



Pioneer Energy Services

Dual Induction Log

15-065-24,031-00-00

API No.

Company **H&C Oil Operating, Inc.**

Well **Miller #16-1**

Field **Wildcat**

County **Graham** State

Kansas

Location

330' FNL & 1980' FEL

Other Services
CNL/CDL
MEL

Sec: **16** Twp: **7S** Rge: **23W**

Permanent Datum **Ground Level** Elevation **2458**

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

Elevation
K.B. 2465
D.F.
G.L. 2458

Drilling Measured From **Kelly Bushing**

Date **5/1/2014**

Run Number **One**

Depth Driller **3982**

Depth Logger **3983**

Bottom Logged Interval **3982**

Top Log Interval **250**

Casing Driller **8.625 @ 263**

Casing Logger **263**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity, ppm CL **2,200**

Density / Viscosity **9.4 50**

pH / Fluid Loss **9.5 6.2**

Source of Sample **Flowline**

Rm @ Meas. Temp **.55 @ 52**

Rmf @ Meas. Temp **.41 @ 52**

Rmc @ Meas. Temp **.74 @ 52**

Source of Rmf / Rmc **Charts**

Rm @ BHT **.25 @ 116**

Operating Rig Time **4 Hours**

Max Rec. Temp. F **116**

Equipment Number **17**

Location **Hays**

Recorded By **C. Desaire**

Witnessed By **Marc Downing**

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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 Pioneer Energy Services
www.pioneerenergy.com
785 625 3858

Hill City KS, 6 N to W Rd,
2 1/2 W, S Into

Database File: c:\warrior\data\h&c_miller #16-1\hchd.db
Dataset Pathname: dil/hcstk
Presentation Format: dil2in
Dataset Creation: Thu May 01 06:25:24 2014
Charted by: Depth in Feet scaled 1:600

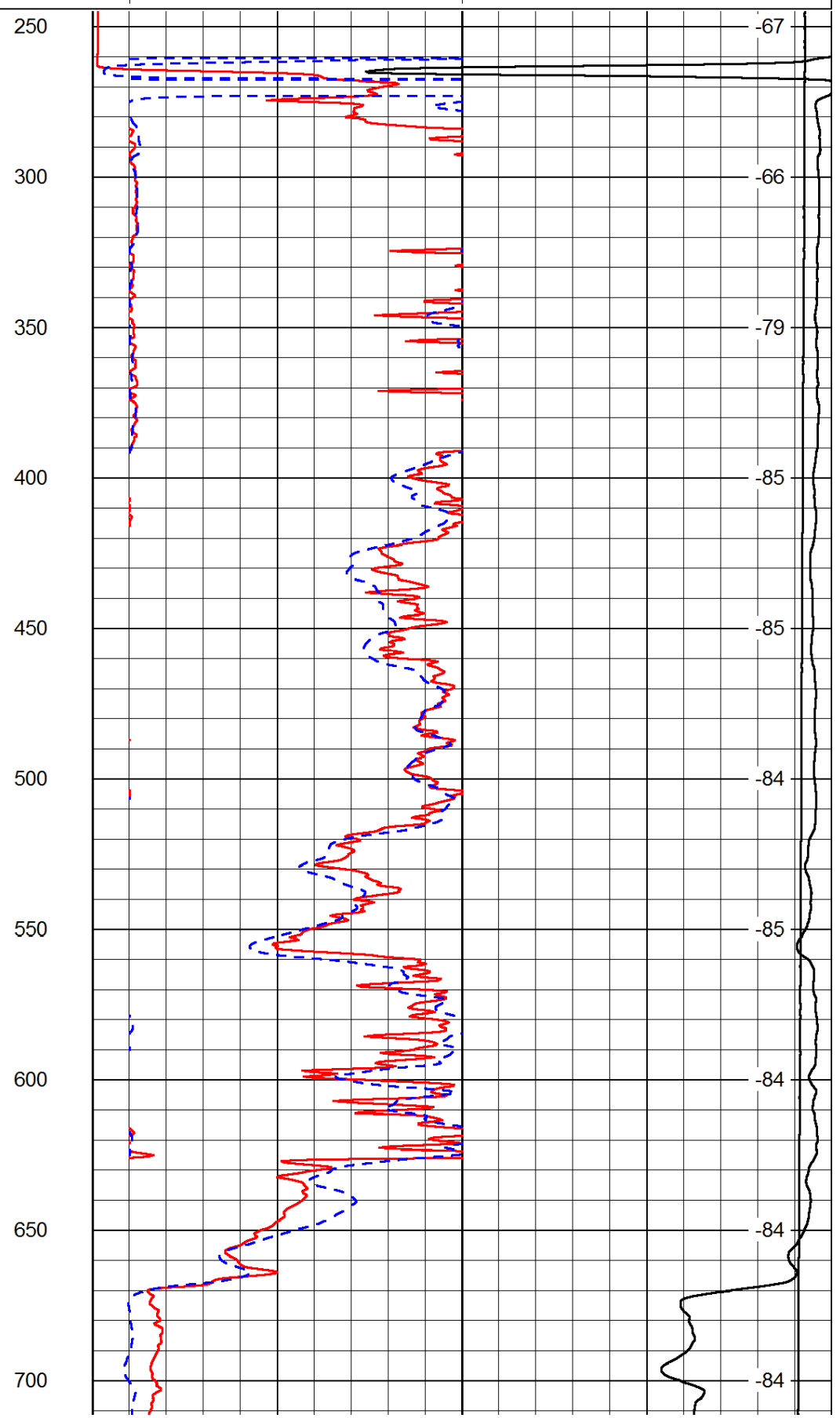
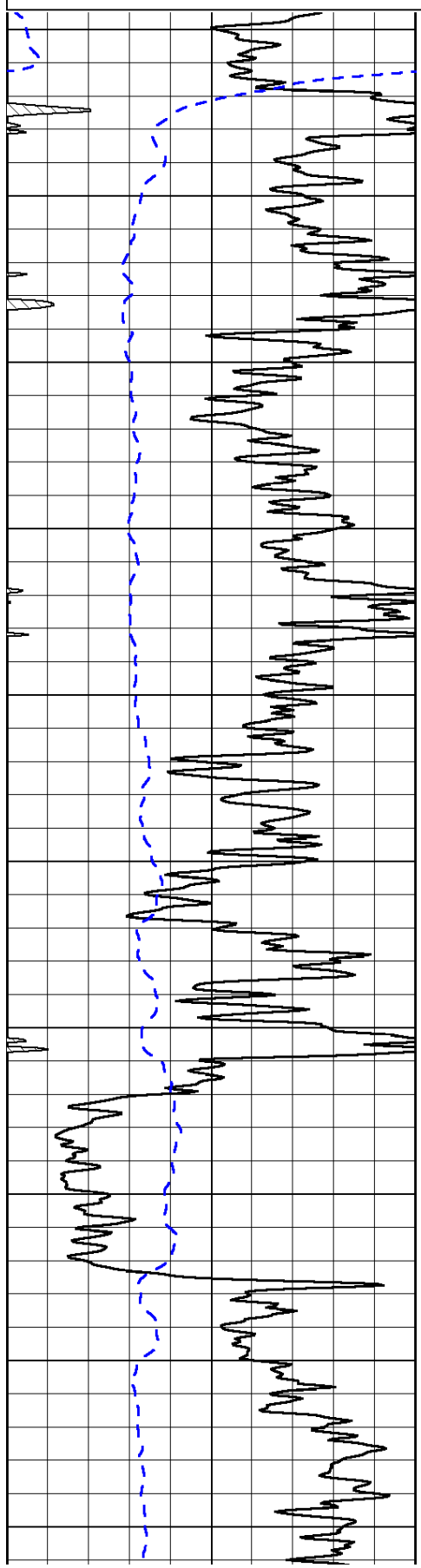
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-200	SP (mV)	0

