



Pioneer Energy Services

Dual Induction Log

API No.

15-179-21,364-00-00

Company H&C Oil Operating Inc.

Well Delbert Walt Trust #13-5

Field Gurk

County Sheridan

State

Kansas

Location

NW SW NE
1650' FNL & 2310' FELOther Services
CNL/CDL
MEL

Sec: 13

Twp: 10S

Rge: 26W

Elevation

Permanent Datum Ground Level Elevation 2571

Log Measured From Kelly Bushing 7 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

K.B. 2578
D.F.
G.L. 2571

Date 7/15/2014

Run Number One

Depth Driller 4110

Depth Logger 4110

Bottom Logged Interval 4109

Top Log Interval 250

Casing Driller 8.625 @ 262

Casing Logger 262

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 2000

Density / Viscosity 9.3 50

pH / Fluid Loss 10.5 7.2

Source of Sample Flowline

Rm @ Meas. Temp 0.61 @ 86

Rmf @ Meas. Temp 0.46 @ 86

Rmc @ Meas. Temp 0.82 @ 86

Source of Rmf / Rmc Charts

Rm @ BHT 0.45 @ 117

Operating Rig Time 4 Hours

Max Rec. Temp. F 117

Equipment Number 15

Location Hays

Recorded By D.Kerr

Witnessed By Steve Murphy

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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

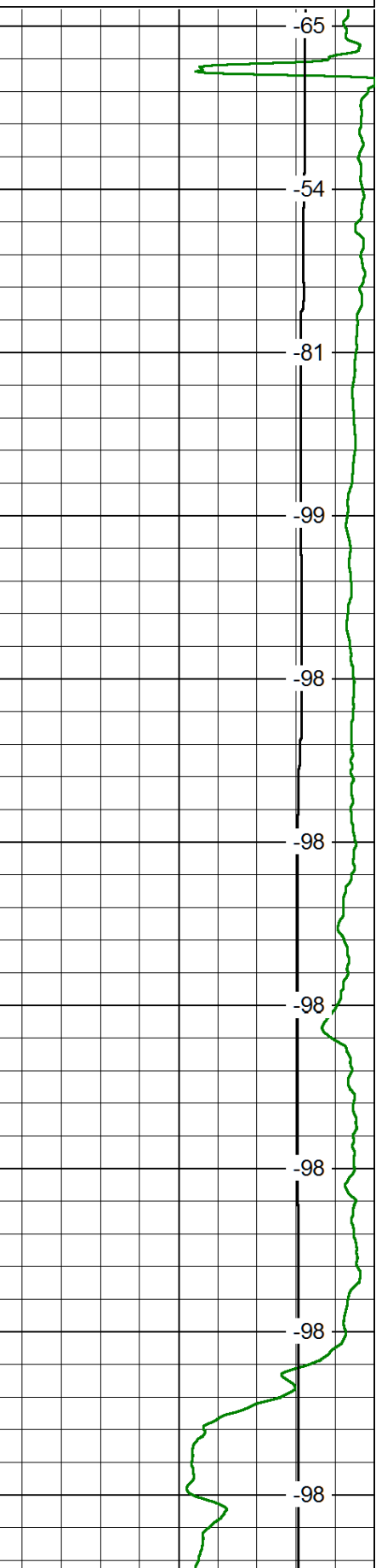
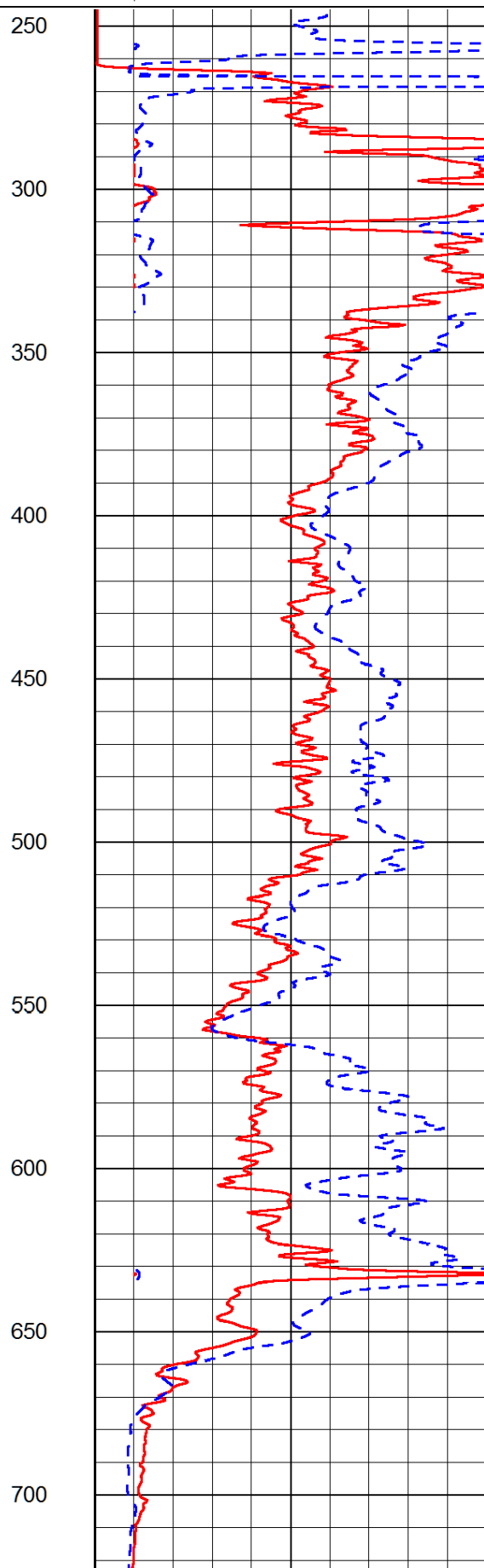
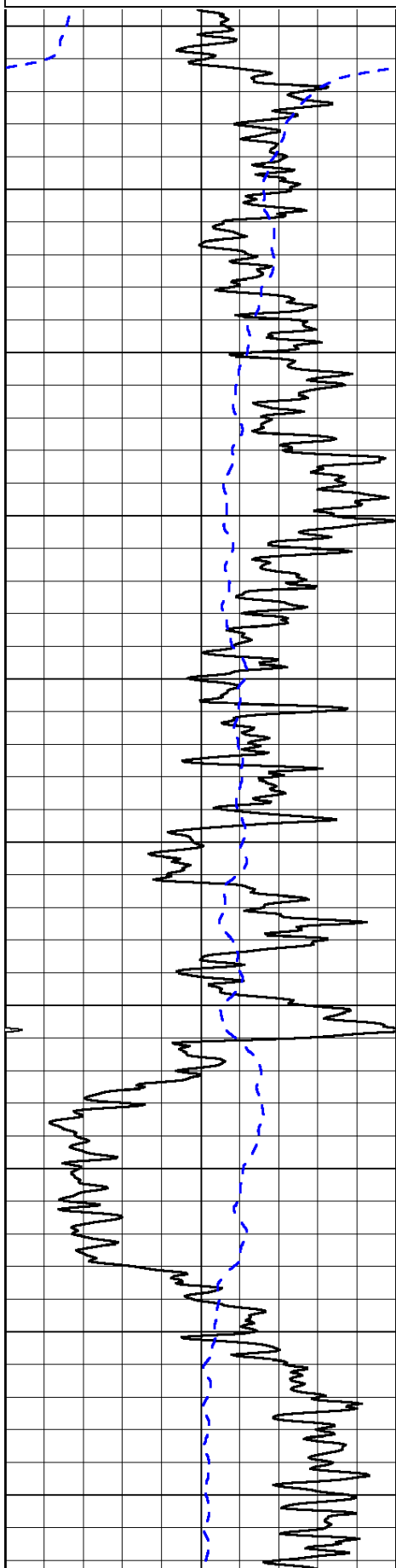
Collyer KS, West to 78 RD,
9 North to 120 RD, 1/2 East, South Into

