



Pioneer Energy Services

Dual Induction Log

API No. 15-063-22,169-00-00
Company Black Tea Oil, LLC
Well Krebs "Q" No. 1
Field
County Gove **State** Kansas
Location NW SW SE SW
 640' FSL & 1,330' FWL
Sec: 30 **Twp:** 14S **Rge:** 31W
Other Services
 CNL/CDL
 MEL/BHCS
Elevation
 K.B. 2706
 D.F. 2697
 G.L. 2697

Permanent Datum	Ground Level	Elevation 2697
Log Measured From	Kelly Bushing	9 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
Date	2/10/2014	
Run Number	One	
Depth Driller	4460	
Depth Logger	4446	
Bottom Logged Interval	4445	
Top Log Interval	250	
Casing Driller	8.625 @ 260	
Casing Logger	250	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	20000	
Density / Viscosity	9.5 40	
pH / Fluid Loss	8.5 16.0	
Source of Sample	Flowline	
Rm @ Meas. Temp	.18 @ 58	
Rmf @ Meas. Temp	.14 @ 58	
Rmc @ Meas. Temp	.24 @ 58	
Source of Rmf / Rmc	Charts	
Rm @ BHT	.09 @ 121	
Operating Rig Time	4 1/2 Hours	
Max Rec. Temp. F	121	
Equipment Number	108	
Location	Hays	
Recorded By	J. Long	
Witnessed By	Big Rich	Chris Leiker

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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

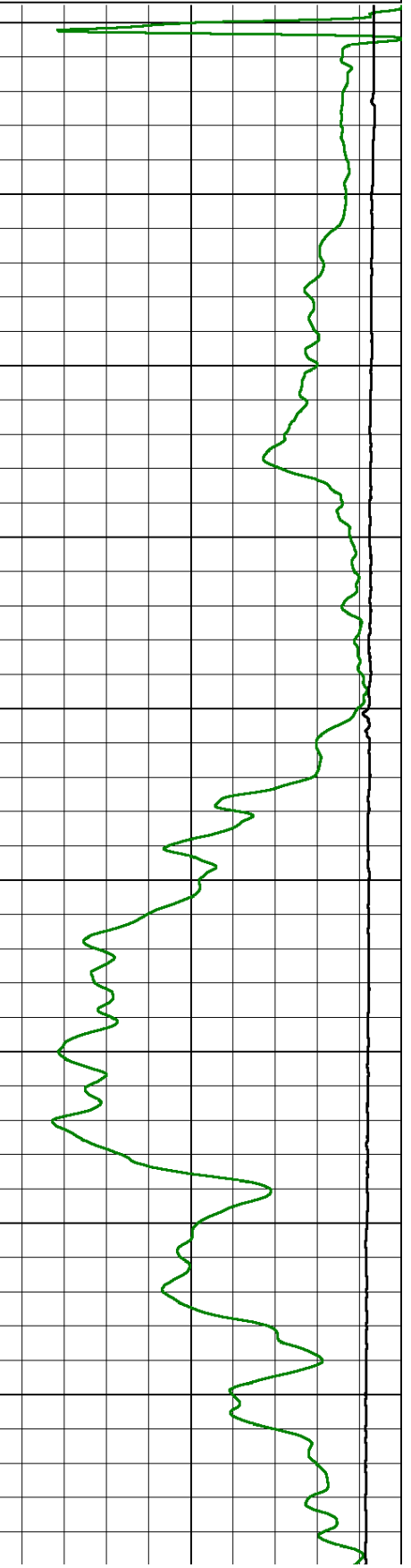
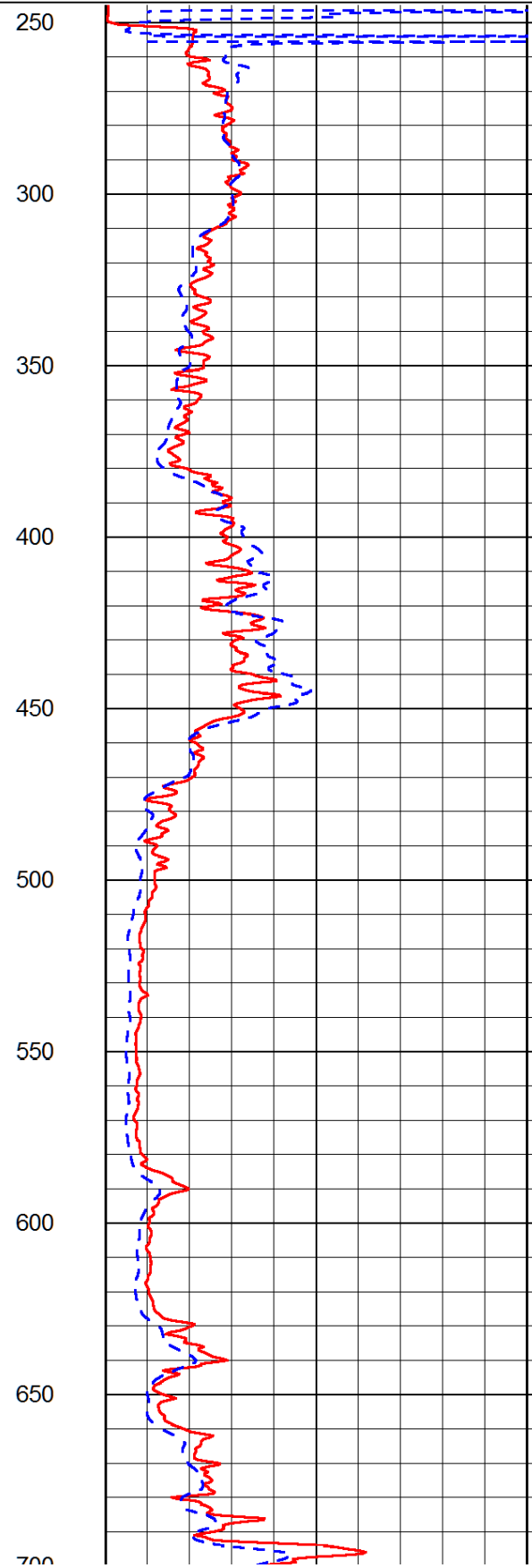
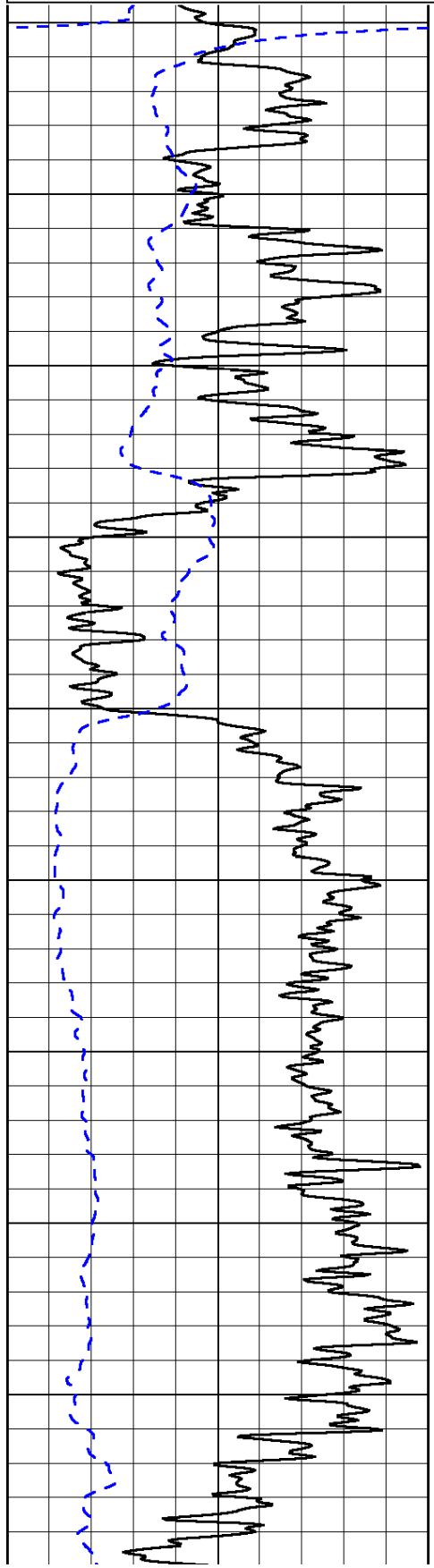
Oakley, South to Jayhawk Road, 2 South, East through double gates, 2 1/4 East through 2 cattle guards and past tank batteries, 1/3 North, East Into

