



Dual Induction Log

Pioneer Energy Services

API No.	Company Indian Oil Company, Inc.		
	Well Swartz-Indian #1		
	Field Whelan		
	County Barber	State	Kansas
15-007-24148-00-00	Location	1320' FNL & 2145' FEL	
	Sec: 31	Twp: 31S	Rge: 11W
	Permanent Datum	Ground Level	Elevation 1505
	Log Measured From	Kelly Bushing	10 Ft. Above Perm. Datum
	Drilling Measured From	Kelly Bushing	
Date		3/31/2014	
Run Number		One	
Depth Driller		4500	
Depth Logger		4500	
Bottom Logged Interval		4499	
Top Log Interval		200	
Casing Driller		8.625 @ 210	
Casing Logger		209	
Bit Size		7.875	
Type Fluid in Hole		Chemical	
Salinity, ppm CL		7000	
Density / Viscosity		9.4 50	
pH / Fluid Loss		9.5 10.0	
Source of Sample		Flowline	
Rm @ Meas. Temp		0.22 @ 65	
Rmf @ Meas. Temp		0.17 @ 65	
Rmc @ Meas. Temp		0.30 @ 65	
Source of Rmf / Rmc		Charts	
Rm @ BHT		0.12 @ 123	
Operating Rig Time		3 Hours	
Max Rec. Temp. F		123	
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

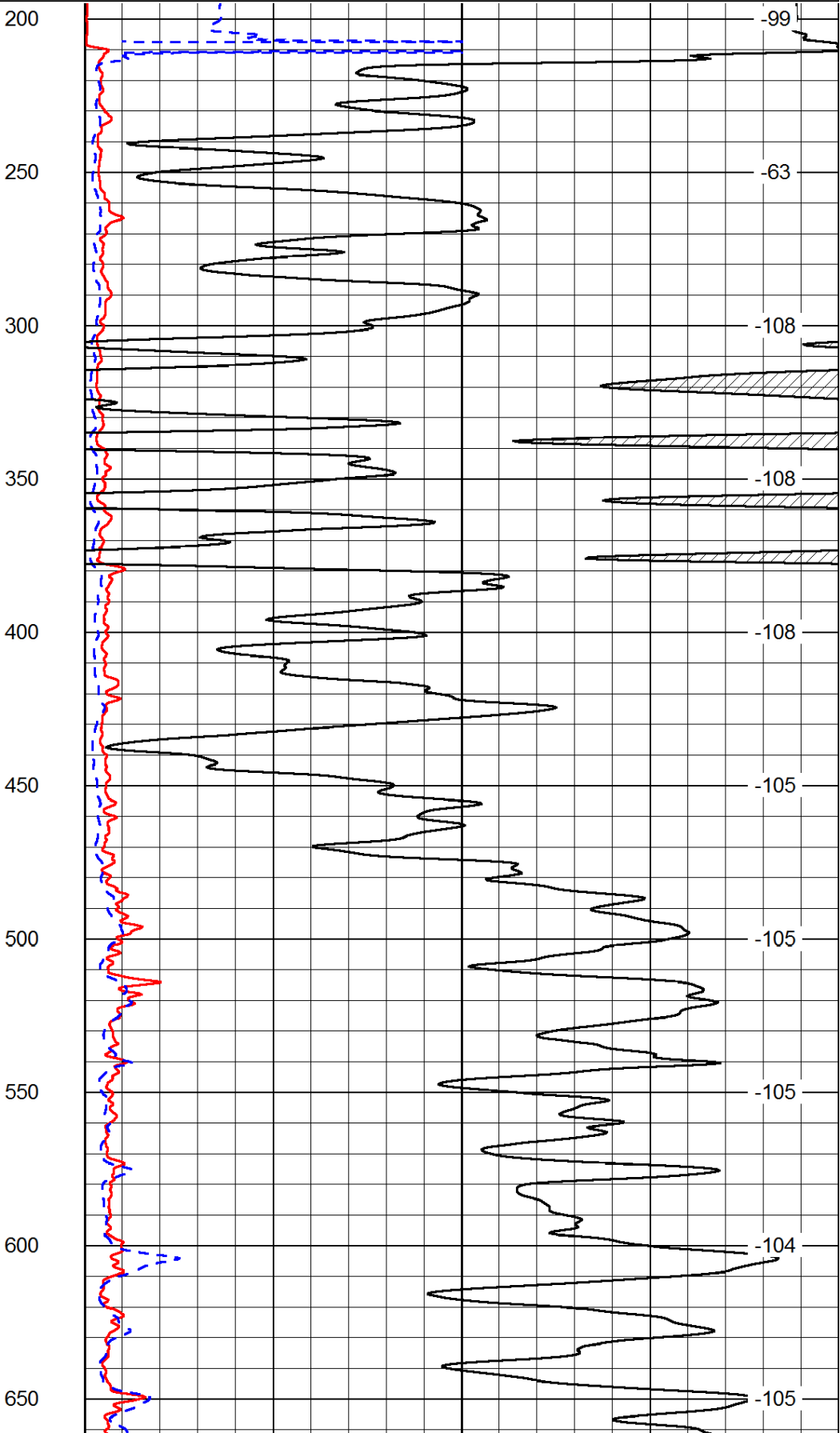
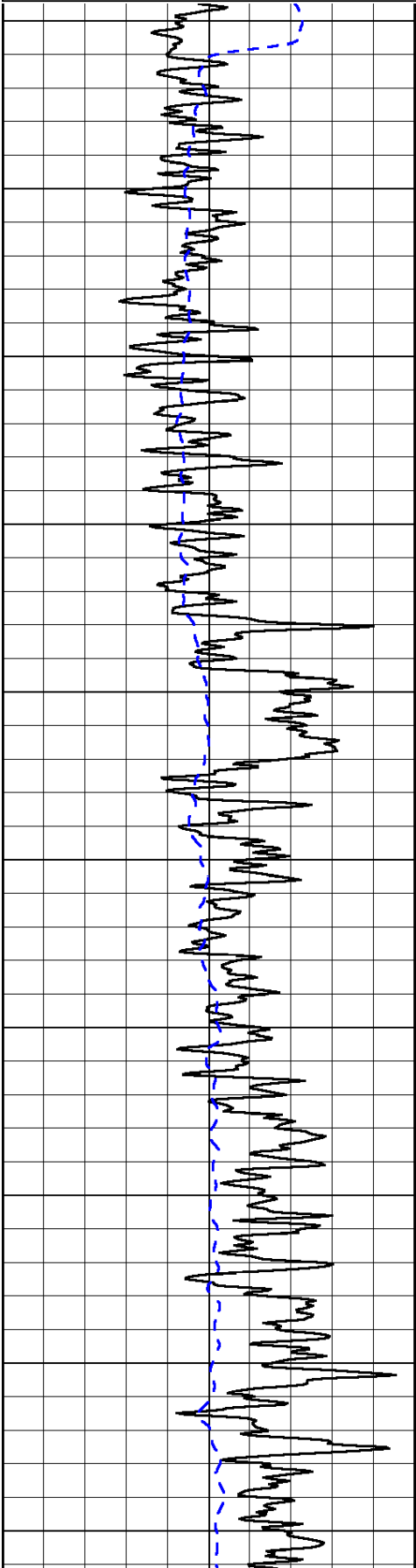
Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858
Medicine Lodge,
East to Isabel Blacktop, 2 1/2 North,
1/2 West, South into

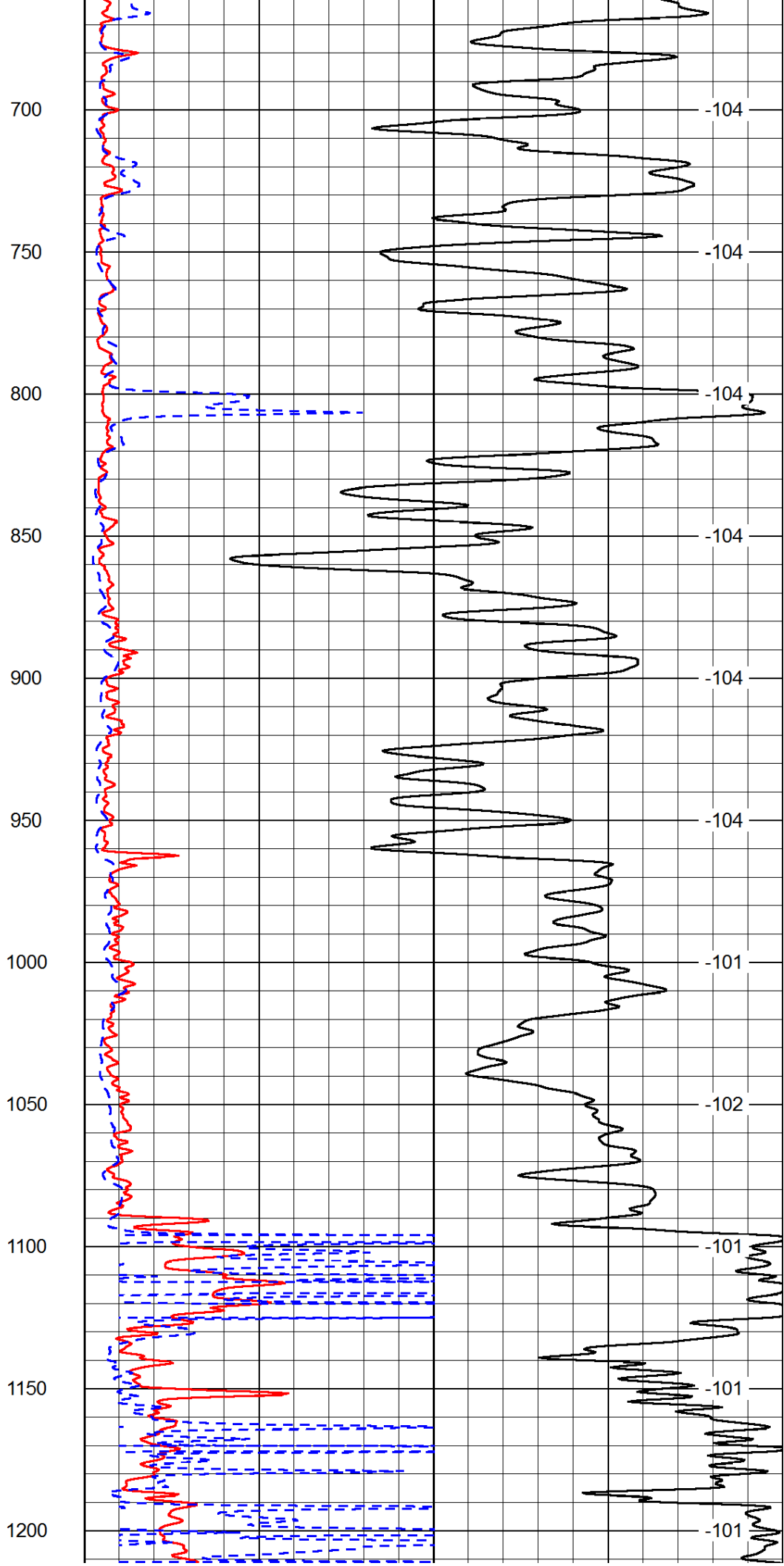
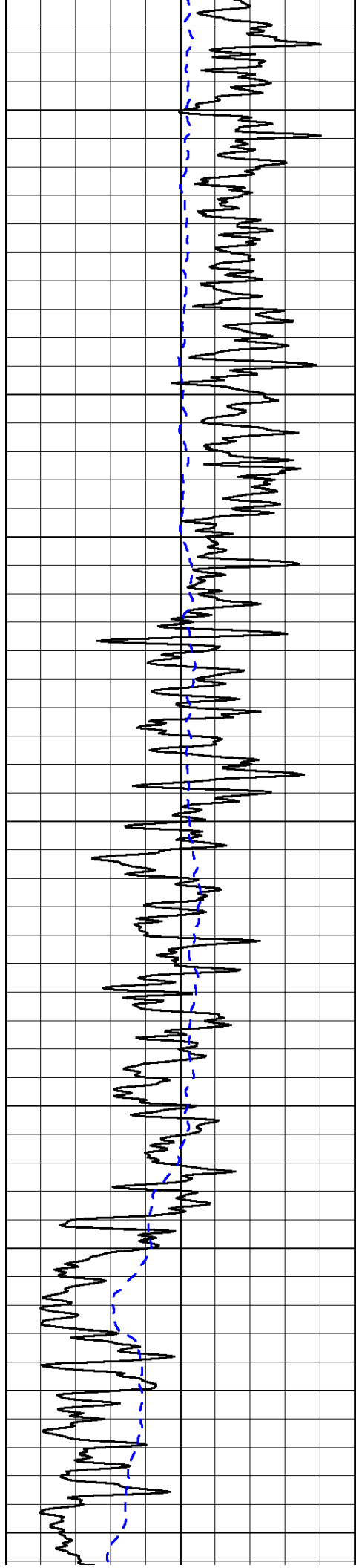
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Dataset Pathname: dil\indstock
Presentation Format: dil2in
Dataset Creation: Mon Mar 31 23:30:34 2014
Charted by: Depth in Feet scaled 1:600

