



Pioneer Energy Services

Dual Induction Log

15-195-22,821-00-00

API No.

Company **Cobalt Energy, LLC.**

Well **Terry "A" No.2-1**

Field **Struss West**

County **Trego** State

Kansas

Location **2302' FNL & 986' FWL**

Other Services
CNL/CDL

Sec: **1** Twp: **11 S** Rge: **25 W**

Permanent Datum **Ground Level** Elevation **2413**

Log Measured From **Kelly Bushing**

5 Ft. Above Perm. Datum

Elevation
K.B. 2418
D.F. 2418
G.L. 2413

Drilling Measured From **Kelly Bushing**

Date **11/18/2012**

Run Number **One**

Depth Driller **4050**

Depth Logger **4050**

Bottom Logged Interval **4049**

Top Log Interval **200**

Casing Driller **8.625 @ 219**

Casing Logger **216**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity,ppm CL **2800**

Density / Viscosity **9.35 54**

pH / Fluid Loss **9.0 7.2**

Source of Sample **Flowline**

Rm @ Meas. Temp **1.10 @ 68**

Rmf @ Meas. Temp **0.83 @ 68**

Rmc @ Meas. Temp **1.49 @ 68**

Source of Rmf / Rmc **Charts**

Rm @ BHT **0.64 @ 117**

Operating Rig Time **2 1/2 Hours**

Max Rec. Temp. F **117**

Equipment Number **15**

Location **Hays**

Recorded By **D.Kerr**

Witnessed By **Corey Baker**

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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

Voda Exit and I-70, 2 1/2 North,
1 West, 4 North, 1 West, 1 North, East Into

Database File: c:\warrior\data\cobalt_terry a #2-1\cobalt_terry_a_2_1hd.db
Dataset Pathname: DIL\cobstk
Presentation Format: dil2in
Dataset Creation: Sun Nov 18 12:31:50 2012
Charted by: Depth in Feet scaled 1:600

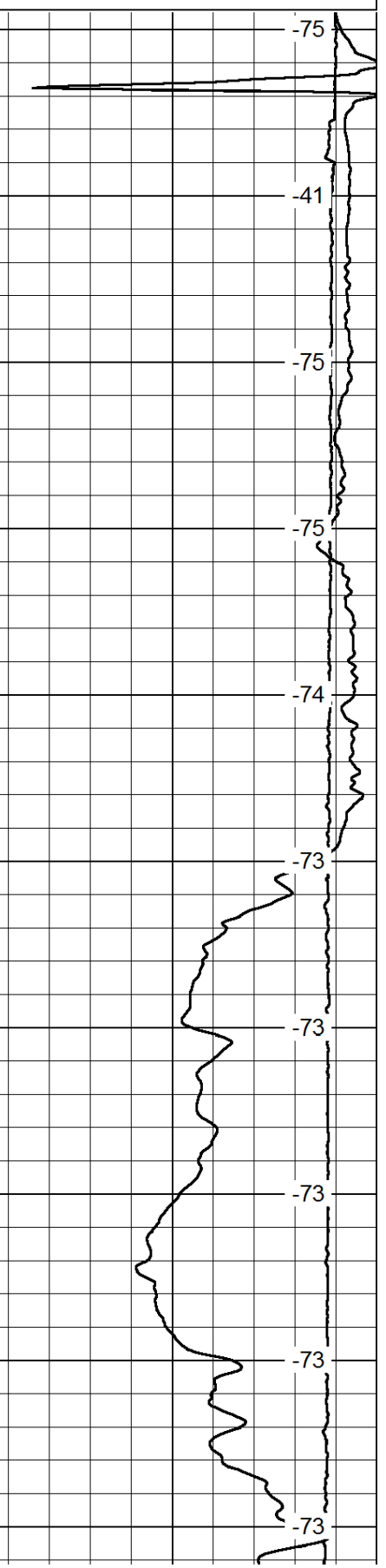
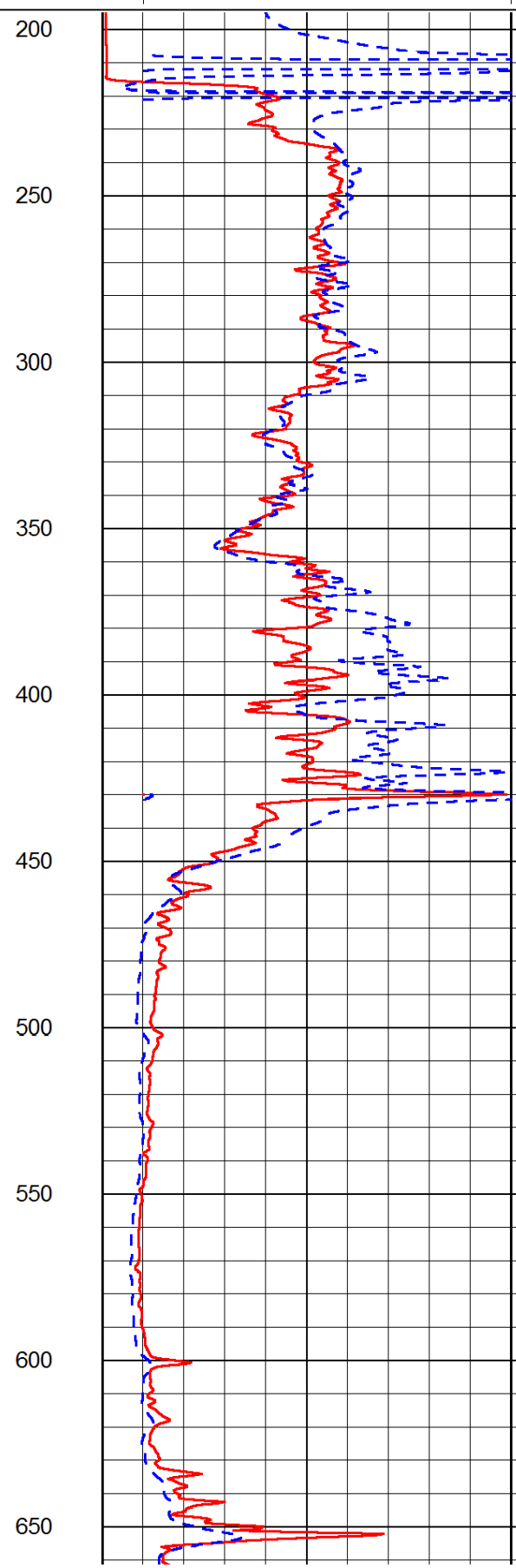
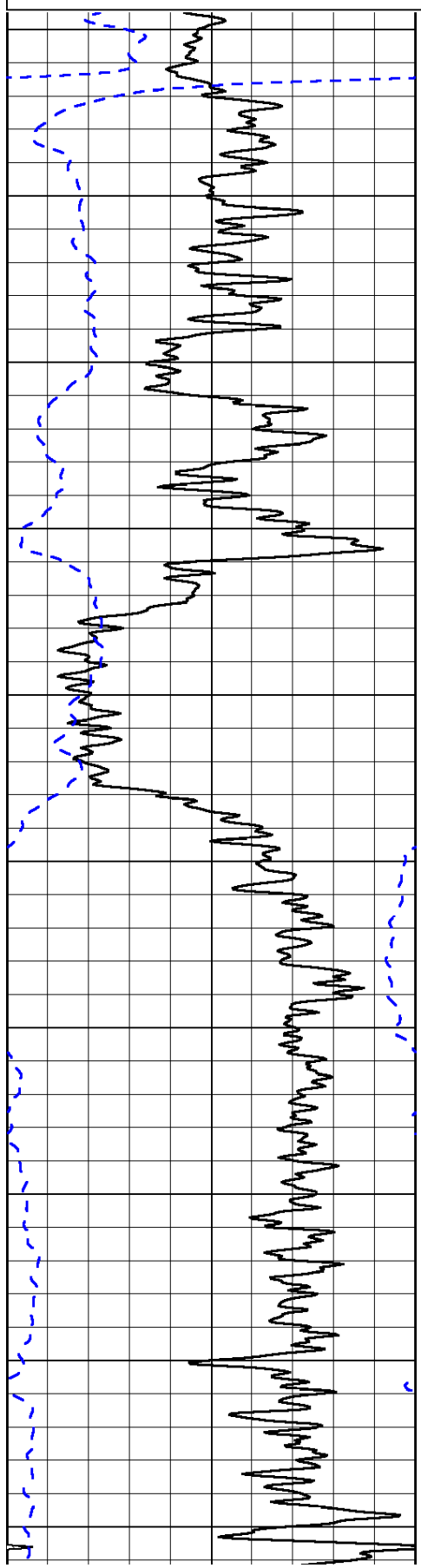
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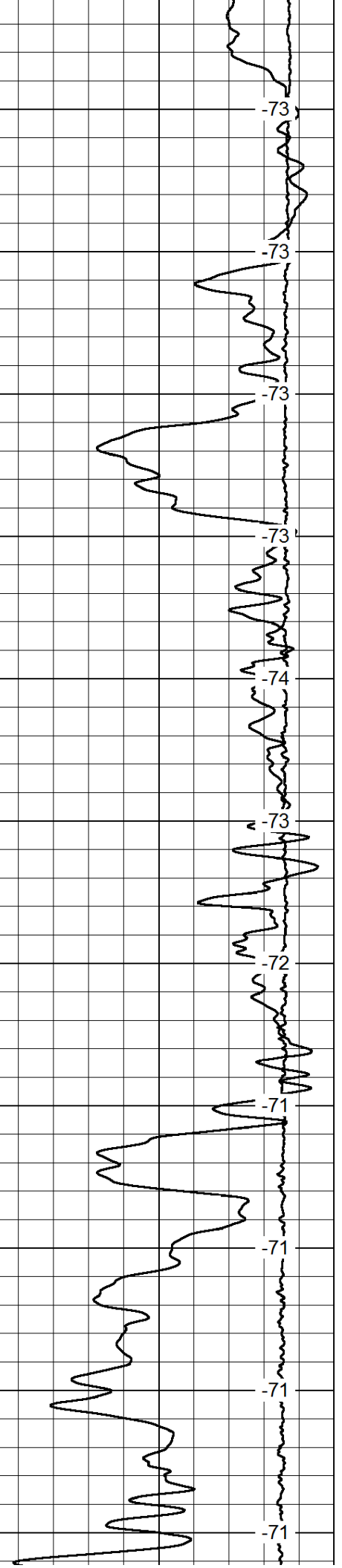
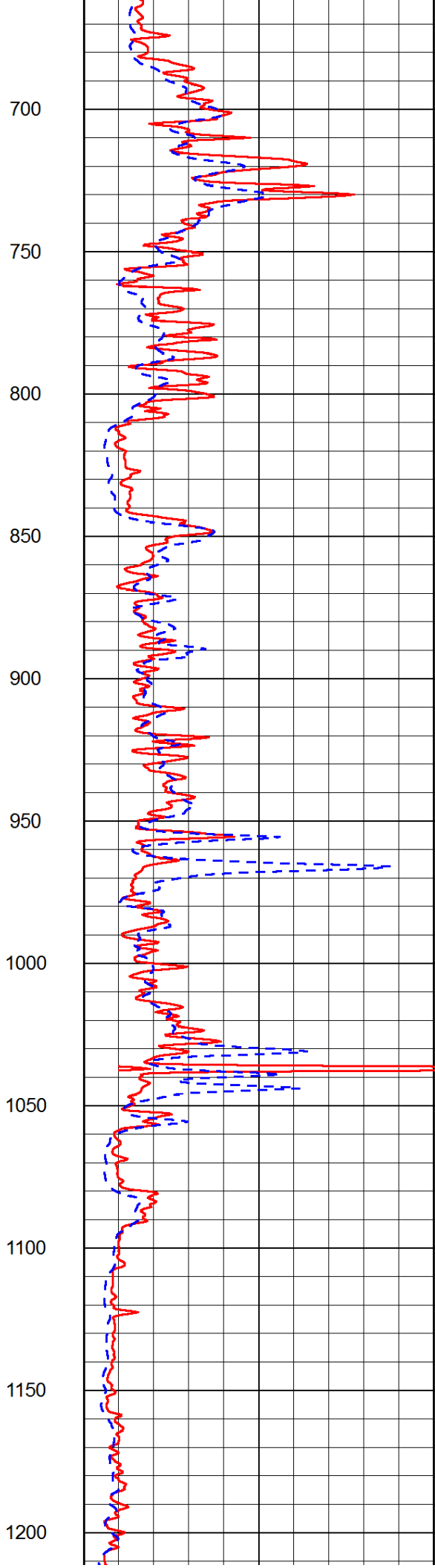
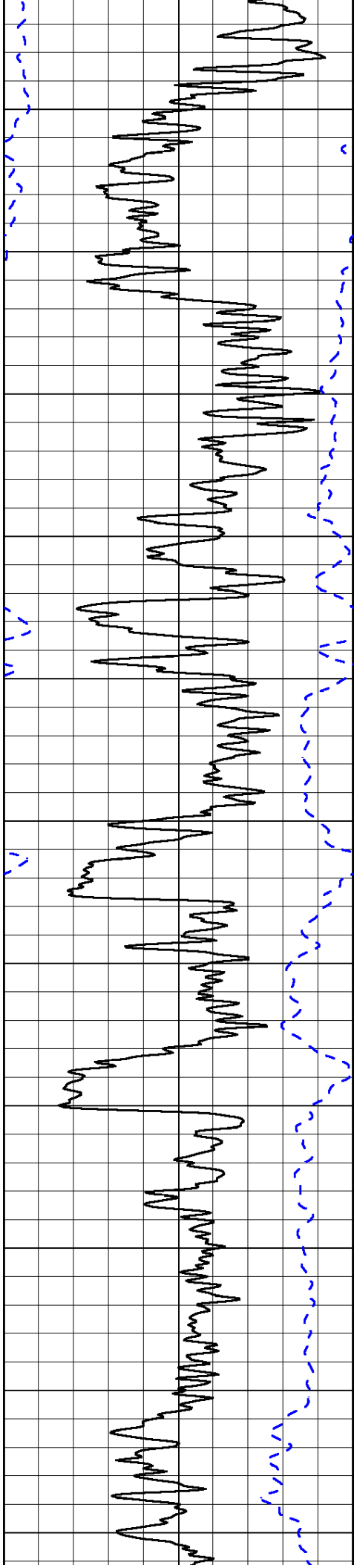
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0	Deep Resistivity	50

