



Dual Induction Log

Pioneer Energy Services

API No.		Company Rakestraw Bros., LLC	
15-095-22284-00-00		Well Voran H #4	
		Field Spivey-Grabs-Basil	
		County Kingman State Kansas	
Location		430' FSL & 1975' FEL	
Sec: 27		Twp: 29S Rge: 7W	
Permanent Datum		Ground Level	
Log Measured From		Kelly Bushing	
Drilling Measured From		Kelly Bushing	
Date		4/14/2014	
Run Number		One	
Depth Driller		5120	
Depth Logger		5121	
Bottom Logged Interval		5120	
Top Log Interval		350	
Casing Driller		8.625 @ 351	
Casing Logger		349	
Bit Size		7.875	
Type Fluid in Hole		Chemical	
Salinity, ppm CL		4000	
Density / Viscosity		9.3 52	
pH / Fluid Loss		9.5 9.6	
Source of Sample		Flowline	
Rm @ Meas. Temp		0.48 @ 62	
Rmf @ Meas. Temp		0.36 @ 62	
Rmc @ Meas. Temp		0.65 @ 62	
Source of Rmf / Rmc		Charts	
Rm @ BHT		0.23 @ 129	
Operating Rig Time		3 Hours	
Max Rec. Temp. F		129	
Equipment Number		91	
Location		Hays	
Recorded By		D. Schmidt	
Witnessed By		Scott Alberg	

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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

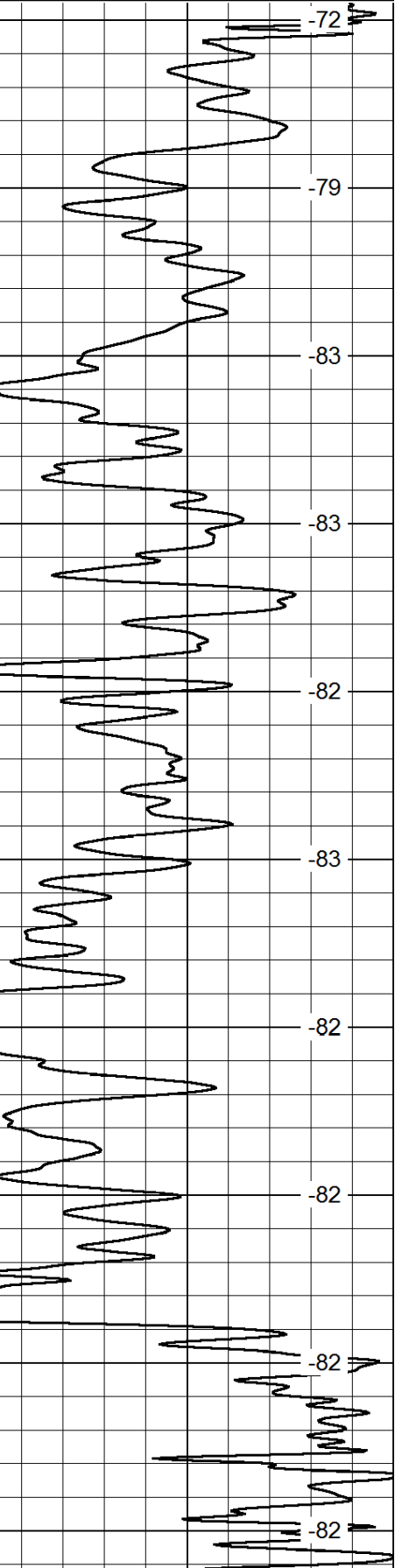
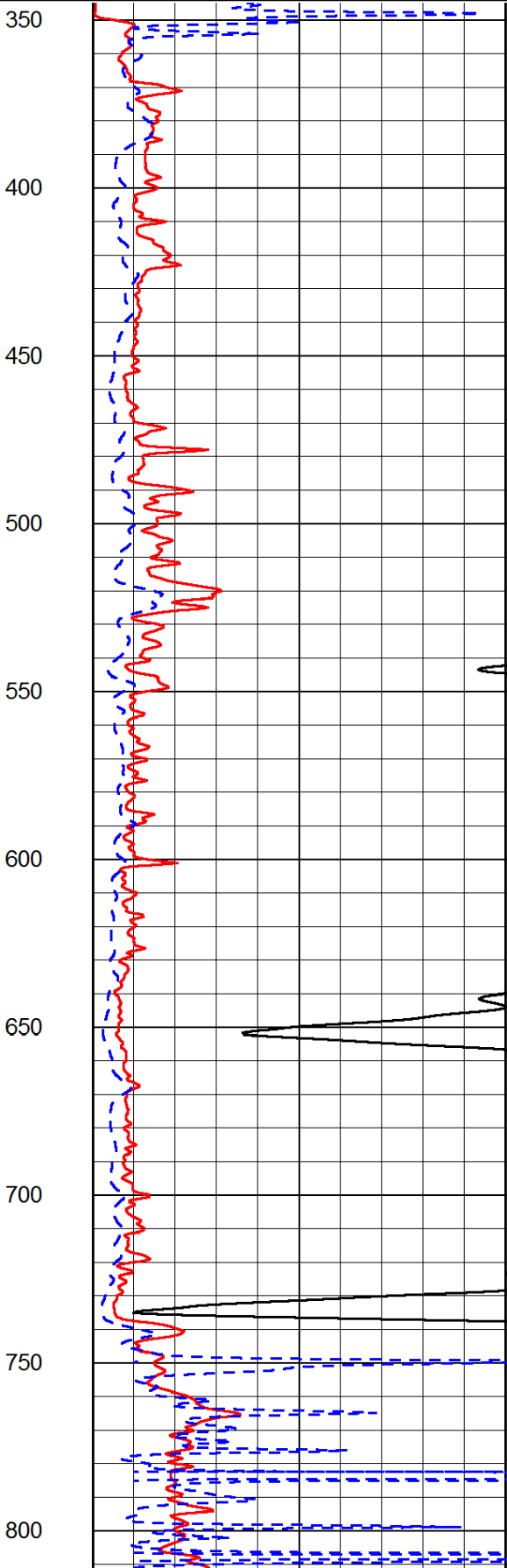
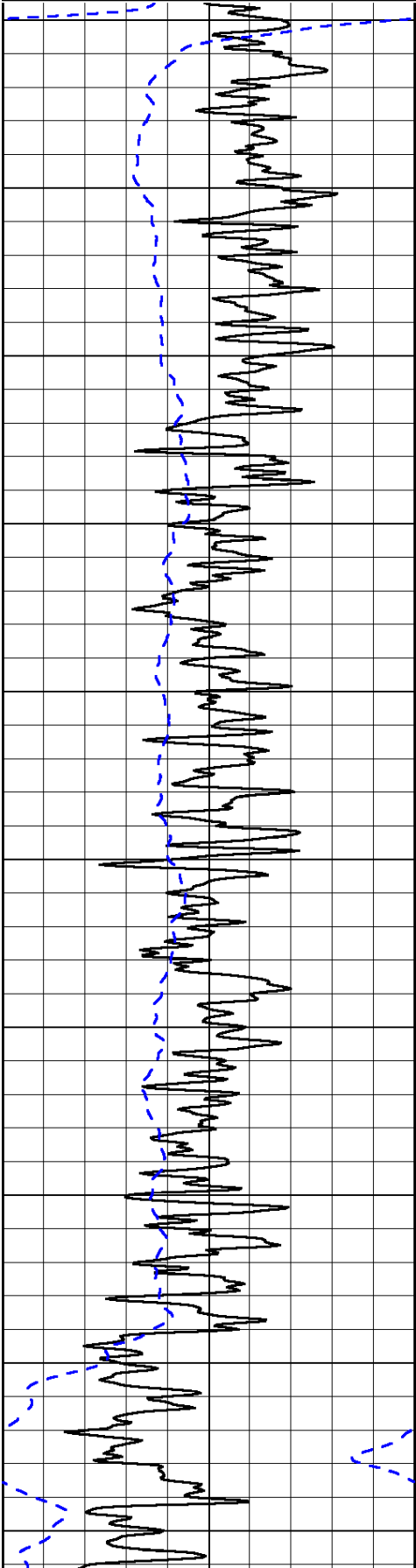
Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858
Kingman,
12 South to 110 Rd, 3/4 East,
North into

