



Pioneer Energy Services

Dual Induction Log

API No.	15-115-21450-00-00		
Company	Range Oil Company, Inc.		
Well	Rhodes A #1		
Field	Savage		
County	Marion	State	Kansas
Location	380' FNL & 2017' FEL		
Sec: 22	Twp: 21S	Rge: 4E	Other Services CNL/CDL

Permanent Datum	Ground Level	Elevation 1290	K.B. 1300
Log Measured From	Kelly Bushing	10 Ft. Above Perm. Datum	D.F. 1290
Drilling Measured From	Kelly Bushing		G.L. 1290
Date	6/7/2013		
Run Number	One		
Depth Driller	2410		
Depth Logger	2408		
Bottom Logged Interval	2407		
Top Log Interval	0		
Casing Driller	8.625 @ 227		
Casing Logger	227		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	1400		
Density / Viscosity	9.4	50	
pH / Fluid Loss	9.0	8.6	
Source of Sample	Flowline		
Rm @ Meas. Temp	0.70 @ 78		
Rmf @ Meas. Temp	0.53 @ 78		
Rmc @ Meas. Temp	0.95 @ 78		
Source of Rmf / Rmc	Charts		
Rm @ BHT	0.53 @ 107		
Operating Rig Time	3 Hours		
Max Rec. Temp. F	107		
Equipment Number	91		
Location	Hays		
Recorded By	D. Schmidt		
Witnessed By	John Washburn	Frank Mize	

<<< Fold Here >>>

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
 Peabody,
 8 1/2 West on Hwy 50 to Rhodes Red Angus Ranch,
 South and West into

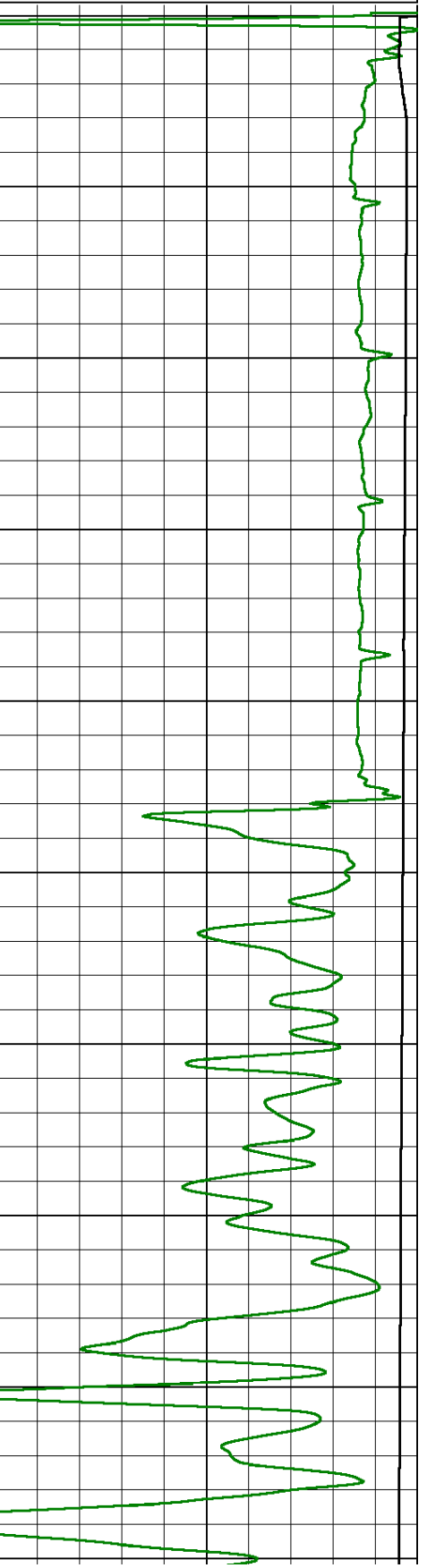
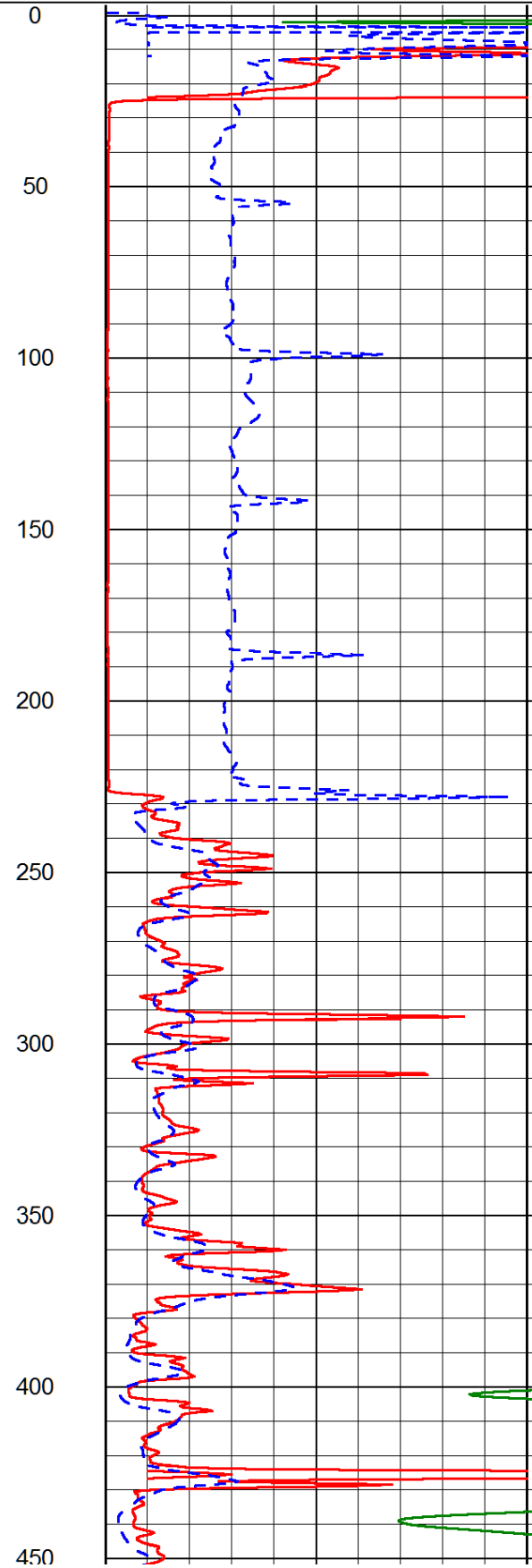
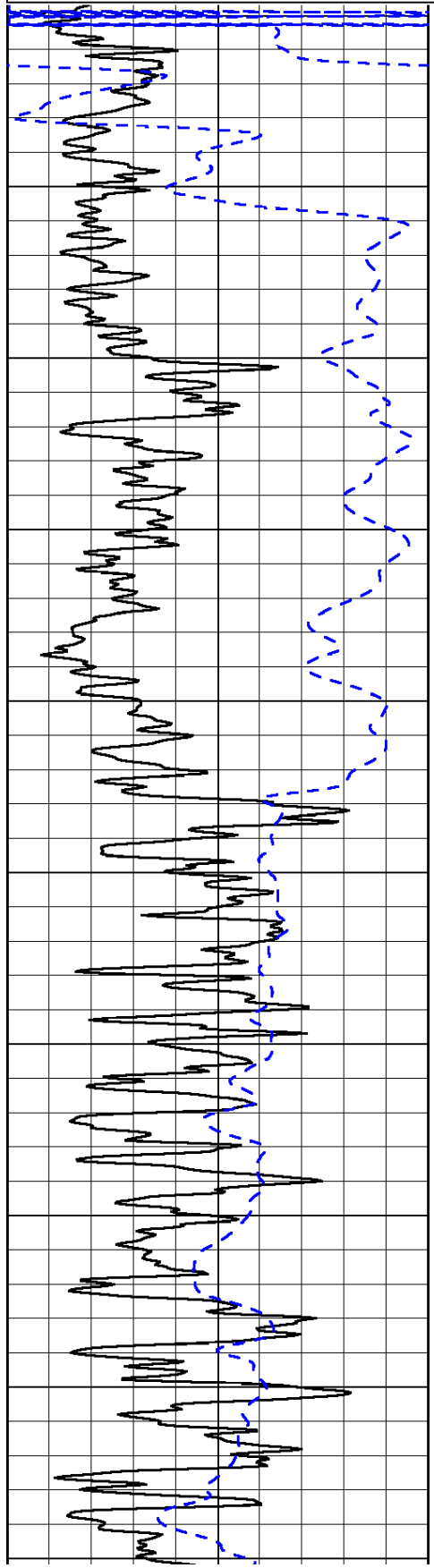
Database File: rangehd.db
 Dataset Pathname: dil/rngstk
 Presentation Format: dil2in
 Dataset Creation: Fri Jun 07 20:50:53 2013
 Charted by: Depth in Feet scaled 1:600