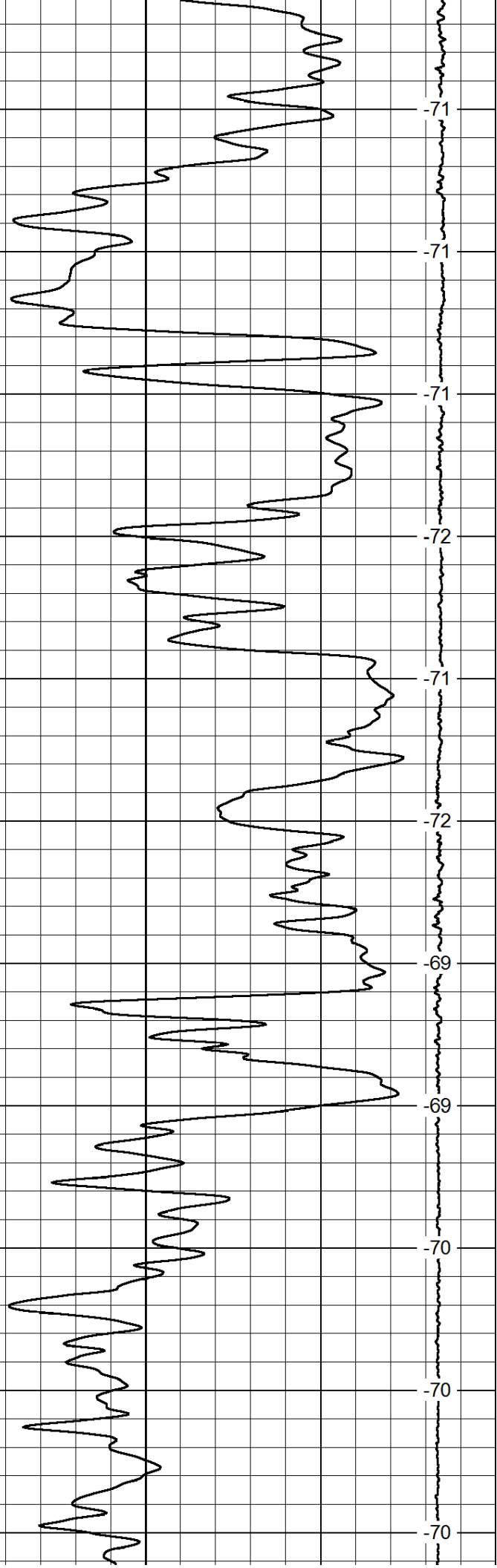
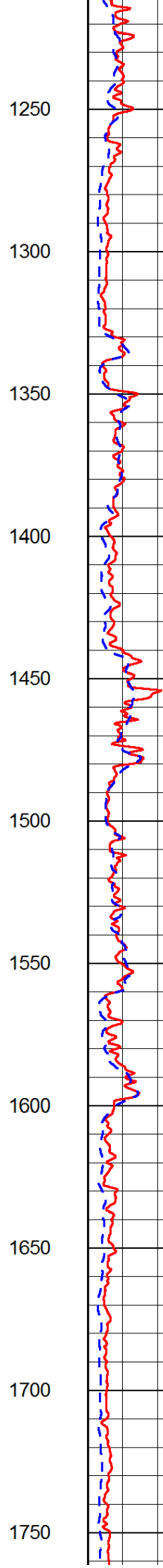
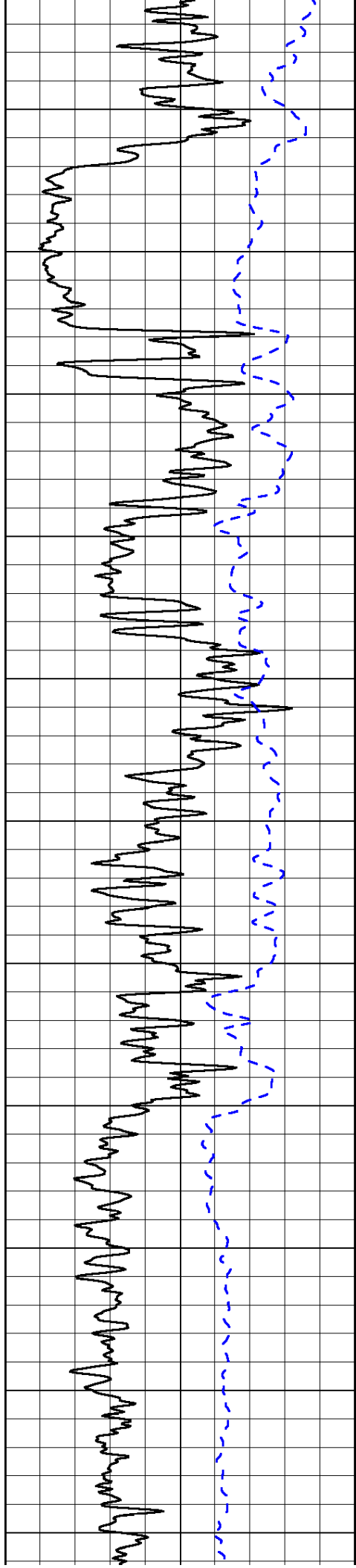
LSPD