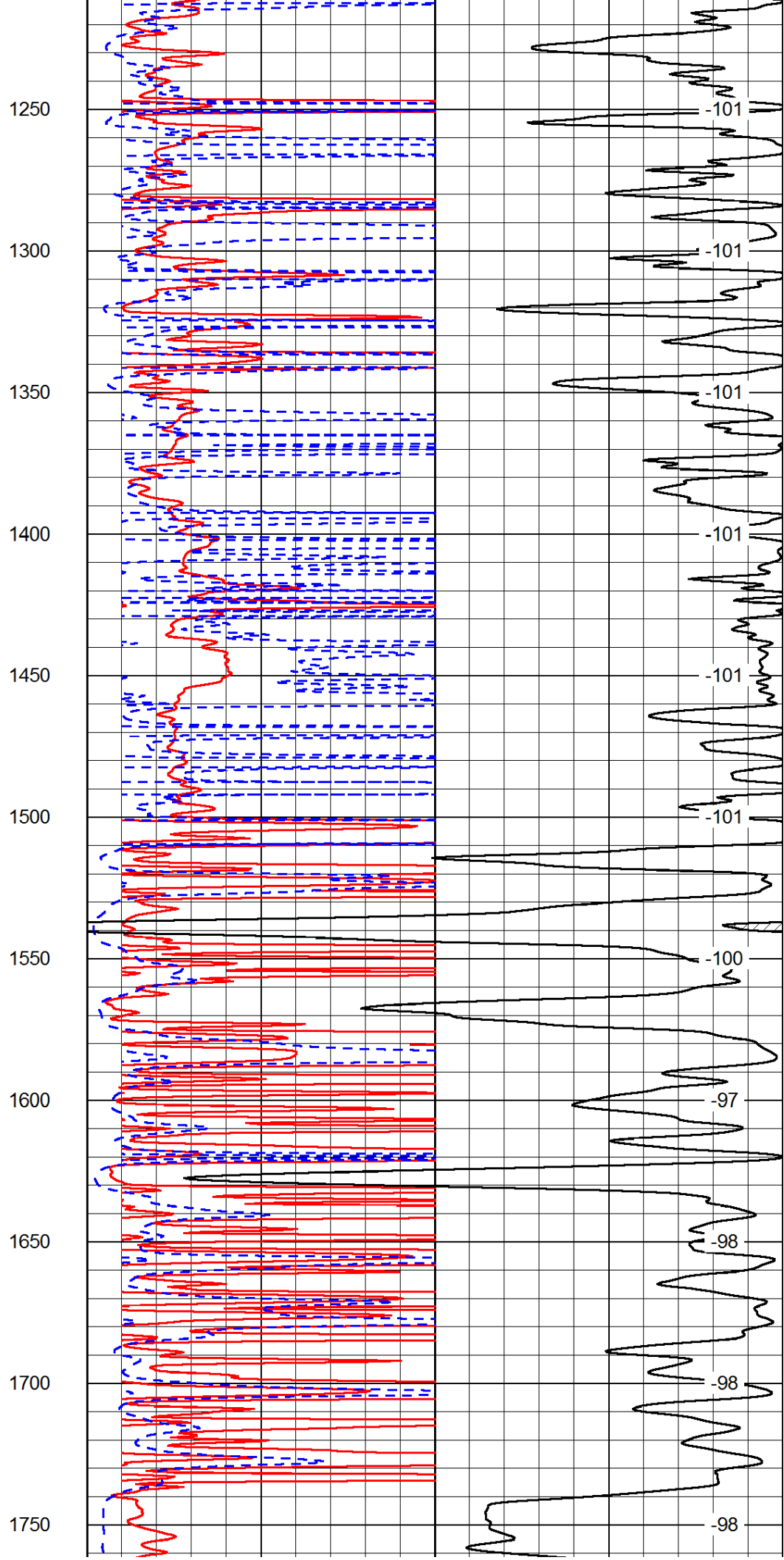
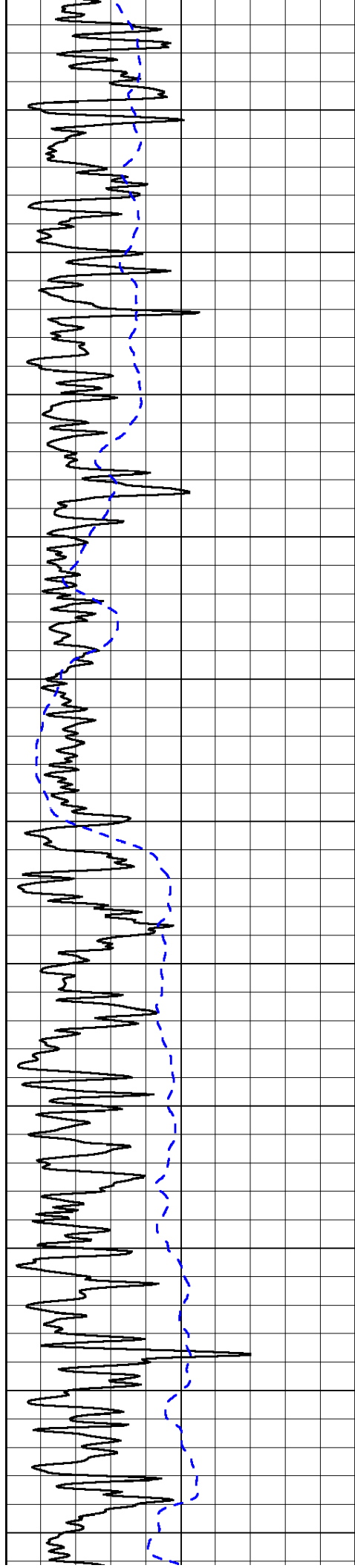
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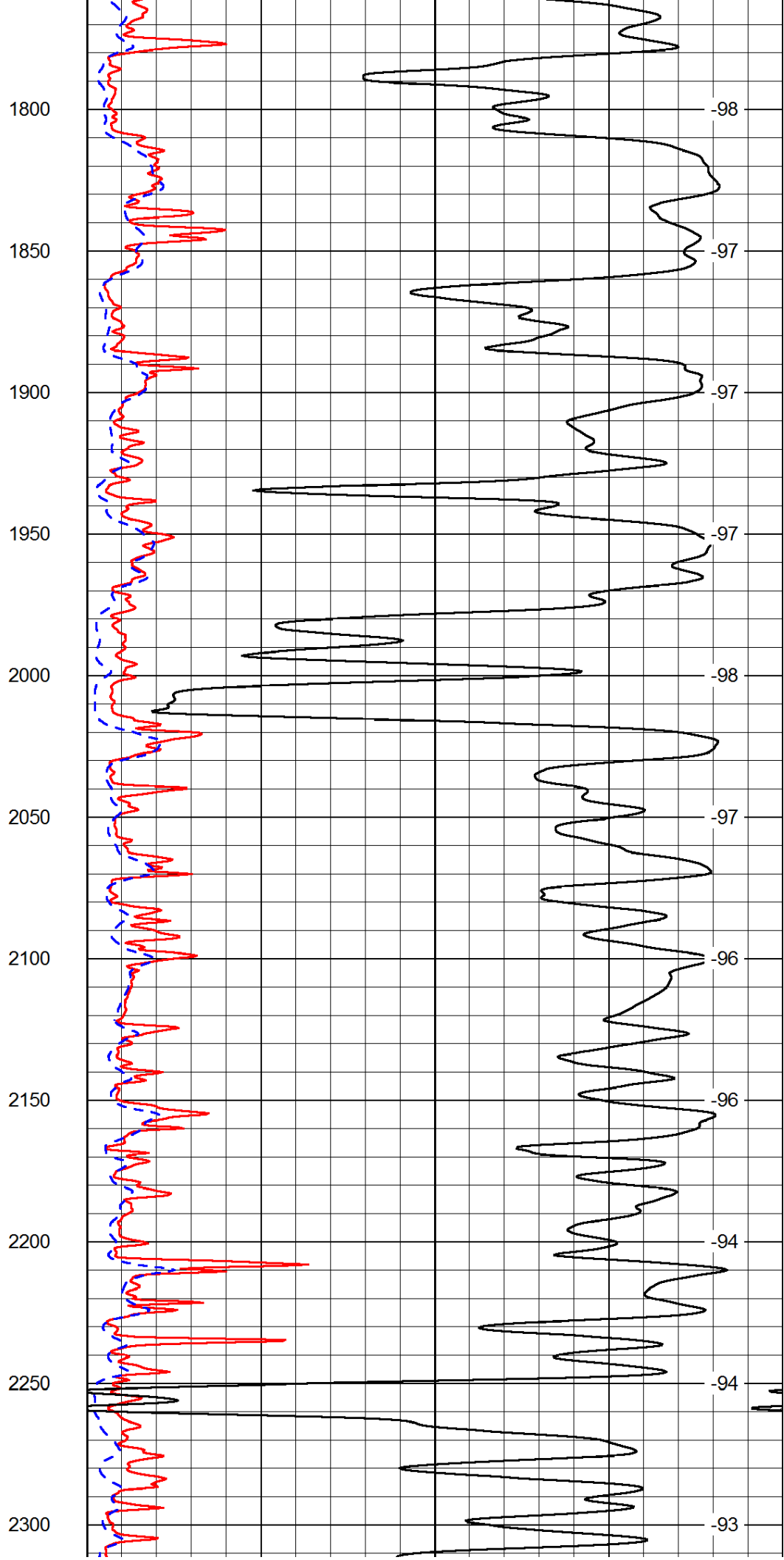
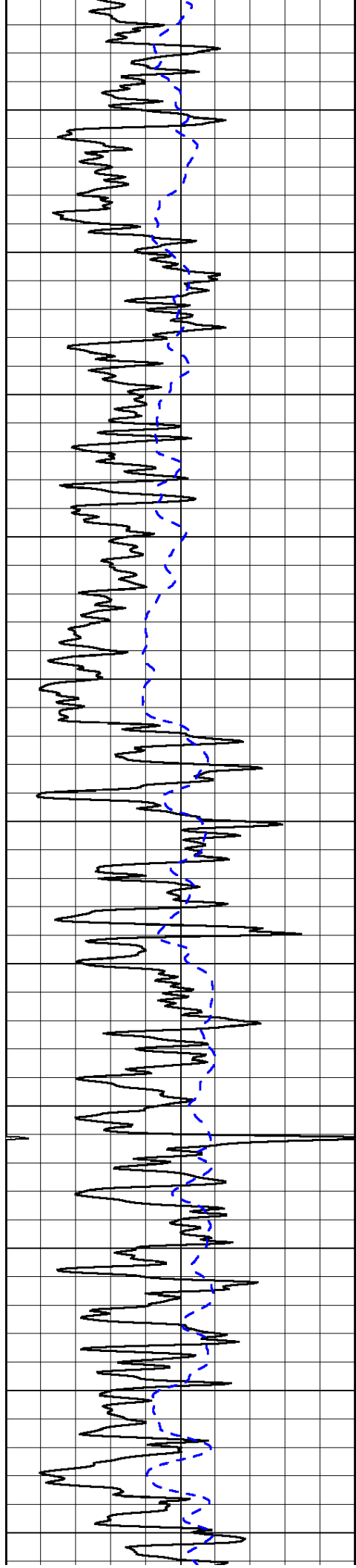
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-200	SP (mV)	0

