



# DUAL INDUCTION LOG

Pioneer Energy Services

Company THOMAS GARNER, INC.  
Well GARNER NO. 6  
Field LEISS NORTHWEST  
County STAFFORD State KANSAS

Location: API #: 15-185-23939-00-00

Other Services

SEC 15 TWP 25S RGE 13W  
330' FNL & 2344' FEL

CNL/CDL  
MEL

Permanent Datum GROUND LEVEL Elevation 1926  
Log Measured From KELLY BUSHING  
Drilling Measured From KELLY BUSHING

Elevation  
K.B. 1939  
D.F. N/A  
G.L. 1926

Date

6/30/15

Run Number

ONE

Depth Driller

4290

Depth Logger

4198

Bottom Logged Interval

4197

Top Log Interval

250

Casing Driller

8,625 @ 303

Casing Logger

296

Bit Size

7.875

Type Fluid in Hole

CHEMICAL

Salinity, ppm CL

7,000

Density / Viscosity

9.2 60

pH / Fluid Loss

10.0 9.6

Source of Sample

Flowline

Rm @ Meas. Temp

.50 @ 75

Rmf @ Meas. Temp

.38 @ 75

Rmc @ Meas. Temp

.68 @ 75

Source of Rmf / Rmc

Charts

Rm @ BHT

.32 @ 119

Operating Rig Time

4 HOURS

Max Rec. Temp. F

119

Equipment Number

15

Location

Hays

Recorded By

J. HENRICKSON

Witnessed By

TOM GARNER

BRYCE GARNER

JOSH AUSTIN

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

## Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

ST. JOHN KANSAS  
SOUTH TO 50 RD, 1/2 EAST, SOUTH INTO

Log Measured From: KELLY BUSHING 13 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES  
www.pioneerenergy.com 785-625-3858

## Your Pioneer Energy Services Crew

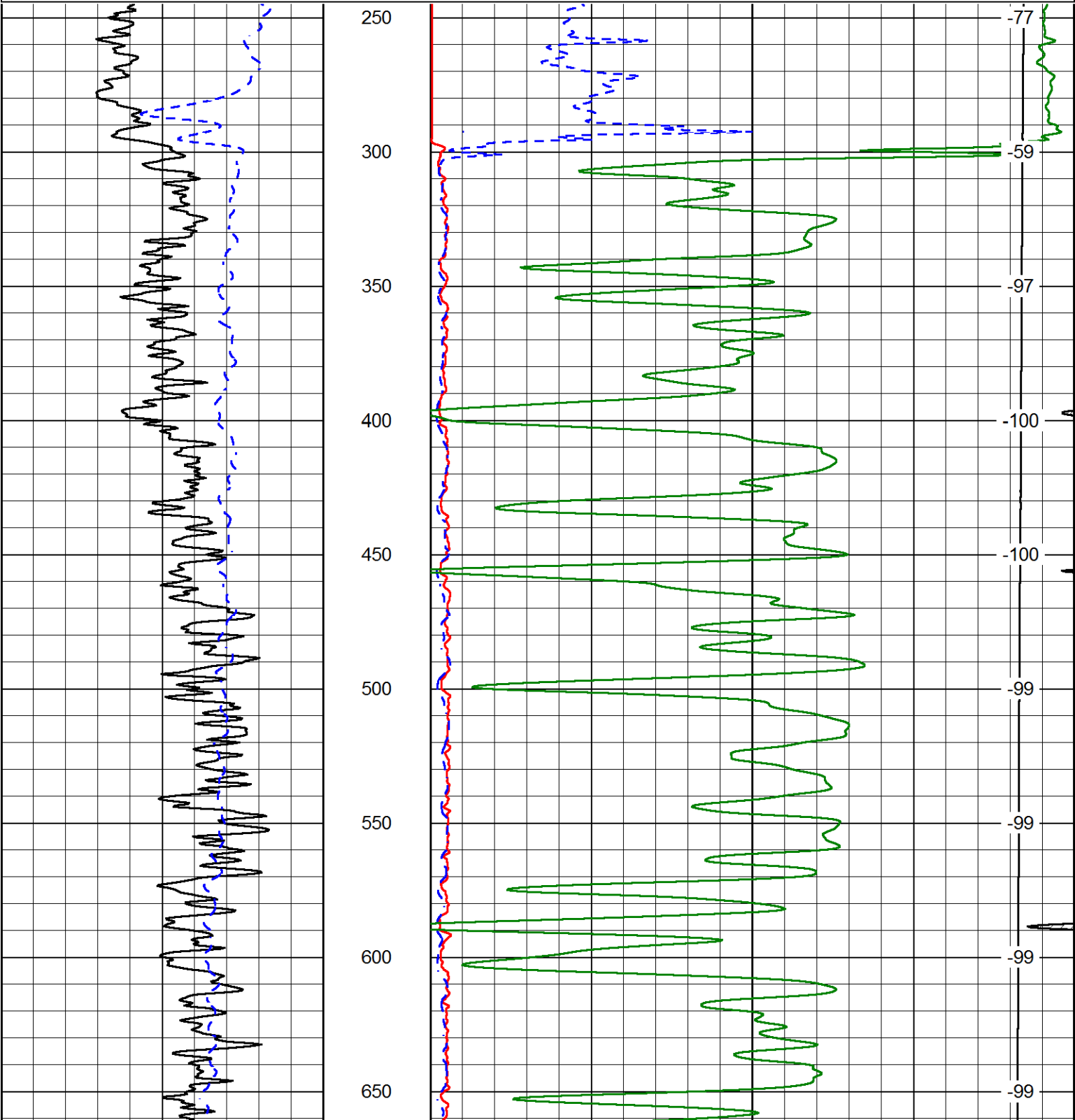
Engineer: J. HENRICKSON  
Operator:  
Operator:  
Operator:

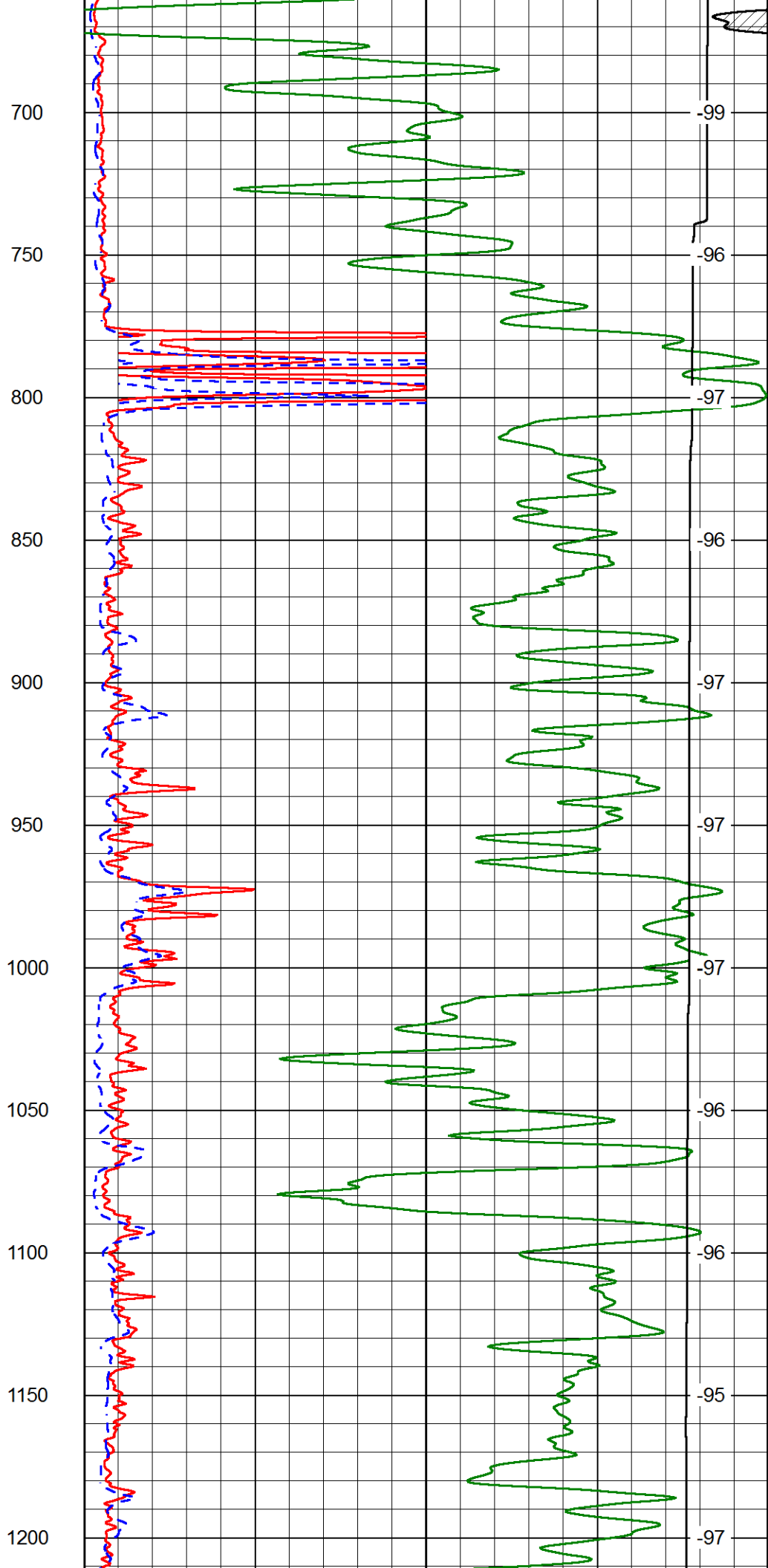
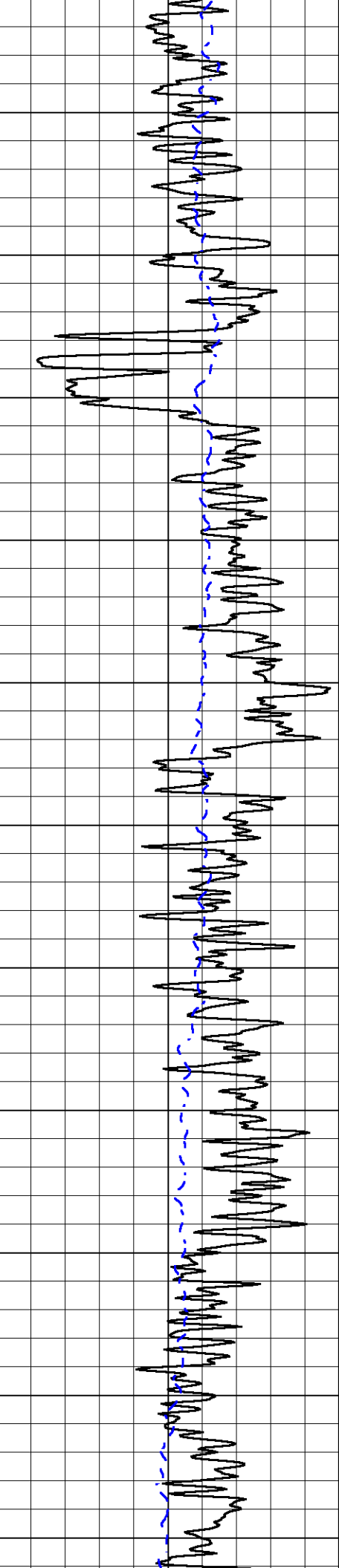
## This Log Record Was Witnessed By

