



Dual Induction Log

Pioneer Energy Services

API No.	Company American Warrior, Inc.		
	Well Berland #1-12		
	Field Unnamed		
	County Graham	State	Kansas
	Location	339' FSL & 1400' FEL	
	Sec: 12	Twp: 8S	Rge: 21W
	Permanent Datum	Ground Level	Elevation 2028
	Log Measured From	Kelly Bushing	10 Ft. Above Perm. Datum
	Drilling Measured From	Kelly Bushing	
Date		8/15/2012	
Run Number		One	
Depth Driller		3650	
Depth Logger		3651	
Bottom Logged Interval		3650	
Top Log Interval		200	
Casing Driller		8.625 @ 222	
Casing Logger		222	
Bit Size		7.875	
Type Fluid in Hole		Chemical	
Salinity, ppm CL		1800	
Density / Viscosity		9.1 51	
pH / Fluid Loss		10.5 7.4	
Source of Sample		Flowline	
Rm @ Meas. Temp		1.05 @ 65	
Rmf @ Meas. Temp		0.79 @ 65	
Rmc @ Meas. Temp		1.42 @ 65	
Source of Rmf / Rmc		Charts	
Rm @ BHT		0.60 @ 115	
Operating Rig Time		5 Hours	
Max Rec. Temp. F		115	
Equipment Number		91	
Location		Hays	
Recorded By		D. Schmidt	
Witnessed By		Jeff Lawler	

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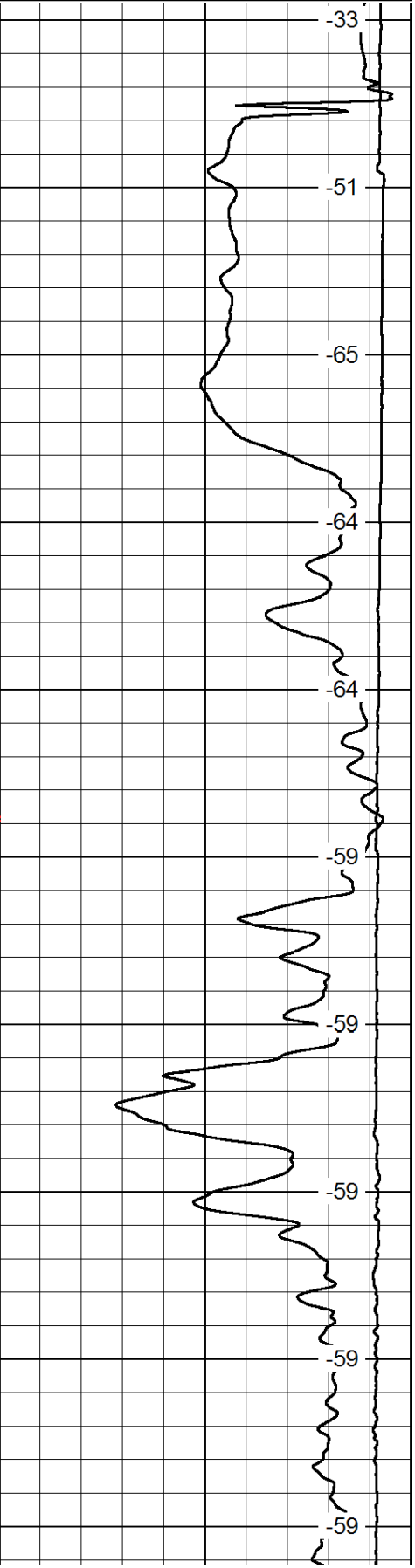
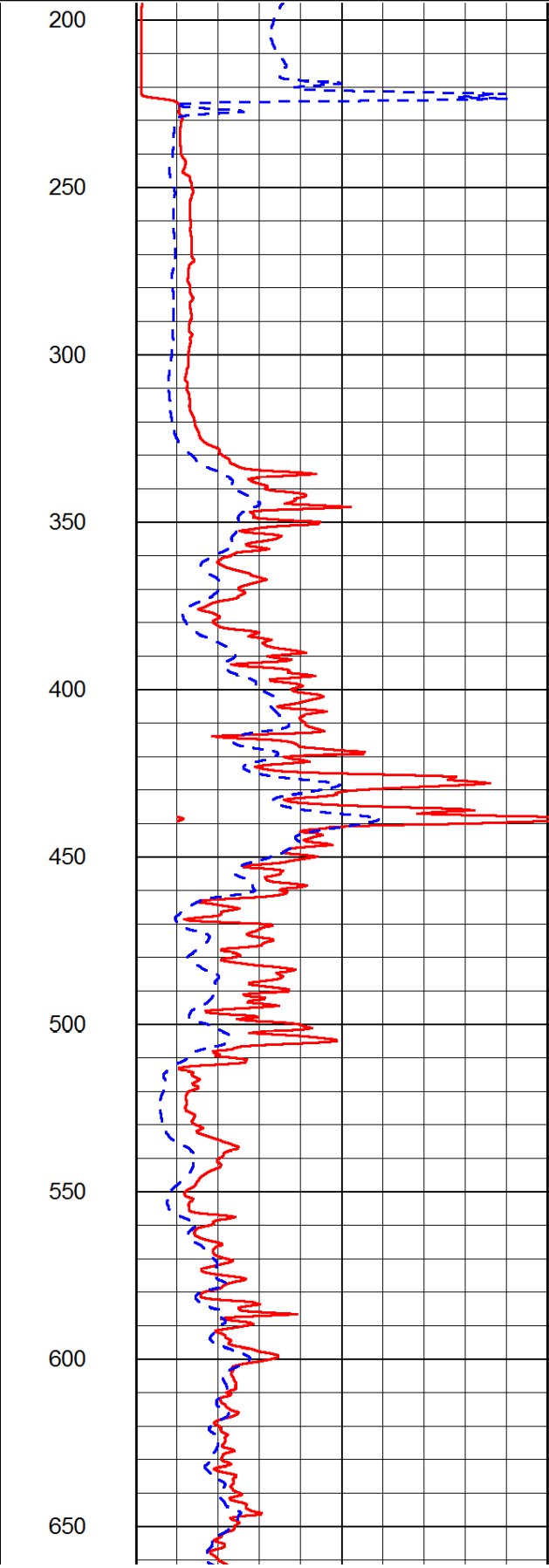
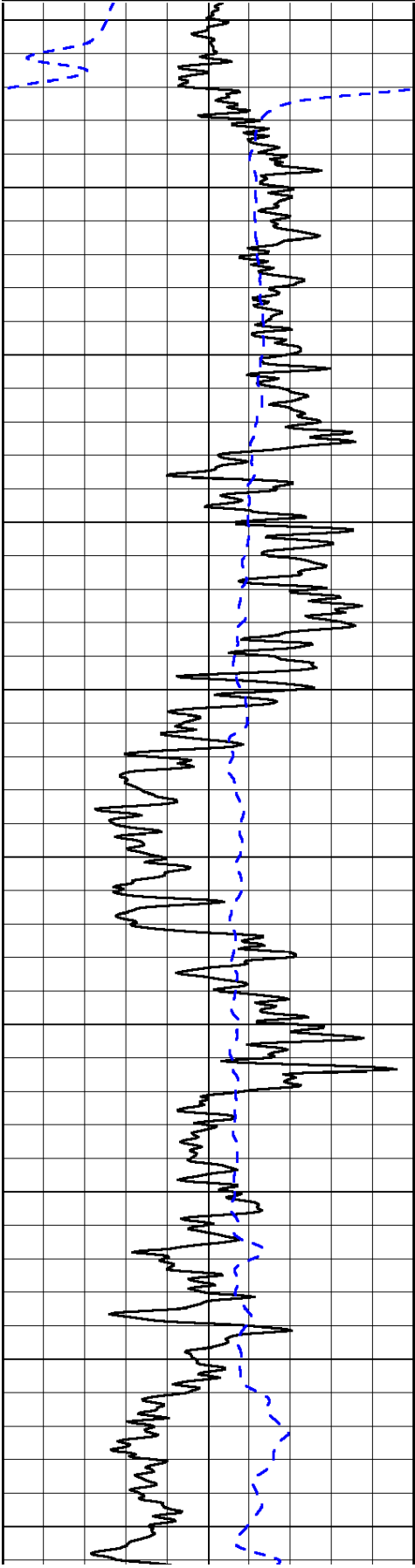
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

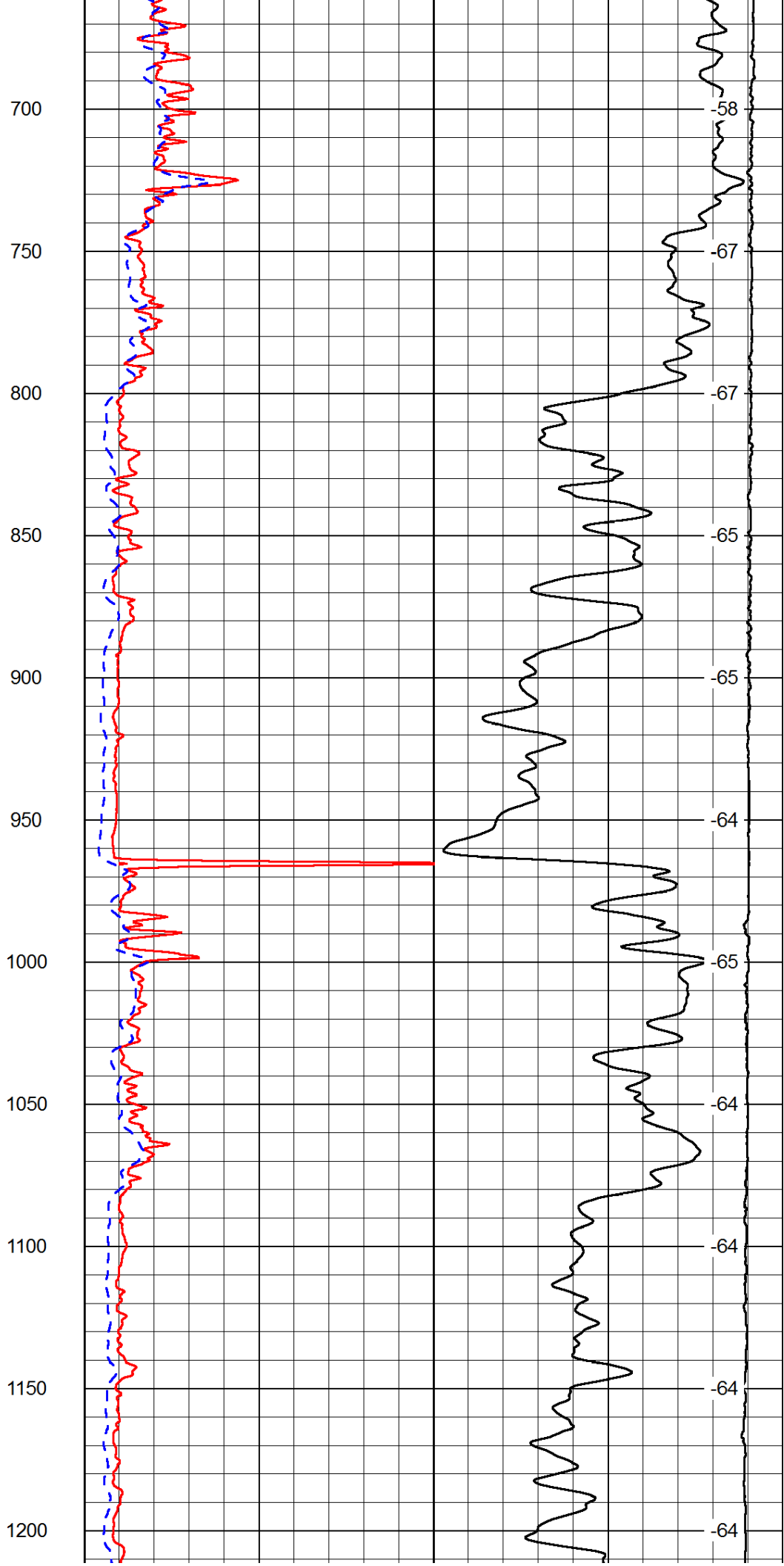
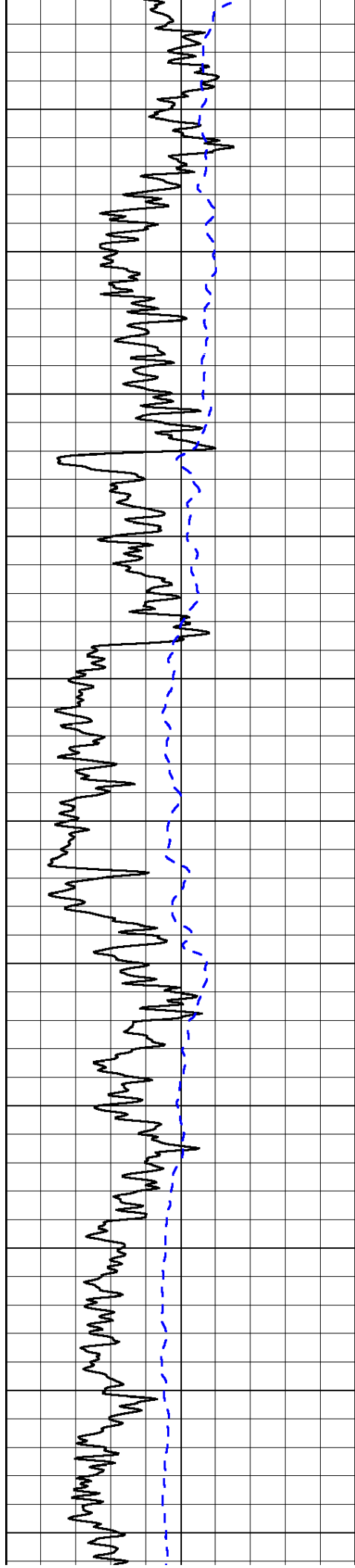
Comments

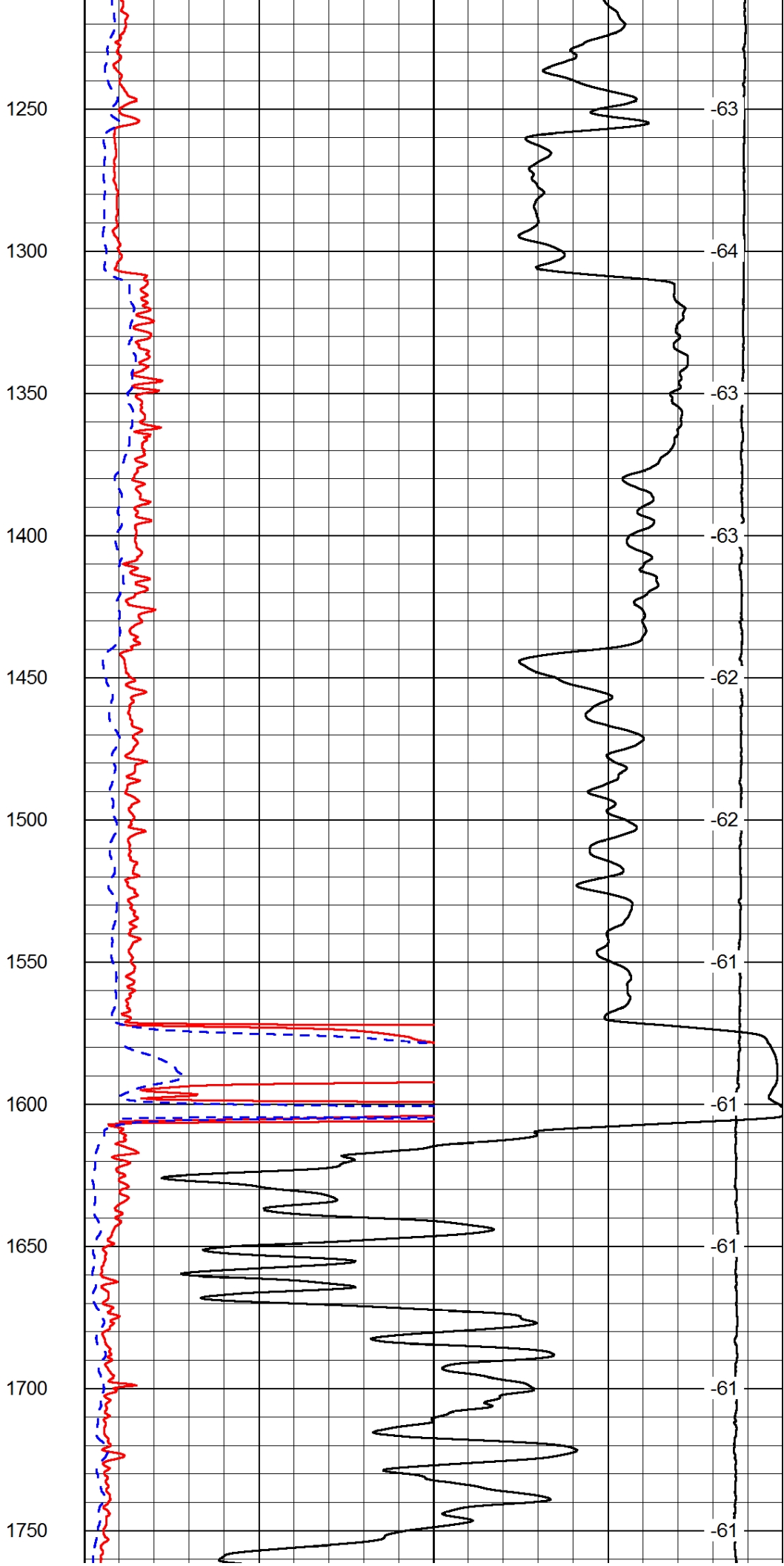
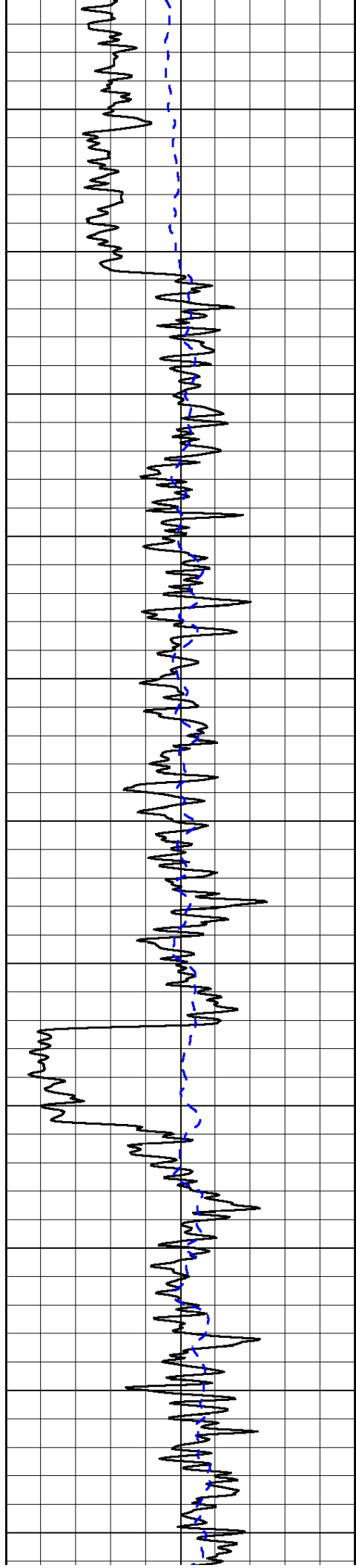
Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858
Damar,
2 1/2 North on Rd 2 to O Rd, 1 West,
West into

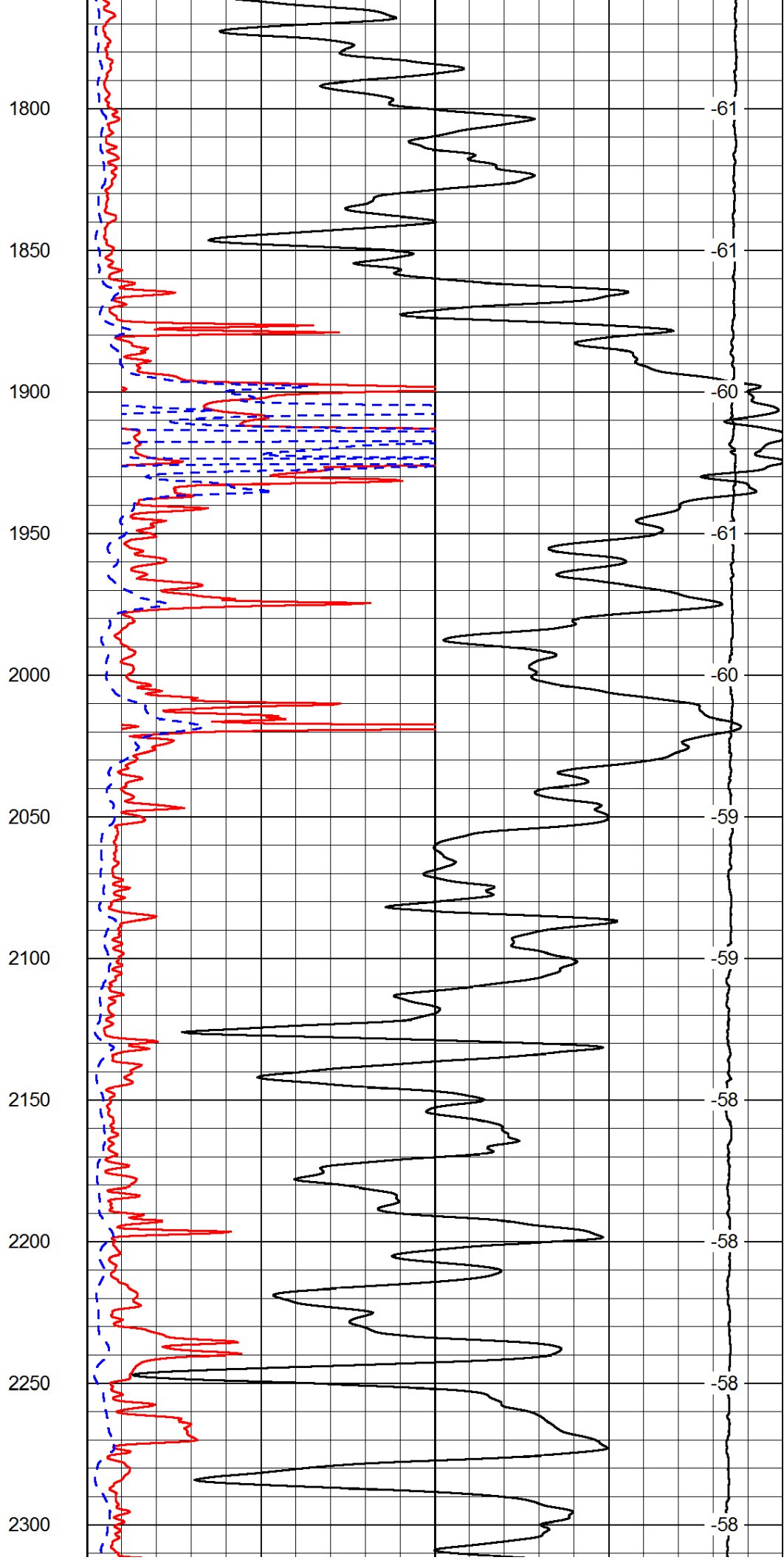
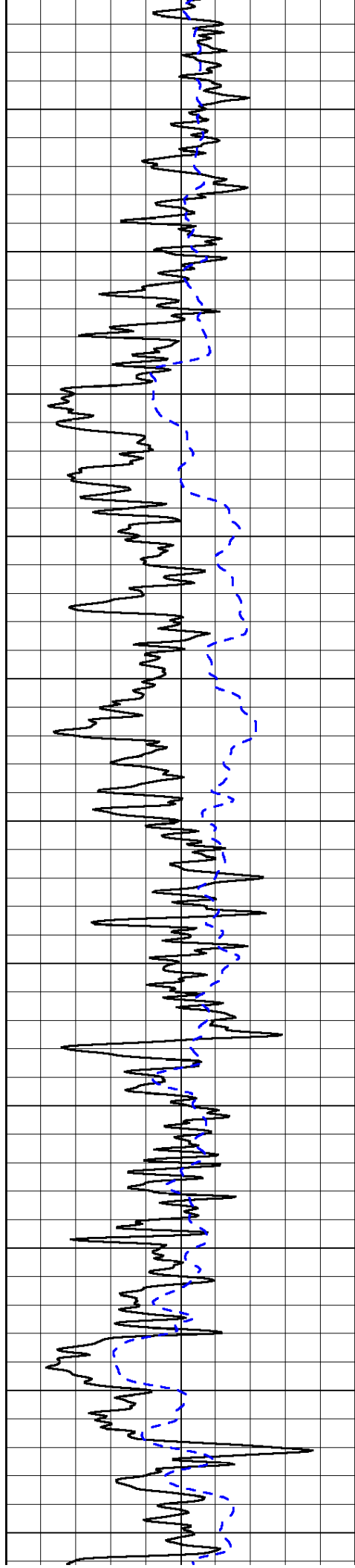
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Presentation Format: dil2in
Dataset Creation: Wed Aug 15 07:27:51 2012
Charted by: Depth in Feet scaled 1:600

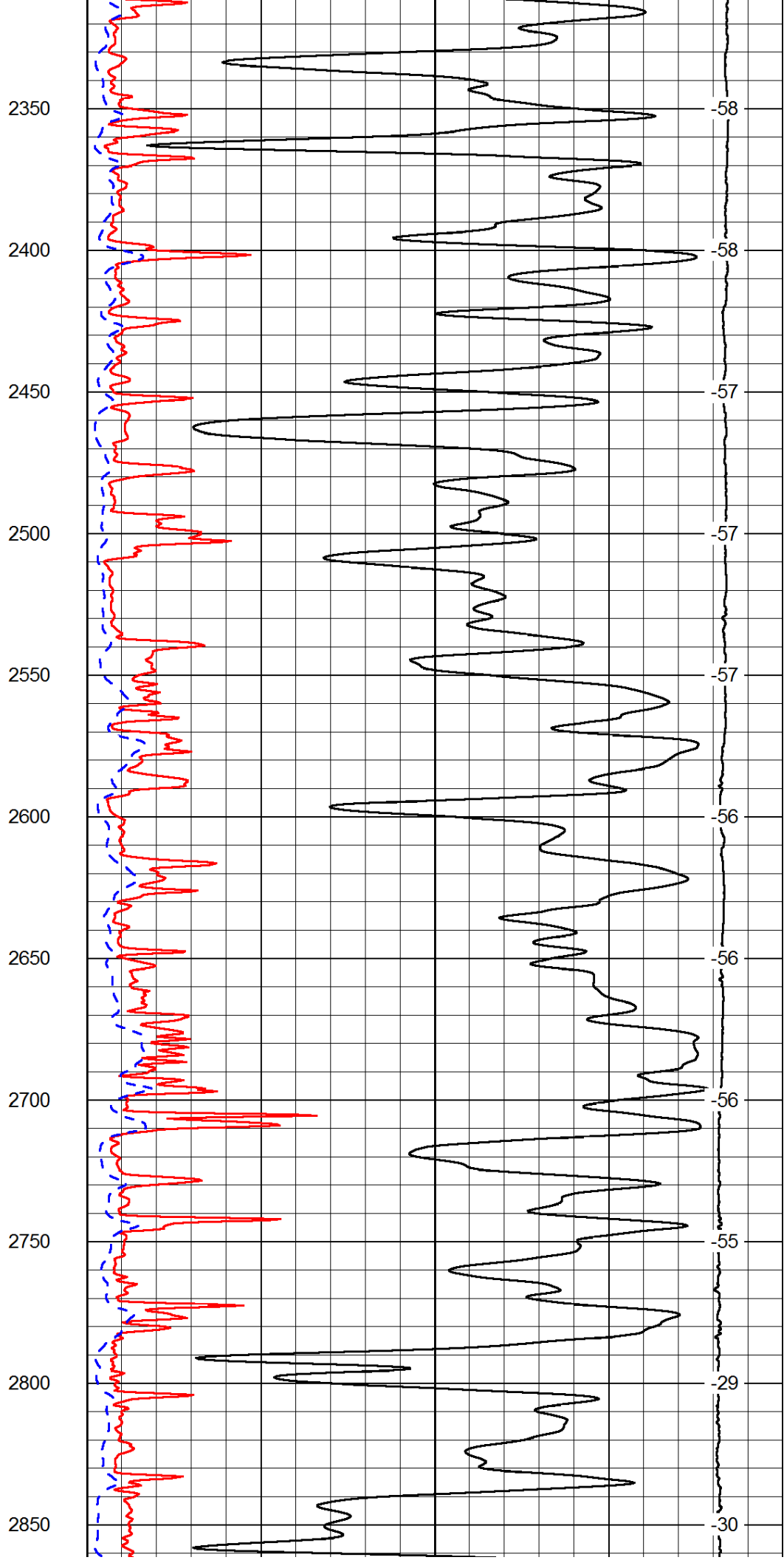
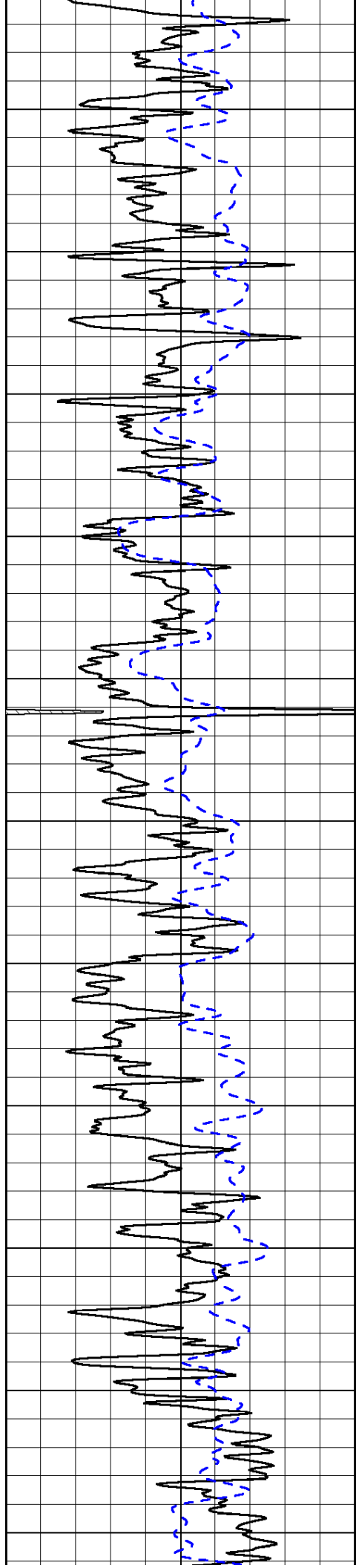
Charted by: Depth in Feet scaled 1:600								
0	Gamma Ray	150	0	Shallow Resistivity	50	LSPD		
-200	SP (mV)	0	0	Deep Resistivity	50			
			1000	Conductivity		0		
			15000	Line Tension		0		
			50	Shallow Resistivity	500			
			50	Deep Resistivity	500			

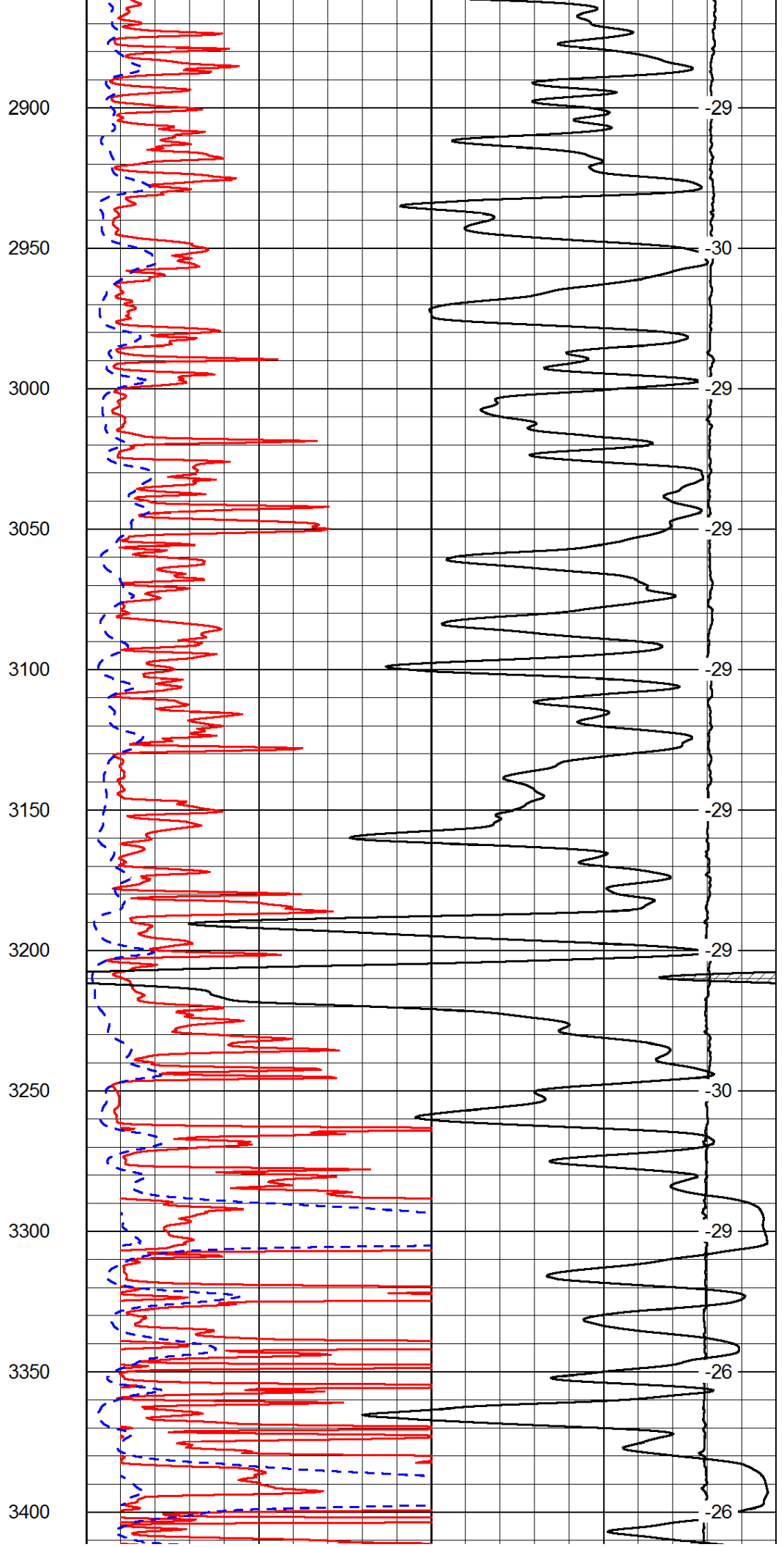
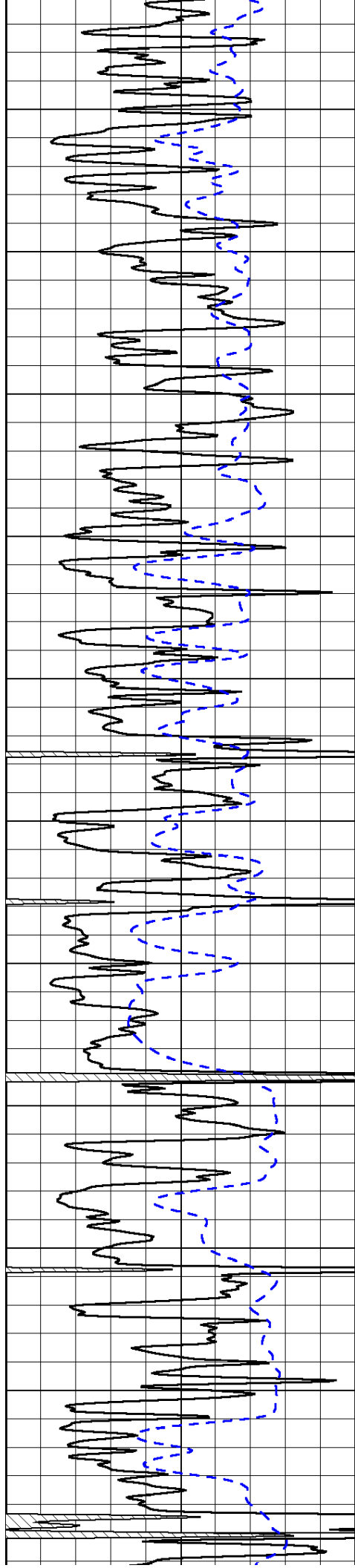


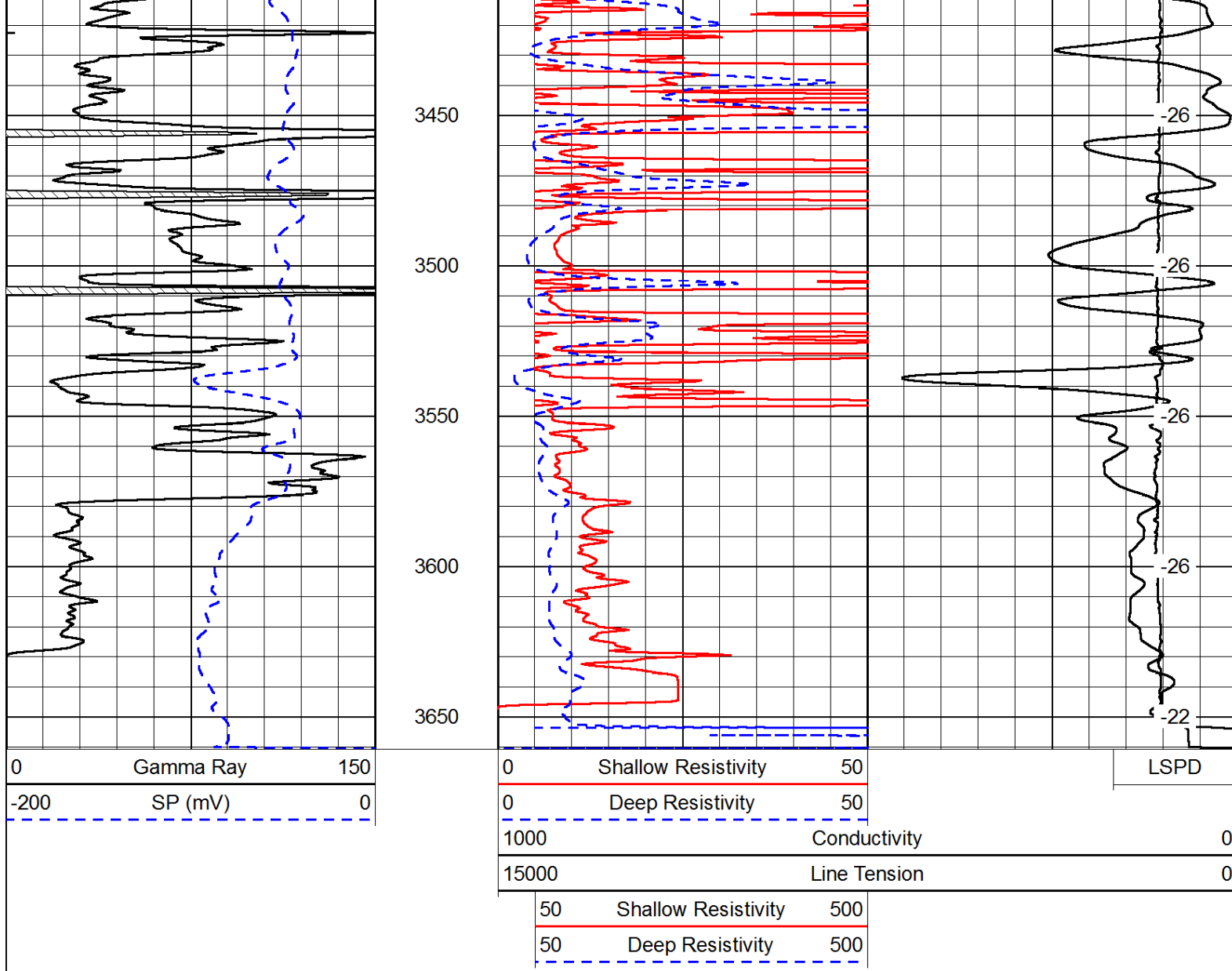




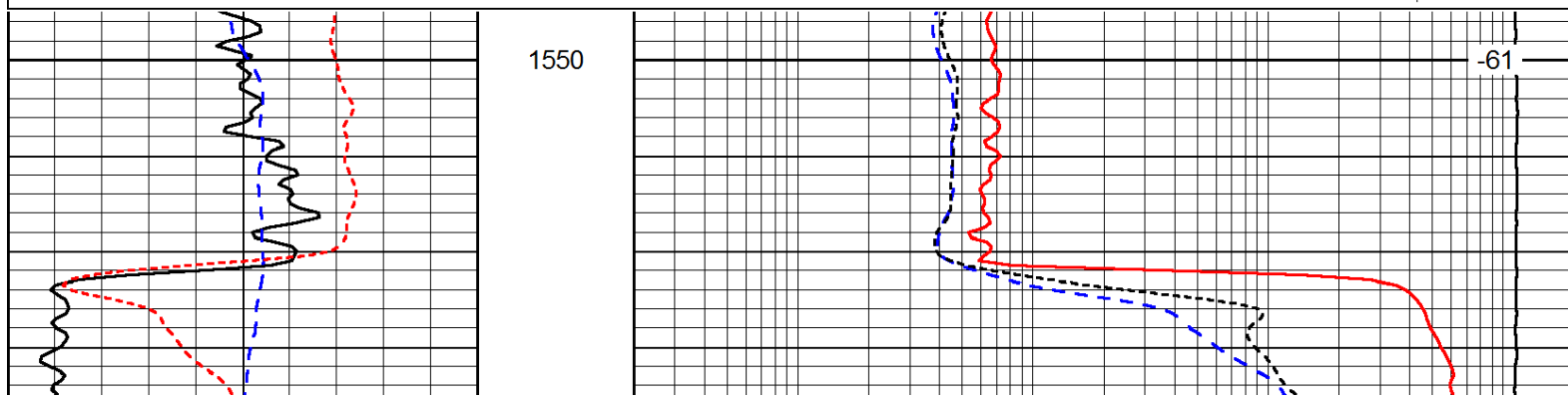
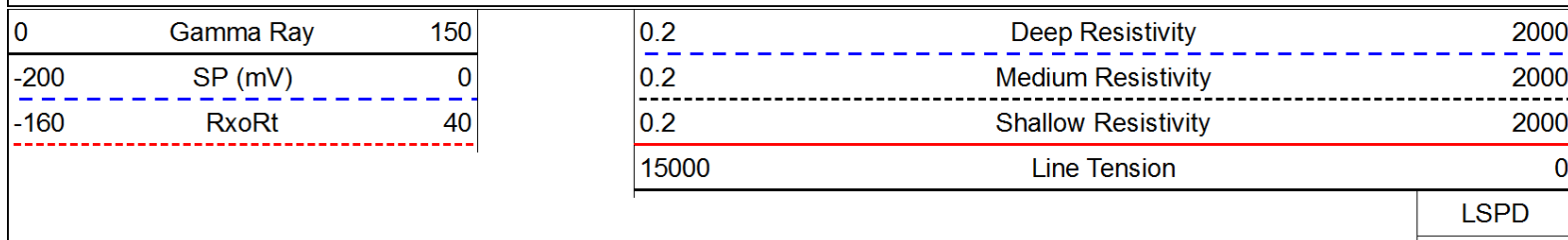


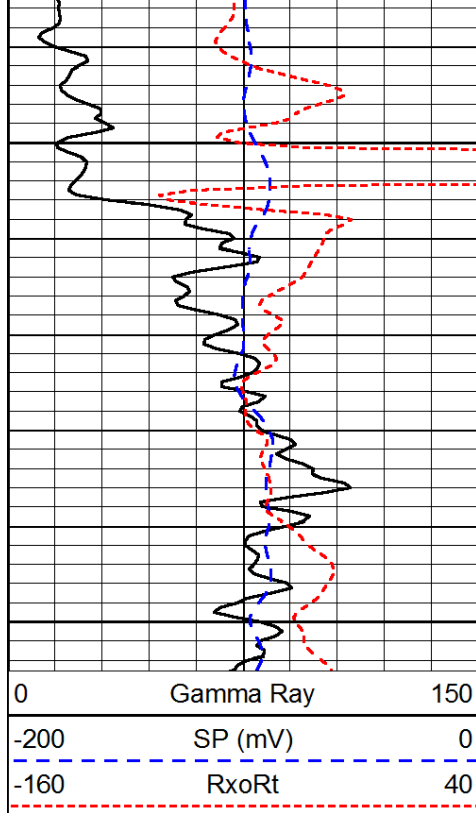






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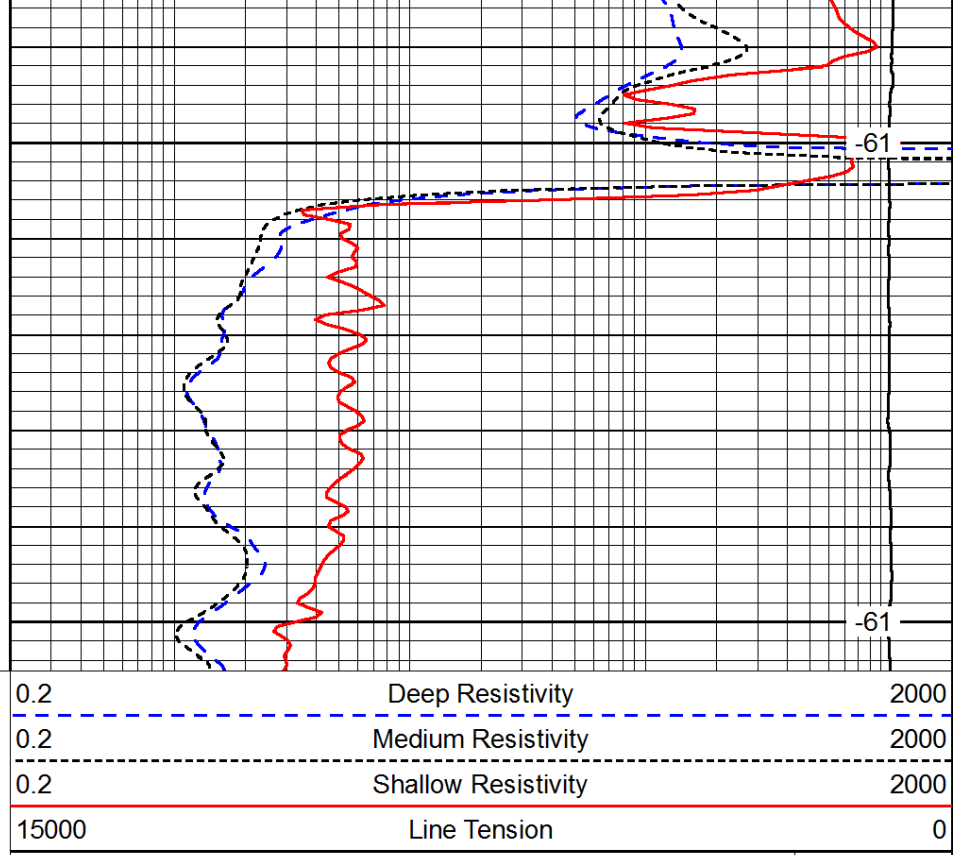




1600

1650

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



-61

-61

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

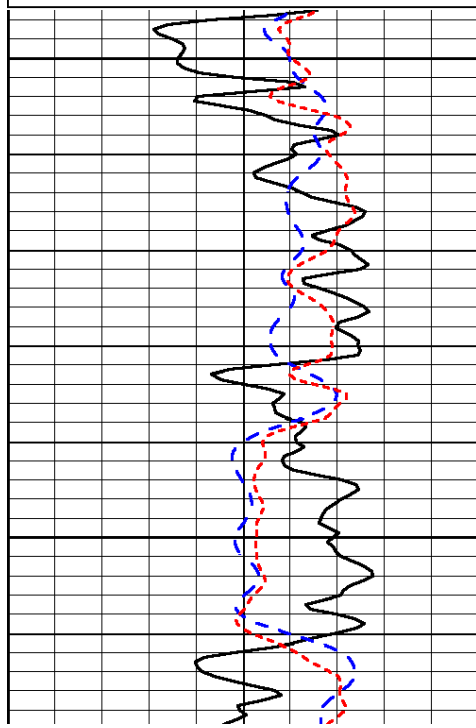
LSPD

Database File: c:\warrior\data\amwar_berland #1-12\amwar_081512hd.db
 Dataset Pathname: dil/awstack
 Presentation Format: dil
 Dataset Creation: Wed Aug 15 07:27:51 2012
 Charted by: Depth in Feet scaled 1:240

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

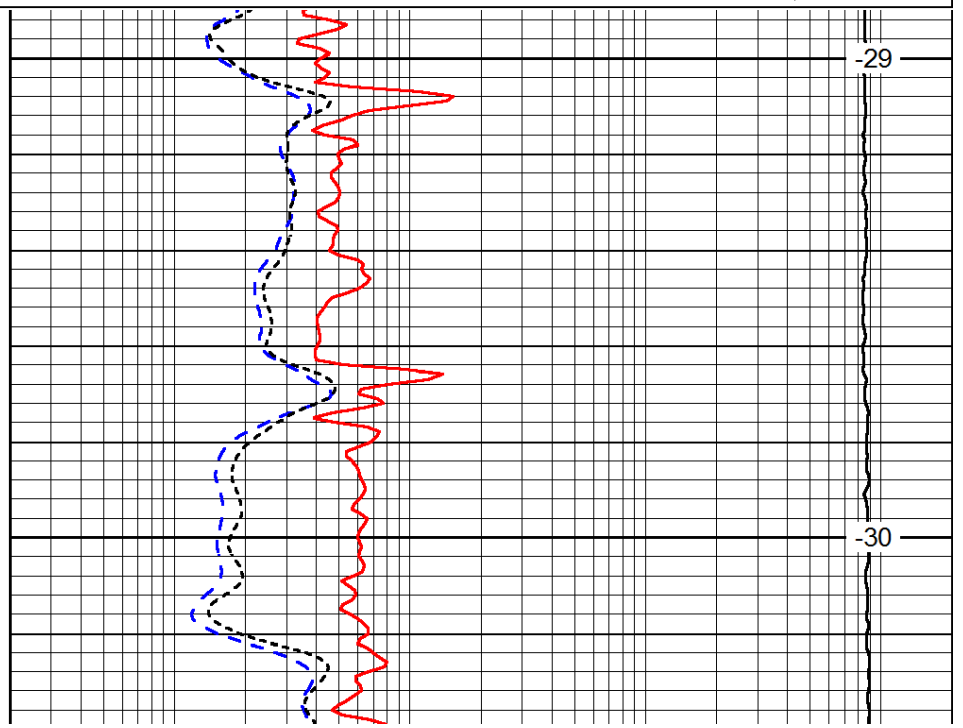
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0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD



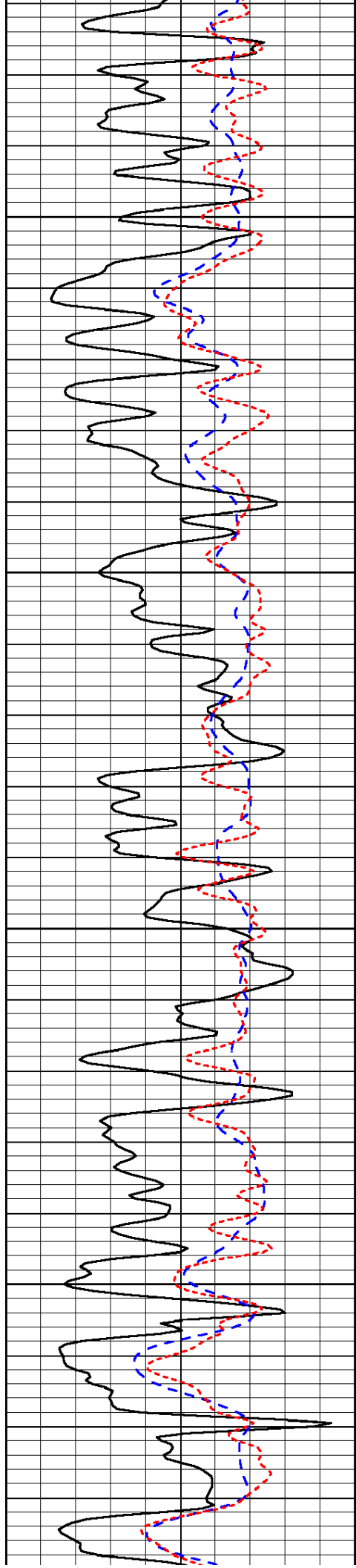
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2850



-29

-30

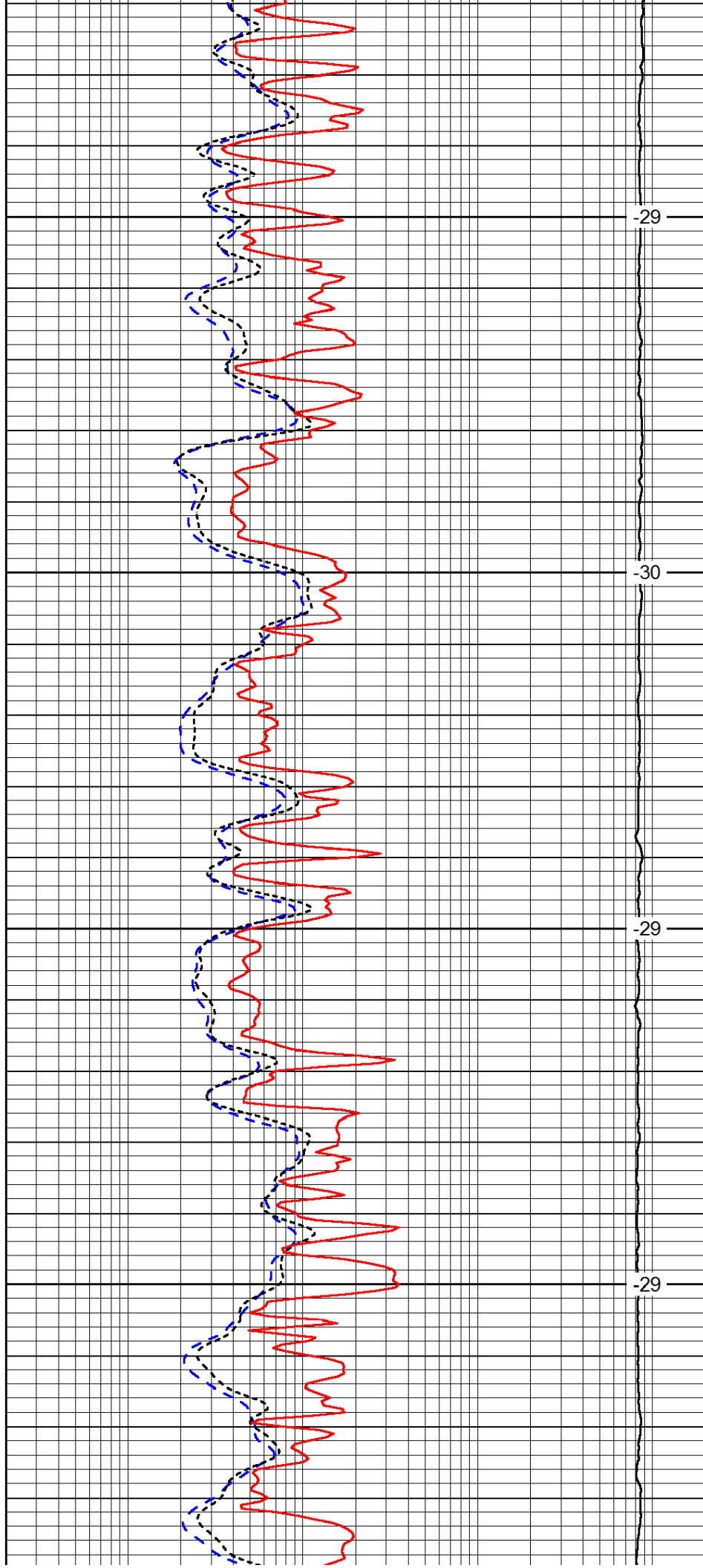


2900

2950

3000

3050

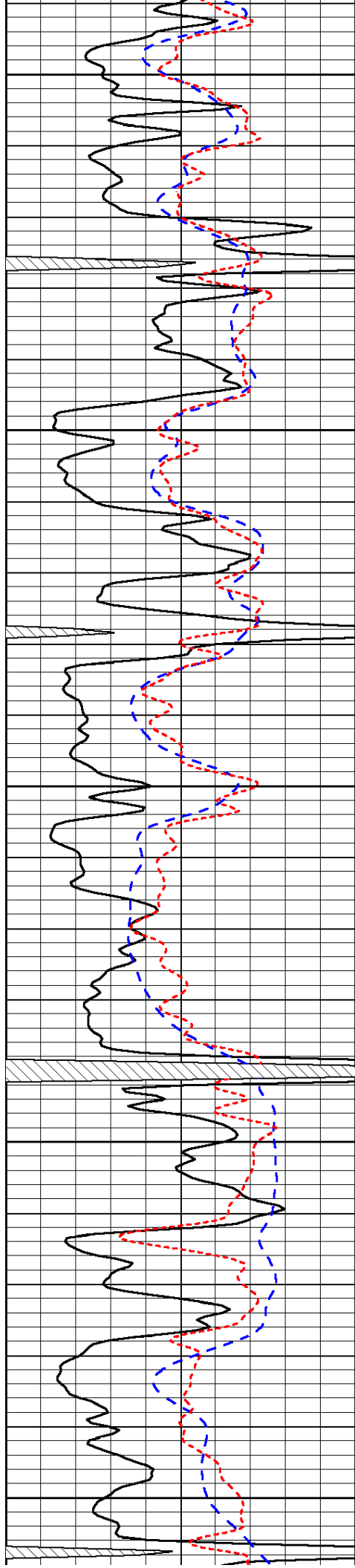


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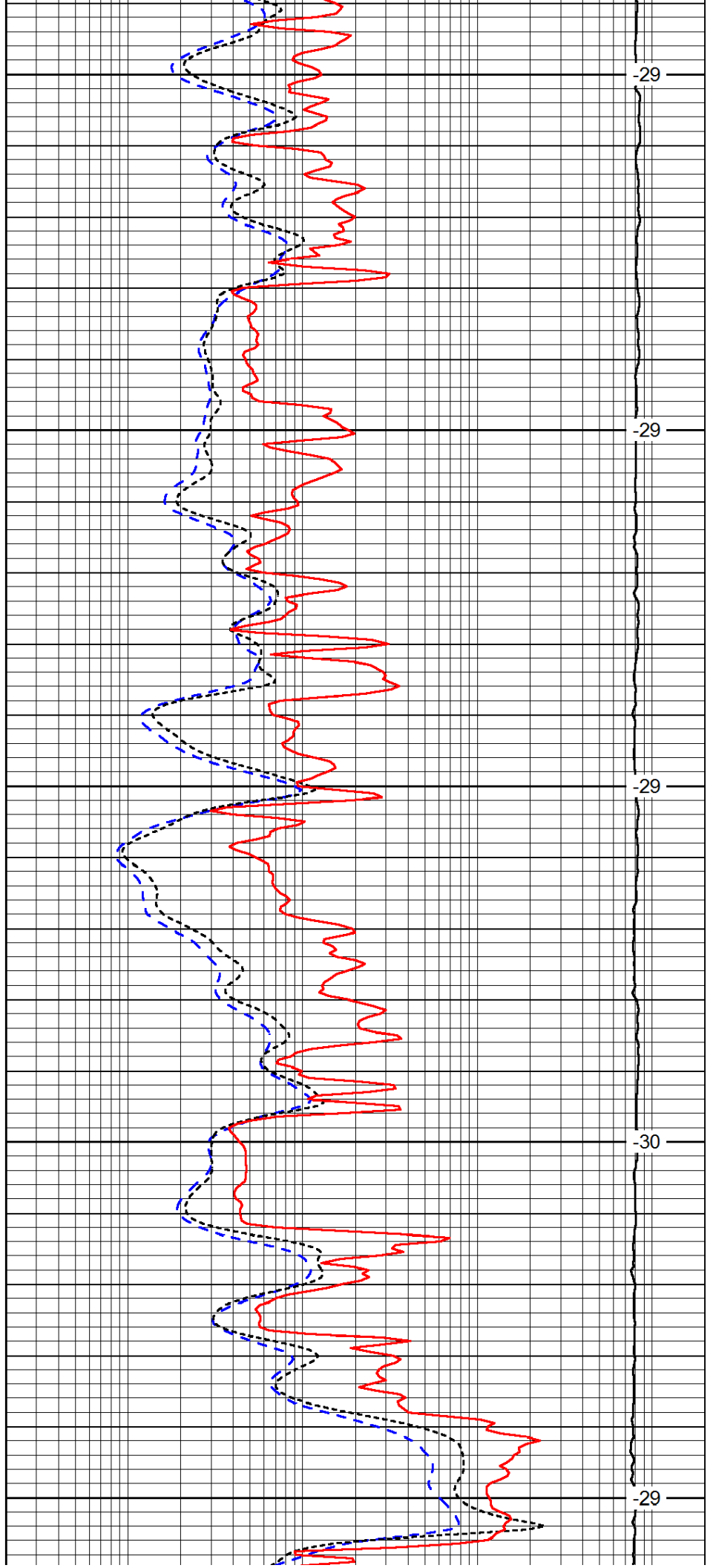
3100

3150

3200

3250

3300



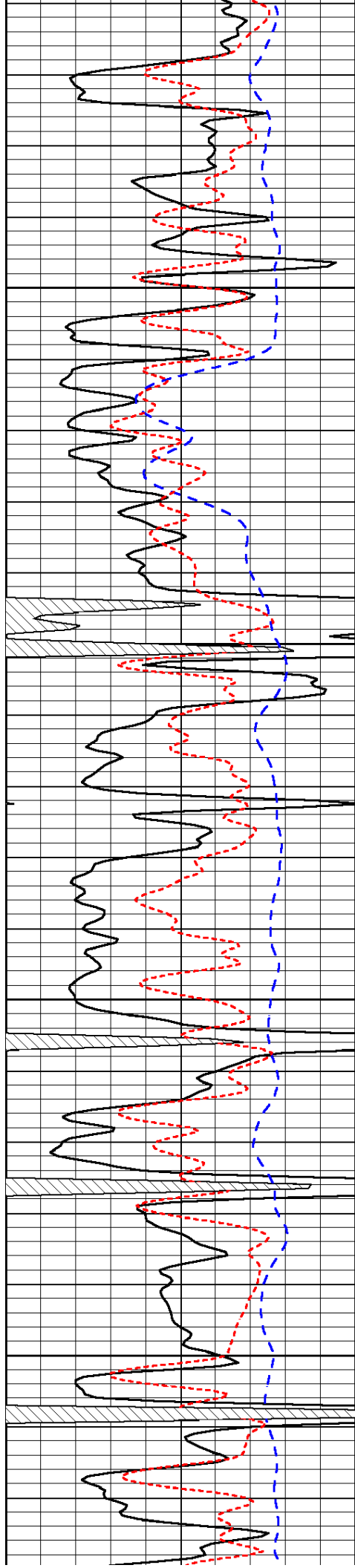
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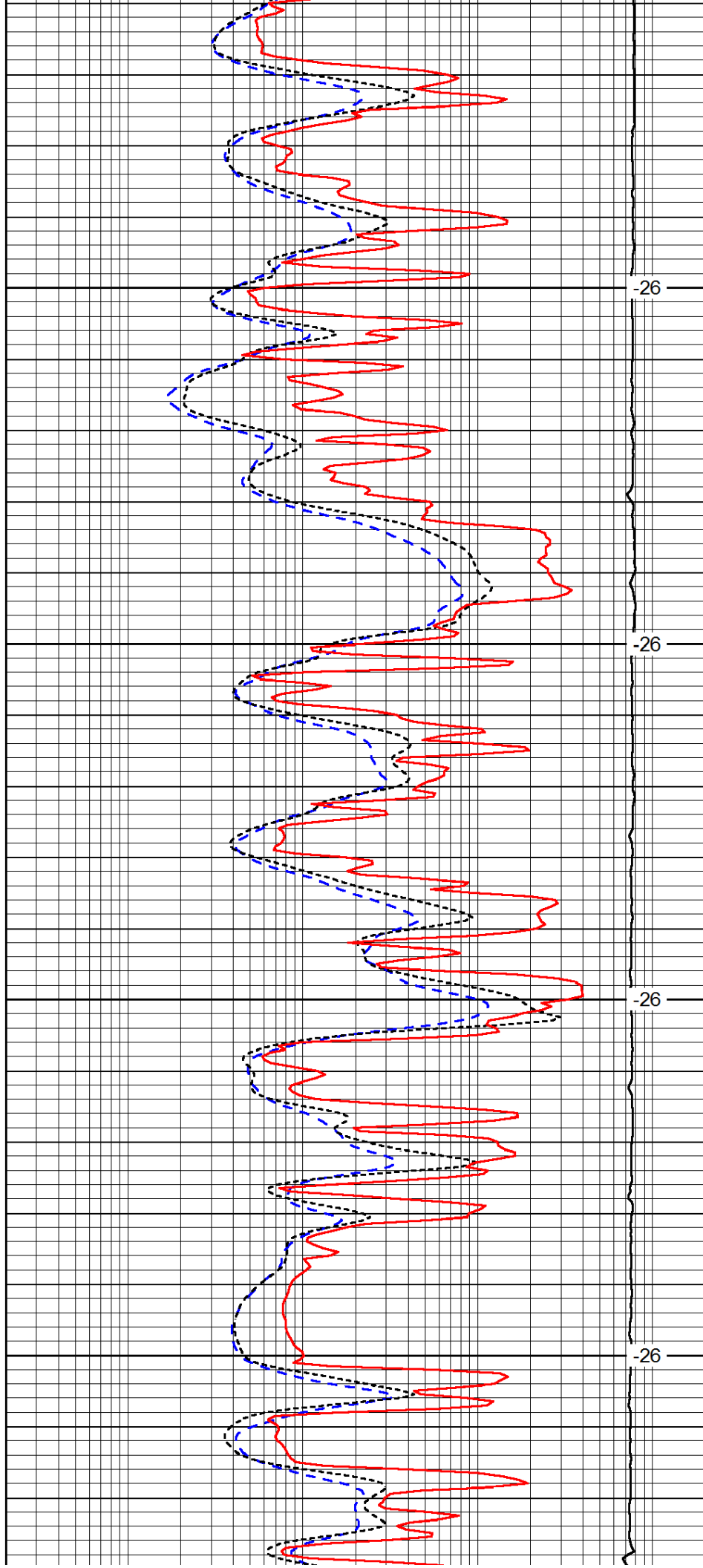


3350

3400

3450

3500

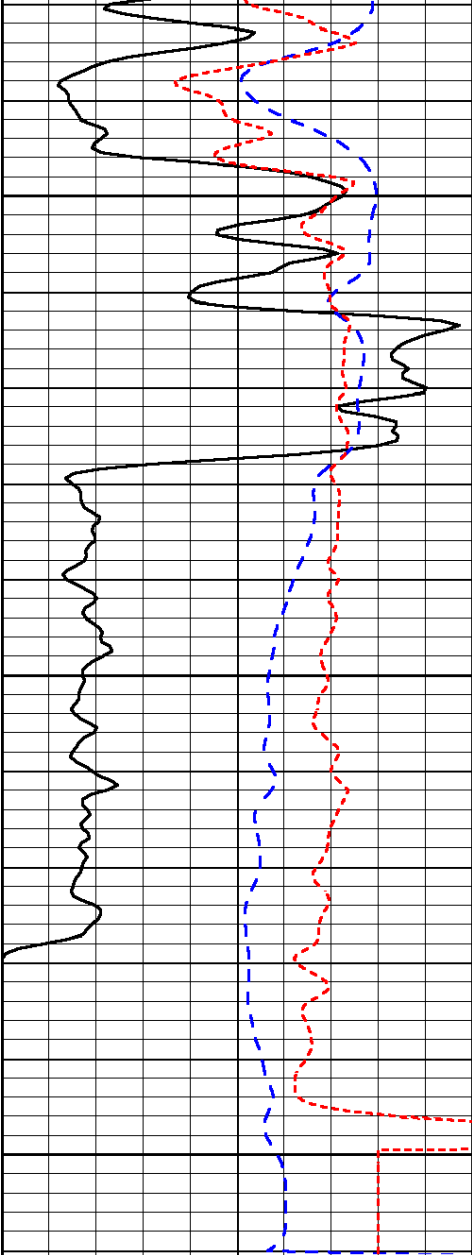


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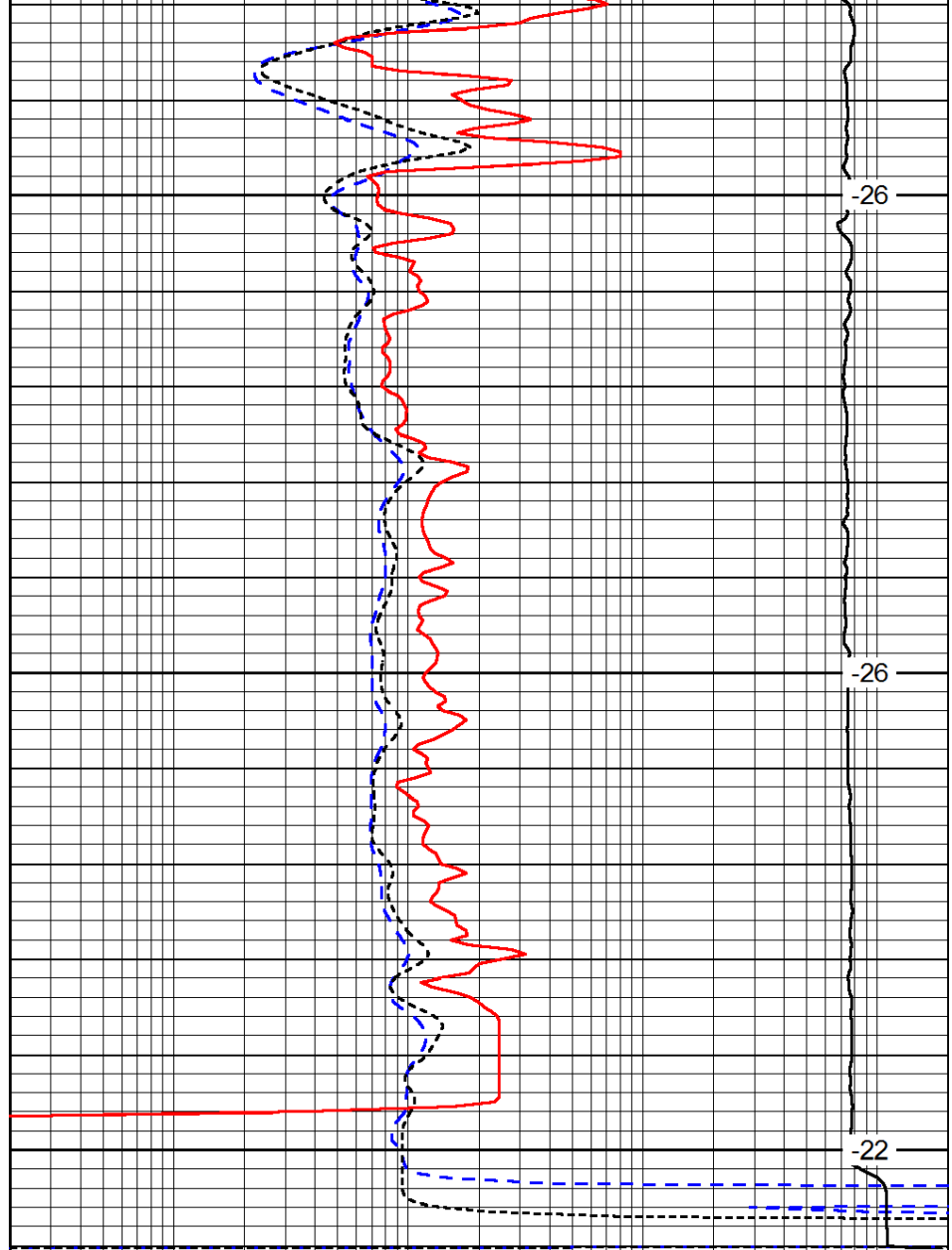


0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

3550

3600

3650



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

LSPD