

CEMENT BOND LOG GAMMA RAY CCL V D L

Company Noble Energy INC.
Well MEGAN STATE H21-28D
Field Wattenberg
County Weld State Colorado

Location: API #: 05123322680000
SHL: 616' FSL & 1956' FEL SW SE
BHL: 83' FSL & 2452' FEL SW SE
SEC 16 TWP 3N RGE 65W
Permanent Datum GL Elevation 4834
Log Measured From KB 15'
Drilling Measured From KB
Other Services
K.B. 4849
D.F. 4849
G.L. 4834

Date February 7, 2012

Run Number One
Depth Driller 7854
Depth Logger 7774
Bottom Logged Interval 7773
Top Log Interval 1295
Casing Size 4 1/2"
Type Fluid Water
Max. Recorded Temp. 245 deg F
Estimated Cement Top 1920
Time Well Ready Crane
Time Logger On Bottom AM
Unit Number 4367
Tool Size / ID Number 2.75 Probe 101010 2.75 Probe 110802
Location Plattville, CO
Recorded By K. Monaghan
Witnessed By J. Brnak

Borehole Record
Run Number Bit From To Size Weight From To

Casing Record
Size Wgt/Ft Top Bottom
Surface String 8 5/8" 24 lb/ft J-55 Surface 752
Prot. String
Production String 4 1/2" 11.6 lb/ft M-80 Surface 7844
Liner

<<< Fold Here >>>

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

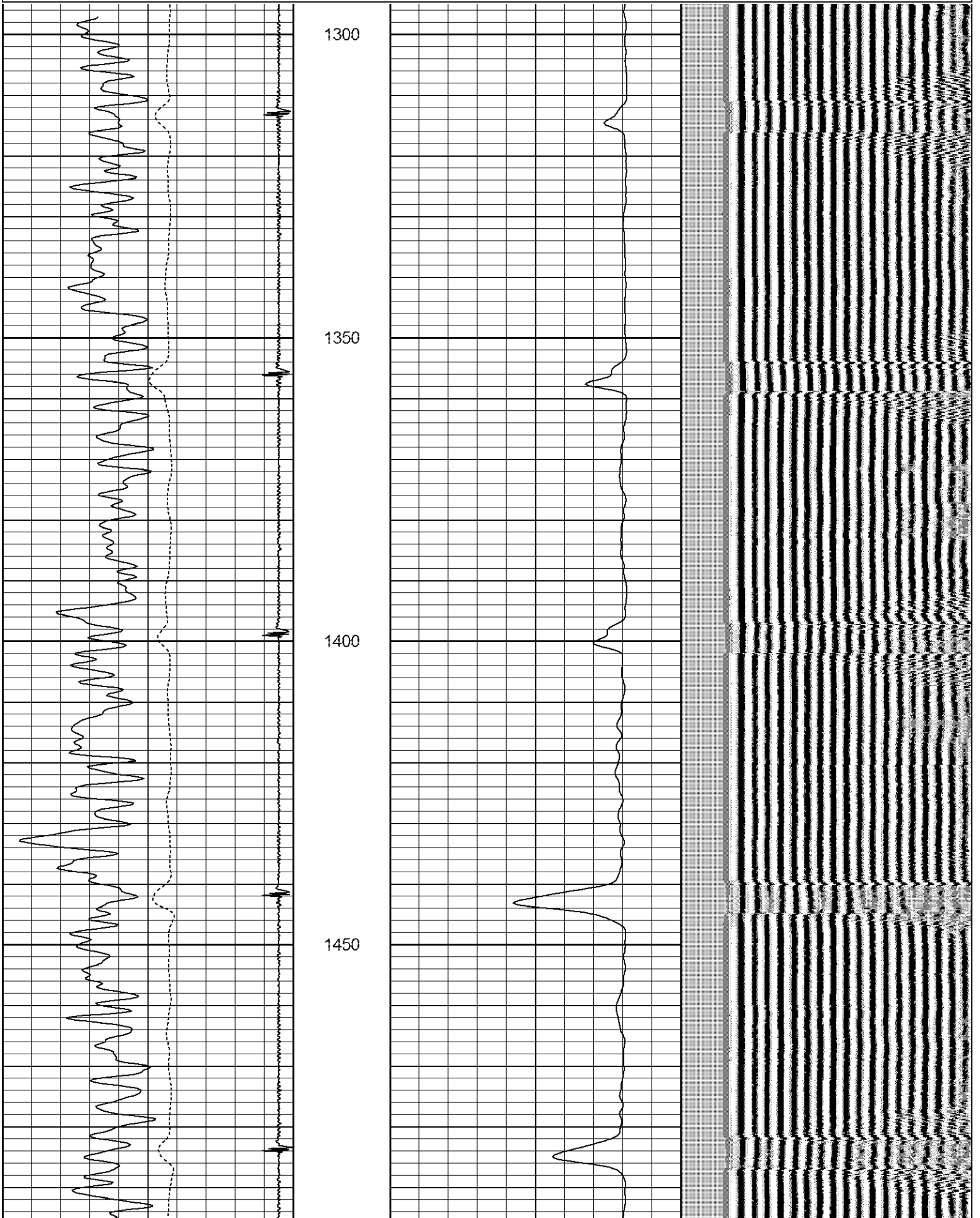
Thank You For Choosing Superior Well Services!!!
API# 05-123-32268-0000
Correlated to PSI's
Compensated Density / Compensated Neutron / Microlog
Dated: January 15, 2012
Directions: 32 & 39, E 1mi, N .2, E .2, N .4, SE .3, S .2 Into

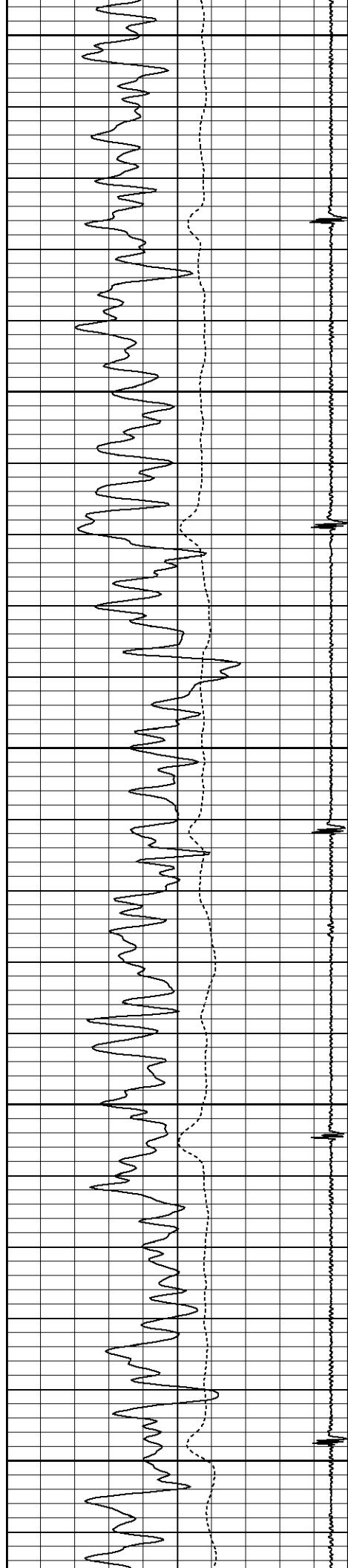
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Dataset Pathname: pass4
Presentation Format: noble en
Dataset Creation: Tue Feb 07 12:07:10 2012 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240

85	CCL	-4.3
30	Gamma Ray (GAPI)	130
340	TT3 (usec)	240

0	Amplified Amplitude (mV)	30	200
0	Amplitude (mV)	100	

	Variable Density	1200
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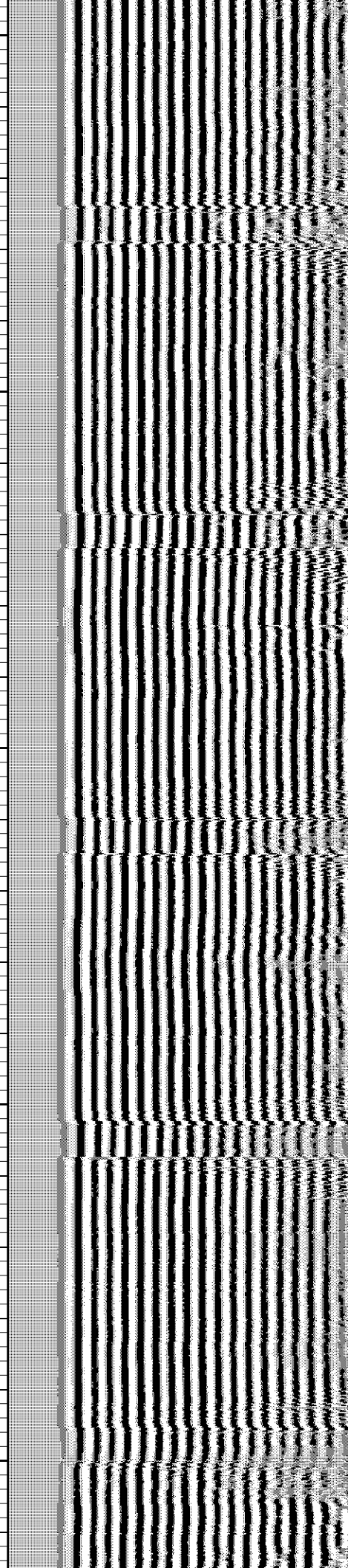
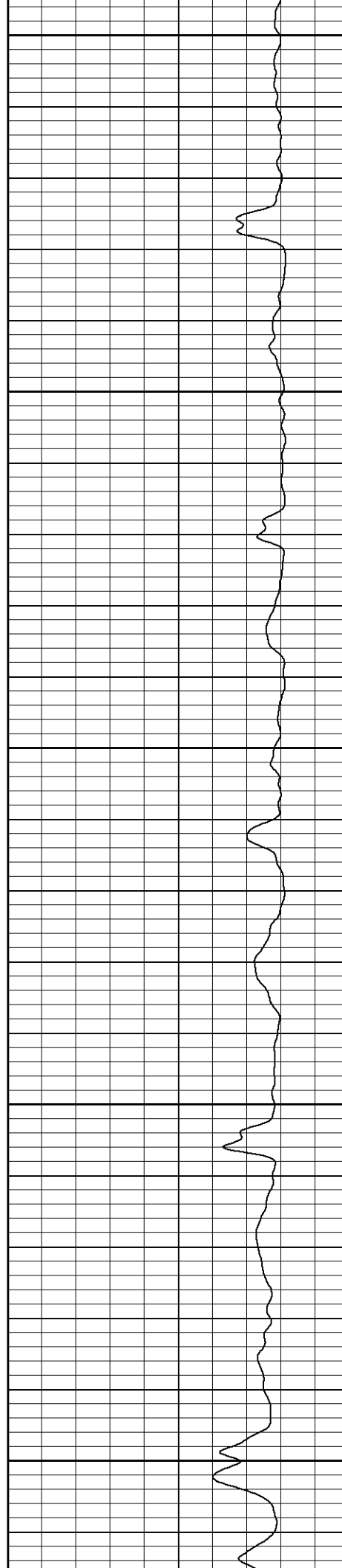
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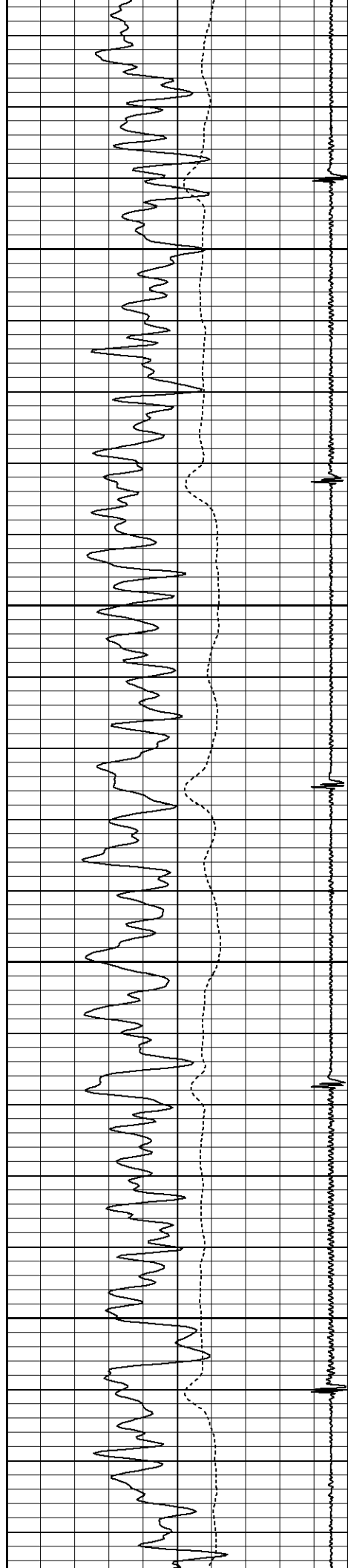
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1600

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1700



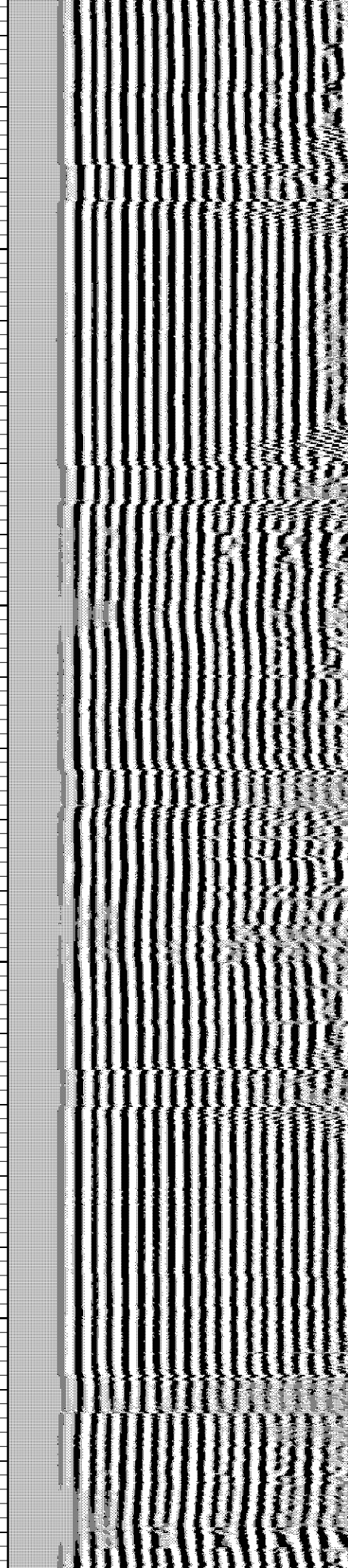
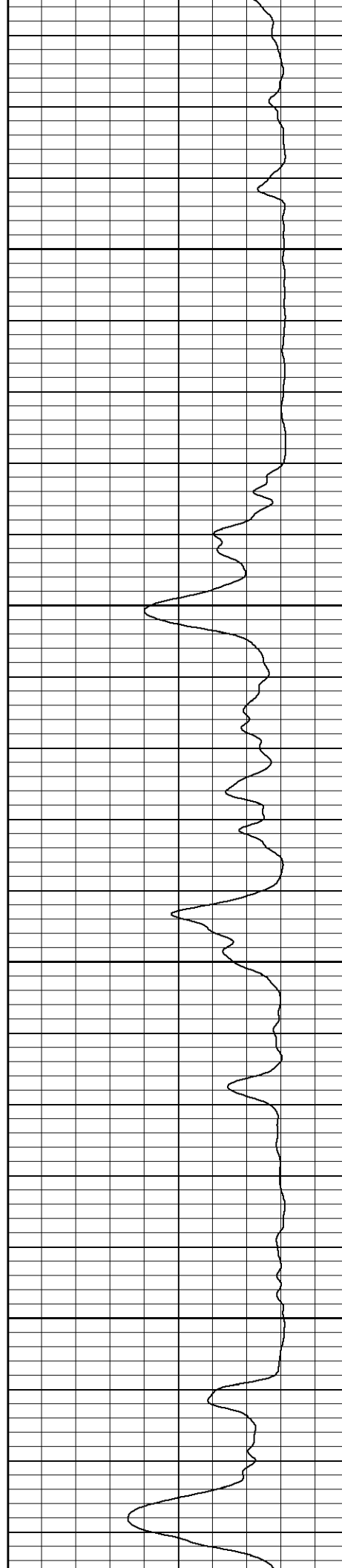