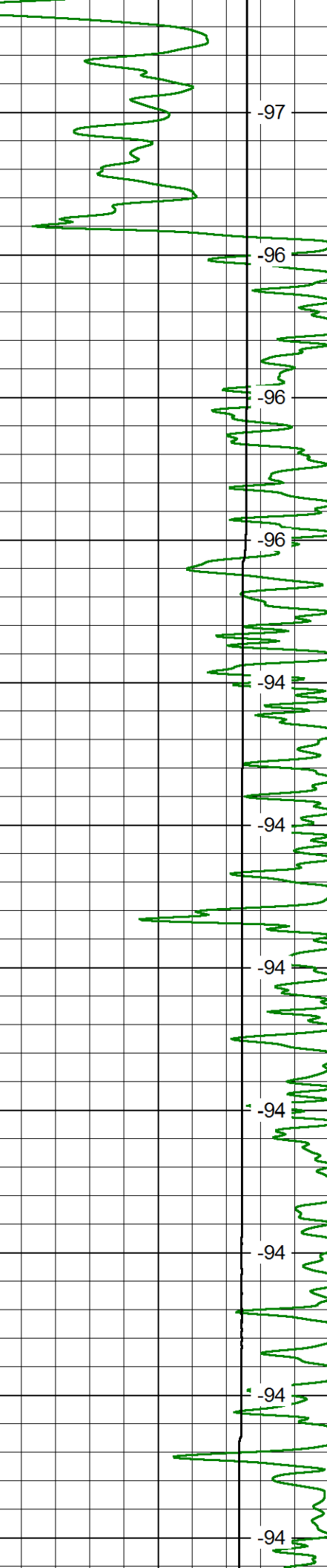
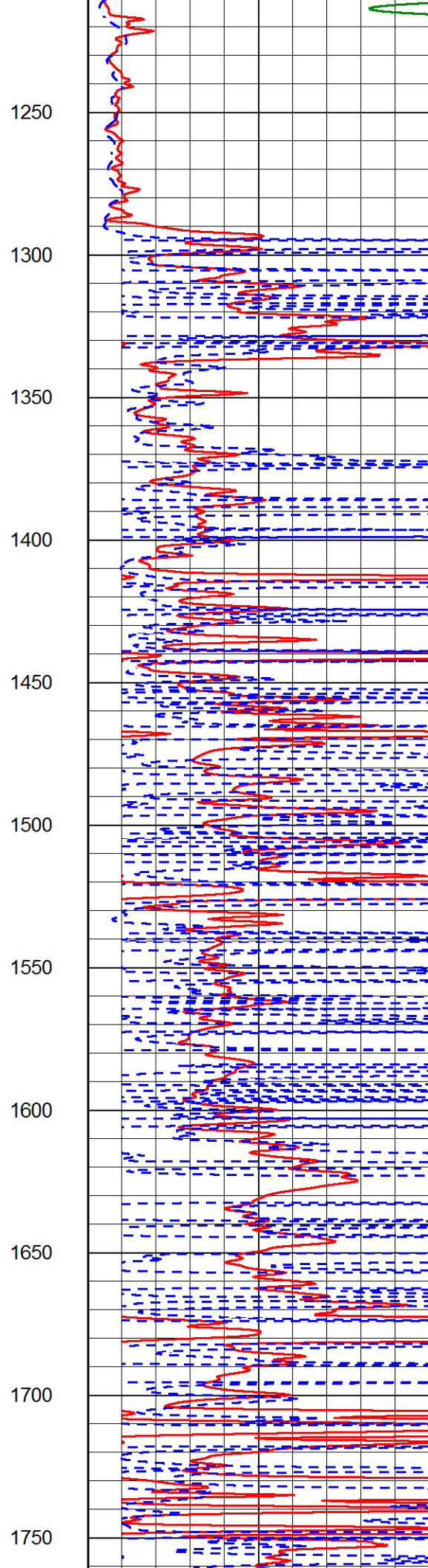
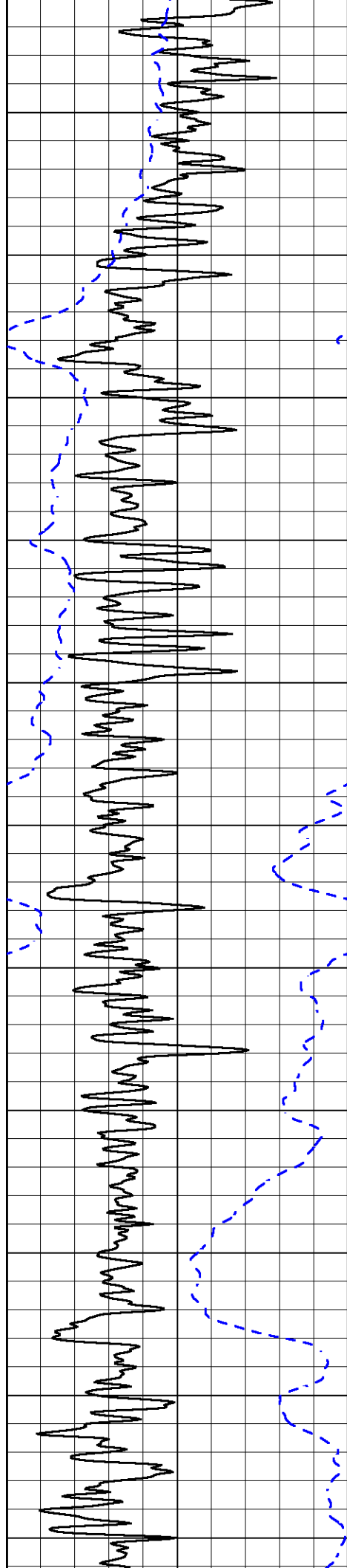
Primary Witness: TOM GARNER  
Secondary Witness: BRYCE GARNER  
Secondary Witness: JOSH AUSTIN  
Secondary Witness:

