



# RADIAL ANALYSIS BOND LOG

## Baker Atlas

File No:	Company	WILLIAMS PRODUCTION COMPANY	
1569	Well	PA 344-21	
API No:	Field	PARACHUTE	
05045164010000	County	GARFIELD	State
		COLORADO	
Location		Other Services	
21 6S 95W DOE 1-W-28 PAD HP 271		RPM	
SHL:1893' FNL & 1759' FEL S28 T6S R95W BHL:857' FNL & 252' FEL S21 T6S R95W			
Permanent Datum	GROUND LEVEL	Elevation	5558 ft
Log Measured From	K.B.	24 ft	Above P. D.
Drill Measured From	KELLY BUSHING		
		KB	5562 ft
		DF	5581 ft
		GL	5558 ft

Date	22 JAN 2010	
Run	ONE	
Service Order	576645	
Depth Driller	8989 ft	
Depth Logger	8971 ft	
Bottom Logged Interval	8971 ft	
Top Logged Interval	20 ft	
Time Started	15:45	
Time Finished	19:45	
Operator Rig Time	4 hrs	
Type of Fluid in Hole	WATER	
Fluid Density	N/A	
Salinity	N/A	
Fluid Level	FULL	
Logged Cement Top	N/A	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	N/A	
Nominal Logging Speed	45 fpm	
Maximum Recorded Temperature	242 degF	
Reference Log	NONE	
Reference Log Date	N/A	
Equipment No.	4214	VERNAL, UT.
Recorded By	J.OSTLER/J. PACA	
Witnessed By	MR. TED DUCY	

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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
7.875 In	SURFACE	8989 ft

Casing Record				
Size	Weight	Grade	From	To
4.5 In	11.6 lbm/ft	P-110	SURFACE	8989 ft

Remarks
THIS IS THE FIRST LOG OF THE WELL
WELL WAS LOGGED W/ 0 PSI AT THE WELL HEAD
BHT = 242°F
SHORT JOINT @ 5476' TO 5497'

Equipment Data				
Run	Trip	Tool	Series Number	Serial Number

	1	VDL	1426XA	495	CENTRALIZED
1	1	GR/CCL/NEU	2459XA	544	CENTRALIZED

# ***MAIN SECTION*** ***PRIMARY PRESENTATION*** ***0 PSI***

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	316.900	usec	17.374	9000.000
RAL	Amp Gate Start Near	200.391	usec	17.374	9000.000
RAL	Amp Gate Start Radial	200.391	usec	17.374	9000.000
RAL	Amp Gate Width Far	30.000	usec	17.374	9000.000
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RAL	casing od	4.500	inches	17.374	9000.000
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RAL	FB Thresh Far	10.000	mv	17.374	9000.000
RAL	FB Thresh Near	4.000	mv	17.374	9000.000
RAL	FB Thresh Radial	4.000	mv	17.374	9000.000
RAL	Fluid Travel Time	200.000	usec/ft	17.374	8999.624

## **DEPTH OFFSETS** (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-15.360	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	-14.360	AFAR	SIG	TT5			
1426XA	-7.250	CCL					

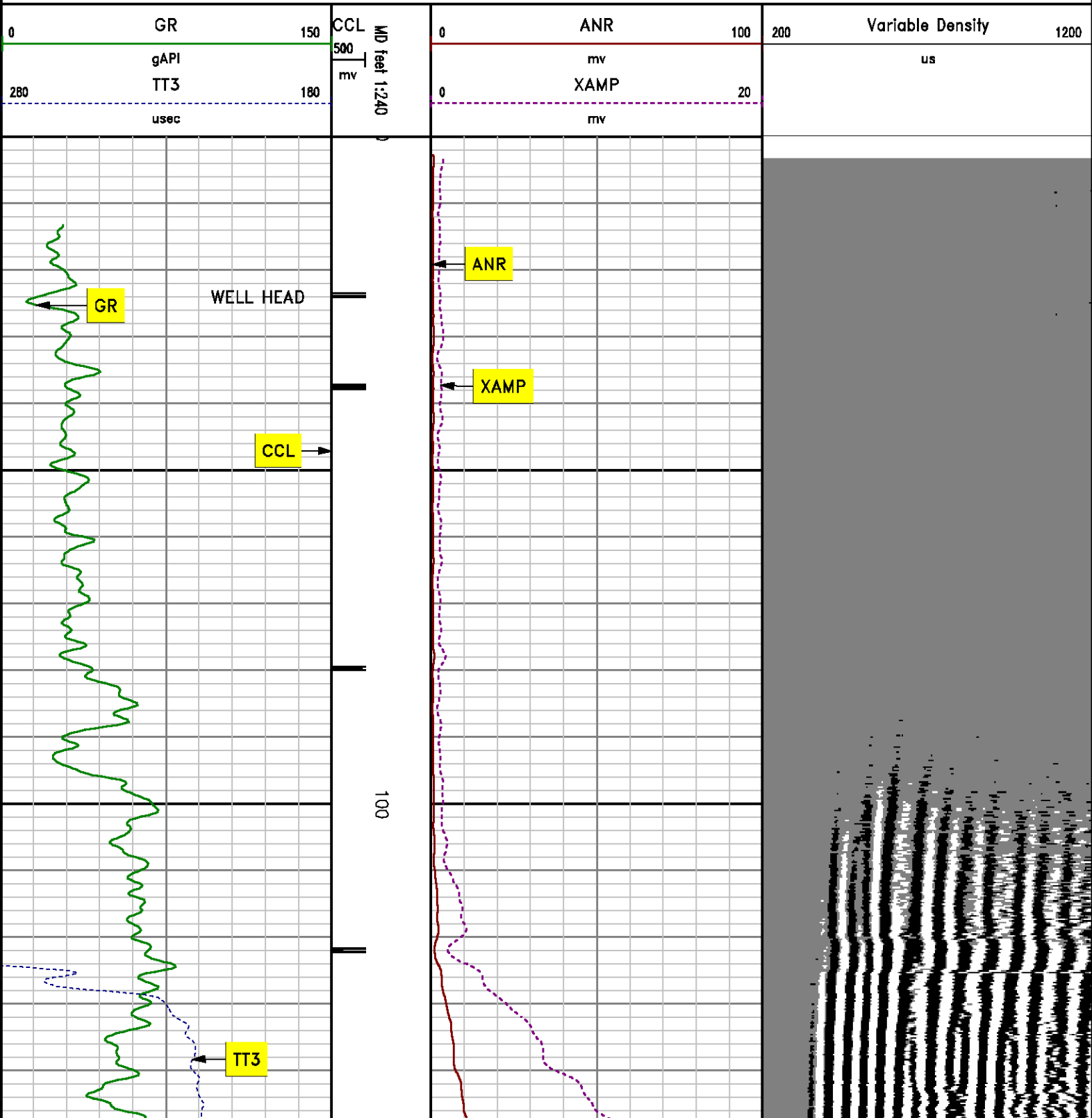
1426XA  
1426XA

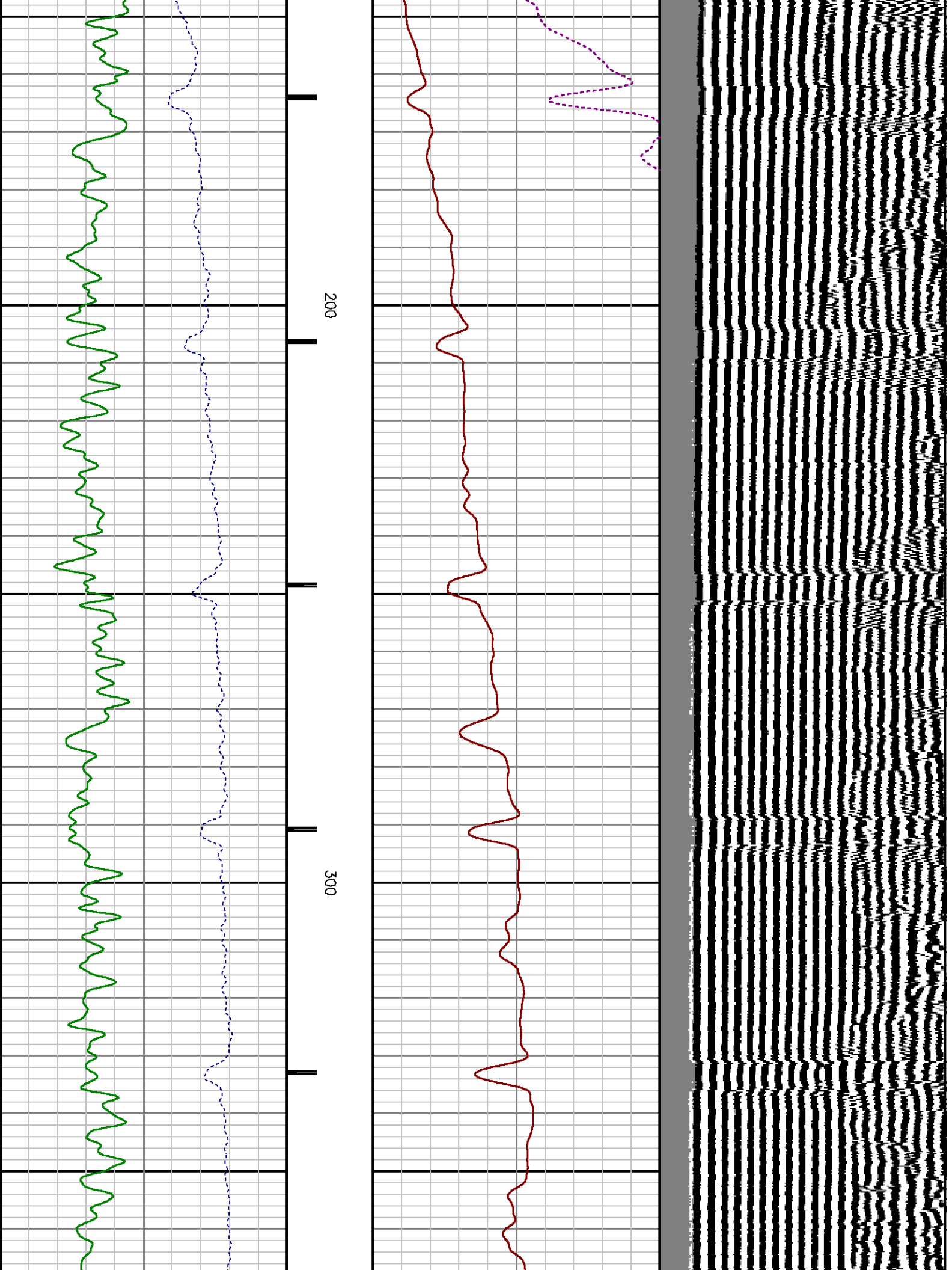
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0.000

GR  
NEU

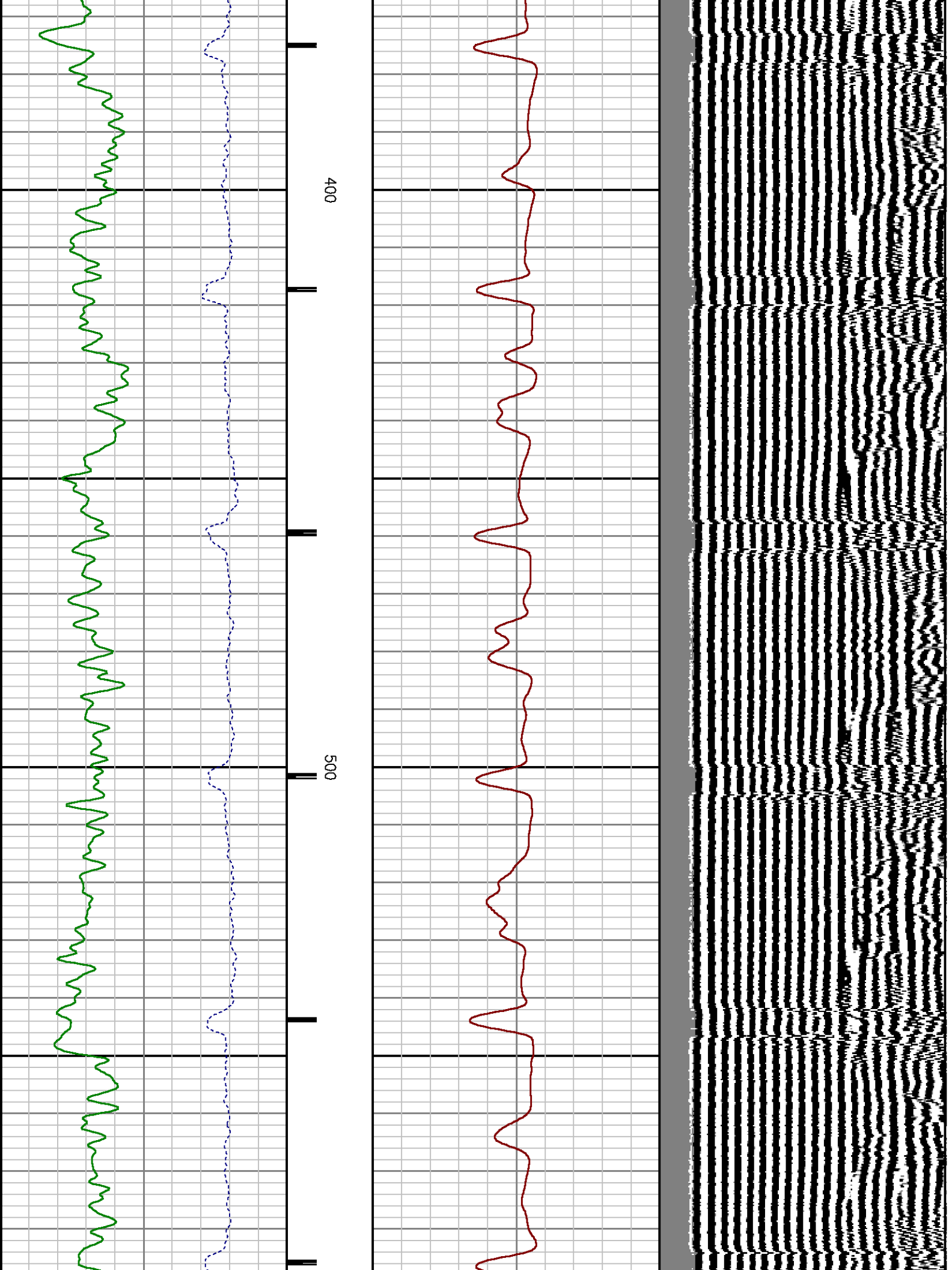
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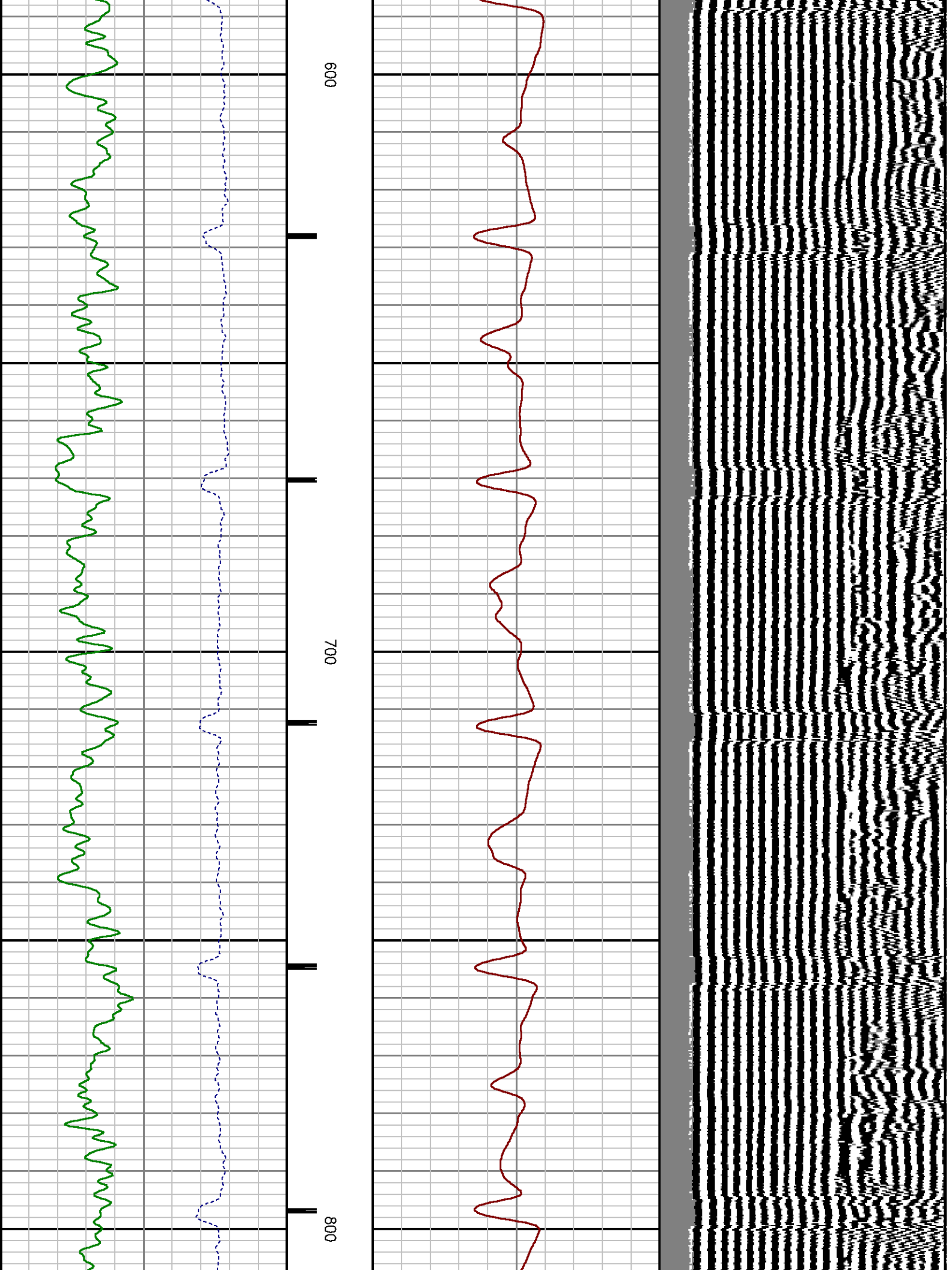
Company : WILLIAMS PRODUCTION COMPANY  
Well : PA 344-21  
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Created : 1/23/2010 5:13:21 AM

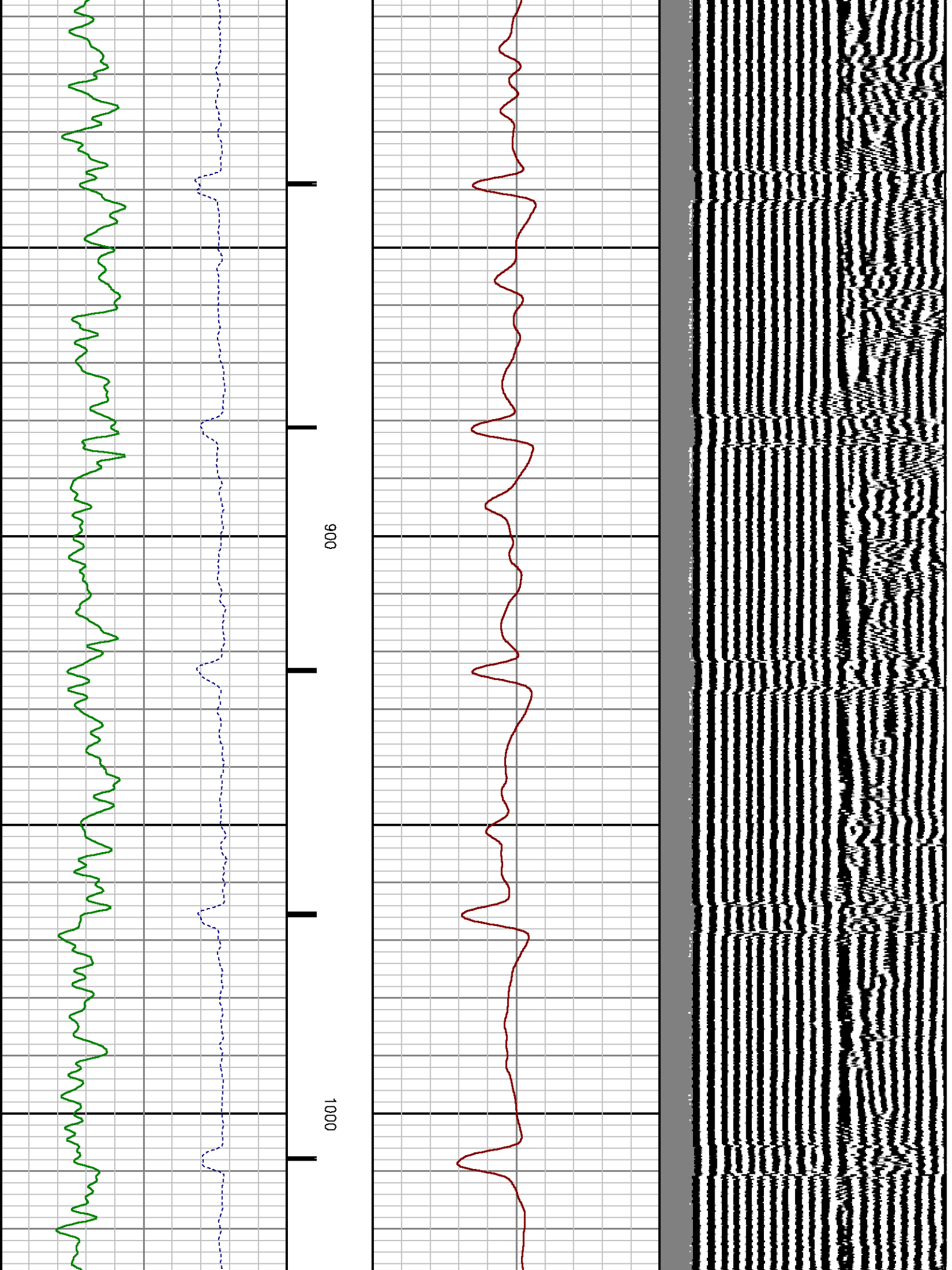


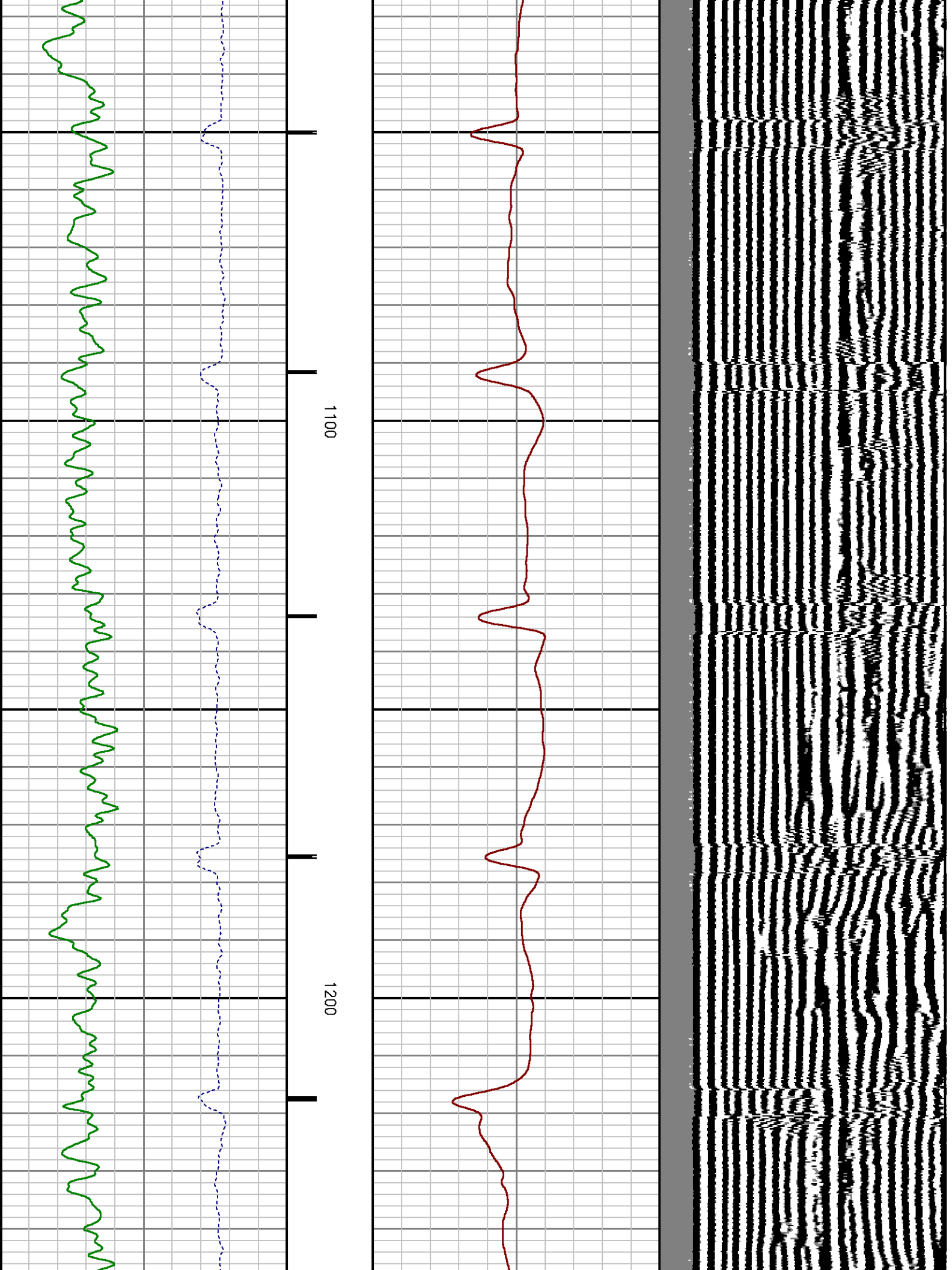


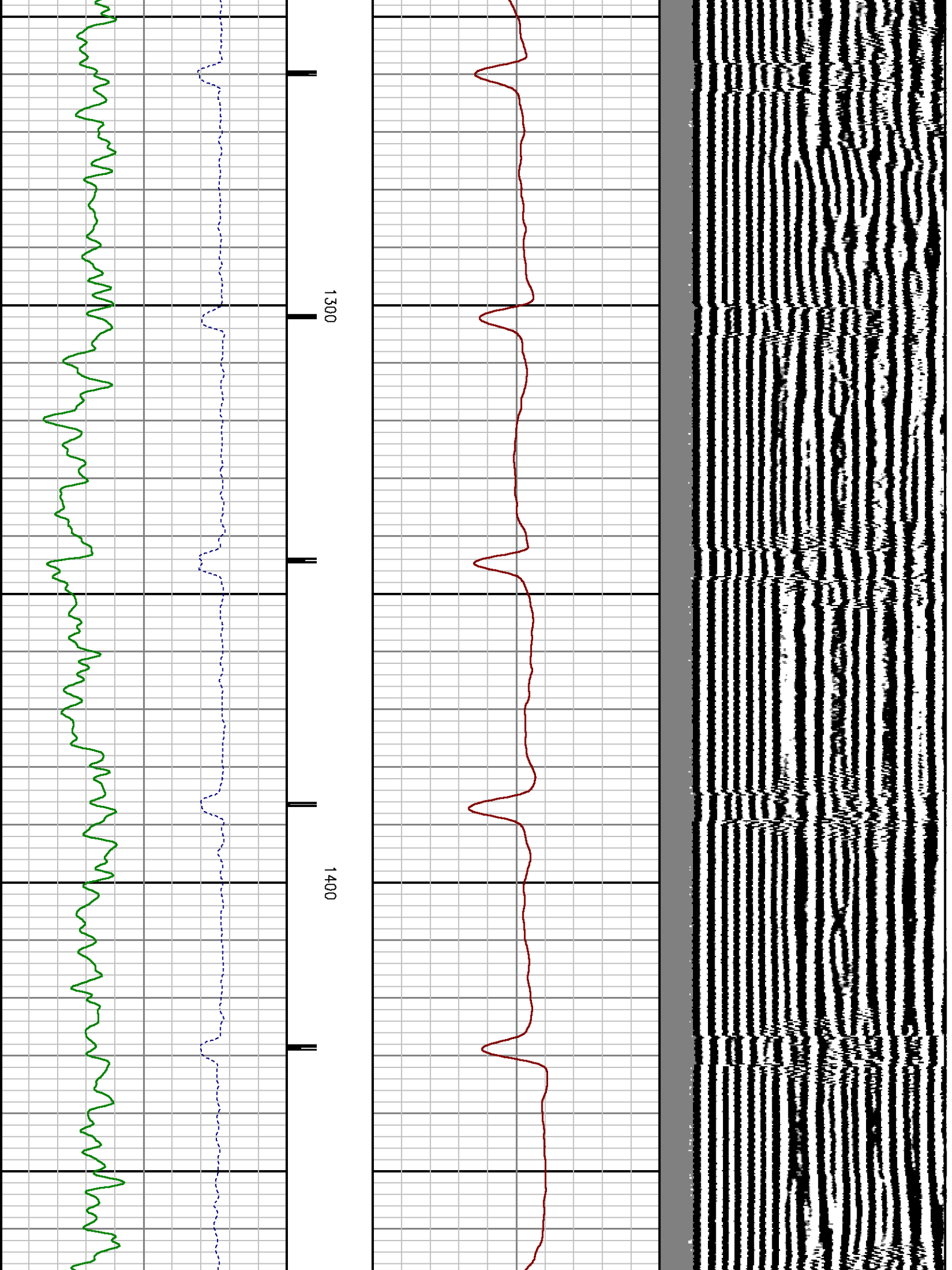


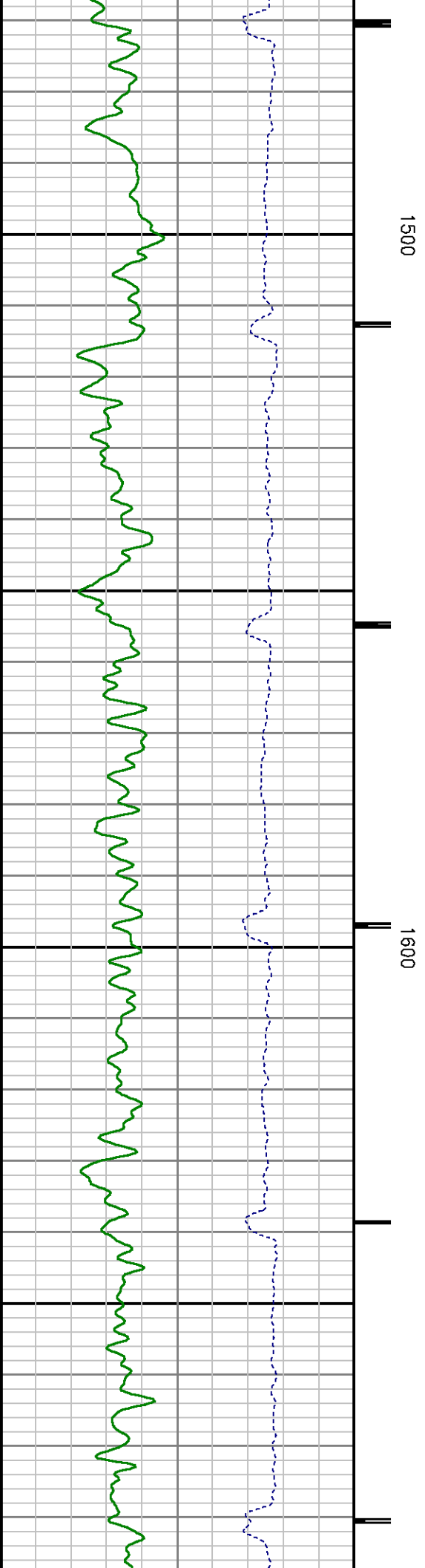
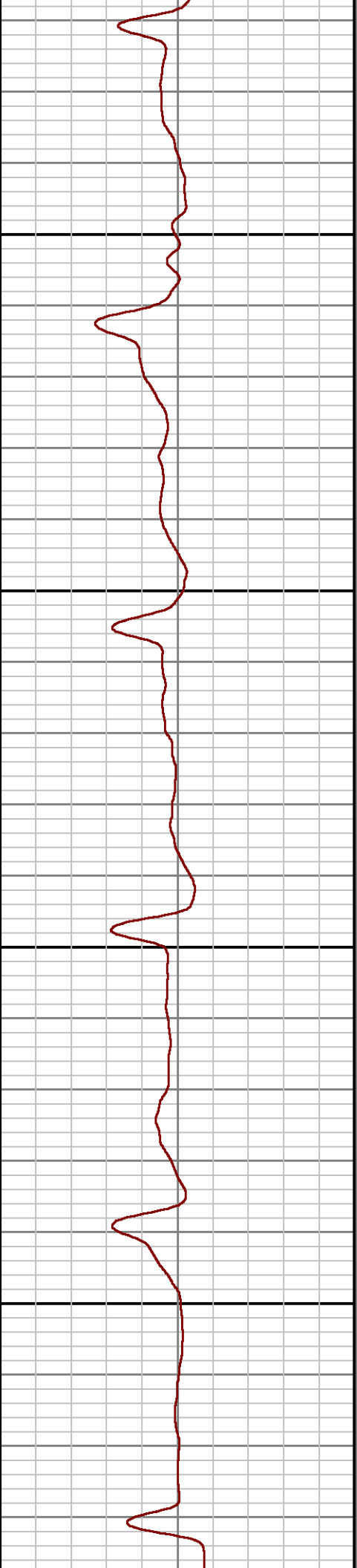
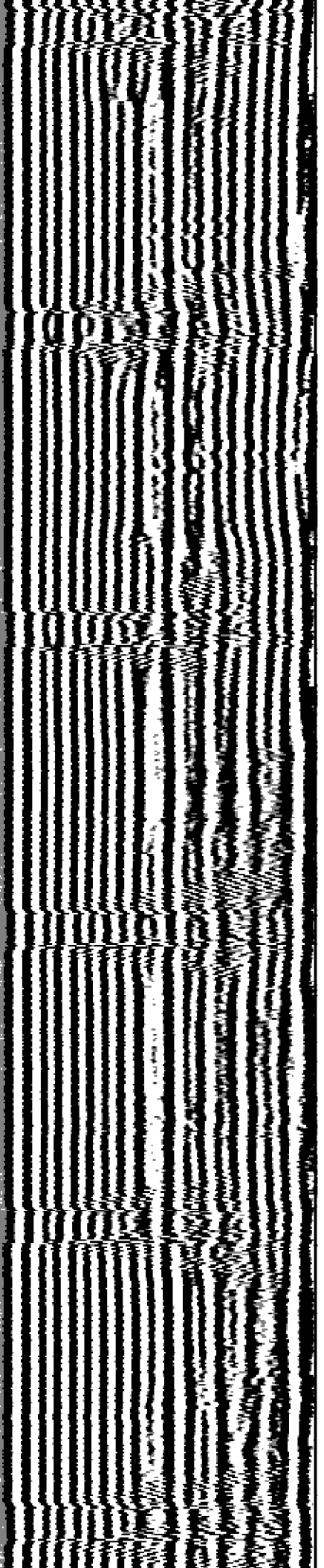




