



PIONEER

Pioneer Energy Services

Dual Induction Log

Company **Pickrell Drilling Company, Inc.**

Well **Starrett B #4**

Field **Start**

County **Ness**

State

Kansas

15-135-25854-00-00

Location **2310' FNL & 1320' FEL**

Sec: **12** Twp: **17S** Rge: **21W**

Permanent Datum **Ground Level** Elevation **2165**
Log Measured From **Kelly Bushing** **6** Ft. Above Perm. Datum
Drilling Measured From **Kelly Bushing**

Elevation

K.B. **2171**
D.F. **2165**
G.L. **2165**

Other Services
CNL/CDL

Date **3/11/2015**

Run Number **One**

Depth Driller **4140**

Depth Logger **4139**

Bottom Logged Interval **4138**

Top Log Interval **400**

Casing Driller **8.625 @ 407**

Casing Logger **406**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity, ppm CL **3900**

Density / Viscosity **9.35** **52**

pH / Fluid Loss **10.0** **8.8**

Source of Sample **Flowline**

Rm @ Meas. Temp **0.71 @ 68**

Rmf @ Meas. Temp **0.53 @ 68**

Rmc @ Meas. Temp **0.96 @ 68**

Source of Rmf / Rmc **Charts**

Rm @ BHT **0.41 @ 117**

Operating Rig Time **2 Hours**

Max Rec. Temp. F **117**

Equipment Number **15**

Location **Hays**

Recorded By **D.Kerr**

Witnessed By **Aaron Young**

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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
785.625.3858

