



Dual Induction Log

Pioneer Energy Services

API No.

15-163-24,104-00-00

Company Great Plains Energy, Inc.

Well Karr No. 1 - 17

Field Axelson Northeast

County Rocks State Kansas

Location N/2 NW SW SW
1090' FSL & 330' FWL

Sec: 17 Twp: 7 S Rge: 18 W

Permanent Datum Ground Level Elevation 1932

Log Measured From Kelly Bushing 5 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Other Services
CNL/CDL
MEL

Elevation
K.B. 1937
D.F. 1932
G.L. 1932

Date 3/16/2013

Run Number One

Depth Driller 3458

Depth Logger 3459

Bottom Logged Interval 3458

Top Log Interval 200

Casing Driller 8.625 @ 218

Casing Logger 217

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity,ppm CL 2100

Density / Viscosity 8.9 55

pH / Fluid Loss 11.0 6.4

Source of Sample Flowline

Rm @ Meas. Temp .65 @ 63

Rmf @ Meas. Temp .49 @ 63

Rmc @ Meas. Temp .88 @ 63

Source of Rmf / Rmc Charts

Rm @ BHT .37 @ 111

Operating Rig Time 4 Hours

Max Rec. Temp. F 111

Equipment Number 108

Location Hays

Recorded By D. Martin

Witnessed By Larry Nicholson

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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

Stockton, KS
3 W on Highway to Curve,
1 W on J Rd., 1/4 N, E Into

Database File: grplhd.db
Dataset Pathname: DIL/grplstk
Presentation Format: dil2in
Dataset Creation: Sat Mar 16 05:00:50 2013
Charted by: Depth in Feet scaled 1:600

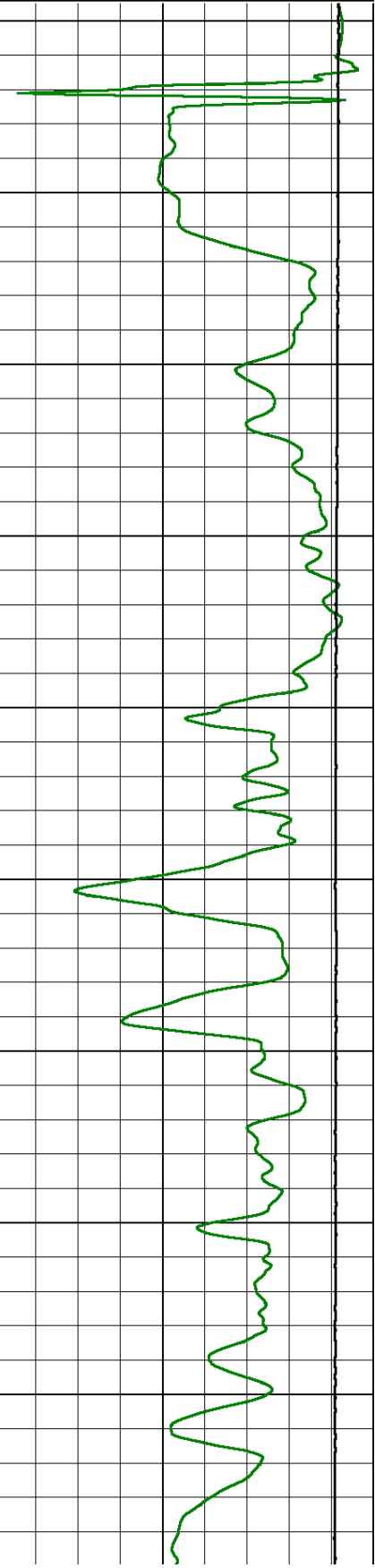
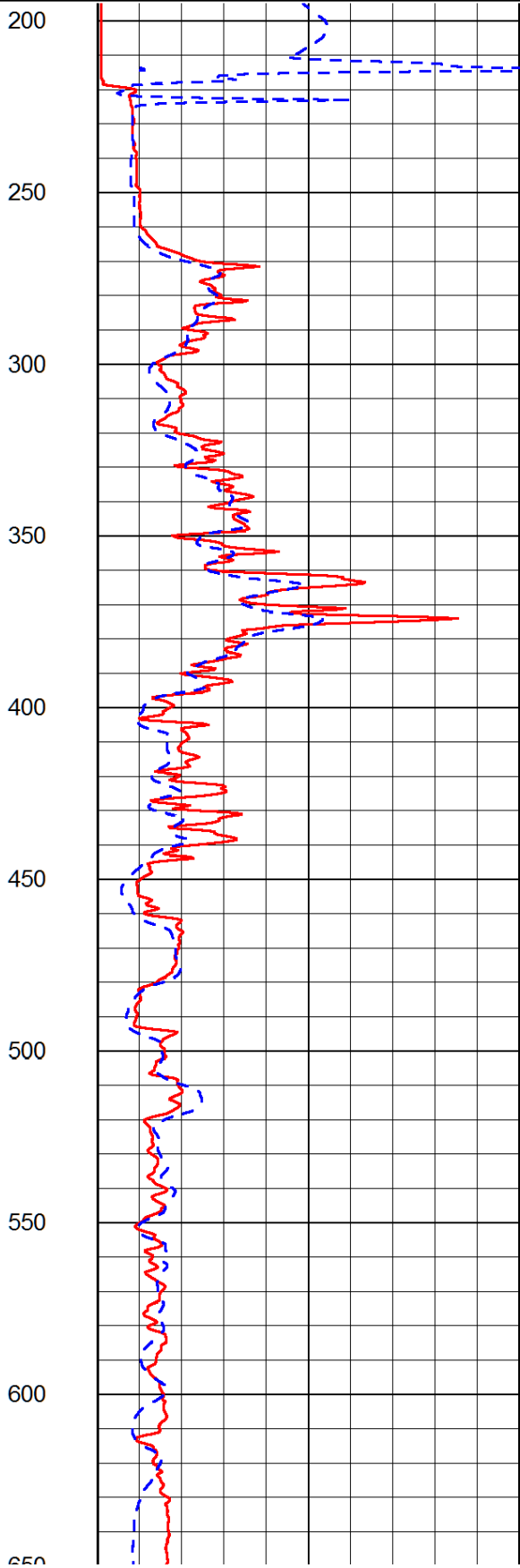
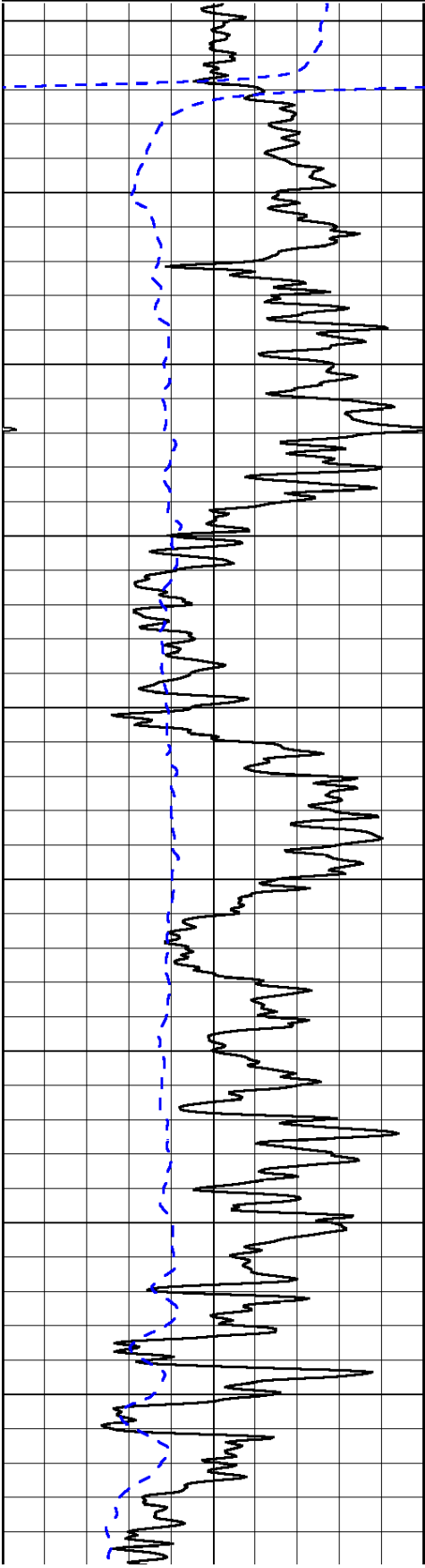
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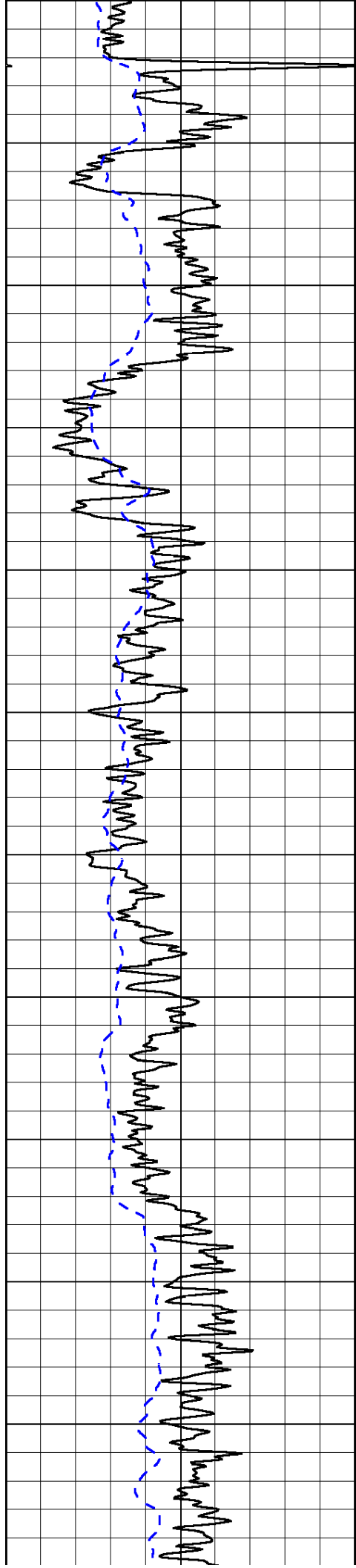
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