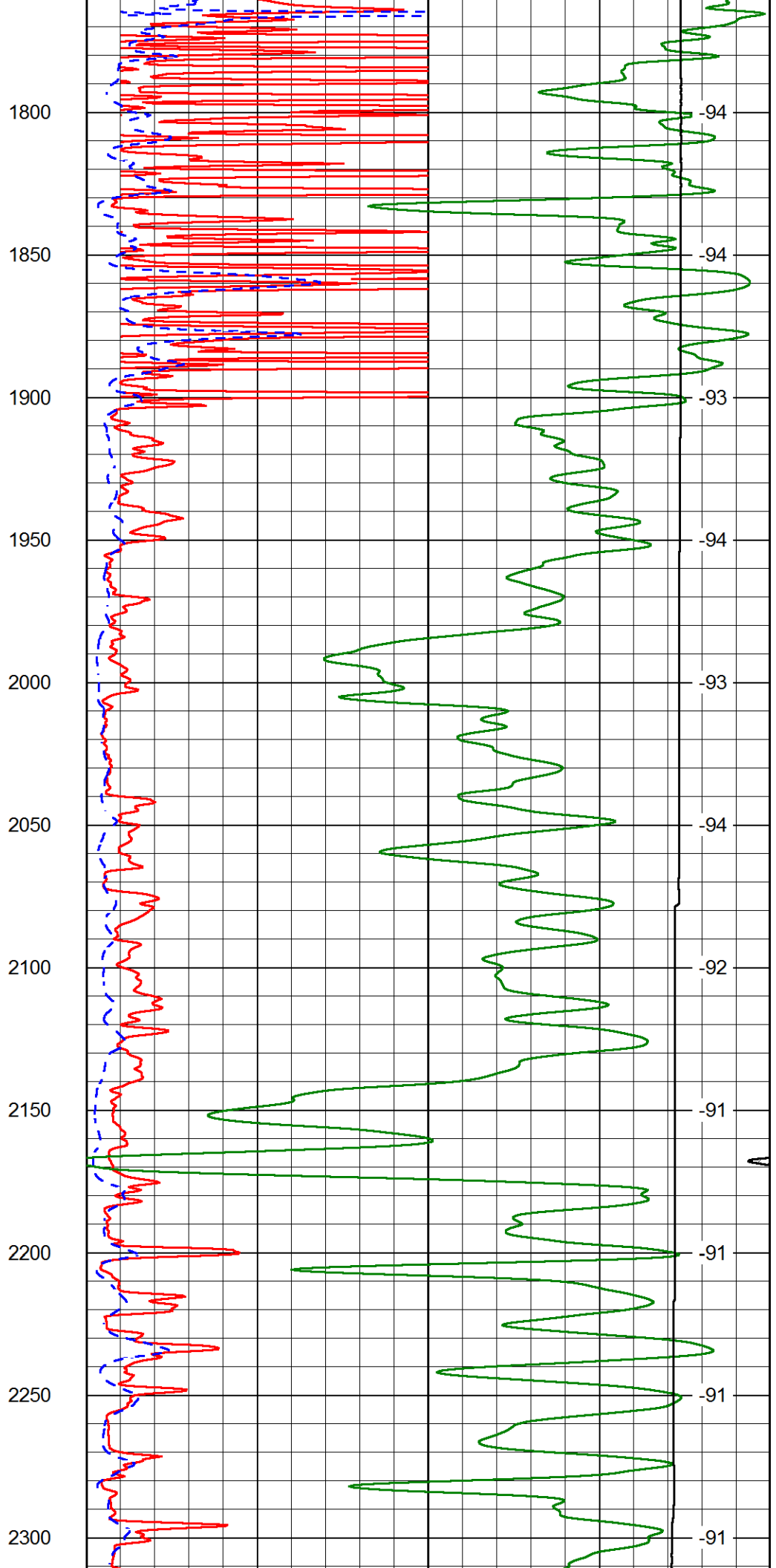
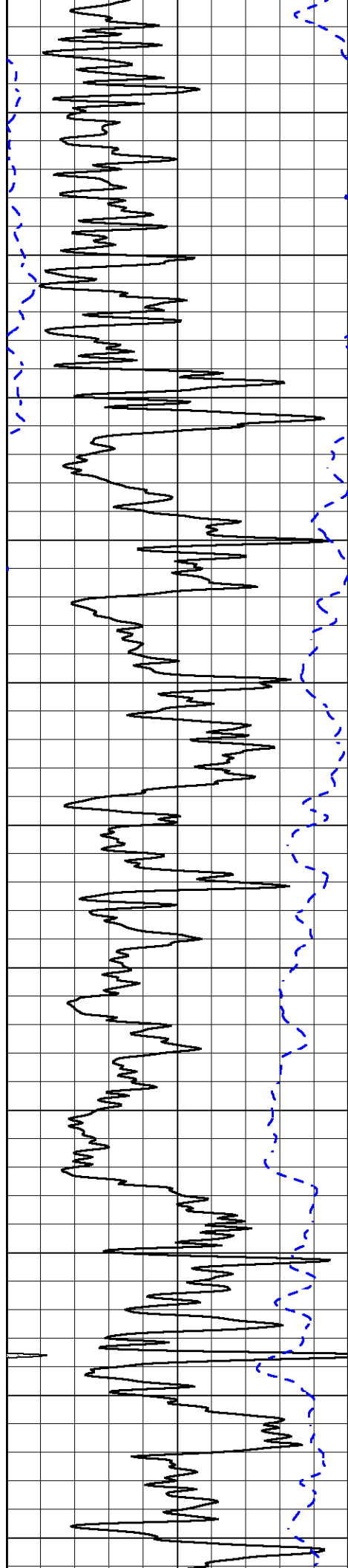
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|---------------------|-----------------------------|
| Database File       | thomas_garner_garner_6hd.db |
| Dataset Pathname    | DIL/garstk                  |
| Presentation Format | dil2in                      |
| Dataset Creation    | Tue Jun 30 19:28:25 2015    |
| Charted by          | Depth in Feet scaled 1:600  |

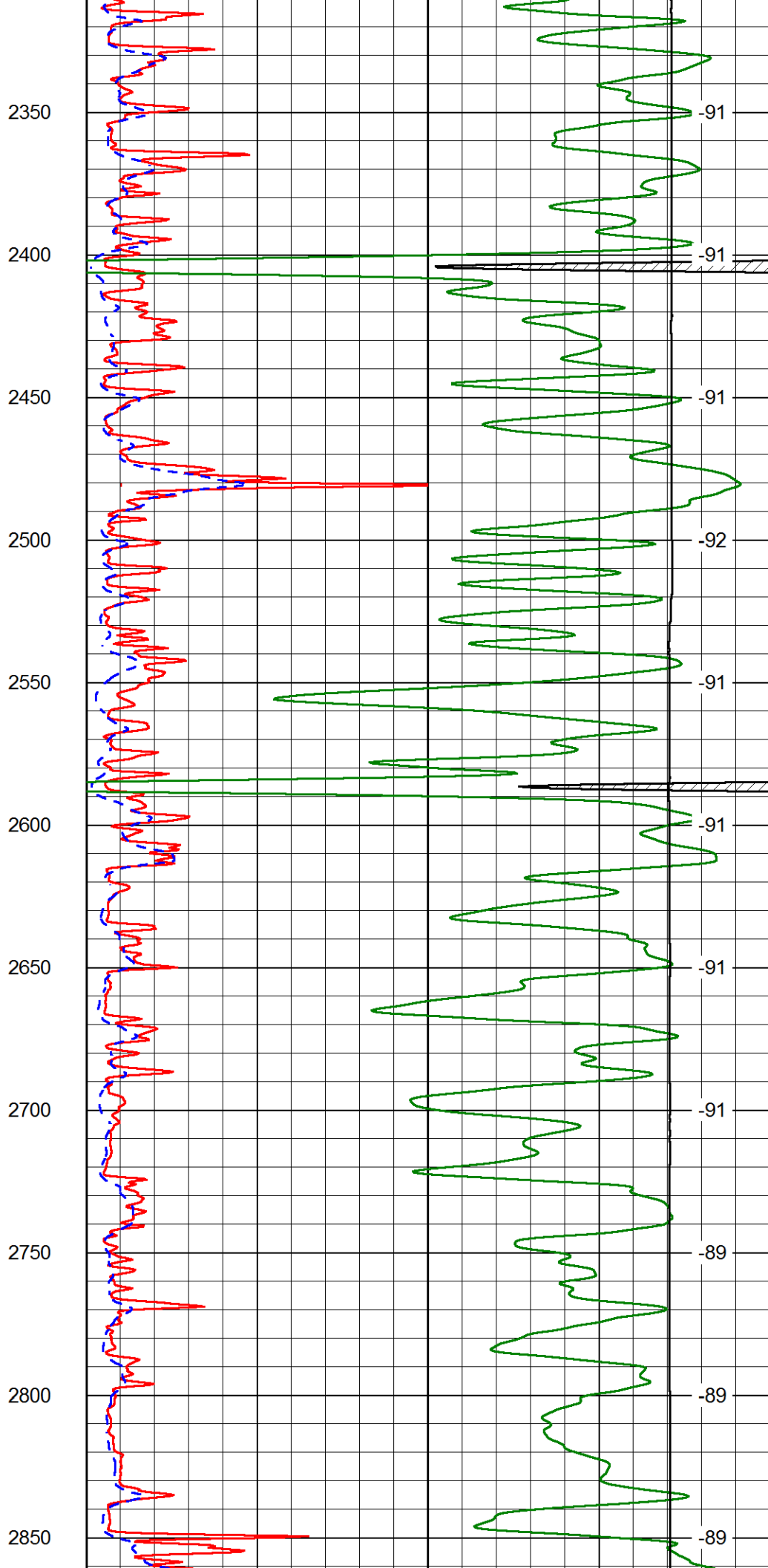
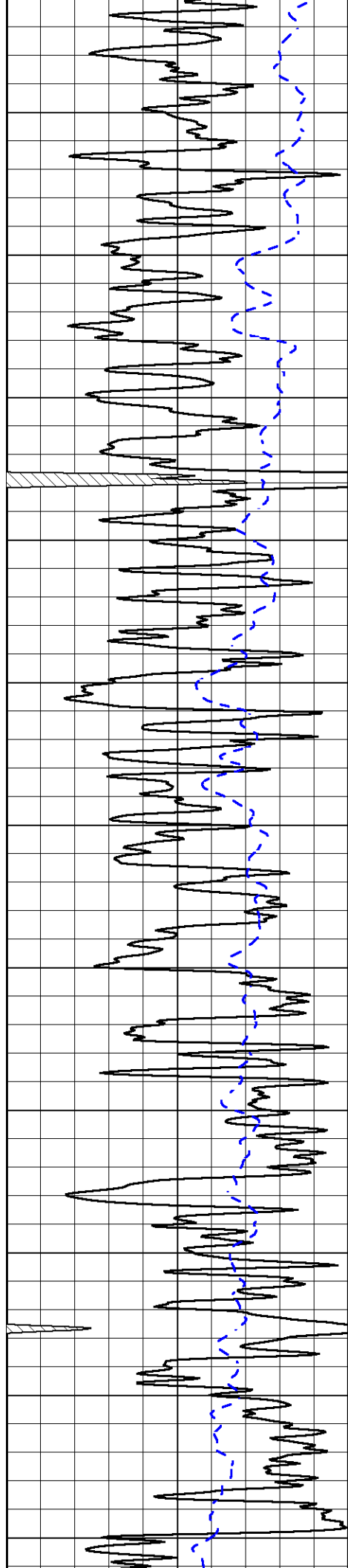
|      |                  |     |                     |                             |          |
|------|------------------|-----|---------------------|-----------------------------|----------|
| 0    | Gamma Ray (GAPI) | 150 | 1000                | Conductivity                | 0        |
| -200 | SP (mV)          | 0   | 15000               | Line Tension (lb)           | 0        |
|      |                  |     | 0                   | Shallow Resistivity (Ohm-m) | 50       |
|      |                  |     | 0                   | Deep Resistivity (Ohm-m)    | 50       |
|      |                  |     | Shallow Resistivity |                             | LSPD     |
|      |                  |     | (Ohm-m)             |                             | (ft/min) |
|      |                  |     | 50                  | 500                         |          |
|      |                  |     | 50                  | Deep Resistivity (Ohm-m)    | 500      |

