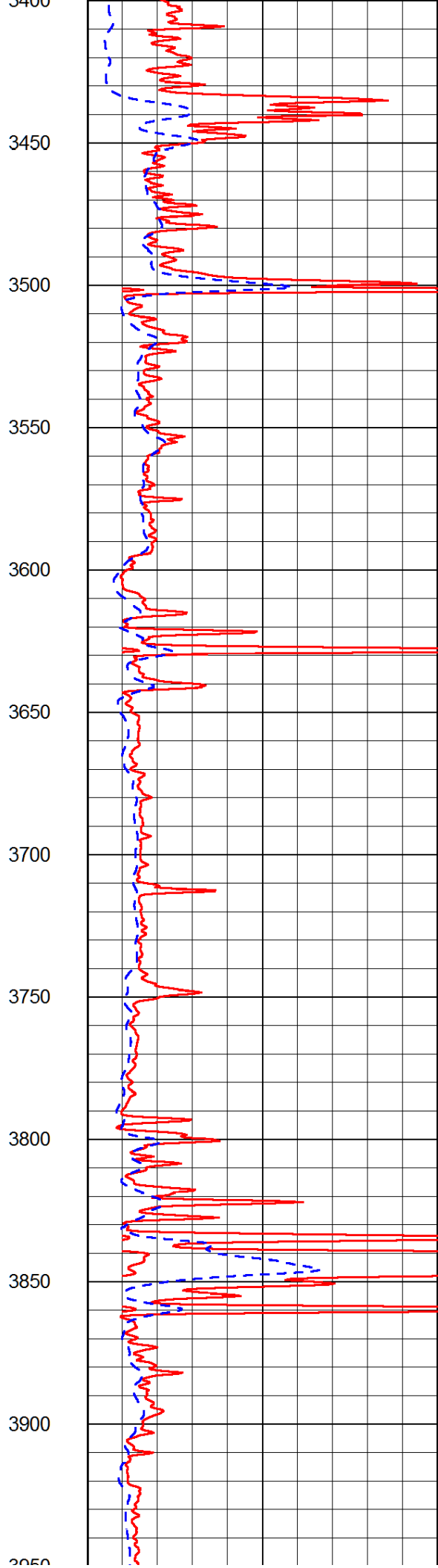
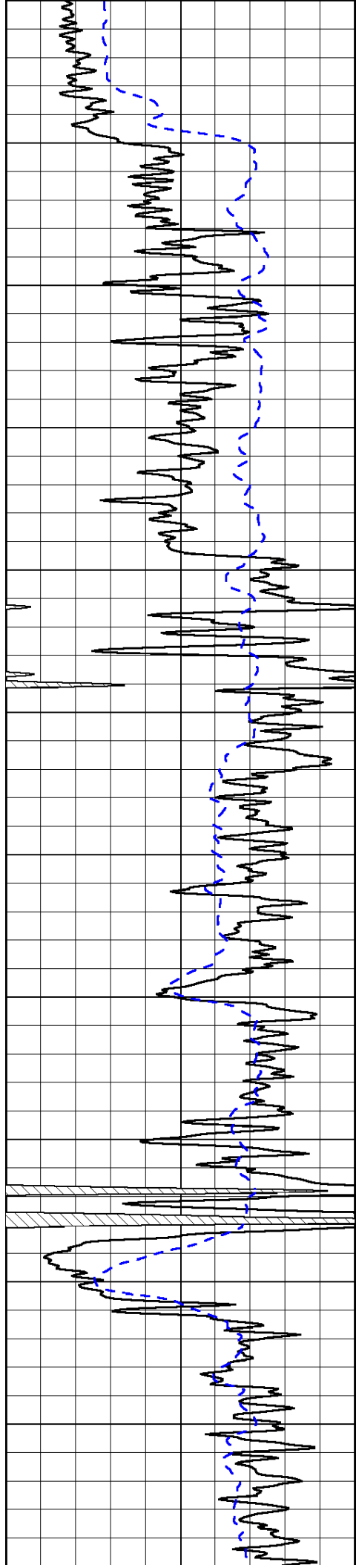