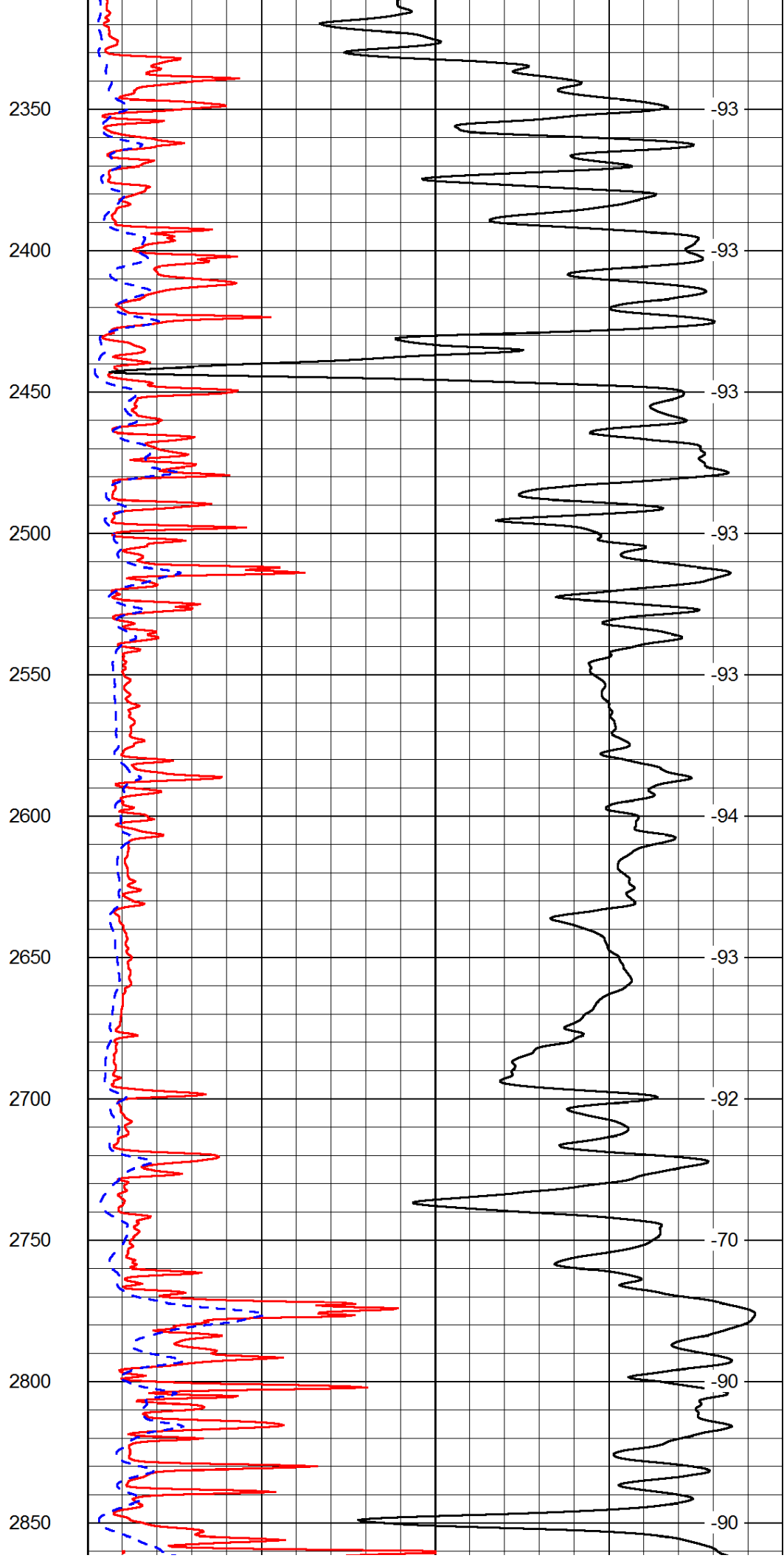
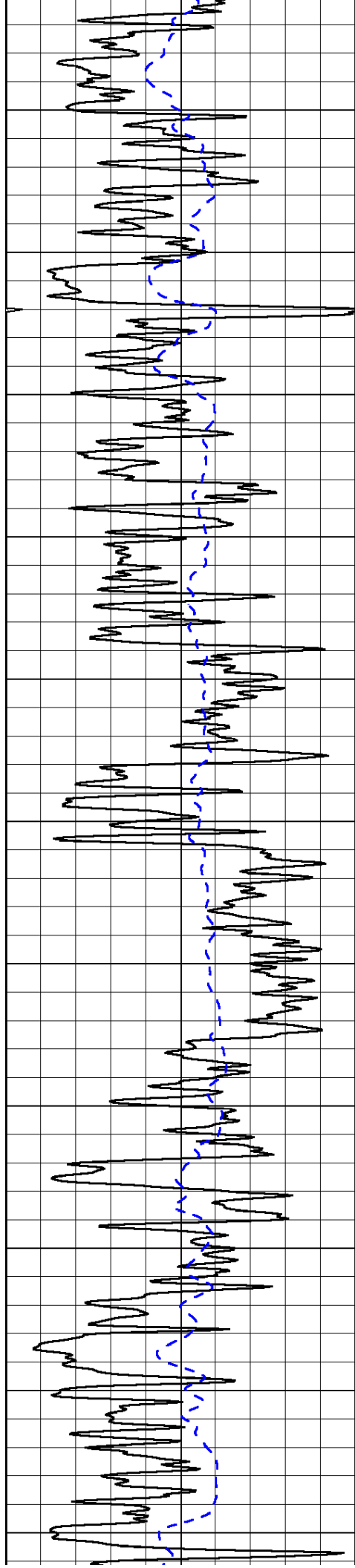
0	Shallow Resistivity	50	LSPD
0	Deep Resistivity	50	
1000	Conductivity		0
15000	Line Tension		0
50	Shallow Resistivity	500	
50	Deep Resistivity	500	