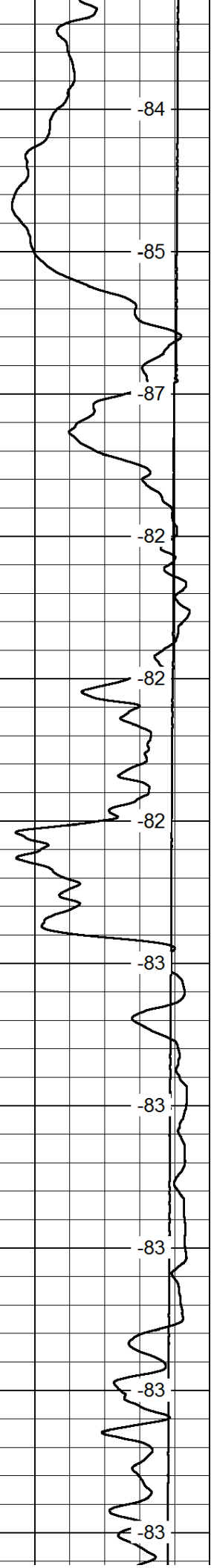
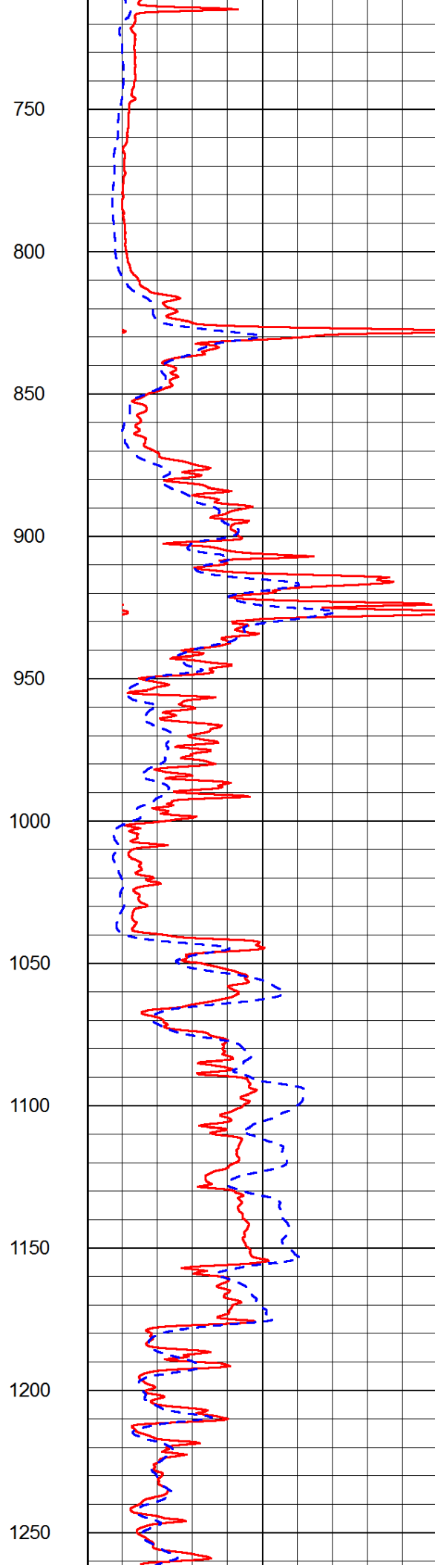
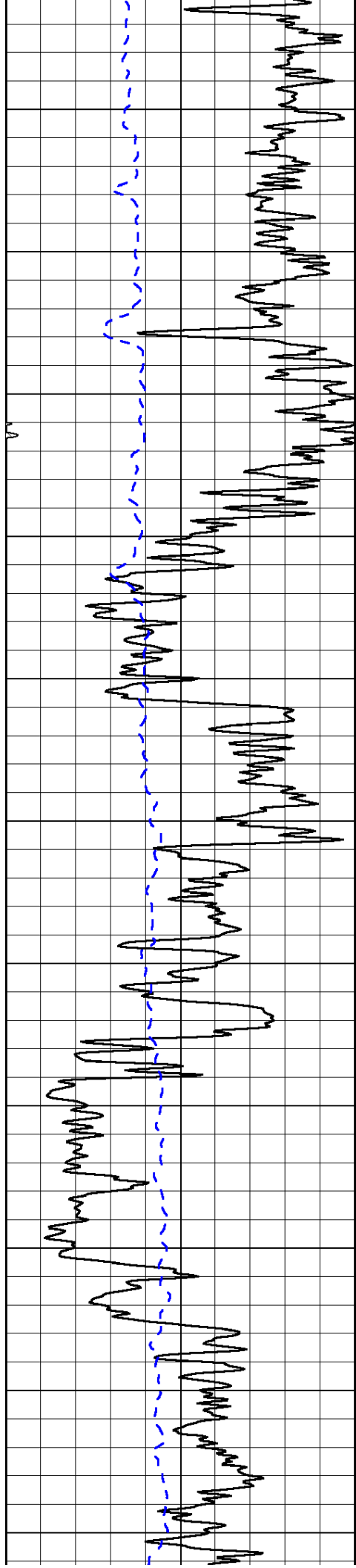
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0	Deep Resistivity	50

