



Pioneer Energy Services

Dual Induction Log

API No.	15-193-20,860-00-00	
Company	Norstar Petroleum, Inc.	
Well	Stover-Weed Unit No. 1-27	
Field	Unnamed	
County	Thomas	State
		Kansas
Location	906' FSL & 102' FEL	
Sec: 27	Twp: 10S	Rge: 35W
Permanent Datum	Ground Level	Elevation 3313
Log Measured From	Kelly Bushing	8 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	K.B. 3321 D.F. 3313 G.L. 3313

Date	9/16/2012
Run Number	One
Depth Driller	4935
Depth Logger	4935
Bottom Logged Interval	4934
Top Log Interval	250
Casing Driller	8.625 @ 264
Casing Logger	258
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	12100
Density / Viscosity	9.3 62
pH / Fluid Loss	9.5 8.8
Source of Sample	Flowline
Rm @ Meas. Temp	.06 @ 53
Rmf @ Meas. Temp	.05 @ 53
Rmc @ Meas. Temp	.08 @ 53
Source of Rmf / Rmc	Charts
Rm @ BHT	.03 @ 125
Operating Rig Time	4 1/2 Hours
Max Rec. Temp. F	125
Equipment Number	17
Location	Hays
Recorded By	D. Martin
Witnessed By	Bob Elder

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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.

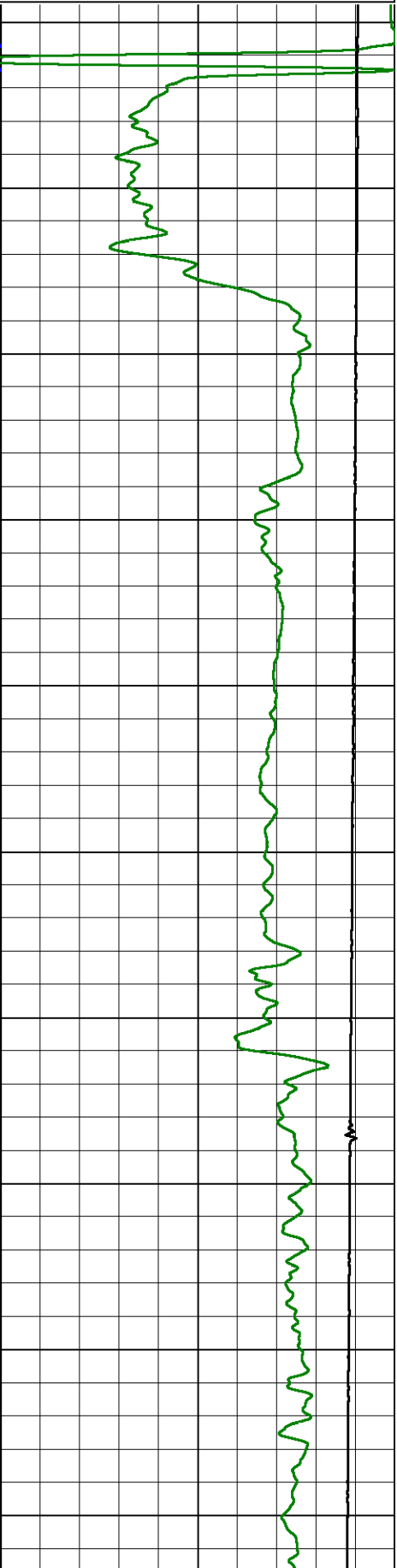
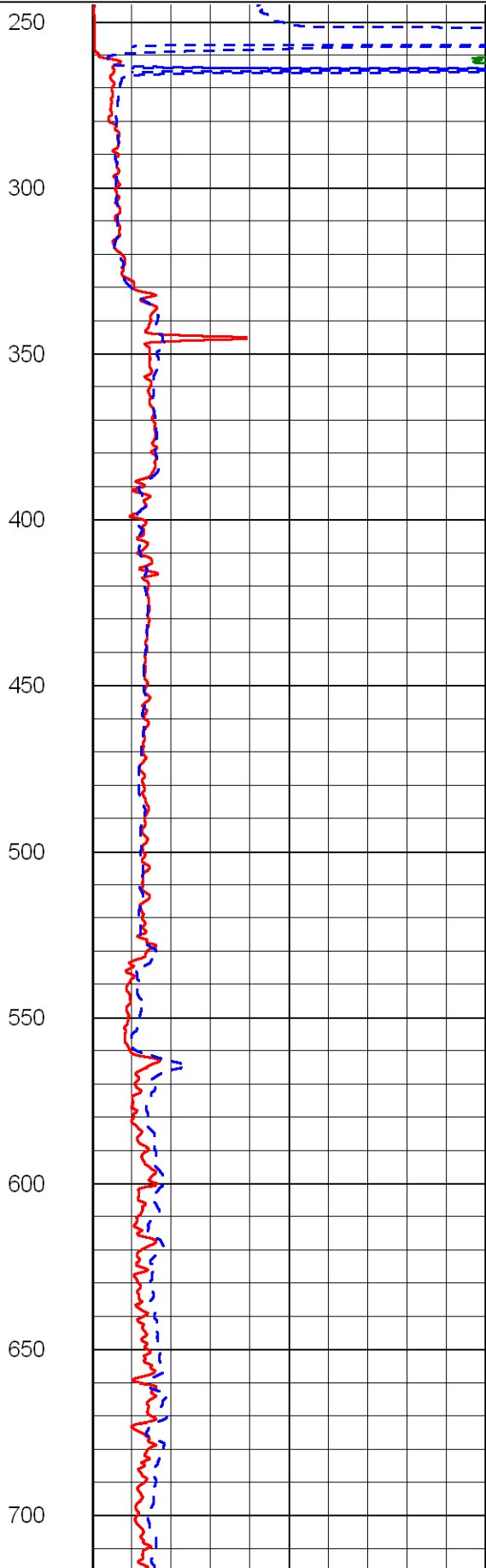
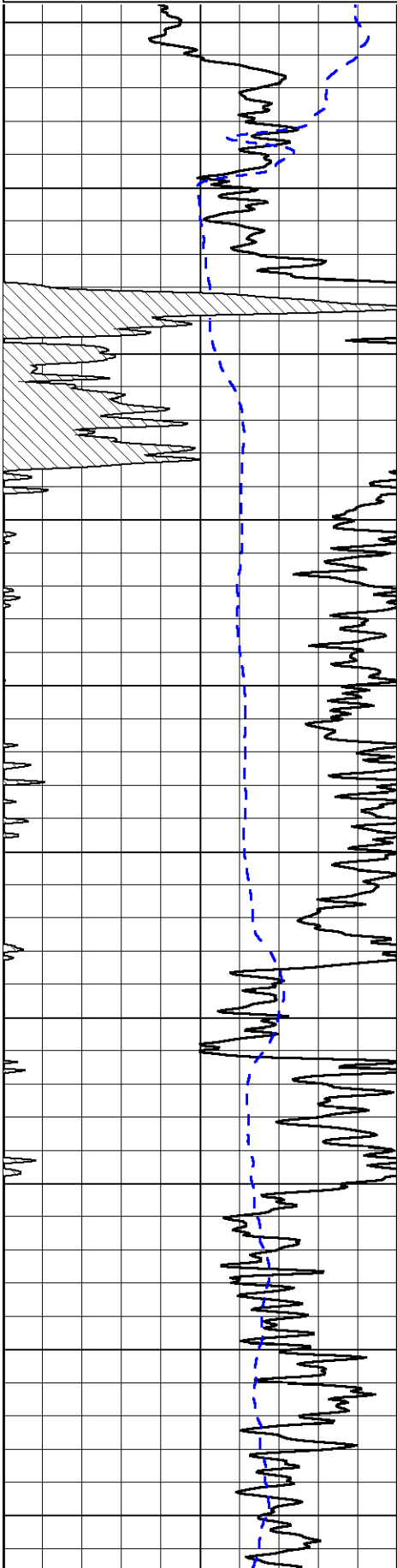
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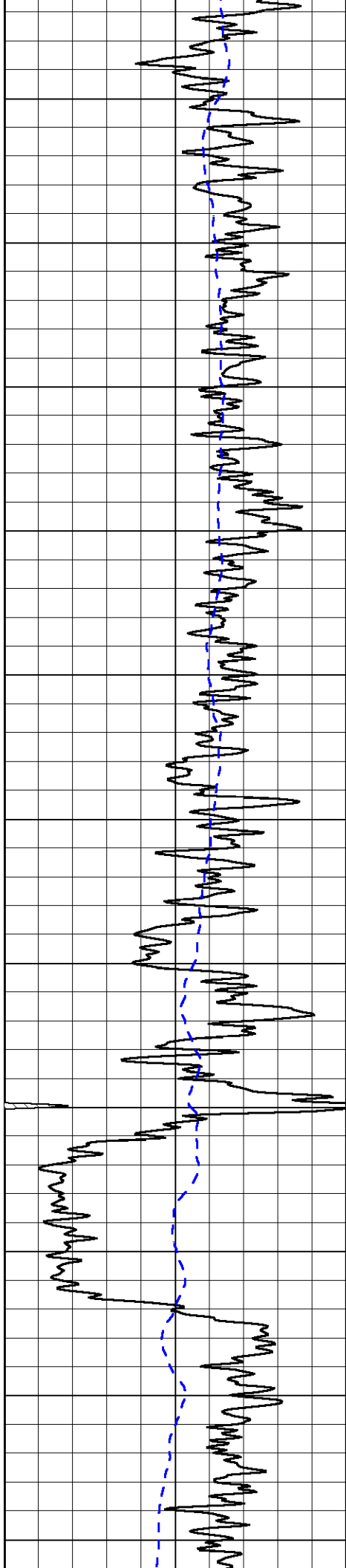
Thank you for using Log-Tech, Inc.
 (785) 625-3858
 Levant I-70 Exit,
 15 S, E, Immediately N Into

Database File: norshd.db
 Dataset Pathname: DIL/norstk
 Presentation Format: dil2in
 Dataset Creation: Sun Sep 16 05:49:12 2012
 Charted by: Depth in Feet scaled 1:600

