



Pioneer Energy Services

Dual Induction Log

API No.	15-135-25,826-00-00	
Company	American Warrior, Inc.	
Well	Whipple E No. 1-9	
Field	Charmin	
County	Ness	State
		Kansas
Location	1018' FSL & 1899' FWL	
Sec: 8	Twp: 18s	Rge: 26w
Permanent Datum	Ground Level	Elevation 2632
Log Measured From	Kelly Bushing	11 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	K.B. 2643 D.F. 2632 G.L. 2632
Other Services	CNL/CDL MEL	

Date	11/21/2017
Run Number	One
Depth Driller	4760
Depth Logger	4762
Bottom Logged Interval	4761
Top Log Interval	200
Casing Driller	8.625 @ 230
Casing Logger	230
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	3400
Density / Viscosity	9.3 62
pH / Fluid Loss	10.5 8.0
Source of Sample	Flowline
Rm @ Meas. Temp	.75 @ 60
Rmf @ Meas. Temp	.56 @ 60
Rmc @ Meas. Temp	1.01 @ 60
Source of Rmf / Rmc	Charts
Rm @ BHT	.36 @ 124
Operating Rig Time	3.5 Hours
Max Rec. Temp. F	124
Equipment Number	108
Location	Hays
Recorded By	D. Fischer
Witnessed By	Luke Thompson

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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

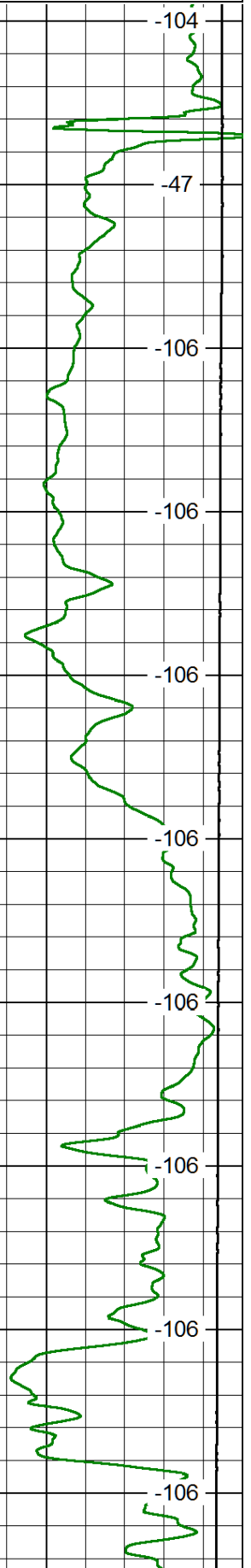
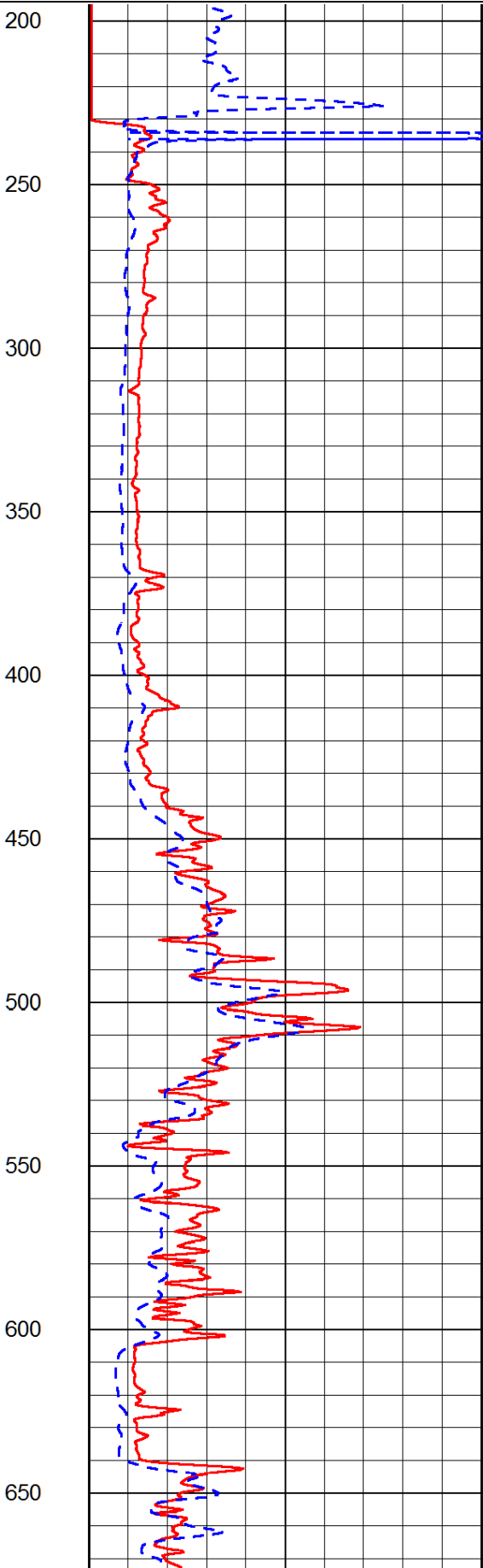
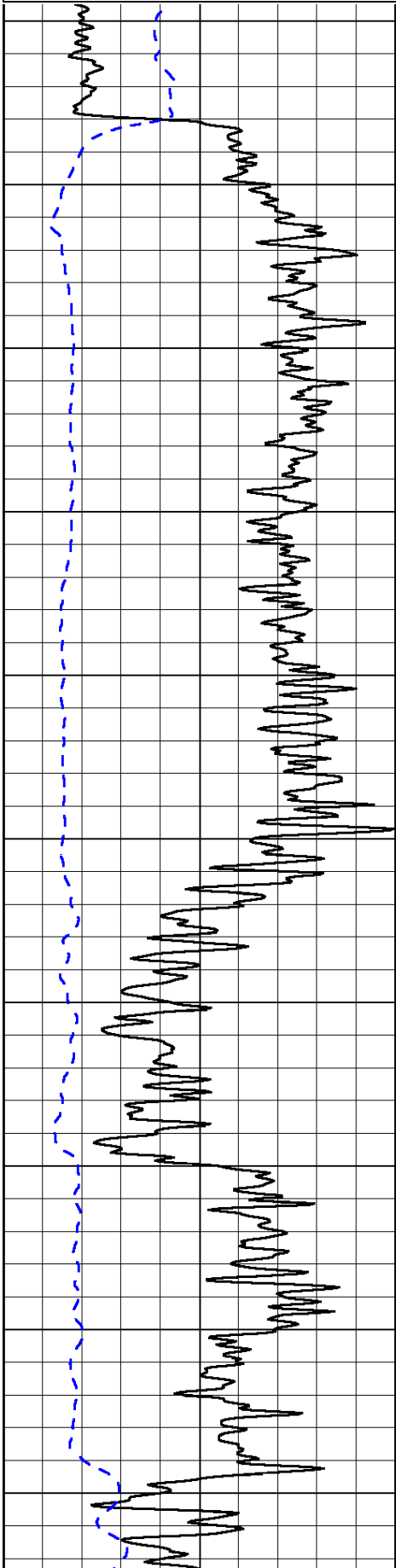
Beeler Ks., 3/4 West, 3 1/4 North, West Into

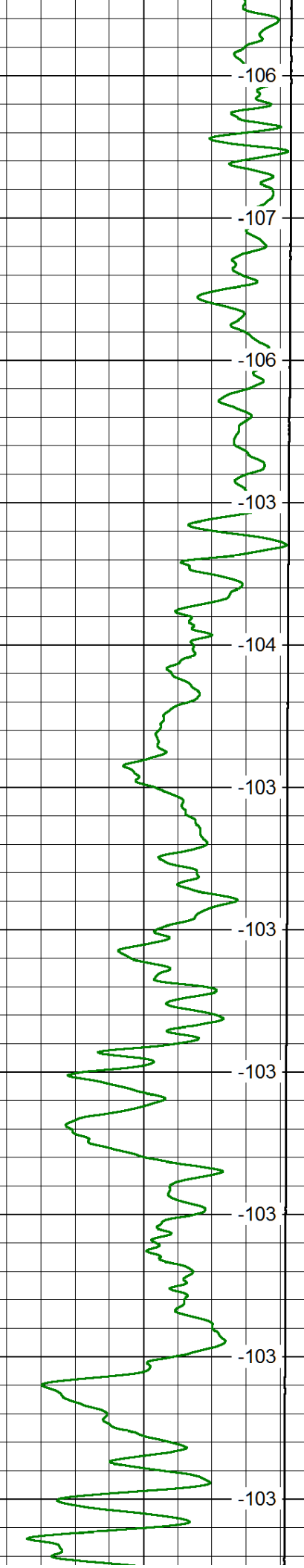
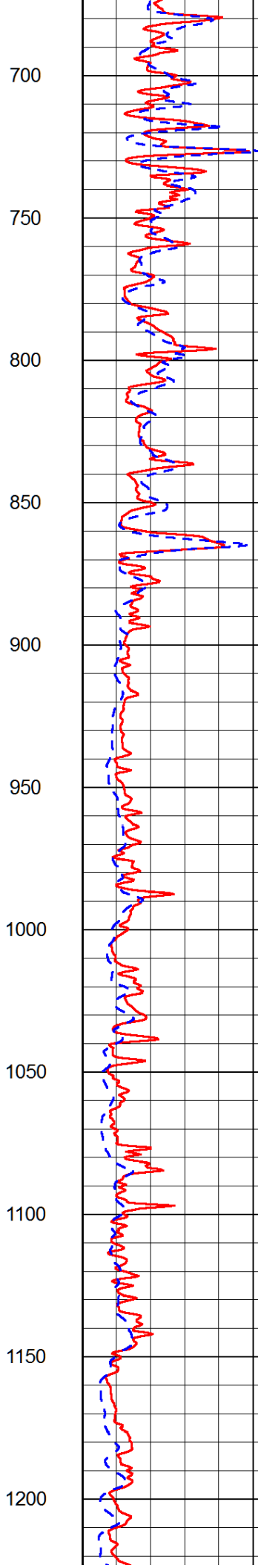
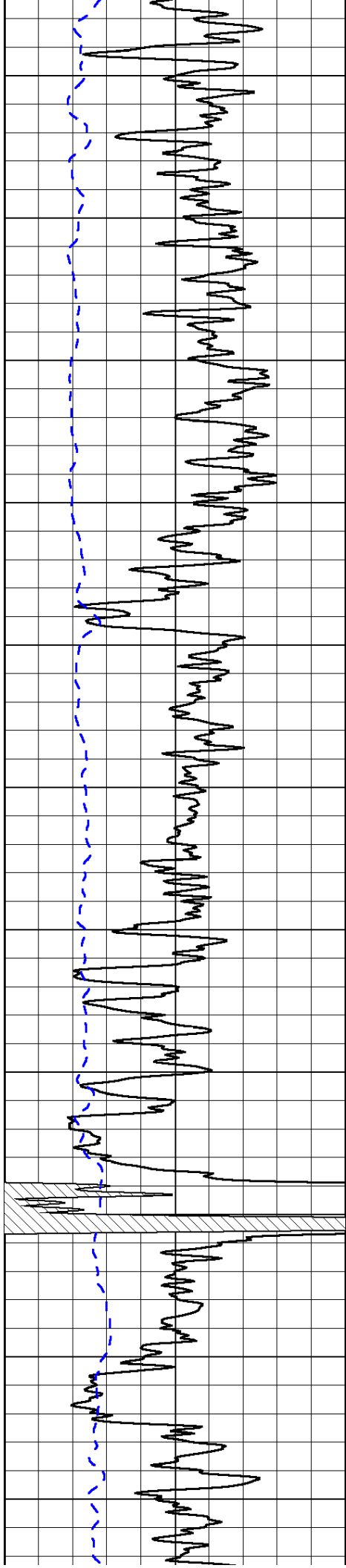
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 Presentation Format: dil2in
 Dataset Creation: Fri Nov 21 21:49:37 2014
 Charted by: Depth in Feet scaled 1:600

