



Pioneer Energy Services

# Dual Induction Log

API No.	15-179-21325-00-00		
Company	Culbreath Oil & Gas Co., Inc.		
Well	Mader #1-01		
Field	Wildcat		
County	Sheridan	State	Kansas
Location	1650' FNL & 2310' FWL		
Sec: 1	Tw: 10S	Rge: 26W	Other Services CNL/CDL MEL/BHCS

Permanent Datum	Ground Level	Elevation 2570	K.B. 2579
Log Measured From	Kelly Bushing	9 Ft. Above Perm. Datum	D.F. 2570
Drilling Measured From	Kelly Bushing		G.L. 2570
Date	2/13/2013		
Run Number	One		
Depth Driller	4120		
Depth Logger	4122		
Bottom Logged Interval	4121		
Top Log Interval	250		
Casing Driller	8.625 @ 261		
Casing Logger	262		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	1000		
Density / Viscosity	9.3	52	
pH / Fluid Loss	9.4	6.4	
Source of Sample	Flowline		
Rm @ Meas. Temp	0.80 @ 60		
Rmf @ Meas. Temp	0.60 @ 60		
Rmc @ Meas. Temp	1.08 @ 60		
Source of Rmf / Rmc	Charts		
Rm @ BHT	0.40 @ 119		
Operating Rig Time	5 Hours		
Max Rec. Temp. F	119		
Equipment Number	91		
Location	Hays		
Recorded By	D. Schmidt		
Witnessed By	Steve Murphy		

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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  
  
Quinter,  
2 North to B Rd, 3 East to 78 Rd, 9 North, 1/2 East,  
South into

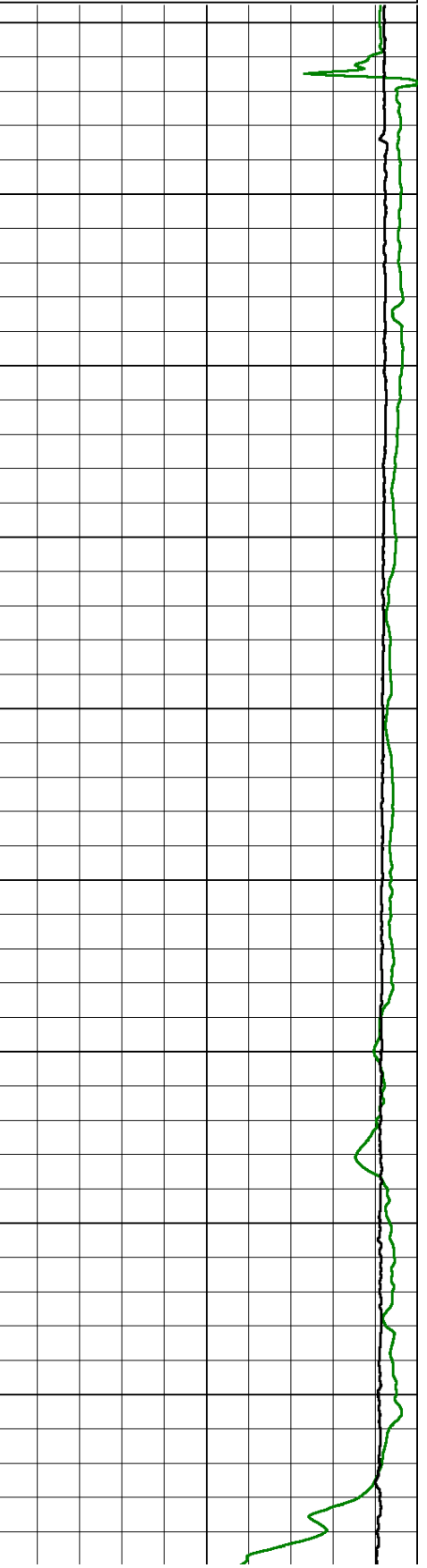
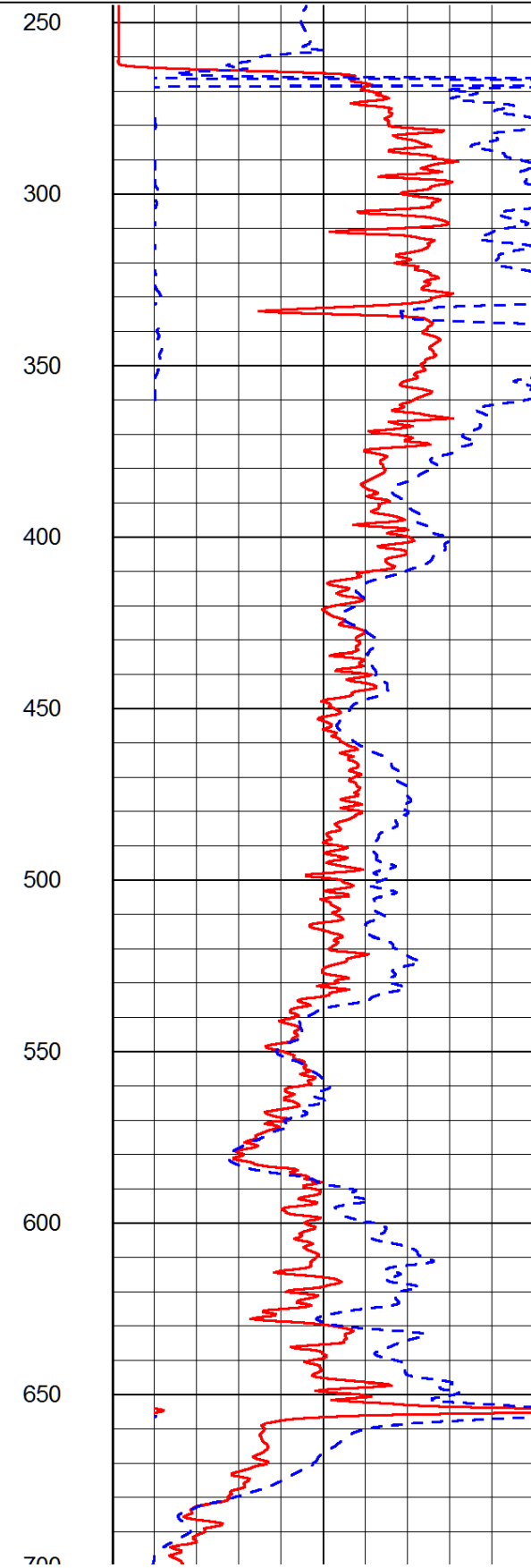
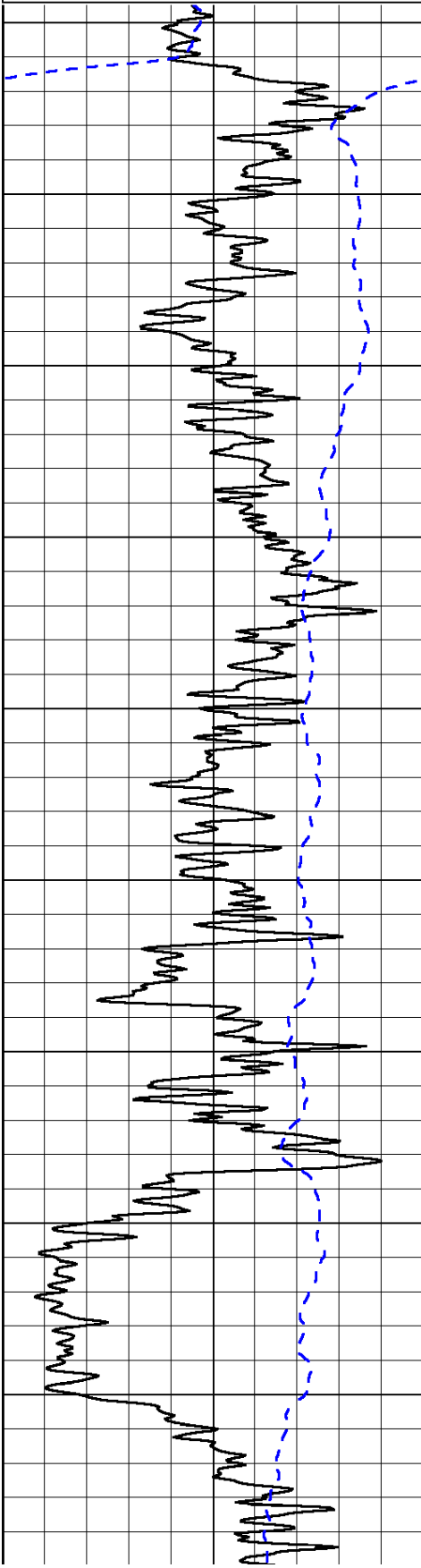
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 Dataset Pathname: dil/culstack  
 Presentation Format: dil2in  
 Dataset Creation: Thu Feb 14 02:05:45 2013  
 Charted by: Depth in Feet scaled 1:600