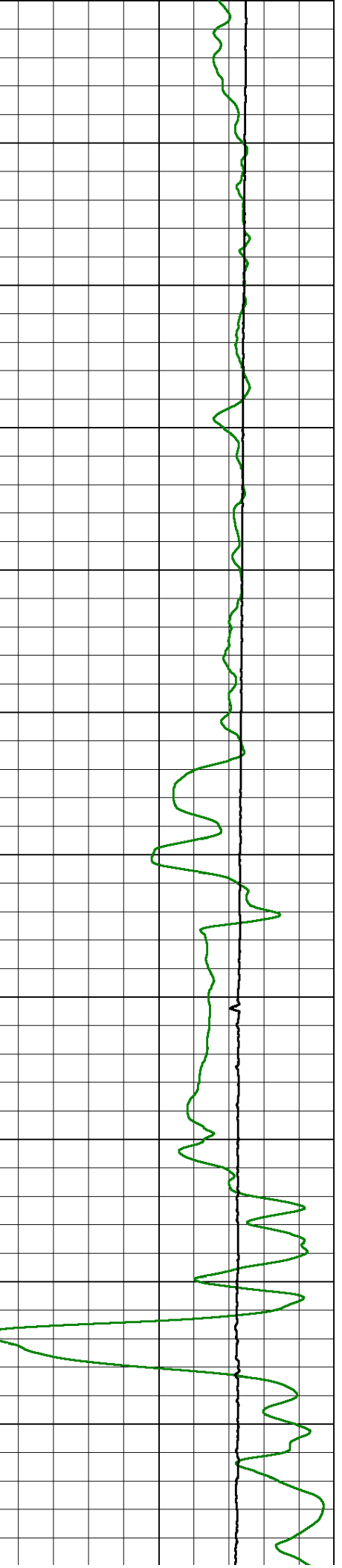
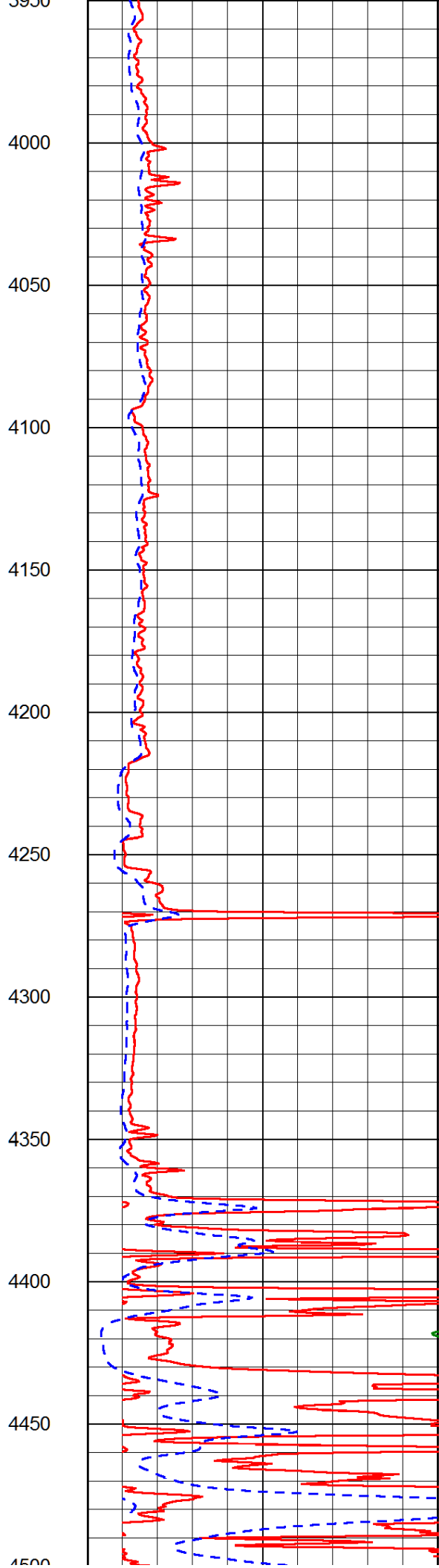
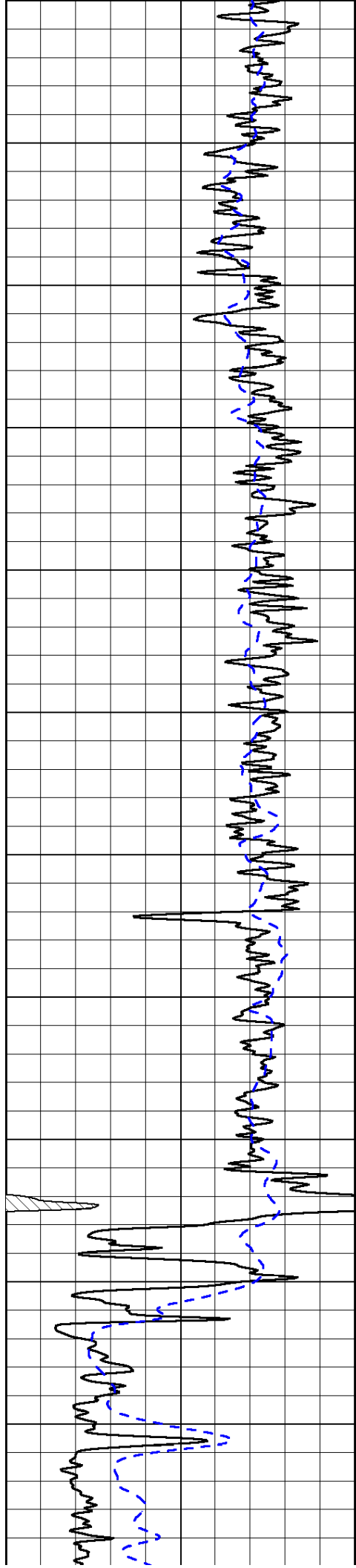