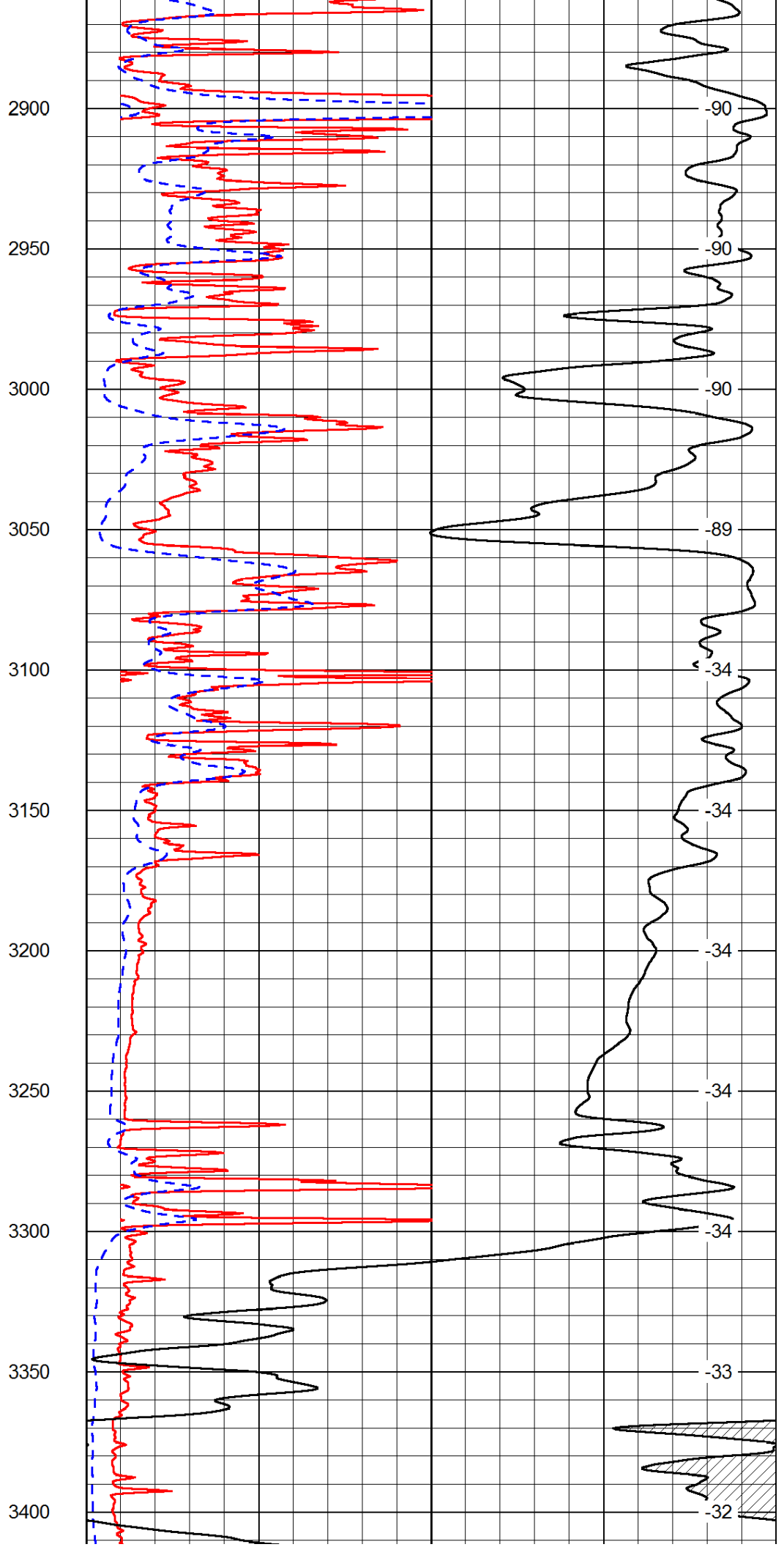
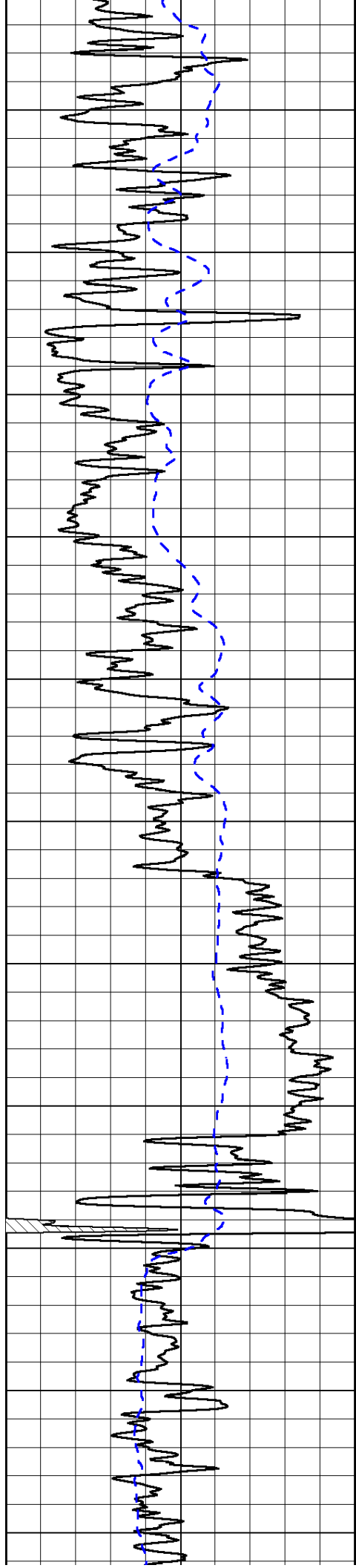


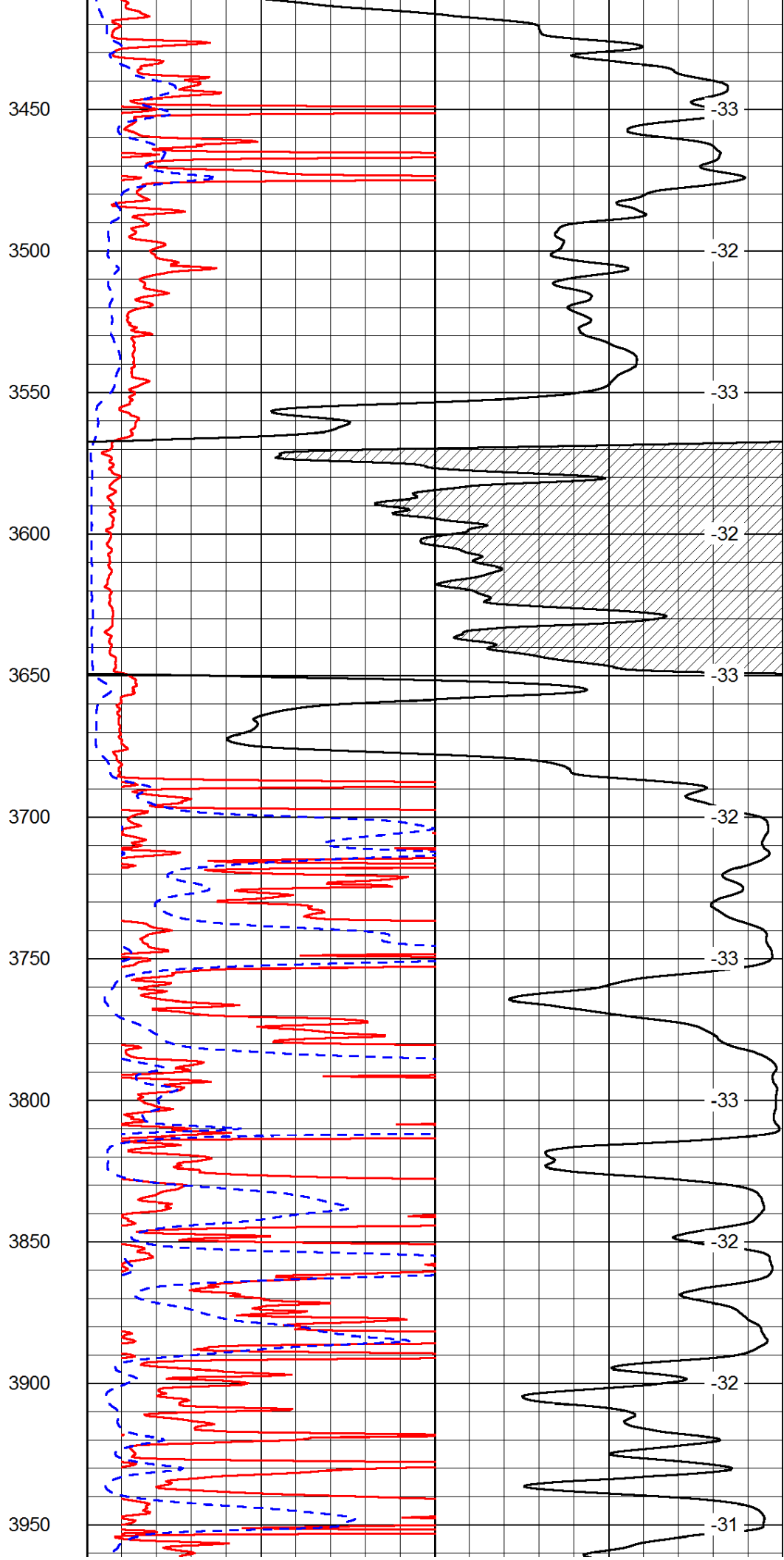
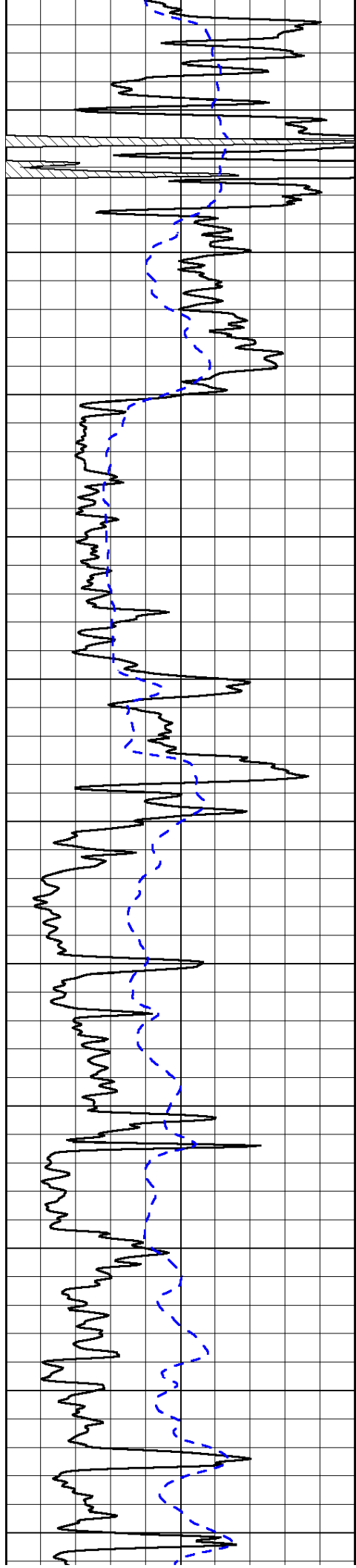


