



Pioneer Energy Services

Dual Induction Log

API No.

15-155-21,722-00-00

Company Novy Oil & Gas, Inc.

Well Grover No. 3

Field Sterling SW

County Reno

State

Kansas

Location

660' FNL & 1880' FWL

Sec: 20

Twp: 22s

Rge: 8w

Elevation

Permanent Datum Ground Level Elevation 1697
Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

K.B. 1707
D.F. 1697
G.L. 1697

Date

12/17/2014

Run Number

One

Depth Driller

3640

Depth Logger

3644

Bottom Logged Interval

3643

Top Log Interval

250

Casing Driller

8.625 @ 268

Casing Logger

264

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

8500

Density / Viscosity

9.4 68

pH / Fluid Loss

10.5 9.2

Source of Sample

Flowline

Rm @ Meas. Temp

.72 @ 53

Rmf @ Meas. Temp

.54 @ 53

Rmc @ Meas. Temp

.97 @ 53

Source of Rmf / Rmc

Charts

Rm @ BHT

.34 @ 112

Operating Rig Time

3 Hours

Max Rec. Temp. F

112

Equipment Number

108

Location

Hays

Recorded By

D. Fischer

Witnessed By

Harley Sayles

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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

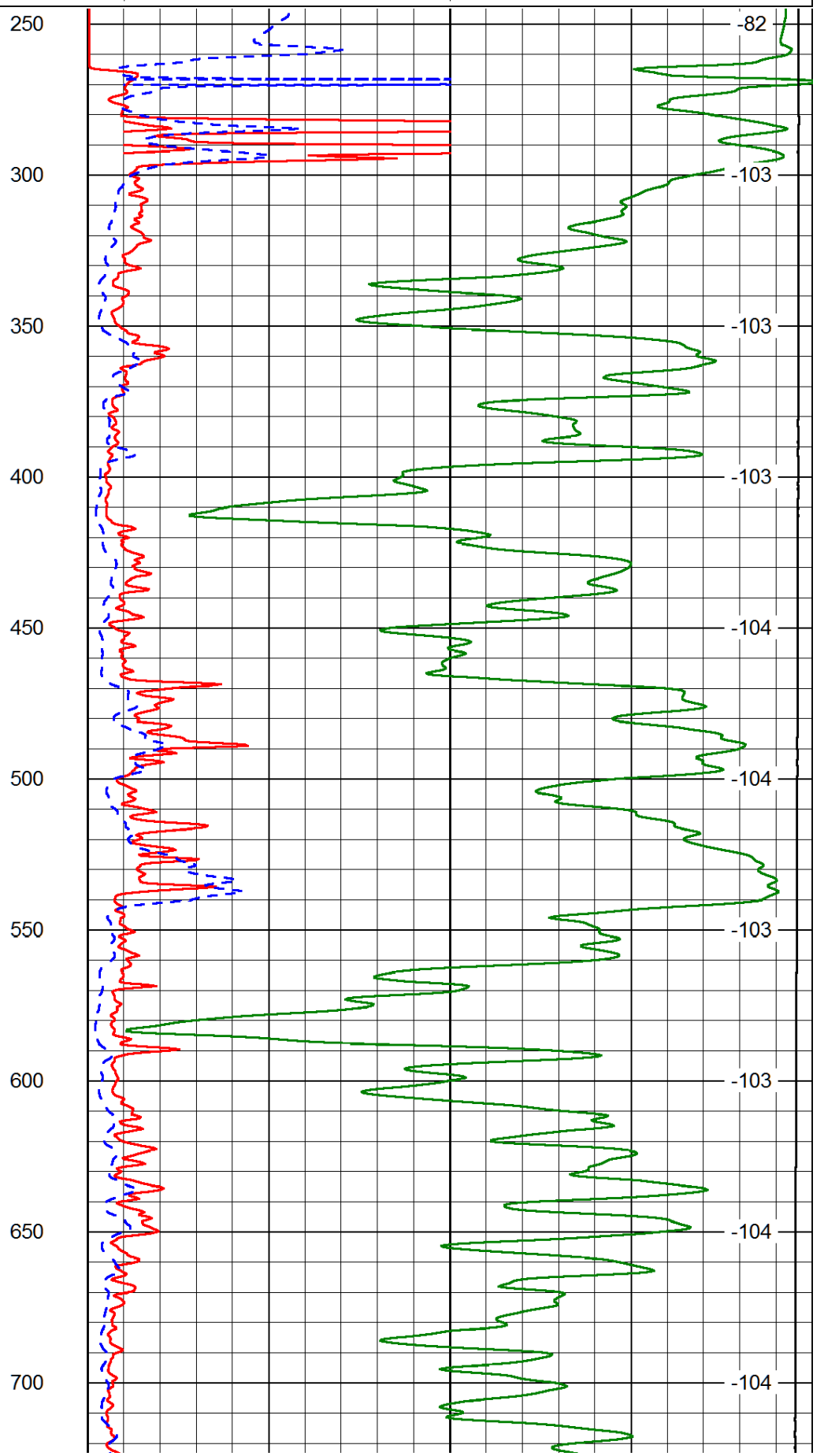
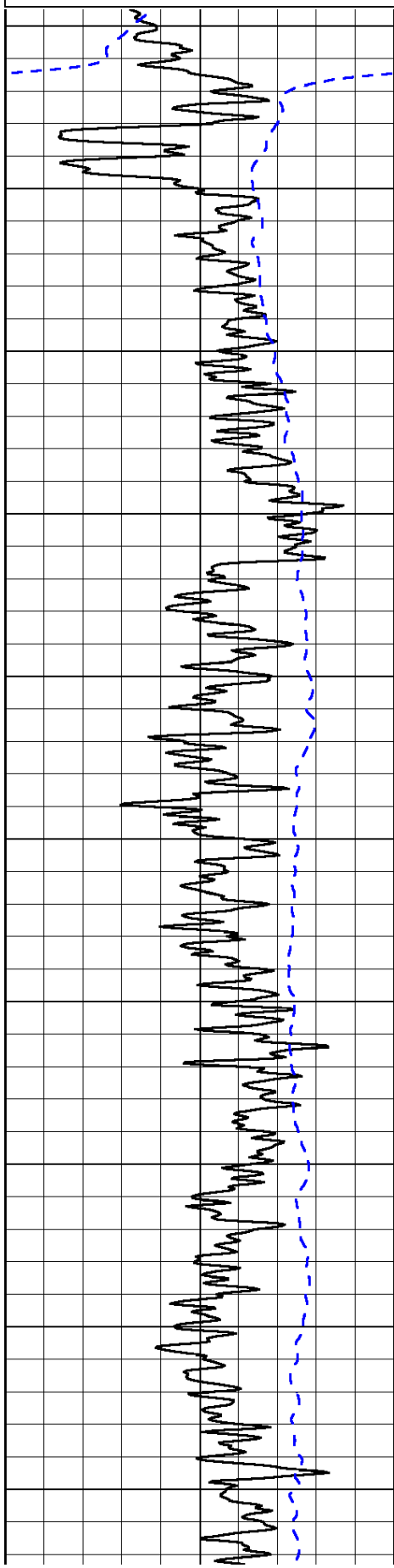
Thank you for using Log-Tech, Inc.
(785) 625-3858