McCracken KS, 3/4 West on Ash Ave.,
1/4 North, 1/4 West, North Into

Database File **pickrell_starret_b_4hd.db**

Dataset Pathname **DIL/pick2**

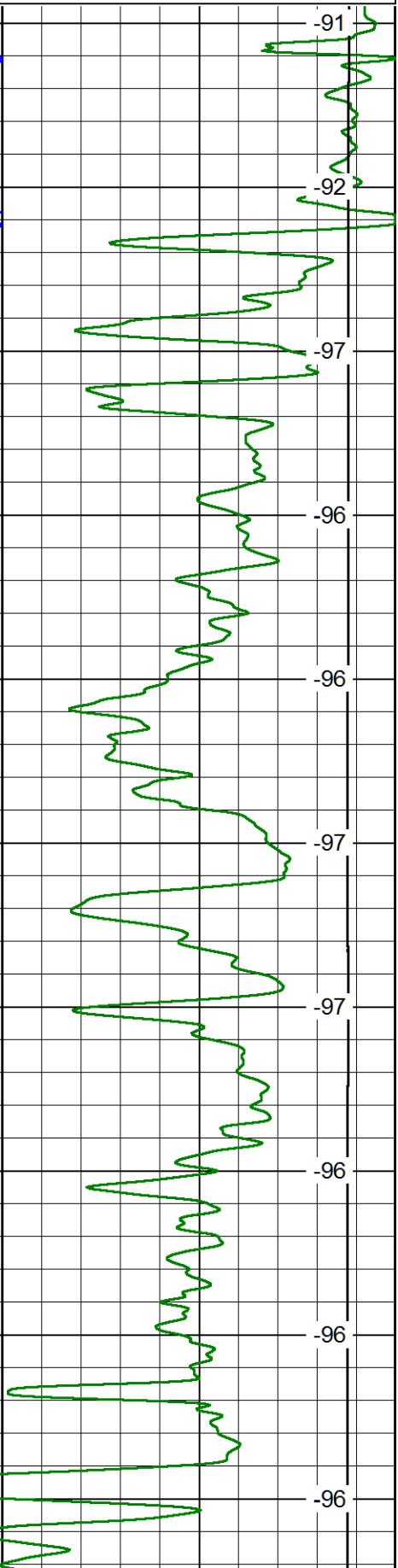
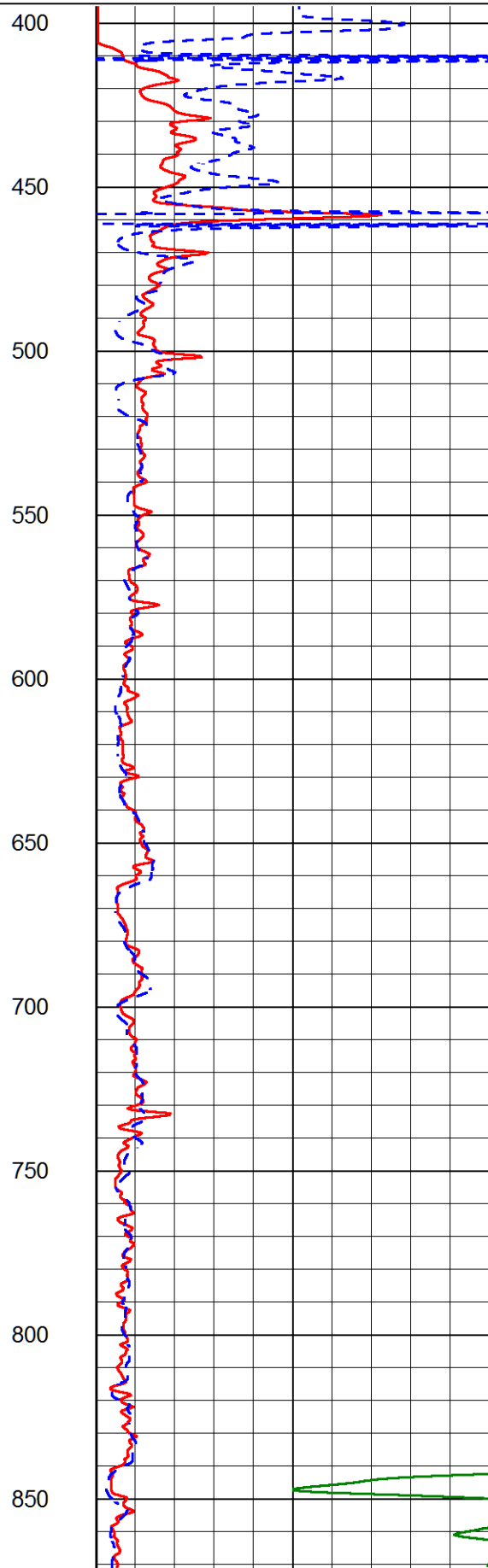
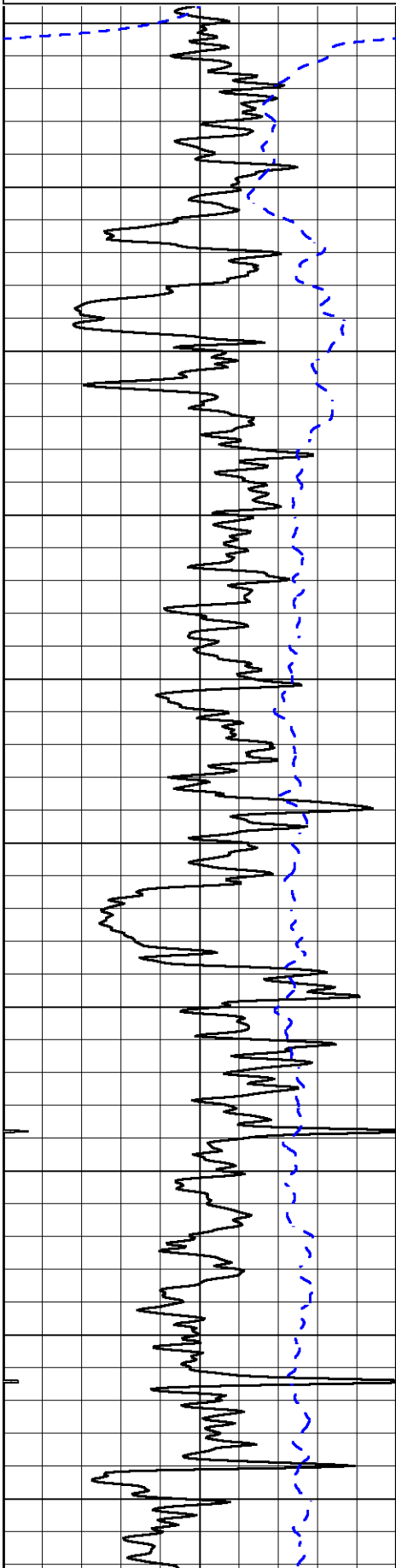
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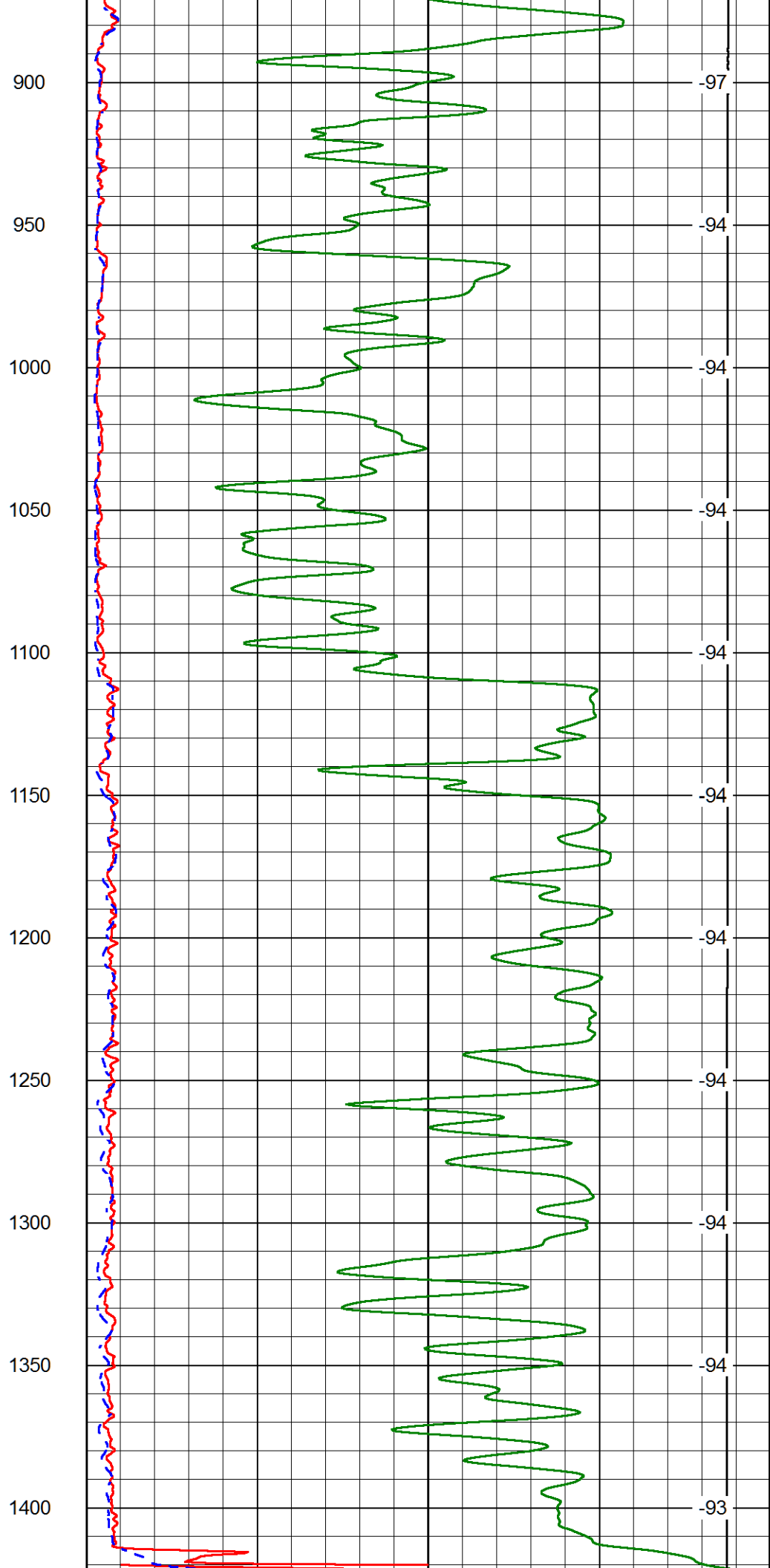
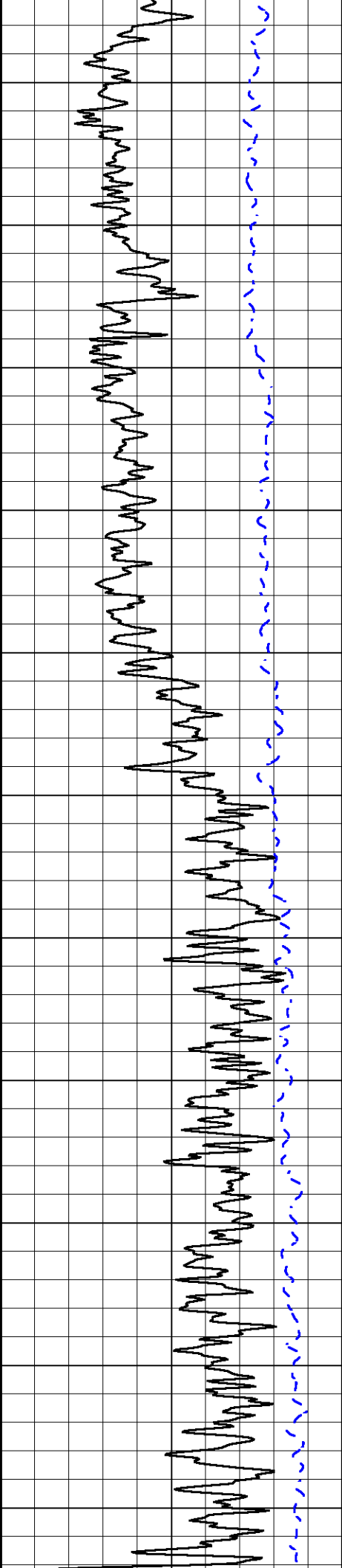
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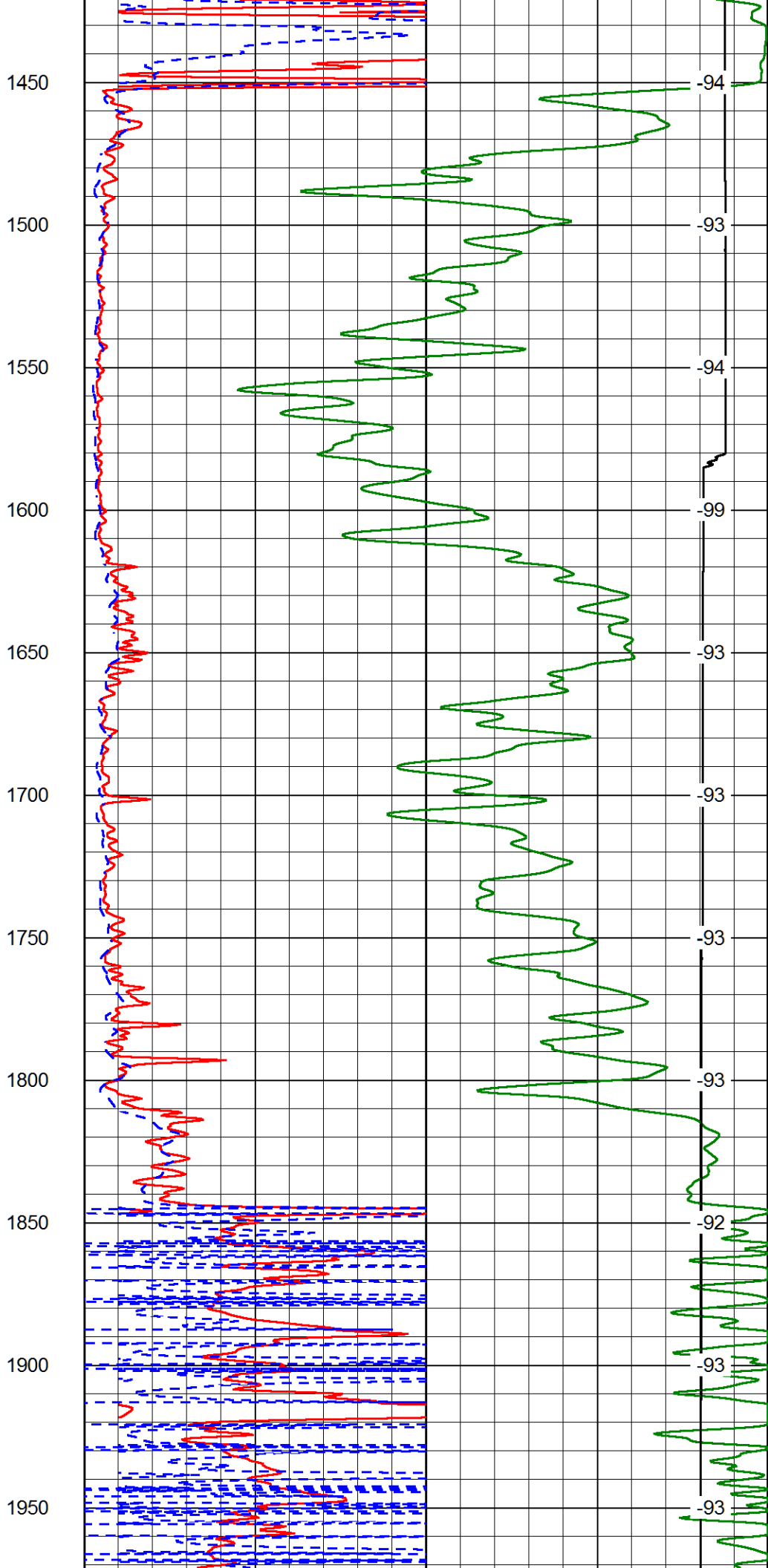
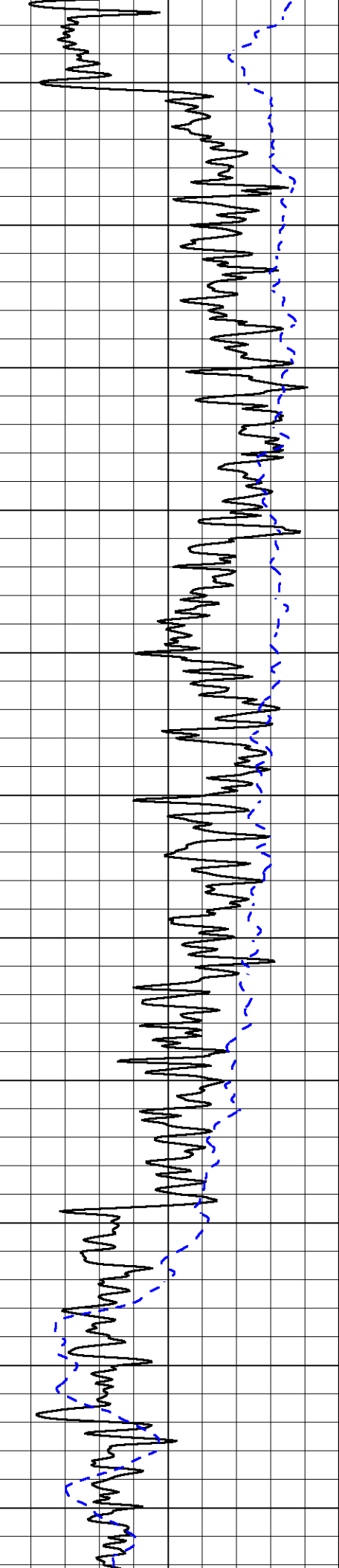
Charted by **Depth in Feet scaled 1:600**

