



Pioneer Energy Services

Dual Induction Log

API No.

15-185-23,903-00-00

Company Knighton Oil Company Inc.

Well Kachelman No. 4

Field Albano West

County Stafford State

Kansas

Location

330' FSL & 1350' FEL

Other Services
CNL/CDL

Sec: 11

Twp: 25s

Rge: 14w

Elevation

Permanent Datum Ground Level Elevation 1962

Log Measured From Kelly Bushing 12 Ft. Above Perm. Datum

K.B. 1974
D.F.
G.L. 1962

Drilling Measured From

Kelly Bushing

12 Ft. Above Perm. Datum

K.B. 1974
D.F.
G.L. 1962

Date

9/14/2014

Run Number

One

Depth Driller

4390

Depth Logger

4390

Bottom Logged Interval

4389

Top Log Interval

250

Casing Driller

8.625 @ 271

Casing Logger

265

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

5000

Density / Viscosity

9.0 56

pH / Fluid Loss

10.0 8.0

Source of Sample

Flowline

Rm @ Meas. Temp

.65 @ 71

Rmf @ Meas. Temp

.49 @ 71

Rmc @ Meas. Temp

.88 @ 71

Source of Rmf / Rmc

Charts

Rm @ BHT

.38 @ 120

Operating Rig Time

2.5 Hours

Max Rec. Temp. F

120

Equipment Number

108

Location

Hays

Recorded By

D. Fischer

Witnessed By

J. Long

Dave Montague

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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

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(785) 625-3858

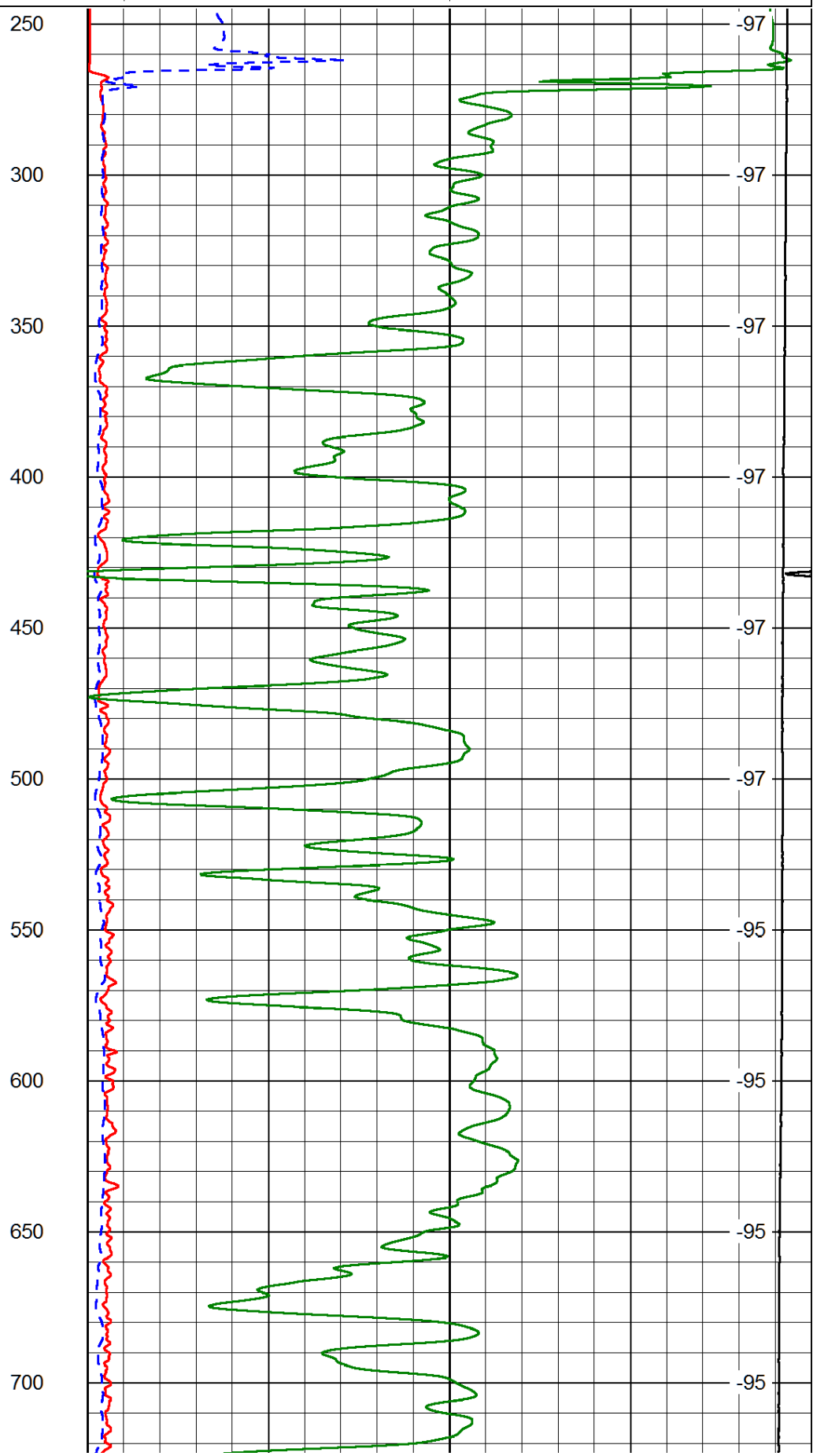
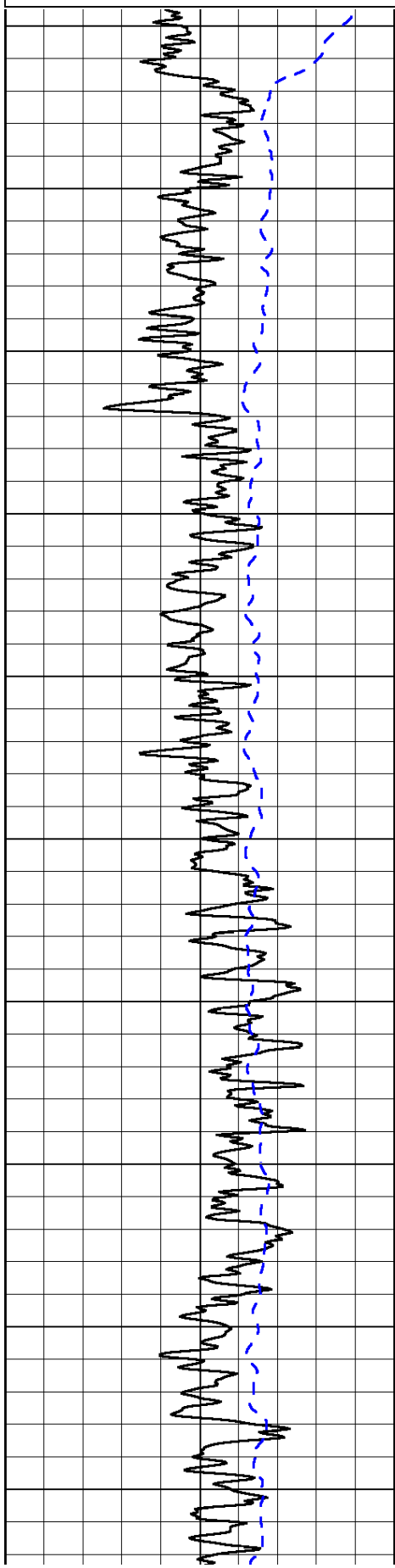
Hwy. 281 & Hwy. 50 Junction, 5 South to 50th Rd., 9.5 West, North Into.