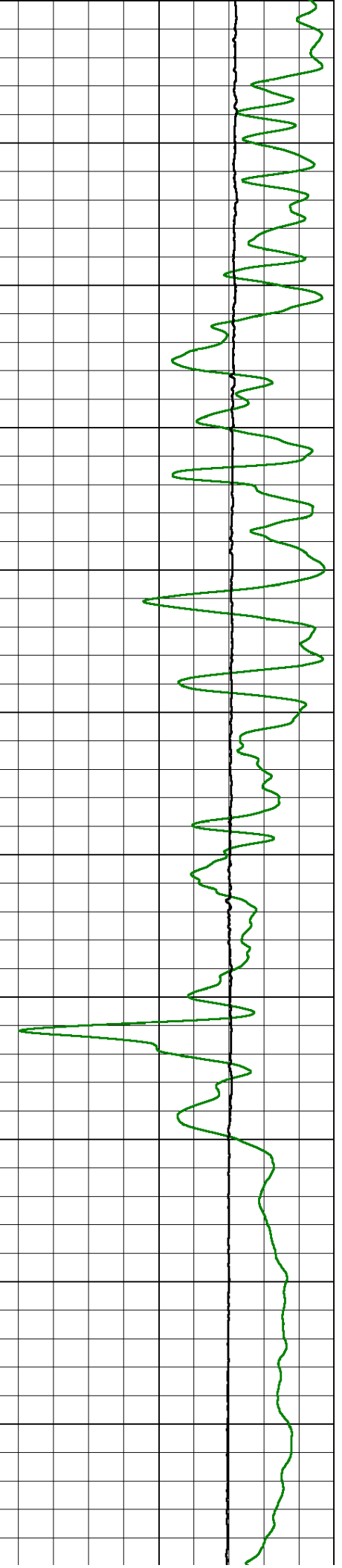
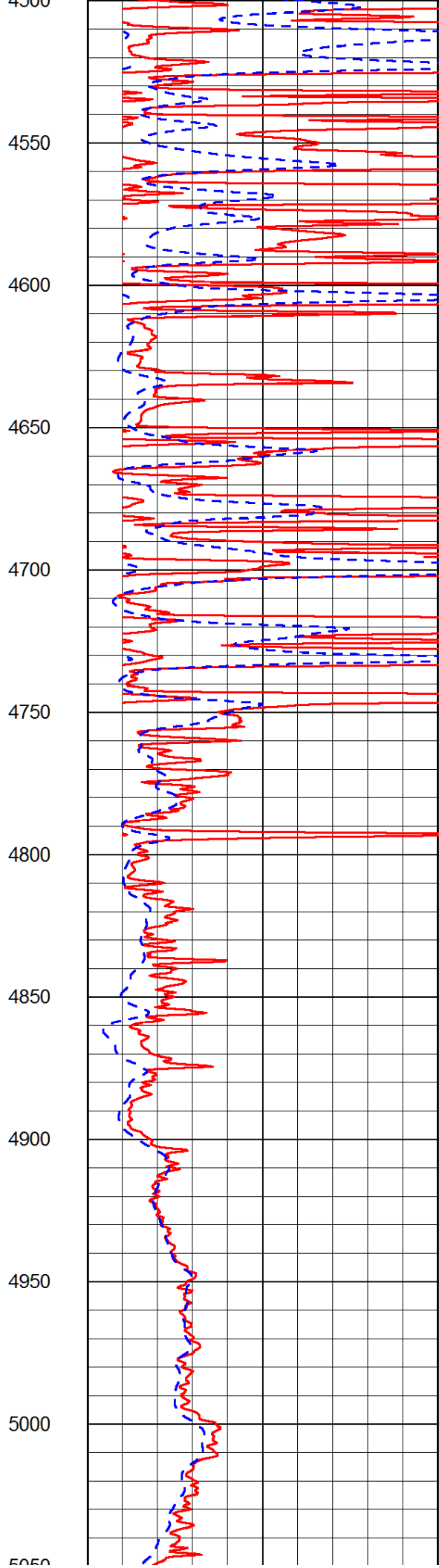
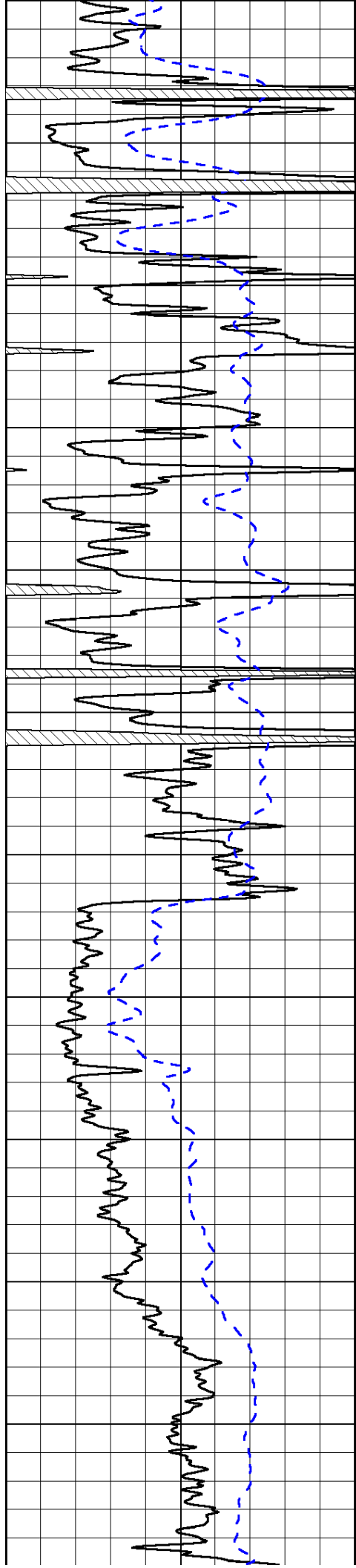


