



Dual Induction Log

Pioneer Energy Services

API No.

15-055-22,263-00-00

Company American Warrior, Inc.

Well Congdon No. 9-28

Field Congdon

County Finney State

Kansas

Location

1616' FSL & 1137' FEL

Other Services
CNL/CDL
MEI/BHCS

Sec: 28 Twp: 23S Rge: 32W

Permanent Datum Ground Level Elevation 2845
Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Elevation

K.B. 2856
D.F. 2845
G.L. 2845

Date

1/19/13

Run Number

One

Depth Driller

4875

Depth Logger

4875

Bottom Logged Interval

4874

Top Log Interval

1150

Casing Driller

8.625 @ 1156

Casing Logger

1155

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

3,200

Density / Viscosity

9.3 54

pH / Fluid Loss

10.5 7.2

Source of Sample

Flowline

Rm @ Meas. Temp

.90 @ 75

Rmf @ Meas. Temp

.68 @ 75

Rmc @ Meas. Temp

1.22 @ 75

Source of Rmf / Rmc

Charts

Rm @ BHT

.54 @ 125

Operating Rig Time

5 Hours

Max Rec. Temp. F

125

Equipment Number

108

Location

Hays

Recorded By

J. Henrickson

Witnessed By

Kevin Timson

<<< Fold Here >>>

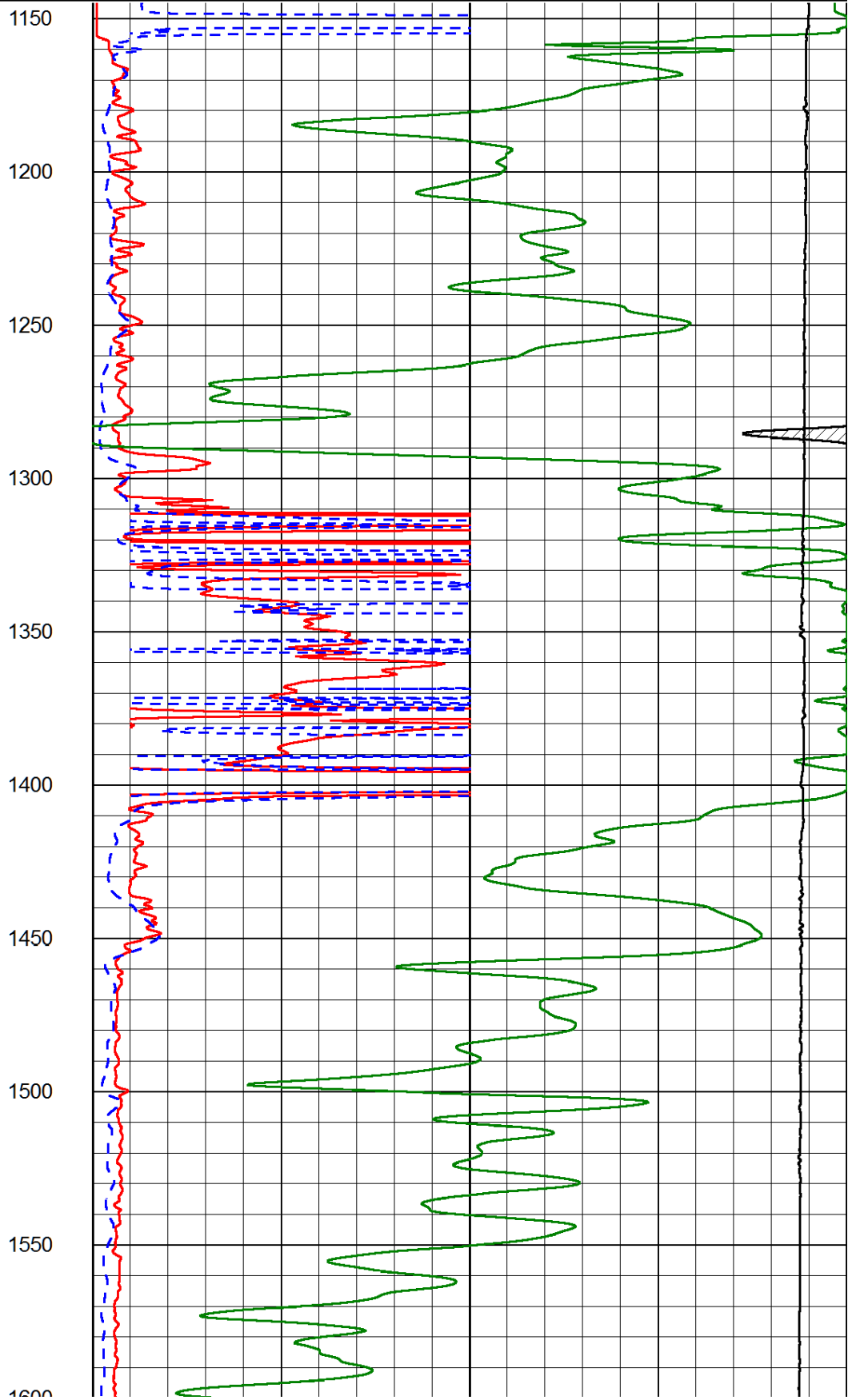
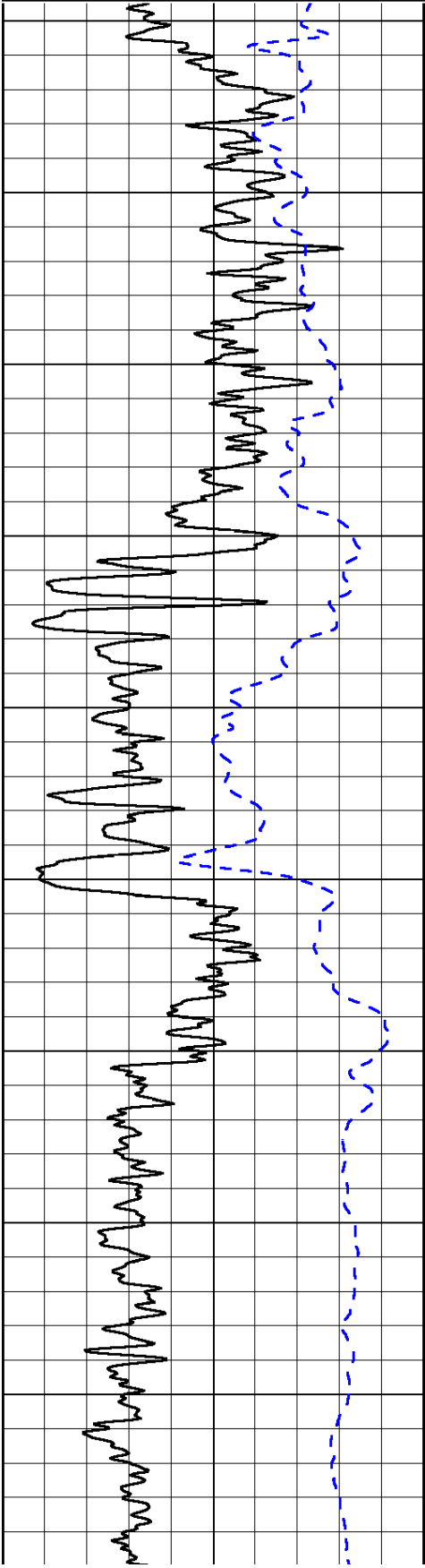
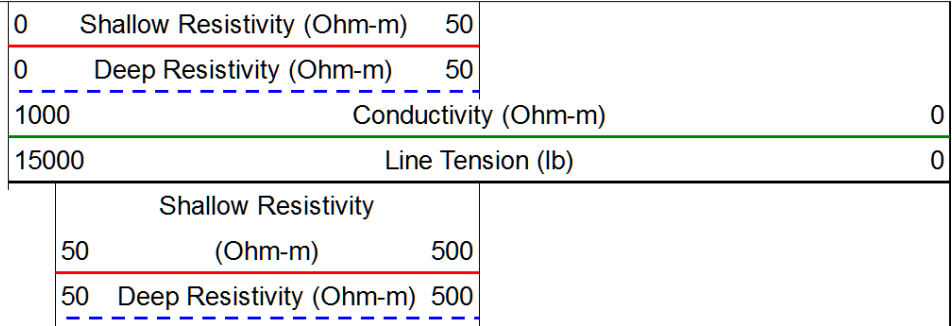
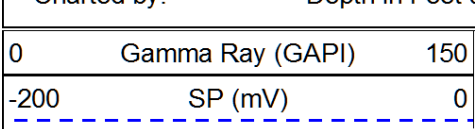
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