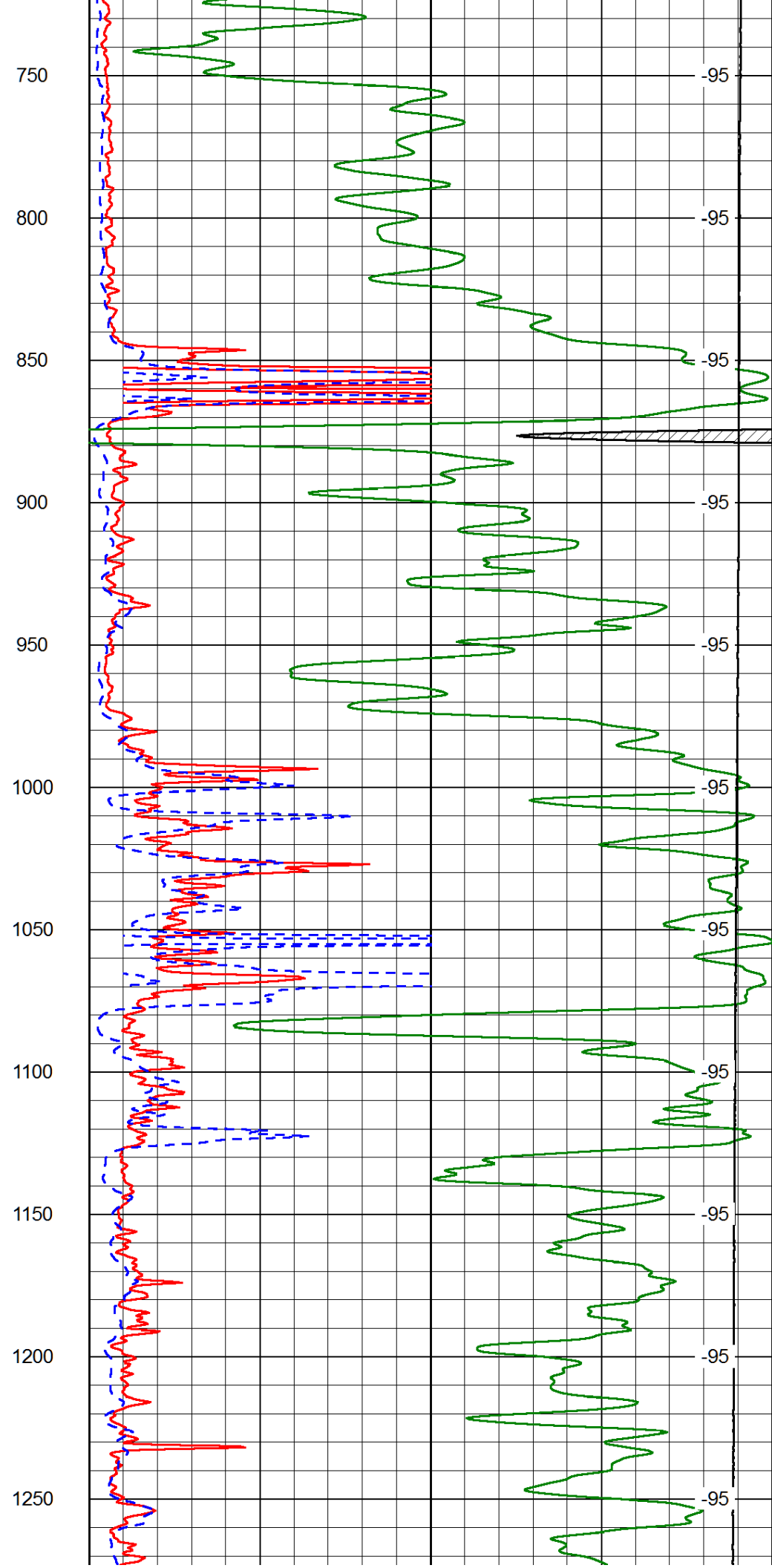
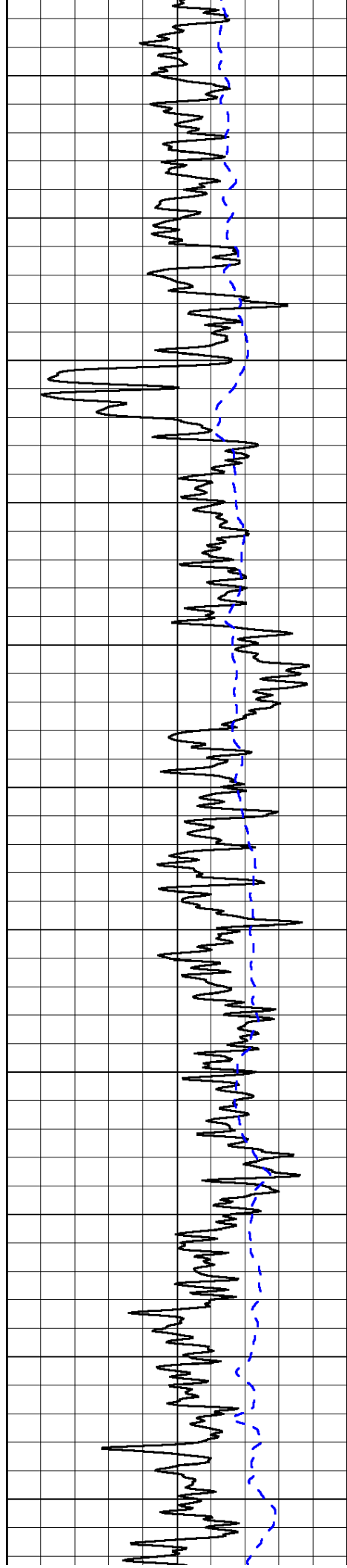
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Dataset Pathname: DIL/knigstck
Presentation Format: dil2in
Dataset Creation: Sun Sep 14 17:45:36 2014
Charted by: Depth in Feet scaled 1:600

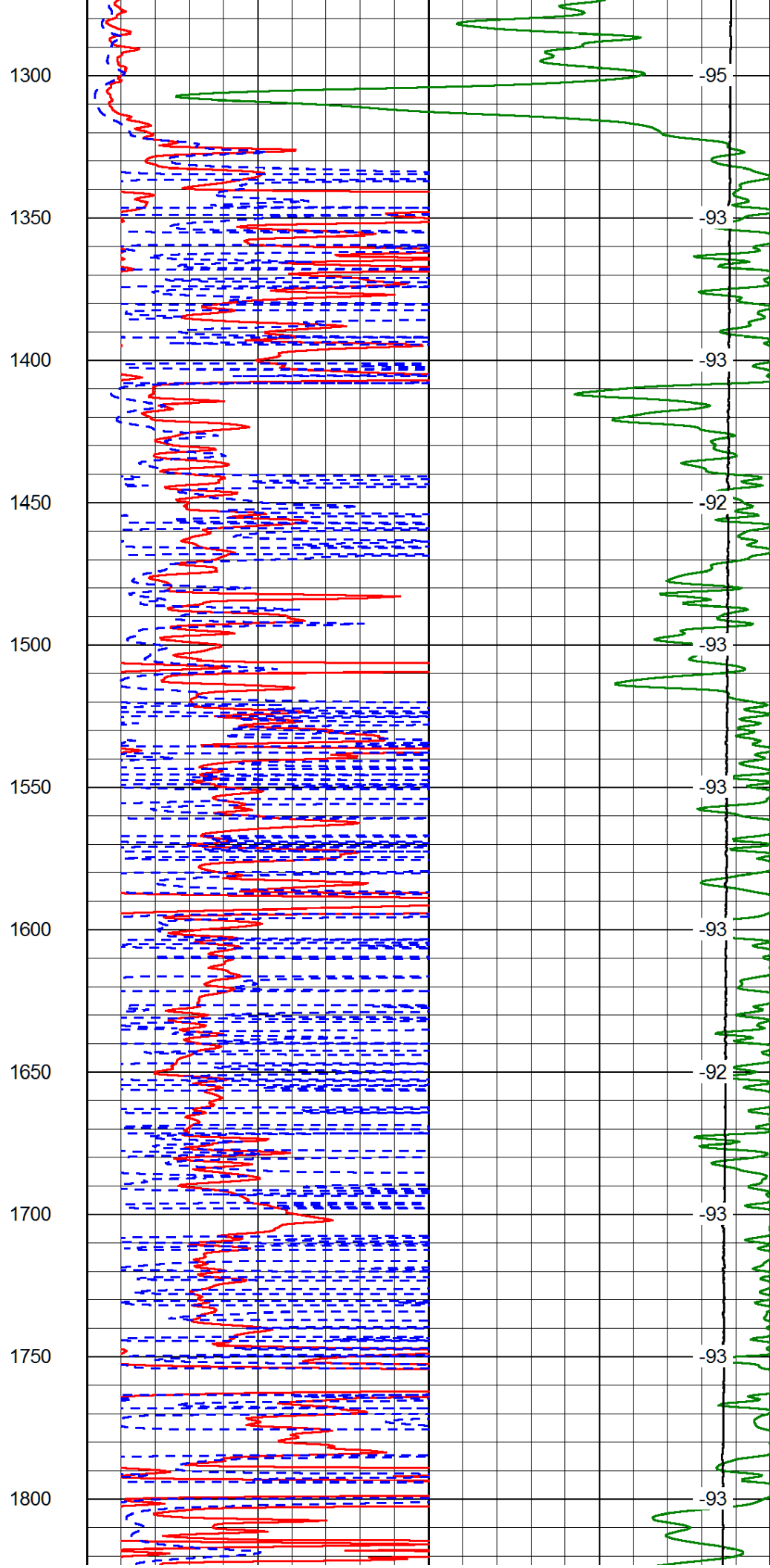
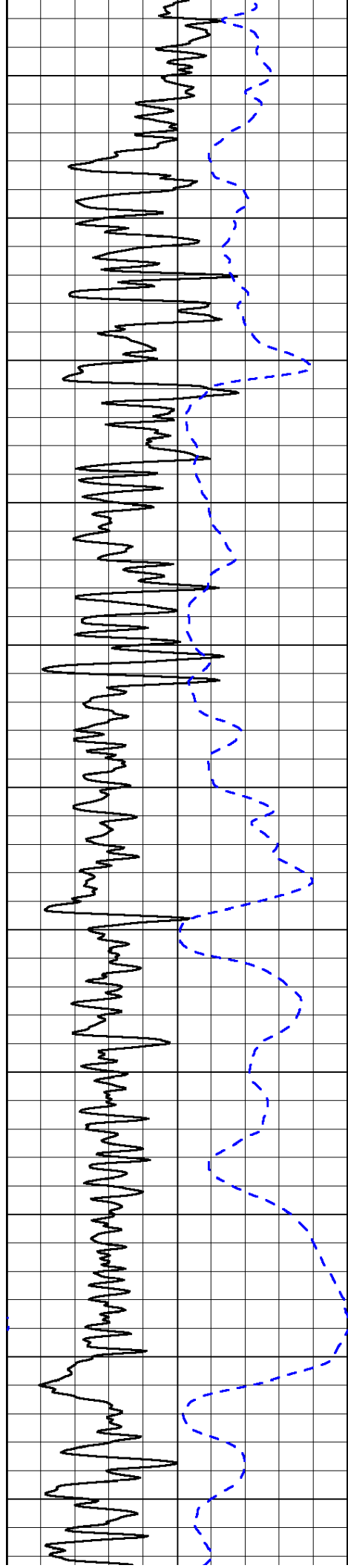
0	Gamma Ray	150
-200	SP (mV)	0