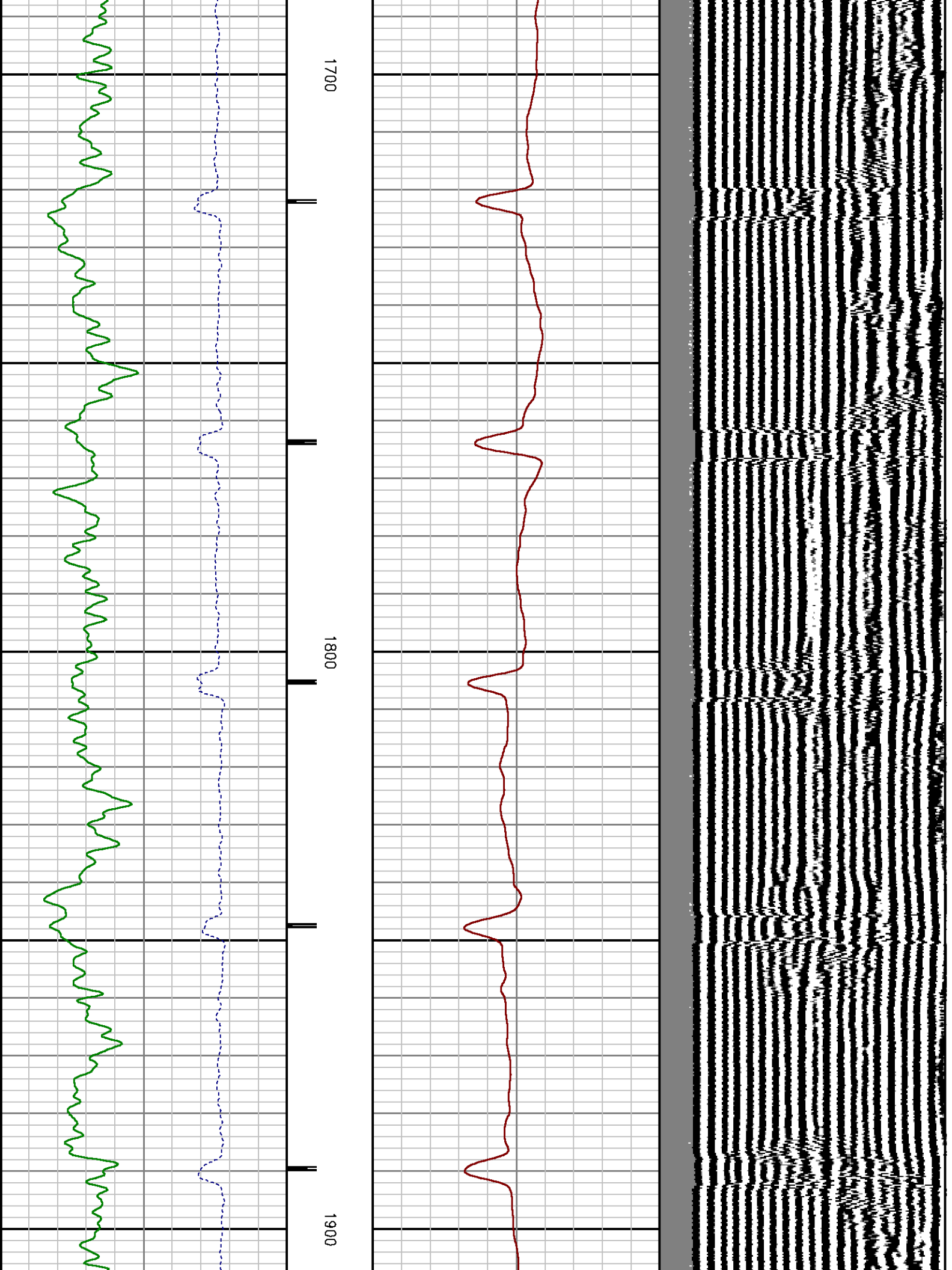


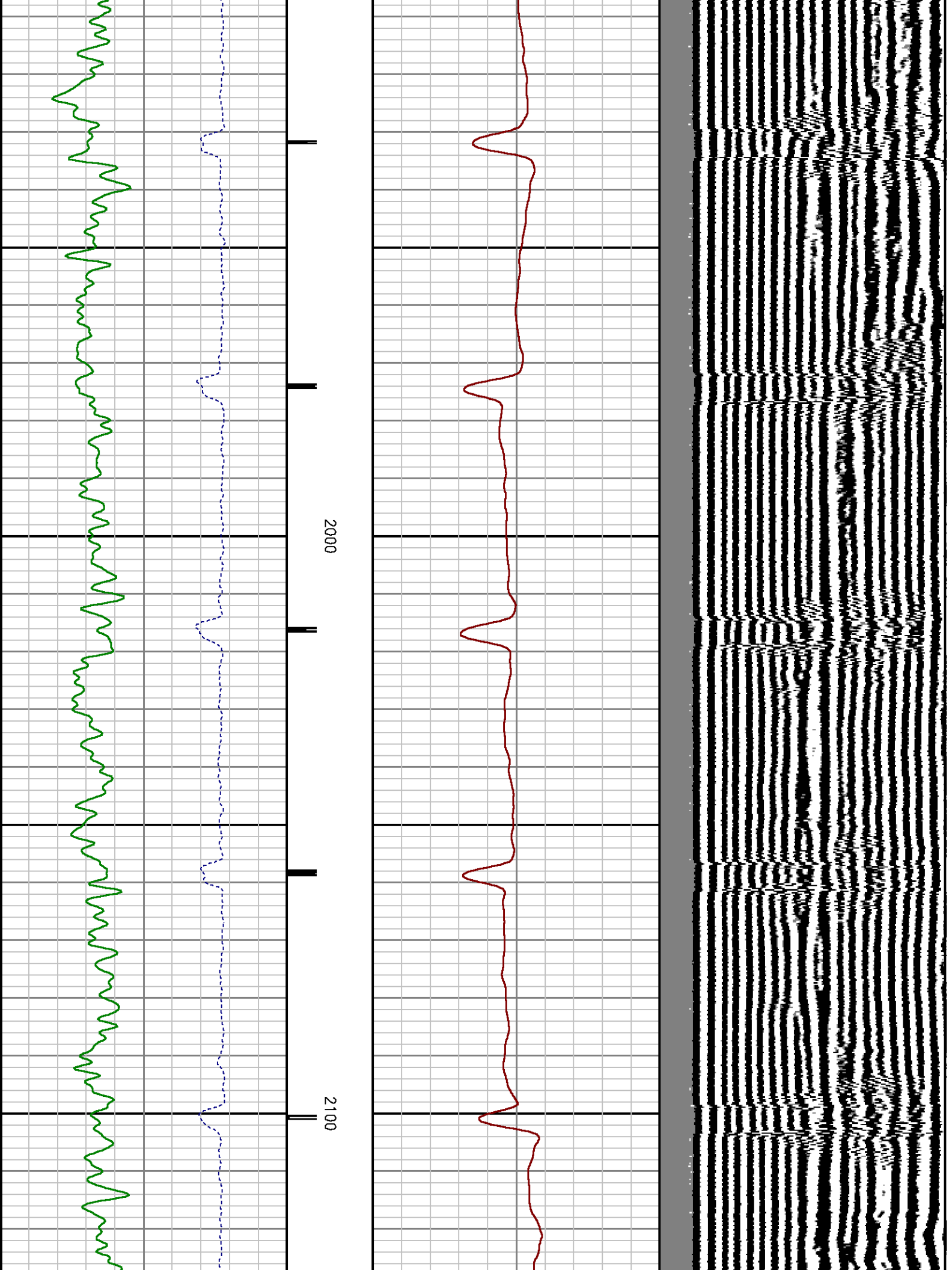




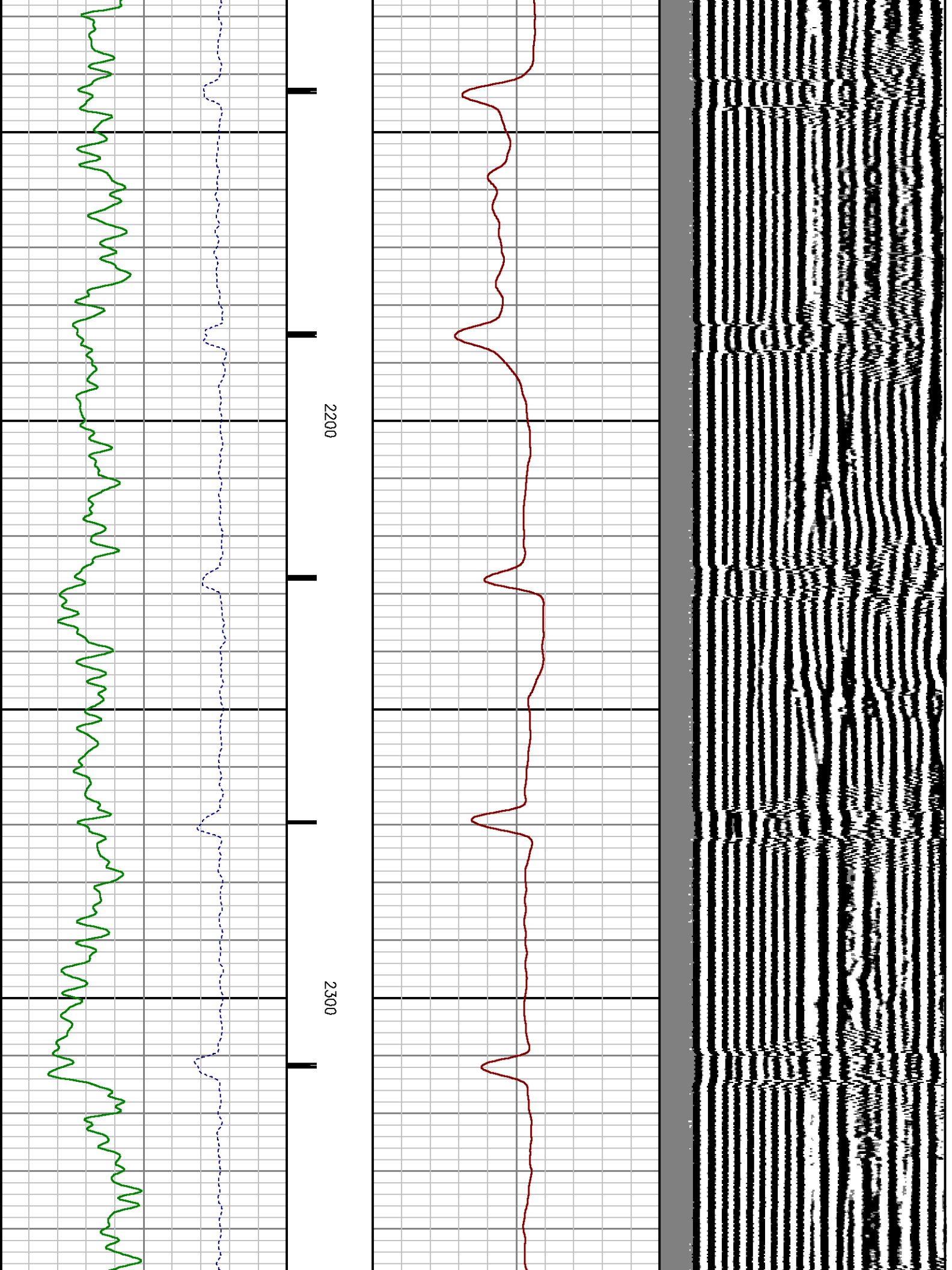


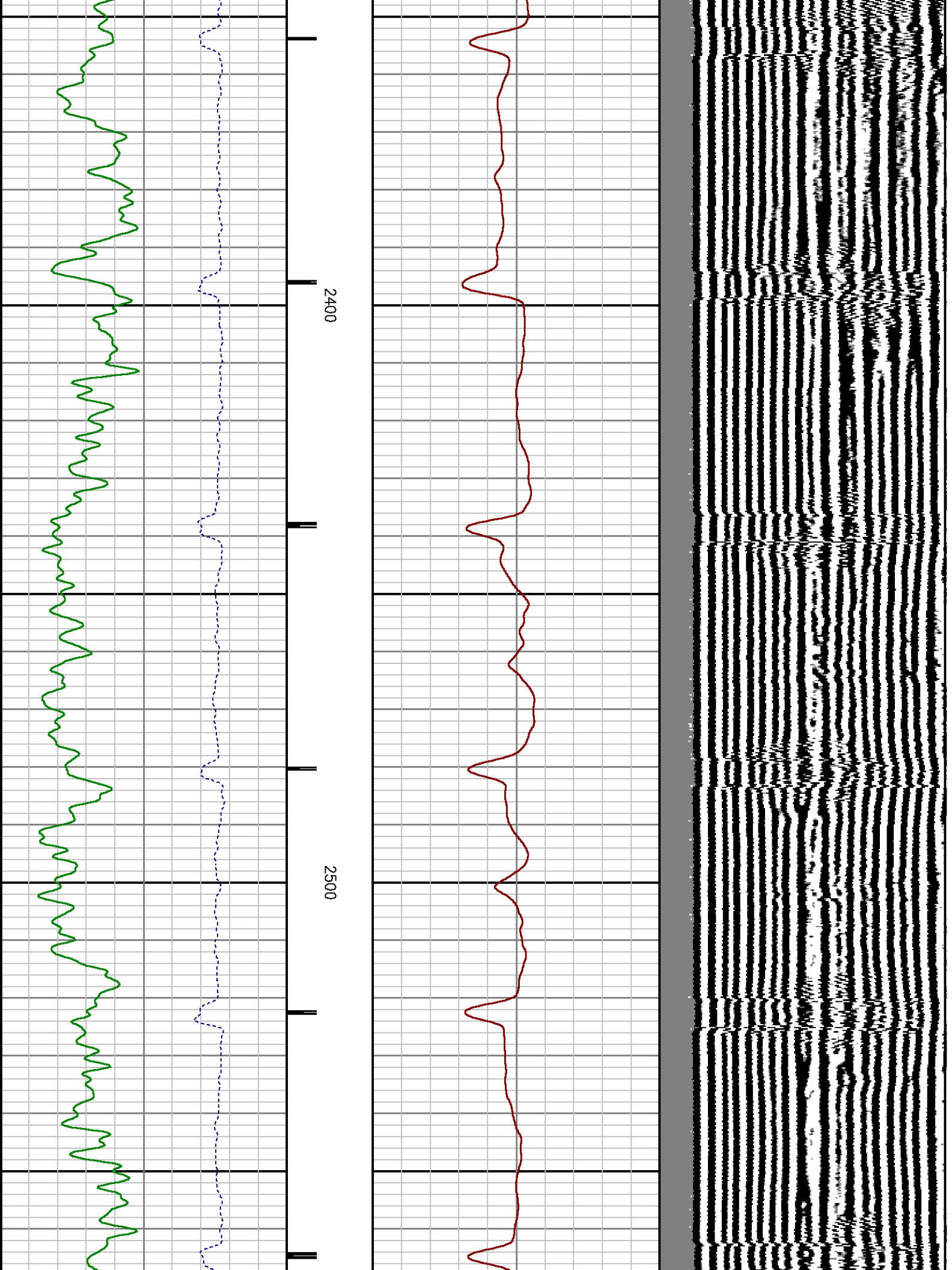


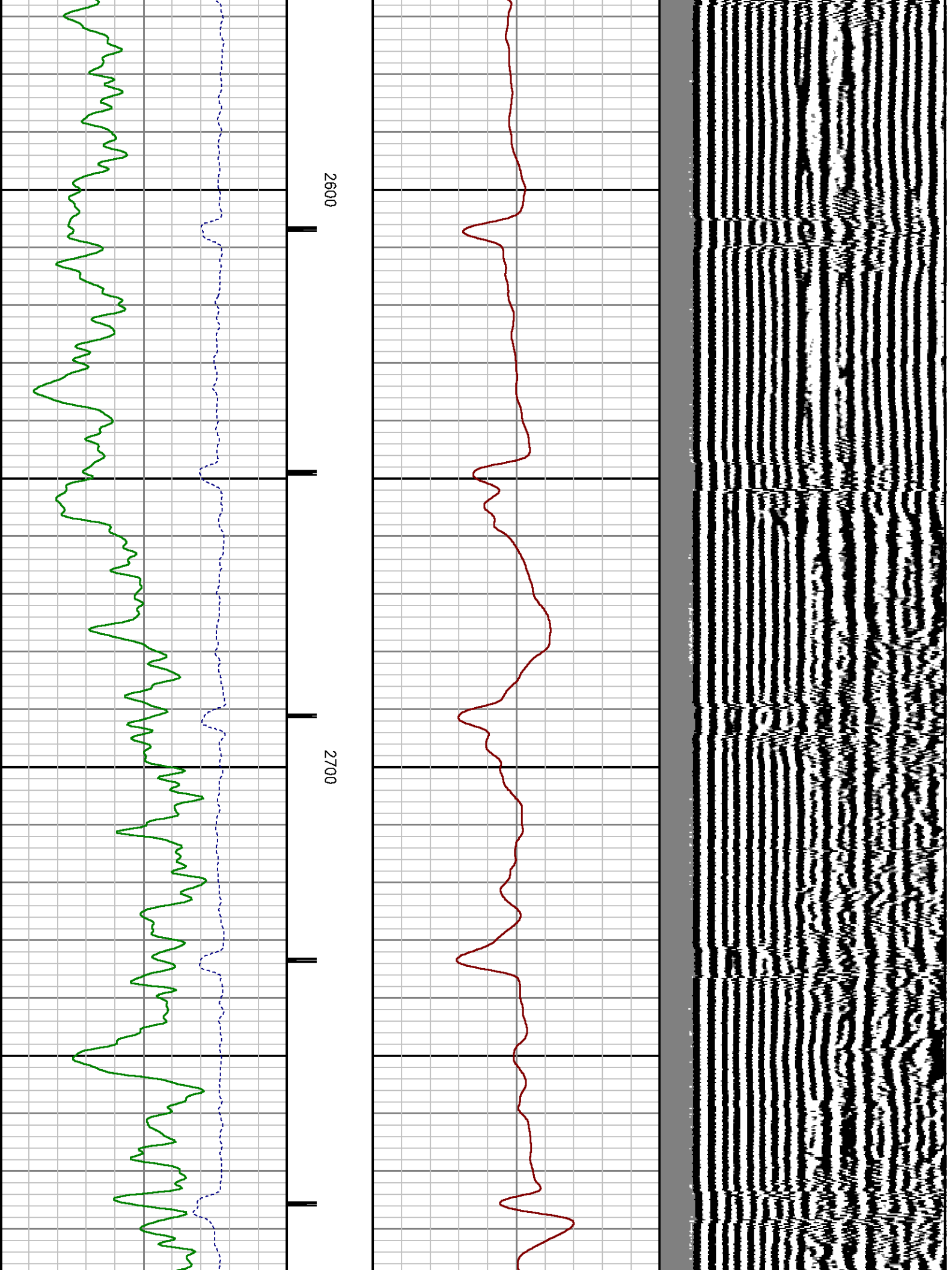


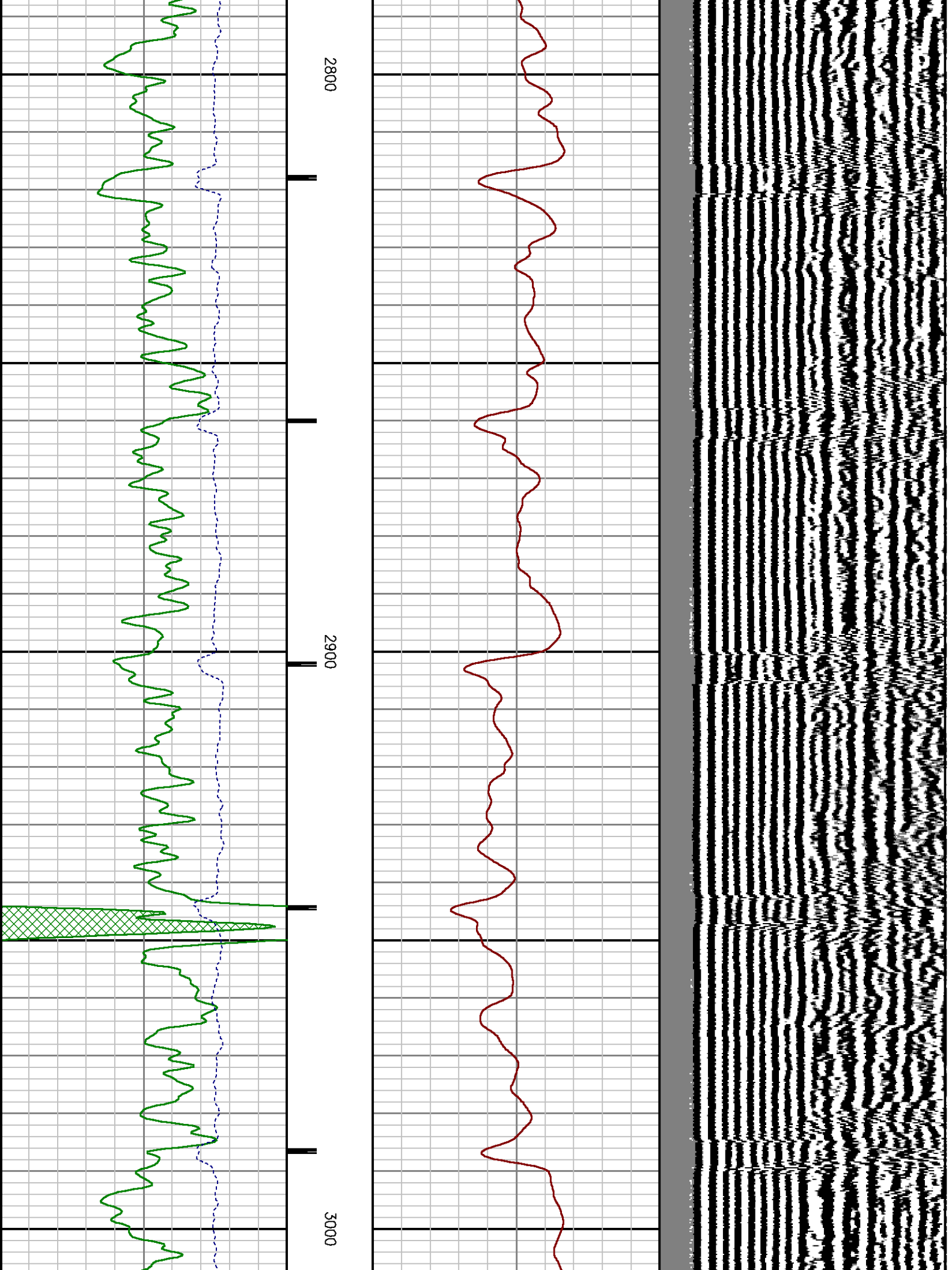


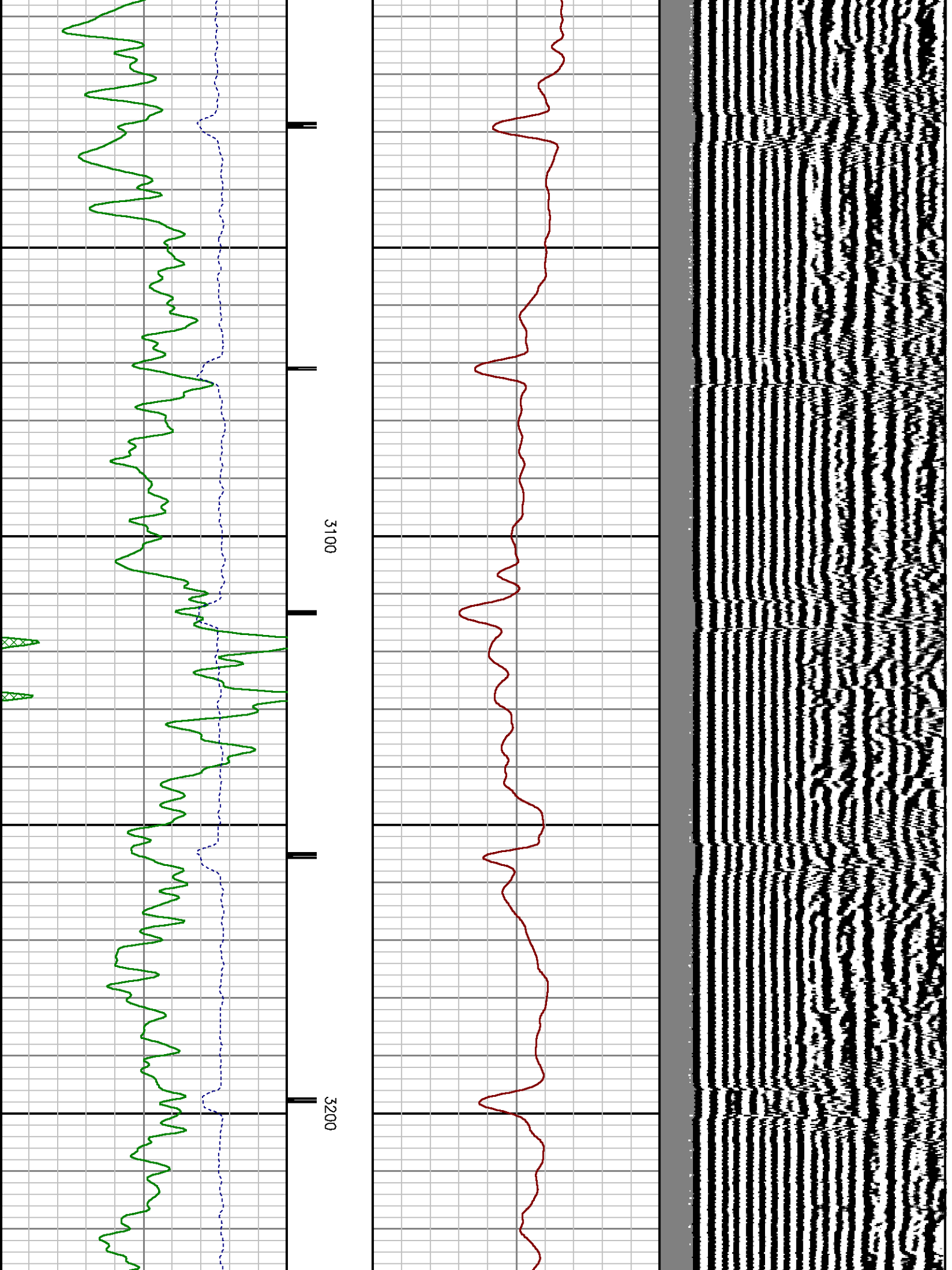


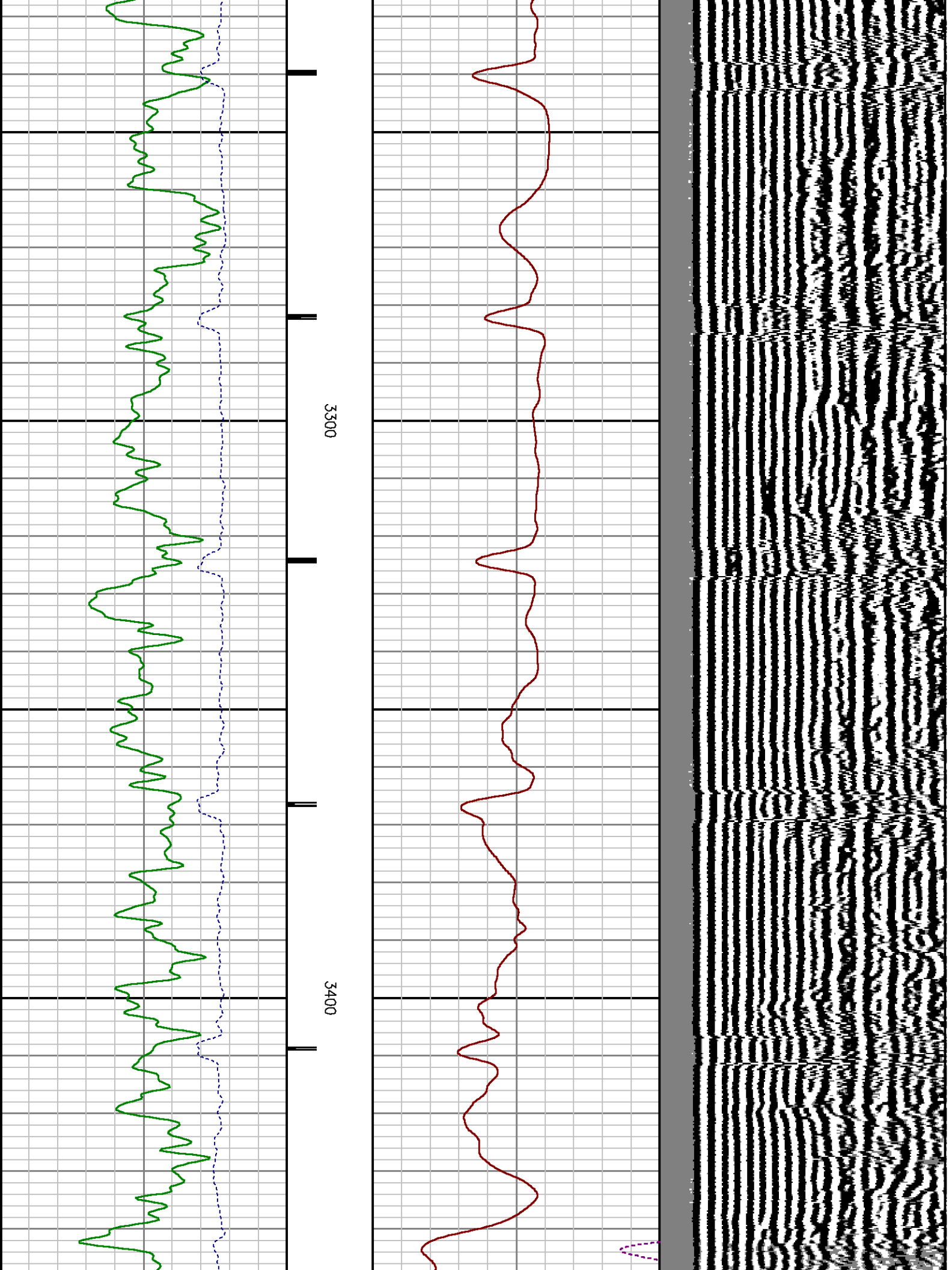




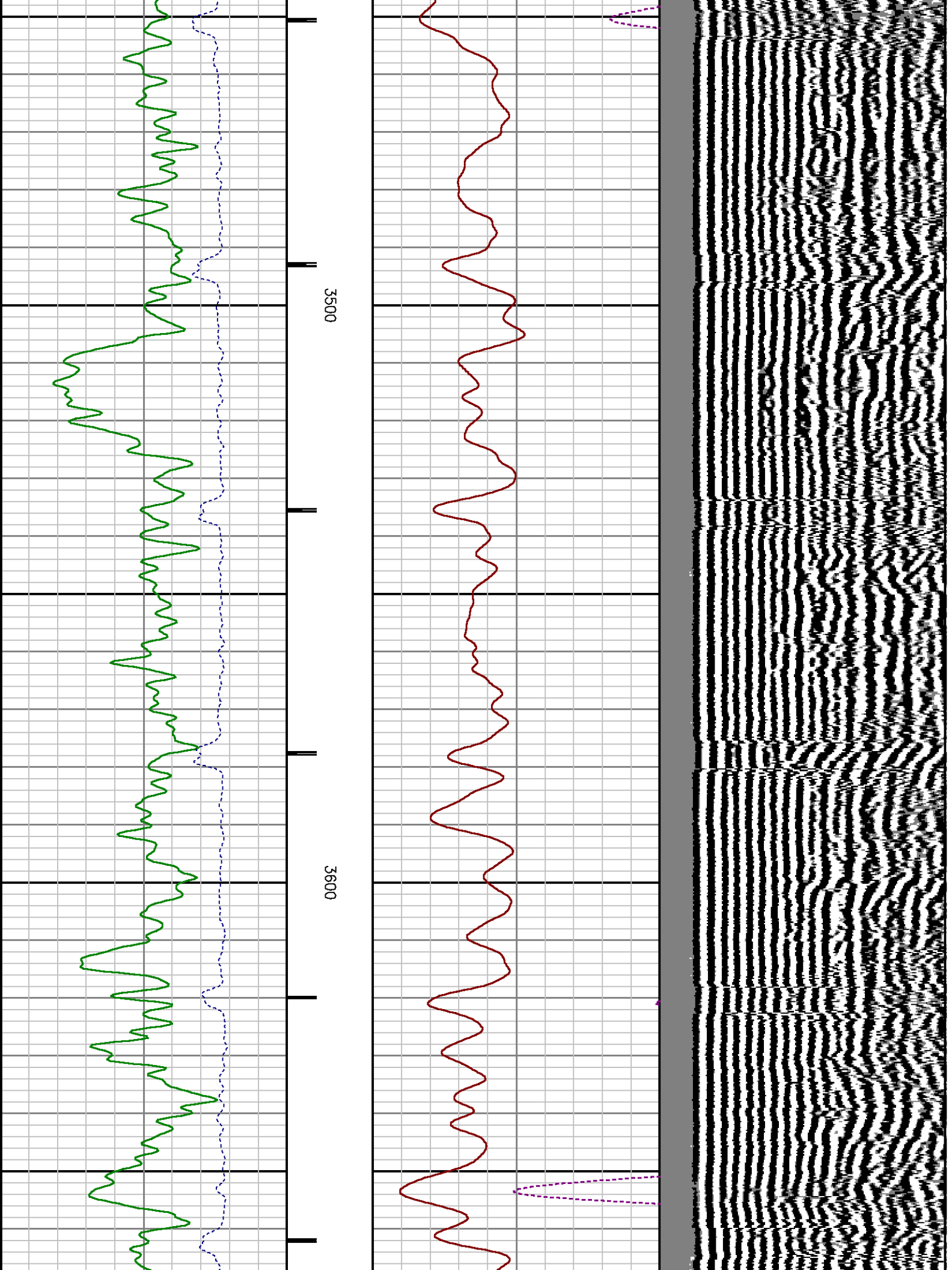


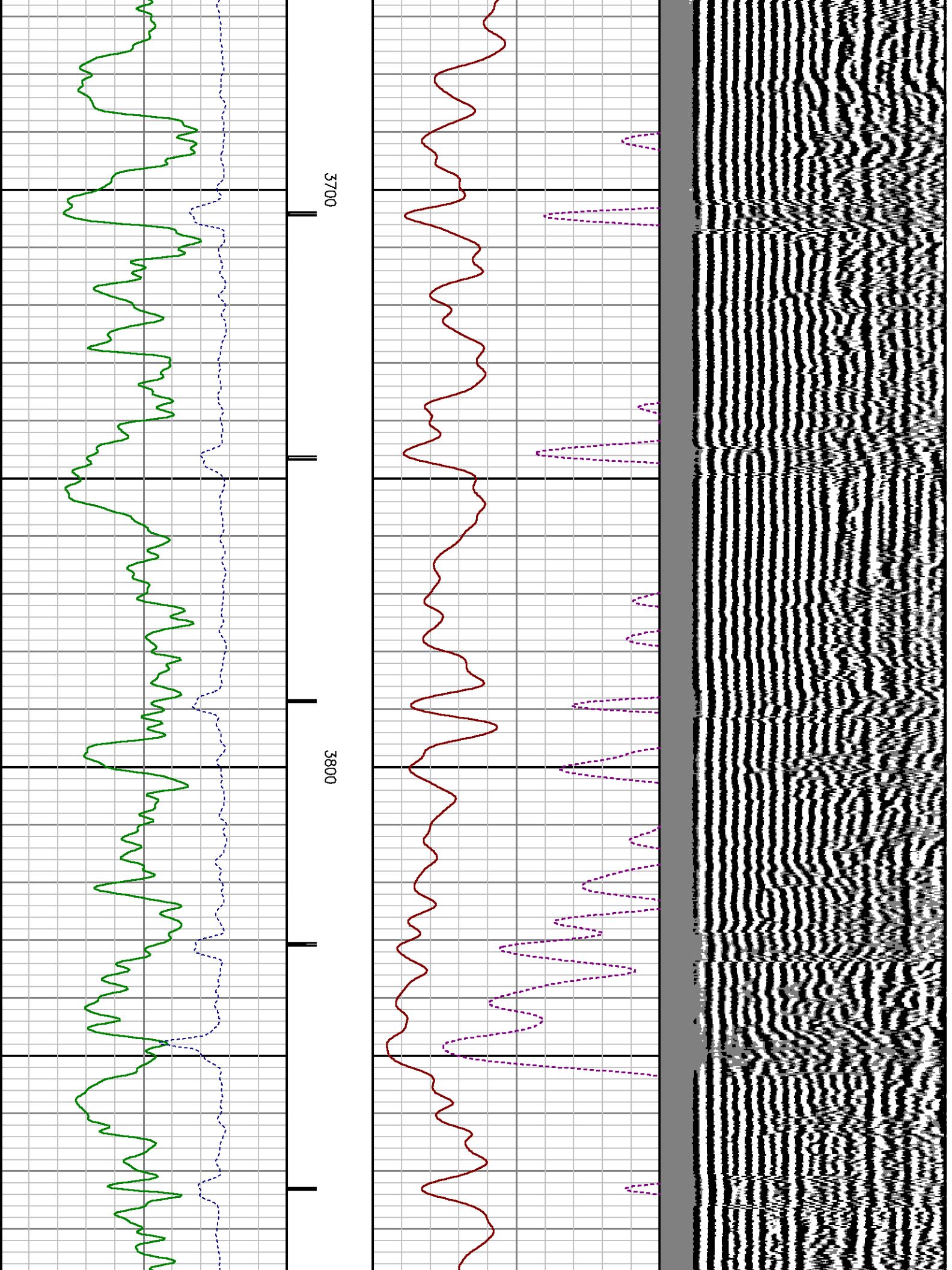




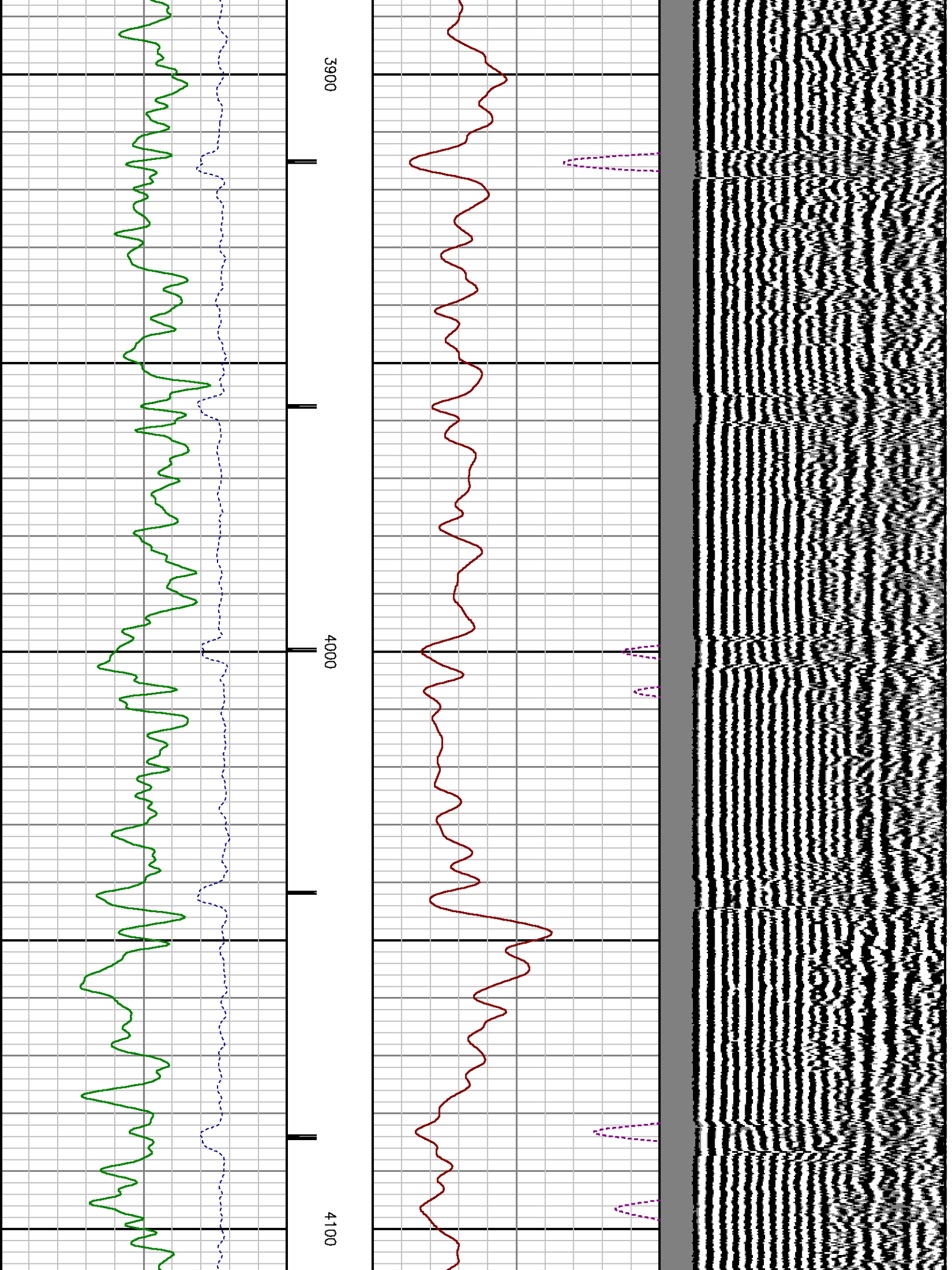


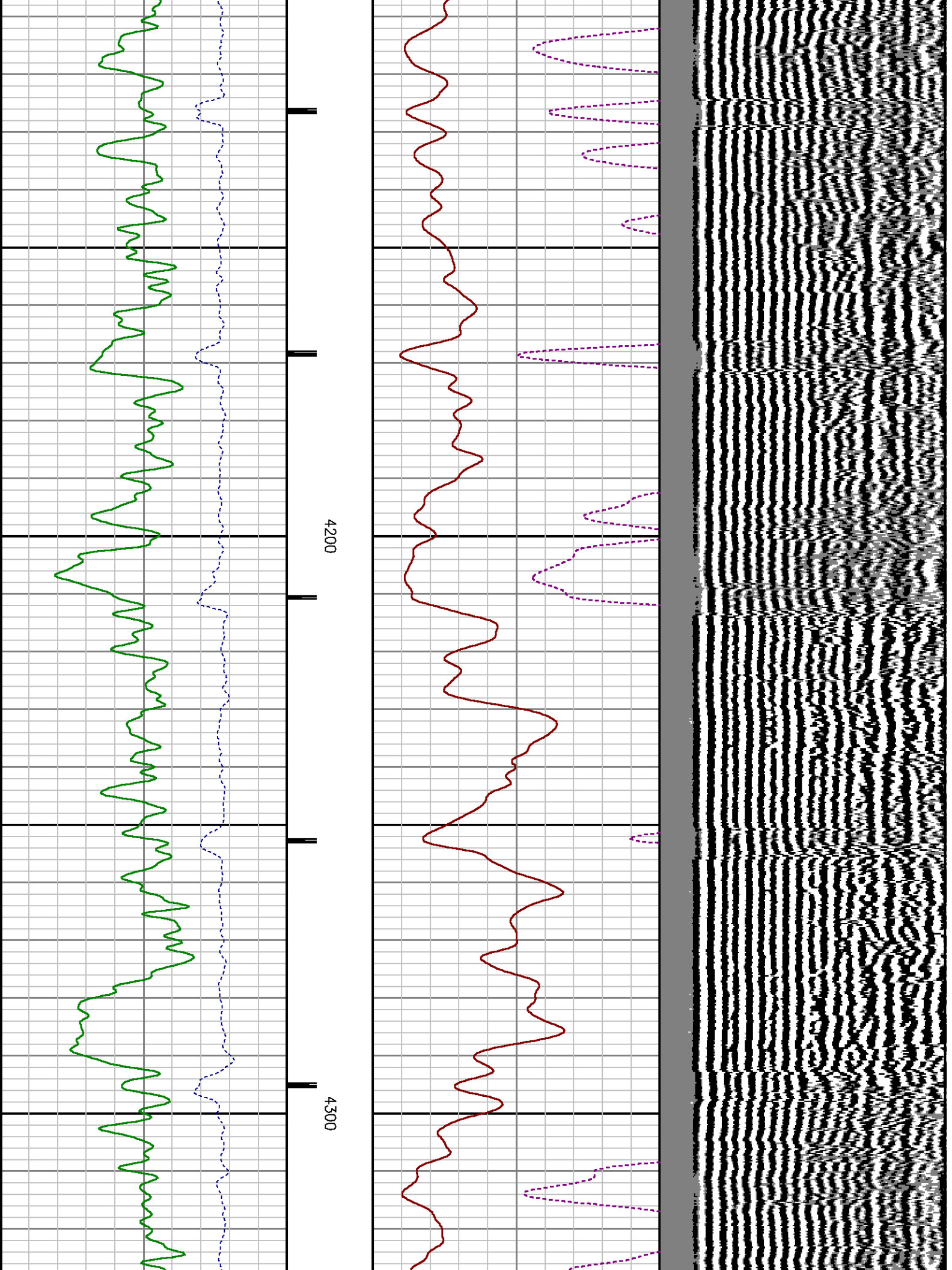


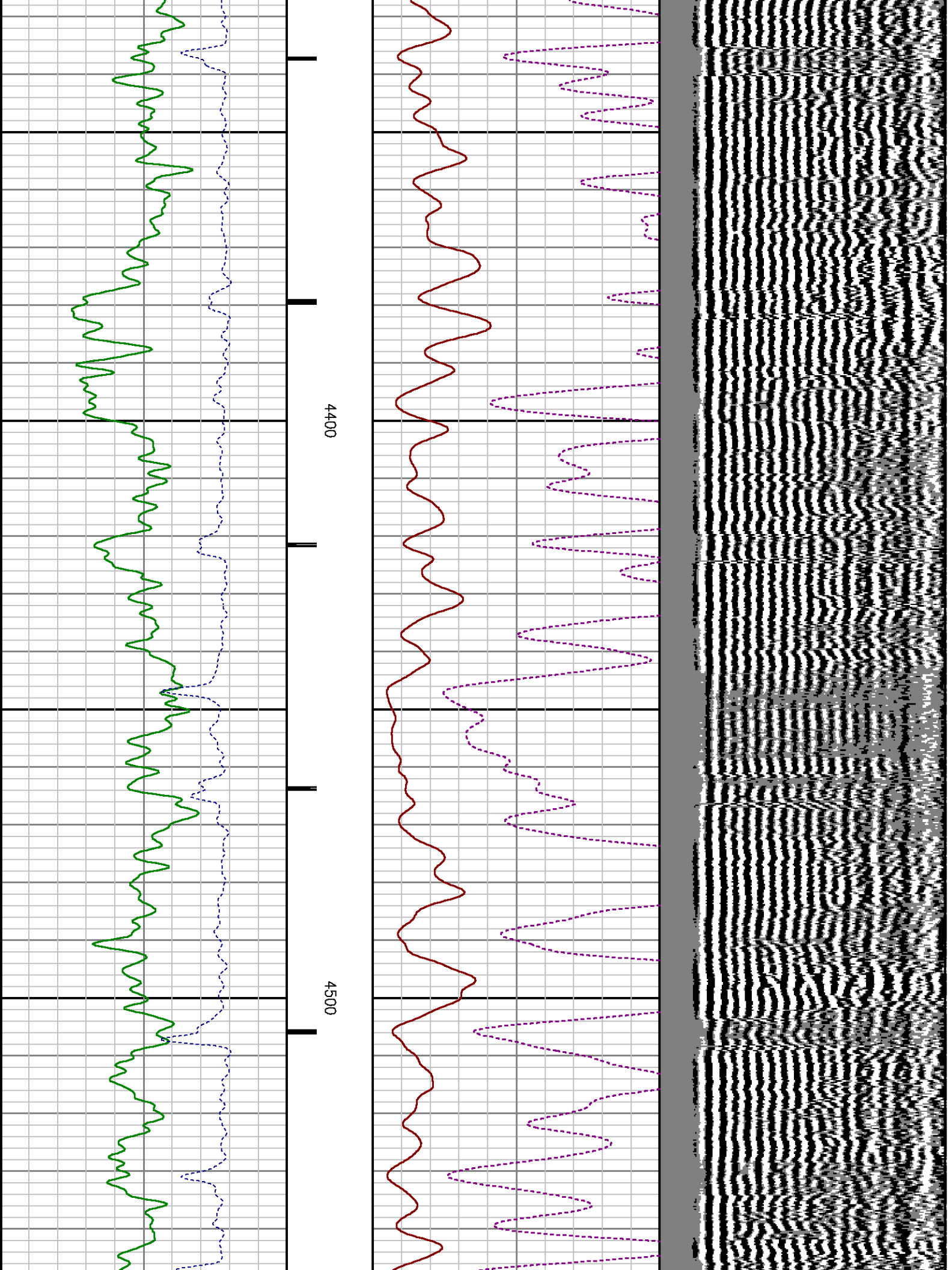