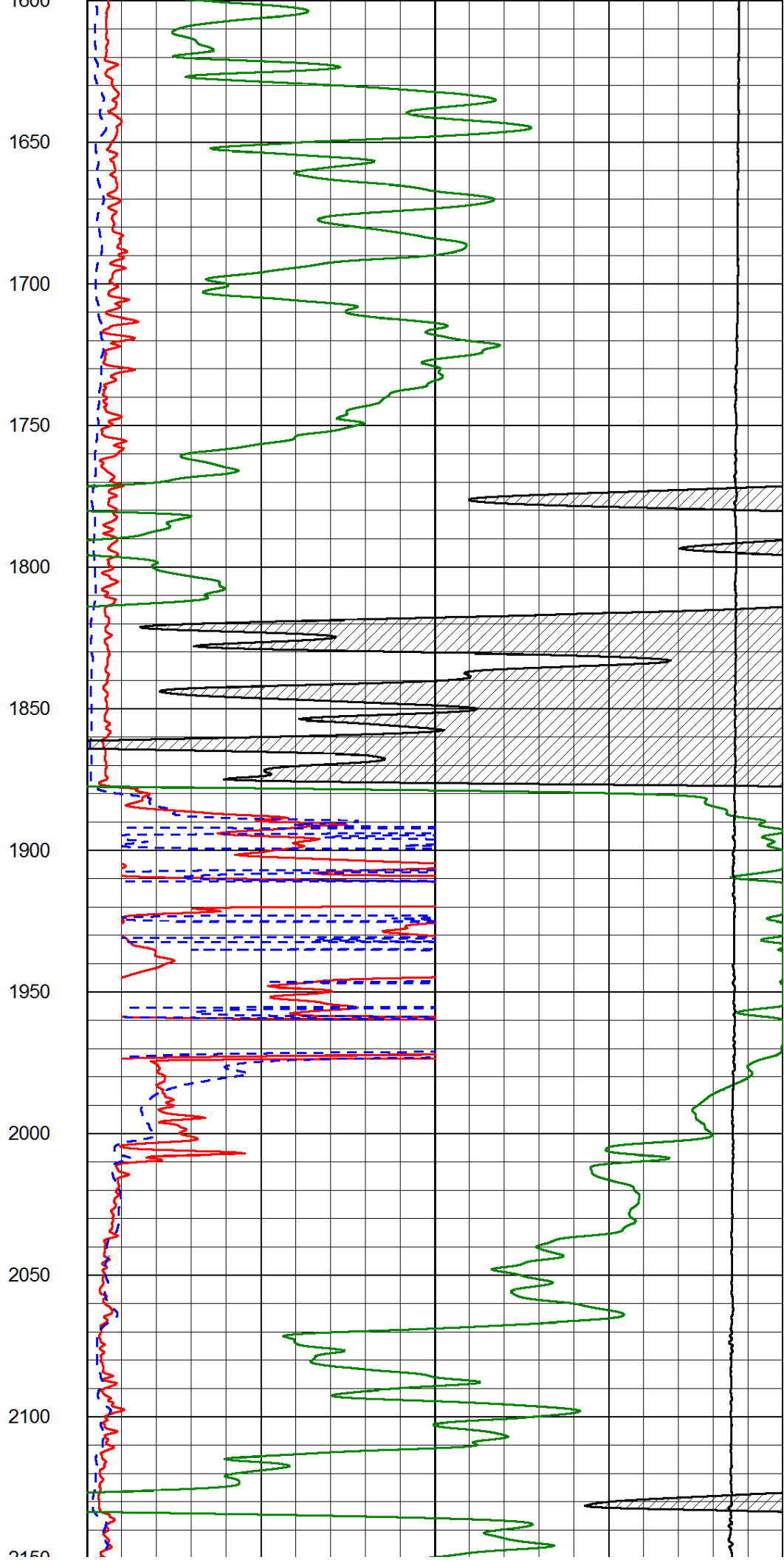
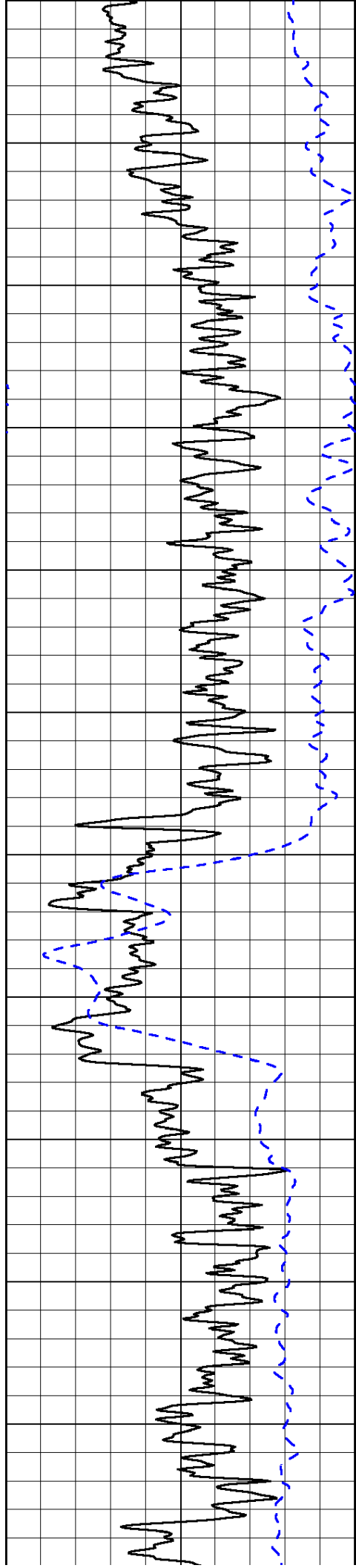
Comments

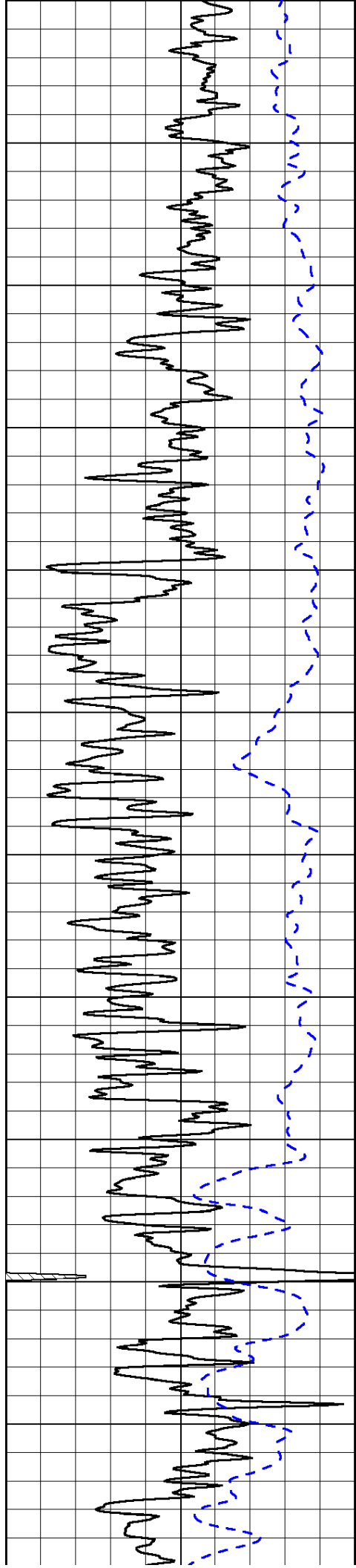
Thank you for using Log-Tech, Inc.
(785) 625-3858

Garden City Kansas
North to Rodkey Rd, 5 1/2 East, North Into

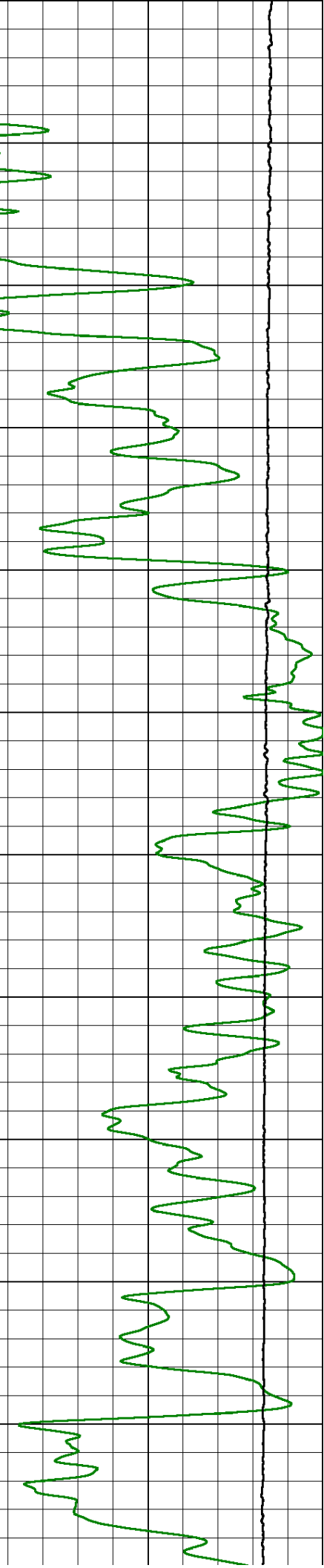
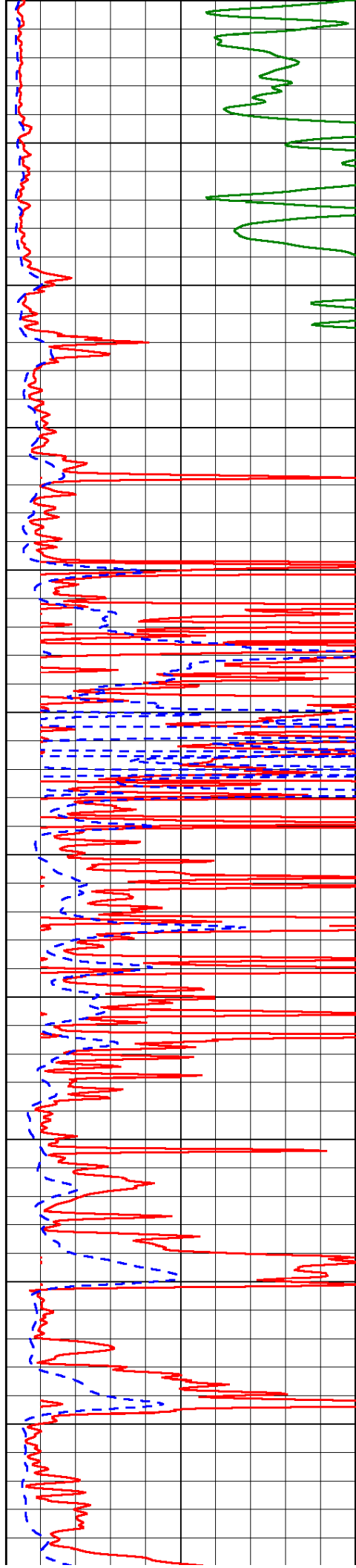
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Presentation Format: dil2in
Dataset Creation: Sun Jan 19 20:37:58 2014
Charted by: Depth in Feet scaled 1:600

