



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH083734	Company Well	WPX ENERGY PA 23-2
API No: 05045221340000	Field County	PARACHUTE GARFIELD
	State	CO
2 7S 95W GV 86-2 PAD AZTEC 1000	Location SHL: 2054' FSL & 1545' FWL BHL: 2367' FSL & 1874' FWL SEC 2 TWP 7S RGE 95W	Other Services RPM
Permanent Datum Log Measured From Drill Measured From	GL KB KB Elevation 25 ft Above P. D.	Elevations KB 5845 ft DF GL 5821 ft

Date	11/MAR/14
Run	ONE
Service Order	US625358
Depth Driller	7528 ft
Depth Logger	7494 ft
Bottom Logged Interval	7484 ft
Top Logged Interval	25 ft
Time Started	8:00
Time Finished	11:00
Operator Rig Time	3 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	218 degF
Reference Log	NA
Reference Log Date	NA
Equipment No.	4271
Location	GRAND JCT.
Recorded By	NEWELL
Witnessed By	DUSTIN WELSH

- 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	860 ft
8.75 In	860 ft	7598 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 In			0 ft	860 ft
4.5 In	11.6 lbm/ft	1-80	0 ft	7598 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 8 feet.
Logged with zero PSI at wellhead.
BHT = 218 °F

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	CBL	1426XA	10218496	CENTRALIZED
1	1	GR/CCL	2459XA	10417456	CENTRALIZED

PRIMARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	34.375	7497.000
RAL	Amp Gate Start Near	195.000	usec	34.375	7497.000
RAL	Amp Gate Start Radial	195.000	usec	34.375	7497.000
RAL	Amp Gate Width Far	25.000	usec	34.375	7497.000
RAL	Amp Gate Width Near	25.000	usec	34.375	7497.000
RAL	Amp Gate Width Radial	25.000	usec	34.375	7497.000
RAL	casing od	4.500	inches	34.375	7497.000
RAL	casing wt	11.600	lbm/ft	34.375	7497.000
RAL	FB Start Far	291.900	usec	34.375	7497.000
RAL	FB Start Near	175.391	usec	34.375	7497.000
RAL	FB Start Radial	175.391	usec	34.375	7497.000
RAL	FB Thresh Far	10.000	mv	34.375	7497.000
RAL	FB Thresh Near	4.000	mv	34.375	7497.000
RAL	FB Thresh Radial	4.000	mv	34.375	7497.000
RAL	Fluid Travel Time	200.000	usec/ft	34.375	7496.593

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	TTD1	TTD2	TTD3

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

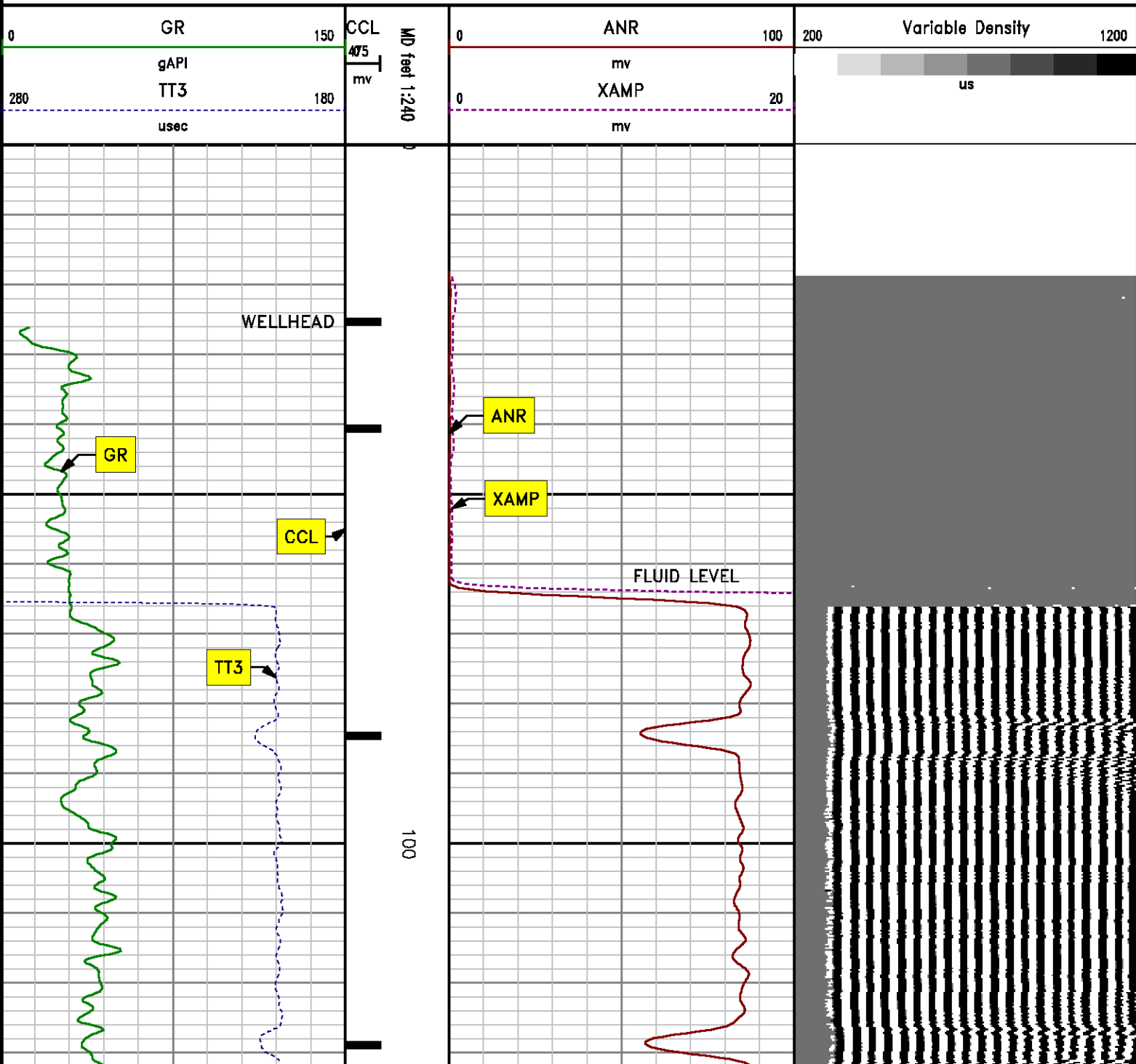
Well : WPX ENERGY 23-2

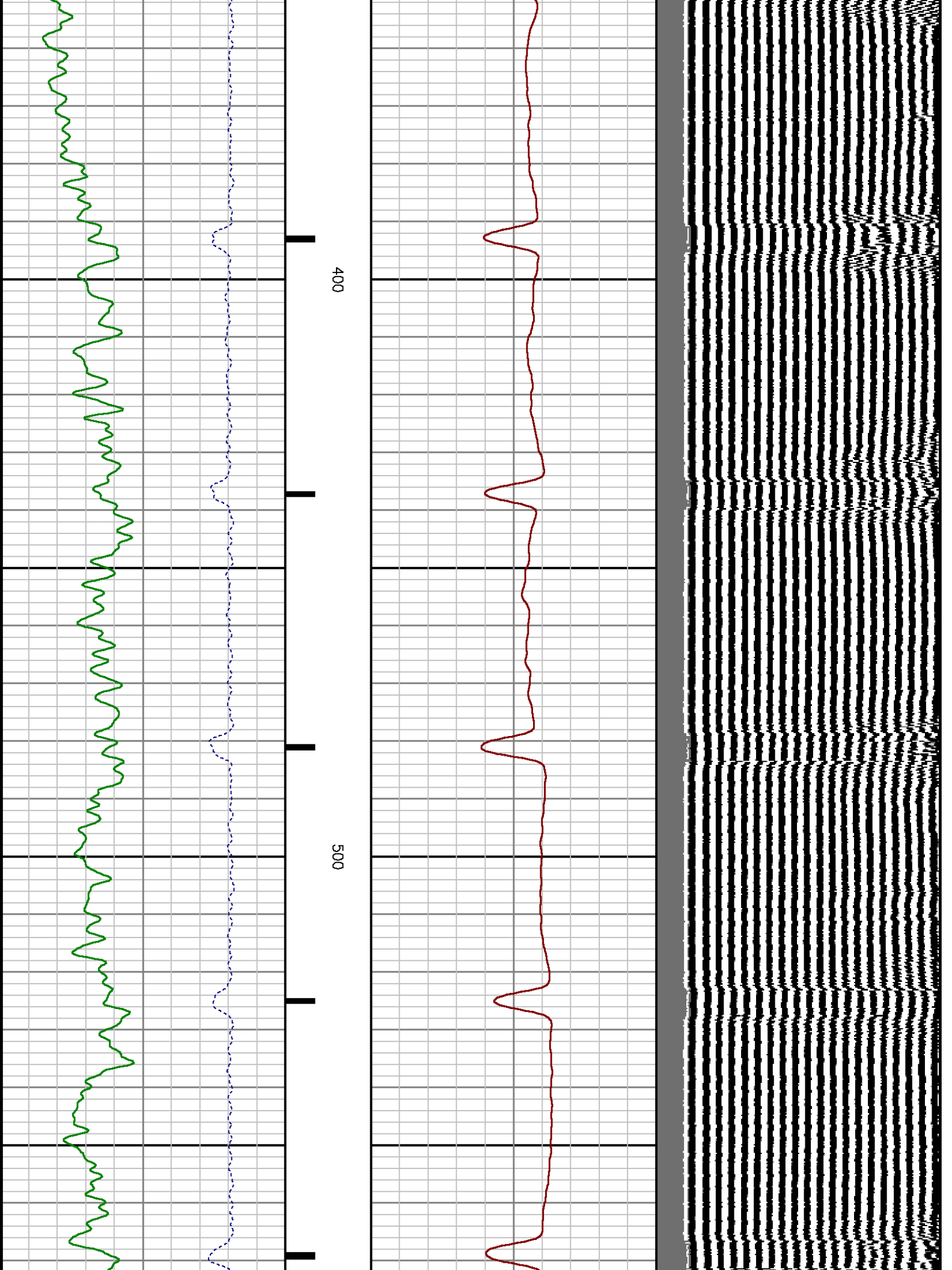
File Name : d:\welldata\wpx\wpx energy pa 23-2\23cbl\main.xtf

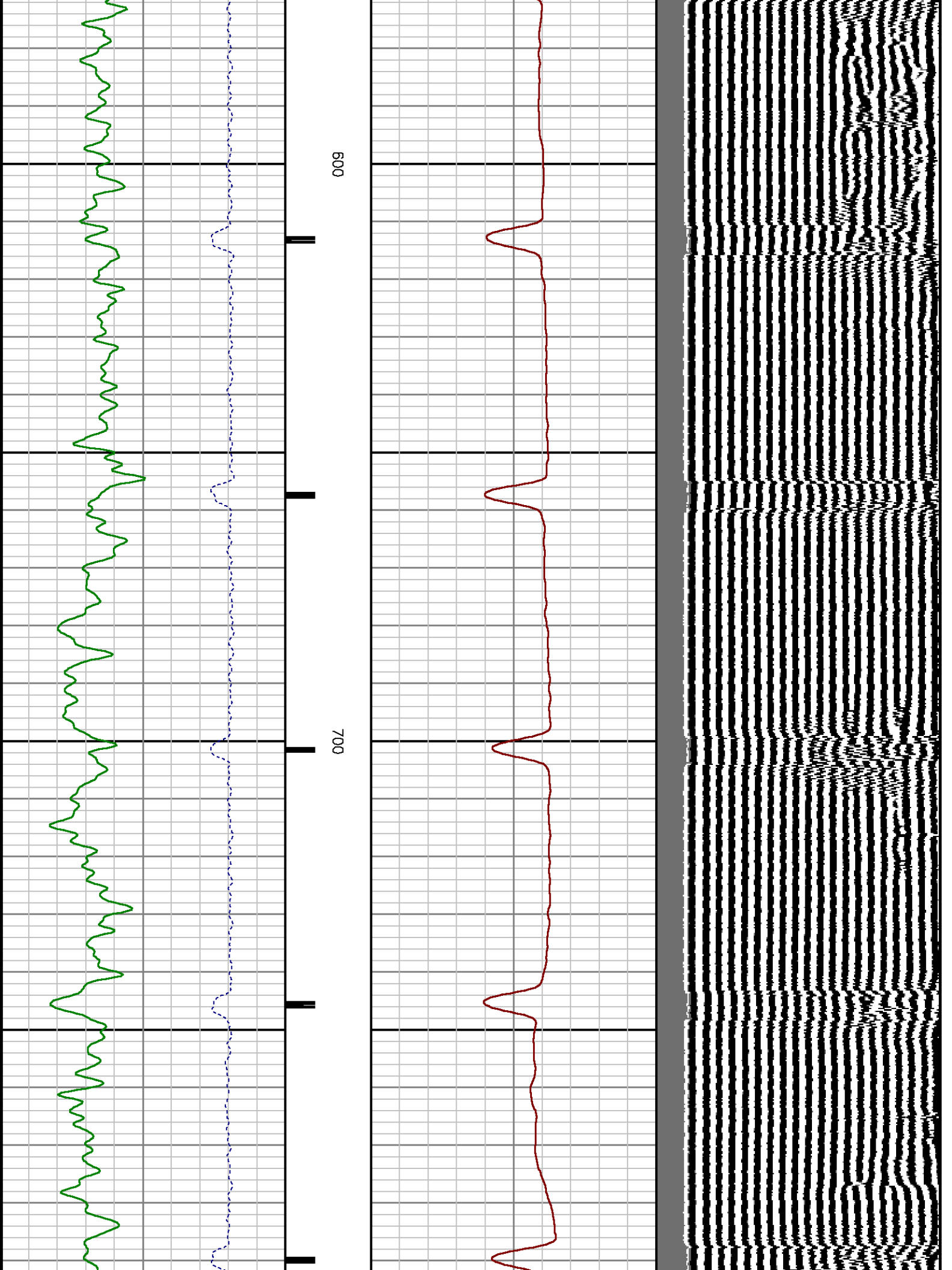
Mode : PlotMgr 5.4.504

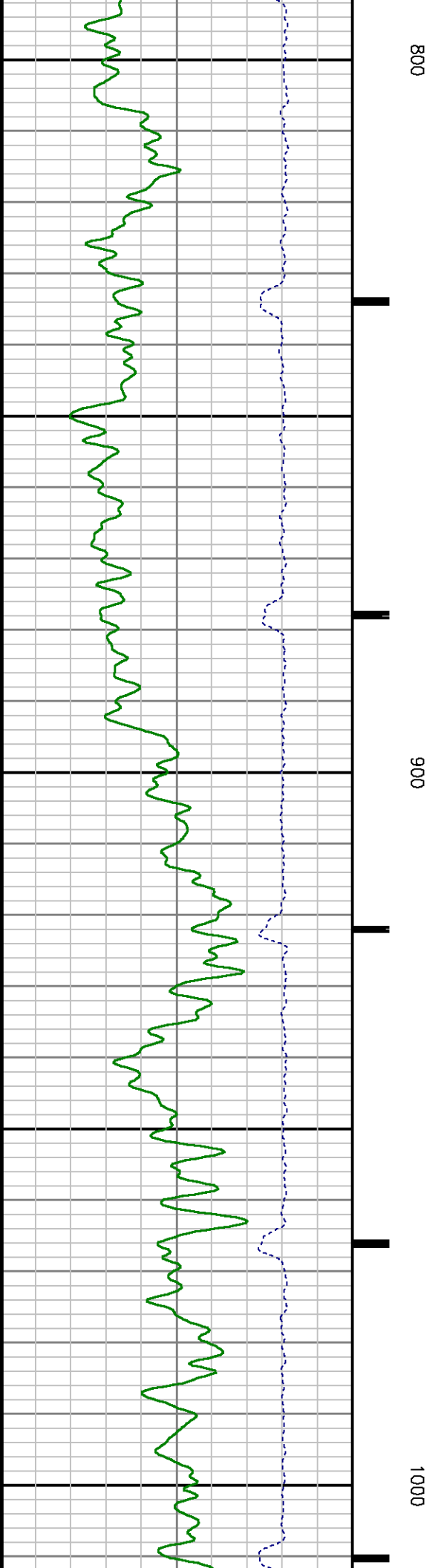
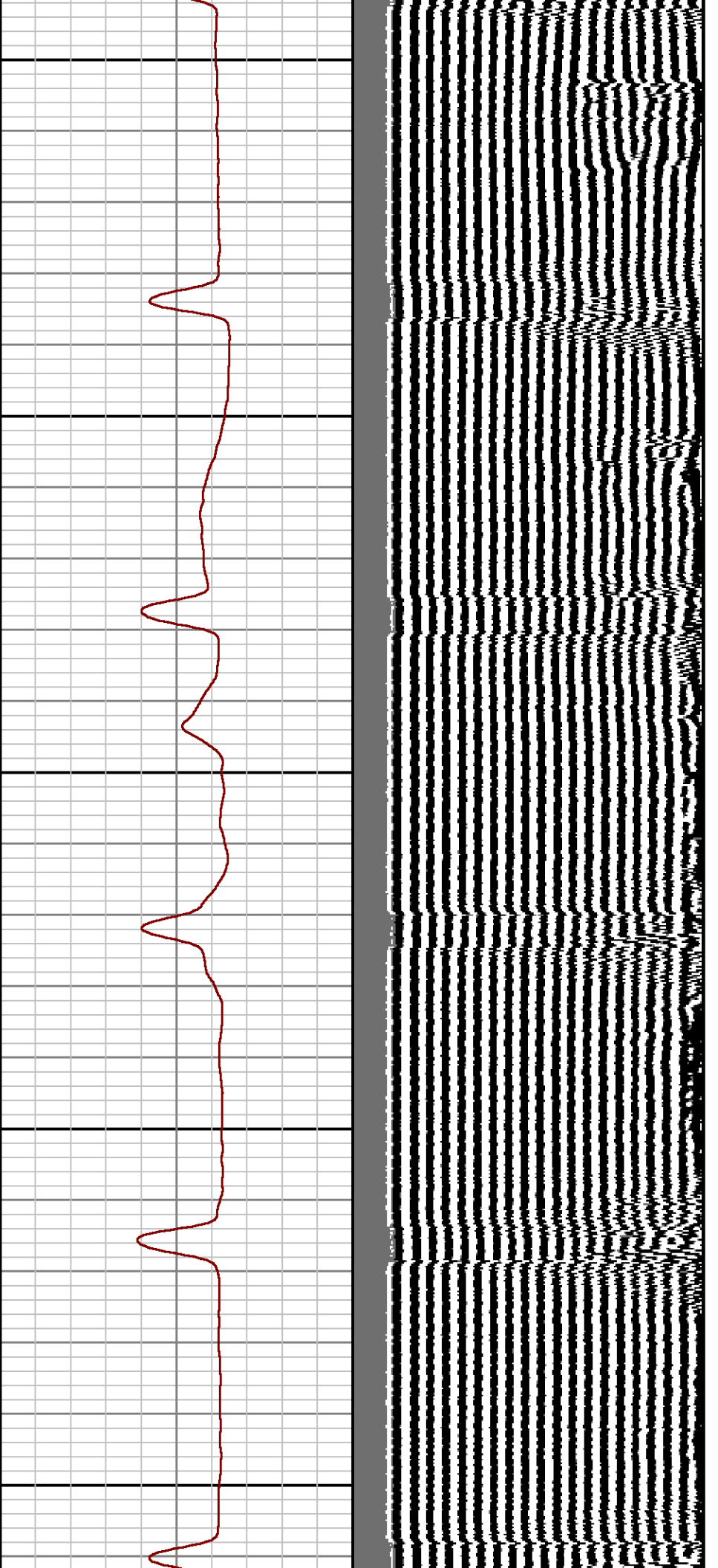
Interval : 0.00 - 7499.00 feet UP

