



**Cement Bond
Variable Density Log
W/ Gamma Ray/CCL**

Company		Bayswater EMP		Company		Bayswater EMP	
Well		Heckman 16-20		Well		Heckman 16-20	
Field		Wattenberg		Field		Wattenberg	
County		Weld		County		Weld	
State		Colorado		State		Colorado	
Location:				API # : 05-123-37607		Other Services	
SHL: 160 FNL & 726' FEL NENE				NONE			
SEC 29 TWP 7N RGE 67W							
Permanent Datum		Ground Level		Elevation		Elevation	
Log Measured From		Kelly Bushing 13' APD		4971'		K.B. 4984'	
Drilling Measured From		Kelly Bushing				D.F. 4983'	
						G.L. 4971'	
Date		January 22, 2014					
Run Number		1					
Depth Driller		7332'					
Depth Logger		7331'					
Bottom Logged Interval		7318'					
Top Log Interval		Surface					
Open Hole Size		7.875					
Type Fluid		Fresh Water					
Density / Viscosity		8.33					
Max. Recorded Temp.		N/A					
Estimated Cement Top		880'					
Time Well Ready		9:45					
Time Logger on Bottom		10:17					
Equipment Number		13033					
Location		Brighton					
Recorded By		C. Rail					
Witnessed By		Susan Sears					
Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record	Size			Wgt/Ft	Top		Bottom
Surface String	8 5/8#			24#	0		793'
Prot. String							
Production String	4 1/2"			11.6#	0		7331'
Liner							
Short Joint						6846'	6868'

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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

Secondary Log on Well
Correlated With Pioneer Triple Combo 12/15/2013

BHL: 690 FSL & 658 FEL SESE
Sec 20, TWP 7N, RGE 67W
Main Pass and Repeat Pass logged with 0 PSI
Logged from 13' Kelly Bushing
Estimated Top Of Cement @ 880'
Short Joint @ 6846' To 6868

Thank You For using Allied Wireline Services
(303) 659-4609



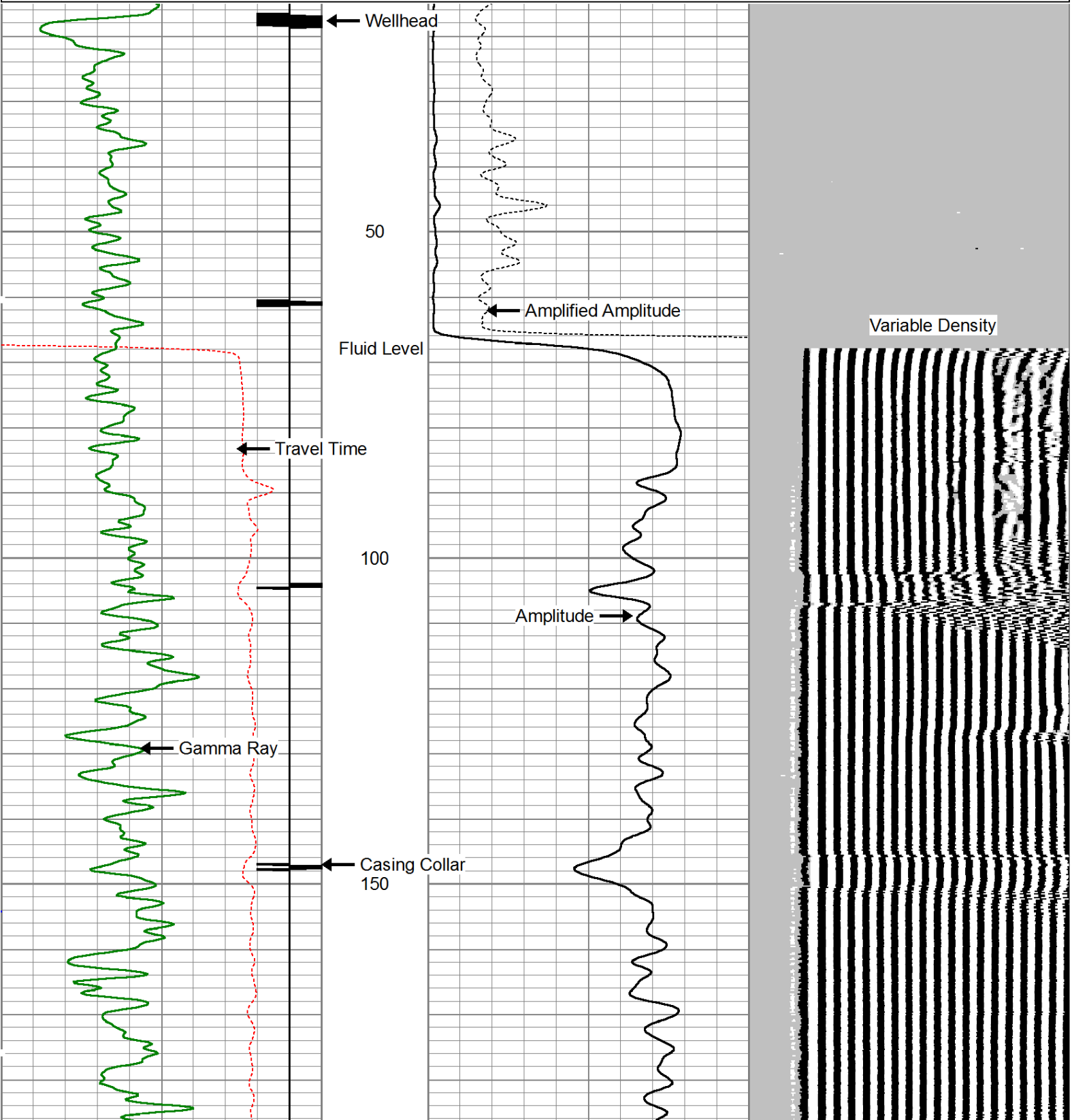
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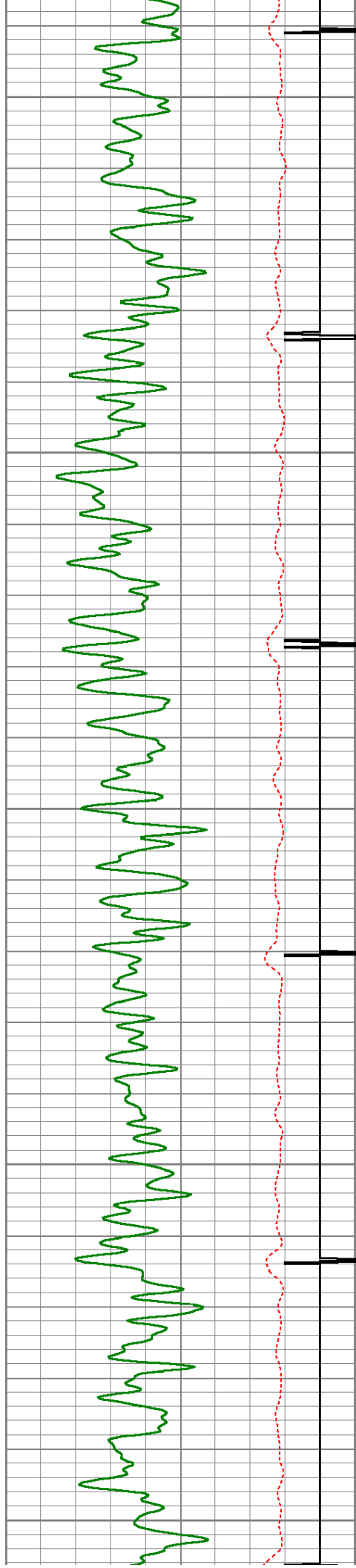
Database File: bayswater heckman16-20_cbl.db
Dataset Pathname: pass4
Presentation Format: cblprobe
Dataset Creation: Wed Jan 22 10:35:48 2014 by Log 0
Charted by: Depth in Feet scaled 1:240

400	Travel Time (usec)	200
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
0	Line Tension (lb)	5000

0	Amplitude (mV)	100
0	Amplified Amplitude (mV)	10

200 Variable Density 1200





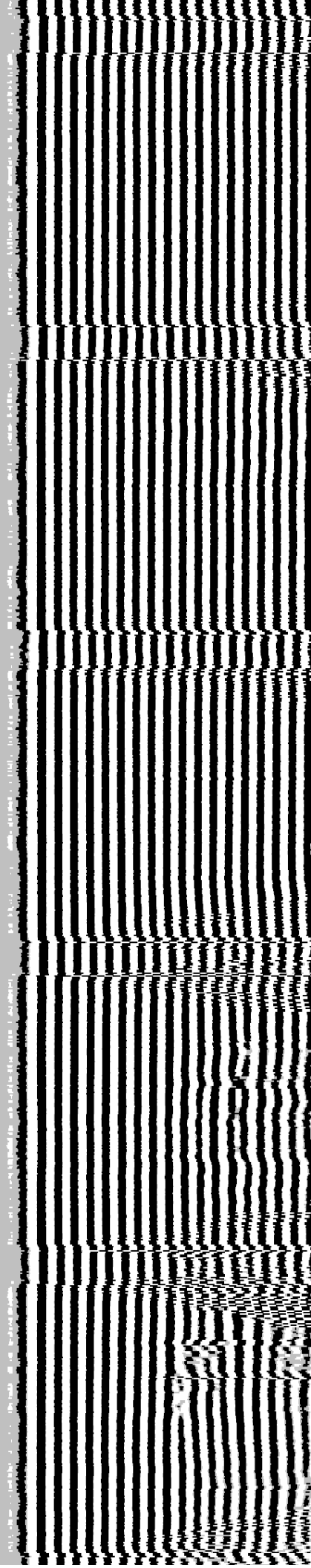
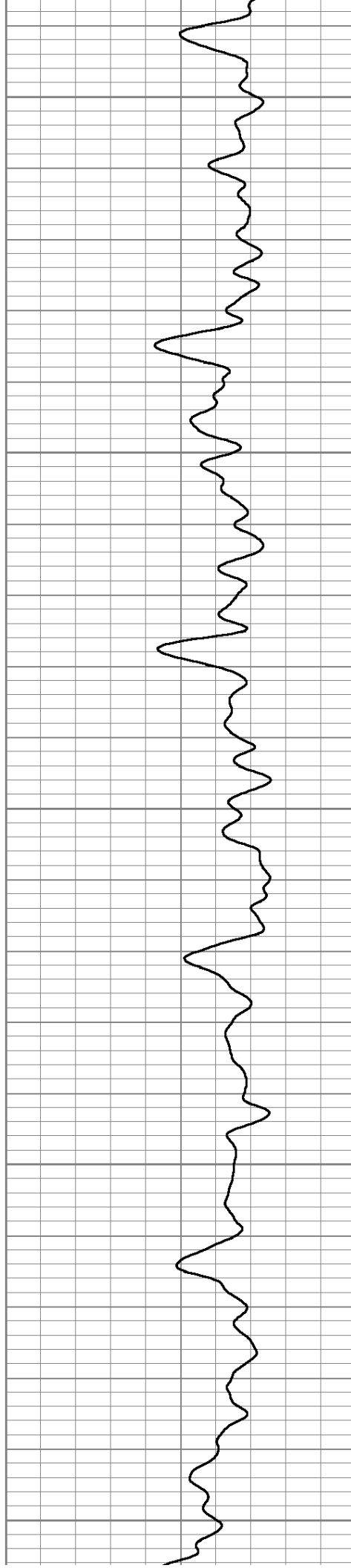
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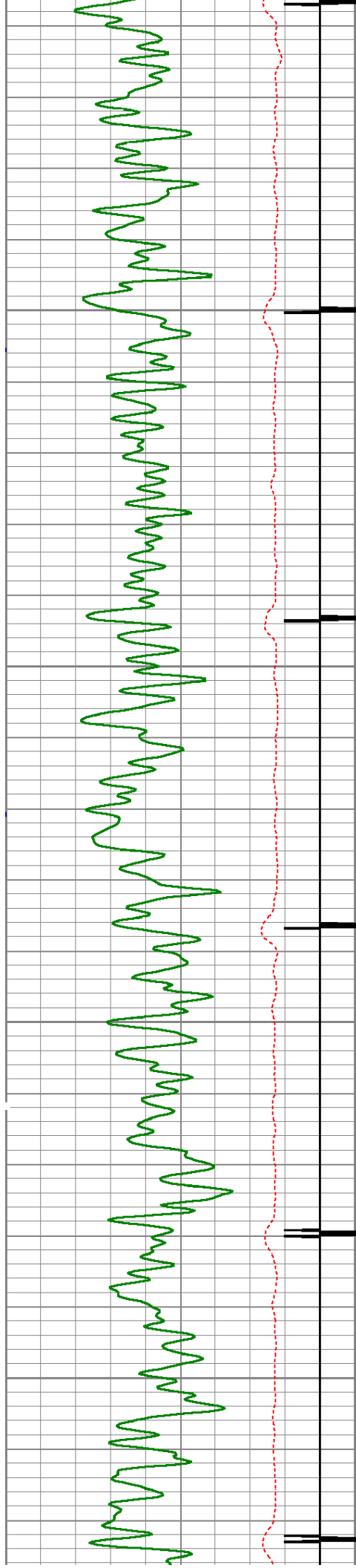
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400



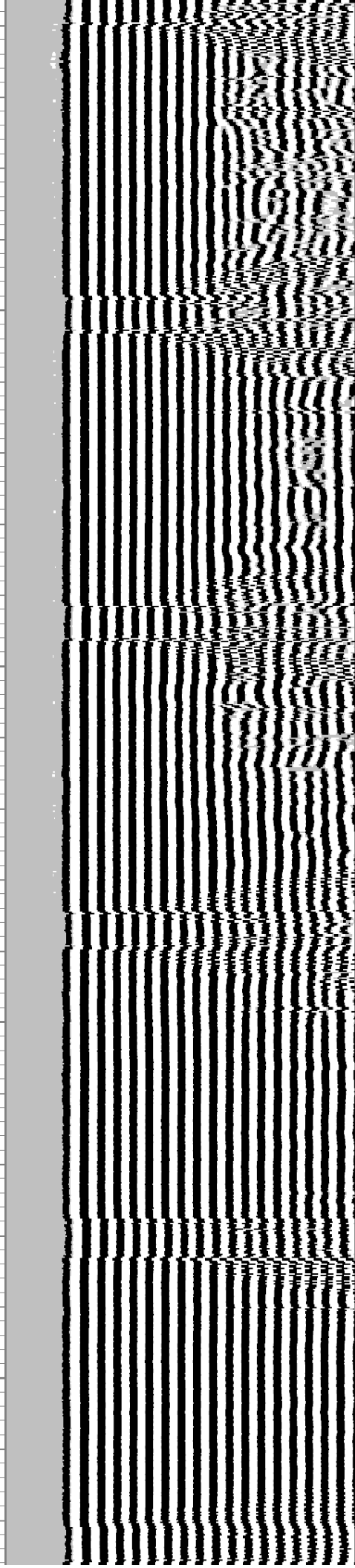
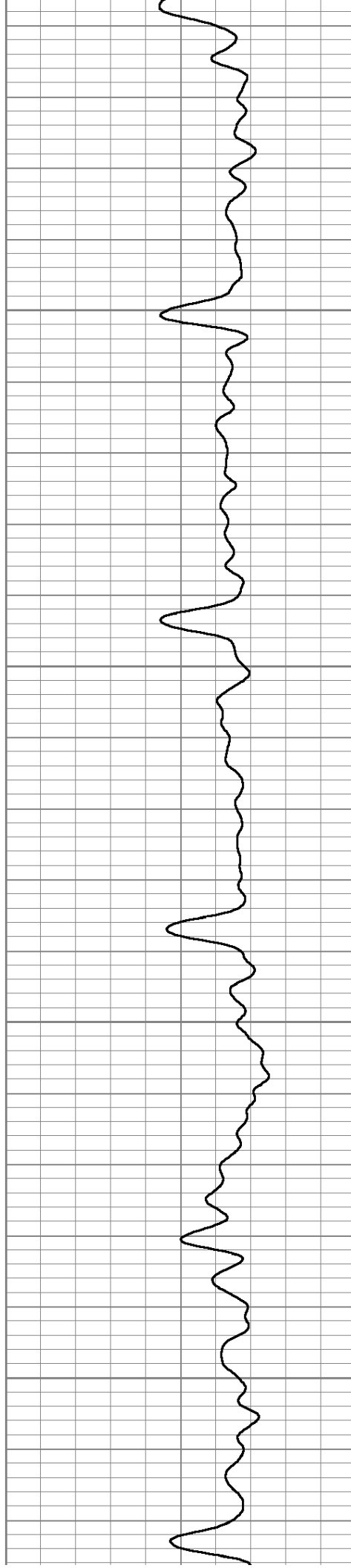


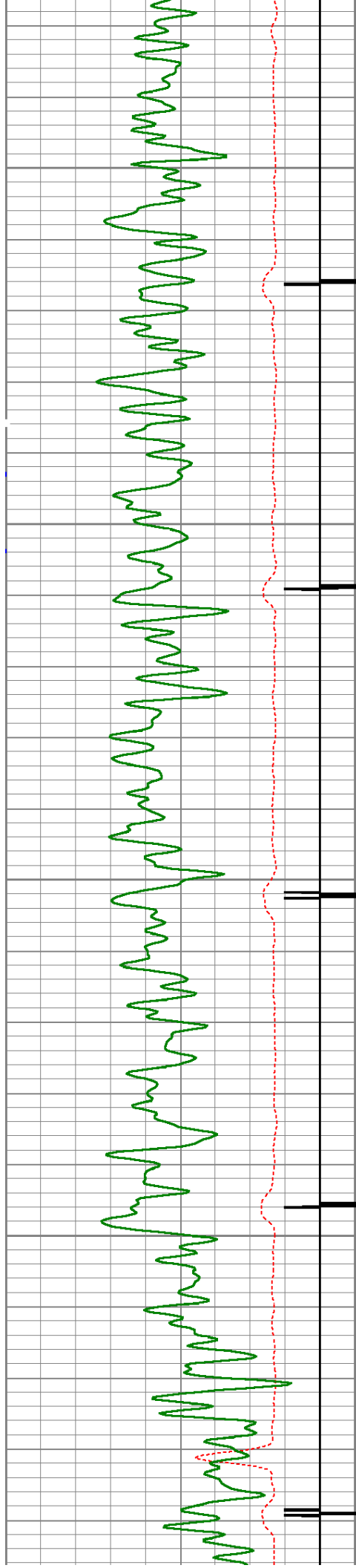
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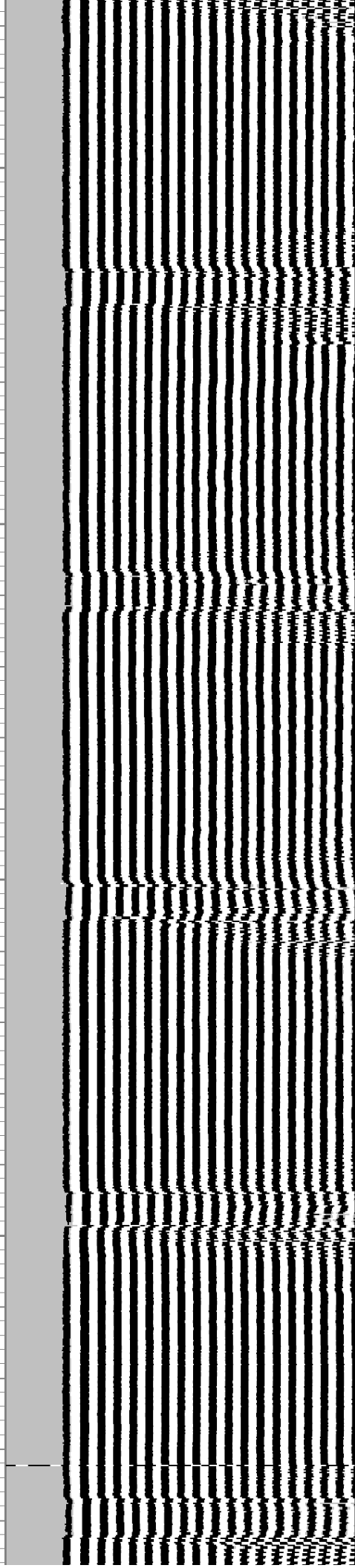
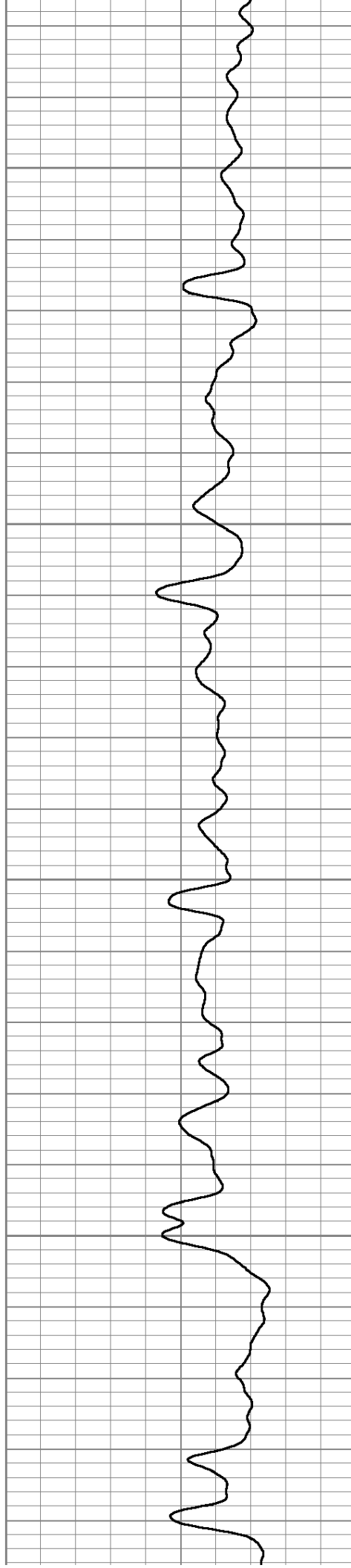