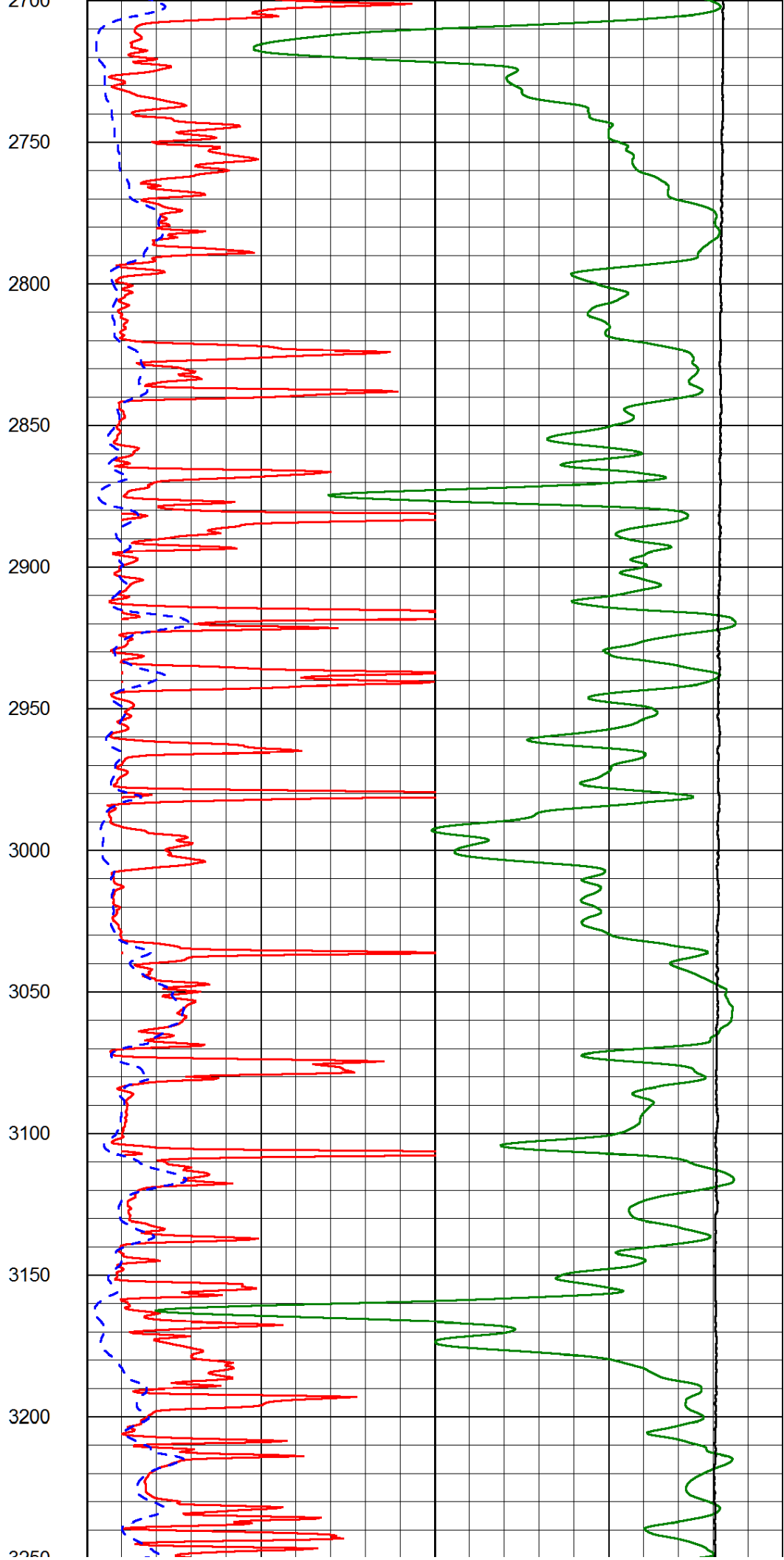
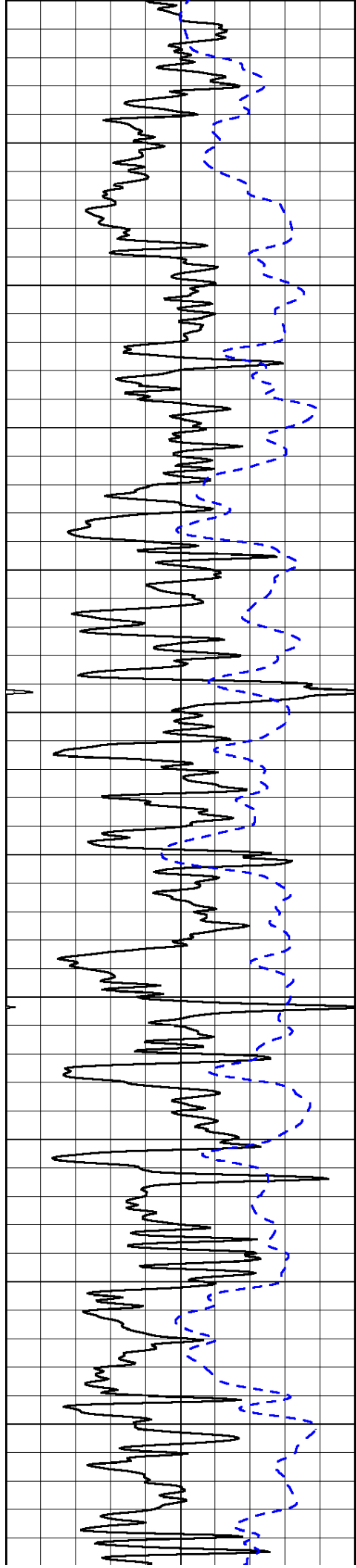


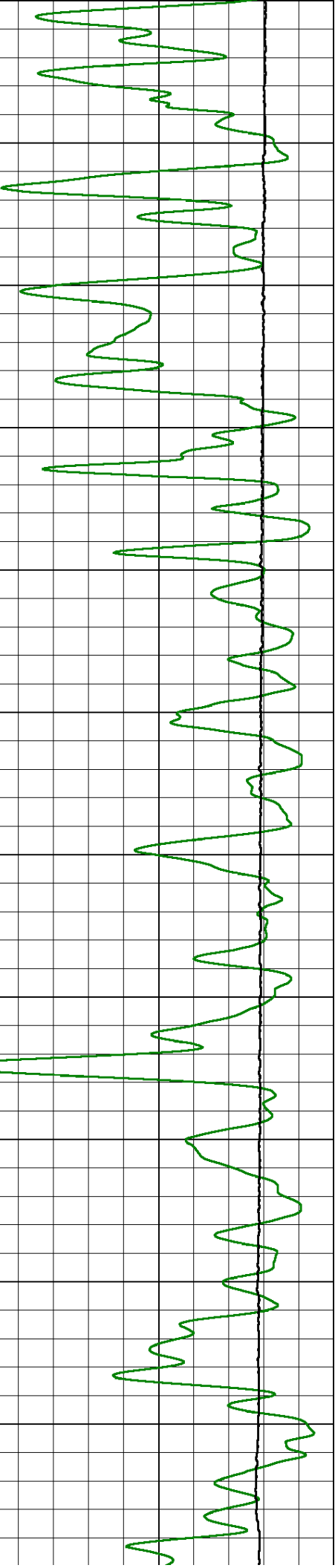
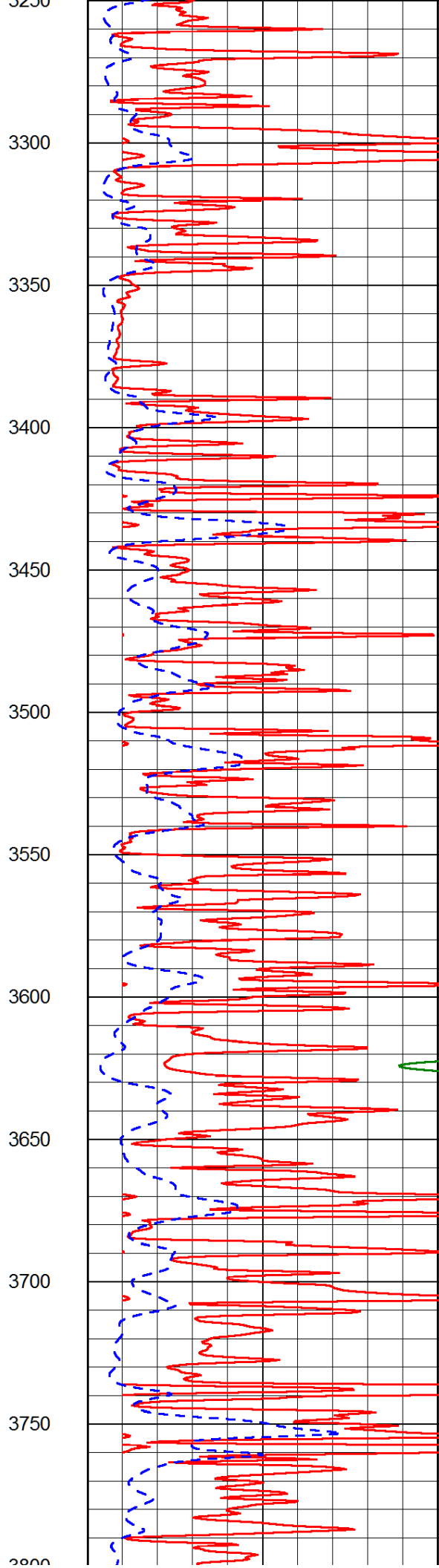
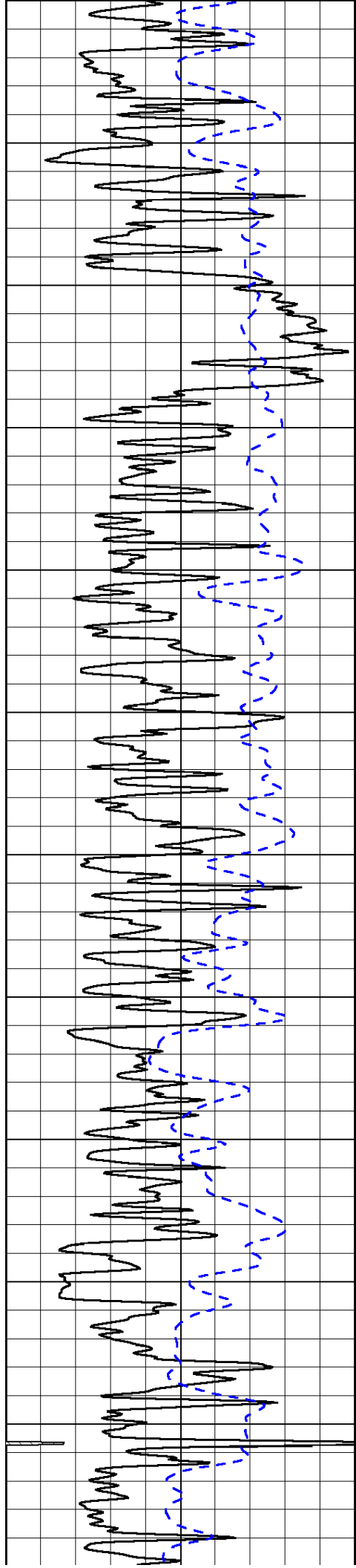