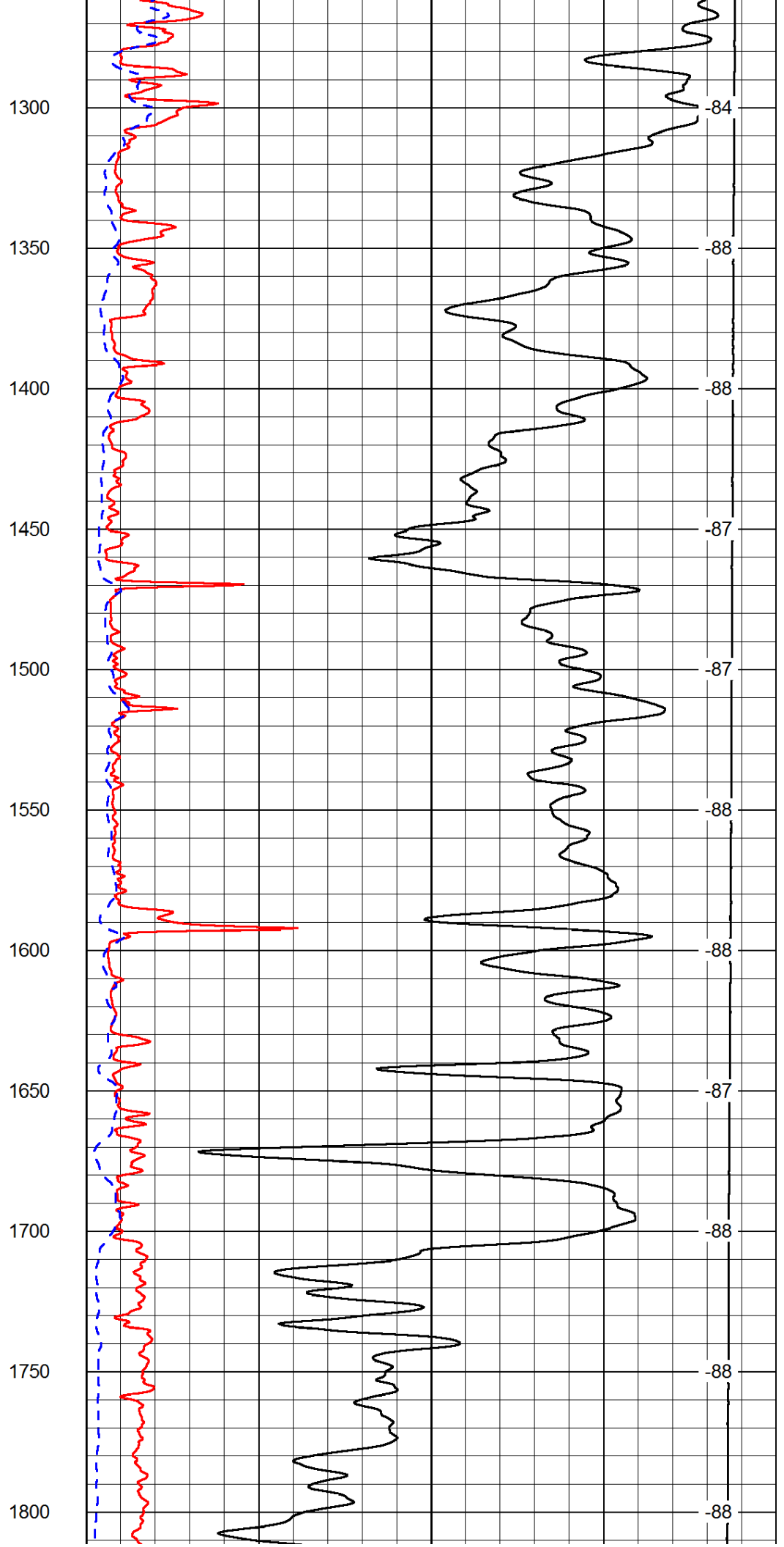
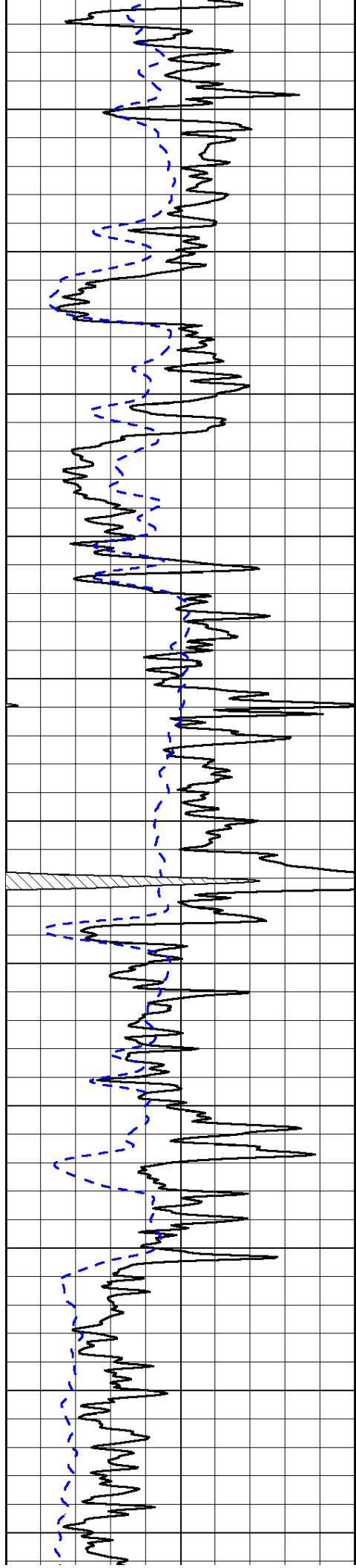
LSPD

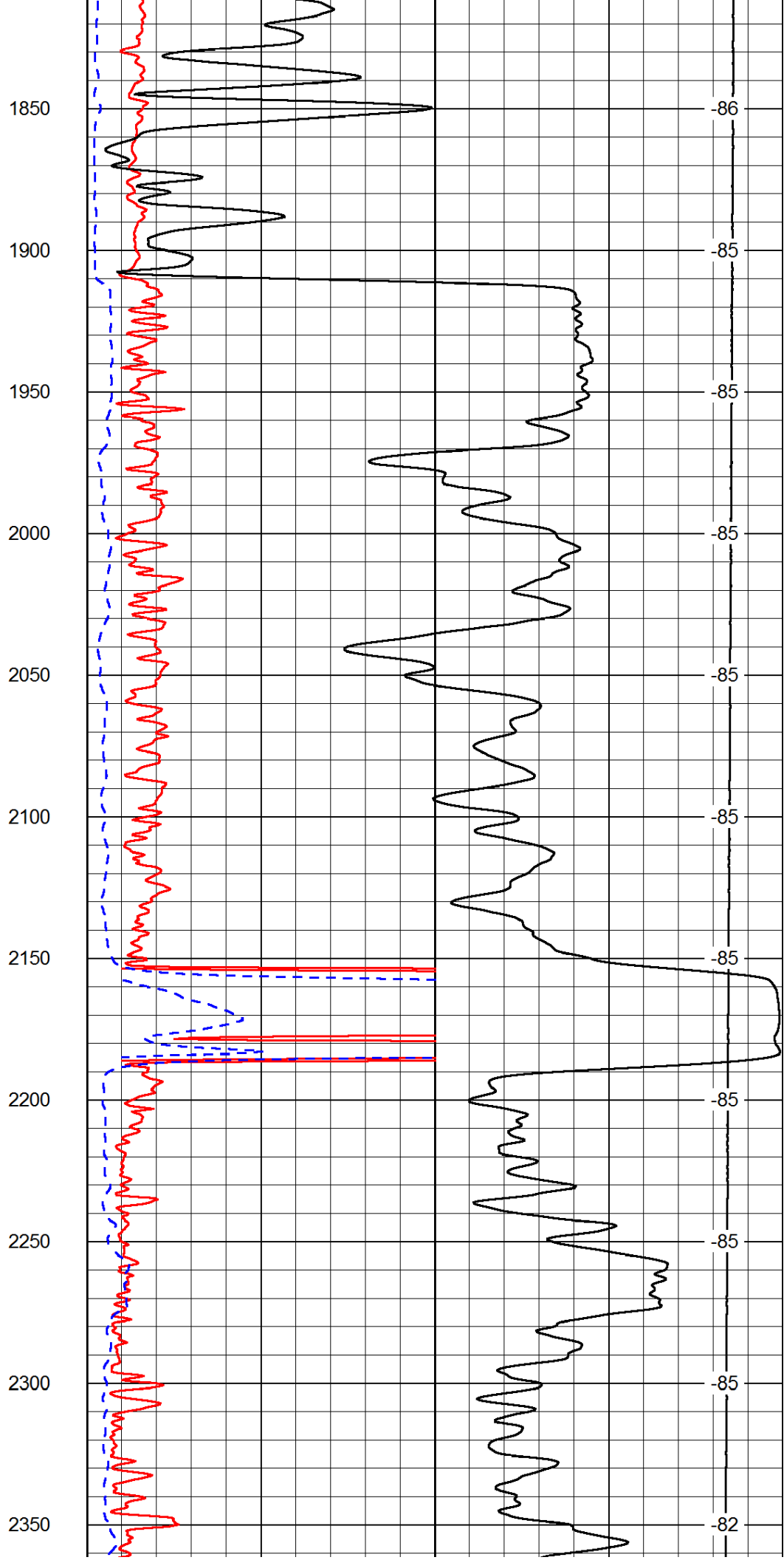
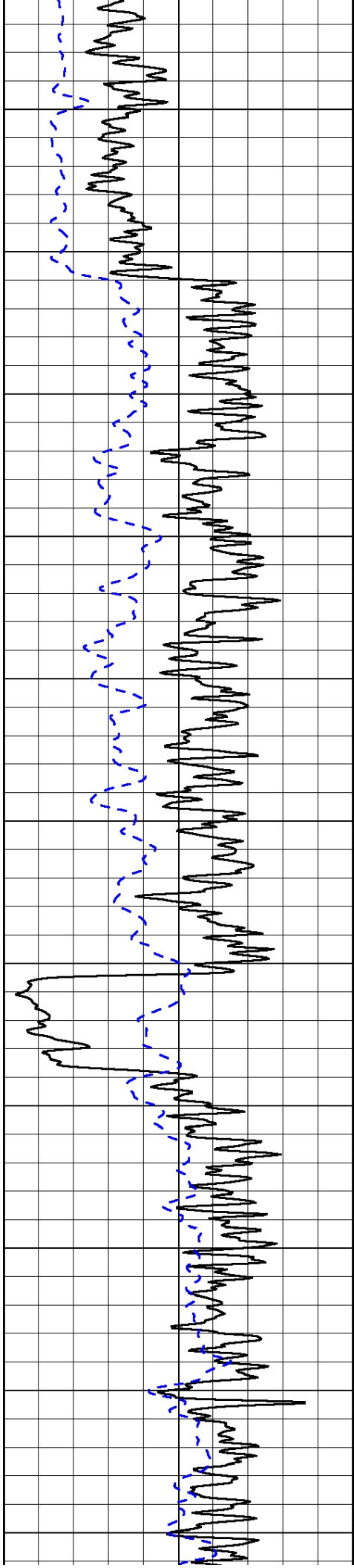
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15000	Line Tension	0

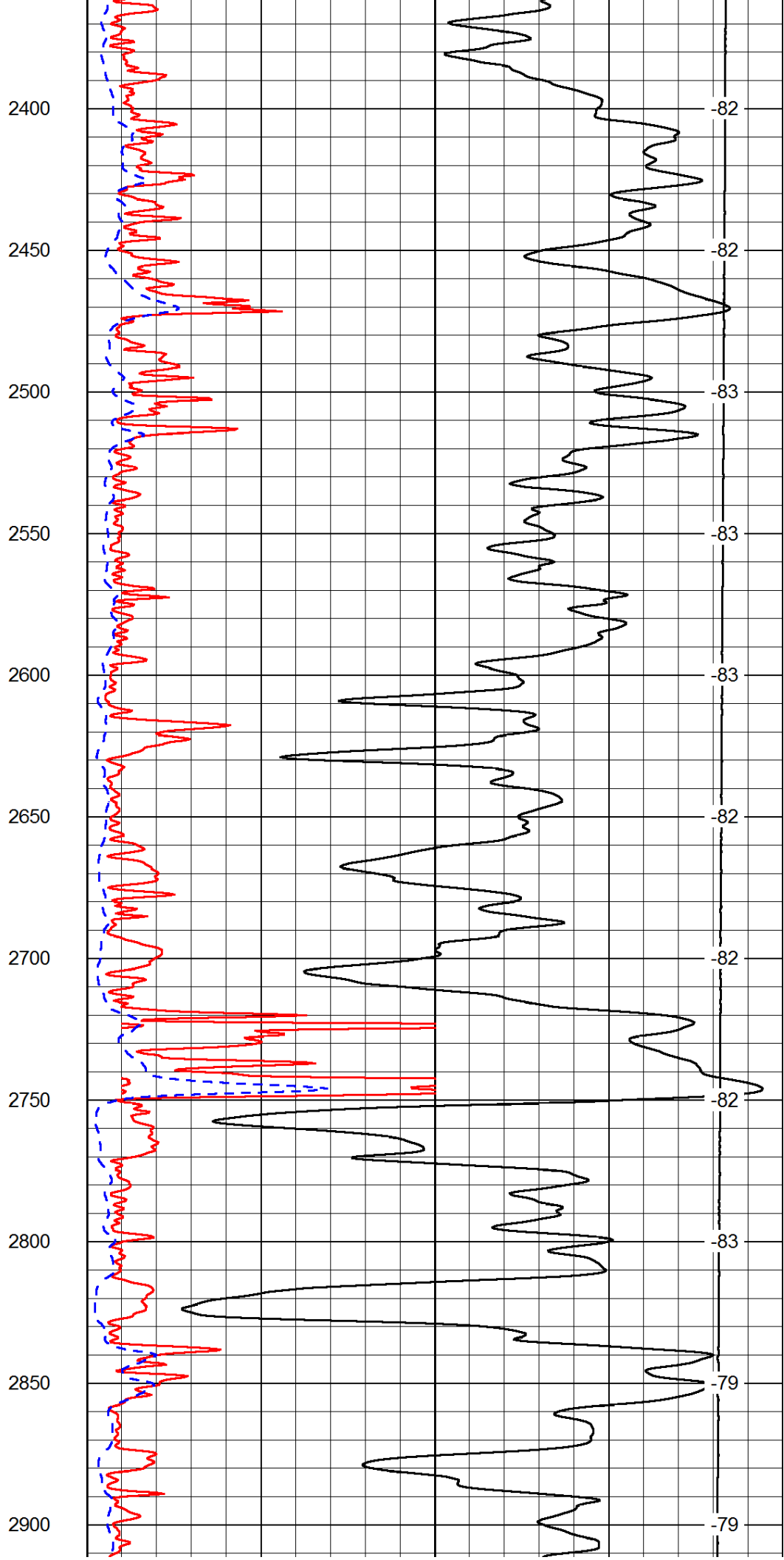
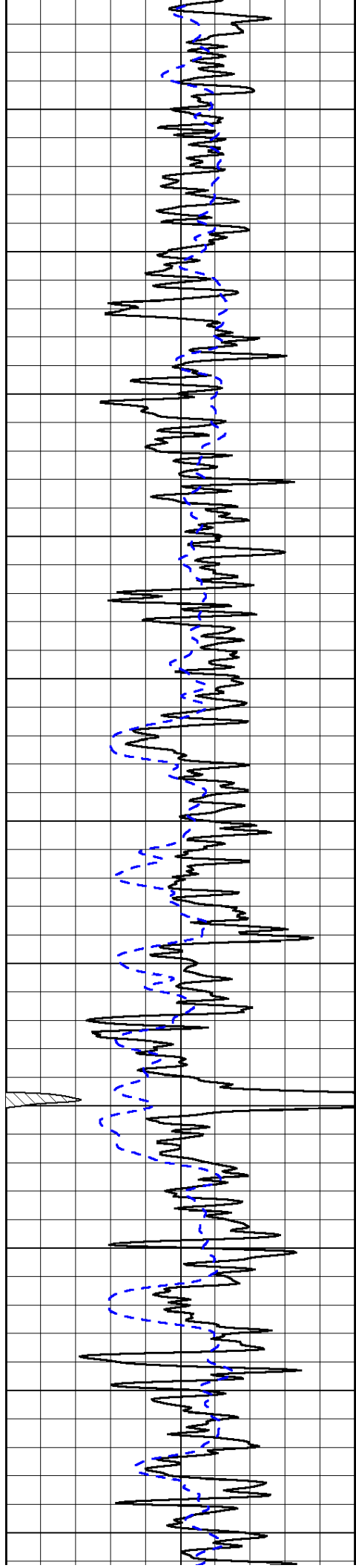
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50	Deep Resistivity	500