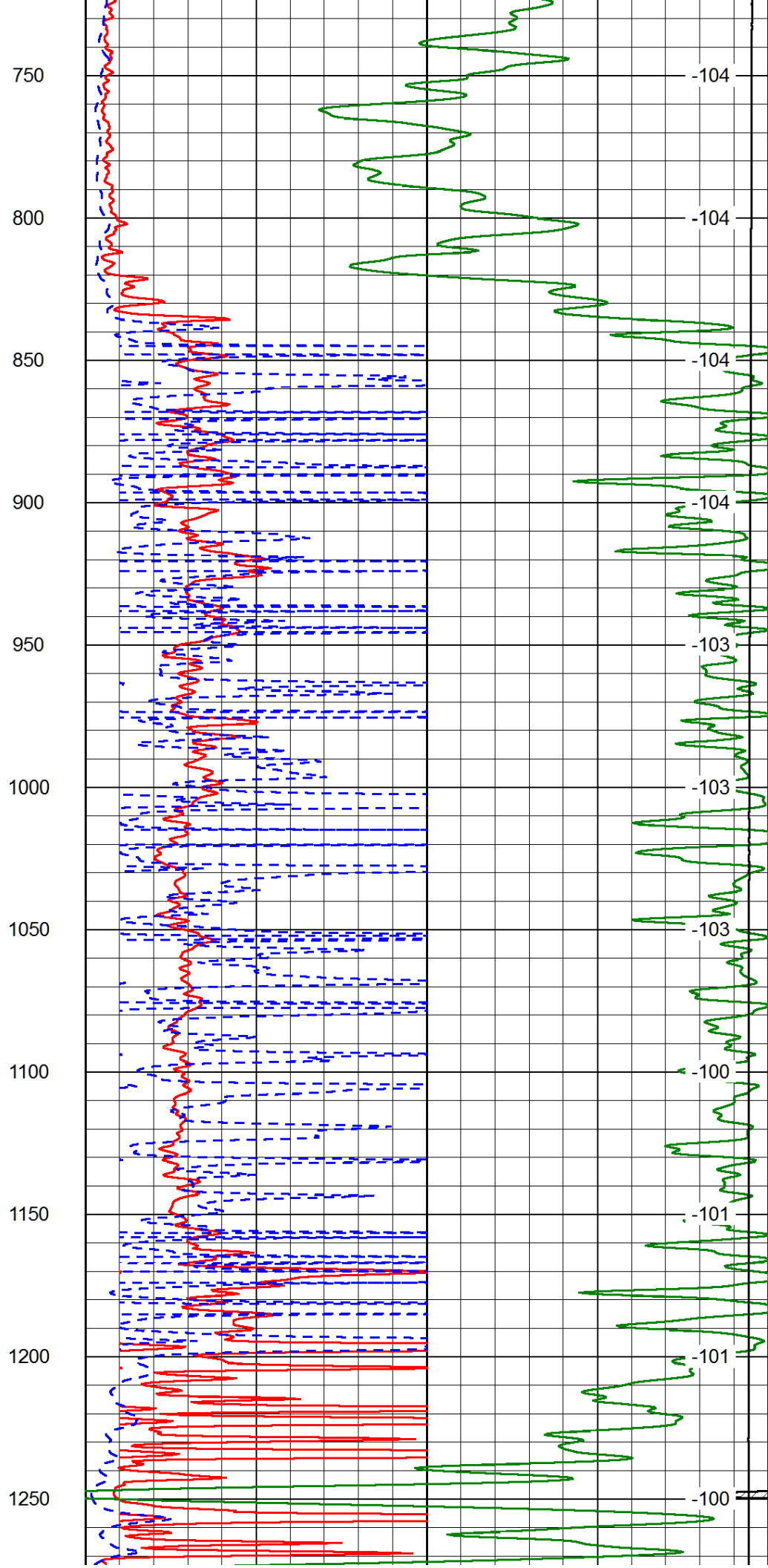
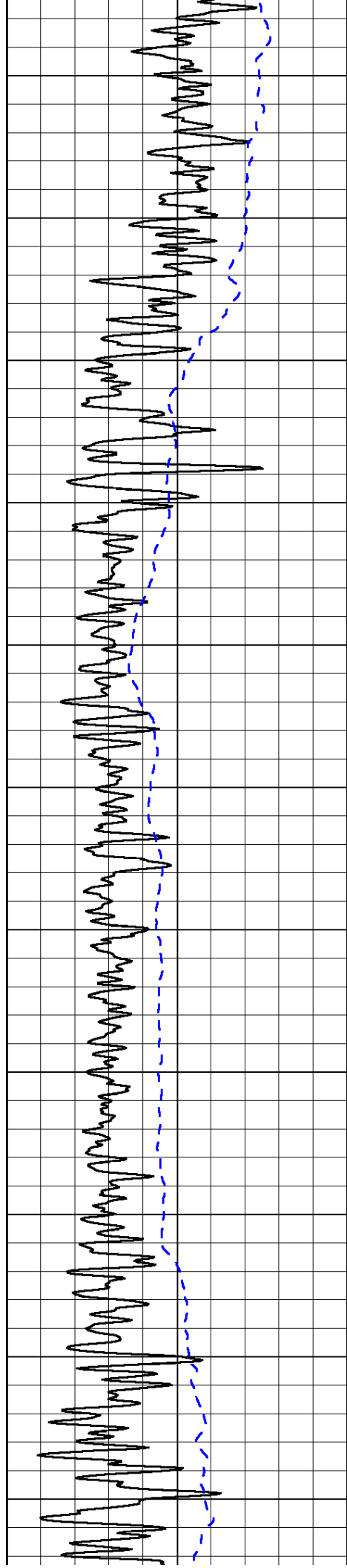
Sterling Ks., 4 South to Curve, 1/2 East, 1 South, 1 1/2 West, South Into.

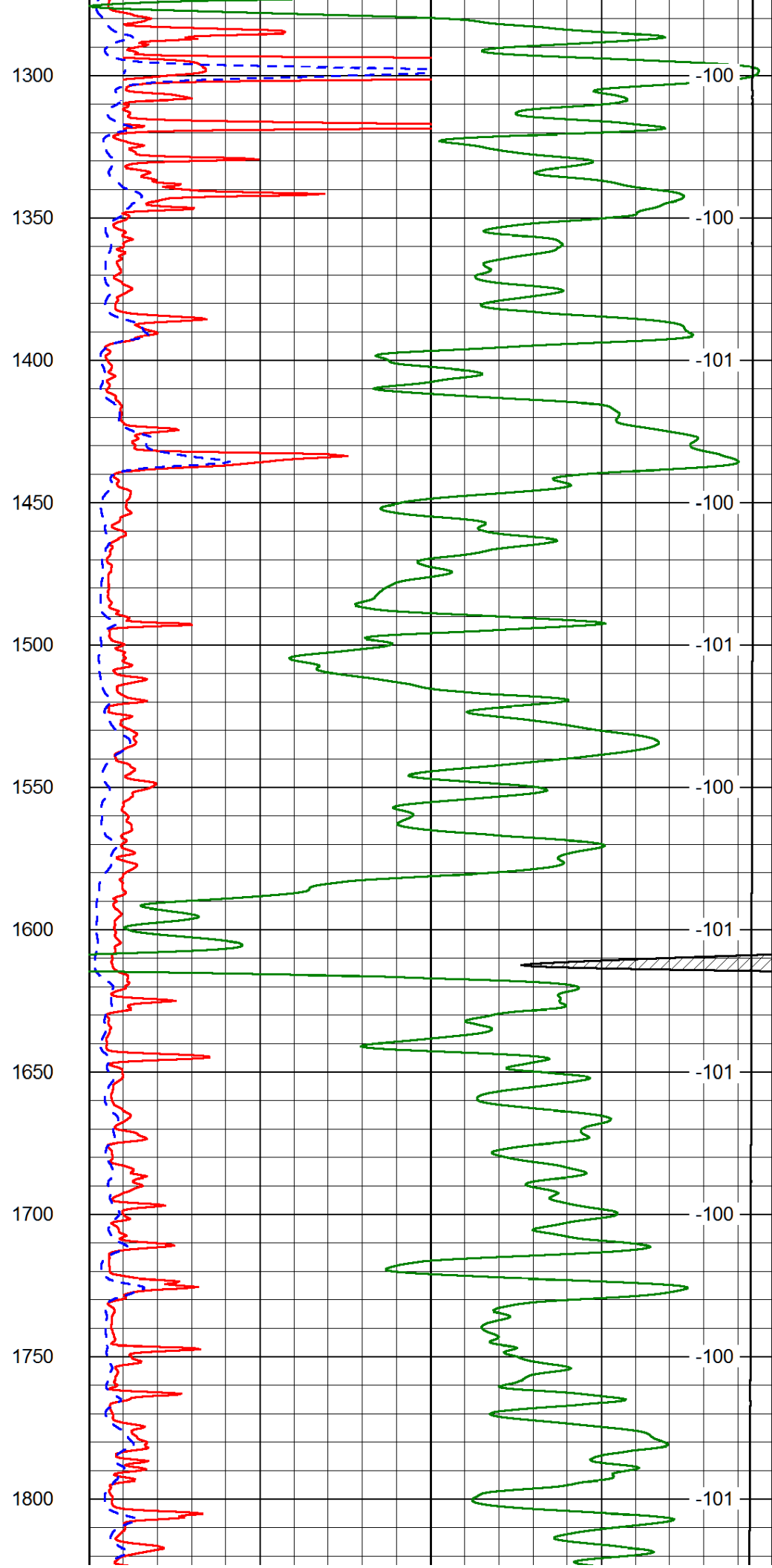
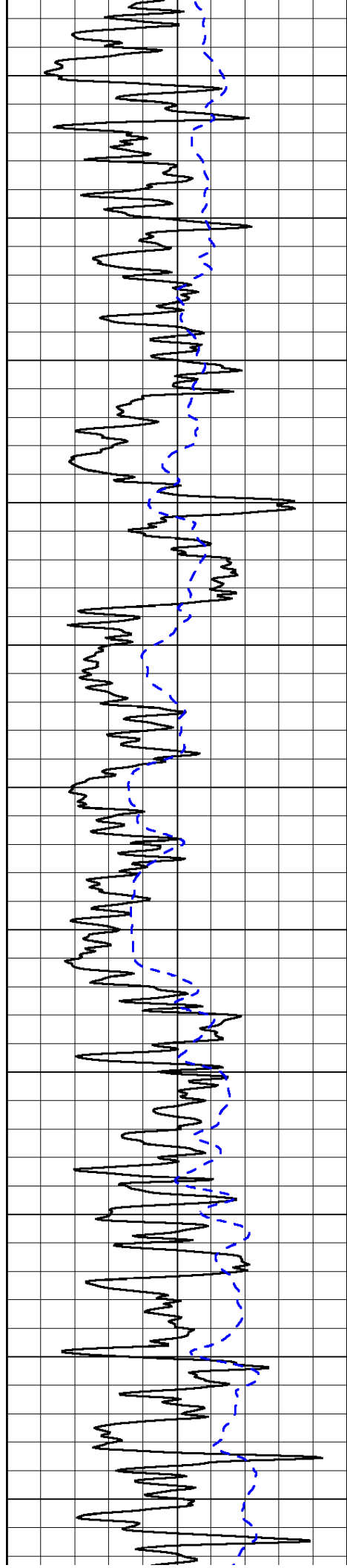
Database File: novy_oil_grover_3hd.db
Dataset Pathname: DIL/novstck
Presentation Format: dil2in
Dataset Creation: Wed Dec 17 06:52:00 2014
Charted by: Depth in Feet scaled 1:600