0 Gamma Ray 150
-200 SP 0

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





750

800

850

900

950

1000

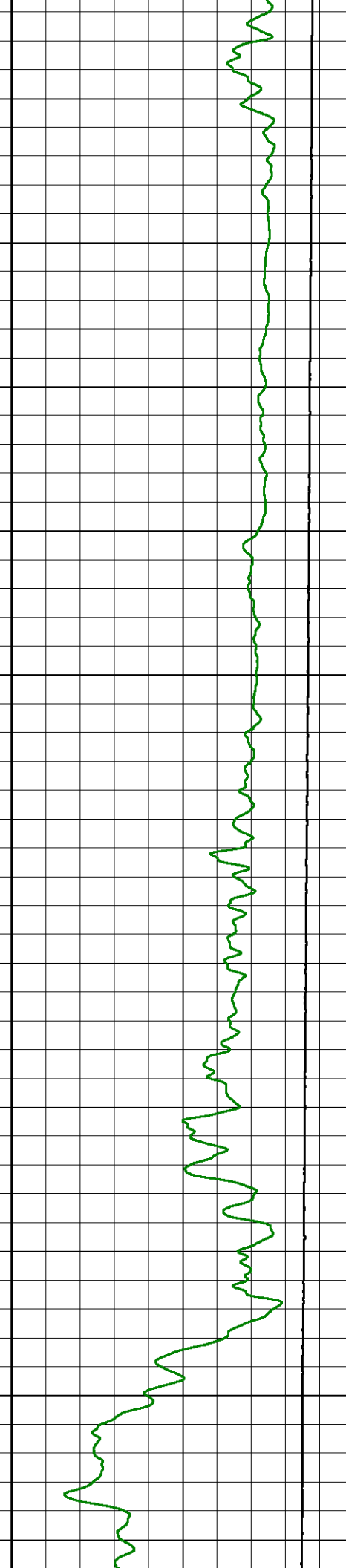
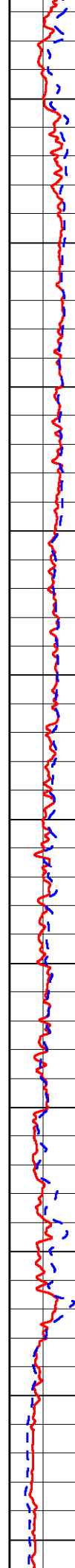
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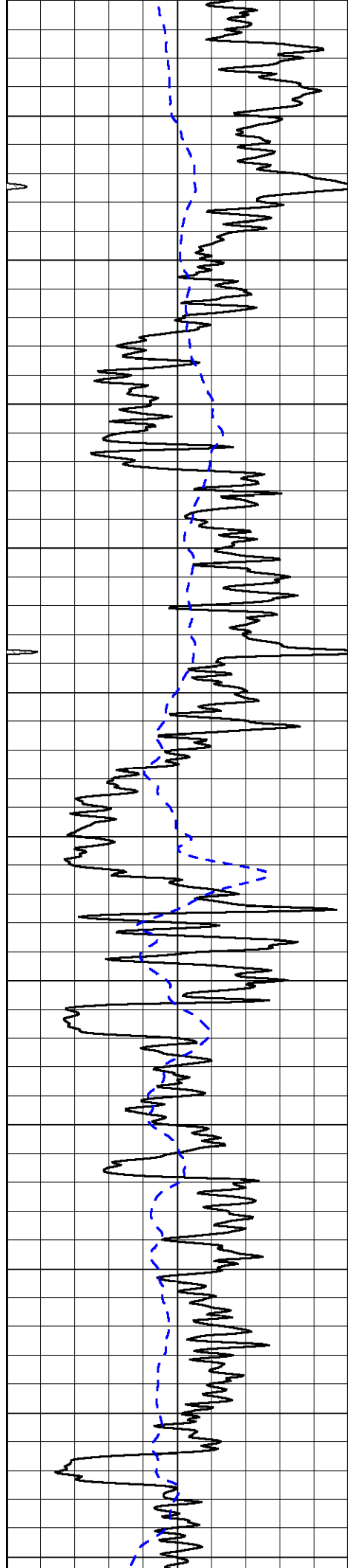
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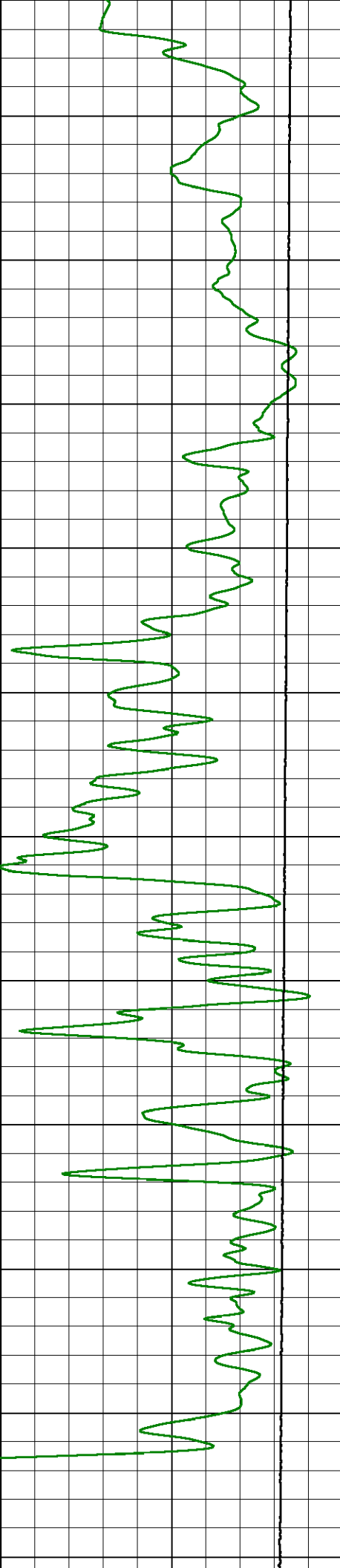