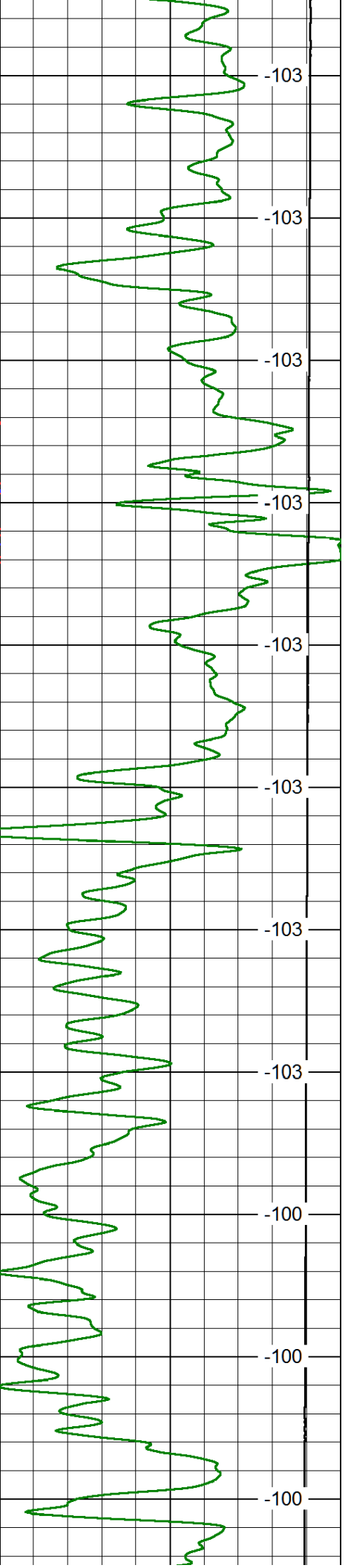
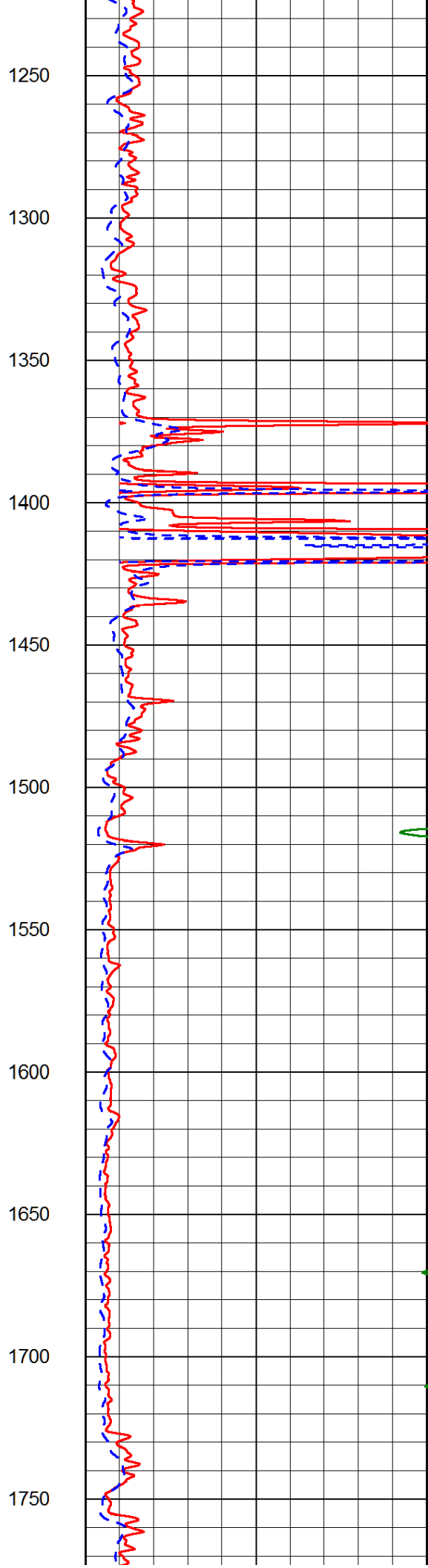
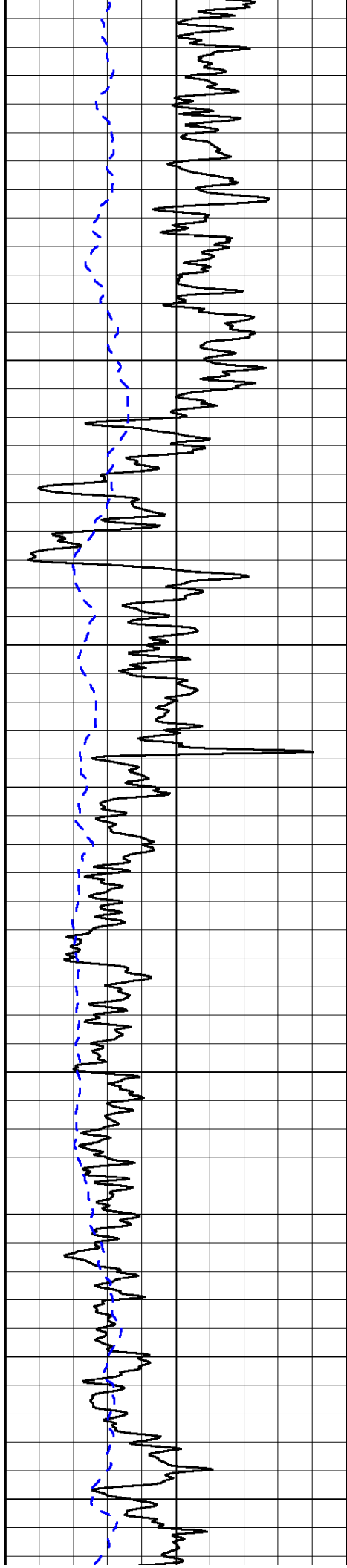
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-200	SP (mV)	0

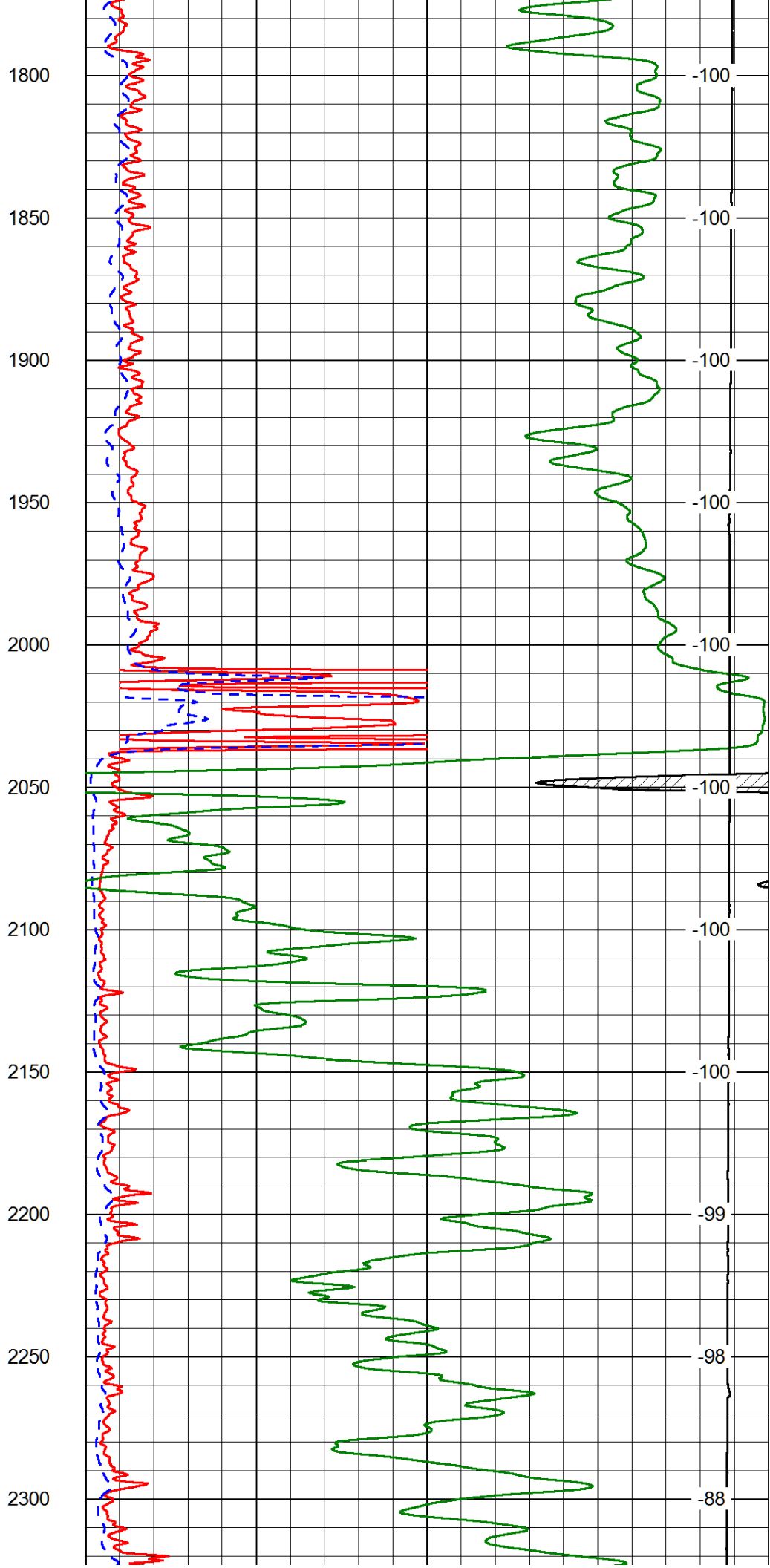
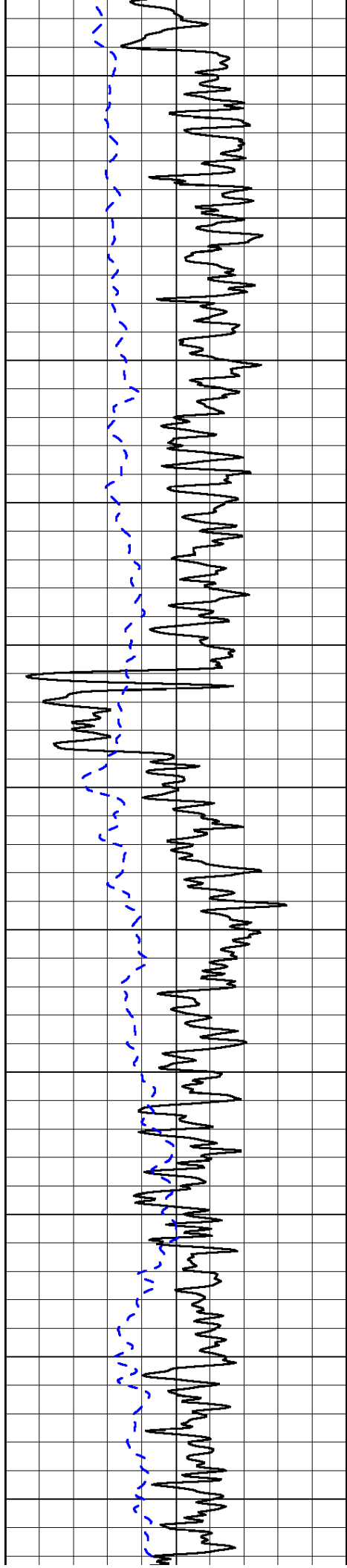
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0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0

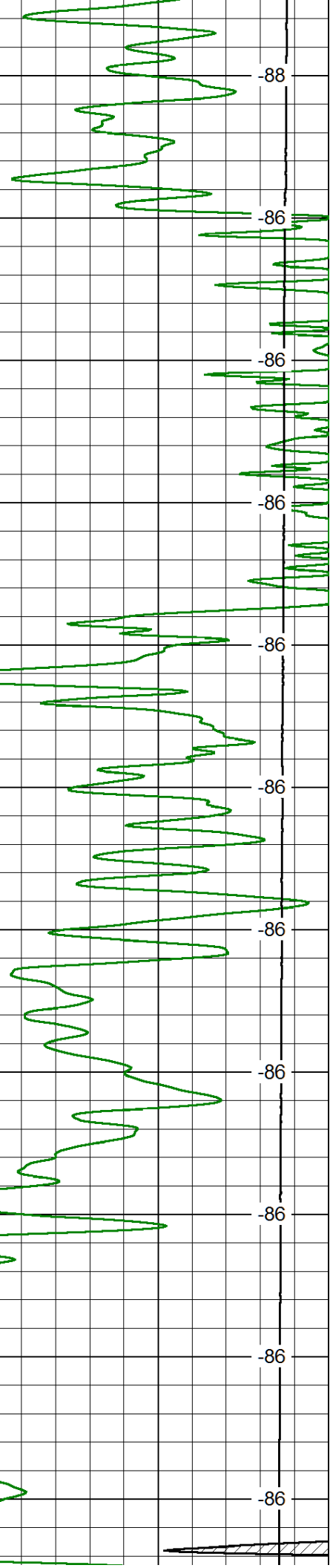
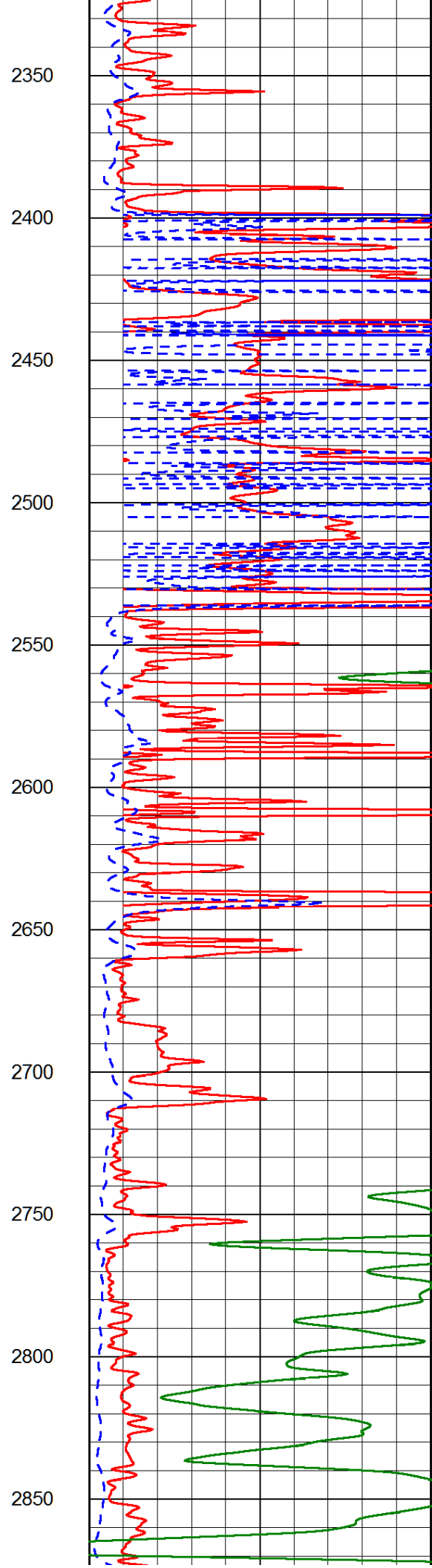
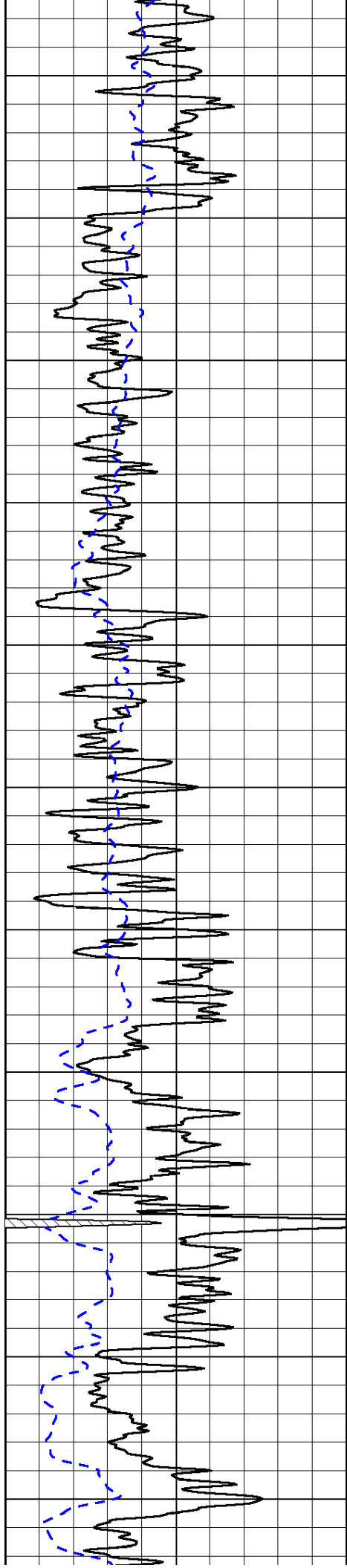
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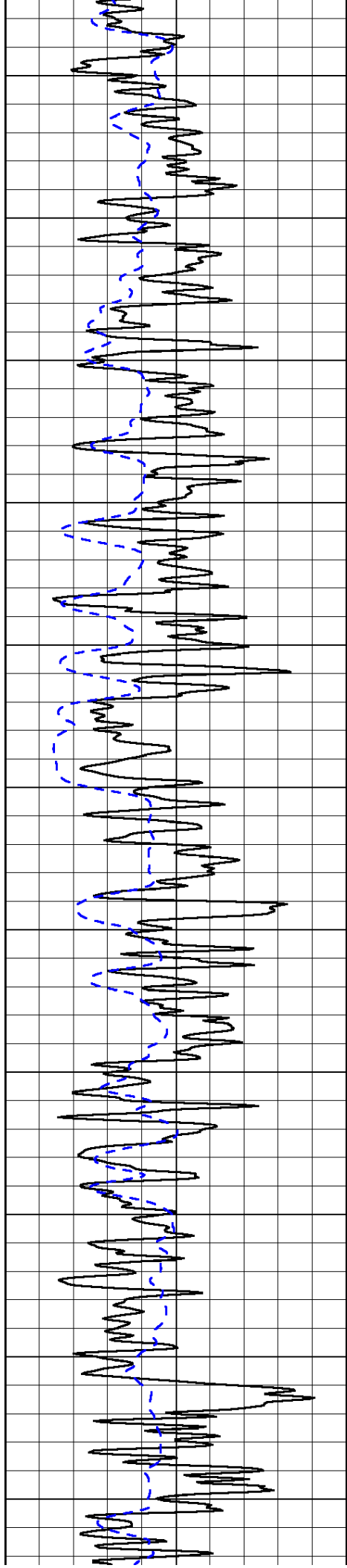












2900

2950

3000

3050

3100

3150

3200

3250

3300

3350

3400

-86

-87

-87

-87

-87

-86

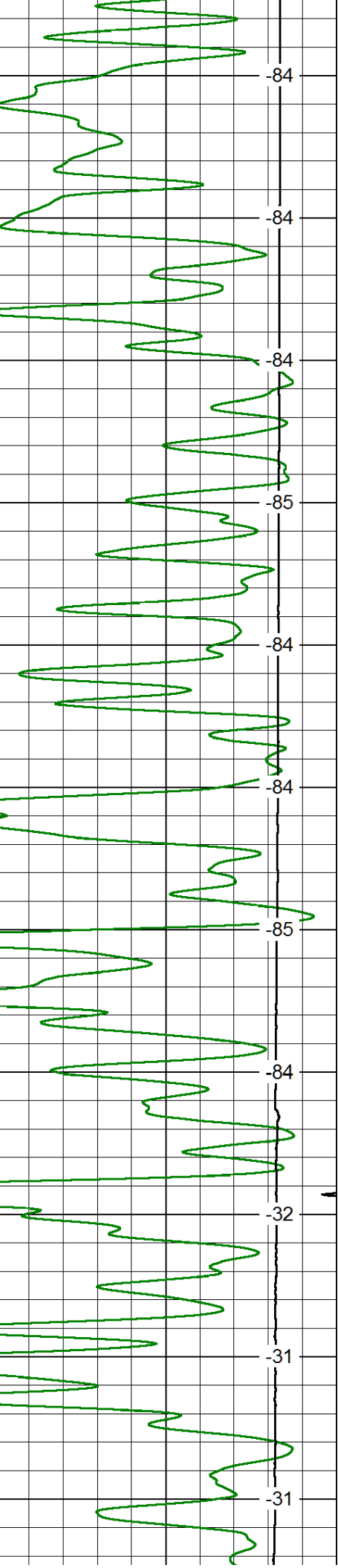
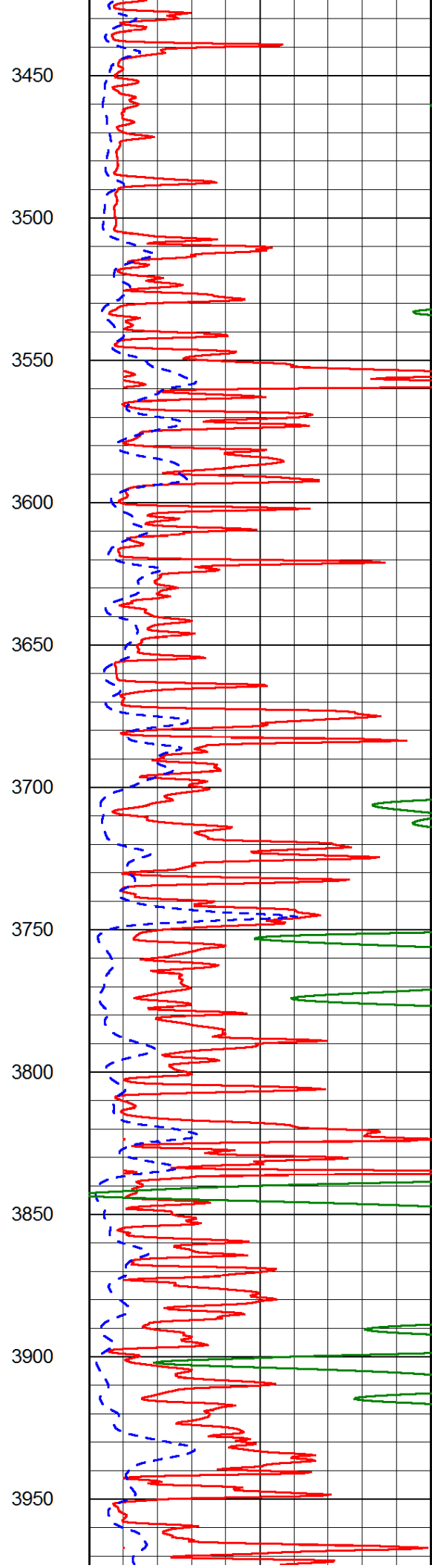
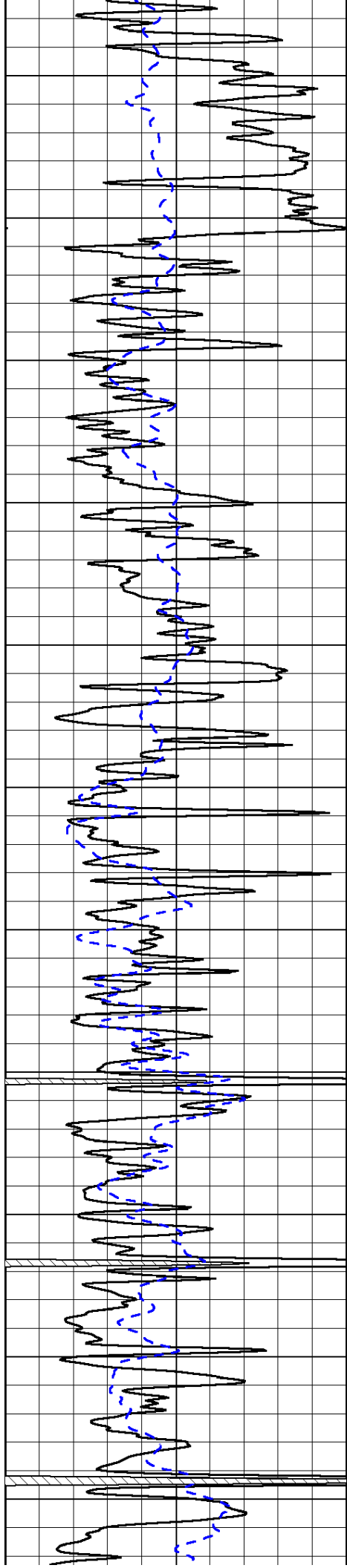
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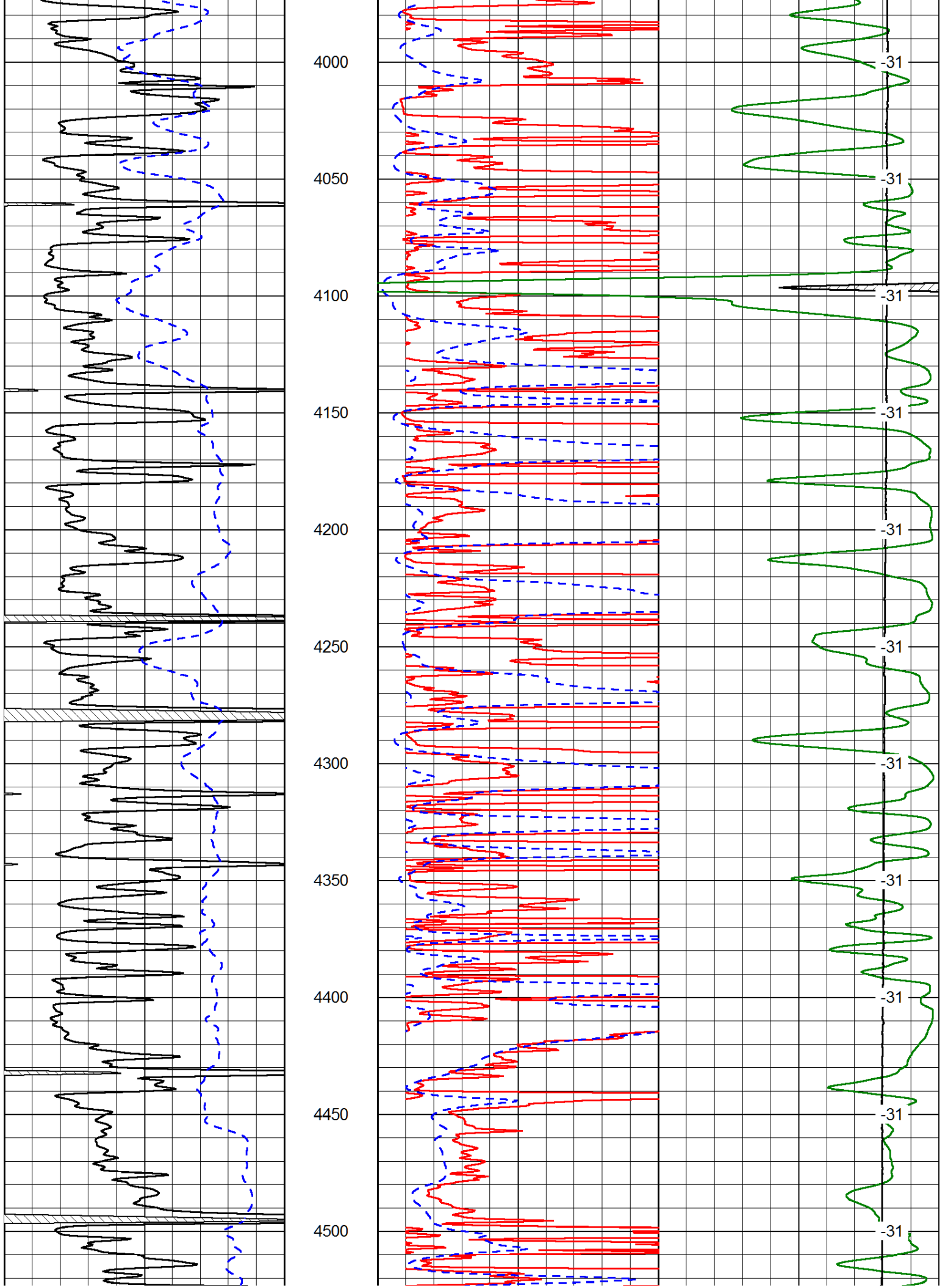