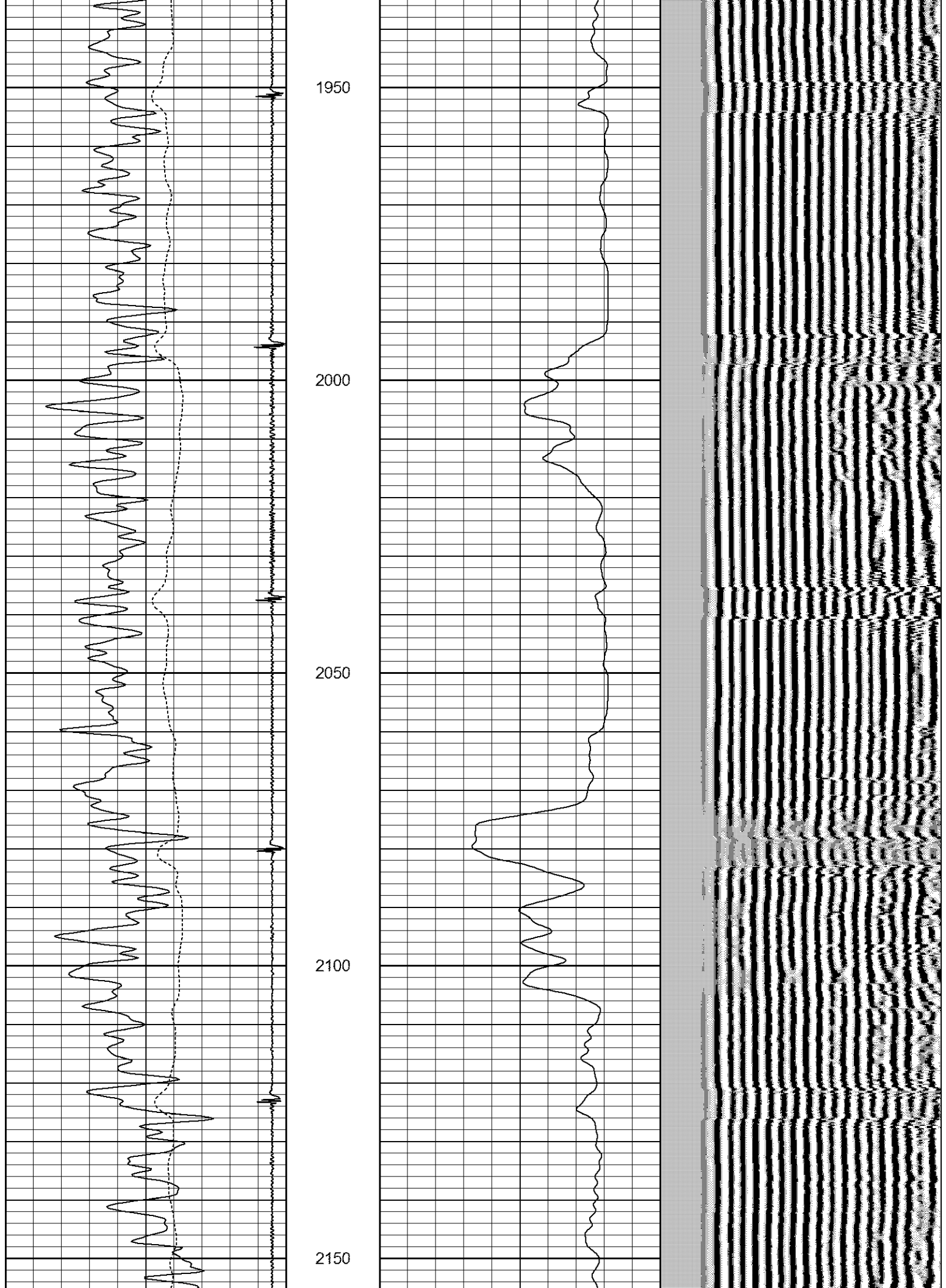
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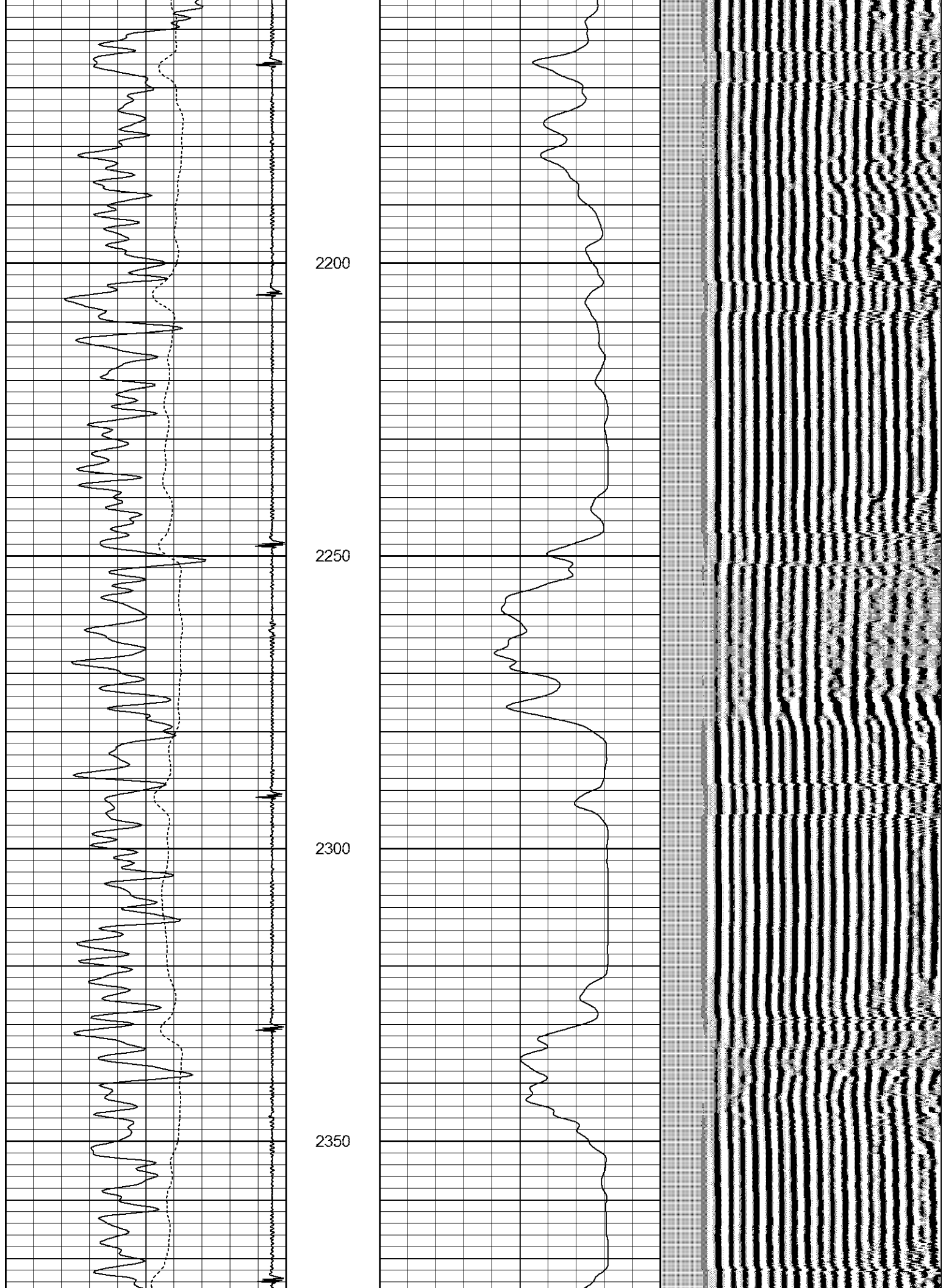
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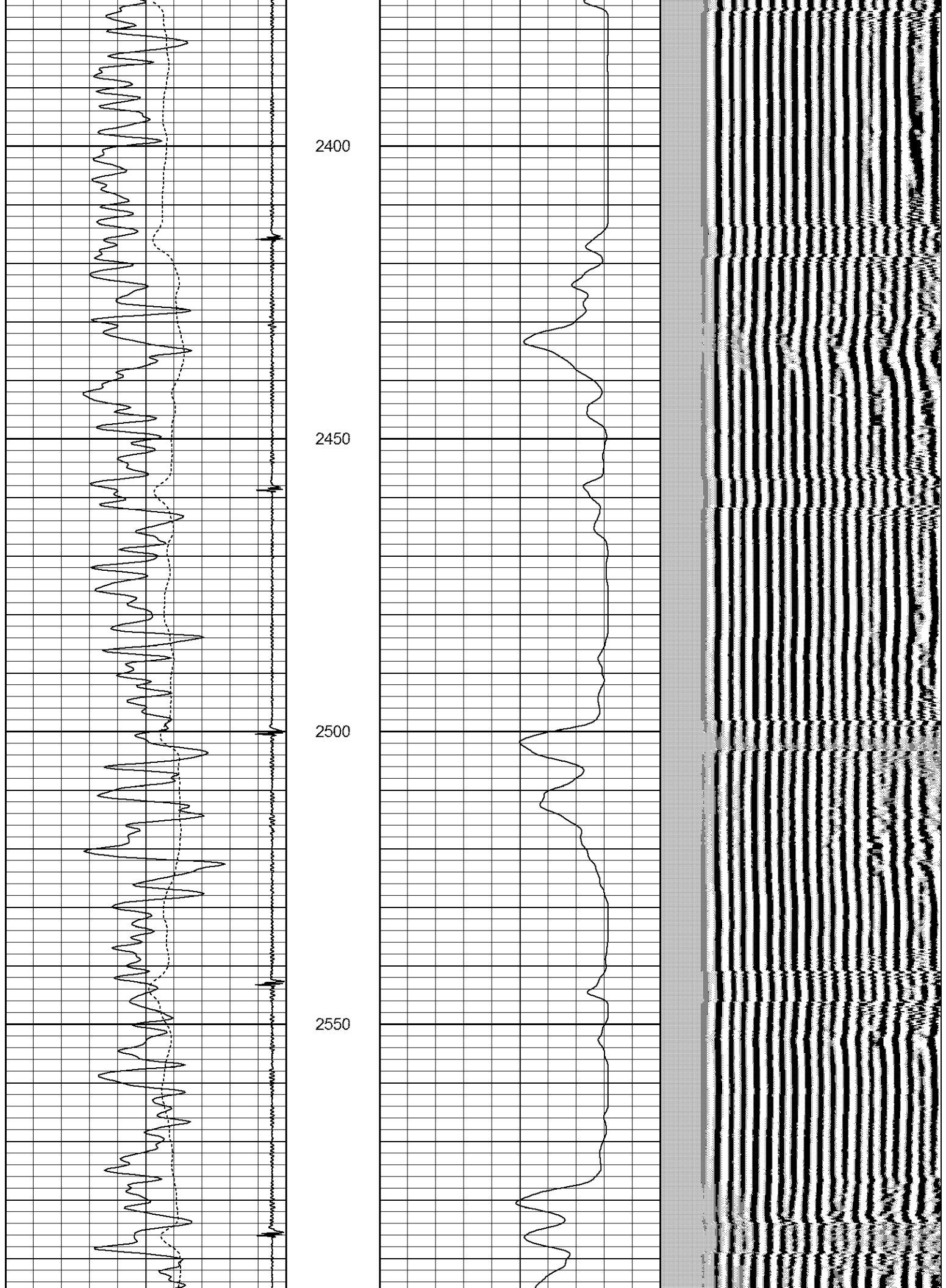
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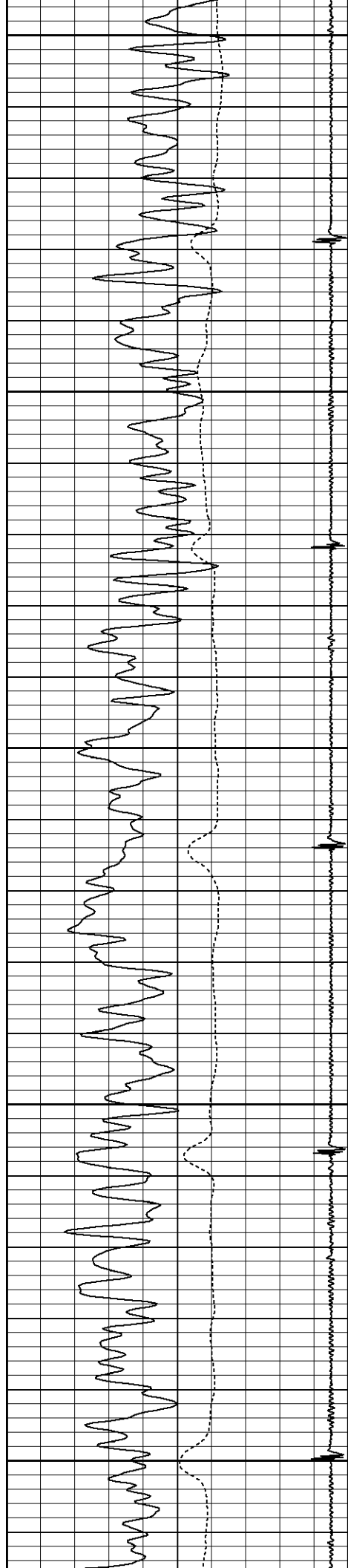
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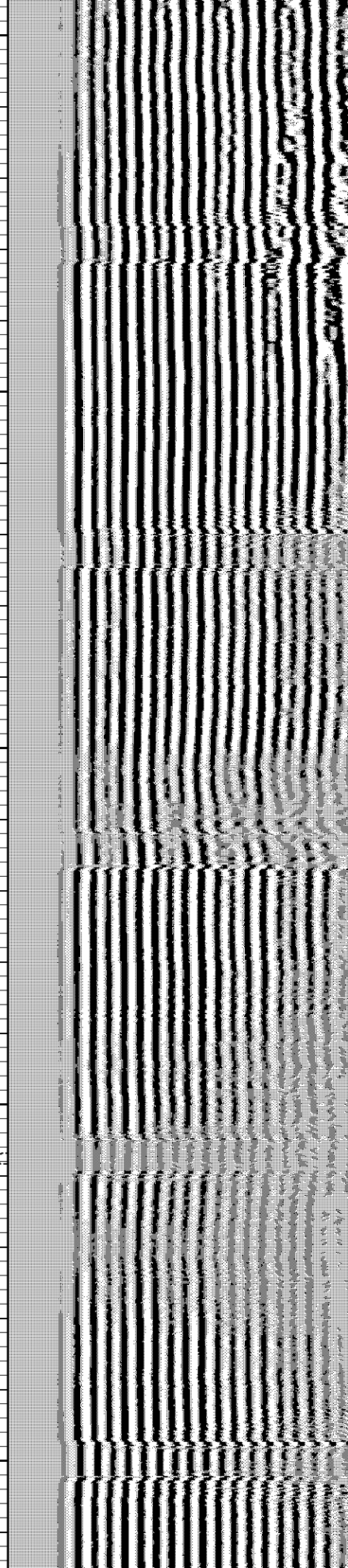
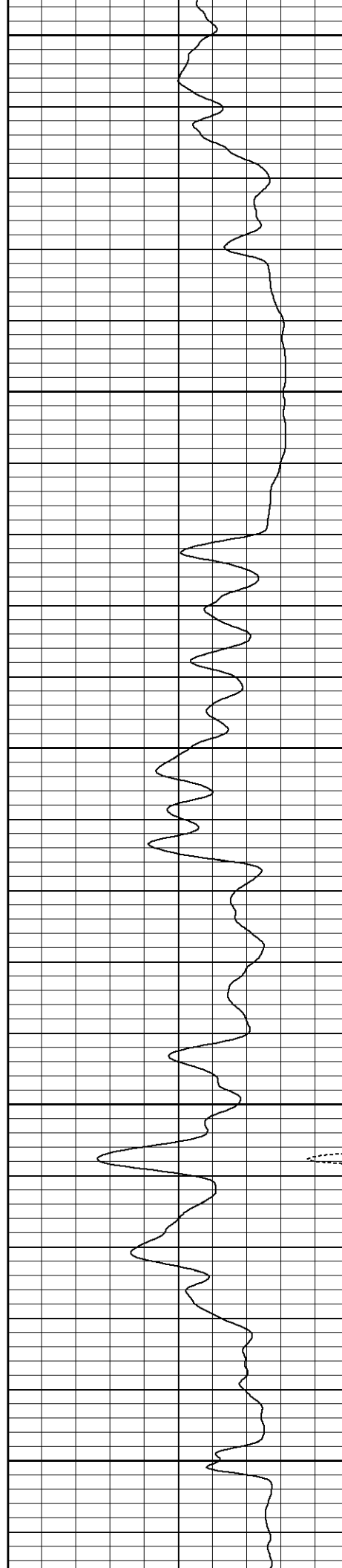
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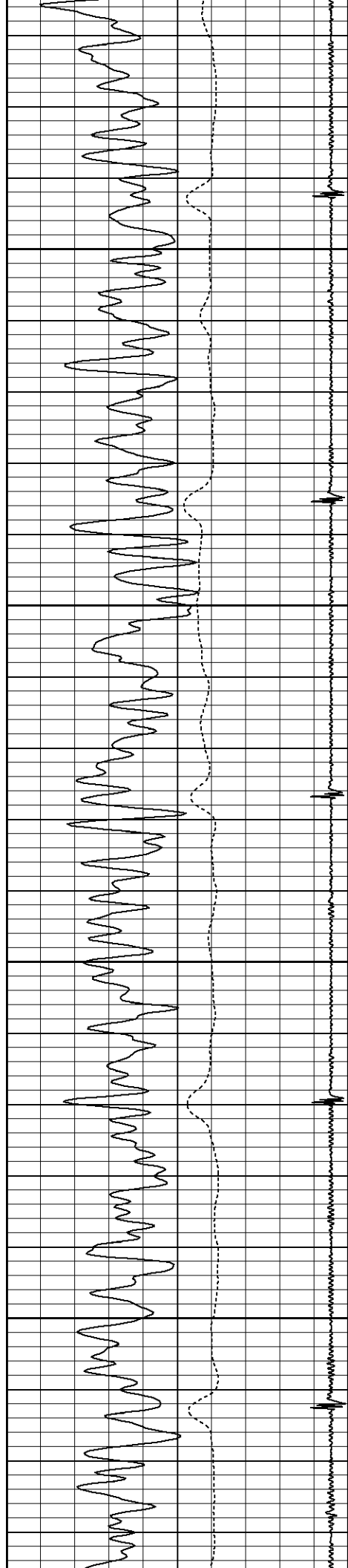
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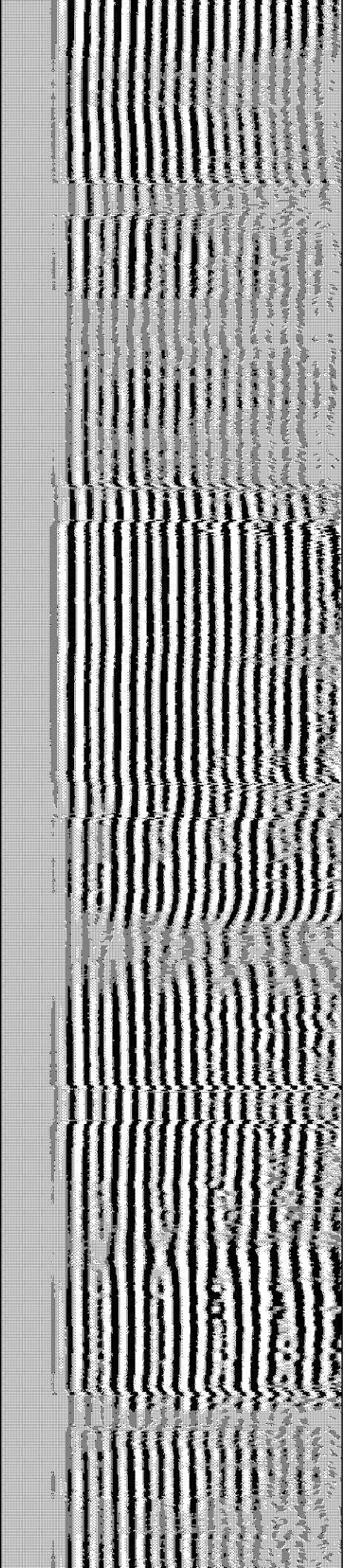
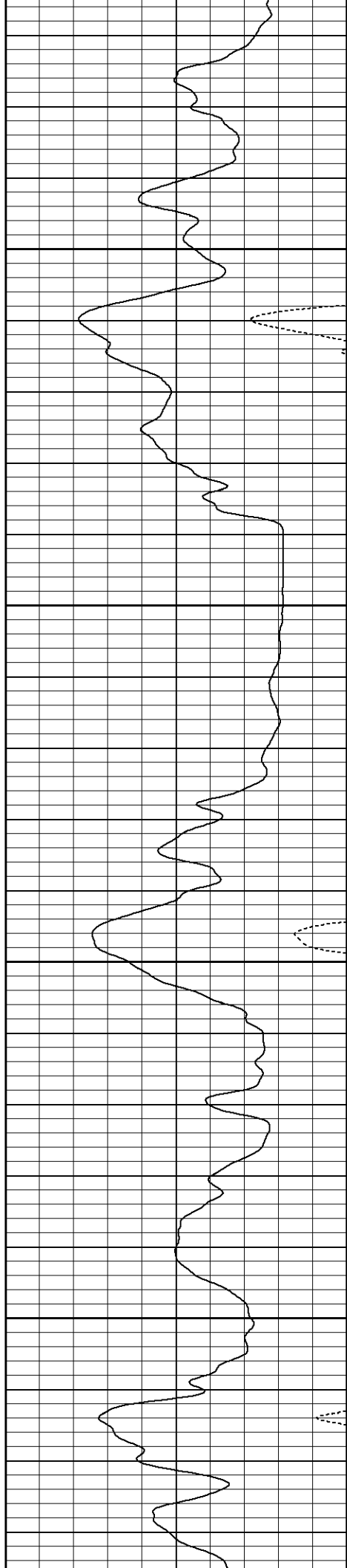


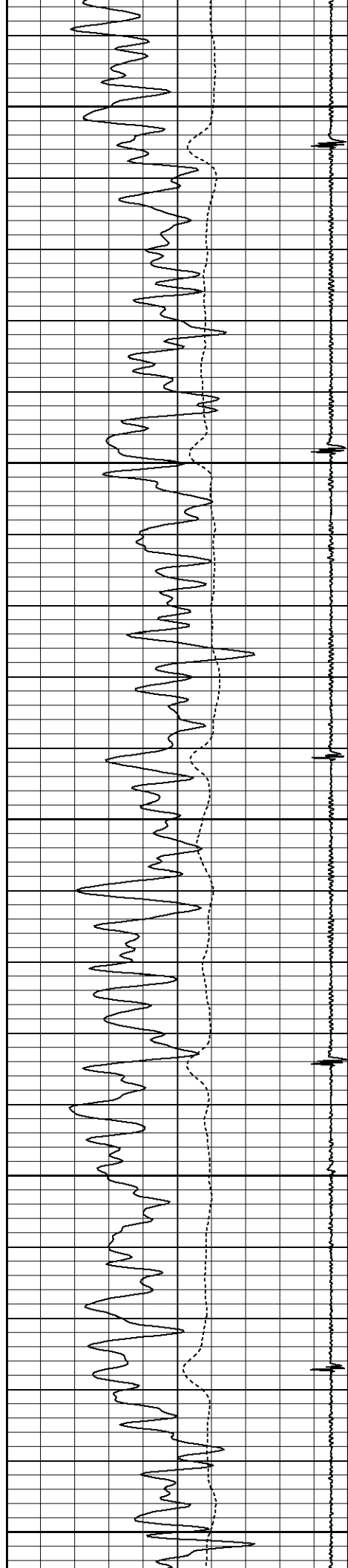
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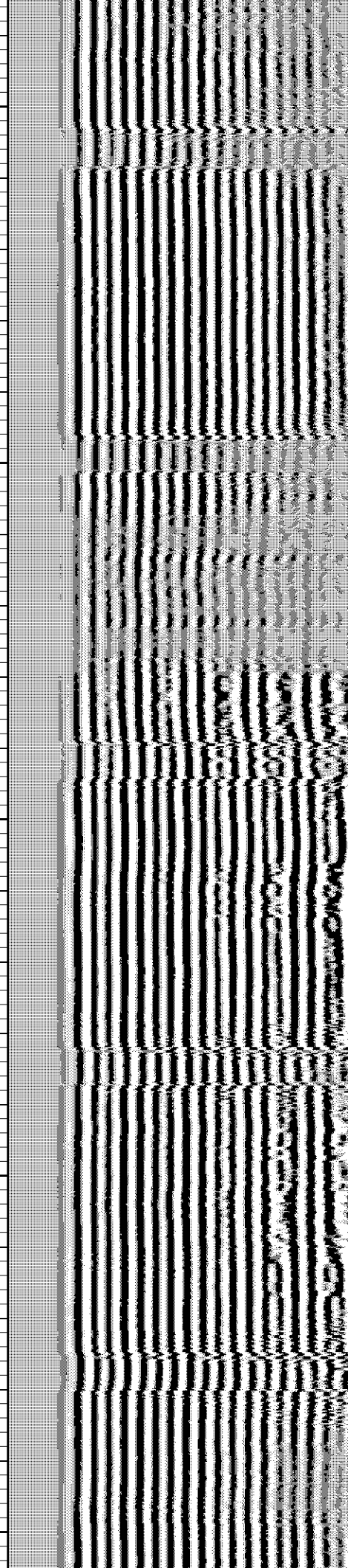
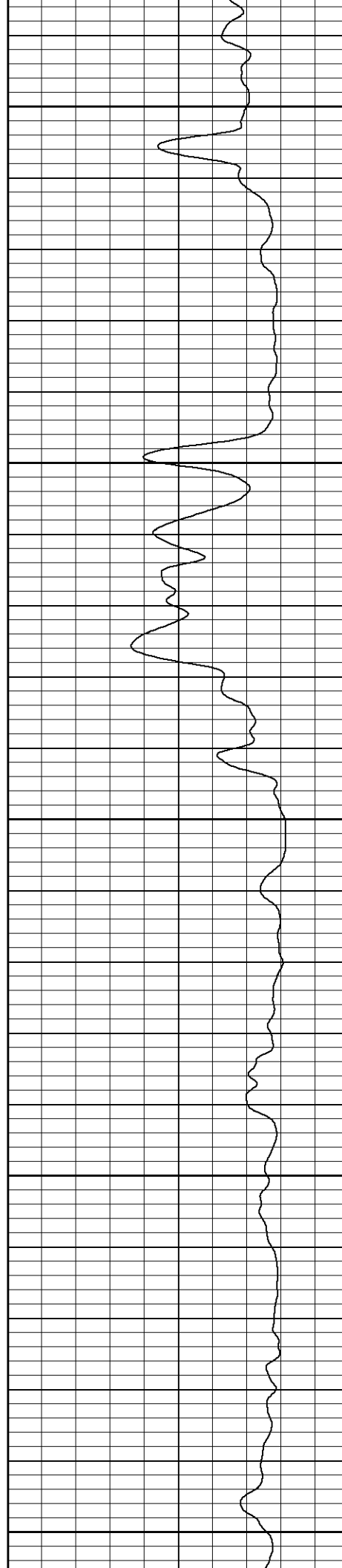
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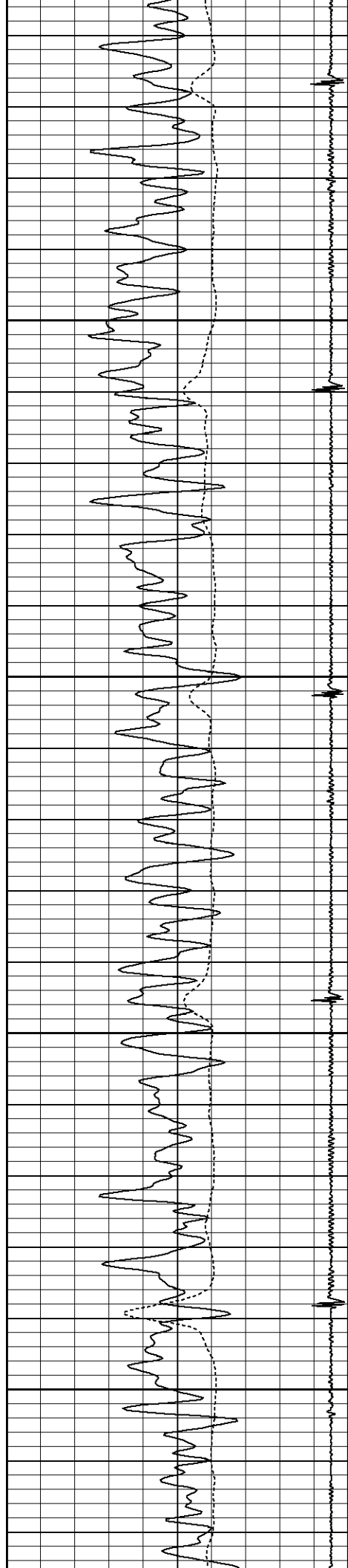
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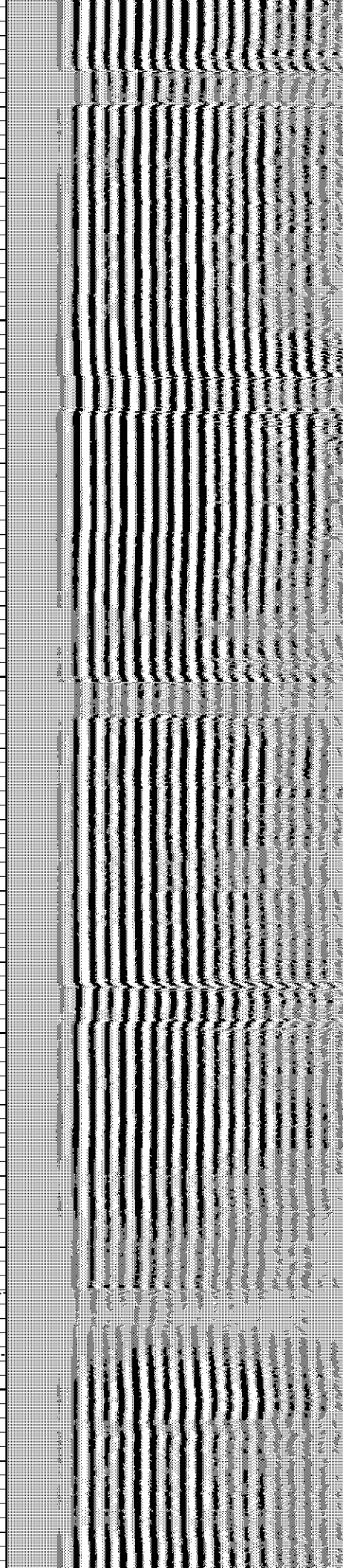
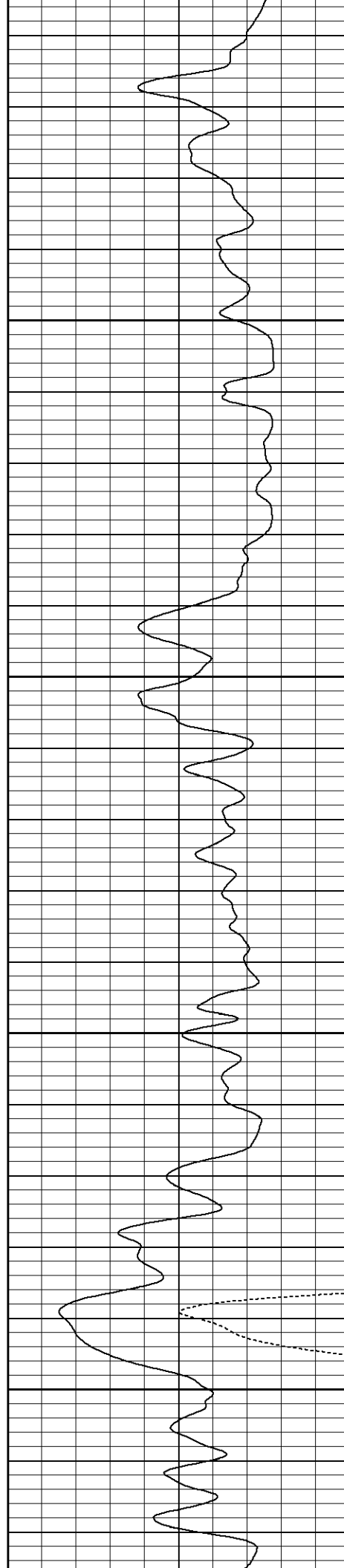


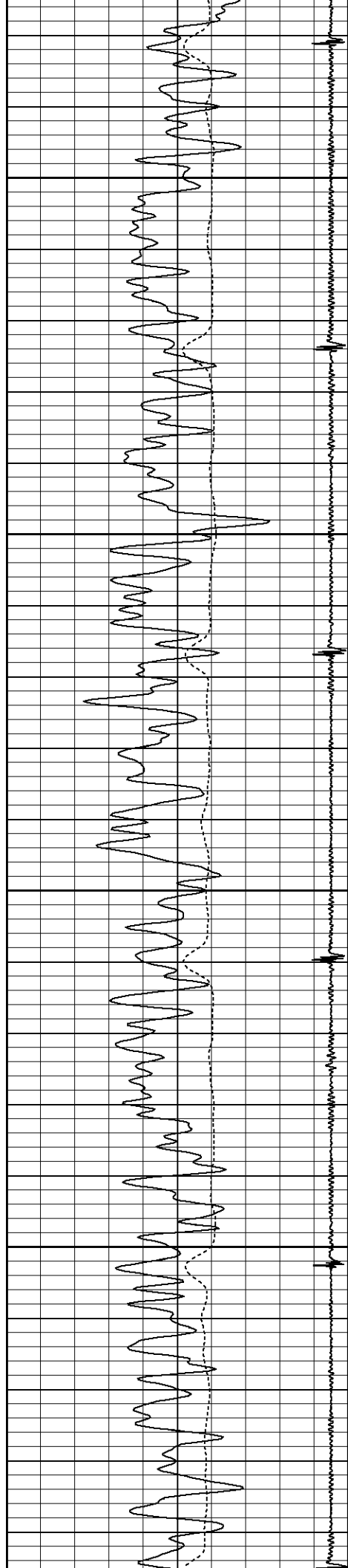
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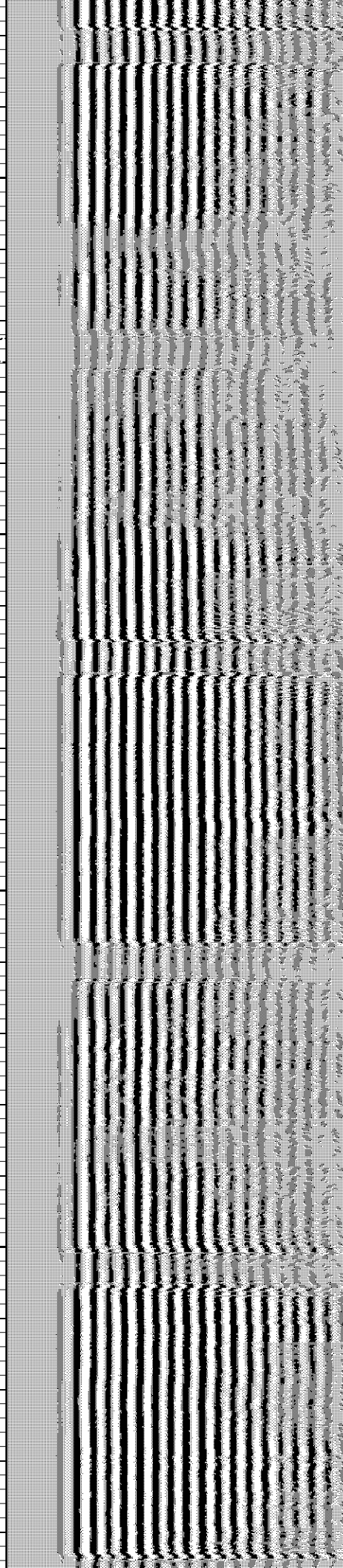
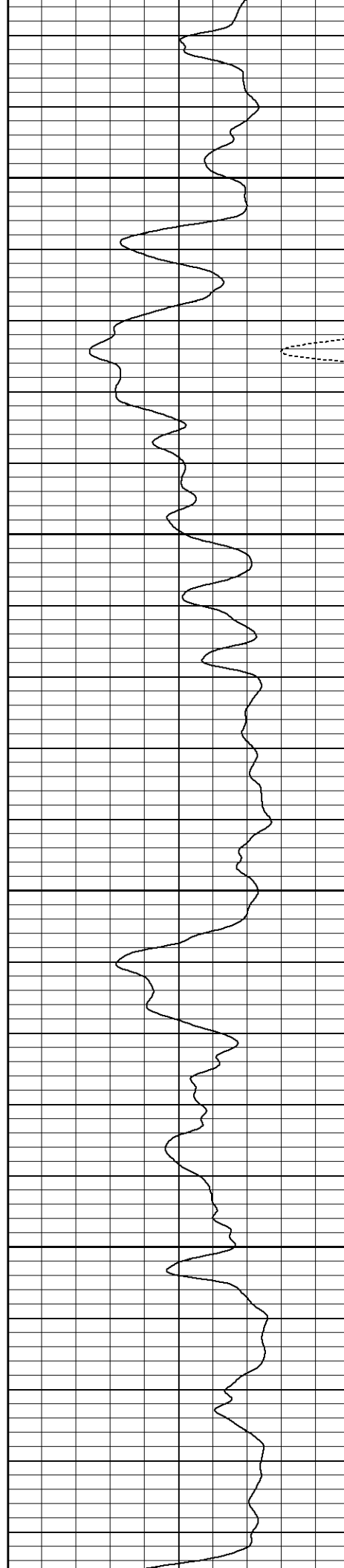


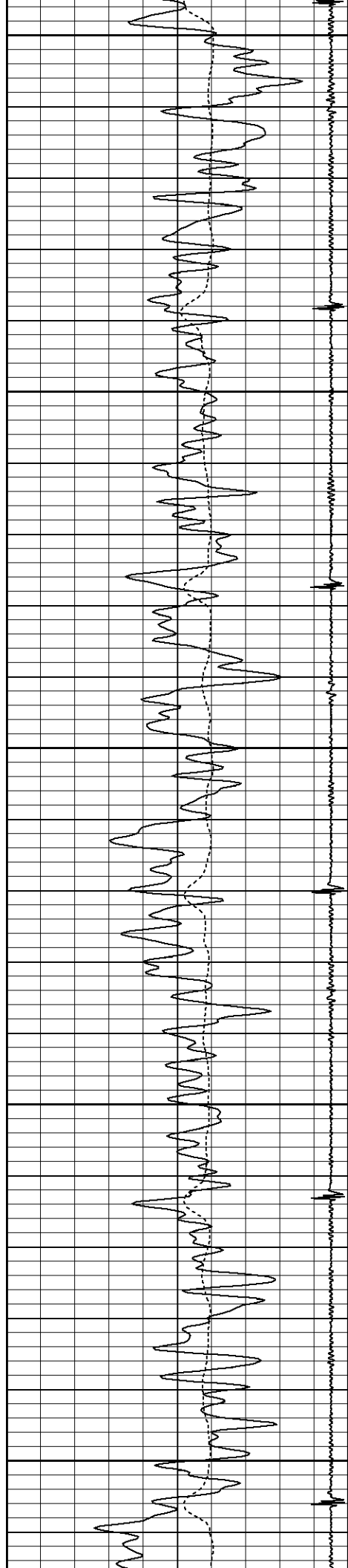
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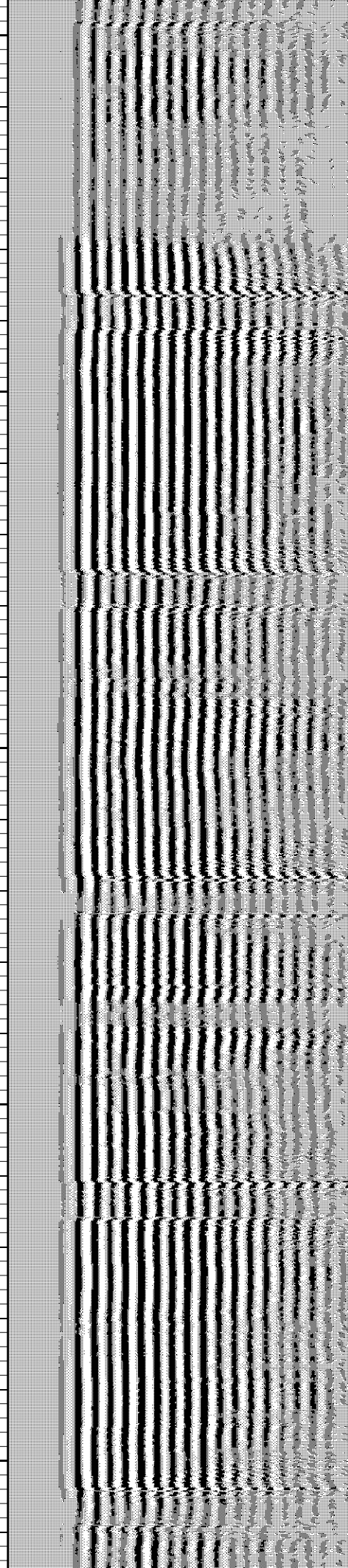
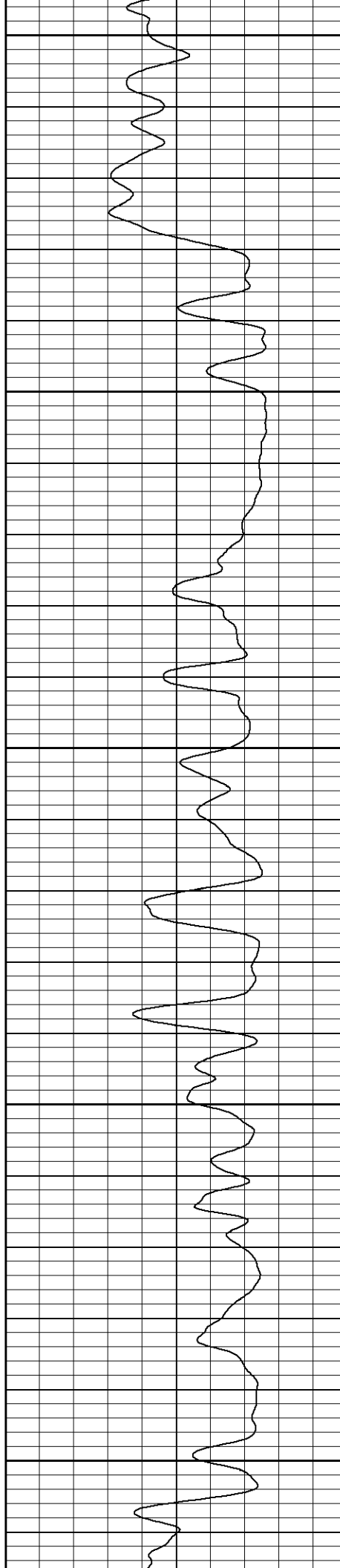
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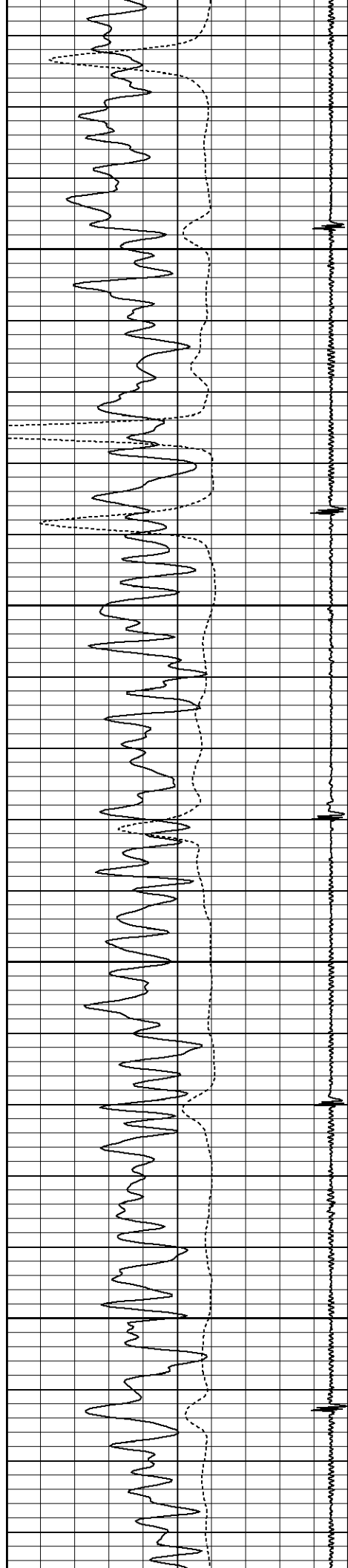
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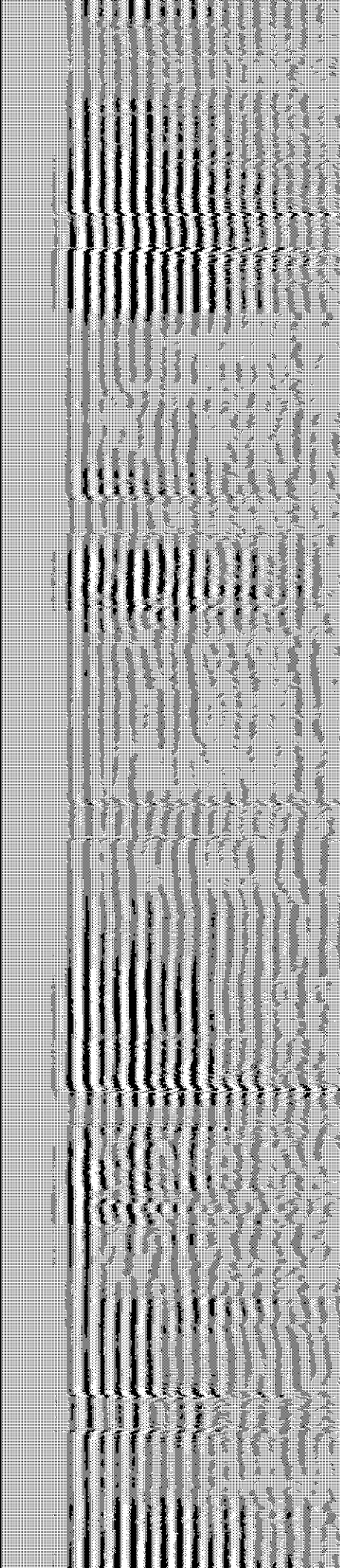
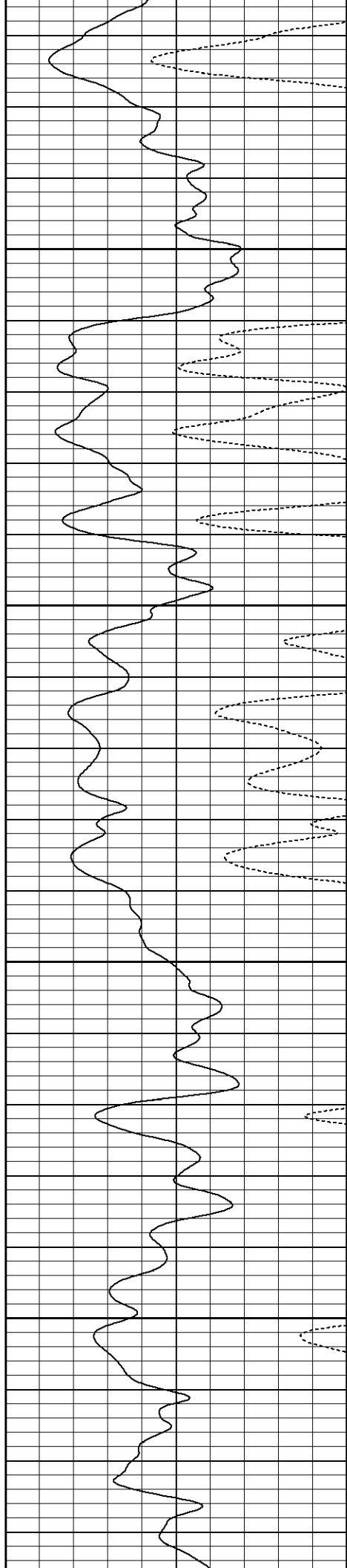


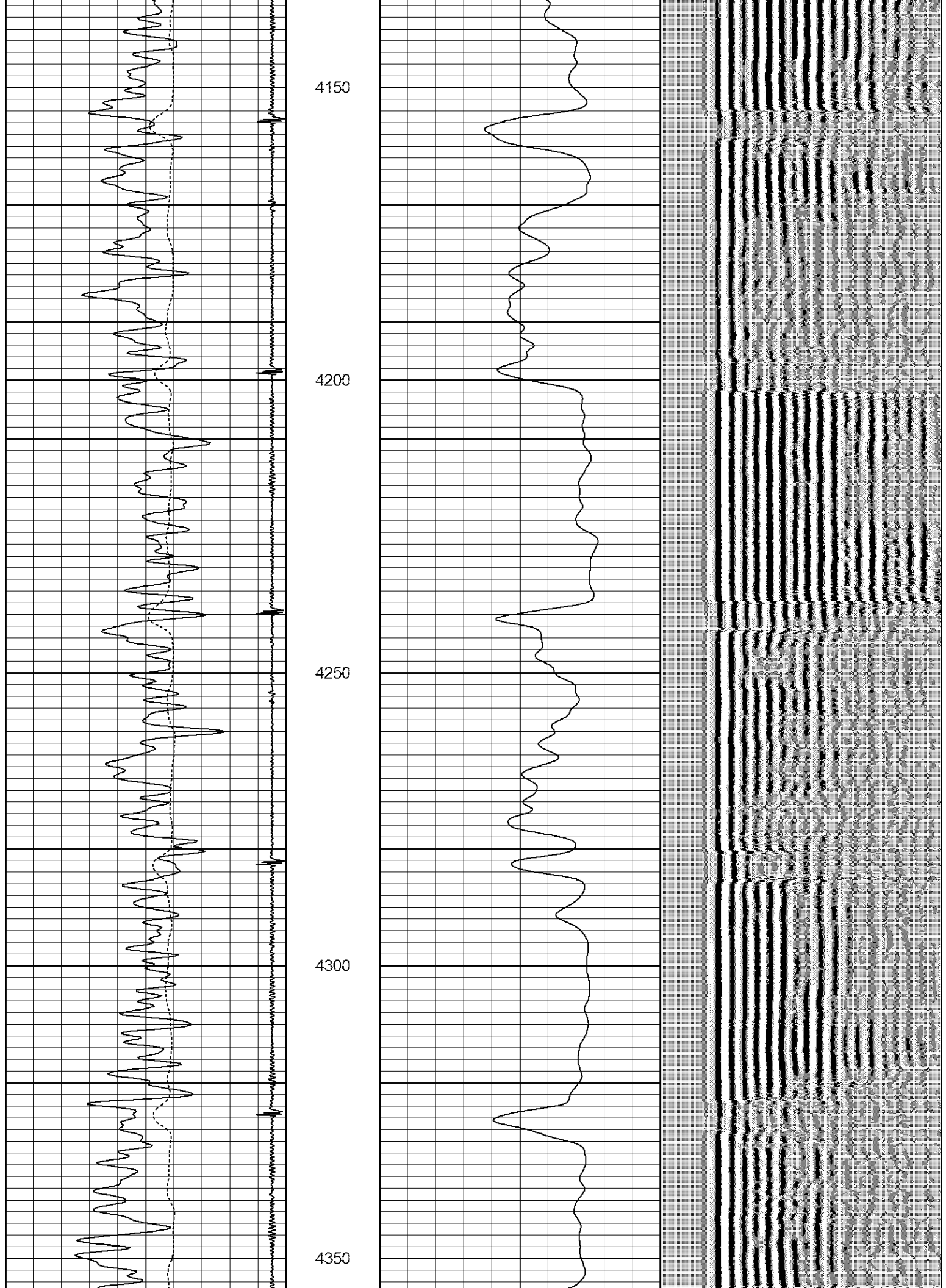
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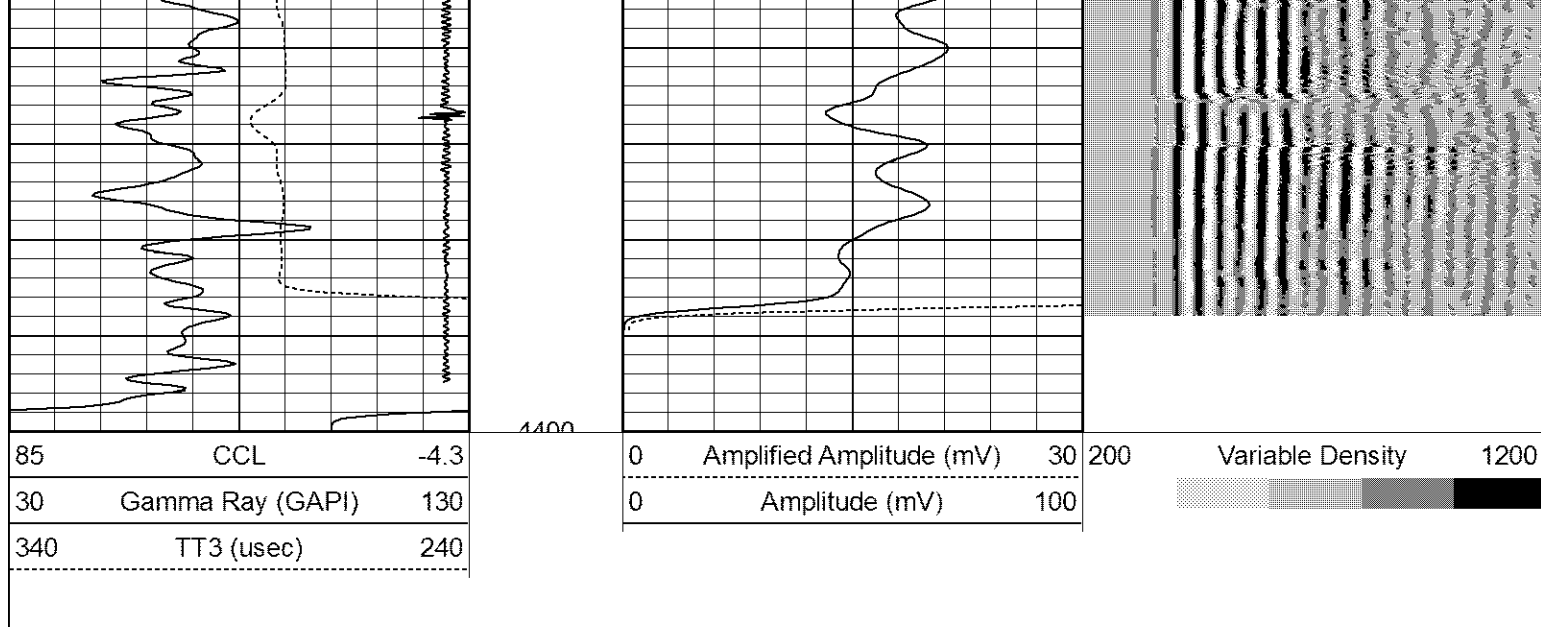
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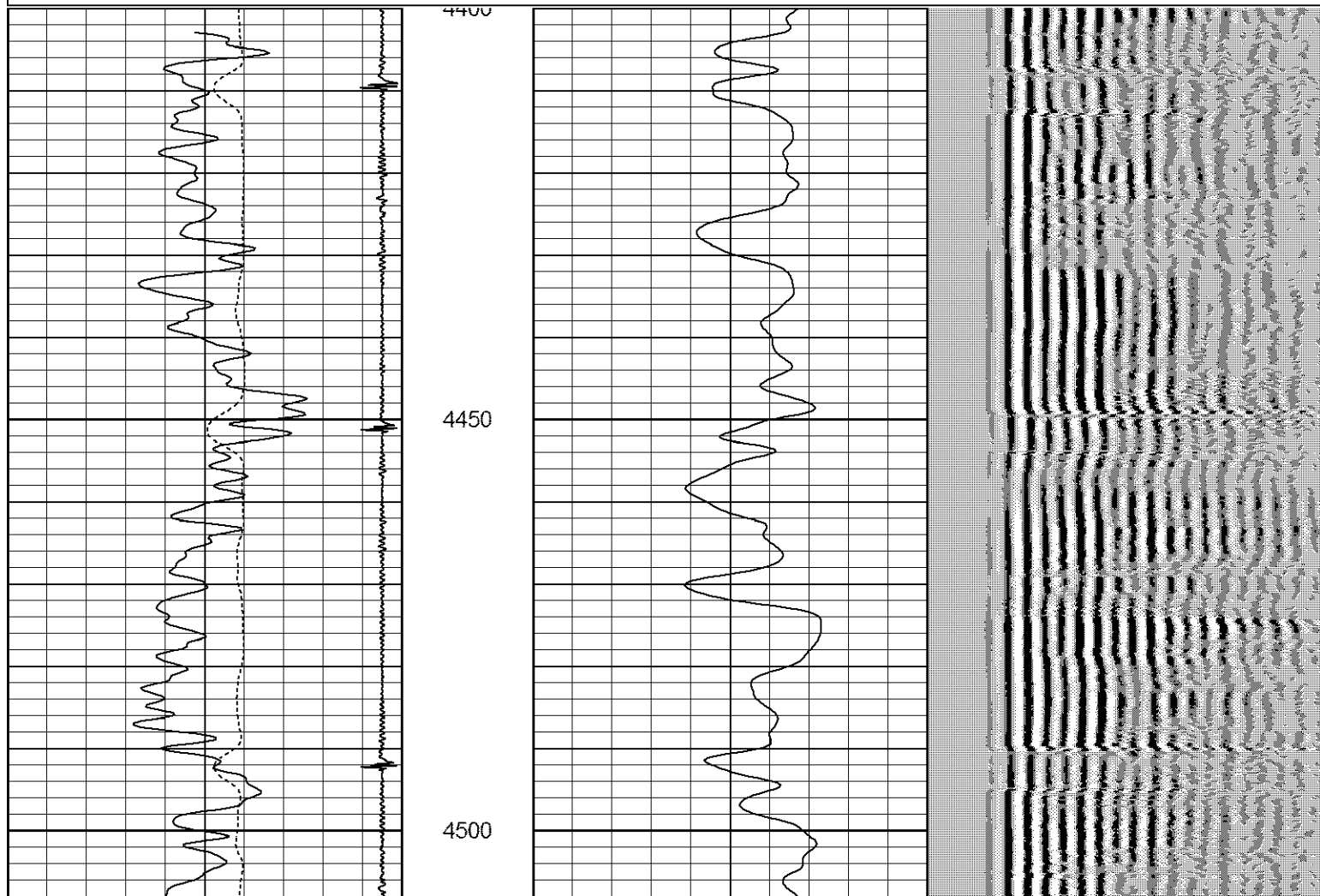
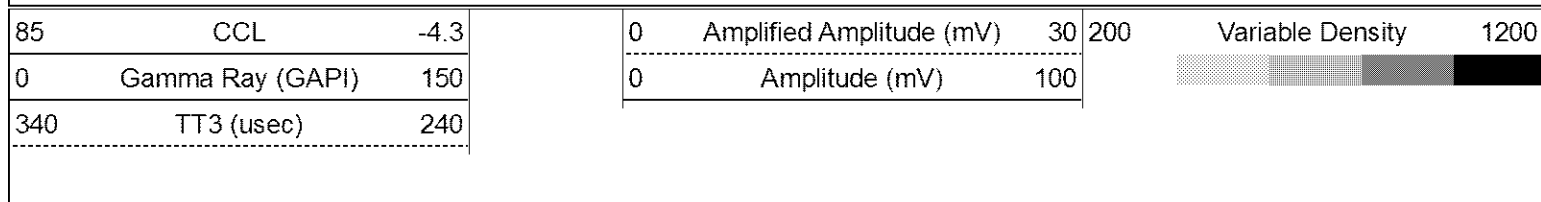
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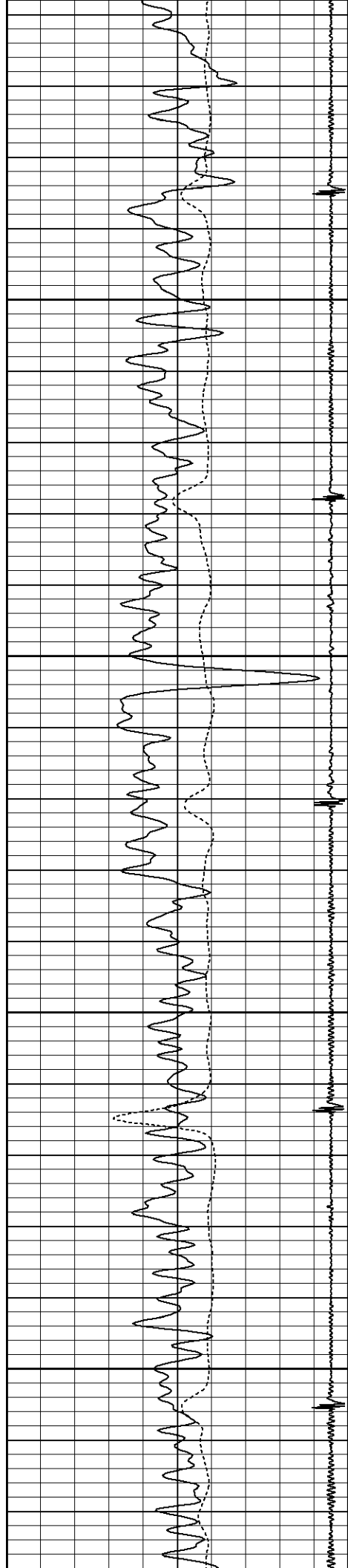






Database File: cblmegan state h21-28d.db
 Dataset Pathname: pass3
 Presentation Format: noble en
 Dataset Creation: Tue Feb 07 11:42:06 2012 by Log SCH 111116
 Charted by: Depth in Feet scaled 1:240



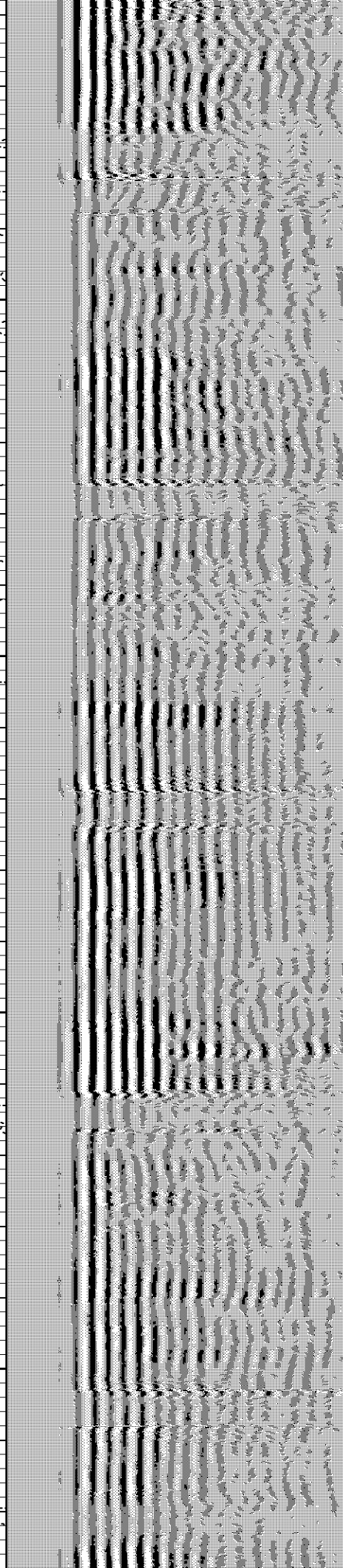
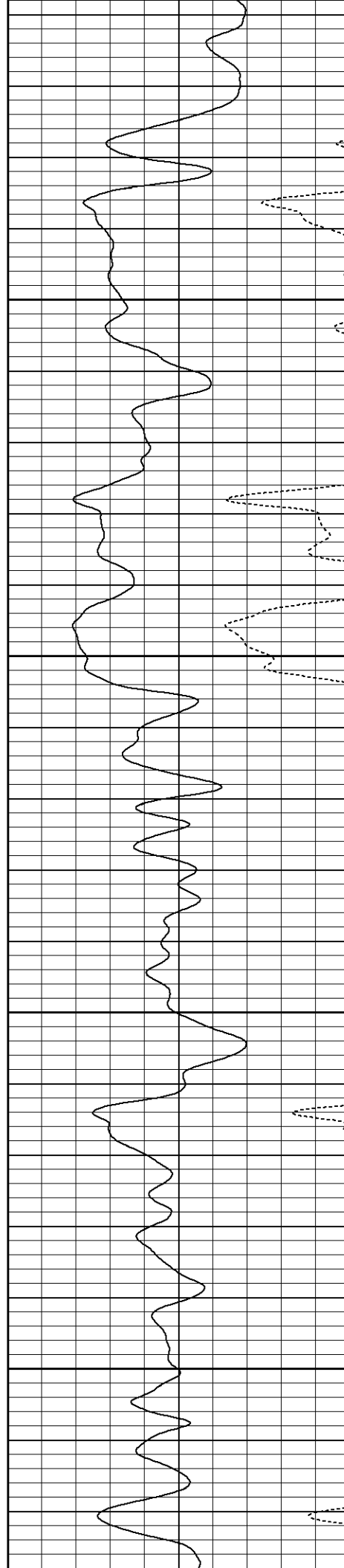


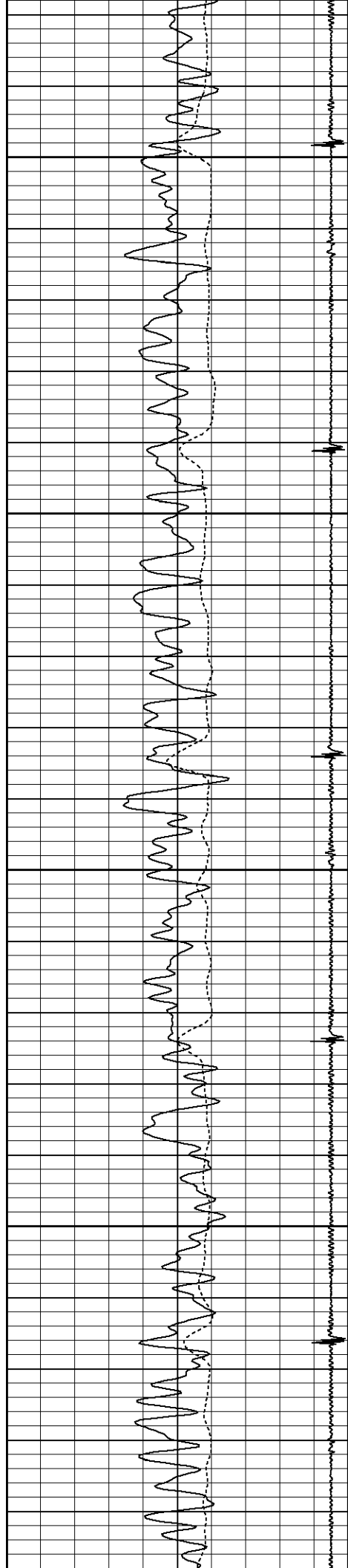
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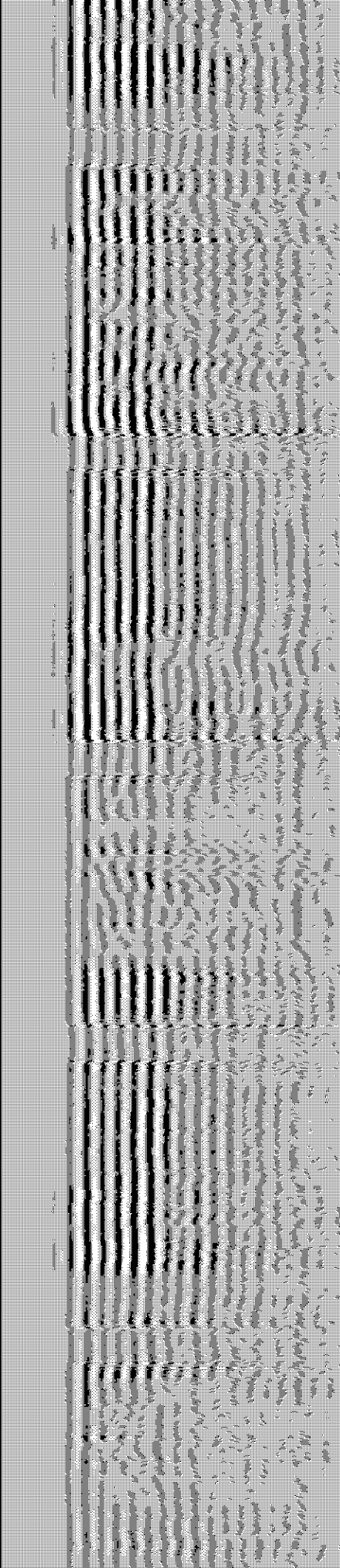
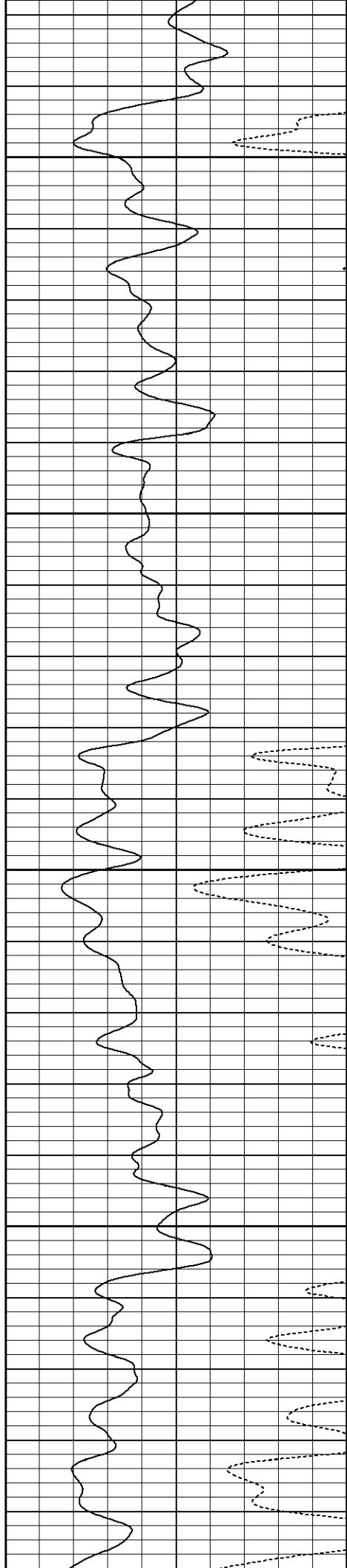


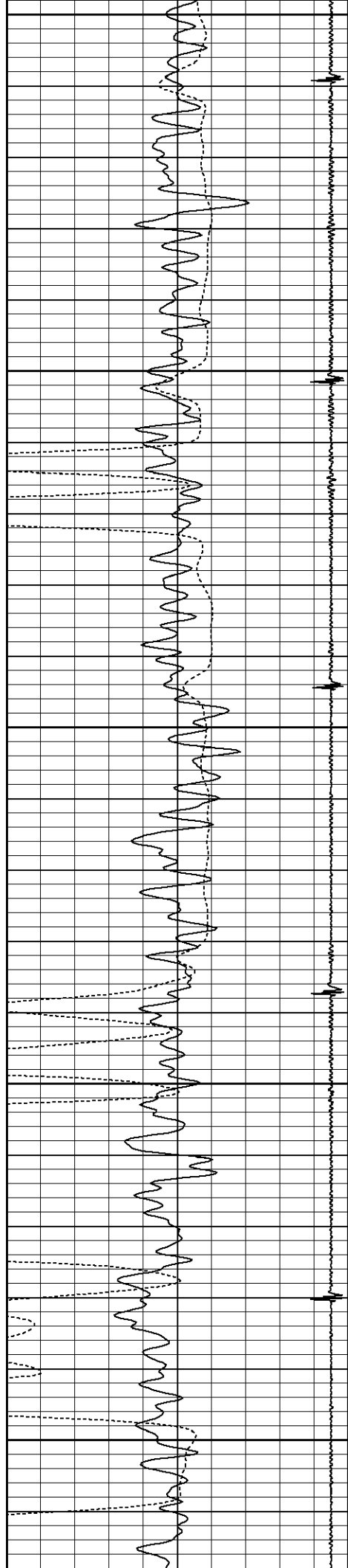
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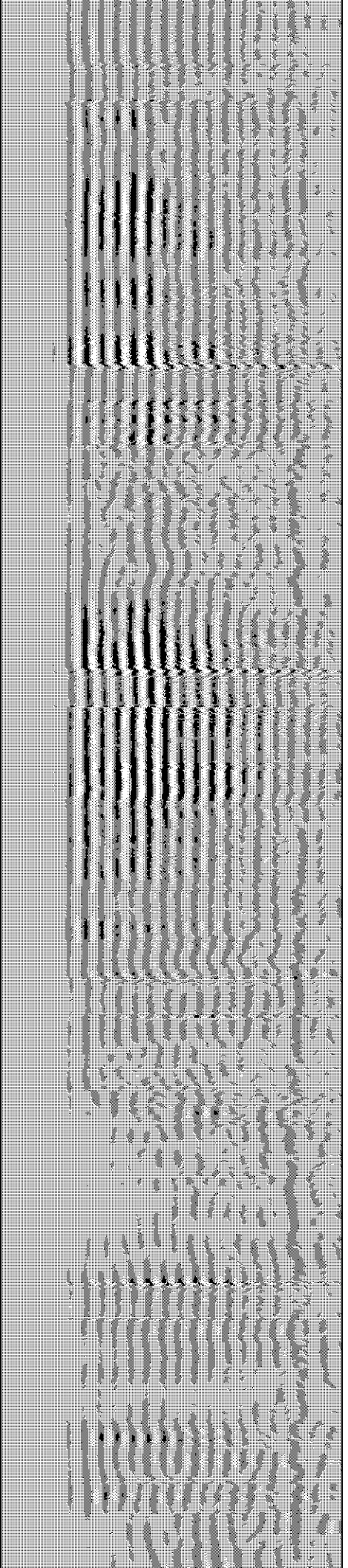
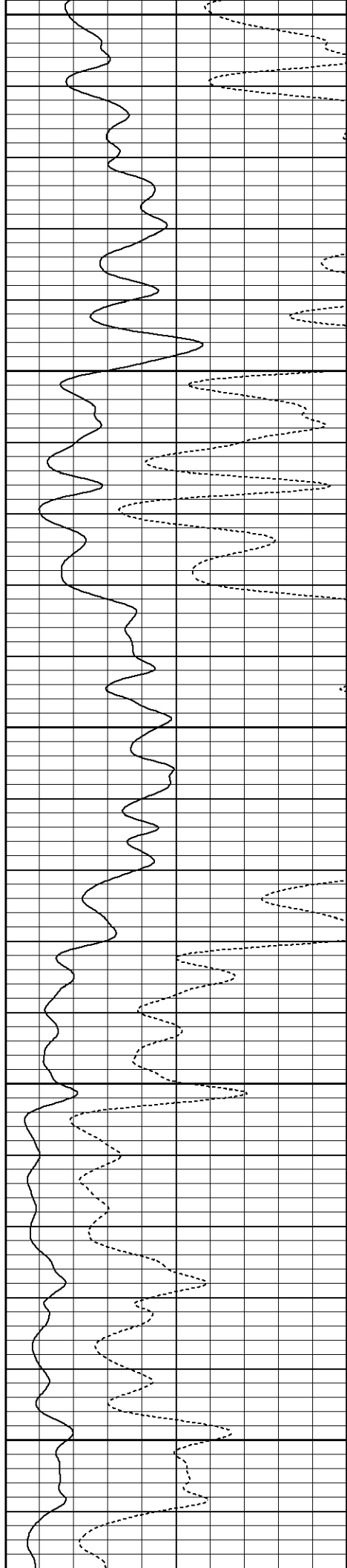
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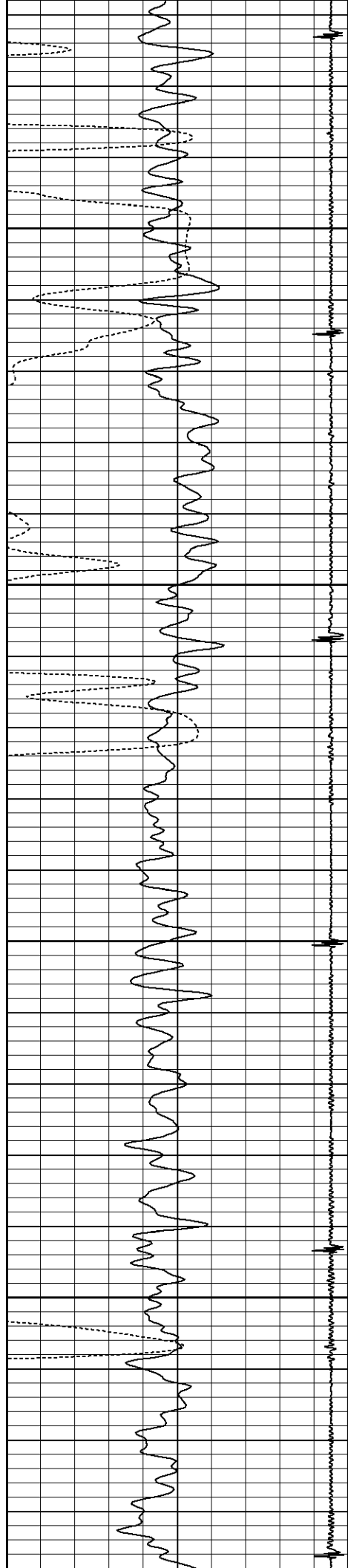
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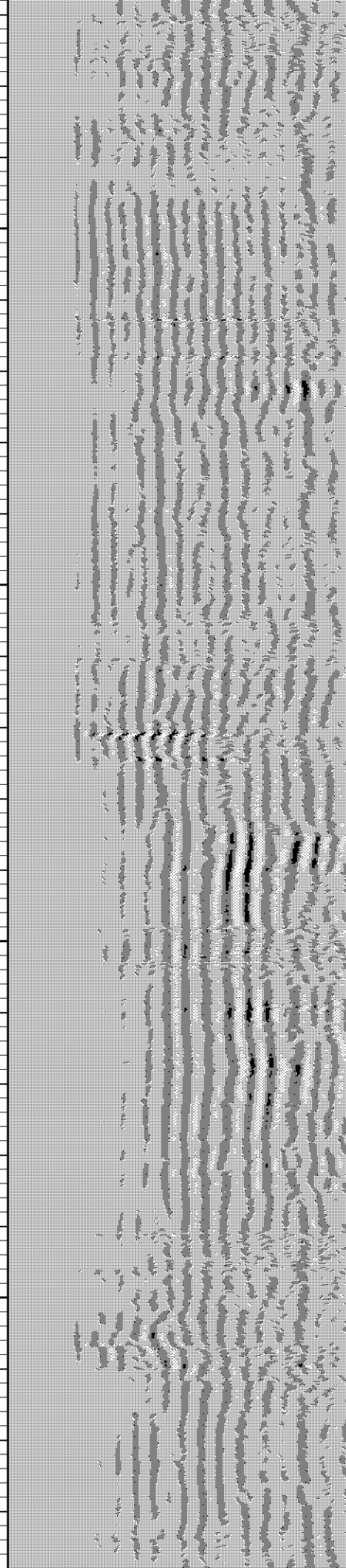
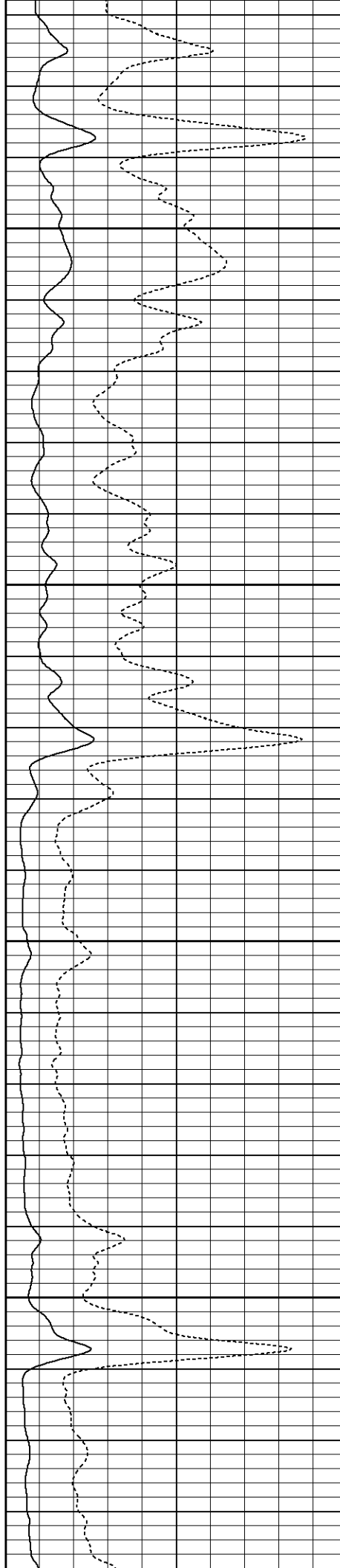