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

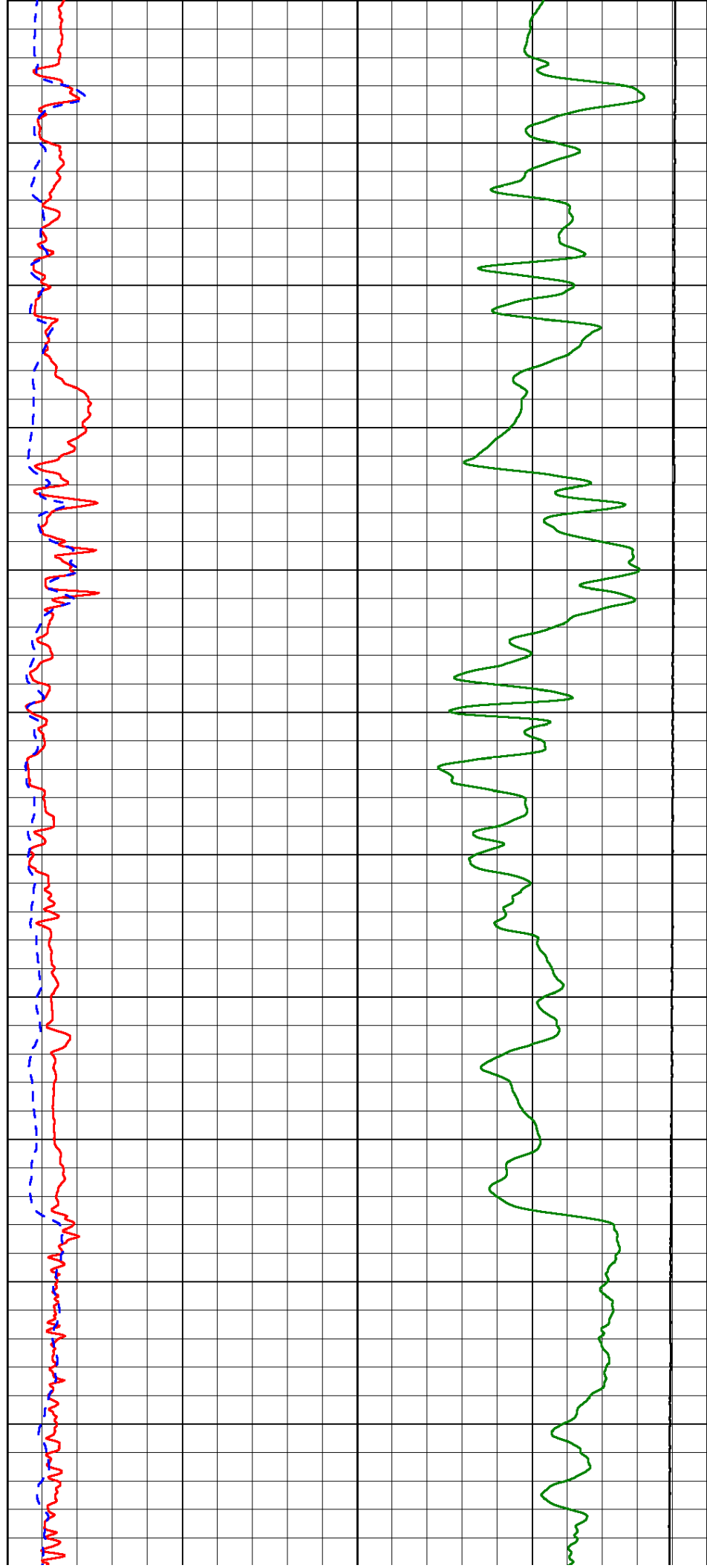
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0

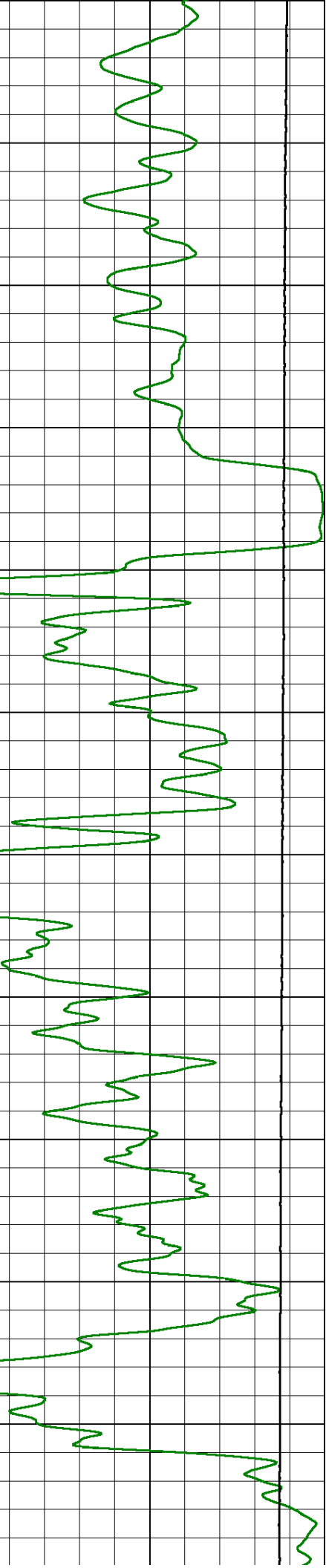
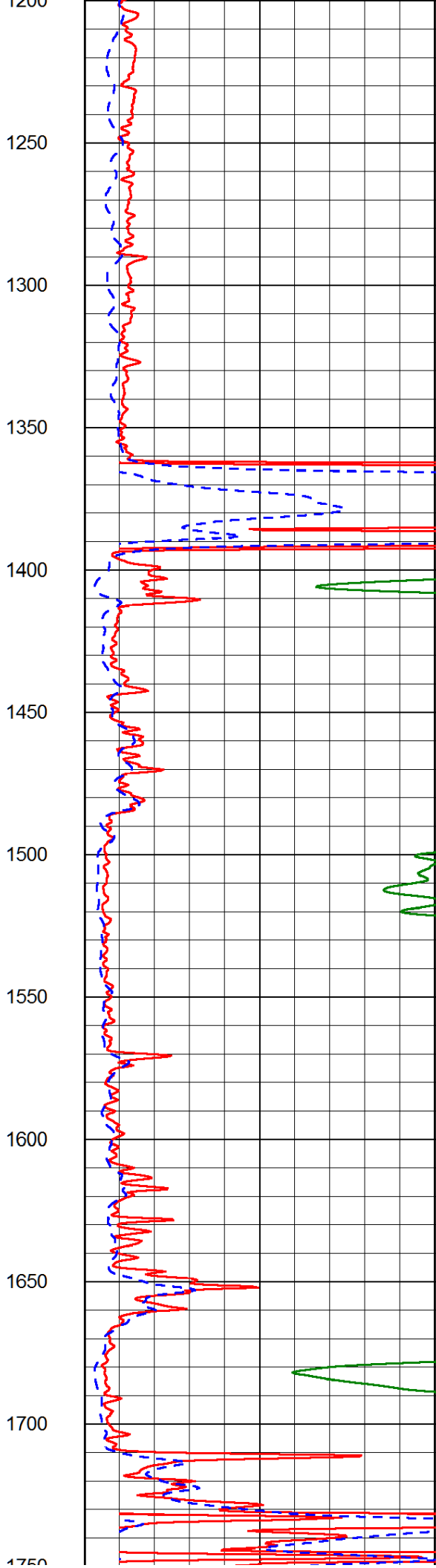
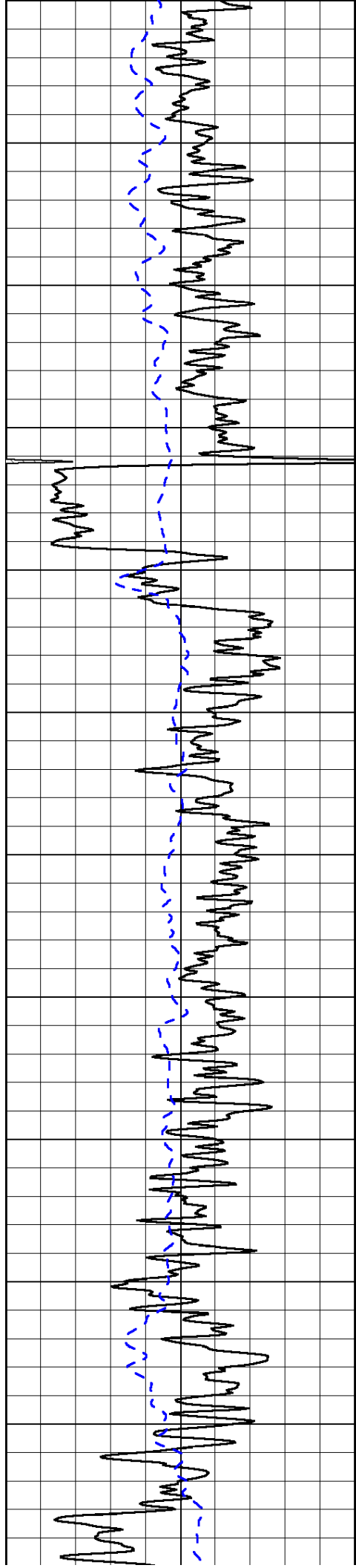
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