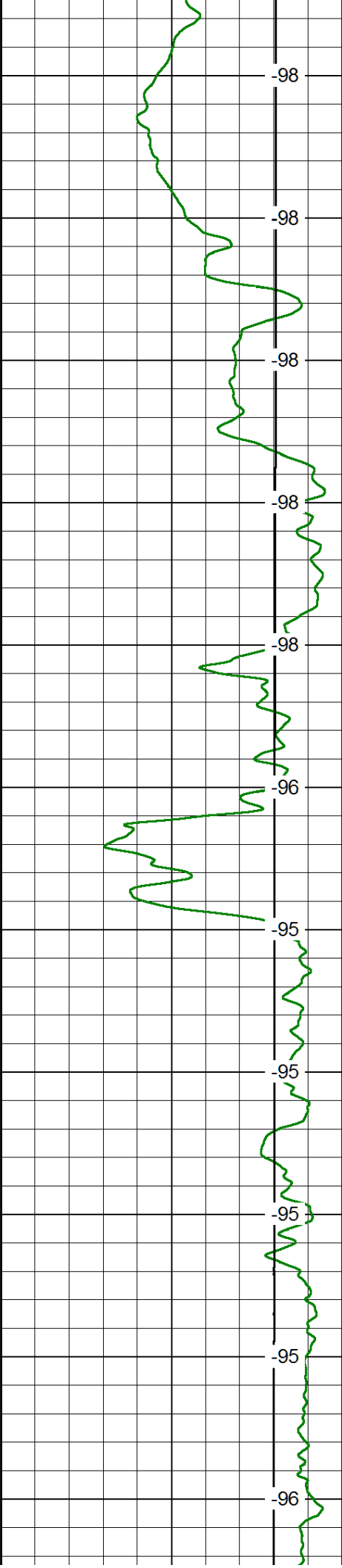
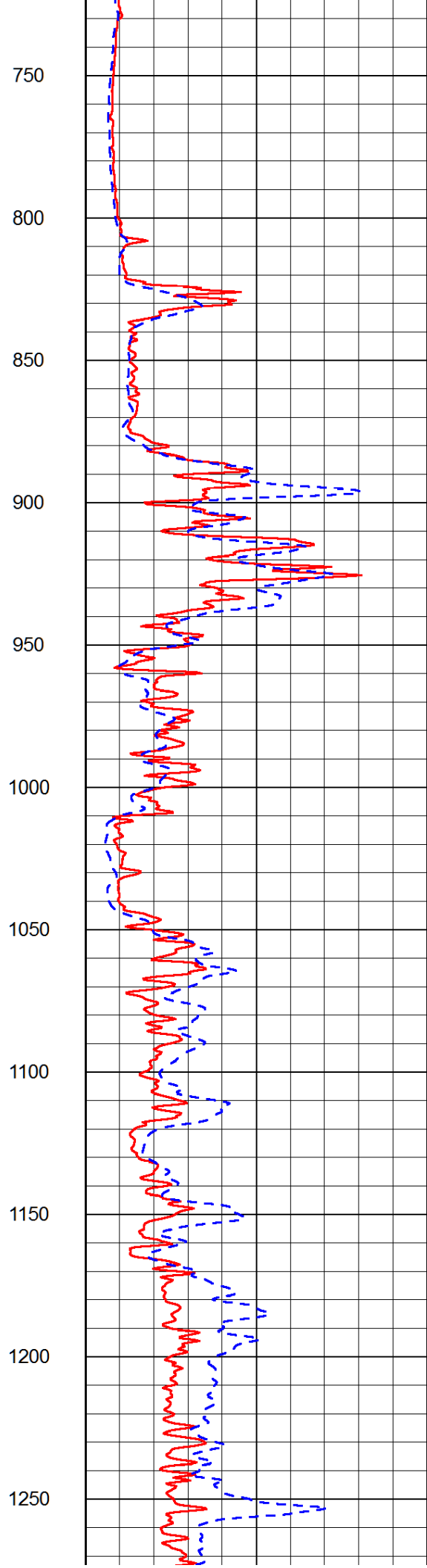
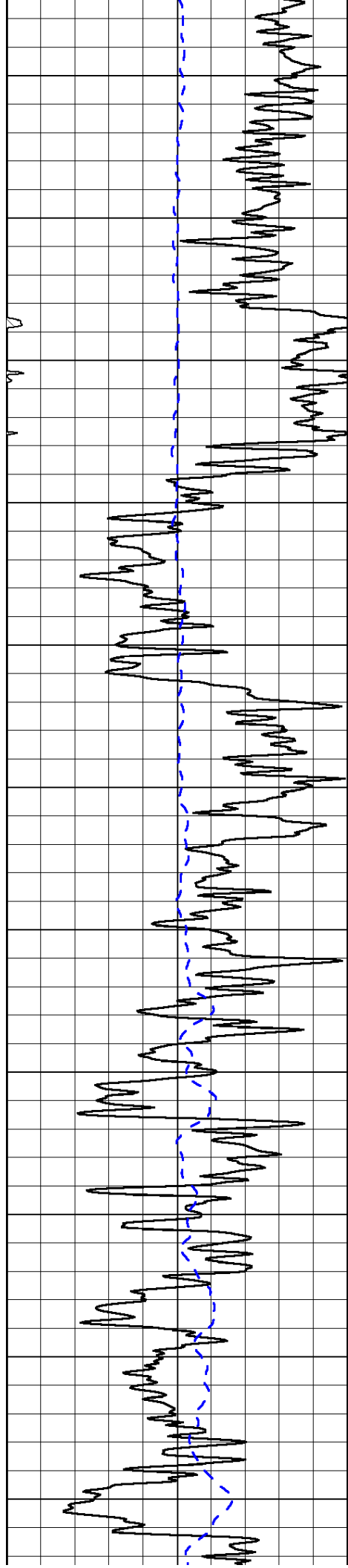
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Dataset Pathname: DIL/hcstk
Presentation Format: dil2in
Dataset Creation: Tue Jul 15 23:05:43 2014
Charted by: Depth in Feet scaled 1:600

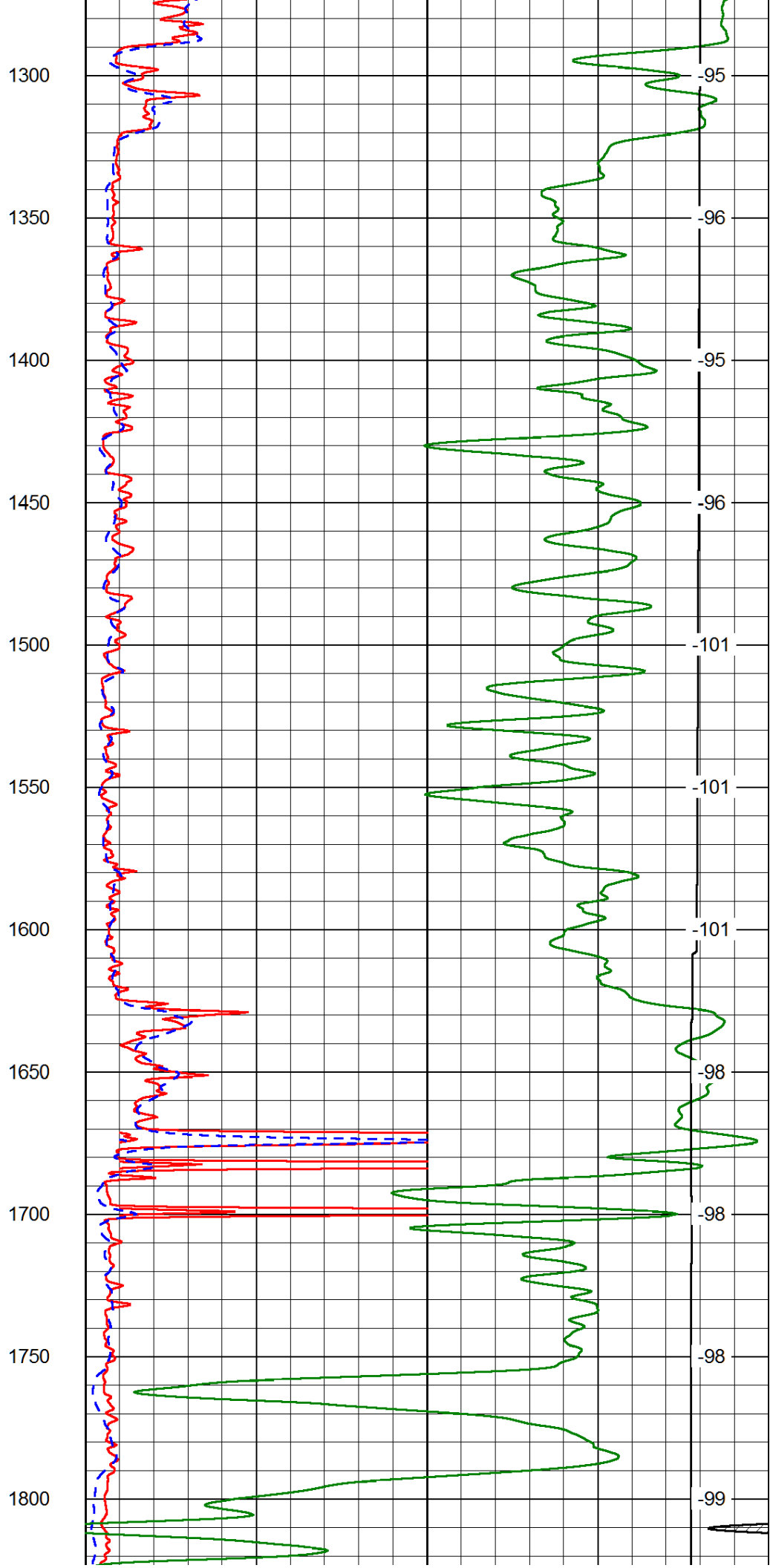
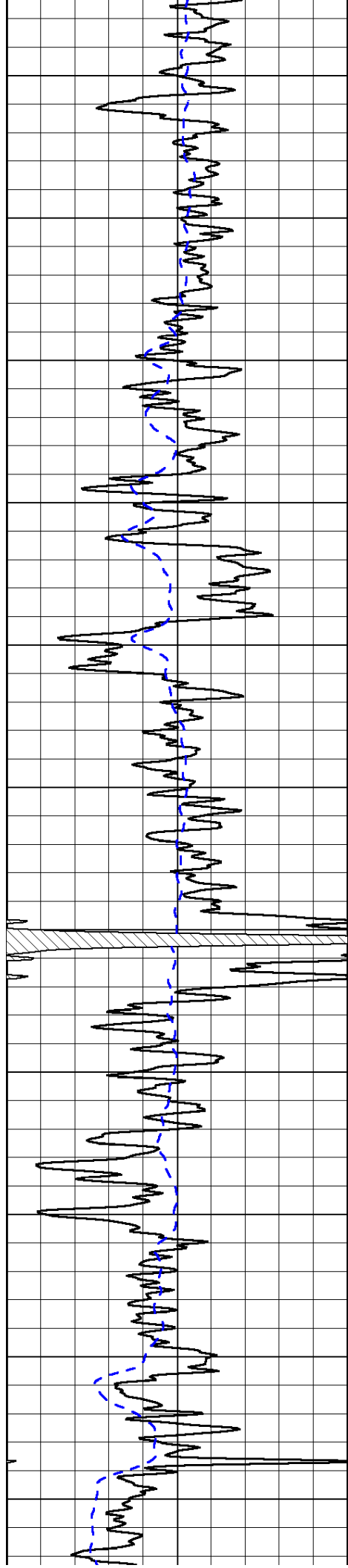
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-200	SP (mV)	0