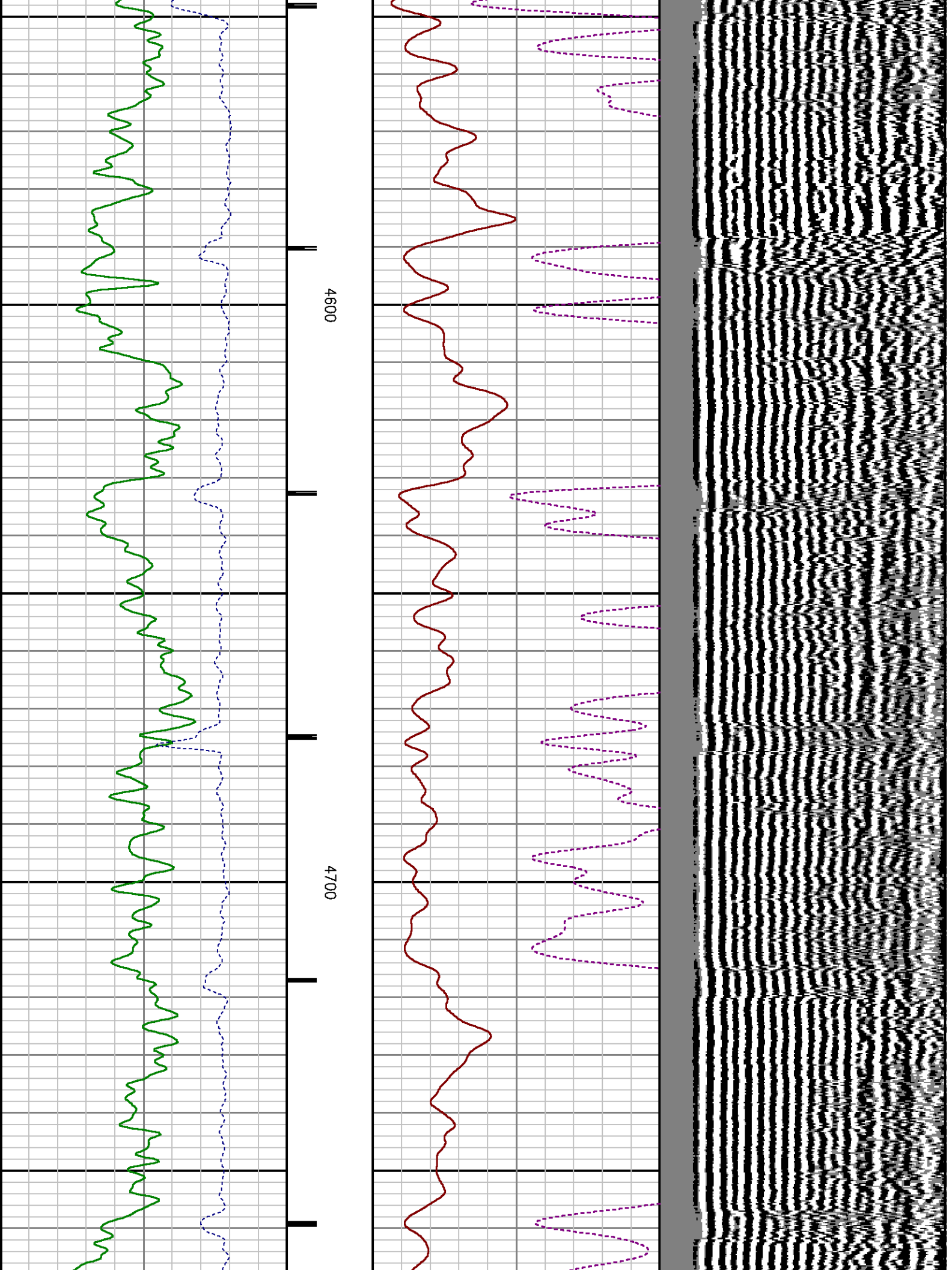




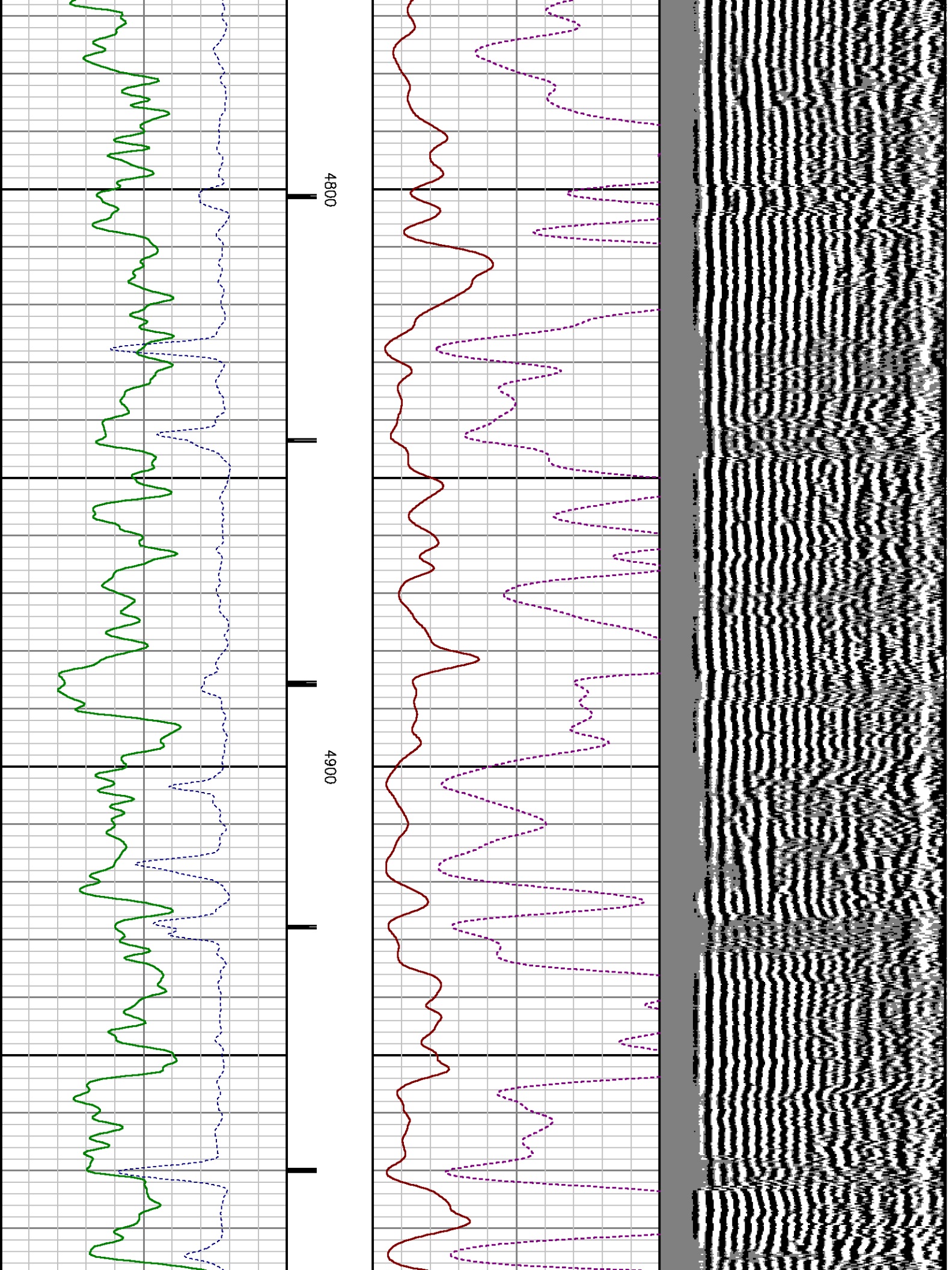


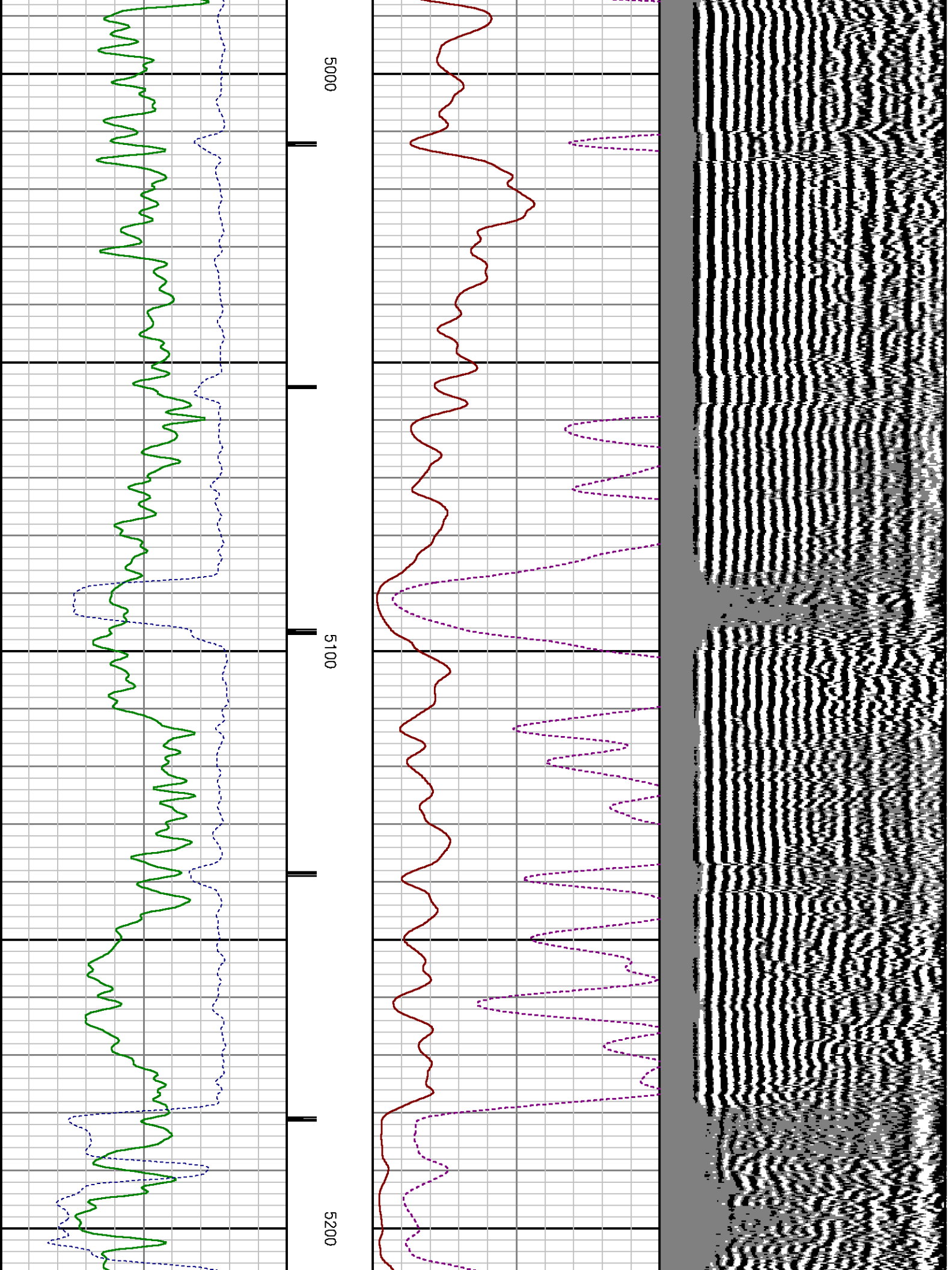


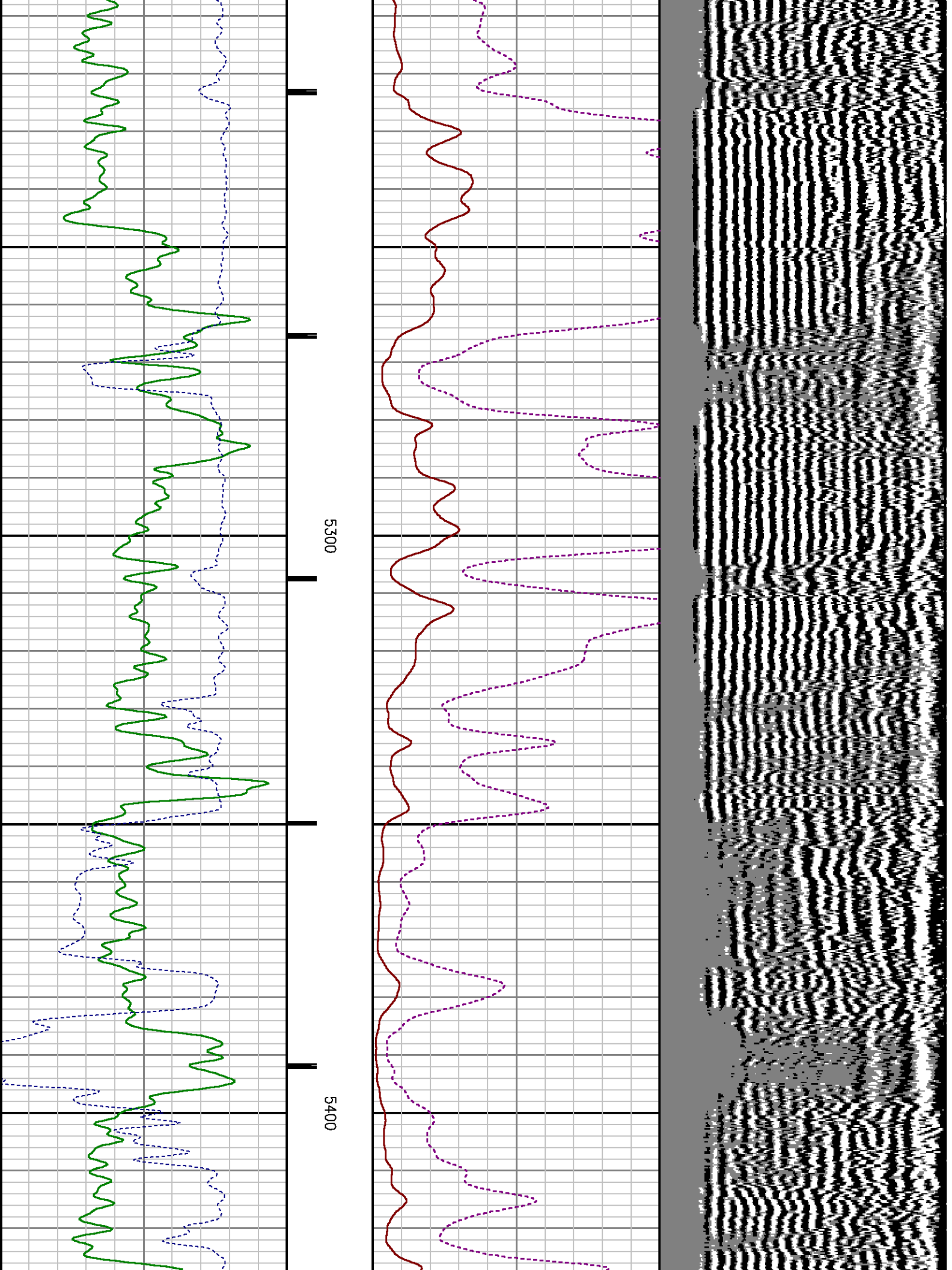


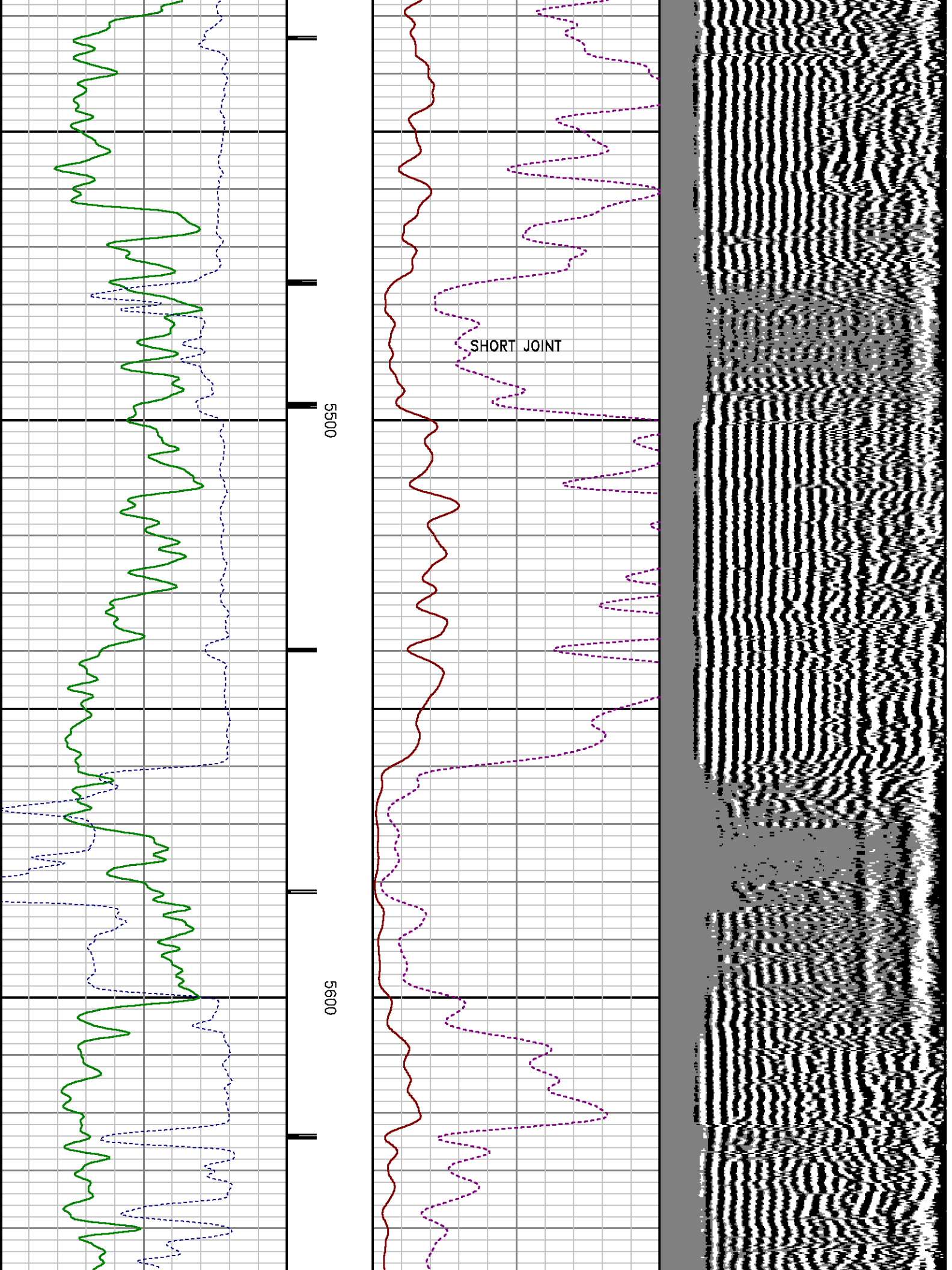




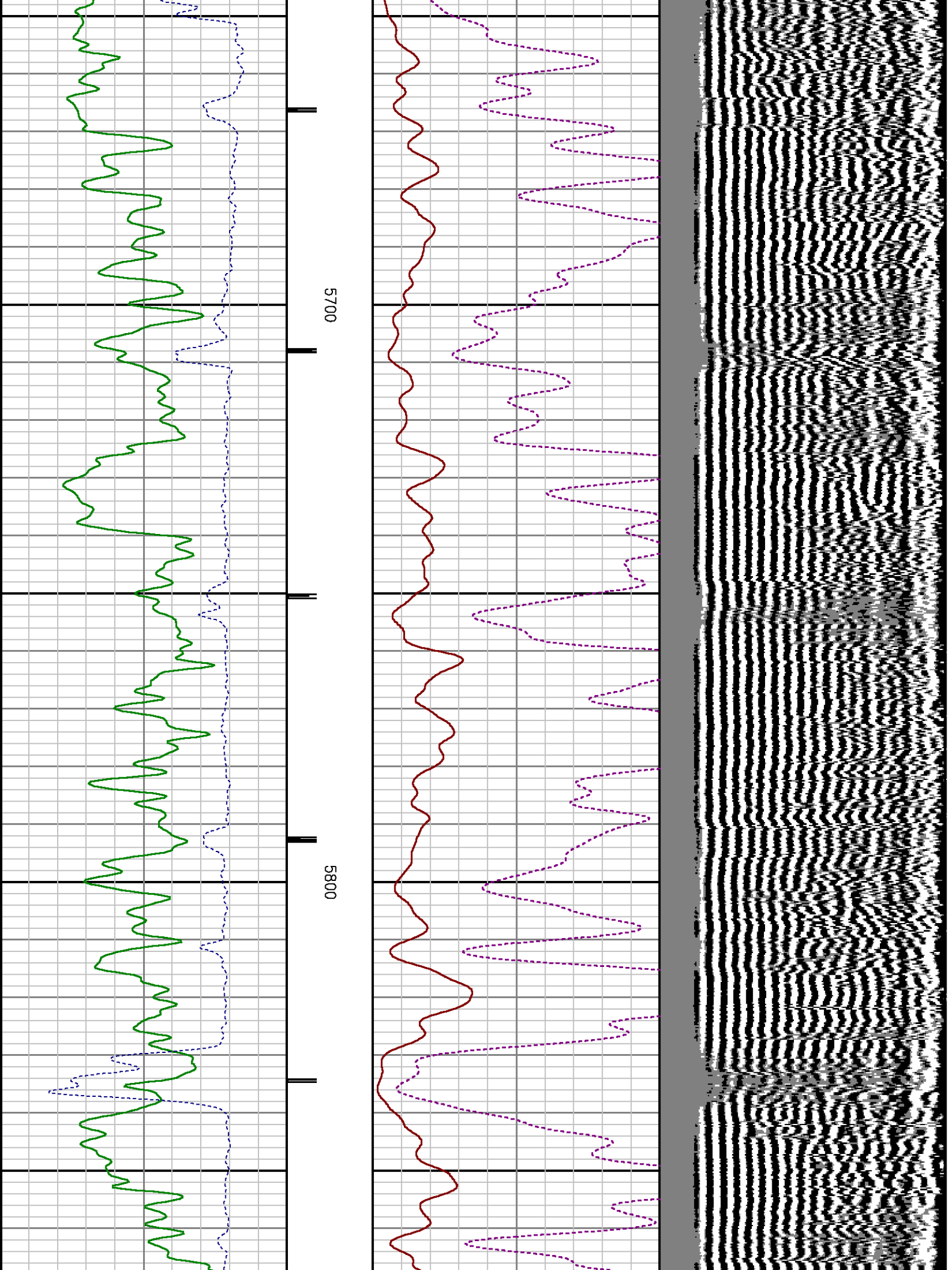


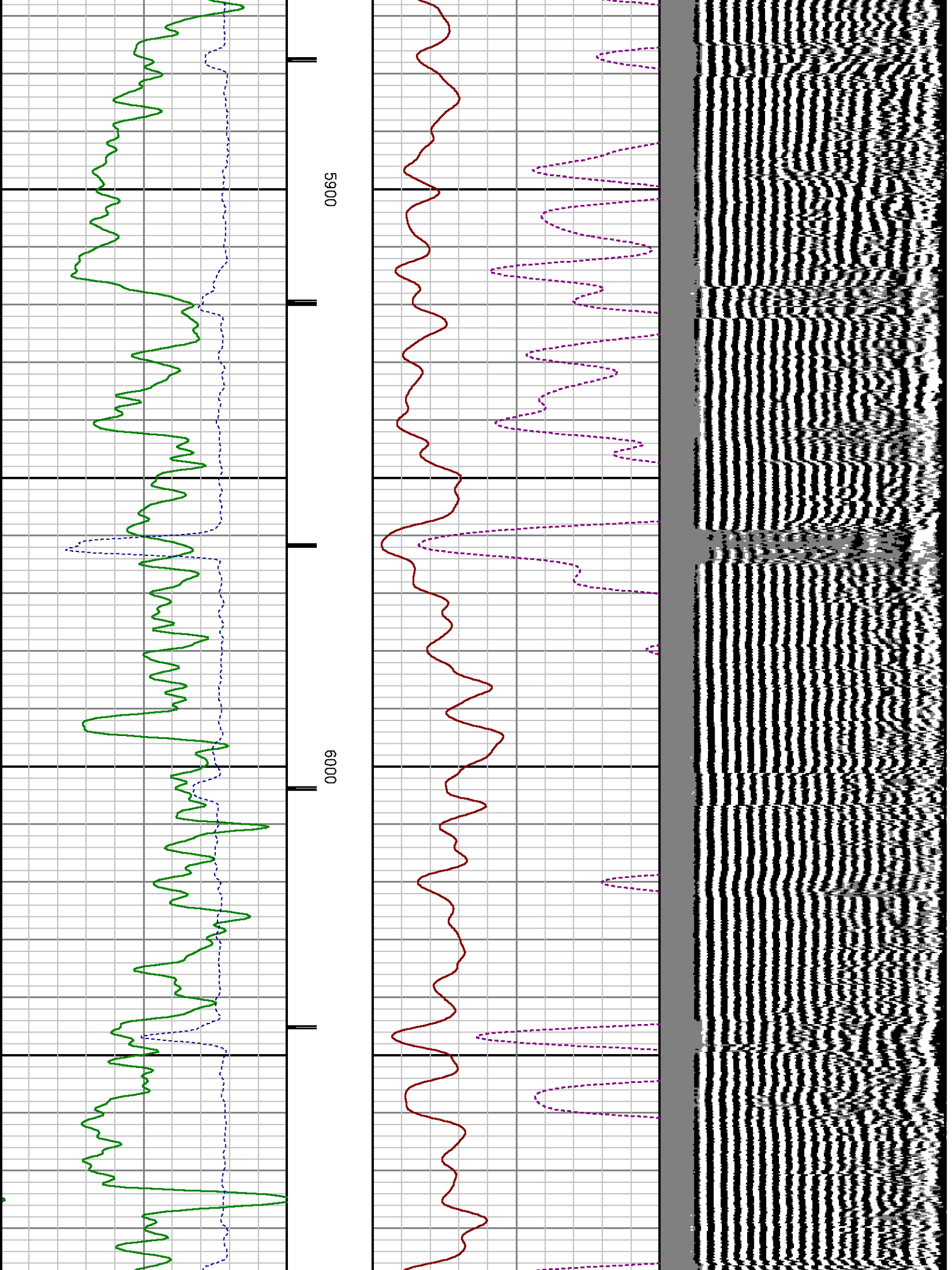


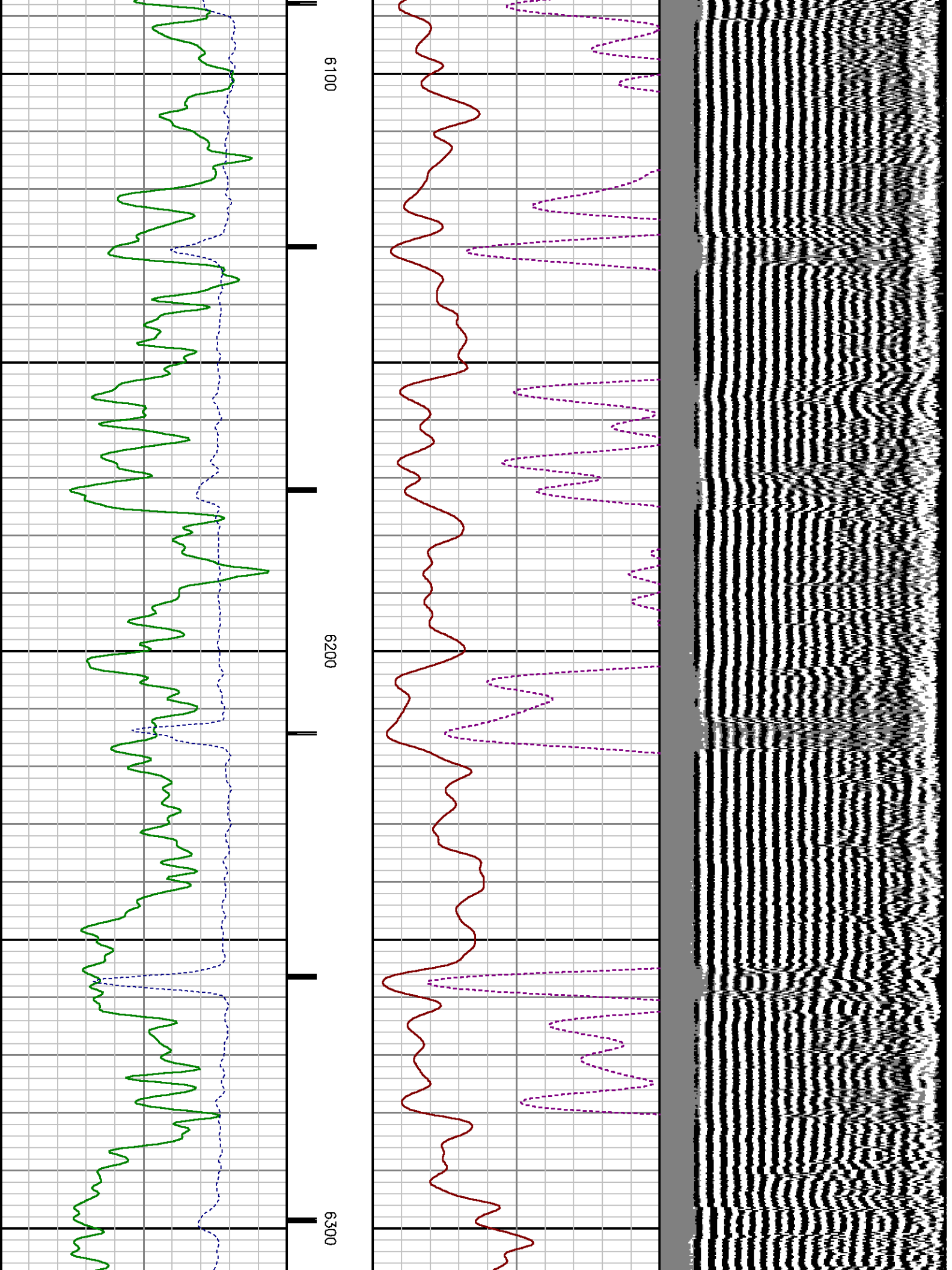


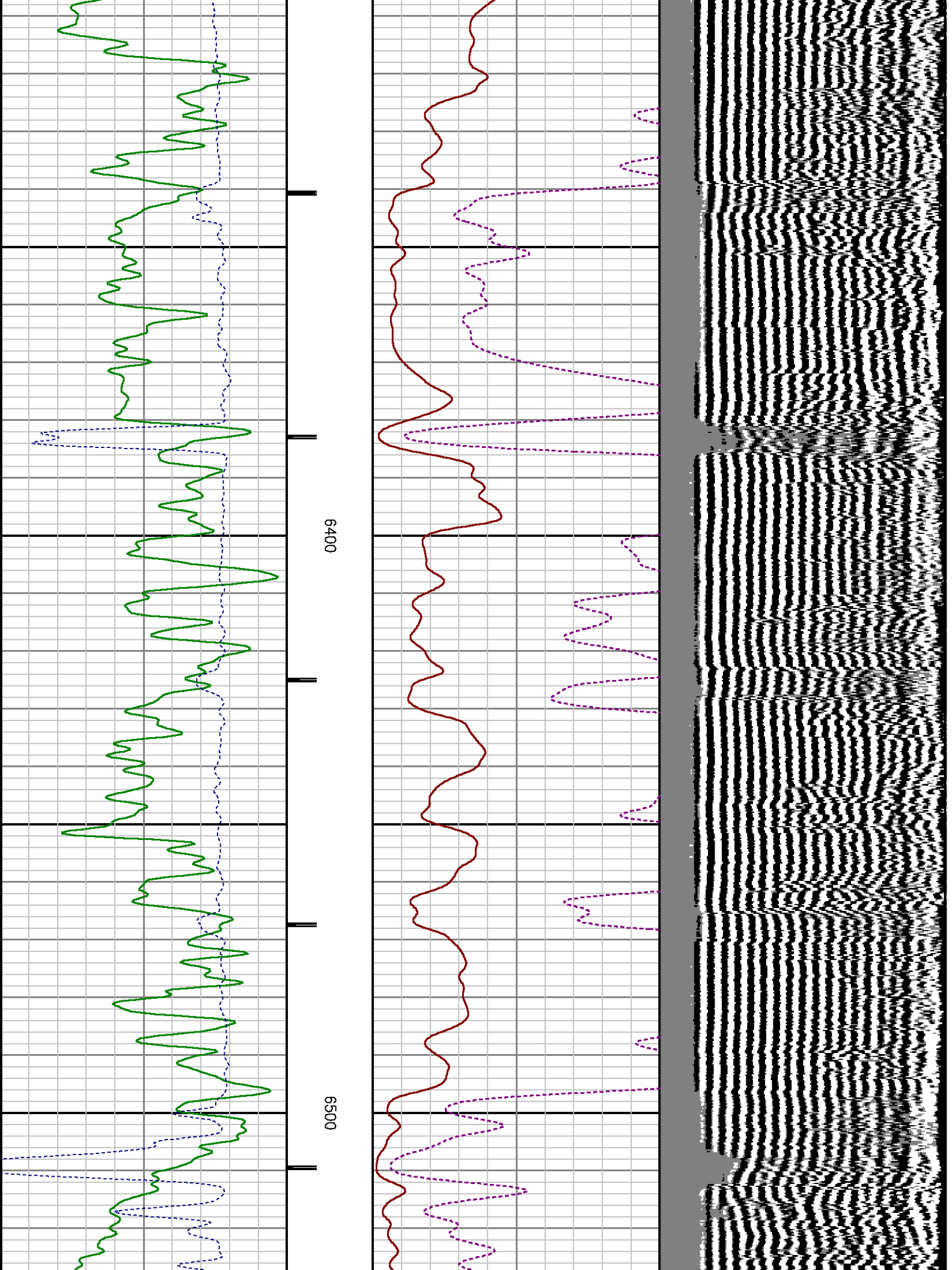




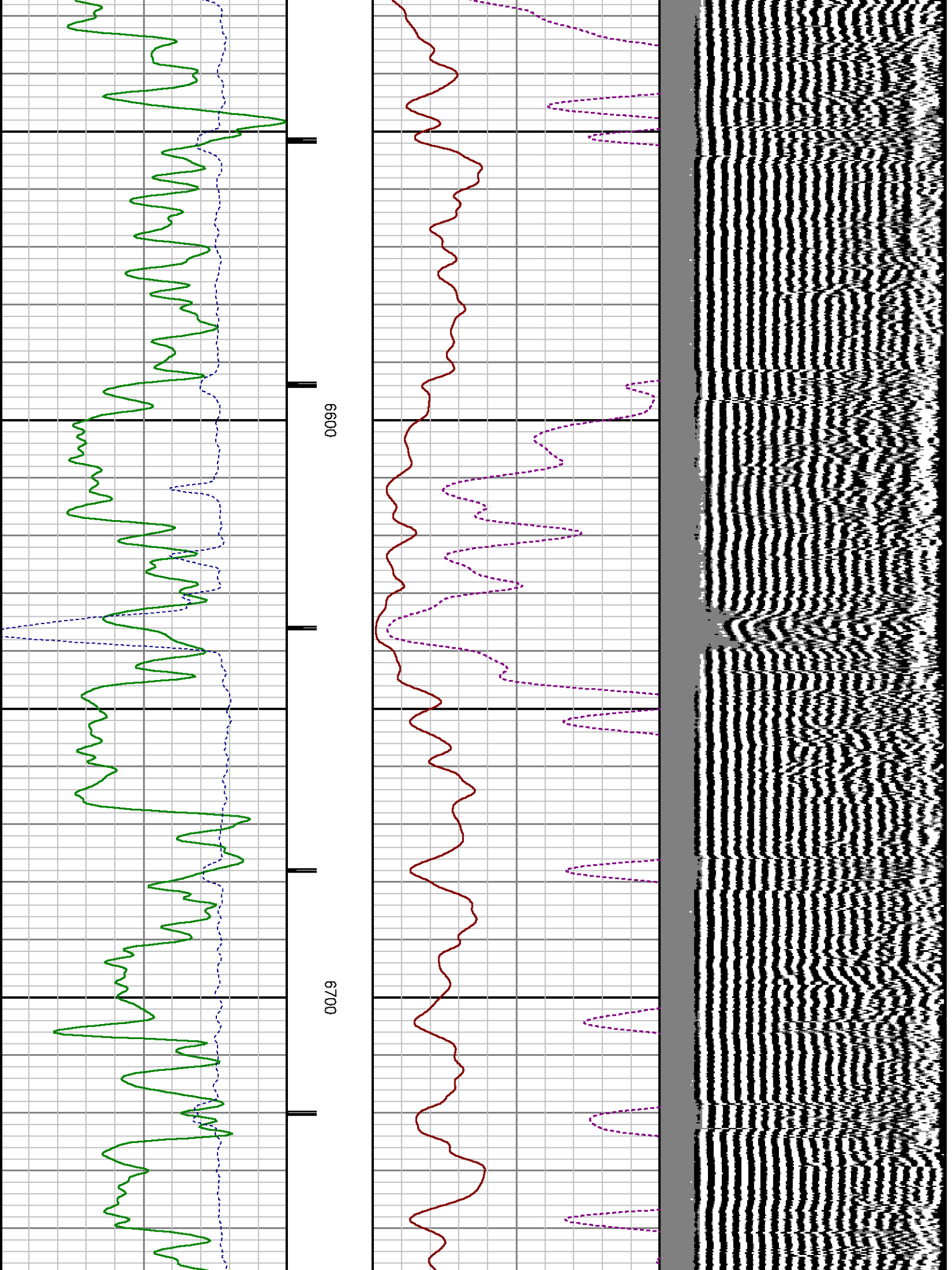


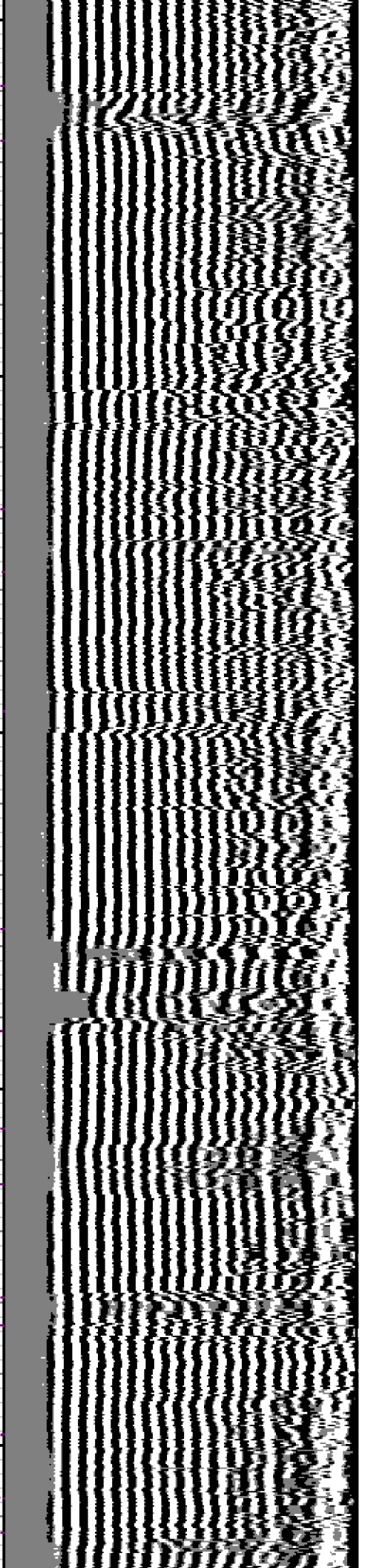
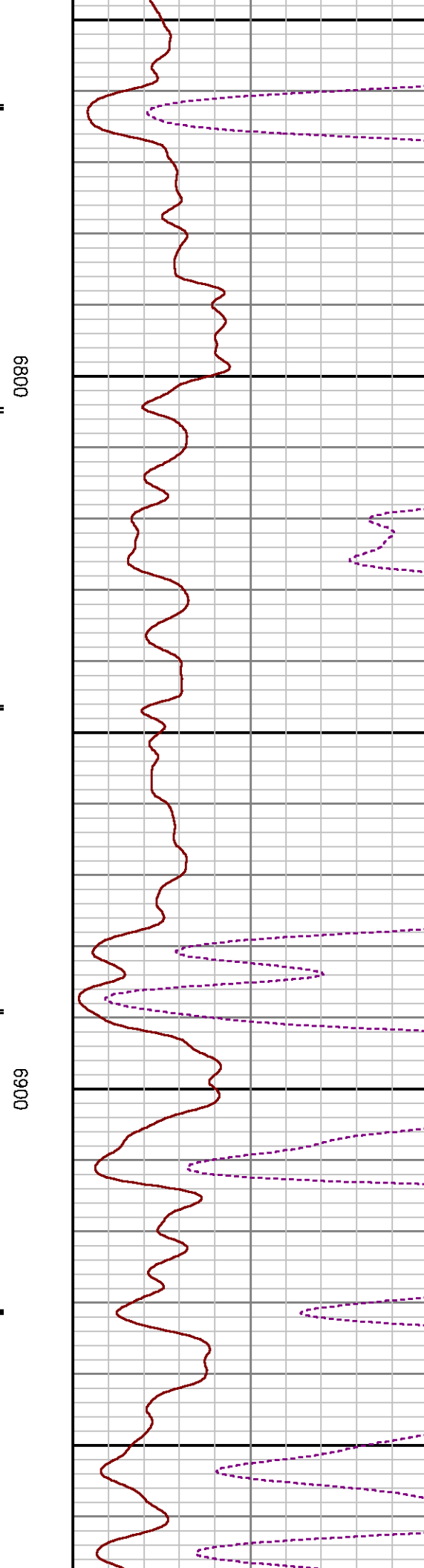
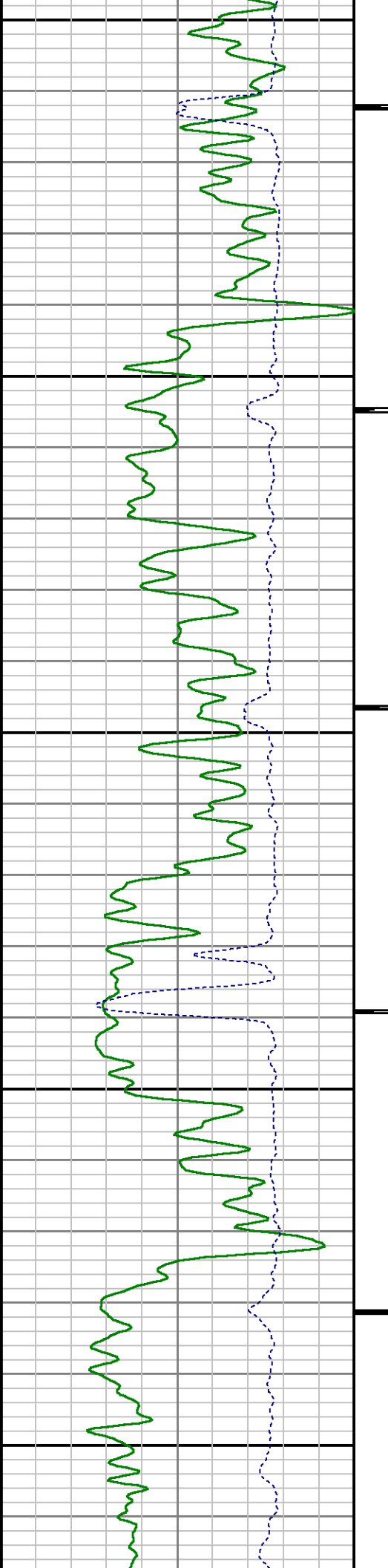