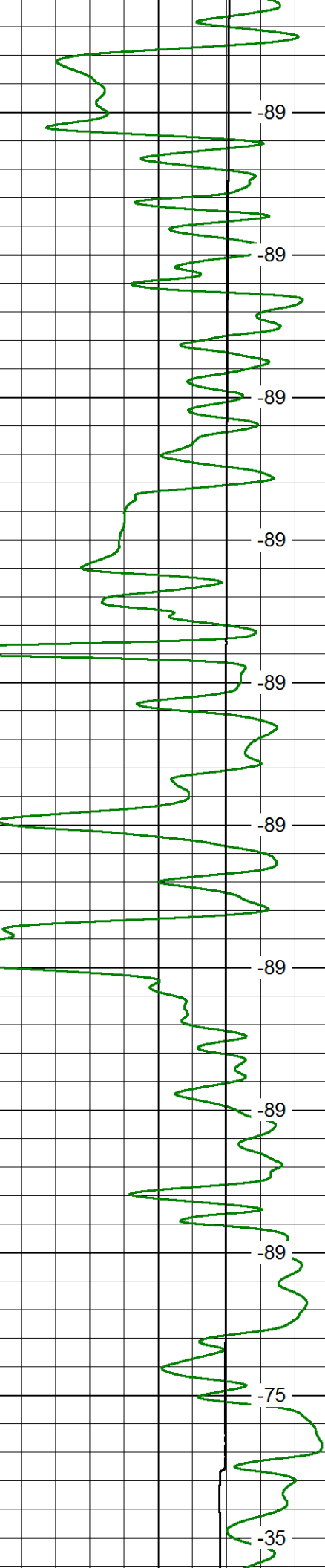
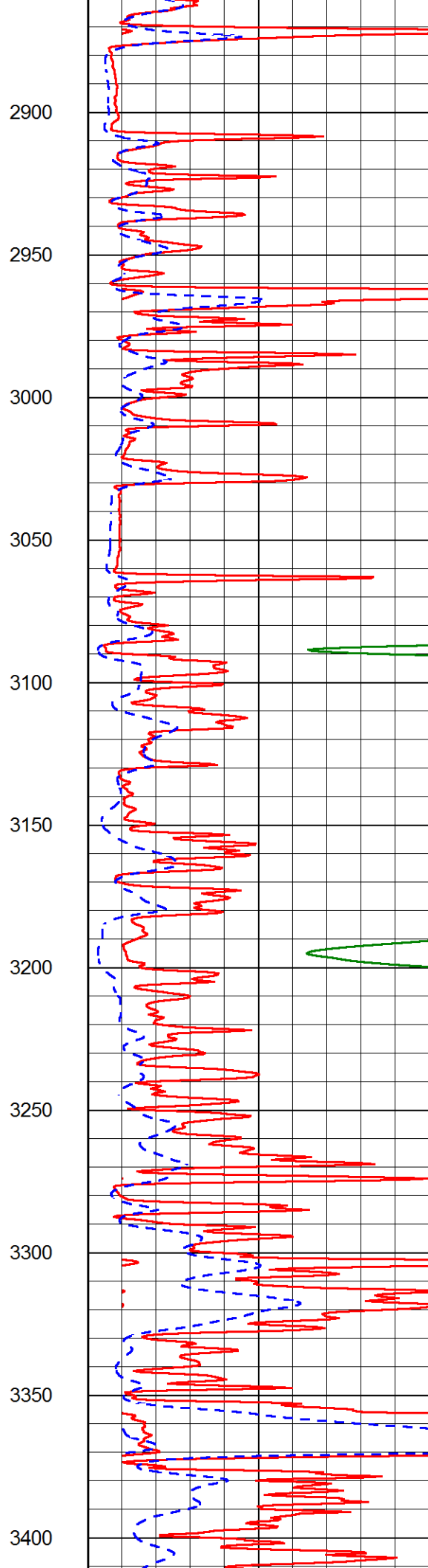
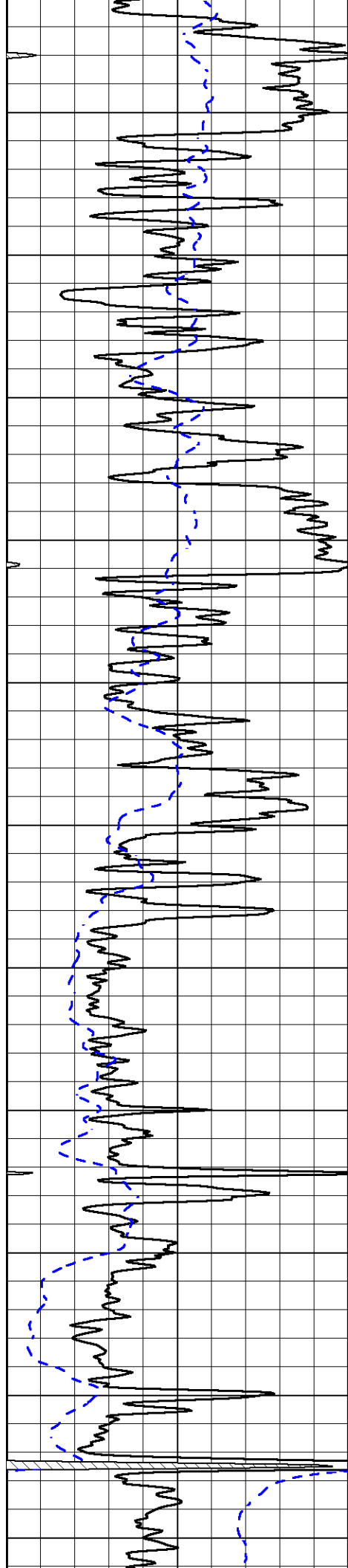


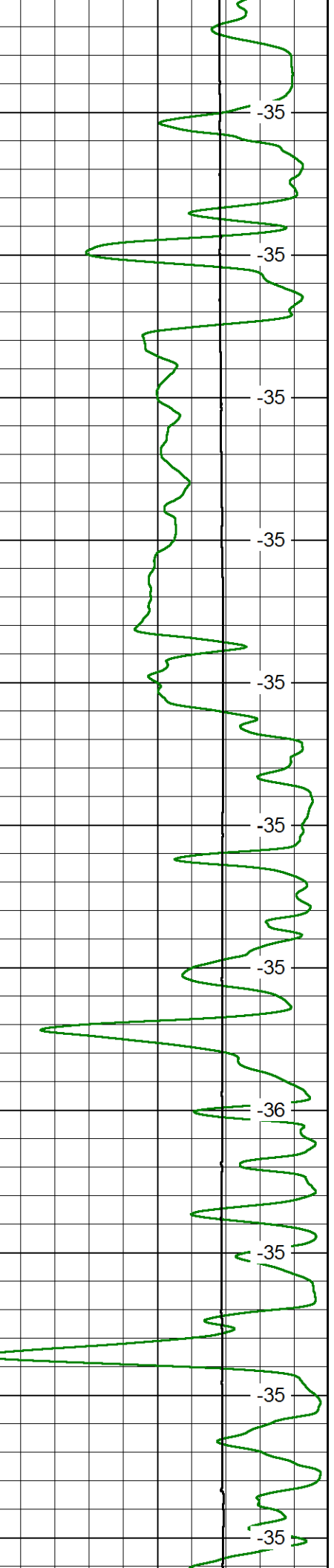
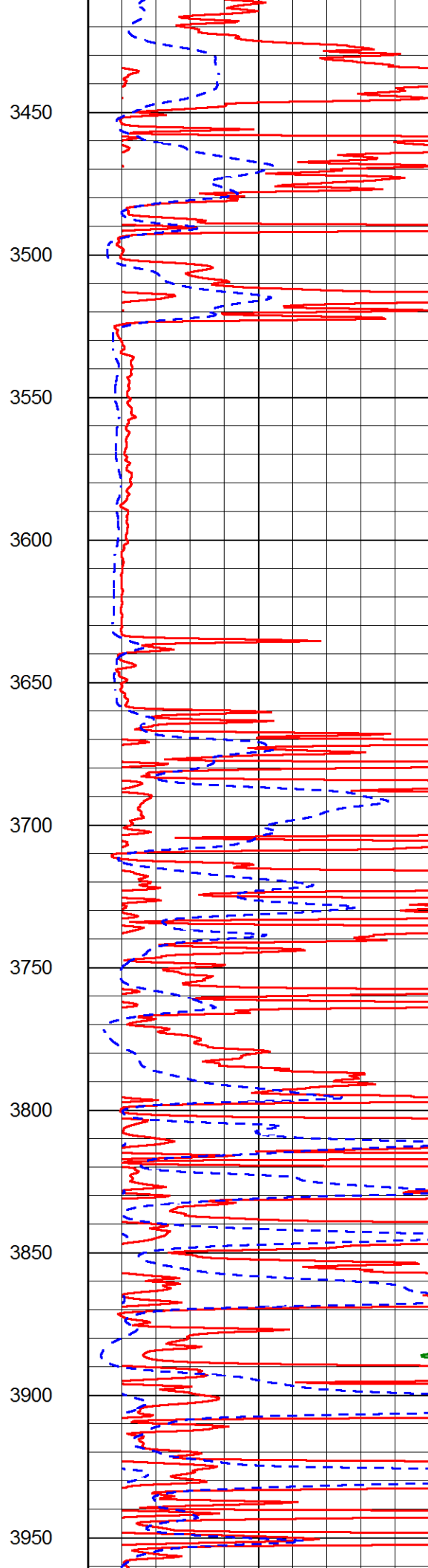
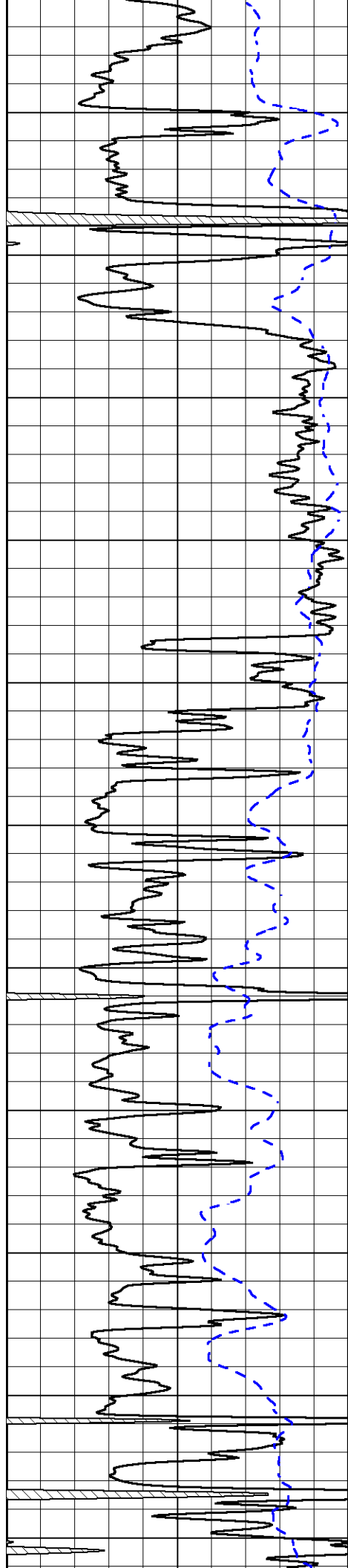


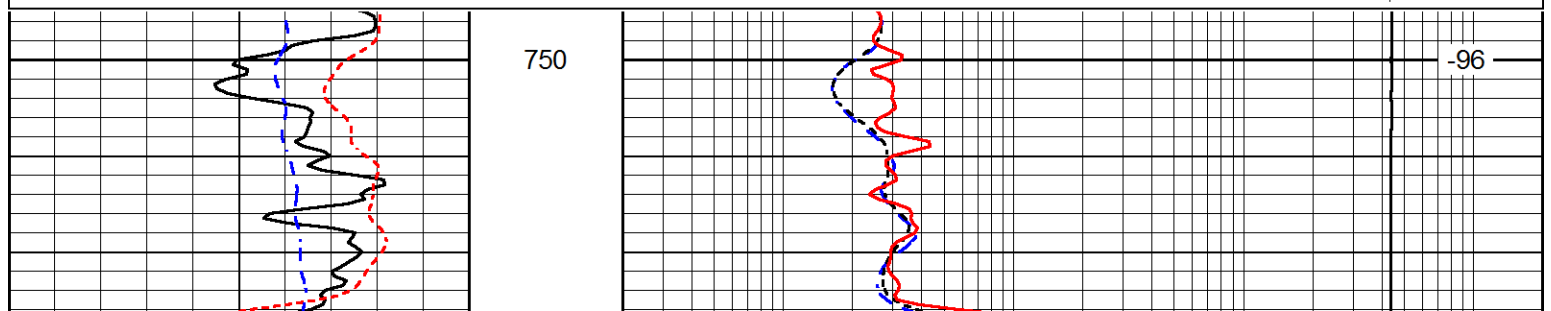
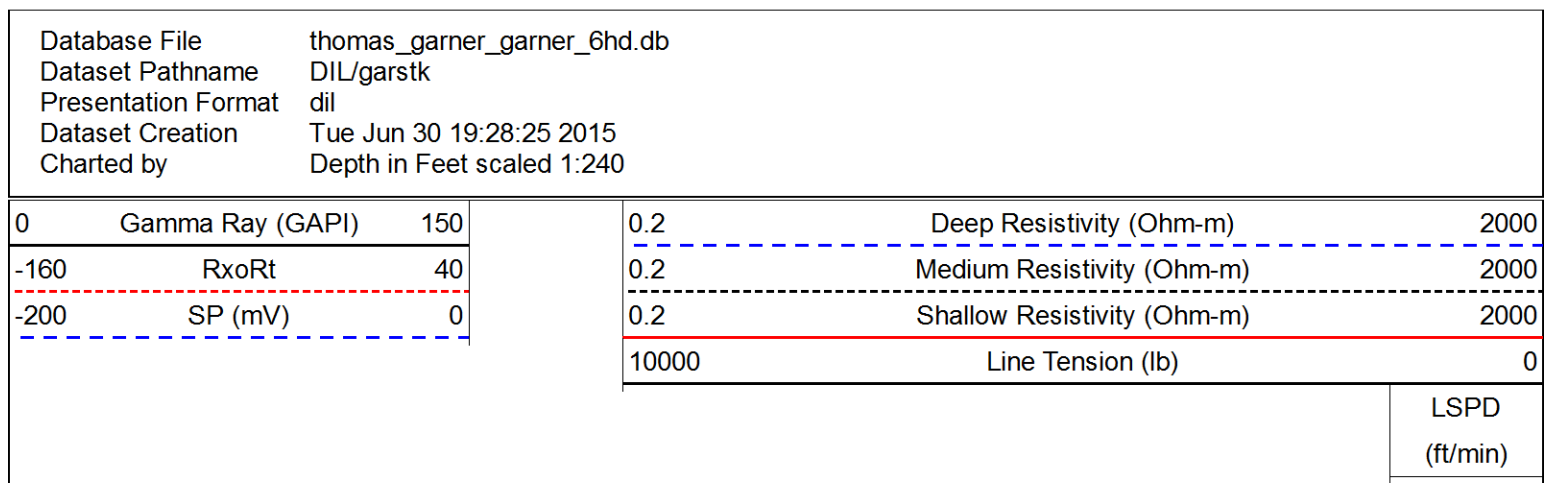
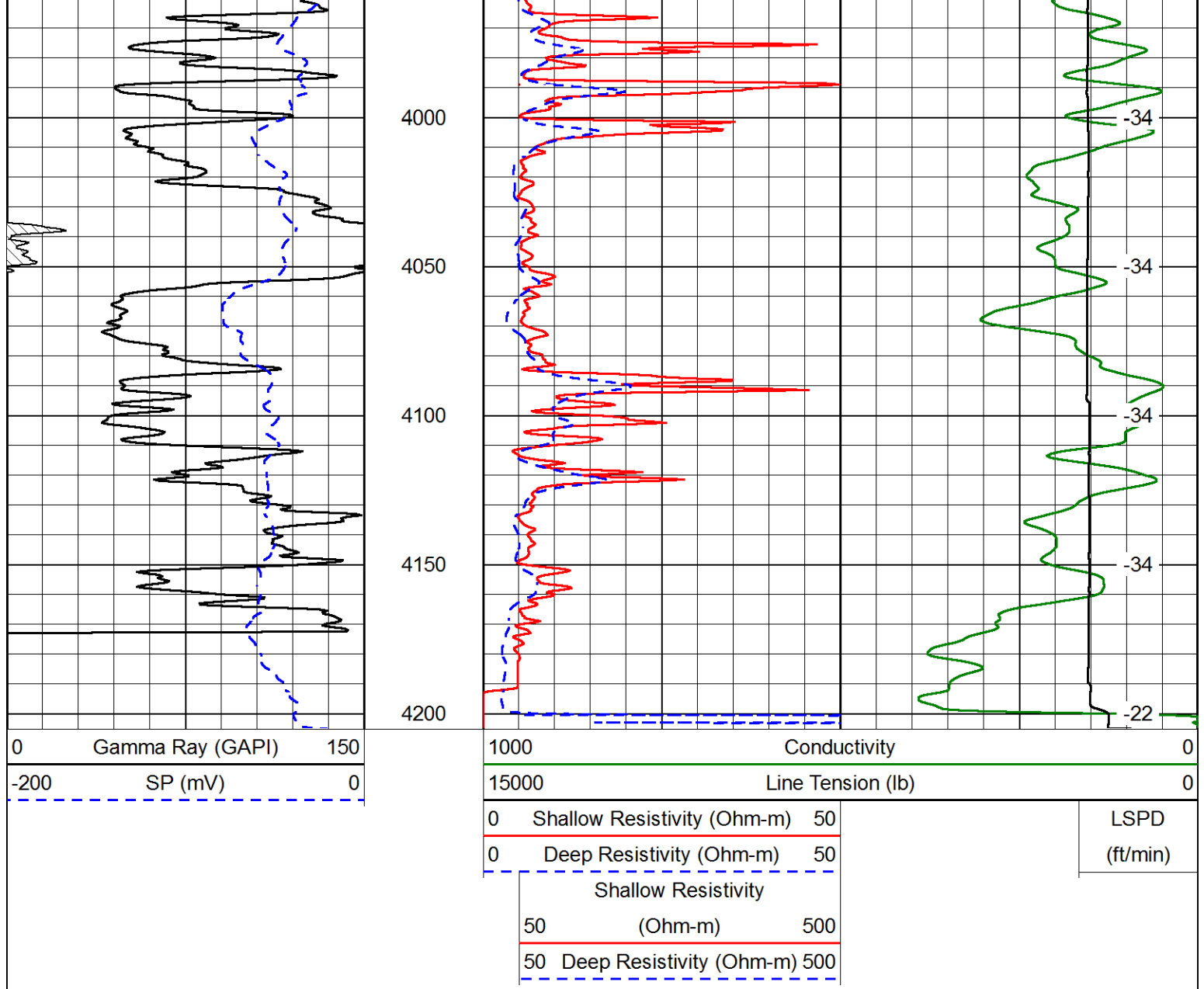


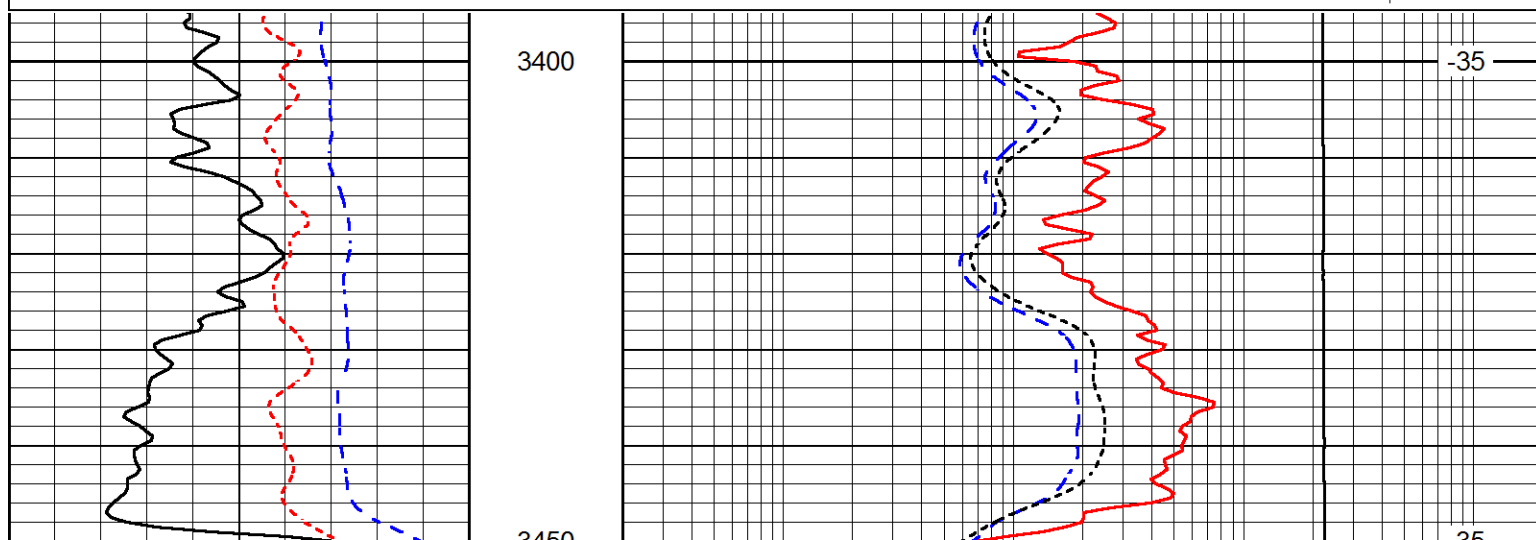
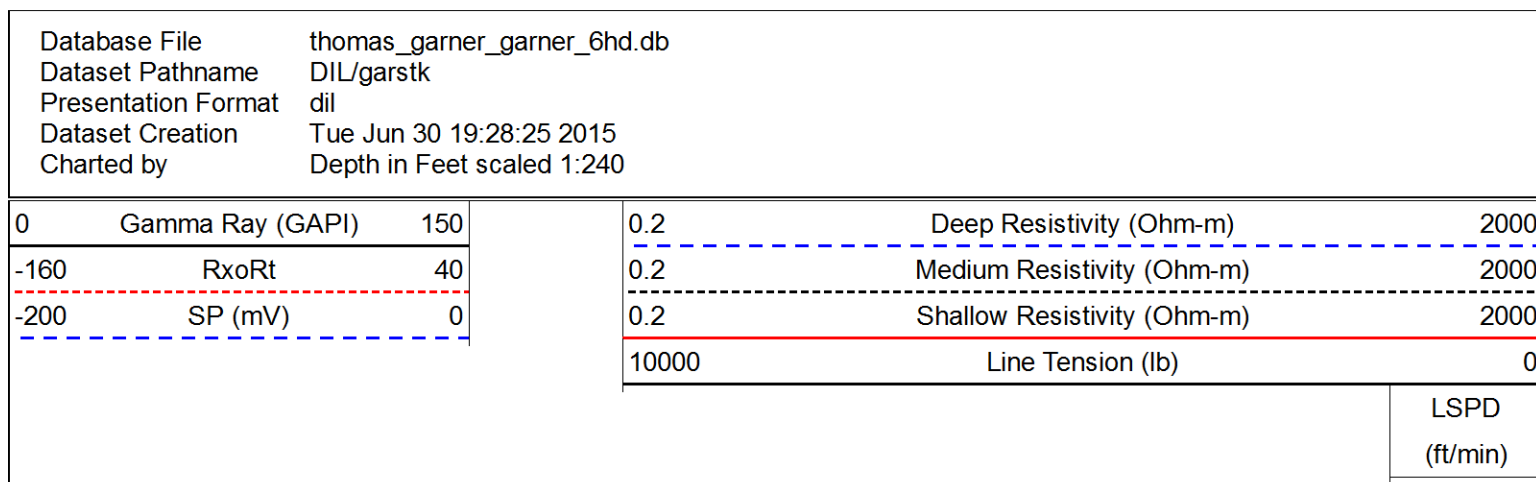
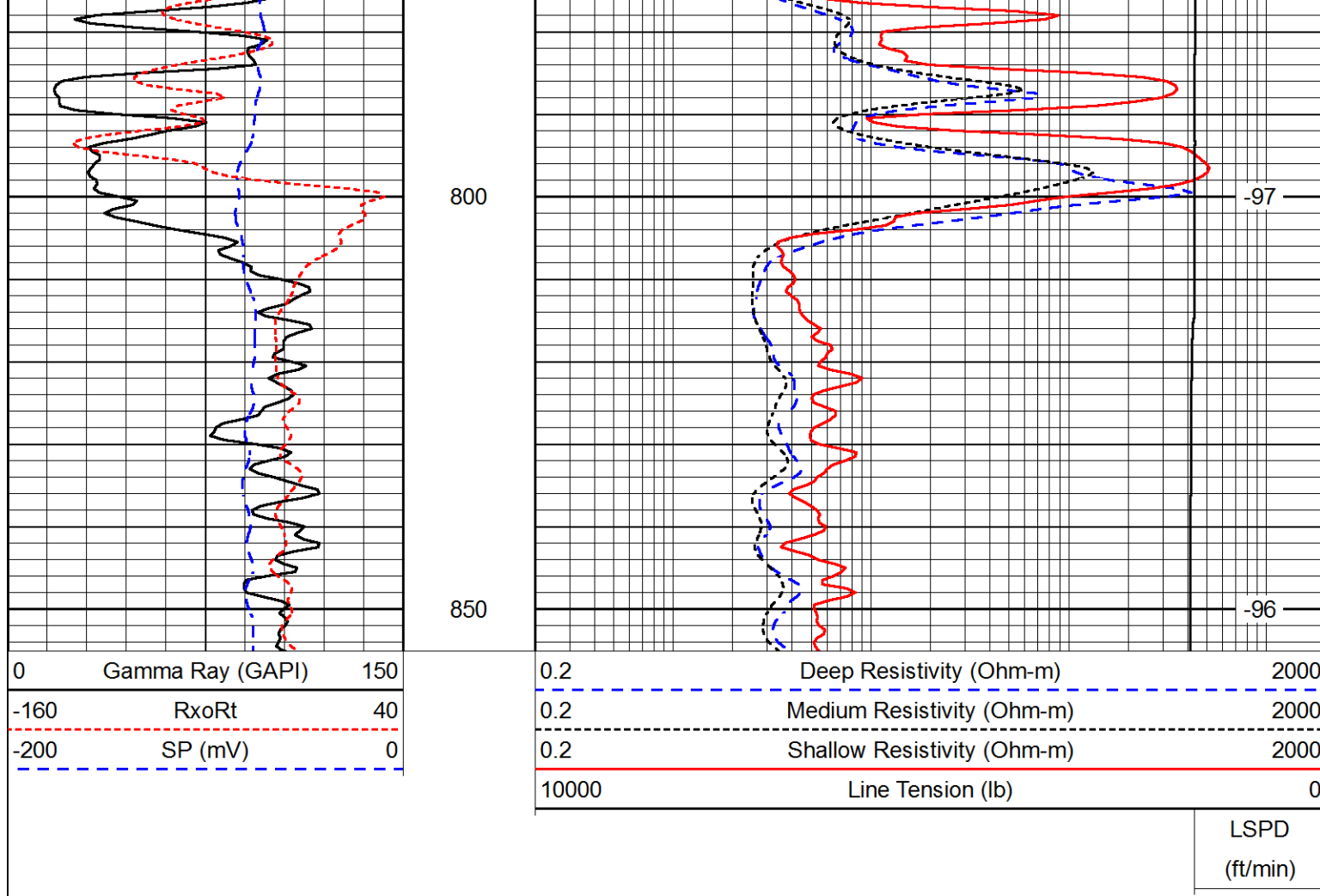


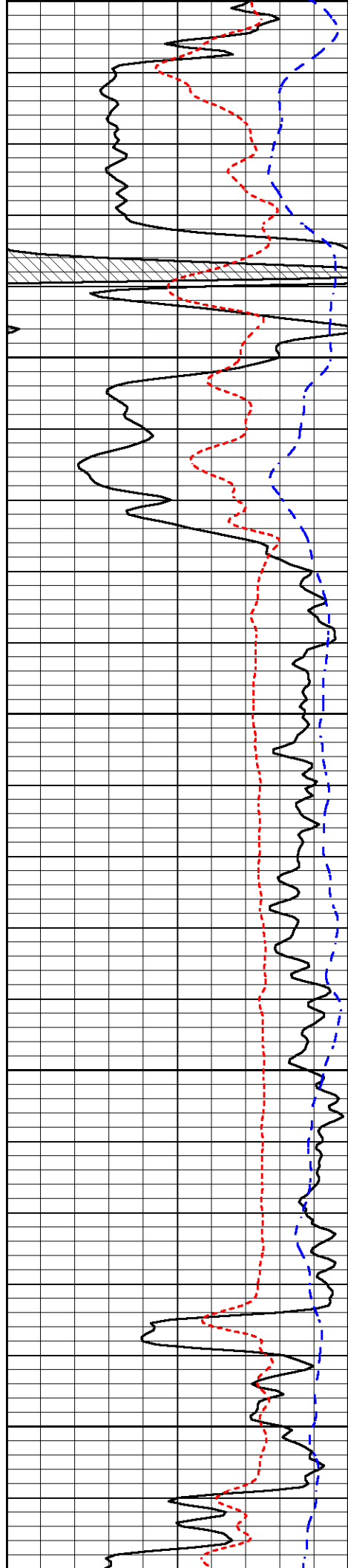












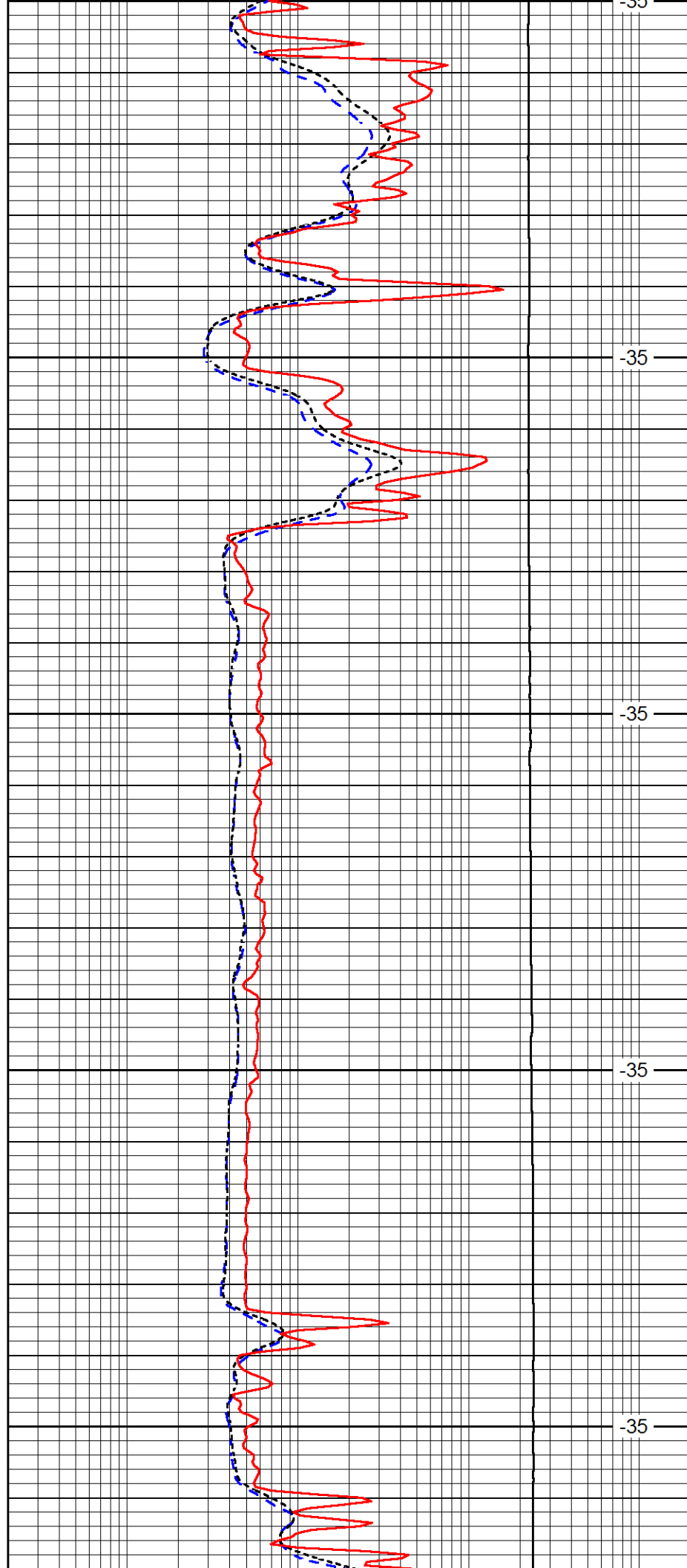
3450

3500

3550

3600

3650



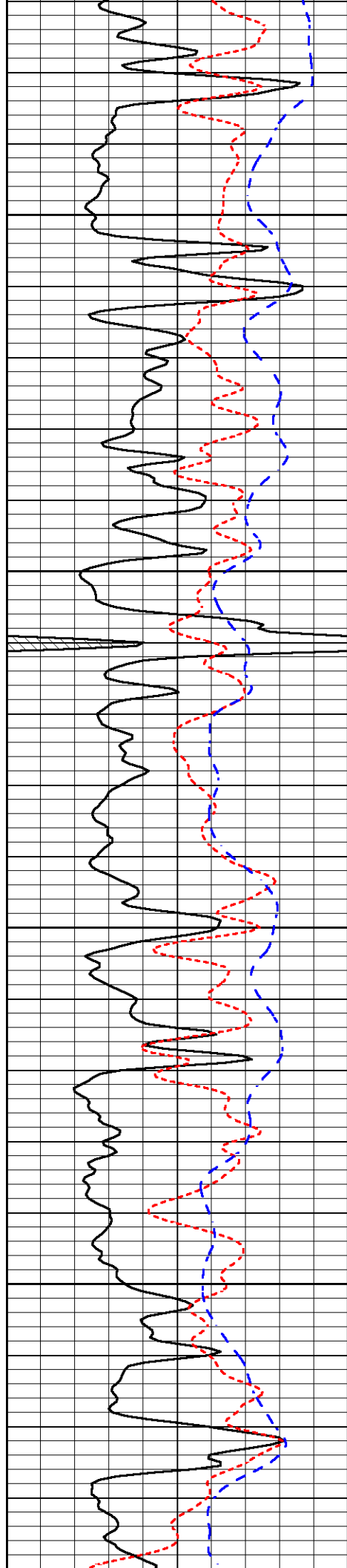
-35

-35

-35

-35

-35

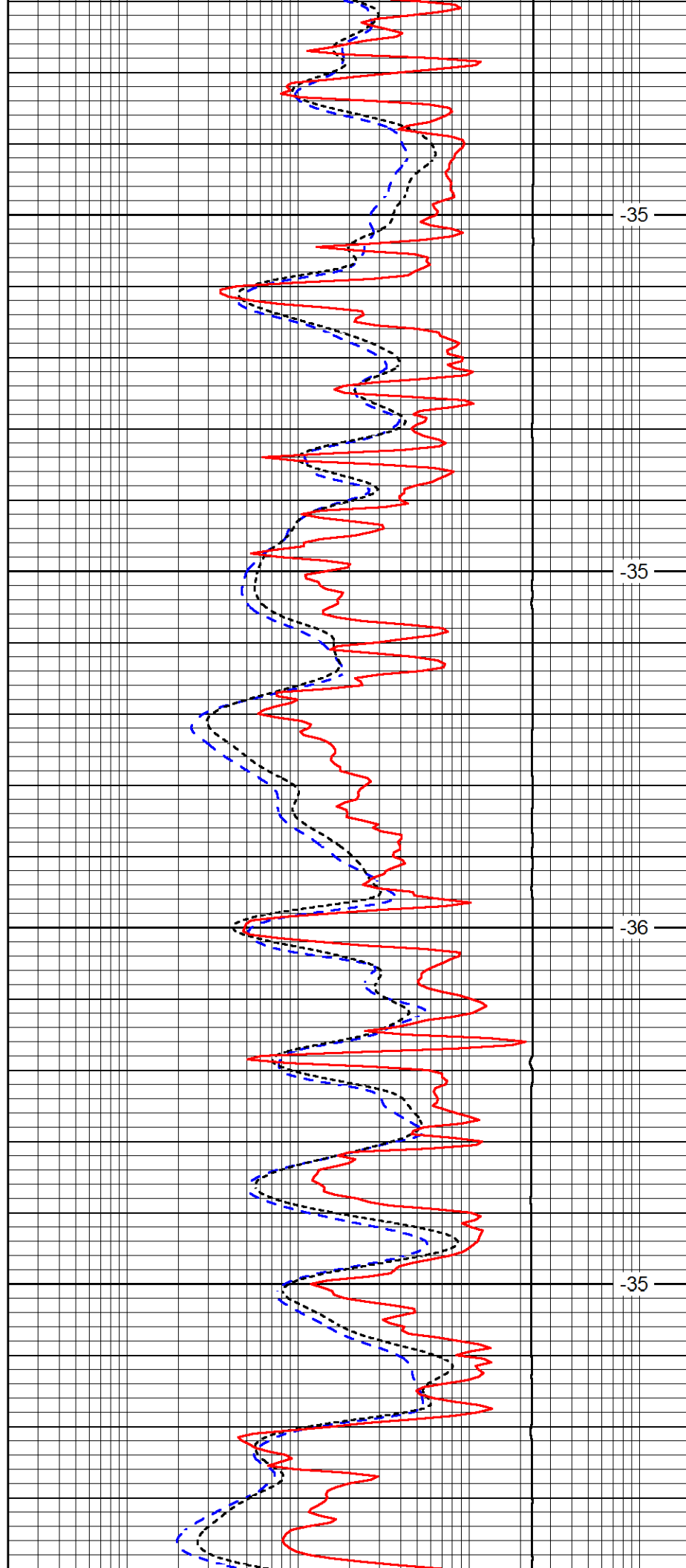


3700

3750

3800

3850

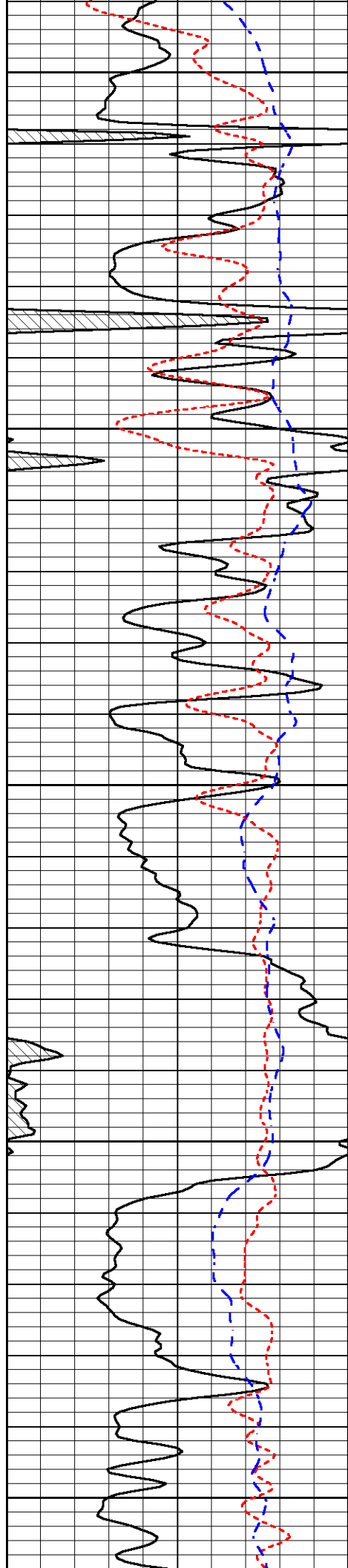


-35

-35

-36

-35



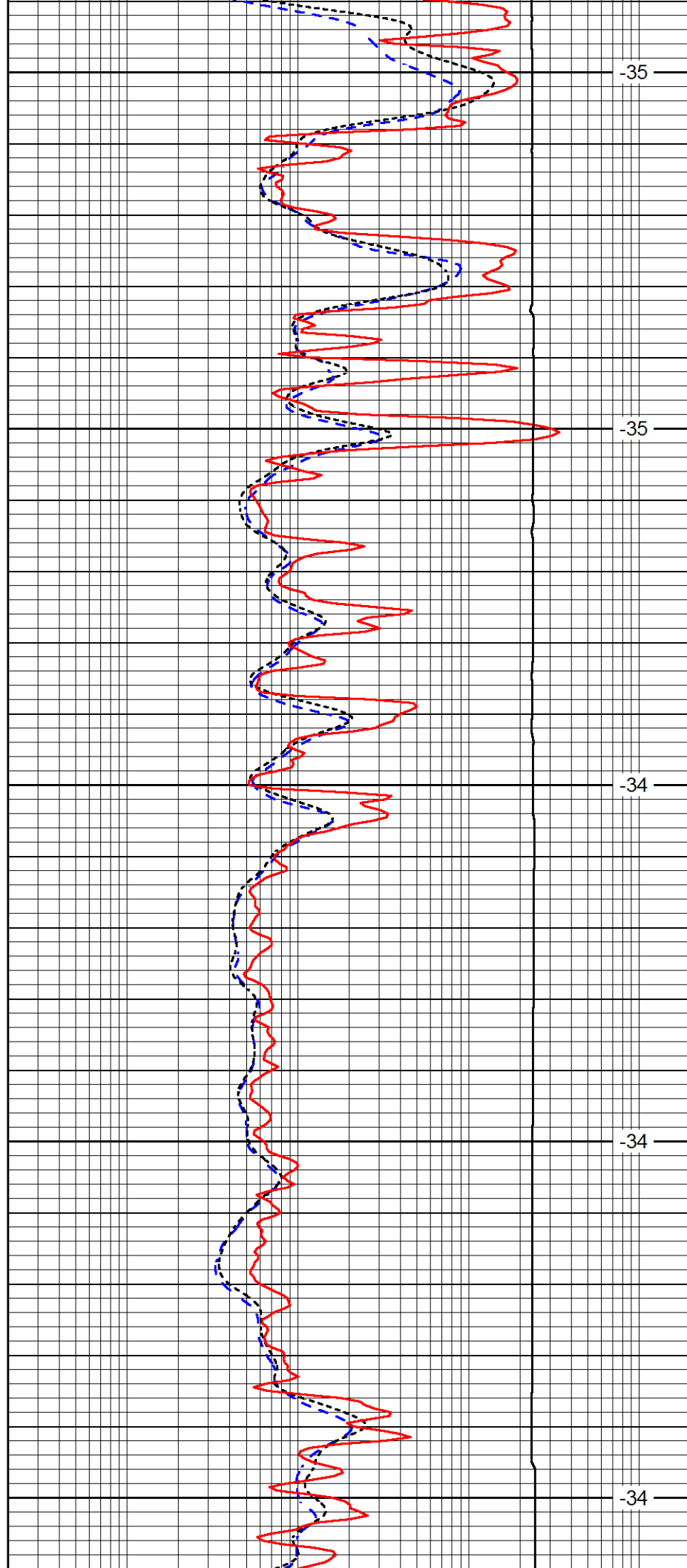
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3950