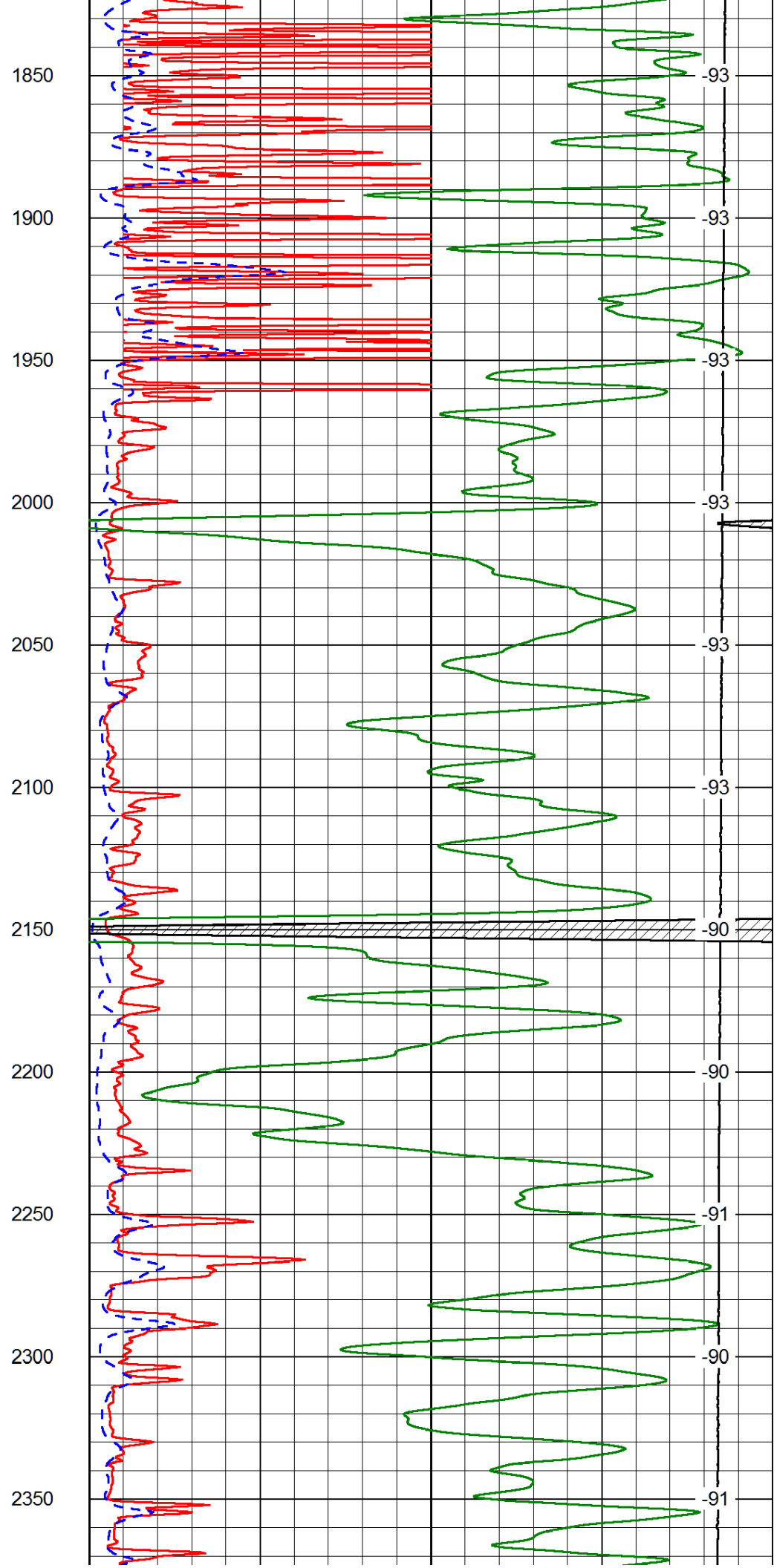
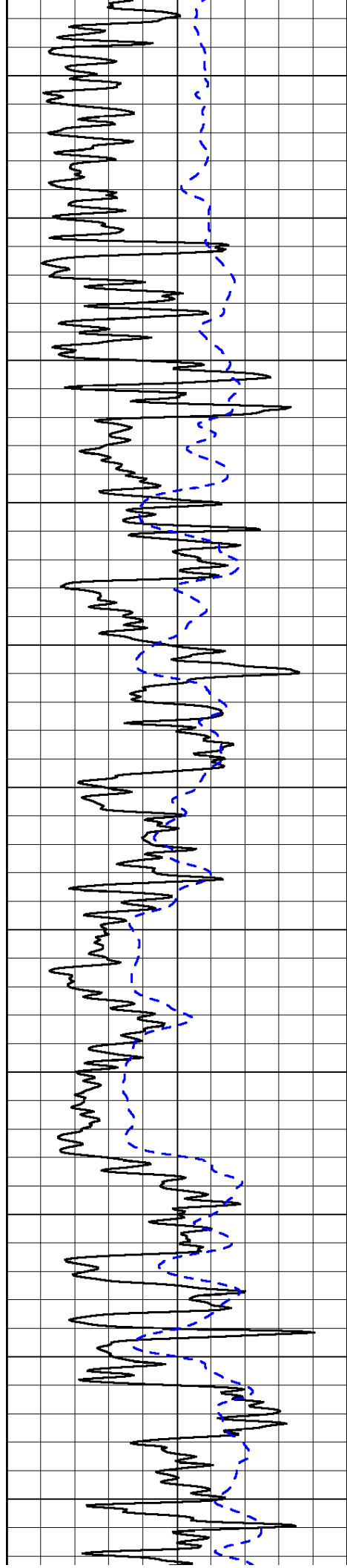
0	Shallow Resistivity	50
0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0
50	Shallow Resistivity	500
50	Deep Resistivity	500