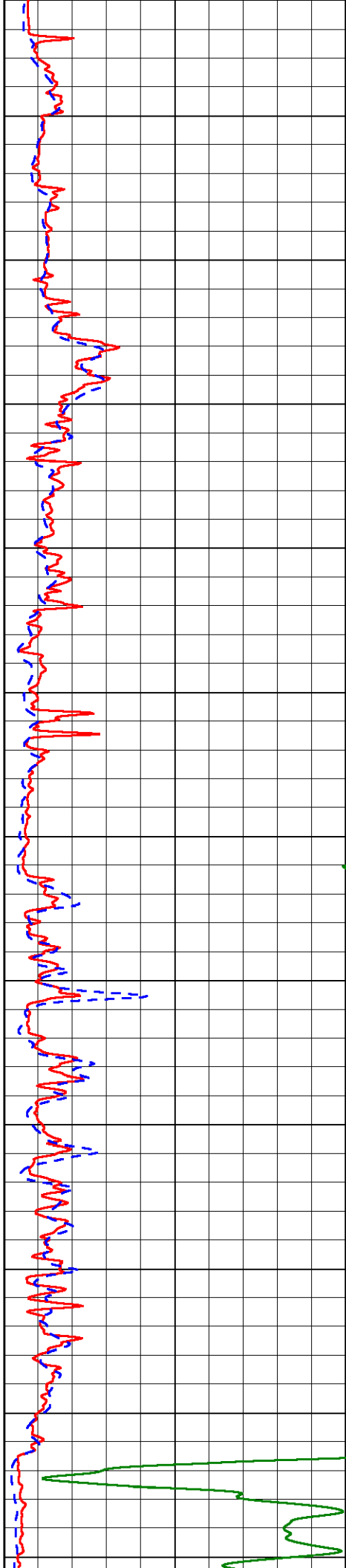
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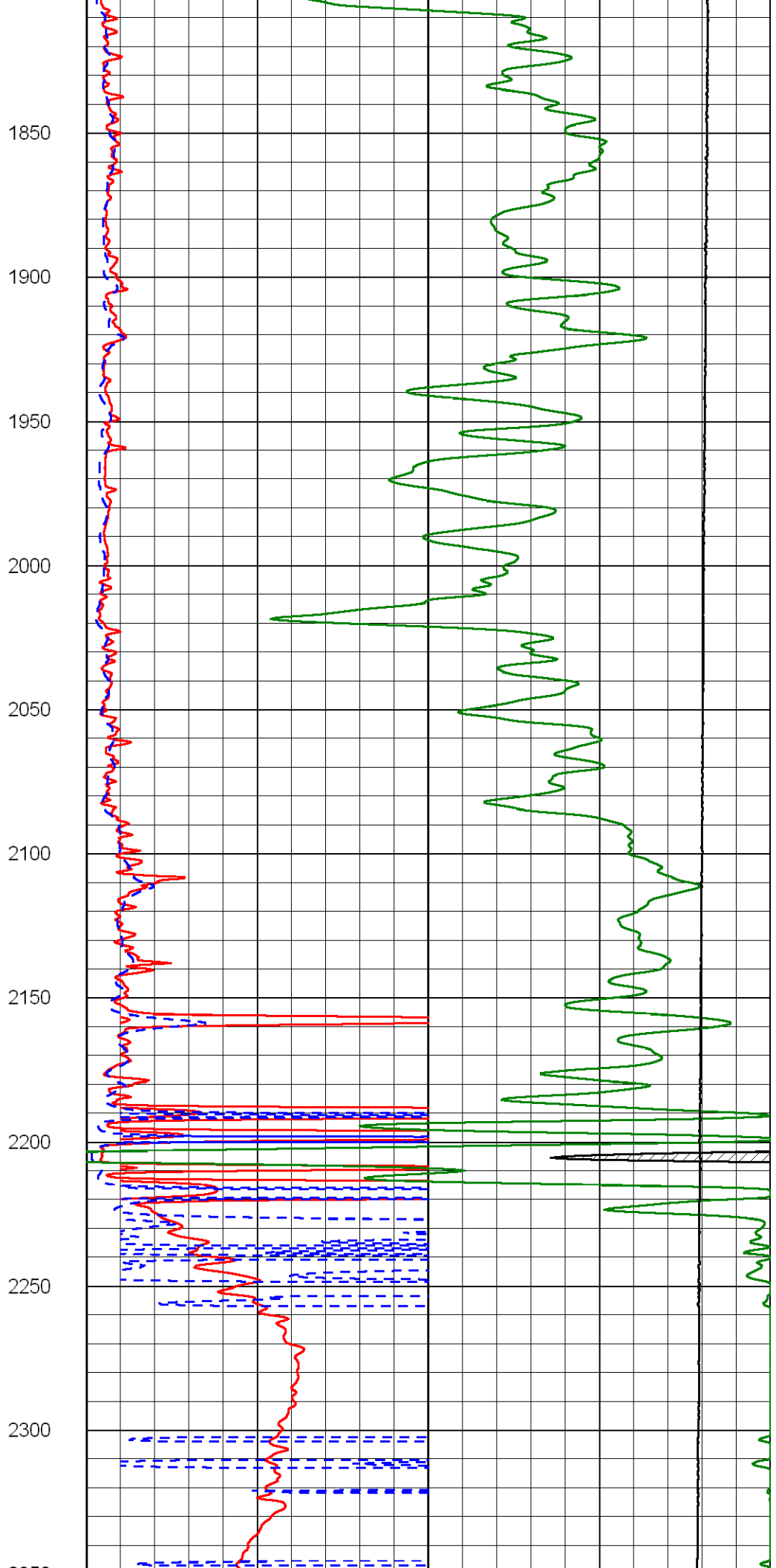
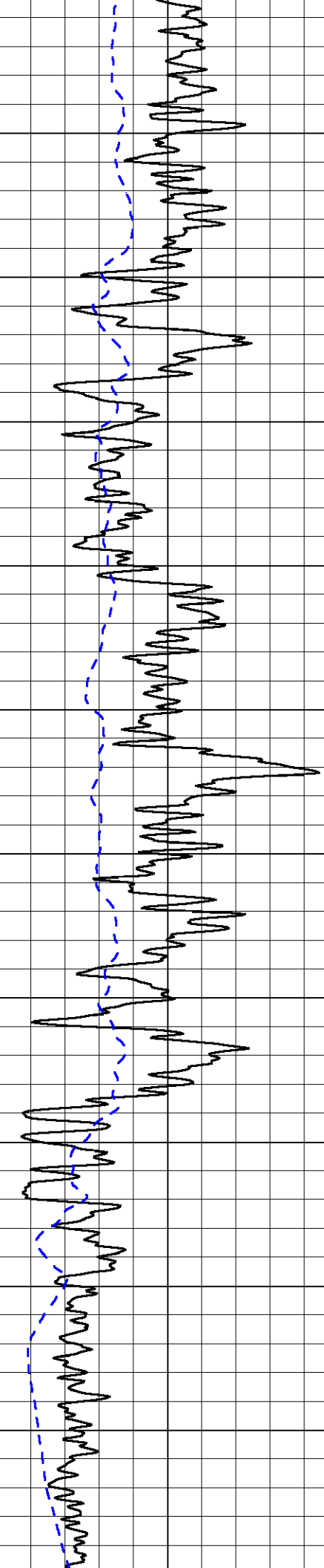
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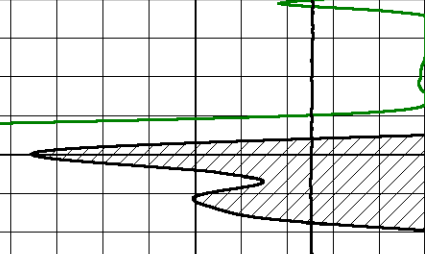
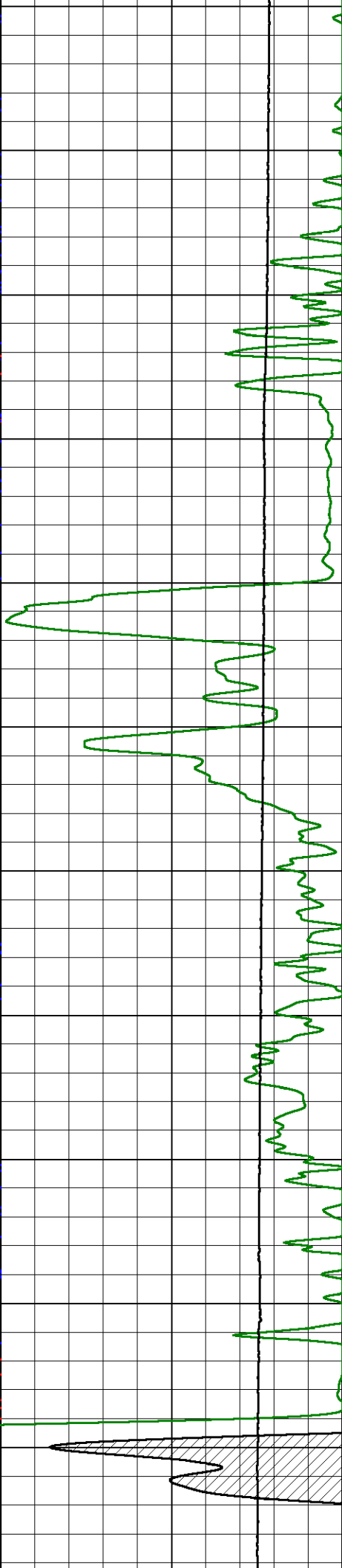
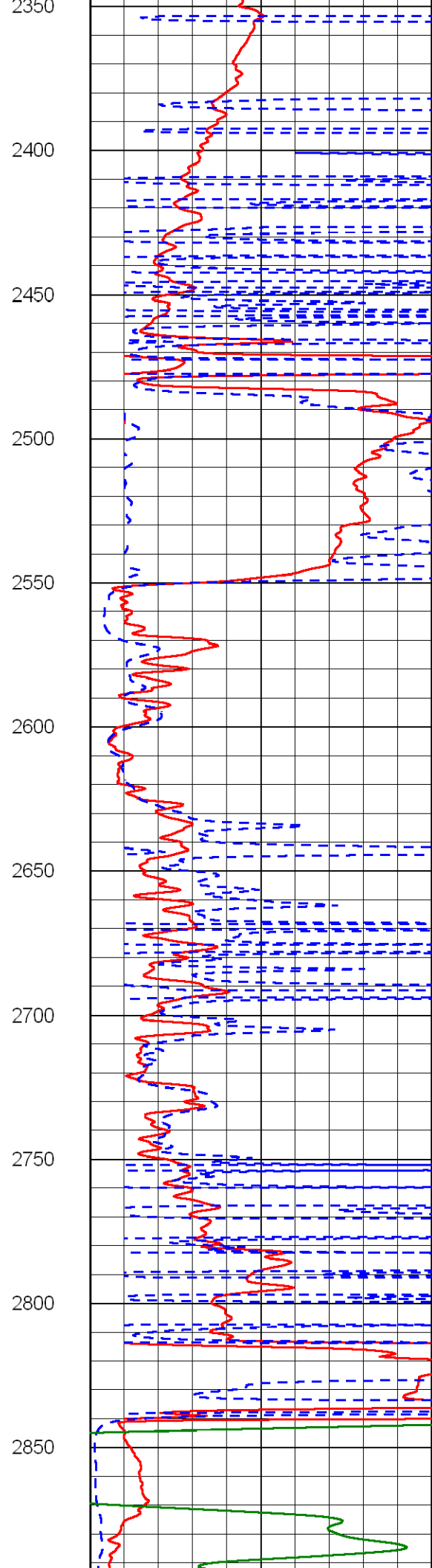
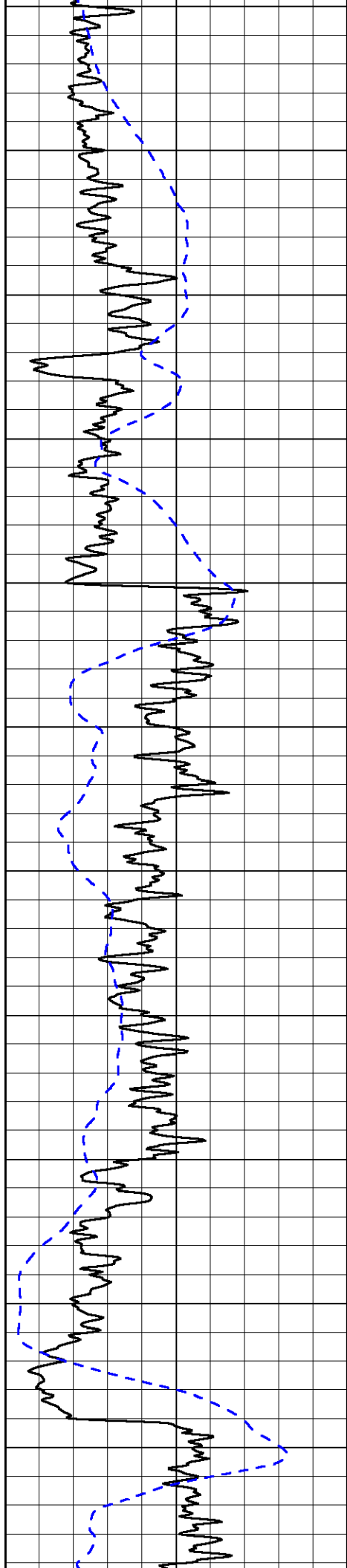


