



# RADIAL ANALYSIS BOND LOG

## Baker Atlas

File No: CH082696	Company Well	WPX ENERGY PA 13-2
API No: 05045221520000	Field County	PARACHUTE GARFIELD
	State	CO
	Location	Other Services
2 7S 95W GV 86-2 PAD AZTEC 1000	SHL: 2074' FSL & 1534' FWL BHL: 2394' FSL & 581' FWL	RPM
	SEC 2 TWP 7S RGE 95W	
Permanent Datum Log Measured From Drill Measured From	GL Elevation 5821 ft KB 25 ft Above P. D. KB	Elevations KB 5845 ft DF GL 5821 ft

Date	08/MAR/14	
Run	ONE	
Service Order	US625355	
Depth Driller	7540 ft	
Depth Logger	7491 ft	
Bottom Logged Interval	7481 ft	
Top Logged Interval	25 ft	
Time Started	7:30	
Time Finished	11:30	
Operator Rig Time	4 HOURS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	86 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	65 fpm	
Maximum Recorded Temperature	220 degF	
Reference Log	BAKER HUGHES OPEN HOLE LOG	
Reference Log Date	09/FEB/2014	
Equipment No.	4271	GRAND JCT.
Recorded By	NEWELL	
Witnessed By	DUSTIN WELSH	

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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
13.5 In	0 ft	862 ft
8.75 In	862 ft	7623 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 In			0 ft	862 ft
4.5 In	11.6 lbm/ft	1-80	0 ft	7623 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes HDIL/ZDL/CN/GR open hole log dated 2/09/2014 at the clients request.
The depth matching process creates potential for collar lengths to vary from those recorded on other cased hole wireline units without a Gamma Ray reference.

The amount of linear shift is 3 feet.

Logged with zero PSI at wellhead.

BHT = 220 °F

SJ = 4270'–4294'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	CBL	1426XA	10404539	CENTRALIZED
1	1	GR/CCL	2459XA	10124121	CENTRALIZED

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

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	24.223	7496.000
RAL	Amp Gate Start Near	195.000	usec	24.223	7496.000
RAL	Amp Gate Start Radial	195.000	usec	24.223	7496.000
RAL	Amp Gate Width Far	25.000	usec	24.223	7496.000
RAL	Amp Gate Width Near	25.000	usec	24.223	7496.000
RAL	Amp Gate Width Radial	25.000	usec	24.223	7496.000
RAL	casing od	4.500	inches	24.223	7496.000
RAL	casing wt	11.600	lbm/ft	24.223	7496.000
RAL	FB Start Far	291.900	usec	24.223	7496.000
RAL	FB Start Near	175.391	usec	24.223	7496.000
RAL	FB Start Radial	175.391	usec	24.223	7496.000
RAL	FB Thresh Far	15.000	mv	24.223	7496.000
RAL	FB Thresh Near	10.000	mv	24.223	7496.000
RAL	FB Thresh Radial	10.000	mv	24.223	7496.000
RAL	Fluid Travel Time	200.000	usec/ft	24.223	7496.000

**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

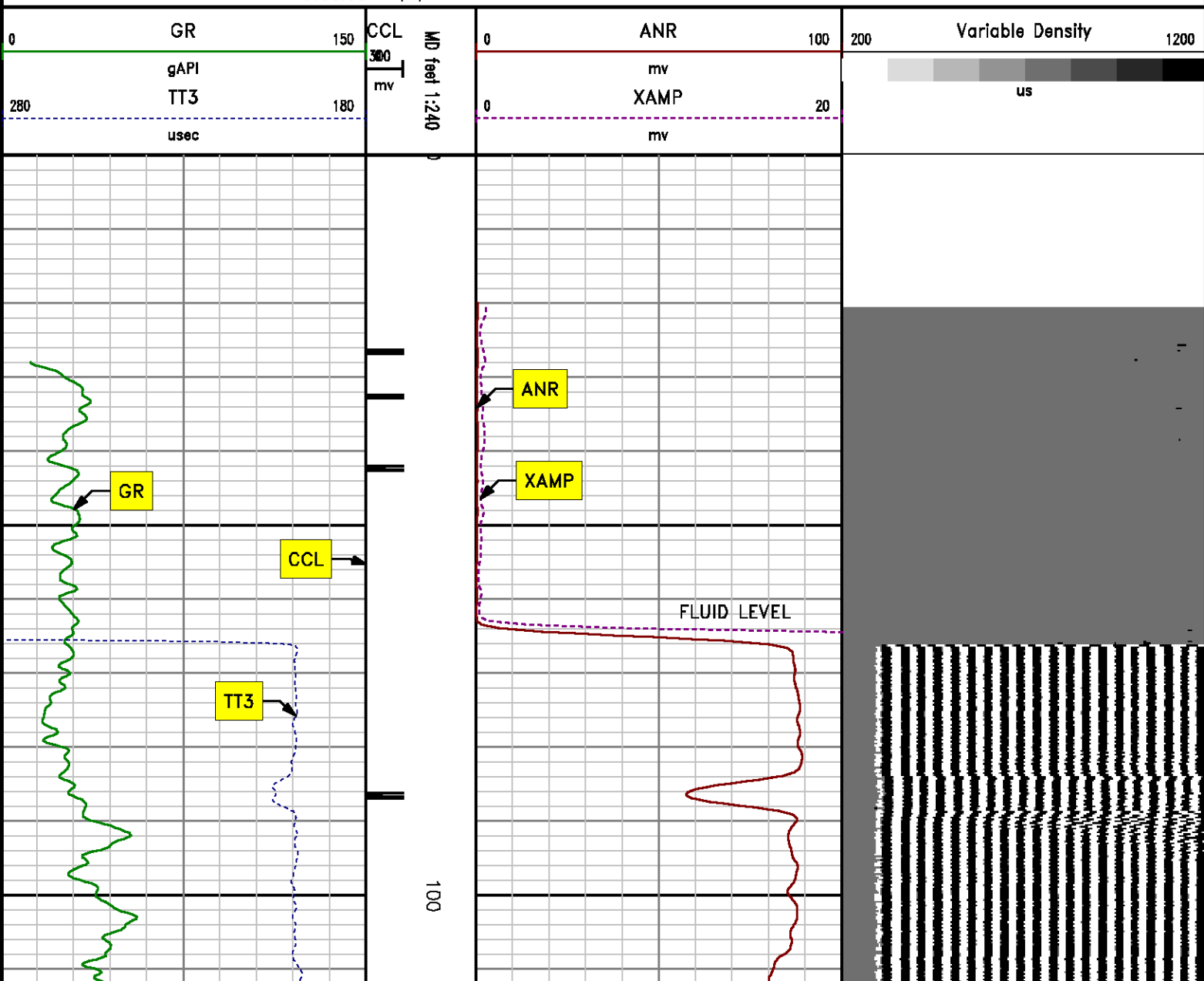
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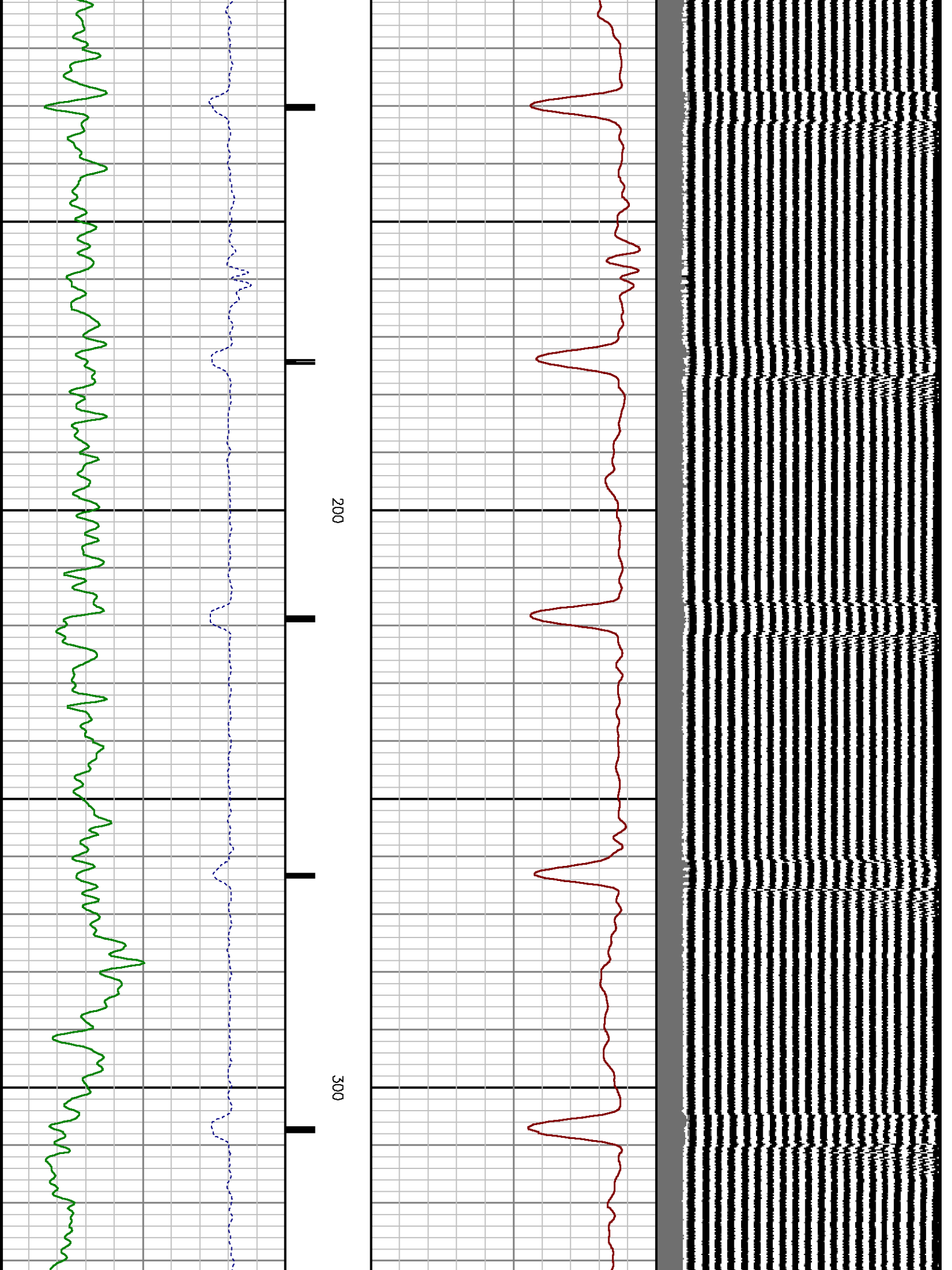
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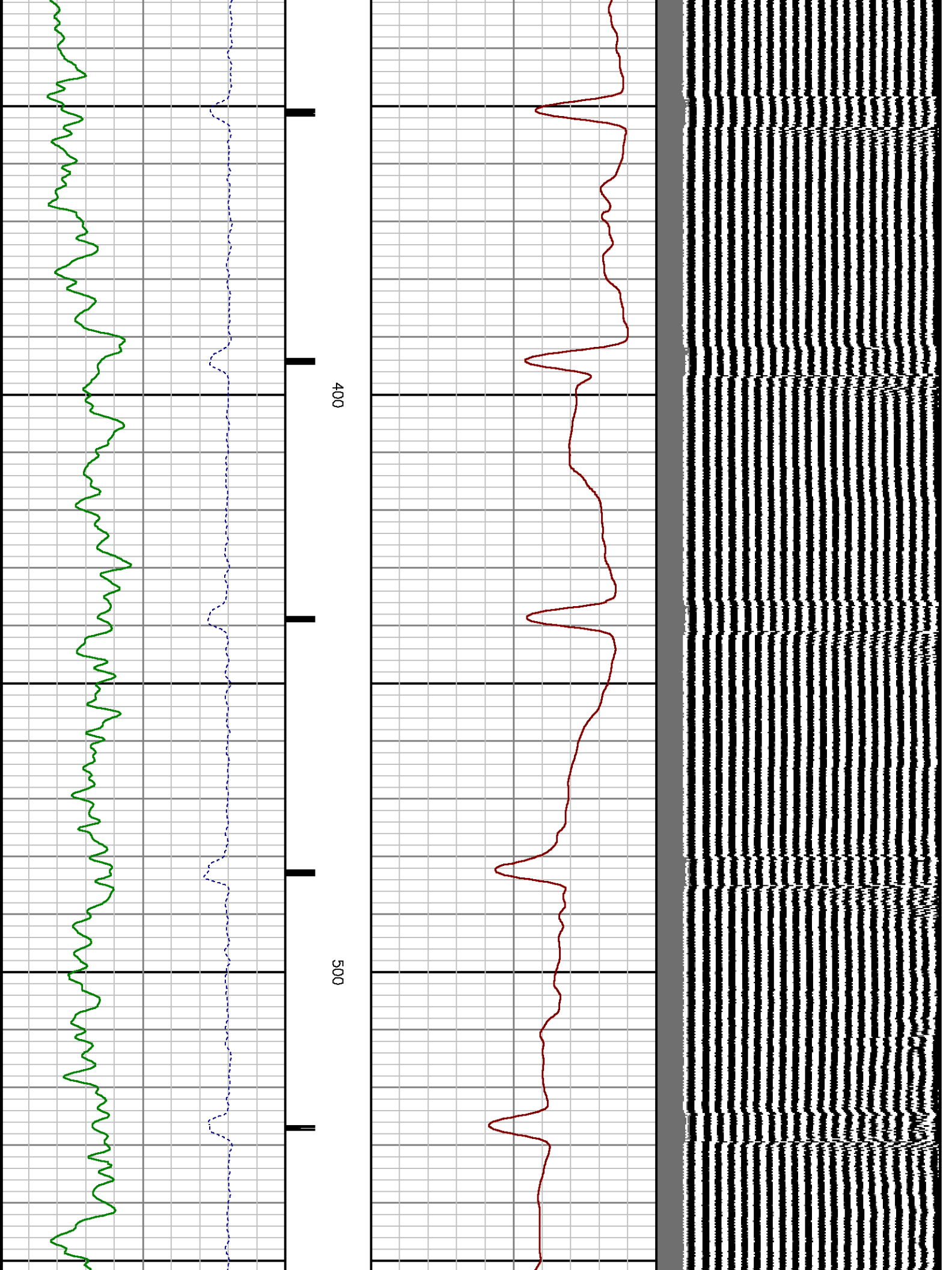
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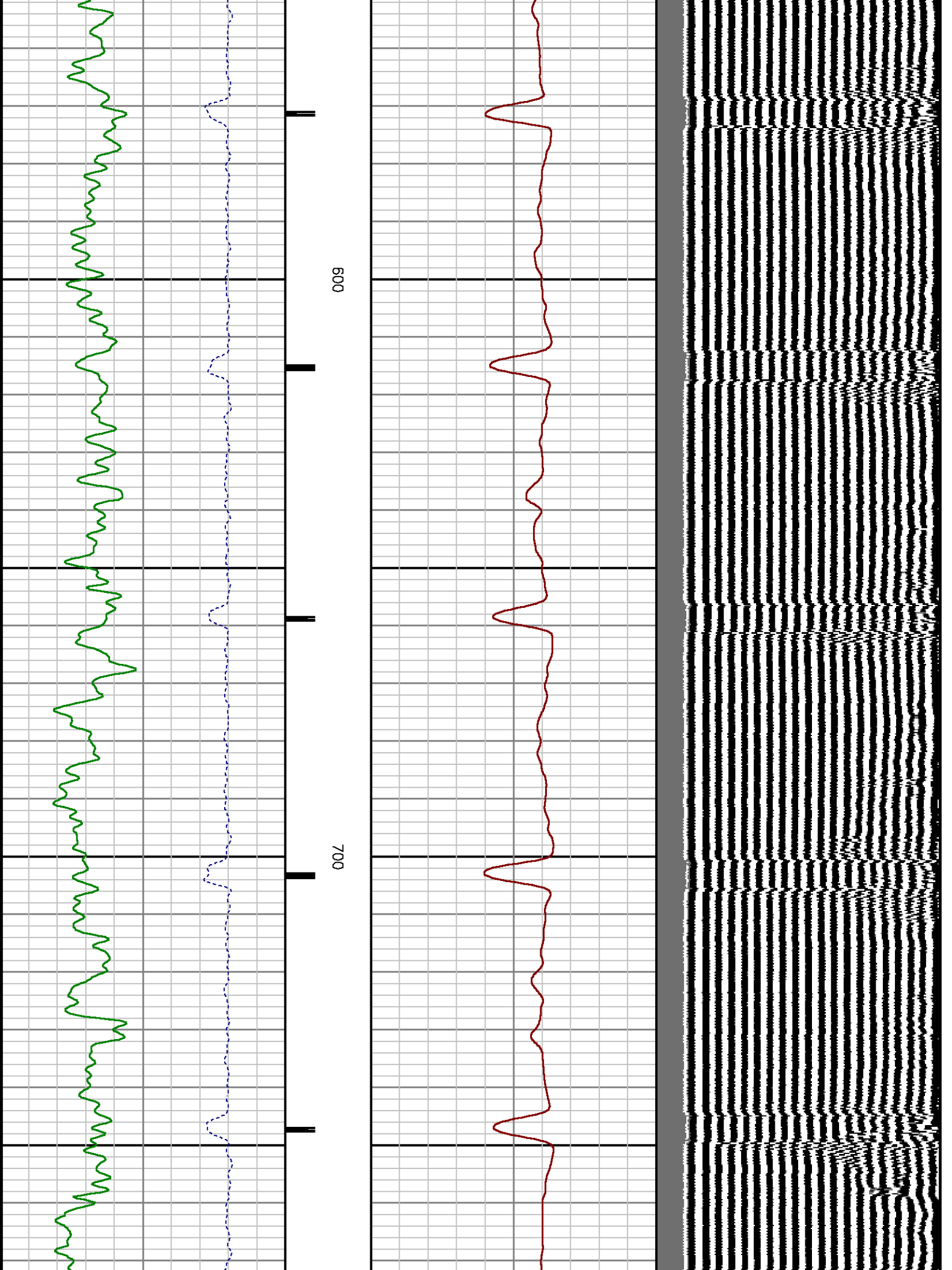
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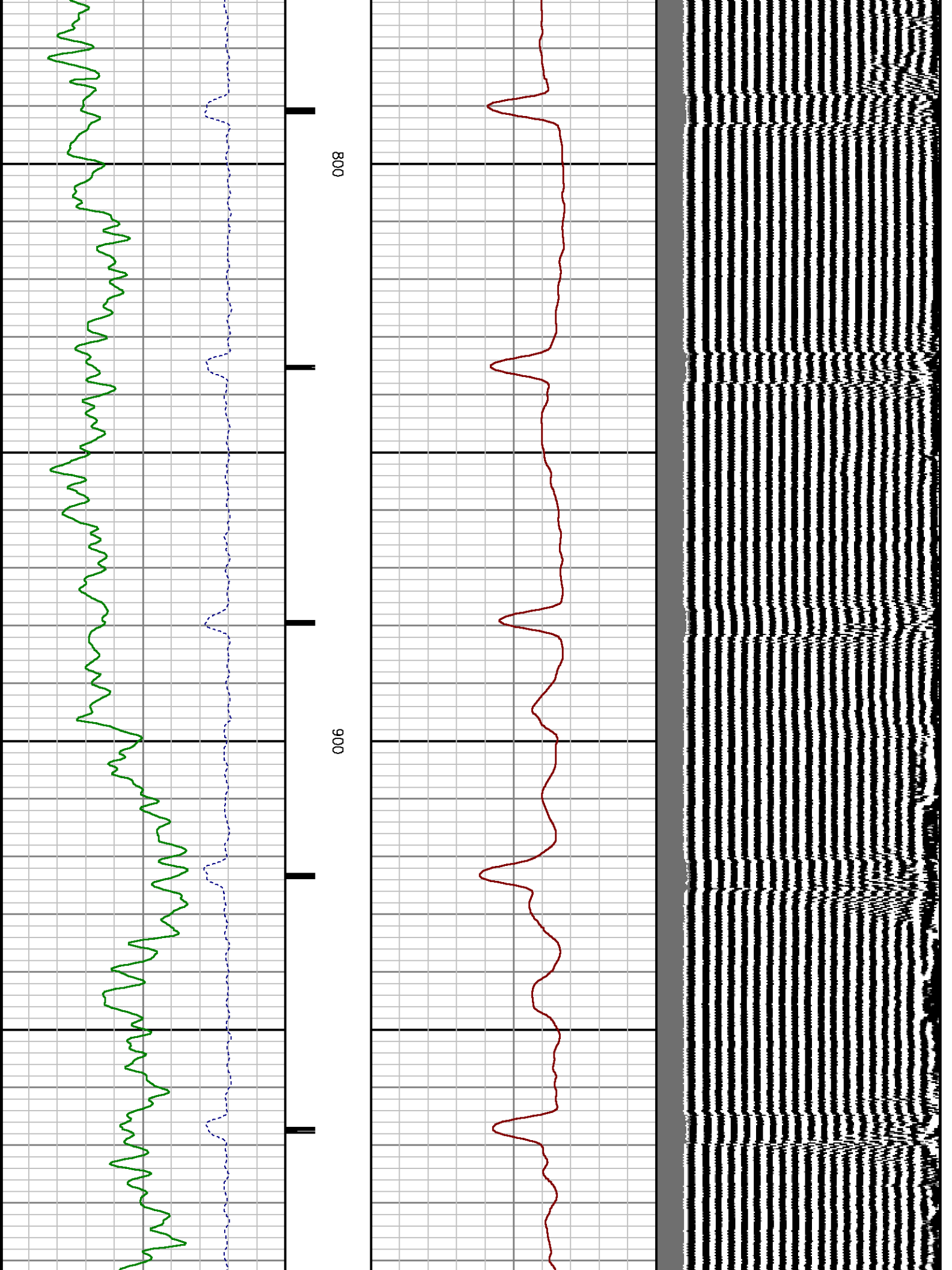
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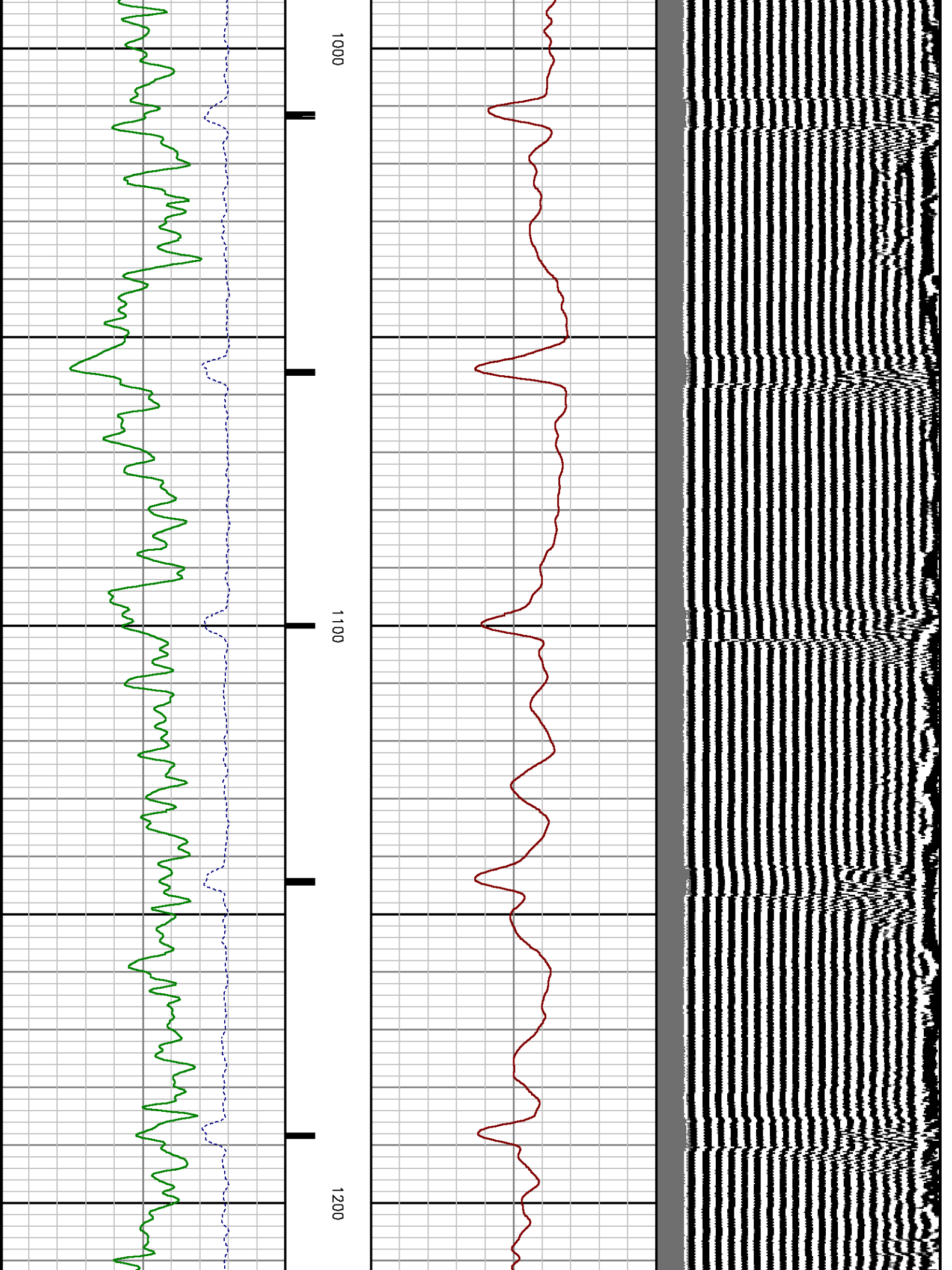