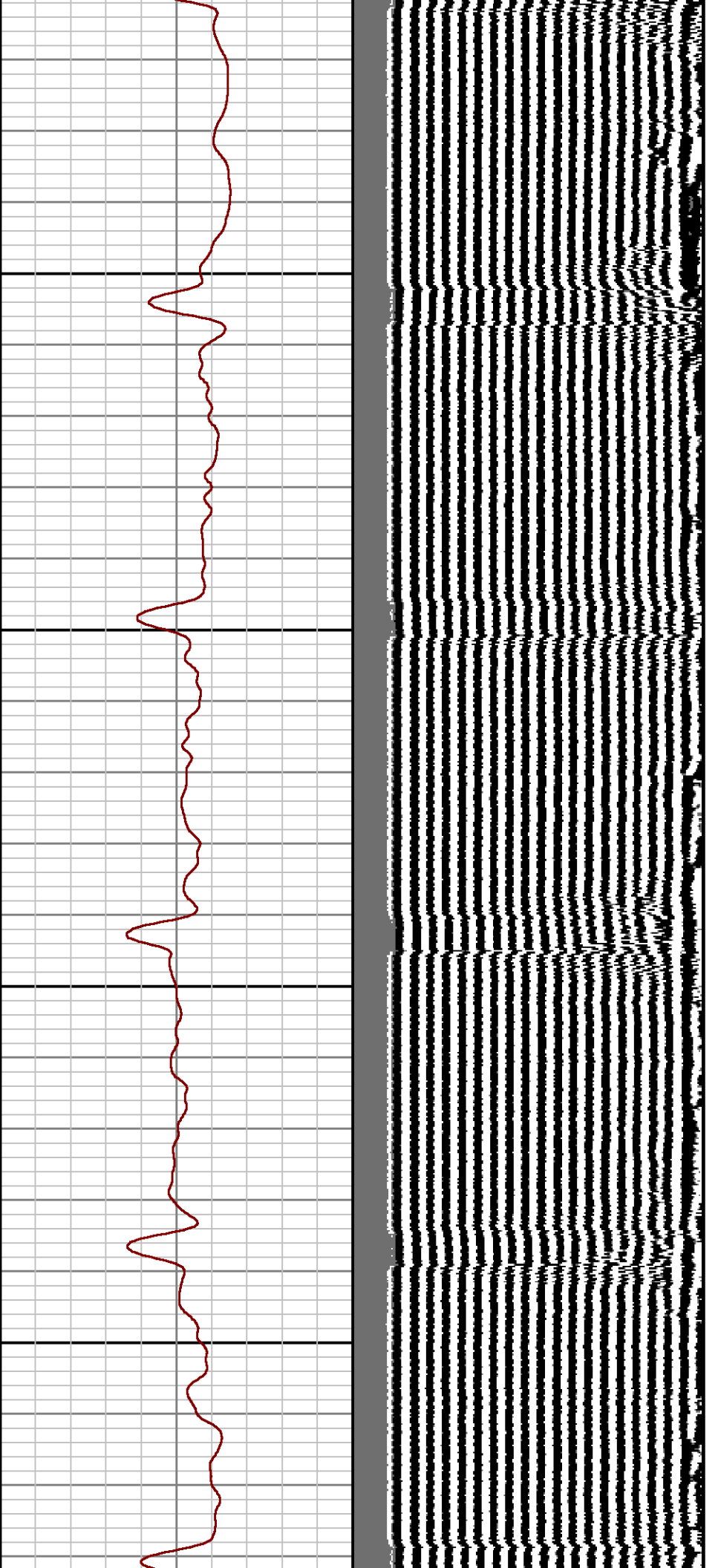
Created : 3/11/2014 8:57:22 AM





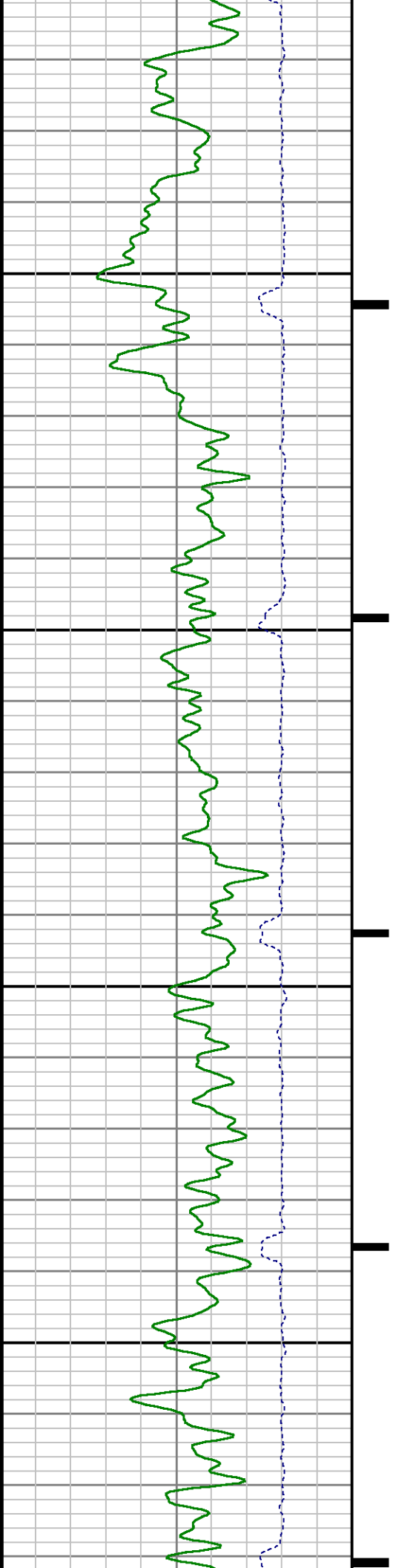


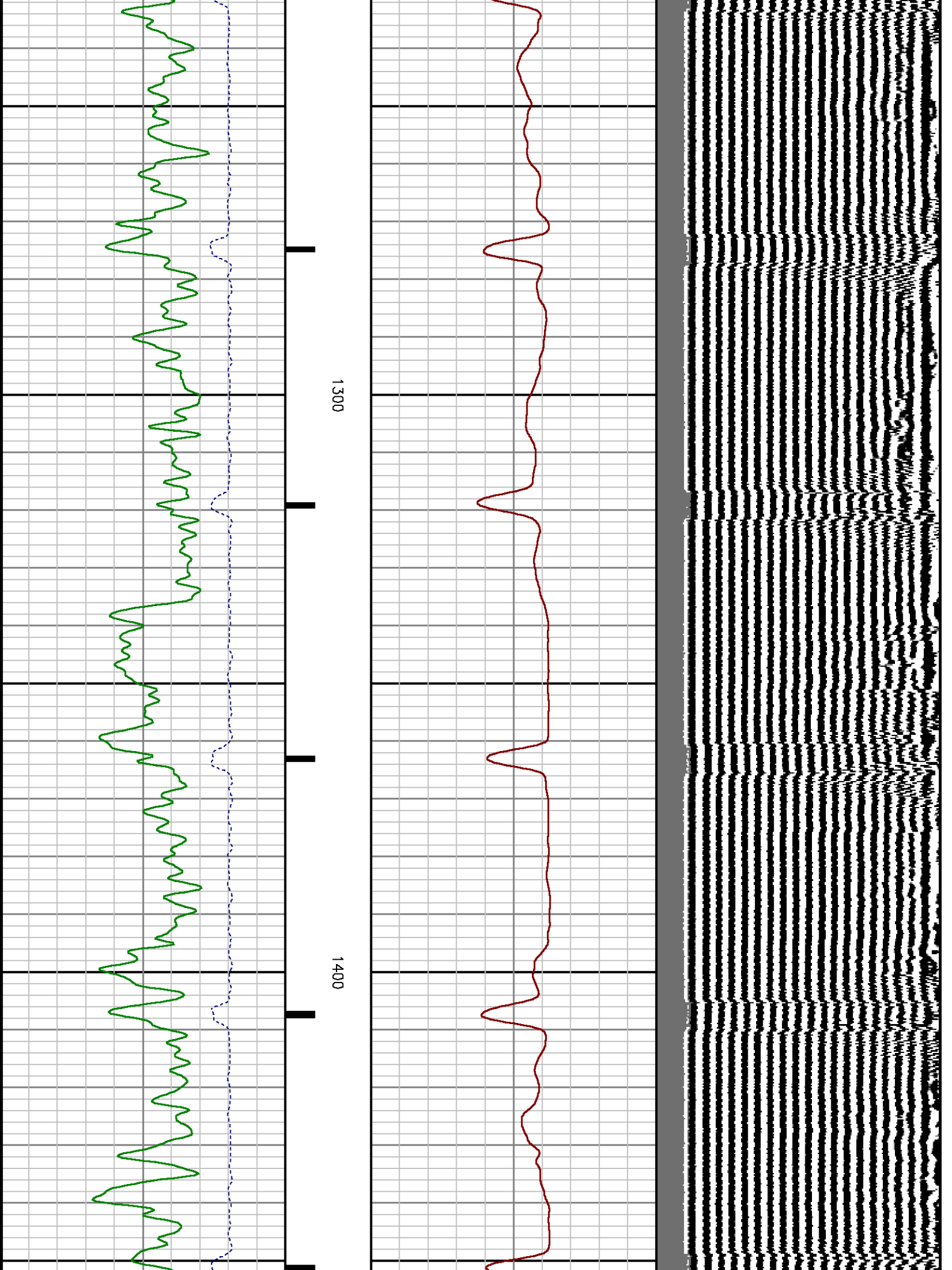


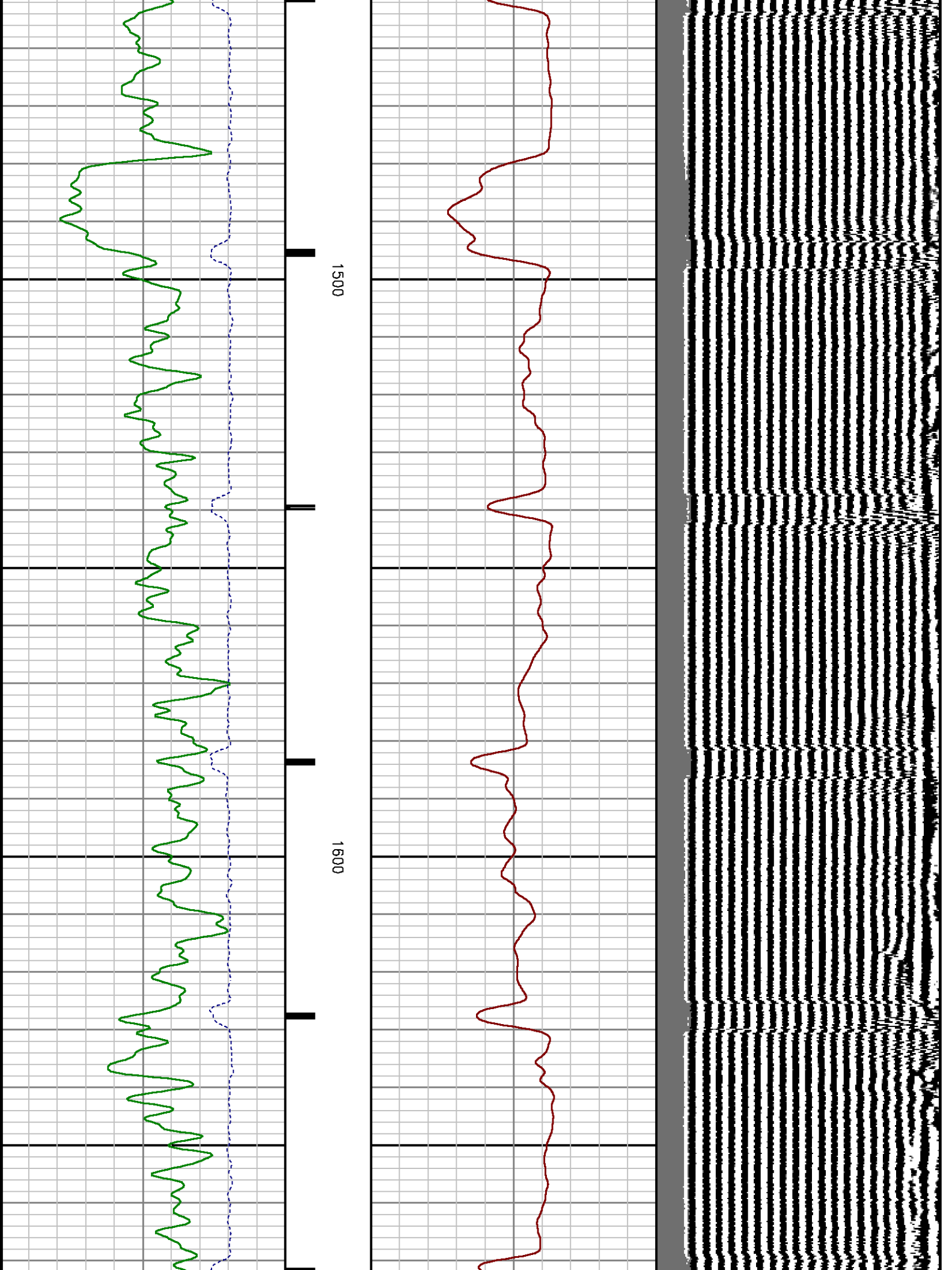


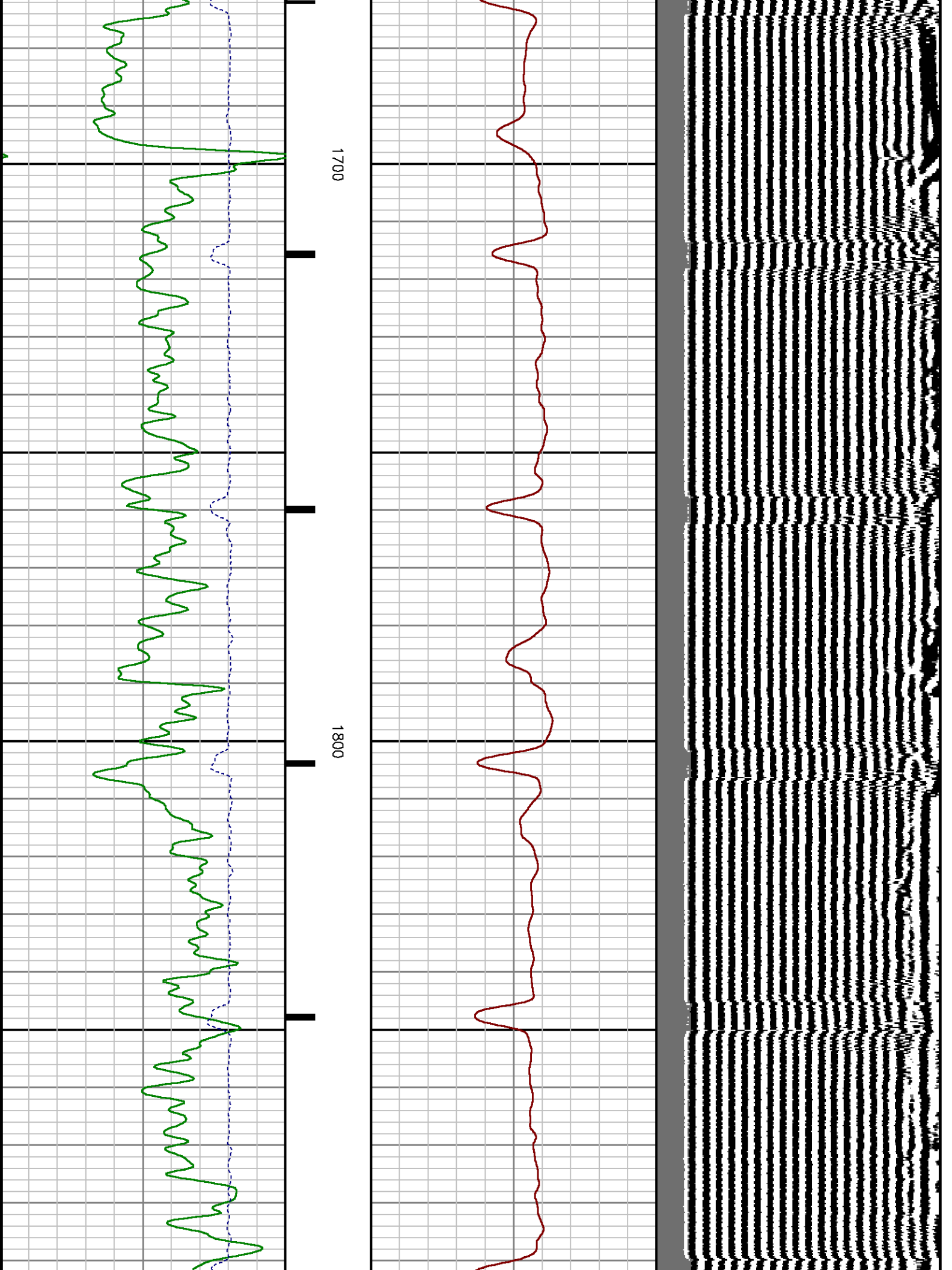
1100

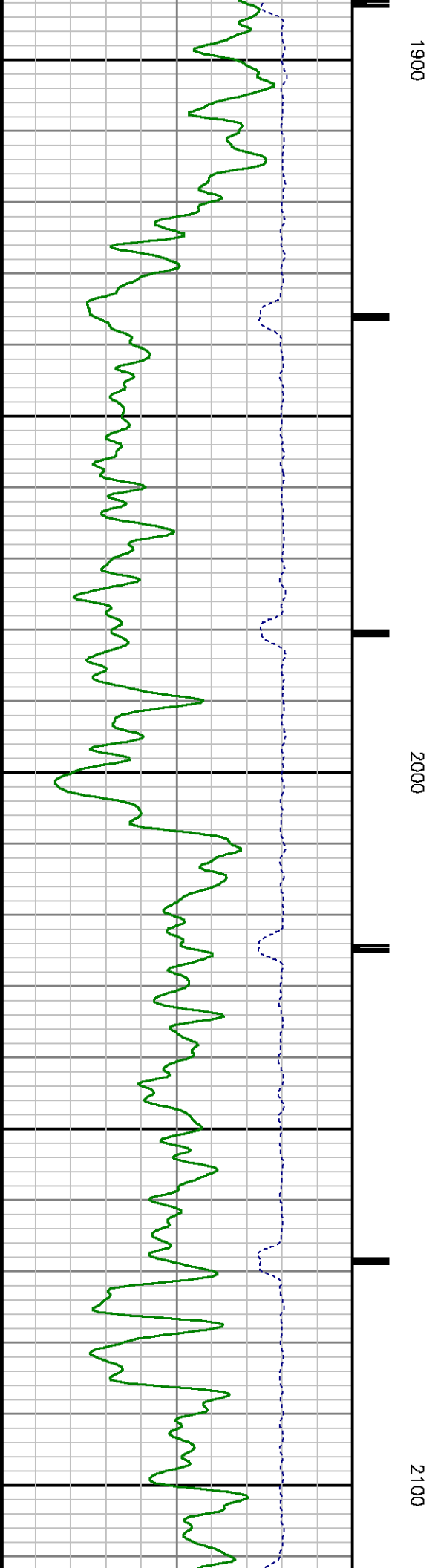
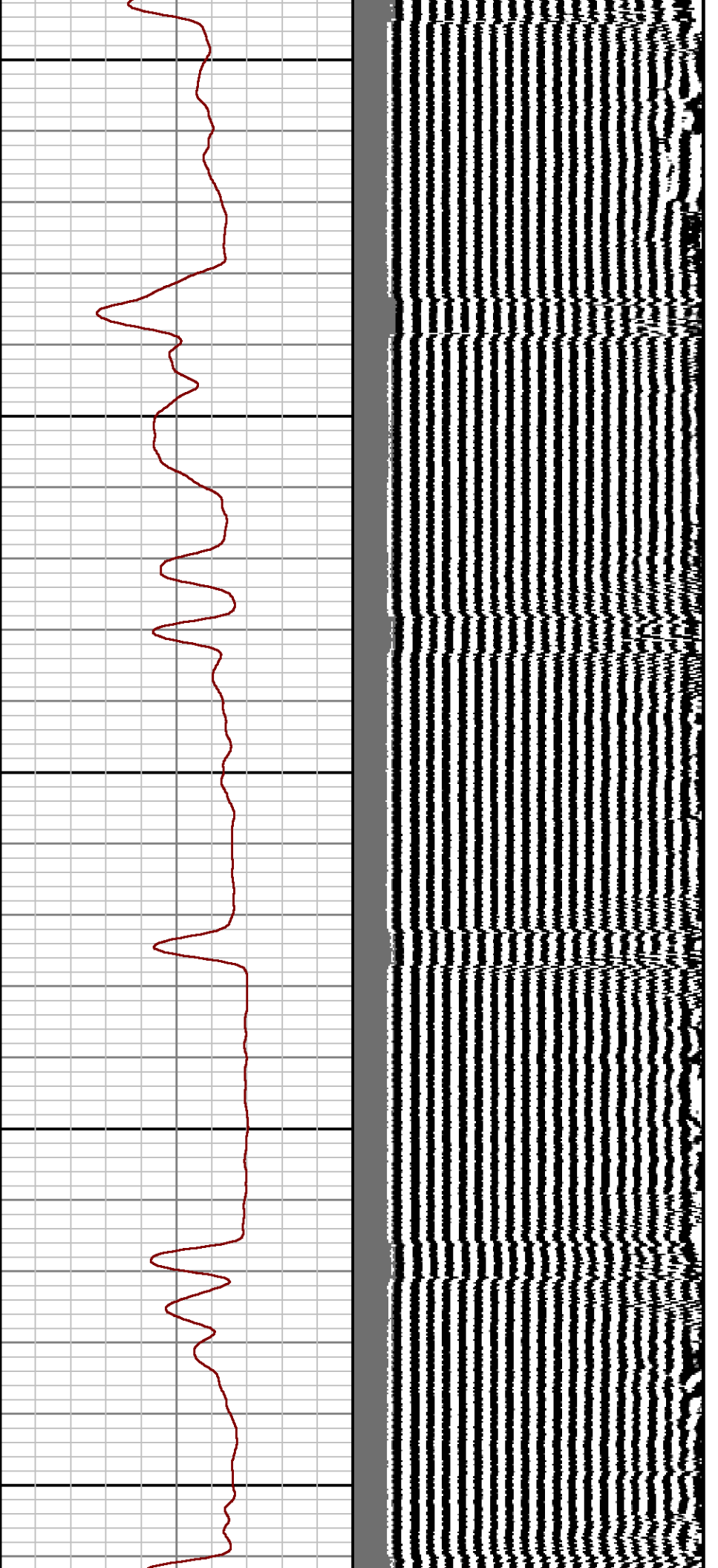
1200

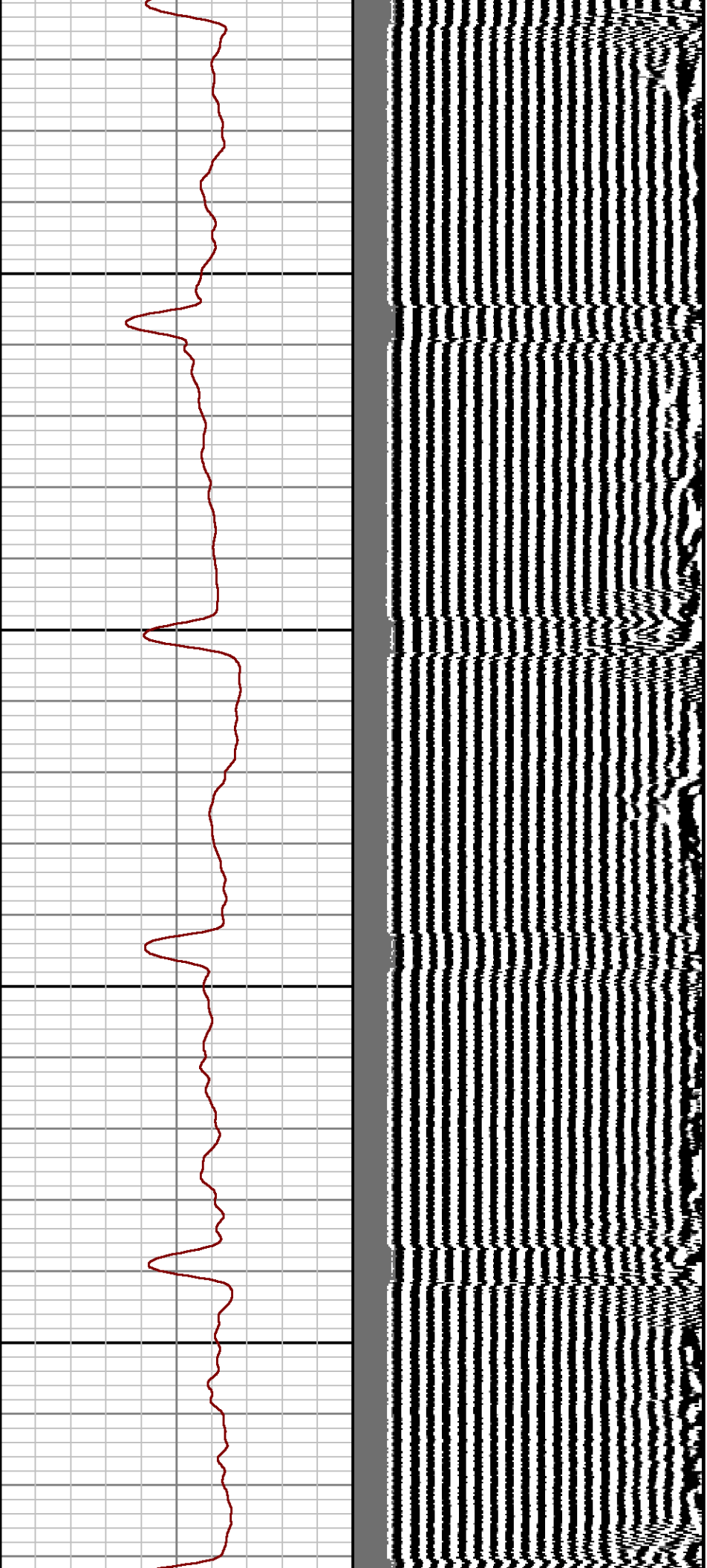






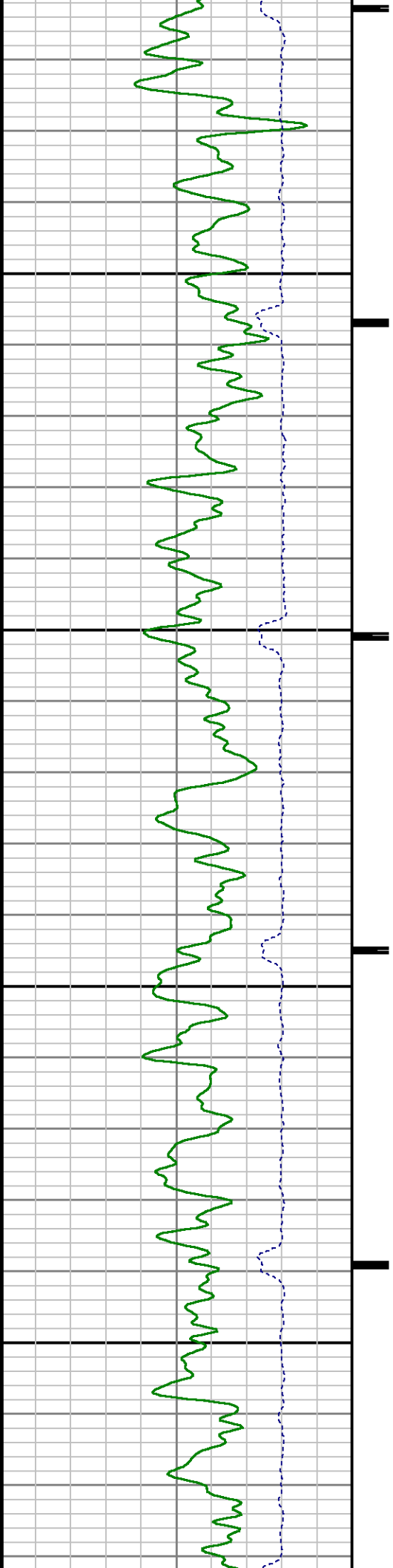


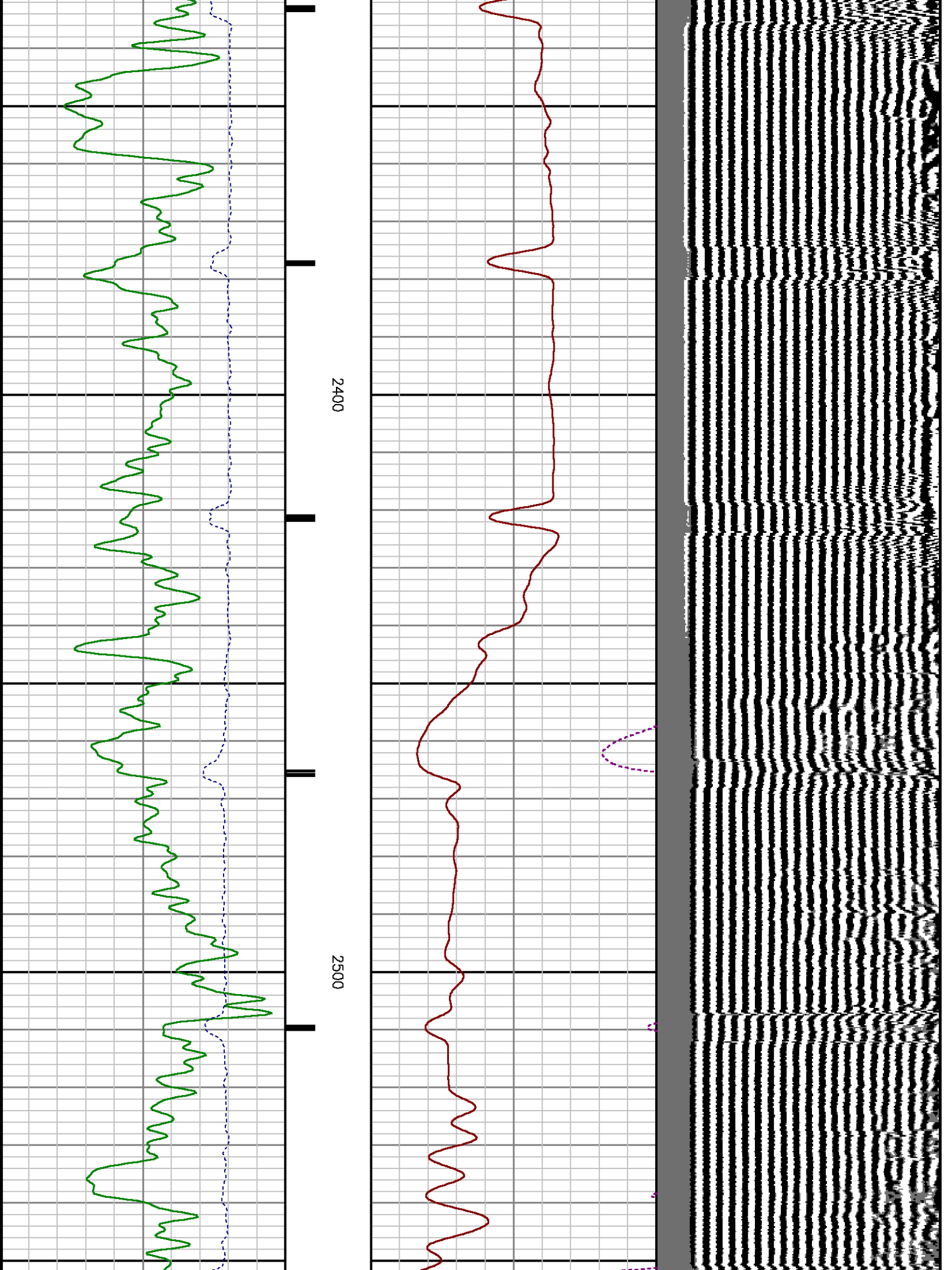


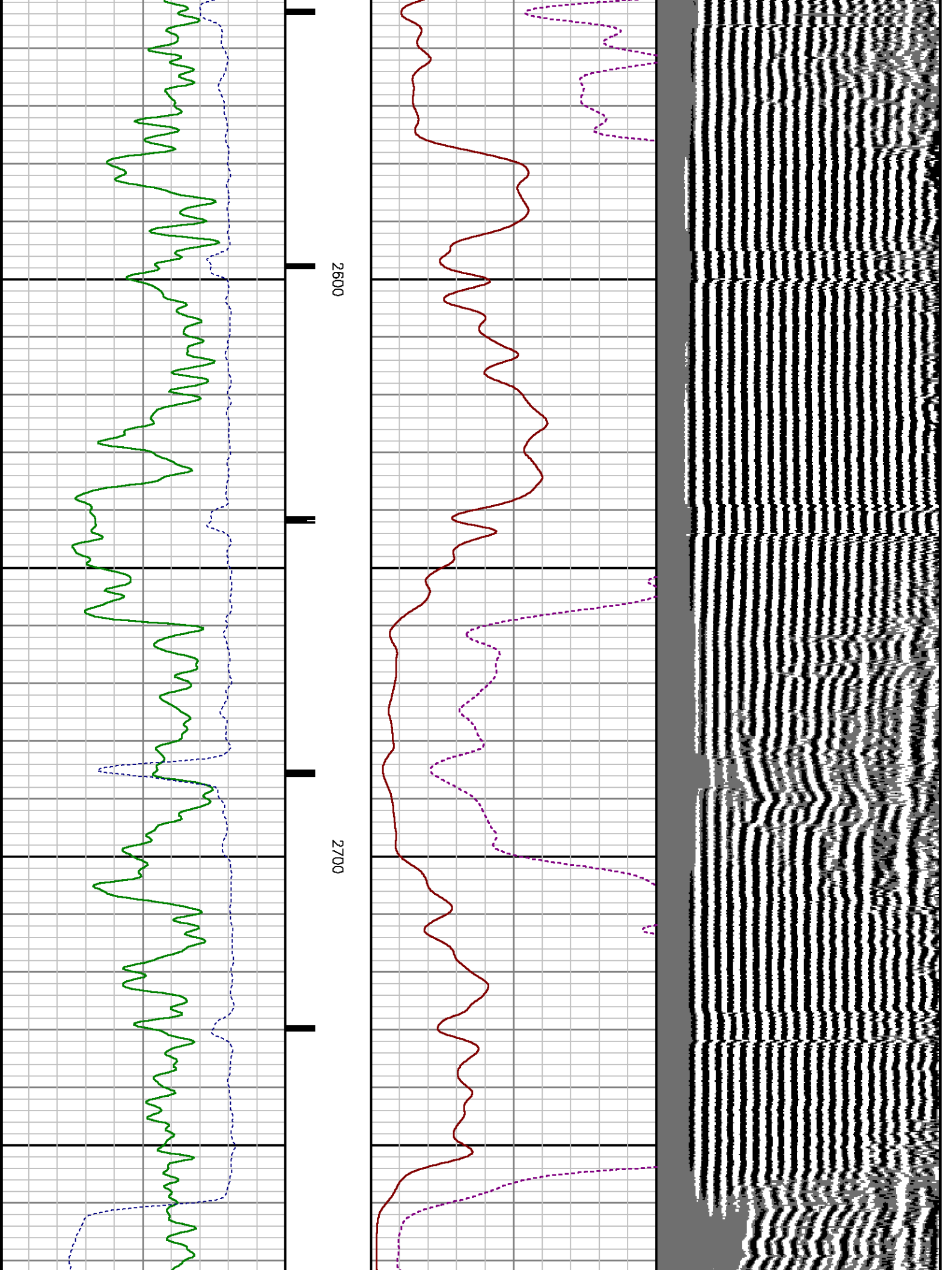


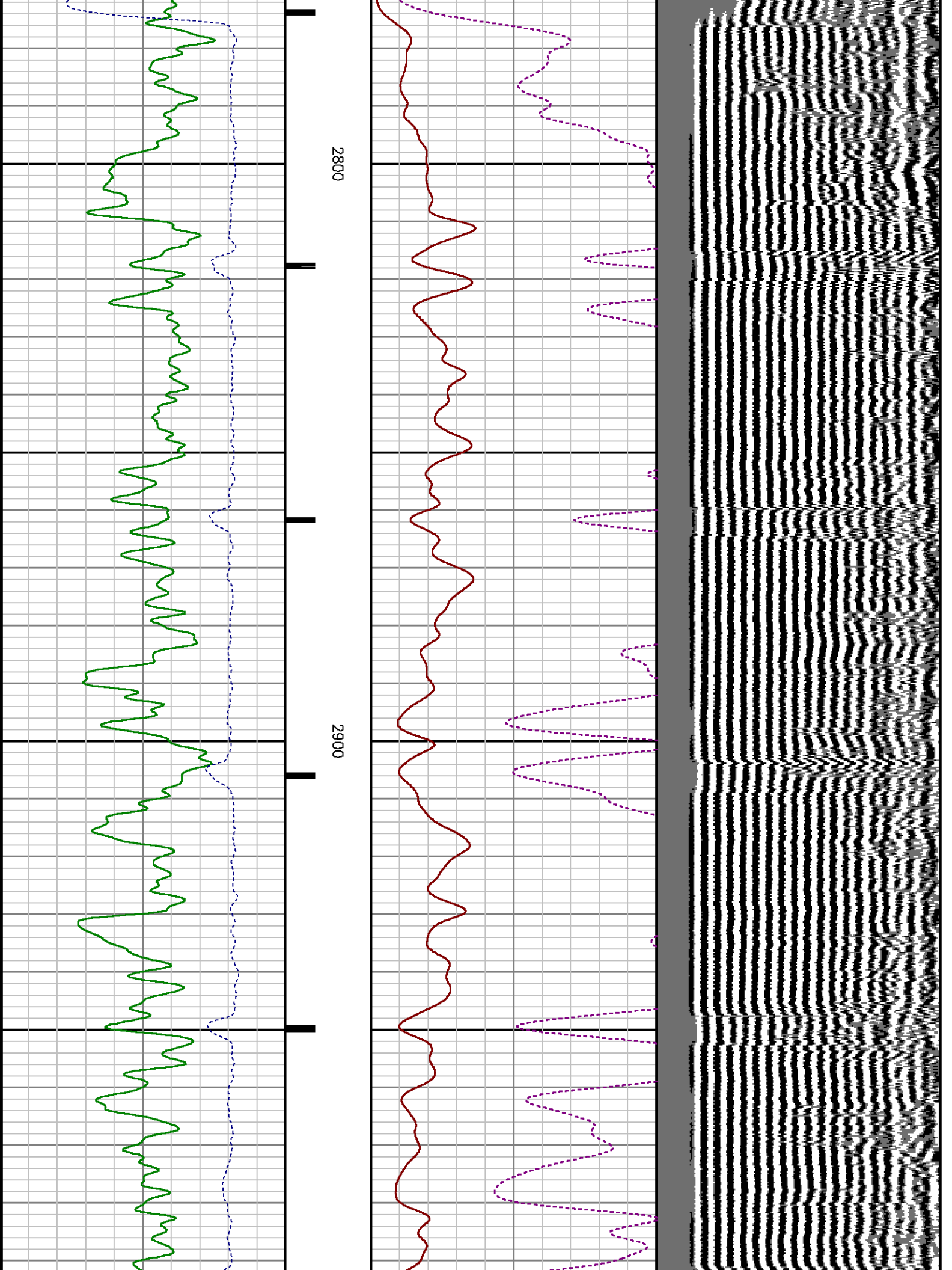
2200

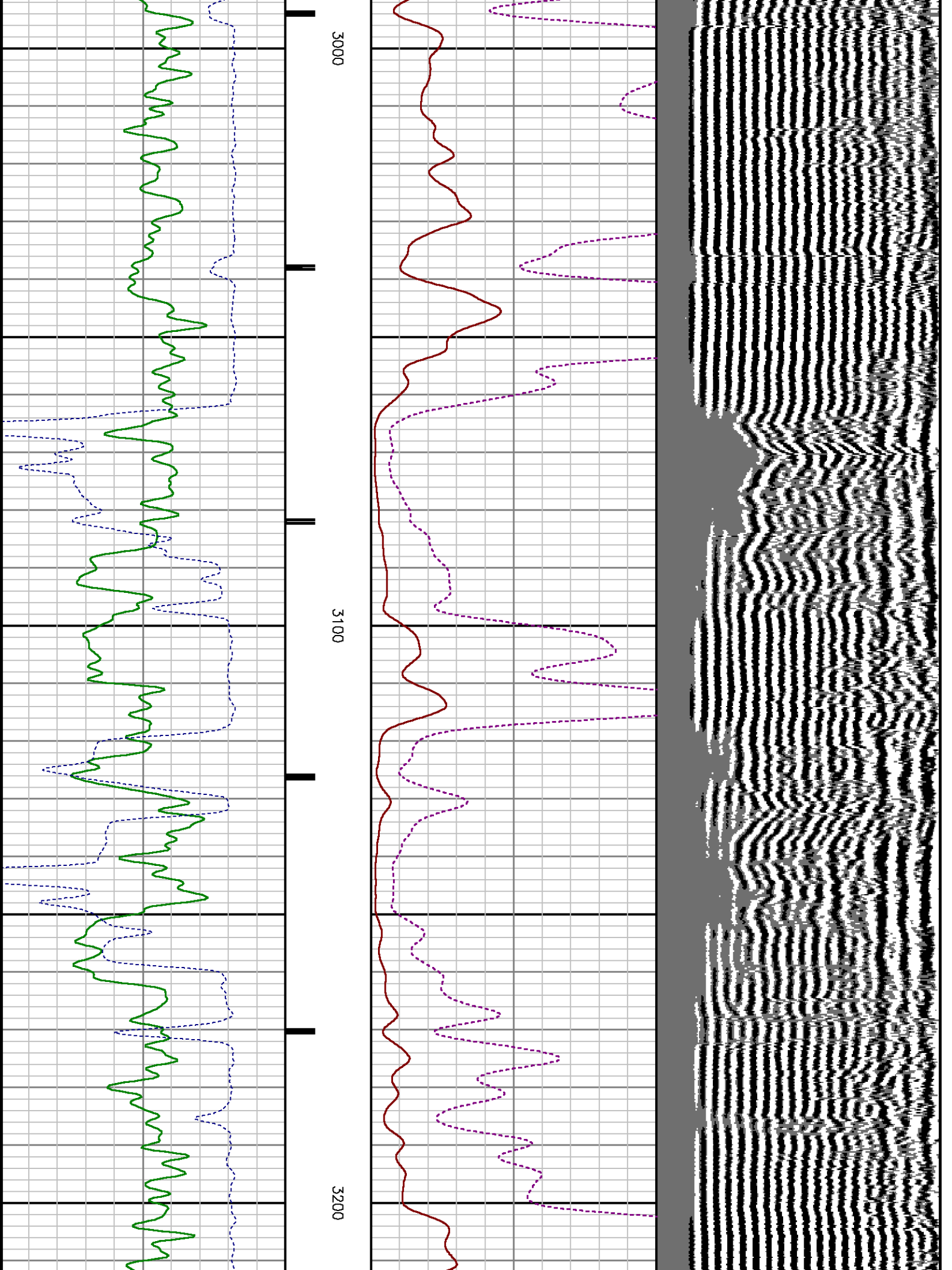
2300

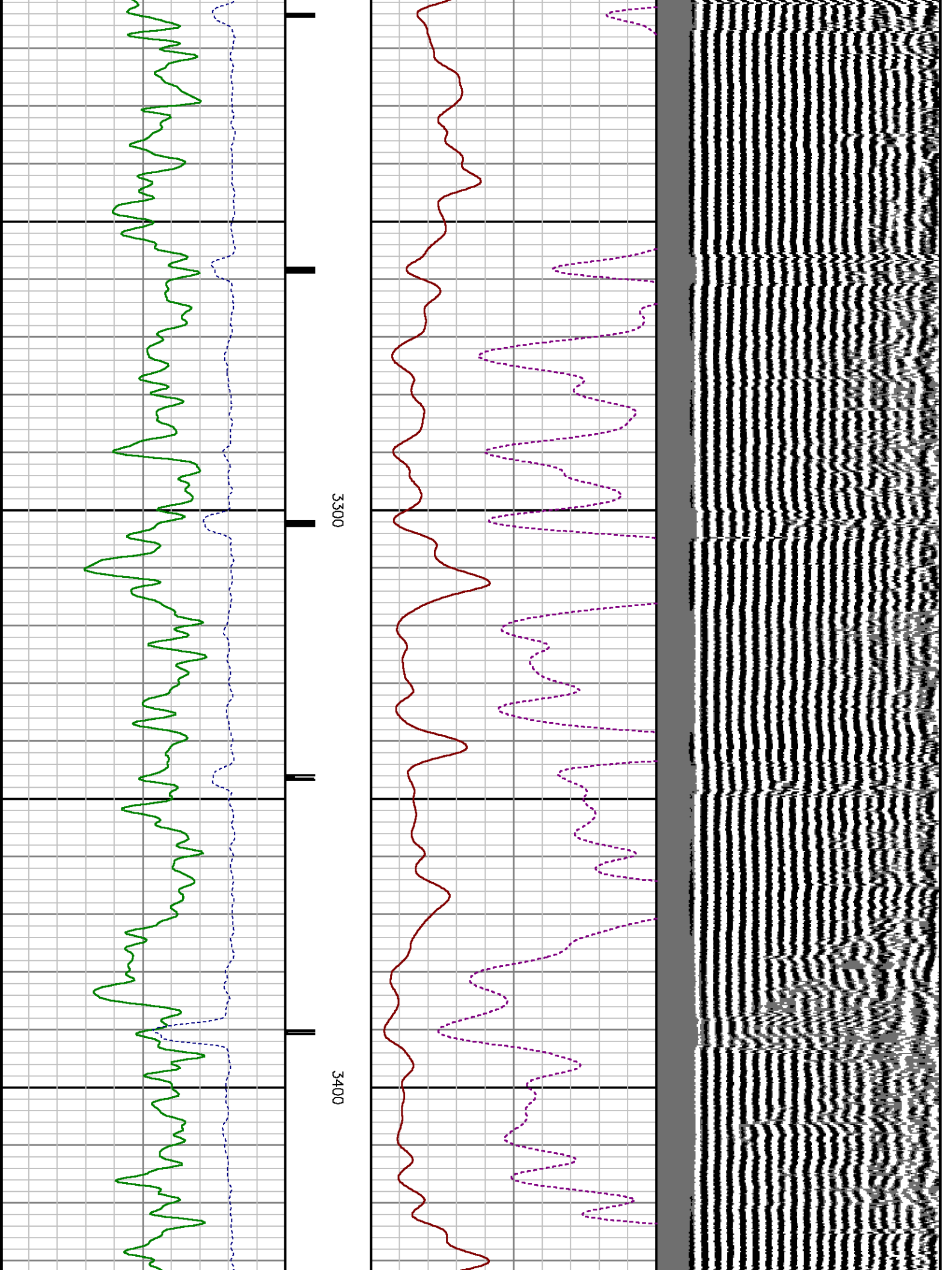


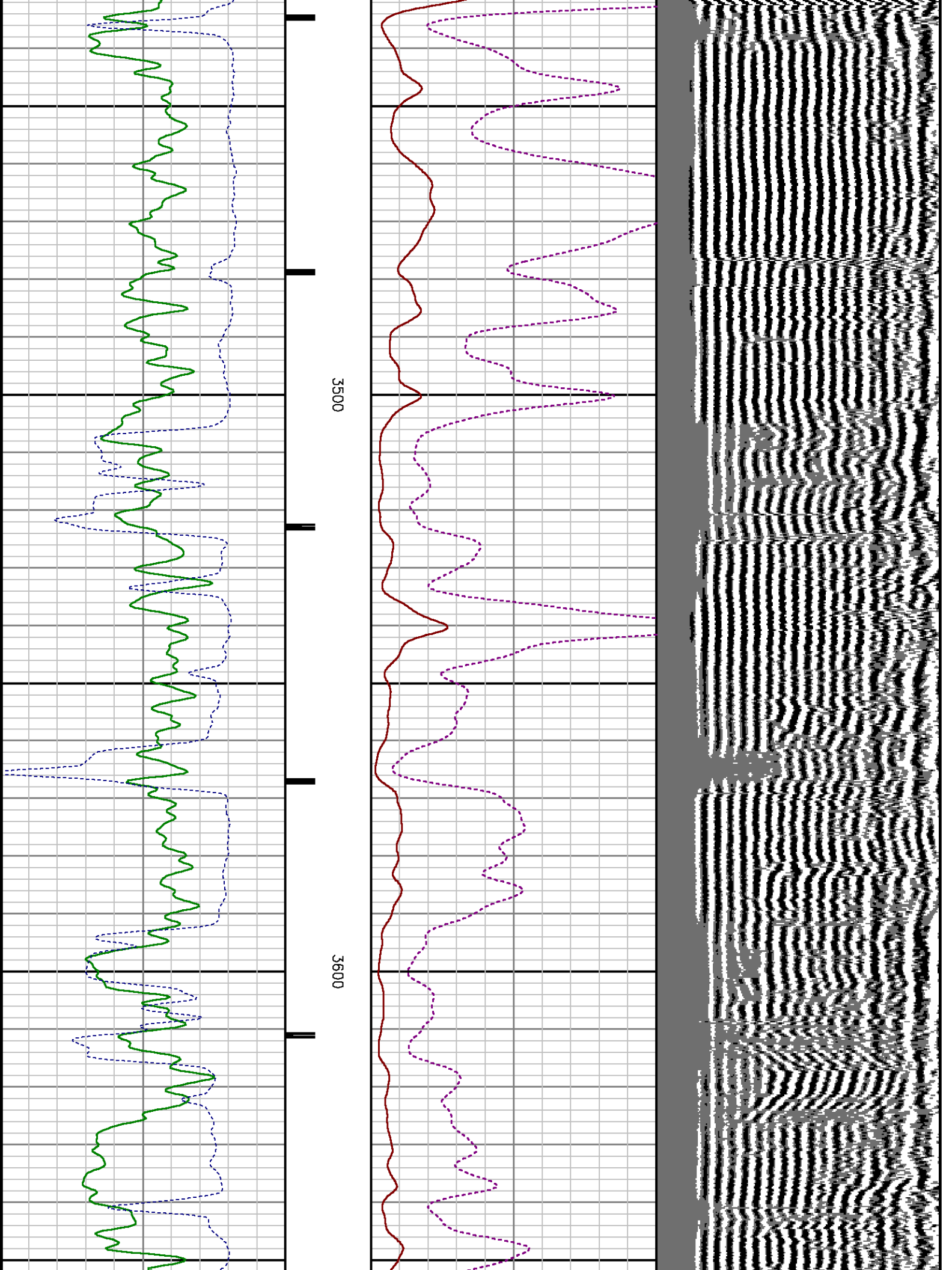


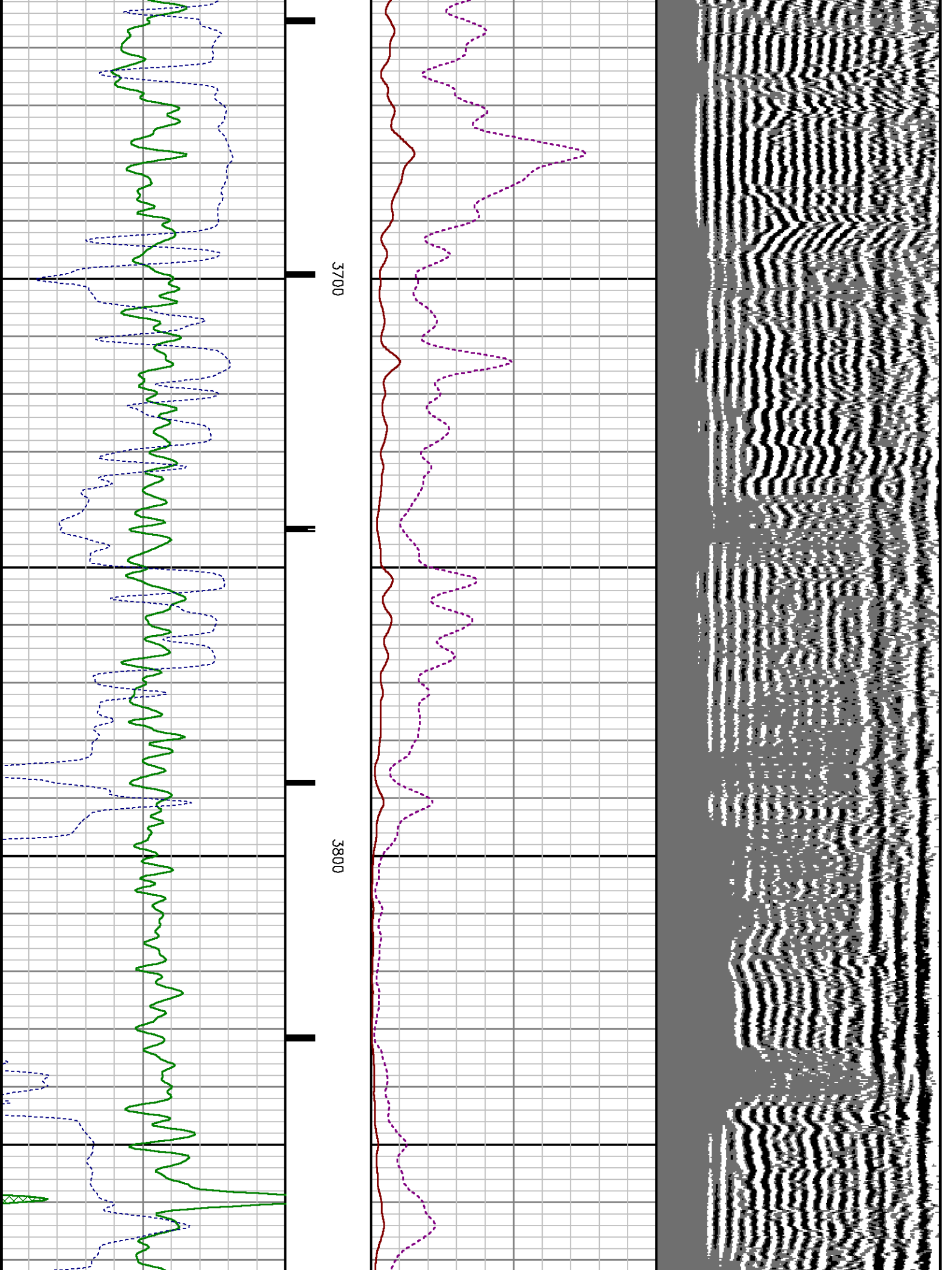


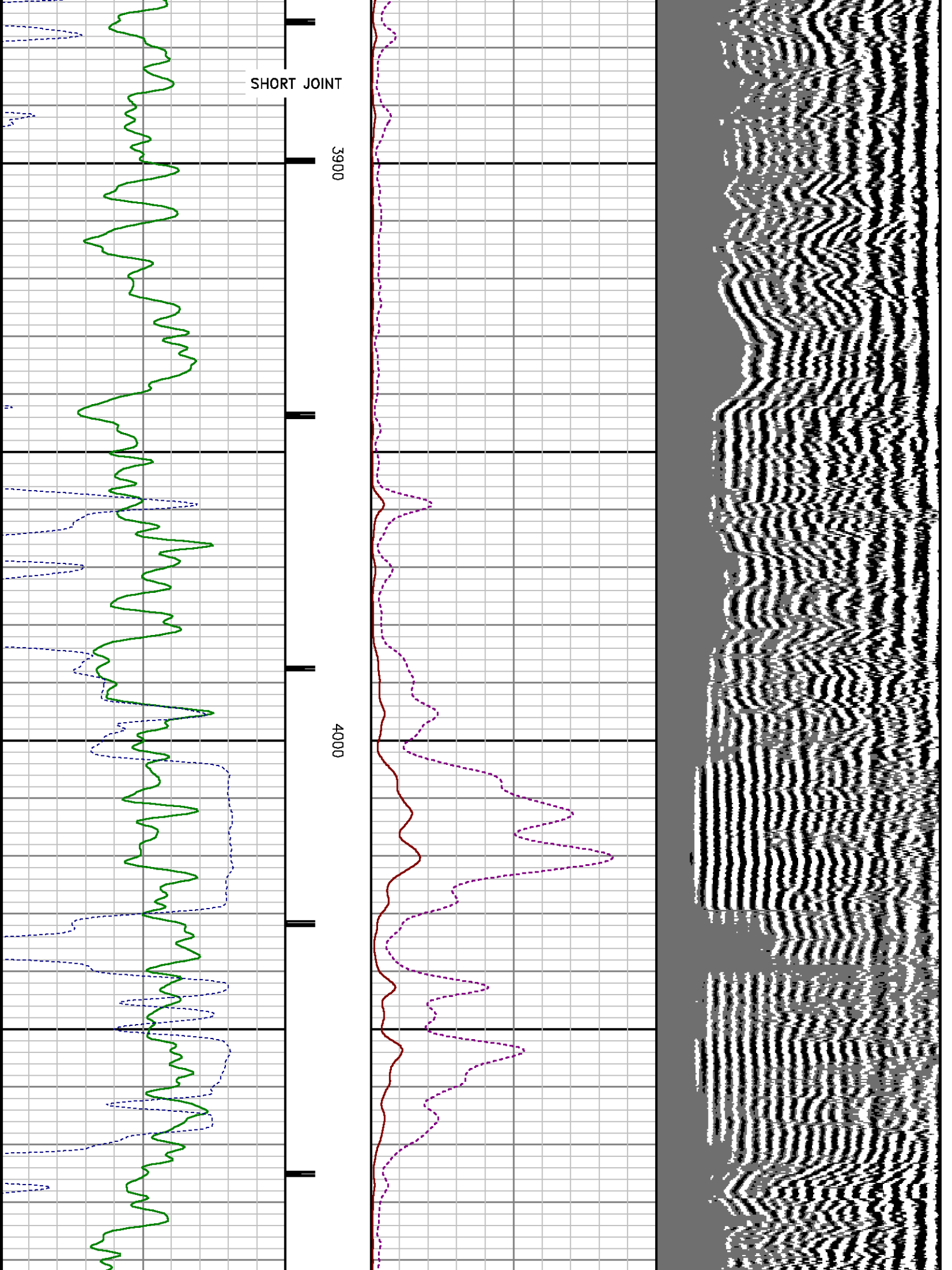


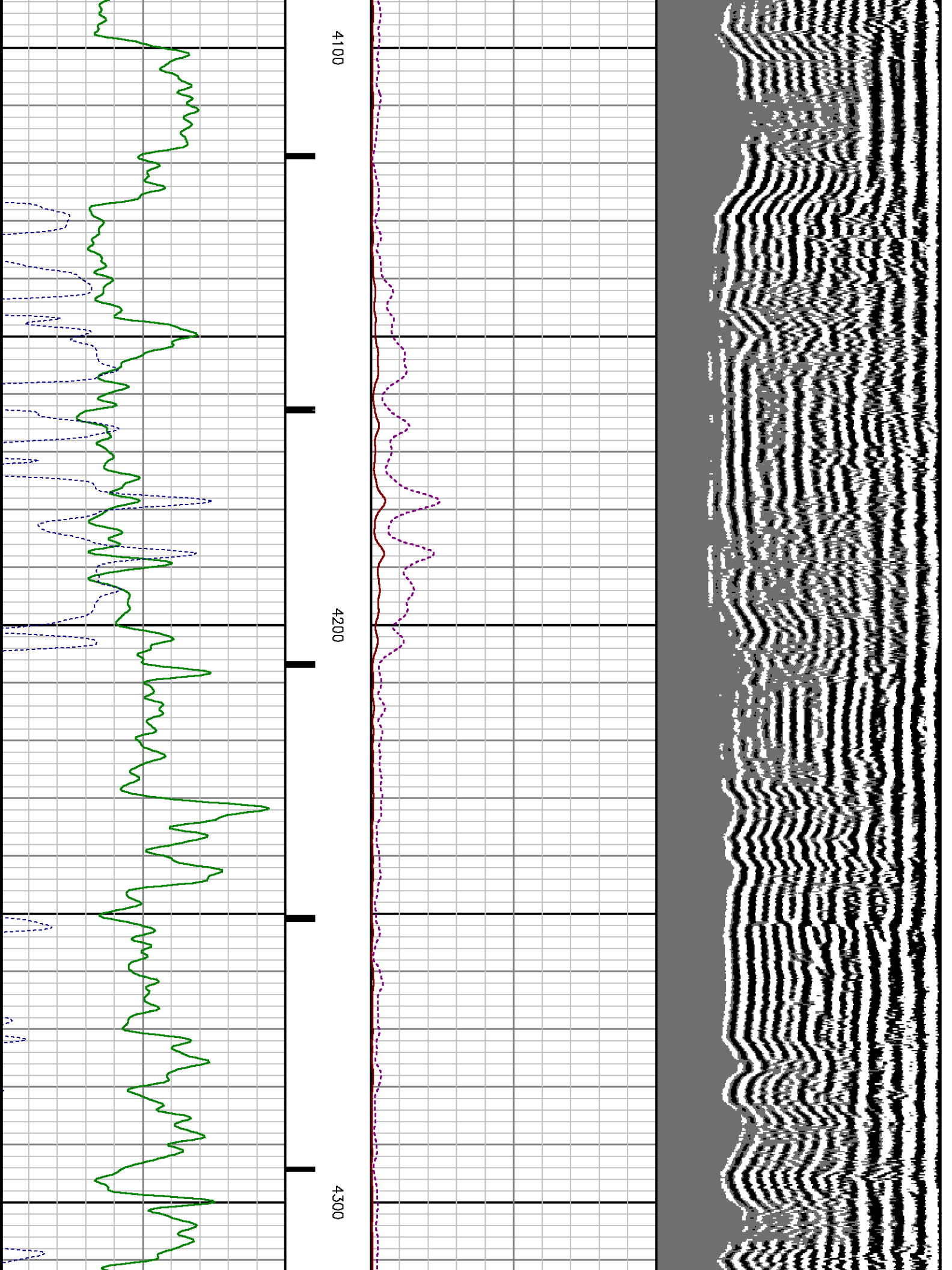


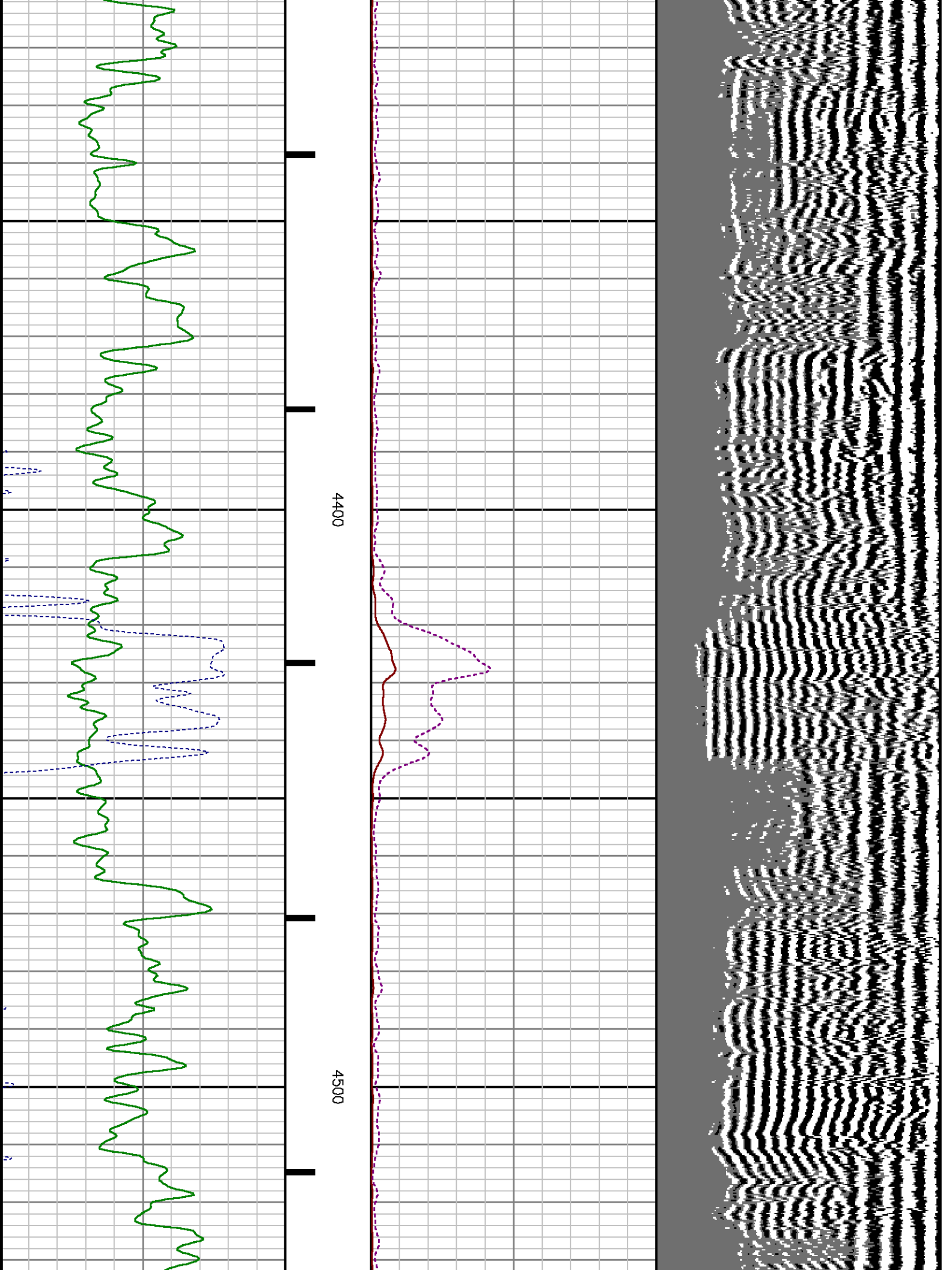


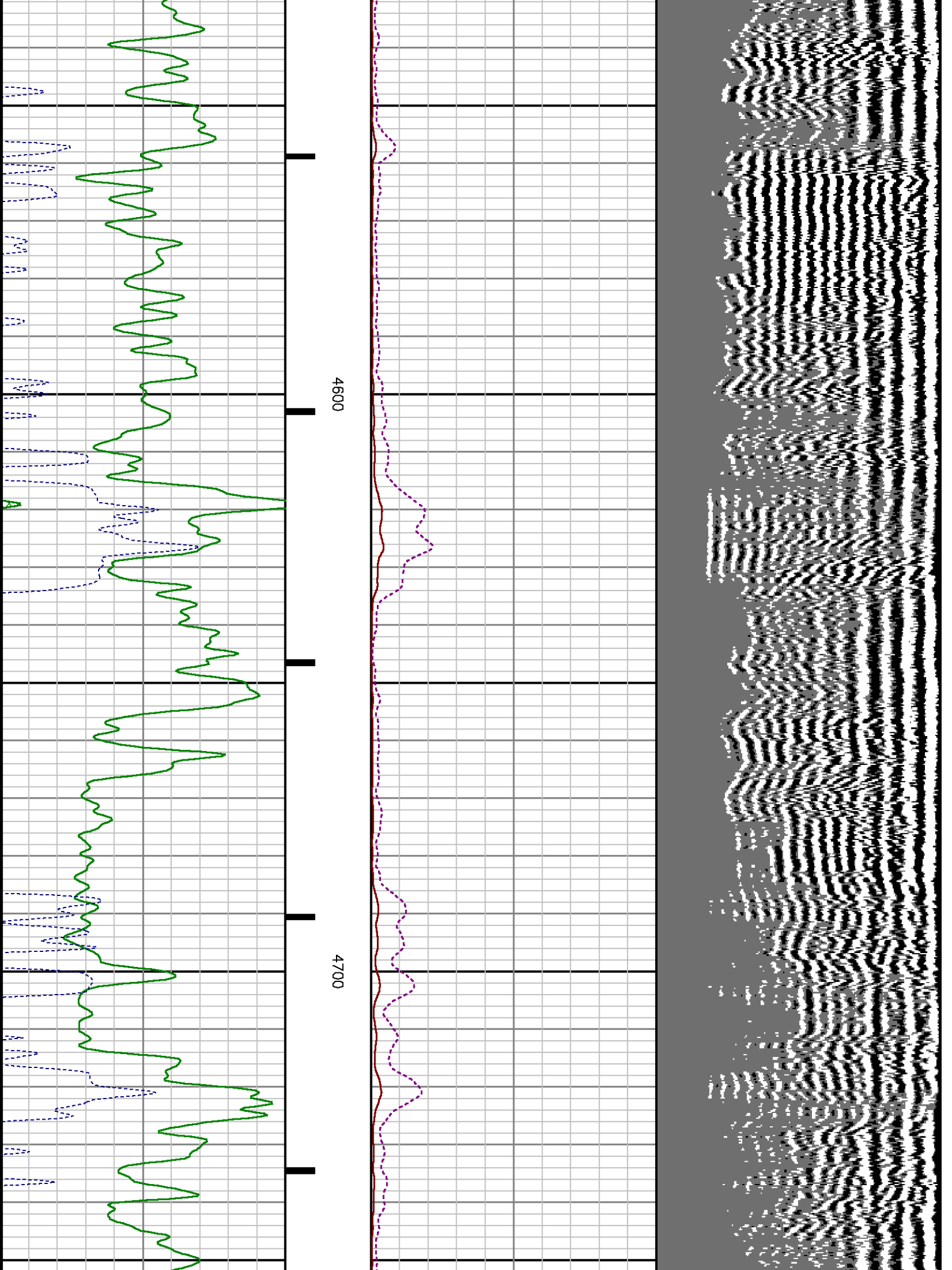


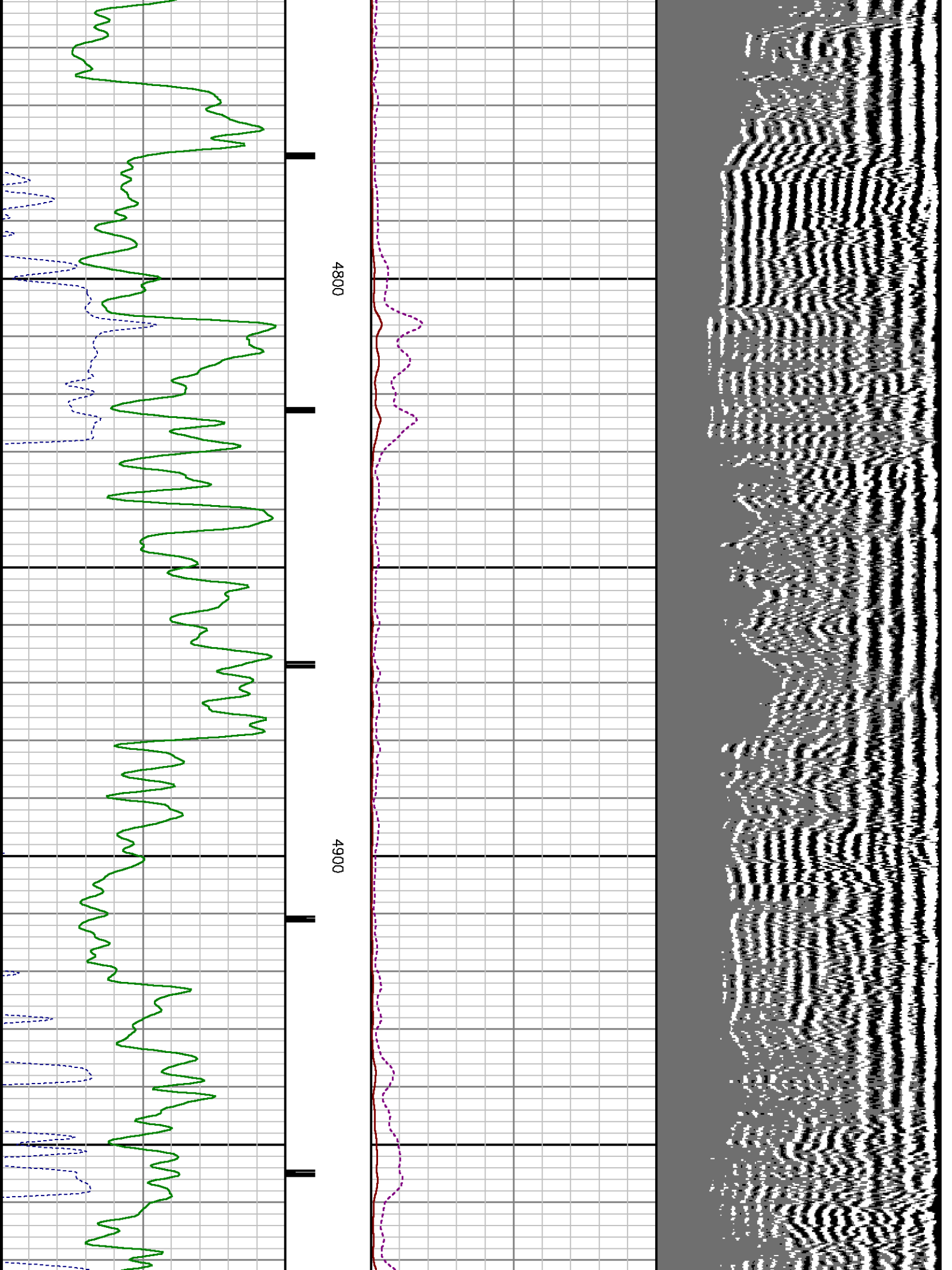


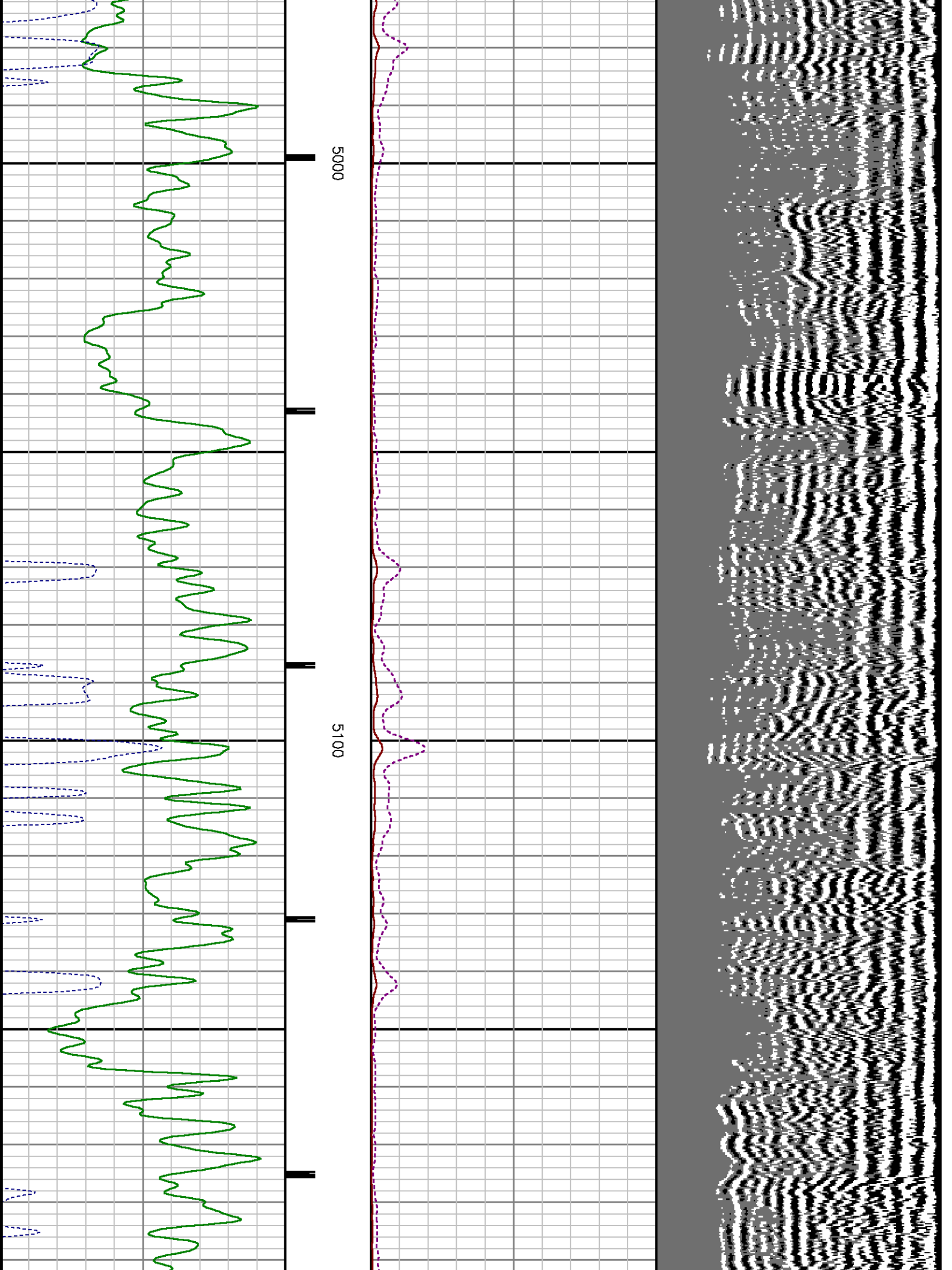


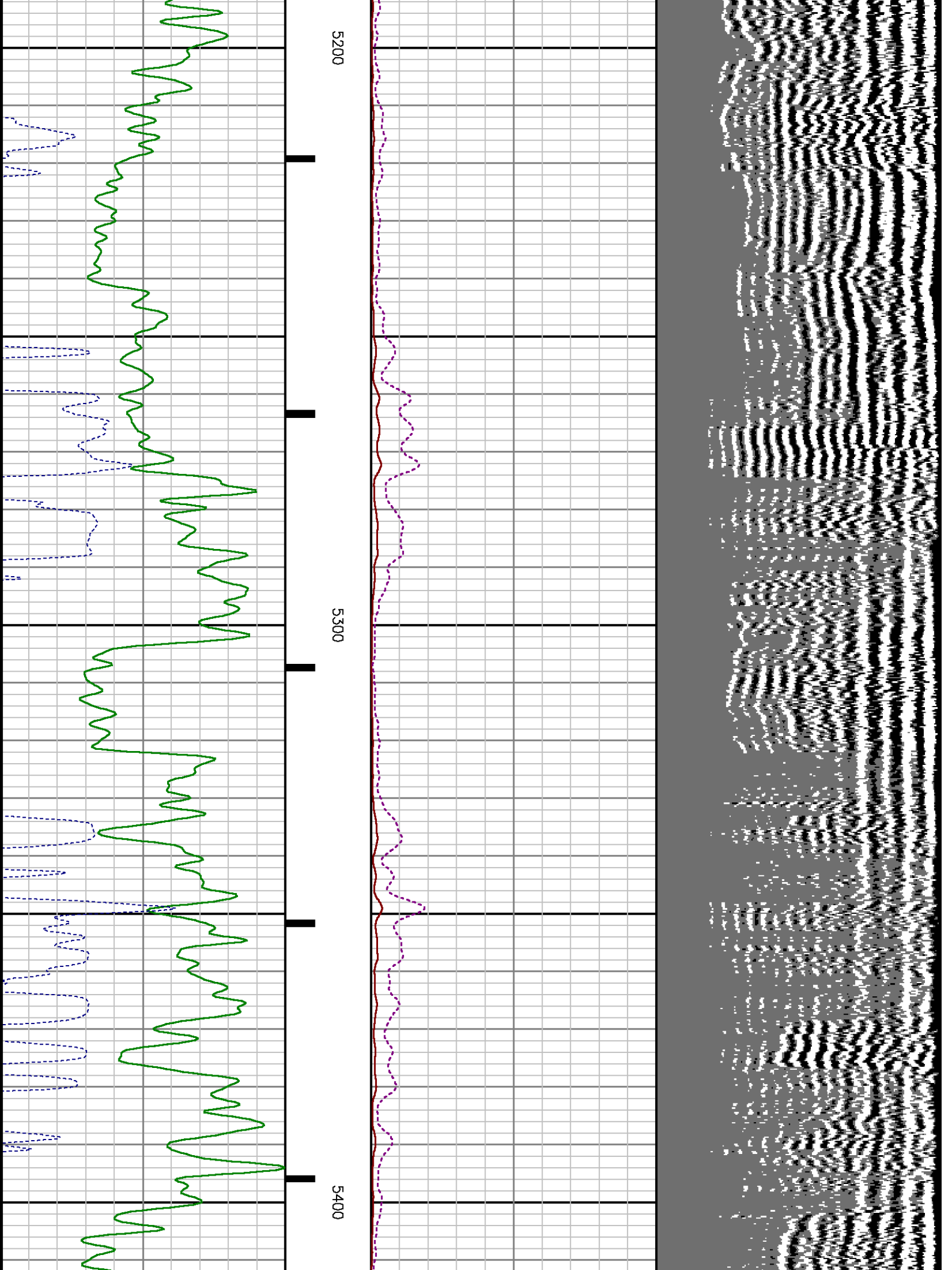