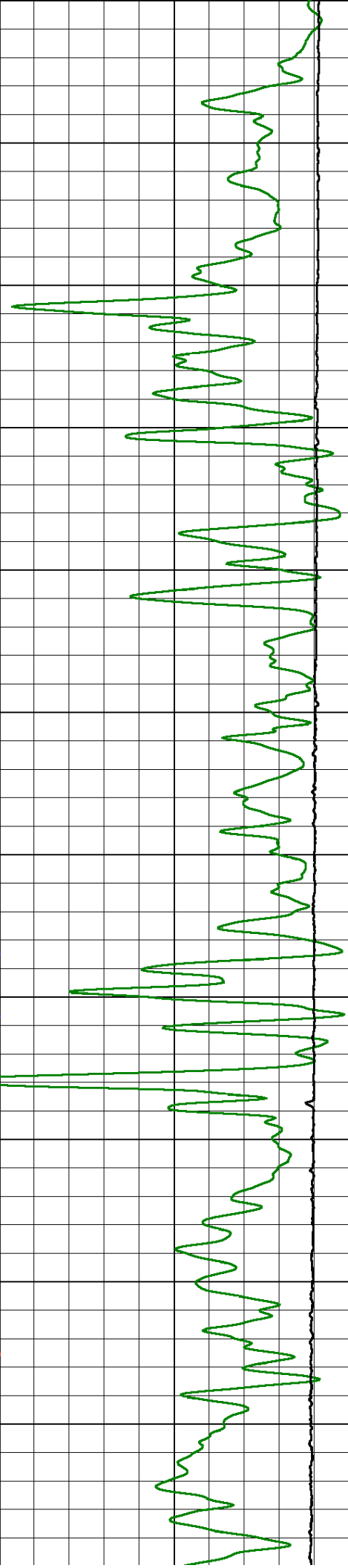
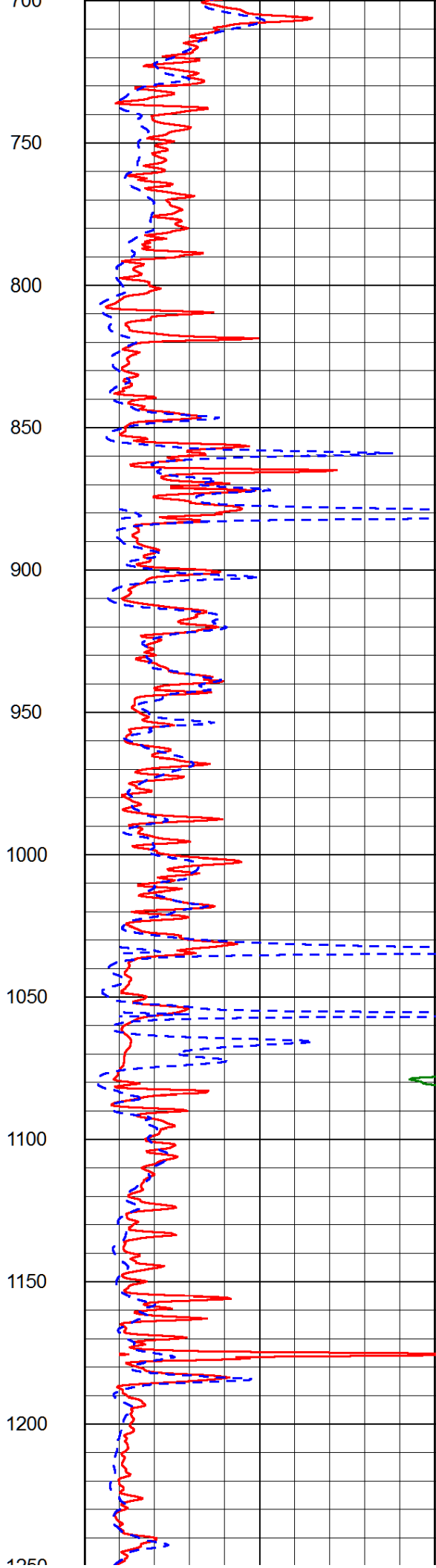
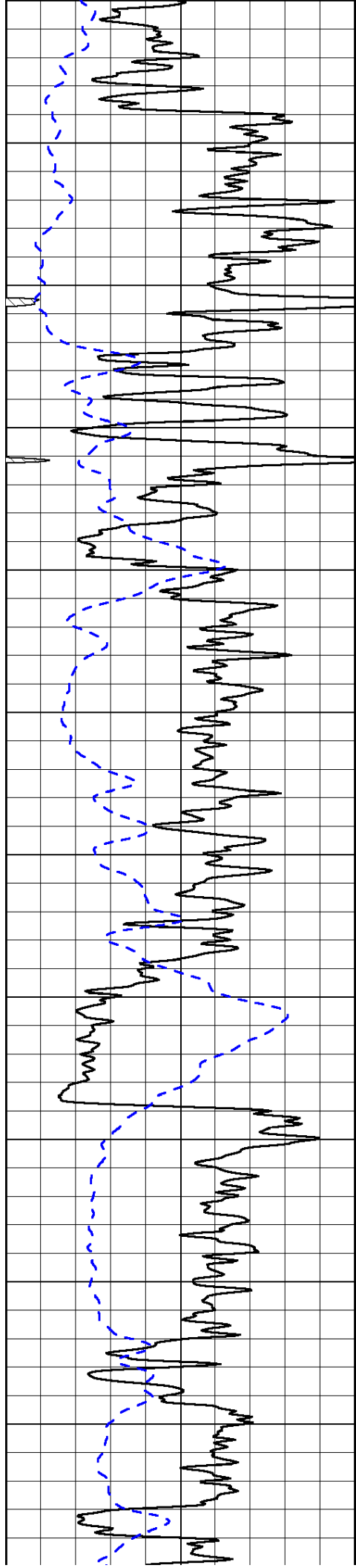
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

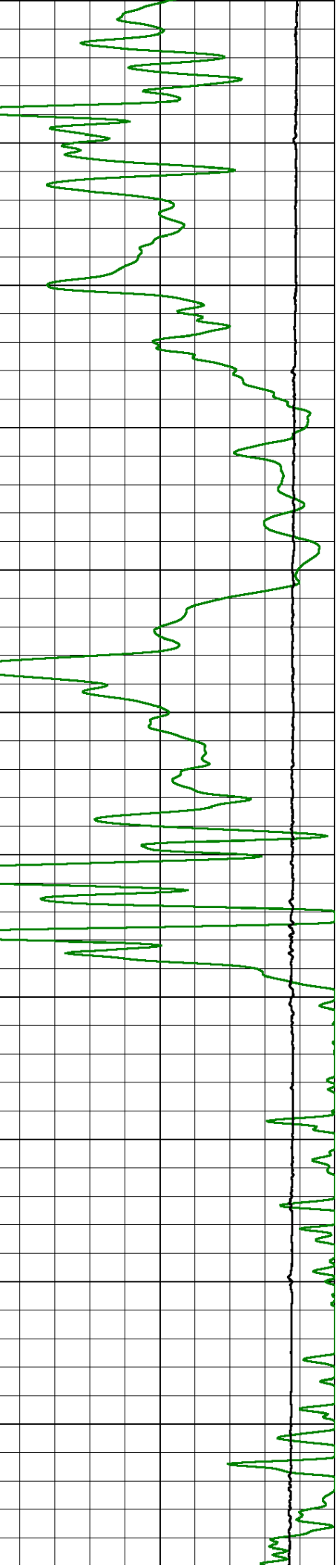
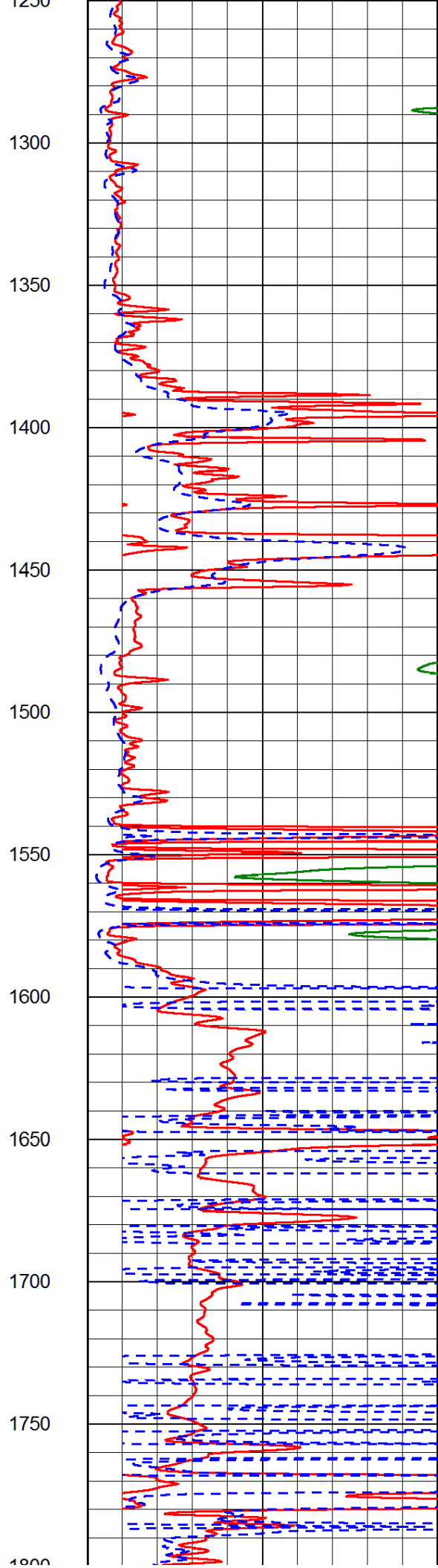
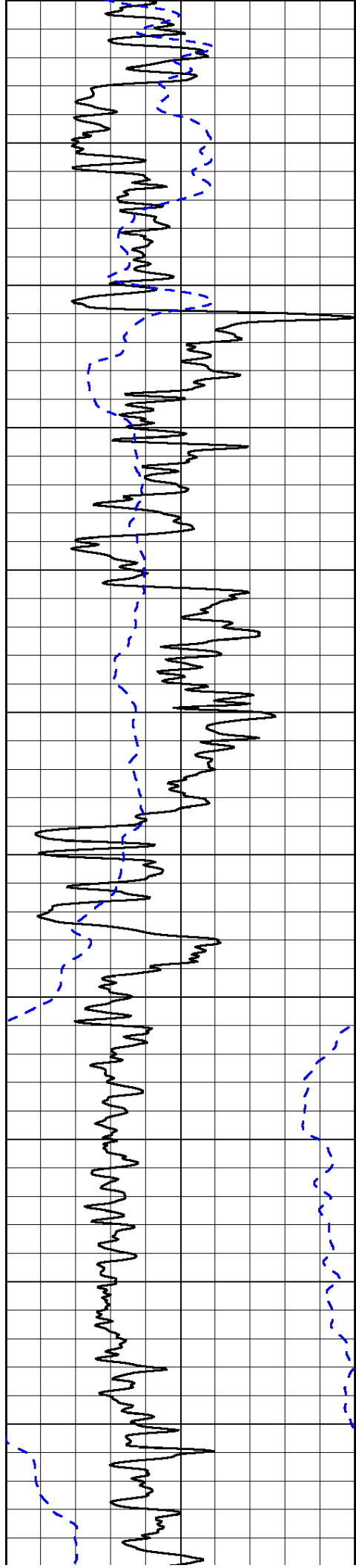
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50