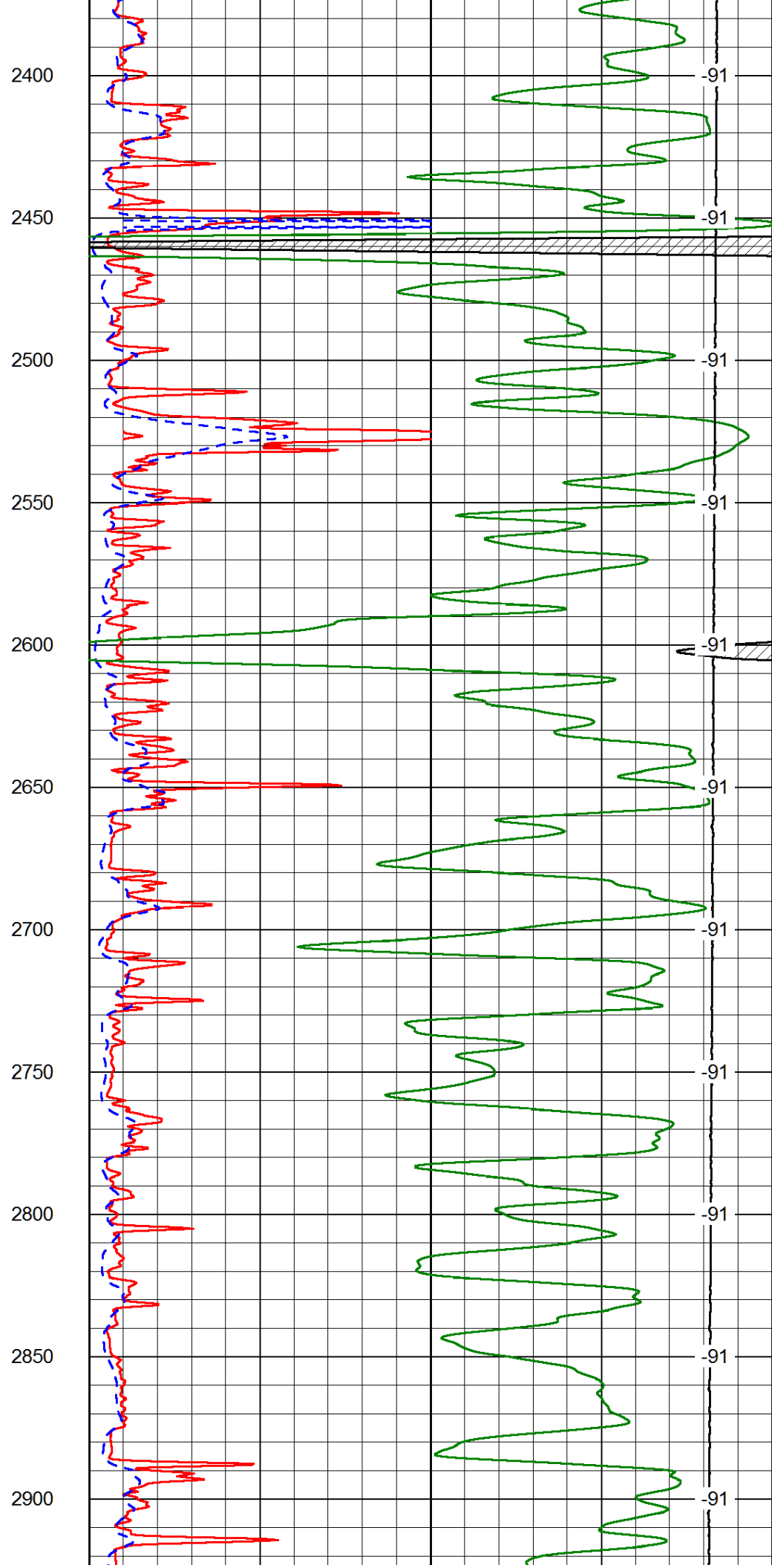
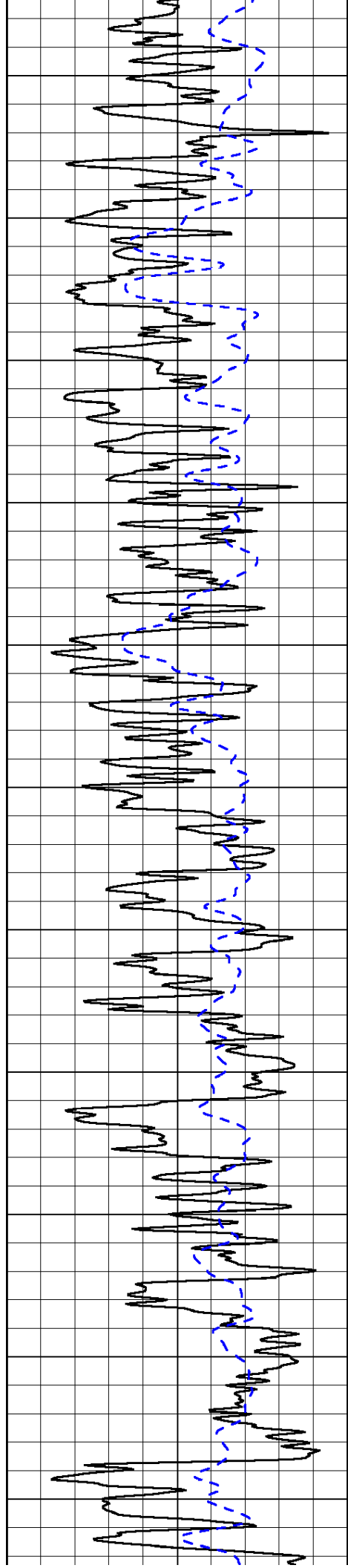
LSPD
0
0

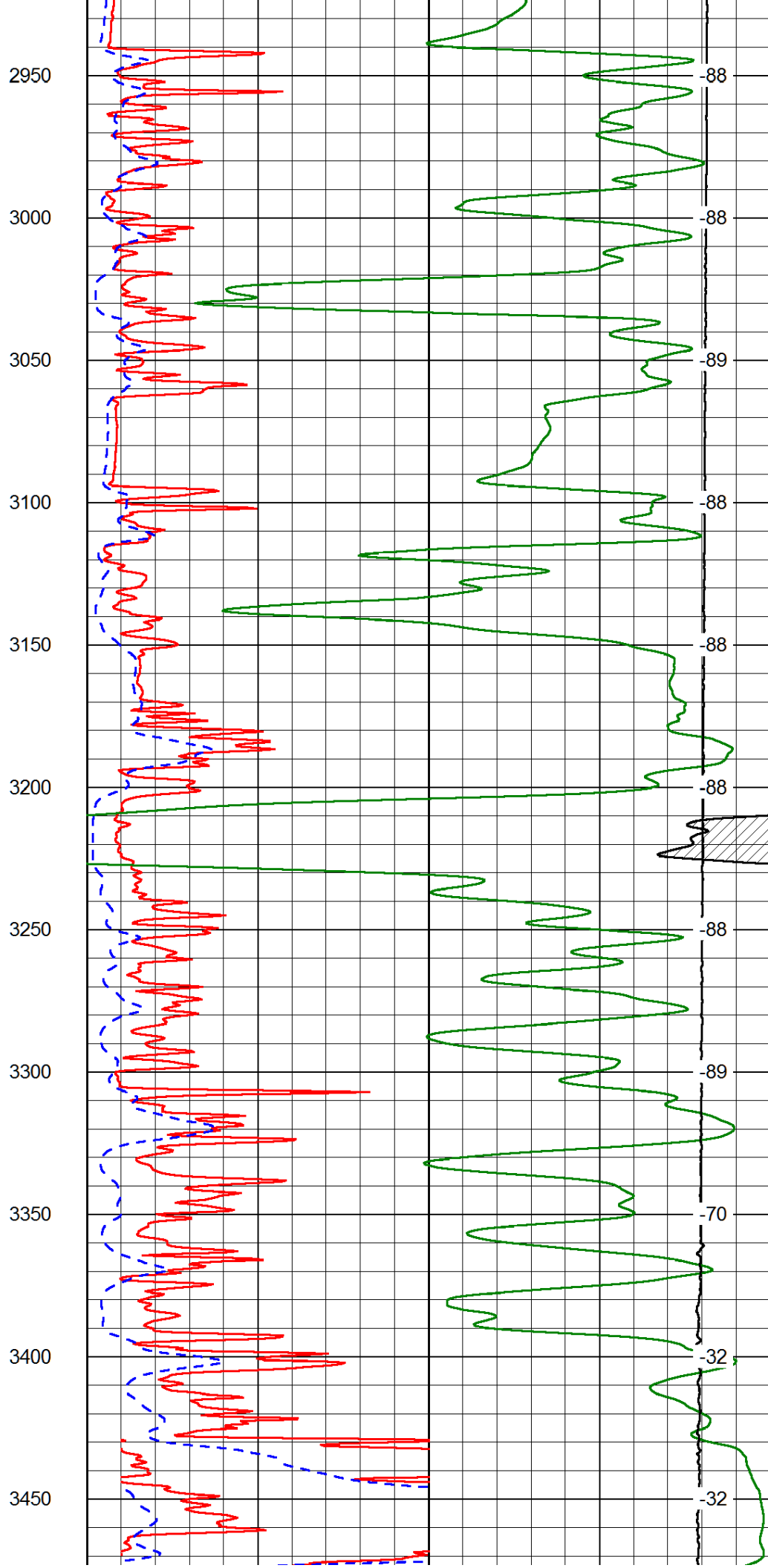
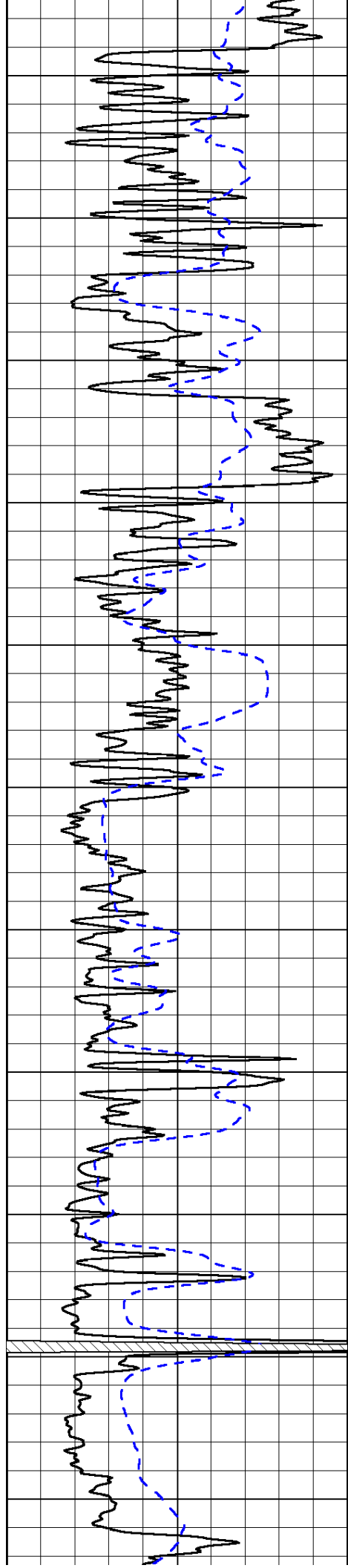