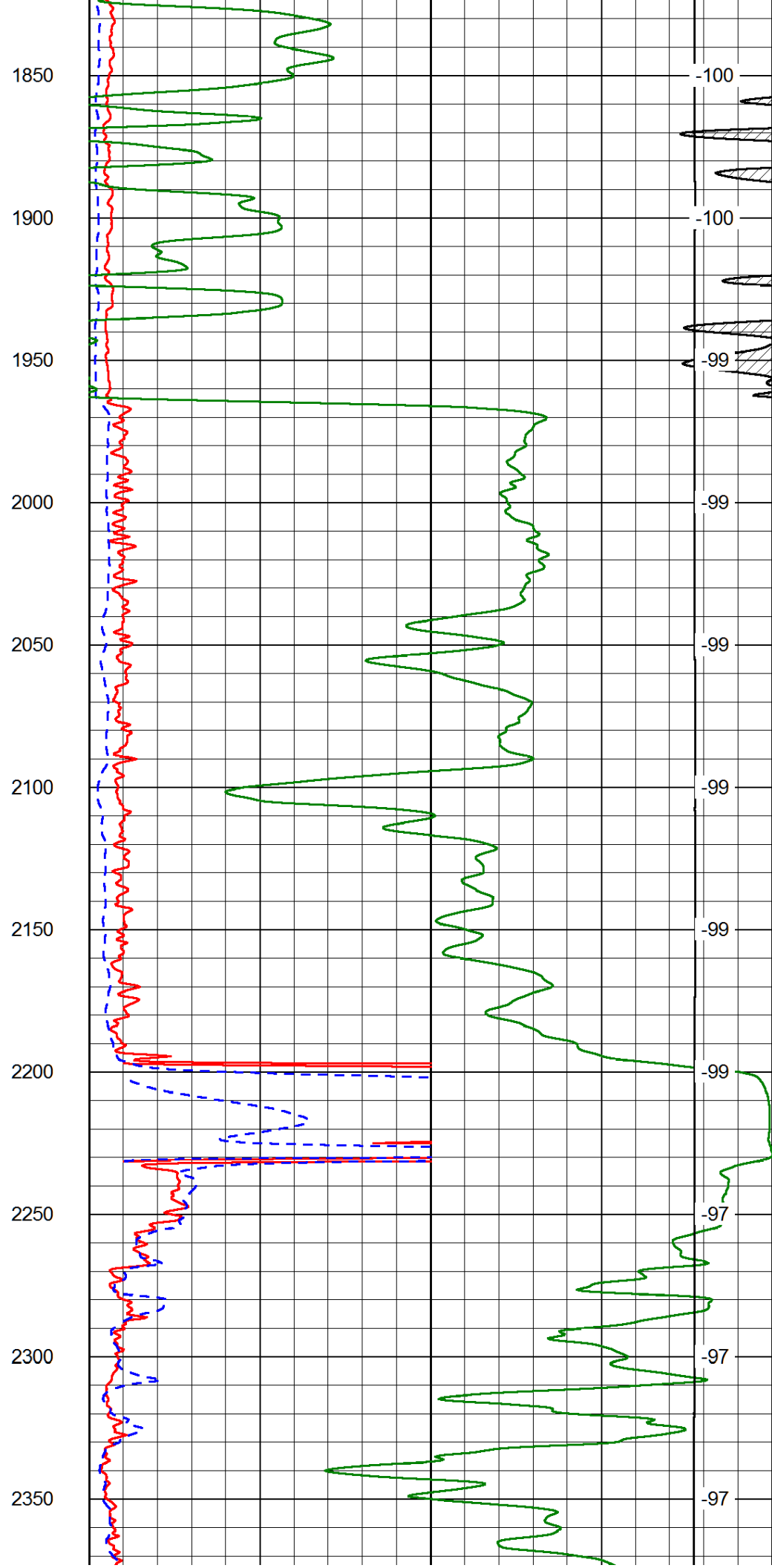
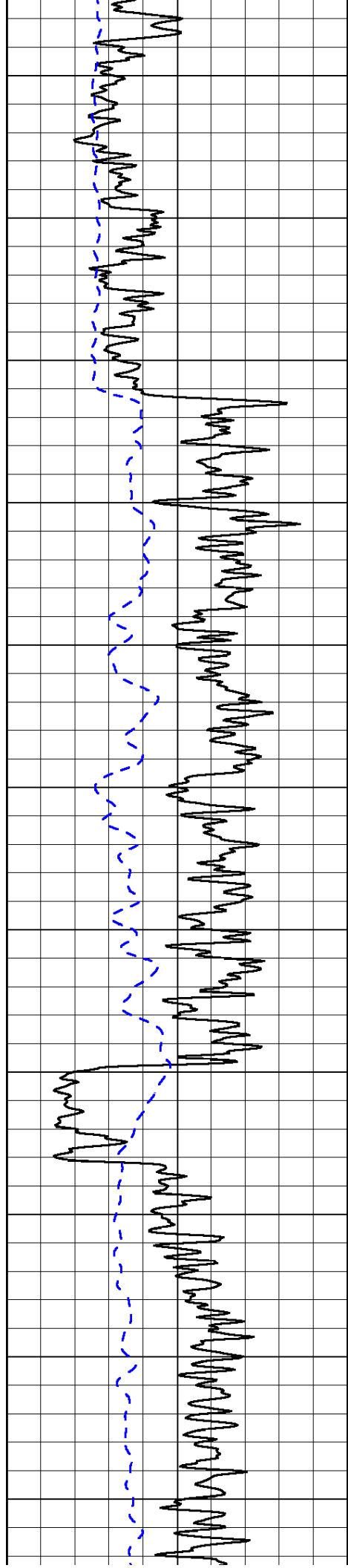
0	Shallow Resistivity	50
0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0
50	Shallow Resistivity	500
50	Deep Resistivity	500