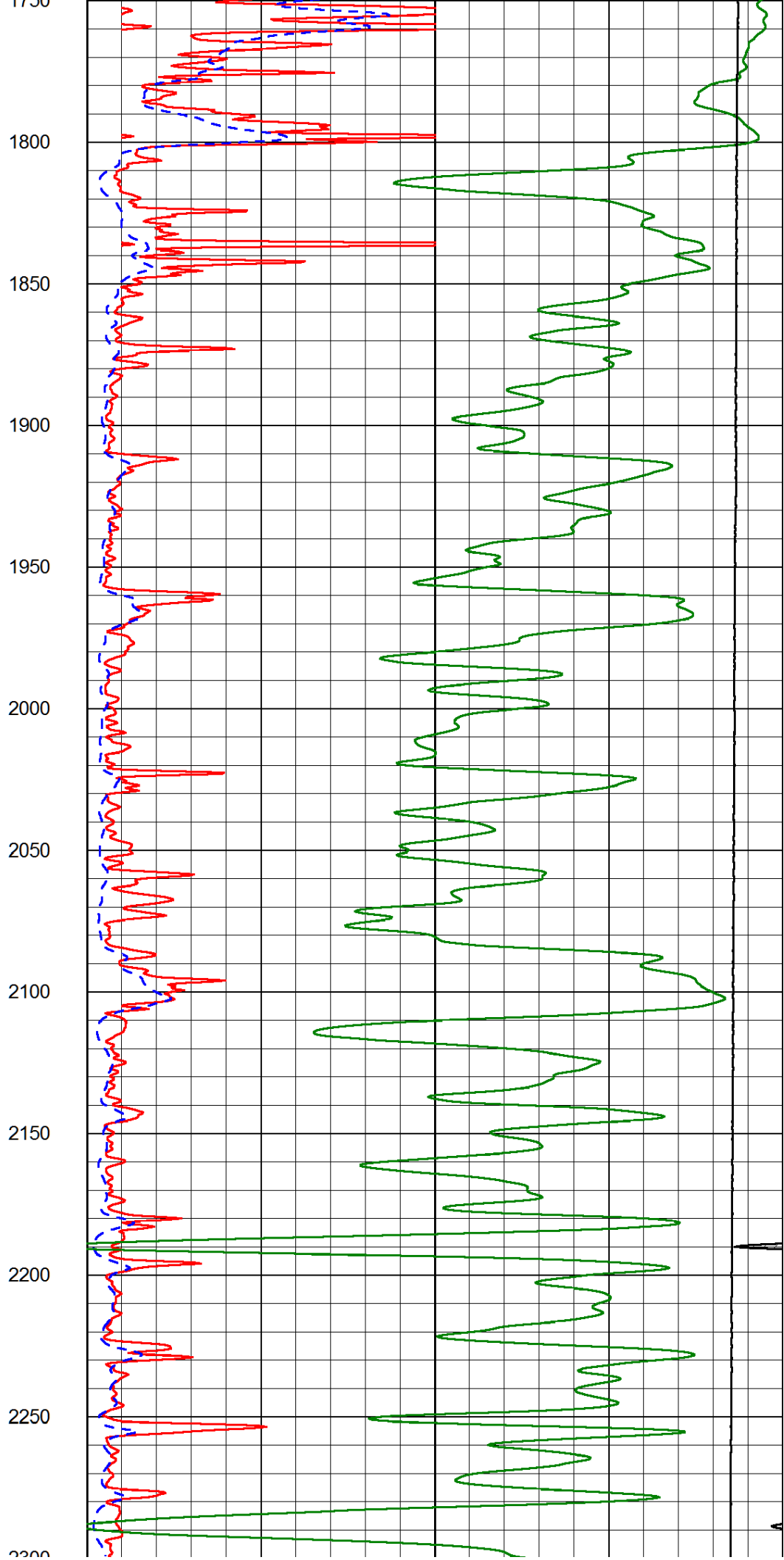
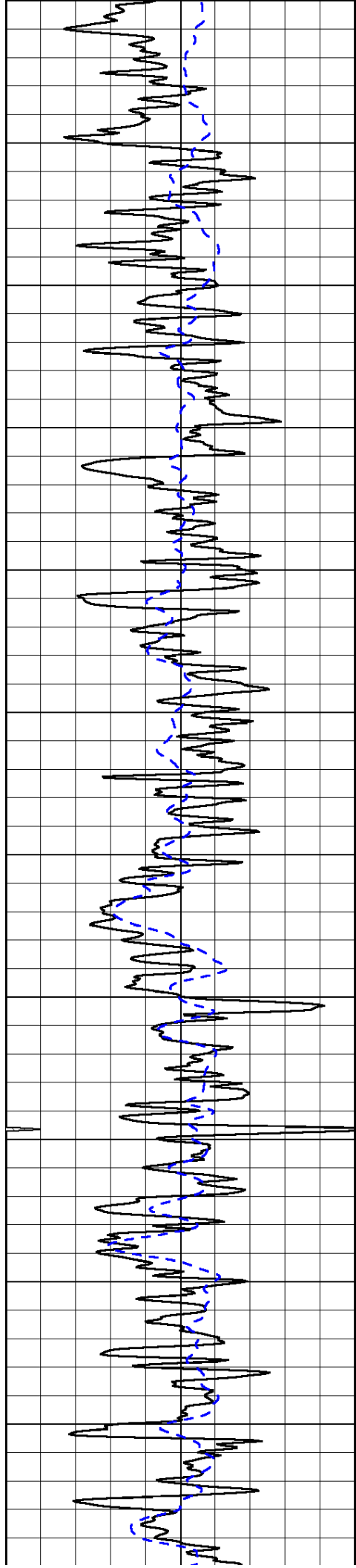