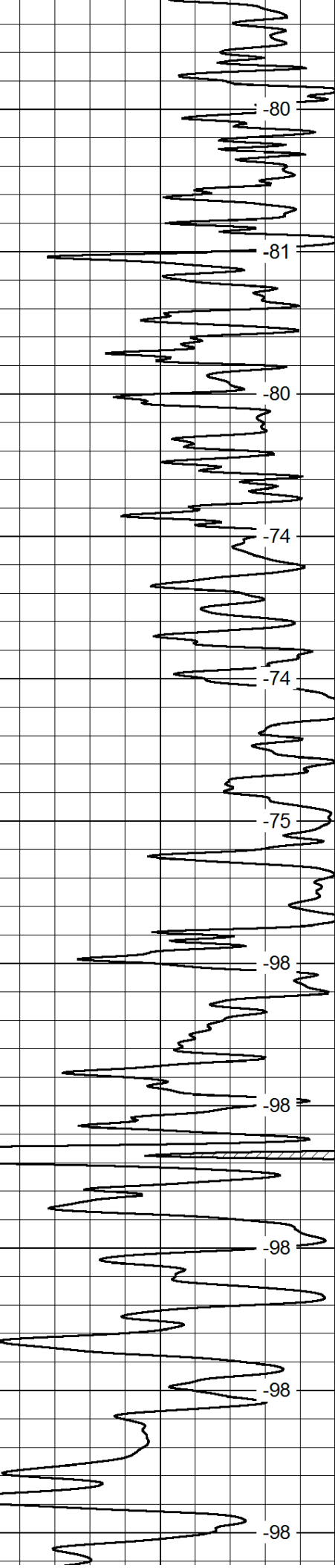
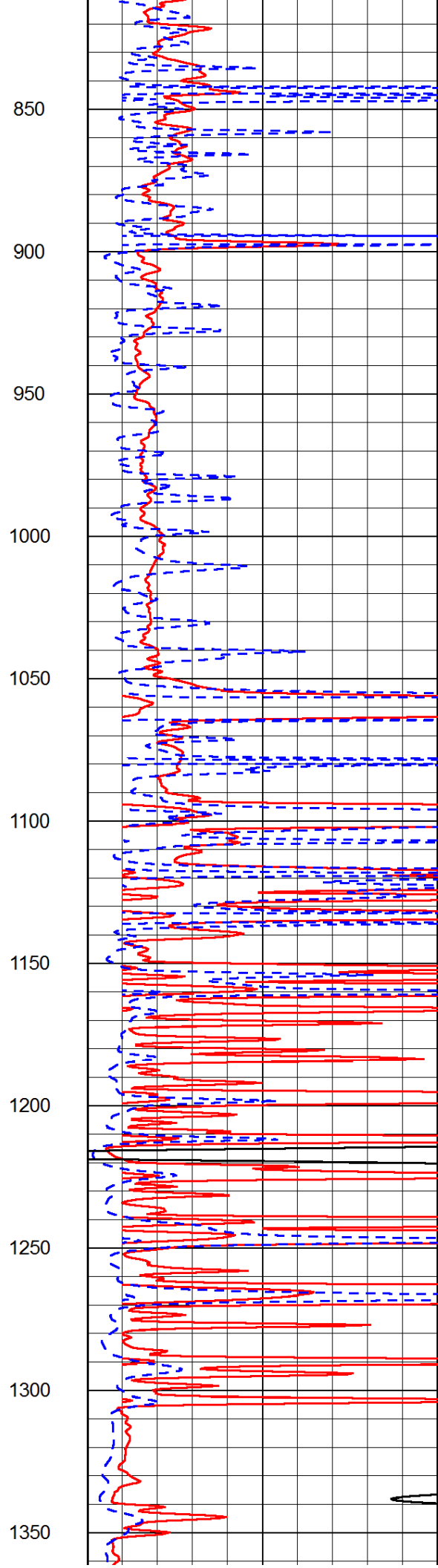
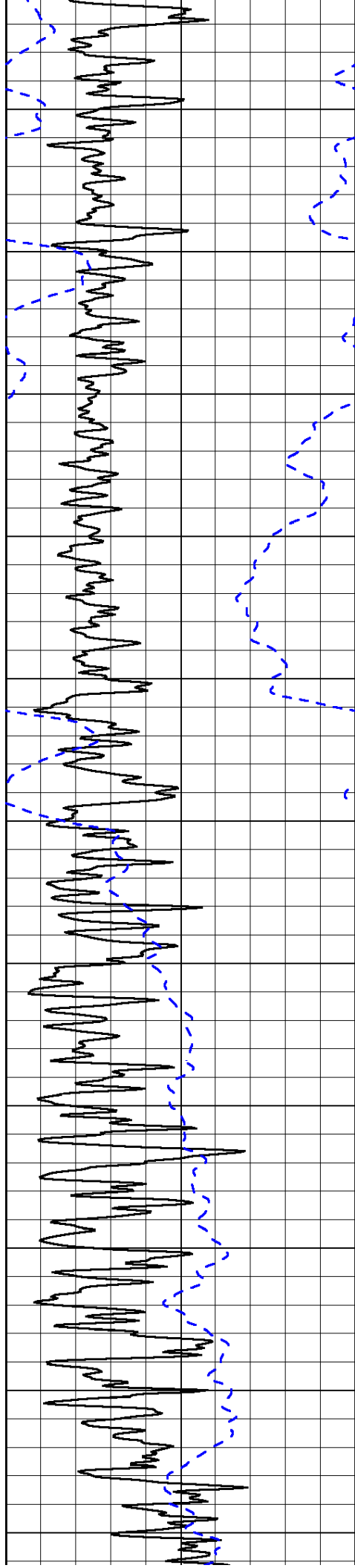
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Presentation Format: dil2in
Dataset Creation: Mon Apr 14 19:34:47 2014
Charted by: Depth in Feet scaled 1:600

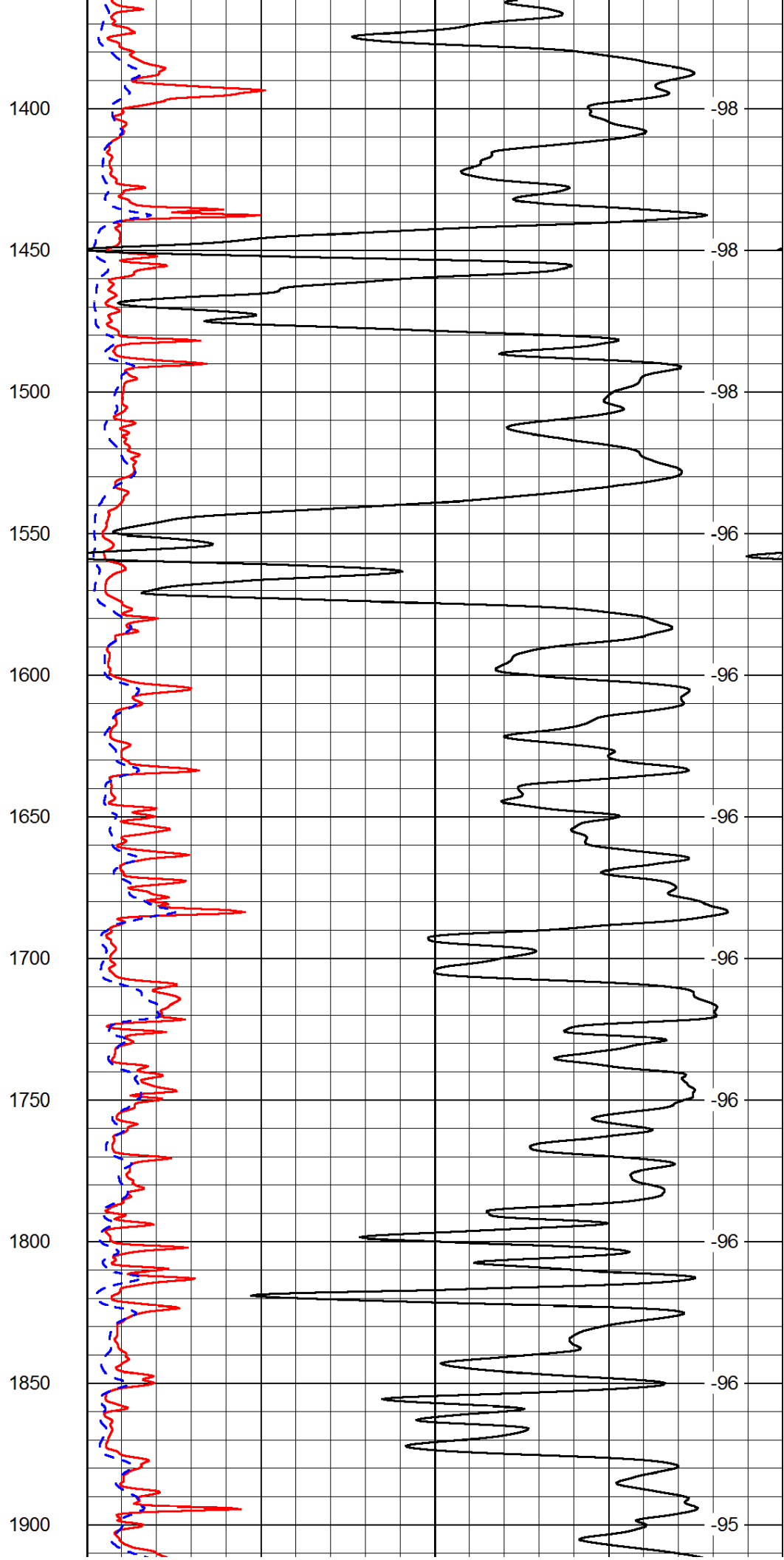
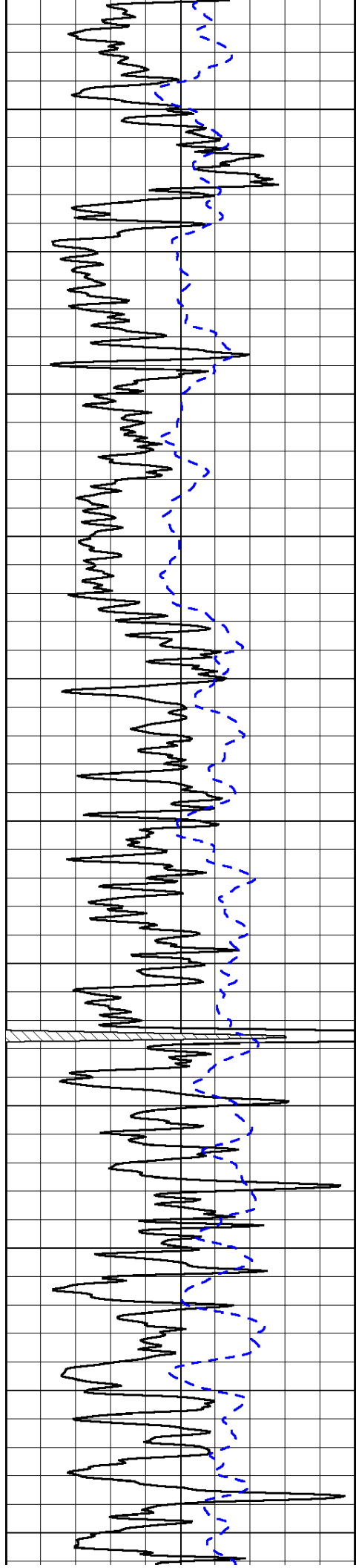
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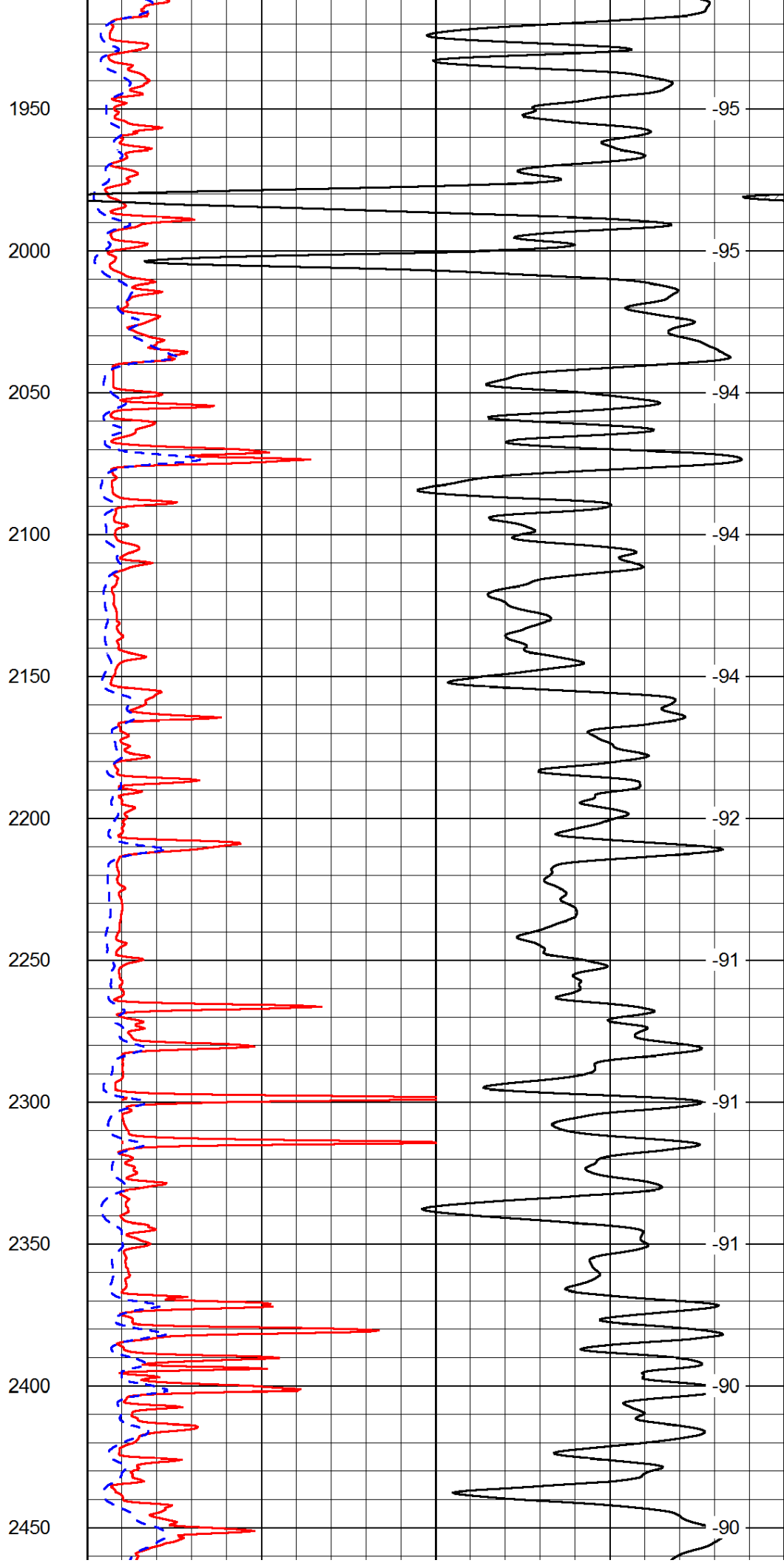
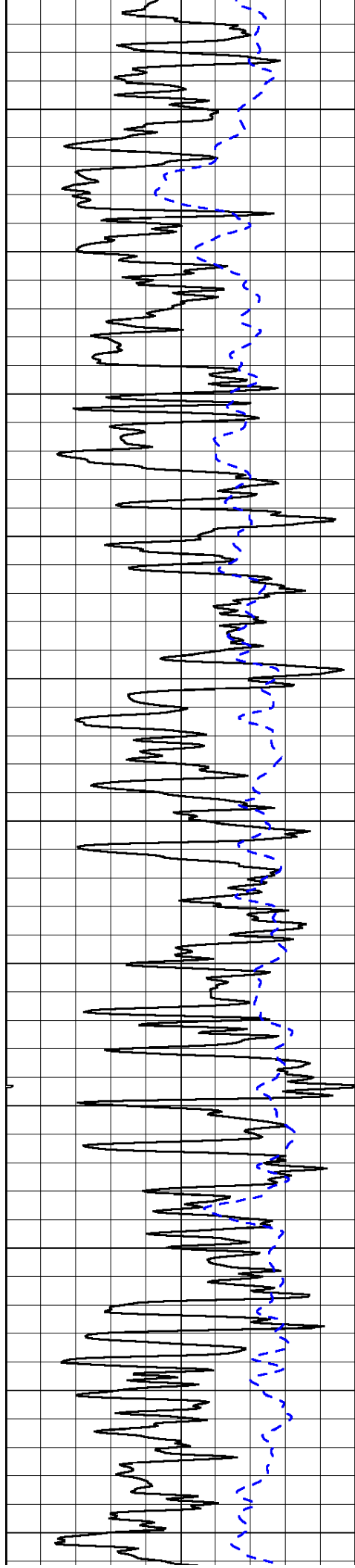
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-200	SP (mV)	0

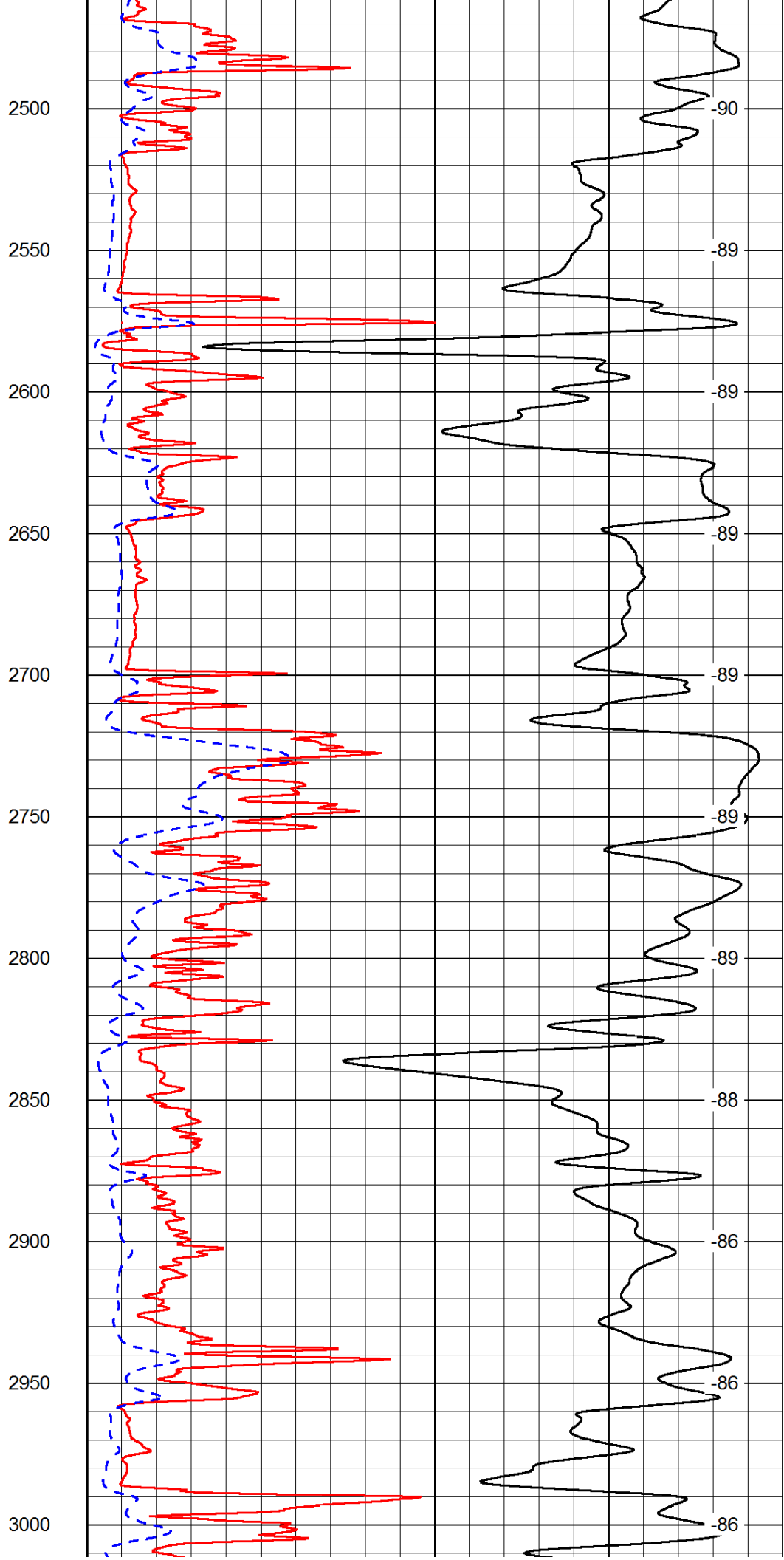
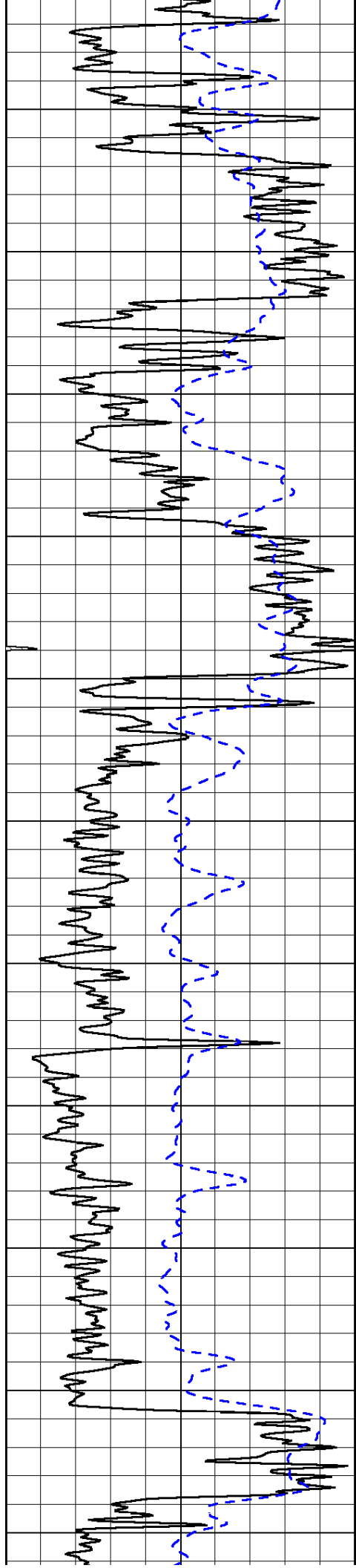
0	Shallow Resistivity	50	LSPD
0	Deep Resistivity	50	
1000	Conductivity		0
15000	Line Tension		0
50	Shallow Resistivity	500	
50	Deep Resistivity	500	

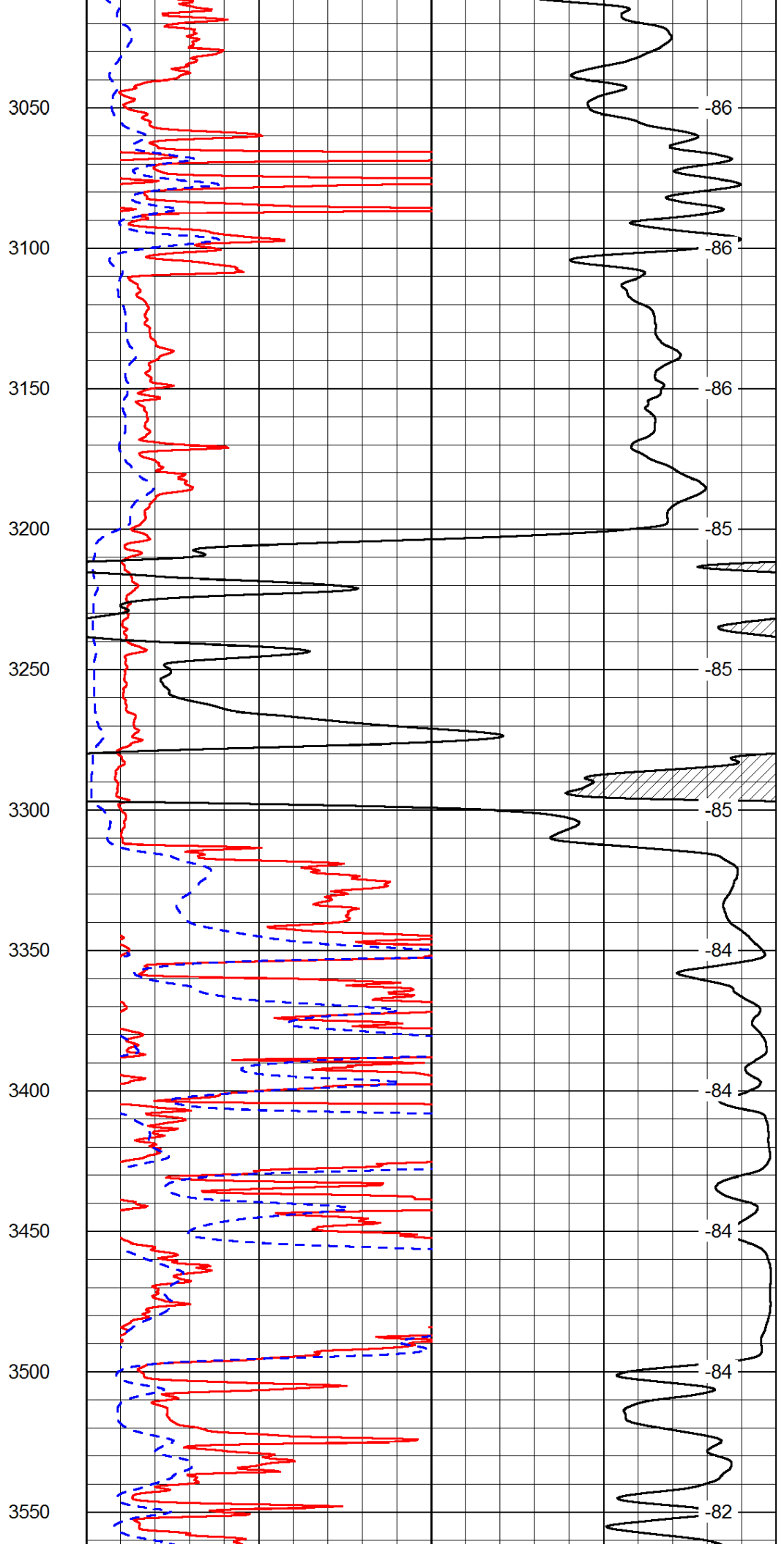
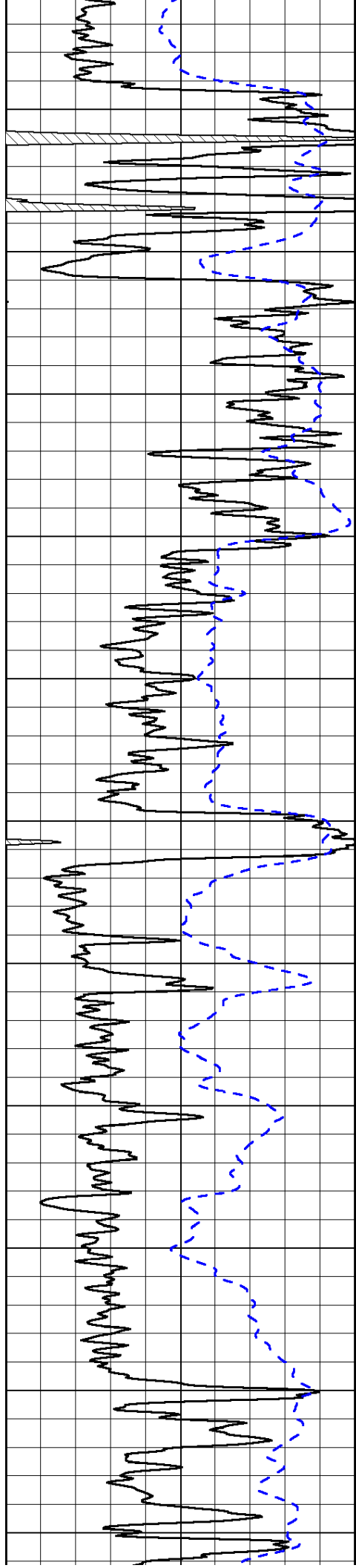


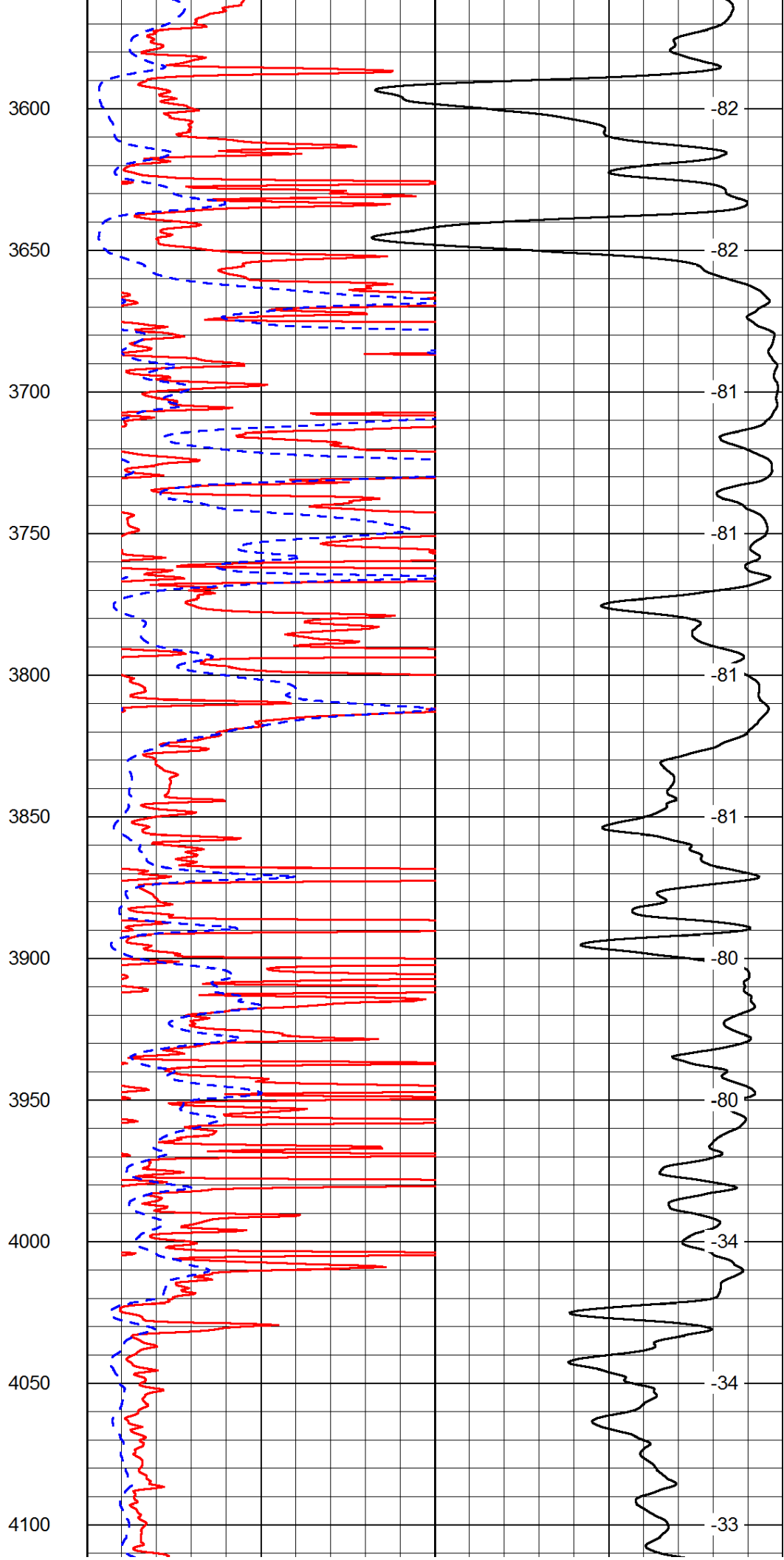
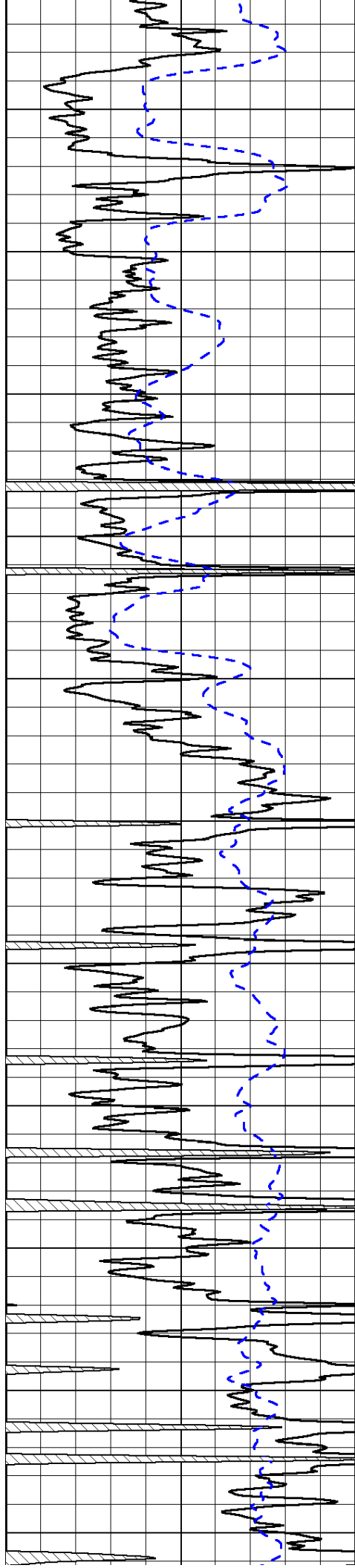