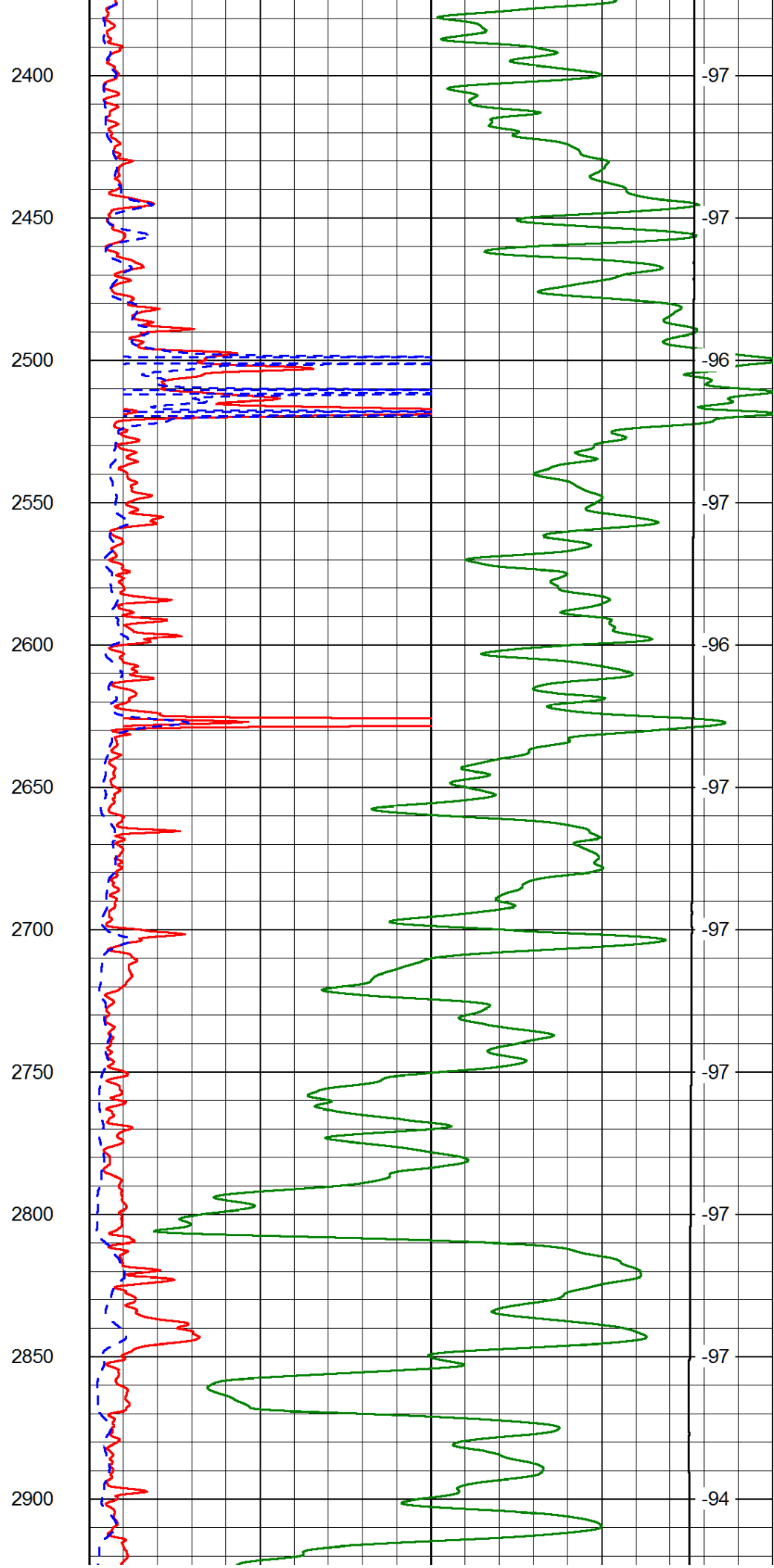
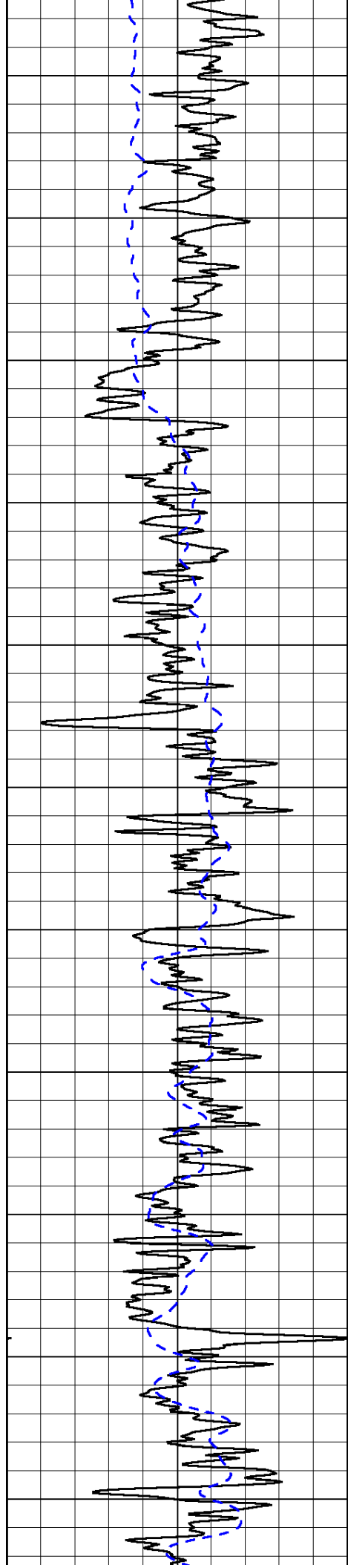
LSPD

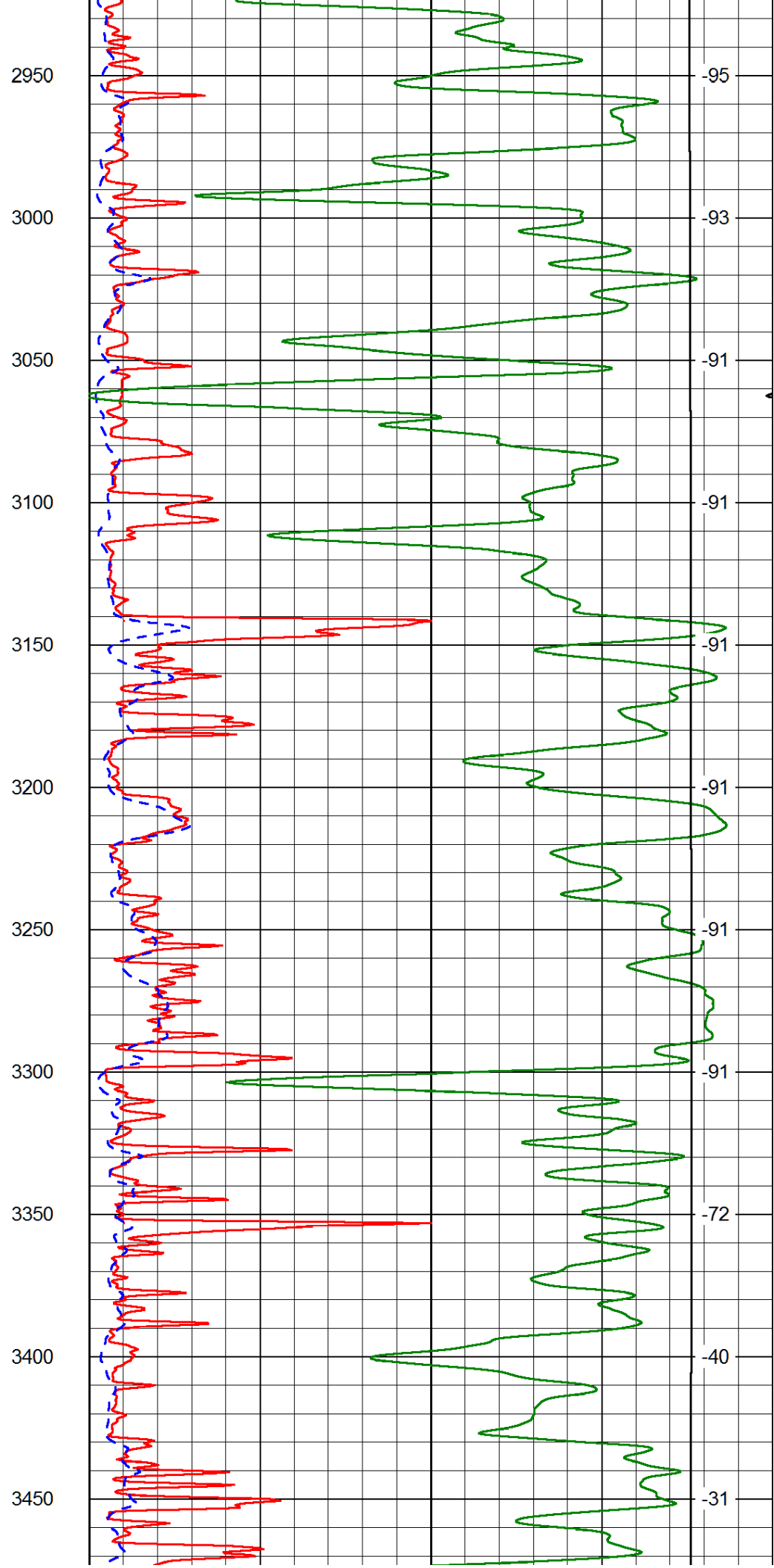
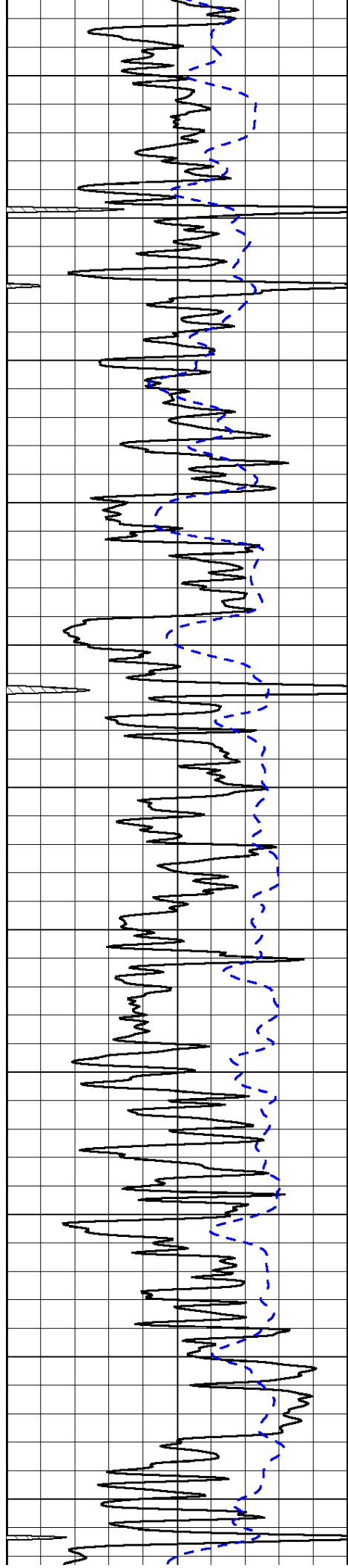


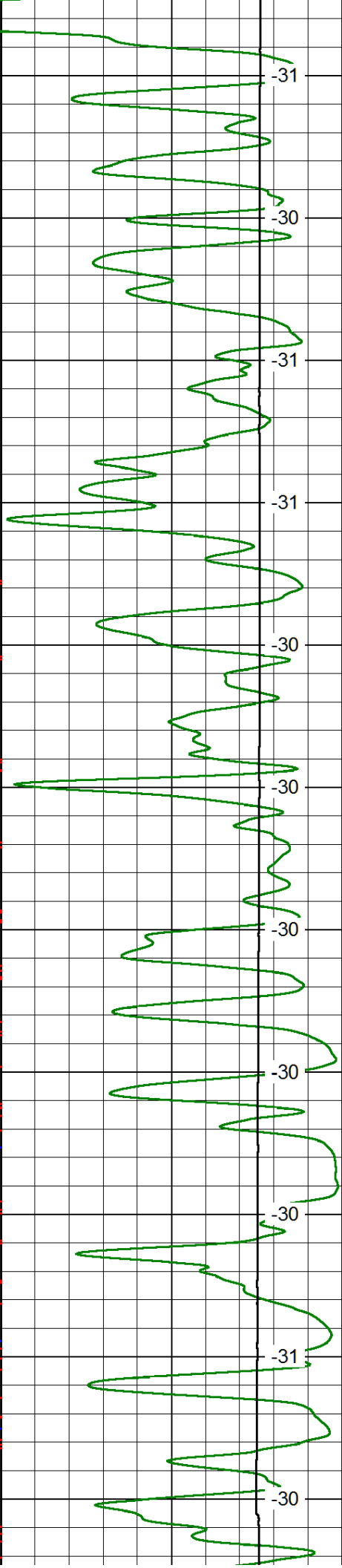
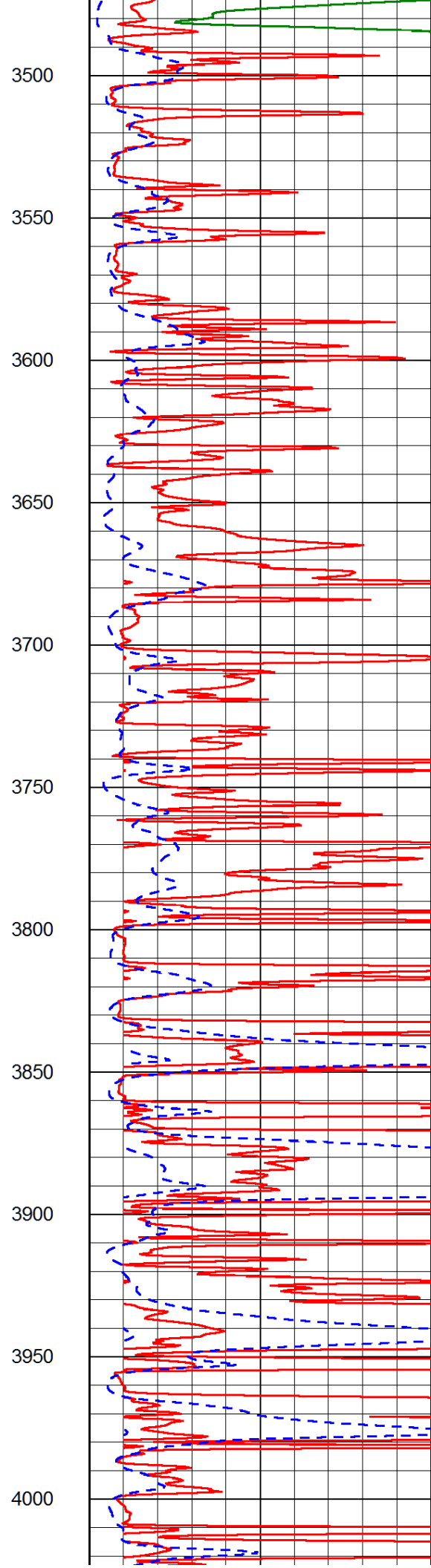
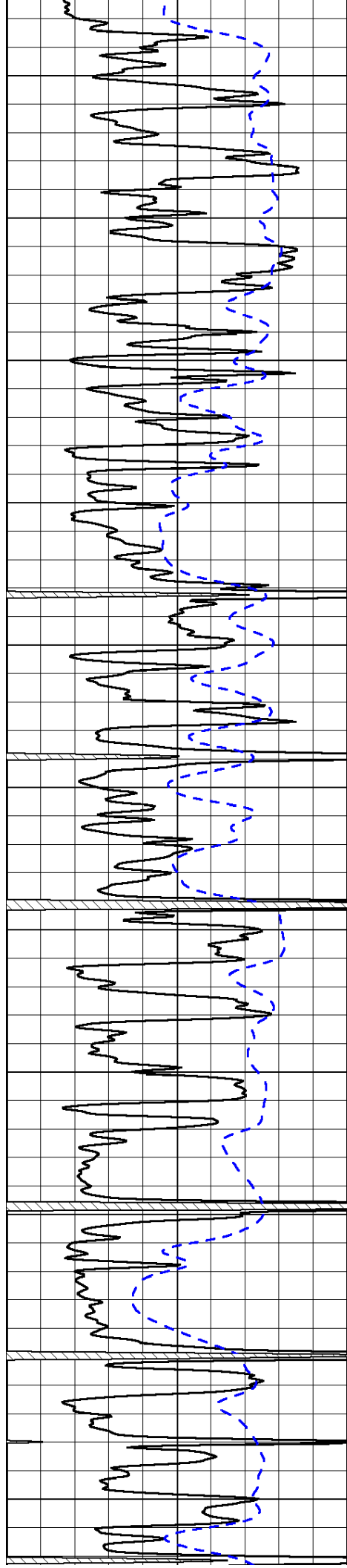