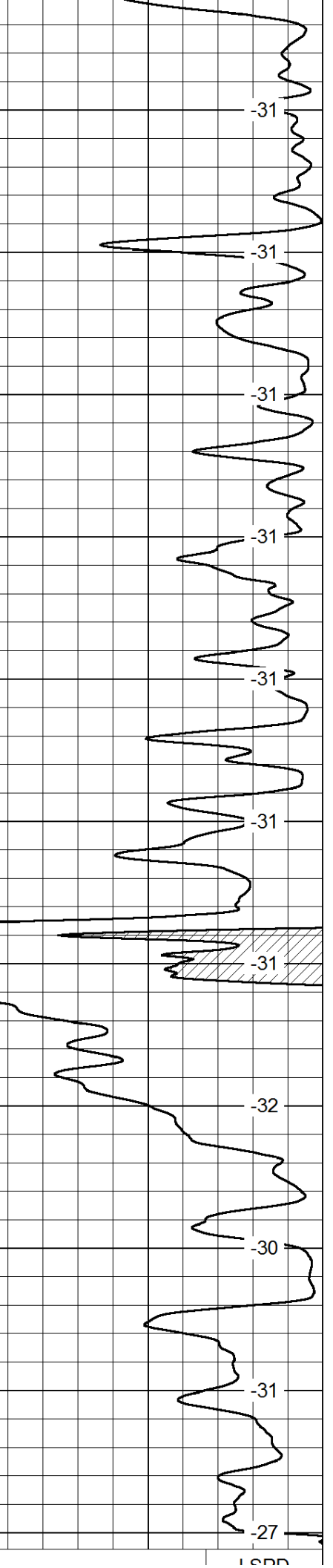
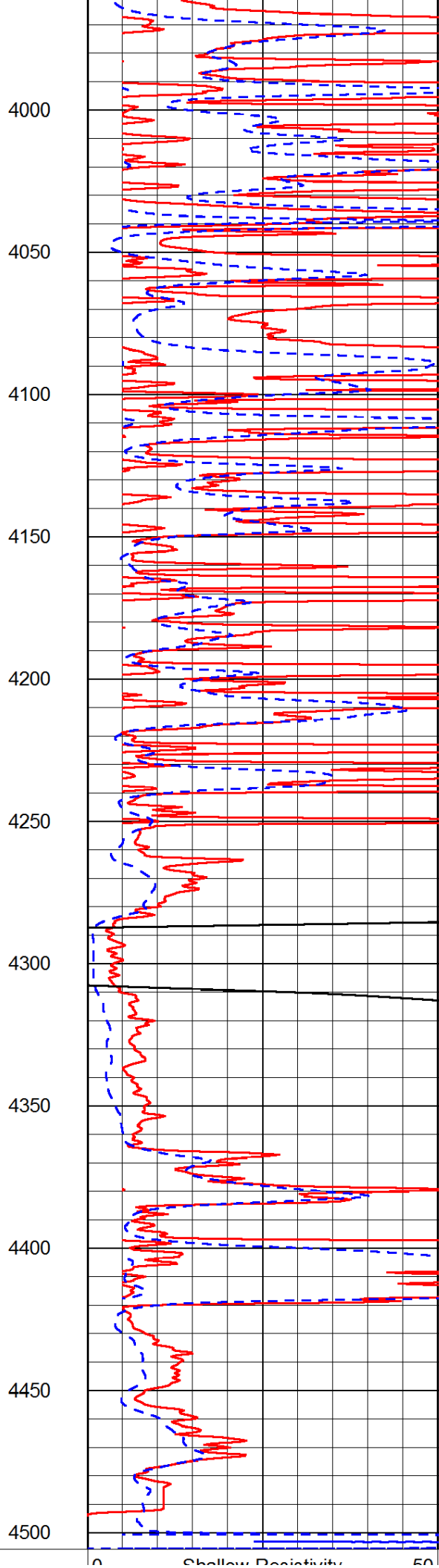
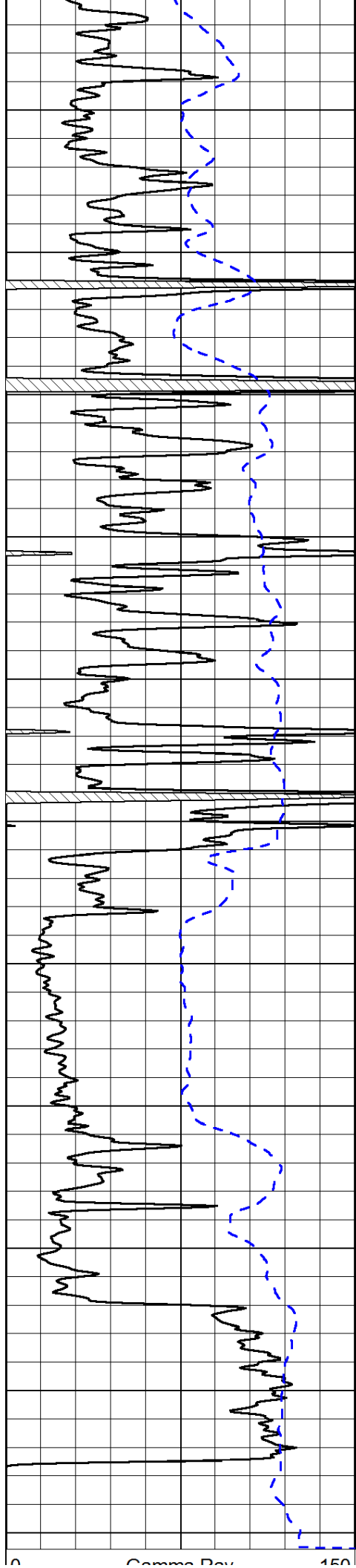












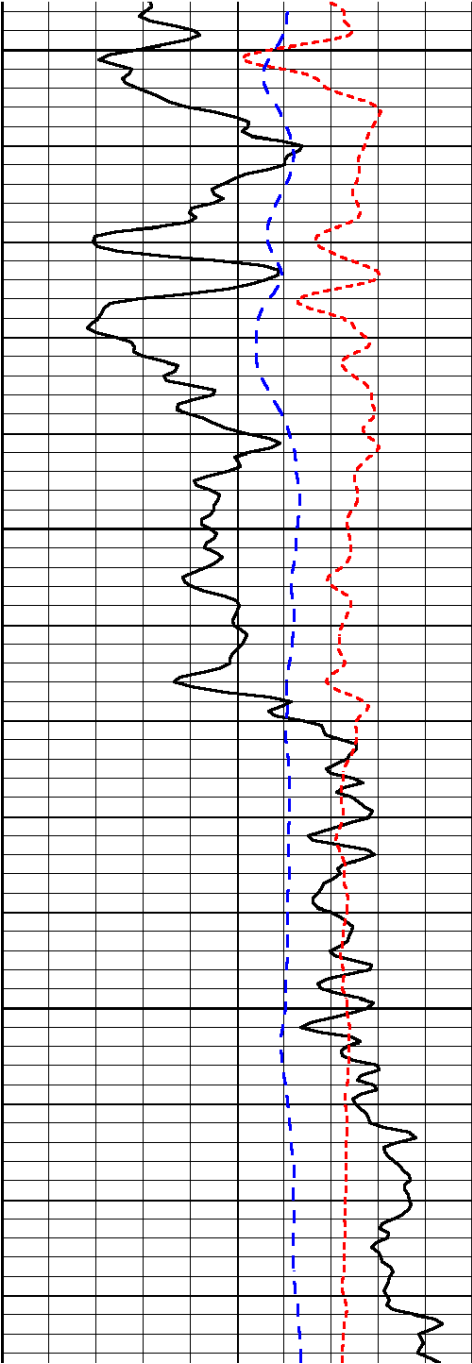
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-200	SP (mV)	0

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

Database File:	c:\warrior\data\indian oil_swartz-indian #1\indian_033114hd.db
Dataset Pathname:	dil/indstck
Presentation Format:	dil
Dataset Creation:	Mon Mar 31 23:30:34 2014
Charted by:	Depth in Feet scaled 1:240

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-200	SP (mV)	0
-160	RxoRt	40

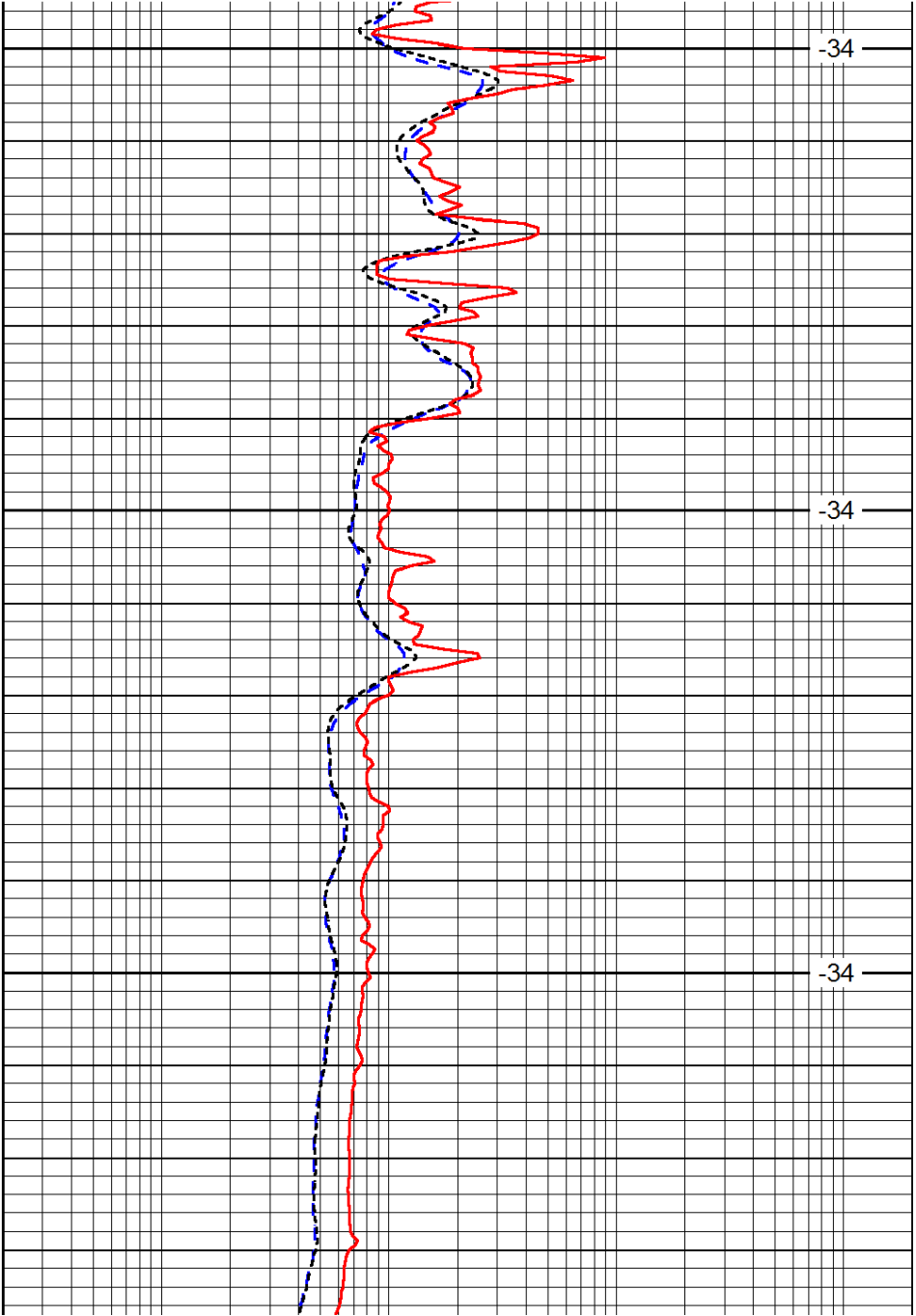
0.2	Deep Resistivity	2000
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0.2	Shallow Resistivity	2000
15000	Line Tension	0
LSPD		



3100

3150

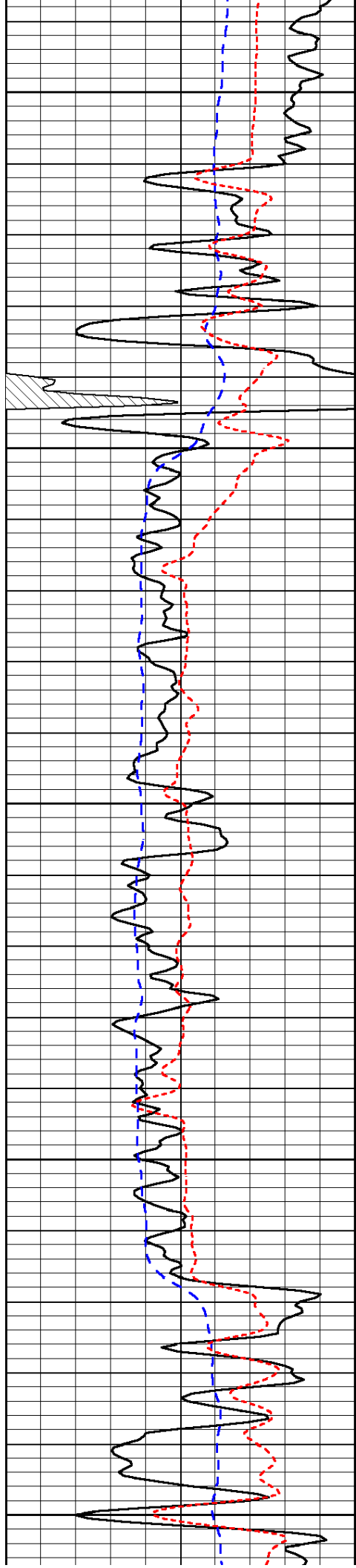
3200



-34

-34

-34



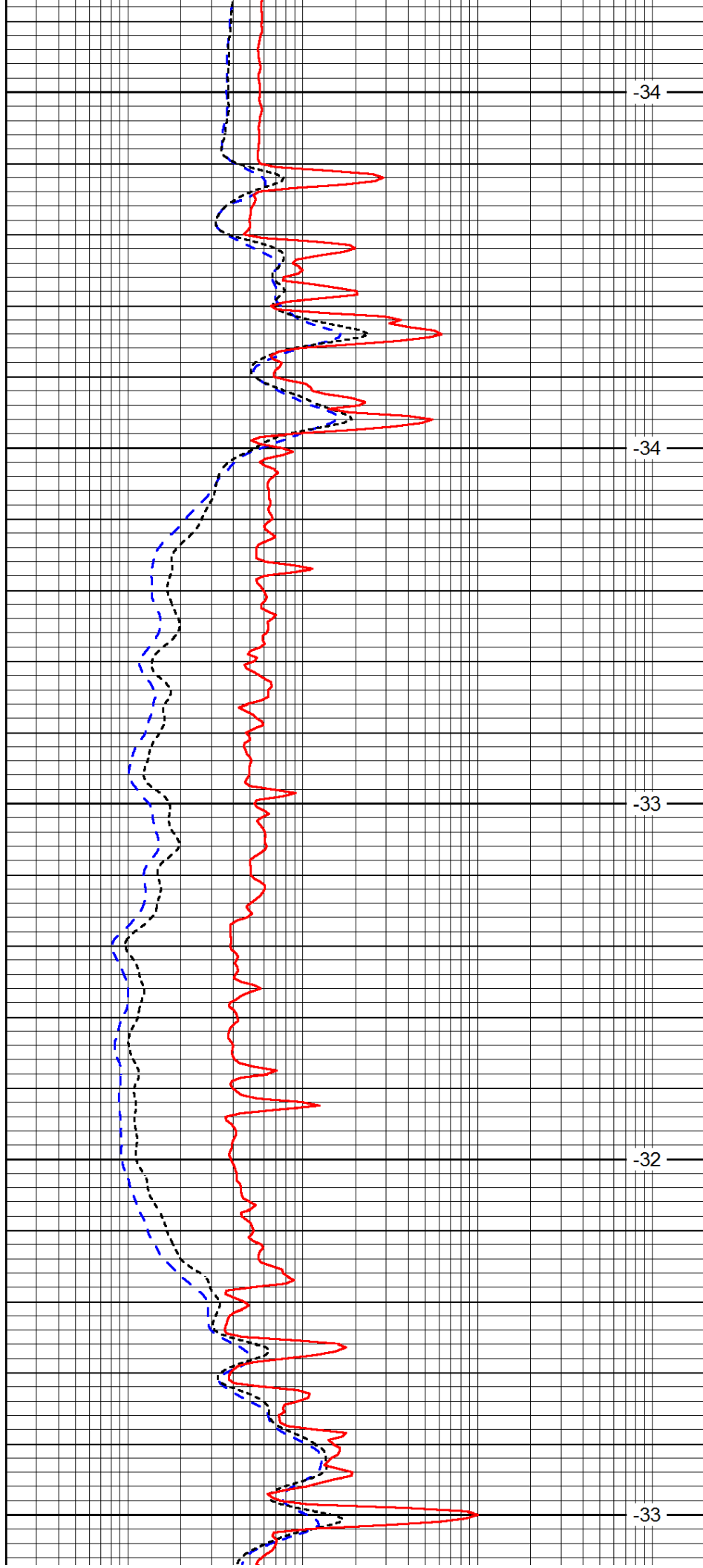
3250

3300

3350

3400

3450



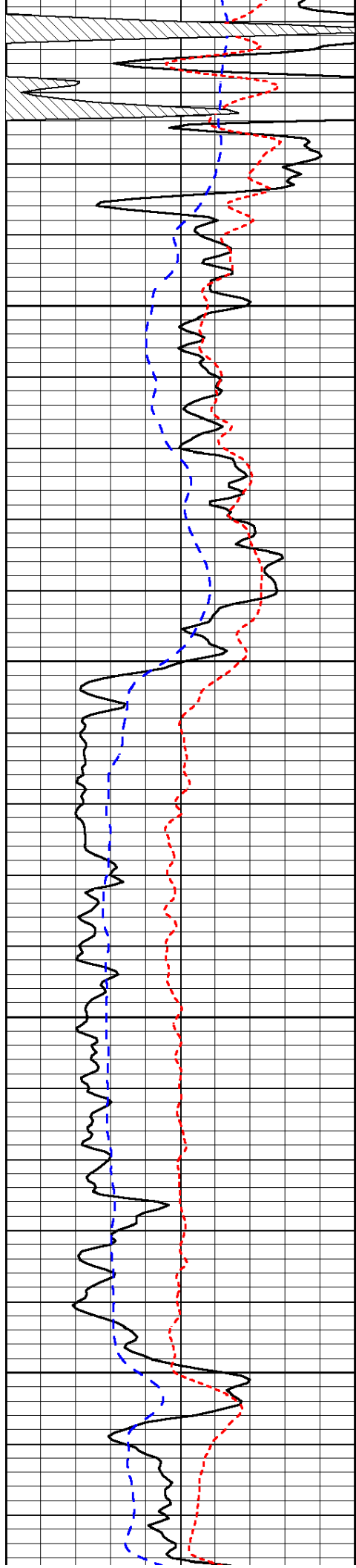
-34

-34

-33

-32

-33



3500

3550

3600

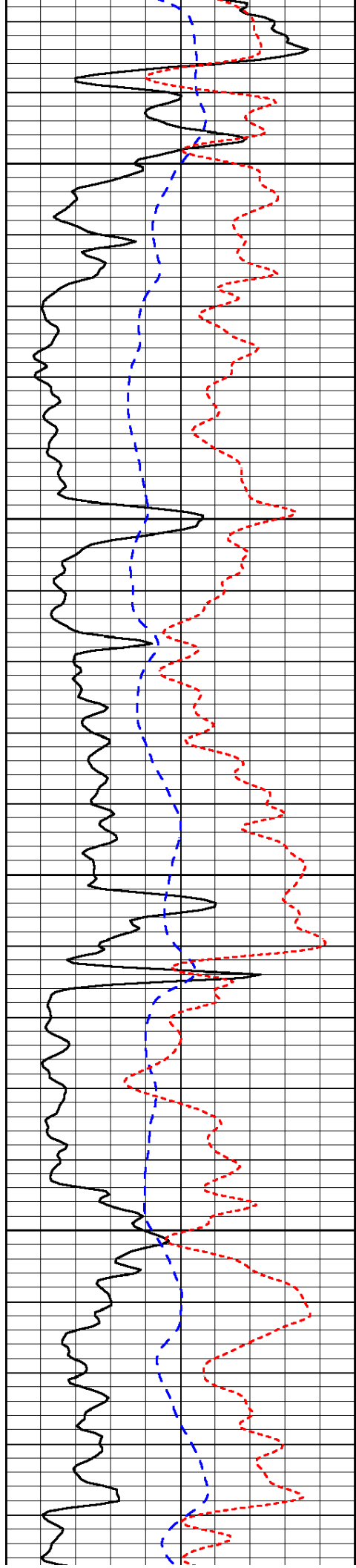
3650

-32

-33

-32

-33

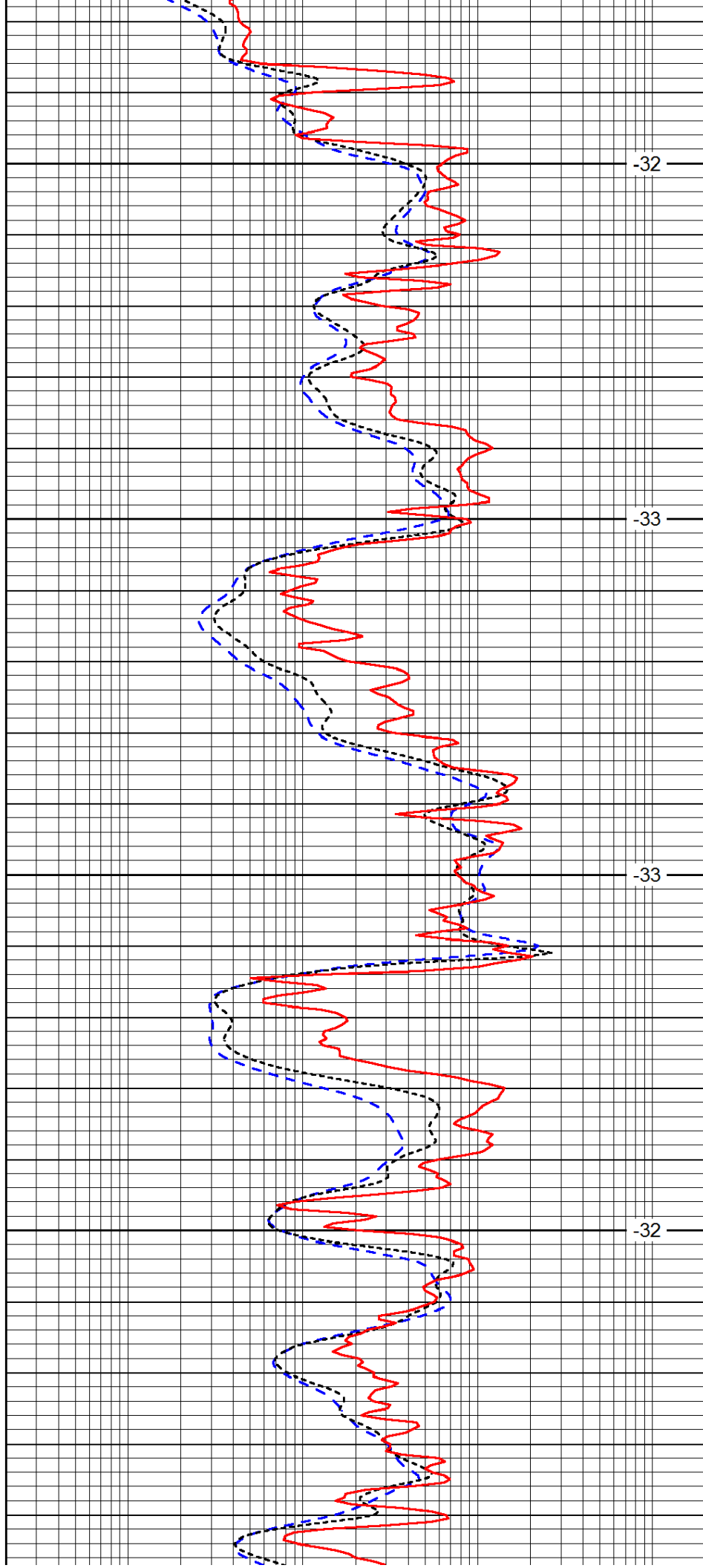


3700

3750

3800

3850

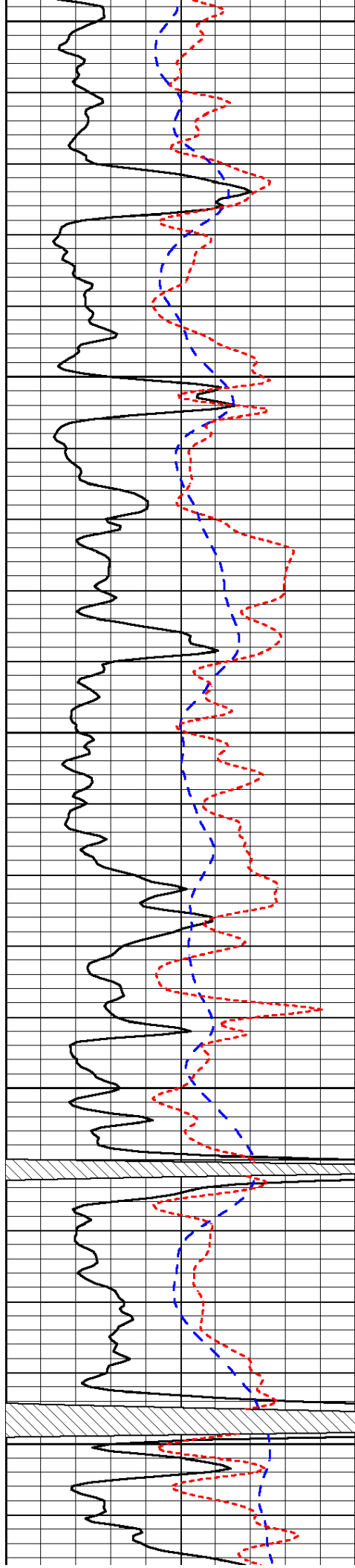


-32

-33

-33

-32



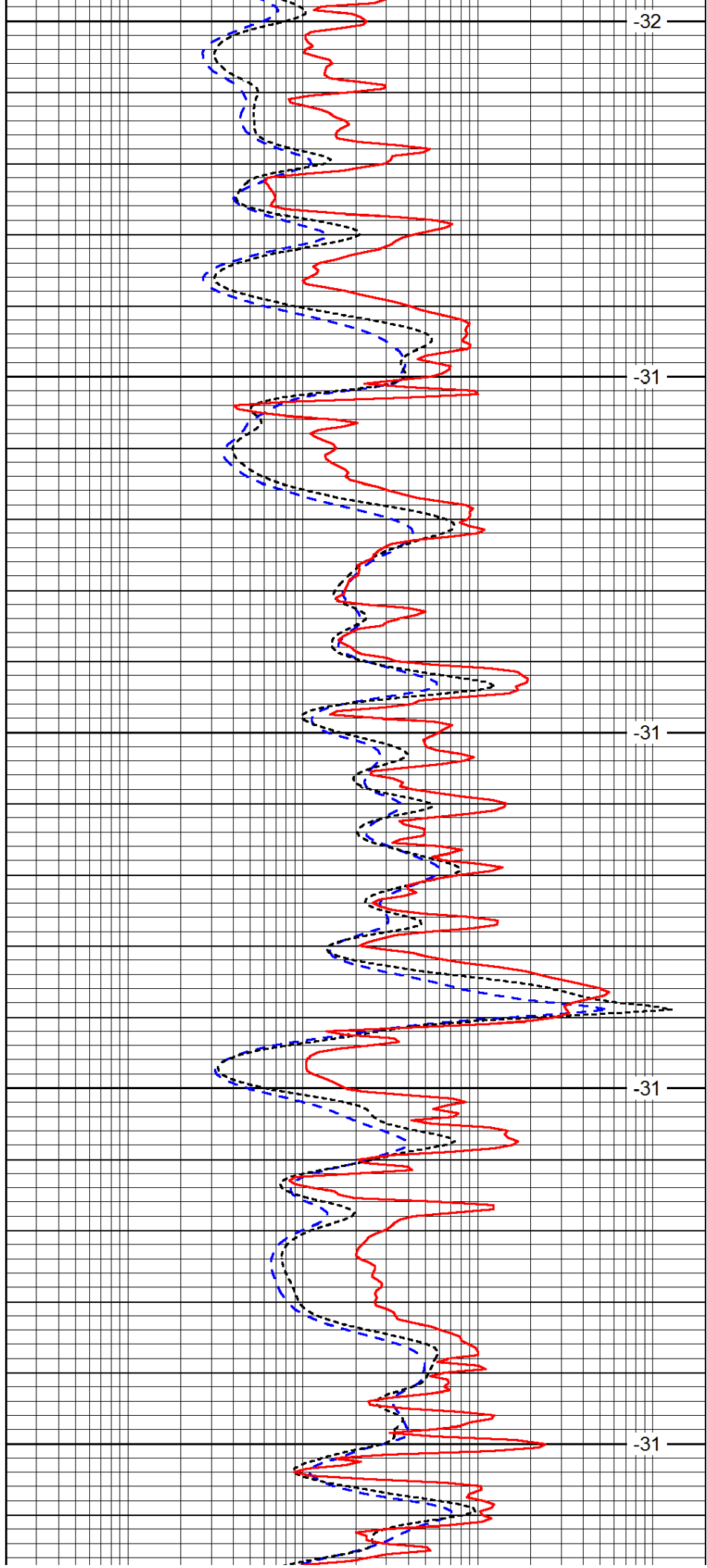
3900

3950

4000

4050

4100



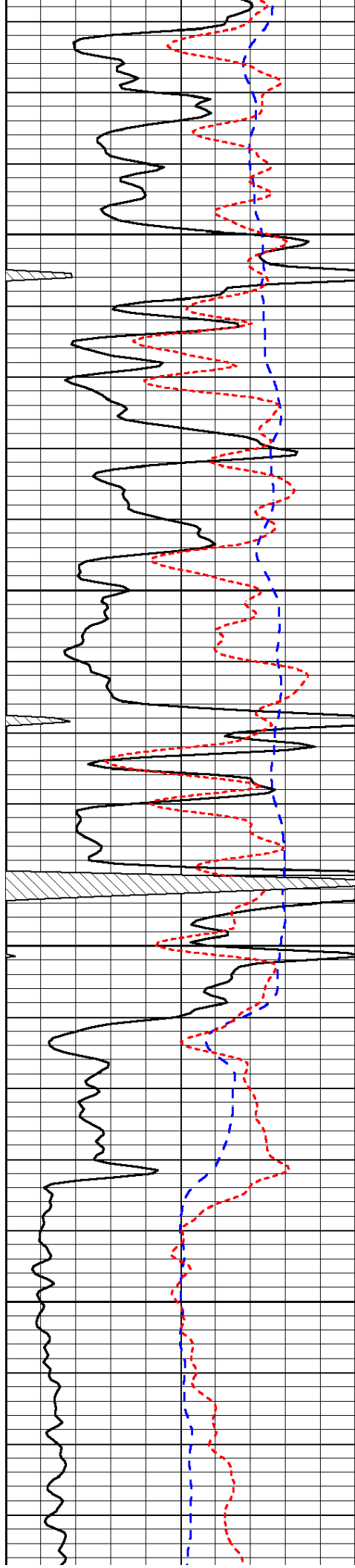
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-31

-31

-31

-31

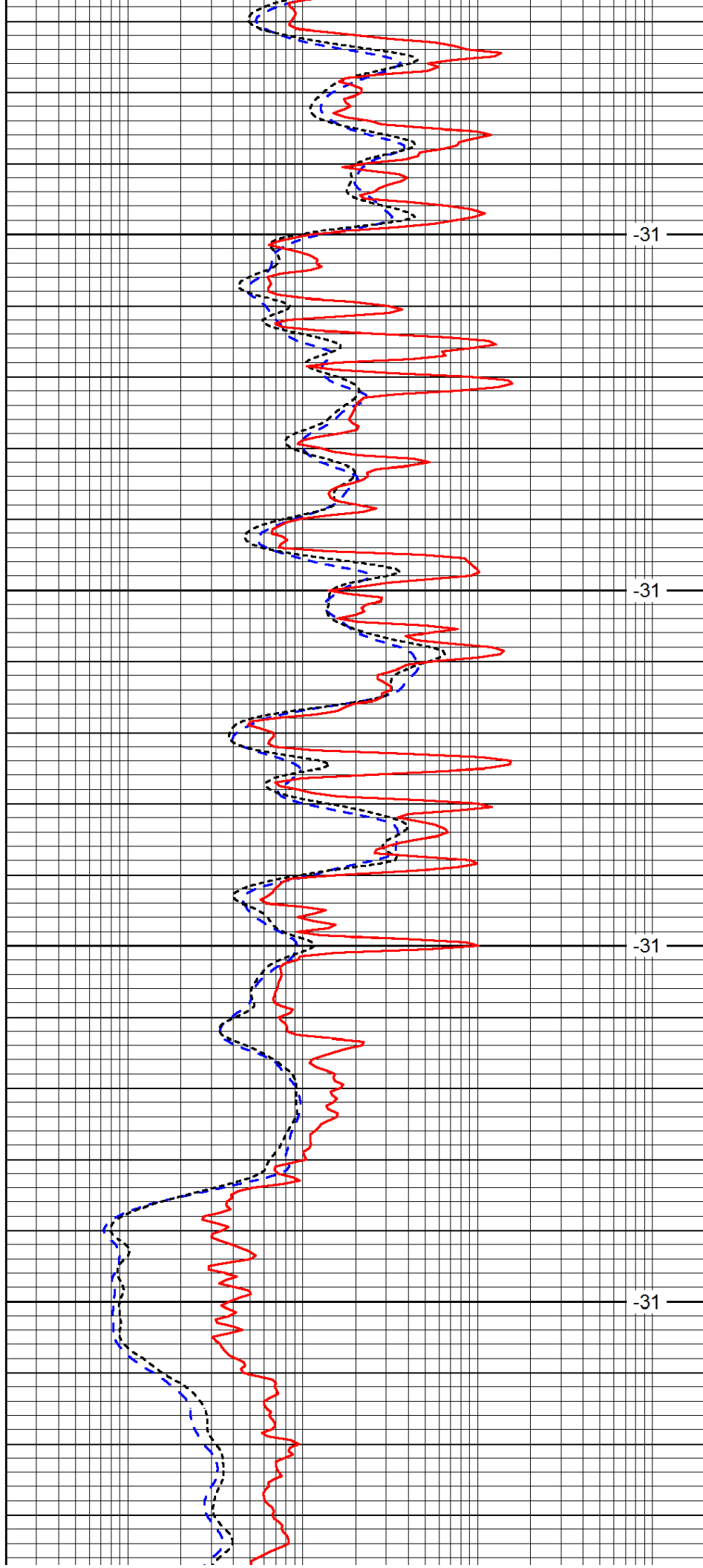


4150

4200

4250

4300

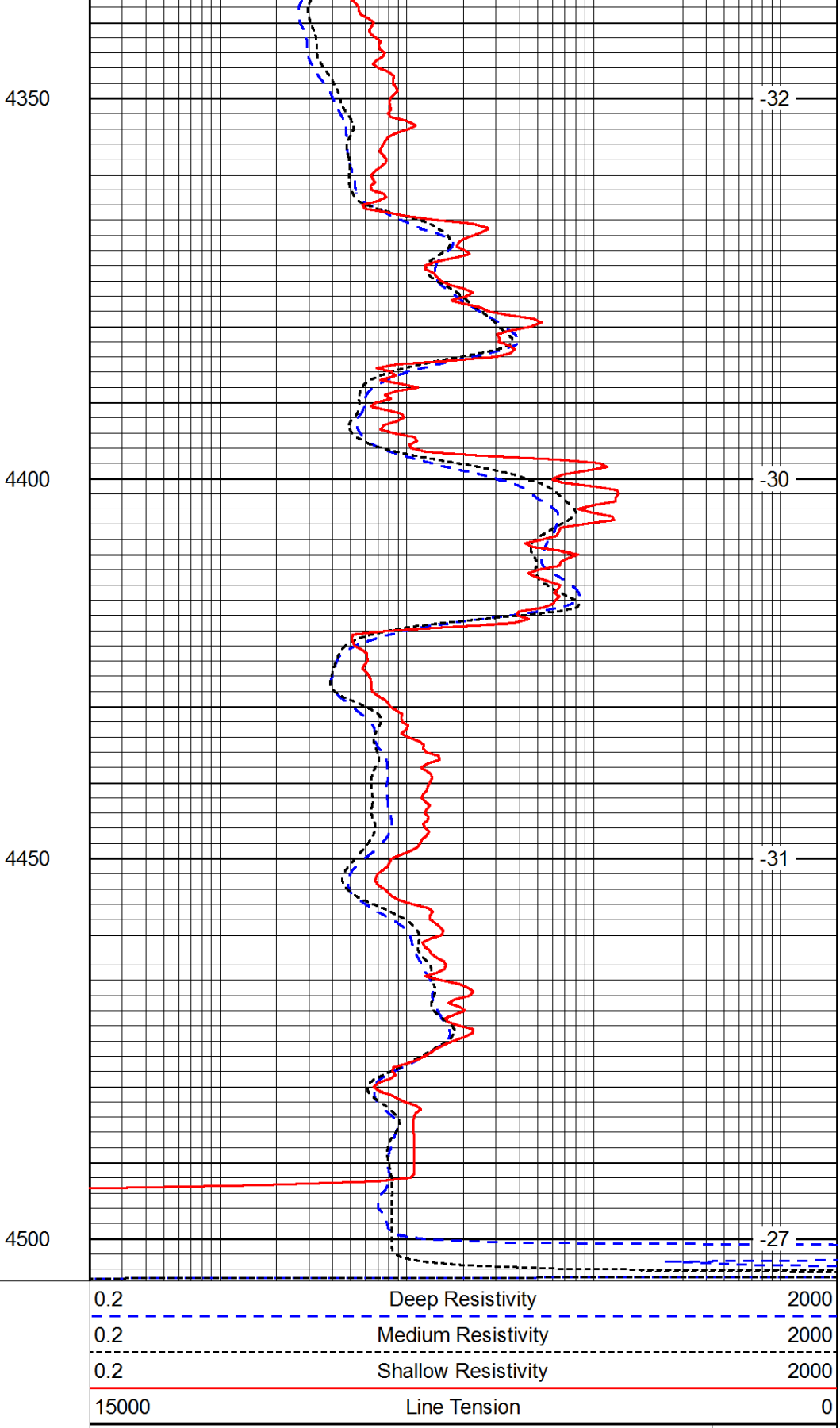
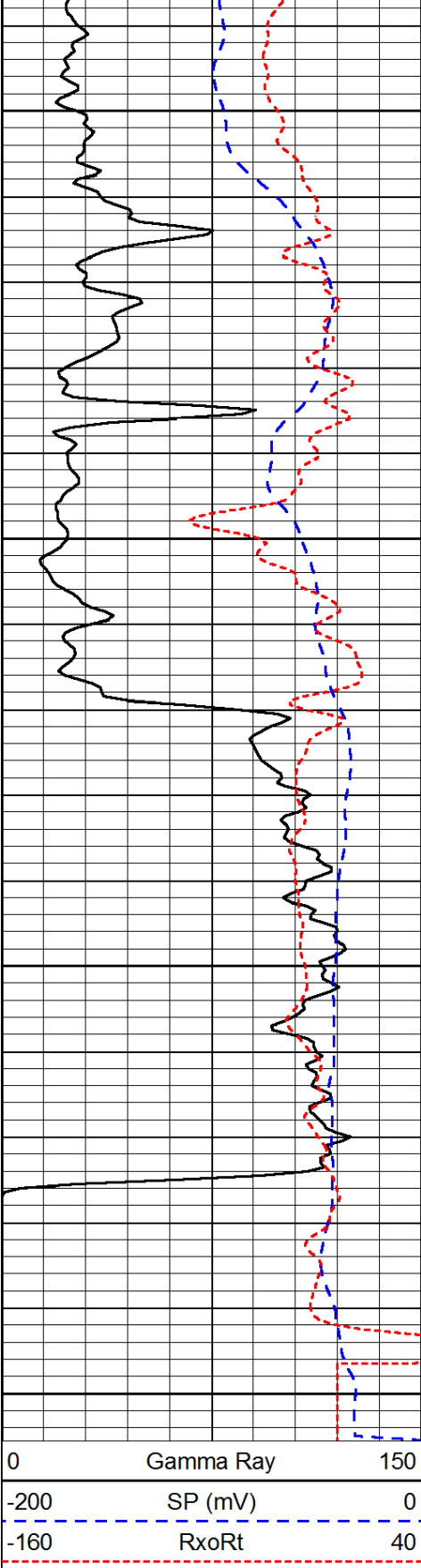


-31

-31

-31

-31



LSPD