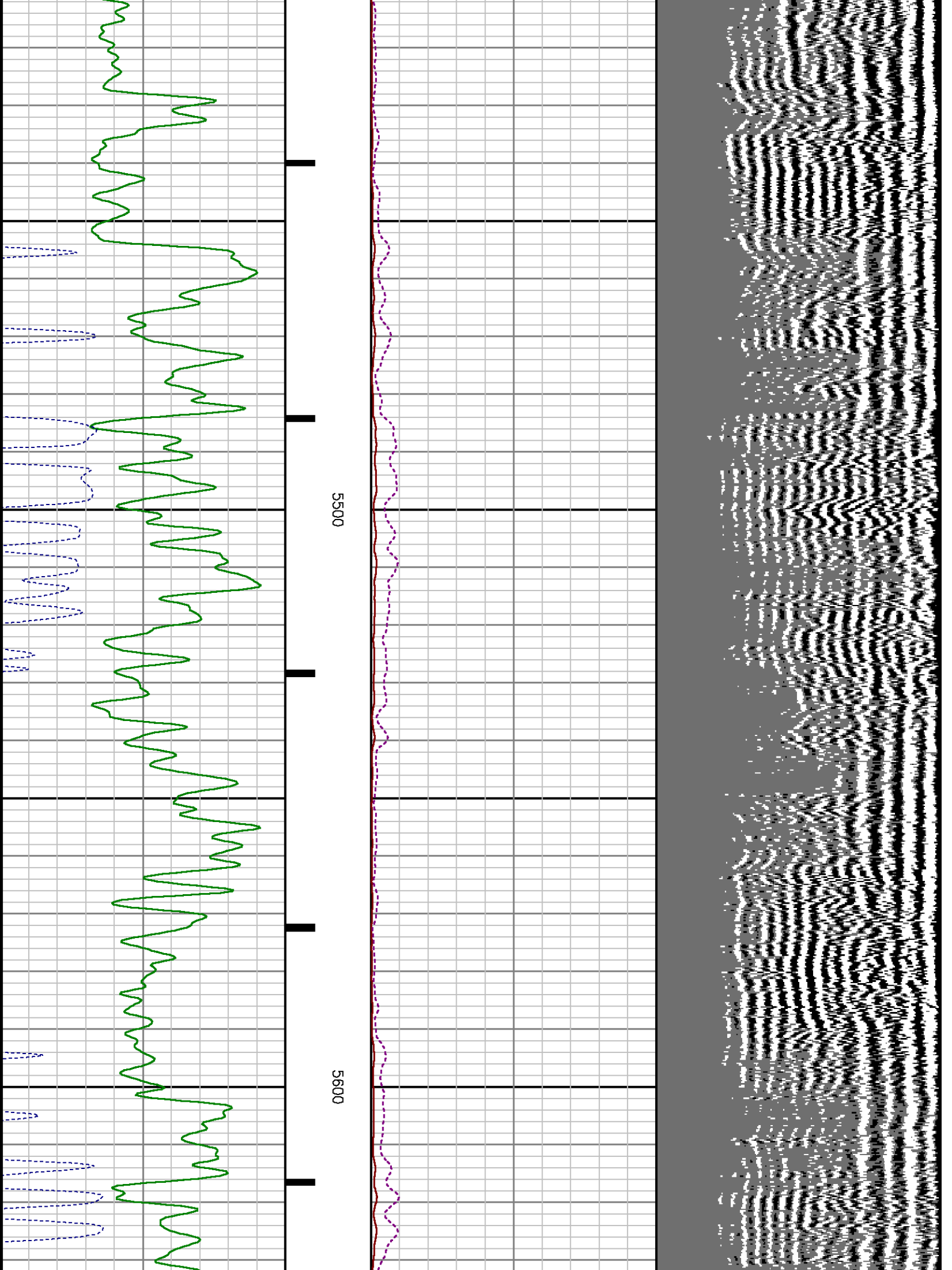


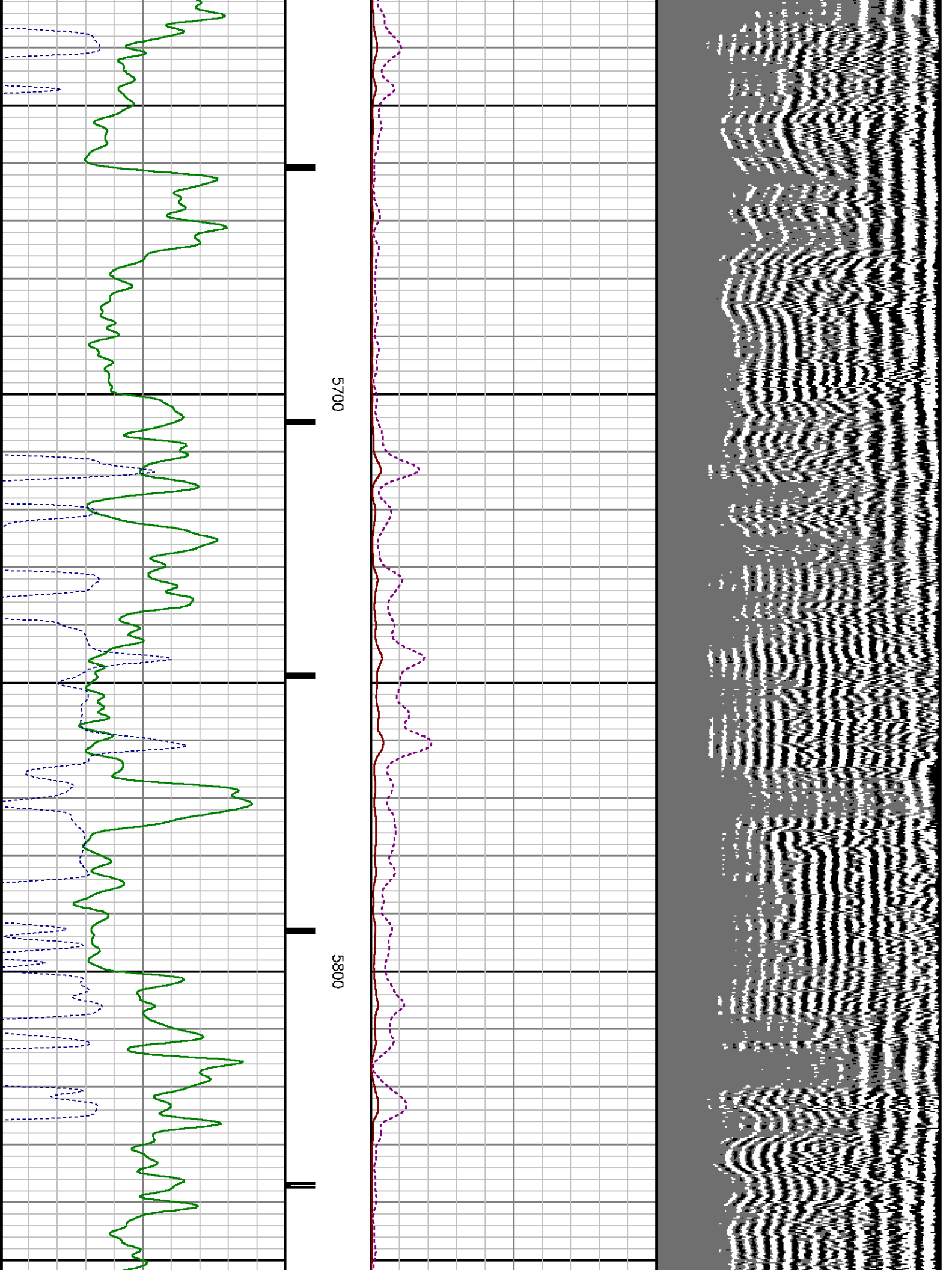


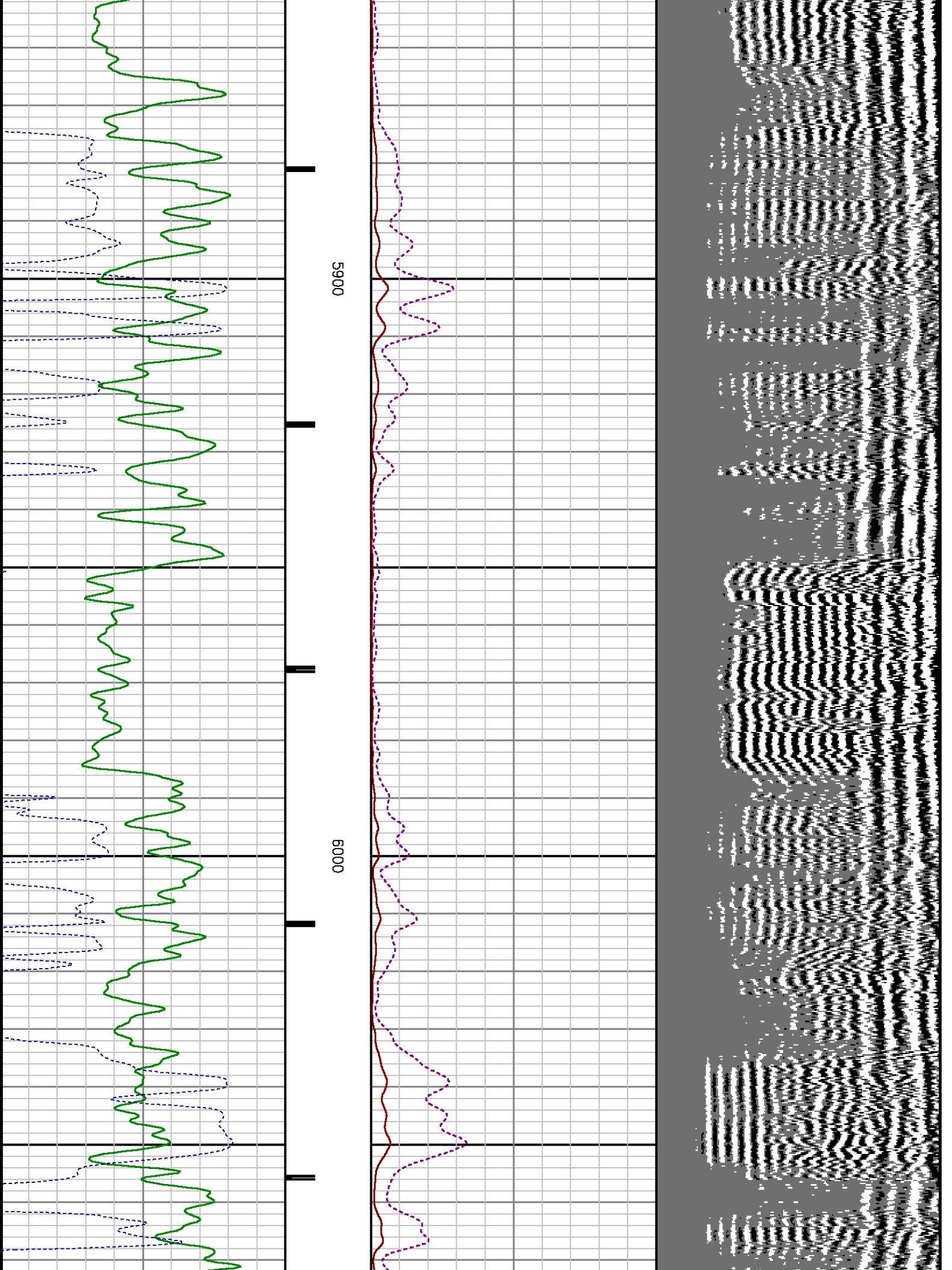


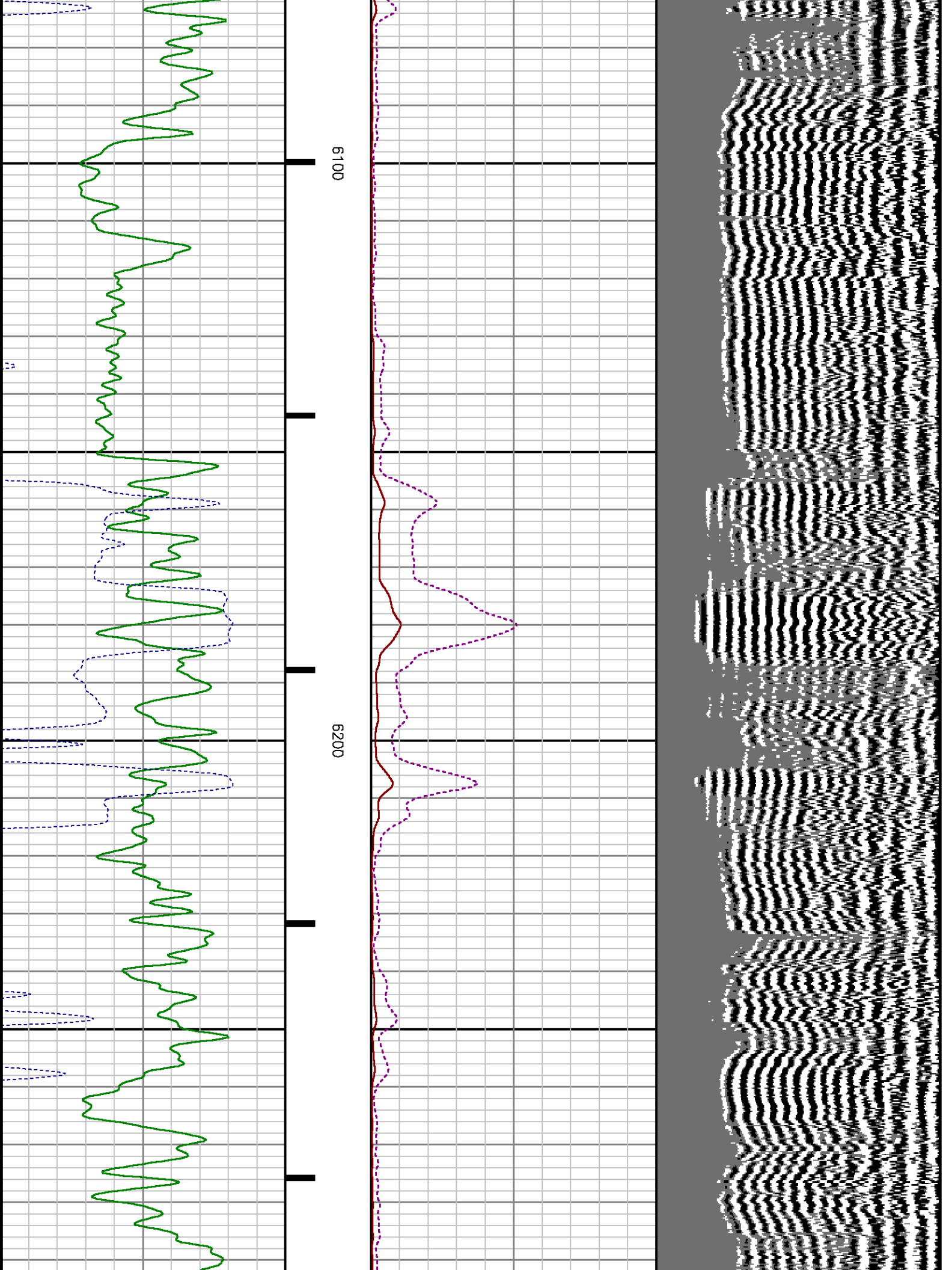


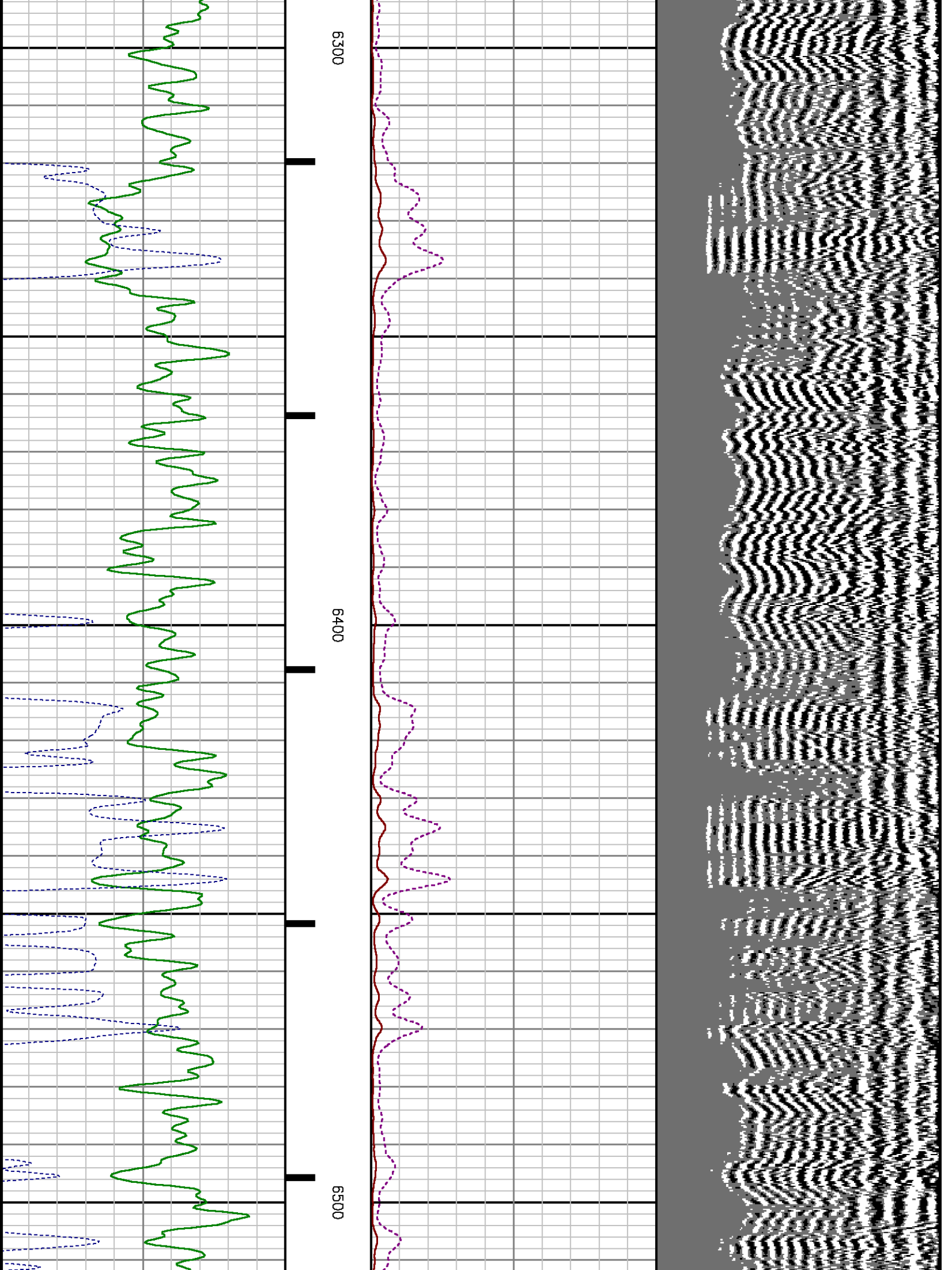


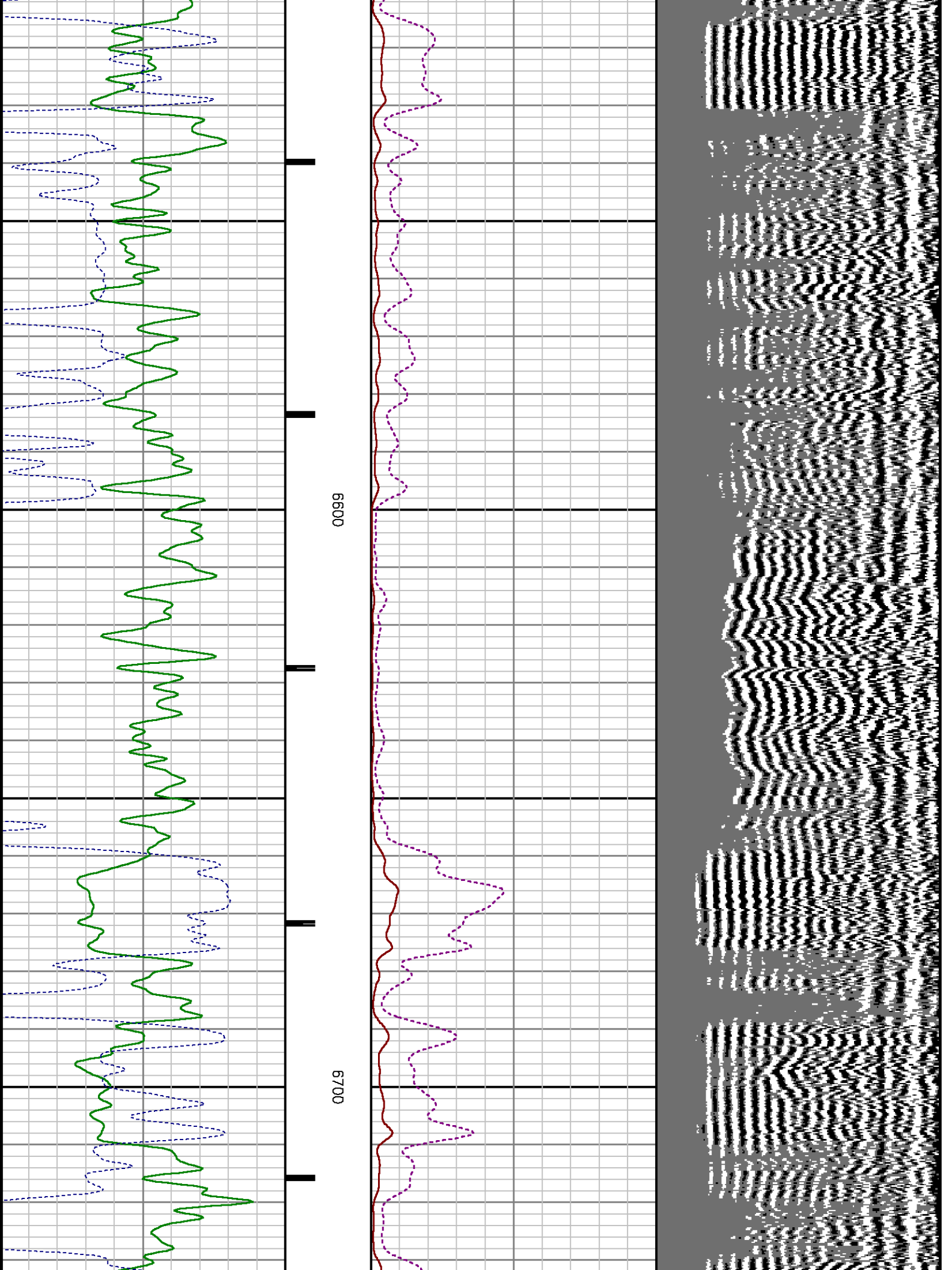


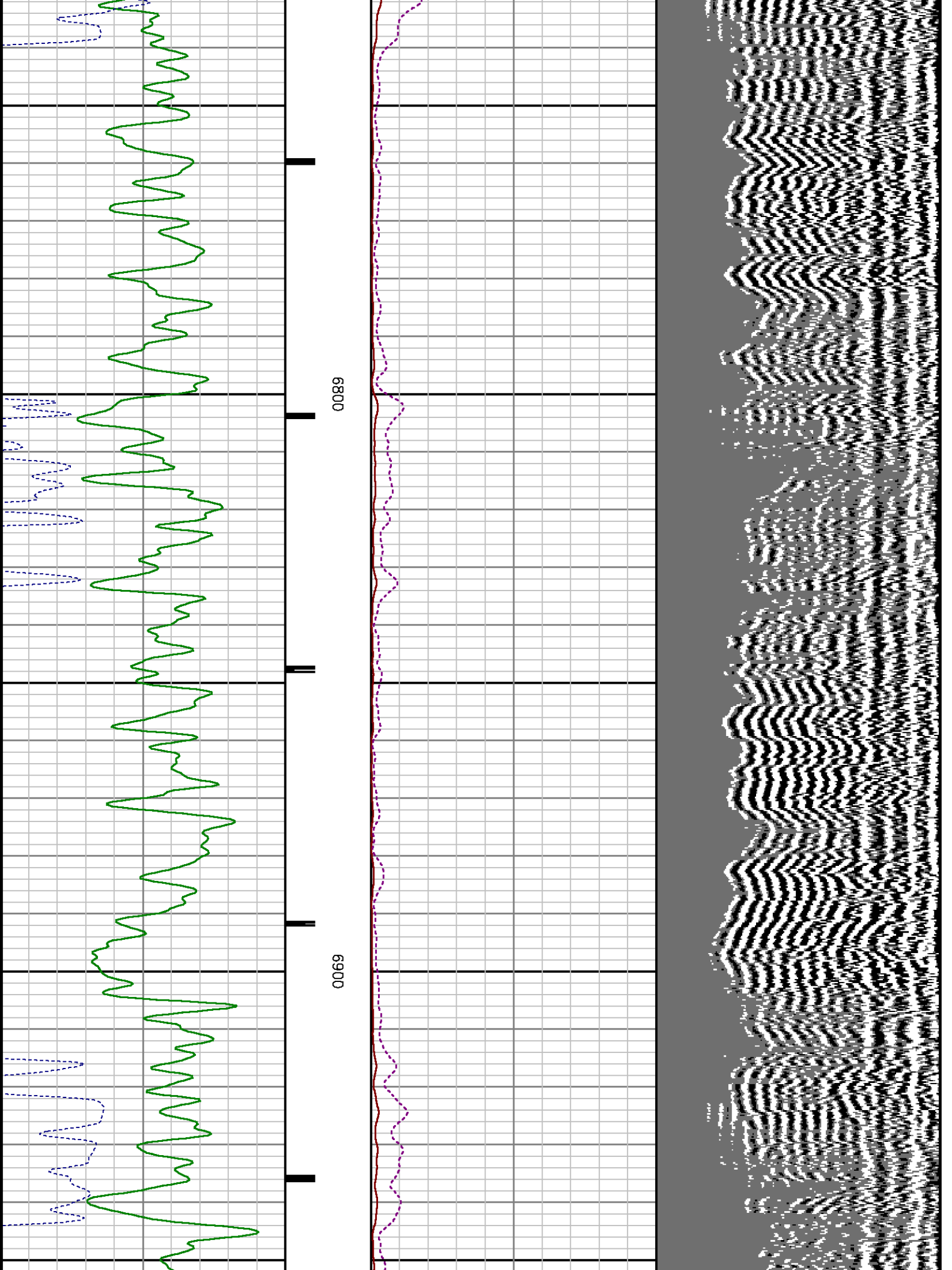


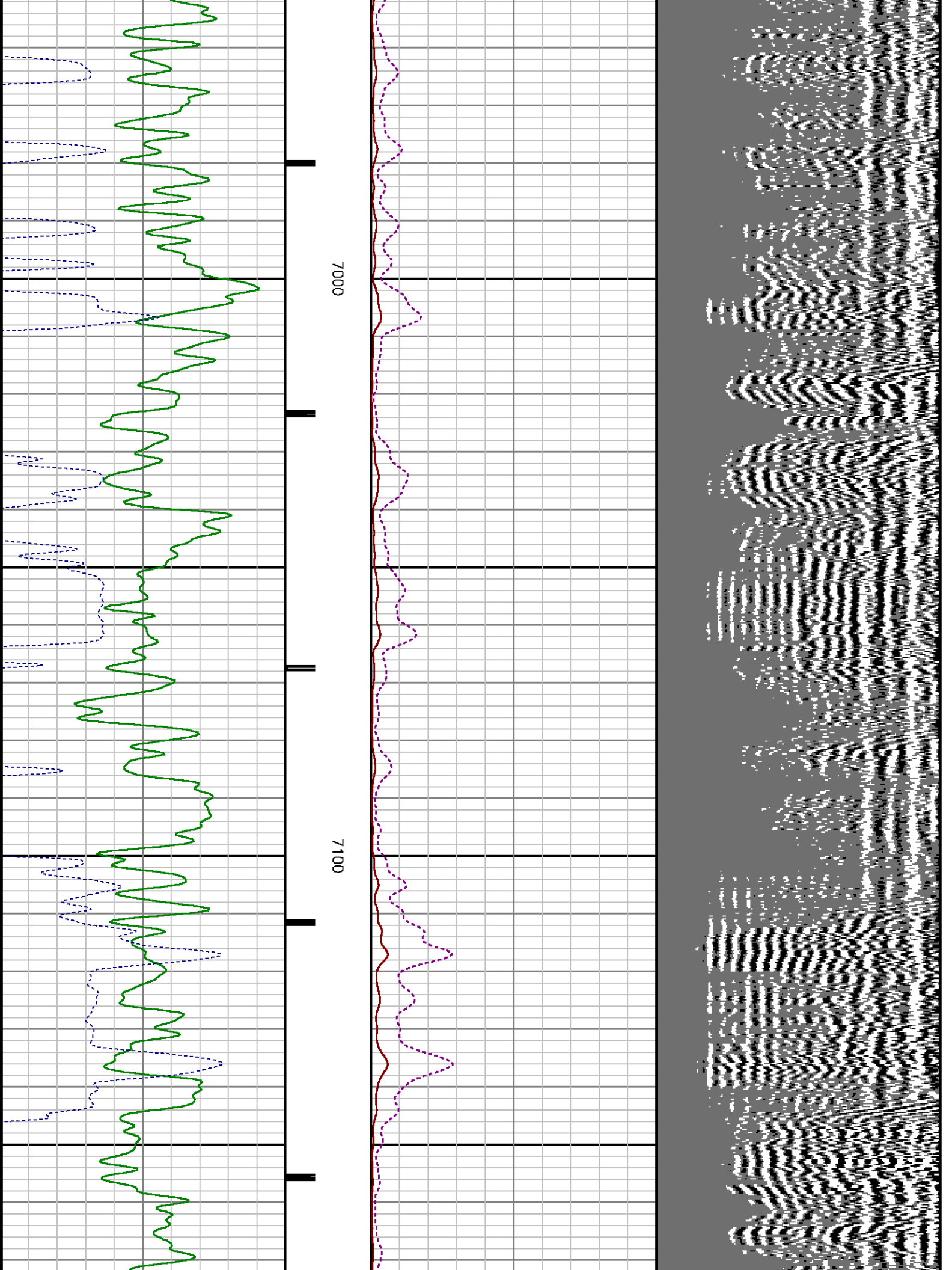


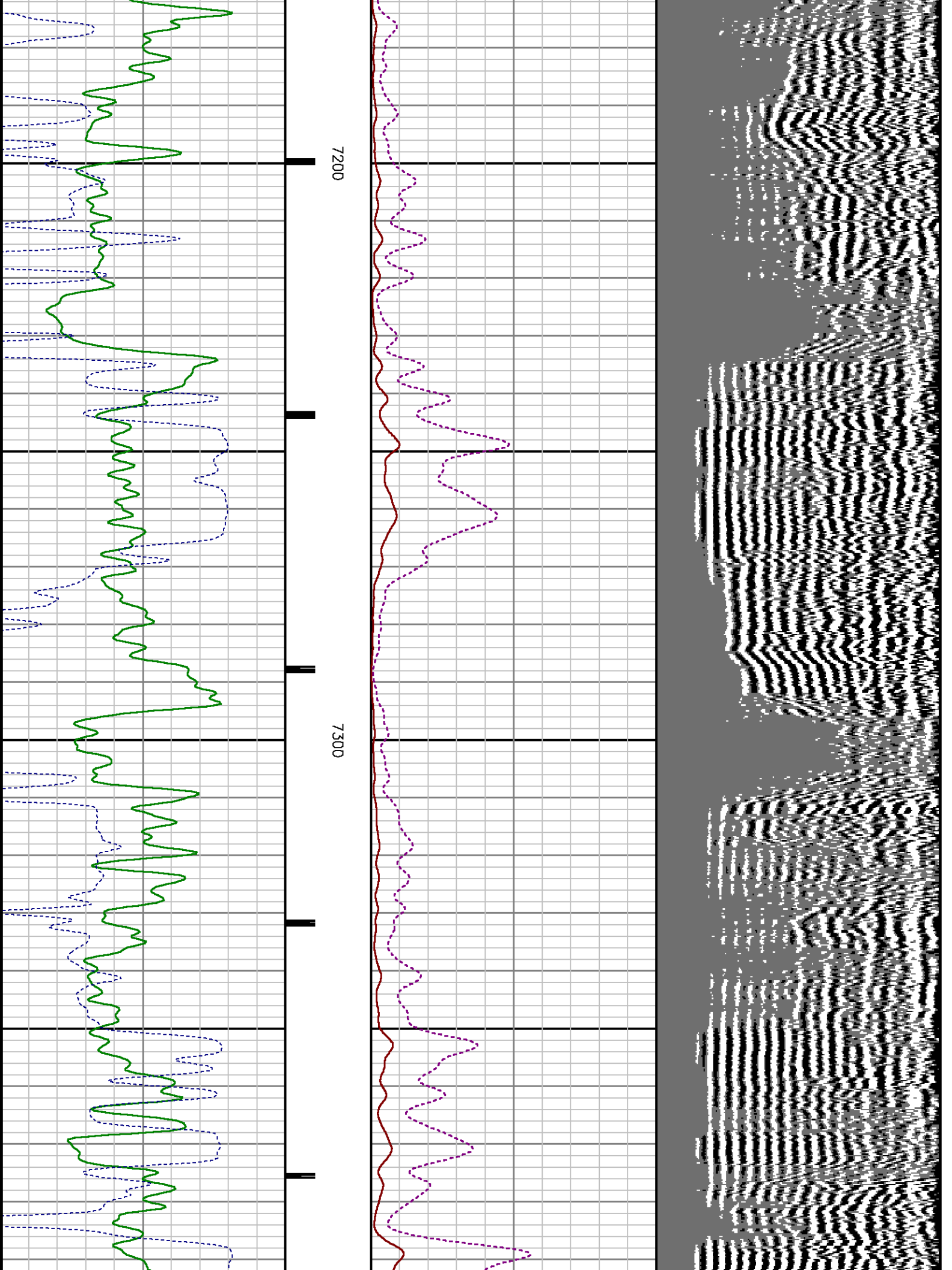


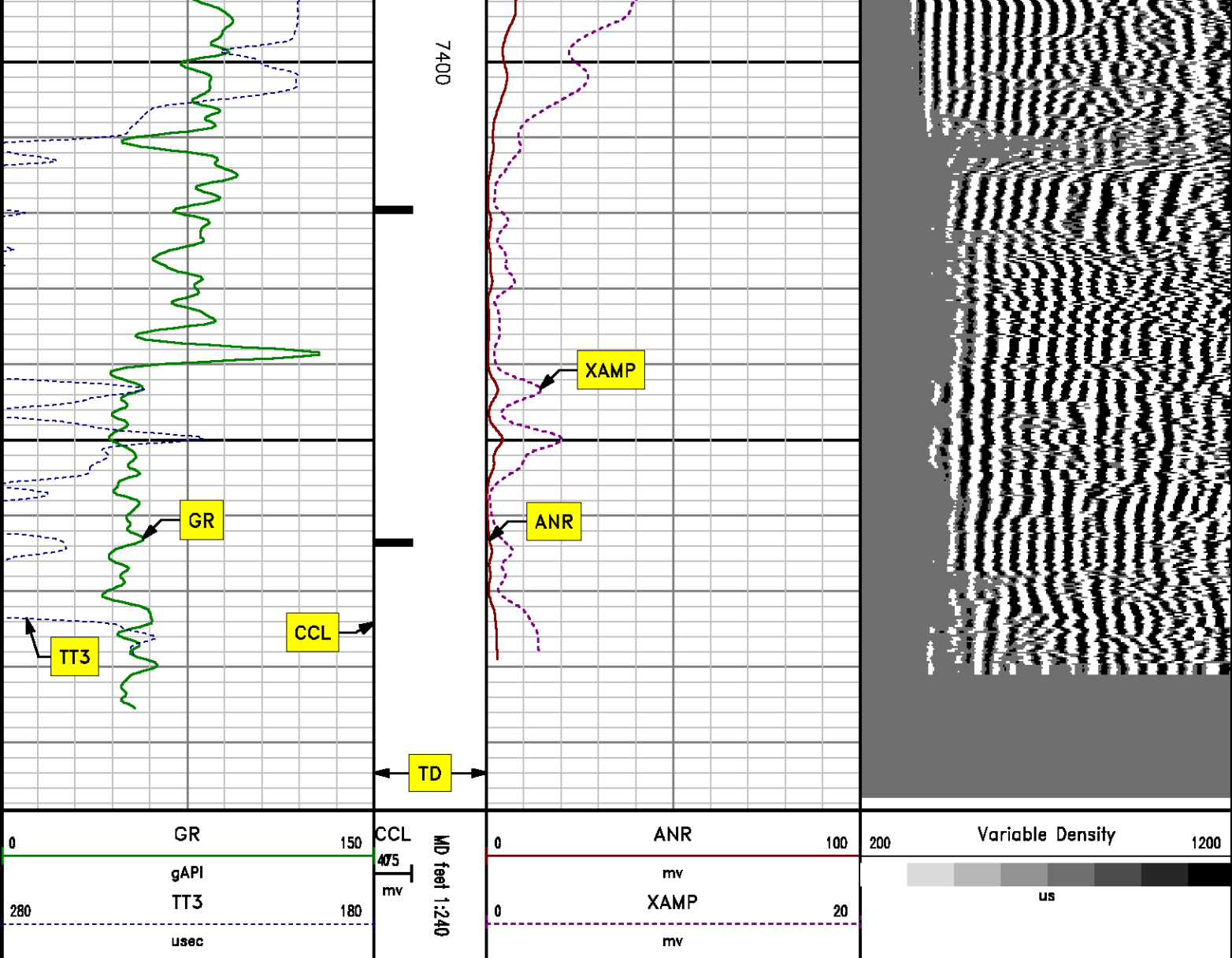












SECONDARY PRESENTATION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	34.375	7497.000
RAL	Amp Gate Start Near	195.000	usec	34.375	7497.000
RAL	Amp Gate Start Radial	195.000	usec	34.375	7497.000
RAL	Amp Gate Width Far	25.000	usec	34.375	7497.000

RAL	Amp Gate Width Near	25.000	usec	34.375	7497.000
RAL	Amp Gate Width Radial	25.000	usec	34.375	7497.000
RAL	casing od	4.500	inches	34.375	7497.000
RAL	casing wt	11.600	lbm/ft	34.375	7497.000
RAL	FB Start Far	291.900	usec	34.375	7497.000
RAL	FB Start Near	175.391	usec	34.375	7497.000
RAL	FB Start Radial	175.391	usec	34.375	7497.000
RAL	FB Thresh Far	10.000	mv	34.375	7497.000
RAL	FB Thresh Near	4.000	mv	34.375	7497.000
RAL	FB Thresh Radial	4.000	mv	34.375	7497.000
RAL	Fluid Travel Time	200.000	usec/ft	34.375	7496.593

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

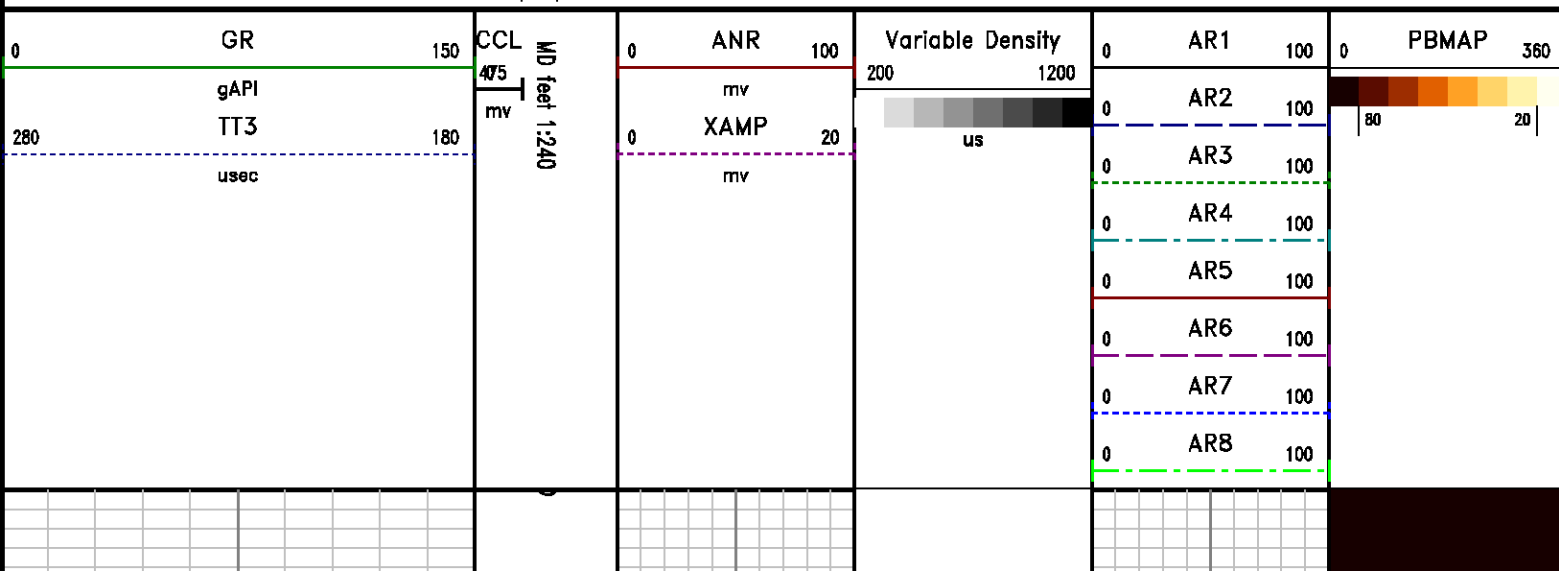
Well : WPX ENERGY 23-2

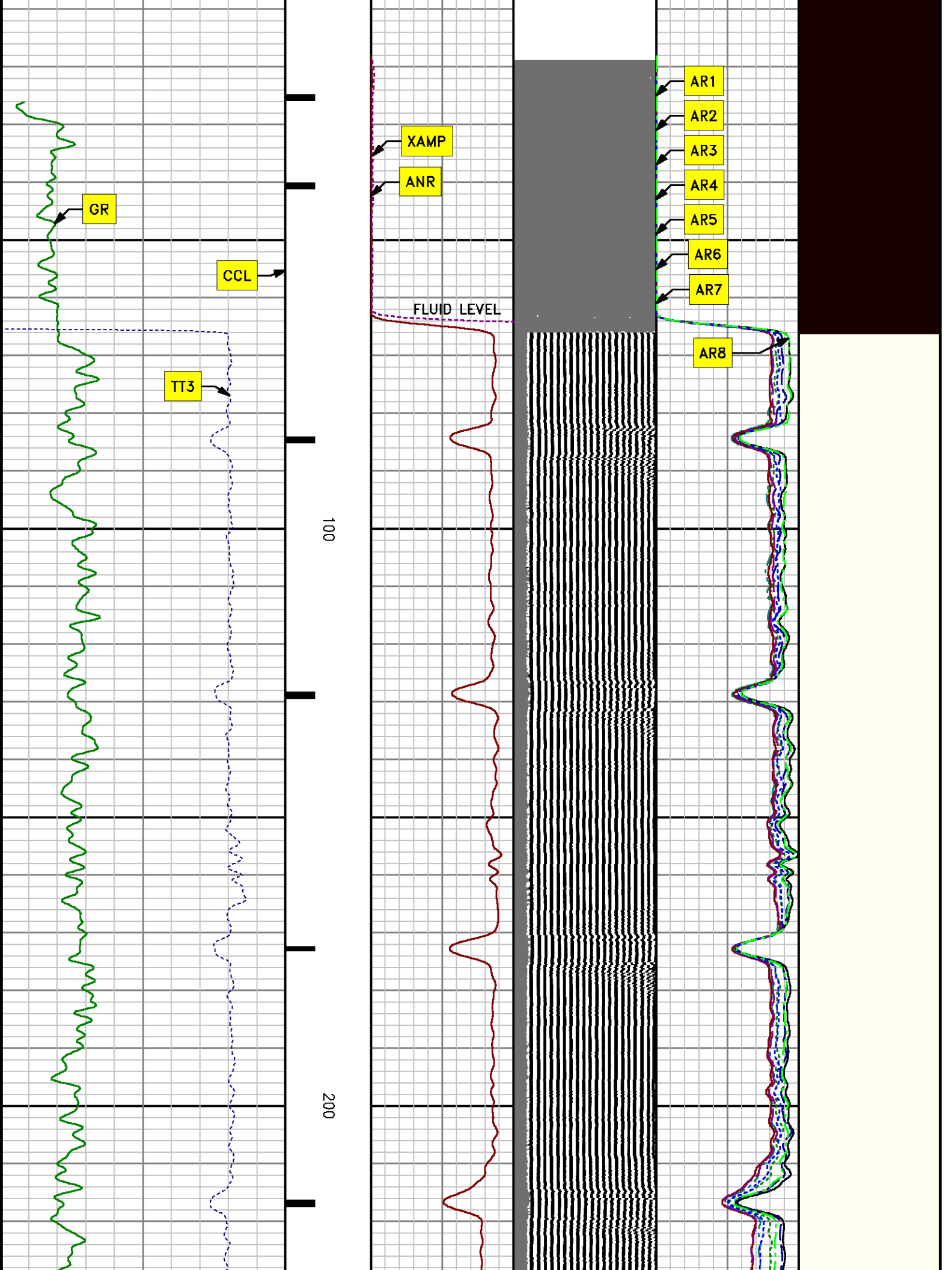
File Name : d:\well\data\wpx\wpx energy pa 23-2\23cbl\main.xtf

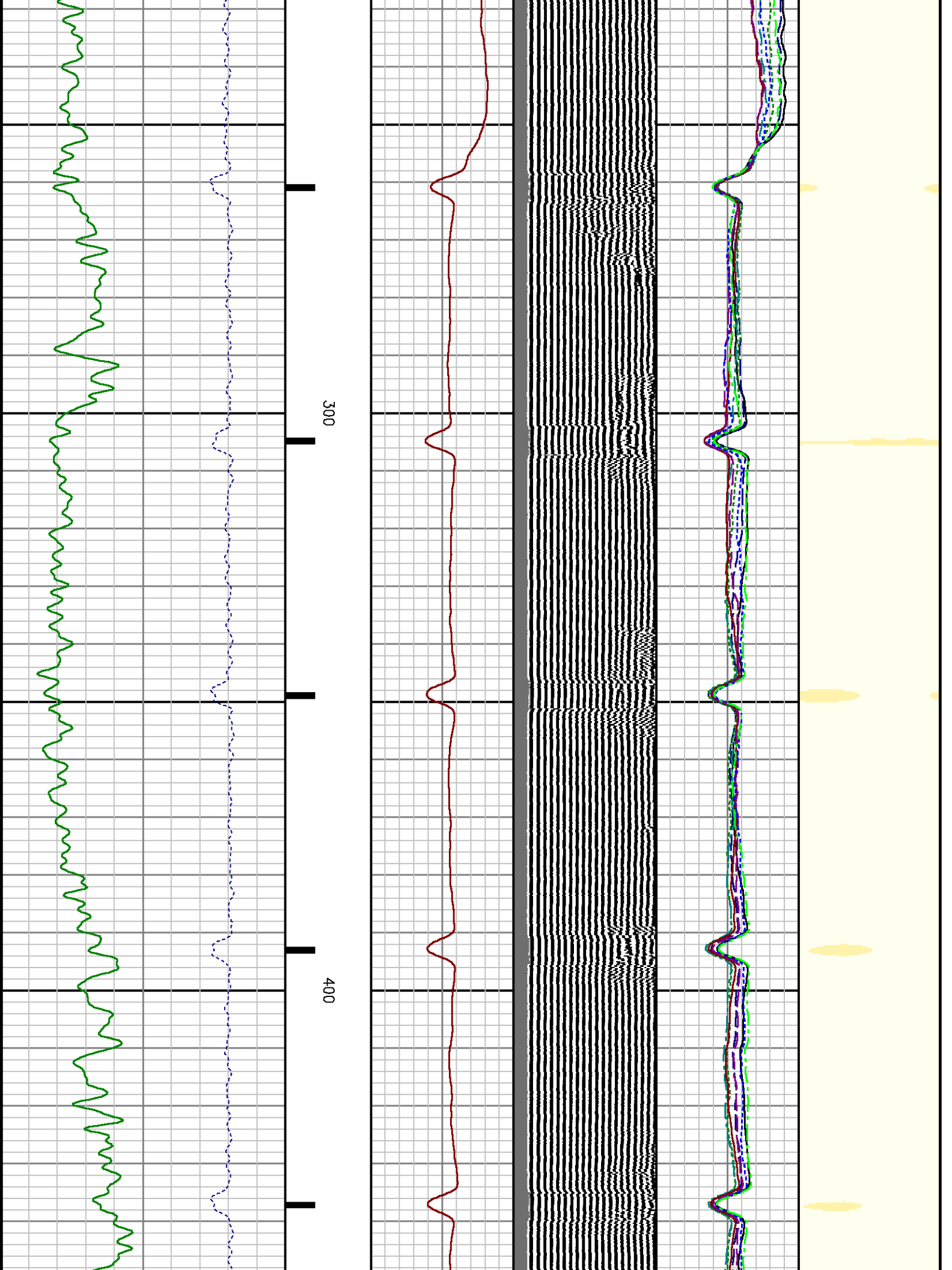
Mode : PlotMgr 5.4.504

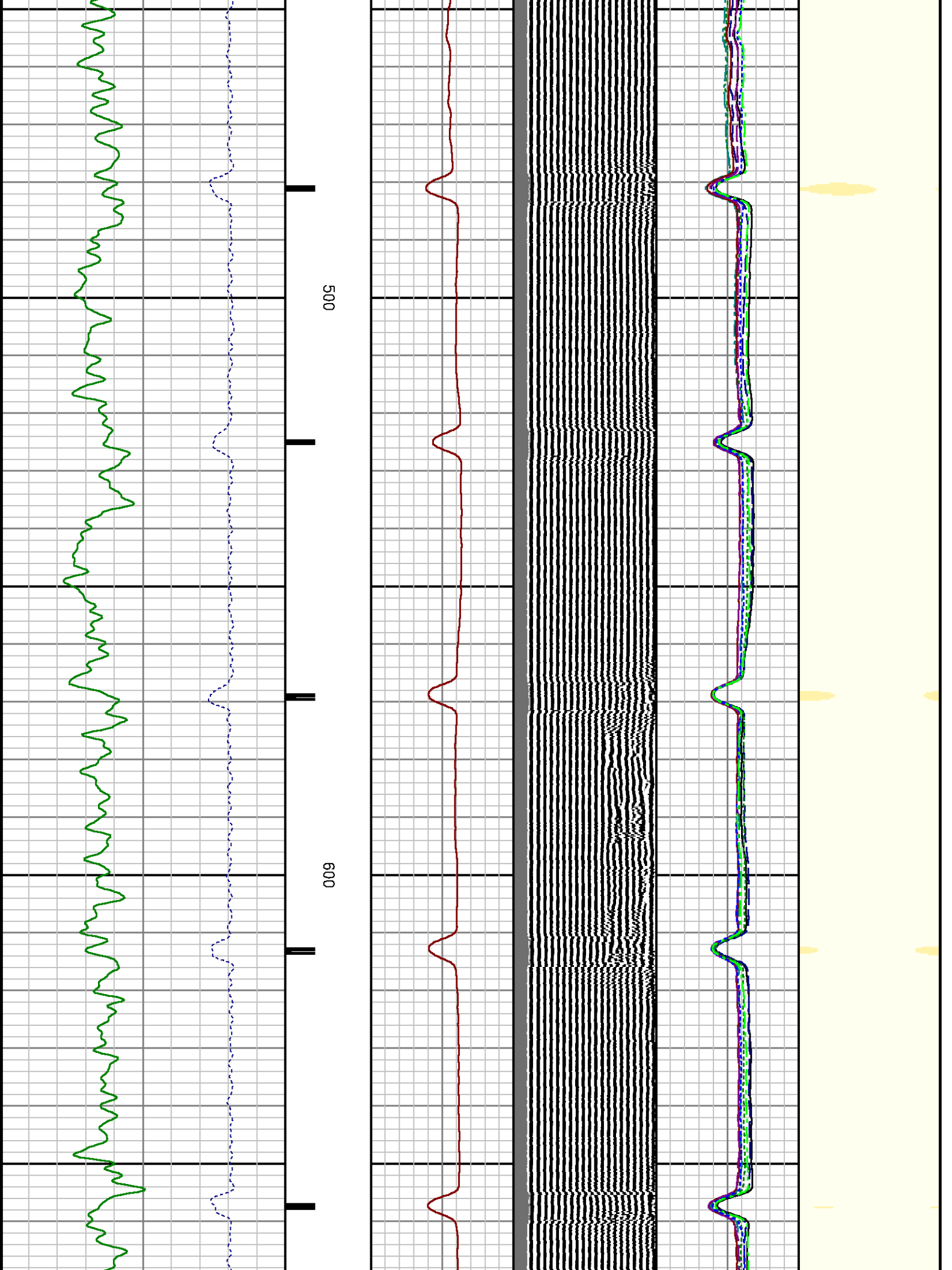
Interval : 0.00 - 7499.00 feet UP

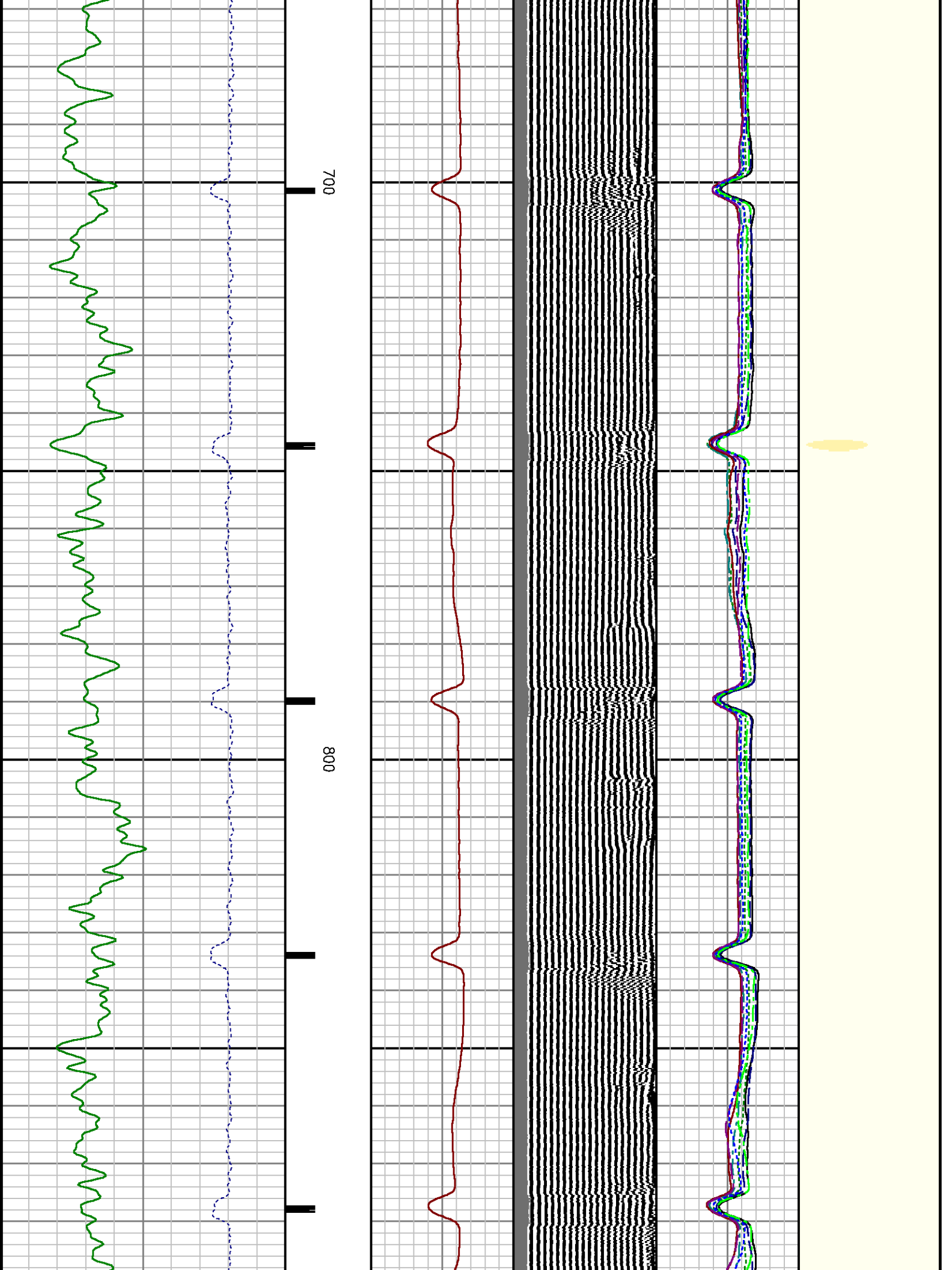
Created : 3/11/2014 8:57:22 AM

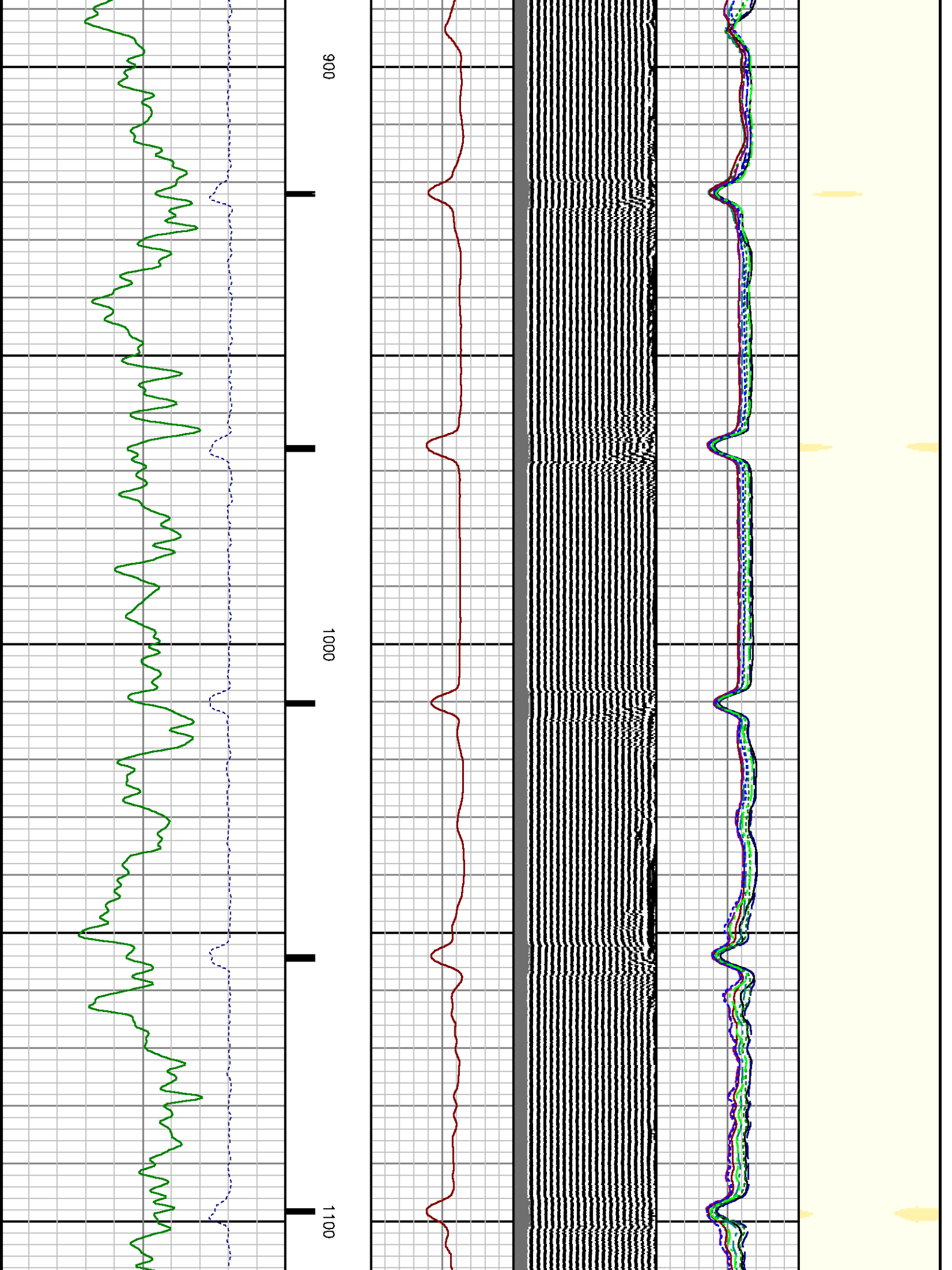


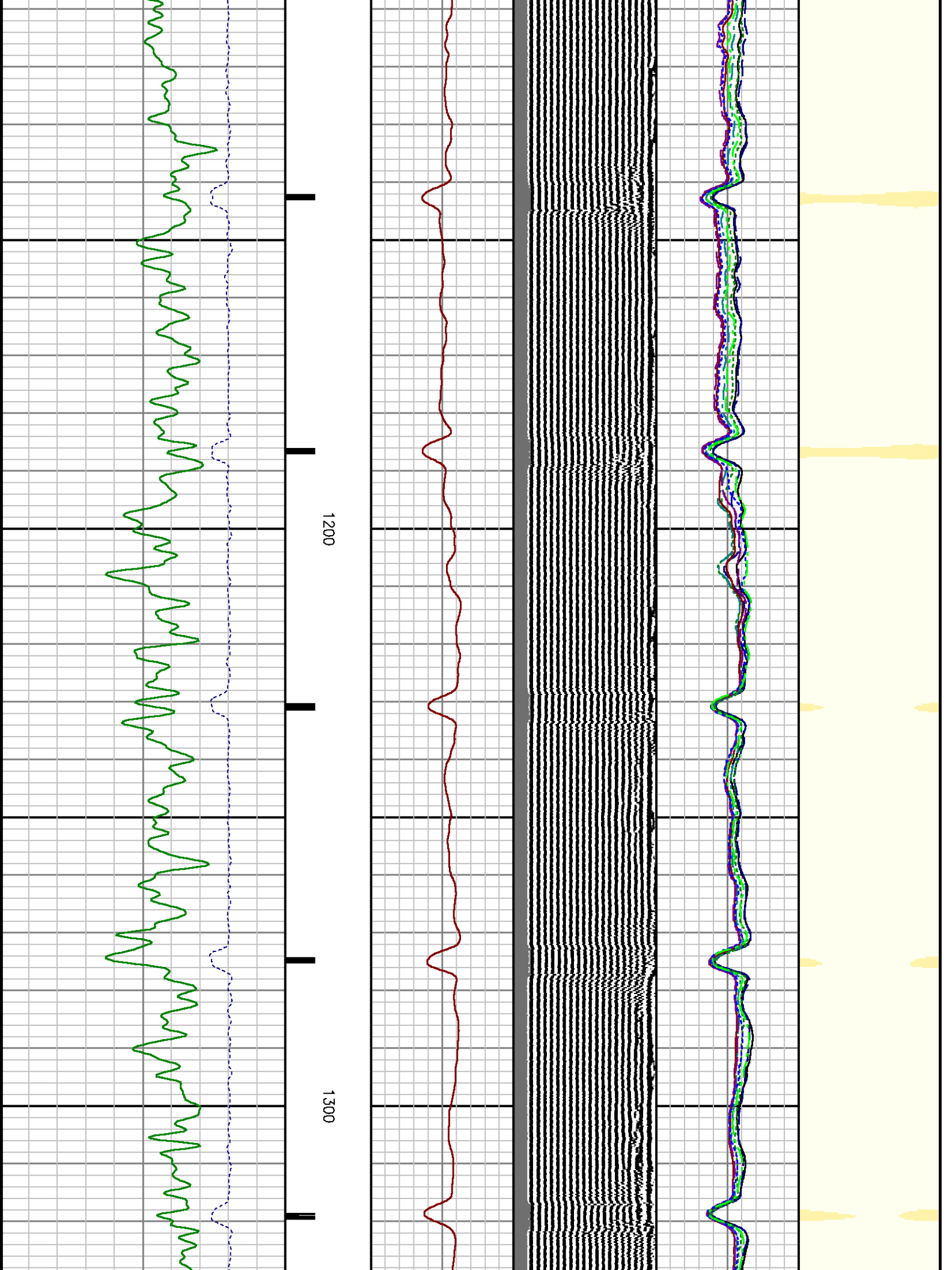


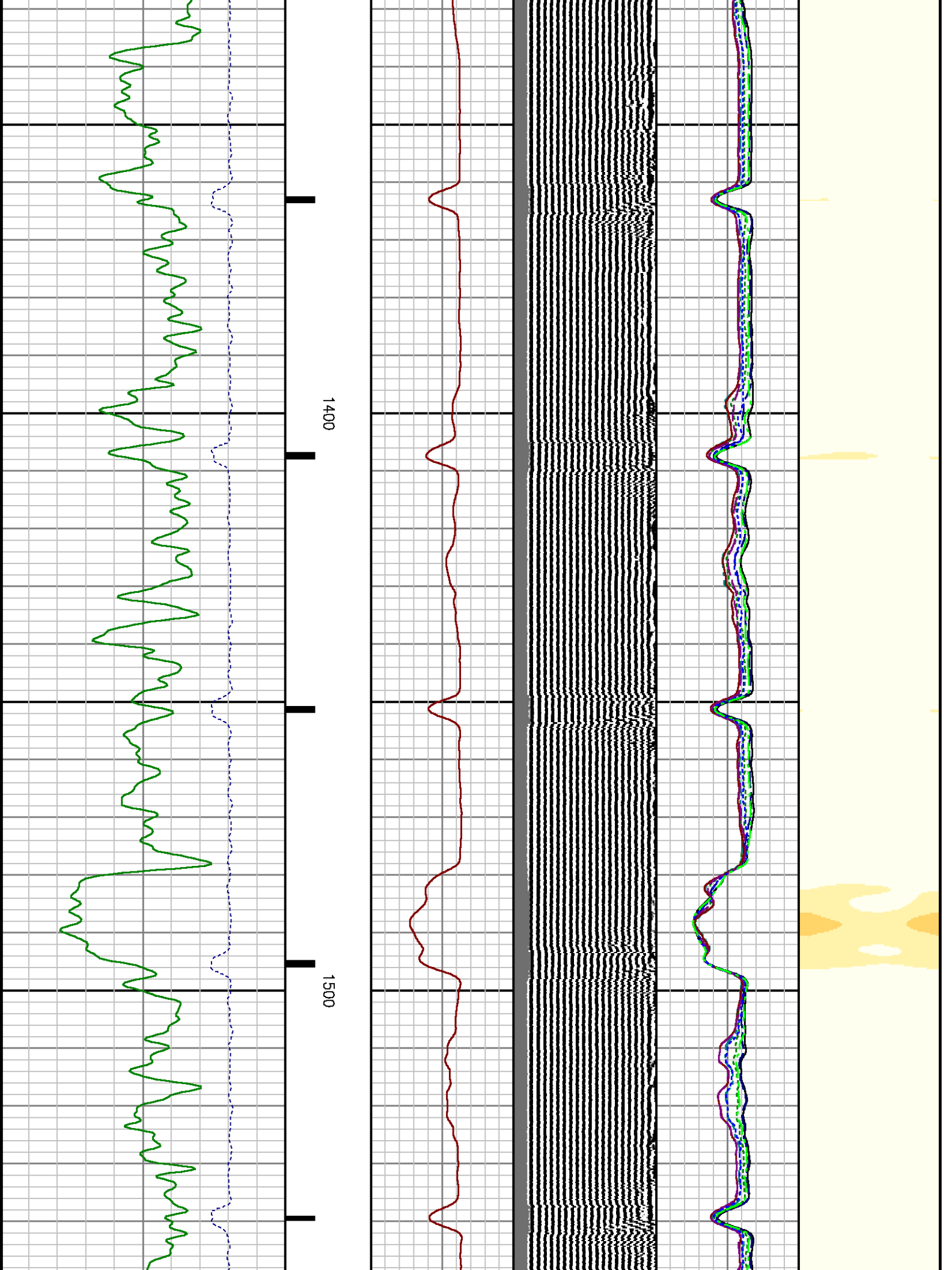


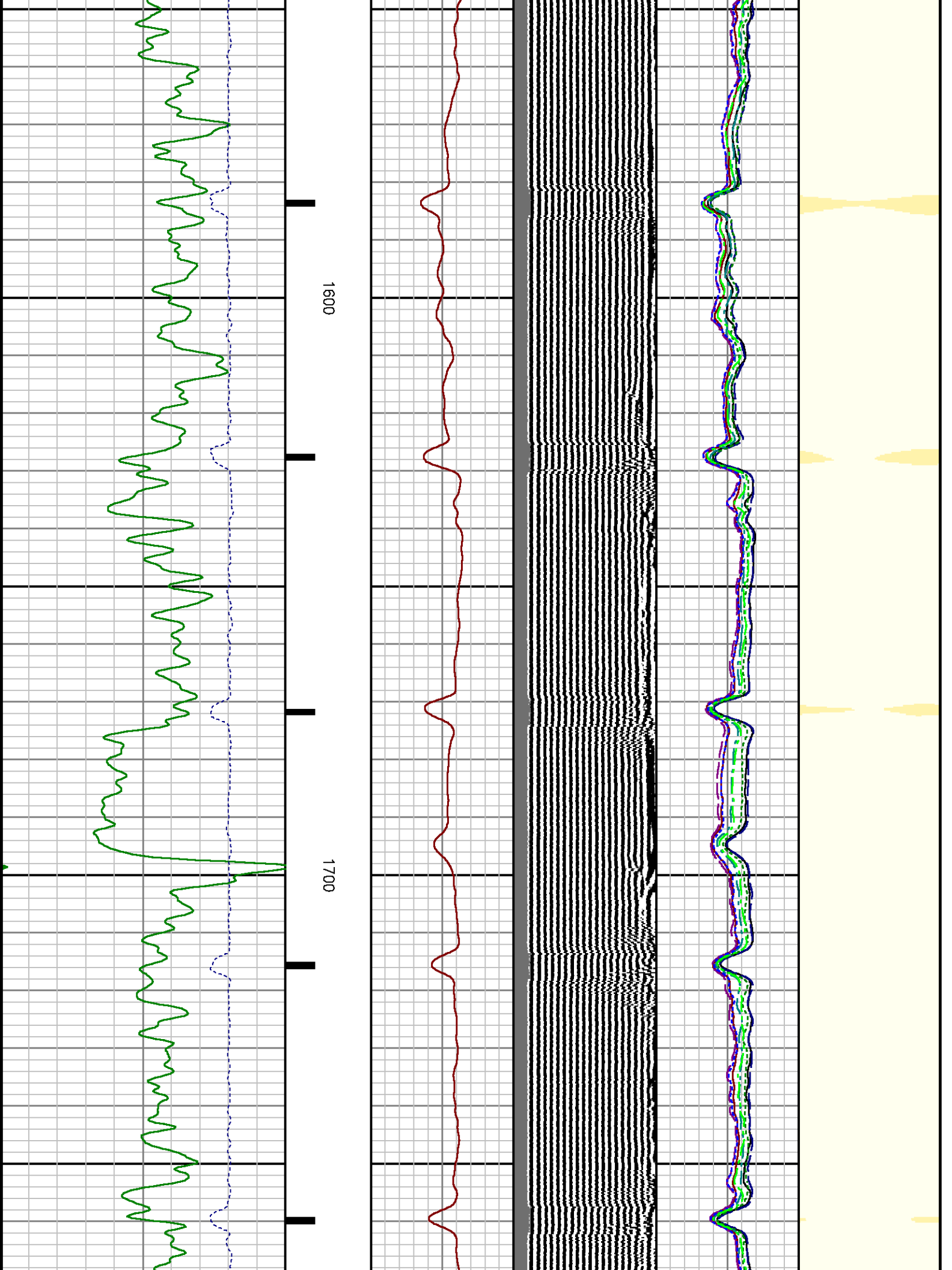


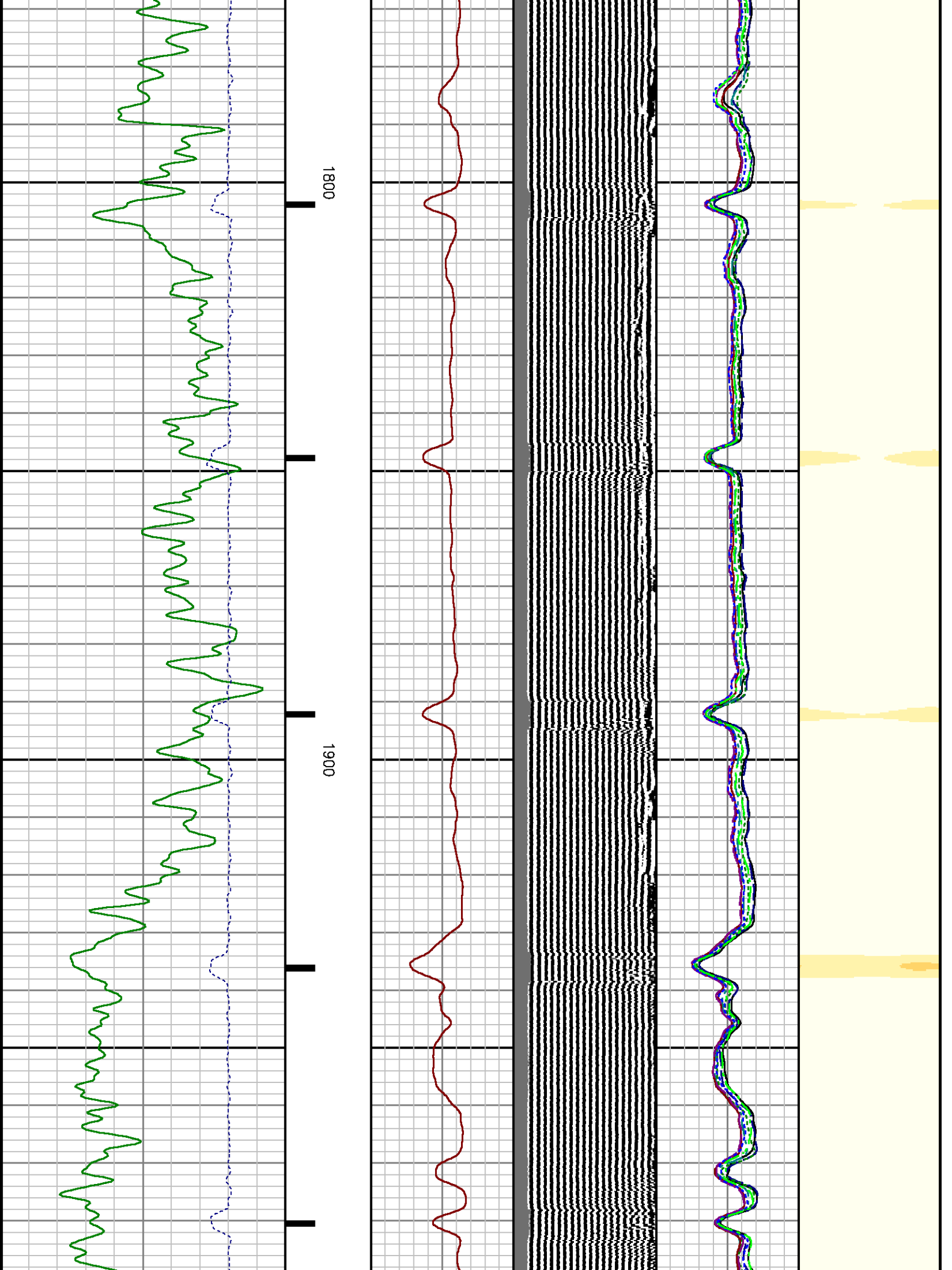


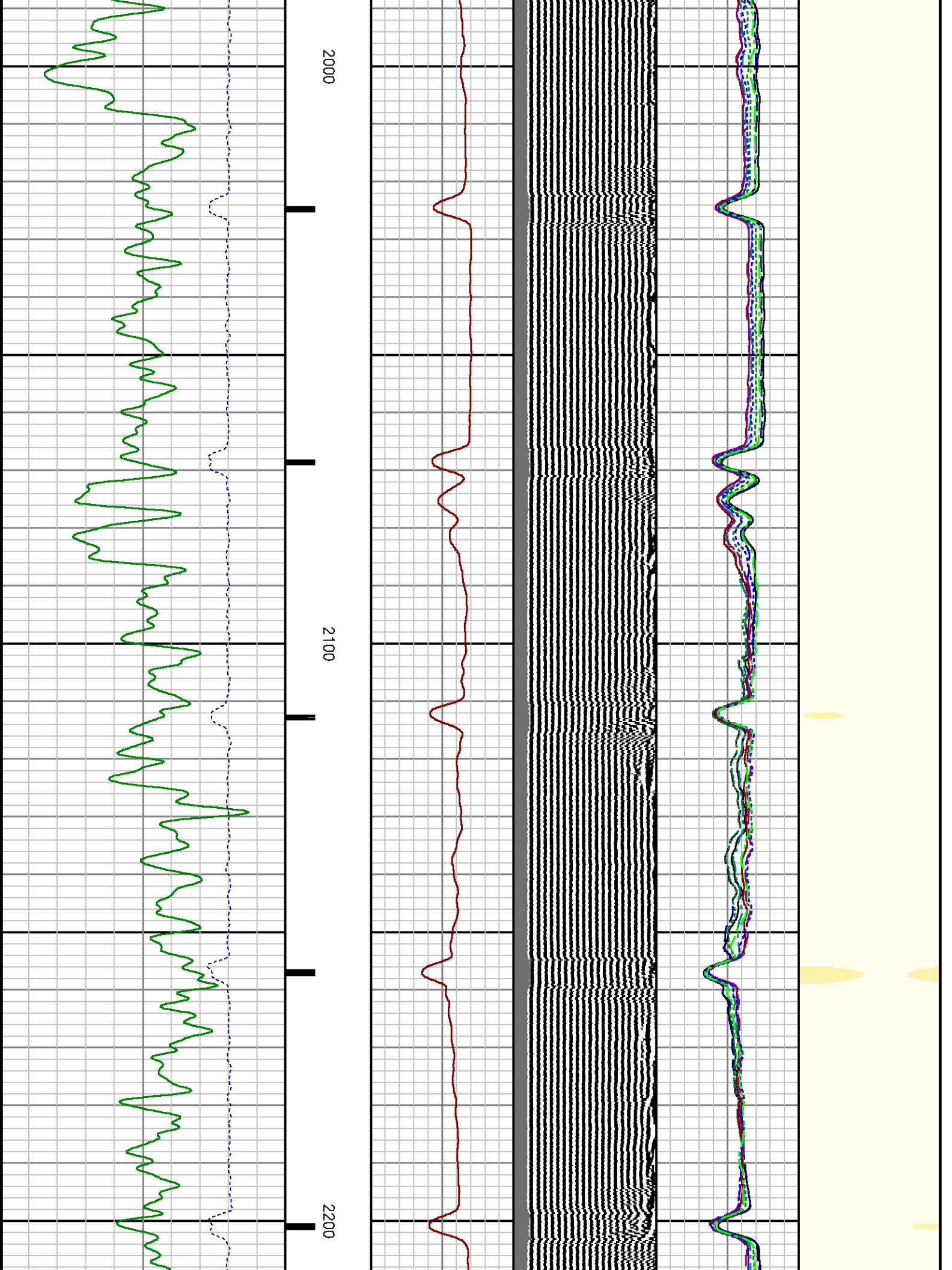


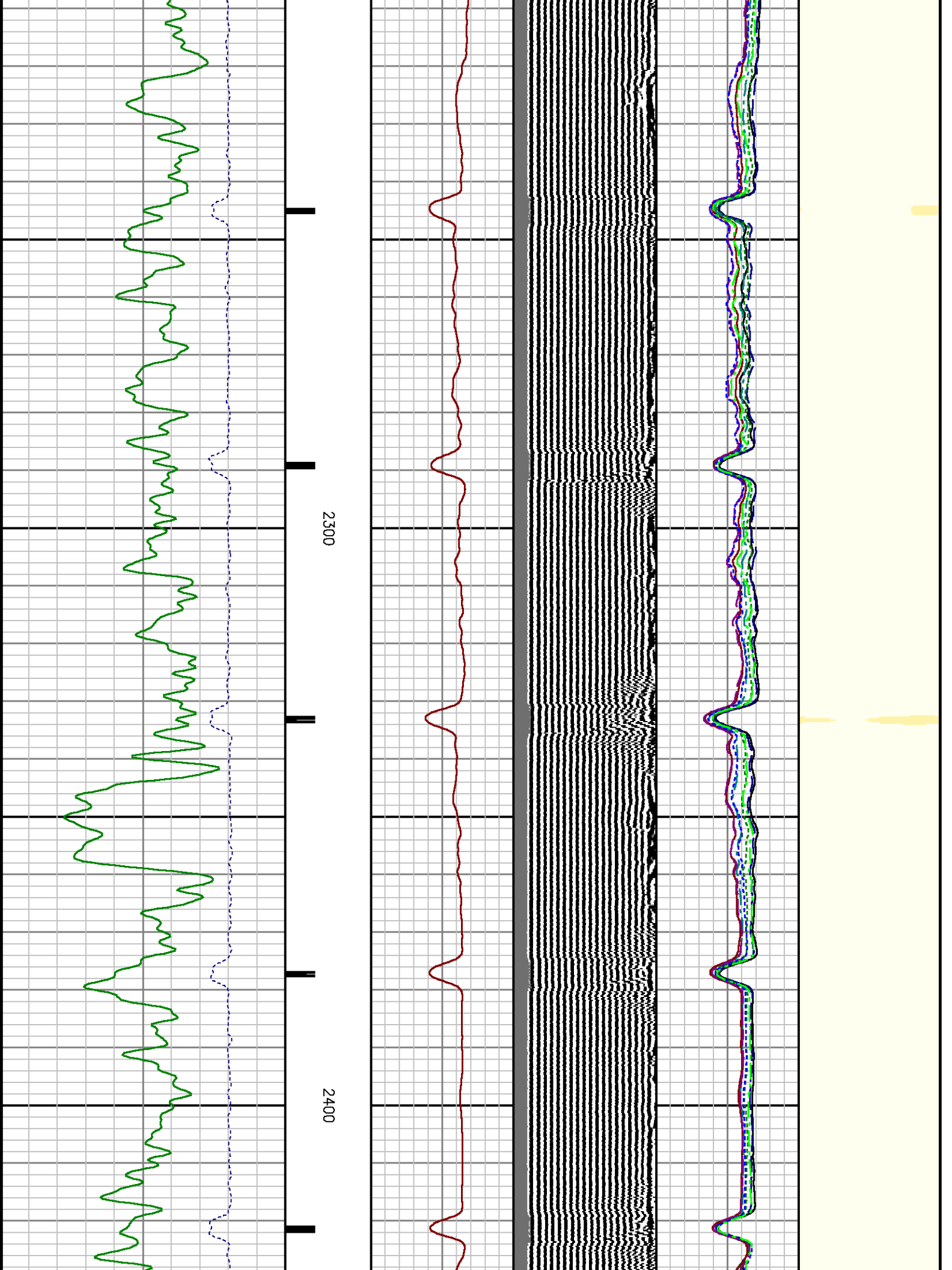


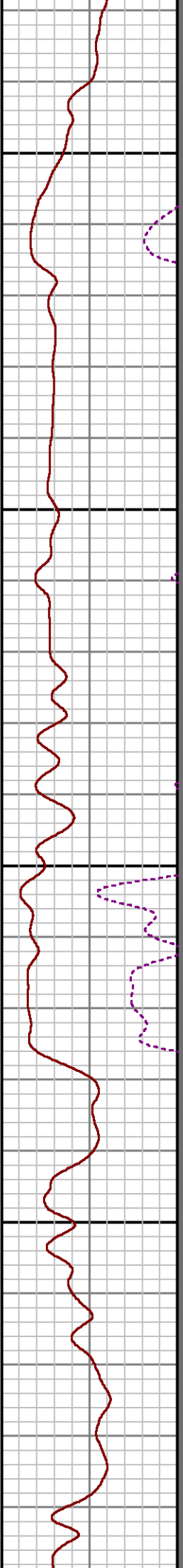
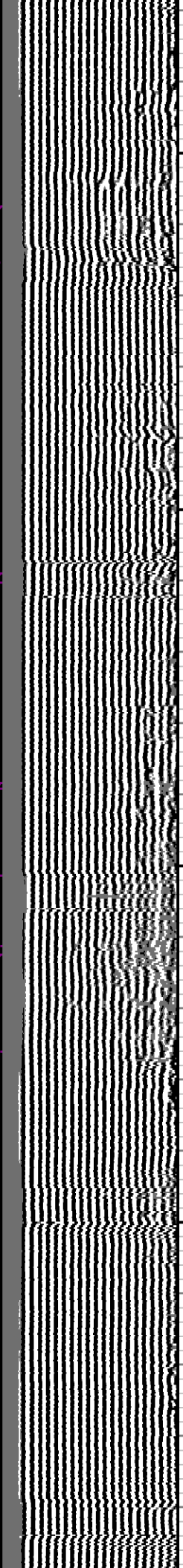
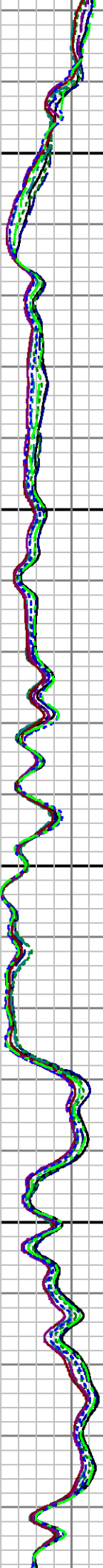
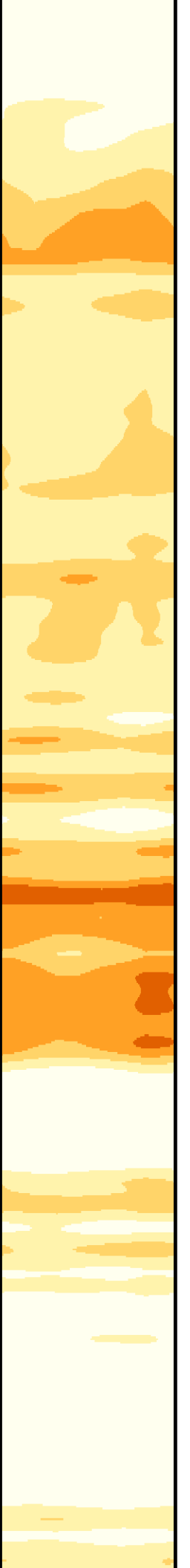






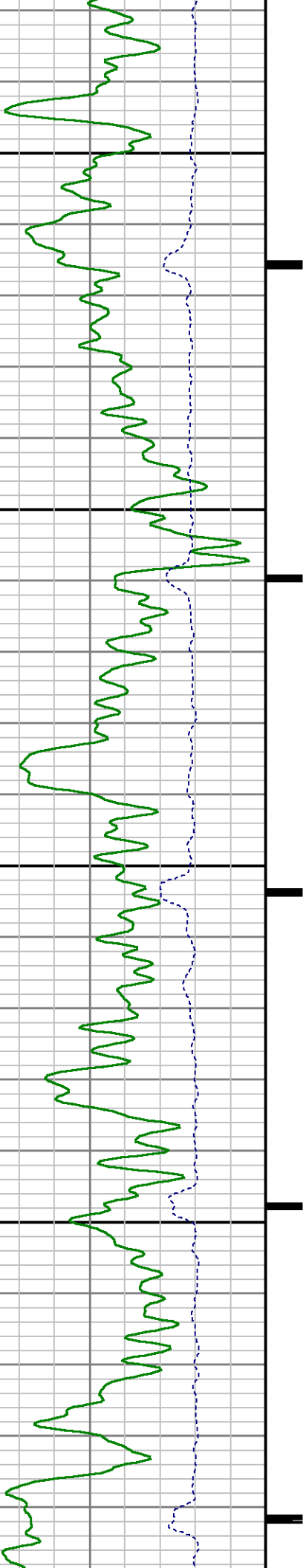


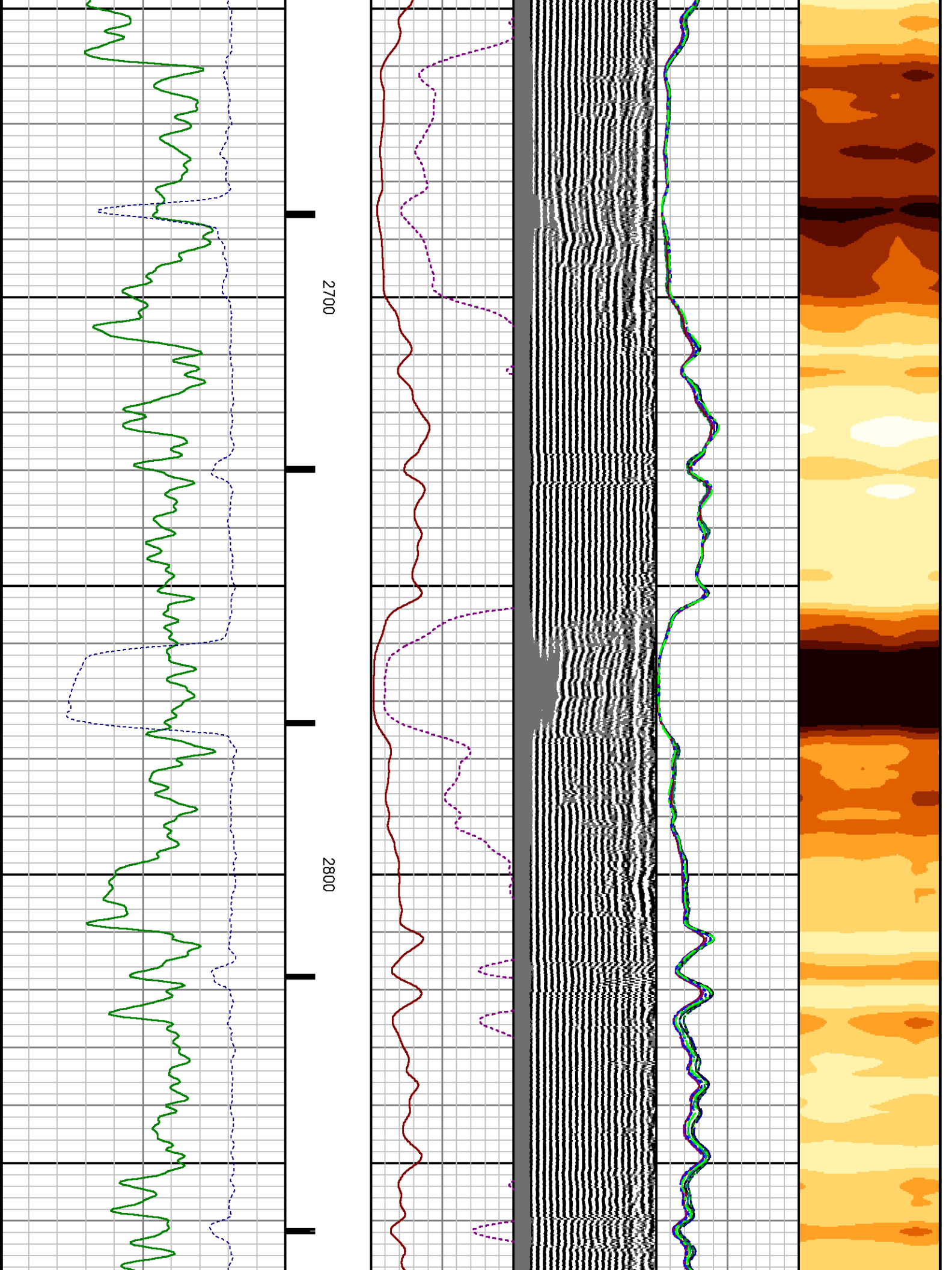


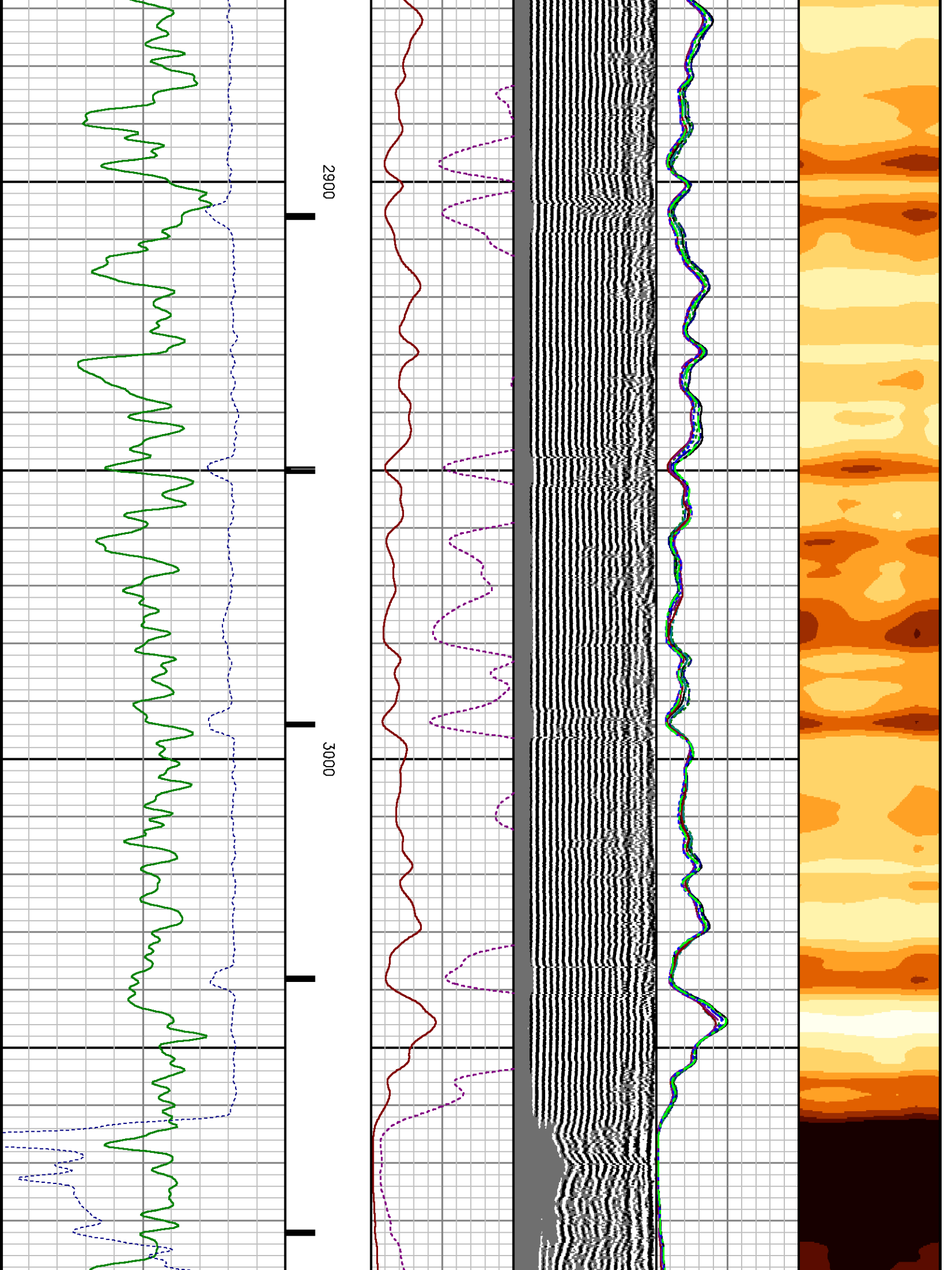


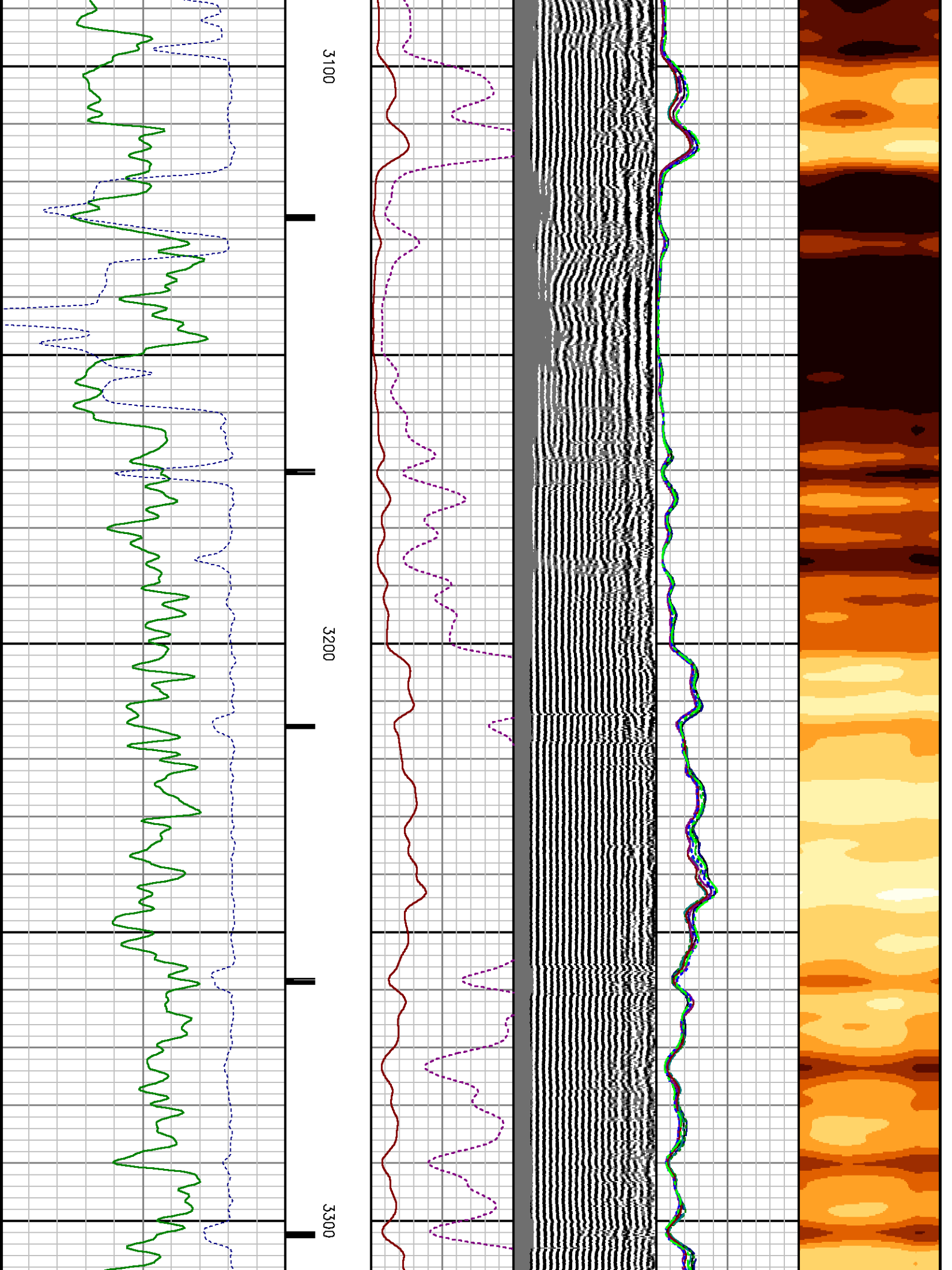
2500

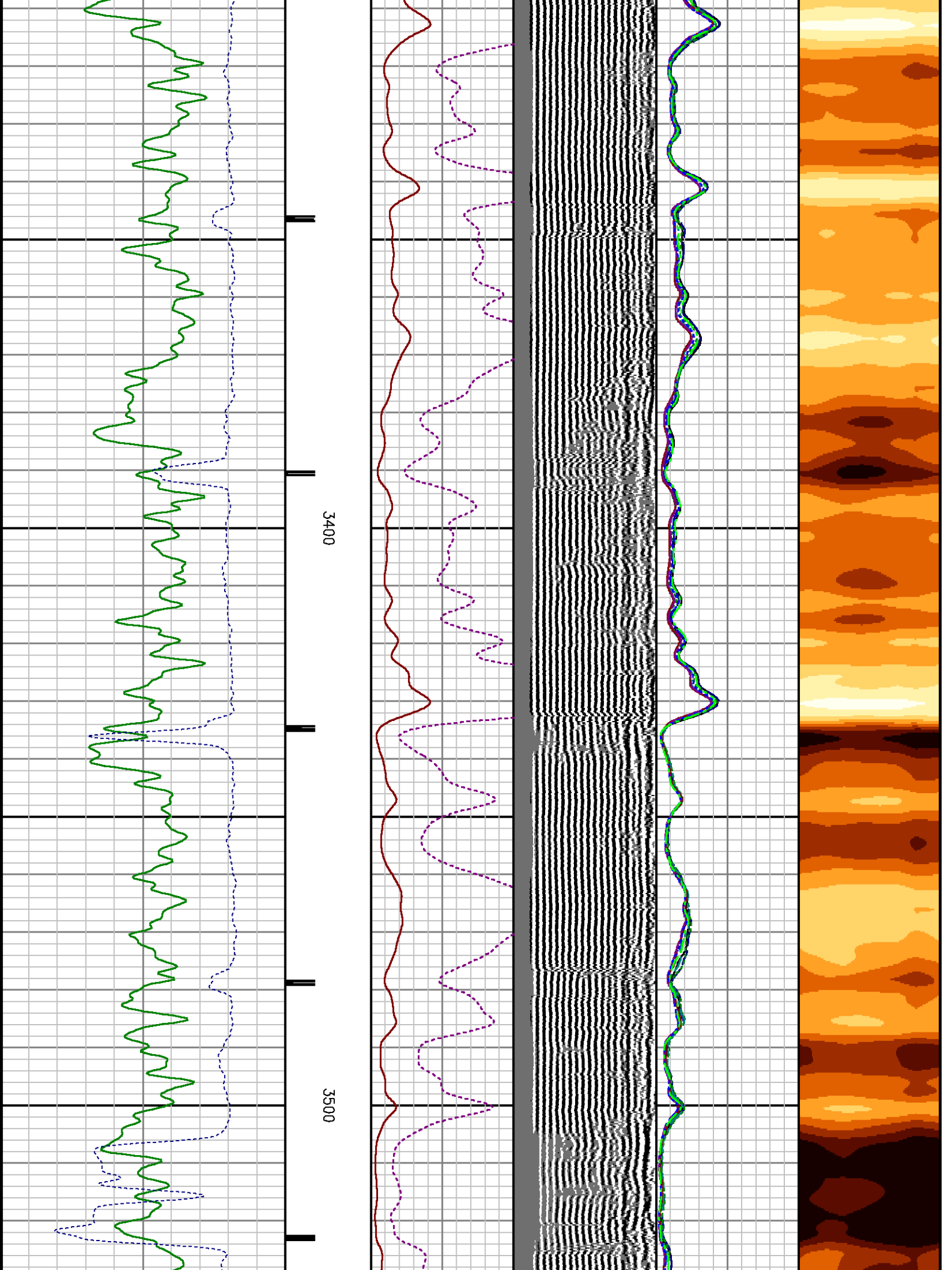
2600

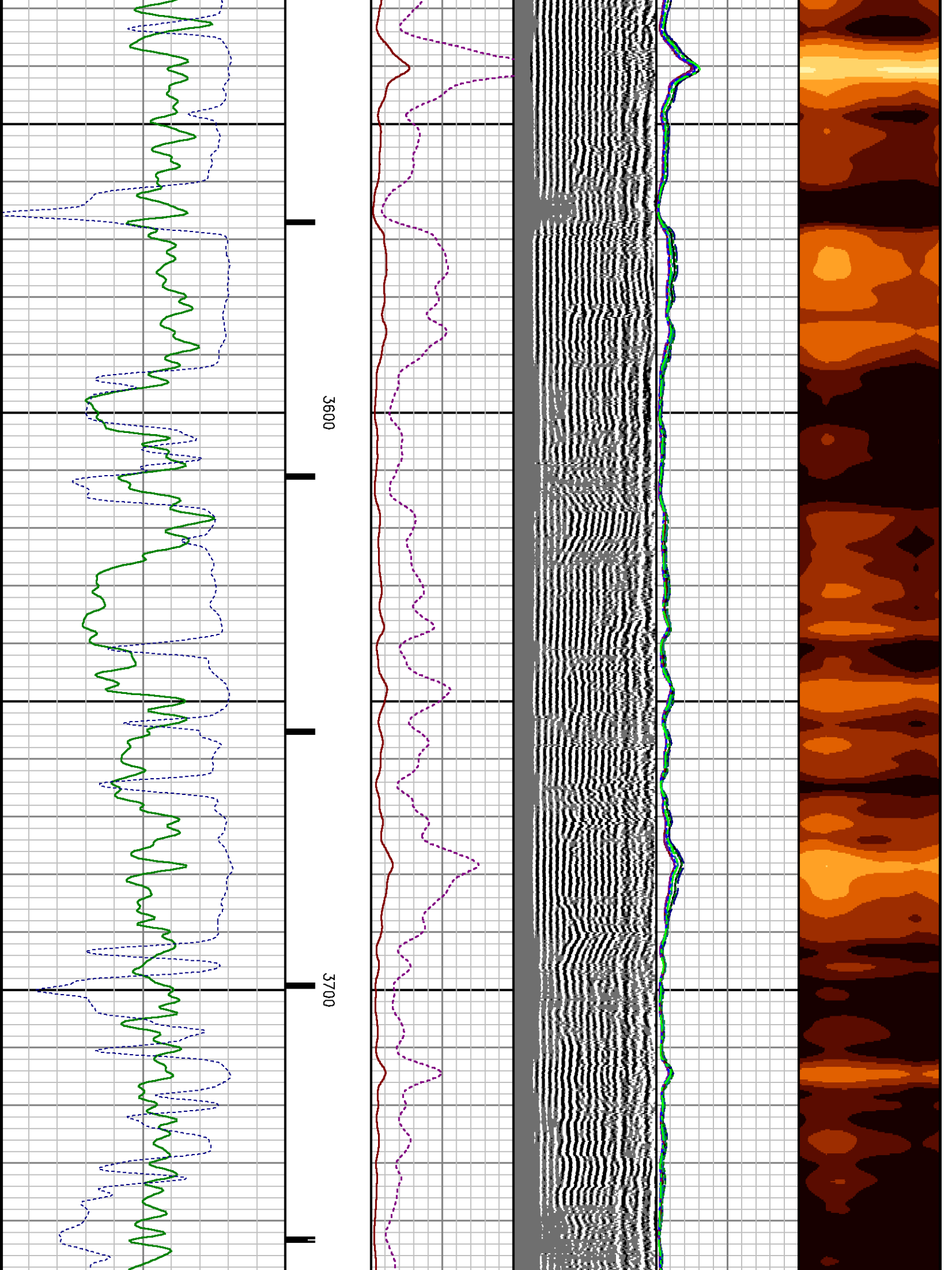


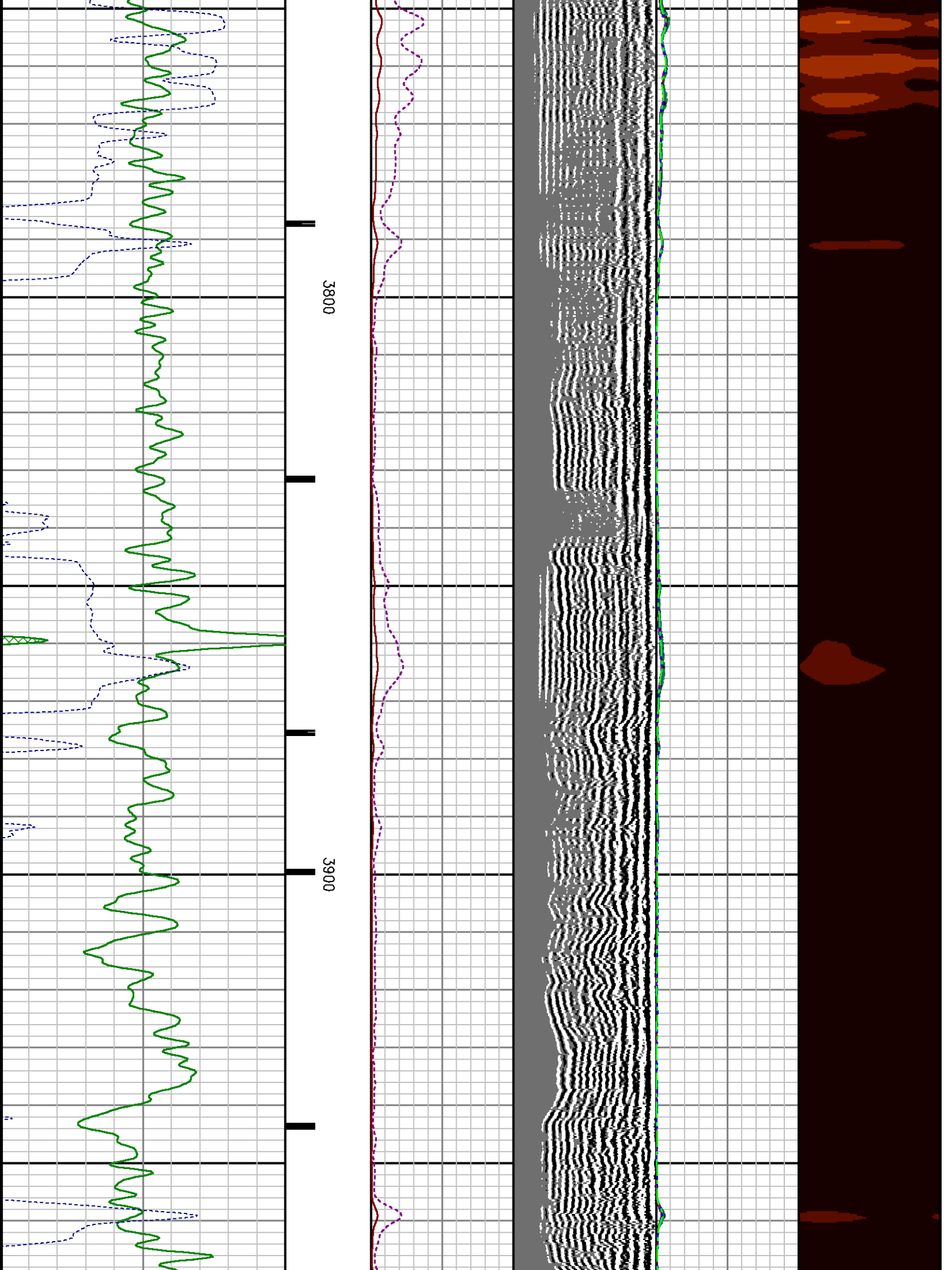


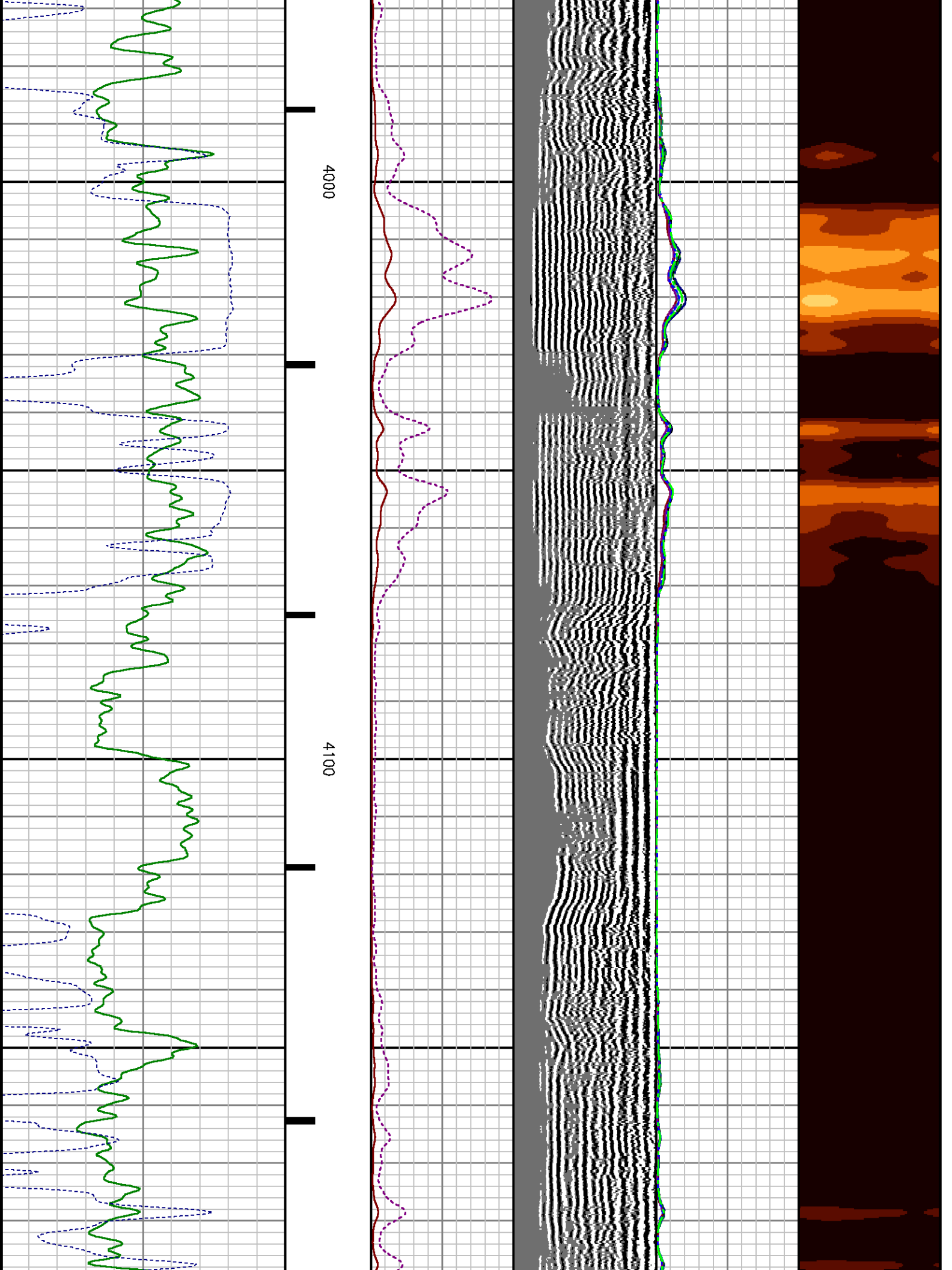


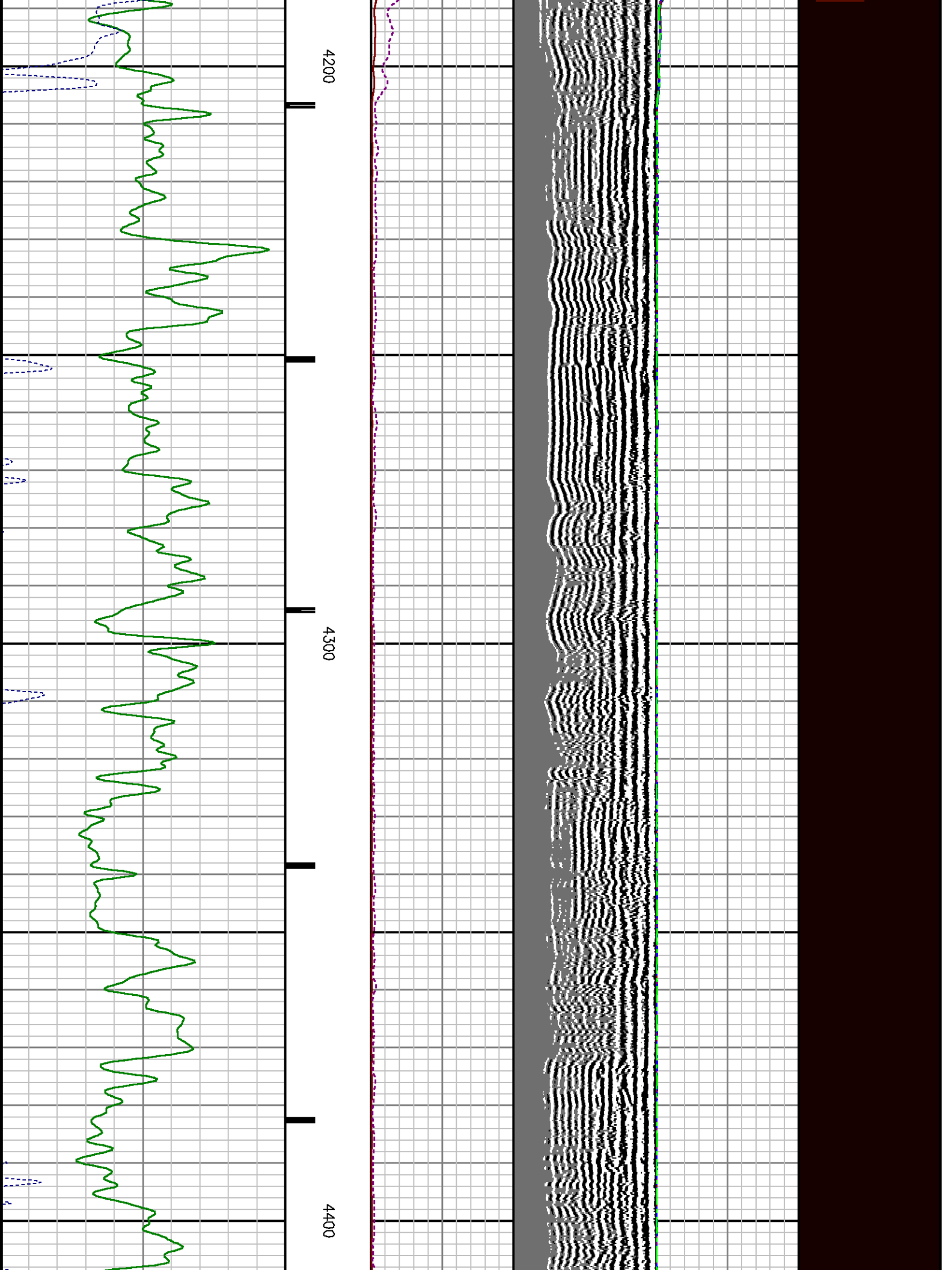


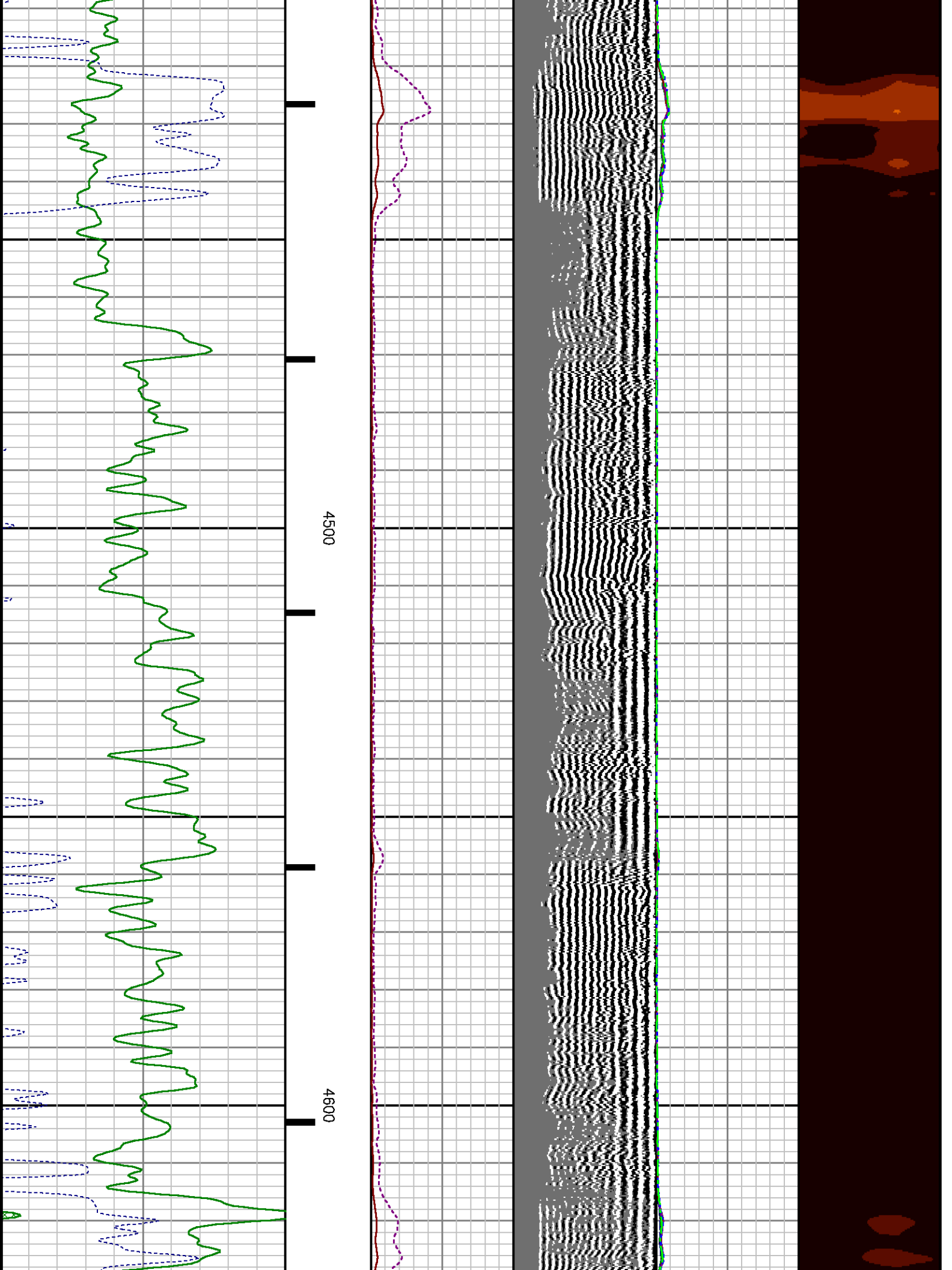


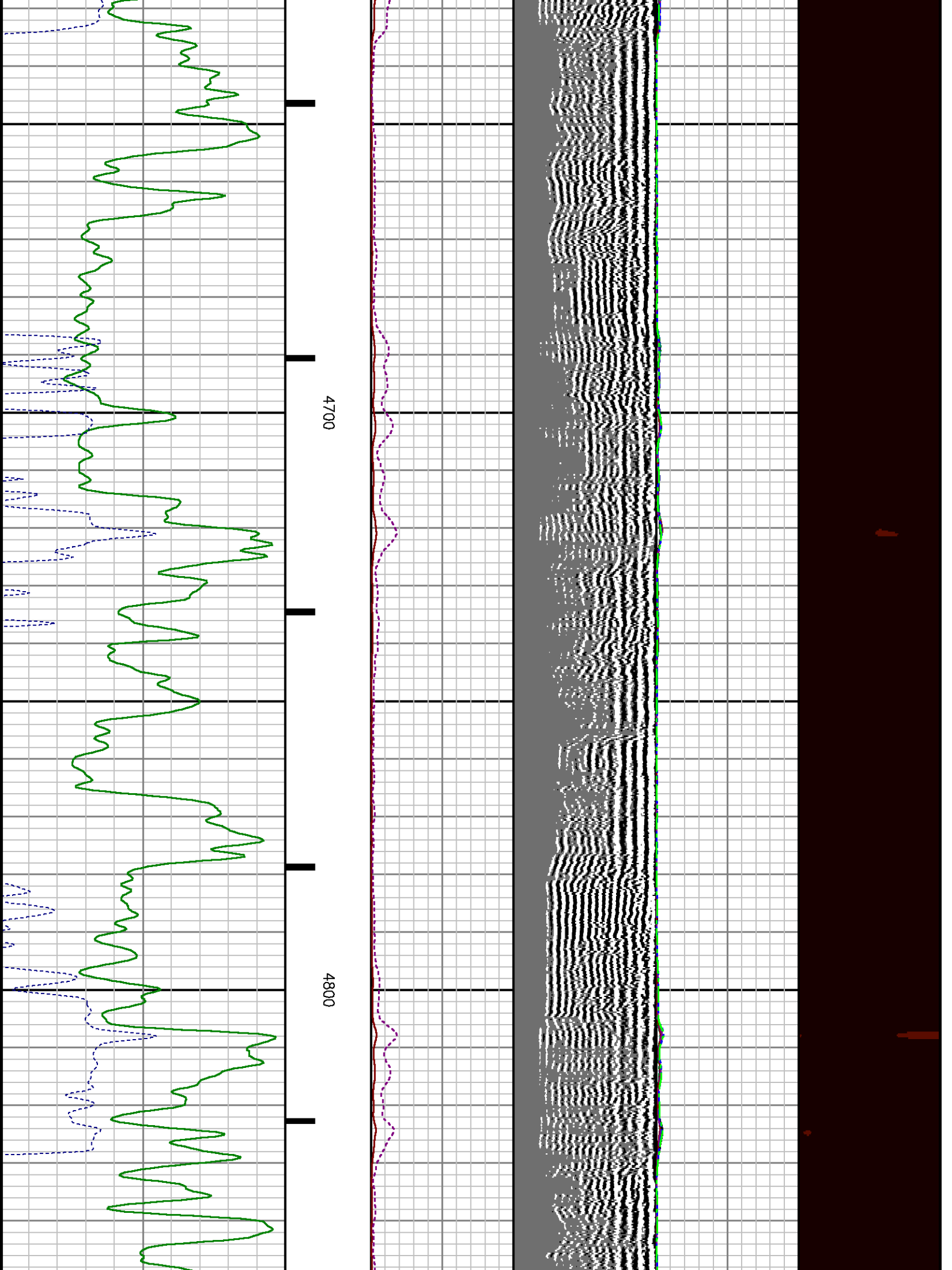


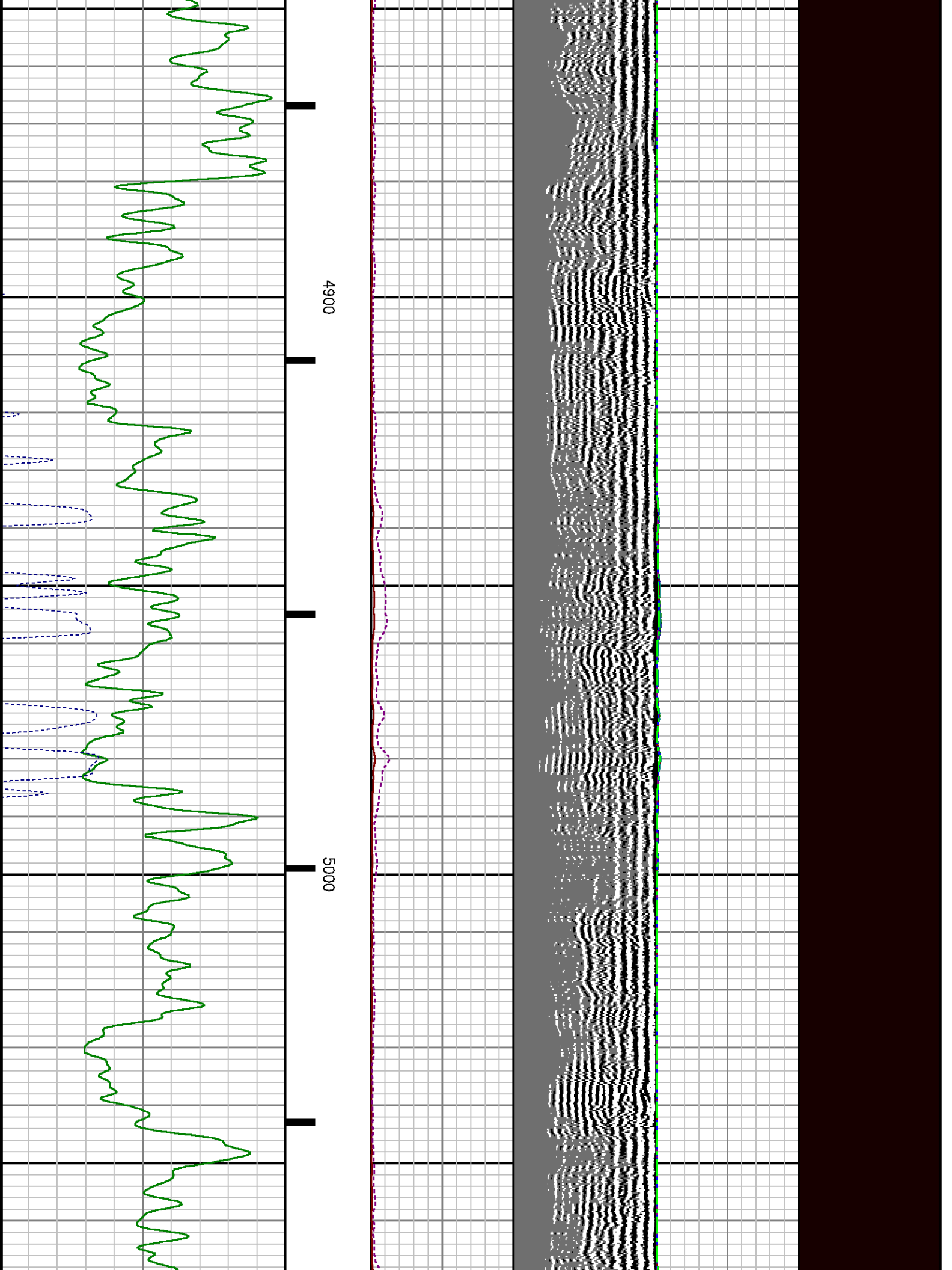


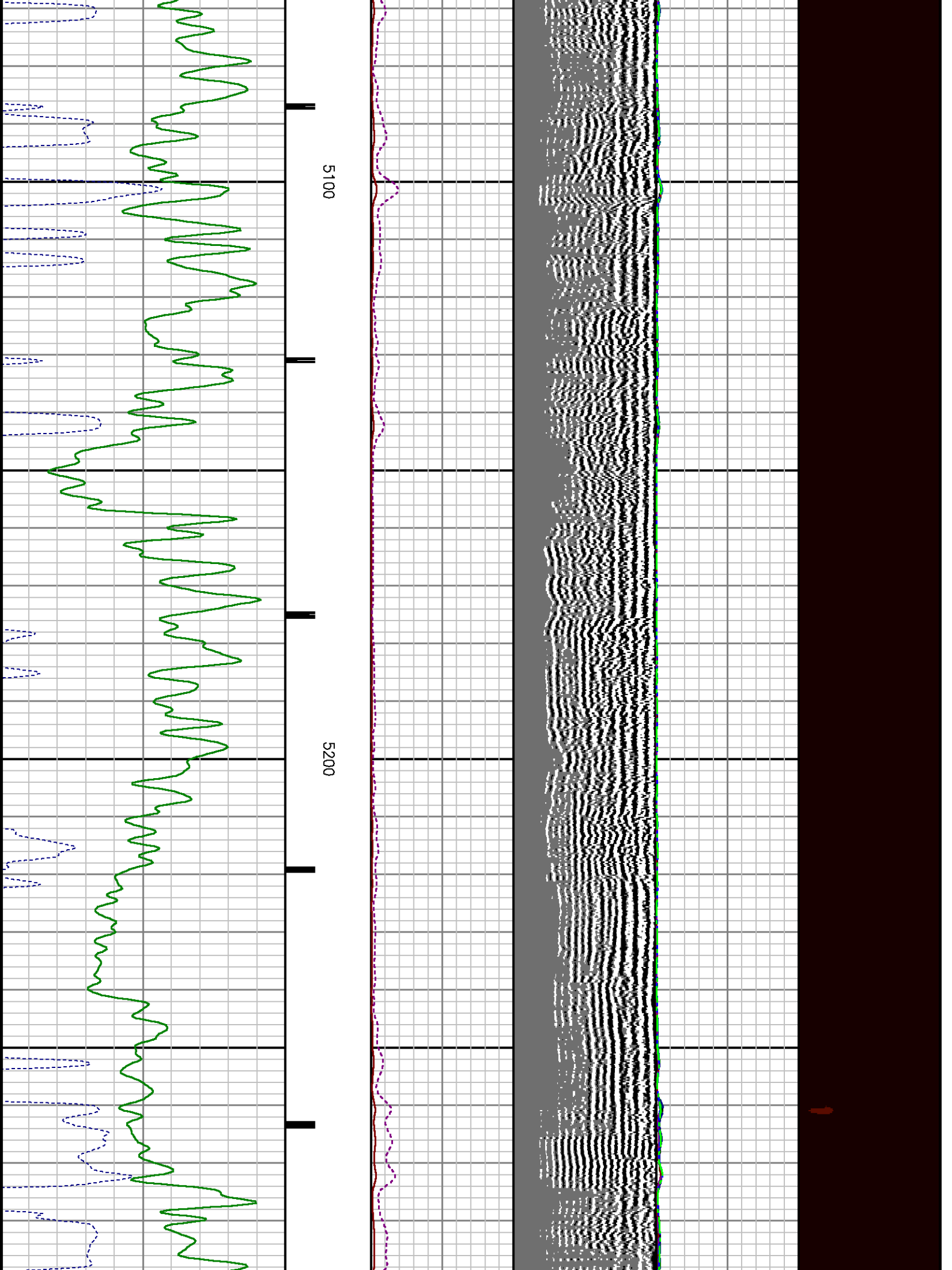


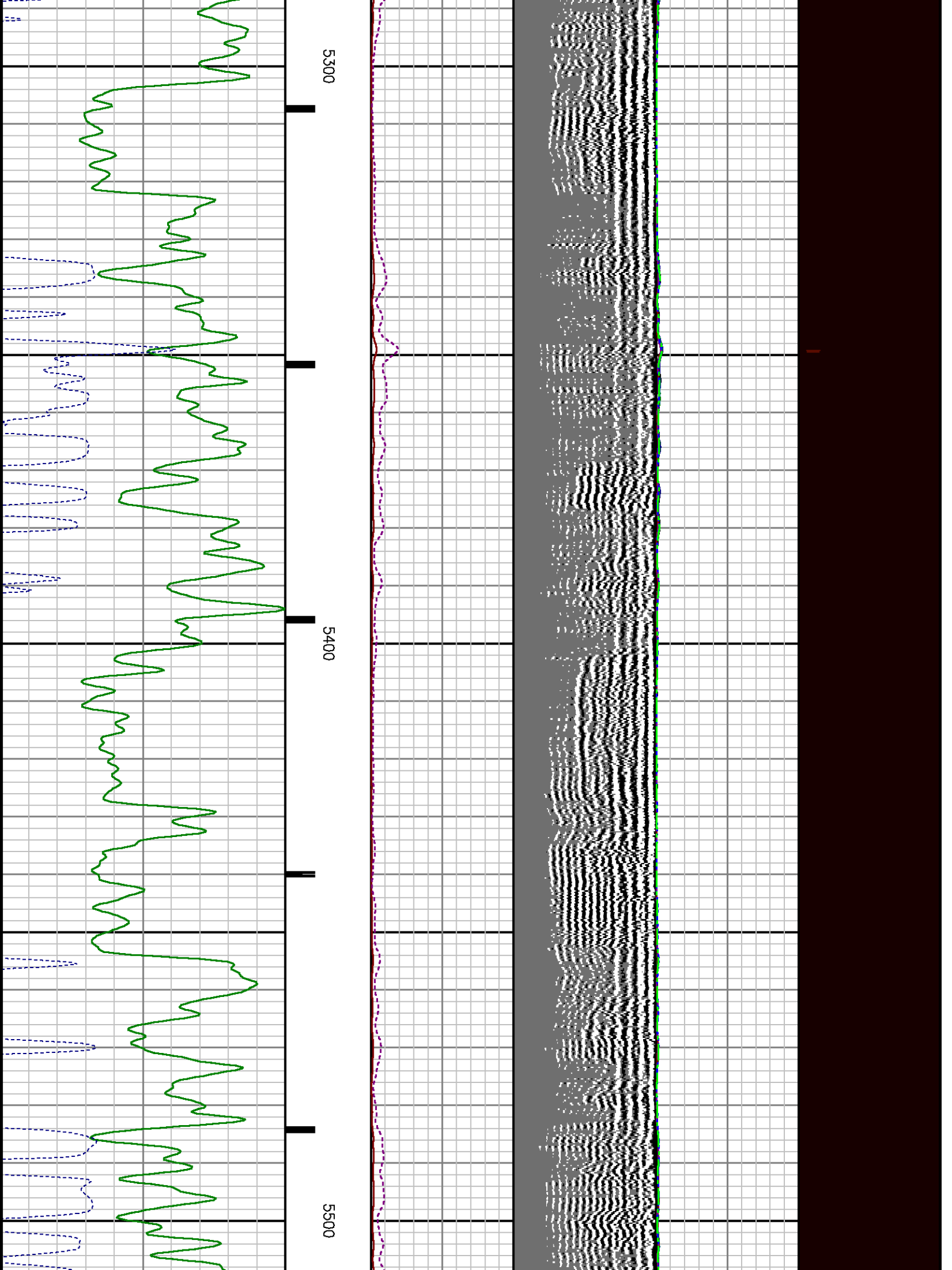


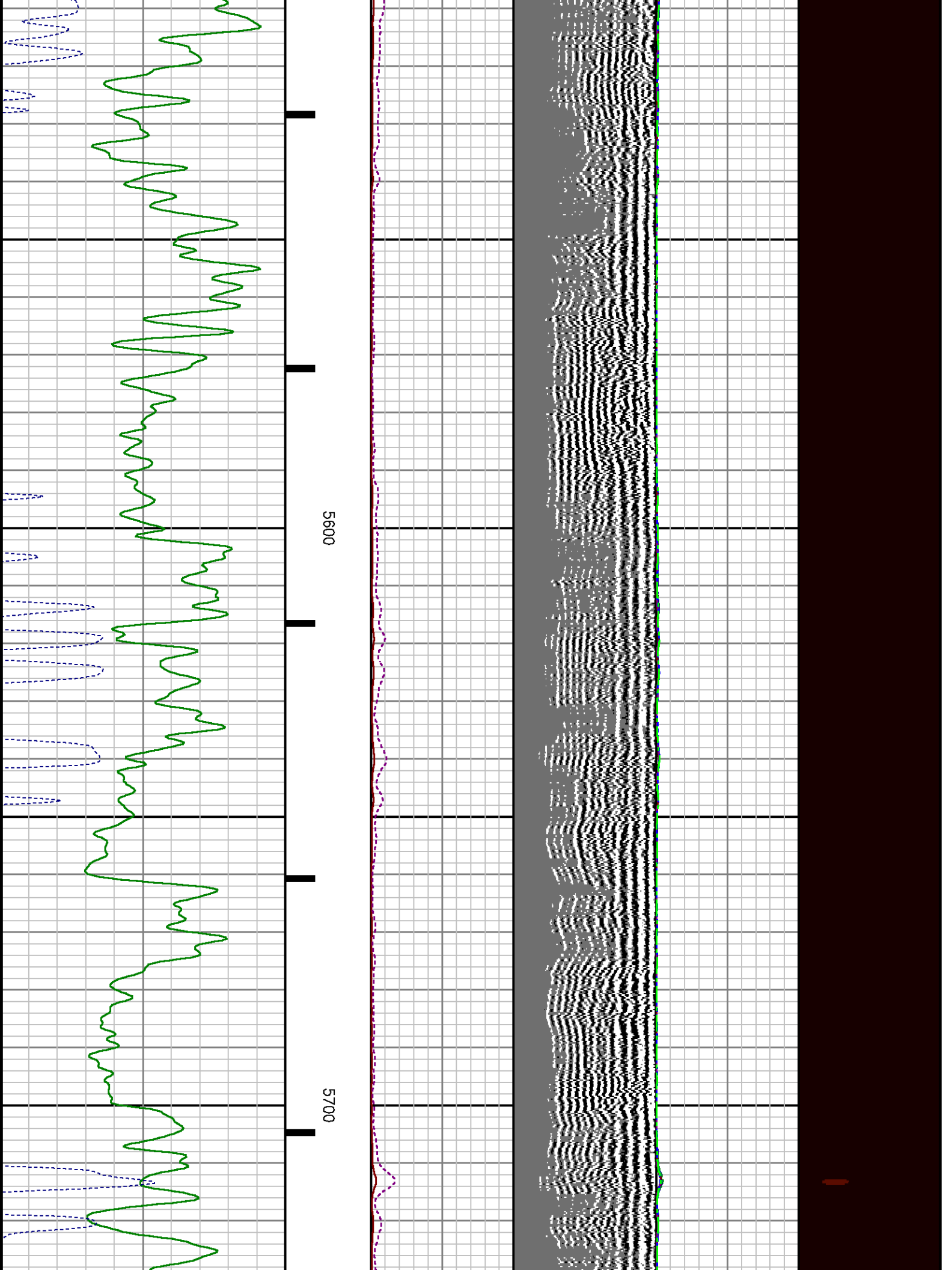


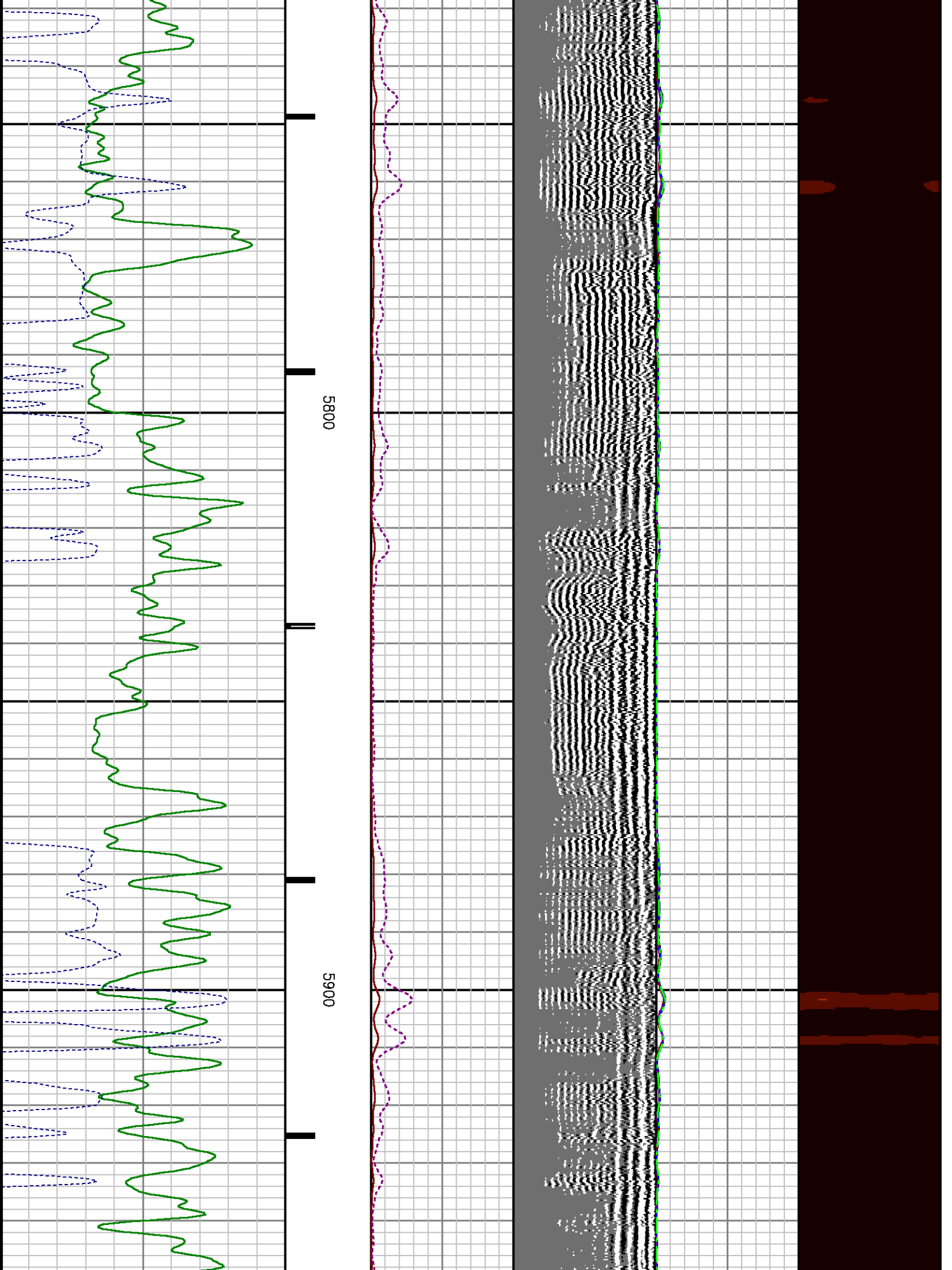


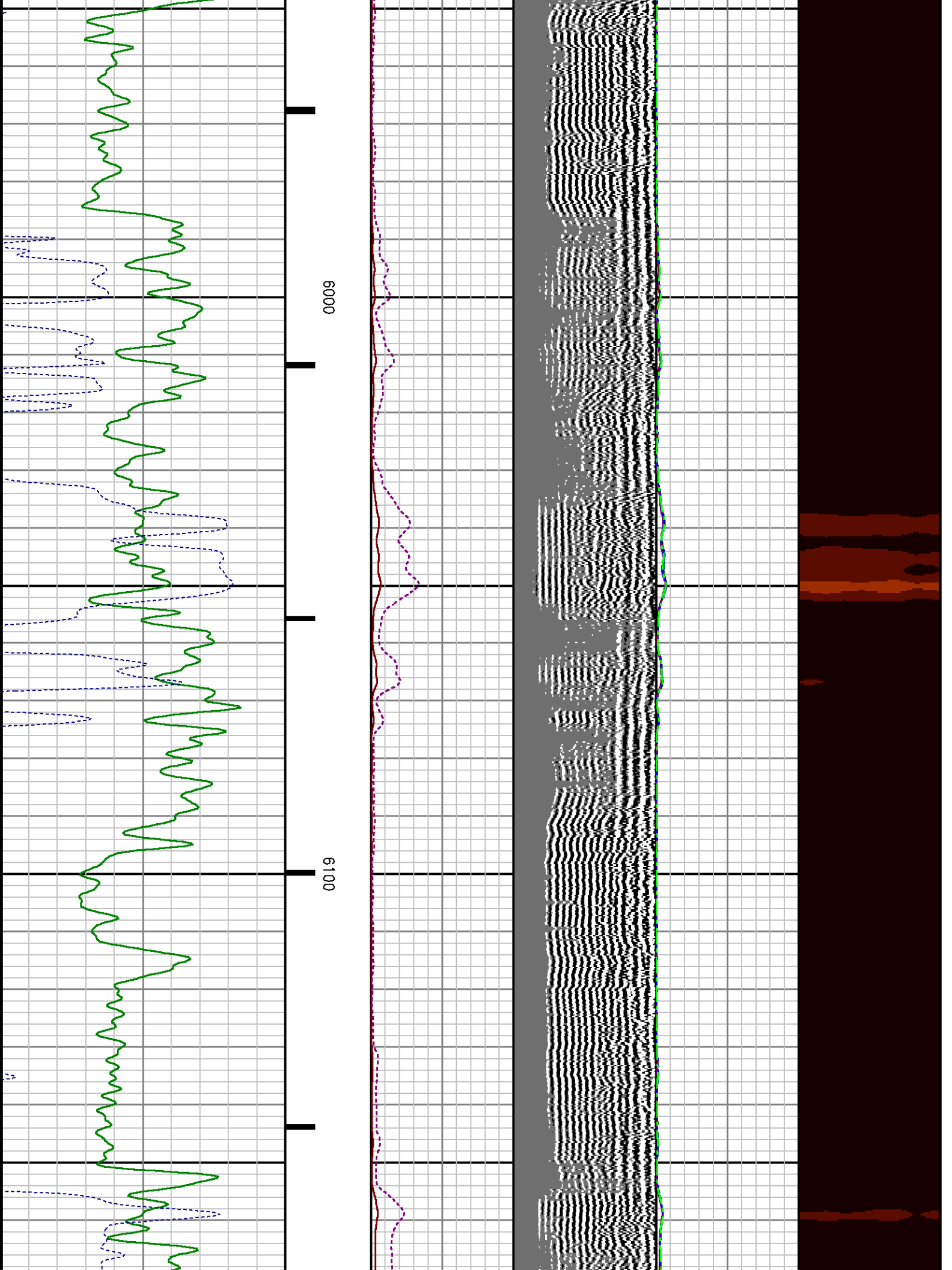


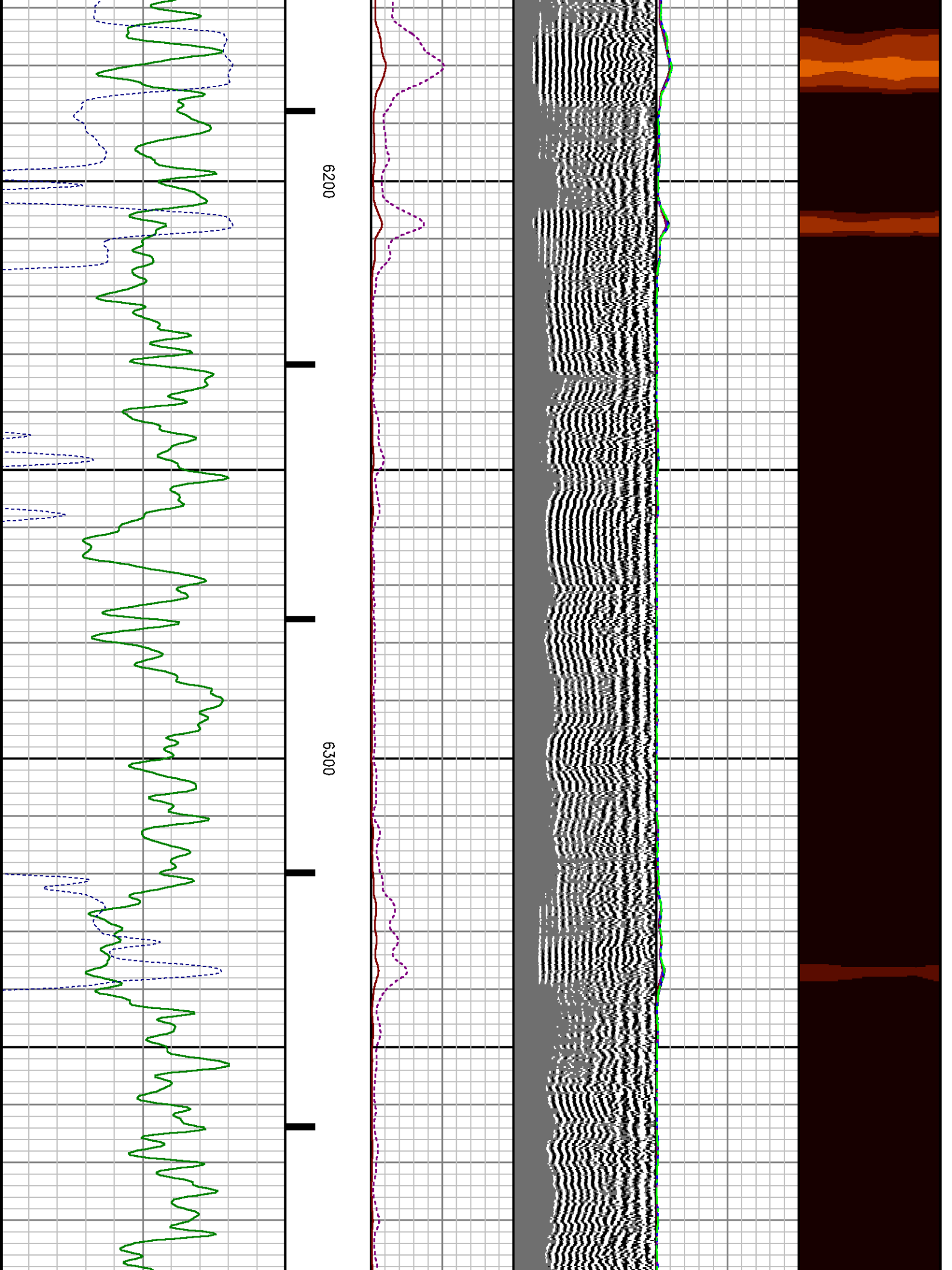


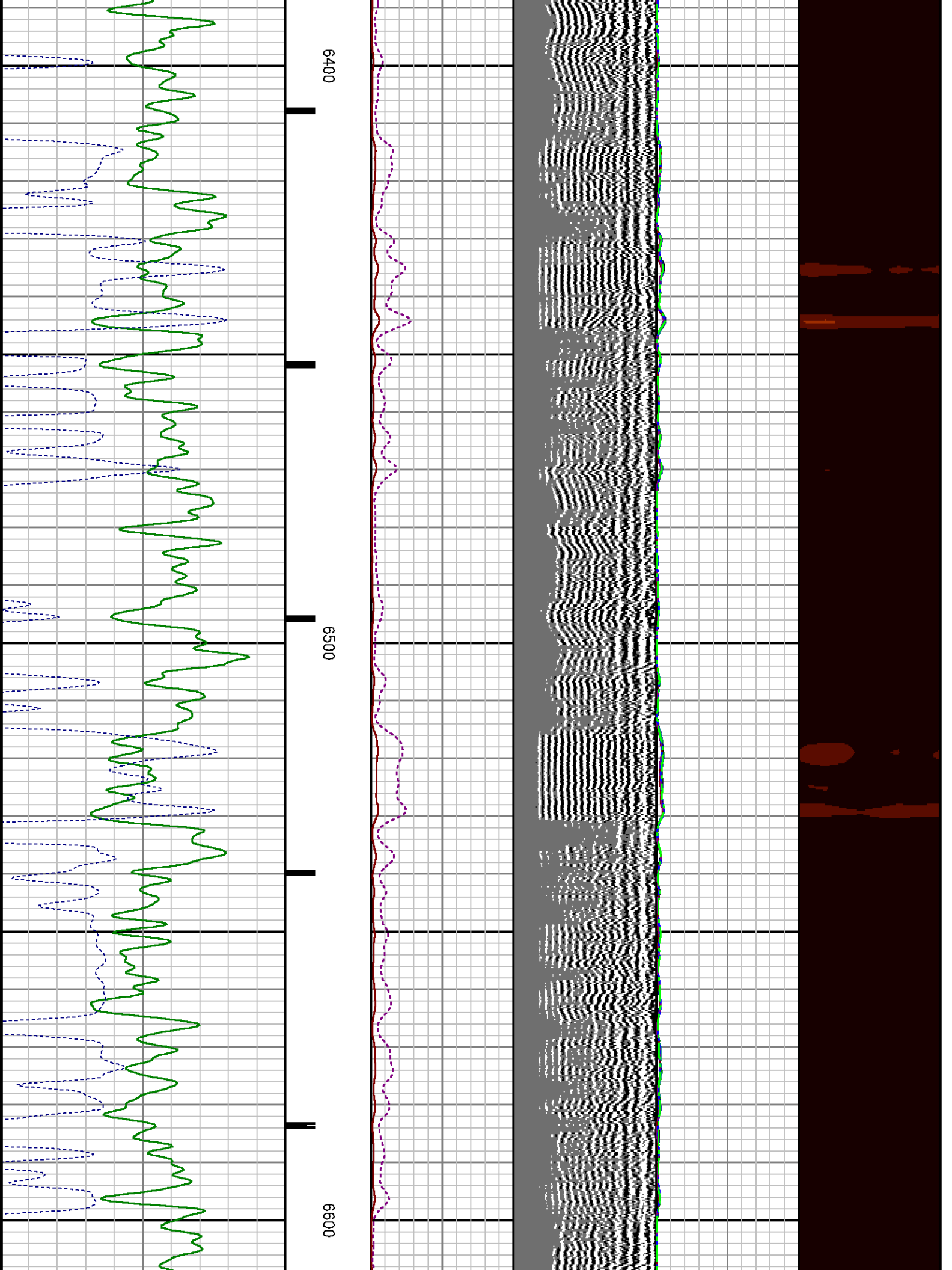


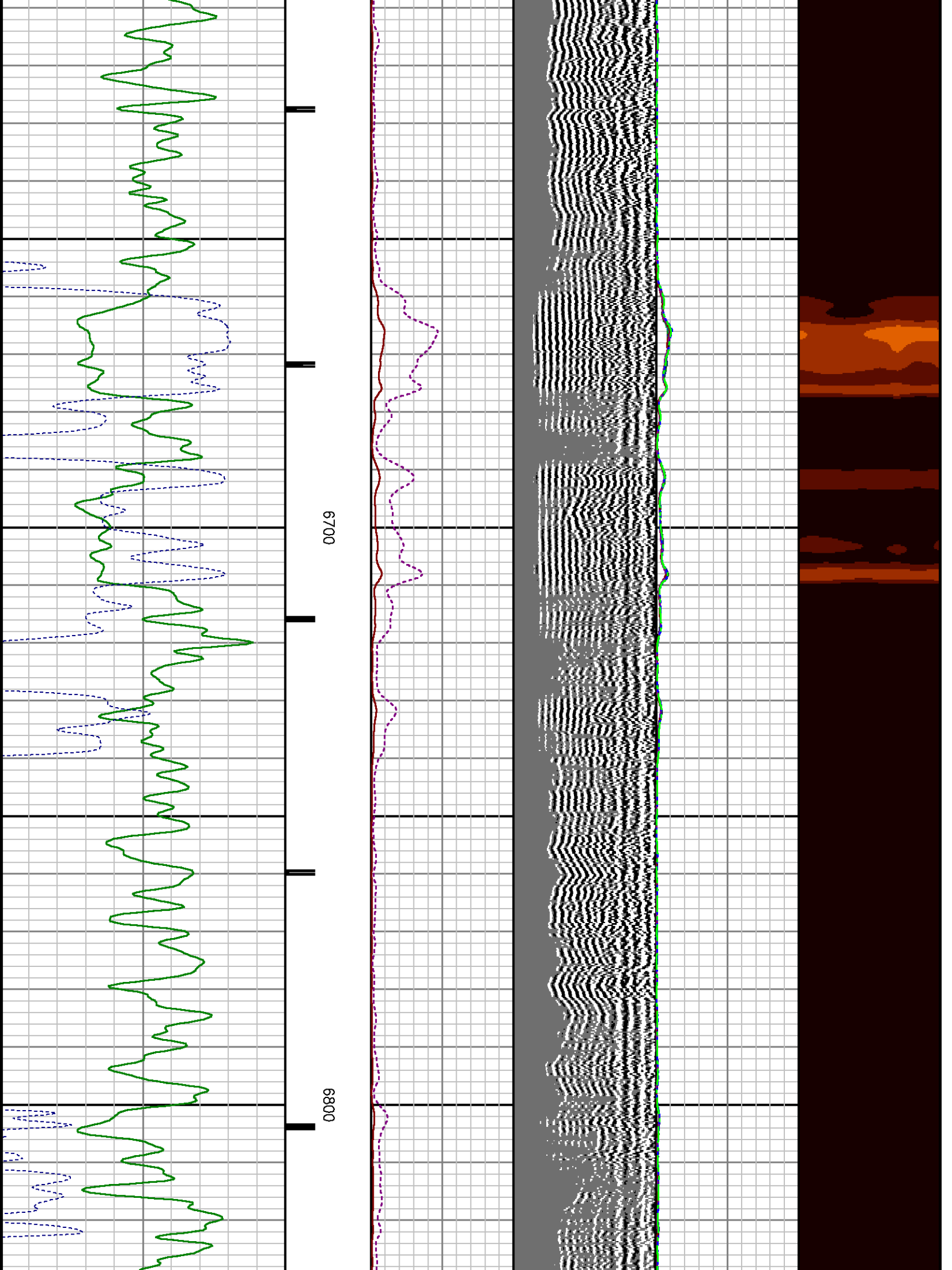


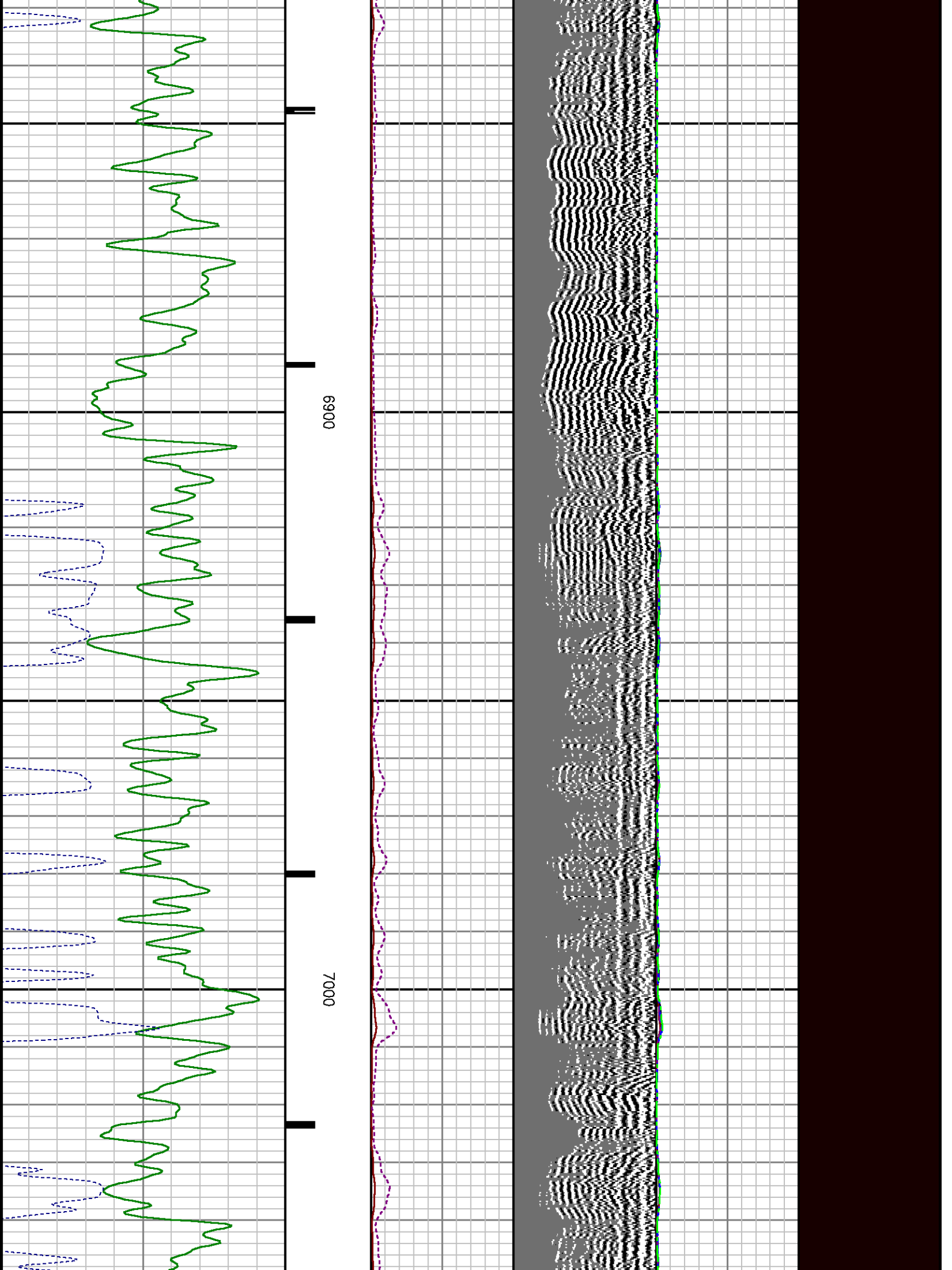


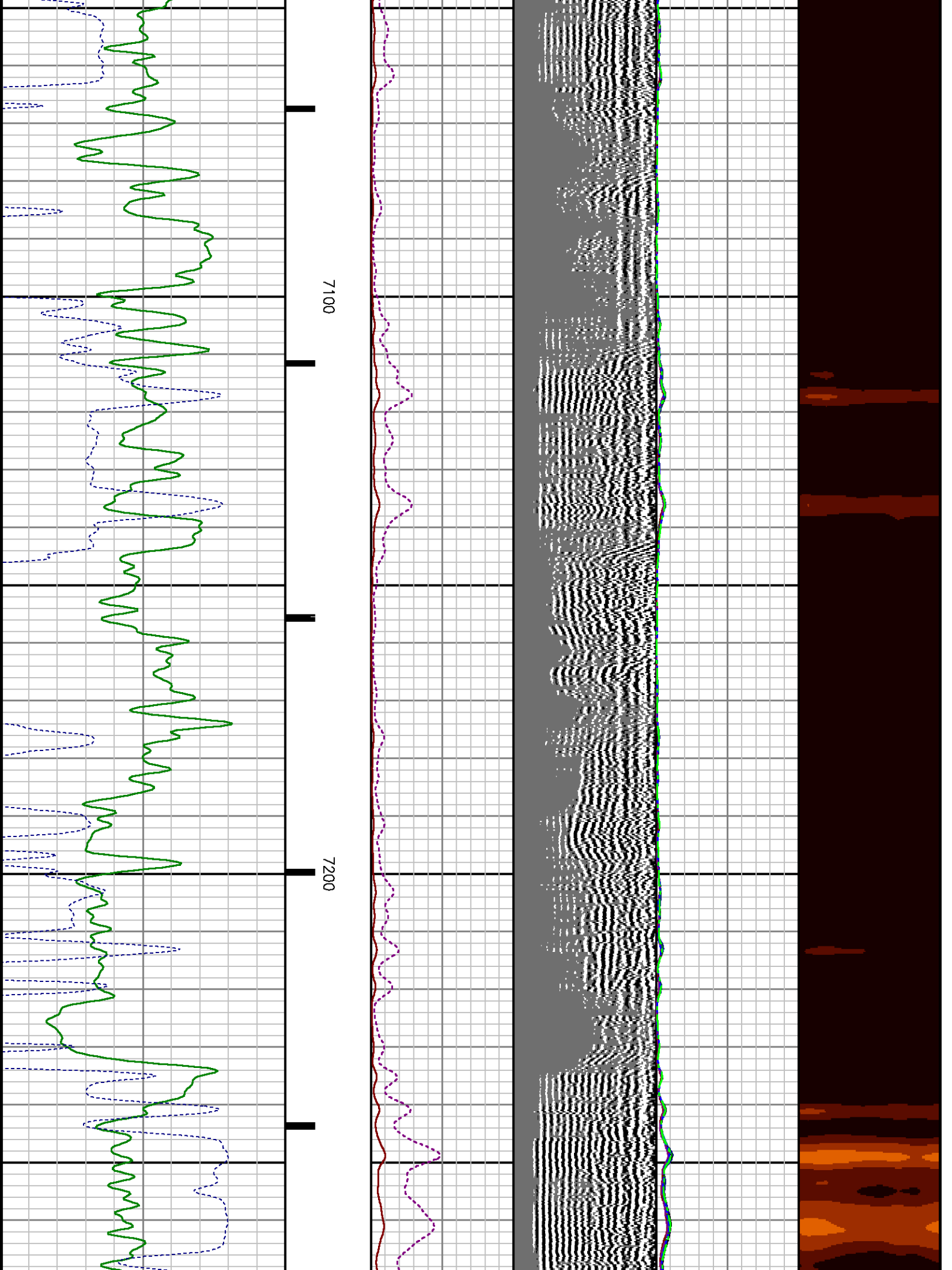


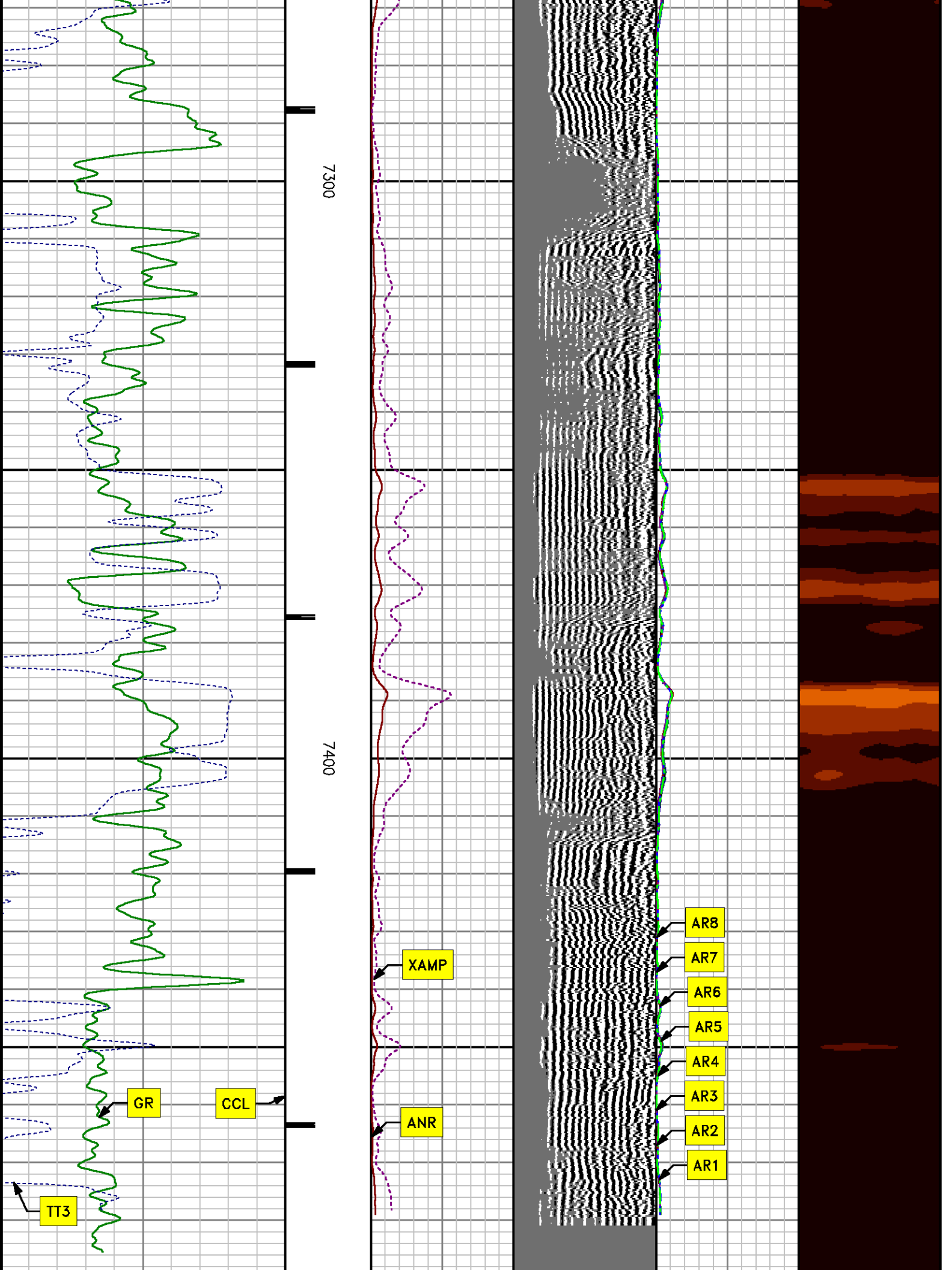


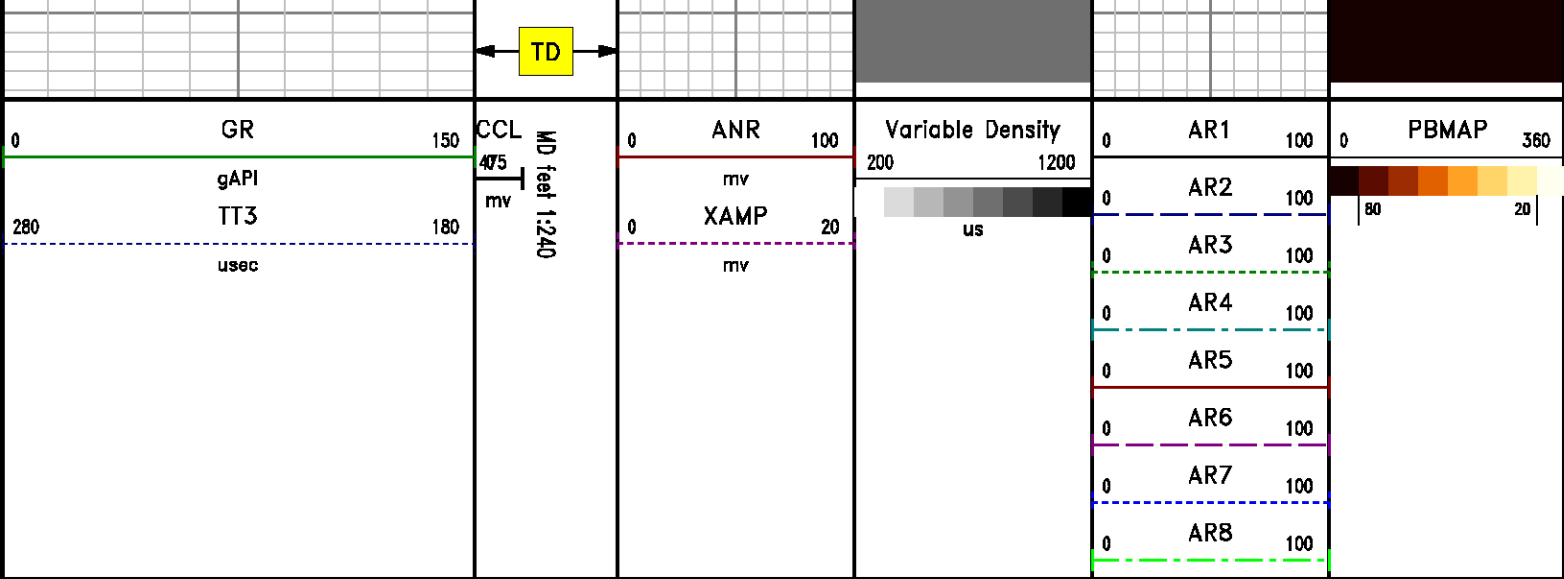












REPEAT SECTION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	7159.160	7496.160
RAL	Amp Gate Start Near	195.000	usec	7159.160	7496.160
RAL	Amp Gate Start Radial	195.000	usec	7159.160	7496.160
RAL	Amp Gate Width Far	25.000	usec	7159.160	7496.160
RAL	Amp Gate Width Near	25.000	usec	7159.160	7496.160
RAL	Amp Gate Width Radial	25.000	usec	7159.160	7496.160
RAL	casing od	4.500	inches	7159.160	7496.160
RAL	casing wt	11.600	lbm/ft	7159.160	7496.160
RAL	FB Start Far	291.900	usec	7159.160	7496.160
RAL	FB Start Near	175.391	usec	7159.160	7496.160
RAL	FB Start Radial	175.391	usec	7159.160	7496.160
RAL	FB Thresh Far	10.000	mv	7159.160	7496.160
RAL	FB Thresh Near	4.000	mv	7159.160	7496.160
RAL	FB Thresh Radial	4.000	mv	7159.160	7496.160
RAL	Fluid Travel Time	200.000	usec/ft	7159.160	7496.066

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

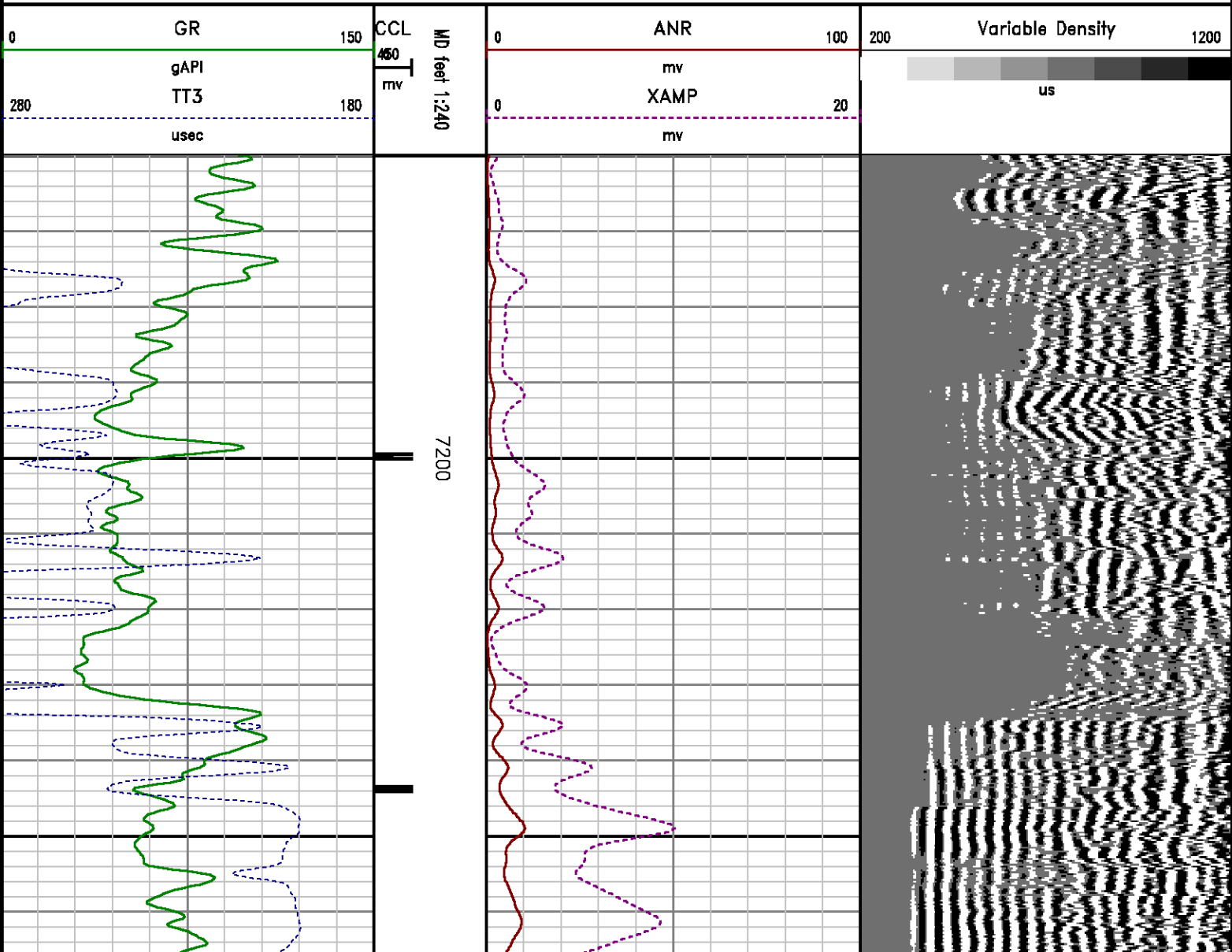
Well : WPX ENERGY 23-2

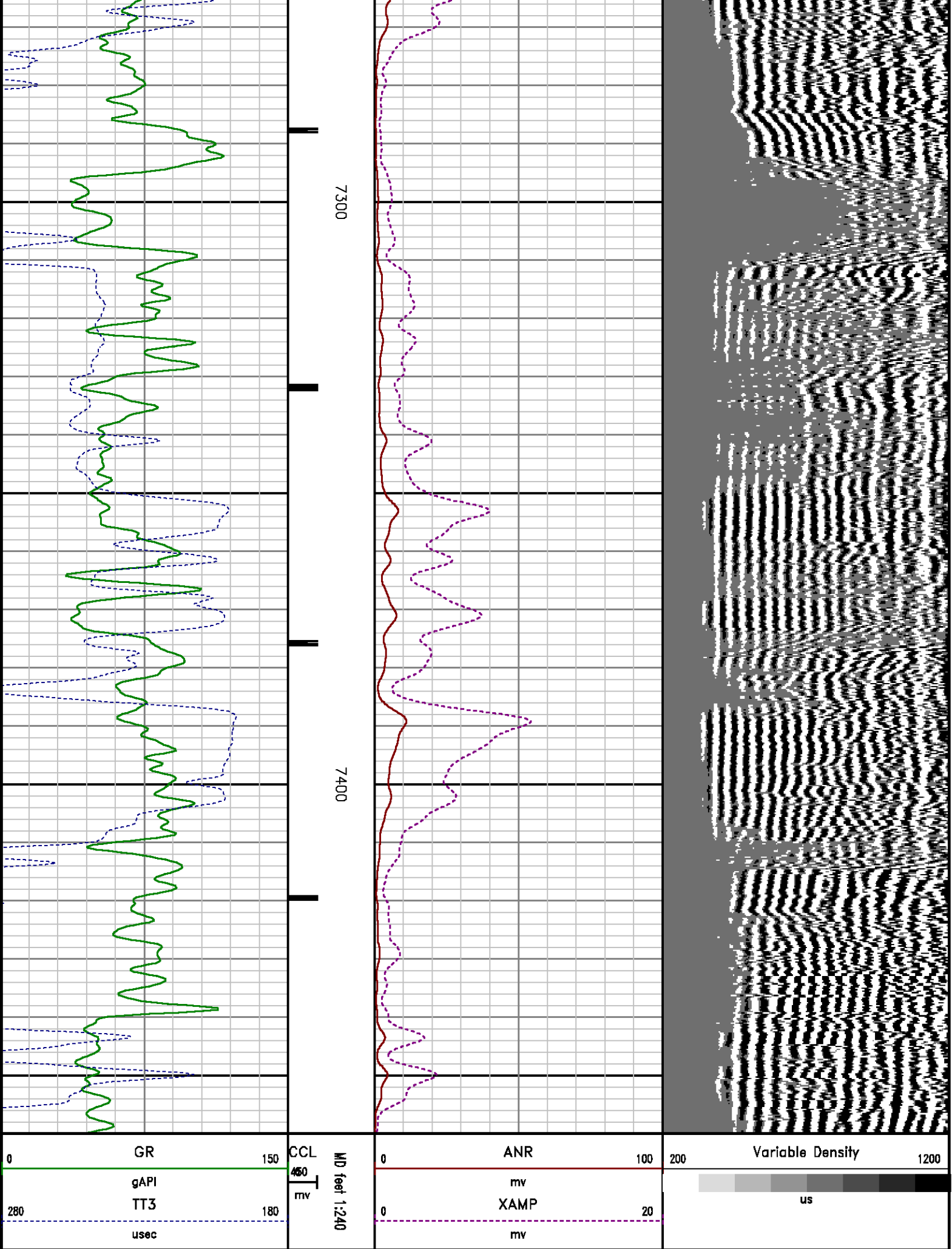
File Name : d:\welldata\wpx\wpx energy pa 23-2\23cb1\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 7160.00 - 7460.00 feet UP

Created : 3/11/2014 7:34:45 PM





CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\49609_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Mar 09 07:56:25 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: 09

Tool Delay [usec] -56.00 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	217	216	30	166	25	0.276	100.00	0.16
3 Ft. Receiver	217	216	30	161	14	0.360	100.00	0.16
5 Ft. Receiver	326	325	30	266	25	1.723	150.00	0.18
Radial #1	217	216	30	166	14	0.608	100.00	0.16
Radial #2	217	216	30	166	14	0.319	100.00	0.16
Radial #3	217	216	30	166	14	0.101	100.00	0.16
Radial #4	217	216	30	166	14	-0.225	100.00	0.16
Radial #5	217	216	30	166	14	-0.015	100.00	0.16
Radial #6	216	216	30	166	14	0.400	100.00	0.16
Radial #7	216	216	30	166	14	0.137	100.00	0.16
Radial #8	217	216	30	166	14	-0.014	100.00	0.16

RALFLD

Well-site Calibration: C:\case\calver\RALFLD\49609 fld.cal

WELL-SITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Mar 09 11:13:00 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: 09

Tool Delay [usec] -56.00 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]	Well-site Factor	Amp. Ref [mV]
CAL Pulse	166	25	0.021	0.000	0.98	100.000
3 Ft. Receiver	195	25	2.228			
5 Ft. Receiver	305	25	3.042			
Radial #1	195	25	1.922			
Radial #2	195	25	1.914			

Radial #3	195	25	2.030
Radial #4	195	25	2.035
Radial #5	195	25	2.289
Radial #6	195	25	2.412
Radial #7	195	25	1.943
Radial #8	195	25	1.980

GAMMA RAY

Calibration File: C:\case\calver\GR\45609.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Mar 09 11:17:29 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: 09

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	52.36	330.13	0.666	34.87	219.87	185.00

Verification File: C:\case\calver\GR\45609.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Sun Mar 09 11:18:54 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: 09

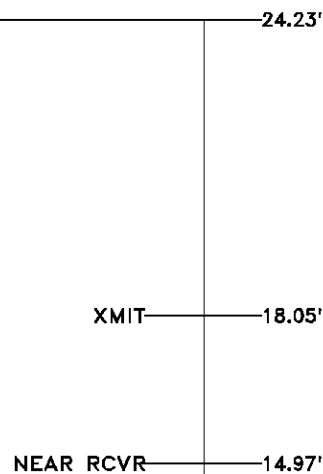
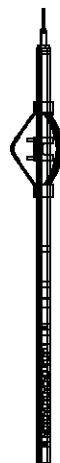
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	56.49	331.07	0.666	37.62	220.49	182.87

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

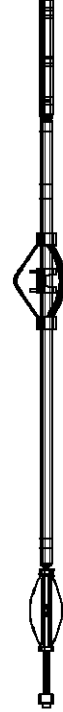


FAR RCVR	13.05'
CCL	11.34'
GR	9.49'
NEU	4.09'
	0.00'

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 23-2		
Field	PARACHUTE		
County	GARFIELD	State	CO

File No:	CH083734
API No:	05045221340000

Location	Elevations
SHL: 2054' FSL & 1545' FWL	KB 5846 ft
BHL: 2367' FSL & 1674' FWL	DF
	GL 5821 ft
SEC 2 TWP 7S RGE 95W	

2 7S 95W
GV 86-2 PAD
AZTEC 1000



Baker Atlas