



PIONEER
Pioneer Energy Services

**DUAL INDUCTION
LOG**

Company **CHARLES N. GRIFFIN**
Well **SPRINGER NO. 1**
Field **TONI-MIKE**
County **BARBER** State **KANSAS**

Location: API #: 15-007-24303-00-00

Other Services

SEC 34 TWP 32S RGE 12W
990' FSL & 2,310' FWL

CNL/CDL

Permanent Datum GROUND LEVEL Elevation 1553'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1558'
D.F. N/A
G.L. 1553'

Date	7/3/2016		
Run Number	ONE		
Depth Driller	4882'		
Depth Logger	4885'		
Bottom Logged Interval	4884'		
Top Log Interval	300'		
Casing Driller	8.625" @ 304'		
Casing Logger			
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity, ppm CL	7500		
Density / Viscosity	9.5 46		
pH / Fluid Loss	10.5 12.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.38 @ 74		
Rmt @ Meas. Temp	.29 @ 74		
Rmc @ Meas. Temp	.51 @ 74		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	.23 @ 125		
Operating Rig Time	2 1/2 HOURS		
Max Rec. Temp. F	125		
Equipment Number	108		
Location	COLBY		
Recorded By	J. LONG		
Witnessed By	BRUCE A. REED		

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

MEDICINE LODGE, 4 1/2 SOUTH TO COLLEGE HILL ROAD, 1.6 WEST, NORTH INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew

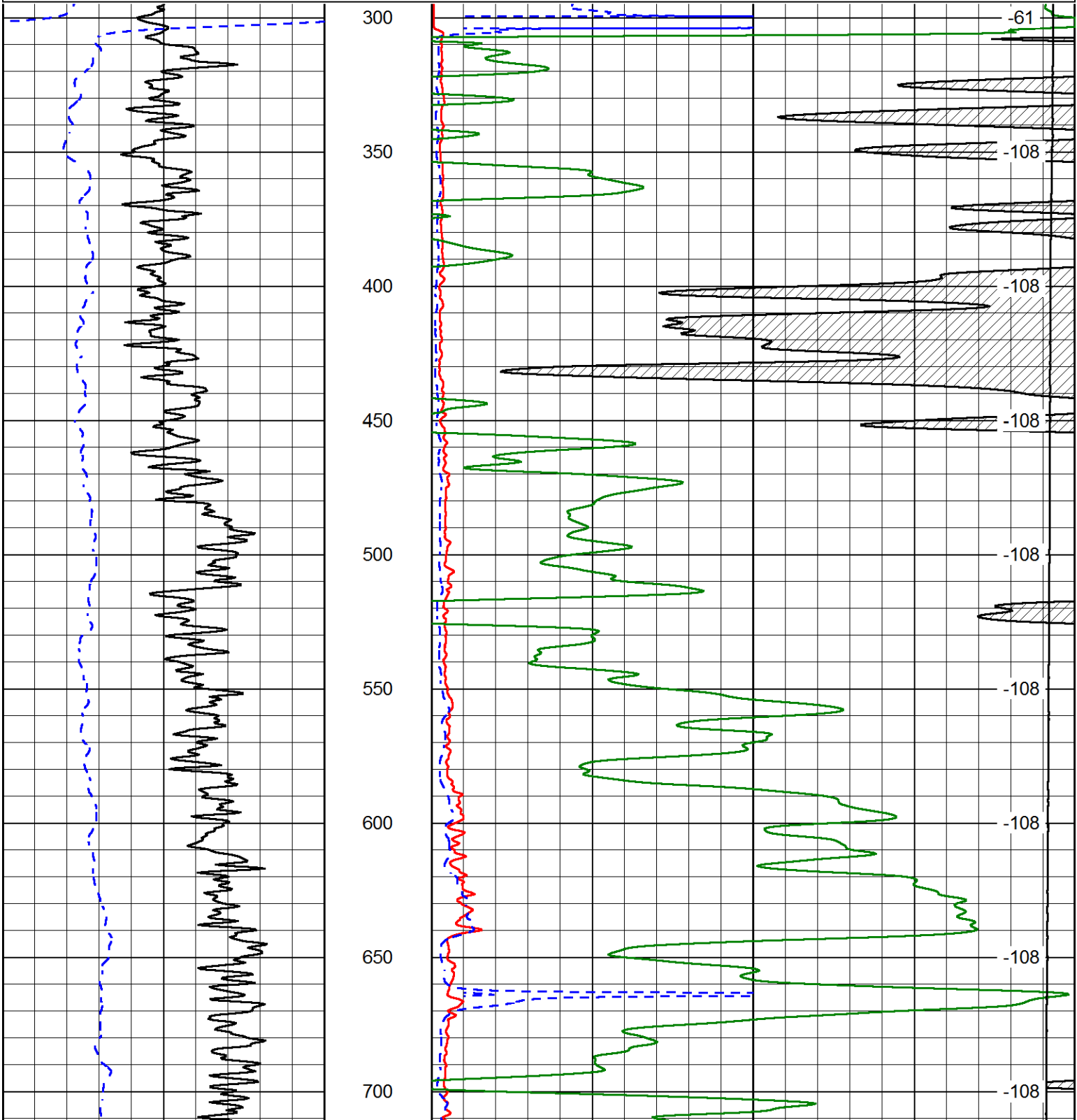
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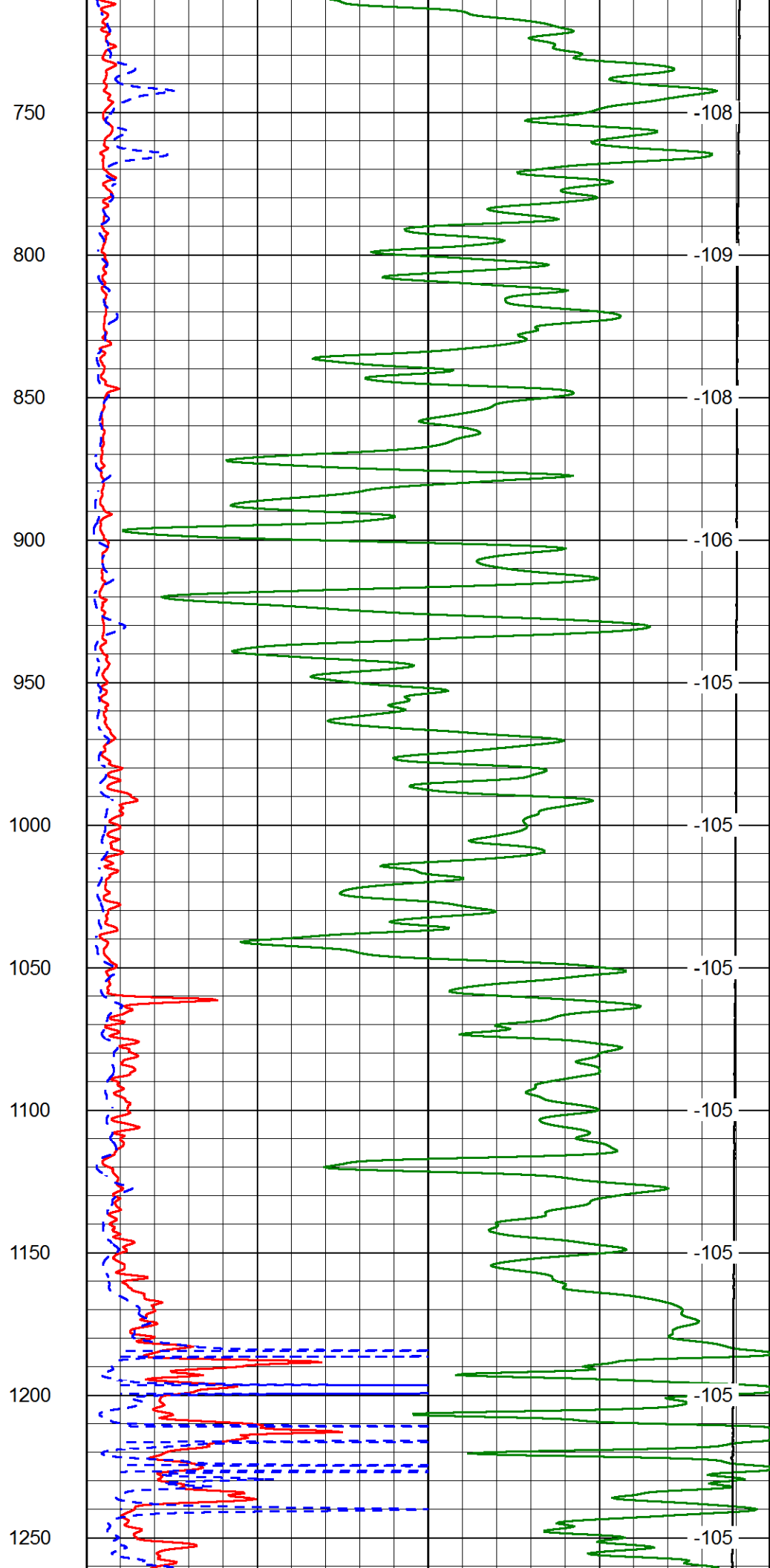
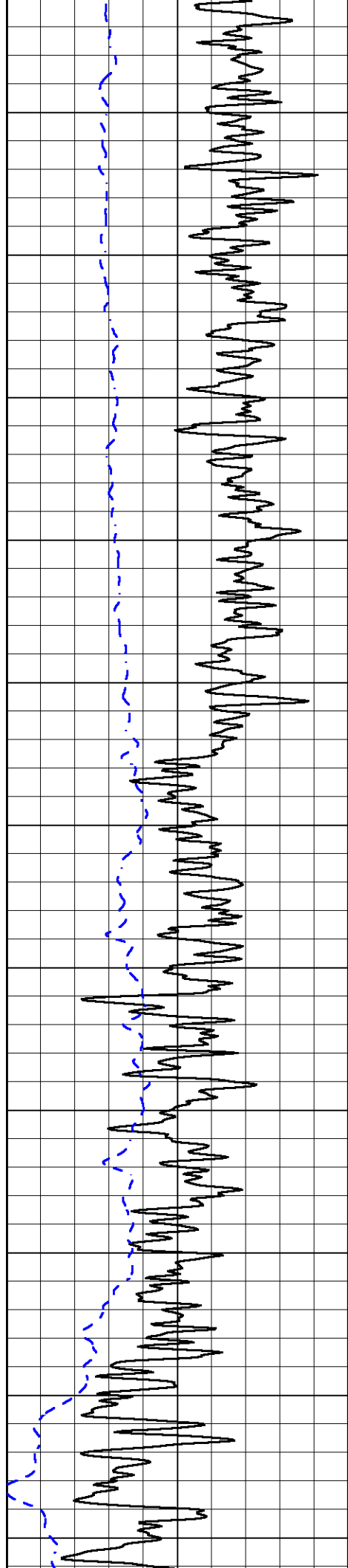
Engineer: J. LONG
Operator:
Operator:
Operator: M. HISS