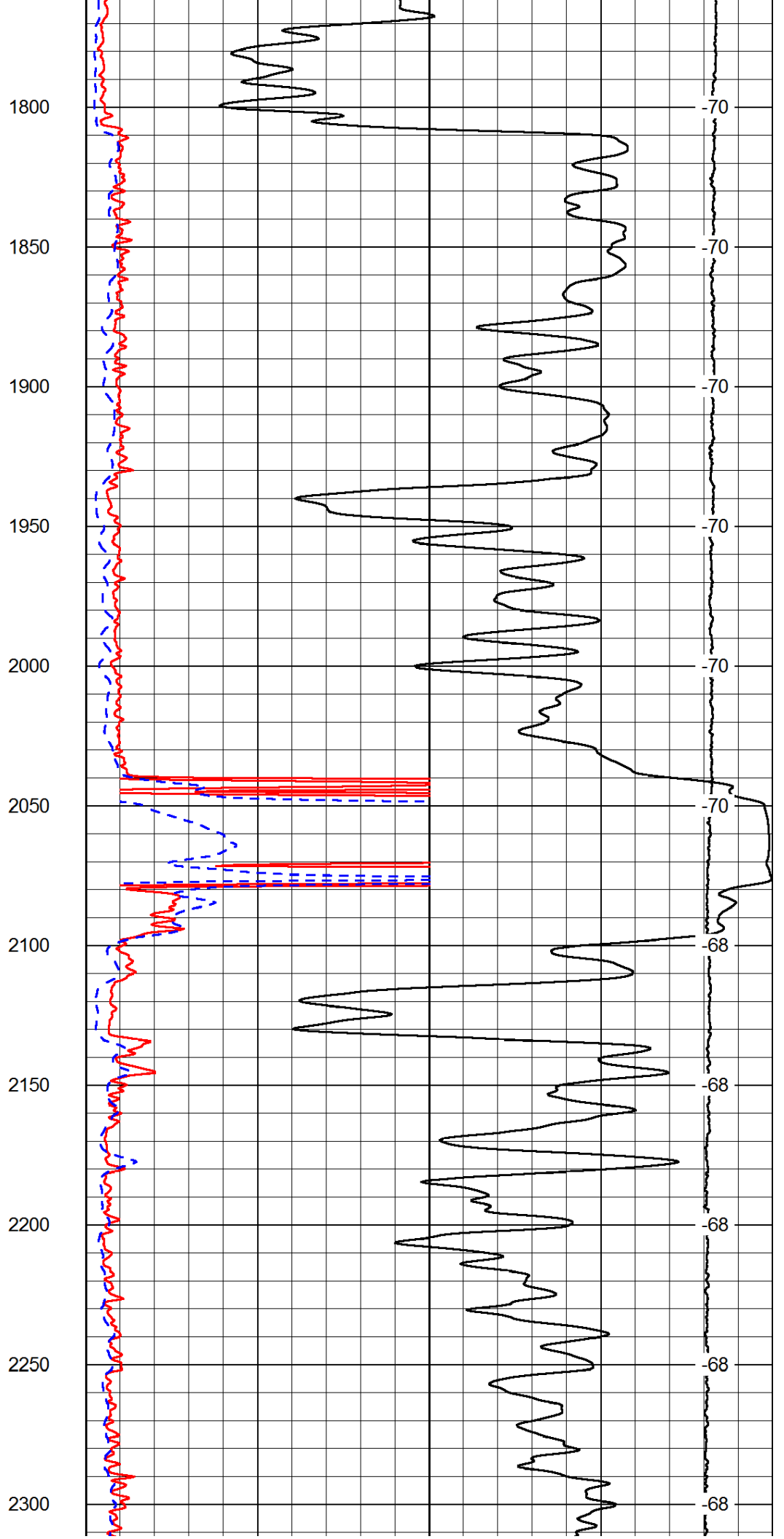
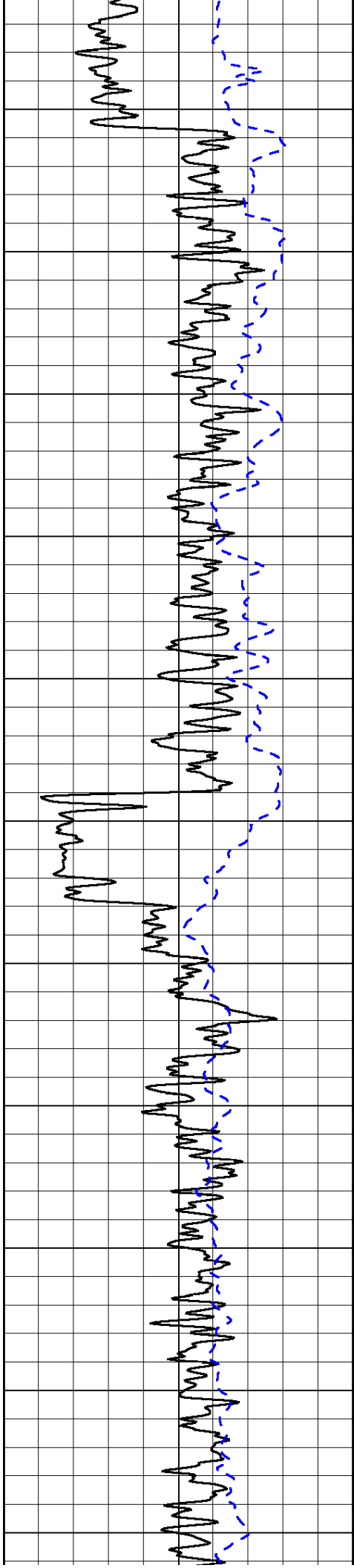
1000	Conductivity	0
15000	Line Tension	0