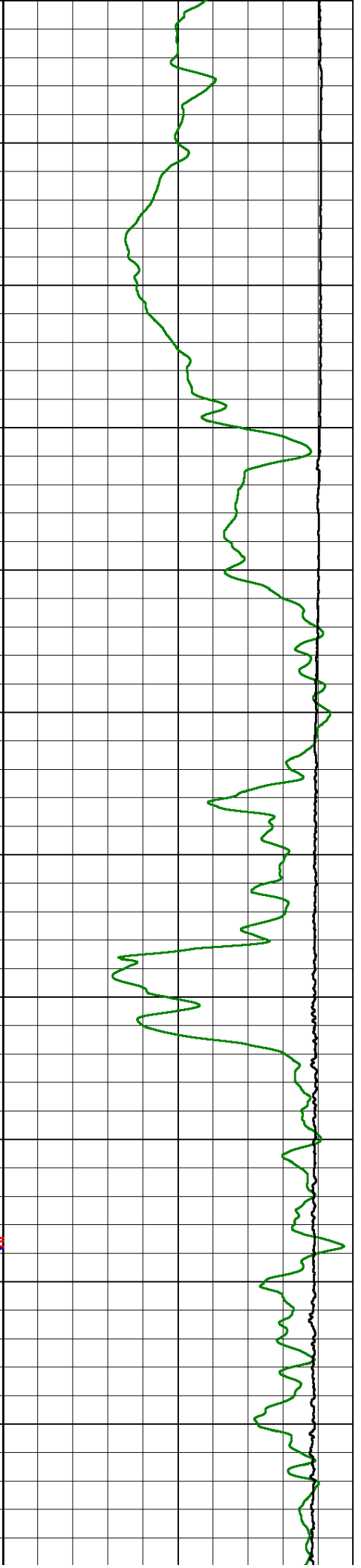
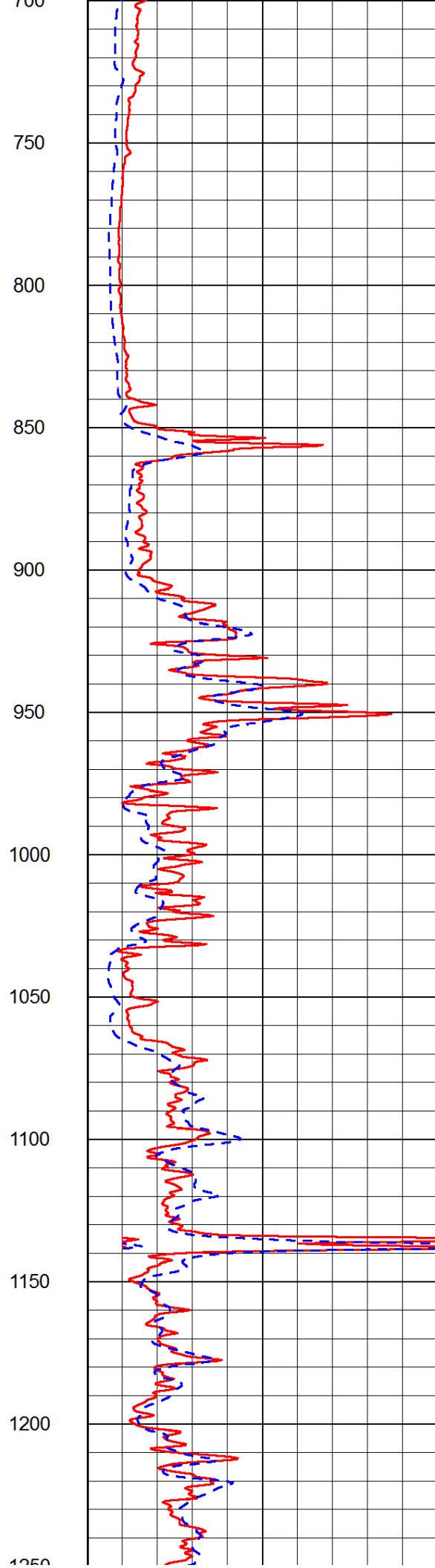
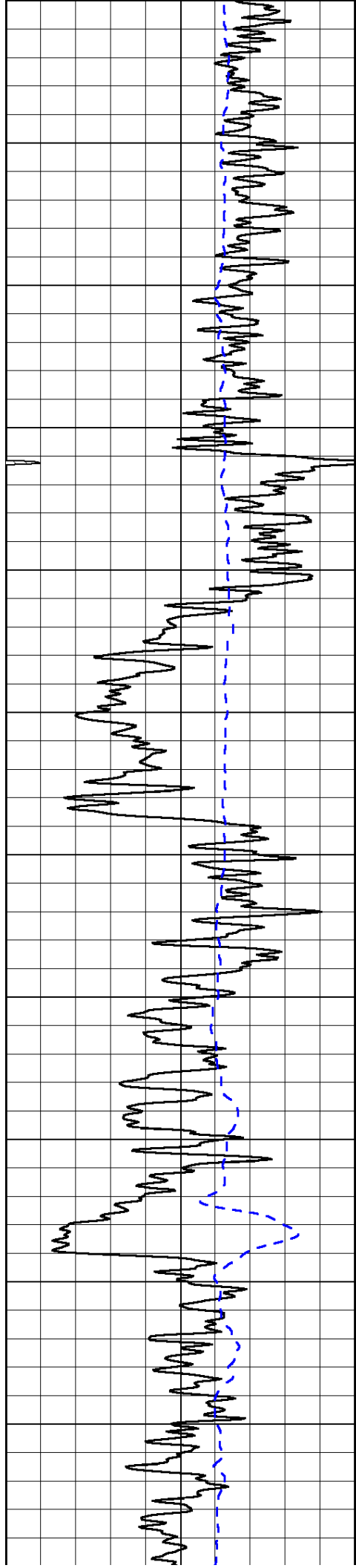
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

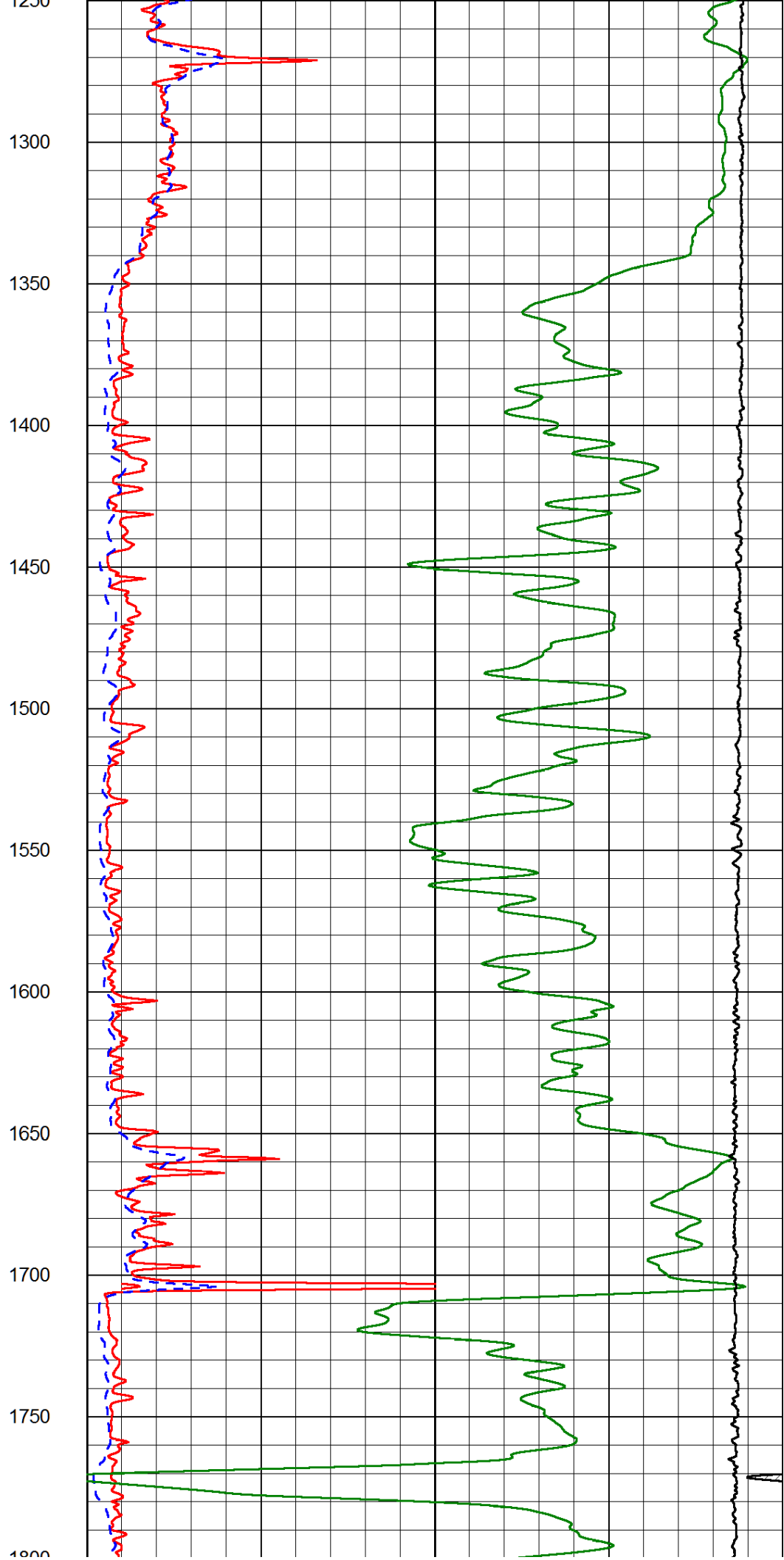
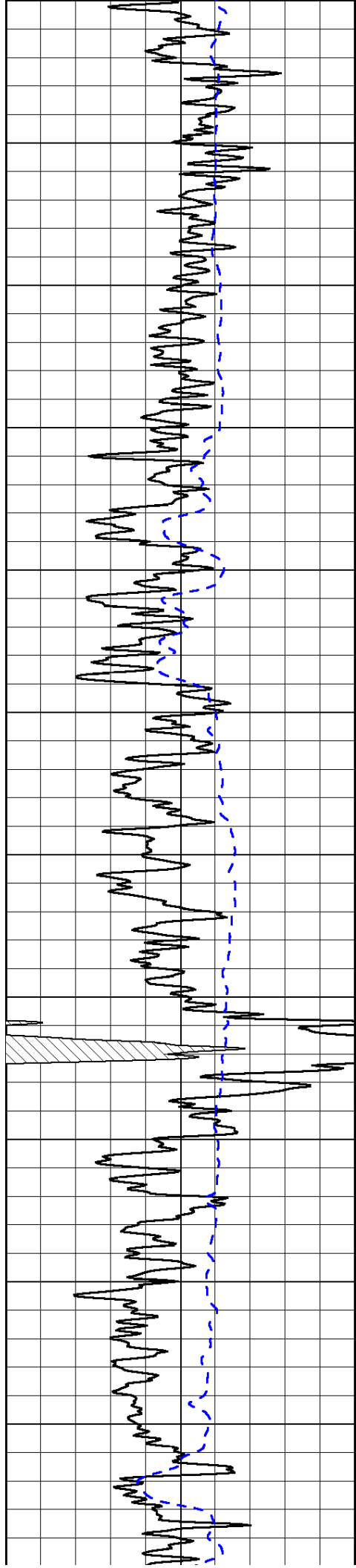
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50