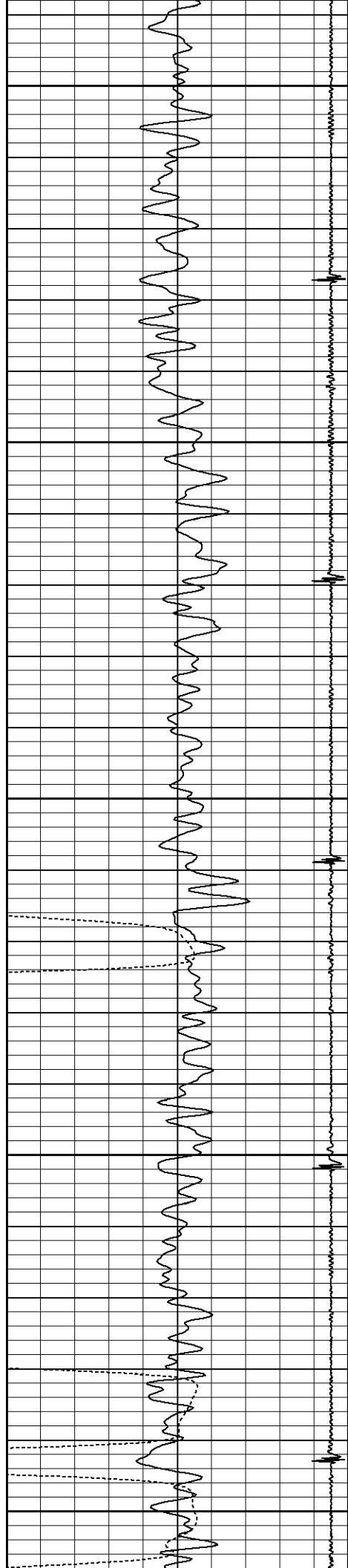
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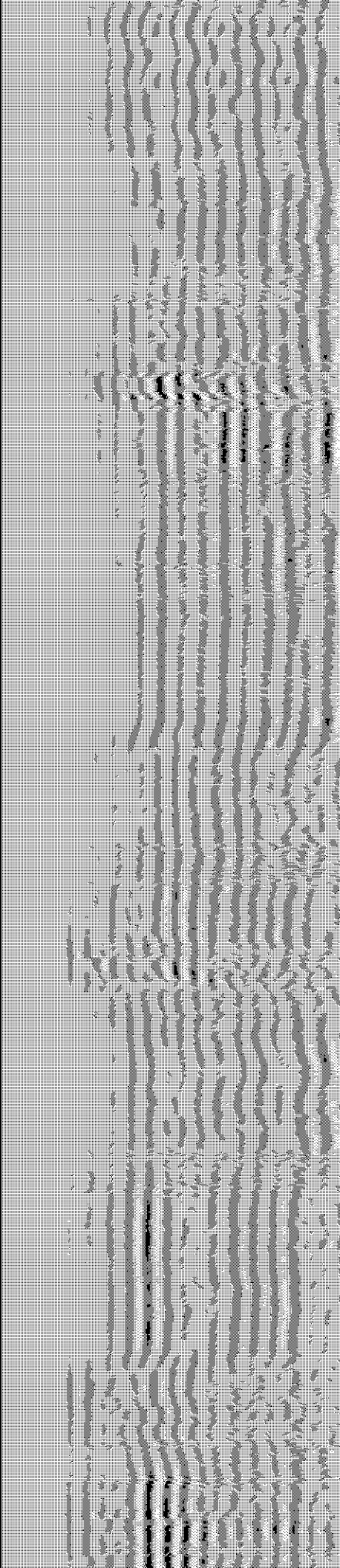
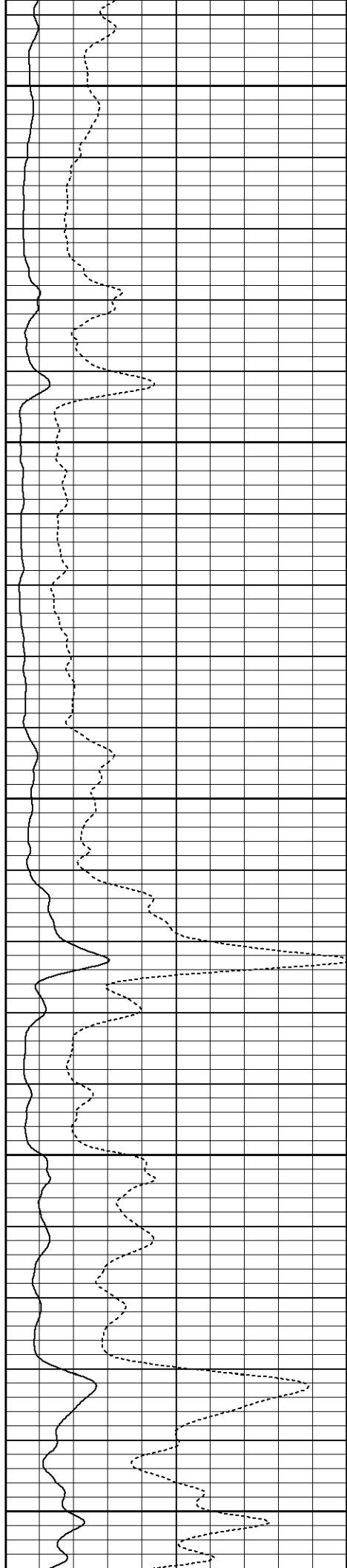
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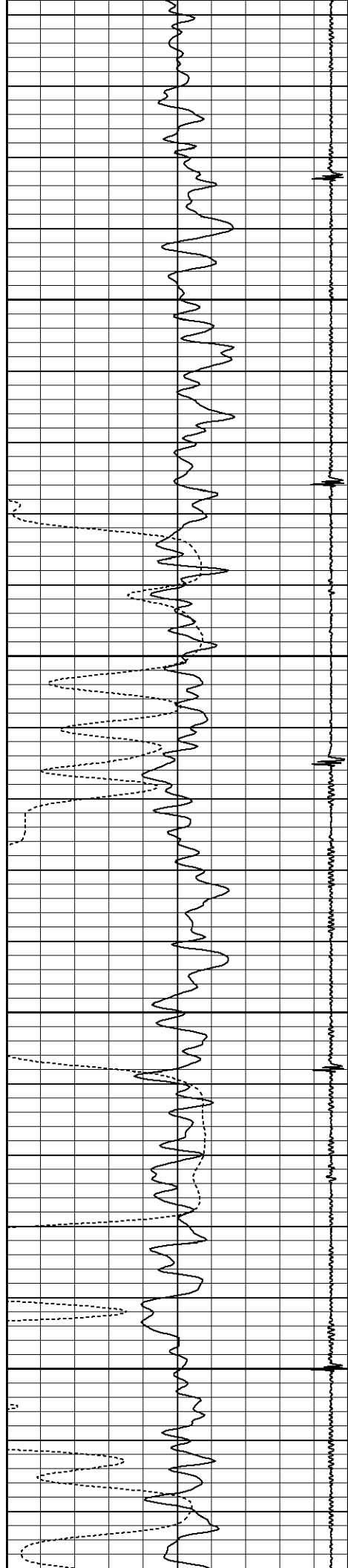
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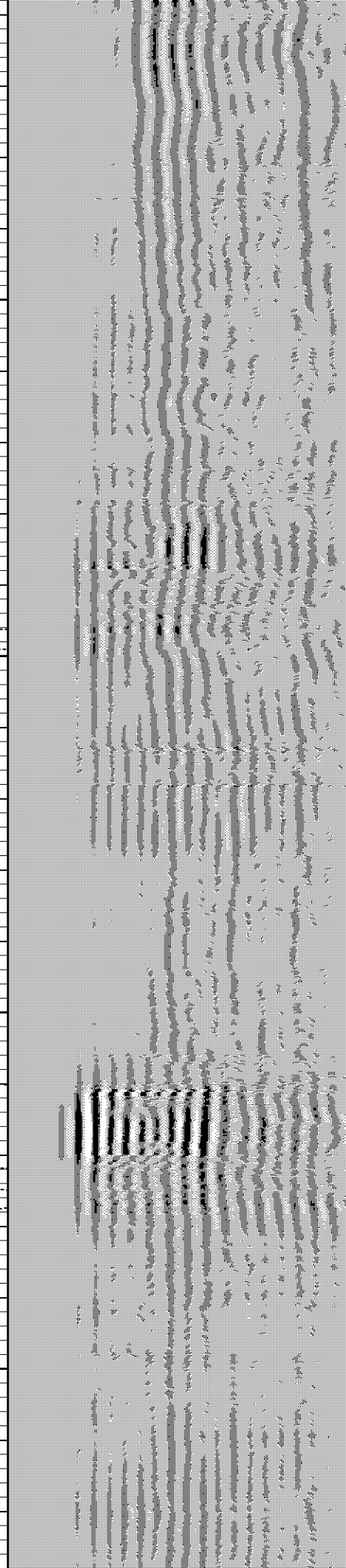
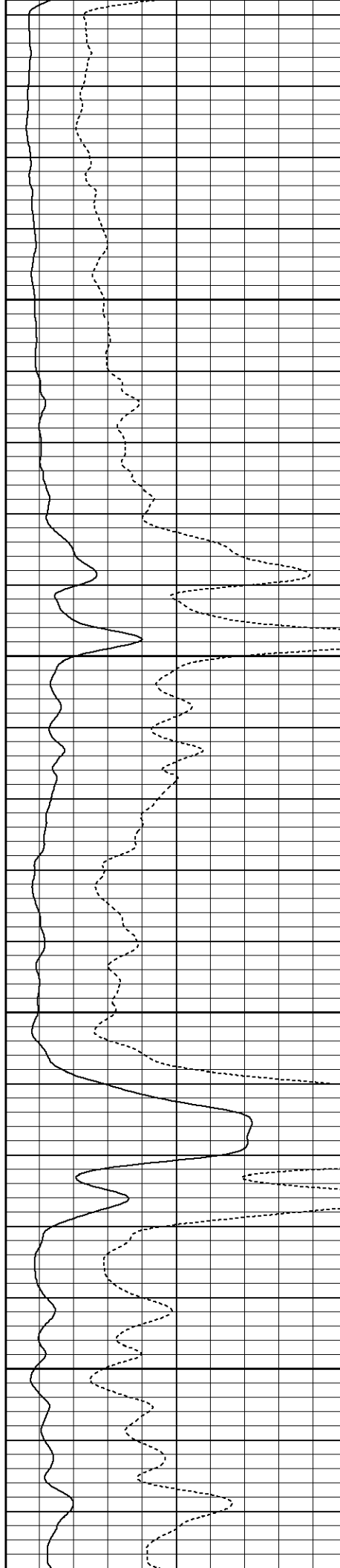


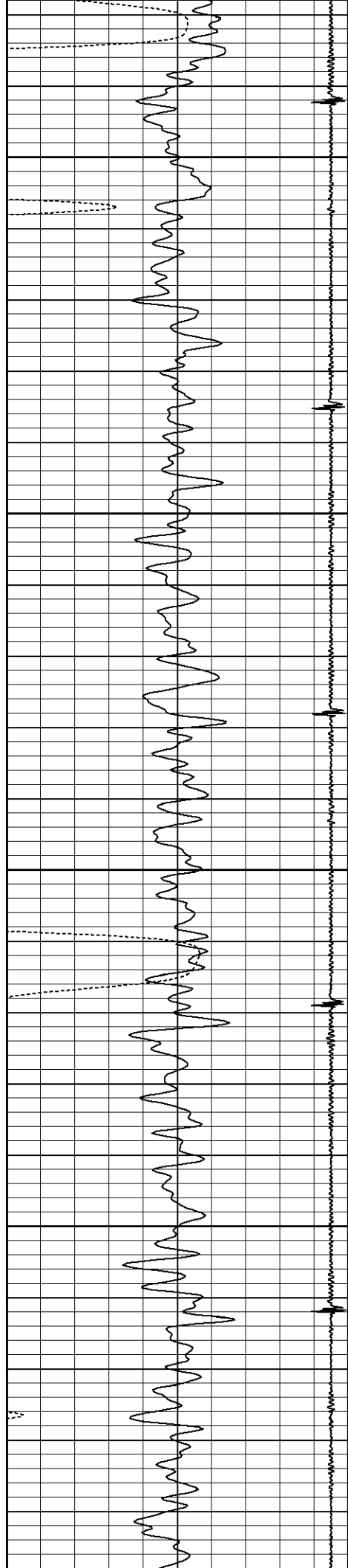
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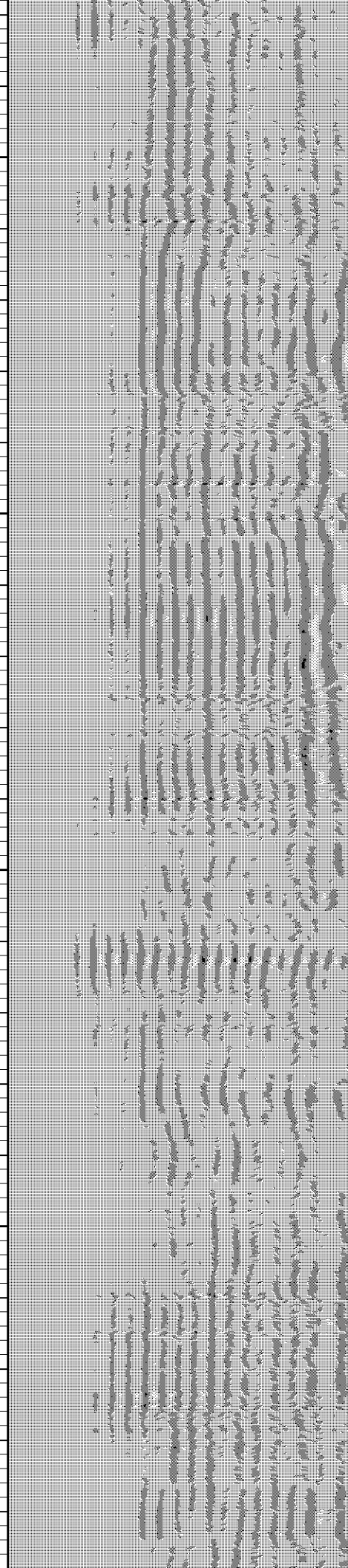
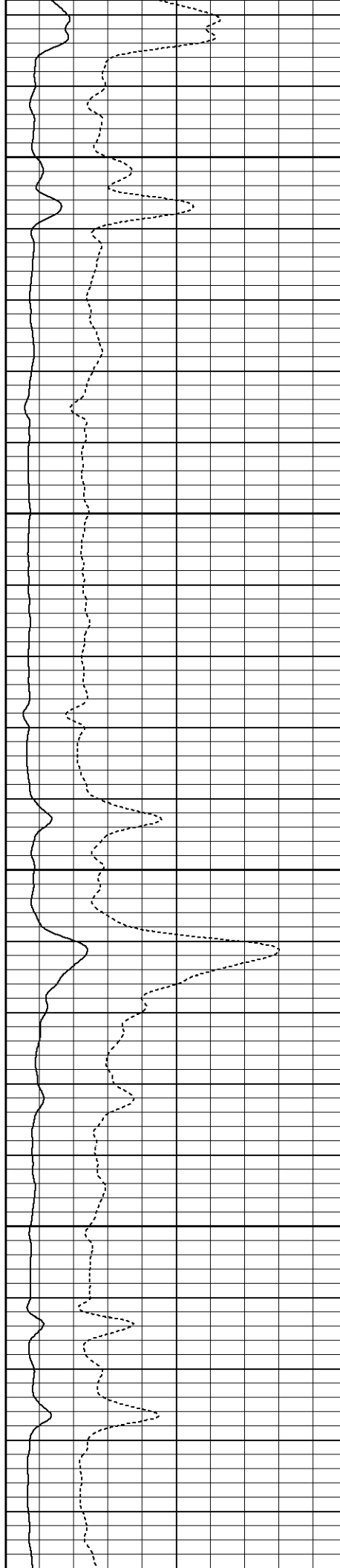


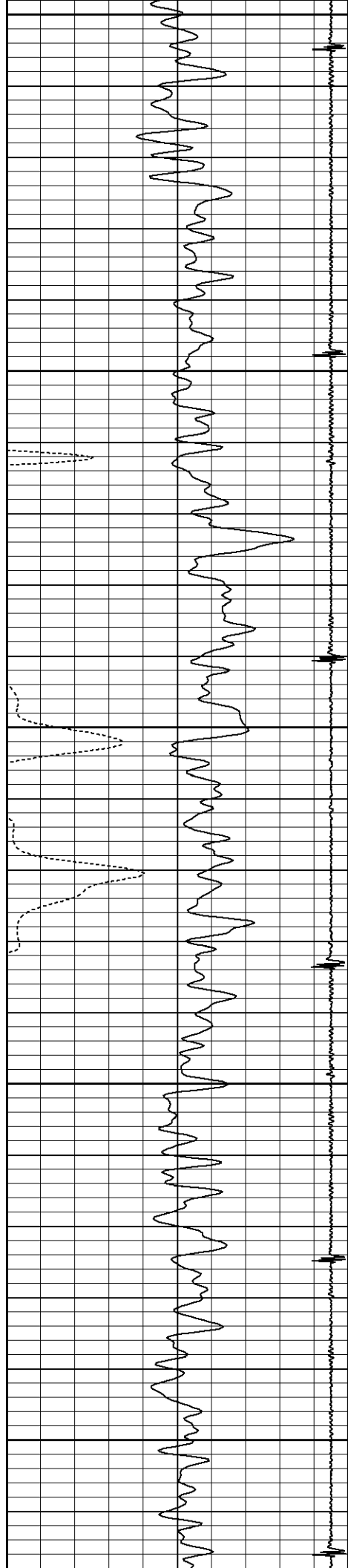
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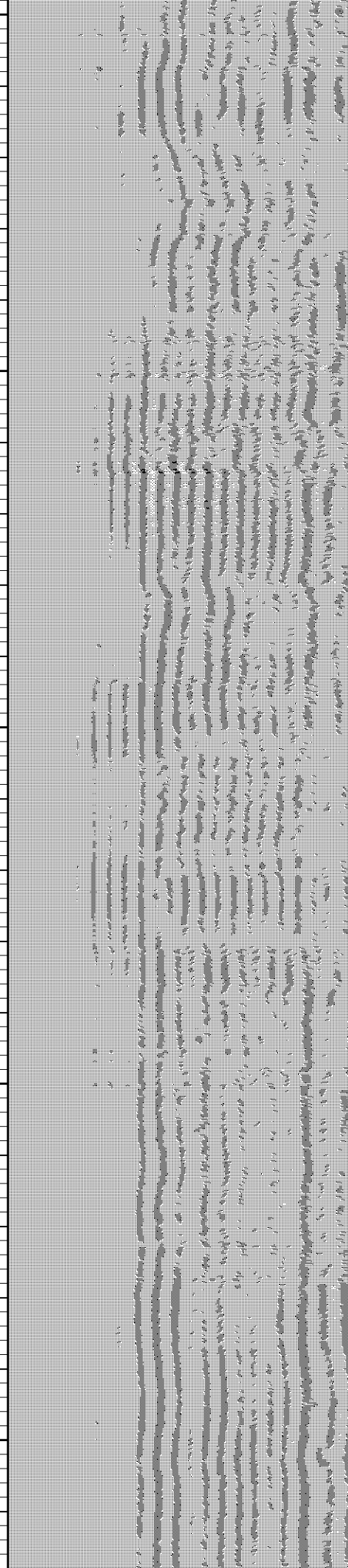
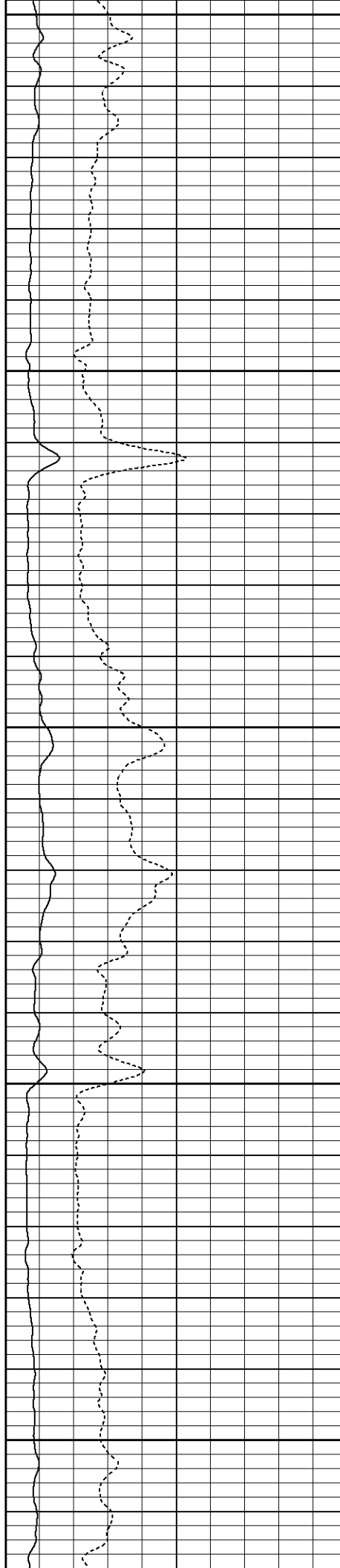
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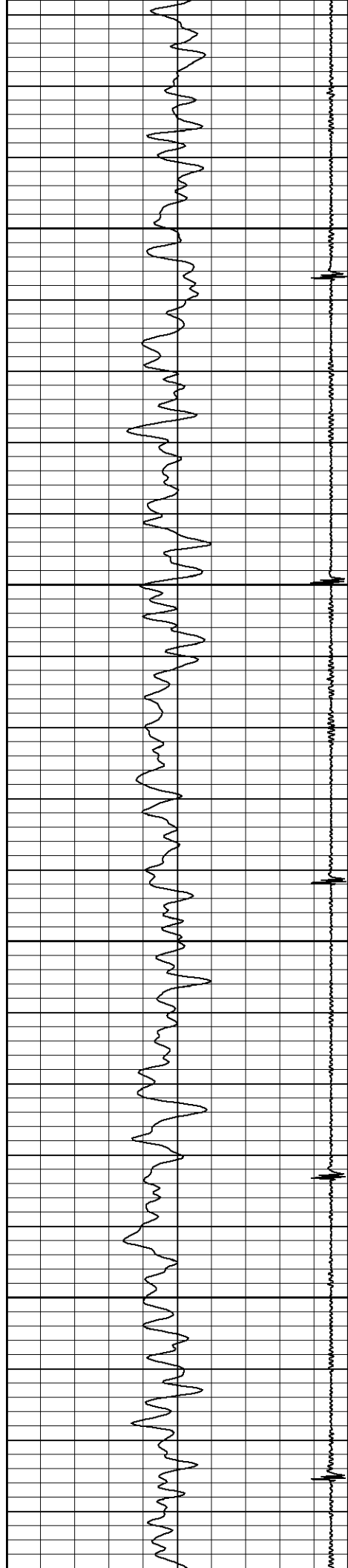
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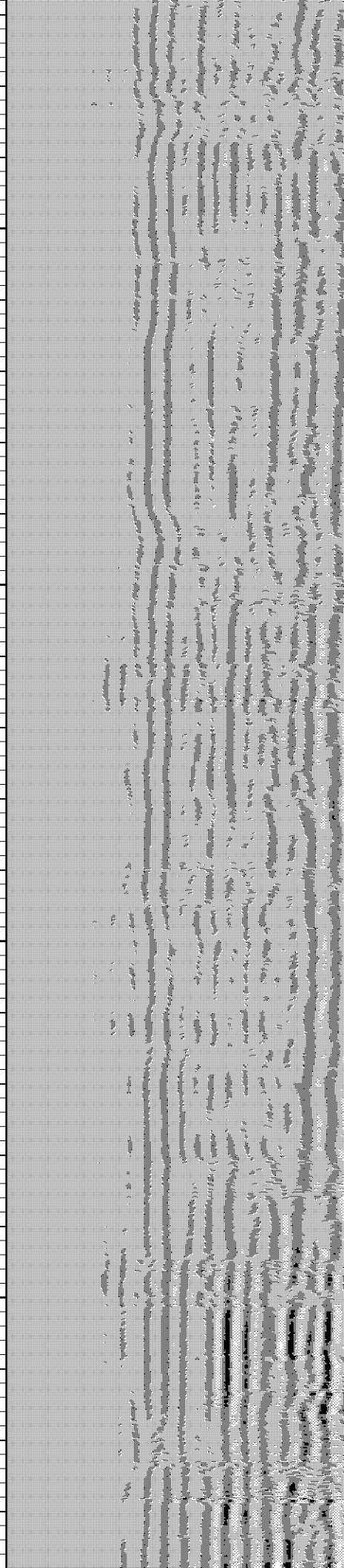
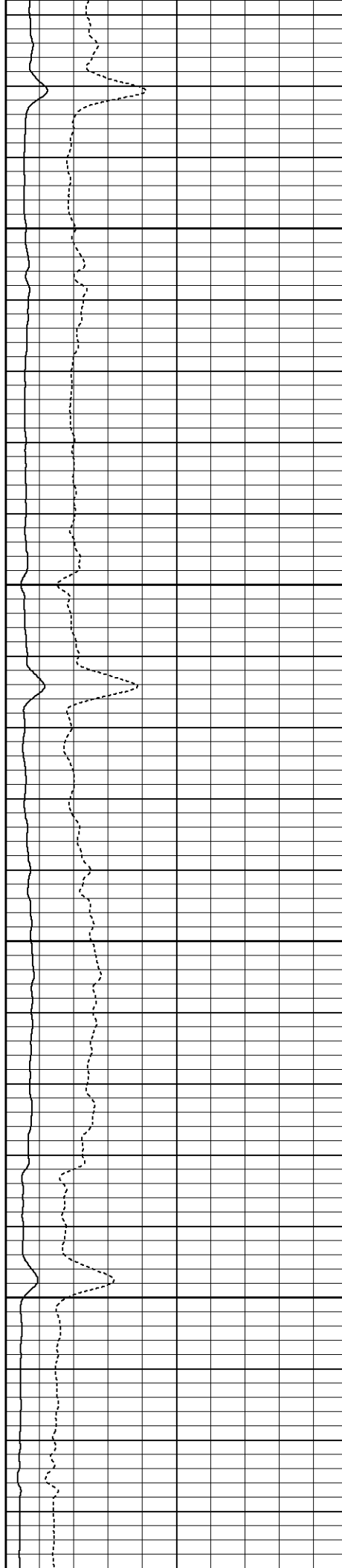


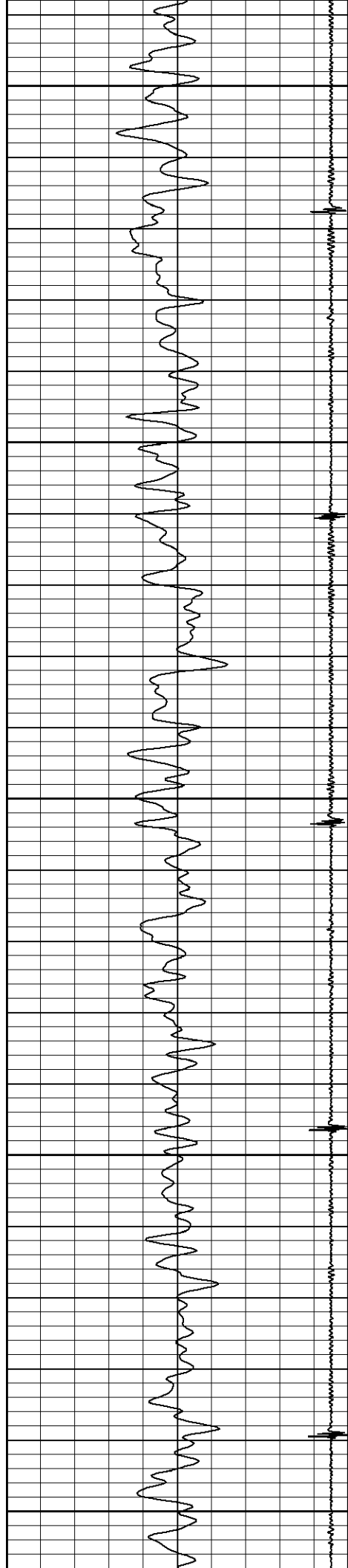
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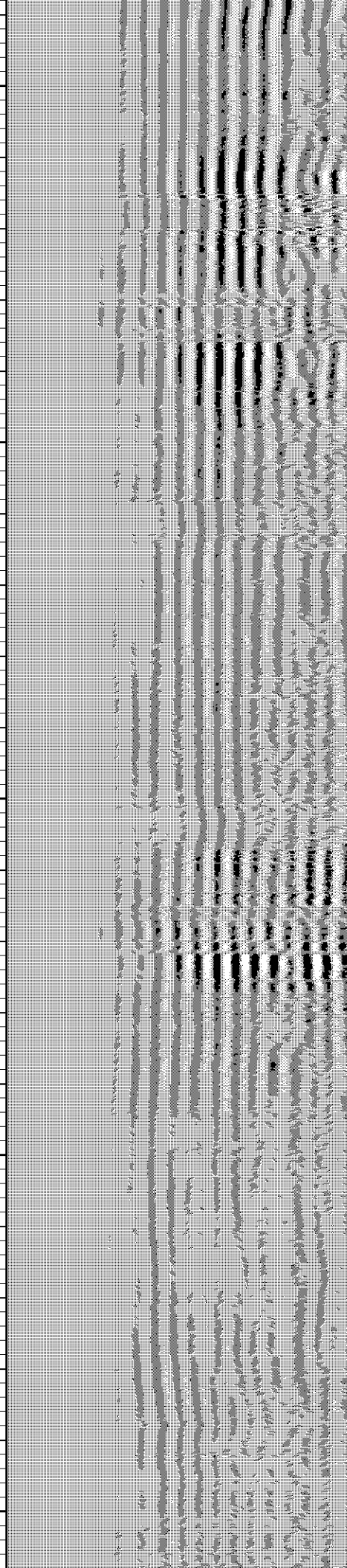
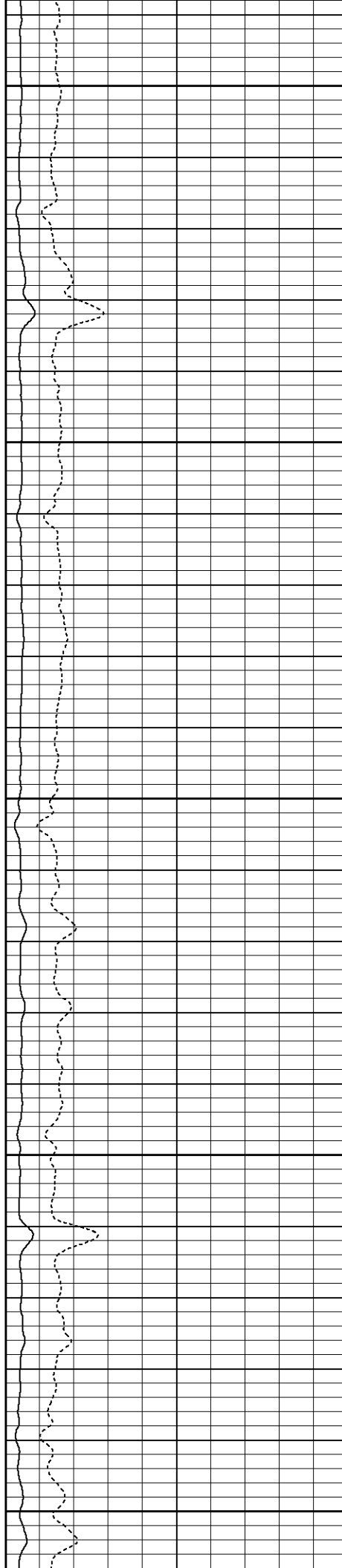
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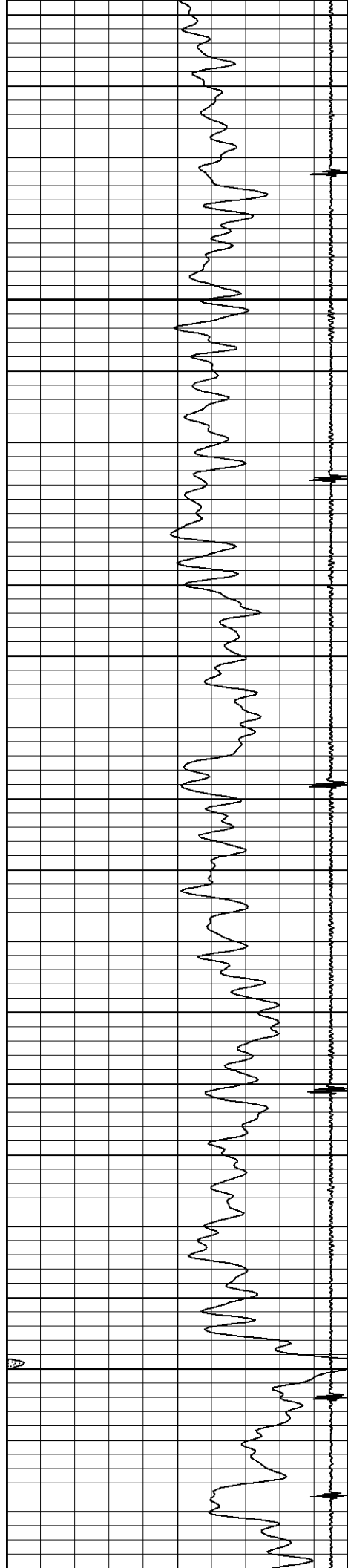
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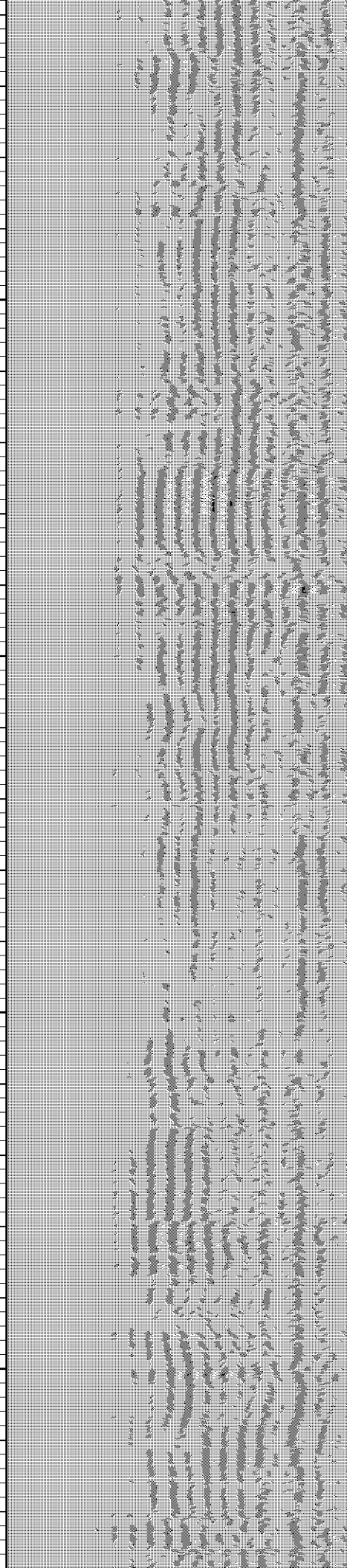
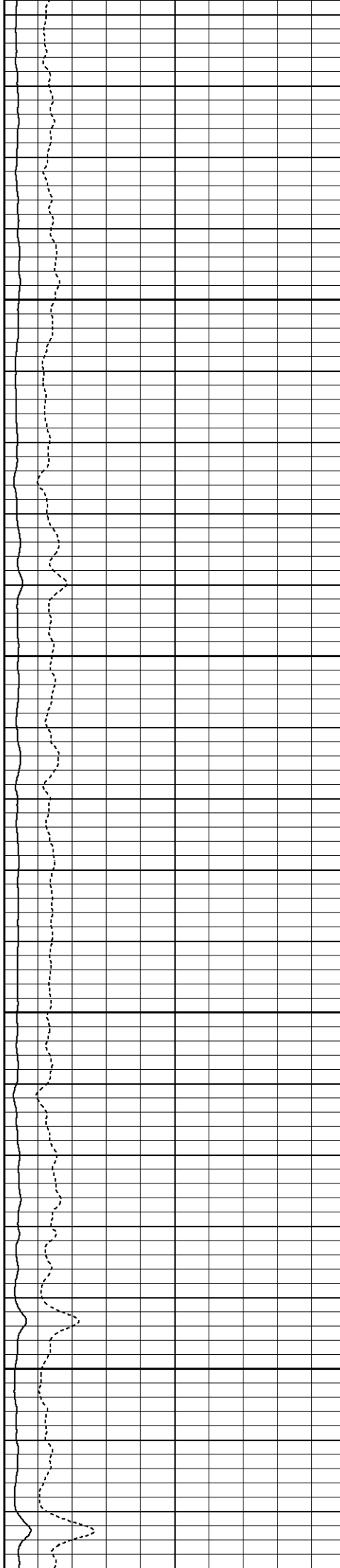
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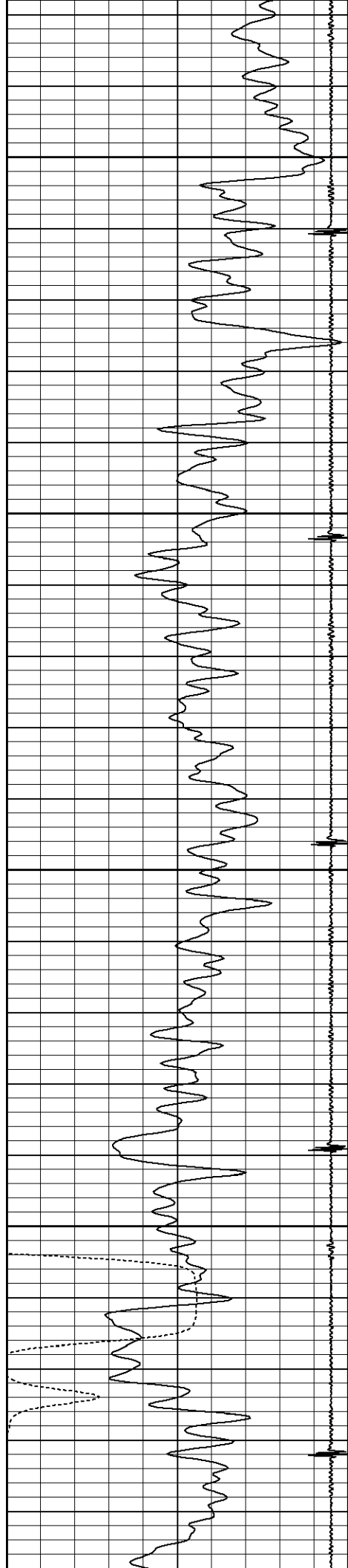
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6850

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Flag Joint



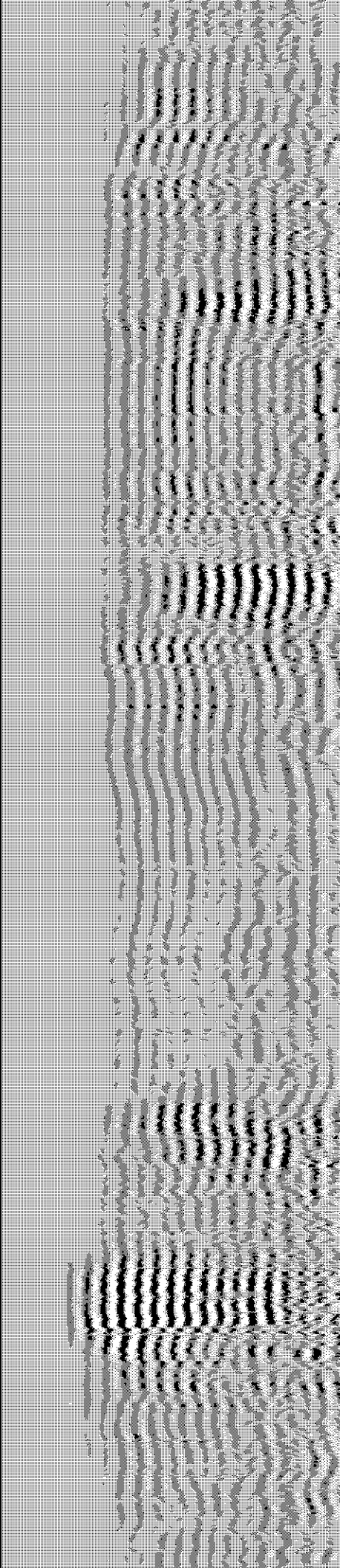
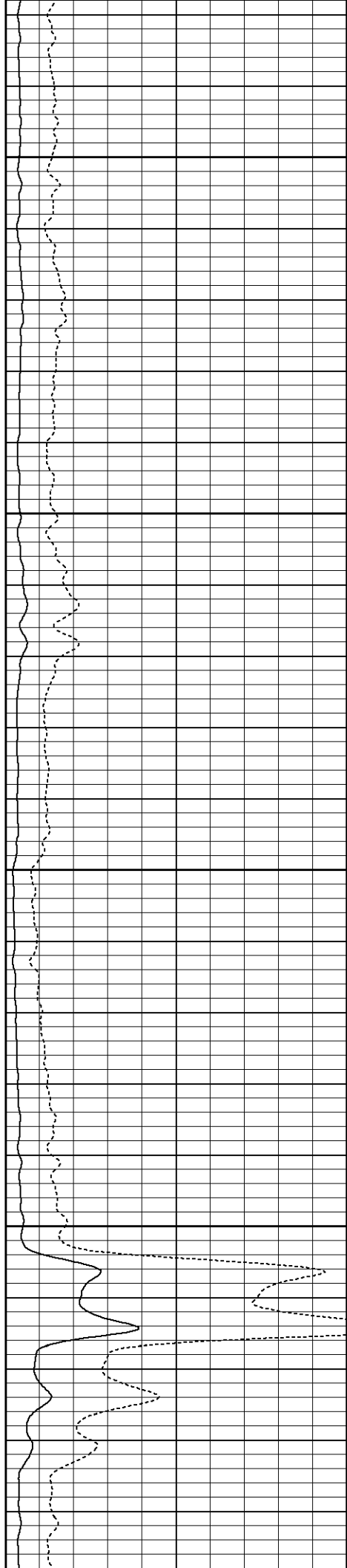


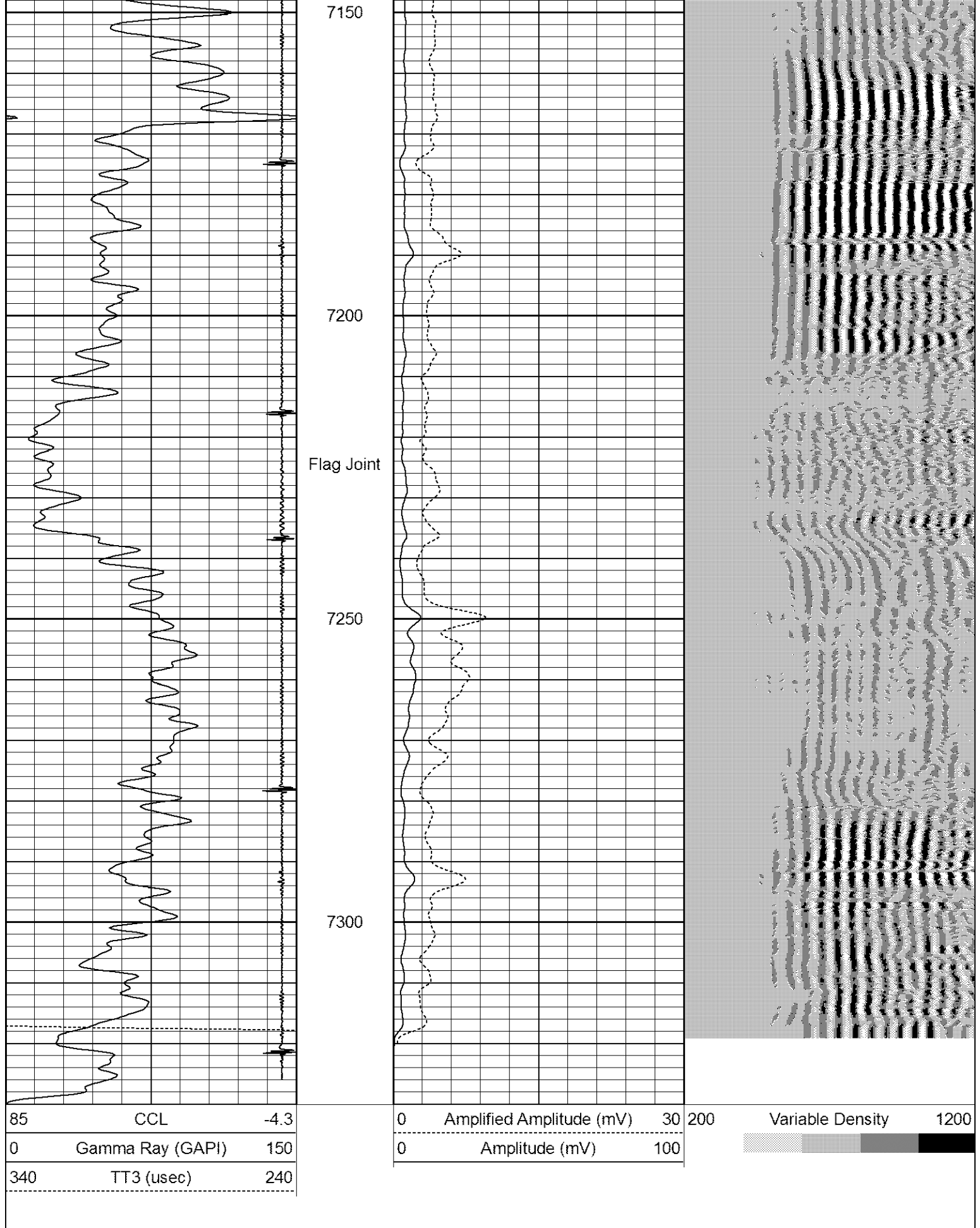
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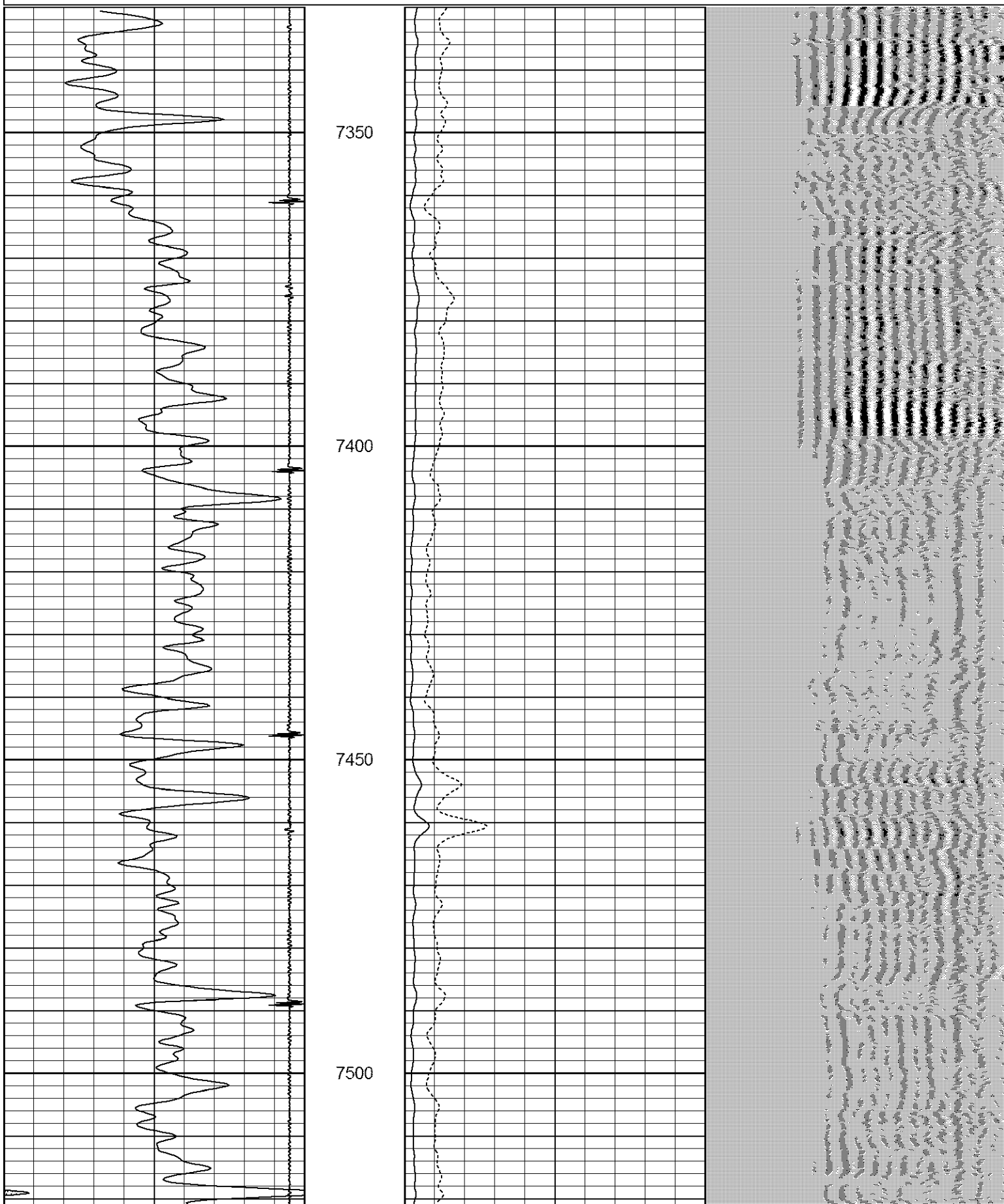


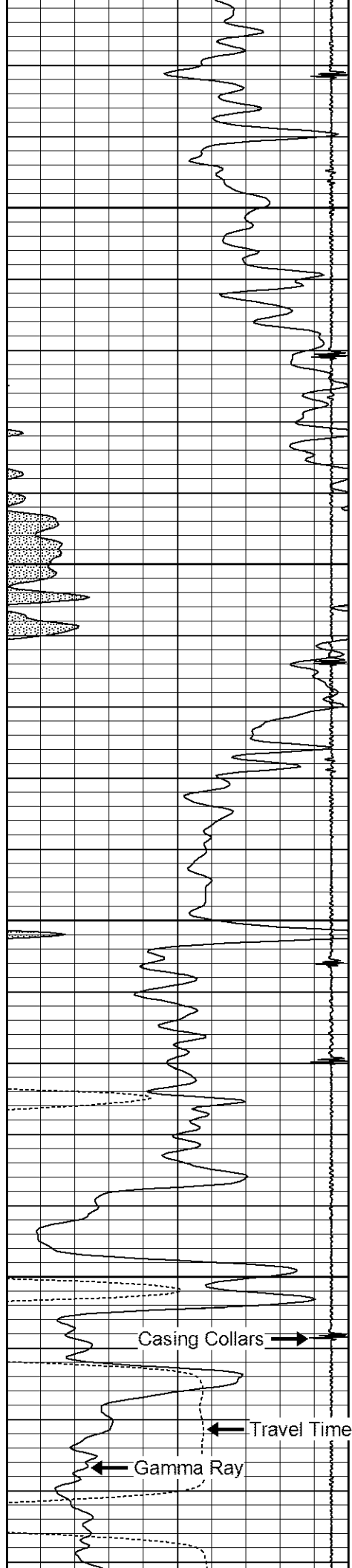


Database File: cblmegan state h21-28d.db
Dataset Pathname: pass2
Presentation Format: noble en

85	CCL	-4.3
0	Gamma Ray (GAPI)	150
340	TT3 (usec)	240

0	Amplified Amplitude (mV)	30	200	Variable Density	1200
0	Amplitude (mV)	100			





7550

7600

7650

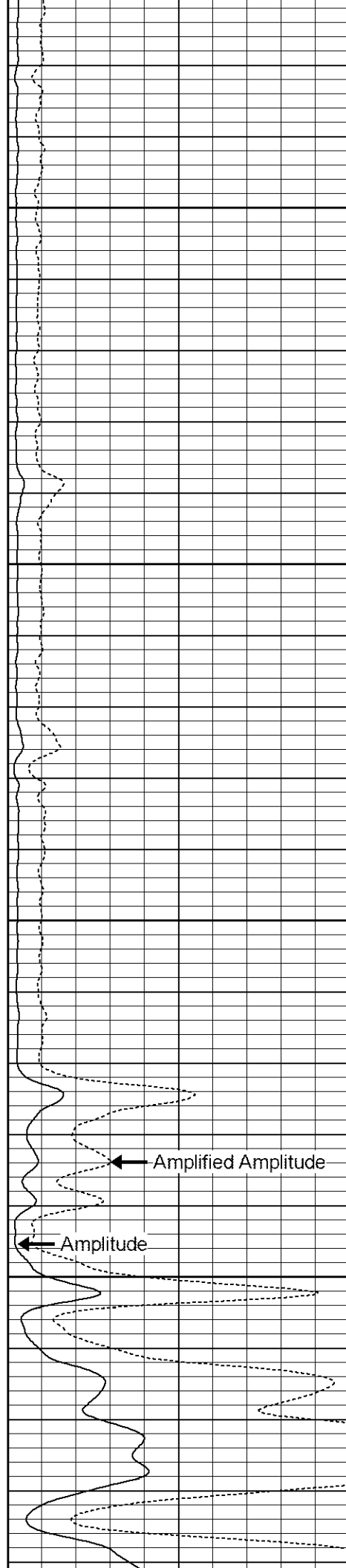
Flag Joint

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Casing Collars →

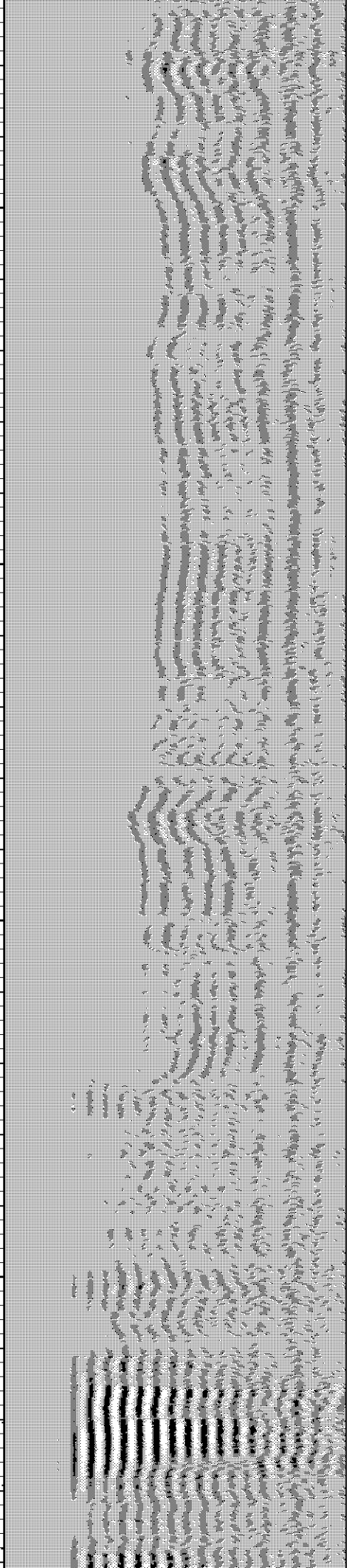
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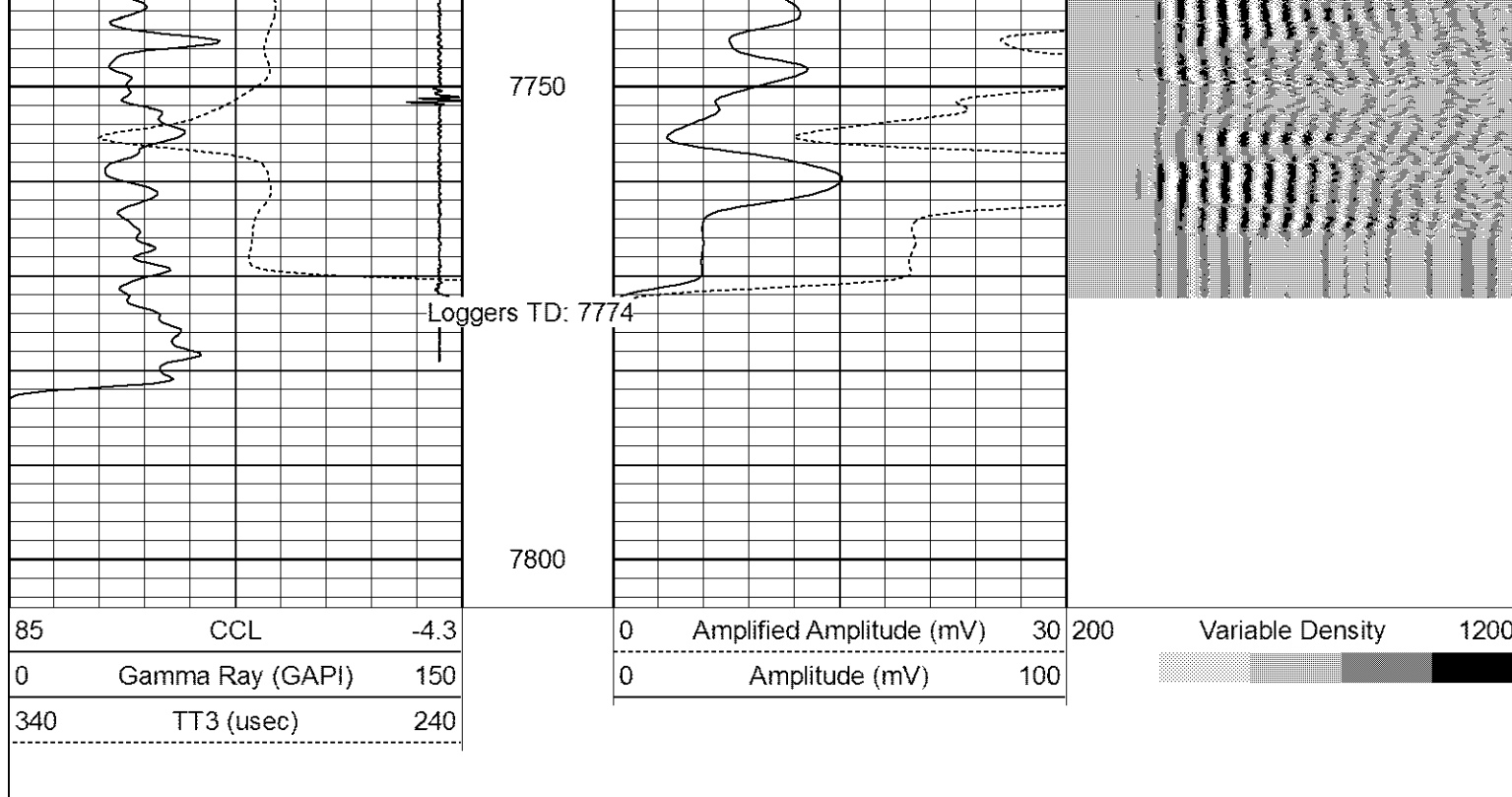
← Gamma Ray



← Amplified Amplitude

← Amplitude





Calibration Report

Database File: cblmegan state h21-28d.db
 Dataset Pathname: pass4
 Dataset Creation: Tue Feb 07 12:07:10 2012 by Log SCH 111116

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION

Thu Feb 02 09:29:21 2012

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.5800			GAPI/cps

PRIMARY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

BEFORE SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Cement Bond Log Calibration Report

Serial Number: 110802
 Tool Model: Probe275Digital
 Performed: Thu Feb 02 09:14:37 2012

Depth:	971.475	ft	
Casing Diameter:	4.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	0.9	0	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	0.0133789	0.0133545	V
Reading in Free Pipe:	2.48728	2.31978	V
Gain:	32.4573	35.2044	
Offset:	0.465757	-0.470137	