

# CEMENT BOND LOG GAMMA RAY / CCL

Company	GREAT WESTERN OPERATING			Country	U.S.A.
Well	GREAT WESTERN 26-31				
Field	WATTENBERG				
County	WELD				
State	COLORADO				
Company	GREAT WESTERN OPERATING COMPANY LLC.				
Well	GREAT WESTERN 26-31				
Field	WATTENBERG				
County	WELD				
State	COLORADO				
Country	U.S.A.				
Location:	API # : 05-123-24363			Other Services	NONE
	NENE				
Permanent Datum	SEC 26	TWP 6N	RGE 67W	Elevation	
Log Measured From	G.L.			K.B.	
Drilling Measured From	K.B.			D.F.	
	K.B.			G.L.	
Date	11-16-2015				
Run Number	ONE				
Depth Driller					
Depth Logger	3320'				
Bottom Logged Interval	3319'				
Top Log Interval	SURFACE				
Open Hole Size	N/A				
Type Fluid	WATER				
Density / Viscosity	N/A				
Max. Recorded Temp.	N/A				
Estimated Cement Top	2250'				
Time Well Ready	3:45PM				
Time Logger on Bottom	4:30PM				
Equipment Number	41				
Location	JOHNSTOWN				
Recorded By	WILLIAMS				
Witnessed By	MR. BRINAR				
Borehole Record				Tubing Record	
Run Number	Bit	From	To	Size	Weight
					From
					To
Casing Record	Size	Wgt/Ft	Top	Bottom	
Surface String					
Prot. String					
Production String					
Liner					

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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

NOTE: THIS LOG WAS NOT CORRELATED TO ANY OTHER LOG

MAIN PASS: 5" = 100'  
CSG PSI: STATIC

## Calibration Report

Database File: c:\warrior\data\great western 26-31\11162015\_greatwestern\_26-31.db  
Dataset Pathname: main/pass1  
Dataset Creation: Mon Nov 16 16:21:56 2015 by Log Std Casedhole 10081

# Gamma Ray Calibration Report

Type / Serial:

Probe275dig / 080829

## SHOP CALIBRATION

Thu Apr 19 07:51:18 2012

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		1.0000			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:	080430		
Tool Model:	Digital		
Performed:	Mon Nov 16 15:53:53 2015		
Depth:	0	ft	
Casing Diameter:	4.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	2	1	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	0.0090332	0.00334473	V
Reading in Free Pipe:	0.57395	0.533643	V
Gain:	140.191	151.228	
Offset:	0.733629	0.494182	



# MAIN PASS

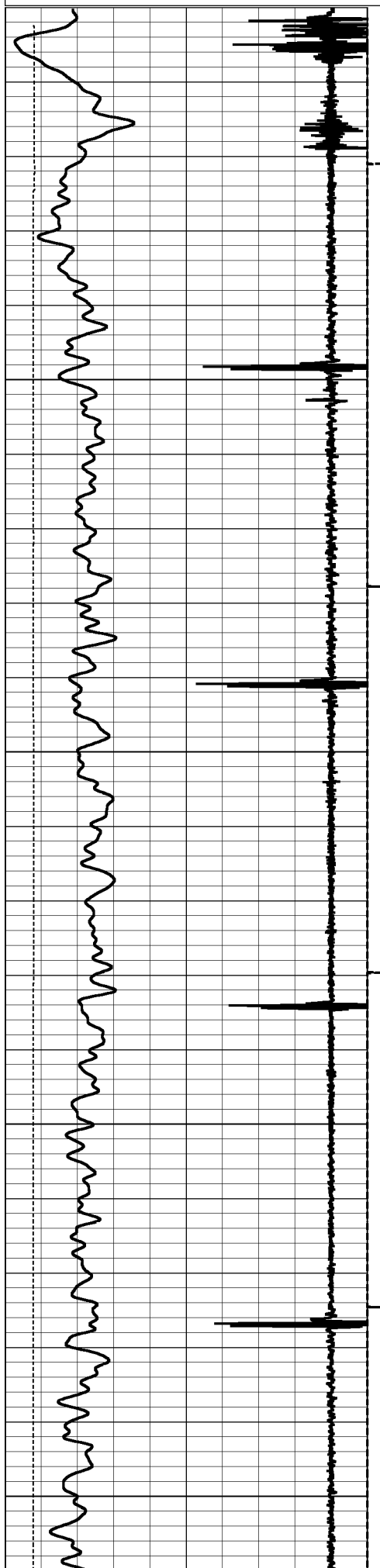
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 Dataset Pathname: main/pass1  
 Presentation Format: cbldig  
 Dataset Creation: Mon Nov 16 16:21:56 2015 by Log Std Casedhole 10081  
 Charted by: Depth in Feet scaled 1:240

400	Travel Time (usec)	200	0	Amplitude (mV)	100	200	Variable Density	1200
9	Collar Locator	-1	0	Amplified Amplitude (mV)	10			
0	GR (GAPI)	150						

Line Tension (lb)

0

5000

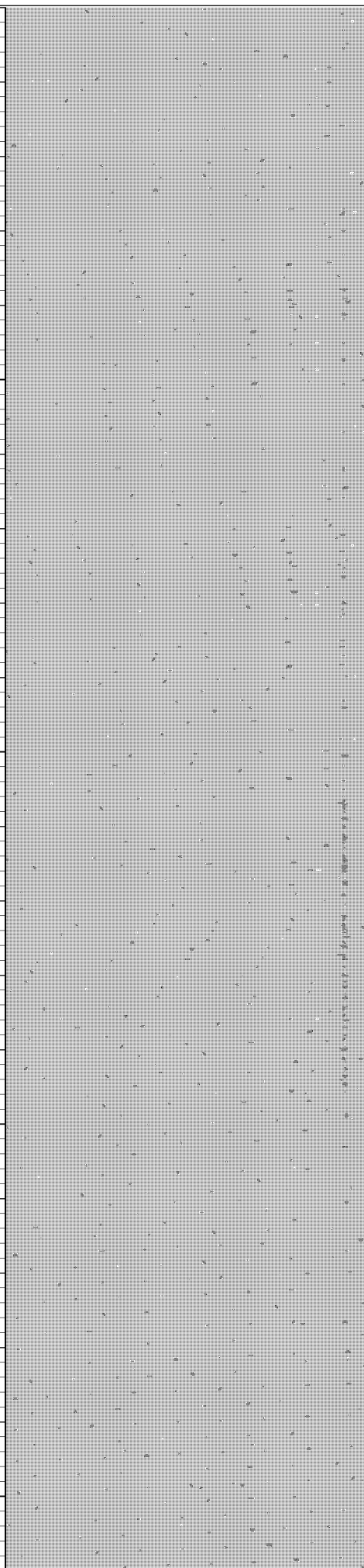
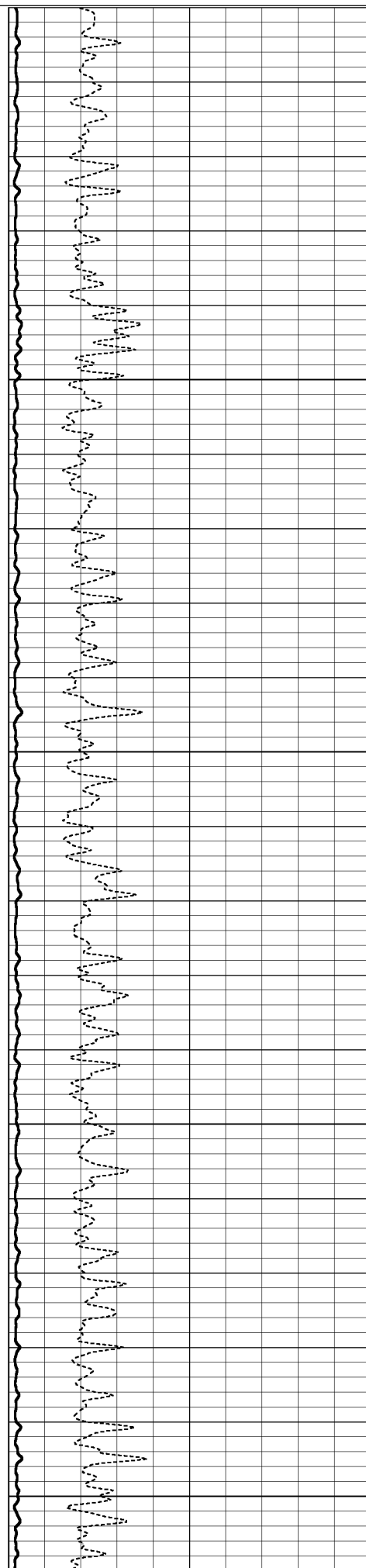