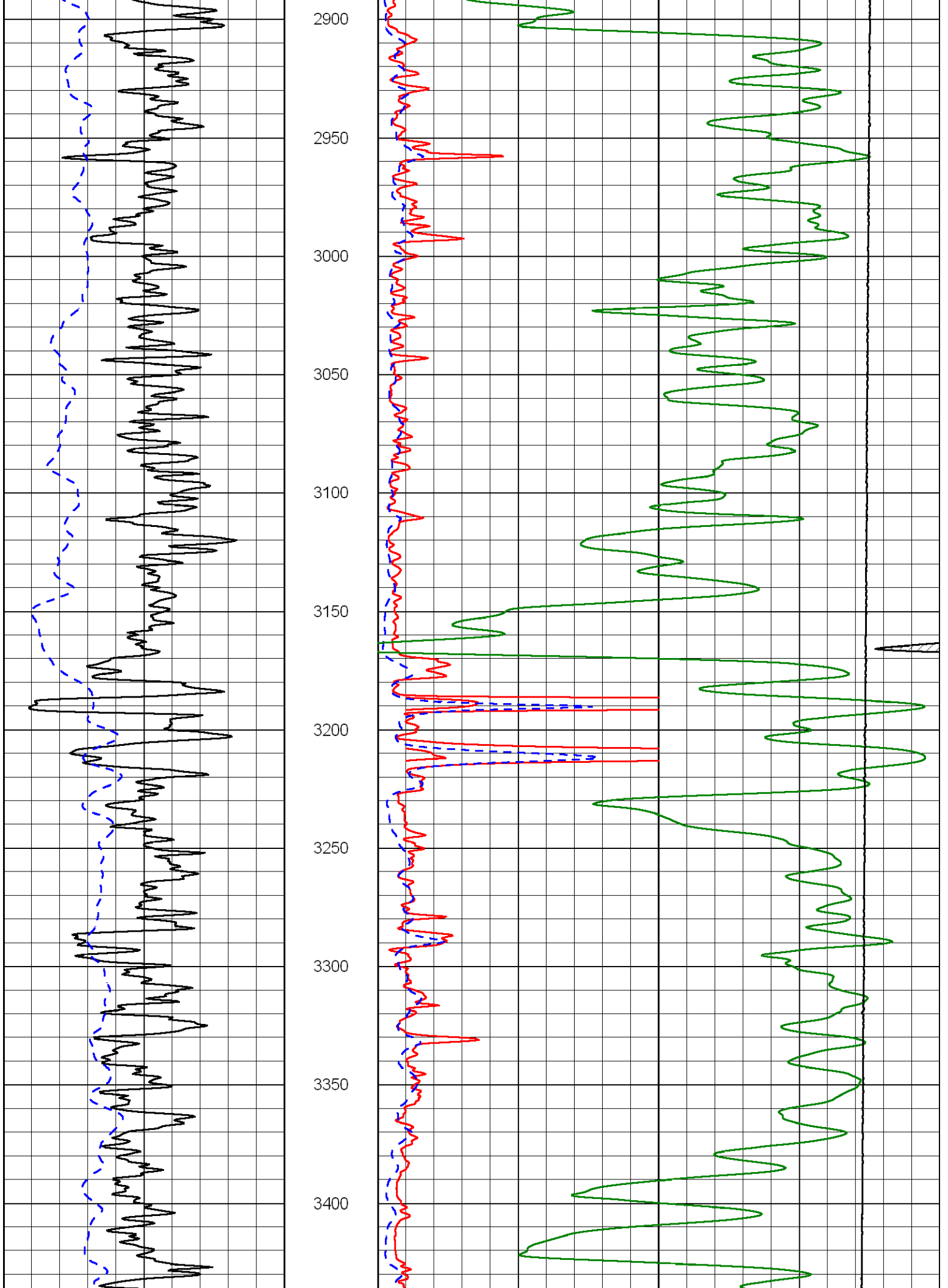


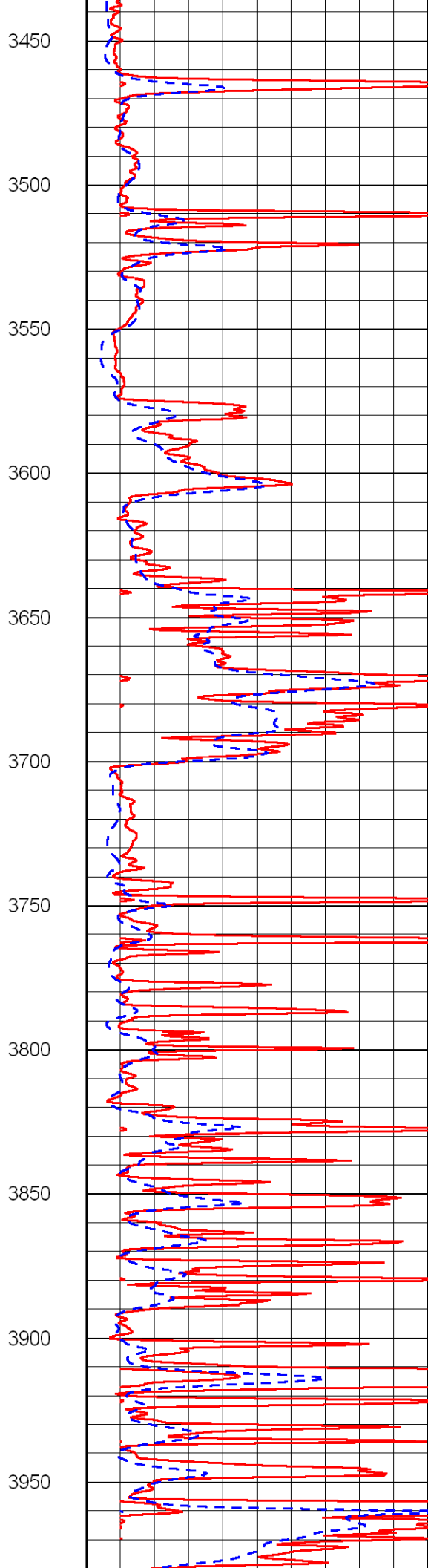
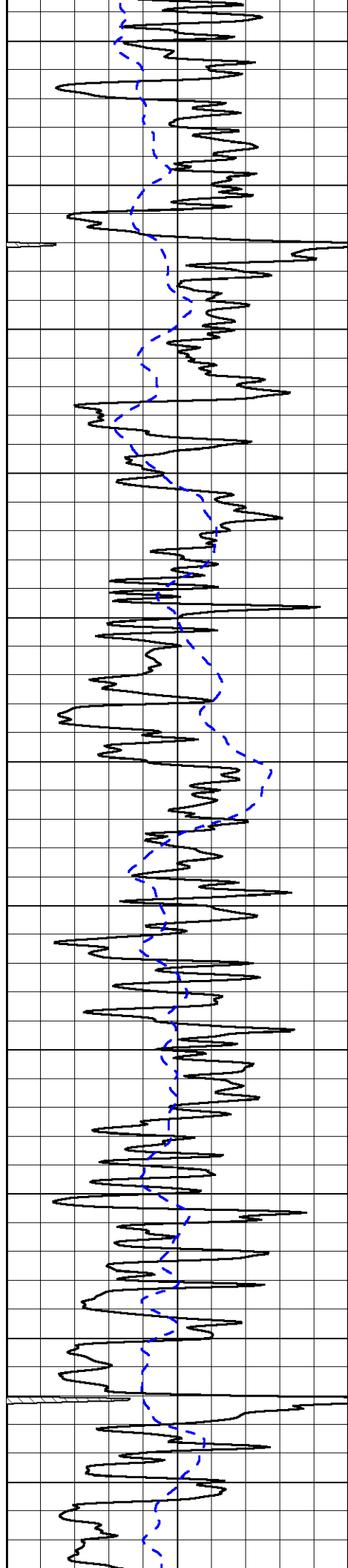
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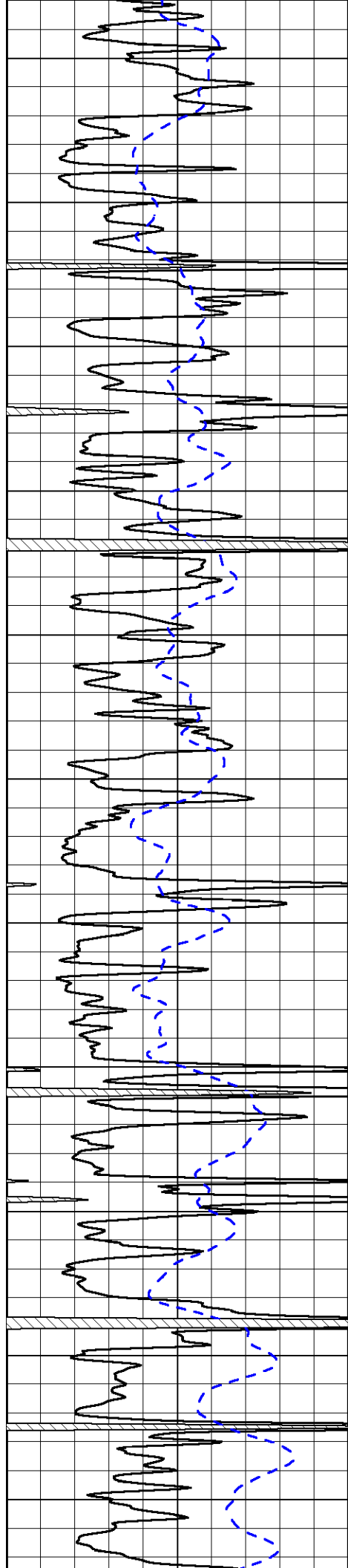