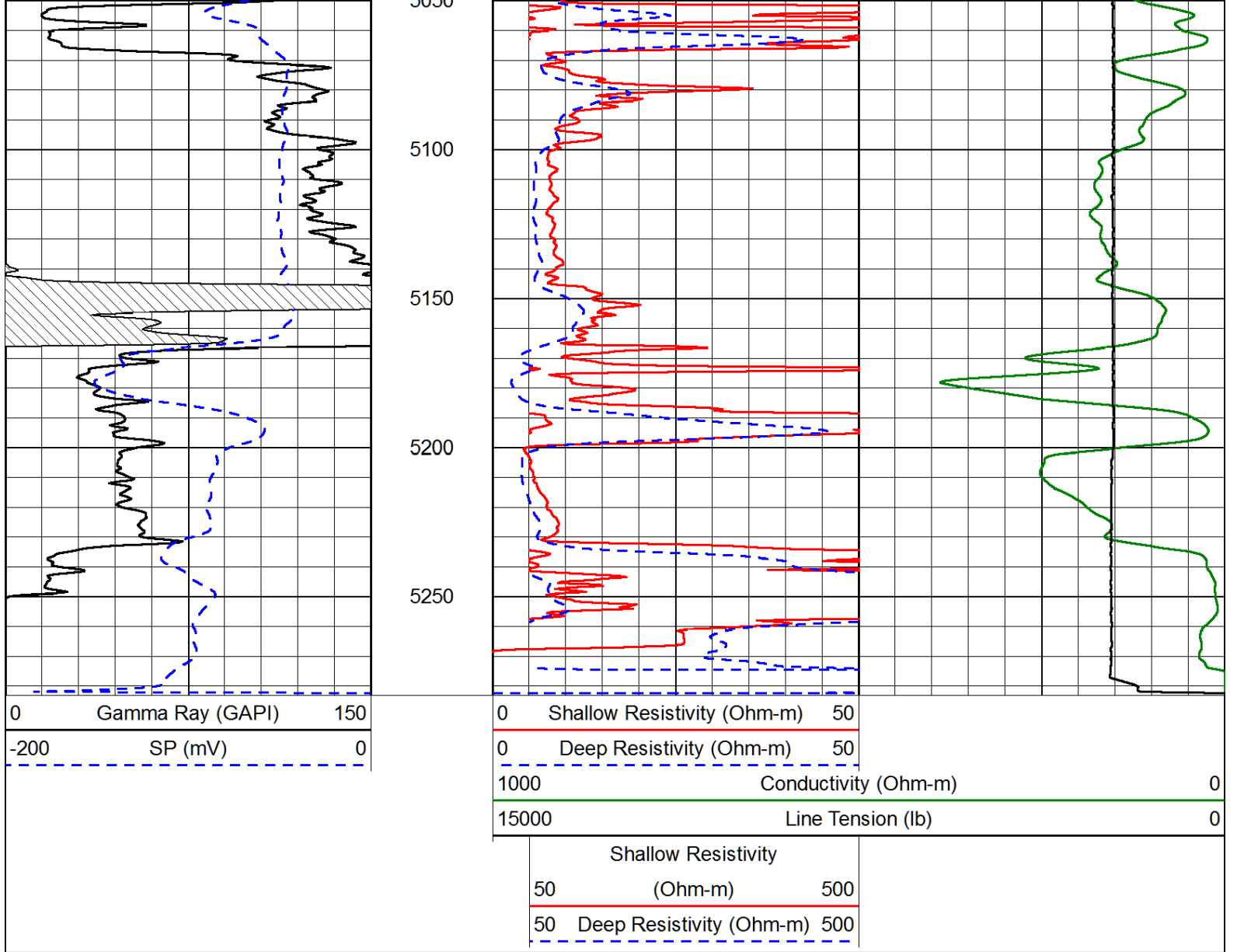




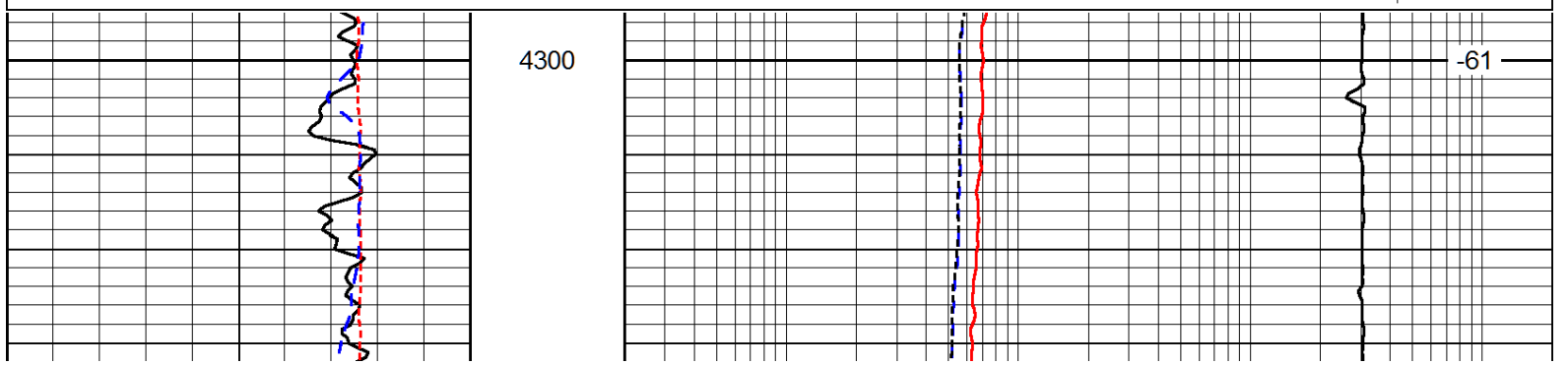
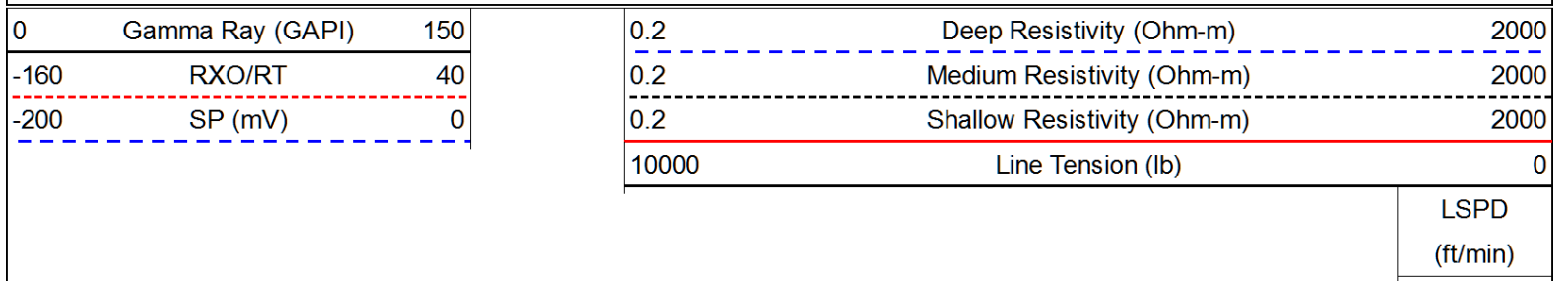


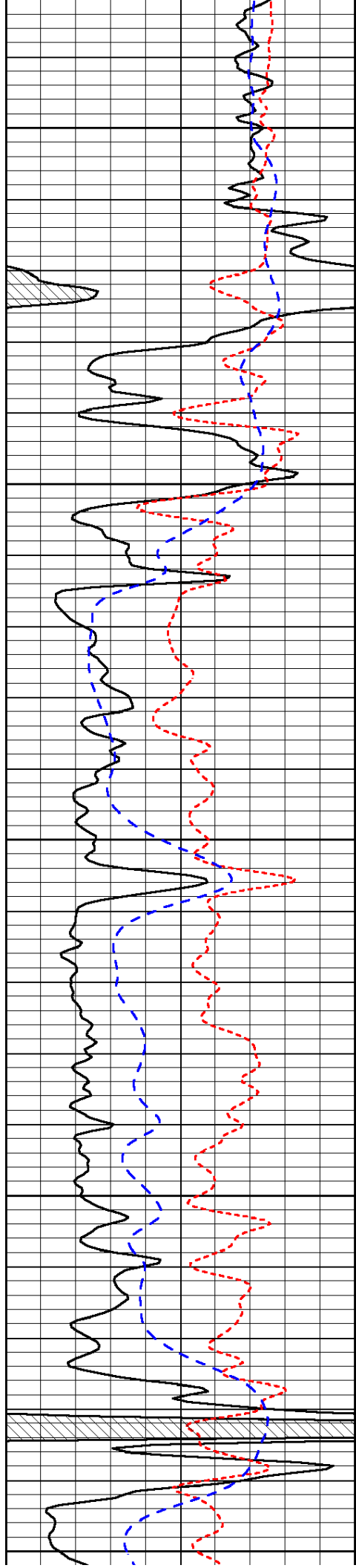






Database File: indianhd.db
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 Charted by: Depth in Feet scaled 1:240