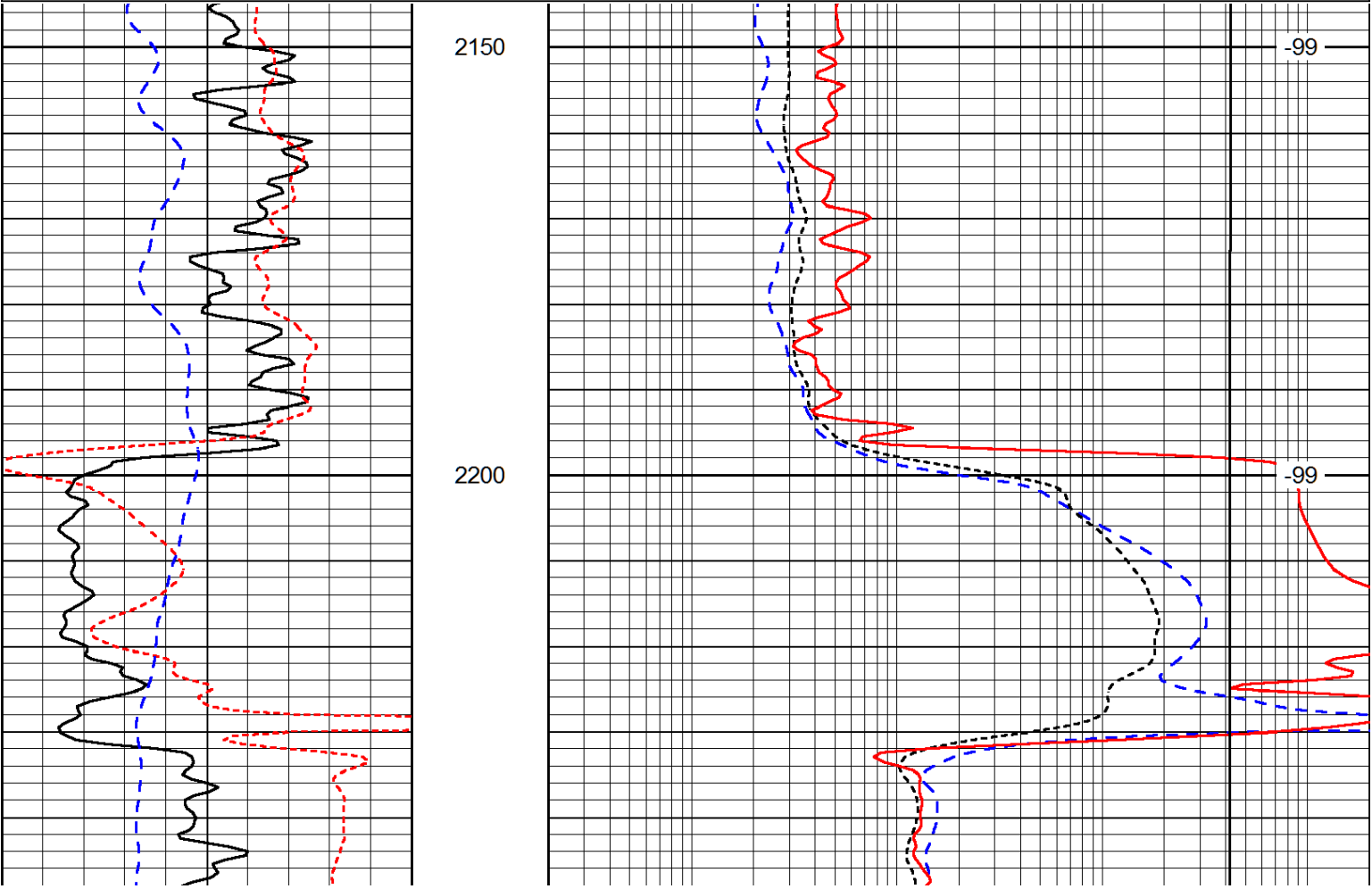
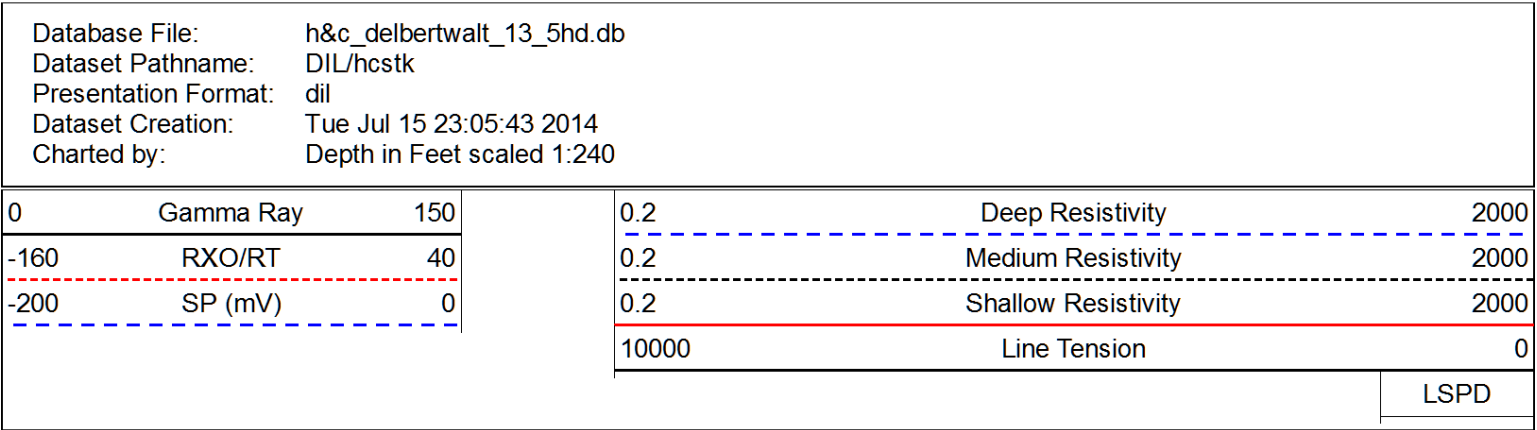
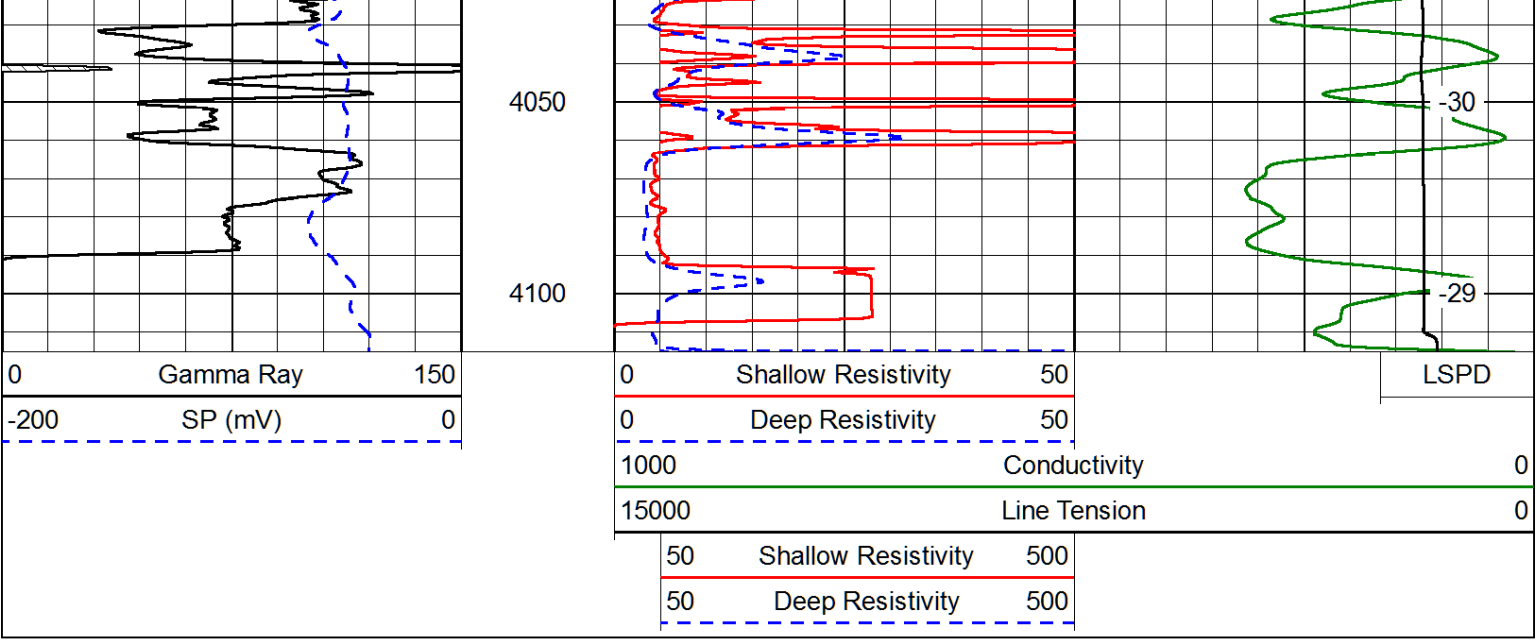


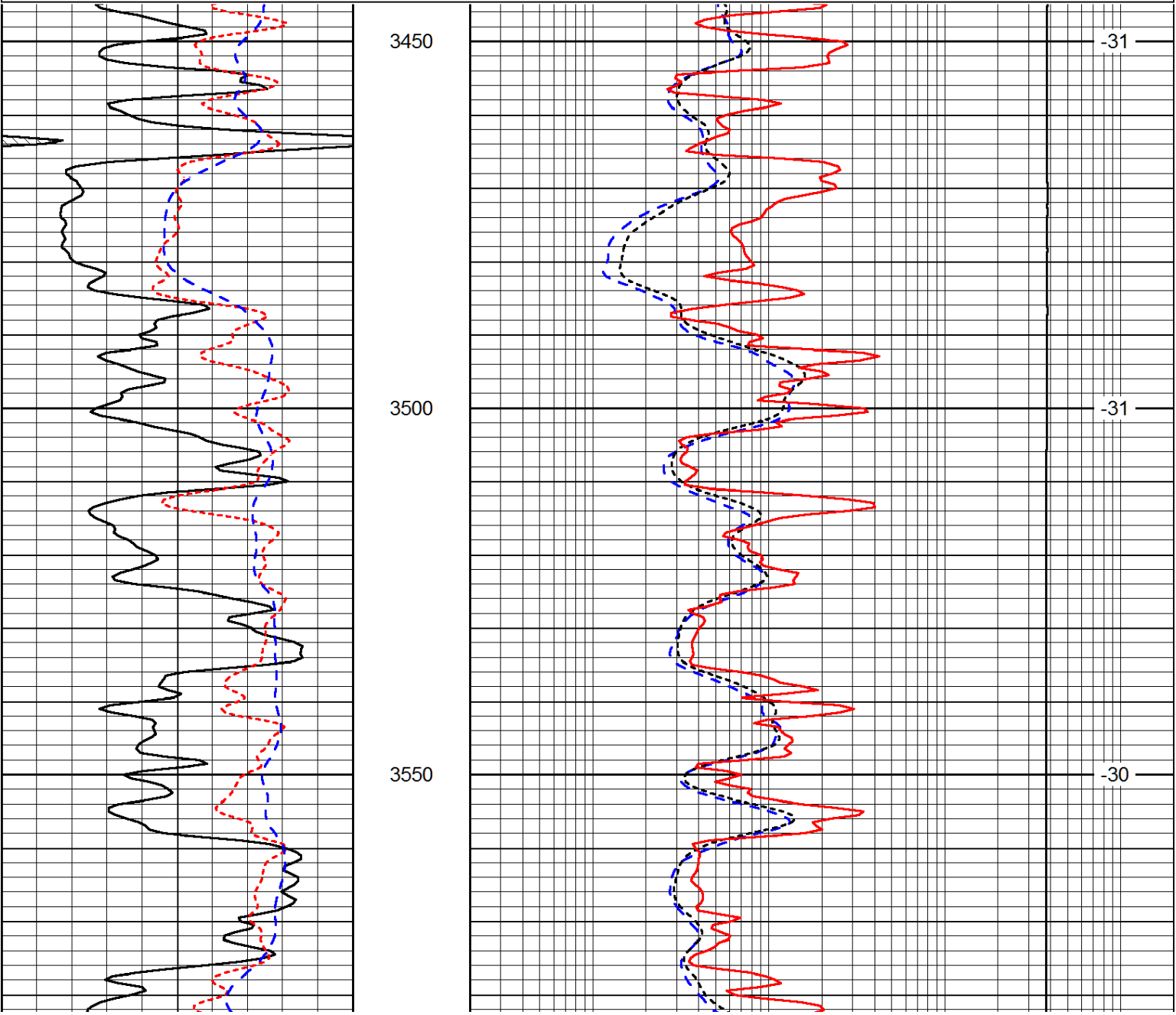
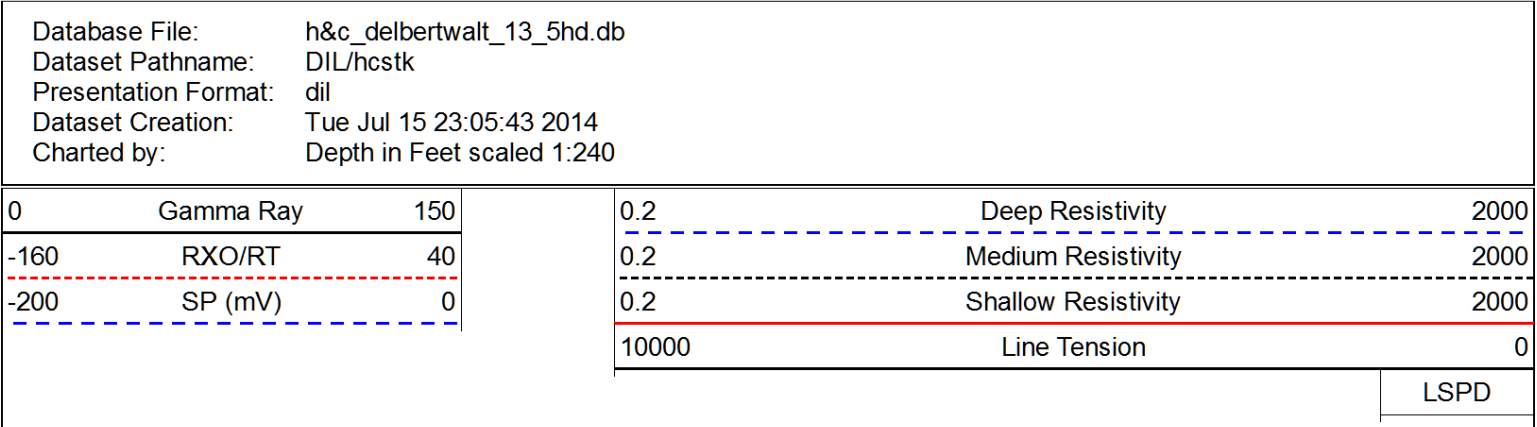
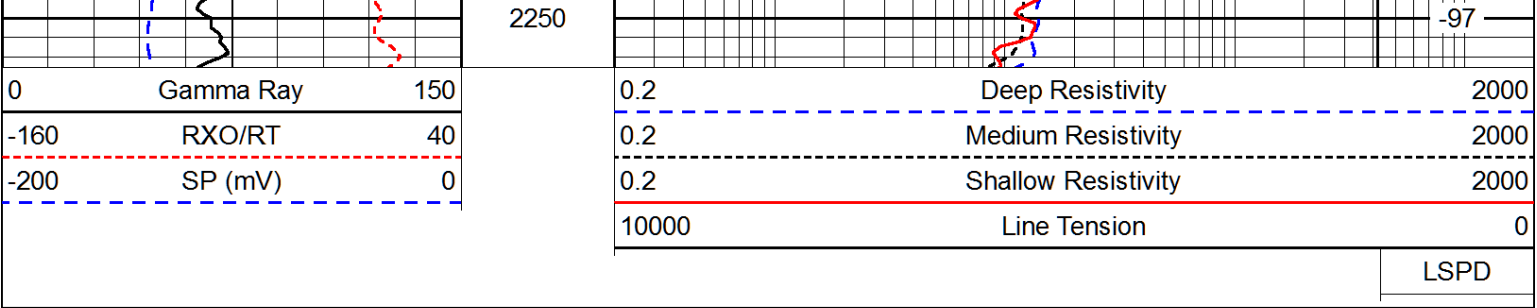


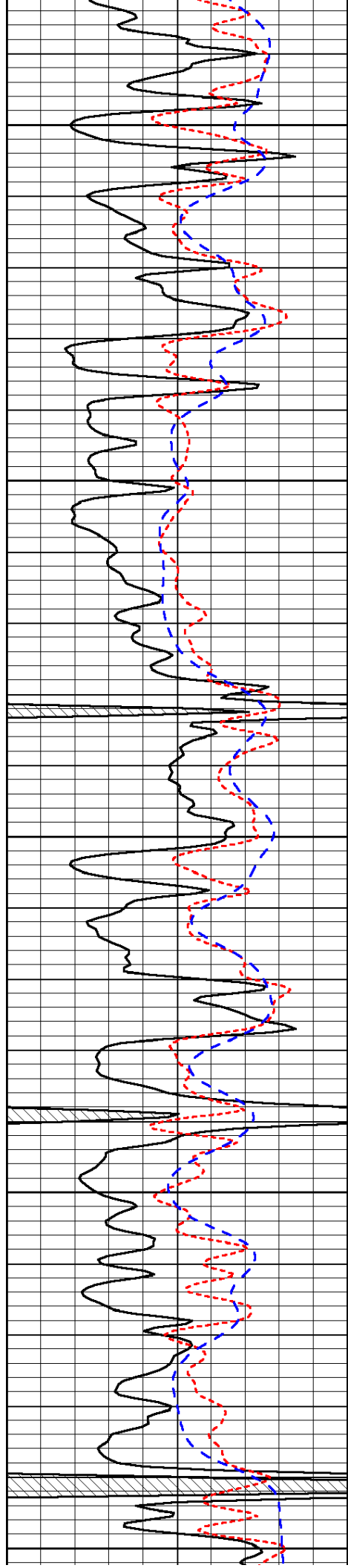












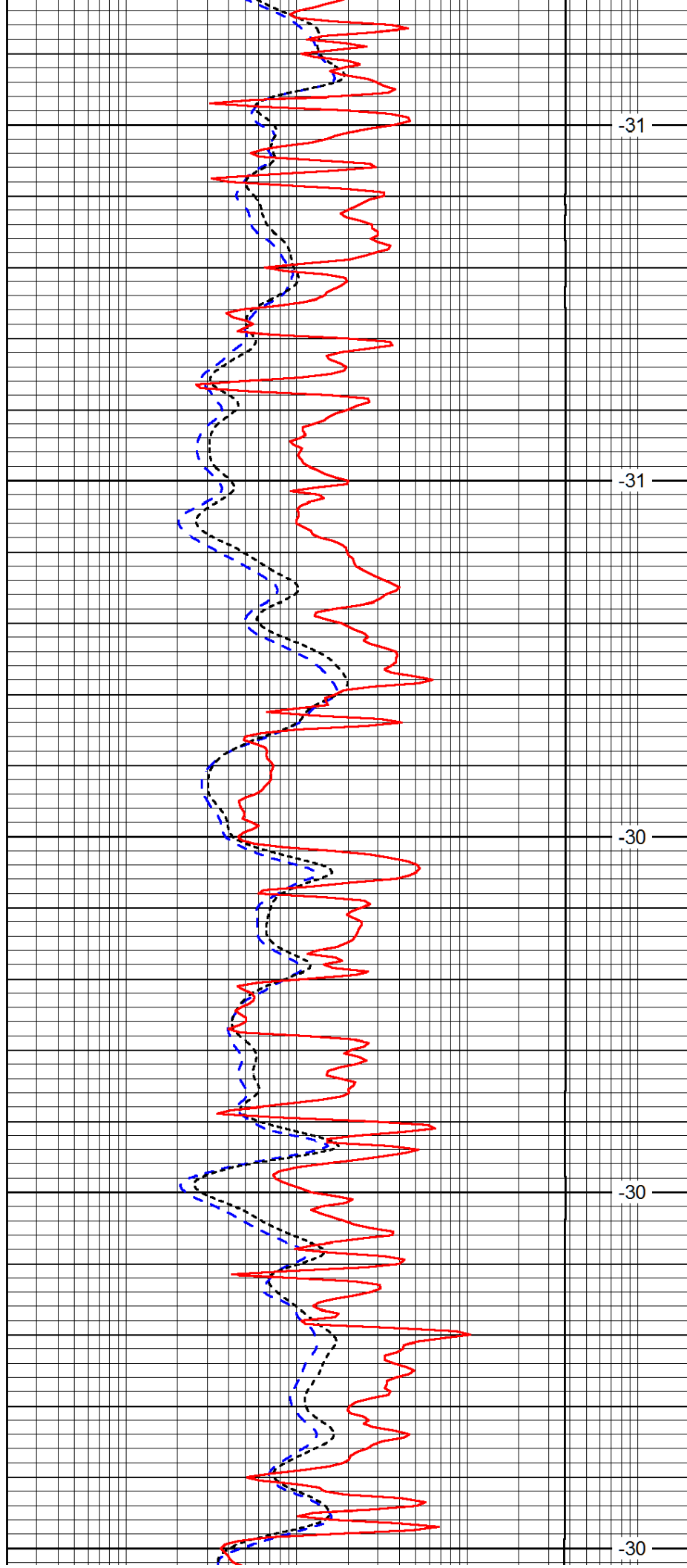
3600

3650

3700

3750

3800



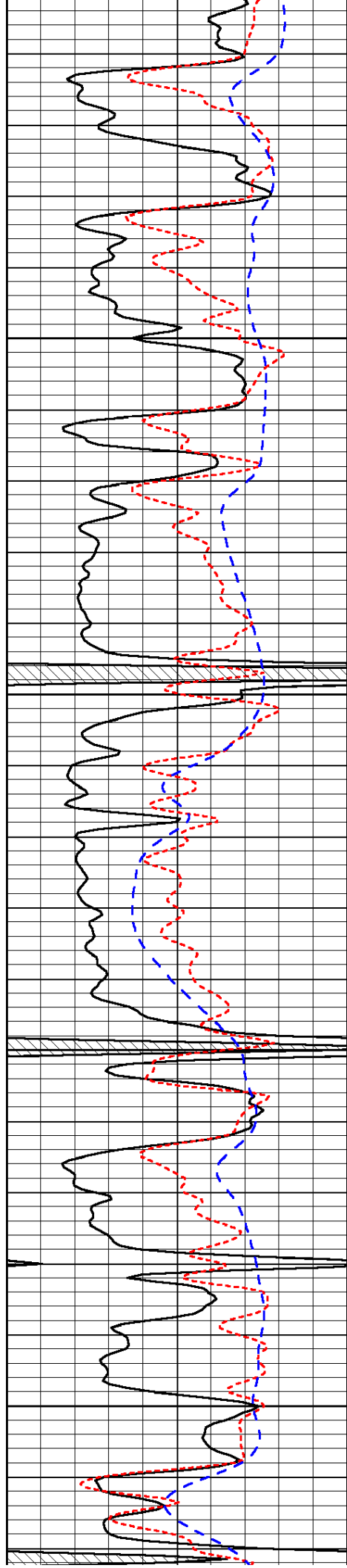
-31

-31

-30

-30

-30

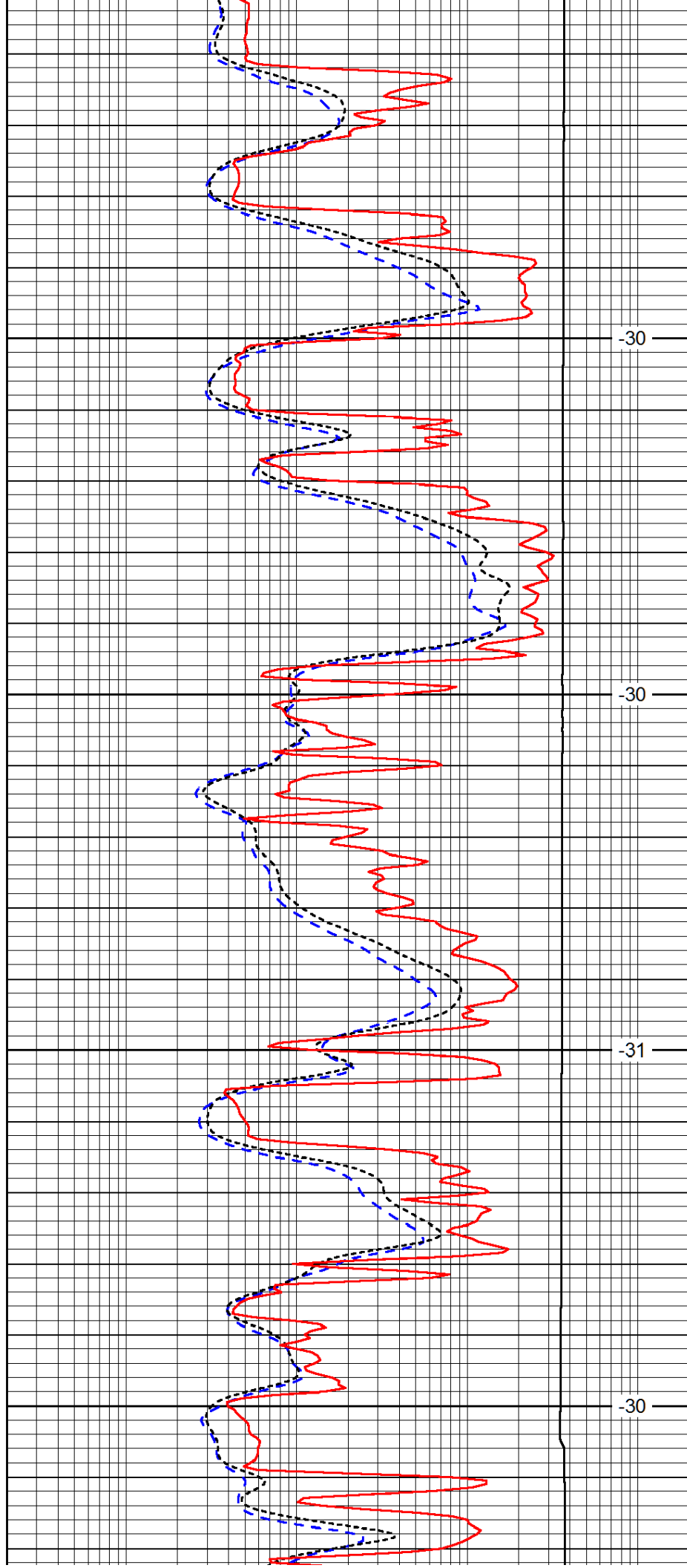


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3900

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4000

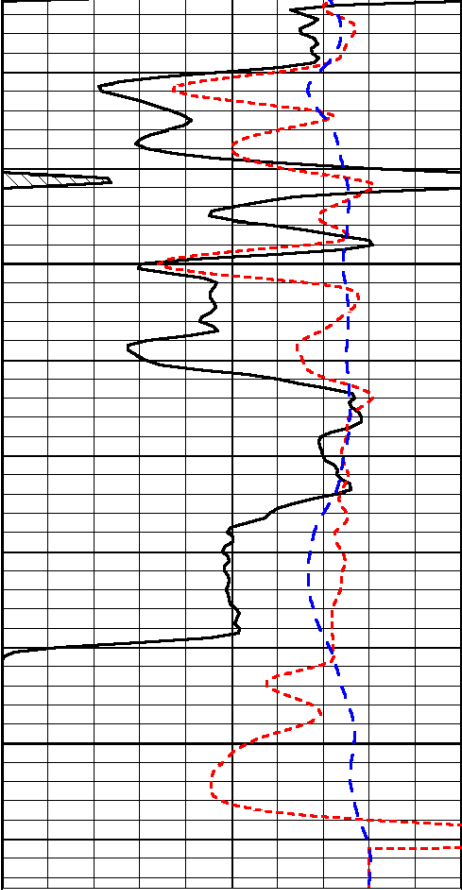


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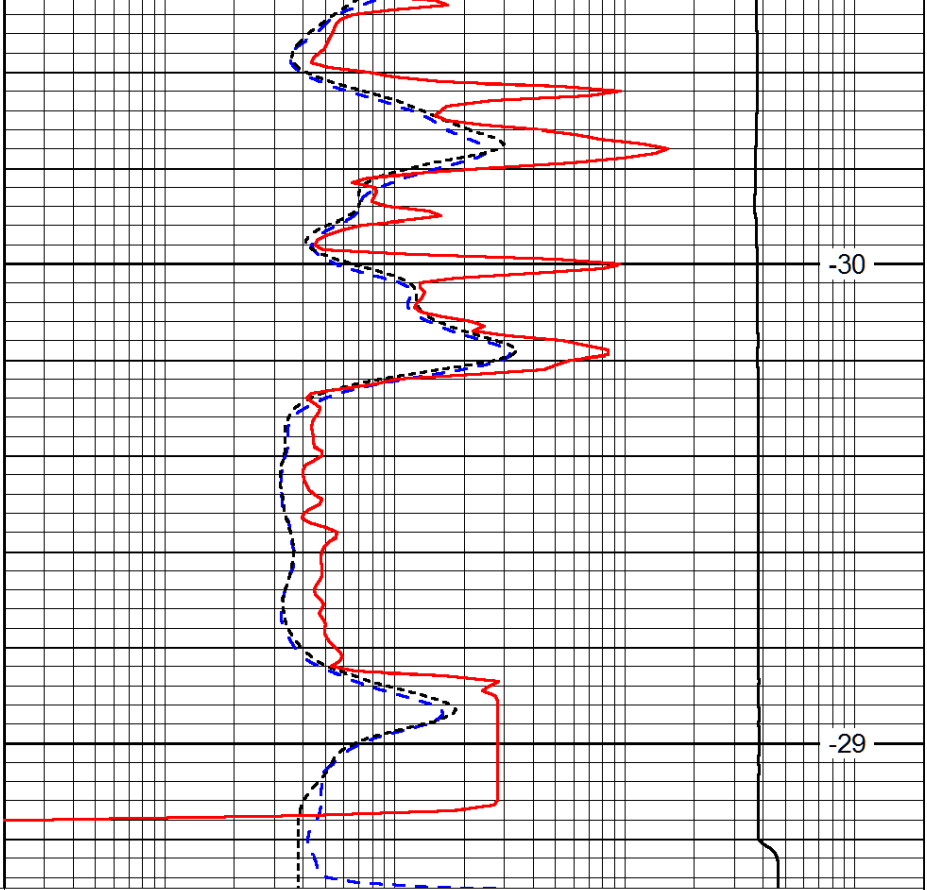
-30



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

4050

4100



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

-30

-29

LSPD