



Dual Induction Log

Pioneer Energy Services

API No.	Company Bruce Oil Company, LLC			
	Well Bowen "B" No. 1			
	Field			
	County	Osborne	State	Kansas
	Location	1,600' FSL & 500' FEL		
	Sec: 16	Twp: 8S	Rge: 14W	Other Services CNL/CDL MEL
Permanent Datum	Ground Level		Elevation 1751	Elevation
Log Measured From	Kelly Bushing		5 Ft. Above Perm. Datum	K.B. 1756
Drilling Measured From	From Kelly Bushing			D.F. 1751
Date	6/25/2013			
Run Number	One			
Depth Driller	2830			
Depth Logger	2810			
Bottom Logged Interval	2809			
Top Log Interval	700			
Casing Driller	8.625 @ 710			
Casing Logger	707			
Bit Size	7.875			
Type Fluid in Hole	Chemical			
Salinity, ppm CL	1100			
Density / Viscosity	8.9 44			
pH / Fluid Loss	10.5 8.0			
Source of Sample	Flowline			
Rm @ Meas. Temp	1.0 @ 78			
Rmf @ Meas. Temp	.75 @ 78			
Rmc @ Meas. Temp	1.35 @ 78			
Source of Rmf / Rmc	Charts			
Rm @ BHT	.75 @ 104			
Operating Rig Time	3 1/2 Hours			
Max Rec. Temp. F	104			
Equipment Number	108			
Location	Hays			
Recorded By	J. Long			
Witnessed By	Bob Peterson			

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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

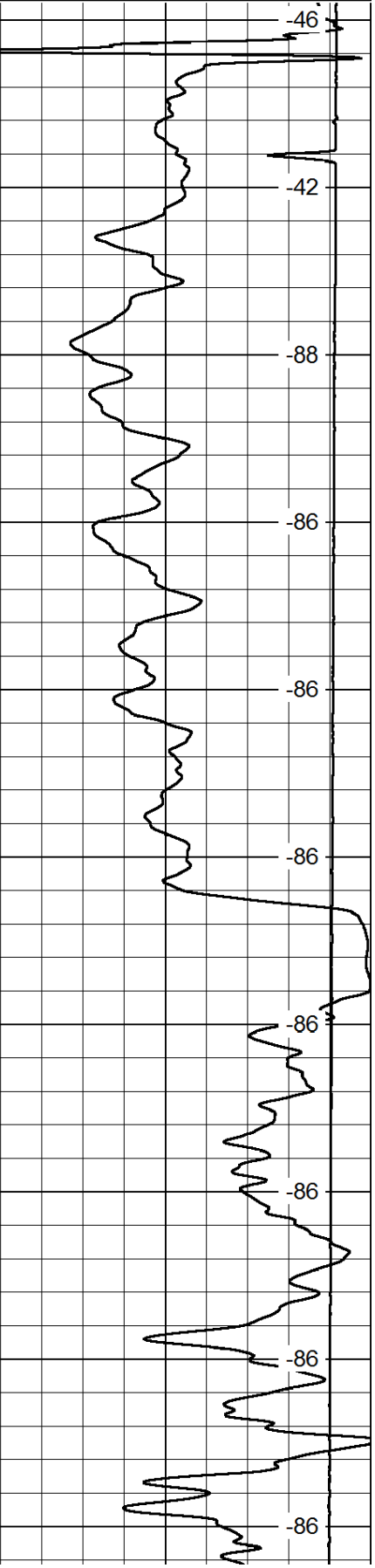
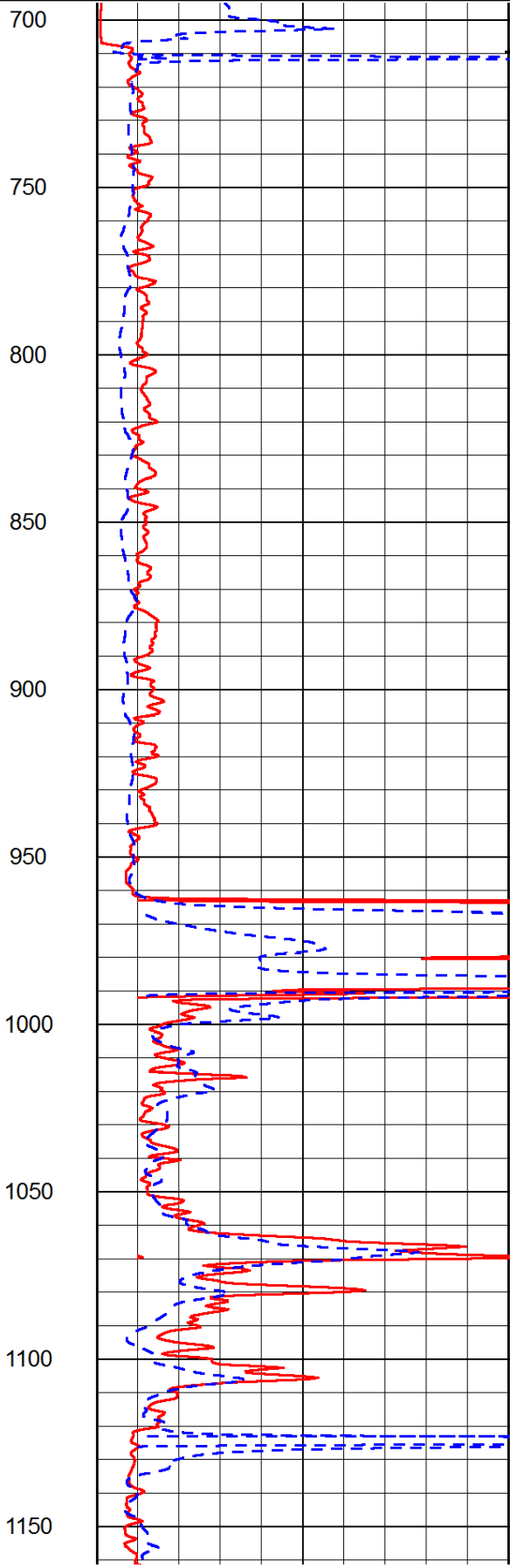
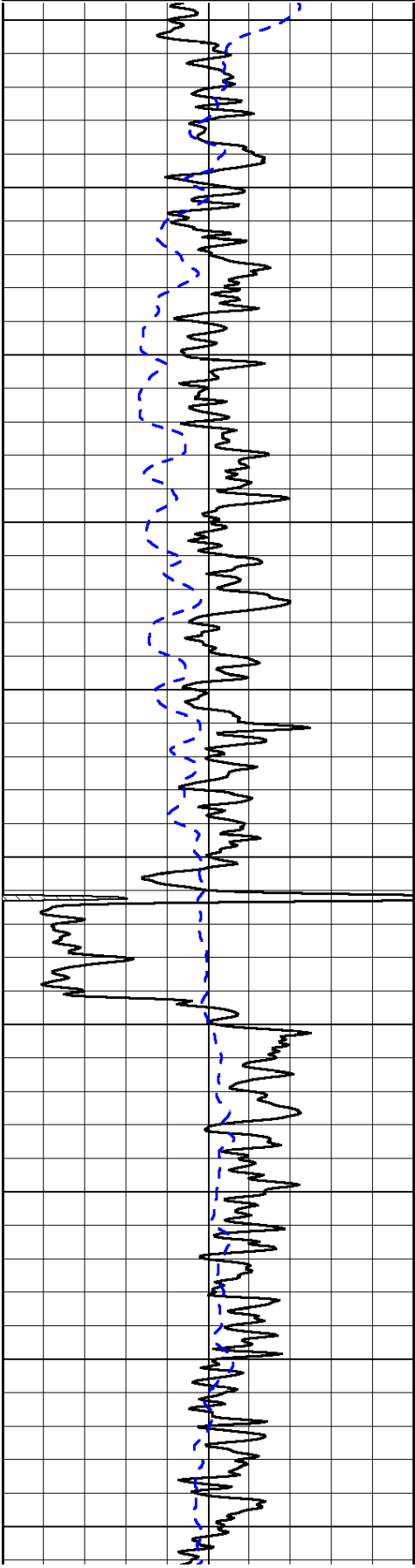
Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858