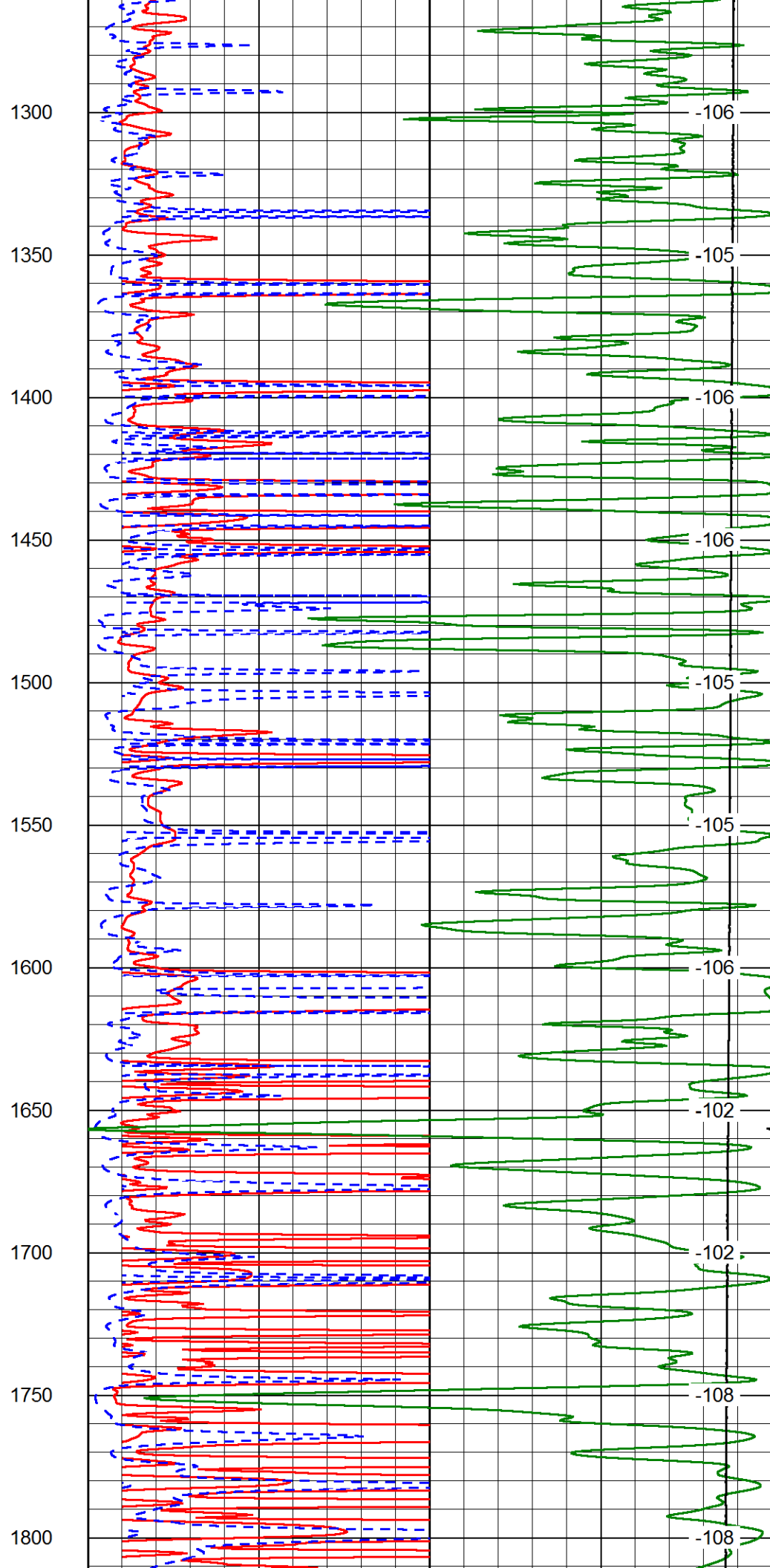
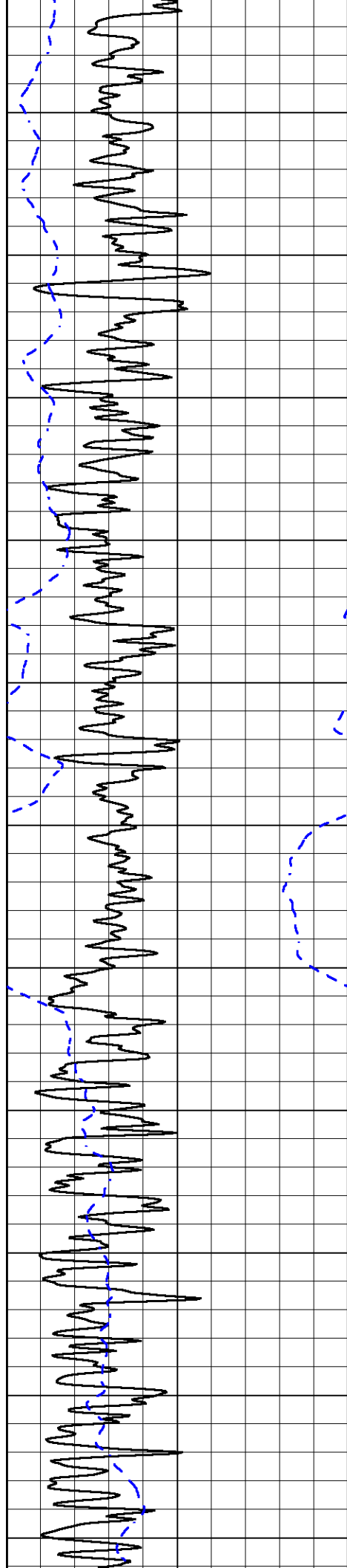
Primary Witness: BRUCE A. REED
Secondary Witness:
Secondary Witness:
Secondary Witness:

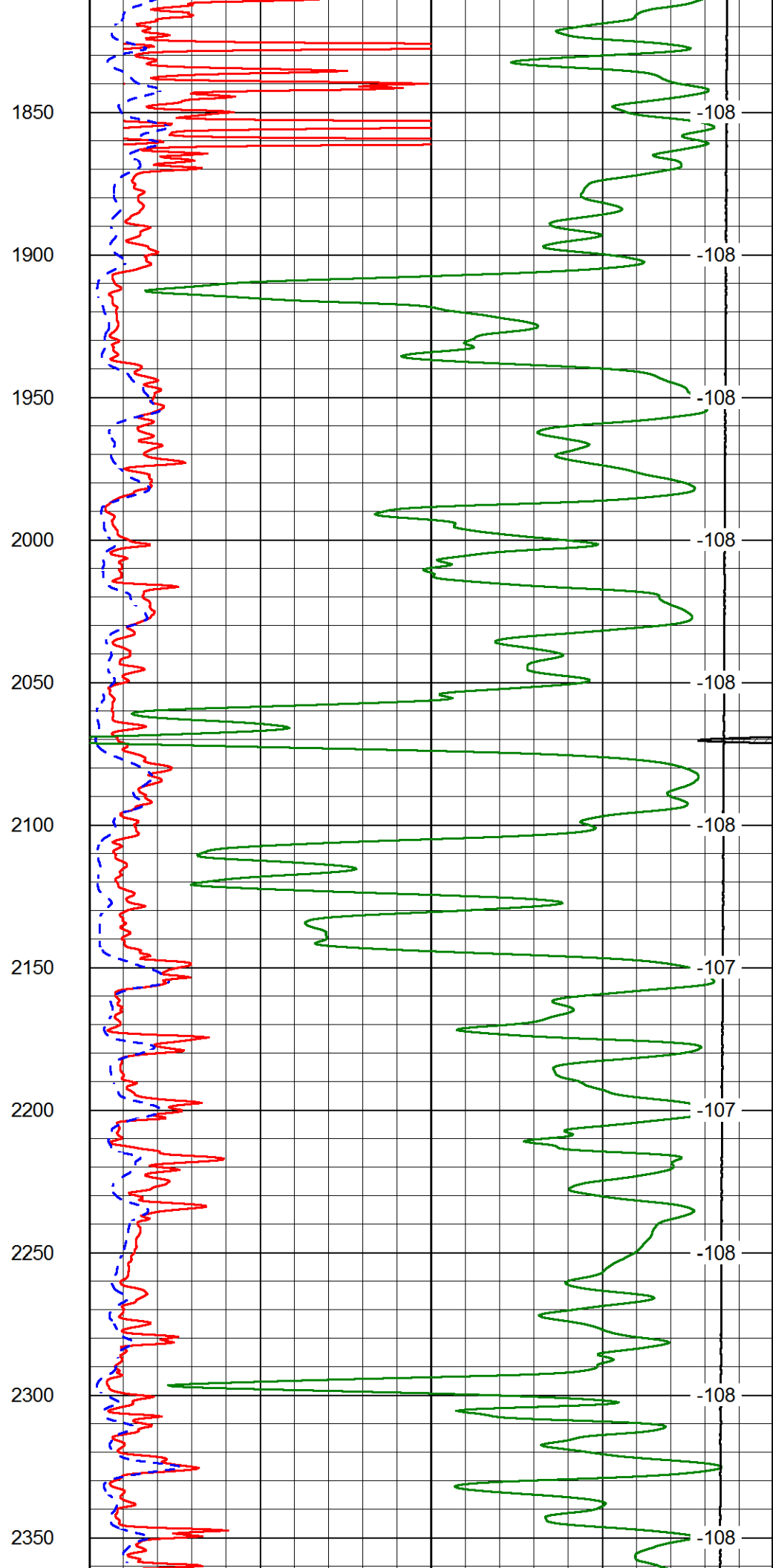
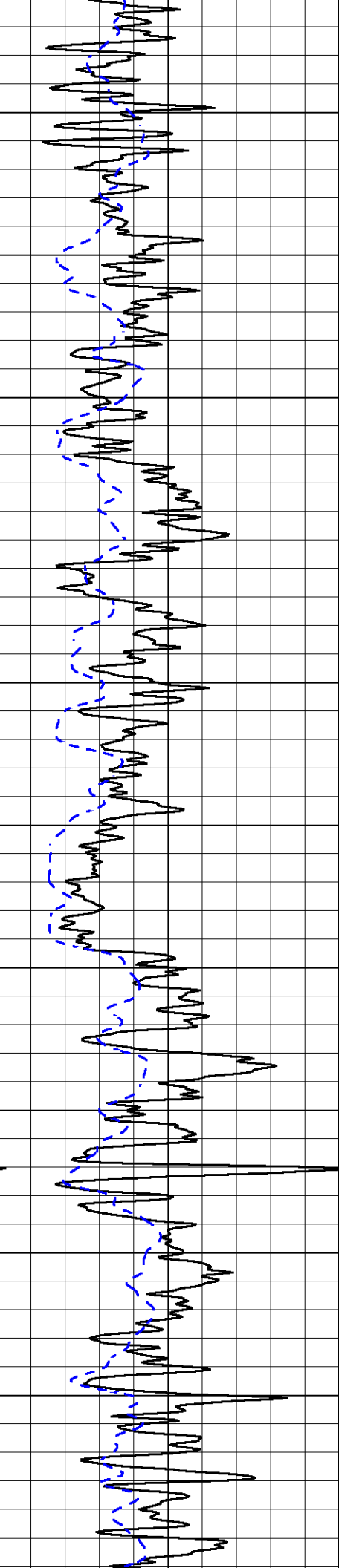
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Dataset Pathname	DIL/grfstck
Presentation Format	dil2in
Dataset Creation	Sun Jul 03 19:27:52 2016
Charted by	Depth in Feet scaled 1:600