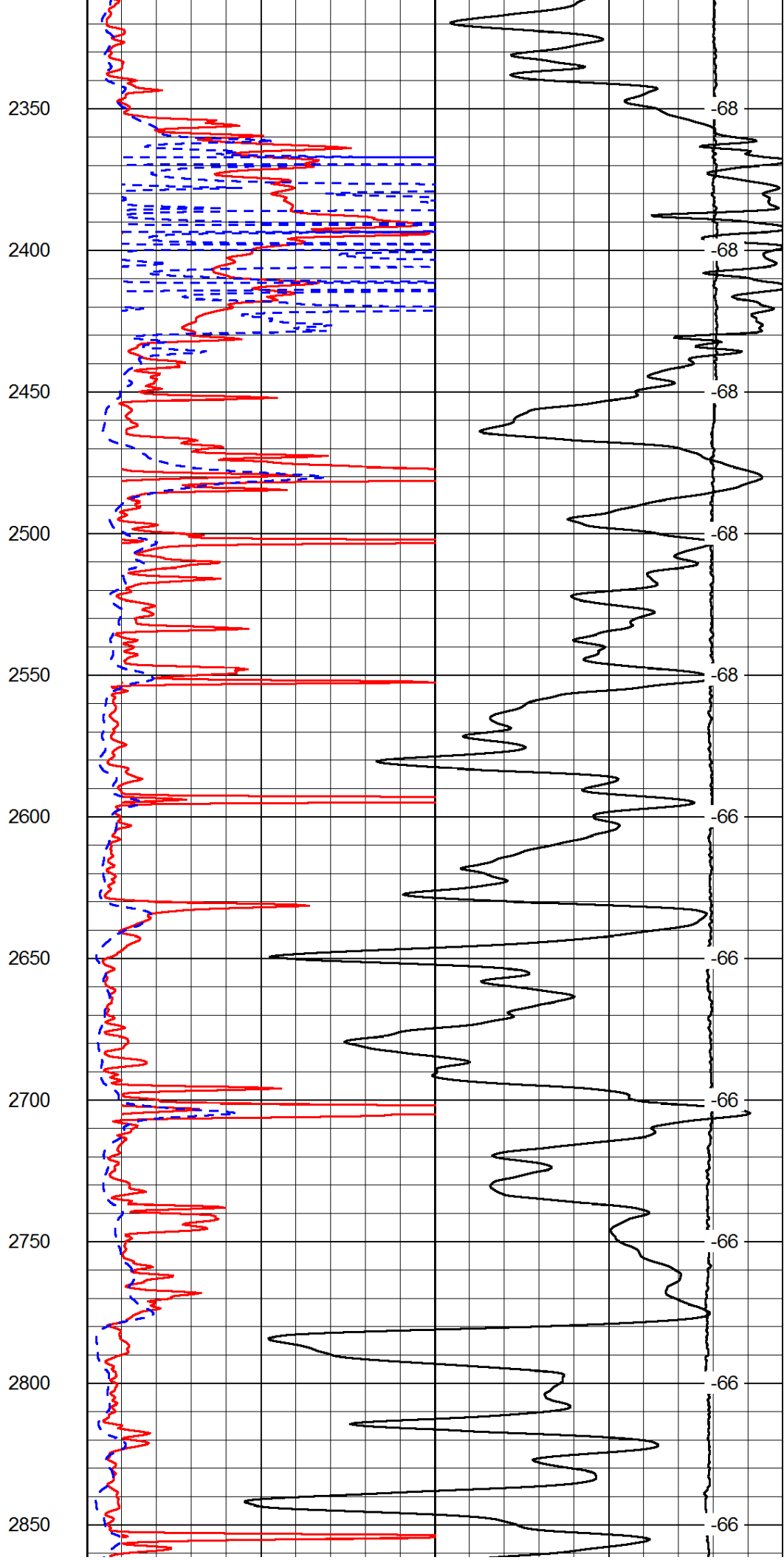
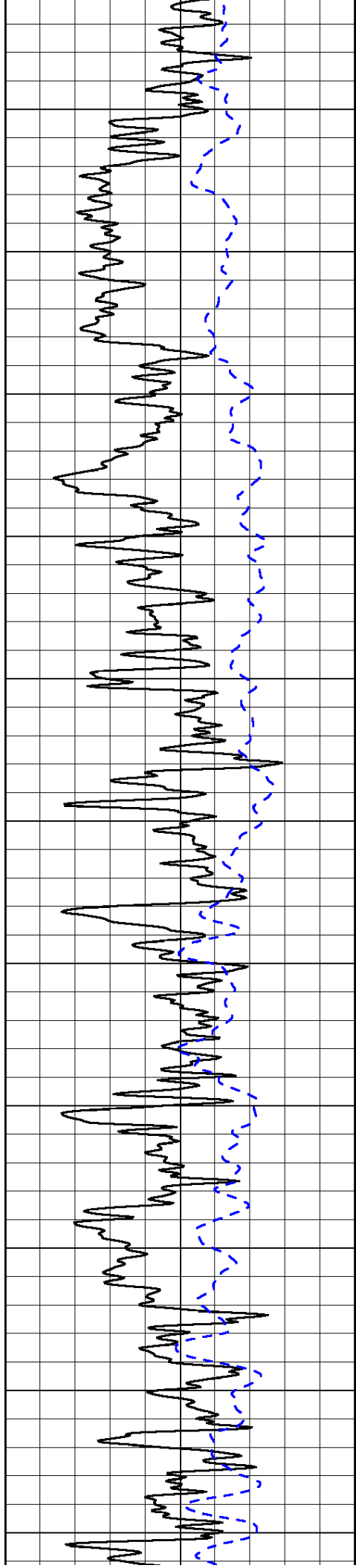
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50	Deep Resistivity	500

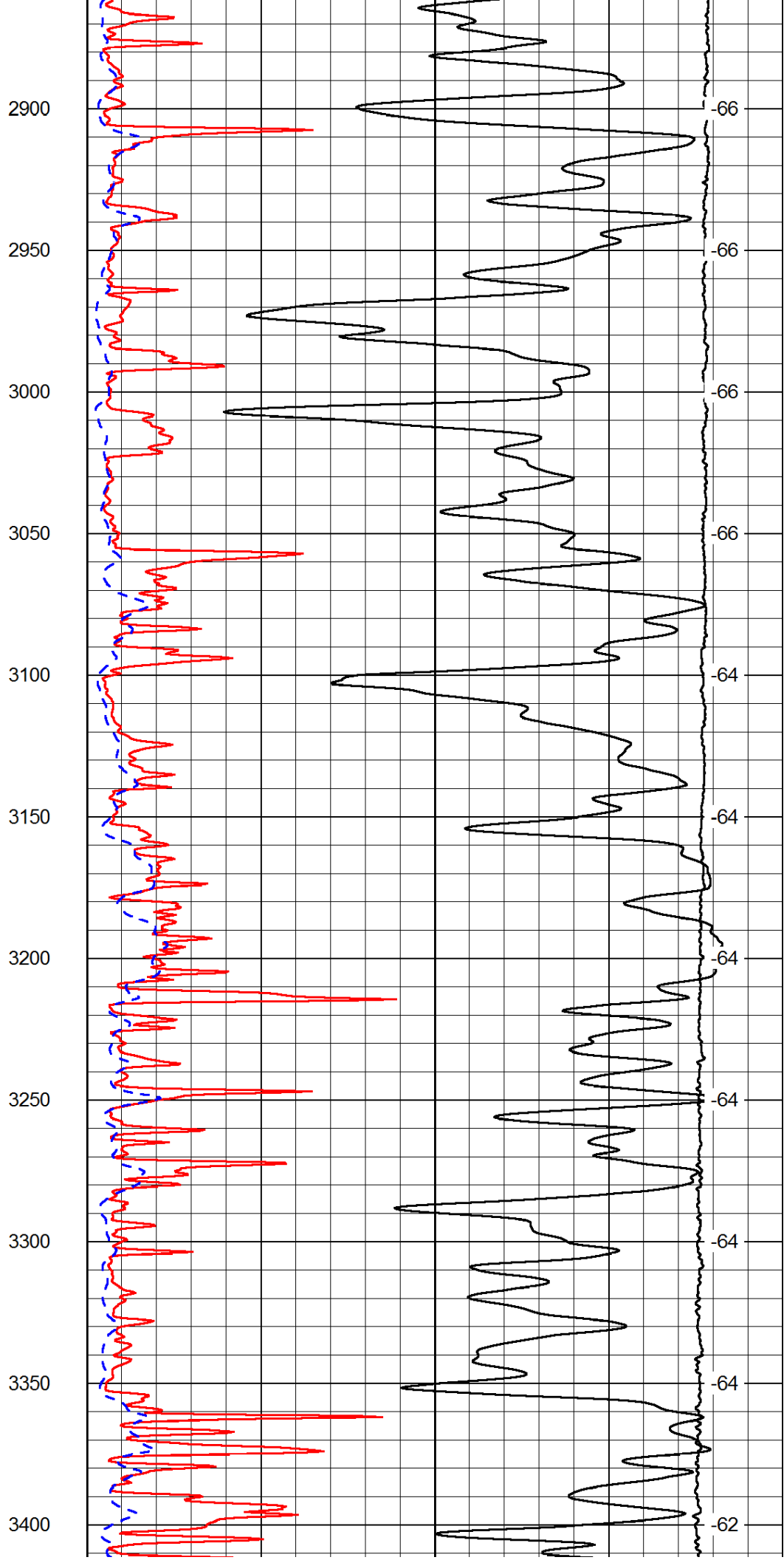
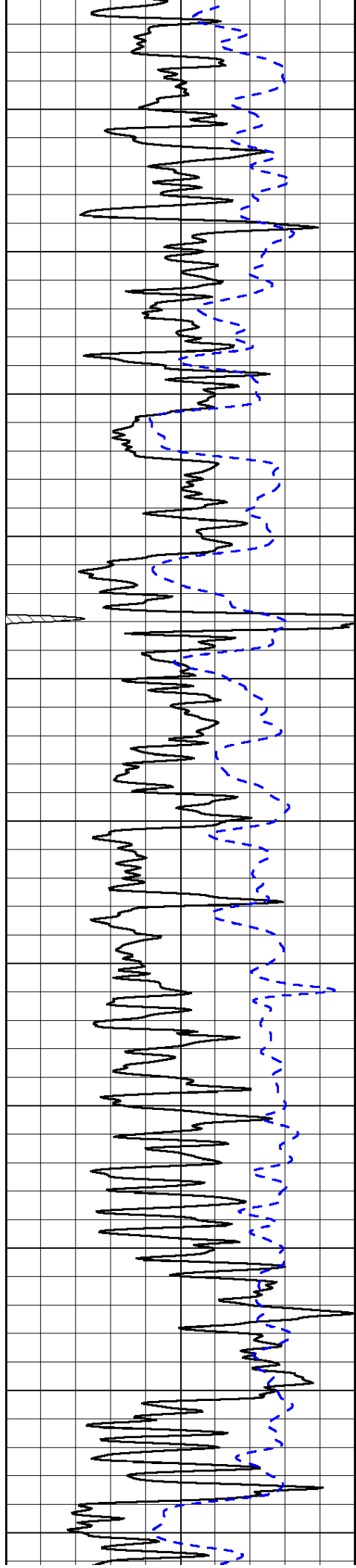