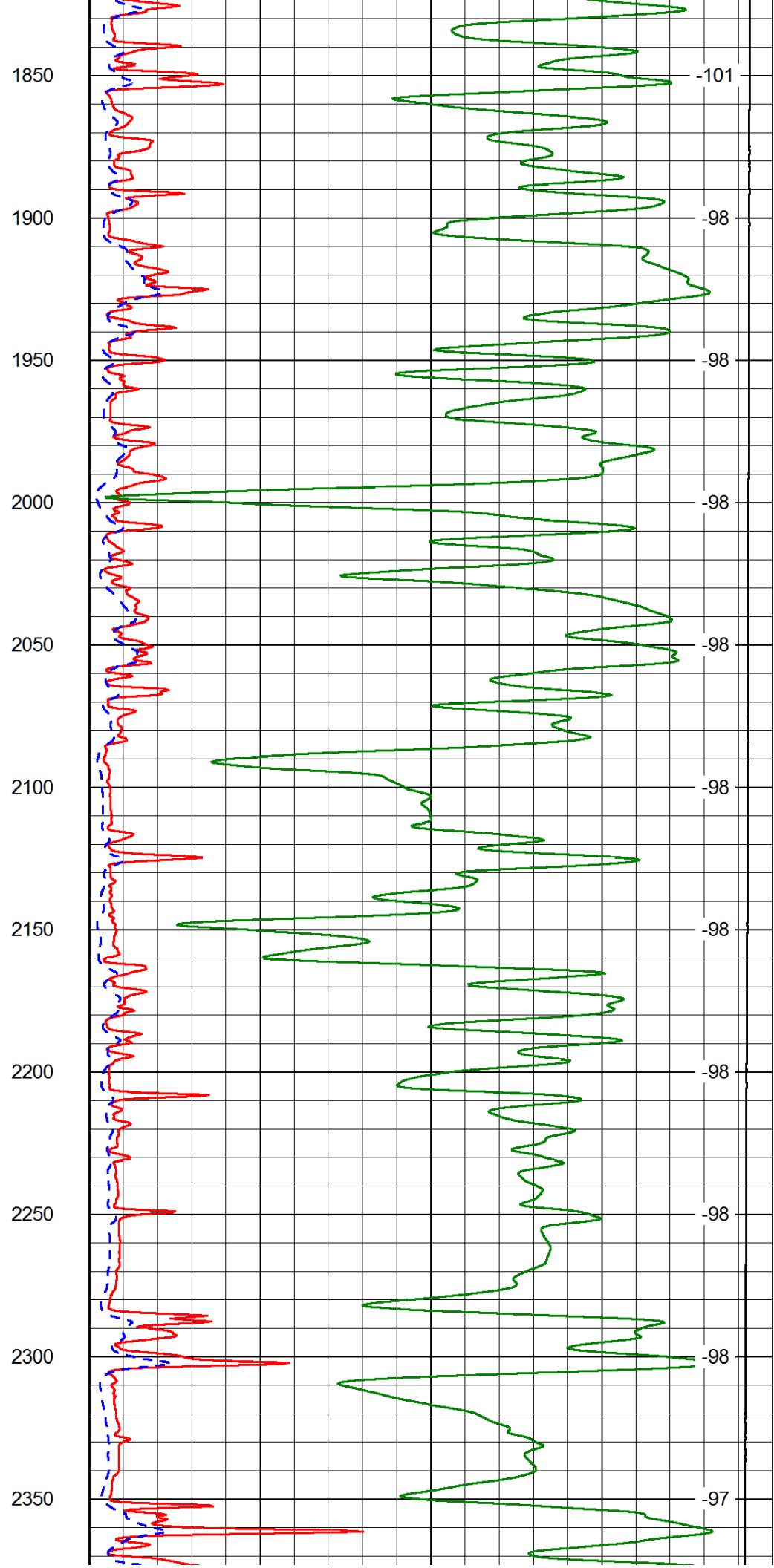
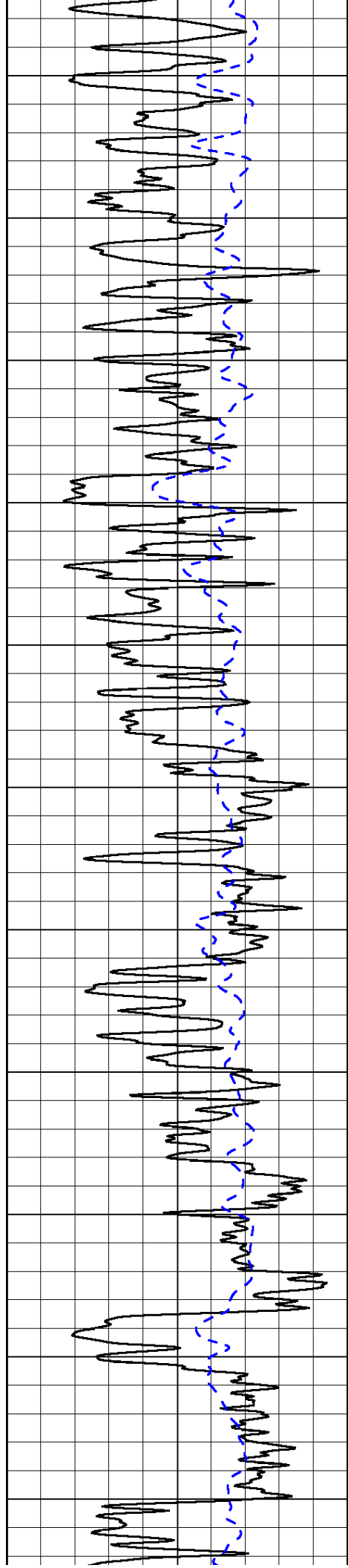
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-200	SP (mV)	0