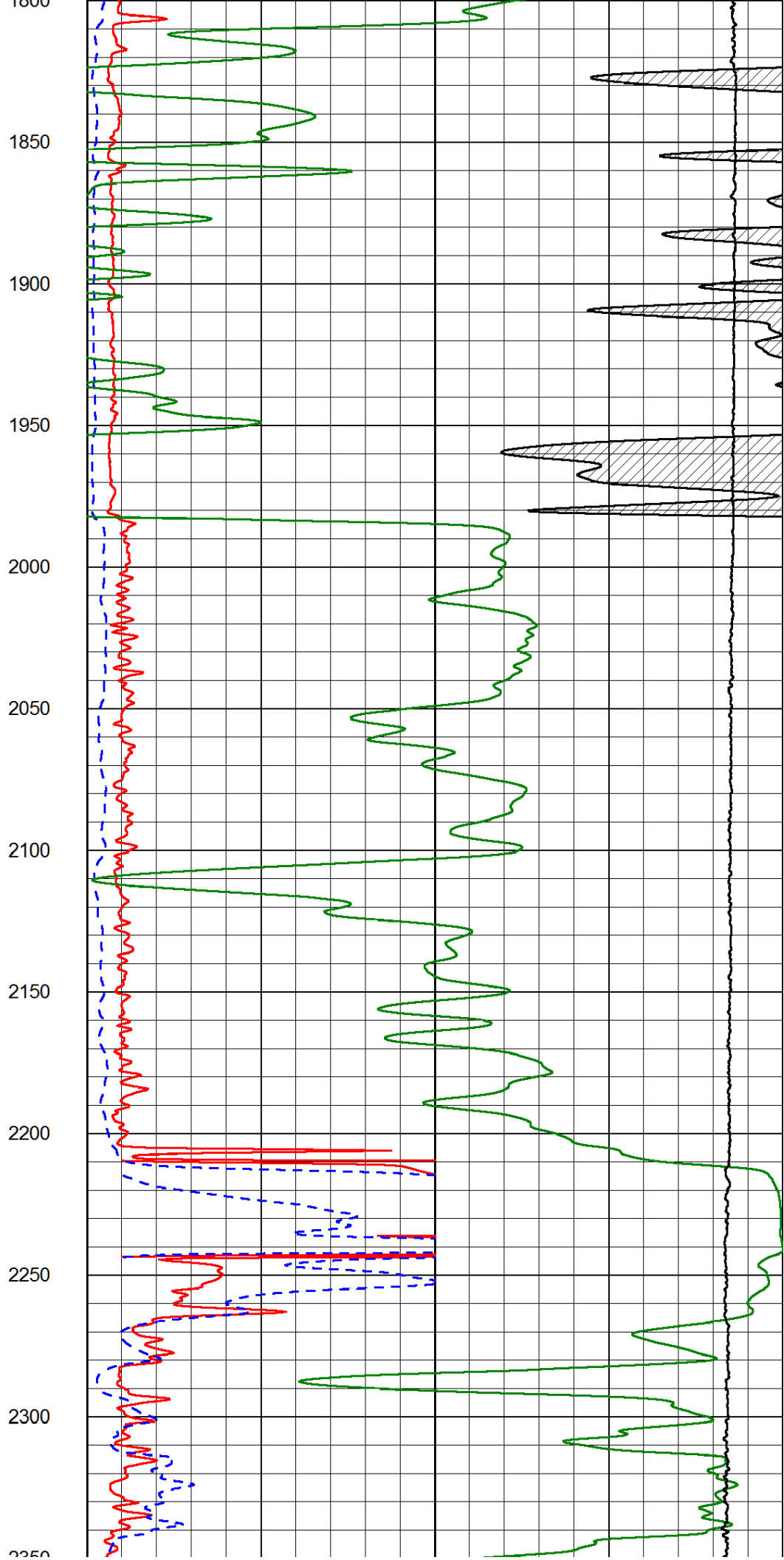
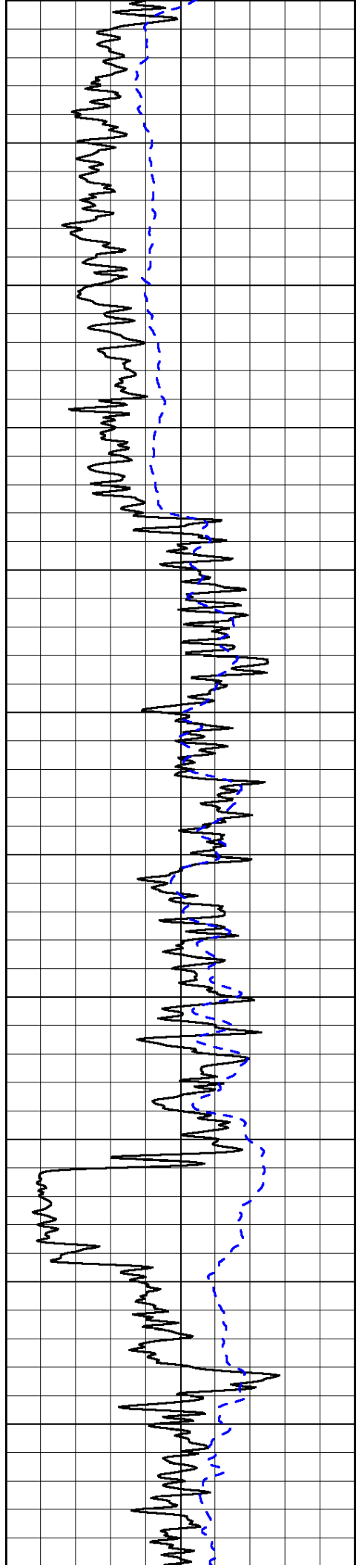
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0

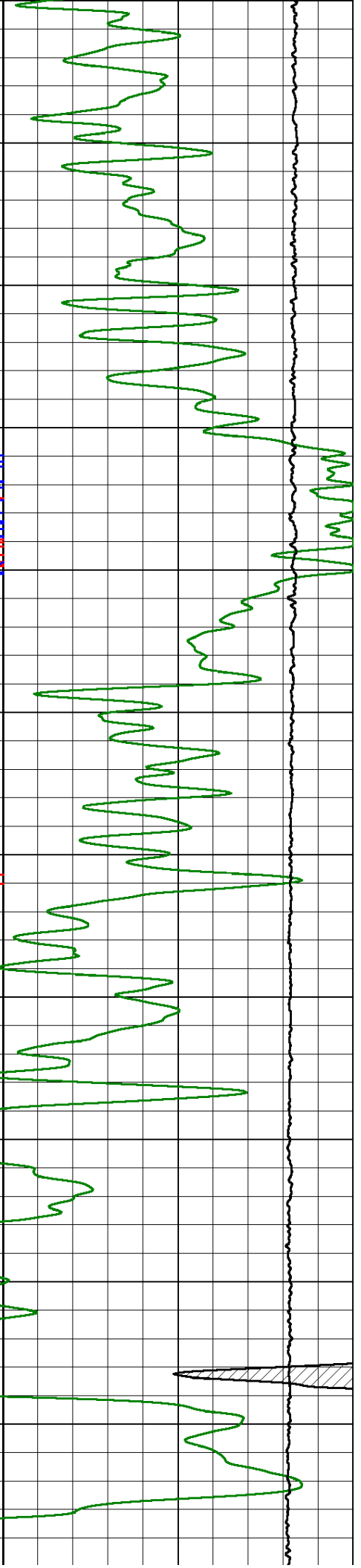
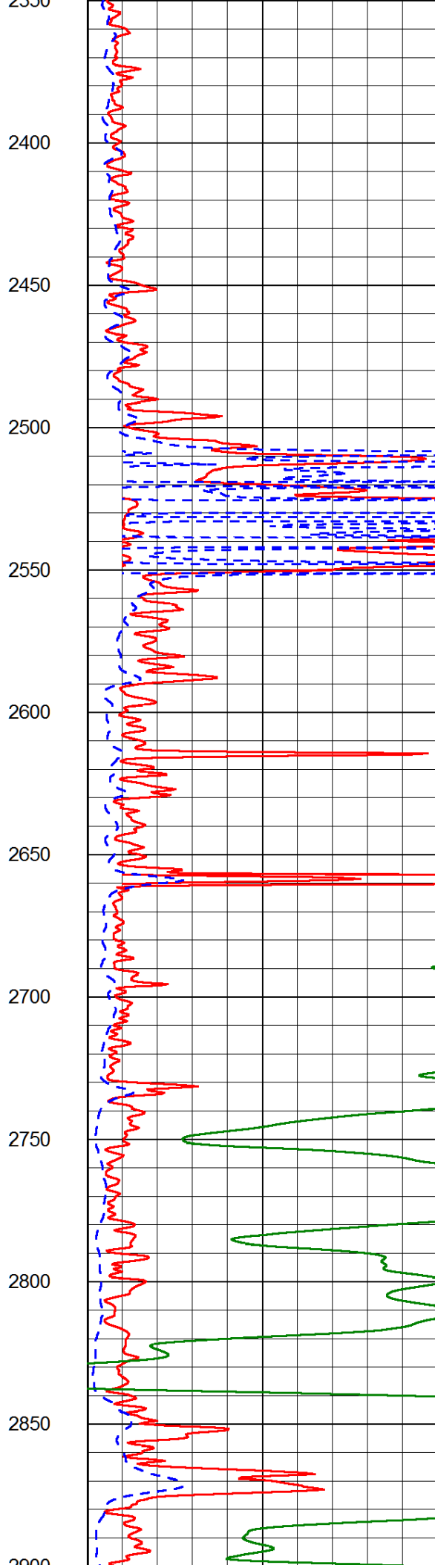
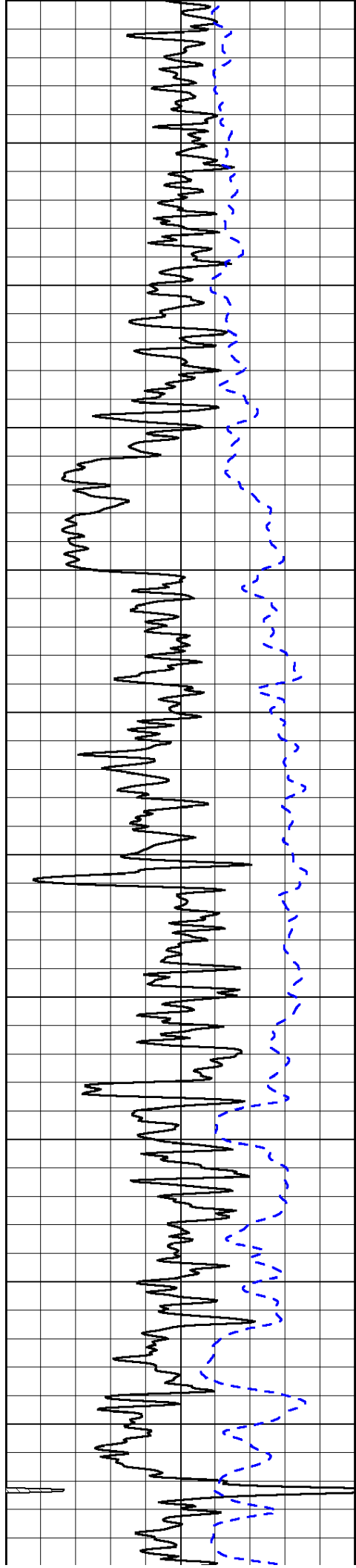
Shallow Resistivity		
50	(Ohm-m)	500
Deep Resistivity (Ohm-m)		
50		500

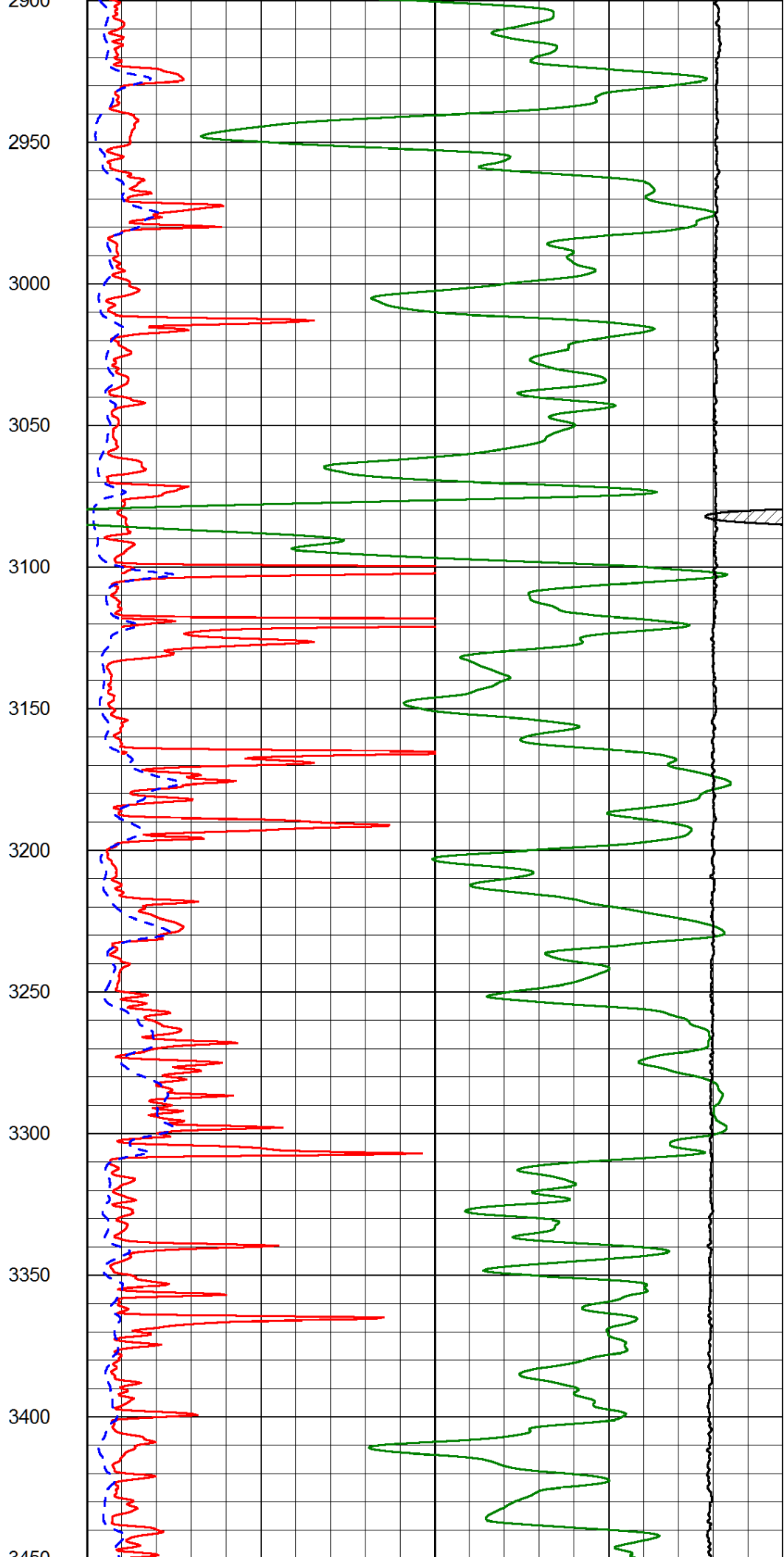
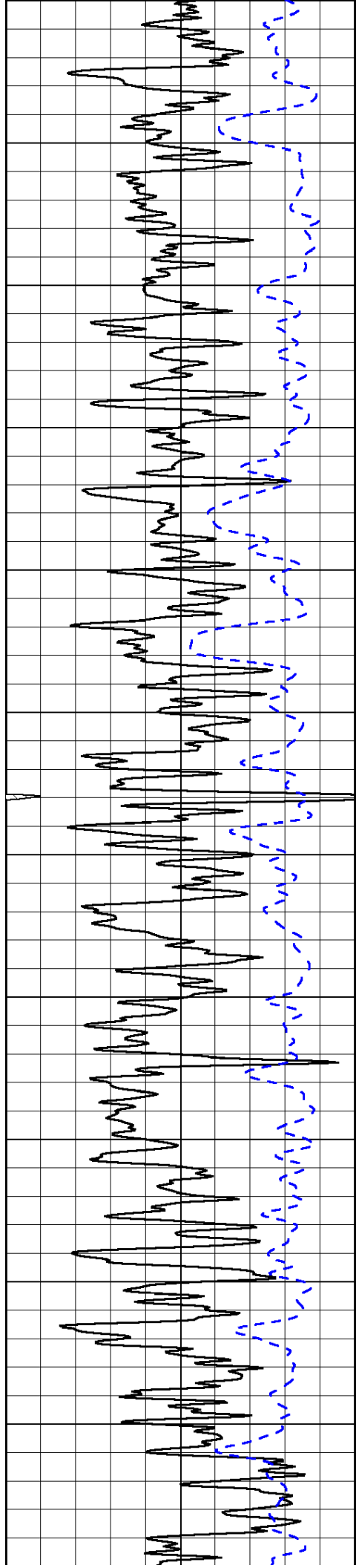


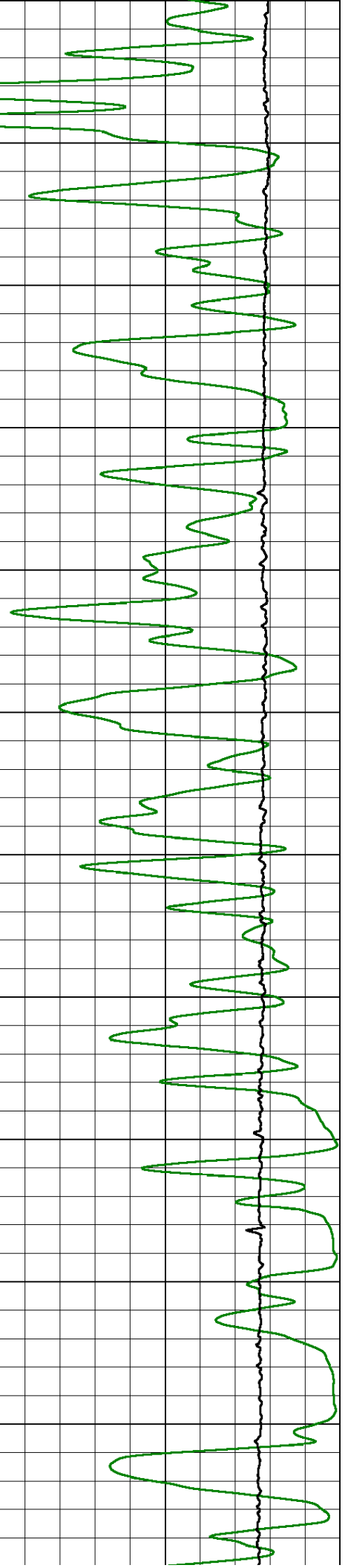
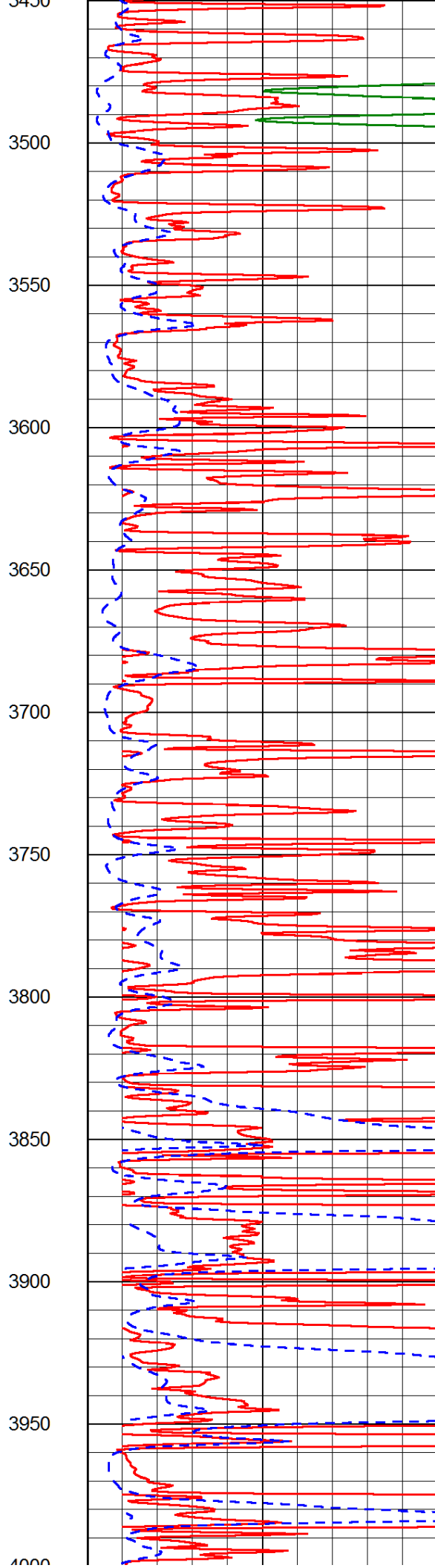
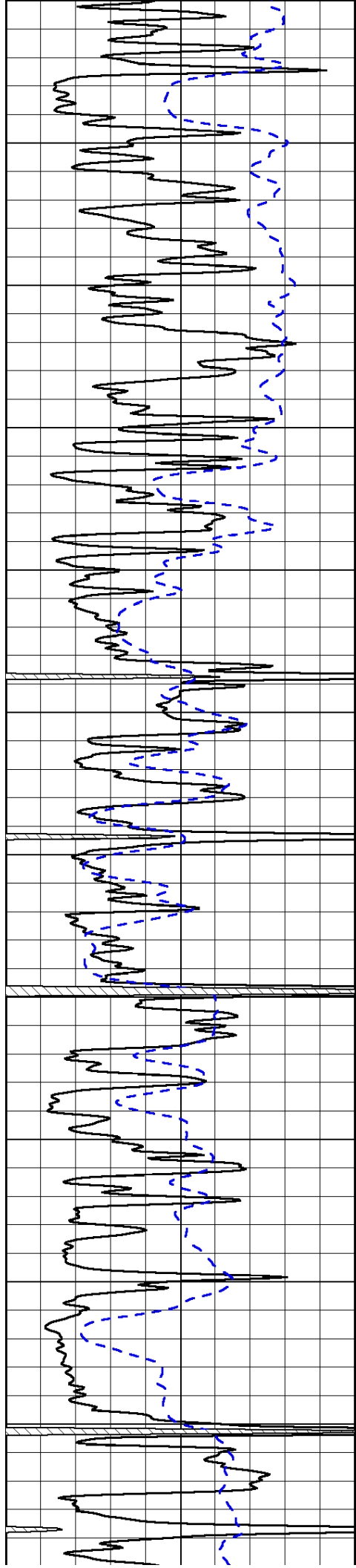




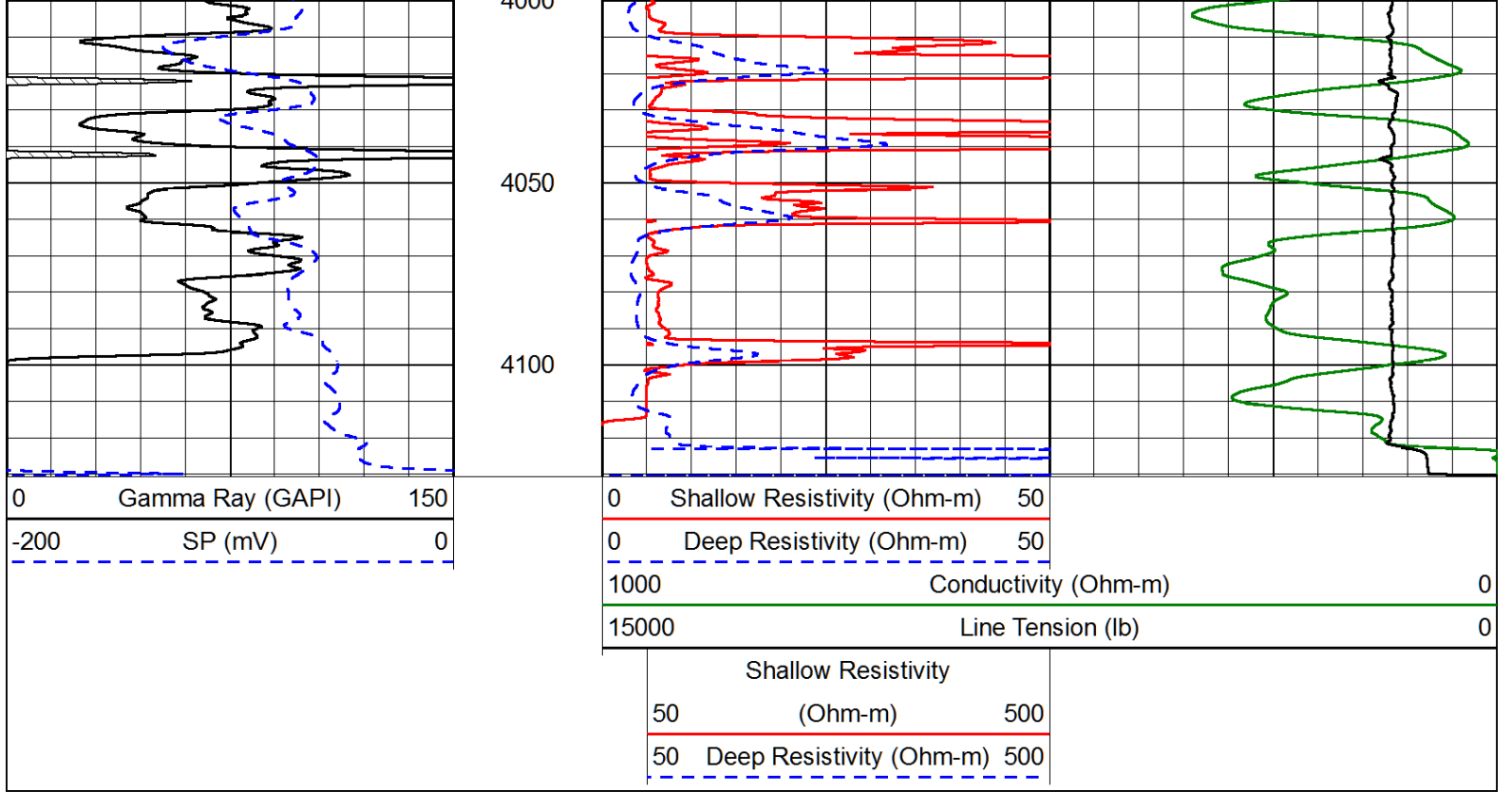




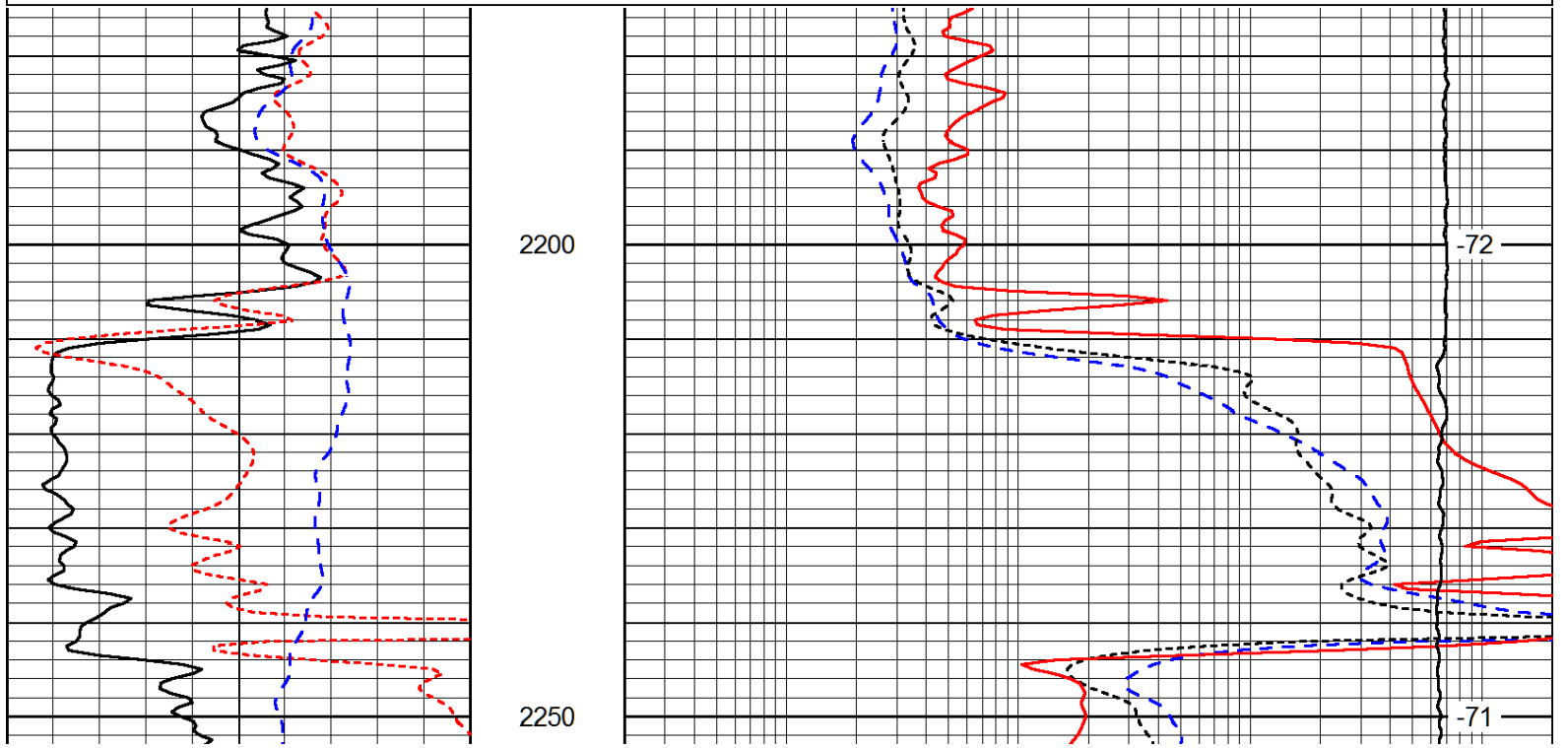
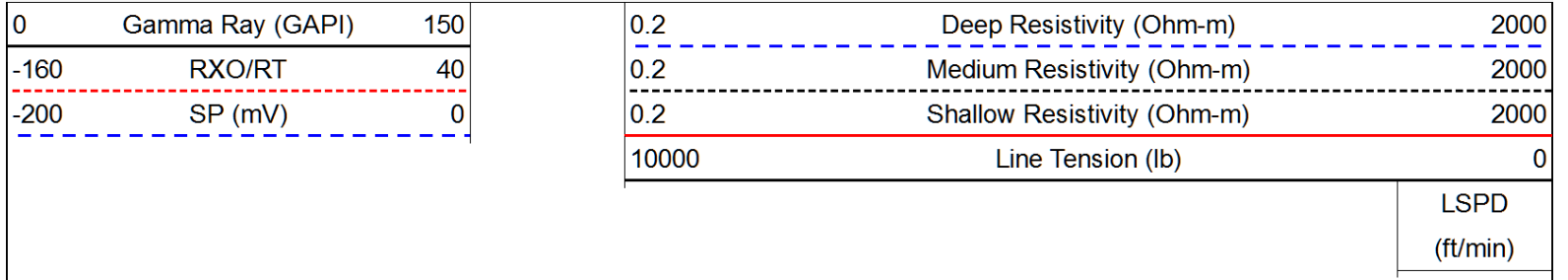


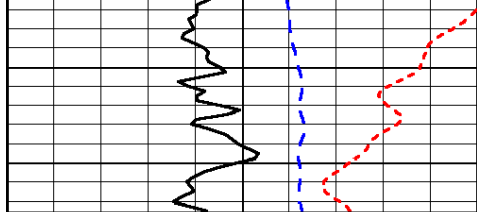




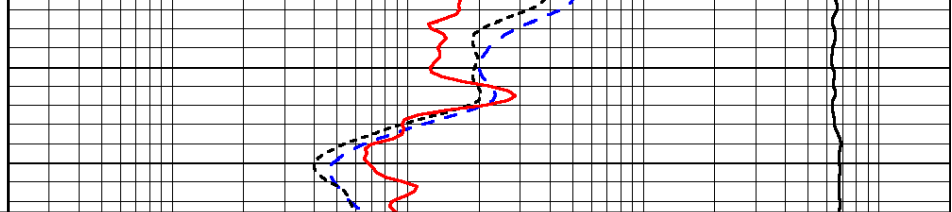


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 Dataset Pathname: dil/culstack  
 Presentation Format: dil  
 Dataset Creation: Thu Feb 14 02:05:45 2013  
 Charted by: Depth in Feet scaled 1:240





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

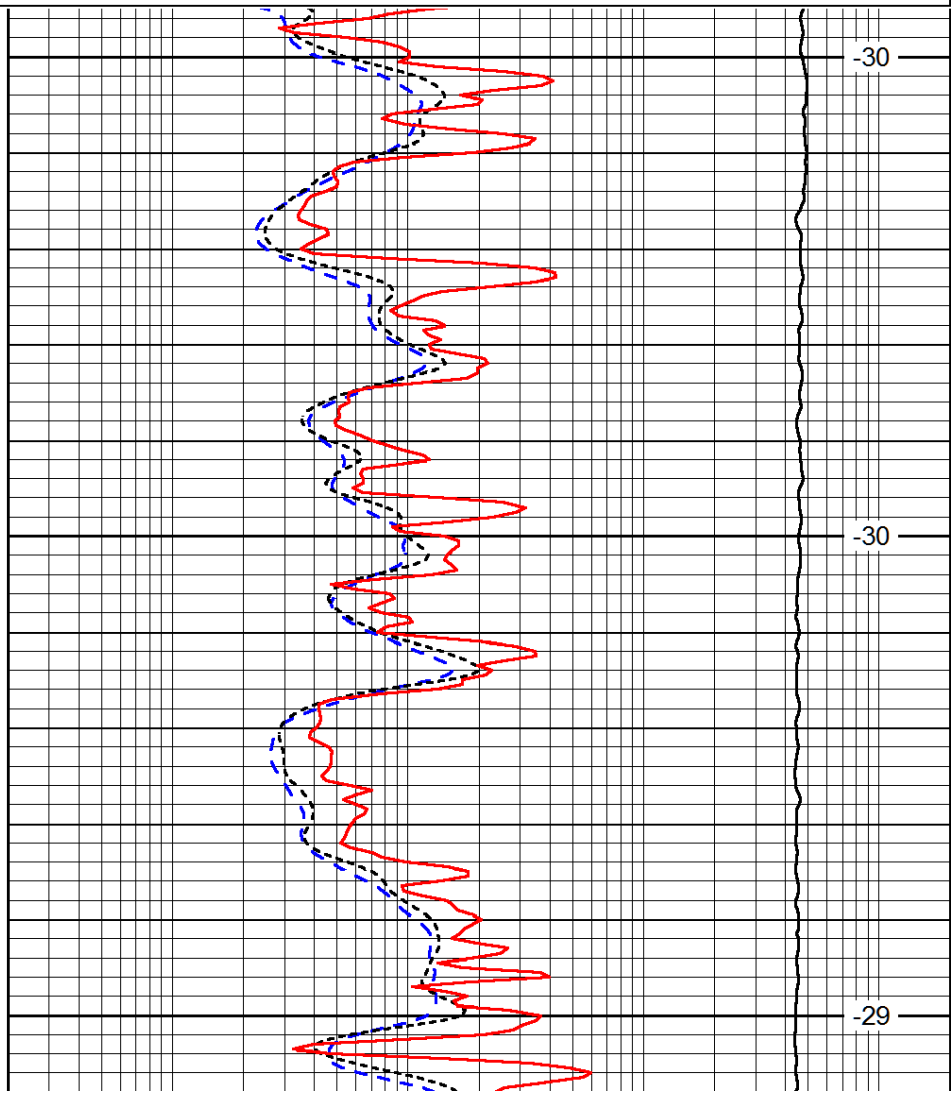
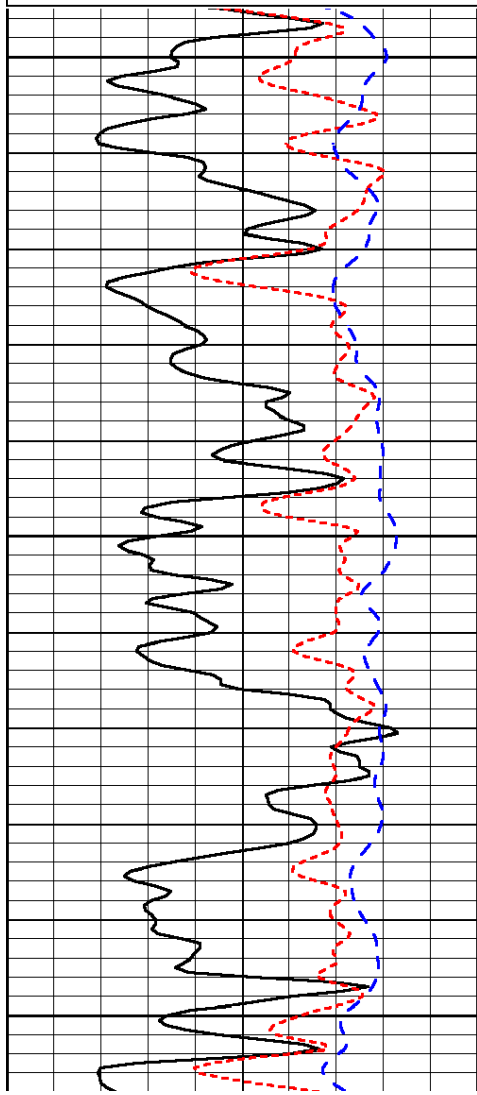
LSPD  
(ft/min)

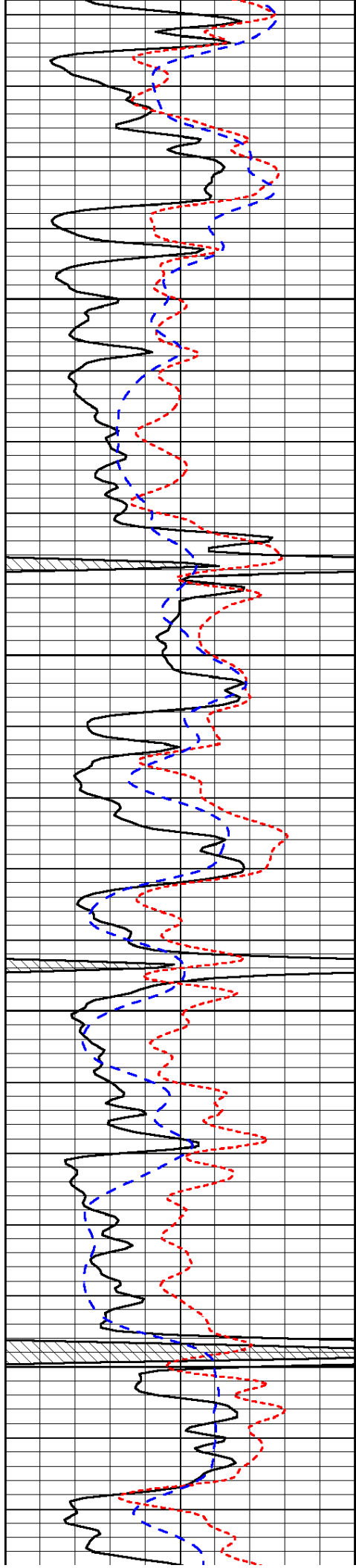
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(ft/min)



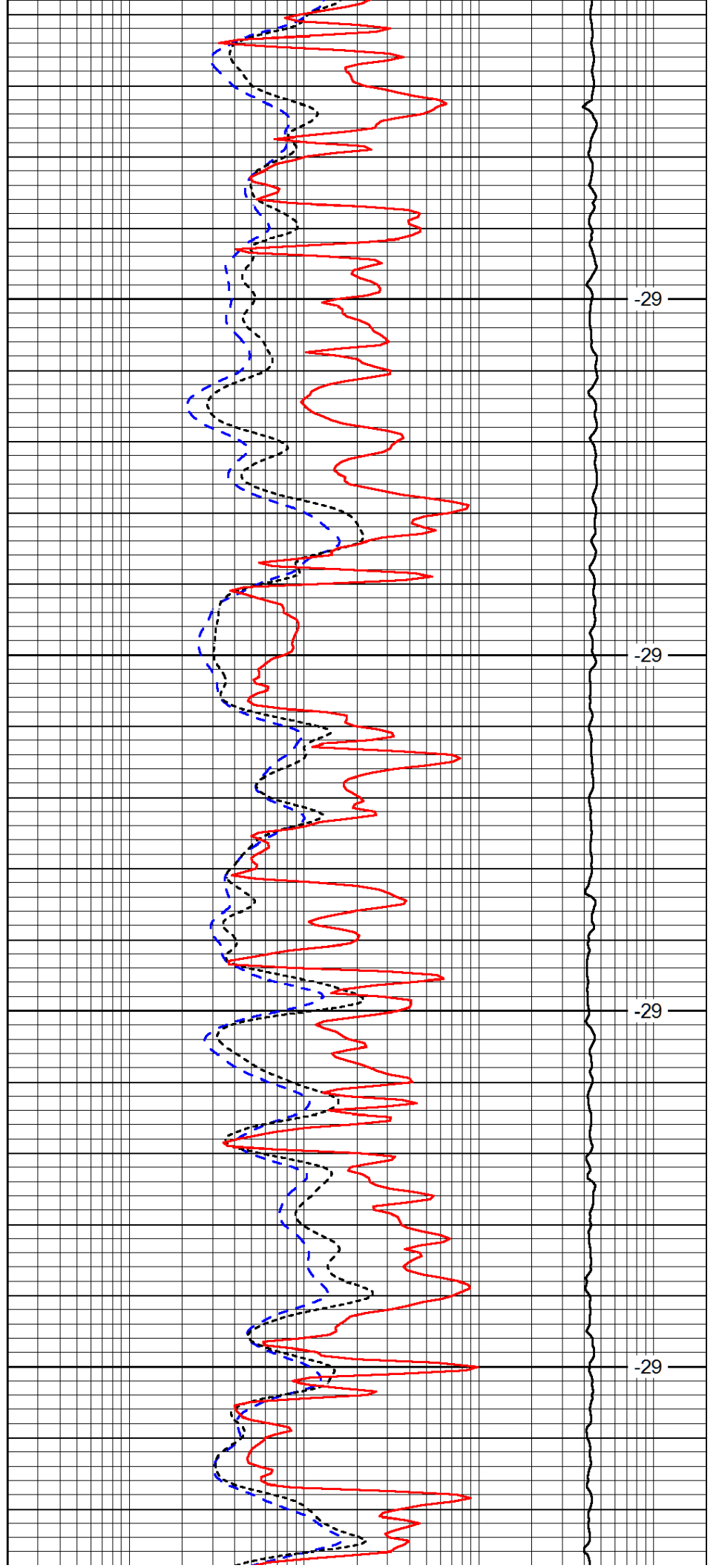


3650

3700

3750

3800

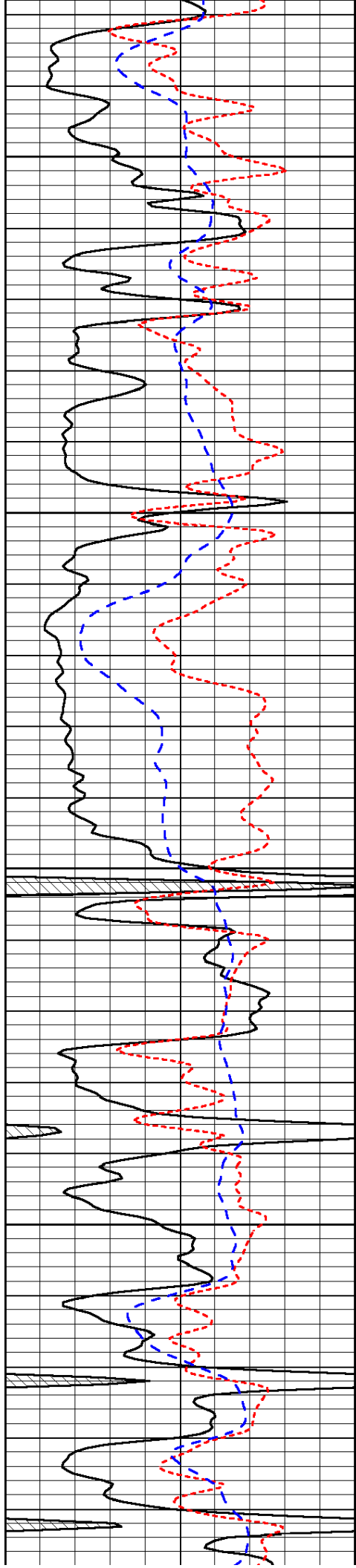


-29

-29

-29

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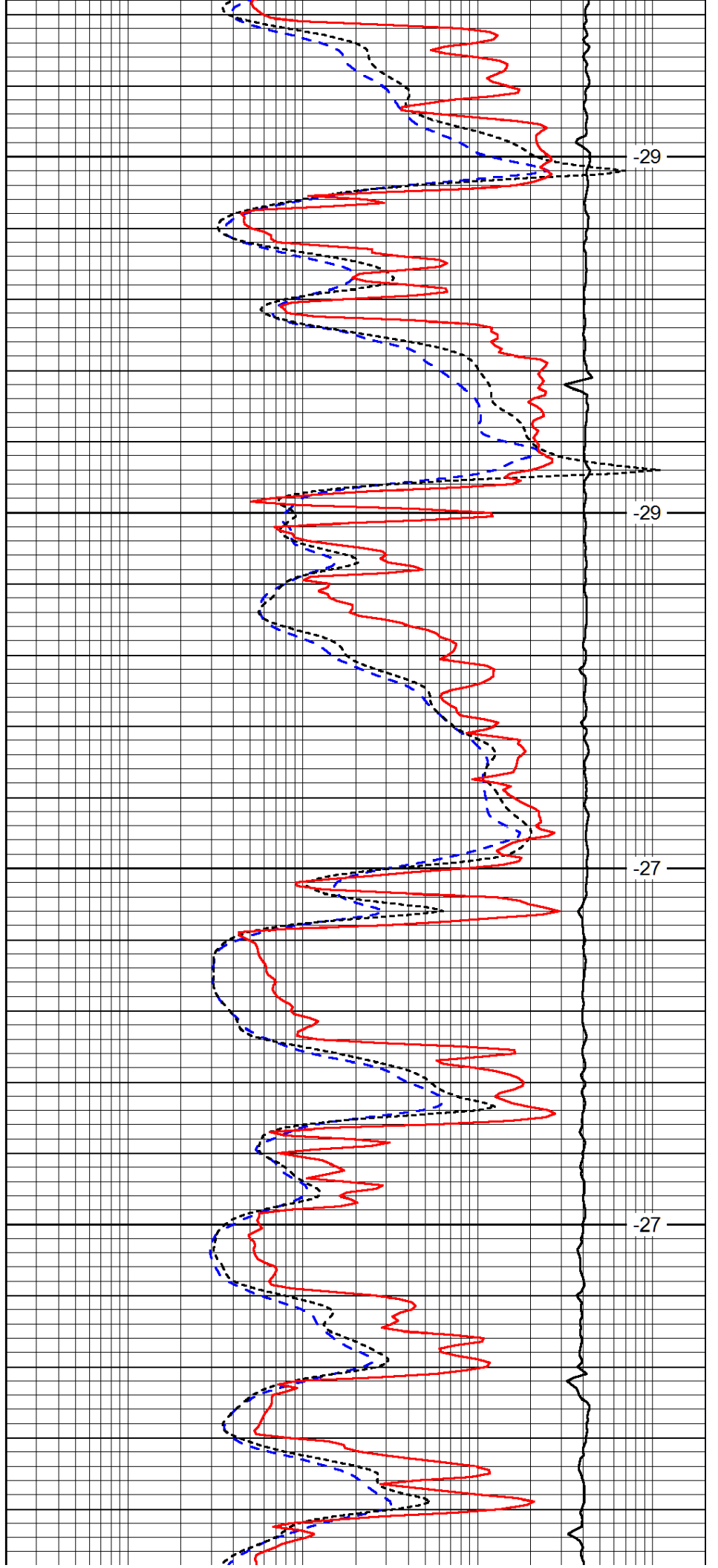


3850

3900

3950

4000

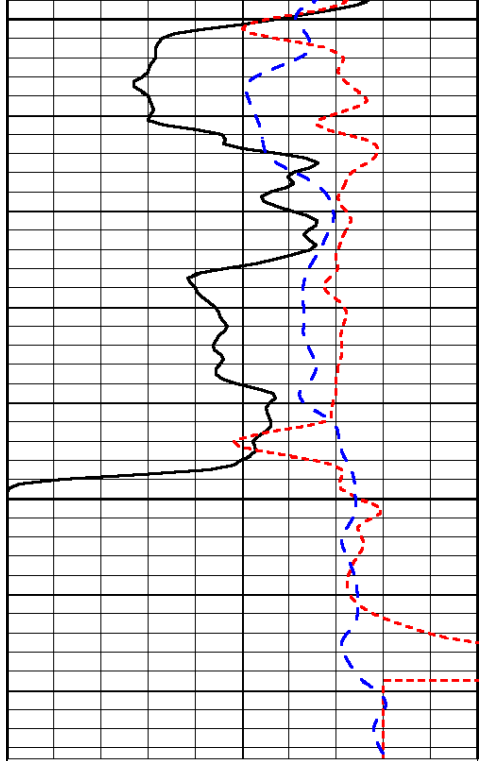


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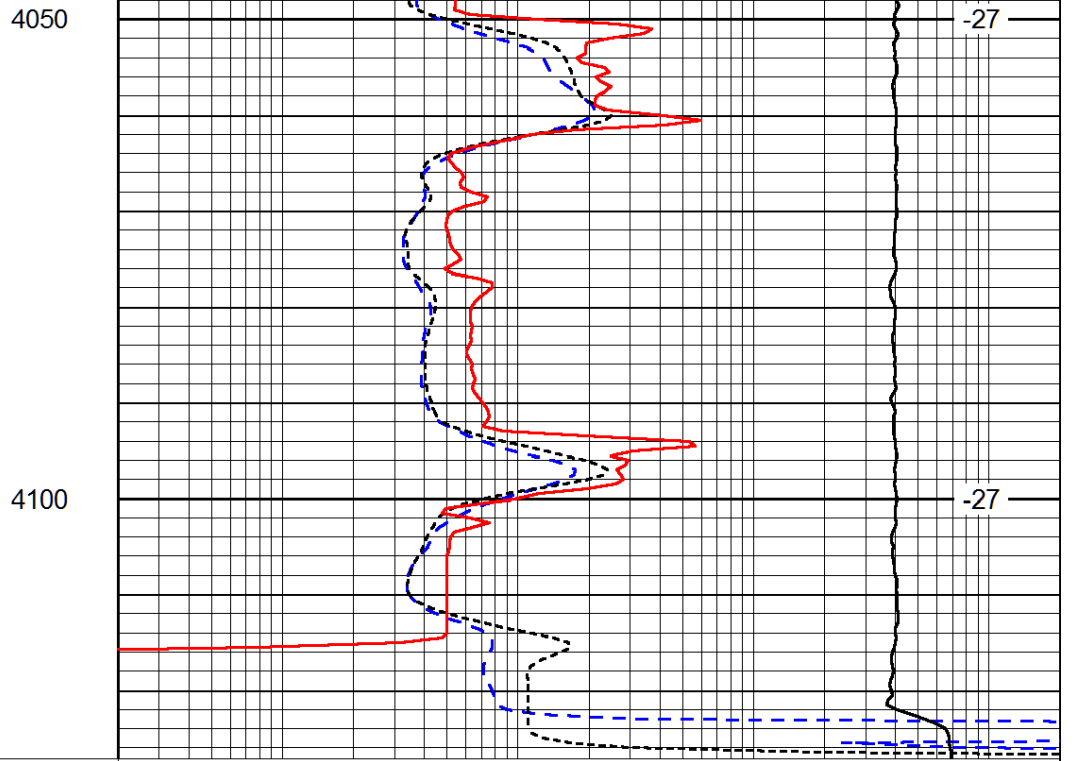
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-27

-27



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(ft/min)