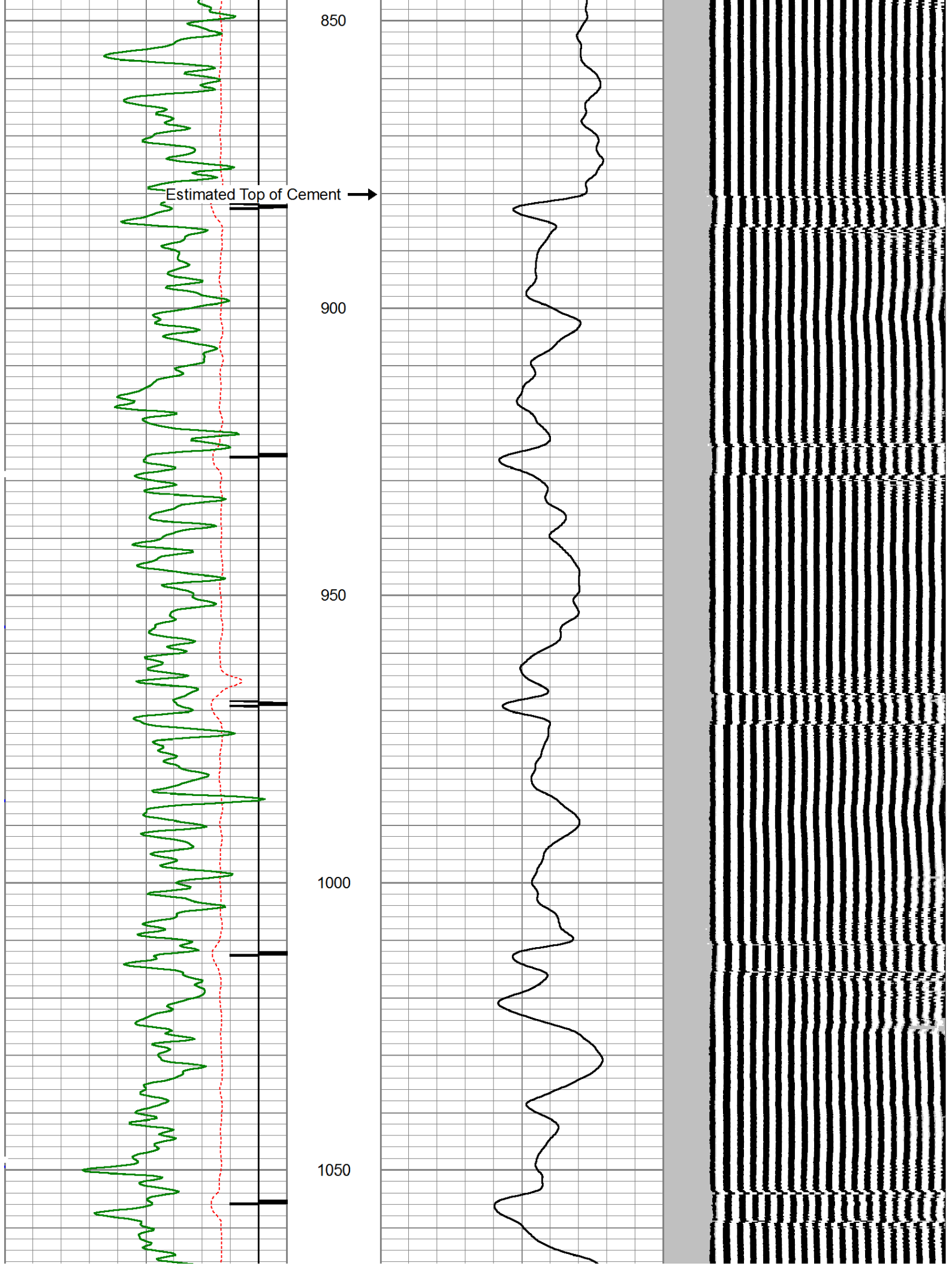
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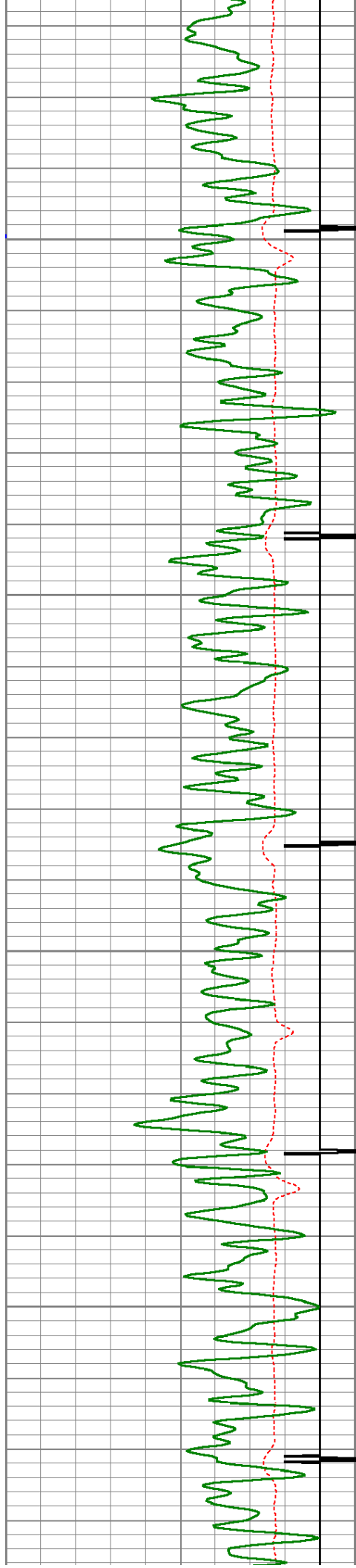
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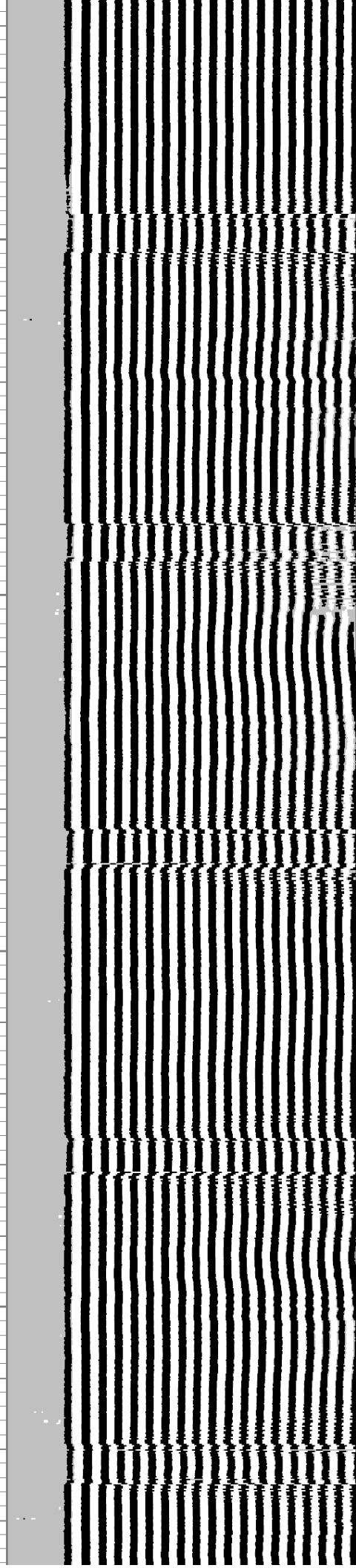
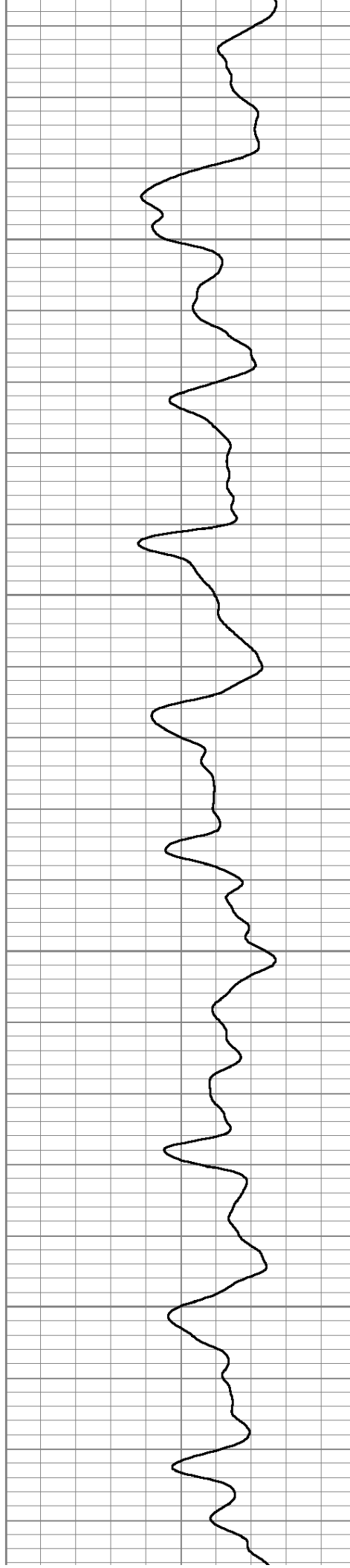


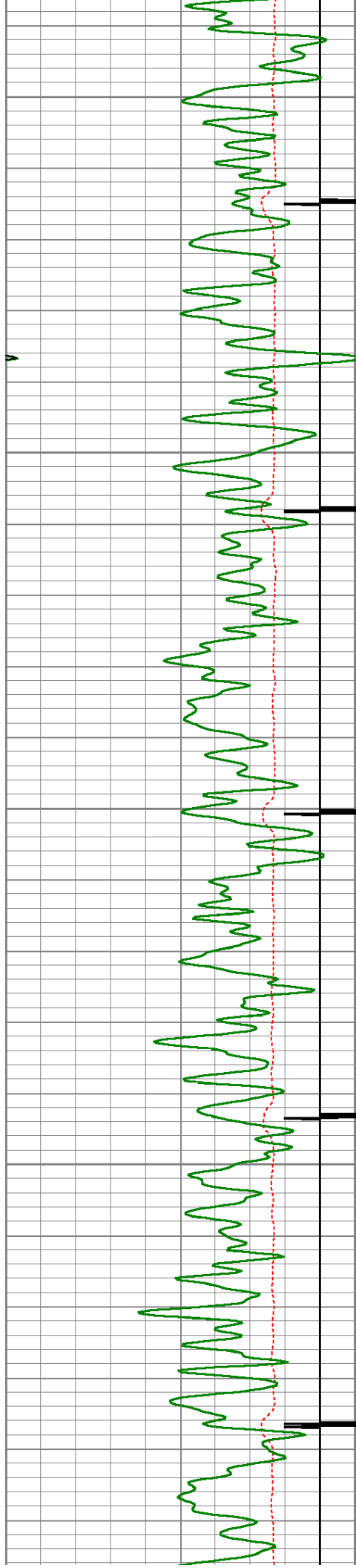
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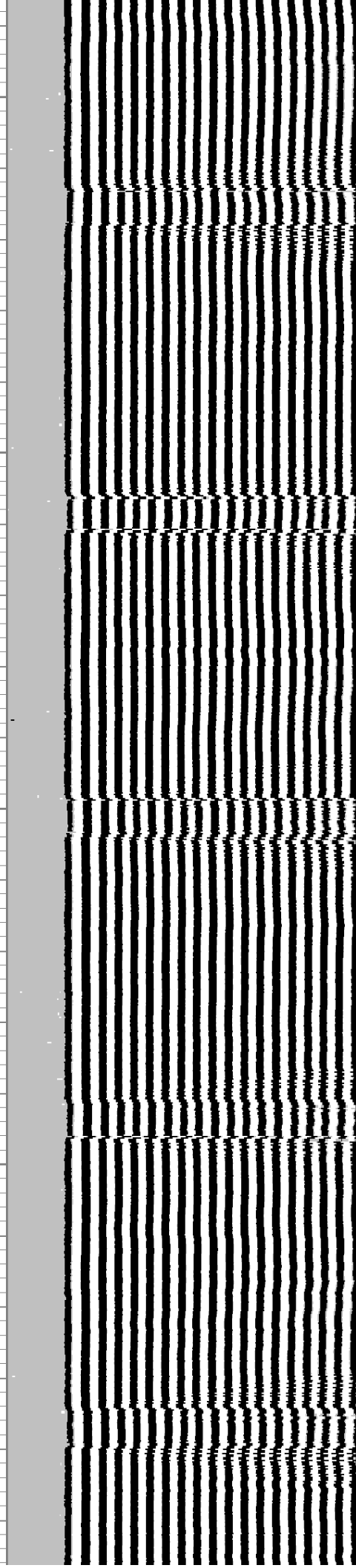
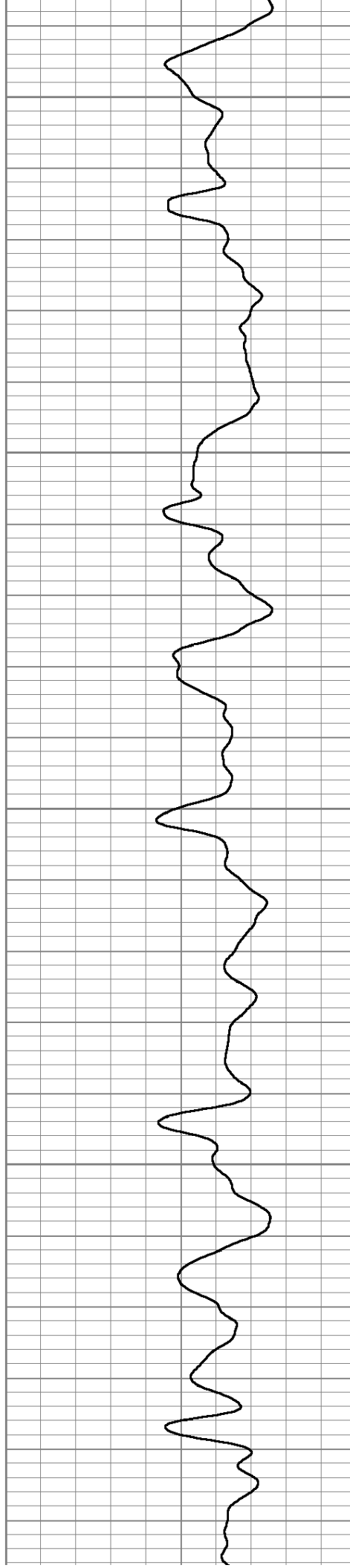
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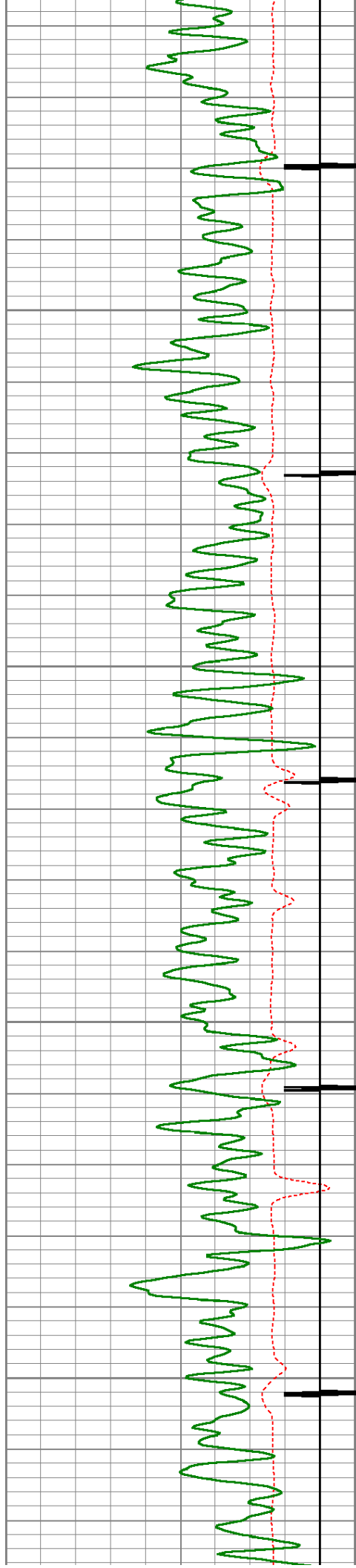
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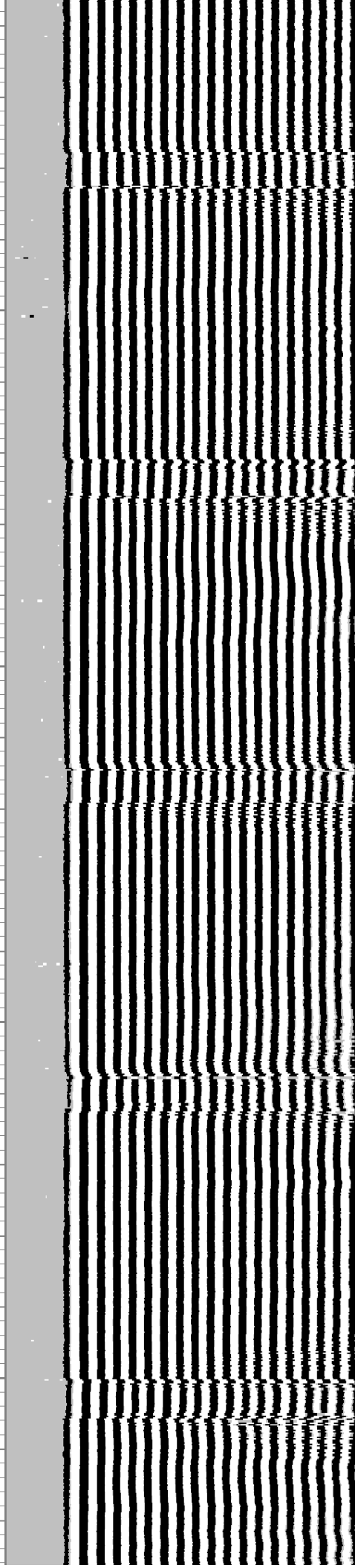
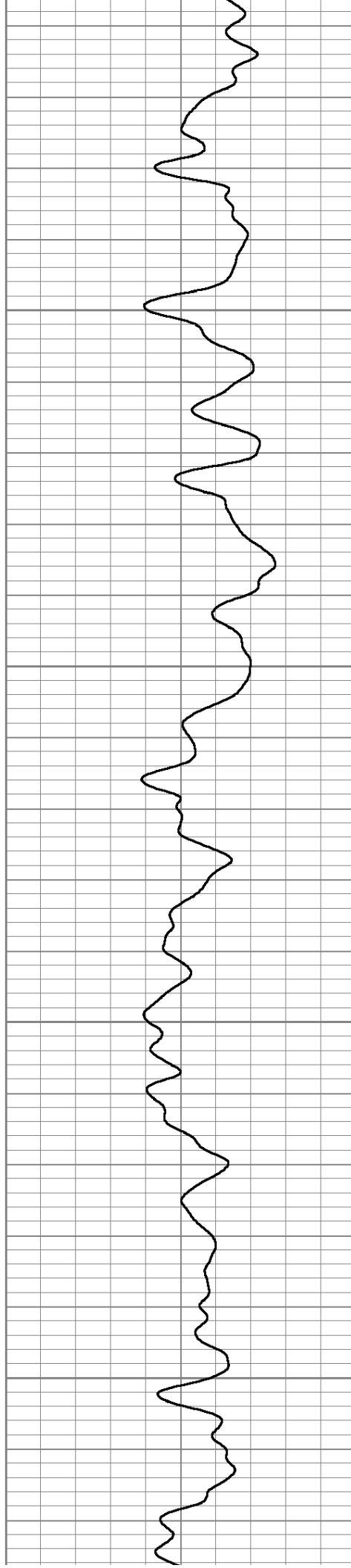


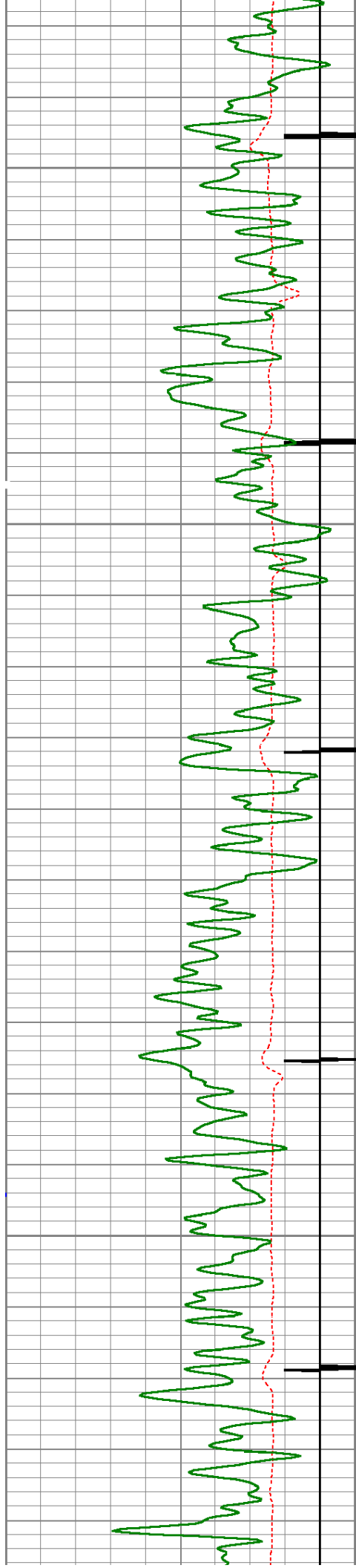
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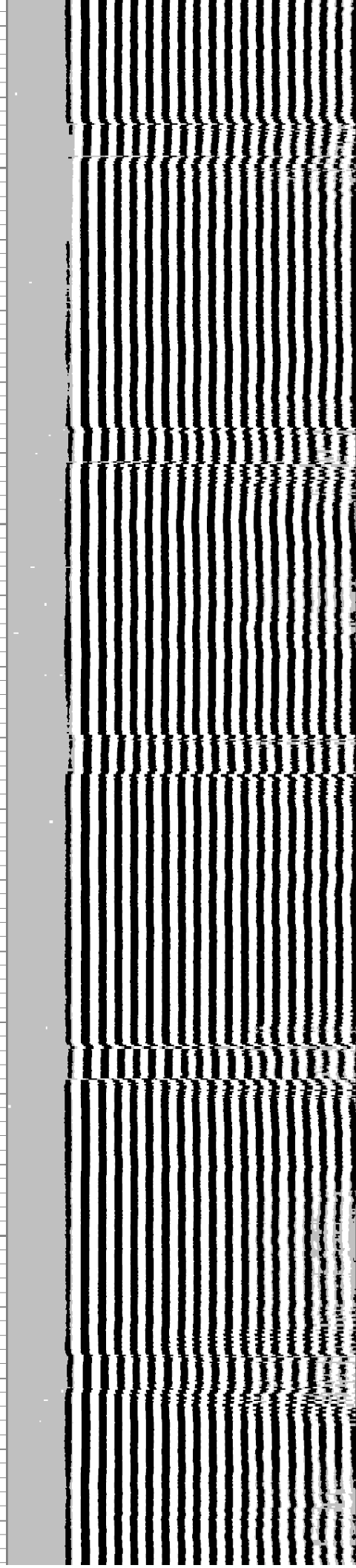
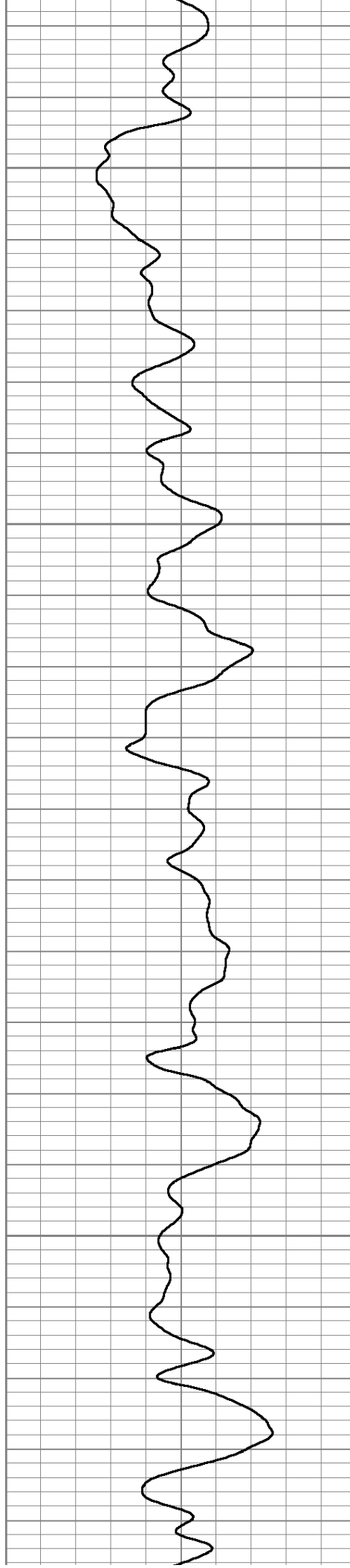


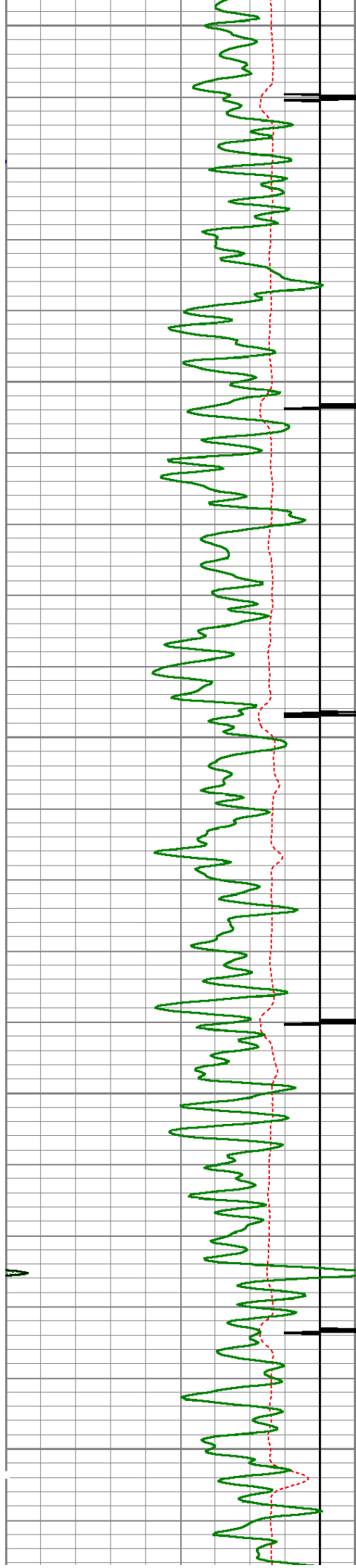
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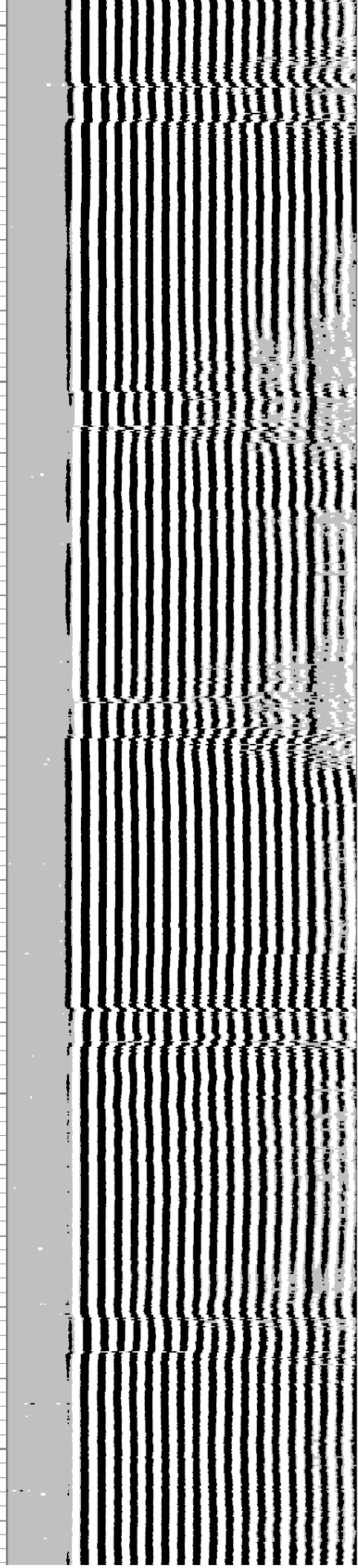
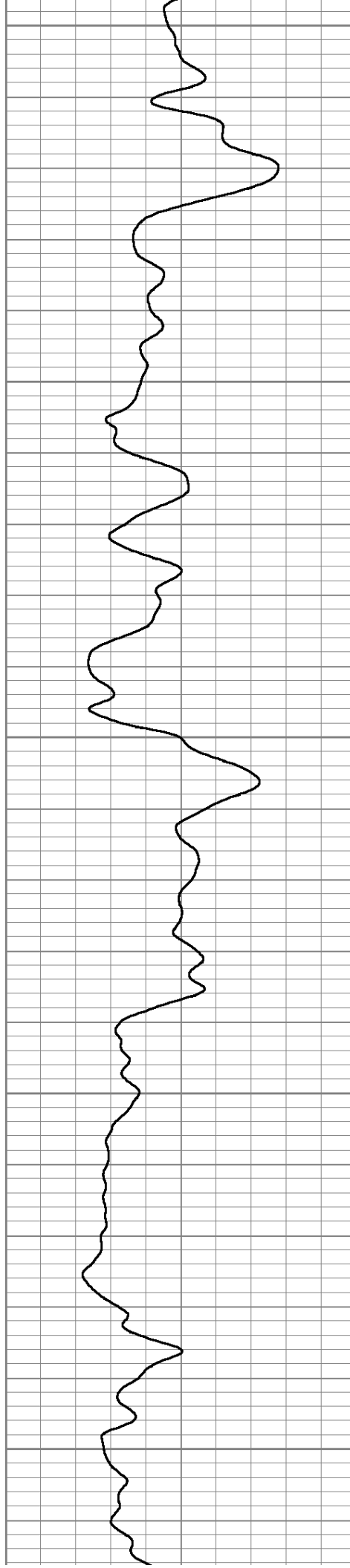
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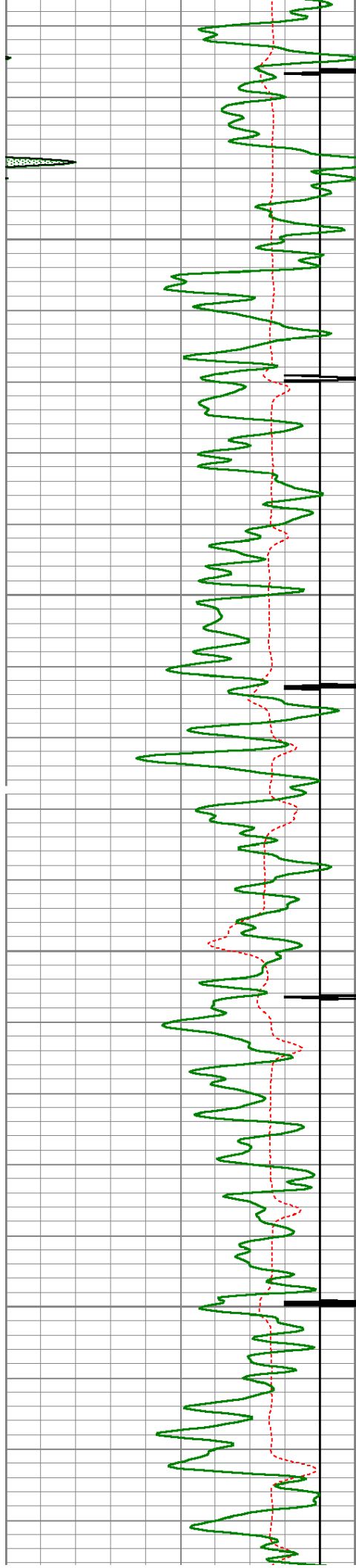
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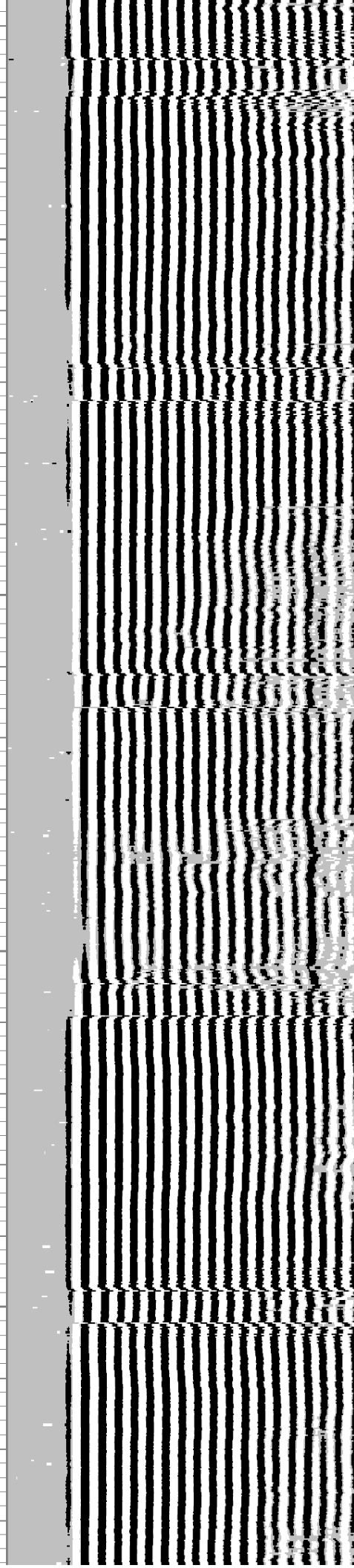
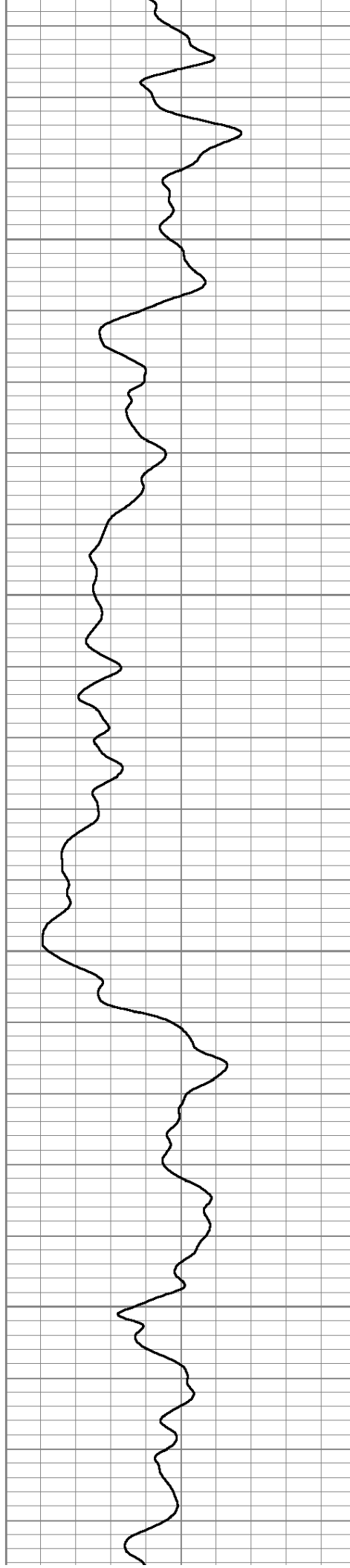


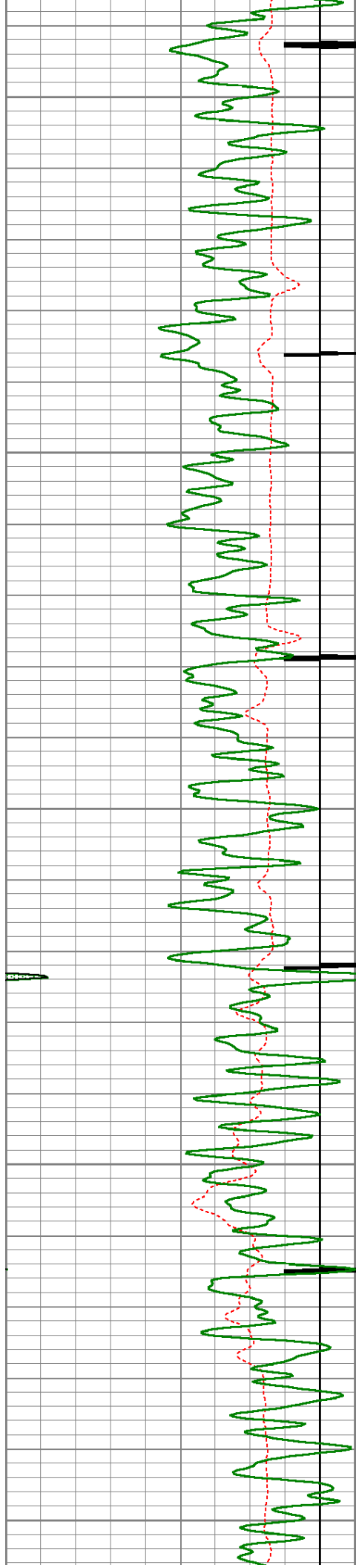
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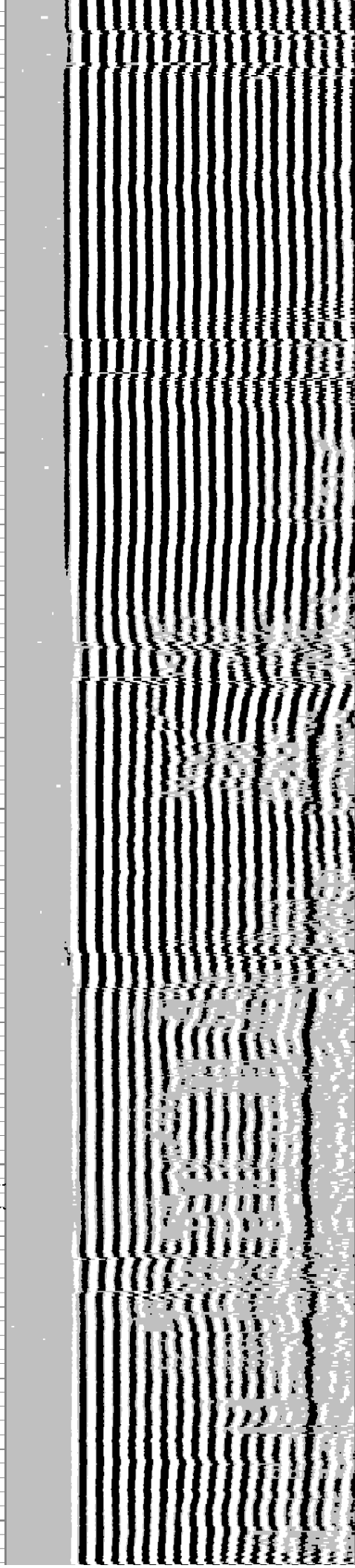
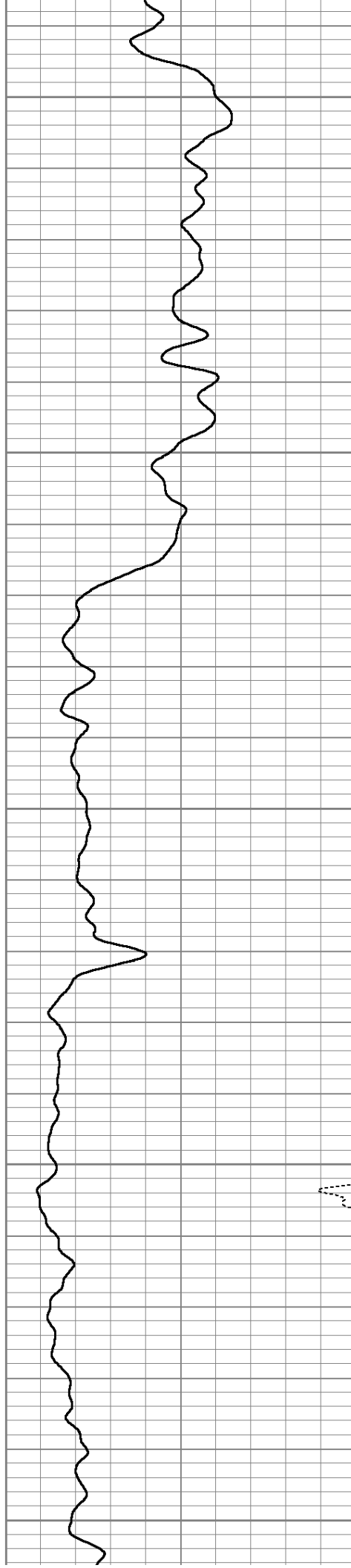
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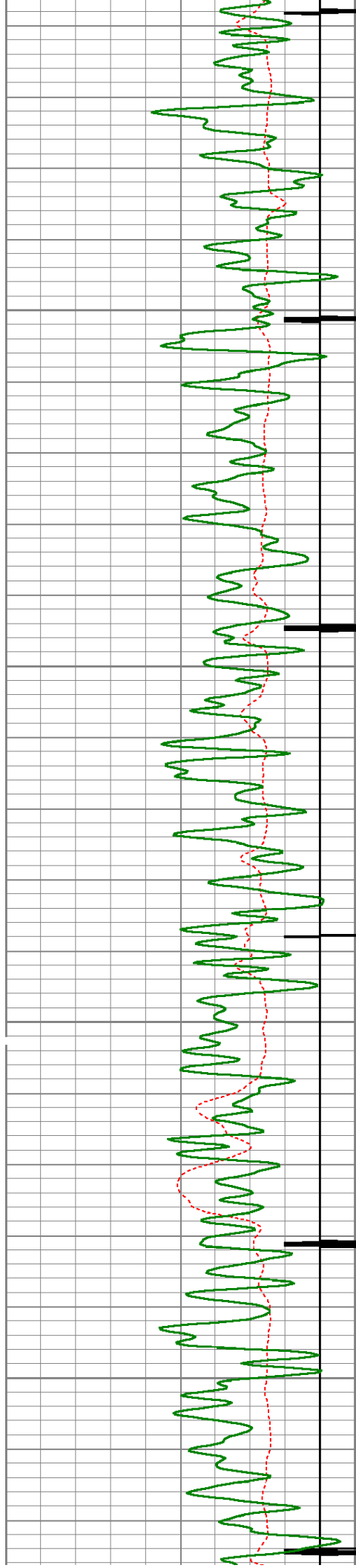
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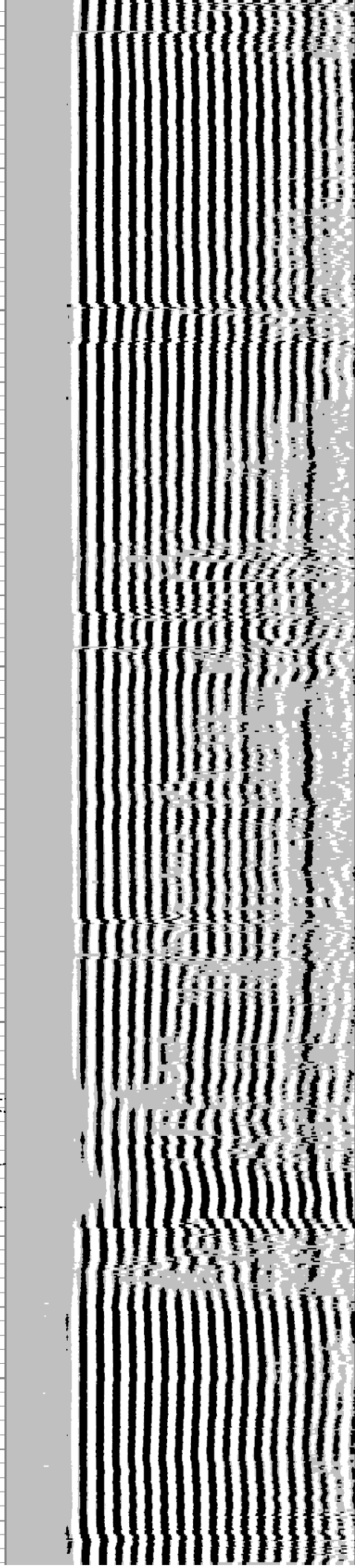
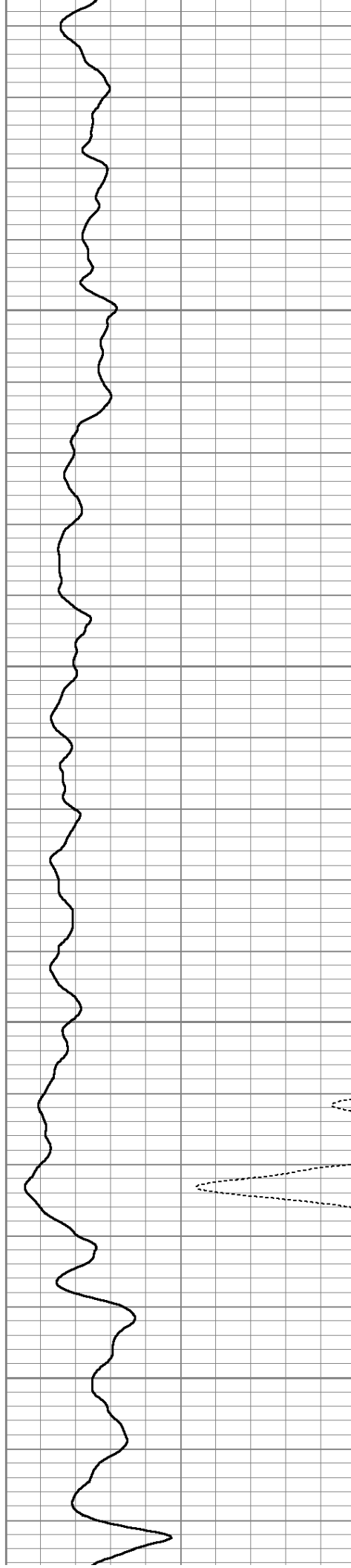


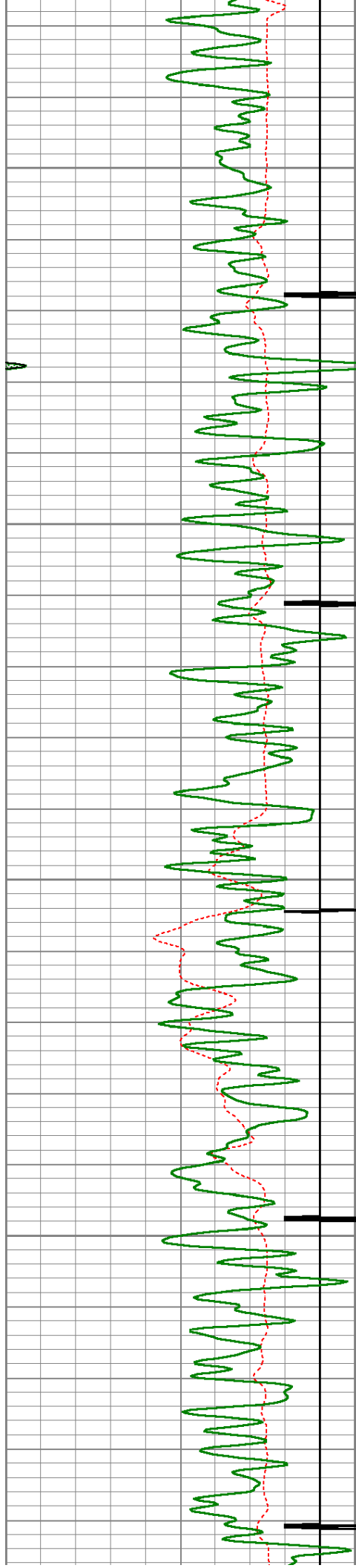
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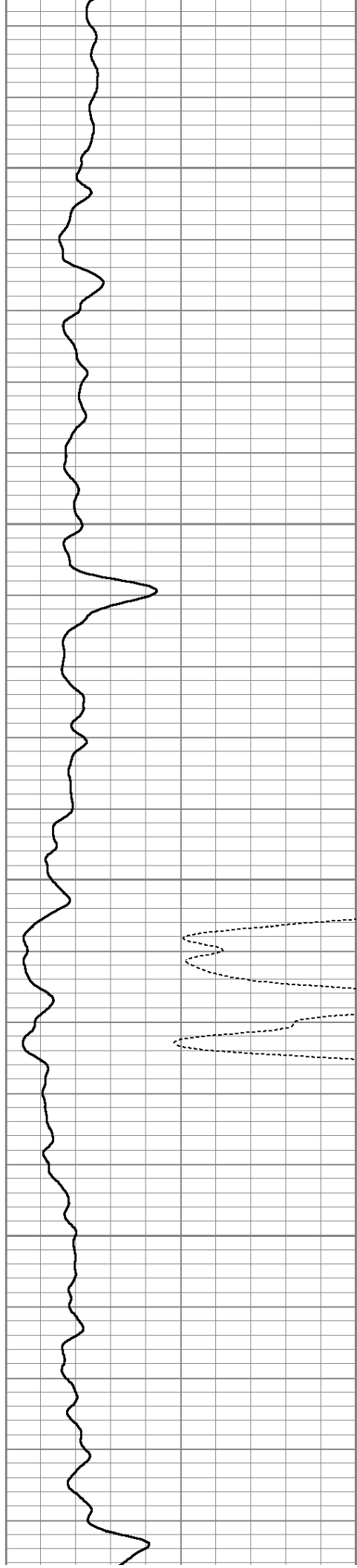


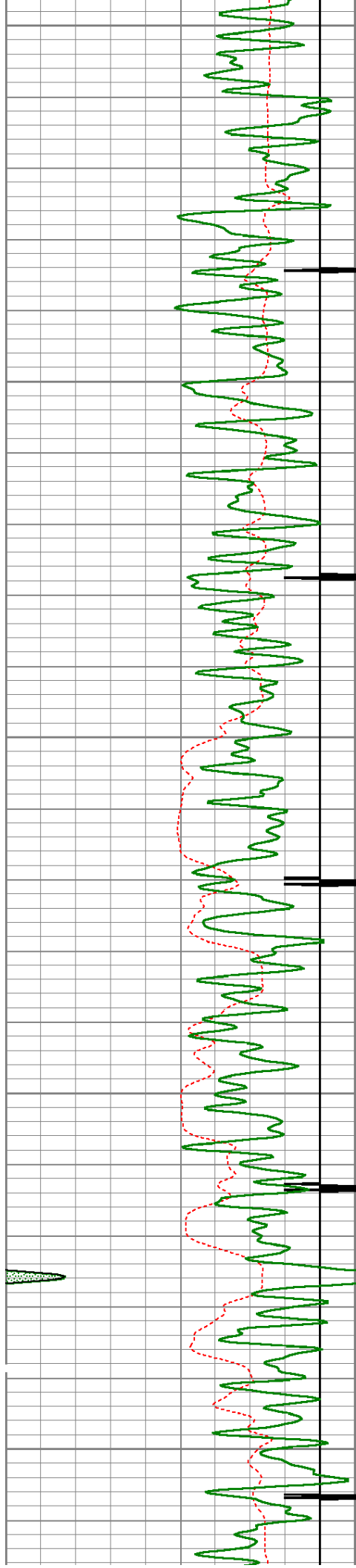
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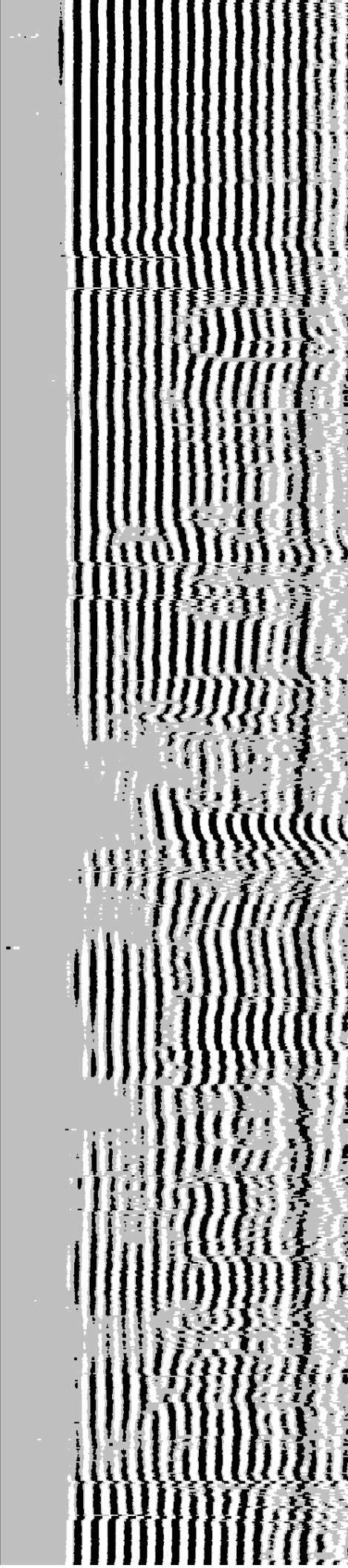
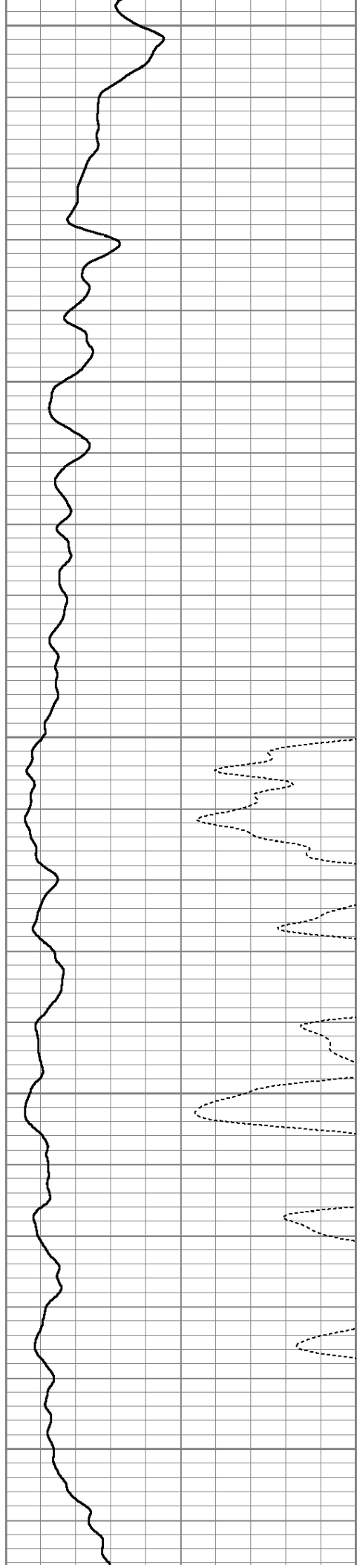
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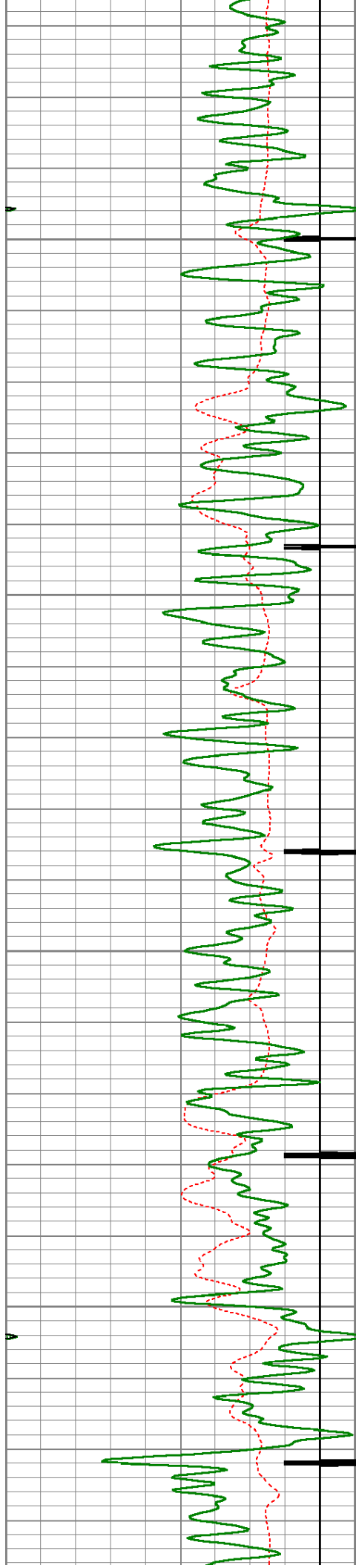
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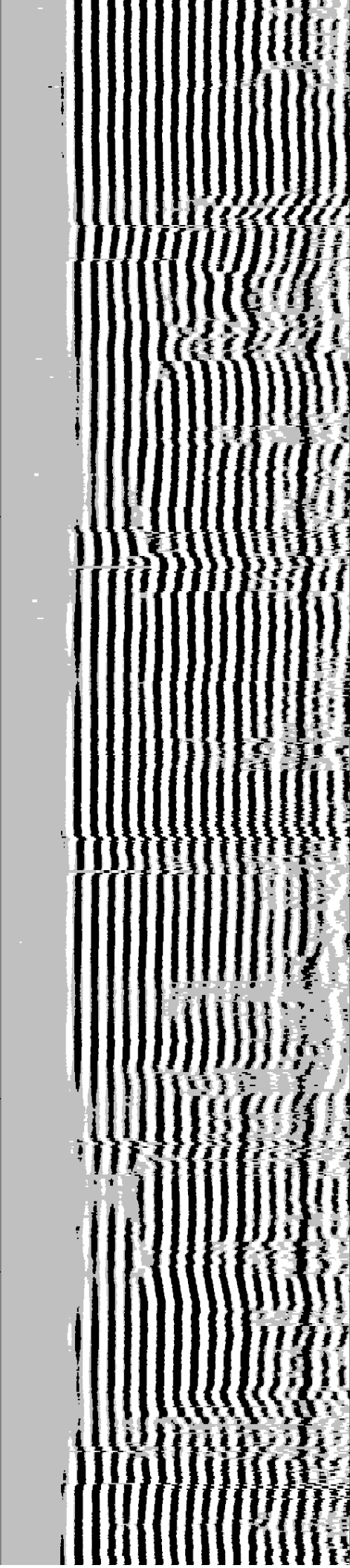
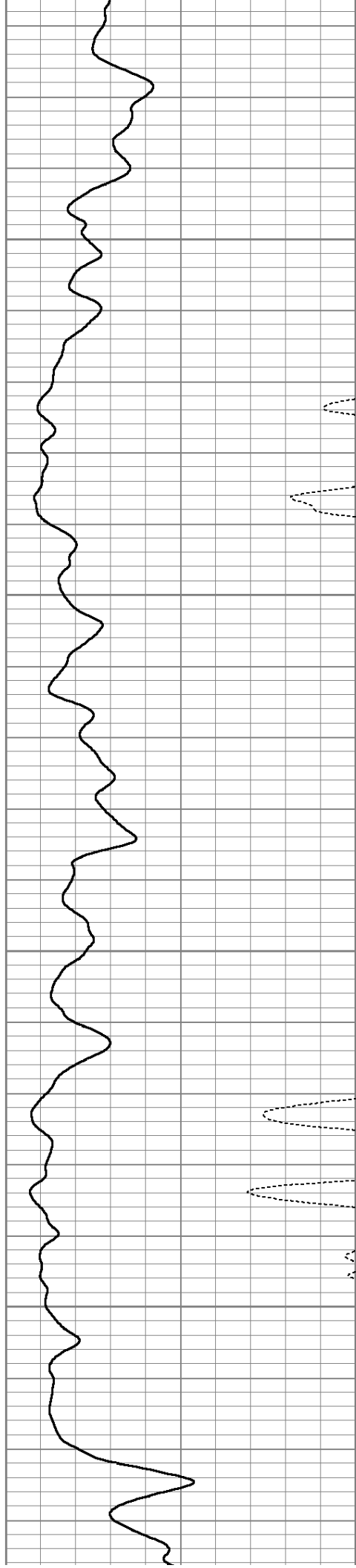


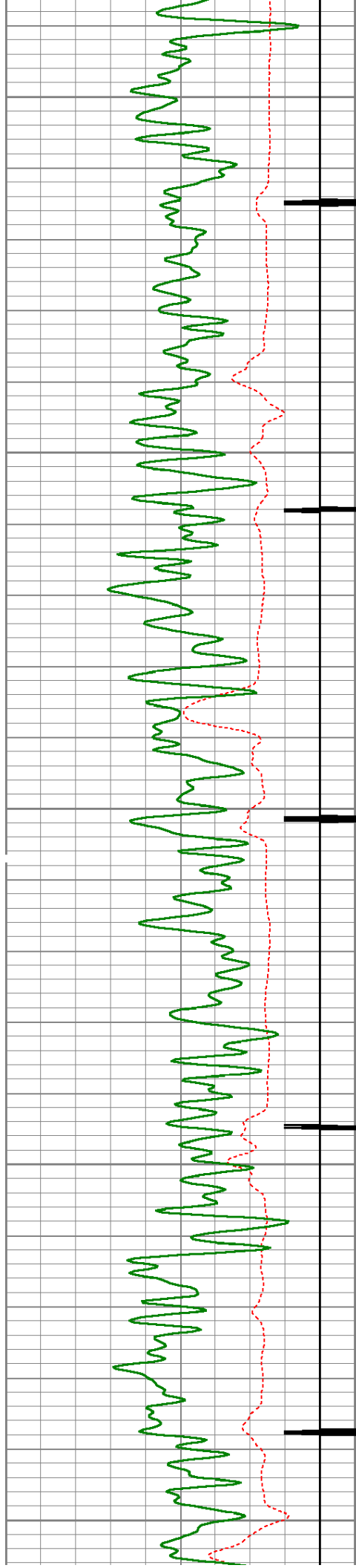
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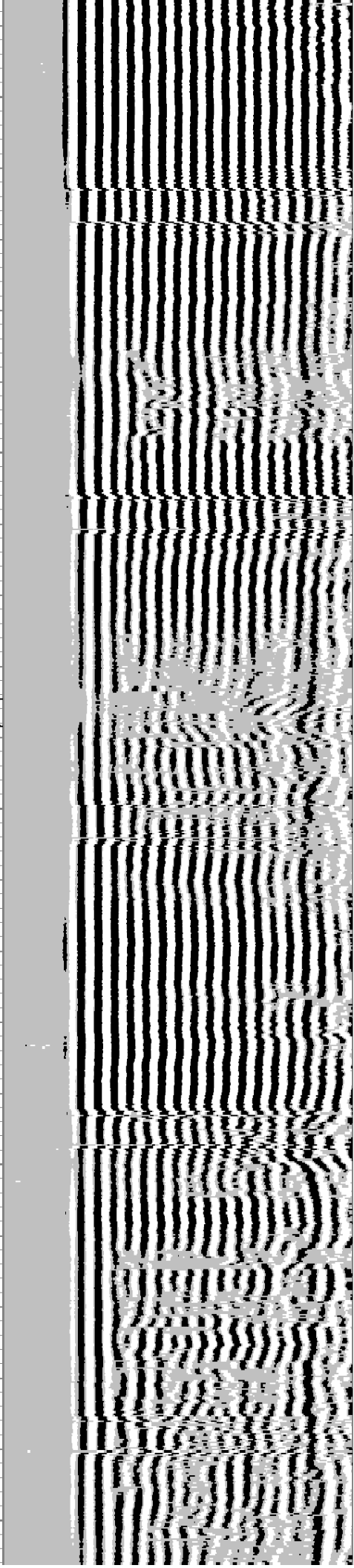
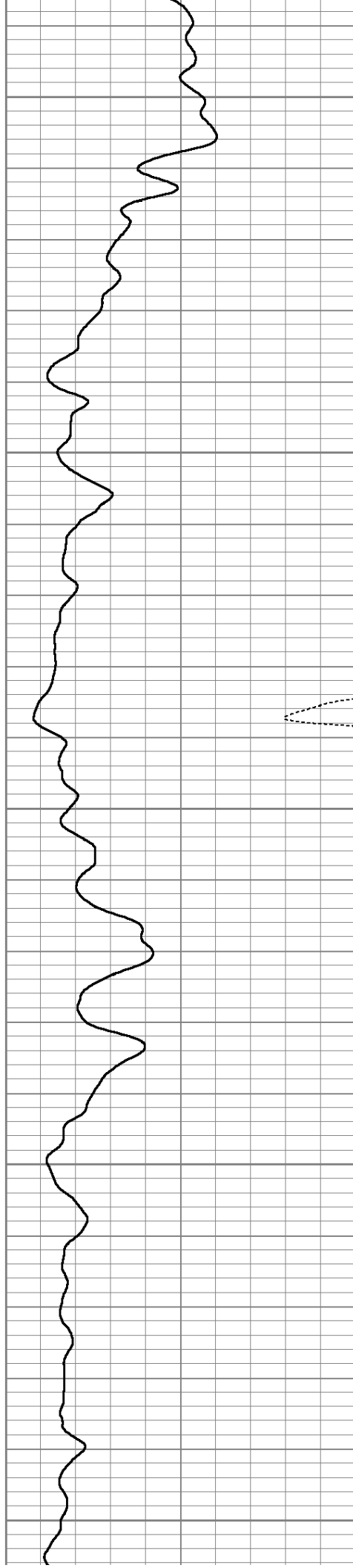
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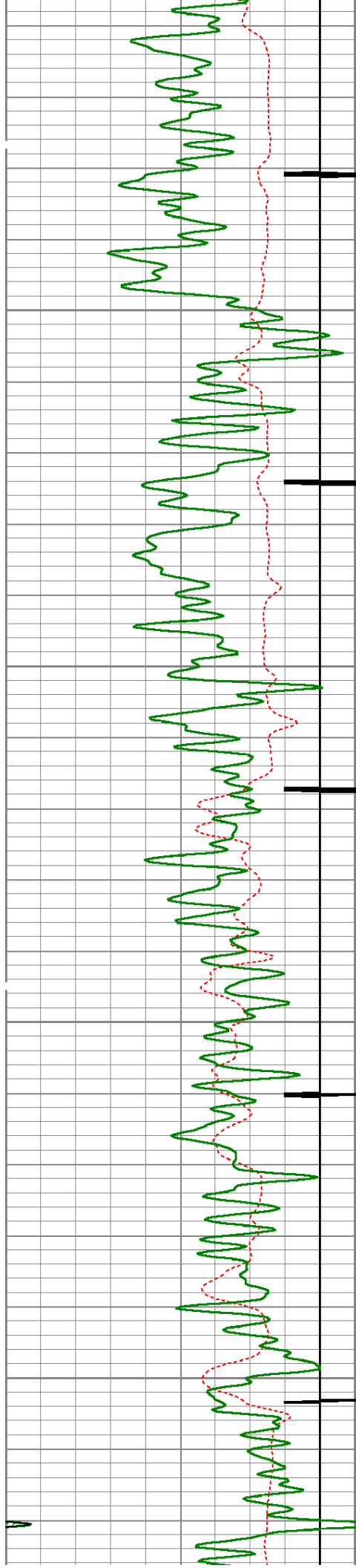
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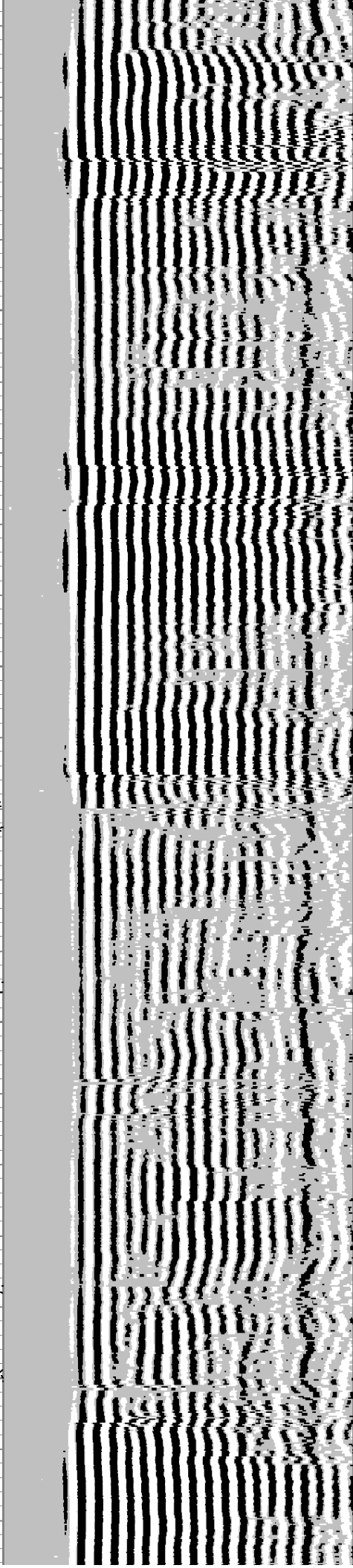
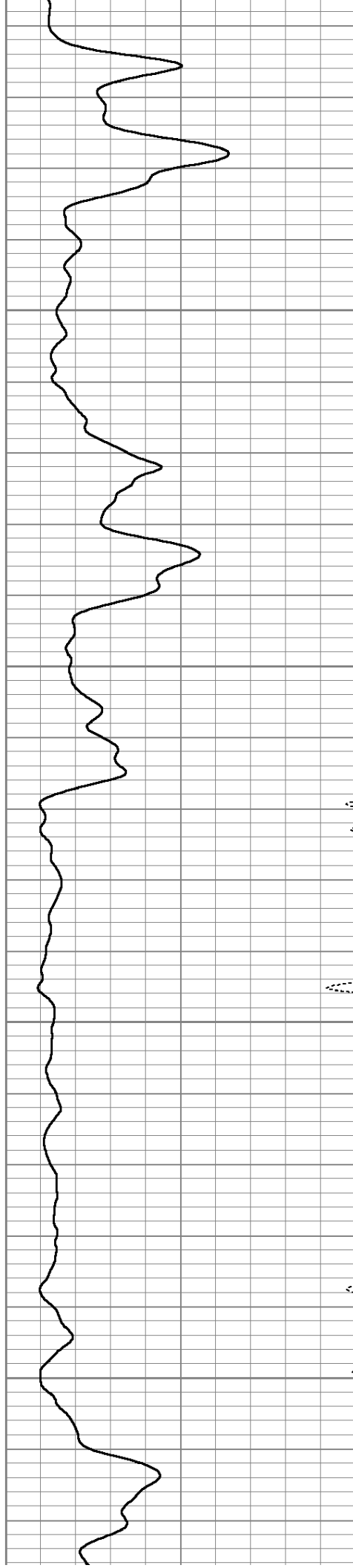


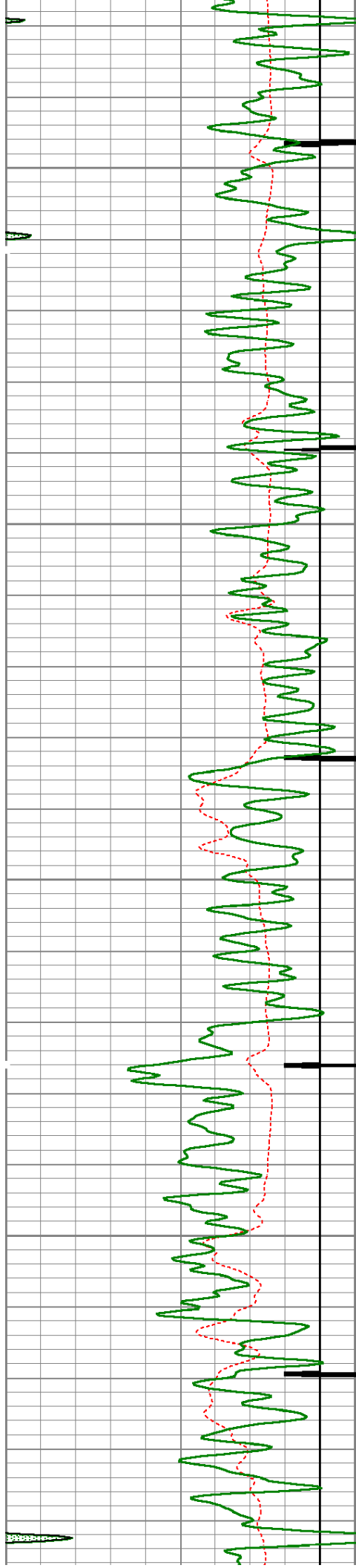
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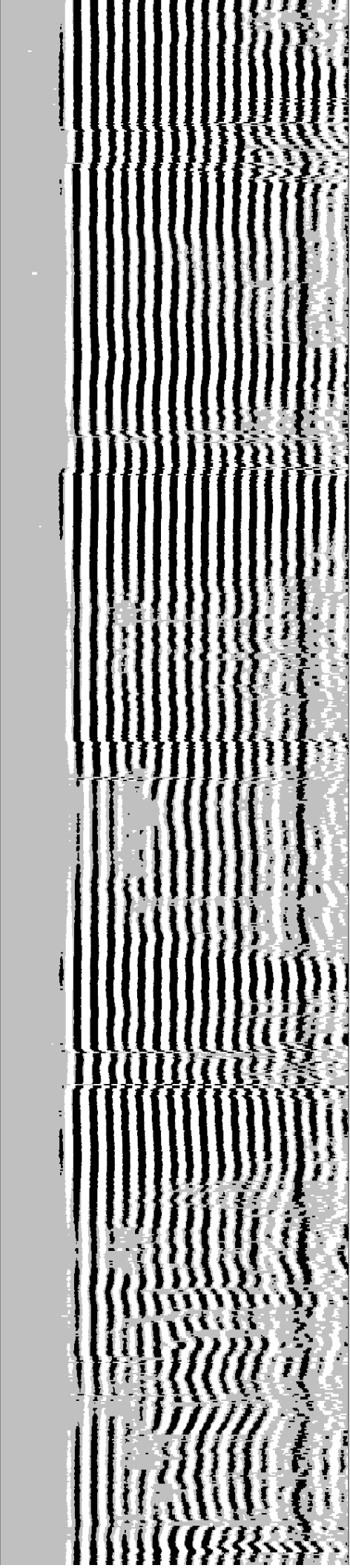
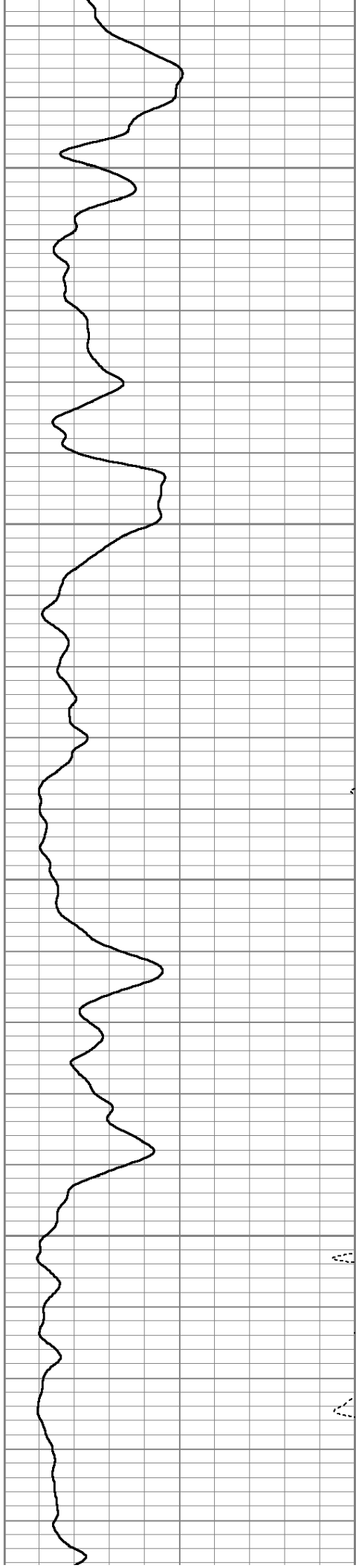


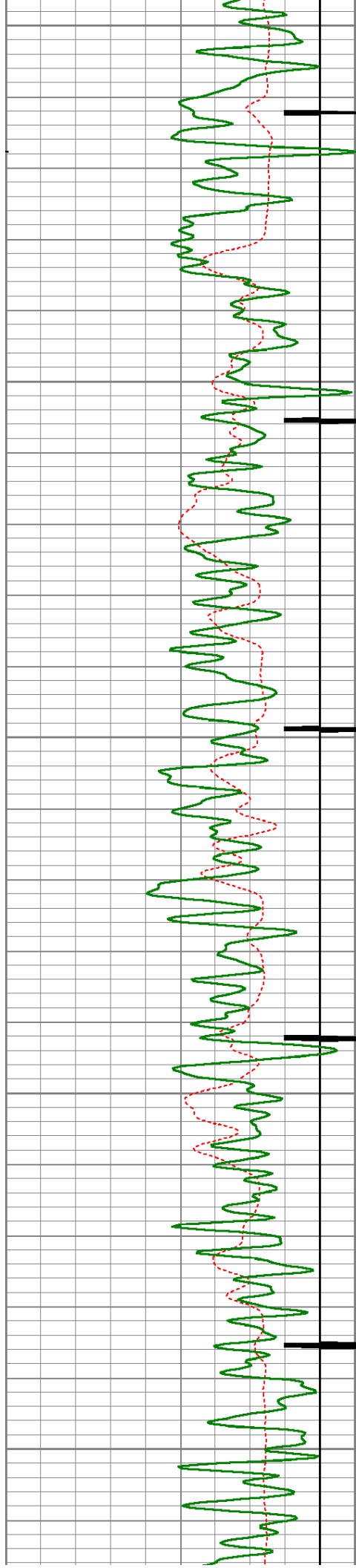
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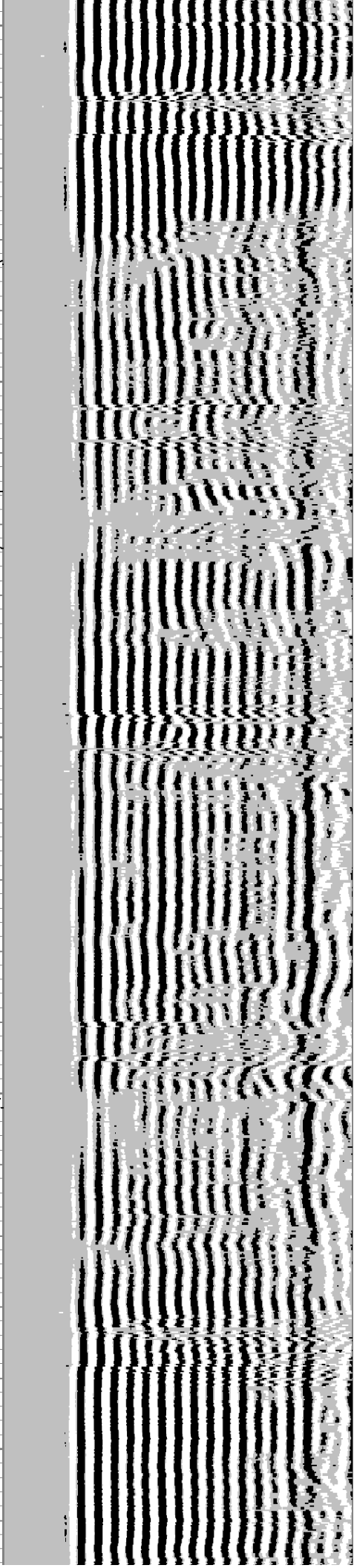
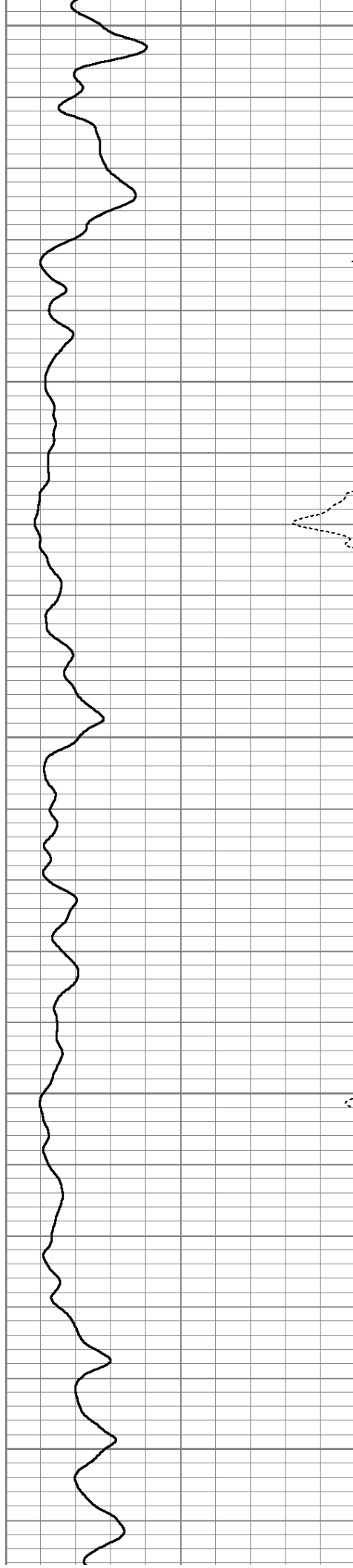
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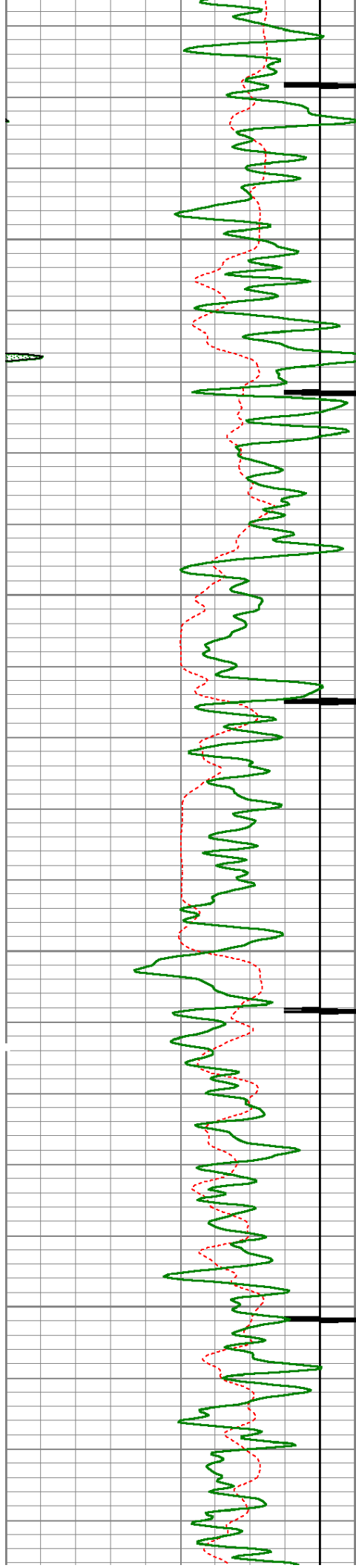
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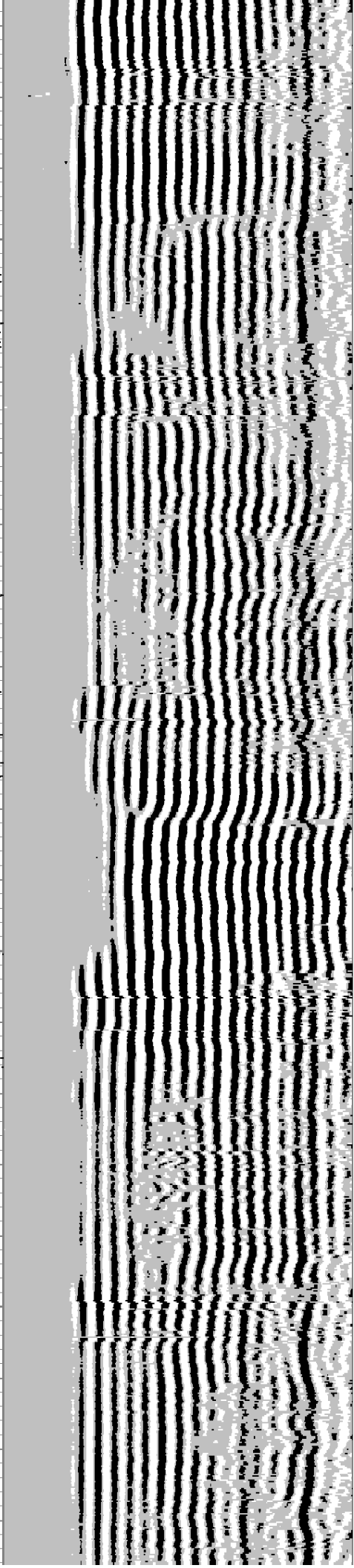
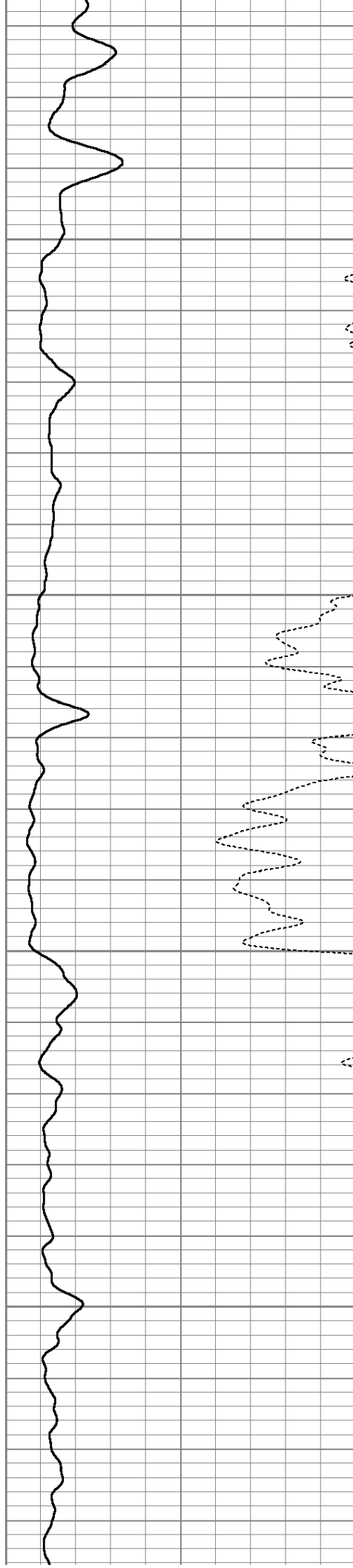


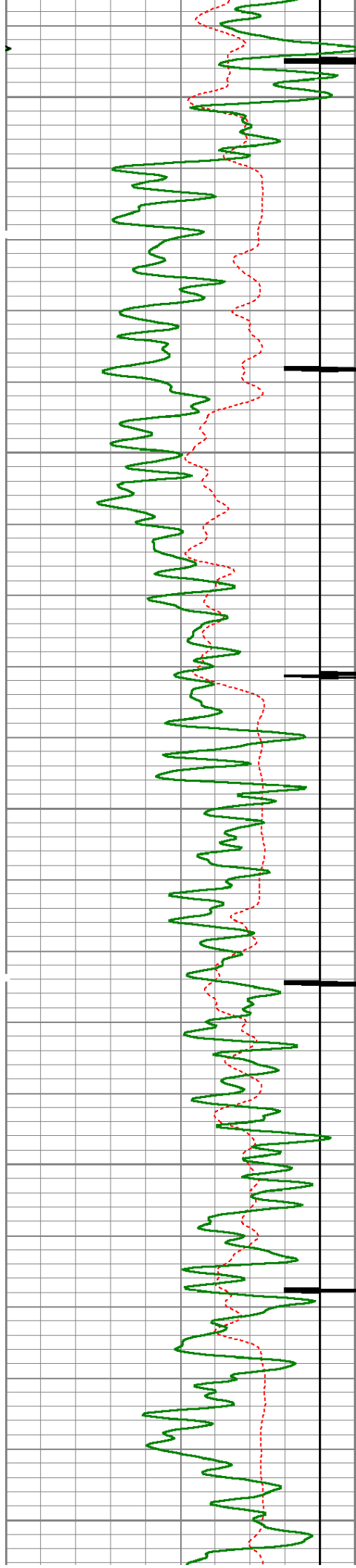
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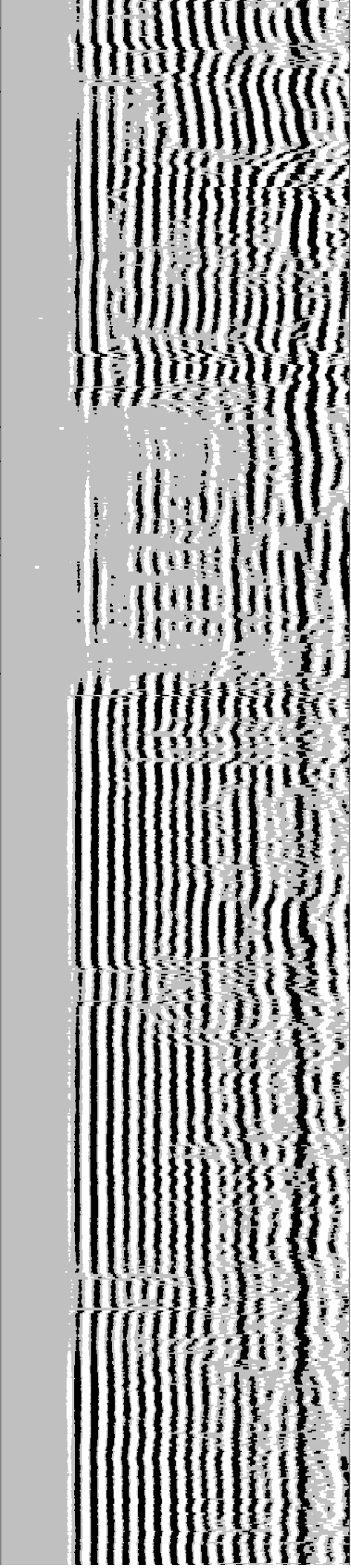
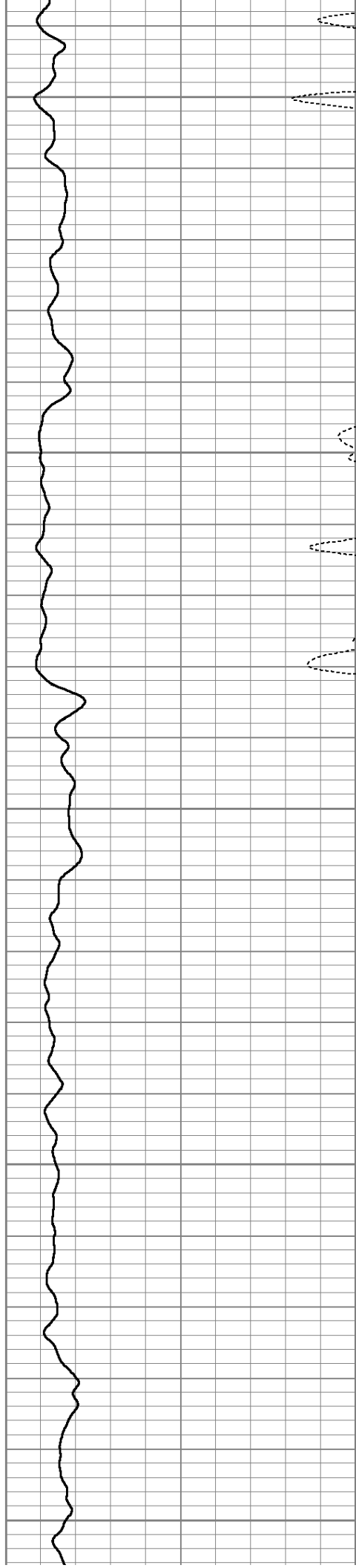
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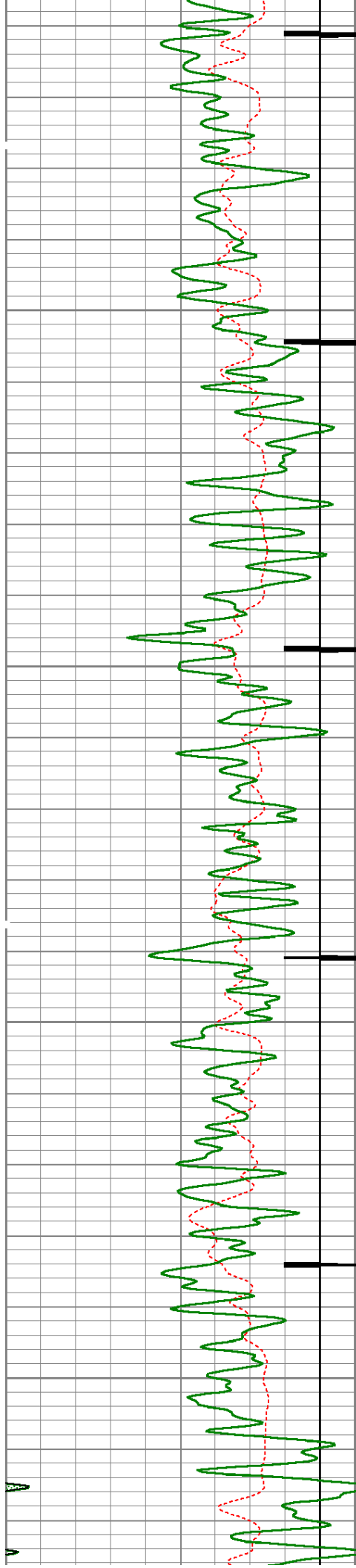
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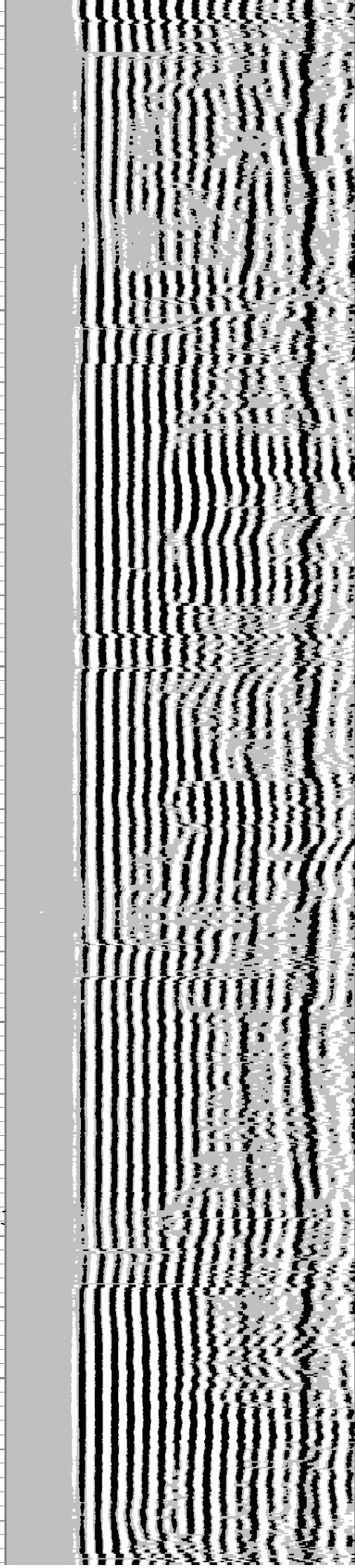
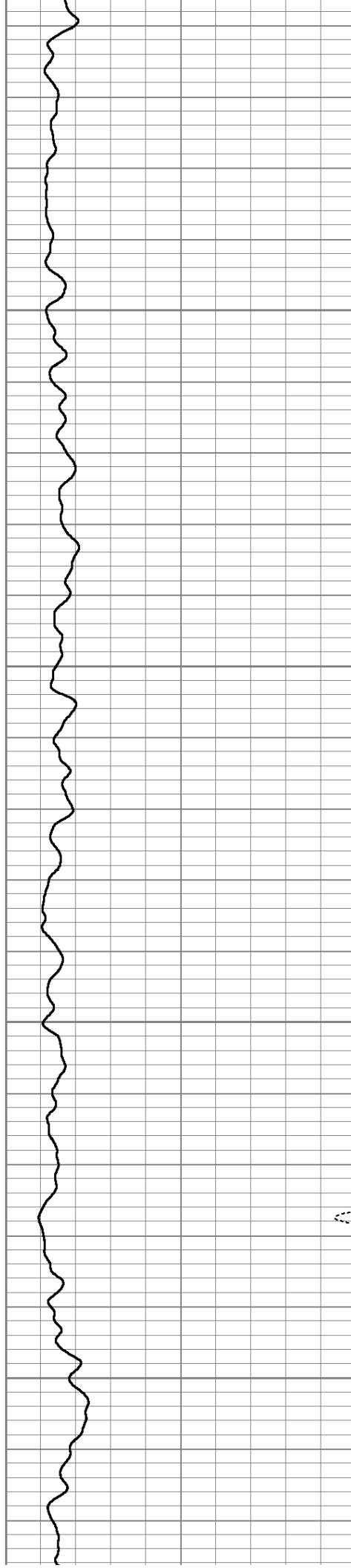