4000

4050

4100



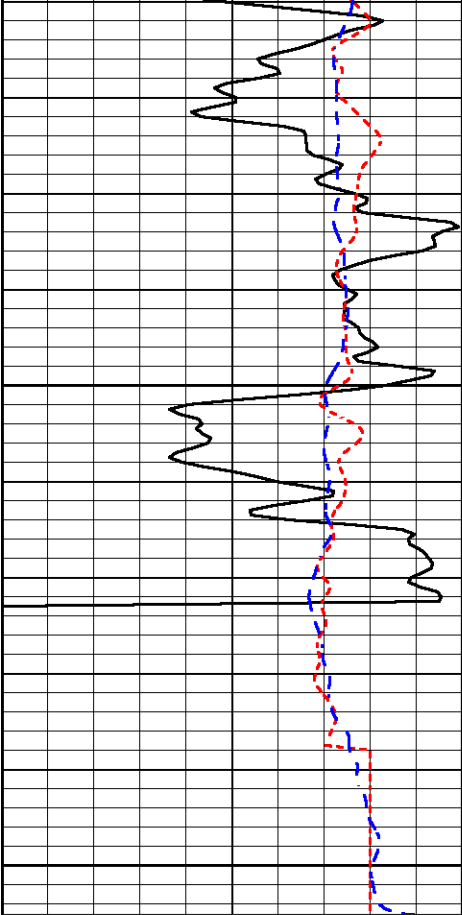
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-35

-34

-34

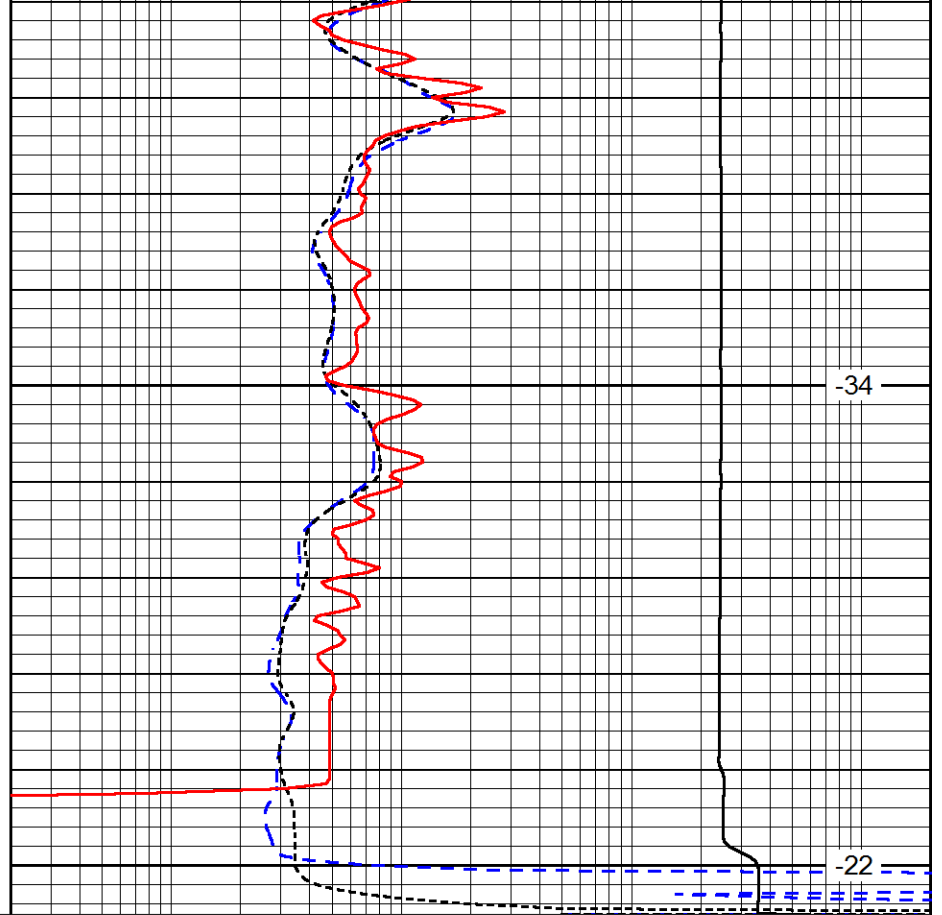
-34



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

4150

4200



-34

-22

|       |                             |      |
|-------|-----------------------------|------|
| 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)