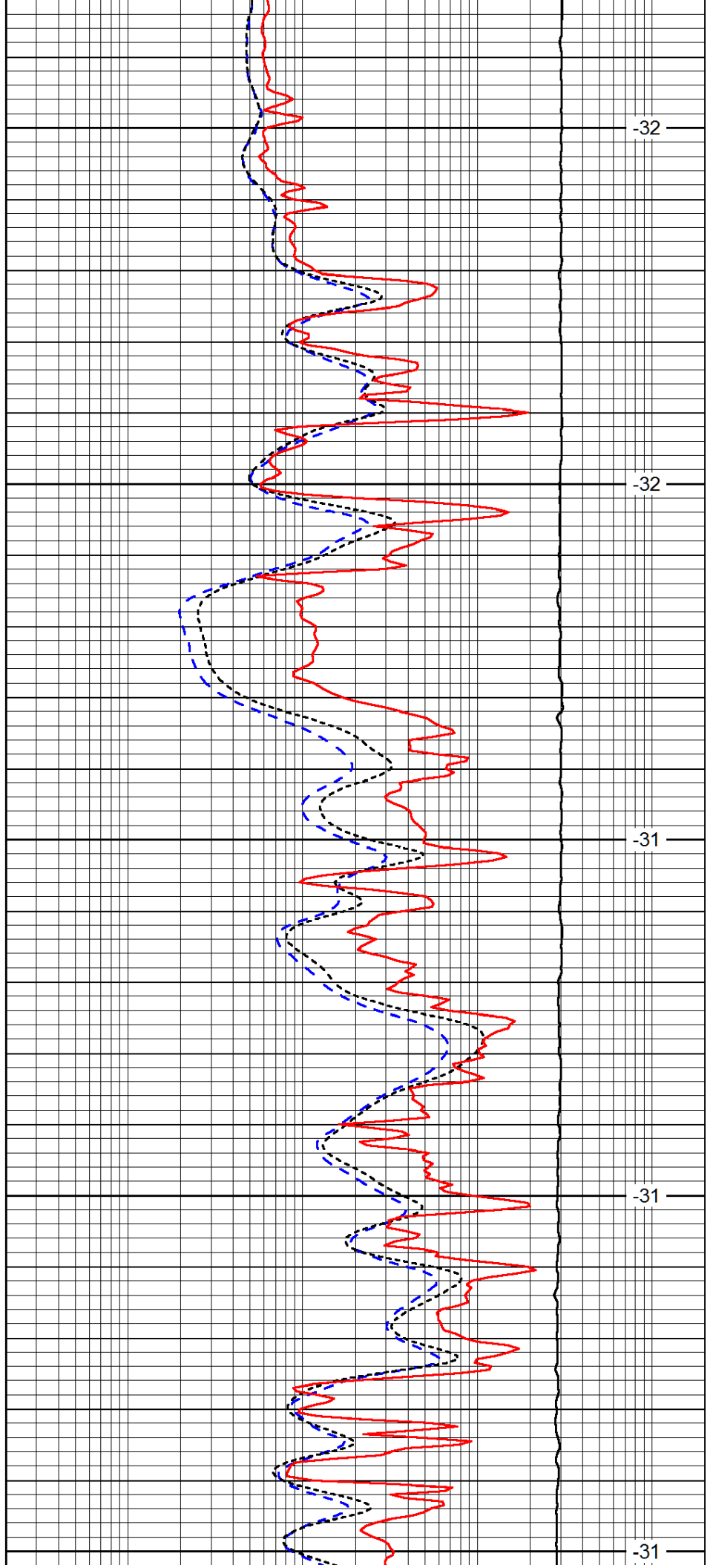
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4400

4450

4500

4550



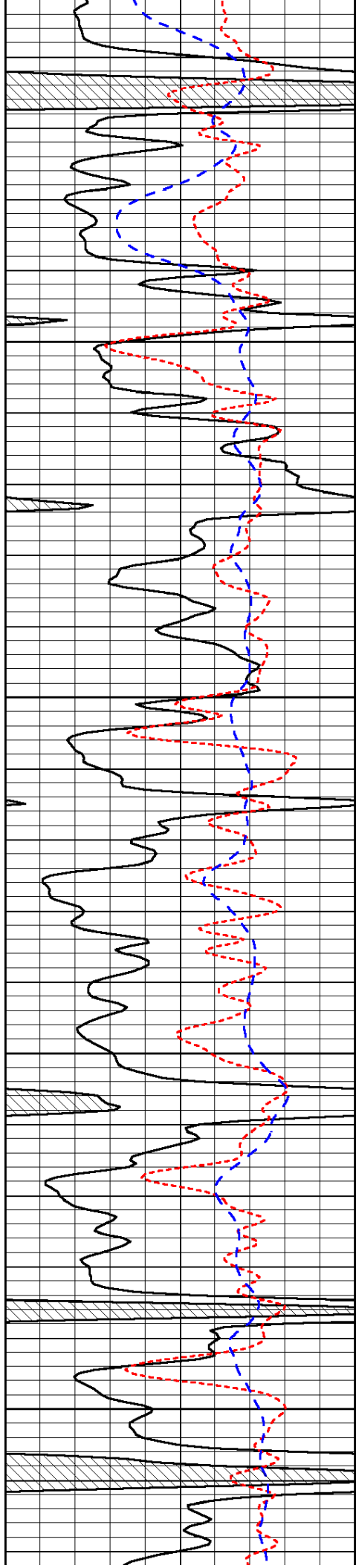
-32

-32

-31

-31

-31

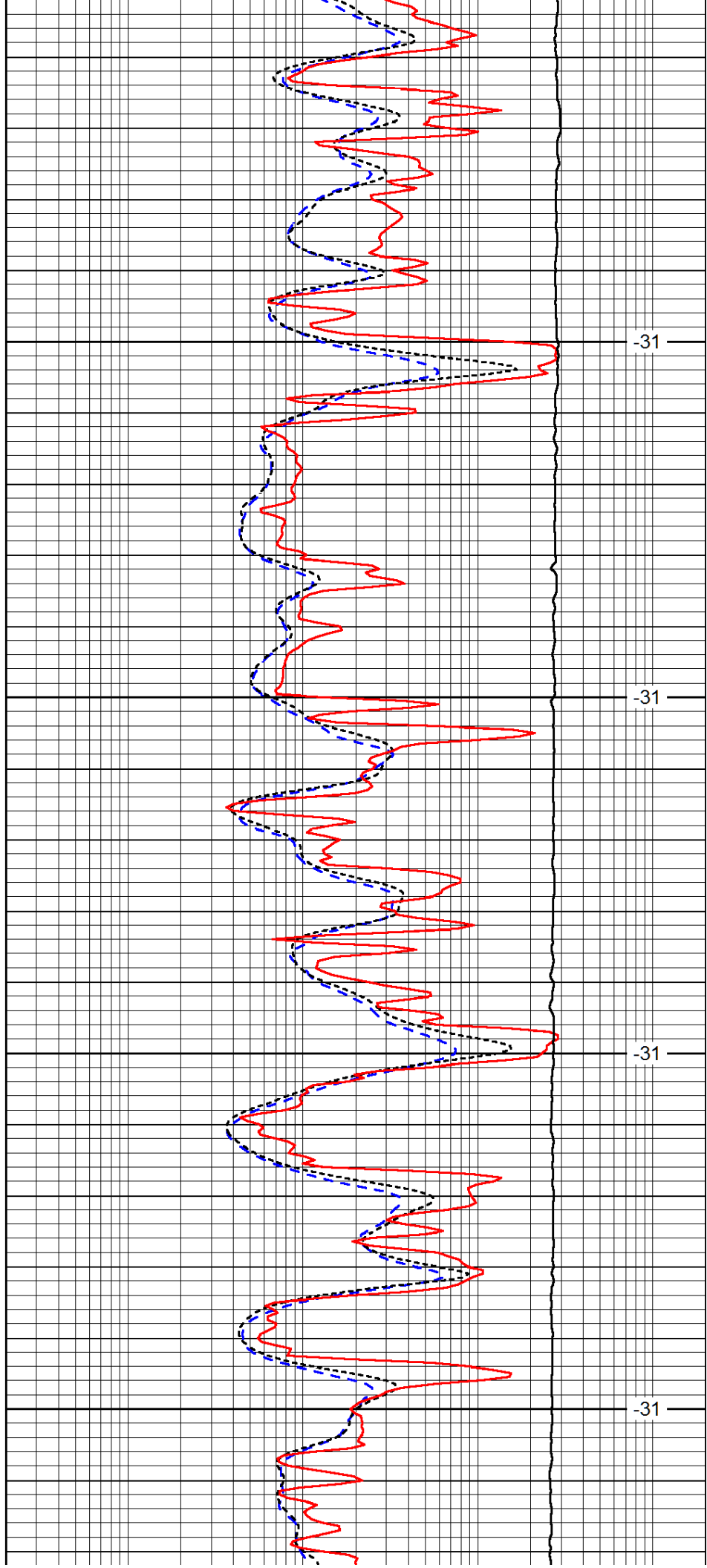


4600

4650

4700

4750

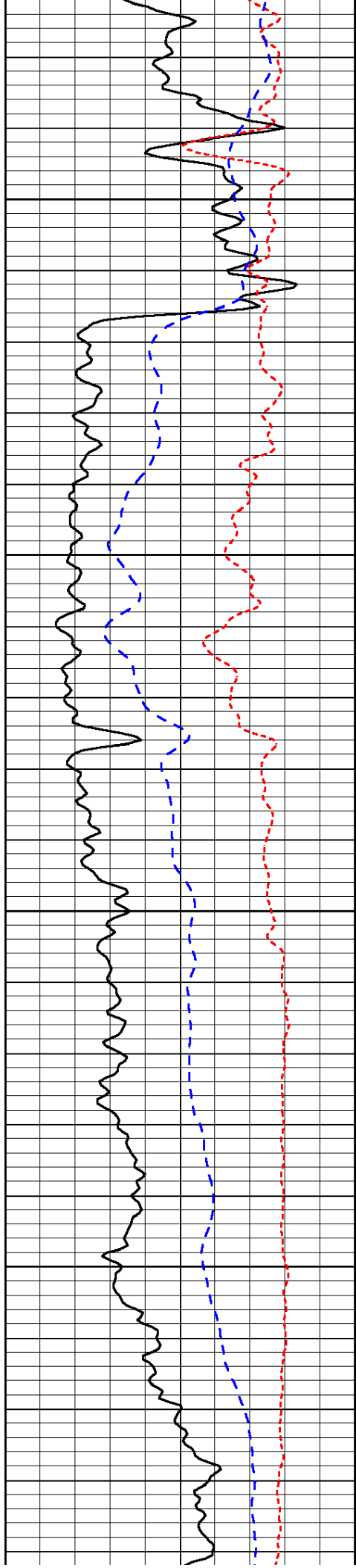


-31

-31

-31

-31

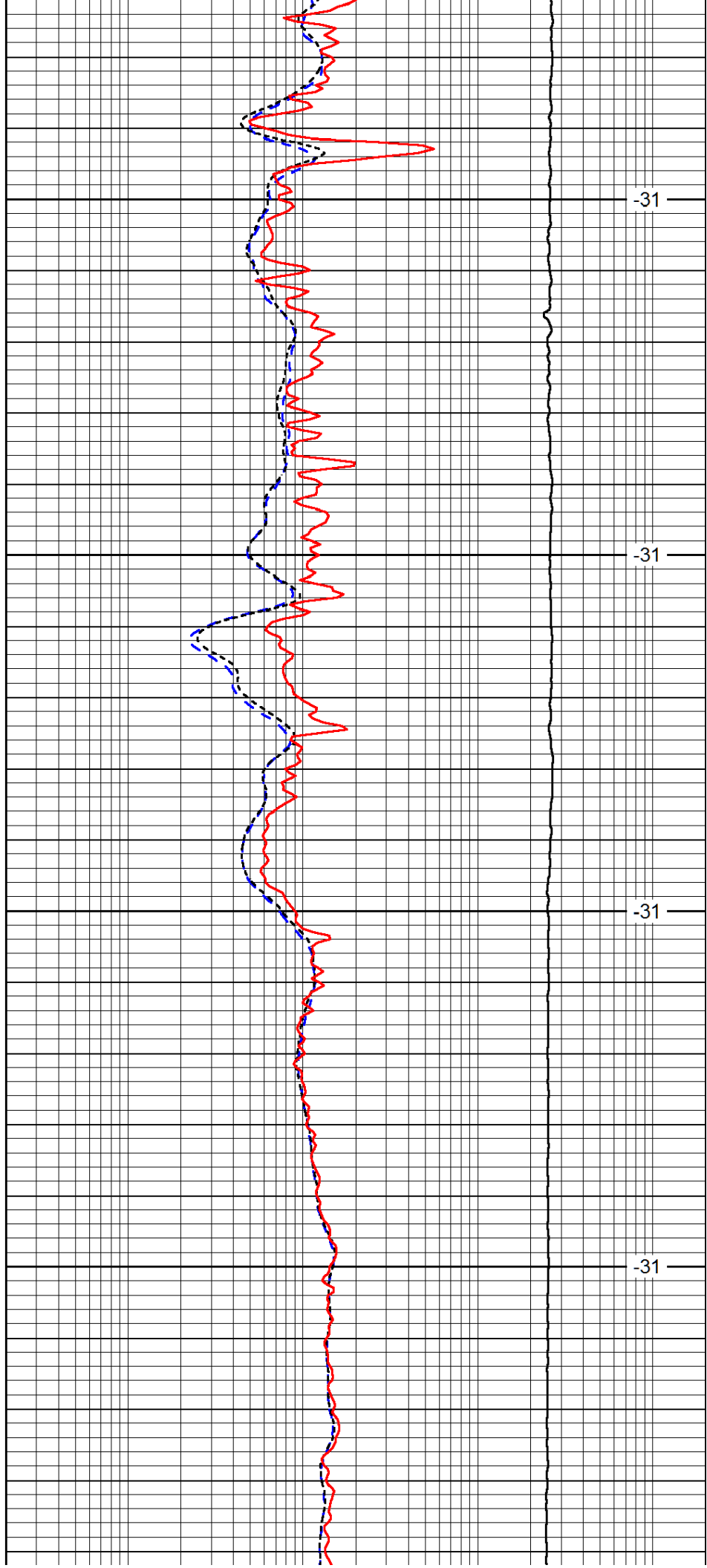


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4850

4900

4950

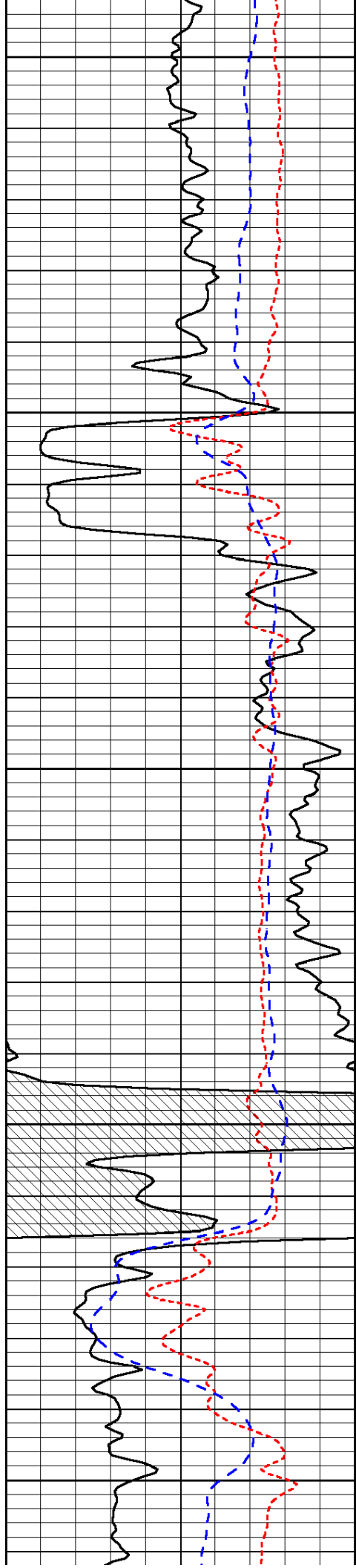


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-31

-31

-31



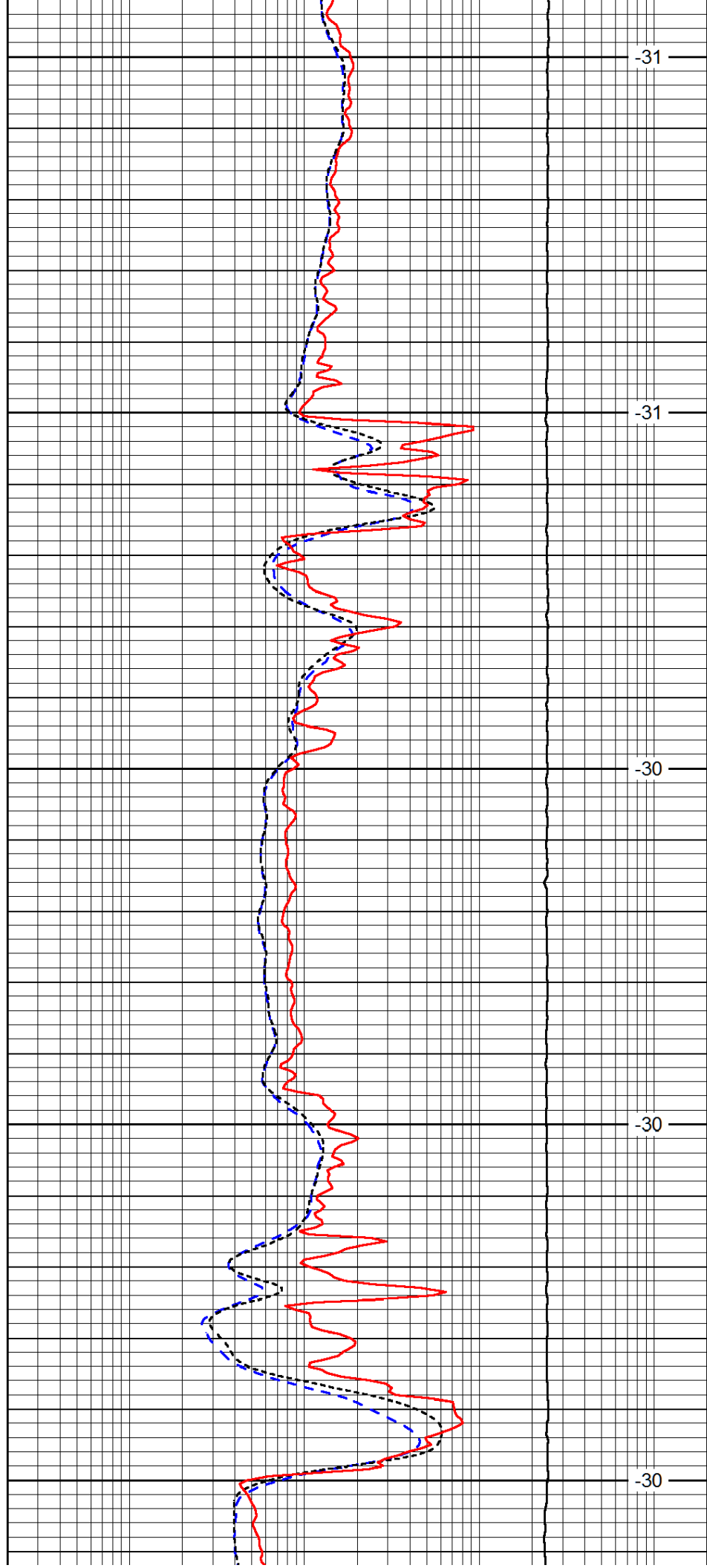
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5050

5100

5150

5200



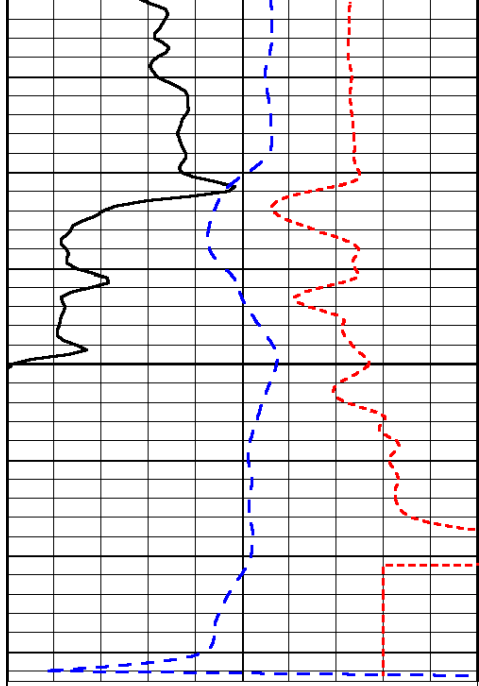
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-31

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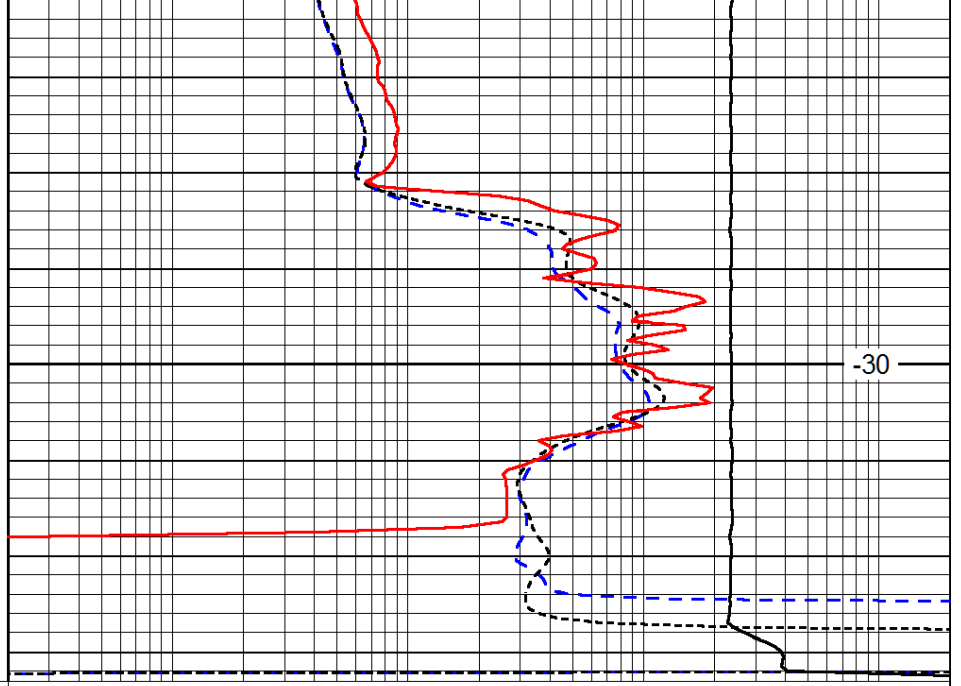
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-30



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

5250



-30

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)