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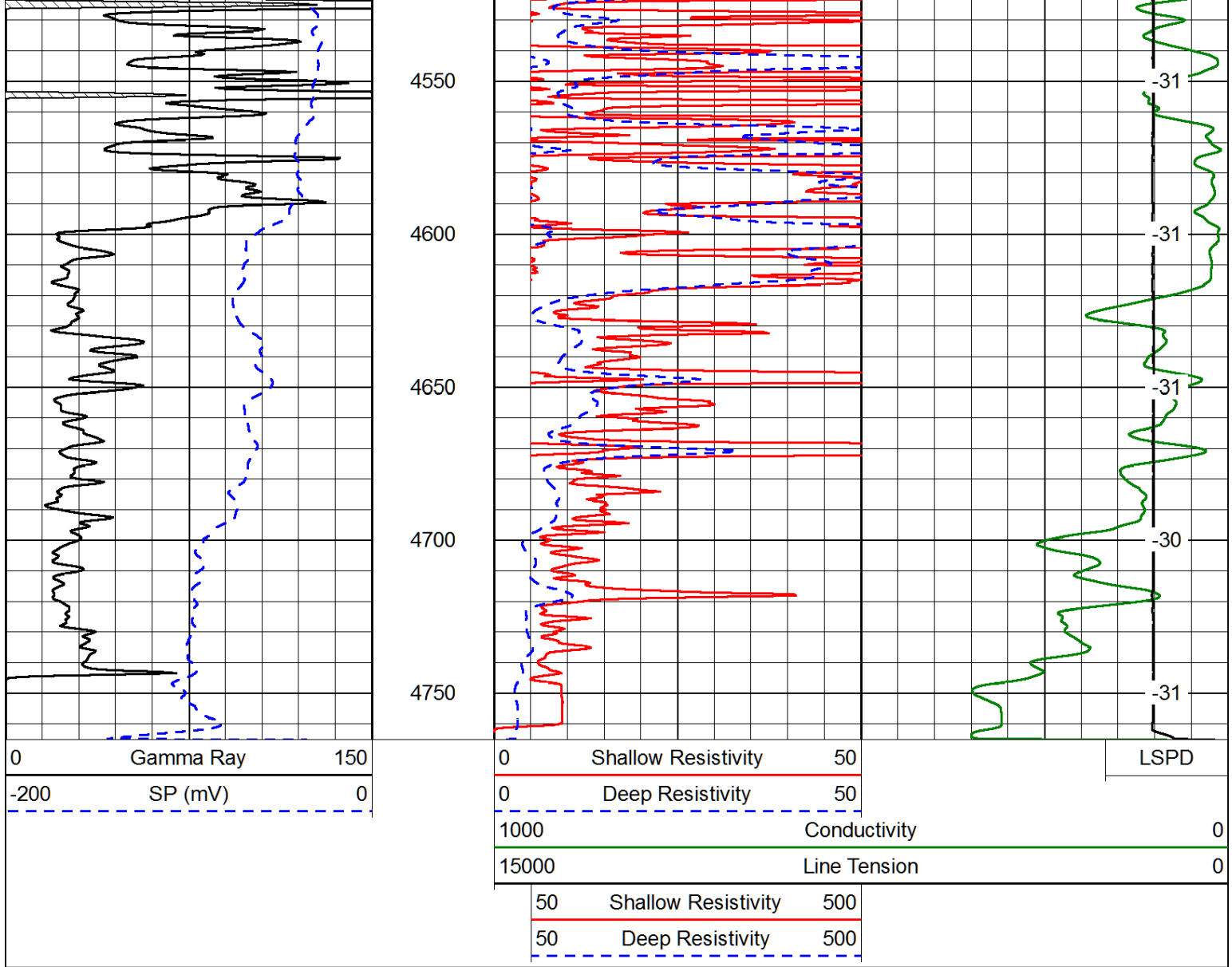
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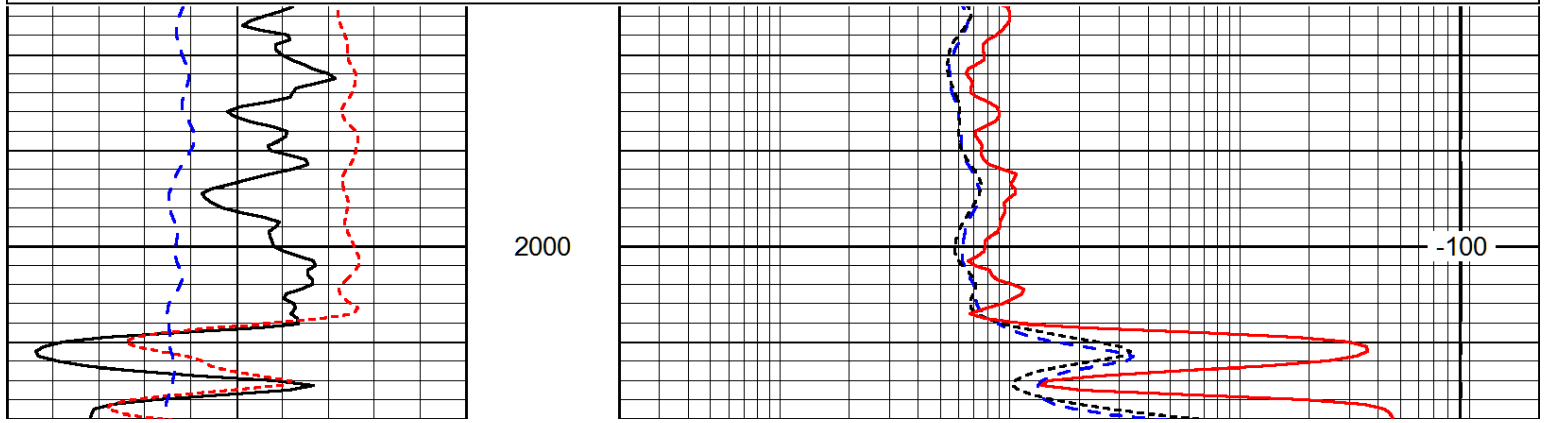
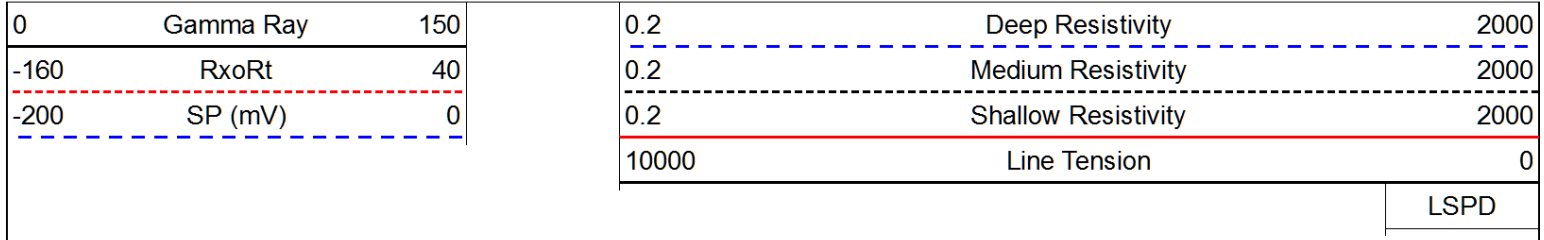
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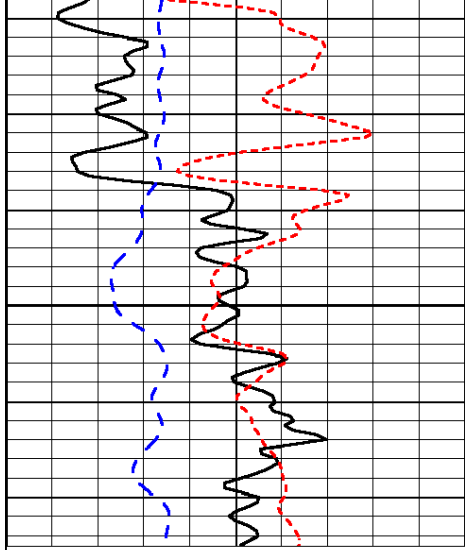