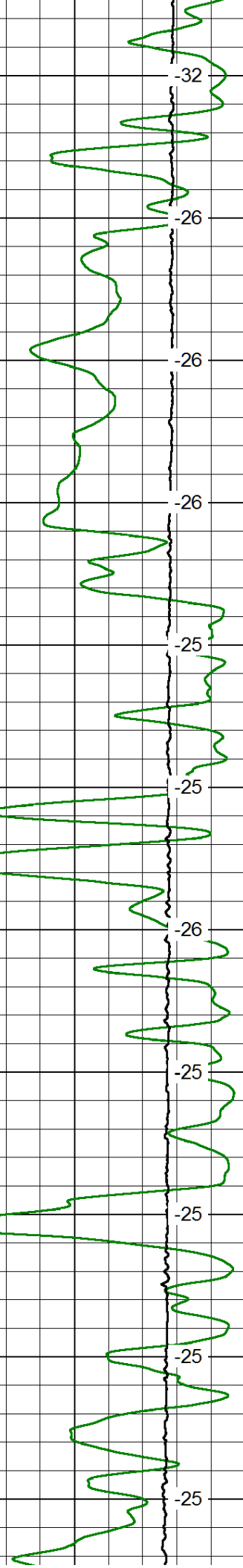
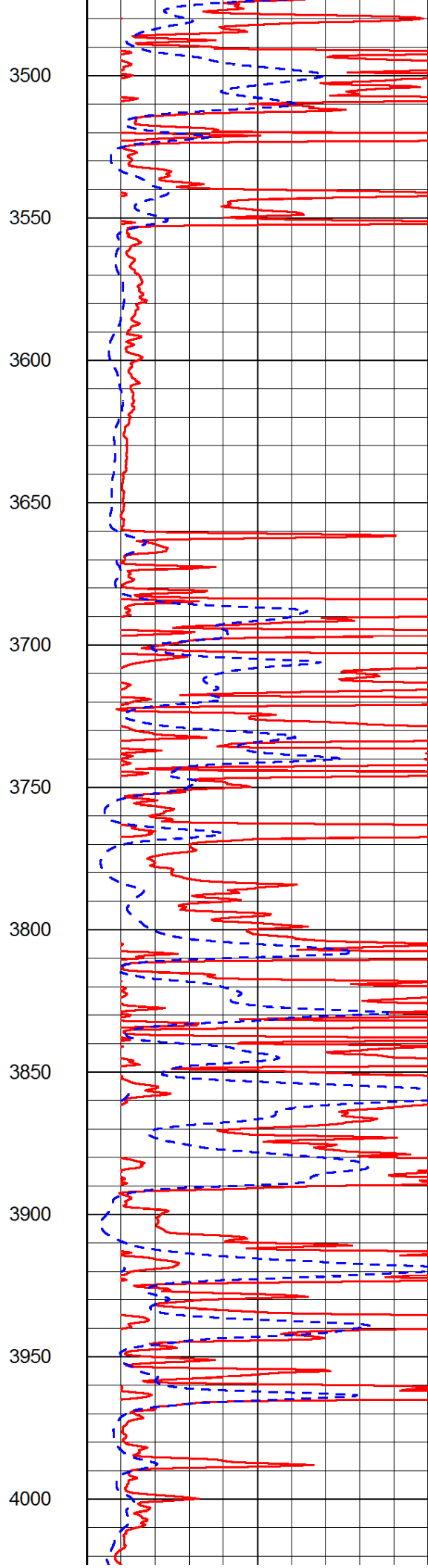
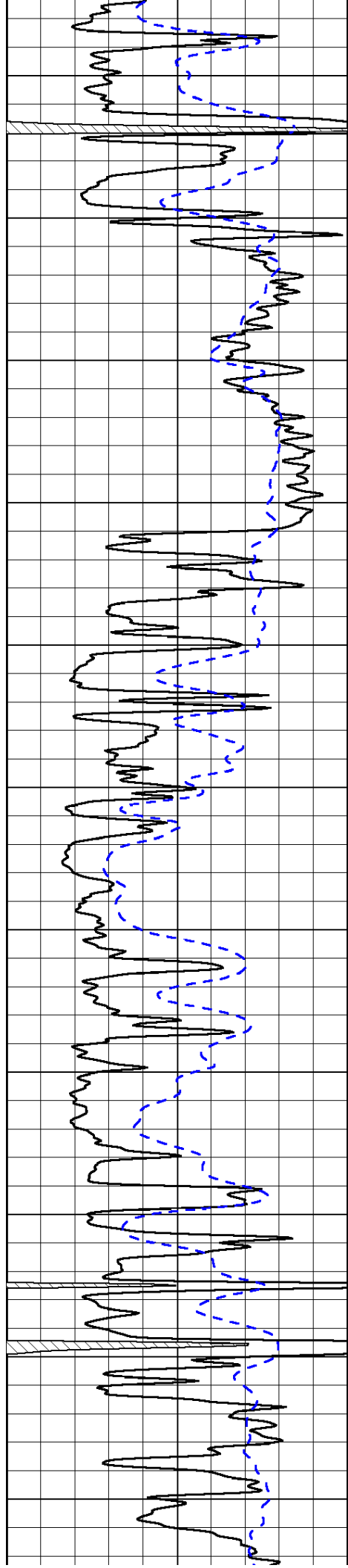


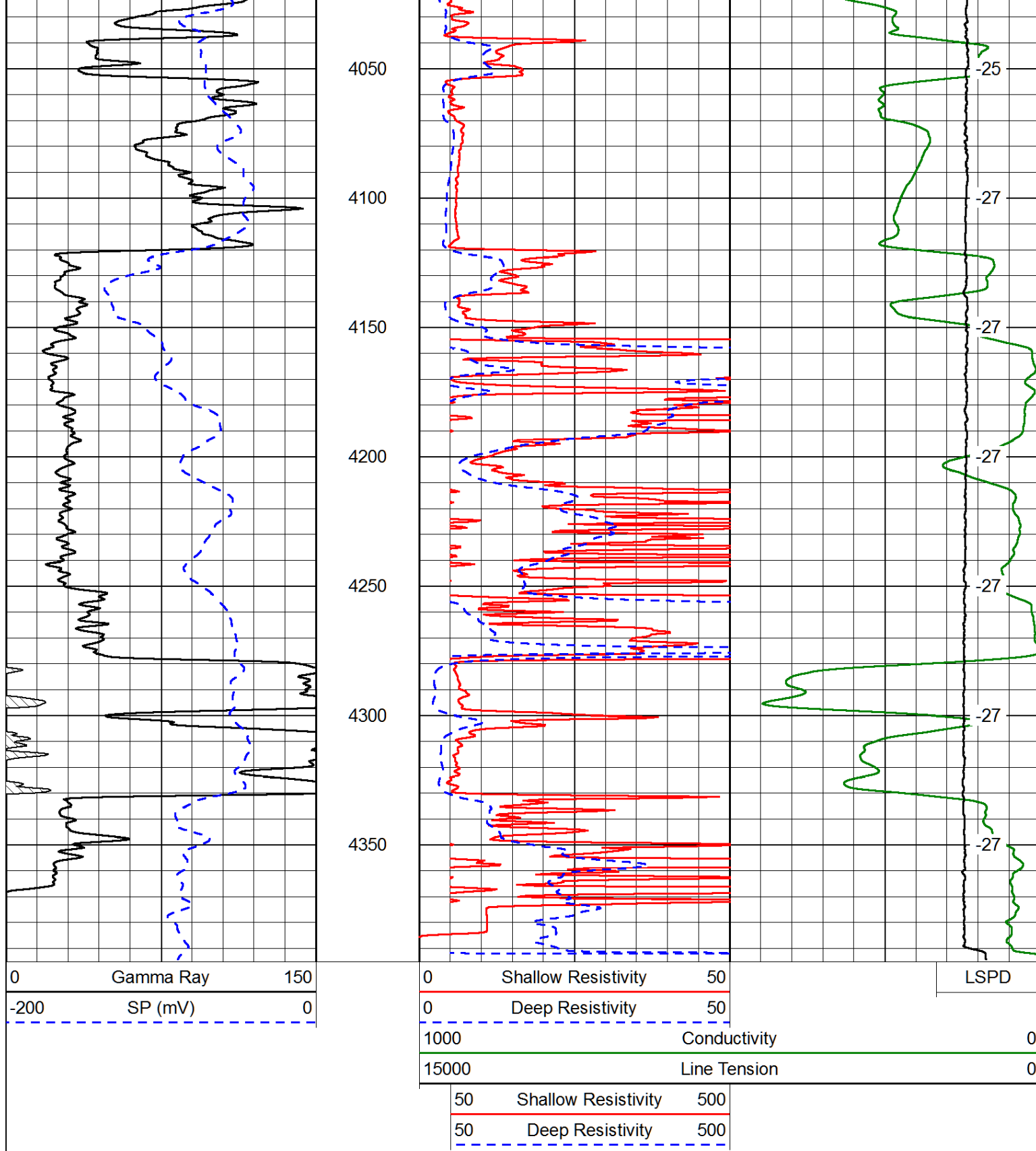






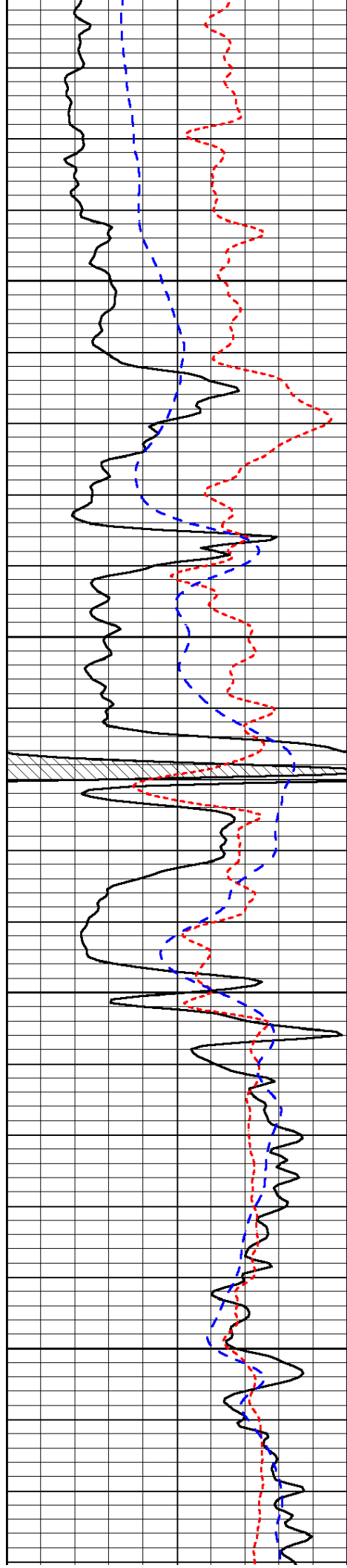






Database File: knighton_oil_kachelman_4hd.db
Dataset Pathname: DIL/knigstck
Presentation Format: dil
Dataset Creation: Sun Sep 14 17:45:36 2014
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150	0.2	Deep Resistivity	2000
-160	RXO/RT	40	0.2	Medium Resistivity	2000
-200	SP (mV)	0	0.2	Shallow Resistivity	2000
			10000	Line Tension	0

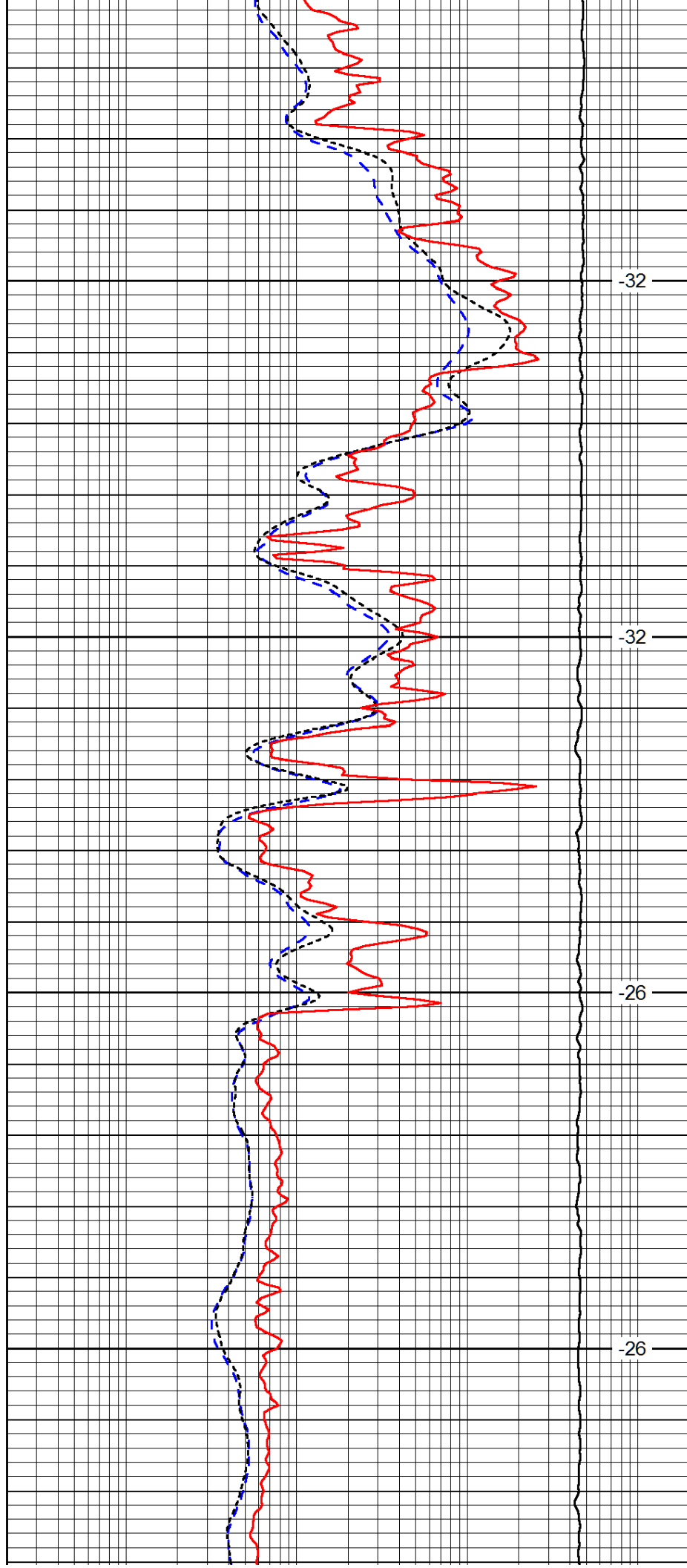


3450

3500

3550

3600

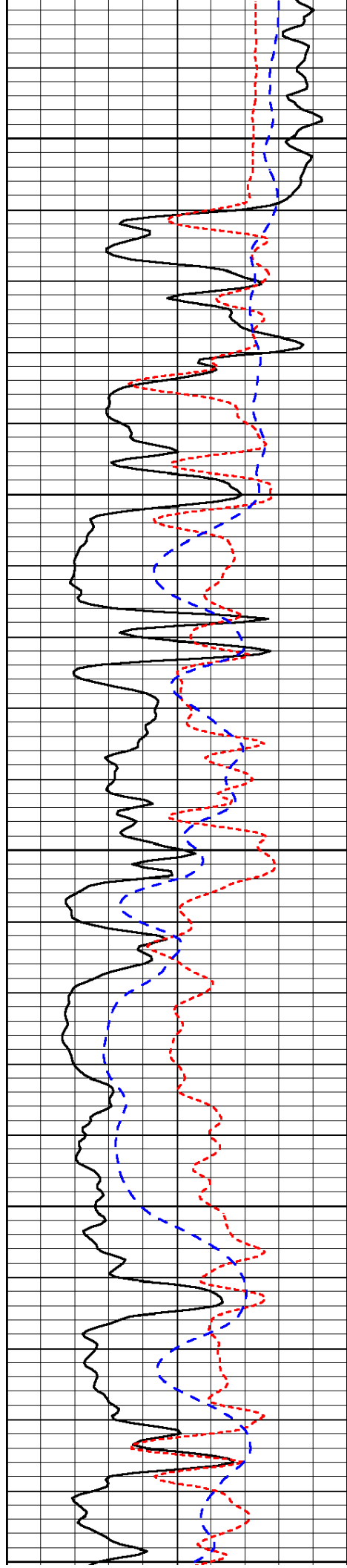


-32

-32

-26

-26



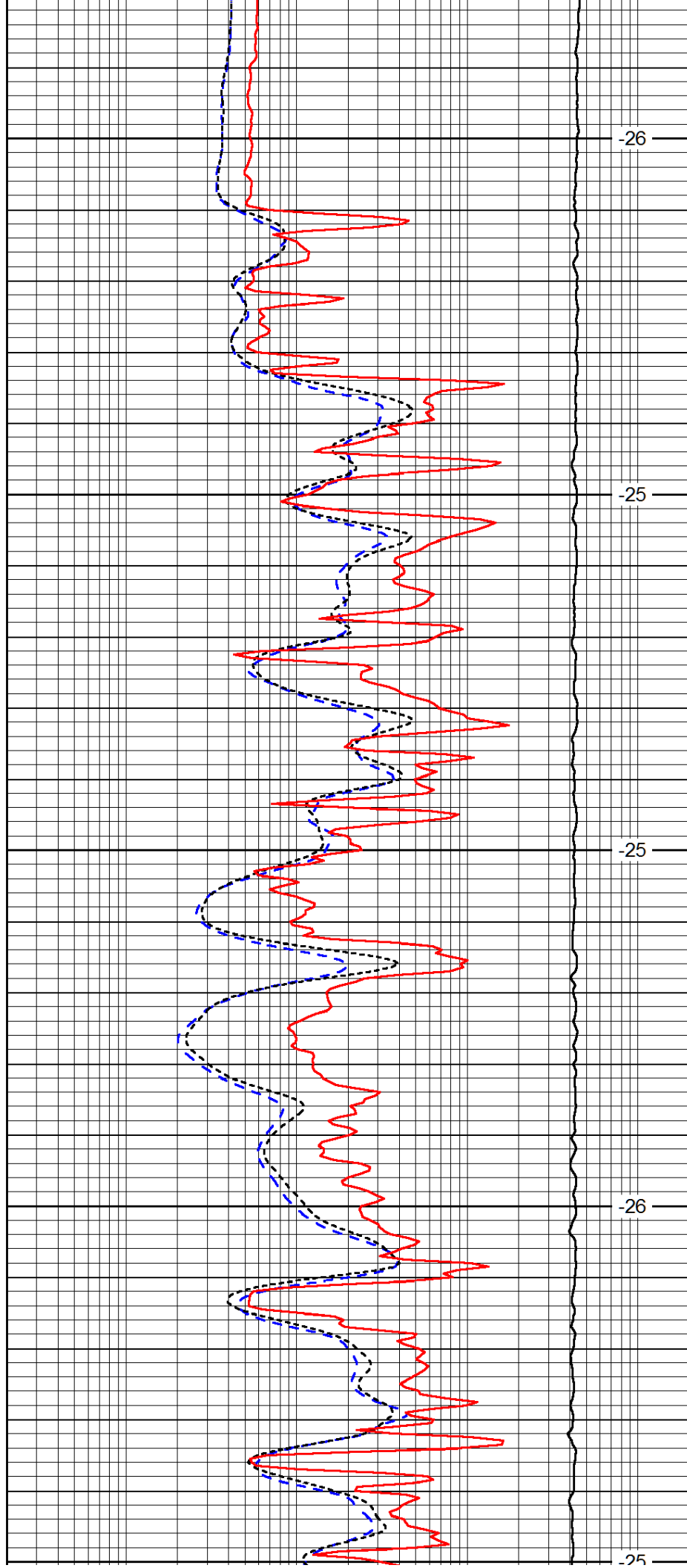
3650

3700

3750

3800

3850



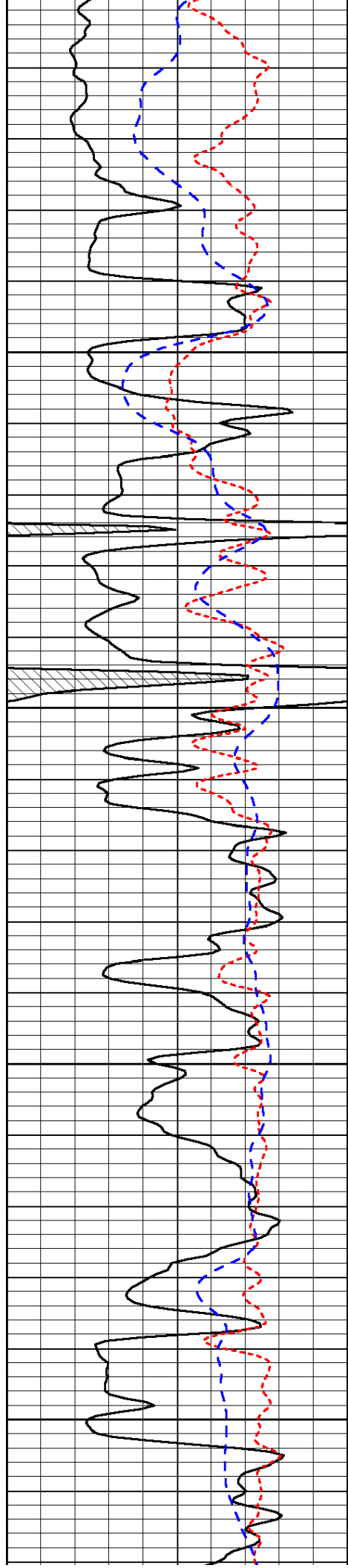
-26

-25

-25

-26

-25

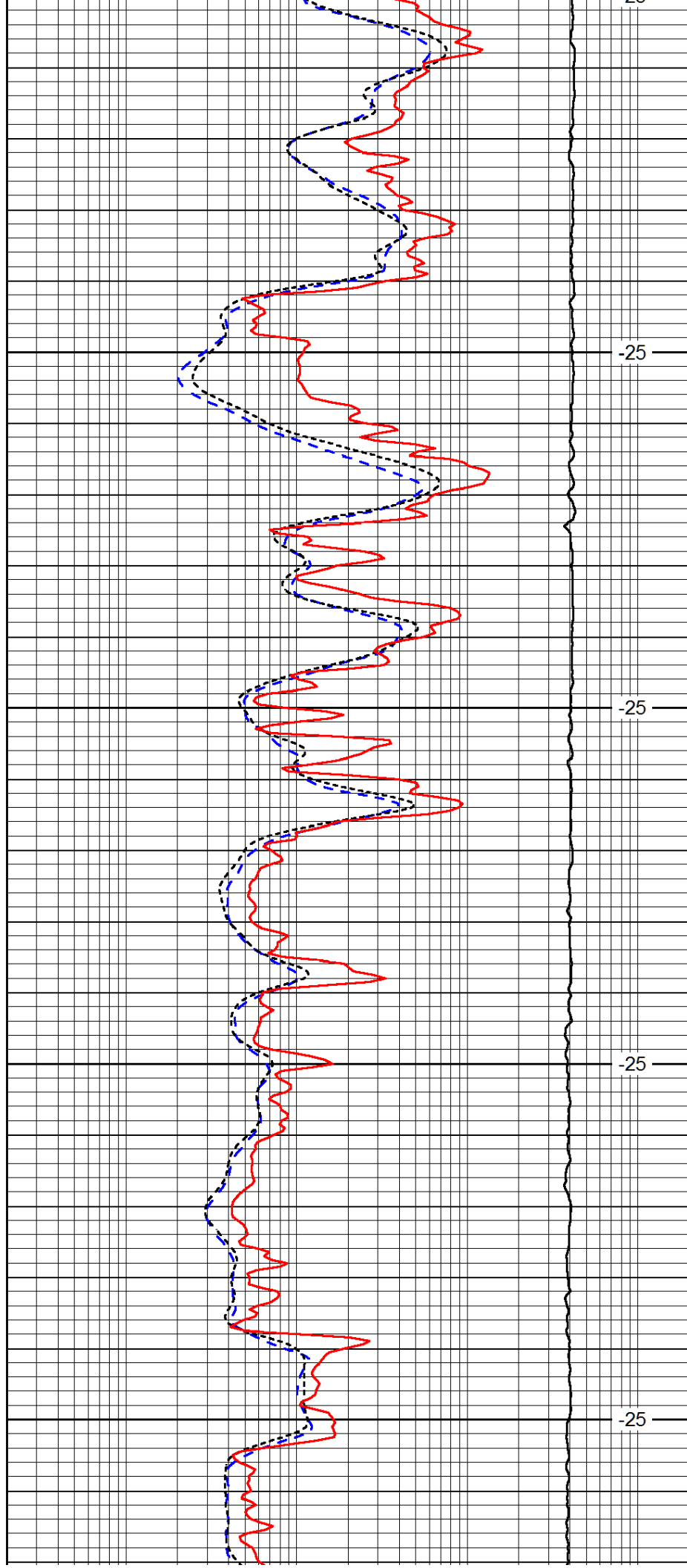


3900

3950

4000

4050

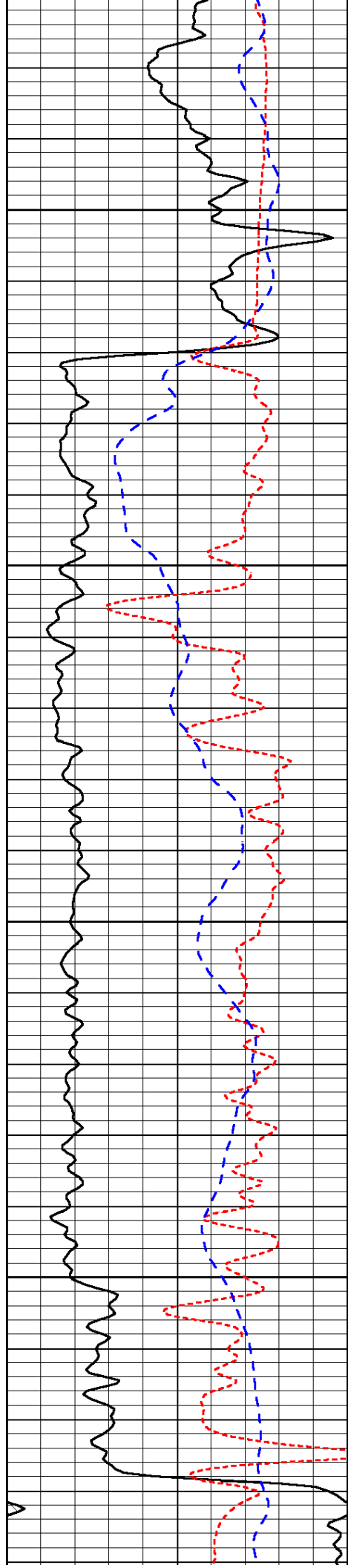


-25

-25

-25

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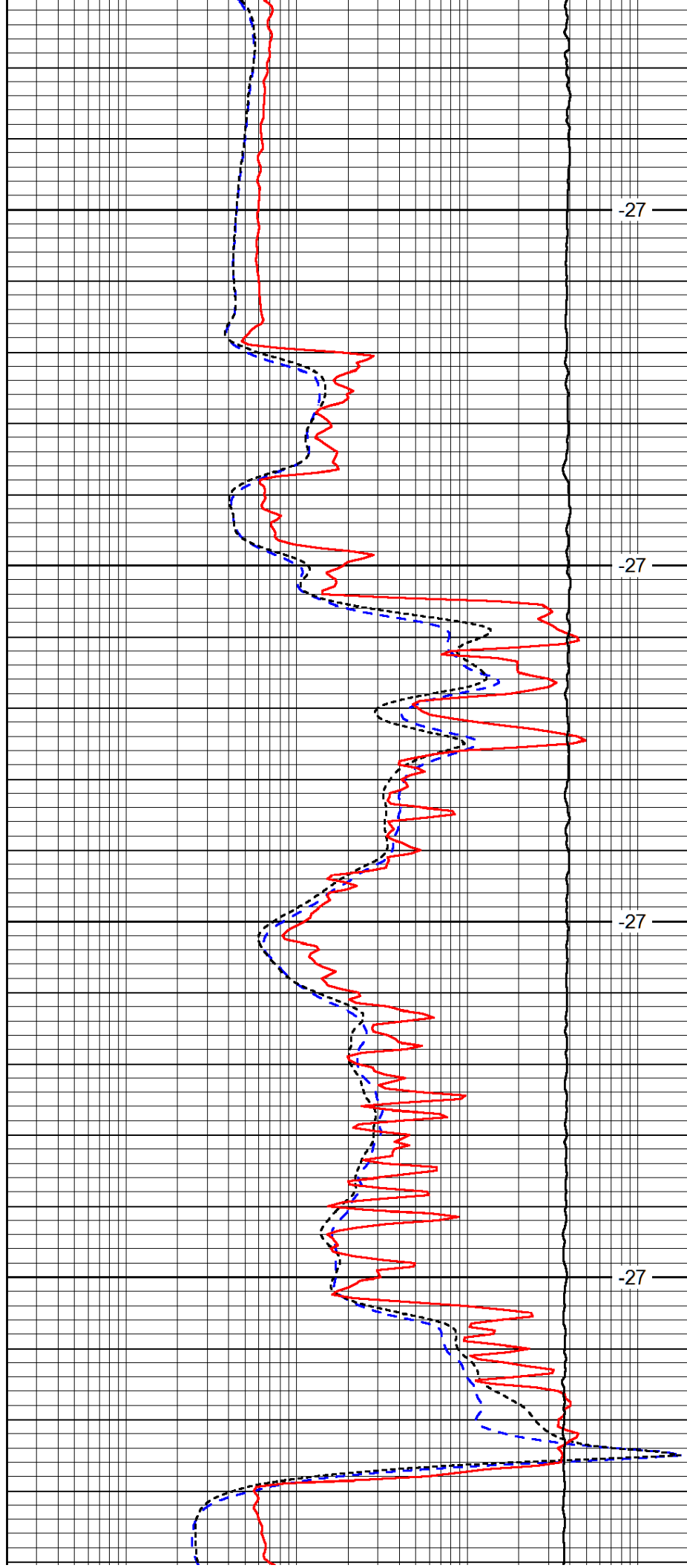


4100

4150

4200

4250

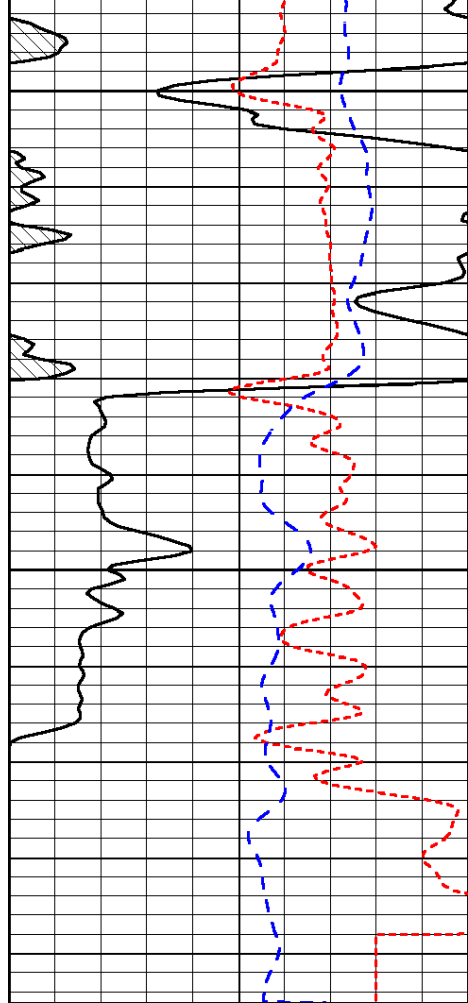


-27

-27

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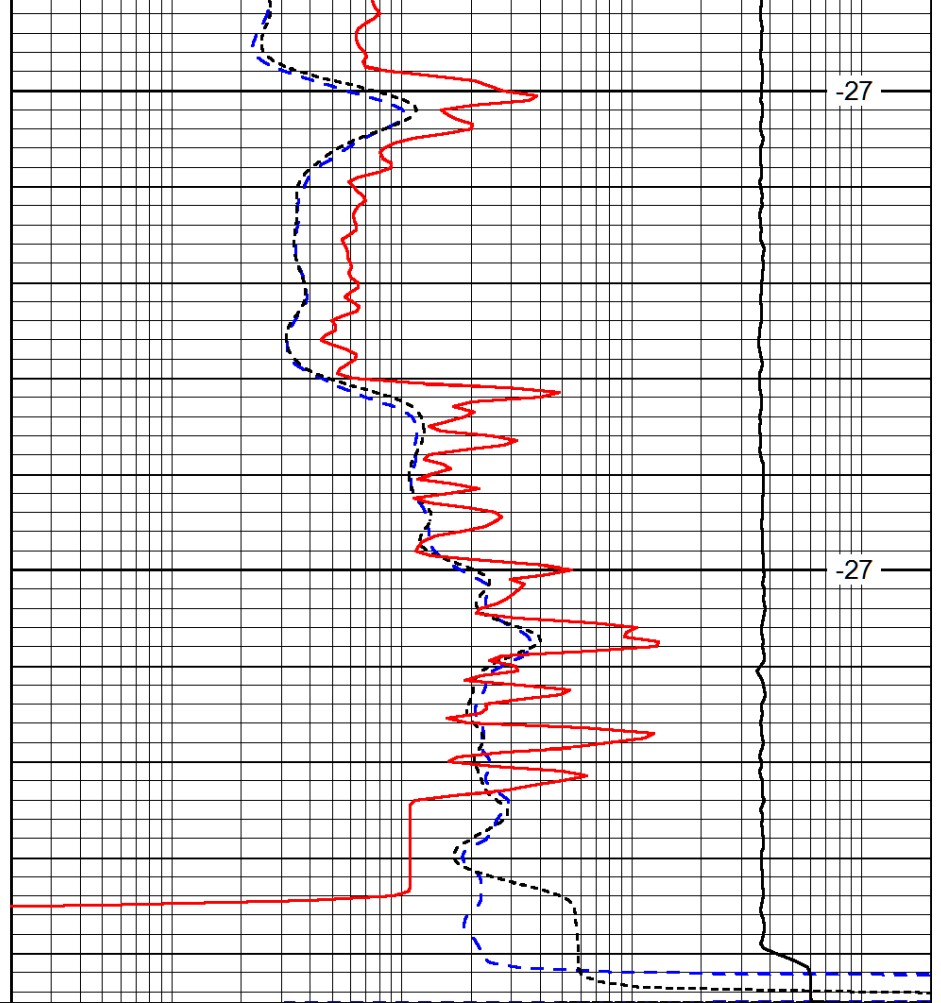
-27



4300

4350

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



-27

-27

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD