



Pioneer Energy Services

Dual Induction Log

15-083-21,875-00-00

API No.

Company American Warrior, Inc.

Well Sparks #1-28

Field Unnamed

County Hodgeman State

Kansas

Location 1982' FSL & 2305' FWL

Sec: 28

Twp: 22S

Rge: 21W

Other Services
CNL/CDL
MEL

Permanent Datum Ground Level

Kelly Bushing

11 Ft. Above Perm. Datum

Elevation 2248

Log Measured From Kelly Bushing

Drilling Measured From Kelly Bushing

K.B. 2259
D.F. 2248
G.L. 2248

Date	1/16/2013	
Run Number	One	
Depth Driller	4600	
Depth Logger	4602	
Bottom Logged Interval	4601	
Top Log Interval	200	
Casing Driller	8.625 @ 236	
Casing Logger	230	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	7200	
Density / Viscosity	9.3 49	
pH / Fluid Loss	10.0 10.8	
Source of Sample	Flowline	
Rm @ Meas. Temp	.40 @ 55	
Rmf @ Meas. Temp	.30 @ 55	
Rmc @ Meas. Temp	.54 @ 55	
Source of Rmf / Rmc	Charts	
Rm @ BHT	.18 @ 122	
Operating Rig Time	4 Hours	
Max Rec. Temp. F	122	
Equipment Number	15	
Location	Hays	
Recorded By	D. Kerr	J. Henriksen
Witnessed By	Kevin Timson	

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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

Burdett KS, 5 West to 233 RD, 5 South to O,
1/2 West, South Into

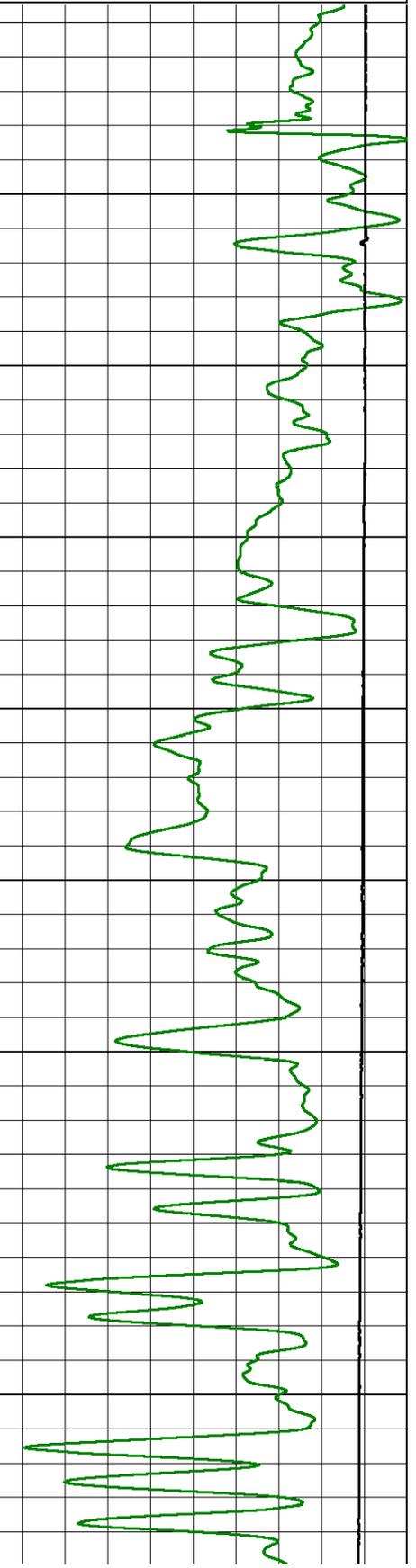
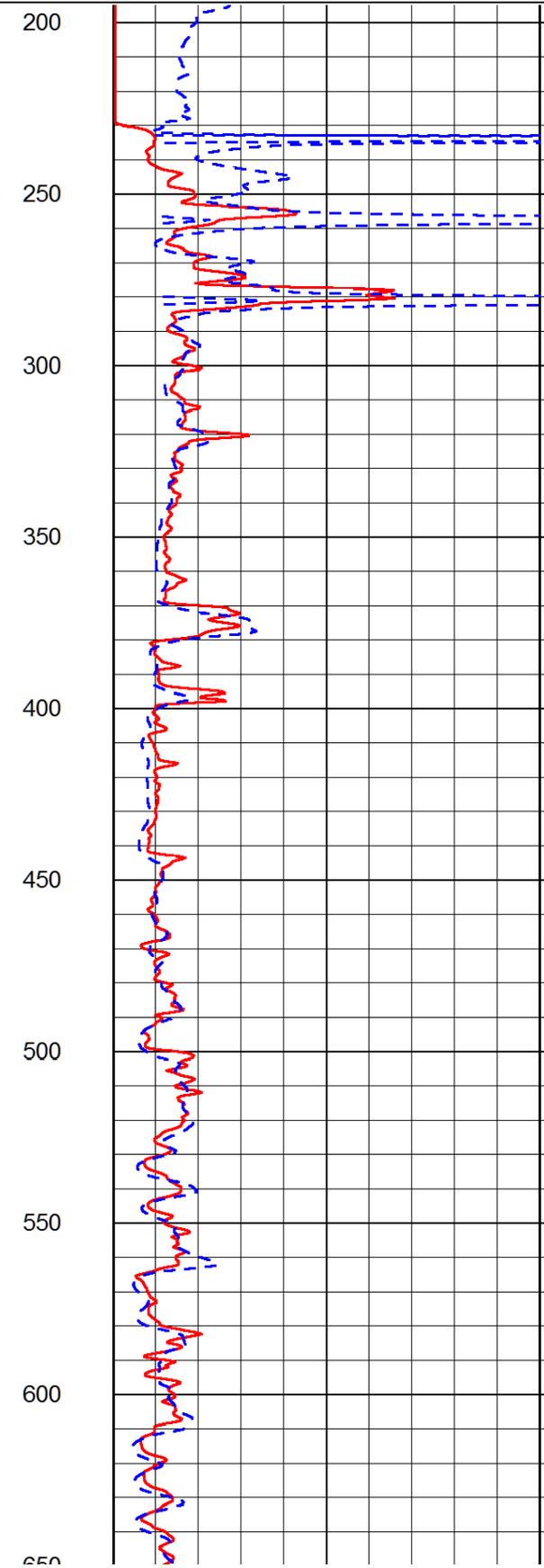
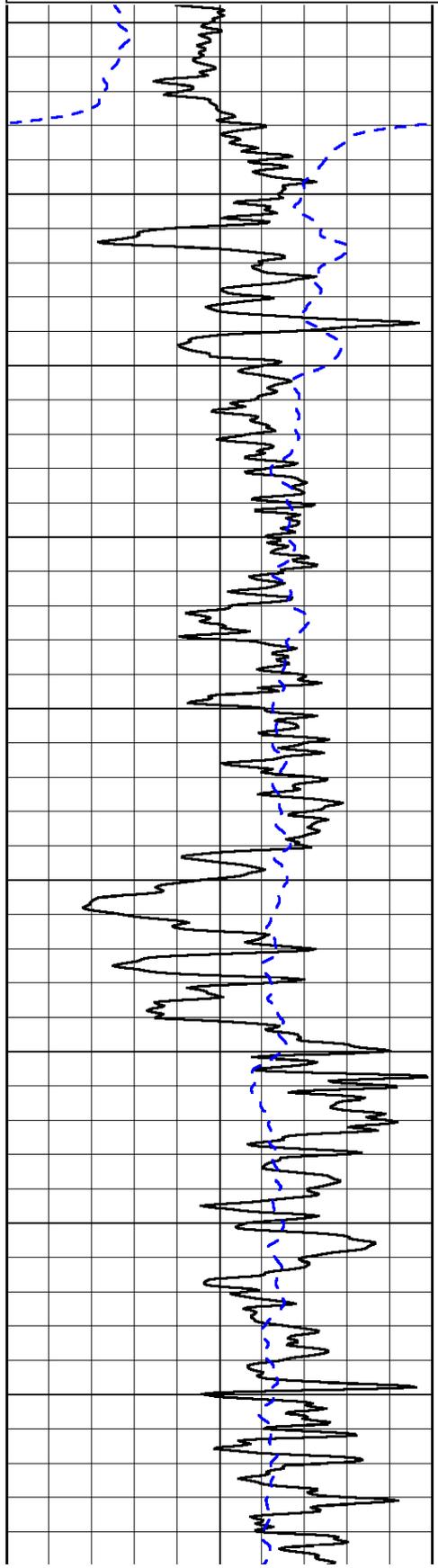
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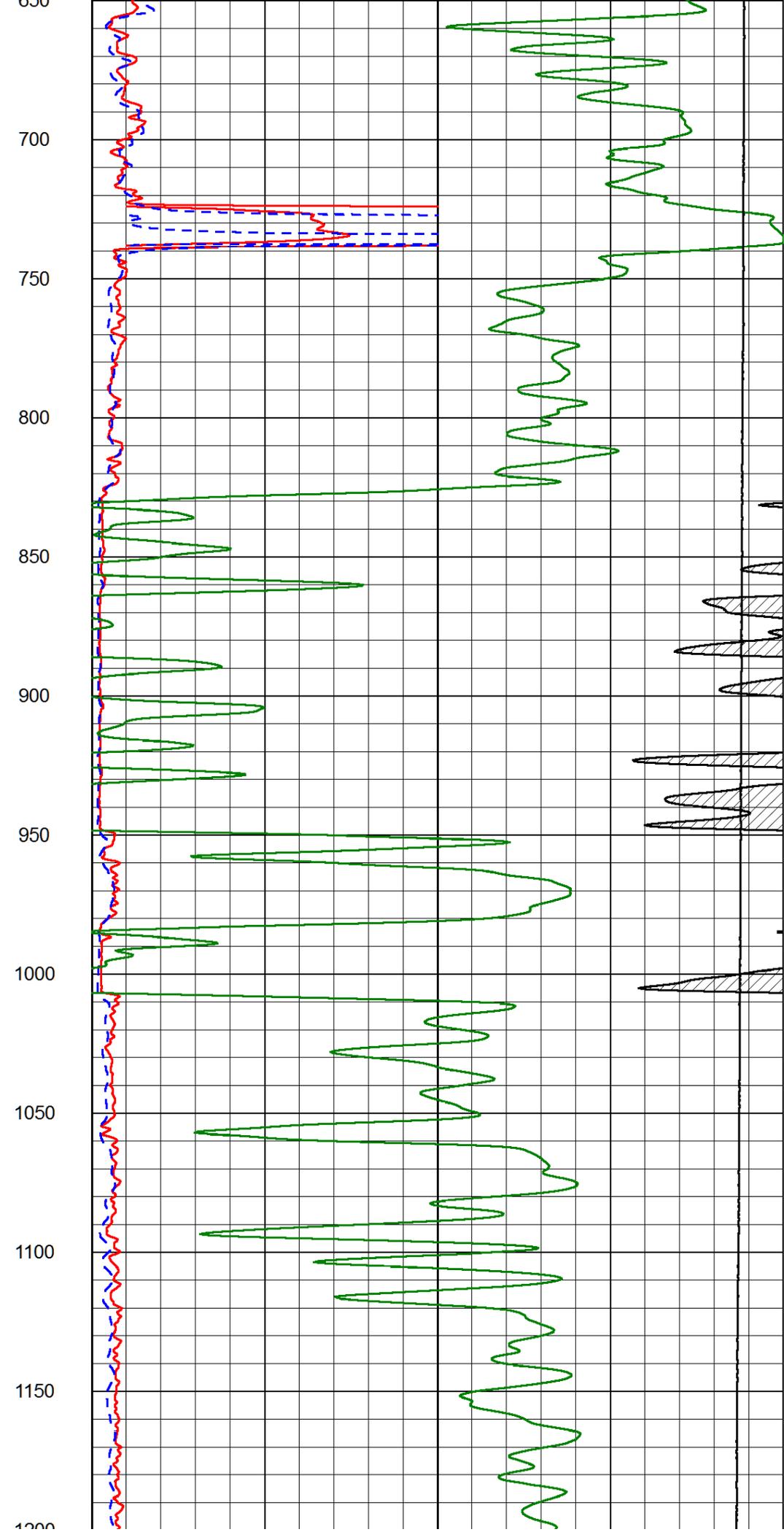
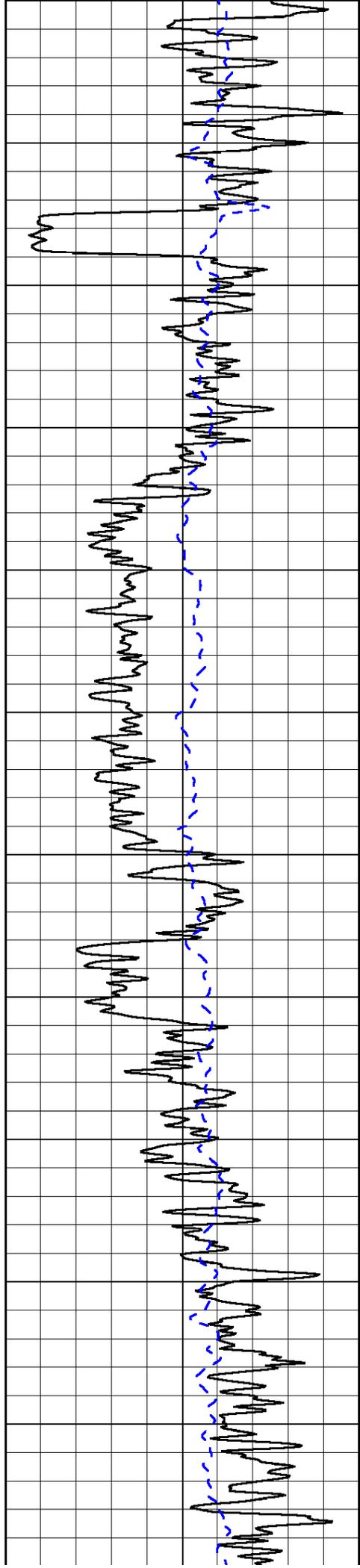
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

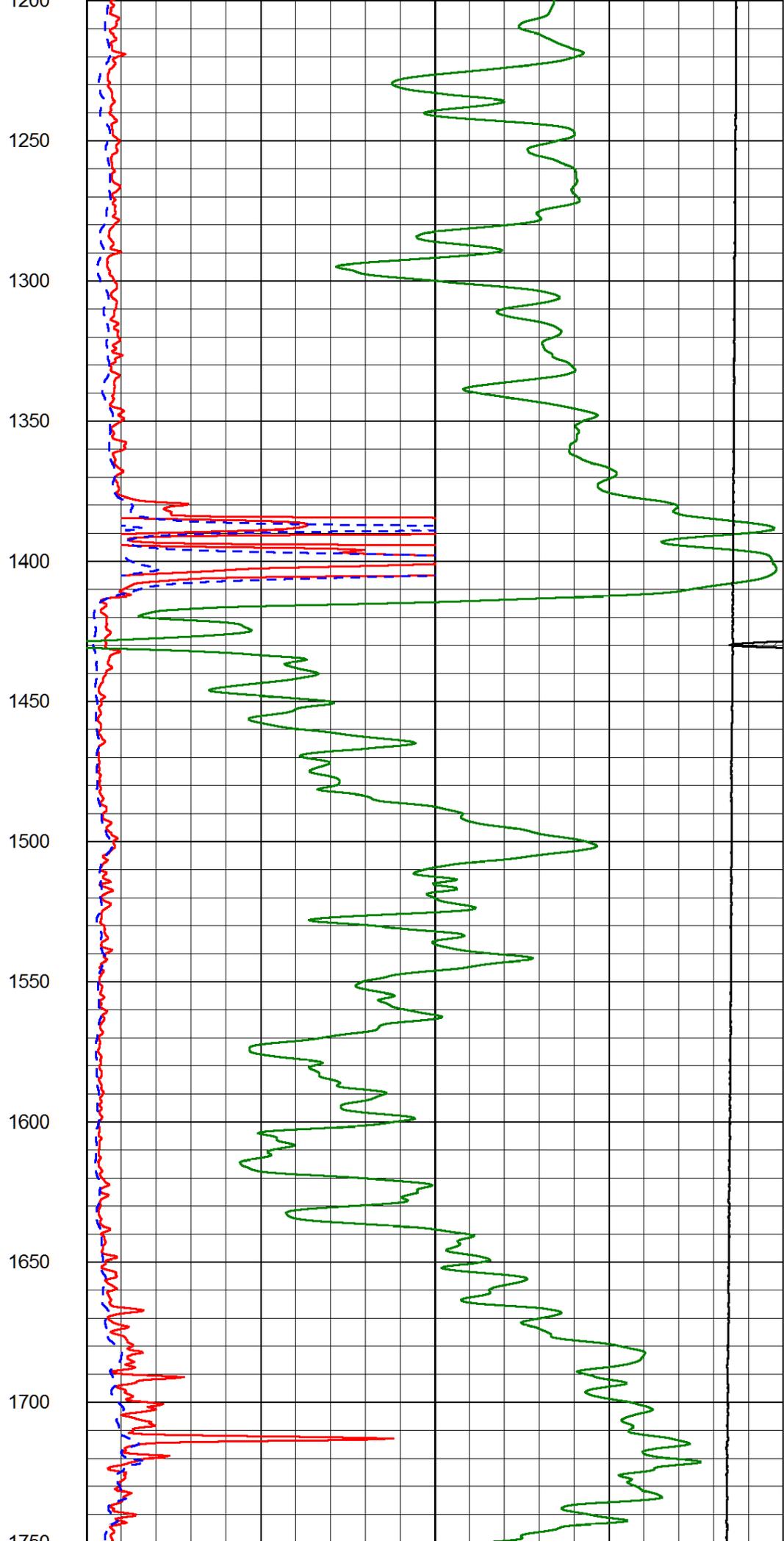
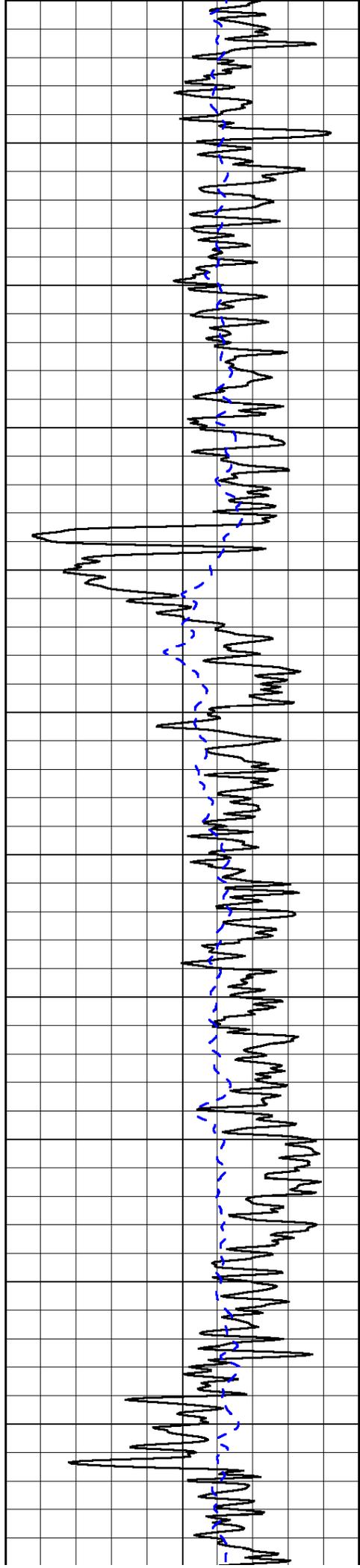
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50

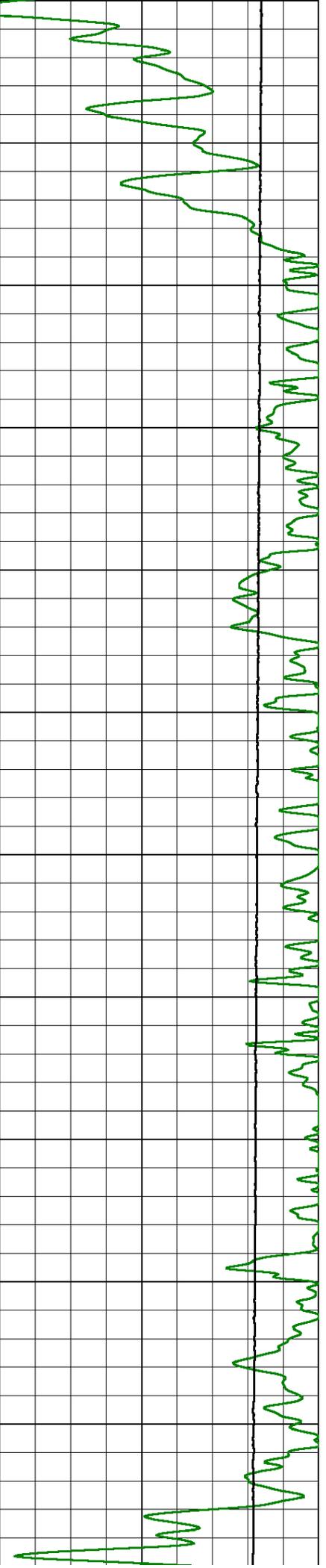
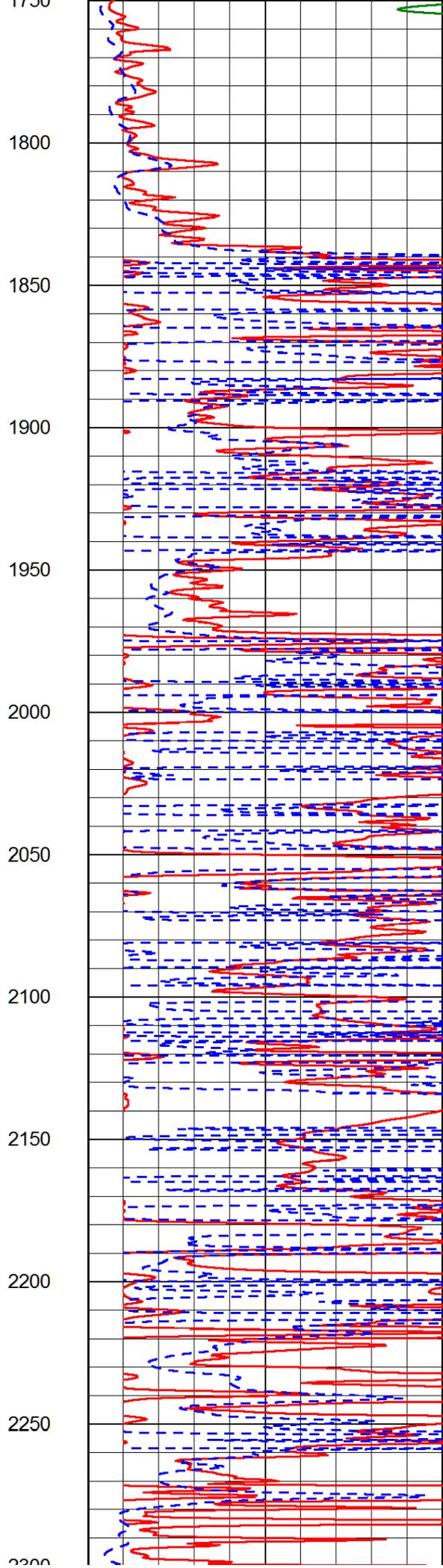
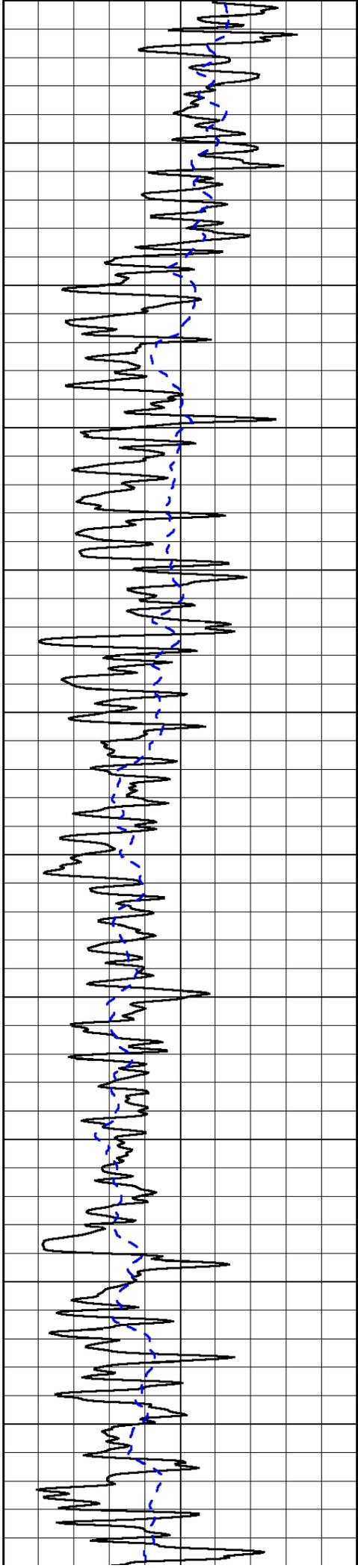
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0

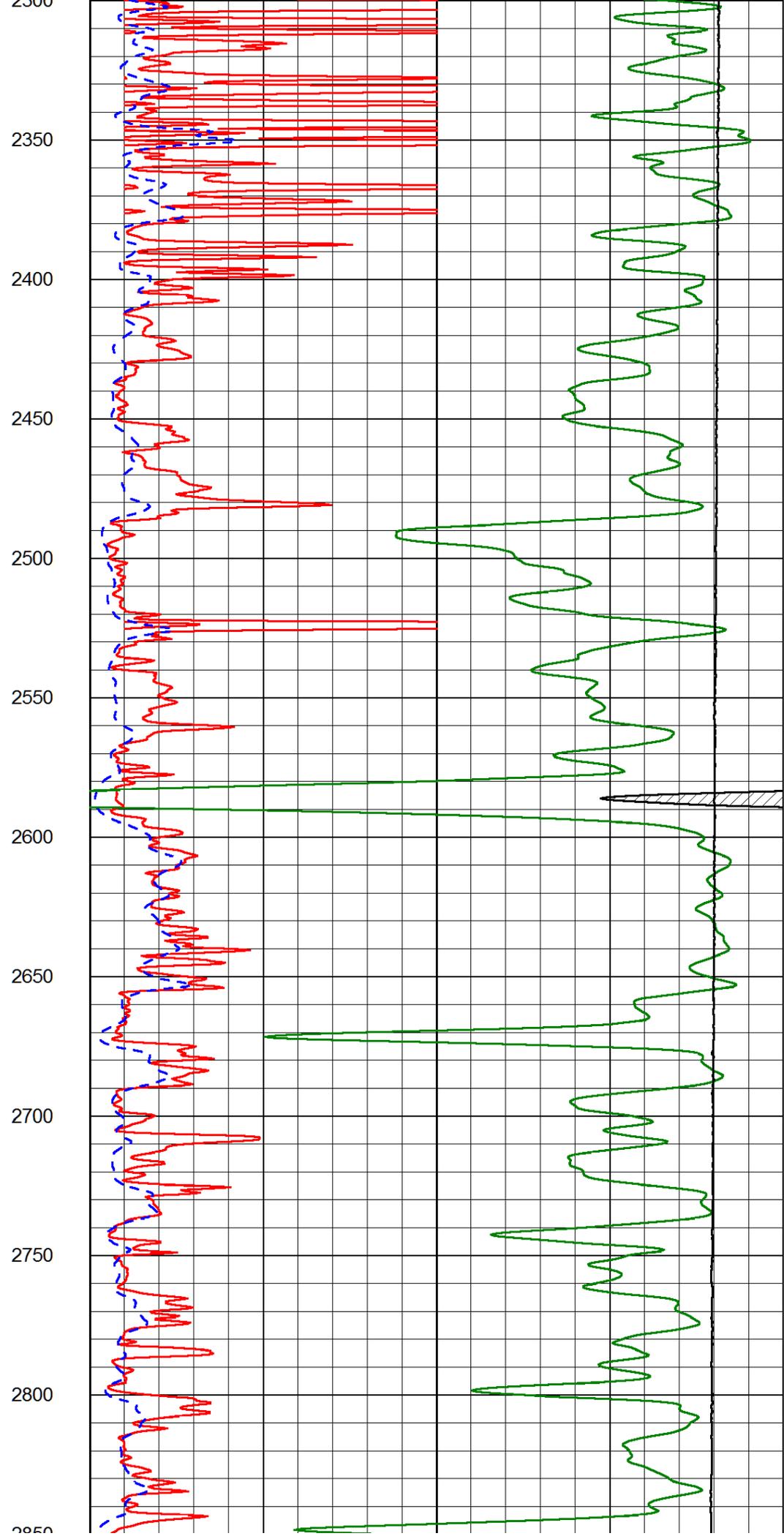
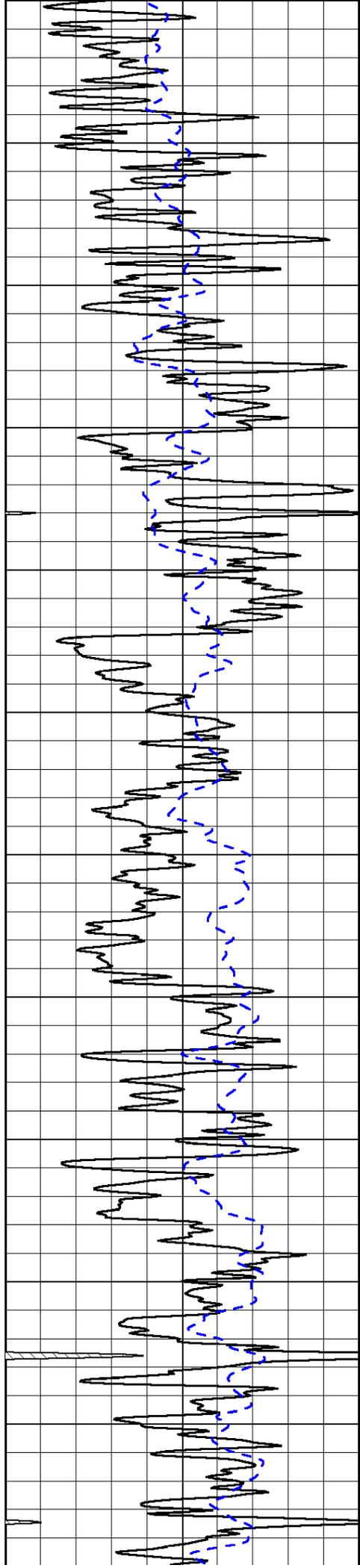
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

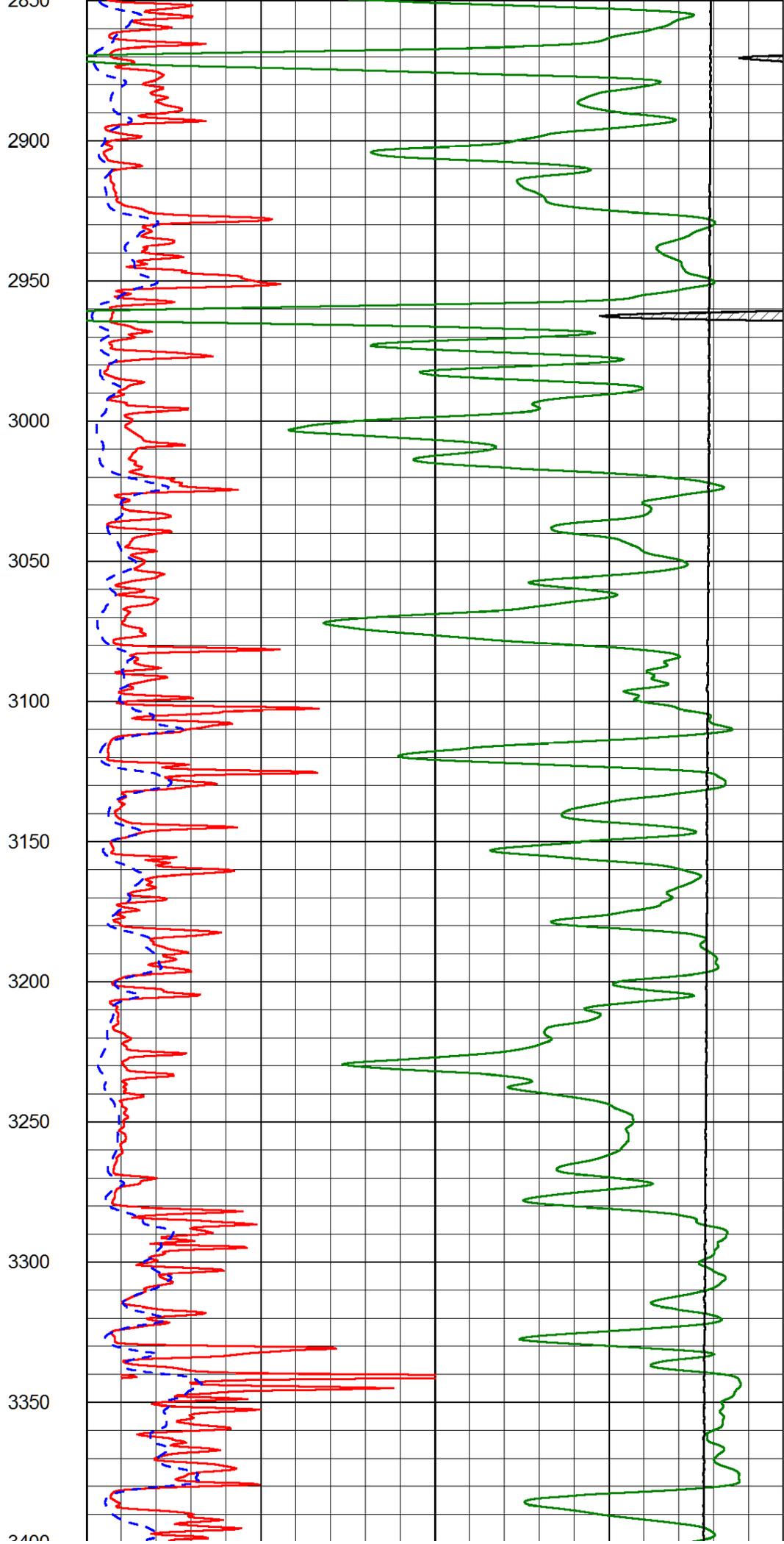
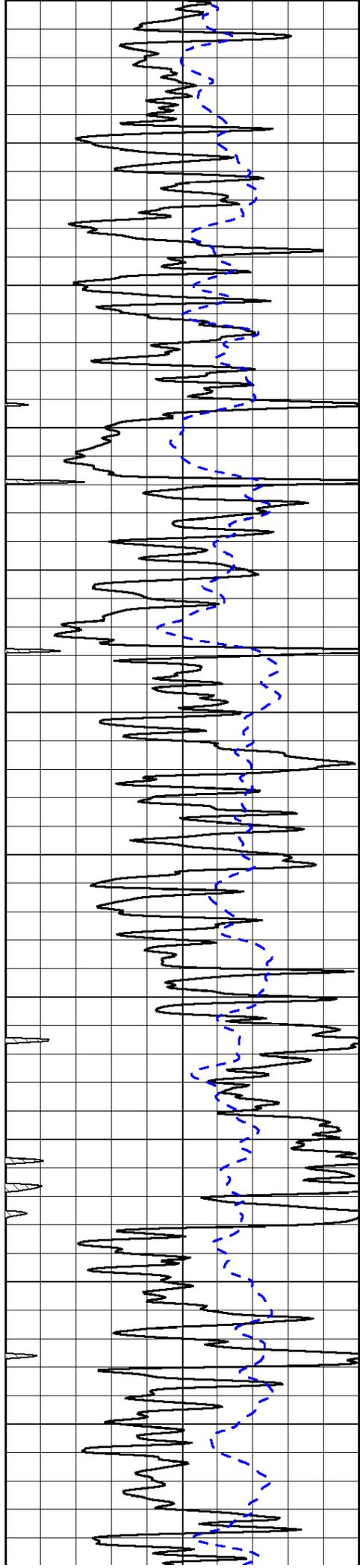


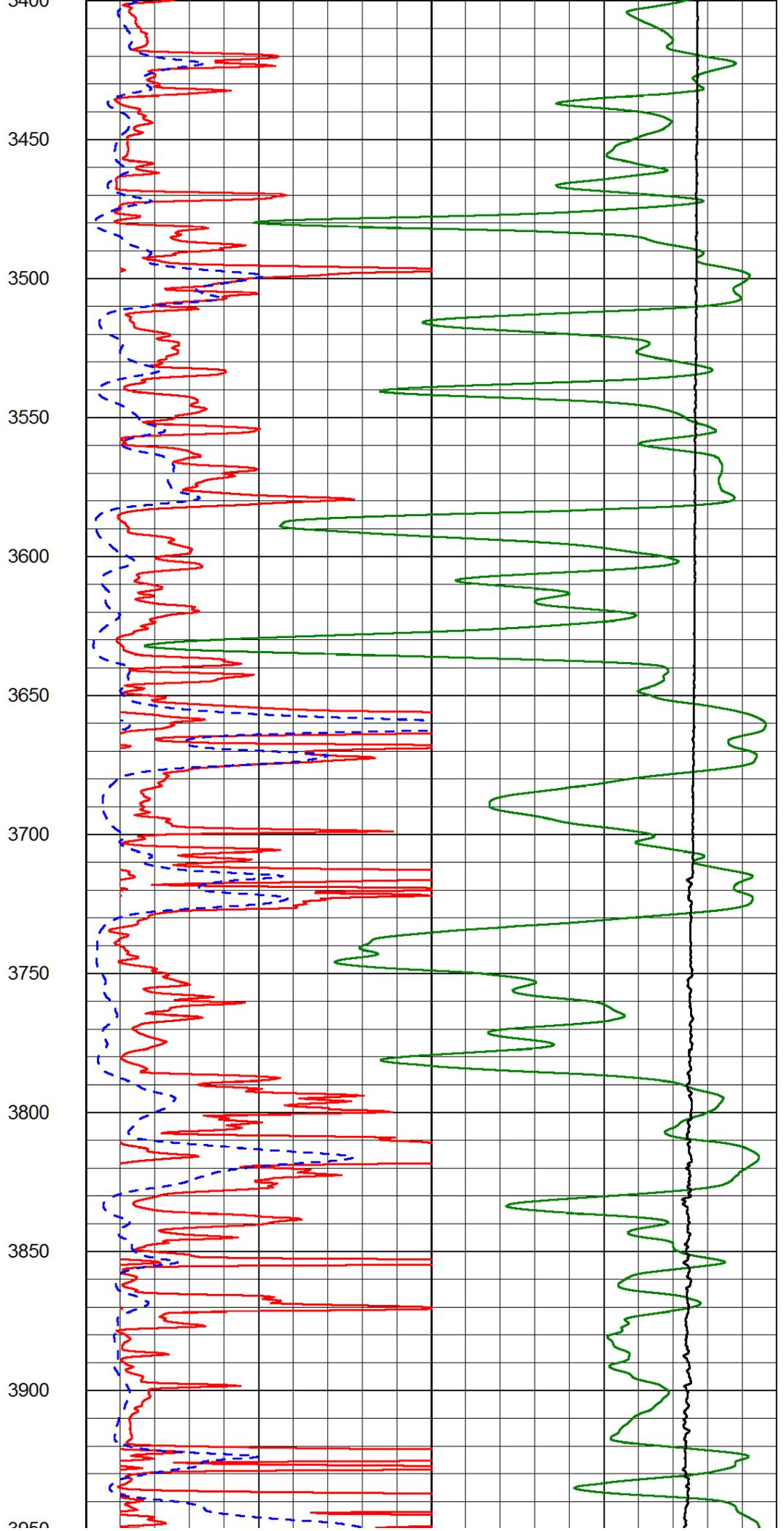
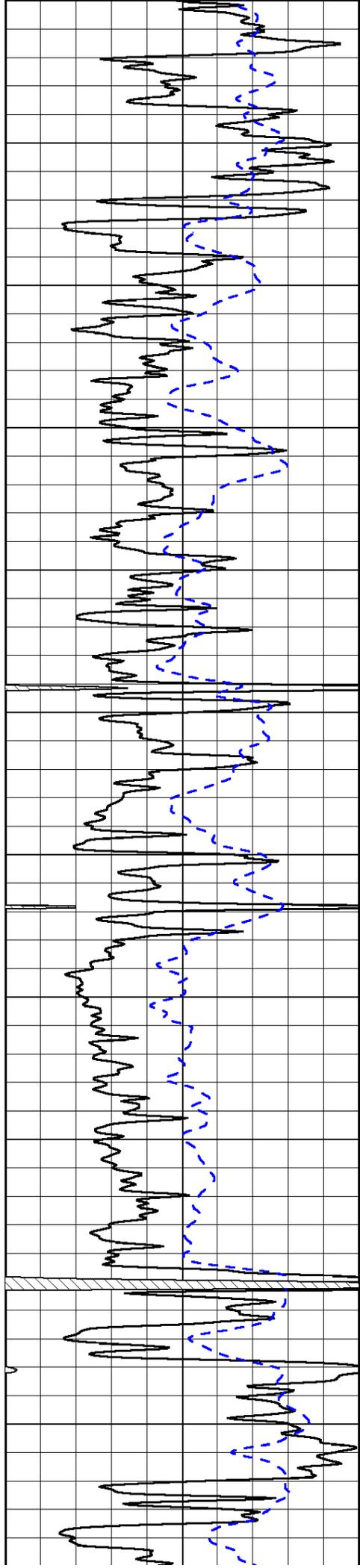


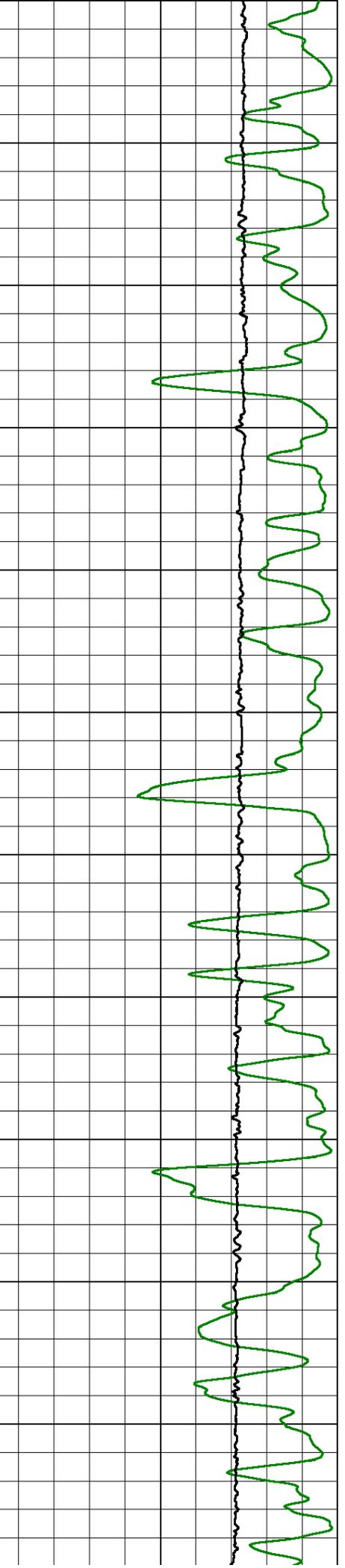
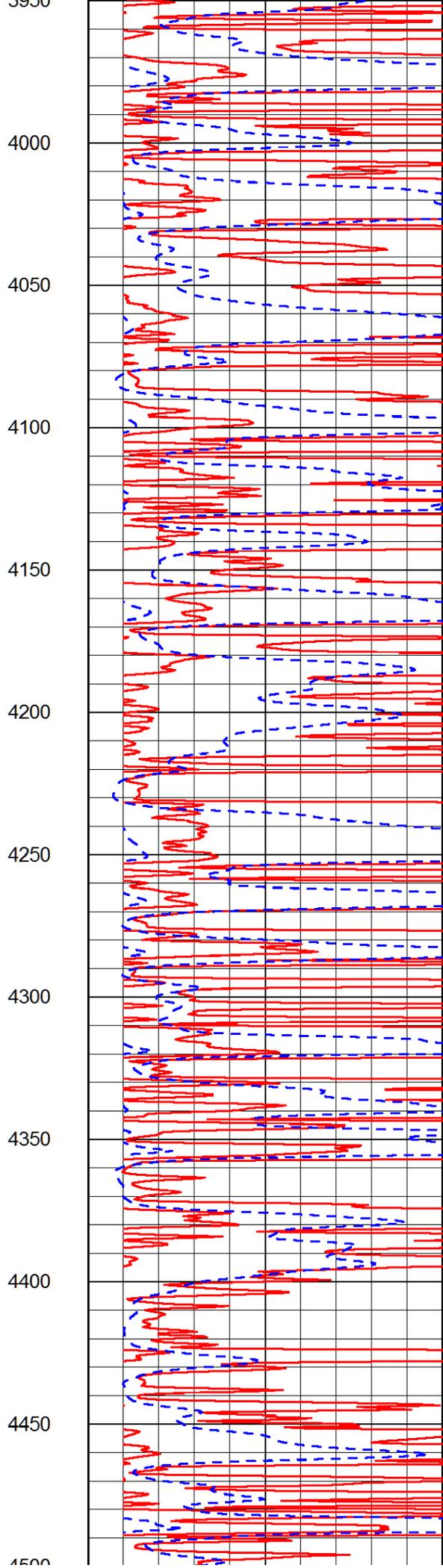
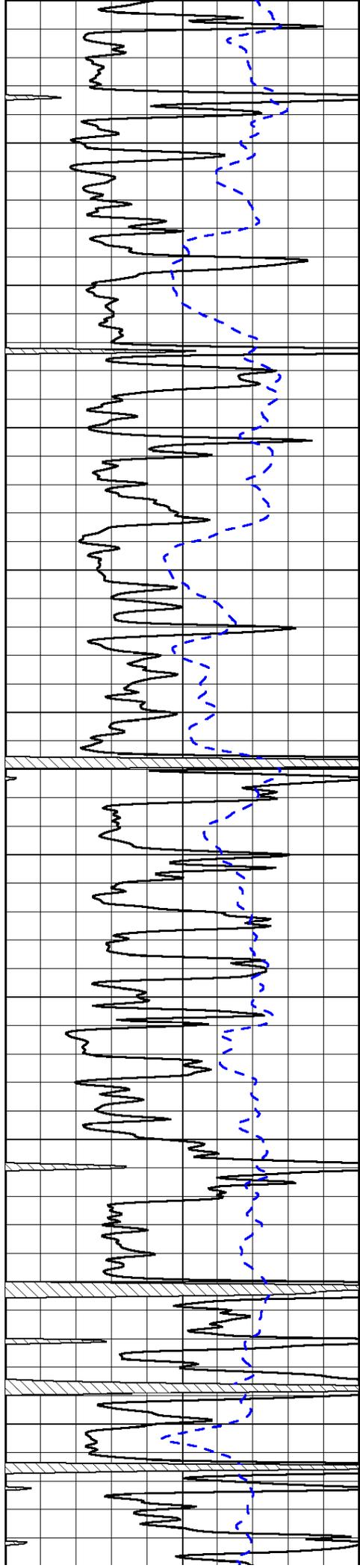


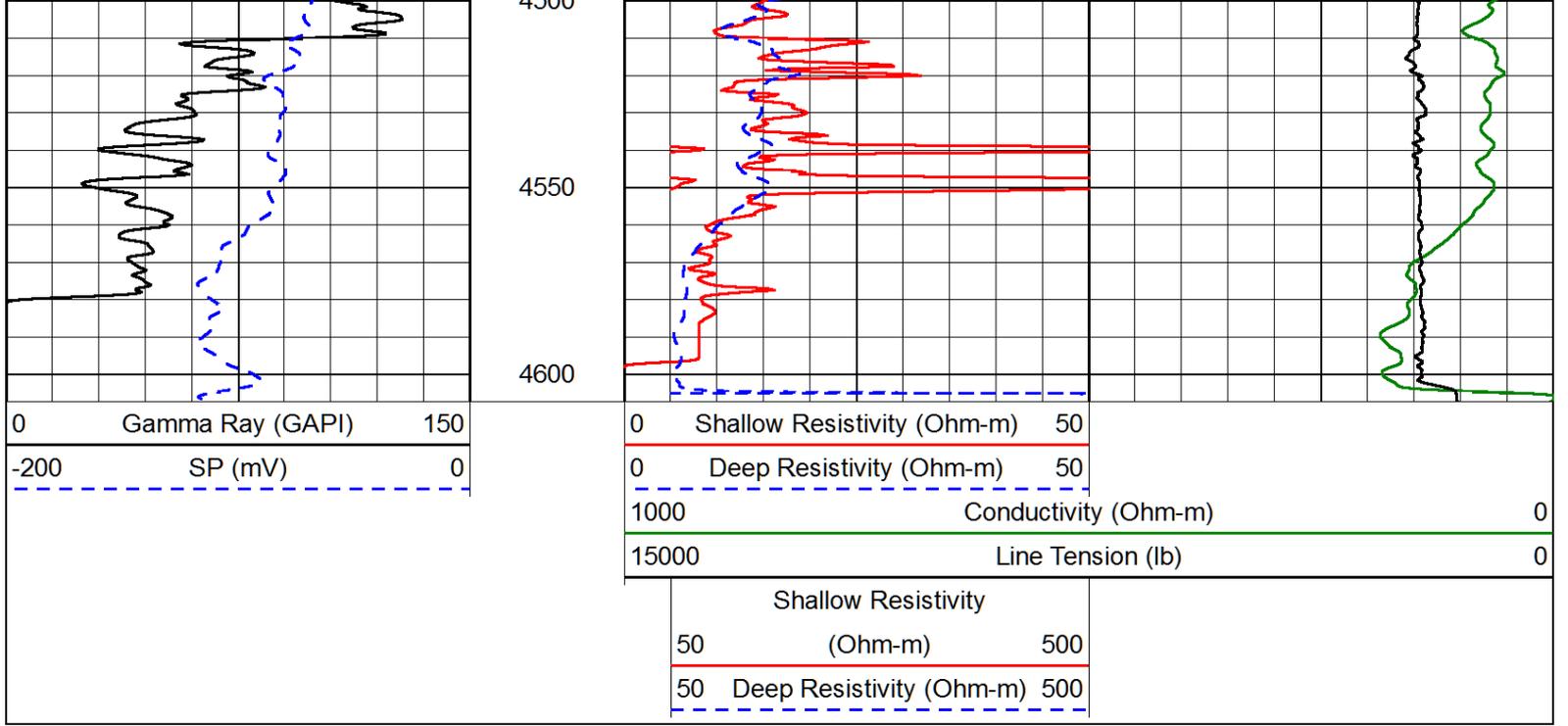




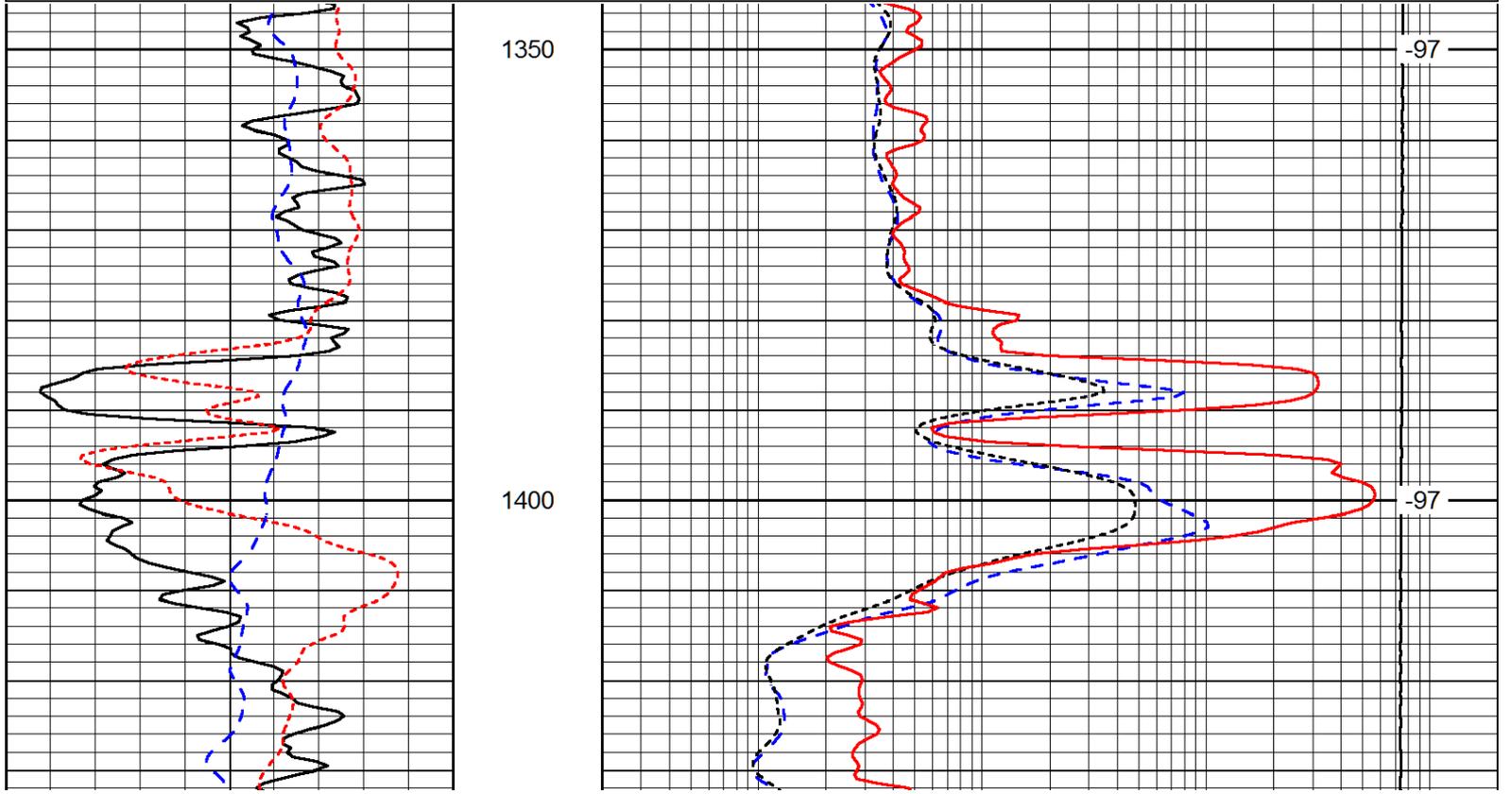
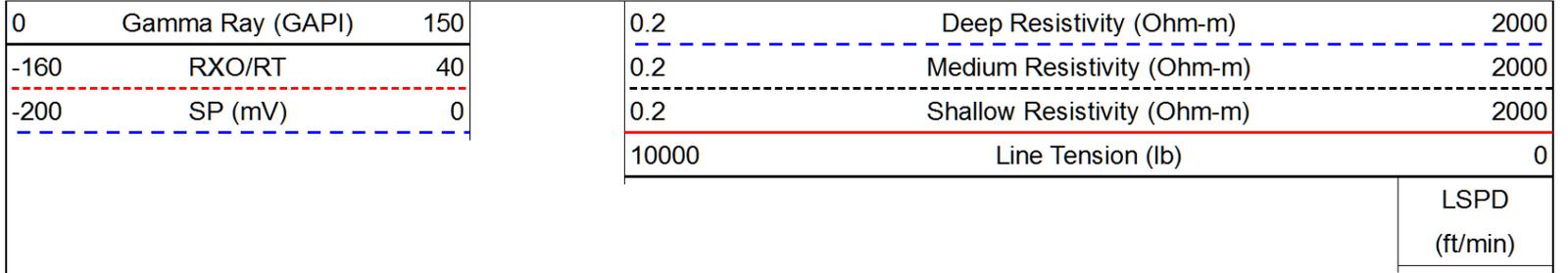


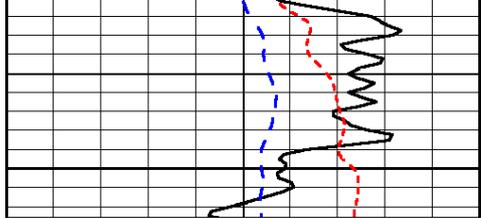






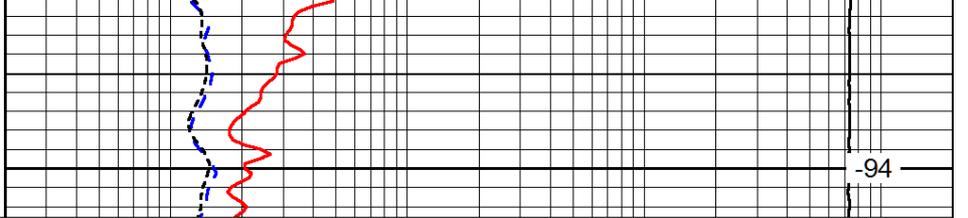
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0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

1450



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

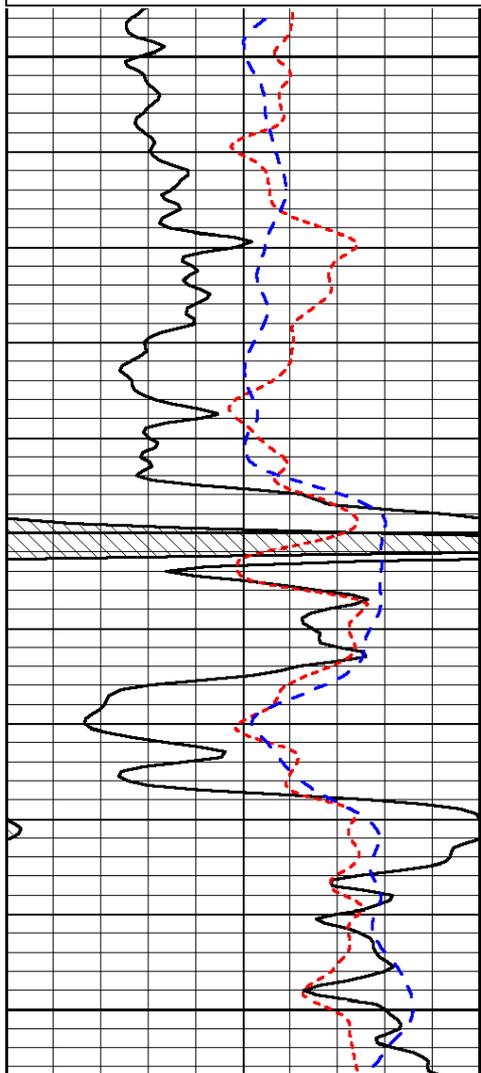
LSPD
(ft/min)

Database File: amwarrior_sparks_1_28hd.db
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-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

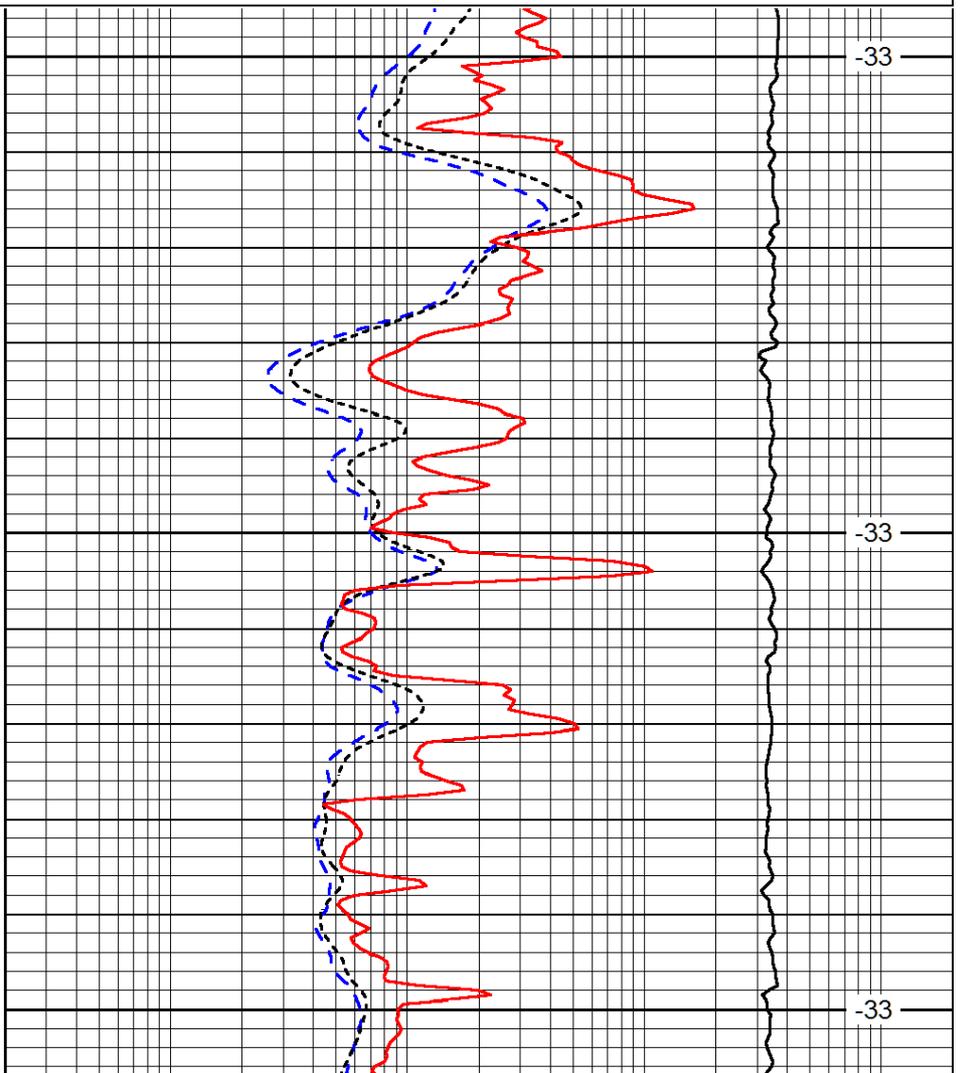
LSPD
(ft/min)



3800

3850

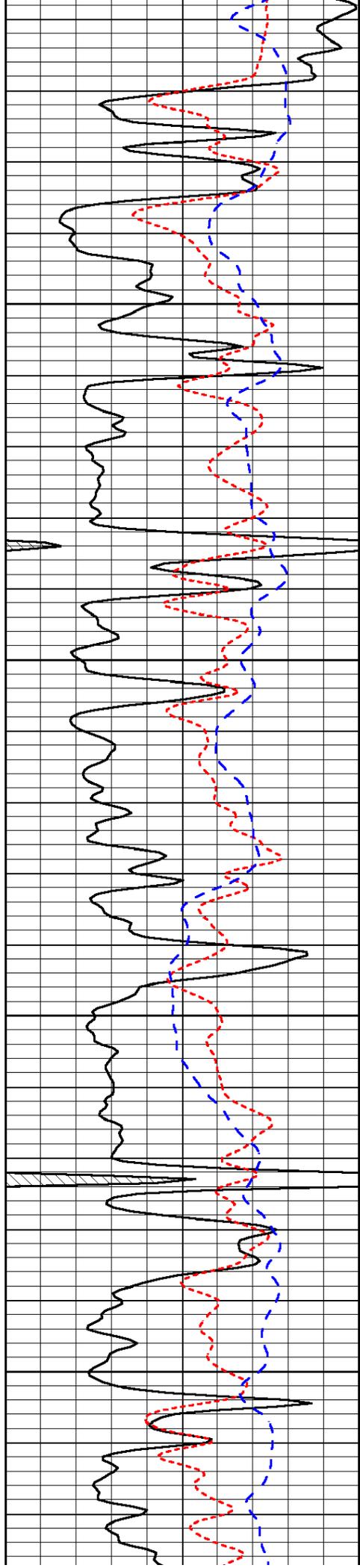
3900



-33

-33

-33

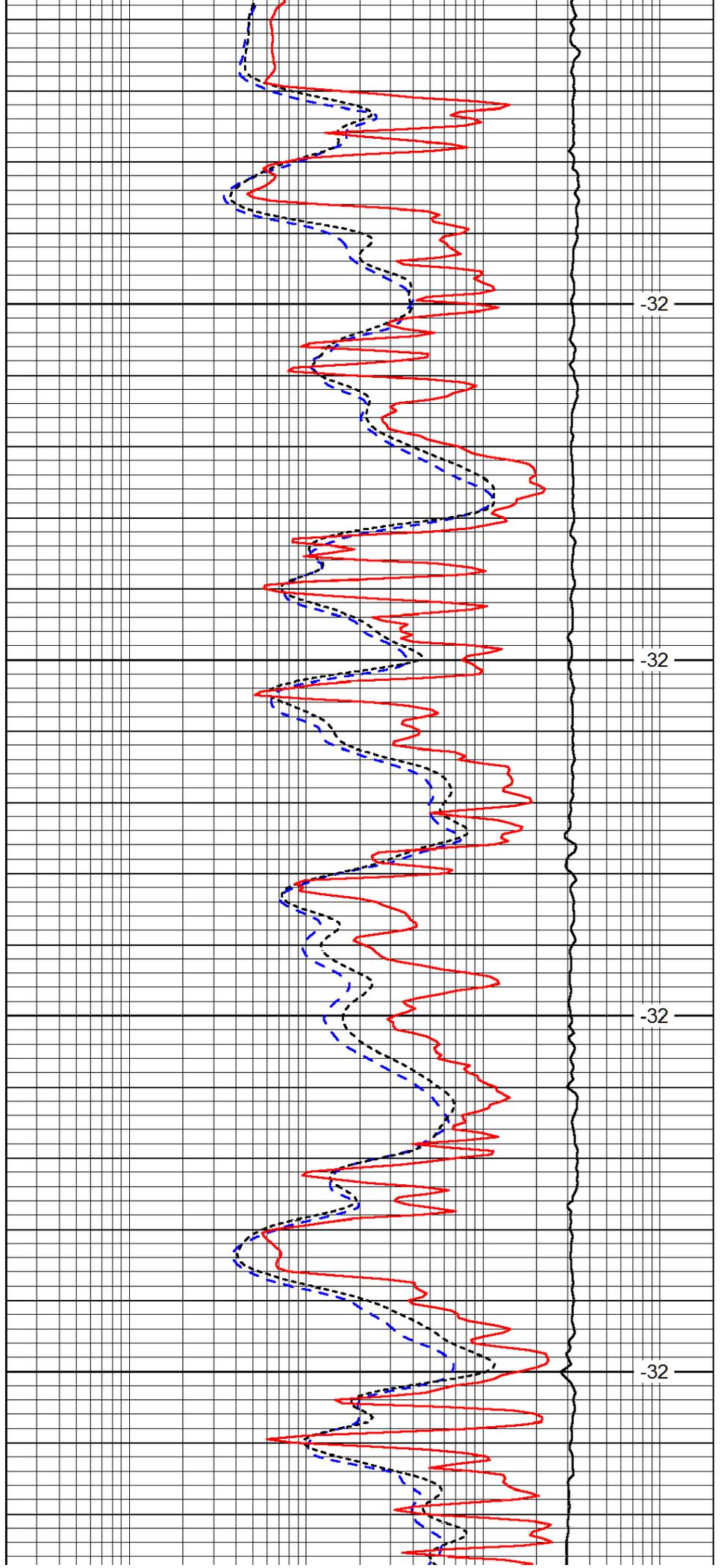


3950

4000

4050

4100

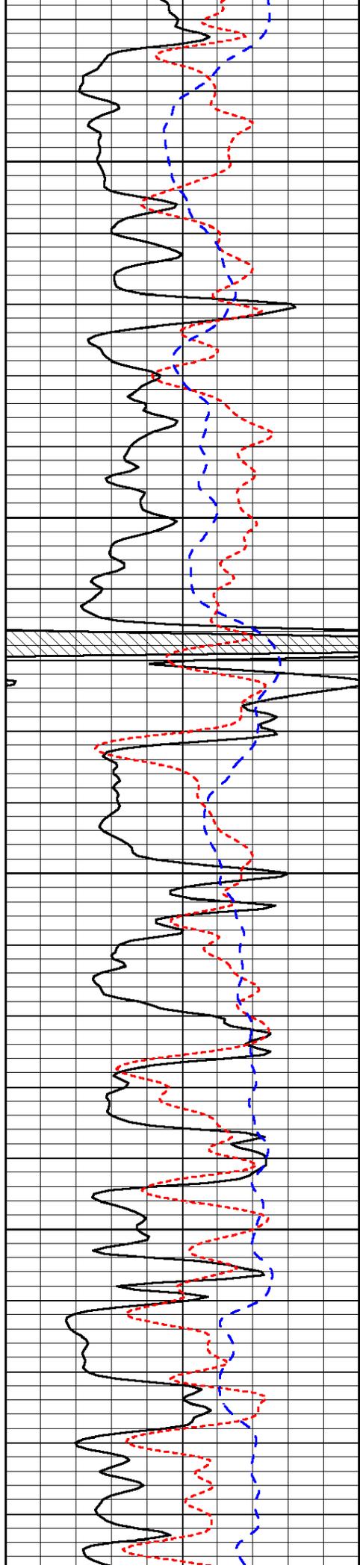


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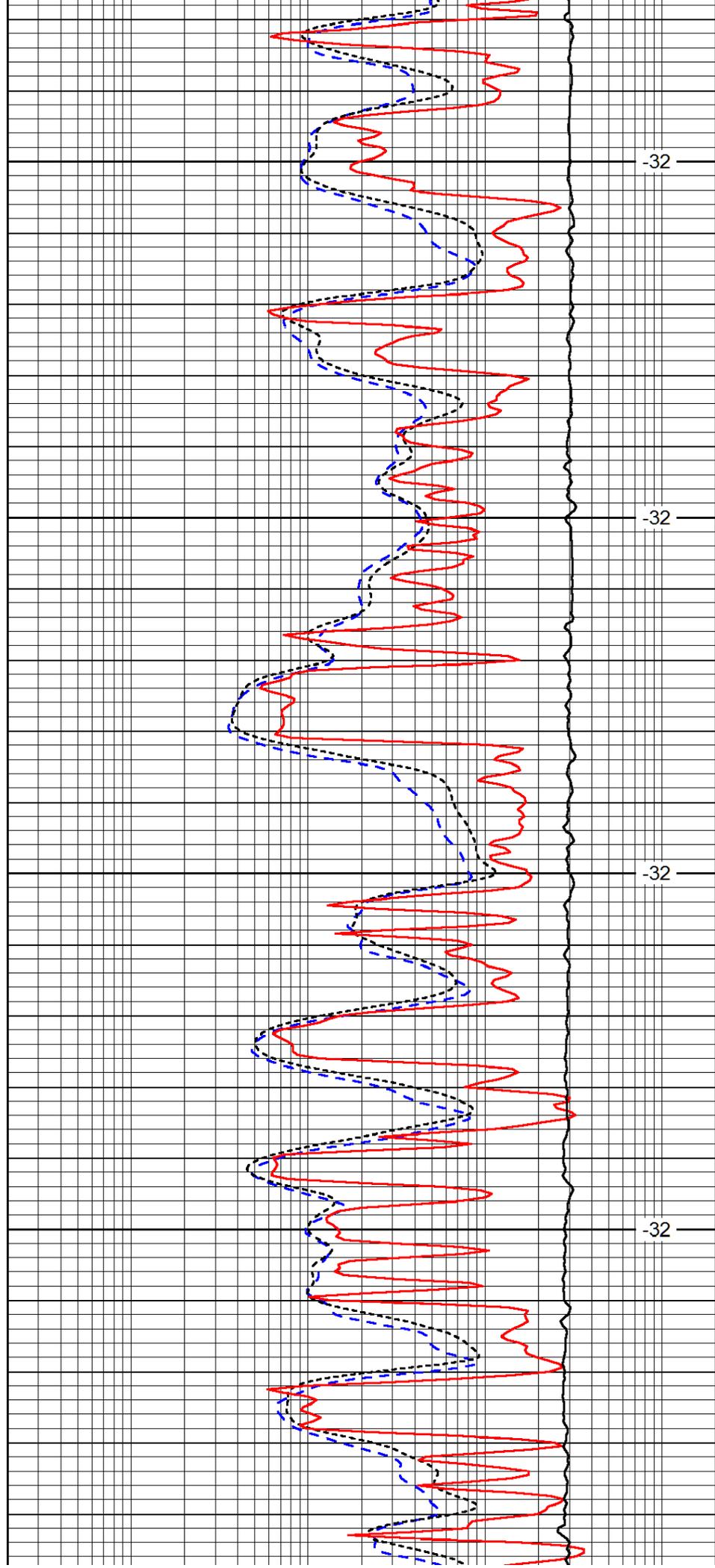


4150

4200

4250

4300

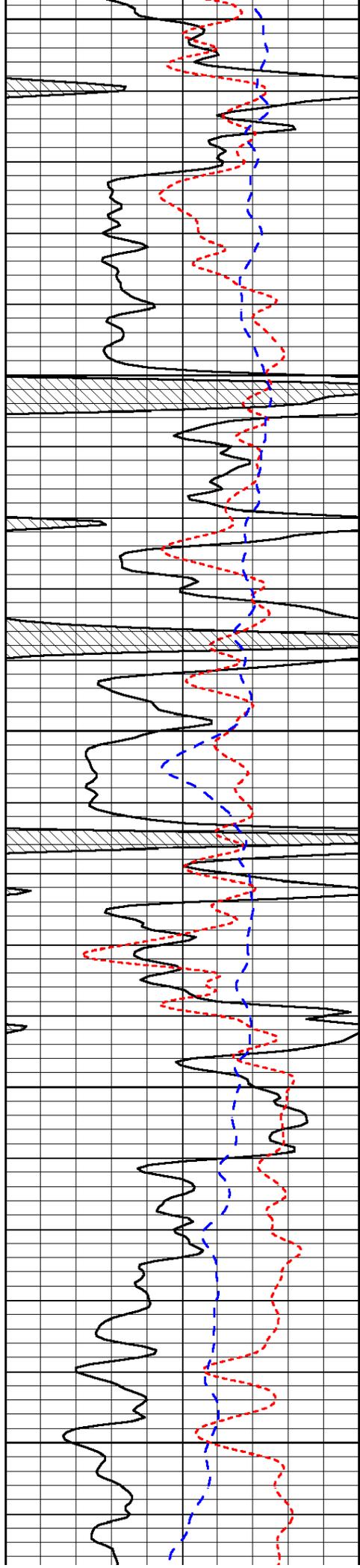


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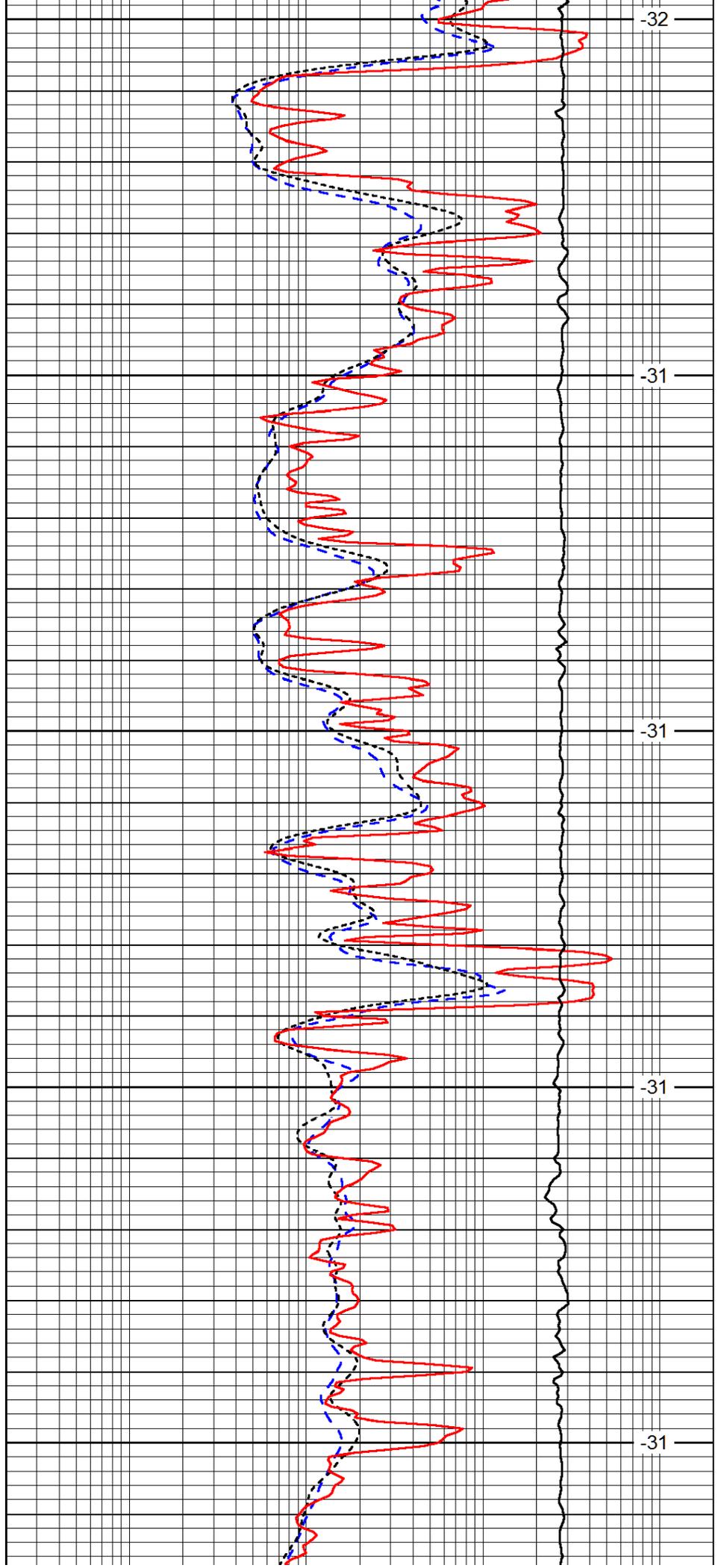
4350

4400

4450

4500

4550



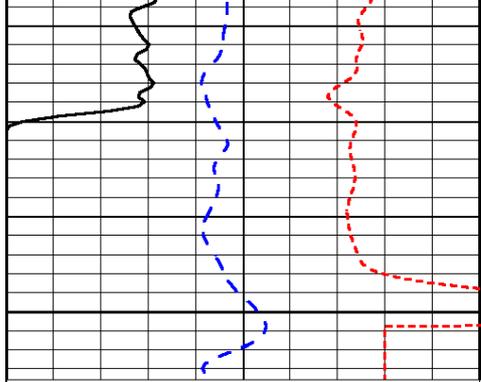
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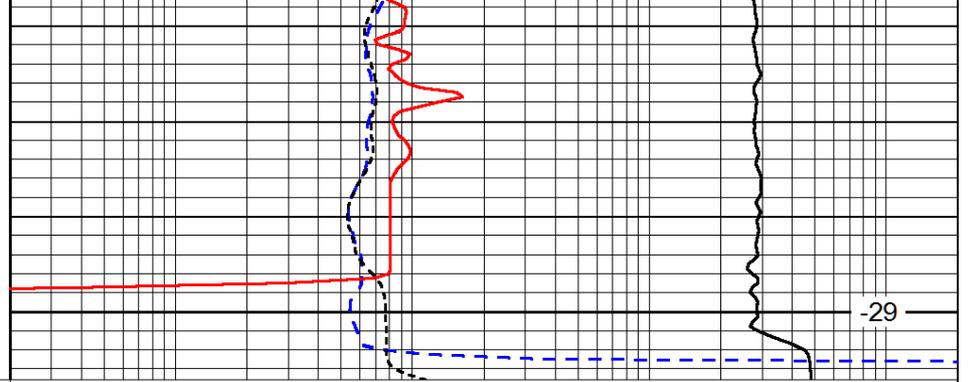
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-31



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

4600



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)