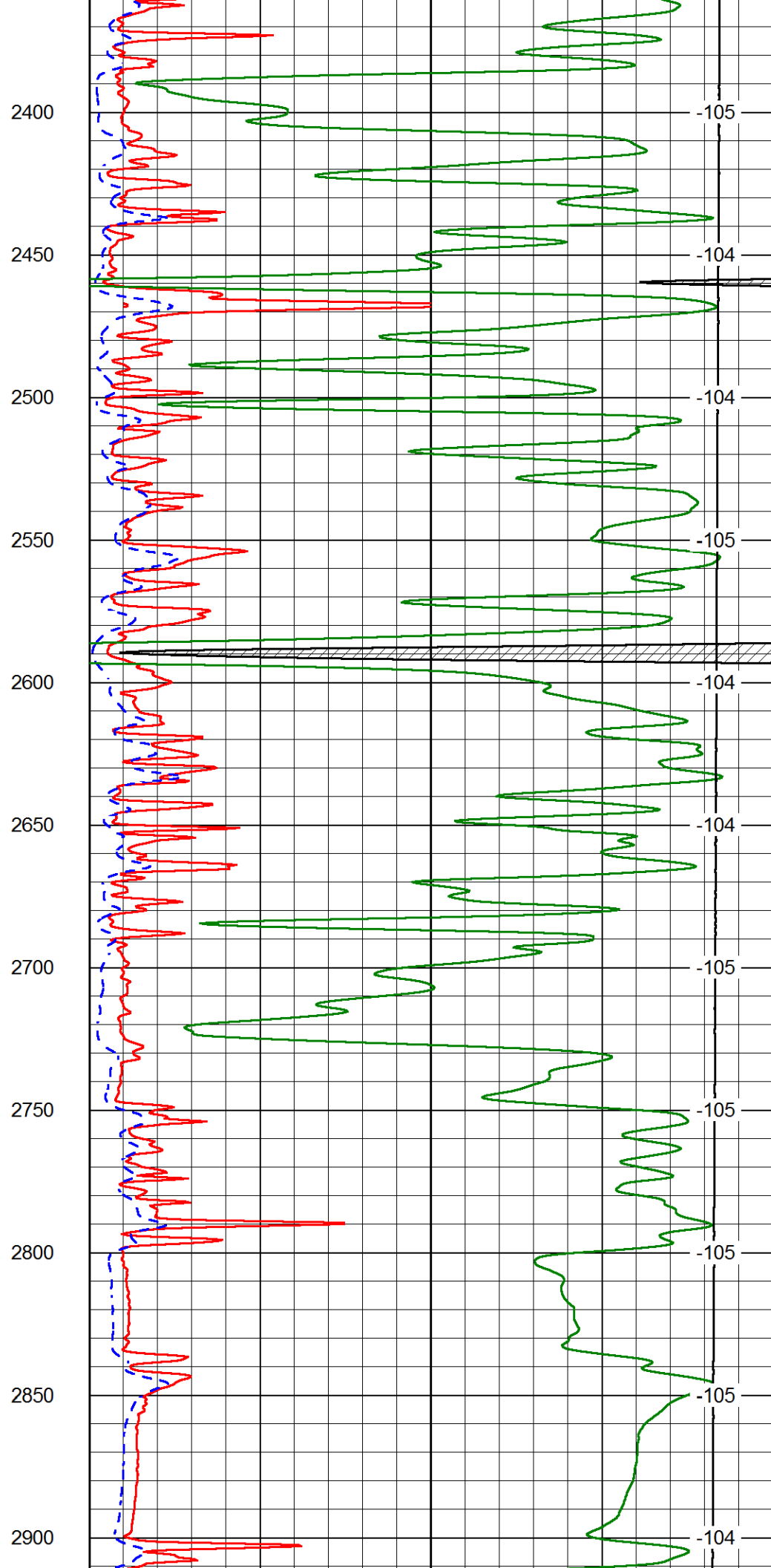
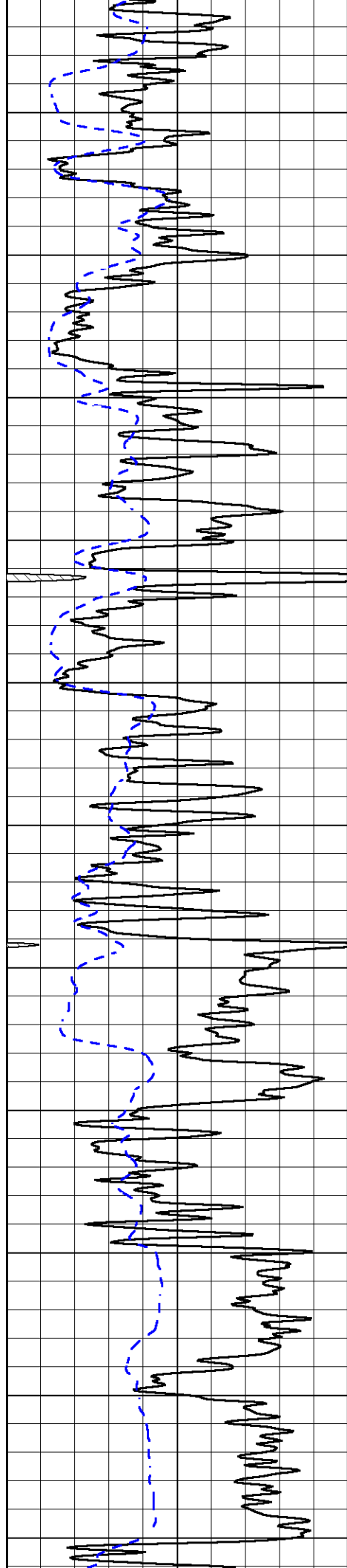
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-200	SP (mV)	0	15000	Line Tension (lb)	0
			0	Shallow Resistivity (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
			Shallow Resistivity		LSPD (ft/min)
			50	(Ohm-m)	500
			50	Deep Resistivity (Ohm-m)	500

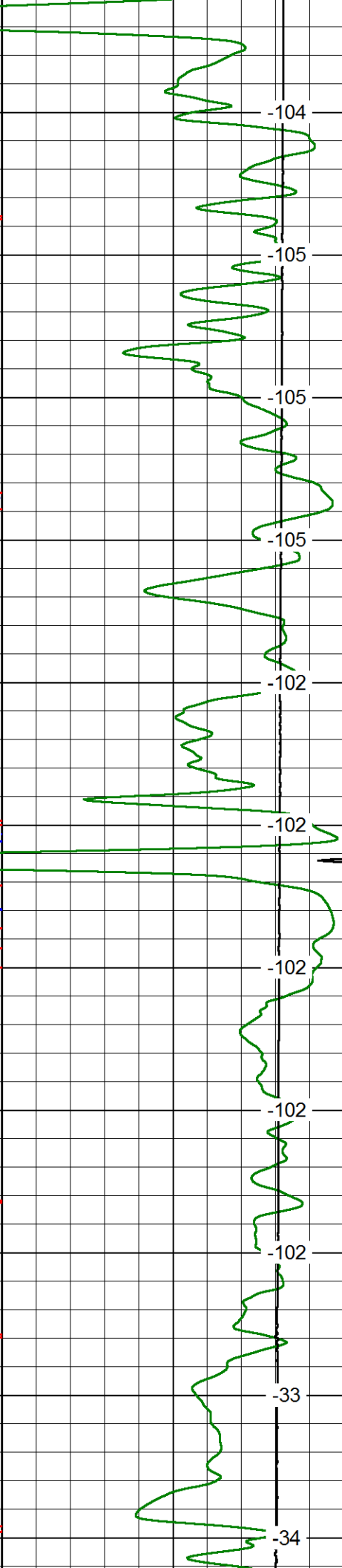
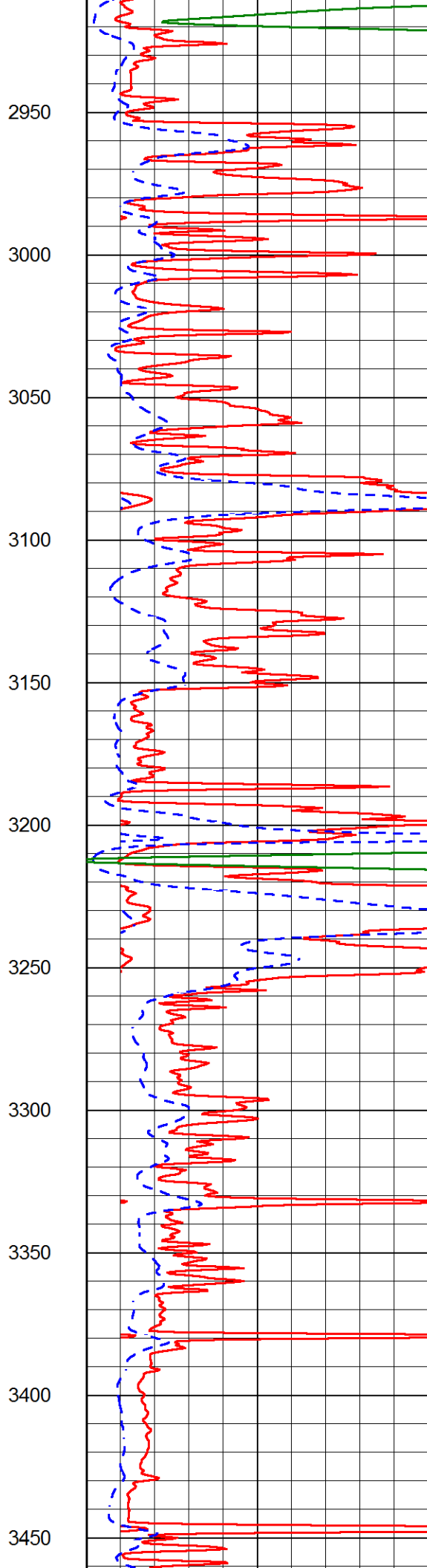
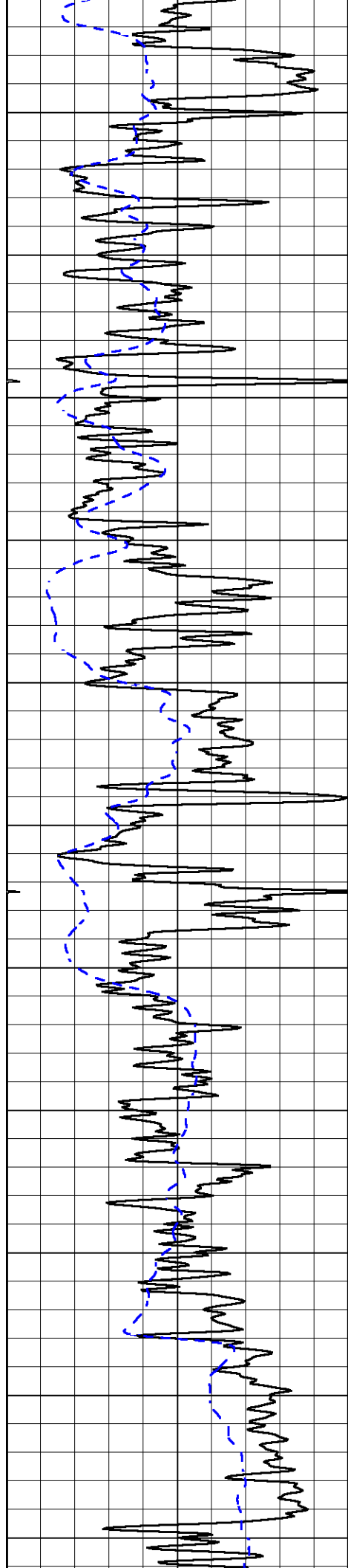


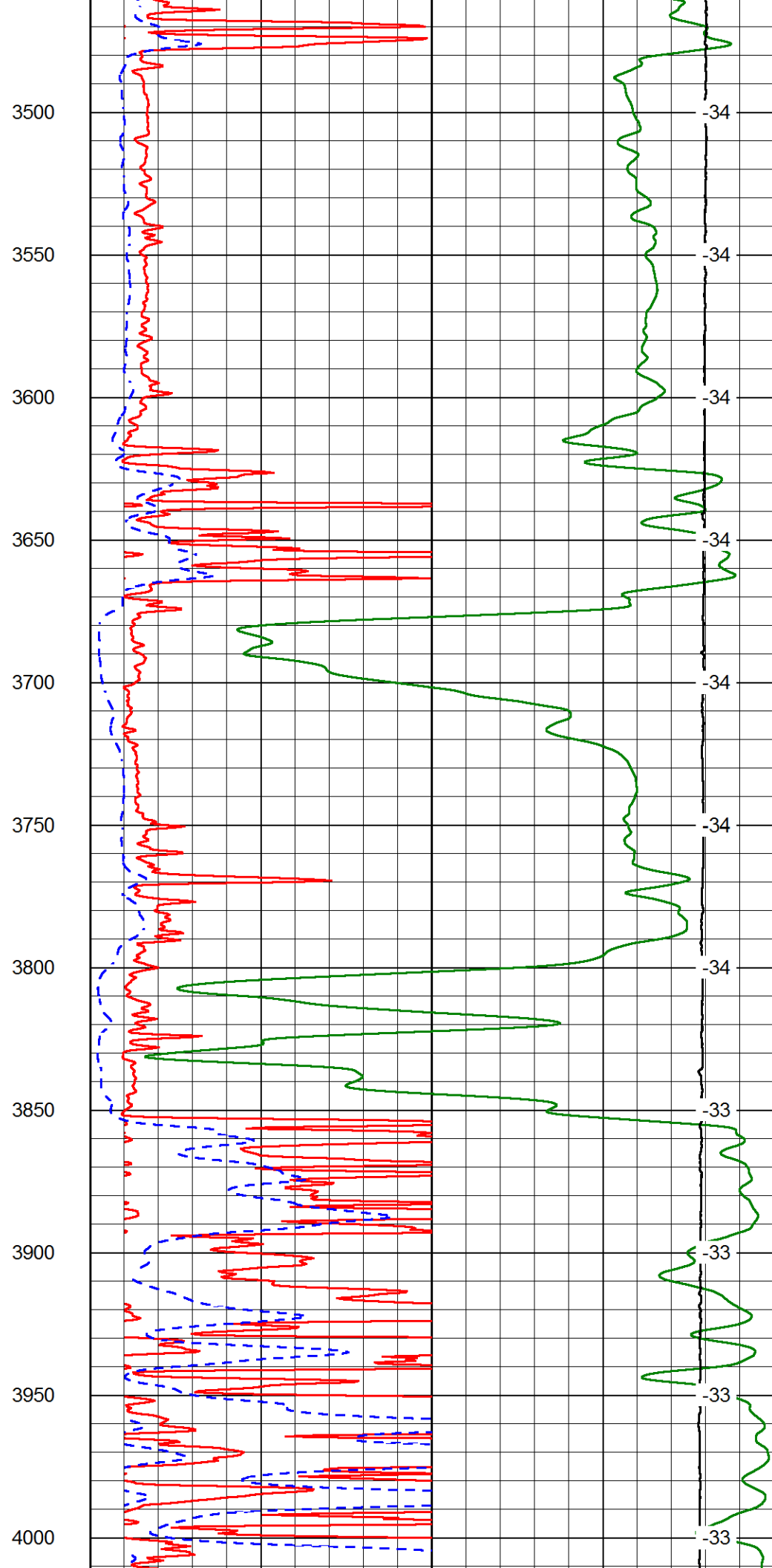
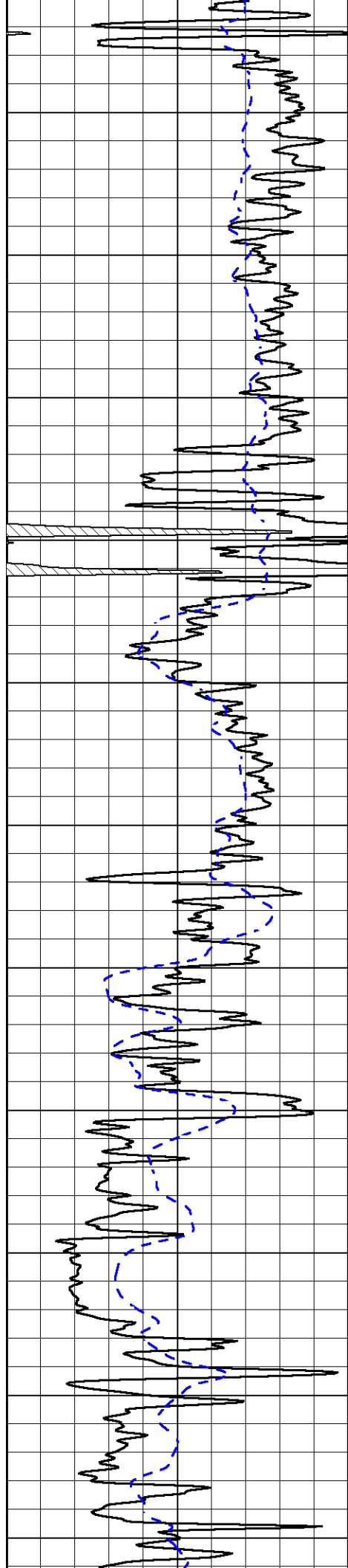


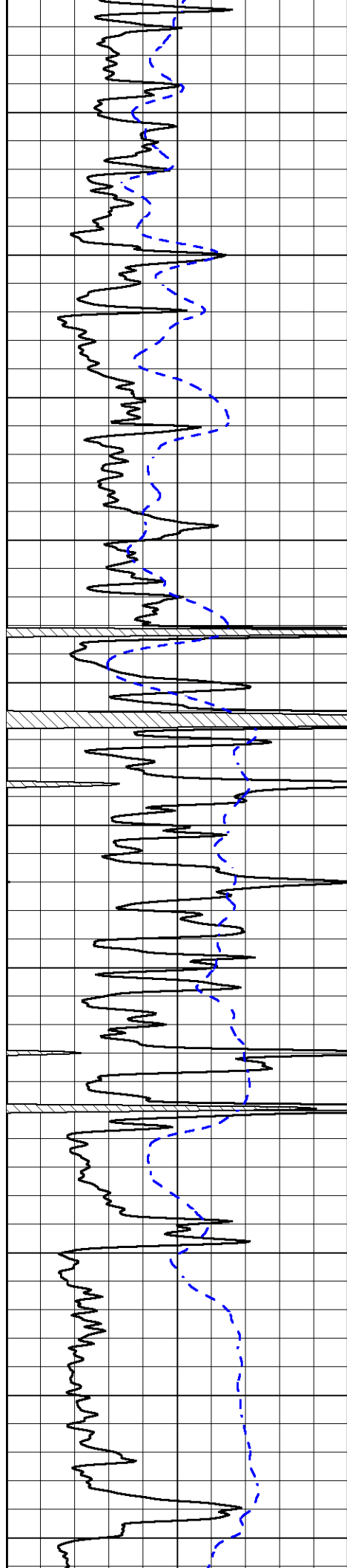












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4100

4150

4200

4250

4300

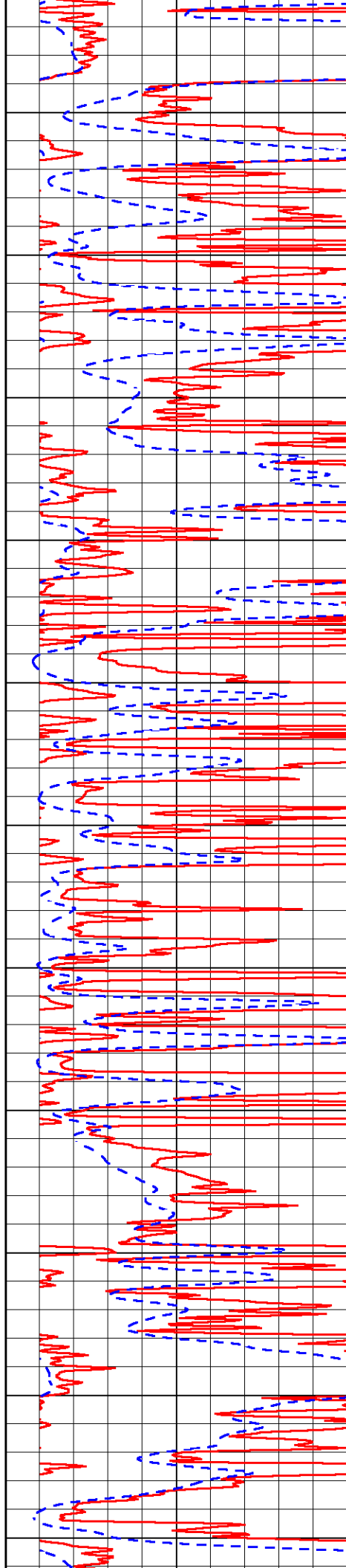
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4500

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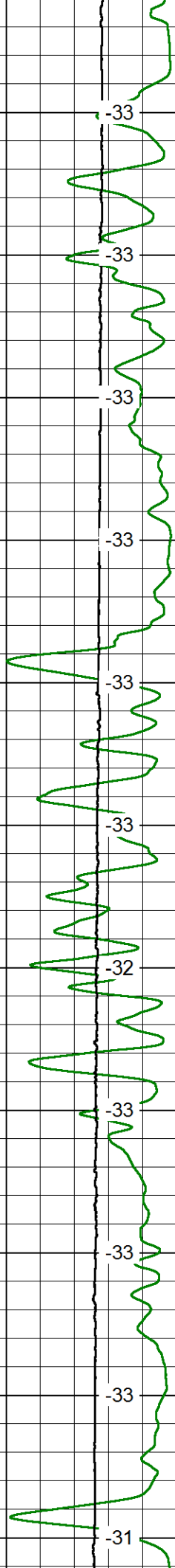
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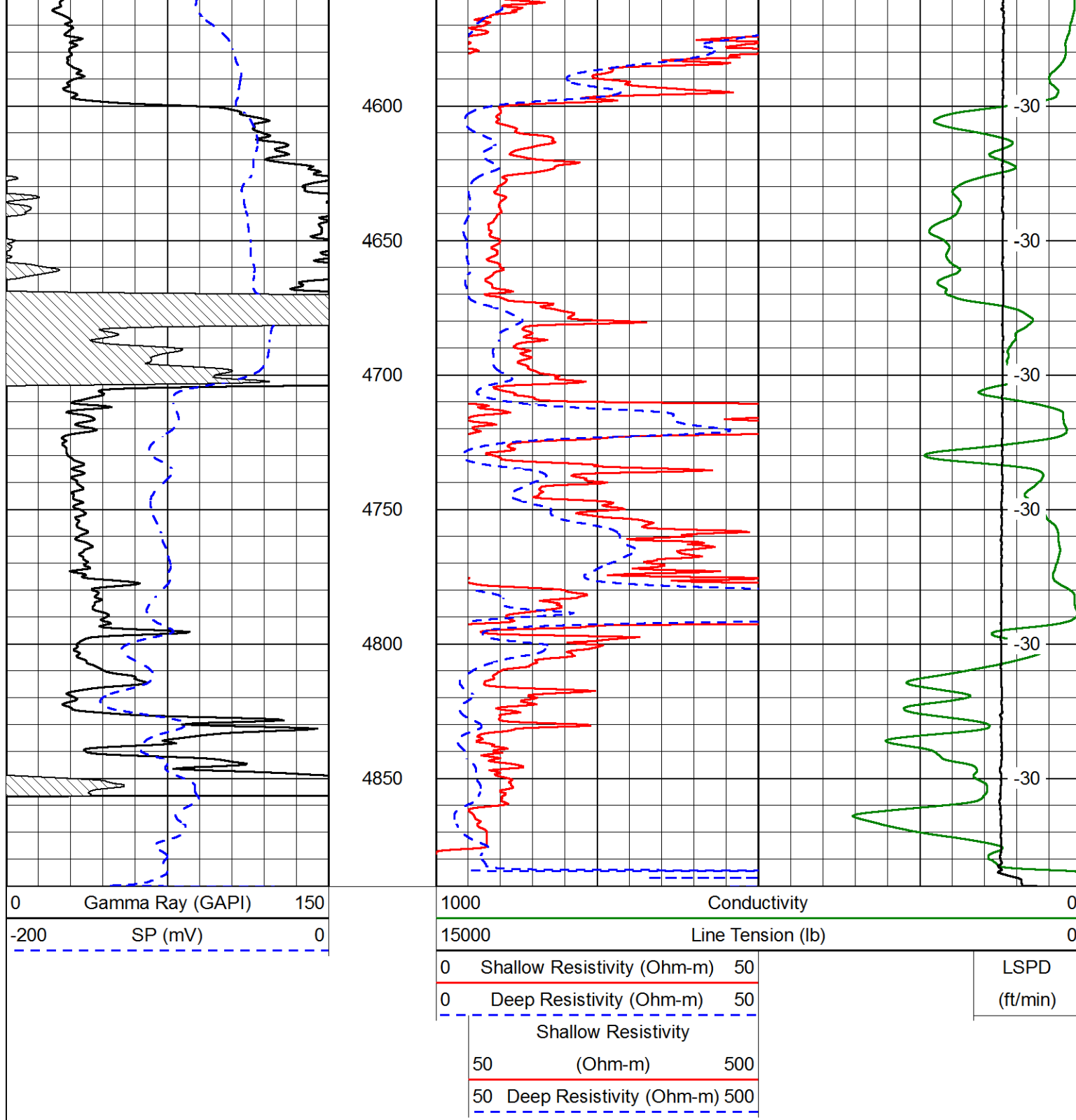
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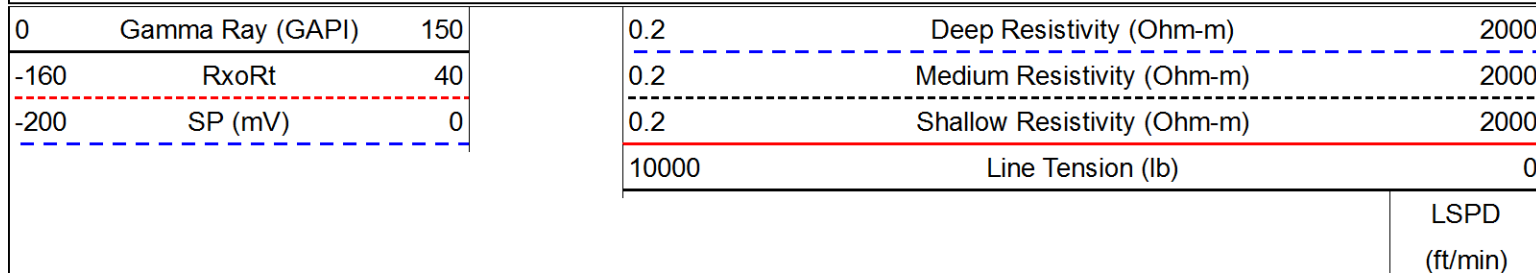
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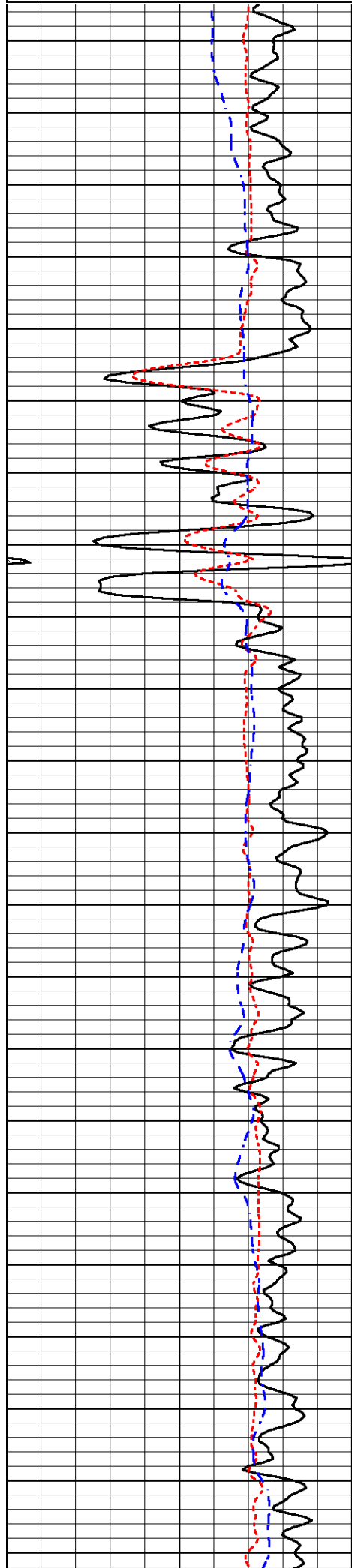
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Database File charlesngriffin_springer_1hd.db
 Dataset Pathname DIL/grfstck
 Presentation Format dil
 Dataset Creation Sun Jul 03 19:27:52 2016
 Charted by Depth in Feet scaled 1:240





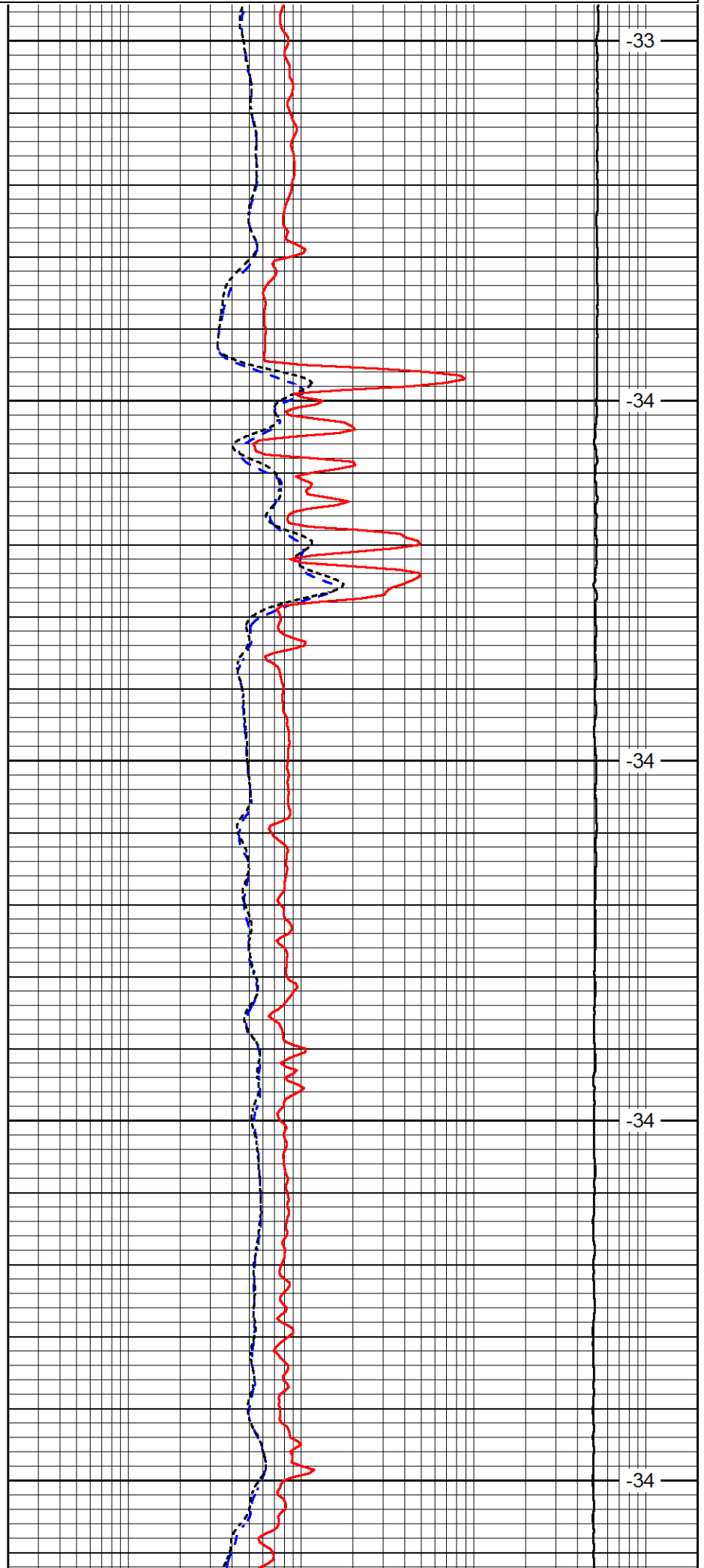
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3600



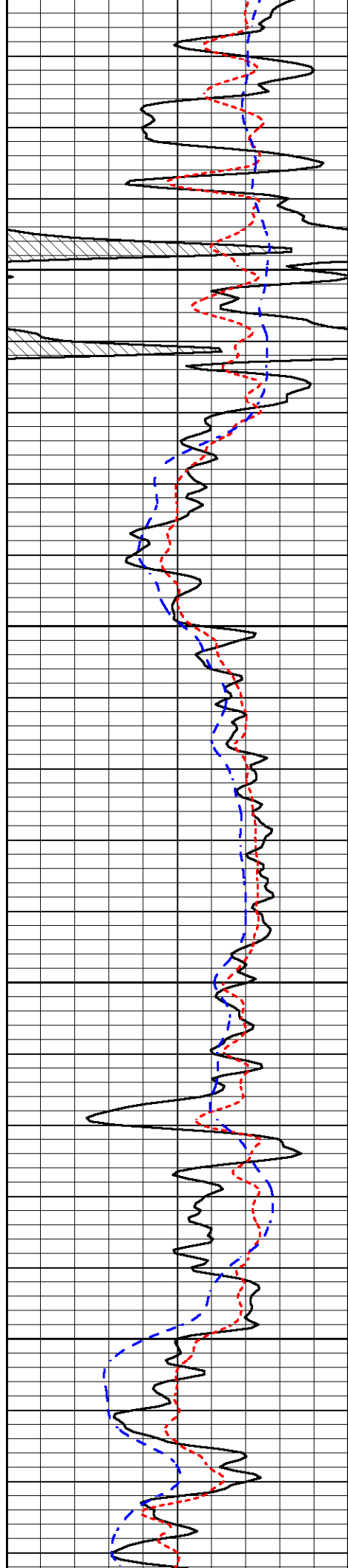
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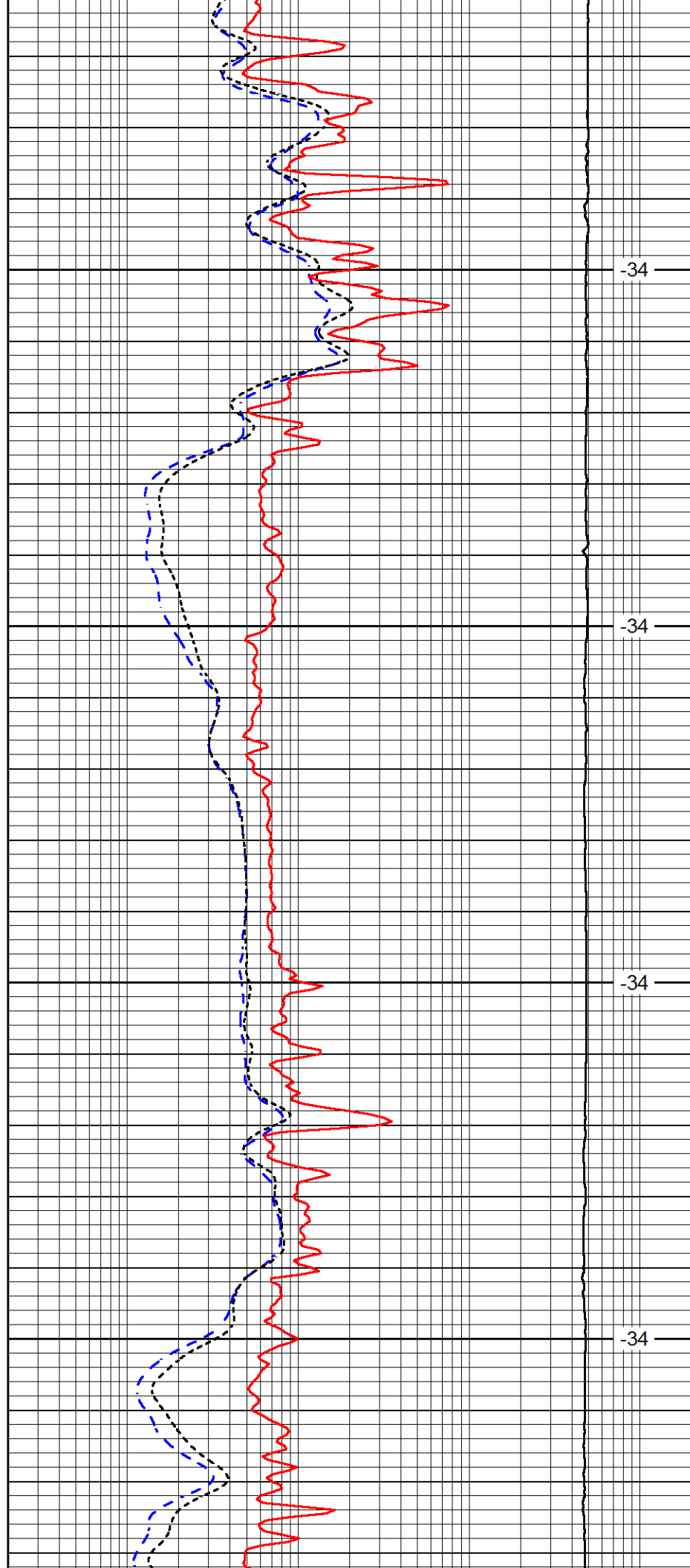


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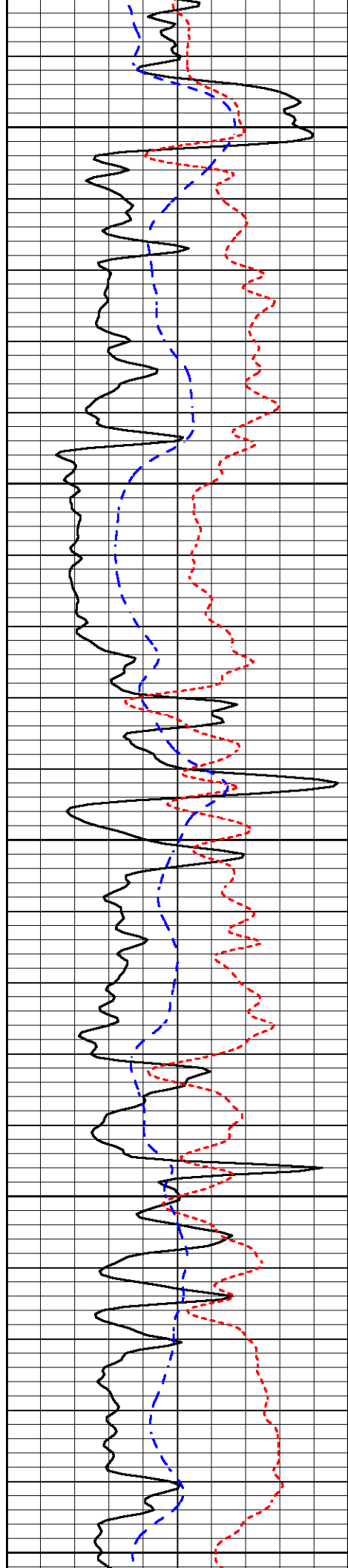


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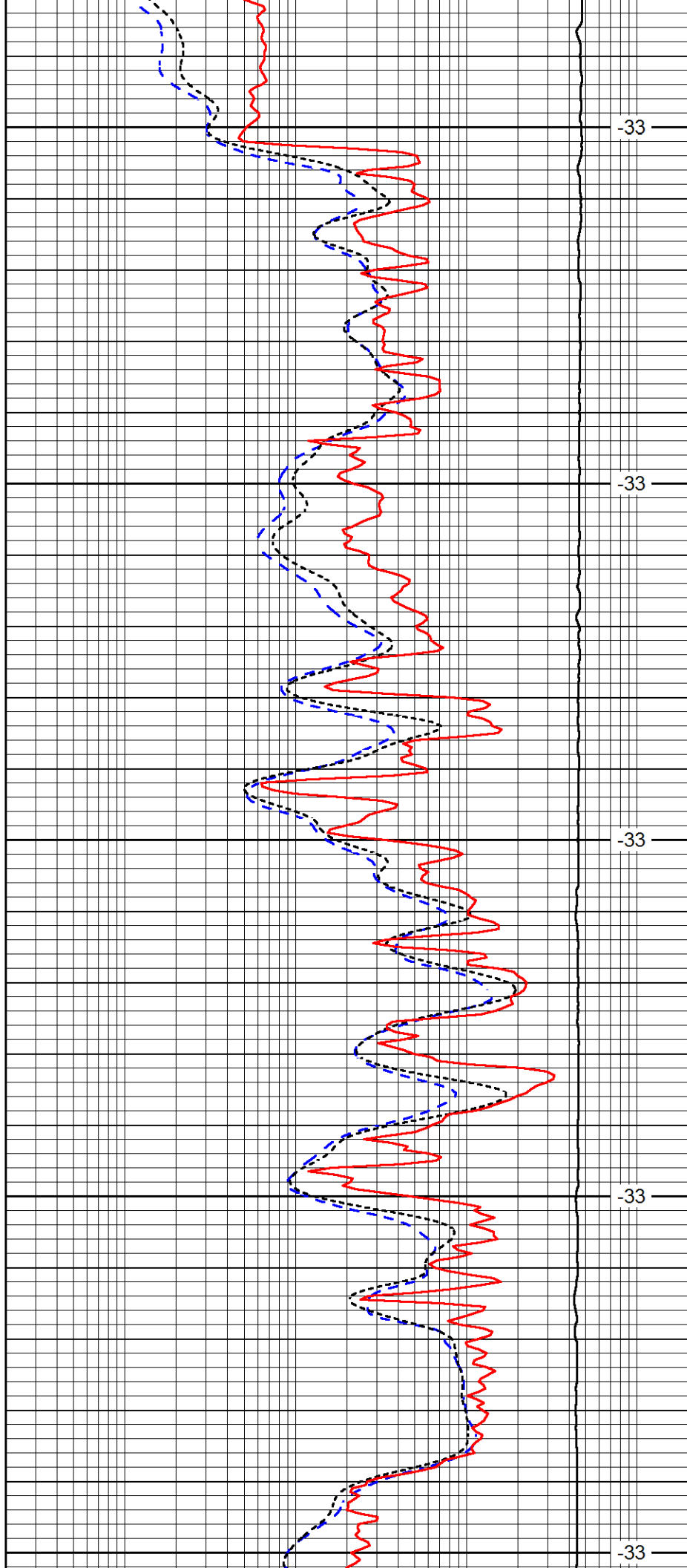
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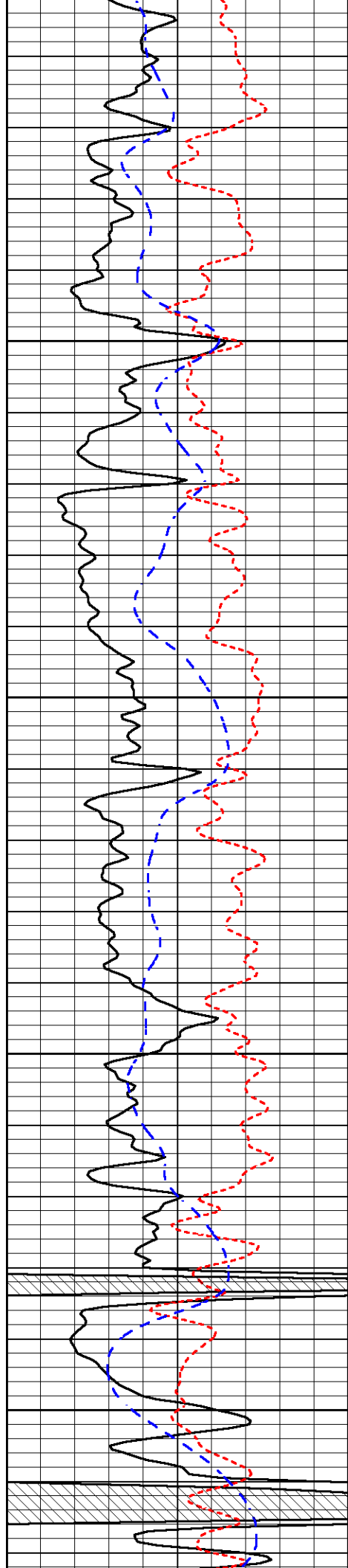
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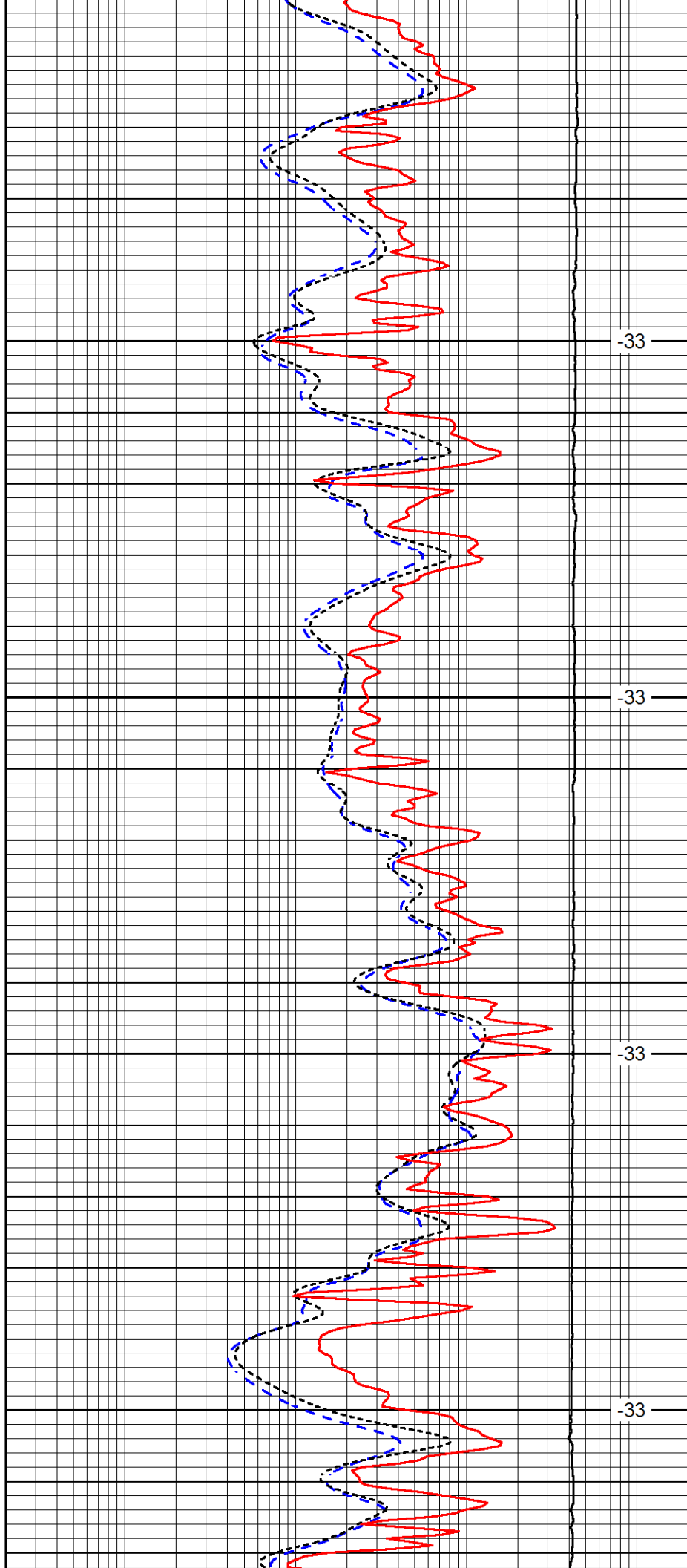


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4150

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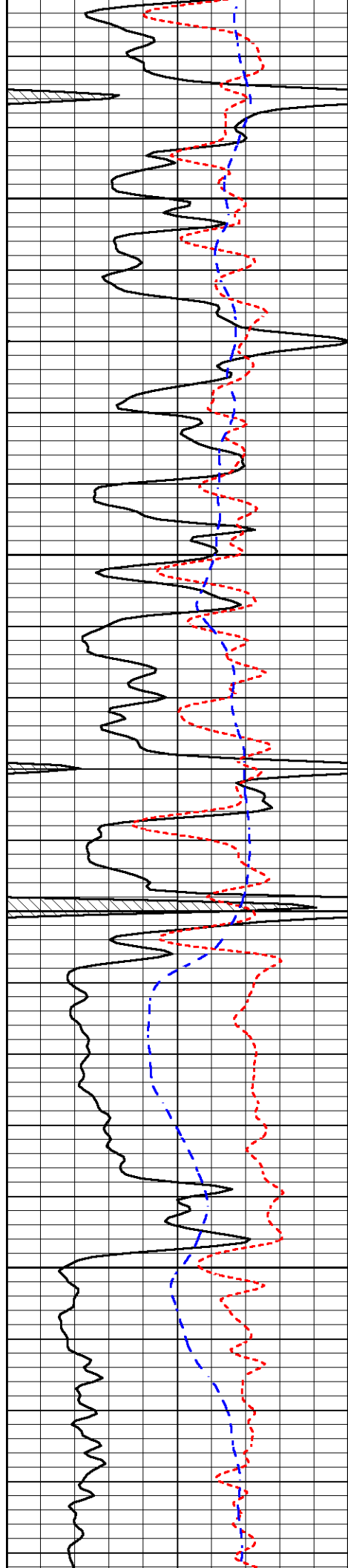


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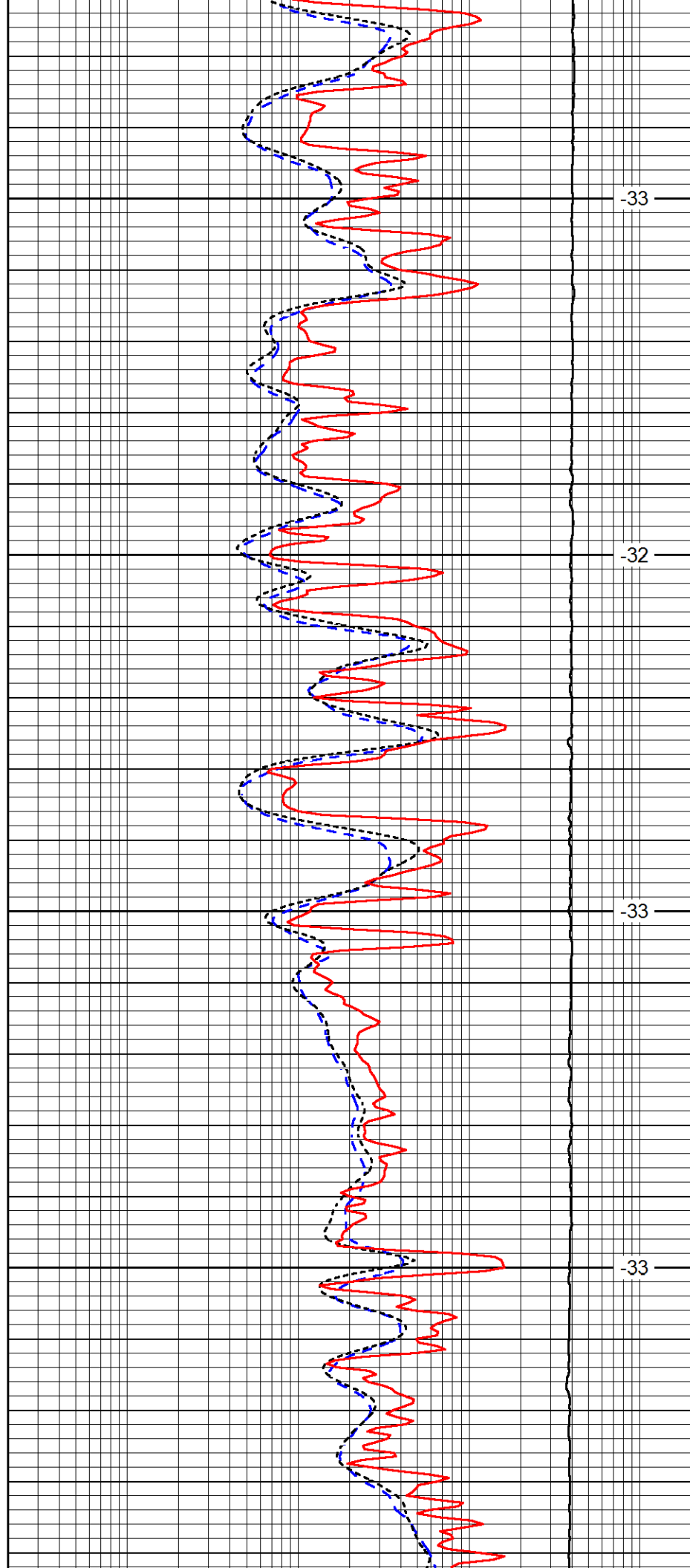


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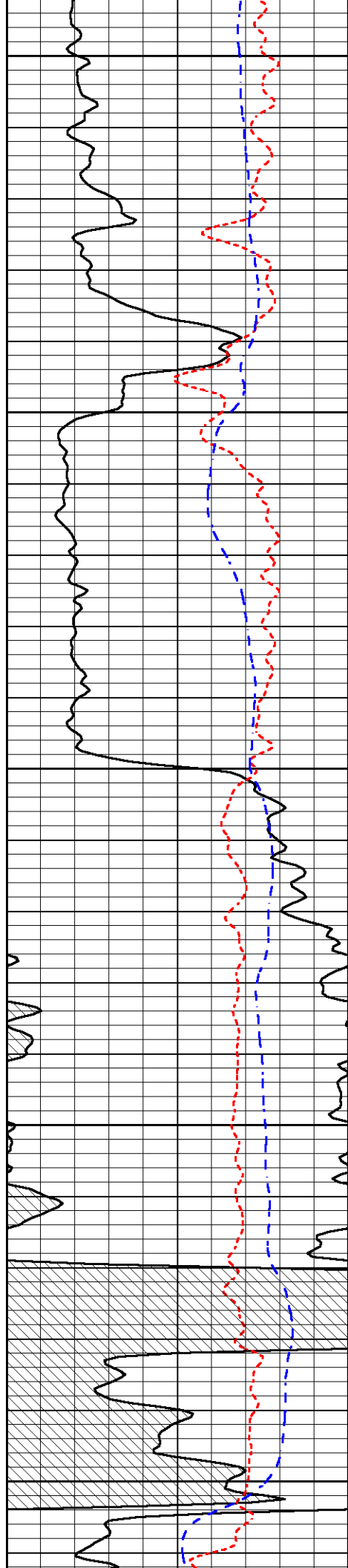


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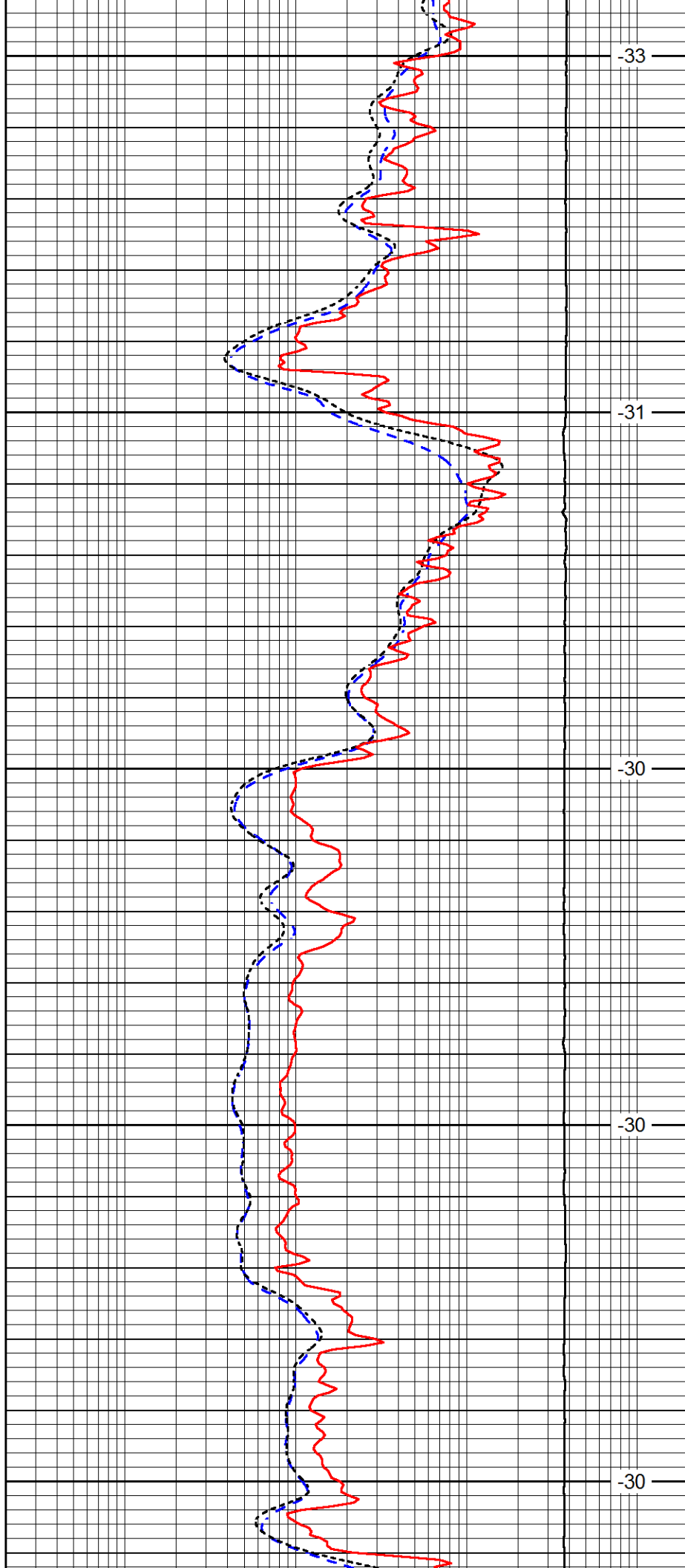
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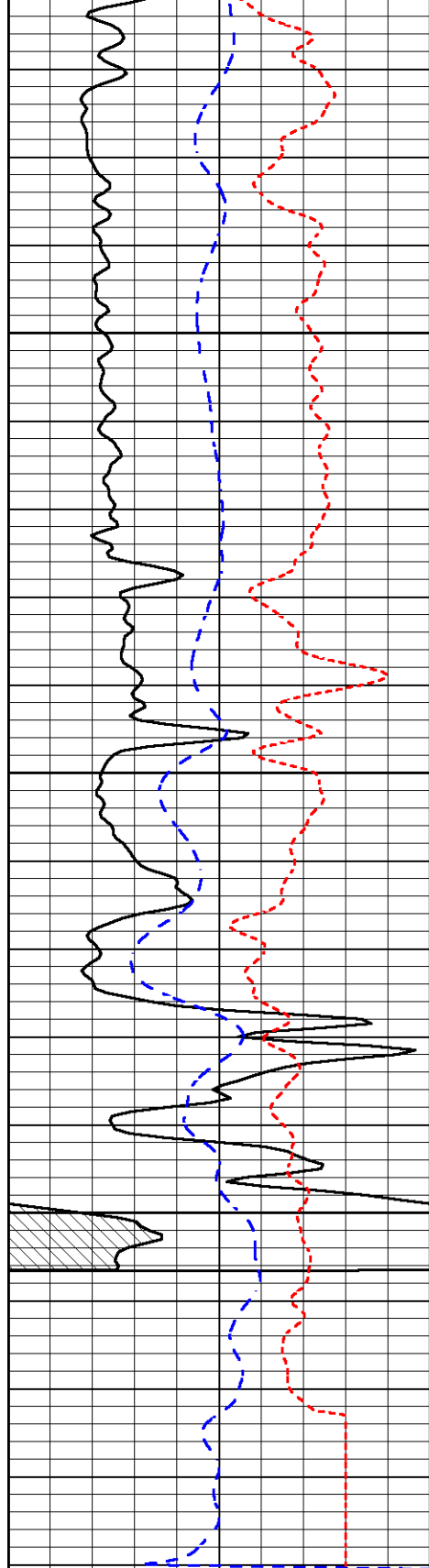
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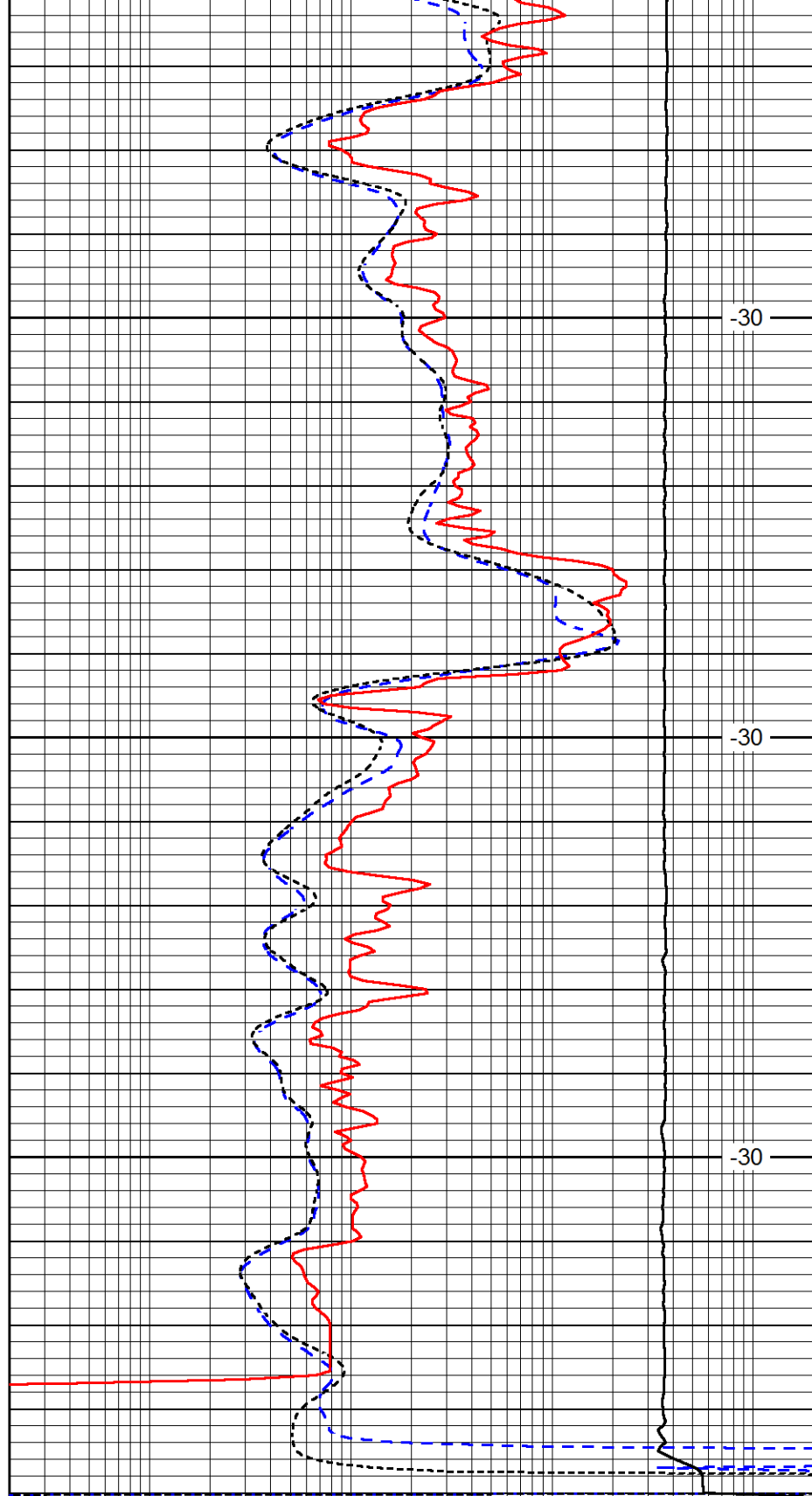


0	Gamma Ray (GAPI)	150
-160	RxoRt	40
-200	SP (mV)	0

4750

4800

4850



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)