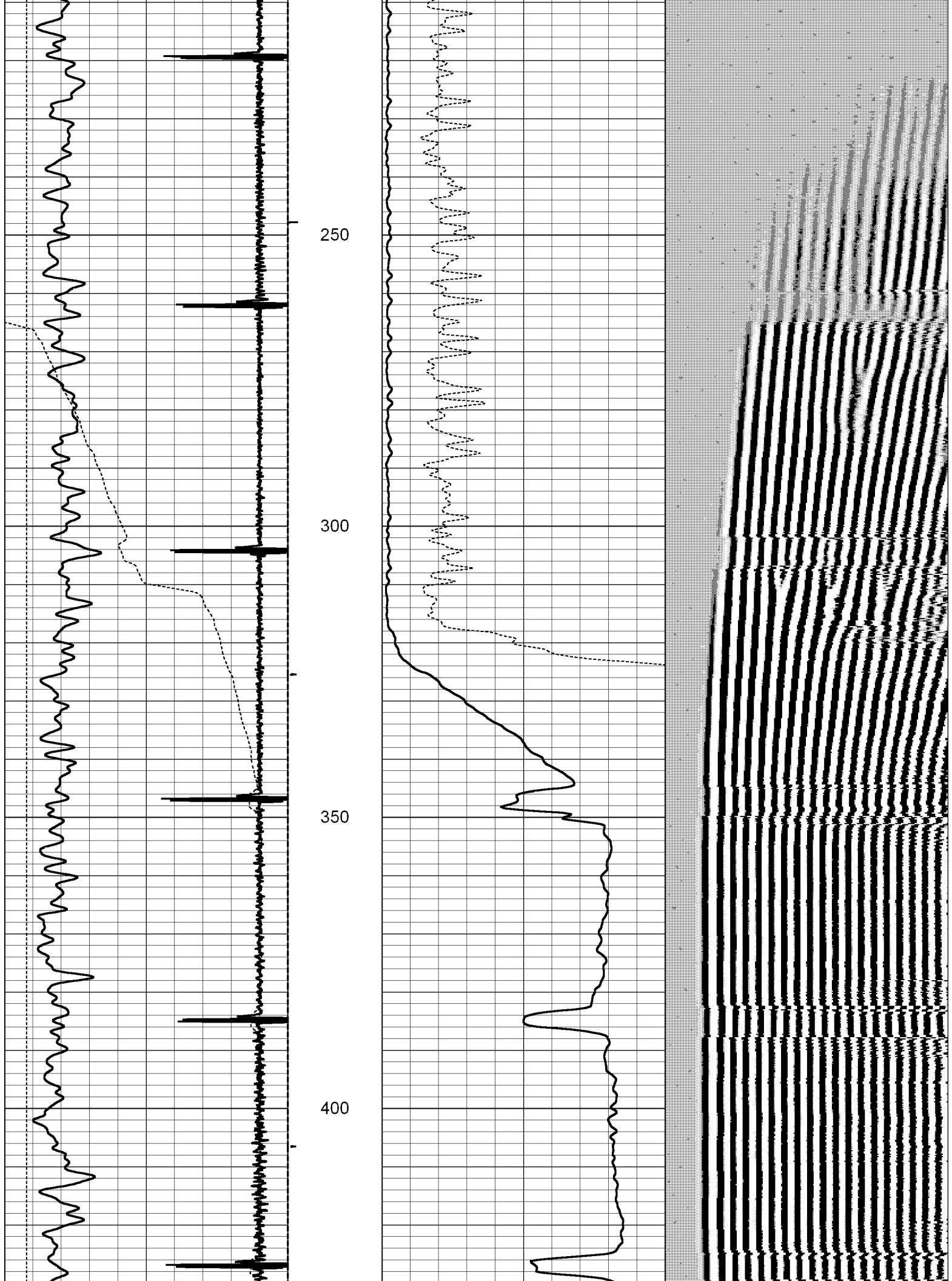
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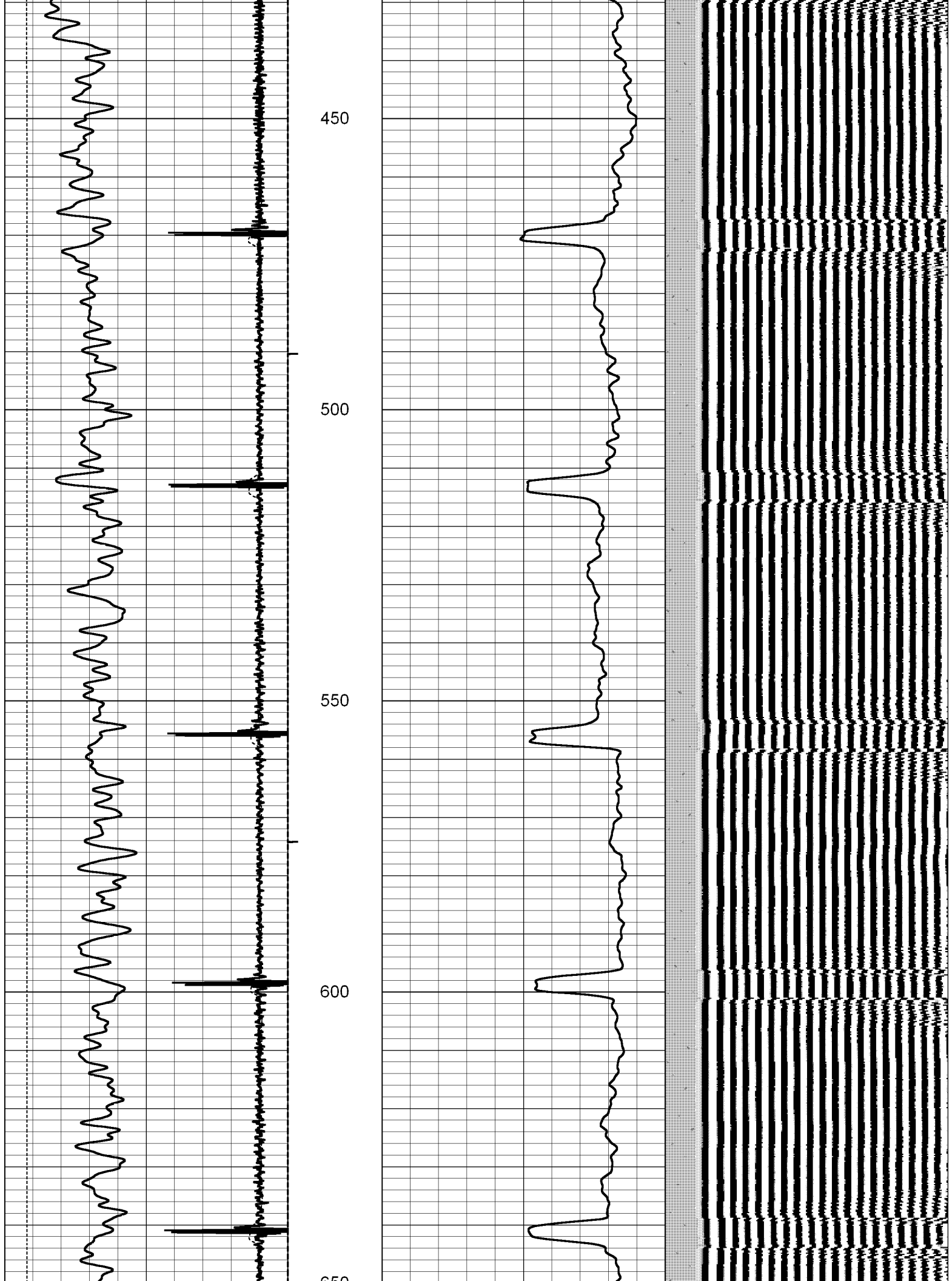
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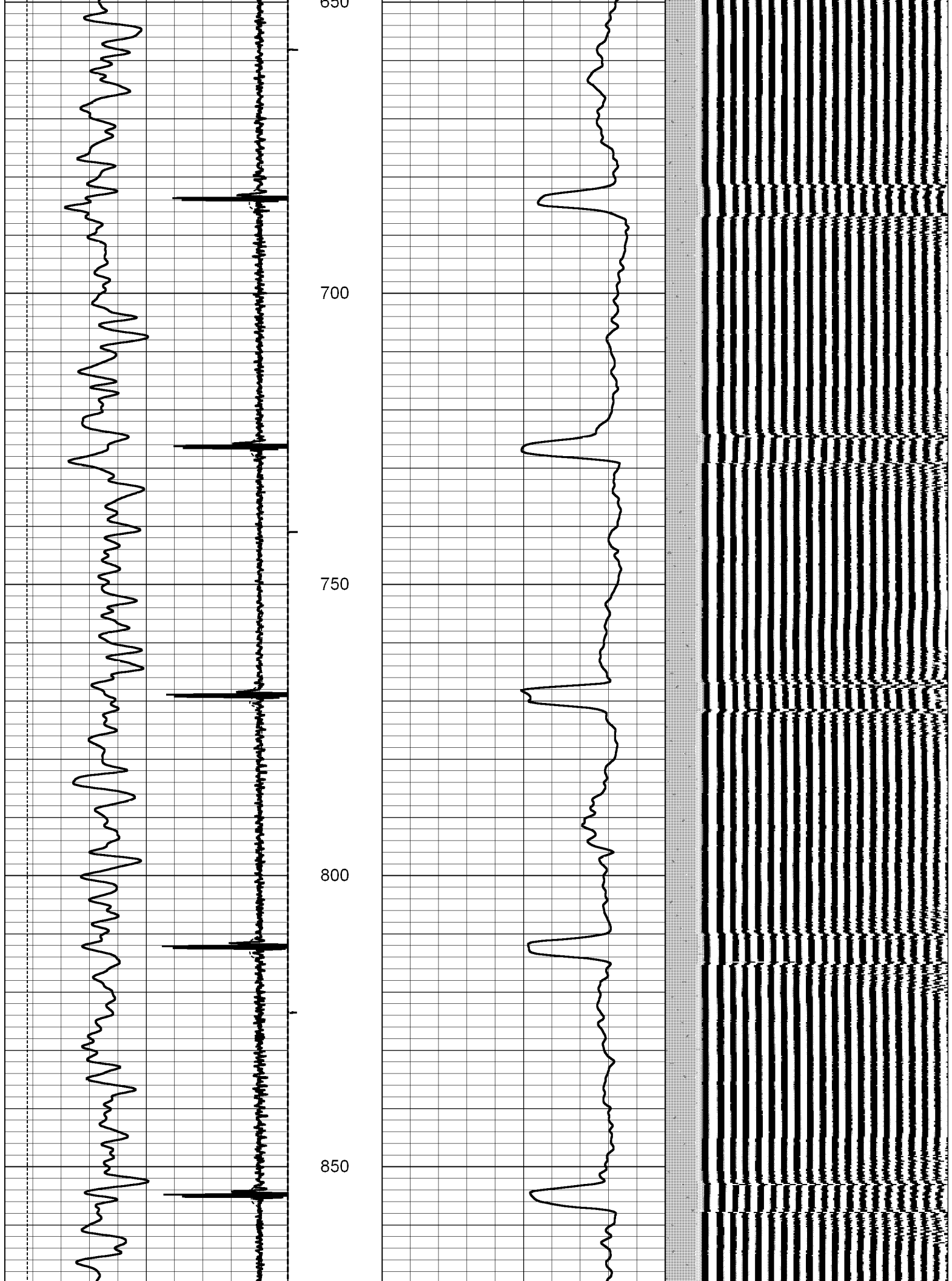