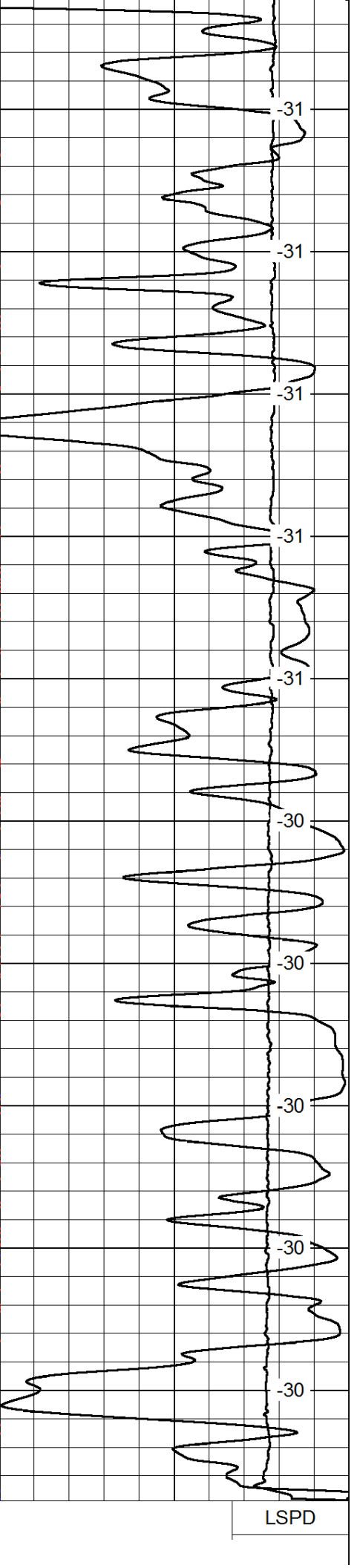
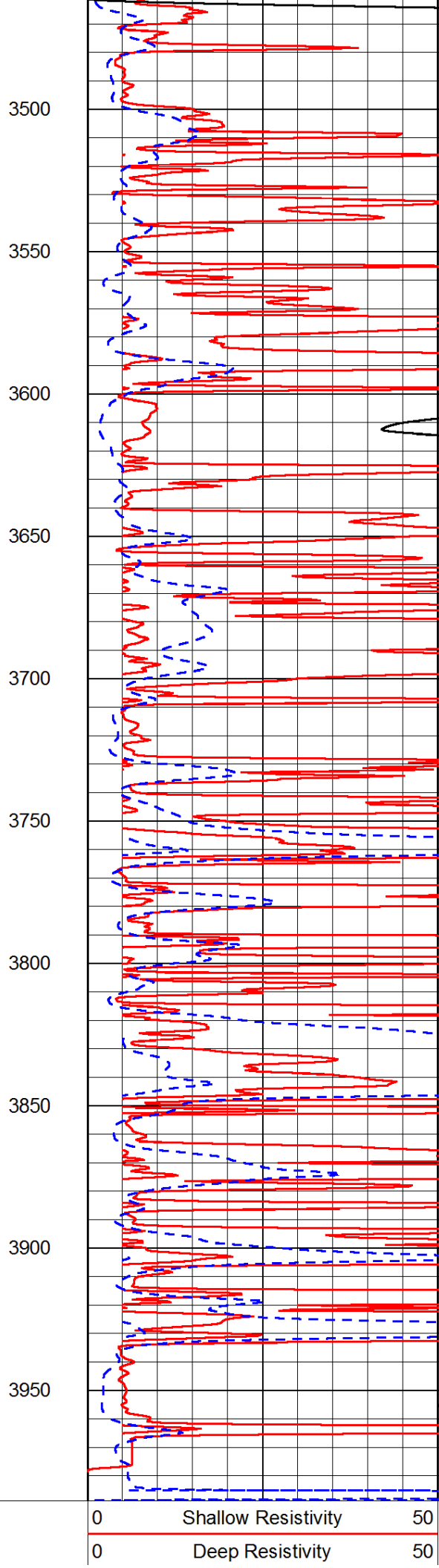
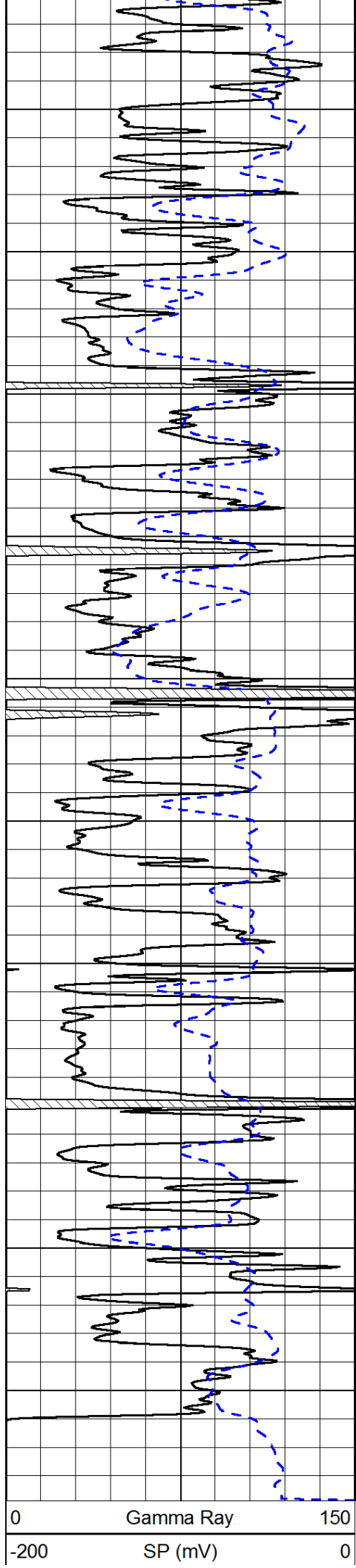