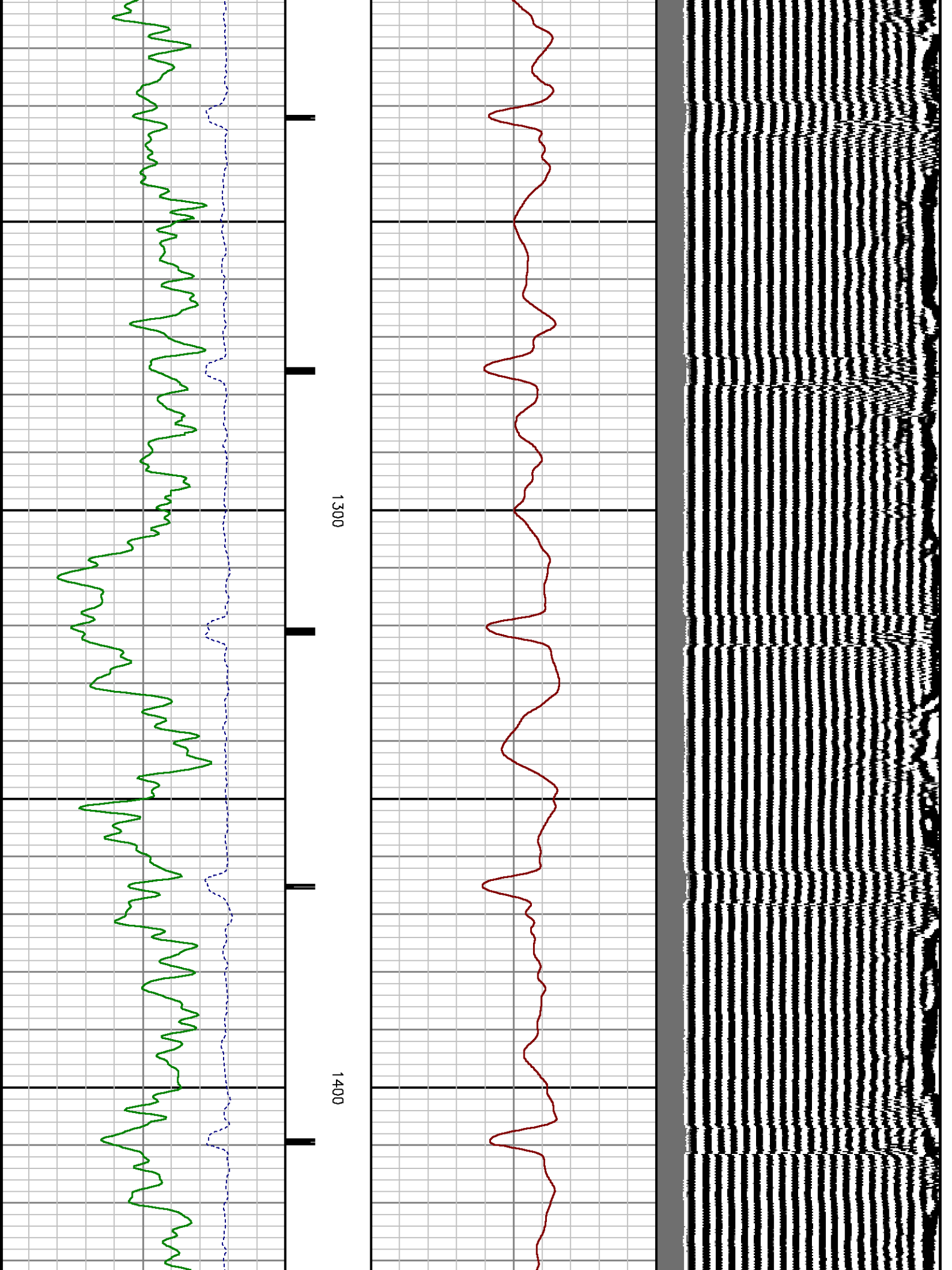


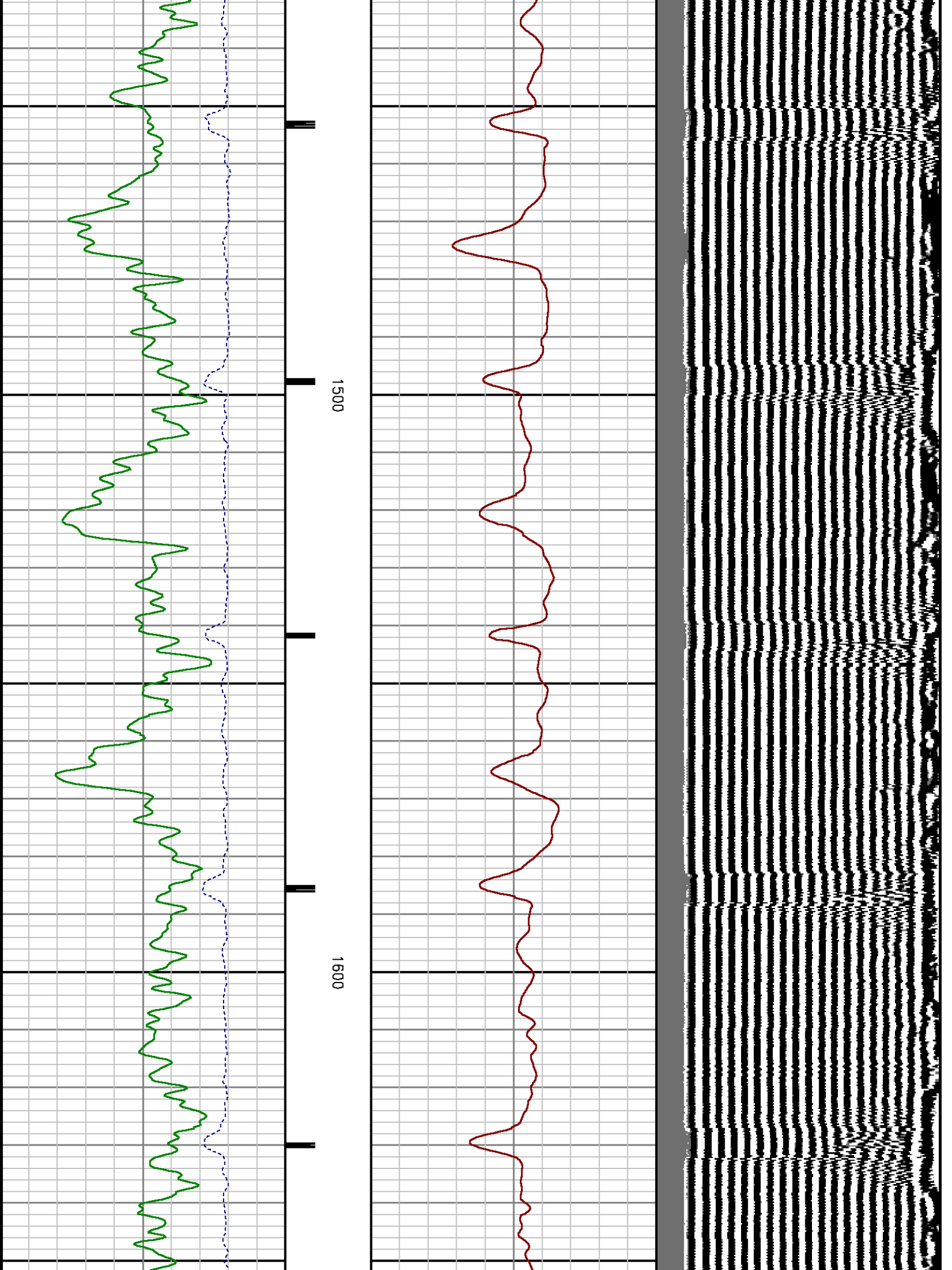


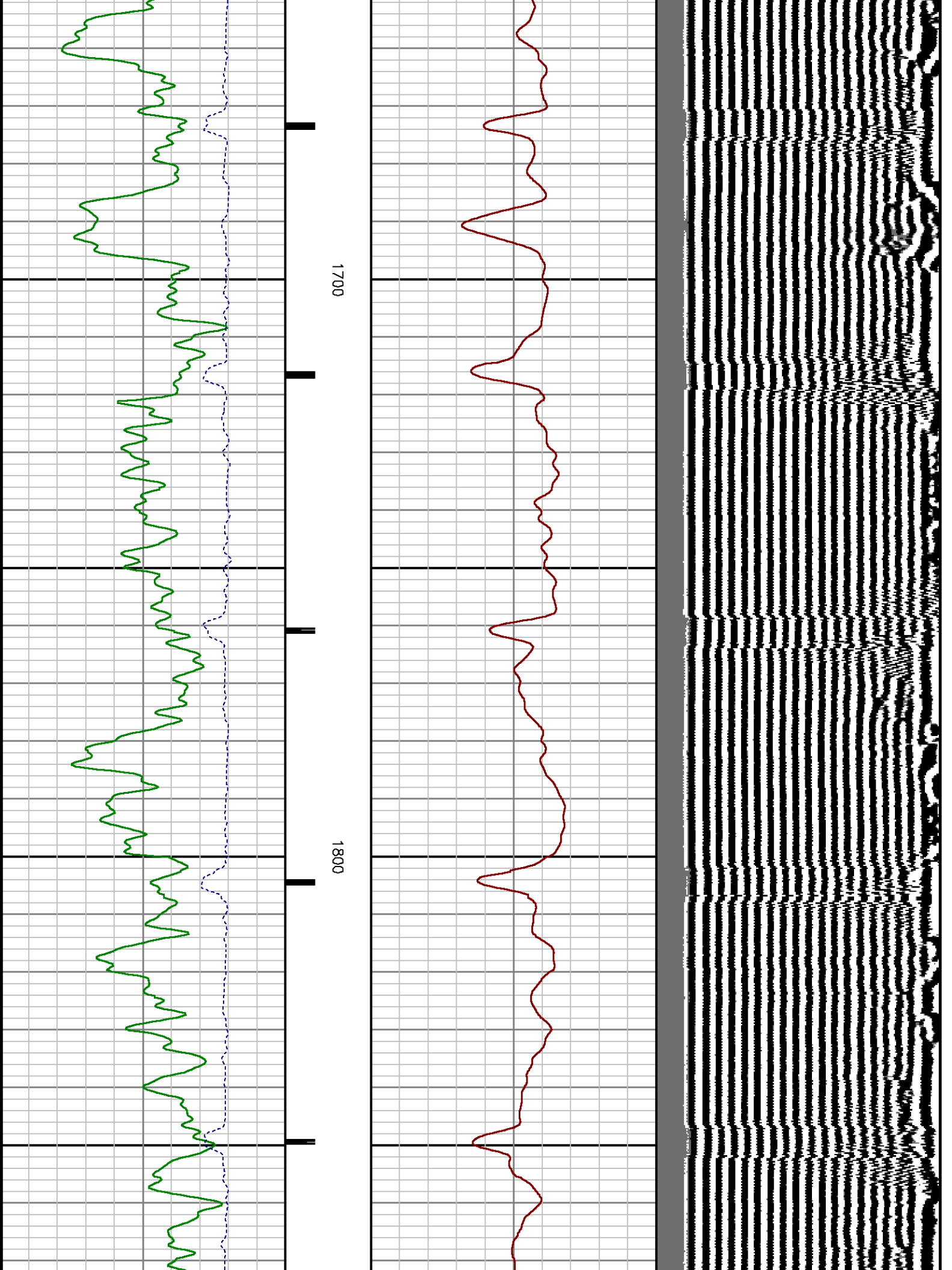


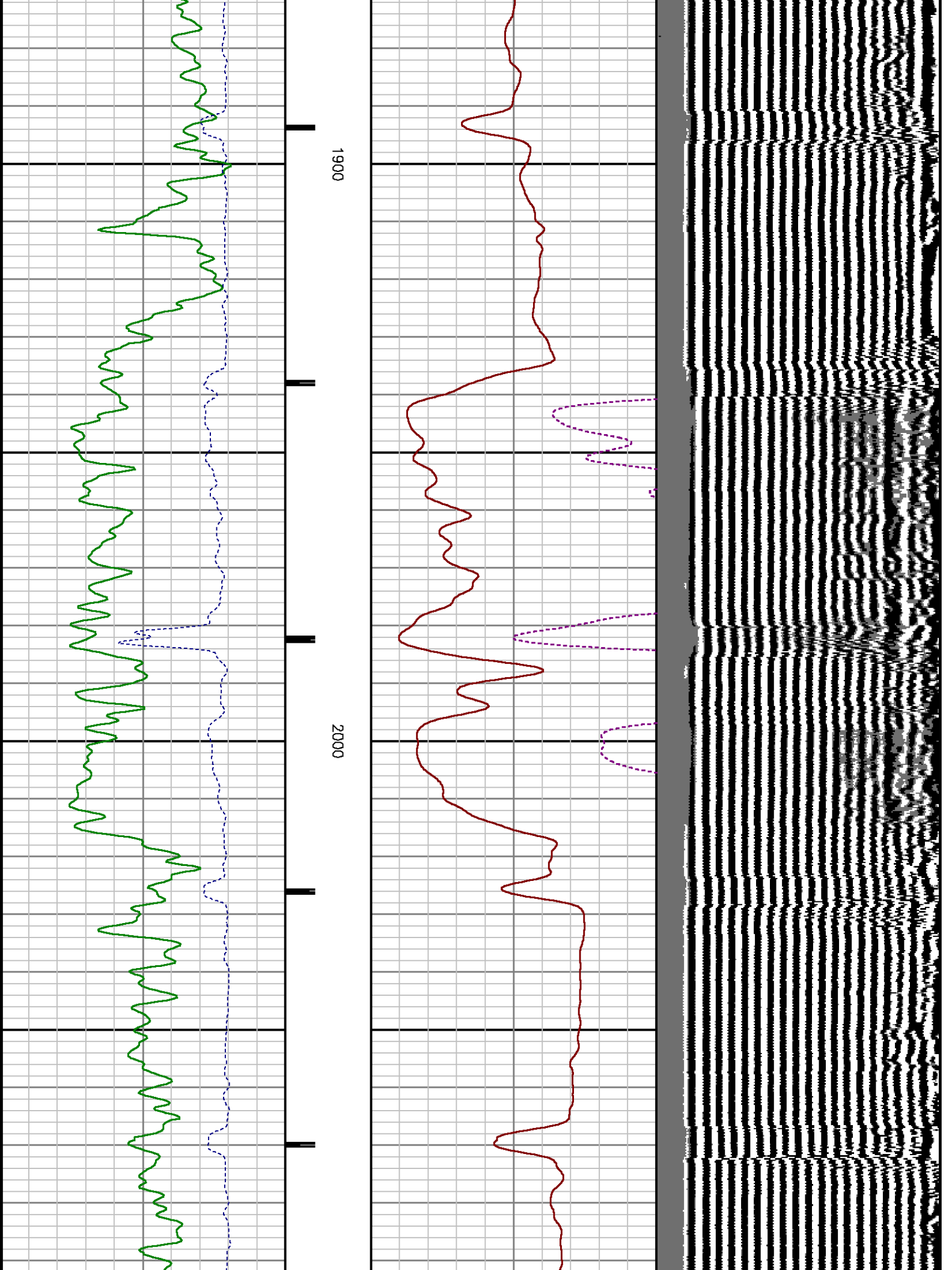


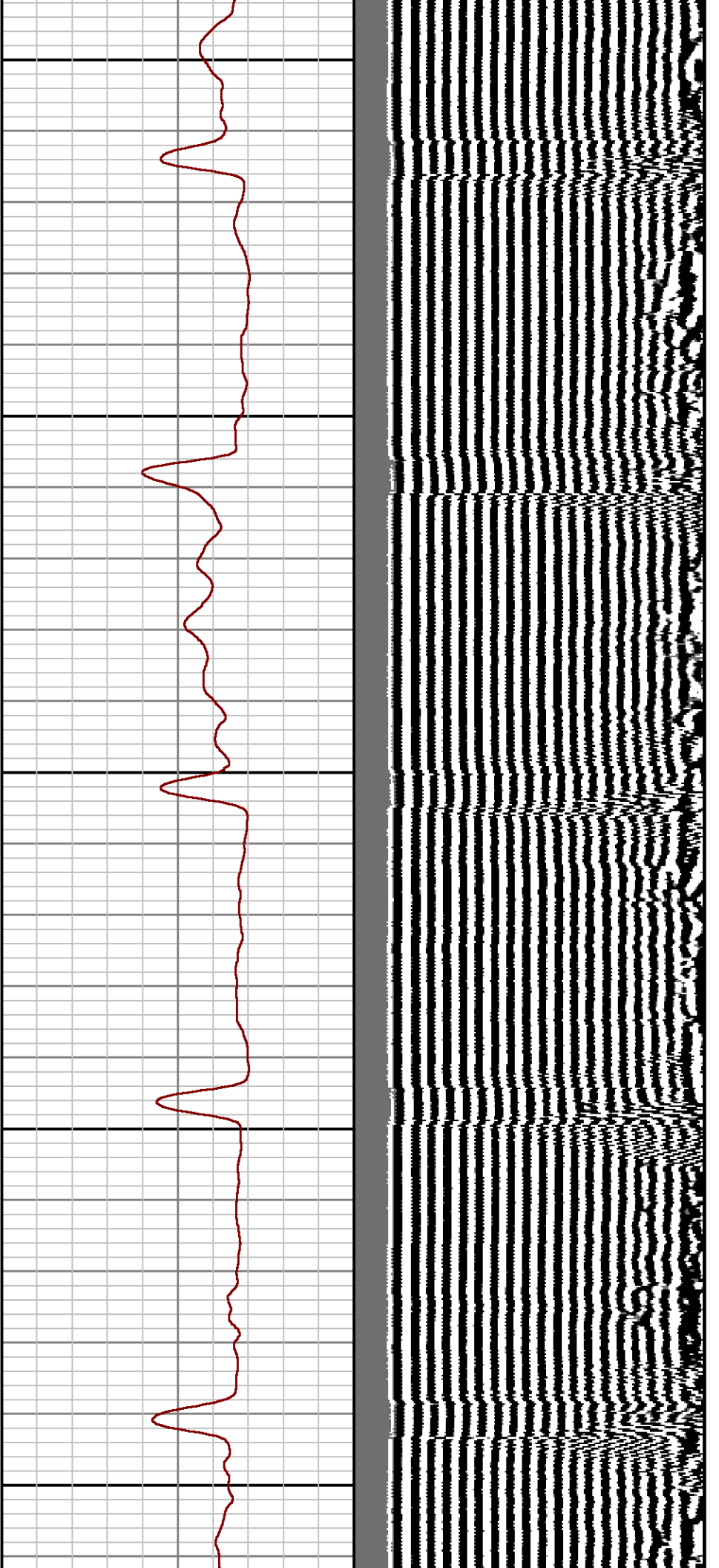








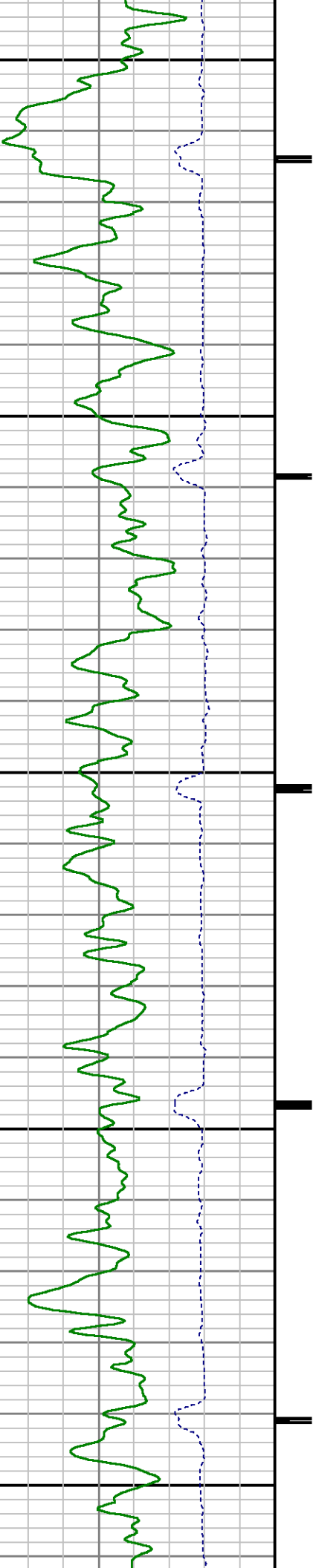




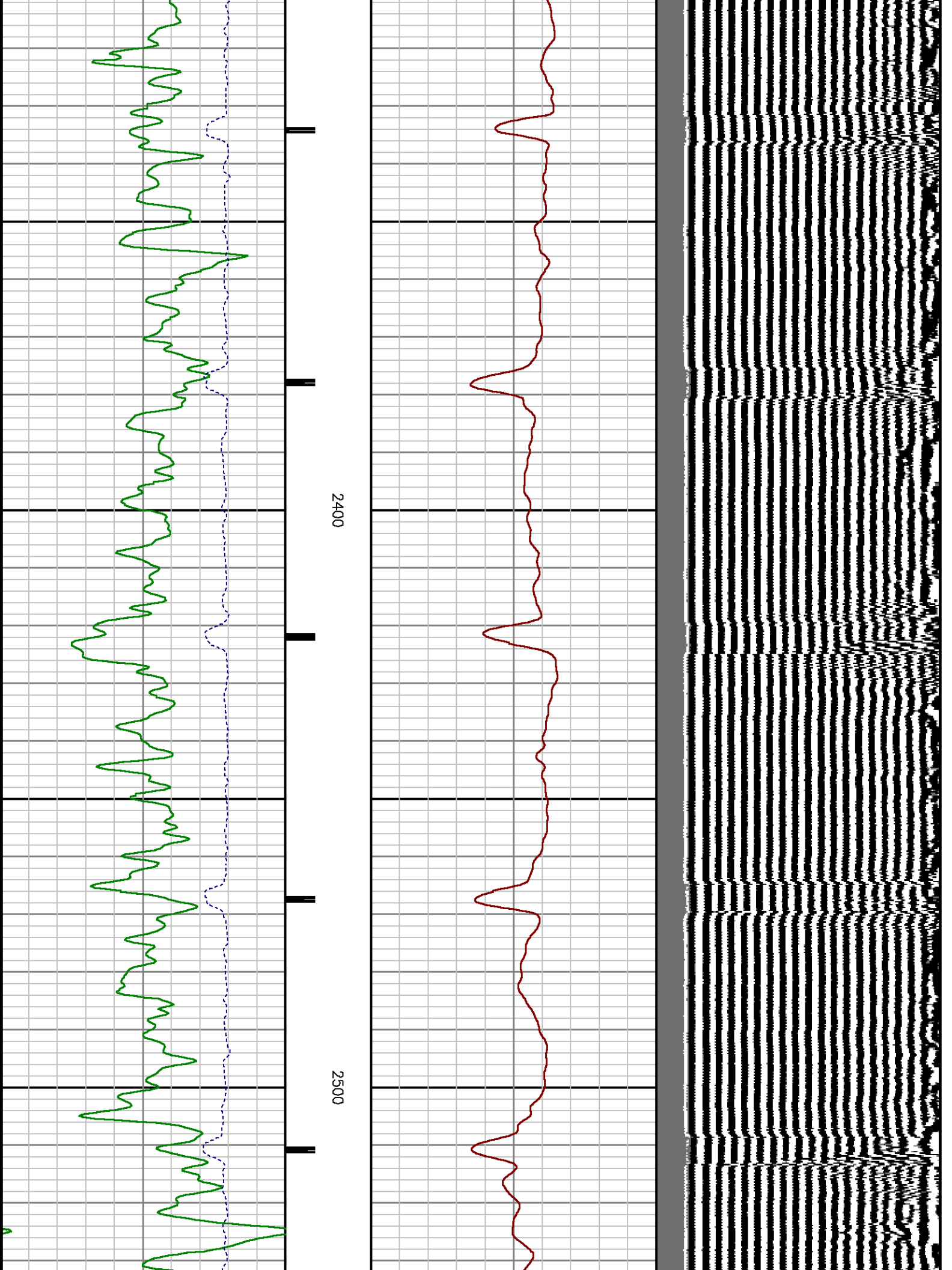
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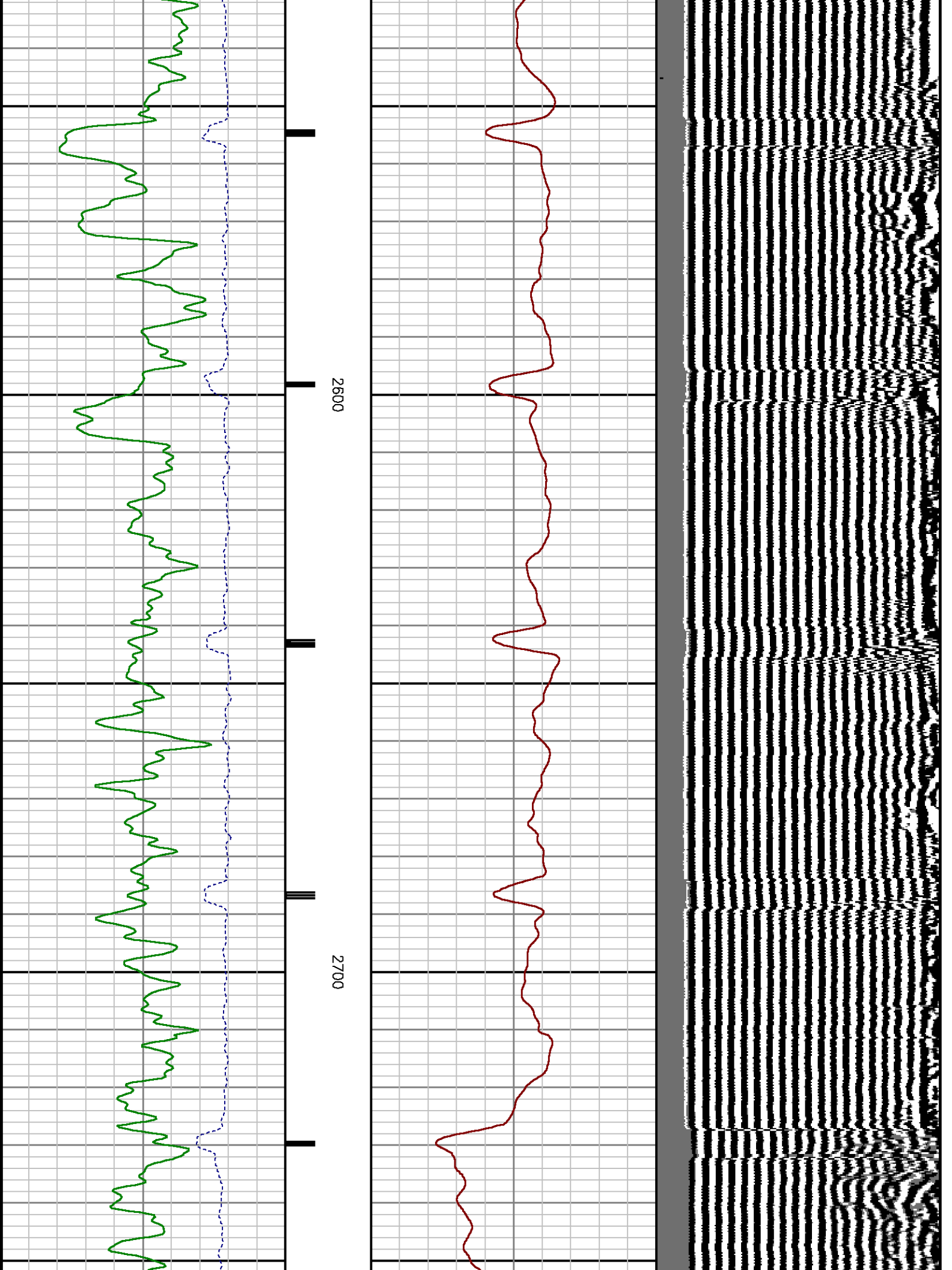
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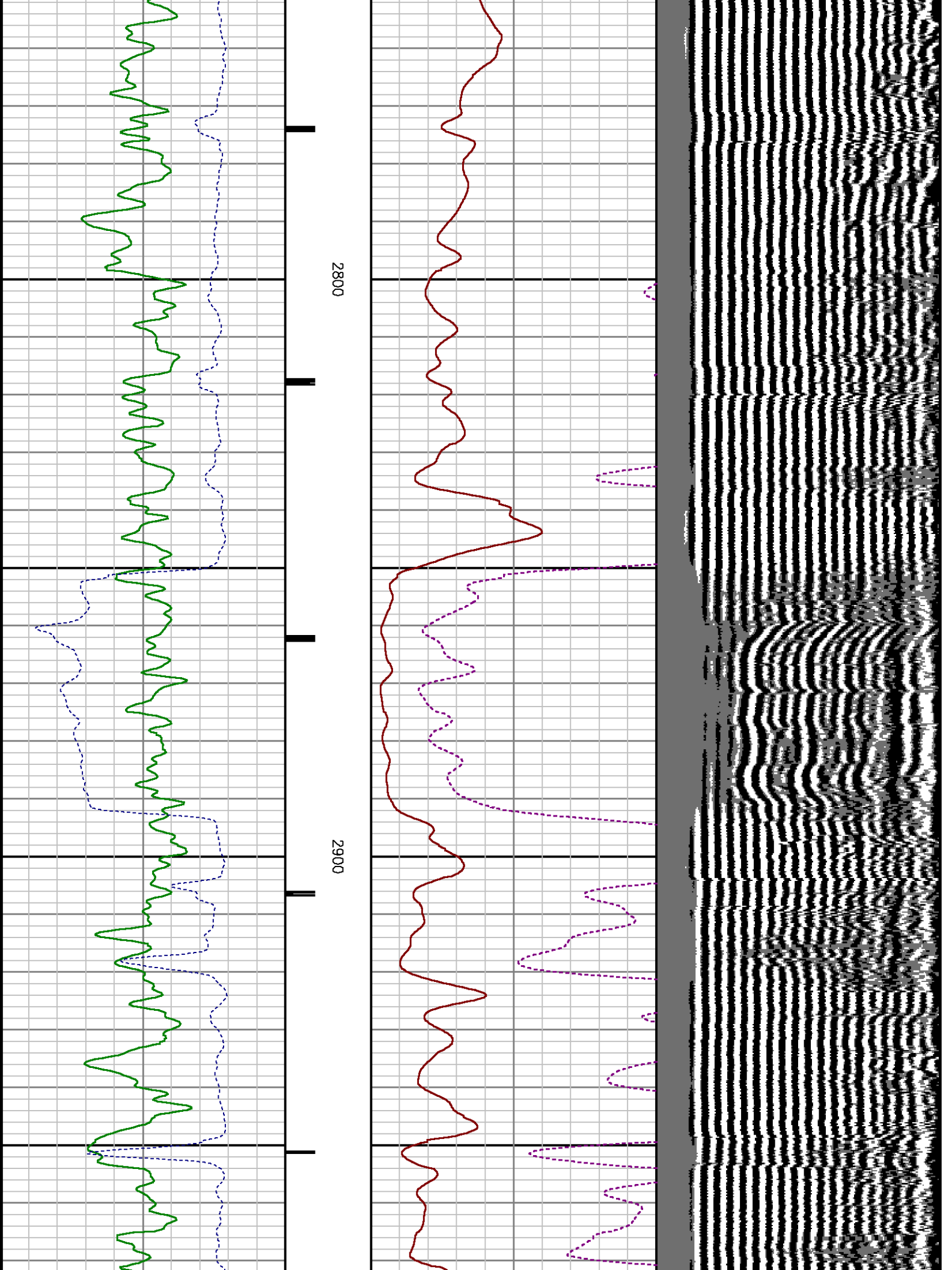