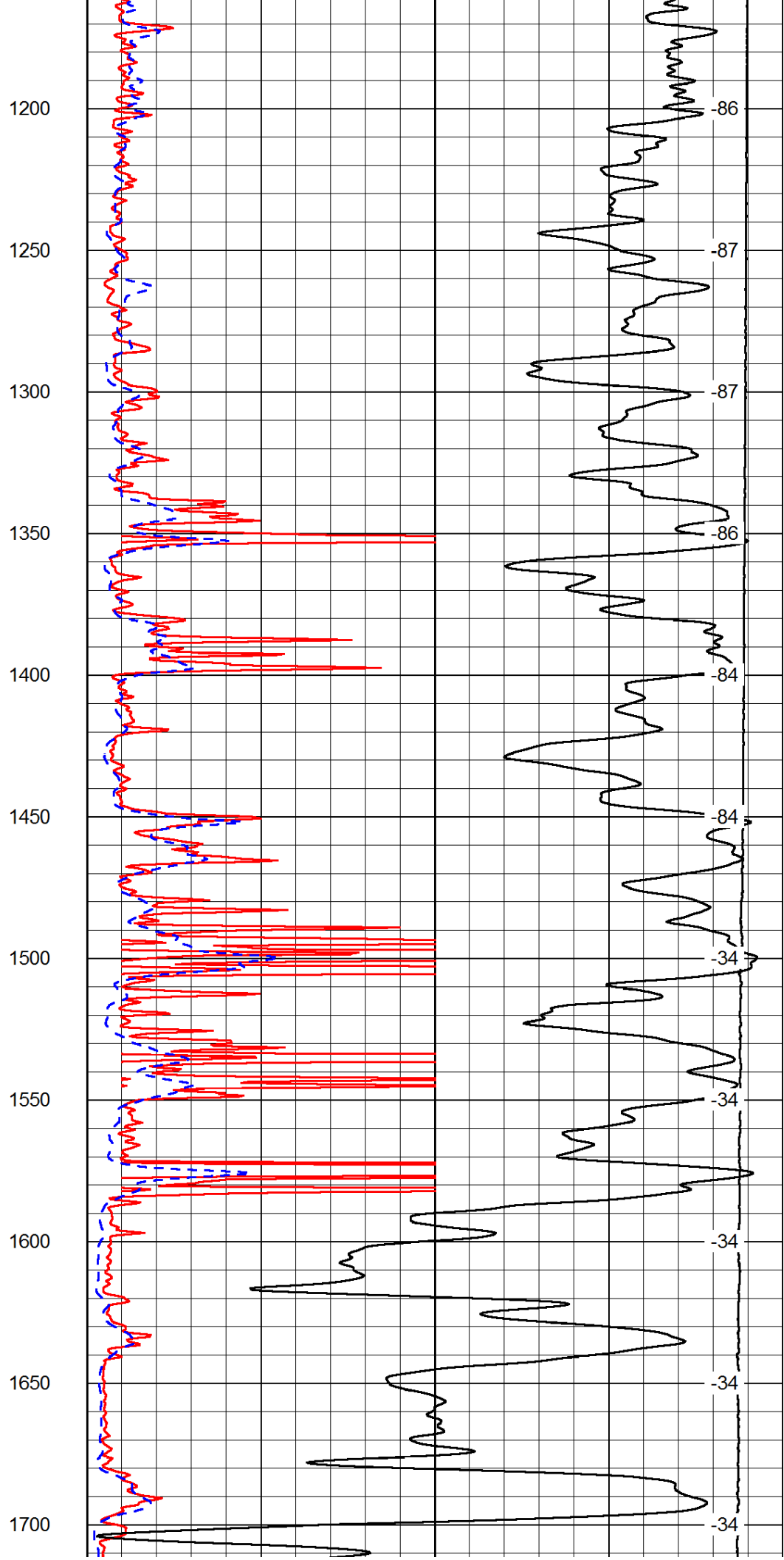
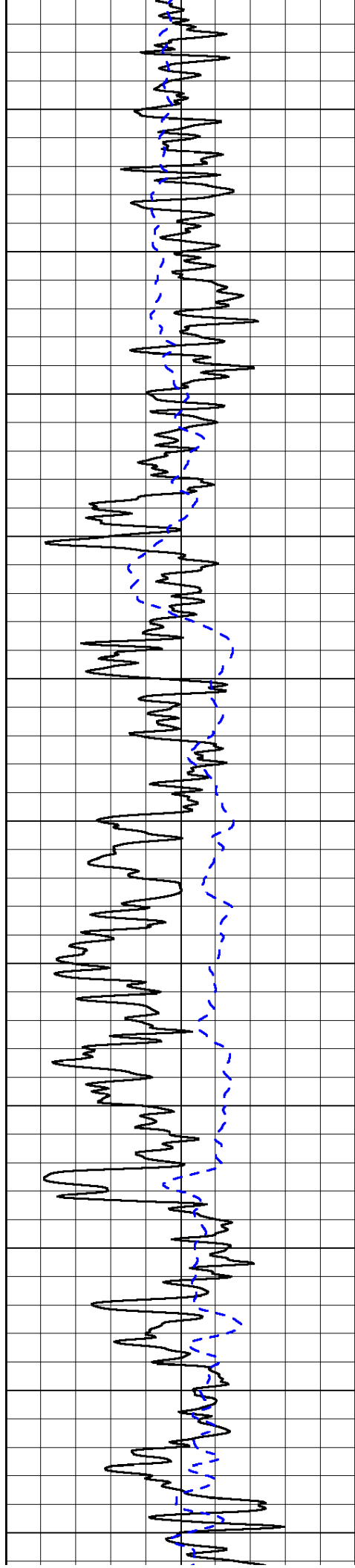
Natoma, 11 North on 280th Road (657 Road), 1 East, 1 North, 6 East, South Into

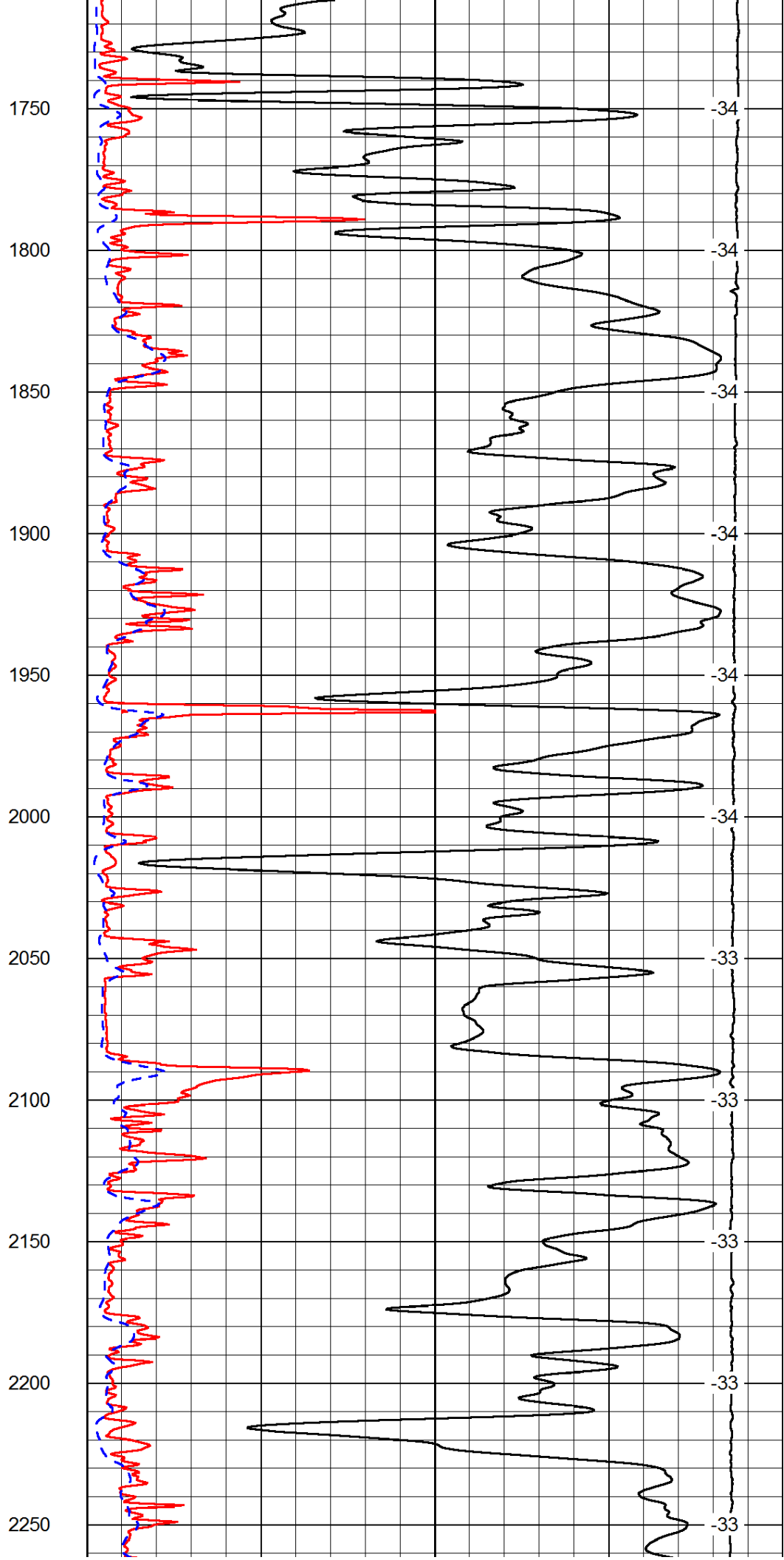
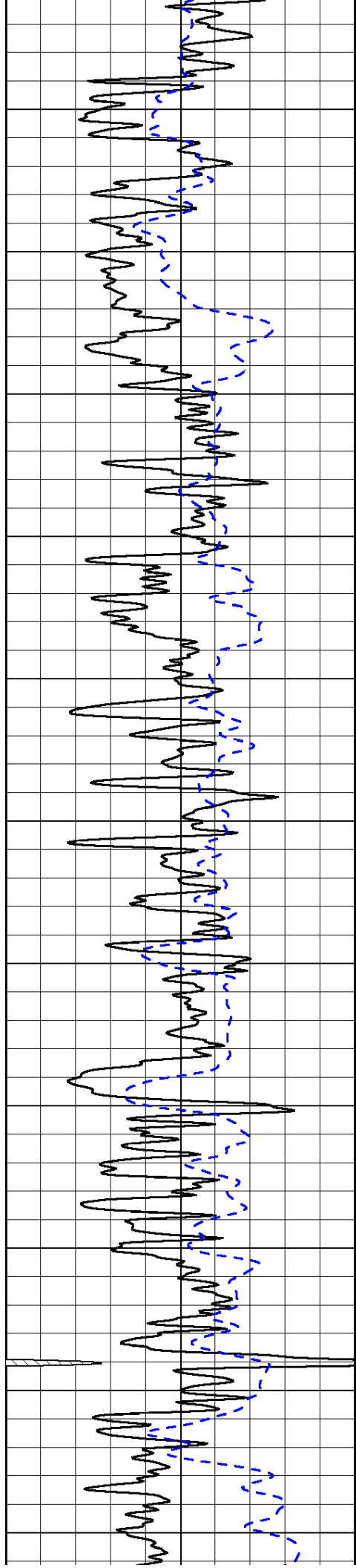
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Presentation Format: dil2in
Dataset Creation: Tue Jun 25 07:09:43 2013
Charted by: Depth in Feet scaled 1:600

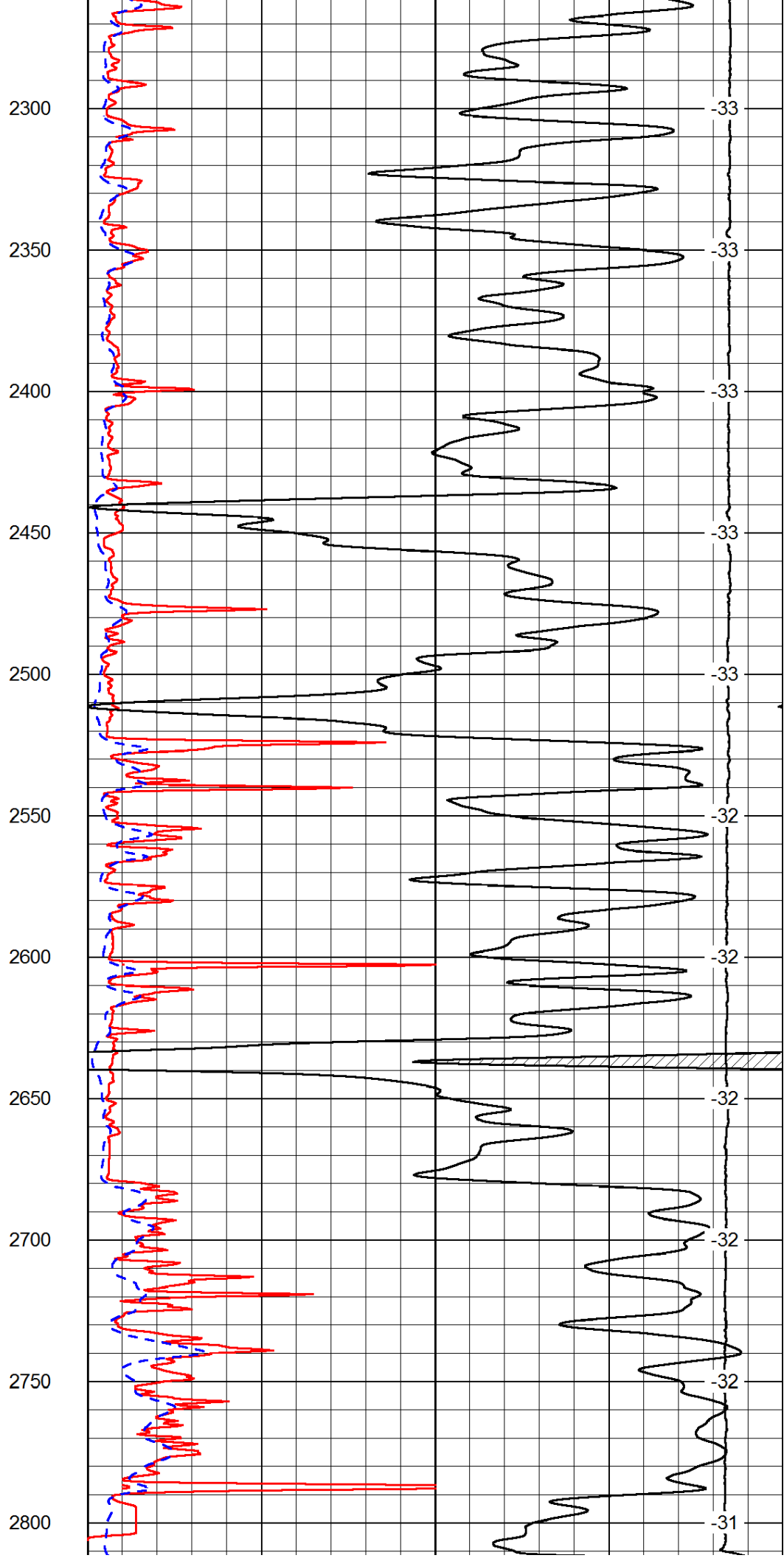
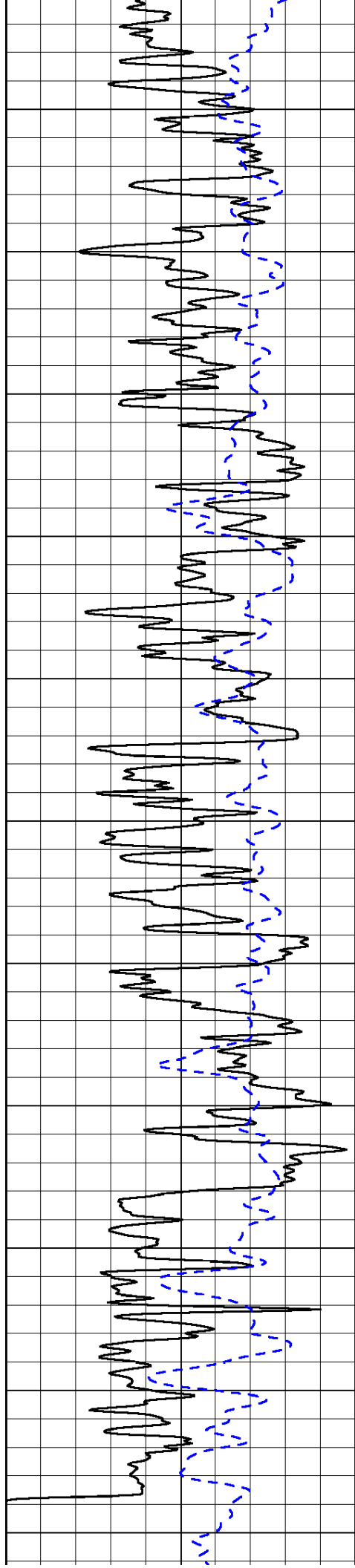
0	Gamma Ray	150
-200	SP (mV)	0

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



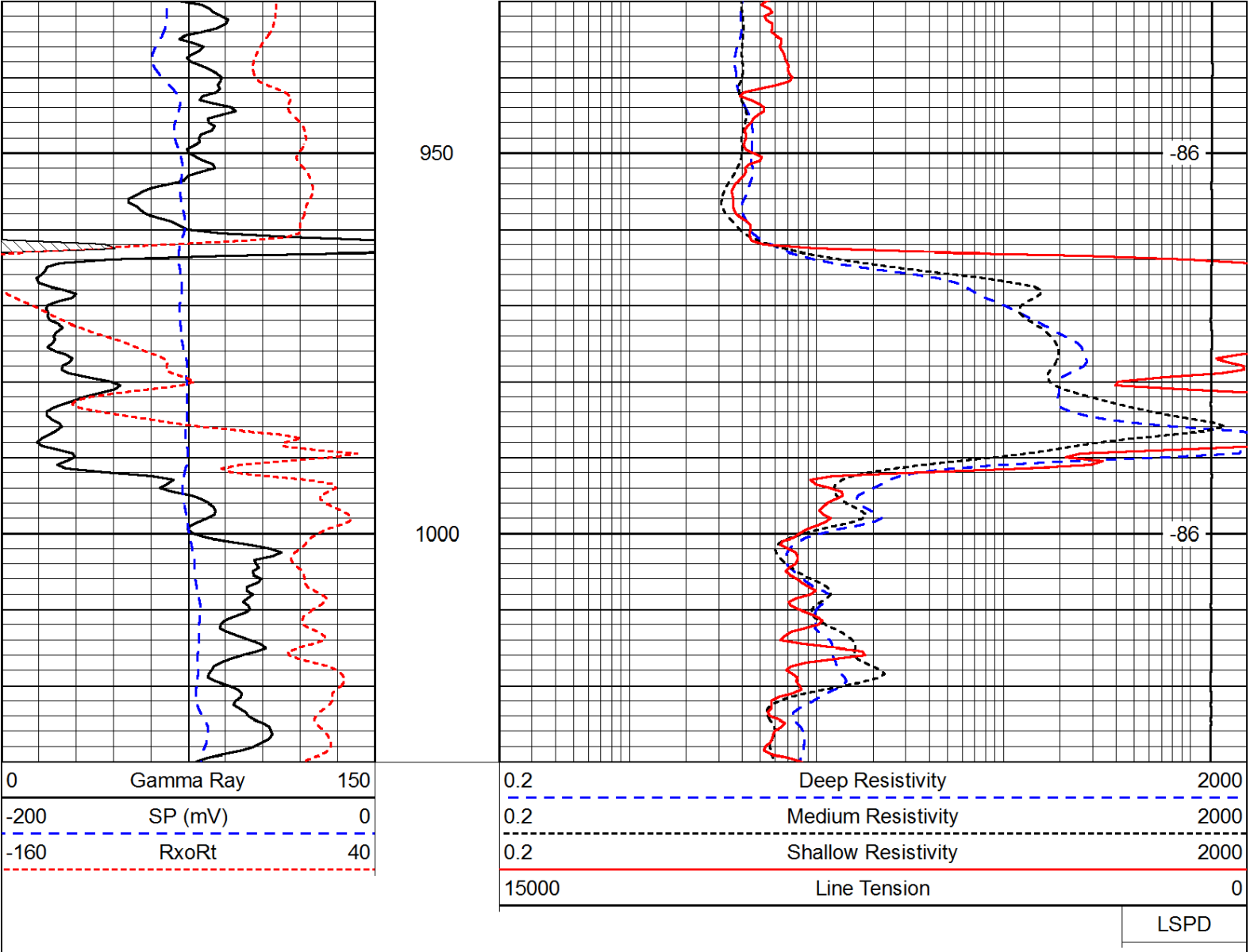






0	Gamma Ray	150	0	Shallow Resistivity	50		LSPD
-200	SP (mV)	0	0	Deep Resistivity	50		
			1000	Conductivity		0	
			15000	Line Tension		0	
			50	Shallow Resistivity	500		
			50	Deep Resistivity	500		

Database File:		c:\warrior\data\bruce oil_bowen b # 1\bruceoil_bowen_b_1hd.db					
Dataset Pathname:		dil/brucestck					
Presentation Format:		dil					
Dataset Creation:		Tue Jun 25 07:09:43 2013					
Charted by:		Depth in Feet scaled 1:240					
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-200	SP (mV)	0	0.2	Medium Resistivity	2000		
-160	RxoRt	40	0.2	Shallow Resistivity	2000		
			15000	Line Tension	0		
							LSPD

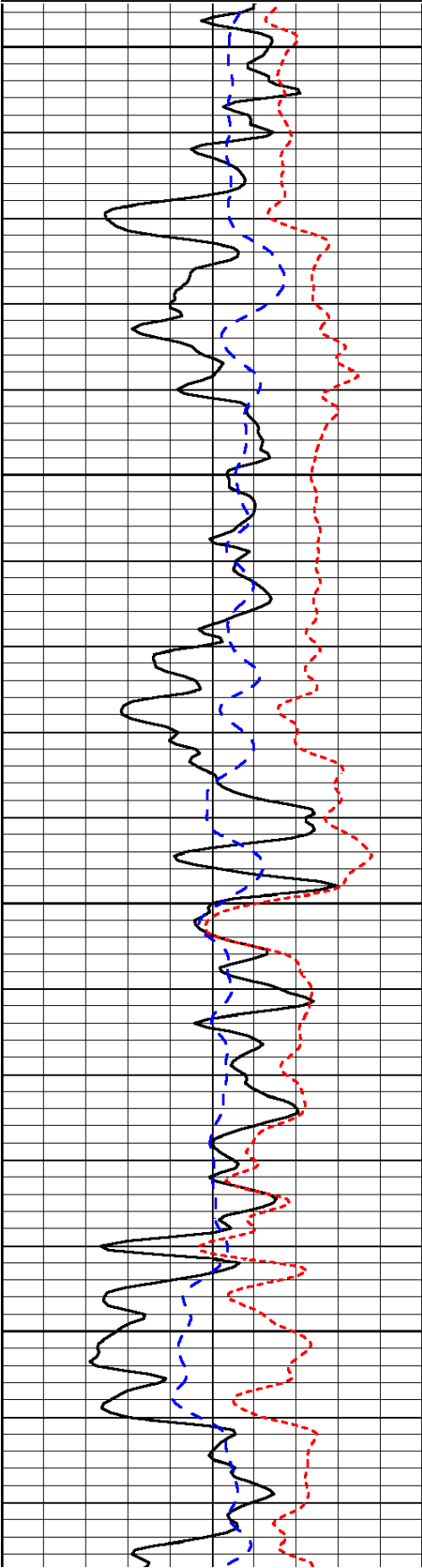


Database File:		c:\warrior\data\bruce oil_bowen b # 1\bruceoil_bowen_b_1hd.db					
Dataset Pathname:		dil/brucestck					

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

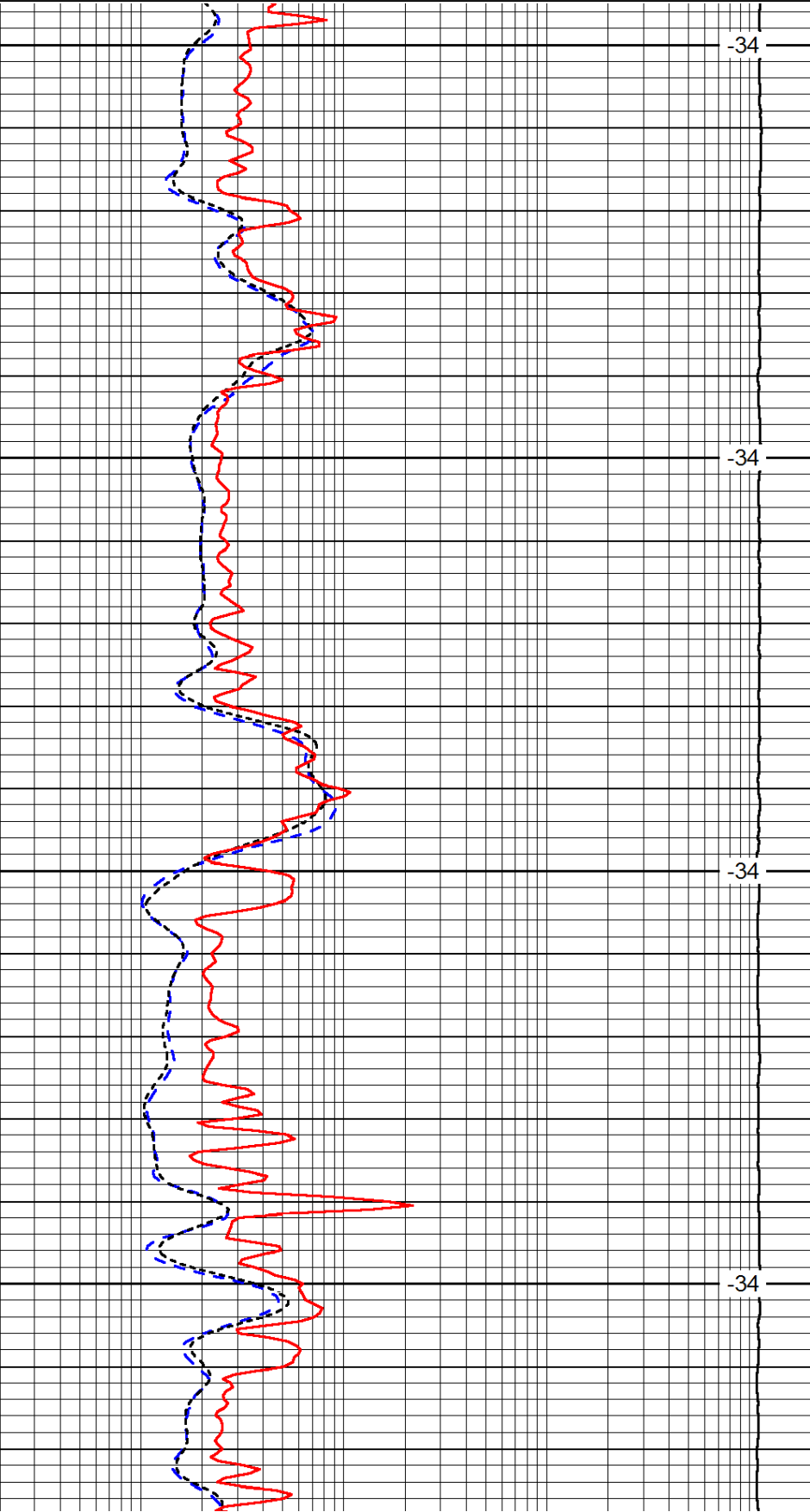


1600

1650

1700

1750

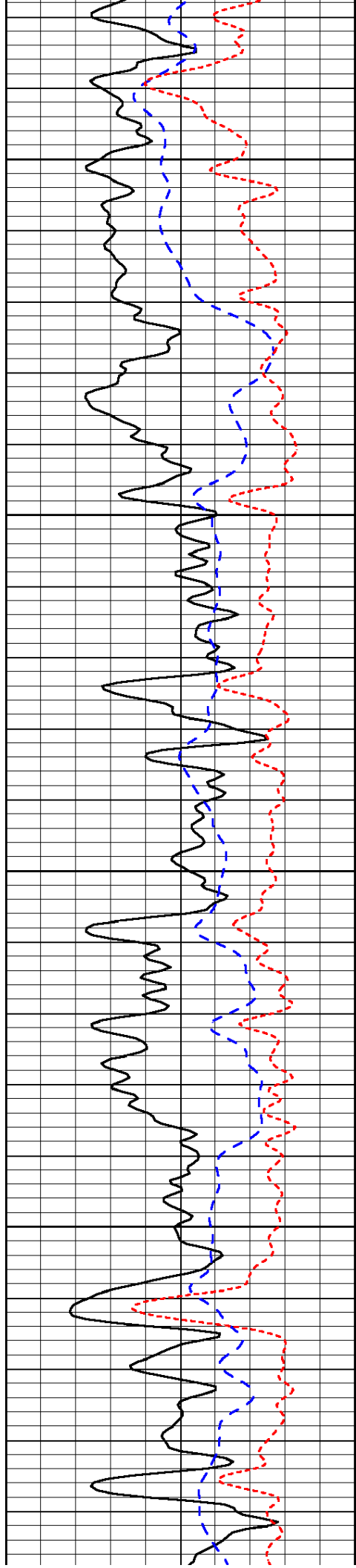


-34

-34

-34

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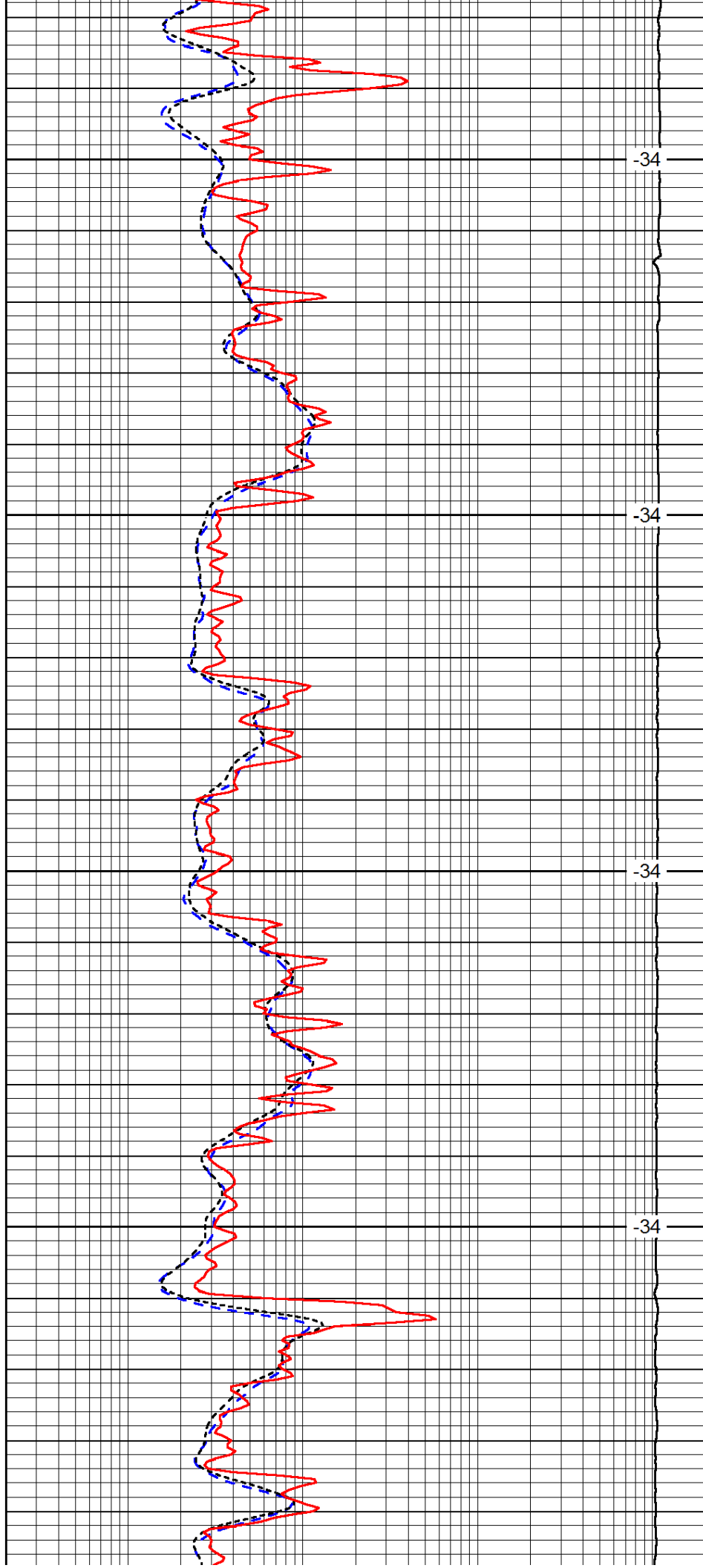


1800

1850

1900

1950

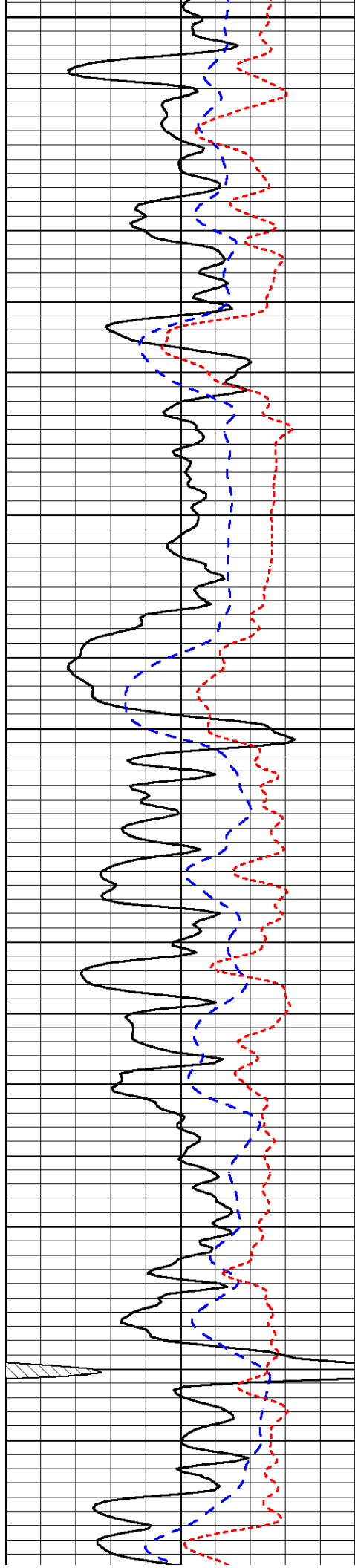


-34

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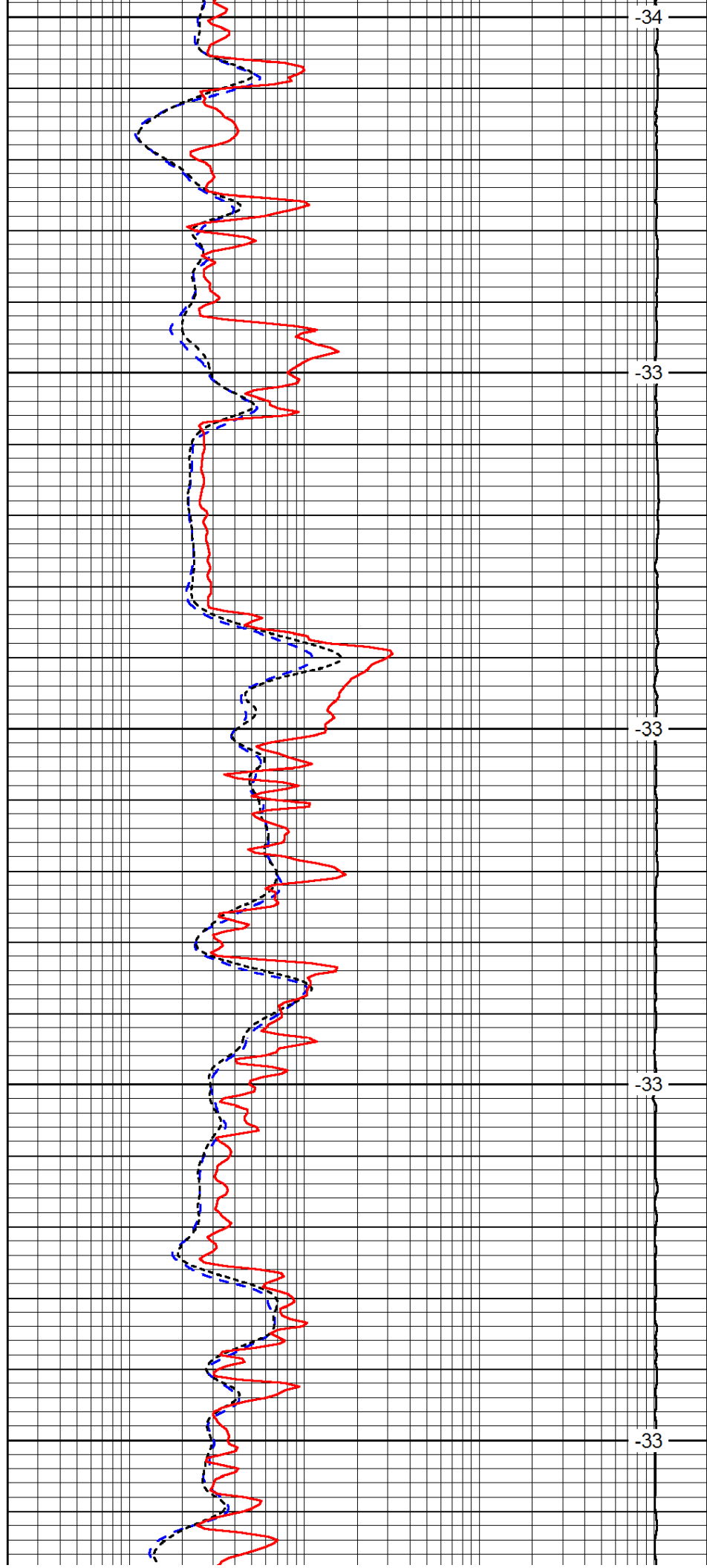
2000

2050

2100

2150

2200



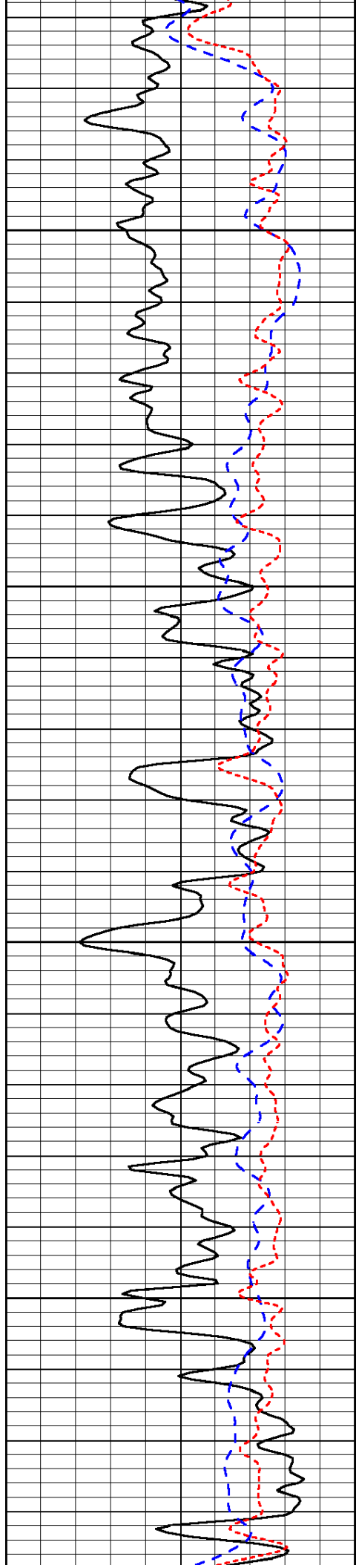
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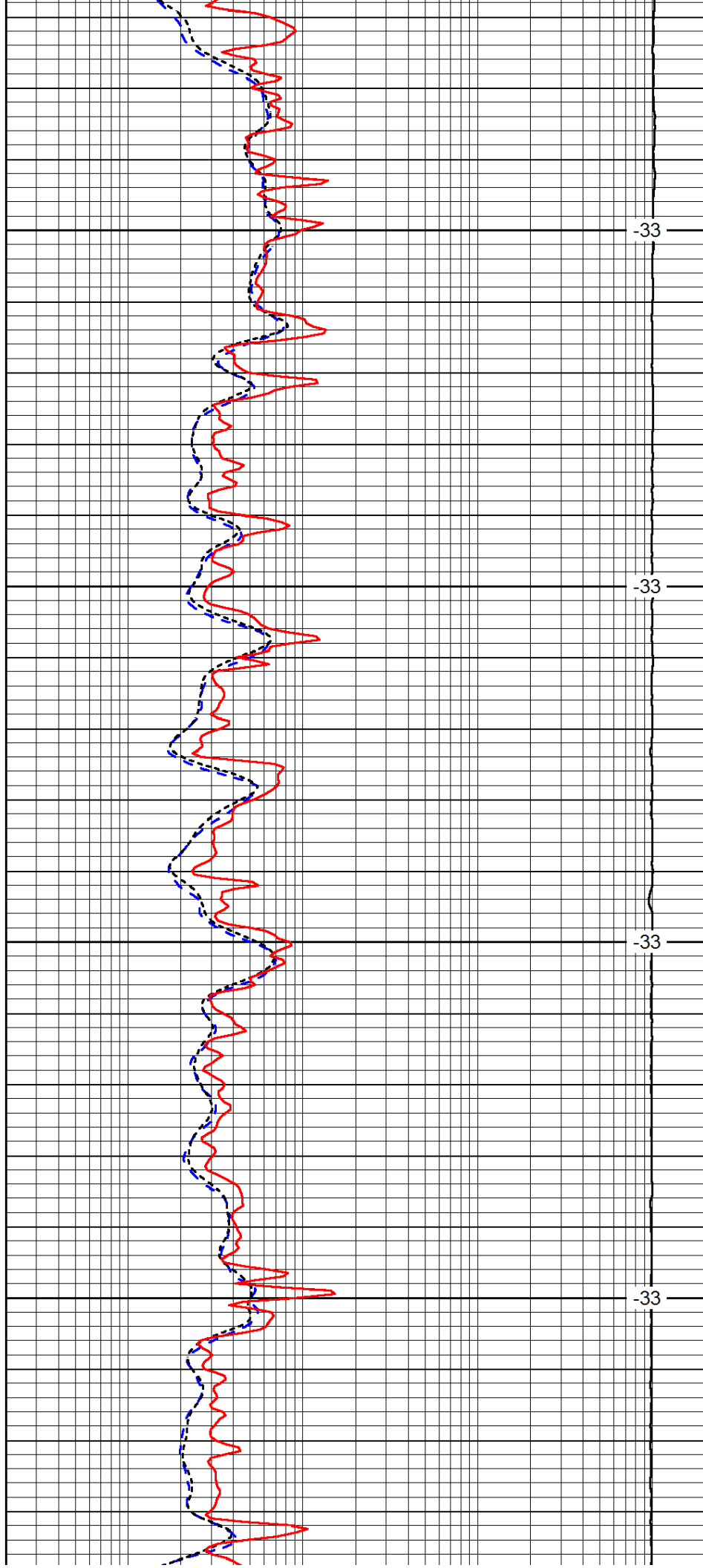


2250

2300

2350

2400

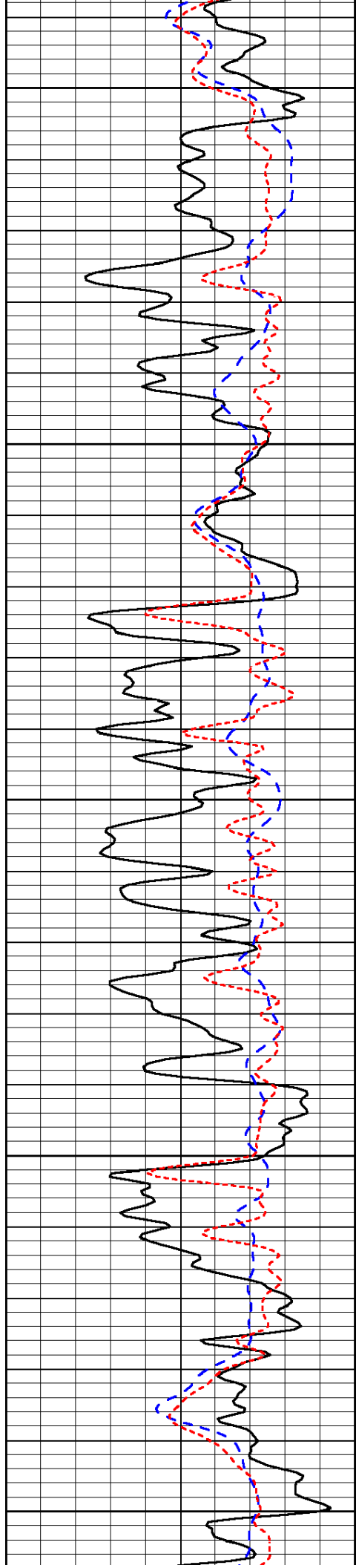


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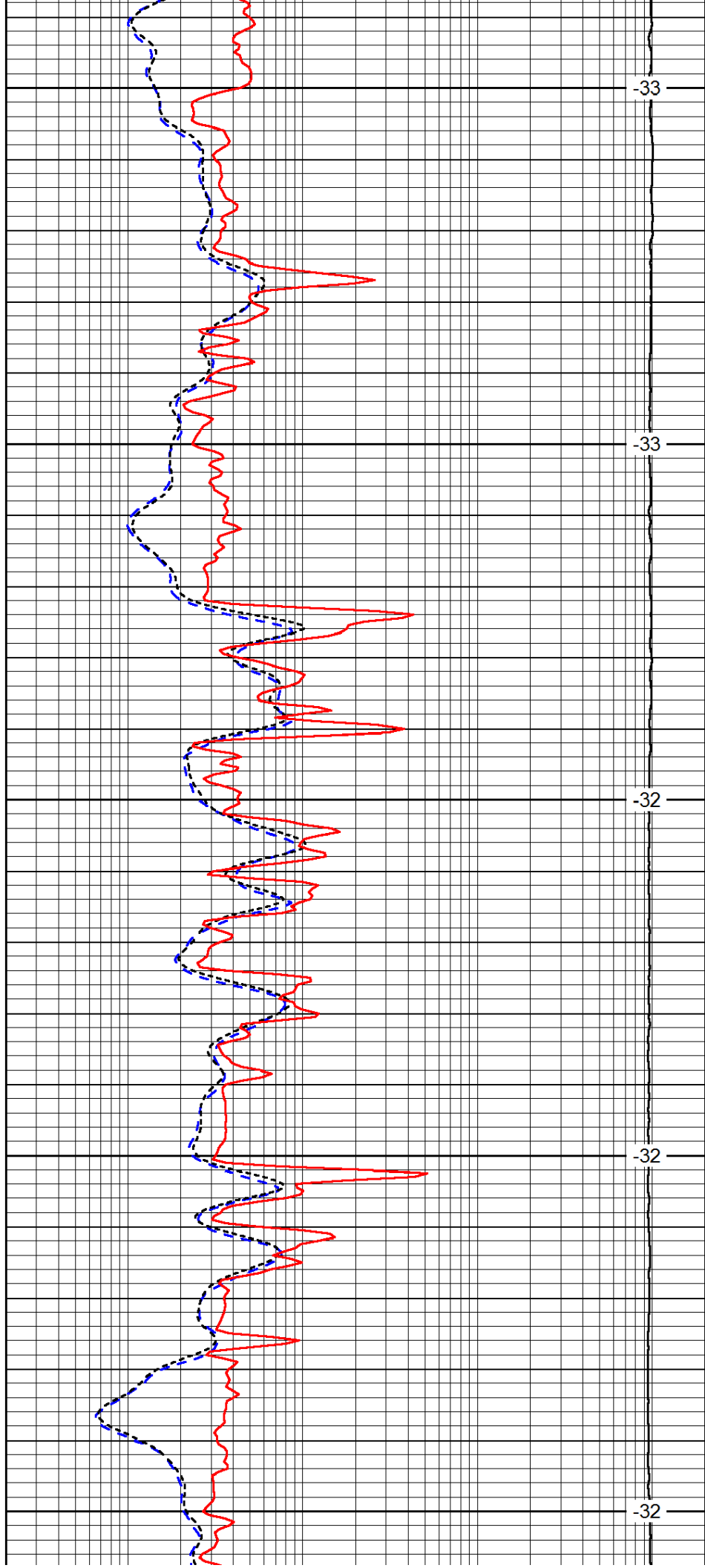
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2500

2550

2600

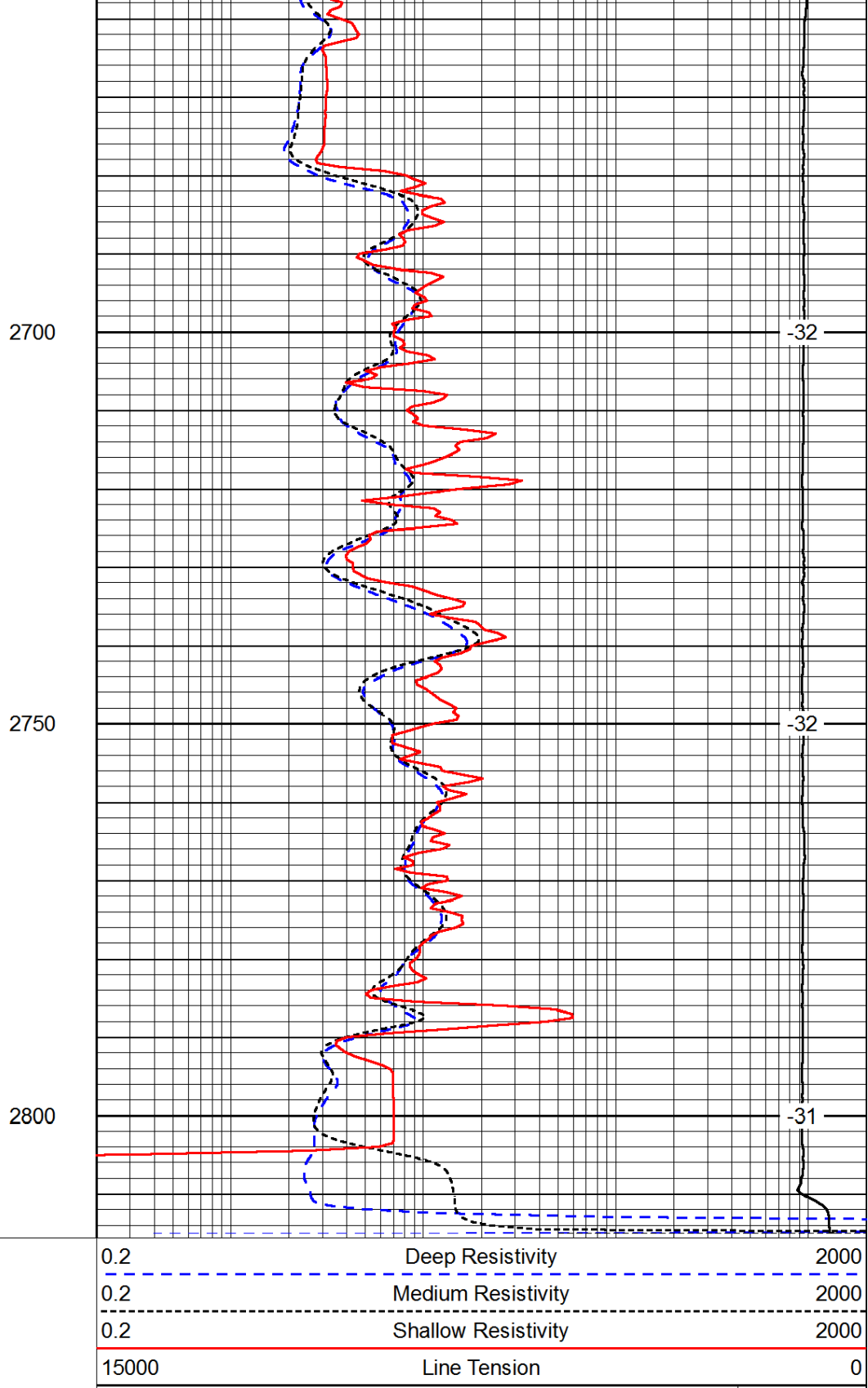
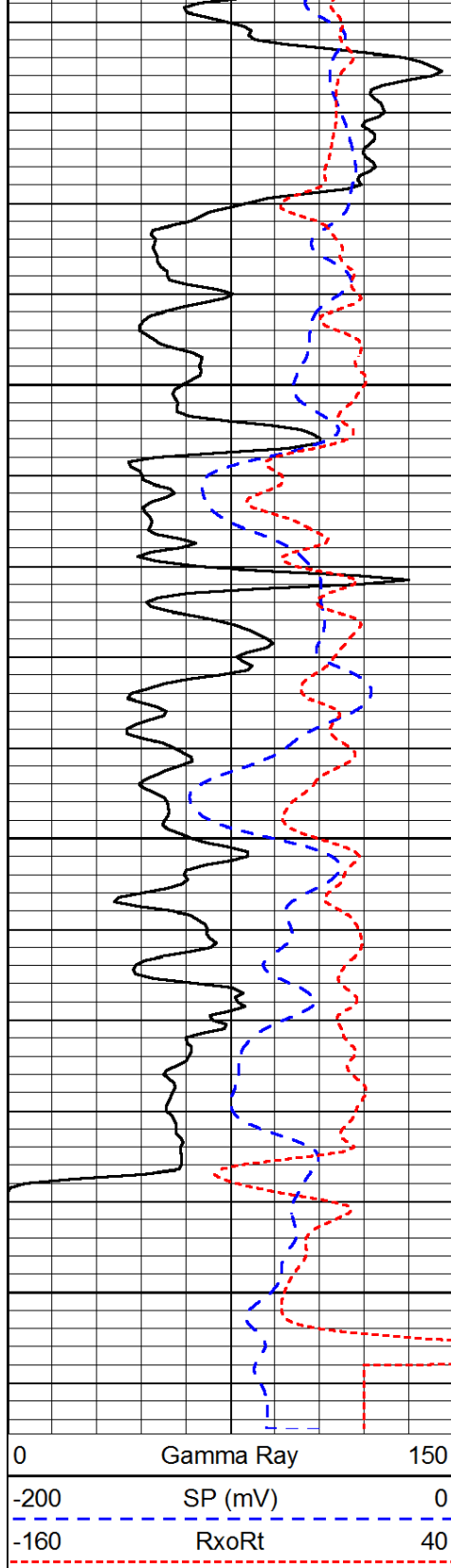
2650



-33

-32

-31



LSPD