



Pioneer Energy Services

# Dual Induction Log

API No.	15-035-24520-00-00		
Company	Alton Oil, LLC		
Well	Steffen Unit #3		
Field	Posey Northeast		
County	Cowley	State	Kansas
Location	N2 N2 N2 NE 100' FNL / 1320' FEL		
Sec: 16	Twp: 33S	Rge: 4E	Other Services CNL/CDL/MEL BHCS/FRAC

Permanent Datum	Ground Level	Elevation 1197	K.B. 1205
Log Measured From	Kelly Bushing	8 Ft. Above Perm. Datum	D.F. 1197
Drilling Measured From	Kelly Bushing		G.L. 1197
Date	9/13/2013		
Run Number	One		
Depth Driller	3410		
Depth Logger	3410		
Bottom Logged Interval	3409		
Top Log Interval	200		
Casing Driller	8.625 @ 212		
Casing Logger	220		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	1000		
Density / Viscosity	9.1	37	
pH / Fluid Loss	8.5	10.4	
Source of Sample	Flowline		
Rm @ Meas. Temp	1.00	@ 70	
Rmf @ Meas. Temp	0.75	@ 70	
Rmc @ Meas. Temp	1.35	@ 70	
Source of Rmf / Rmc	Charts		
Rm @ BHT	0.64	@ 110	
Operating Rig Time	5 Hours		
Max Rec. Temp. F	110		
Equipment Number	17		
Location	Hays		
Recorded By	R. Barnhart		
Witnessed By	Tom Blair		

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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  
  
 Winfield, KS:  
 S of town: E at Super 8, 2S to 202 Rd., 1/4E, S into

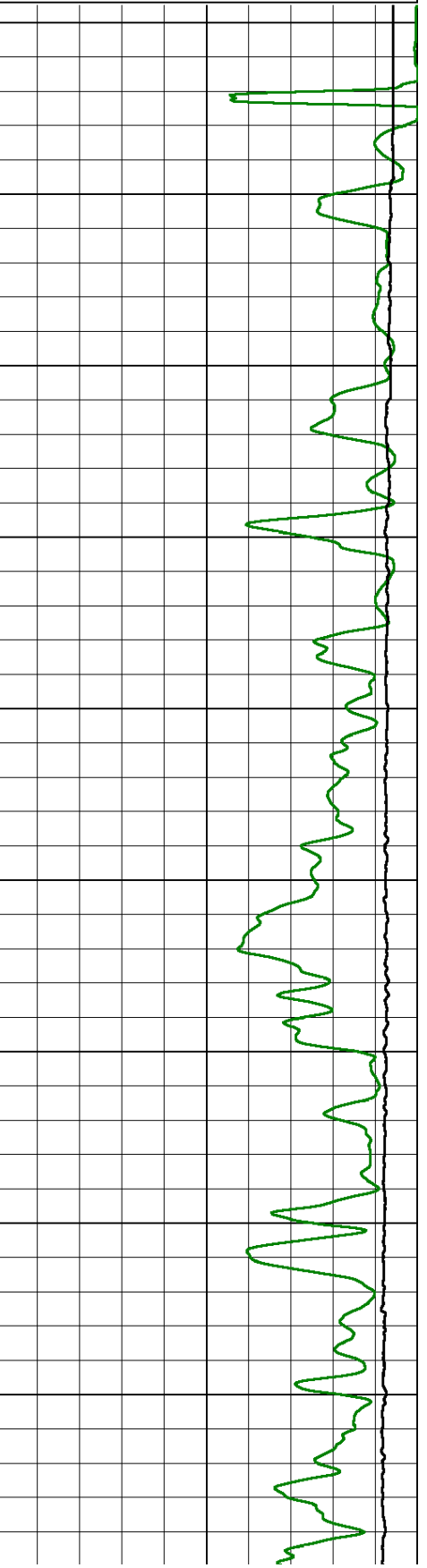
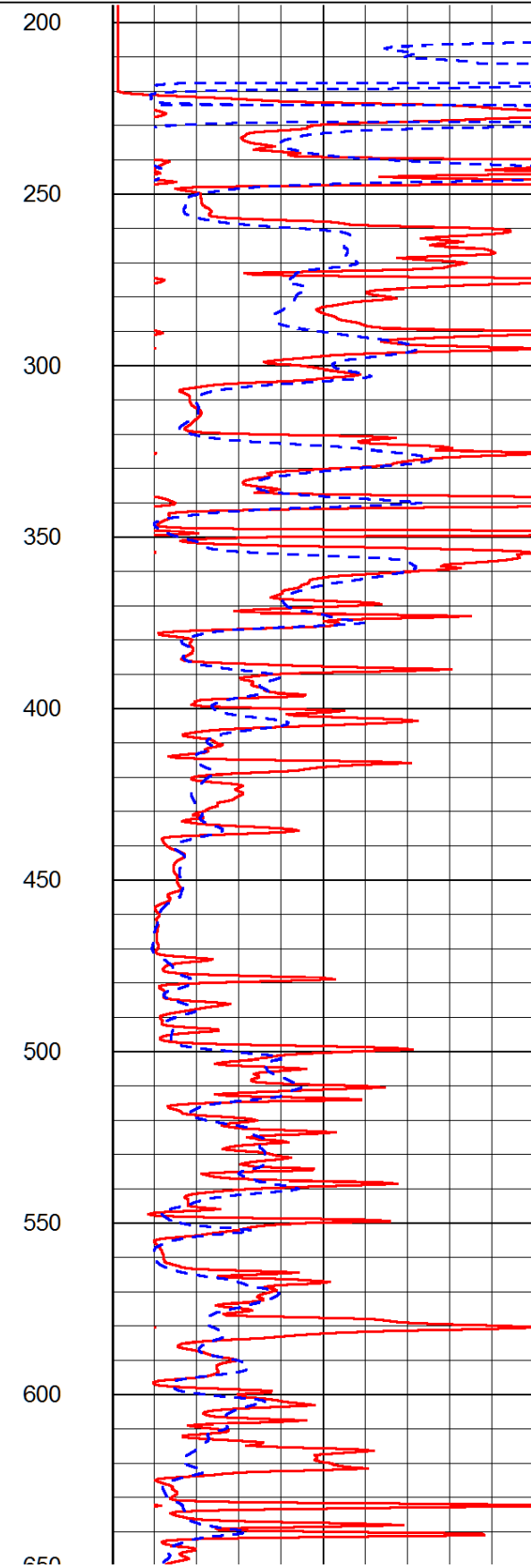
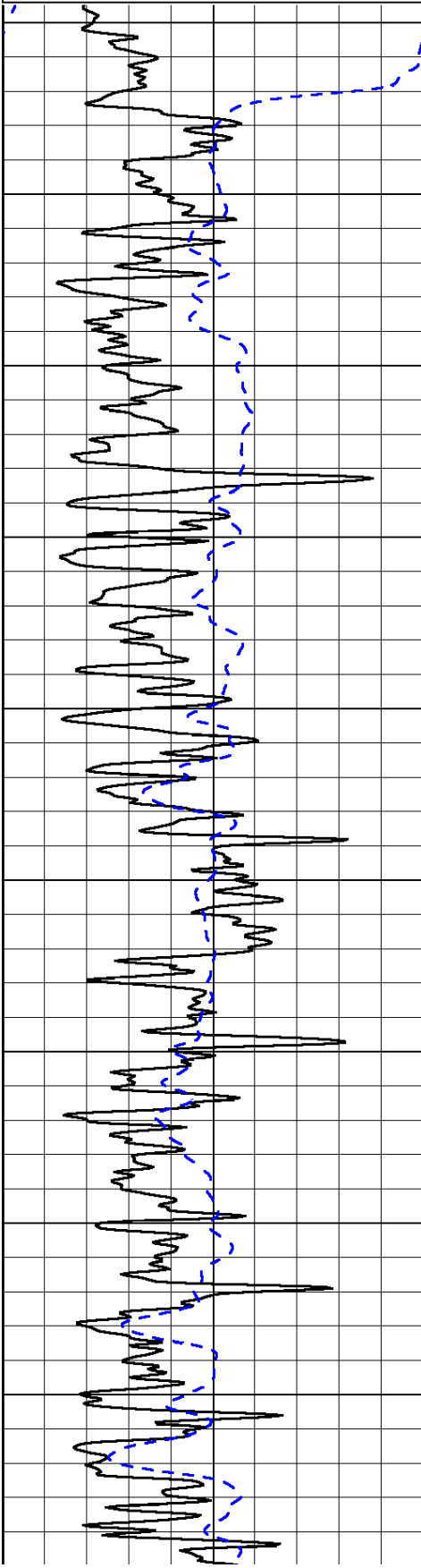
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 Dataset Creation: Fri Sep 13 19:07:49 2013  
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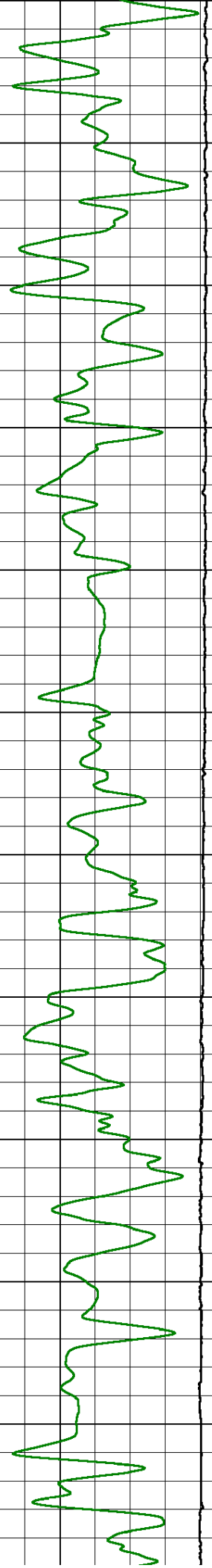
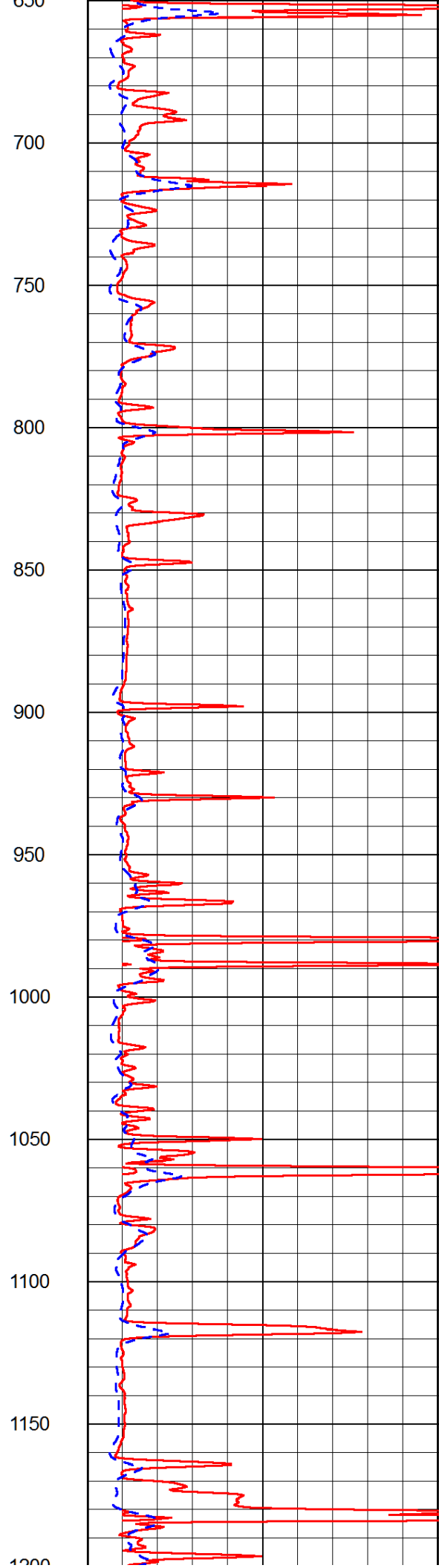
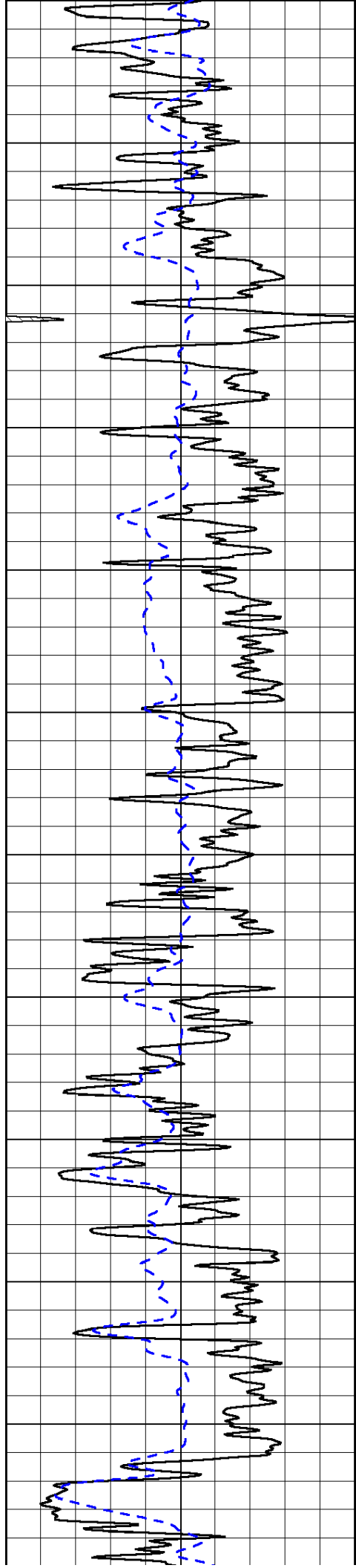
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