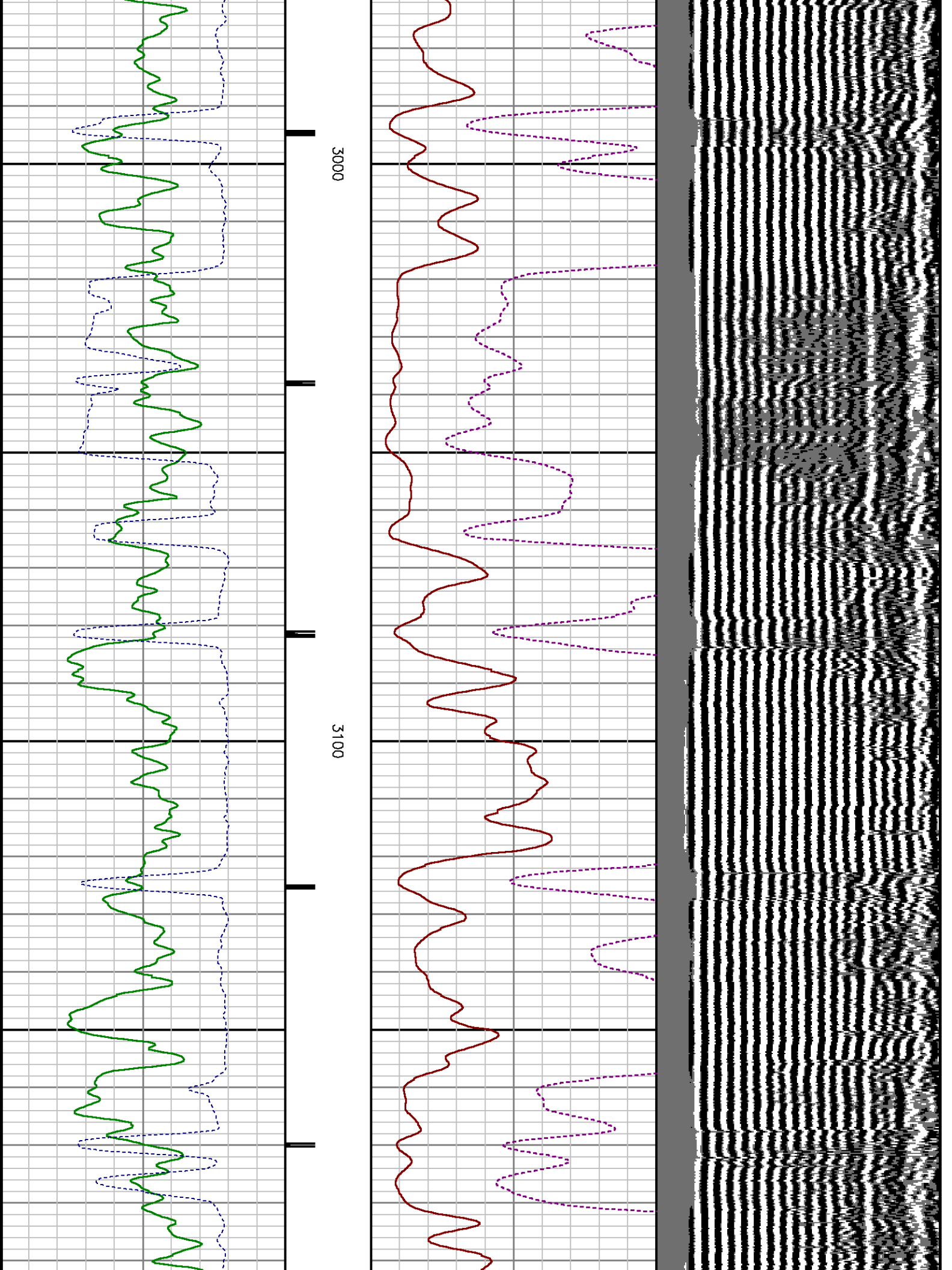


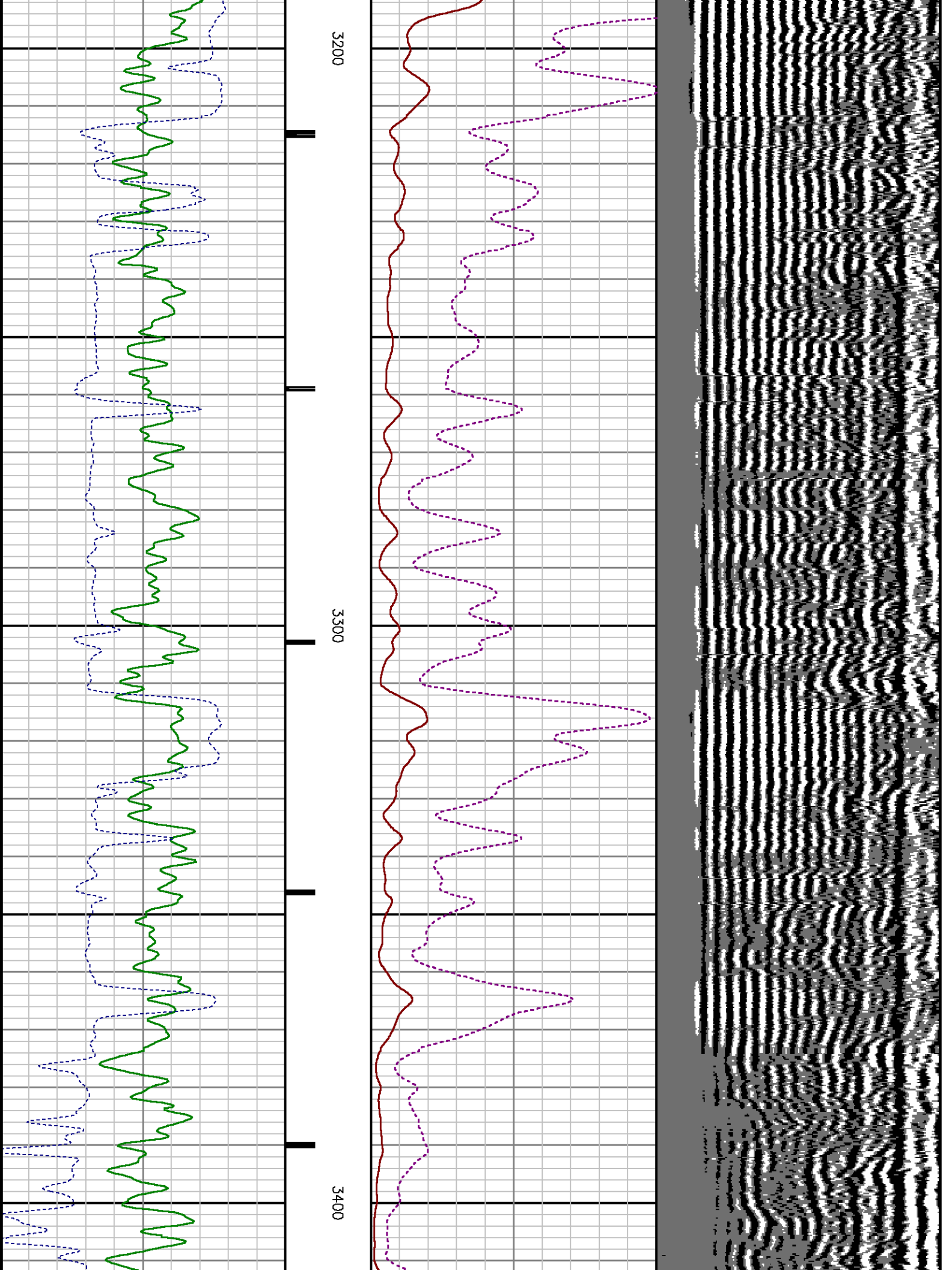


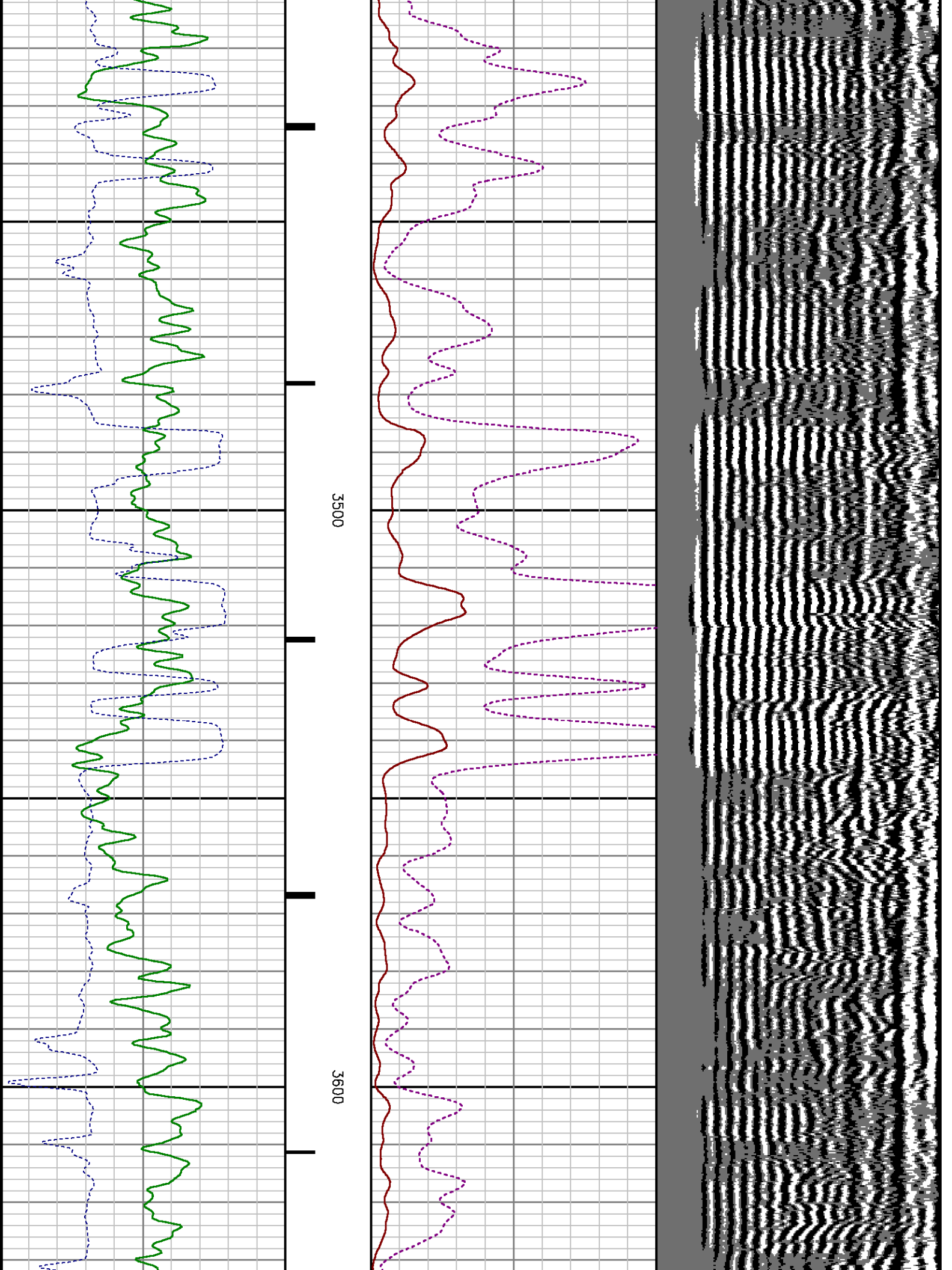


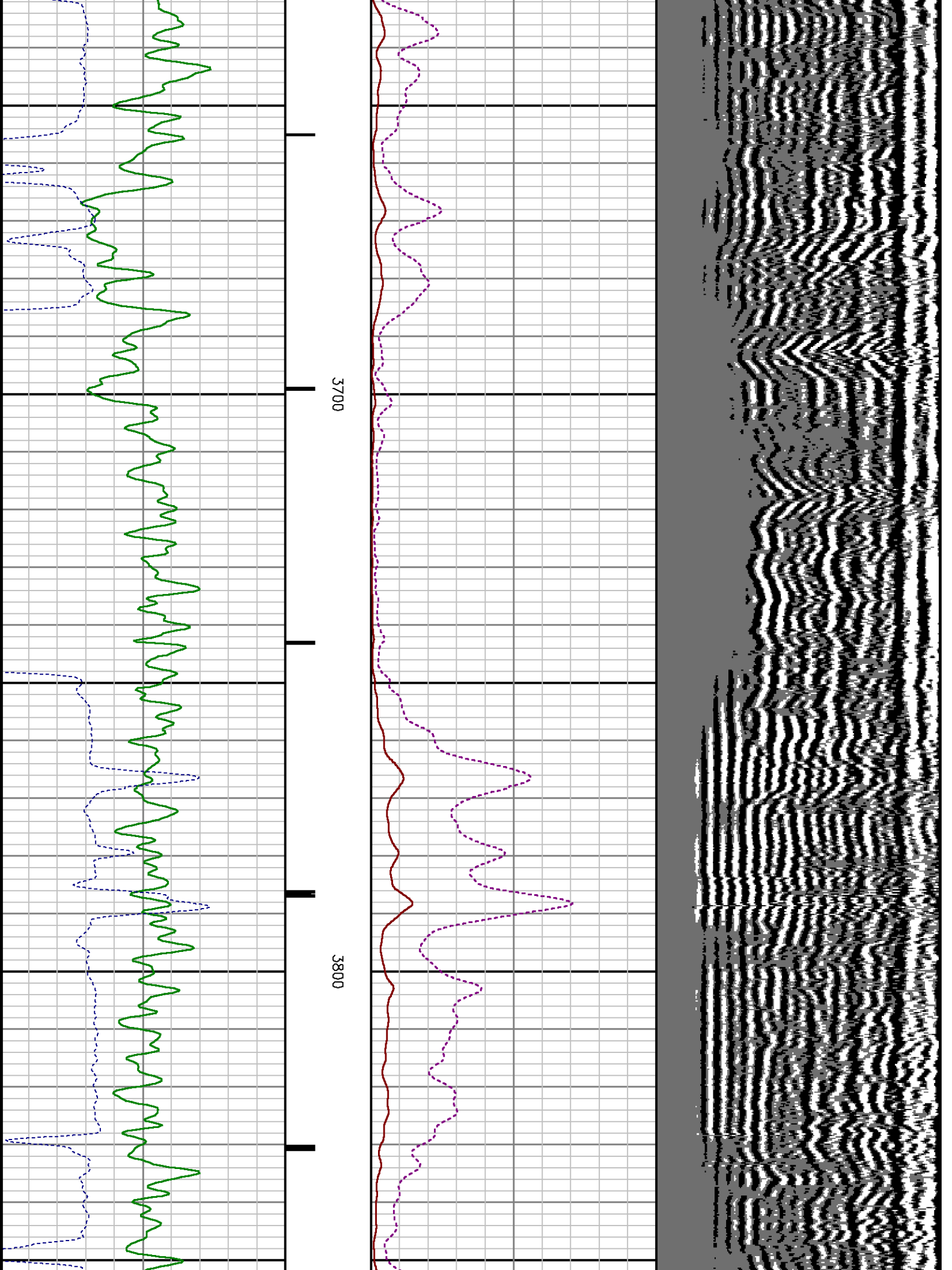




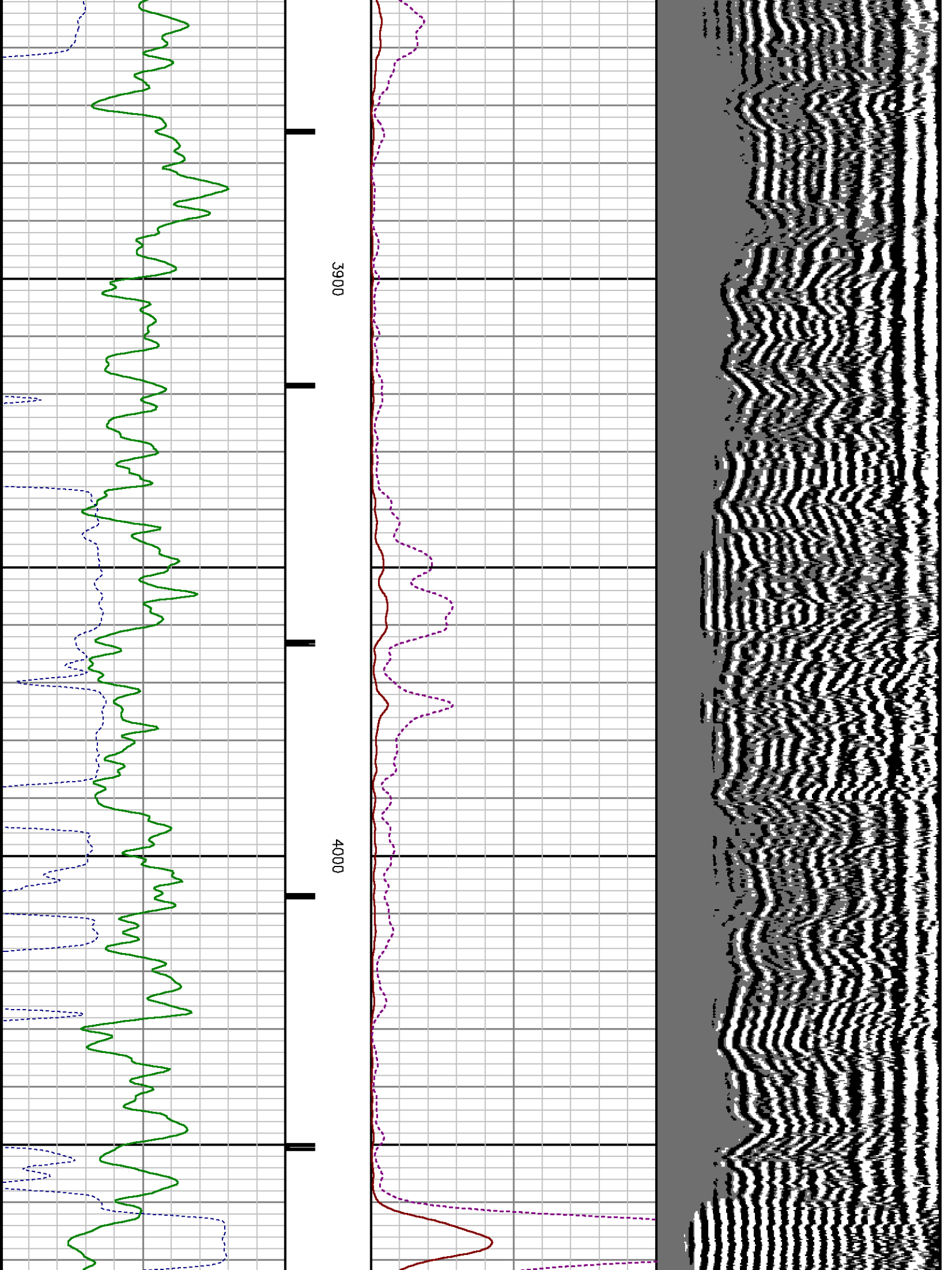


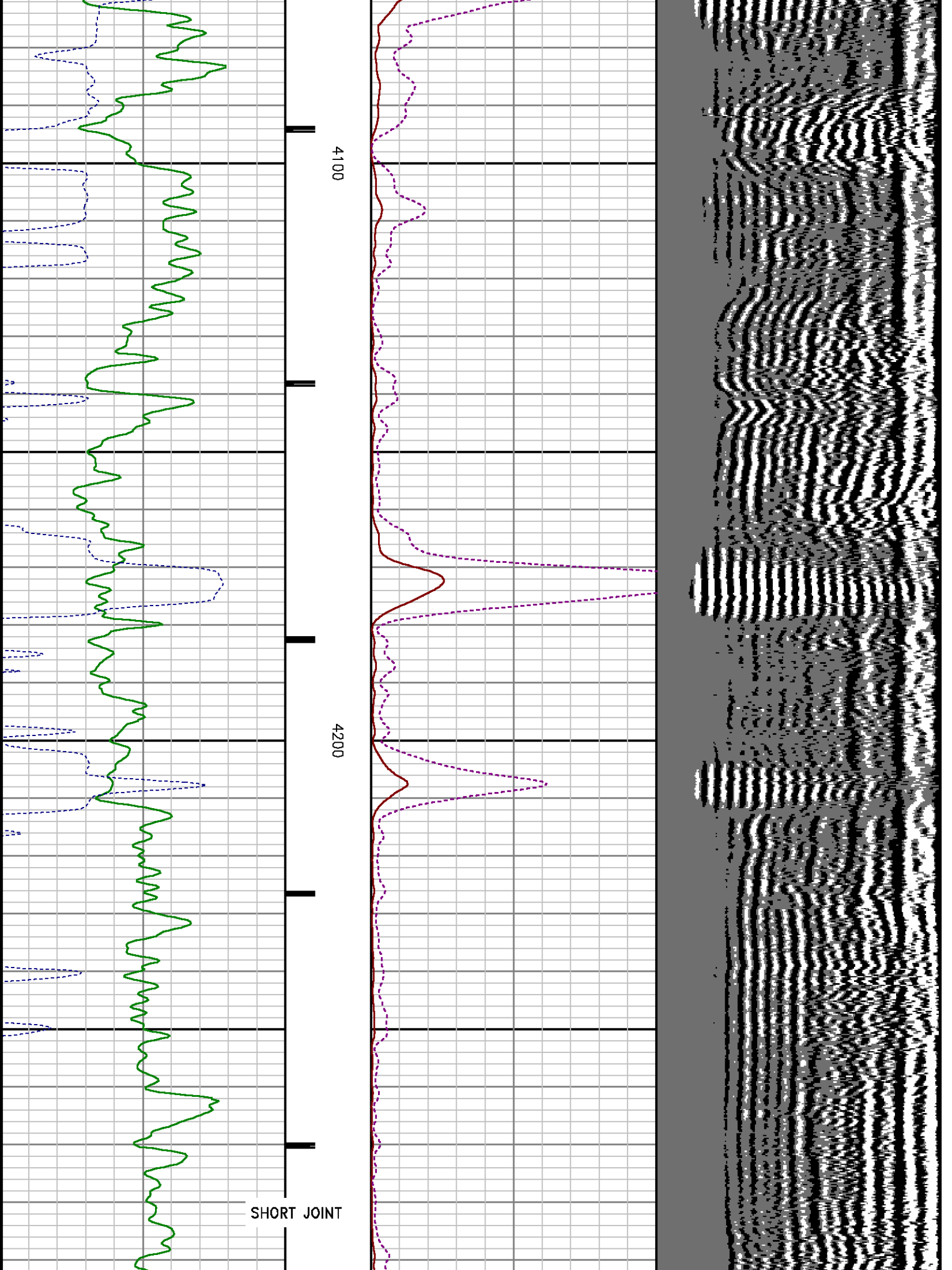




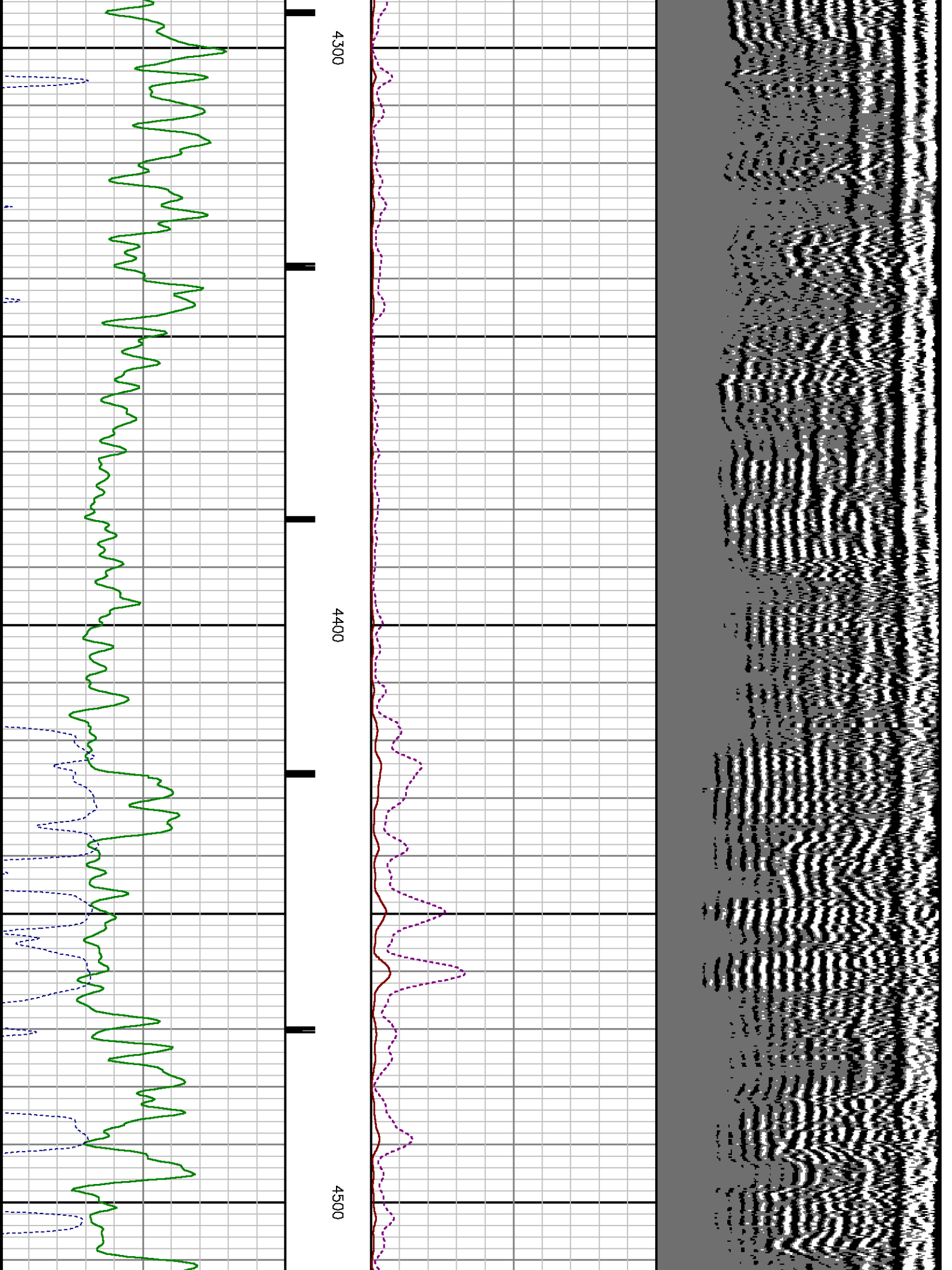


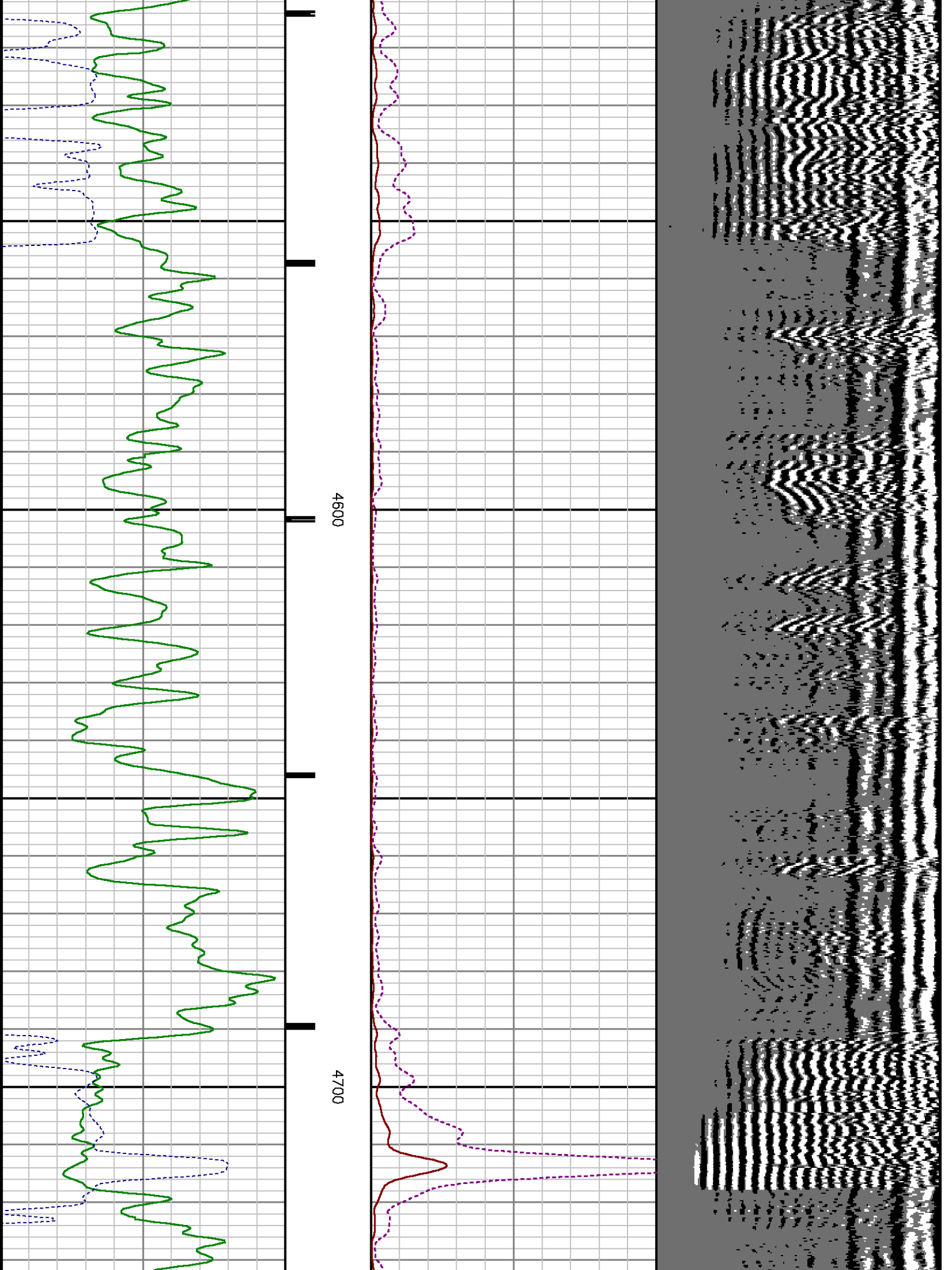


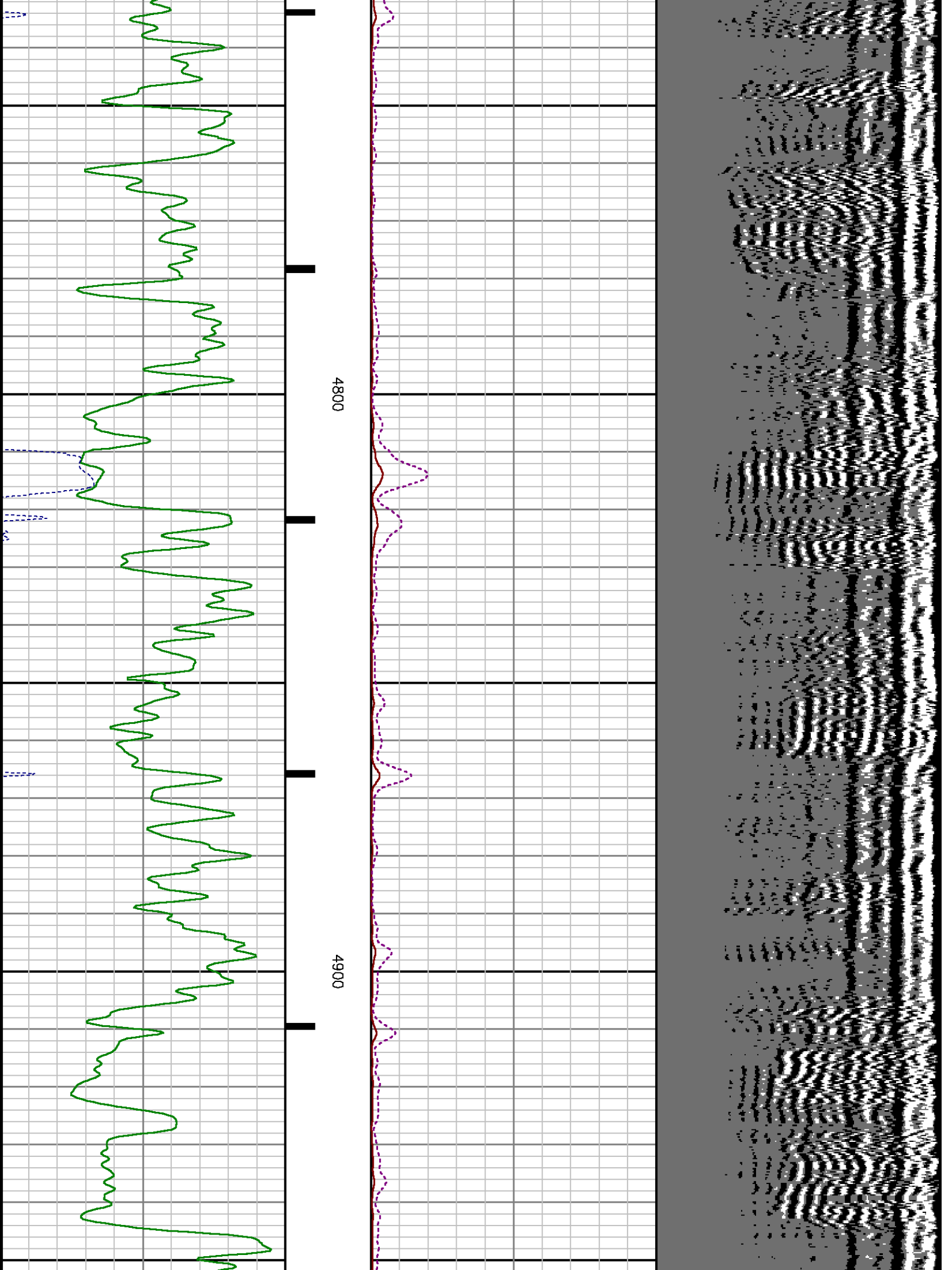


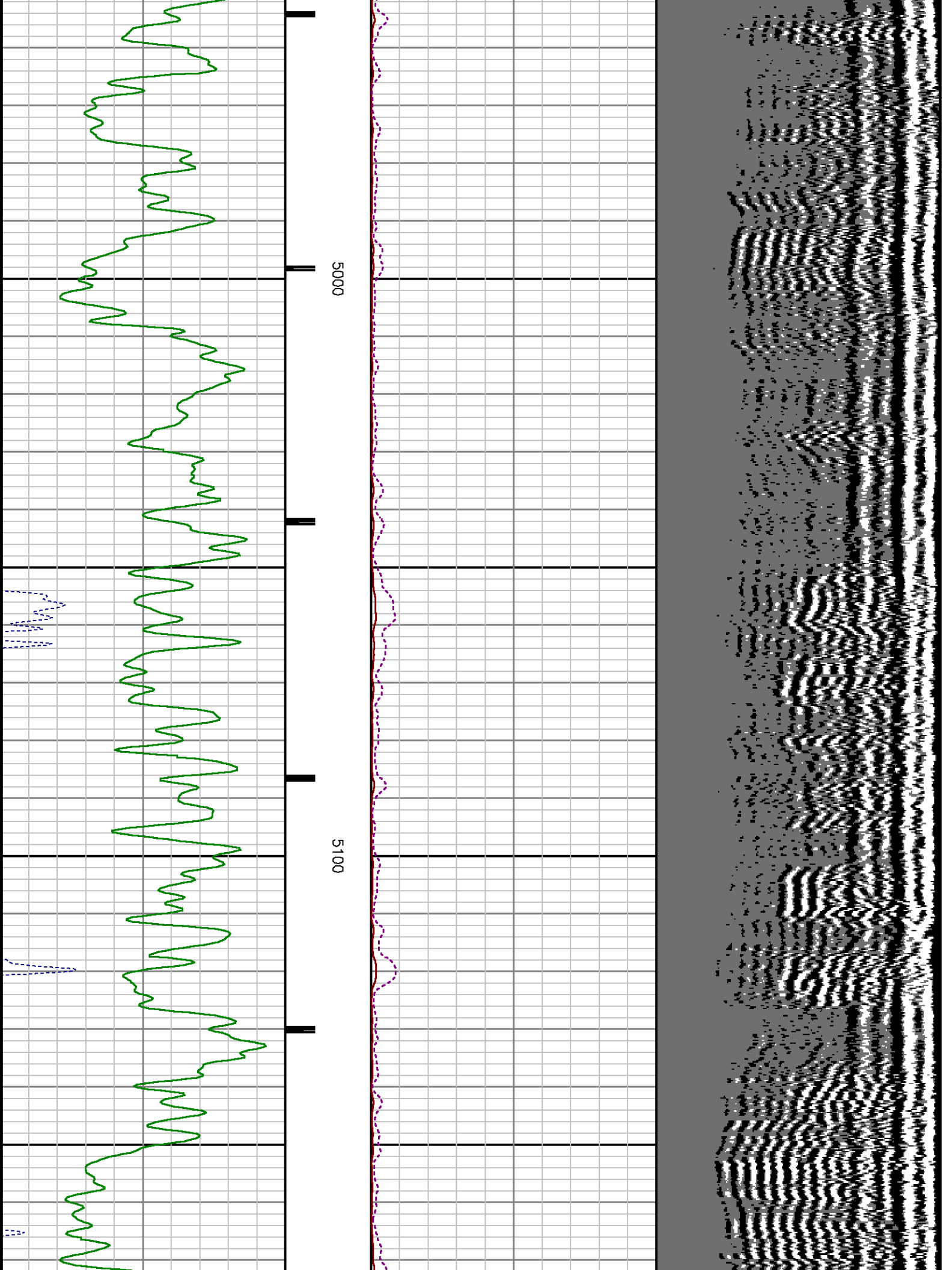


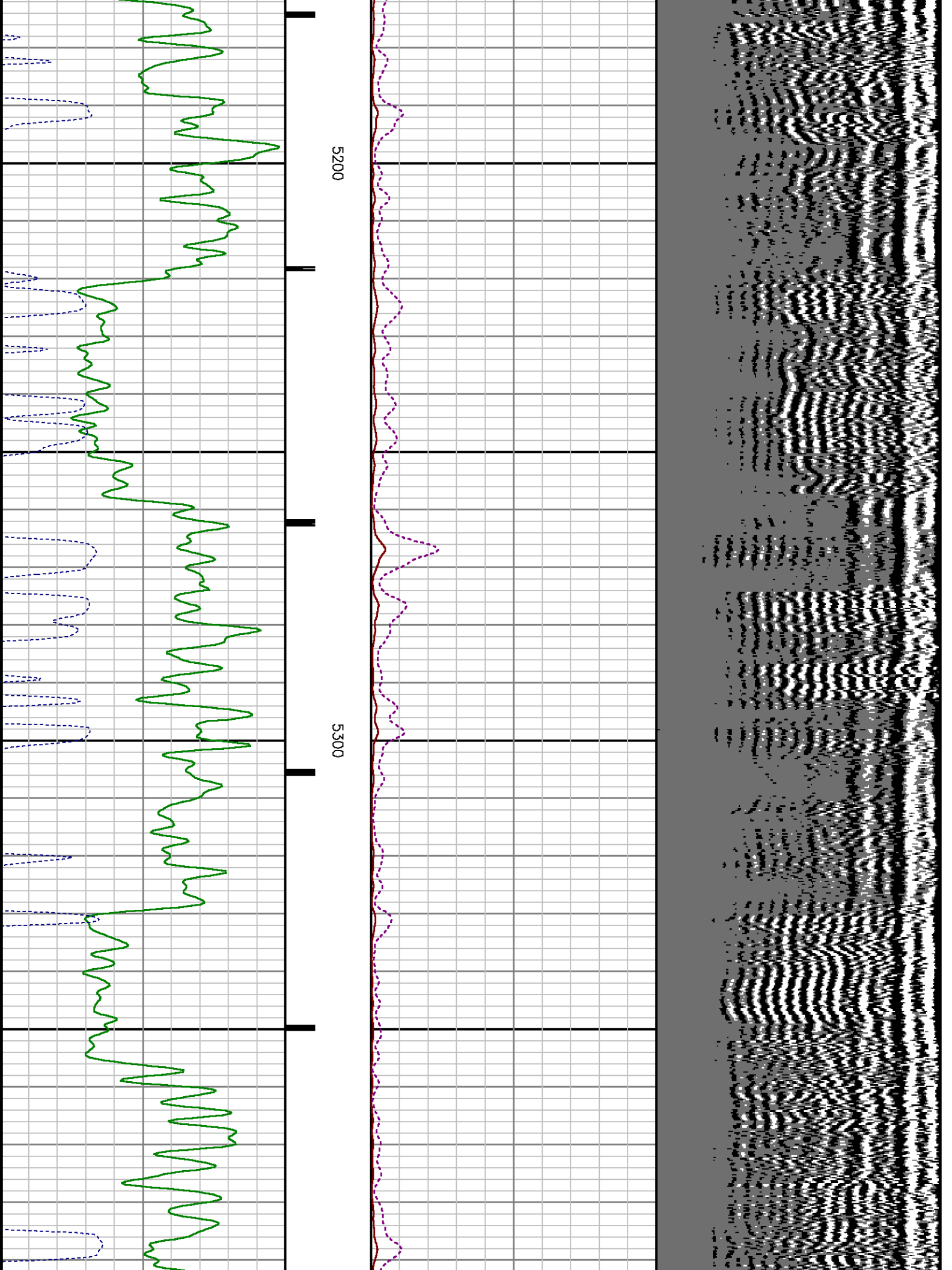


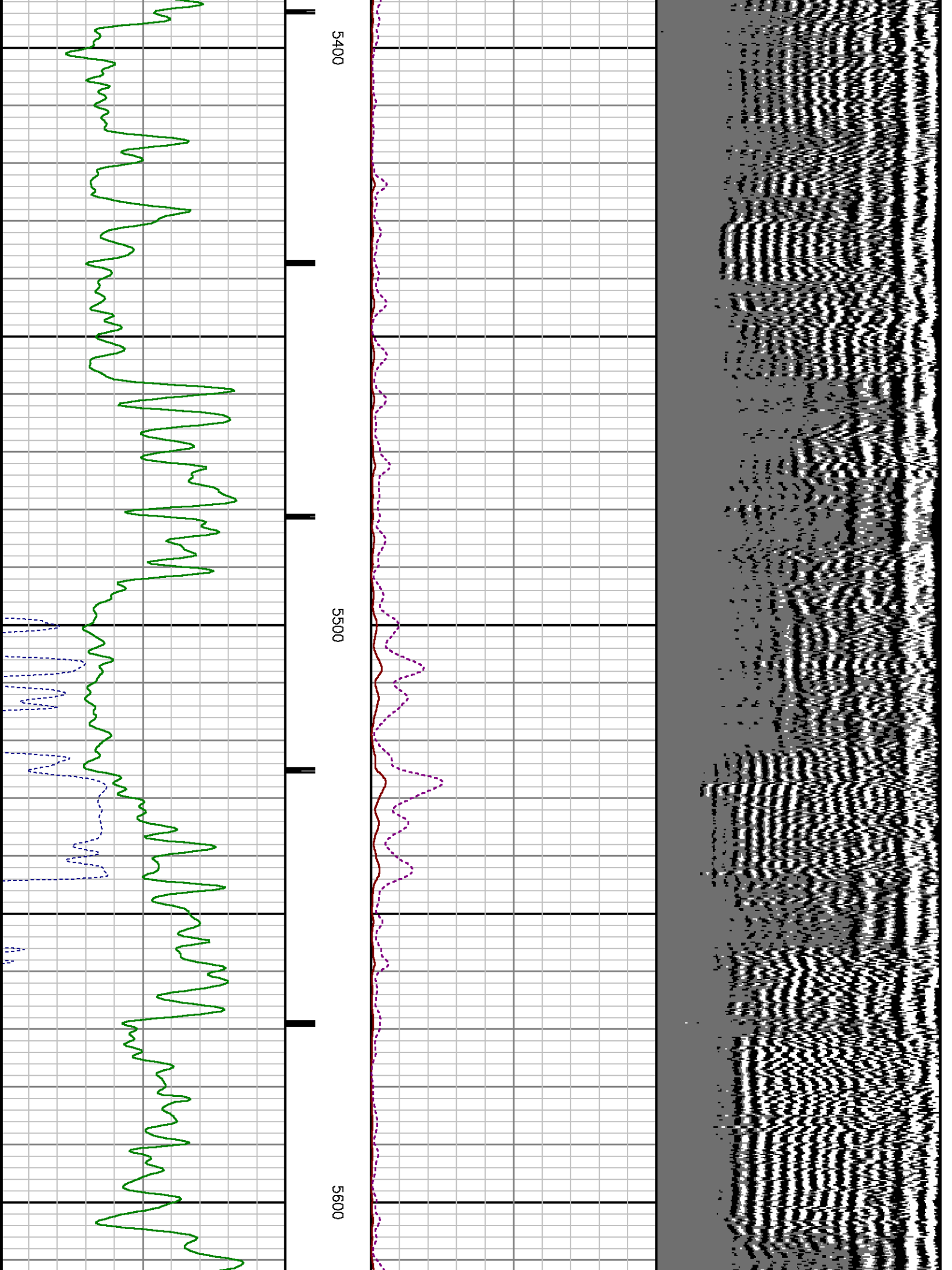




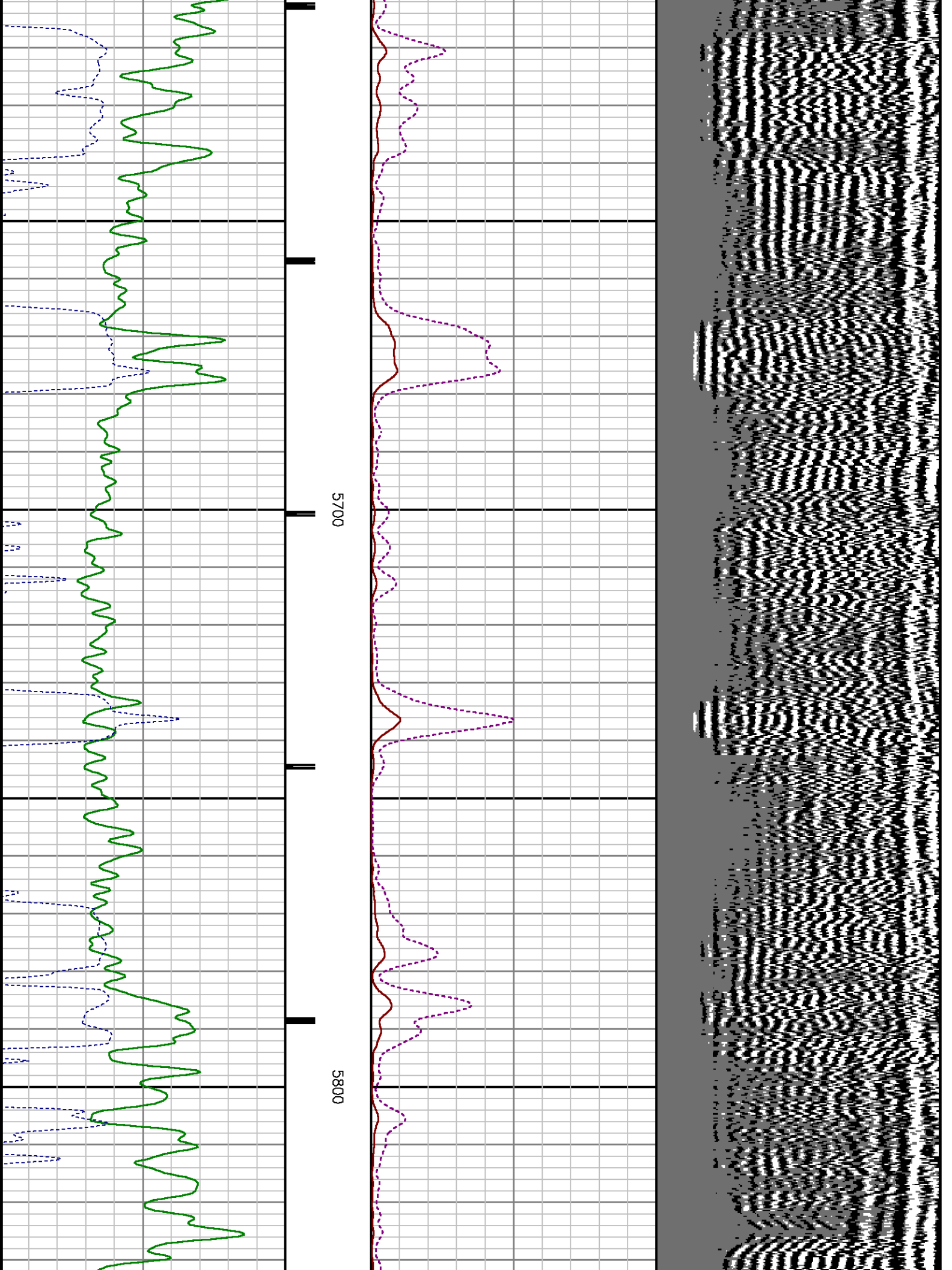




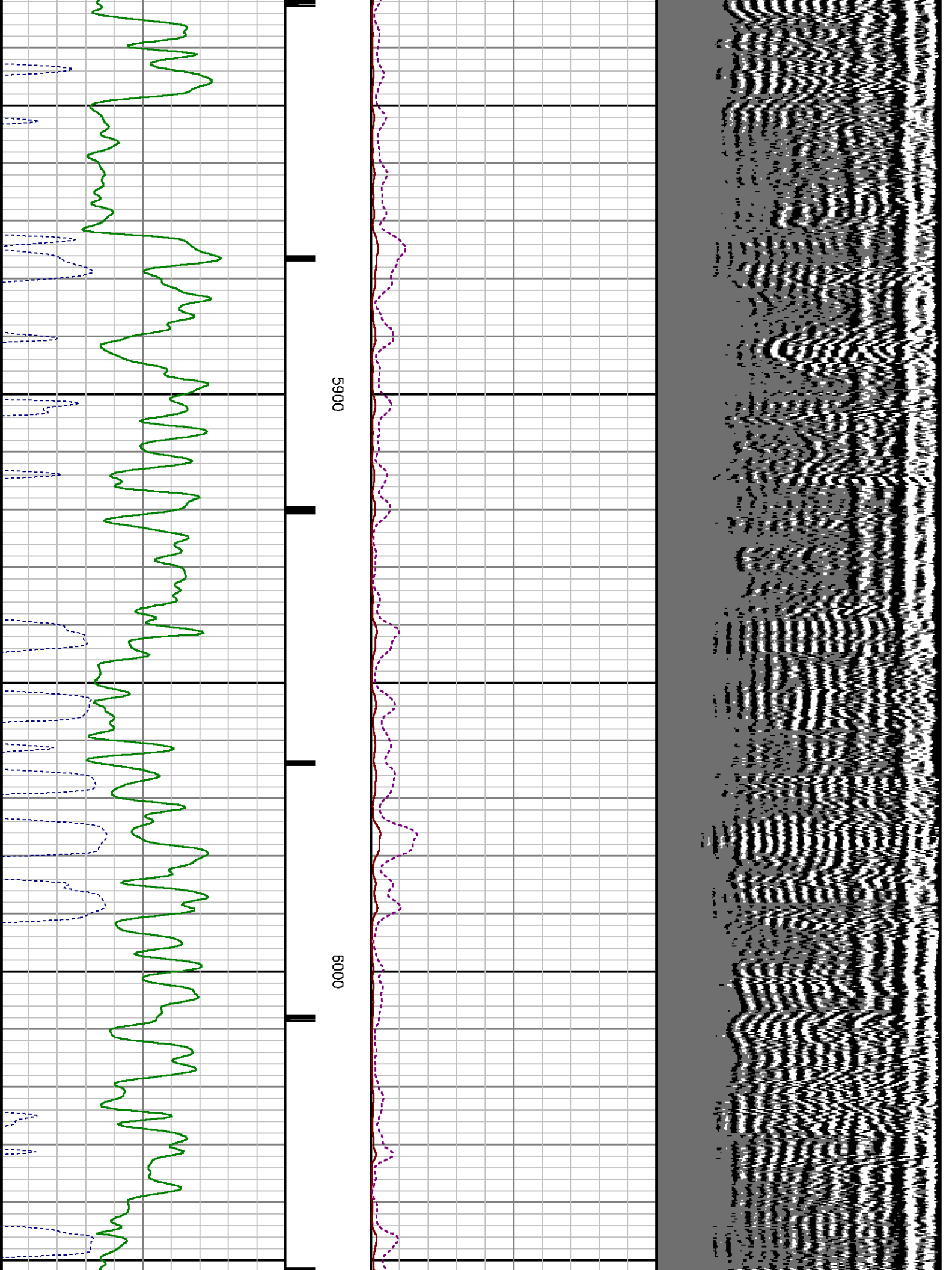


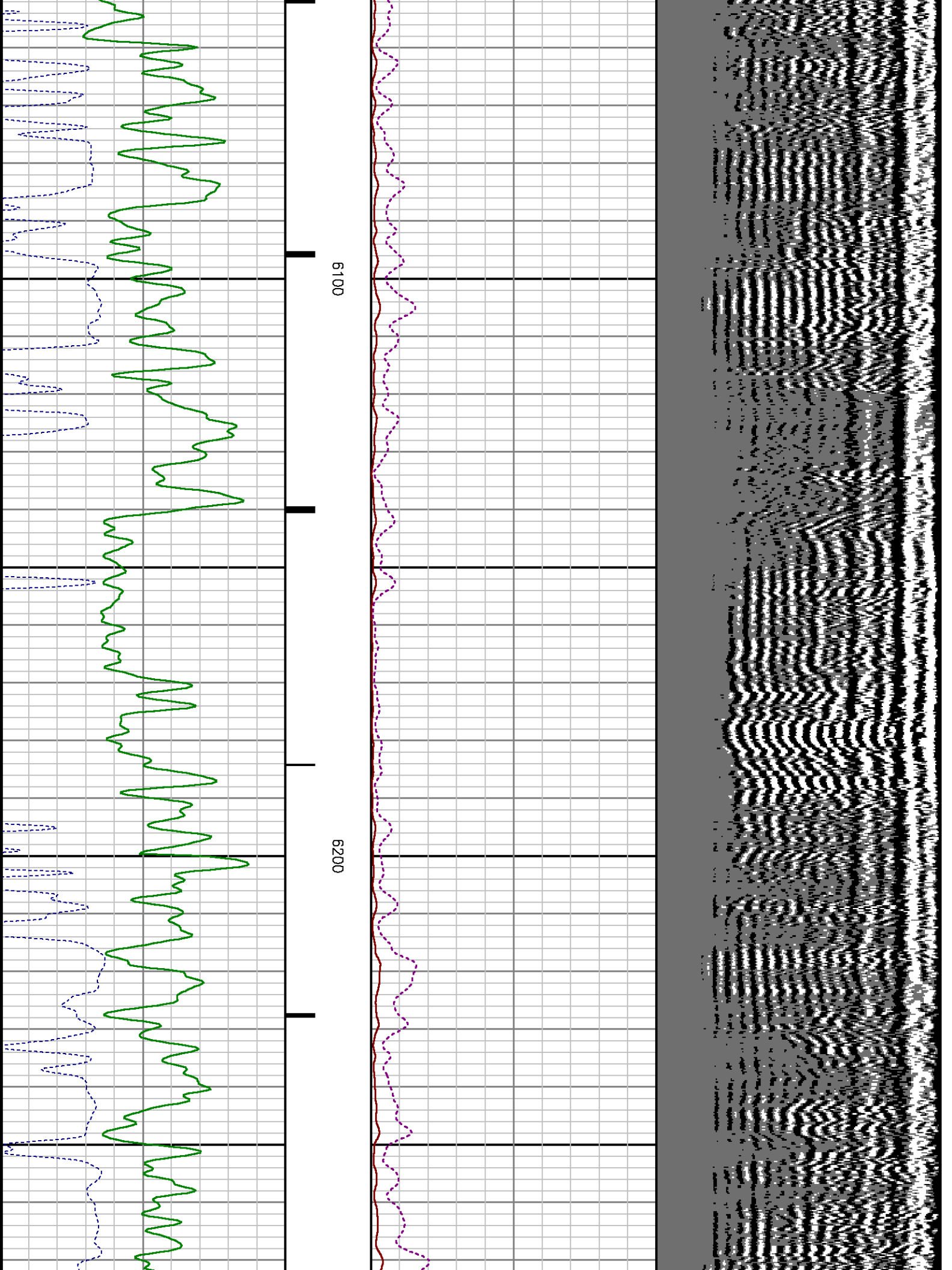


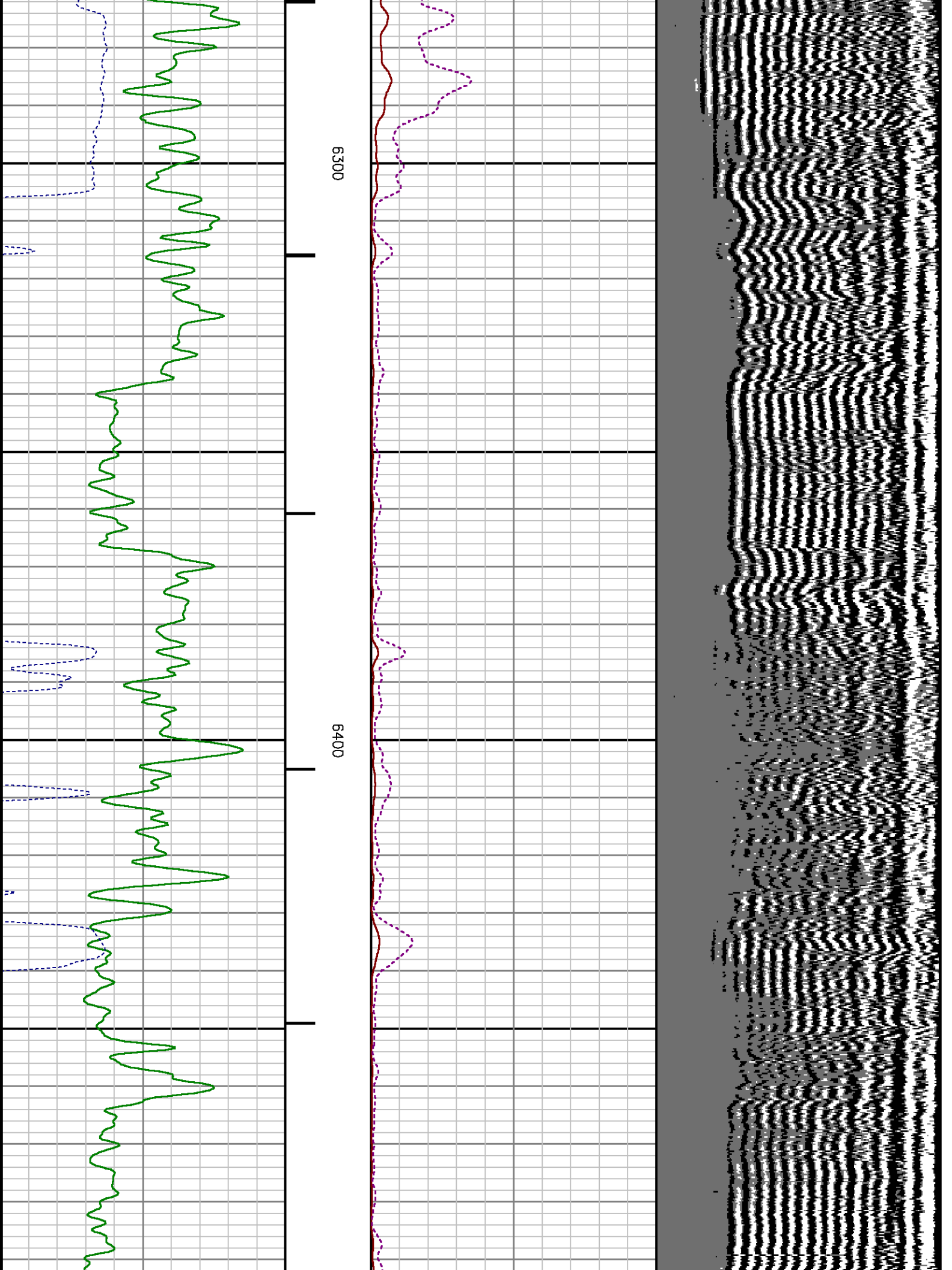


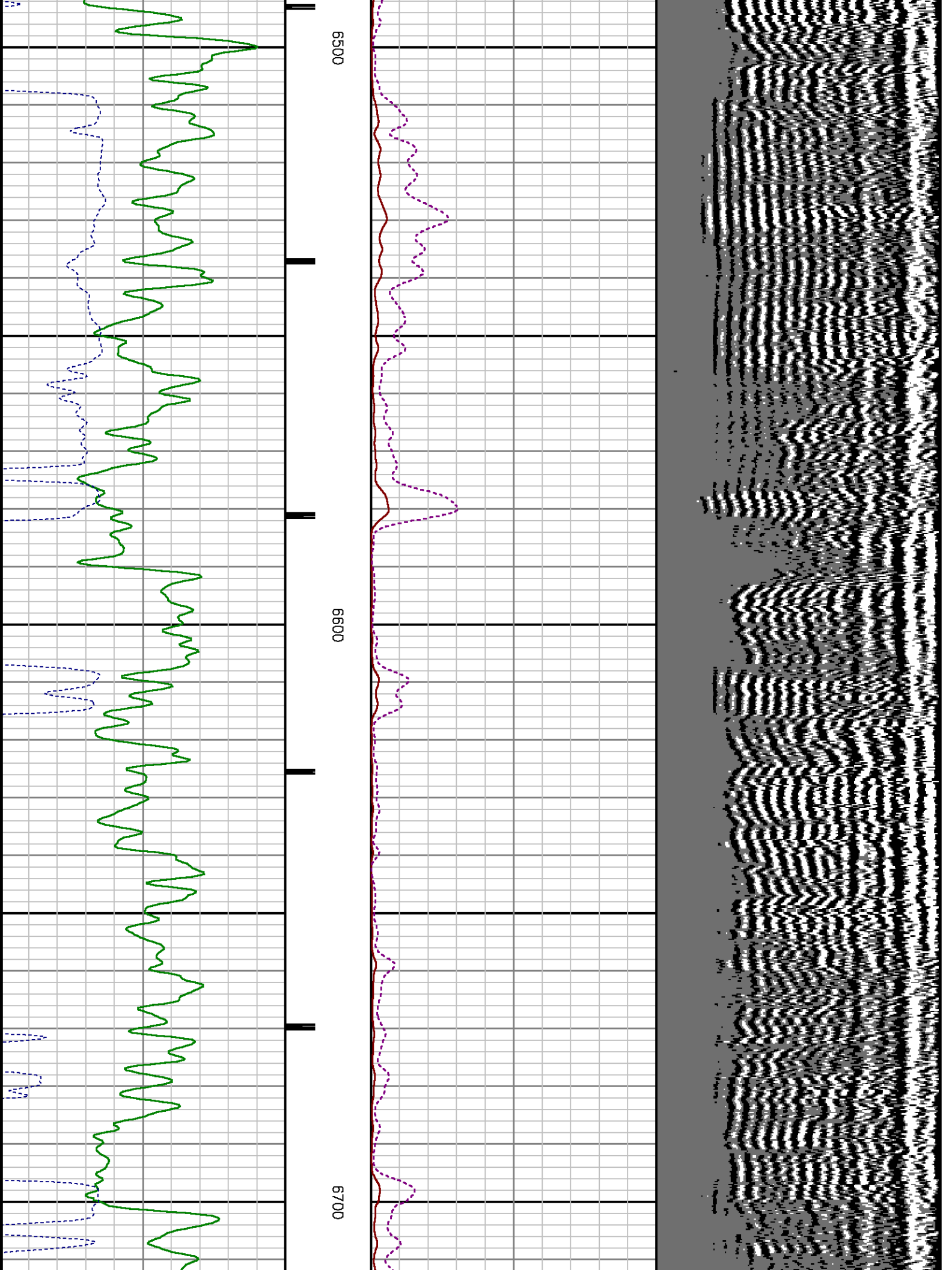


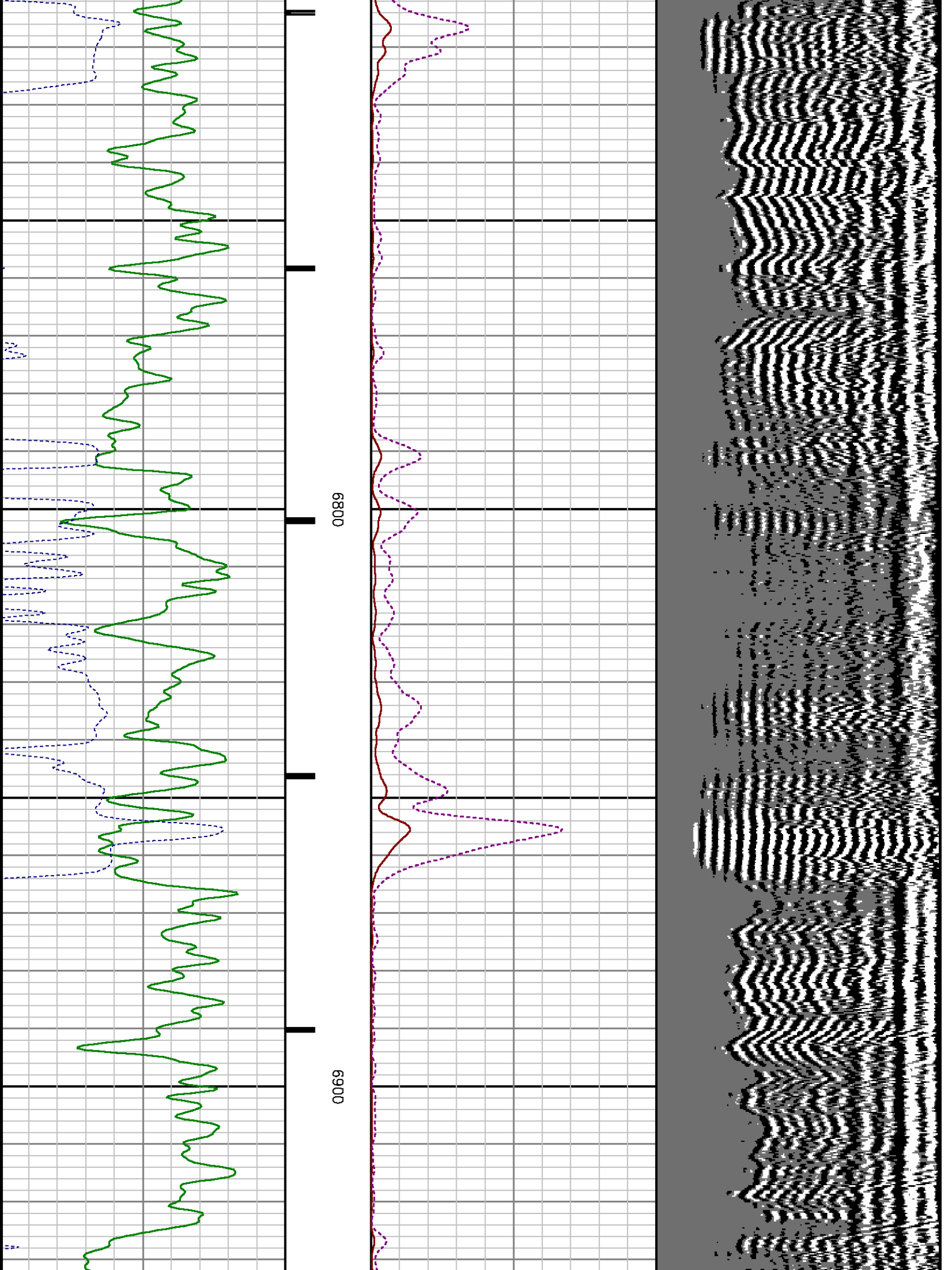




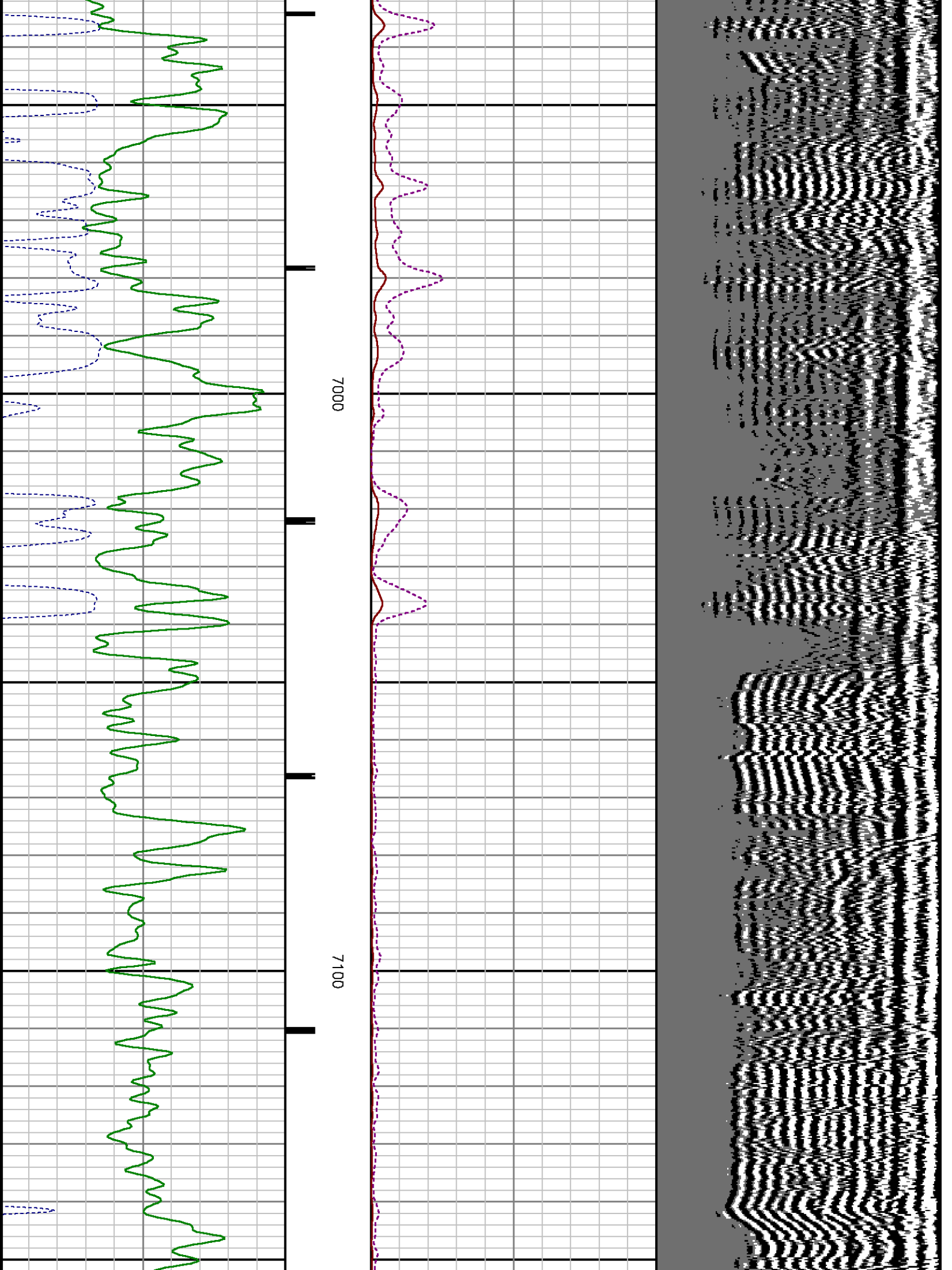


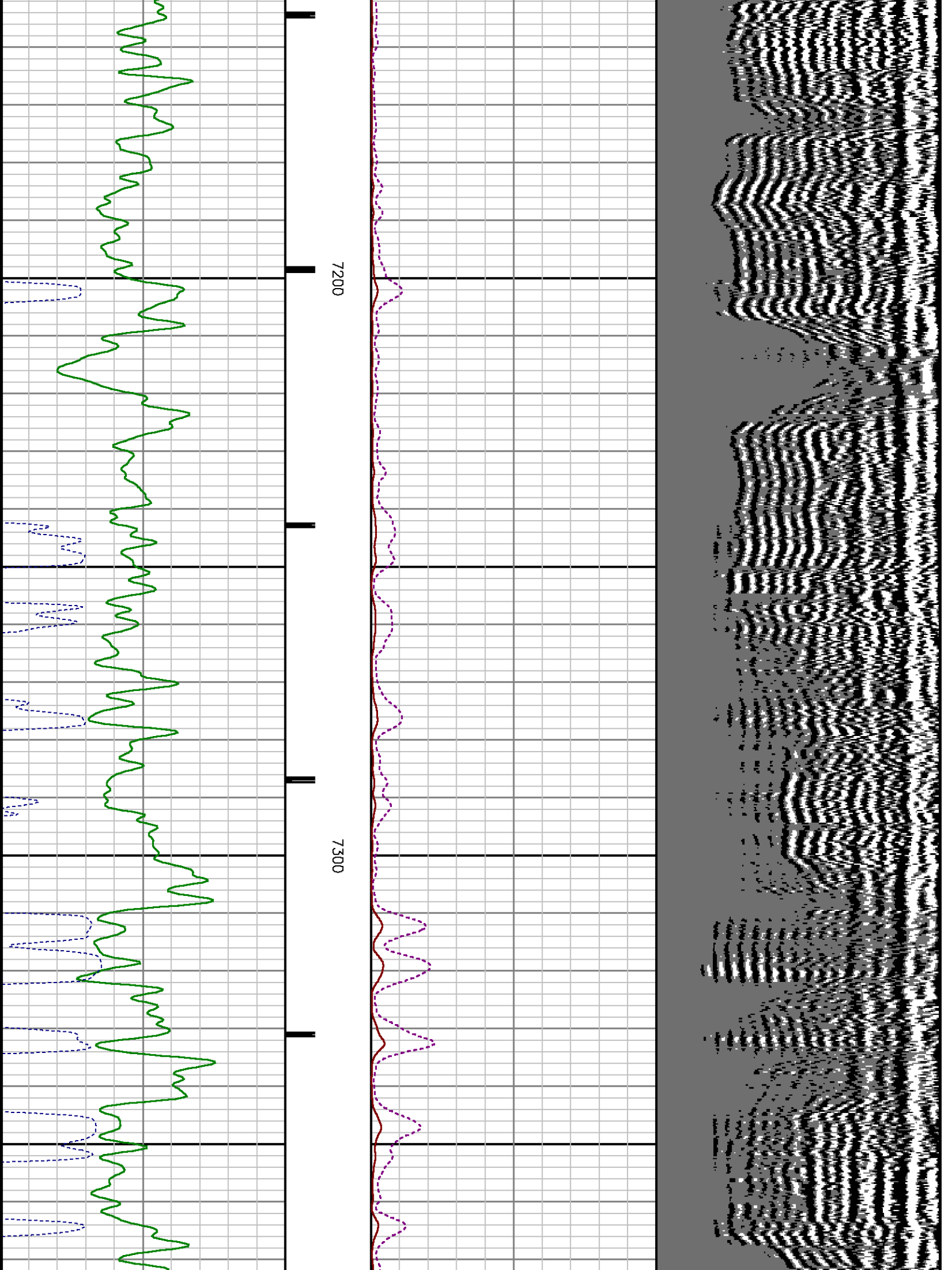




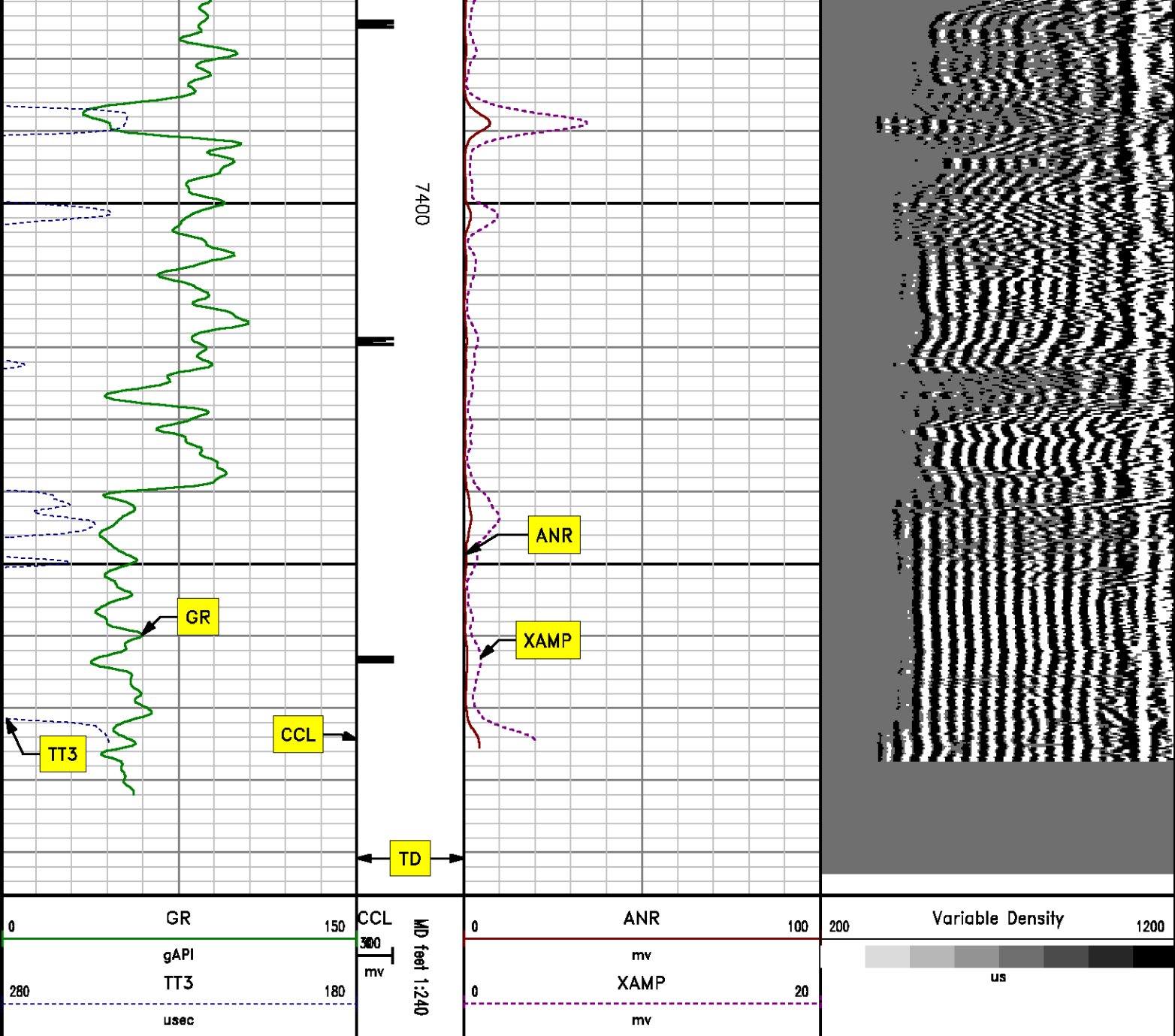












## SECONDARY PRESENTATION

### 0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
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RAL	Amp Gate Start Far	305.000	usec	24.223	7496.000
RAL	Amp Gate Start Near	195.000	usec	24.223	7496.000
RAL	Amp Gate Start Radial	195.000	usec	24.223	7496.000
RAL	Amp Gate Width Far	25.000	usec	24.223	7496.000
RAL	Amp Gate Width Near	25.000	usec	24.223	7496.000
RAL	Amp Gate Width Radial	25.000	usec	24.223	7496.000
RAL	casing od	4.500	inches	24.223	7496.000
RAL	casing wt	11.600	lbm/ft	24.223	7496.000
RAL	FB Start Far	291.900	usec	24.223	7496.000
RAL	FB Start Near	175.391	usec	24.223	7496.000
RAL	FB Start Radial	175.391	usec	24.223	7496.000
RAL	FB Thresh Far	15.000	mv	24.223	7496.000
RAL	FB Thresh Near	10.000	mv	24.223	7496.000
RAL	FB Thresh Radial	10.000	mv	24.223	7496.000
RAL	Fluid Travel Time	200.000	usec/ft	24.223	7496.000