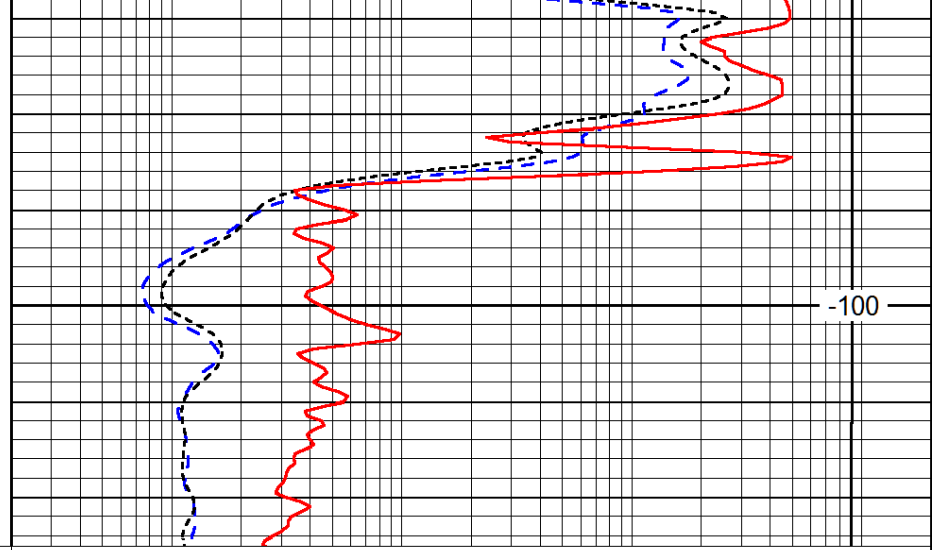
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0	Gamma Ray	150
-160	RxoRt	40
-200	SP (mV)	0

2050



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

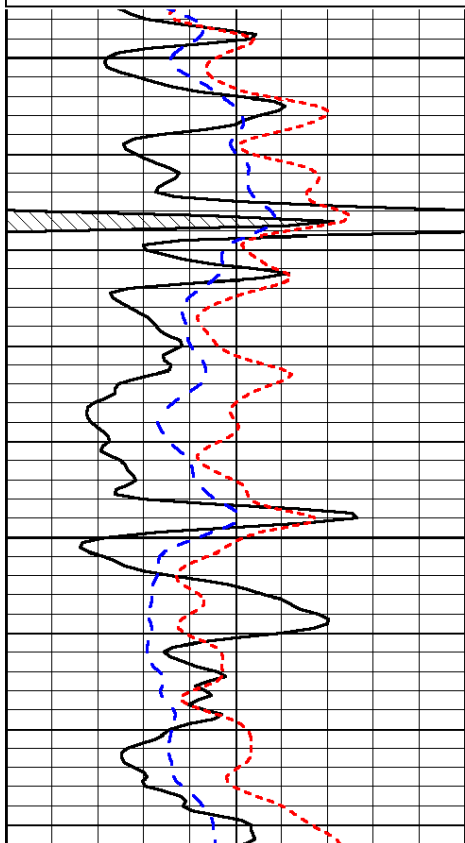
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0	Gamma Ray	150
-160	RxoRt	40
-200	SP (mV)	0

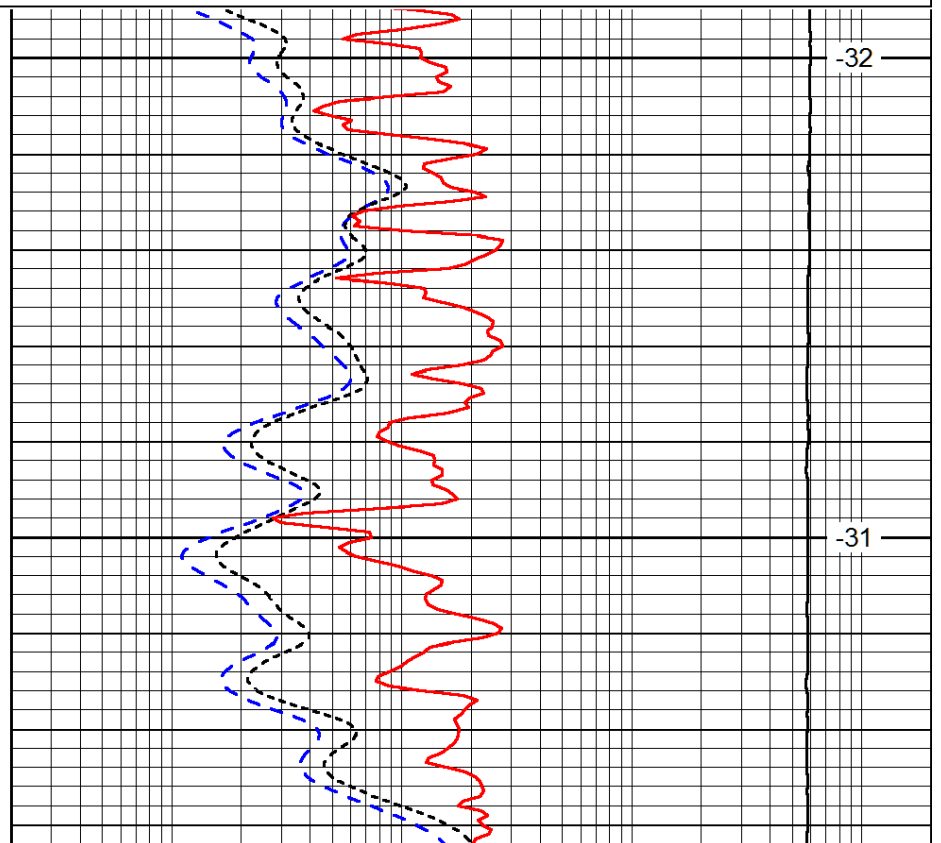
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0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD



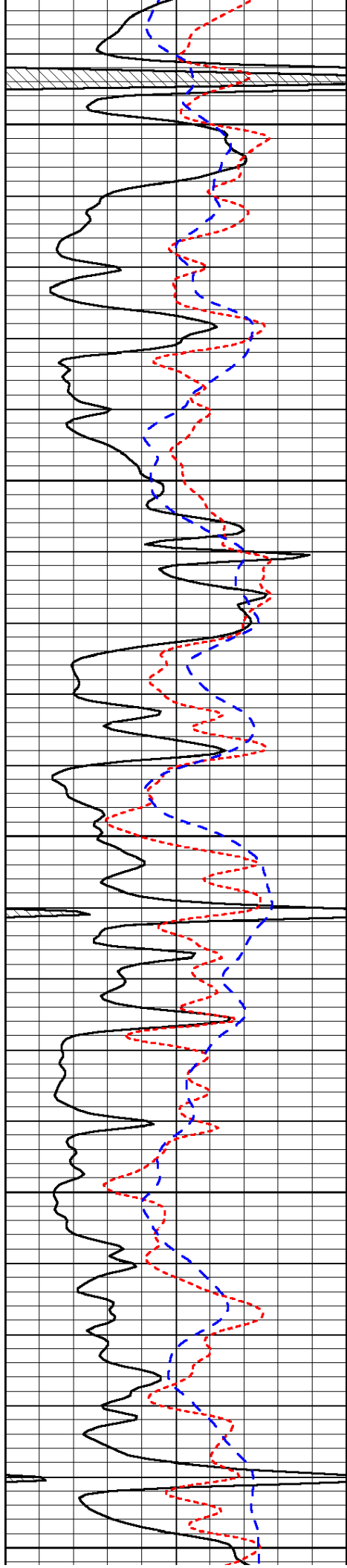
3850

3900



-32

-31



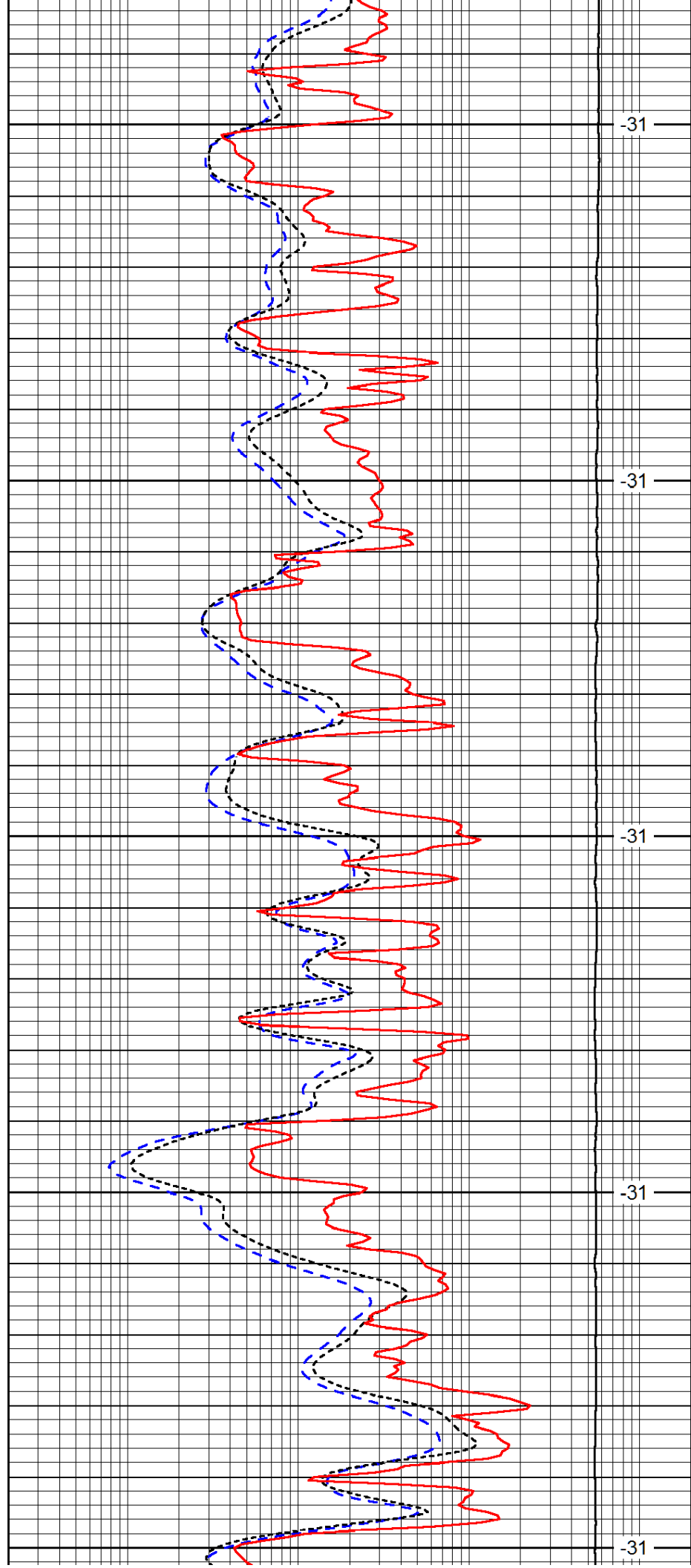
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4000

4050

4100

4150



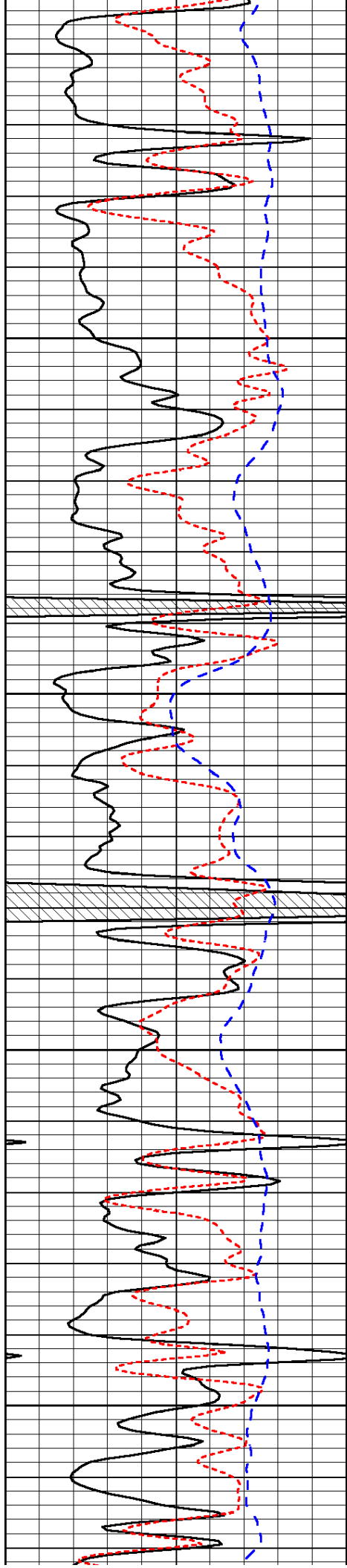
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-31