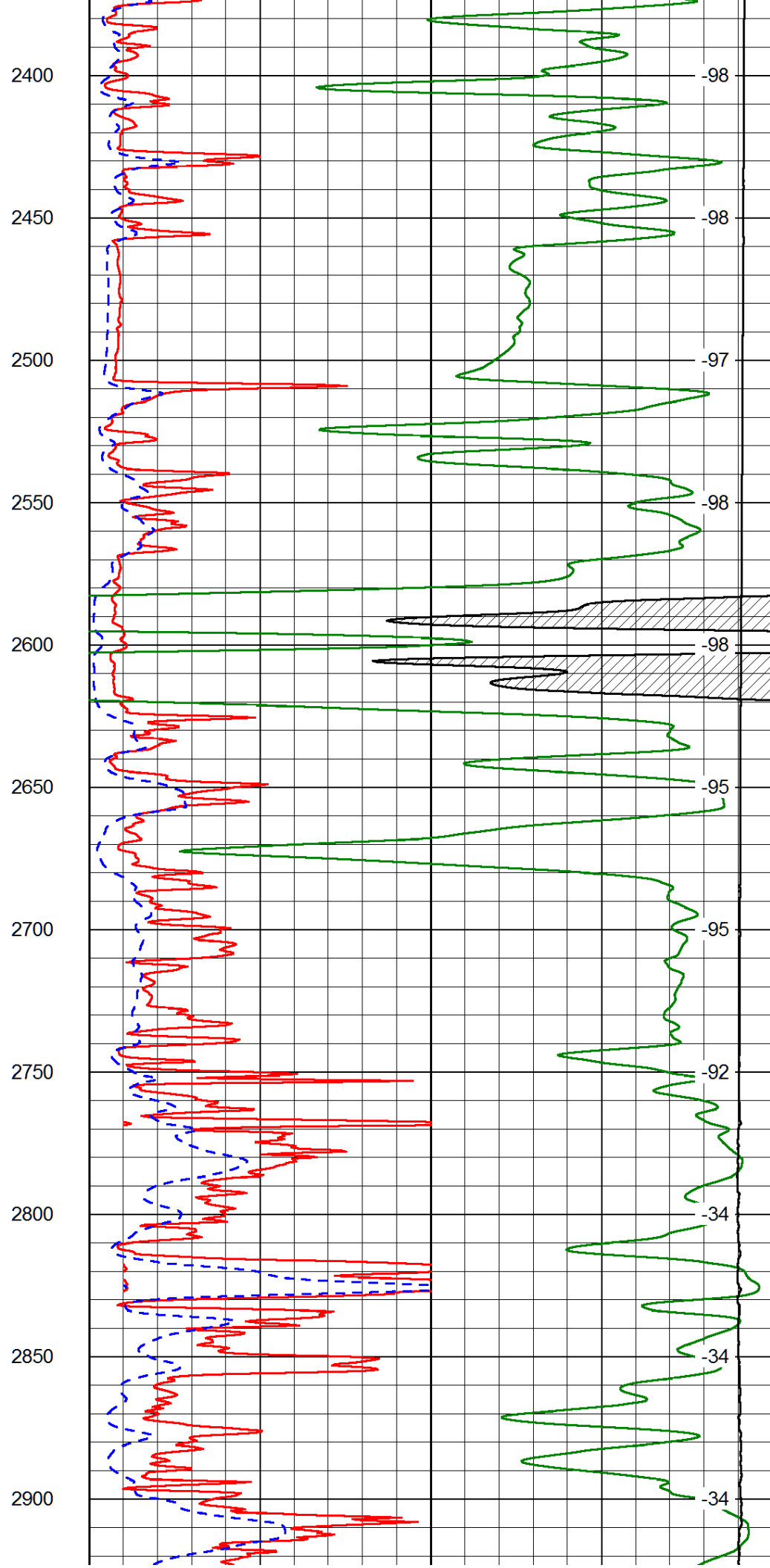
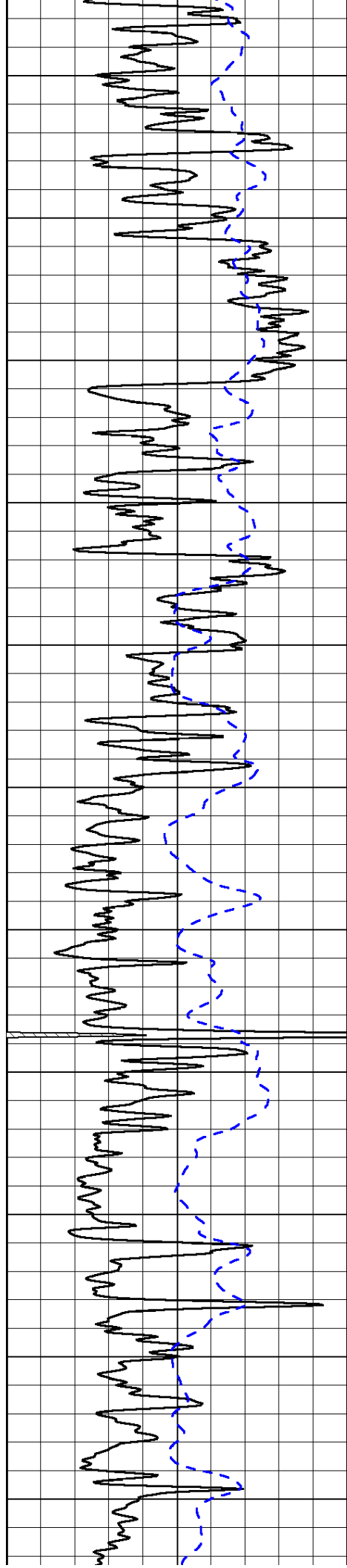
0	Shallow Resistivity	50
0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0
50	Shallow Resistivity	500
50	Deep Resistivity	500

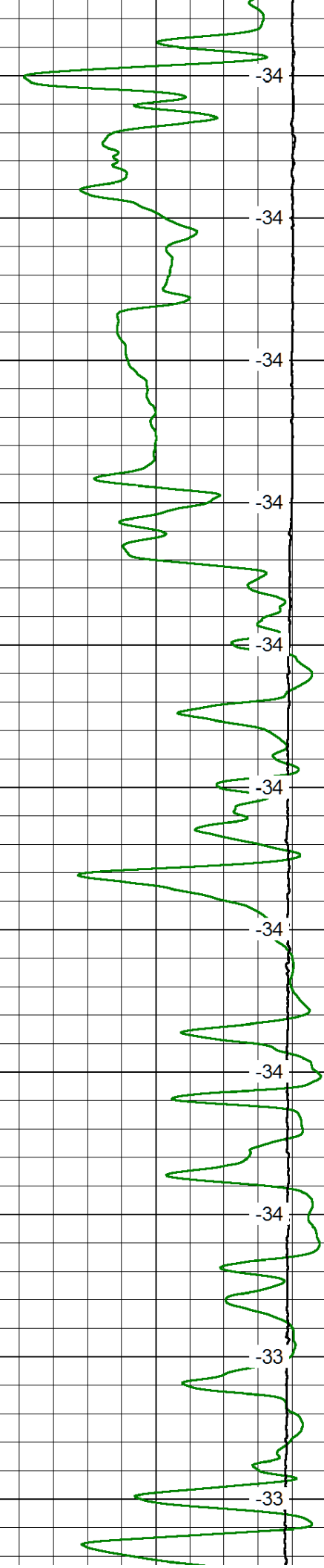
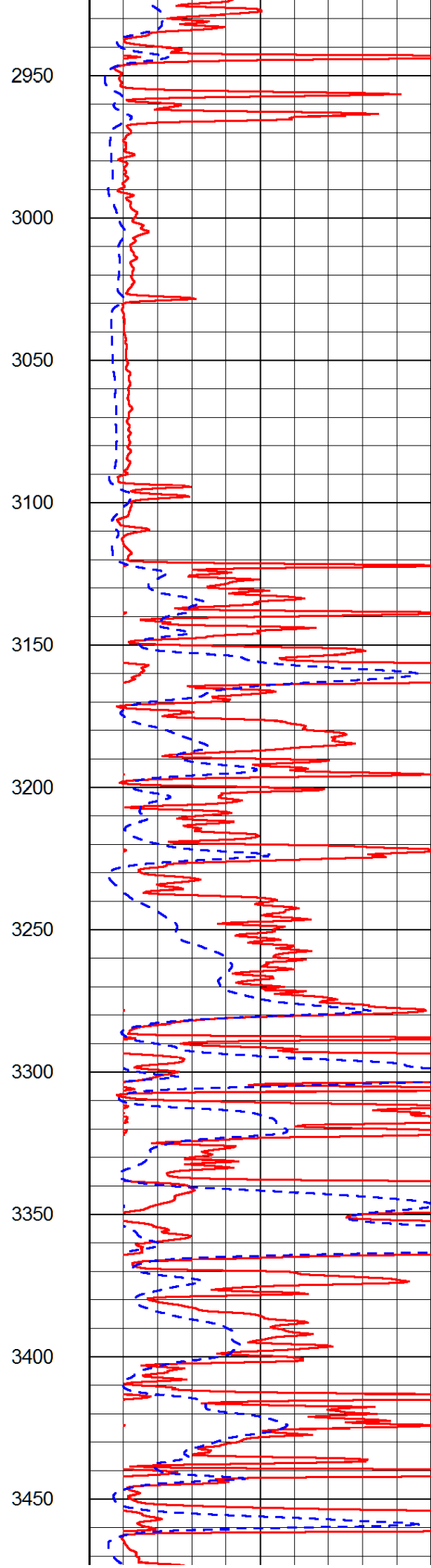
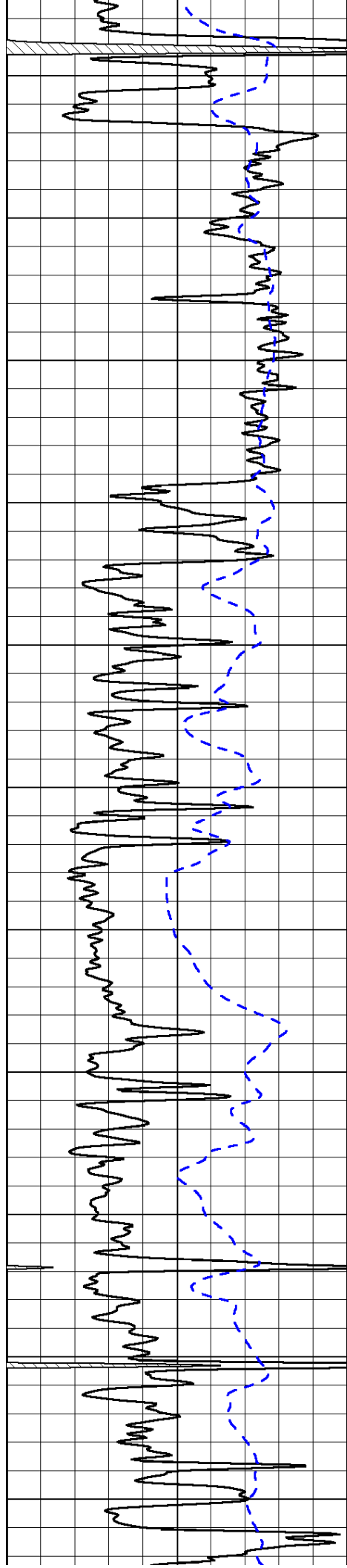