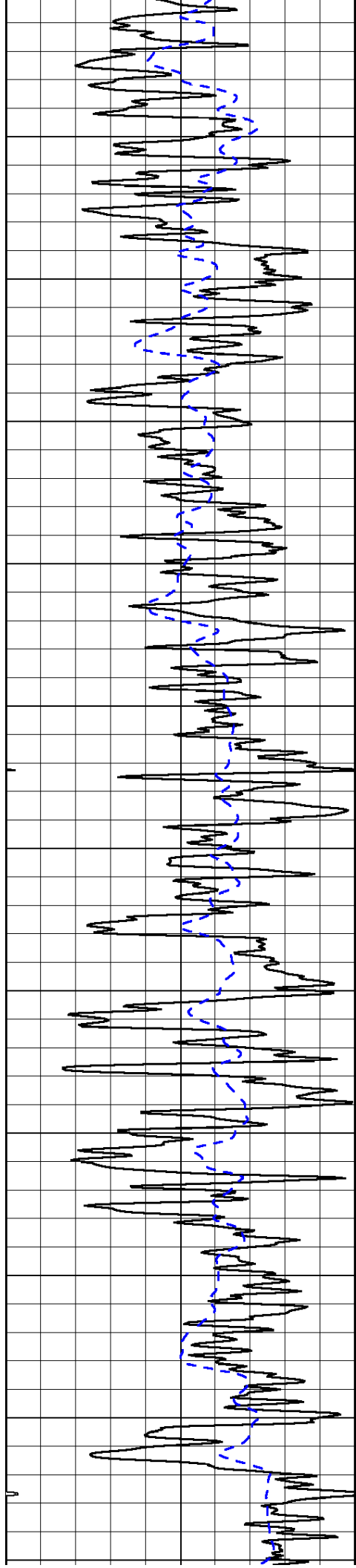
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

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

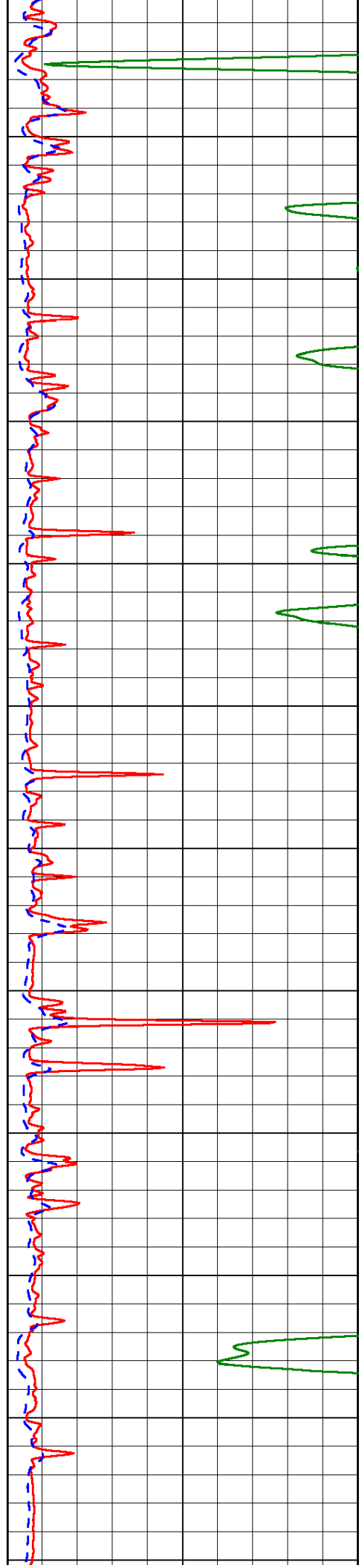
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0