-31

-31

-31

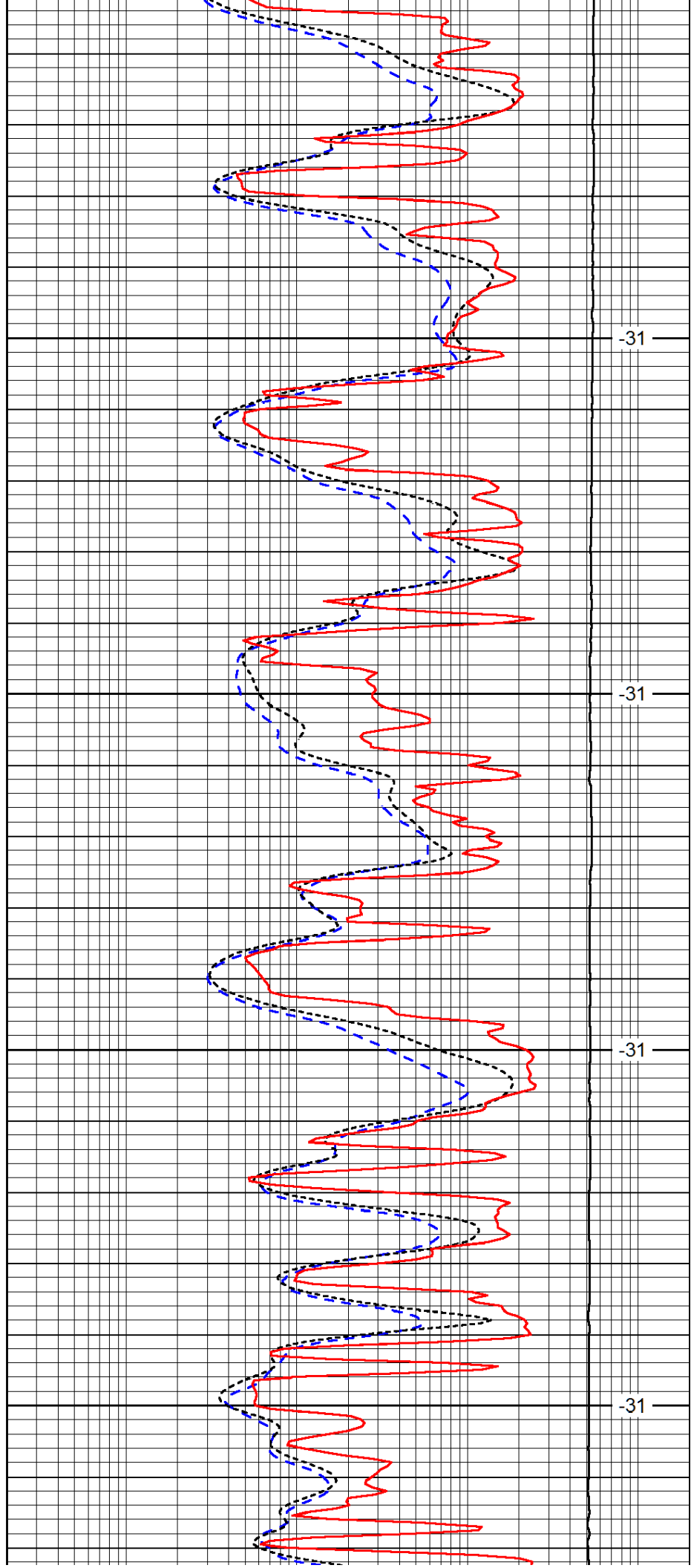


4200

4250

4300

4350

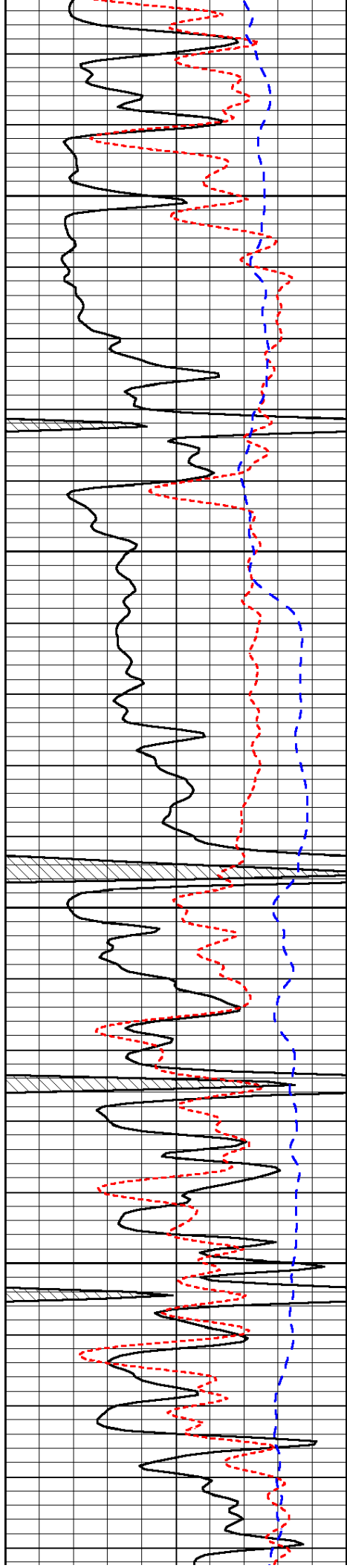


-31

-31

-31

-31

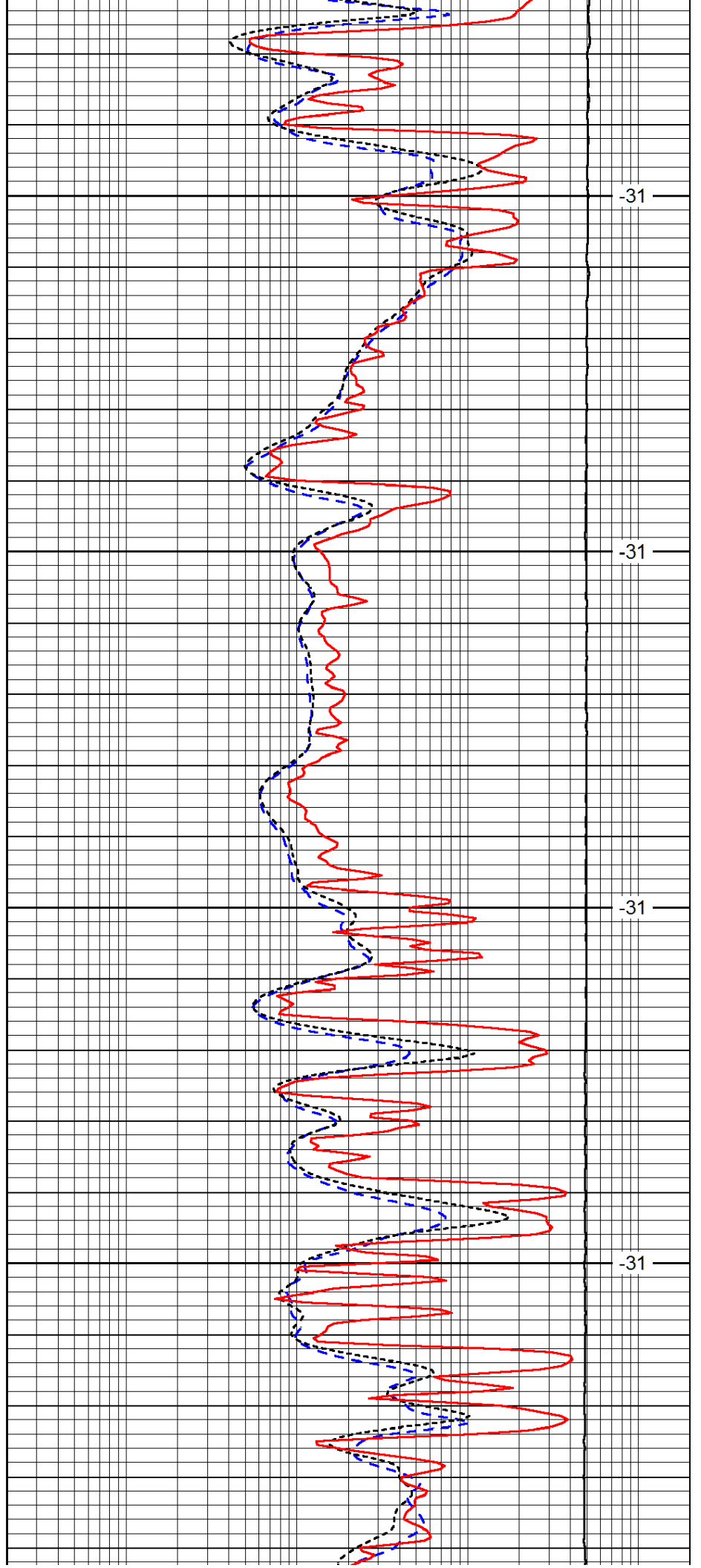


4400

4450

4500

4550

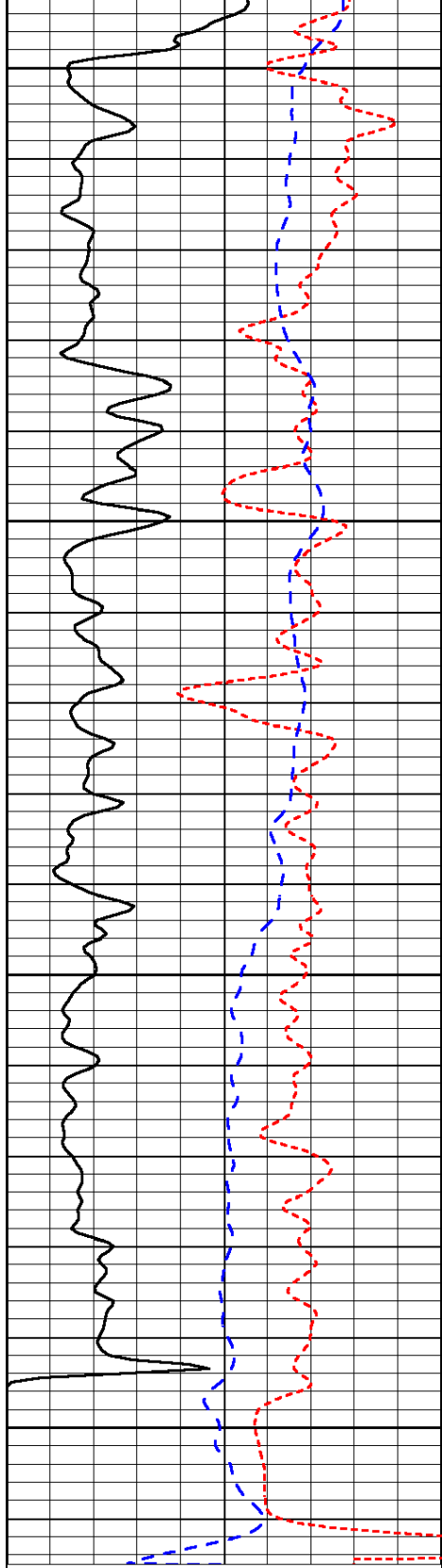


-31

-31

-31

-31



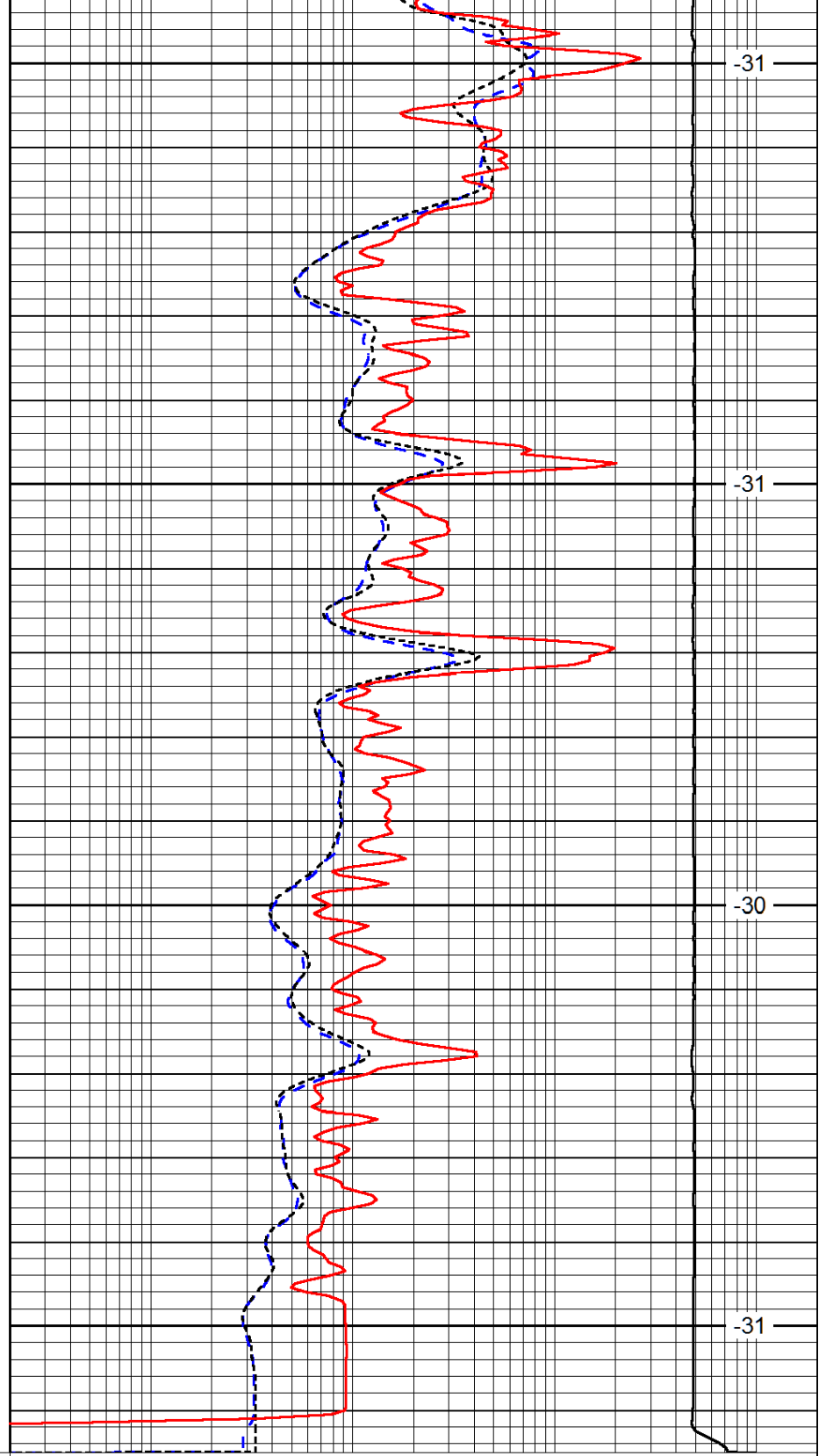
4600

4650

4700

4750

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



-31

-31

-30

-31

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

LSPD