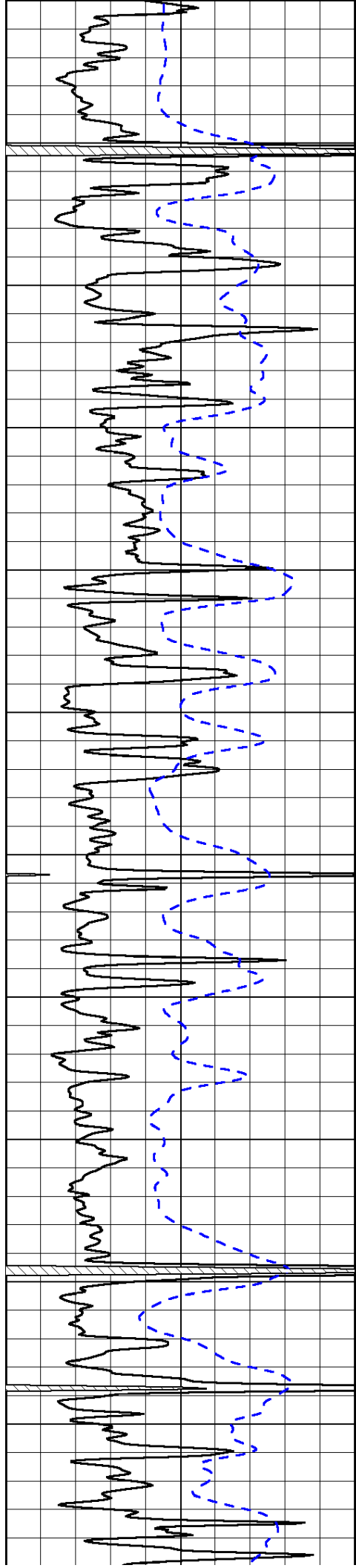


2150
2200
2250
2300
2350
2400
2450
2500
2550
2600
2650
2700

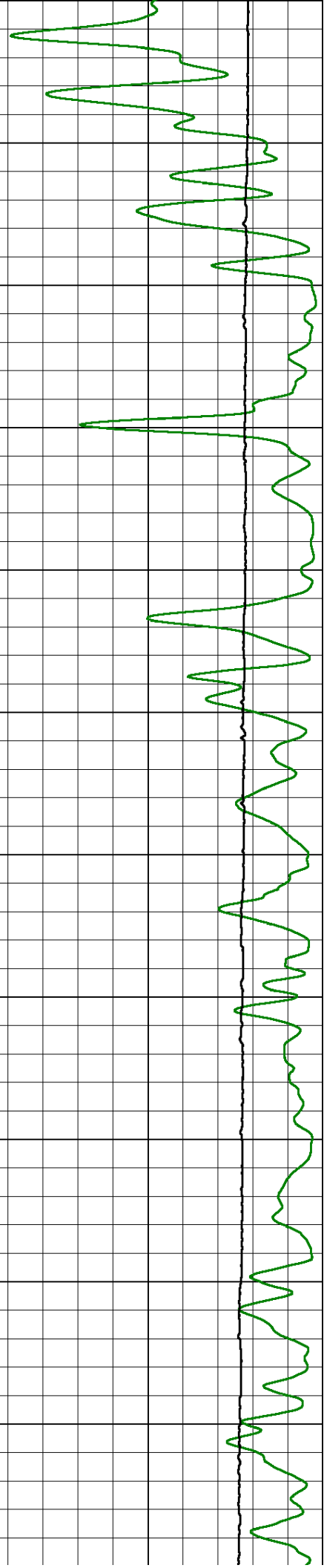
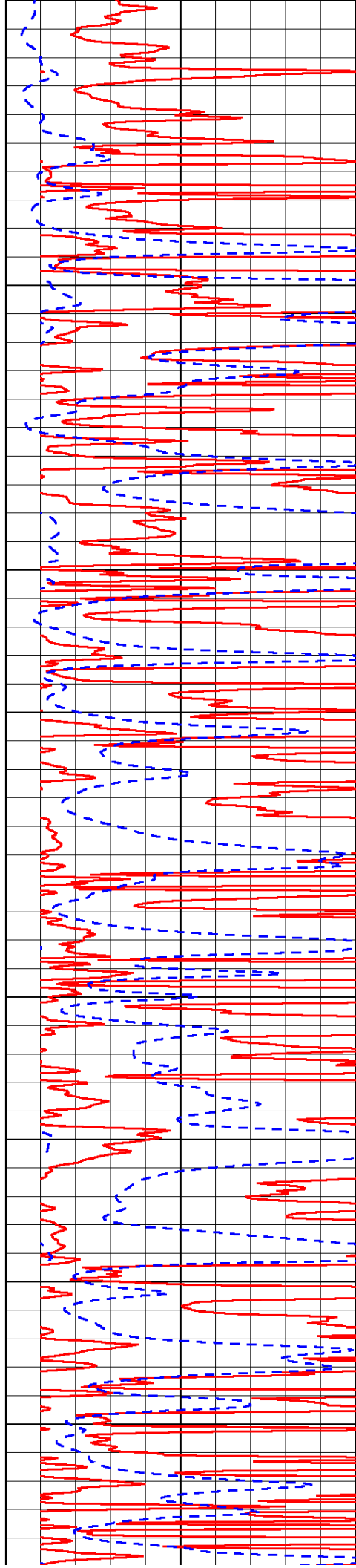


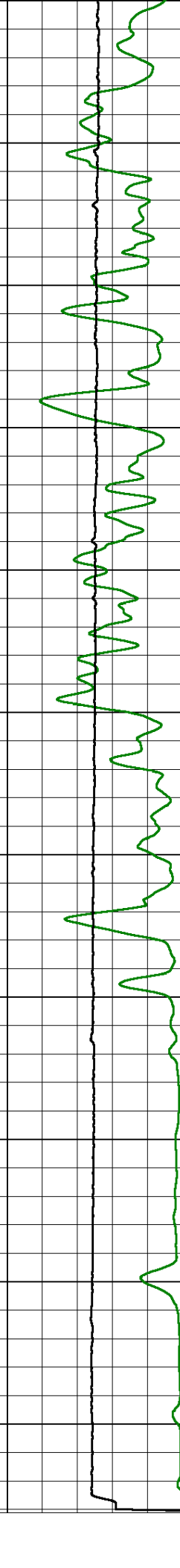
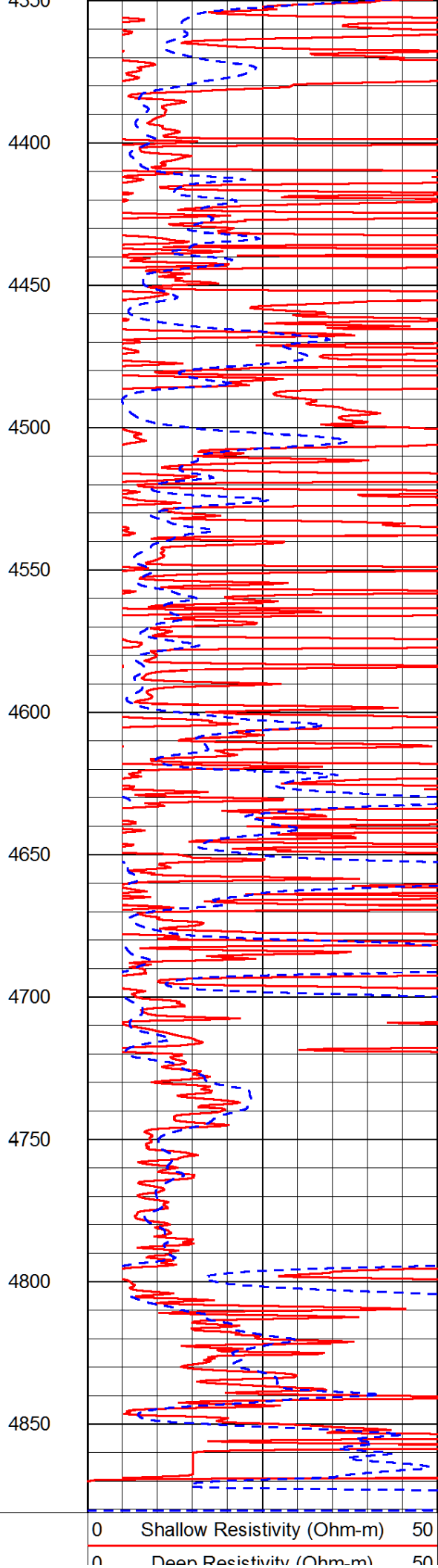
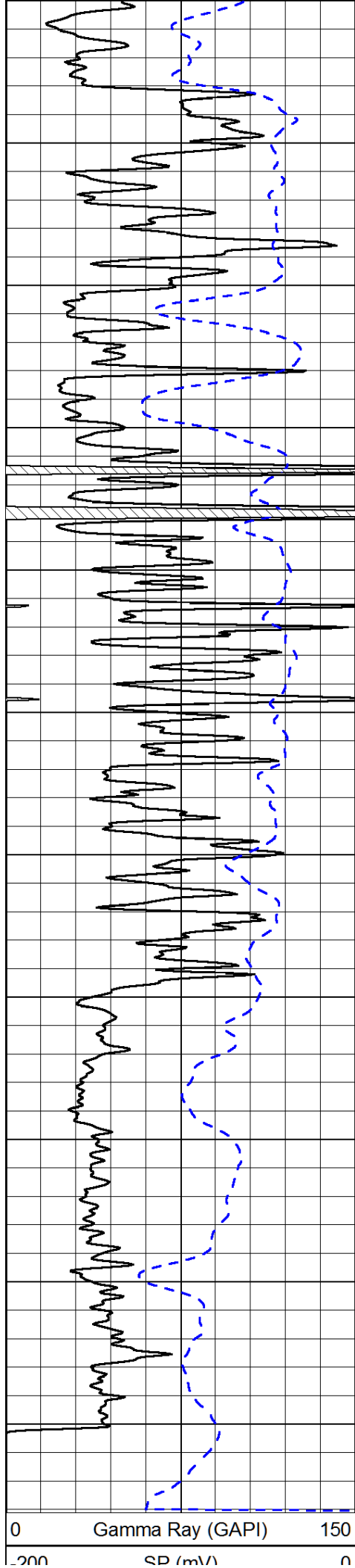






3800
3850
3900
3950
4000
4050
4100
4150
4200
4250
4300
4350





200	SP (mV)	0
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

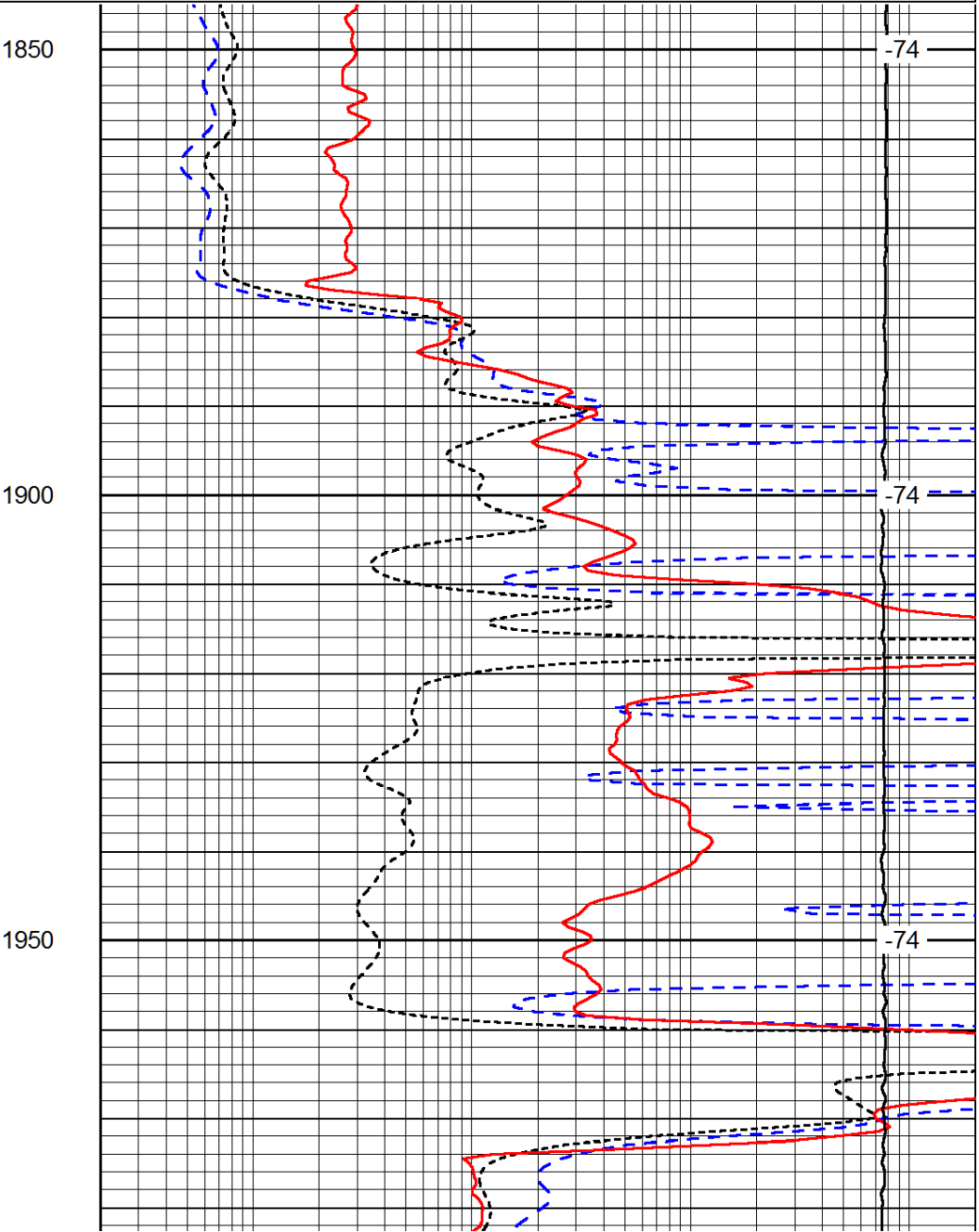
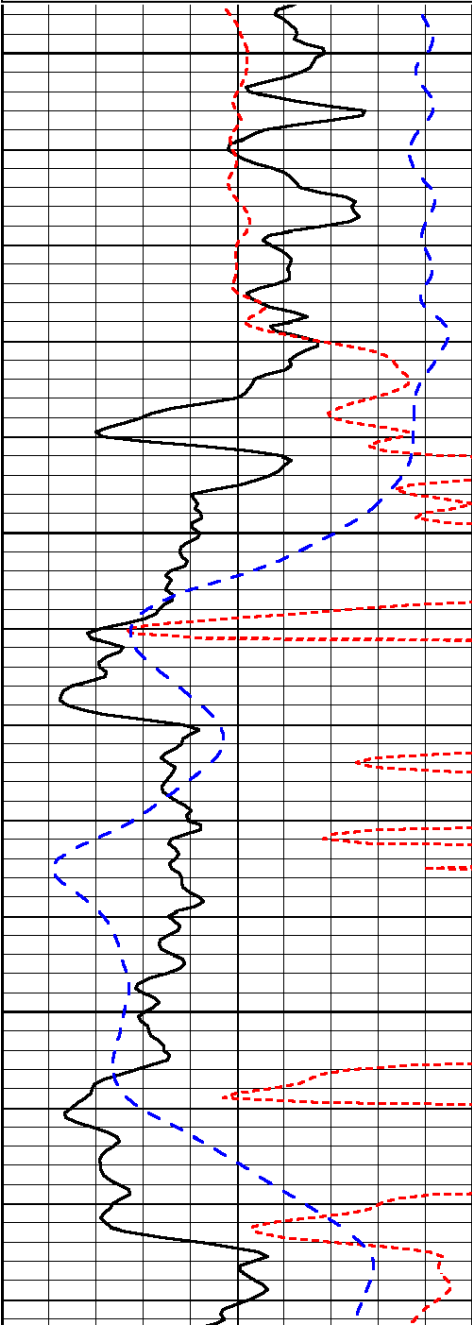
0	Deep Resistivity (Ohm-m)	500
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

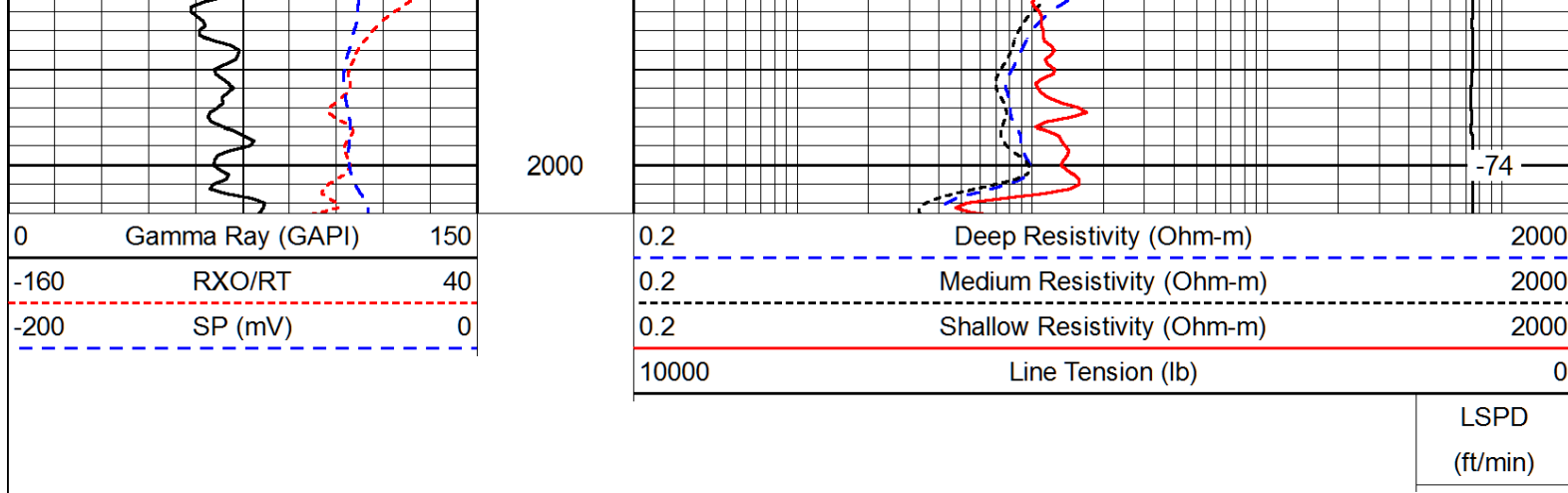
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Presentation Format:	dil
Dataset Creation:	Sun Jan 19 20:37:58 2014
Charted by:	Depth in Feet scaled 1:240

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

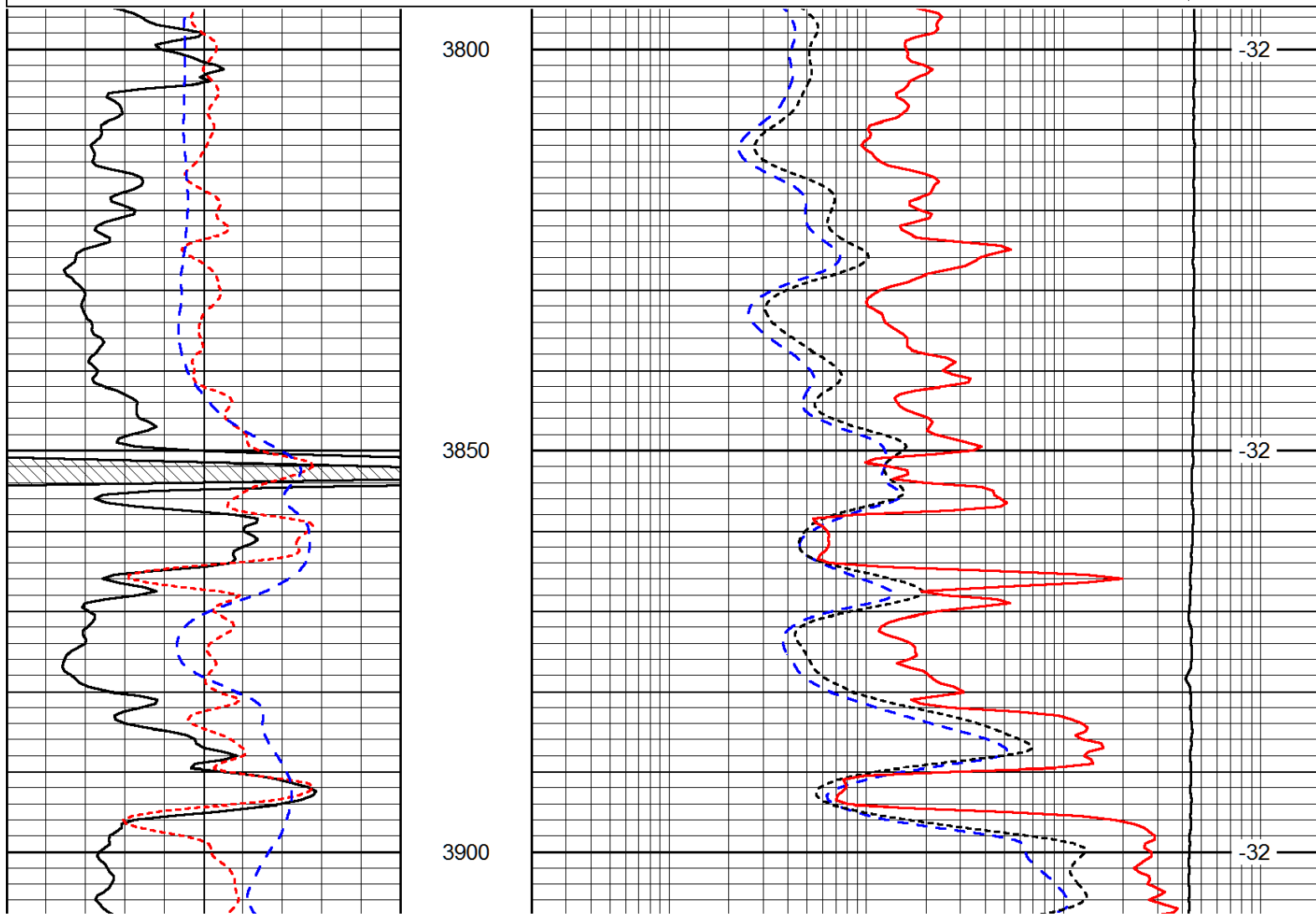
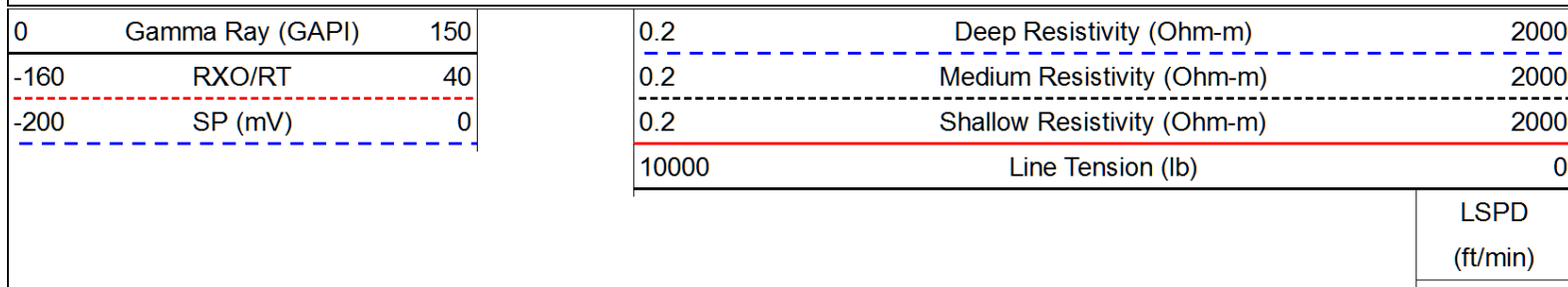
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

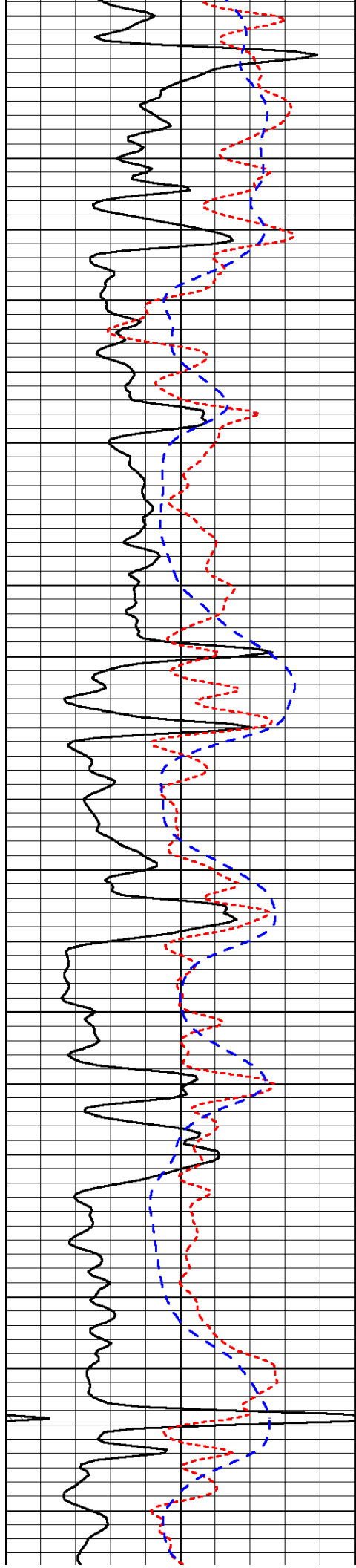
LSPD
(ft/min)





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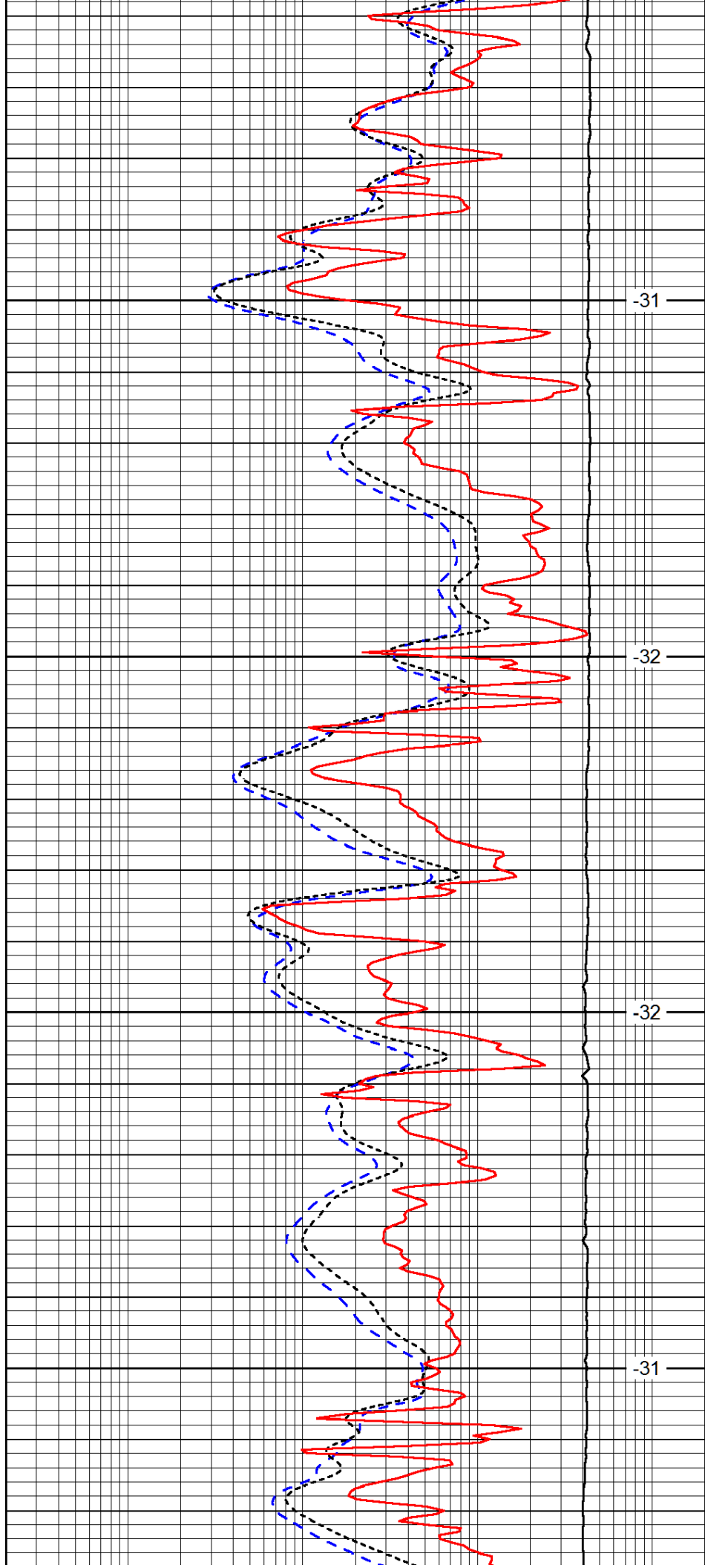


3950

4000

4050

4100

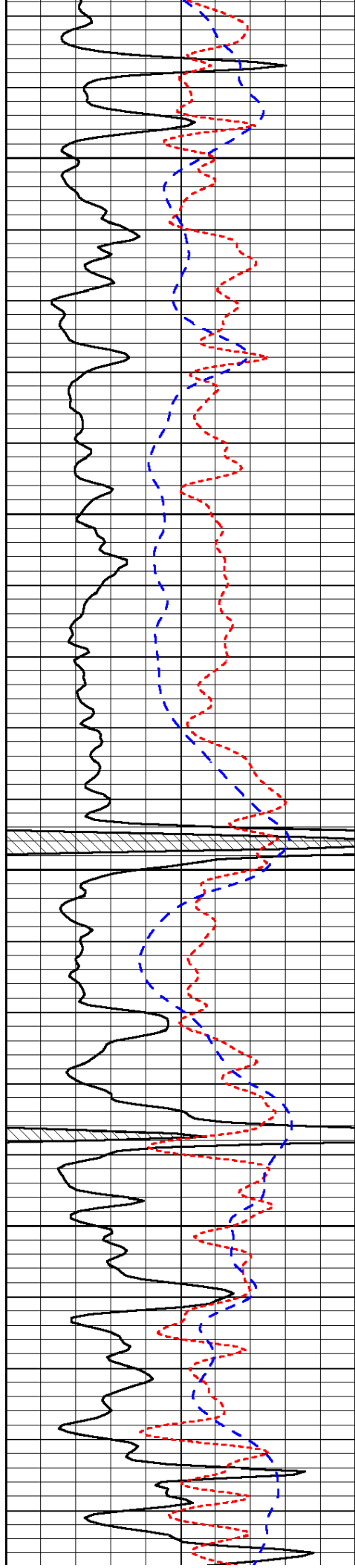


-31

-32

-32

-31

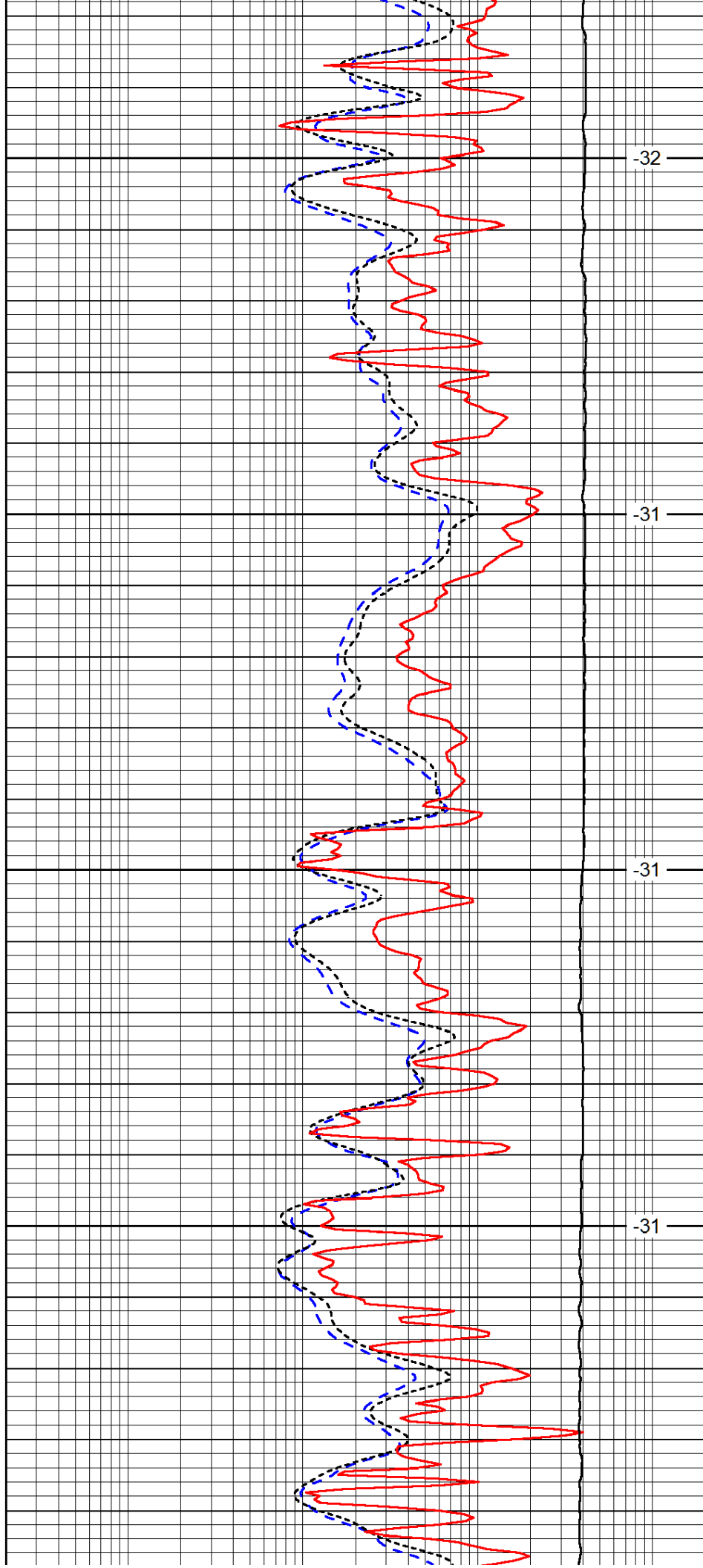


4150

4200

4250

4300

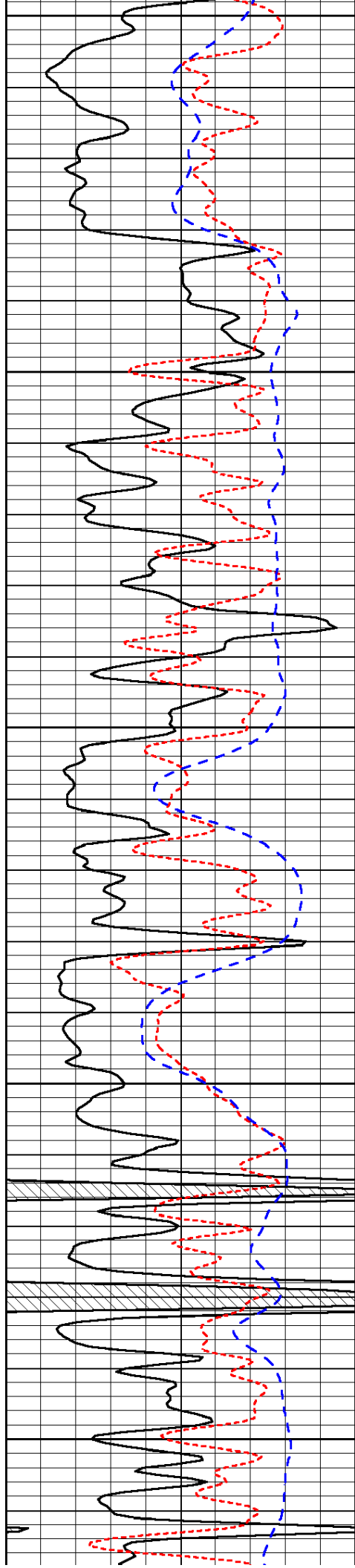


-32

-31

-31

-31



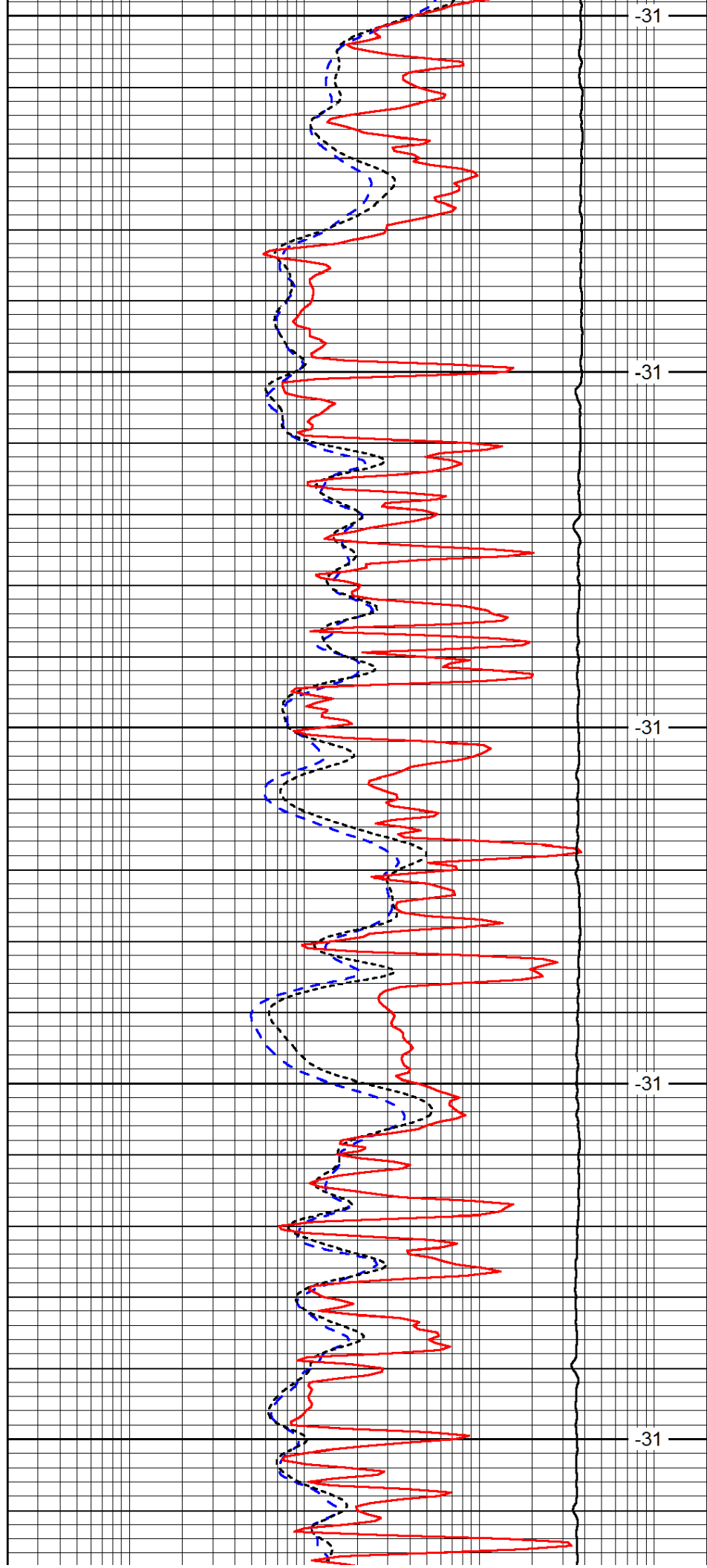
4350

4400

4450

4500

4550



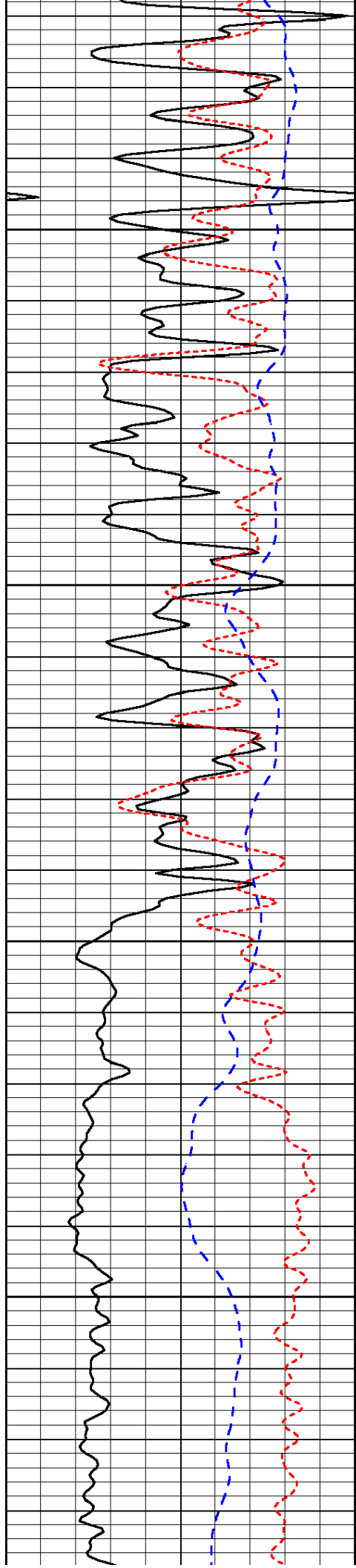
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-31

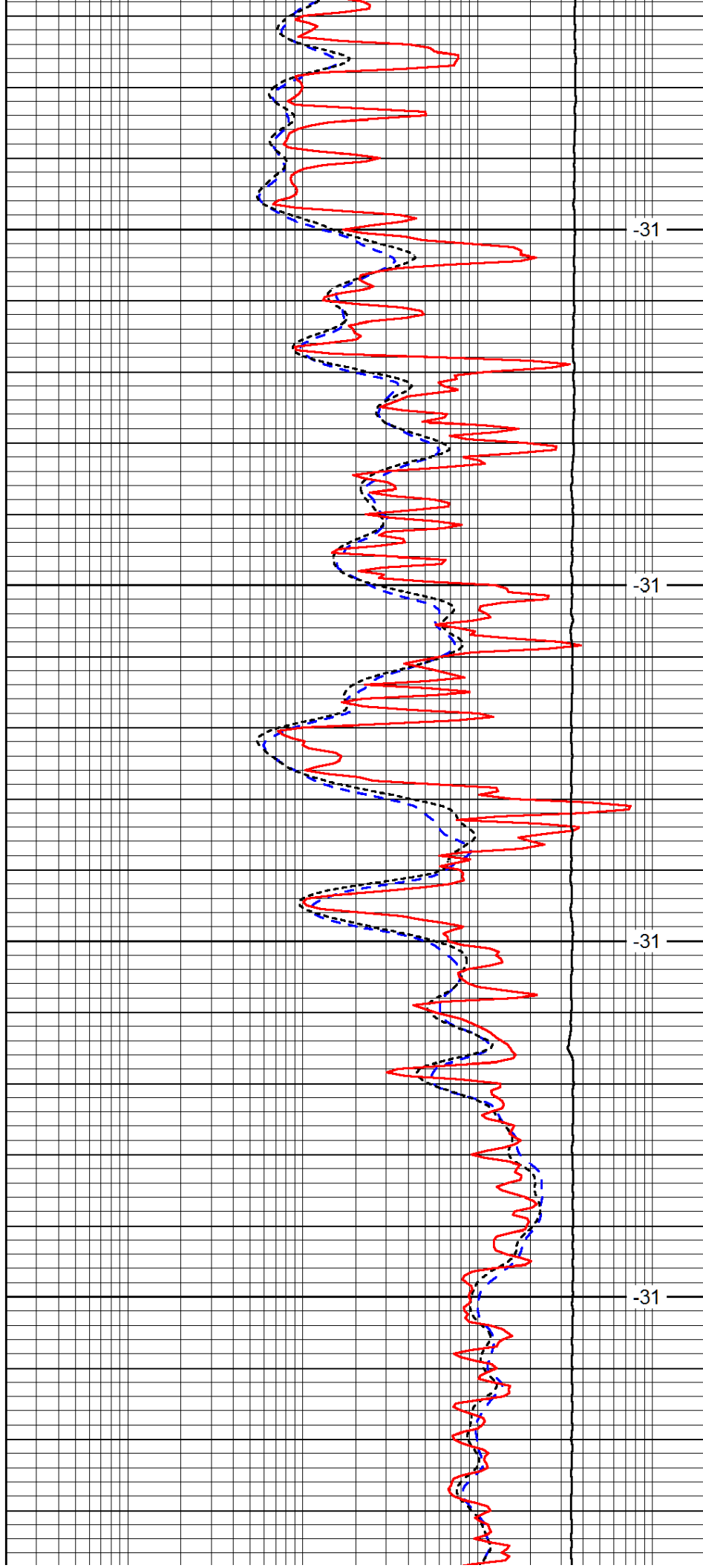


4600

4650

4700

4750

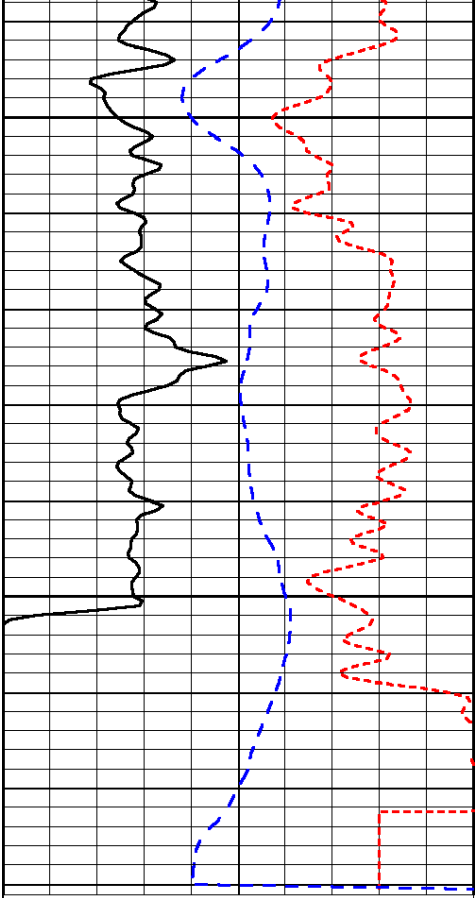


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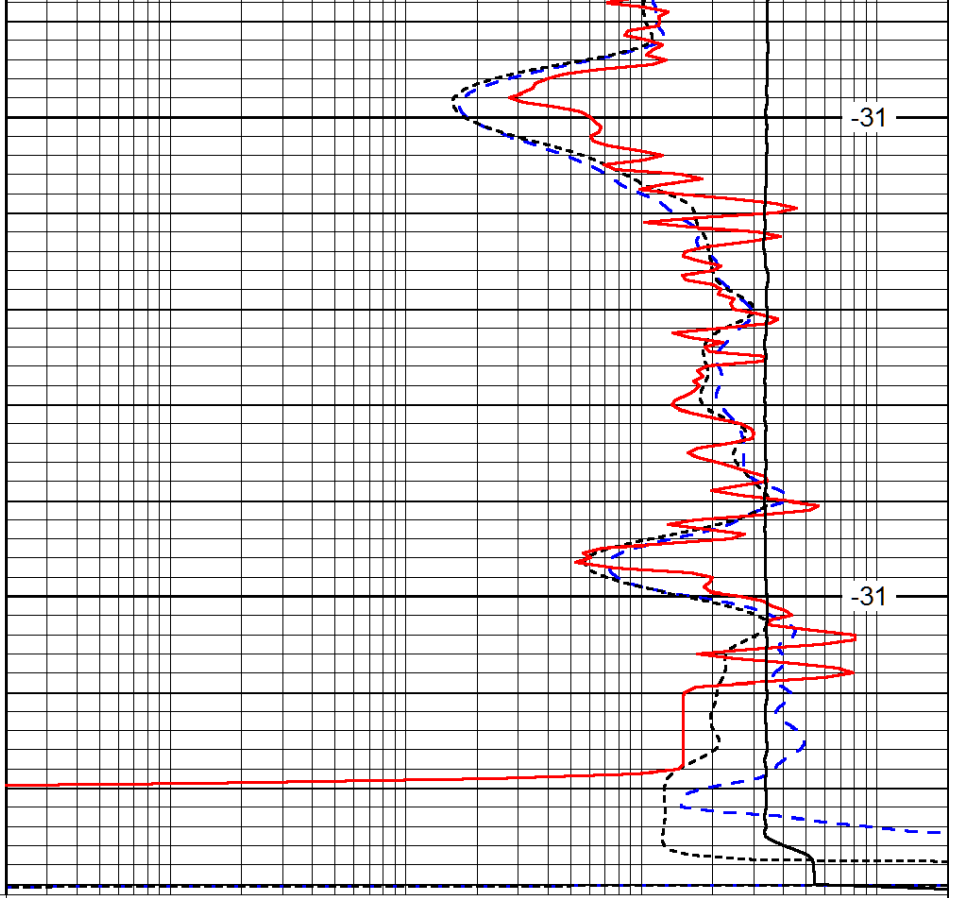
-31



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

4800

4850



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)