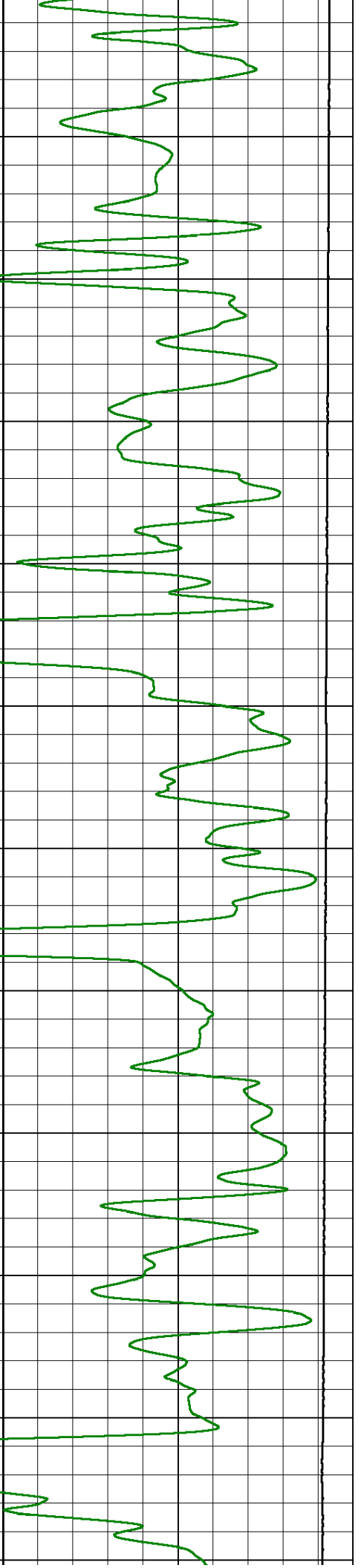
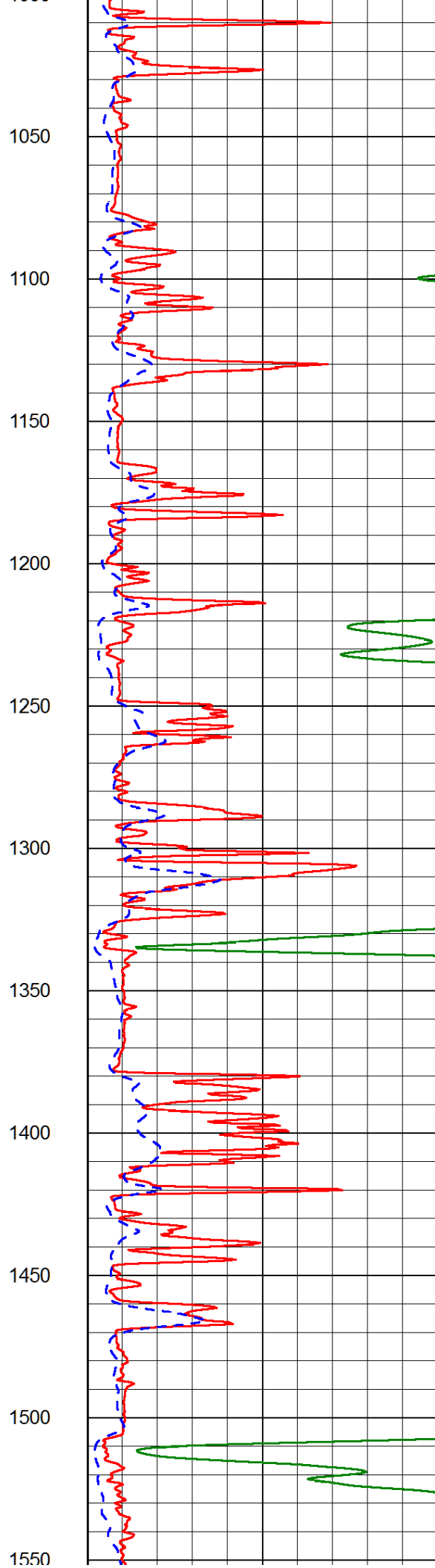
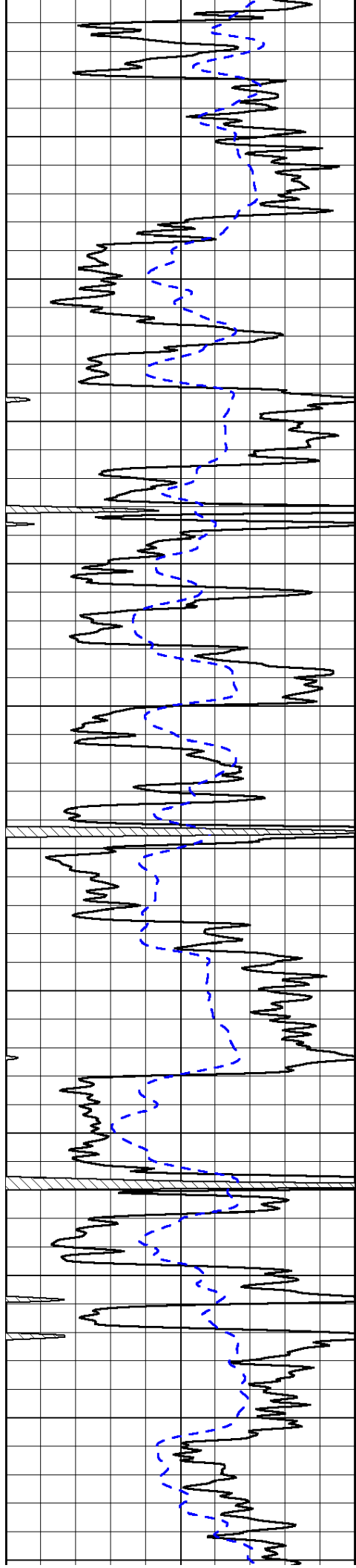
Shallow Resistivity		
50	(Ohm-m)	500
Deep Resistivity (Ohm-m)		
50	Deep Resistivity (Ohm-m)	500

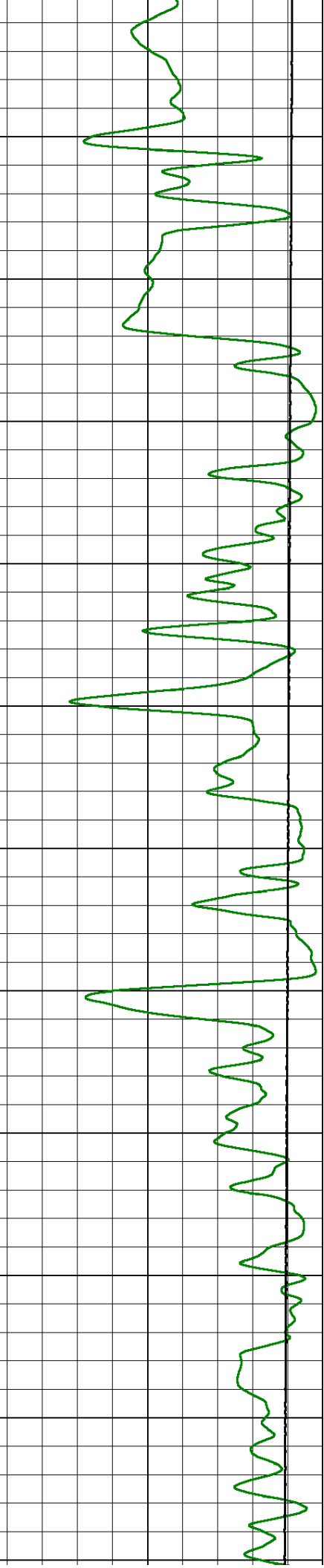
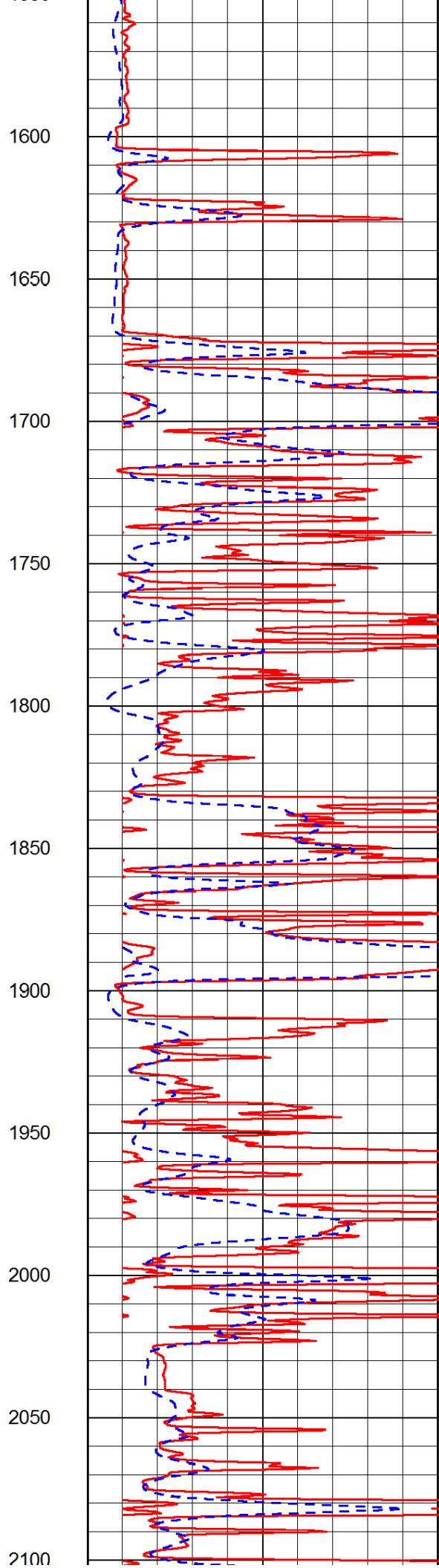
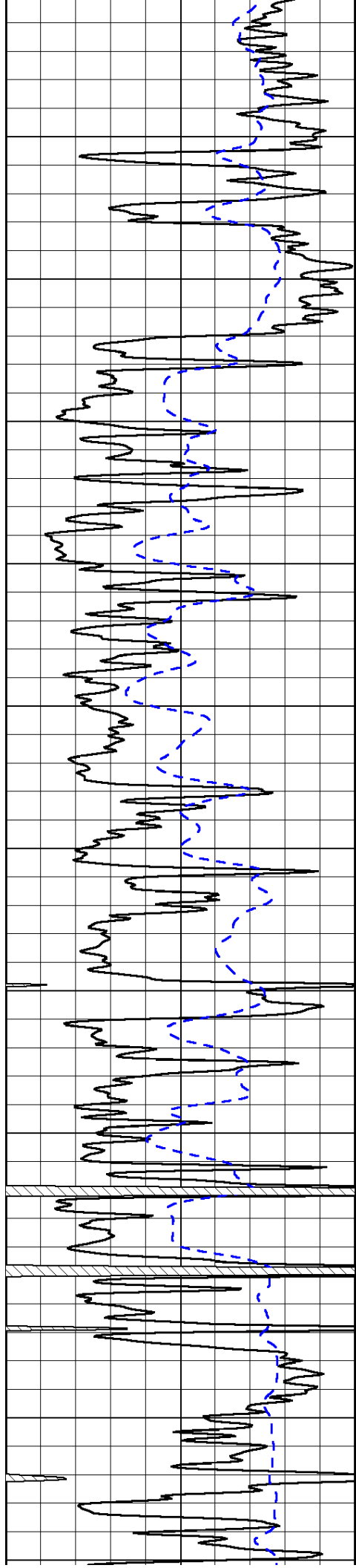