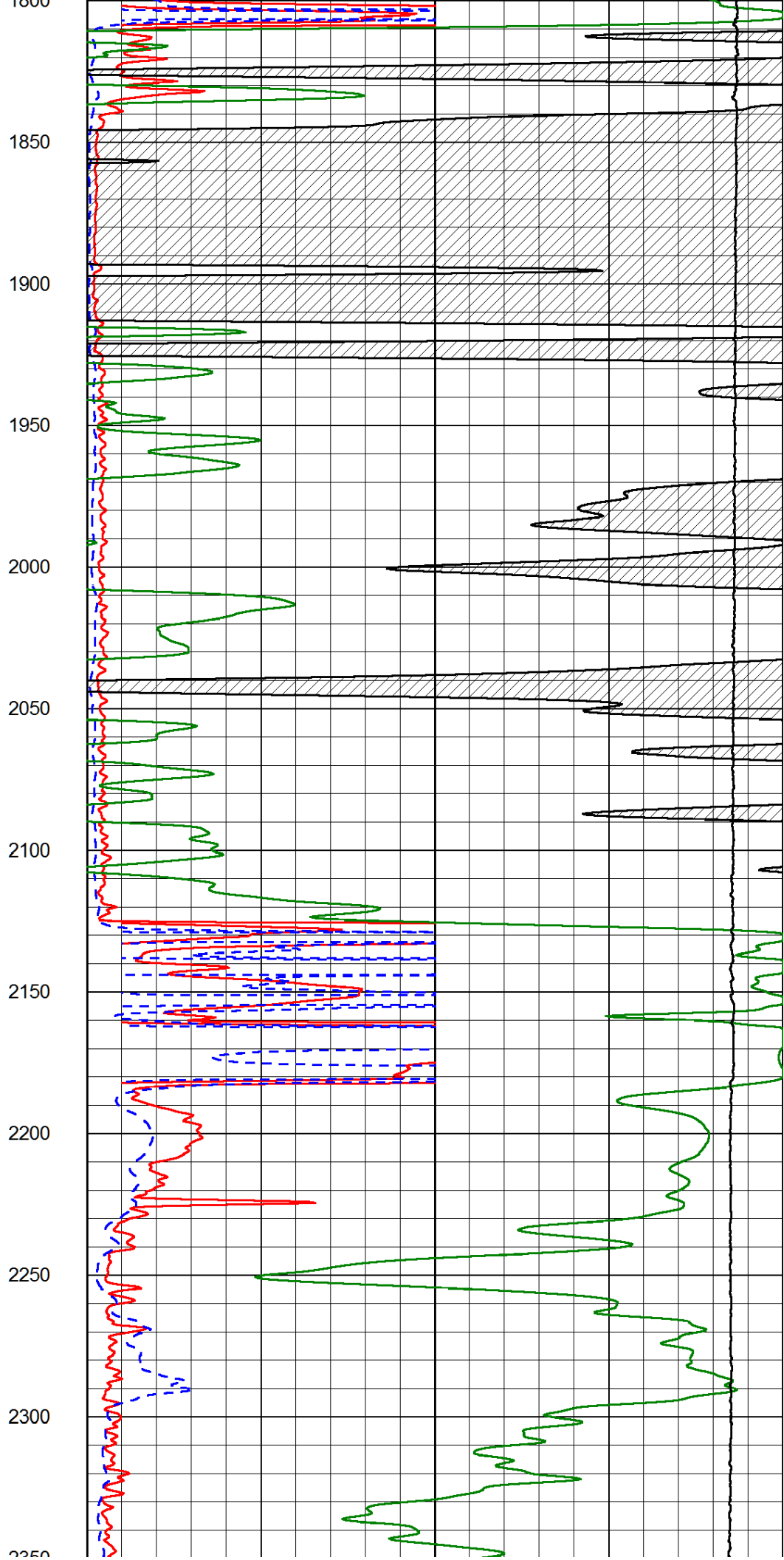
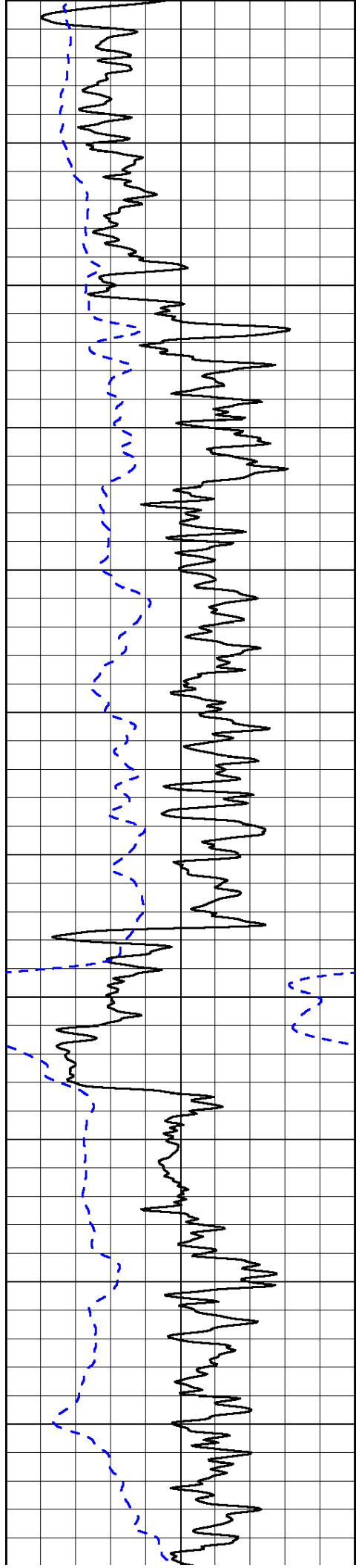
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0

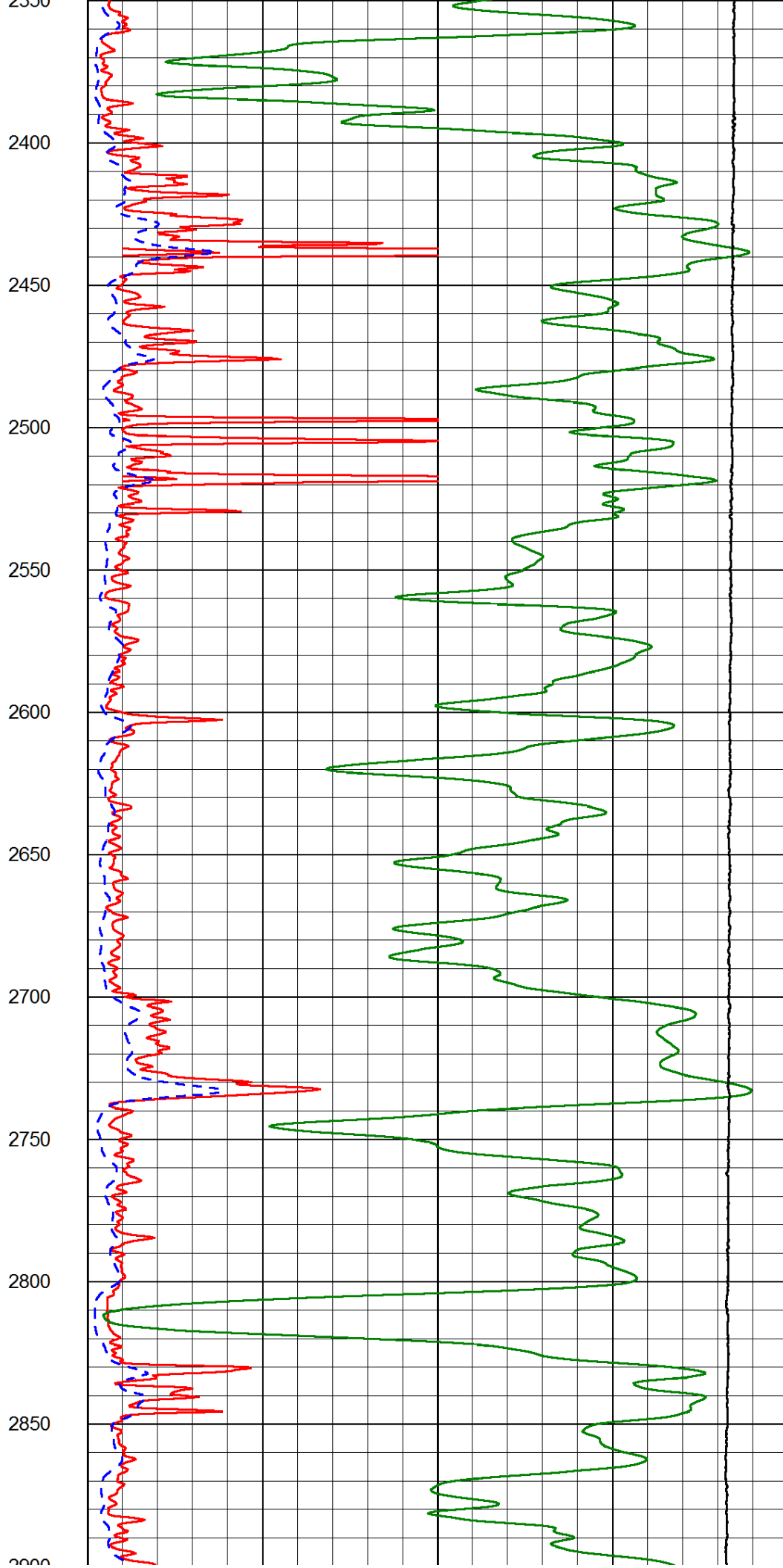
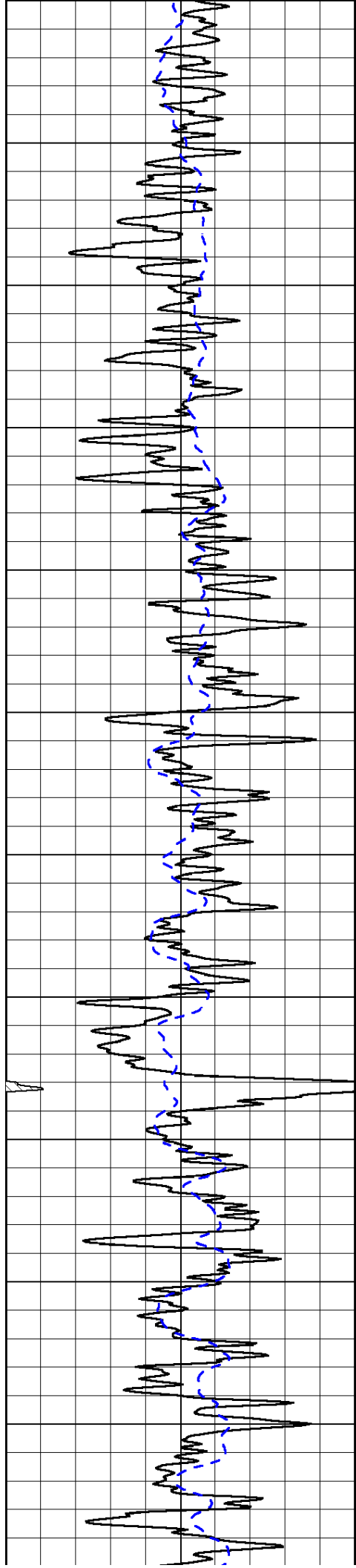
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50	Deep Resistivity (Ohm-m)	500

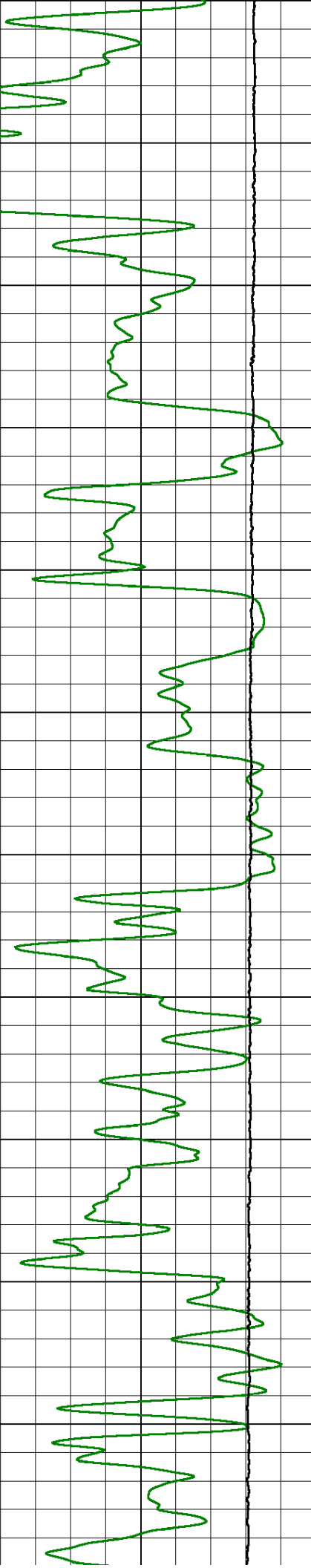
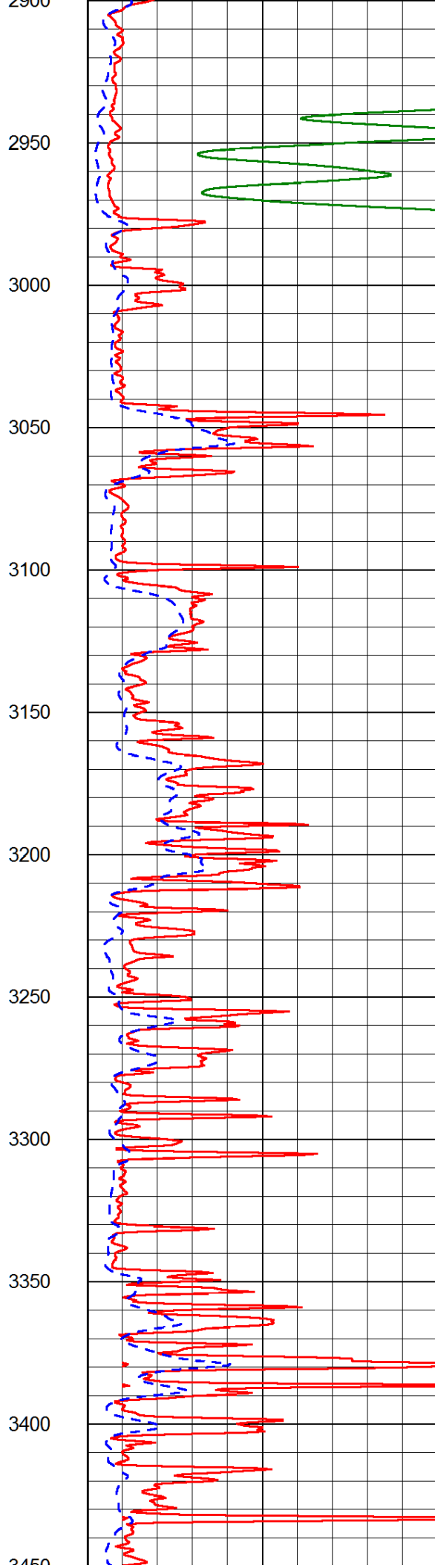
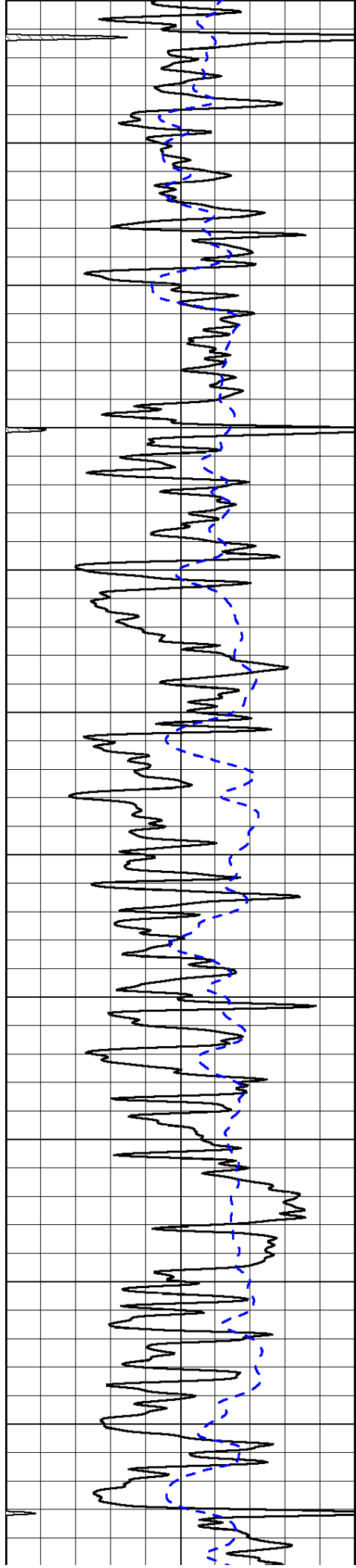


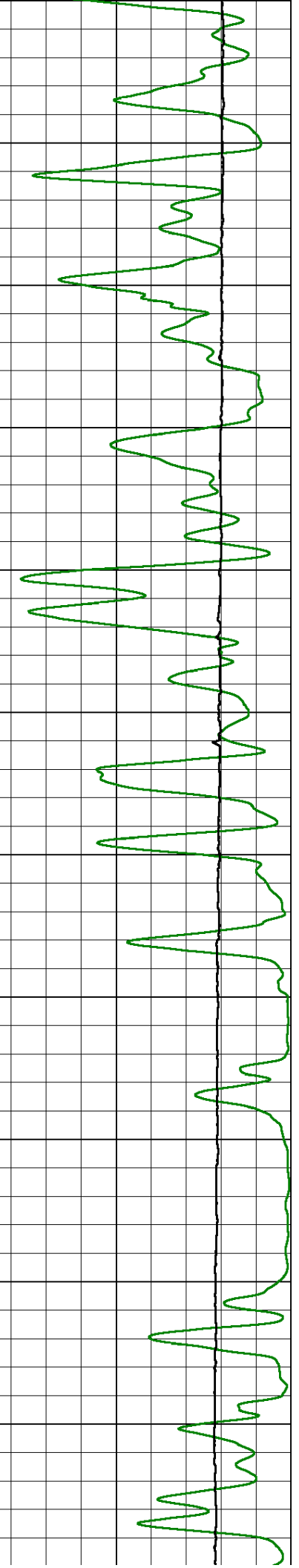
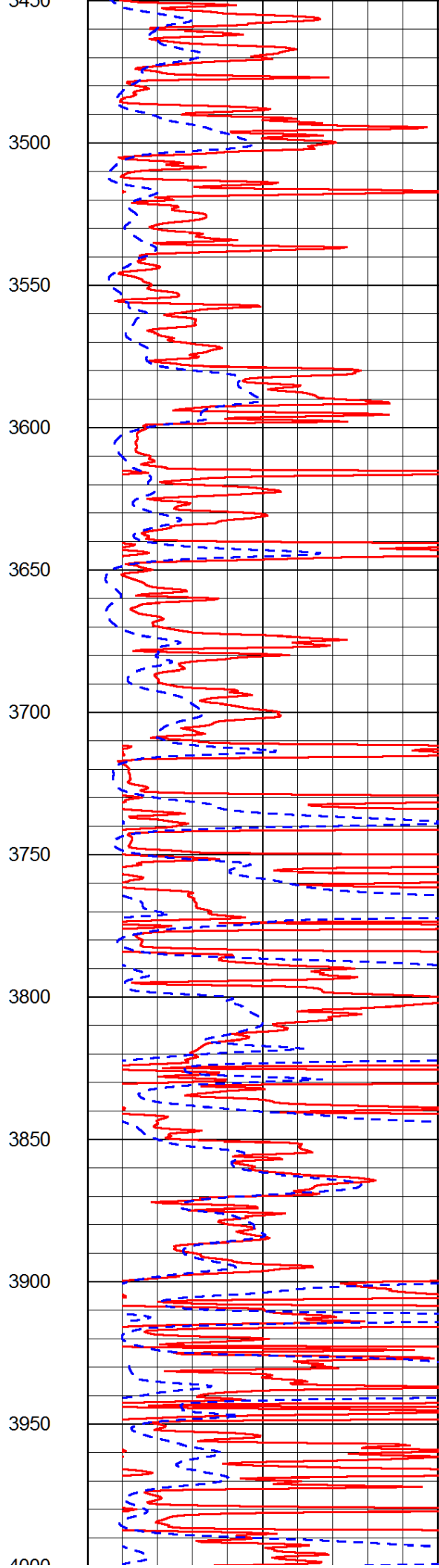
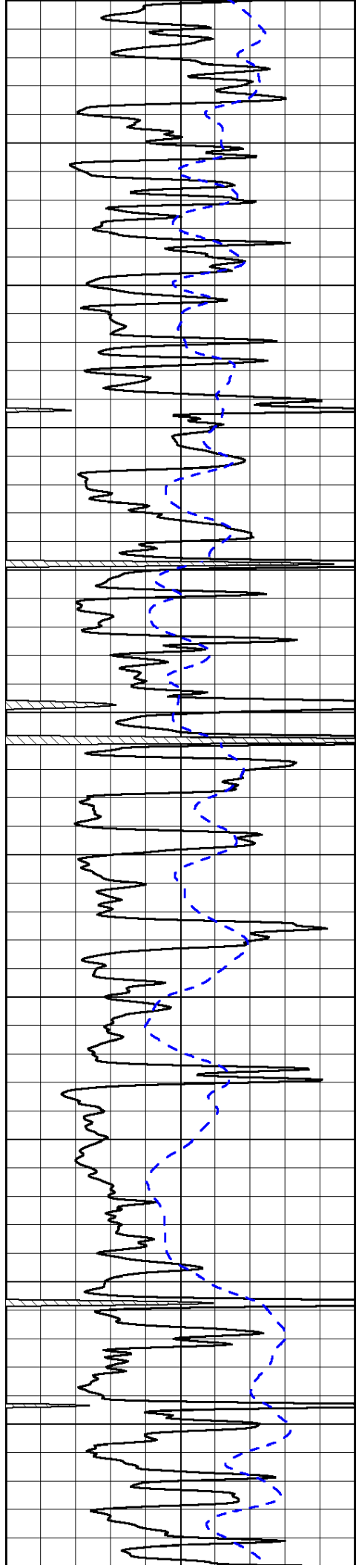


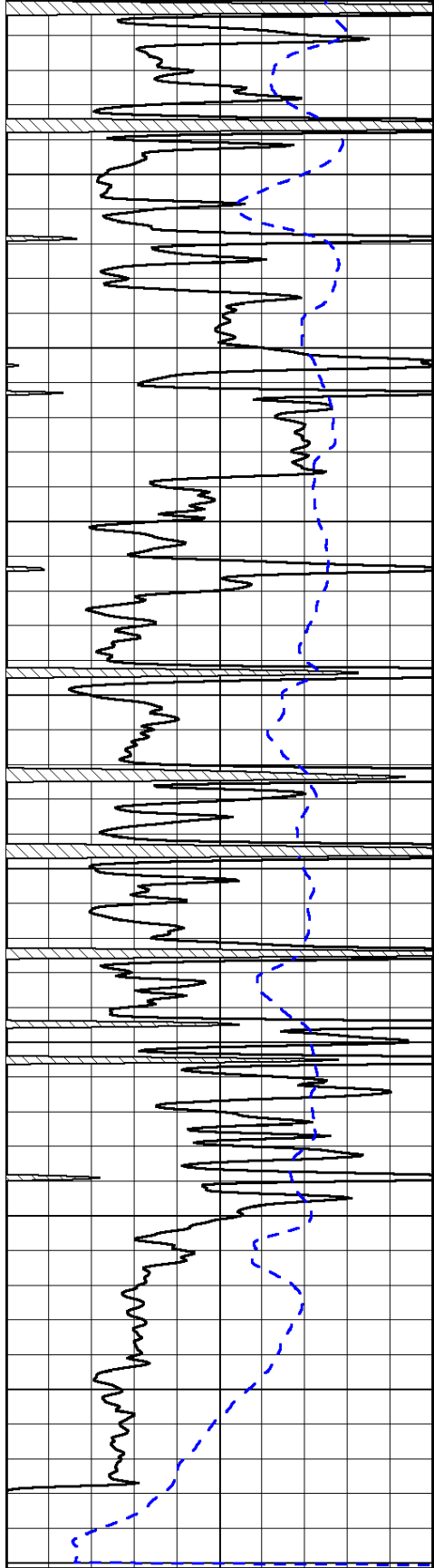




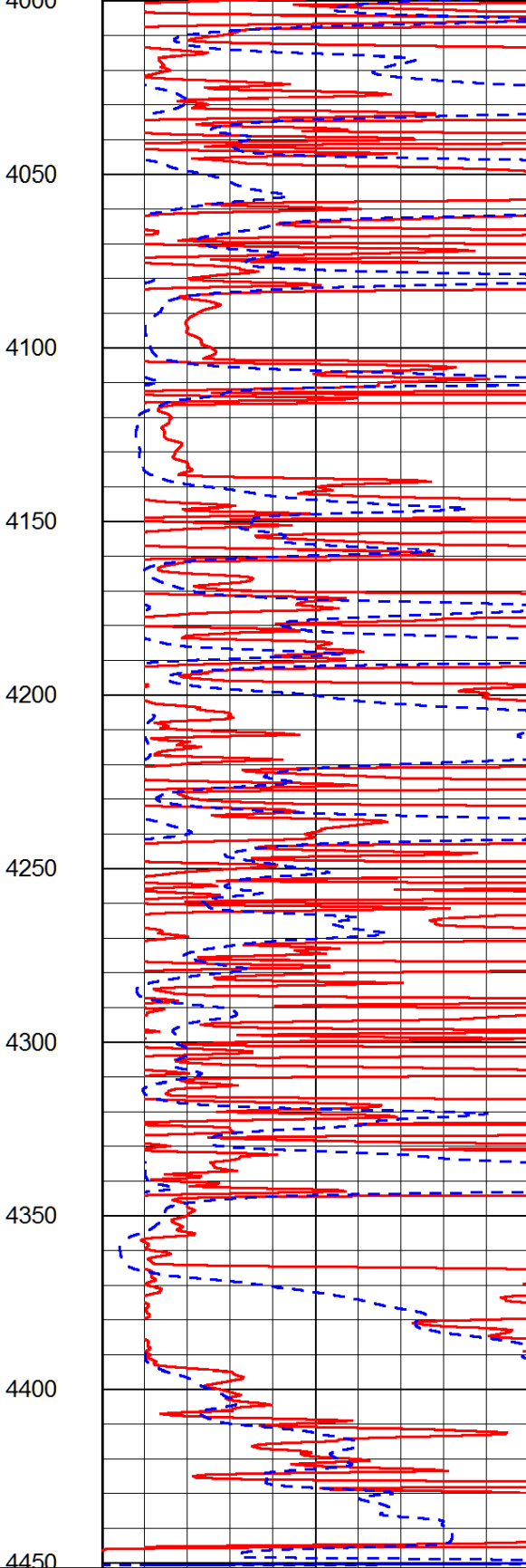




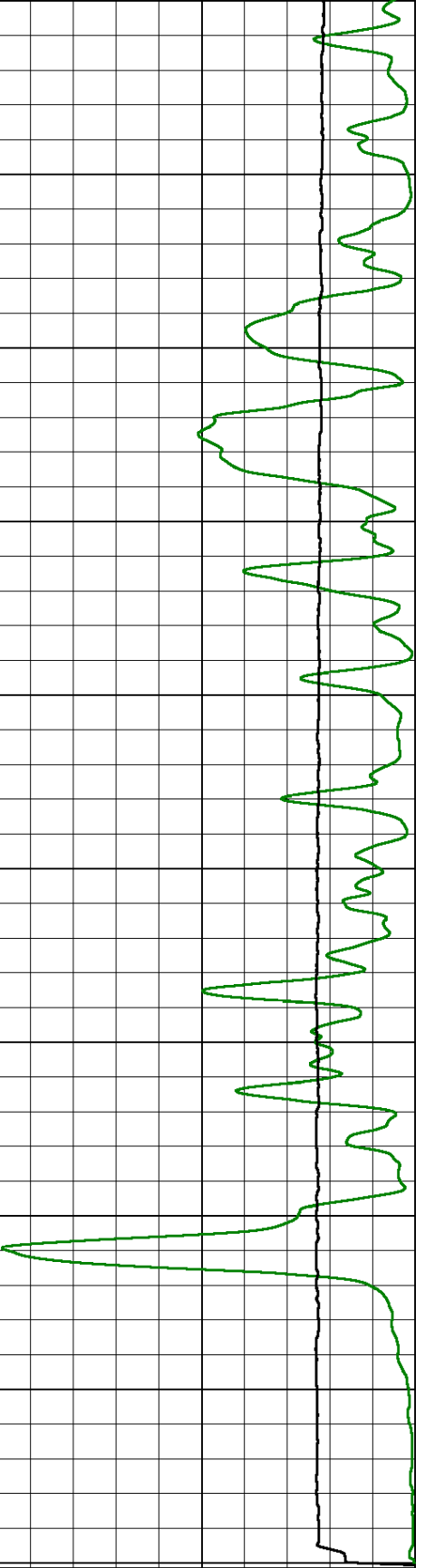




0 Gamma Ray (GAPI) 150
 -200 SP (mV) 0



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



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

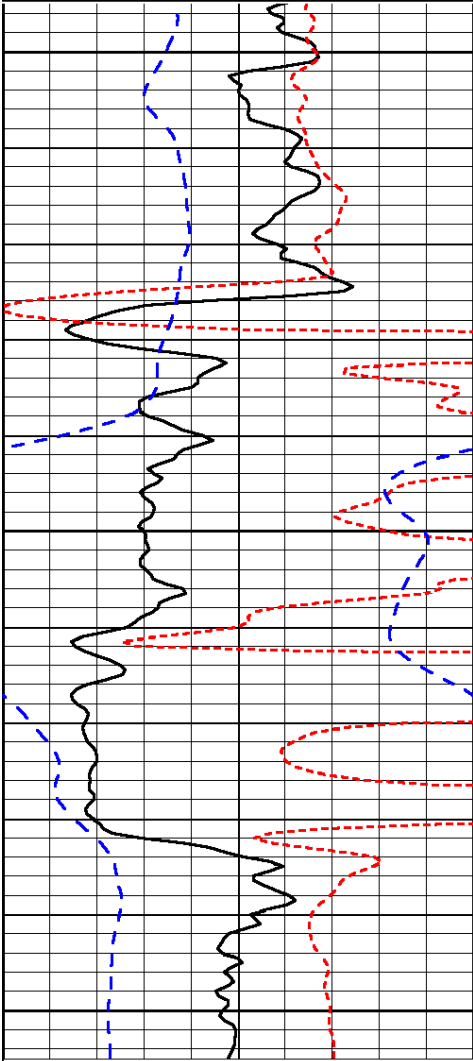
Shallow Resistivity
 50 (Ohm-m) 500
 50 Deep Resistivity (Ohm-m) 500

Database File: blacktea_krebs_q_1hd.db
 Dataset Pathname: dil/blckstck
 Presentation Format: dil
 Dataset Creation: Mon Feb 10 13:12:42 2014
 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

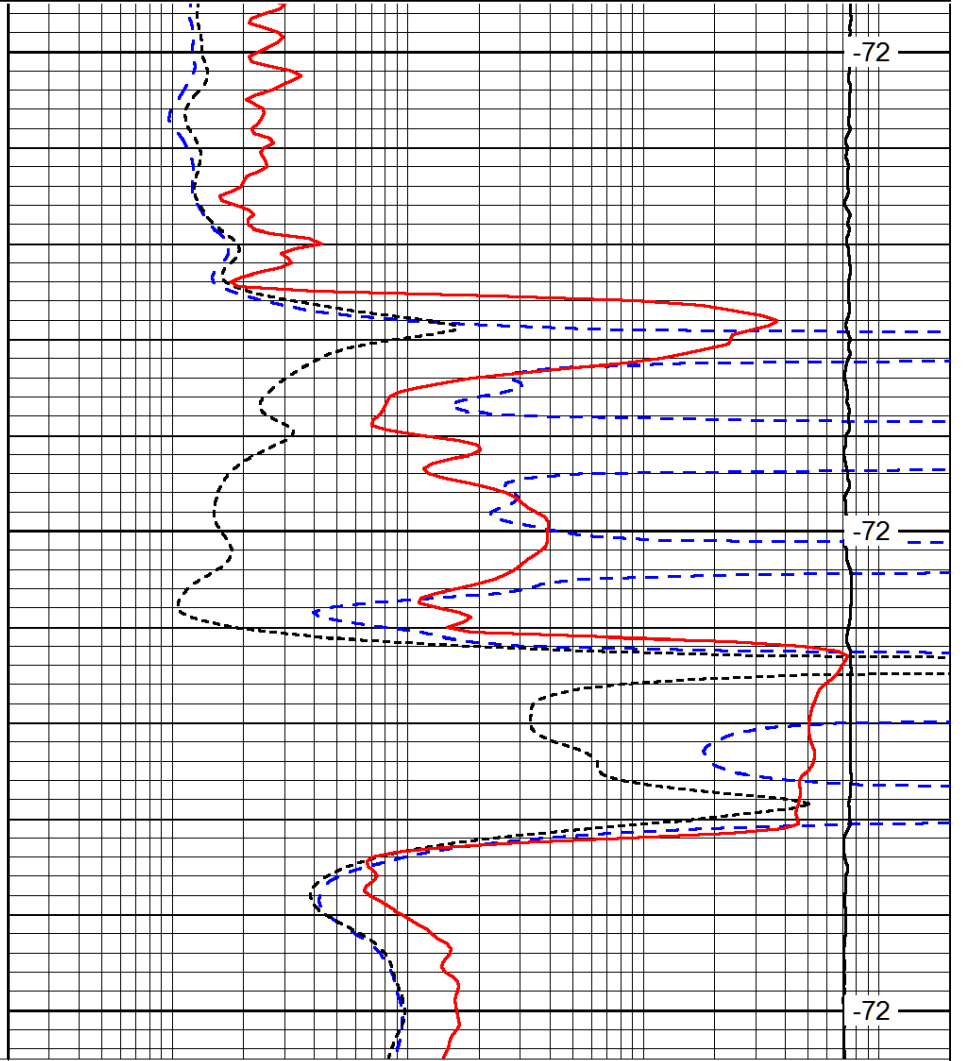
LSPD
(ft/min)



2100

2150

2200



-72

-72

-72

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)

Database File: blacktea_krebs_q_1hd.db
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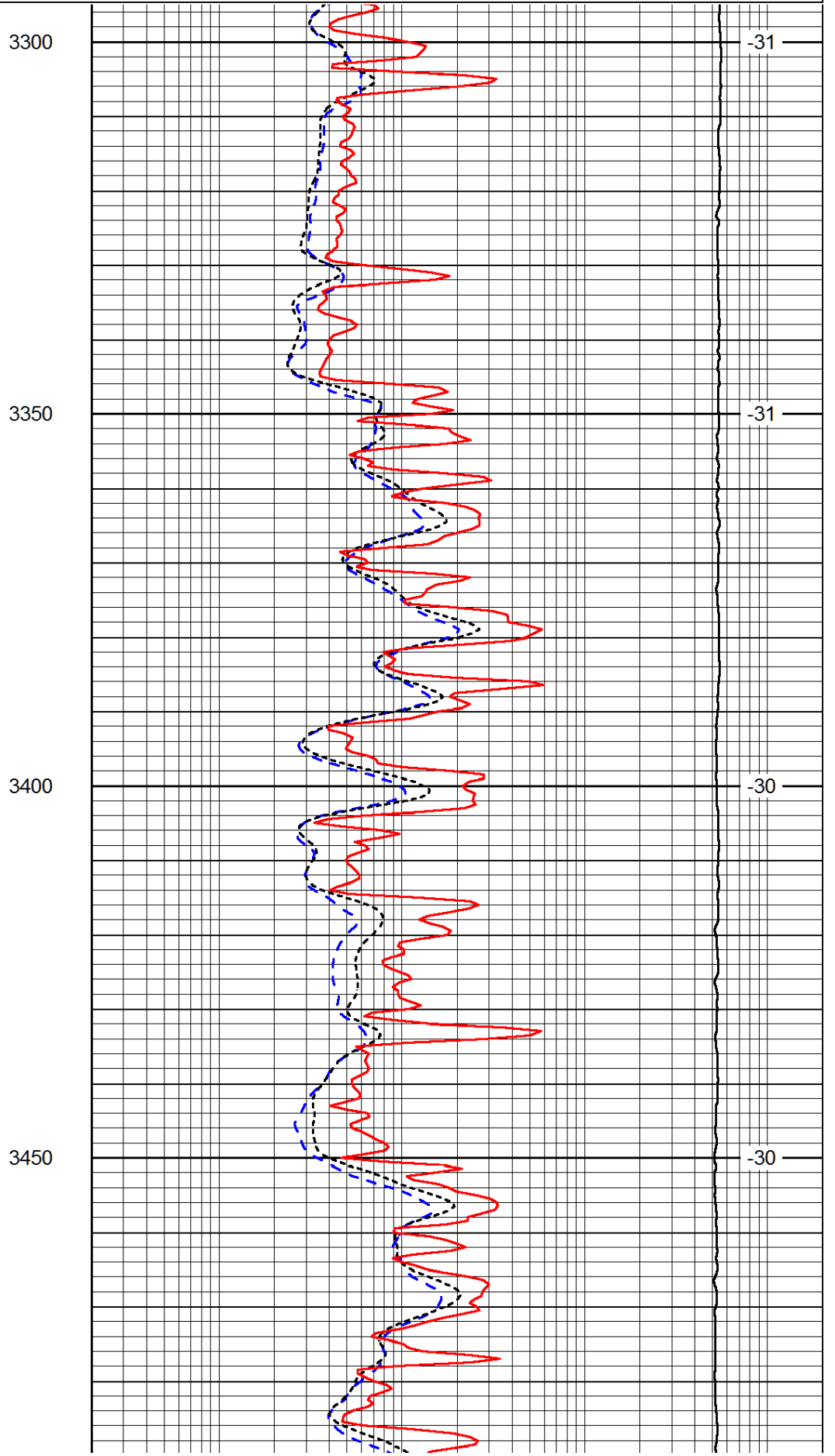
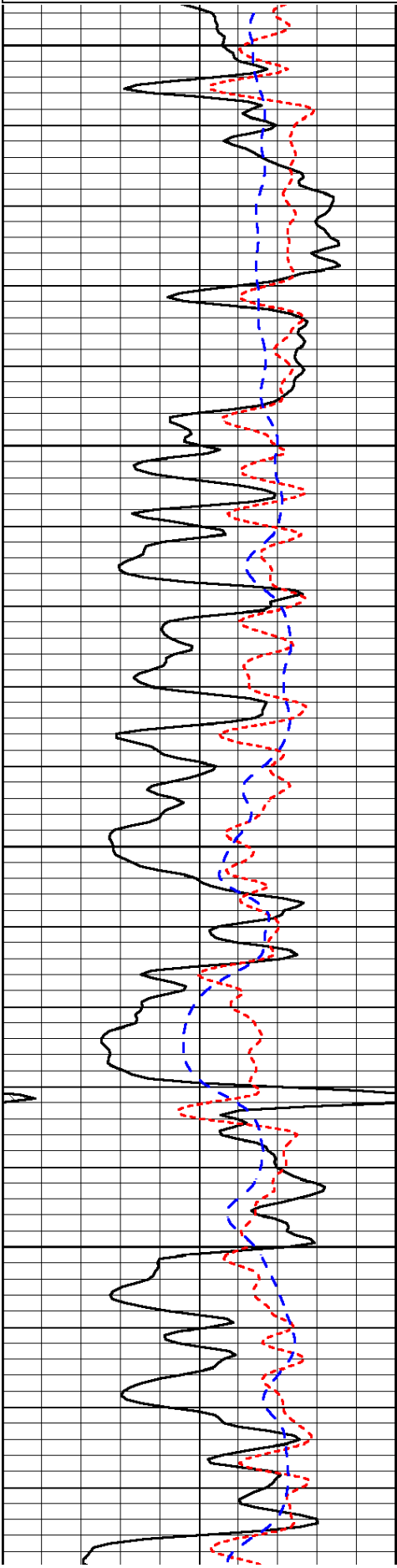
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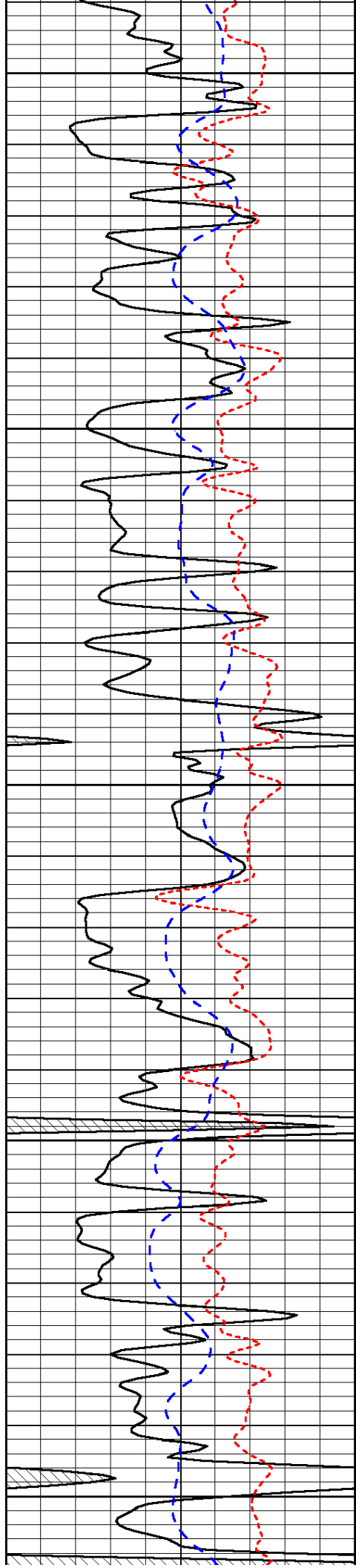
0.2	Deep Resistivity (Ohm-m)	2000
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-160	RXO/RT	40
-200	SP (mV)	0

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

LSPD (ft/min)





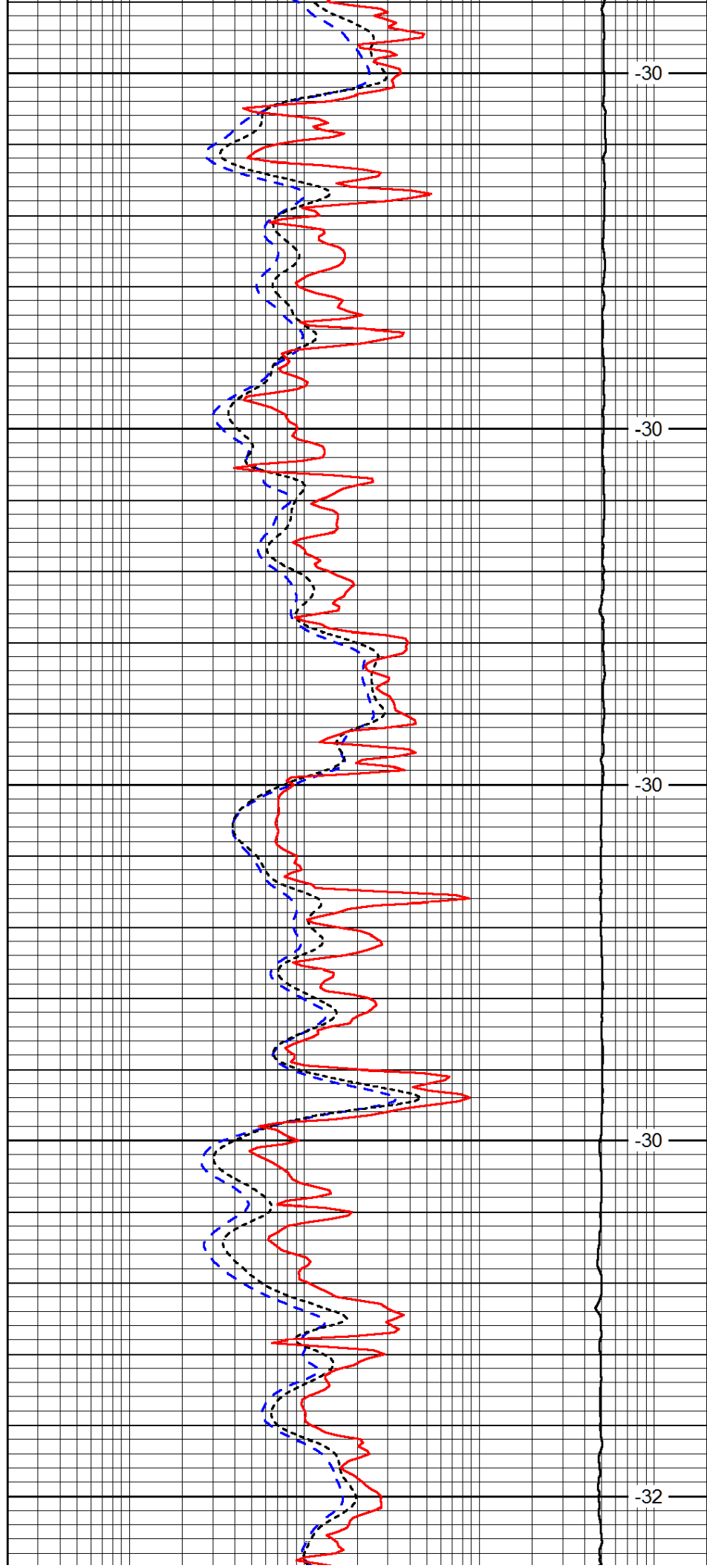
3500

3550

3600

3650

3700



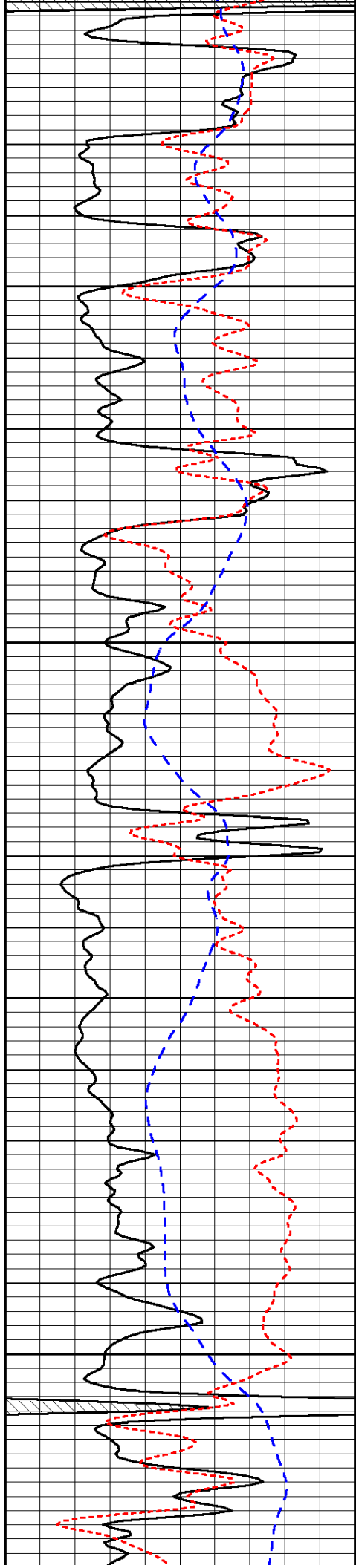
-30

-30

-30

-30

-32

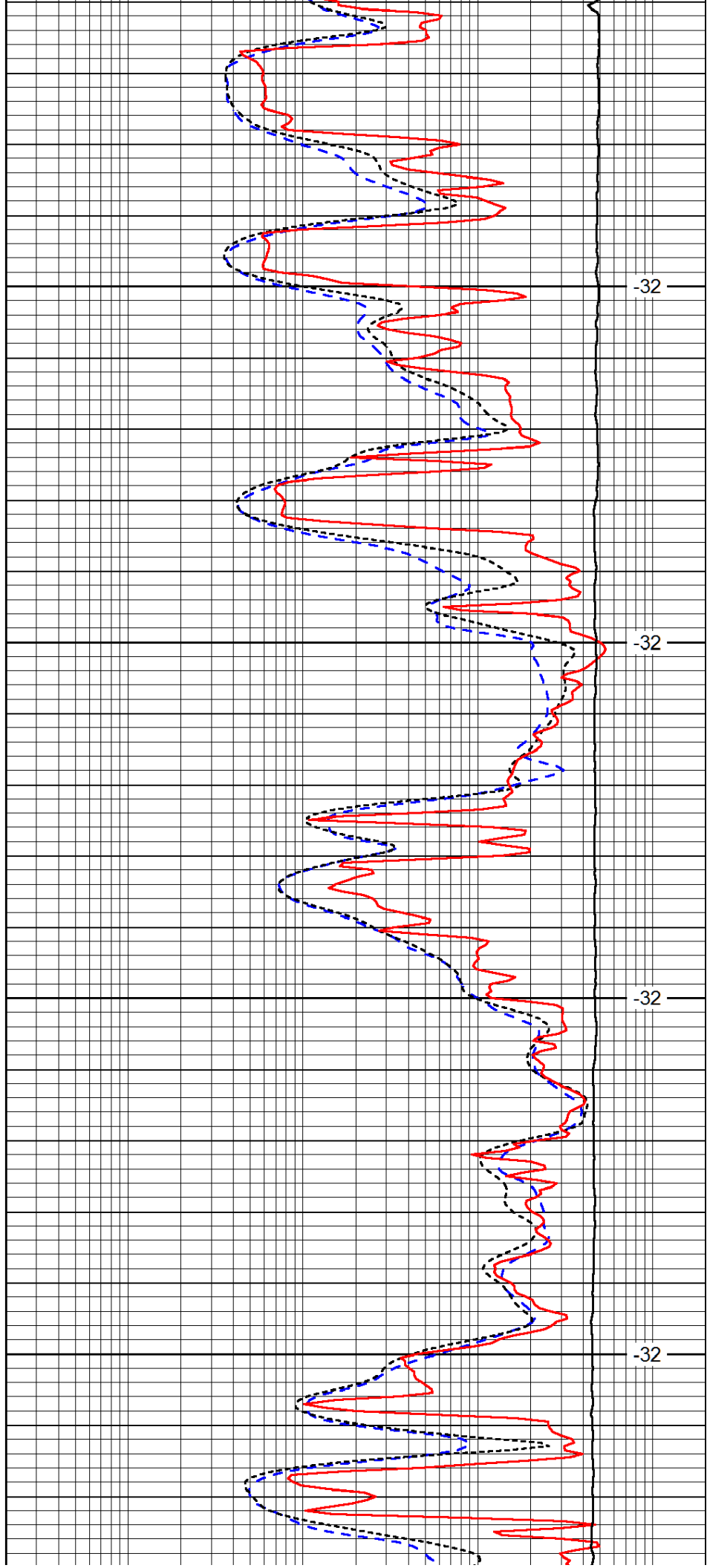


3750

3800

3850

3900

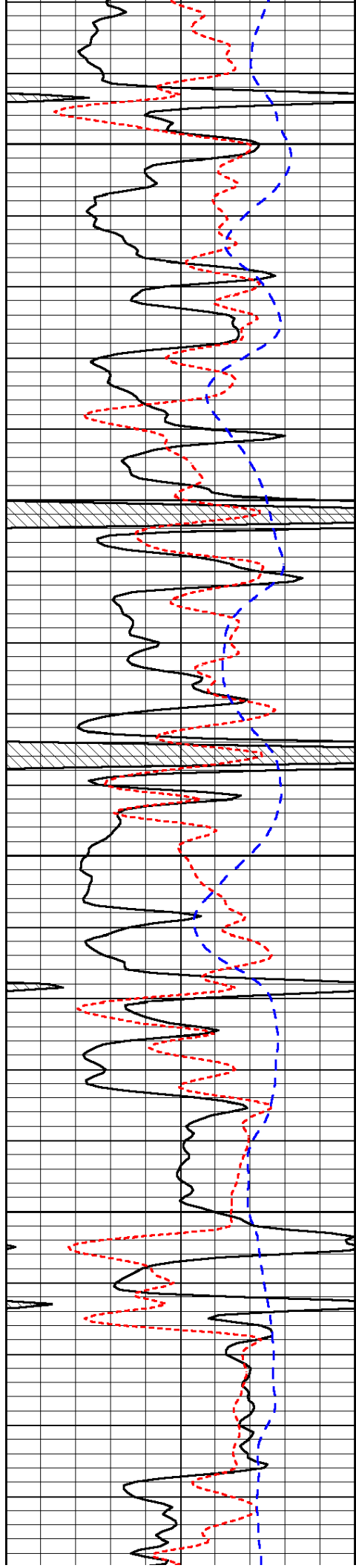


-32

-32

-32

-32



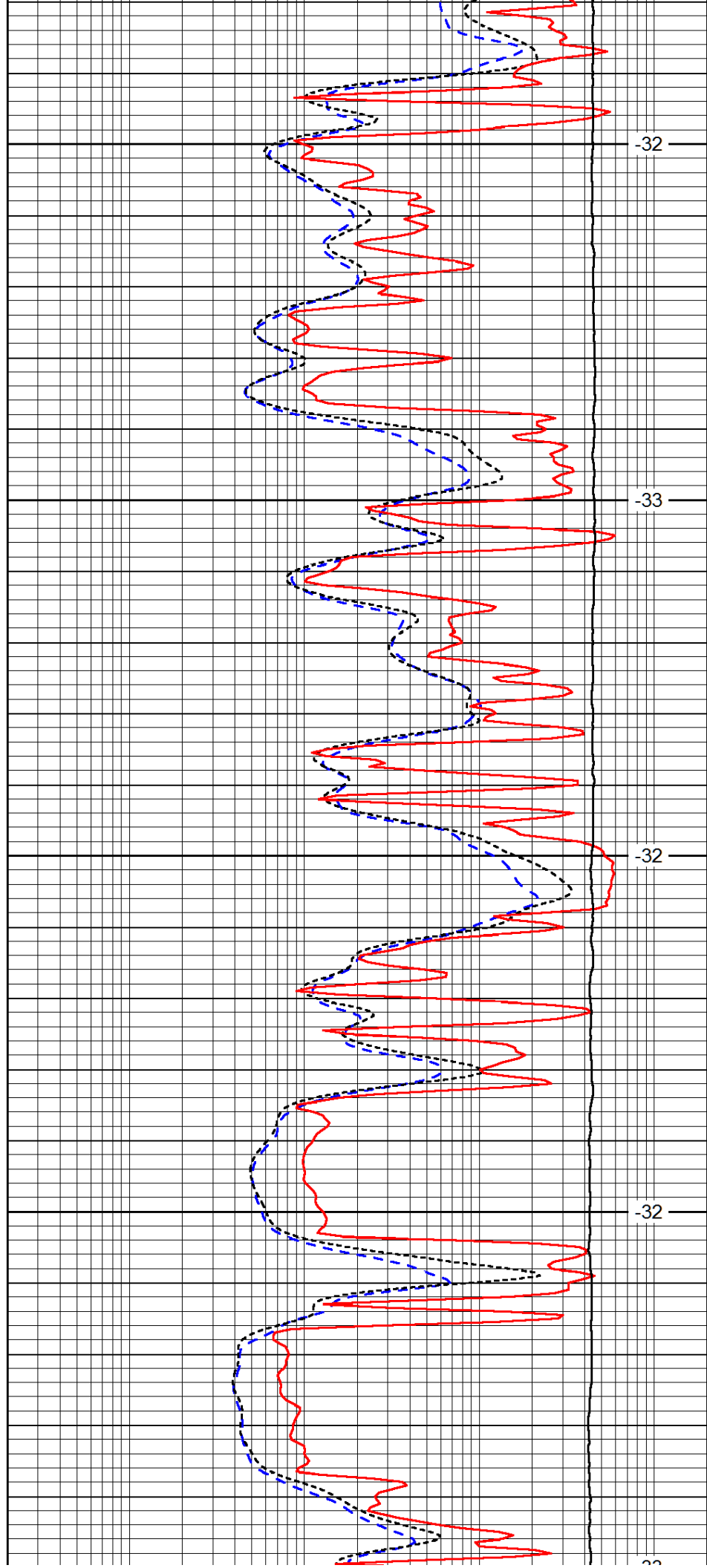
3950

4000