## 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

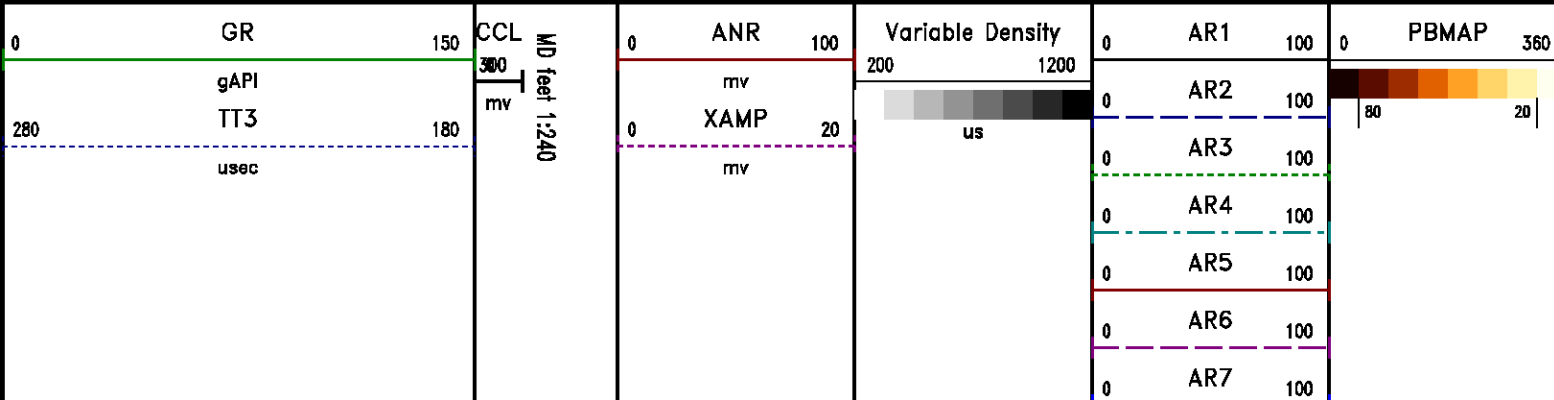
Well : WPX ENERGY PA 13-2

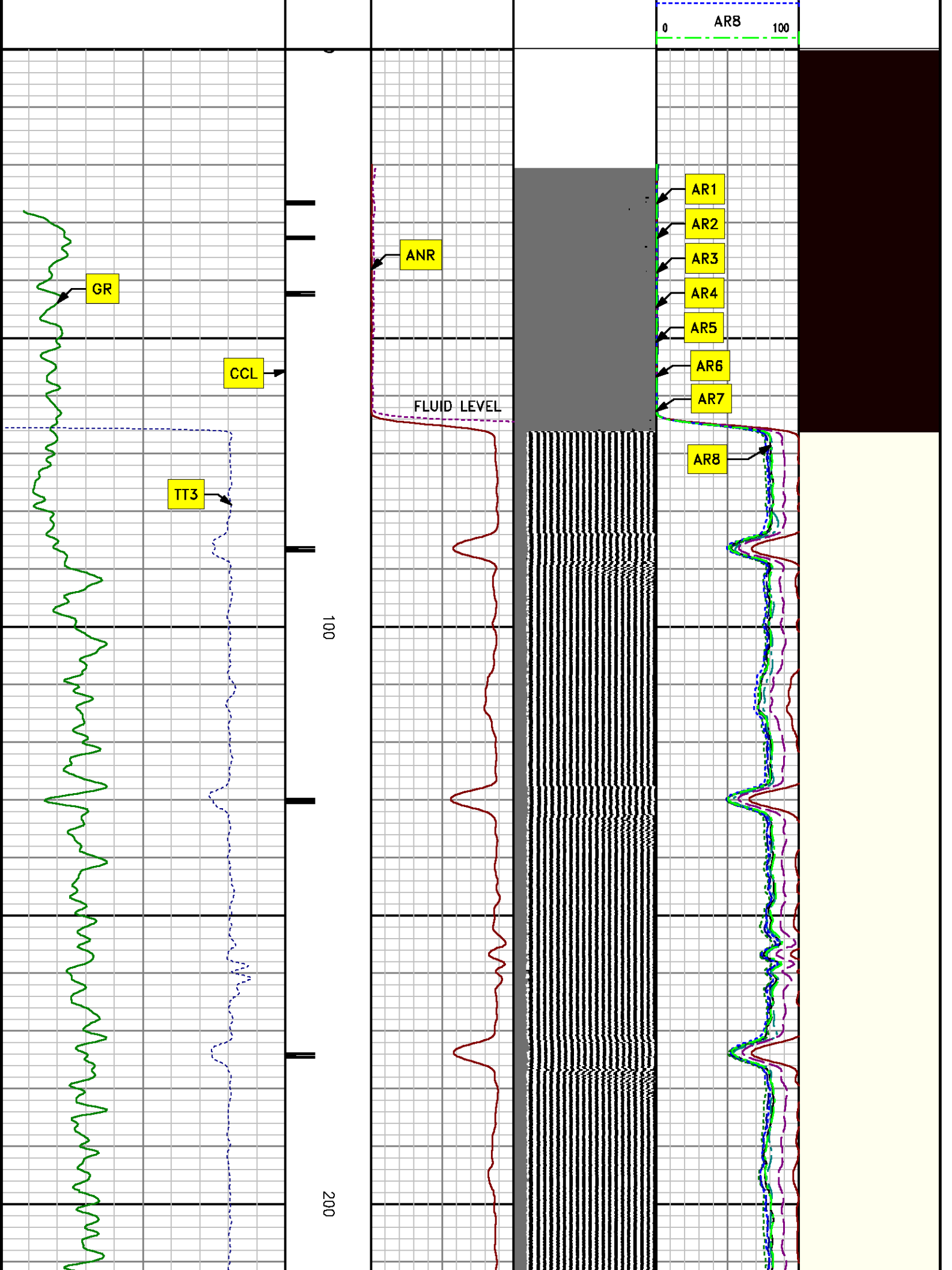
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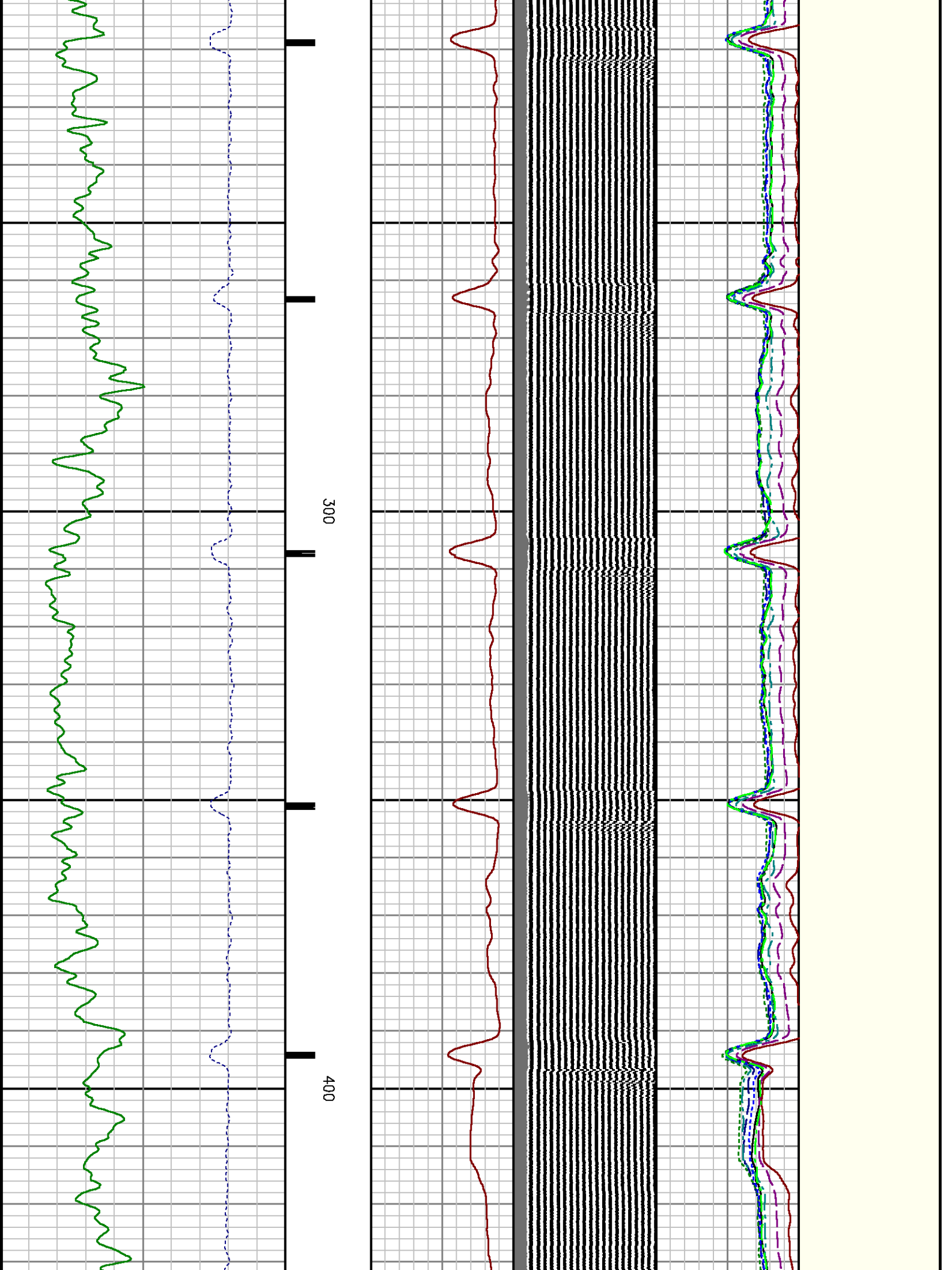
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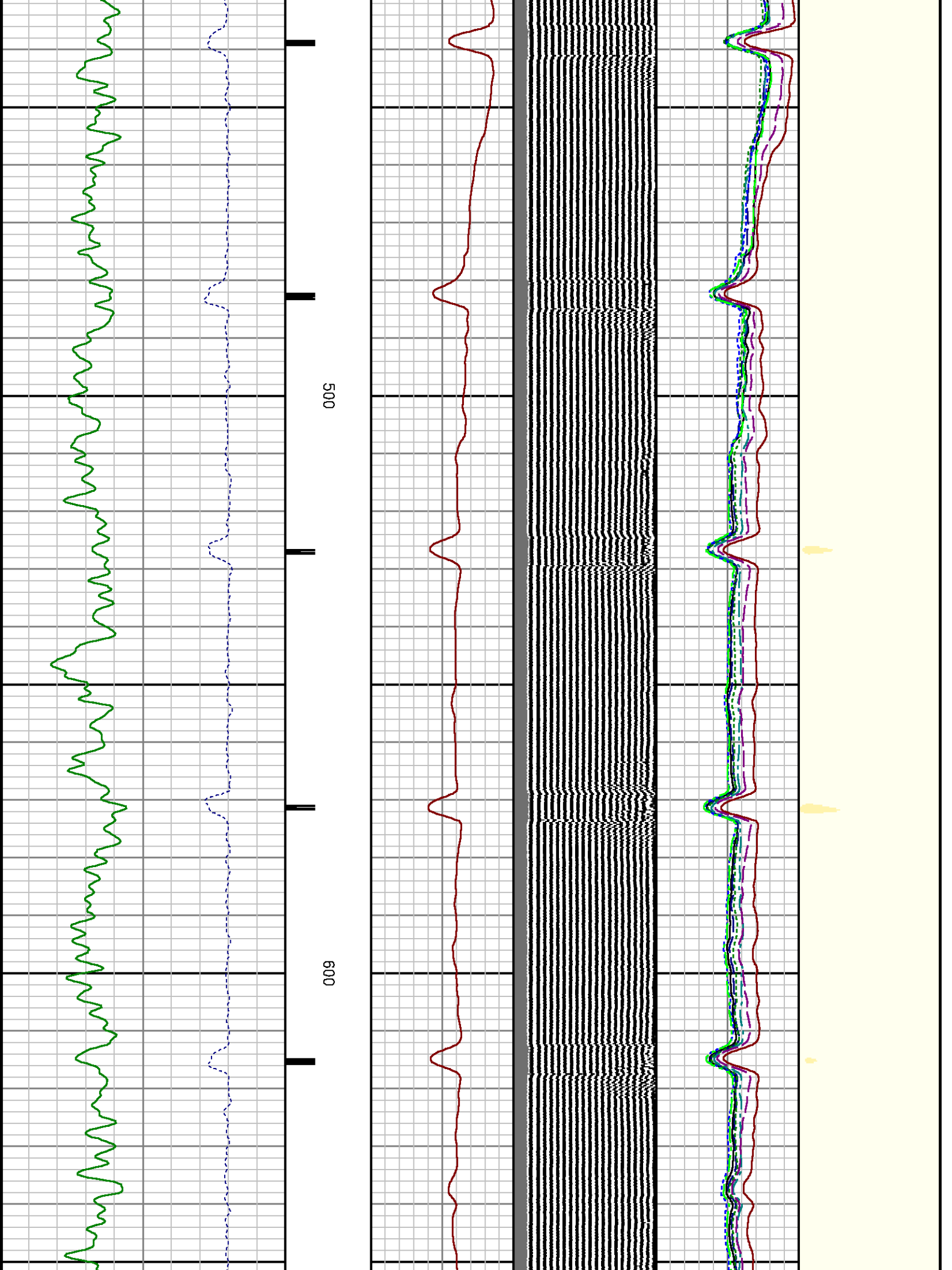
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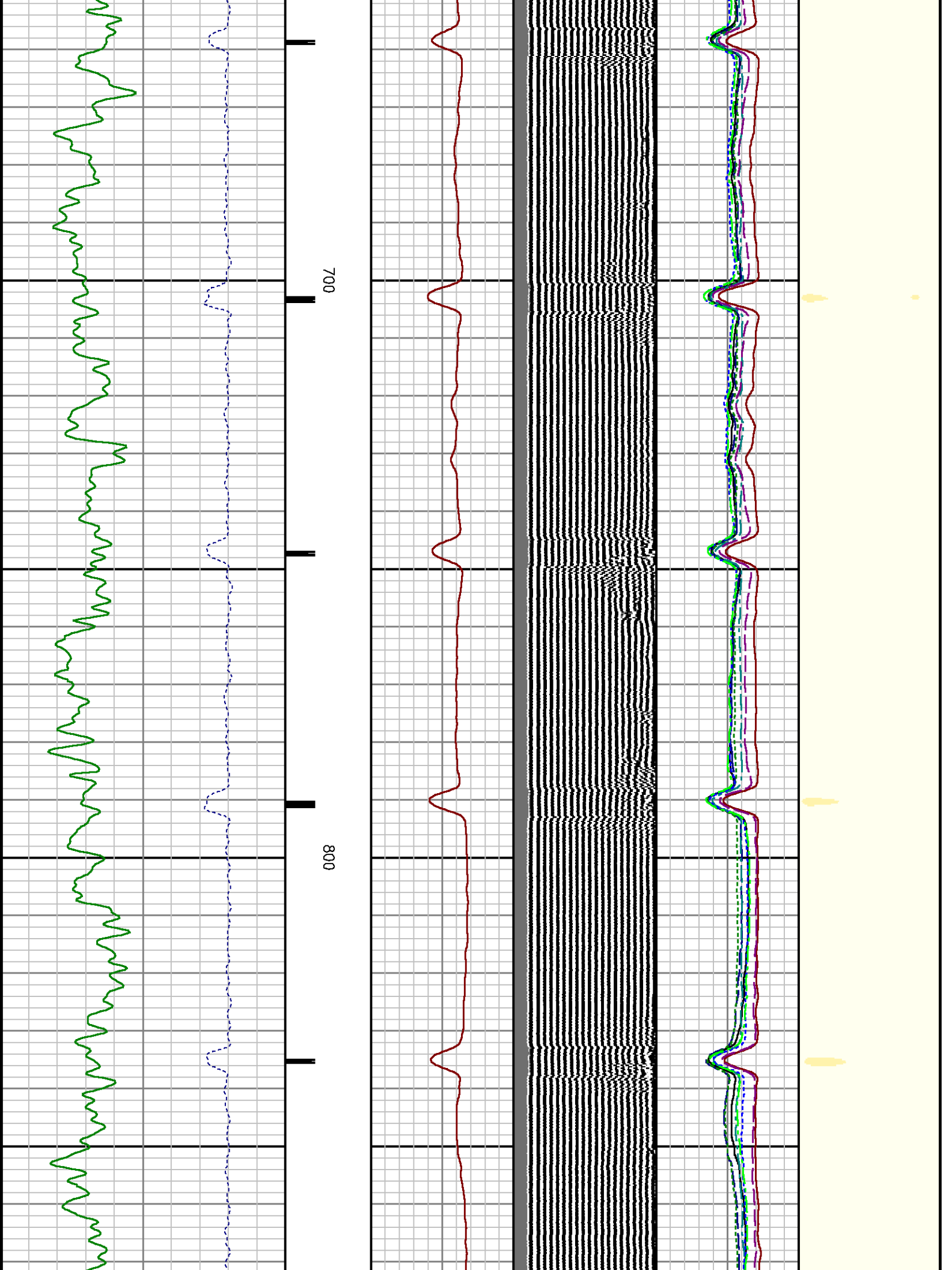
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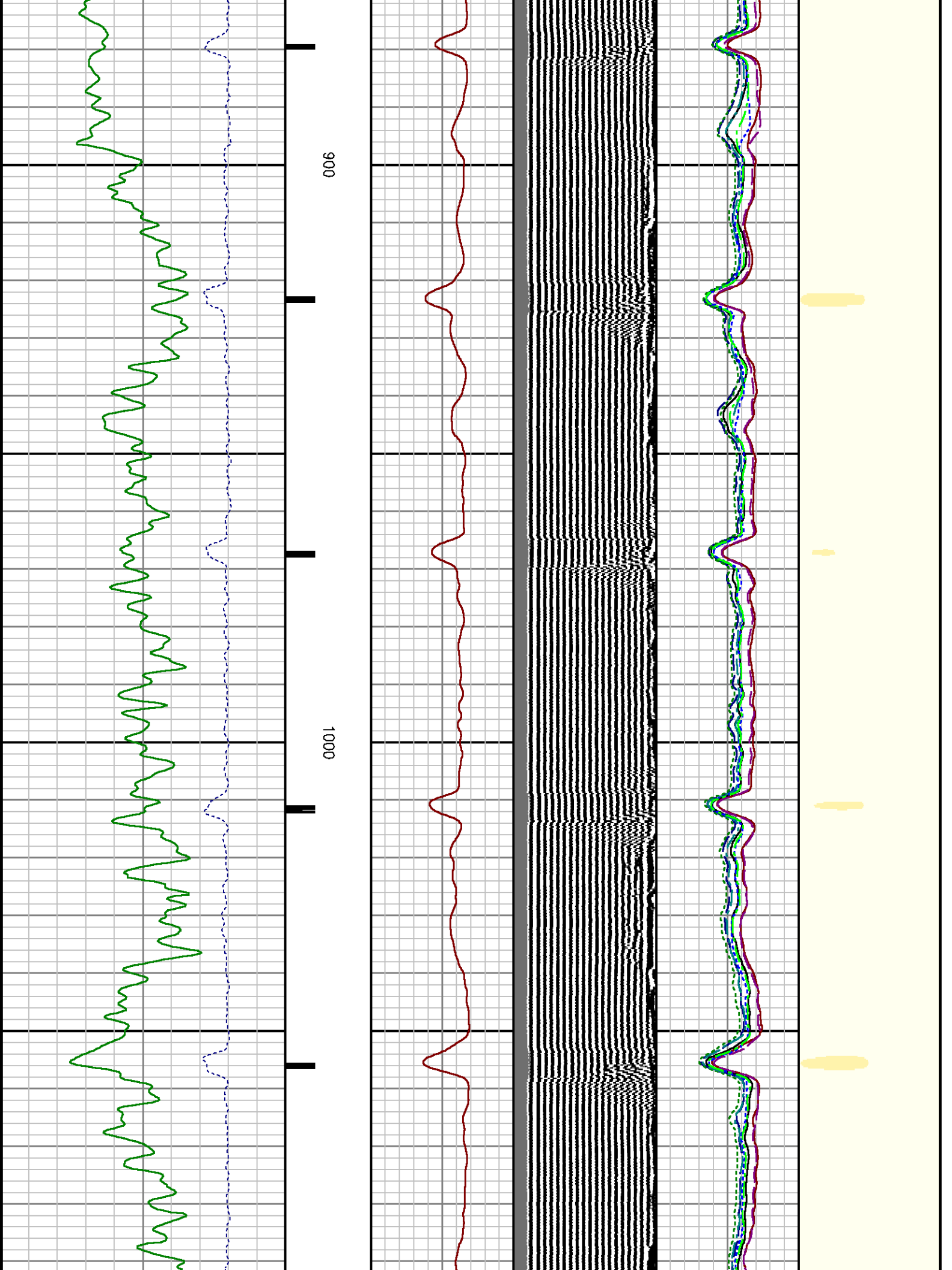


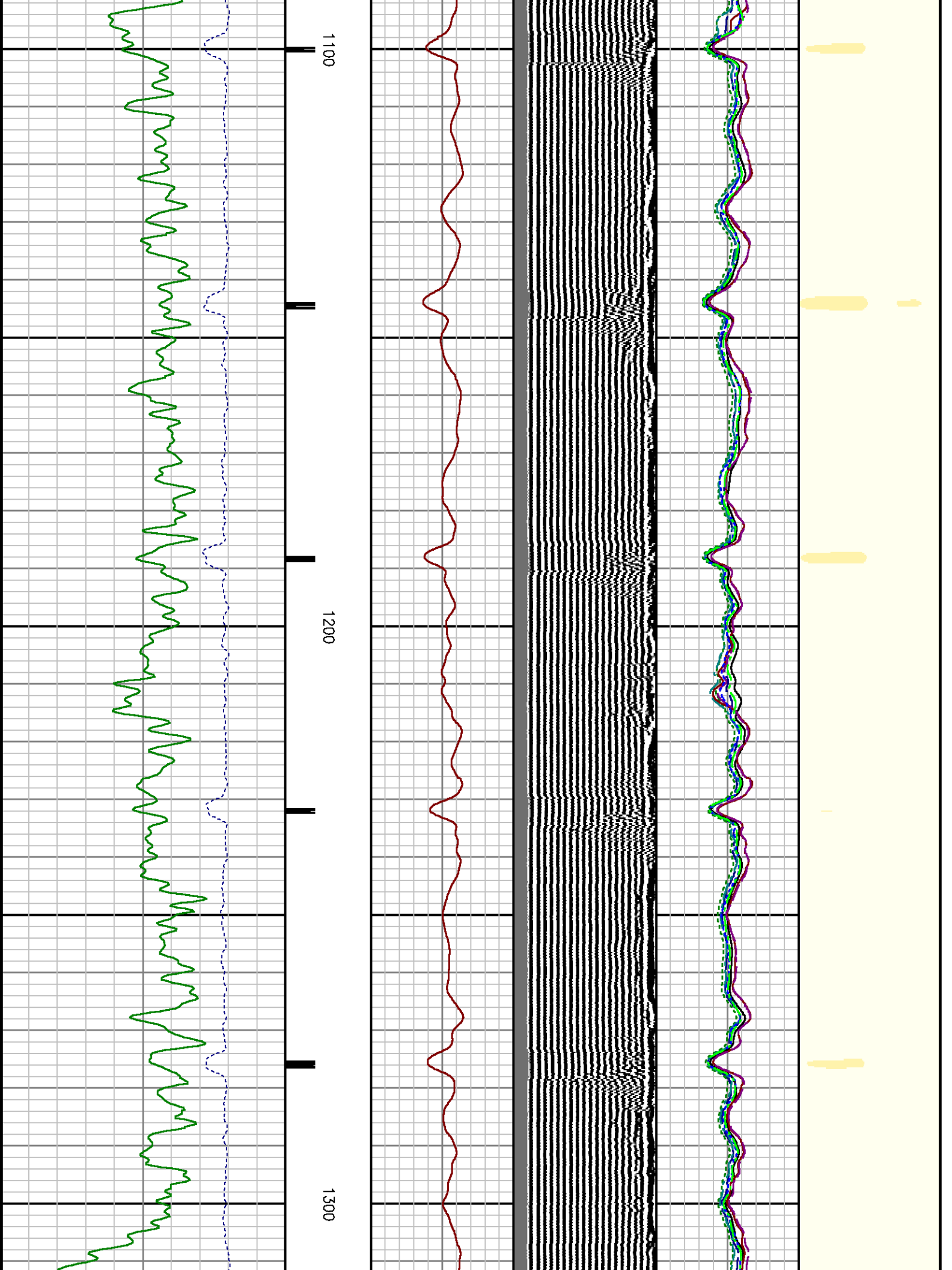


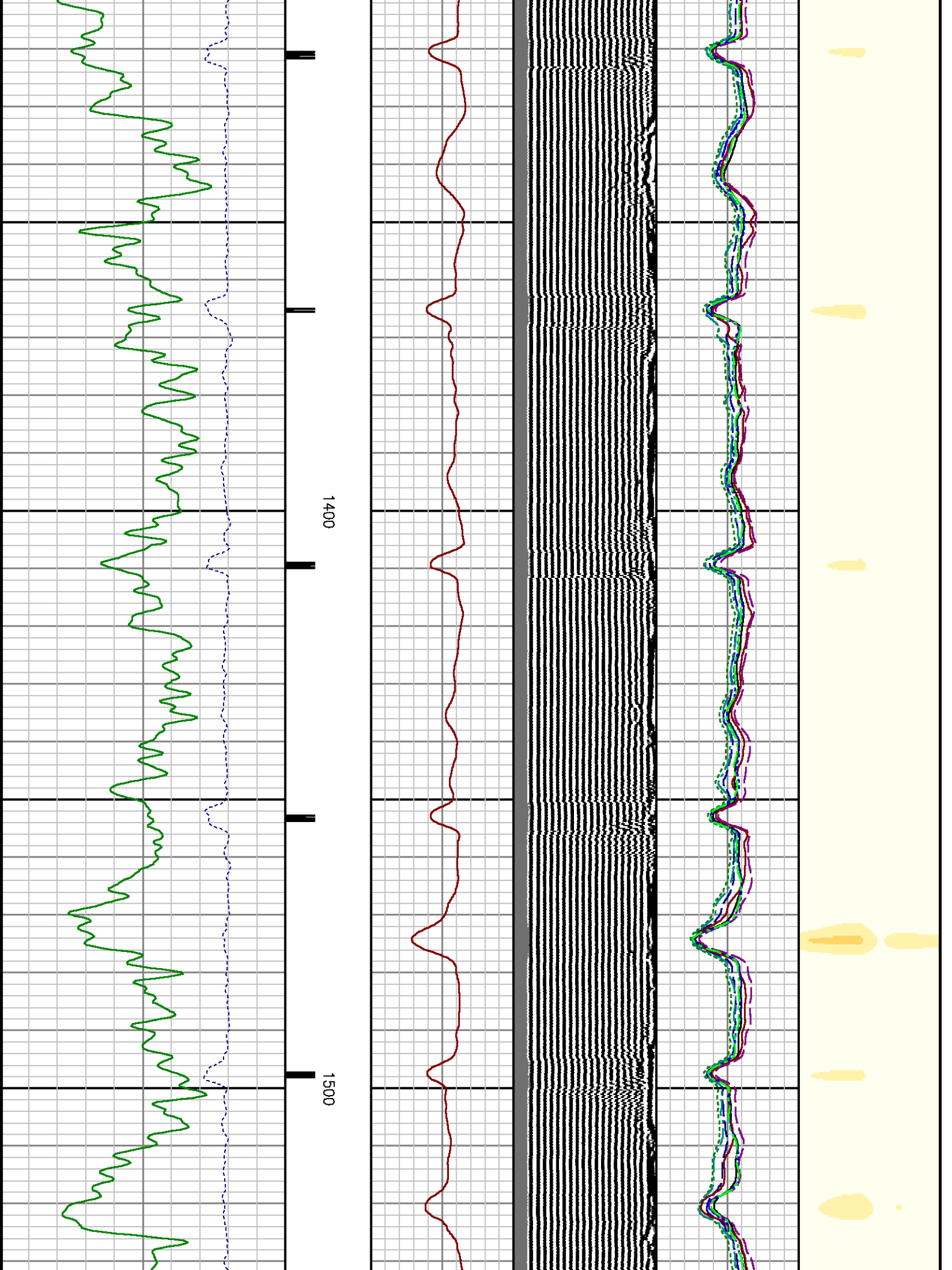


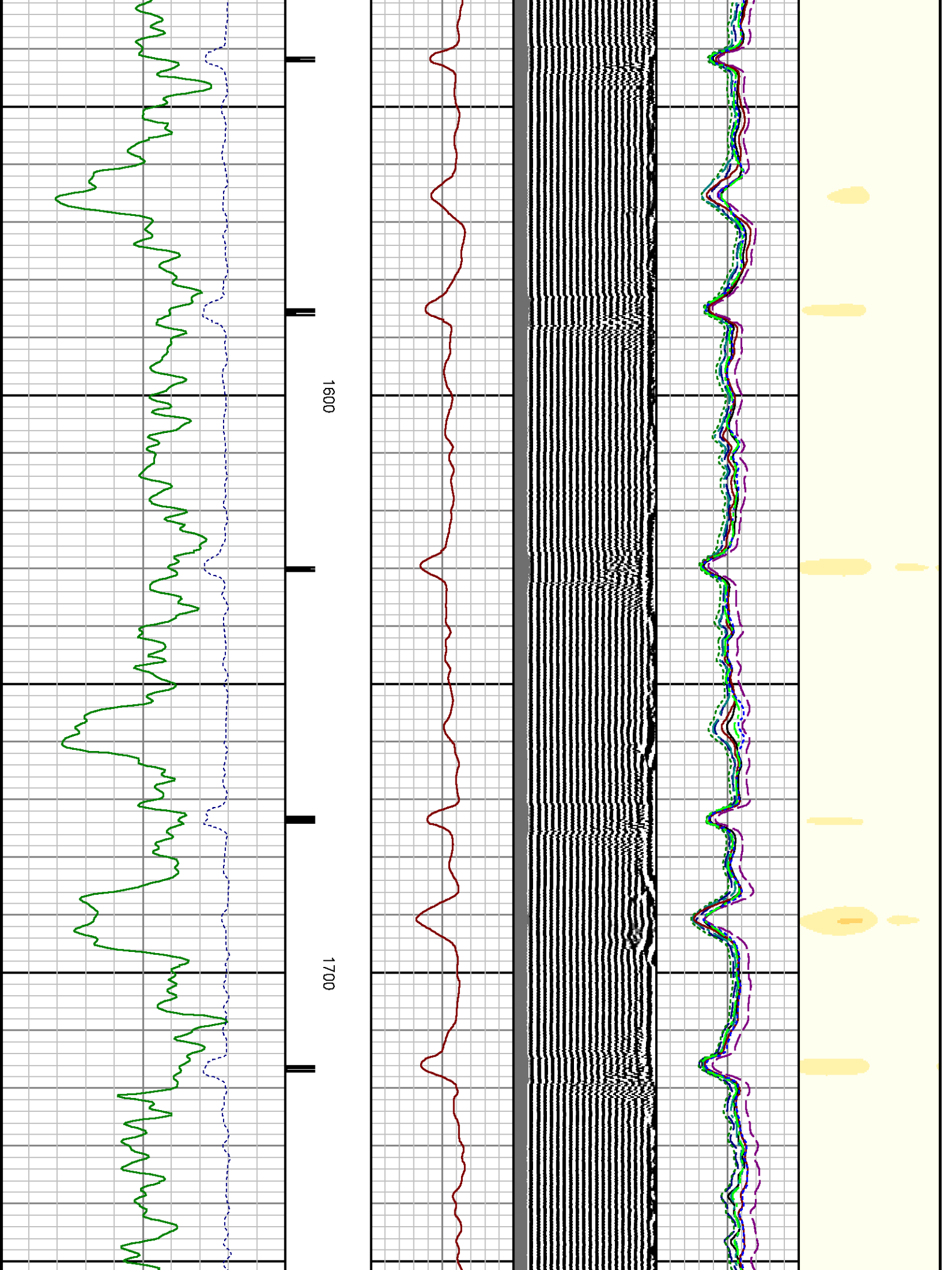


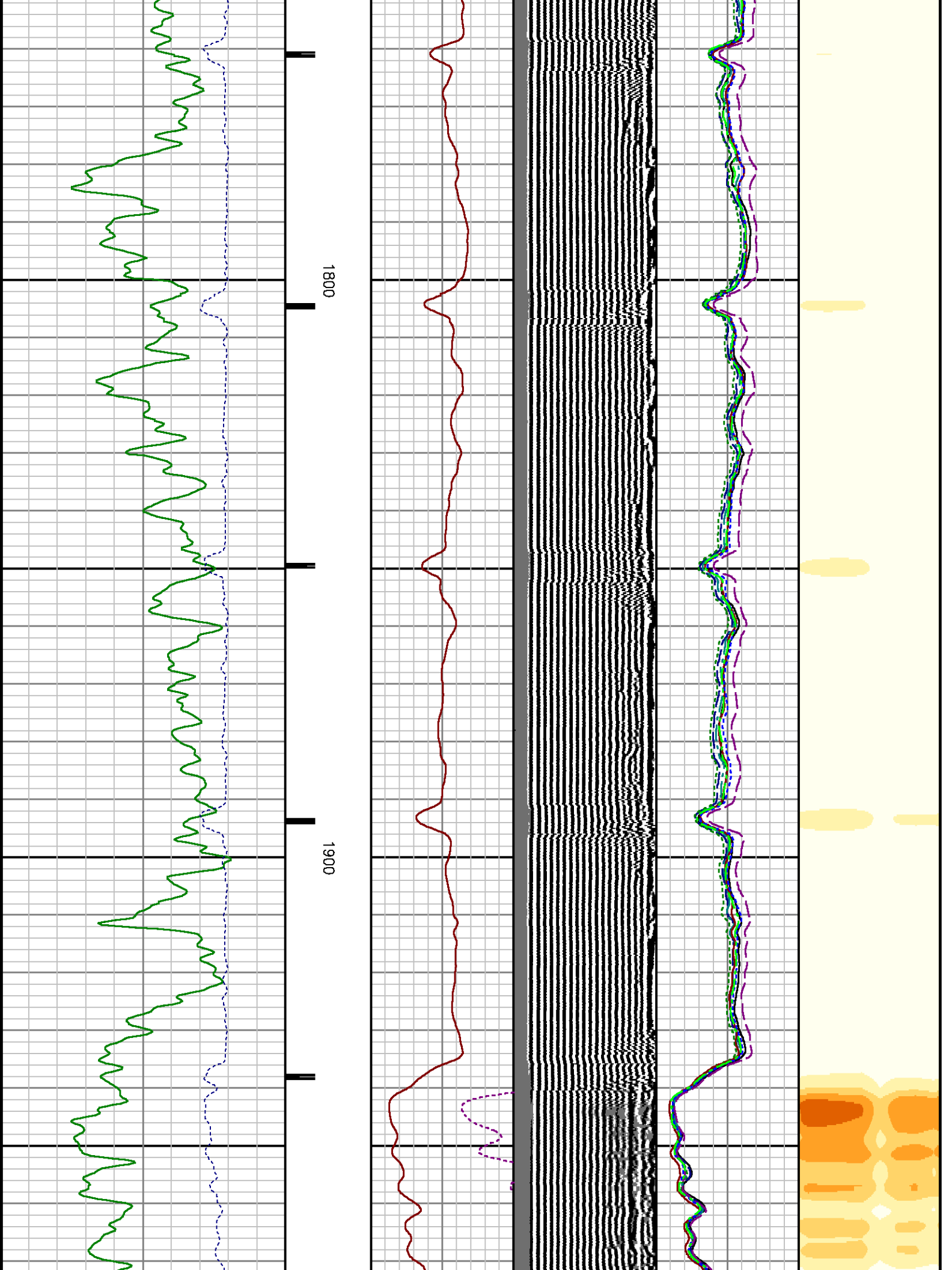




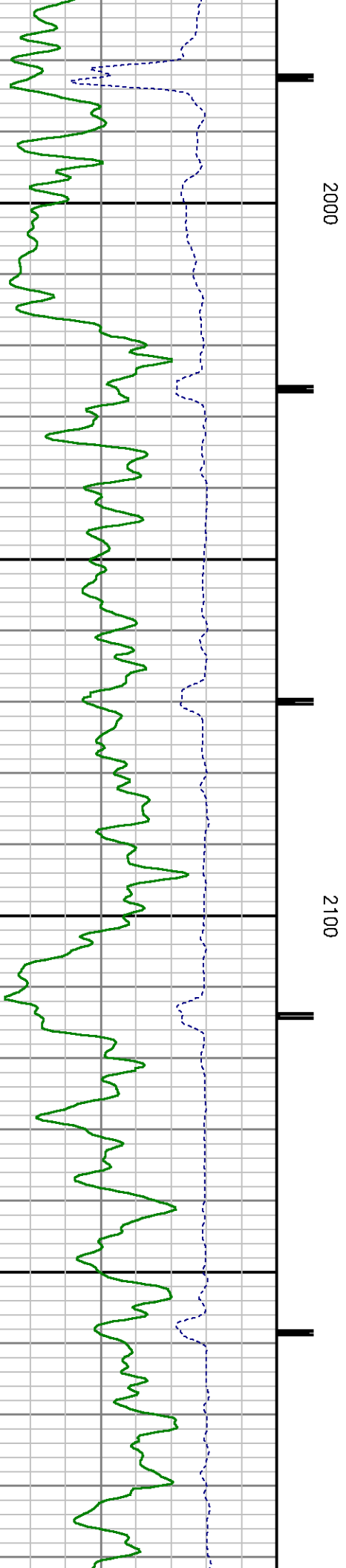
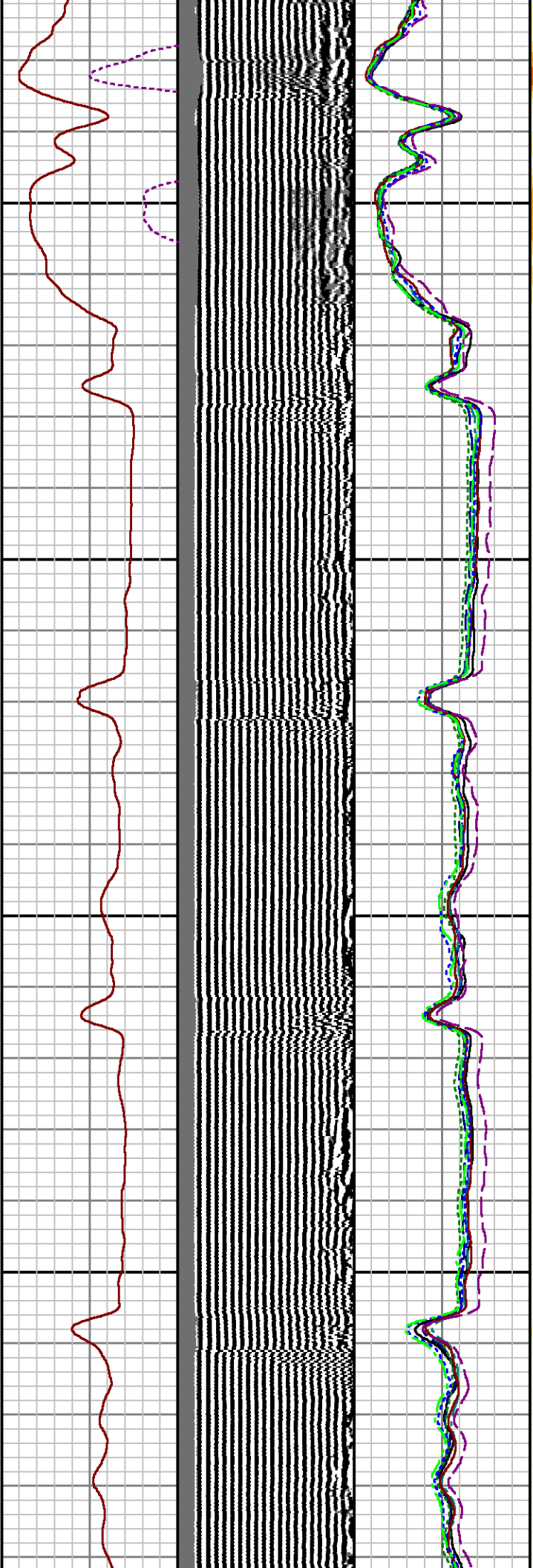
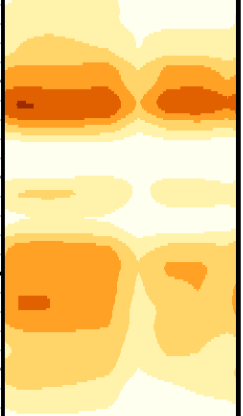


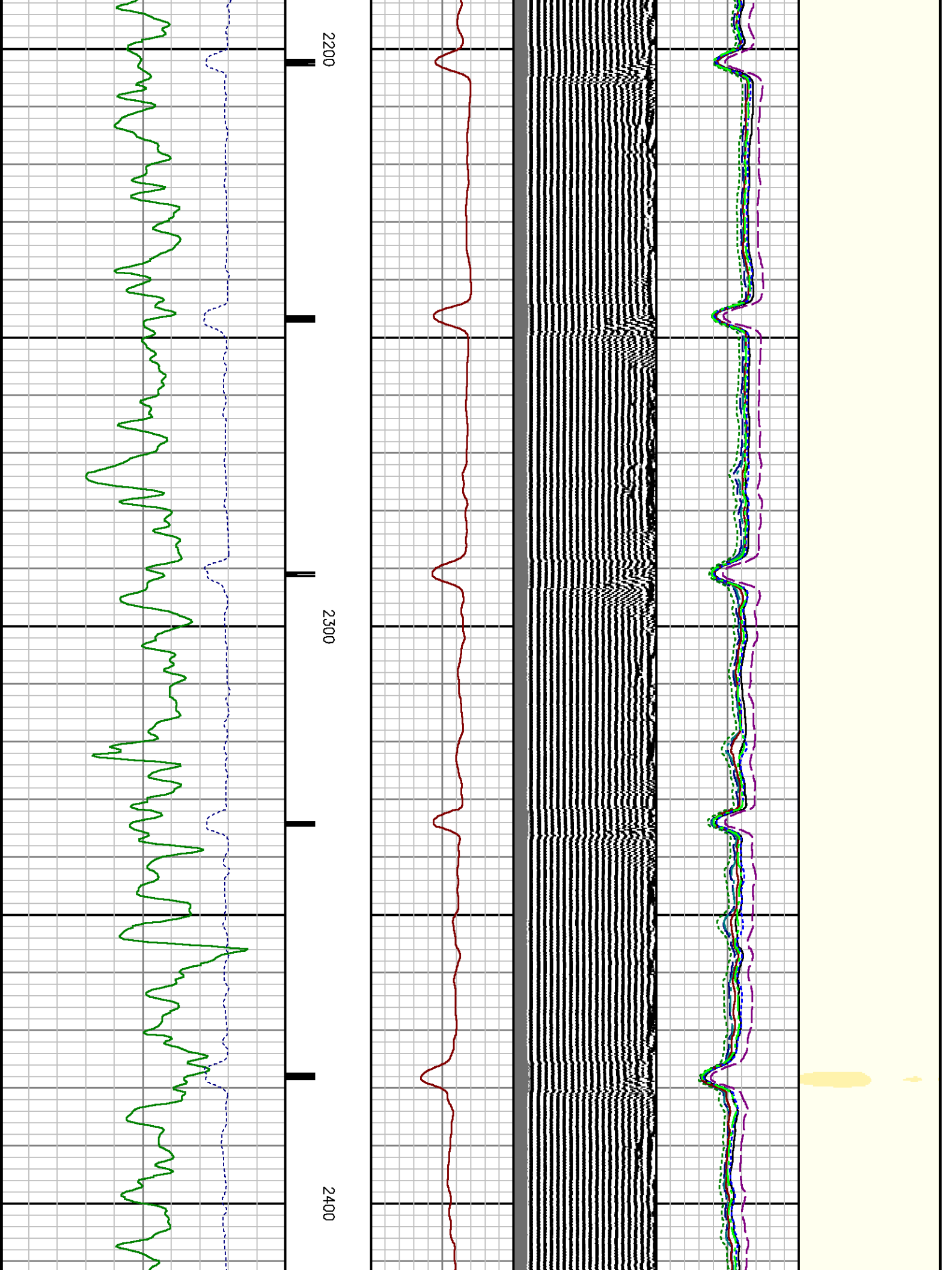


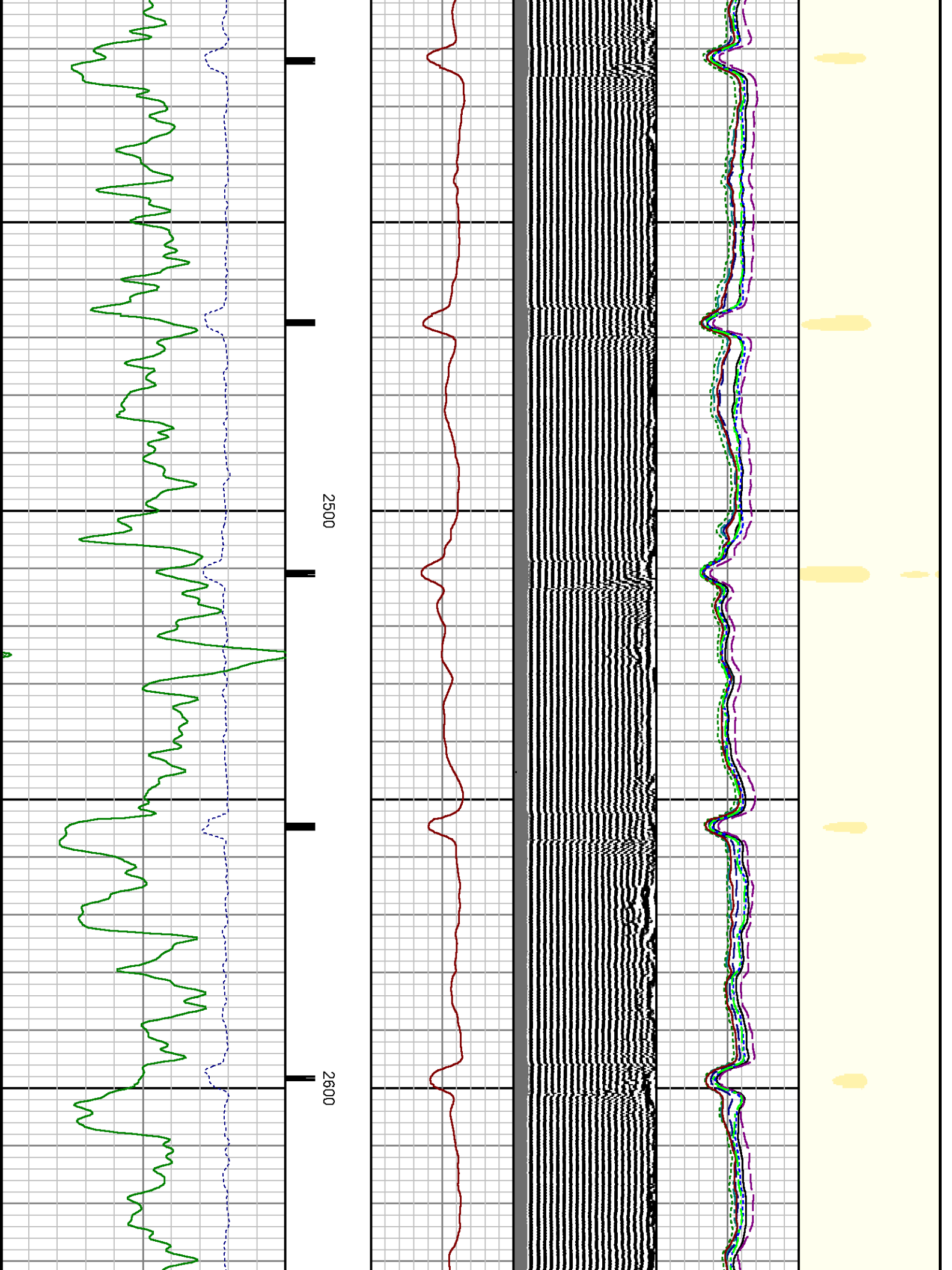


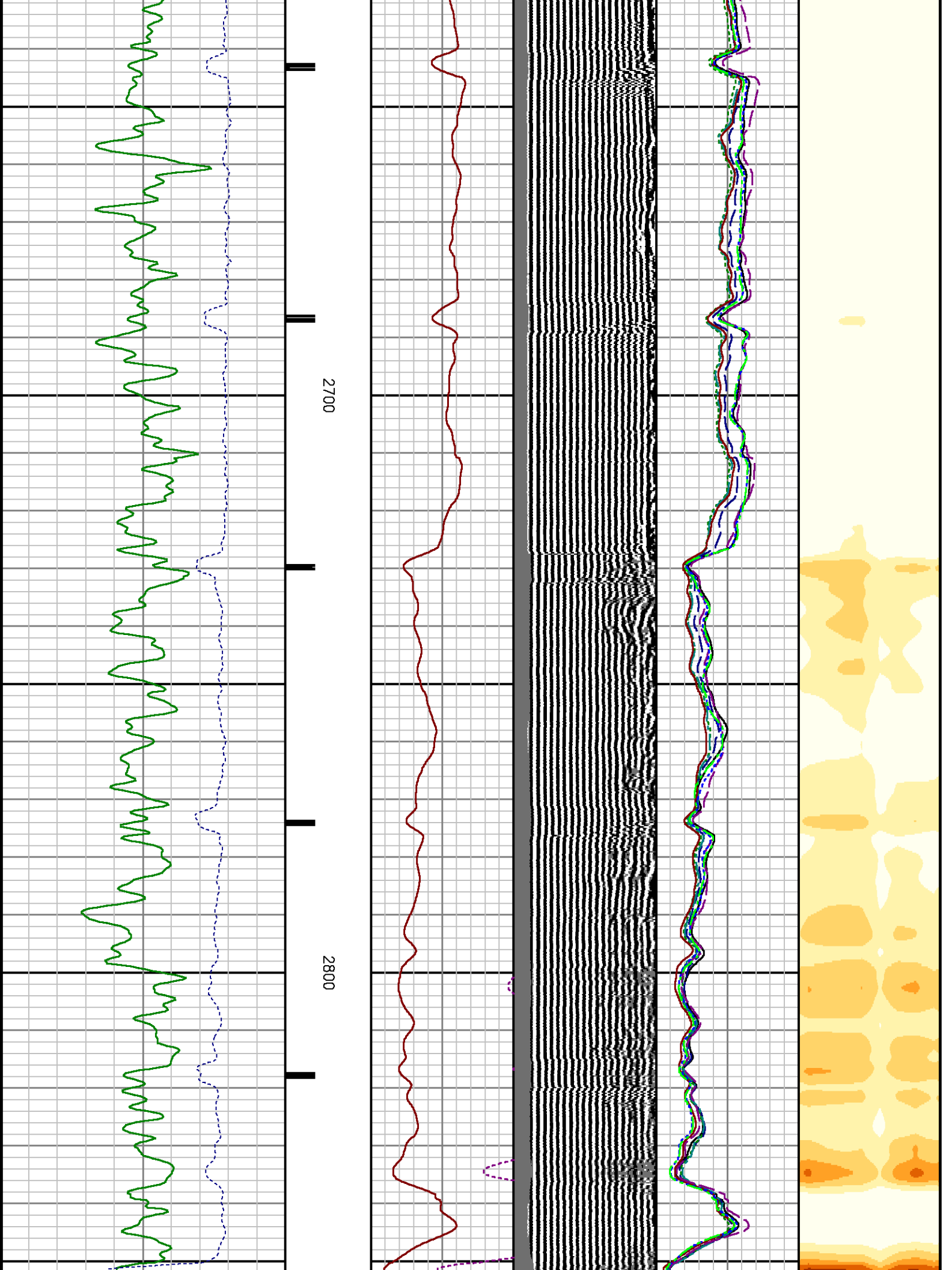


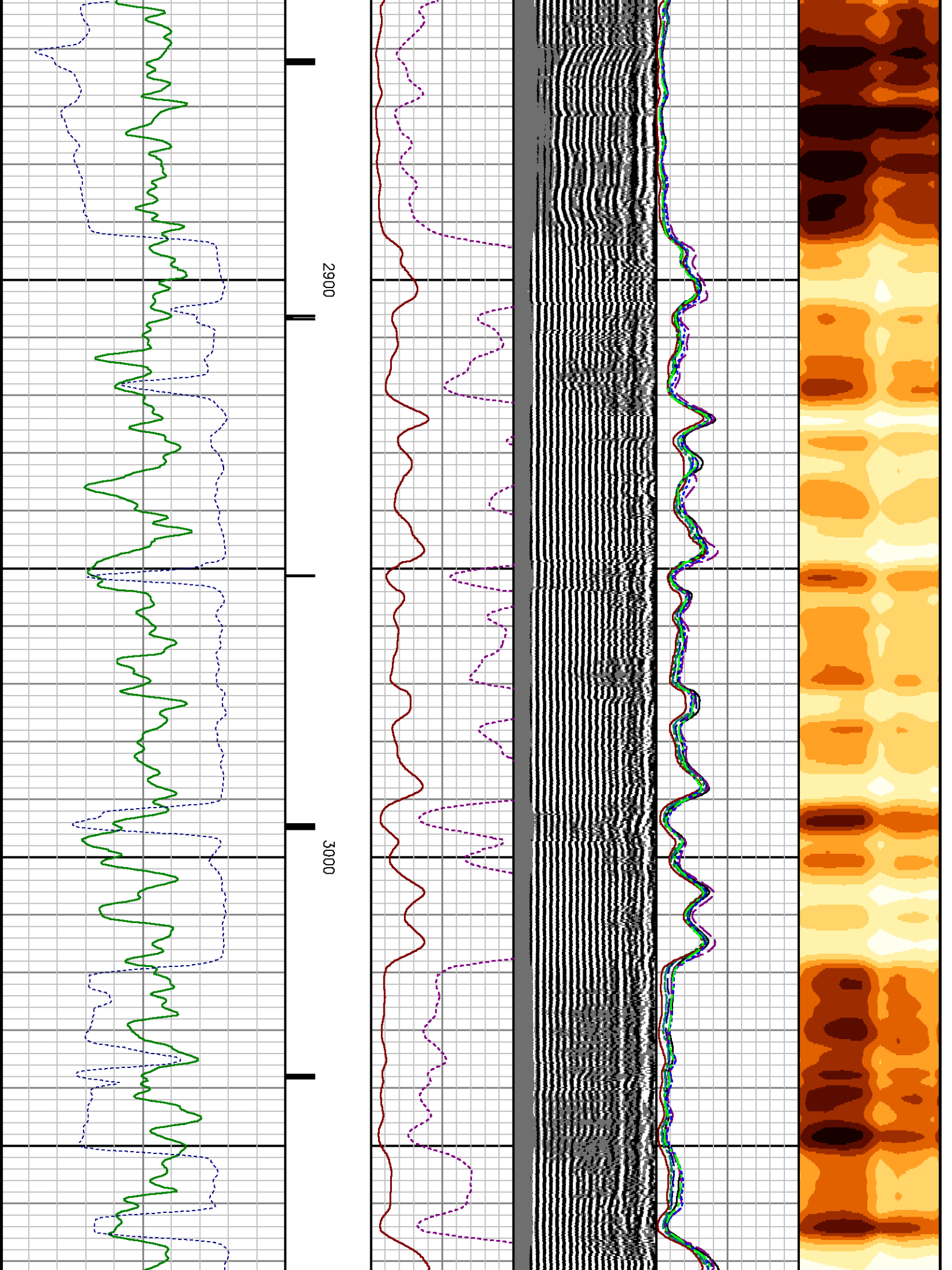




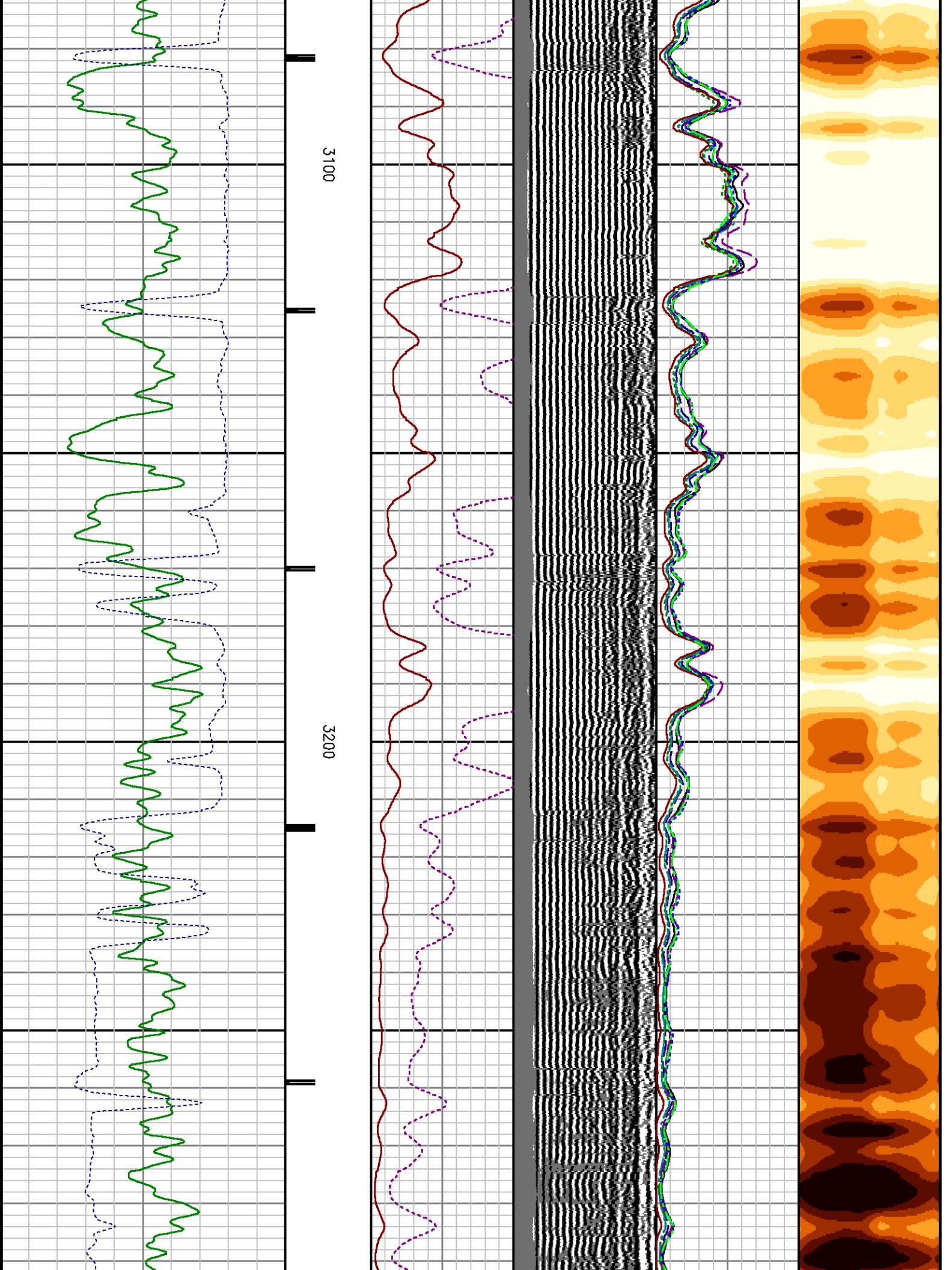


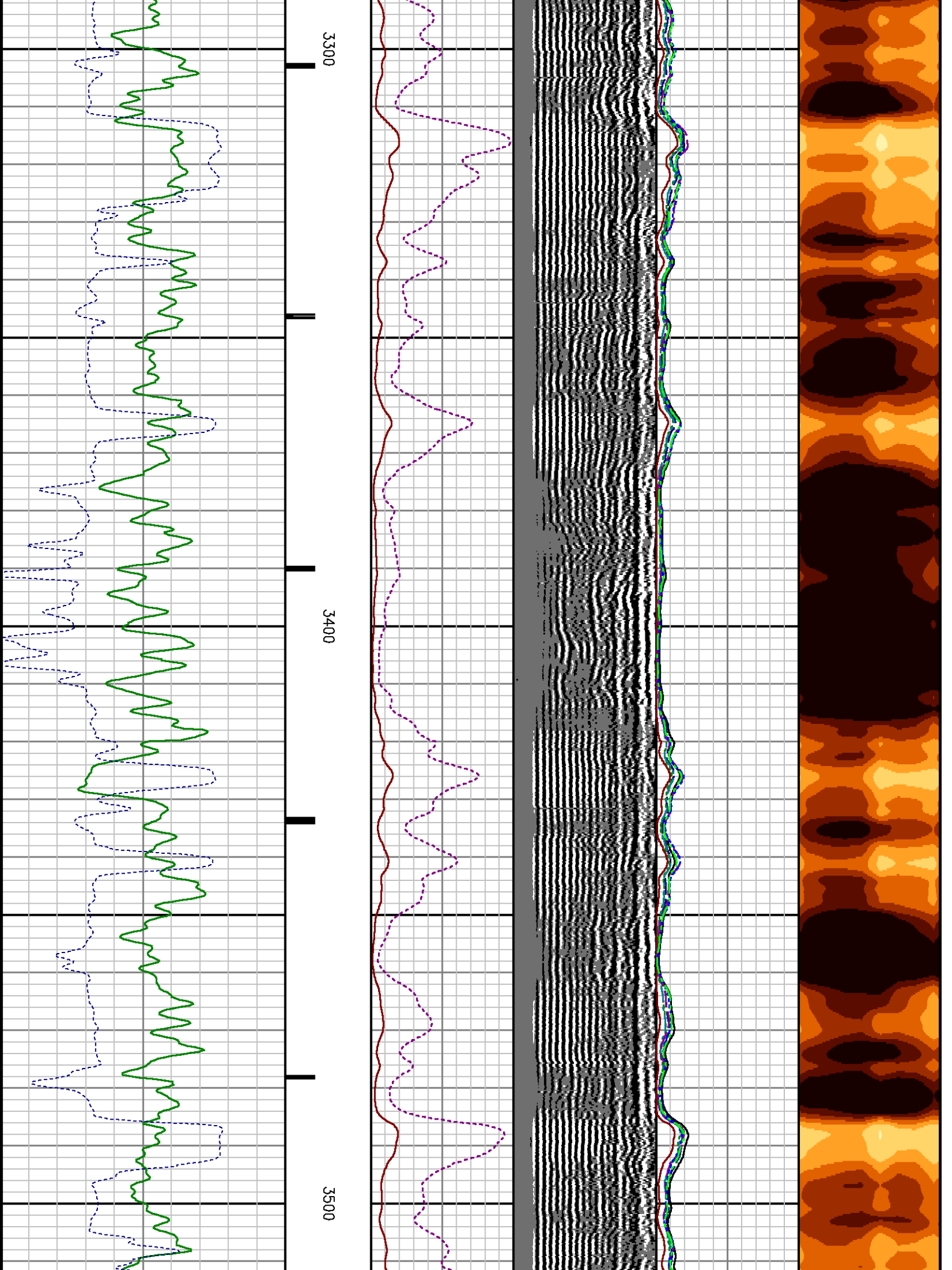


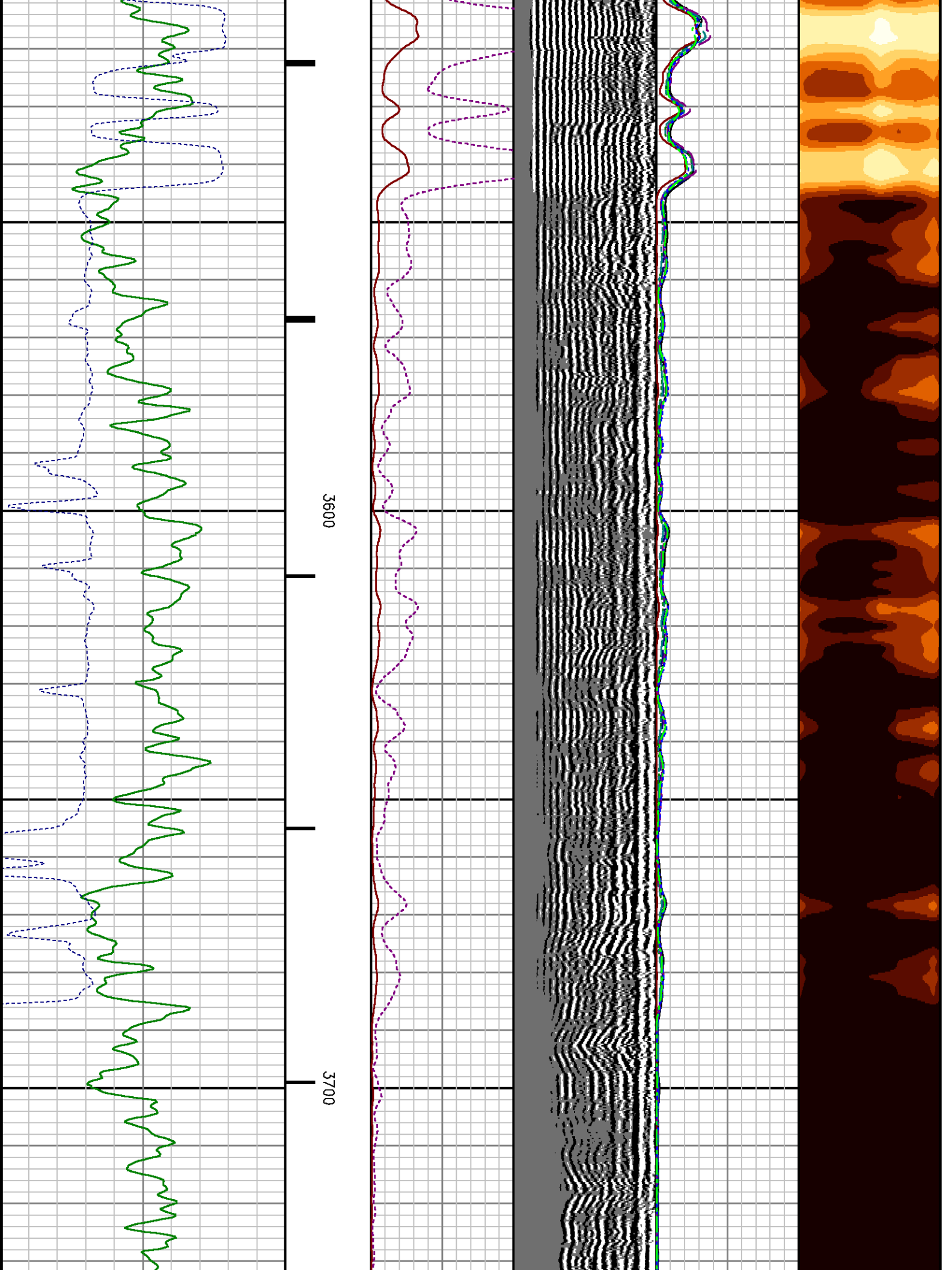


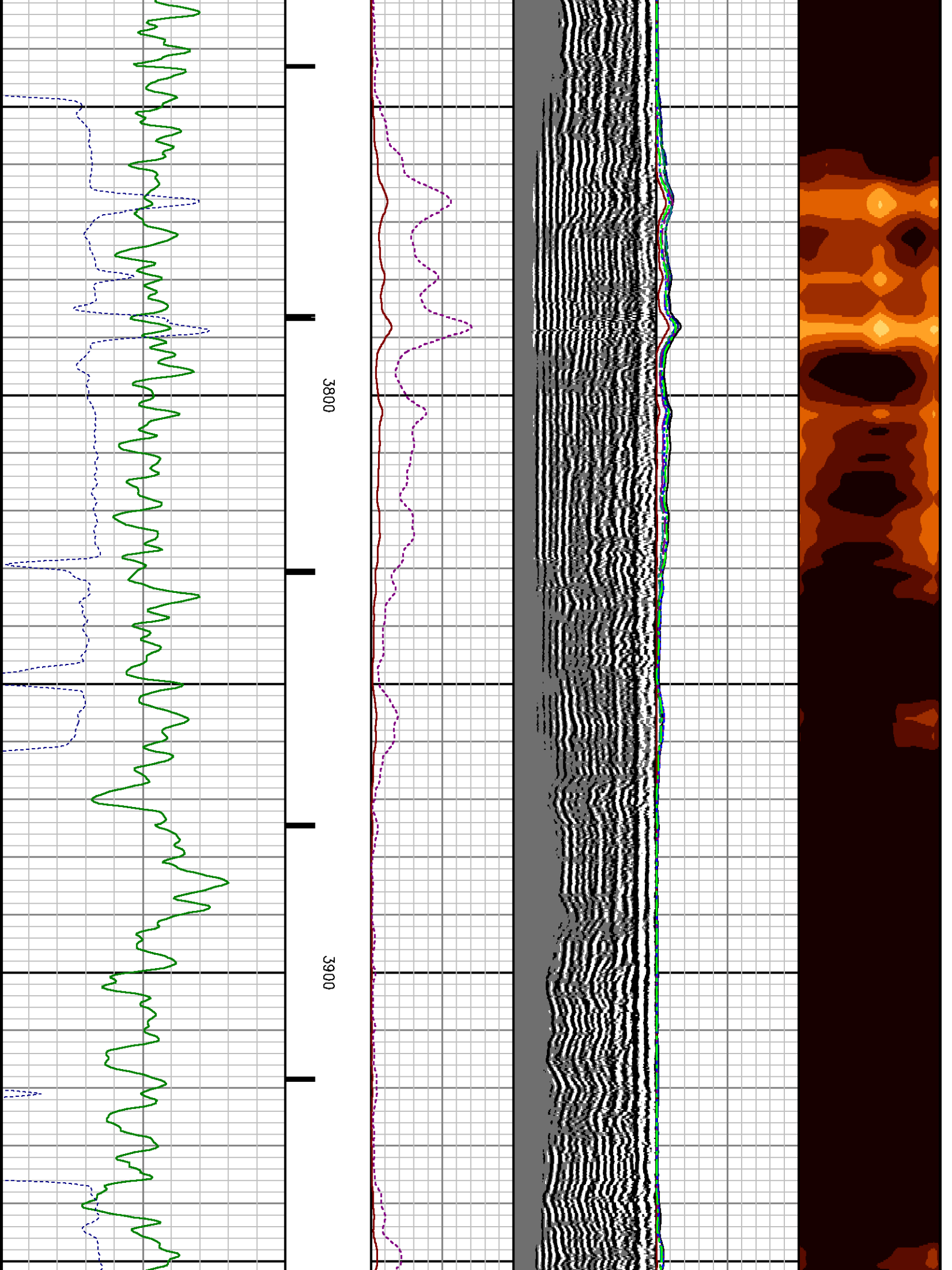


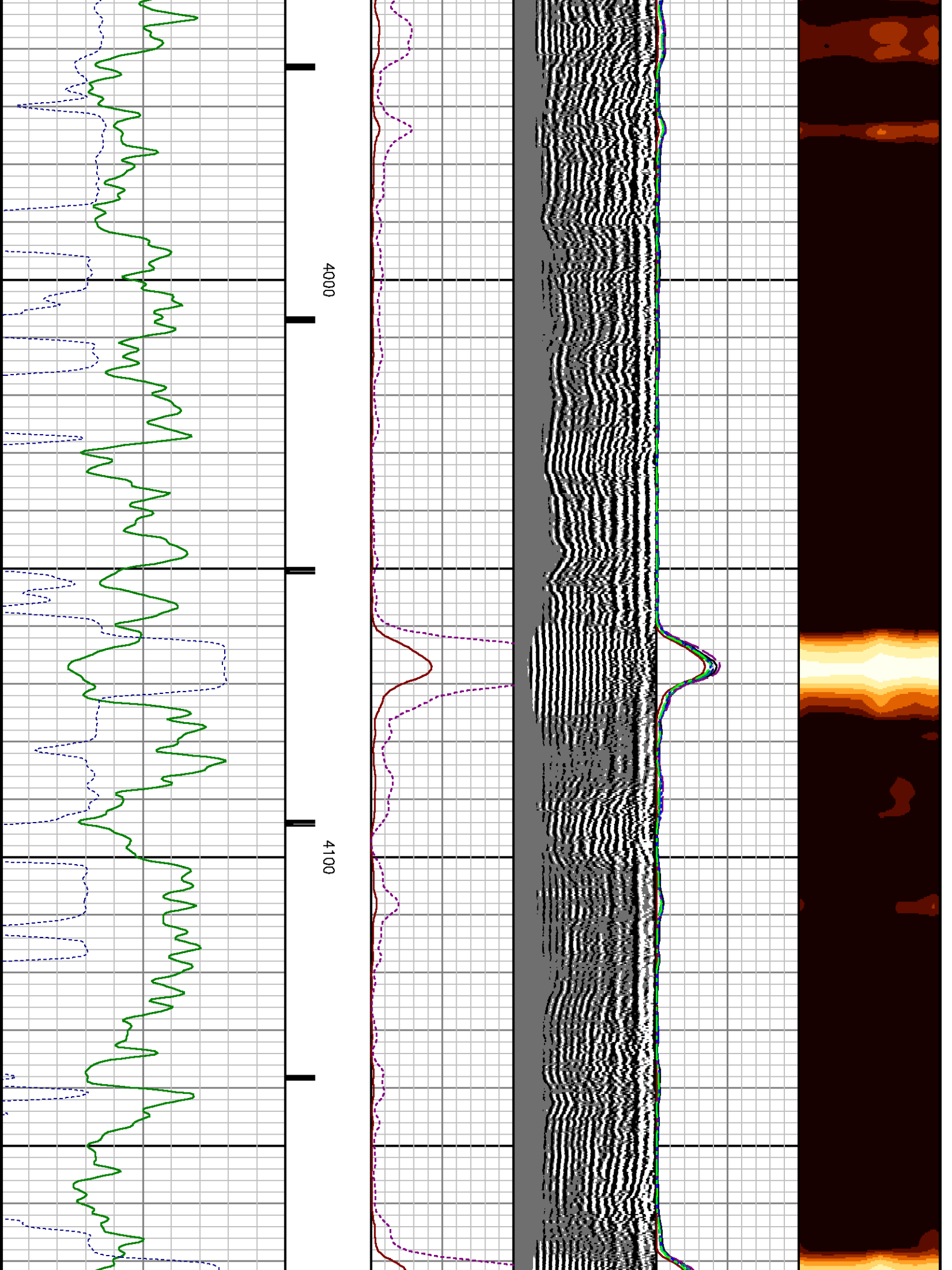




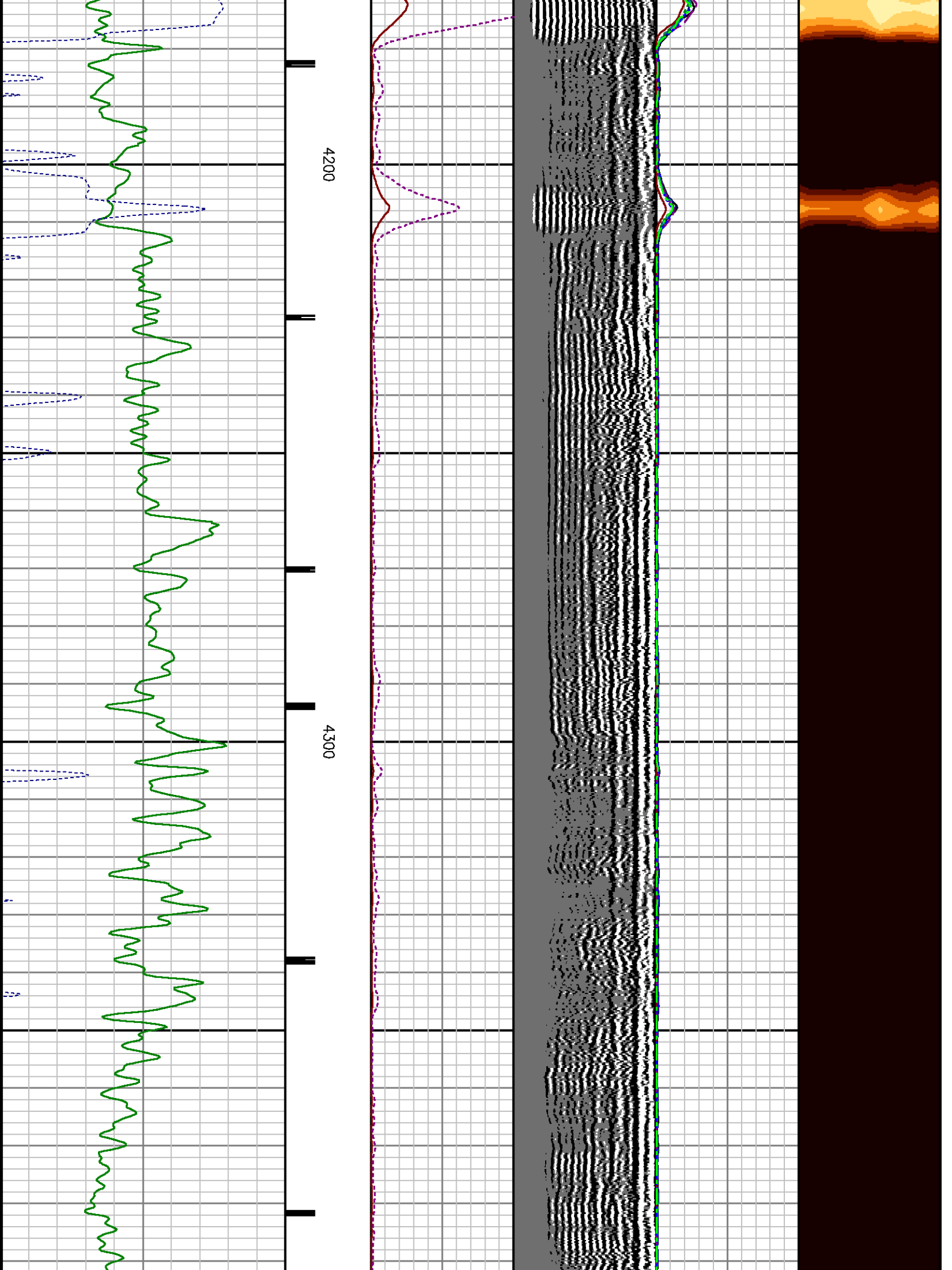


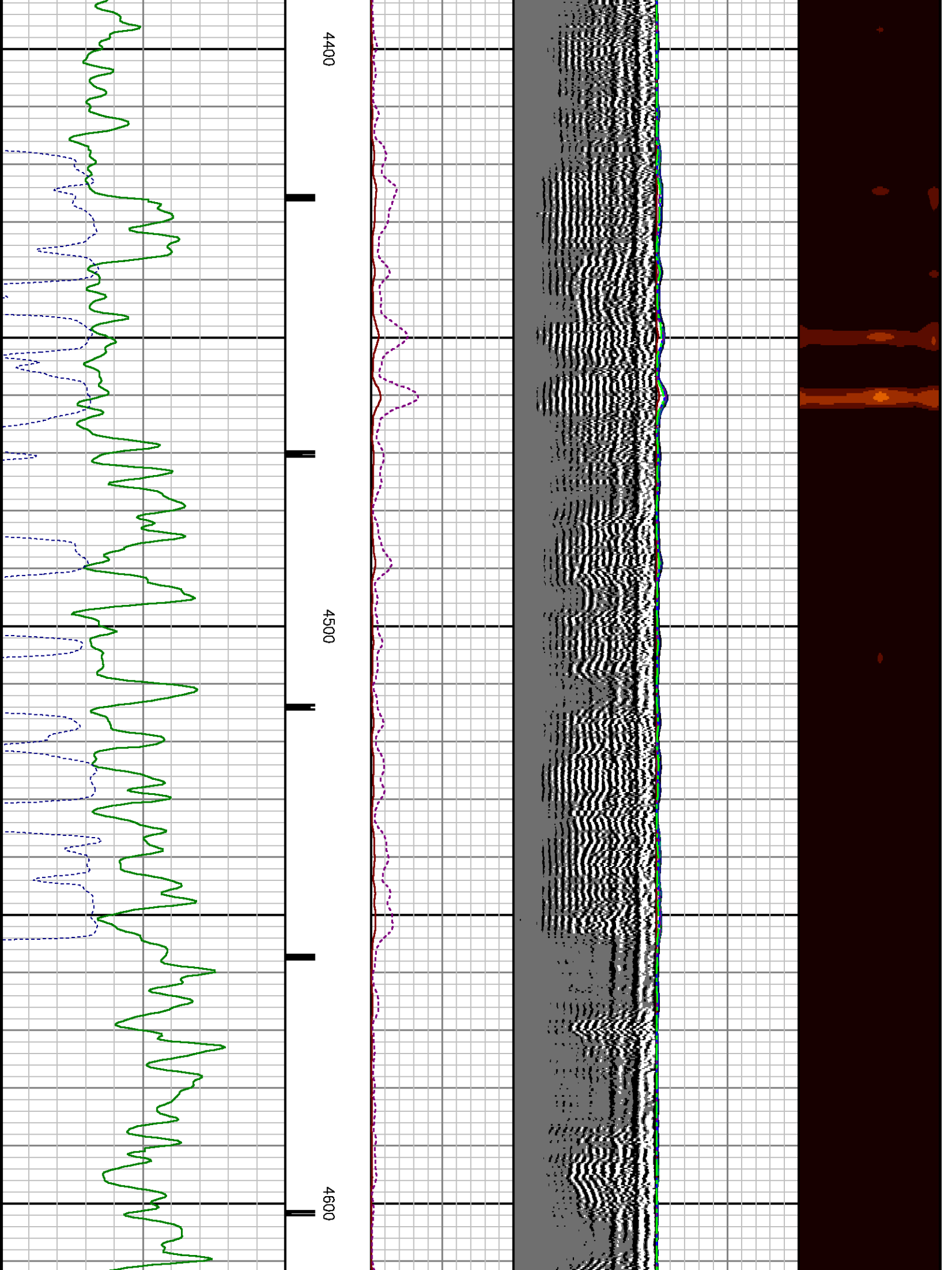


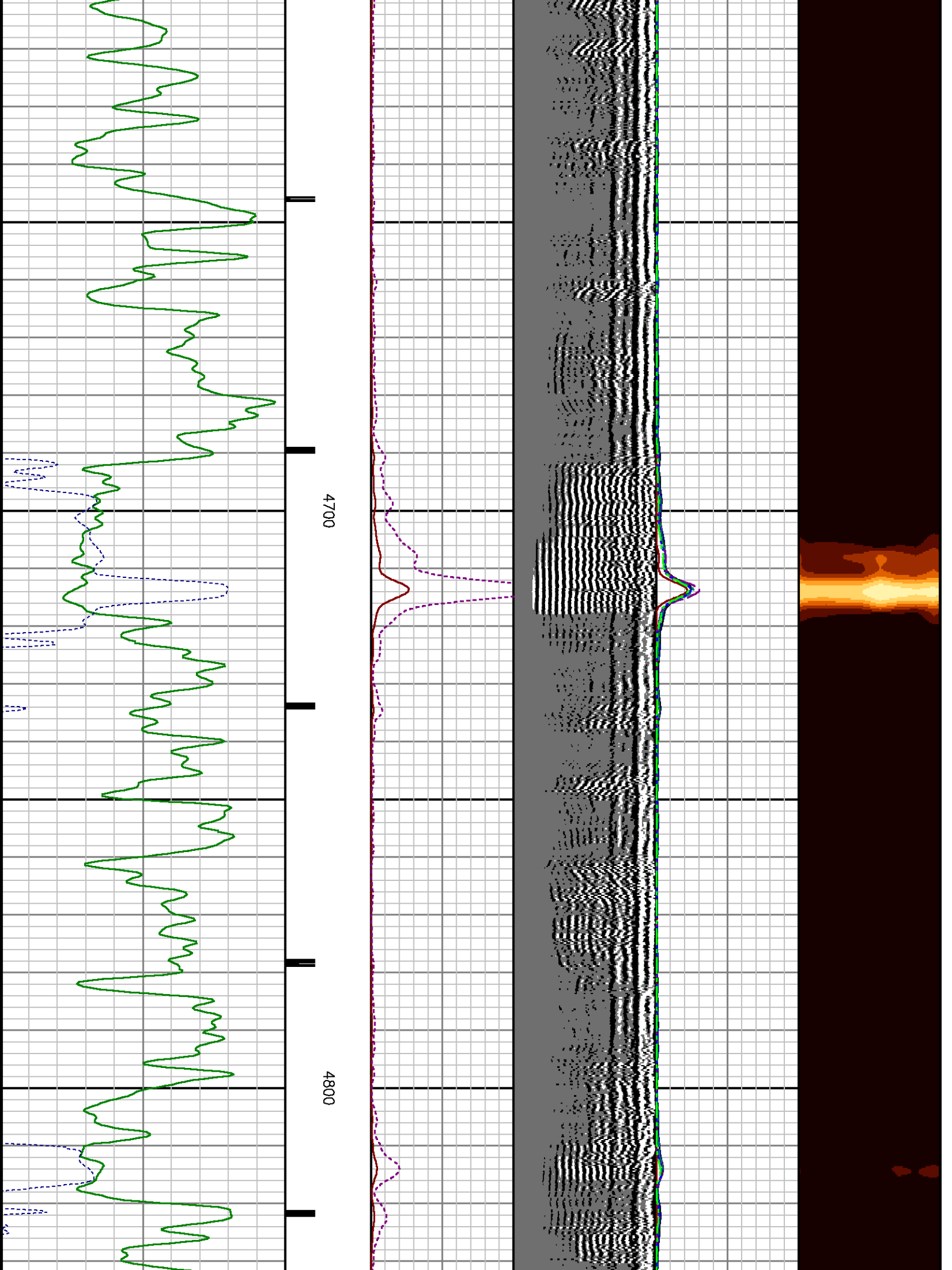


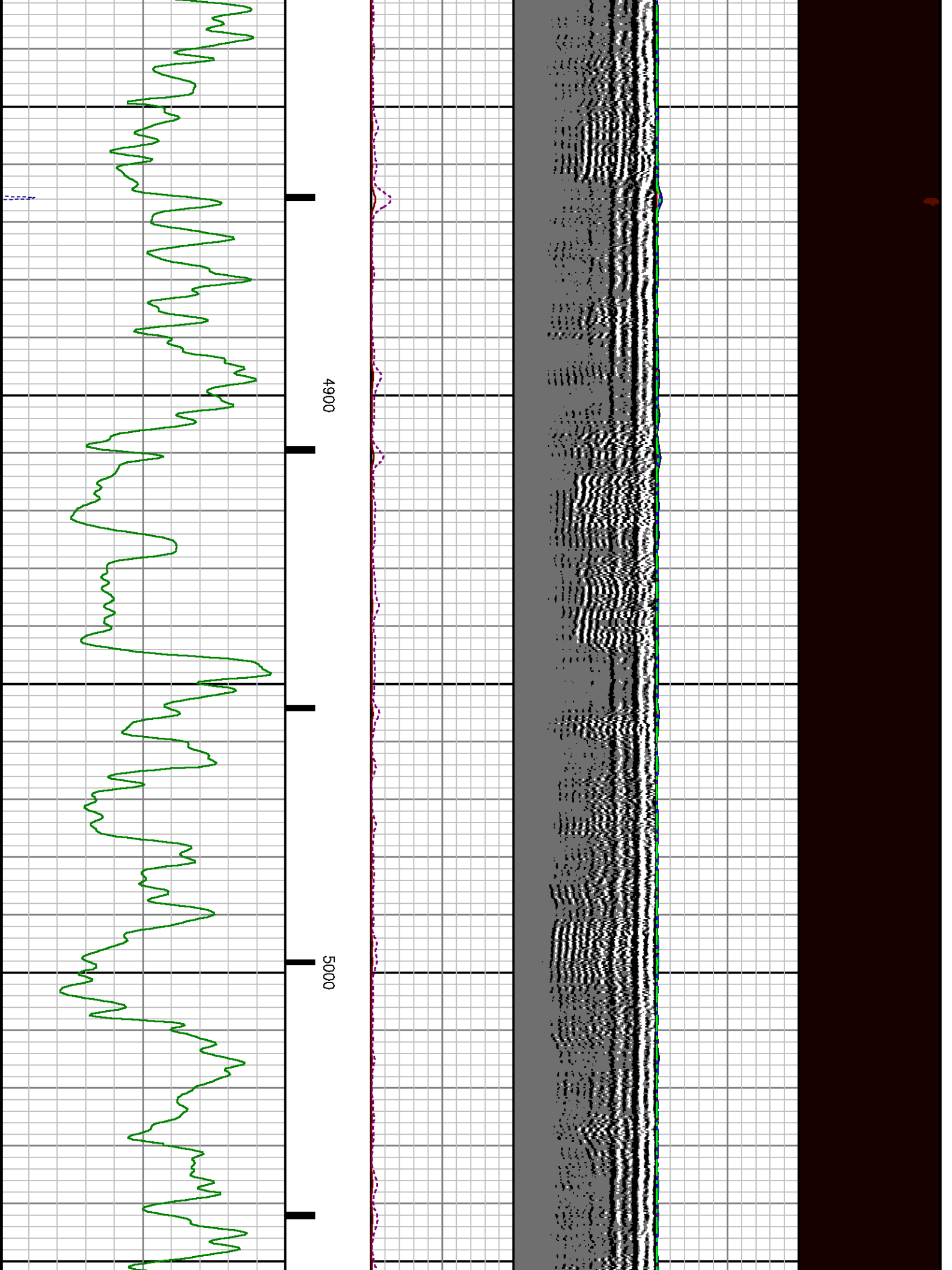


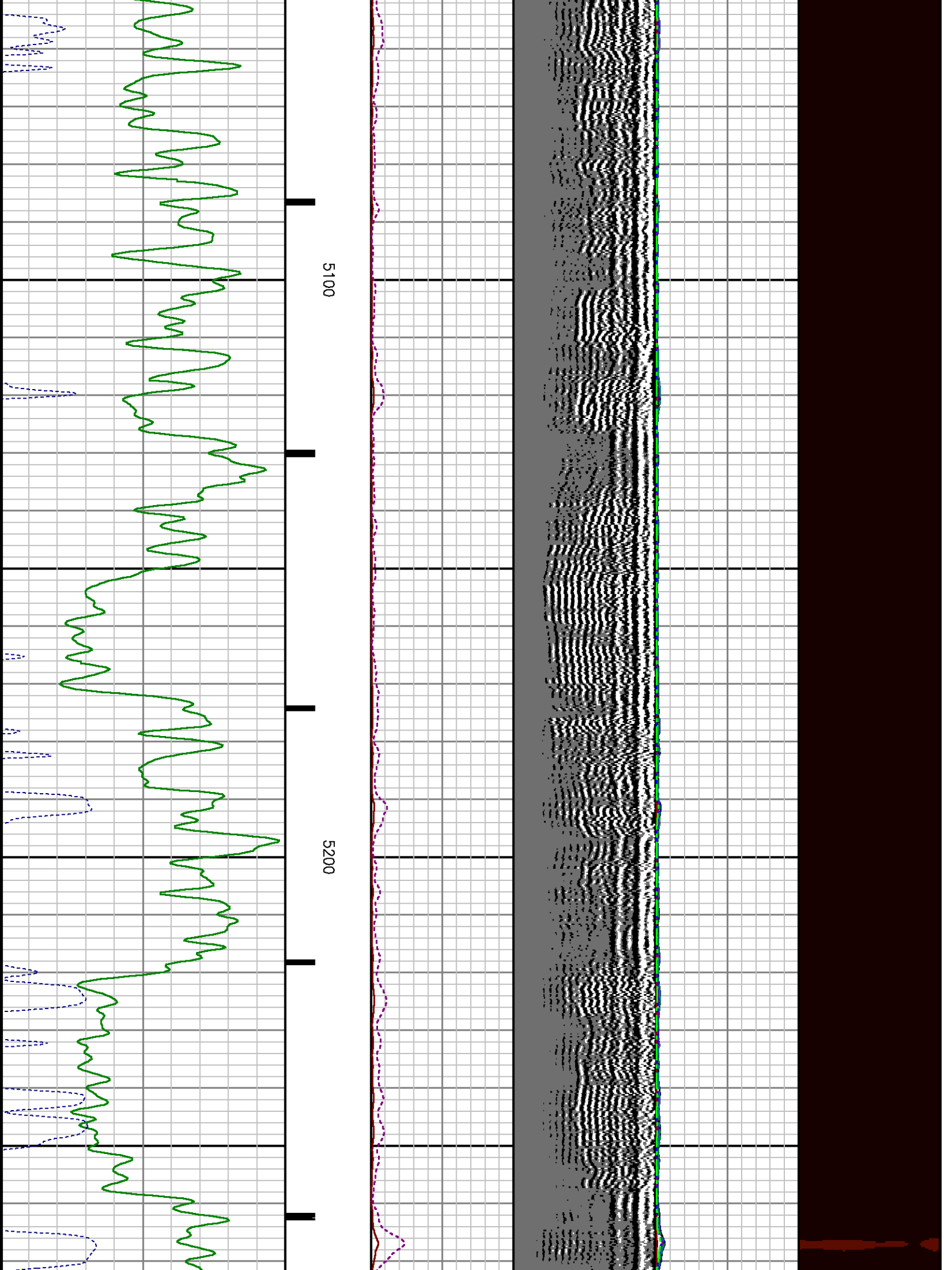


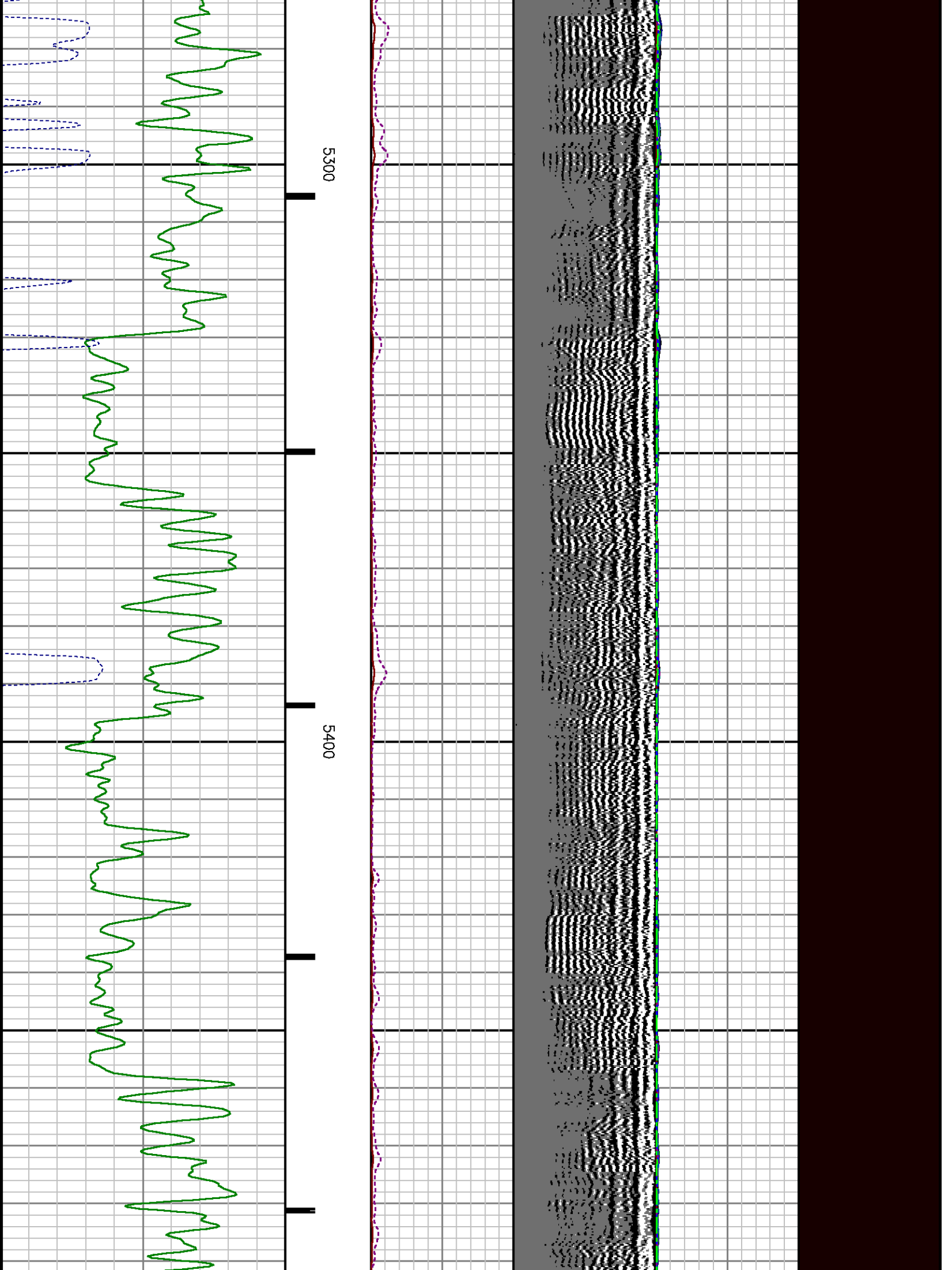




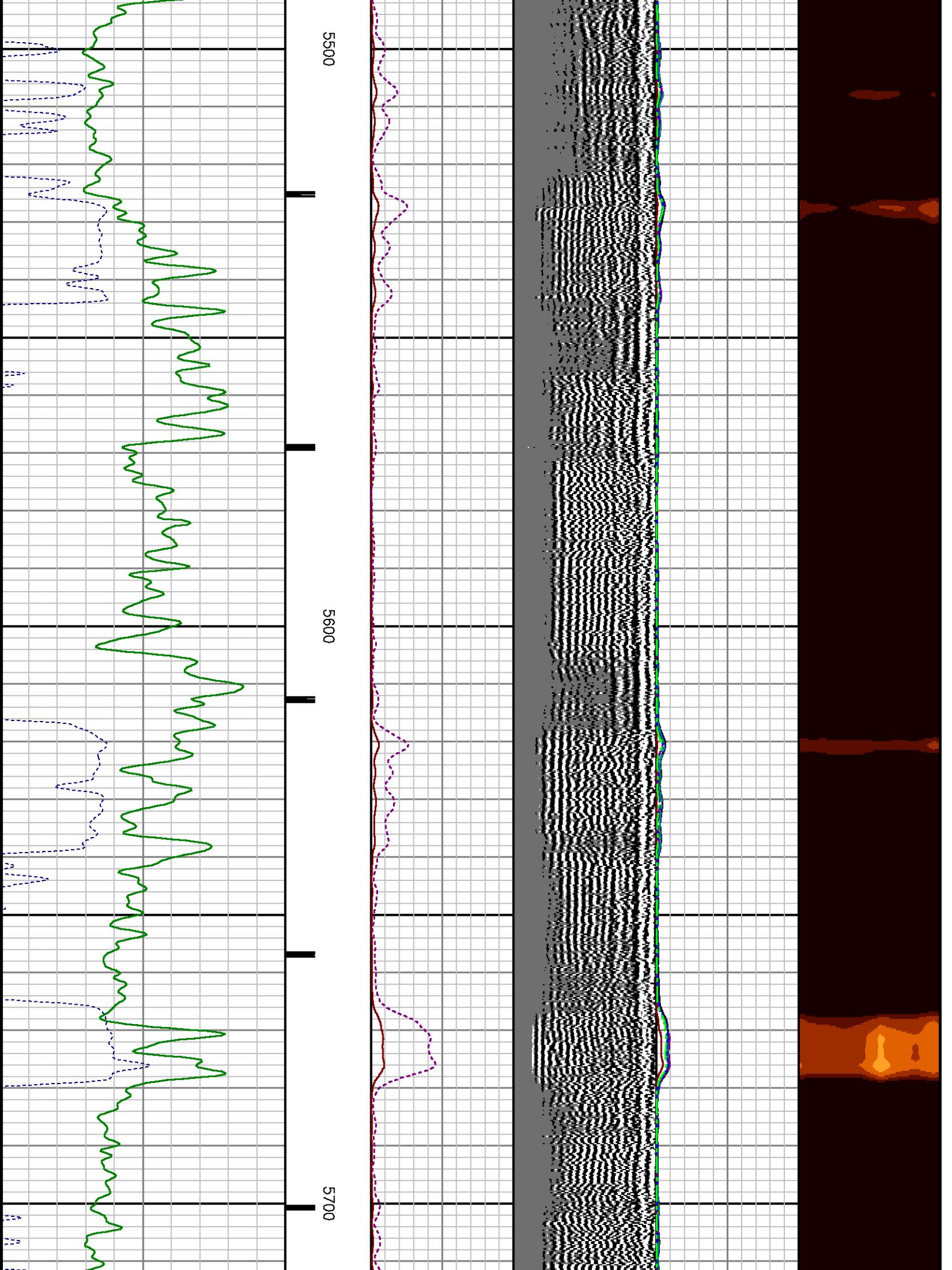


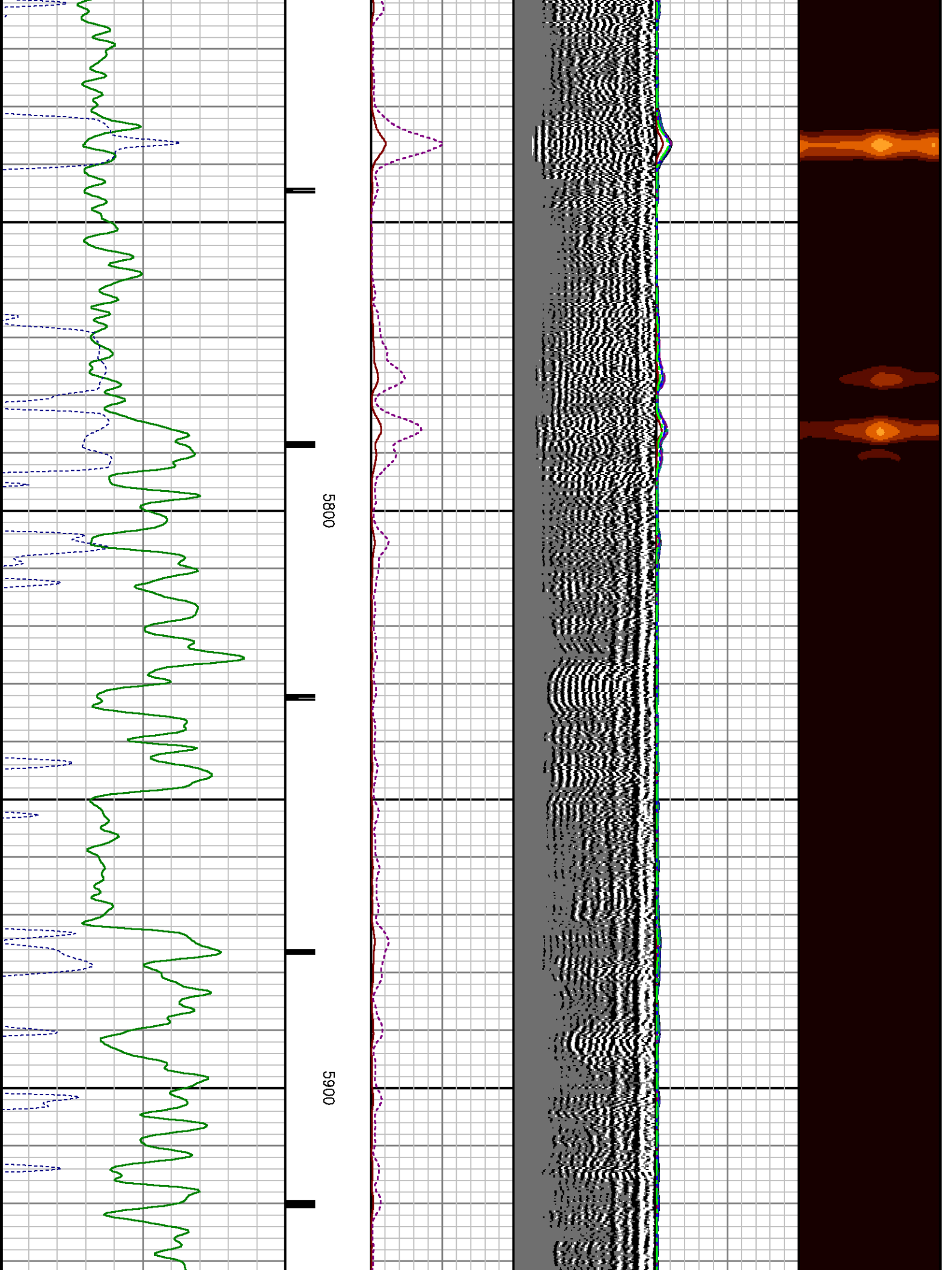


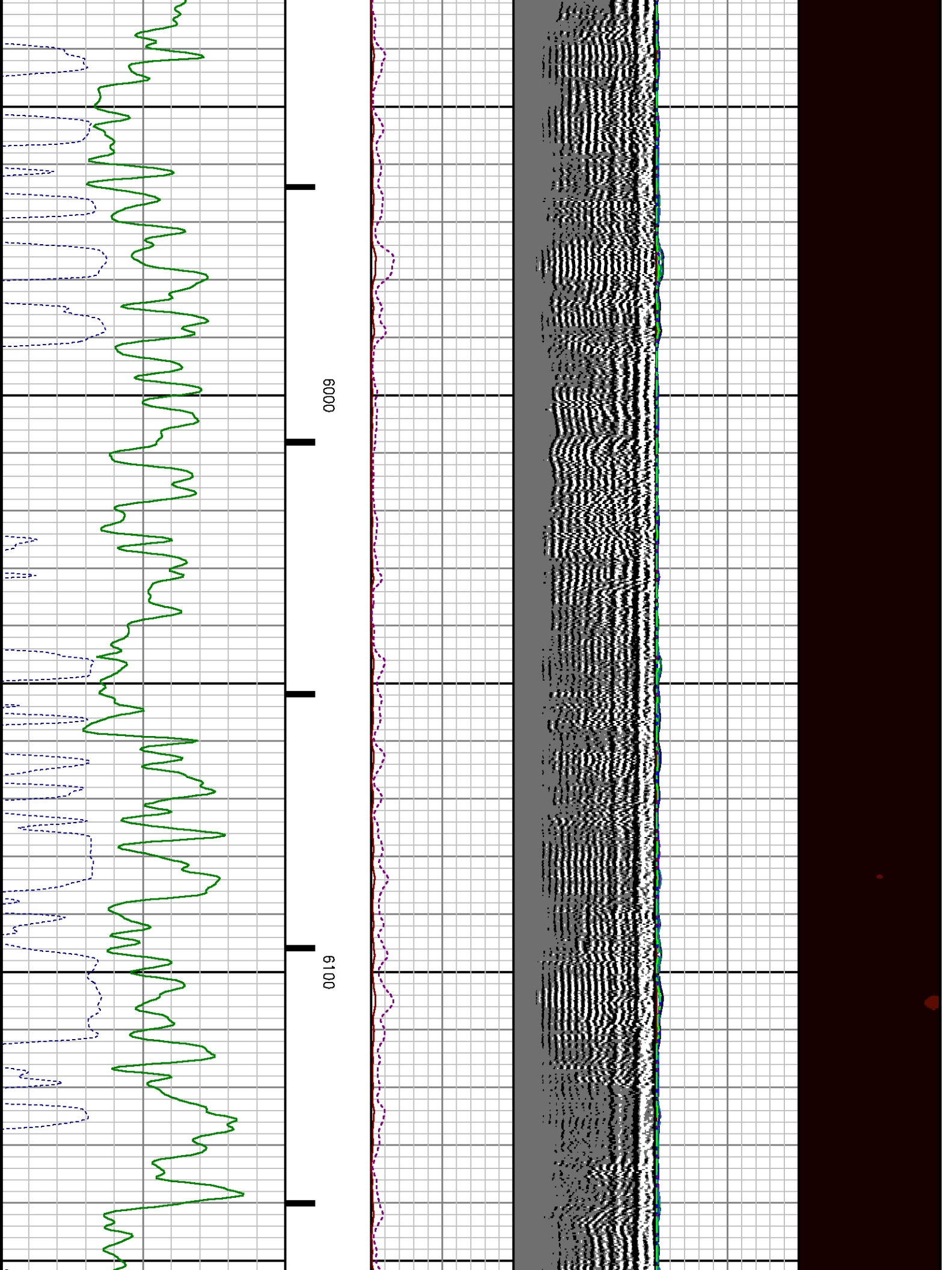


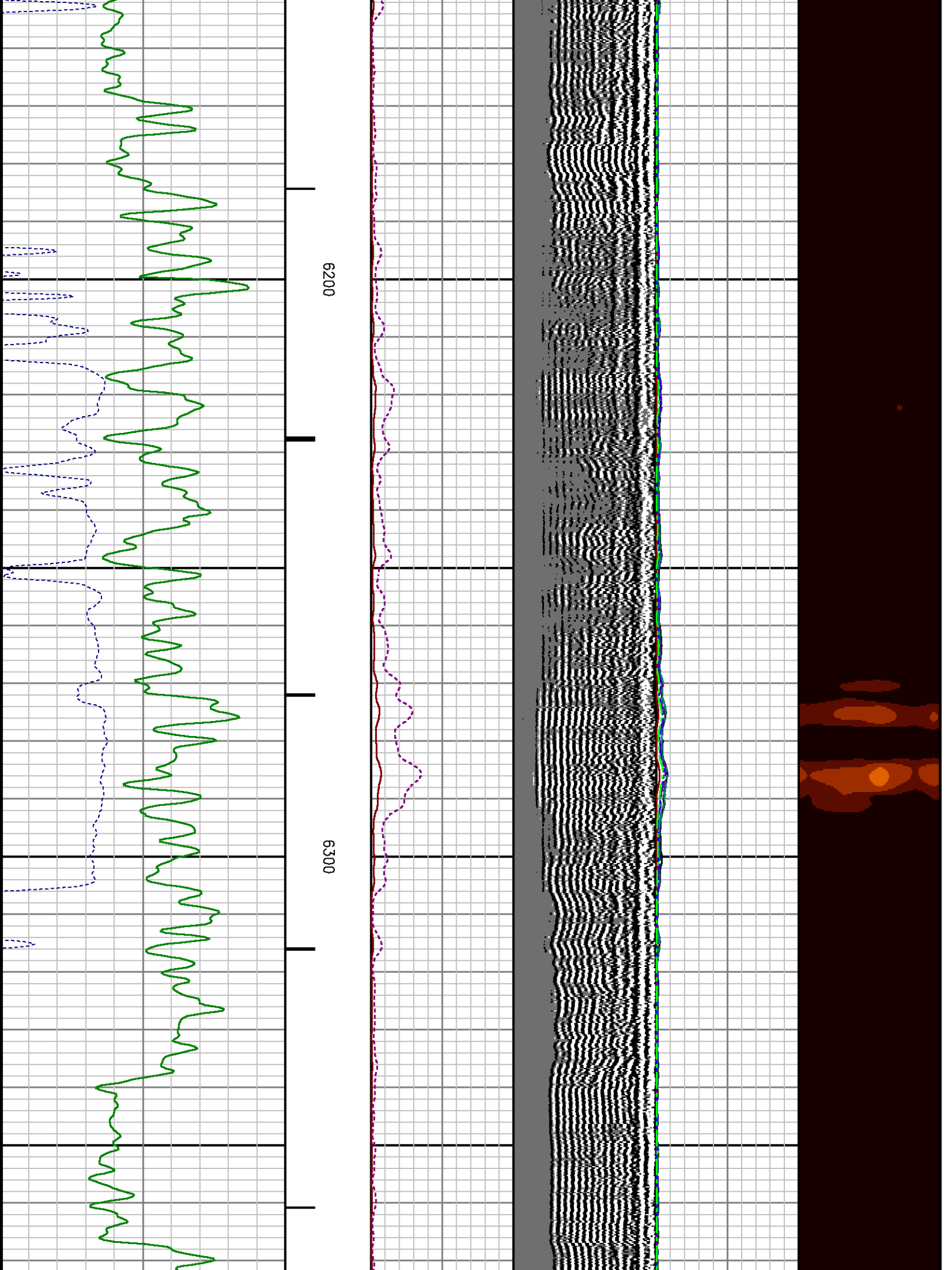


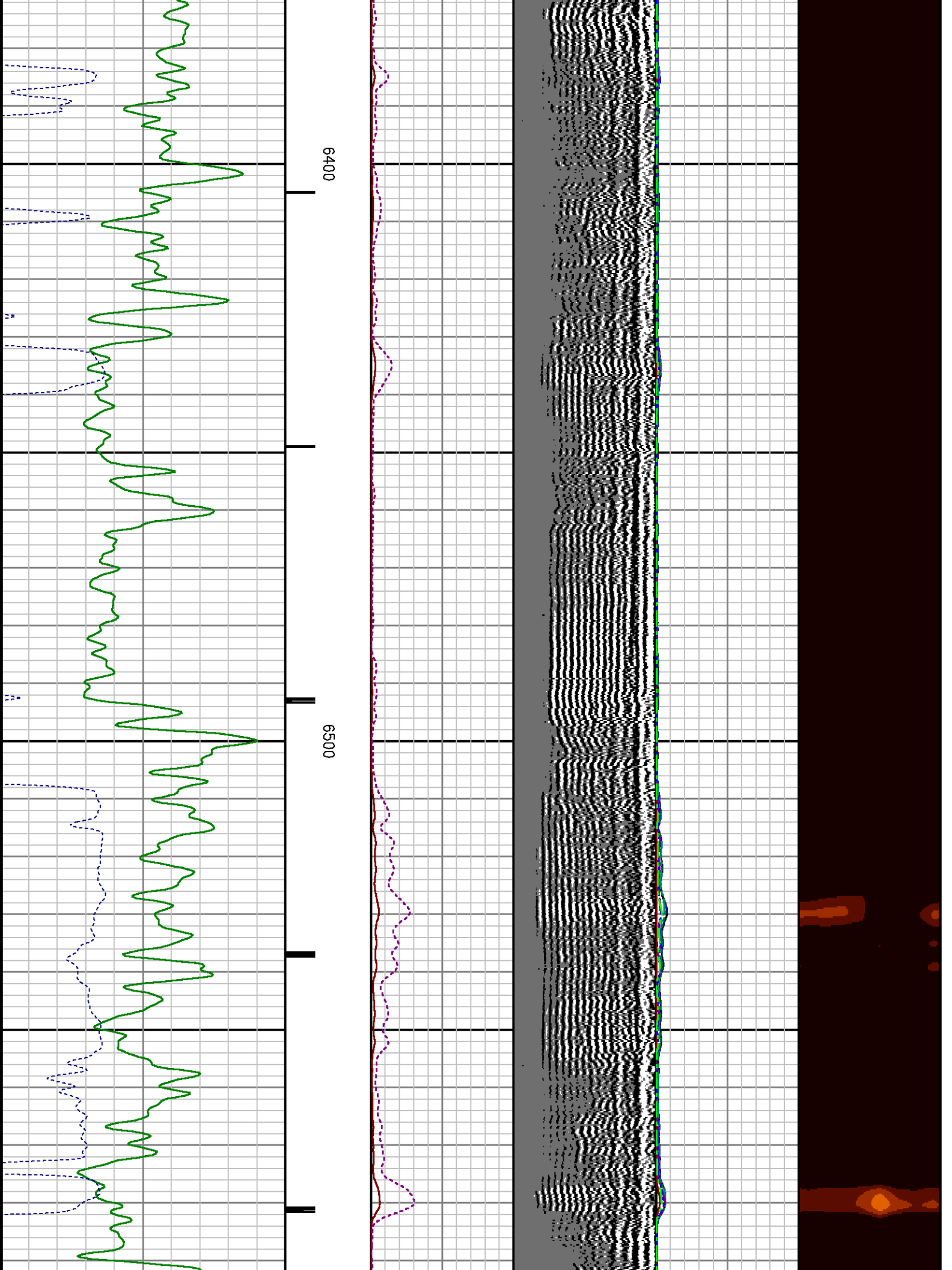




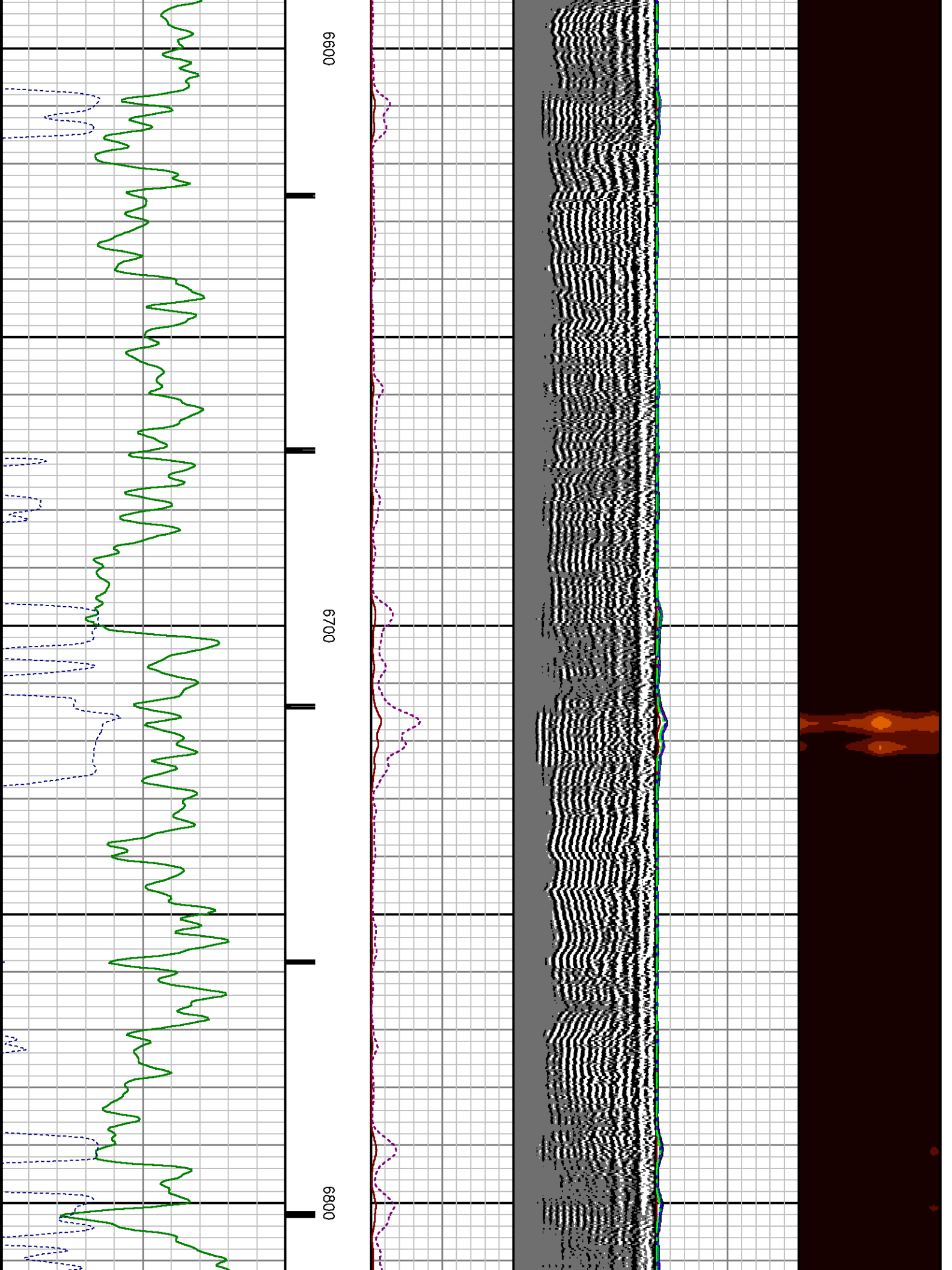




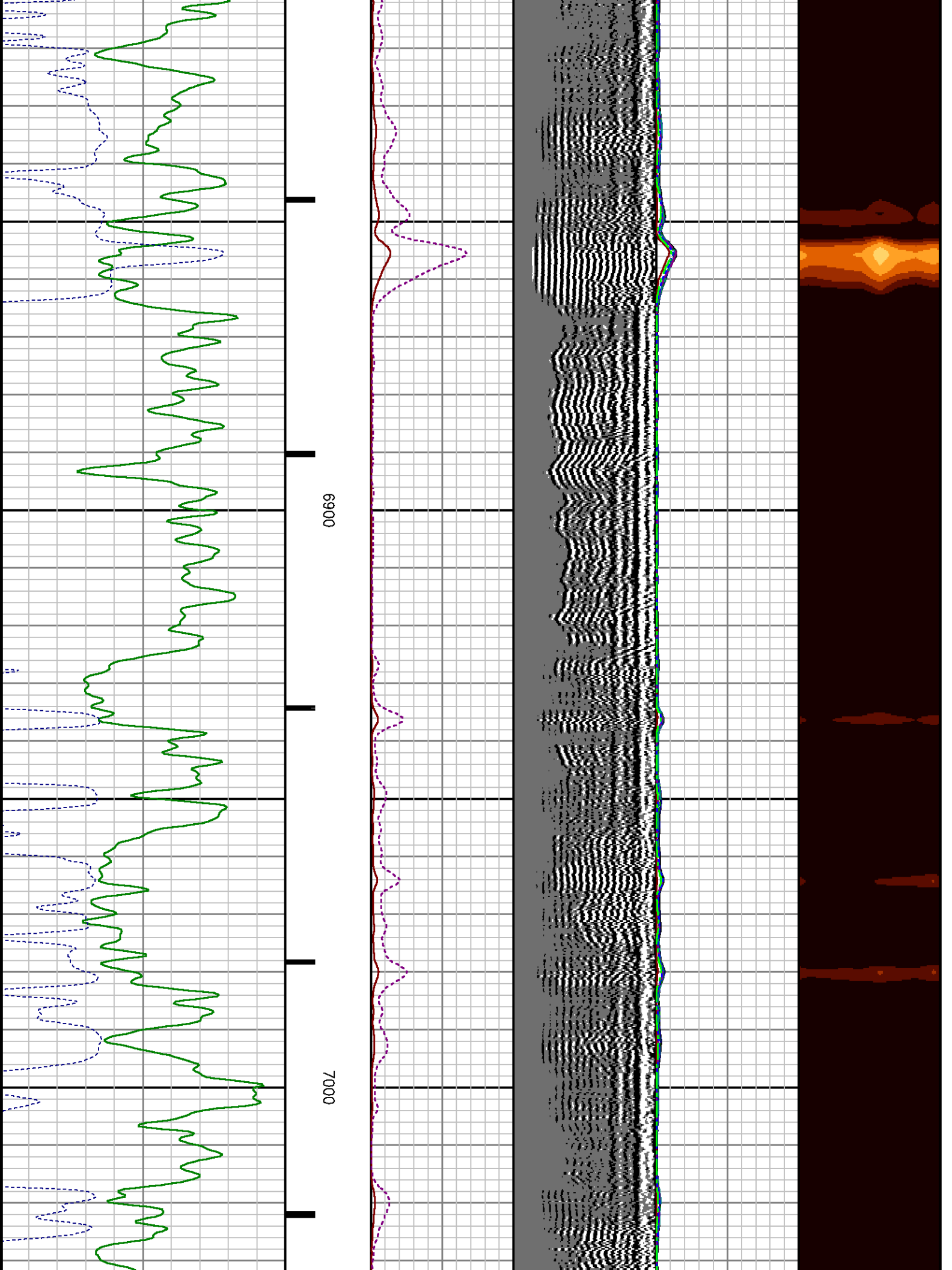


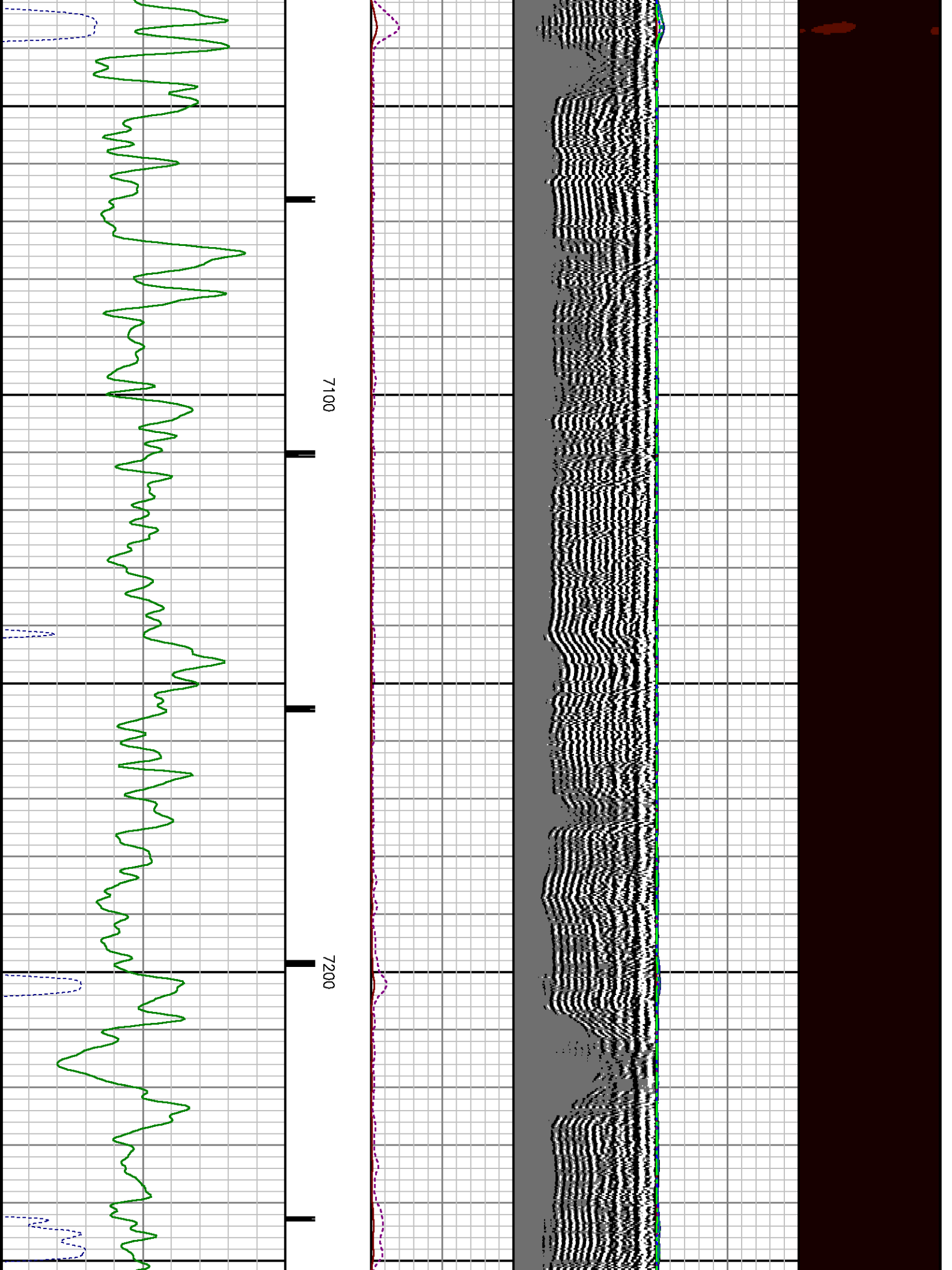


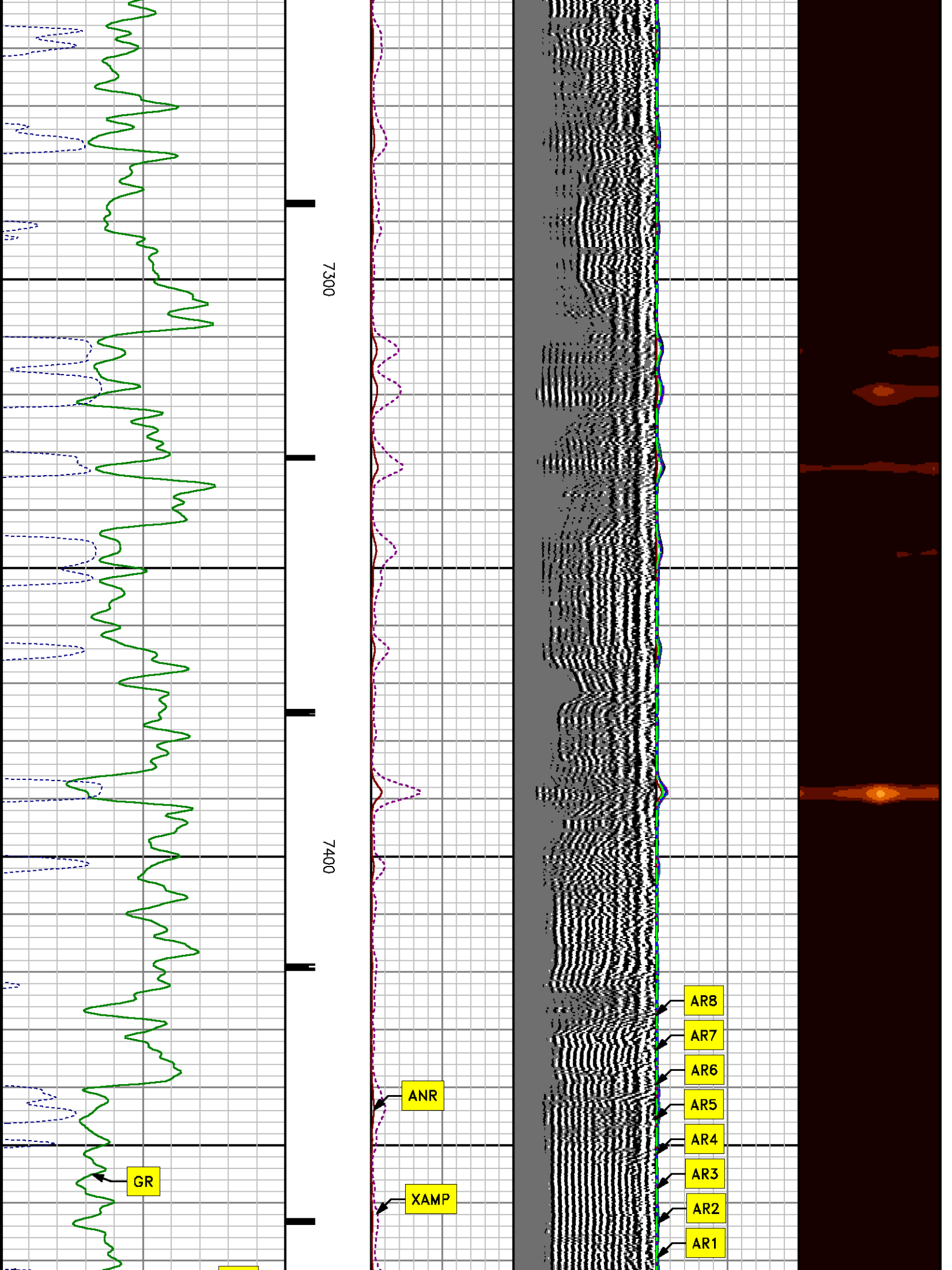


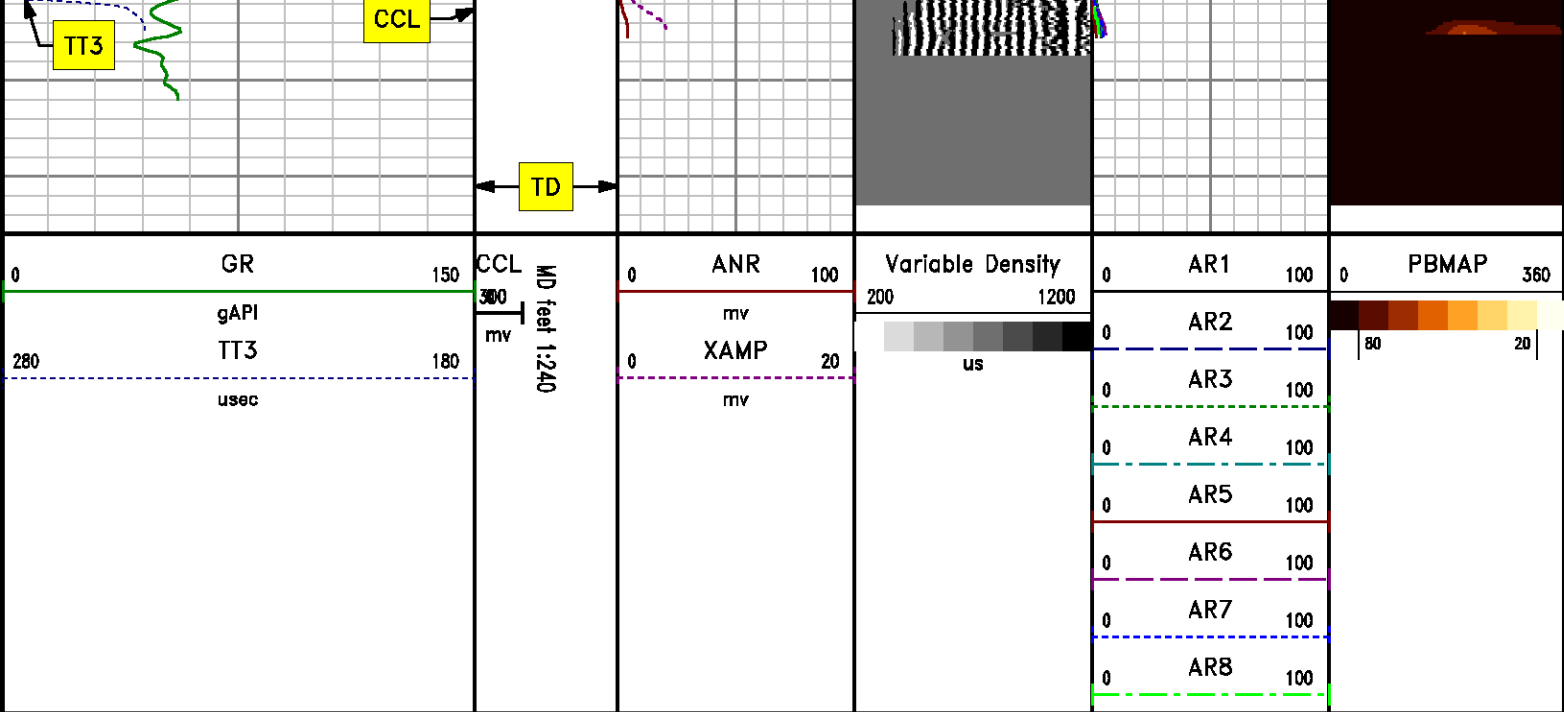












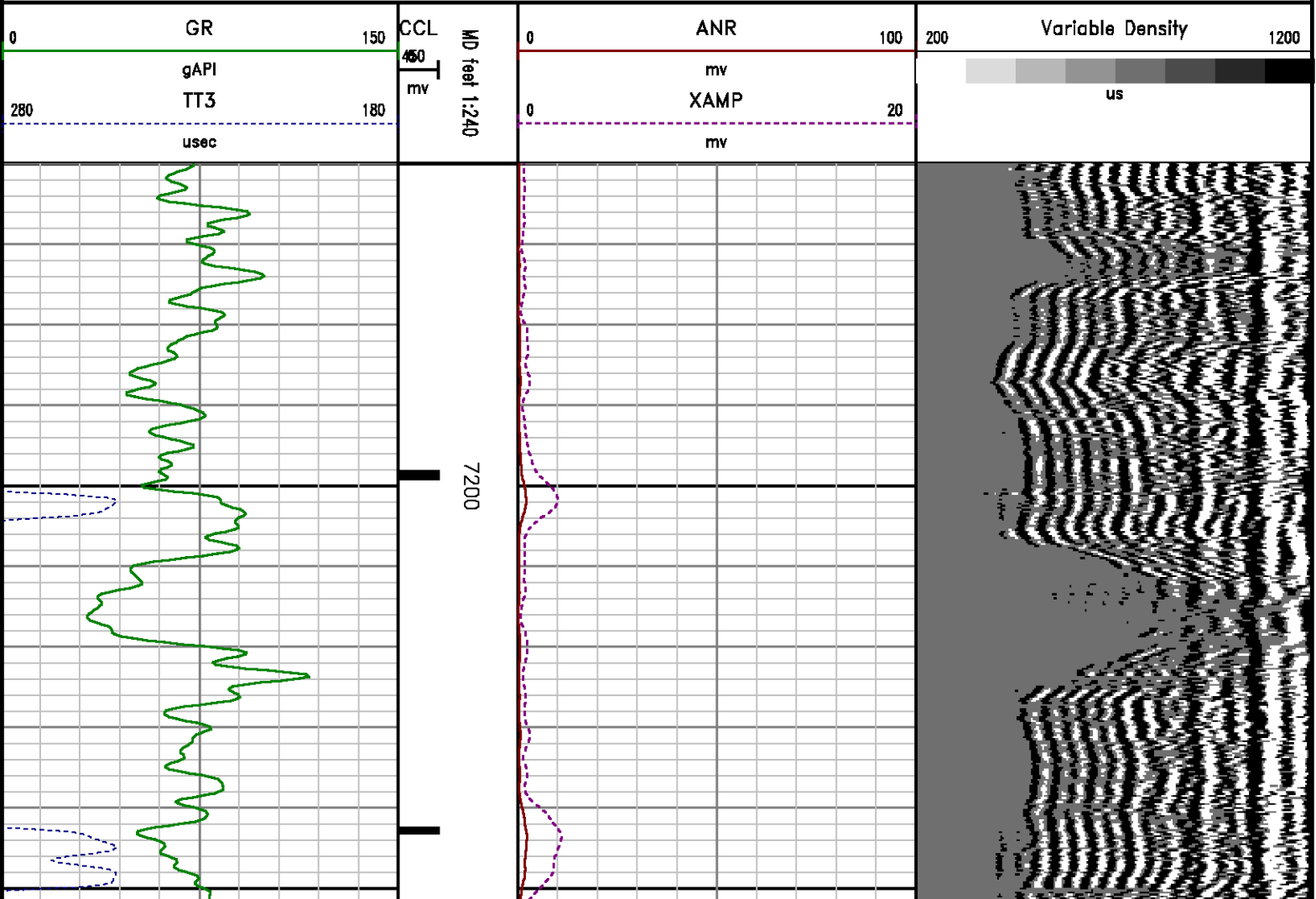
## REPEAT SECTION 0 PSI

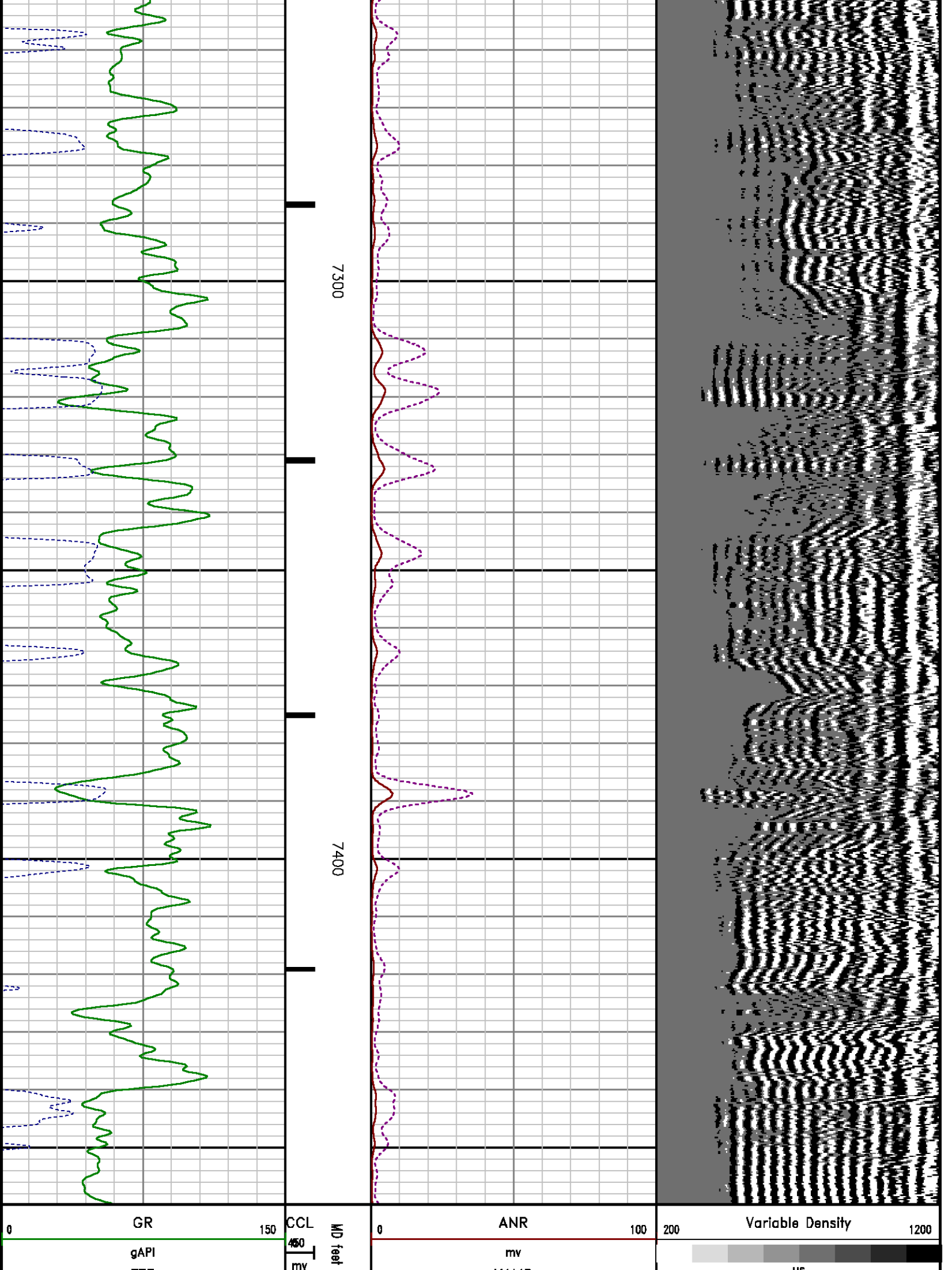
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	7156.470	7493.470
RAL	Amp Gate Start Near	195.000	usec	7156.470	7493.470
RAL	Amp Gate Start Radial	195.000	usec	7156.470	7493.470
RAL	Amp Gate Width Far	25.000	usec	7156.470	7493.470
RAL	Amp Gate Width Near	25.000	usec	7156.470	7493.470
RAL	Amp Gate Width Radial	25.000	usec	7156.470	7493.470
RAL	casing od	4.500	inches	7156.470	7493.470
RAL	casing wt	11.600	lbm/ft	7156.470	7493.470
RAL	FB Start Far	291.900	usec	7156.470	7493.470
RAL	FB Start Near	175.391	usec	7156.470	7493.470
RAL	FB Start Radial	175.391	usec	7156.470	7493.470
RAL	FB Thresh Far	15.000	mv	7156.470	7493.470
RAL	FB Thresh Near	10.000	mv	7156.470	7493.470
RAL	FB Thresh Radial	10.000	mv	7156.470	7493.470
RAL	Fluid Travel Time	200.000	usec/ft	7156.470	7493.470

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 : WPX ENERGY PA 13-2  
File Name : D:\WELLDATA\WPX\WPX Energy PA 13-2\013cbl\REPEAT2.xtf  
Mode : PlotMgr 5.4.504  
Interval : 7160.00 - 7460.00 feet UP  
Created : 3/9/2014 11:53:10 PM







280	T13	180	1240	0	XAMP	20	us
	usec				mv		

## CALIBRATION SUMMARY

**RALSHP**

Shop Calibration: C:\case\calver\RALSHP\53908\_shp.cal

### SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Mar 08 08:58:57 2014 TOOL SERIES: 1426XA ASSET: 539 SEQ: 08

Tool Delay [usec] -60.00 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	218	216	30	166	25	-1.199	100.00	0.15
3 Ft. Receiver	218	216	30	151	17	-0.564	100.00	0.14
5 Ft. Receiver	324	325	30	255	25	-0.370	150.00	0.16
Radial #1	219	216	30	159	6	0.408	100.00	0.15
Radial #2	219	216	30	159	6	0.500	100.00	0.15
Radial #3	218	216	30	159	6	0.029	100.00	0.15
Radial #4	217	216	30	159	6	-0.892	100.00	0.15
Radial #5	216	216	30	159	6	-0.679	100.00	0.14
Radial #6	216	216	30	159	6	0.229	100.00	0.14
Radial #7	216	216	30	159	6	0.467	100.00	0.14
Radial #8	219	216	30	159	6	-0.062	100.00	0.15

**RALFLD**

Wellsite Calibration: C:\case\calver\RALFLD\53908 fld.cal

### WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Mar 08 11:13:43 2014 TOOL SERIES: 1426XA ASSET: 539 SEQ: 08

Tool Delay [usec] -60.00 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	-0.202	0.000	0.98	100.000

3 Ft. Receiver	200	30	-3.216
5 Ft. Receiver	317	30	-3.661
Radial #1	200	30	-3.517
Radial #2	200	30	-3.461
Radial #3	200	30	-3.158
Radial #4	200	30	-3.697
Radial #5	200	30	-8.495
Radial #6	200	30	-4.747
Radial #7	200	30	-5.016
Radial #8	200	30	-5.444

## GAMMA RAY

Calibration File: C:\case\calver\GR\1012412122.cal

### CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Feb 22 12:18:15 2014		TOOL SERIES: 2459XA		ASSET: 10124121		SEQ: 22	
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
S2K WA-612	36.22	291.56	0.725	26.24	211.24	185.00	

Verification File: C:\case\calver\GR\1012412122.VP

### PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Sat Feb 22 12:19:23 2014		TOOL SERIES: 2459XA		ASSET: 10124121		SEQ: 22	
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
S2K WA-612	41.96	293.60	0.725	30.40	212.73	182.33	

## 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



24.23'

XMIT 18.05'

Measure Point	2.67' NEAR RCVR
Measure Point	5.75' XMIT
Temp Rating	350.00 °F
Press Rating	18000.00 PSI

NEAR RCVR 14.97'

FAR RCVR 13.05'

CCL 11.34'

GR 9.49'

NEU 4.09'

0.00'

**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

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



Company	WPX ENERGY	
Well	WPX ENERGY PA 13-2	
Field	PARACHUTE	
County	GARFIELD	State CO

File No:

CH082896

API No:

05045221520000

**Location**

SHL: 2074' FSL & 1534' FWL

BHL: 2394' FSL & 581' FWL

**Elevations**

KB 5846 ft

DF

GL 5821 ft

2 7S 95W

GV 86-2 PAD

AZTEC 1000

SEC 2 TWP 7S RGE 95W

CASE

<b>Baker Atlas</b>	Company WPX ENERGY		File No: CH082896
	Well WPX ENERGY PA 13-2		
	Field PARACHUTE		API No: 05045221520000
	County GARFIELD	State CO	
	Location		Elevations
	SHL: 2074' FSL & 1534' FWL BHL: 2394' FSL & 581' FWL		
	SEC 2 TWP 7S RGE 95W		2 7S 95W GV 86-2 PAD AZTEC 1000