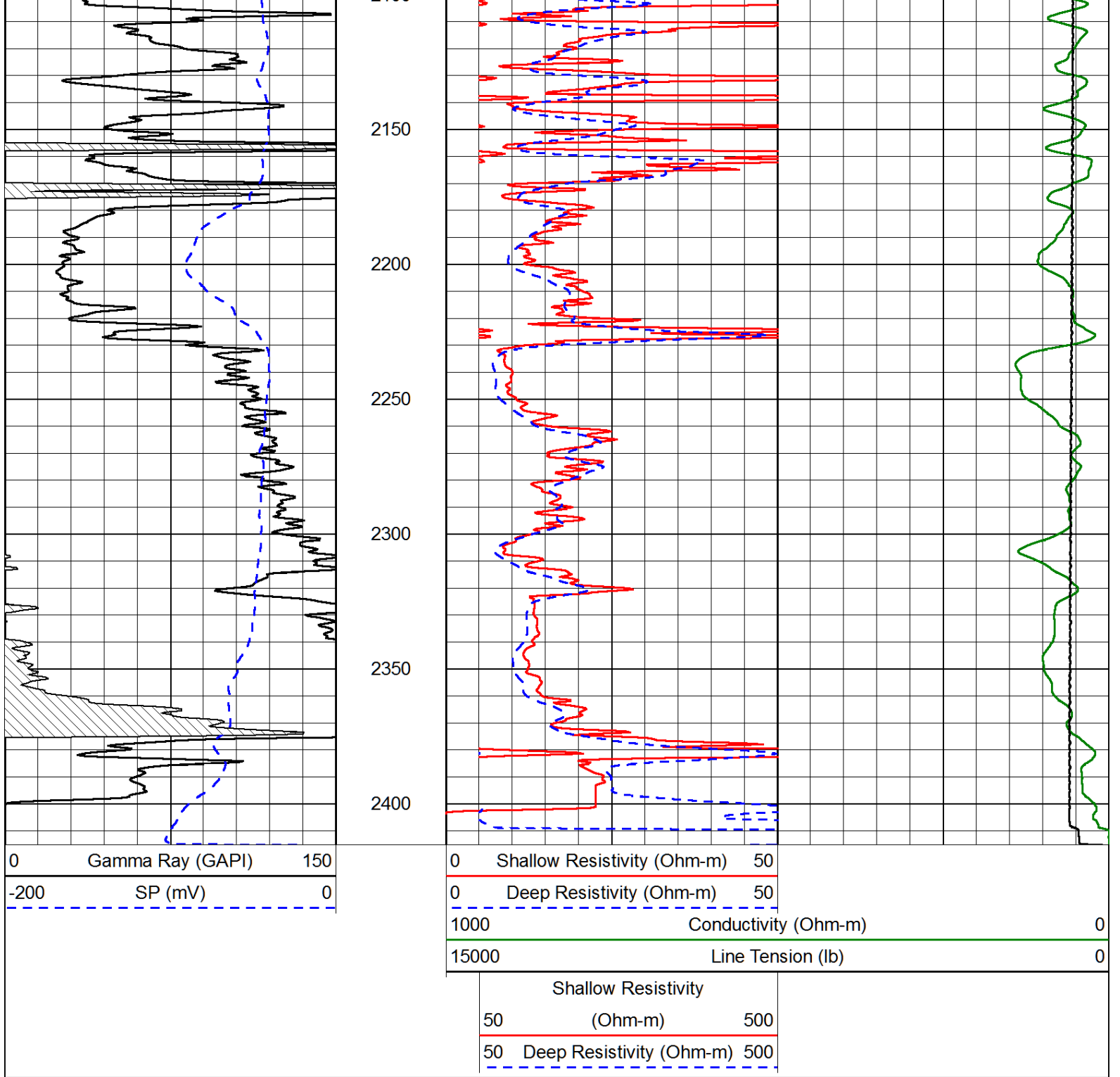


500
550
600
650
700
750
800
850
900
950
1000

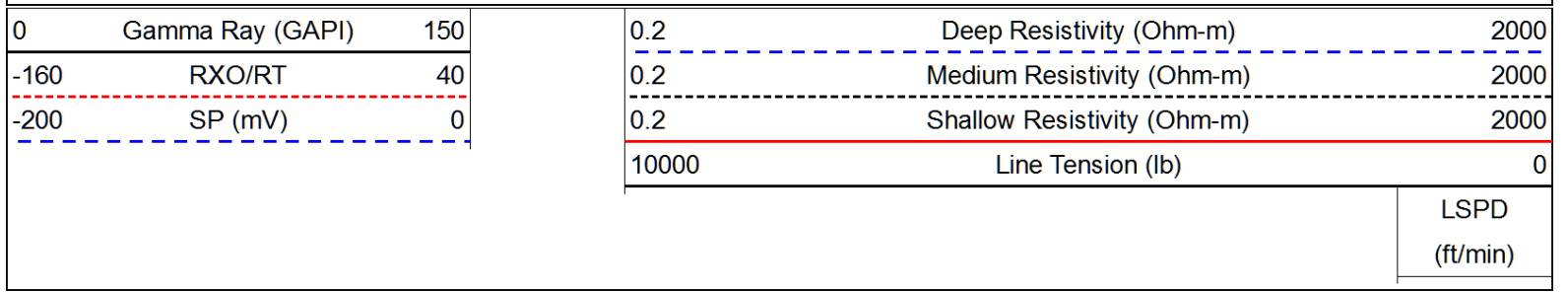


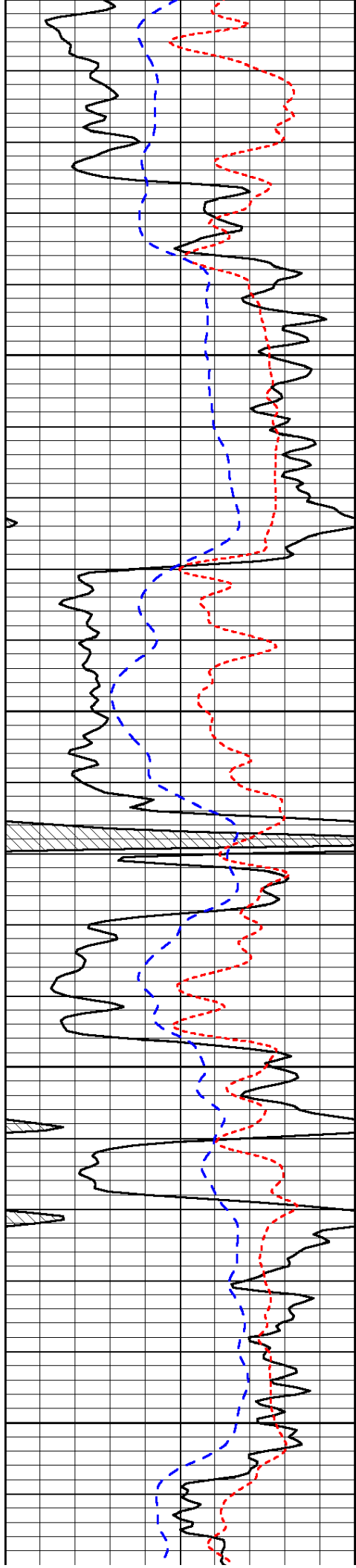






Database File: rangehd.db
 Dataset Pathname: dil/rngstk
 Presentation Format: dil
 Dataset Creation: Fri Jun 07 20:50:53 2013
 Charted by: Depth in Feet scaled 1:240





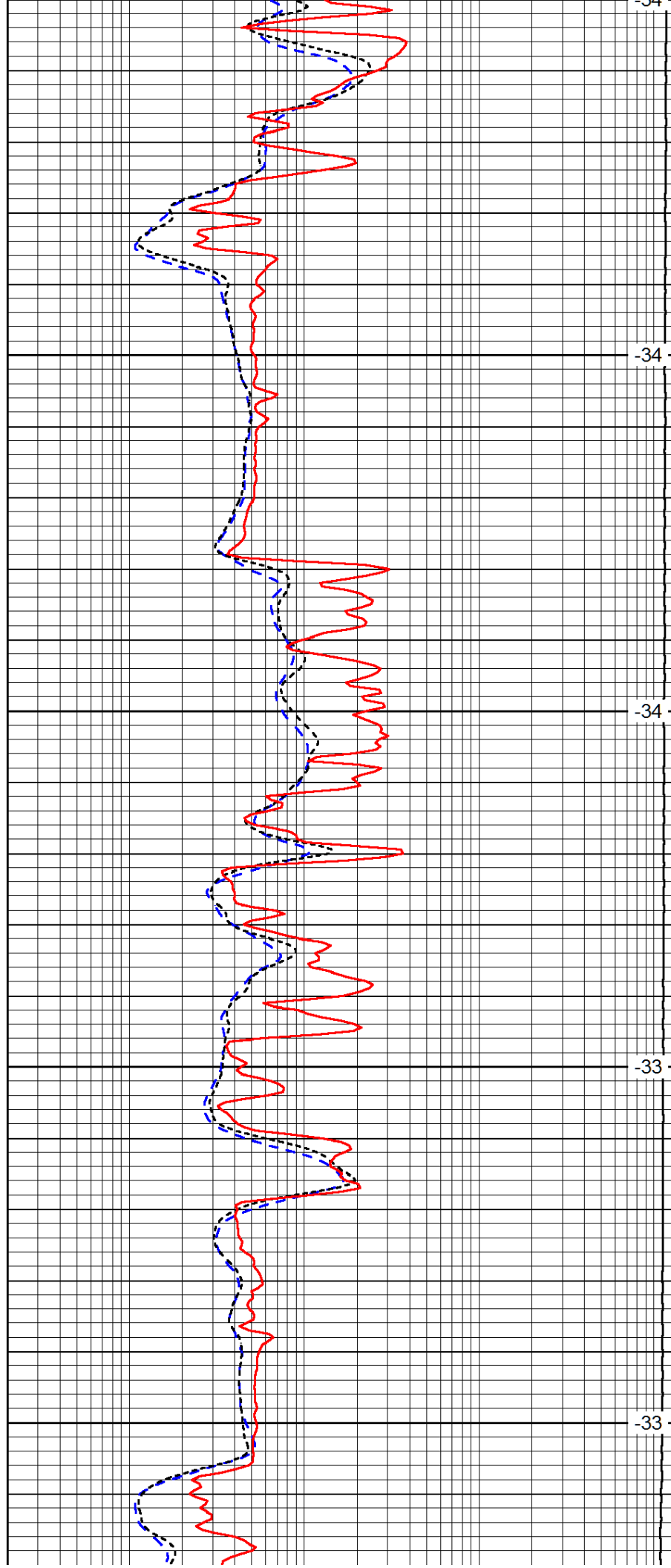
1300

1350

1400

1450

1500



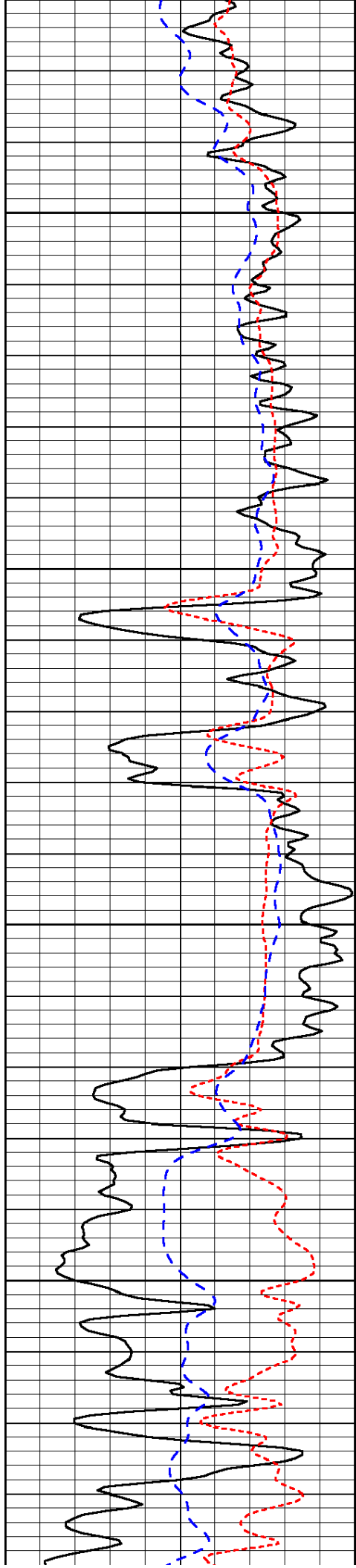
-34

-34

-34

-33

-33

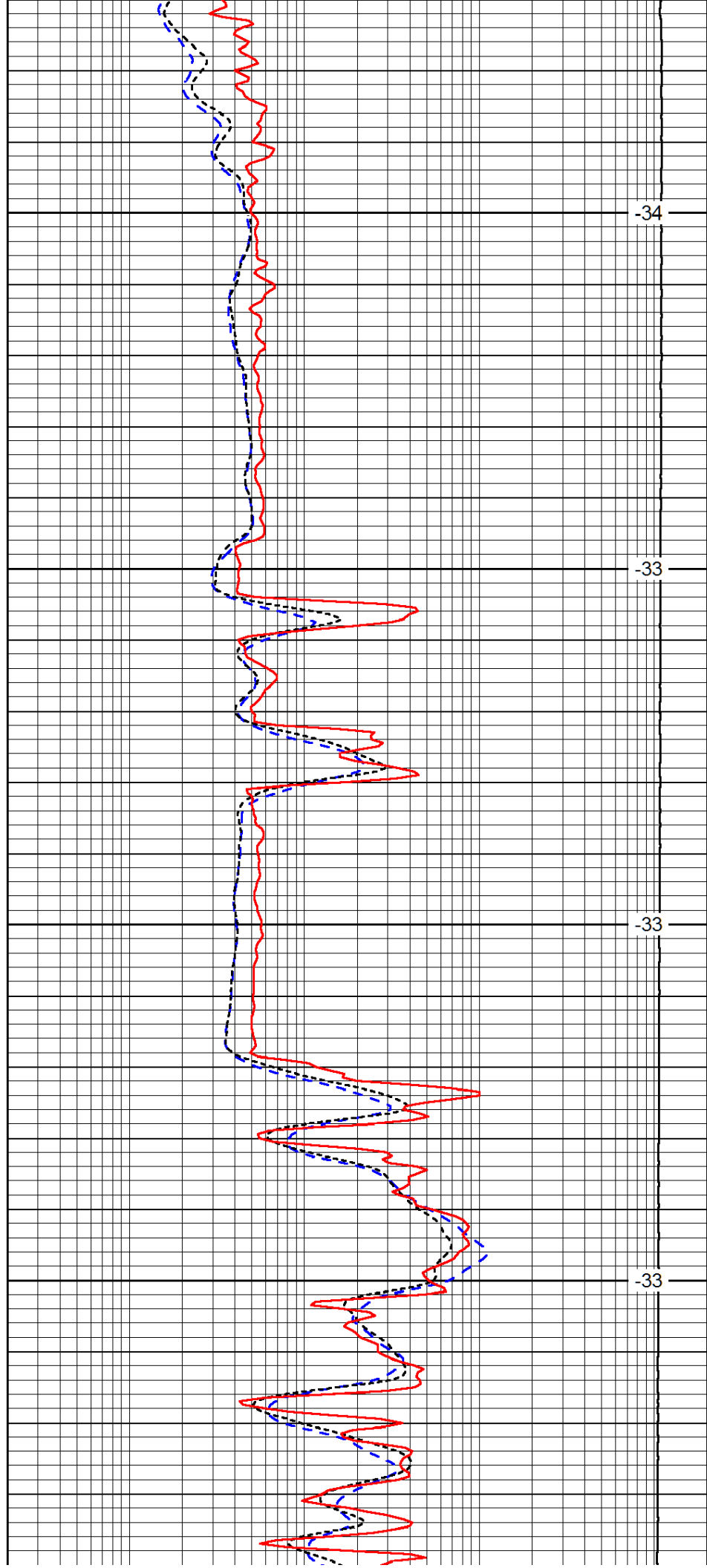


1550

1600