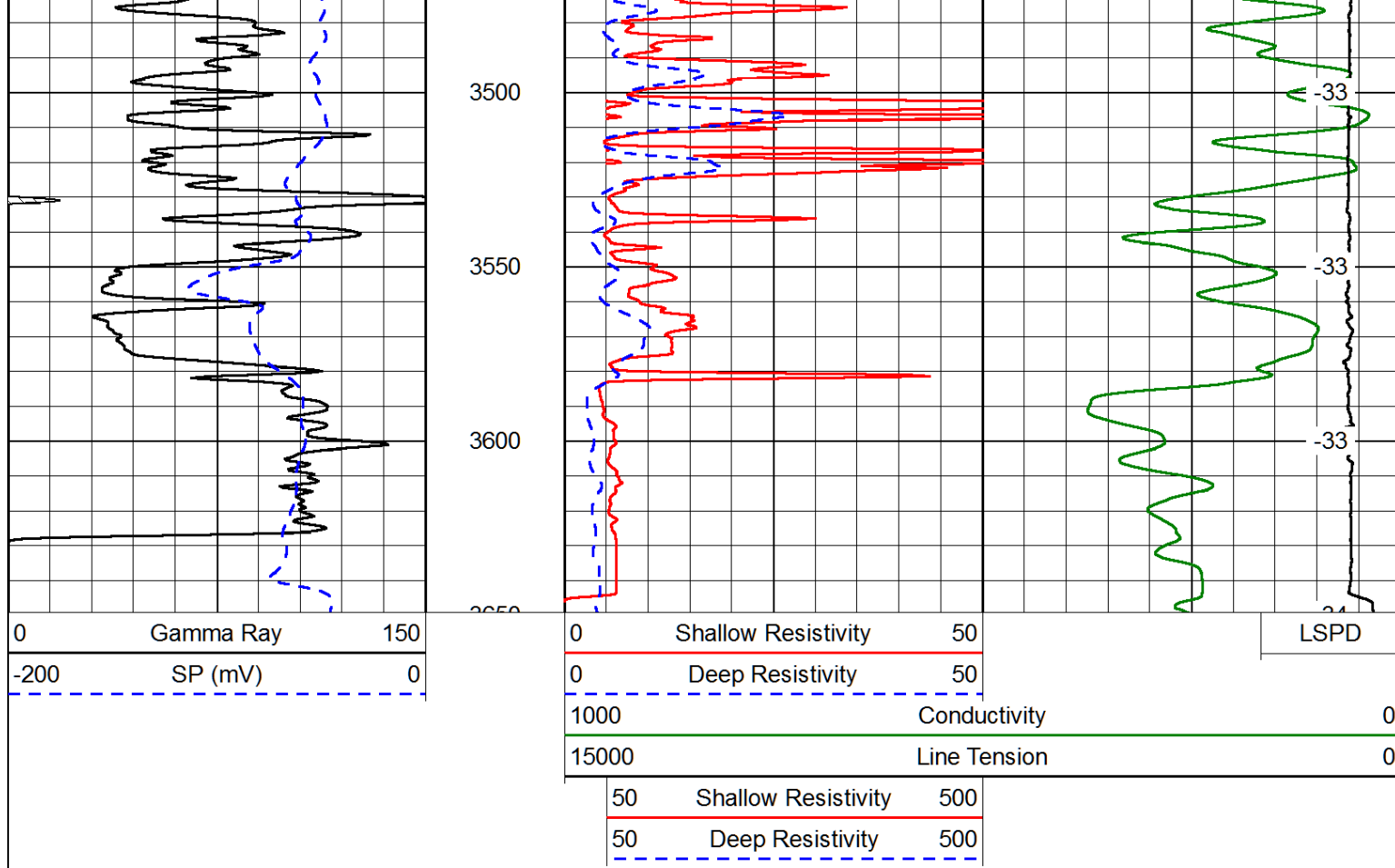




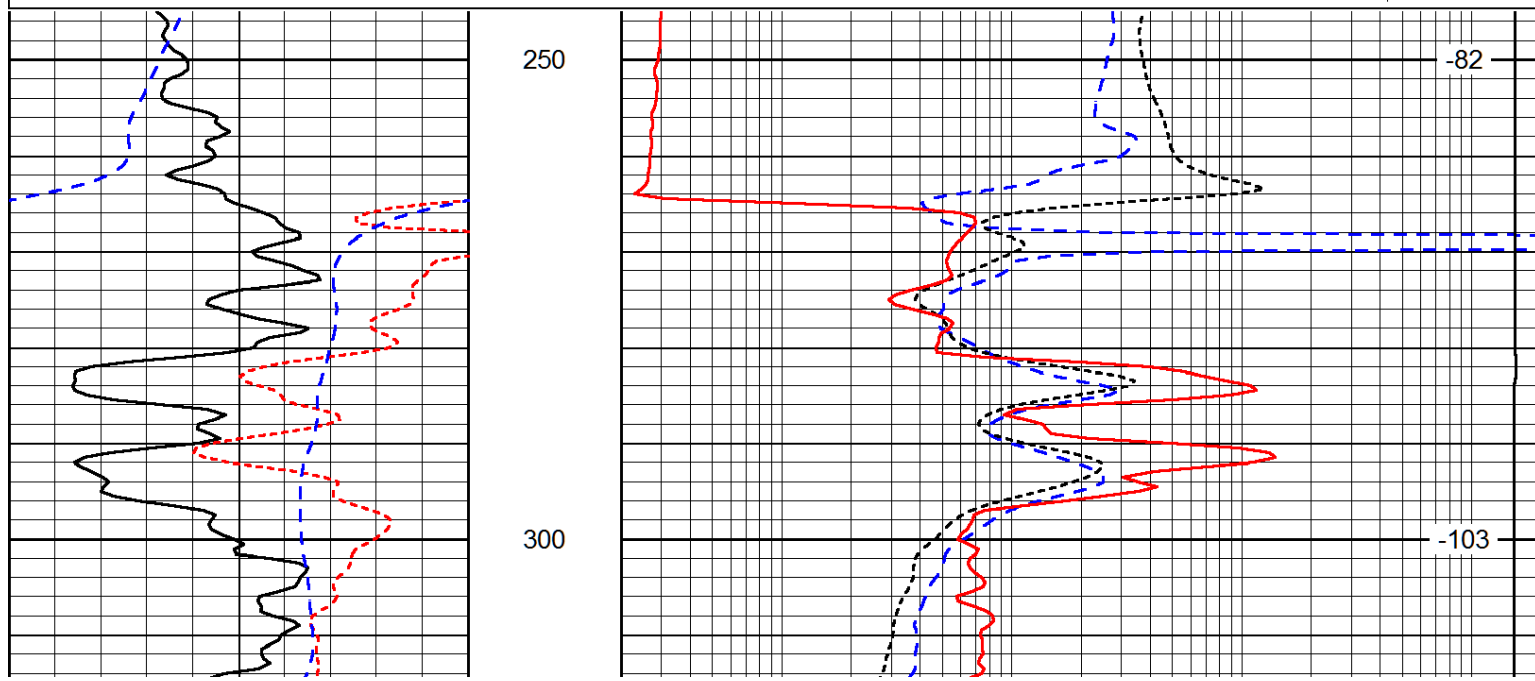
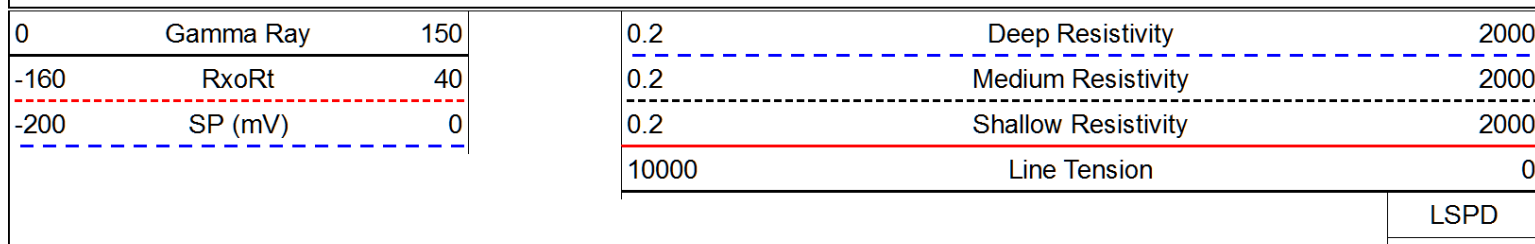