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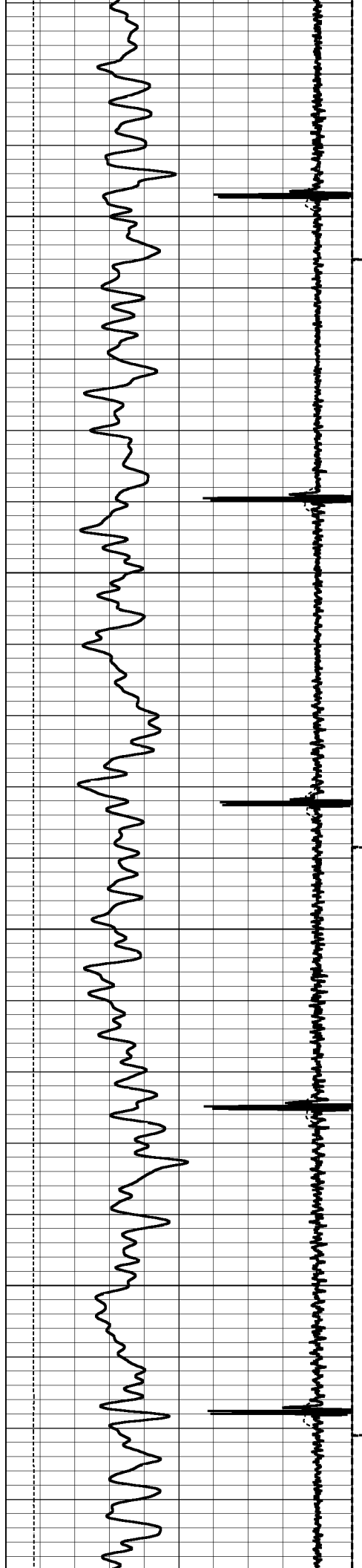
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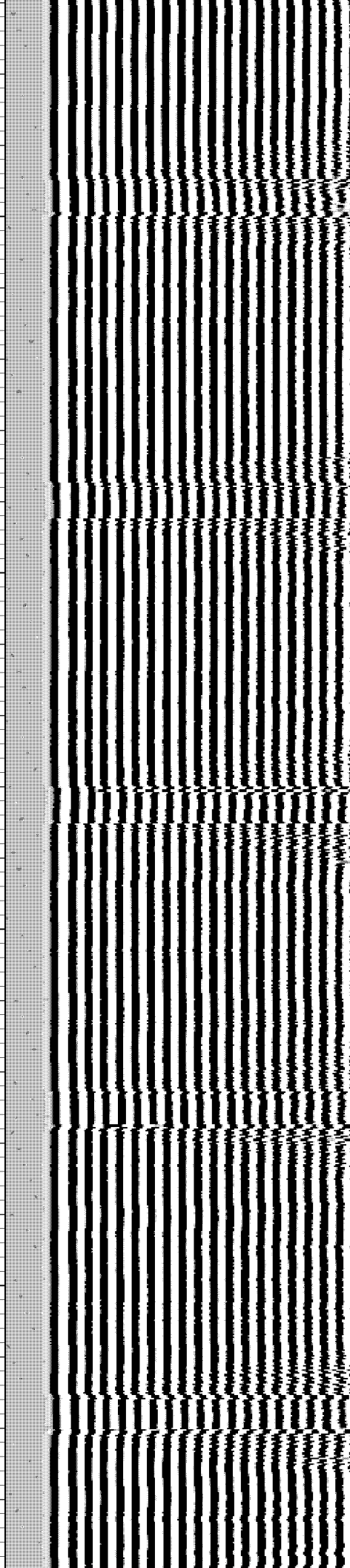
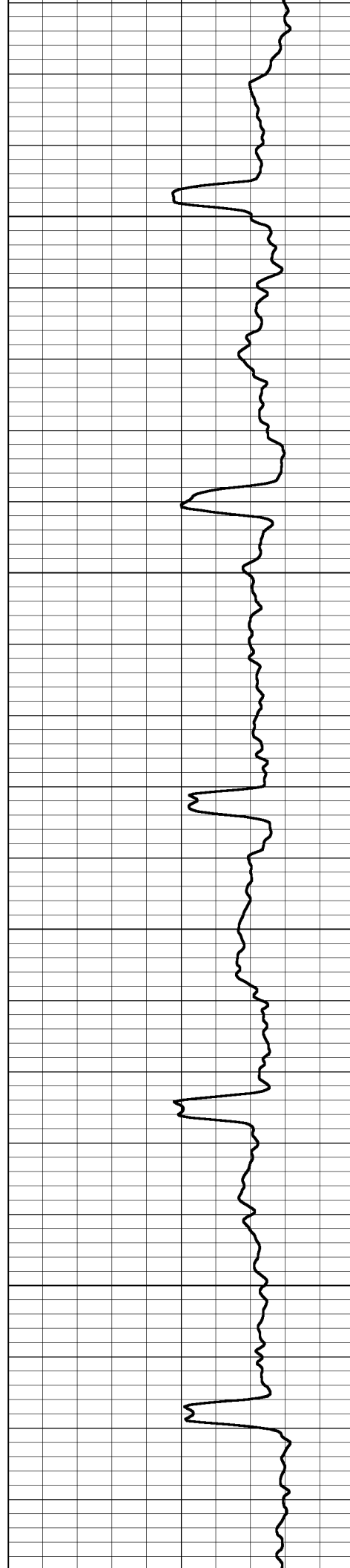


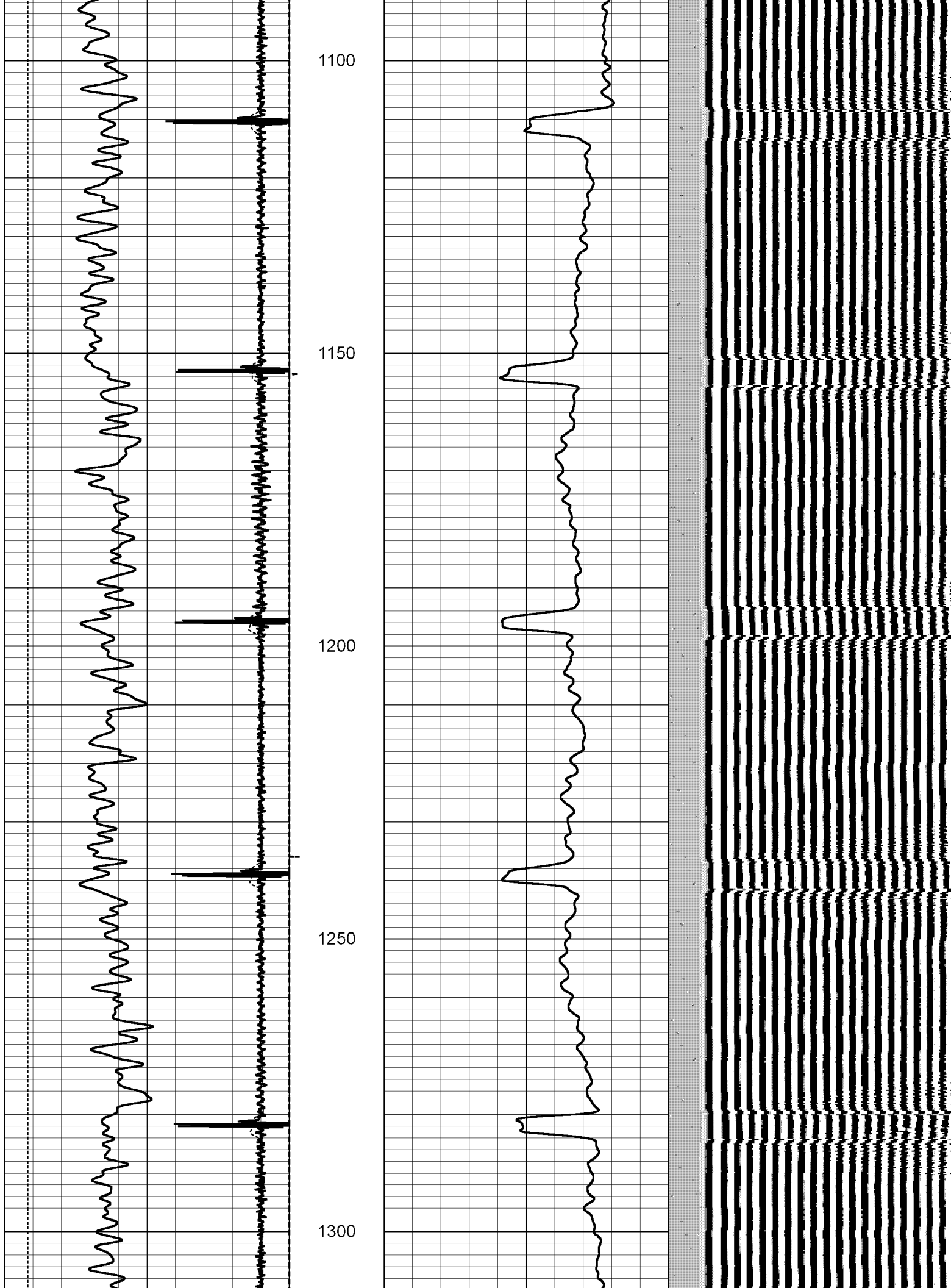
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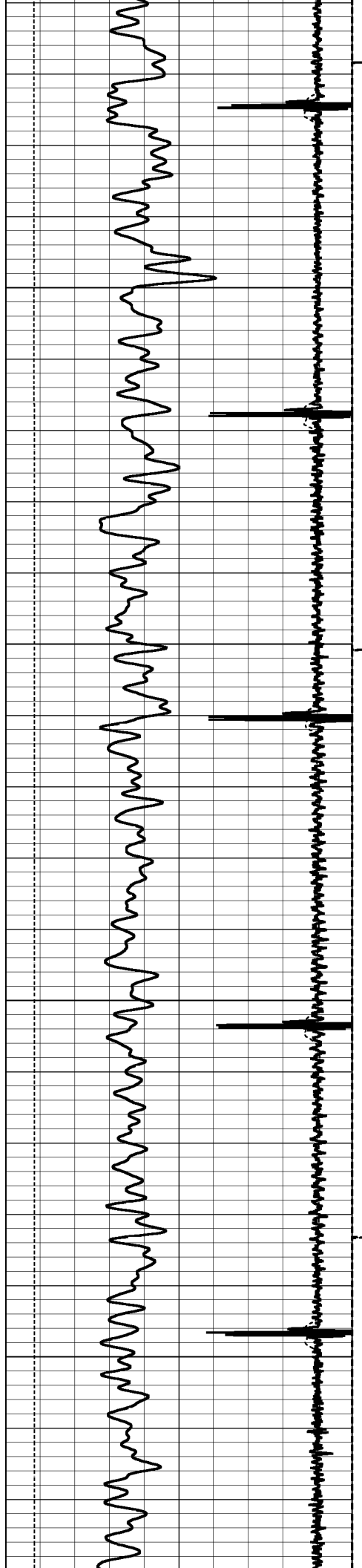
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1050







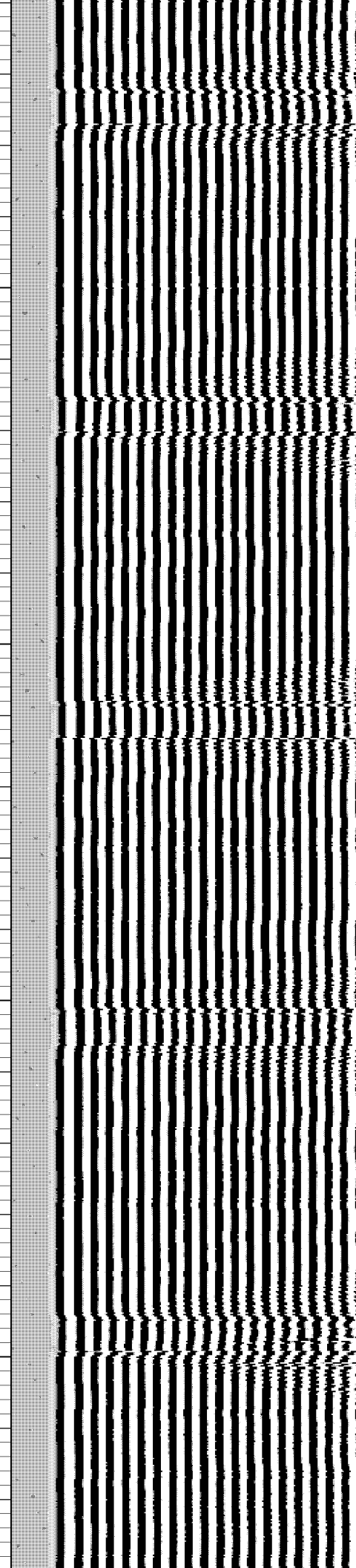
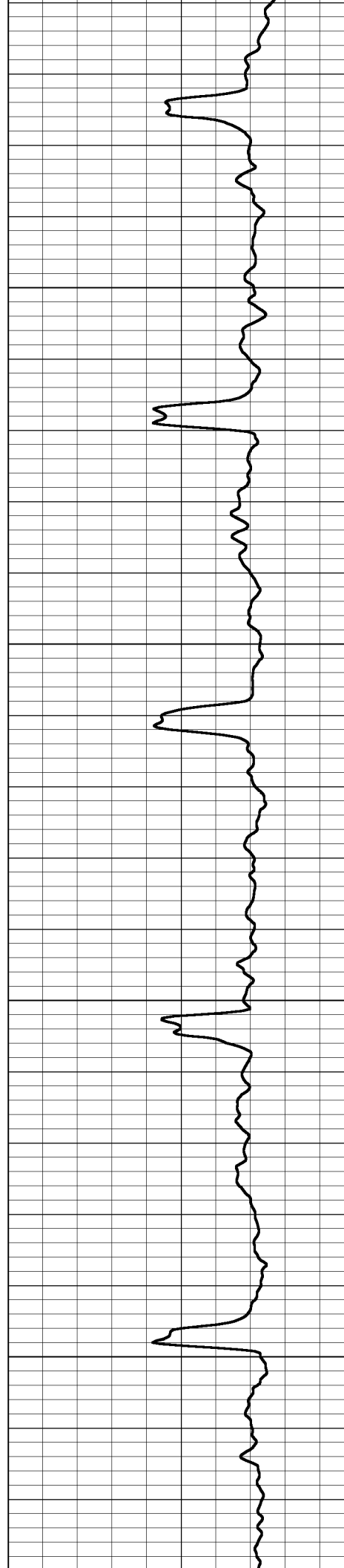


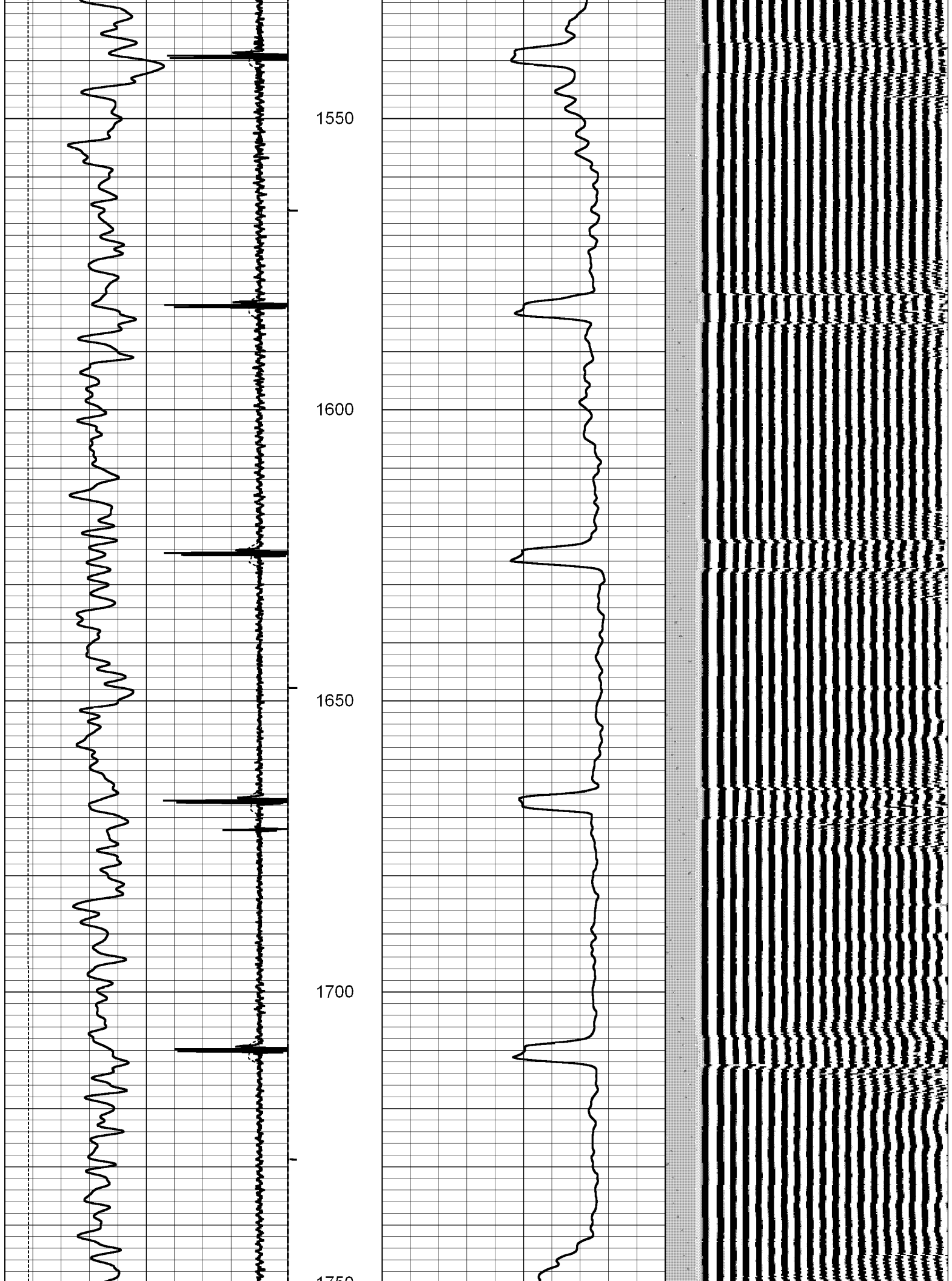
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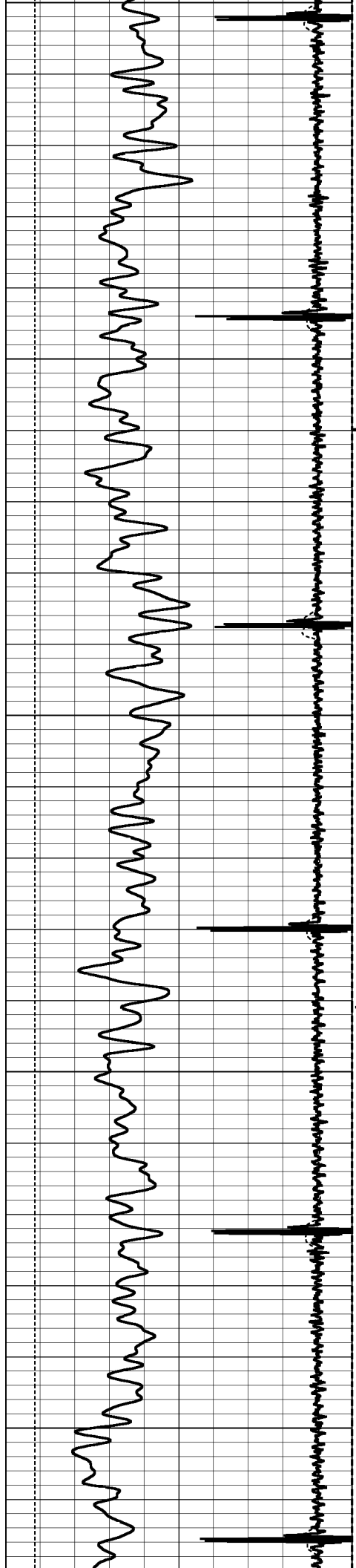
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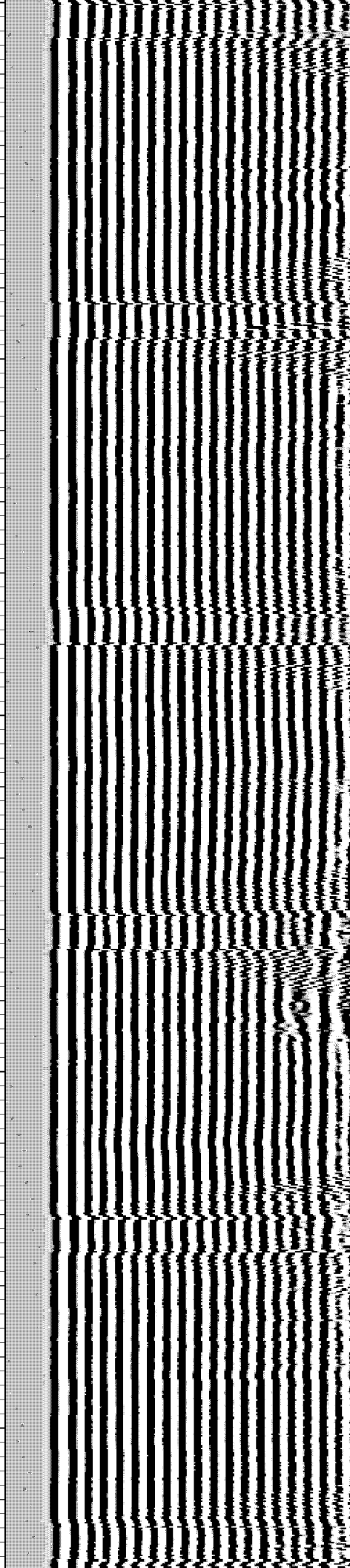
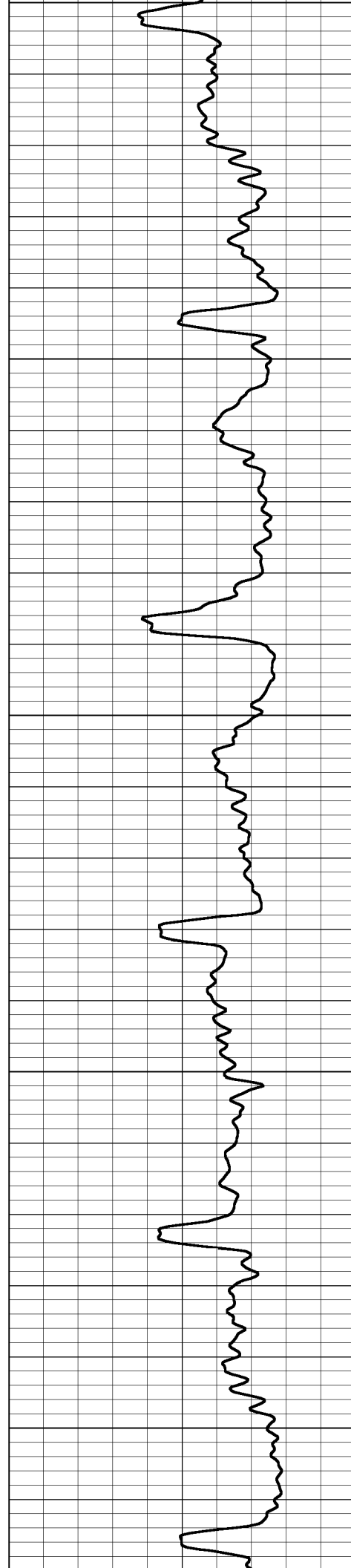
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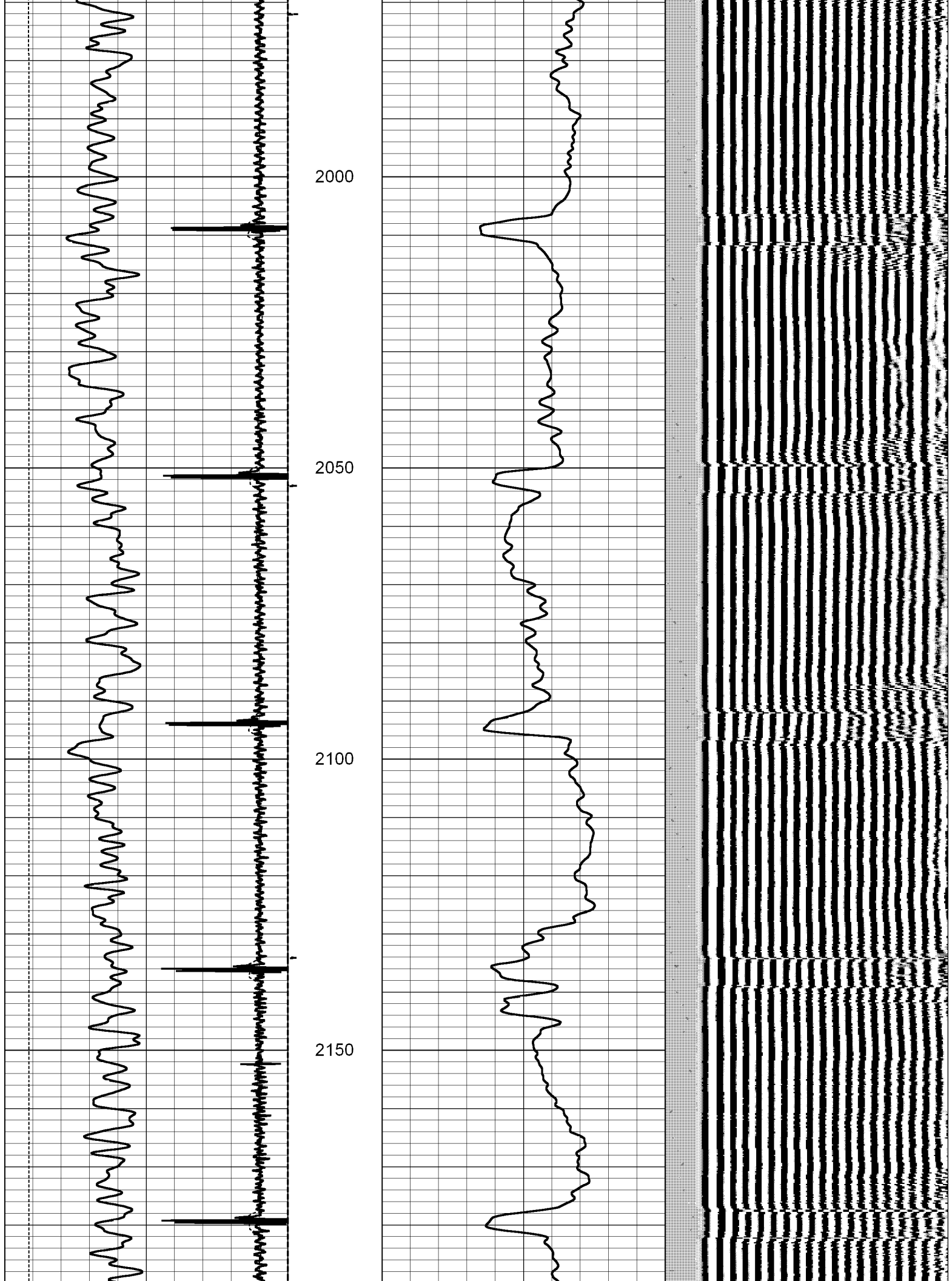


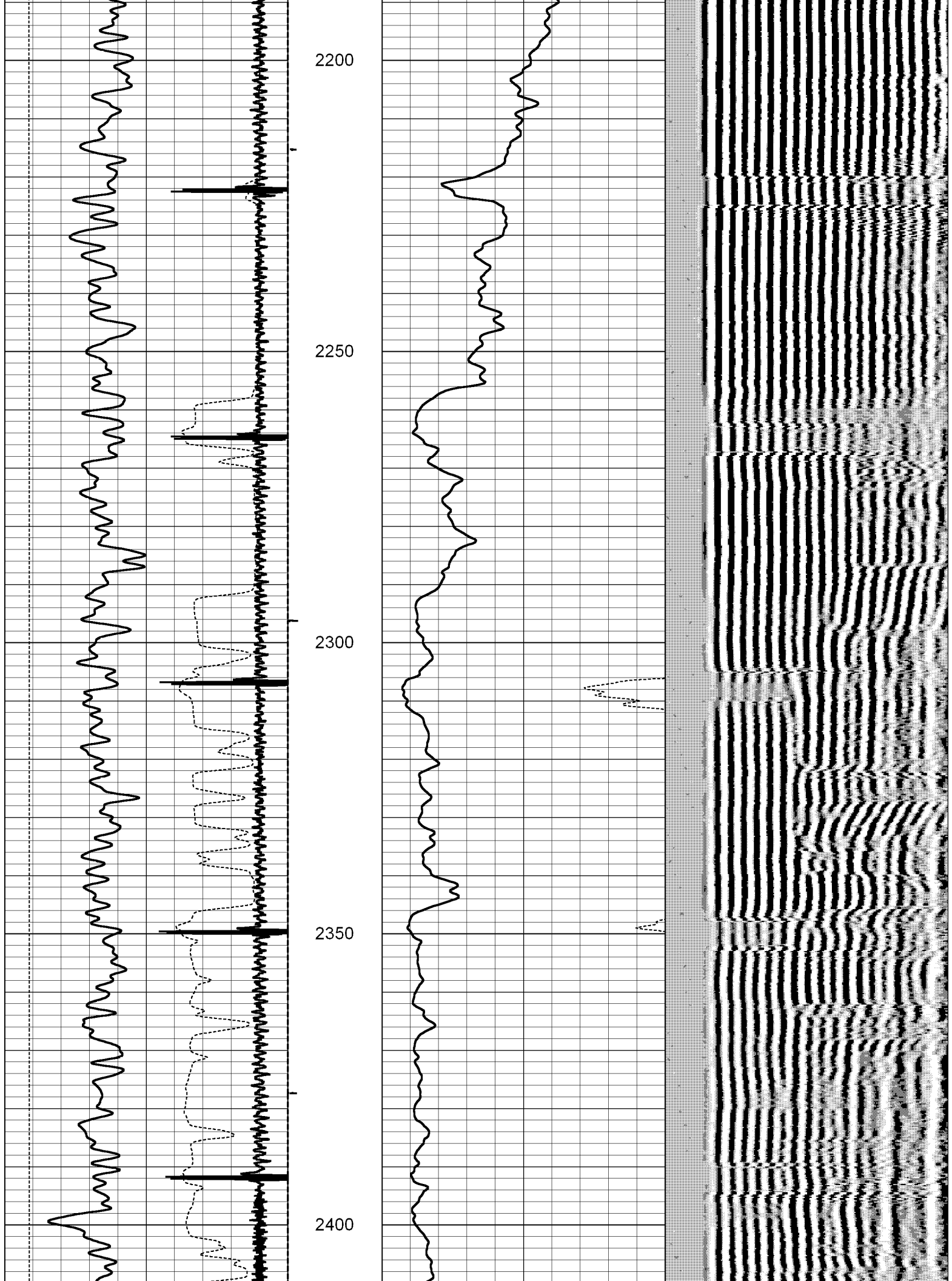


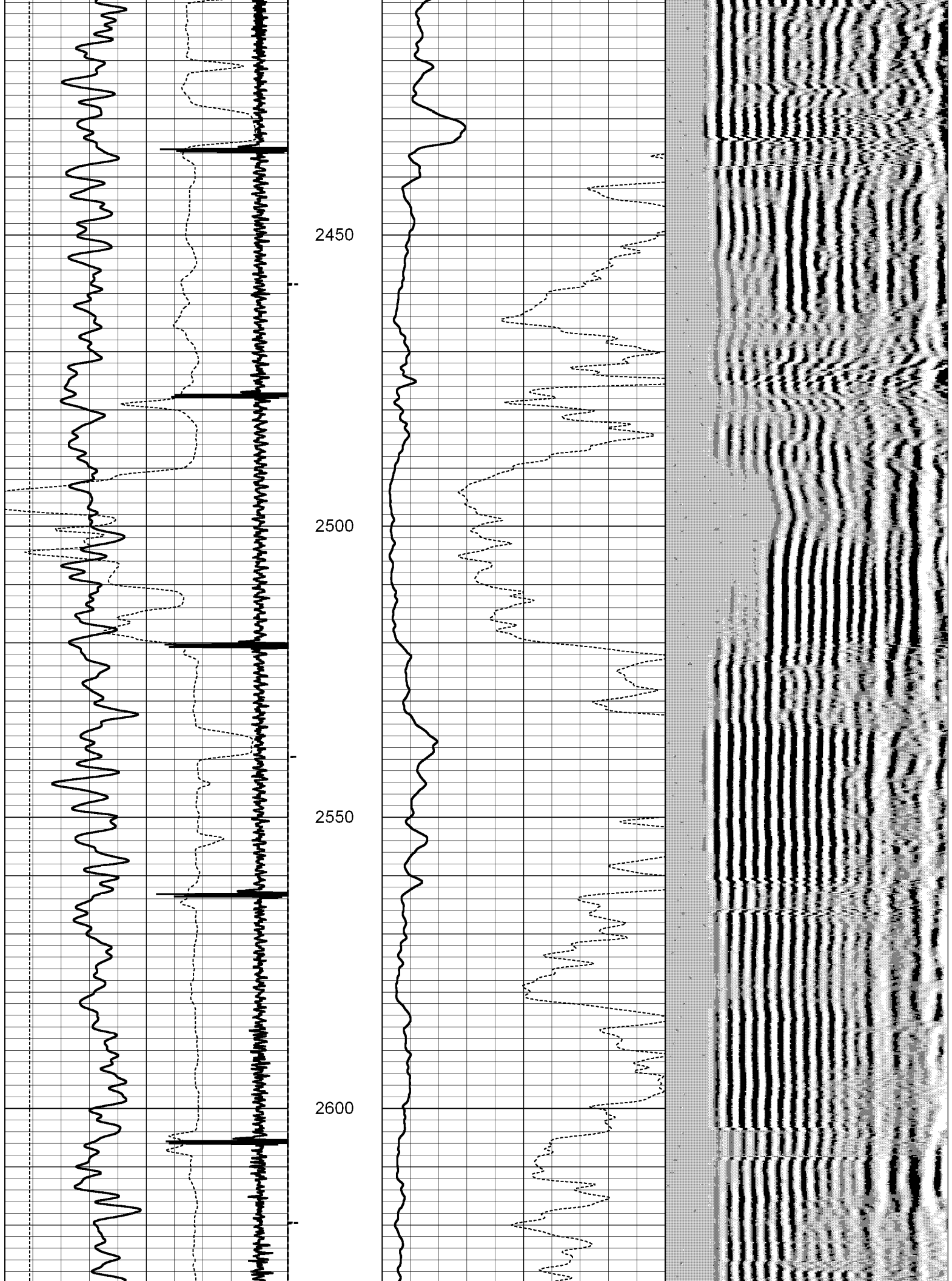


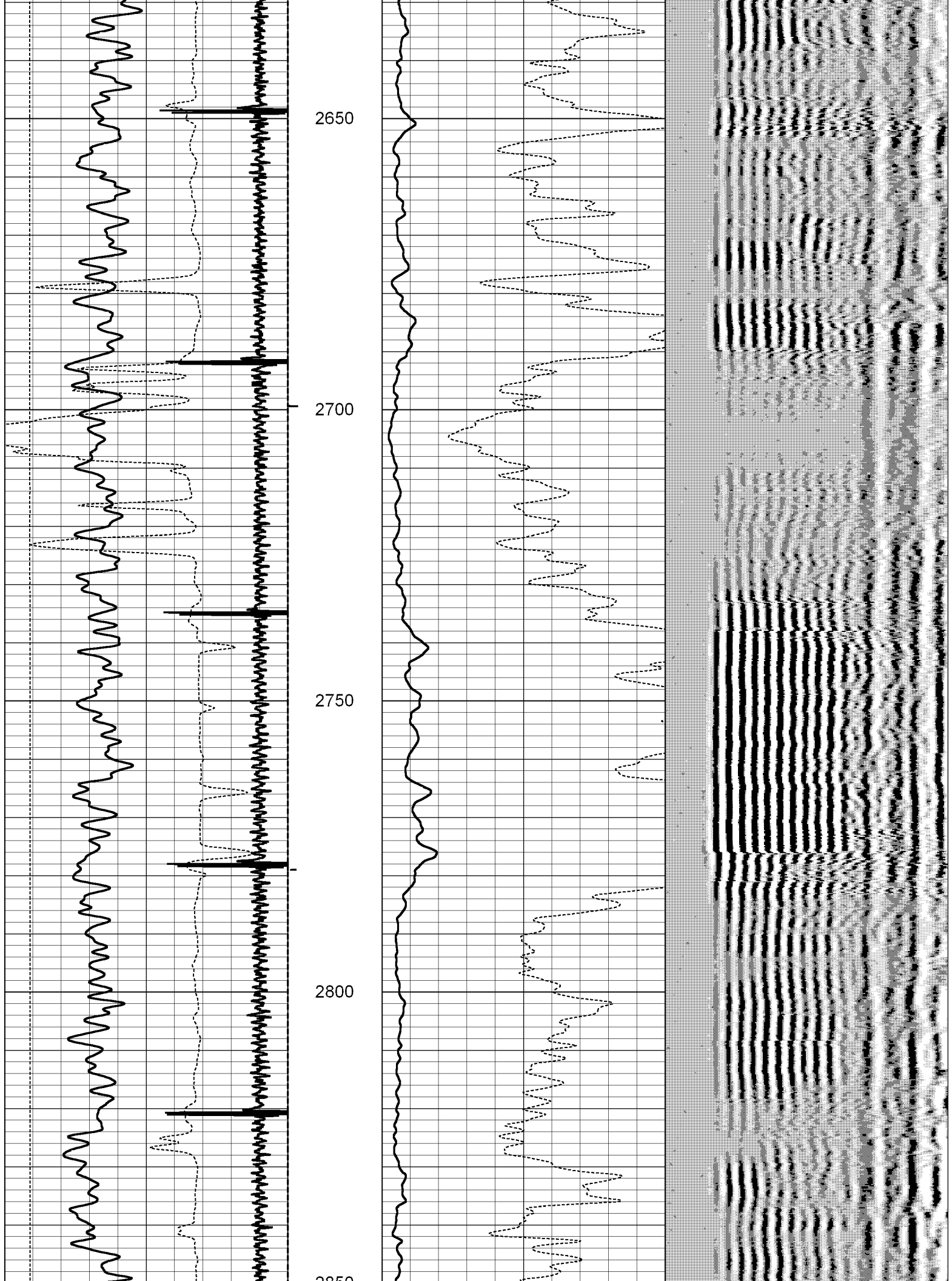
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1800  
1850  
1900  
1950



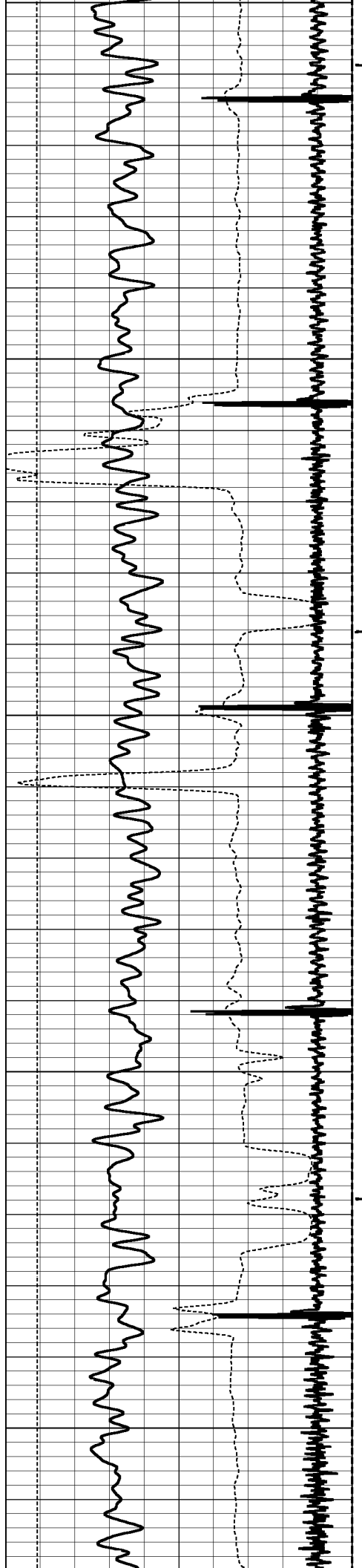




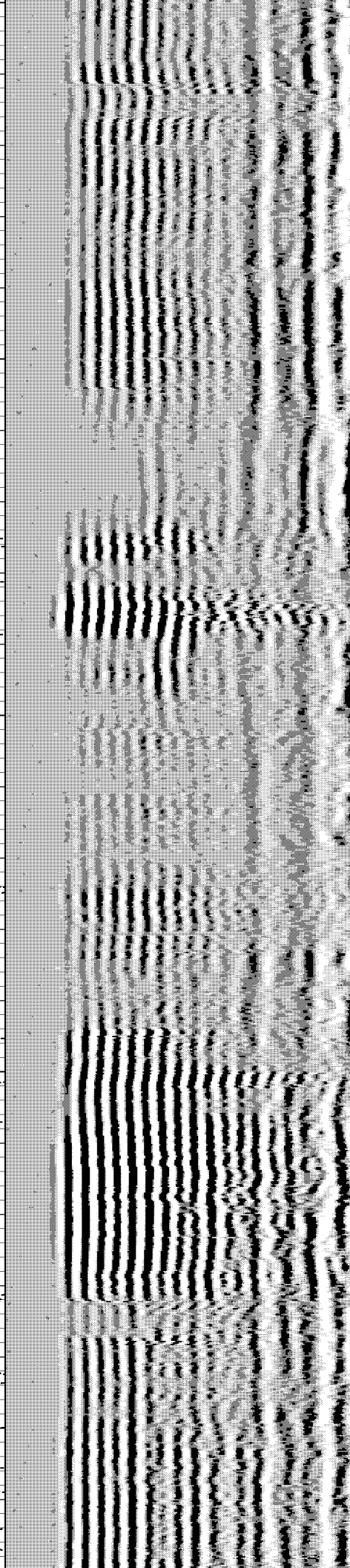
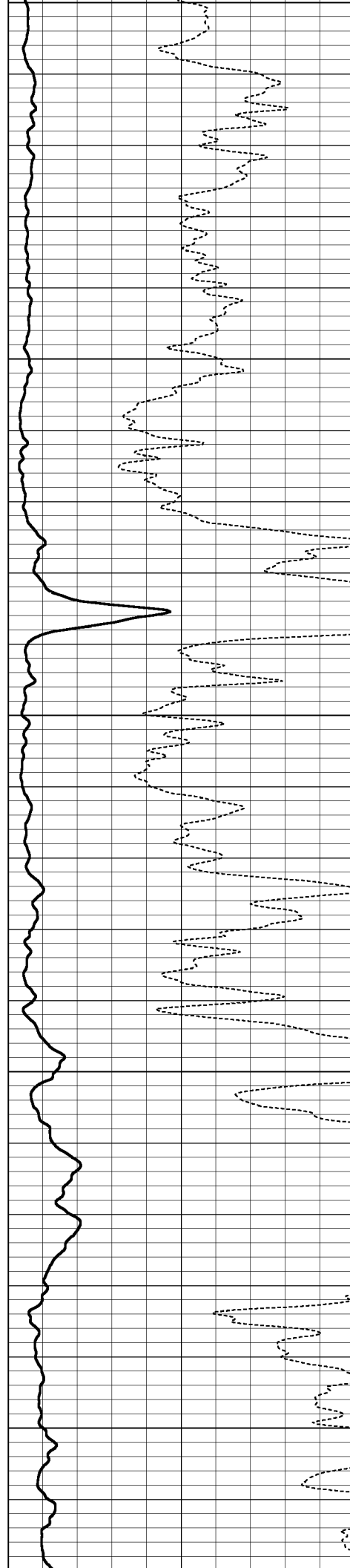






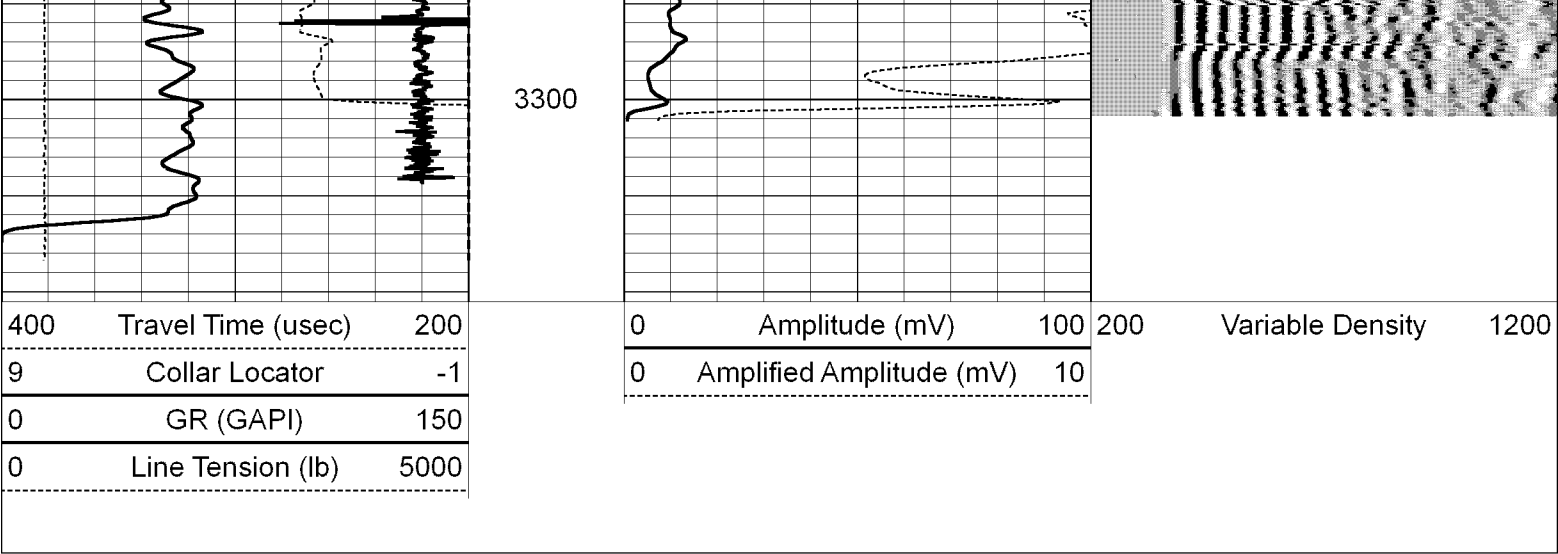


2850  
2900  
2950  
3000  
3050









Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			1.4375 Titan 1 7/16 Cablehead	1.50	1.44	2.00
			PTS275	2.83	2.75	
WVF3	16.27		CBL-Digital (080430) Probe 275 CBL Standard	9.17	2.75	100.00
WVF5	15.28					
			PTS275	2.83	2.75	
CCL	8.28		GR-Probe275dig (080829)	6.36	2.75	57.00