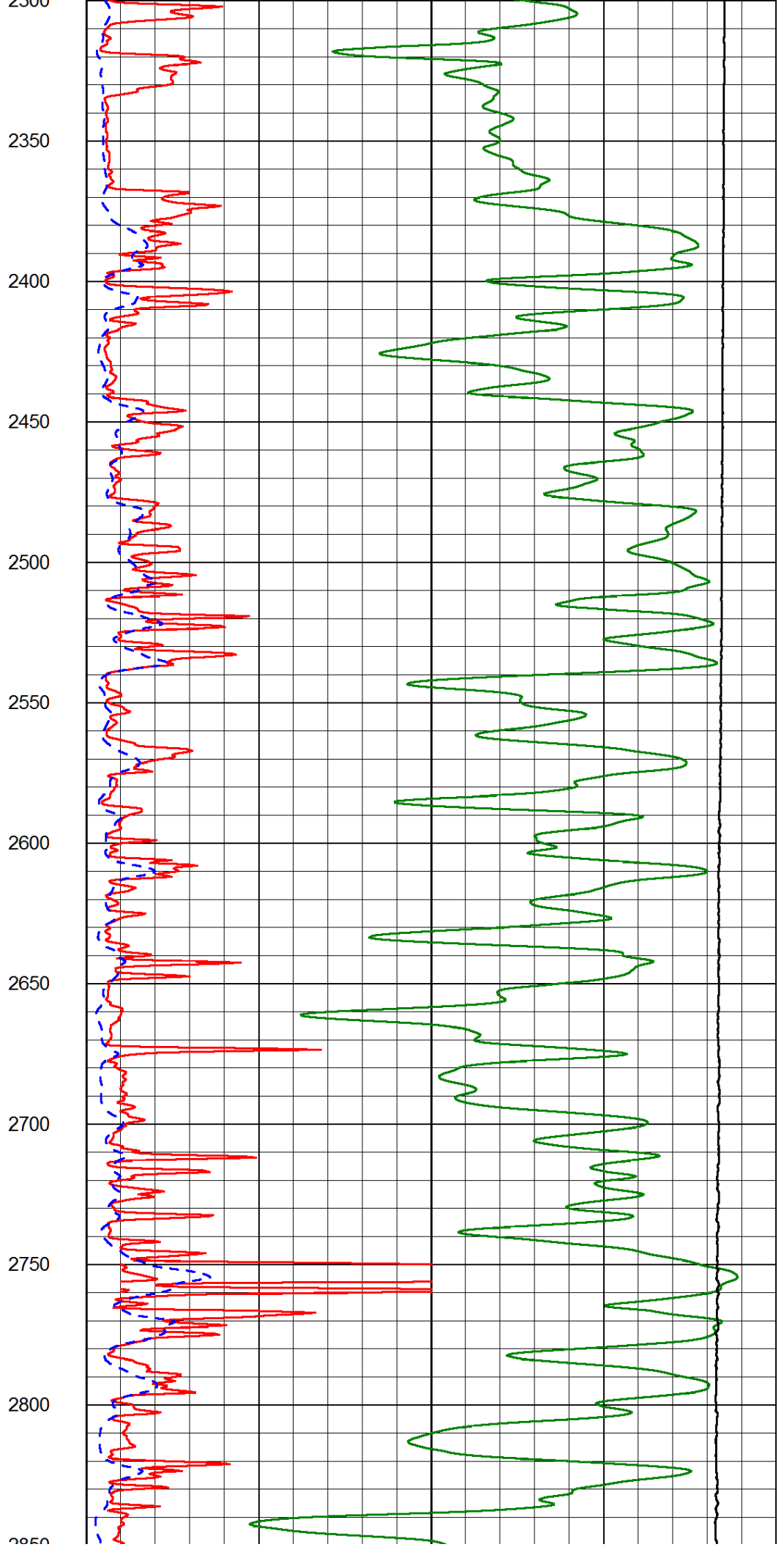


650 700 750 800 850 900 950 1000 1050 1100 1150 1200

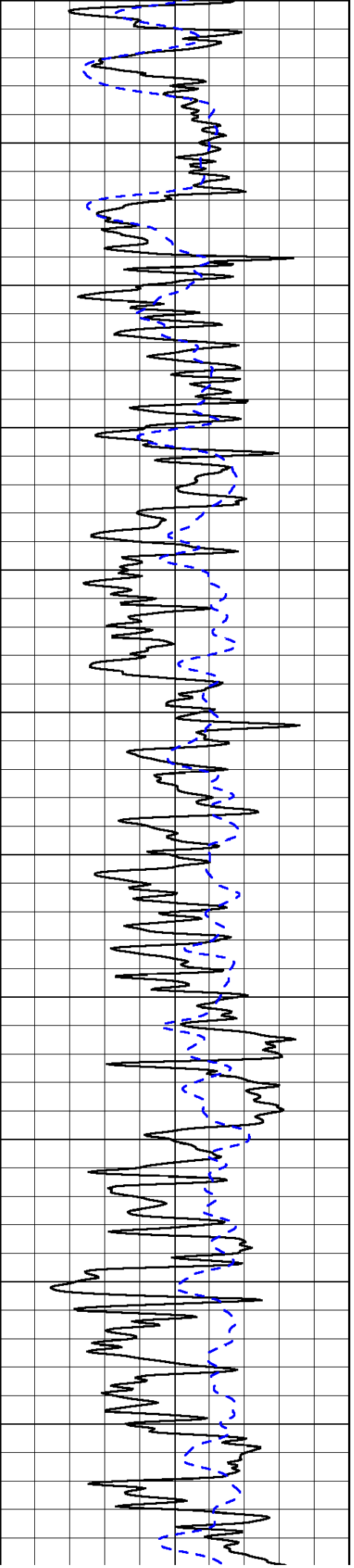


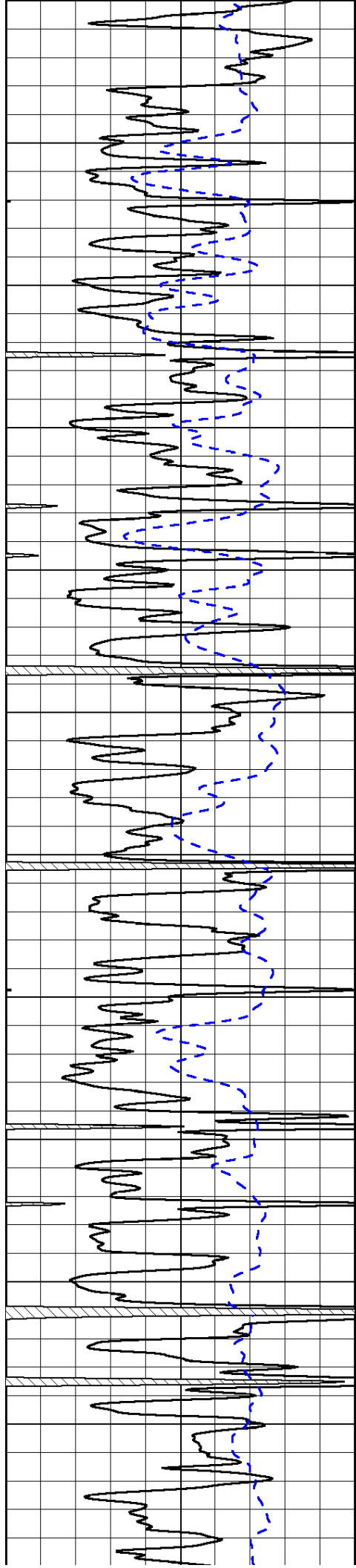




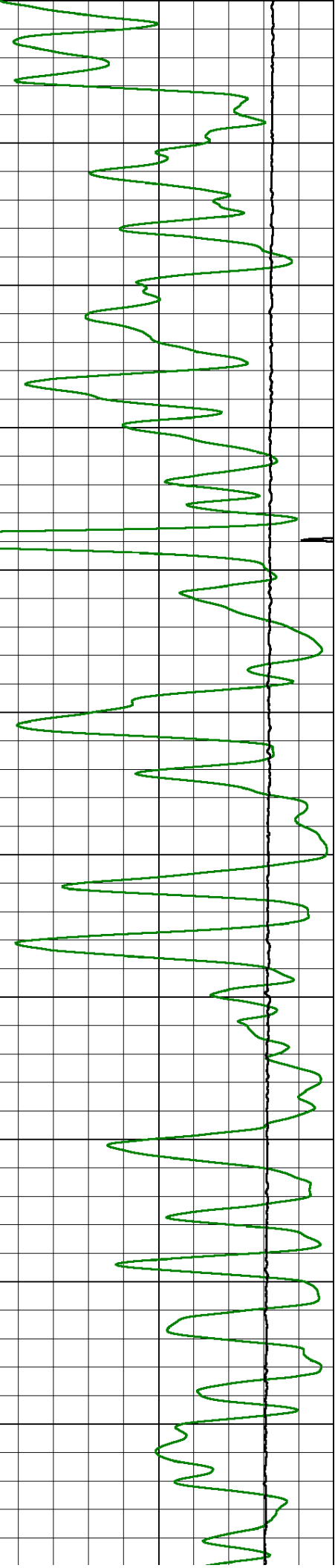
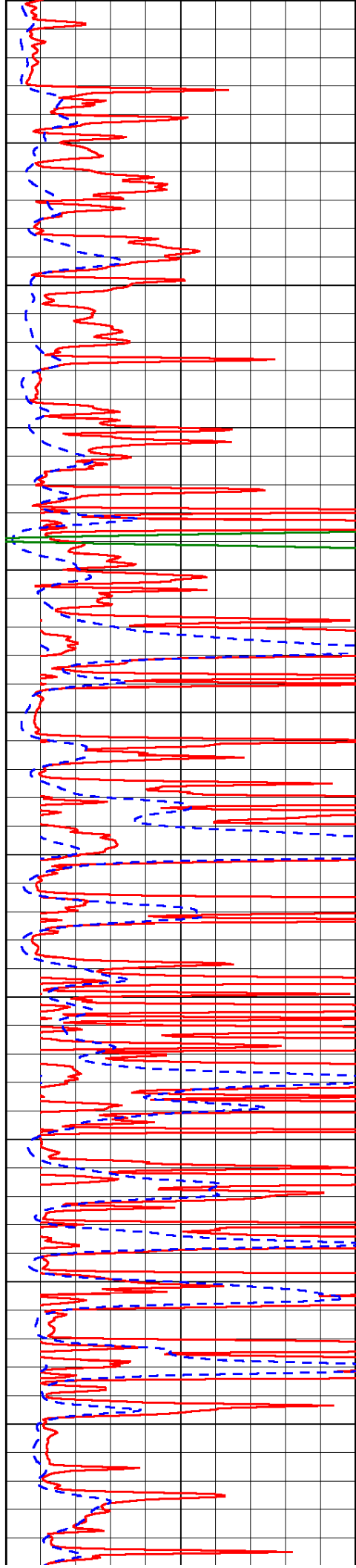