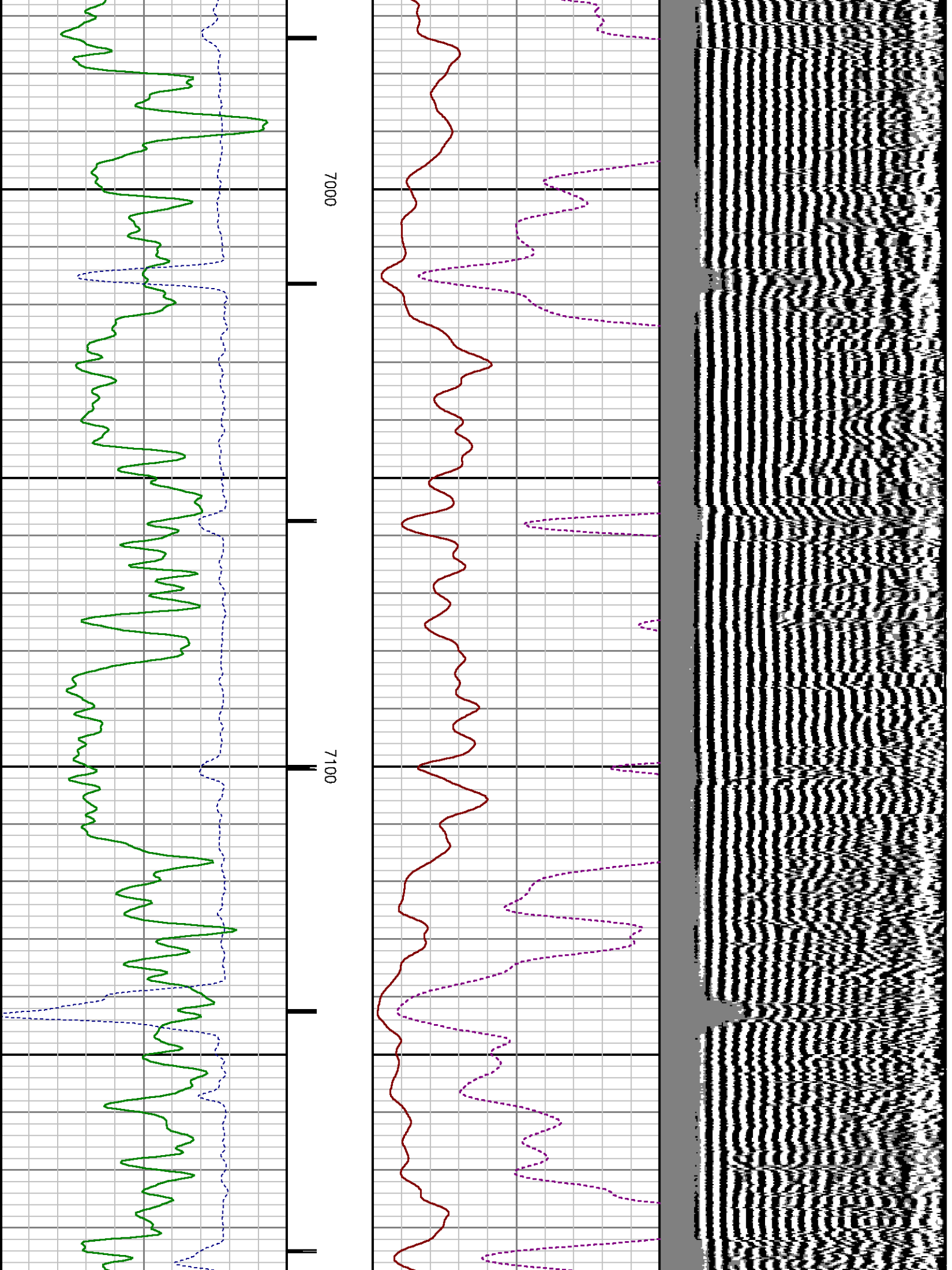


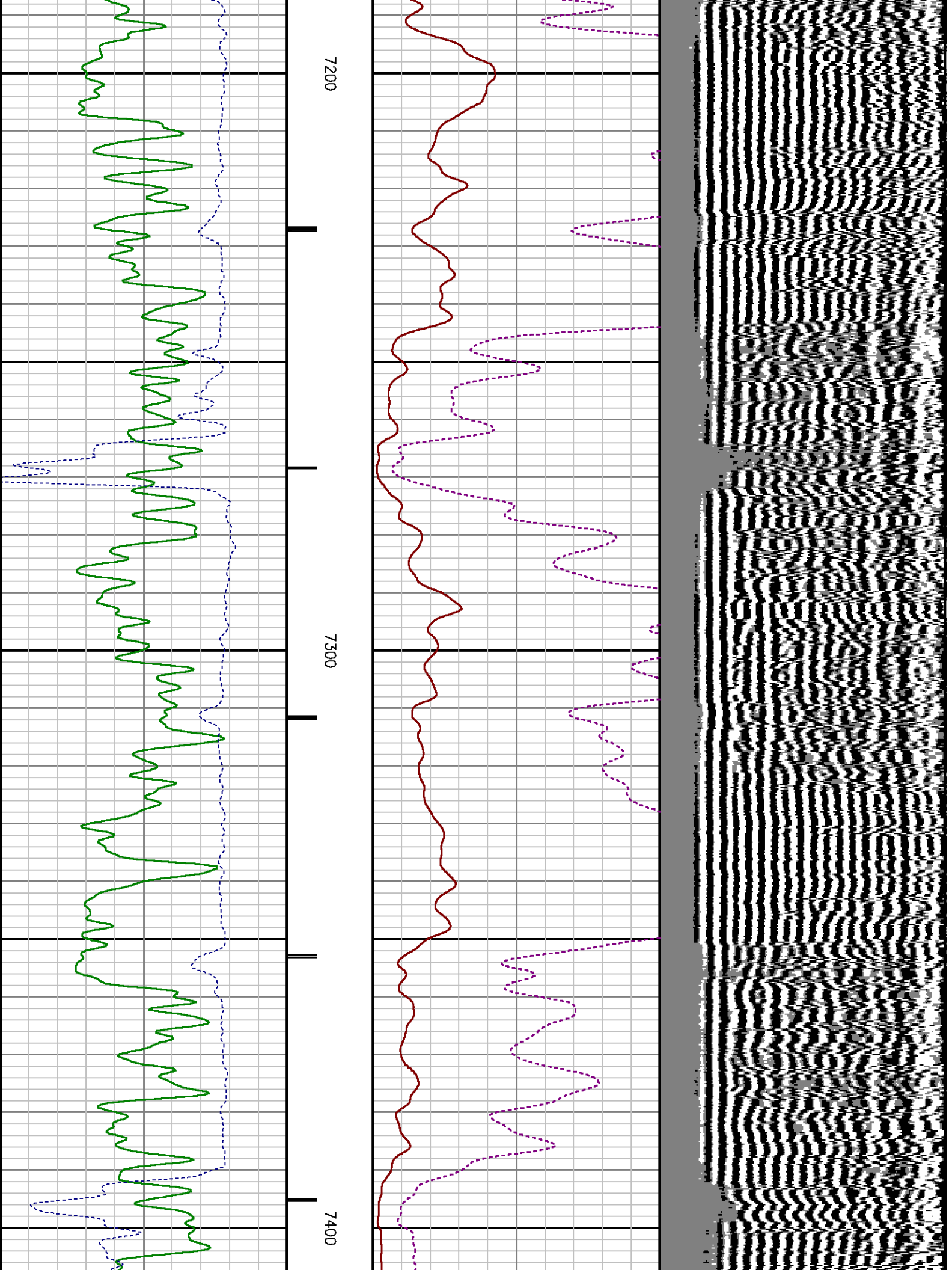




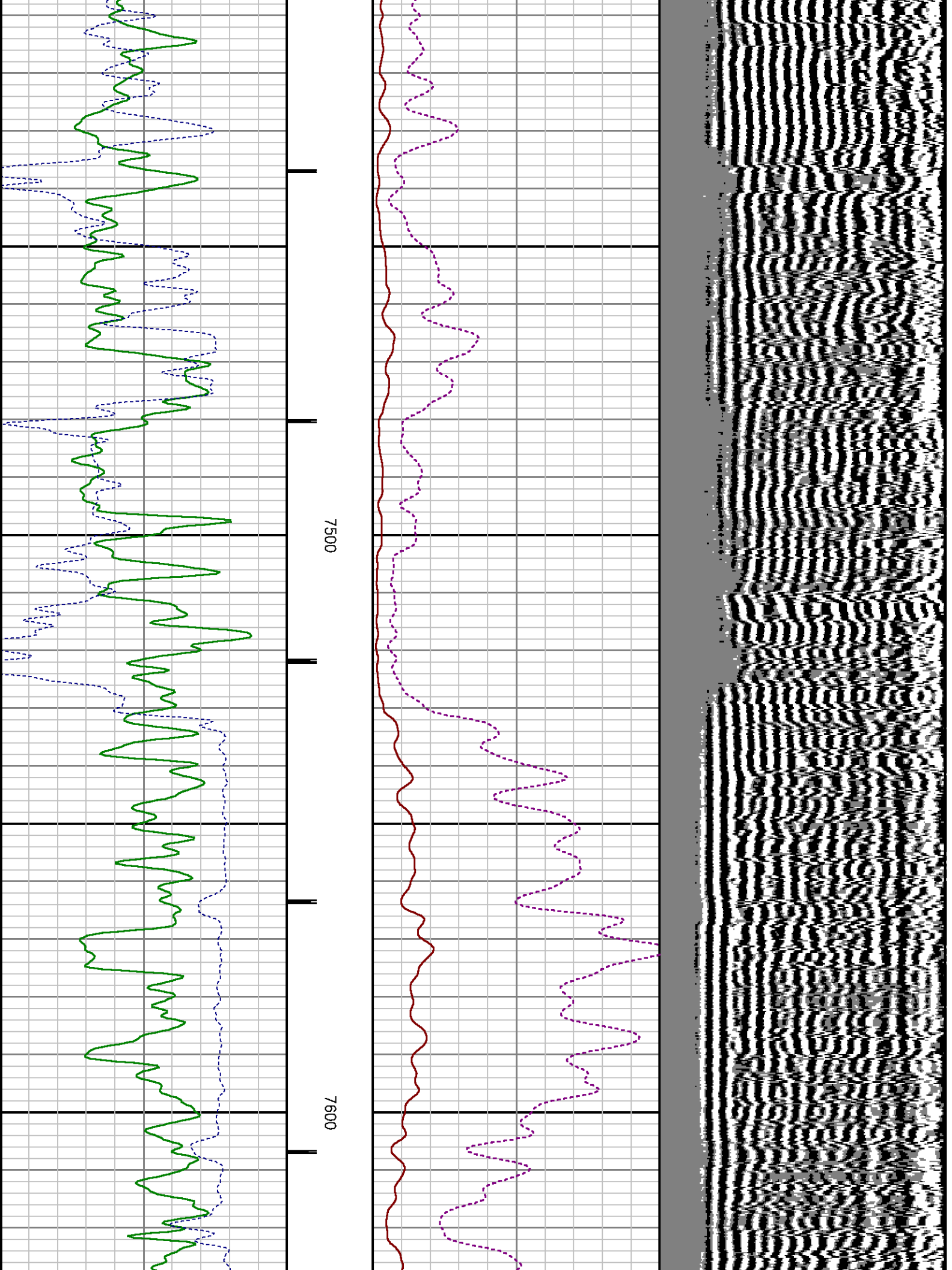


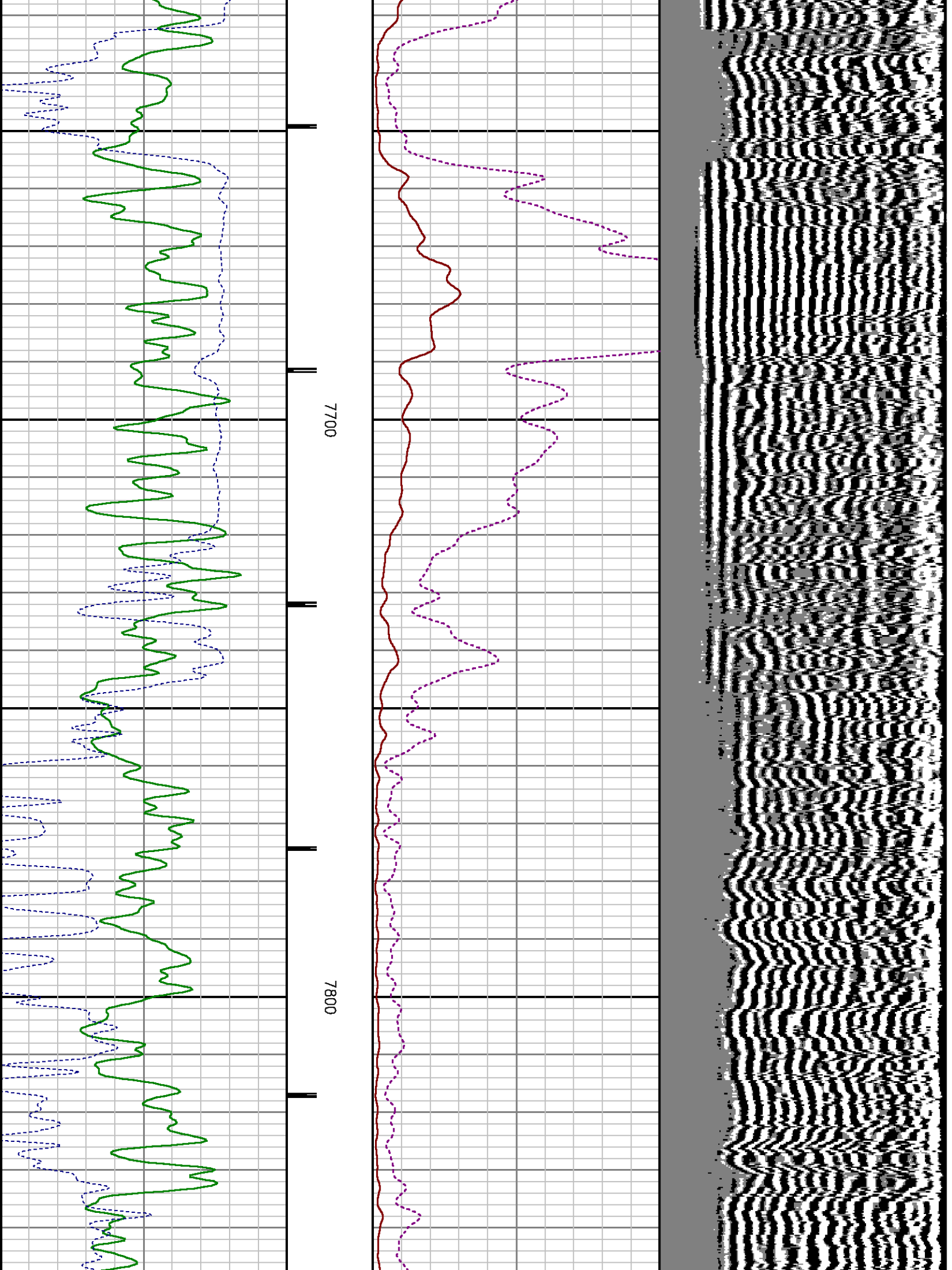


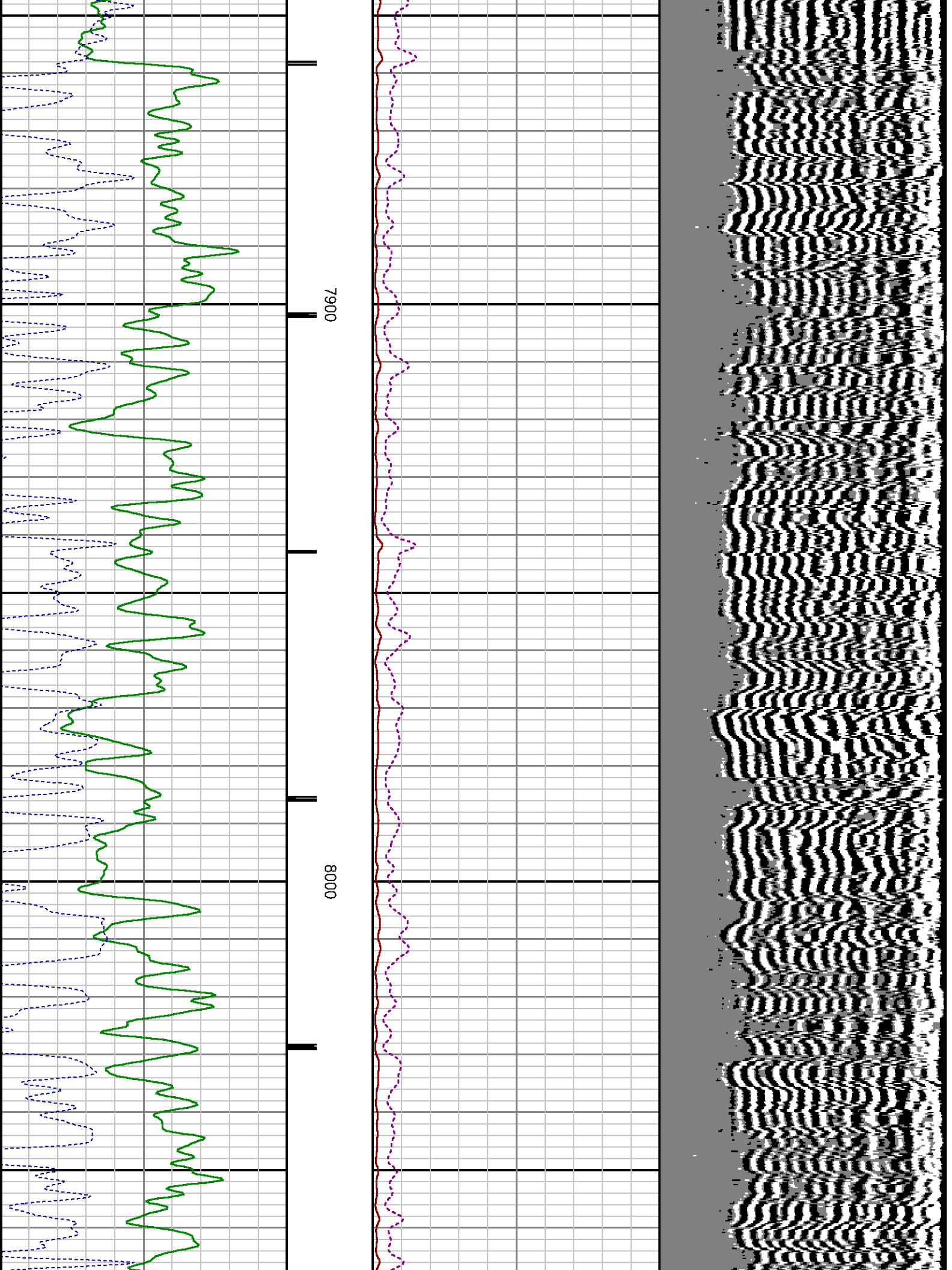


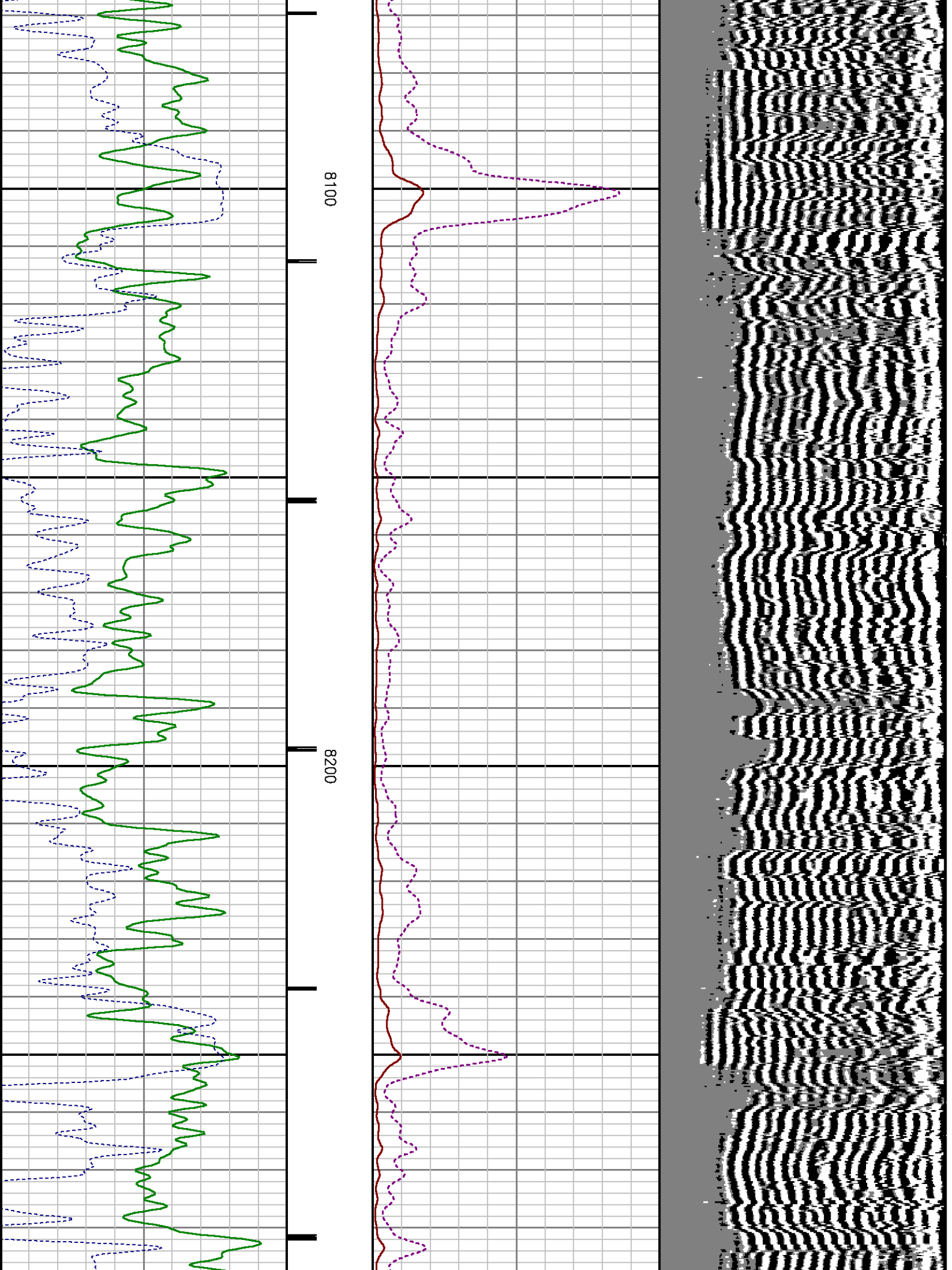


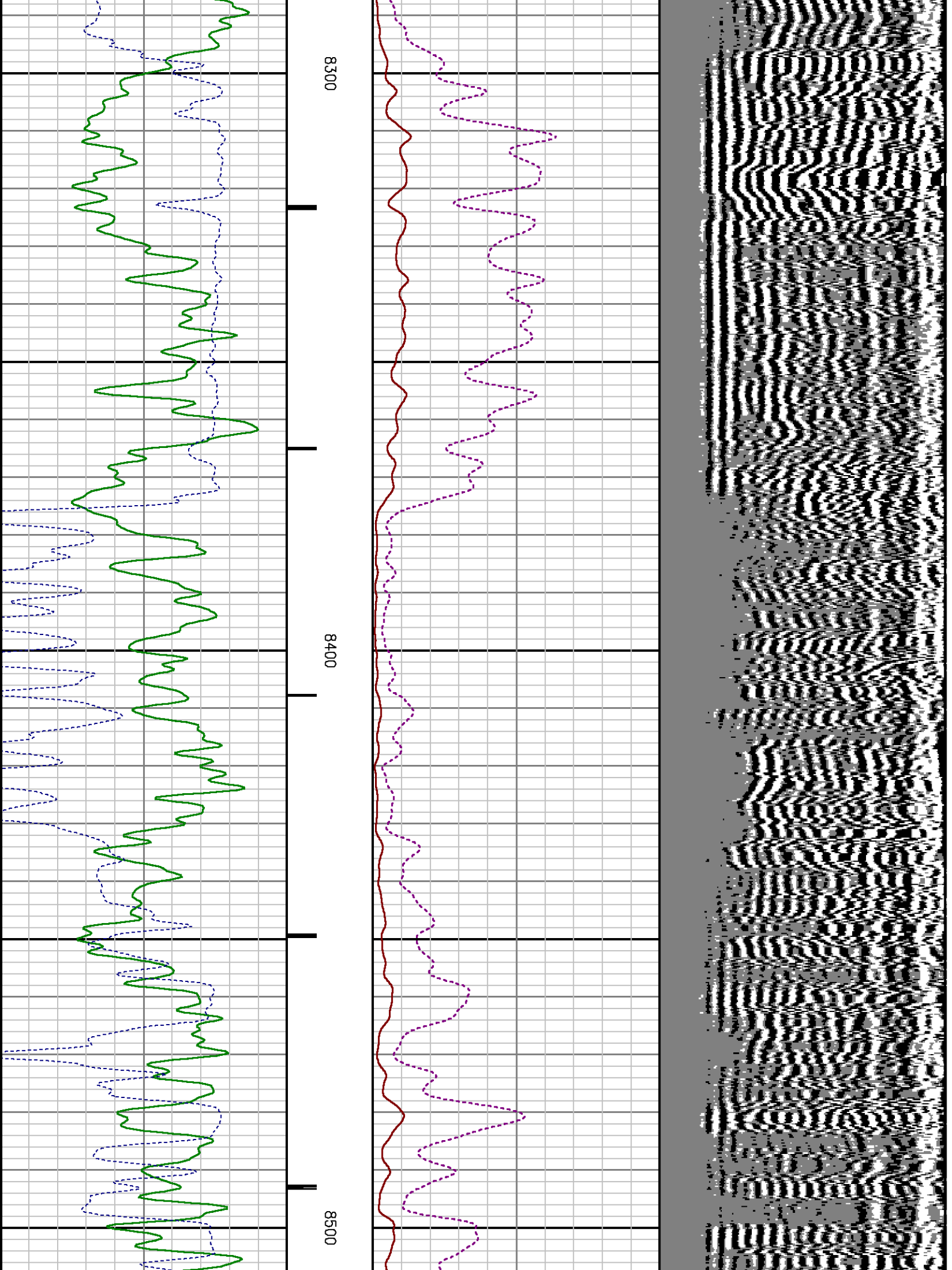




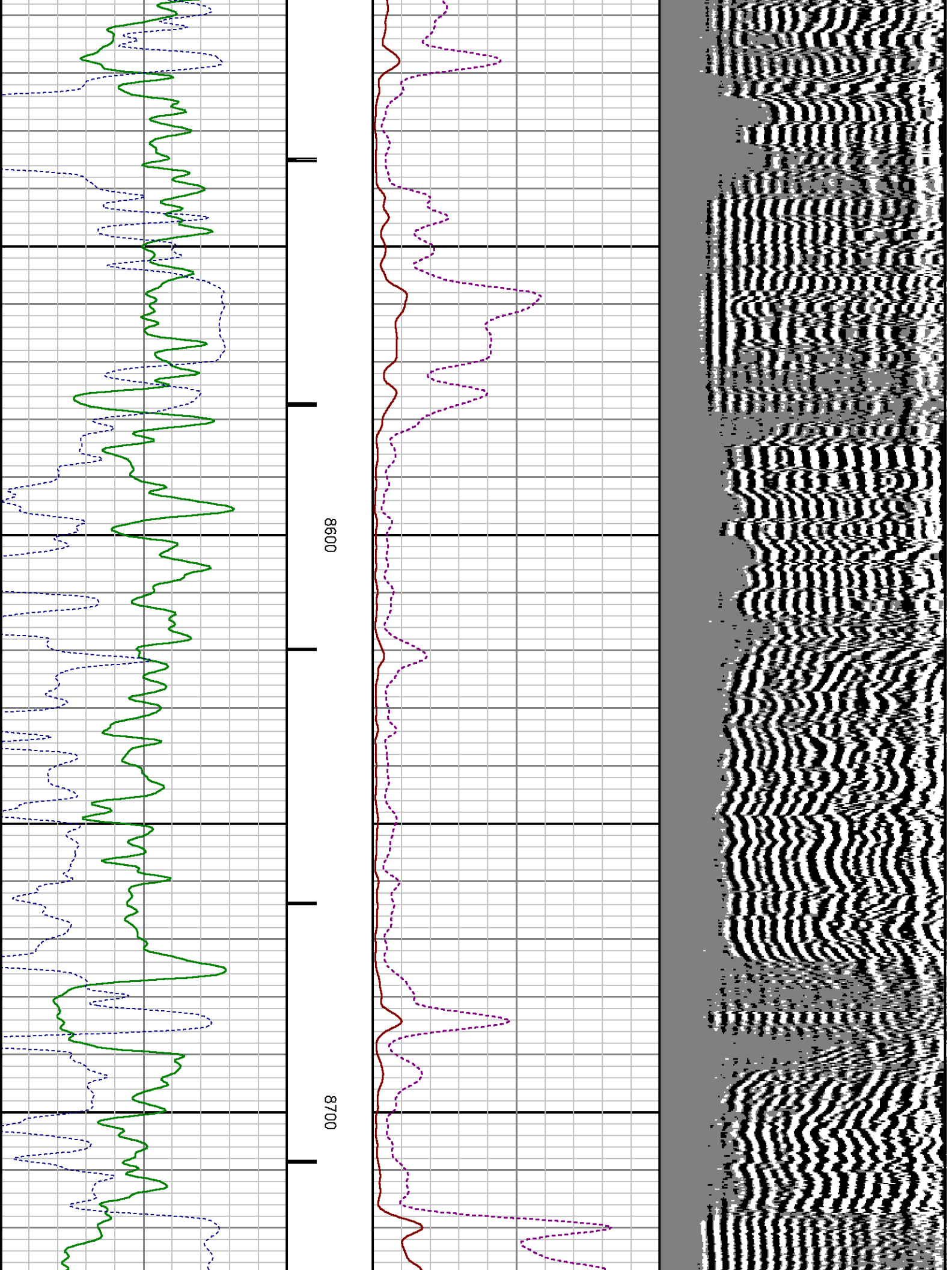


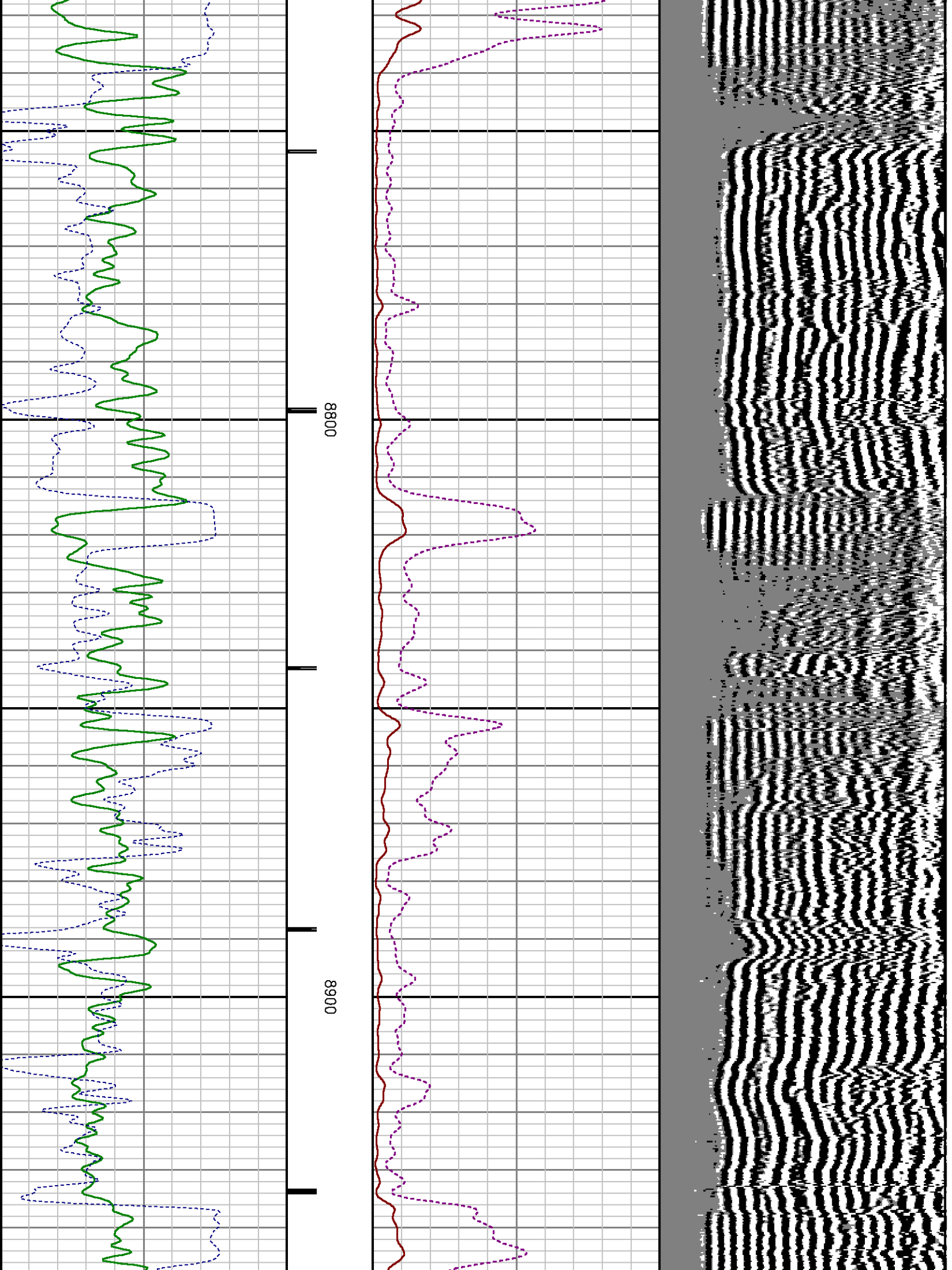


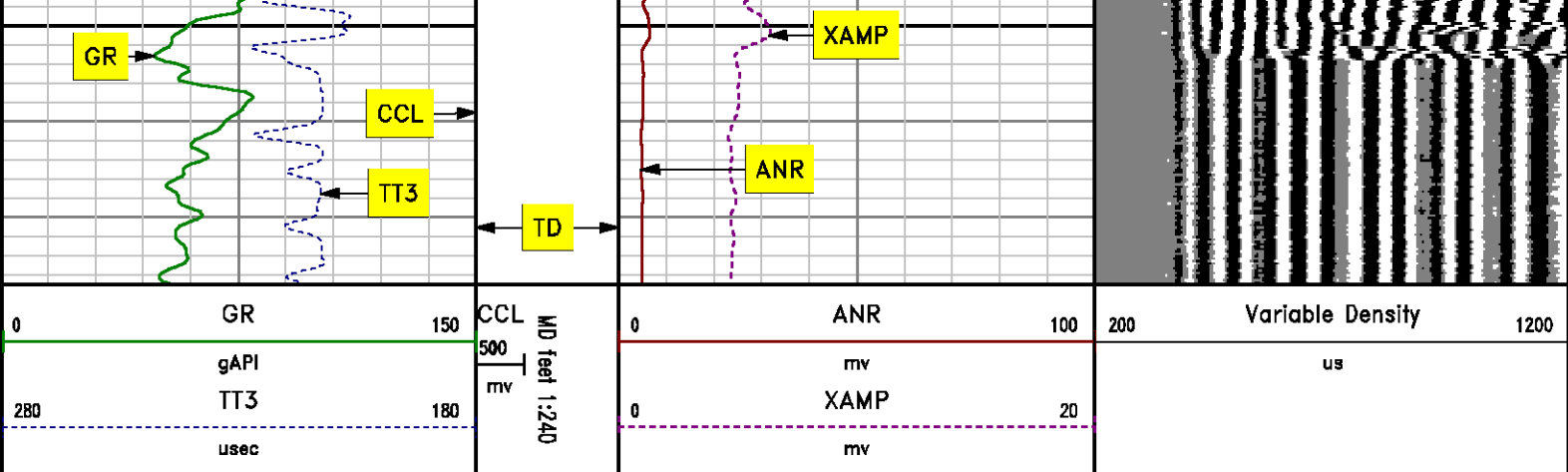












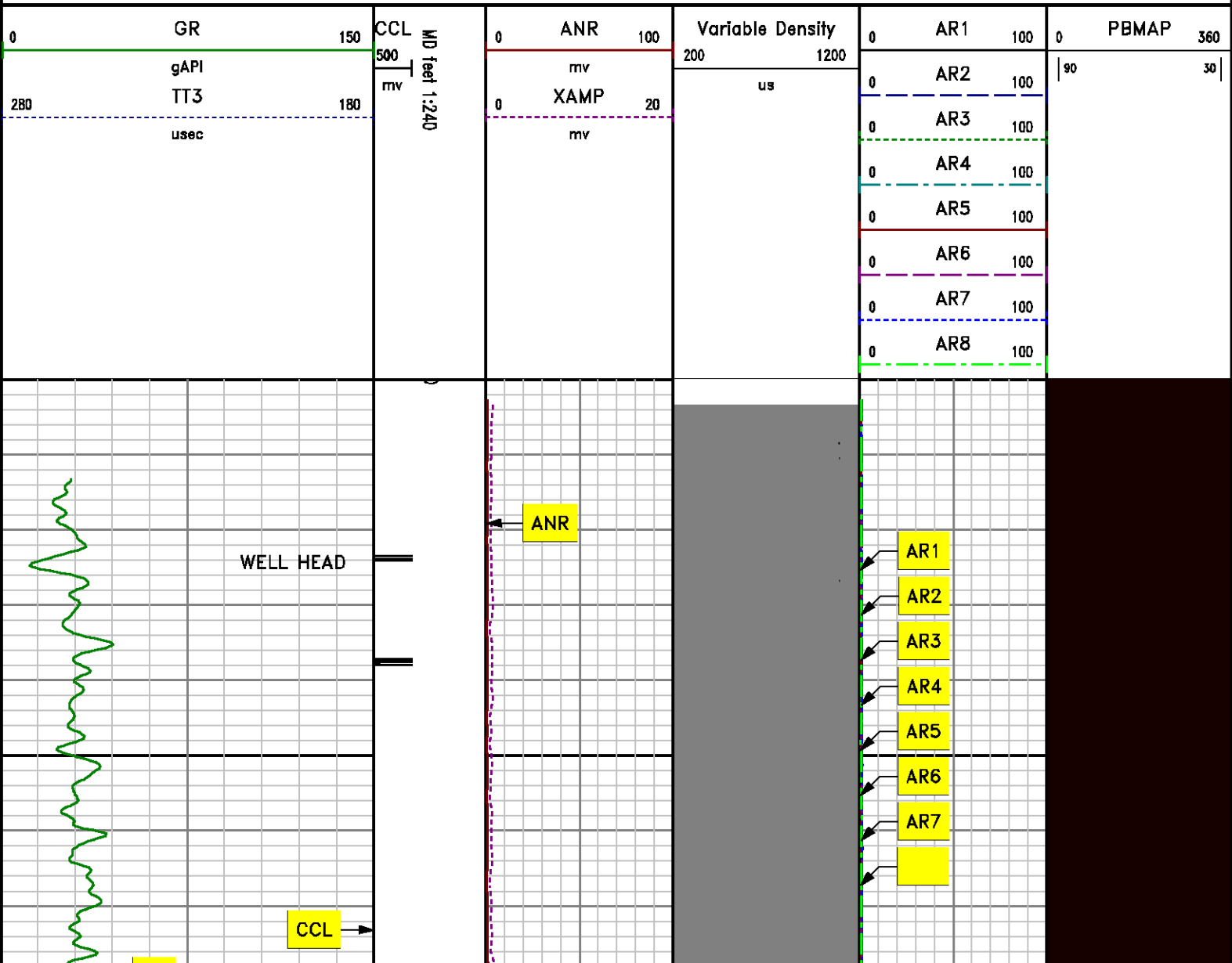
# *MAIN SECTION* *SECONDARY PRESENTATION* *0 PSI*

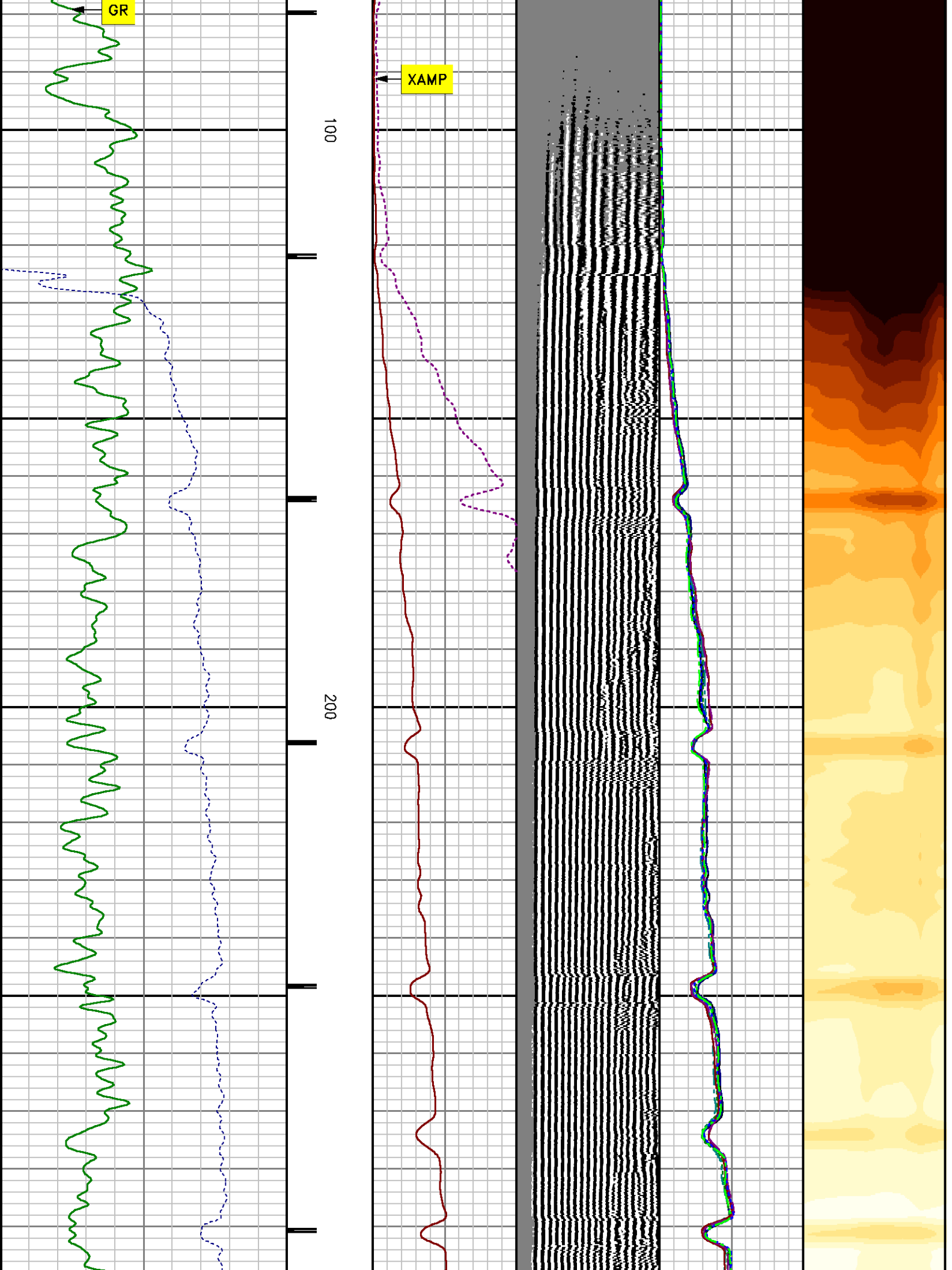
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	316.900	usec	17.374	9000.000
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DEPTH OFFSETS

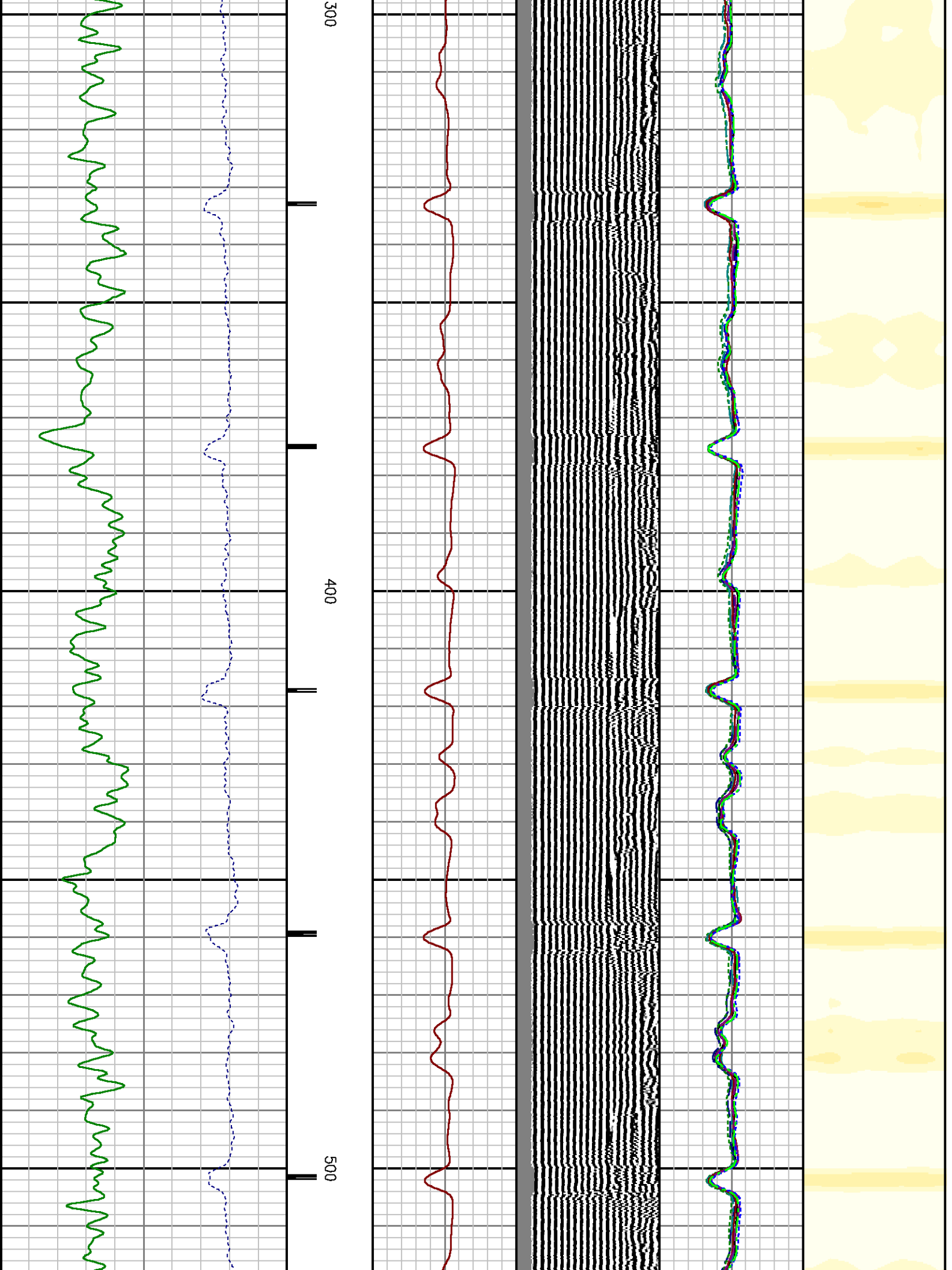
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-15.360	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-14.360	AFAR	SIG	TT5			
1426XA	-7.250	CCL					
1426XA	-5.390	GR					
1426XA	0.000	NEU					

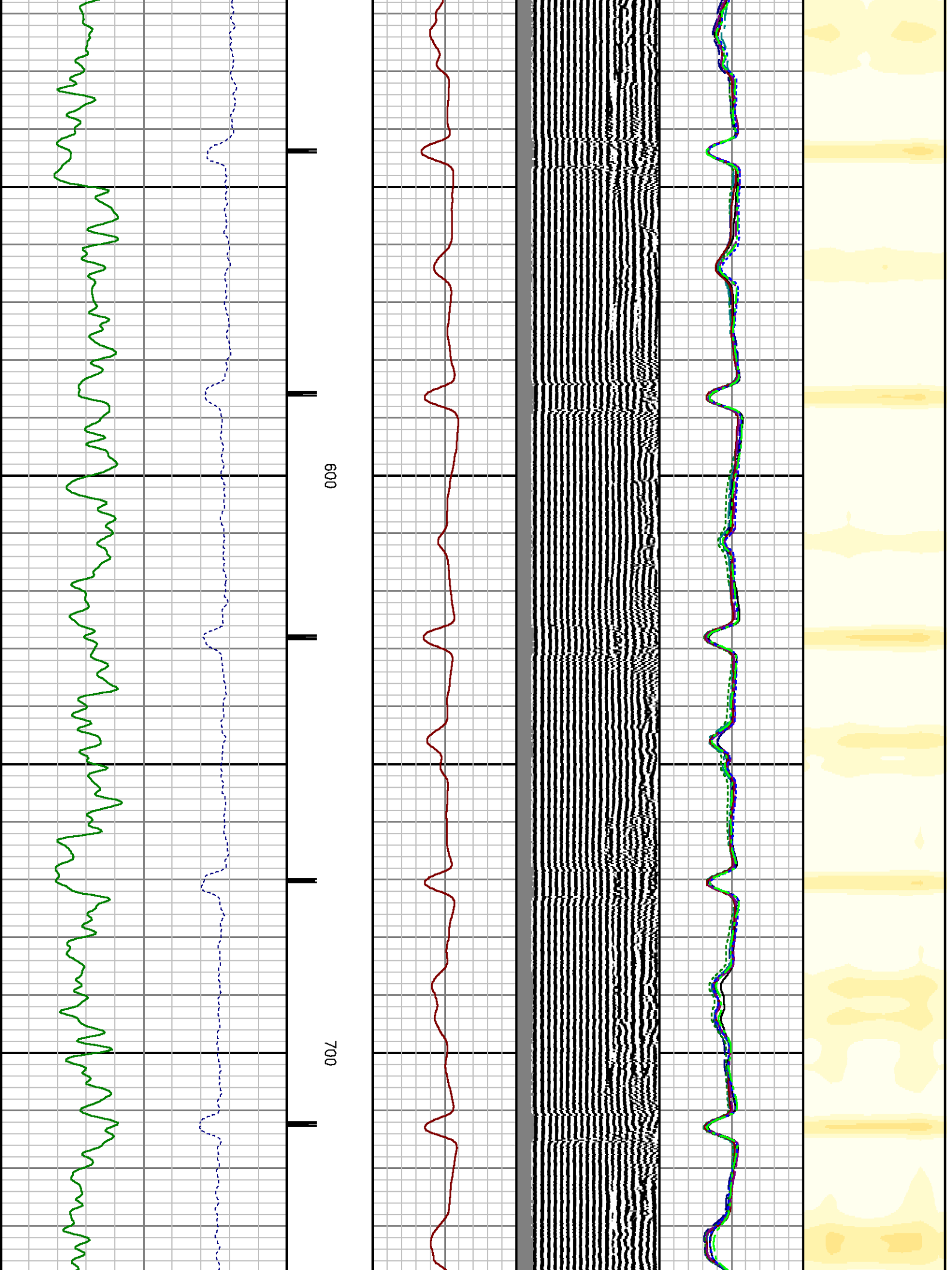
Created by : RAL, v4.8.008  
Plotted by : PlotMgr, v5.4.504  
Company : WILLIAMS PRODUCTION COMPANY  
Well : PA 344-21  
File Name : d:\welldata\rad344\main pass.xtf  
Mode : PlotMgr 5.4.504  
Interval : 0.00 - 8977.00 feet UP  
Created : 1/23/2010 5:13:21 AM

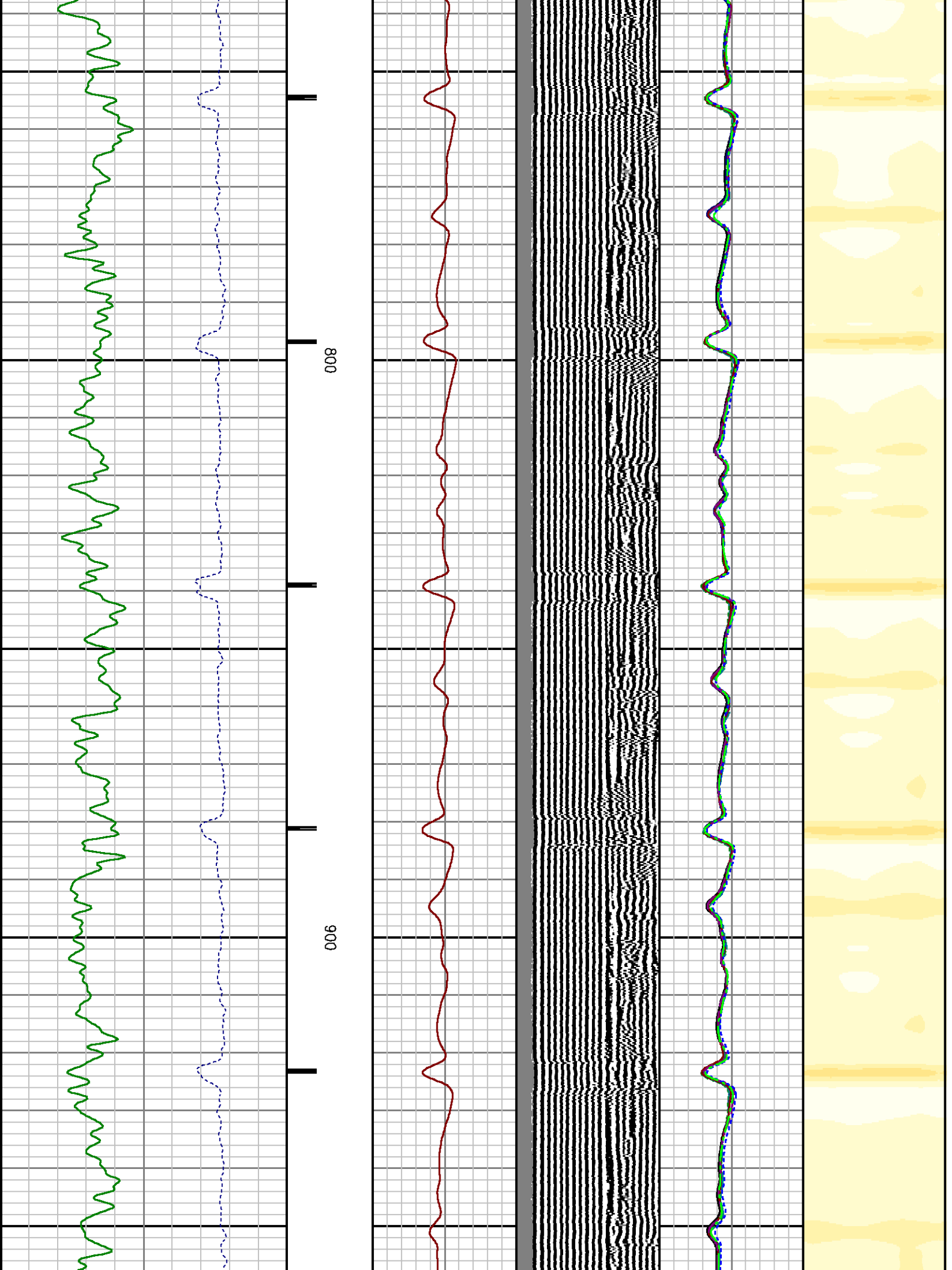


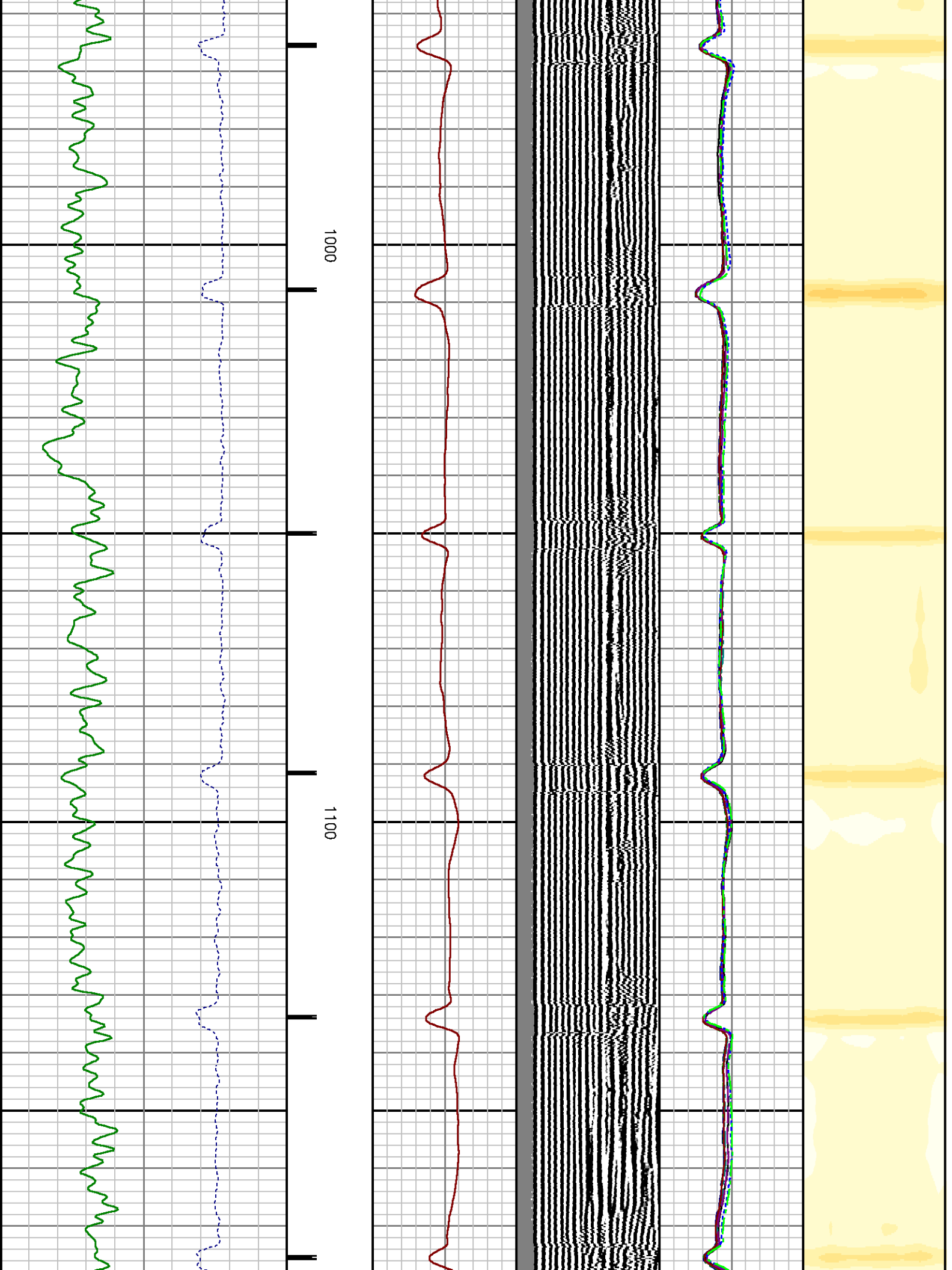


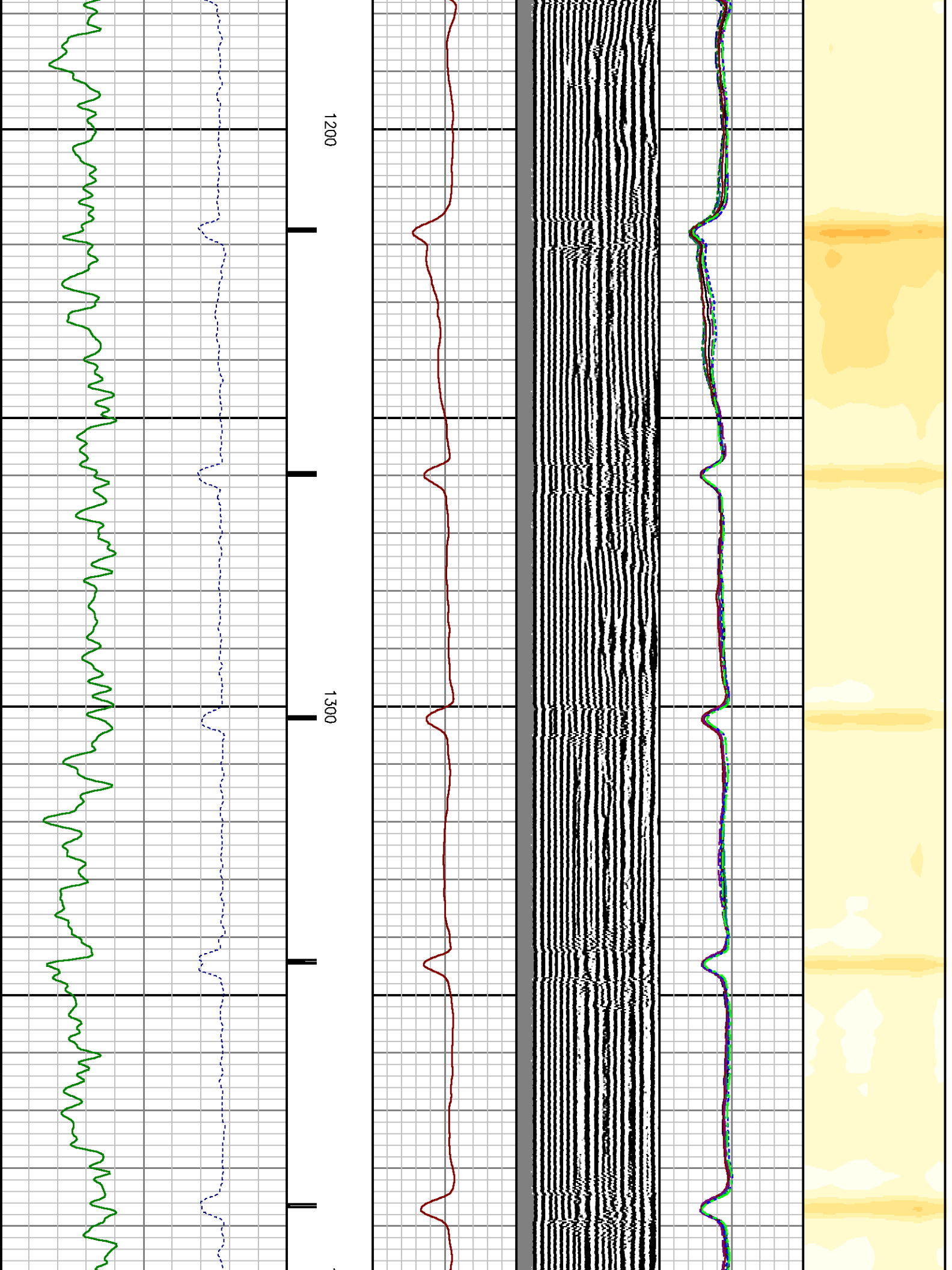




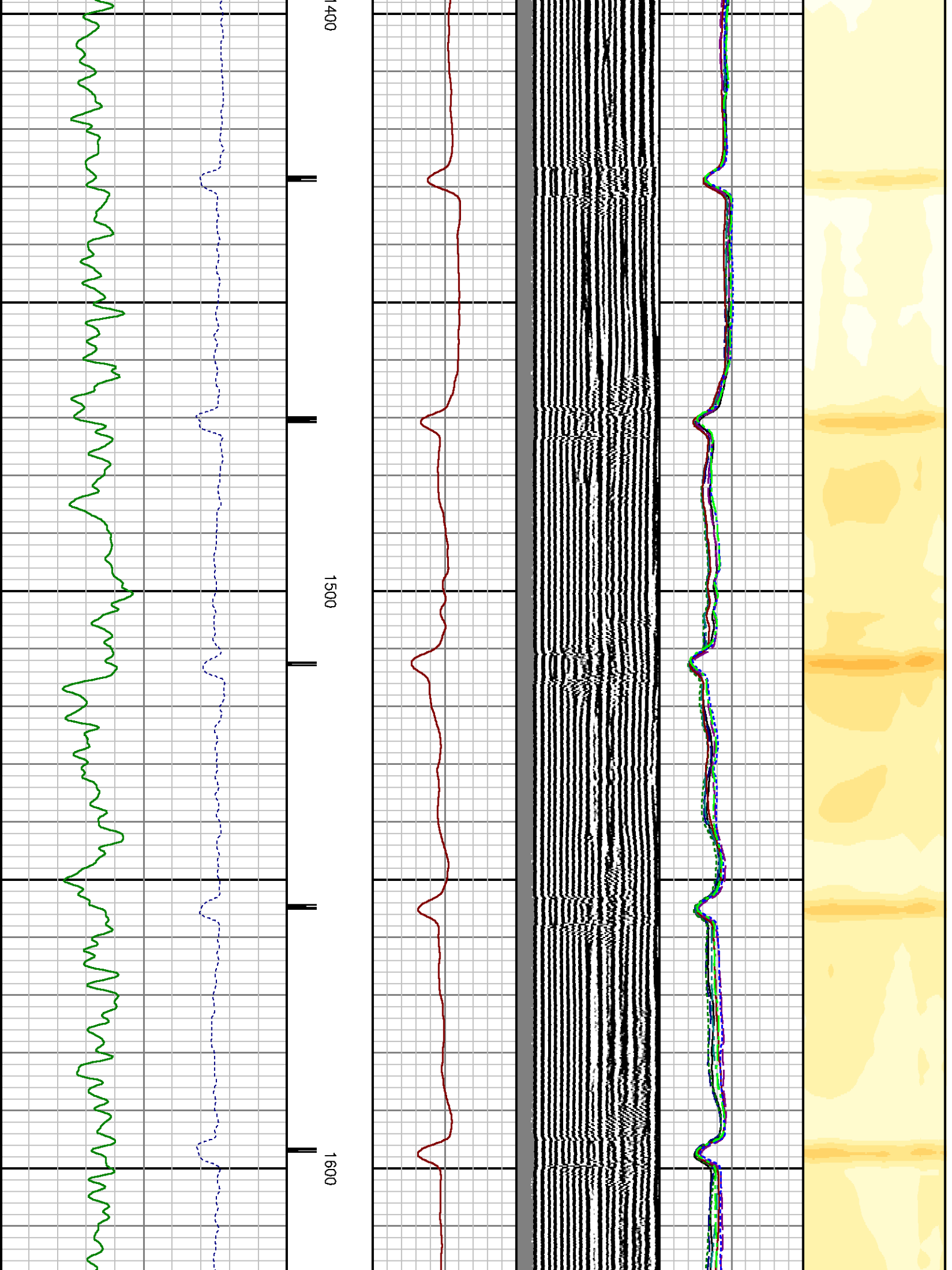


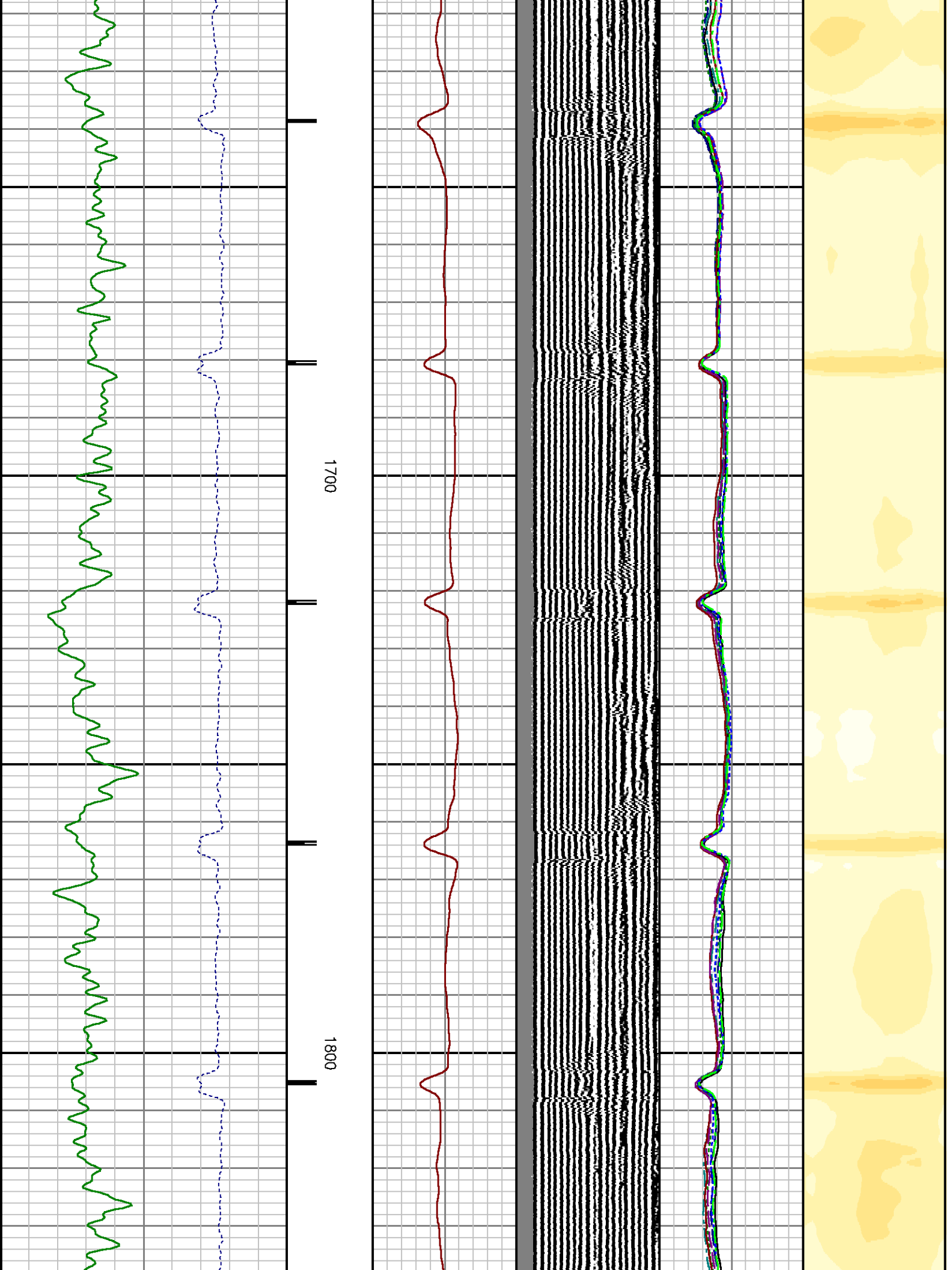


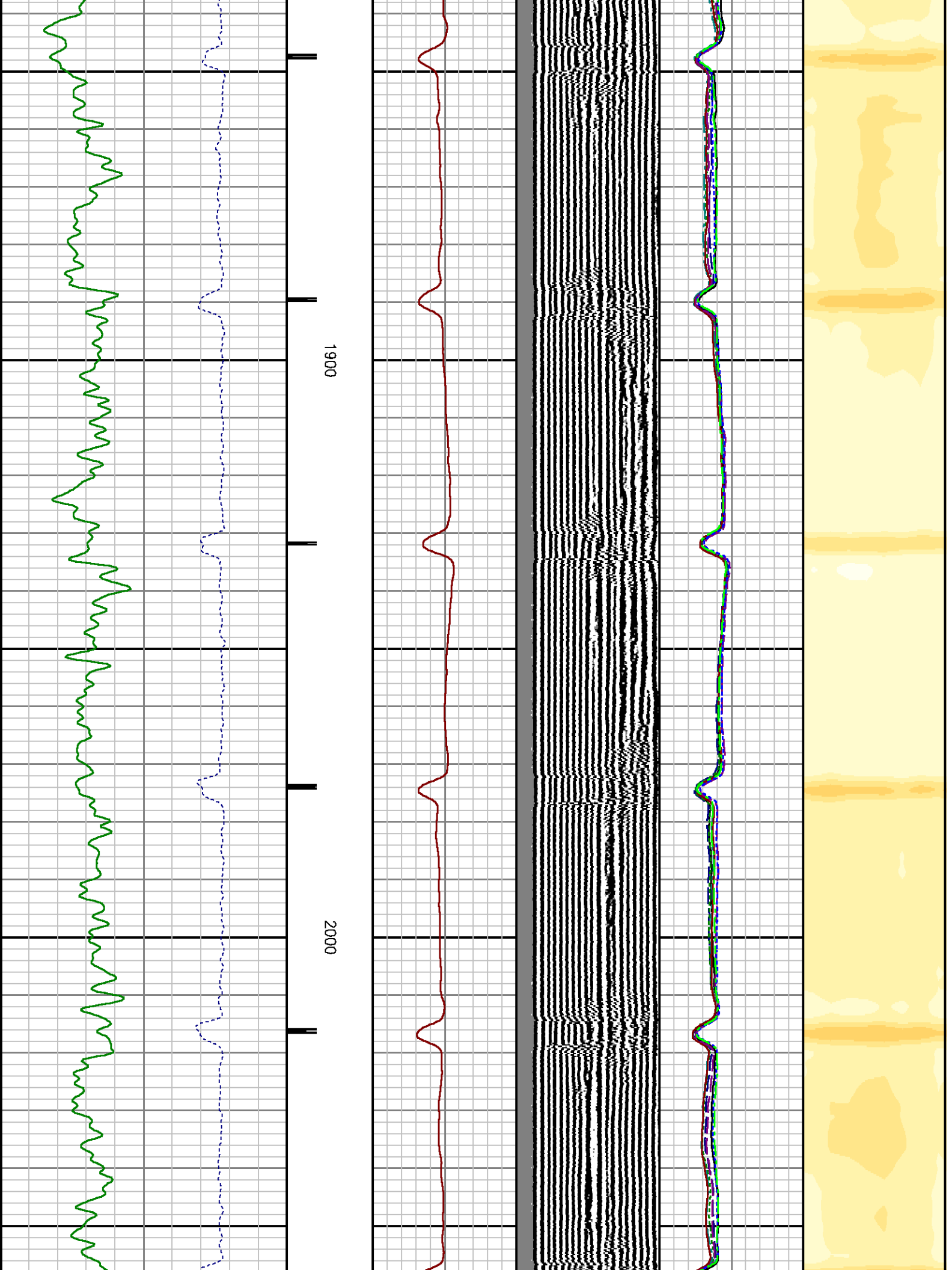


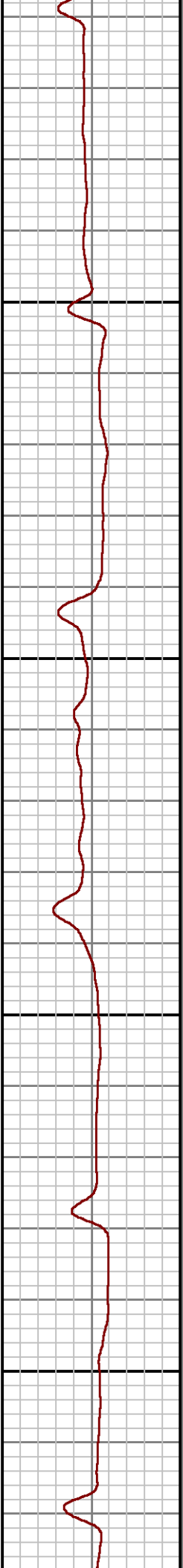
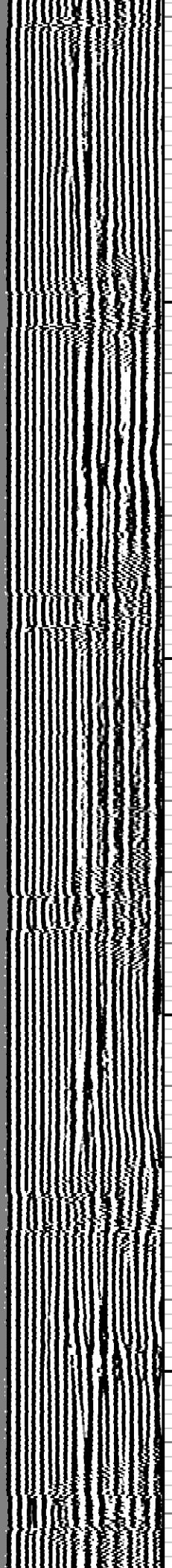
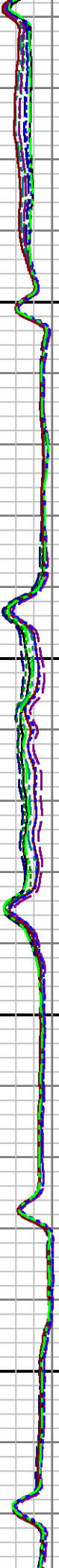
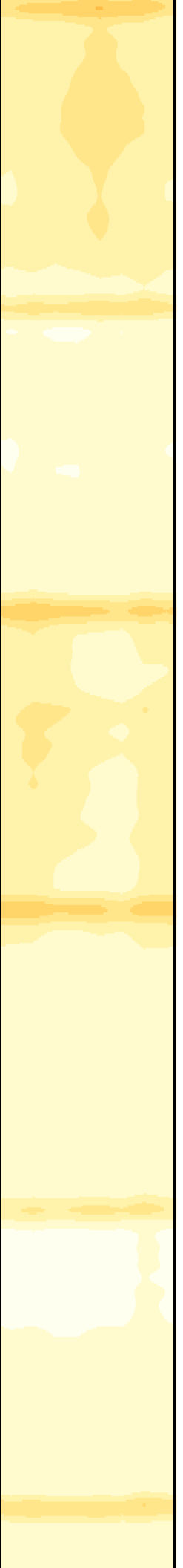








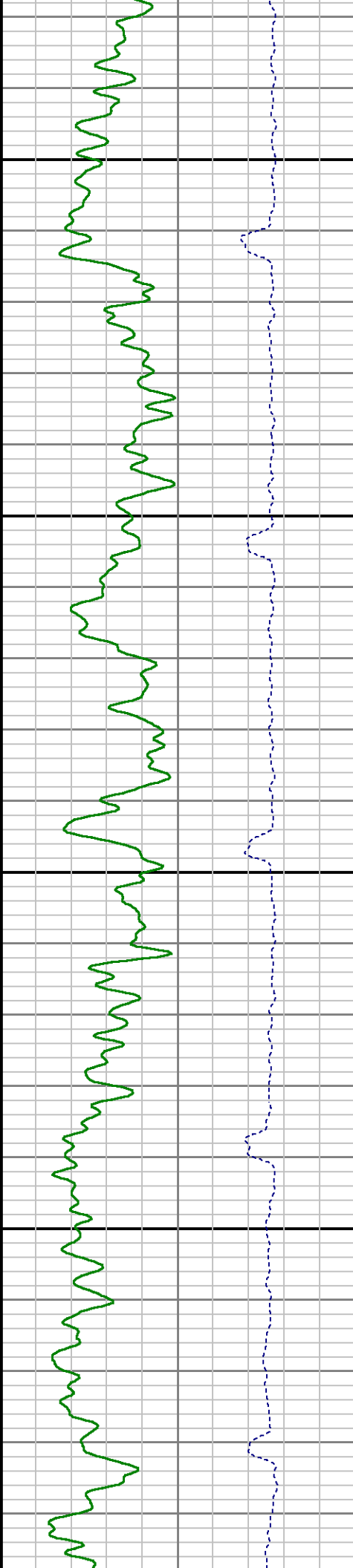
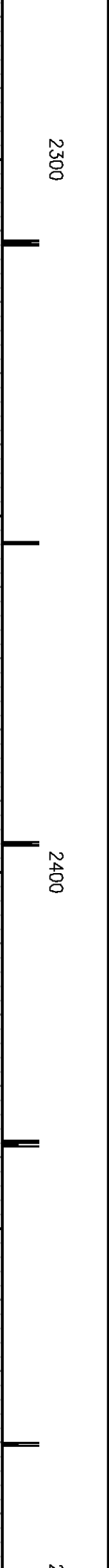
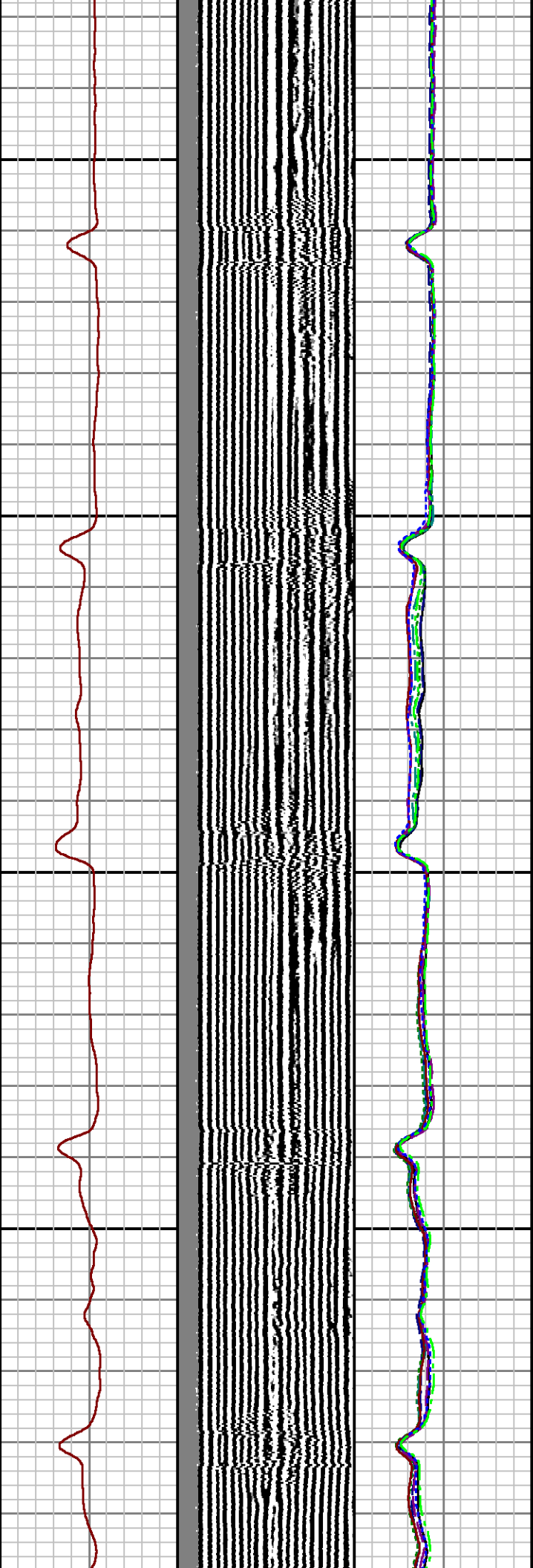




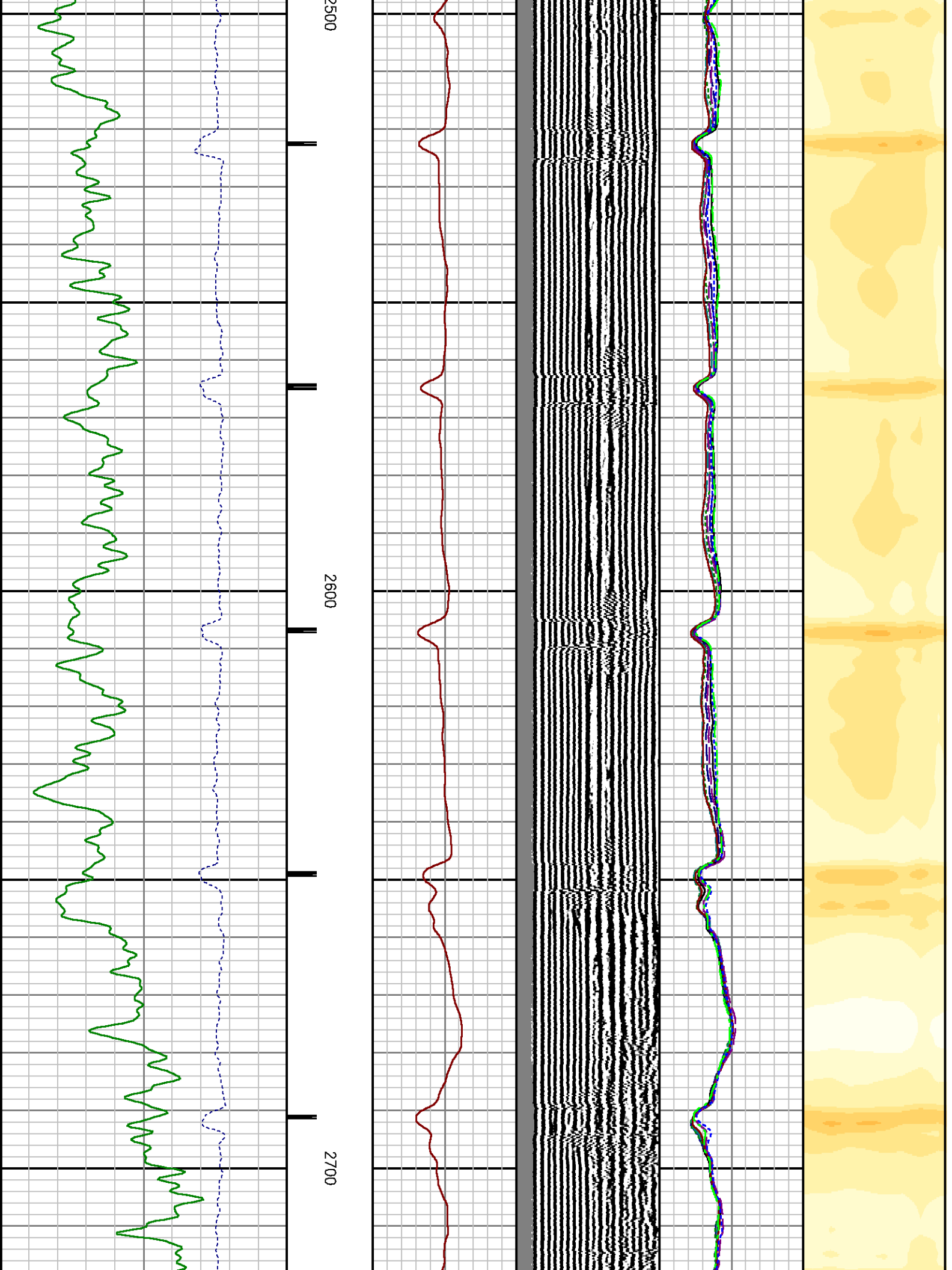
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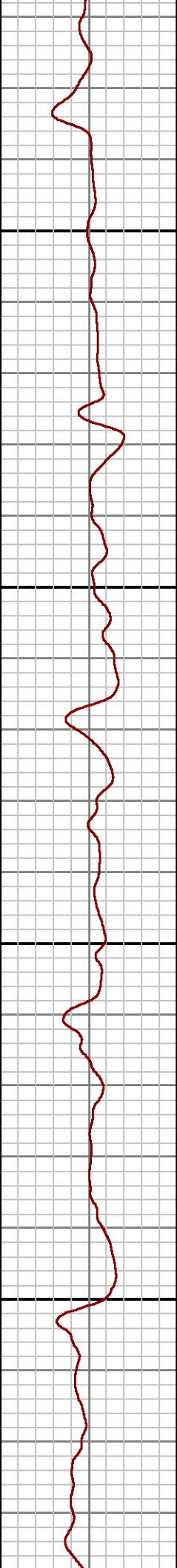
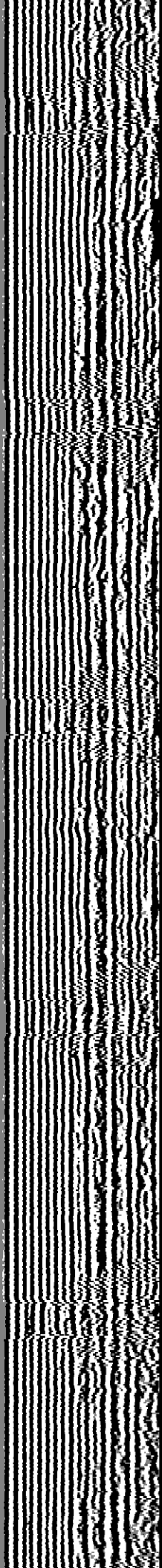
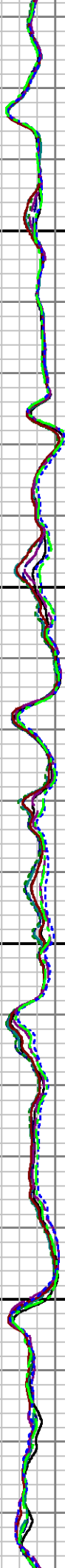
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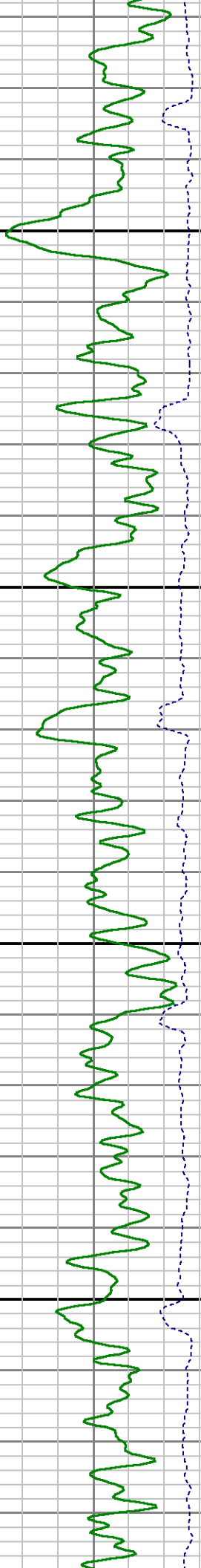


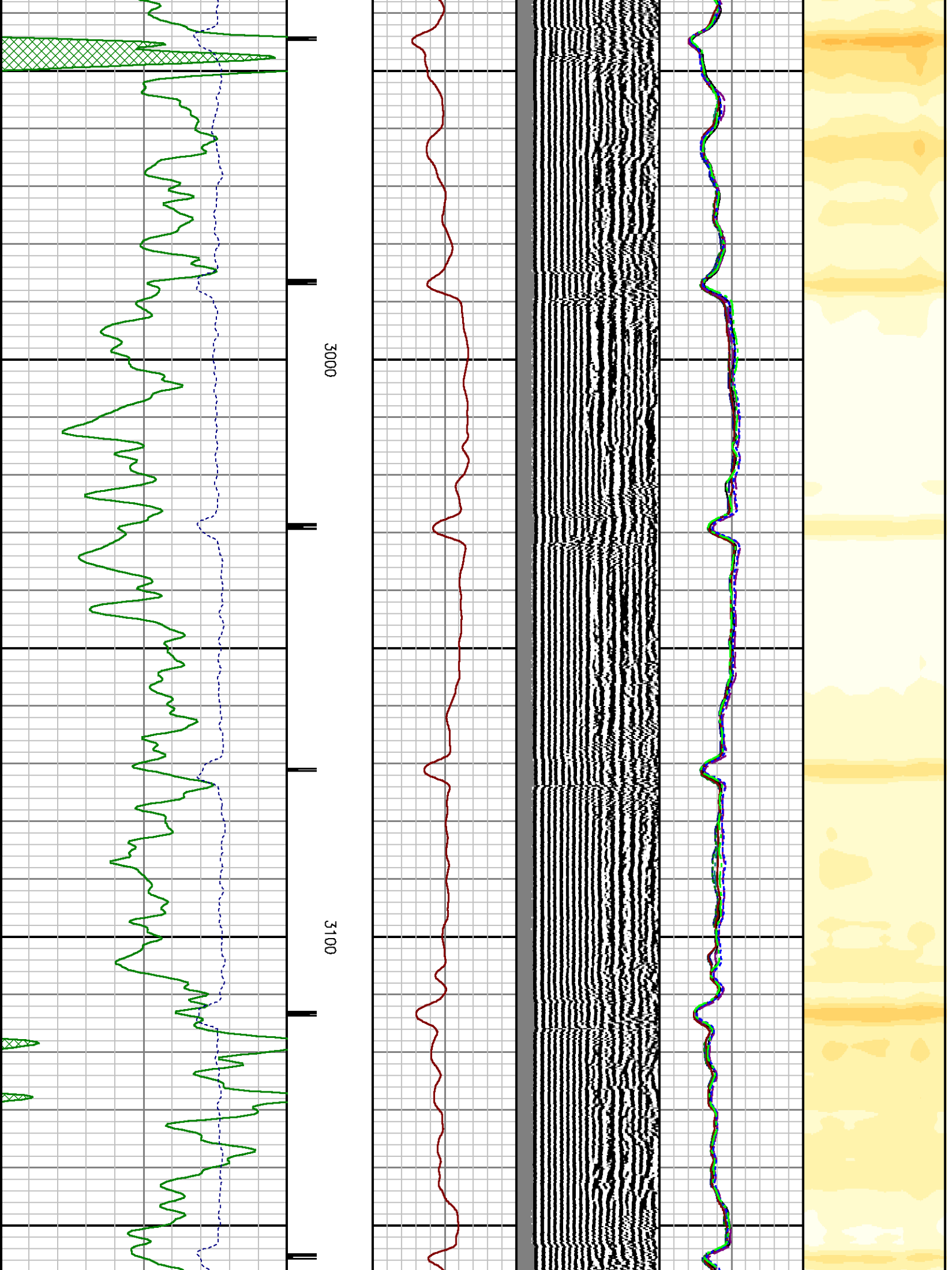


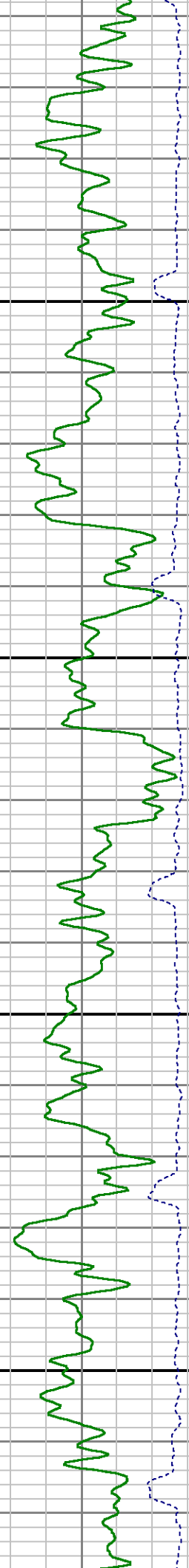
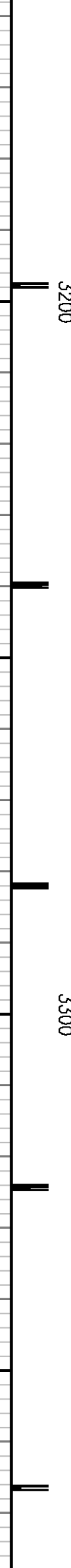
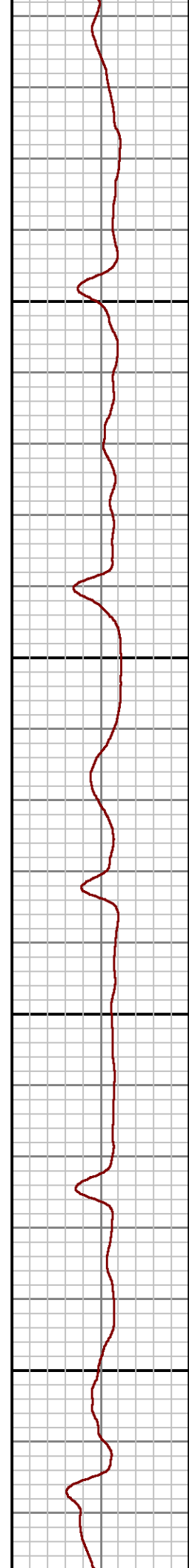
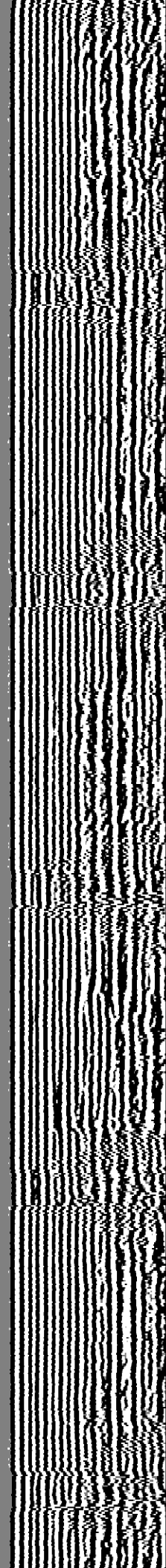
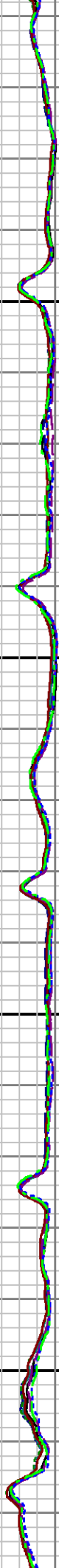
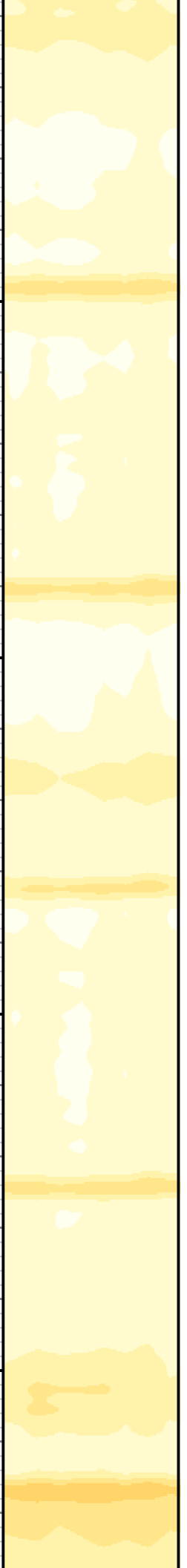


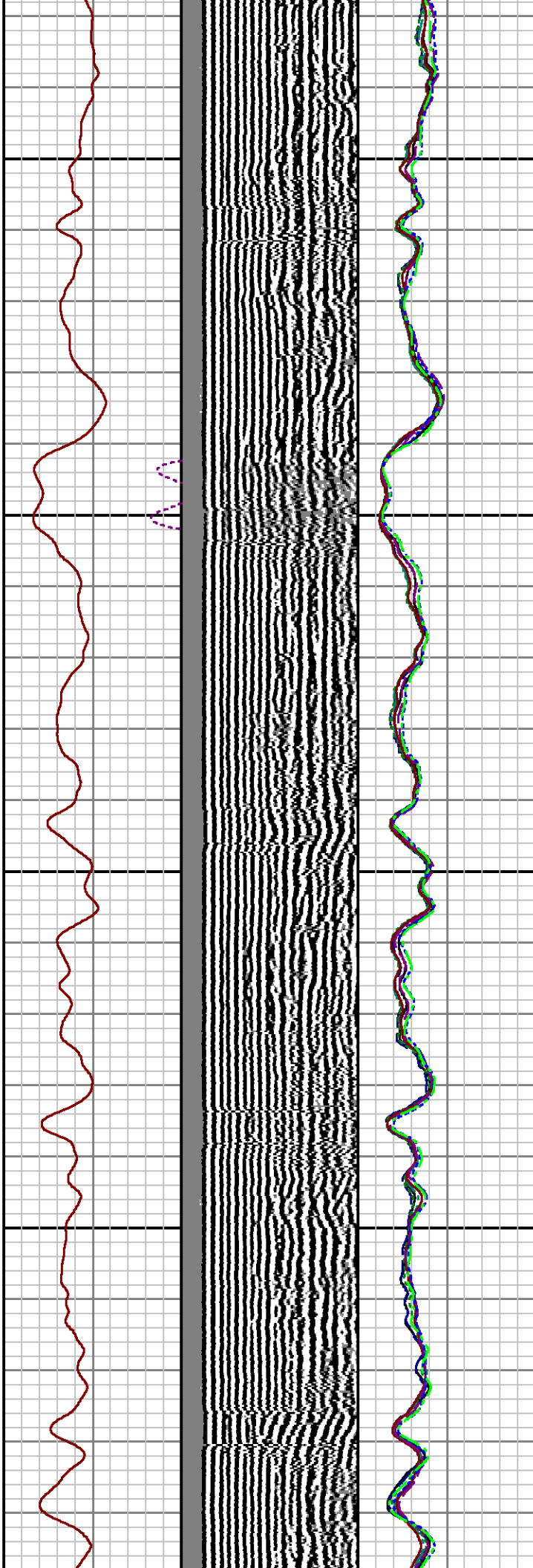
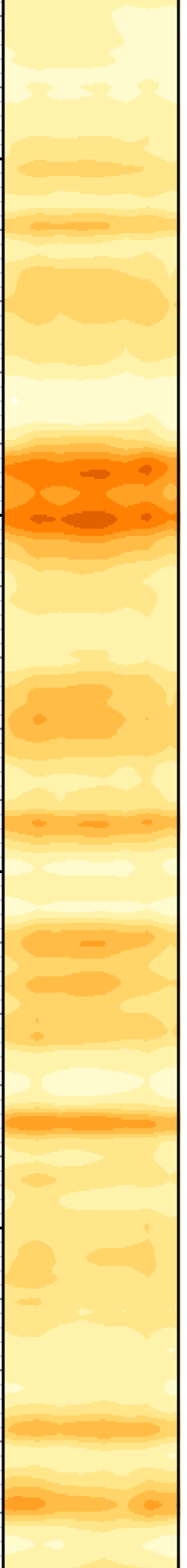
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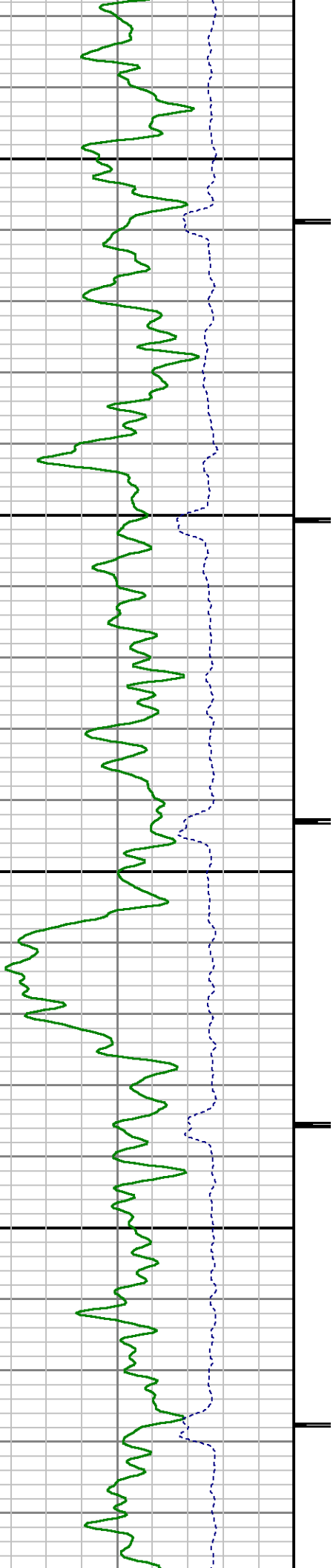




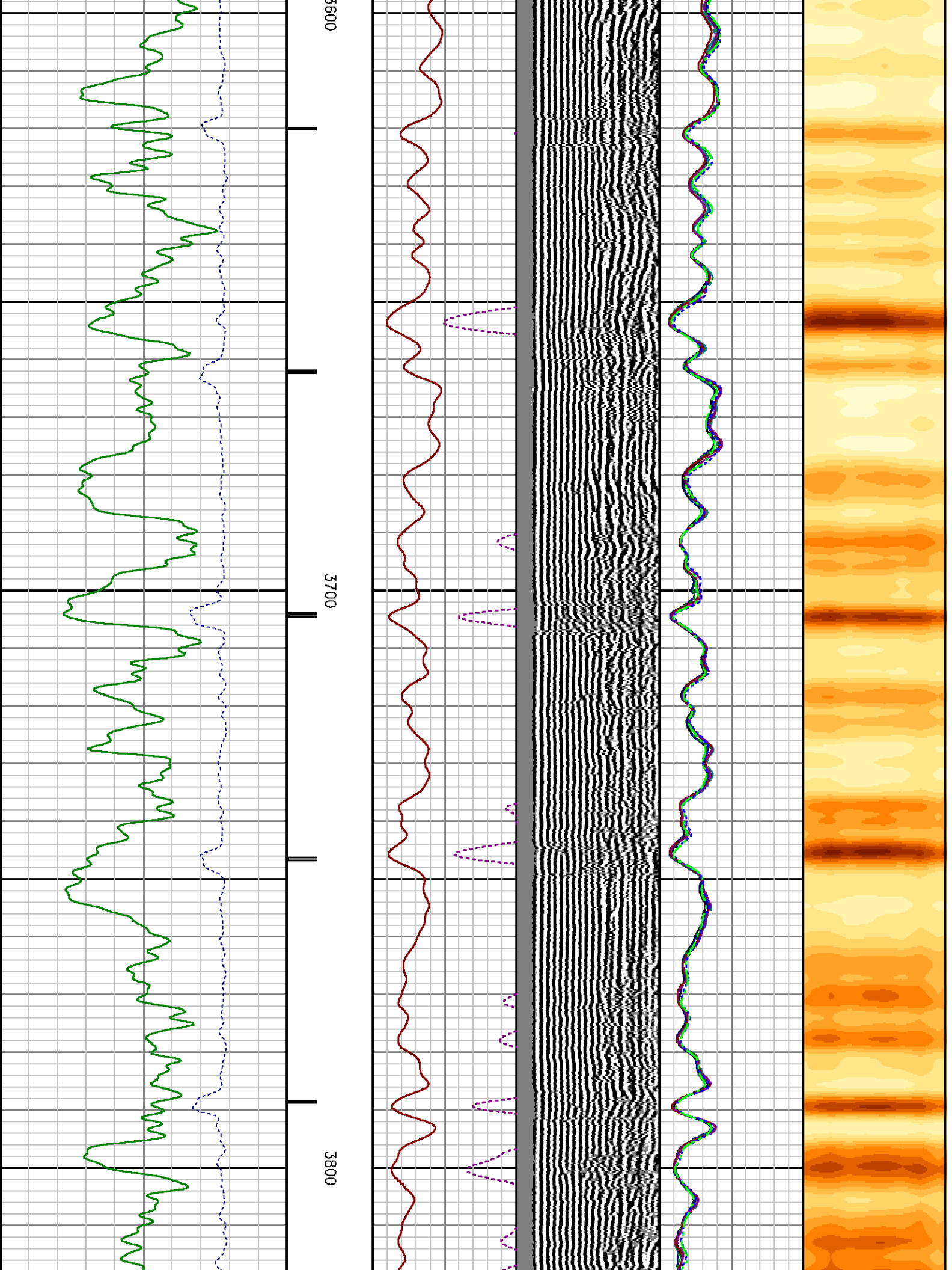


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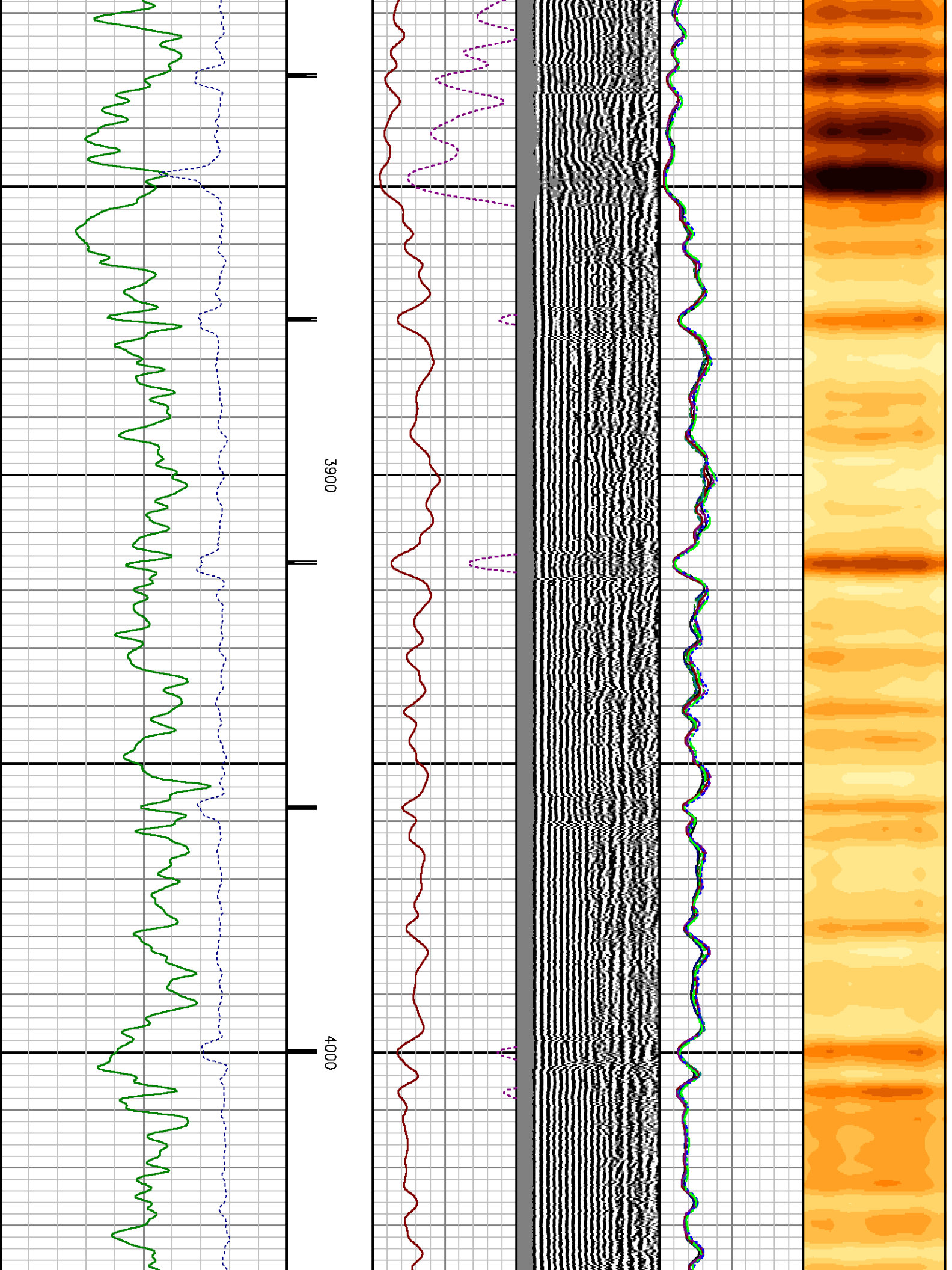
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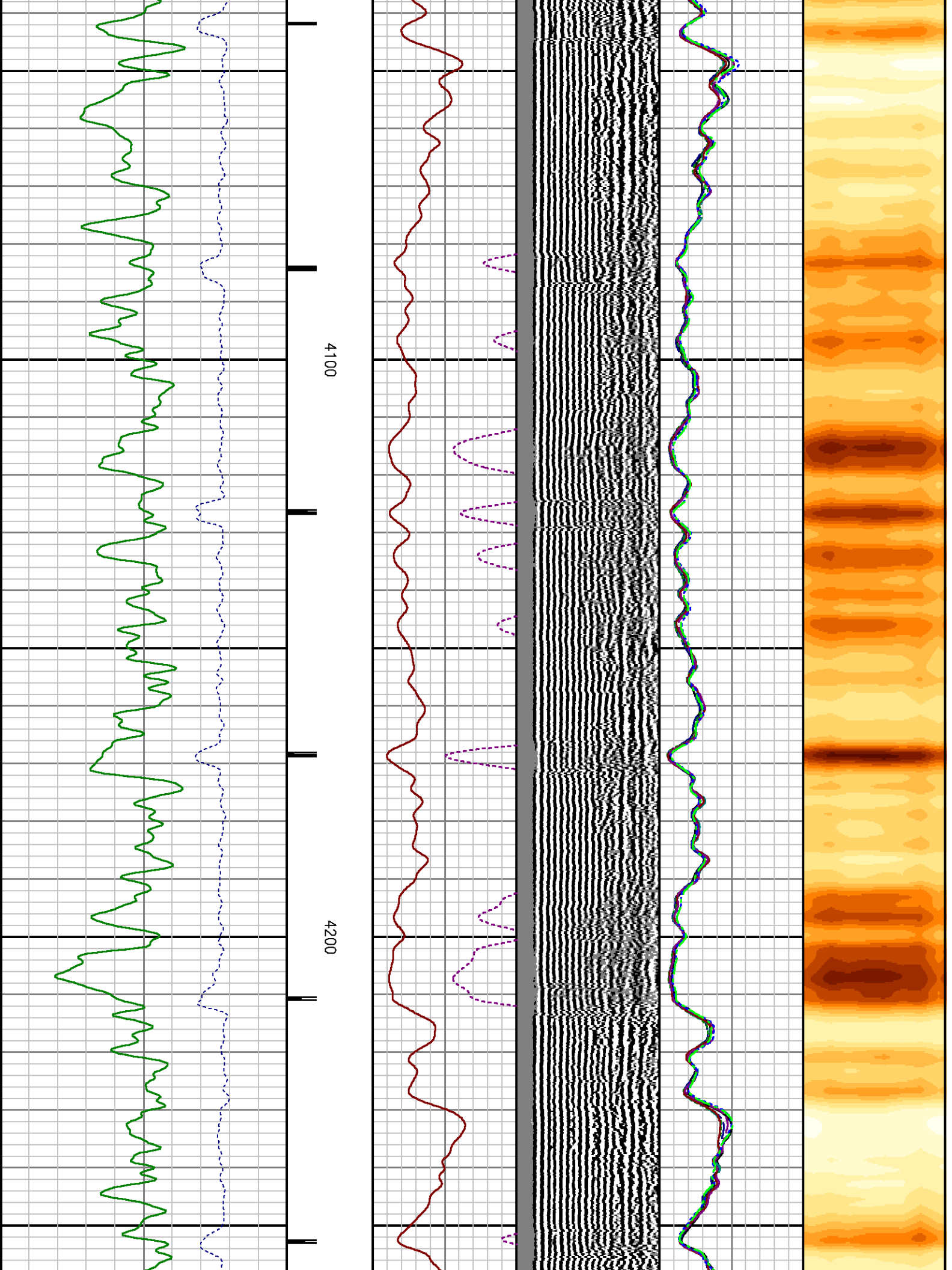


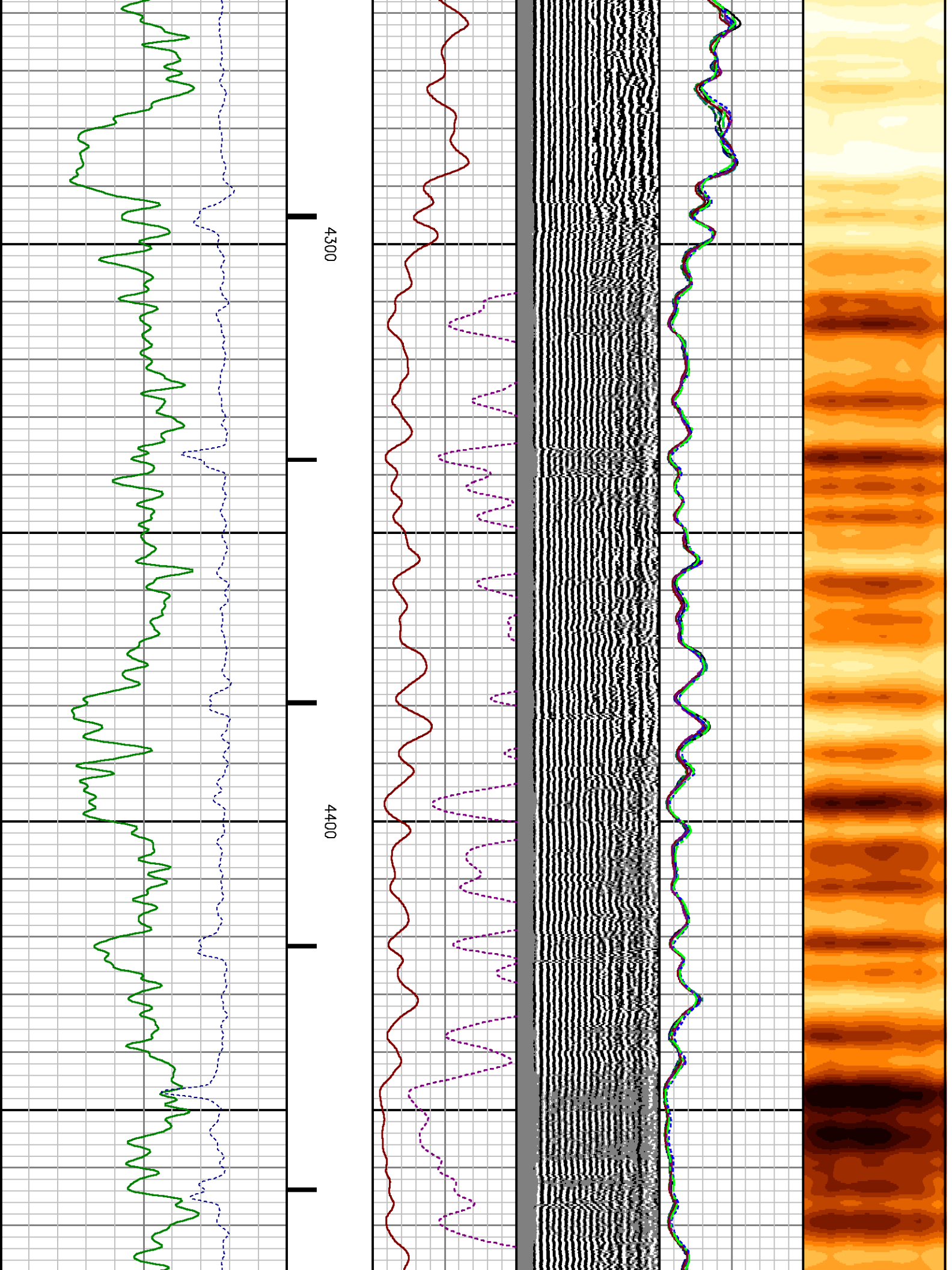


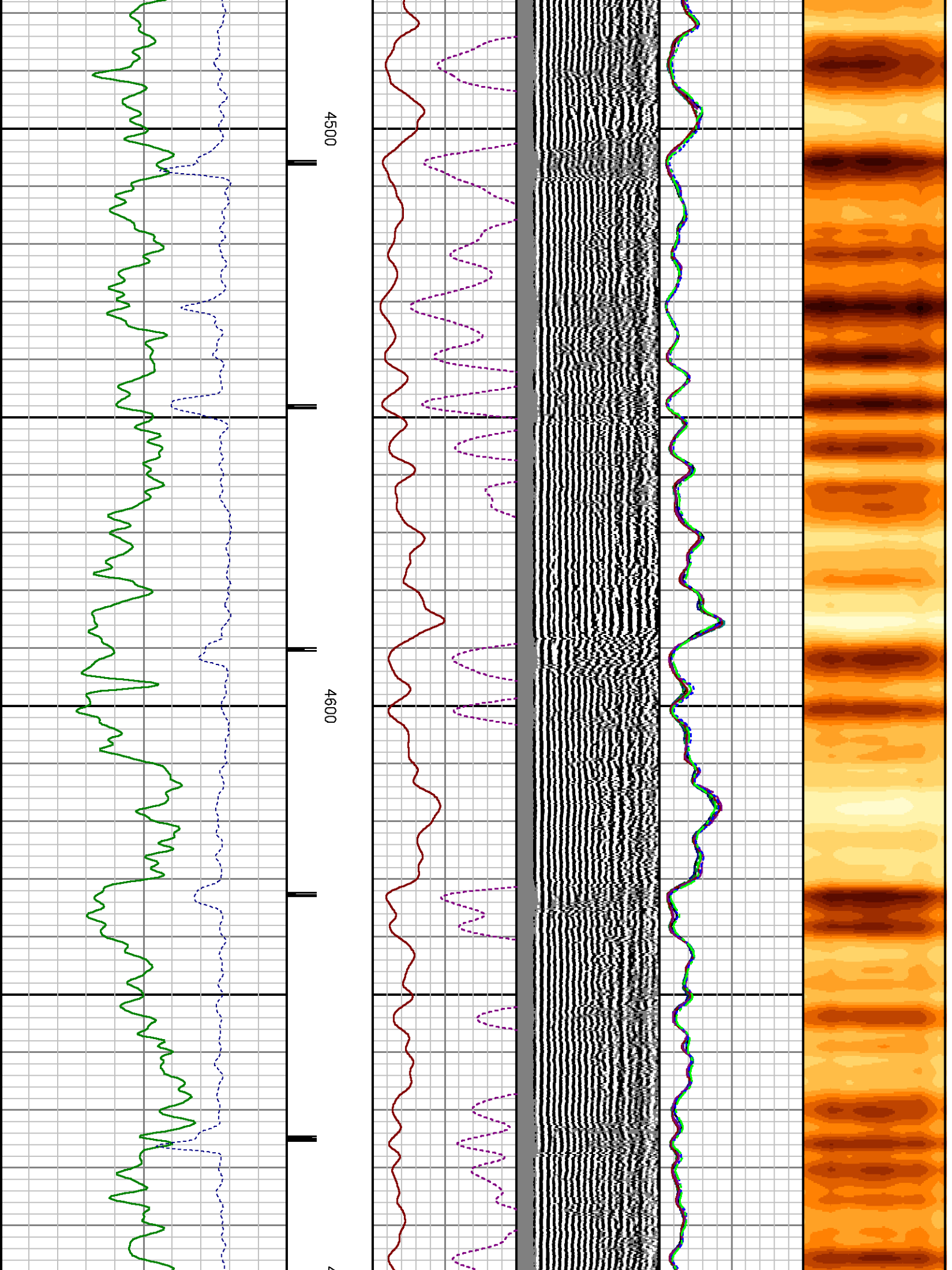




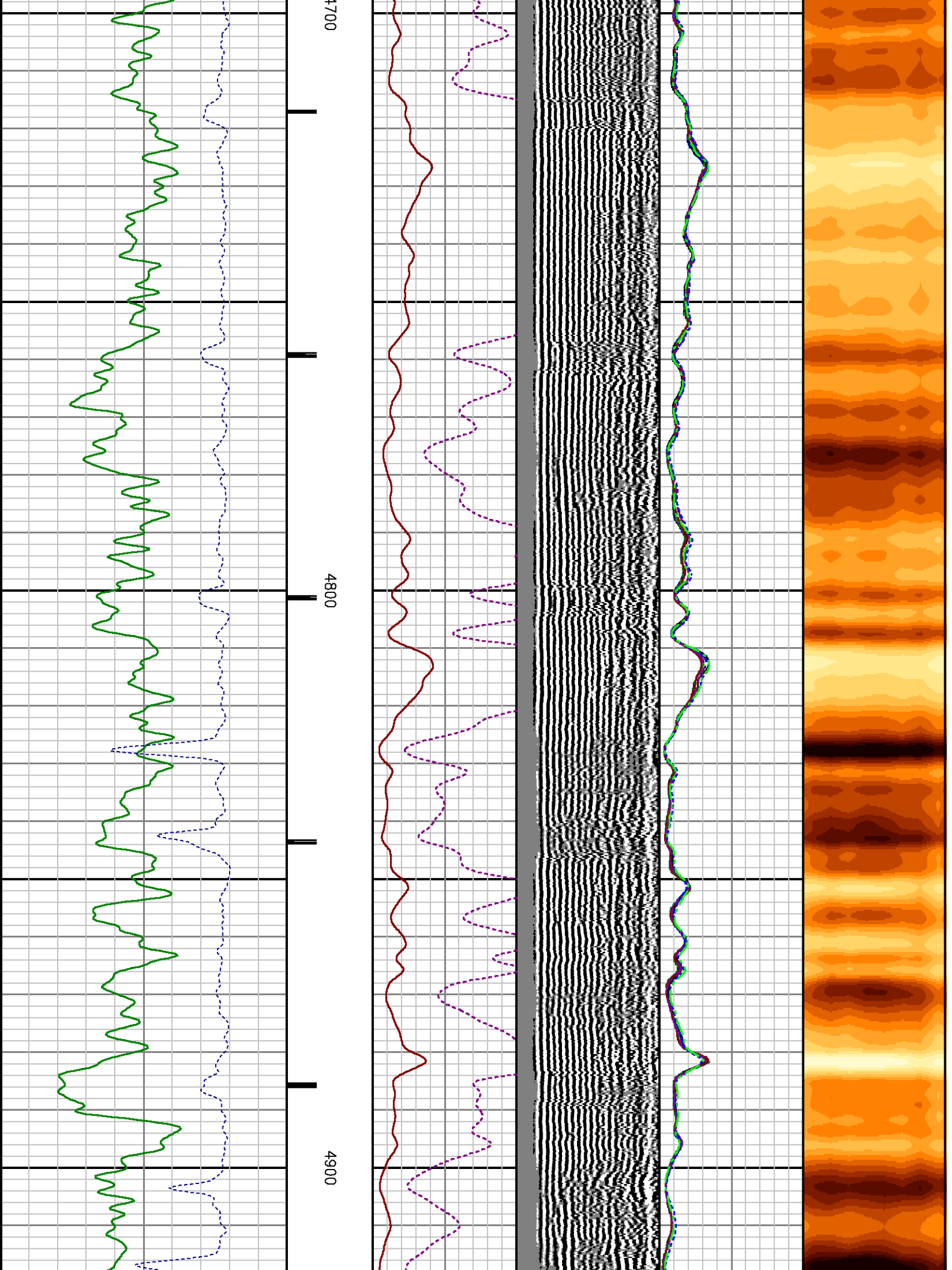


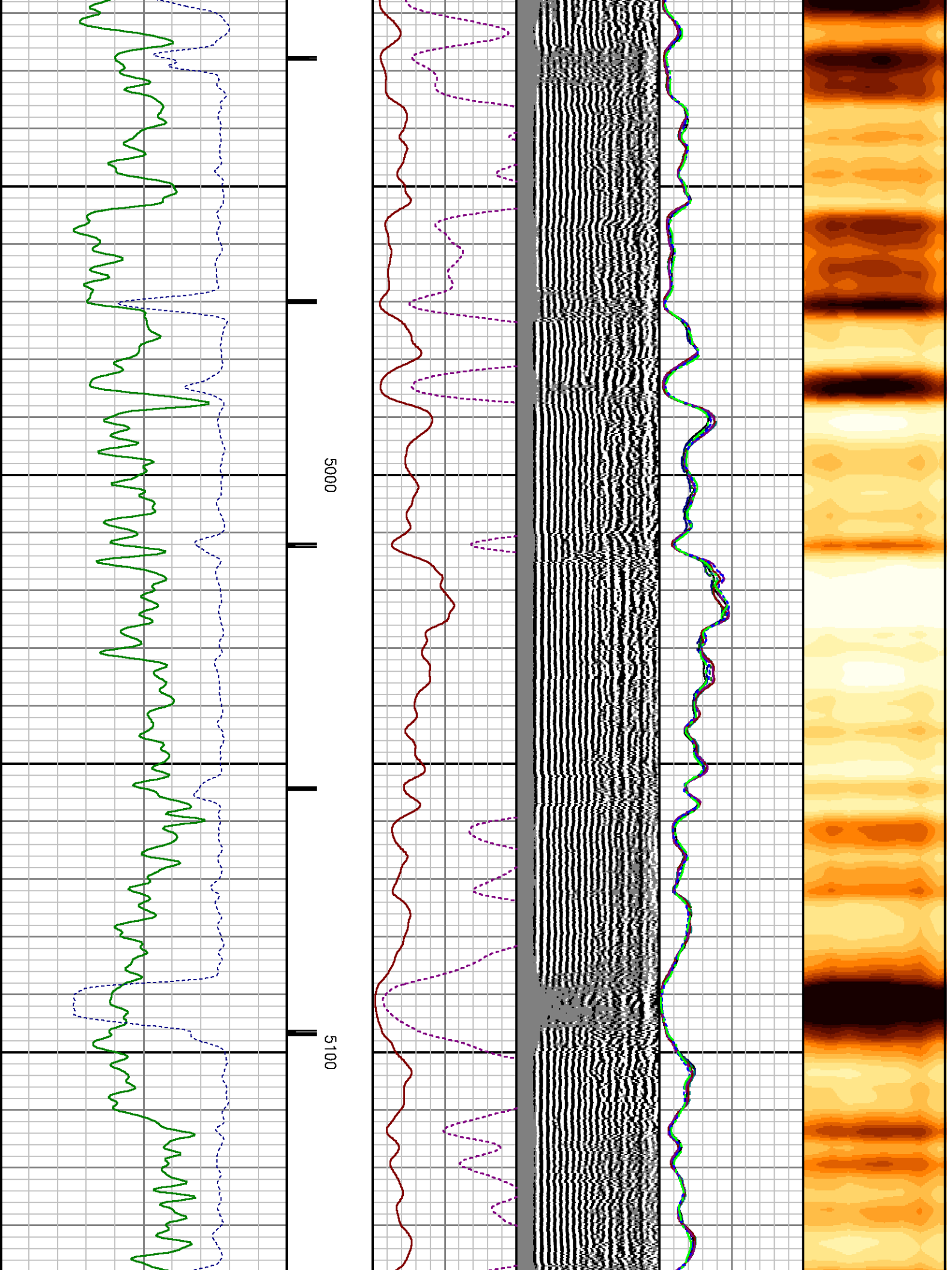




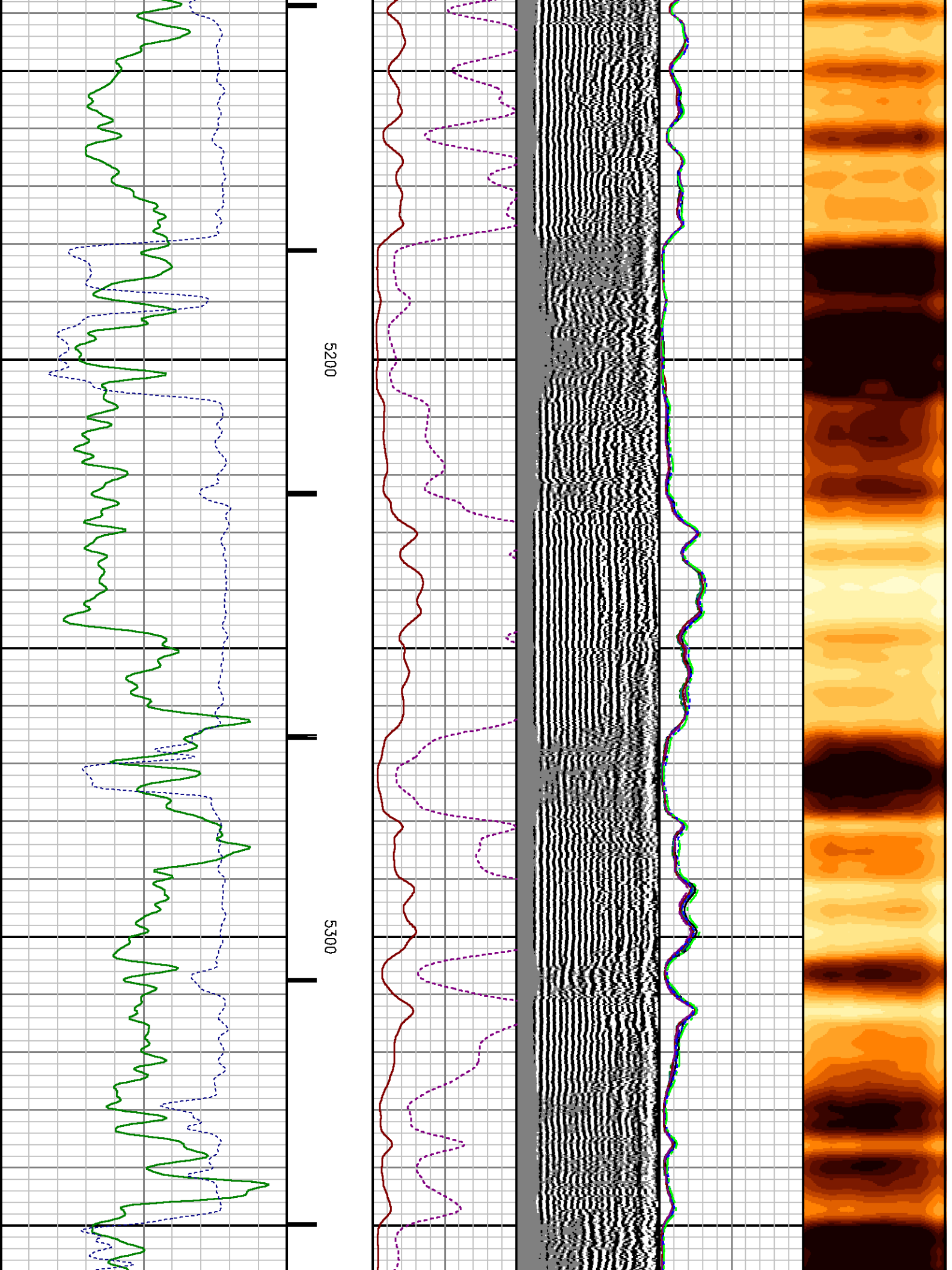


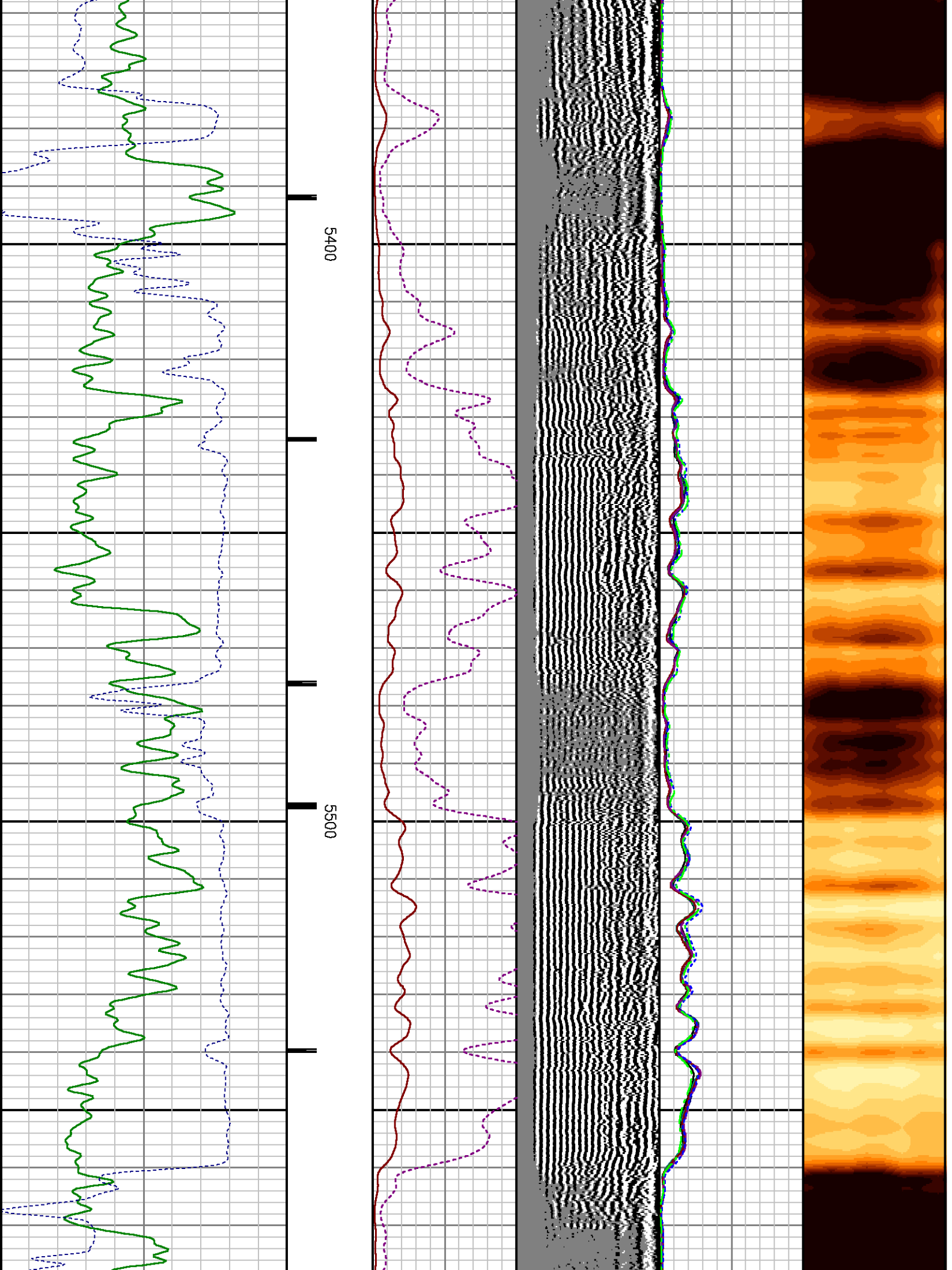


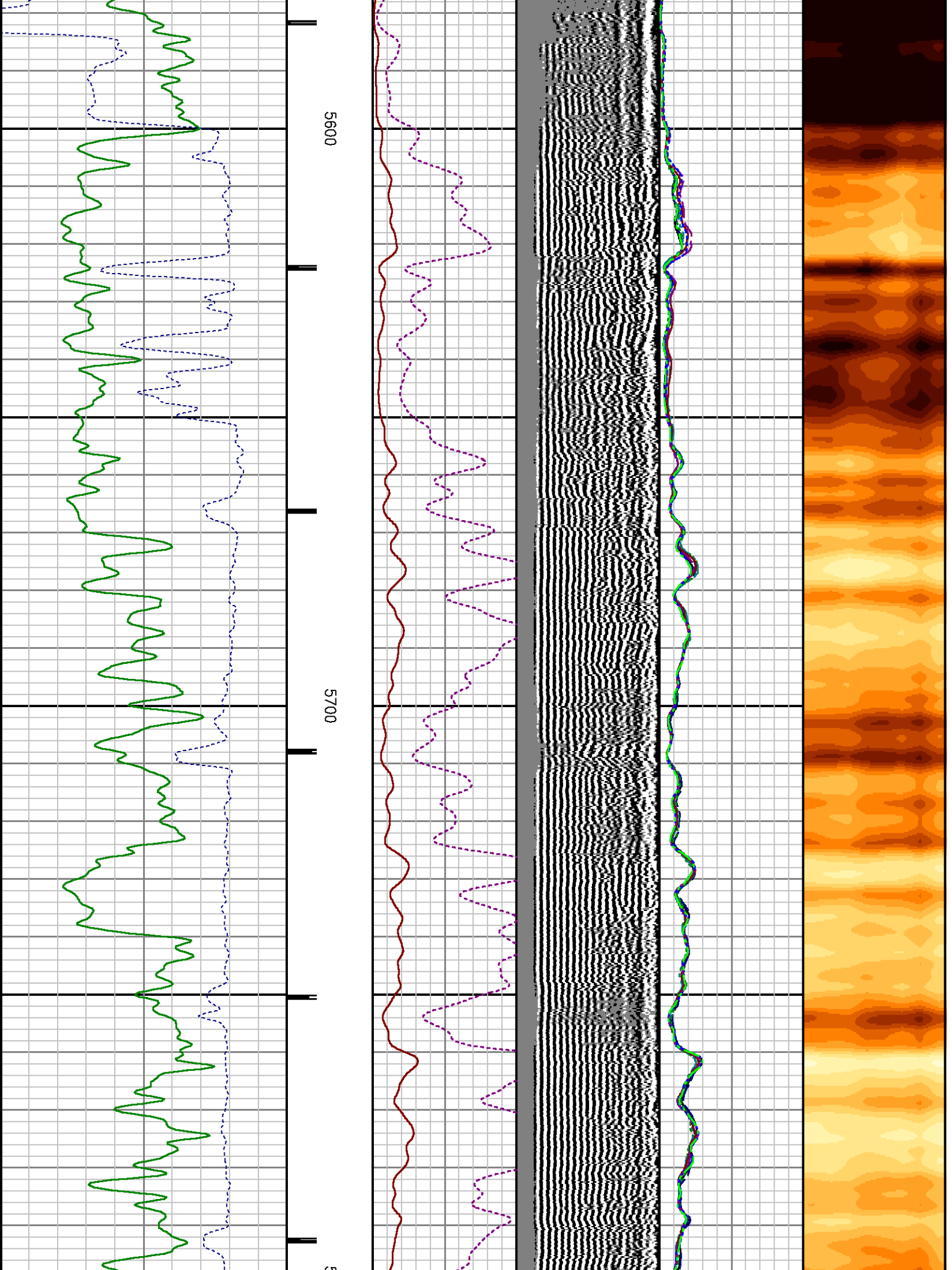


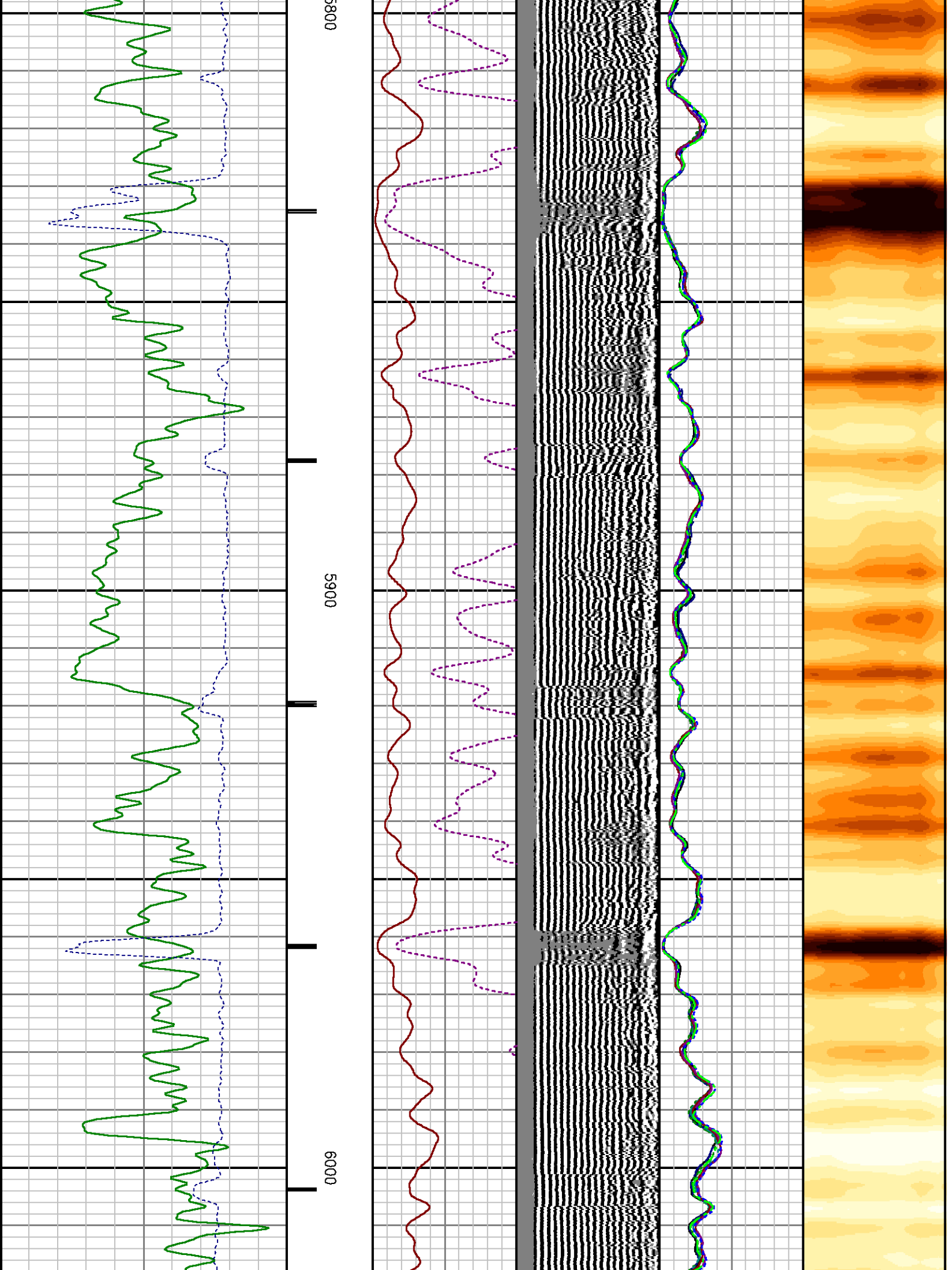




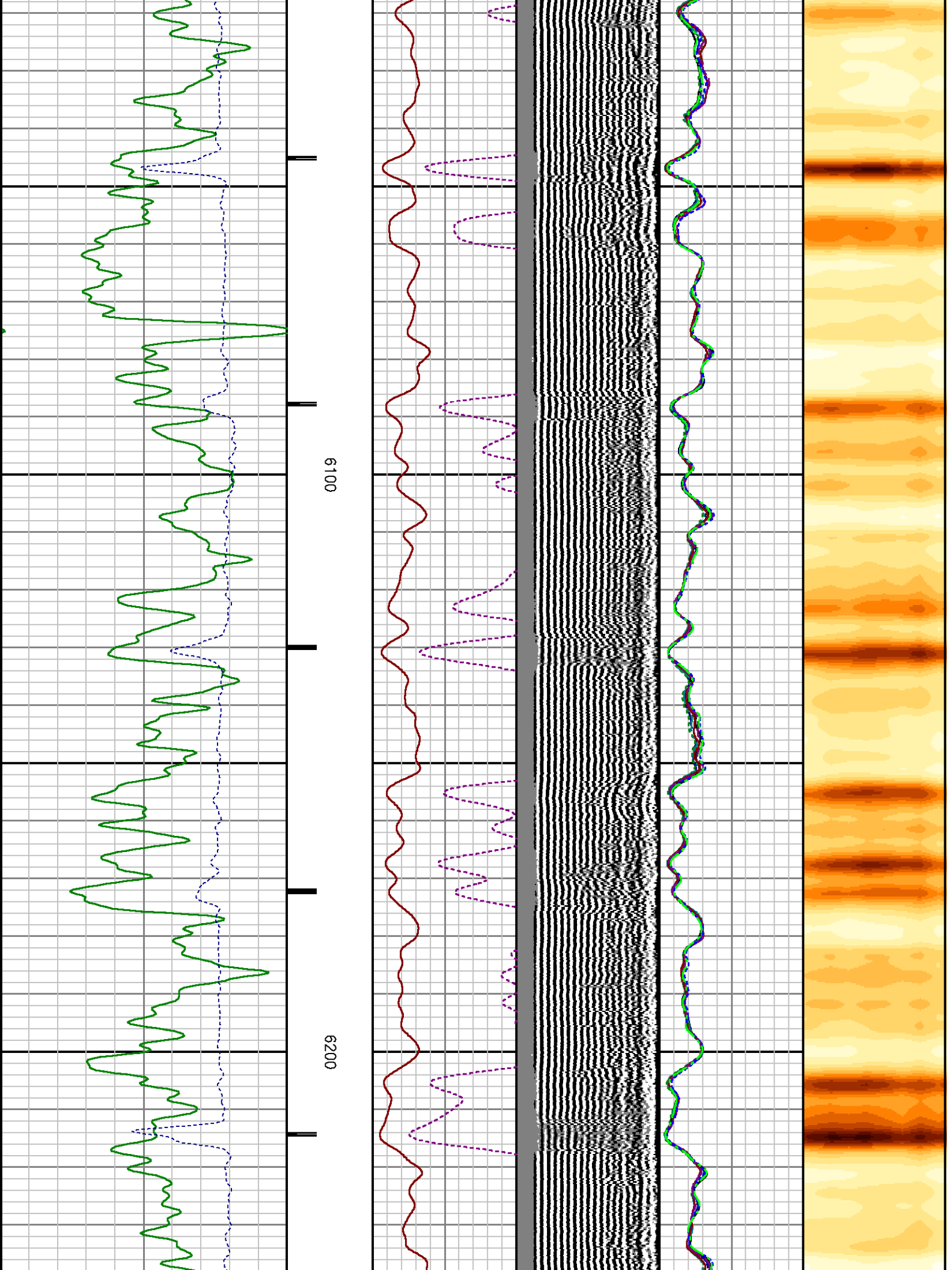


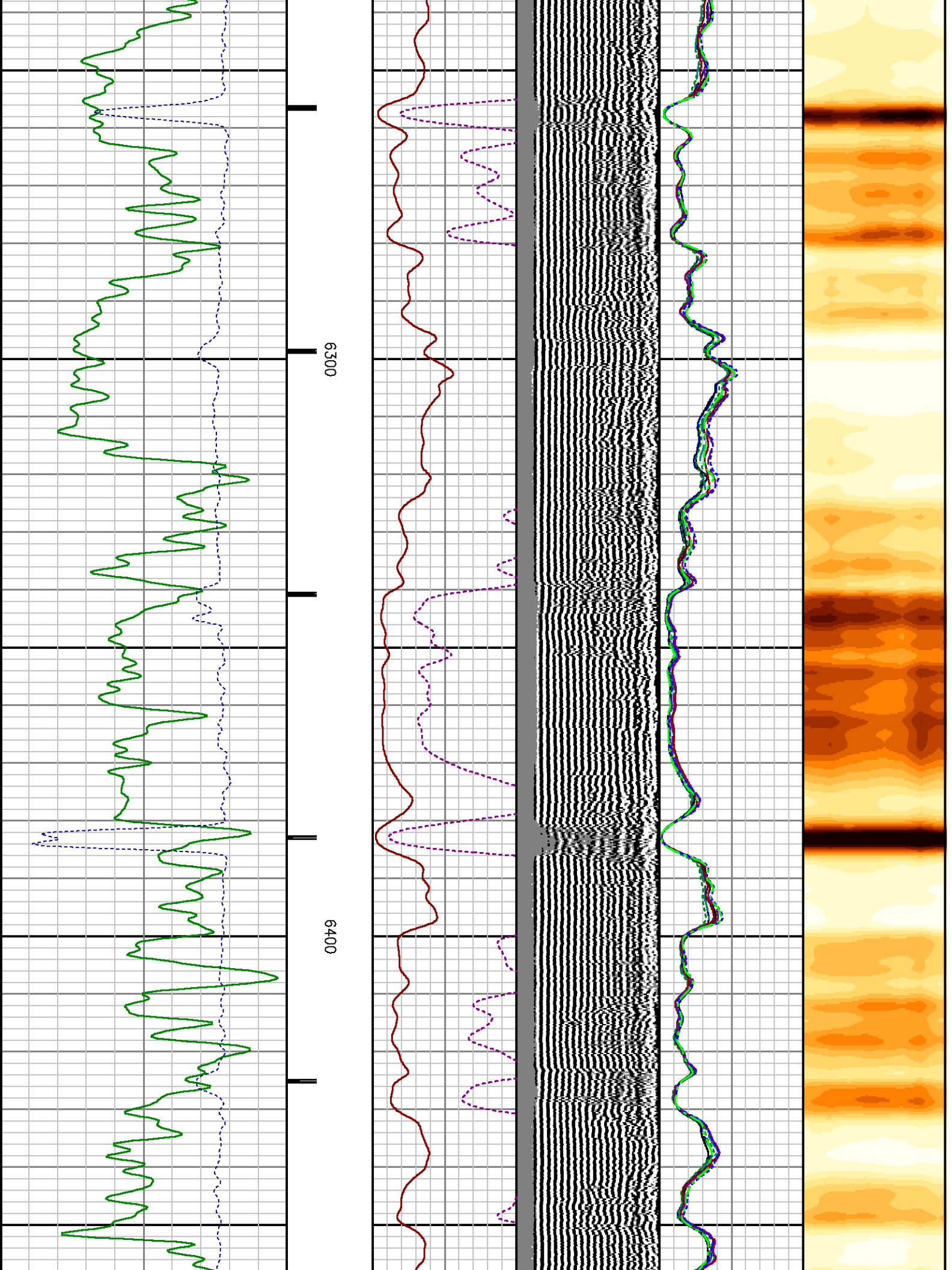




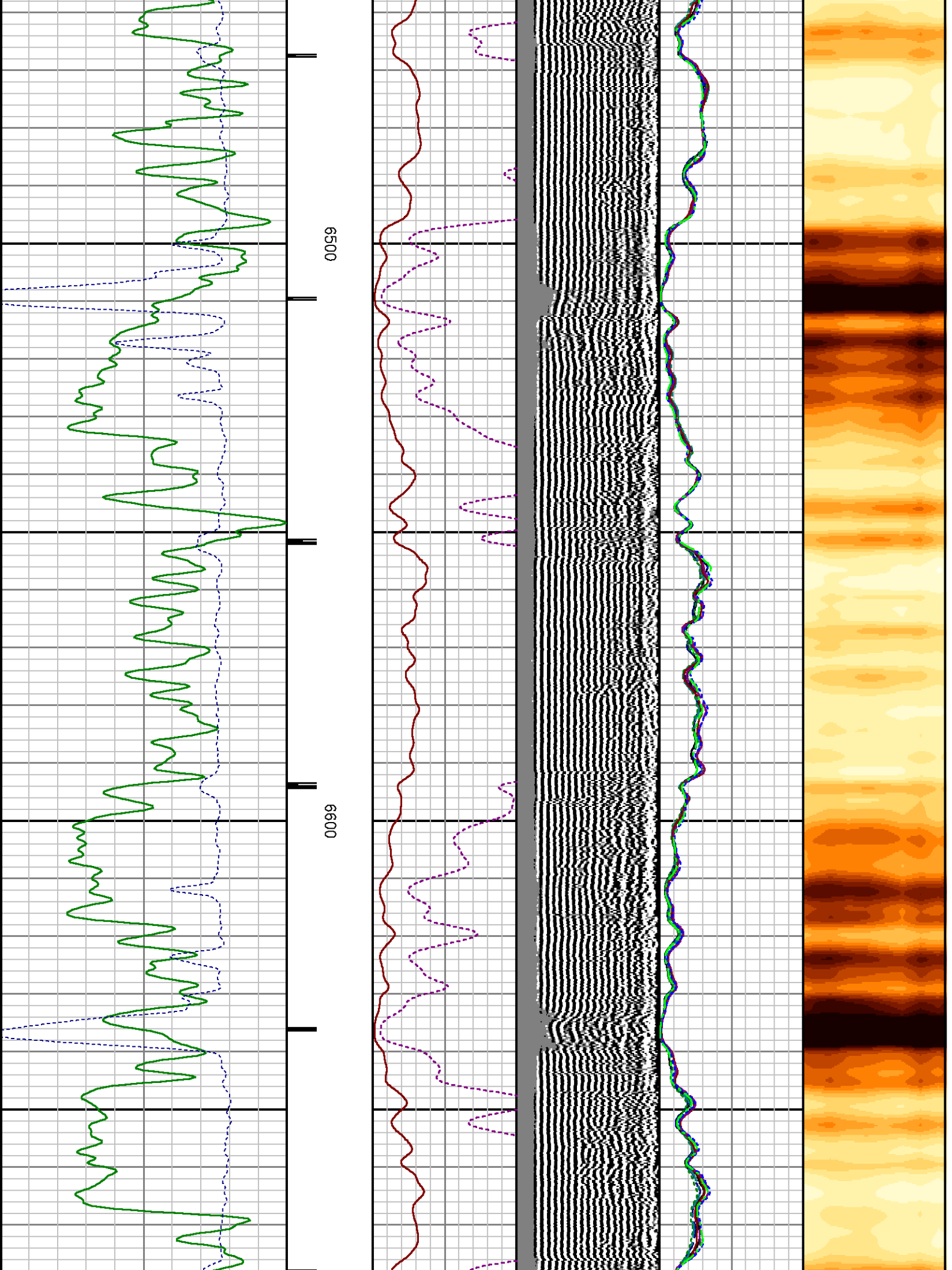


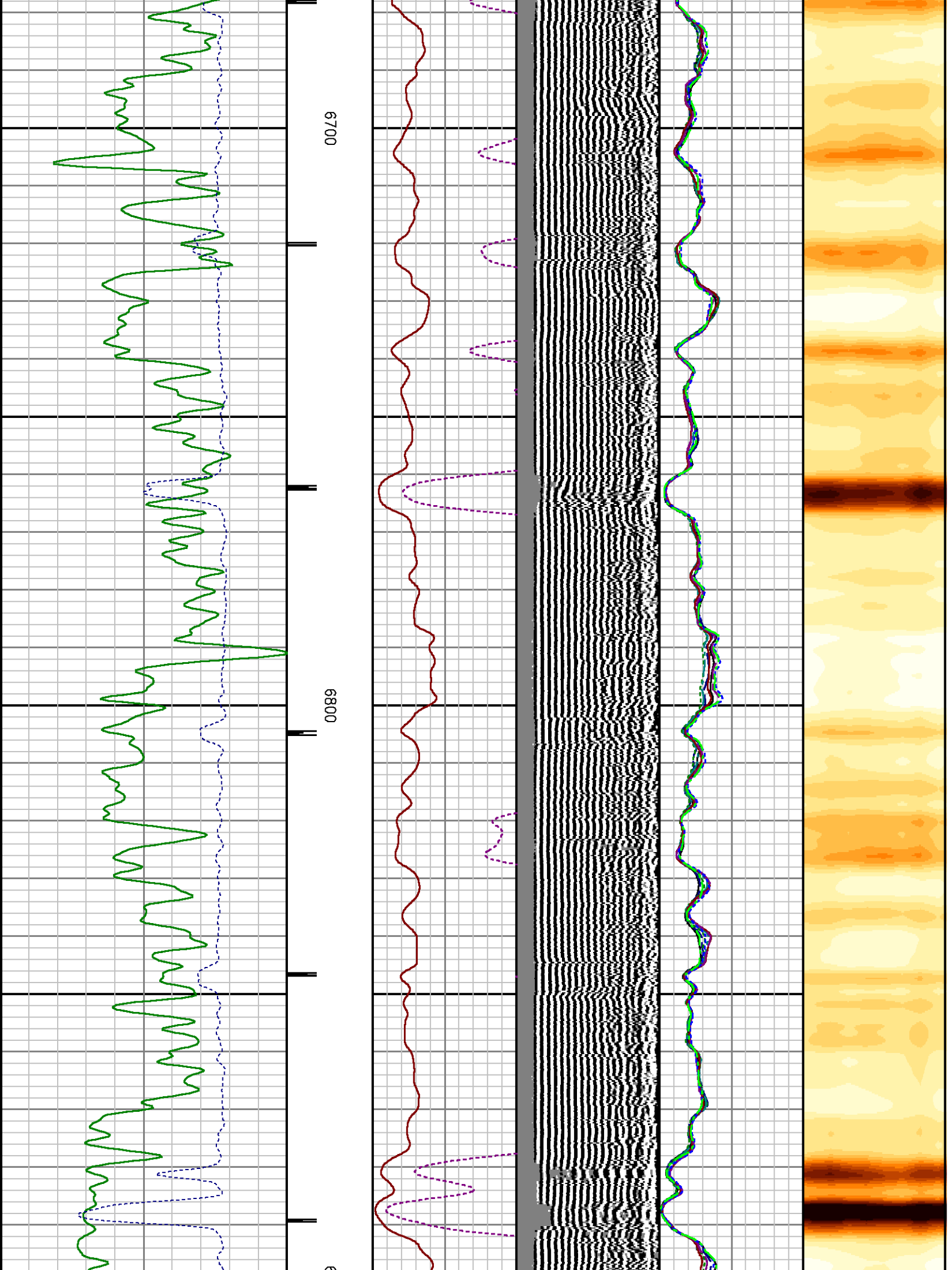


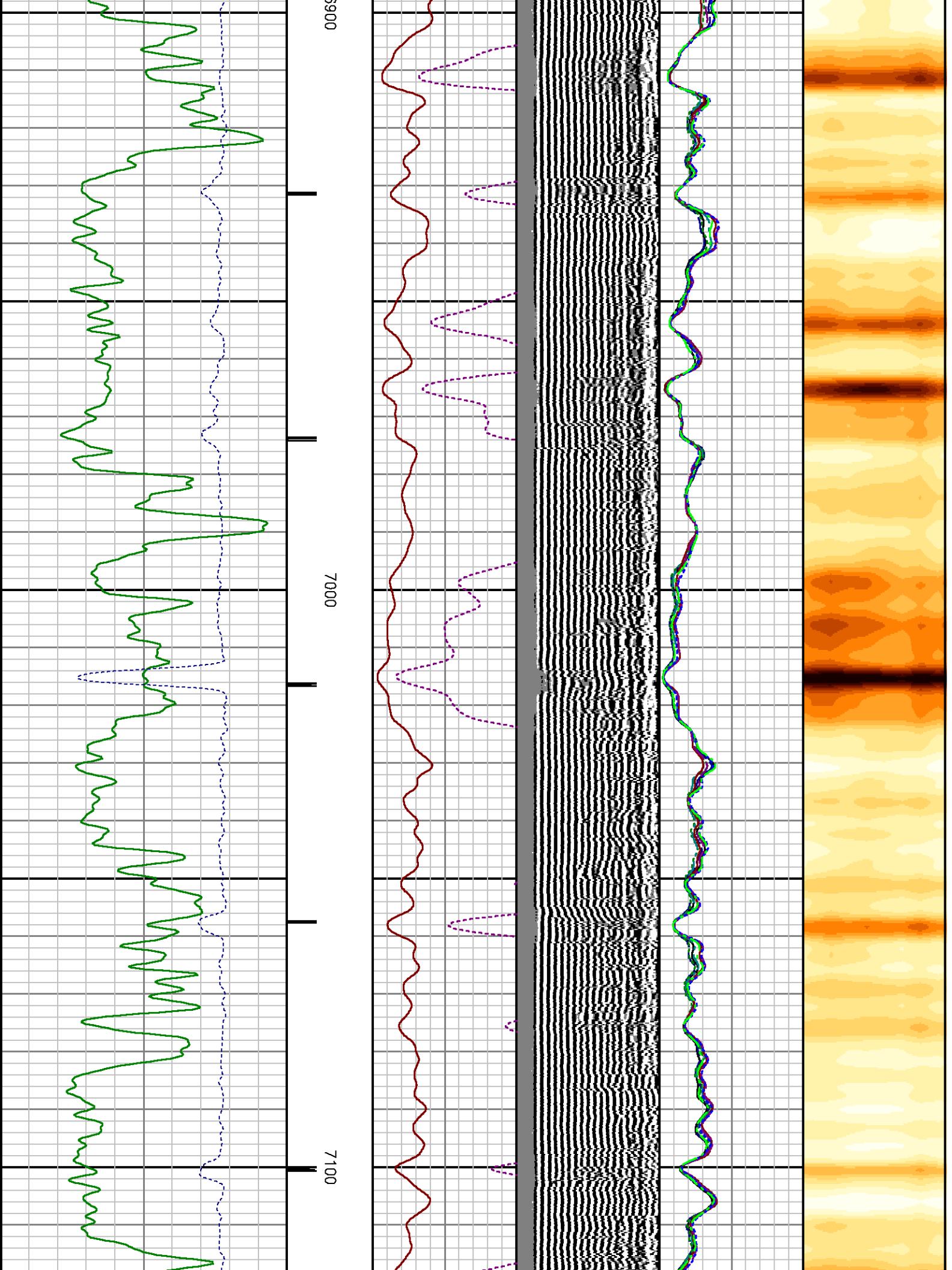


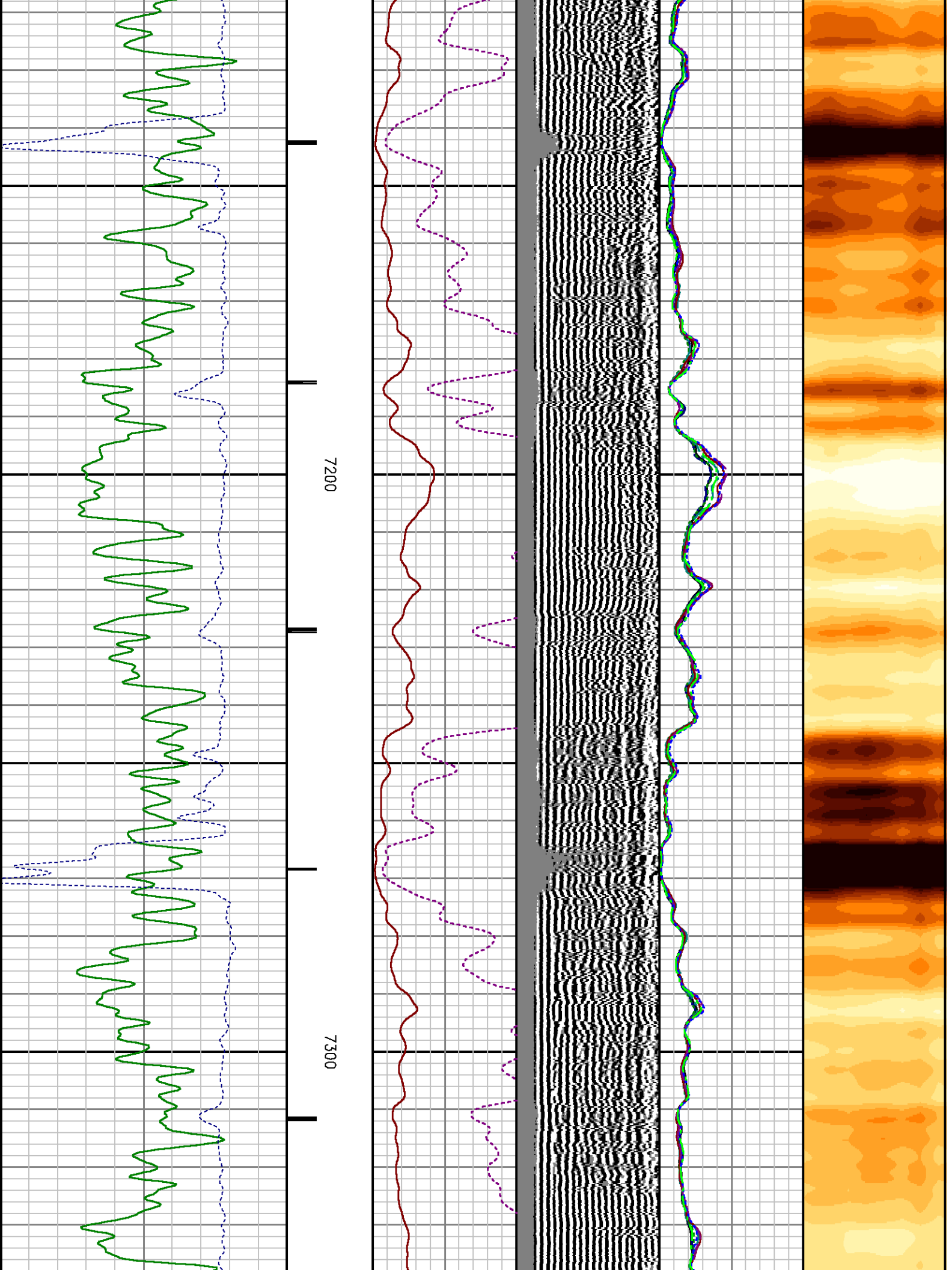


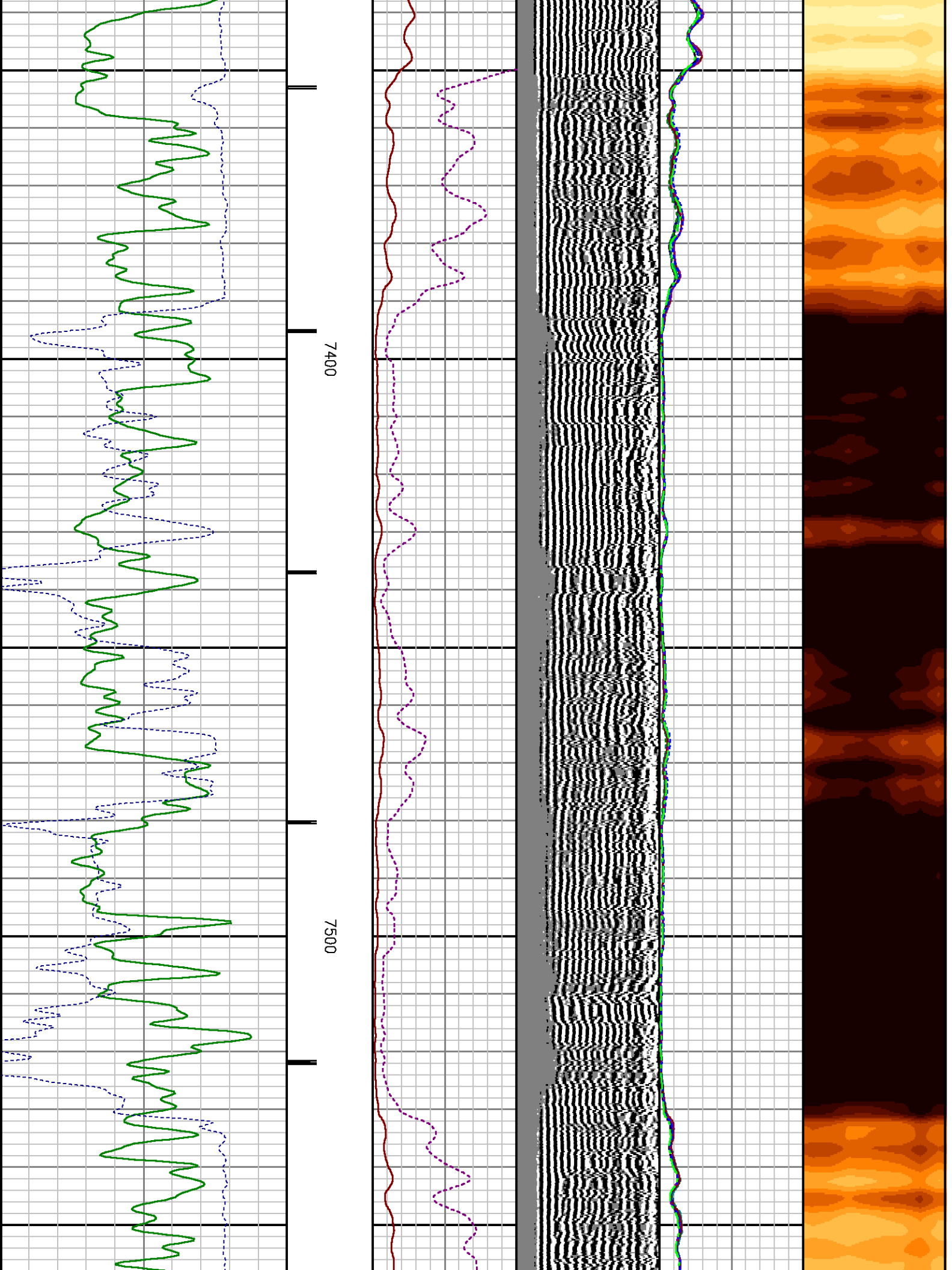




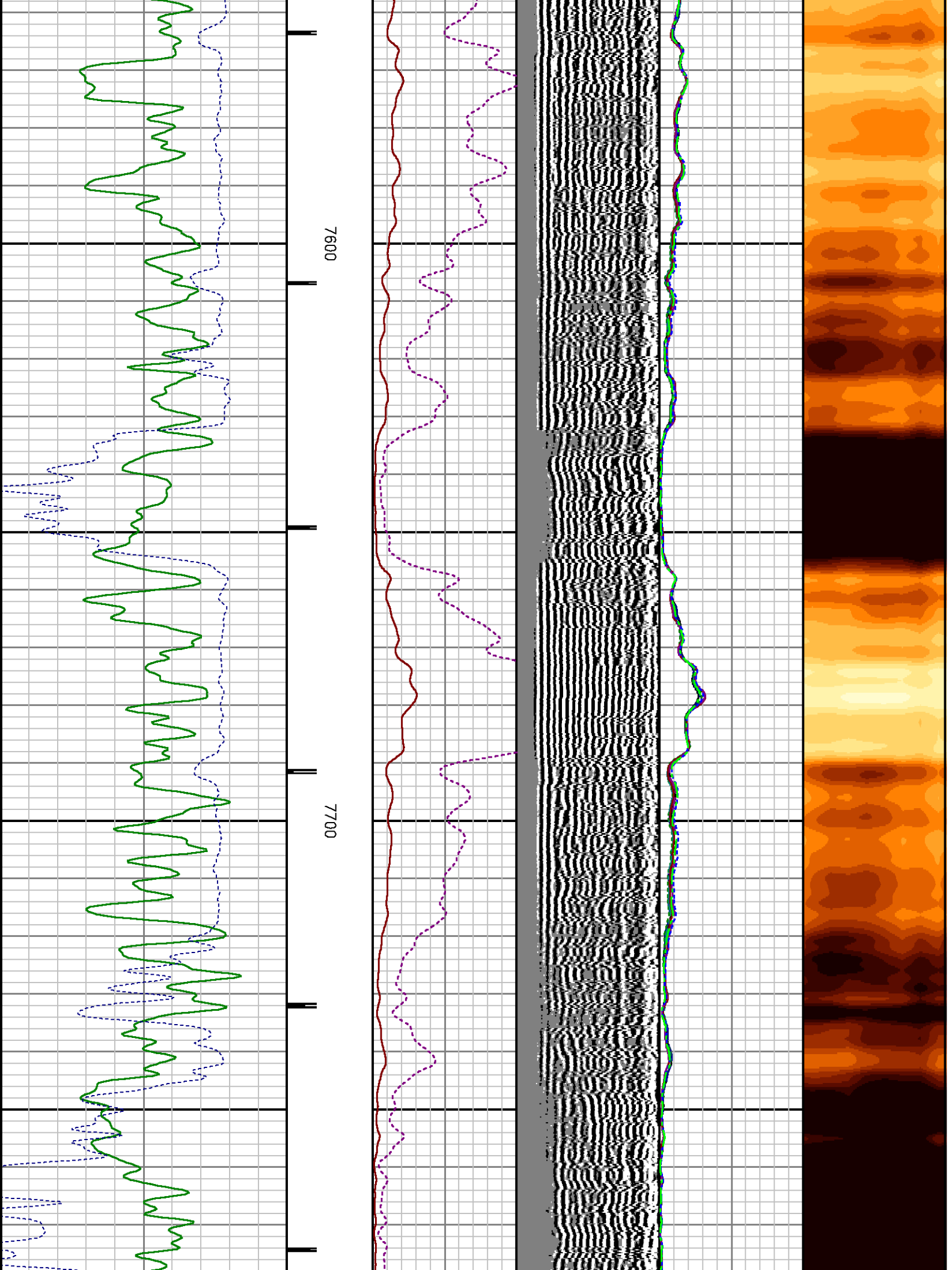




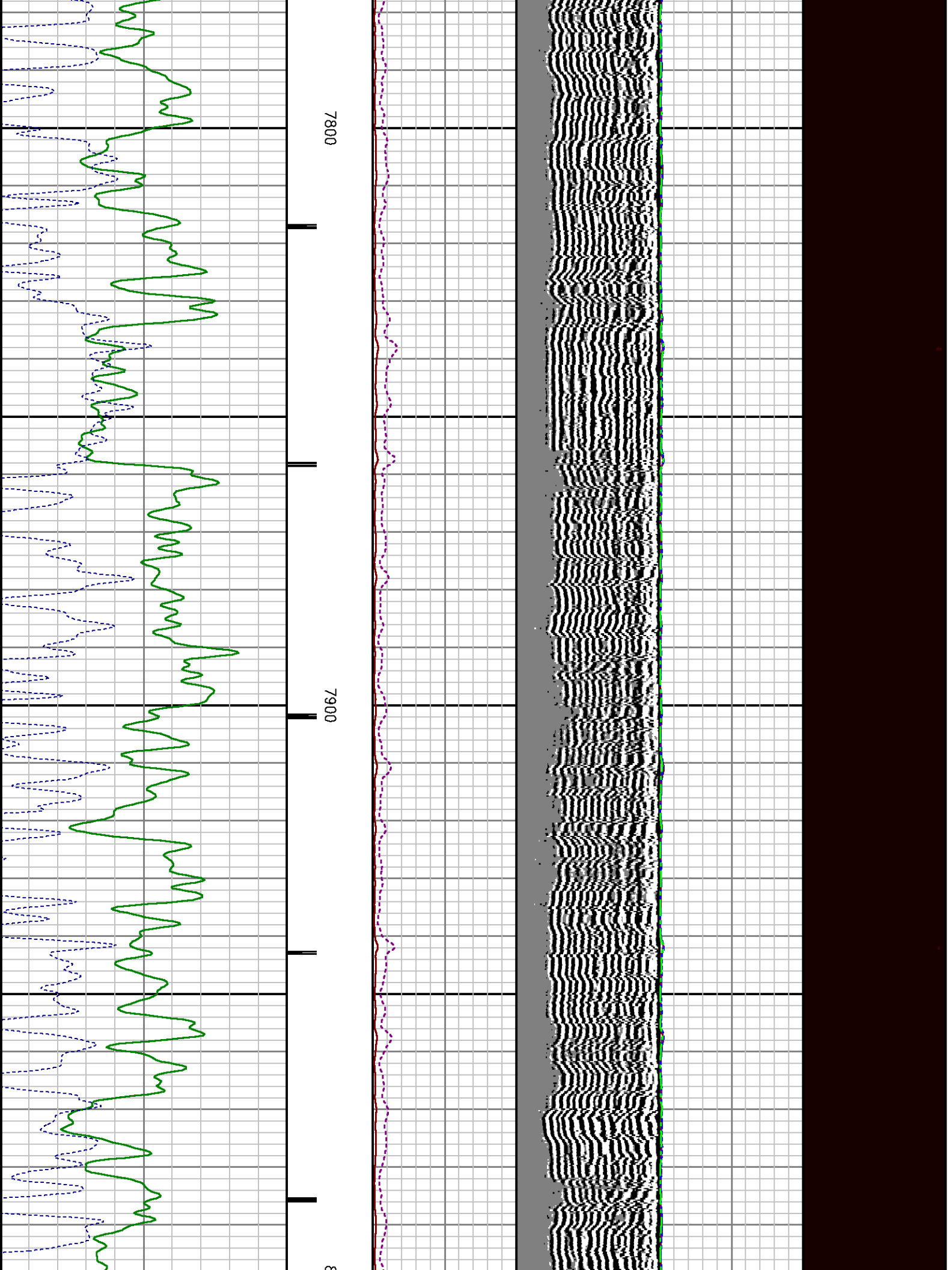


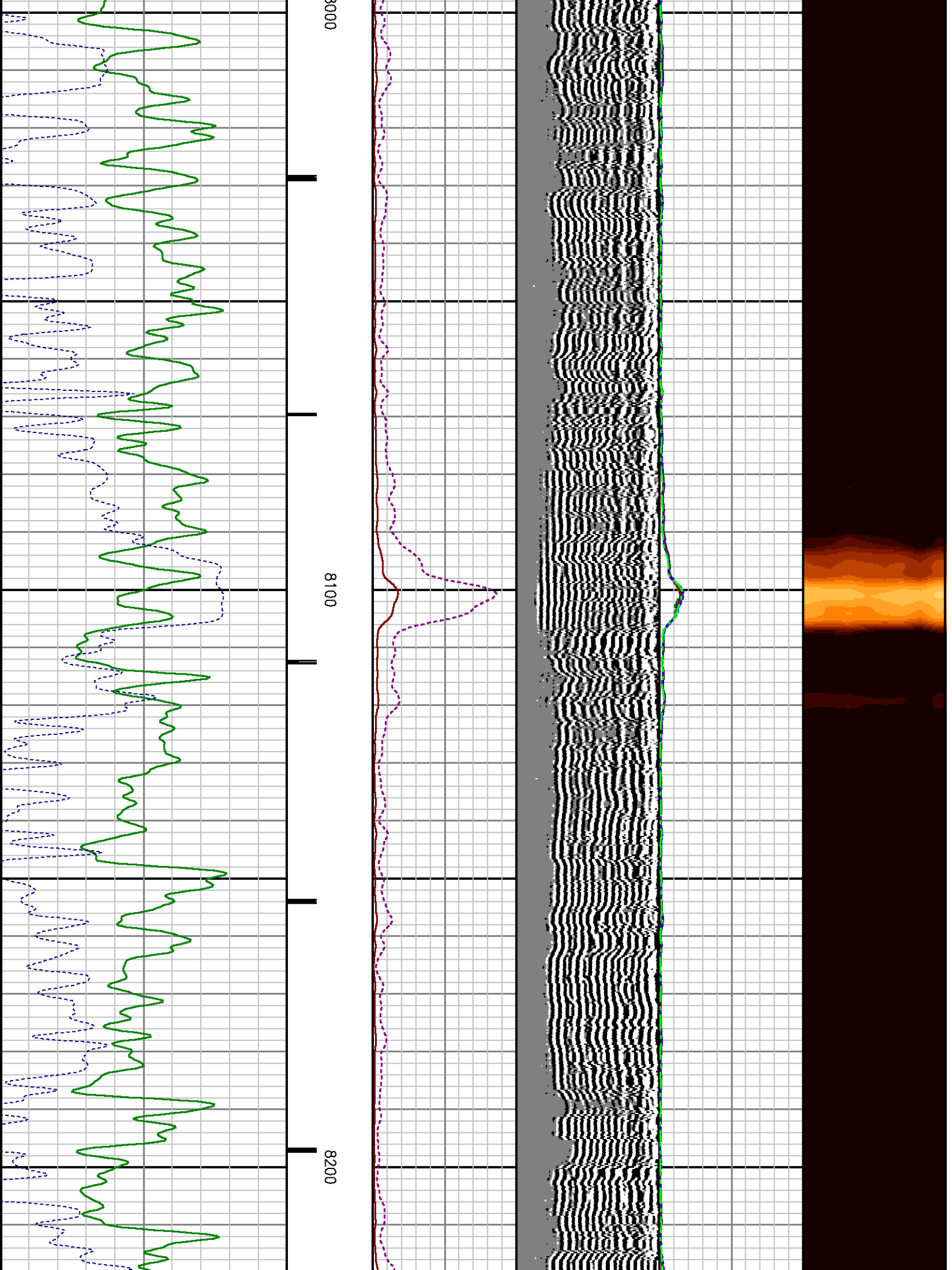


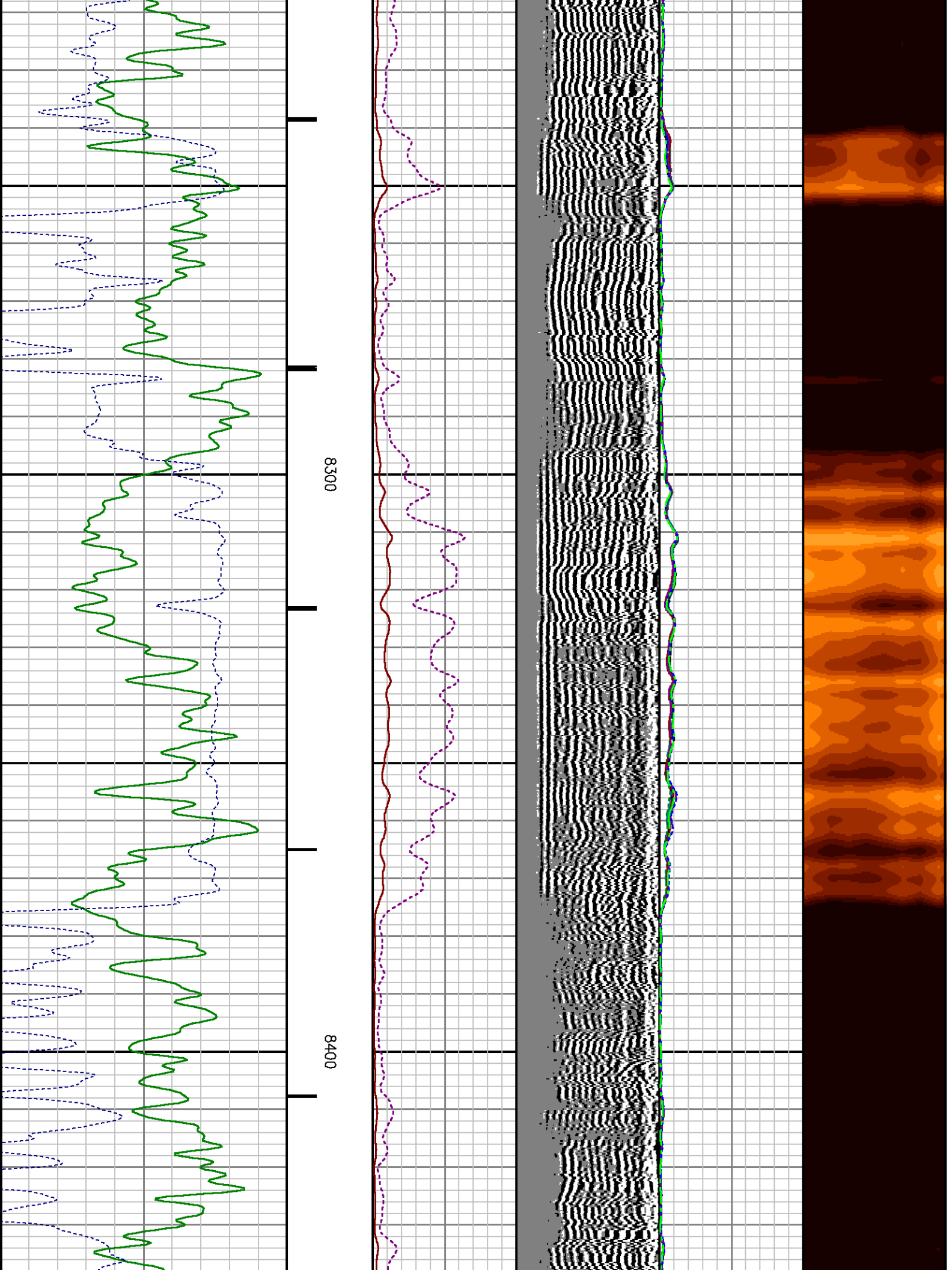


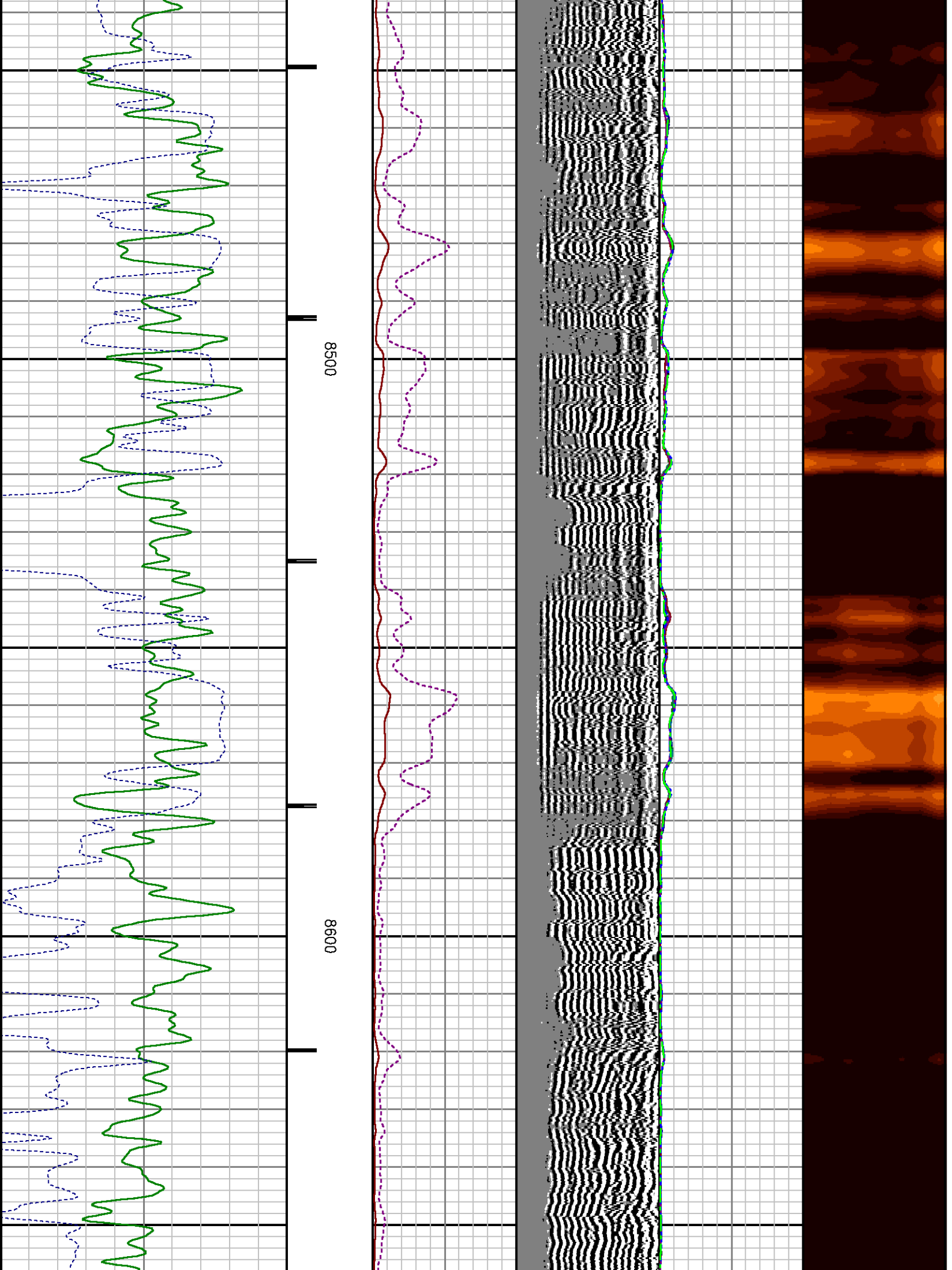


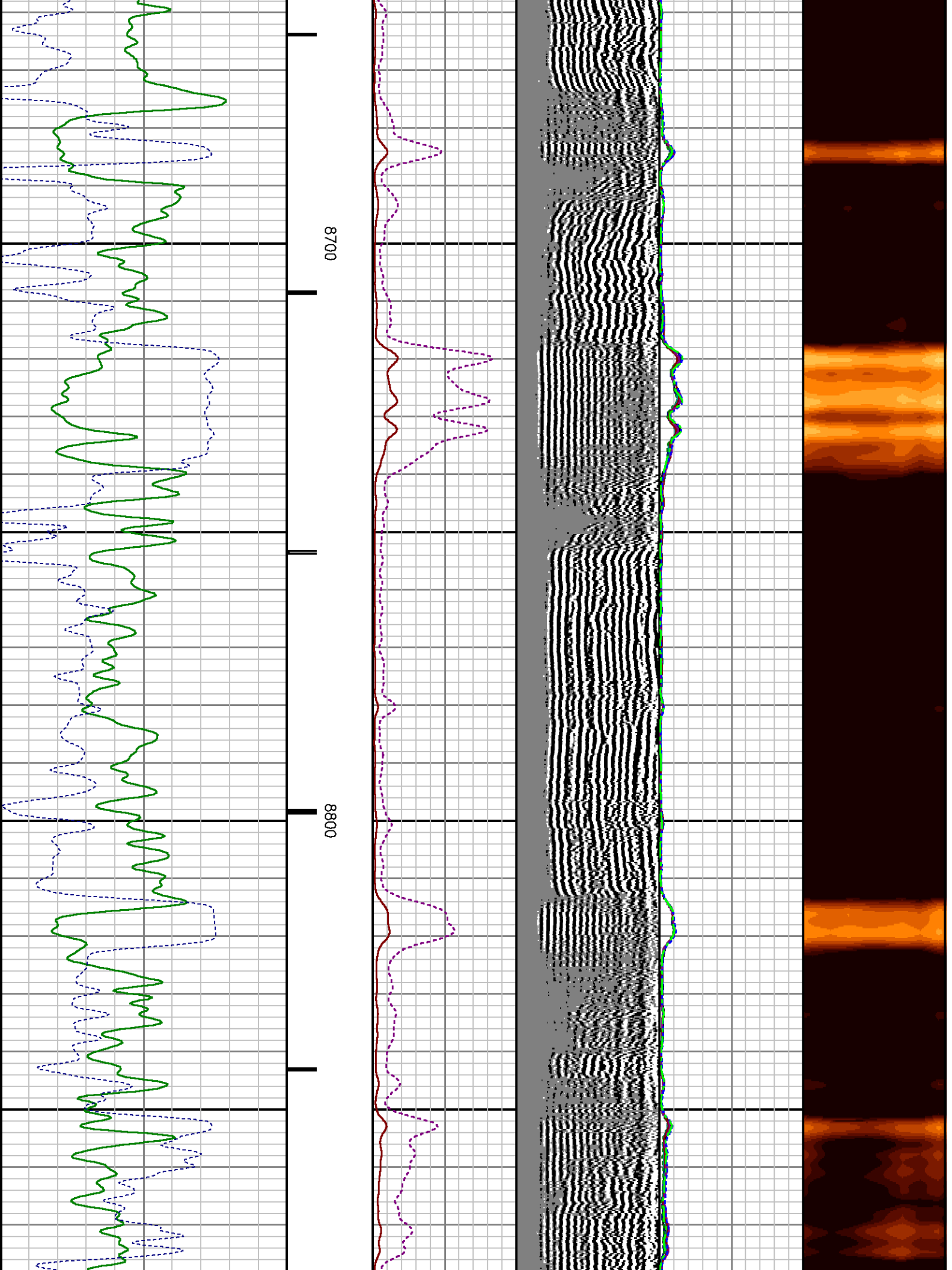




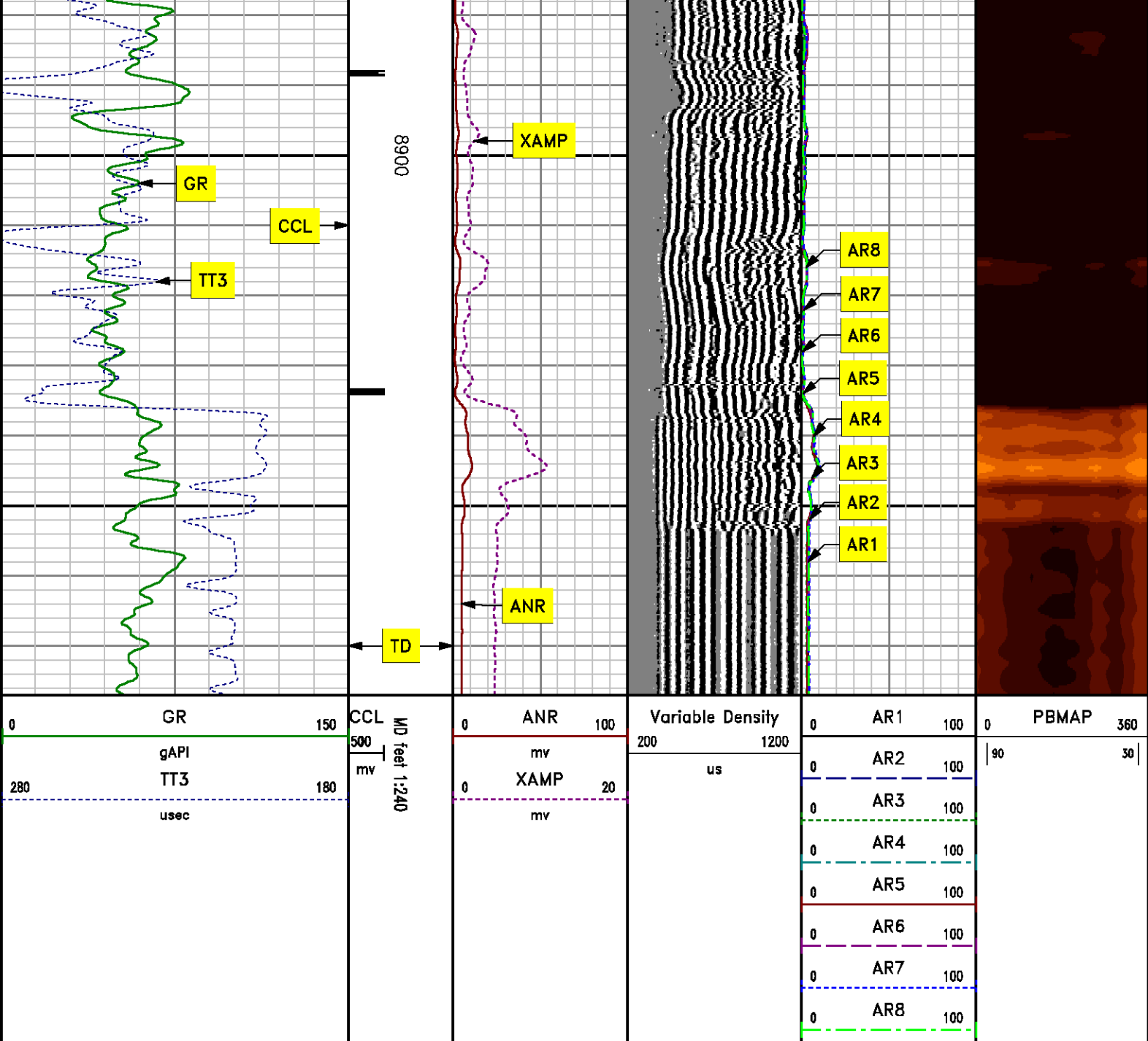








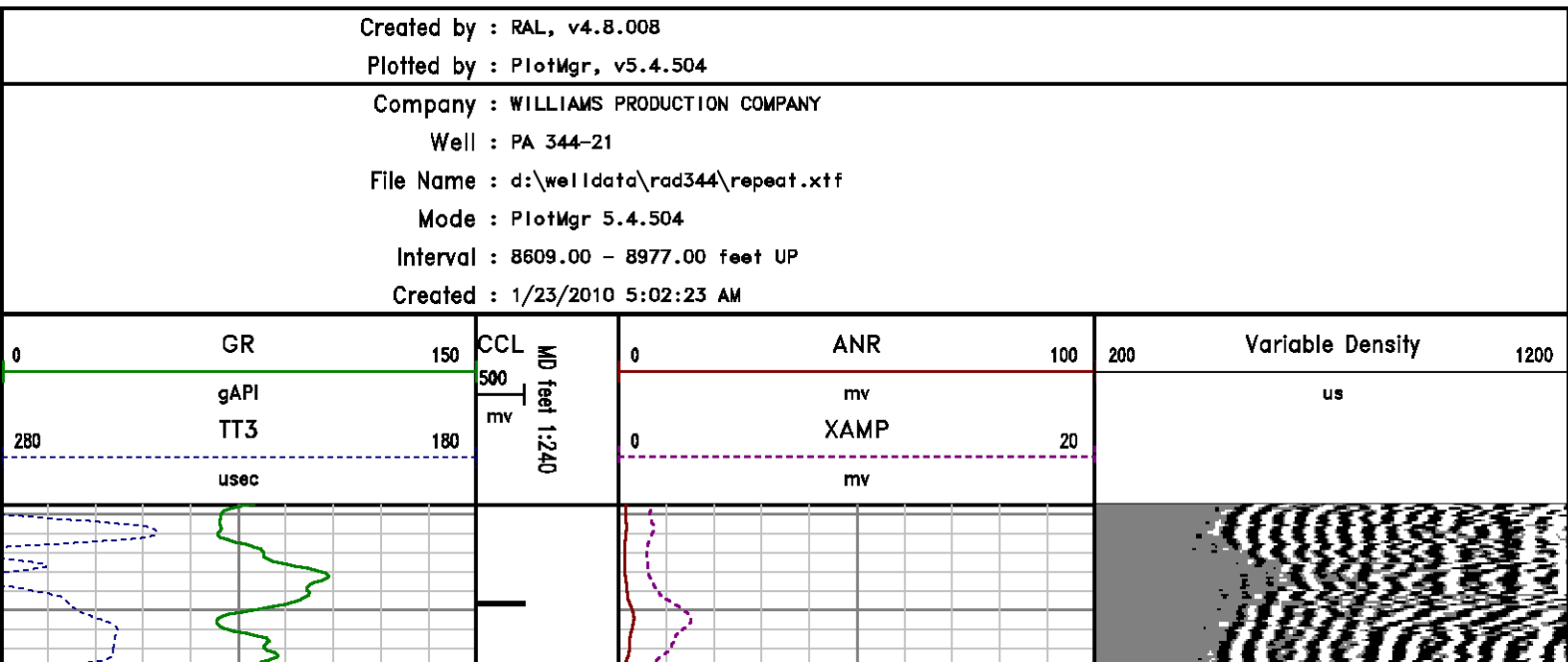


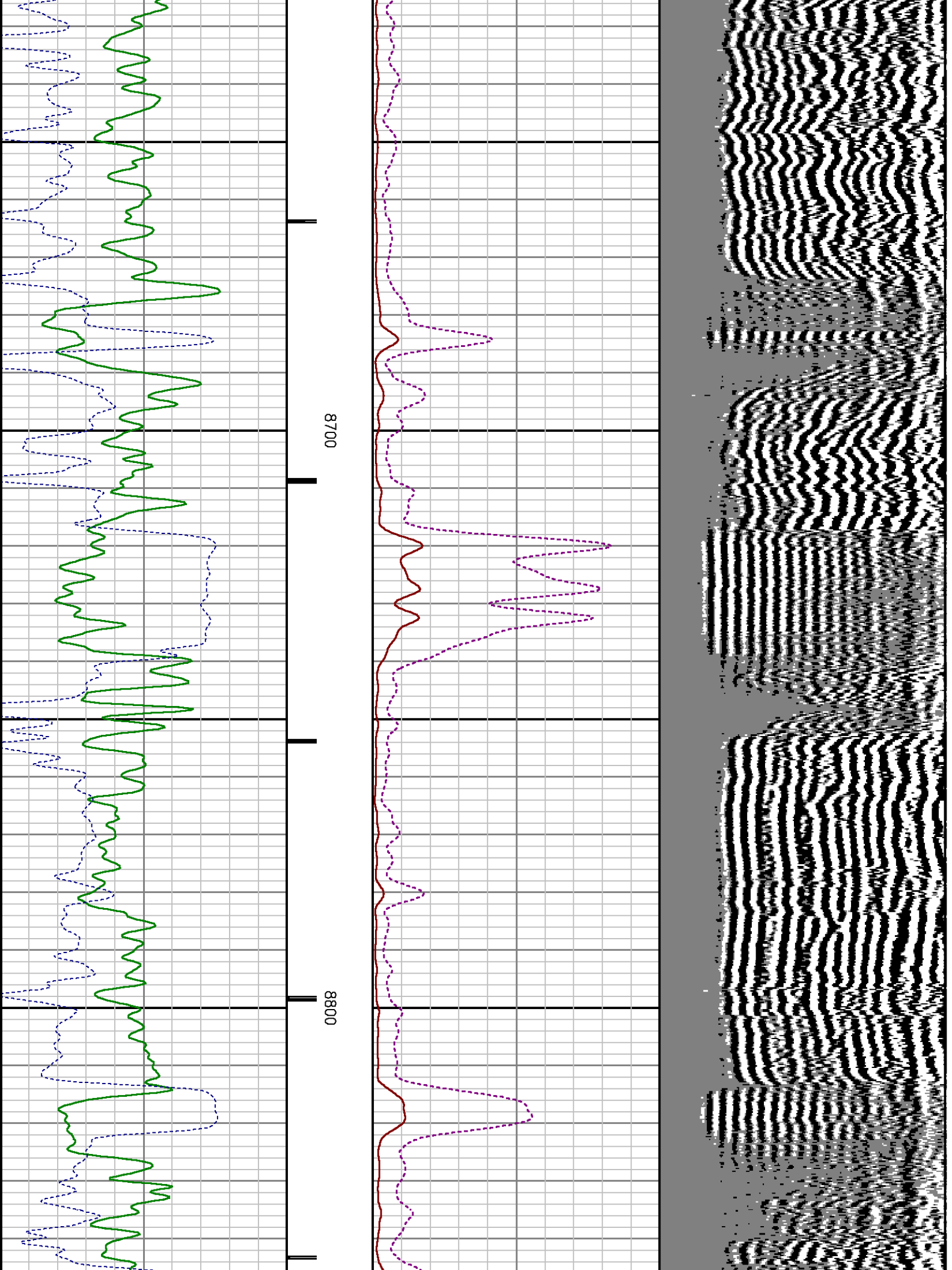


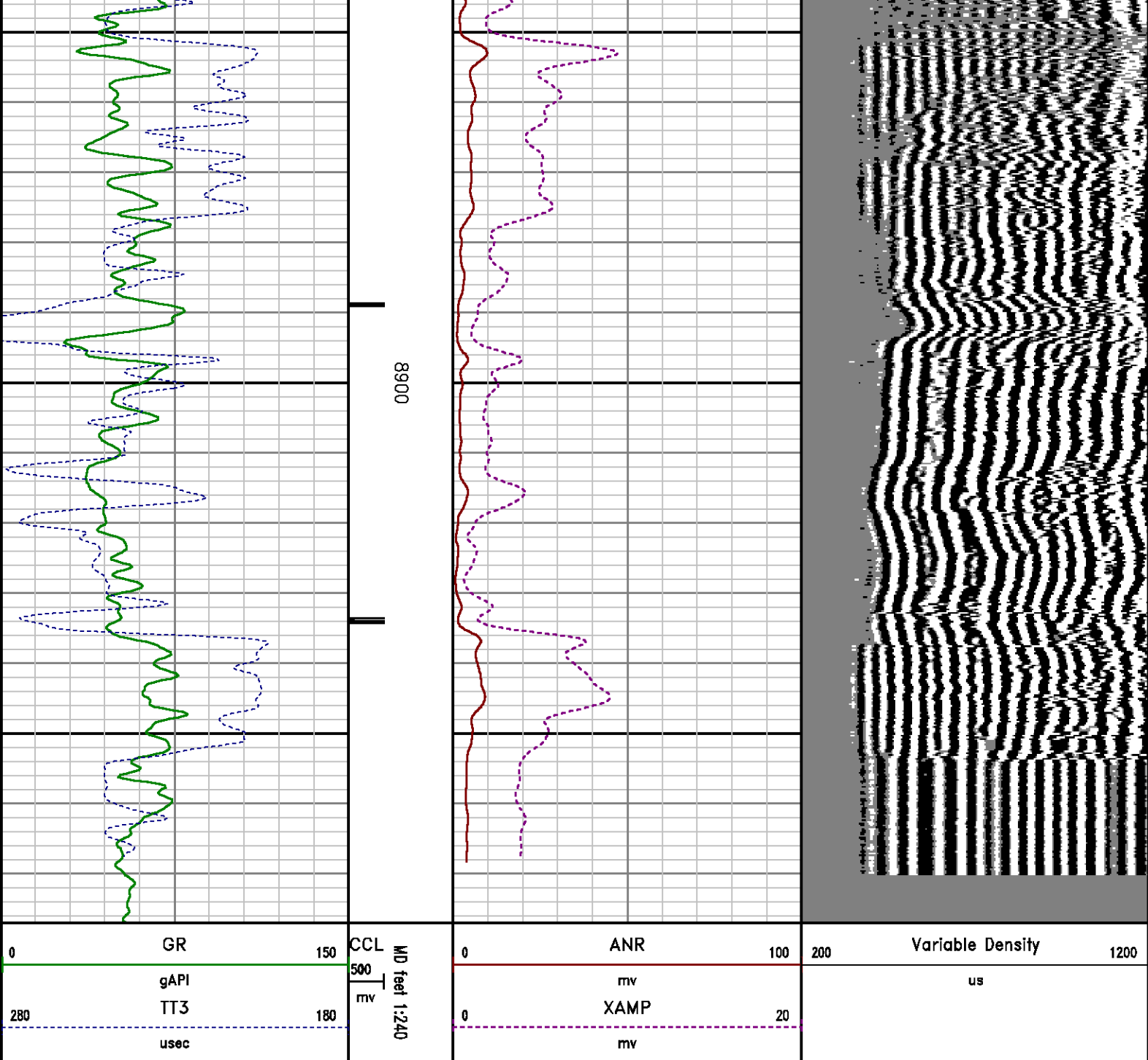
**REPEAT SECTION**  
**0 PSI**

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	316.900	usec	8599.750	8976.000
RAL	Amp Gate Start Near	200.391	usec	8599.750	8976.000
RAL	Amp Gate Start Radial	200.391	usec	8599.750	8976.000
RAL	Amp Gate Width Far	30.000	usec	8599.750	8976.000
RAL	Amp Gate Width Near	30.000	usec	8599.750	8976.000
RAL	Amp Gate Width Radial	30.000	usec	8599.750	8976.000
RAL	casing od	4.500	inches	8599.750	8976.000
RAL	casing wt	11.600	lbm/ft	8599.750	8976.000
RAL	FB Start Far	291.900	usec	8599.750	8976.000
RAL	FB Start Near	175.391	usec	8599.750	8976.000
RAL	FB Start Radial	175.391	usec	8599.750	8976.000
RAL	FB Thresh Far	10.000	mv	8599.750	8976.000
RAL	FB Thresh Near	4.000	mv	8599.750	8976.000
RAL	FB Thresh Radial	4.000	mv	8599.750	8976.000
RAL	Fluid Travel Time	200.000	usec/ft	8599.750	8975.937

DEPTH OFFSETS (for Acquired Curves)							
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-15.360	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	-14.360	AFAR	SIG	TT5			
1426XA	-7.250	CCL					
1426XA	-5.390	GR					
1426XA	0.000	NEU					







## CALIBRATION SUMMARY

## GAMMA RAY

DATE/TIME PERFORMED: Sat Jan 02 22:29:15 2010

TOOL SERIES:

2459XA

ASSET:

544

SEQ: JA

Calibrator #

Background

Calibrator On

Multiplicative

Background

Calibrator On

Differential

[cps]

[cps]

[api]

[api]

[api]

BA 856

57.69

258.71

0.920

53.09

238.09

185.00

Verification File: C:\case\calver\GR\544JA.VP

## PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Sat Jan 02 22:31:42 2010

TOOL SERIES:

2459XA

ASSET:

544

SEQ: JA

Calibrator #

Background

Calibrator On

Multiplicative

Background

Calibrator On

Differential

[cps]

[cps]

[api]

[api]

[api]

BA 856

58.09

262.58

0.920

53.46

241.65

188.19

*RALSHP*

Shop Calibration: C:\case\calver\RALSHP\UNK21JA shp.cal

## SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Jan 21 21:28:52 2010

TOOL SERIES:

1426XA

ASSET:

UNK

SEQ: 21JA

Tool Delay  
[usec]

-52.00

Tank OD  
in

5.50

Tank Wt  
lbm/ft

15.50

Tank ID  
in

4.95

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

224

216

30

166

25

0.656

100.00

0.11

3 Ft. Receiver

224

216

30

138

43

0.114

100.00

0.10

5 Ft. Receiver

332

326

30

240

46

0.651

150.00

0.12

Radial #1

224

216

30

152

31

2.154

100.00

0.10

Radial #2

225

216

30

152

31

0.497

100.00

0.10

Radial #3

225

216

30

152

31

0.318

100.00

0.10

Radial #4

225

216

30

152

31

0.135

100.00

0.10

Radial #5

224

216

30

152

31

0.020

100.00

0.10

Radial #6

223

216

30

152

31

-0.336

100.00

0.10

Radial #7

222

216

30

152

31

0.051

100.00

0.10

Radial #8

224

216

30

152

31

-0.185

100.00

0.10

*RALFLD*

Wellsite Calibration: C:\case\calver\RALFLD\UNK21JA fld.cal

## WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Jan 21 21:36:58 2010

TOOL SERIES:

1426XA

ASSET:

UNK

SEQ: 21JA

Tool Delay  
[usec]

-52.00

Casing OD  
in

4.50

Casing Wt  
lbm/ft

11.60

Casing ID  
in

4.00



RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	166	25	-0.009	0.000	0.99	100.000
3 Ft. Receiver	200	30	-0.776			
5 Ft. Receiver	317	30	-2.100			
Radial #1	200	30	-1.177			
Radial #2	200	30	-1.419			
Radial #3	200	30	-1.118			
Radial #4	200	30	-1.309			
Radial #5	200	30	-1.002			
Radial #6	200	30	-1.168			
Radial #7	200	30	-1.155			
Radial #8	200	30	-1.107			

## TOOL DIAGRAM

### OTA SHORT CABLE HEAD

#### CENTRALIZER

Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb

### PROBE 2 3/4 DUAL RECEIVER RADII

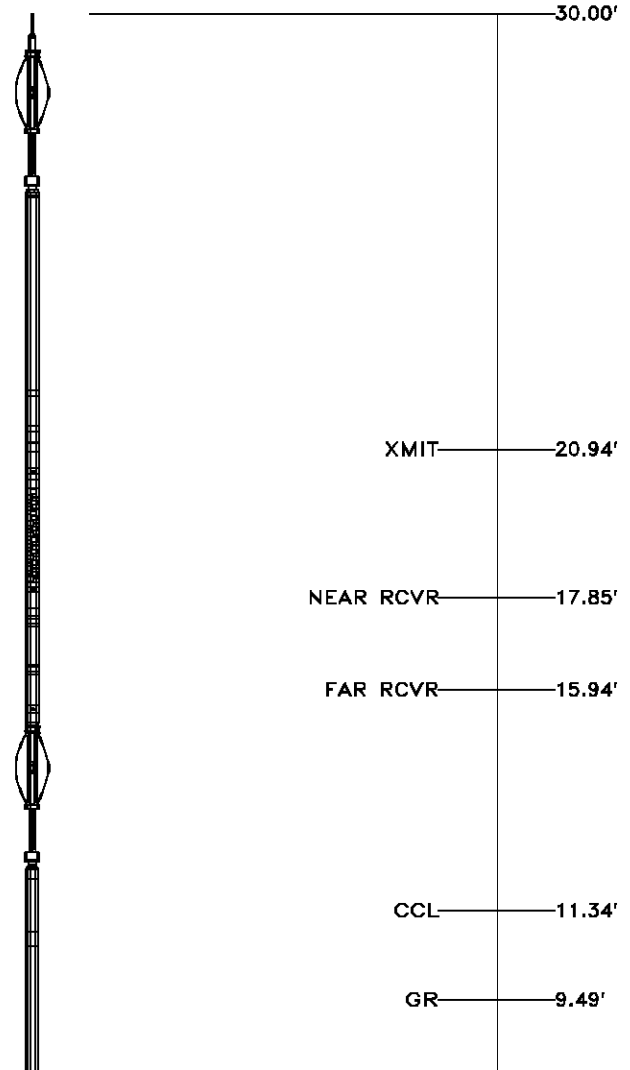
Series	1426XA
Mnemonic	PROB
Diameter	2.75"
Length	11.17'
Measure Point	0.75' FAR RCVR
Measure Point	2.67' NEAR RCVR
Measure Point	5.75' XMIT
Temp Rating	350.00 °F
Press Rating	18000.00 PSI

#### CENTRALIZER

Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb

### Probe GR/CCL/NEU

Series	2459XA
Mnemonic	PROB
Diameter	2.75"



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

NEU 4.09'

0.00'

*Total Length: 30.00'**Total Weight: Not Available**Max Diameter: 0' 3.12"***Company**

WILLIAMS PRODUCTION COMPANY

**Well**

PA 344-21

**Field**

PARACHUTE

**County**

GARFIELD

**State**

COLORADO

**File No:**

1589

**API No:**

05045184010000

**Location**

SHL:1893'FNL &amp; 1769'FEL S28 T6S R95W

BHL:857'FNL &amp; 252' FEL S21 T6S R95W

**Elevations**

KB 5582 ft

DF 5581 ft

GL 5558 ft

21 6S 95W

DOE 1-W-28 PAD

HP 271

SEC 21

TWP 6S

RGE 95W

**Baker Atlas**