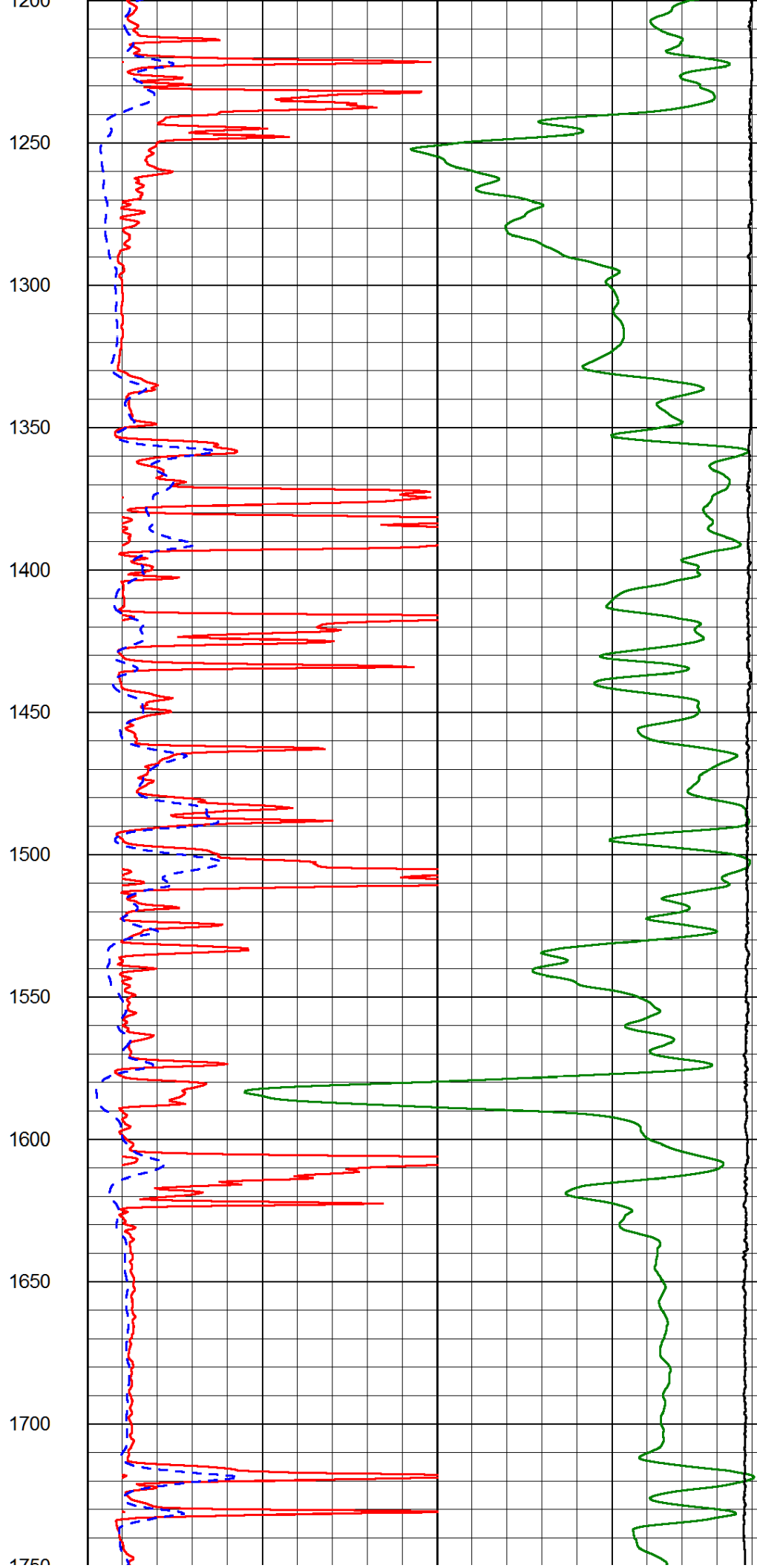
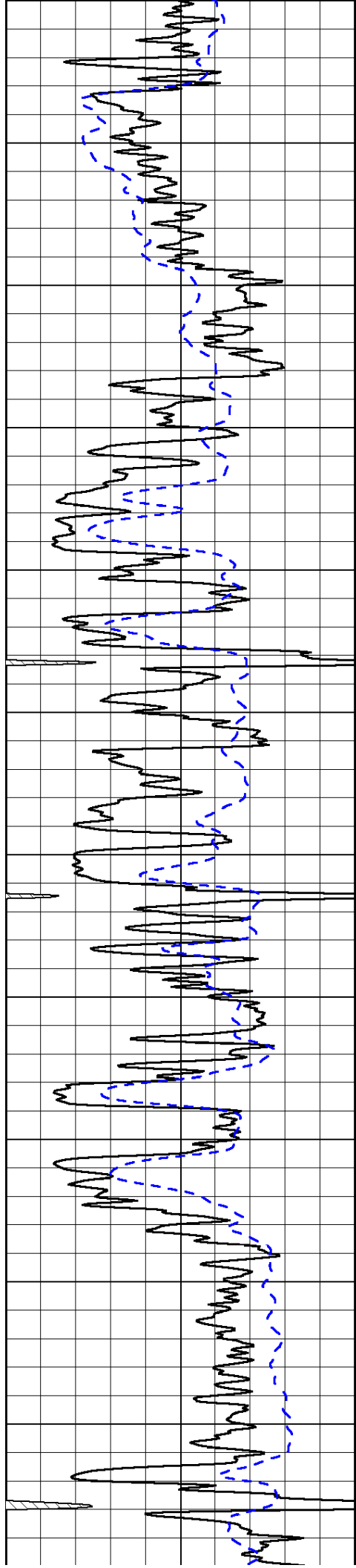
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50

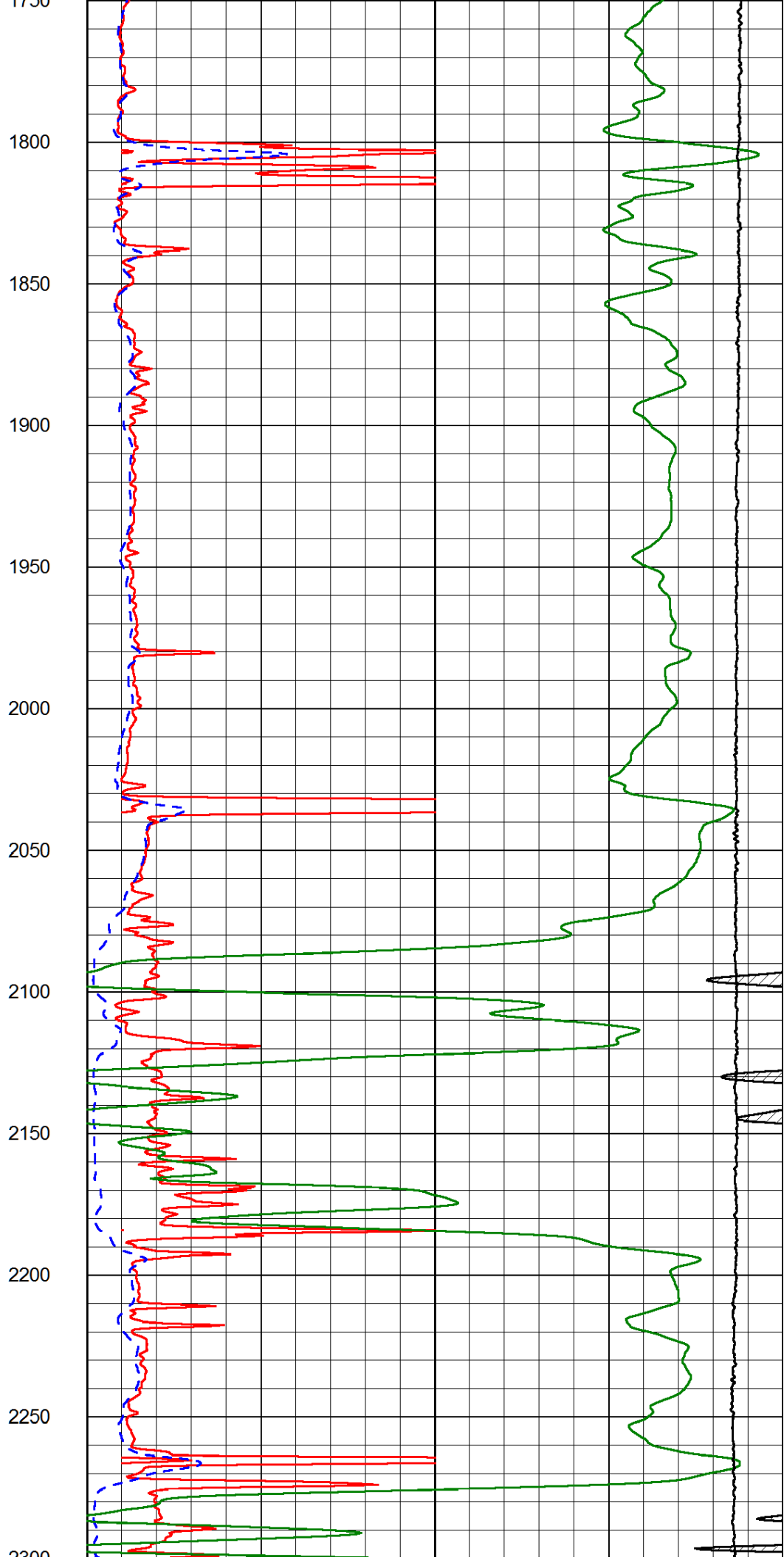
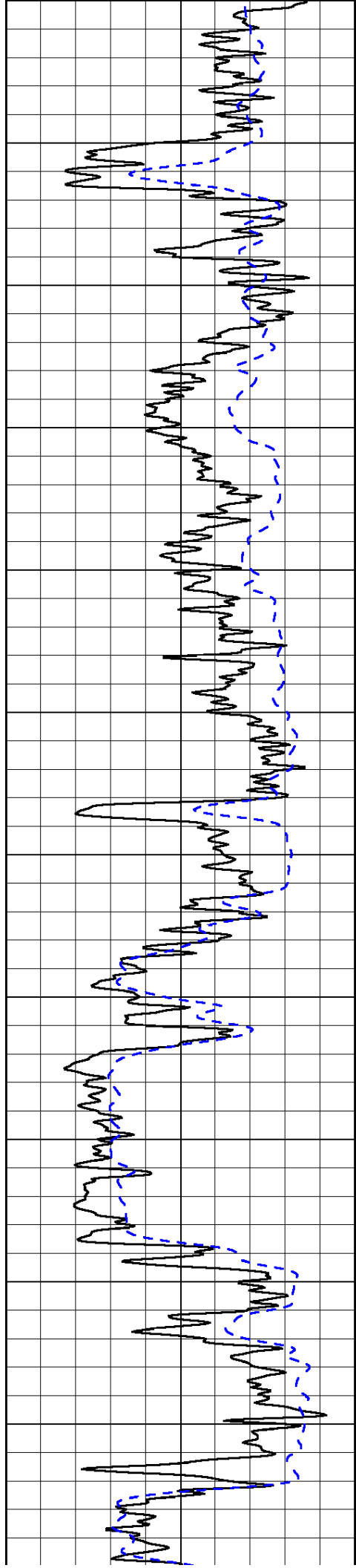
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0

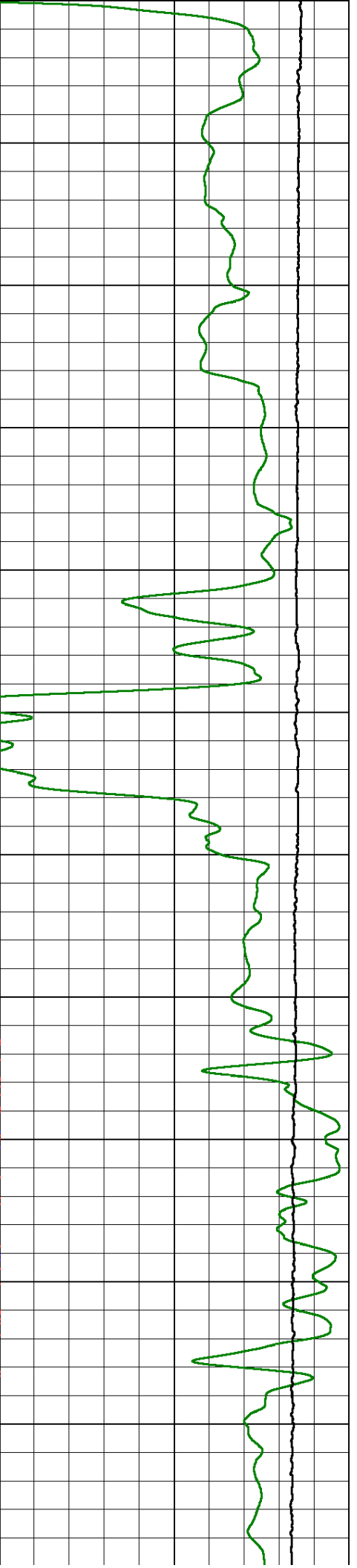
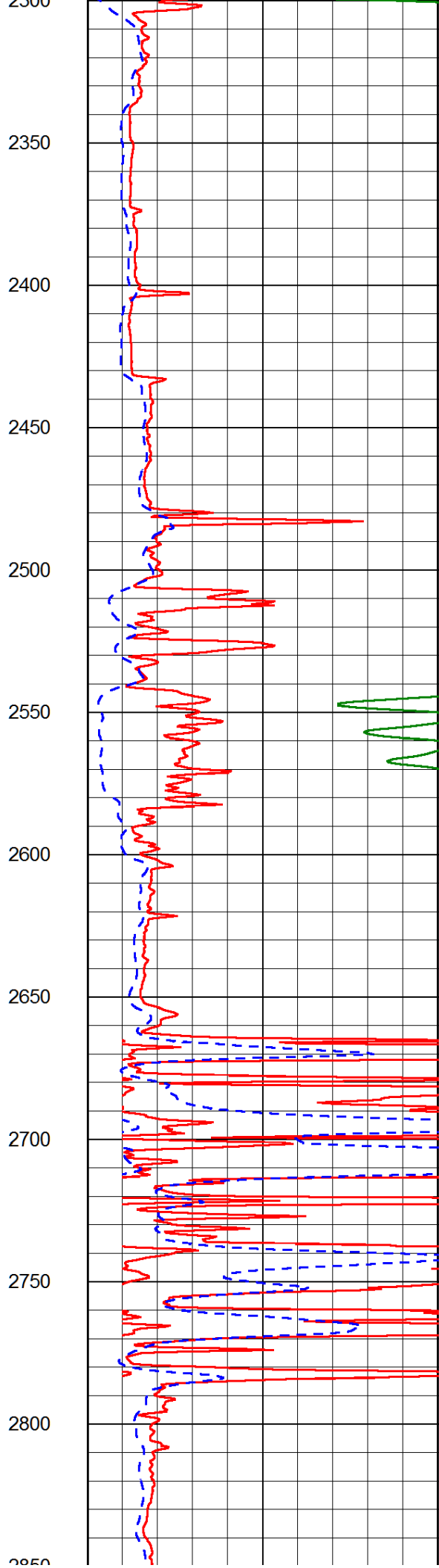
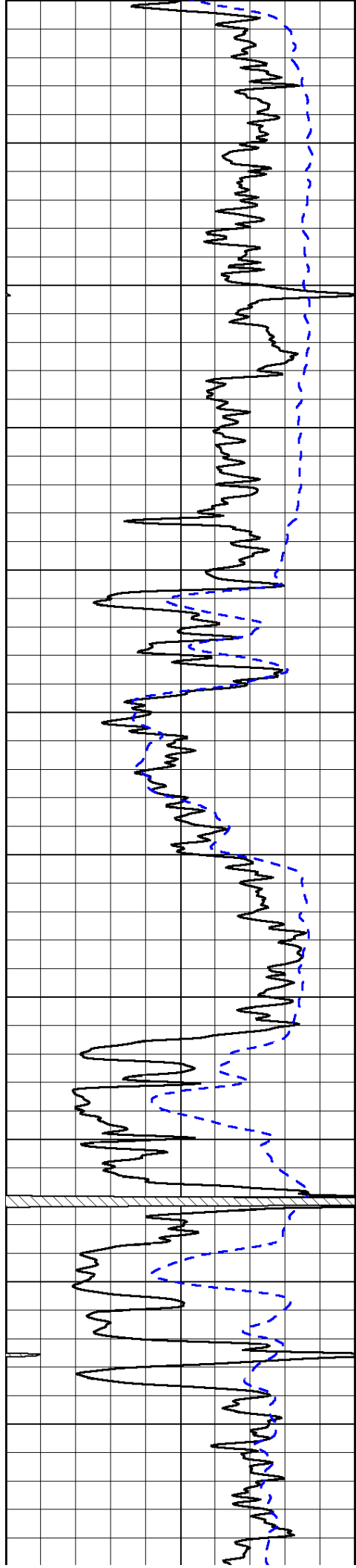
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

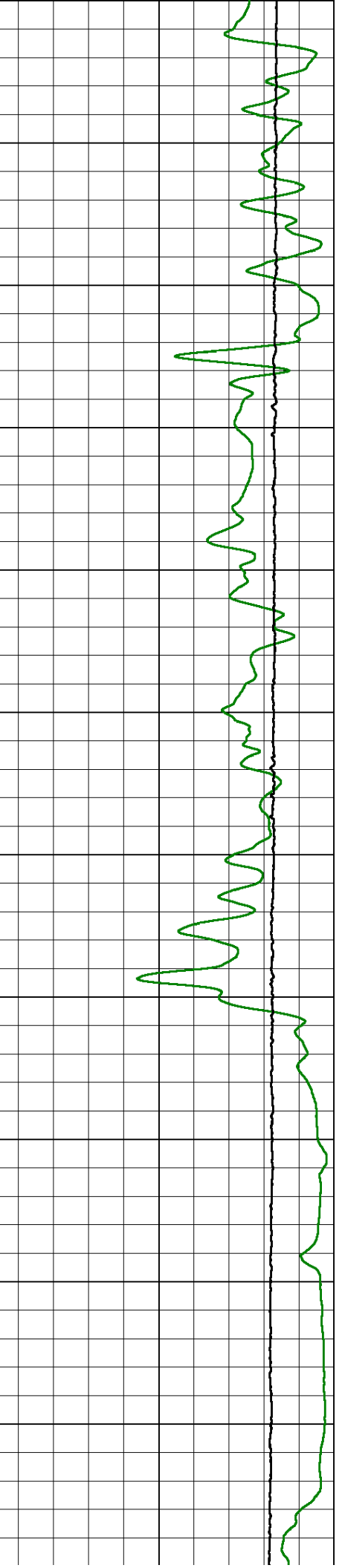
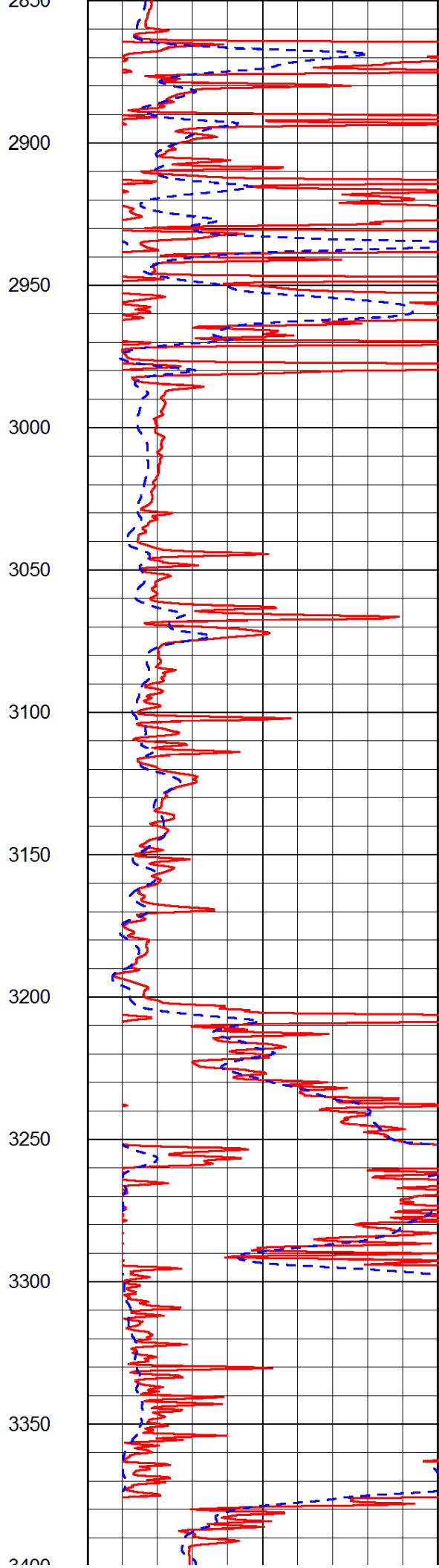
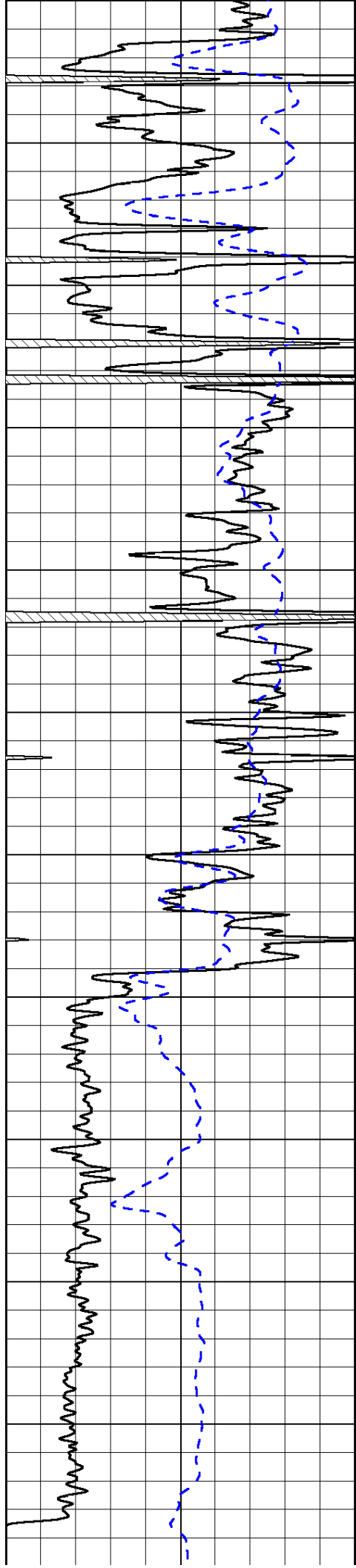


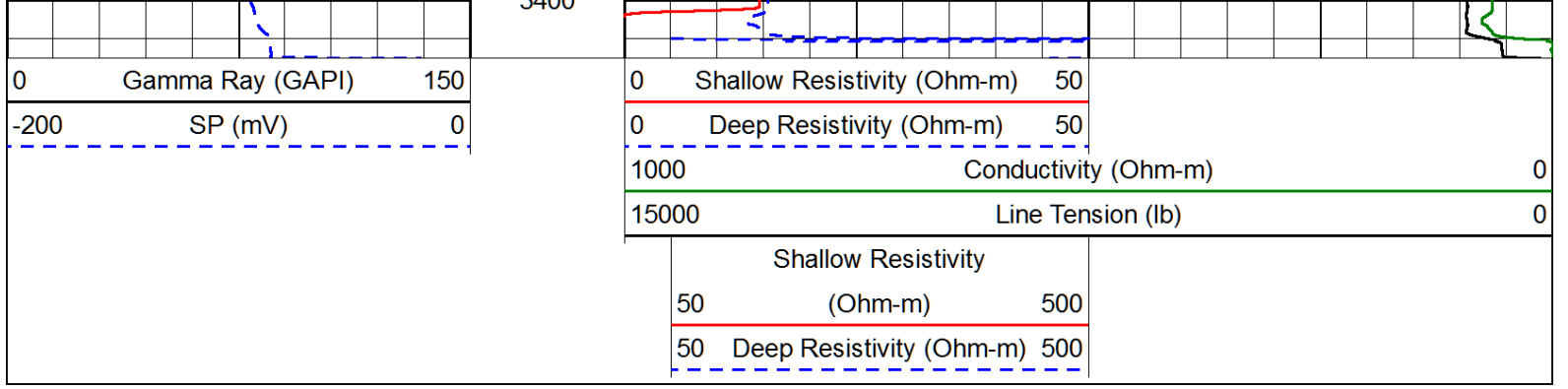




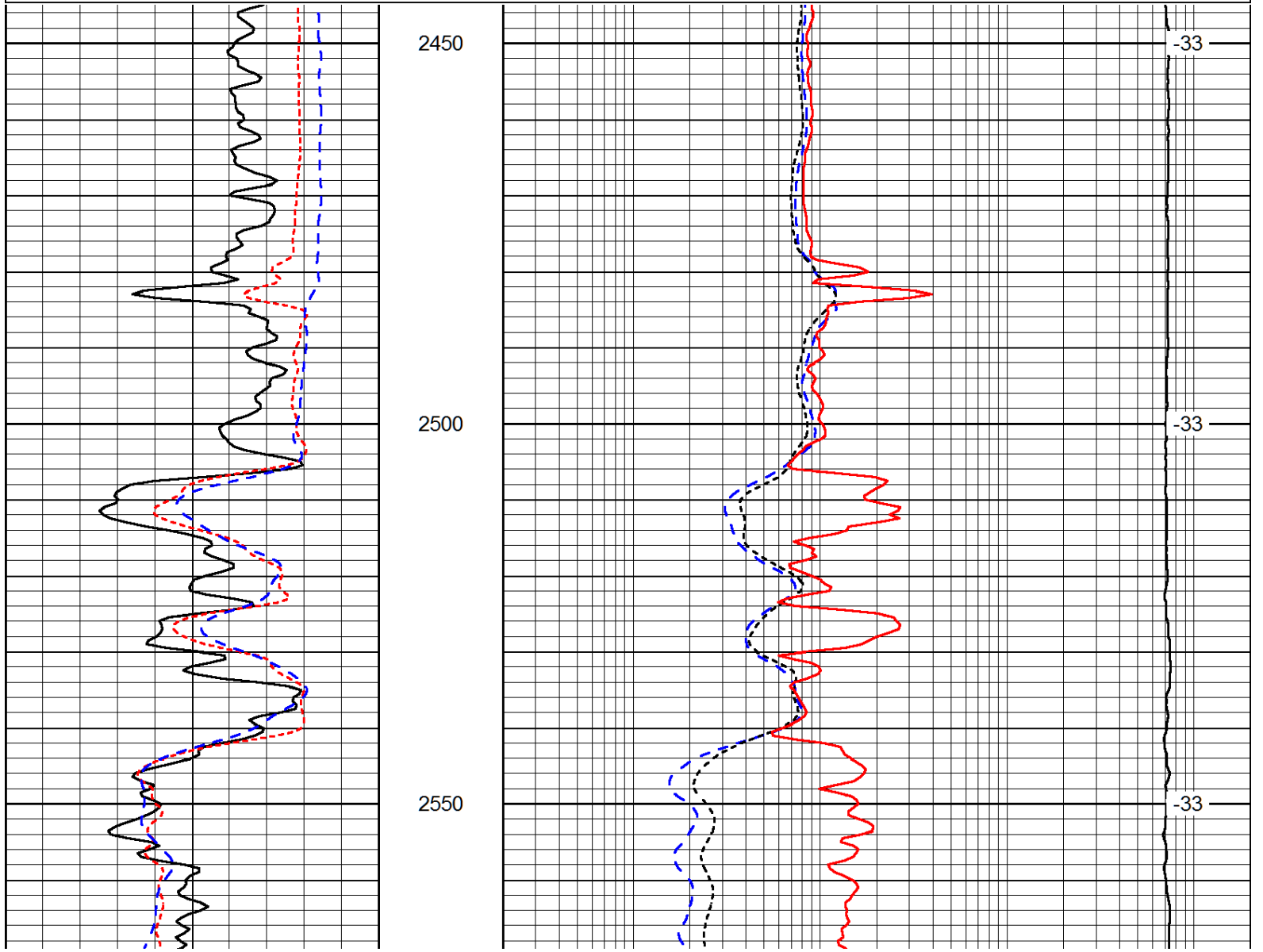
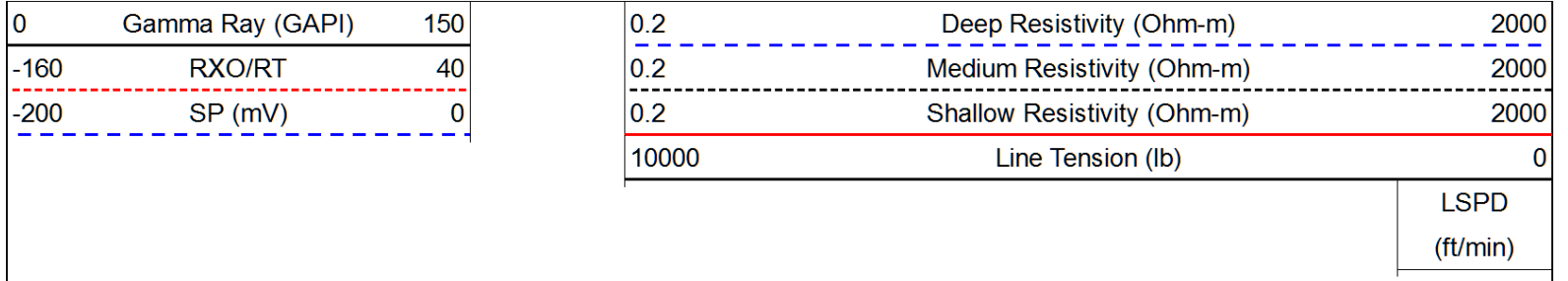


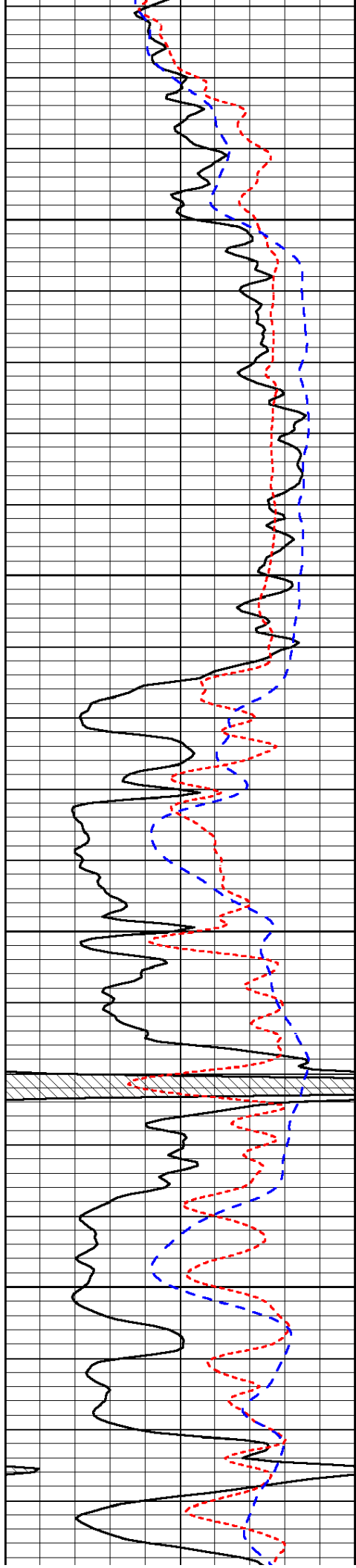






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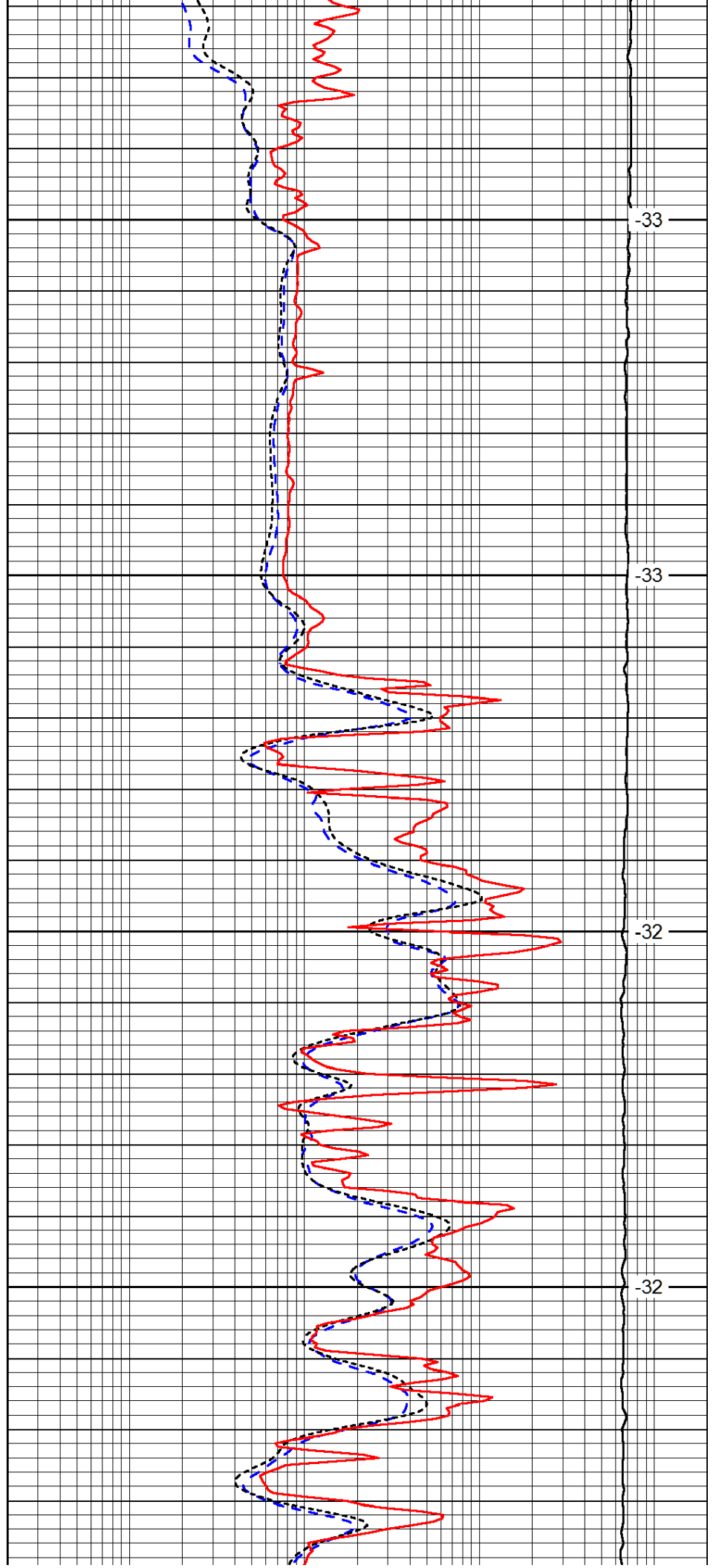


2600

2650

2700

2750

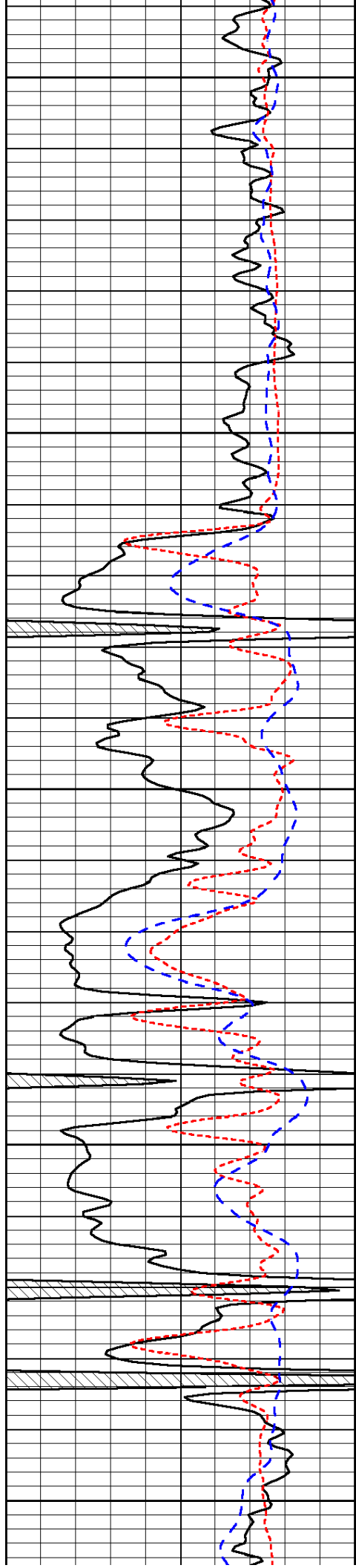


-33

-33

-32

-32



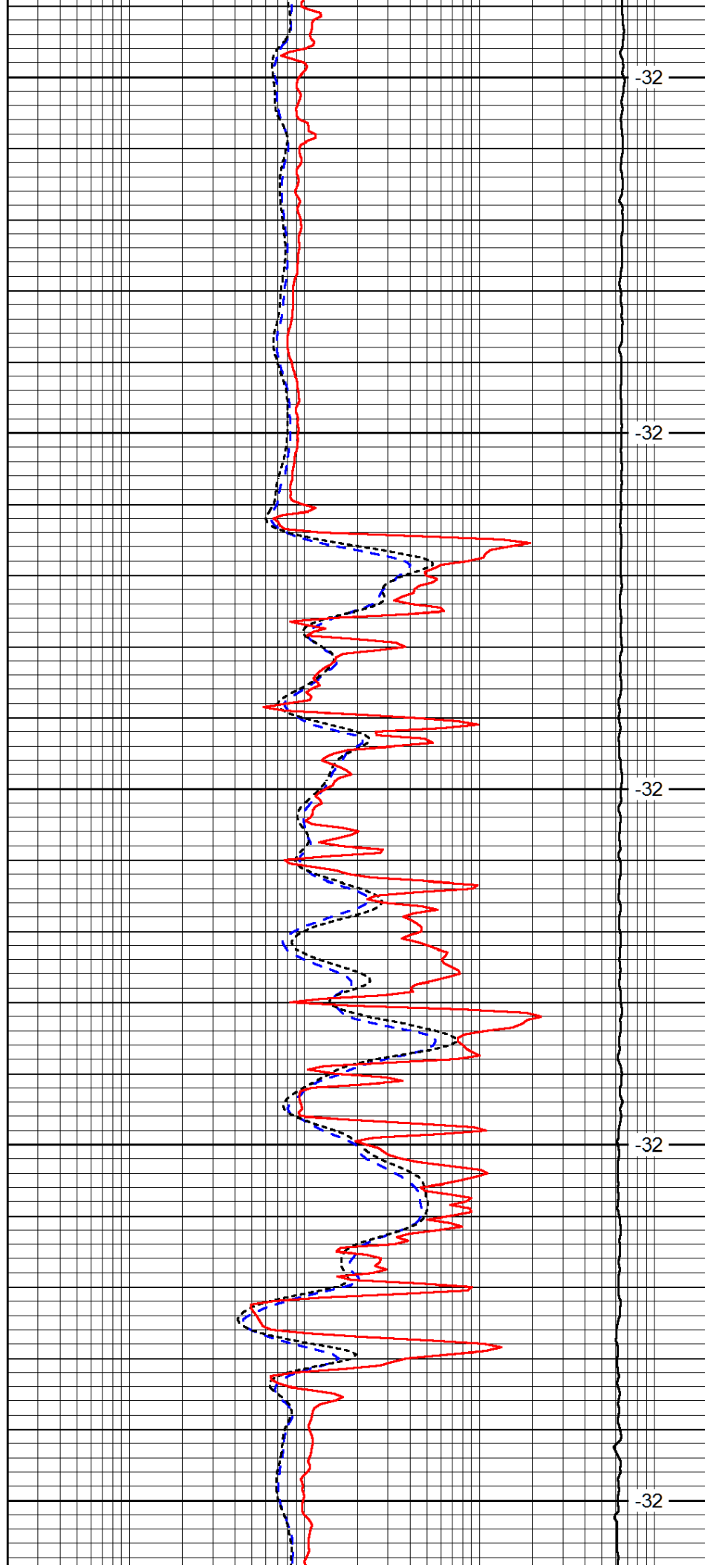
2800

2850

2900

2950

3000



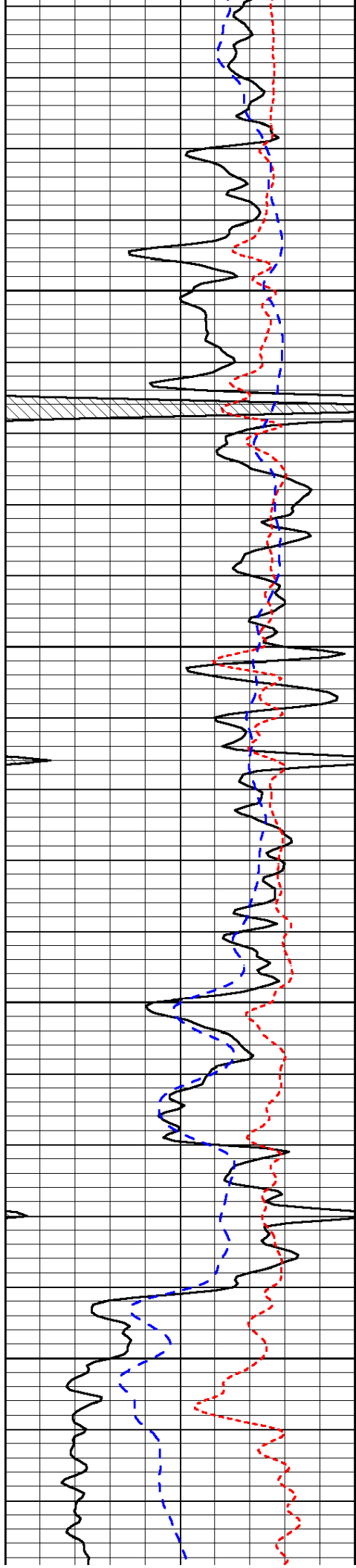
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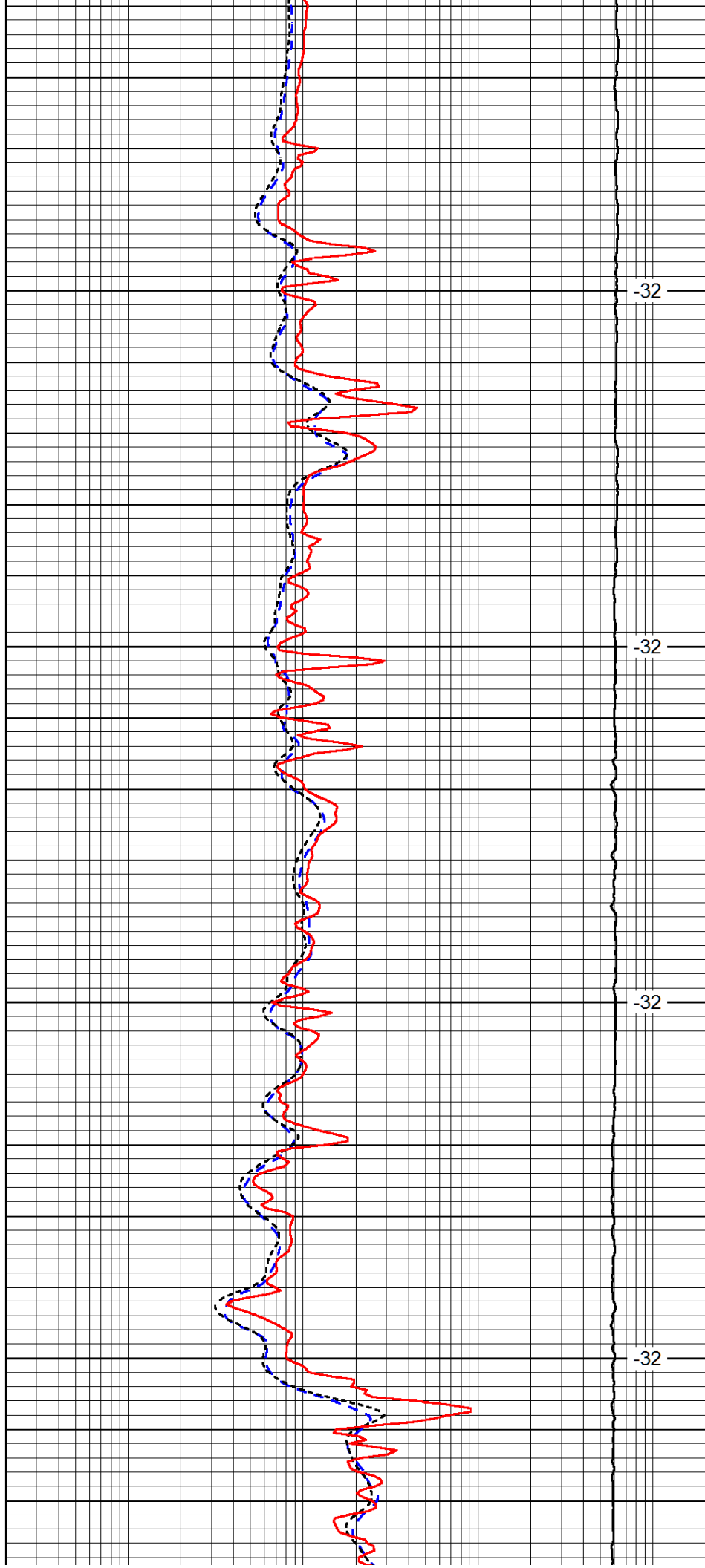


3050

3100

3150

3200

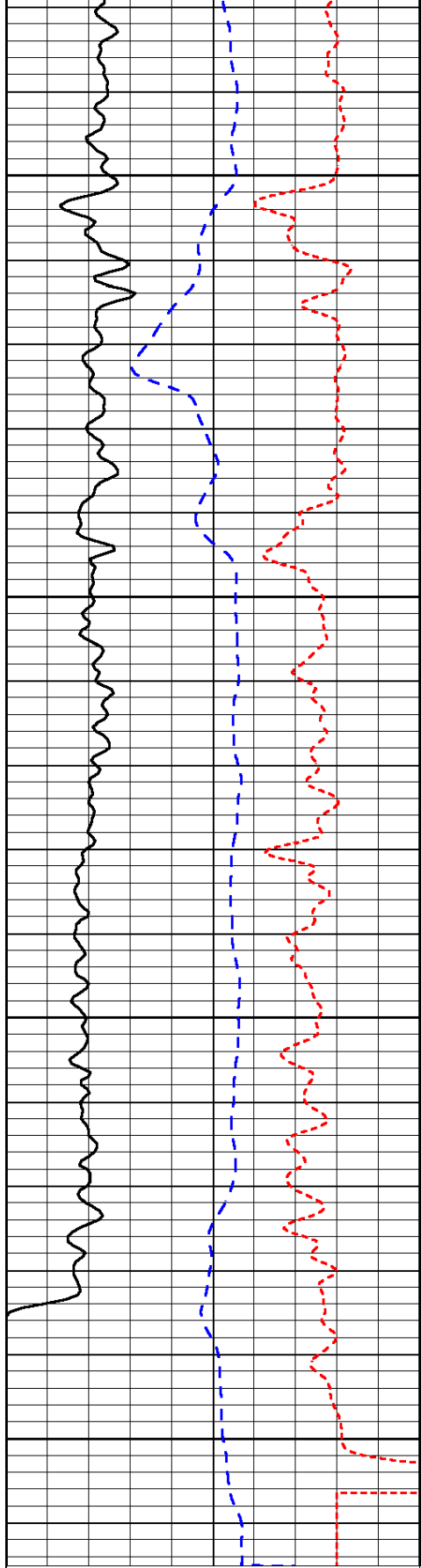


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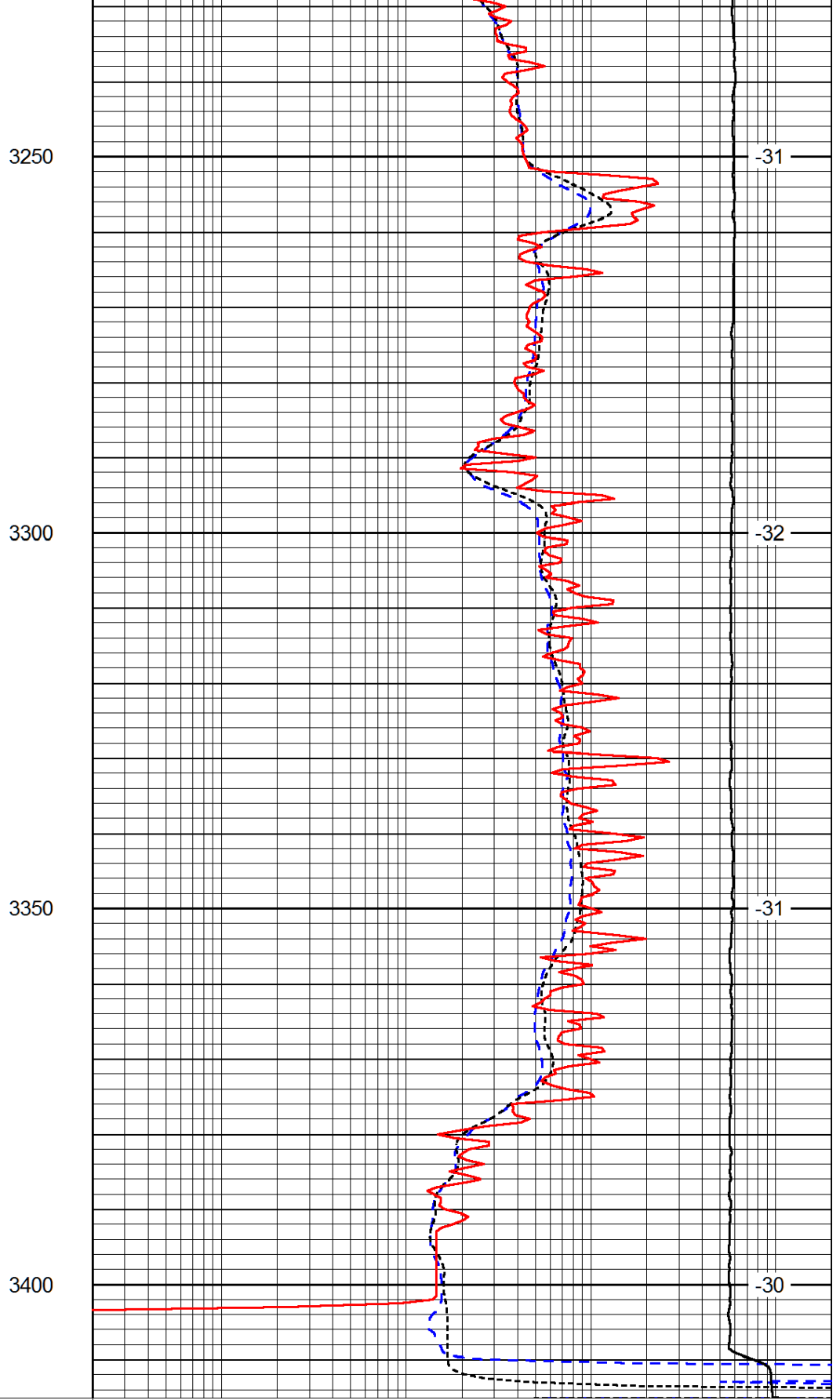
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-32

-32



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



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)