



**Cement  
Bond  
Log**

Company John O. Farmer, Inc.  
 Well Lawson D #1  
 Field Norton  
 County Norton  
 State Kansas

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 Well Lawson D #1  
 Field Norton  
 County Norton  
 State Kansas

Location: 1815' FSL & 1815' FEL  
 API #: 15 137 20679

SEC 36 TWP 3S RGE 24W

Permanent Datum Ground Level Elevation 2414'  
 Log Measured From K.B 5' AGL  
 Drilling Measured From K.B

Other Services  
 Elevation  
 K.B. 2419'  
 D.F. 2418'  
 G.L. 2414'

Date	12-19-13							
Run Number	ONE							
Depth Driller	3820'							
Depth Logger	3718'							
Bottom Logged Interval	3717'							
Top Log Interval	200'							
Open Hole Size	7 7/8"							
Type Fluid	Water							
Density / Viscosity	////							
Max. Recorded Temp.	////							
Estimated Cement Top	2268'							
Time Well Ready	8:00 A.M							
Time Logger on Bottom	9:45 A.M							
Equipment Number	T-440							
Location	Hays, KS							
Recorded By	Casey Patterson							
Witnessed By	Mr. Duane Eichman							
Run Number	Borehole Record		Tubing Record					
	Bit	From	To	Size				
Casing Record	Surface String	Prot. String	Production String	Liner	Size	Wgt/Ft	Top	Bottom

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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.

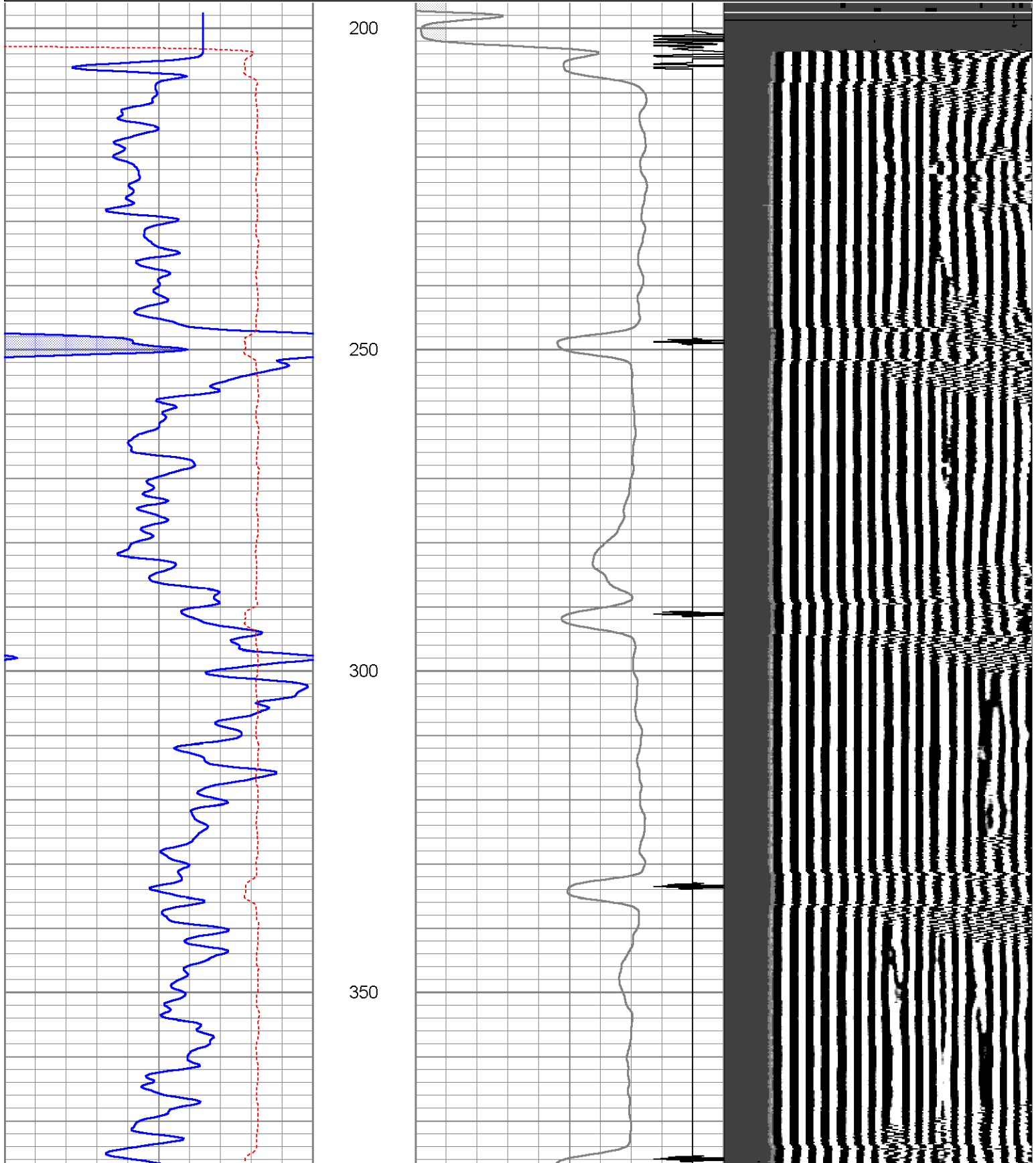
Comments

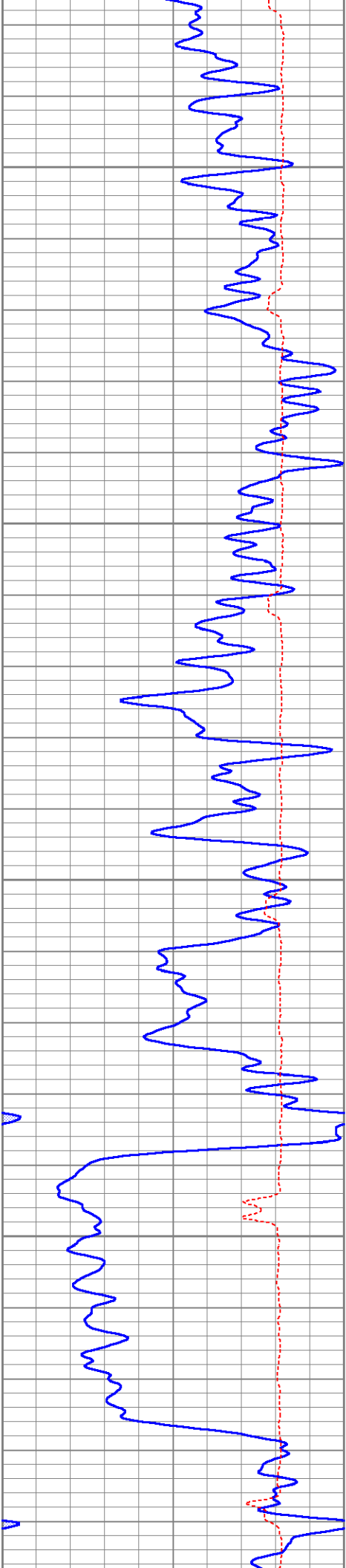


# Main Section

Database File: joflawsond1cbl.db  
 Dataset Pathname: pass2  
 Presentation Format: cbl  
 Dataset Creation: Thu Dec 19 09:55:49 2013 by Log Open-Cased 071220  
 Charted by: Depth in Feet scaled 1:240

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150	GR (GAPI)	300	0	AMP3 (mV)	100			
420	TT3FT (usec)	220						



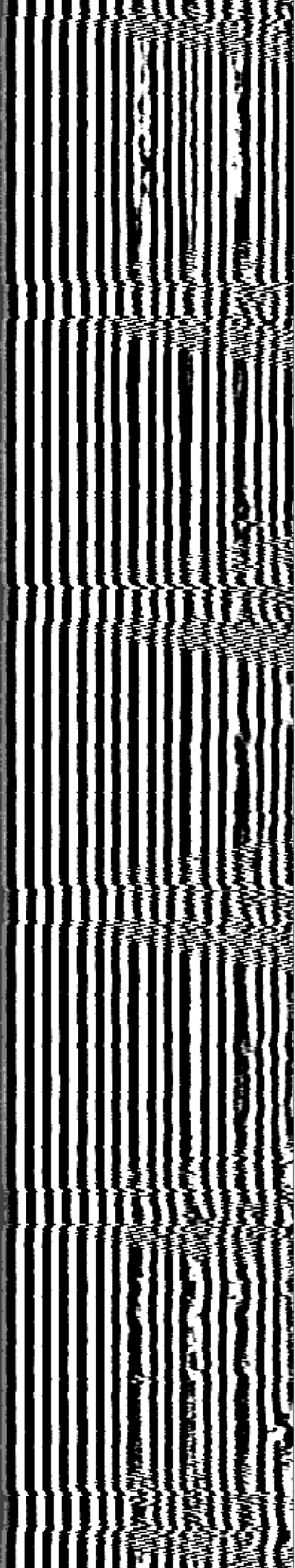
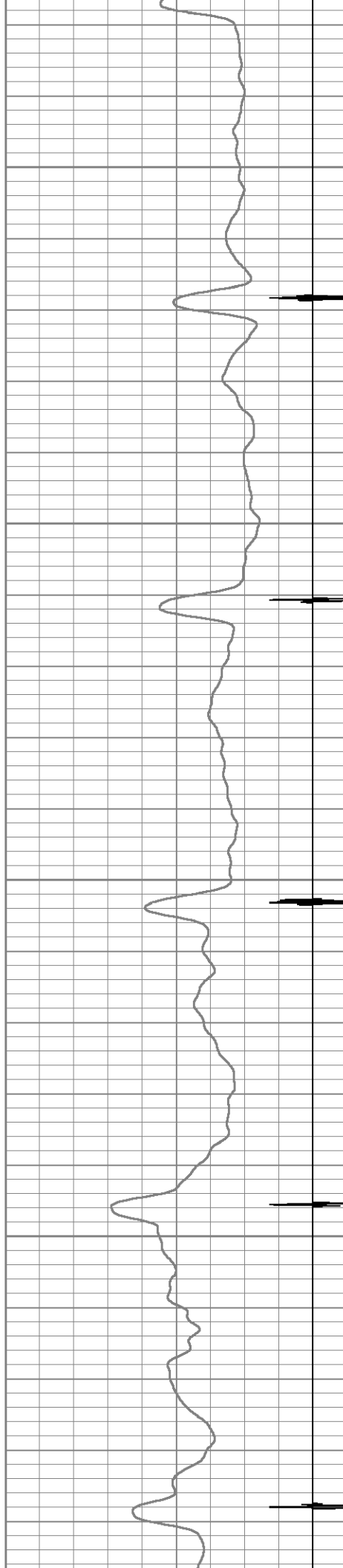


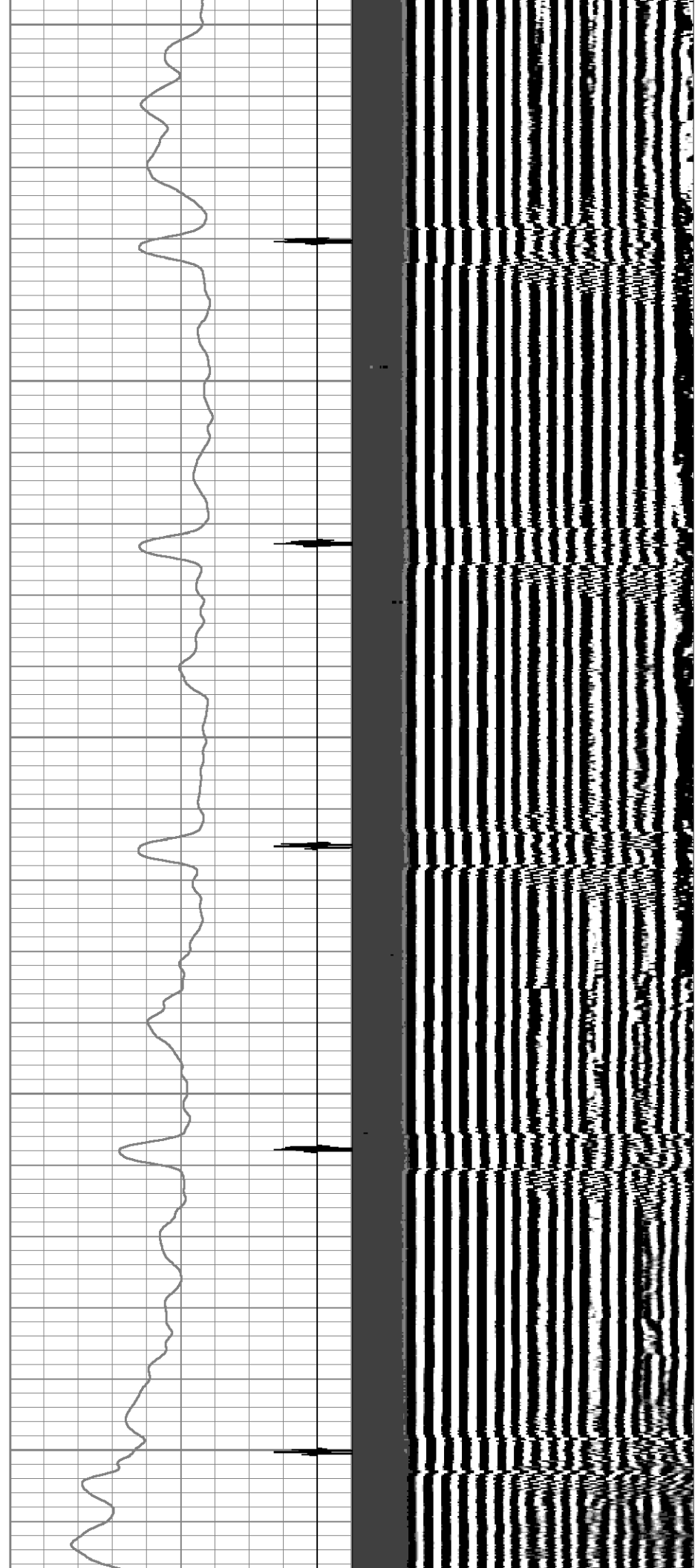
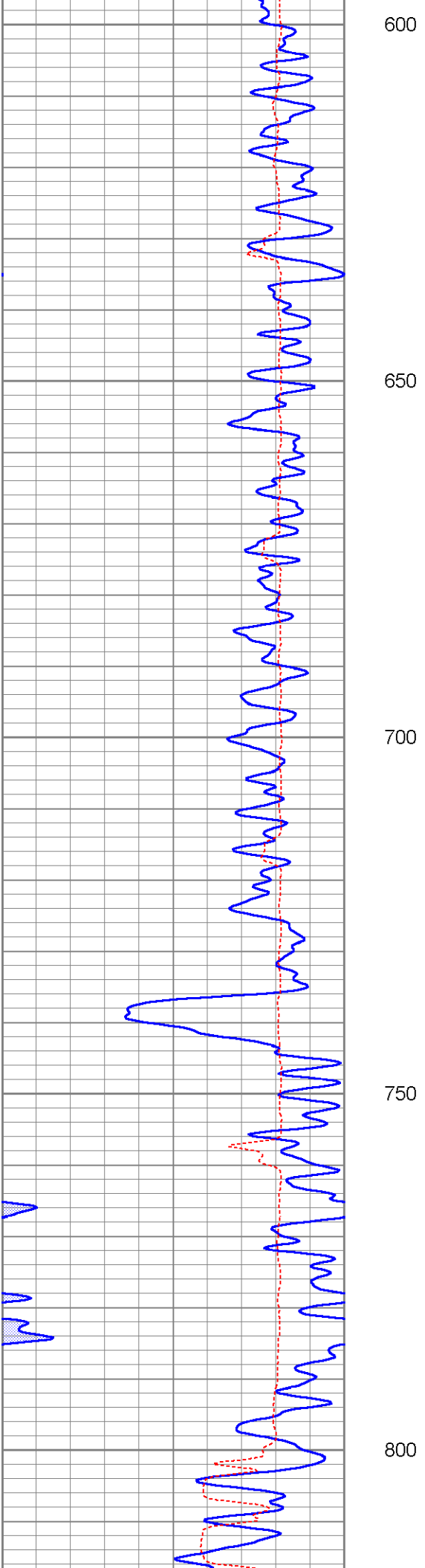
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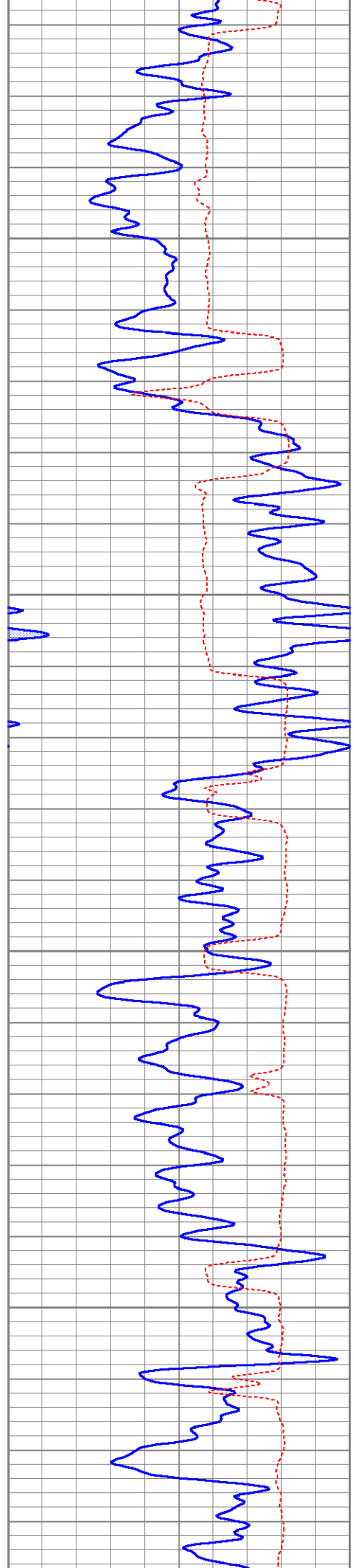
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500

550





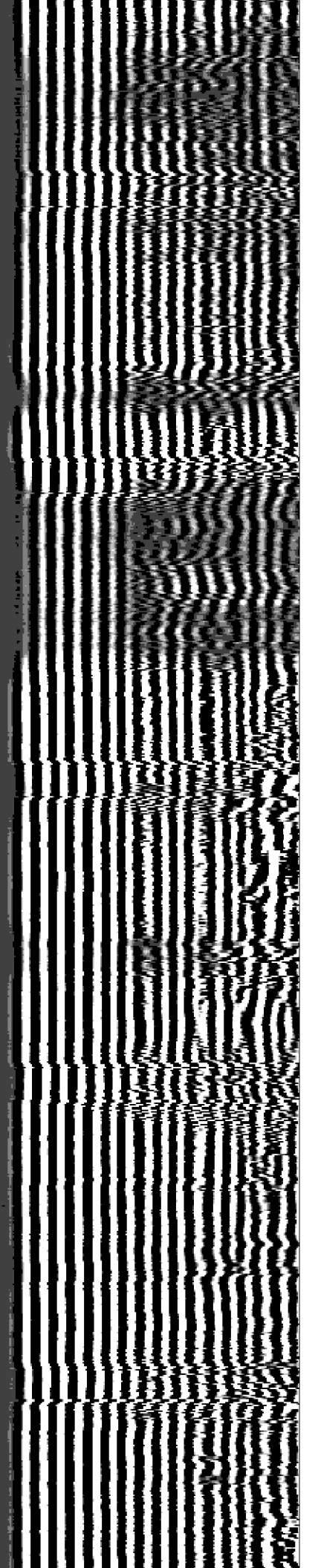
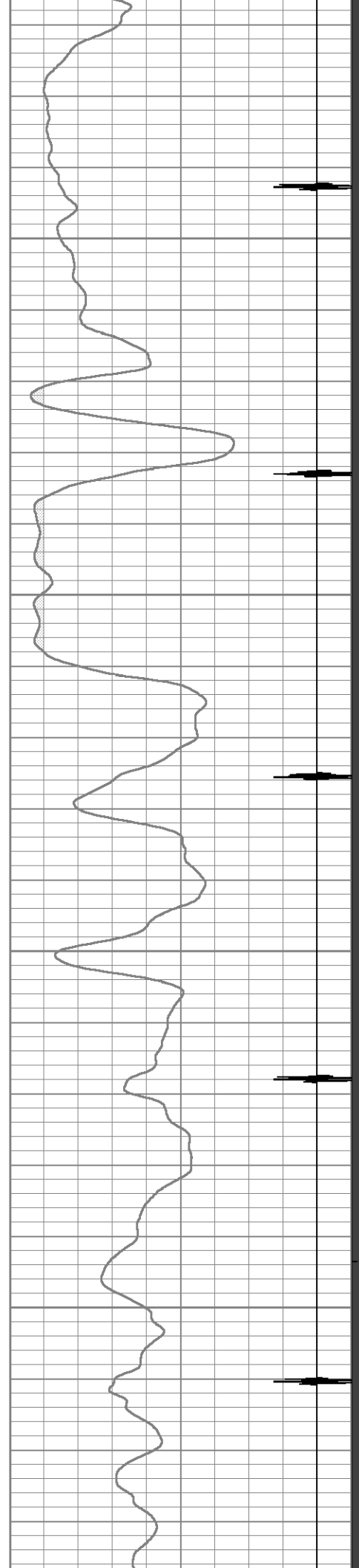


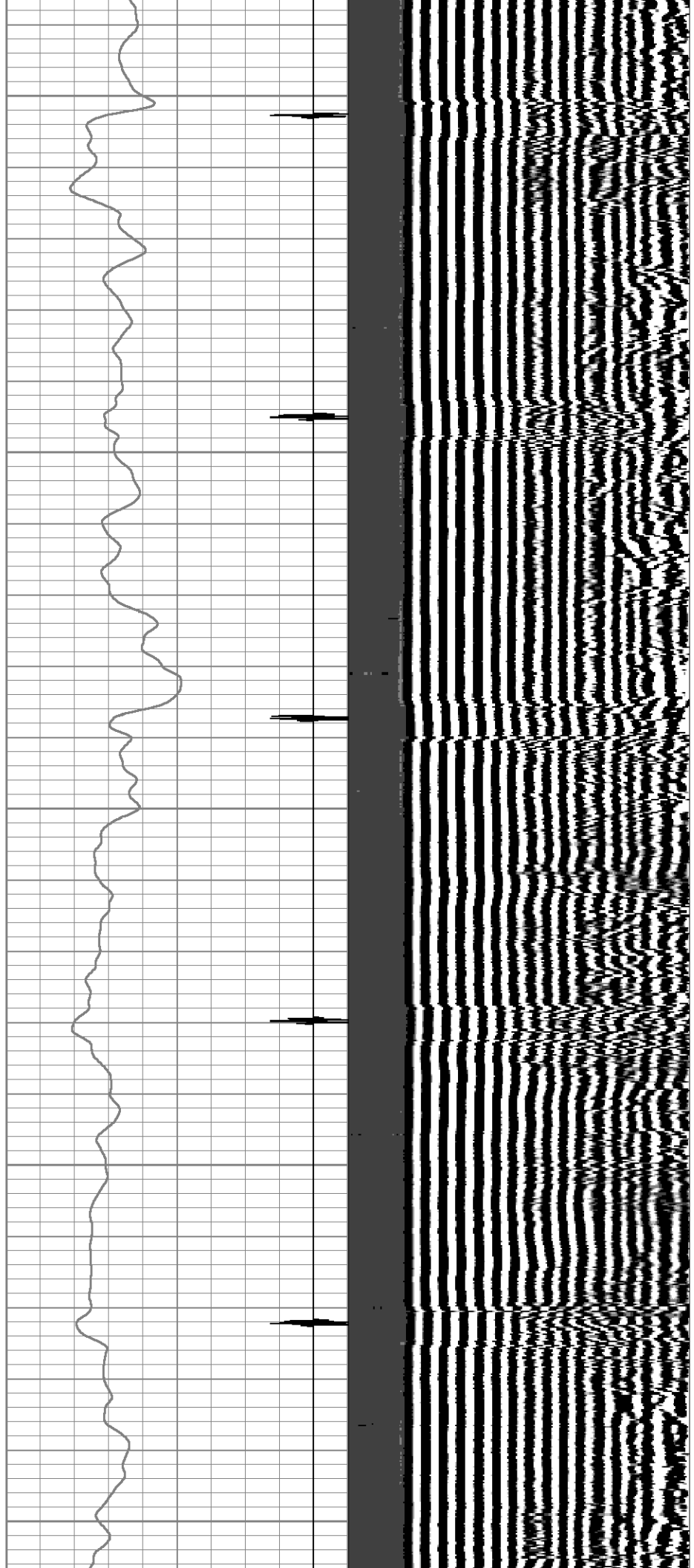
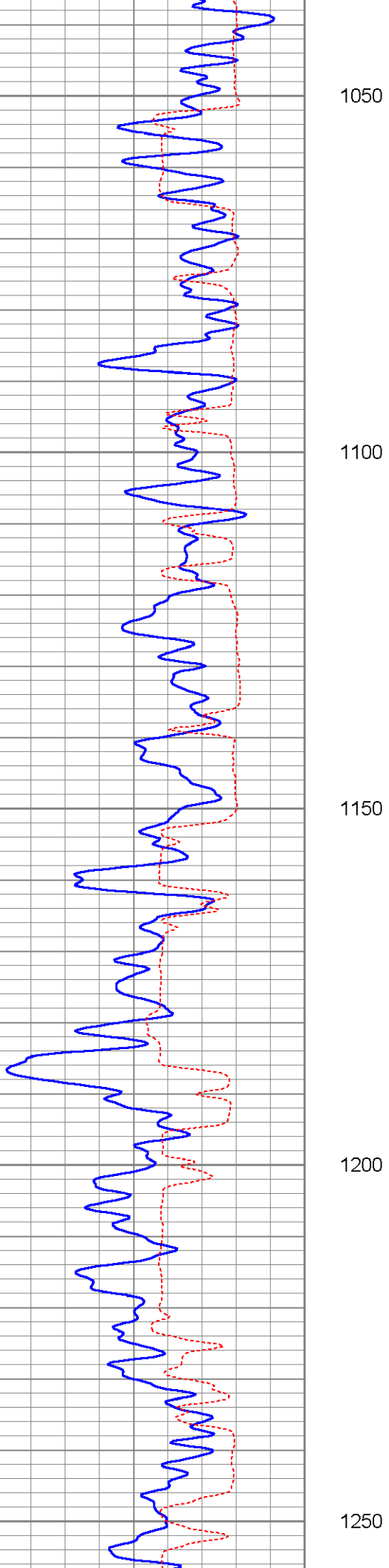
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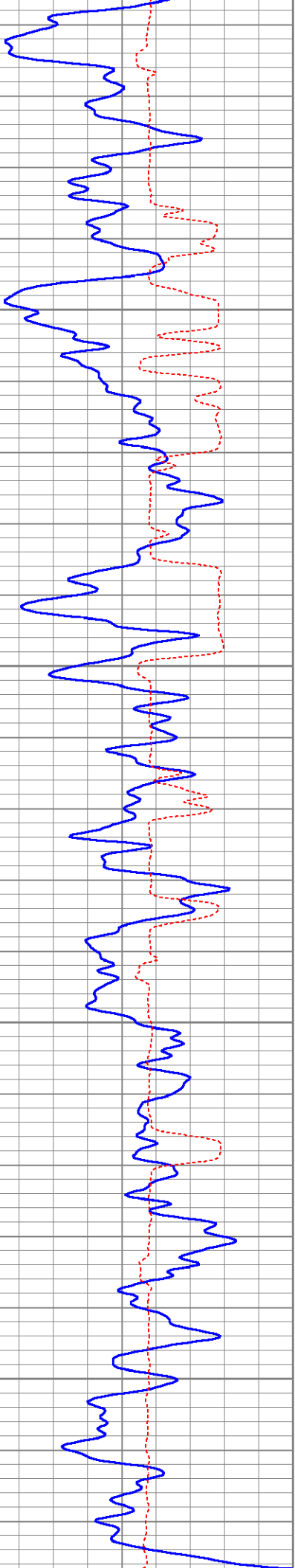
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950

1000





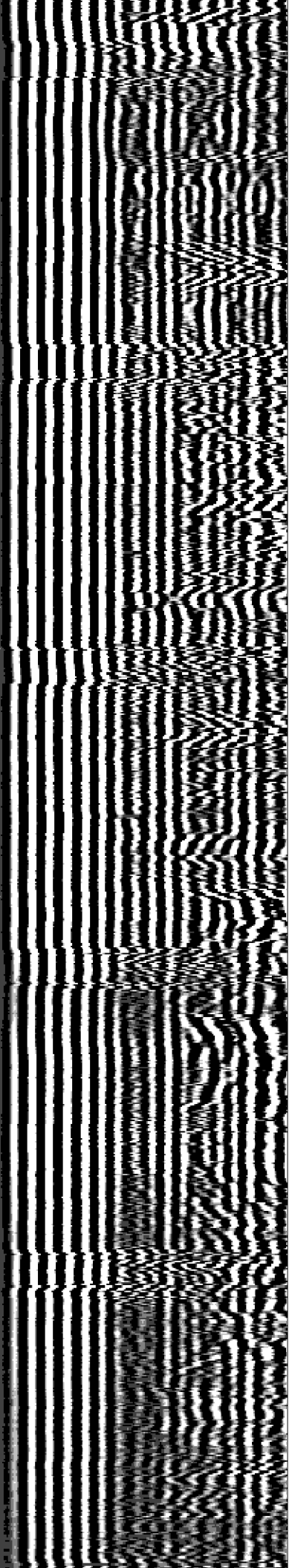
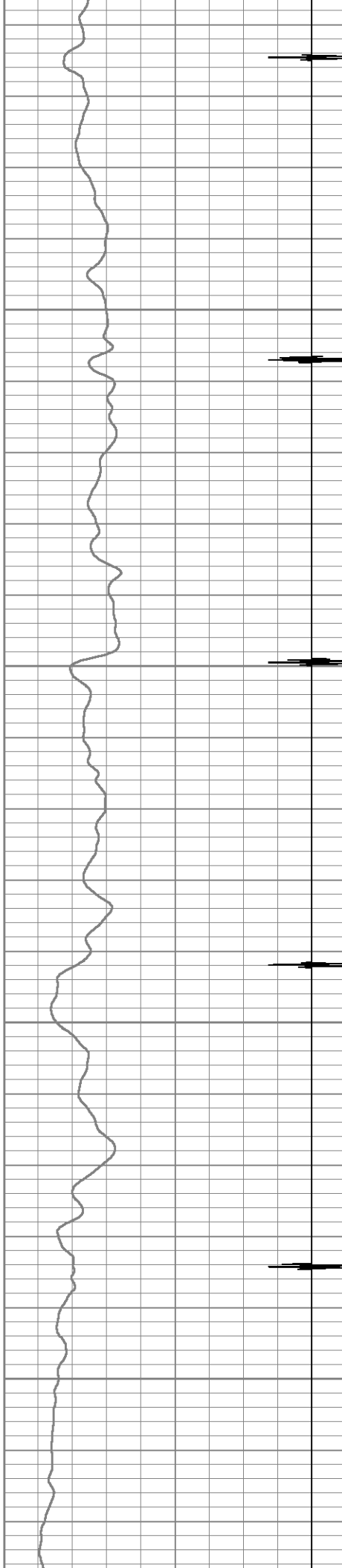


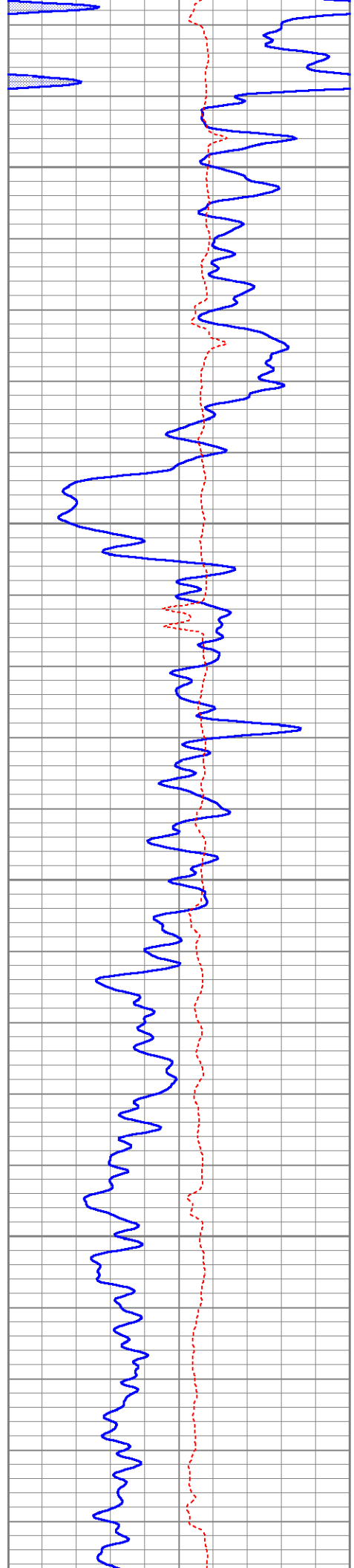
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1350

1400

1450



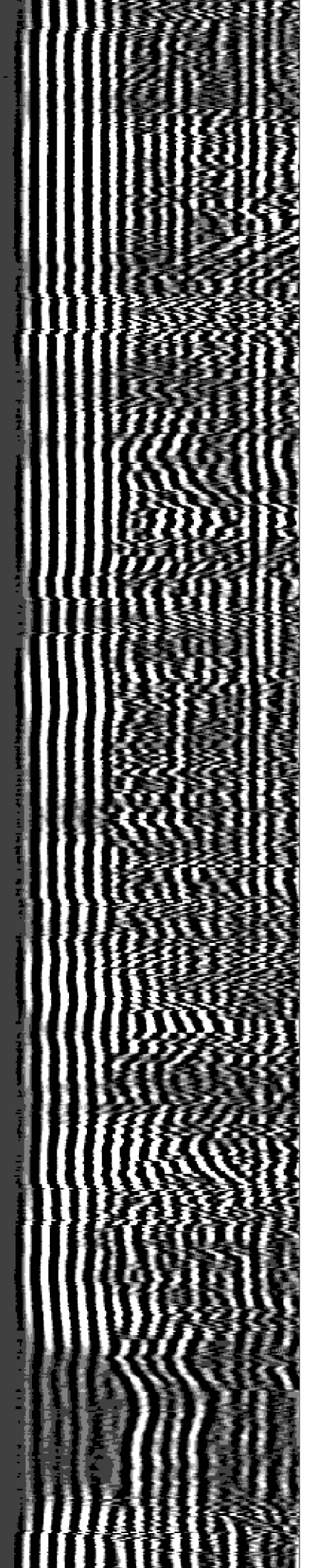
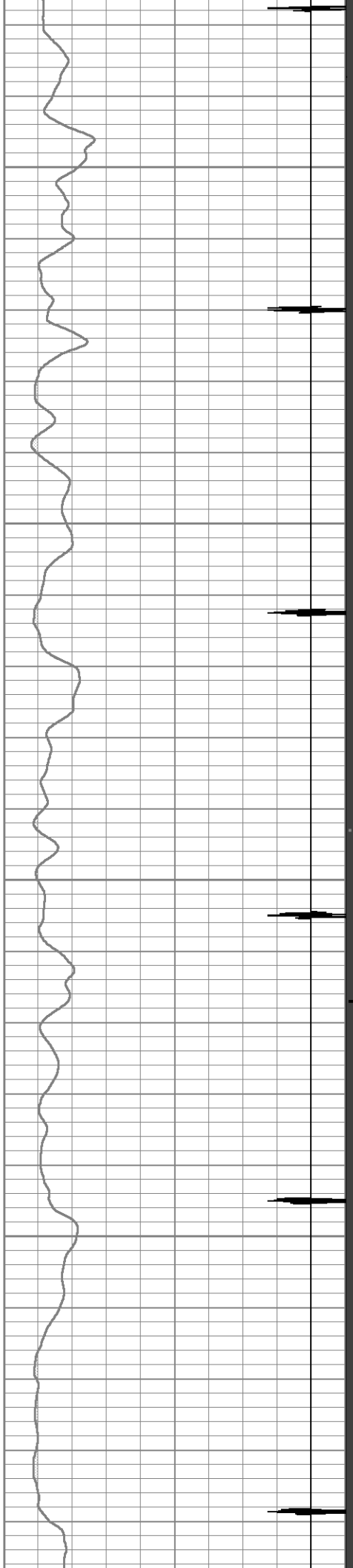


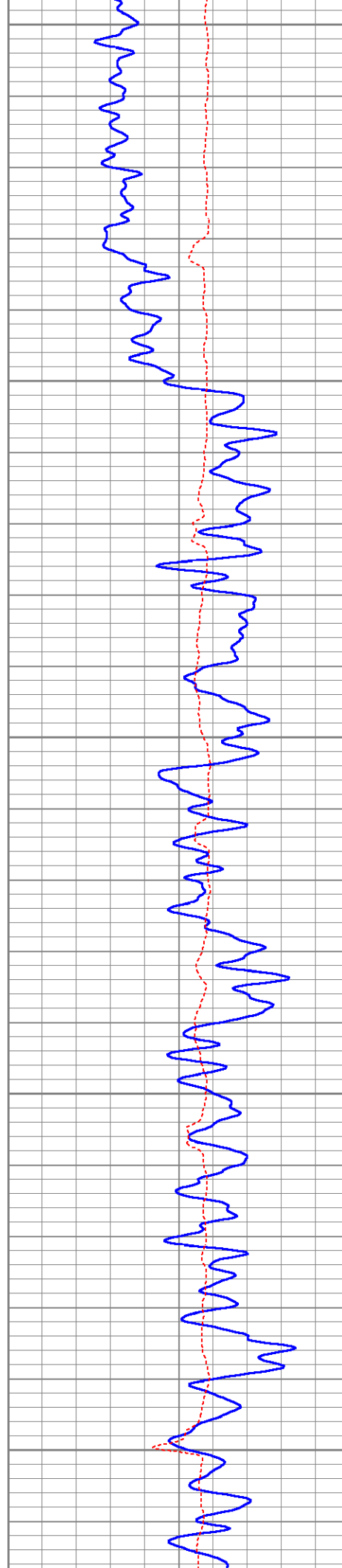
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1550

1600

1650





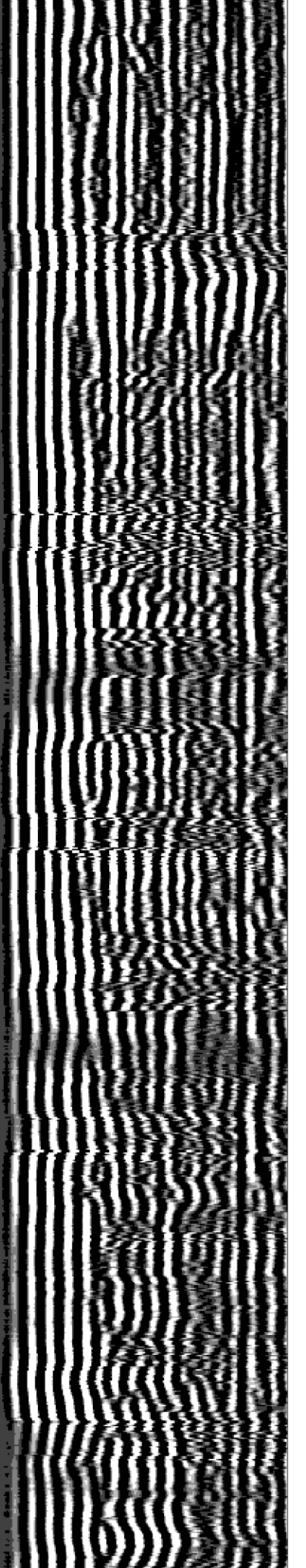
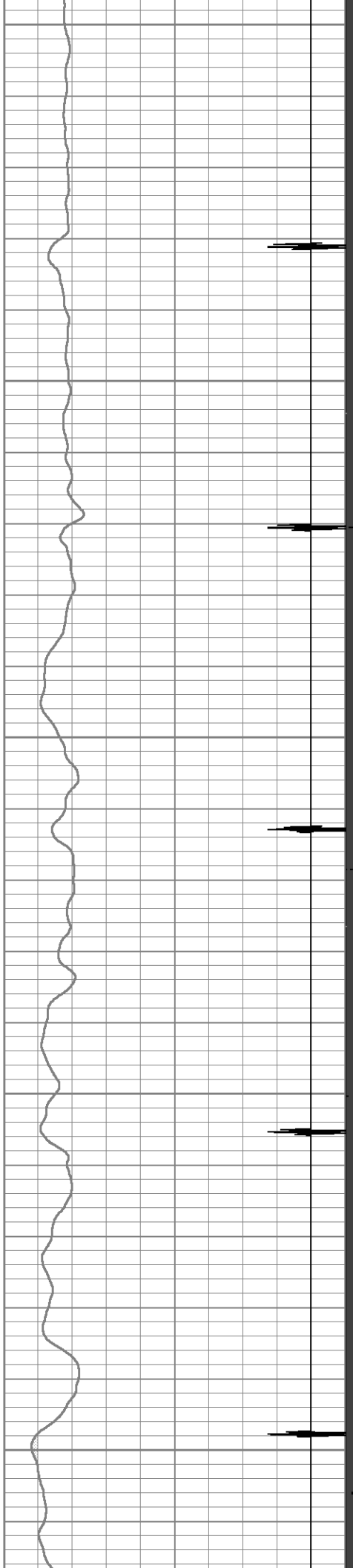
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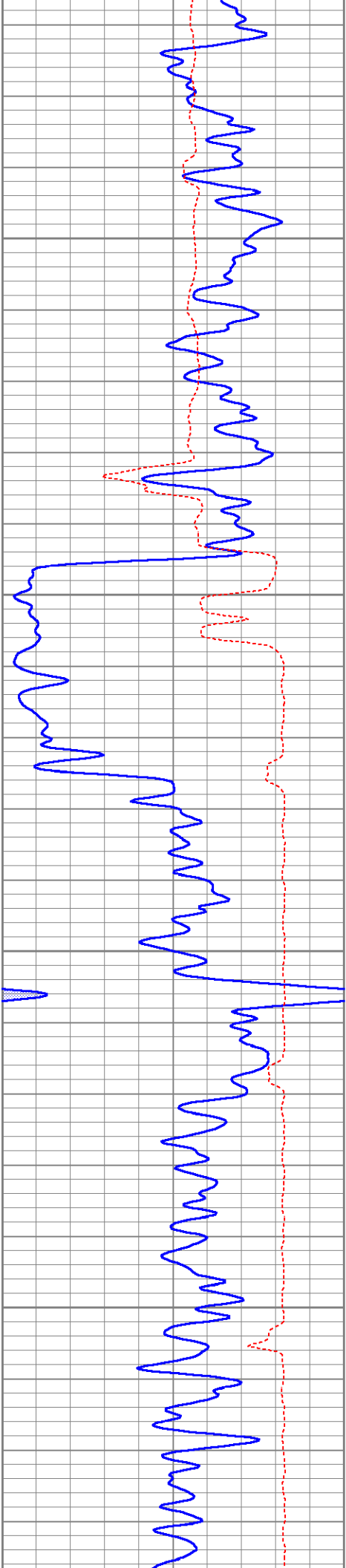
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1850

1900



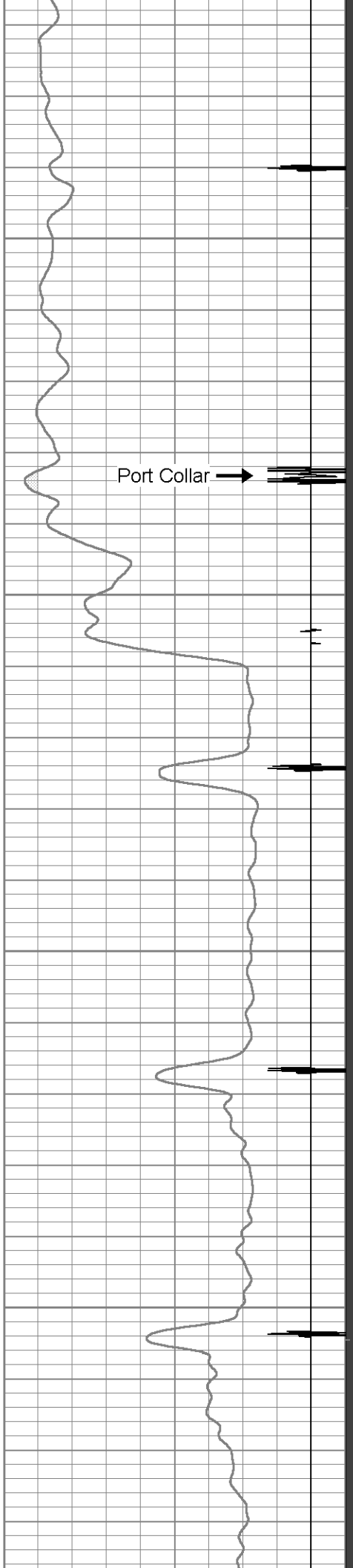


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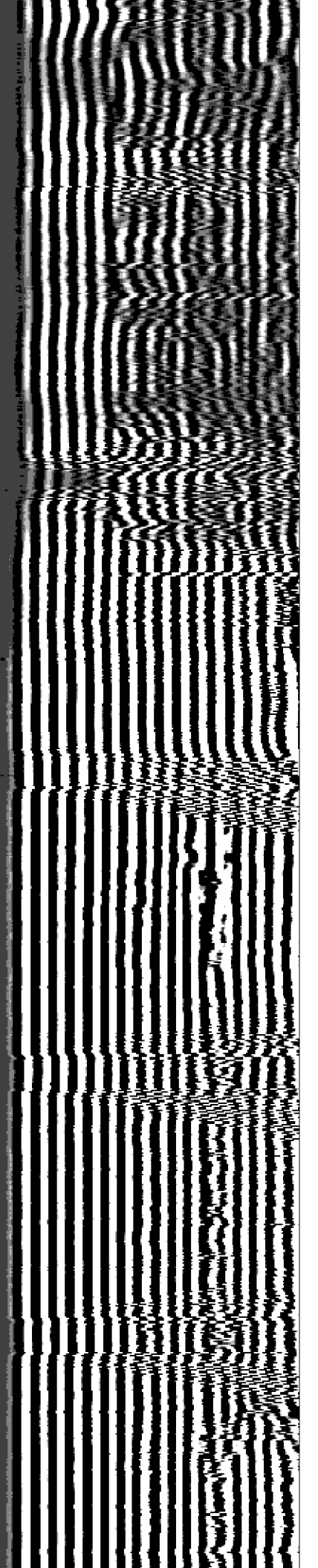
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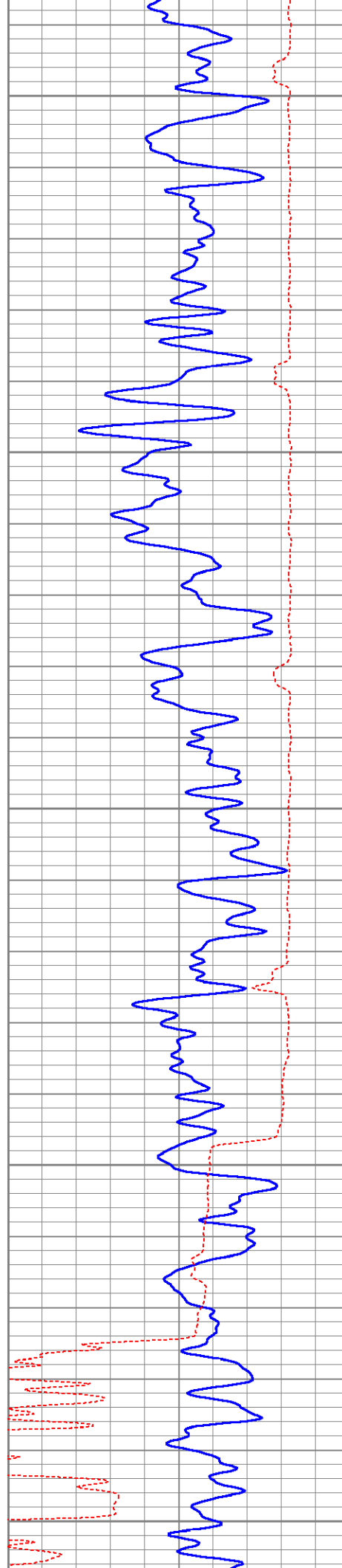
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2100



Port Collar →





2150

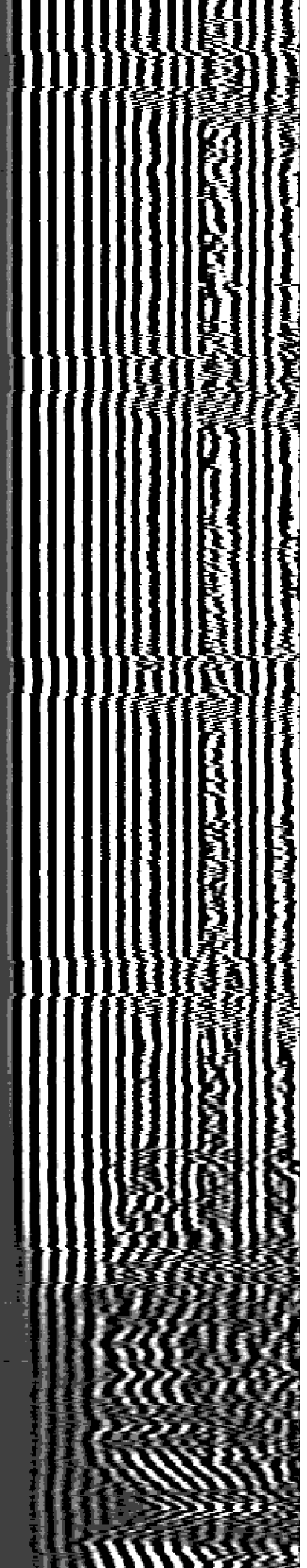
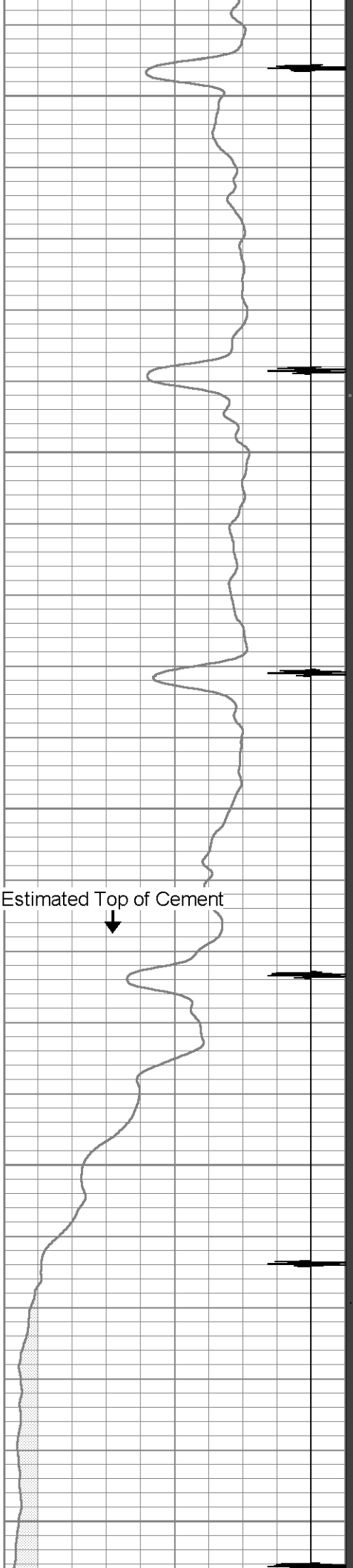
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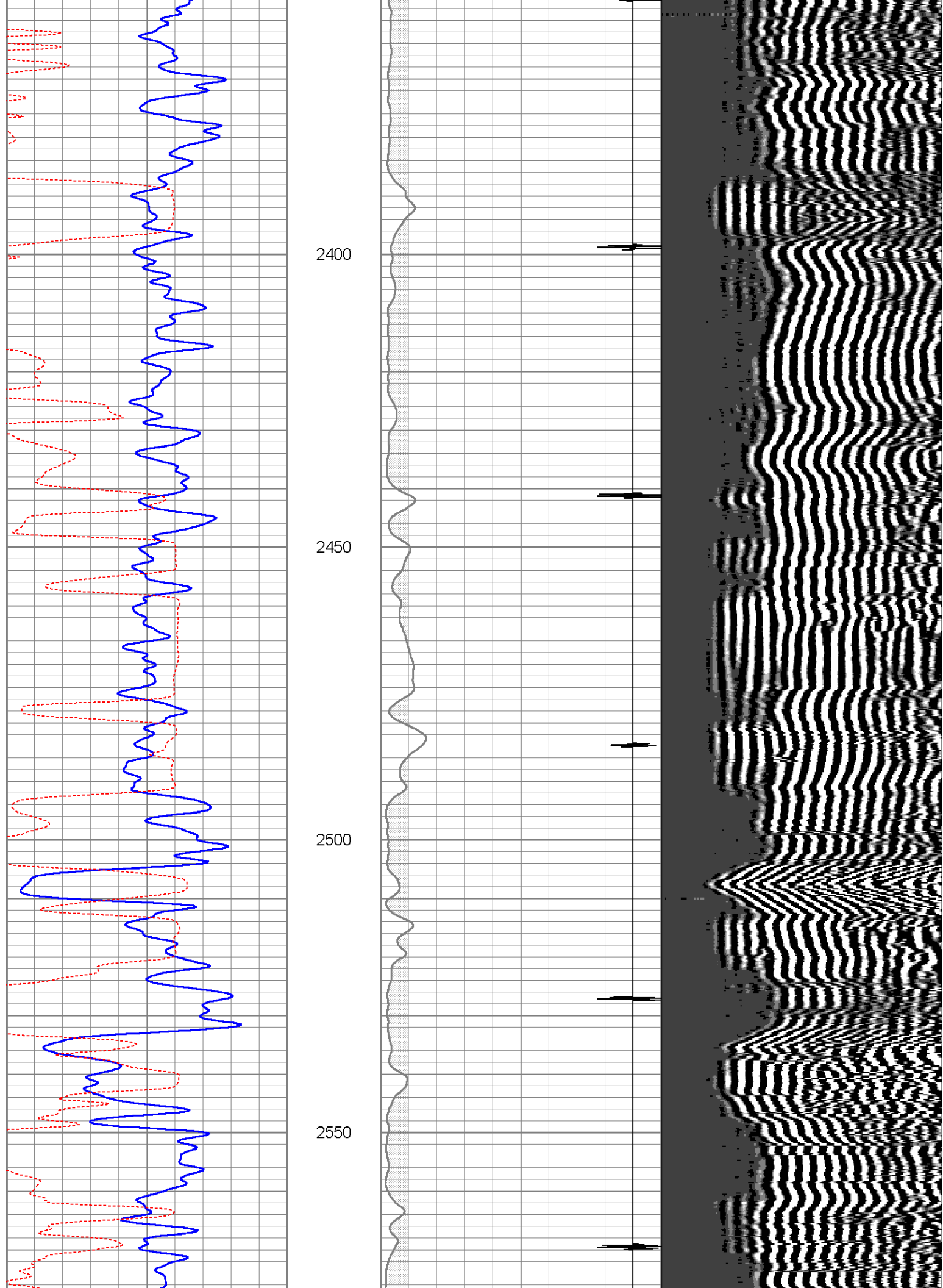
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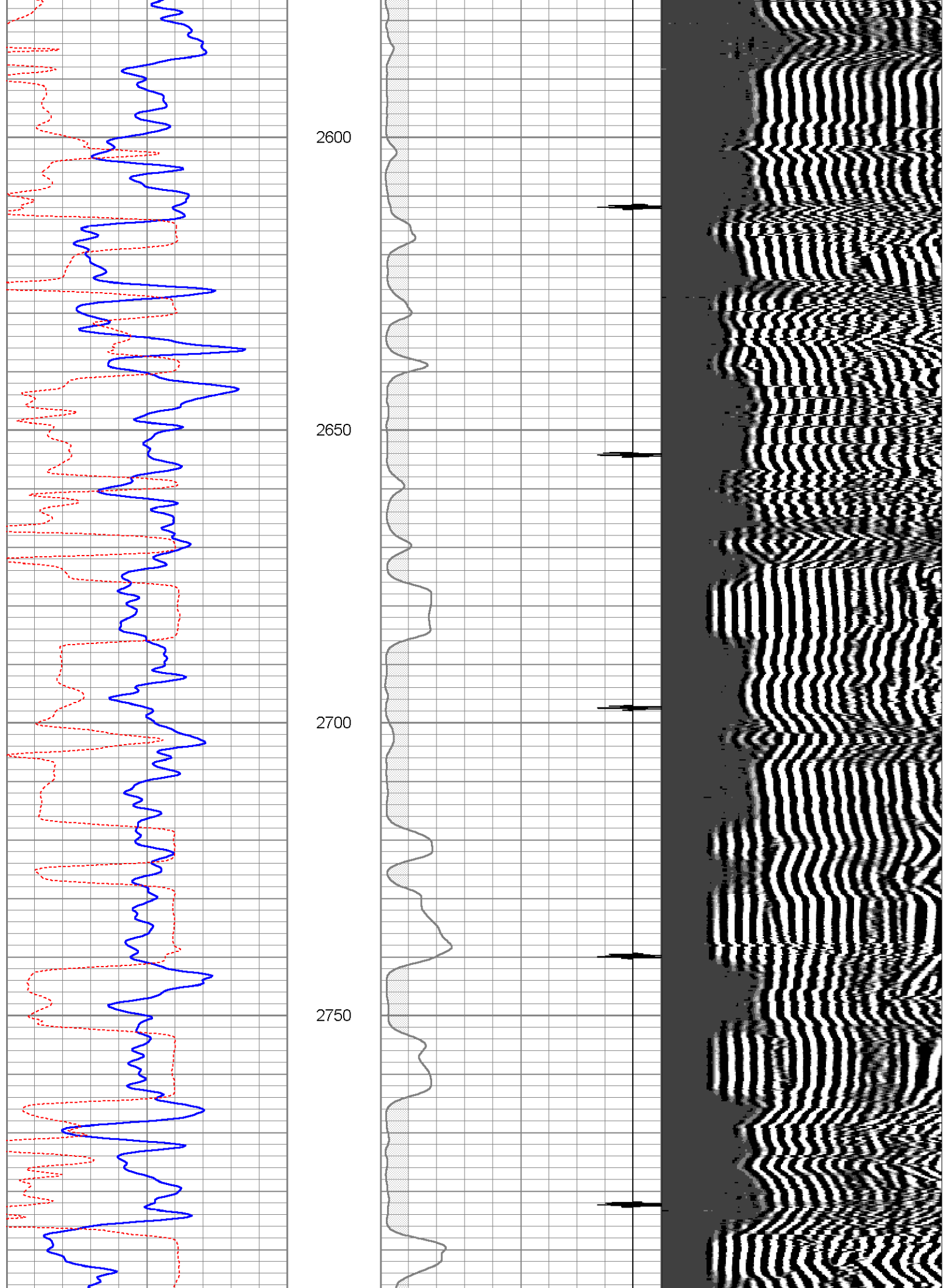
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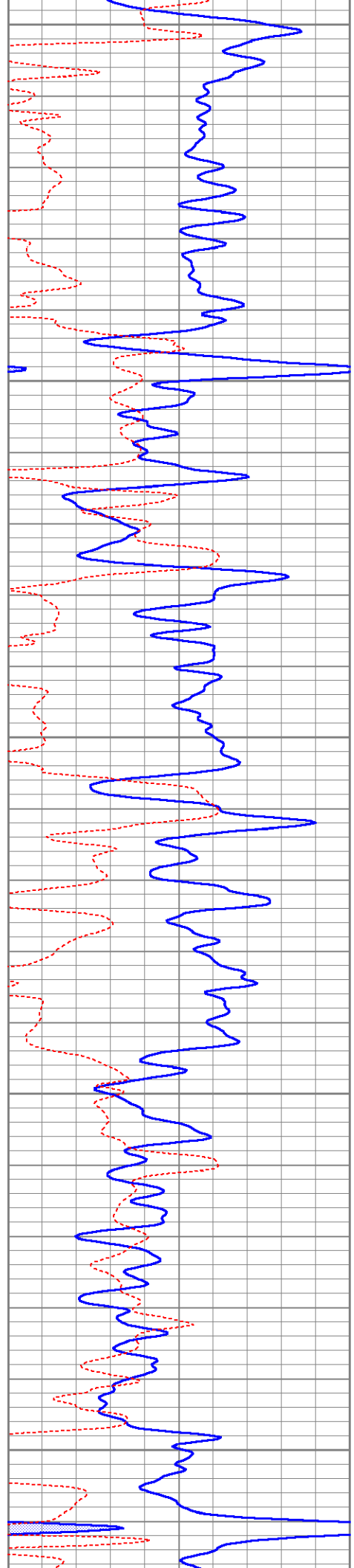
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Estimated Top of Cement

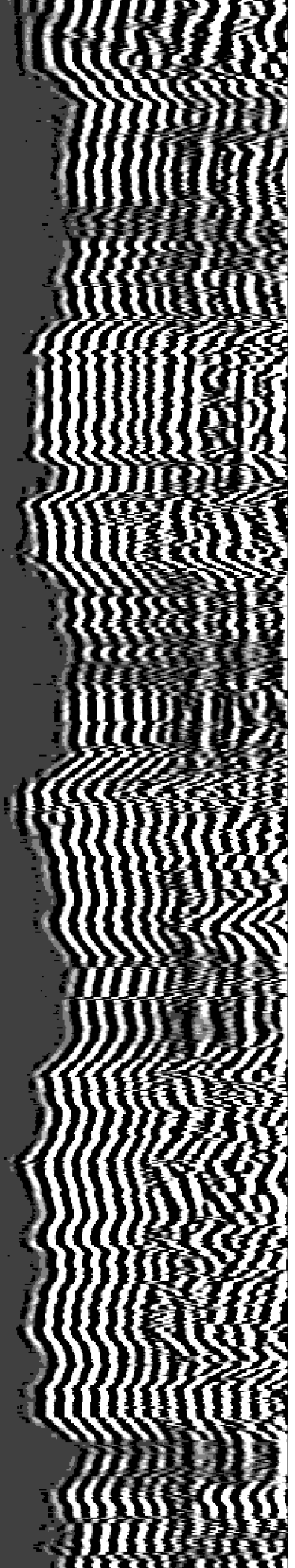
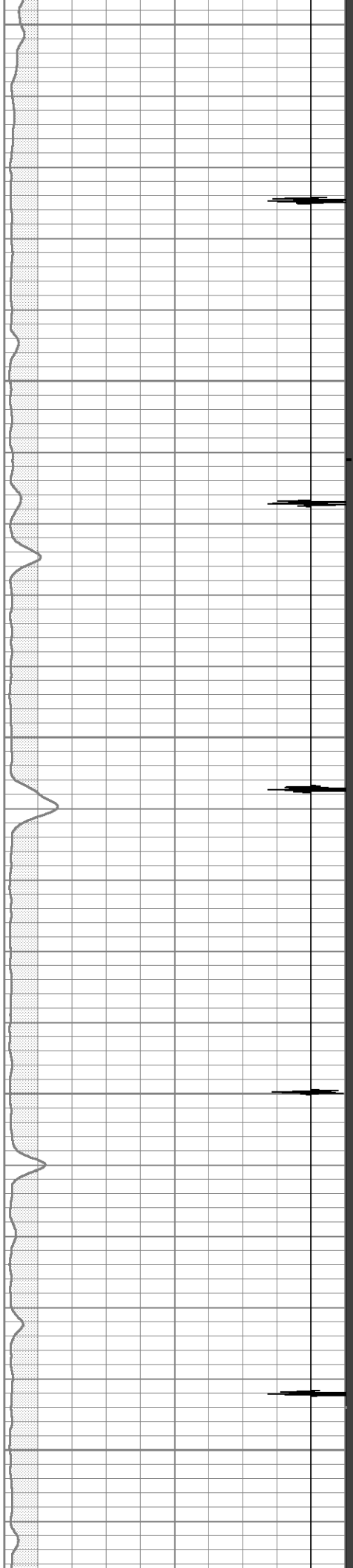


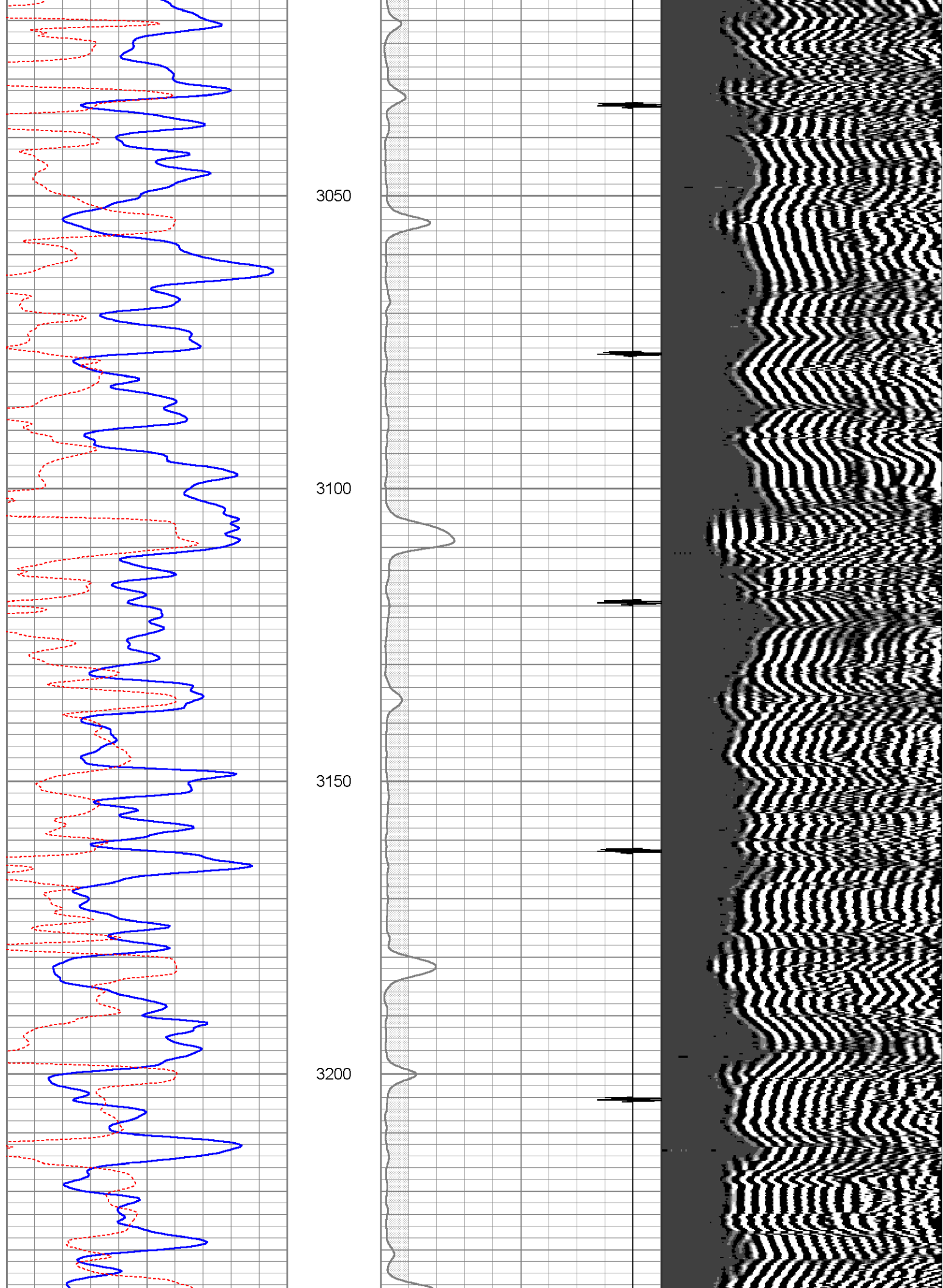


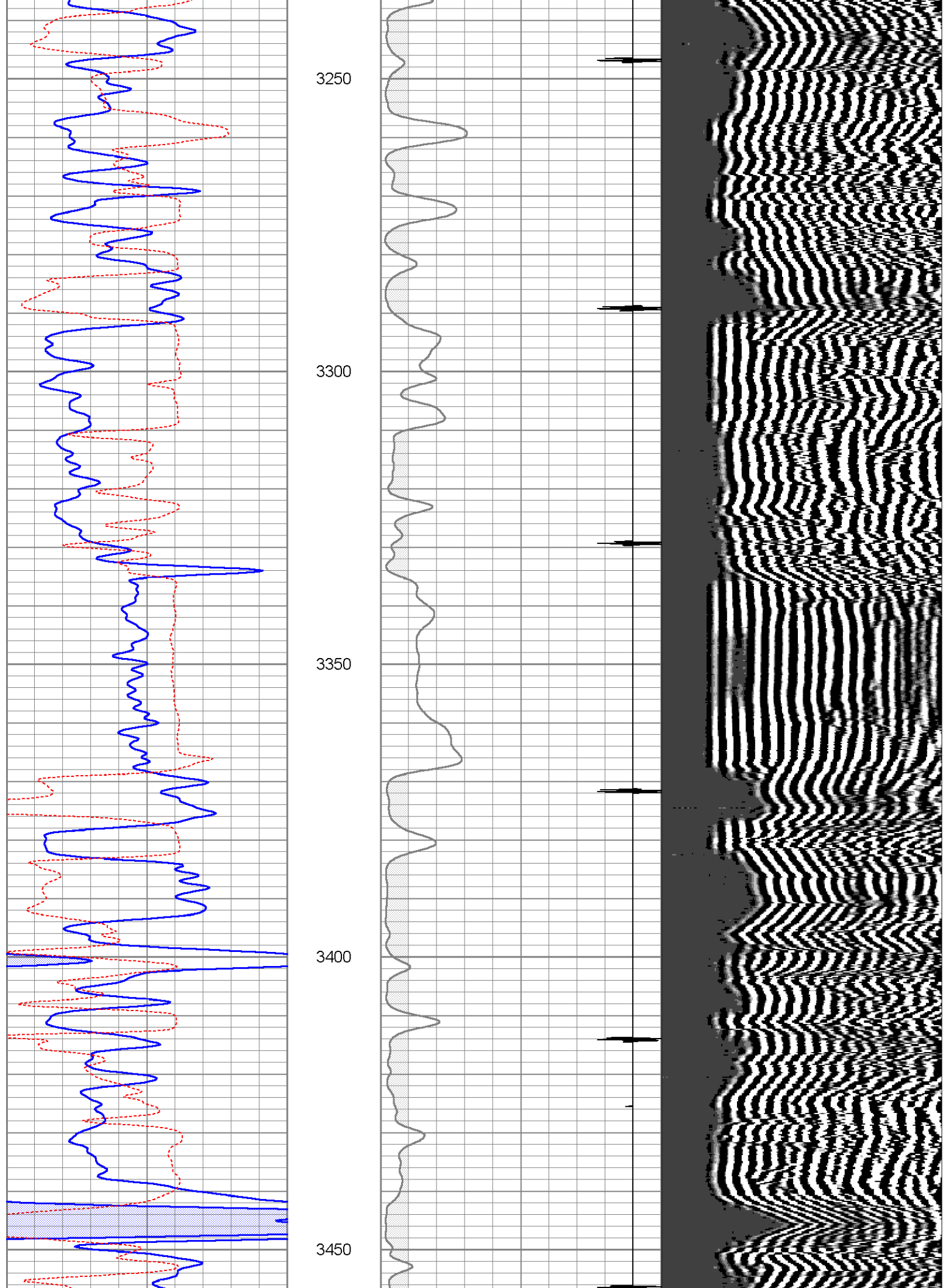


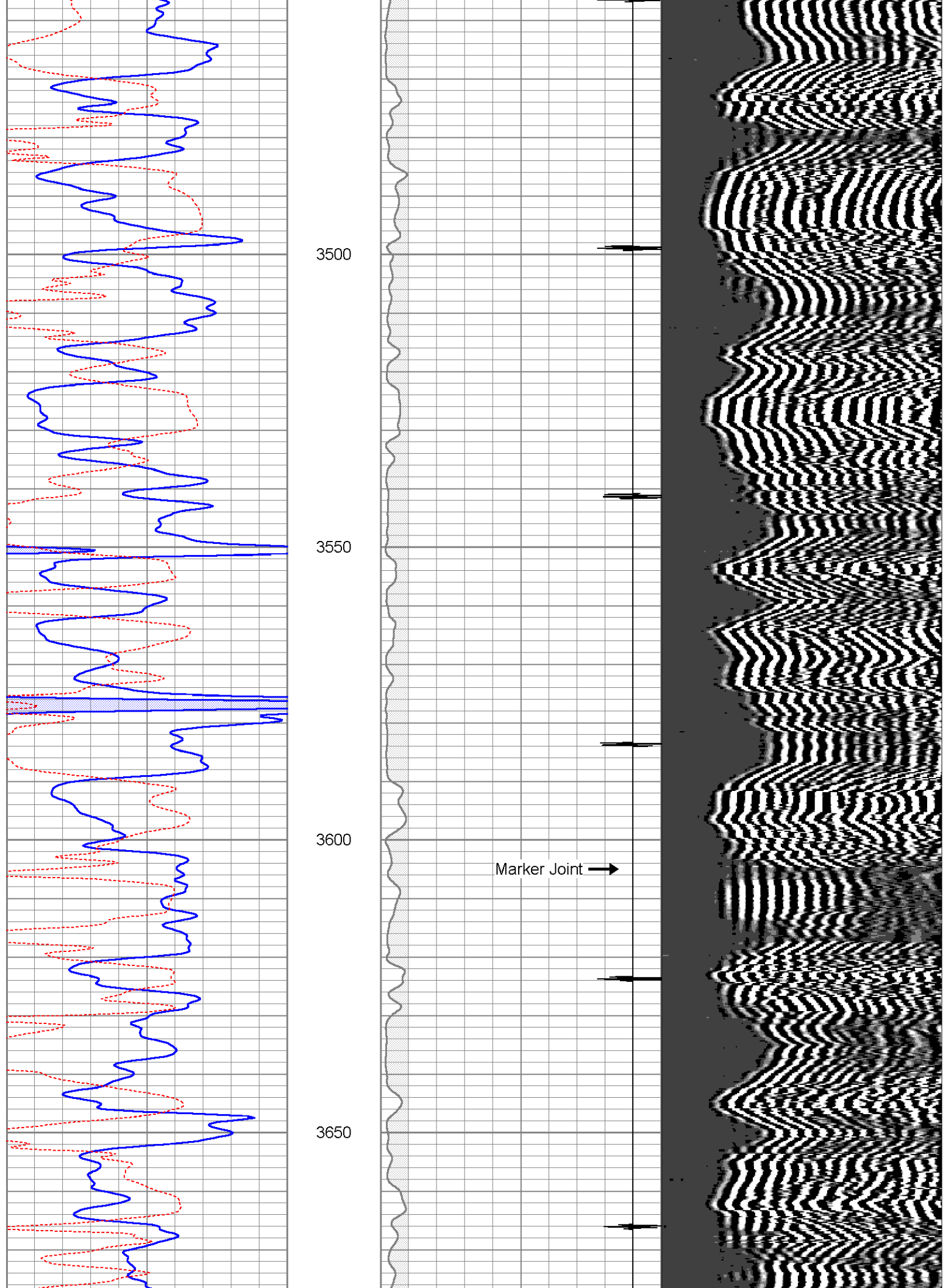


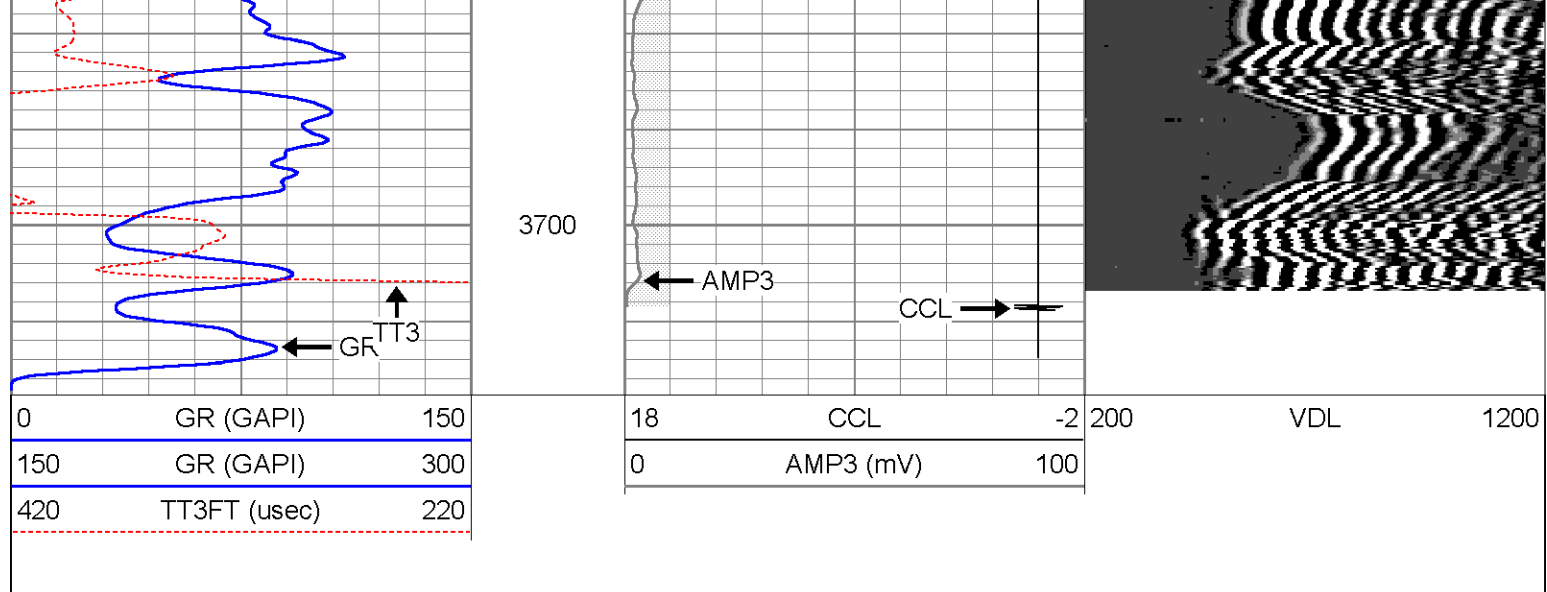
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2850  
2900  
2950  
3000







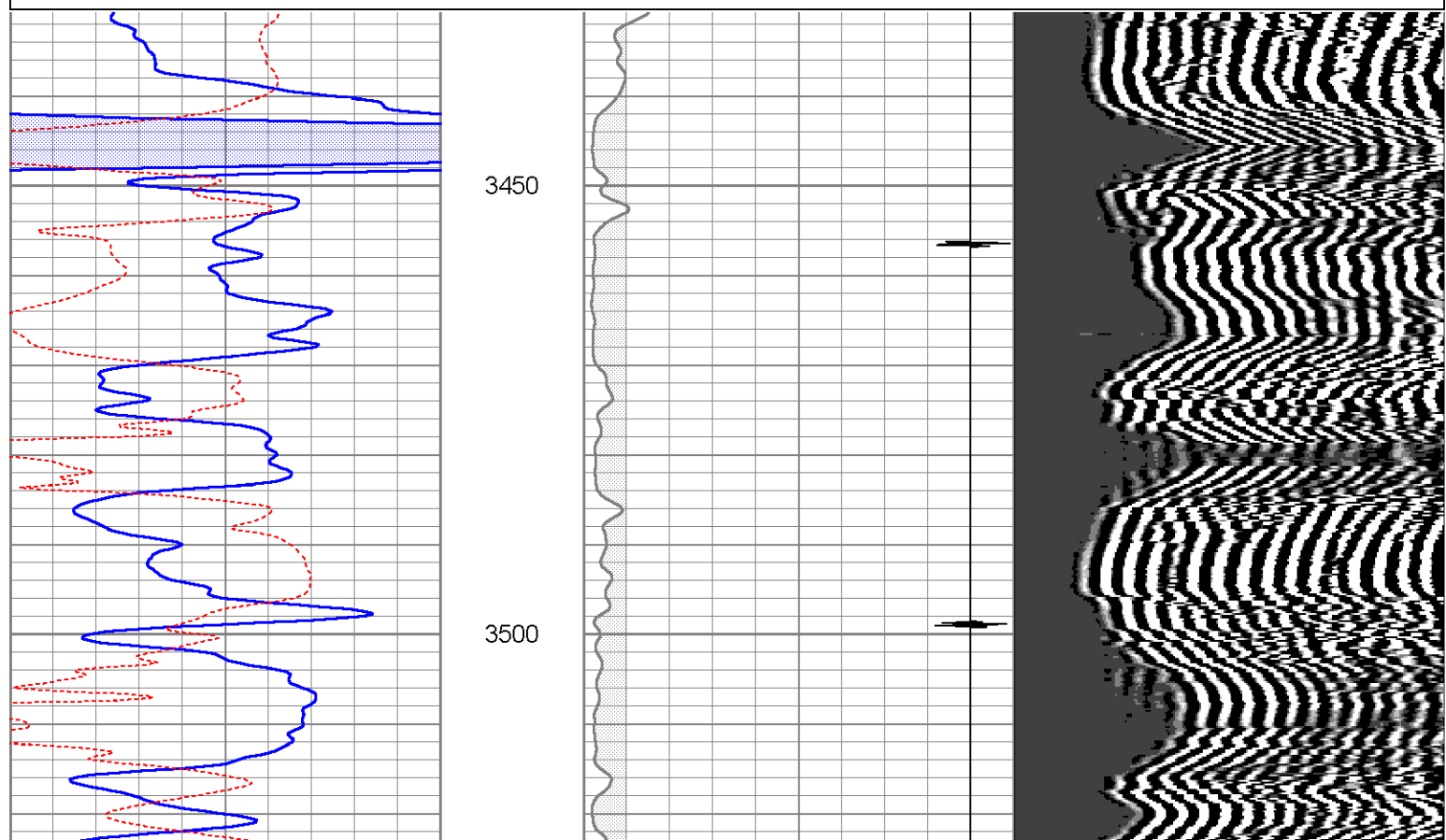


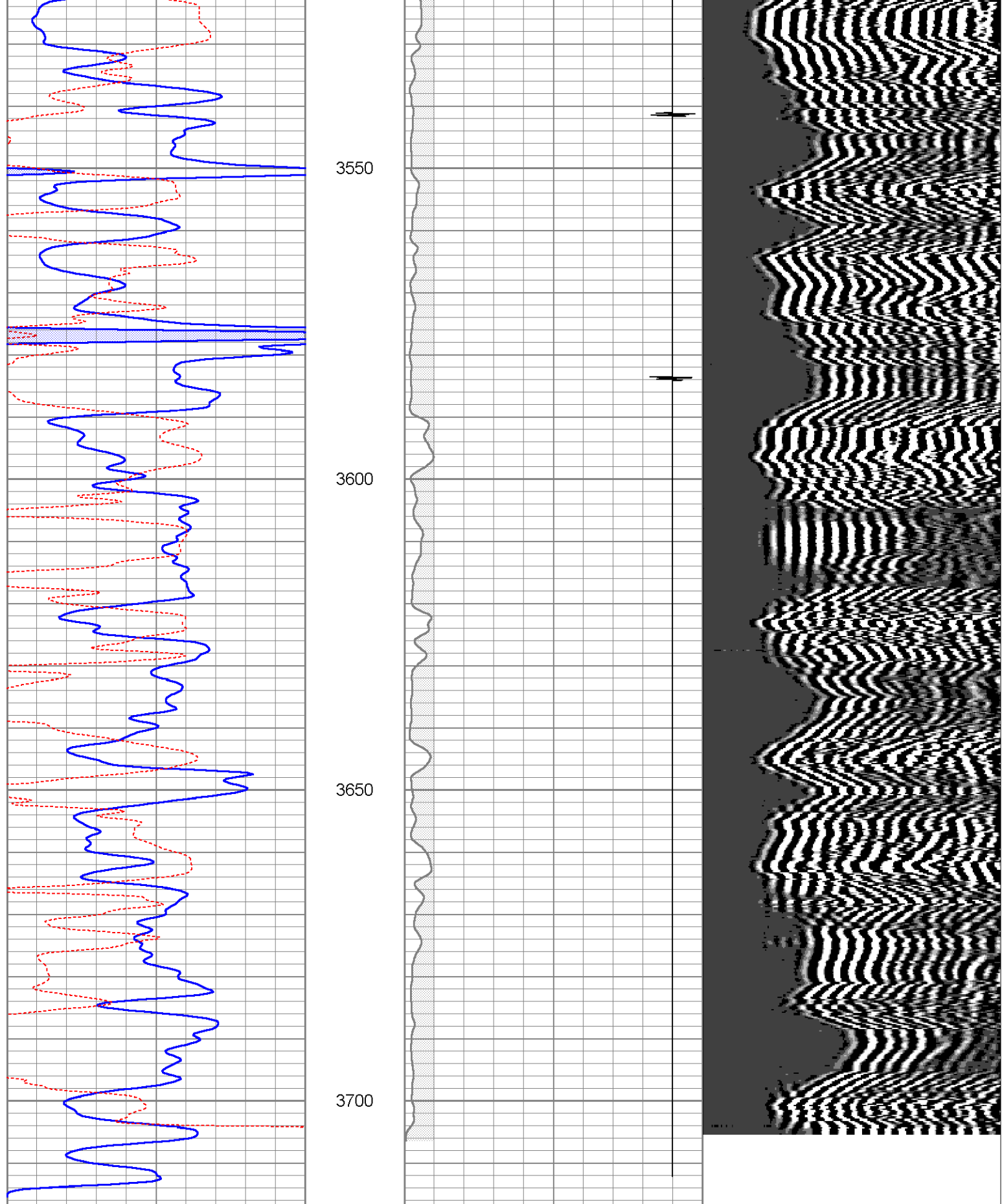


# Repeat Section

Database File: joflawsond1cbl.db  
 Dataset Pathname: pass1  
 Presentation Format: cbl  
 Dataset Creation: Thu Dec 19 09:43:33 2013 by Log Open-Cased 071220  
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	150	18	CCL	-2	200	VDL	1200
150	GR (GAPI)	300	0	AMP3 (mV)	100			
420	TT3FT (usec)	220						





0	GR (GAPI)	150
150	GR (GAPI)	300
420	TT3FT (usec)	220

18	CCL	-2	200	VDL	1200
0	AMP3 (mV)	100			

Calibration Report

Database File: joflawsond1cbl.db  
 Dataset Pathname: pass1  
 Dataset Creation: Thu Dec 19 09:43:33 2013 by Log Open-Cased 071220

Gamma Ray Calibration Report

Serial Number: 080224  
 Tool Model: Probe1  
 Performed: Thu Sep 27 07:34:48 2012

Calibrator Value: 200.0 GAPI

Background Reading: 15.0 cps  
 Calibrator Reading: 222.7 cps

Sensitivity: 0.9629 GAPI/cps

Cement Bond Log Calibration Report

Serial Number: 061007  
 Tool Model: DigitalCBL  
 Performed: Tue Dec 17 10:15:07 2013

Depth: 1565.59 ft  
 Casing Diameter: 5.5 in

3' Spacing                      5' Spacing

Signal Zero: 1                      0                      mV  
 Calibrated Amplitude: 71.921                      71.921                      mV  
 Reading at Signal Zero: 0.00654297                      0.00688477                      V  
 Reading in Free Pipe: 0.92                      0.870044                      V

Gain: 77.6402                      83.323  
 Offset: 0.492002                      -0.573659

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)	
			275 2 3/4" Centralizer	2.94	2.75	10.00	
WVF3	11.69		Probedig-DigitalCBL (061007) 2 3/4 Bond Tool	8.77	2.75	92.00	
WVF5	10.69						
			275 2 3/4" Centralizer	2.94	2.75	10.00	
CCL	3.67		CCL-Probe (080224)	1.42	2.75	20.00	
GR	2.30	GR-Probe1 (080224)	3.08	2.75	40.00		

Dataset:		joflawsond1cbl.db: field/well/run1/pass2							
Total Length:		19.14 ft							
Total Weight:		172.00 lb							
O.D.		2.75 in							