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4050

4100

4150

4200

4250

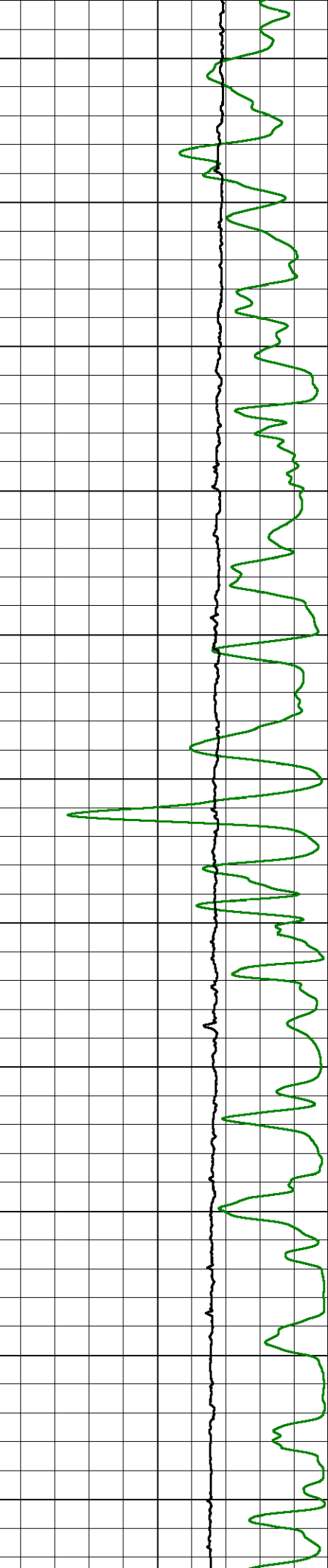
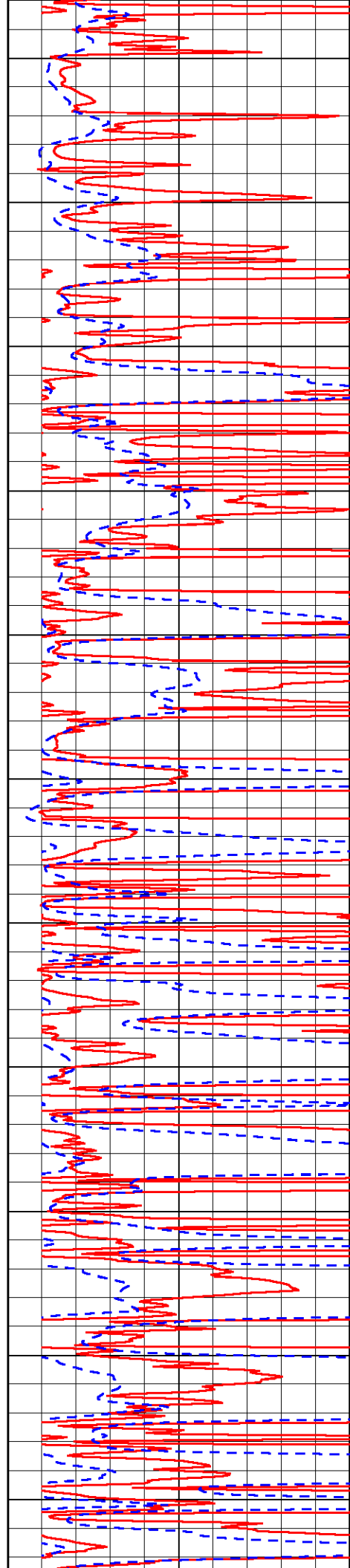
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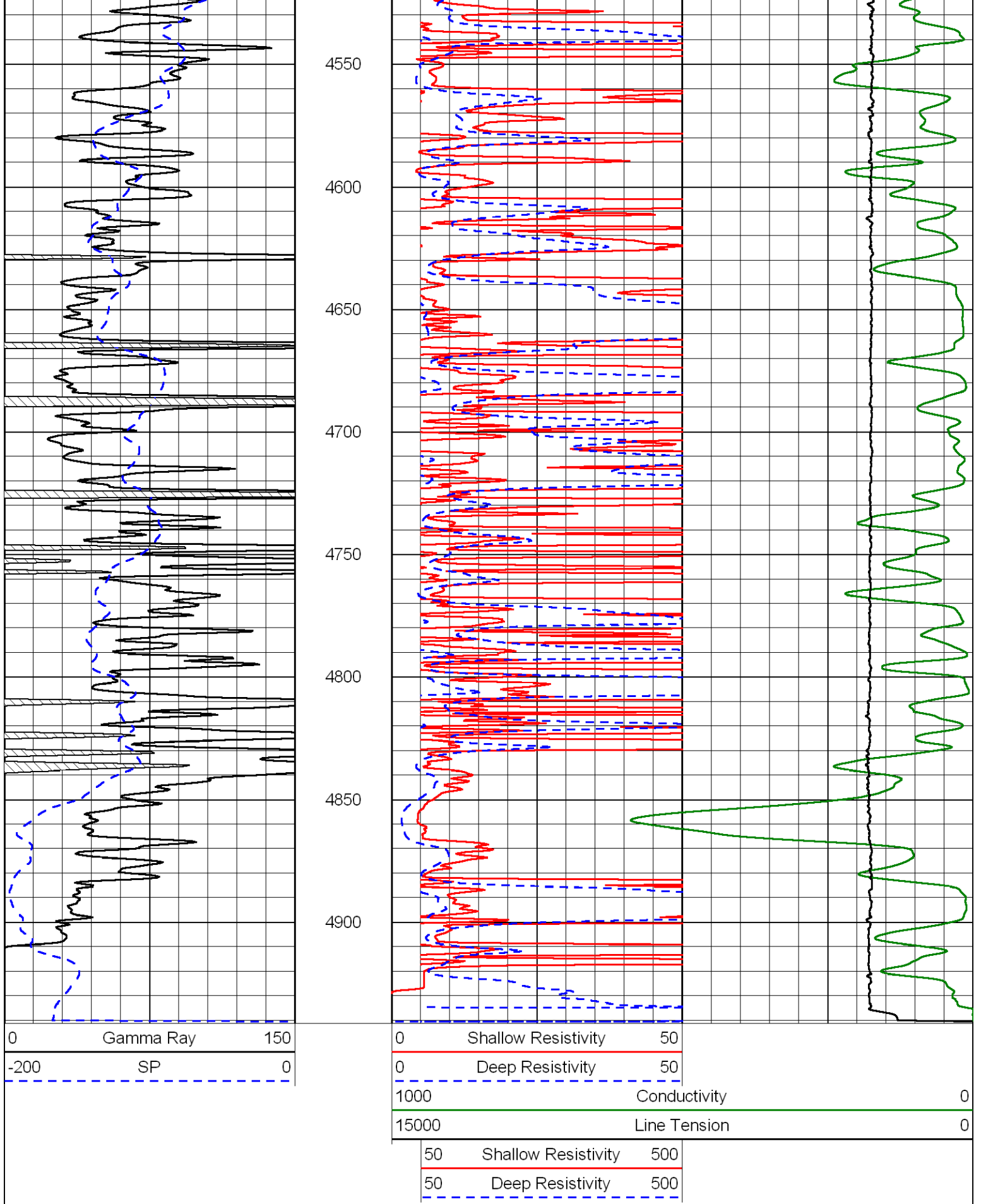
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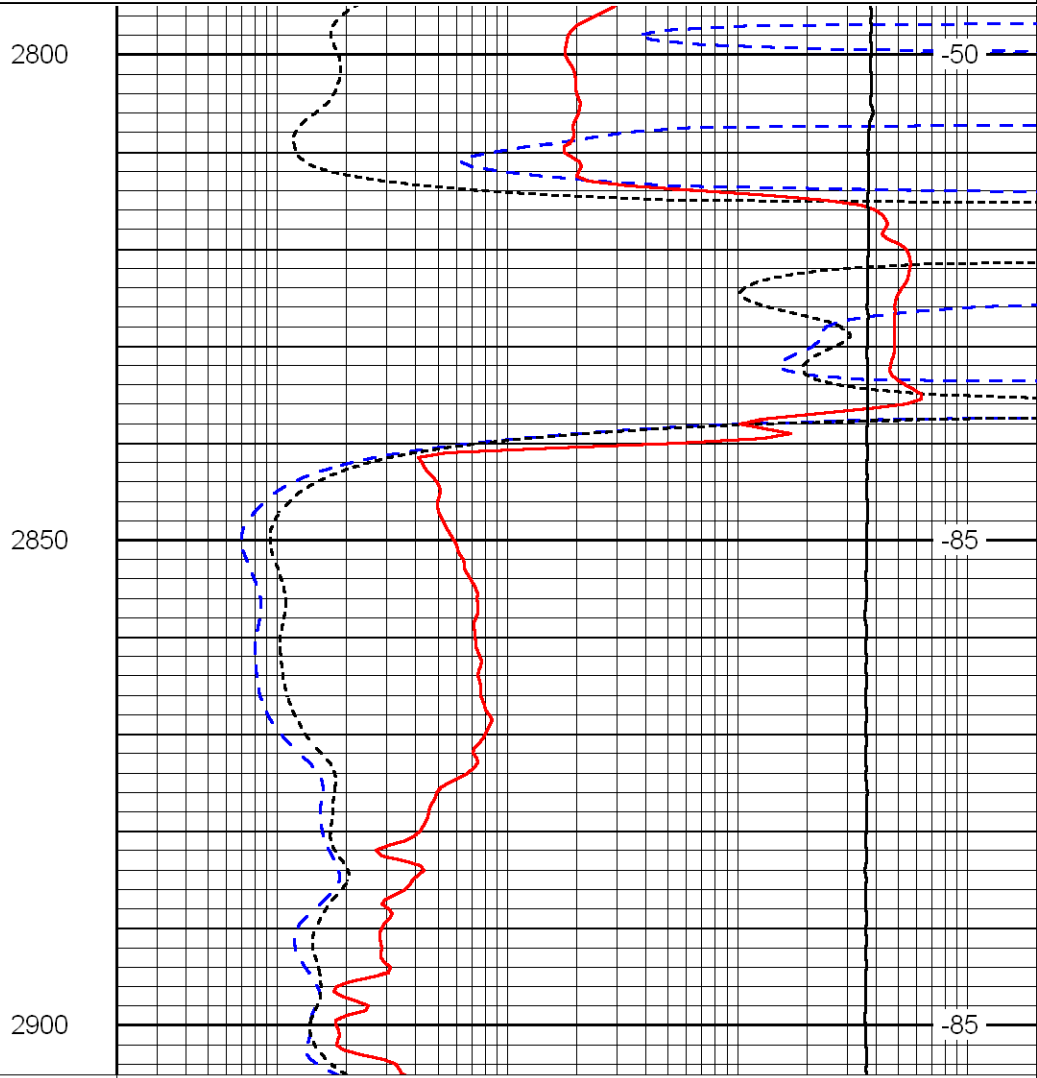
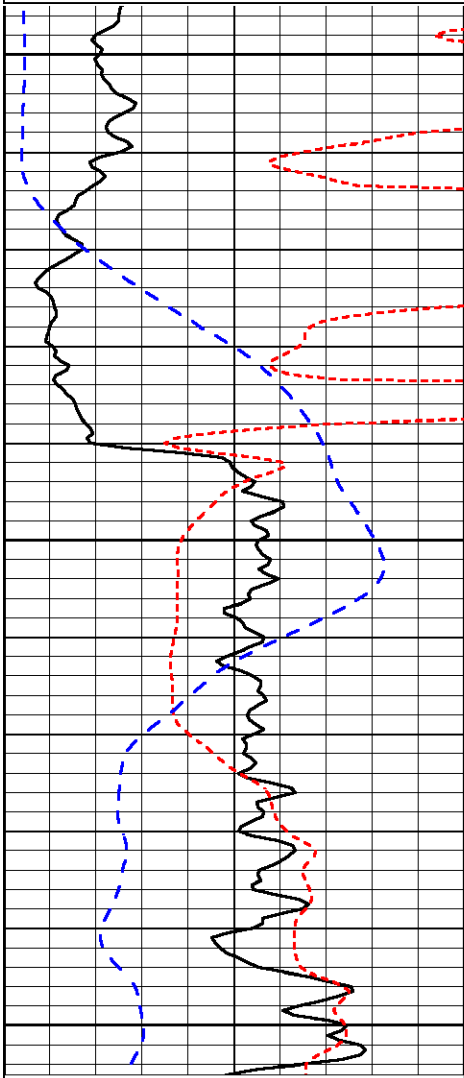


Database File: norshd.db
 Dataset Pathname: DIL/norstk
 Presentation Format: dil
 Dataset Creation: Sun Sep 16 05:49:12 2012
 Client:

0	Gamma Ray	150
-160	RXO/RT	40
-200	SP	0

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD



0	Gamma Ray	150
-160	RXO/RT	40
-200	SP	0

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

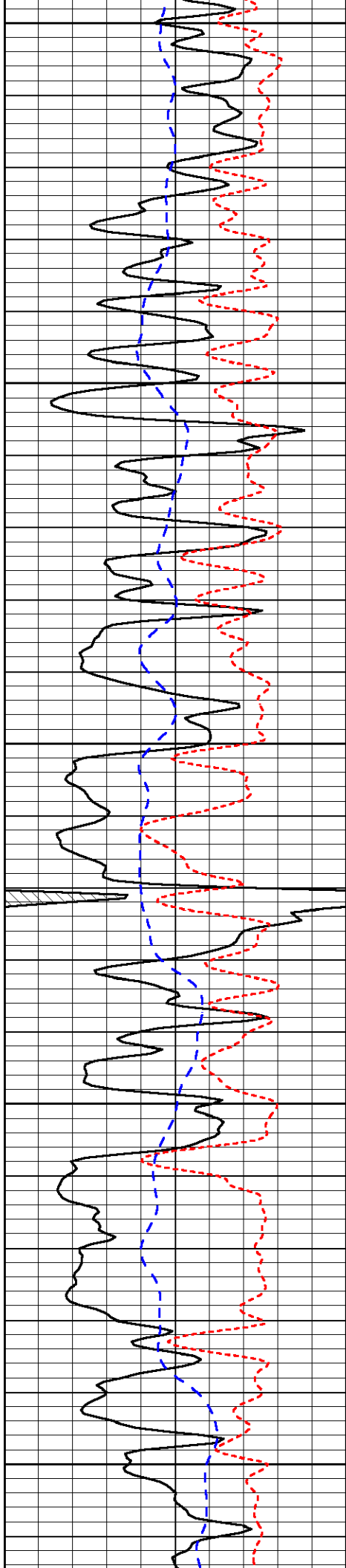
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Database File: norshd.db
 Dataset Pathname: DIL/norstk
 Presentation Format: dil
 Dataset Creation: Sun Sep 16 05:49:12 2012
 Charted by: Depth in Feet scaled 1:240

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-160	RXO/RT	40
-200	SP	0

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD



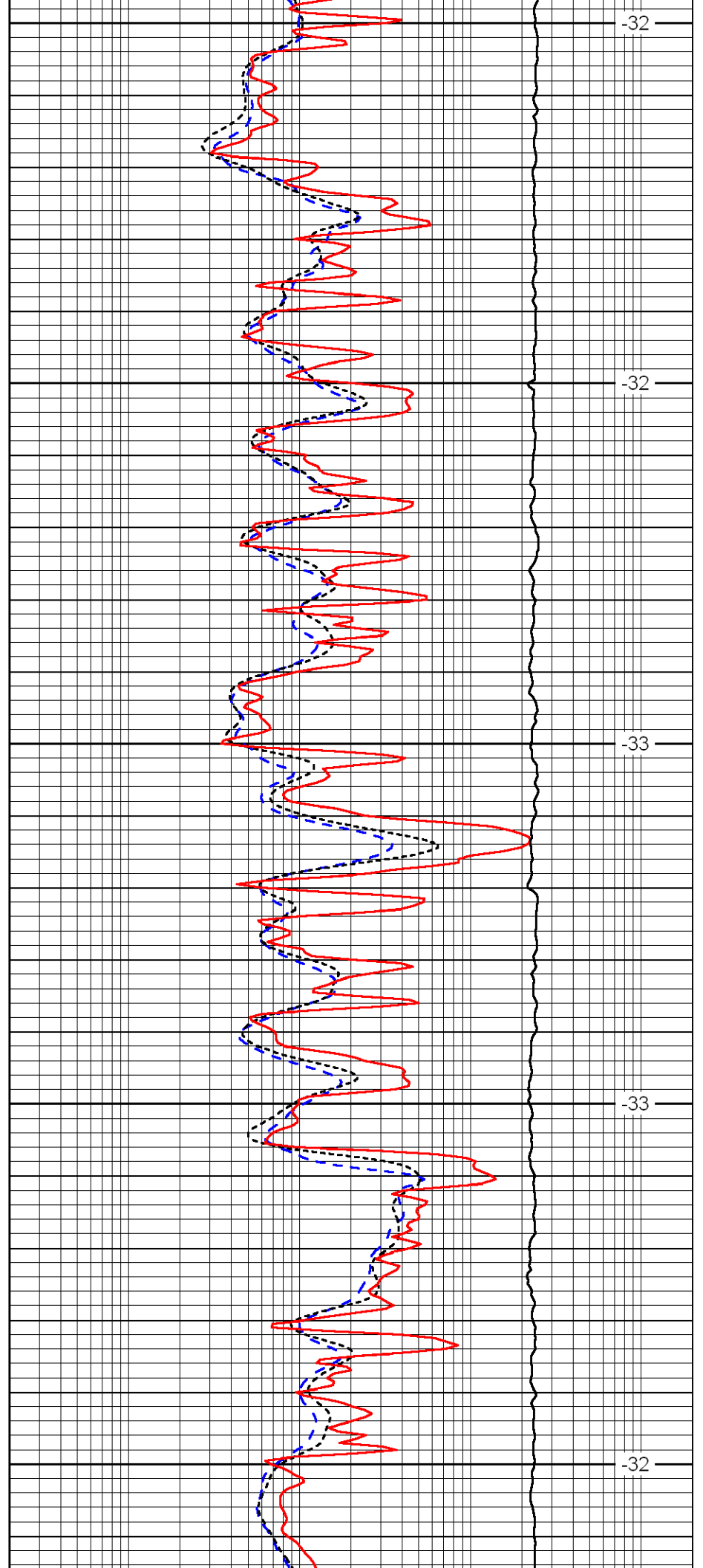
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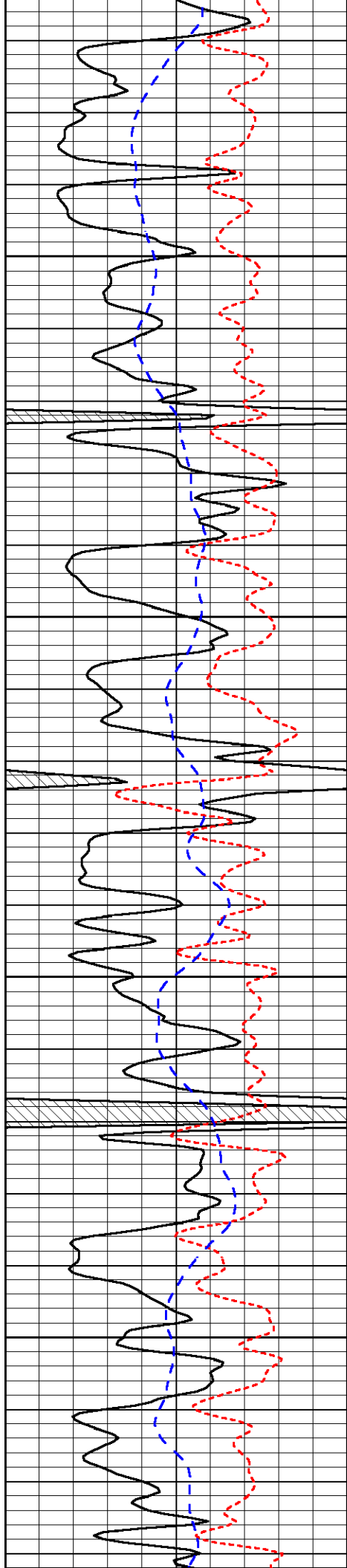
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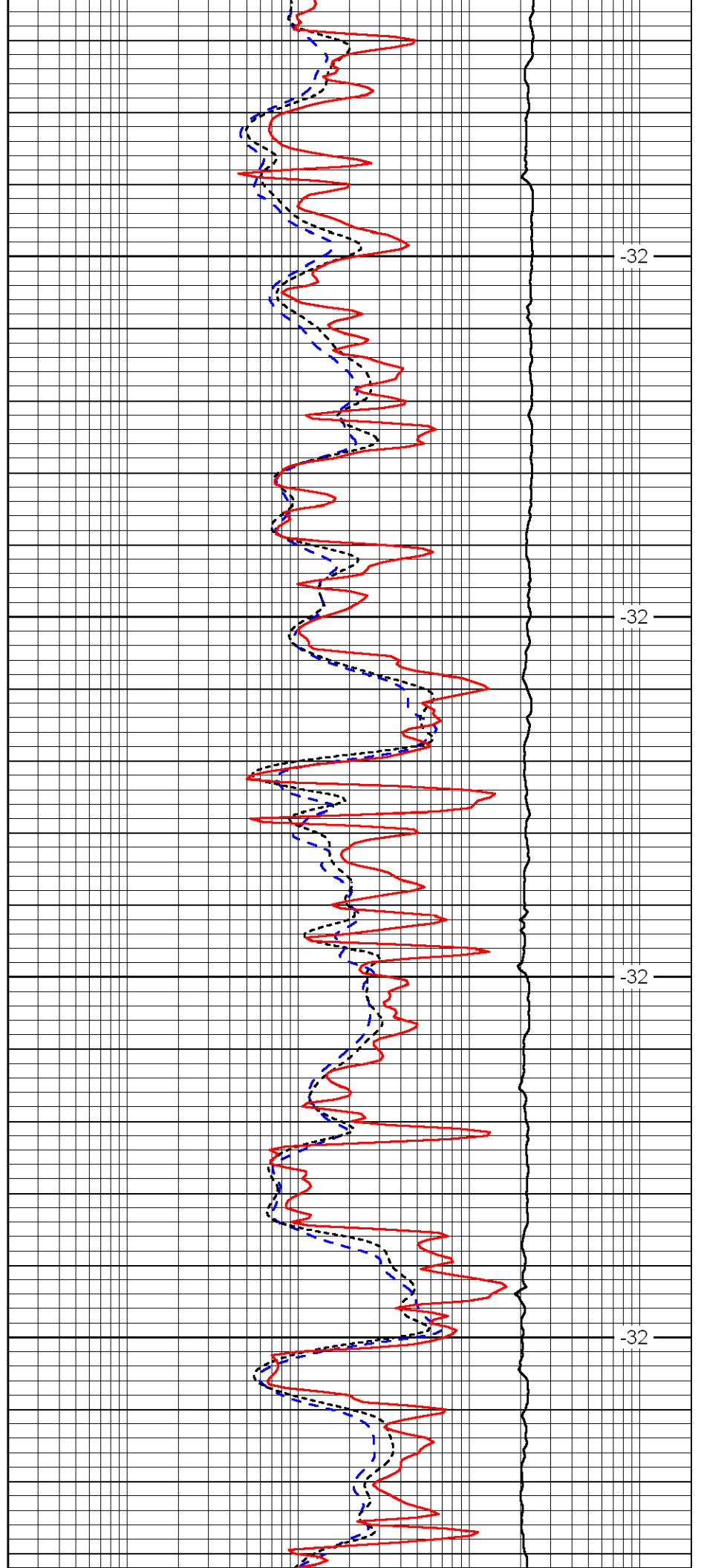