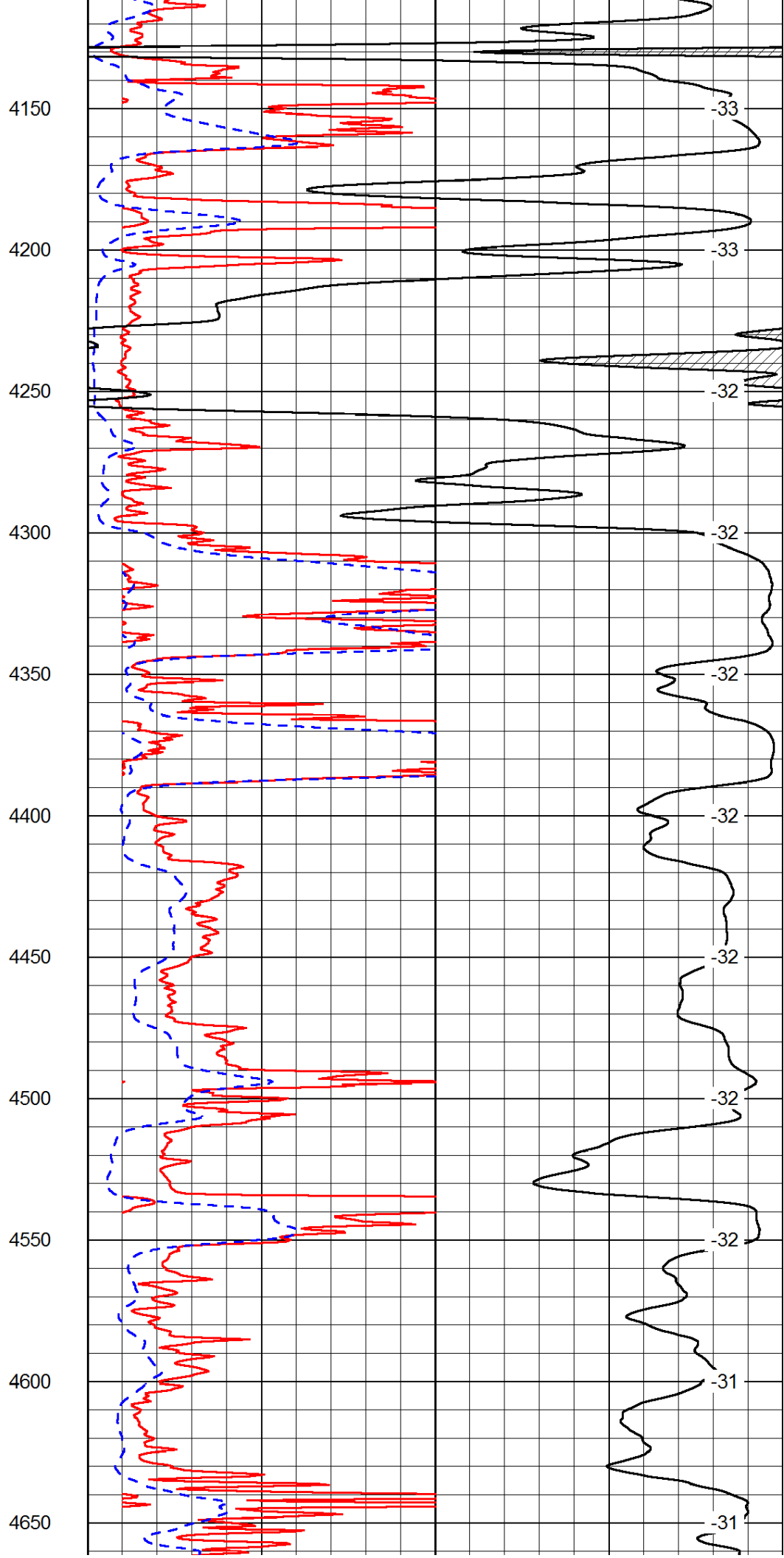
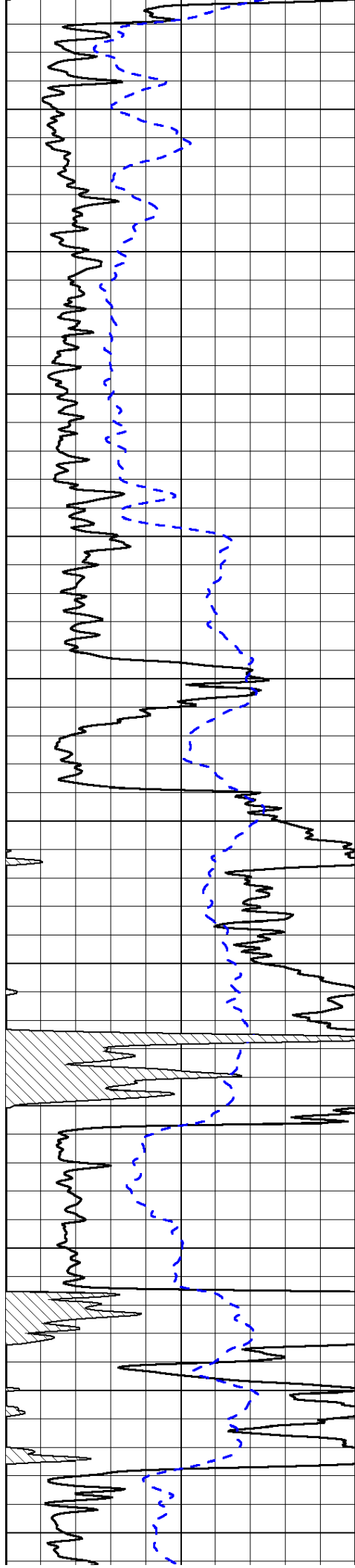


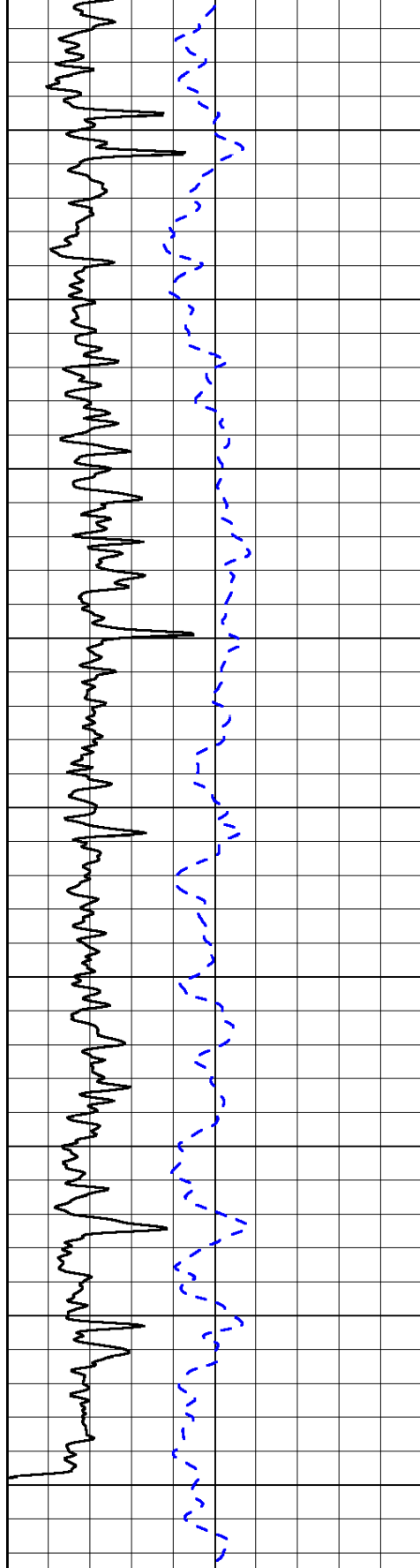




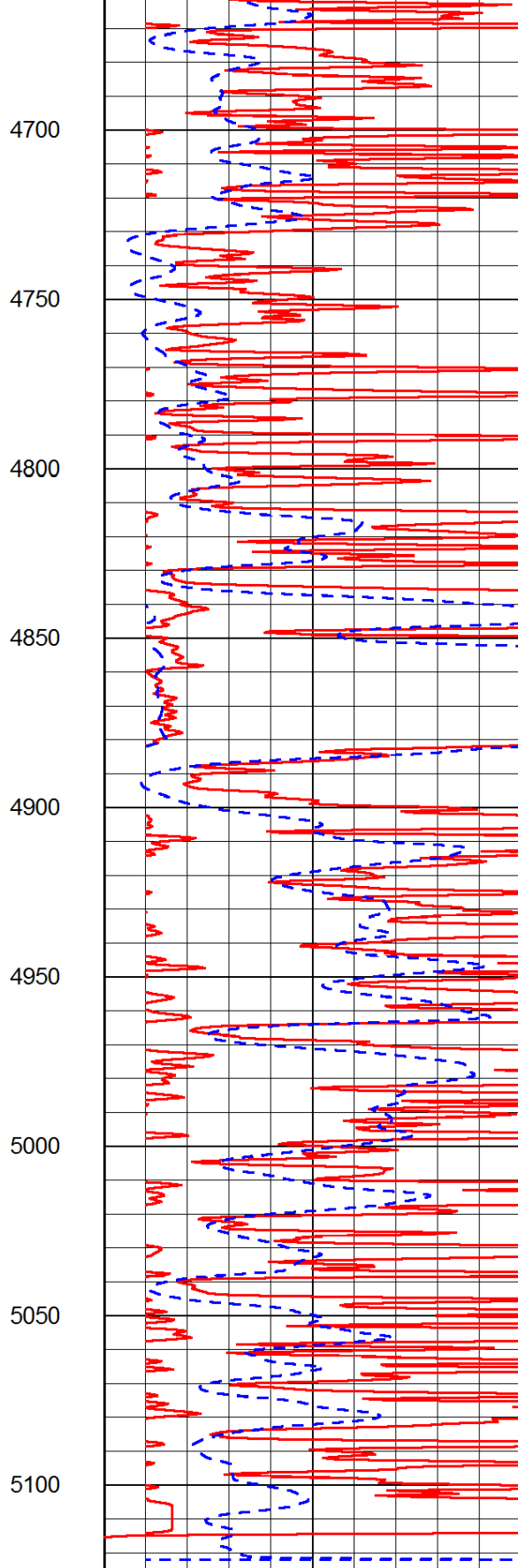




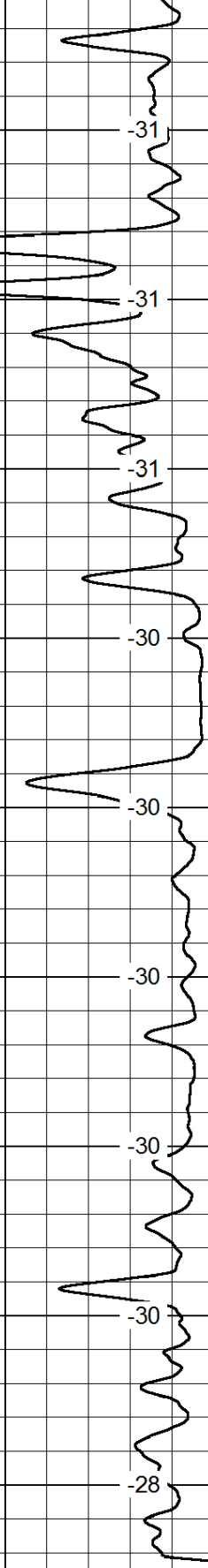




0 Gamma Ray 150
-200 SP (mV) 0



0 Shallow Resistivity 50
0 Deep Resistivity 50



LSPD

1000 Conductivity 0
15000 Line Tension 0

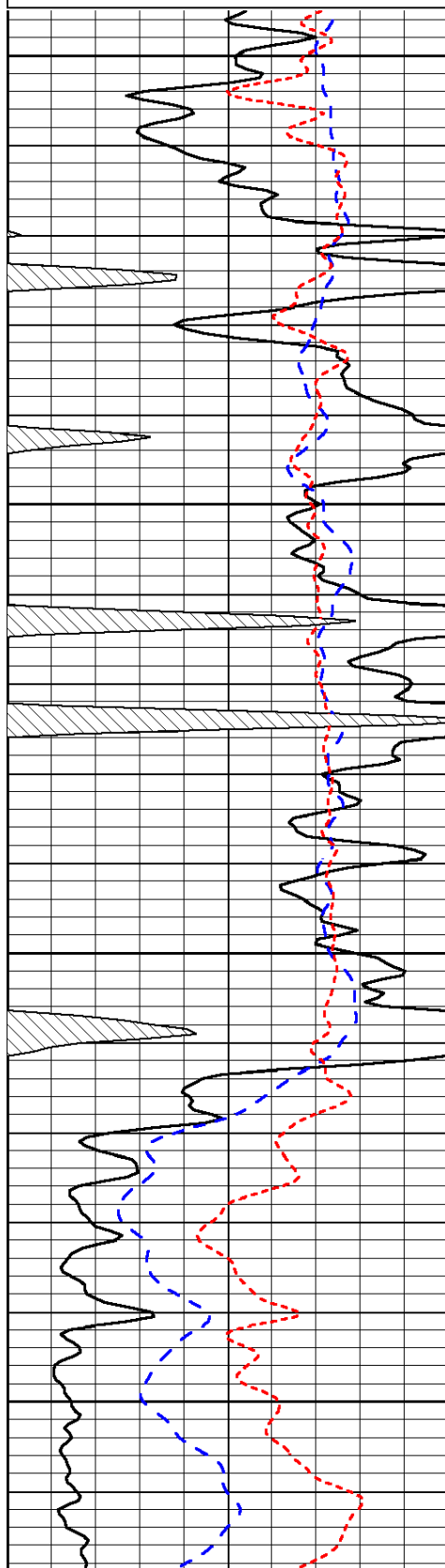
50 Shallow Resistivity 500
50 Deep Resistivity 500

Database File: c:\warrior\data\rakestraw_bros_voran h #4\rake_041414hd.db
Dataset Pathname: dil\rakestk
Presentation Format: dil
Dataset Creation: Mon Apr 14 19:34:47 2014
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