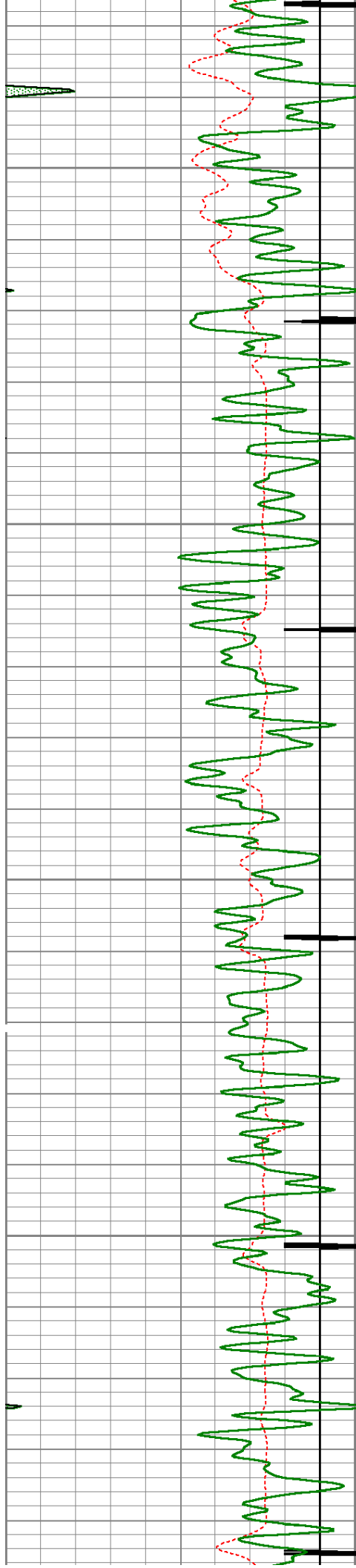
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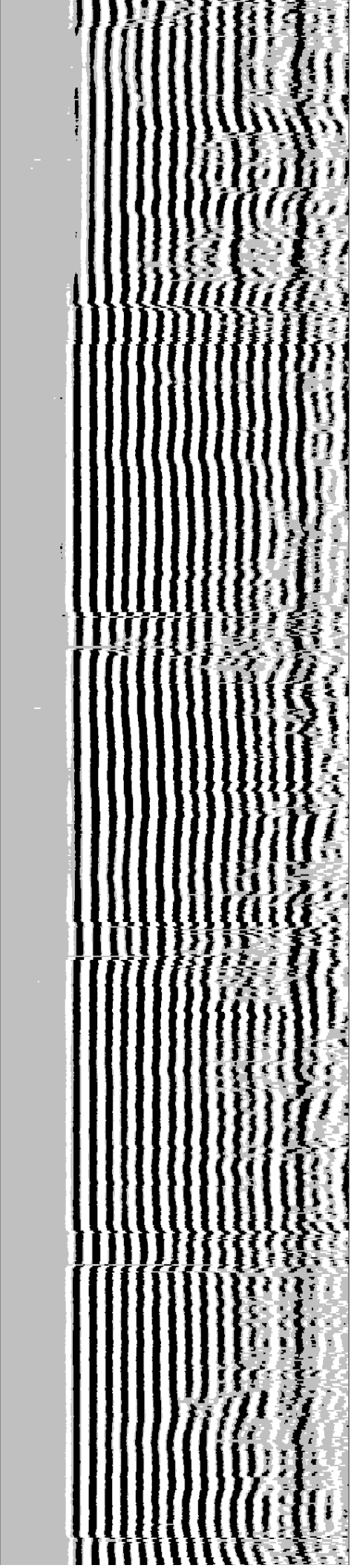
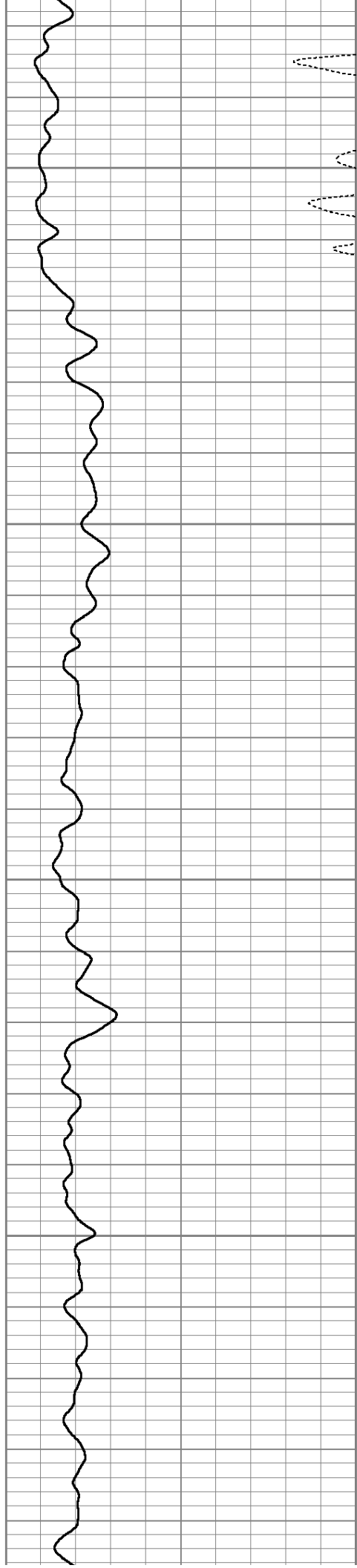


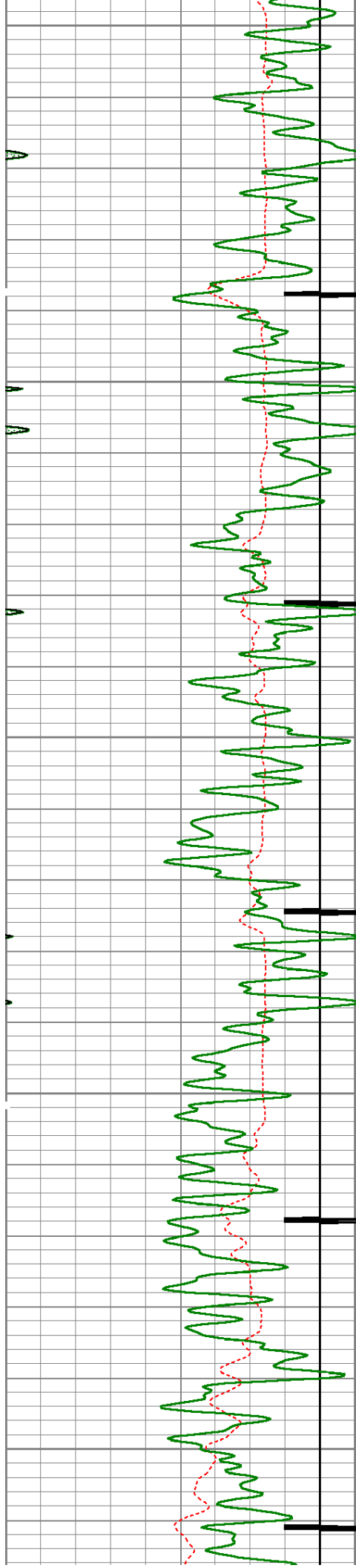
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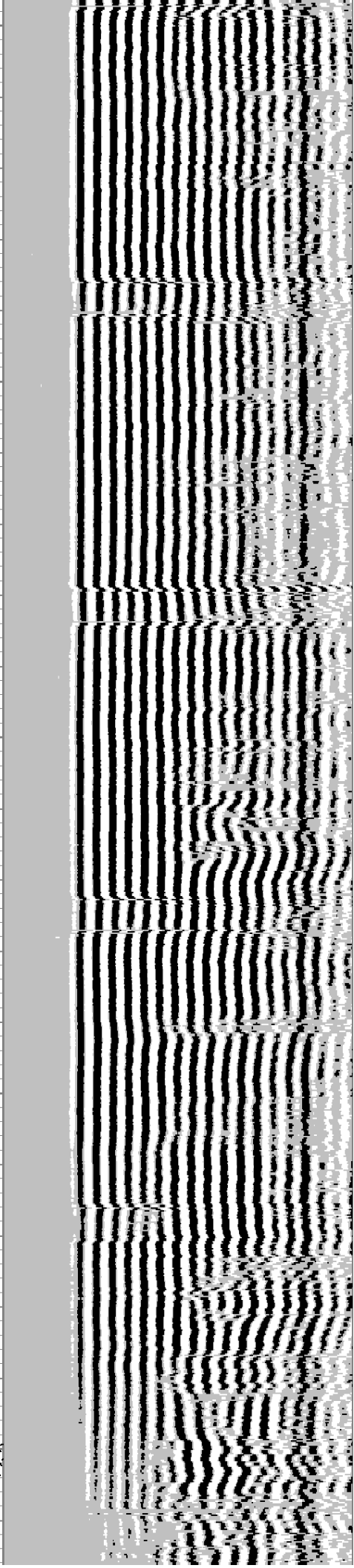
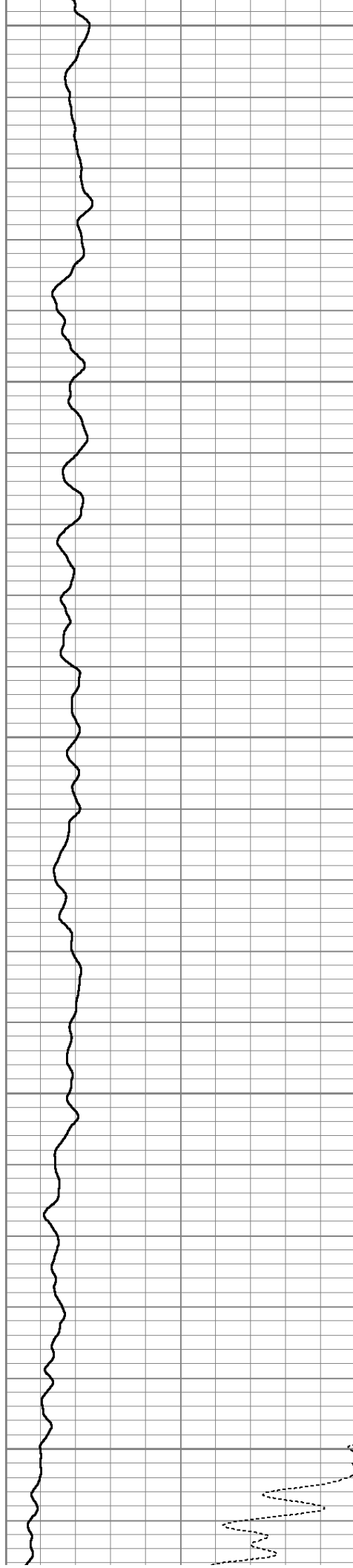
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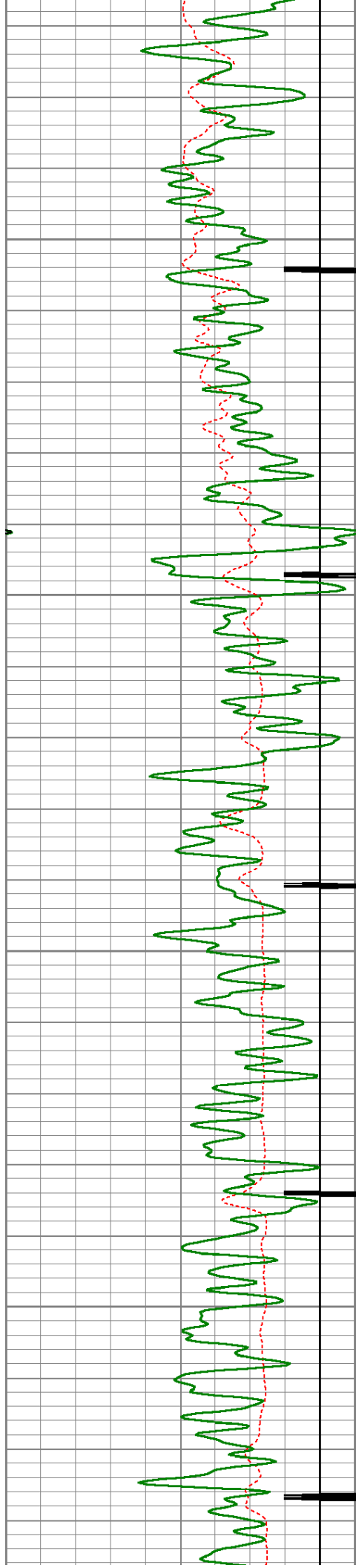
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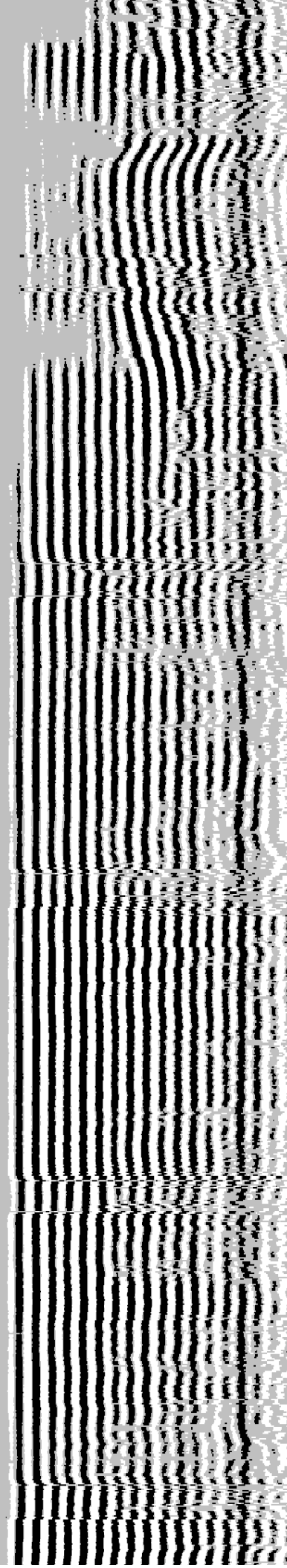
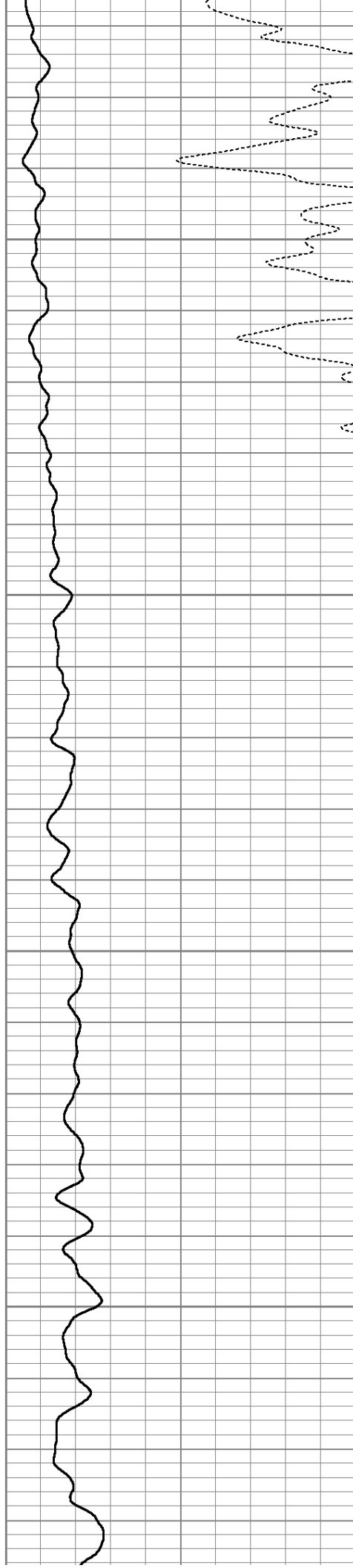


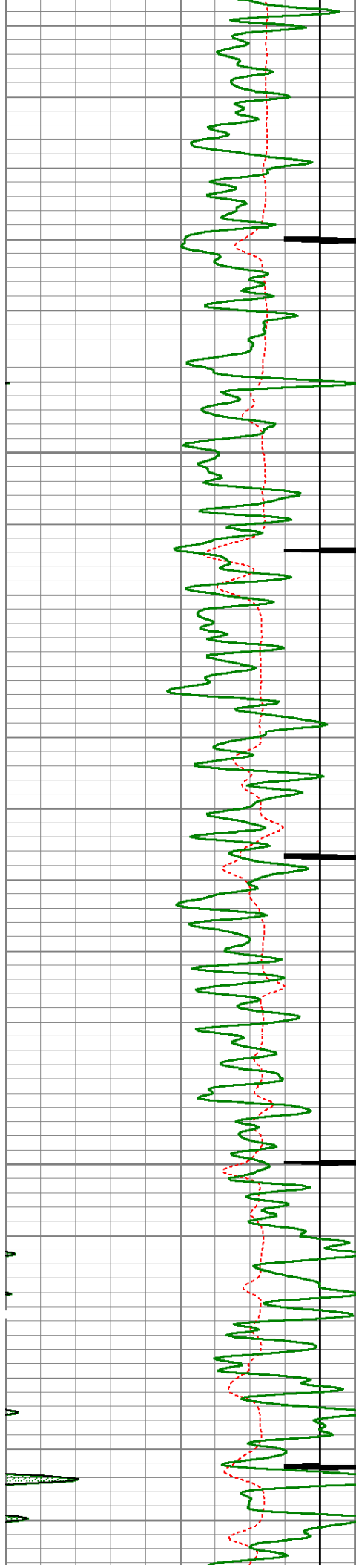
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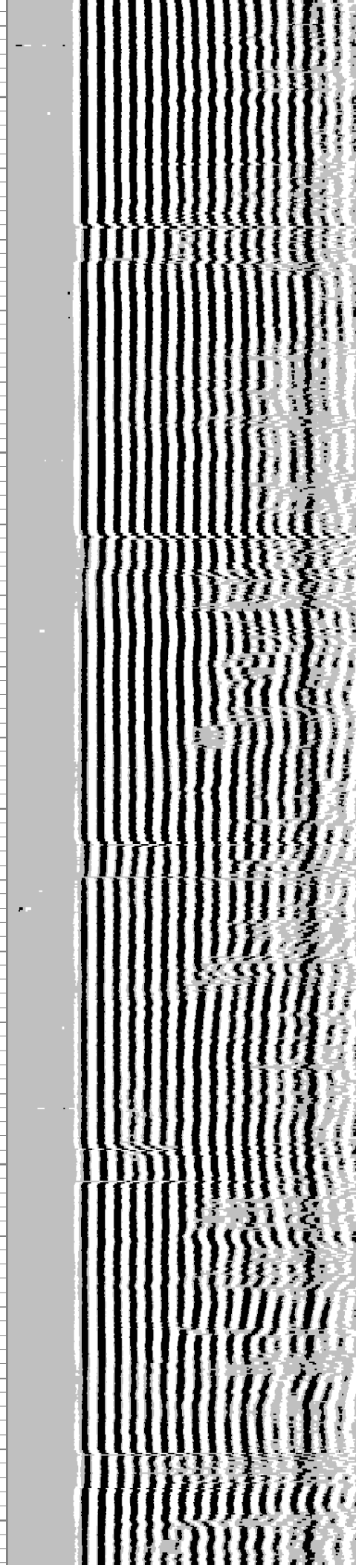
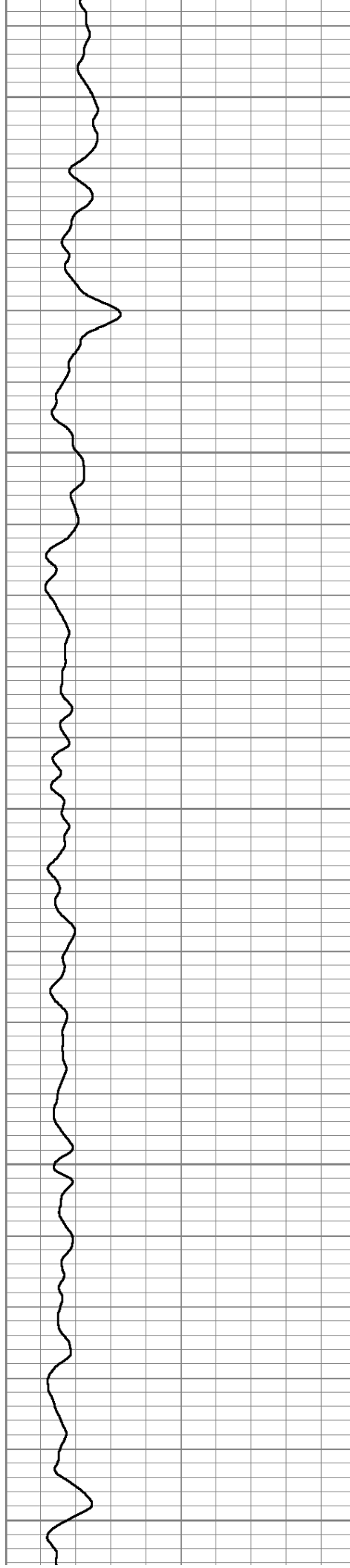
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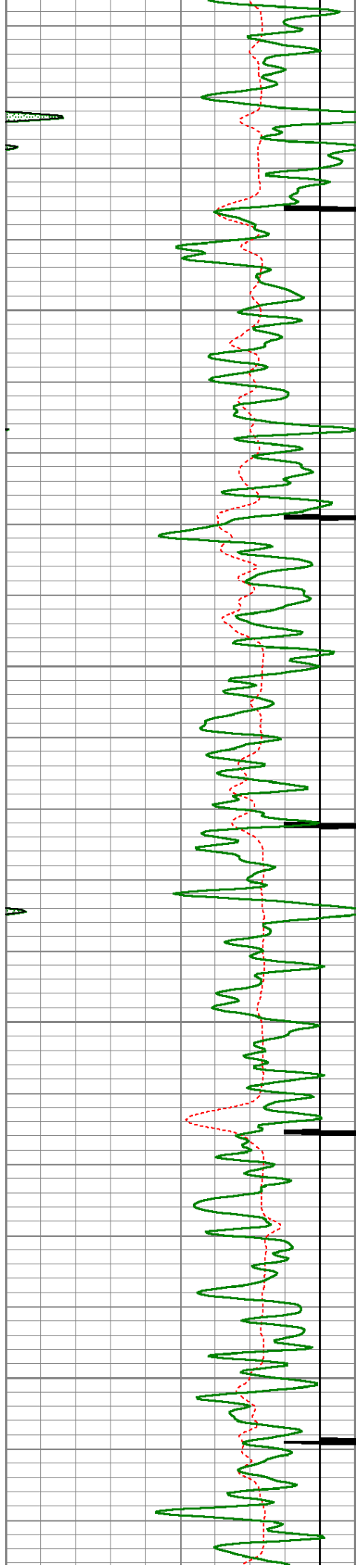
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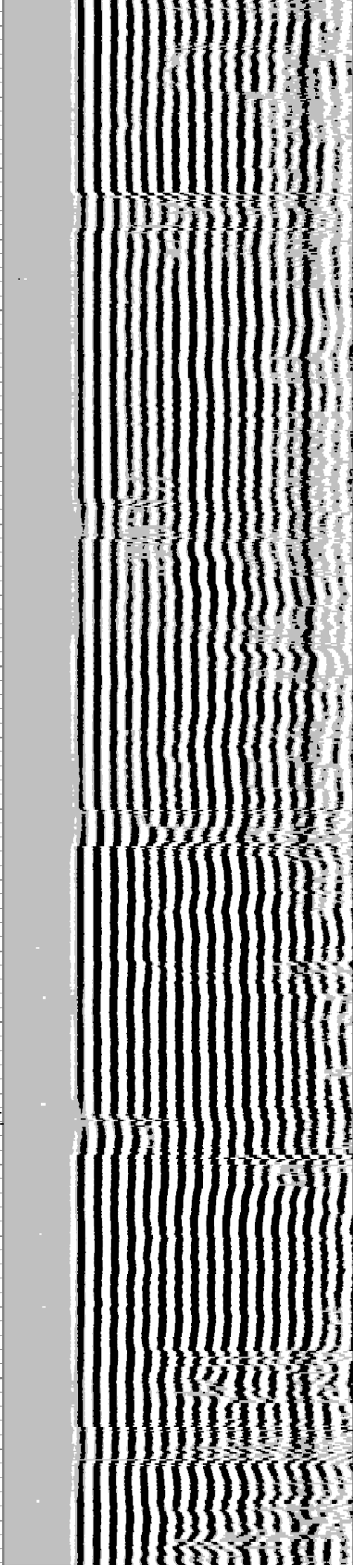
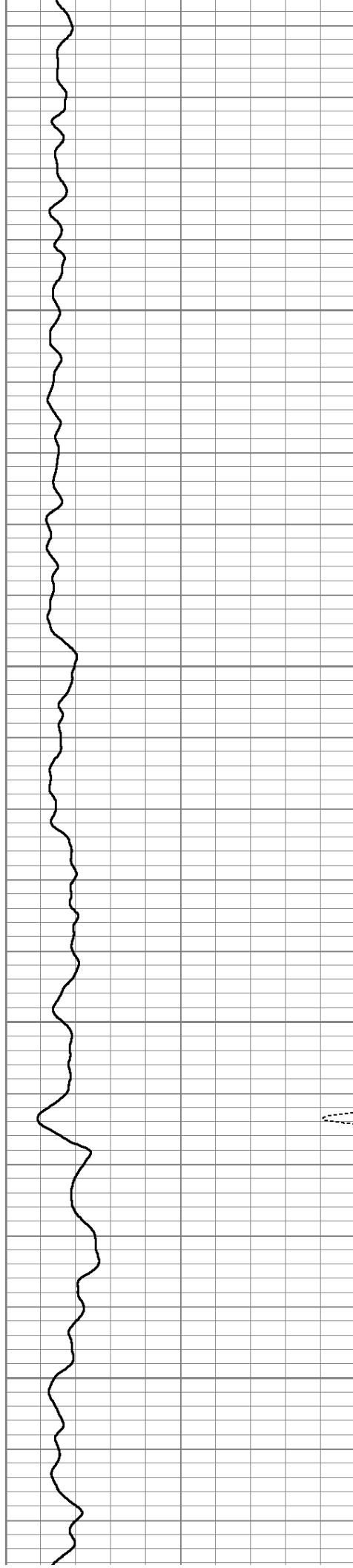


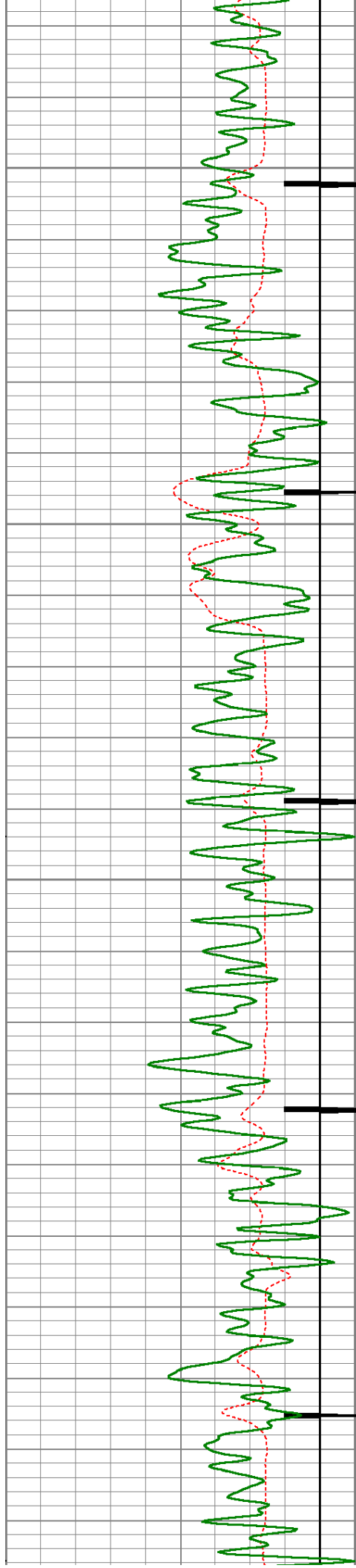
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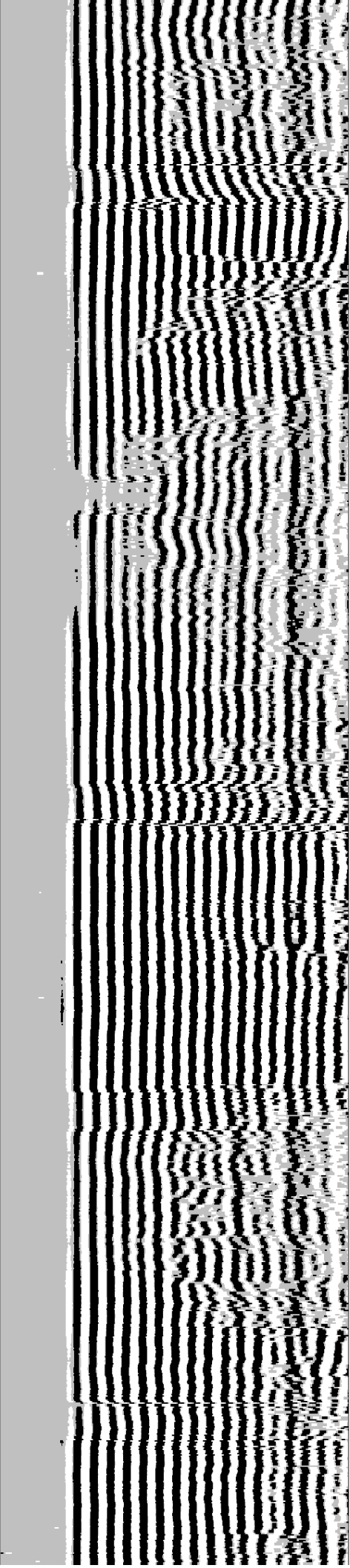
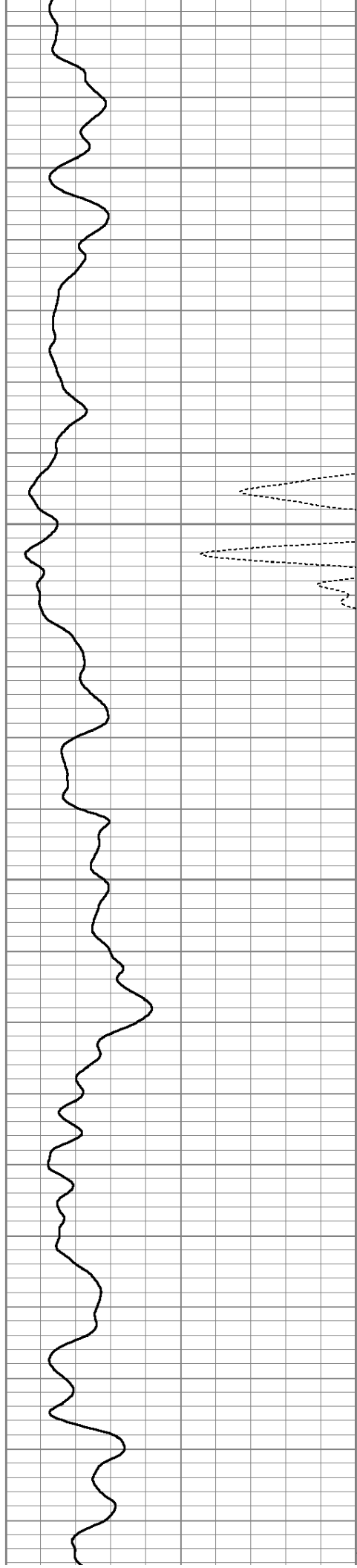


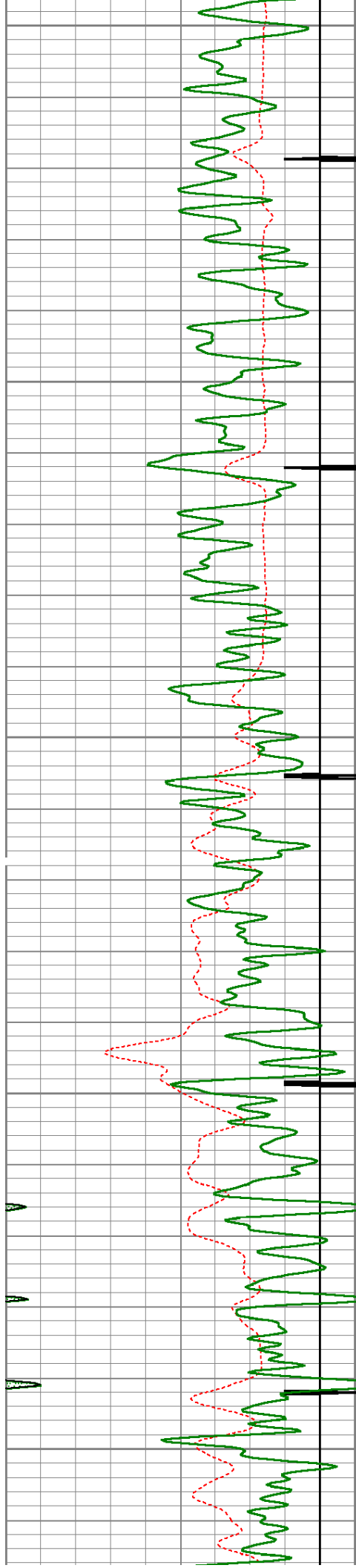
6150

6200

6250

6300





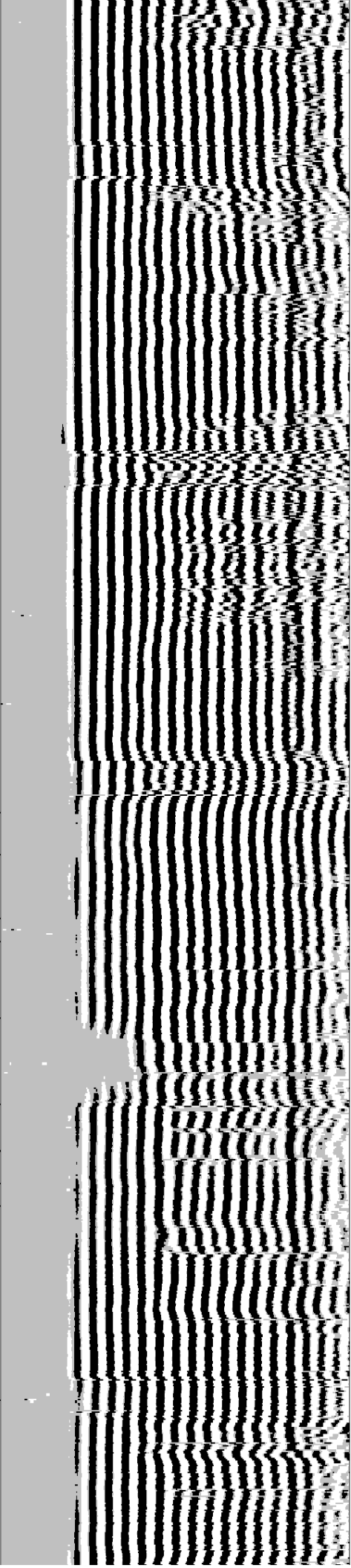
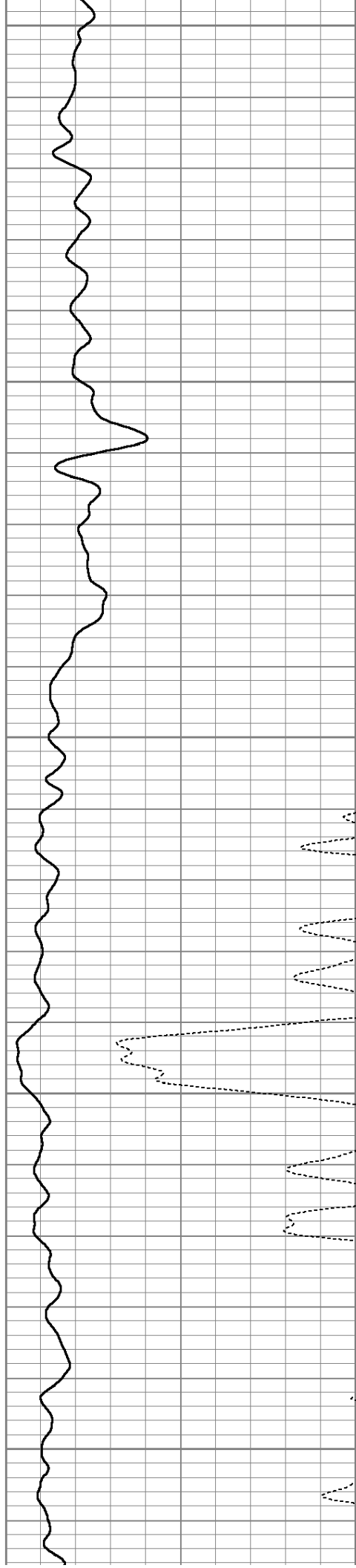
6350

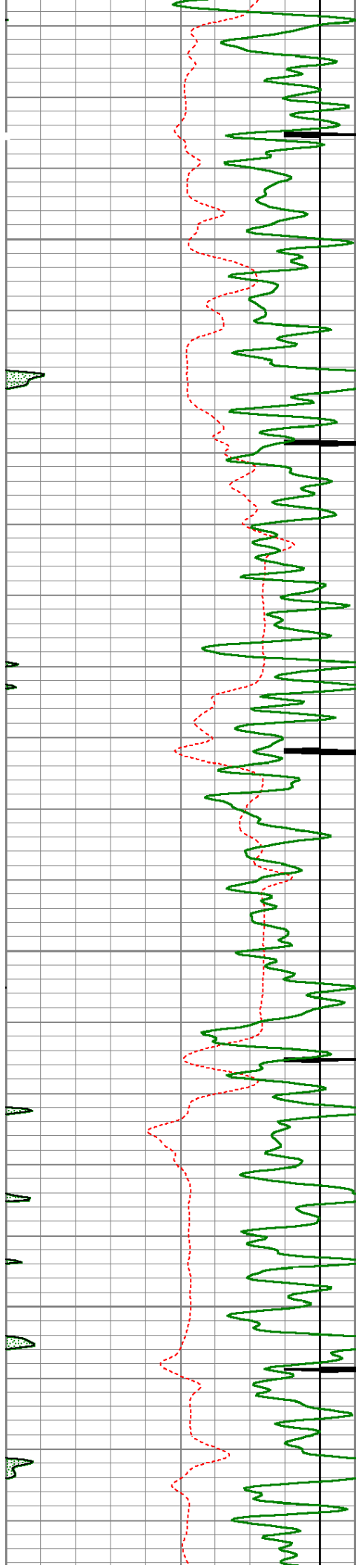
6400

6450

6500

6550



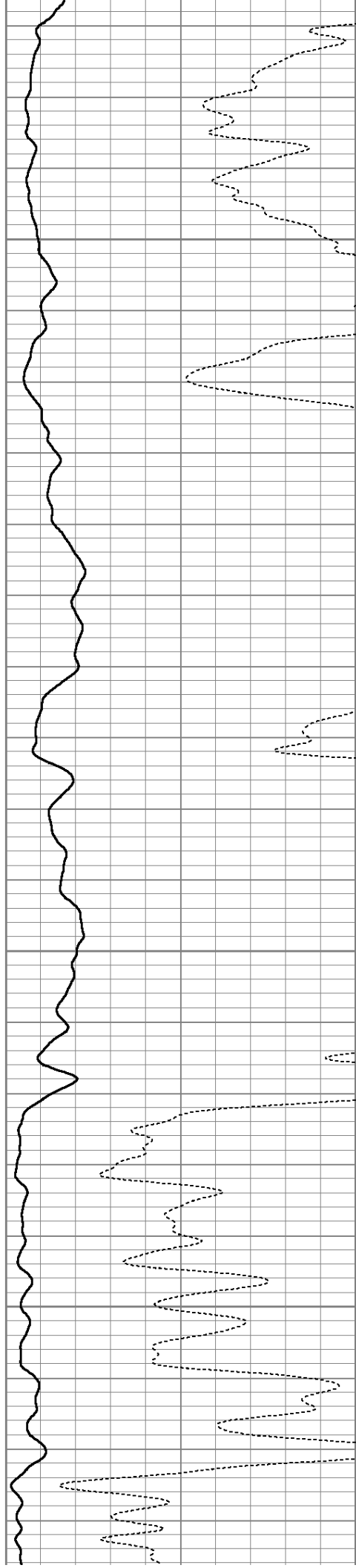


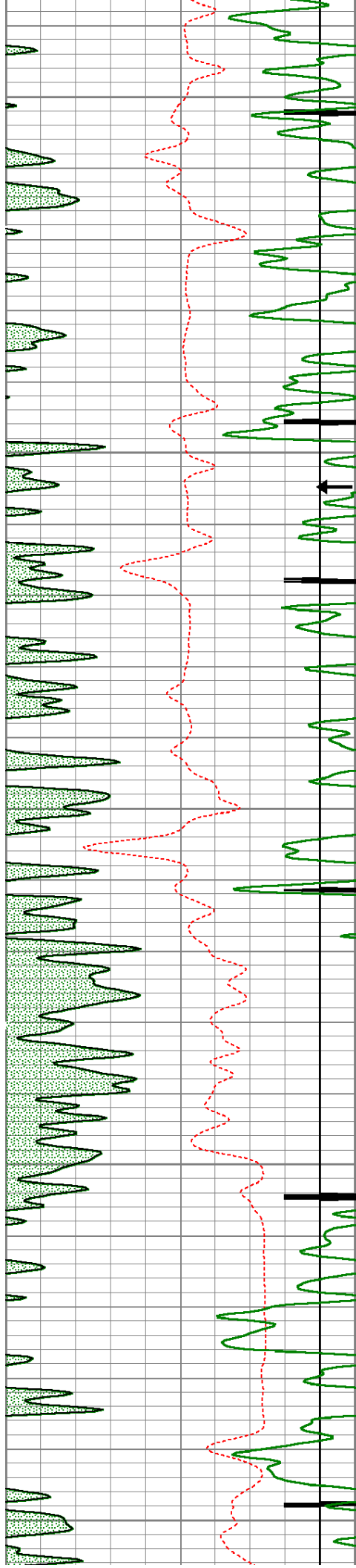
6600

6650

6700

6750





6800

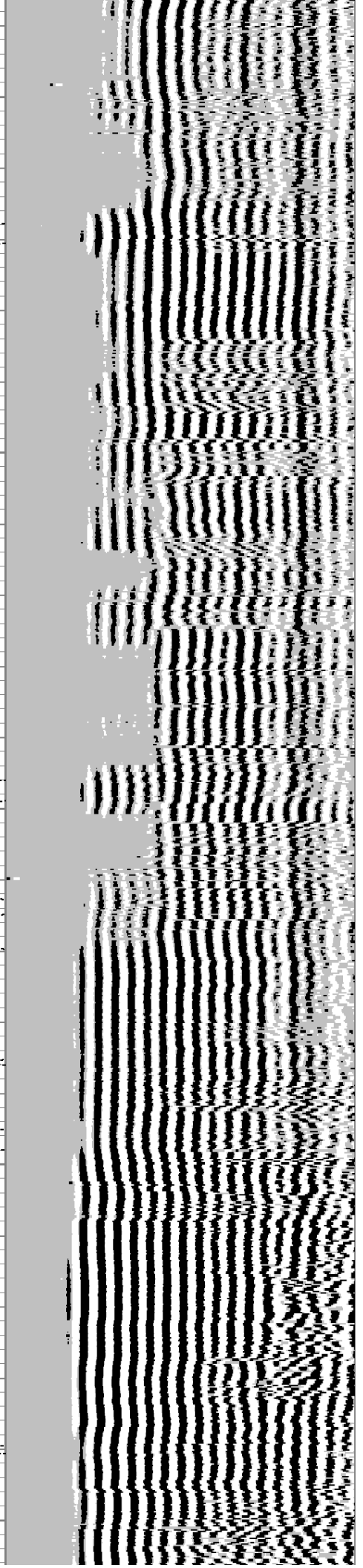
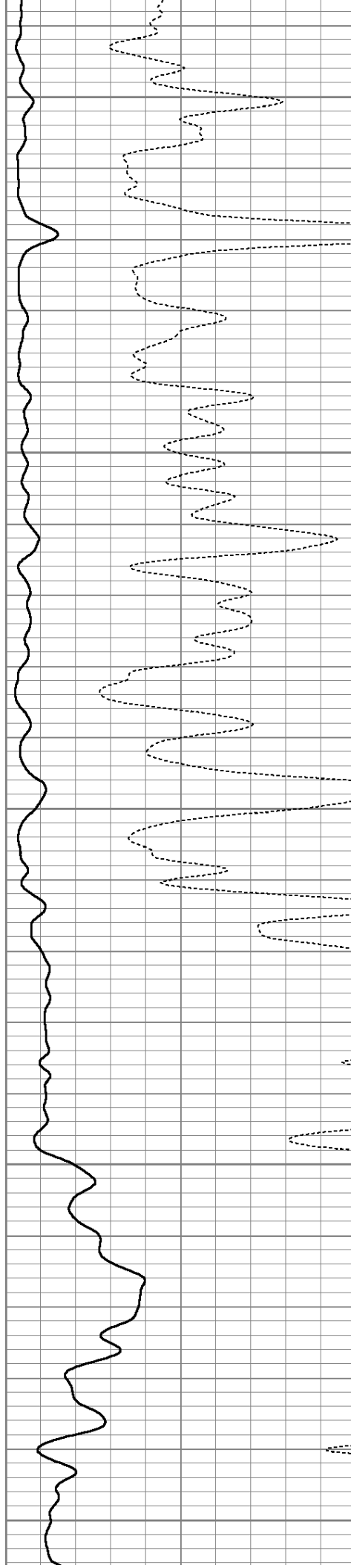
6850

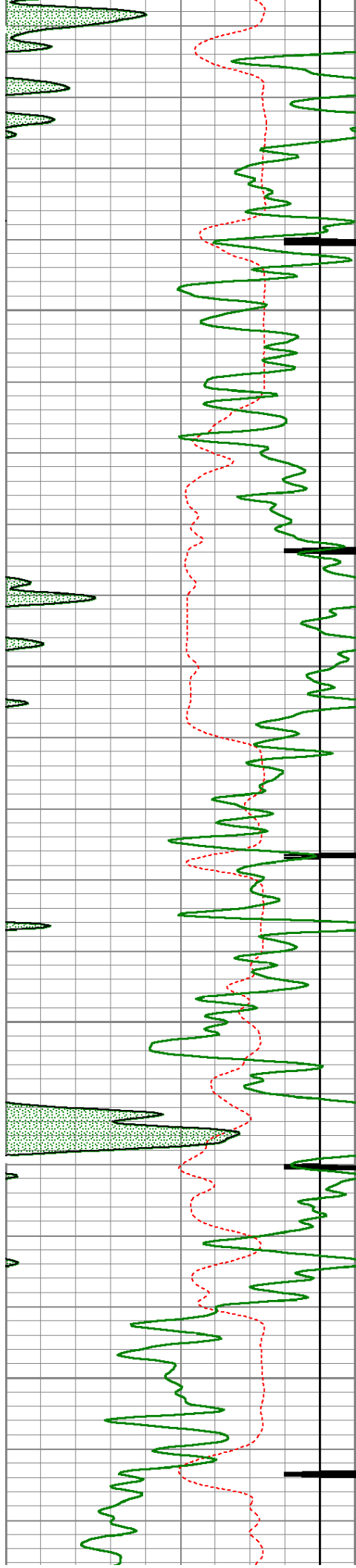
Short Joint

6900

6950

7000



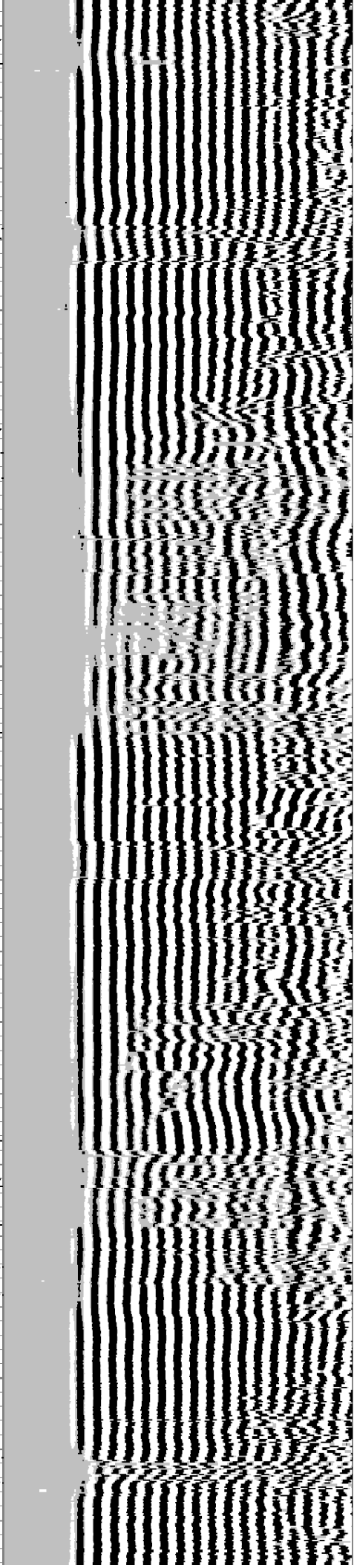
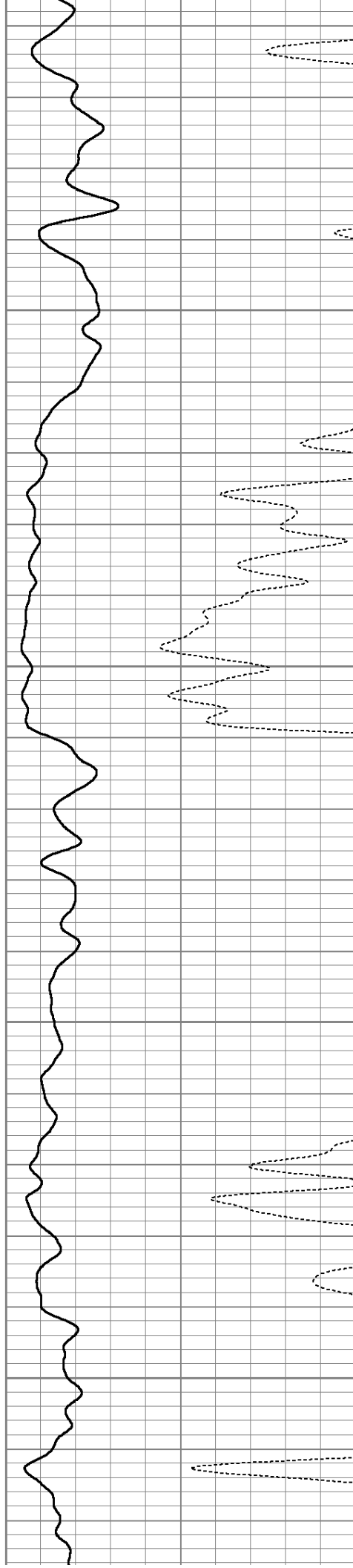


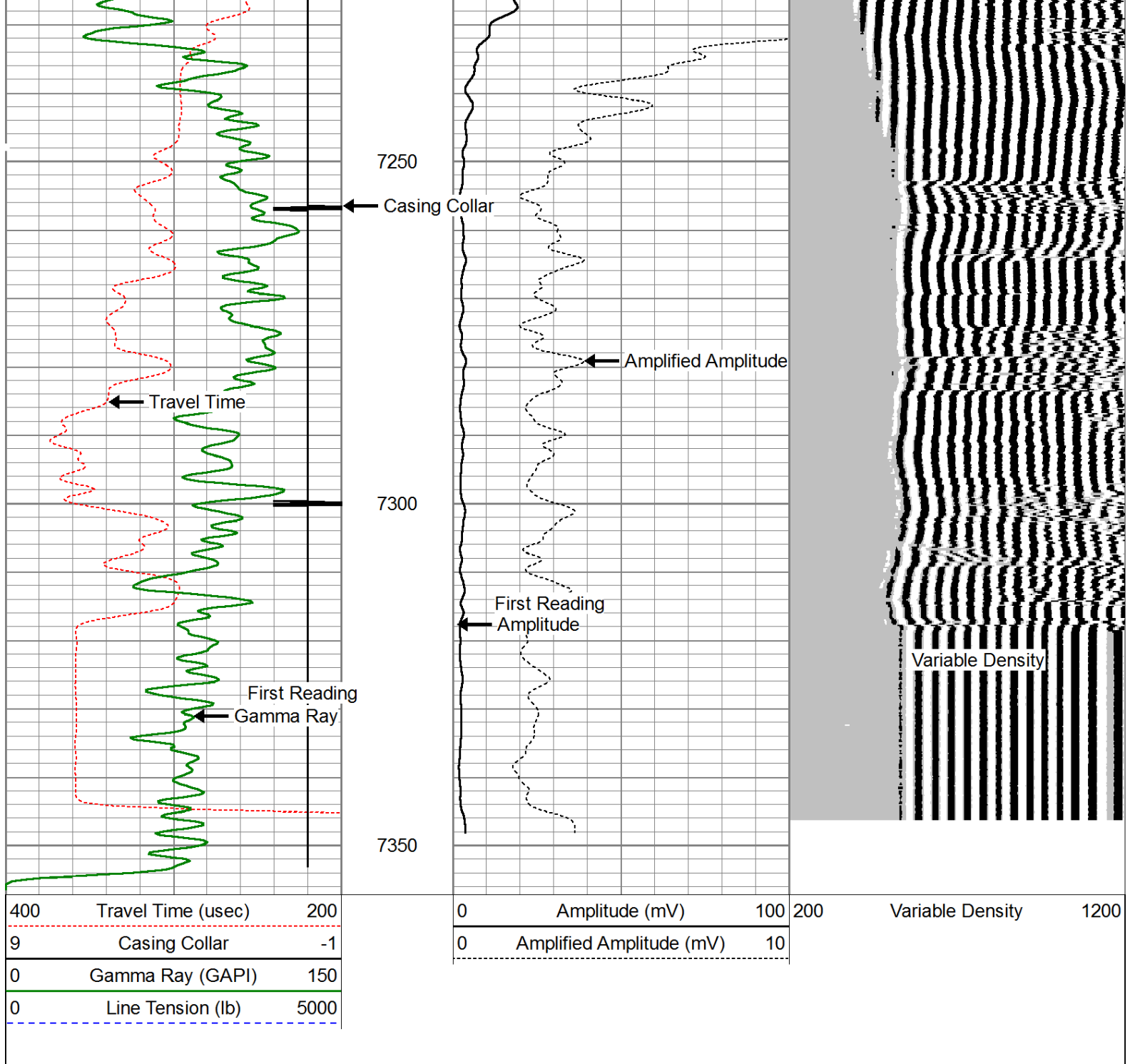
7050

7100

7150

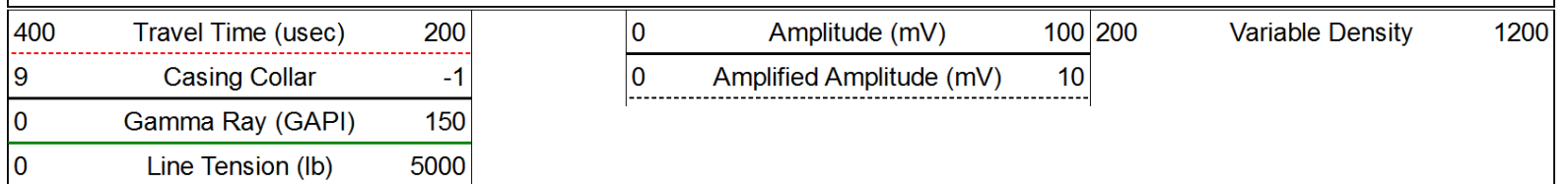
7200

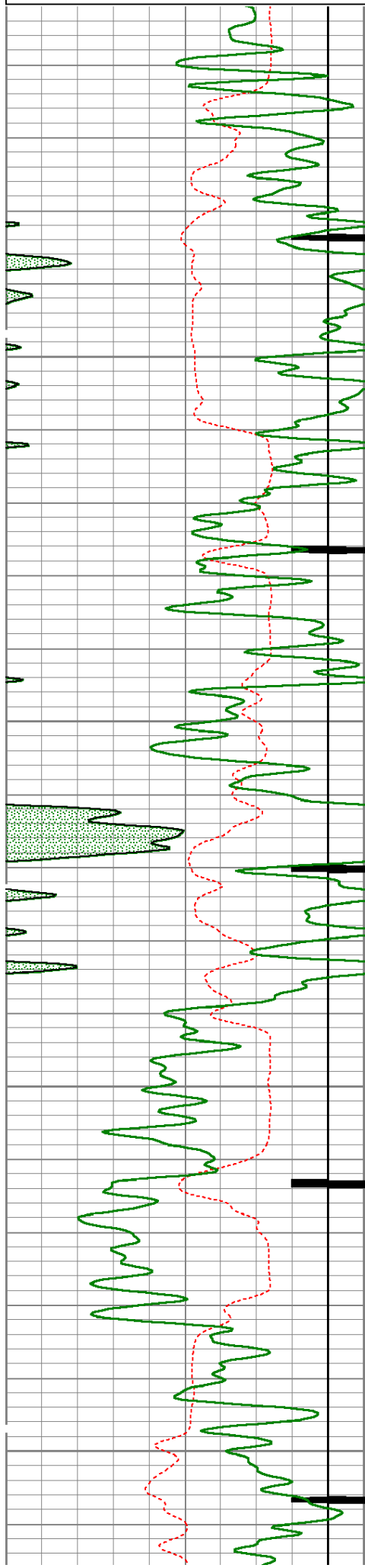




Repeat Pass (0 PSI)

Database File: bayswater heckman16-20_cbl.db
 Dataset Pathname: pass2
 Presentation Format: cblprobe
 Dataset Creation: Wed Jan 22 10:21:28 2014 by Log 0
 Charted by: Depth in Feet scaled 1:240



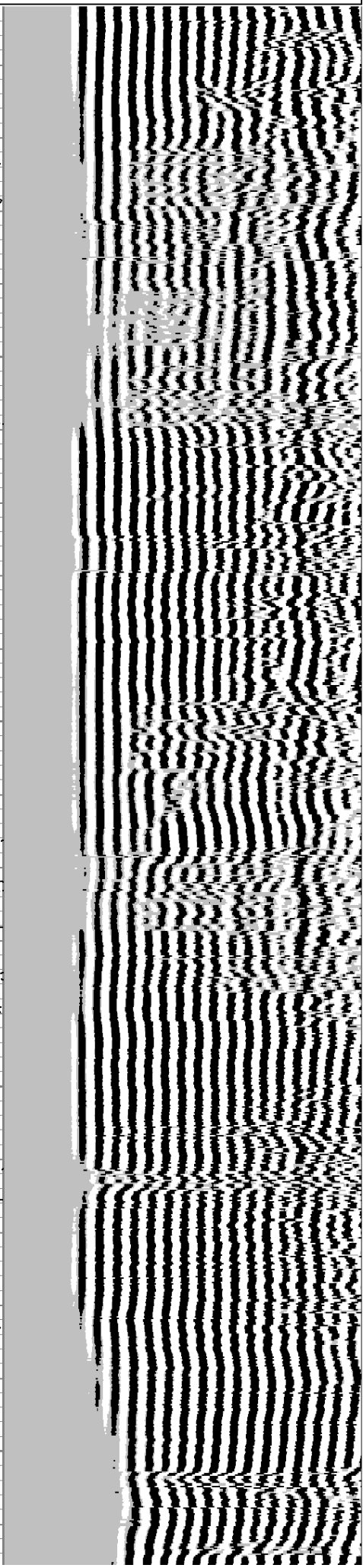
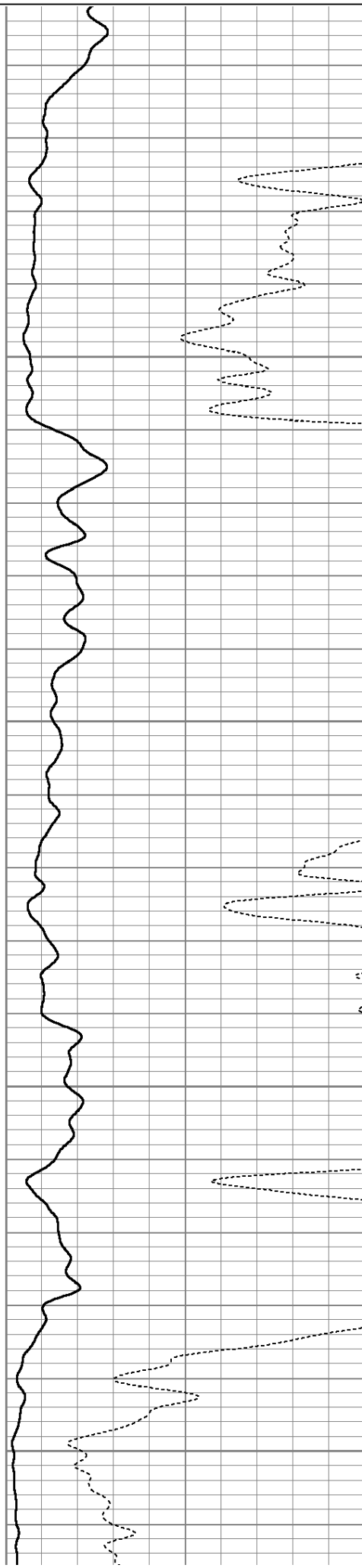


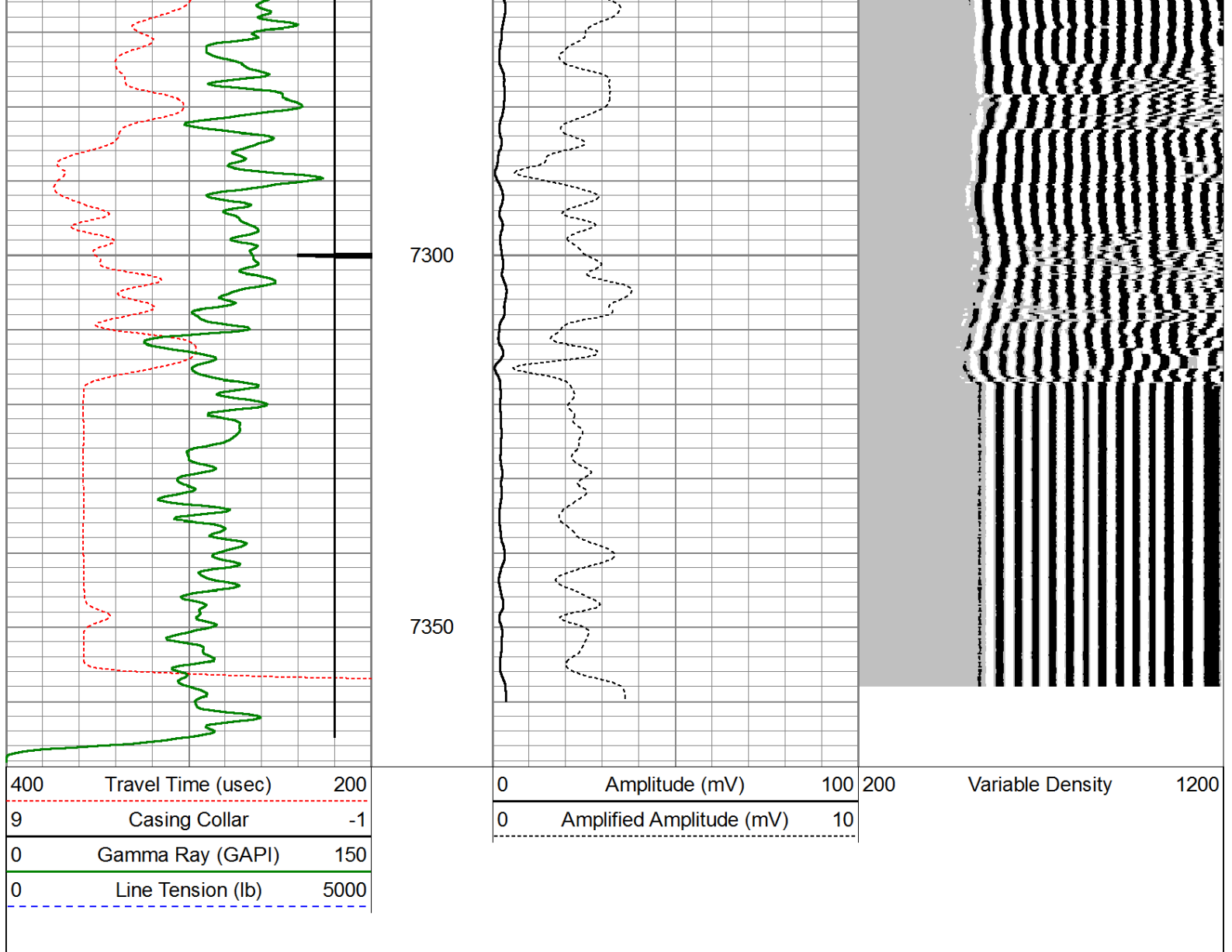
7100

7150

7200

7250





Calibration Report				
Database File:	bayswater heckman16-20_cbl.db			
Dataset Pathname:	pass4			
Dataset Creation:	Wed Jan 22 10:35:48 2014 by Log 0			
Gamma Ray Calibration Report				
Serial Number:	110108-Dig			
Tool Model:	Probe275			
Performed:	Fri Nov 29 14:39:10 2013			
Calibrator Value:	1.0	GAPI		
Background Reading:	0.0	cps		
Calibrator Reading:	1.0	cps		
Sensitivity:	0.8500	GAPI/cps		
Temperature Calibration Report				
Serial Number:	110108-Dig			
Tool Model:	Probe275			
Performed:	Sun Jun 13 13:33:21 1993			
	Reference		Reading	
Low Reference:	0.00	degF	0.00	cps

High Reference: 1.00 degF 1.00 cps

Gain: 1.00
Offset: 0.00
Delta Spacing 2

Segmented Cement Bond Log Calibration Report

Serial Number: 111107
Tool Model: Probe

Calibration Casing Diameter: 4.500 in
Calibration Depth: 499.228 ft

Master Calibration, performed Wed Jan 22 07:54:41 2014:

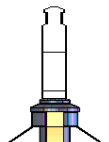
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.028	0.824	1.000	81.196	94.081	3.635
CAL	-0.026	1.023				
5'	-0.015	0.642	1.000	81.196	122.135	2.813
SUM						
S1	-0.043	0.871	0.000	100.000	109.327	4.730
S2	-0.038	0.922	0.000	100.000	104.111	3.986
S3	-0.041	0.902	0.000	100.000	106.062	4.309
S4	-0.050	0.859	0.000	100.000	110.060	5.482
S5	-0.040	0.788	0.000	100.000	120.849	4.818
S6	-0.040	0.734	0.000	100.000	129.197	5.113
S7	-0.031	0.698	0.000	100.000	137.070	4.288
S8	-0.030	0.753	0.000	100.000	127.804	3.822

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.026	1.023	1.000	0.000

Air Zero Calibration, performed Thu Oct 17 08:50:08 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	
S7	0.000		0.000		0.000	
S8	0.000		0.000		0.000	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			Titan Cable_head	1.00	1.44	10.00