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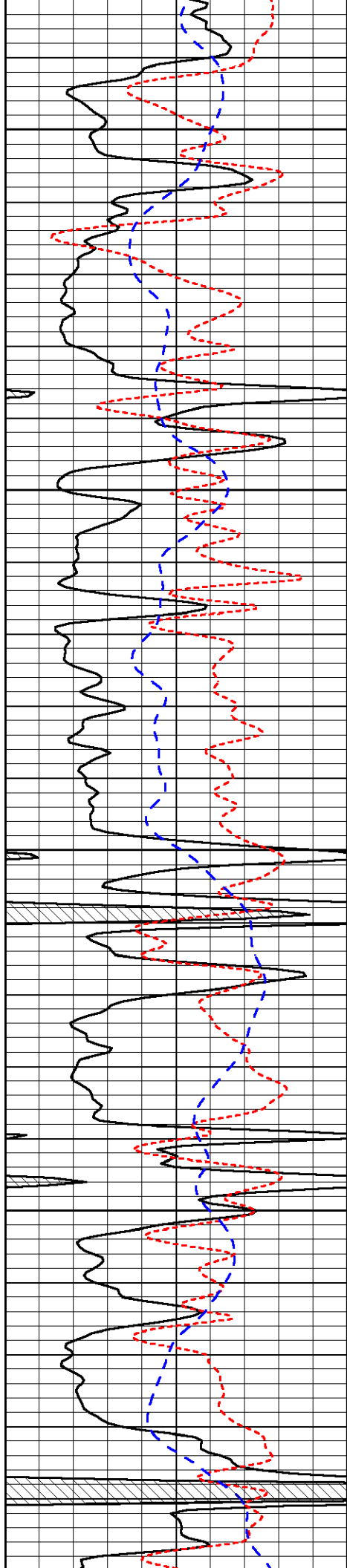