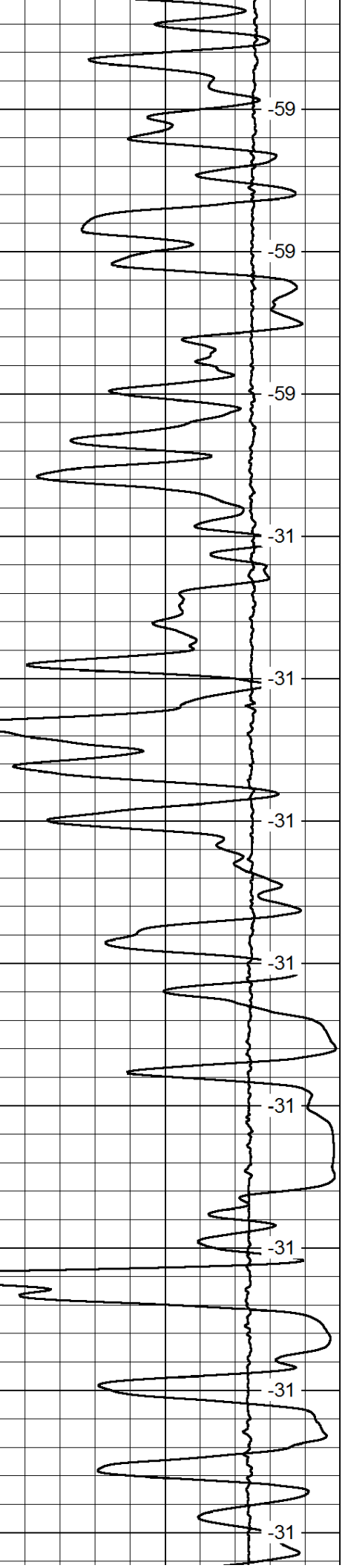
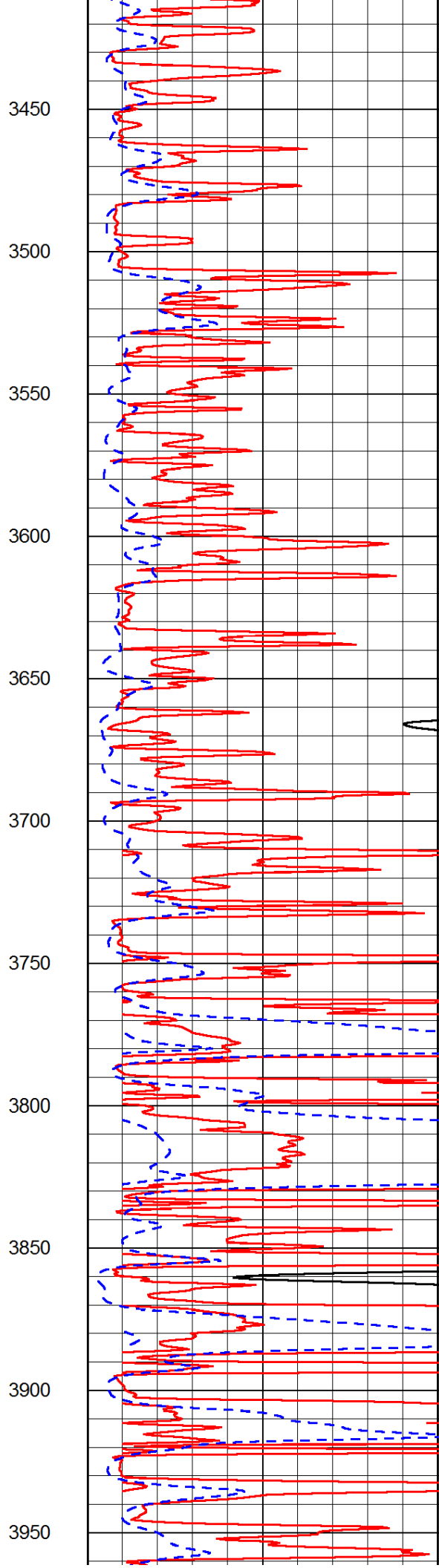
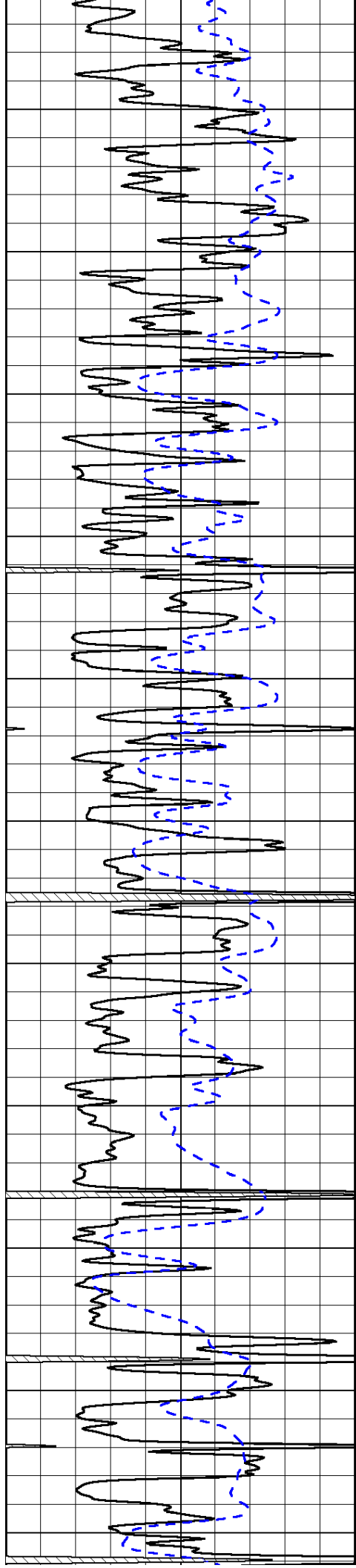