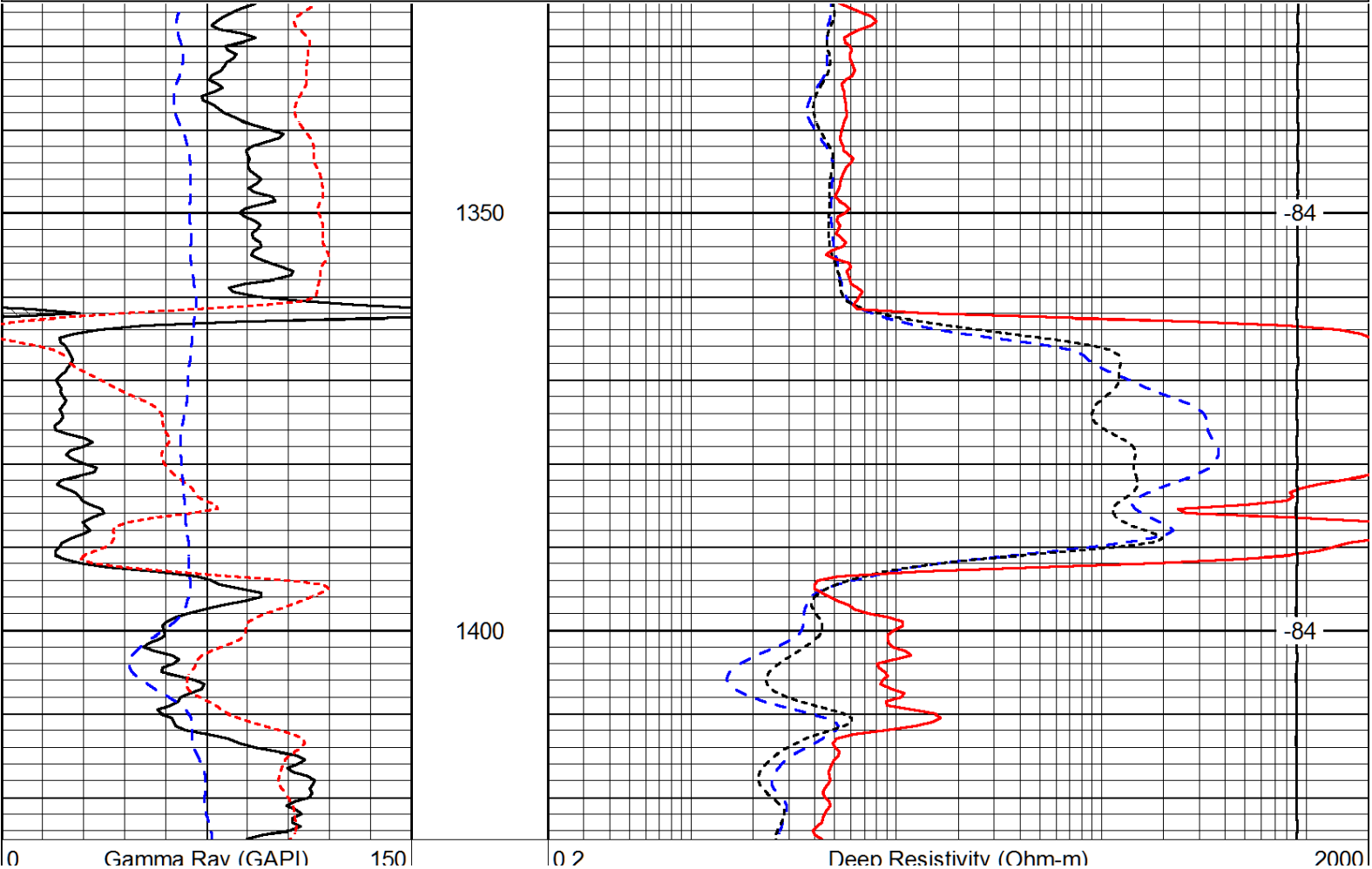
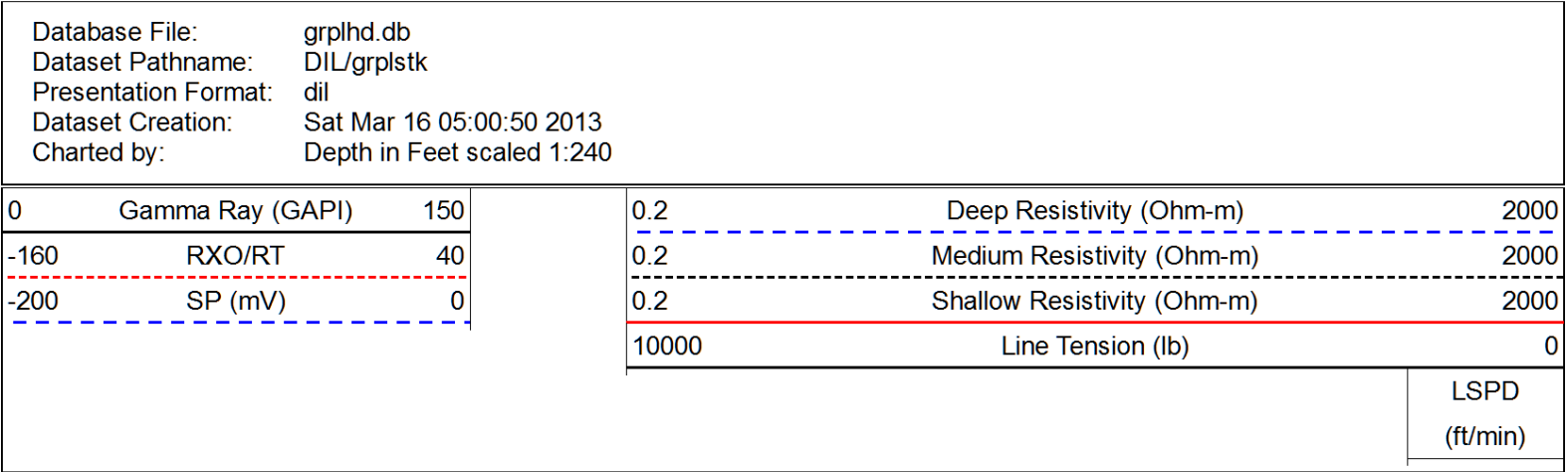
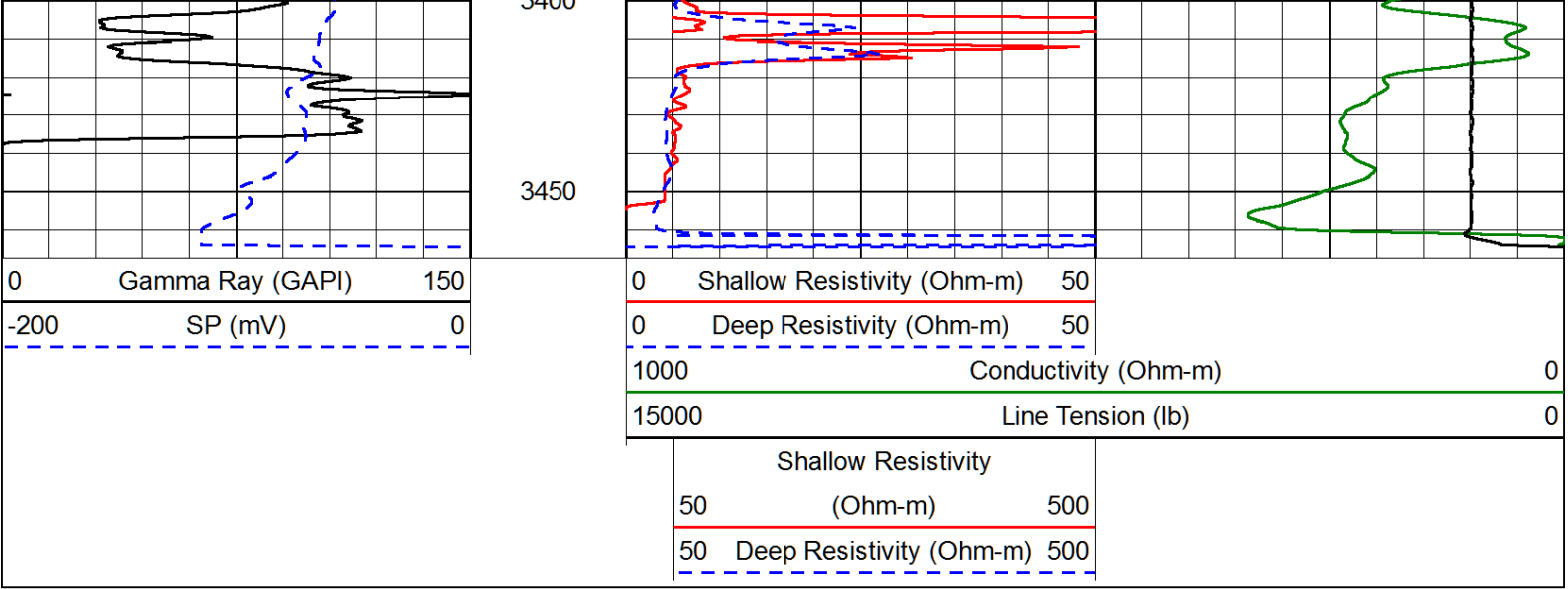
2300
2350
2400
2450
2500
2550
2600
2650
2700
2750
2800
2850





2850
2900
2950
3000
3050
3100
3150
3200
3250
3300
3350
3400

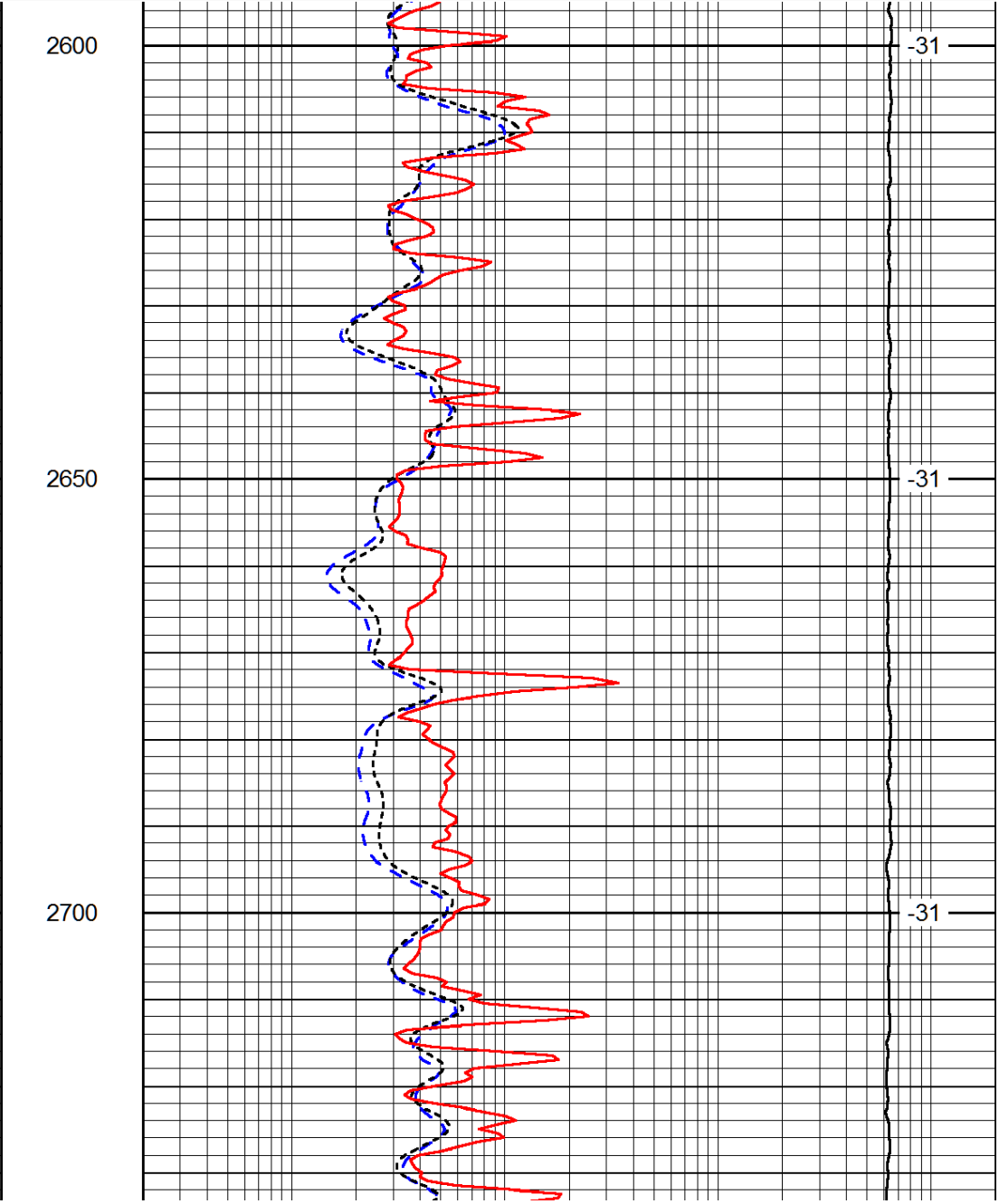
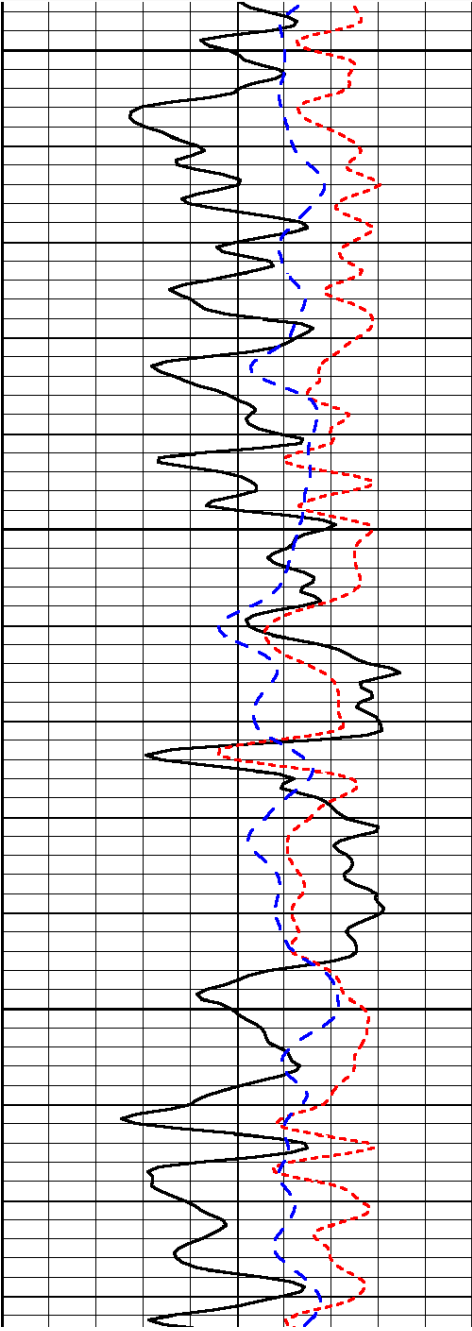


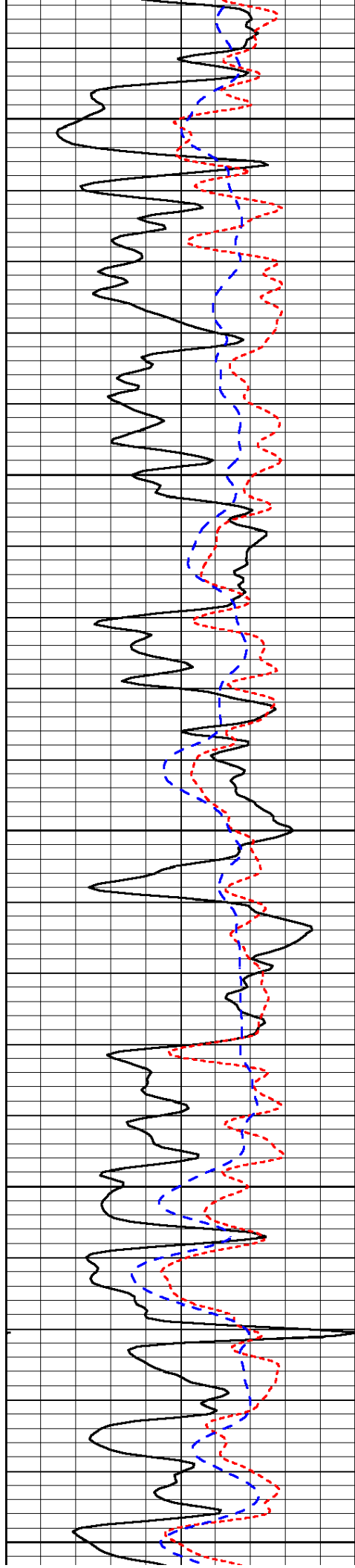


-160	RXO/RT	40
-200	SP (mV)	0

0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0
		LSPD (ft/min)

Database File: grplhd.db					
Dataset Pathname: DIL/grplstk					
Presentation Format: dil					
Dataset Creation: Sat Mar 16 05:00:50 2013					
Charted by: Depth in Feet scaled 1:240					
0	Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m)	2000
-160	RXO/RT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0
					LSPD (ft/min)





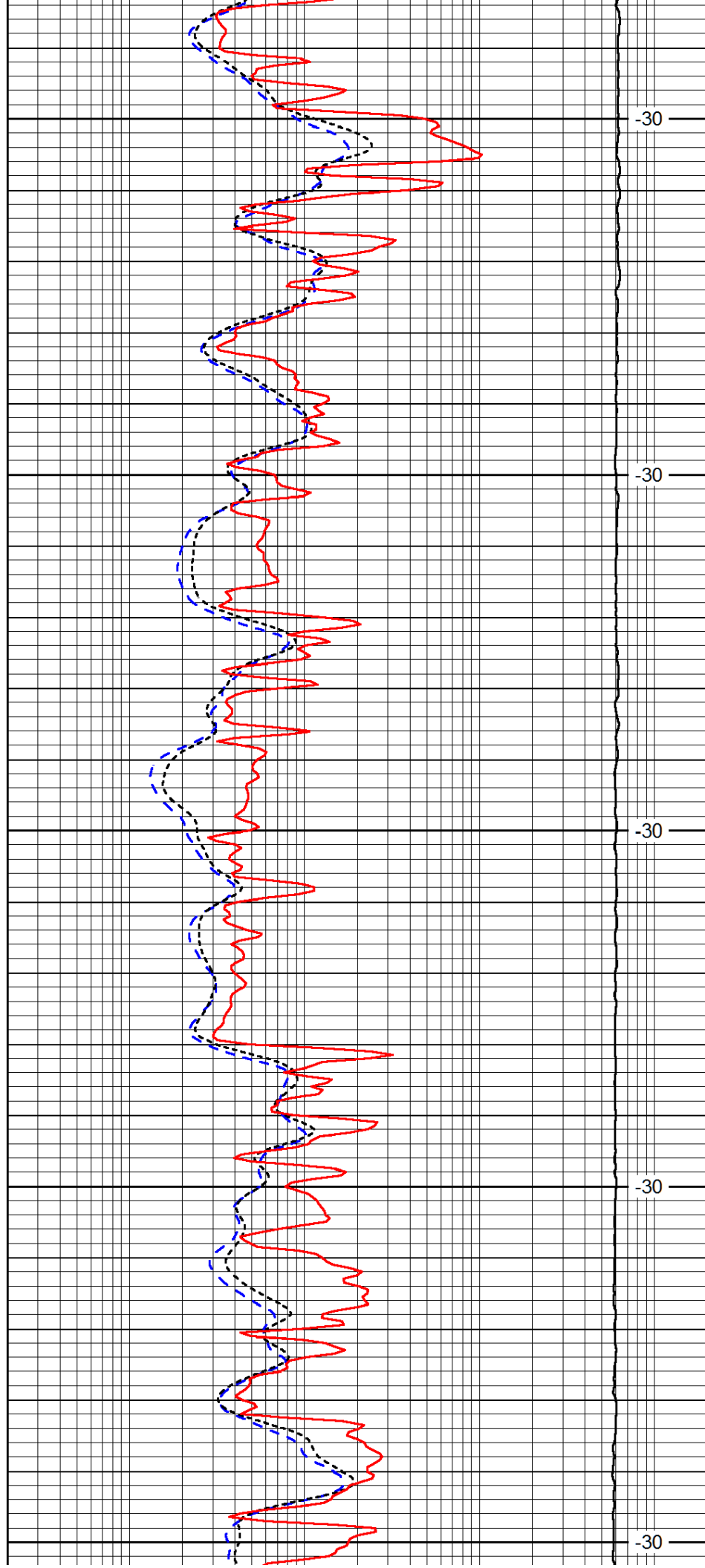
2750

2800

2850

2900

2950



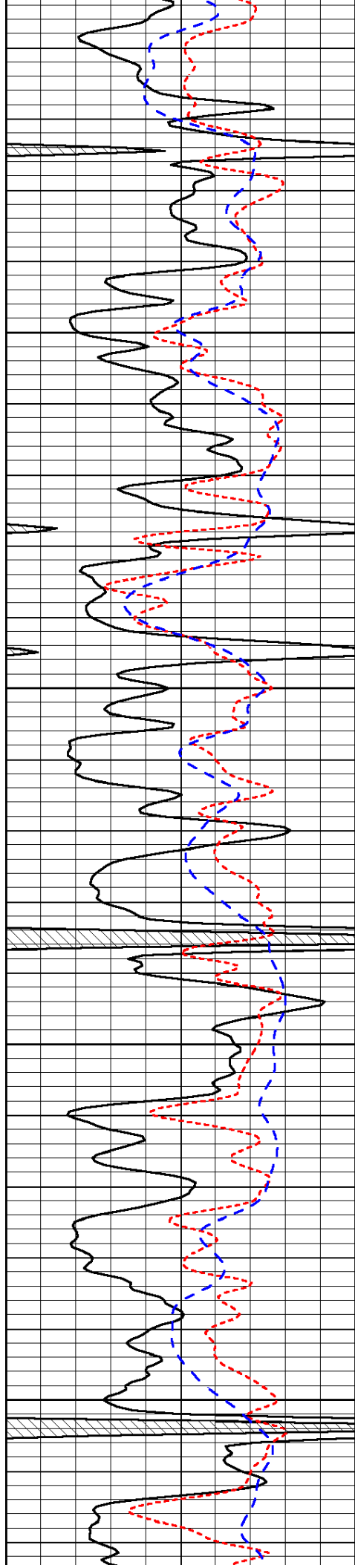
-30

-30

-30

-30

-30

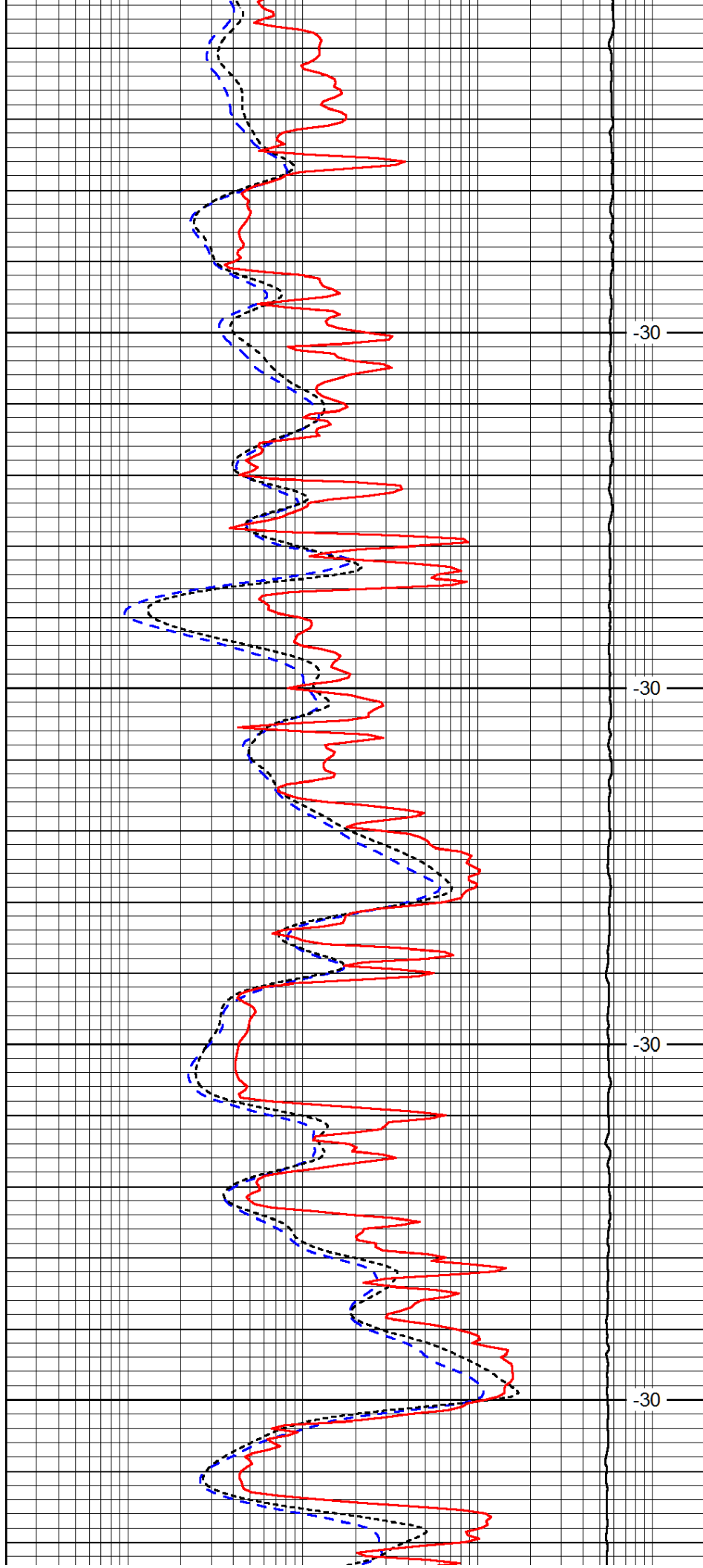


3000

3050

3100

3150

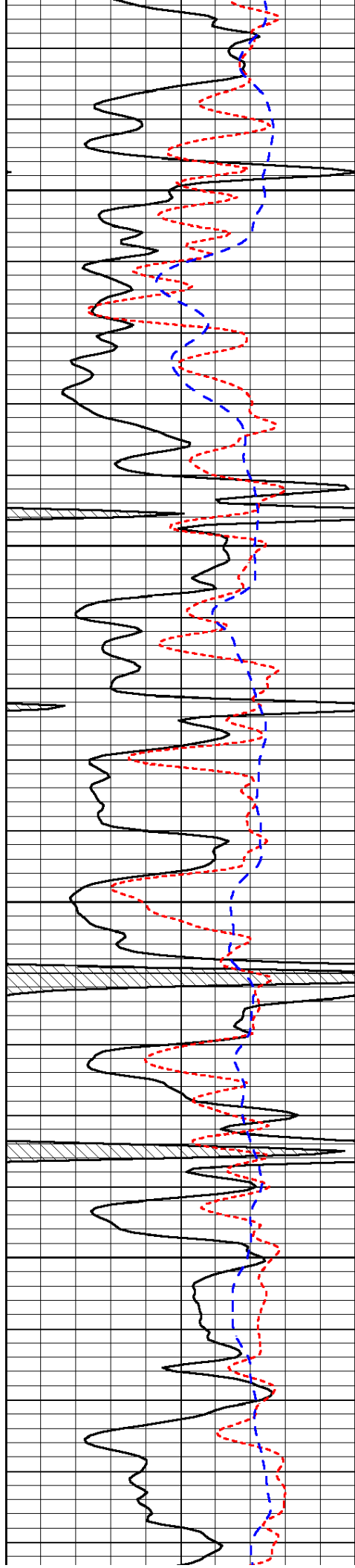


-30

-30

-30

-30

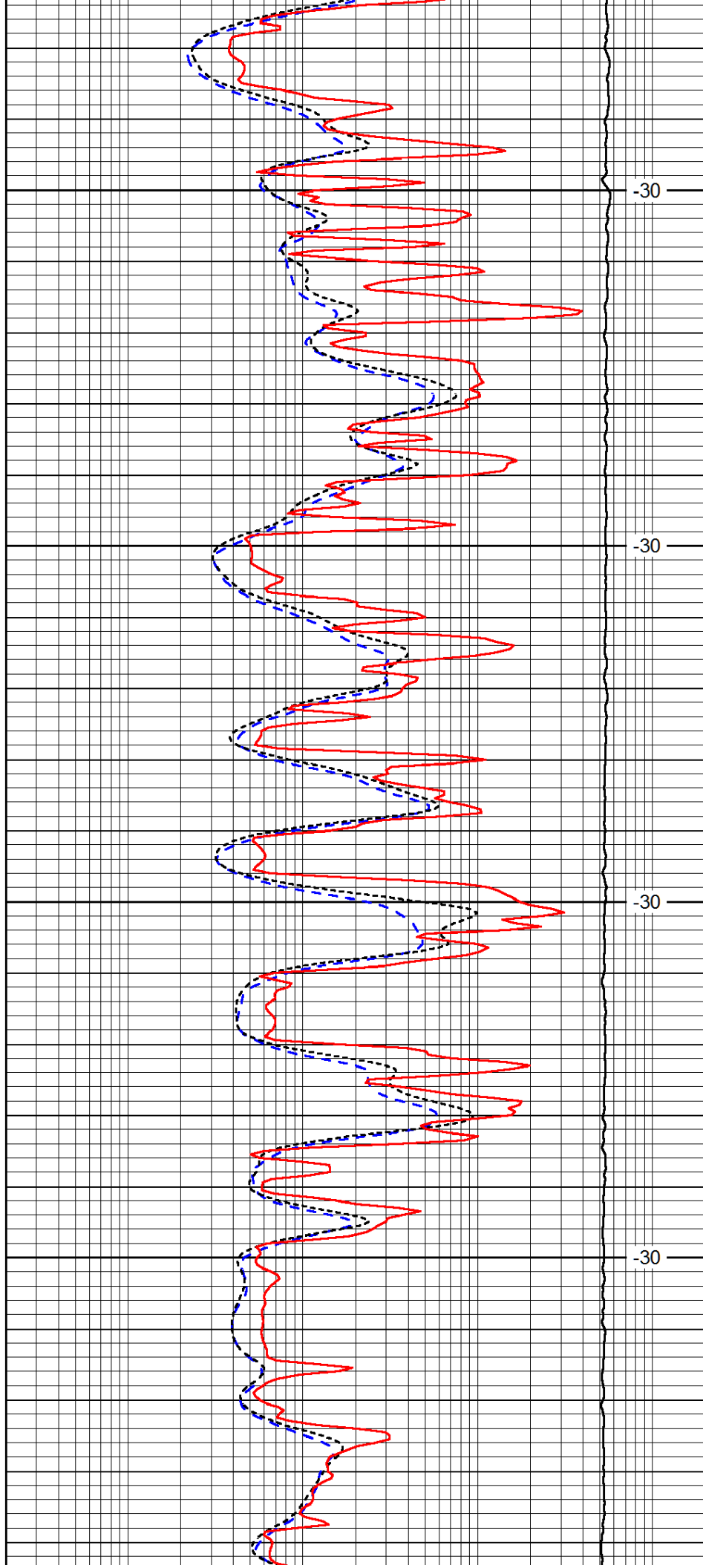


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3250

3300

3350

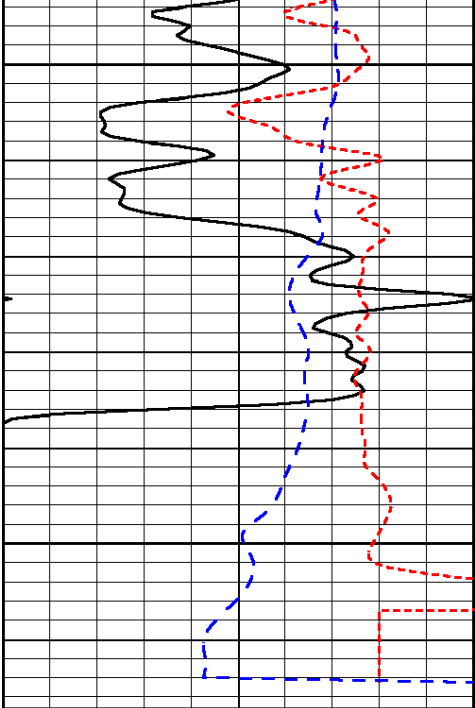


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-30

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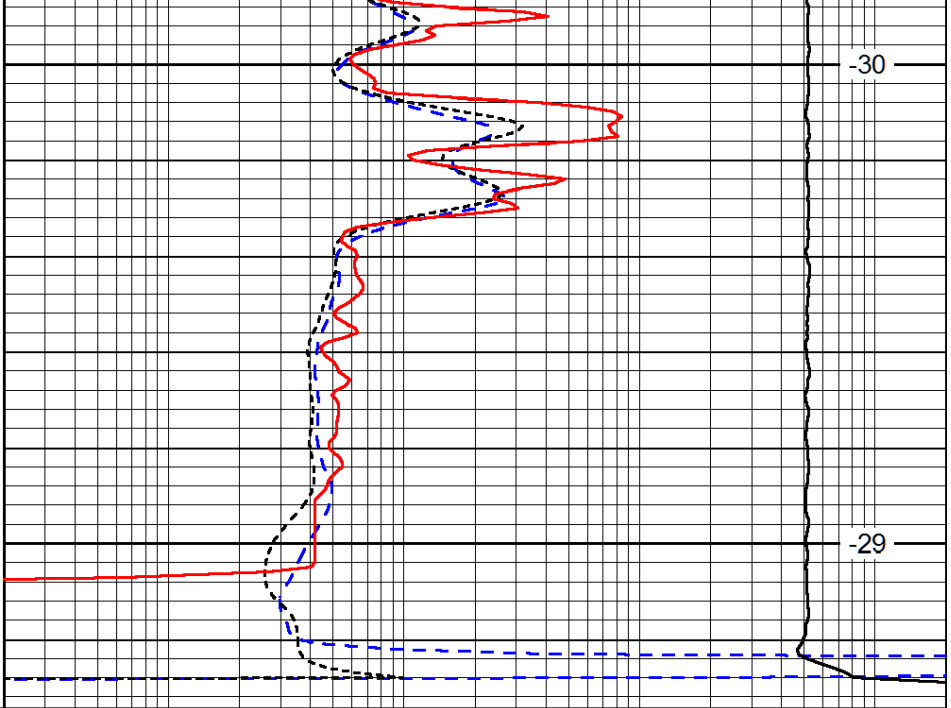
-30



3400

3450

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



-30

-29

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)