LSPD

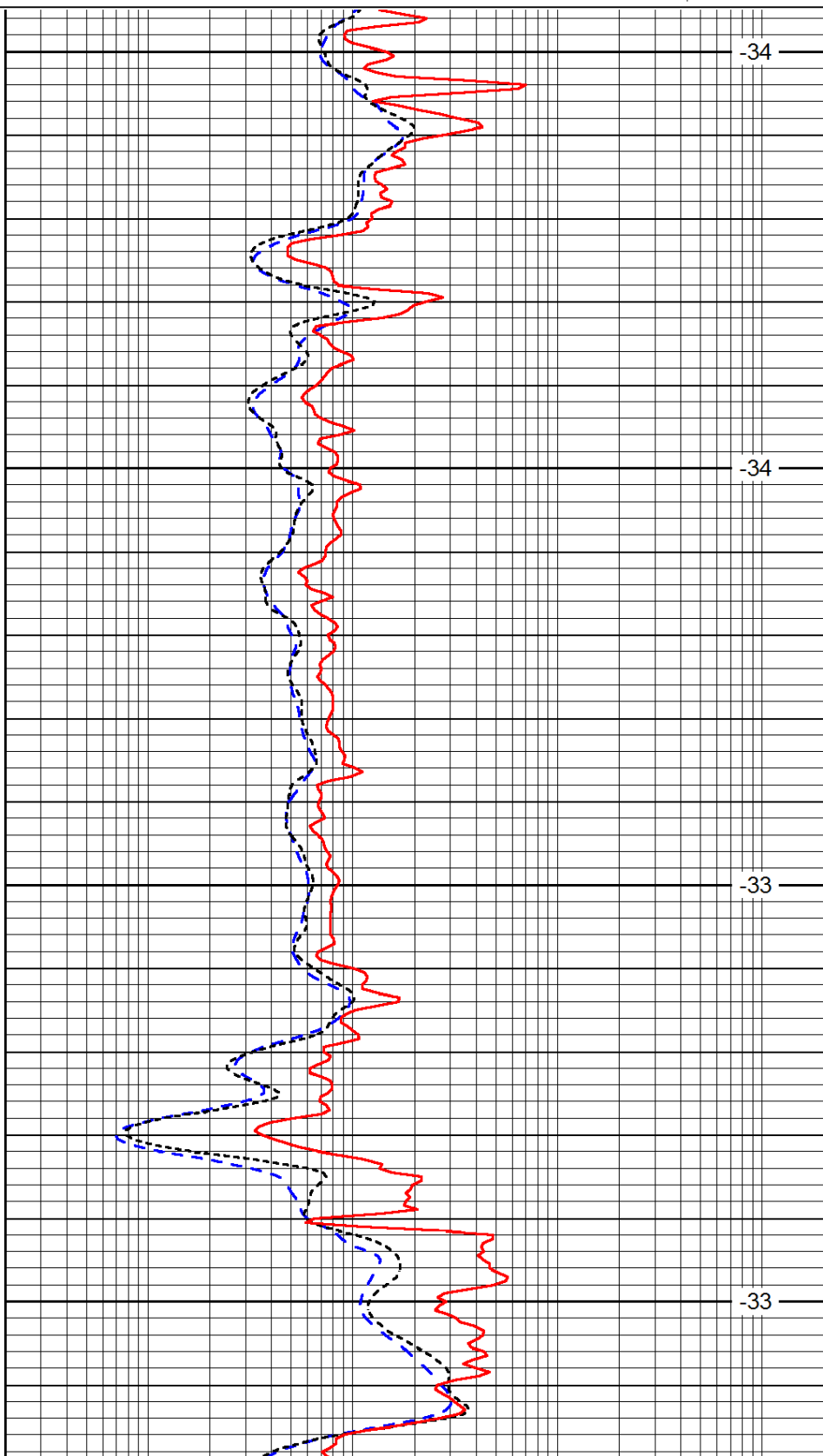


4000

4050

4100

4150

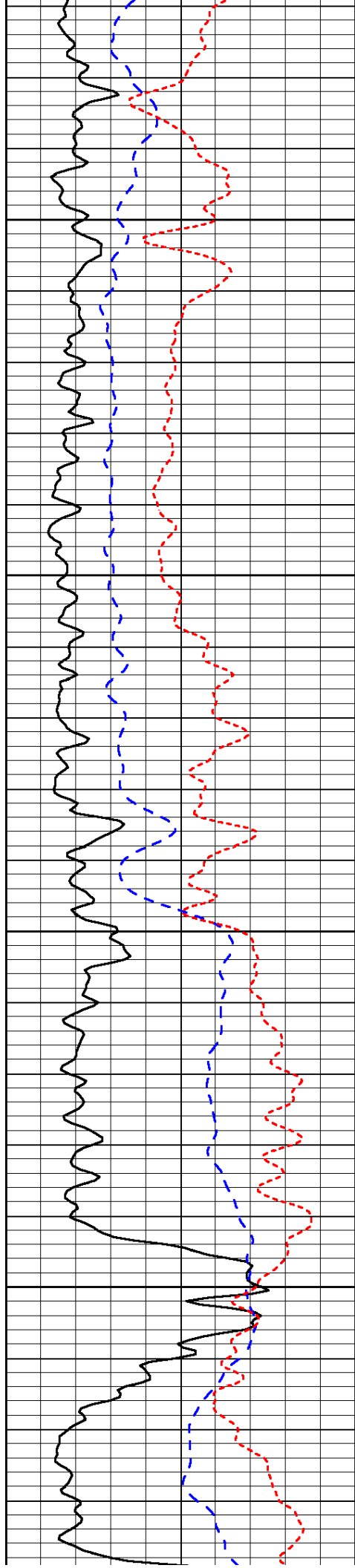


-34

-34

-33

-33

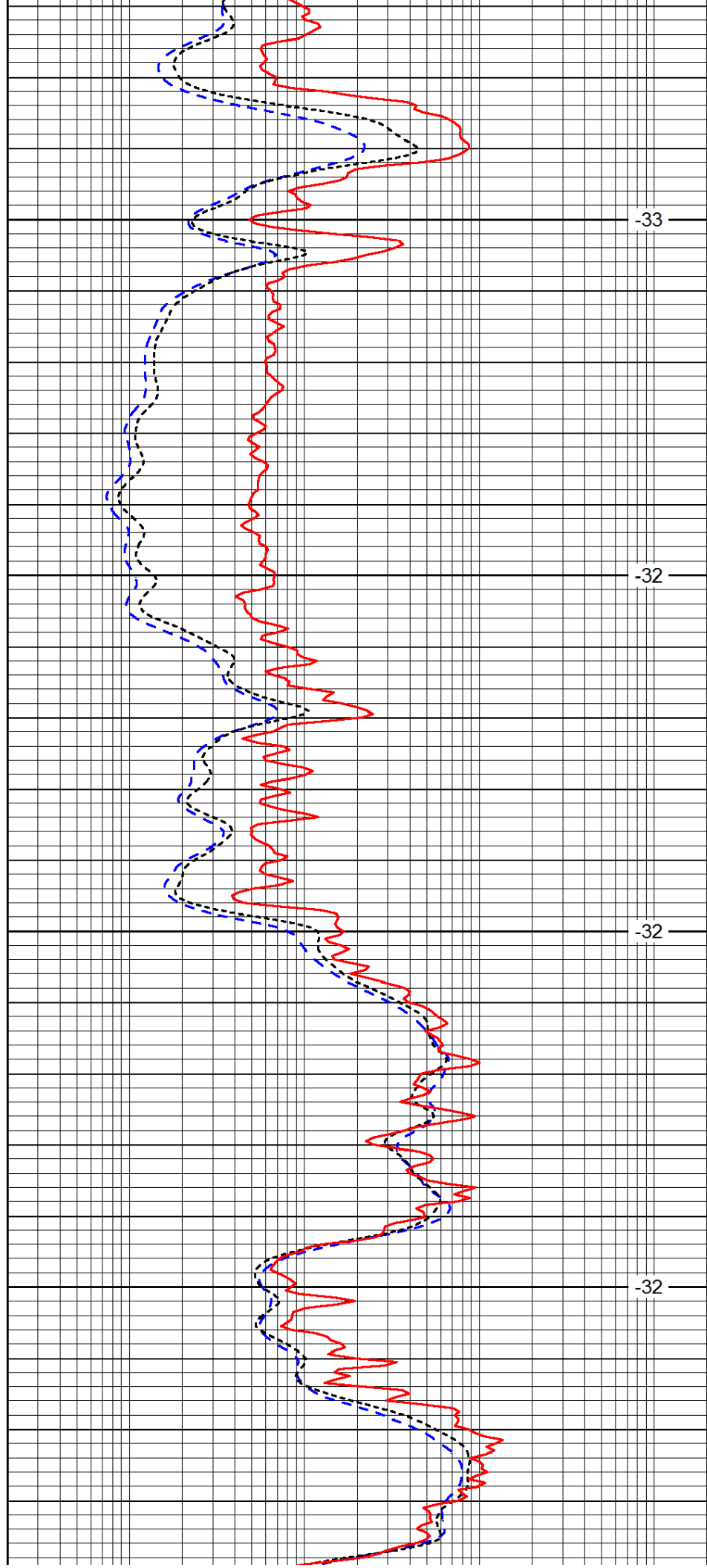


4200

4250

4300

4350

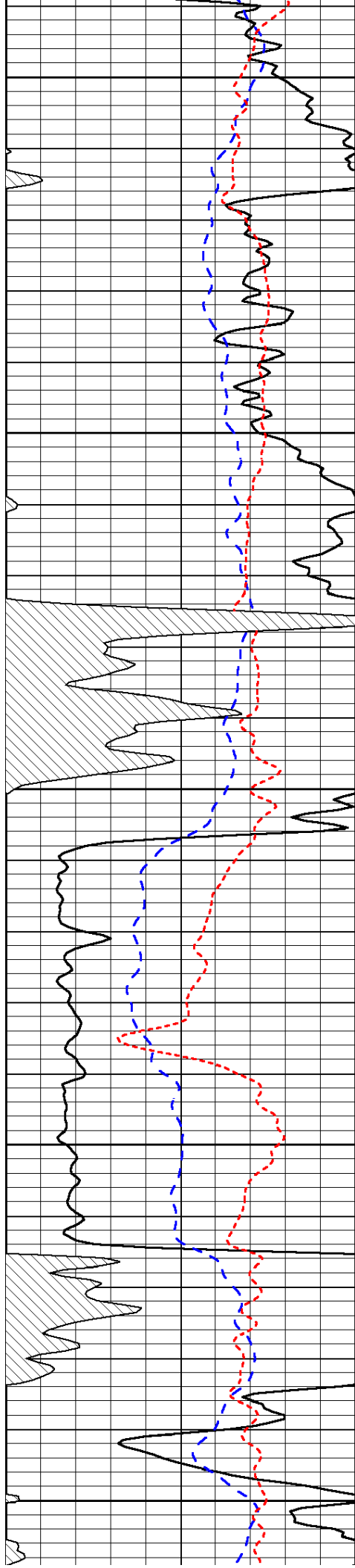


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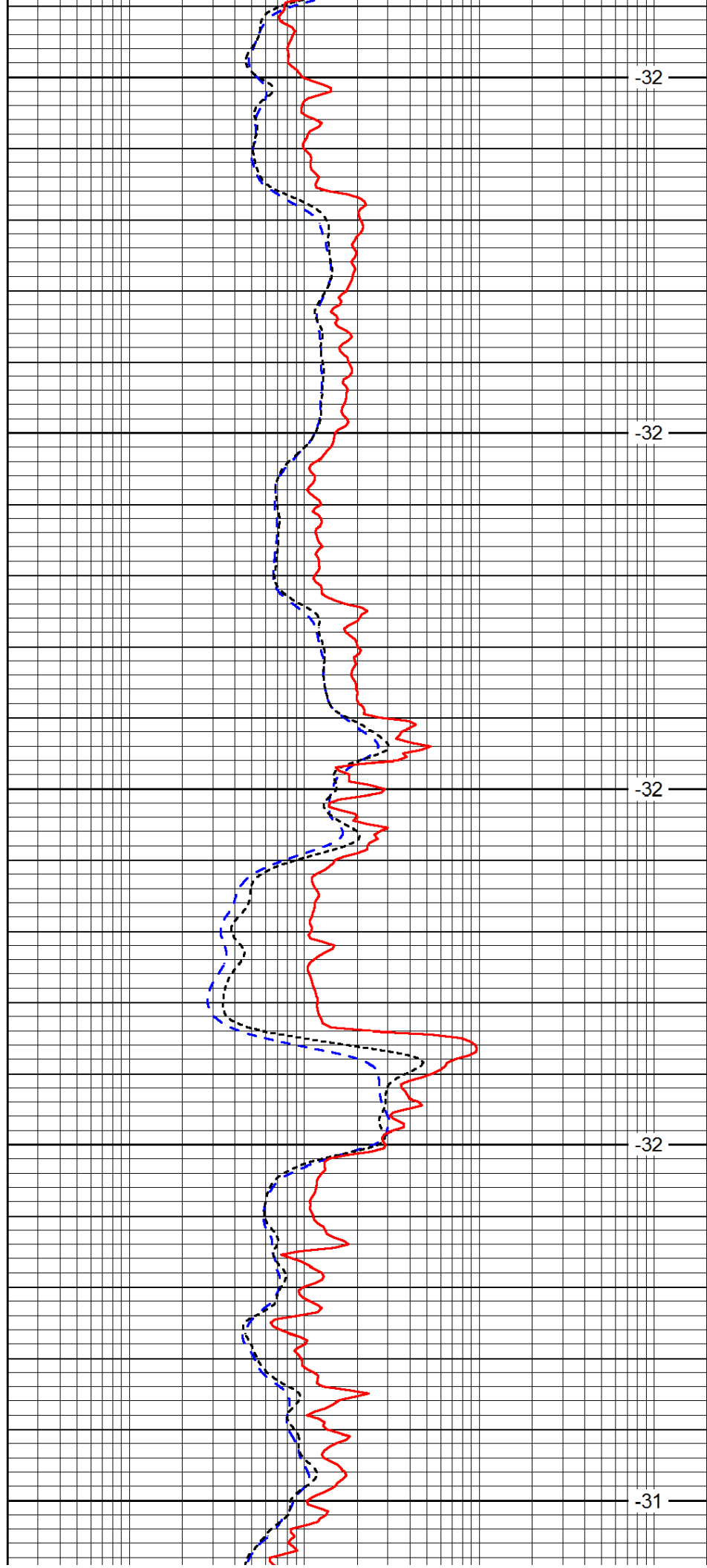
4400

4450

4500

4550

4600



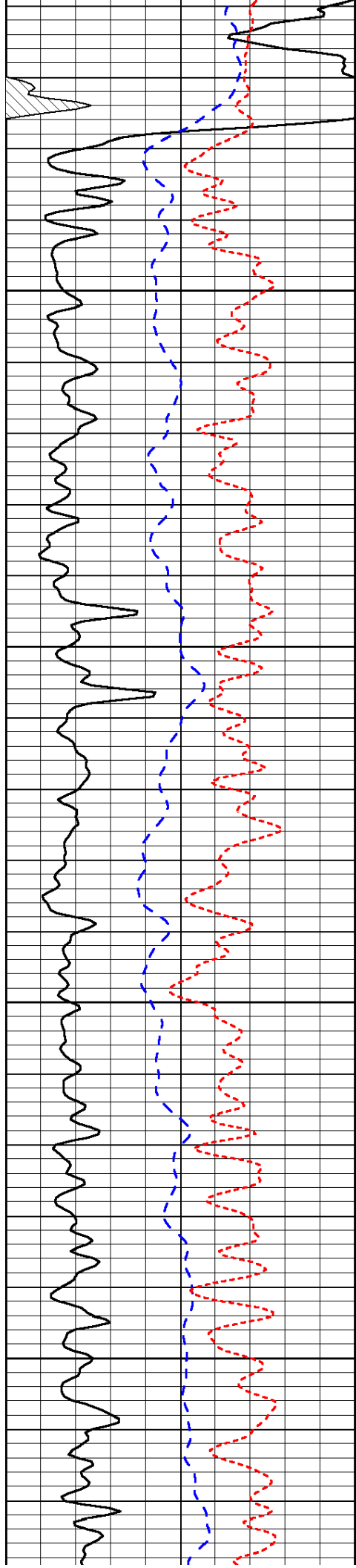
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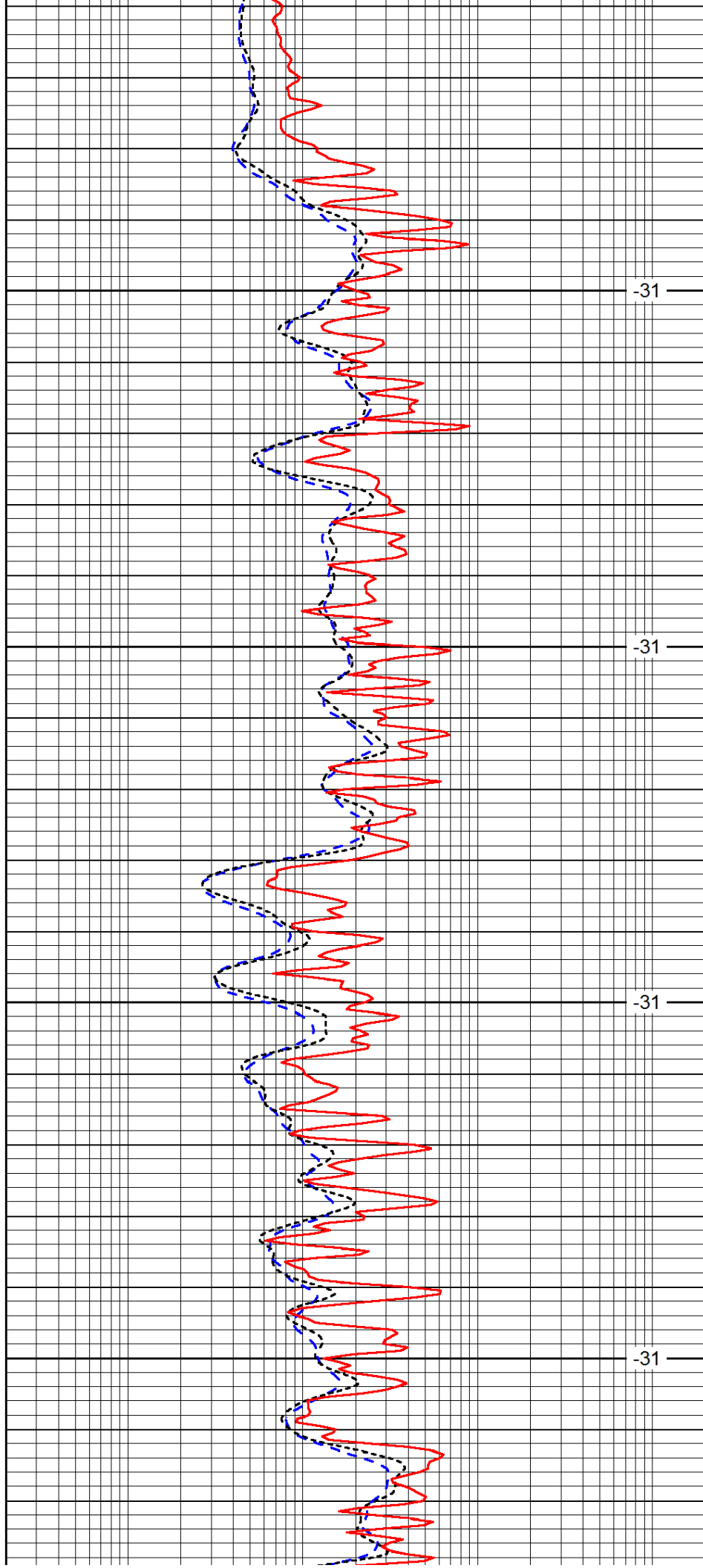