4050

4100

4450



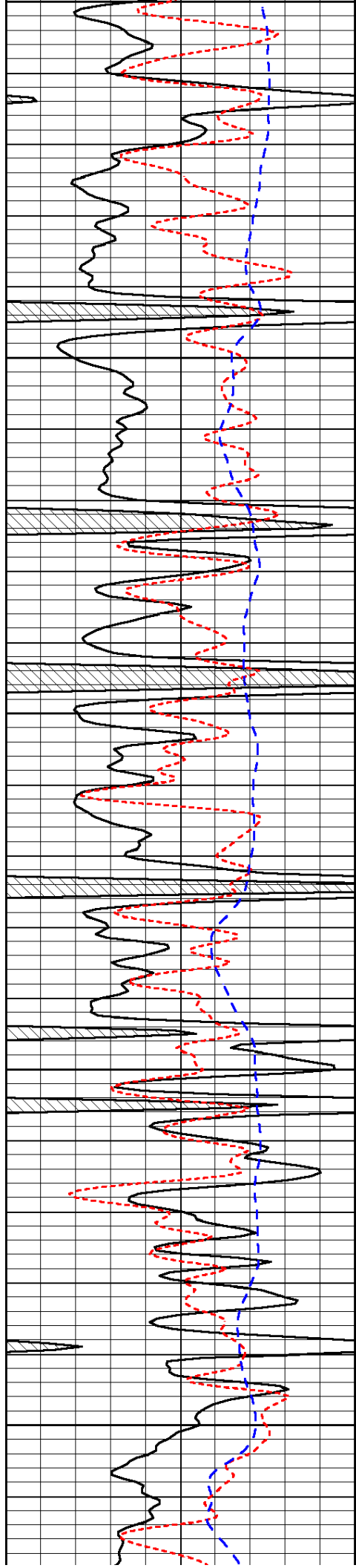
-32

-33

-32

-32

-32



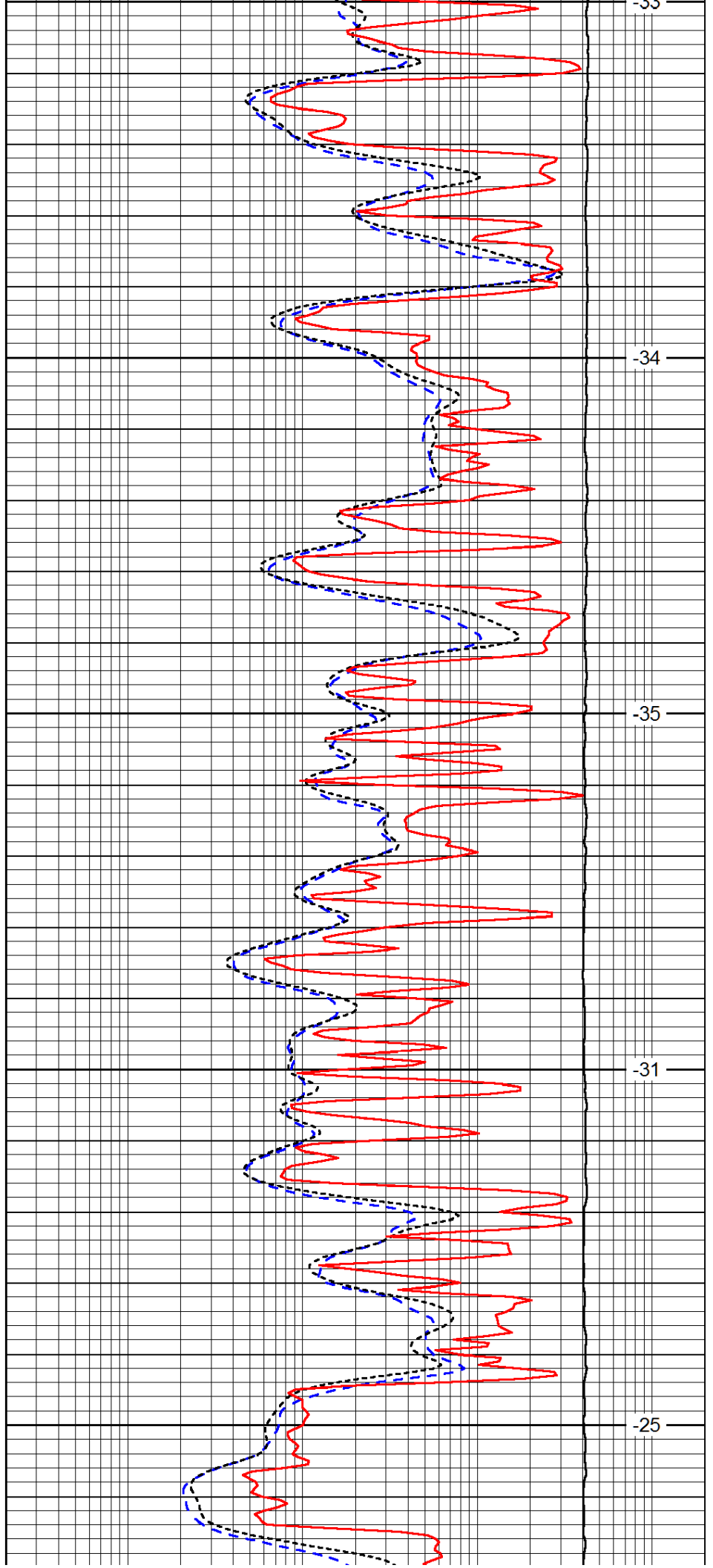
4150

4200

4250

4300

4350



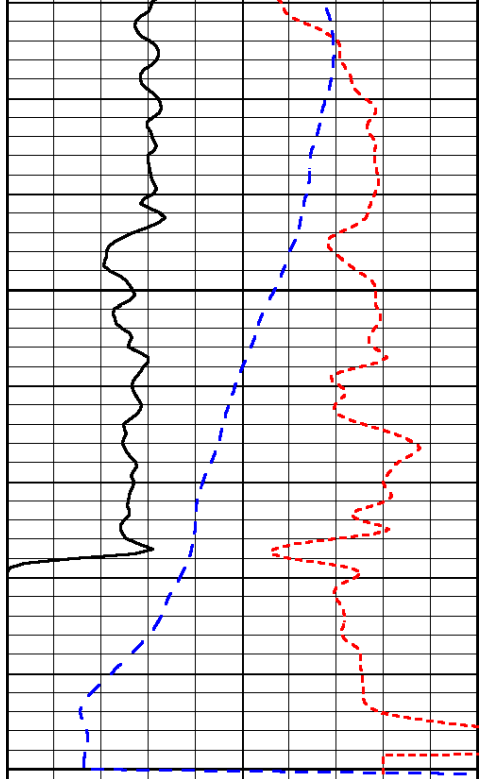
-35

-34

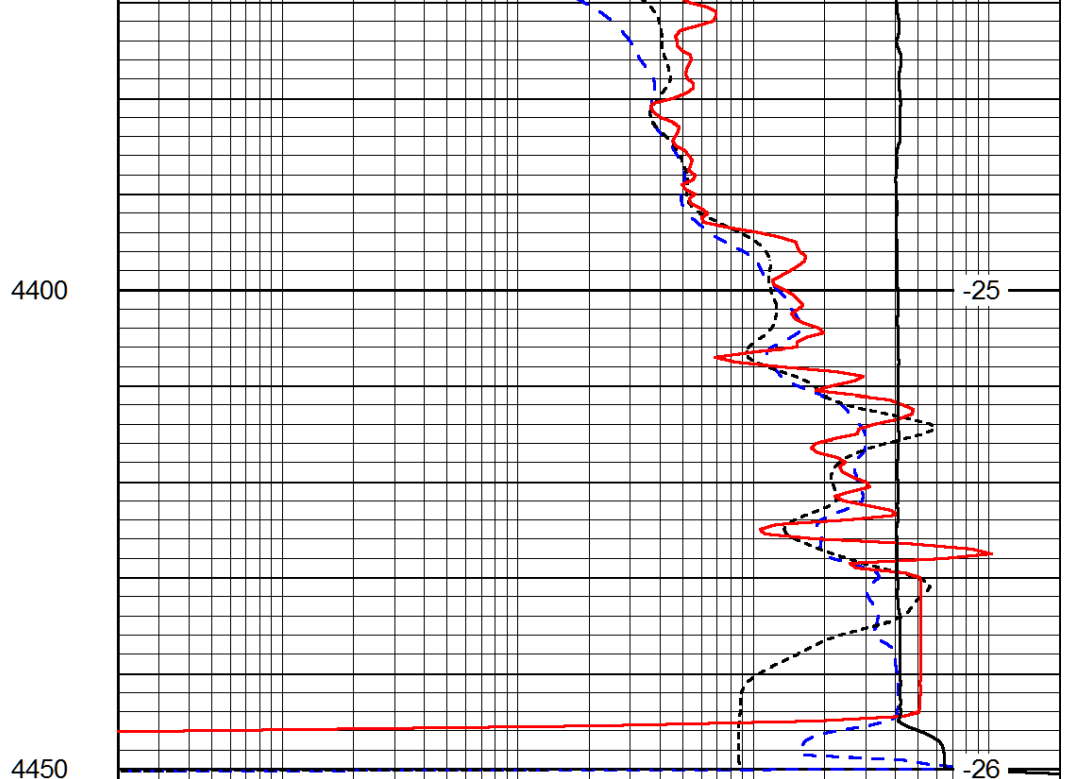
-35

-31

-25



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)