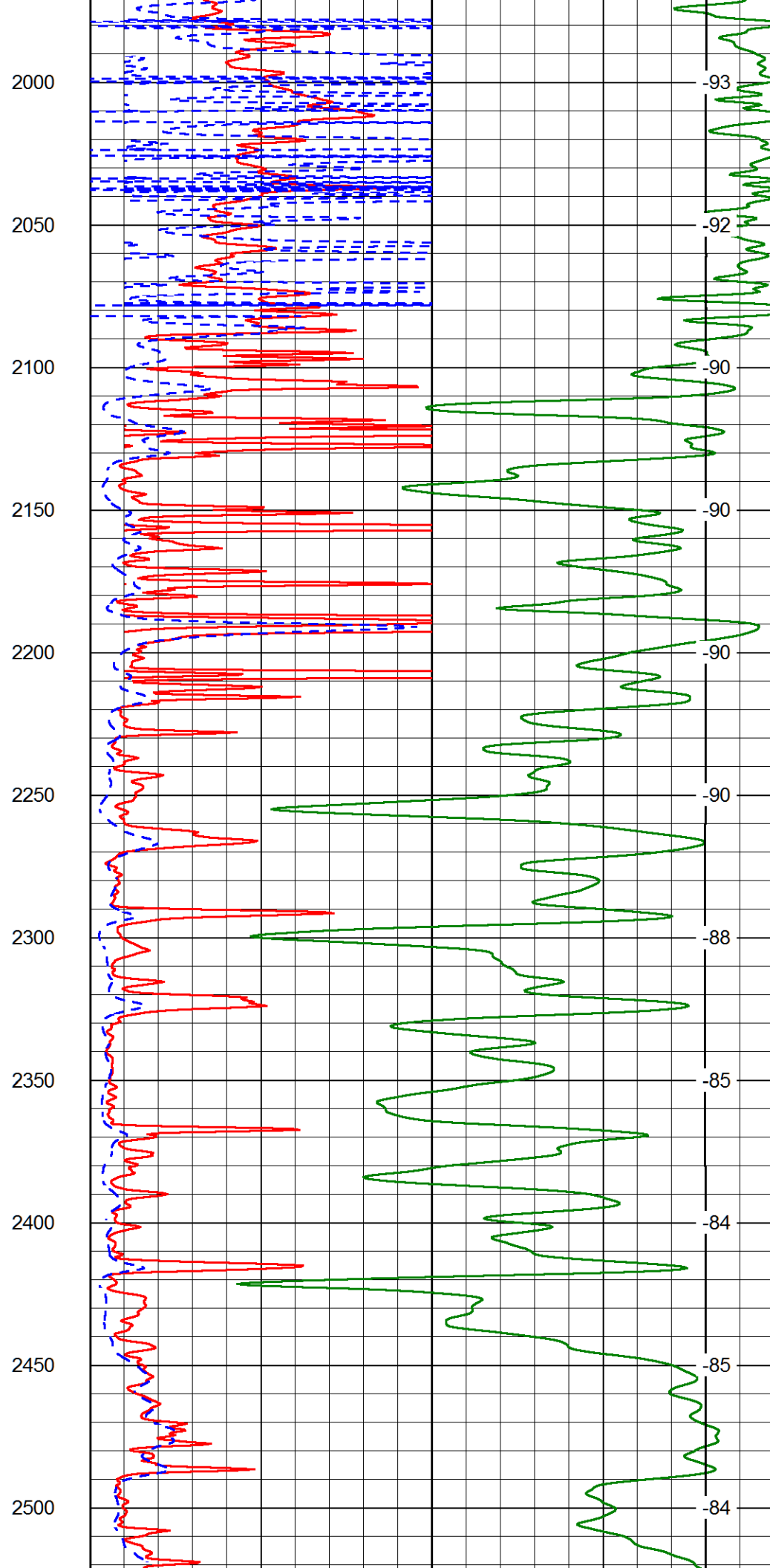
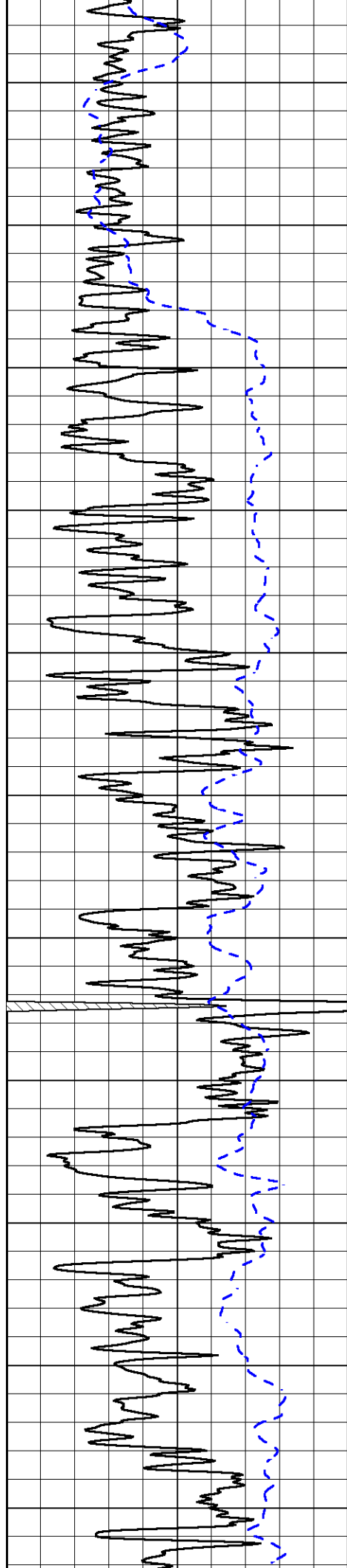
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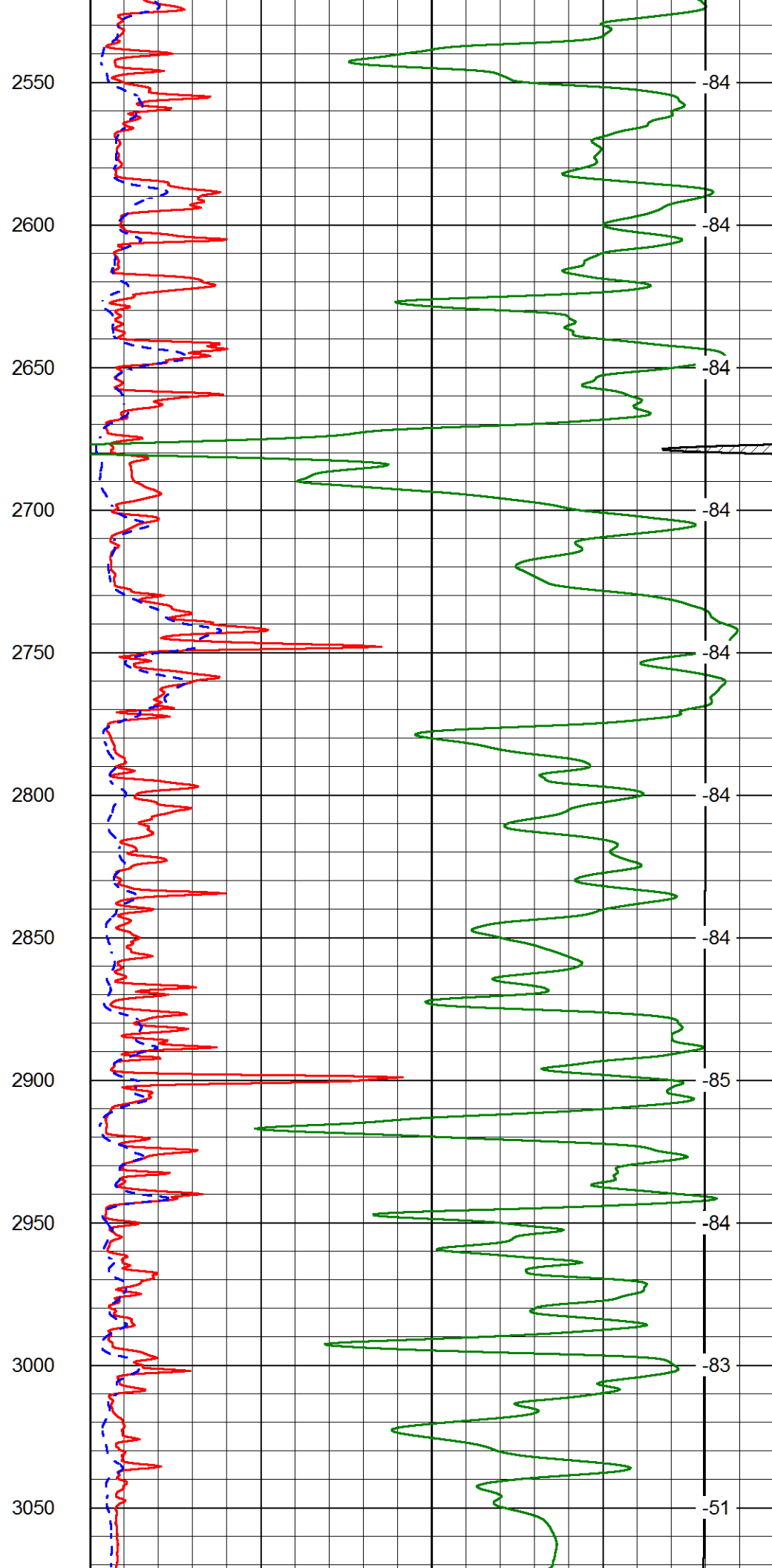
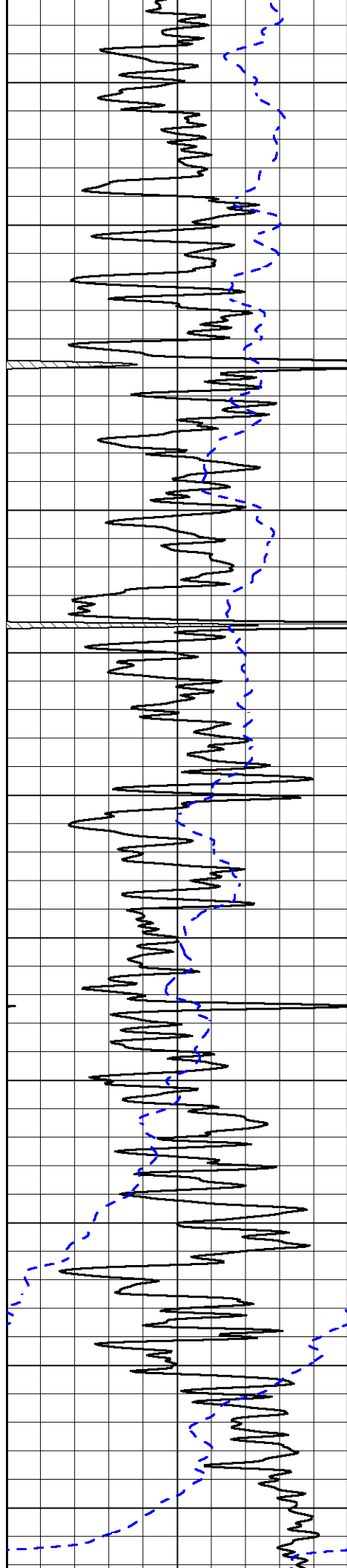
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15000	Line Tension	0
0	Shallow Resistivity	50
0	Deep Resistivity	50
50	Shallow Resistivity	500
50	Deep Resistivity	500

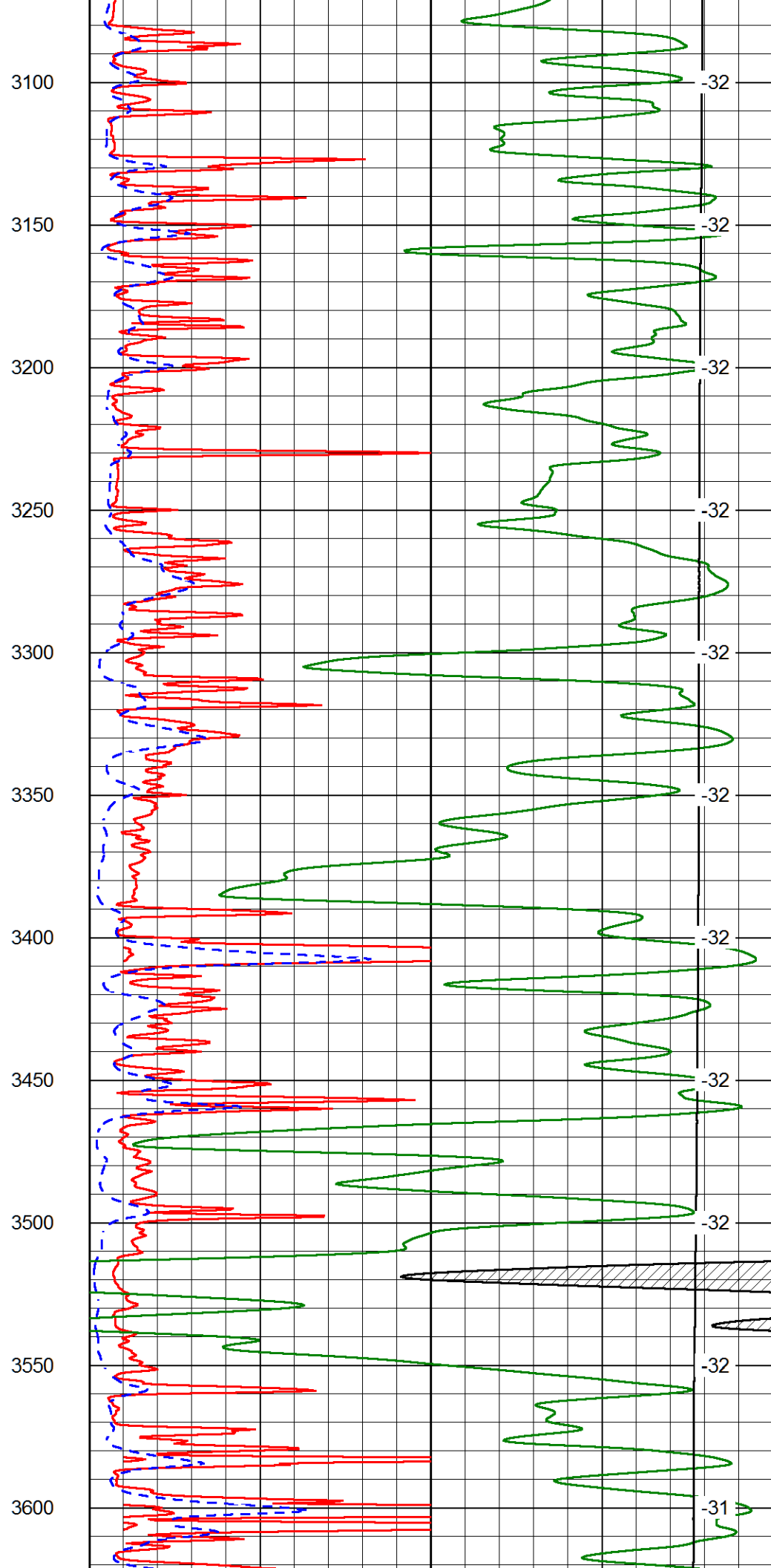
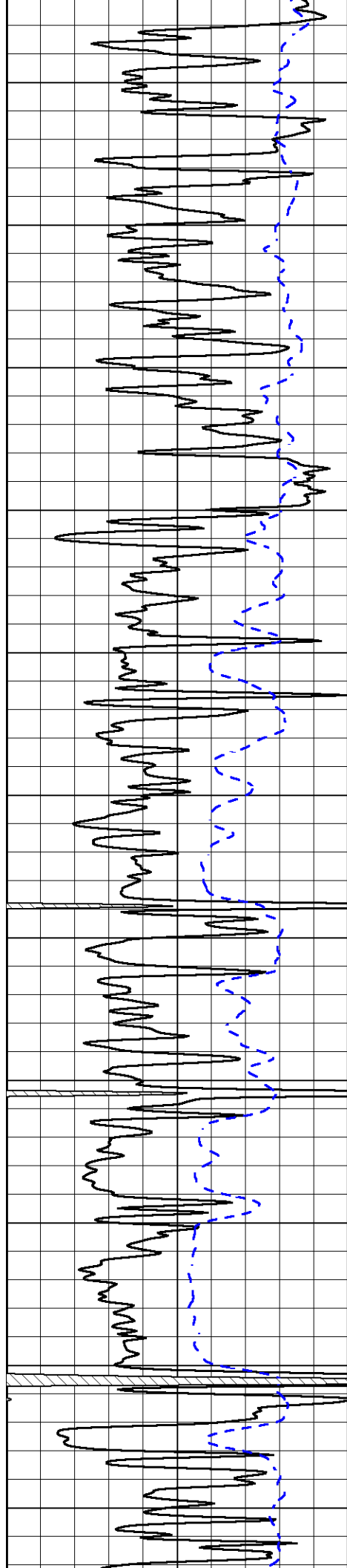


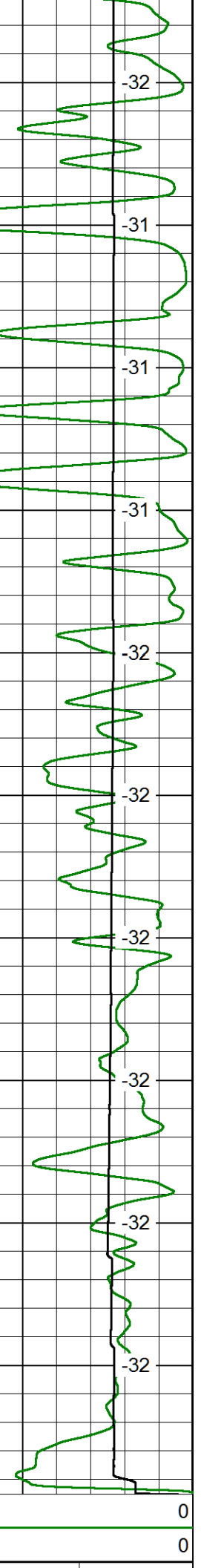
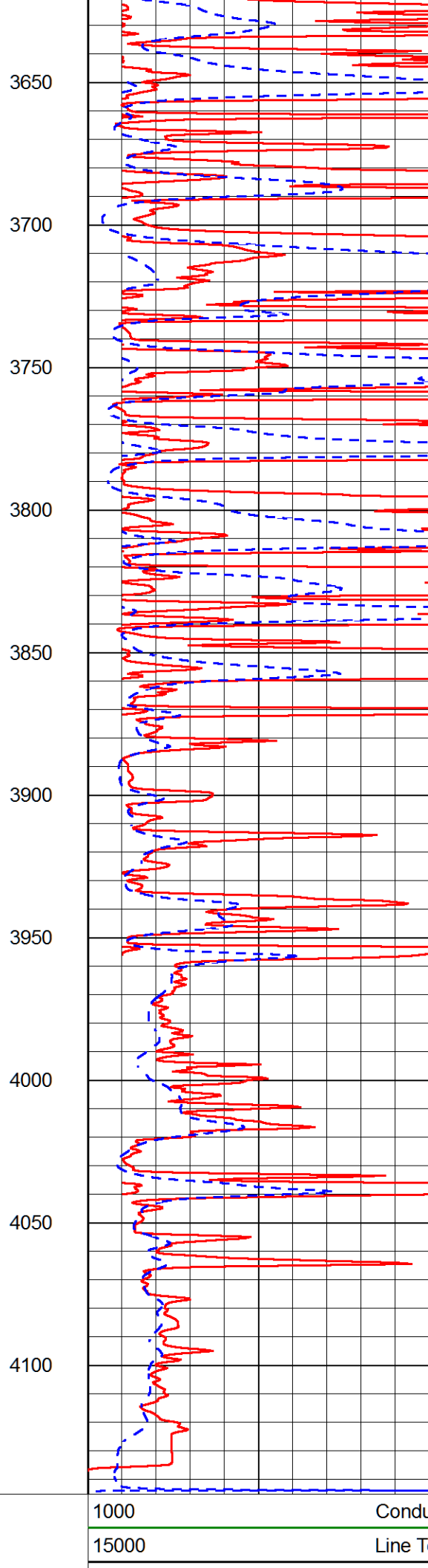
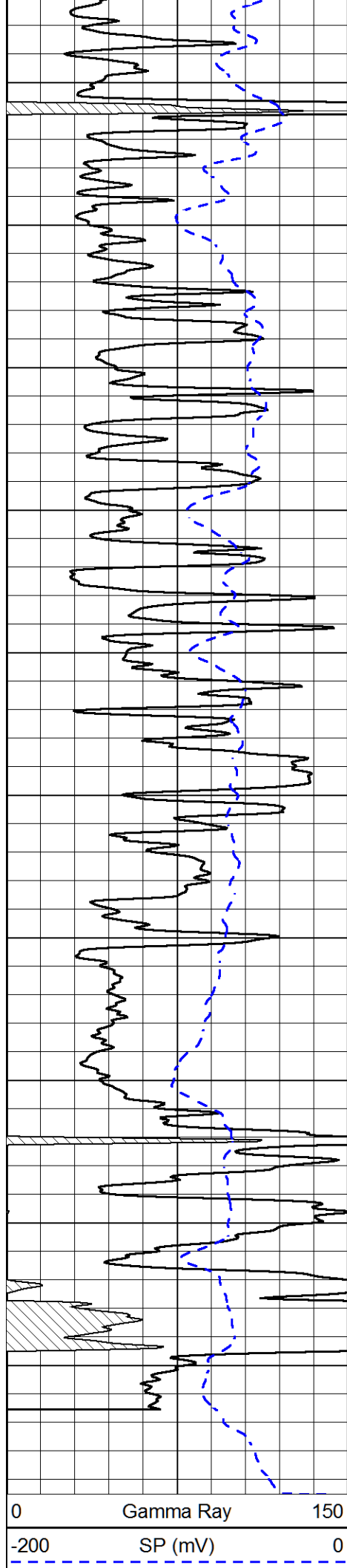








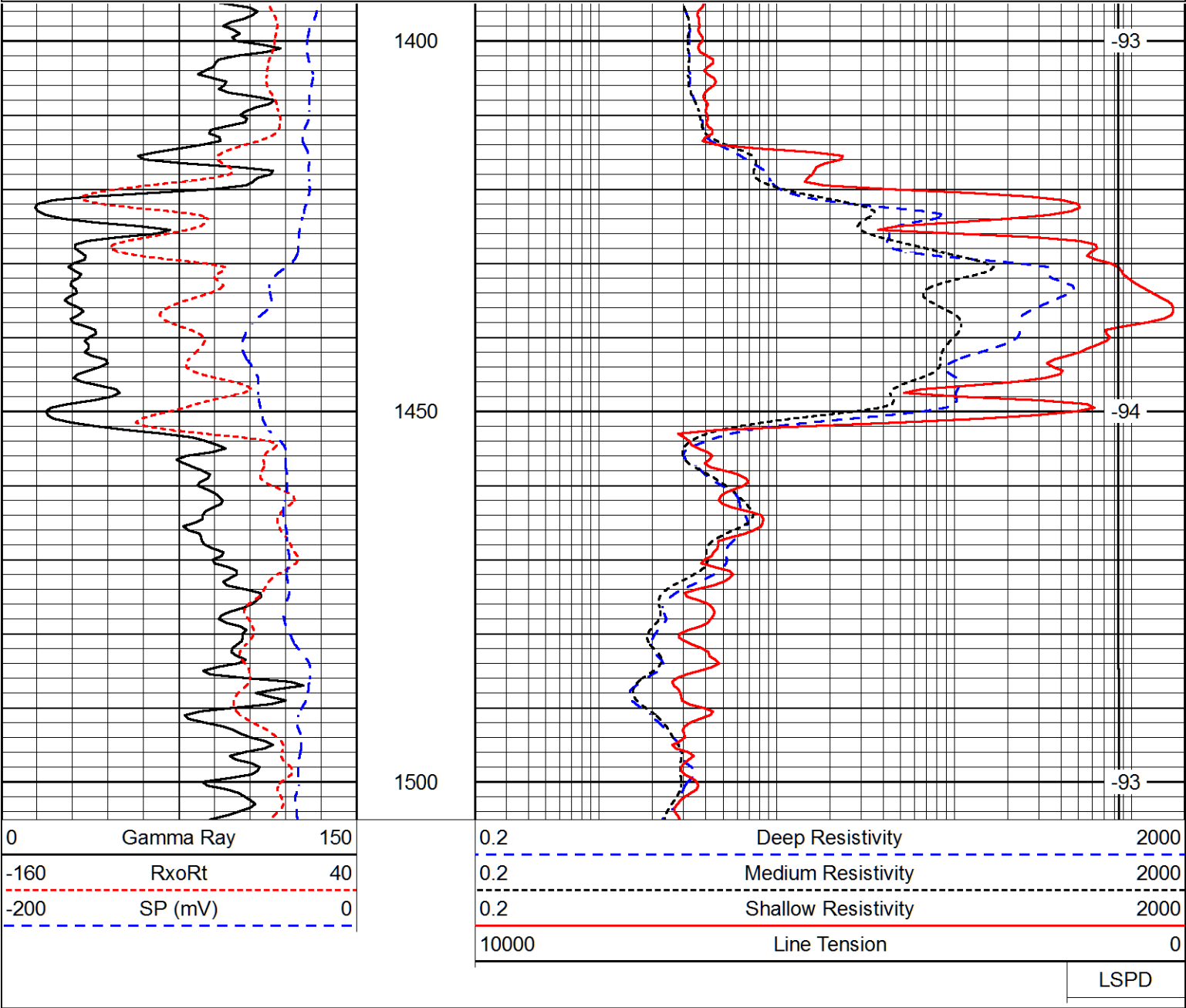




0	Shallow Resistivity	50	LSPD
0	Deep Resistivity	50	
50	Shallow Resistivity	500	
50	Deep Resistivity	500	

Database File	pickrell_starret_b_4hd.db		
Dataset Pathname	DIL/pick2		
Presentation Format	dil		
Dataset Creation	Wed Mar 11 02:50:50 2015		
Charted by	Depth in Feet scaled 1:240		

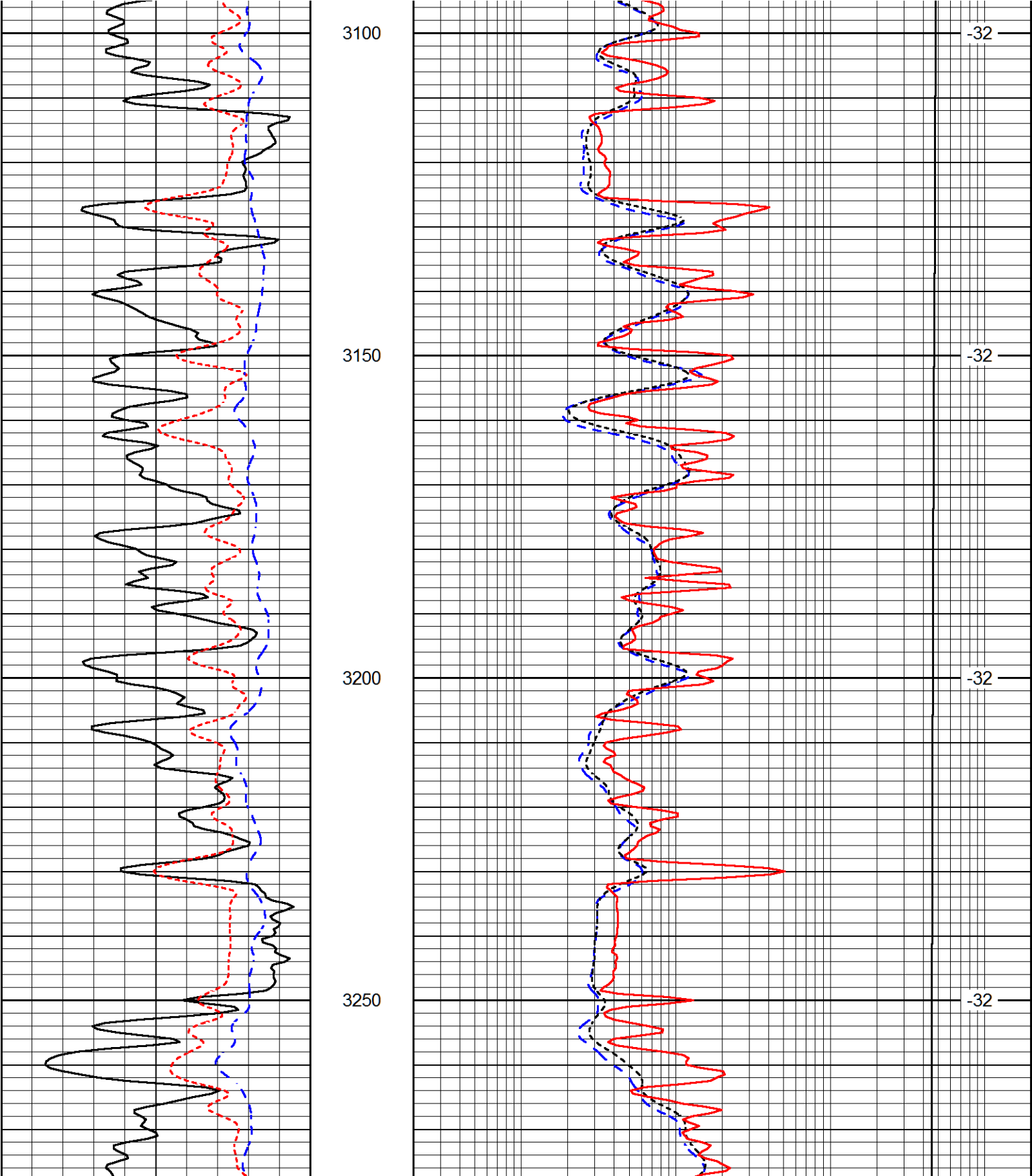
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-160	RxoRt	40	0.2	Medium Resistivity	2000
-200	SP (mV)	0	0.2	Shallow Resistivity	2000
			10000	Line Tension	0
					LSPD

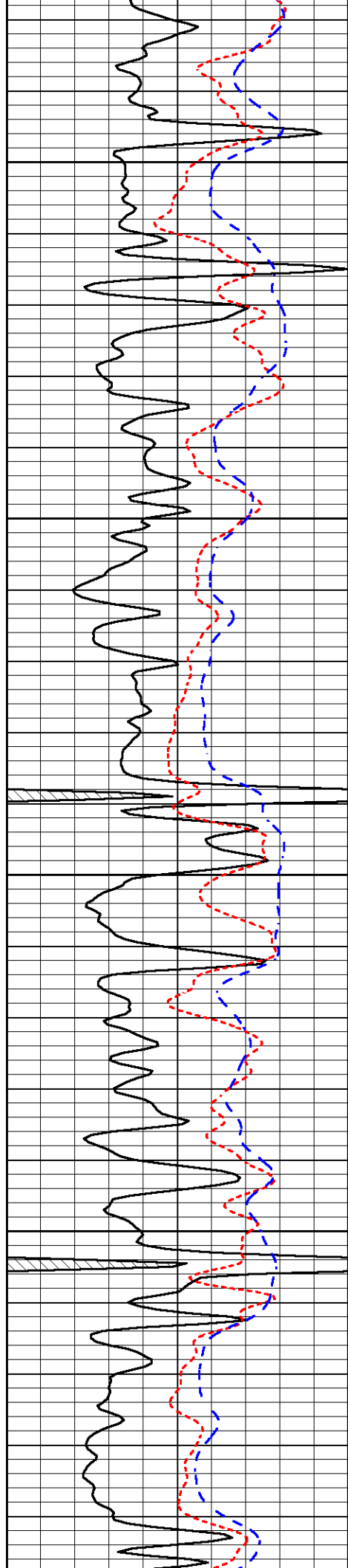


Database File	pickrell_starret_b_4hd.db		
Dataset Pathname	DIL/pick2		

0	Gamma Ray	150	0.2	Deep Resistivity	2000
-160	RxoRt	40	0.2	Medium Resistivity	2000
-200	SP (mV)	0	0.2	Shallow Resistivity	2000
			10000	Line Tension	0

LSPD



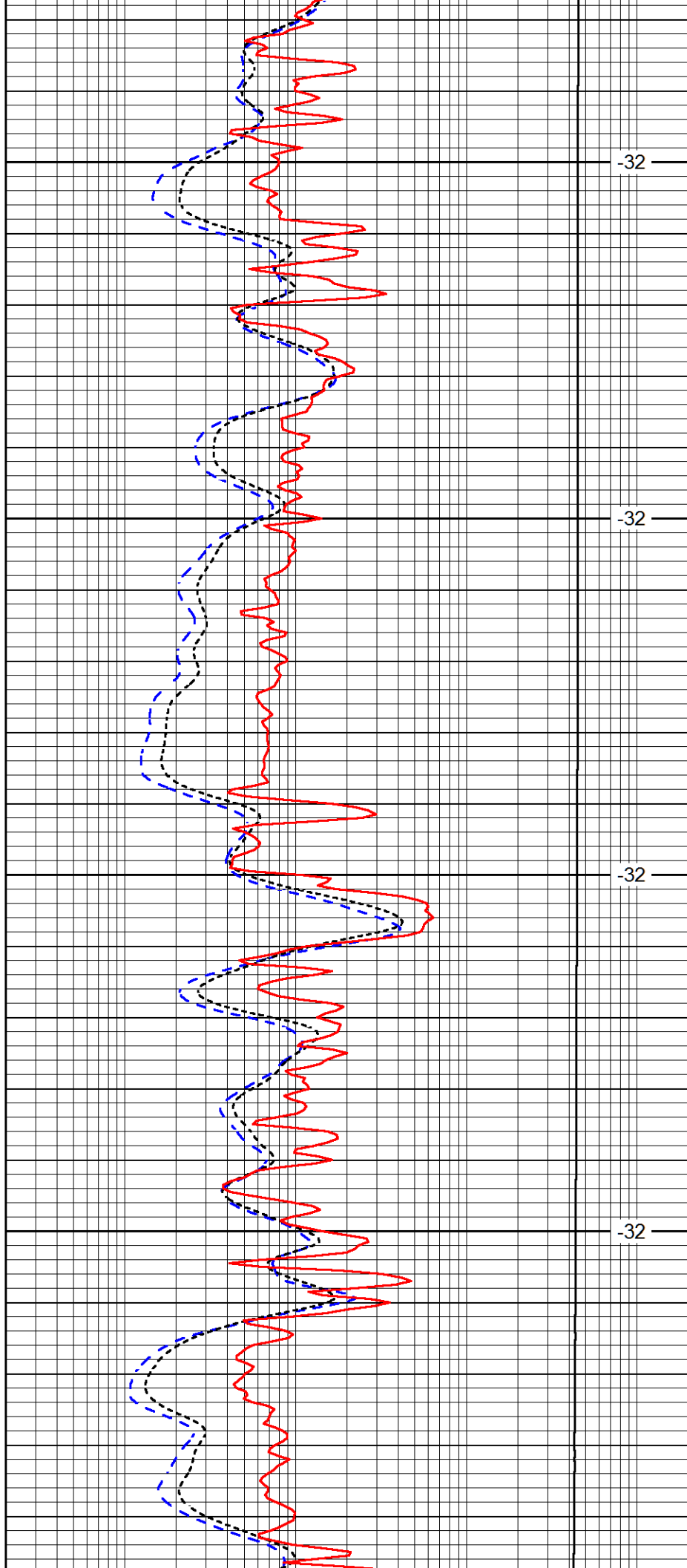


3300

3350

3400

3450

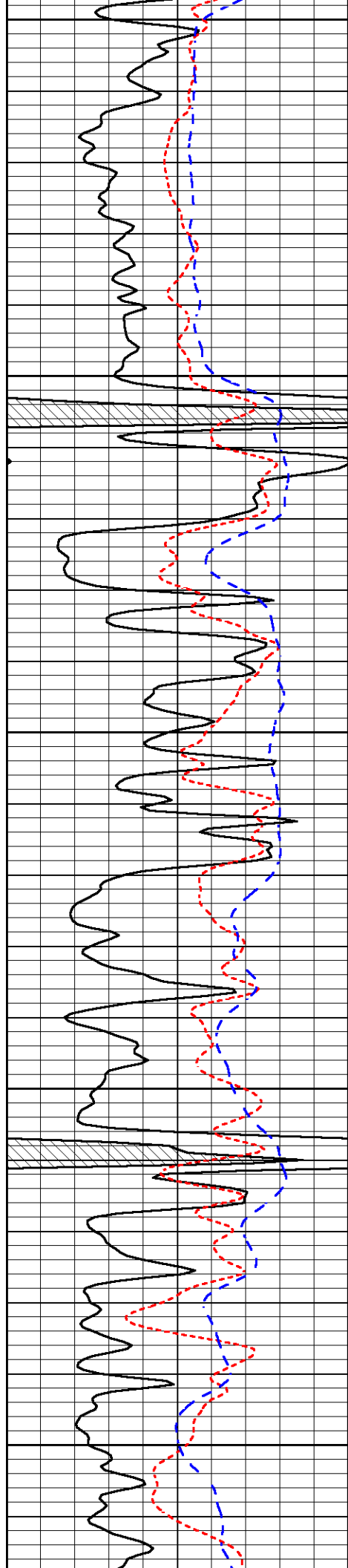


-32

-32

-32

-32



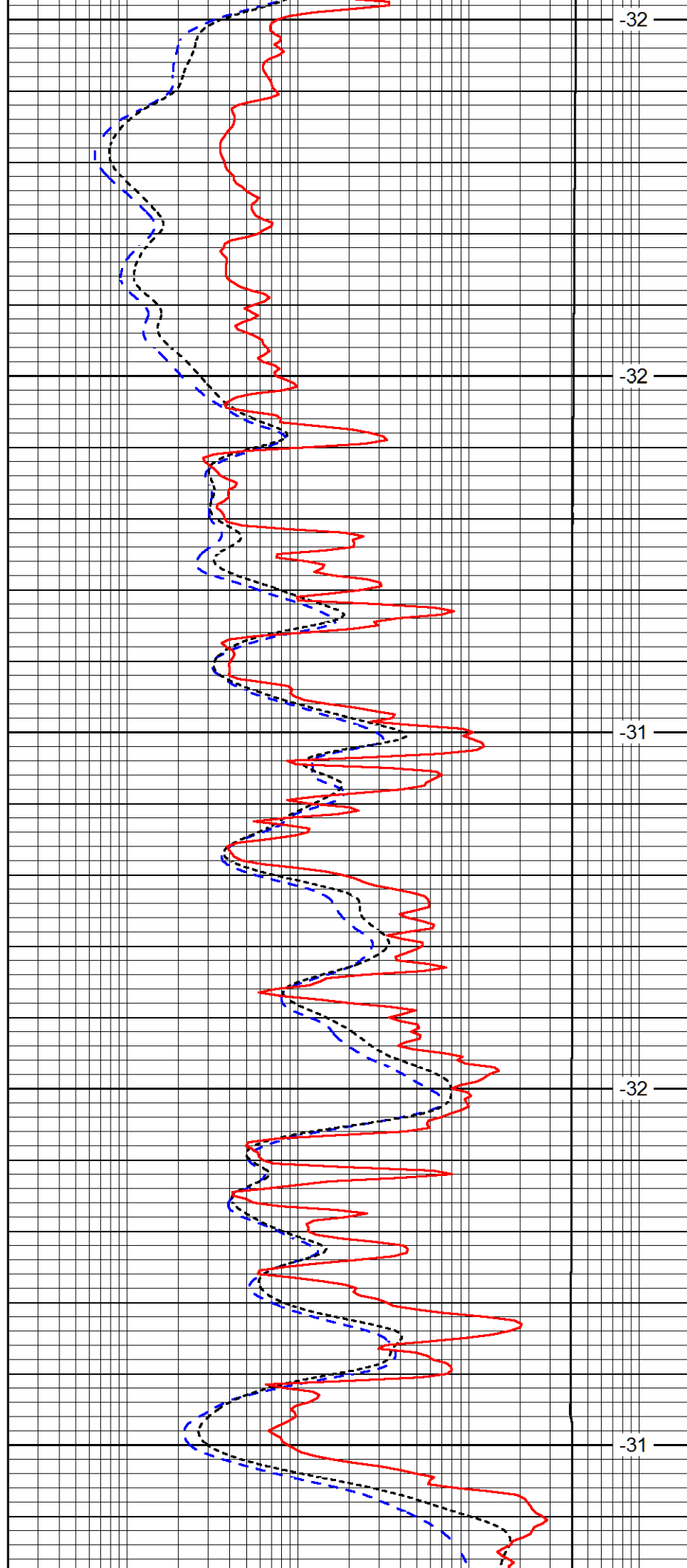
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3550

3600

3650

3700



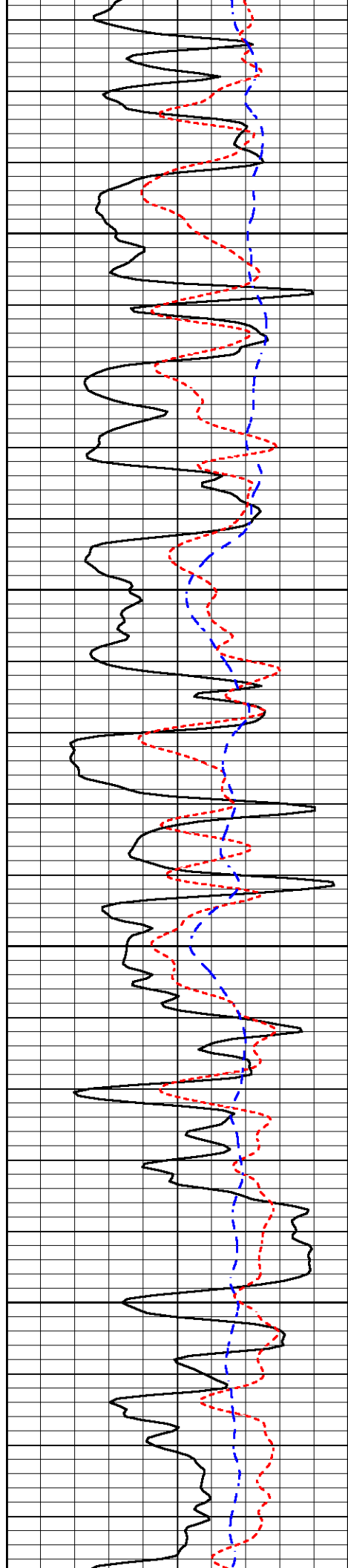
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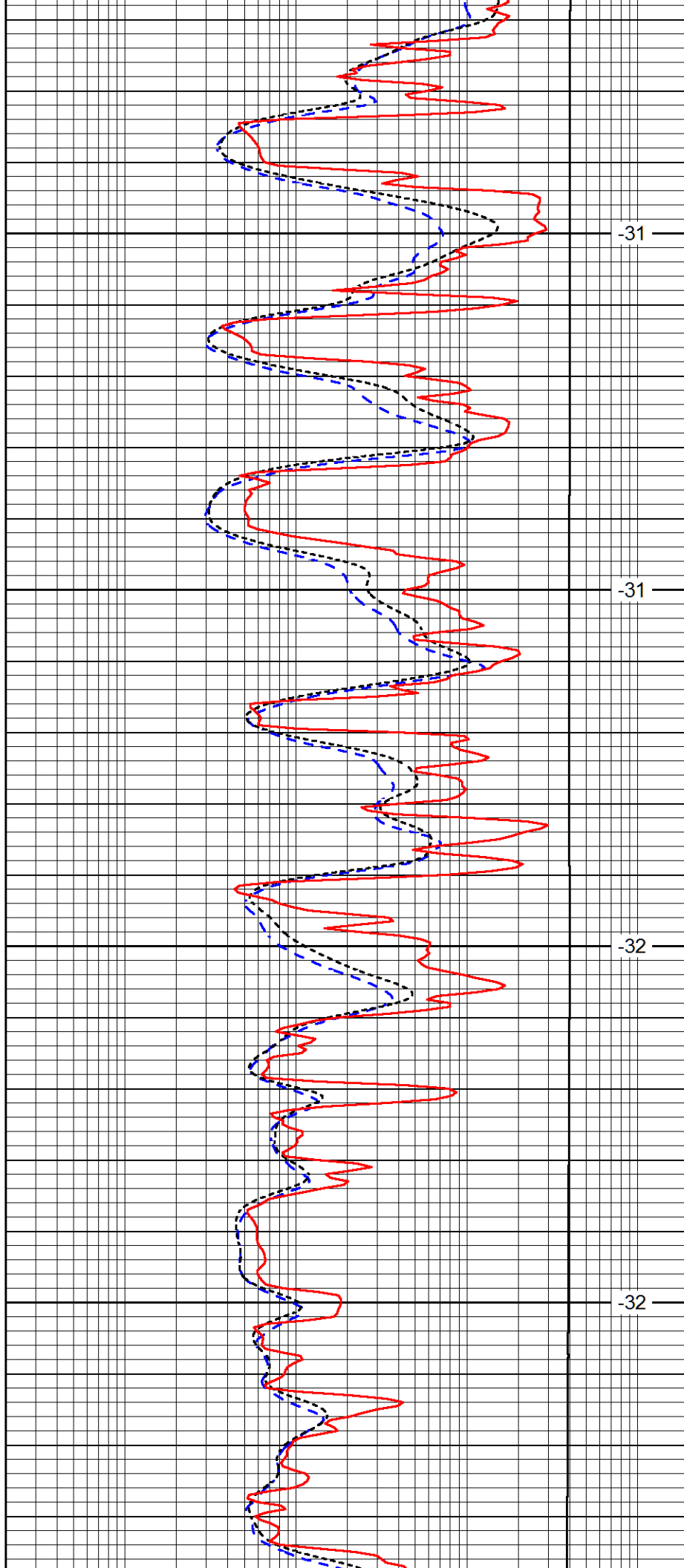


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3800

3850

3900

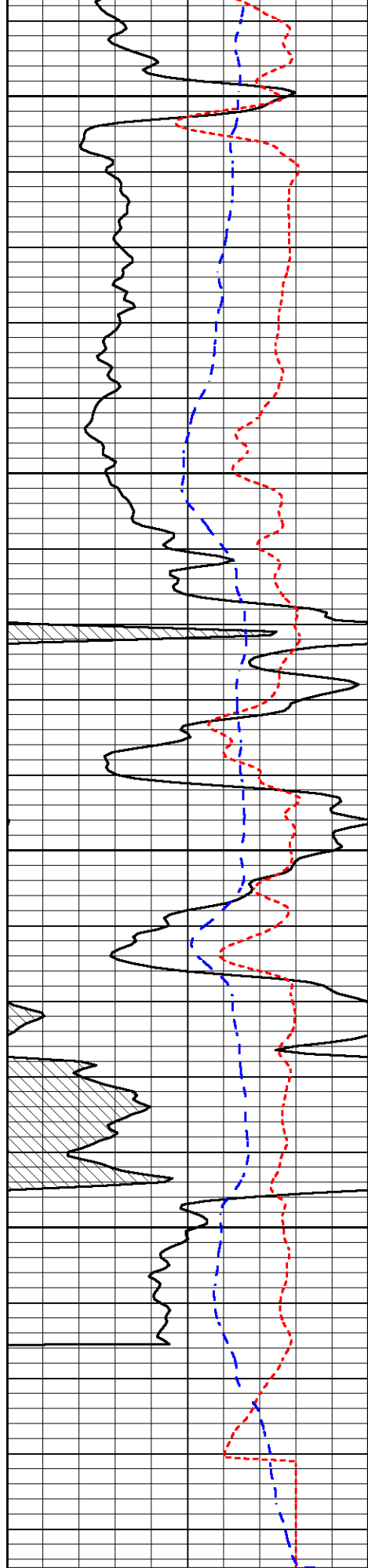


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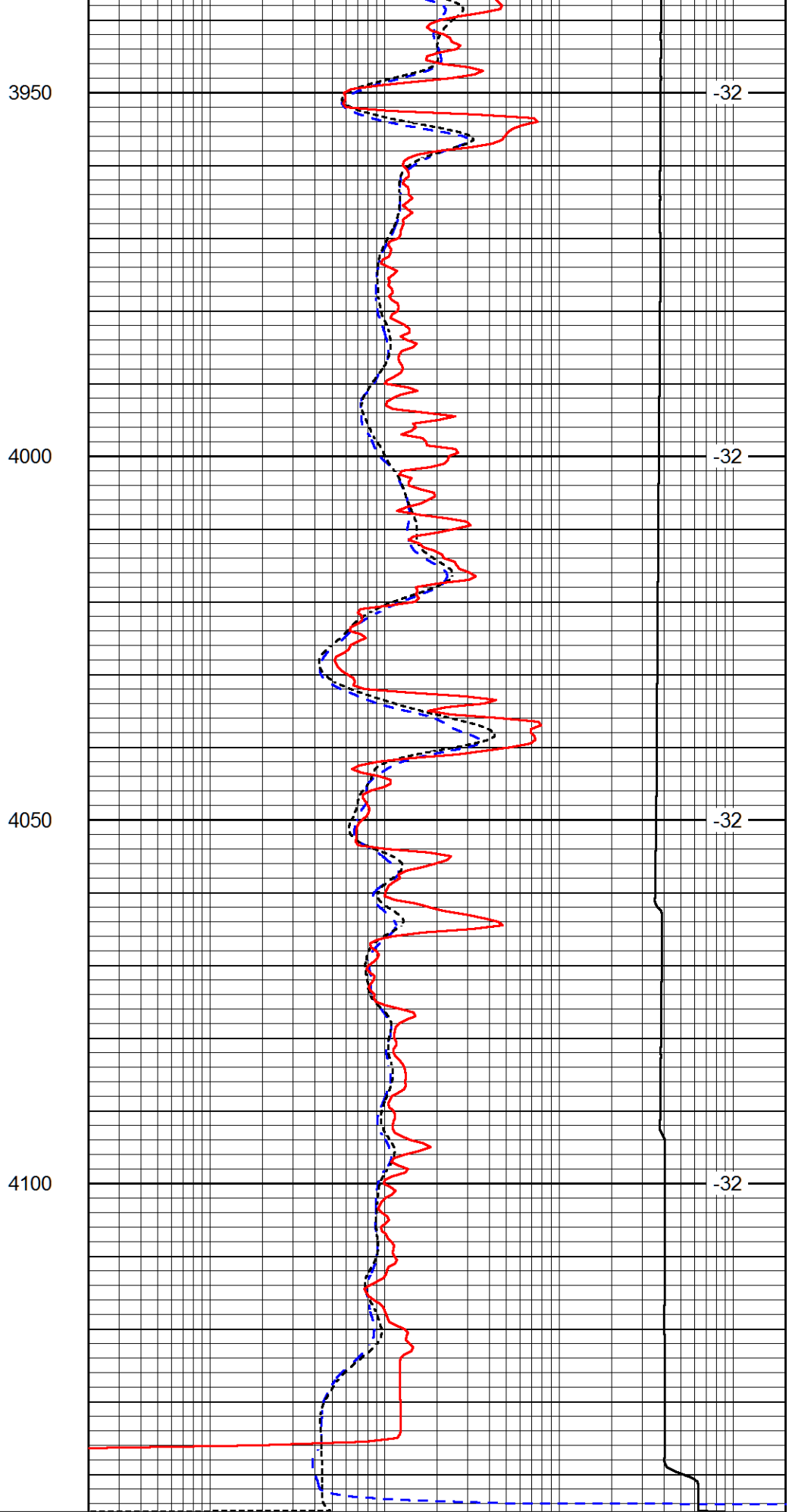
-31

-32

-32



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



0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000

-200	SI (mV)	0

0.2	Shallow Resistivity	2000
10000	Line Tension	0
		LSPD