4650

4700

4750

4800

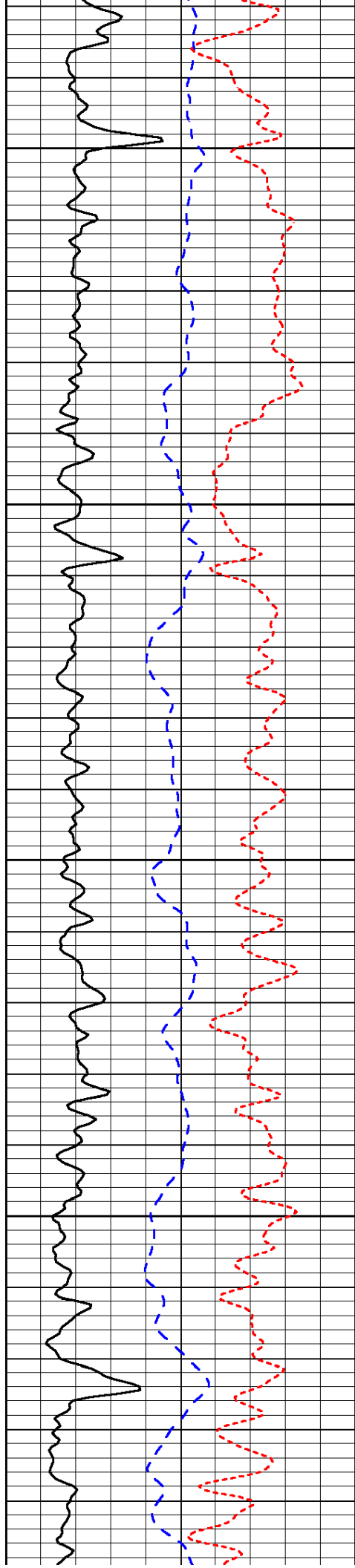


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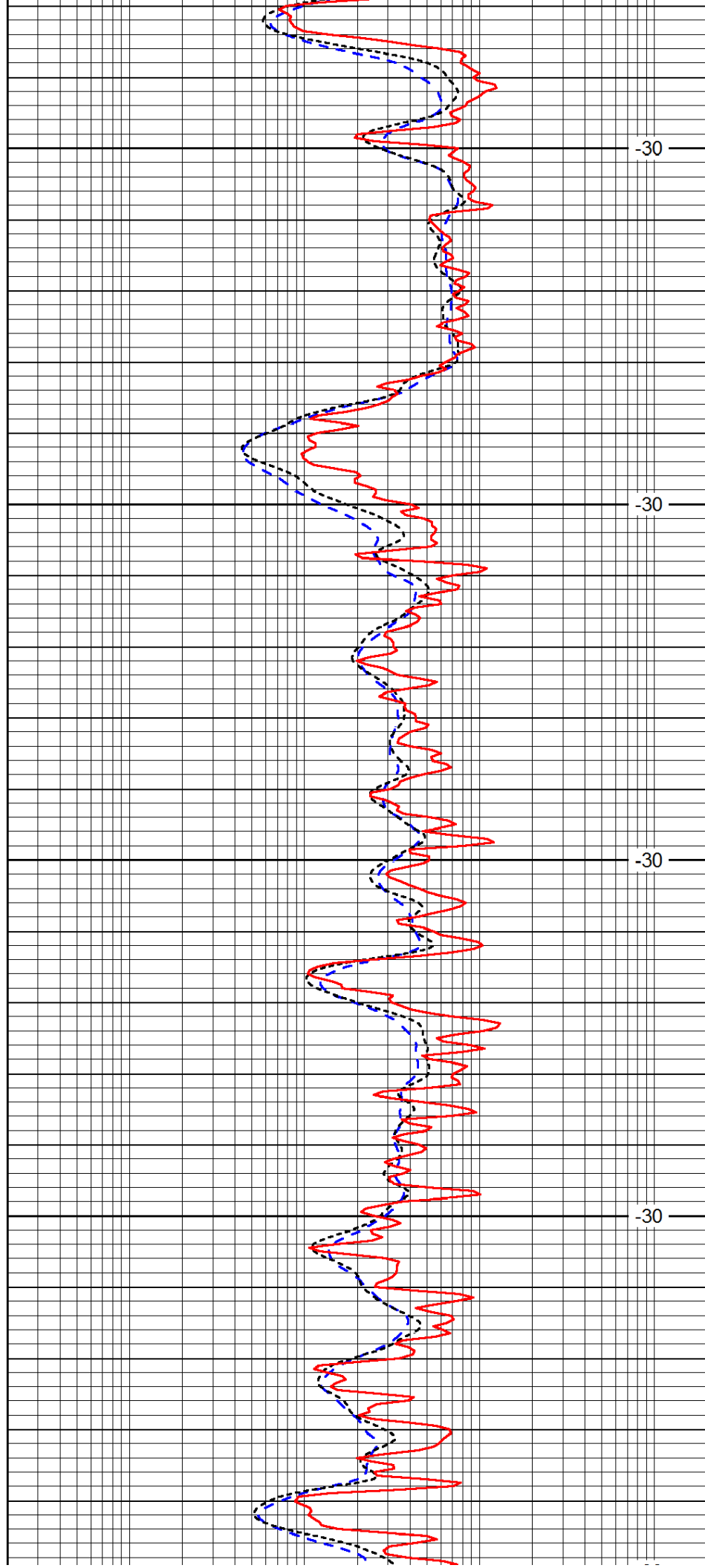


4850

4900

4950

5000

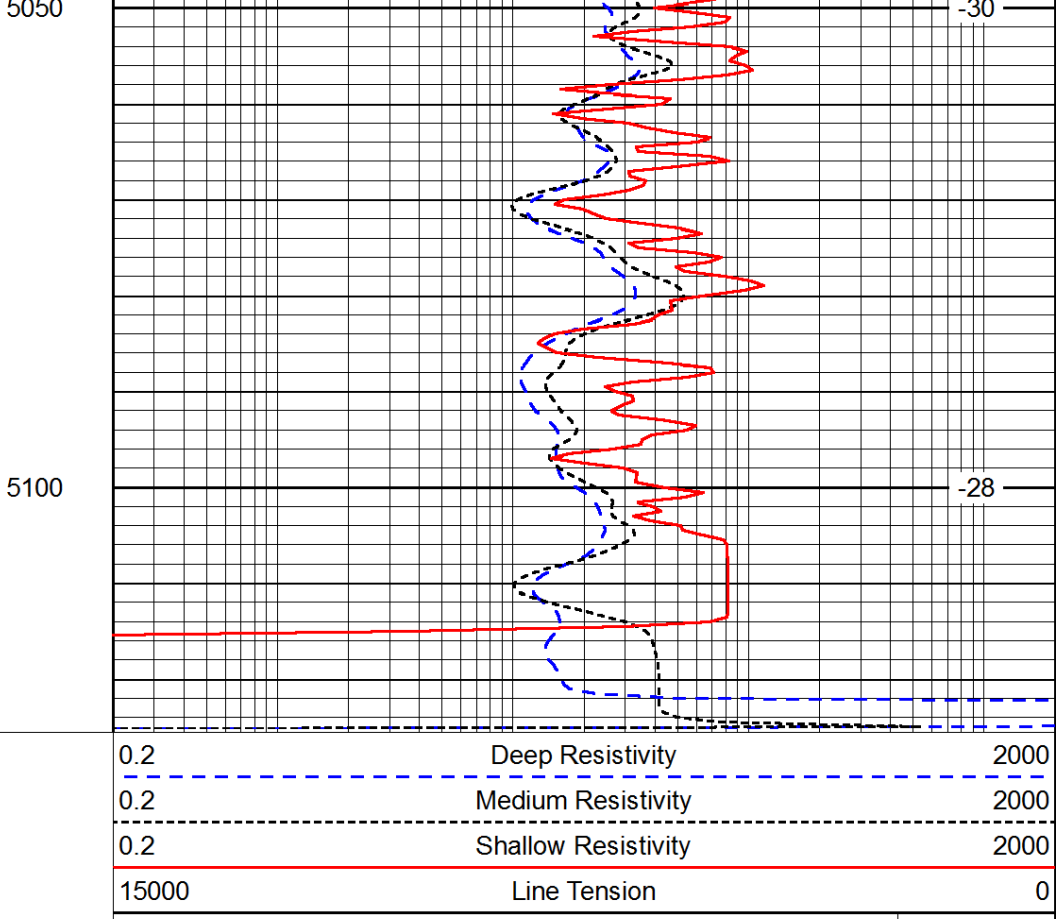
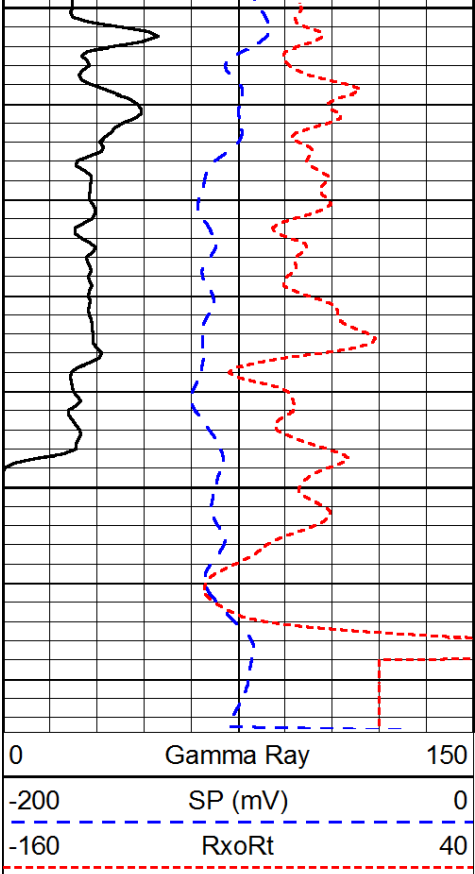


-30

-30

-30

-30



LSPD