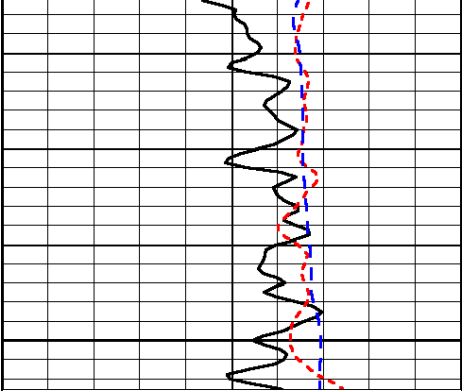






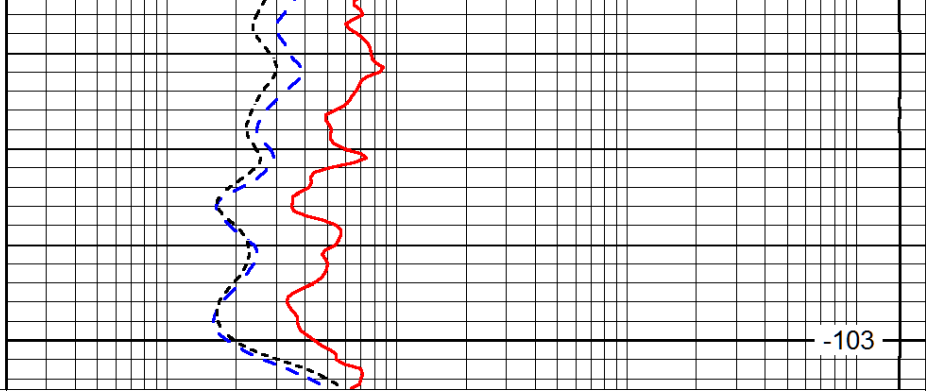
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 Dataset Pathname: DIL/novstck
 Presentation Format: dil
 Dataset Creation: Wed Dec 17 06:52:00 2014
 Charted by: Depth in Feet scaled 1:240





0	Gamma Ray	150
-160	RxoRt	40
-200	SP (mV)	0

350



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

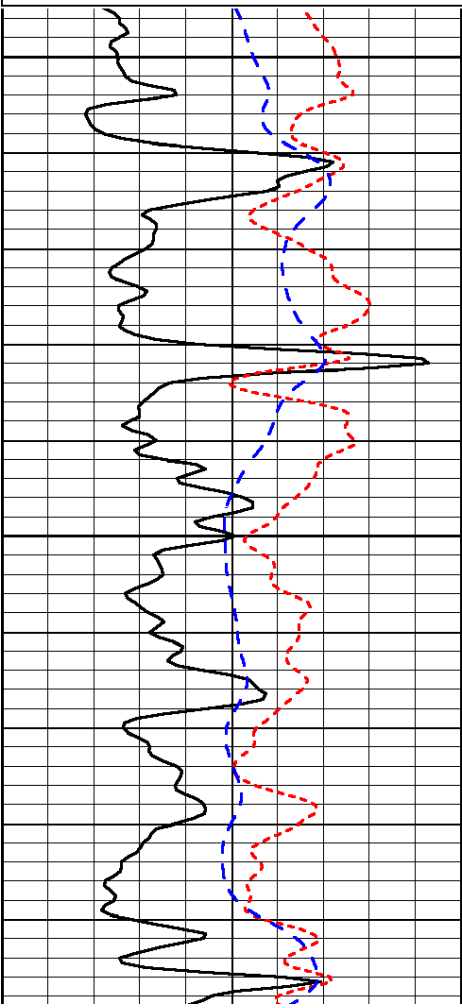
LSPD

Database File: novy_oil_grover_3hd.db
Dataset Pathname: DIL/novstck
Presentation Format: dil
Dataset Creation: Wed Dec 17 06:52:00 2014
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
-160	RxoRt	40
-200	SP (mV)	0

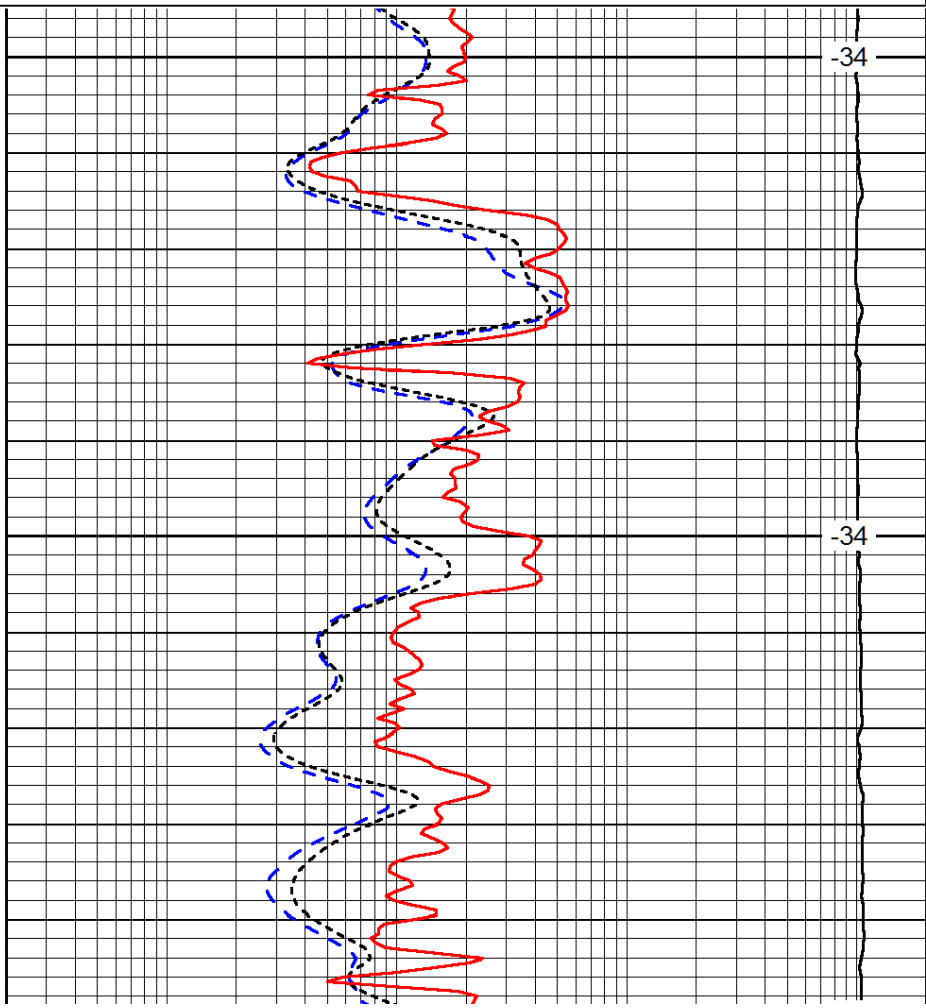
0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD



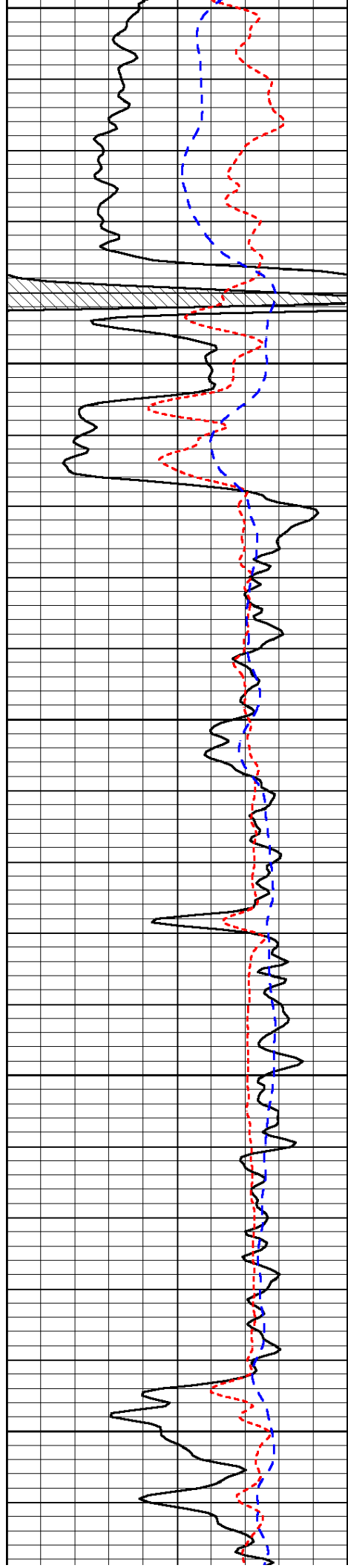
2800

2850



-34

-34



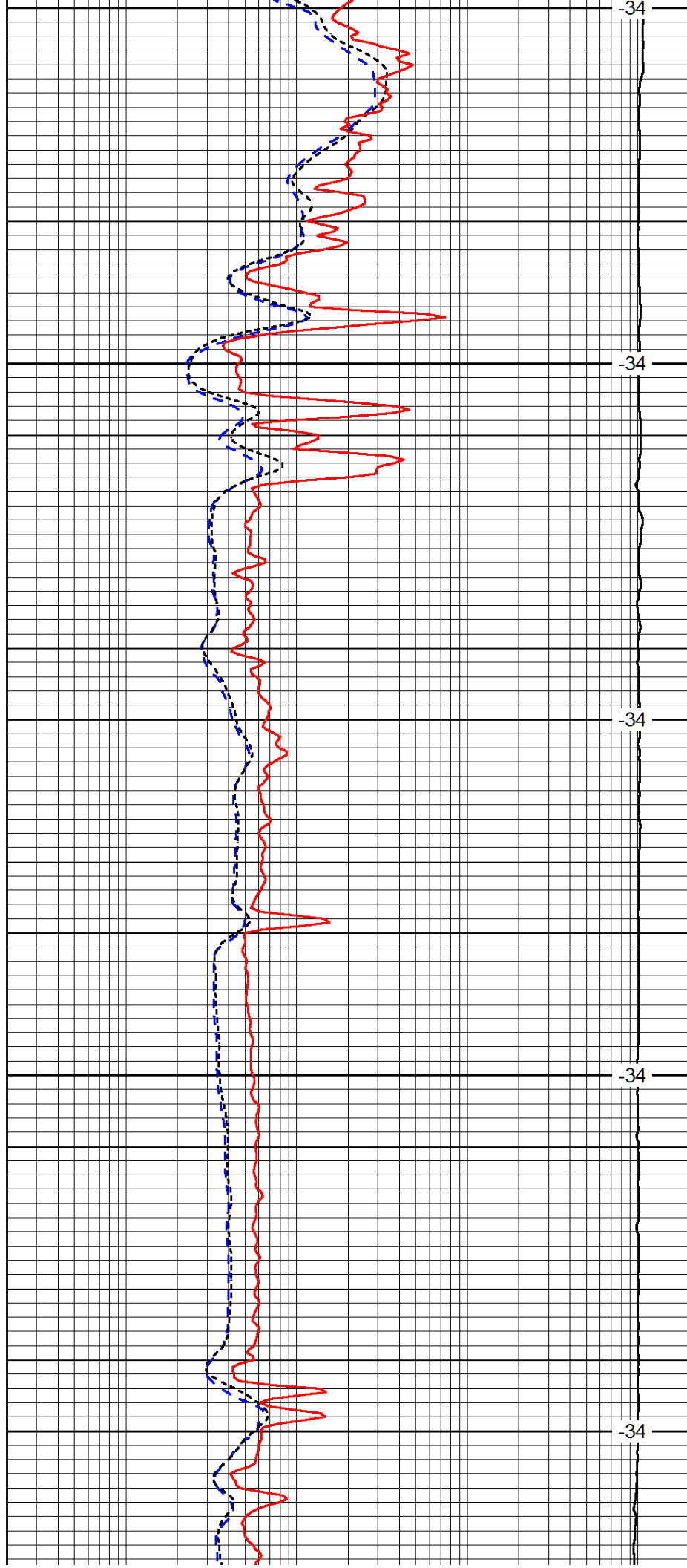
2900

2950

3000

3050

3100



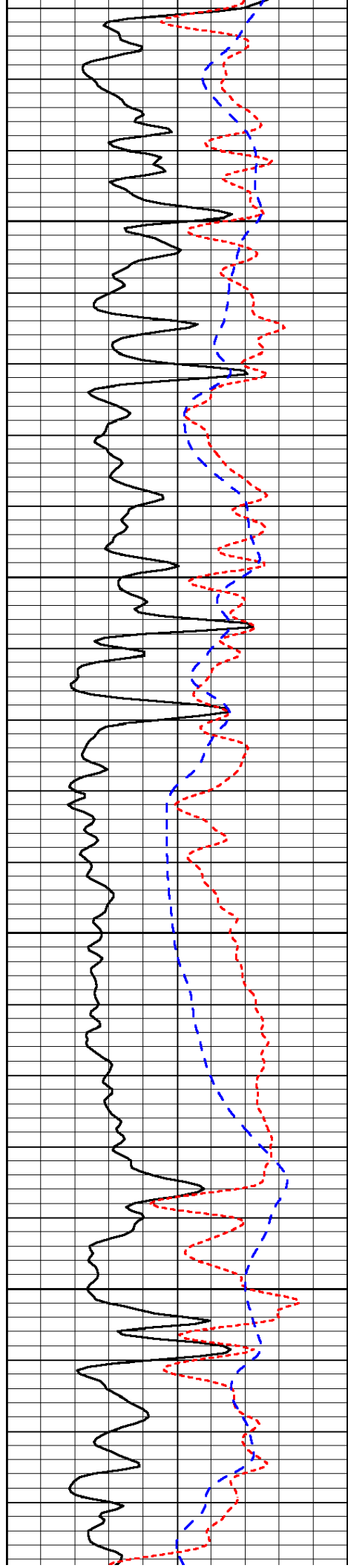
-34

-34

-34

-34

-34

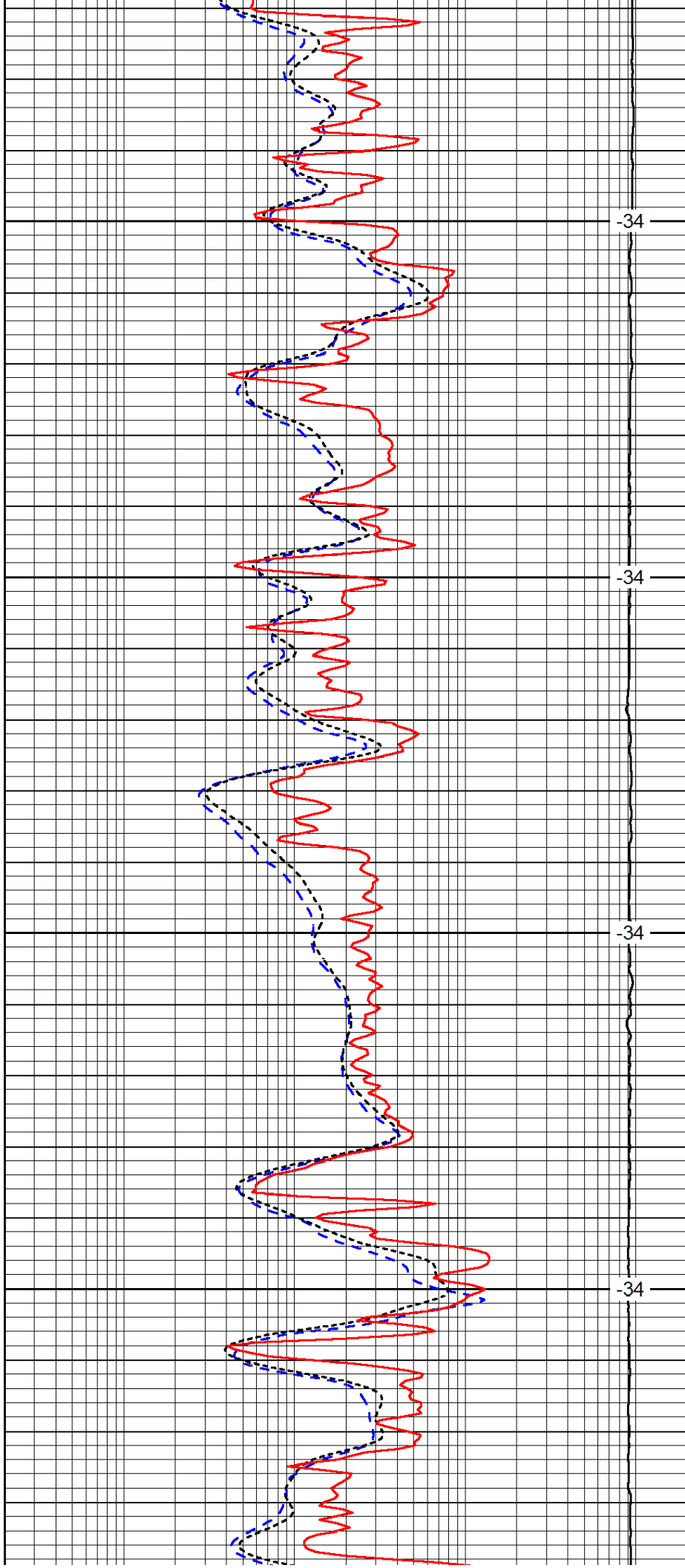


3150

3200

3250

3300

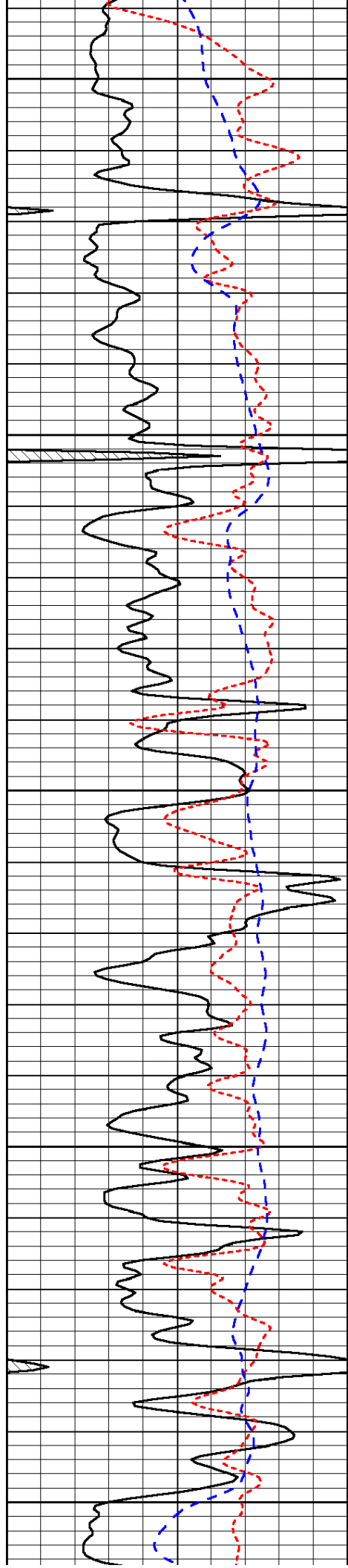


-34

-34

-34

-34



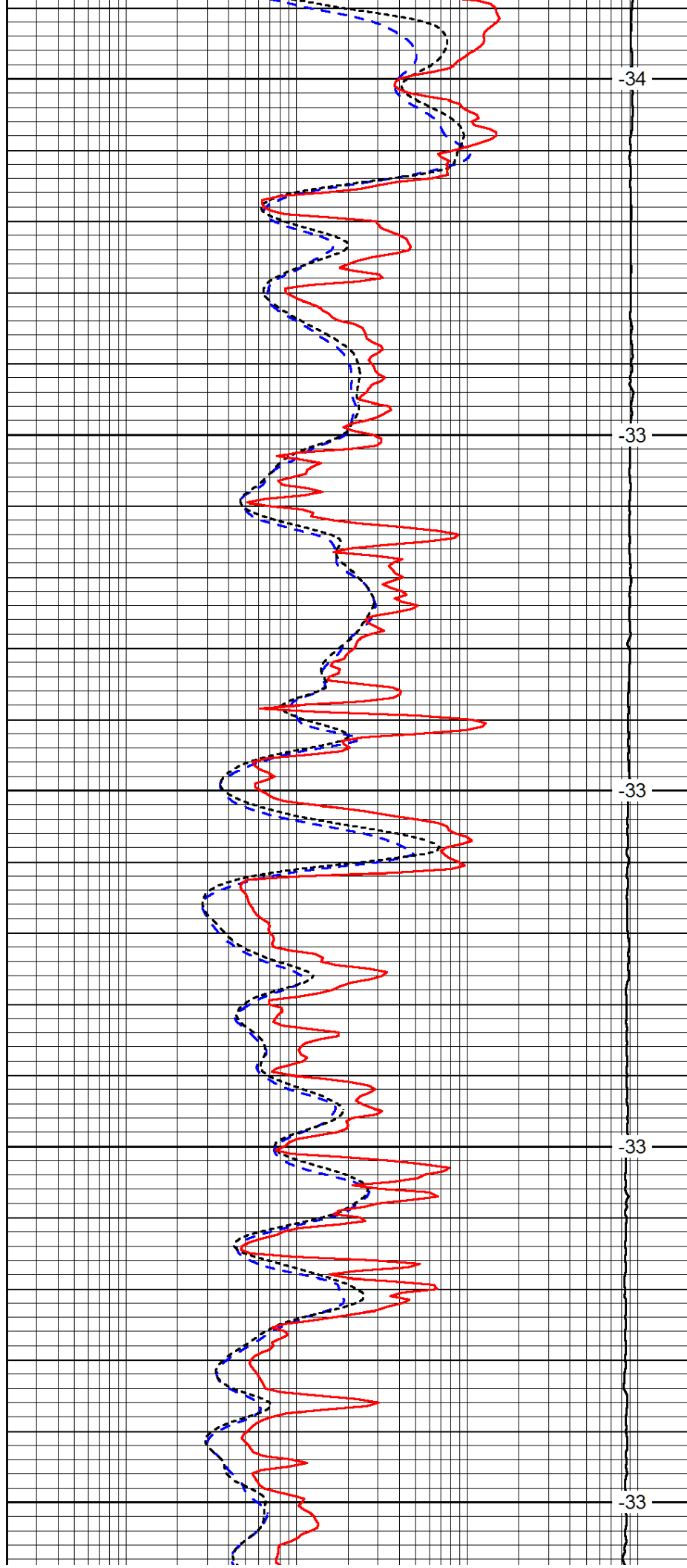
3350

3400

3450

3500

3550



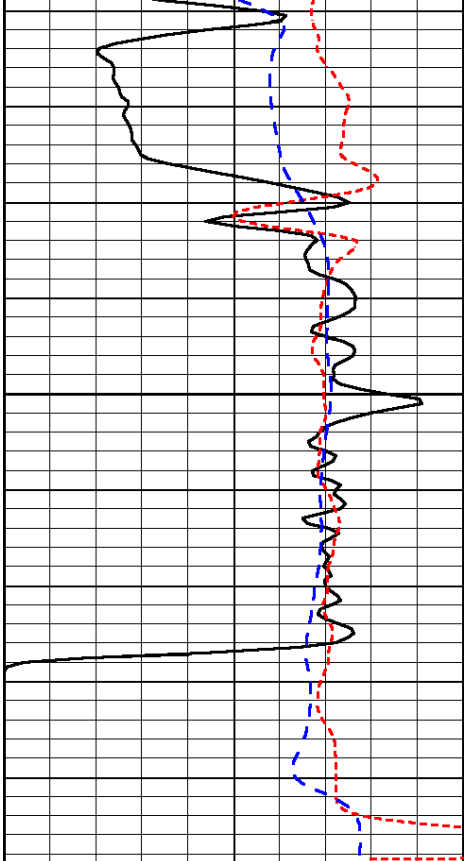
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-33

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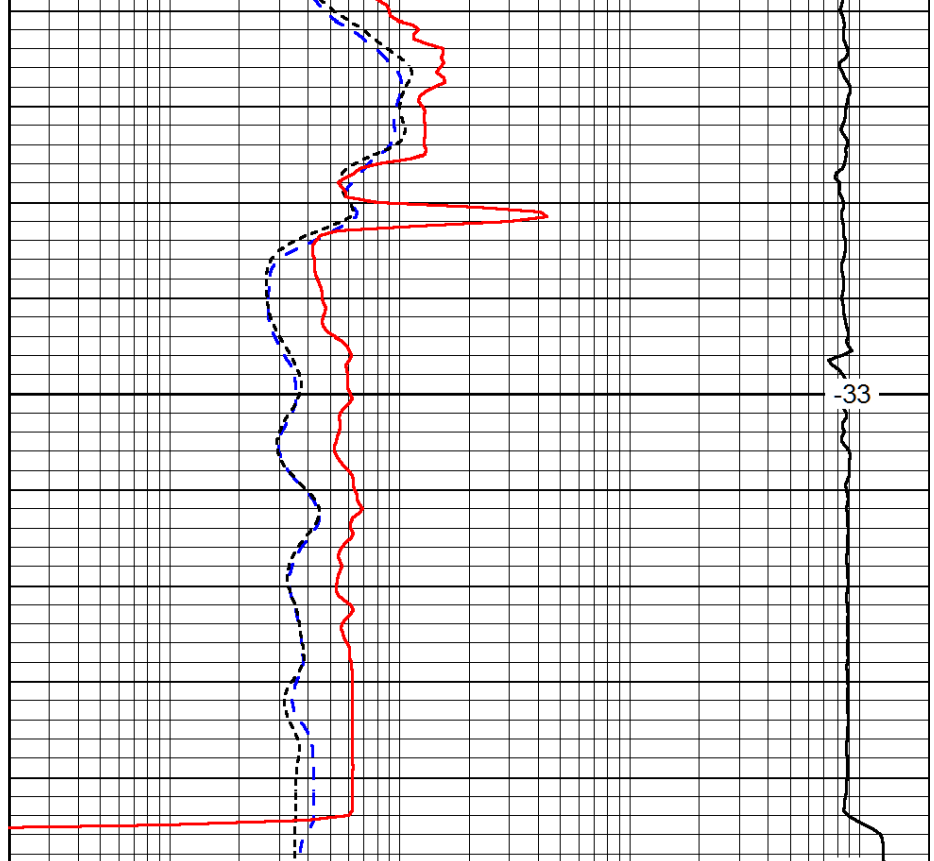
-33

-33



0	Gamma Ray	150
-160	RxoRt	40
-200	SP (mV)	0

3600



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

LSPD