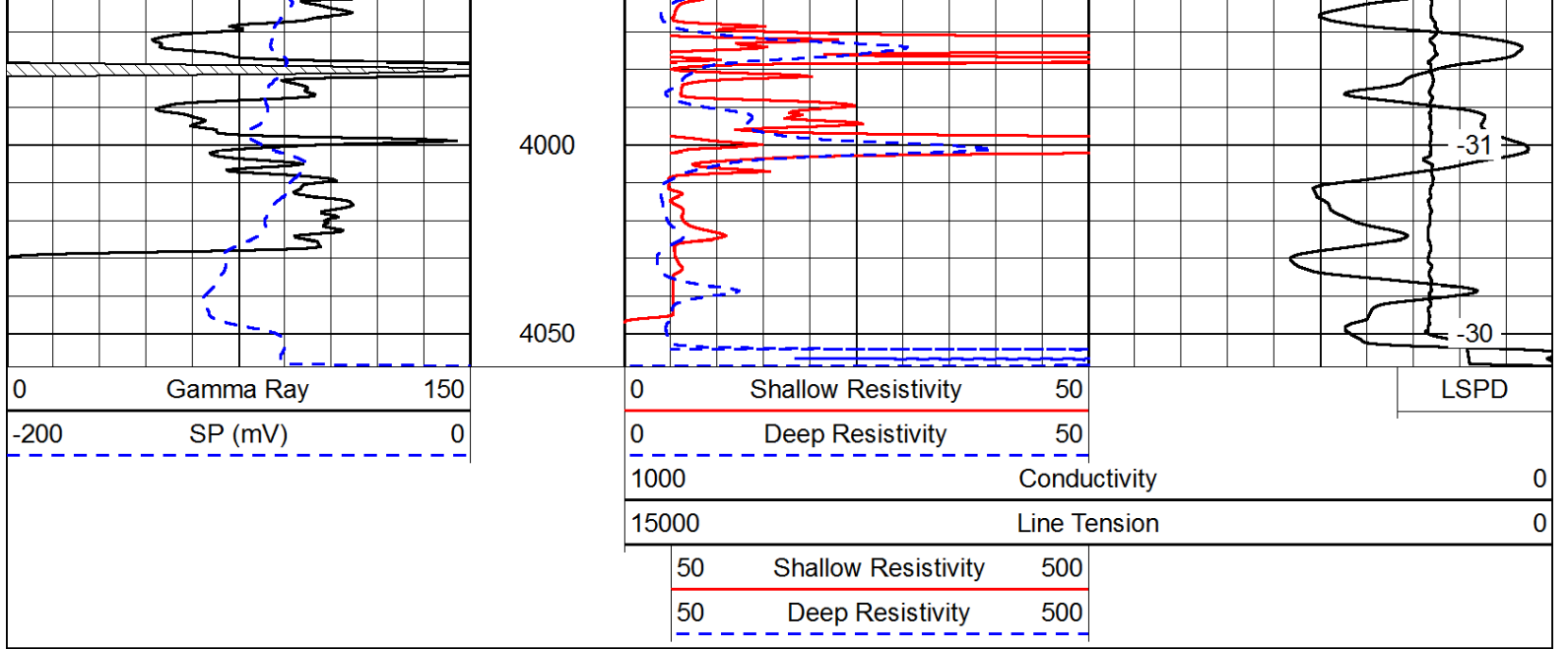




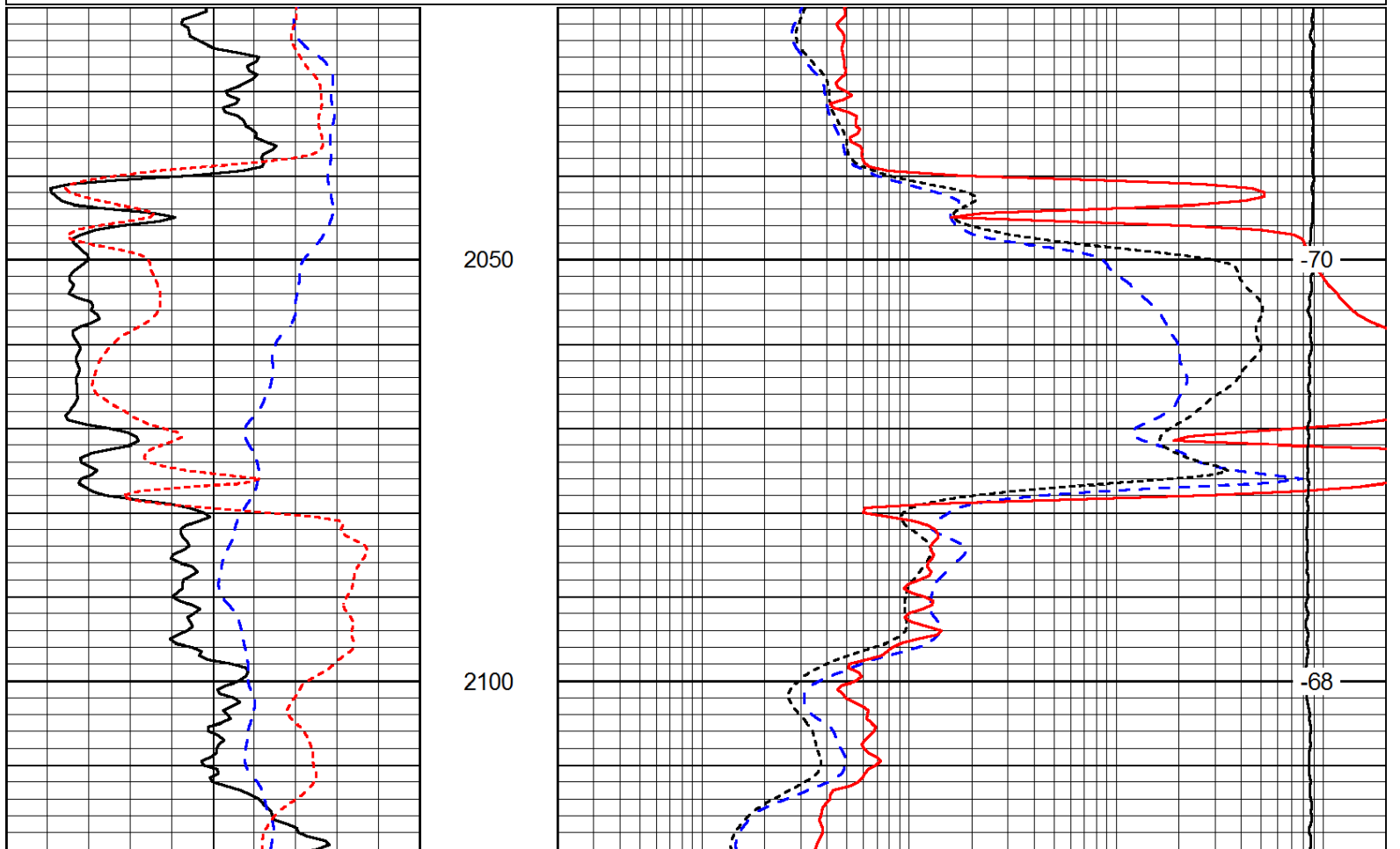
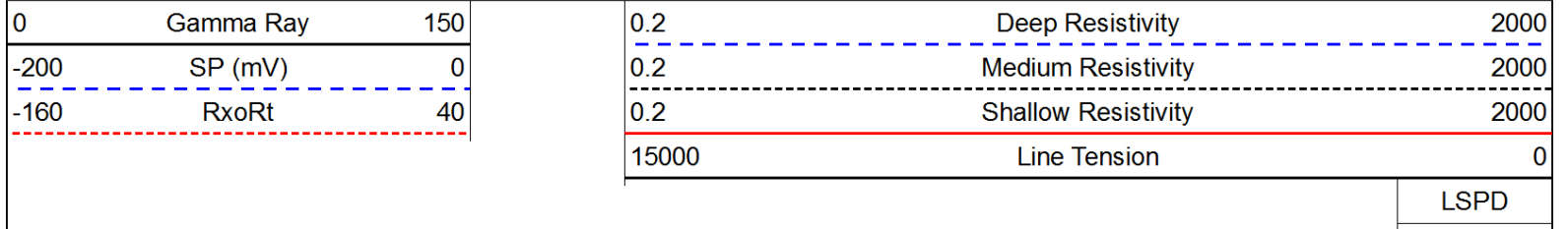








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 Dataset Pathname: DIL/cobstk
 Presentation Format: dil
 Dataset Creation: Sun Nov 18 12:31:50 2012
 Charted by: Depth in Feet scaled 1:240



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

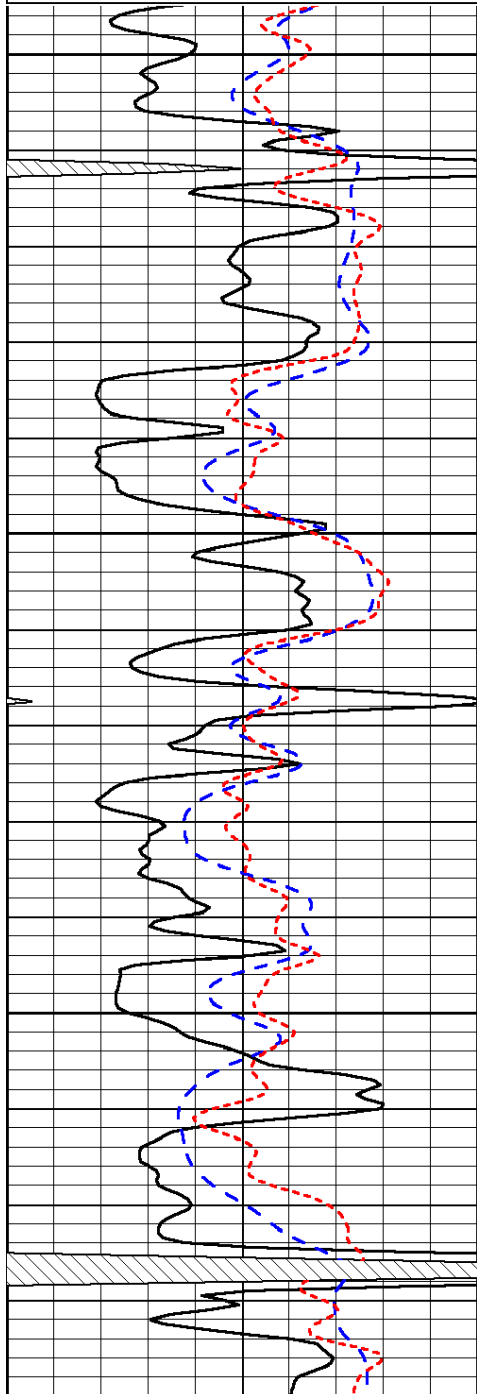
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Database File: c:\warrior\data\cobalt_erry a #2-1\cobalt_erry_a_2_1hd.db
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 Dataset Creation: Sun Nov 18 12:31:50 2012
 Charted by: Depth in Feet scaled 1:240

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

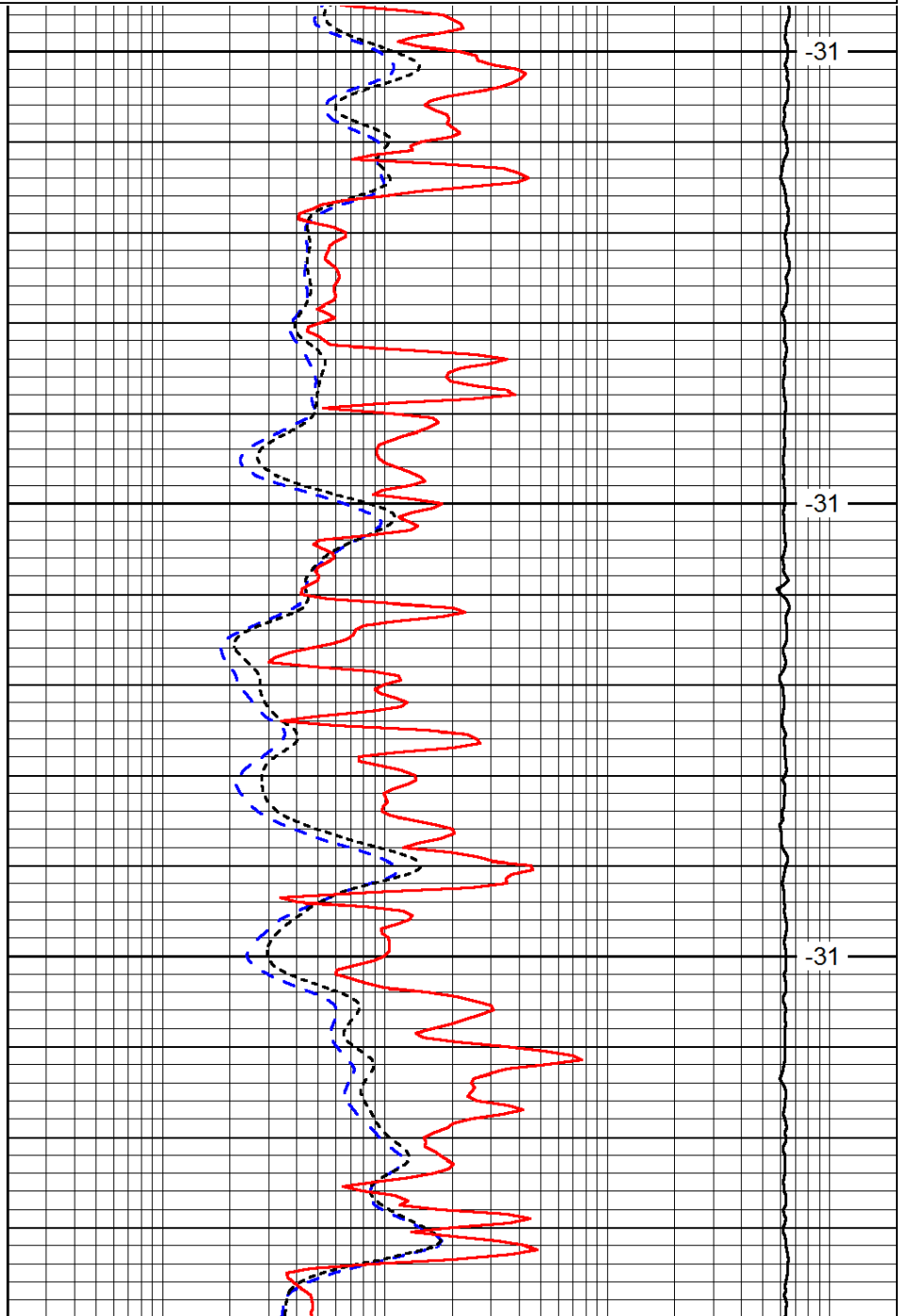
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3600

3650

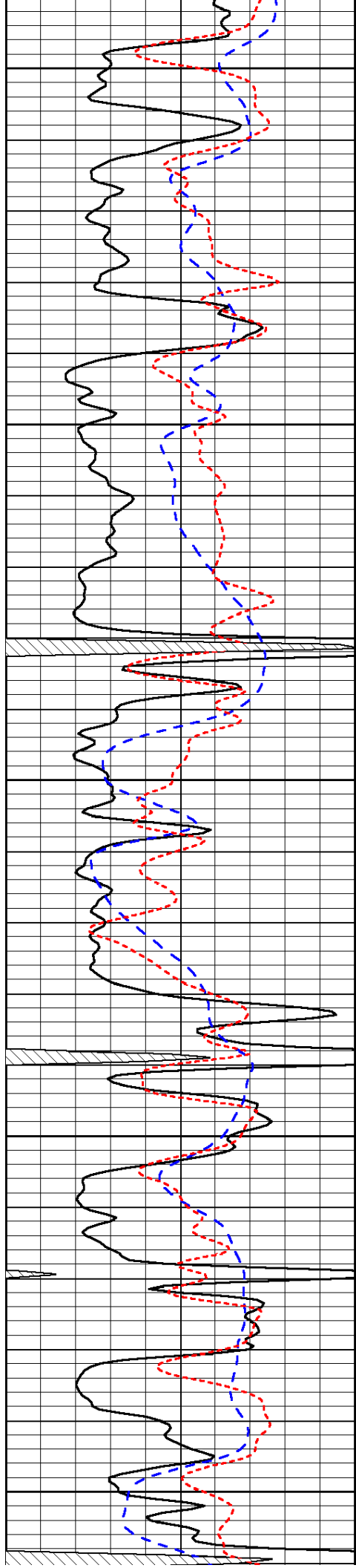
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-31

-31



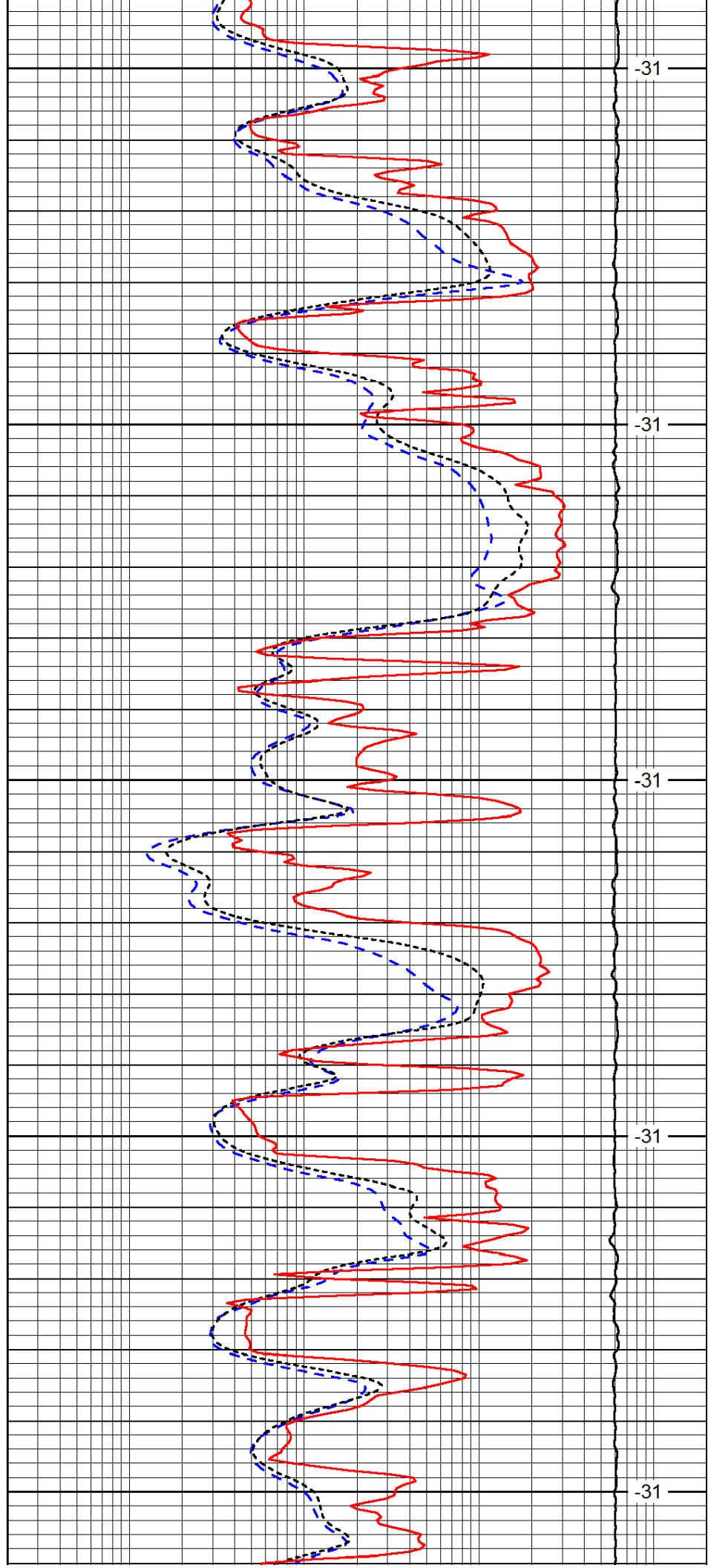
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3800

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3900

3950



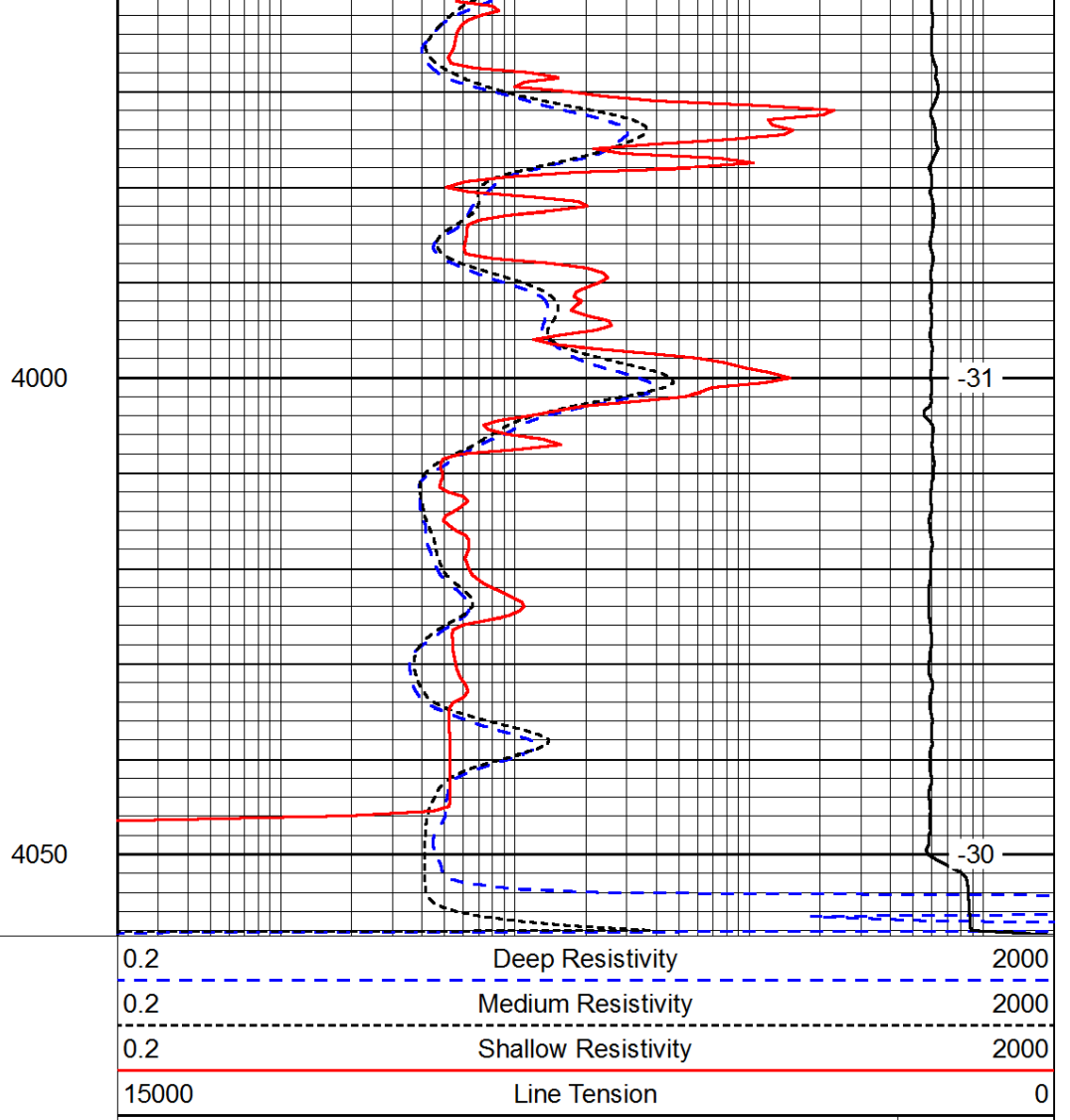
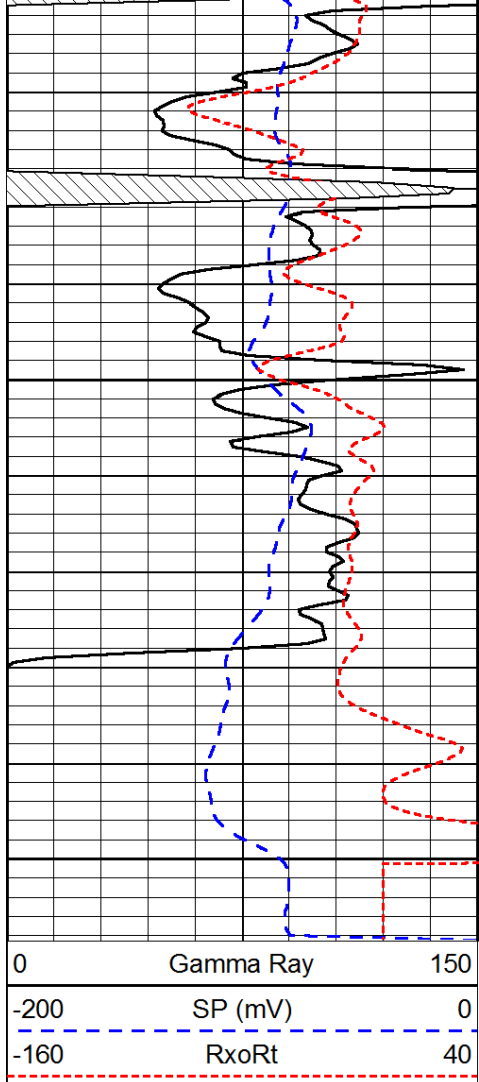
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LSPD