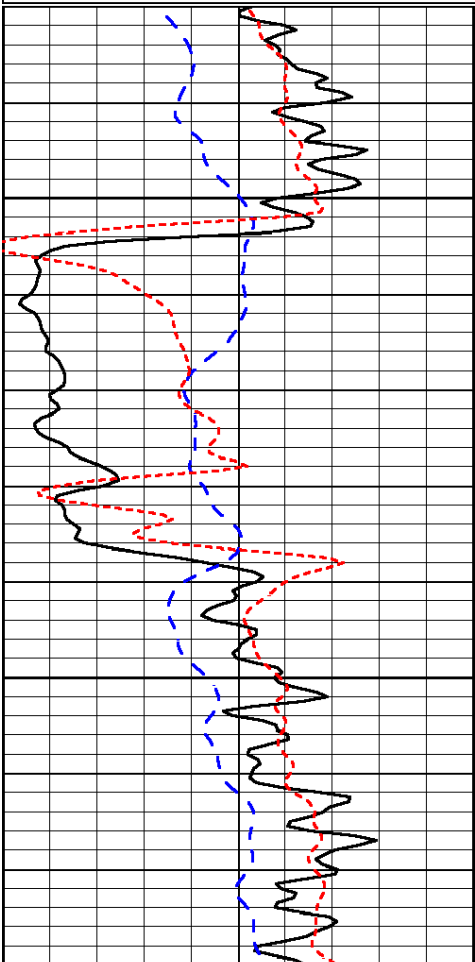
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15000	Line Tension	0
50	Shallow Resistivity	500
50	Deep Resistivity	500

Database File: c:\warrior\data\h&c_miller #16-1\hchd.db
 Dataset Pathname: dil/hcstk
 Presentation Format: dil
 Dataset Creation: Thu May 01 06:25:24 2014
 Charted by: Depth in Feet scaled 1:240

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

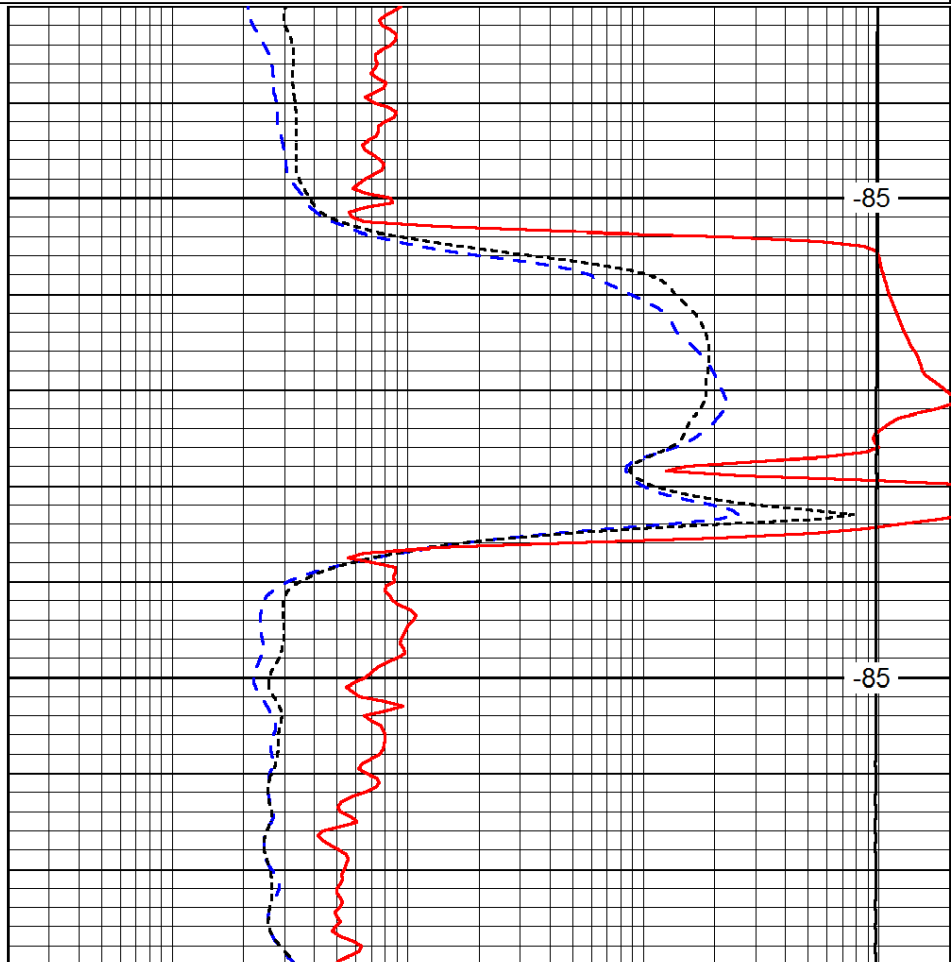
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0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD



2150

2200



-85

-85

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

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

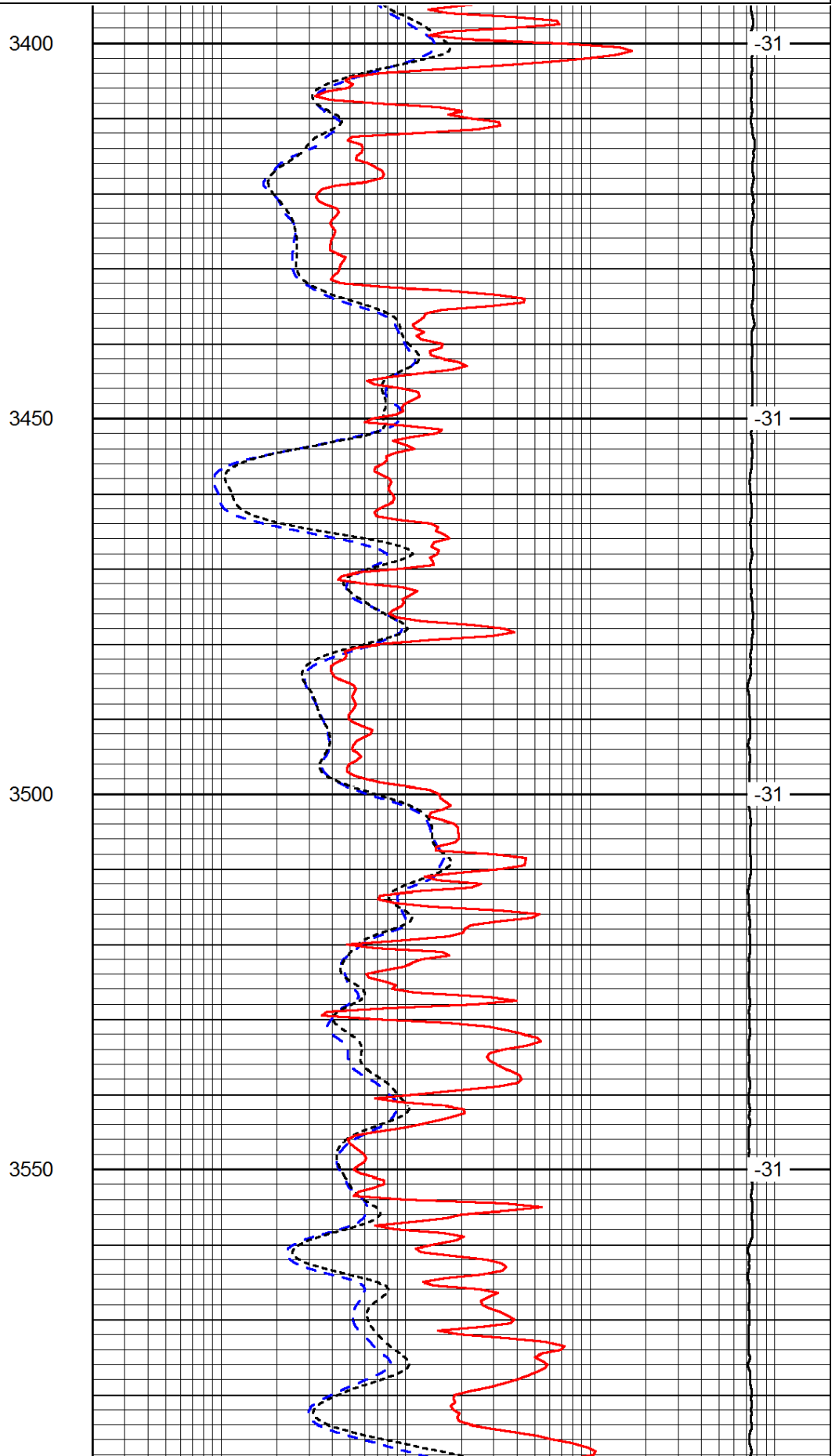
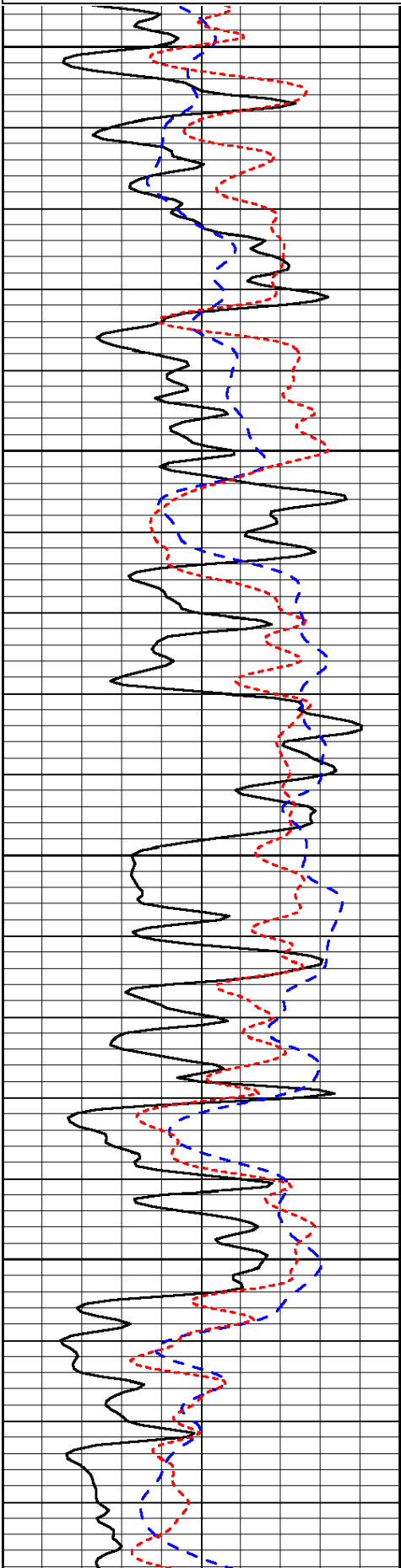
LSPD

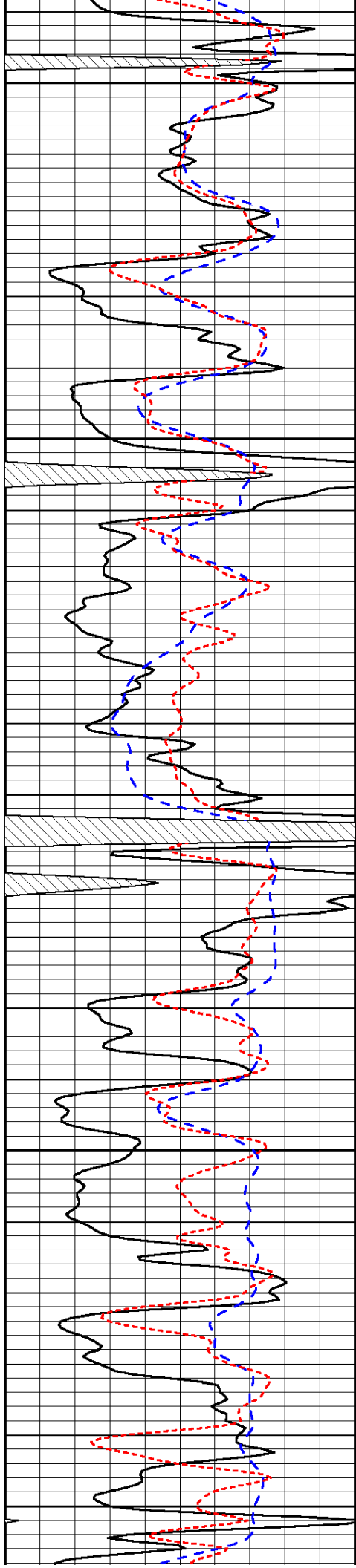
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0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD





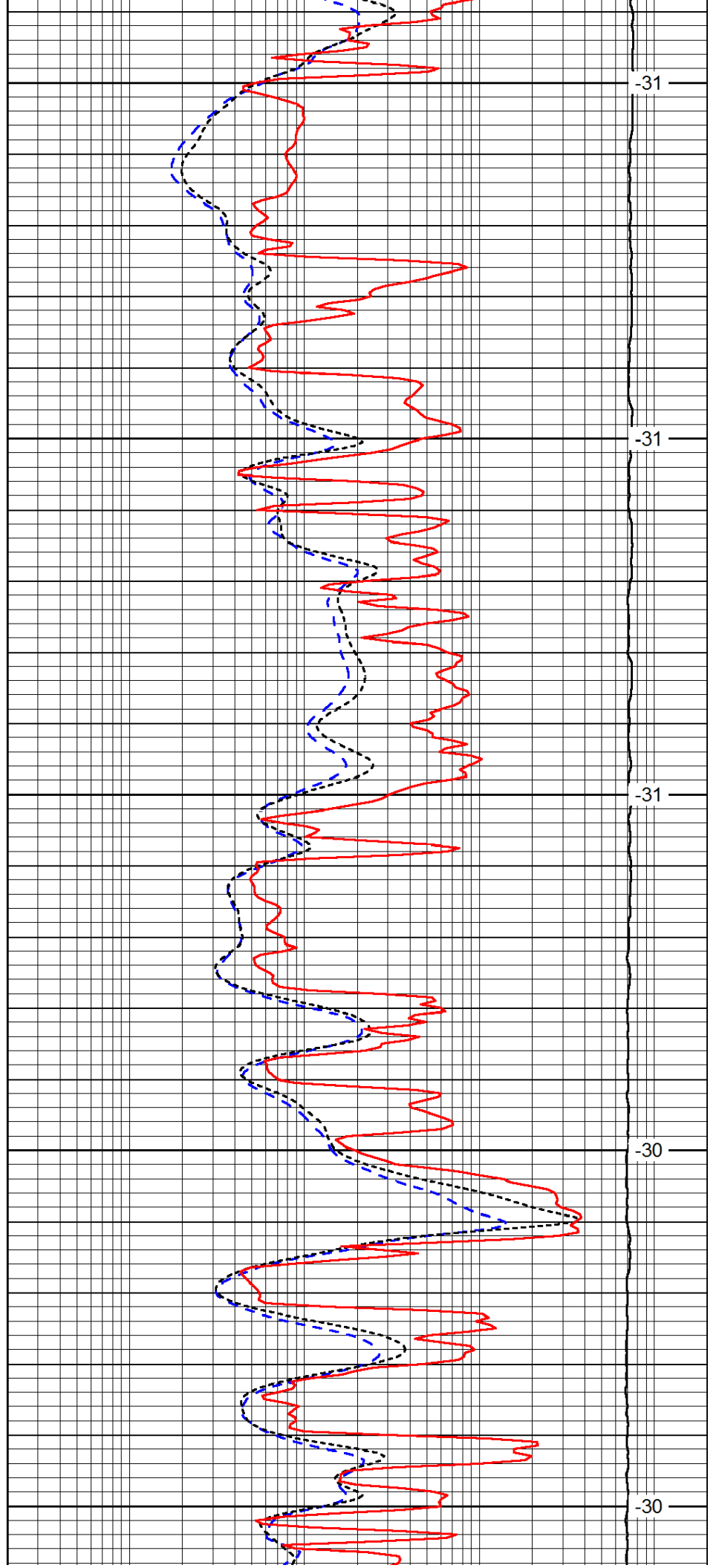
3600

3650

3700

3750

3800



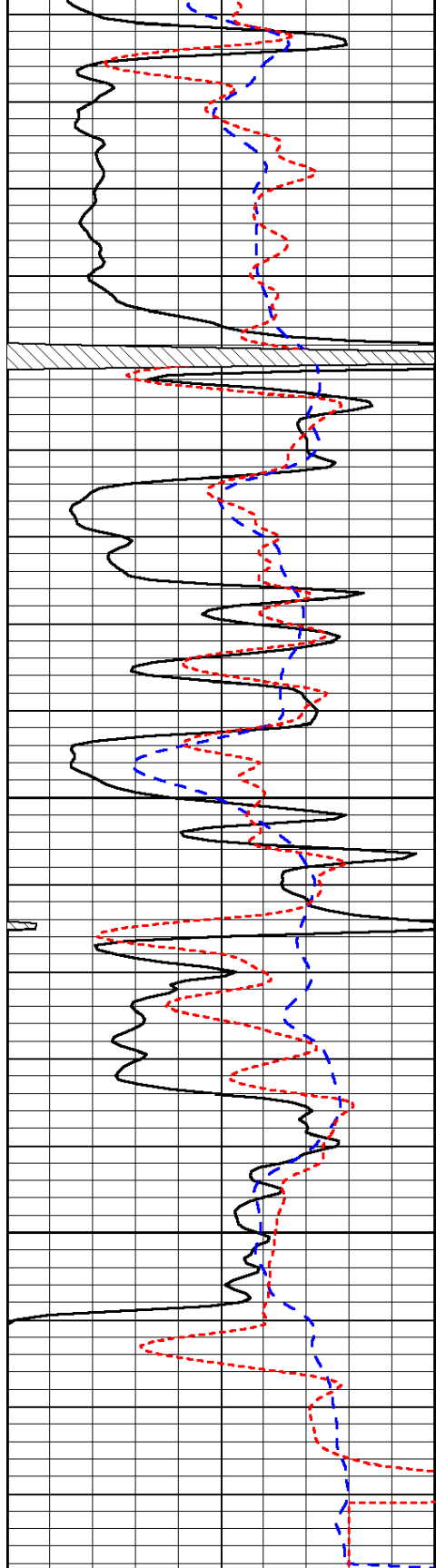
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-31

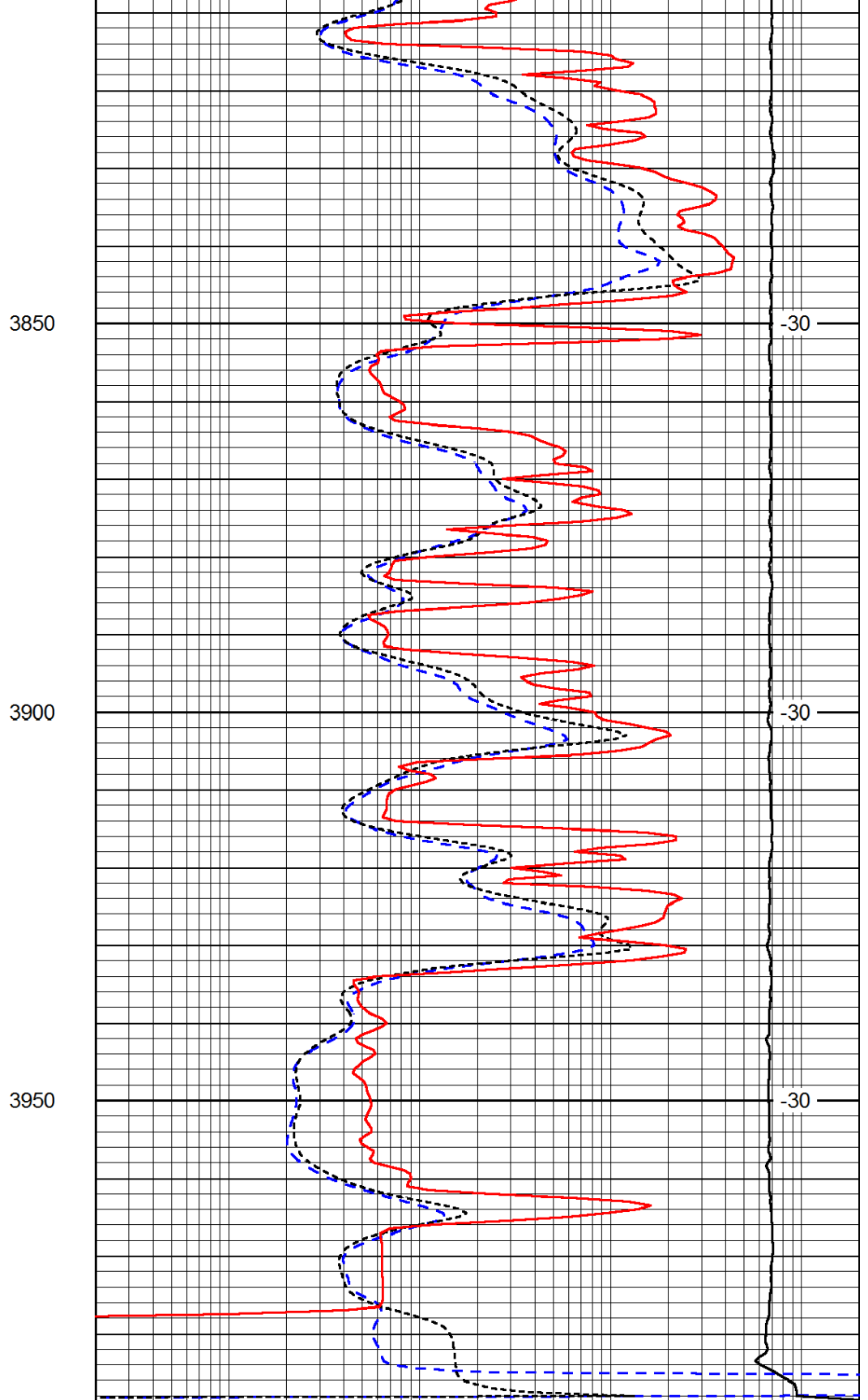
-31

-30

-30



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



0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD