



# RADIAL ANALYSIS BOND LOG

**Baker Atlas**

File No: **CH070852** Company: **WPX ENERGY**  
 Well: **YOUBERG RWF 433-23**  
 API No: **RULISON**  
 County: **GARFIELD** State: **COLORADO**  
 05045182420000

Location: **SHL: 1392' FSL, 2320' FEL**  
**RWF: 33-23 PAD** BHL: **1858' FSL, 1789' FEL**  
**NABORS 577** SEC **23** TWP **6S** RGE **94W**  
 Other Services: **RPM**

Permanent Datum: **GL** Elevation: **5501.5 ft**  
 Log Measured From: **KB** **26 ft** Above P. D.  
 Drill Measured From: **KELLY BUSHING**  
 Elevations: **KB 5527.5 ft**  
**DF**  
**GL 5501.5 ft**

Date	21/APR/15
Run	ONE
Service Order	575108
Depth Driller	8144 ft
Depth Logger	8110 ft
Bottom Logged Interval	8100 ft
Top Logged Interval	26 ft
Time Started	1530
Time Finished	1900
Operator Rig Time	3.5 HRS
Type of Fluid in Hole	WATER
Fluid Density	NA
Salinity	NA
Fluid Level	68 ft
Logged Cement Top	NA
Wellhead Pressure	0 psi
Maximum Hole Deviation	NA
Nominal Logging Speed	45 fpm
Maximum Recorded Temperature	235 degF
Reference Log	NONE
Reference Log Date	NA
Equipment No.	4271
Location	FLOYD RENEAU GRAND JCT
Recorded By	FLOYD RENEAU
Witnessed By	JEFF DUCY

- FOLD HERE

In making interpretations of logs, our employees will give the customer the benefit of their best judgement. But since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the customer resulting from any interpretation made by any of our employees.

Borehole Record		
Bit Size	From	To
13.5 In	0 ft	1108 ft
8.75 In	1108 ft	

Casing Record				
Size	Weight	Grade	From	To
9.625 In			0 ft	1108 ft
4.6 In	11.6 lbm/ft	I-80	0 ft	8144 ft

**Remarks**

All data on this log is shifted using the CCL curve to put the wellhead (top CCL mark) on depth with ground level elevation at the client's request.

The amount of linear shift is 0 feet.

Logged with zero PSI at wellhead.

BHT = 233°F

SJ = 4487'-4507'

Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10124106	CENT
1	1	GR/CCL	2459XA	10414456	CENT

***PRIMARY PRESENTATION***  
***0 PSI***

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	36.375	8125.000
RAL	Amp Gate Start Near	195.000	usec	36.375	8125.000
RAL	Amp Gate Start Radial	195.000	usec	36.375	8125.000
RAL	Amp Gate Width Far	25.000	usec	36.375	8125.000
RAL	Amp Gate Width Near	25.000	usec	36.375	8125.000
RAL	Amp Gate Width Radial	25.000	usec	36.375	8125.000
RAL	casing od	4.500	inches	36.375	8125.000
RAL	casing wt	11.600	lbm/ft	36.375	8125.000
RAL	FB Start Far	291.900	usec	36.375	8125.000
RAL	FB Start Near	180.000	usec	36.375	8125.000
RAL	FB Start Radial	180.000	usec	36.375	8125.000
RAL	FB Thresh Far	10.000	mv	36.375	8125.000
RAL	FB Thresh Near	4.000	mv	36.375	8125.000
RAL	FB Thresh Radial	4.000	mv	36.375	8125.000
RAL	Fluid Travel Time	200.000	usec/ft	36.375	8125.531

**DEPTH OFFSETS**  
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4	AR5	AR6
		AR7	AR8	CHV	FPR2				

1426XA -15.750  
 2459XA -11.340  
 2459XA -9.490  
 2459XA -4.090

FPR3 FPR5 TT3 TTR1 TTR2 TTR3  
 TTR4 TTR5 TTR6 TTR7 TTR8 XAMP  
 AFAR SIG TT5  
 CCL  
 GR  
 NEU

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

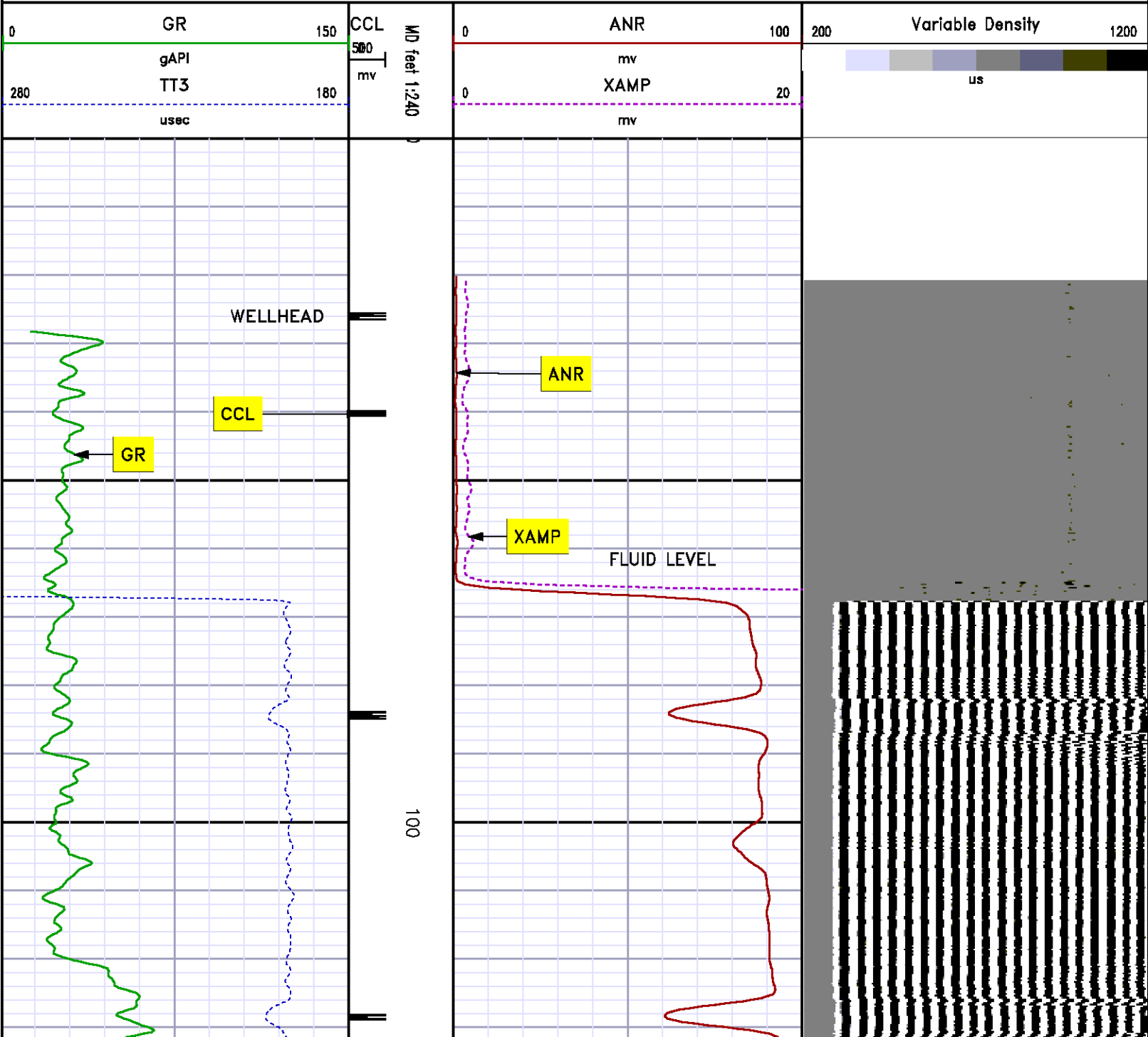
Well : YOUNBERG RWF 433-23

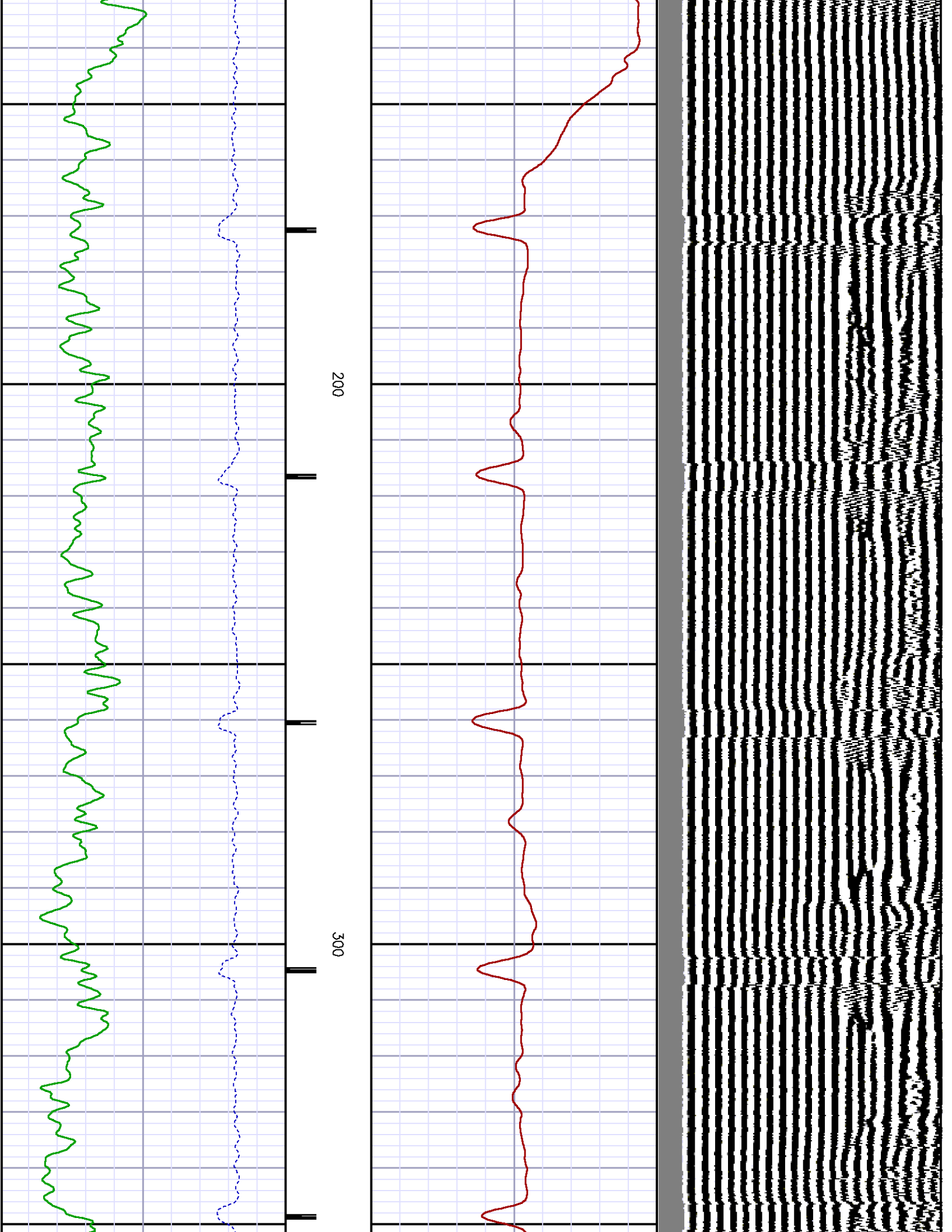
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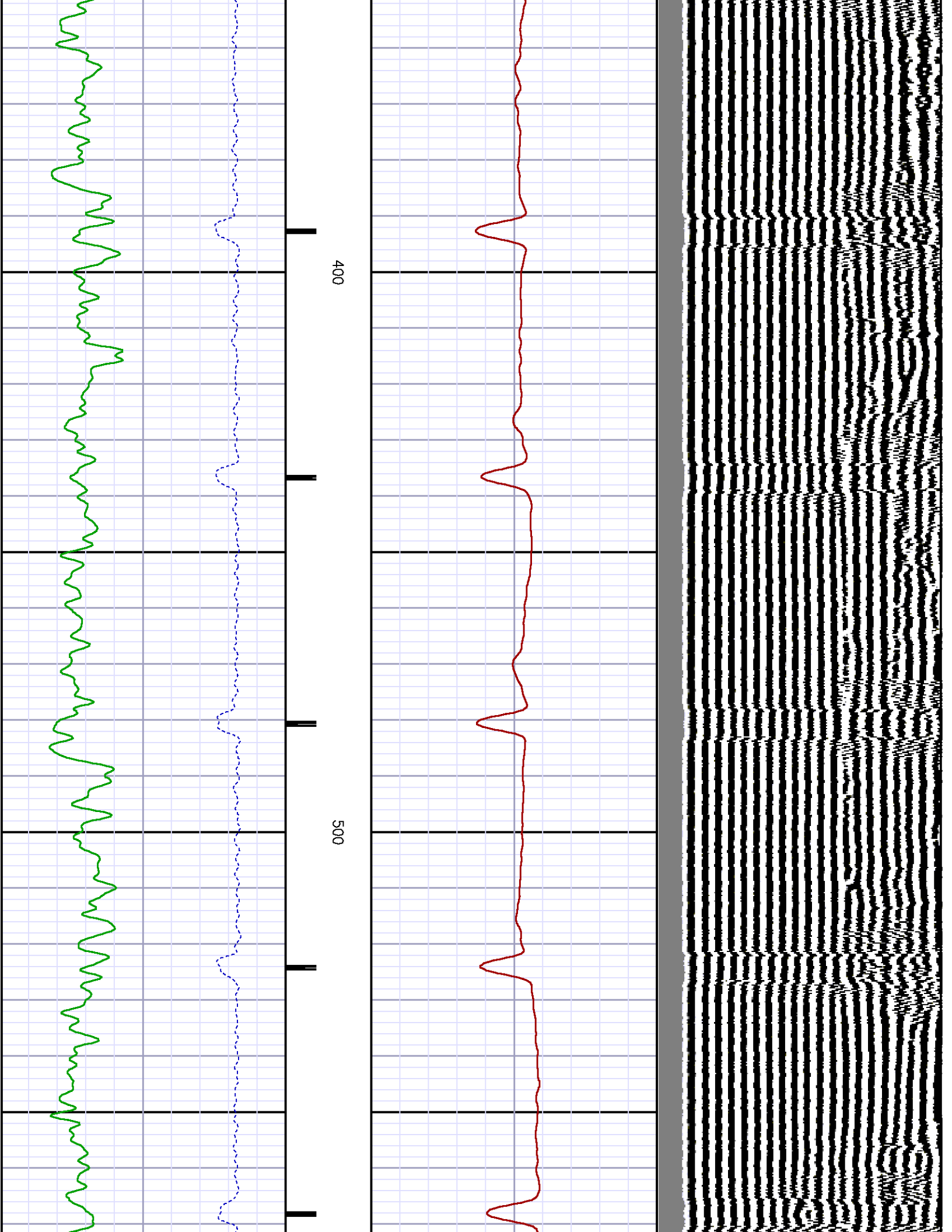
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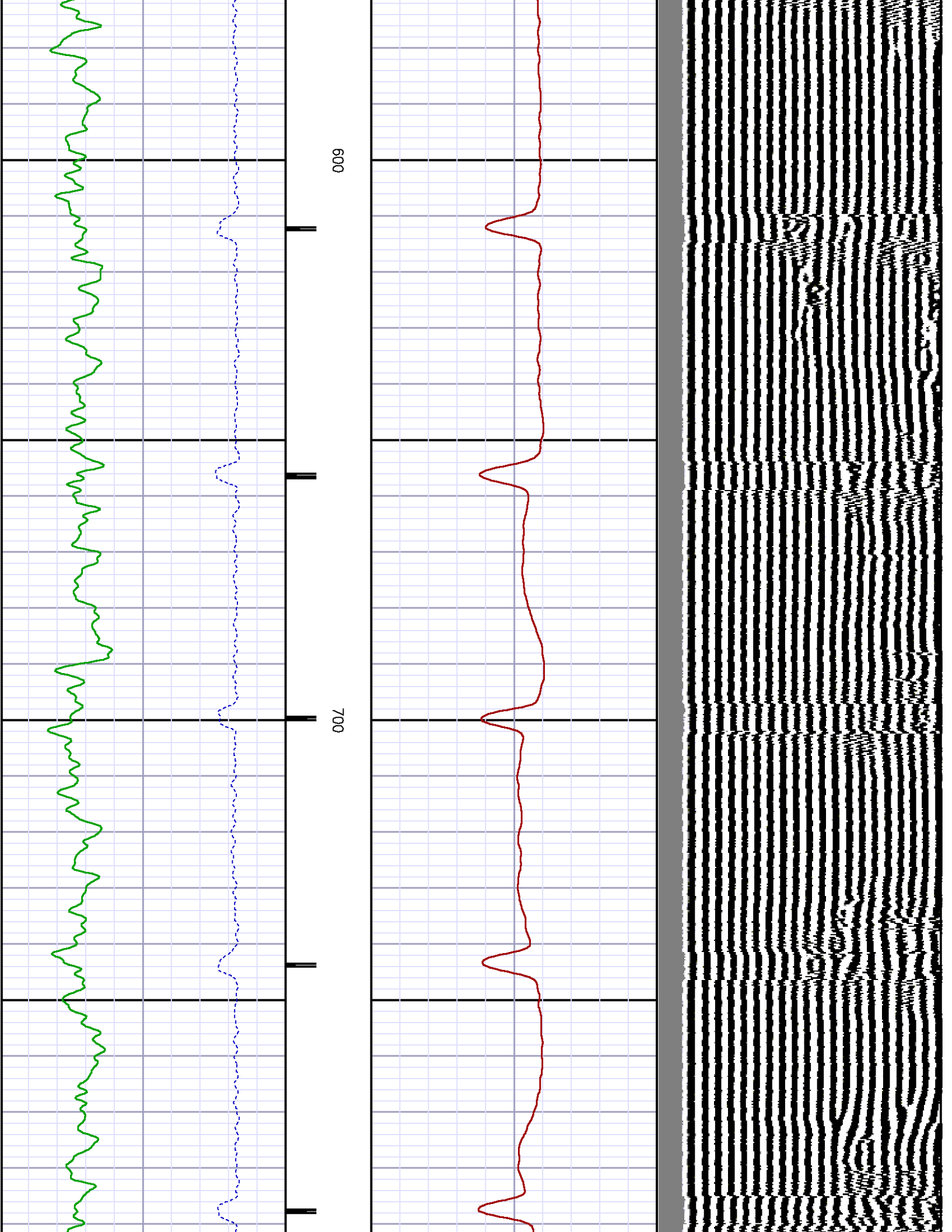
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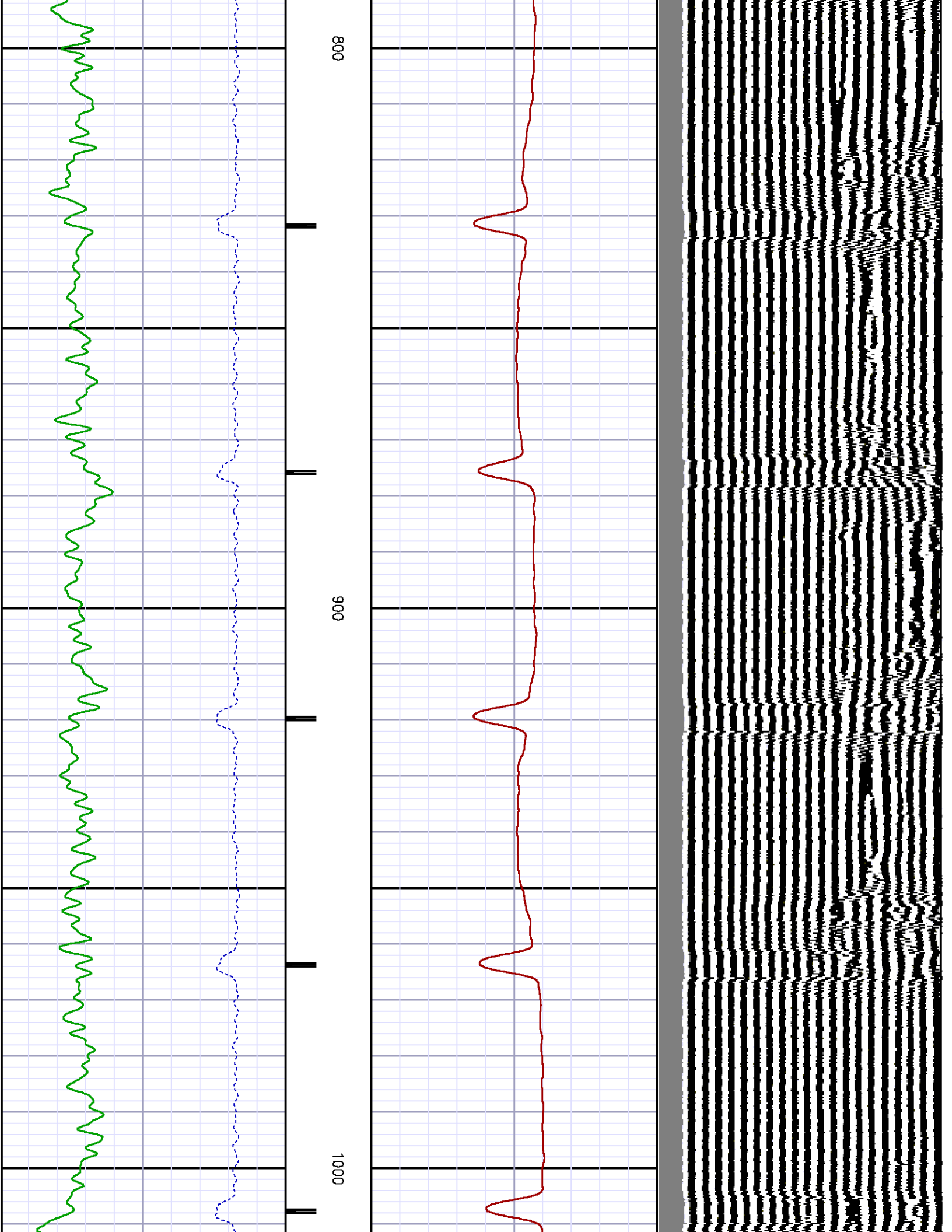
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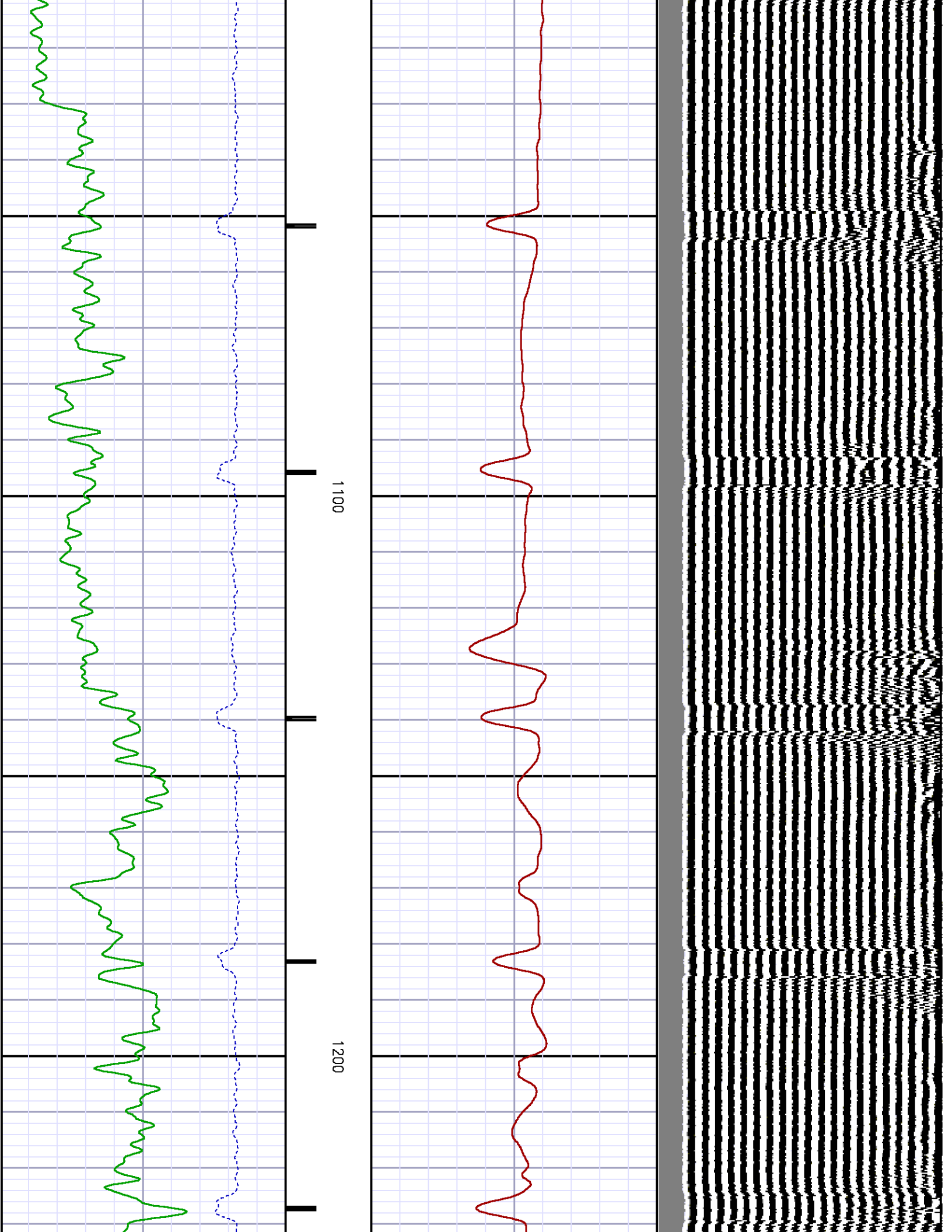


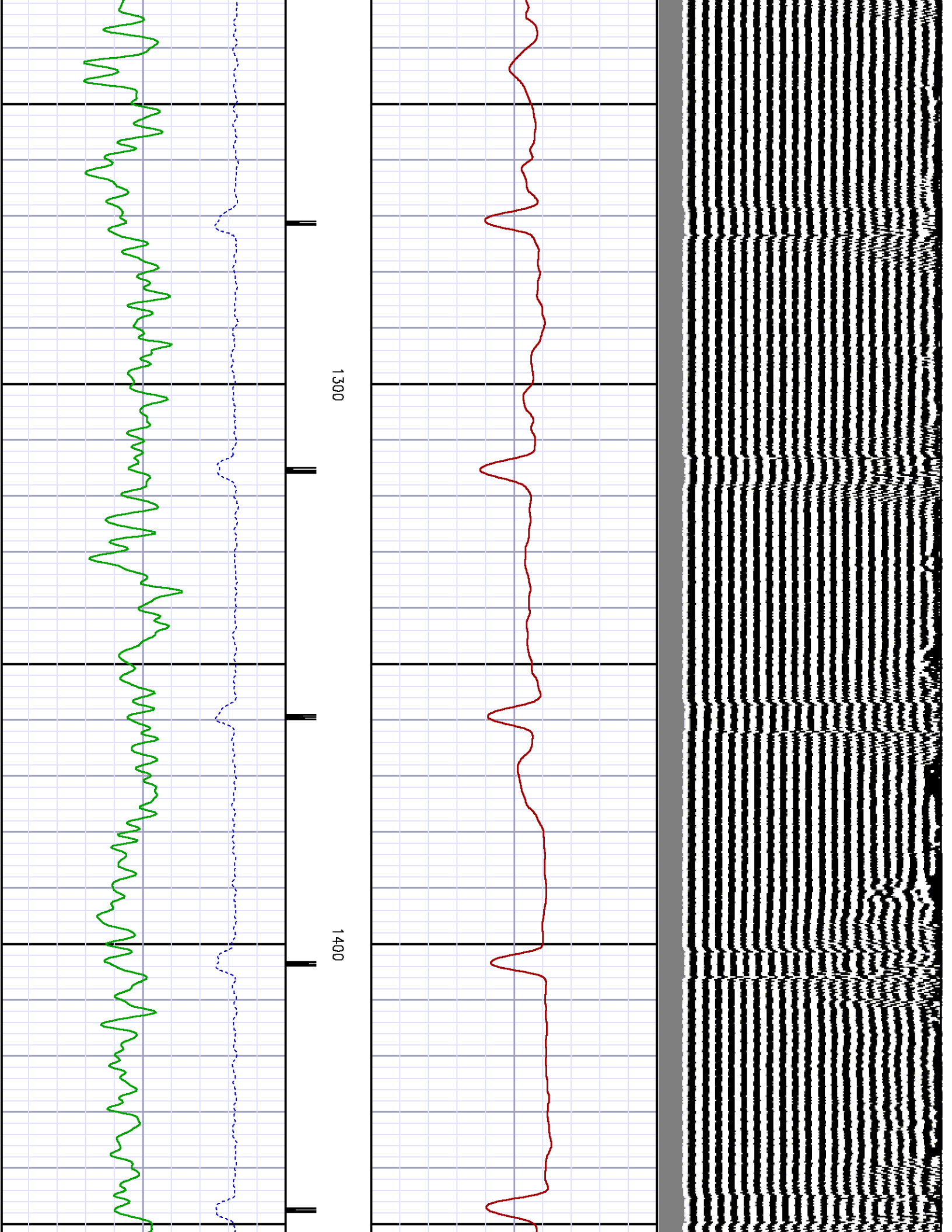


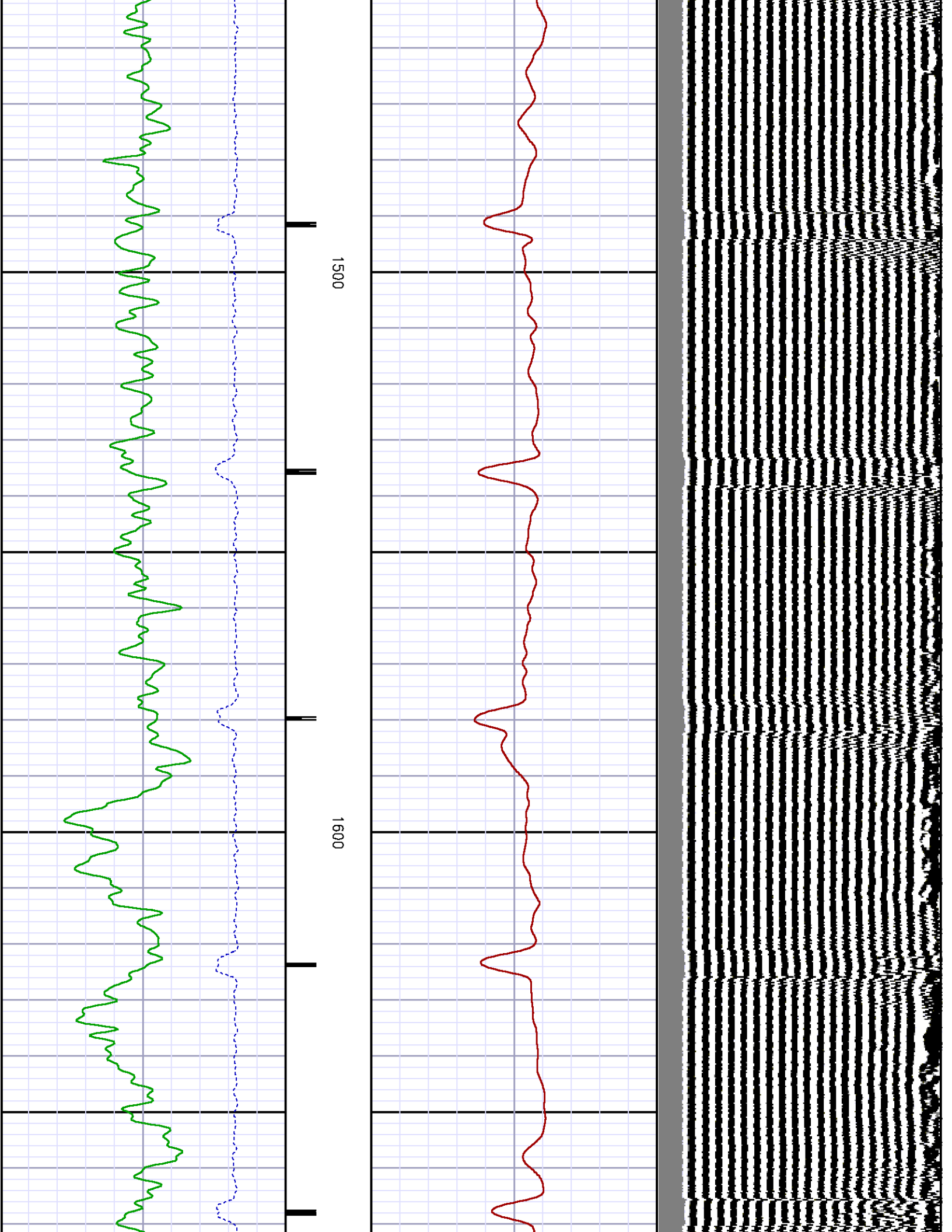


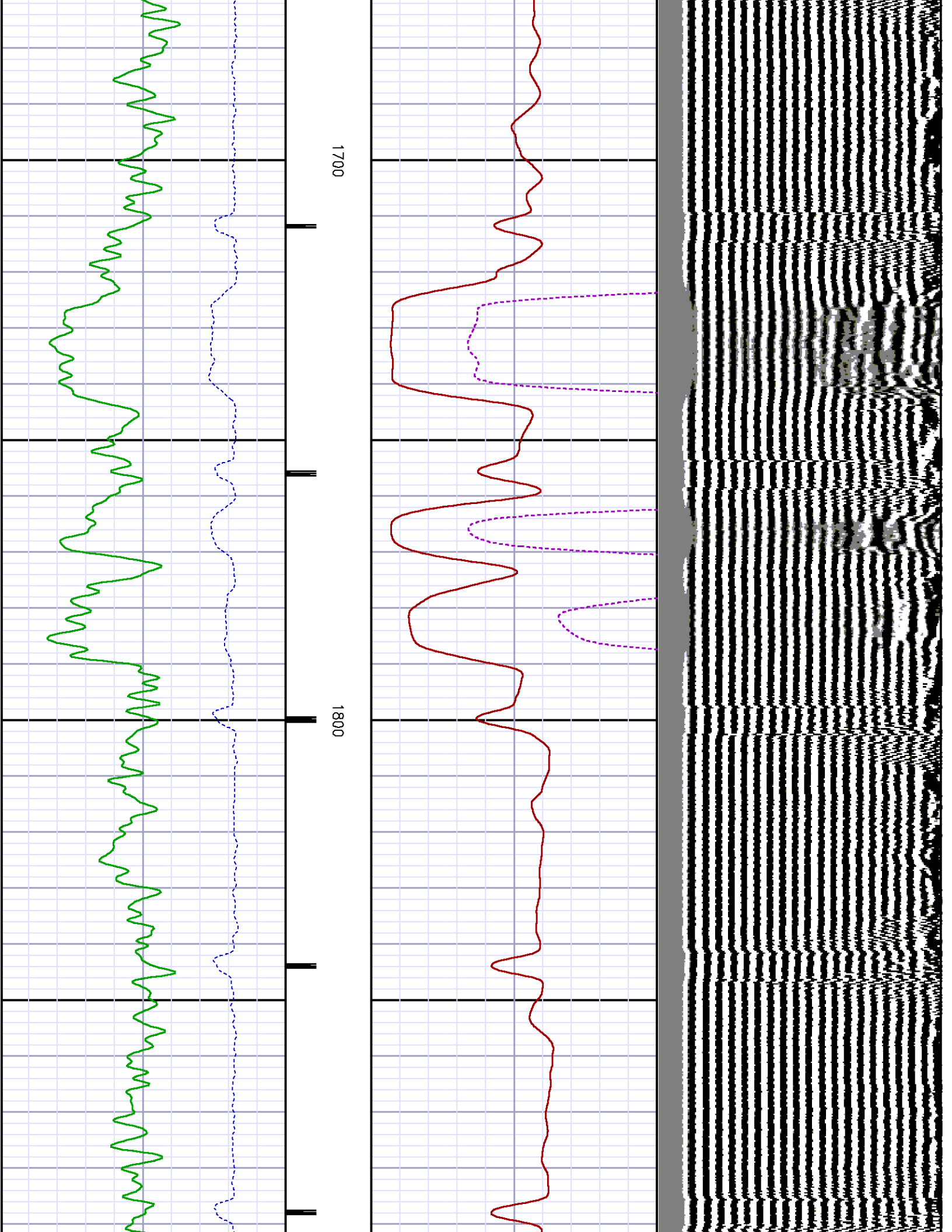


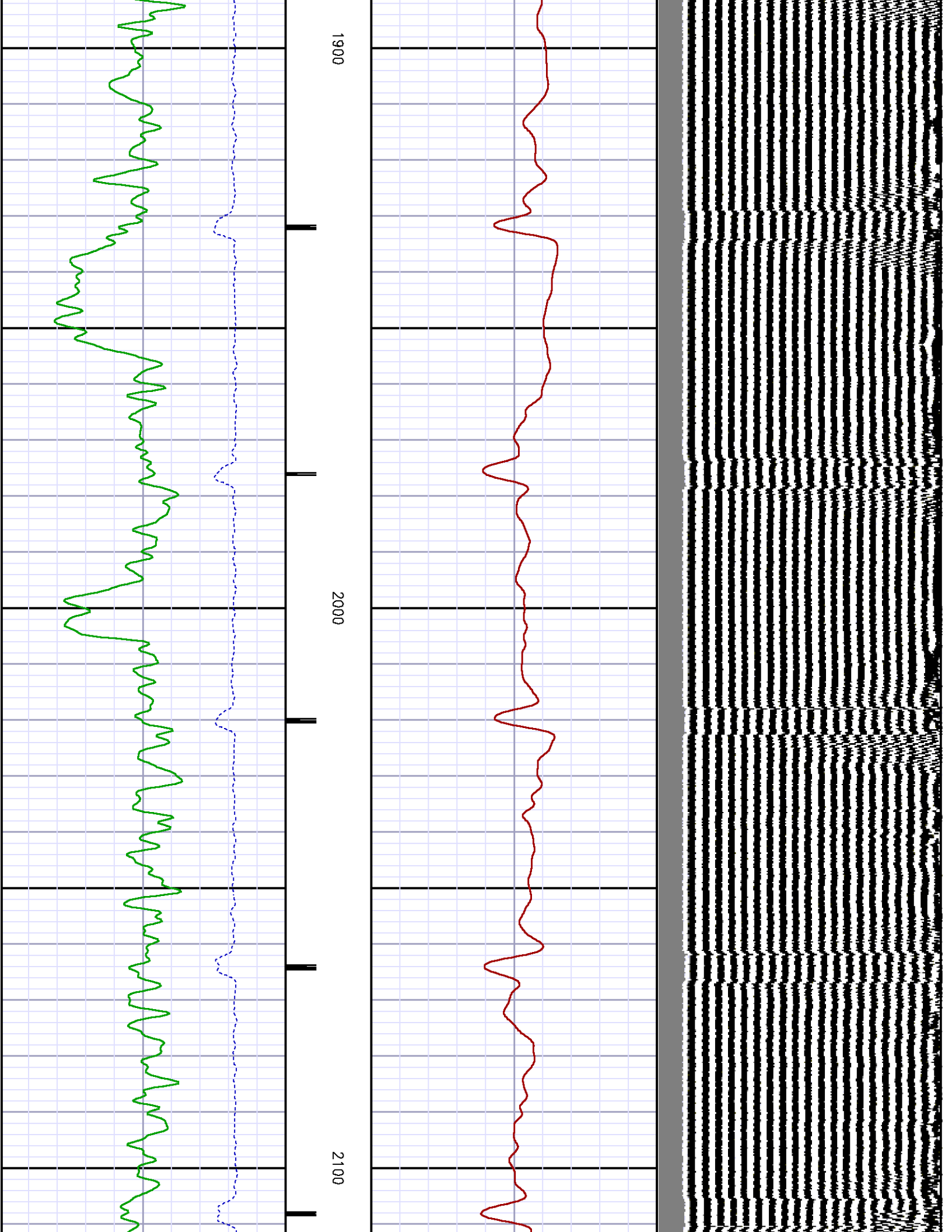


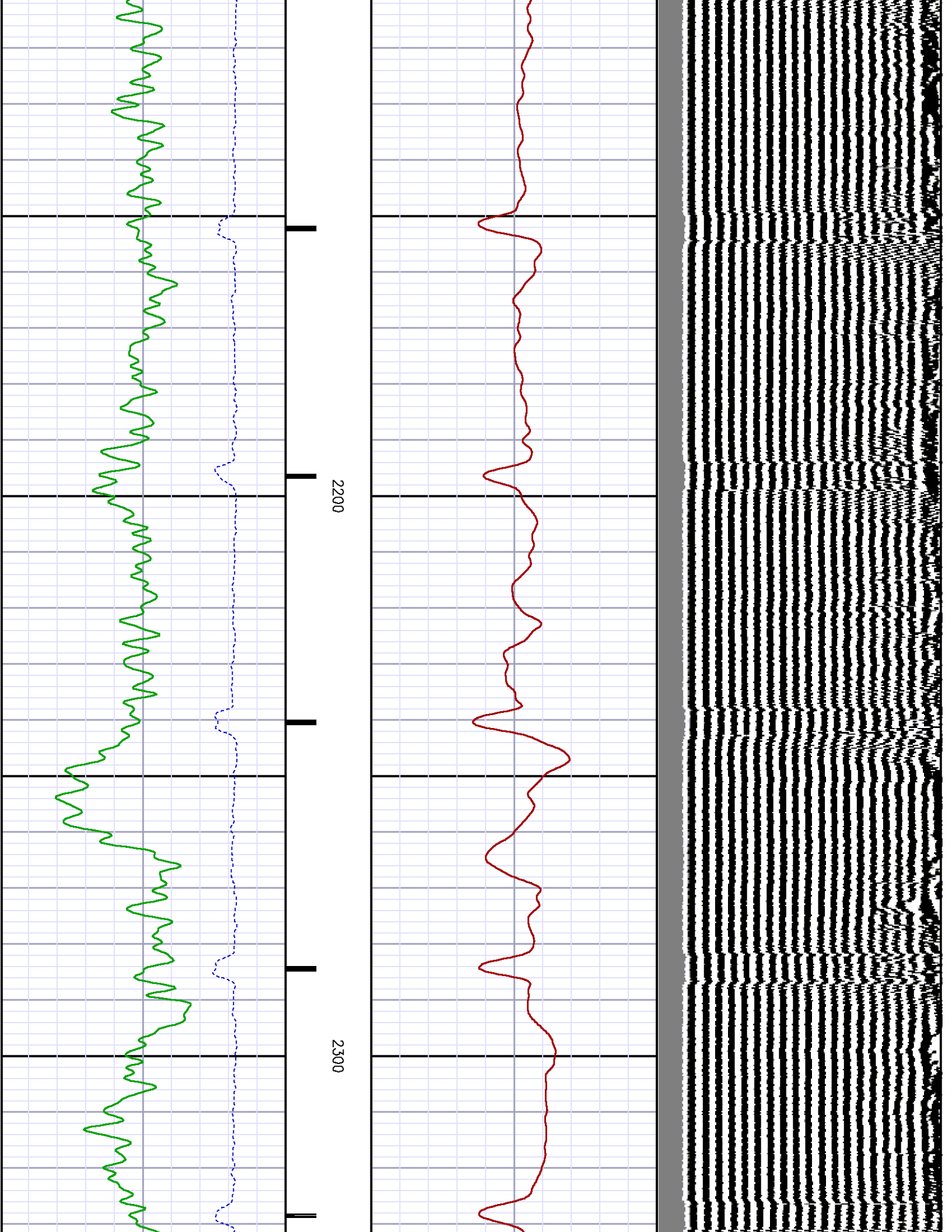


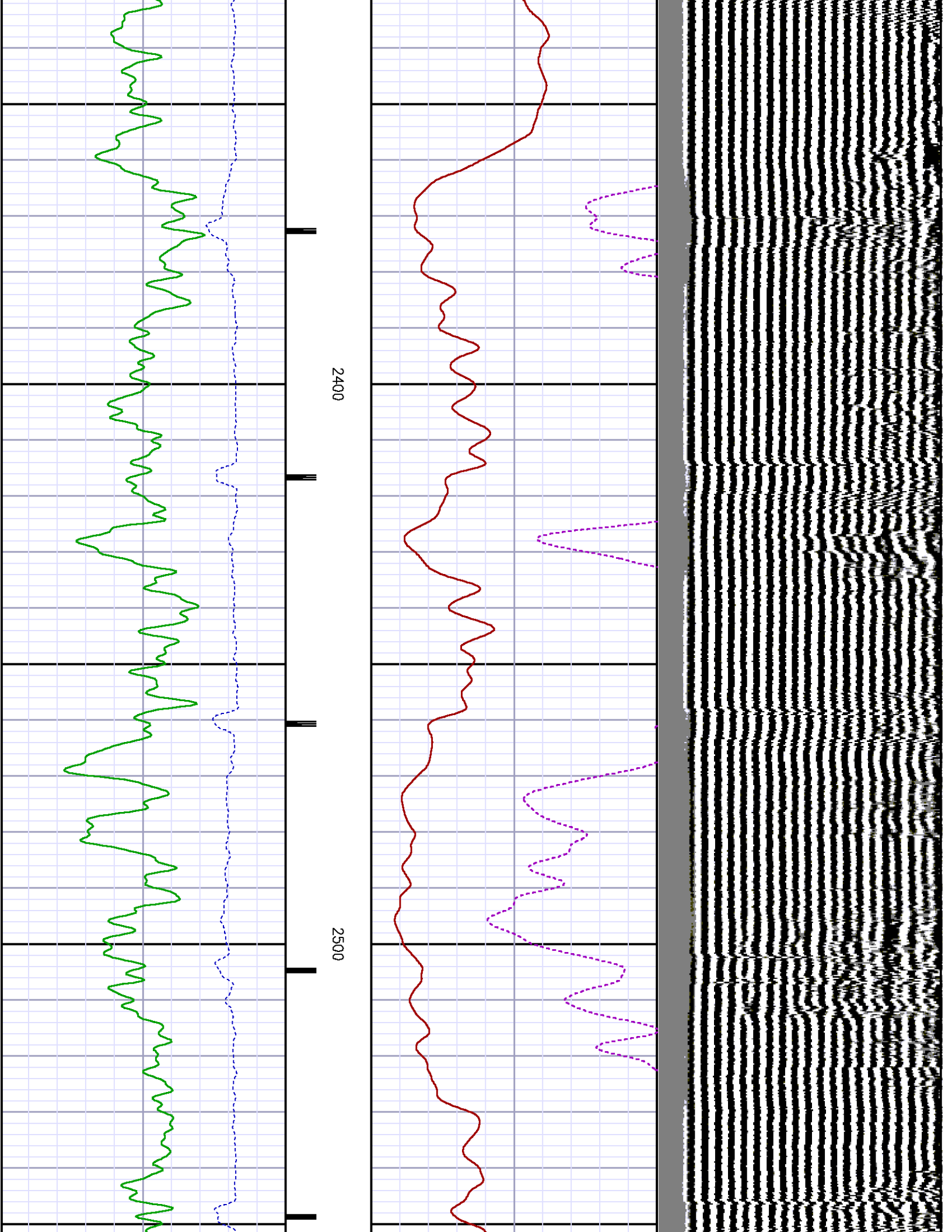


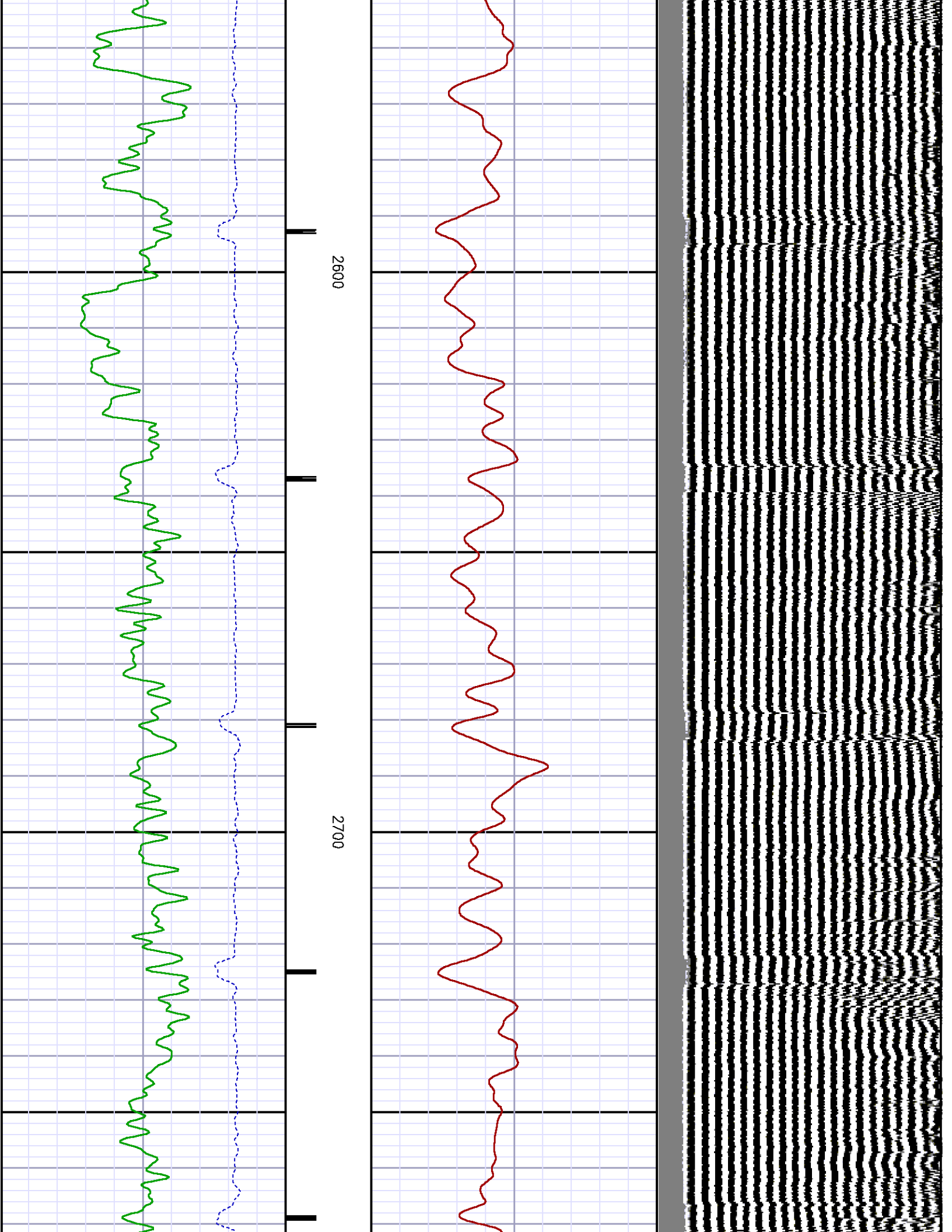


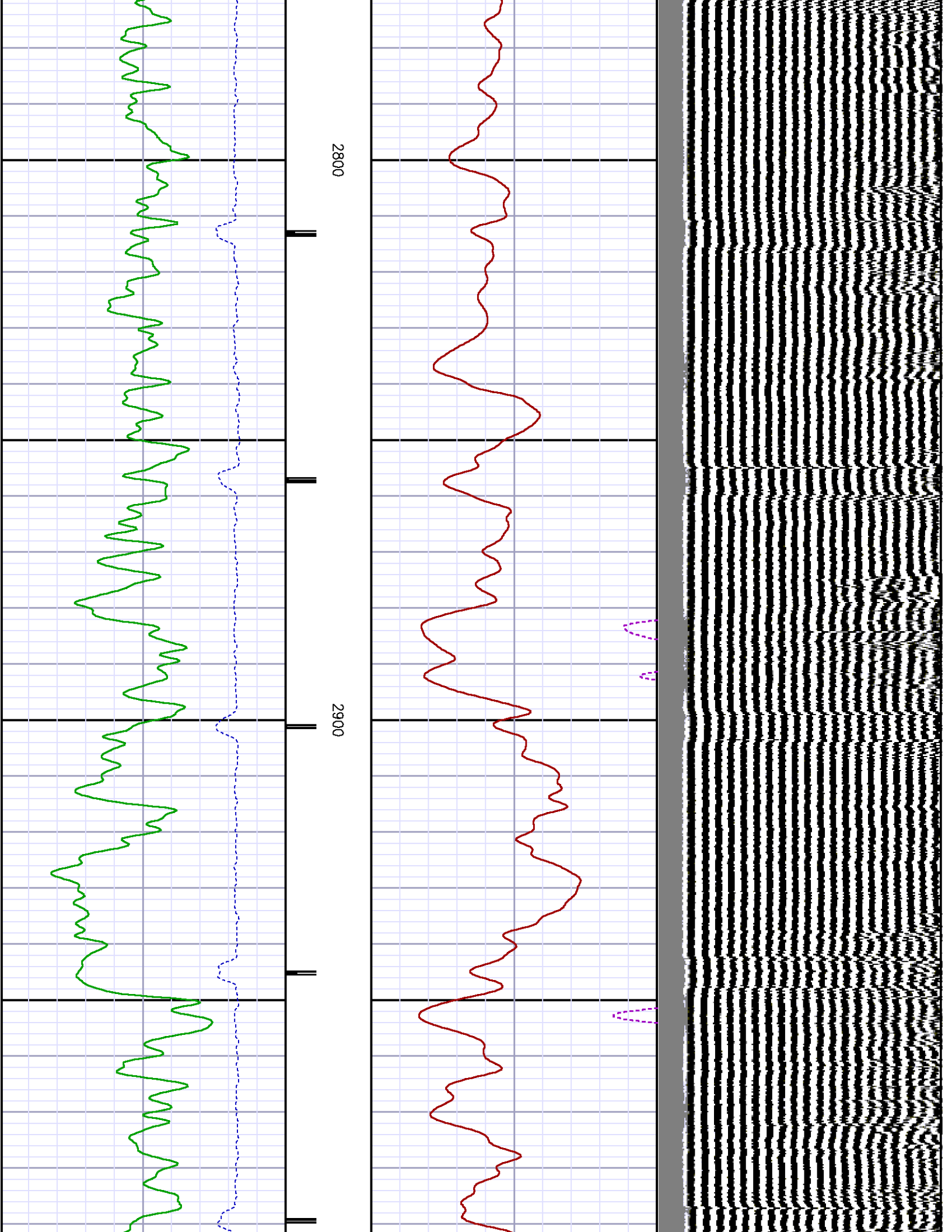


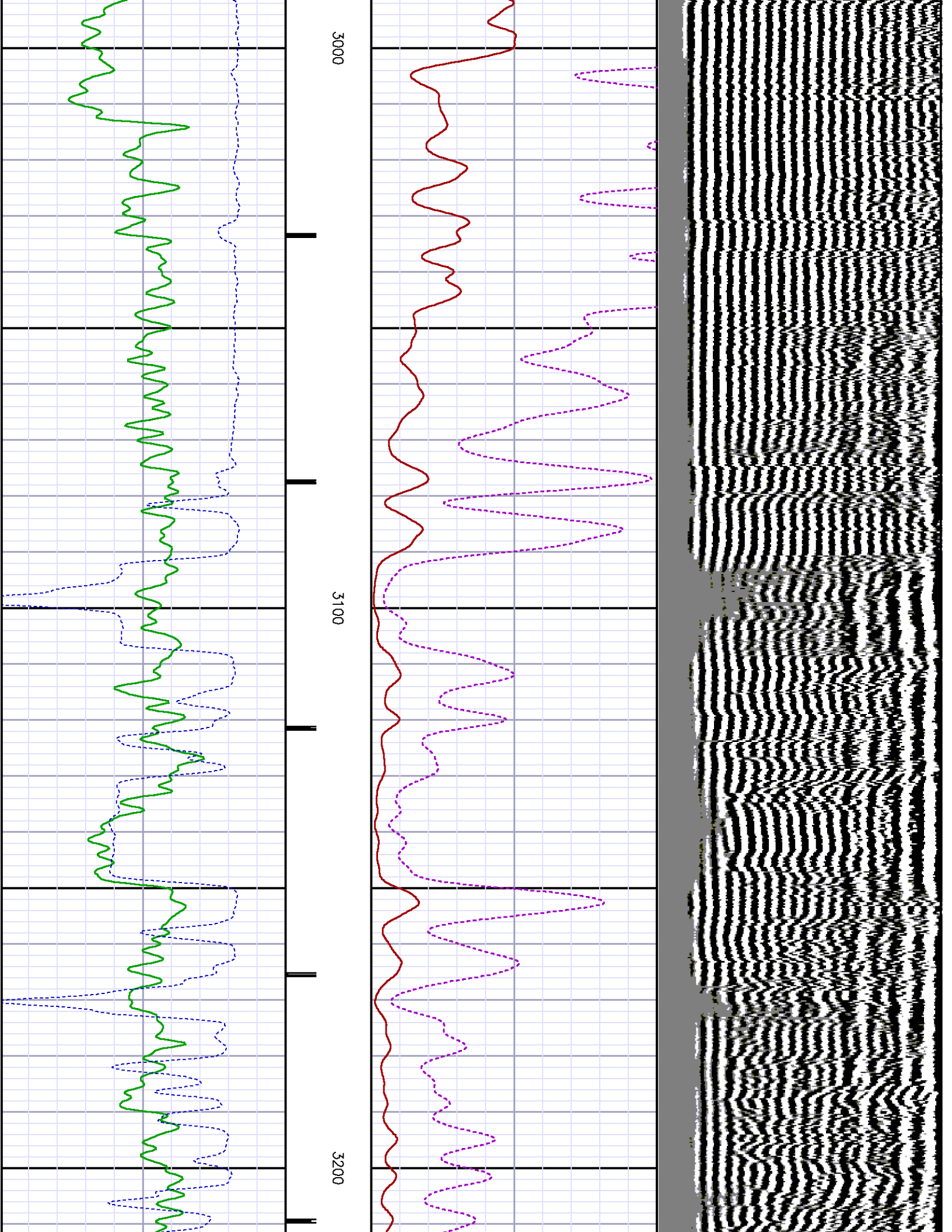


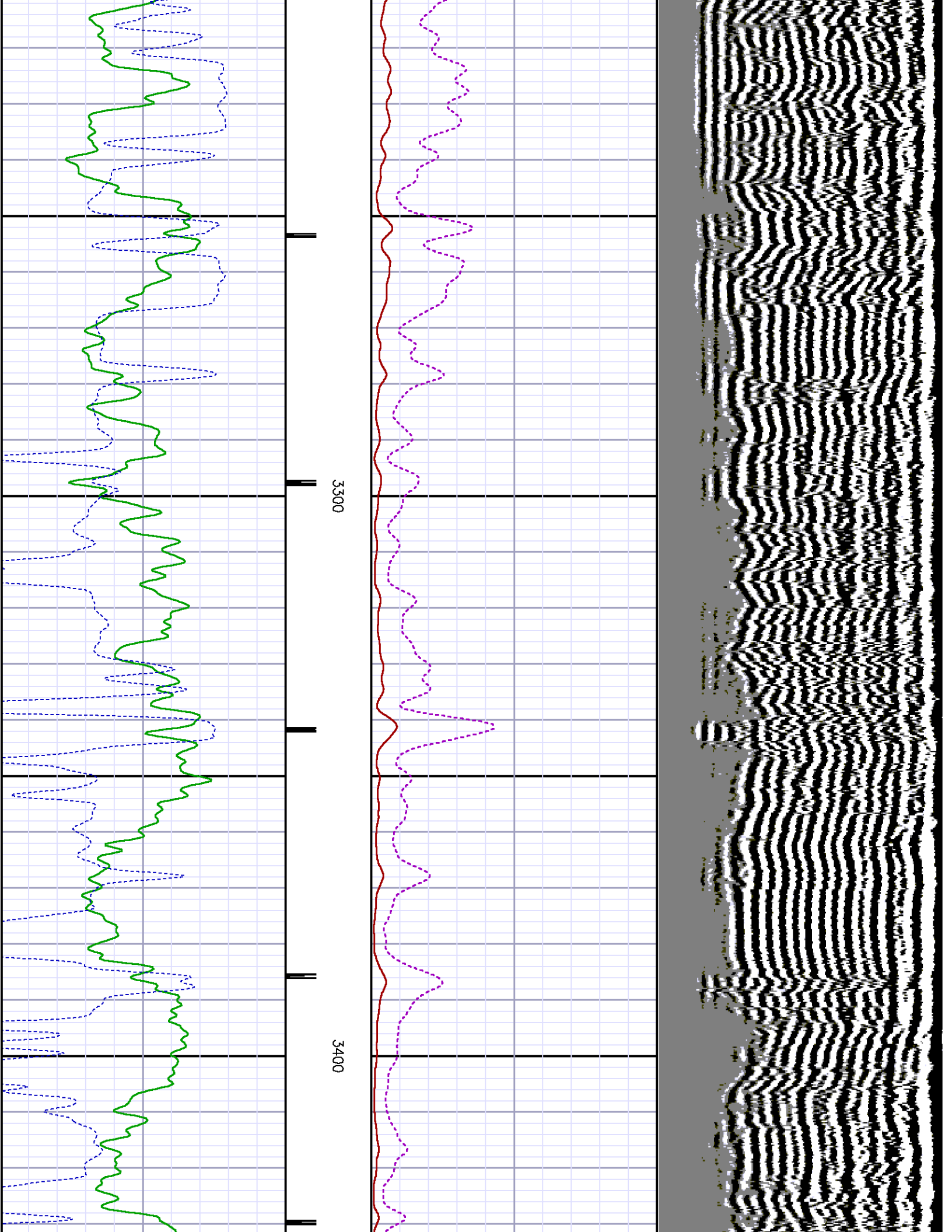


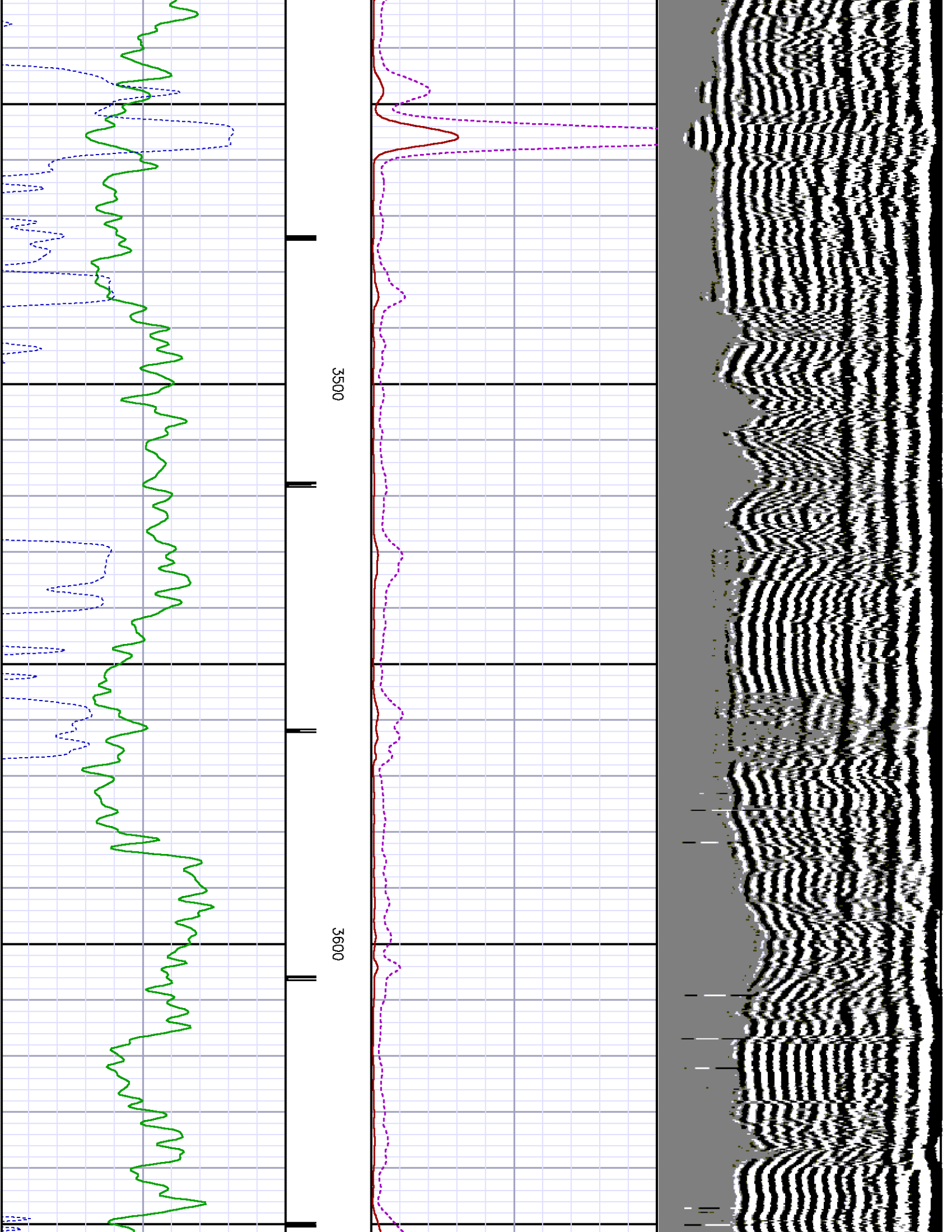


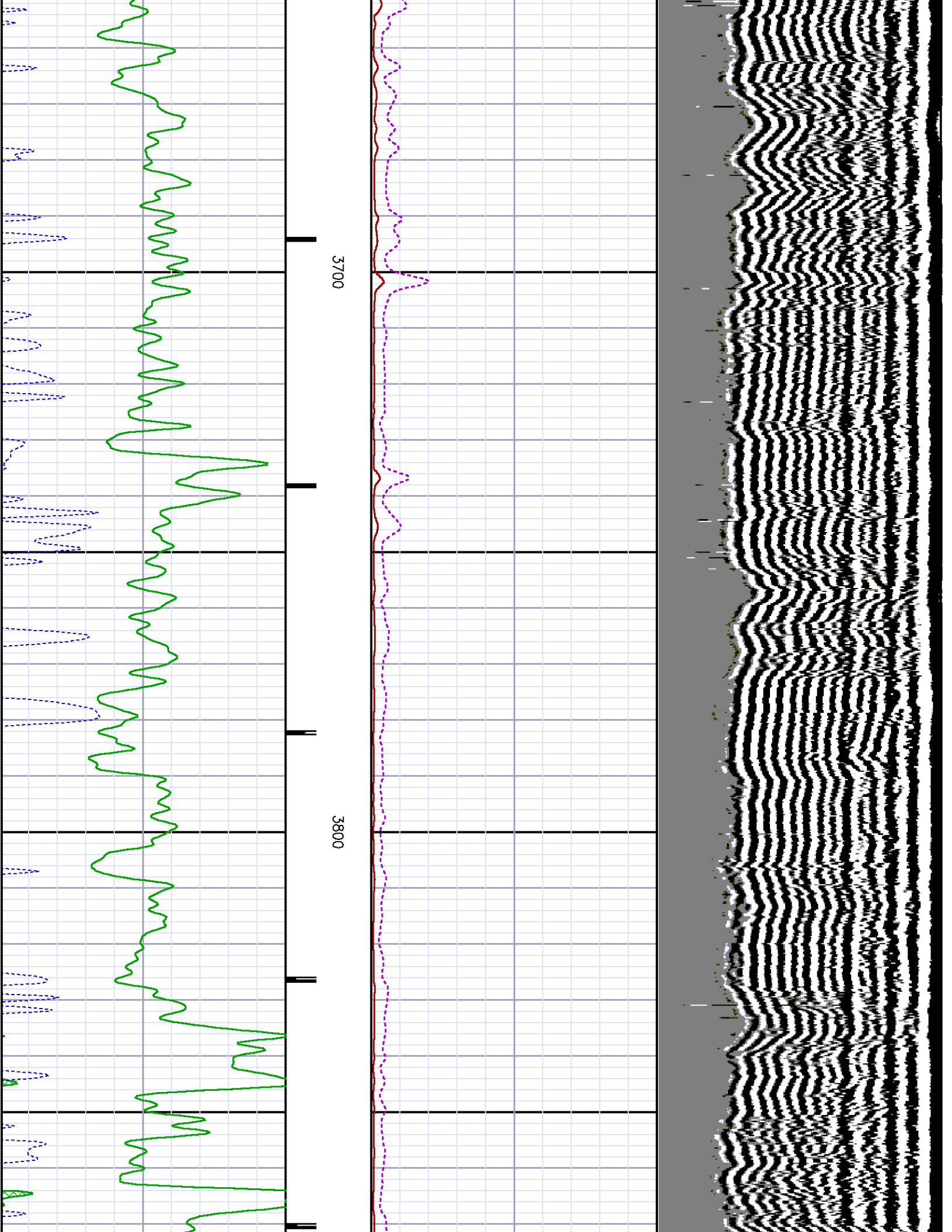


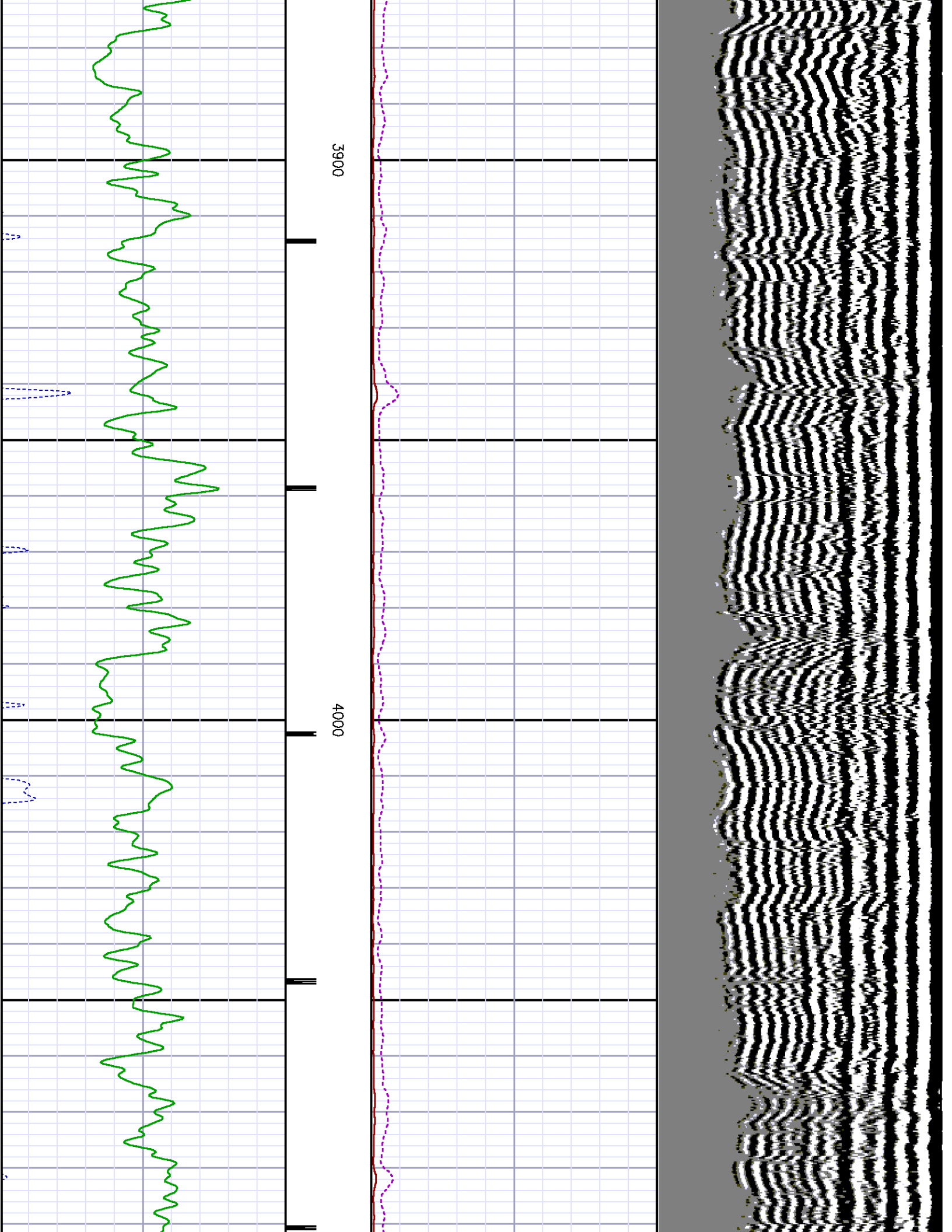


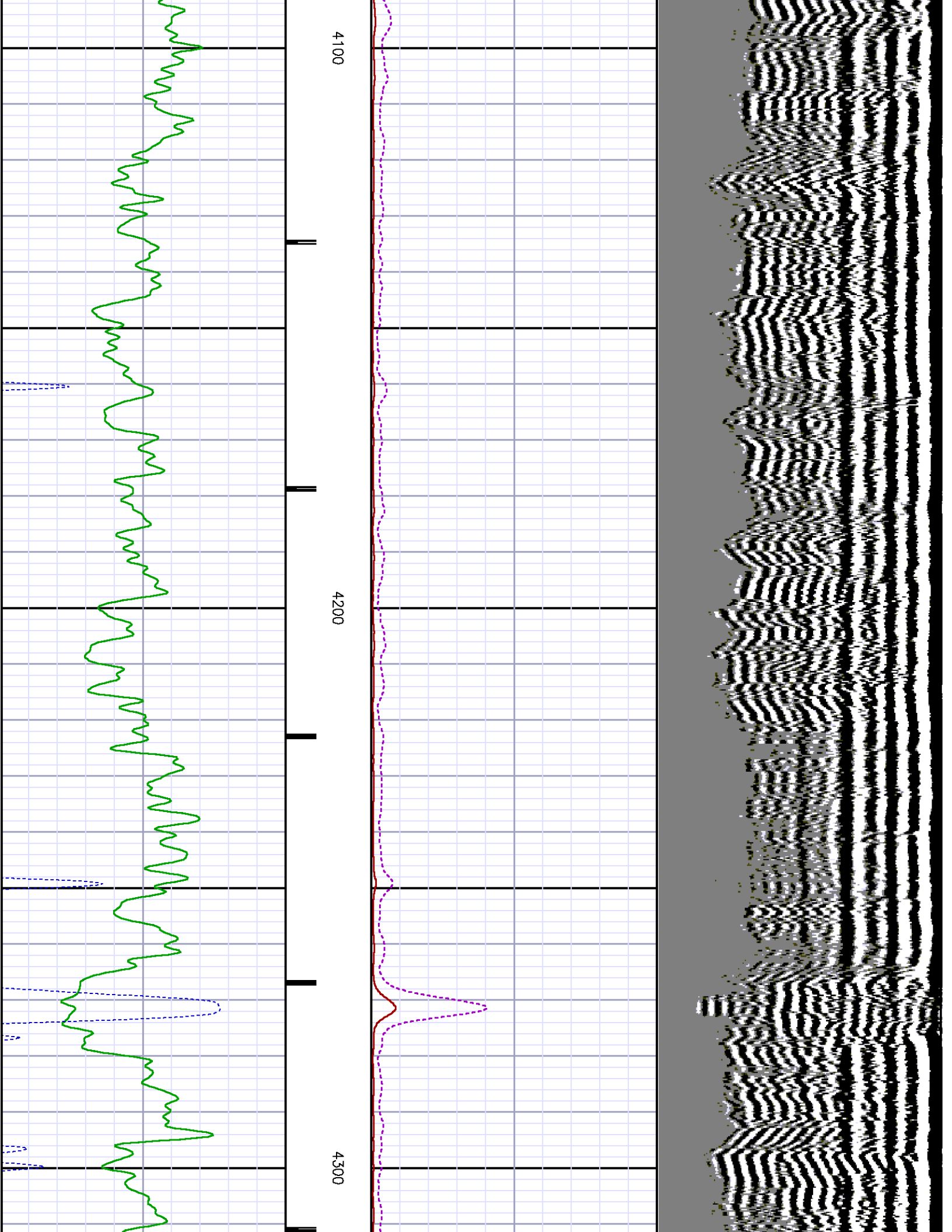


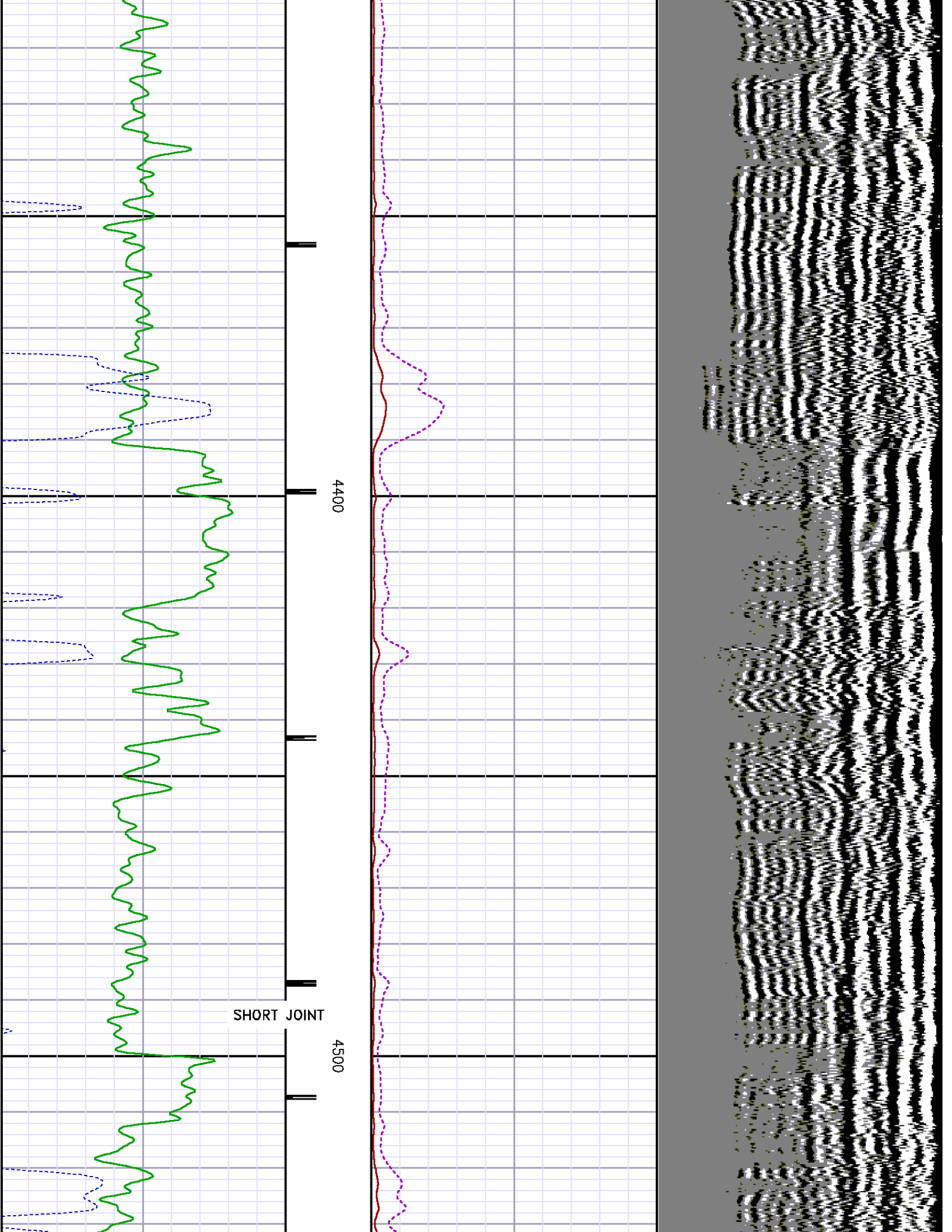




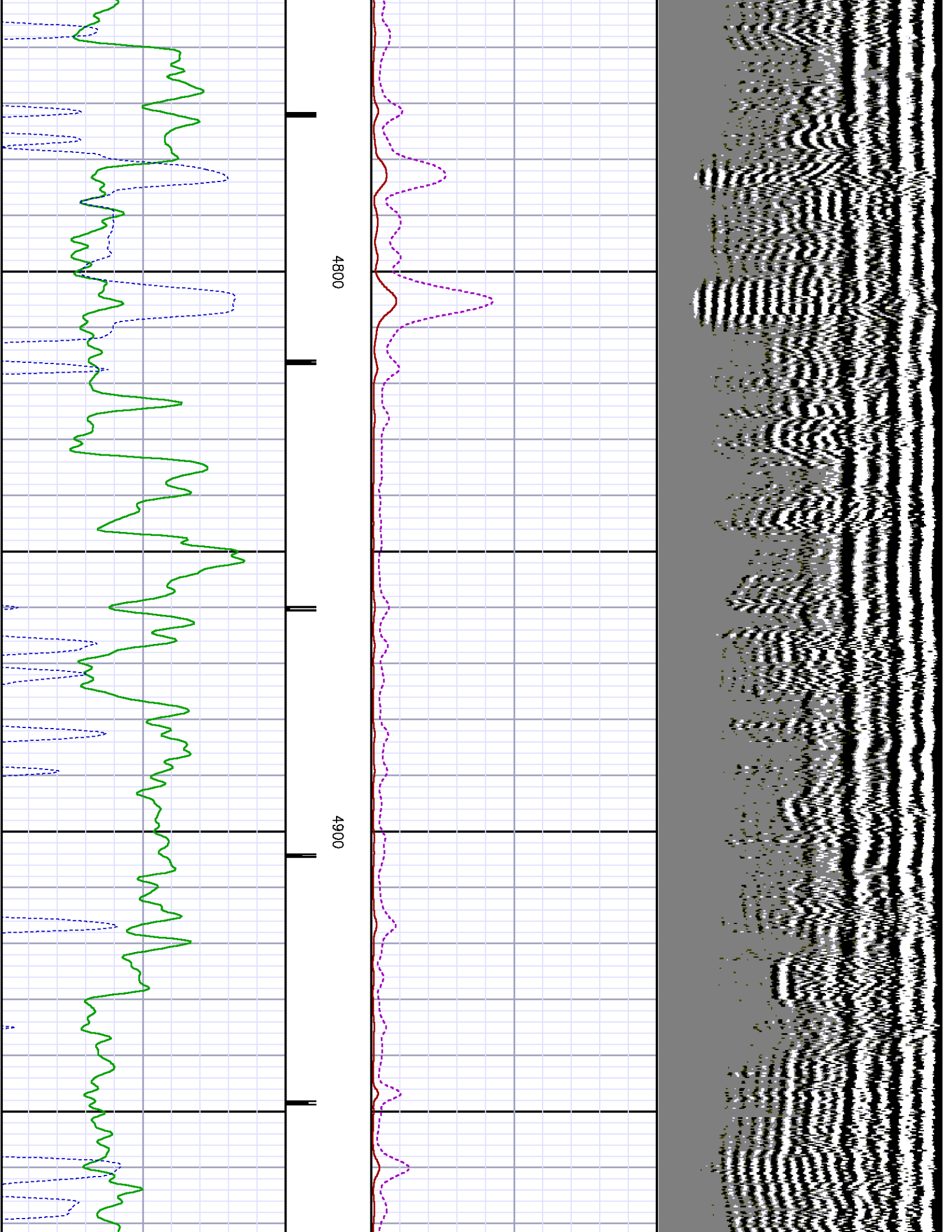


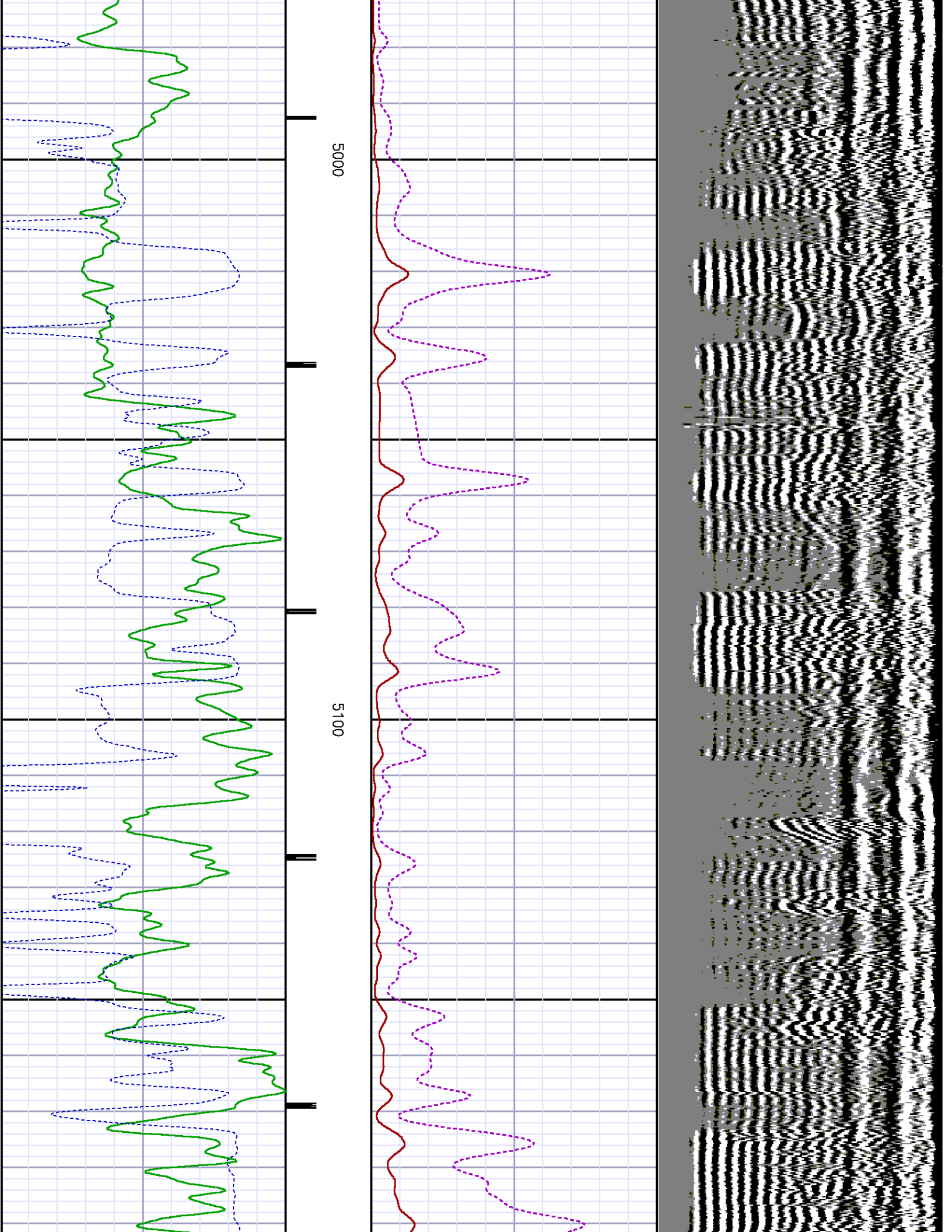


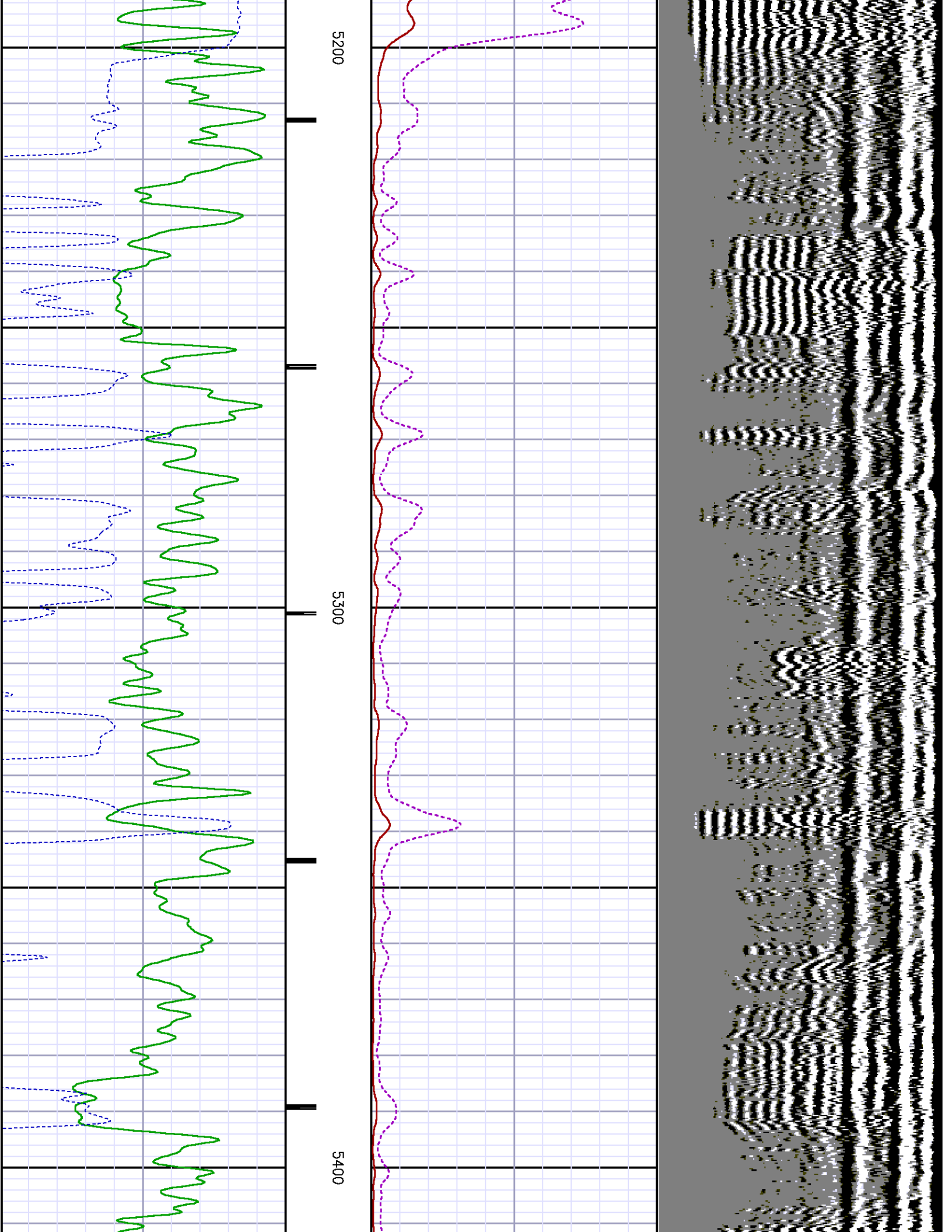


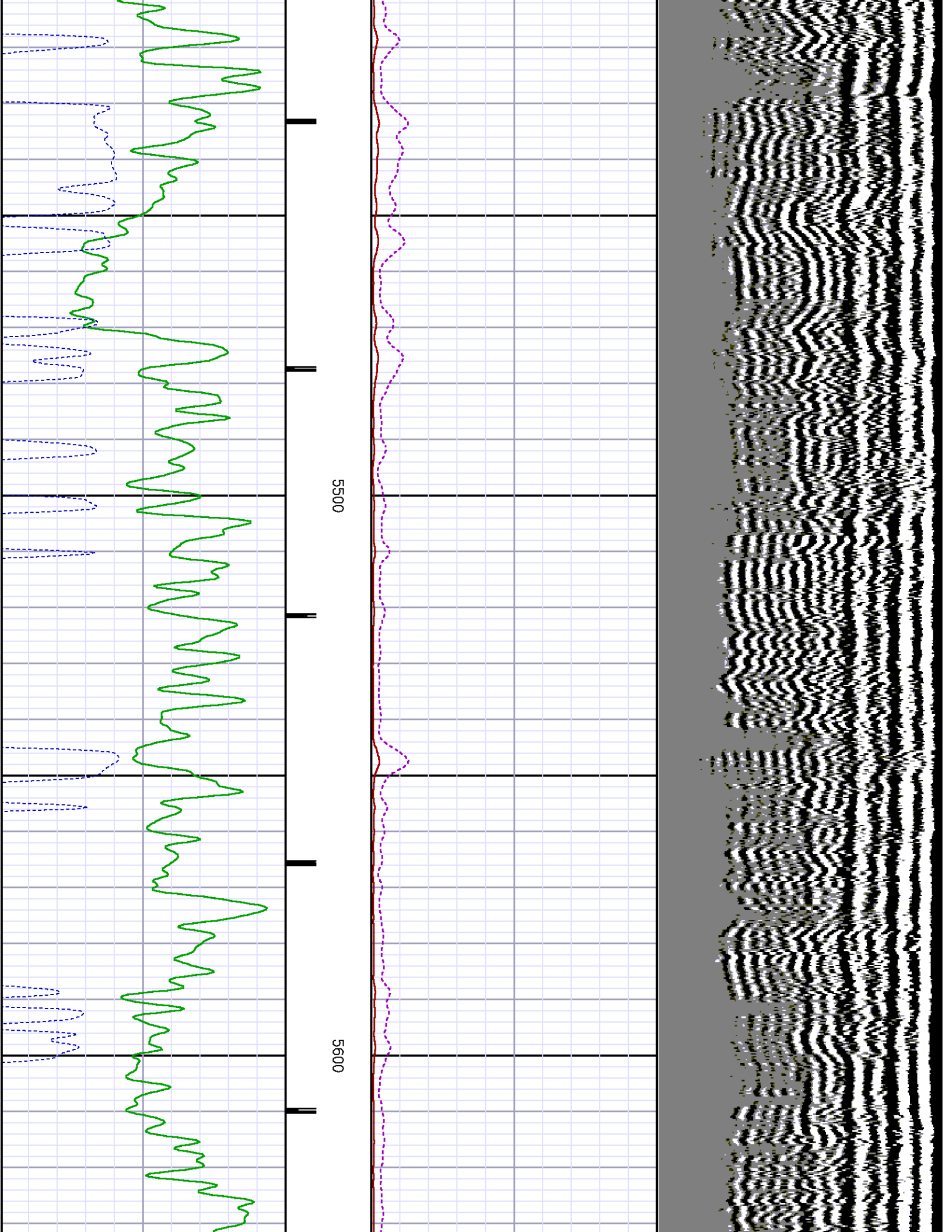


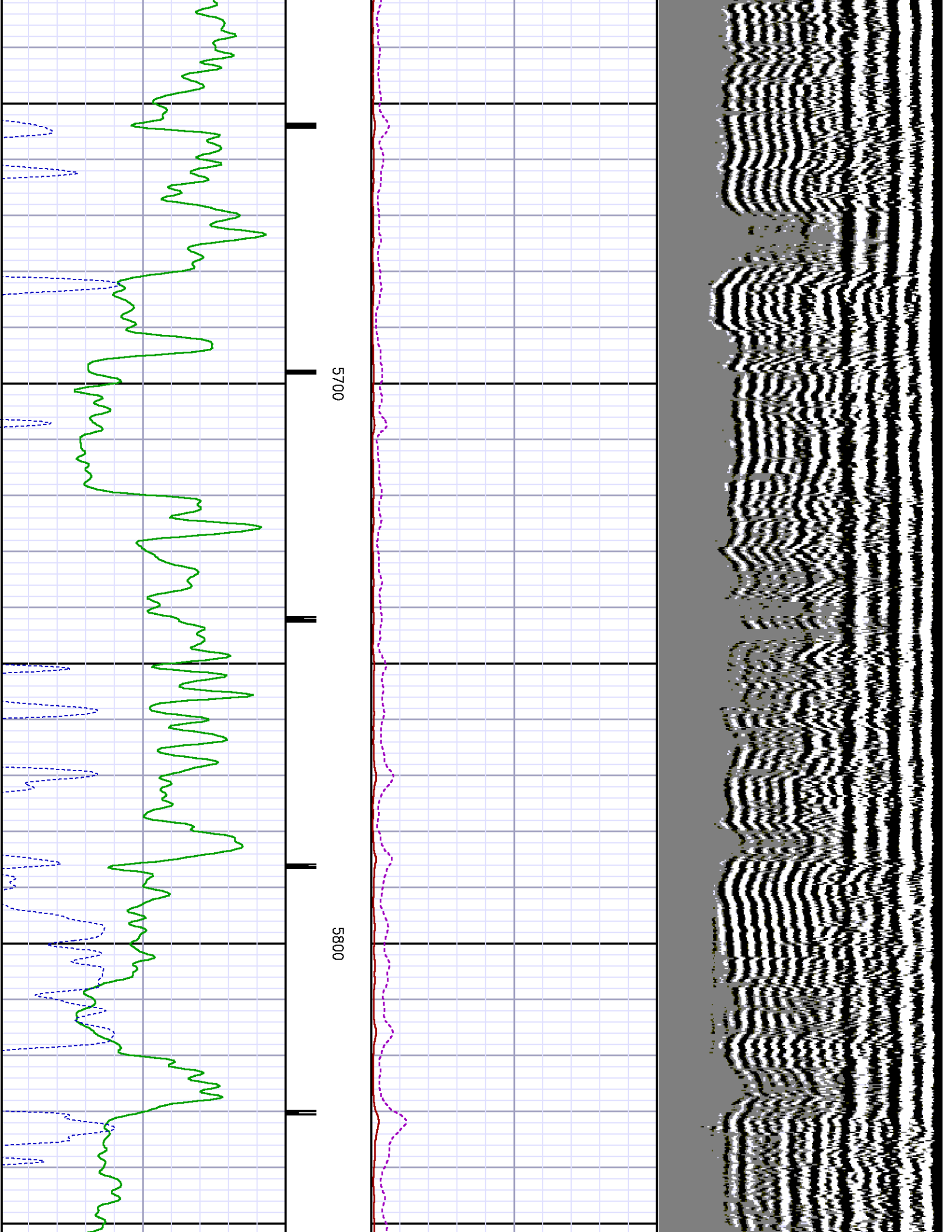


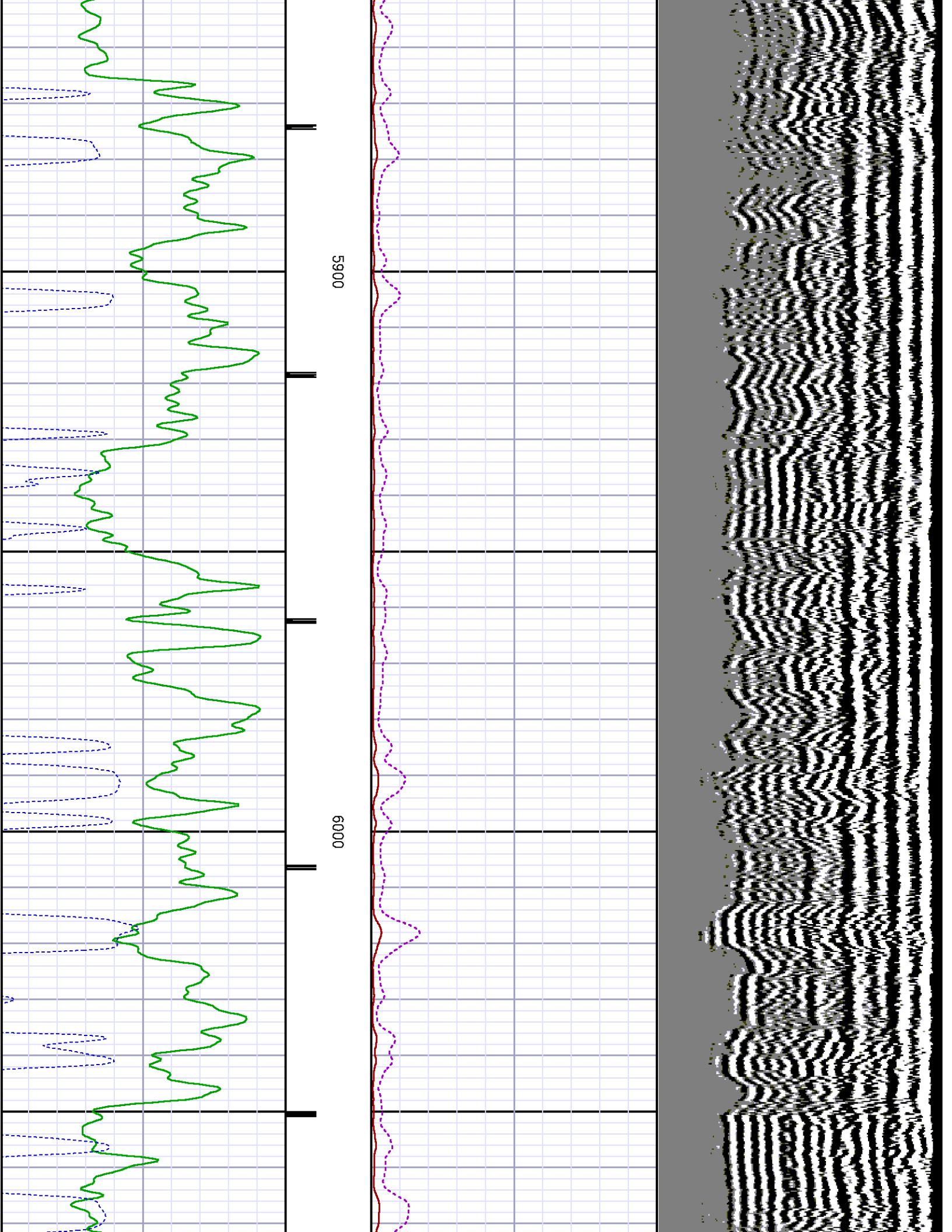


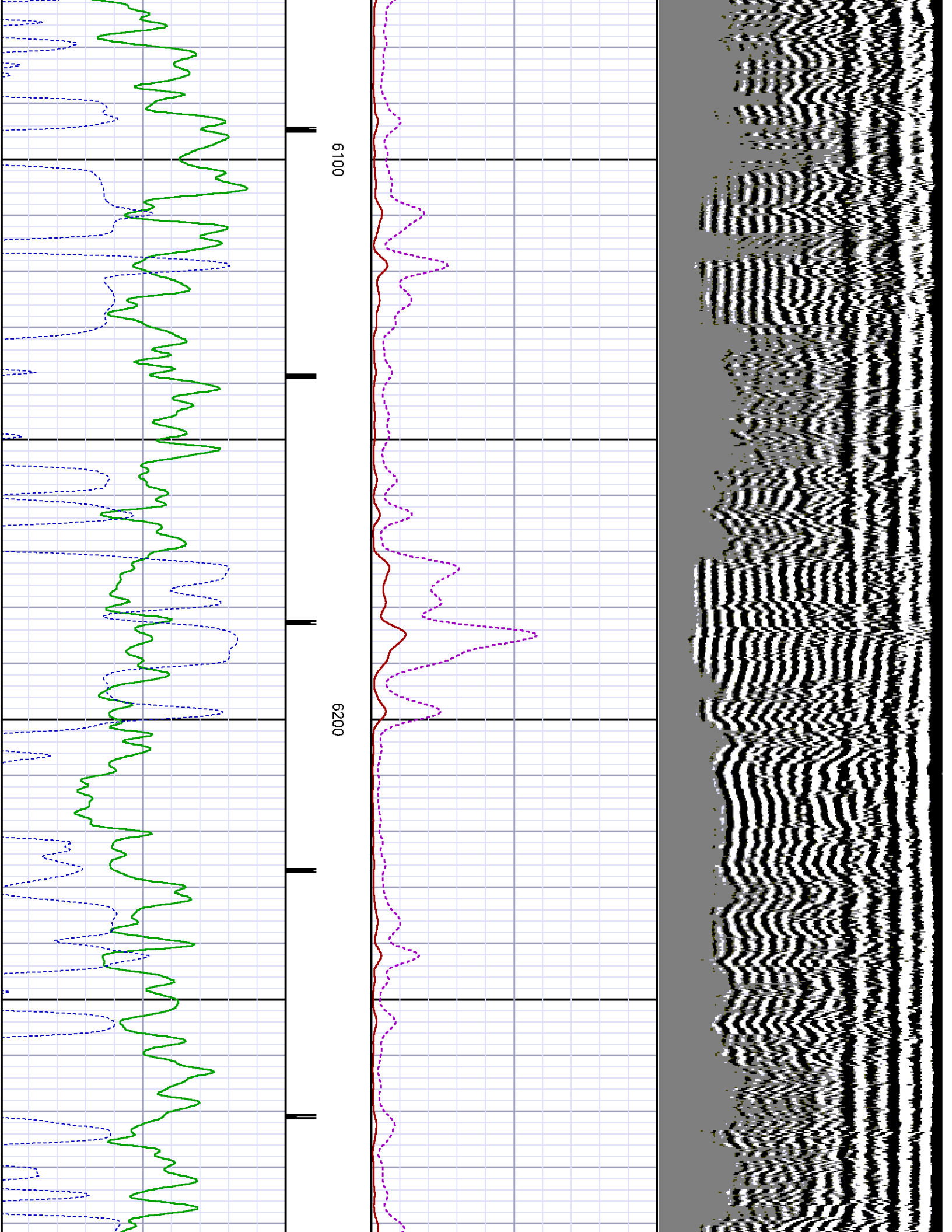


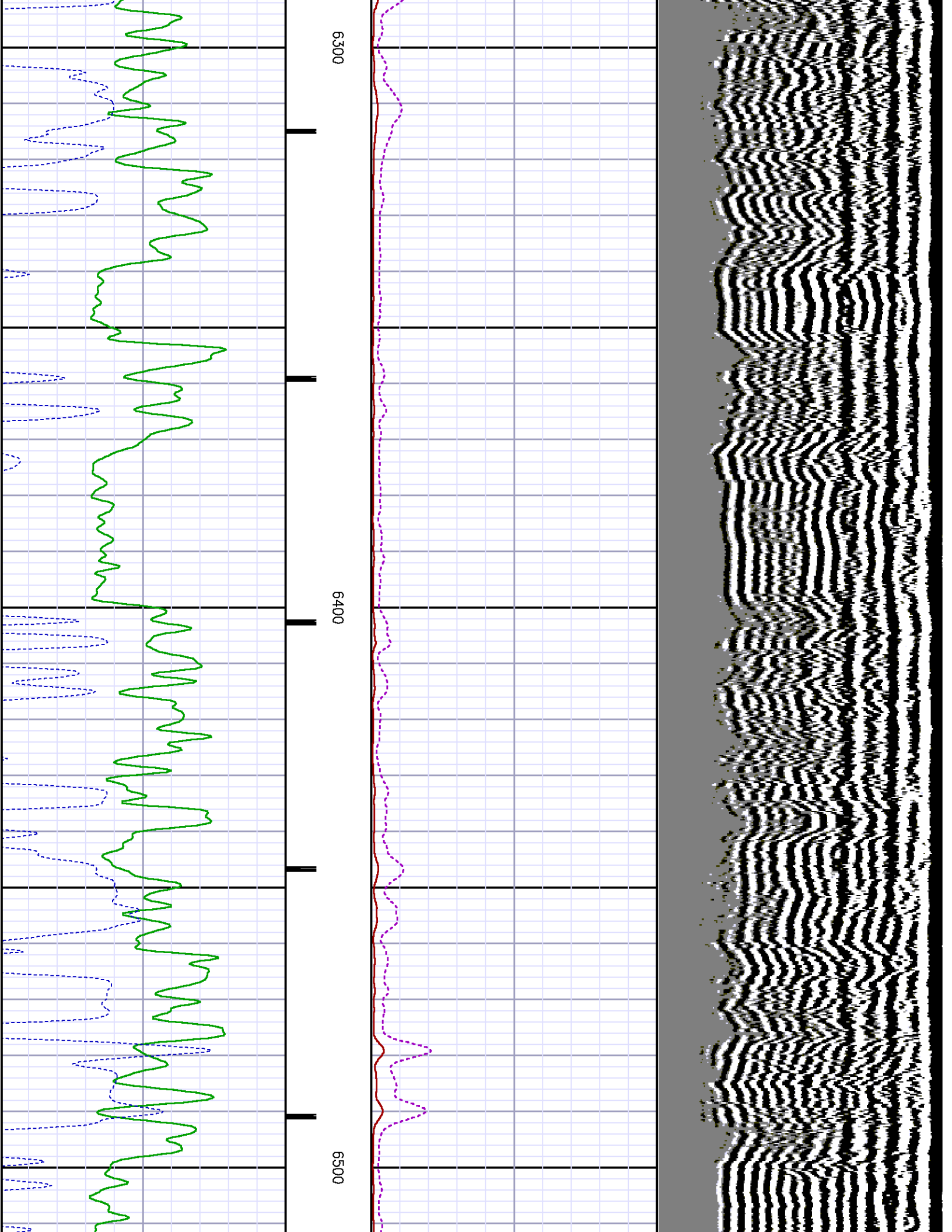


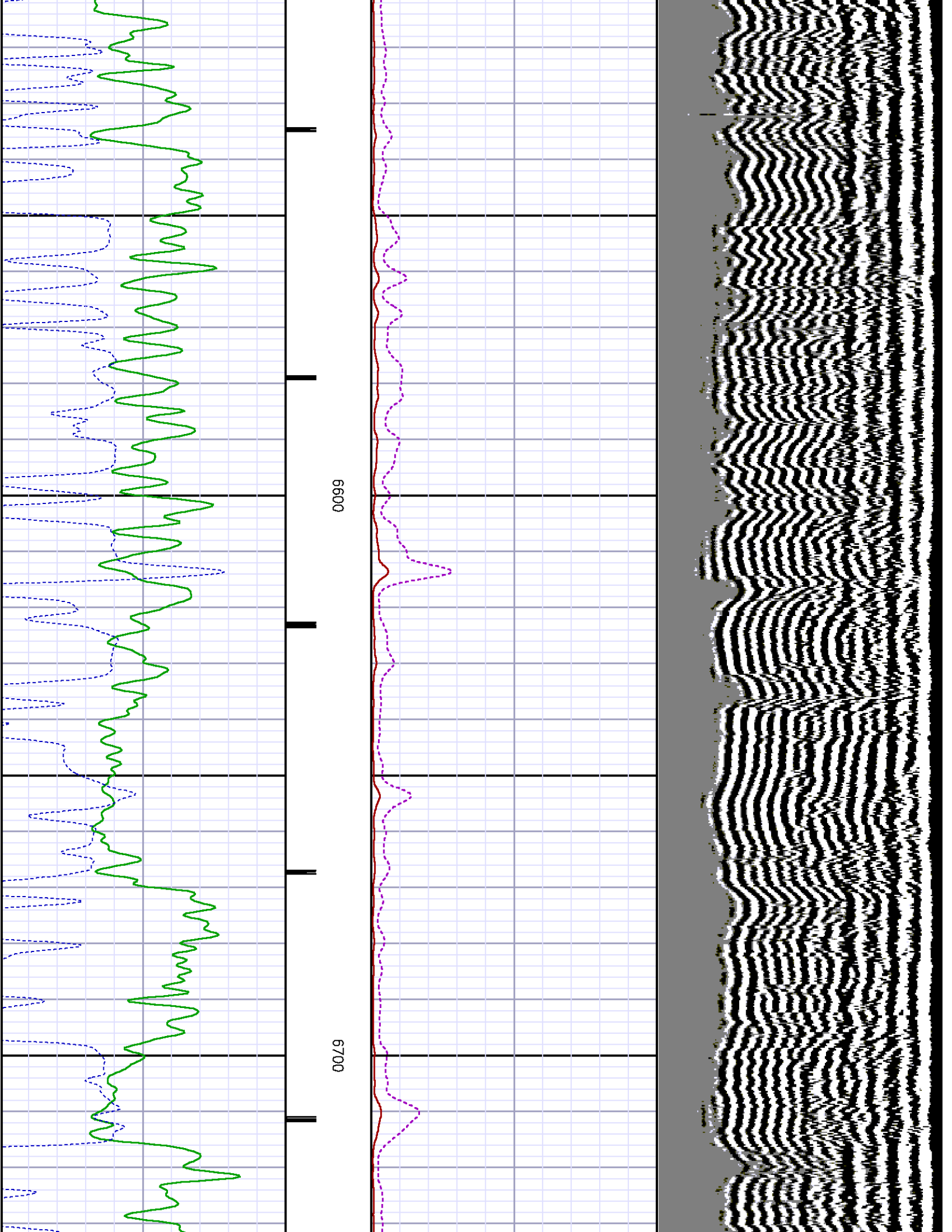


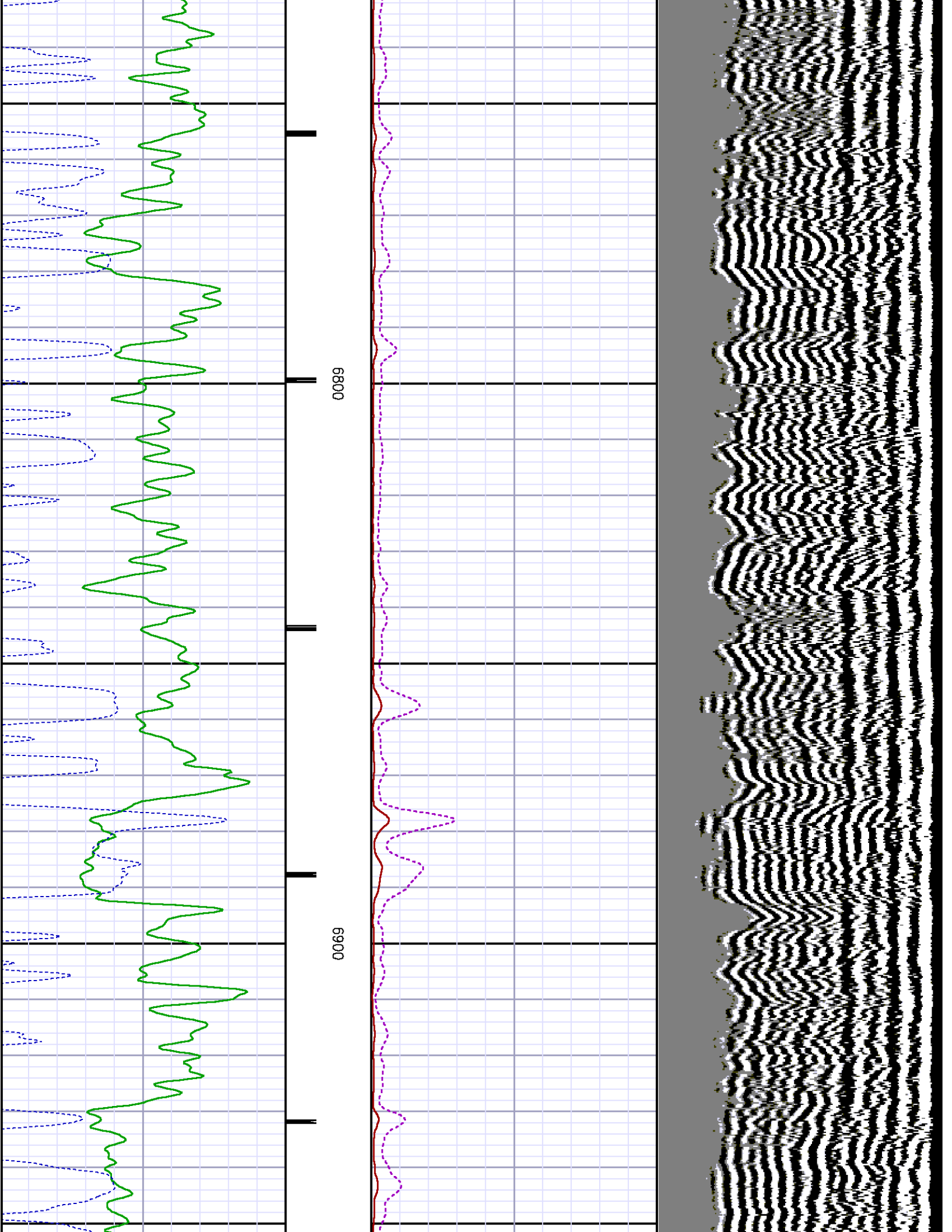


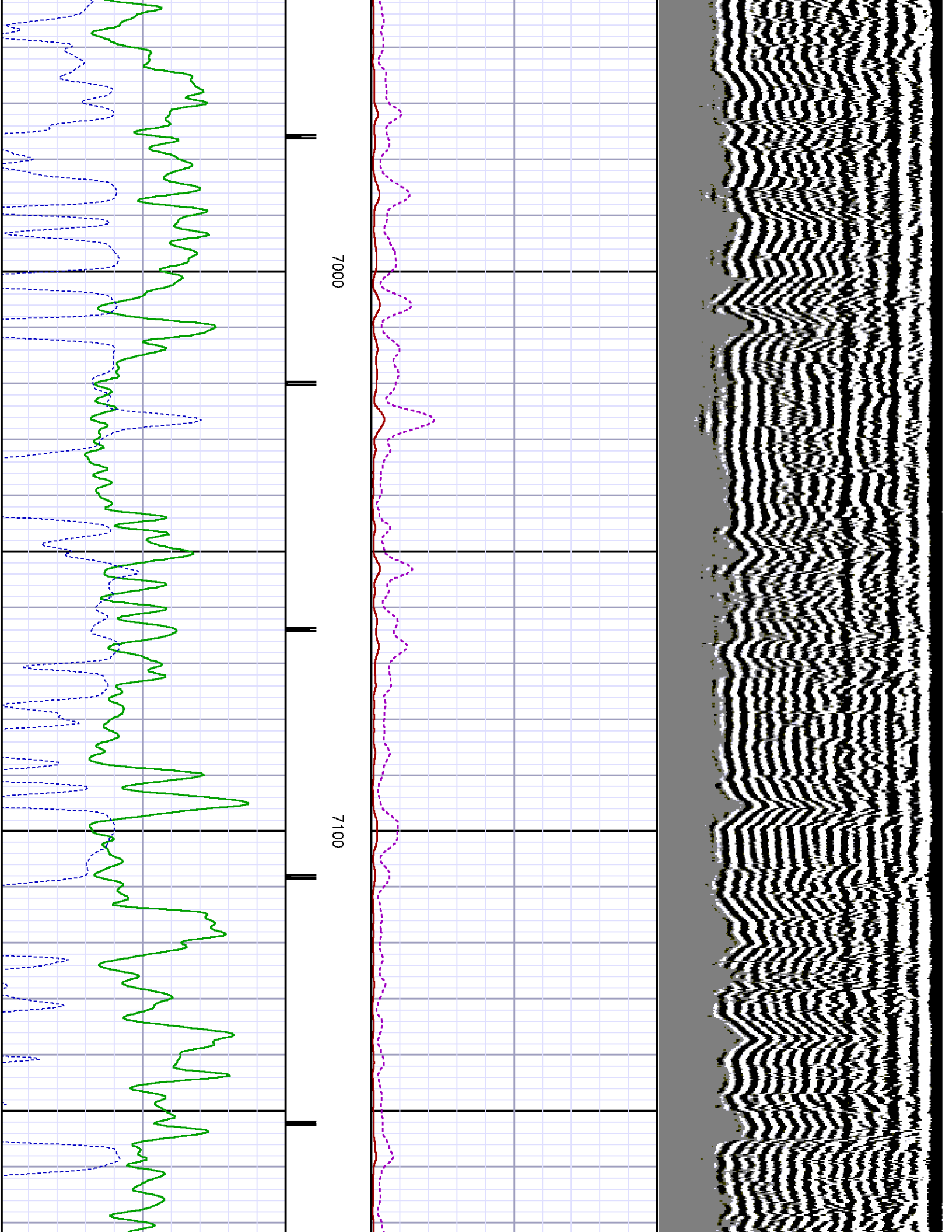


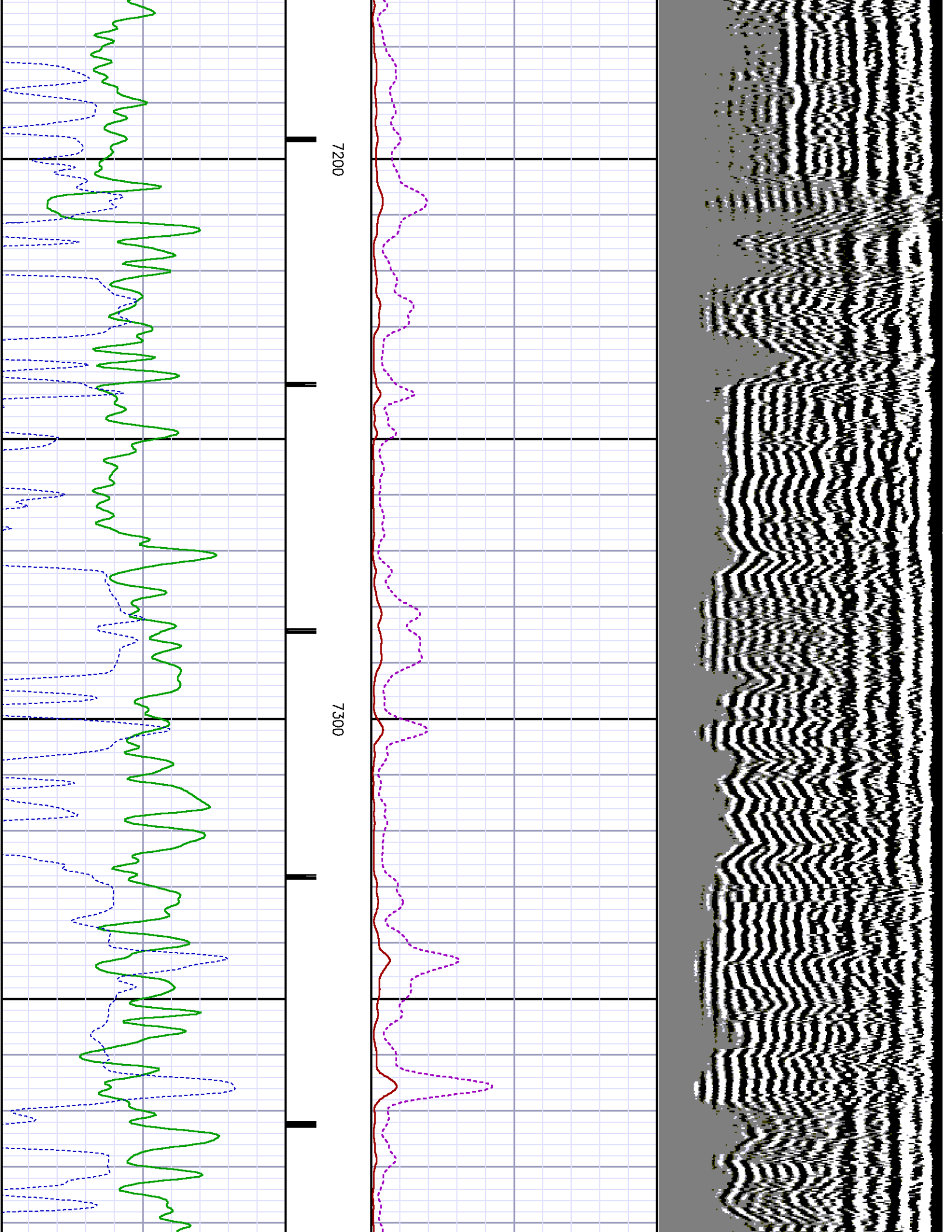


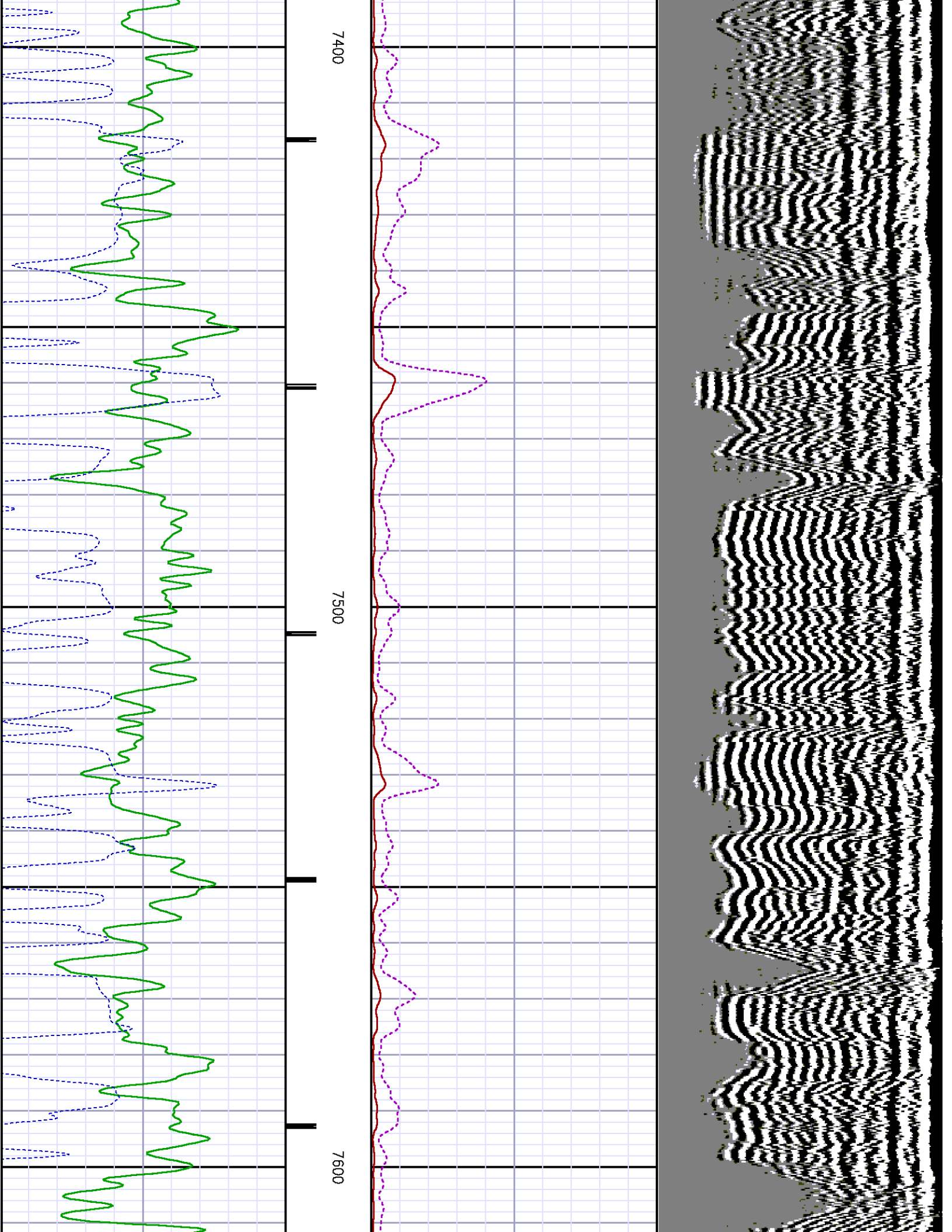


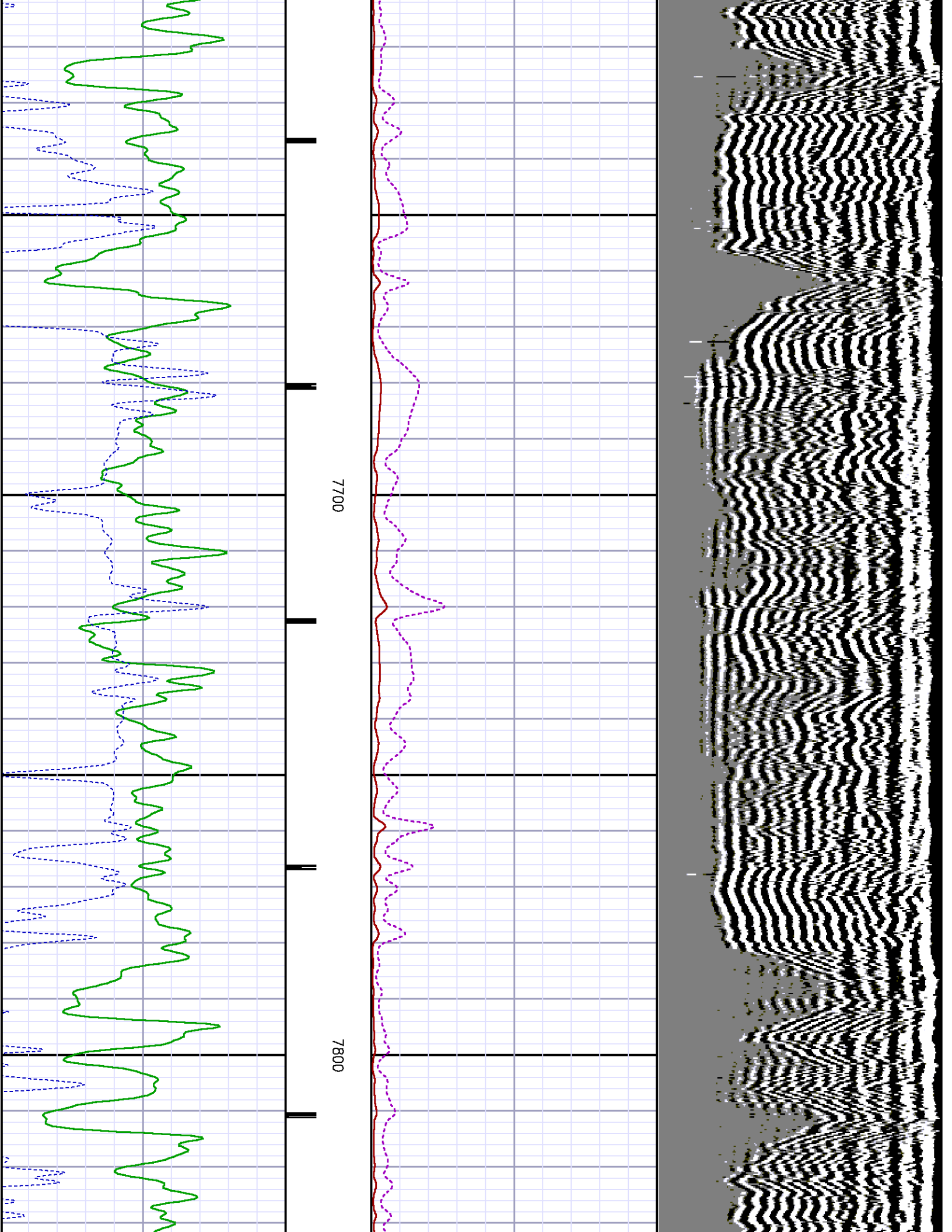


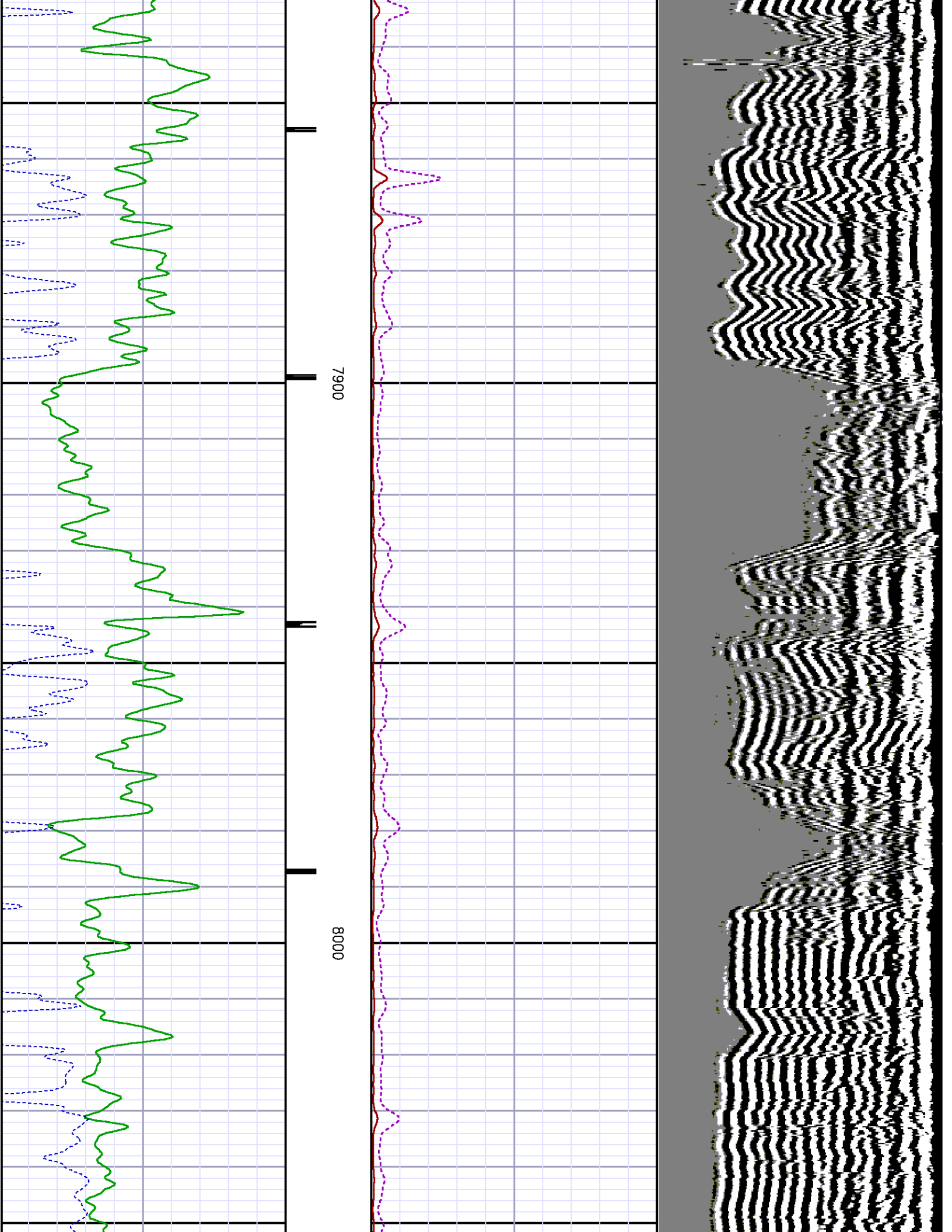


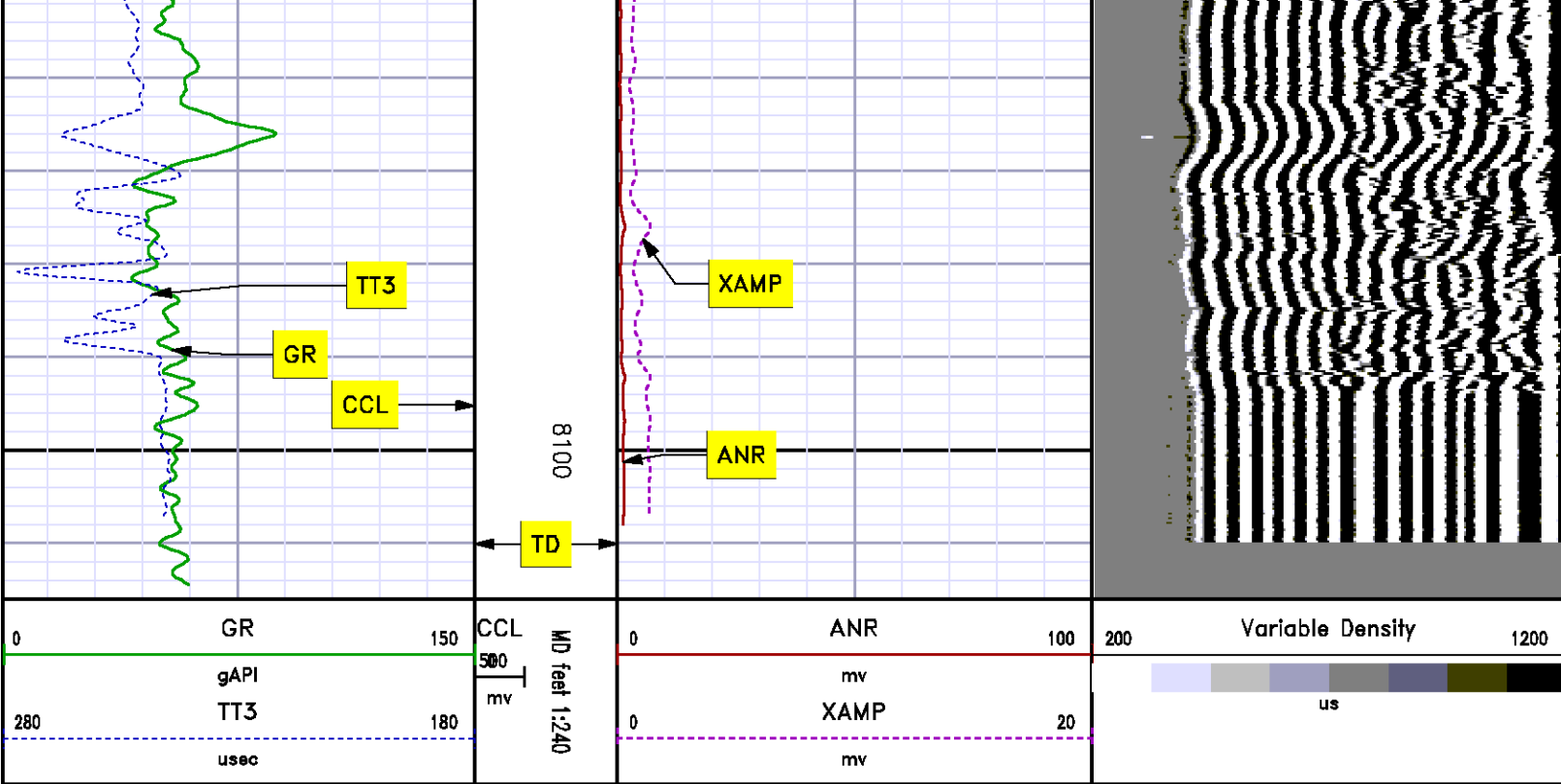












## ***SECONDARY PRESENTATION***

### ***0 PSI***

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	36.375	8125.000
RAL	Amp Gate Start Near	195.000	usec	36.375	8125.000
RAL	Amp Gate Start Radial	195.000	usec	36.375	8125.000
RAL	Amp Gate Width Far	25.000	usec	36.375	8125.000
RAL	Amp Gate Width Near	25.000	usec	36.375	8125.000
RAL	Amp Gate Width Radial	25.000	usec	36.375	8125.000
RAL	casing od	4.500	inches	36.375	8125.000
RAL	casing wt	11.600	lbm/ft	36.375	8125.000
RAL	FB Start Far	291.900	usec	36.375	8125.000
RAL	FB Start Near	180.000	usec	36.375	8125.000
RAL	FB Start Radial	180.000	usec	36.375	8125.000
RAL	FB Thresh Far	10.000	mv	36.375	8125.000
RAL	FB Thresh Near	4.000	mv	36.375	8125.000
RAL	FB Thresh Radial	4.000	mv	36.375	8125.000
RAL	Fluid Travel Time	200.000	usec/ft	36.375	8125.531

## DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4		
		AR5	AR6	AR7	AR8	CHV	FPR2		
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3		
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP		
1426XA	-15.750	AFAR	SIG	TT5					
2459XA	-11.340	CCL							
2459XA	-9.490	GR							
2459XA	-4.090	NEU							

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

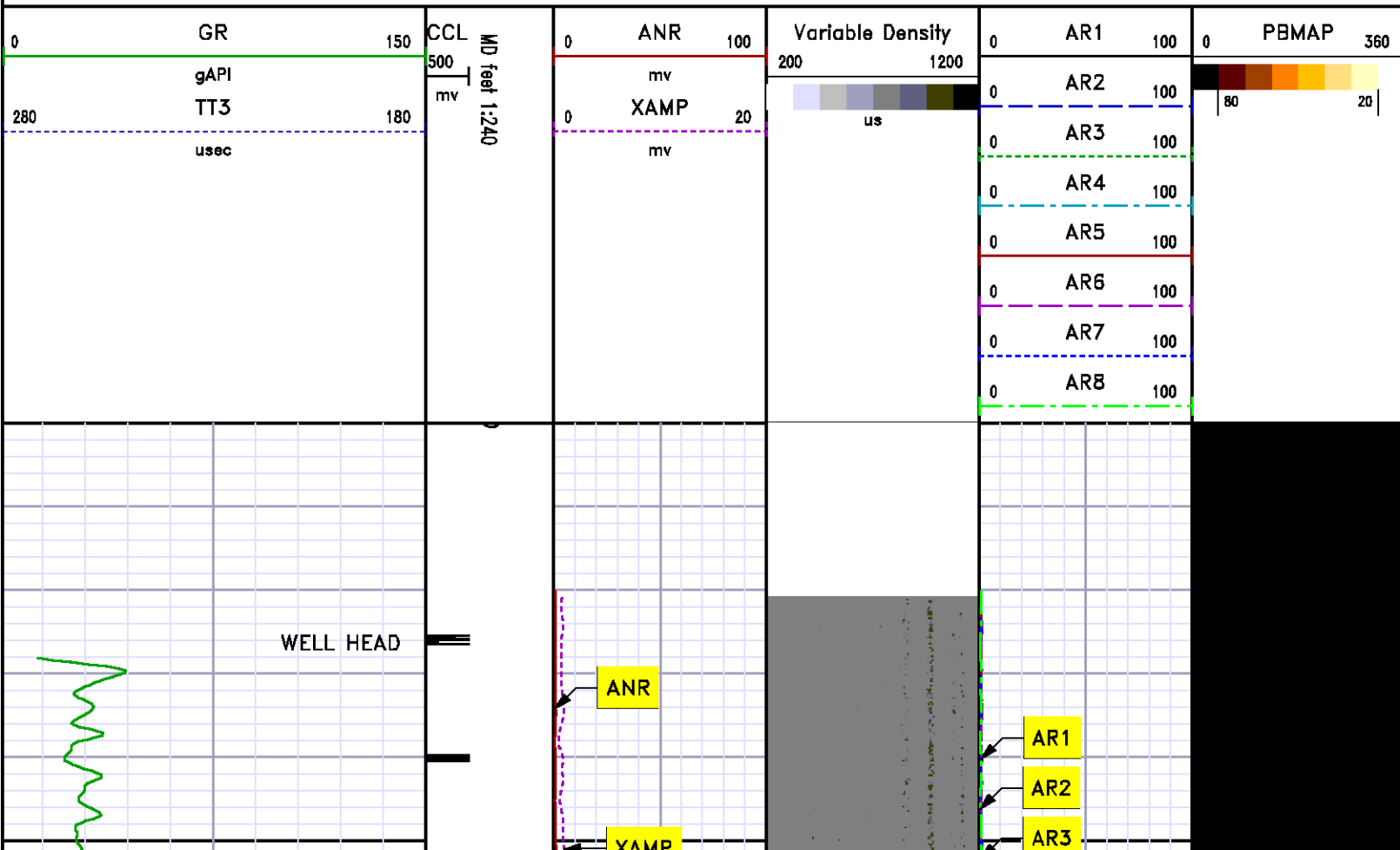
Well : YOUBERG RWF 433-23

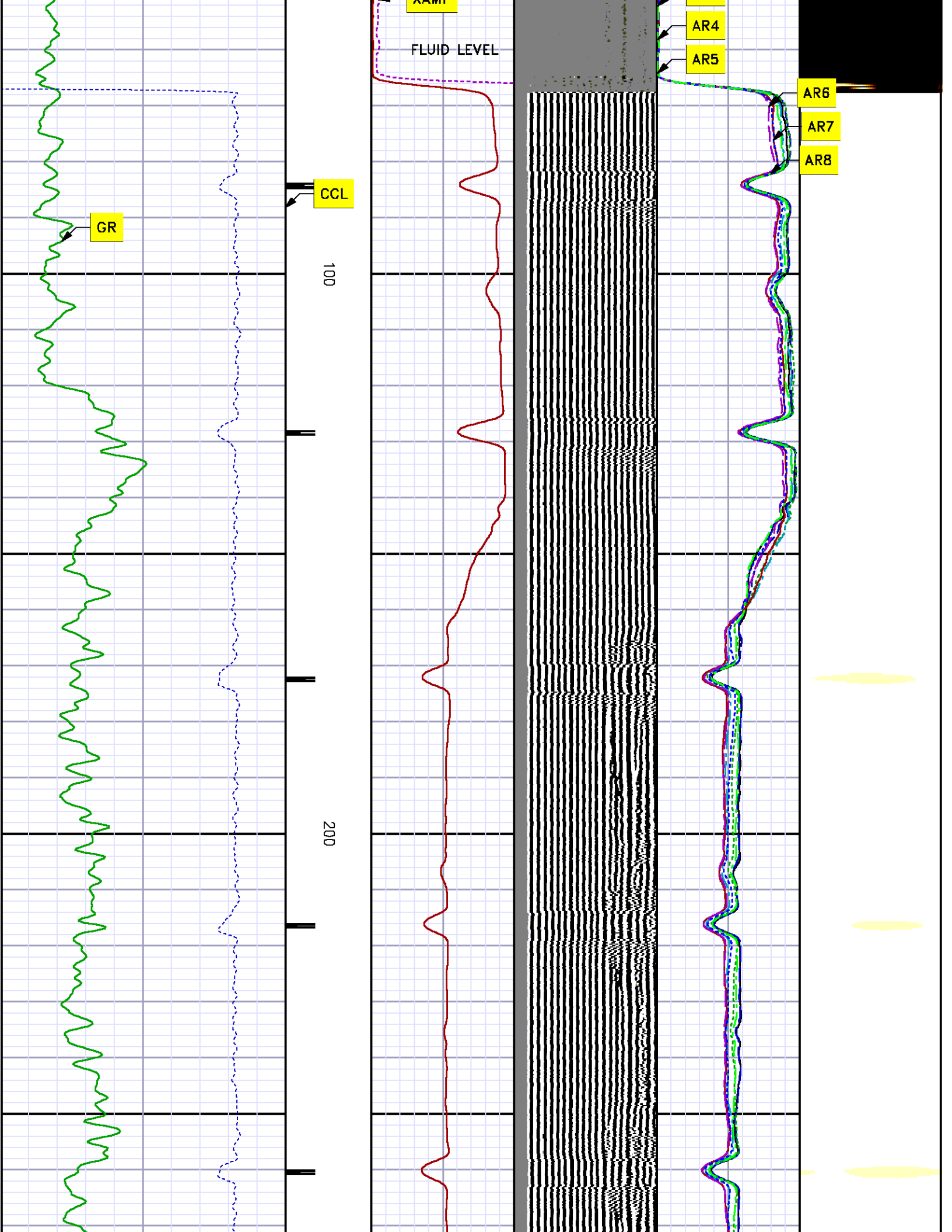
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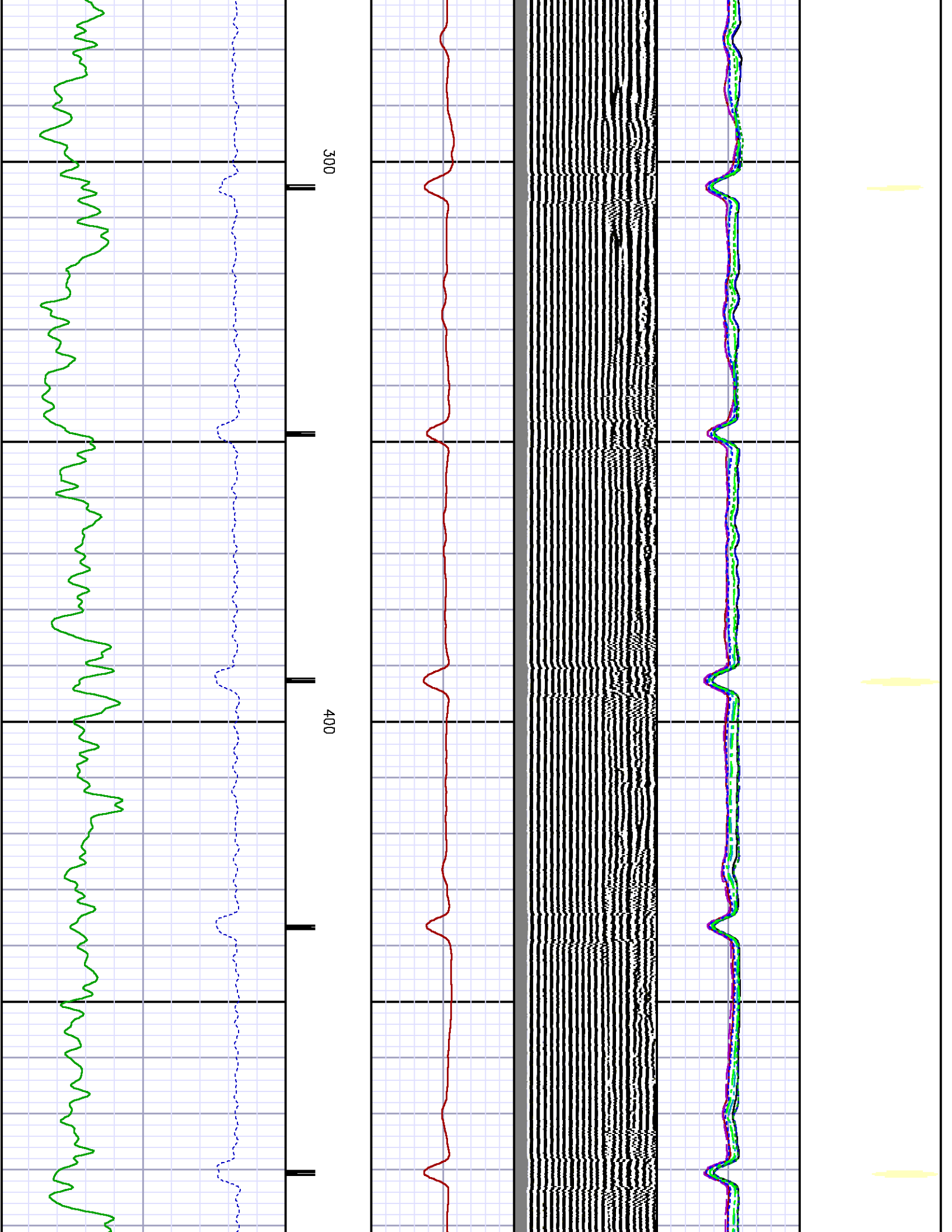
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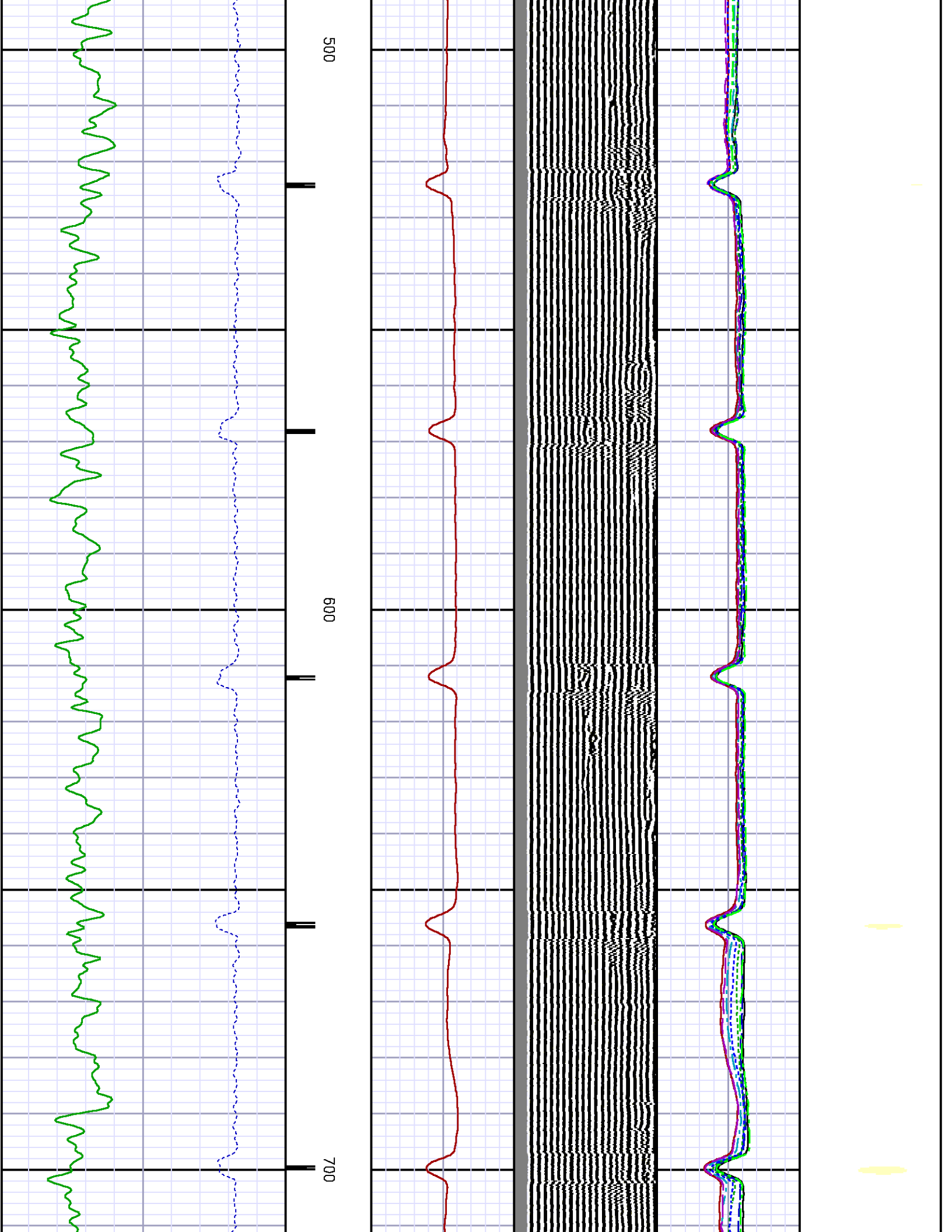
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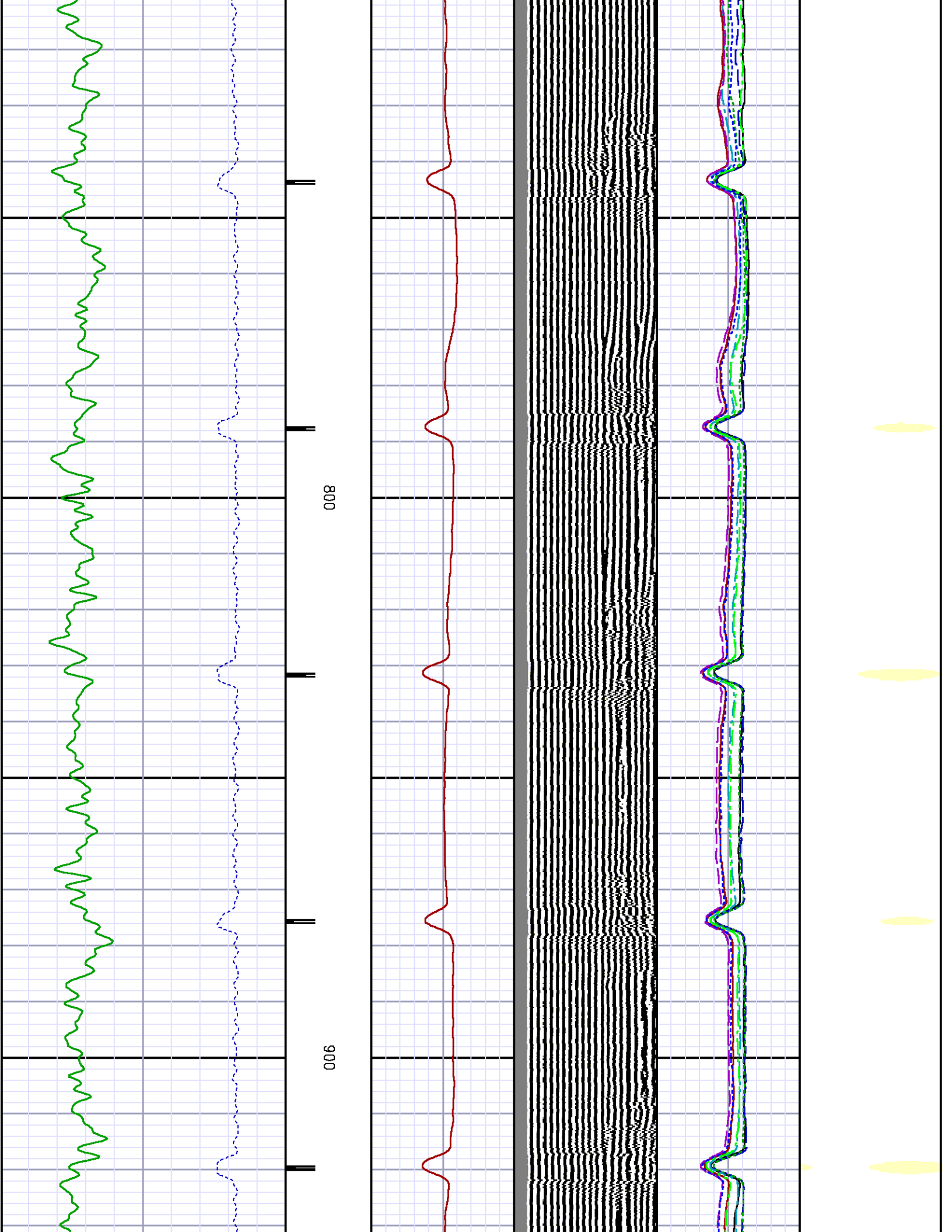
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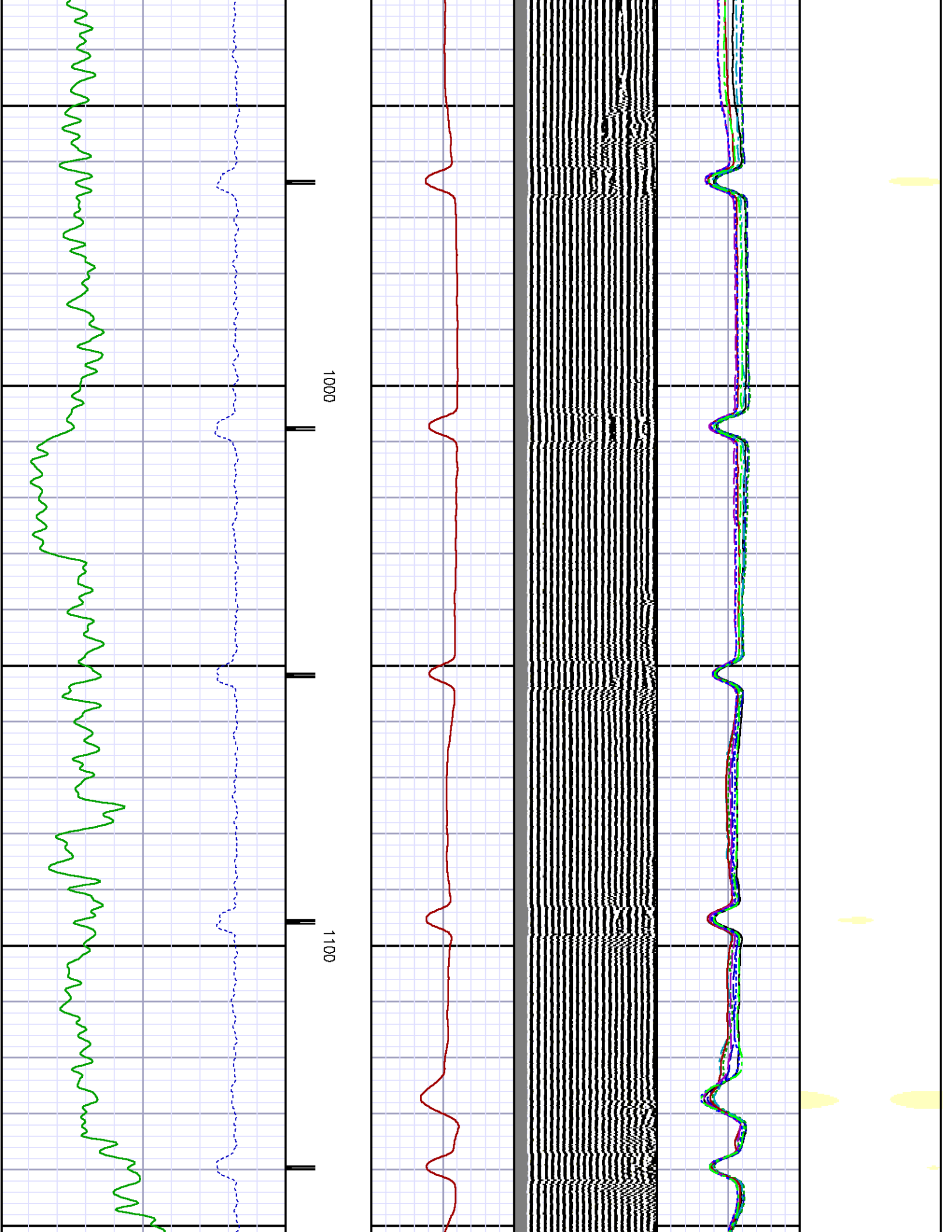


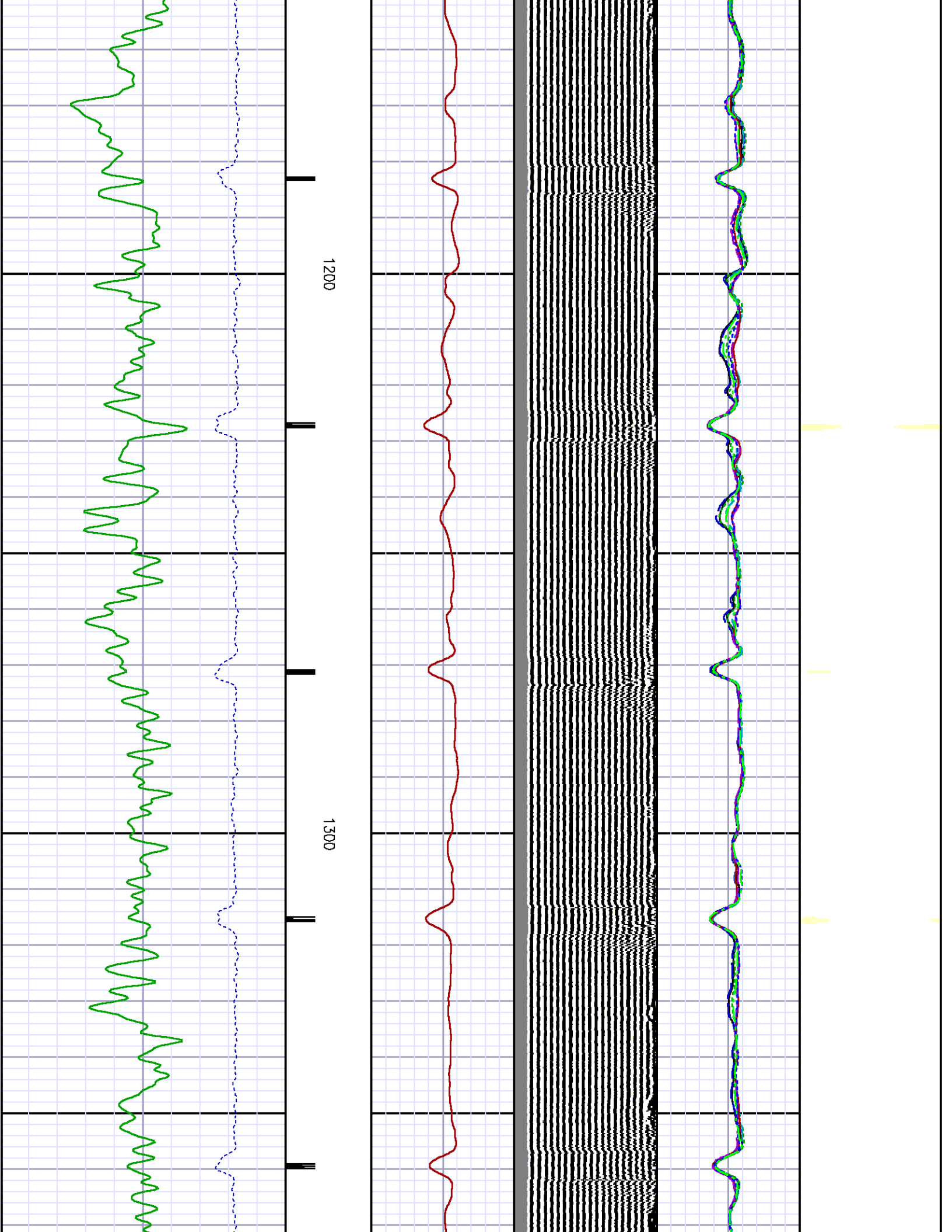


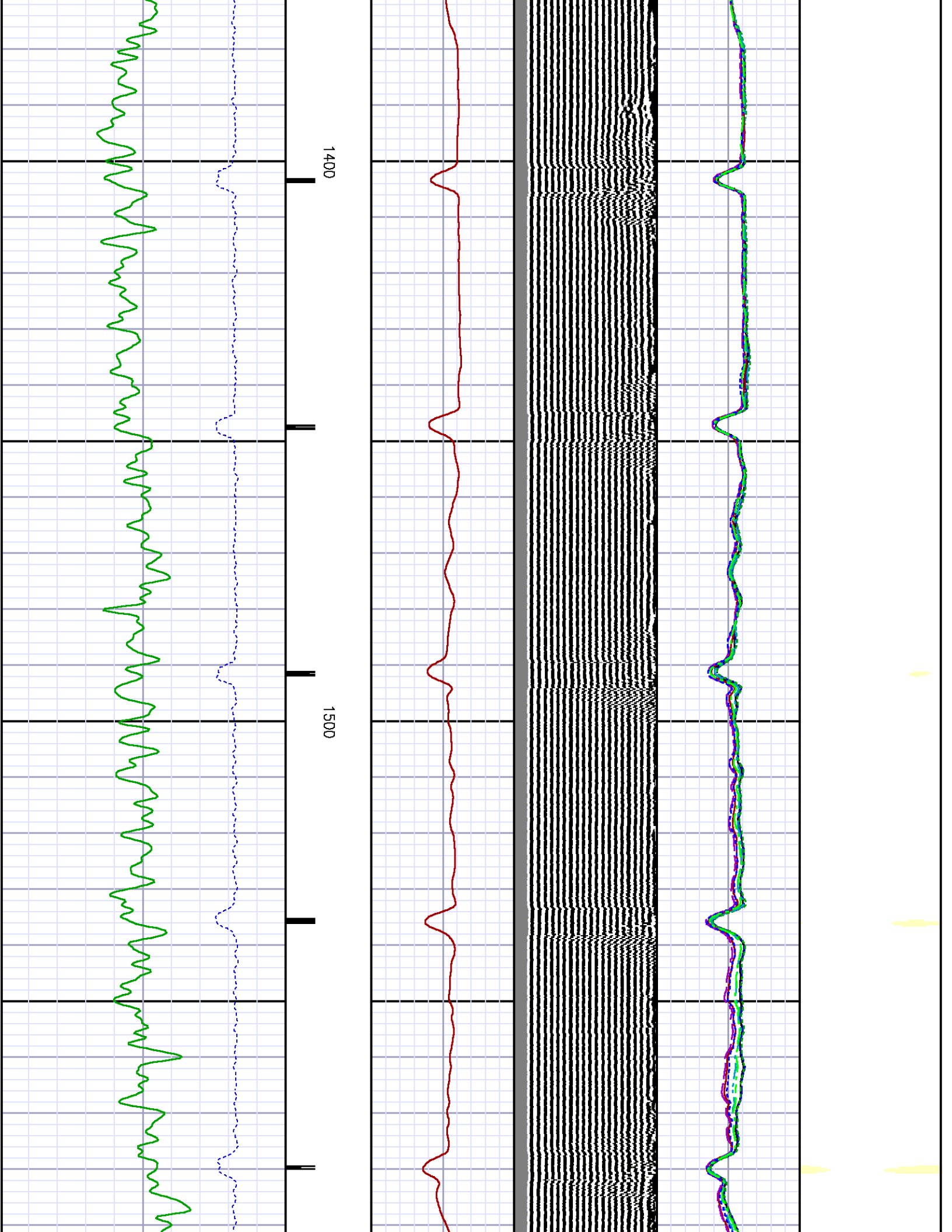


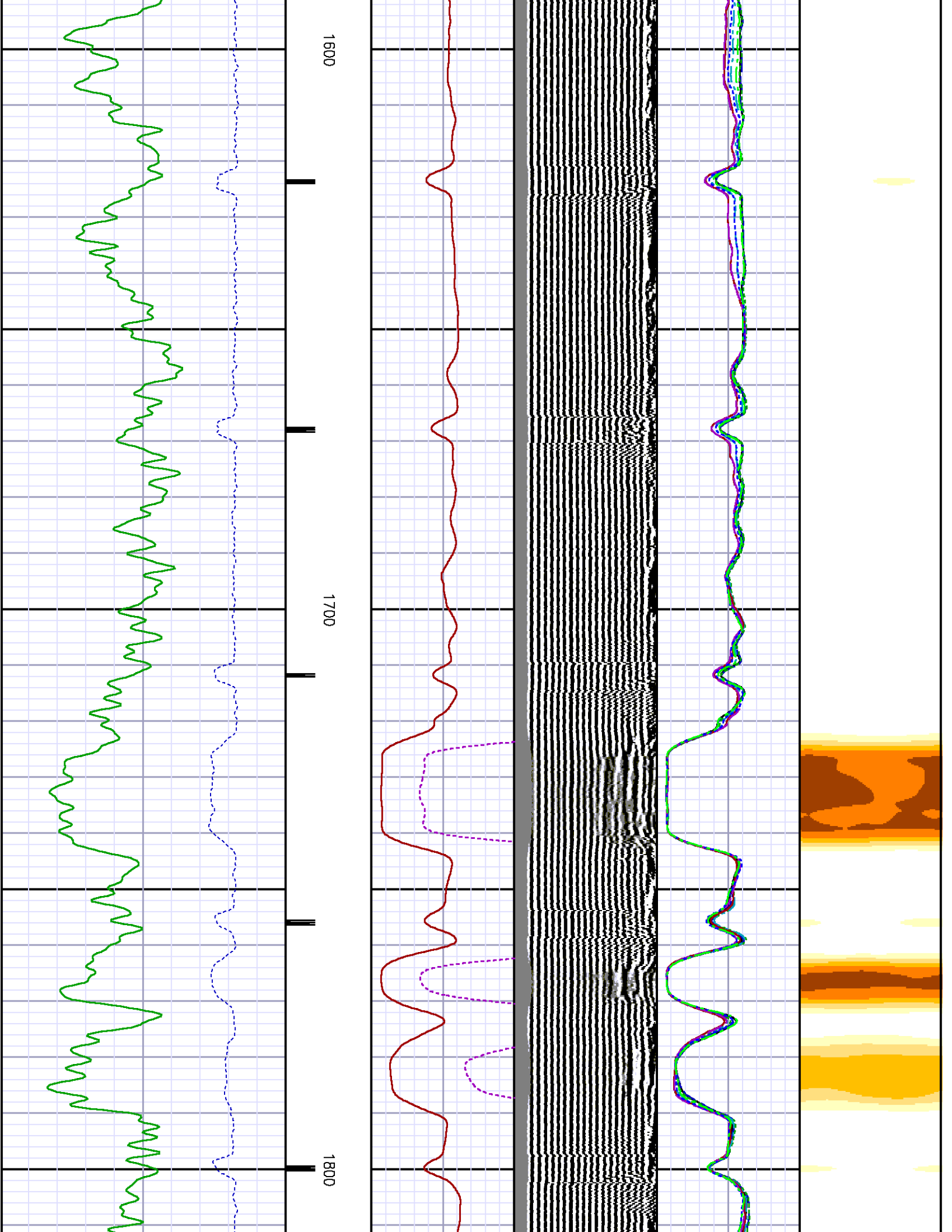


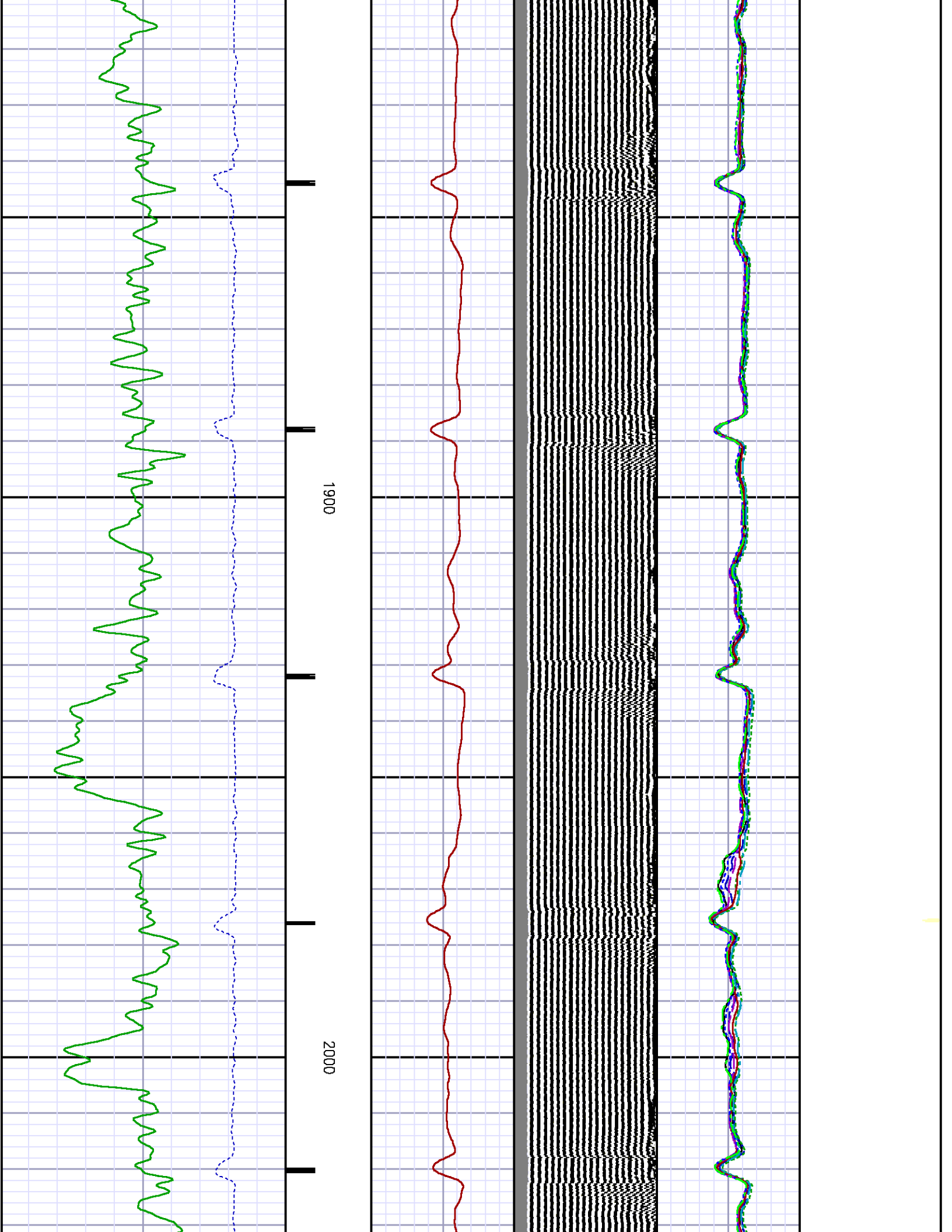


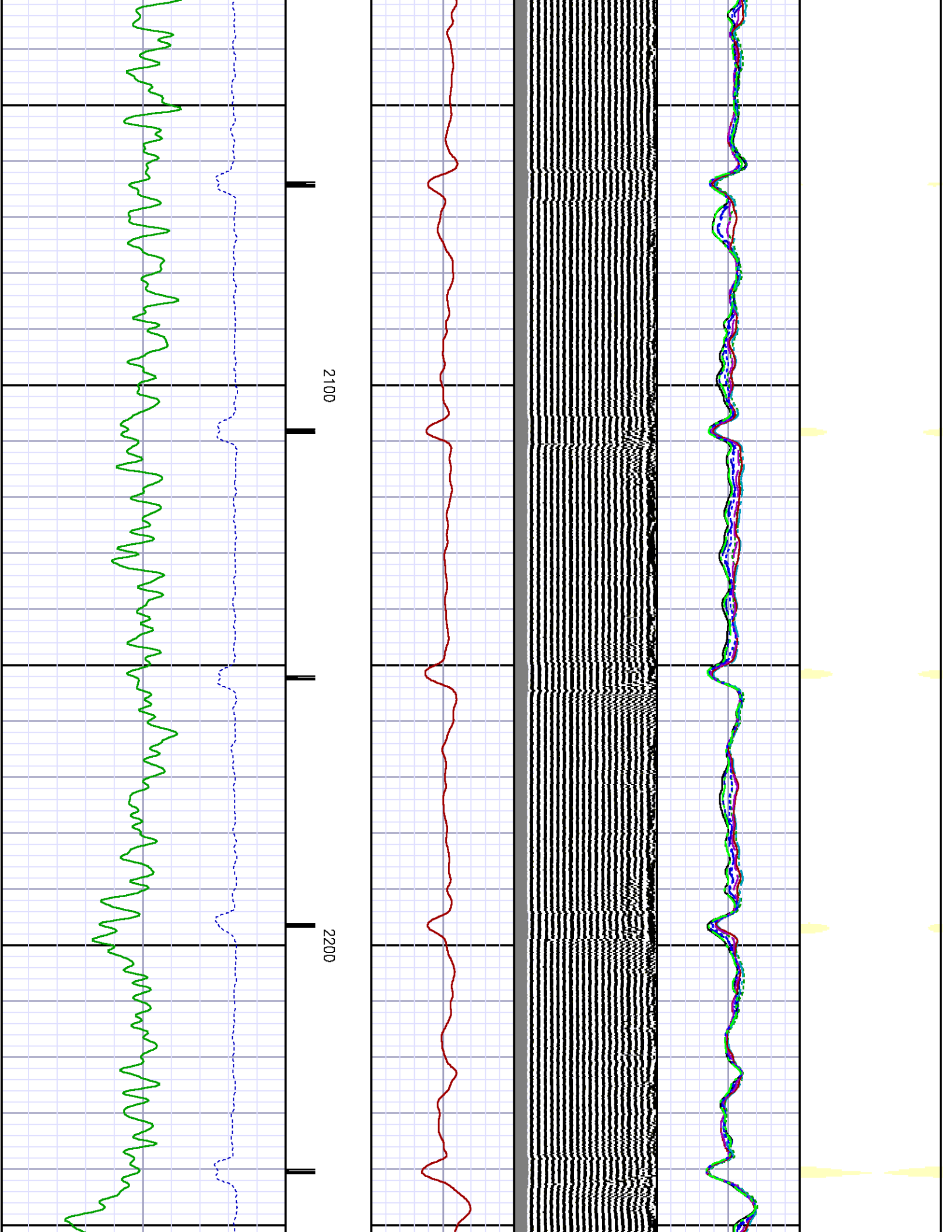


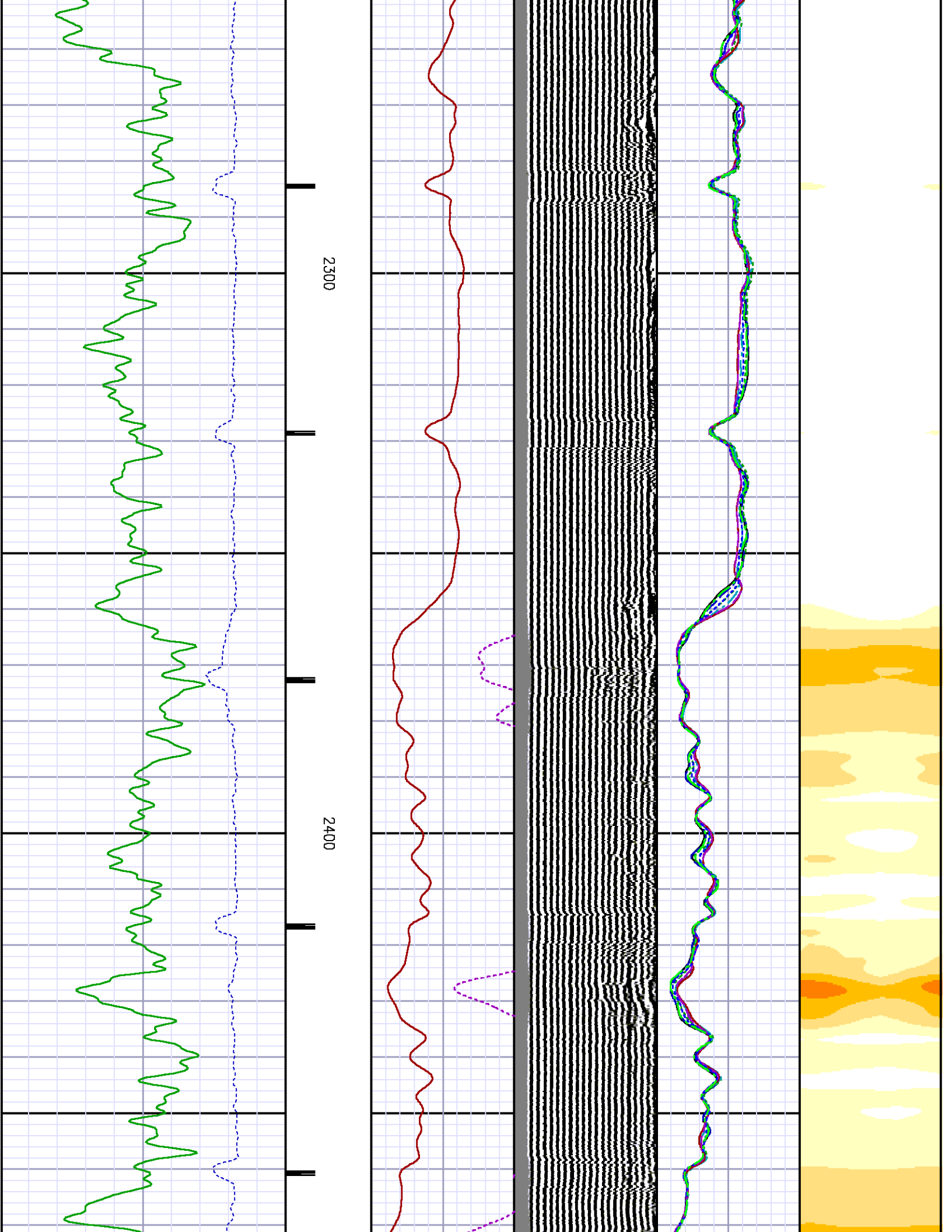


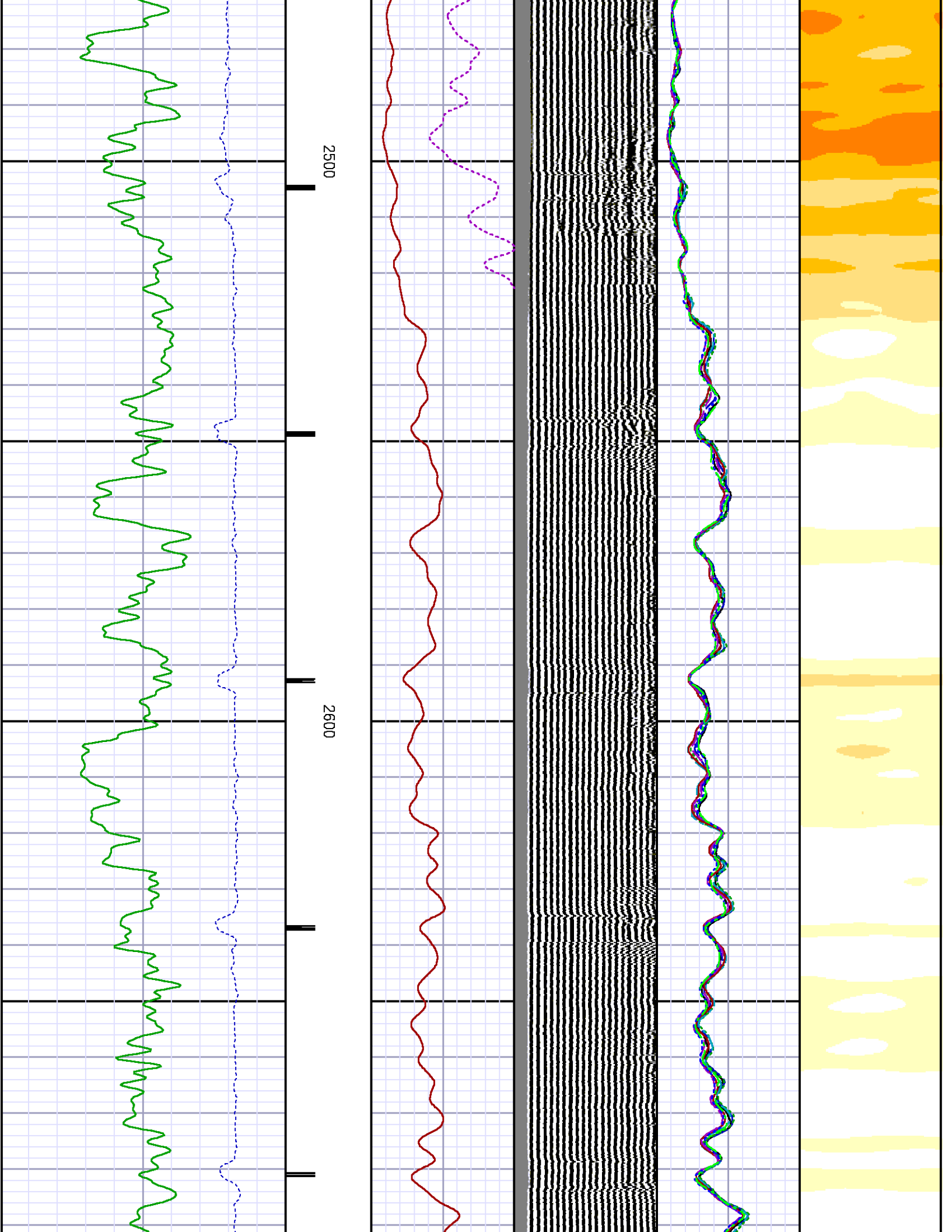


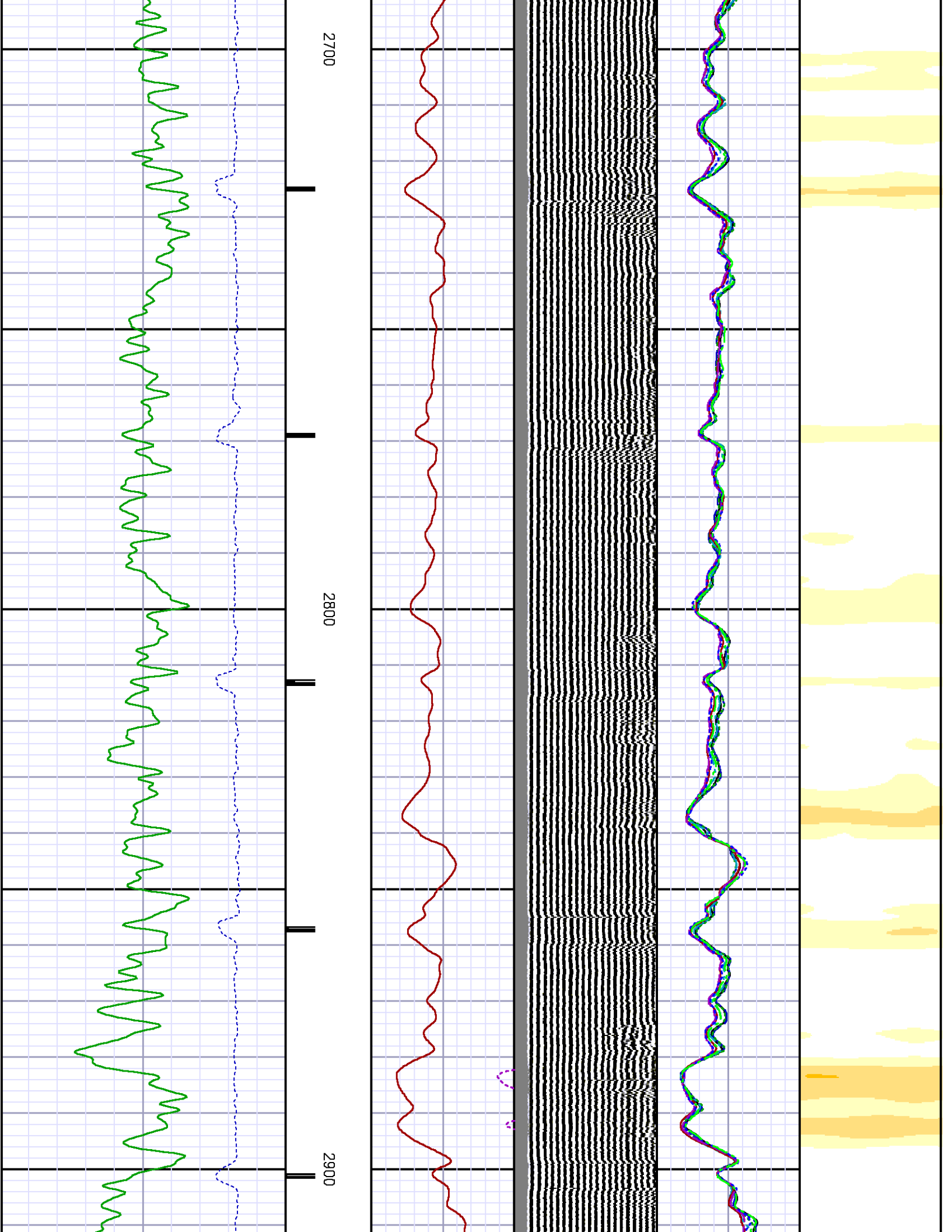


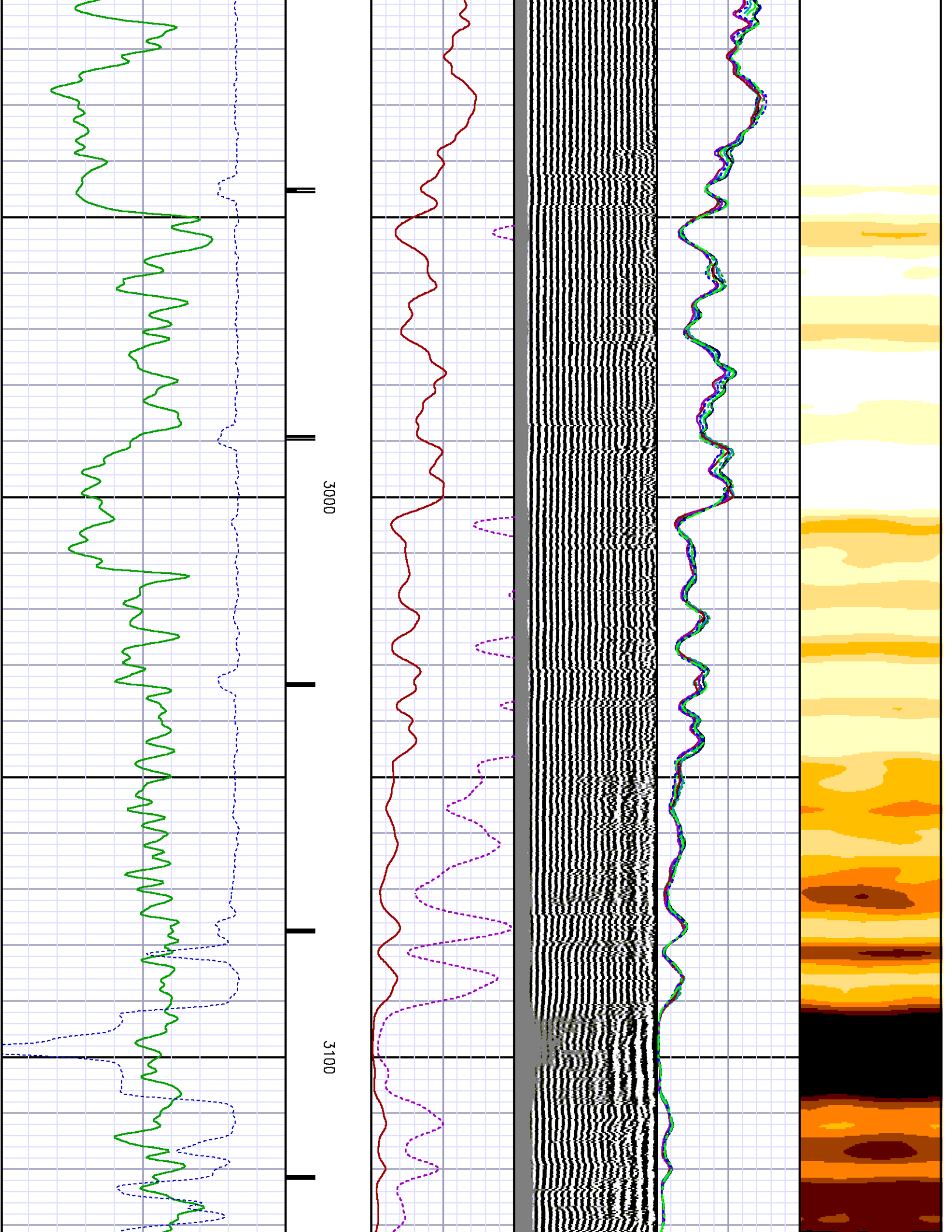


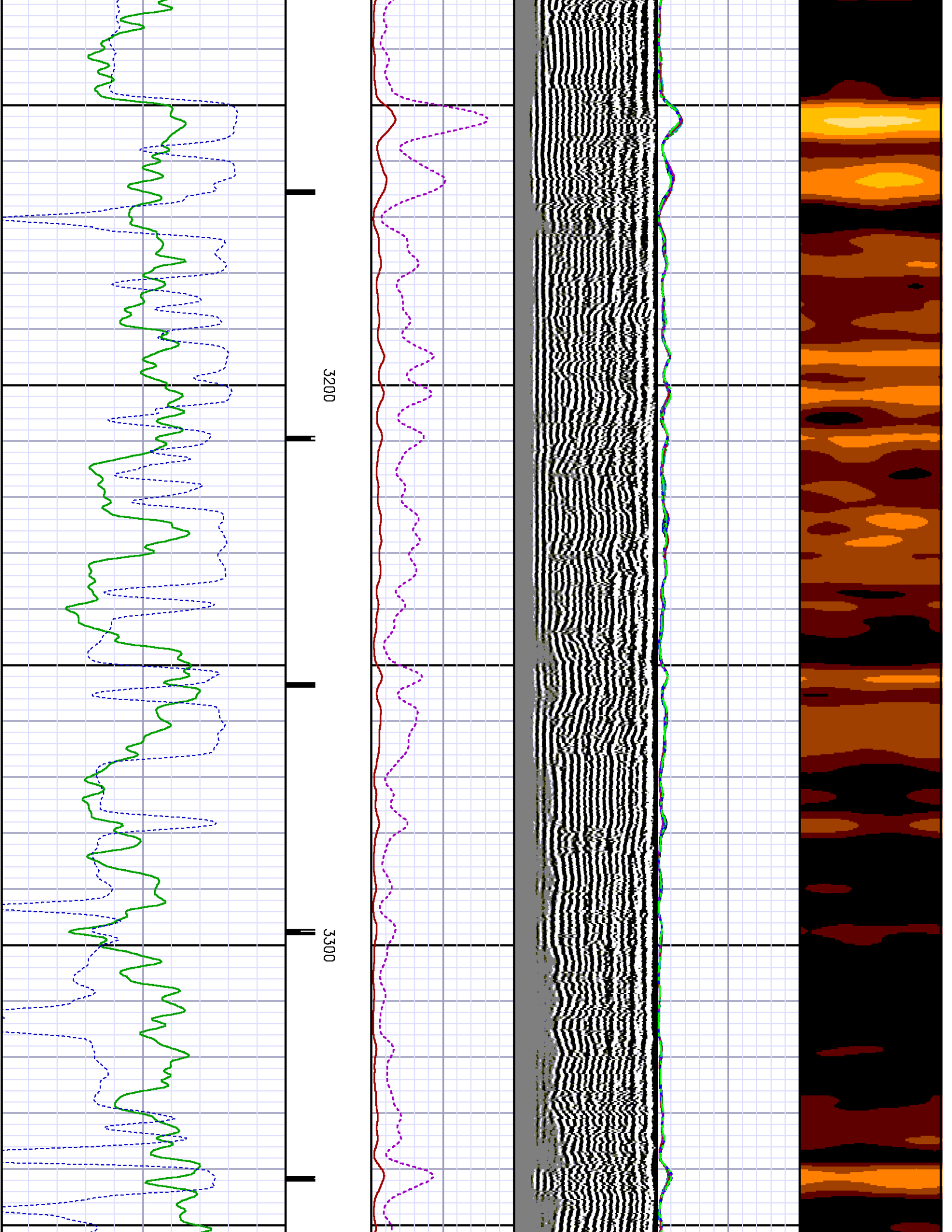


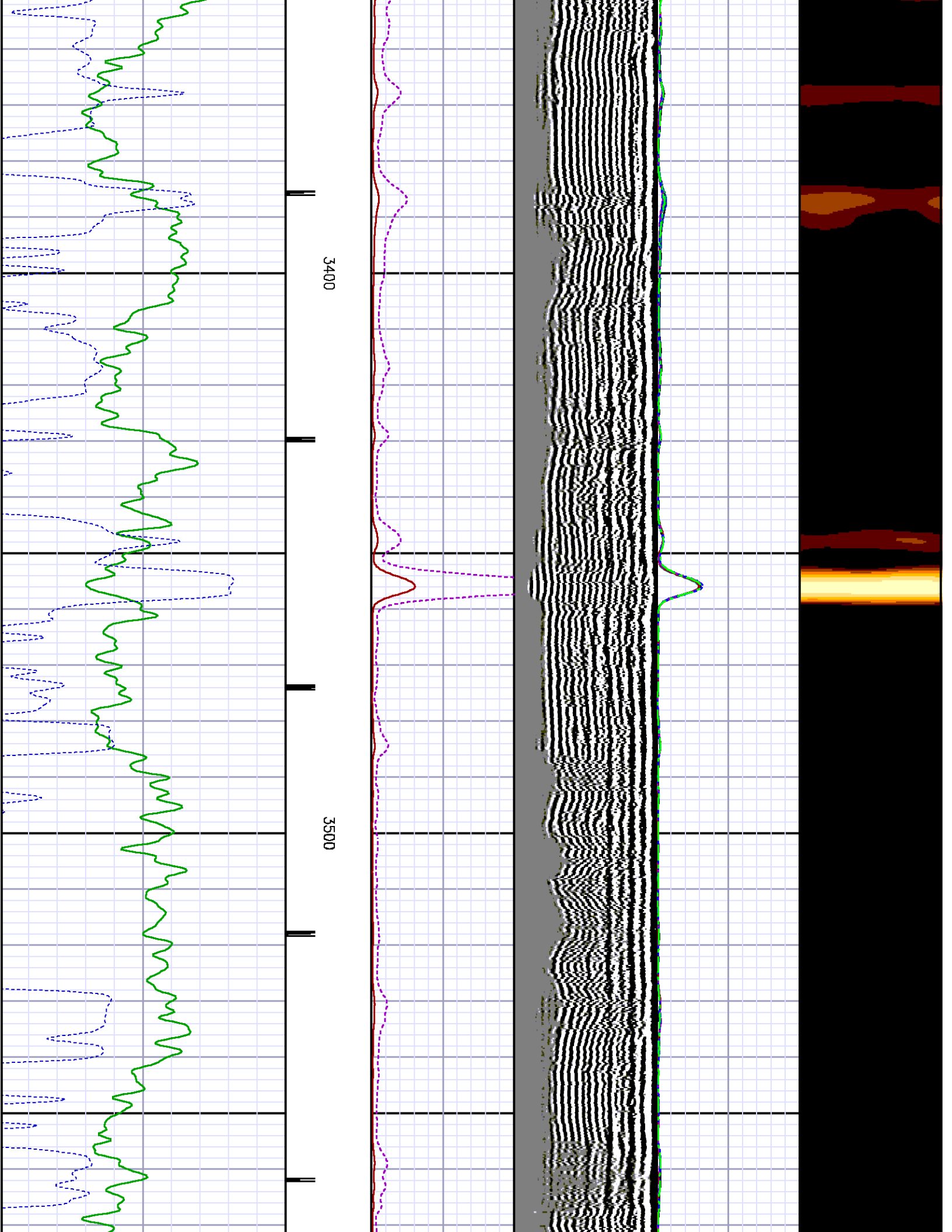


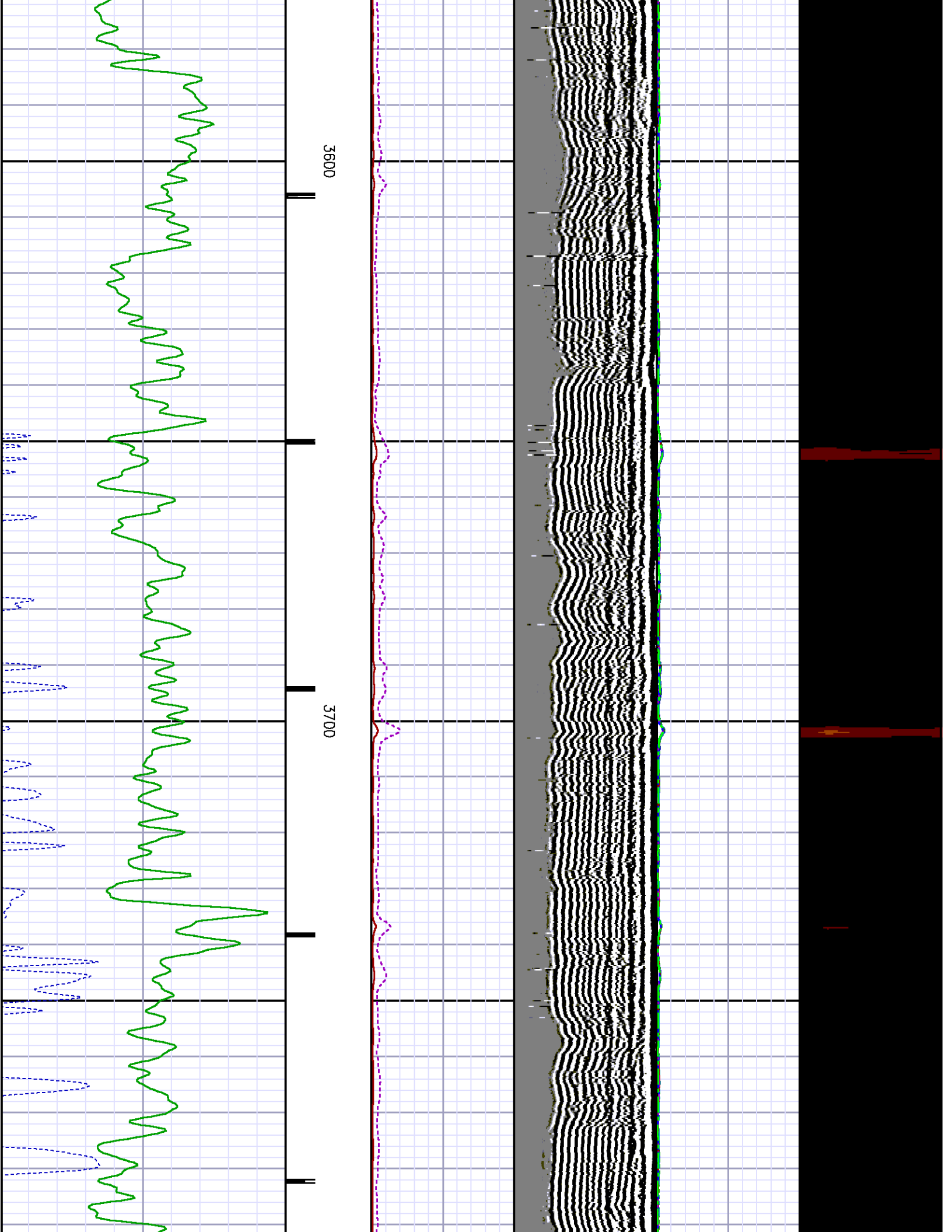


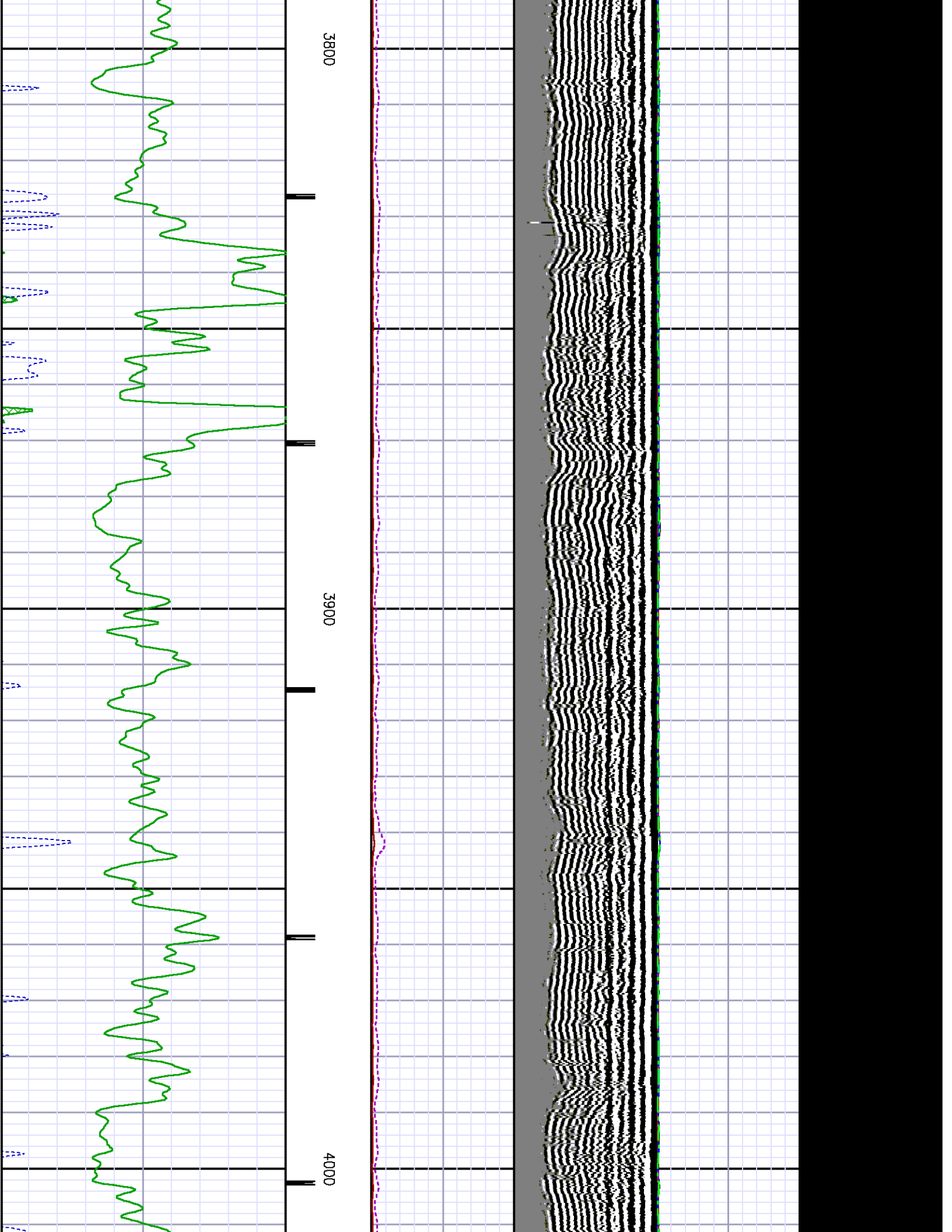


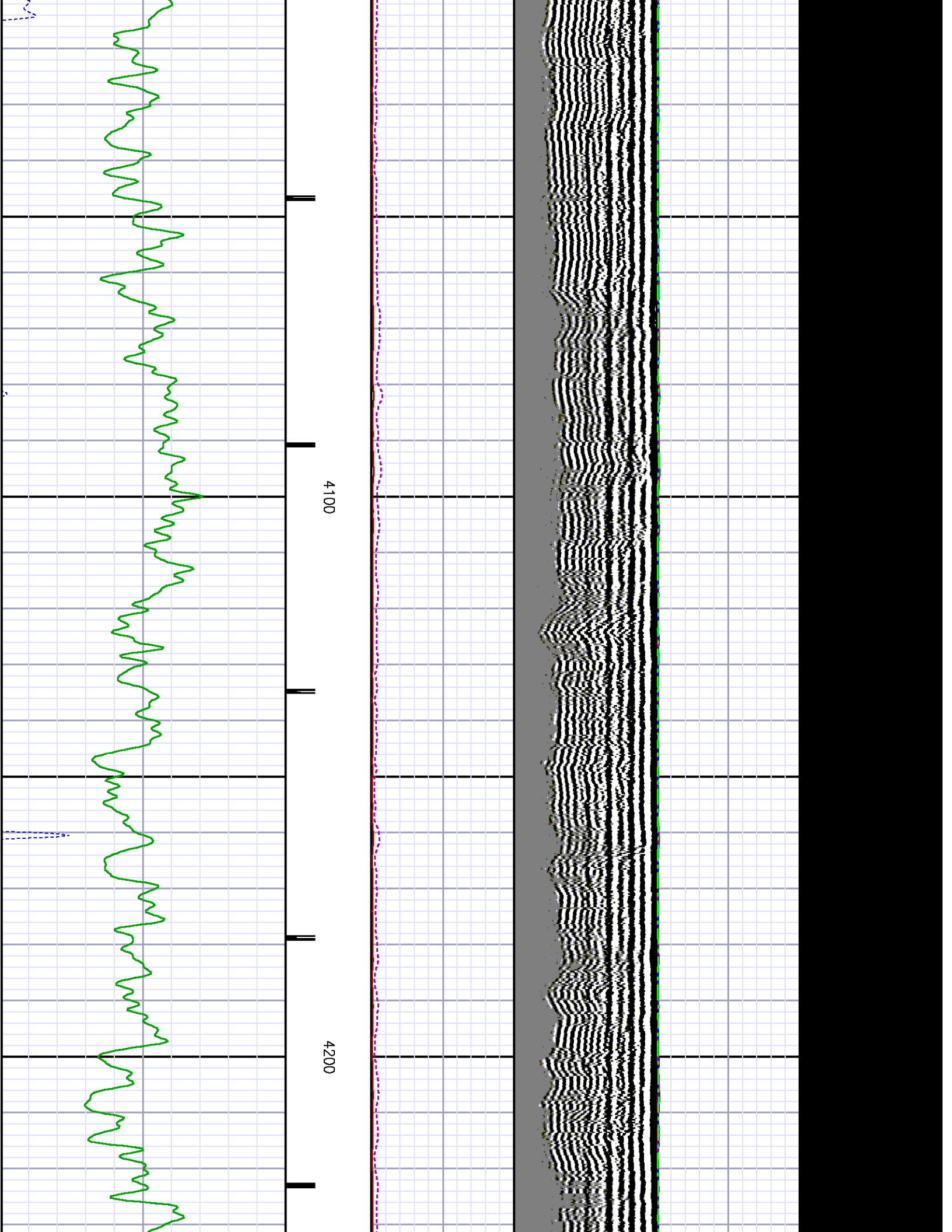


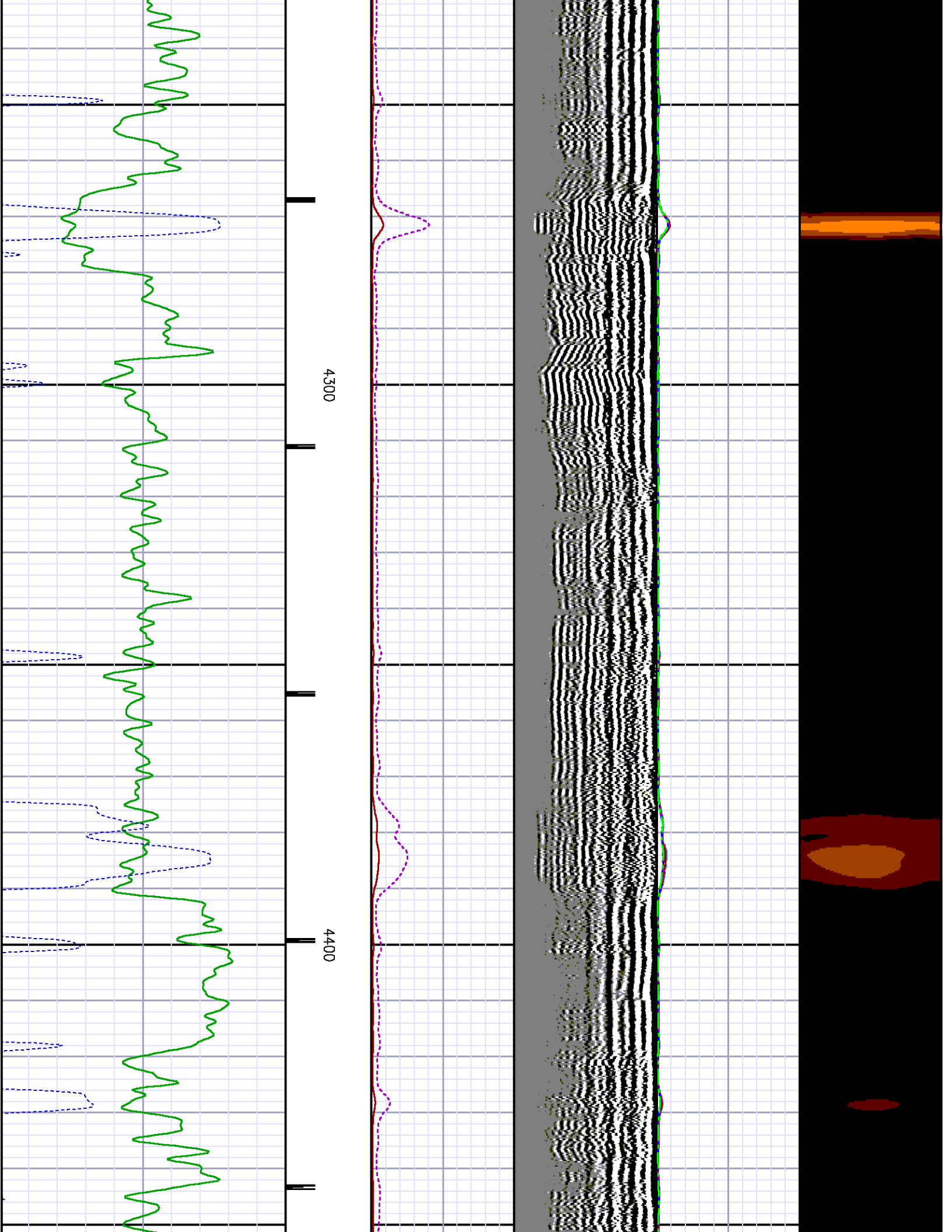


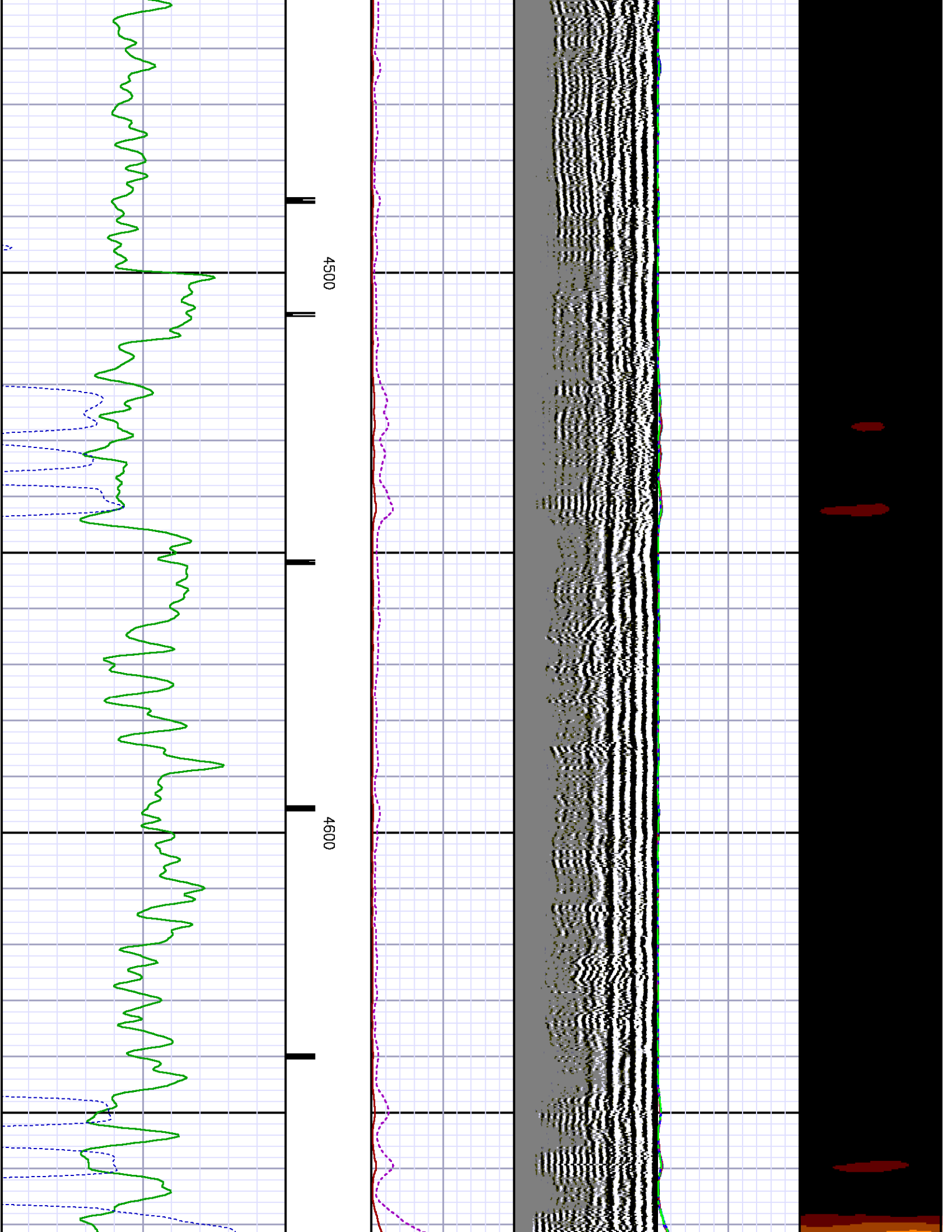


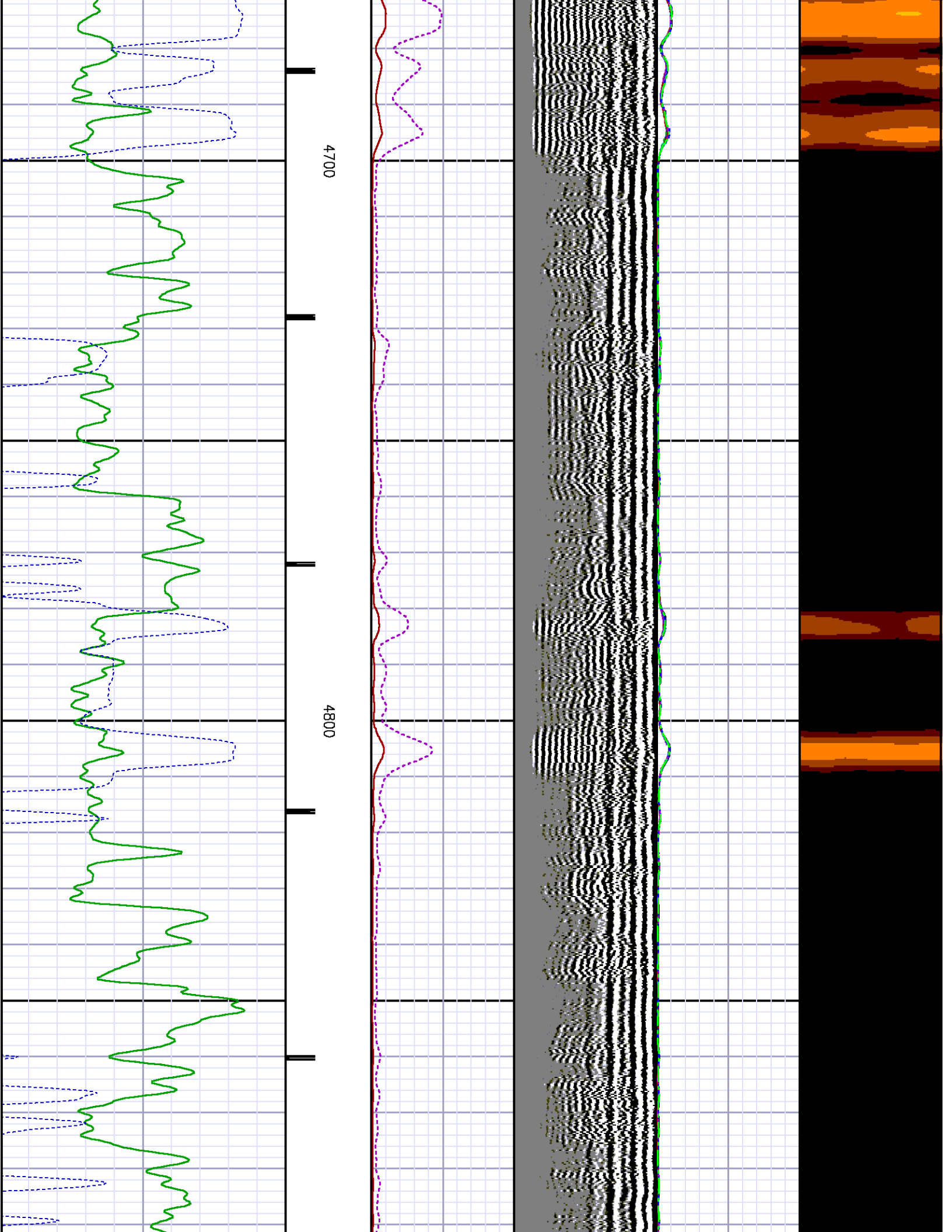


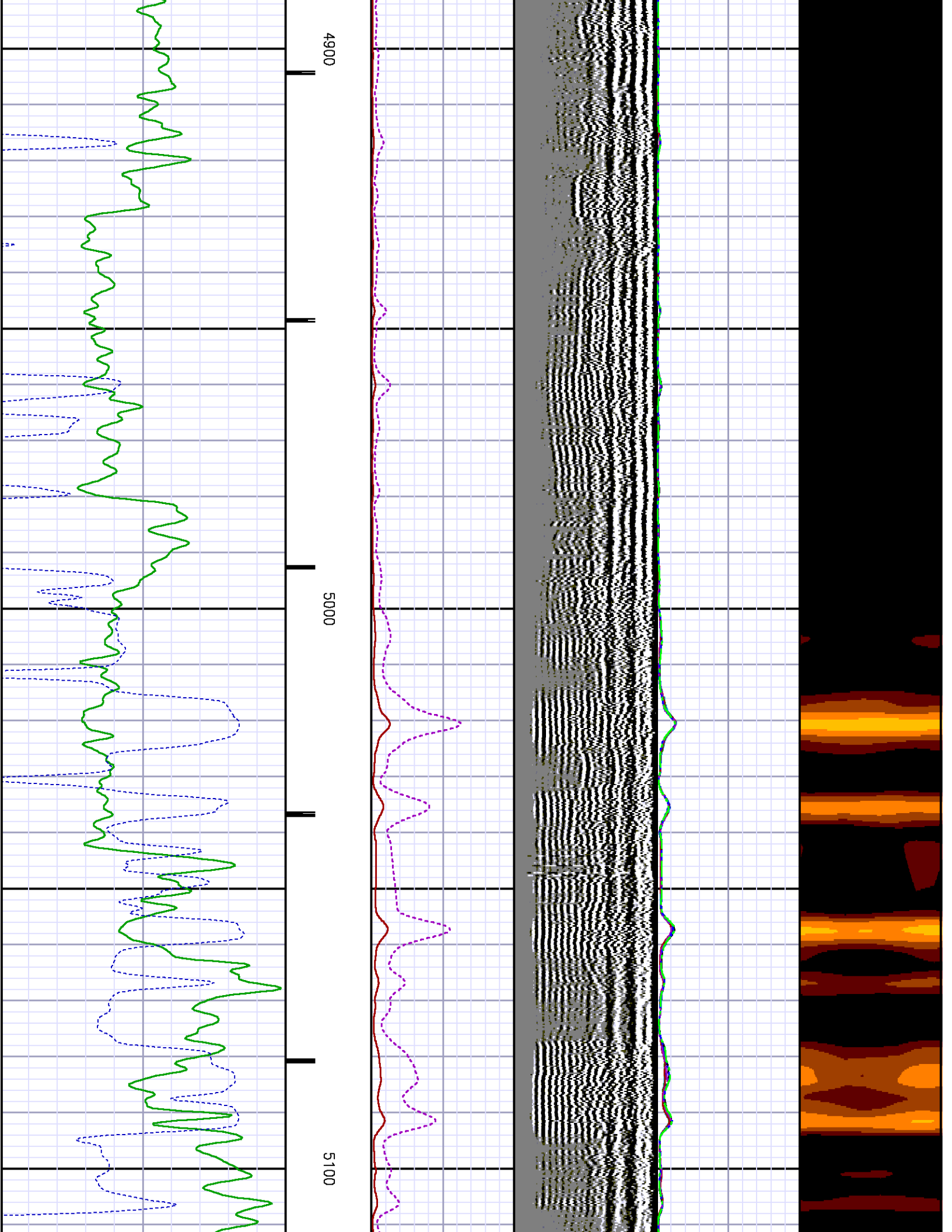


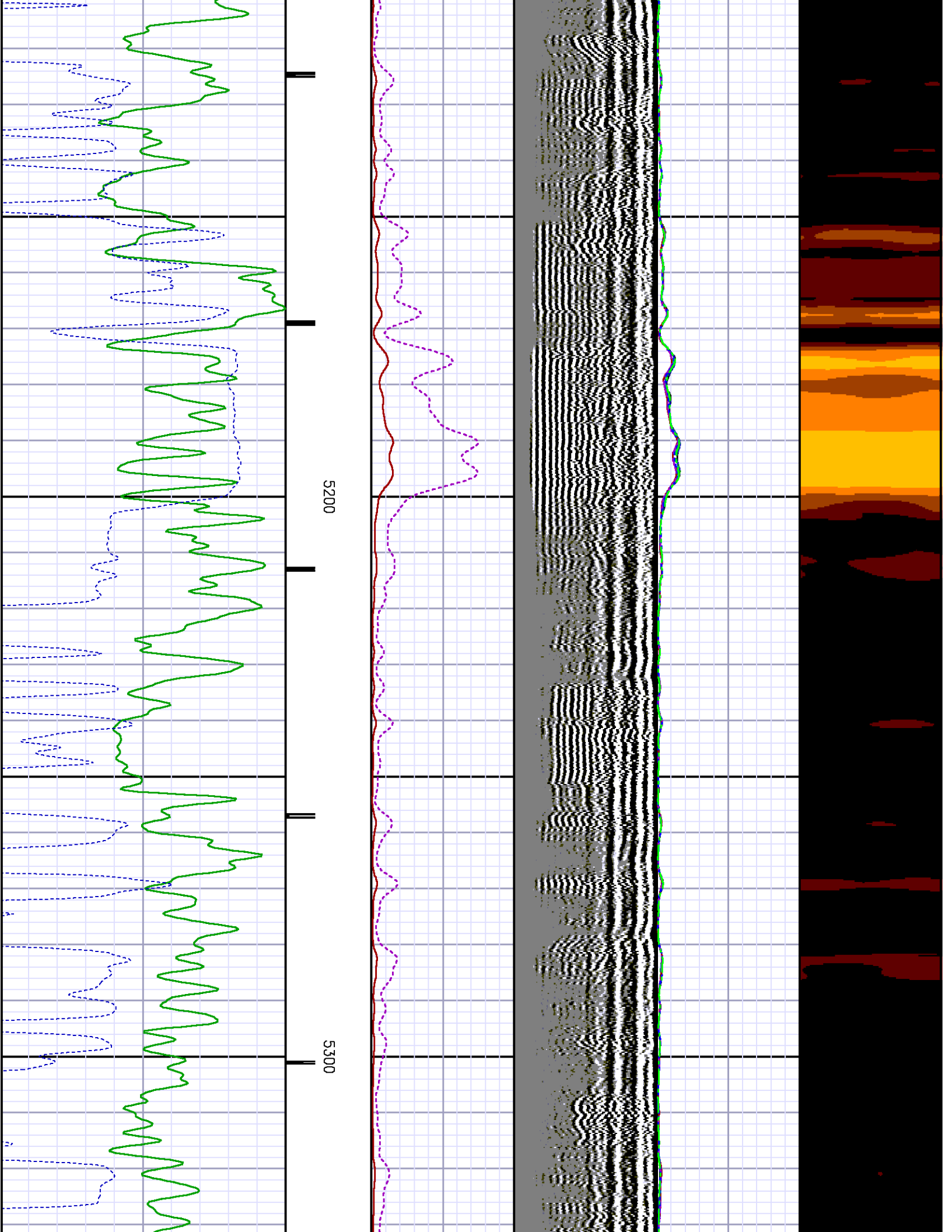


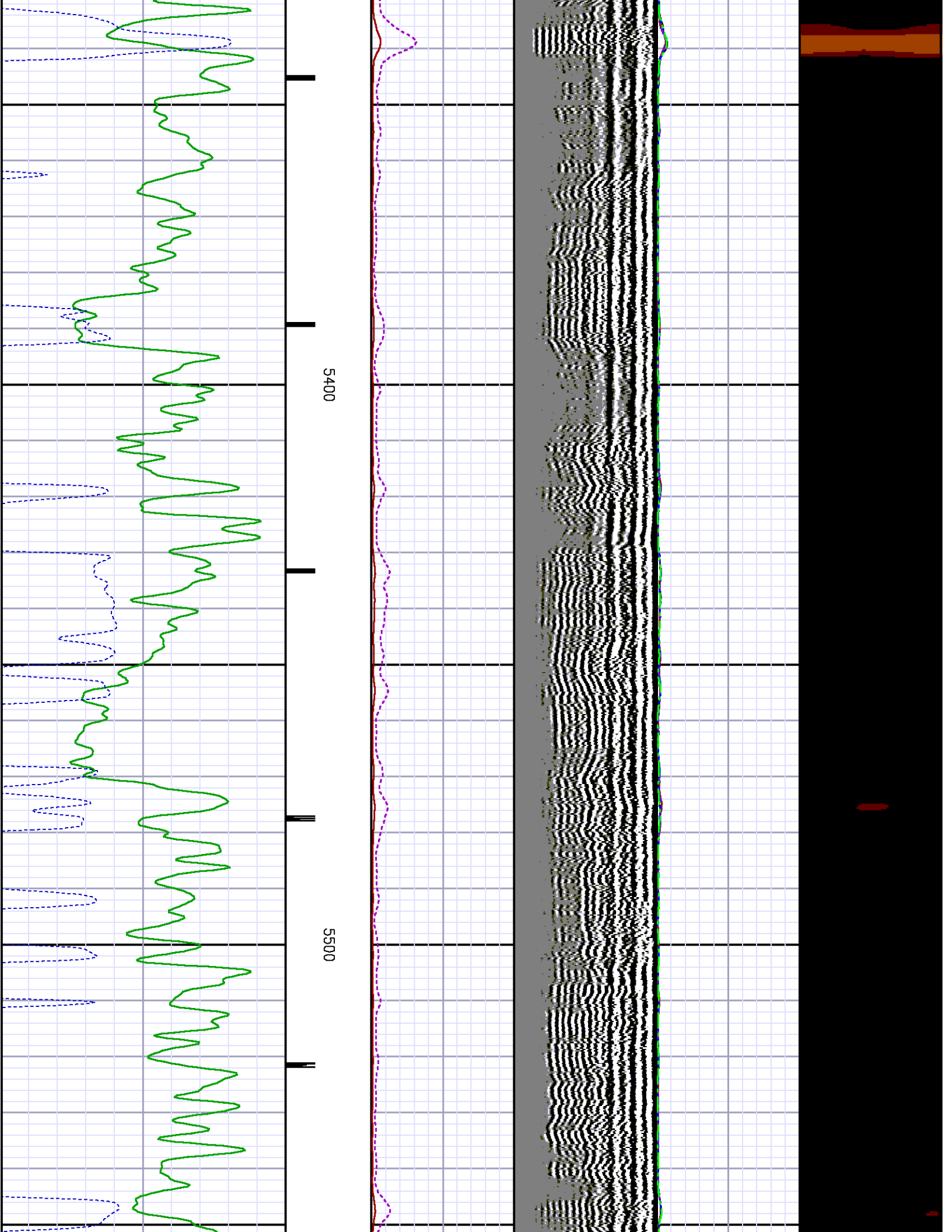


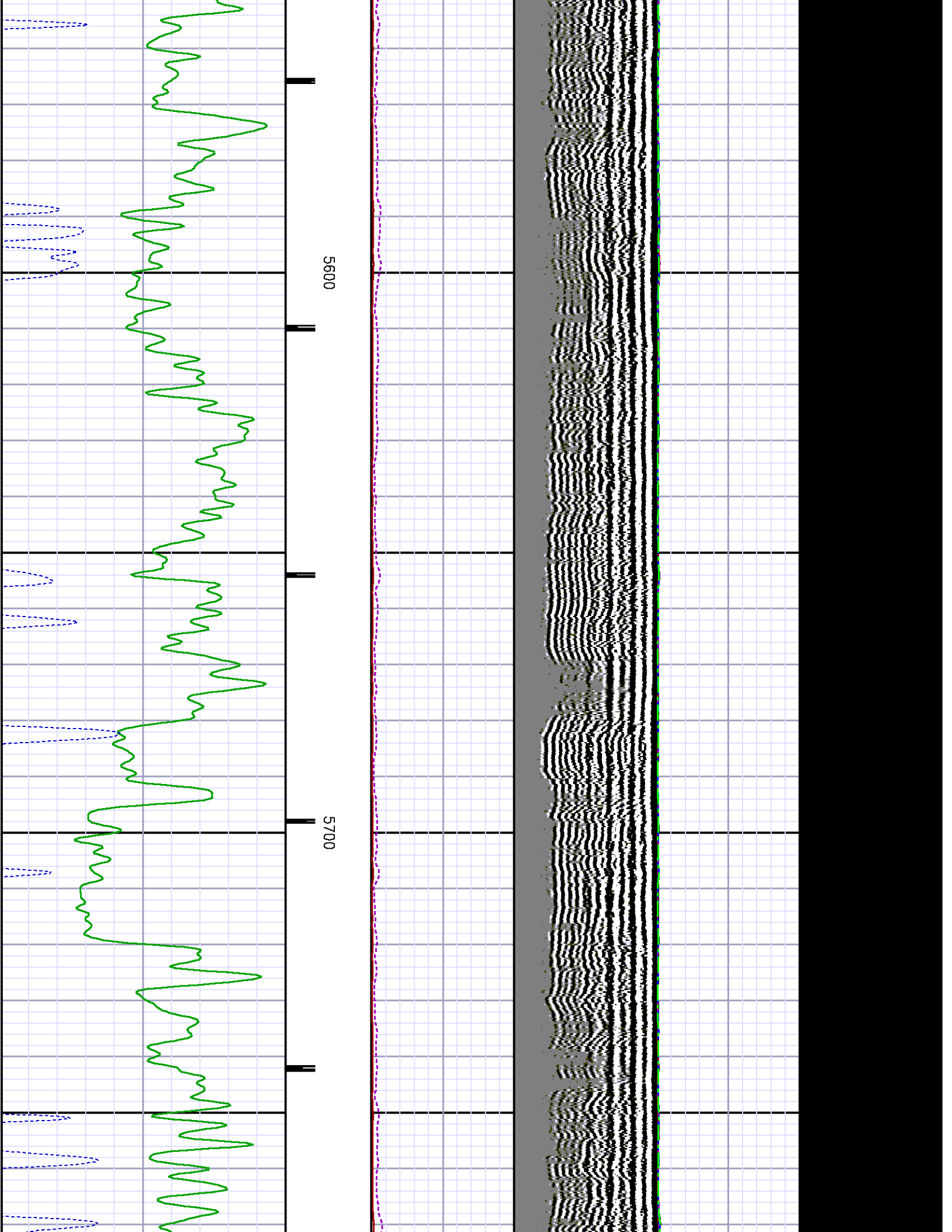


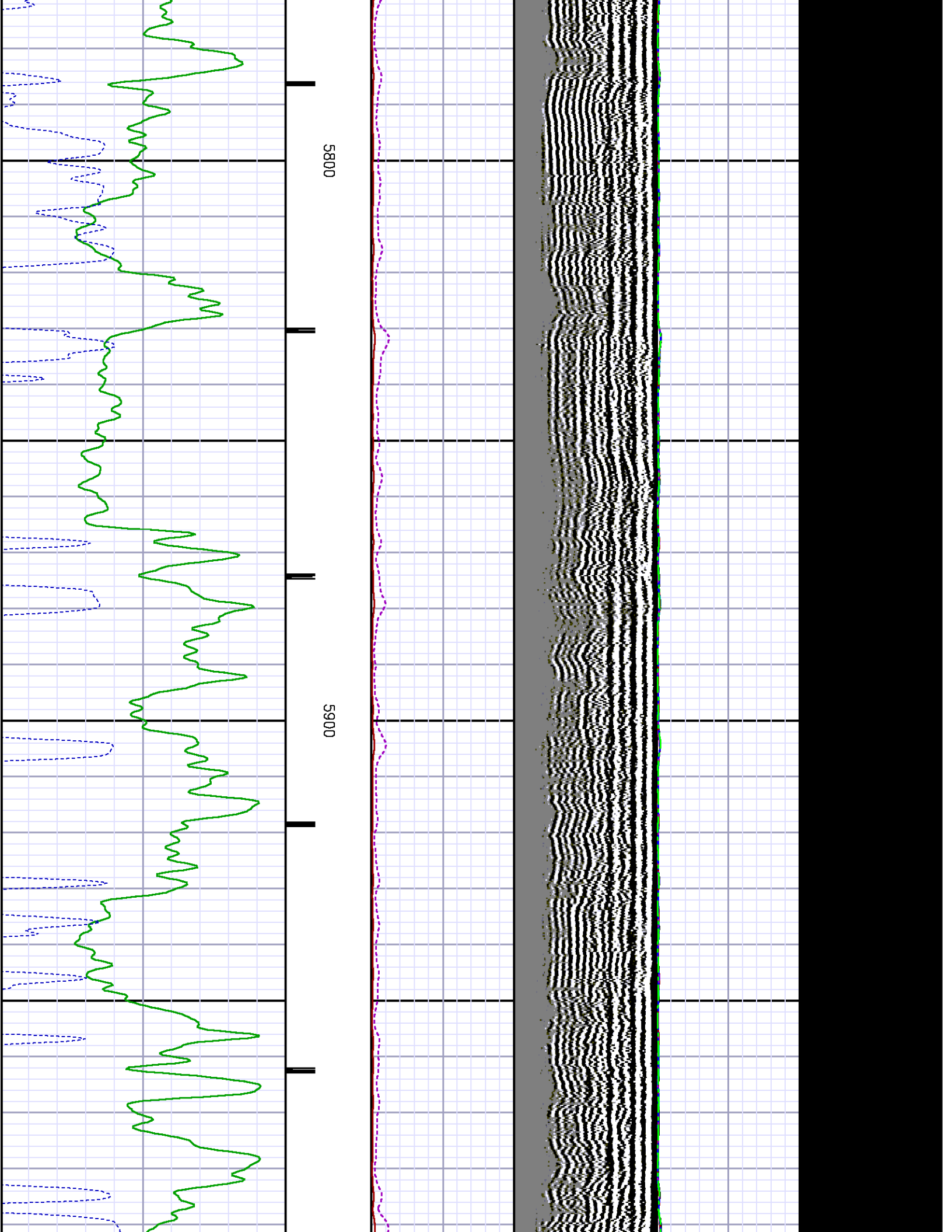


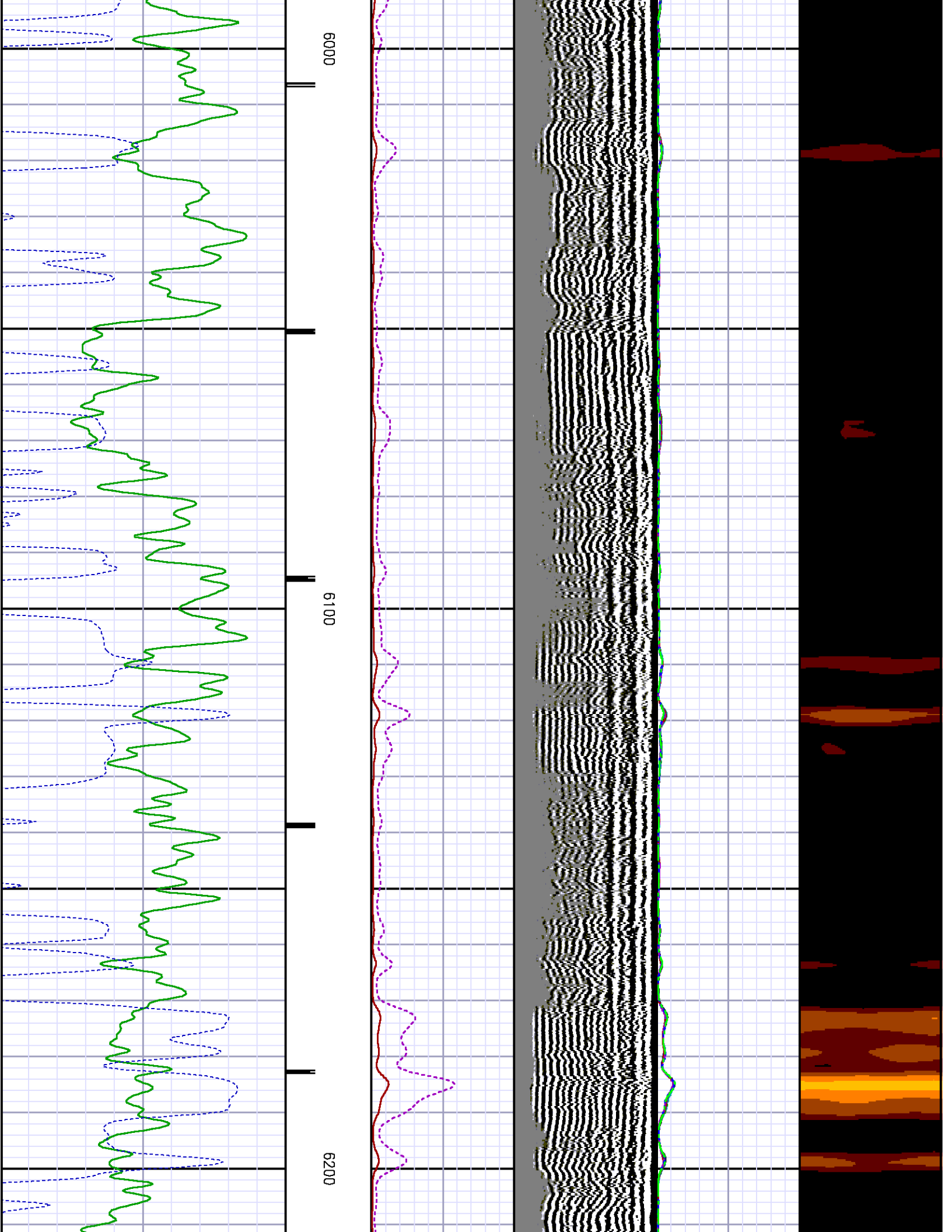


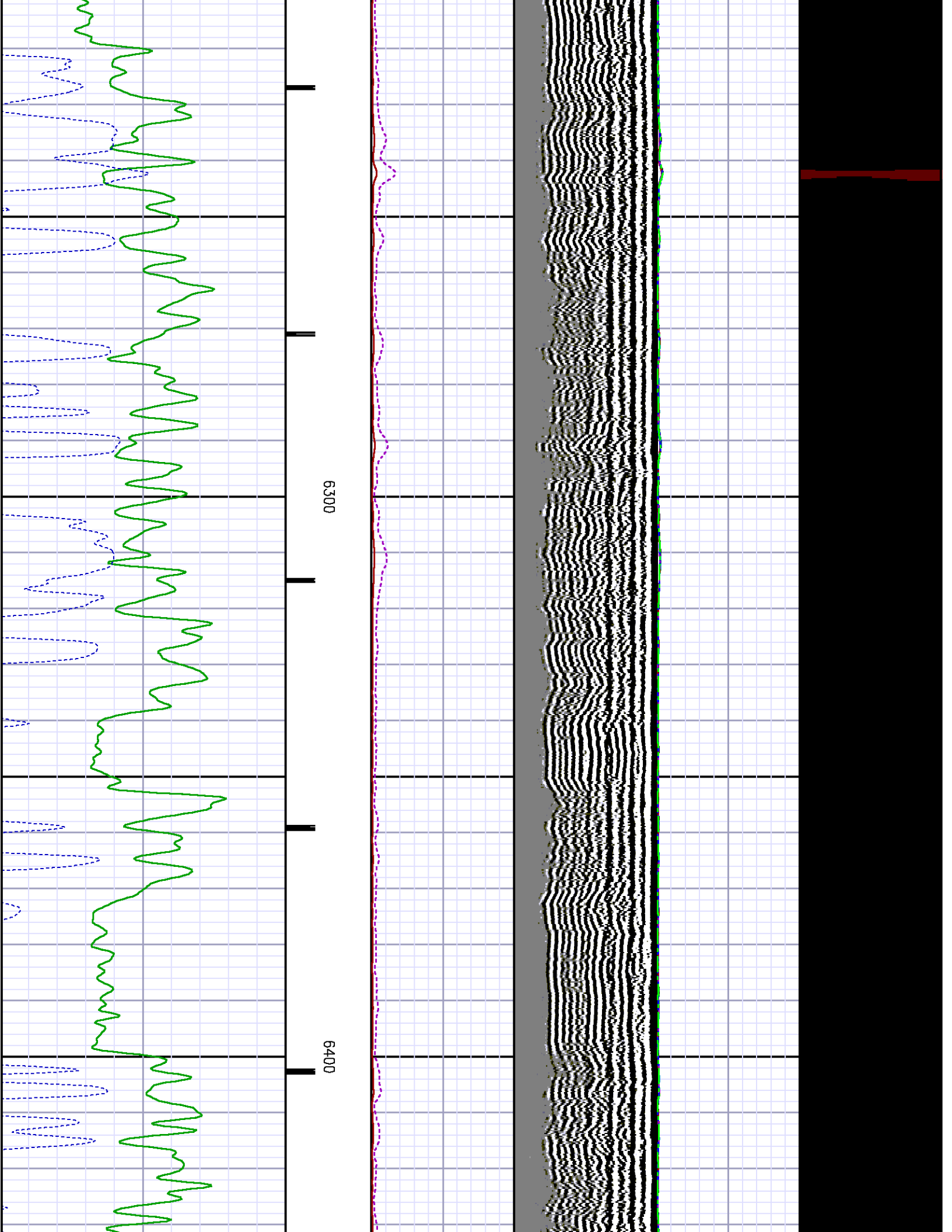


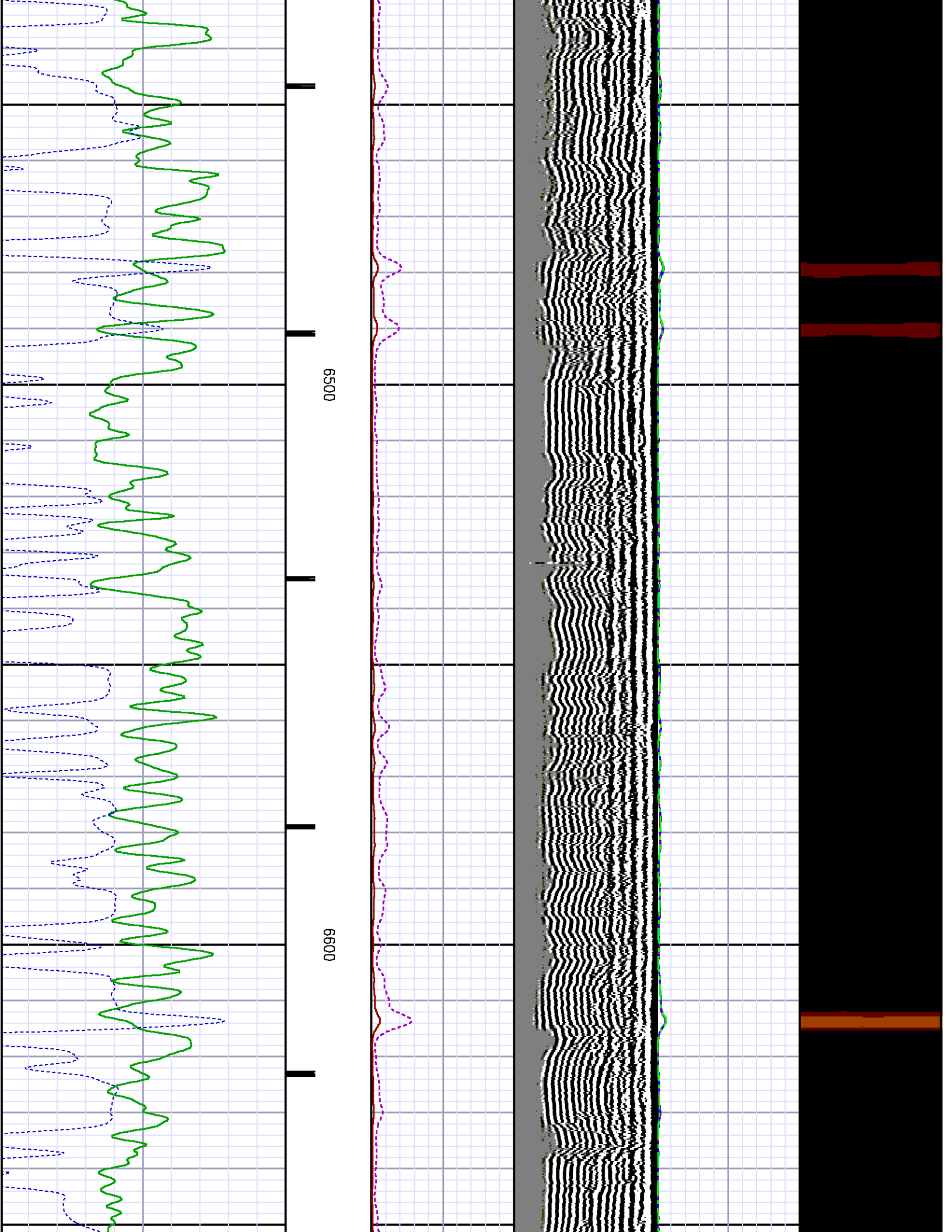


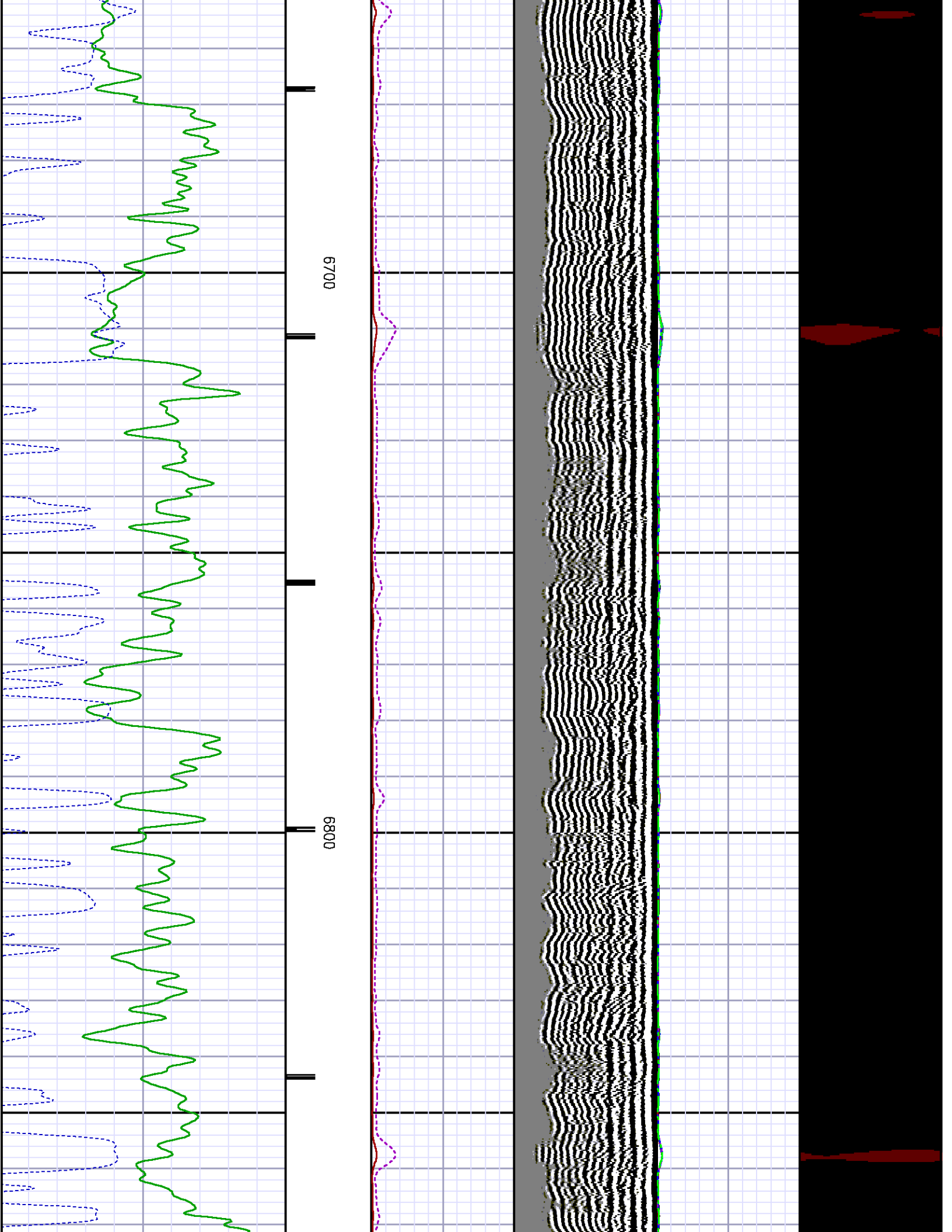


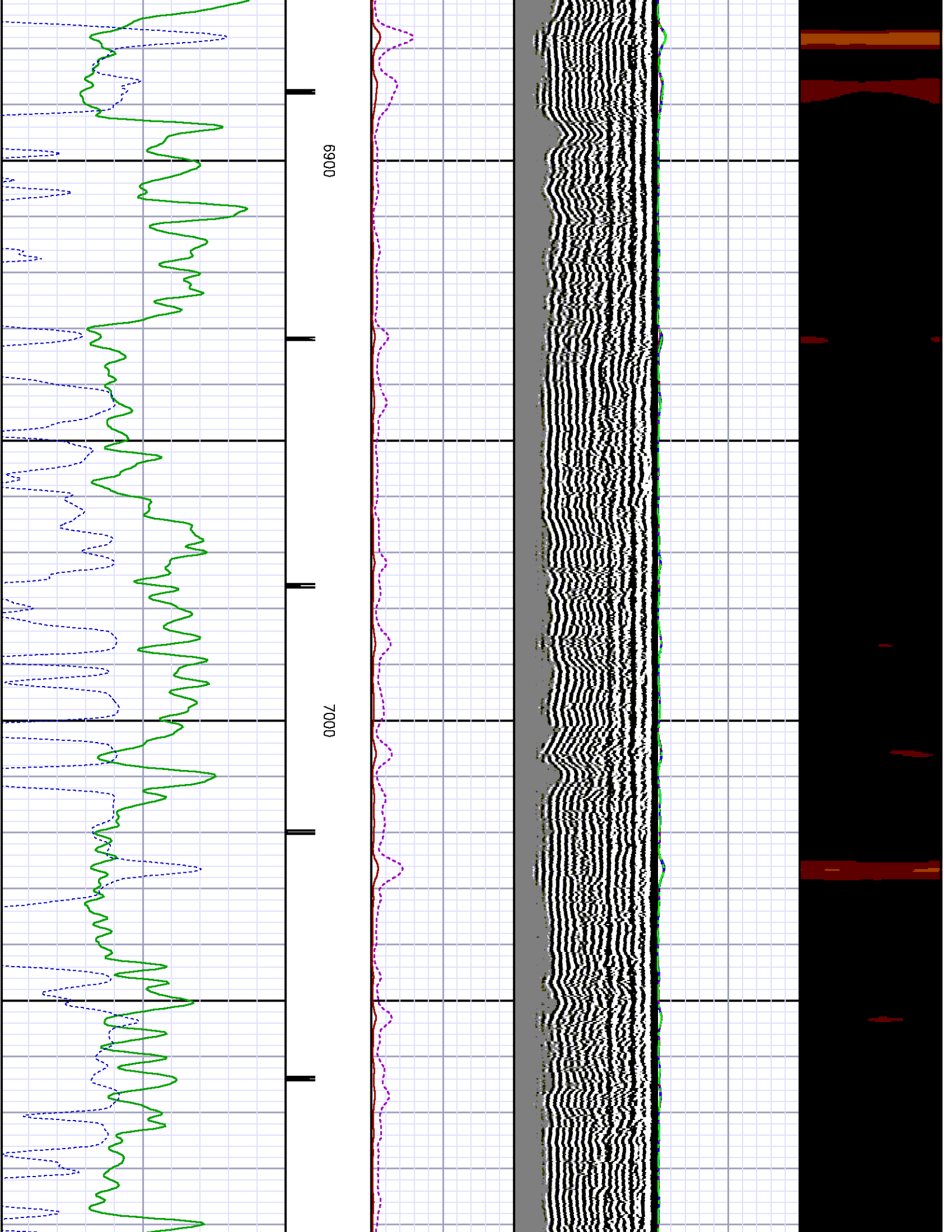


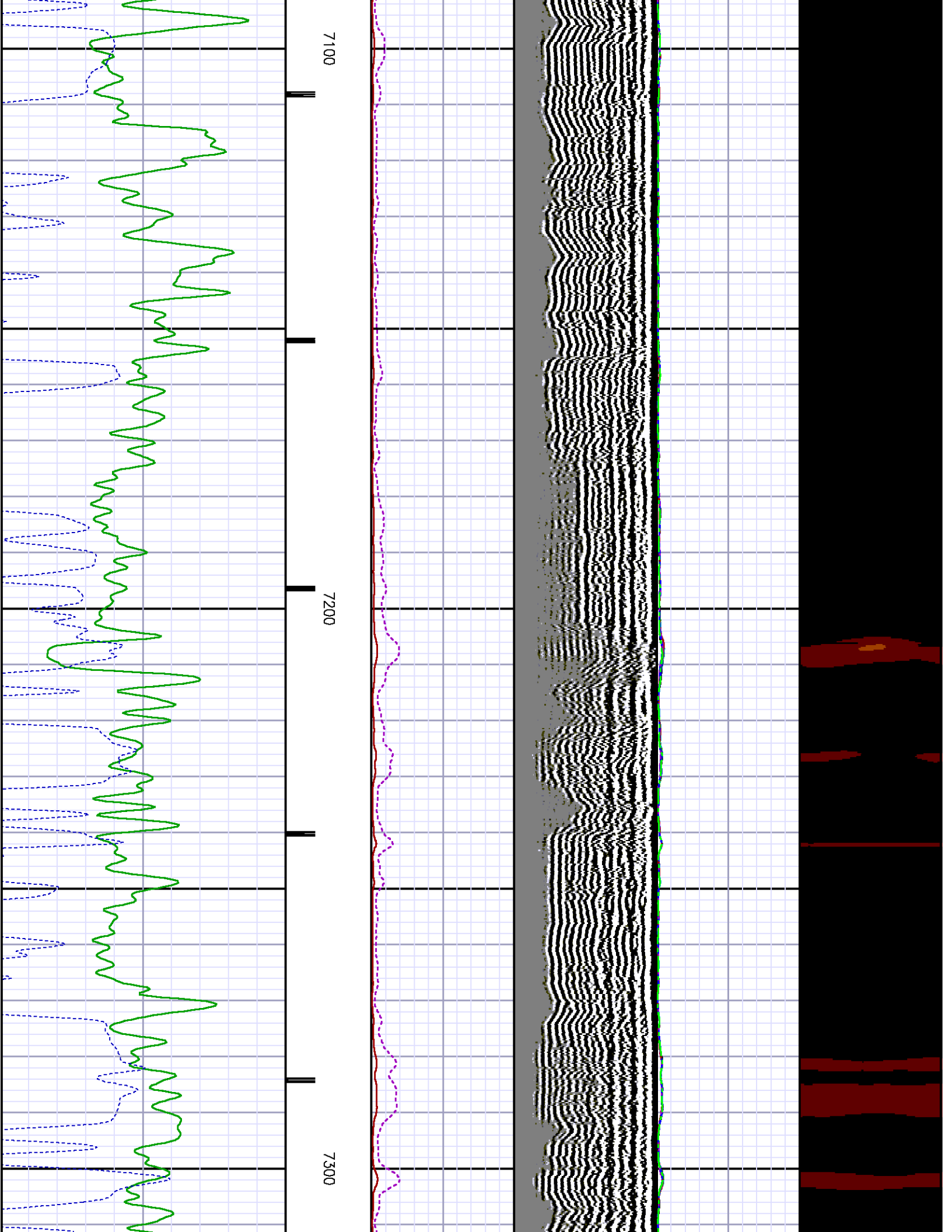


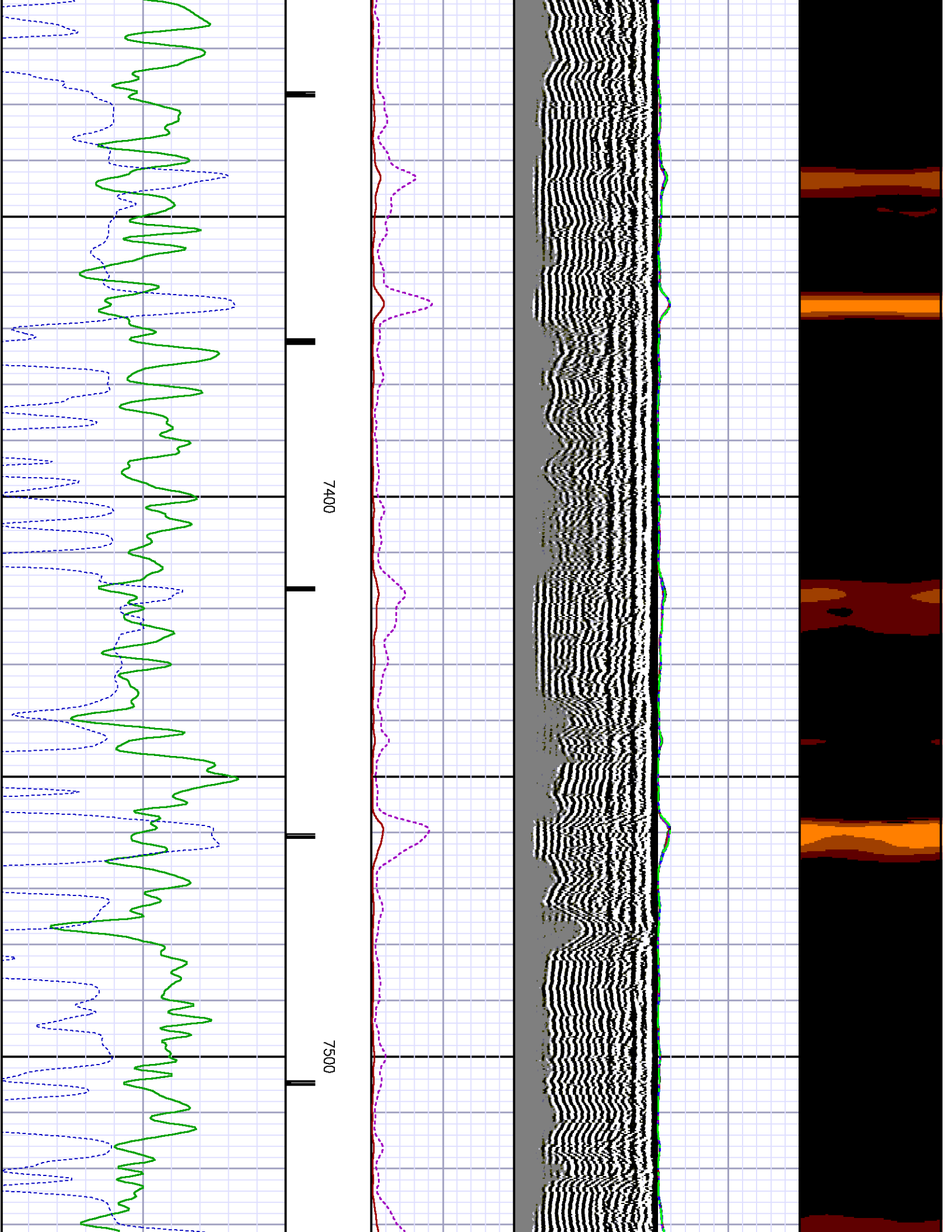


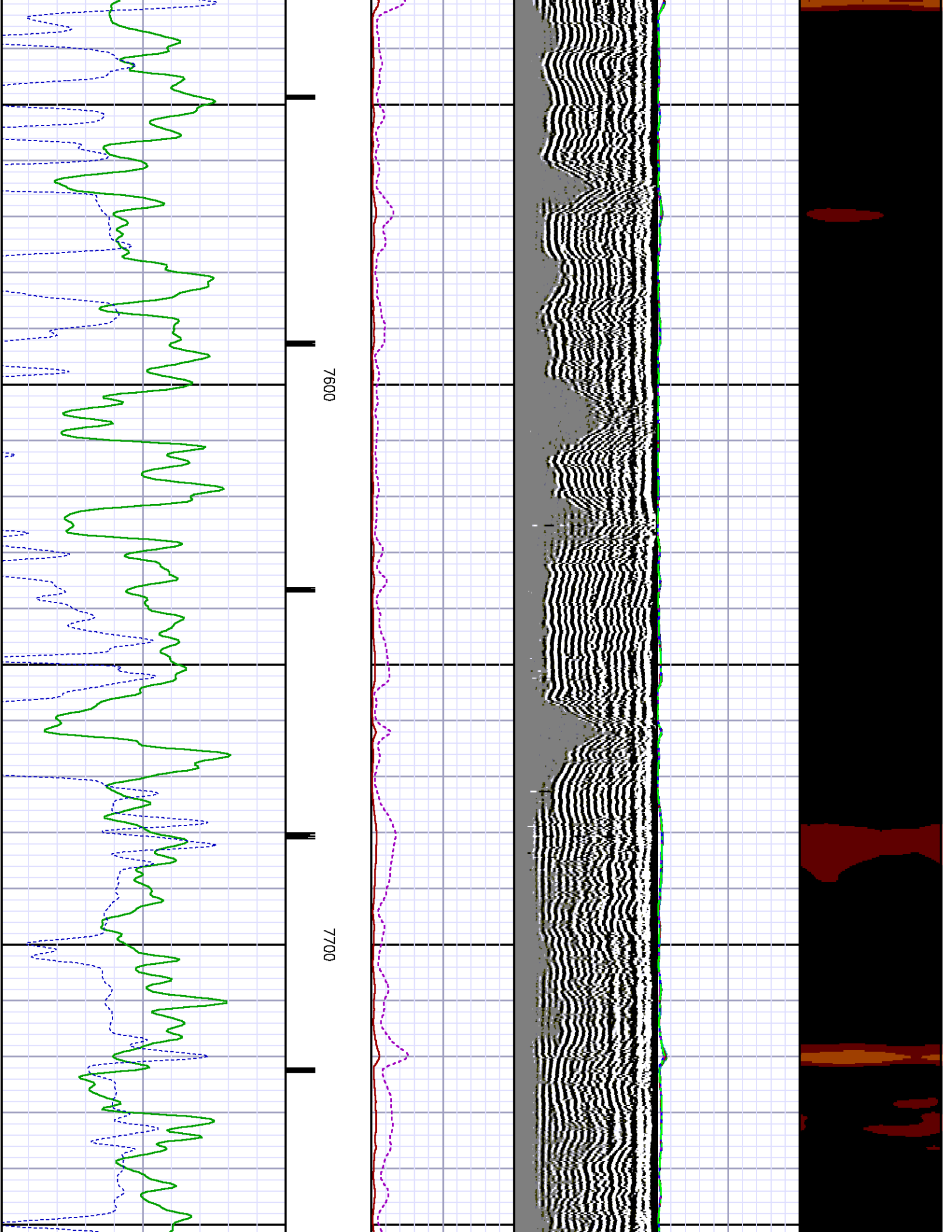


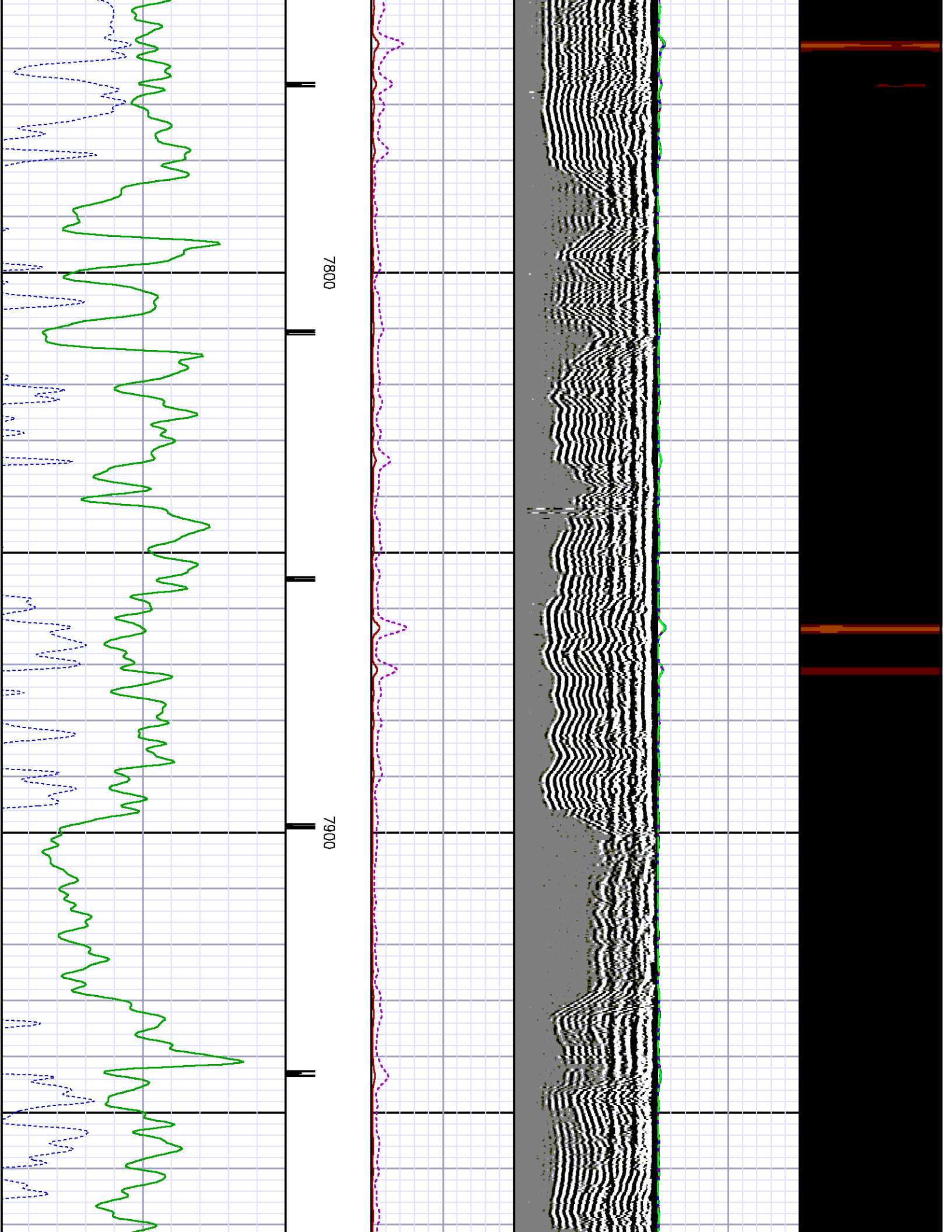


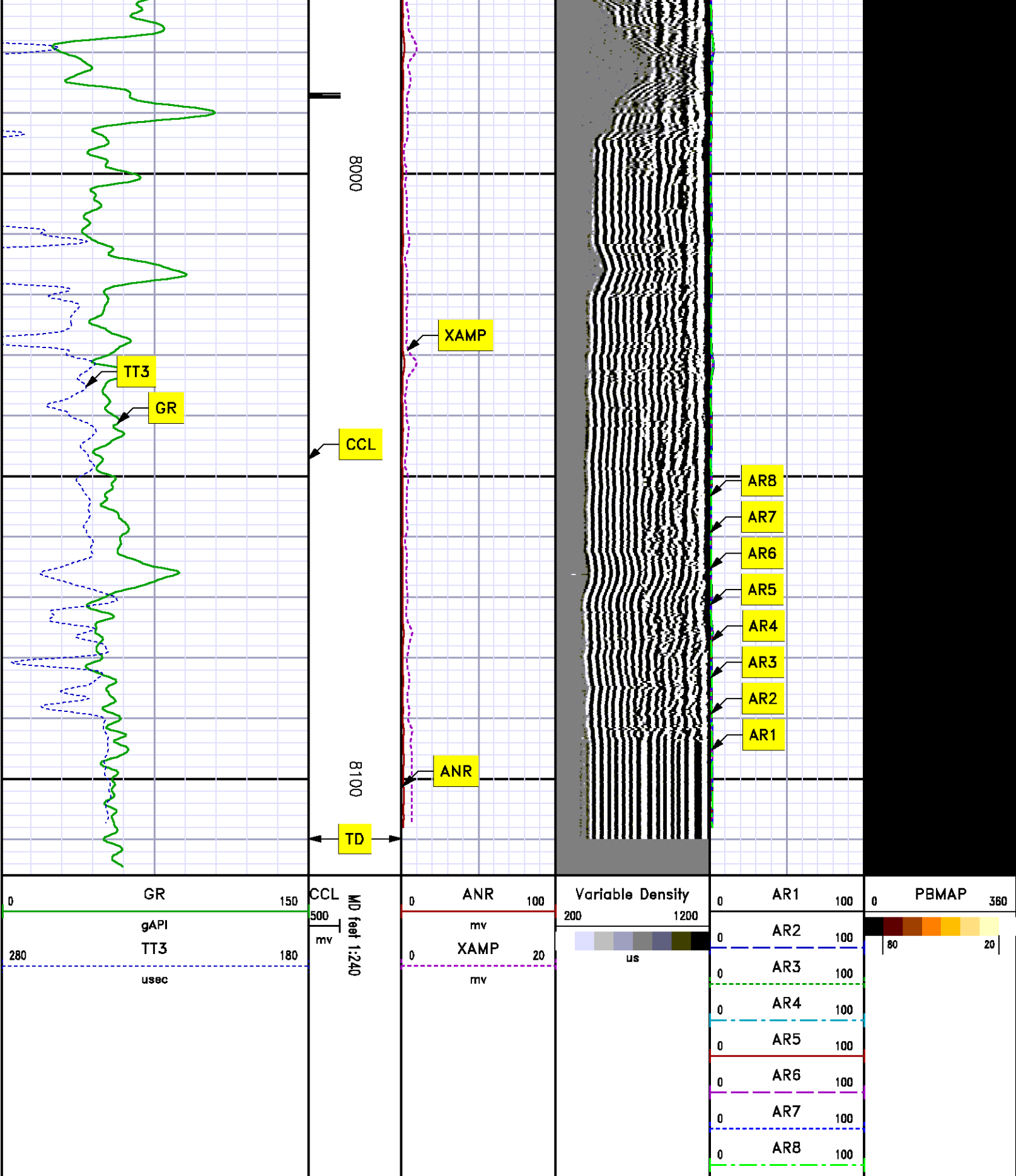












**REPEAT SECTION**

# 0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	7800.150	8129.150
RAL	Amp Gate Start Near	195.000	usec	7800.150	8129.150
RAL	Amp Gate Start Radial	195.000	usec	7800.150	8129.150
RAL	Amp Gate Width Far	25.000	usec	7800.150	8129.150
RAL	Amp Gate Width Near	25.000	usec	7800.150	8129.150
RAL	Amp Gate Width Radial	25.000	usec	7800.150	8129.150
RAL	casing od	4.500	inches	7800.150	8129.150
RAL	casing wt	11.600	lbm/ft	7800.150	8129.150
RAL	FB Start Far	291.900	usec	7800.150	8129.150
RAL	FB Start Near	180.000	usec	7800.150	8129.150
RAL	FB Start Radial	180.000	usec	7800.150	8129.150
RAL	FB Thresh Far	10.000	mv	7800.150	8129.150
RAL	FB Thresh Near	4.000	mv	7800.150	8129.150
RAL	FB Thresh Radial	4.000	mv	7800.150	8129.150
RAL	Fluid Travel Time	200.000	usec/ft	7800.150	8129.993

## DEPTH OFFSETS (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

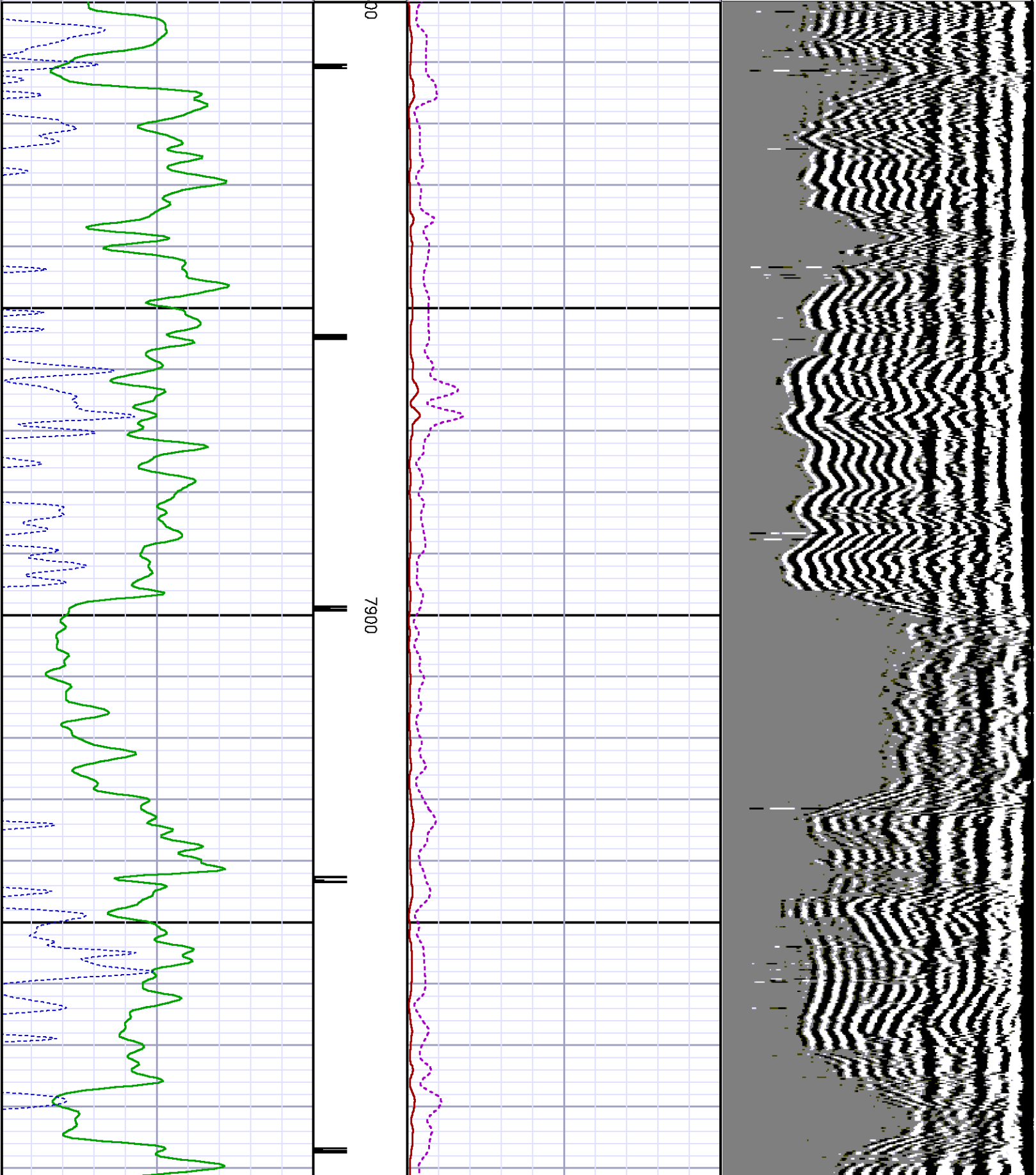
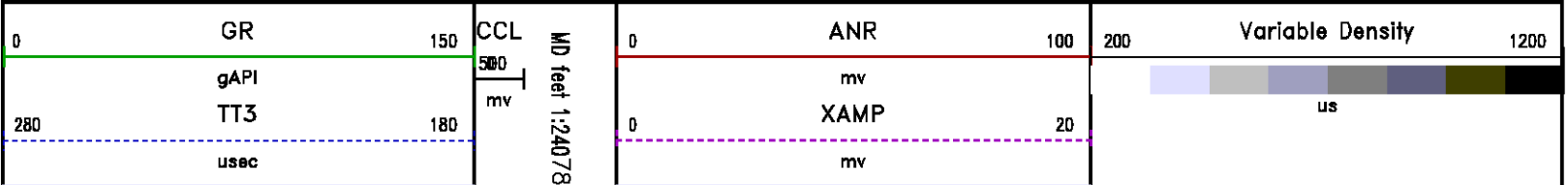
Well : YOUBERG RWF 433-23

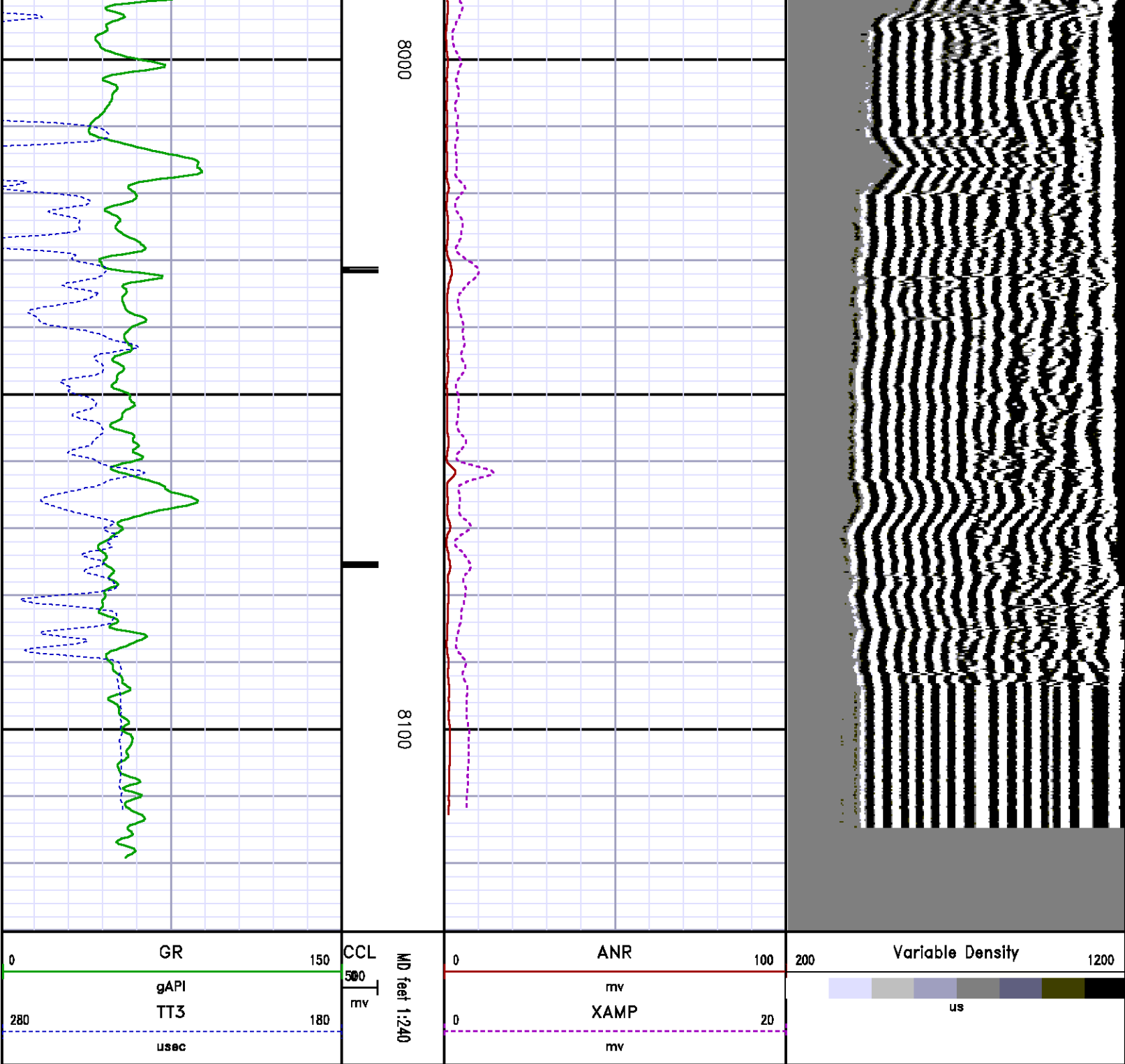
File Name : d:\welldata\wpx energy\rwf 433-23\433cbl\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 7800.15 - 8130.15 feet UP

Created : 4/21/2013 6:44:50 PM





## ***CALIBRATION SUMMARY***

***RALSHP***

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Apr 21 13:42:09 2013 TOOL SERIES: 1426XA ASSET: 106 SEQ: A21

Tool Delay [usec]  Tank OD  in Tank Wt  lbm/ft Tank ID  in

RECEIVER	Travel Time [usec]	Amp. Gate Start [usec]	Amp. Gate Width [usec]	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor
CAL Pulse	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-0.376"/>	<input type="text" value="100.00"/>	<input type="text" value="0.11"/>
3 Ft. Receiver	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="143"/>	<input type="text" value="25"/>	<input type="text" value="-0.320"/>	<input type="text" value="100.00"/>	<input type="text" value="0.10"/>
5 Ft. Receiver	<input type="text" value="324"/>	<input type="text" value="320"/>	<input type="text" value="30"/>	<input type="text" value="244"/>	<input type="text" value="25"/>	<input type="text" value="0.486"/>	<input type="text" value="150.00"/>	<input type="text" value="0.12"/>
Radial #1	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="147"/>	<input type="text" value="25"/>	<input type="text" value="0.396"/>	<input type="text" value="100.00"/>	<input type="text" value="0.10"/>
Radial #2	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="147"/>	<input type="text" value="25"/>	<input type="text" value="-0.016"/>	<input type="text" value="100.00"/>	<input type="text" value="0.10"/>
Radial #3	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="147"/>	<input type="text" value="25"/>	<input type="text" value="0.095"/>	<input type="text" value="100.00"/>	<input type="text" value="0.10"/>
Radial #4	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="147"/>	<input type="text" value="25"/>	<input type="text" value="-0.165"/>	<input type="text" value="100.00"/>	<input type="text" value="0.10"/>
Radial #5	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="147"/>	<input type="text" value="25"/>	<input type="text" value="-0.195"/>	<input type="text" value="100.00"/>	<input type="text" value="0.11"/>
Radial #6	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="147"/>	<input type="text" value="25"/>	<input type="text" value="0.010"/>	<input type="text" value="100.00"/>	<input type="text" value="0.11"/>
Radial #7	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="147"/>	<input type="text" value="25"/>	<input type="text" value="-0.094"/>	<input type="text" value="100.00"/>	<input type="text" value="0.11"/>
Radial #8	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="147"/>	<input type="text" value="25"/>	<input type="text" value="-0.356"/>	<input type="text" value="100.00"/>	<input type="text" value="0.11"/>

**RALFLD**

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Apr 21 15:31:36 2013 TOOL SERIES: 1426XA ASSET: 106 SEQ: A21

Tool Delay [usec]  Casing OD  in Casing Wt  lbm/ft Casing ID  in

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-0.051"/>	<input type="text" value="0.000"/>	<input type="text" value="0.99"/>	<input type="text" value="100.000"/>
3 Ft. Receiver	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.083"/>			
5 Ft. Receiver	<input type="text" value="305"/>	<input type="text" value="25"/>	<input type="text" value="-1.114"/>			
Radial #1	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.807"/>			
Radial #2	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.529"/>			
Radial #3	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.276"/>			
Radial #4	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.417"/>			
Radial #5	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.213"/>			
Radial #6	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.279"/>			
Radial #7	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-0.977"/>			
Radial #8	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.080"/>			

**GAMMA RAY**

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Apr 11 11:25:15 2013 TOOL SERIES: 2459XA ASSET: 456 SEQ: A1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	71.07	331.91	0.709	50.40	235.40	185.00

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Thu Apr 11 11:26:40 2013 TOOL SERIES: 2459XA ASSET: 456 SEQ: A1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	76.40	329.60	0.709	54.19	233.76	179.58

# TOOL DIAGRAM

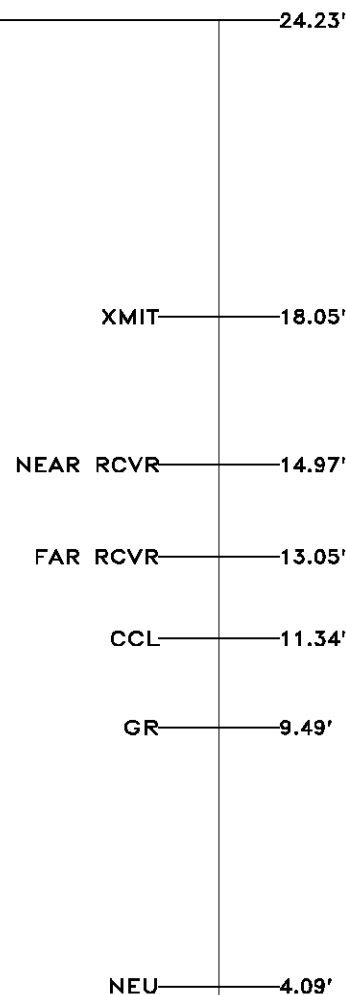
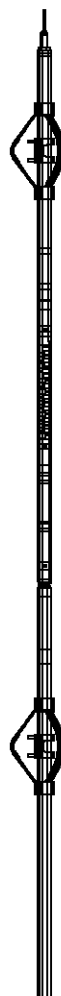
OTA SHORT CABLE HEAD

PROBE 2 3/4 DUAL RECEIVER RADII

Series 1426XA  
 Mnemonic PROB  
 Diameter 2.75"  
 Length 11.17'  
 Measure Point 0.75' FAR RCVR  
 Measure Point 2.67' NEAR RCVR  
 Measure Point 5.75' XMIT  
 Temp Rating 350.00 °F  
 Press Rating 18000.00 PSI

Probe GR/CCL/NEU

Series 2459XA  
 Mnemonic PROB  
 Diameter 2.75"  
 Length 9.42'  
 Measure Point 1.21' NEU  
 Measure Point 6.60' GR  
 Measure Point 8.46' CCL



**CENTRALIZER**

Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb



0.00'

Total Length: 24.23'  
Total Weight: Not Available  
Max Diameter: 0' 3.12"



Company	WPX ENERGY	
Well	YUBERG RWF 433-23	
Field	RULISON	
County	GARFIELD	State COLORADO

File No:	CH070852
API No:	05045182420000

Baker Atlas



Location		Elevations
SHL: 1392' FSL, 2320' FEL		KB 5527.5 ft
BHL: 1658' FSL, 1769' FEL		DF
		GL 5501.5 ft
SEC 25	TWP 6S	RGE 94W

23 6S 94W
RWF 33-23 PAD
NABORS 577