1650

1700

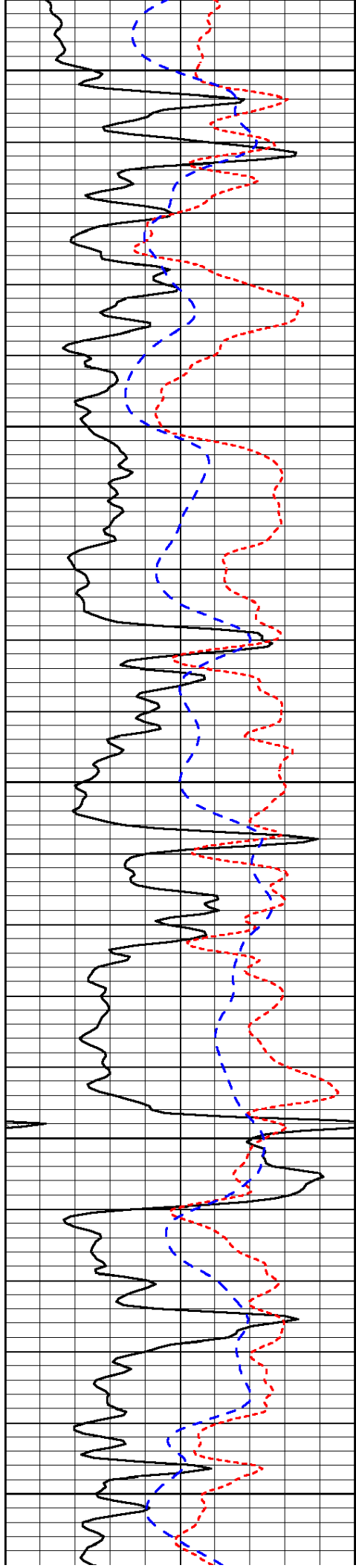


-34

-33

-33

-33



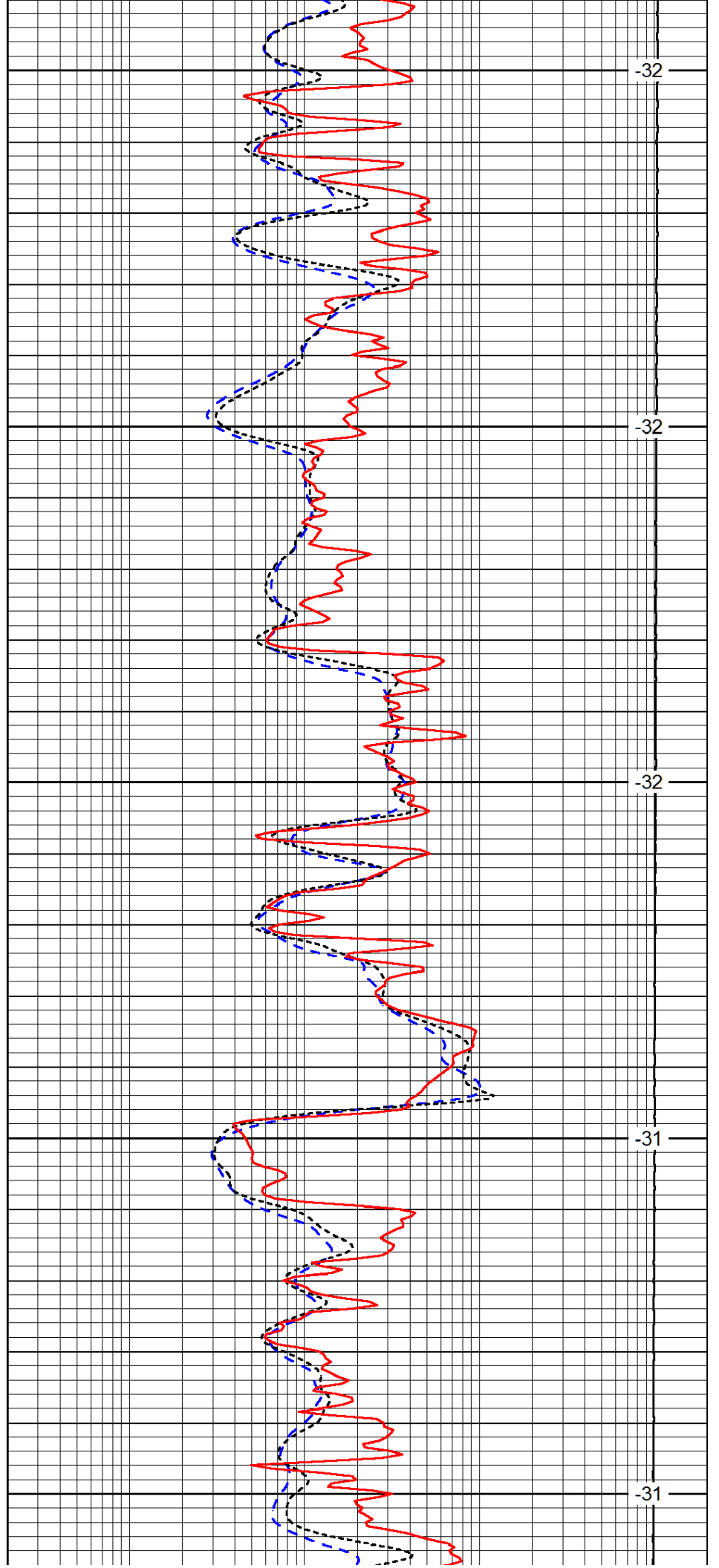
1750

1800

1850

1900

1950



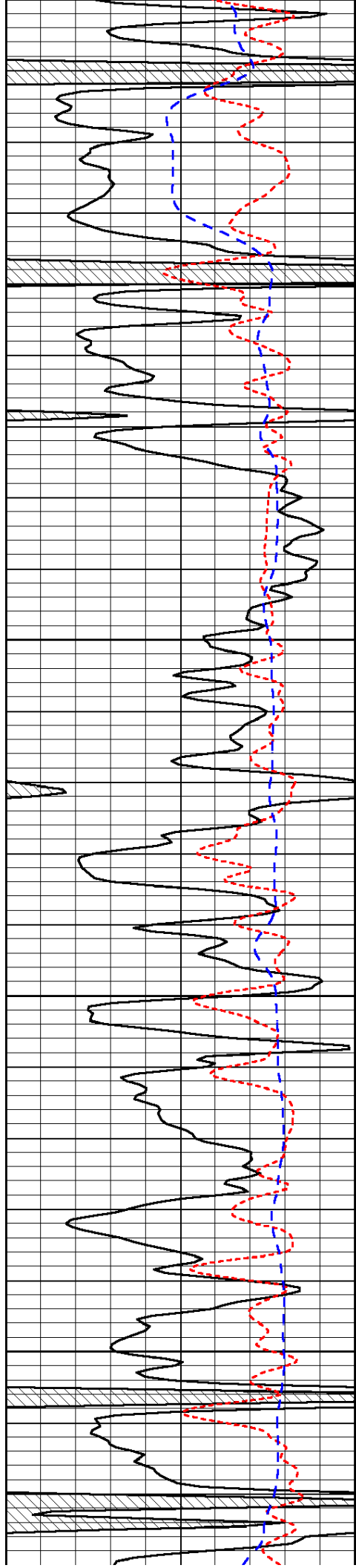
-32

-32

-32

-31

-31

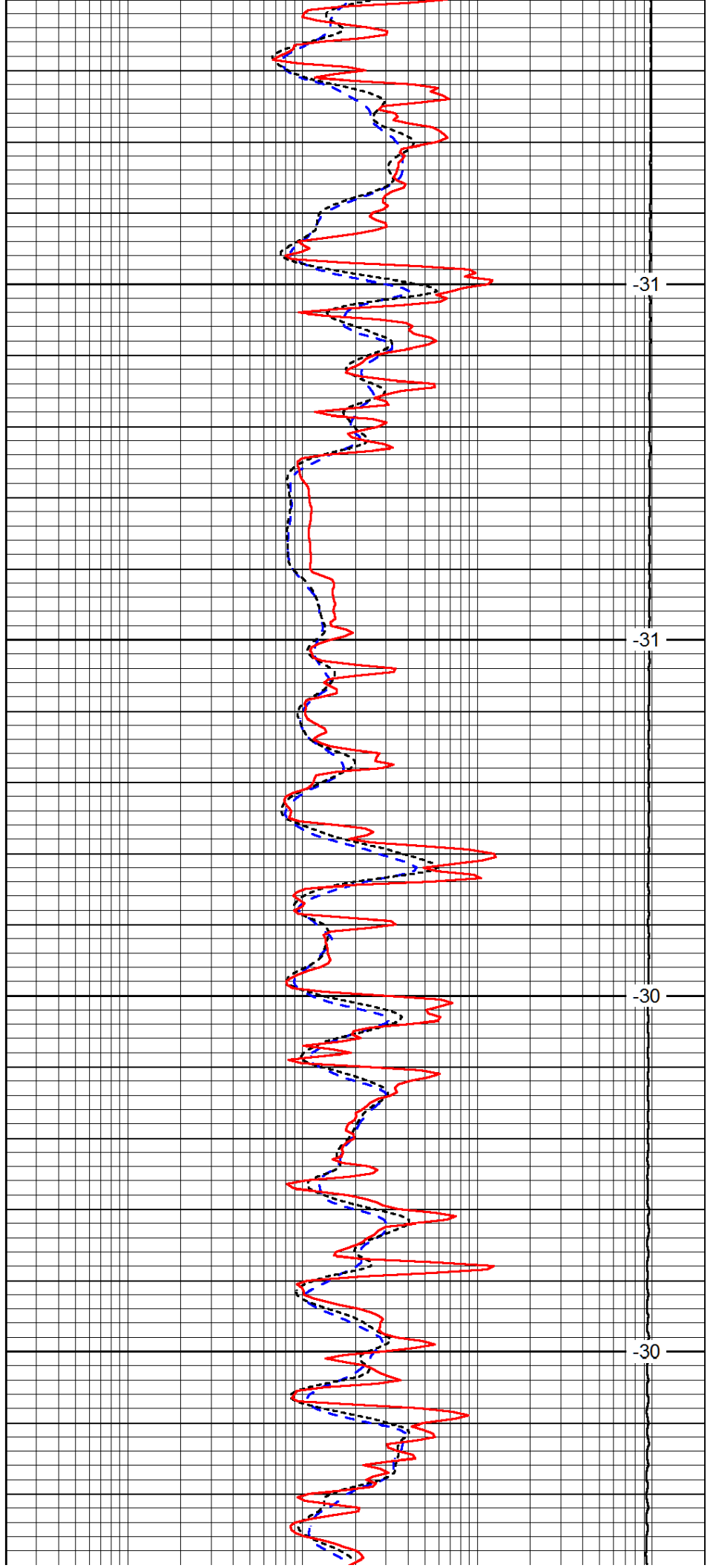


2000

2050

2100

2150

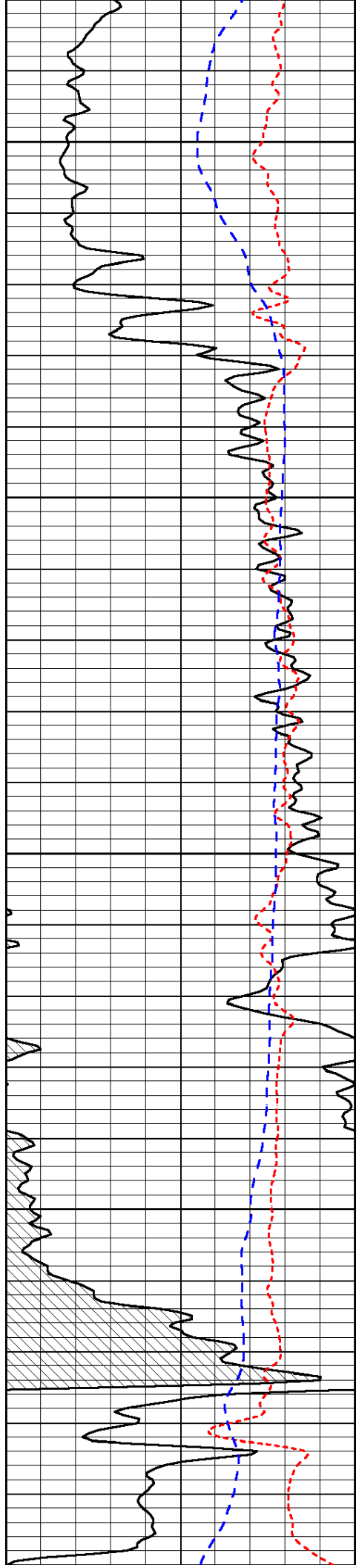


-31

-31

-30

-30



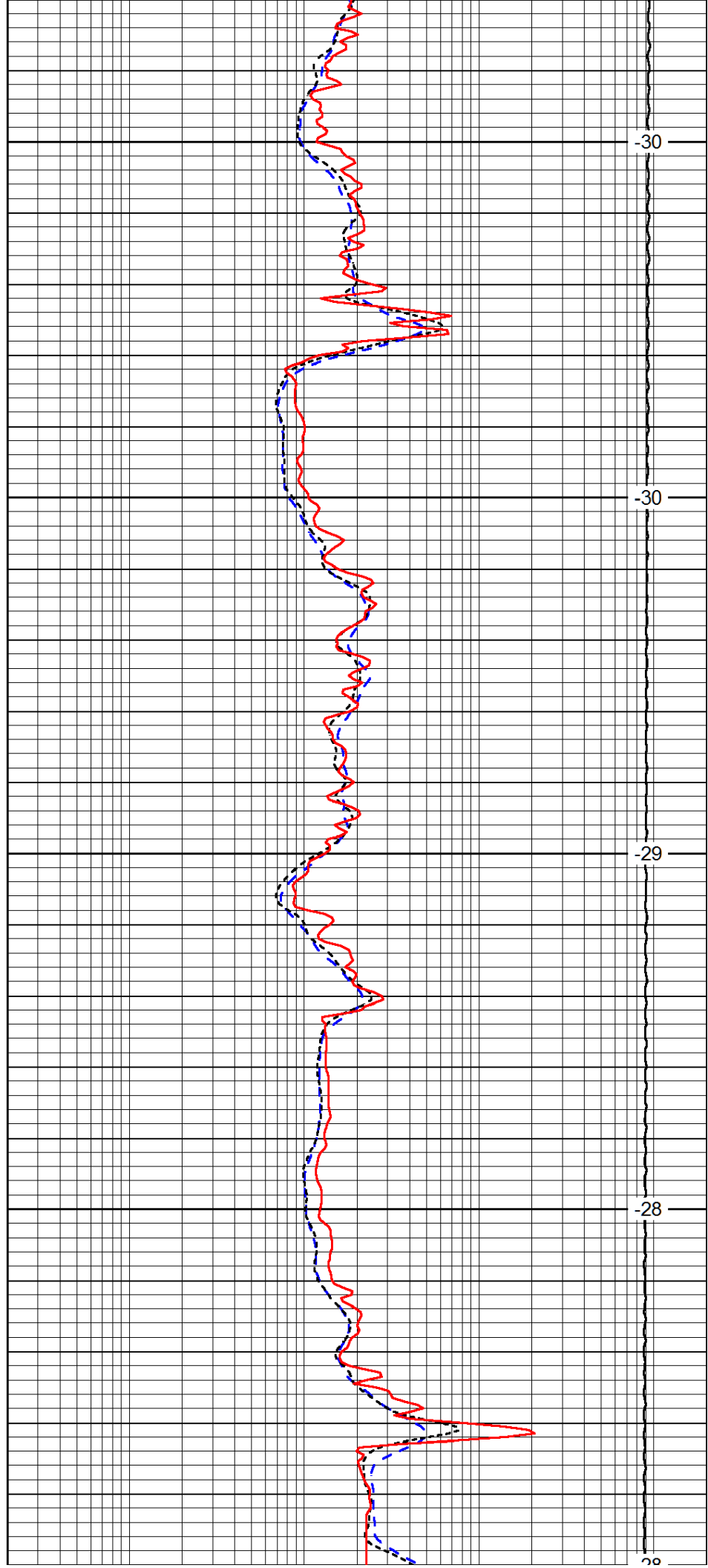
2200

2250

2300

2350

2400



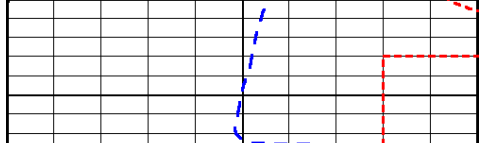
-30

-30

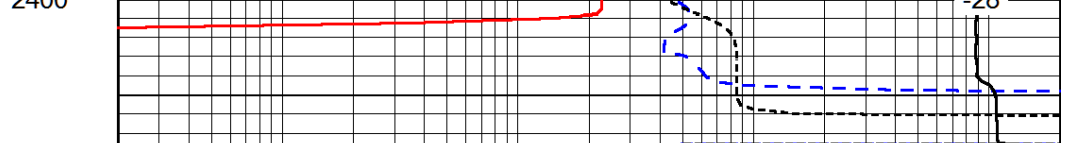
-29

-28

-28



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)