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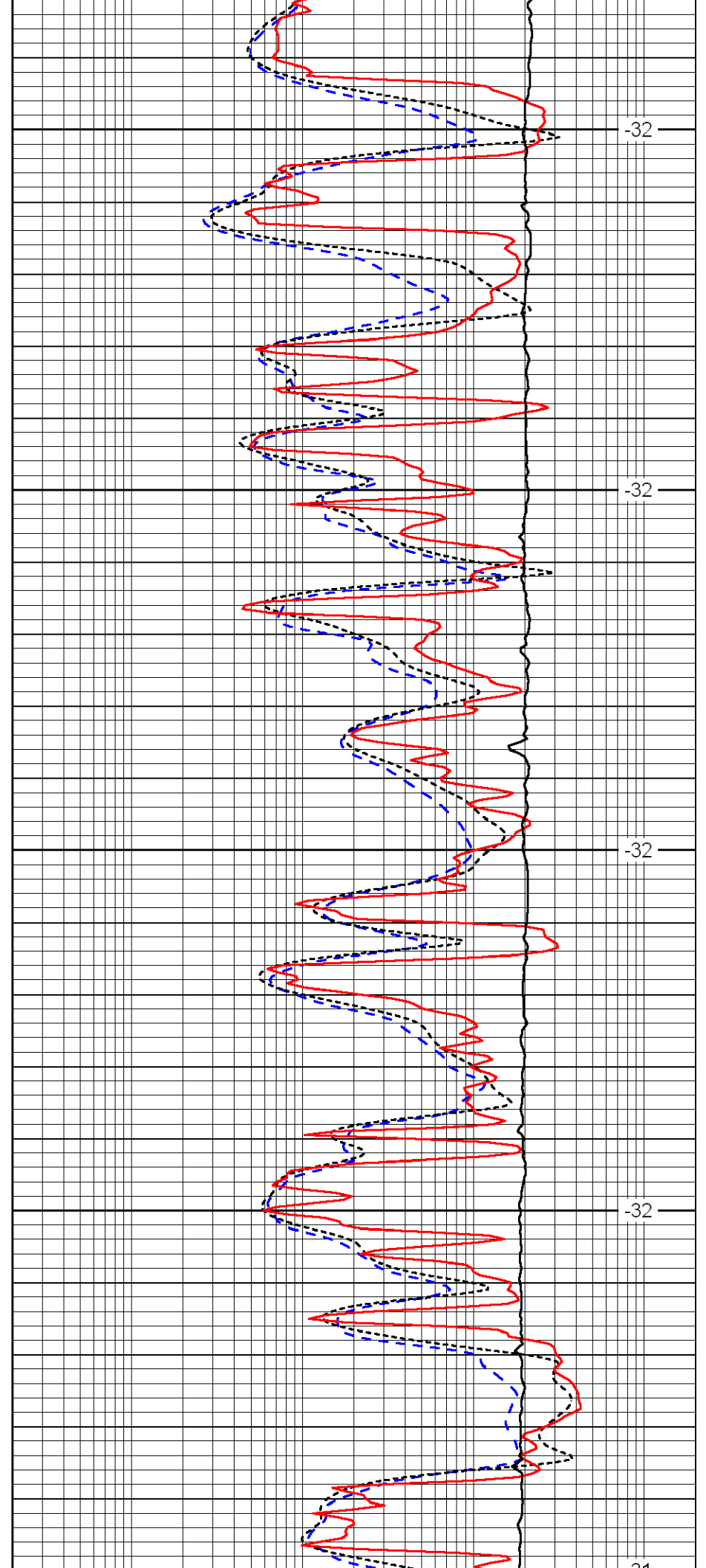
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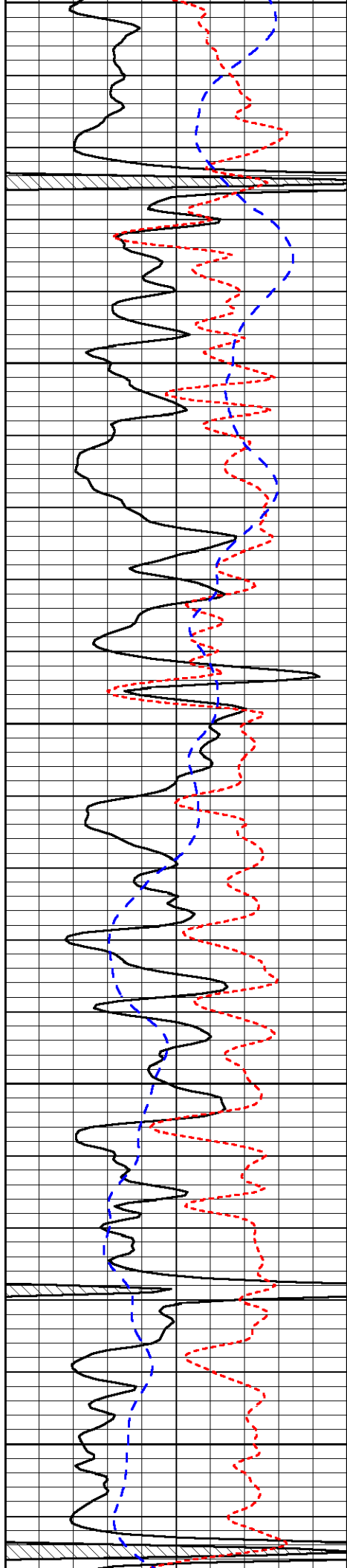
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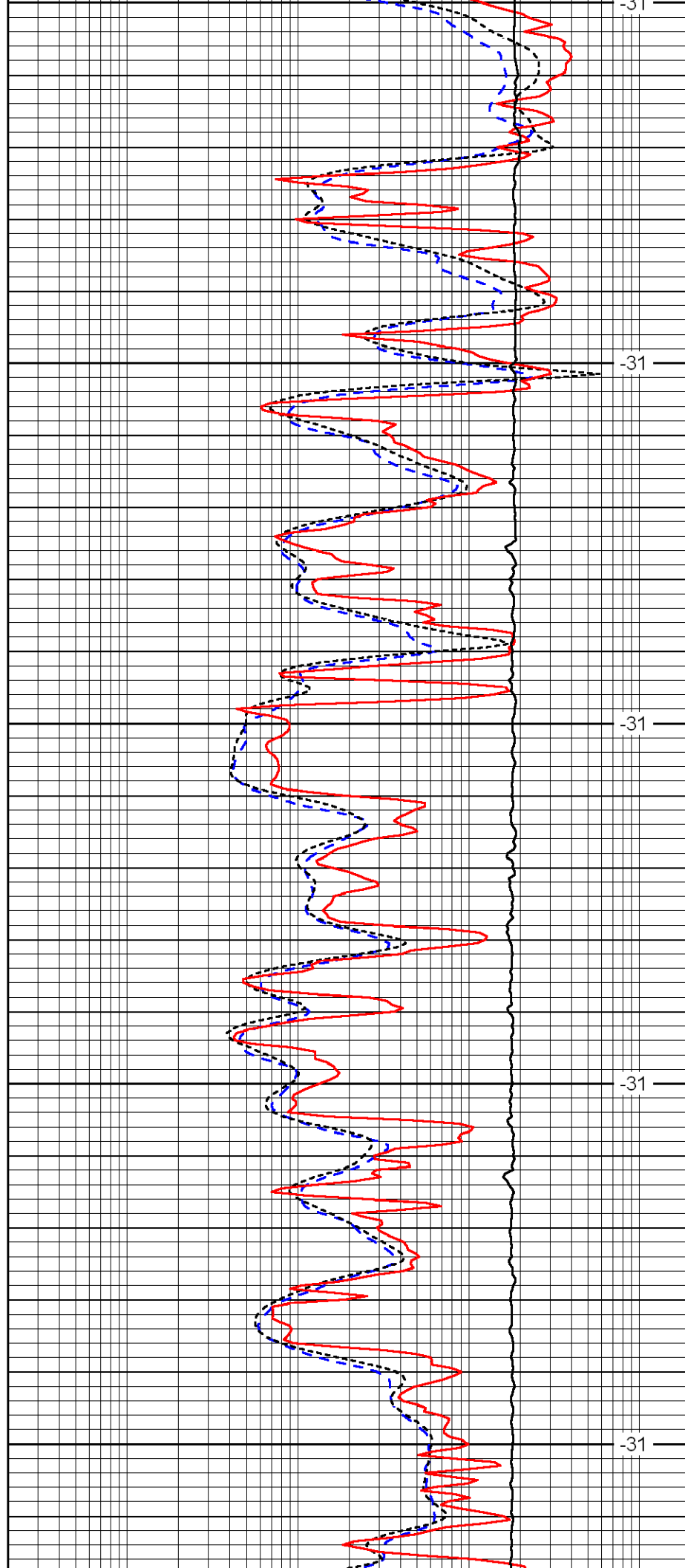
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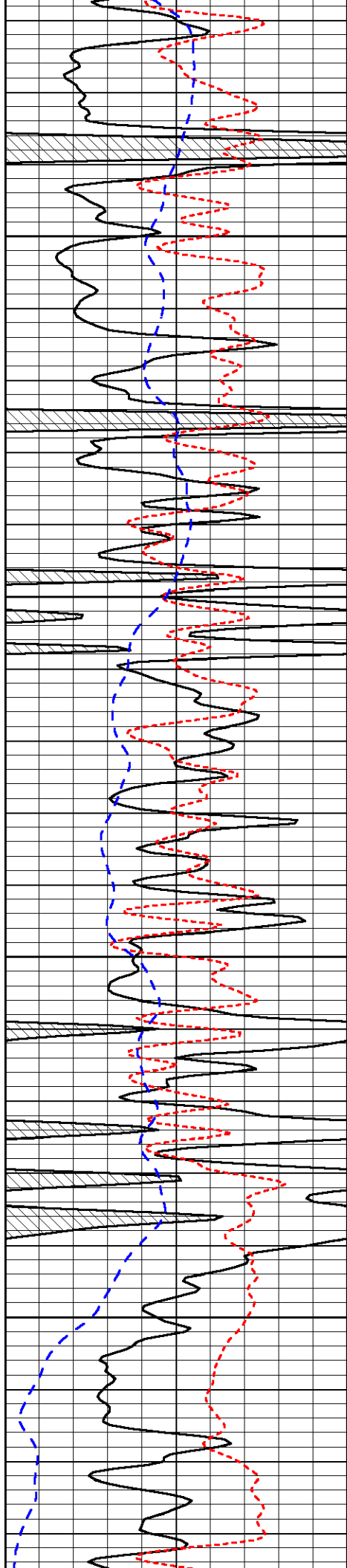
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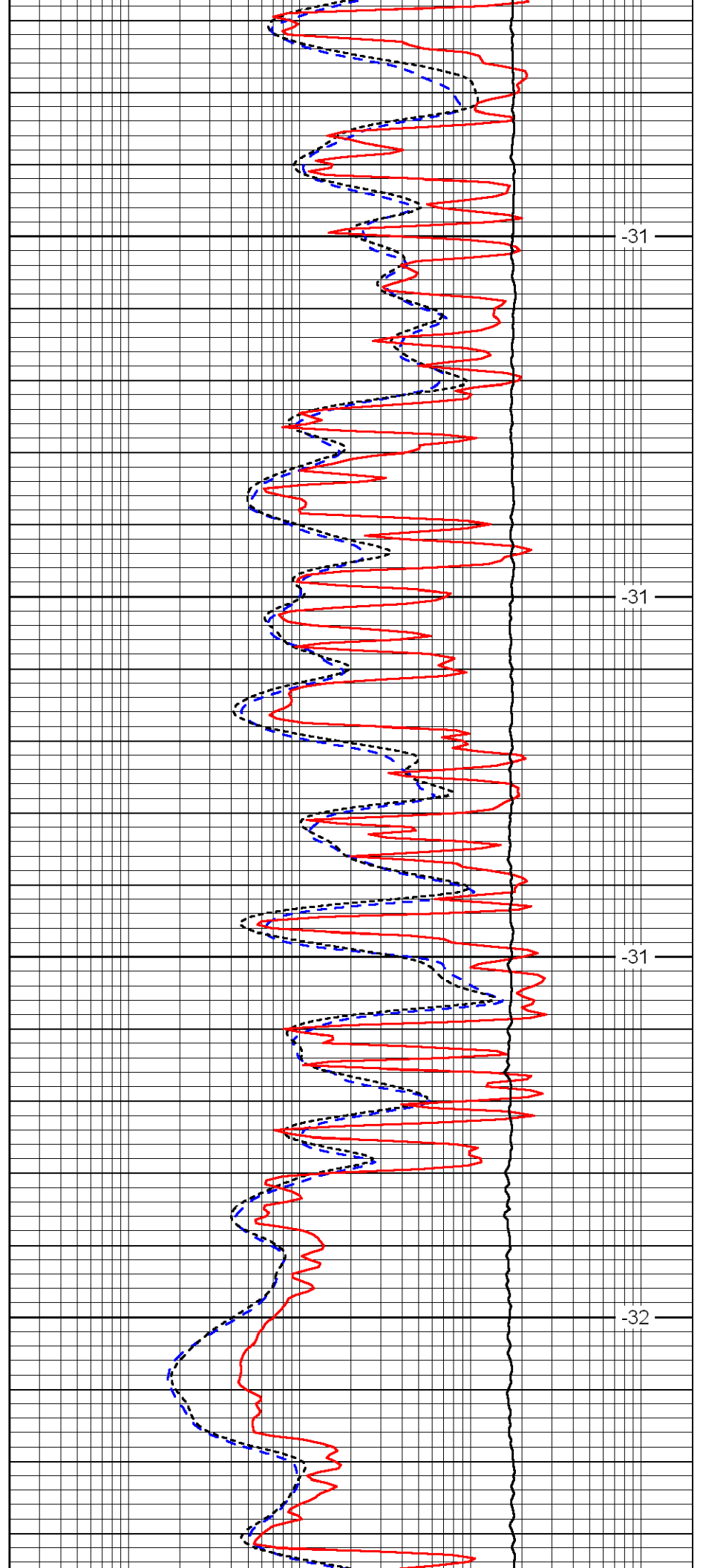


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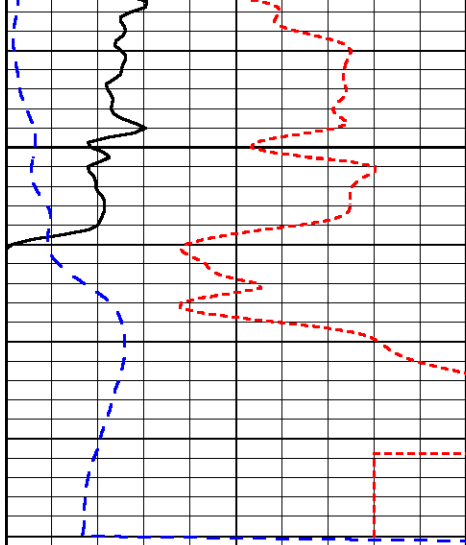


-31

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4900

0	Gamma Ray	150
-160	RXO/RT	40
-200	SP	0



-30

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD