



# RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH081805

Company Well Field County State COLORADO

API No: 050452030000

Location SHL: 2600' FNL & 1453' FWL BHL: 628' FNL & 270' FEL (NENE)

Other Services RPM

21 6S 95W PA 22-21 PAD NABORS 673

Permanent Datum Log Measured From Drill Measured From

GL KB Elevation 6030 ft Above P. D.

SEC 21 TWP 6S RGE 95W

KB 6056 ft DF 6030 ft

GL 6030 ft

DATE 19/JAN/14

Run ONE

Service Order US62E090

Depth Driller 10184 ft

Depth Logger 10148 ft

Bottom Logged Interval 10138 ft

Top Logged Interval 26 ft

Time Started 1730

Time Finished 2130

Operator Rig Time 4 HRS

Type of Fluid in Hole WATER

Fluid Density NA

Salinity NA

Fluid Level 78 ft

Logged Cement Top 0 psi

Wellhead Pressure NA

Maximum Hole Deviation NA

Nominal Logging Speed 66 fpm

Maximum Recorded Temperature 256 degF

Reference Log NONE

Reference Log Date NA

Equipment No. 4271 Location GRAND JCT

Recorded By FLOYD RENEAU

Witnessed By GRAN JACOBS

- 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	1419 ft
8.75 in	1419 ft	10184 ft

## Casing Record

Size	Weight	Grade	From	To
9.625 in			0 ft	1419 ft
4.5 in	11.6 lbm/ft	I-80	0 ft	10184 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 13.5 feet.  
Logged with zero PSI at wellhead.

BHT = 256°F

SJ = 6788'-6813'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10218496	CENT
1	1	GR/CCL	1355XA	11871510	CENT

PRIMARY PRESENTATION  
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	30.806	10179.500
RAL	Amp Gate Start Near	195.000	usec	30.806	10179.500
RAL	Amp Gate Start Radial	195.000	usec	30.806	10179.500
RAL	Amp Gate Width Far	25.000	usec	30.806	10179.500
RAL	Amp Gate Width Near	25.000	usec	30.806	10179.500
RAL	Amp Gate Width Radial	25.000	usec	30.806	10179.500
RAL	casing od	4.500	inches	30.806	10179.500
RAL	casing wt	11.600	lbm/ft	30.806	10179.500
RAL	FB Start Far	291.900	usec	30.806	10179.500
RAL	FB Start Near	180.000	usec	30.806	10179.500
RAL	FB Start Radial	180.000	usec	30.806	10179.500
RAL	FB Thresh Far	10.000	mv	30.806	10179.500
RAL	FB Thresh Near	4.000	mv	30.806	10179.500
RAL	FB Thresh Radial	4.000	mv	30.806	10179.500
RAL	Fluid Travel Time	200.000	usec/ft	30.806	10179.462

DEPTH OFFSETS							
(for Acquired Curves)							
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-11.000	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2

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

Plotted by : PlotMgr, v5.4.504

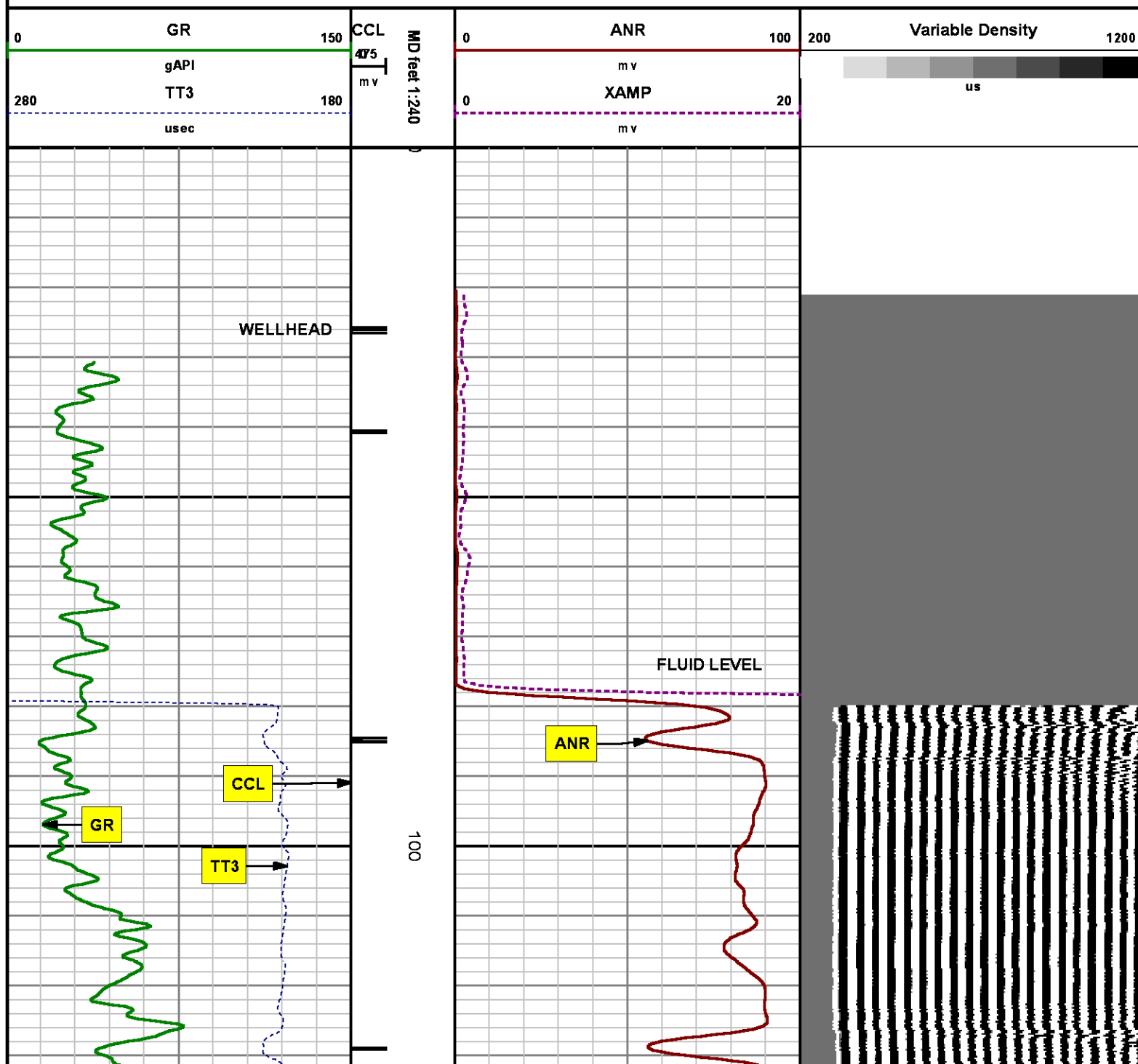
Well : FEDERAL PA 341-21

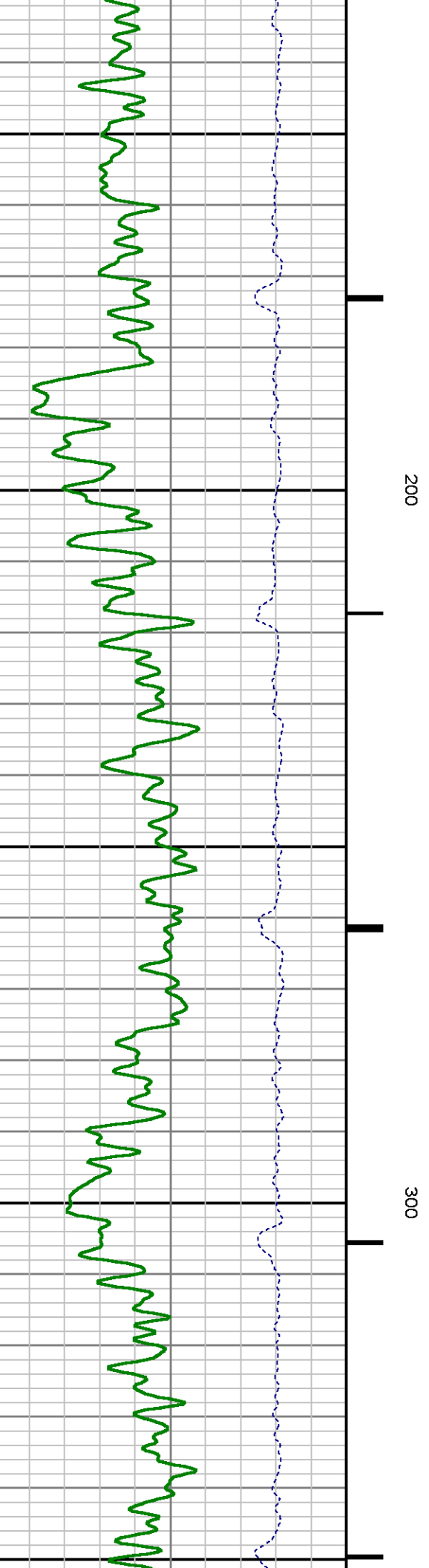
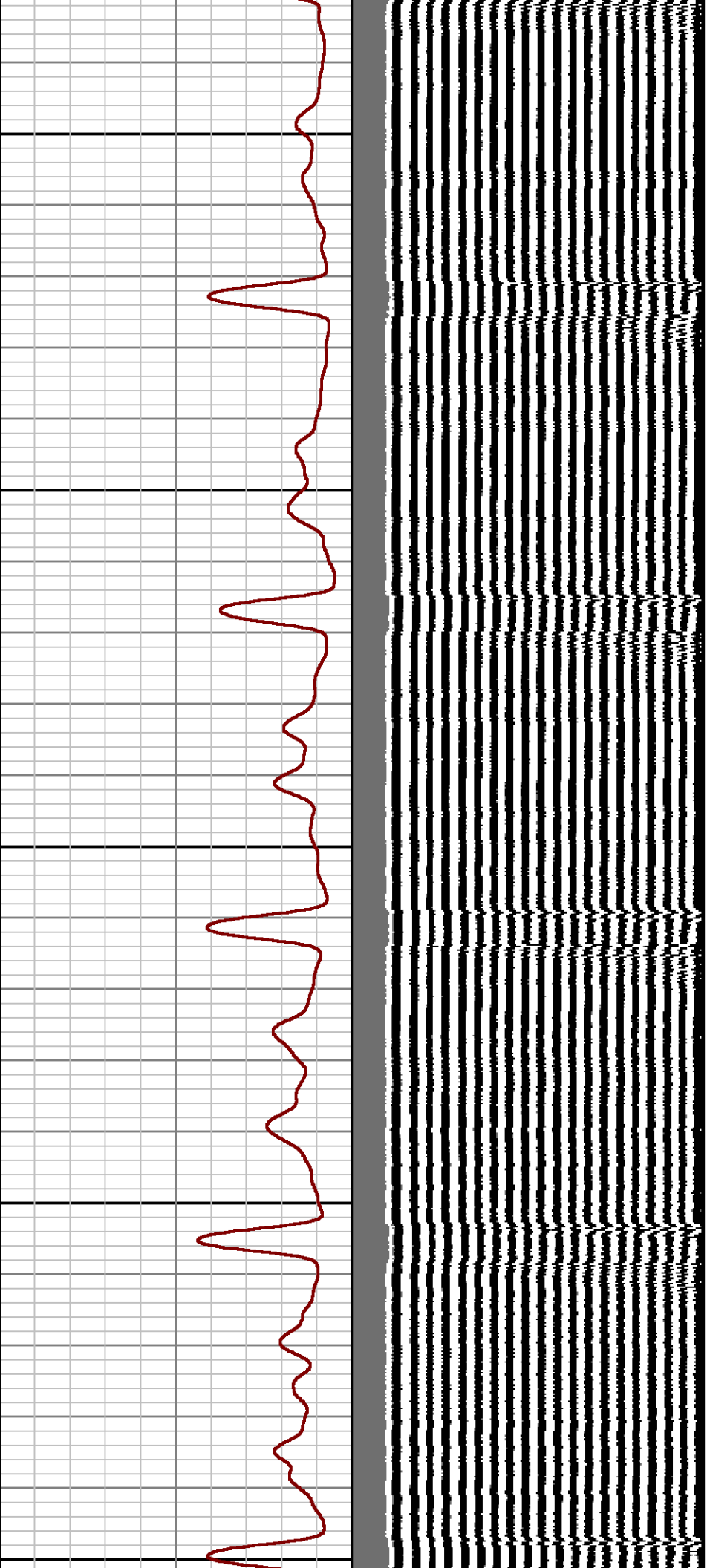
**File Name :** d:\welldata\wpxlpa 341-21\cbl341\main.xtf

Mode : PlotMgr 5.4.504

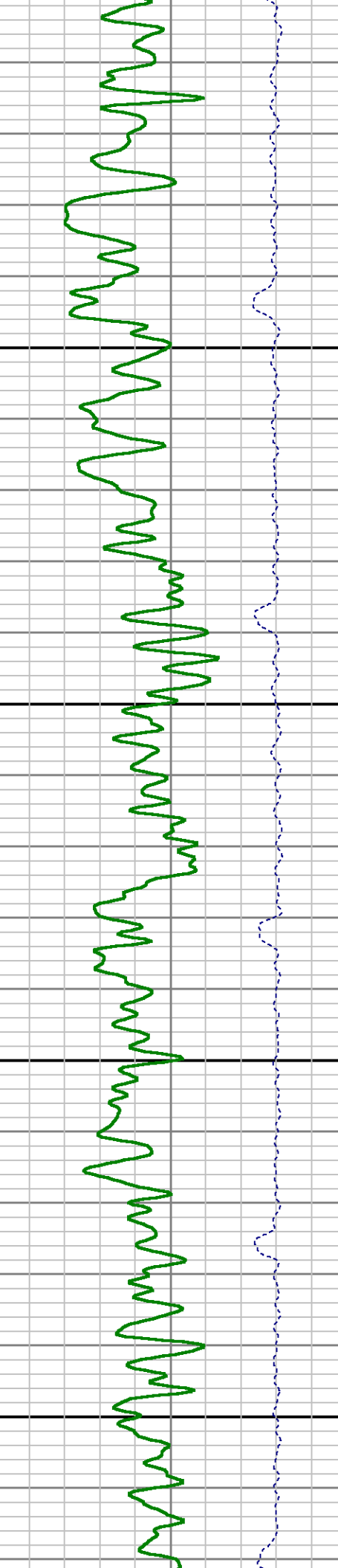
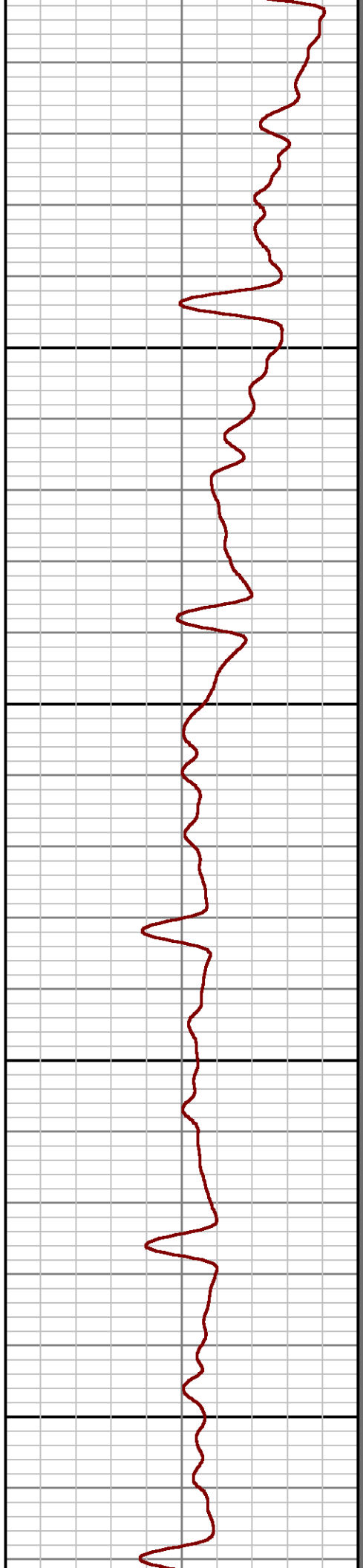
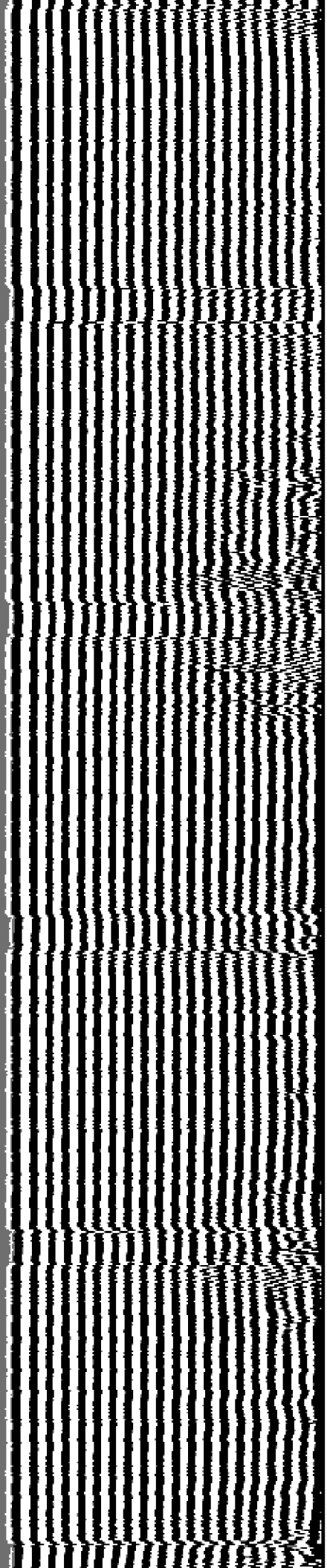
Interval : 0.00 - 10154.00 feet UP

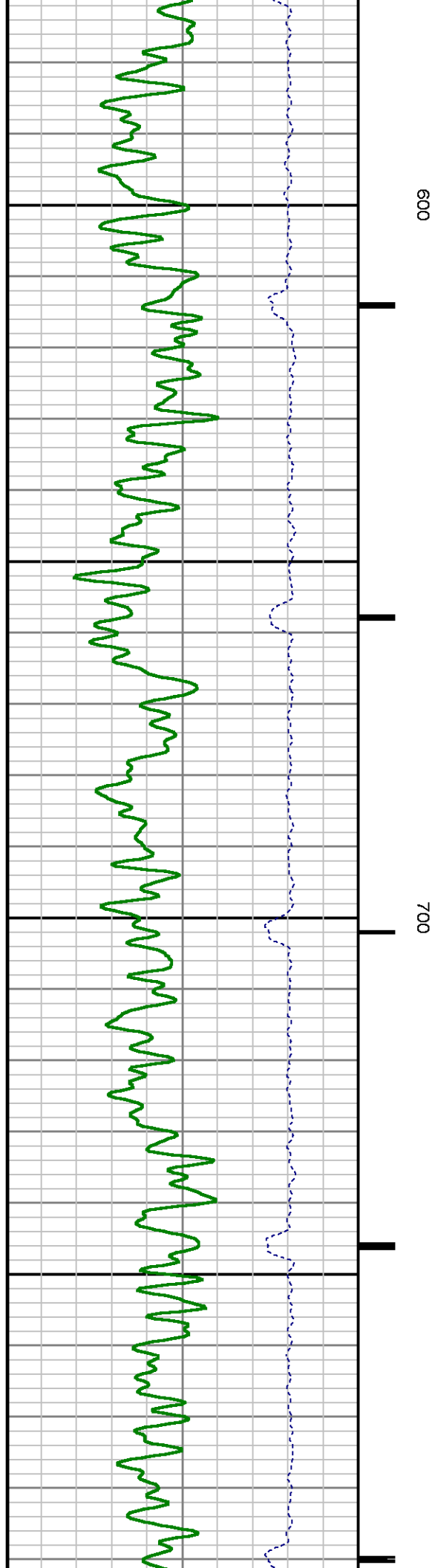
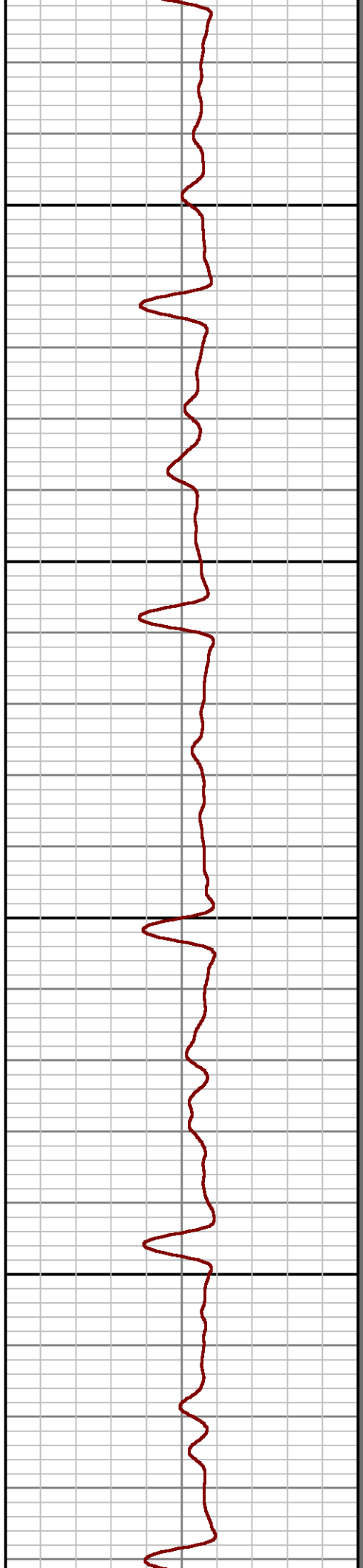
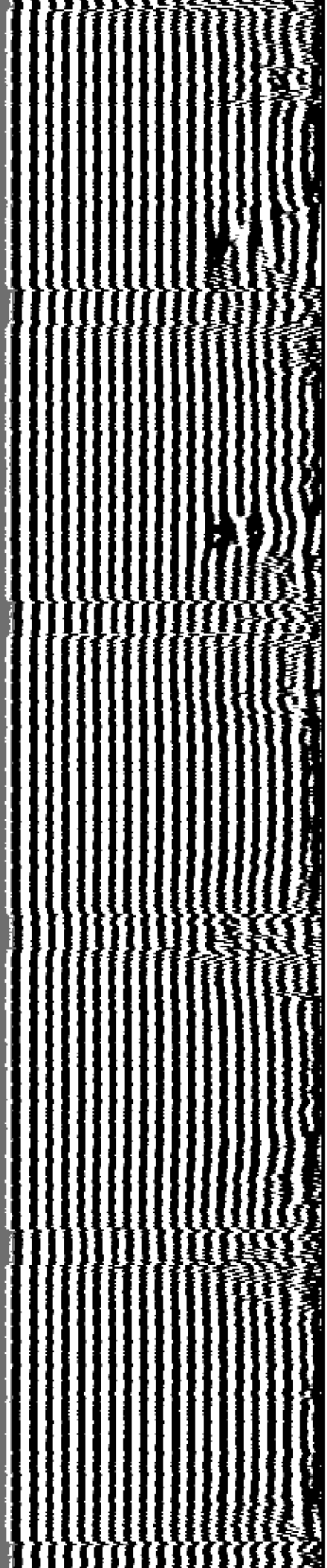
**Created : 1/19/2014 6:33:30 PM**

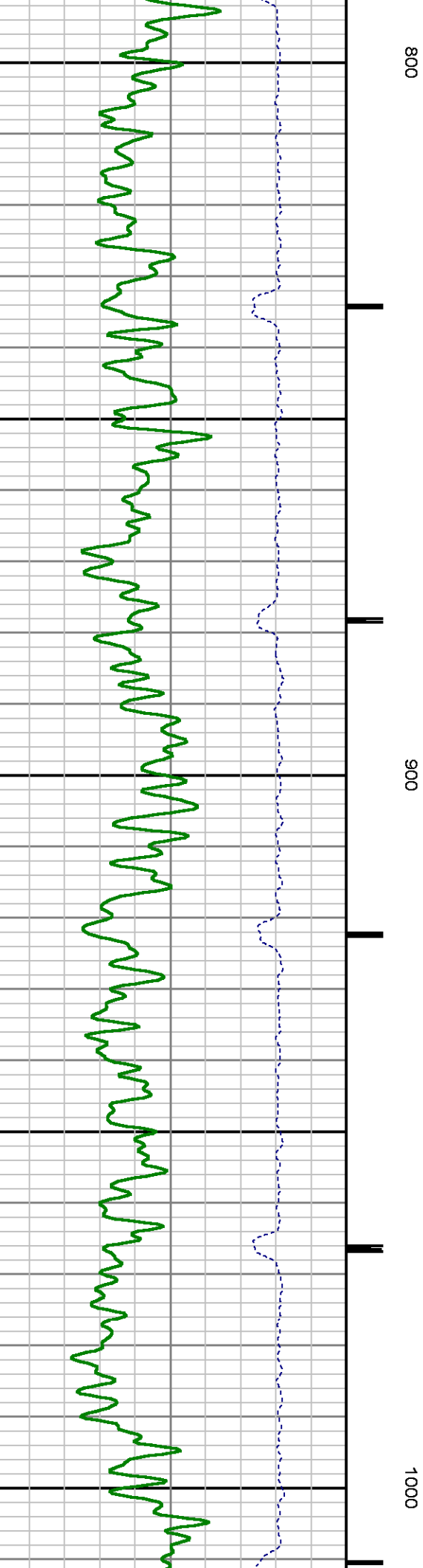
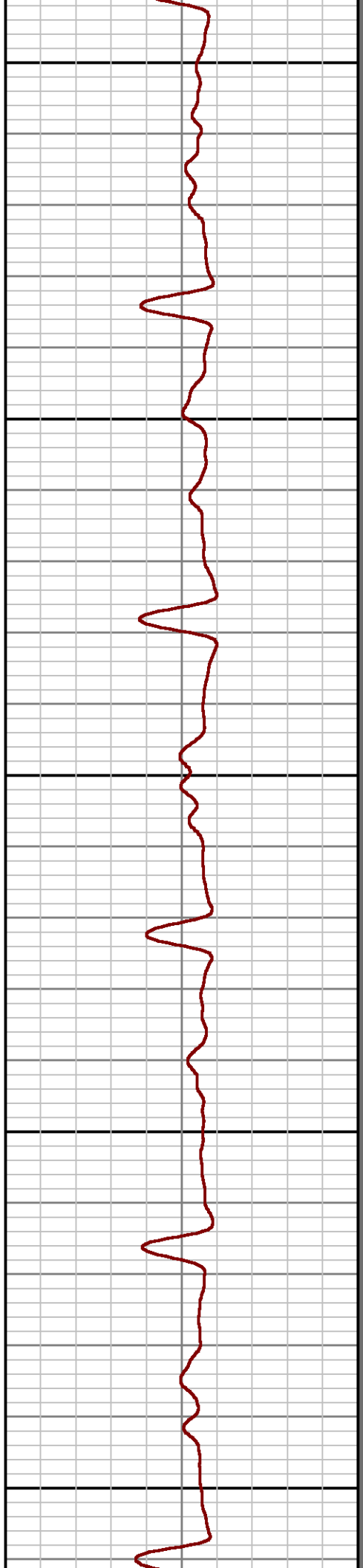
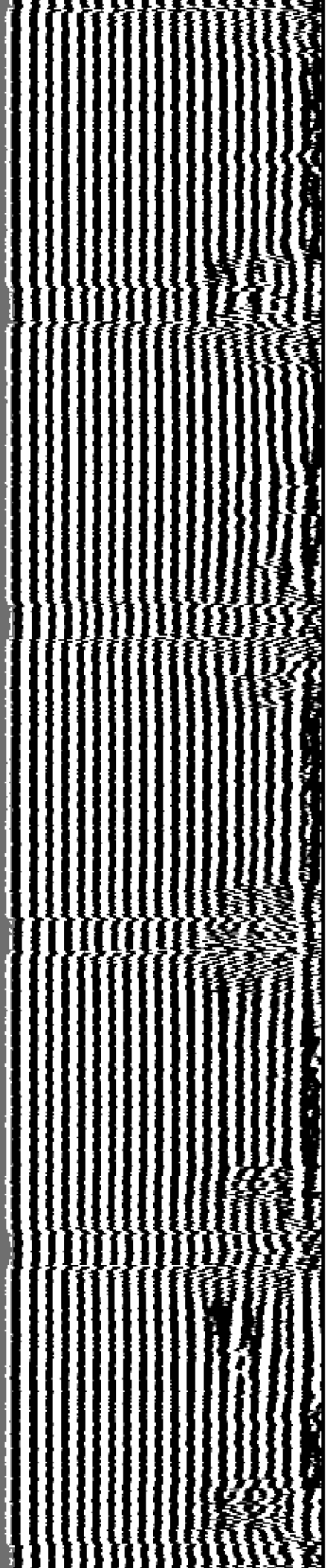


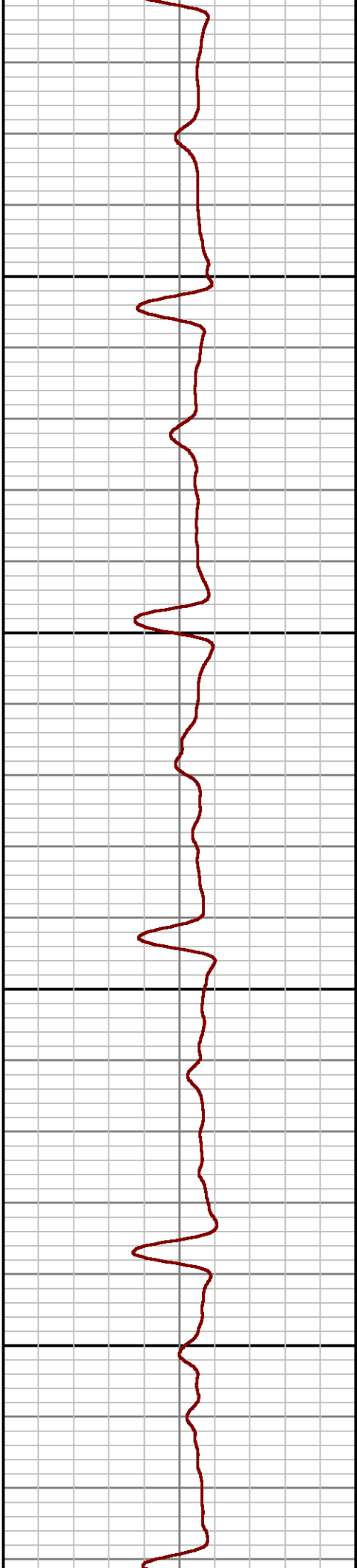
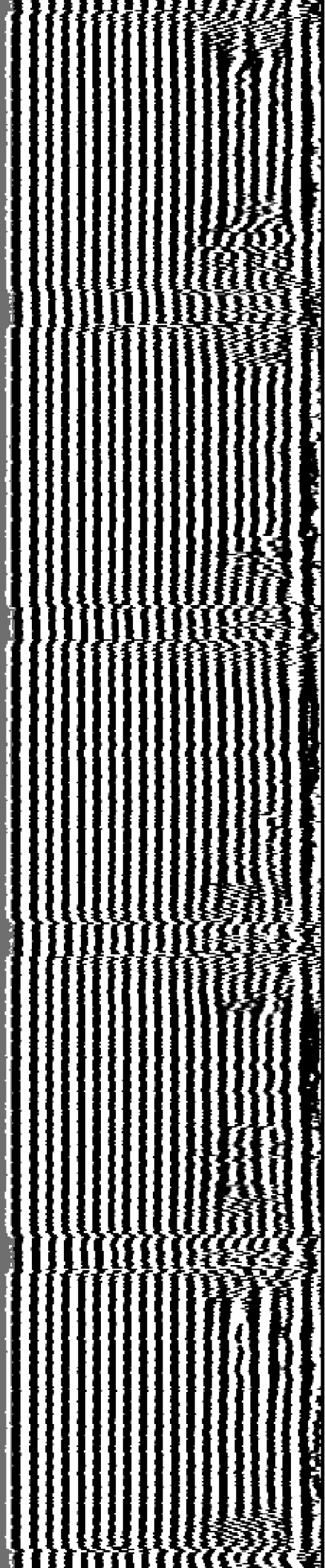






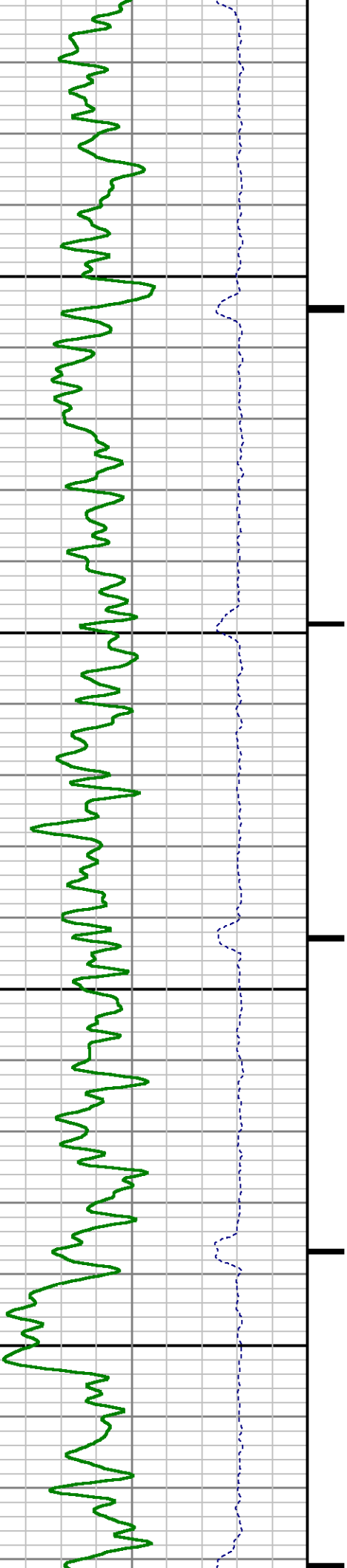


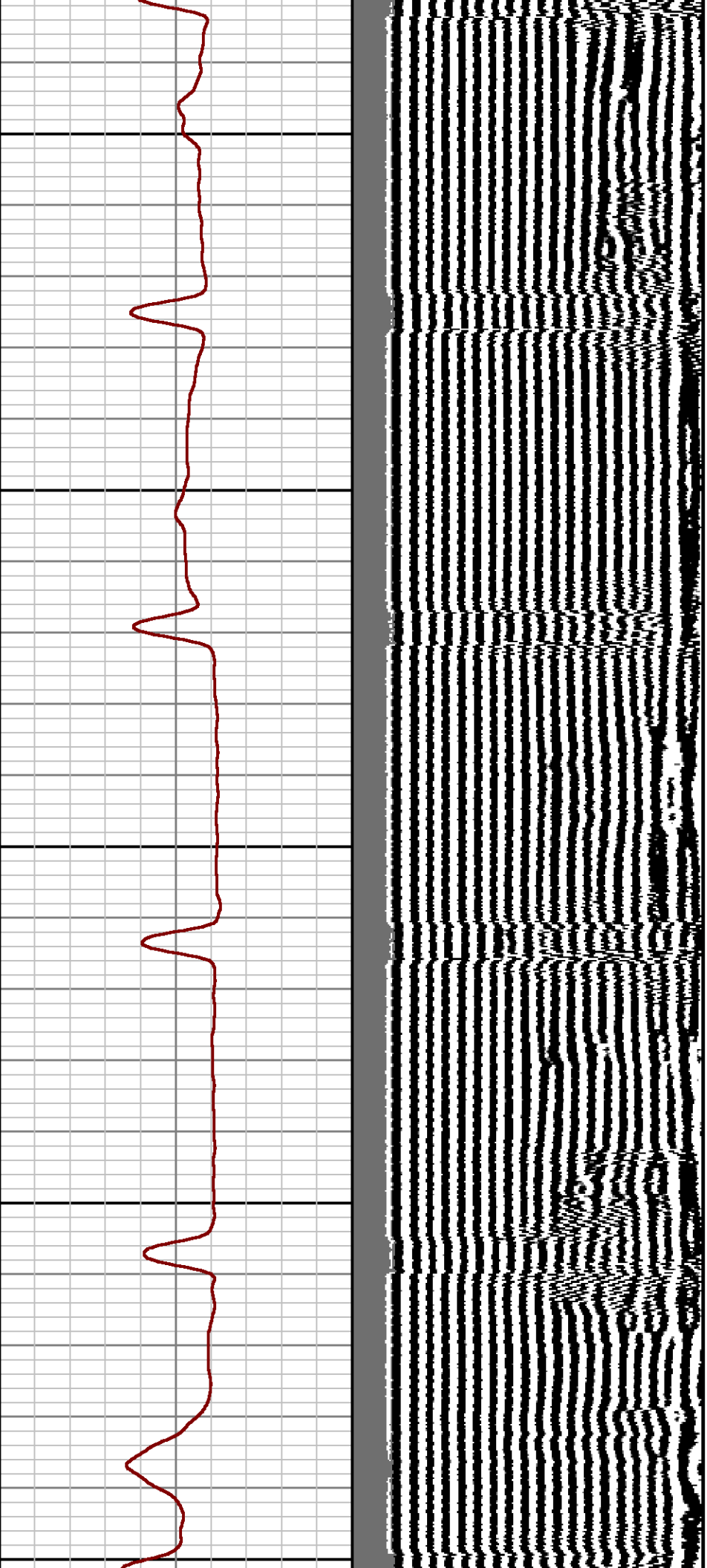




1100

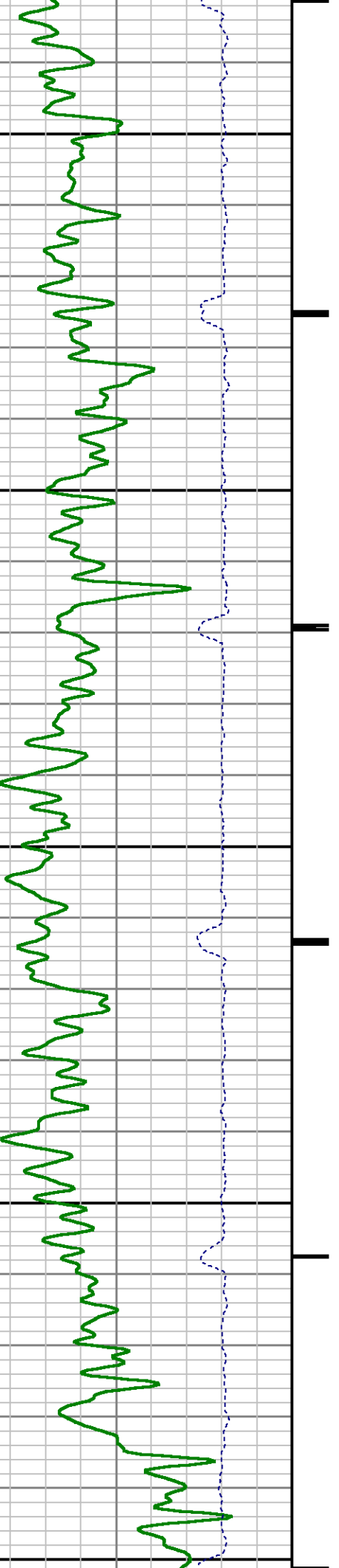
1200

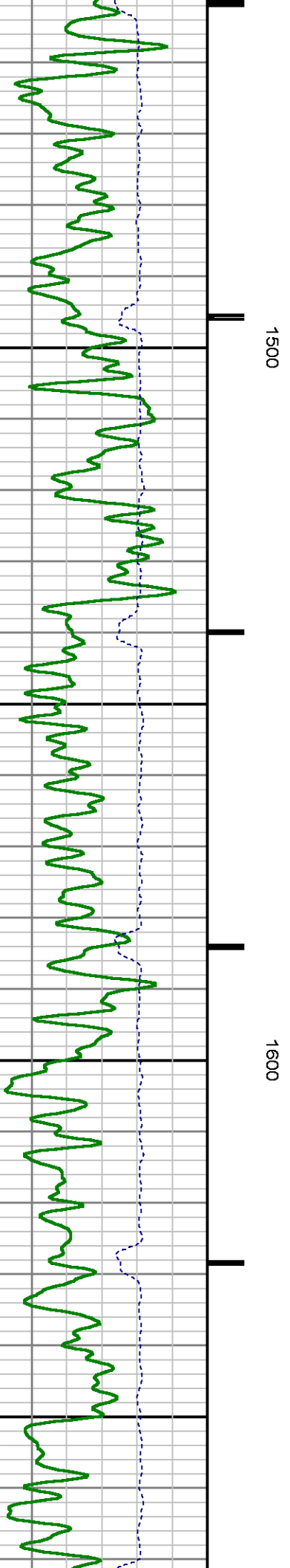
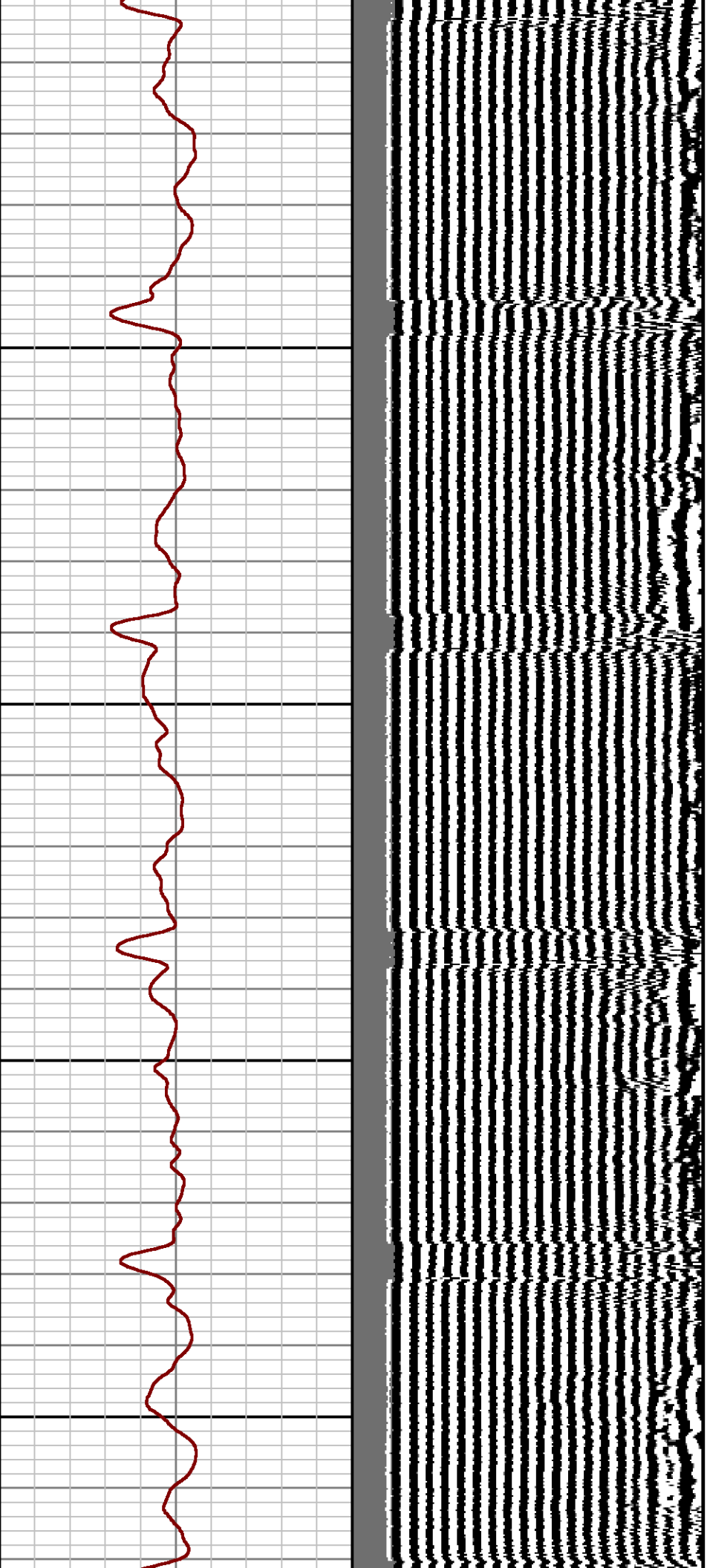




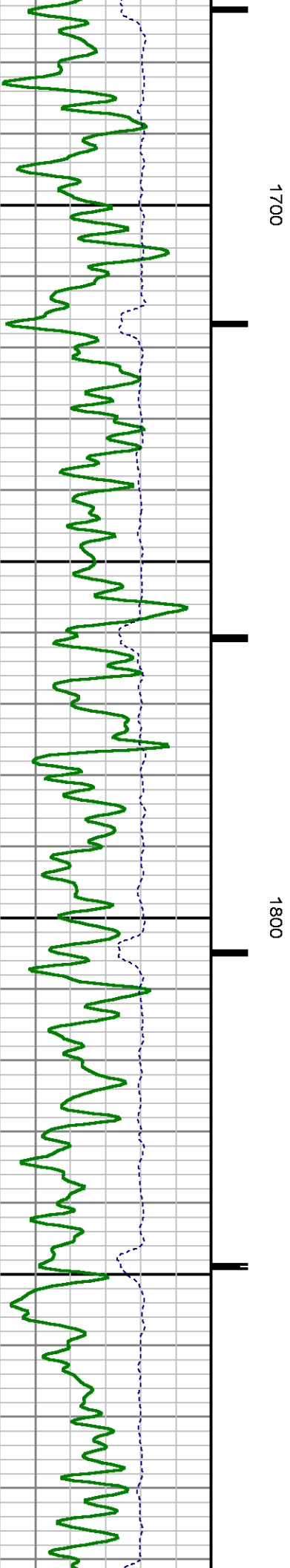
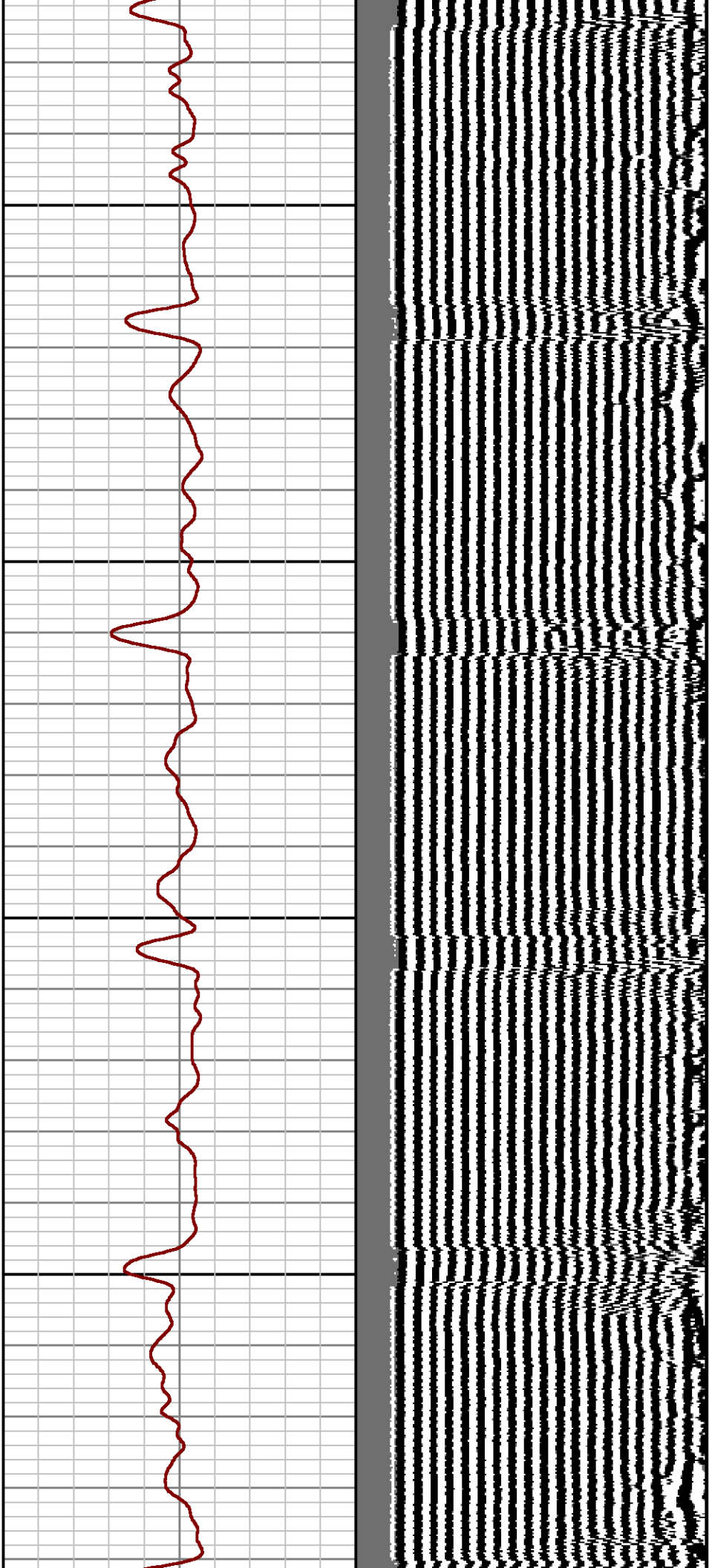
1300

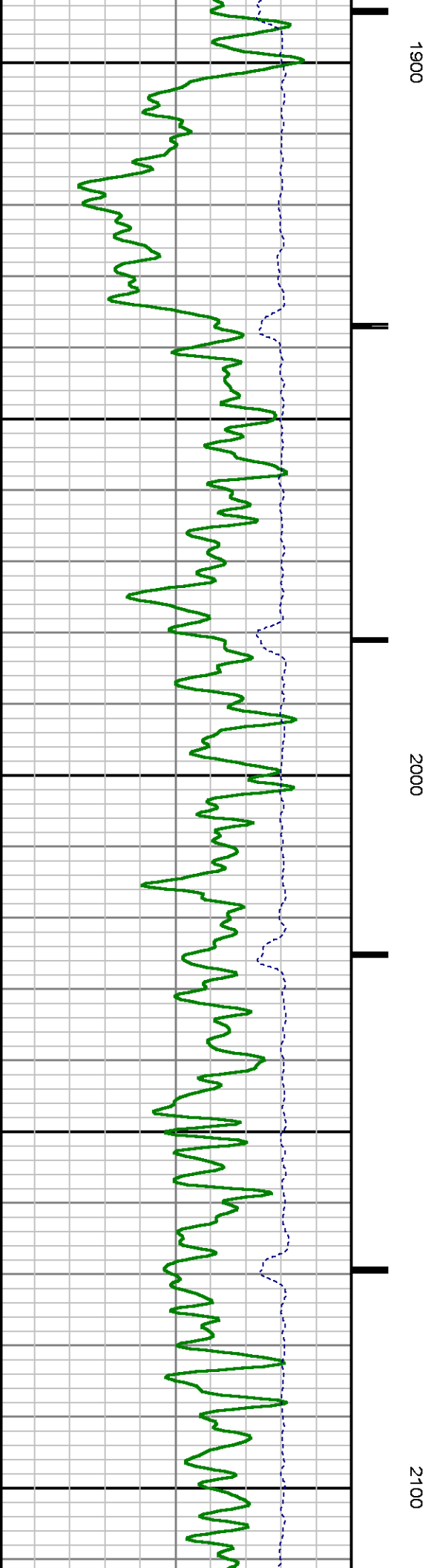
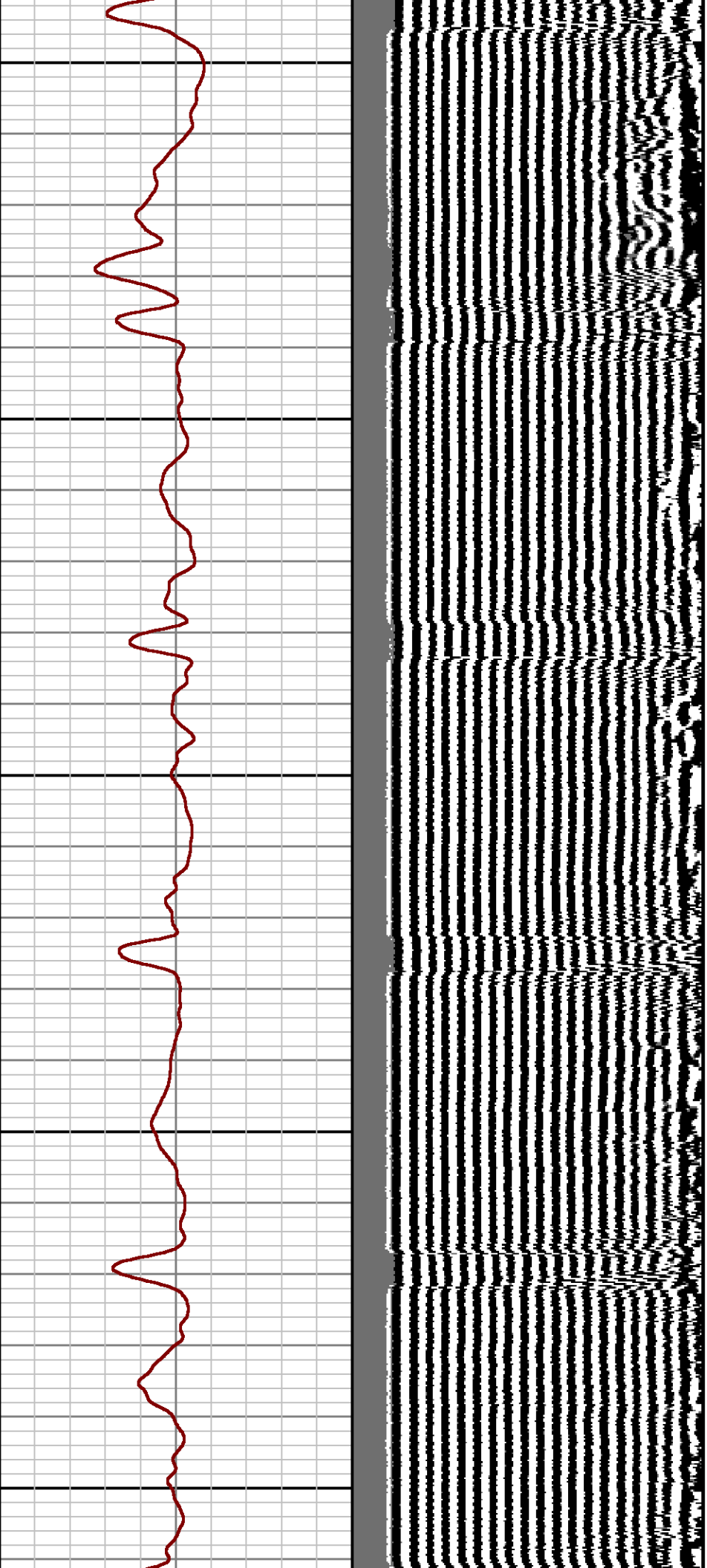
1400



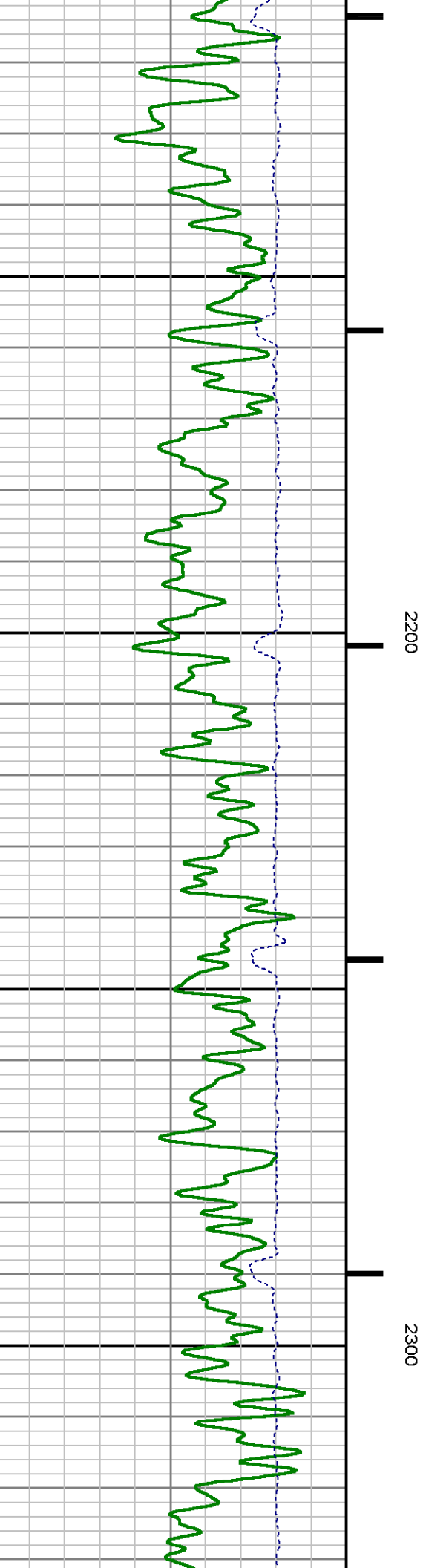
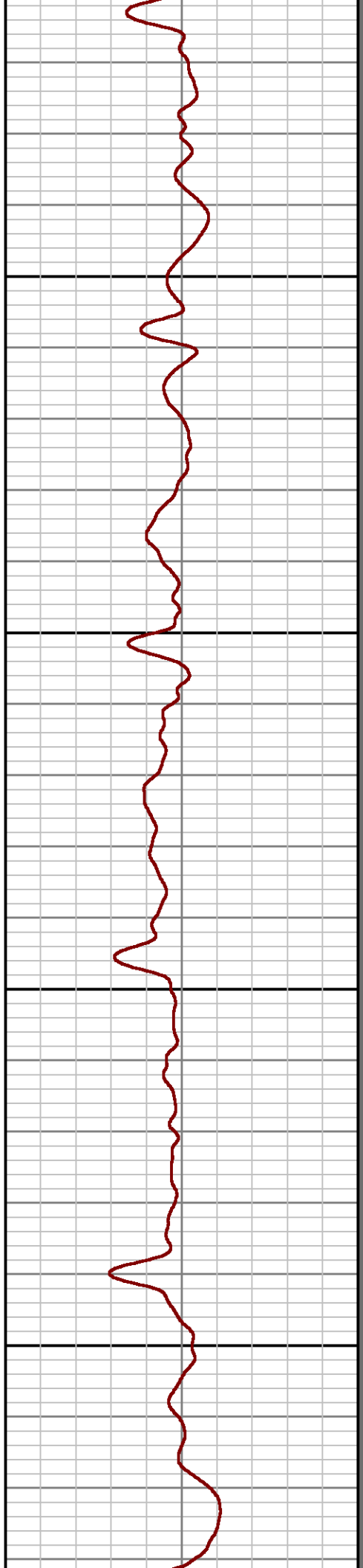
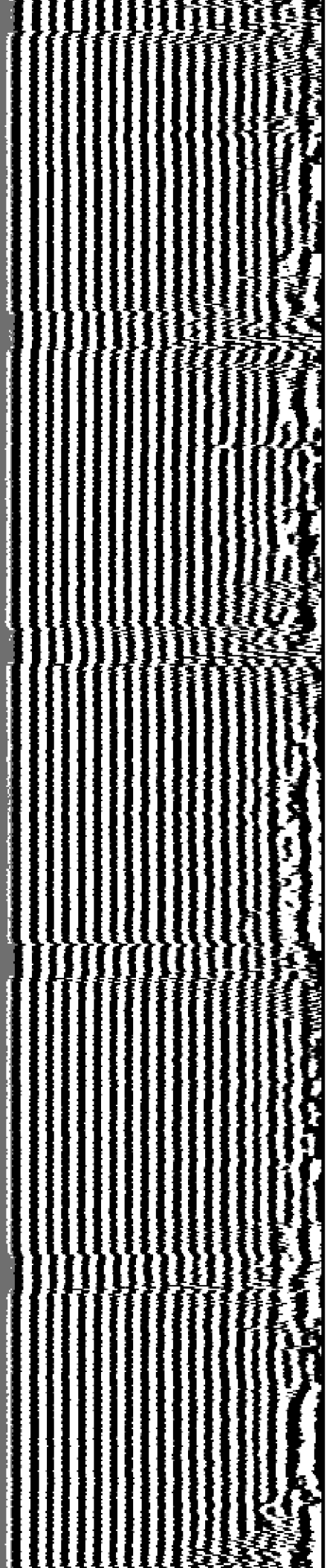


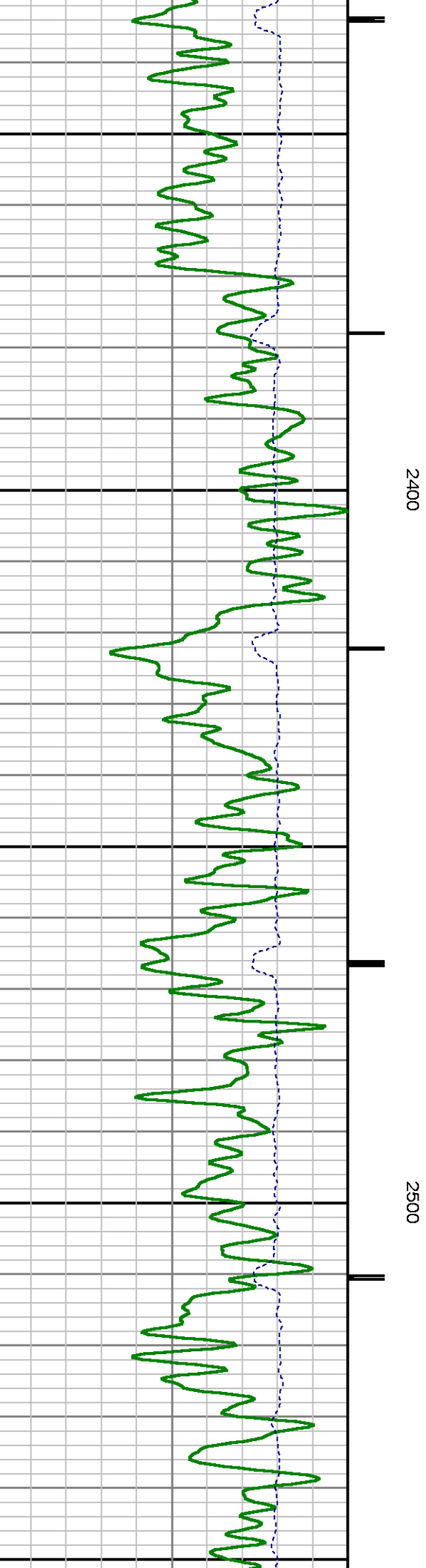
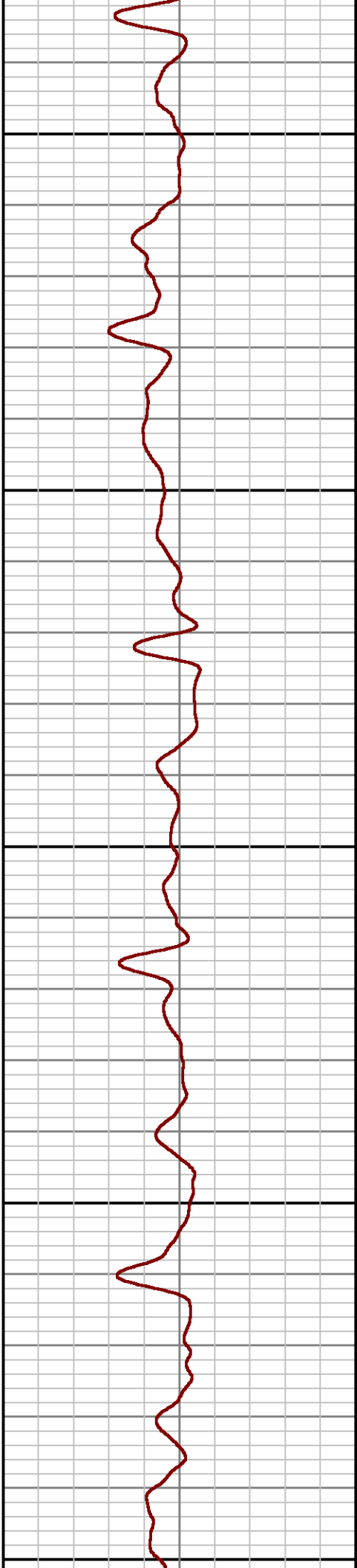
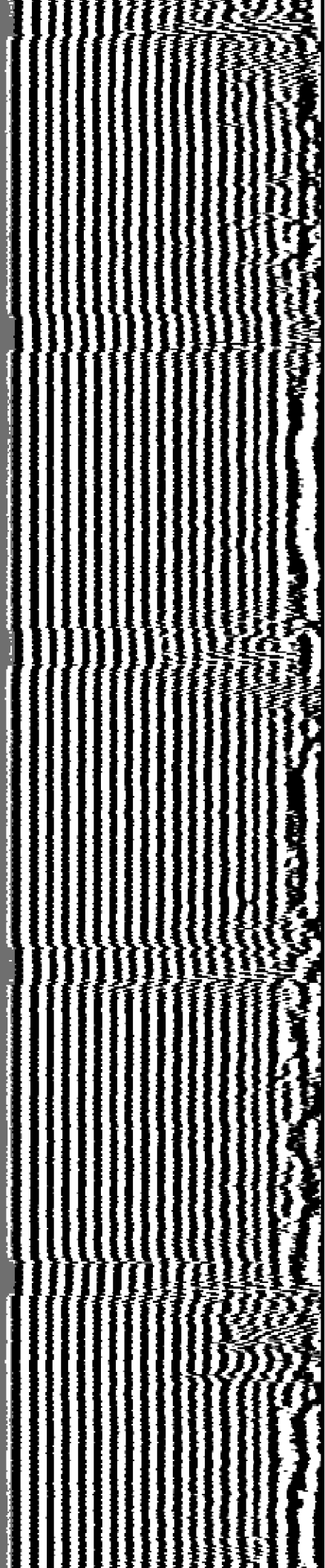


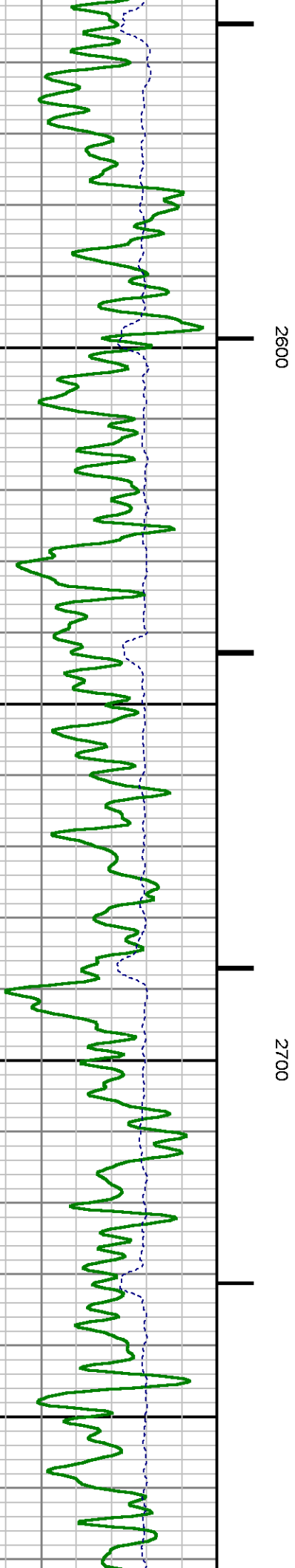
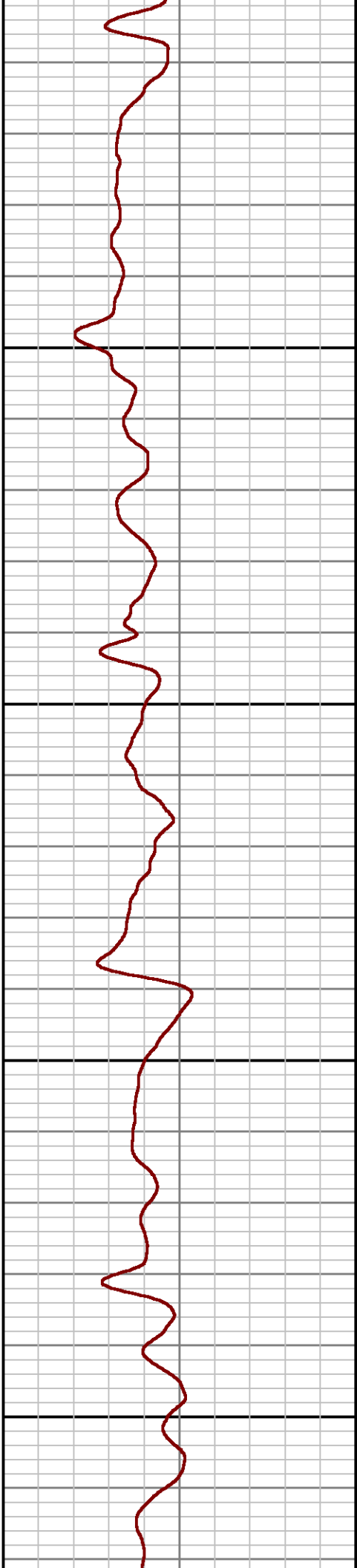
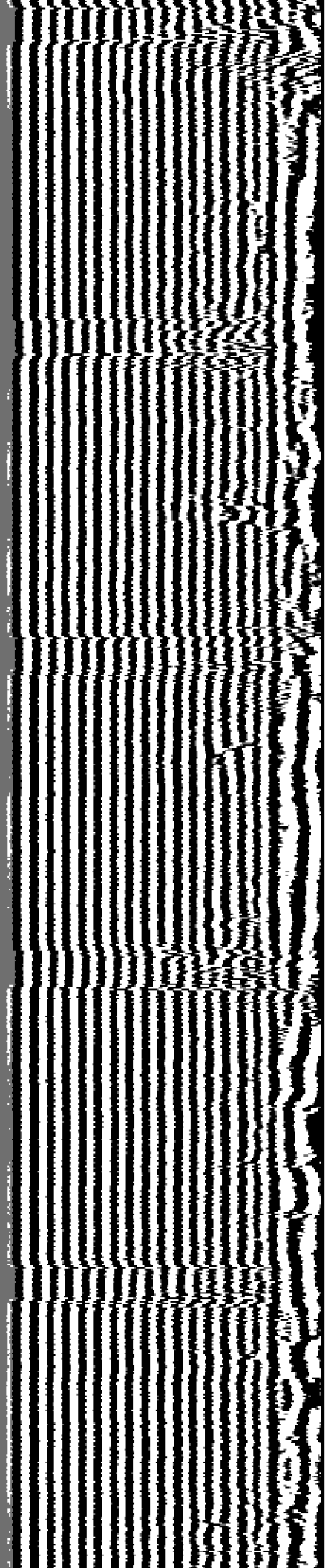


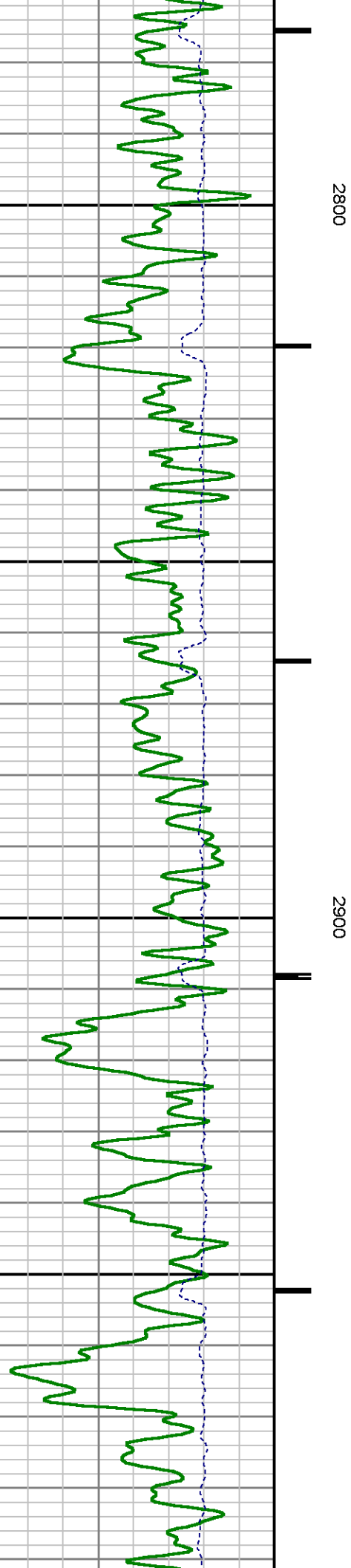
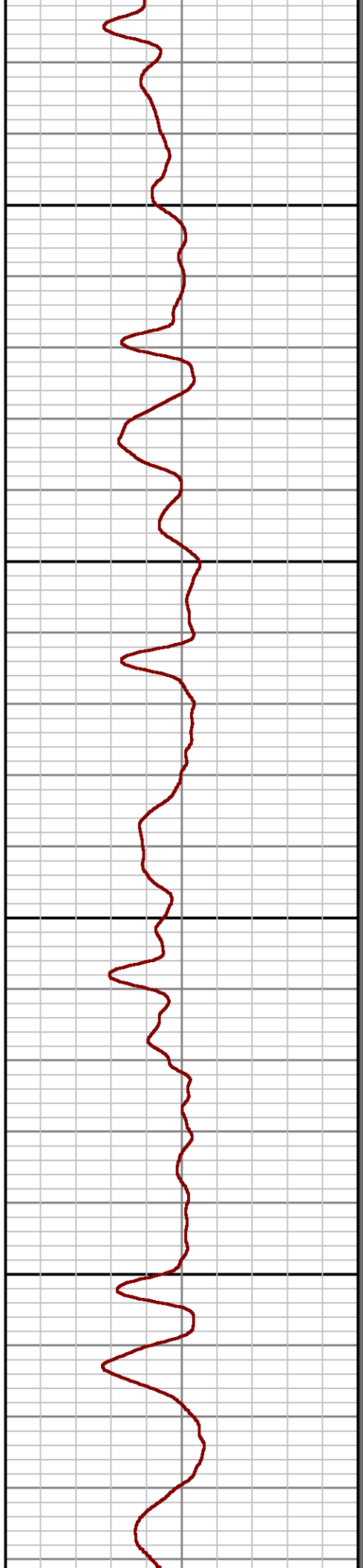
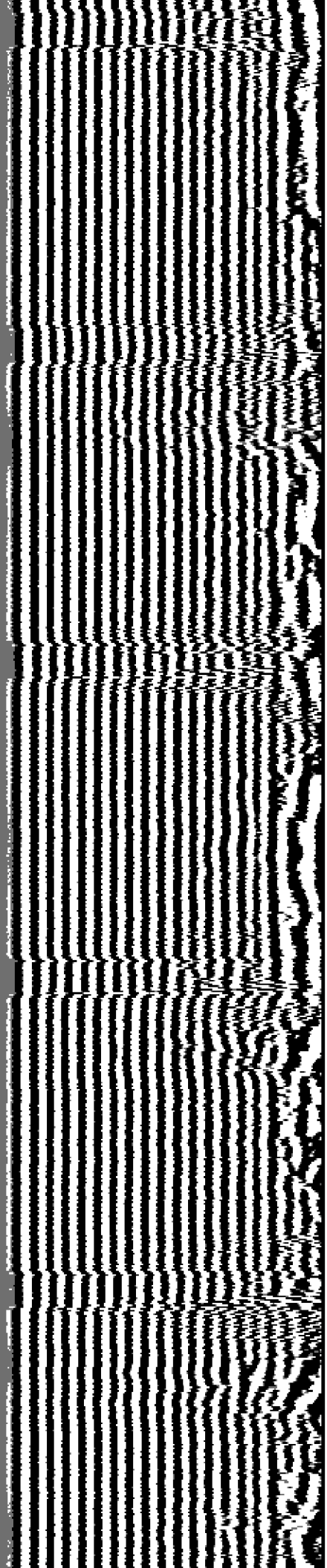


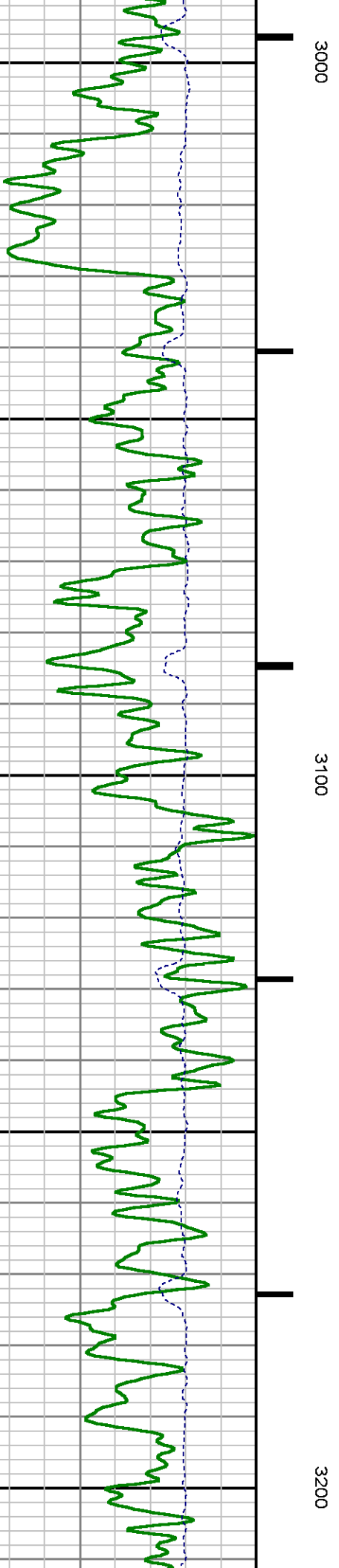
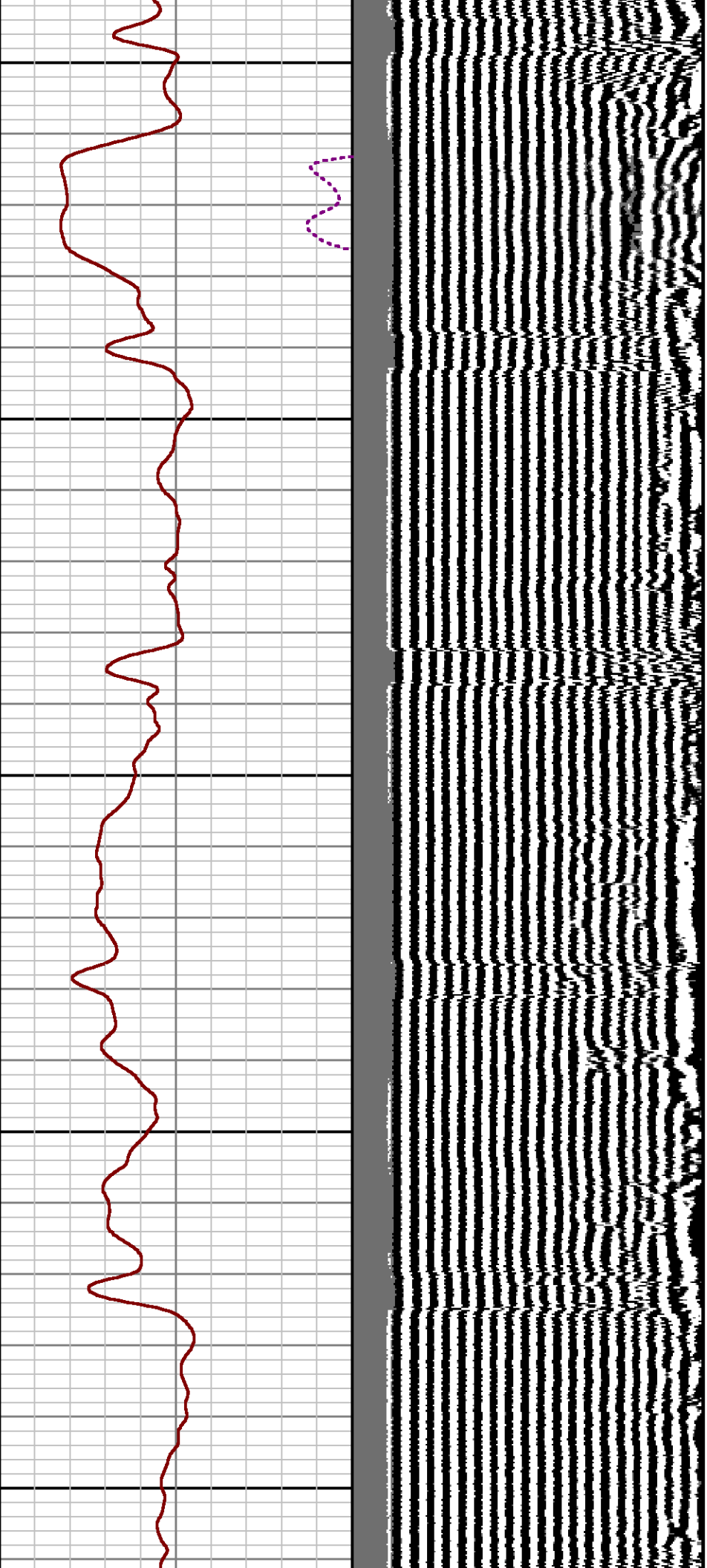




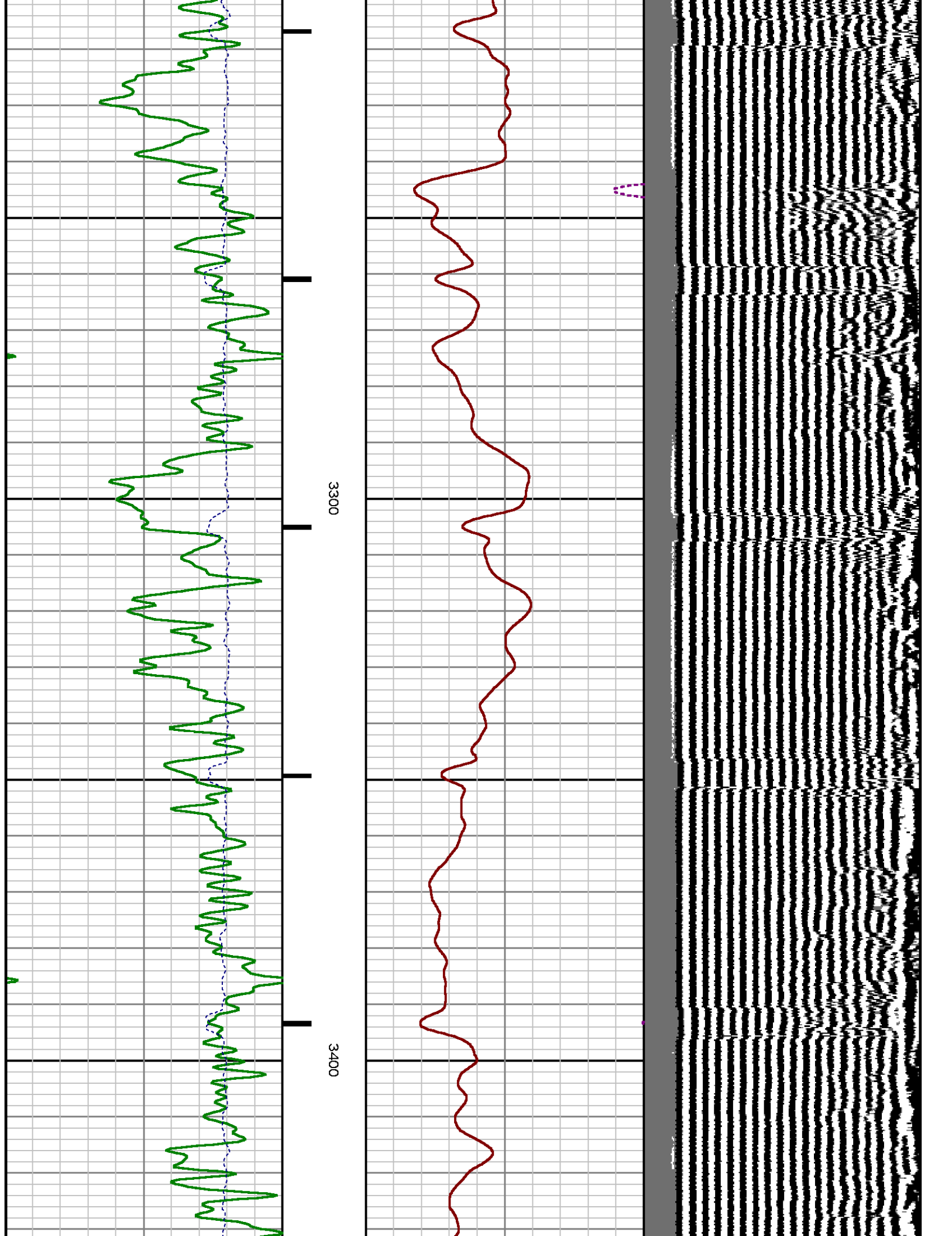


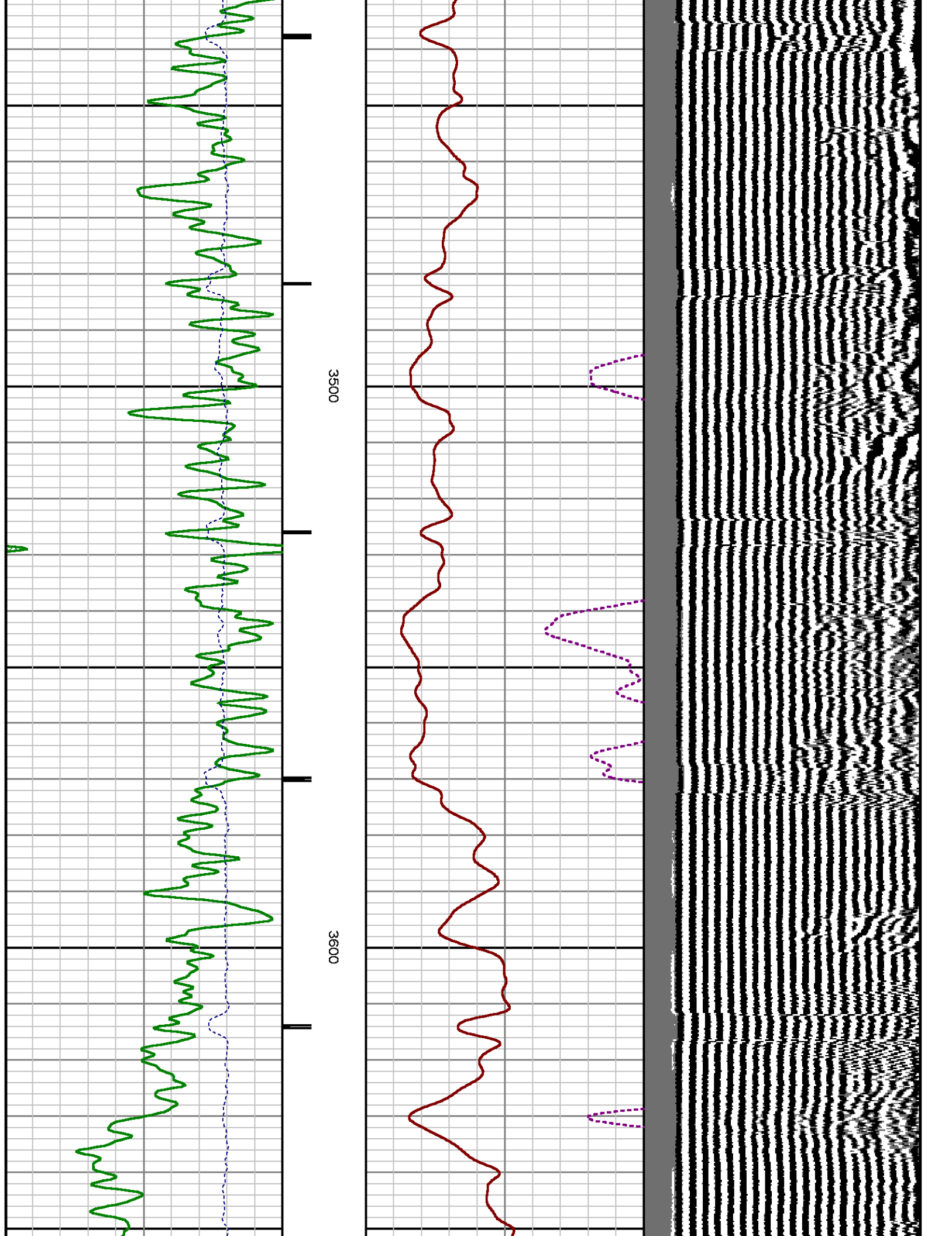


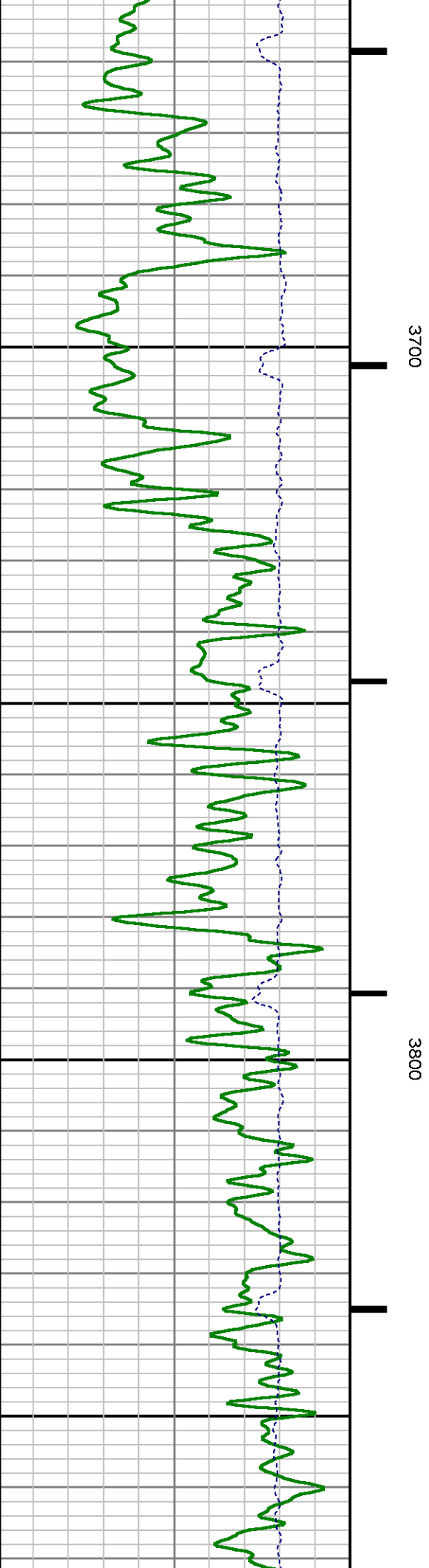
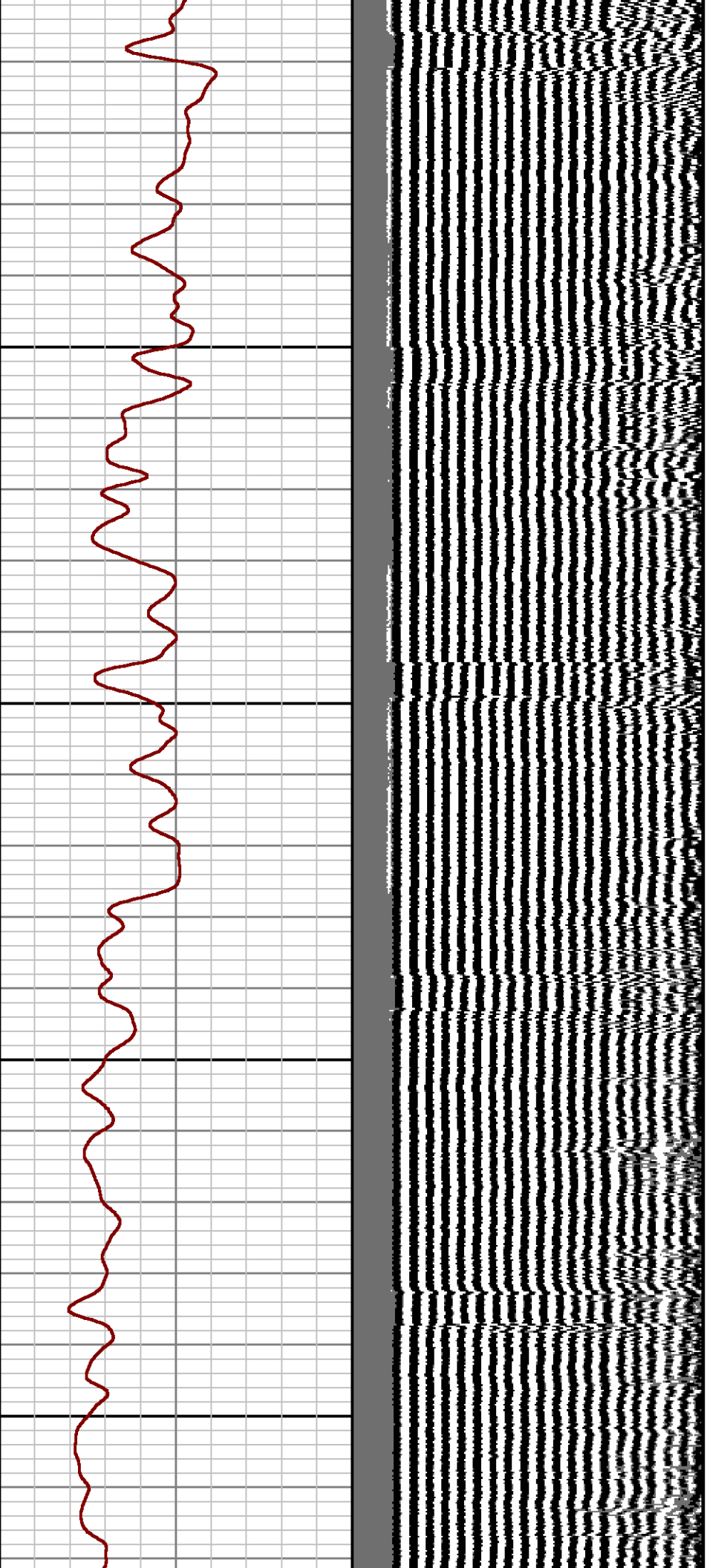




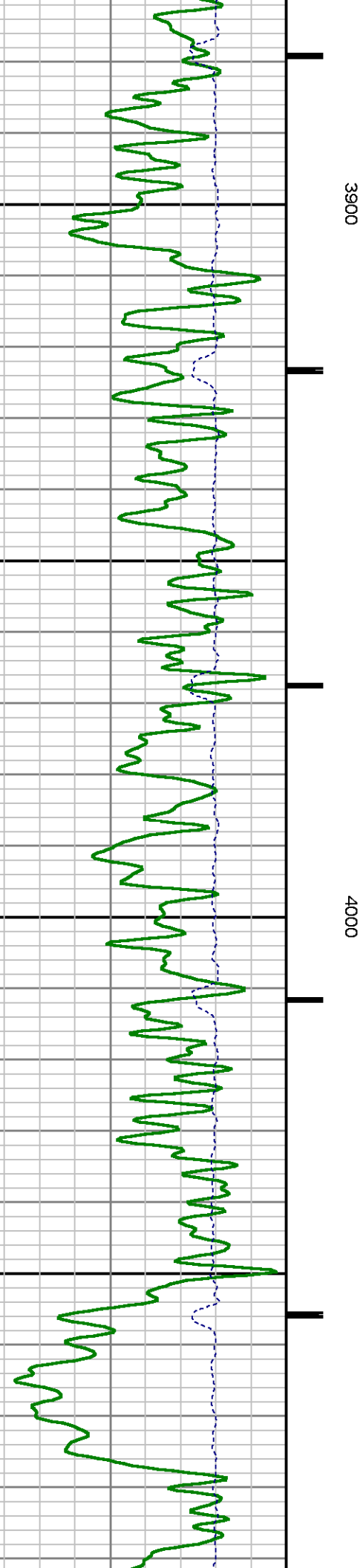
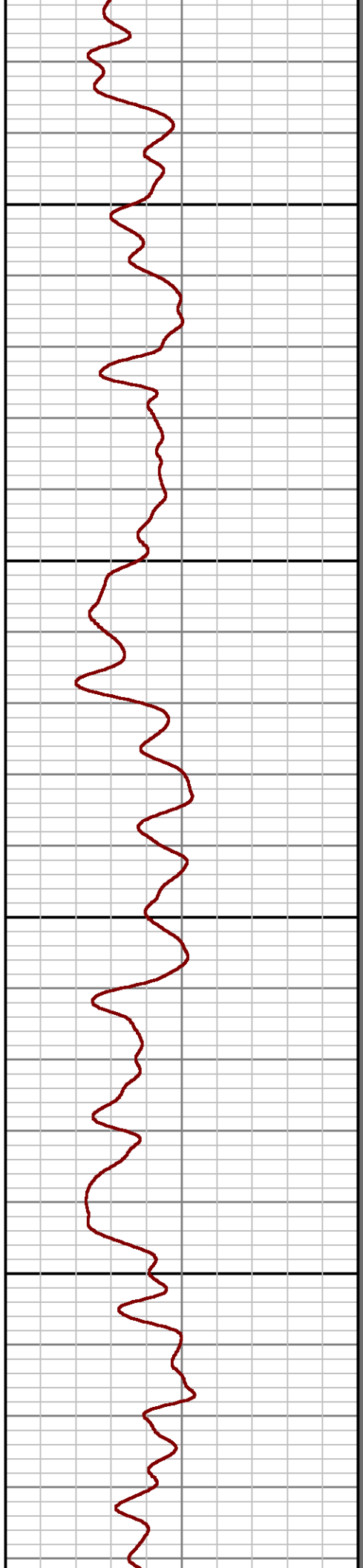
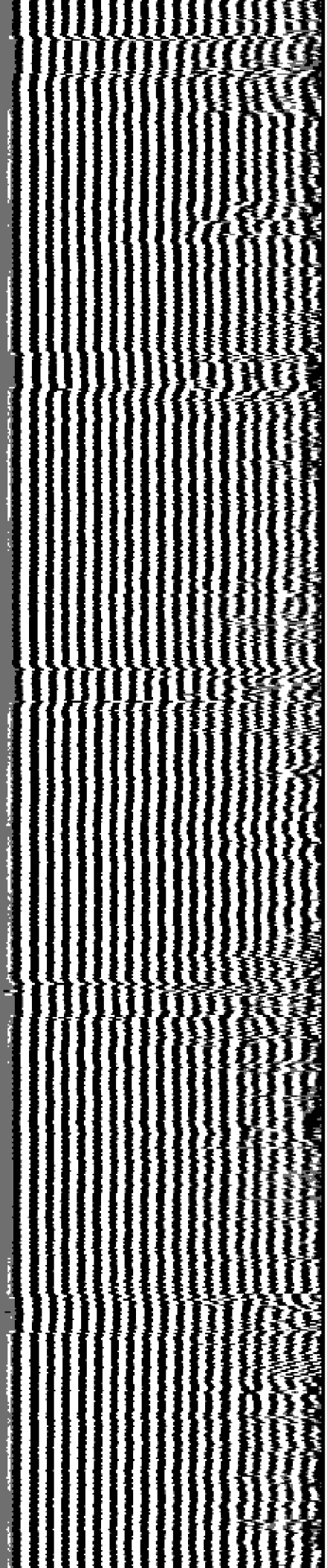


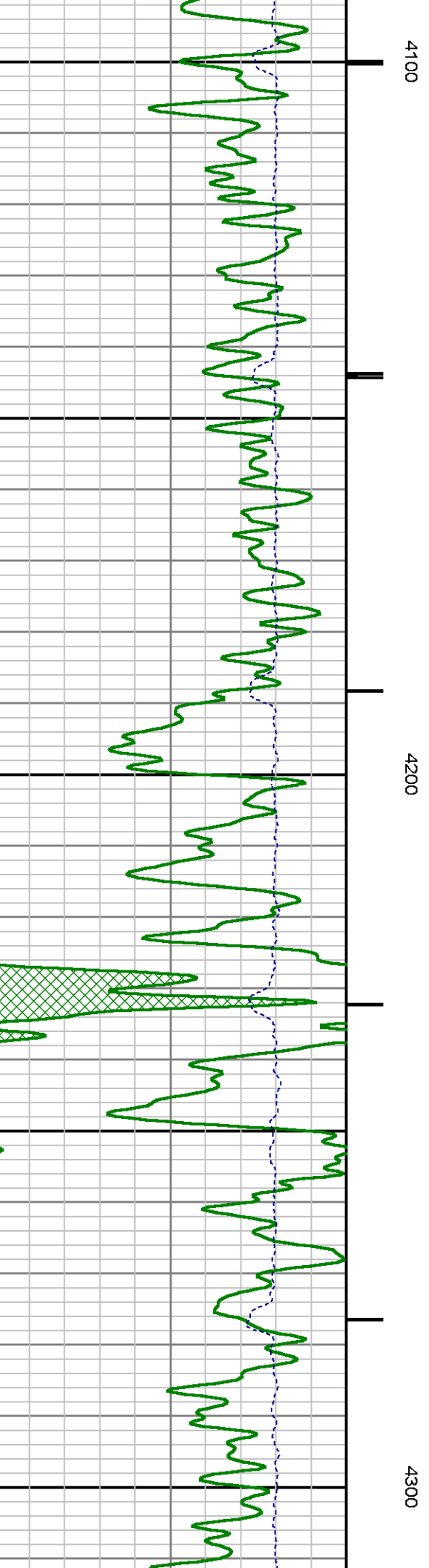
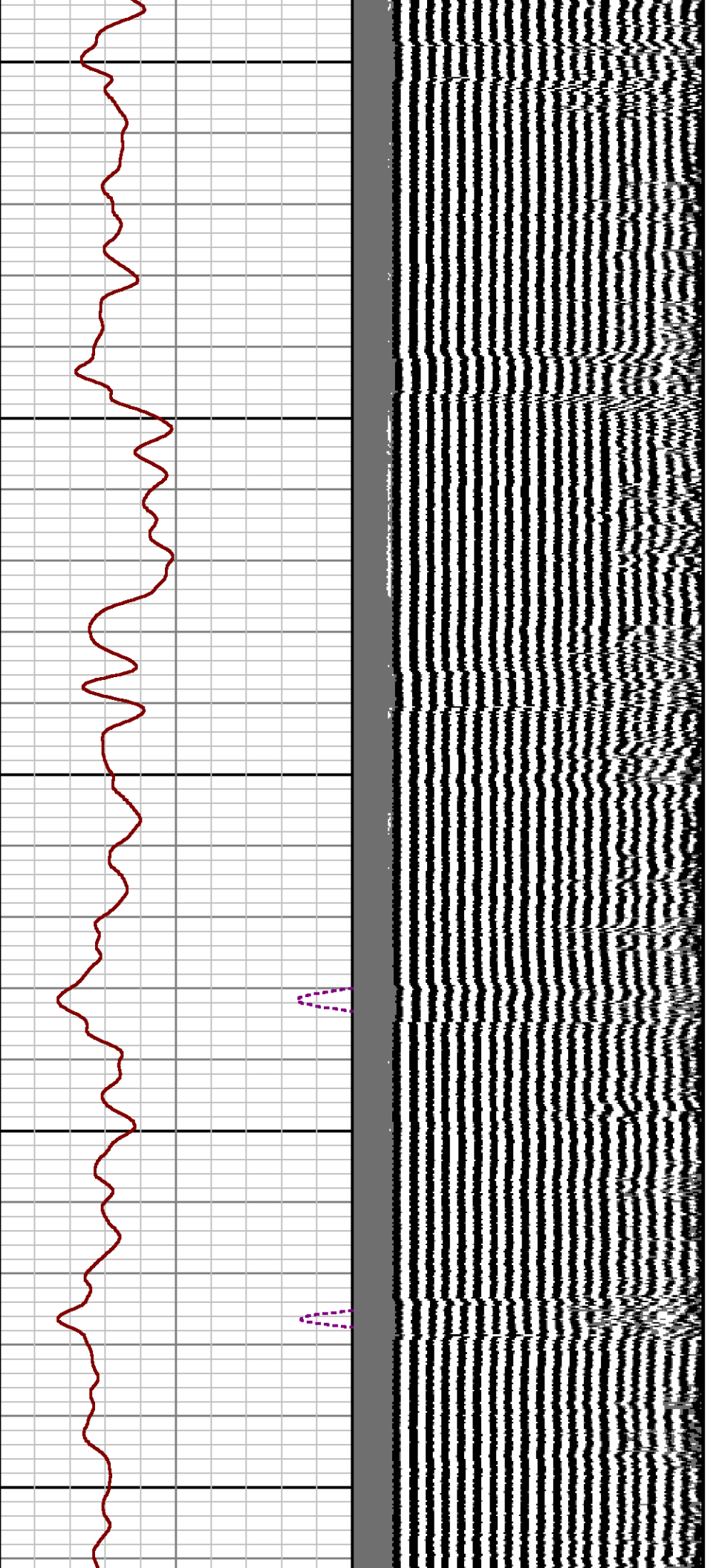


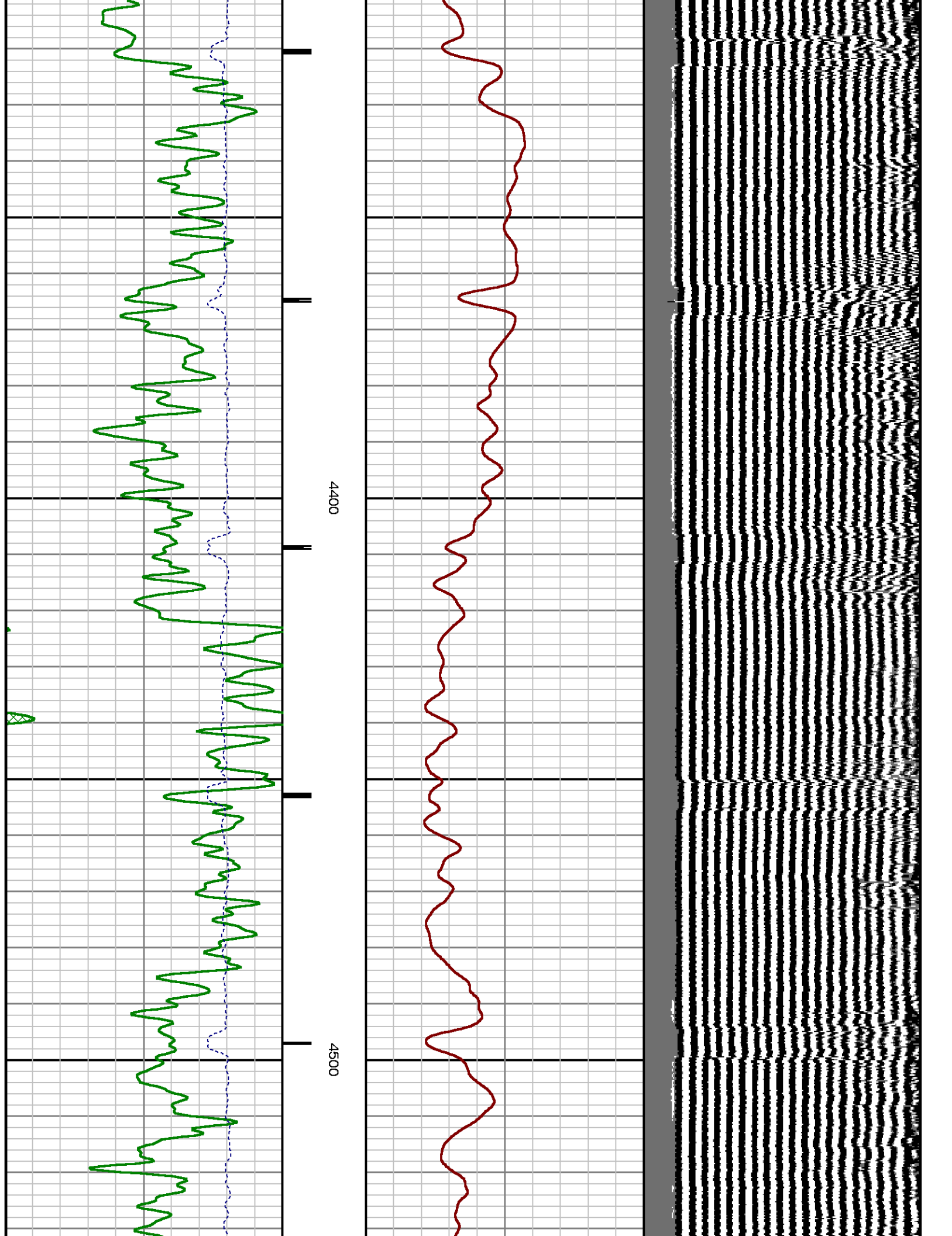


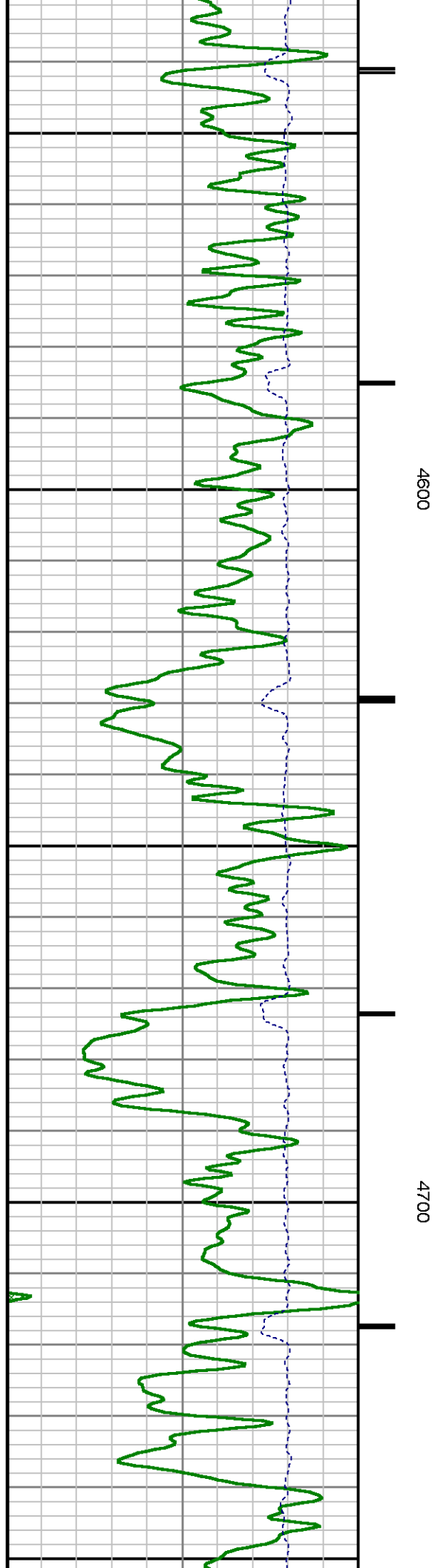
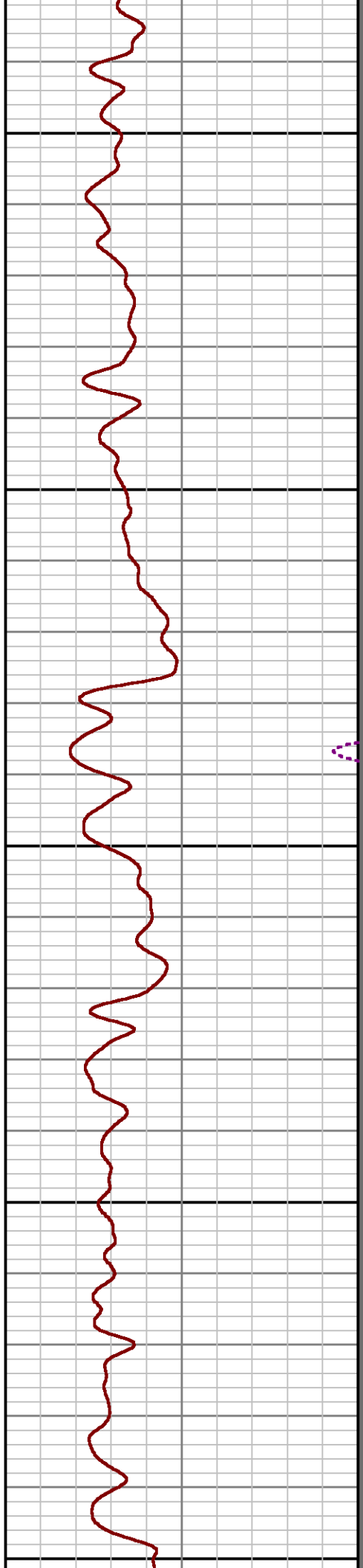
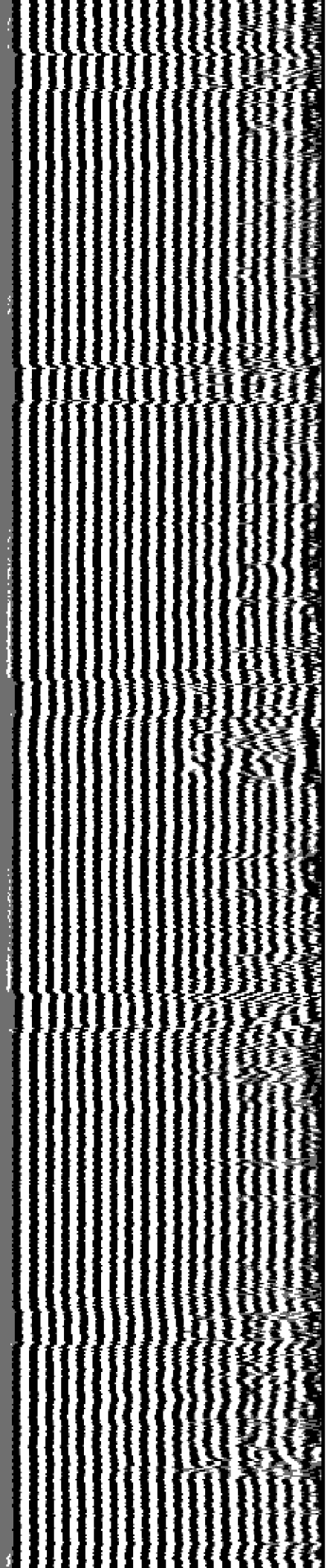


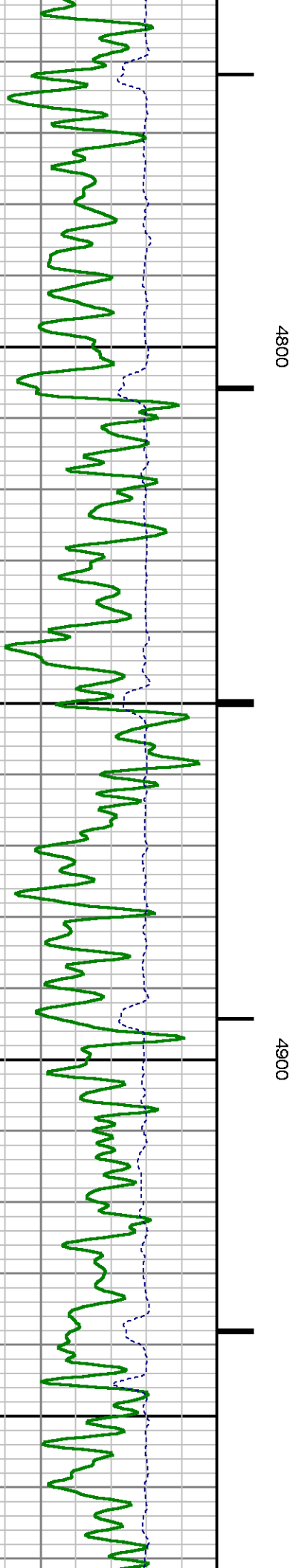
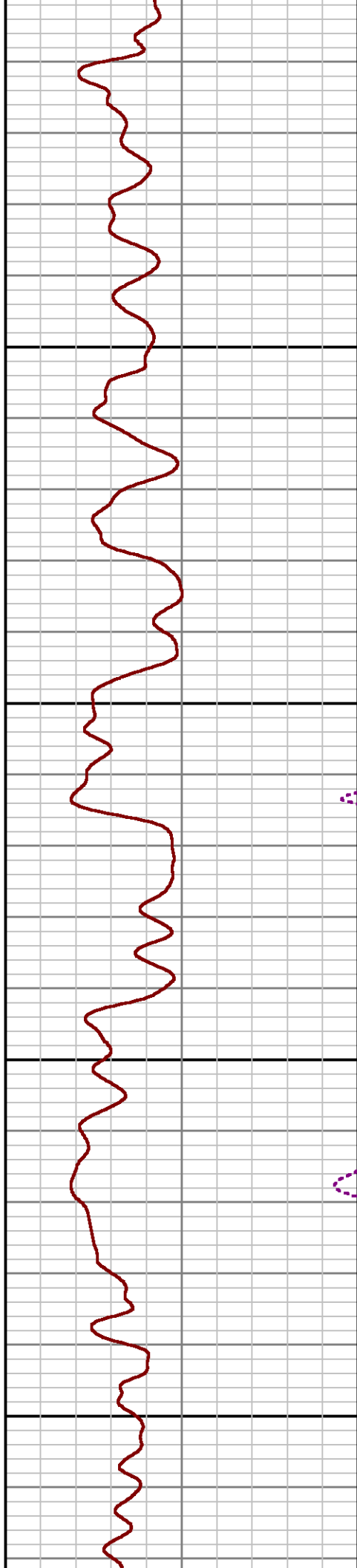
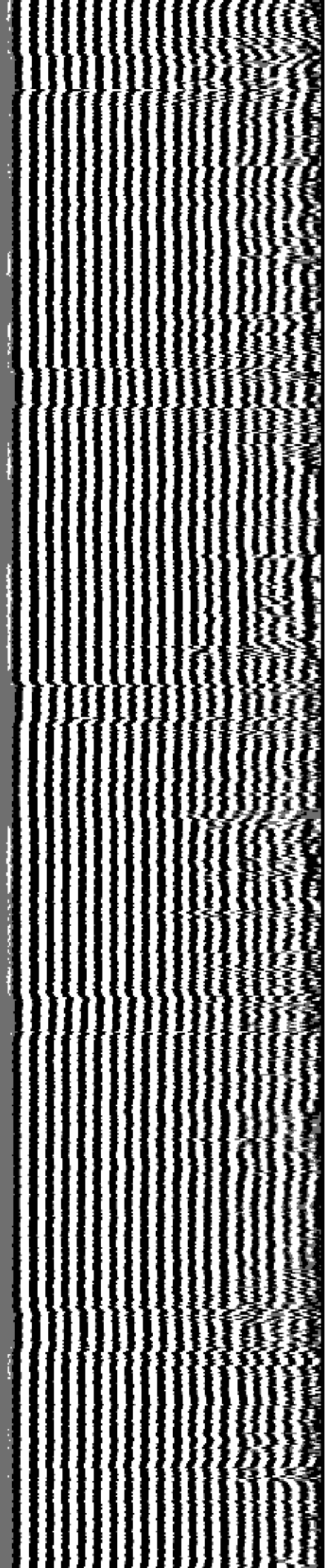




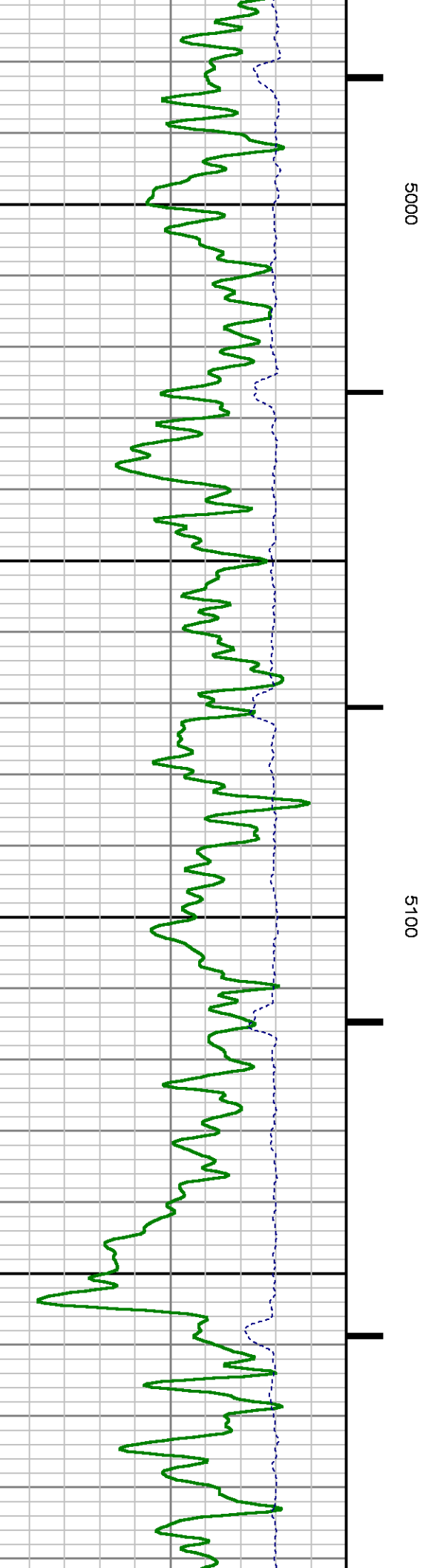
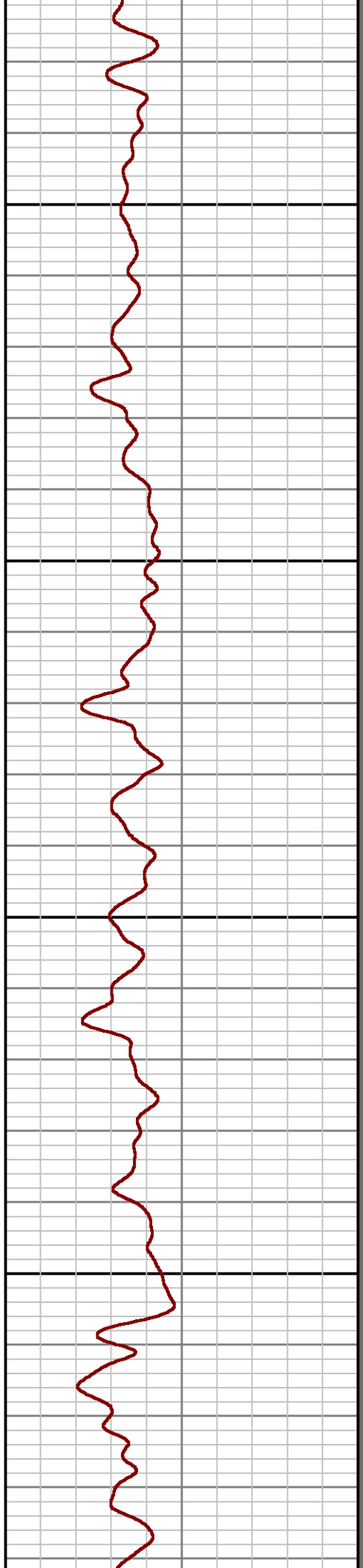
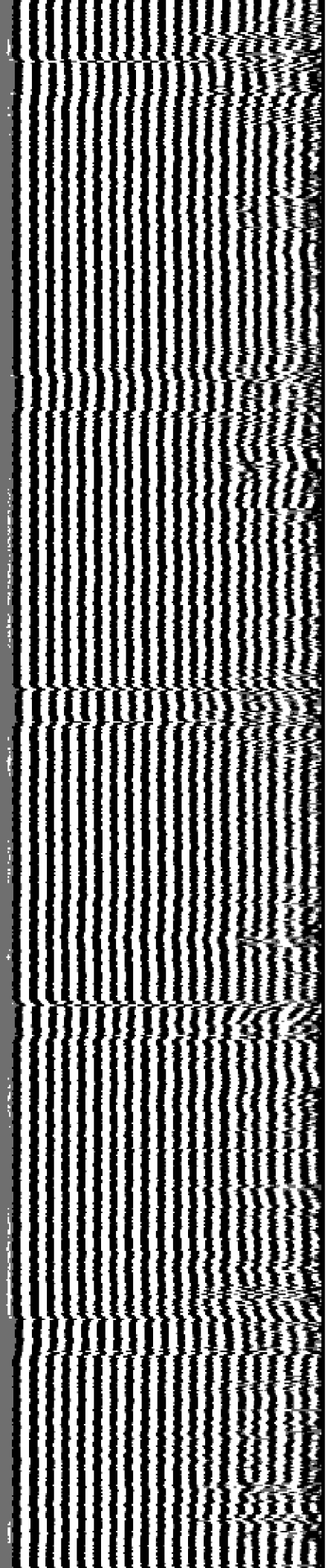


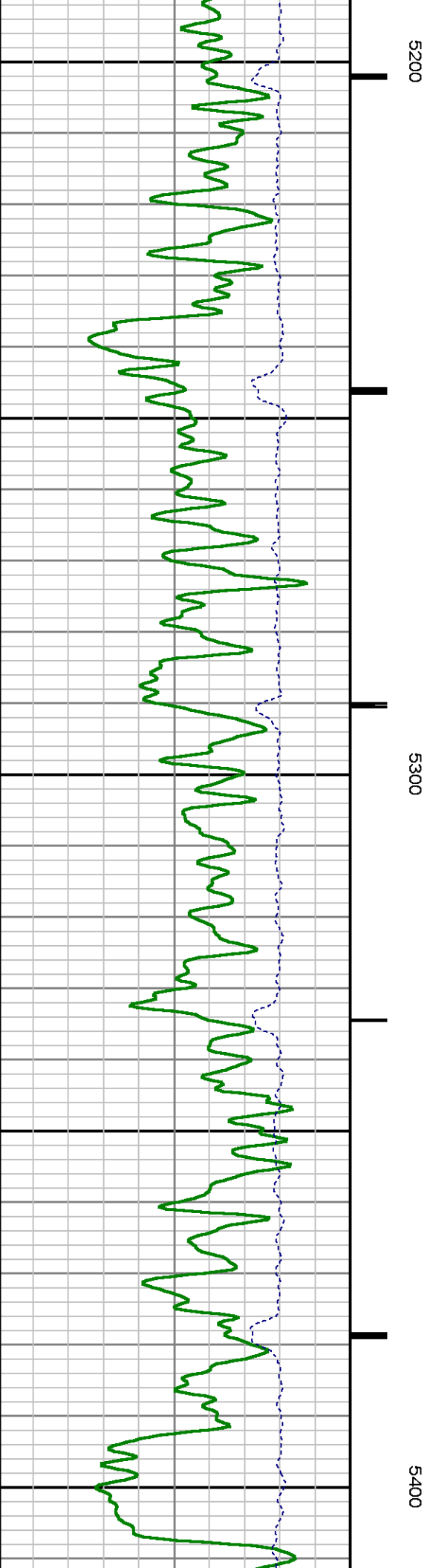
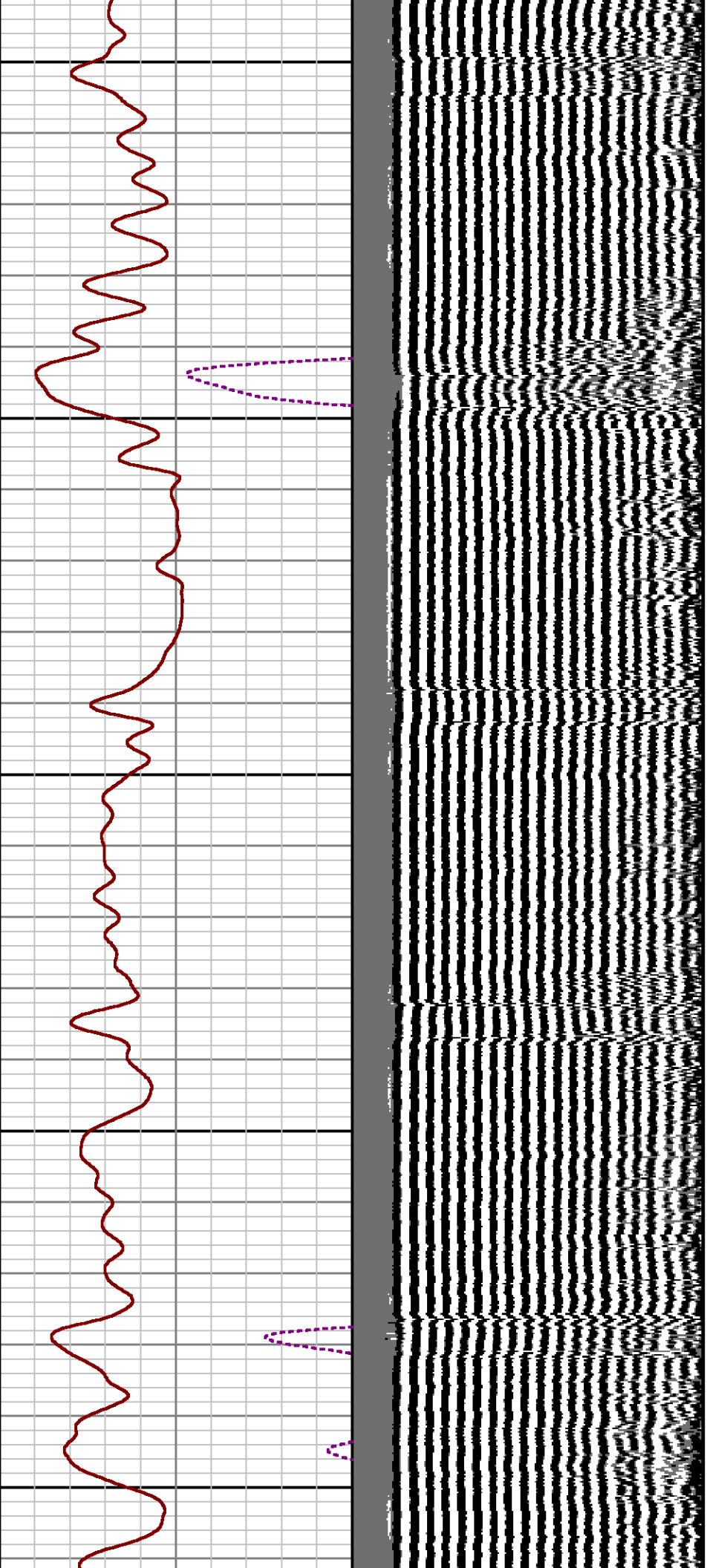


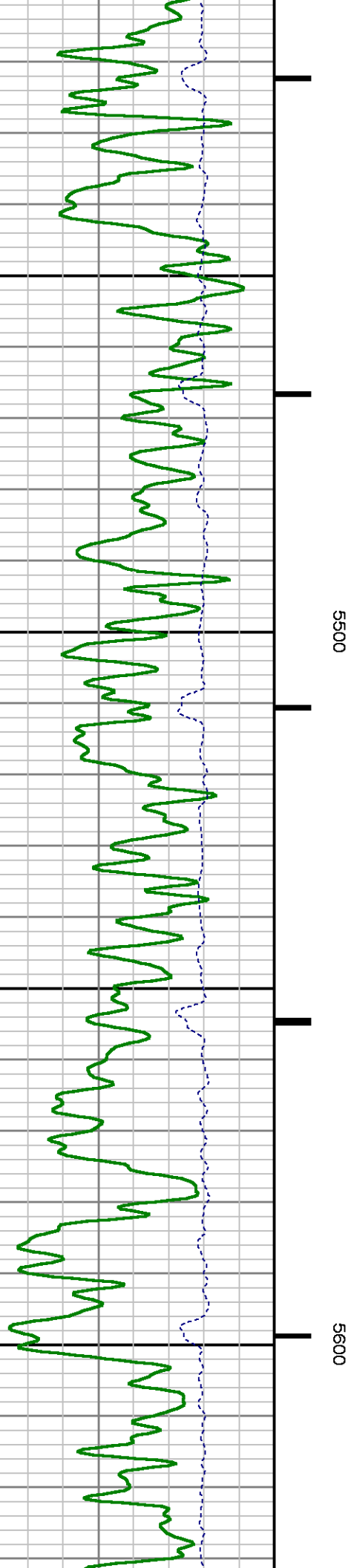
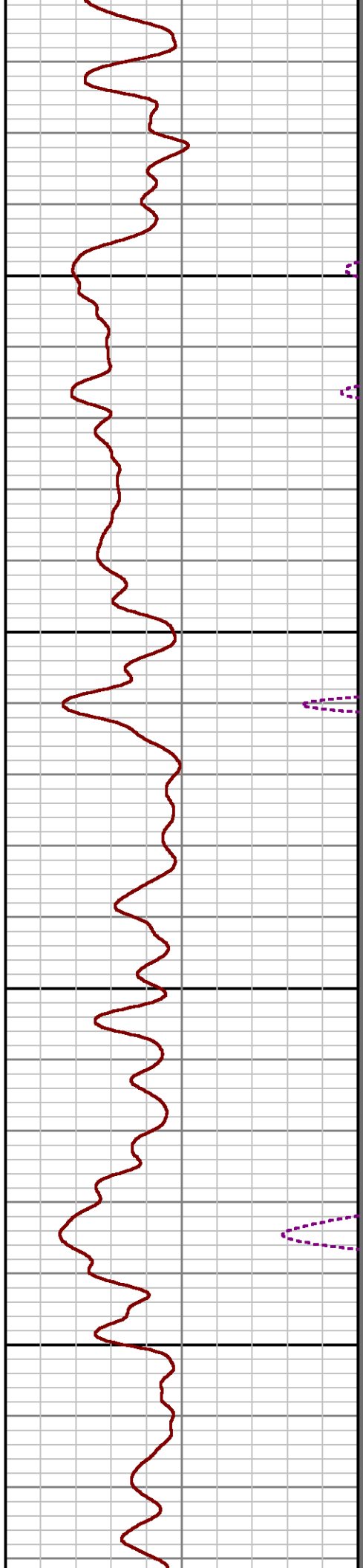
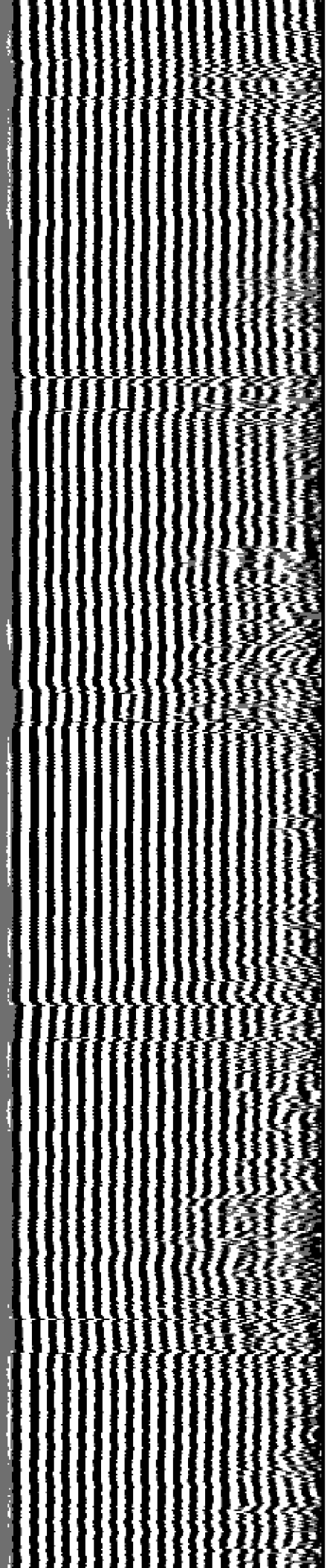




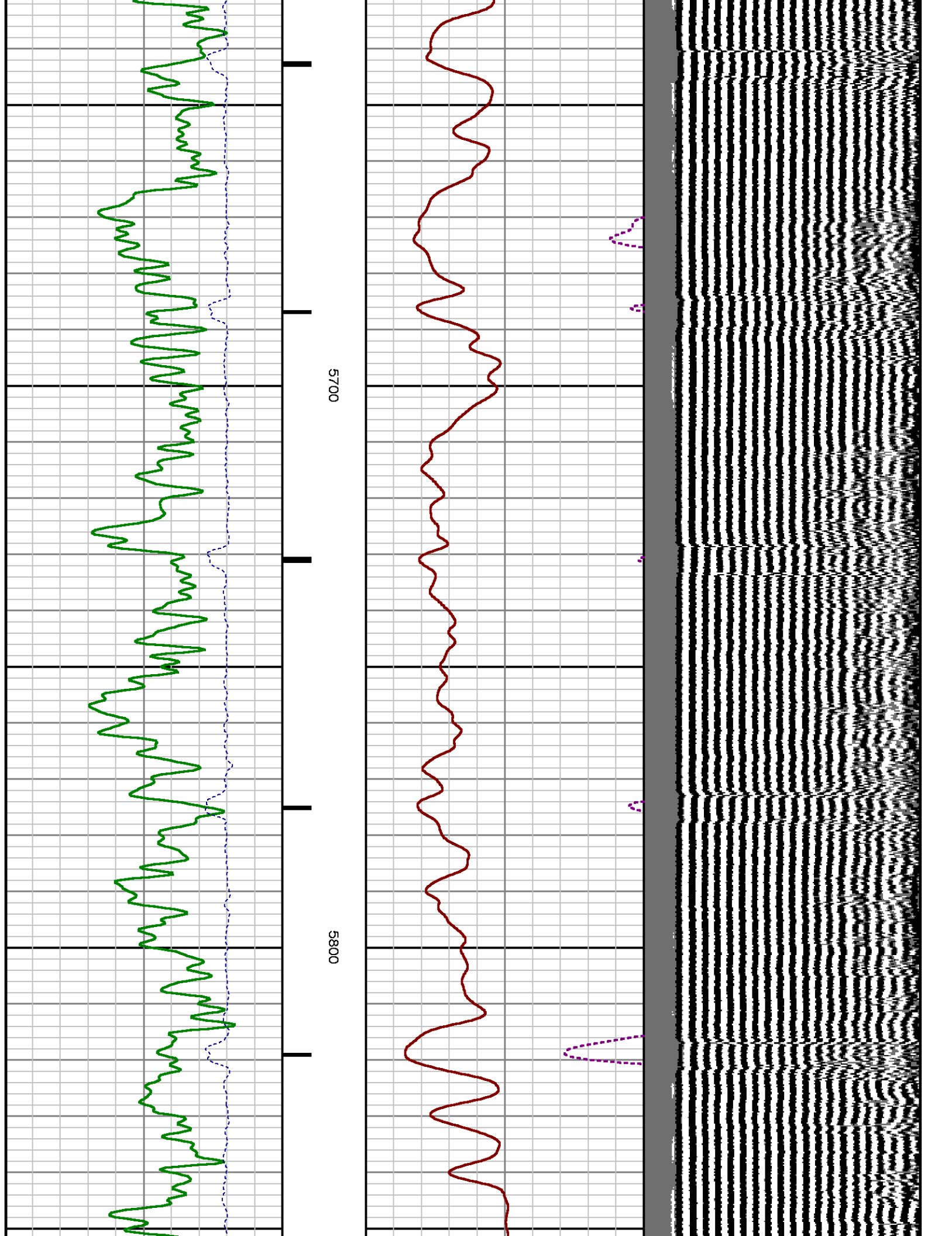


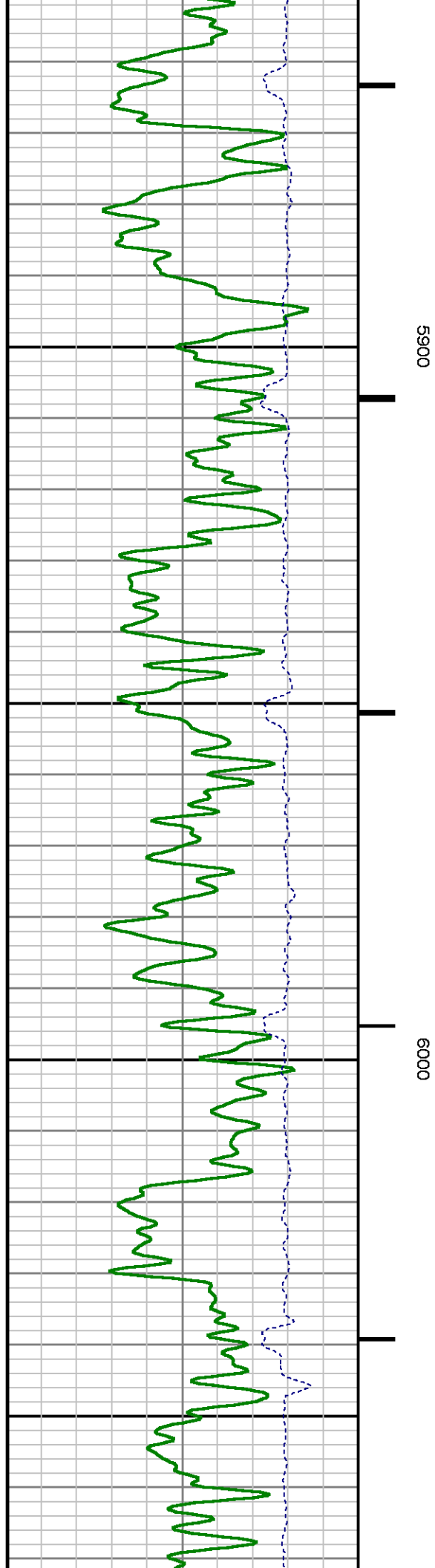
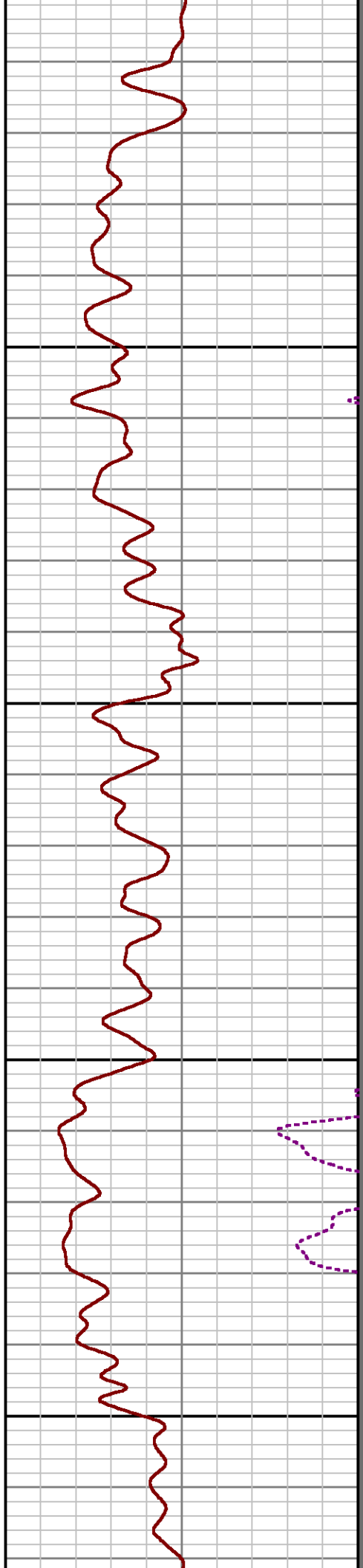
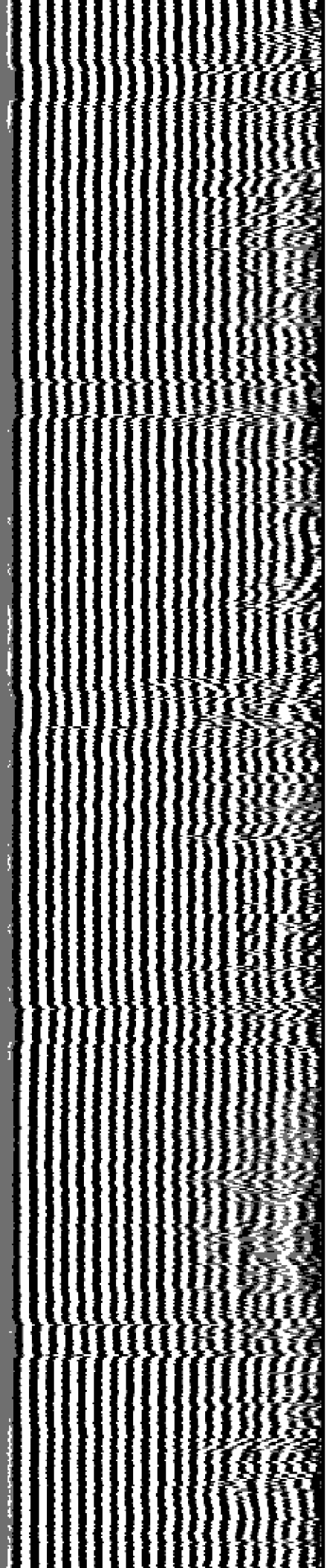


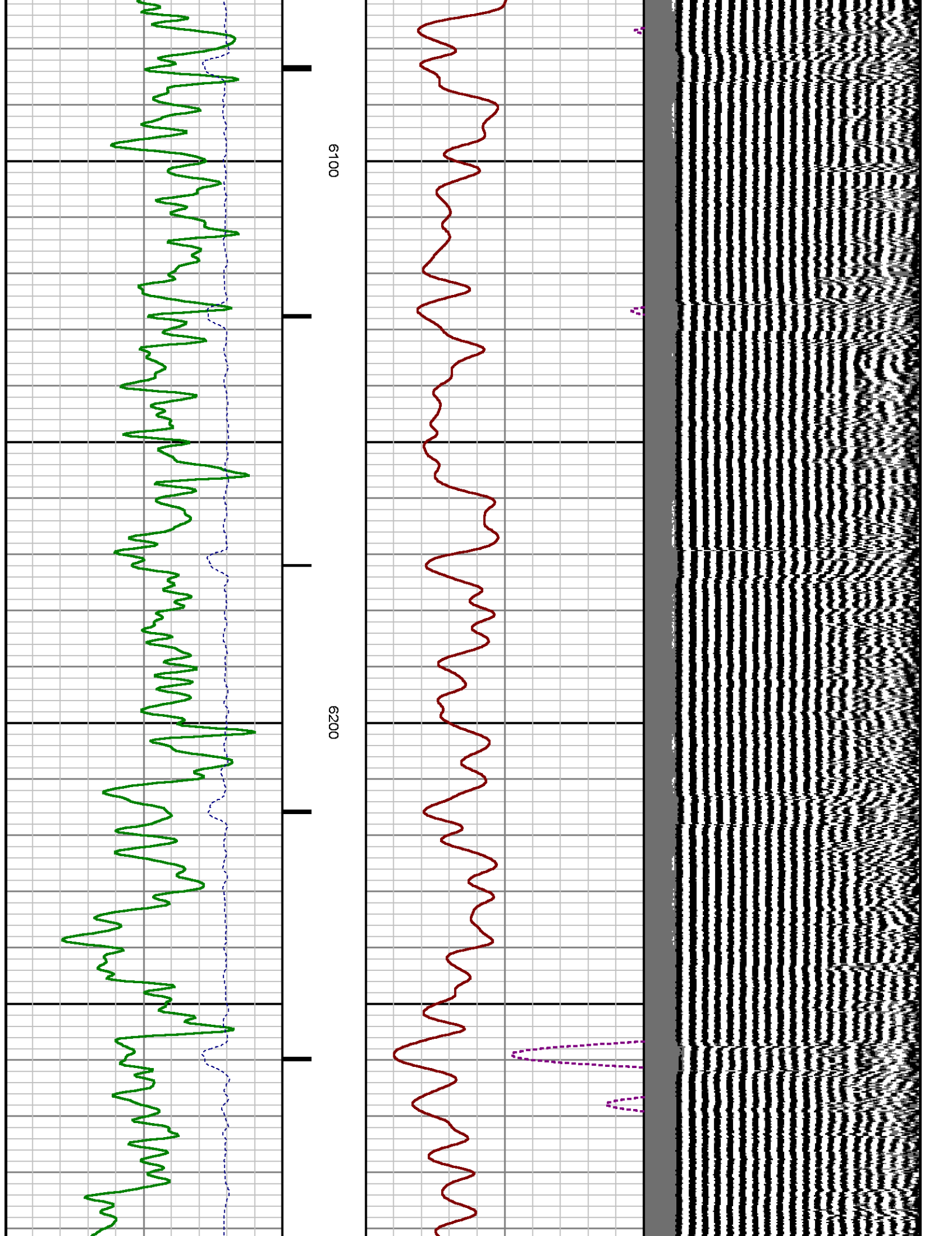


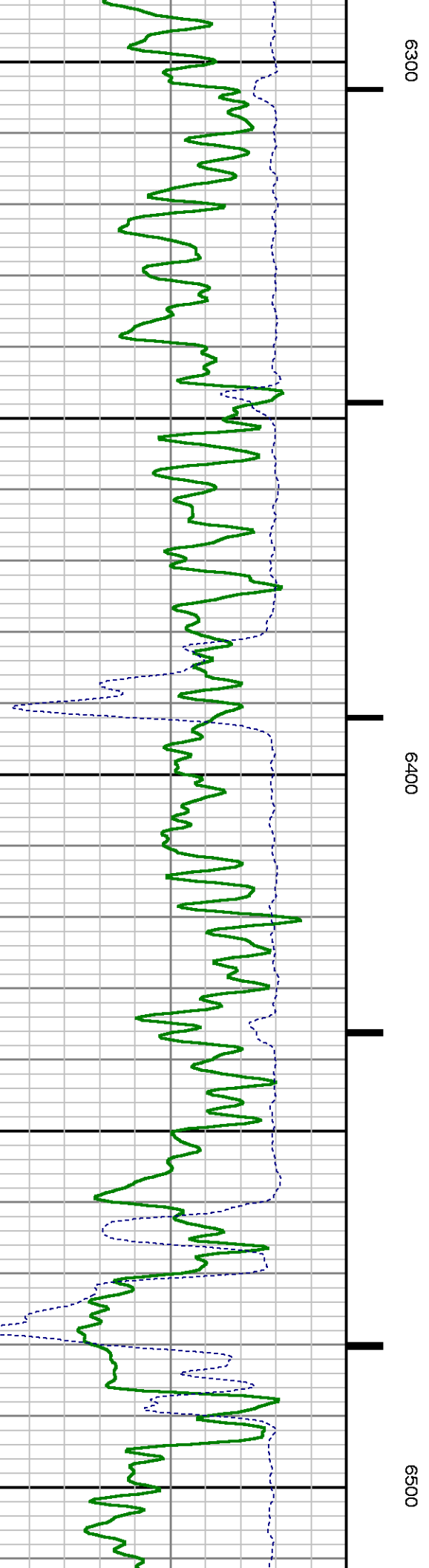
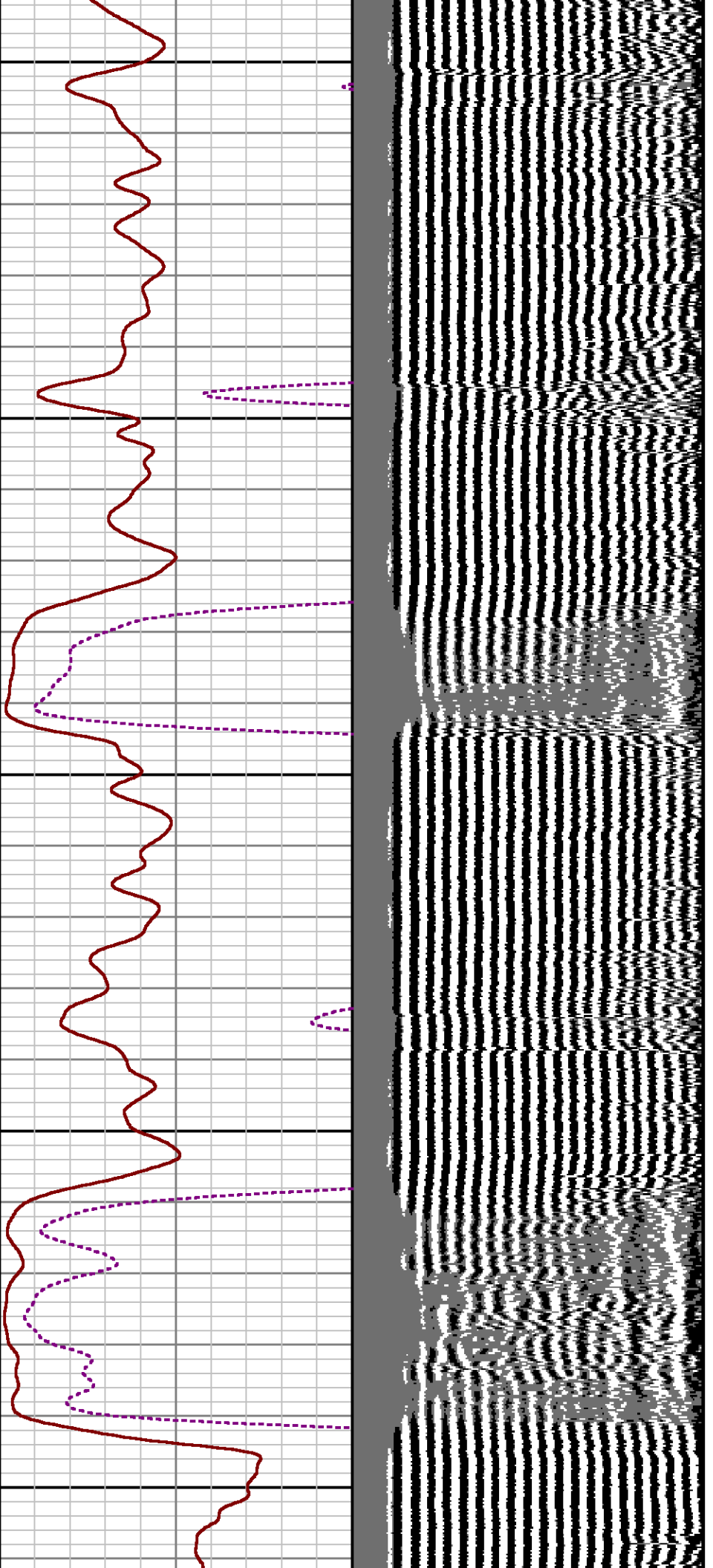


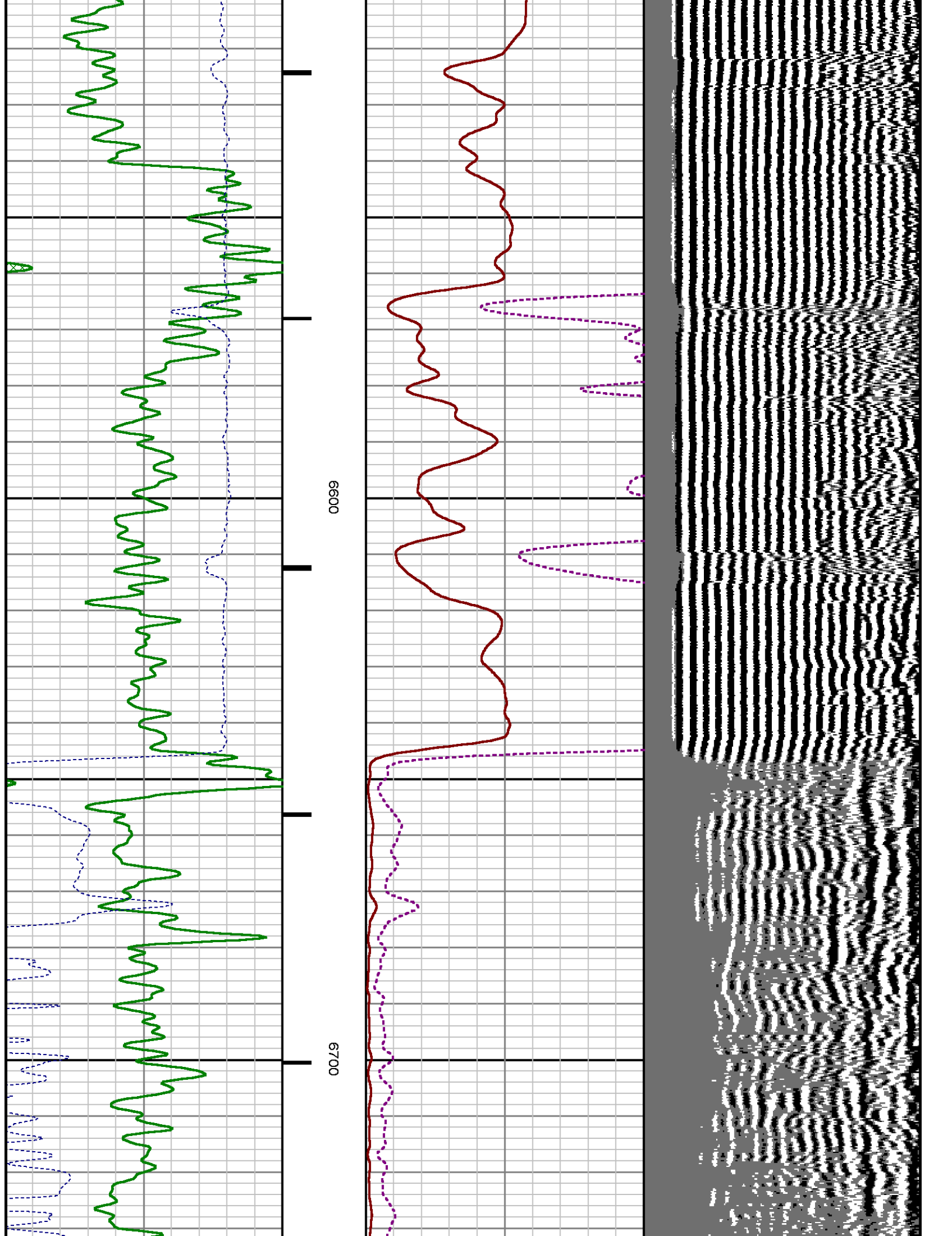




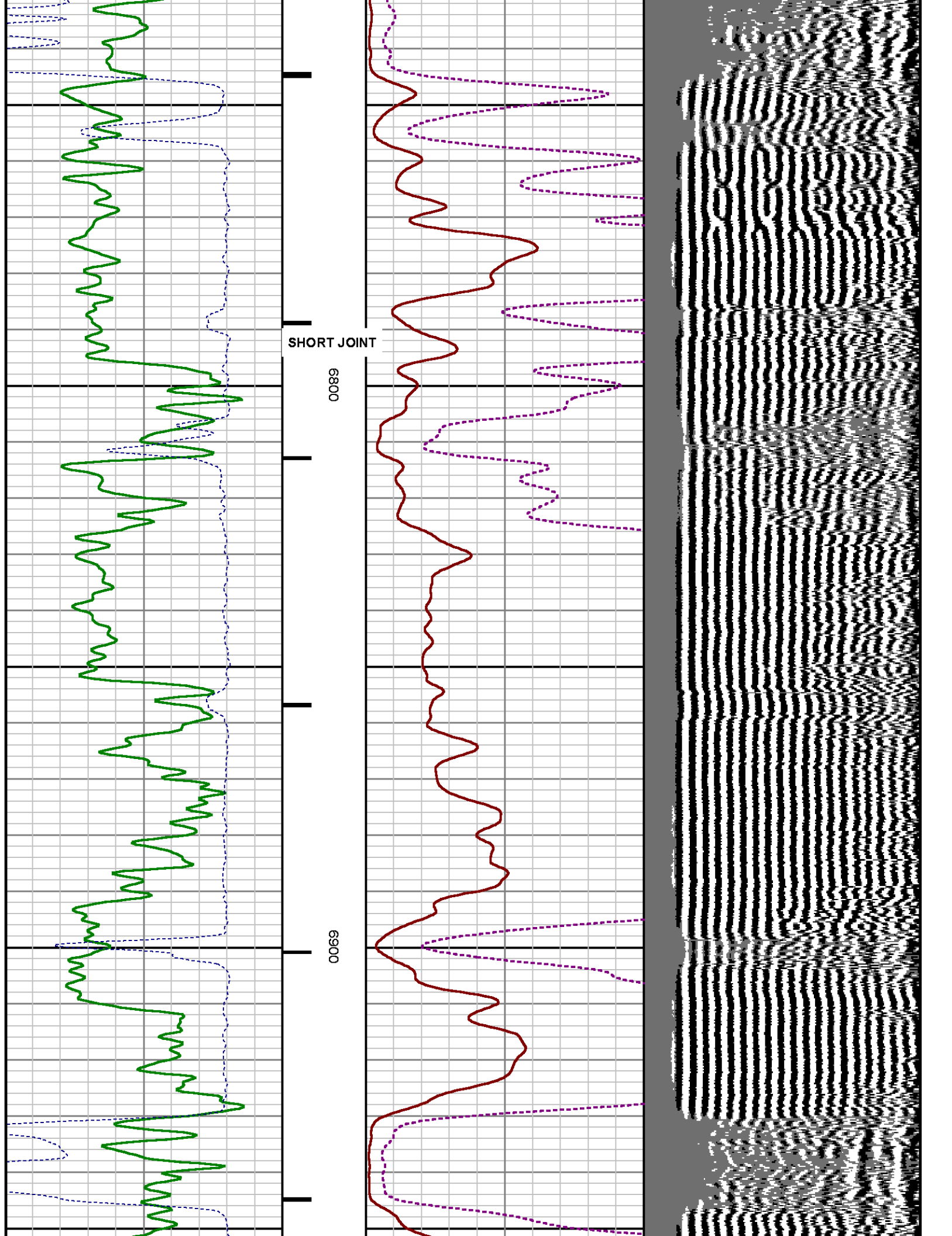




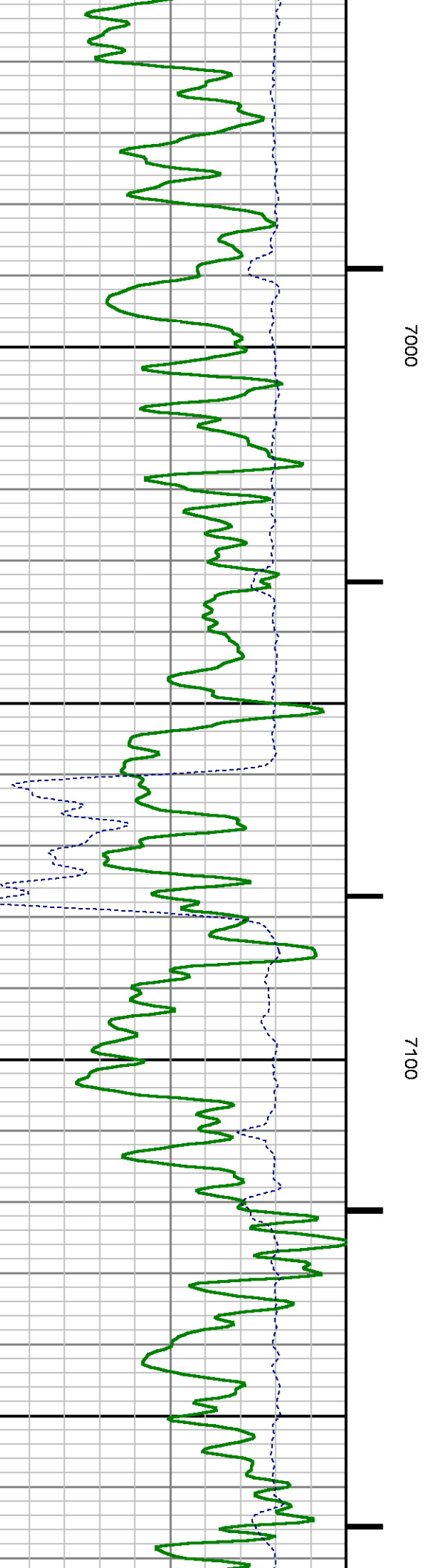
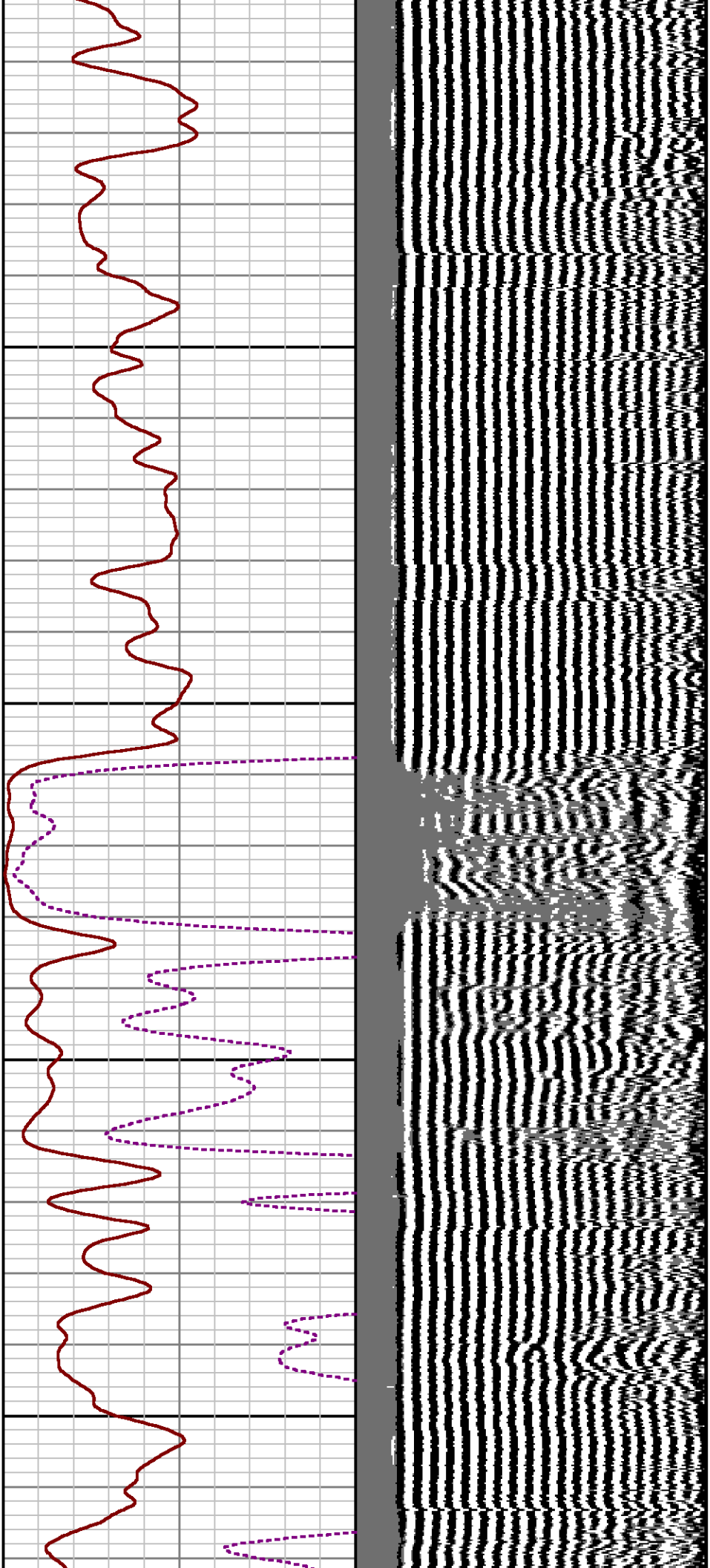


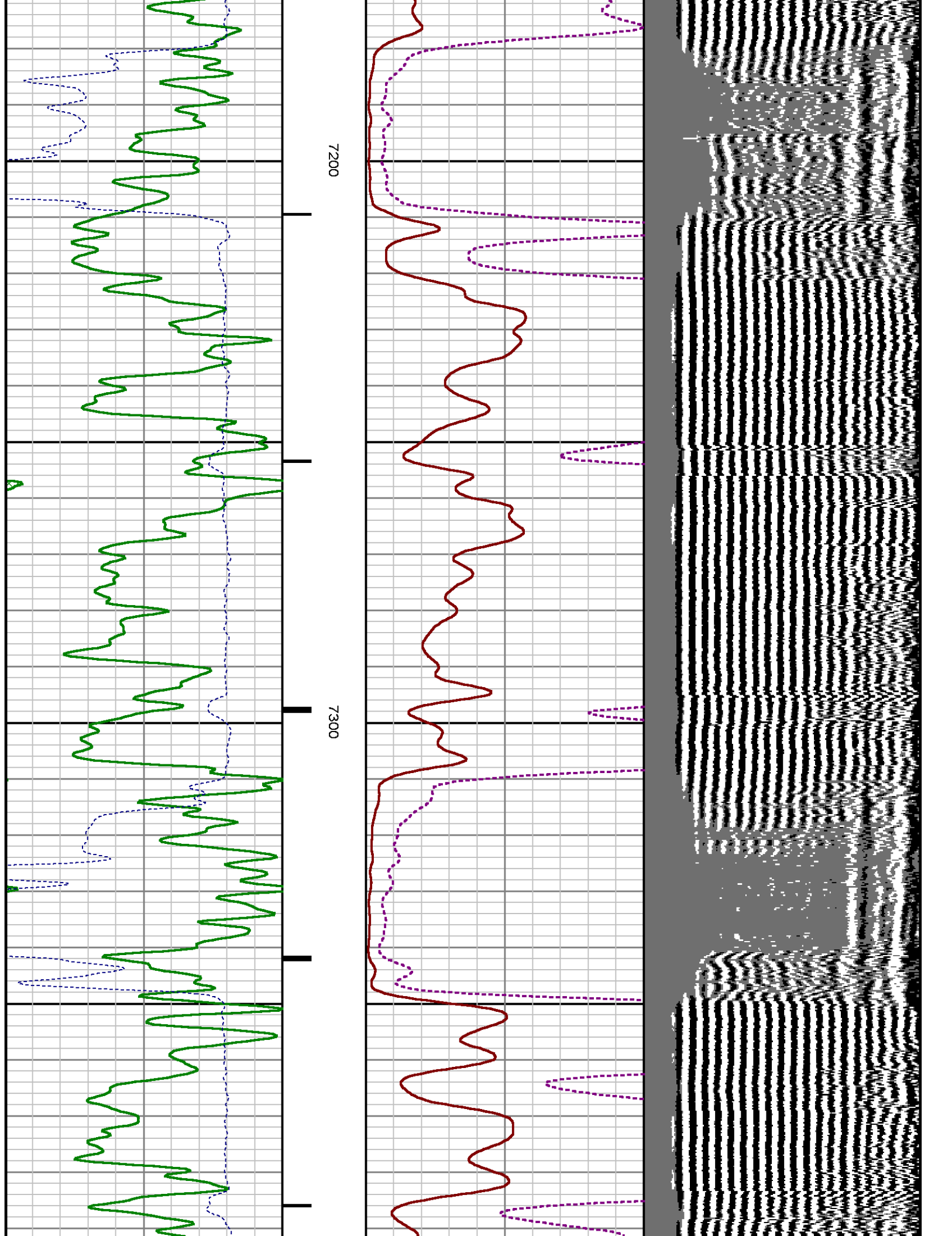


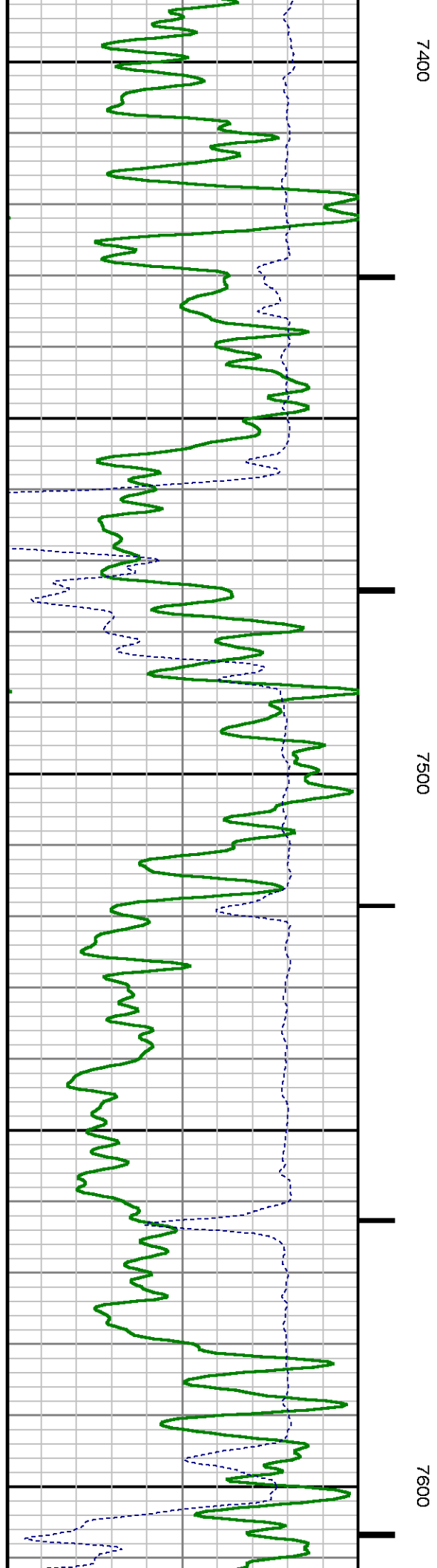
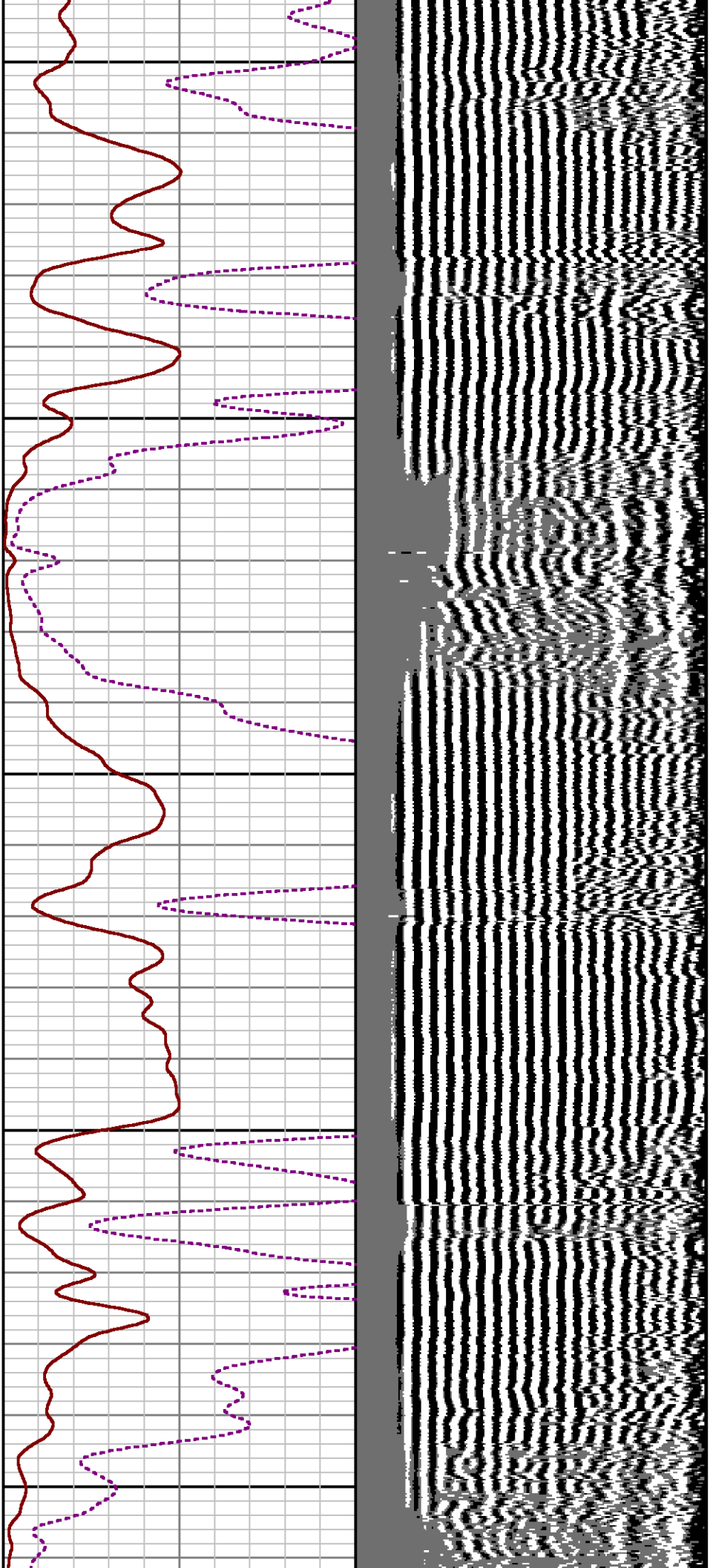


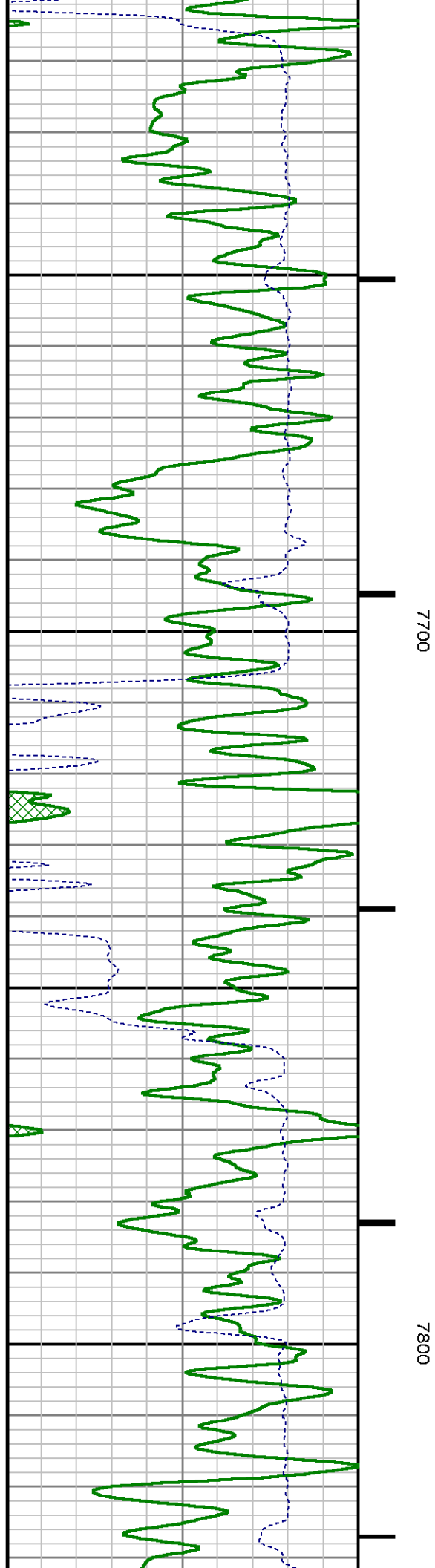
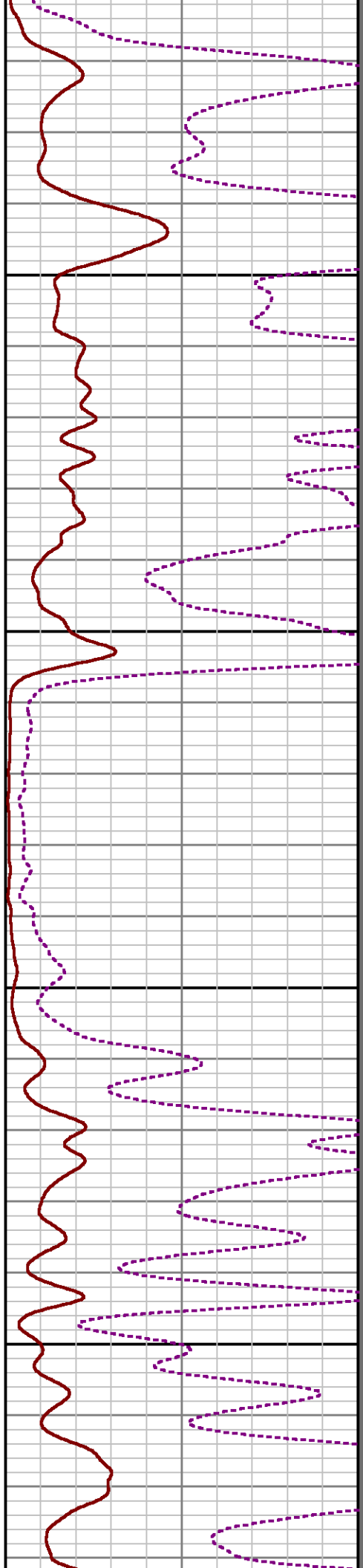
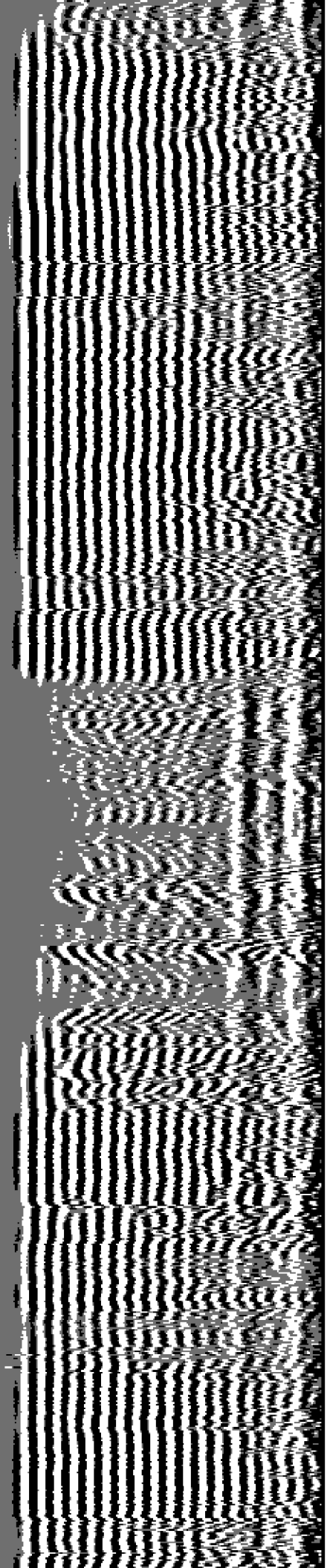




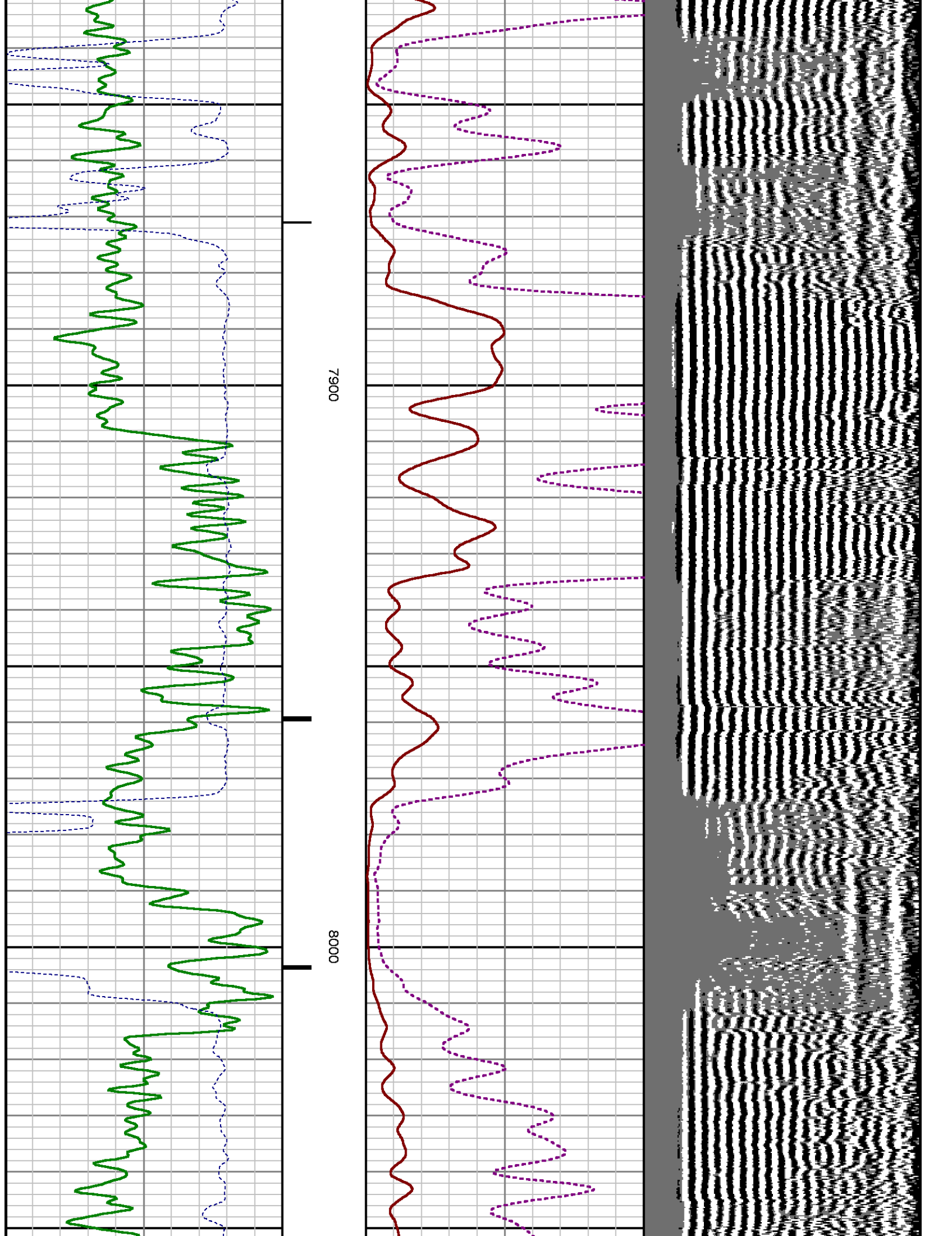


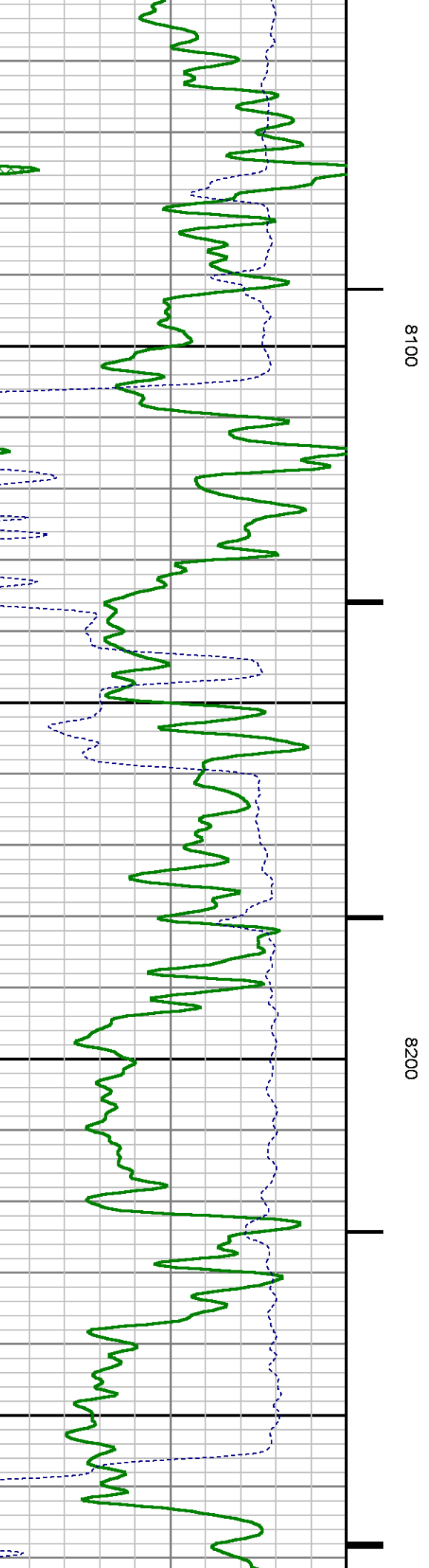
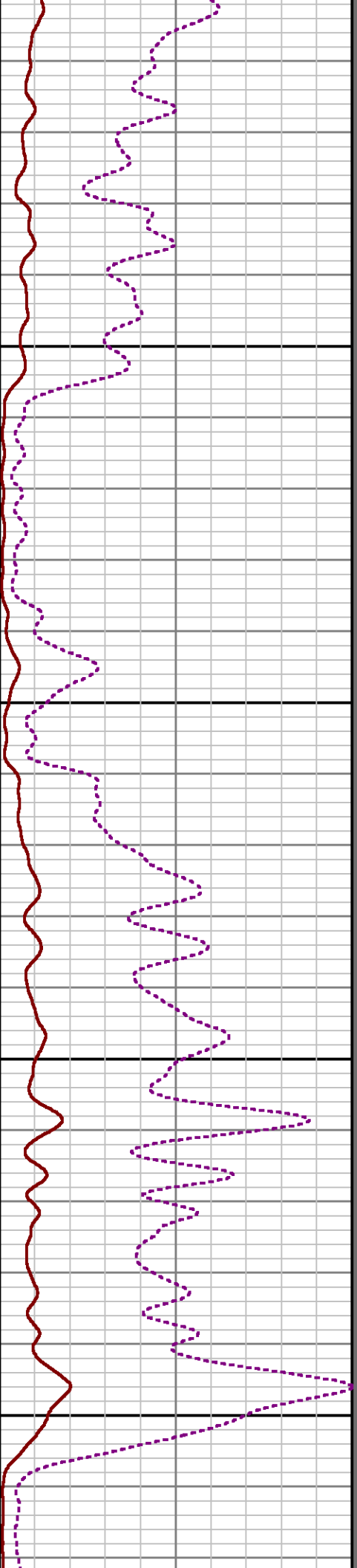
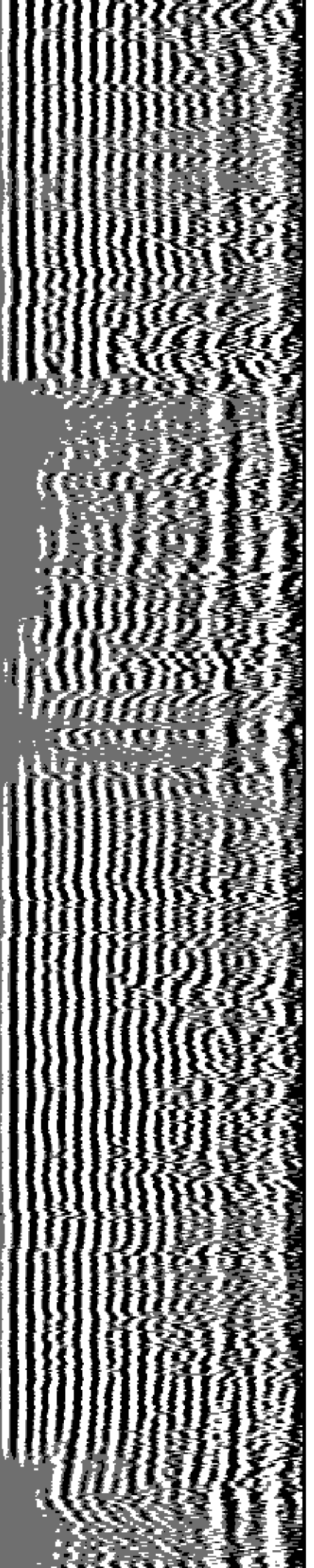




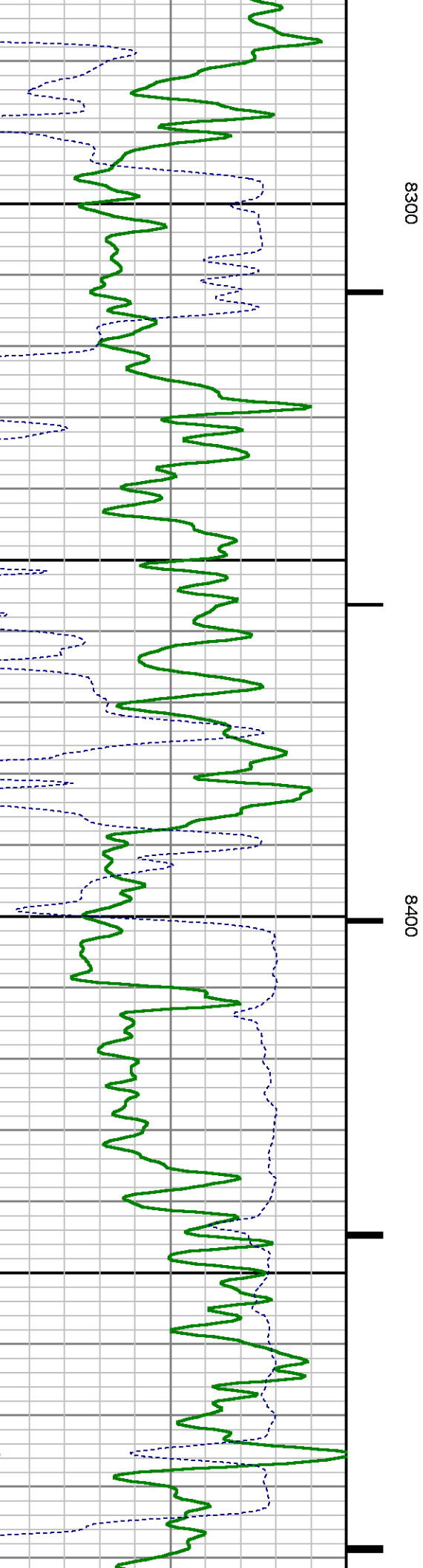
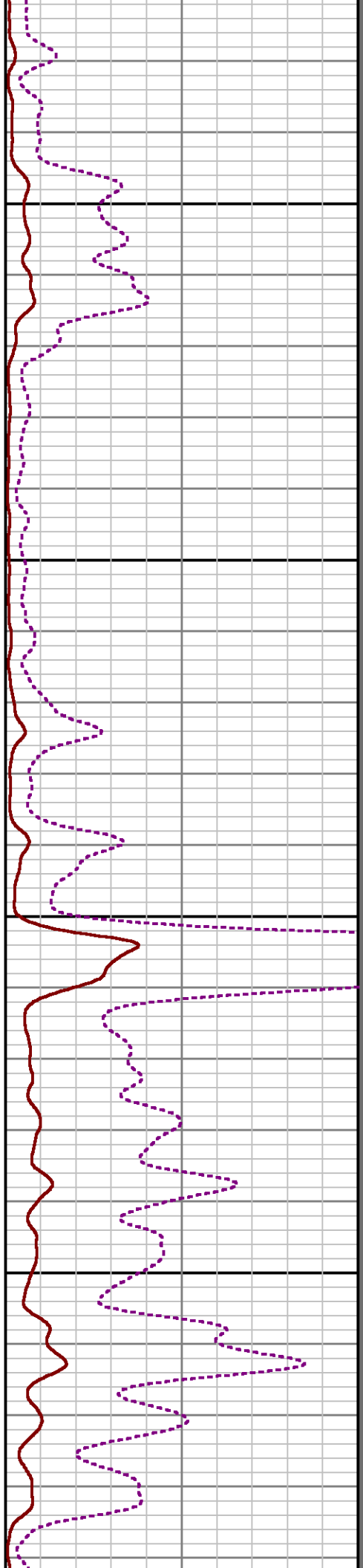
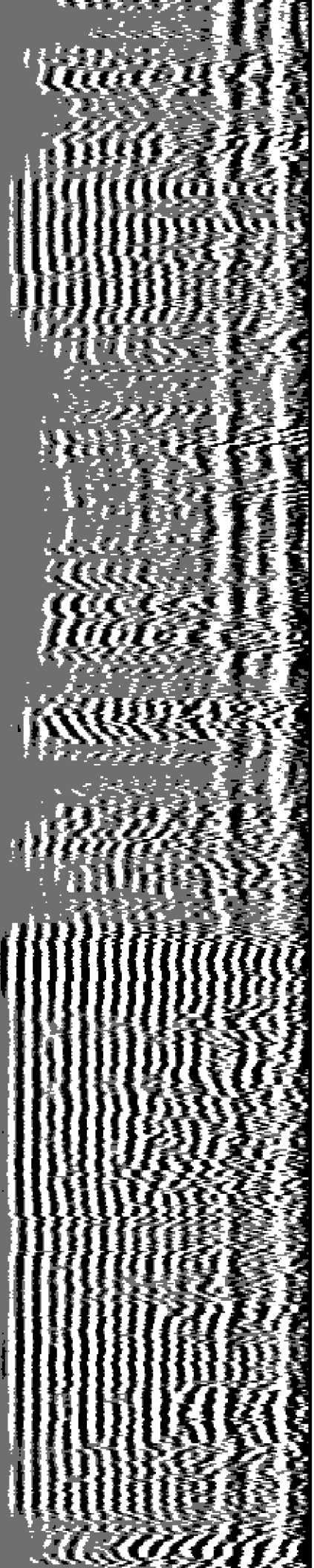


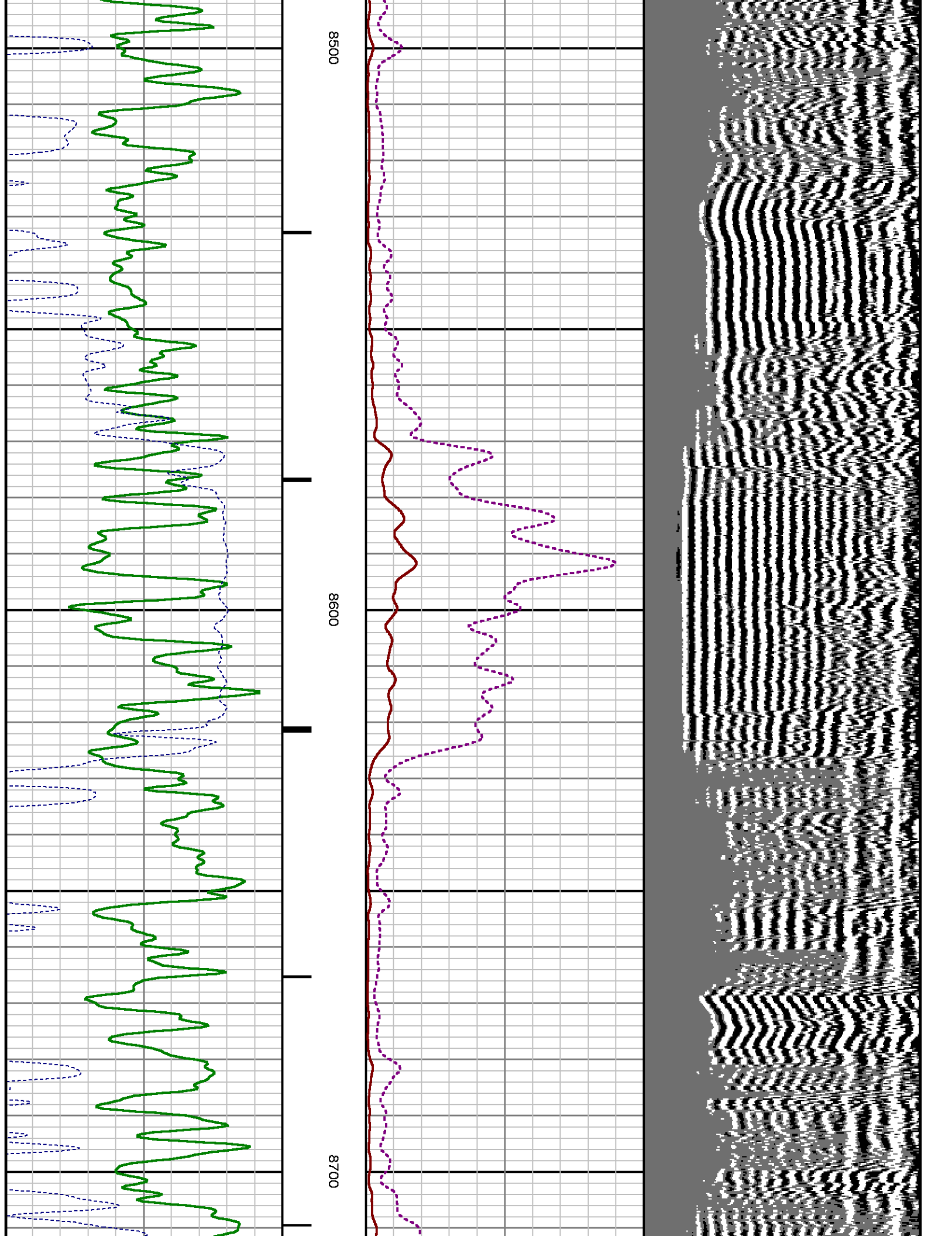


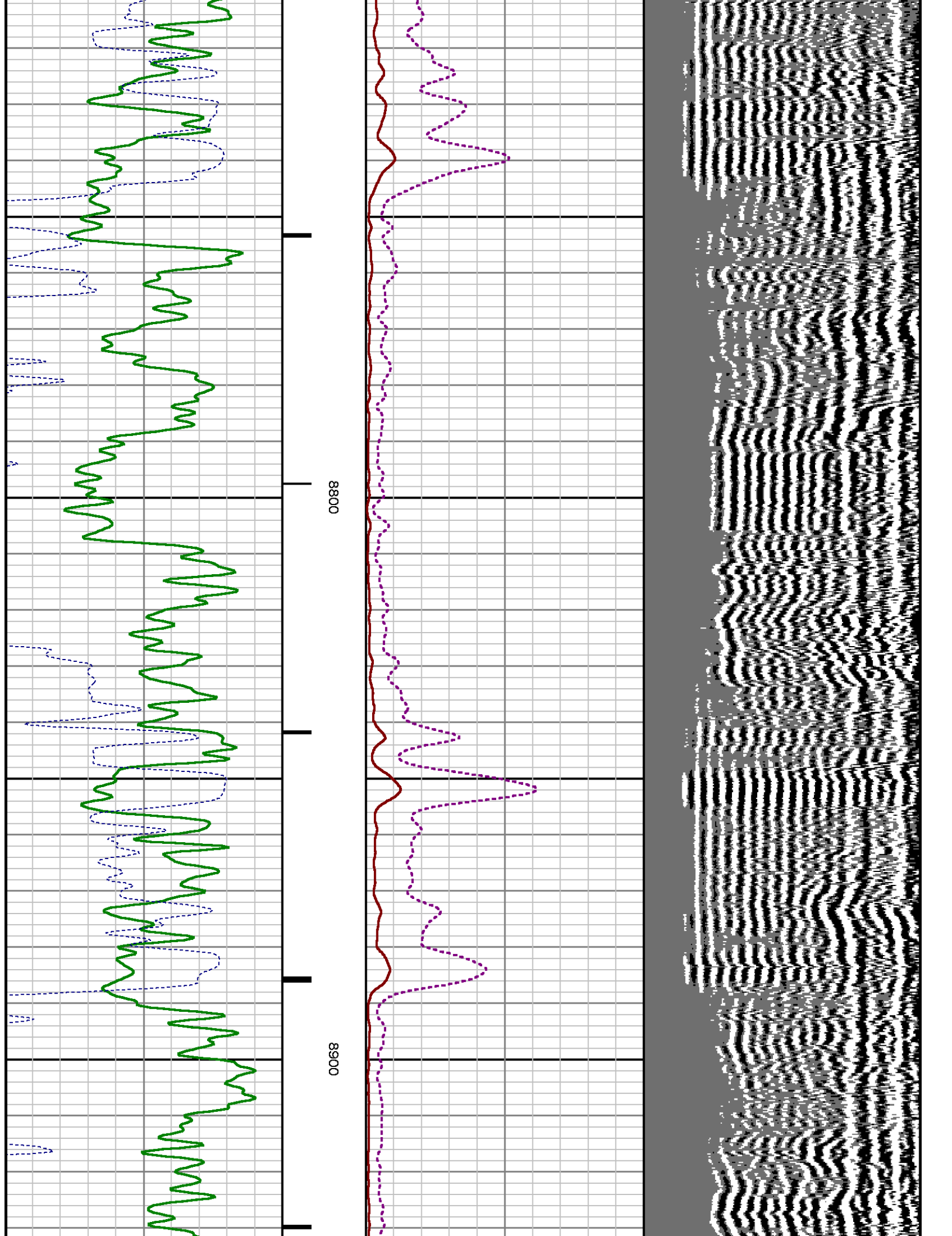


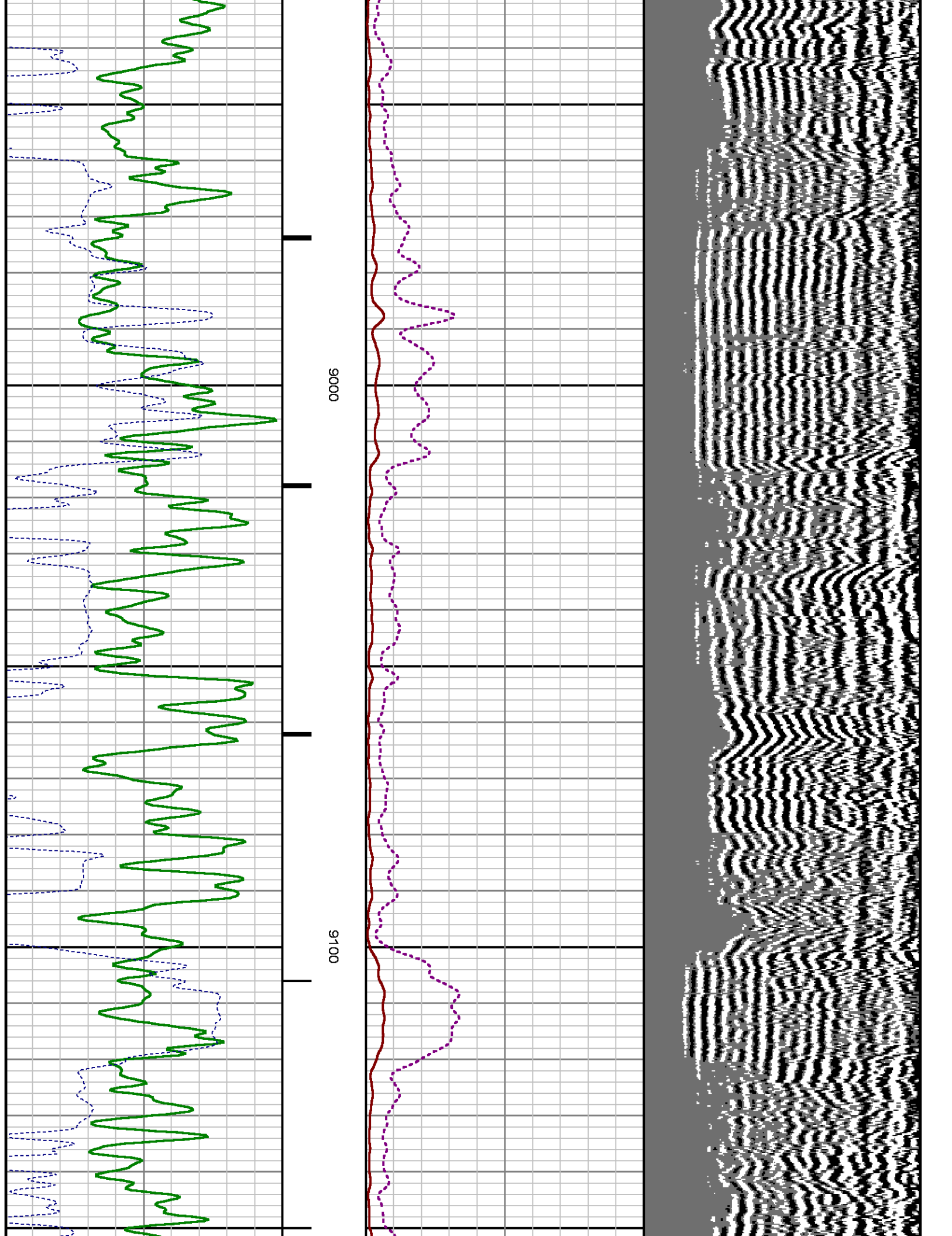


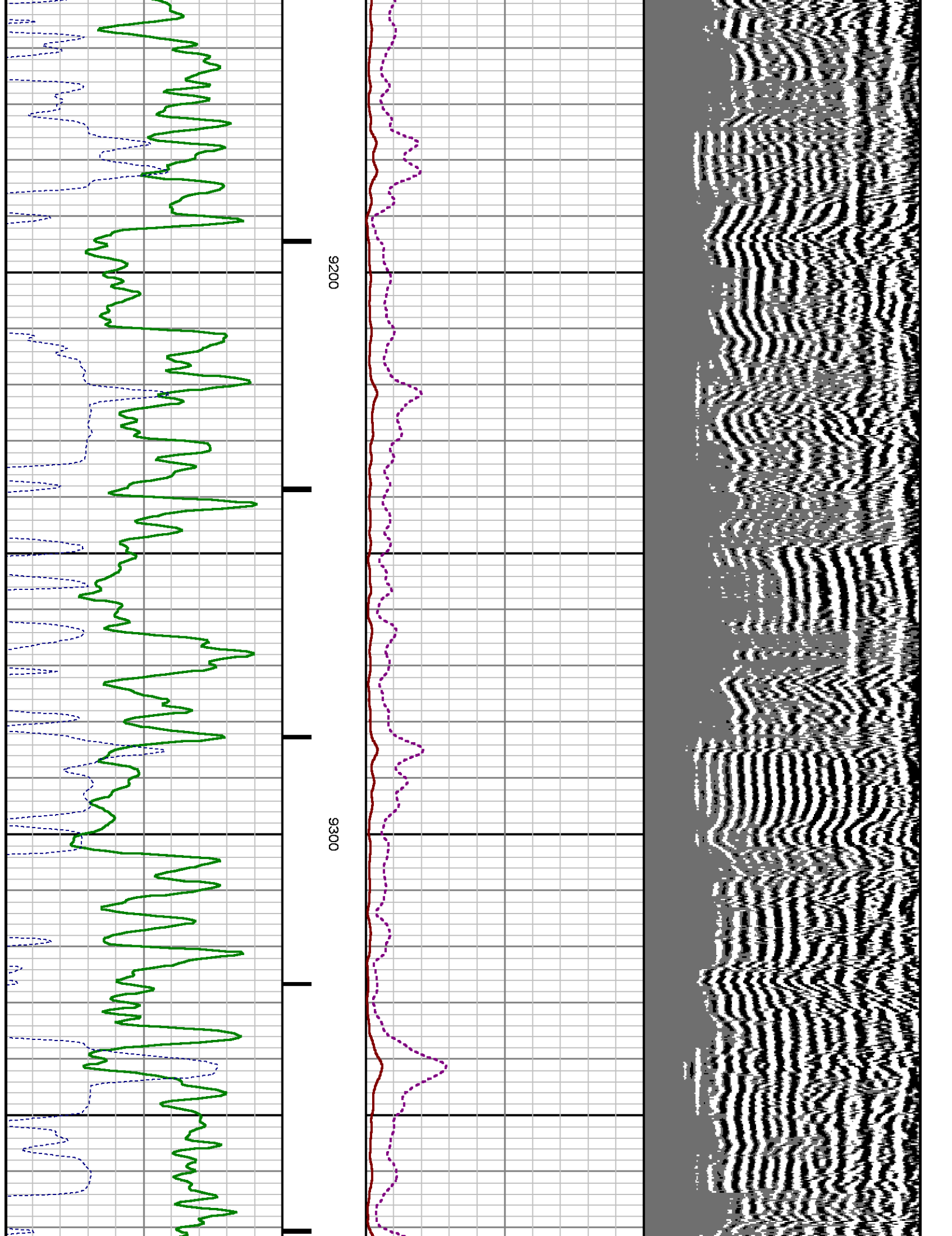




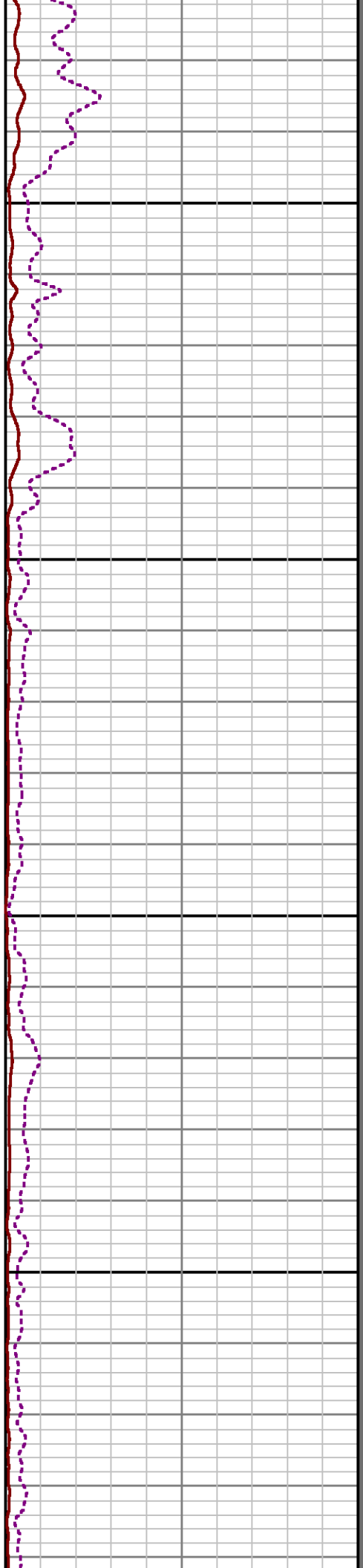
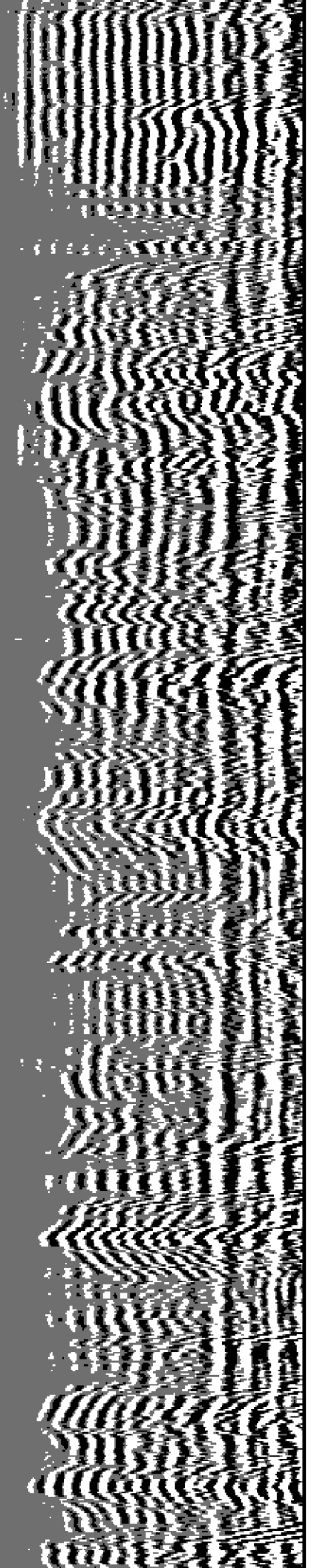






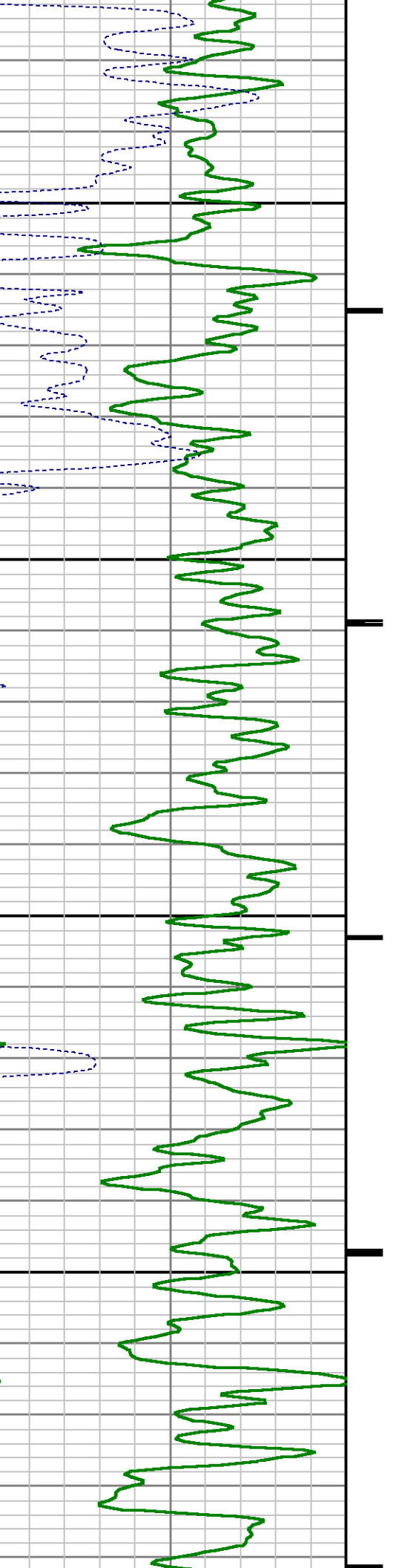




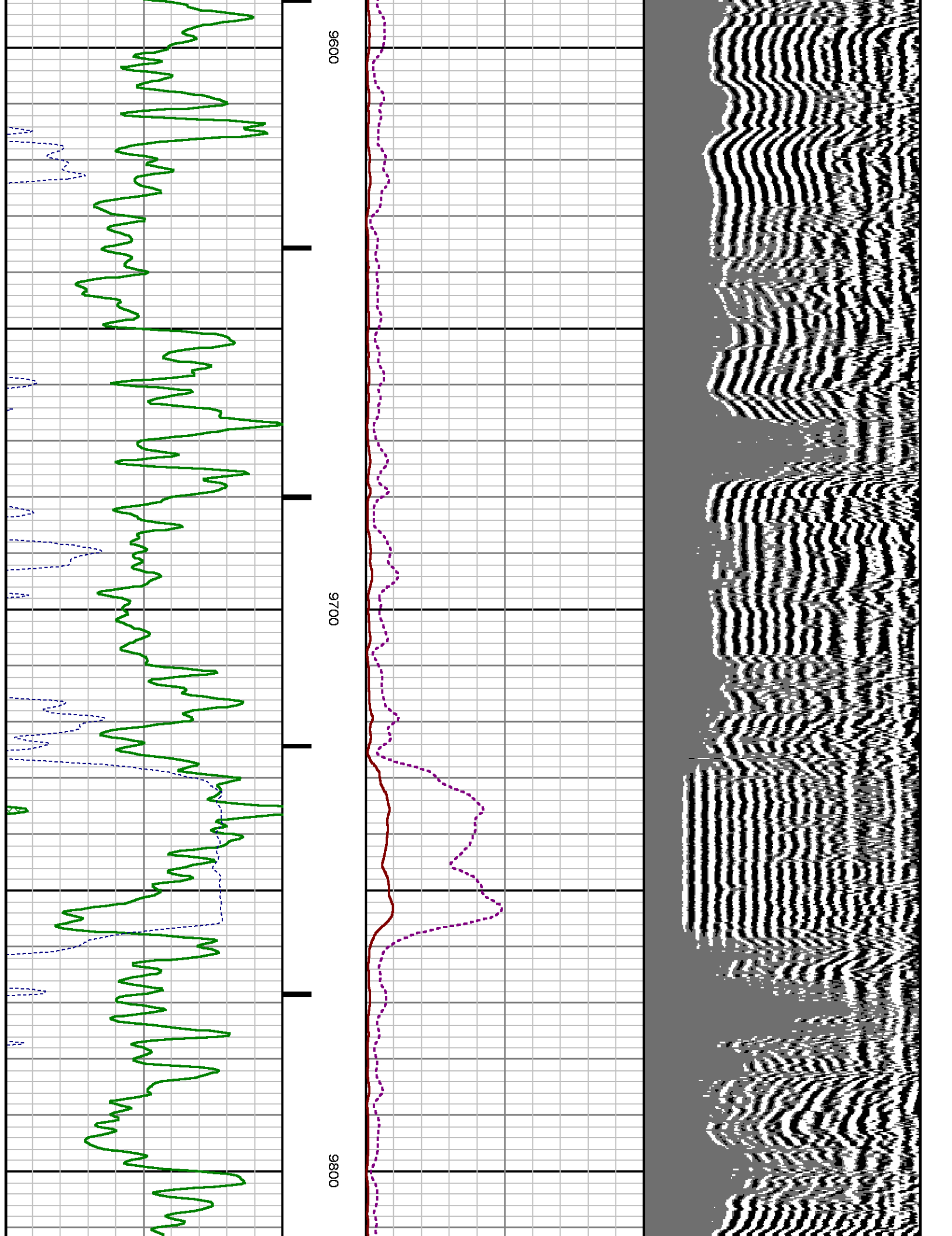


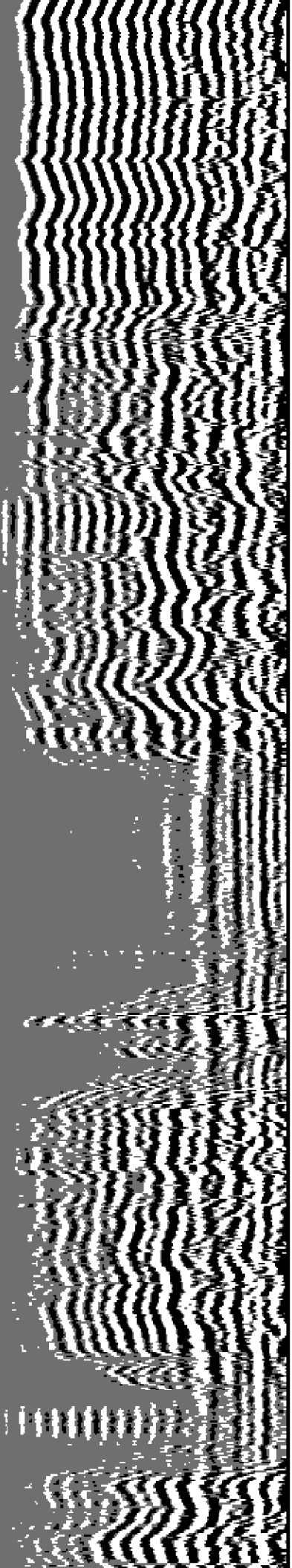
9400

9500



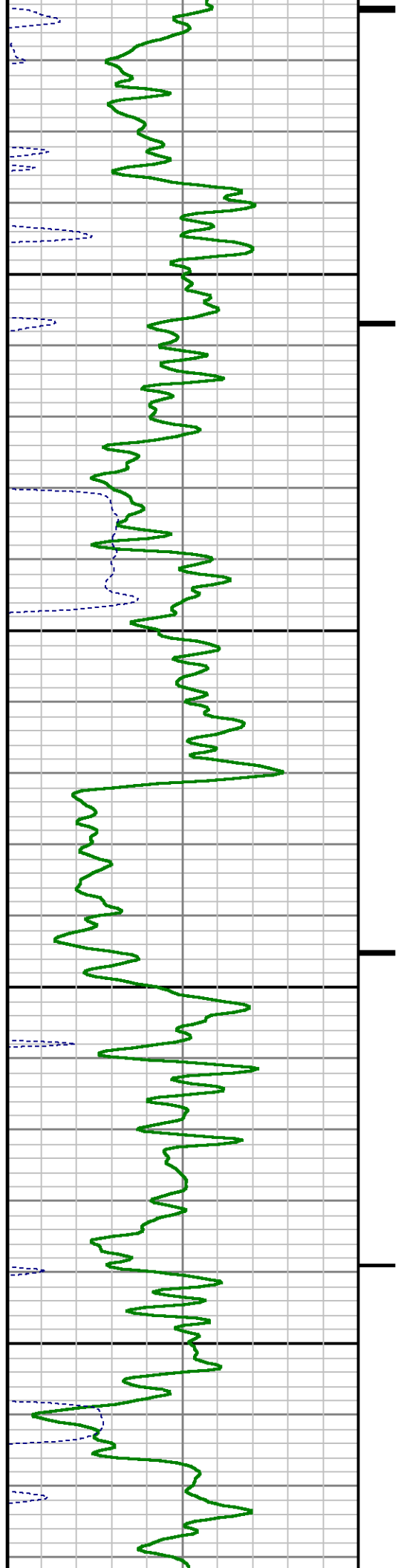


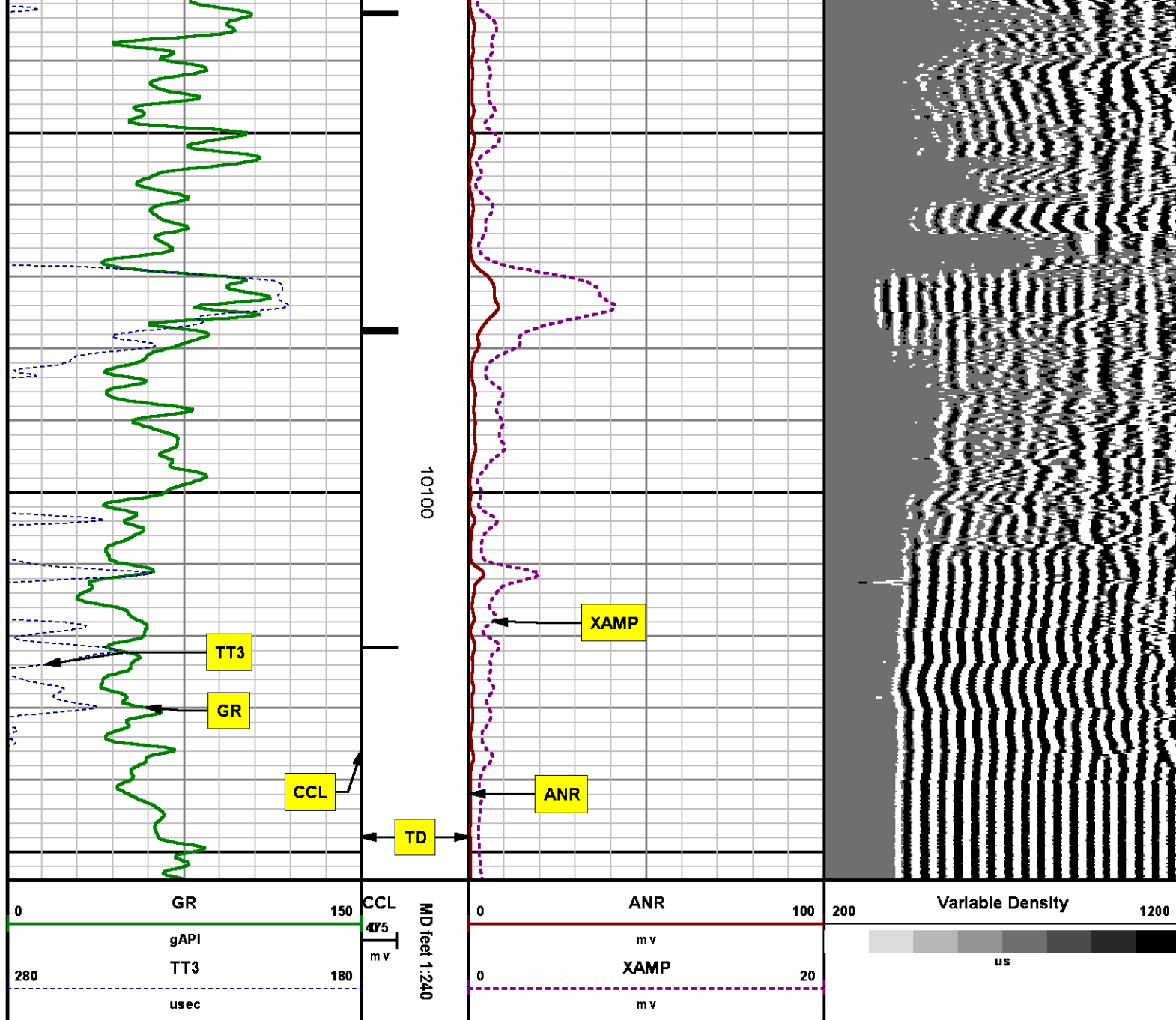




9900

10000





SECONDARY PRESENTATION  
0 PSI

RAL		305.000	usec	30.806	10179.500
RAL	Amp Gate Start Far	195.000	usec	30.806	10179.500
RAL	Amp Gate Start Radial	195.000	usec	30.806	10179.500
RAL	Amp Gate Width Far	25.000	usec	30.806	10179.500
RAL	Amp Gate Width Near	25.000	usec	30.806	10179.500
RAL	Amp Gate Width Radial	25.000	usec	30.806	10179.500
RAL	casing od	4.500	inches	30.806	10179.500
RAL	casing wt	11.600	lbm/ft	30.806	10179.500
RAL	FB Start Far	291.900	usec	30.806	10179.500
RAL	FB Start Near	180.000	usec	30.806	10179.500
RAL	FB Start Radial	180.000	usec	30.806	10179.500
RAL	FB Thresh Far	10.000	mV	30.806	10179.500
RAL	FB Thresh Near	4.000	mV	30.806	10179.500
RAL	FB Thresh Radial	4.000	mV	30.806	10179.500
RAL	Fluid Travel Time	200.000	usec/ft	30.806	10179.462

## DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-11.000	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	-10.040	AFAR	SIG	TT5			
1355XA	-5.620	CCL					
1355XA	-1.500	GR					
1355XA	0.000	TEMP					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

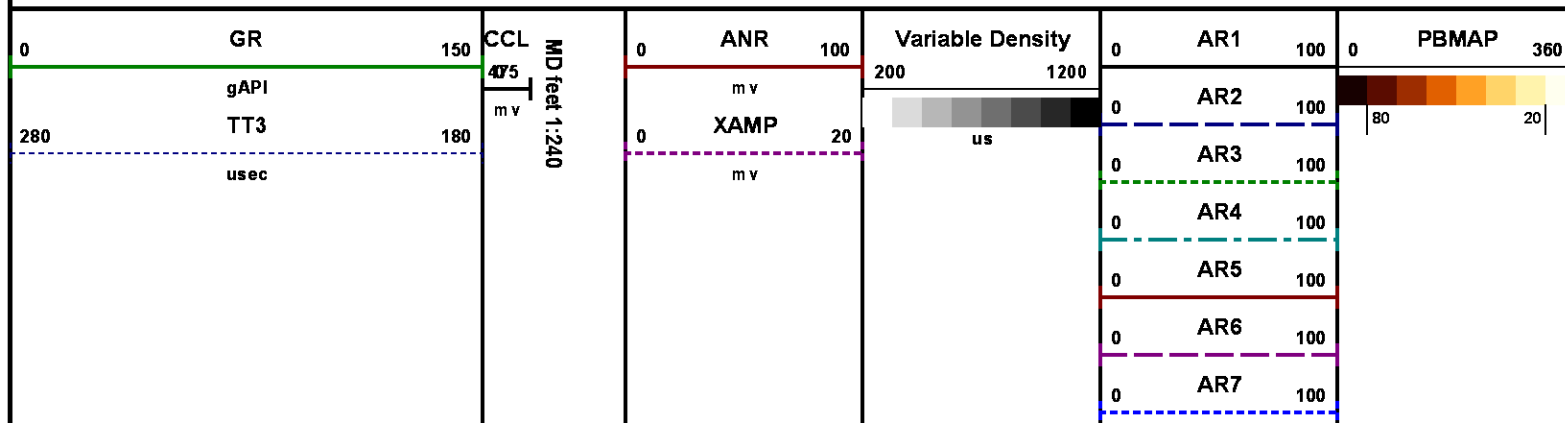
Well : FEDERAL PA 341-21

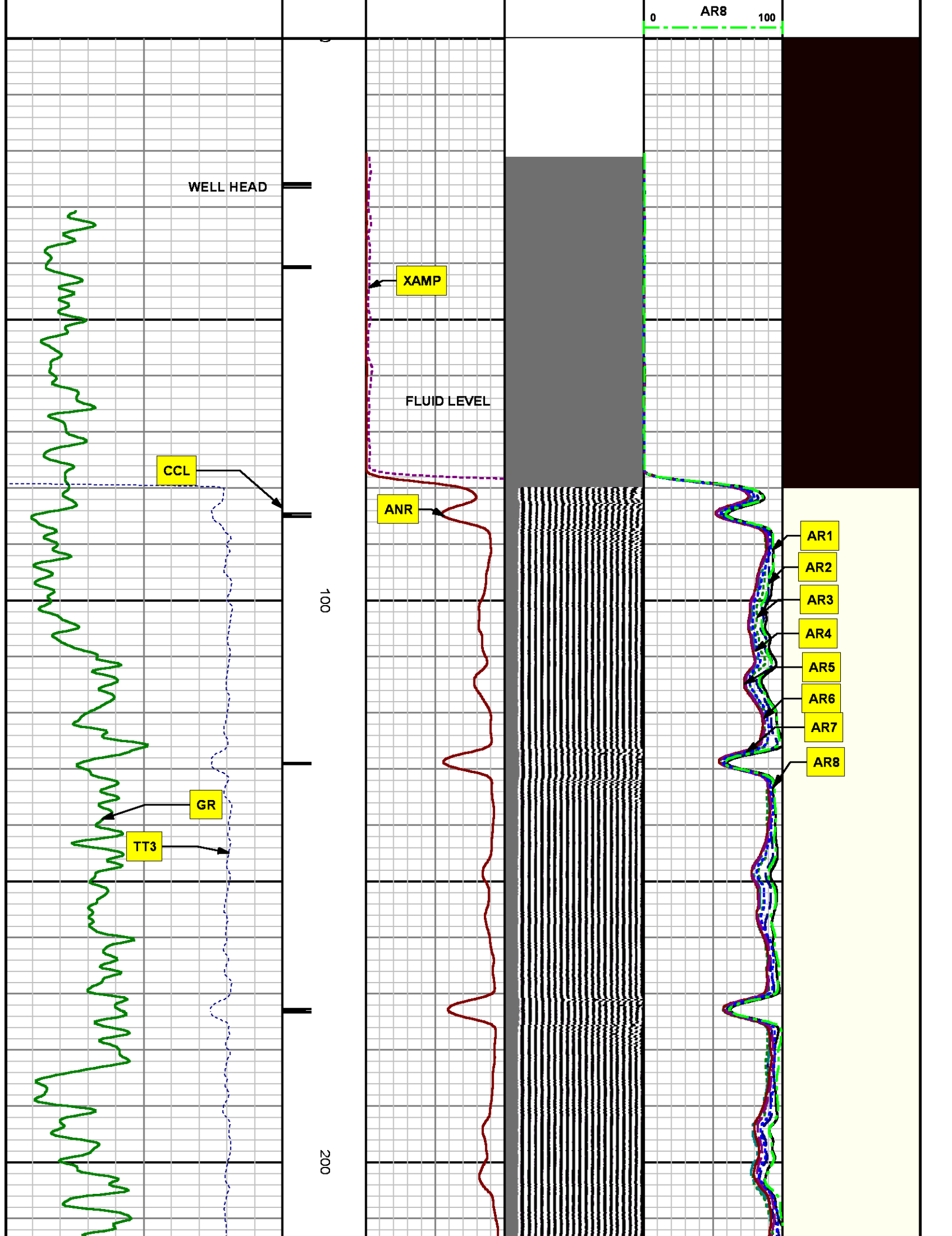
File Name : d:\welldata\wpx\pa 341-21\cbl341\main.xtf

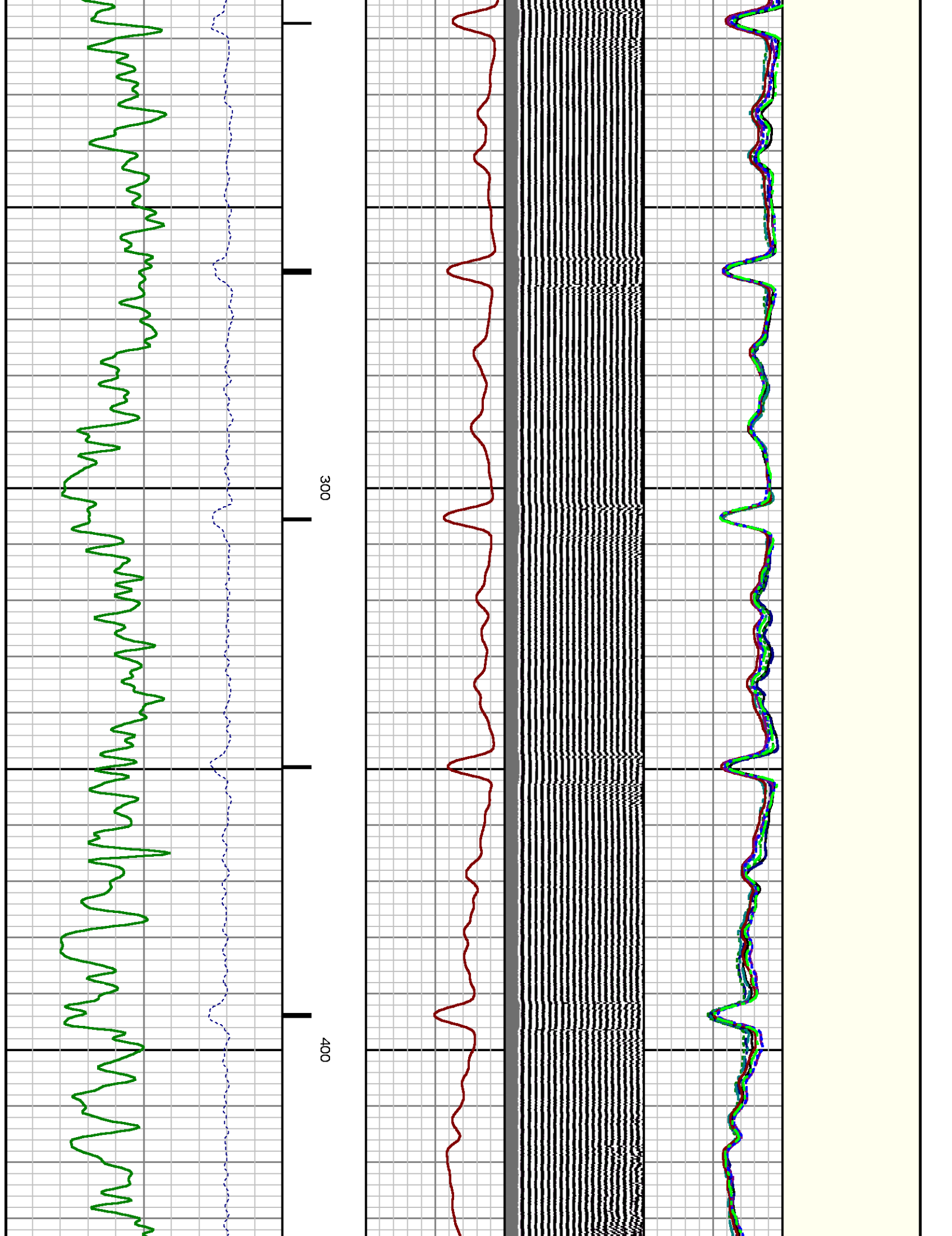
Mode : PlotMgr 5.4.504

Interval : 0.00 - 10154.00 feet UP

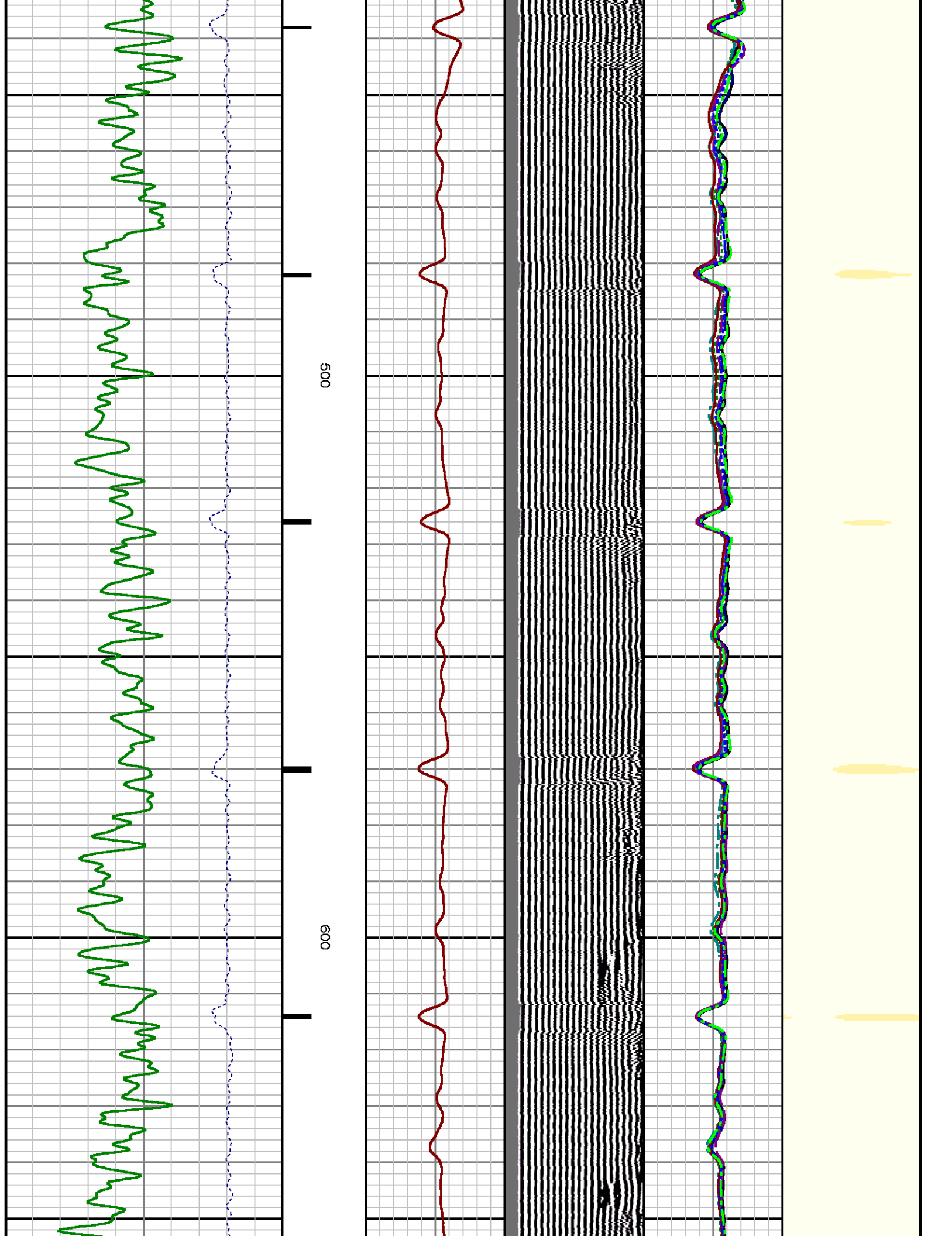
Created : 1/19/2014 6:33:30 PM

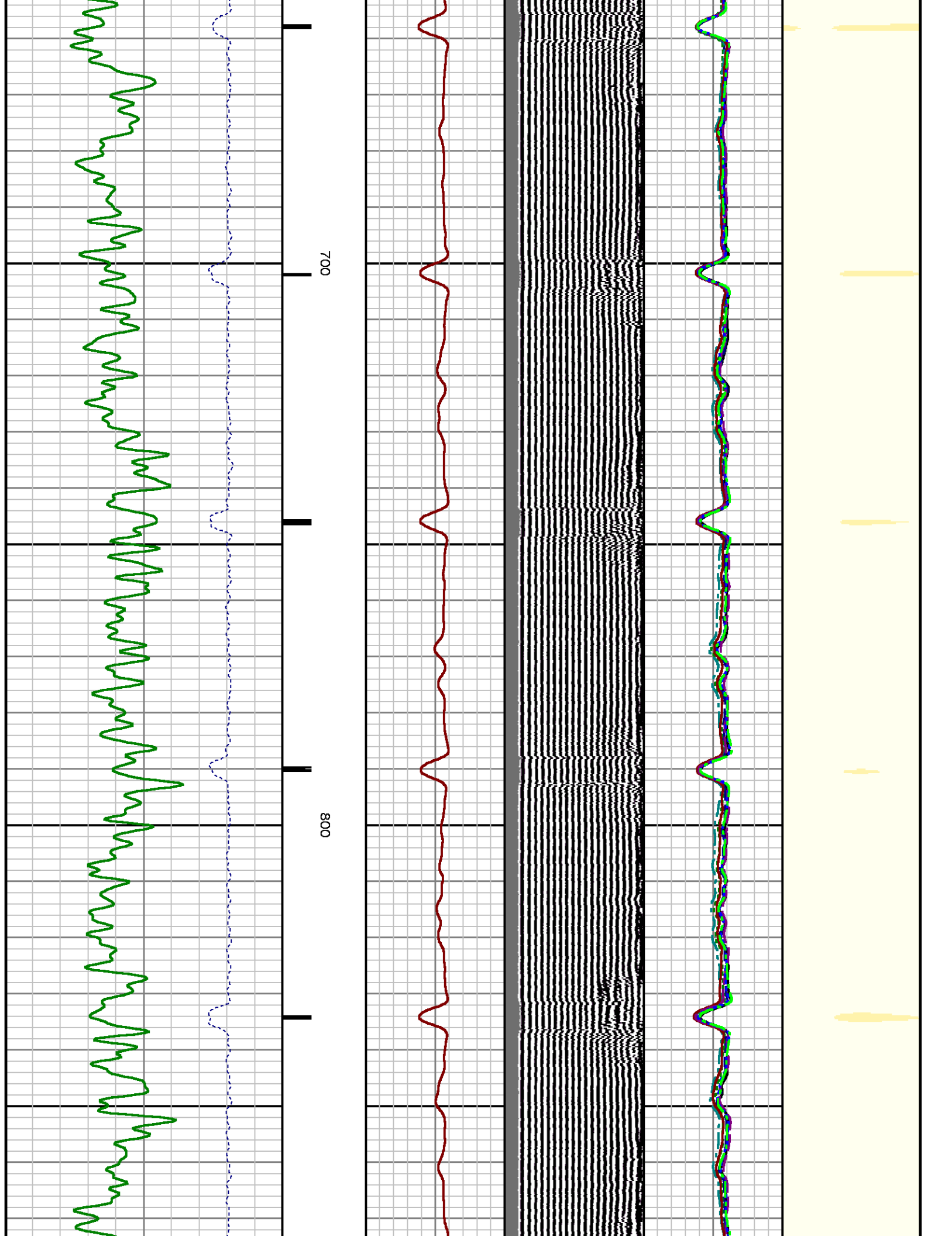


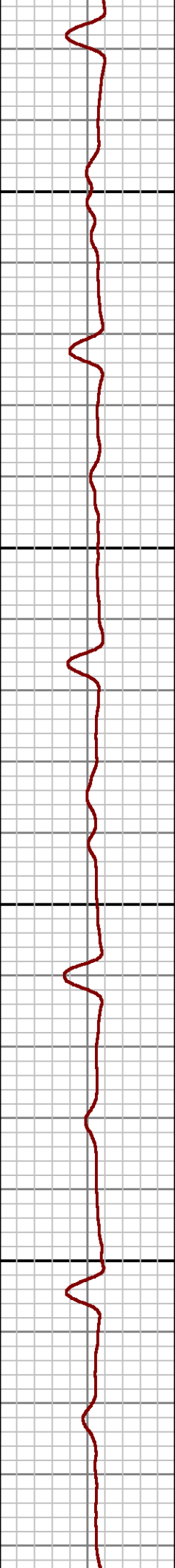
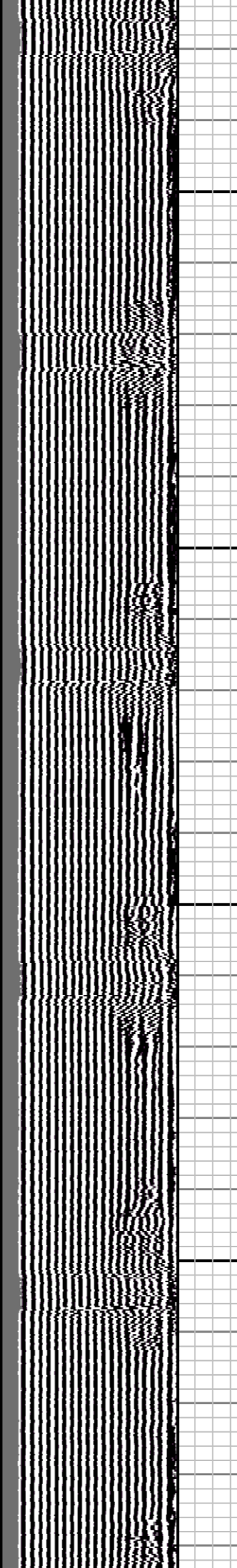
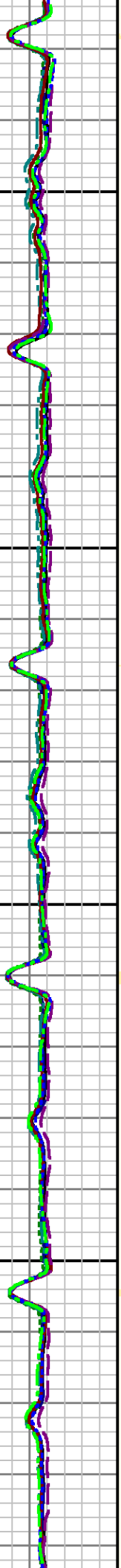






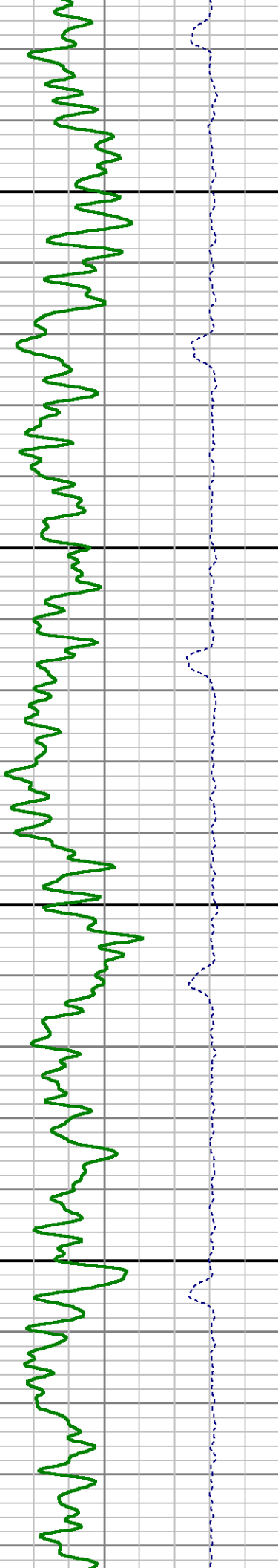


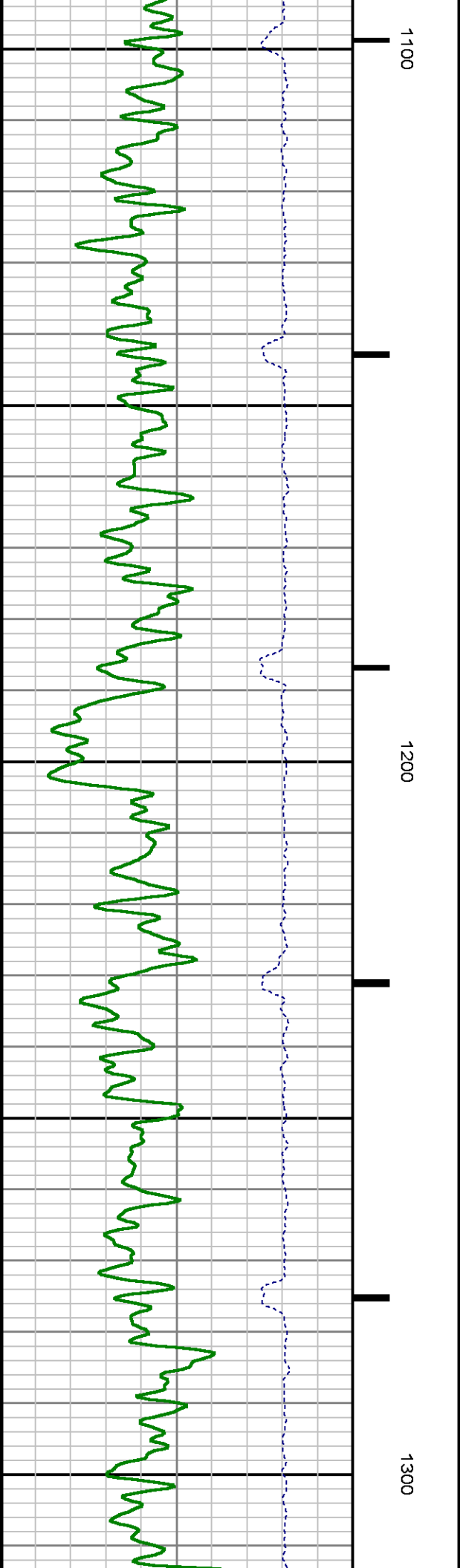
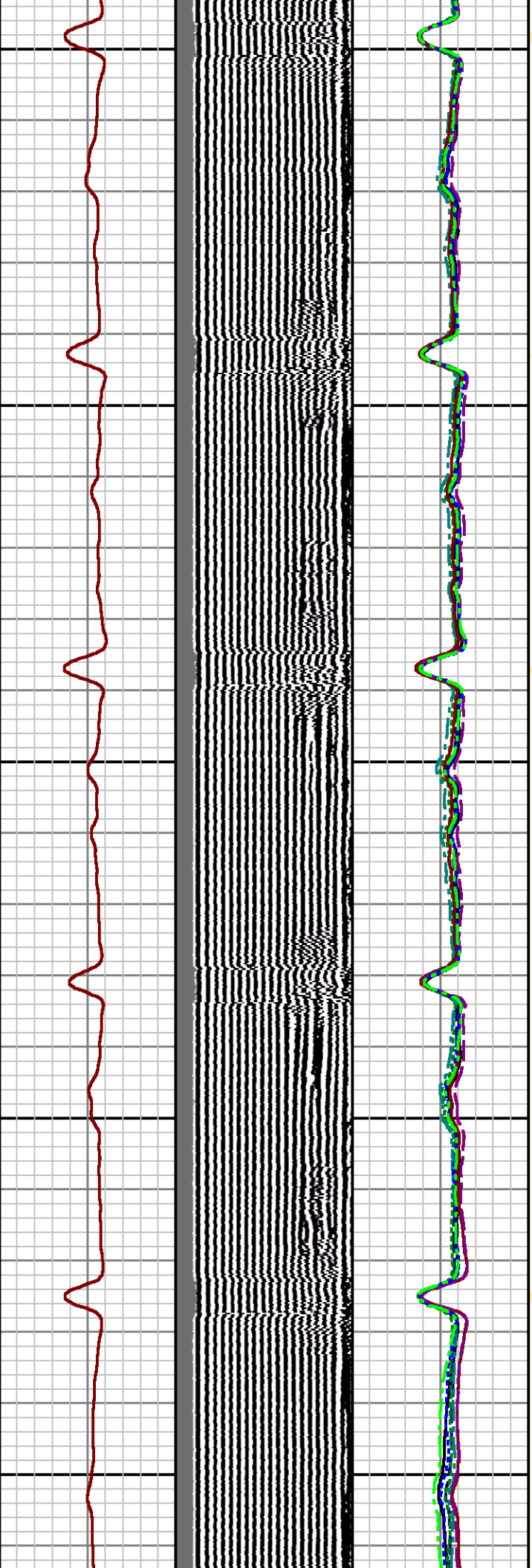


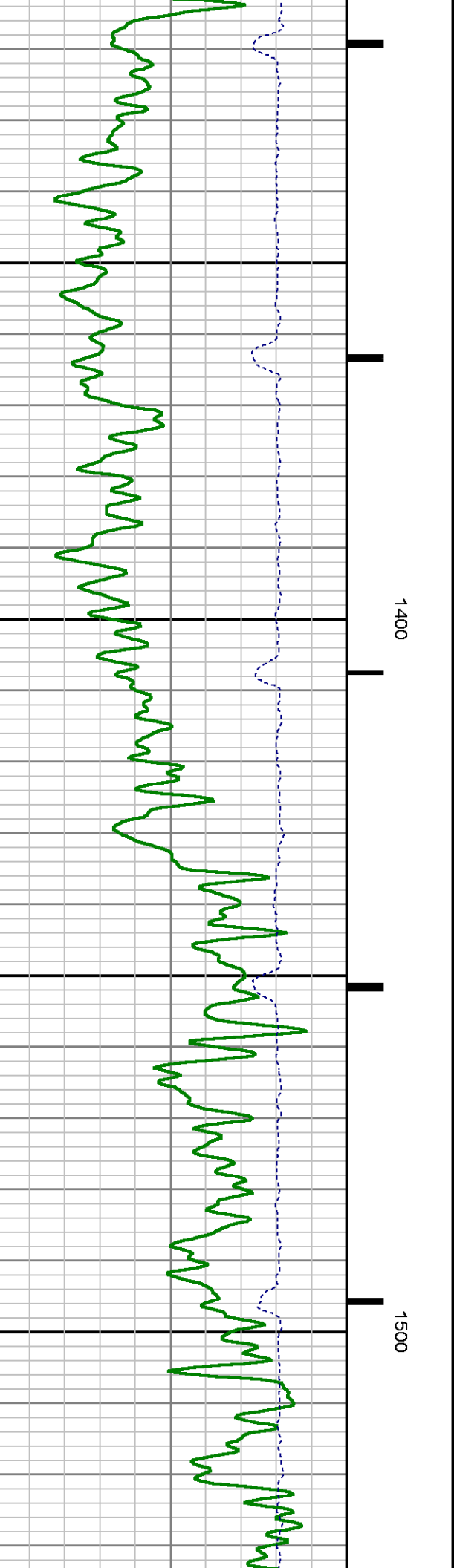
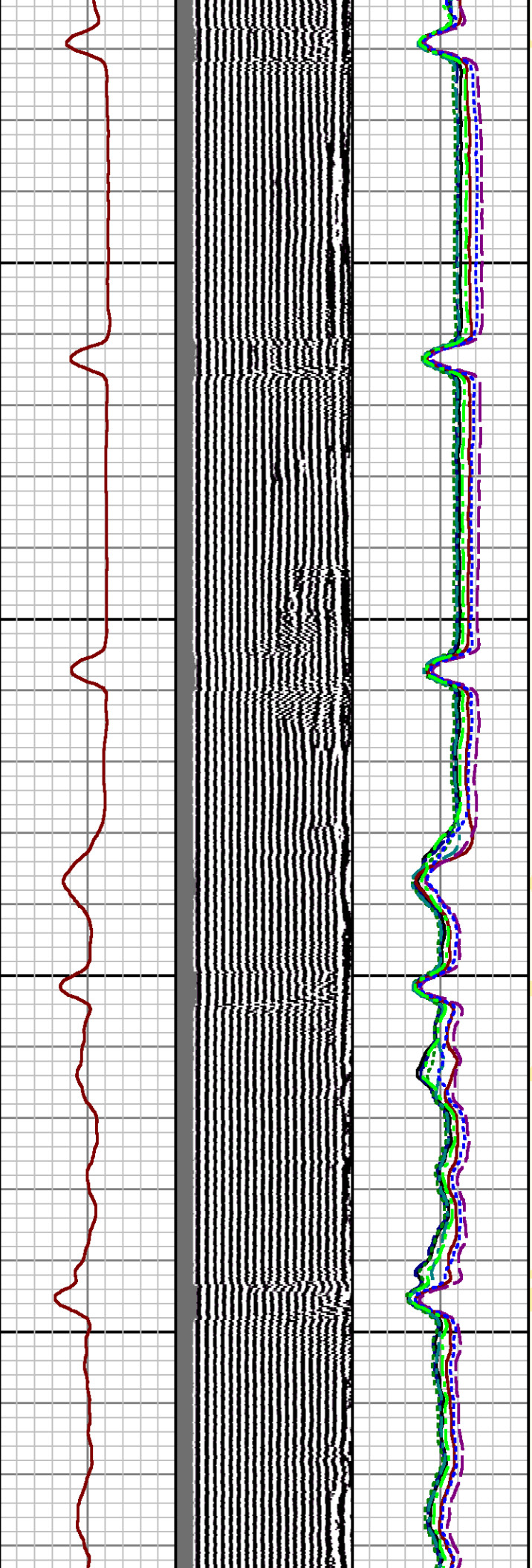


900

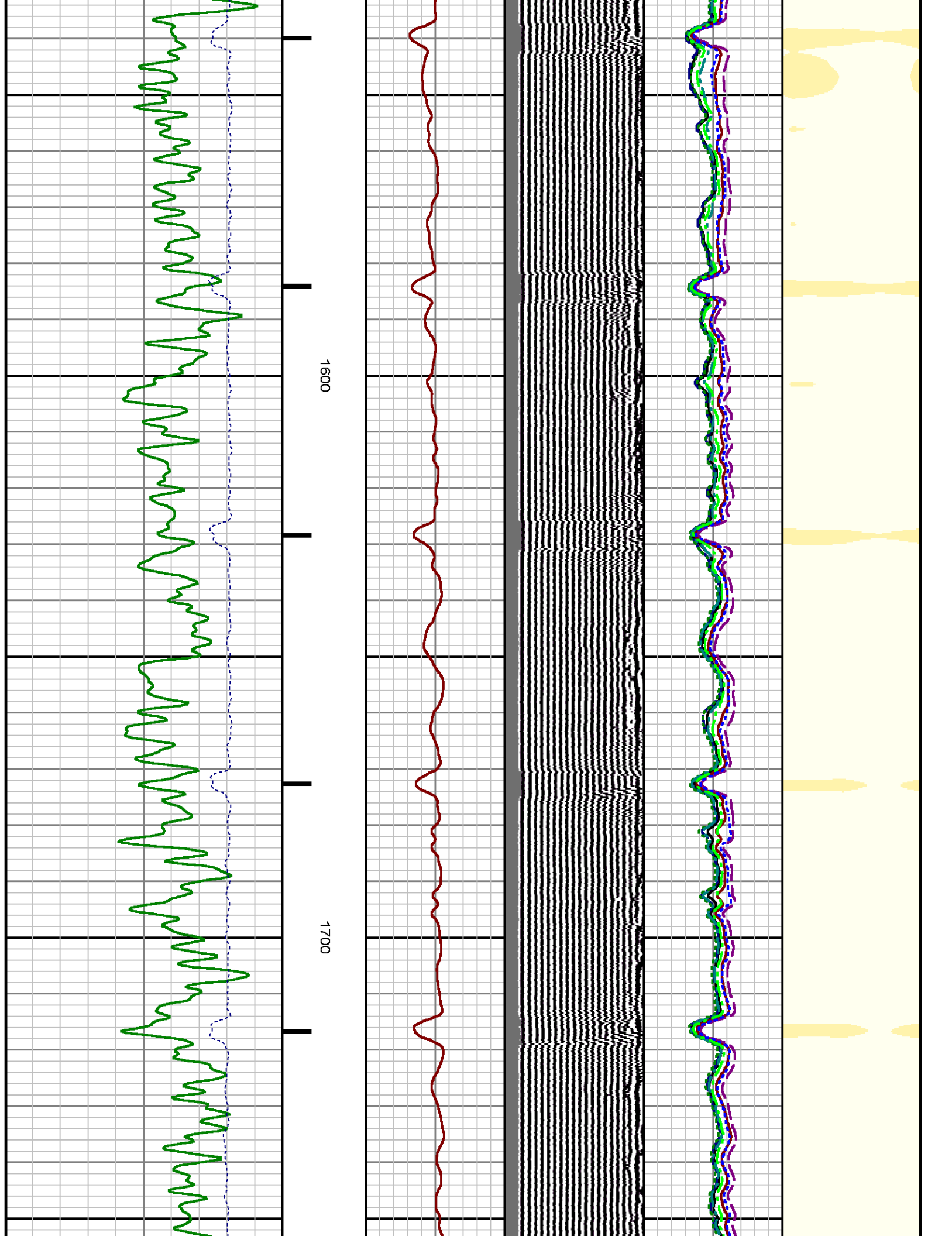
1000



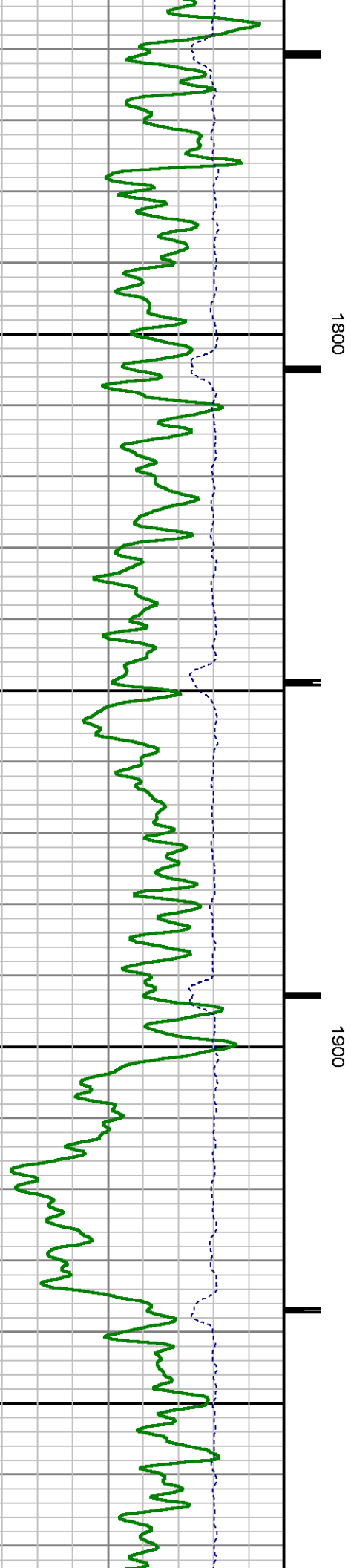
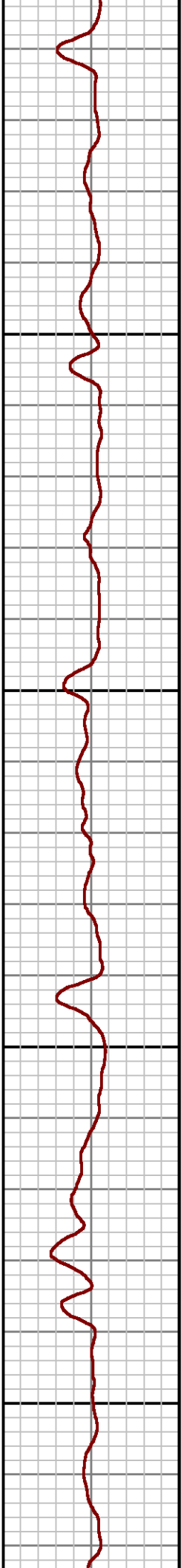
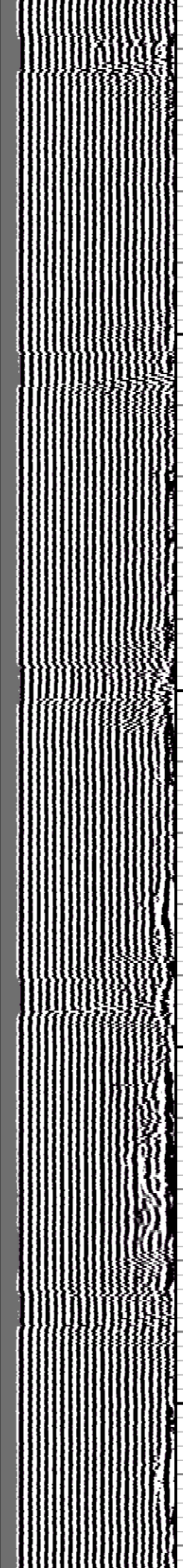
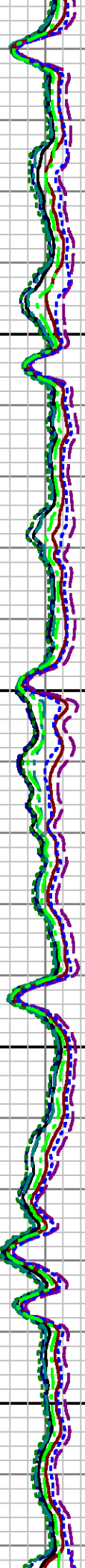
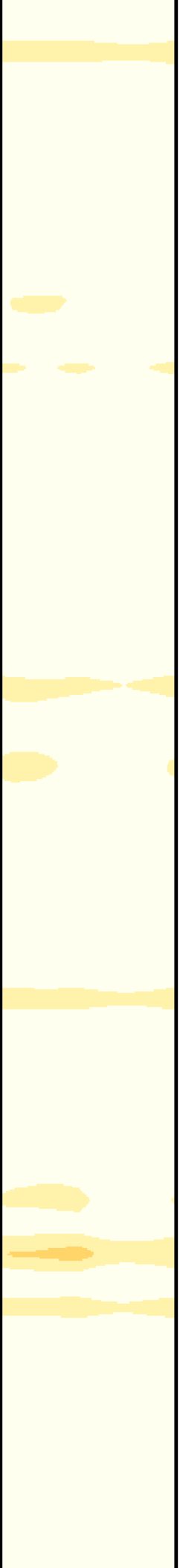


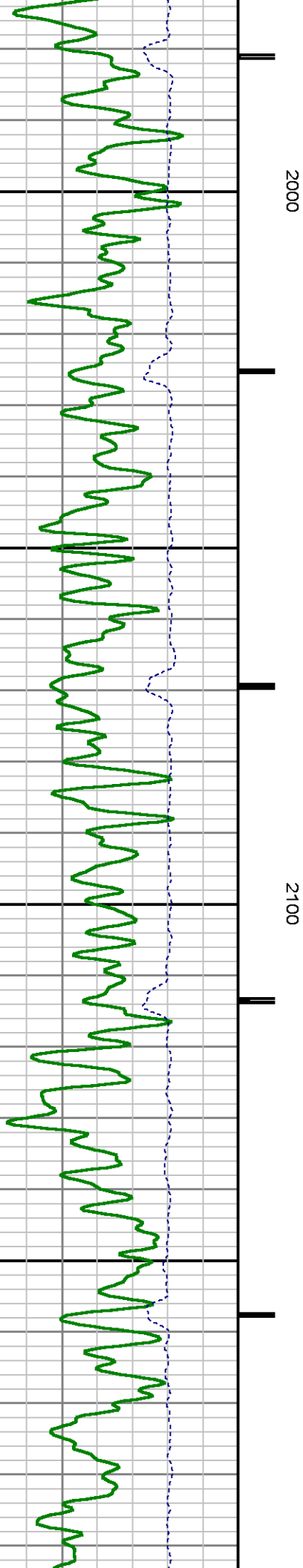
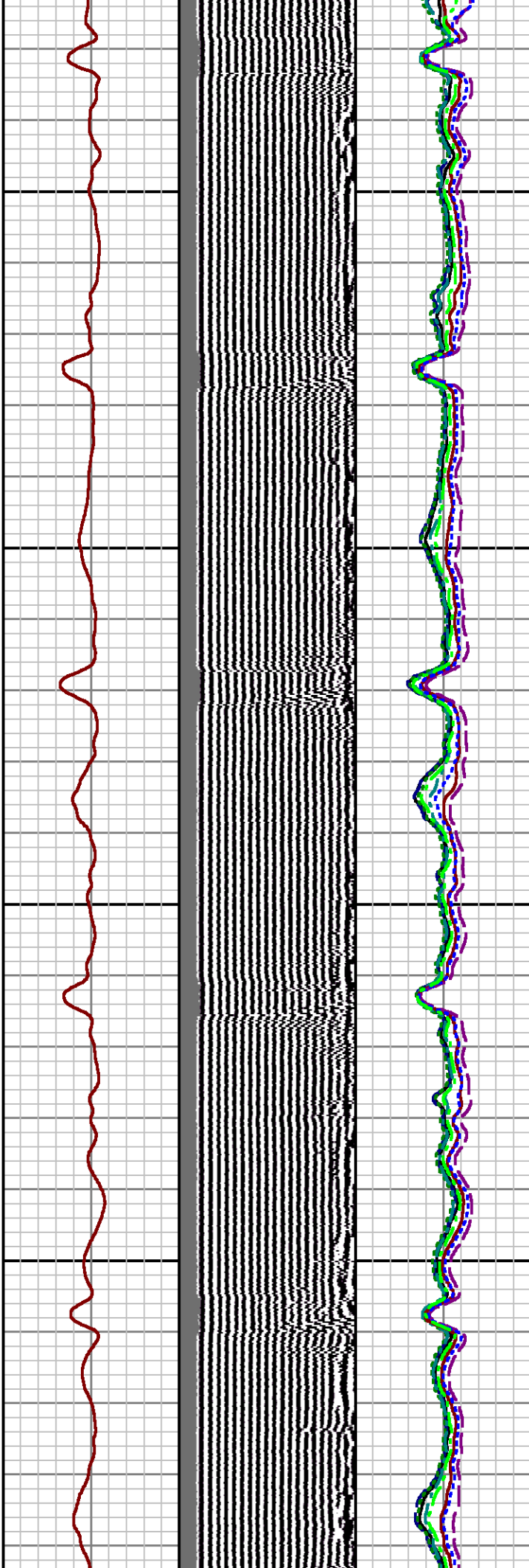
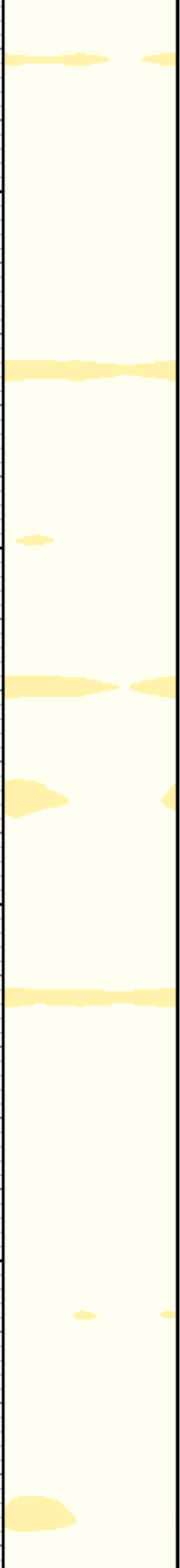


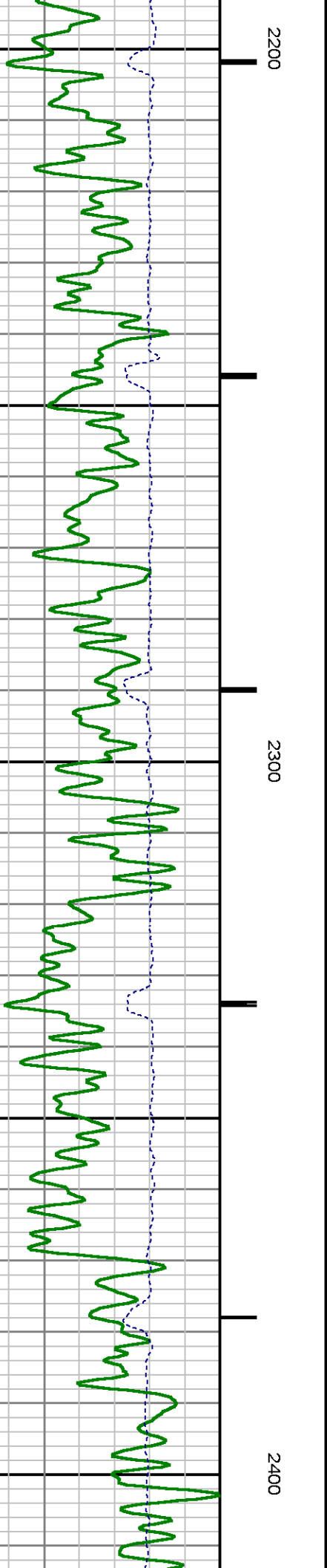
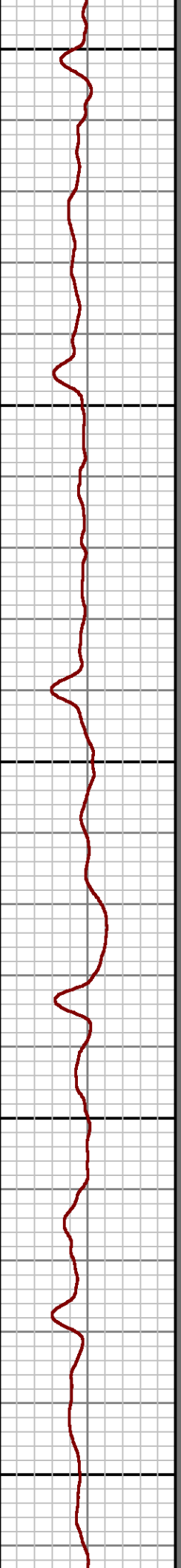
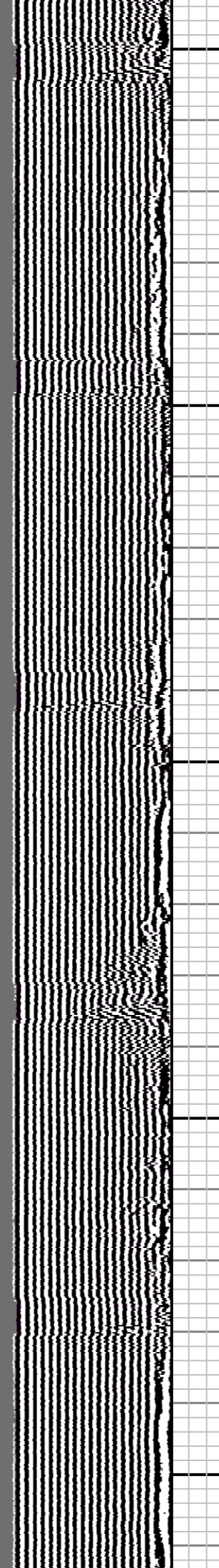
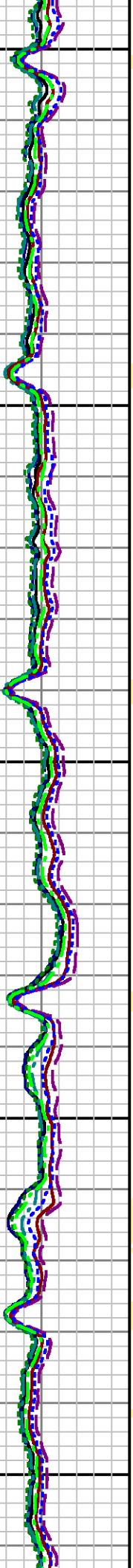








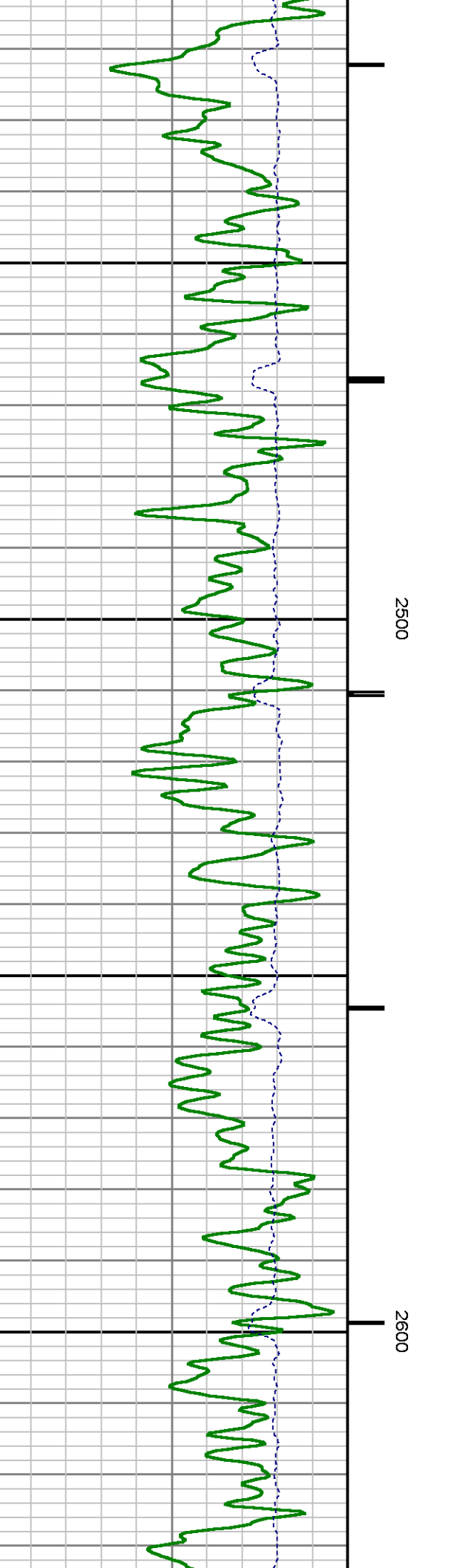
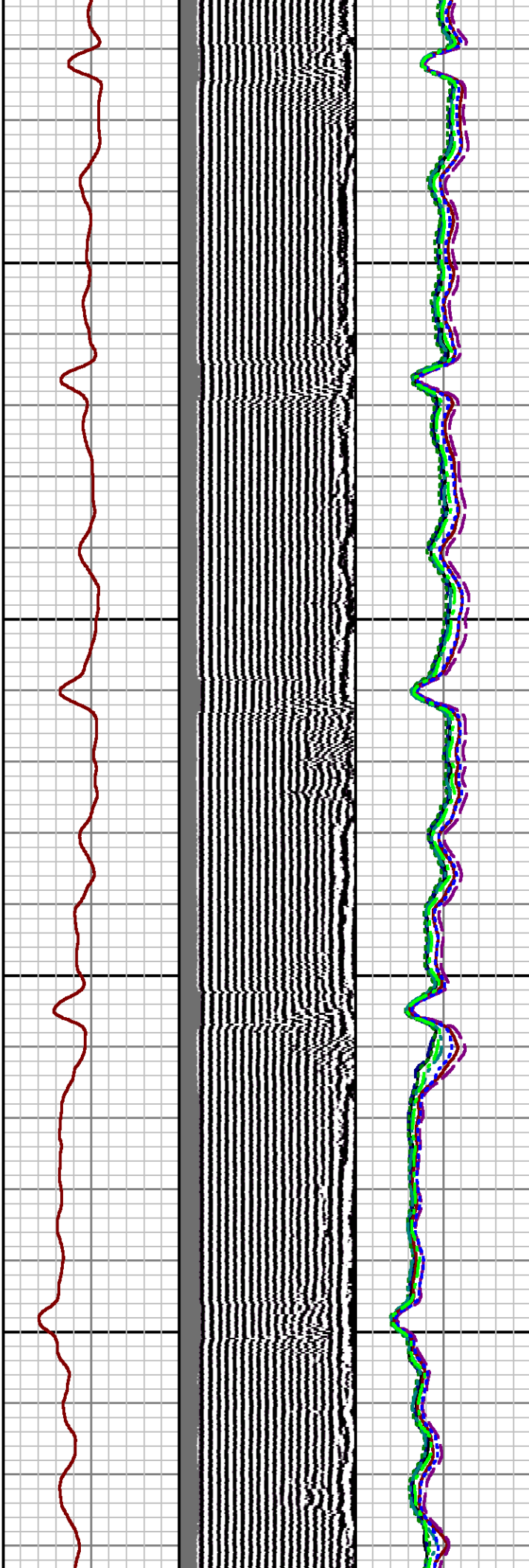
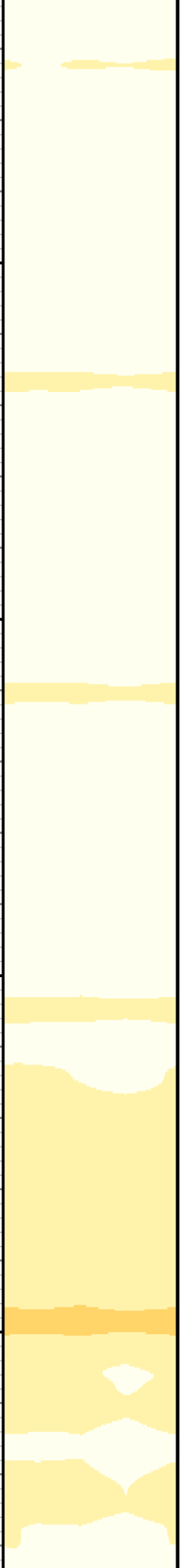


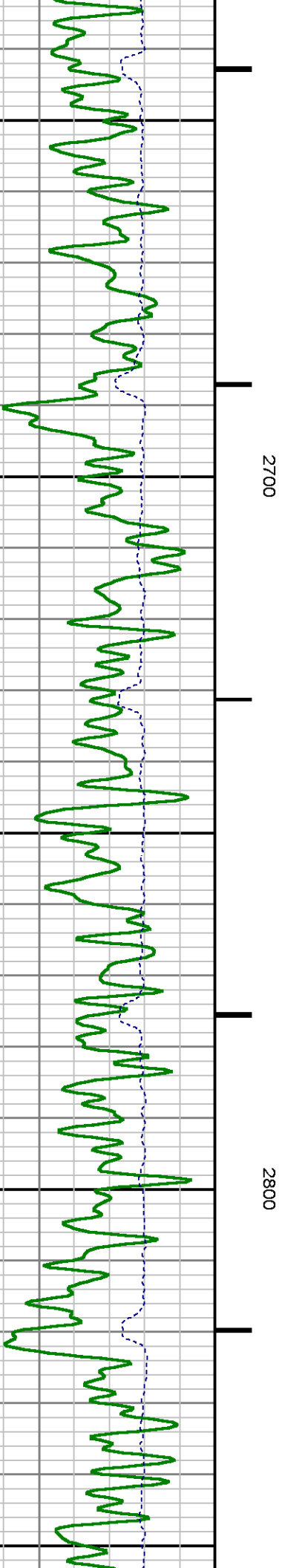
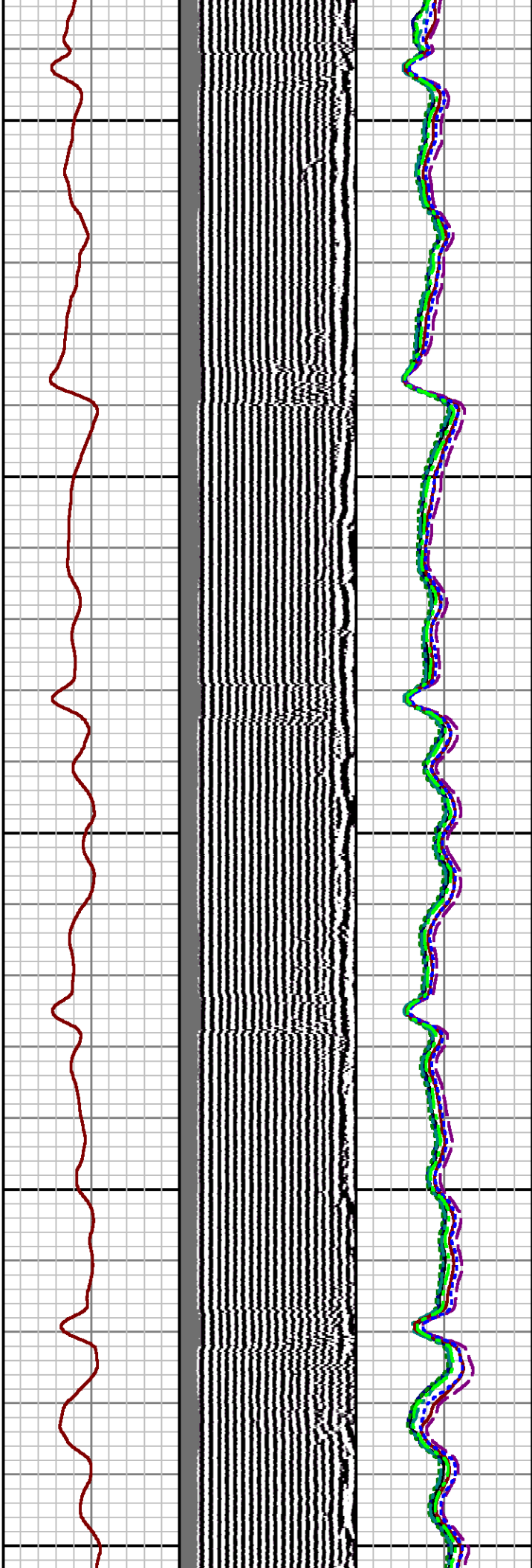
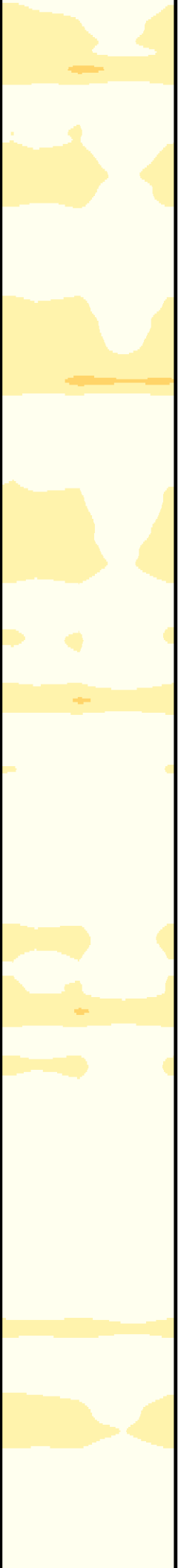


2200

2300

2400

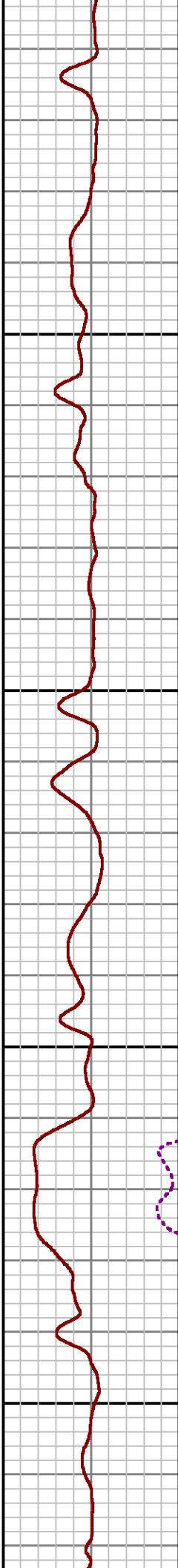
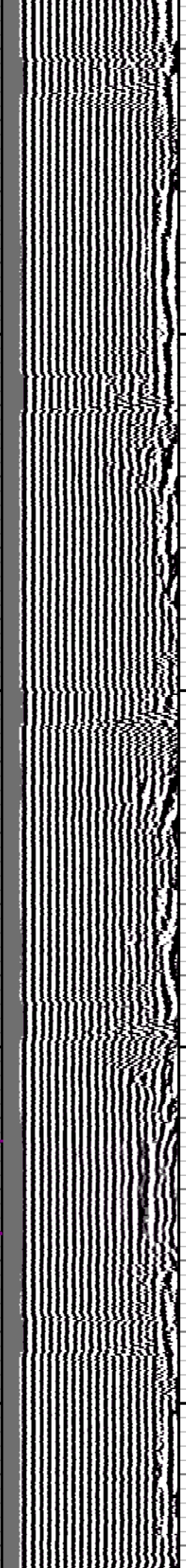
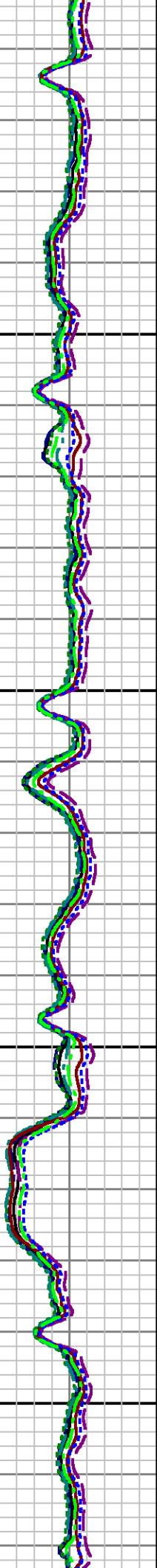
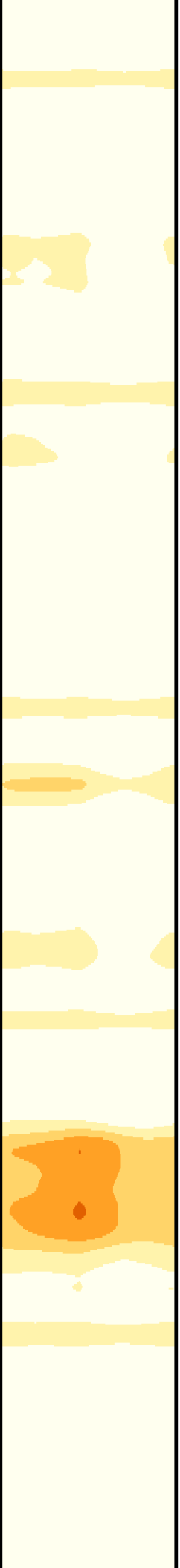




2700

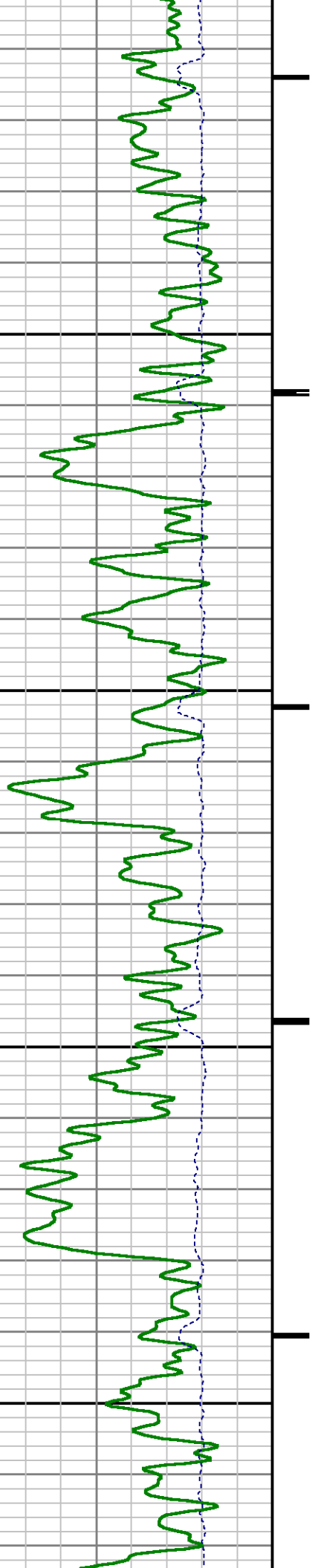
2800

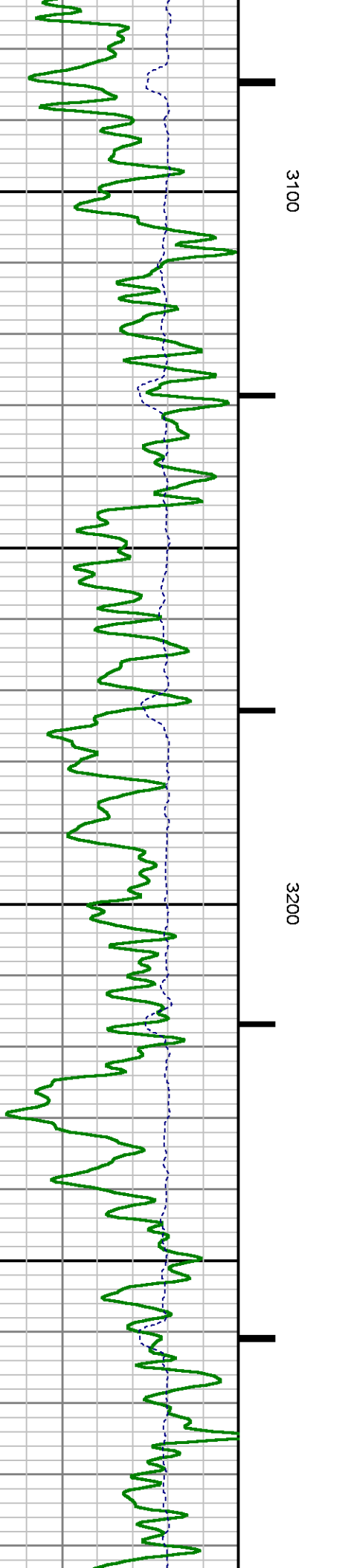
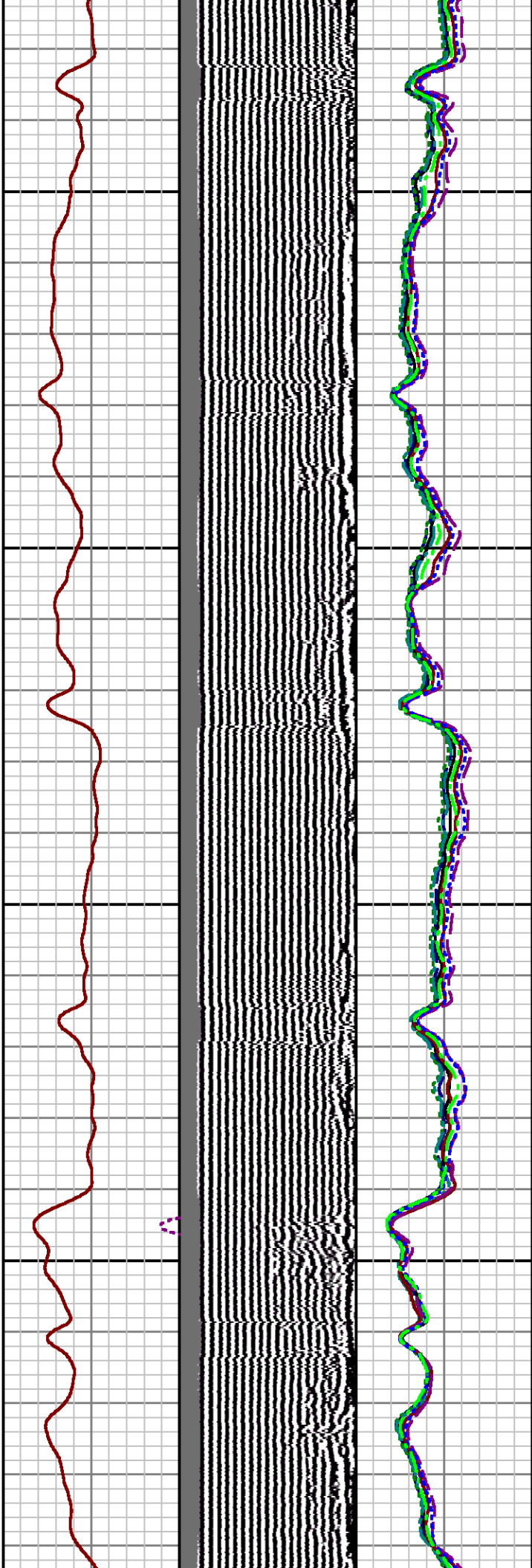
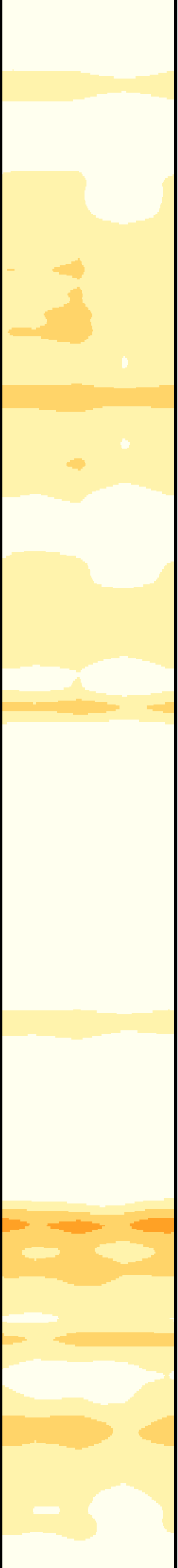




2900

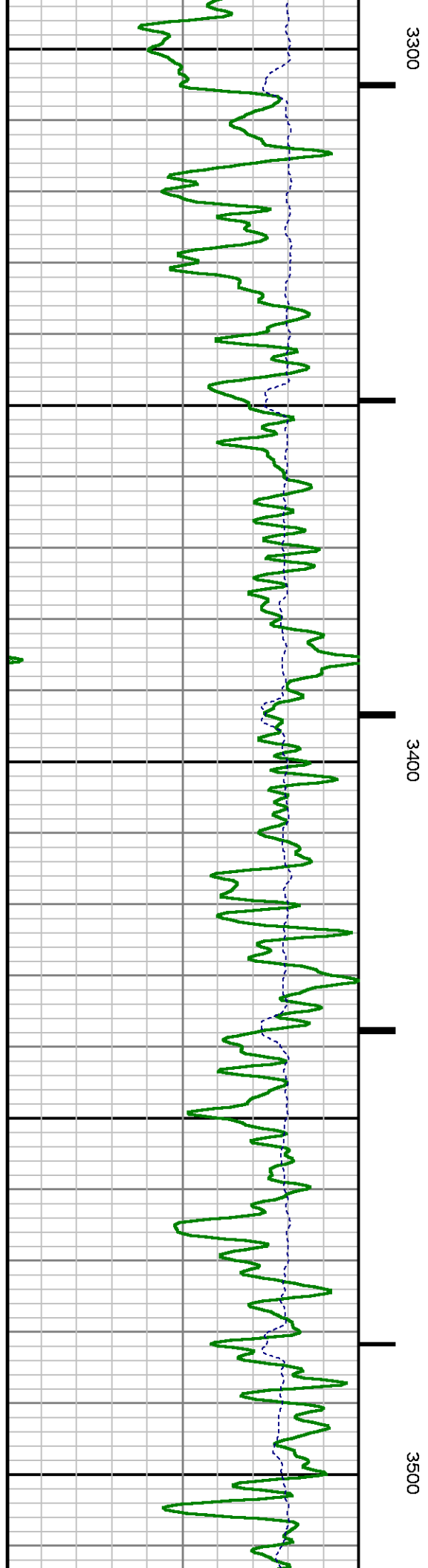
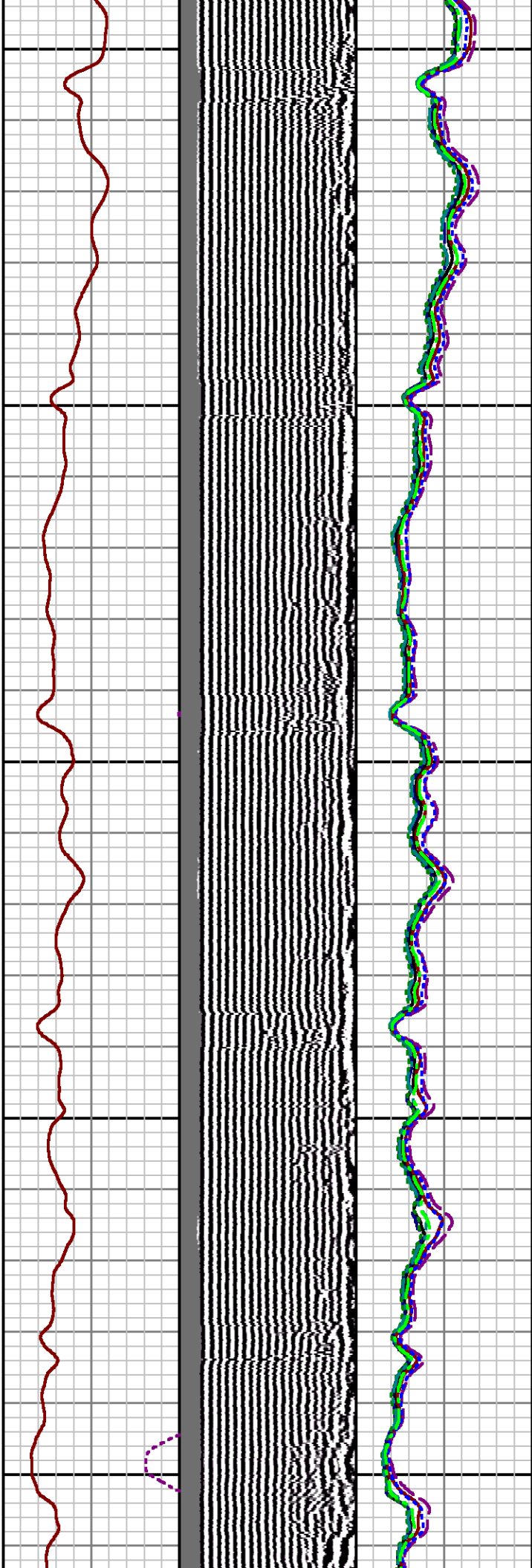
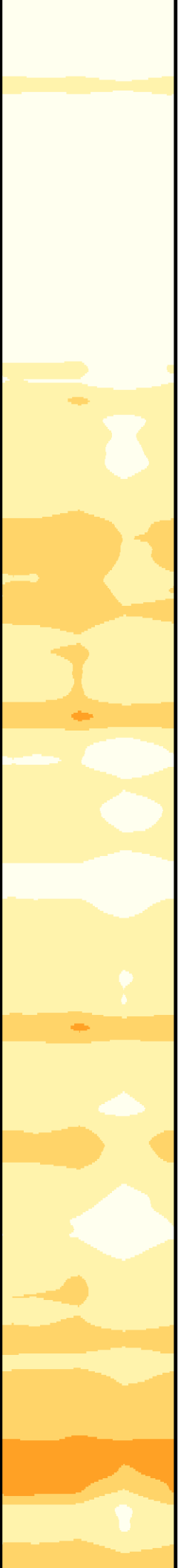
3000

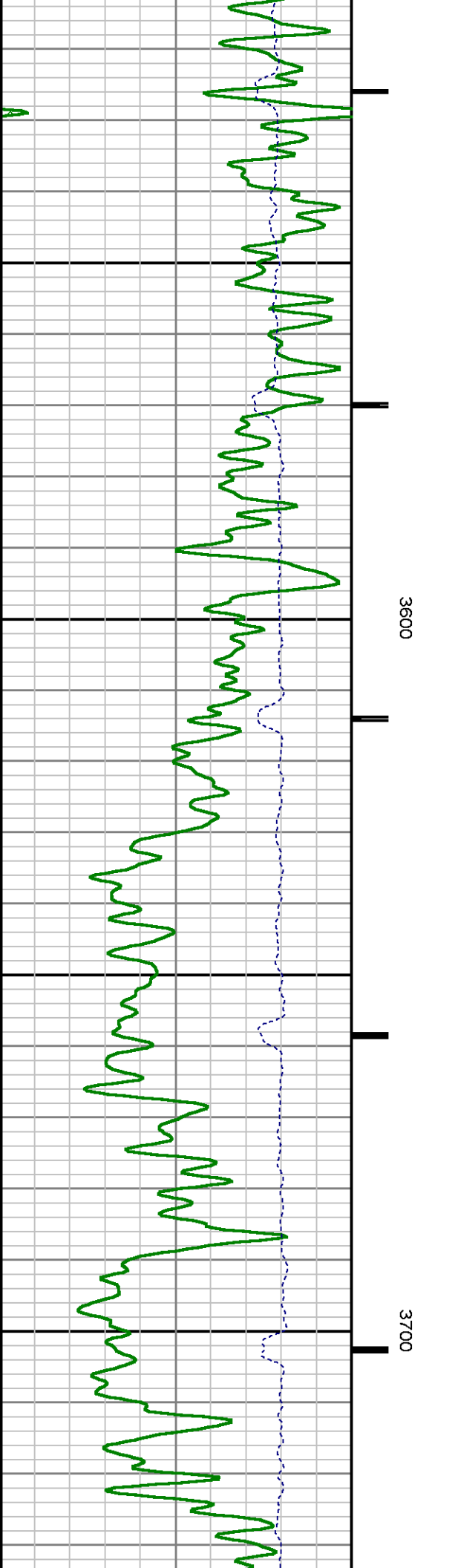
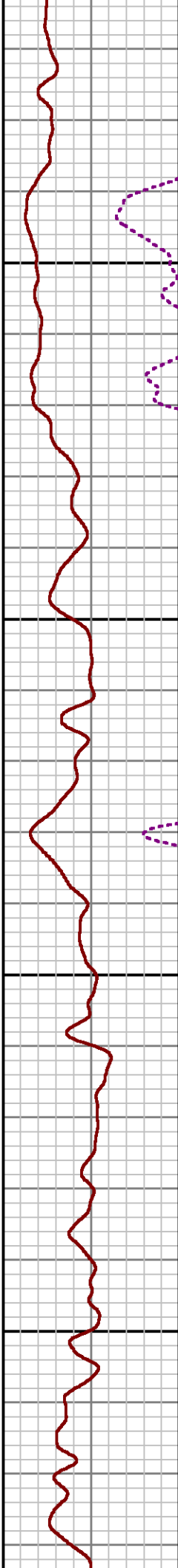
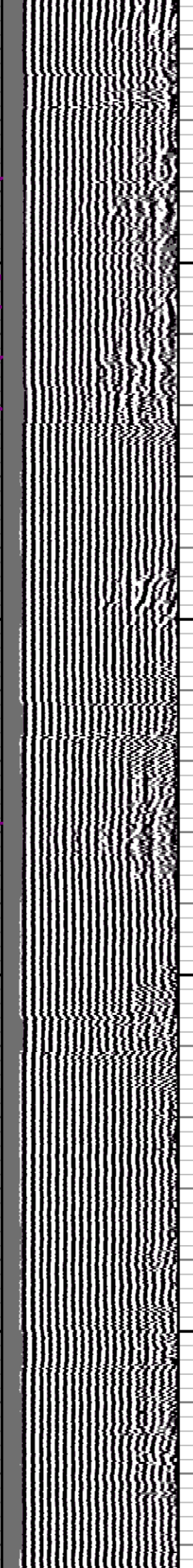
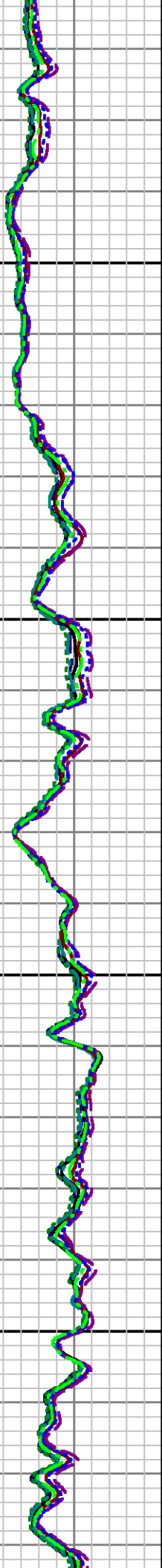
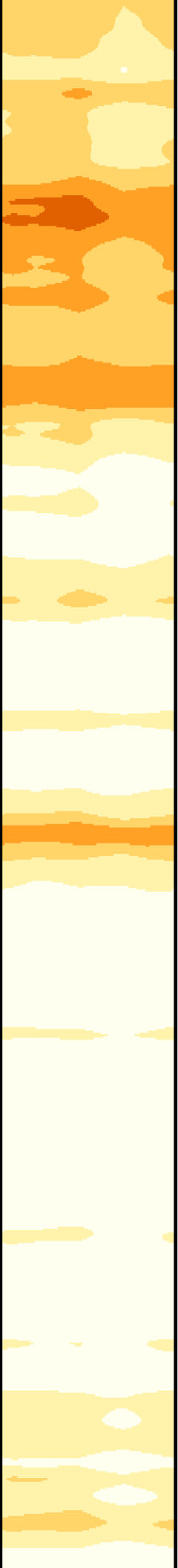




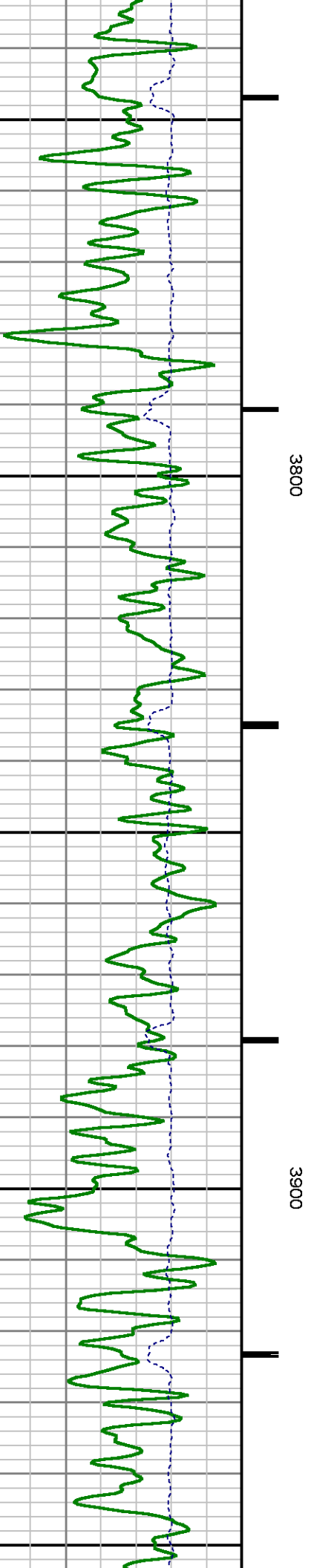
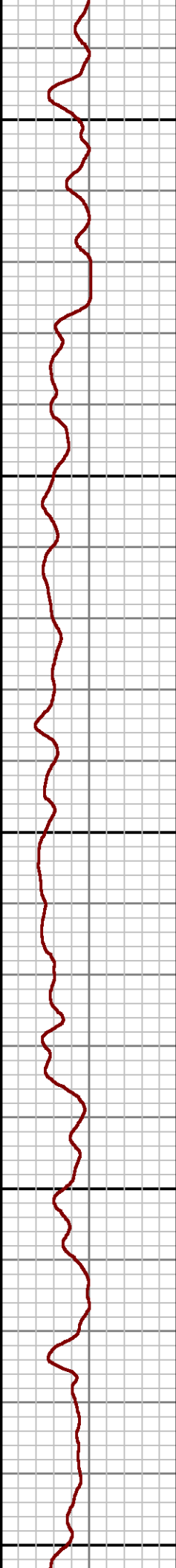
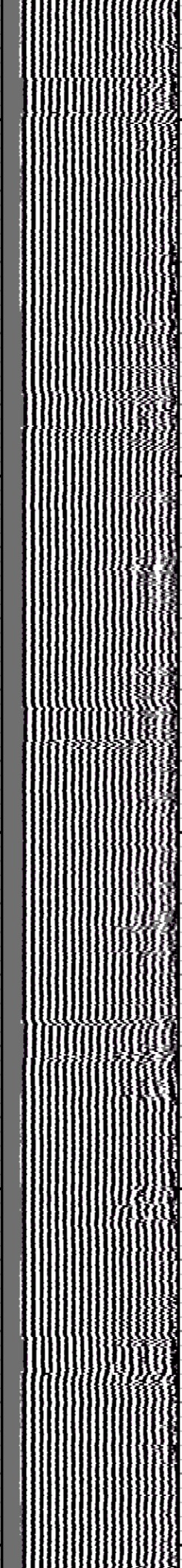
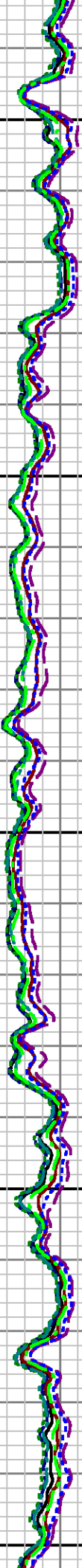
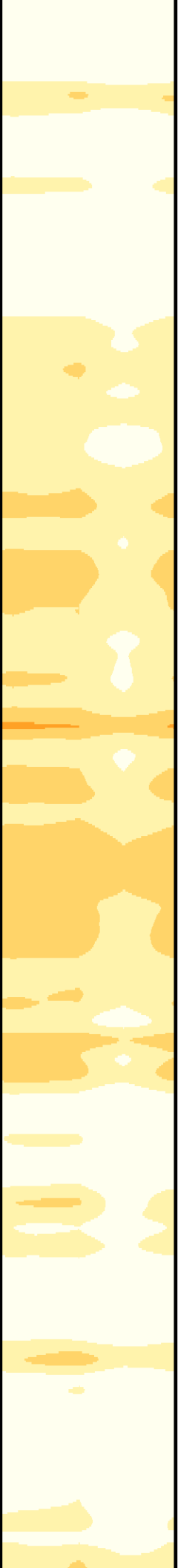
3100

3200

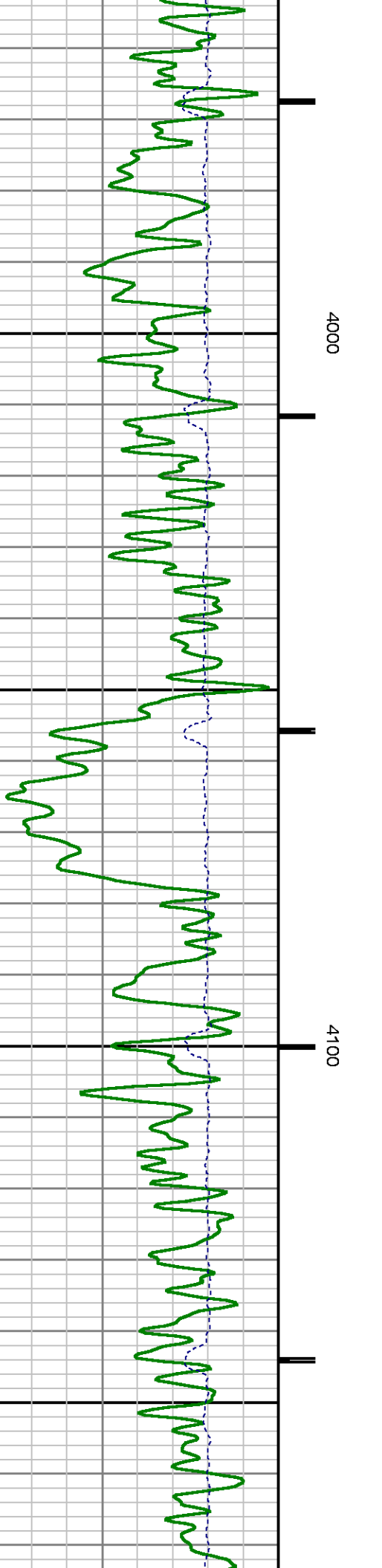
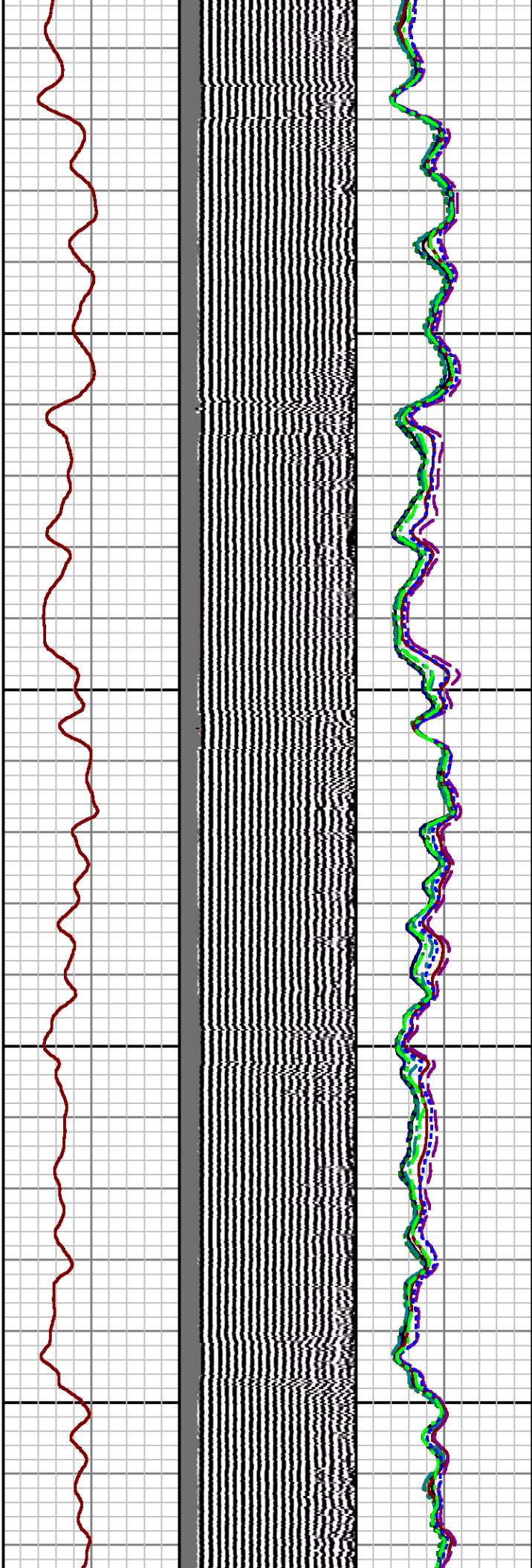
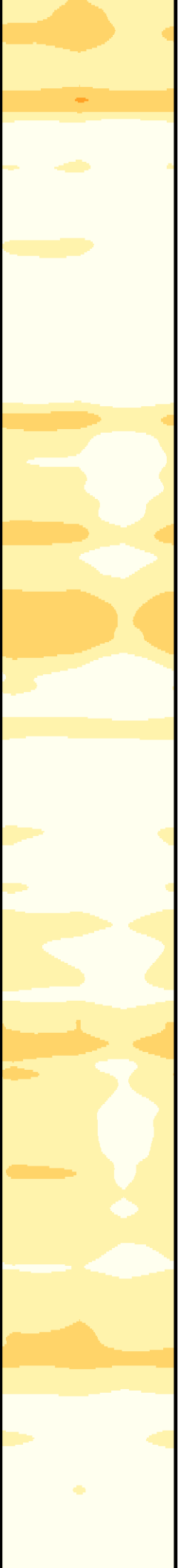


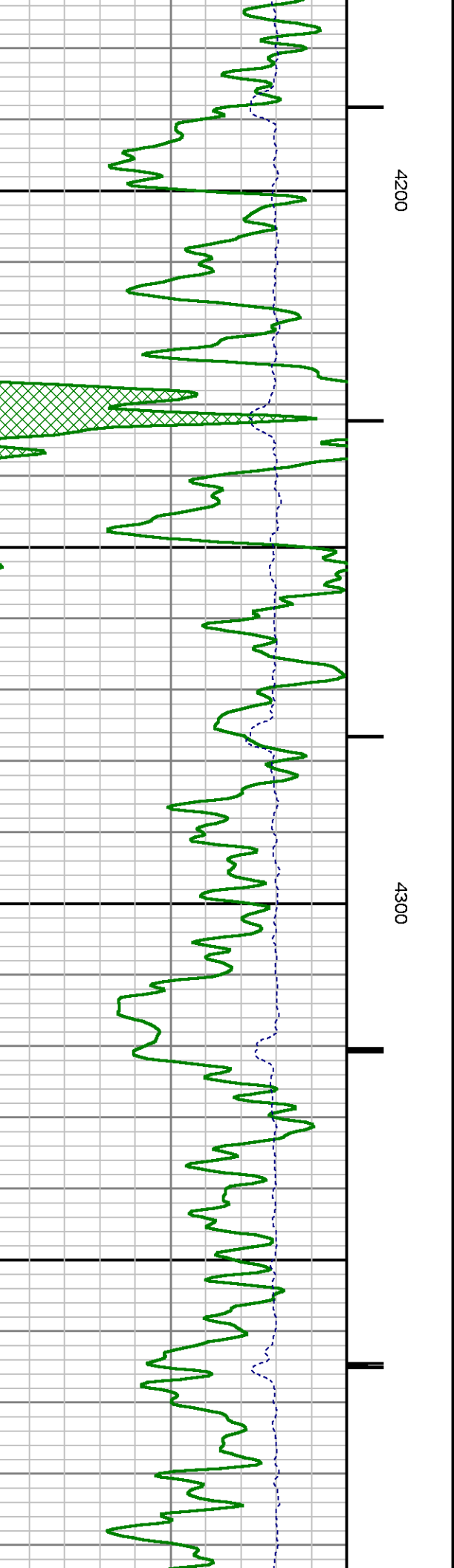
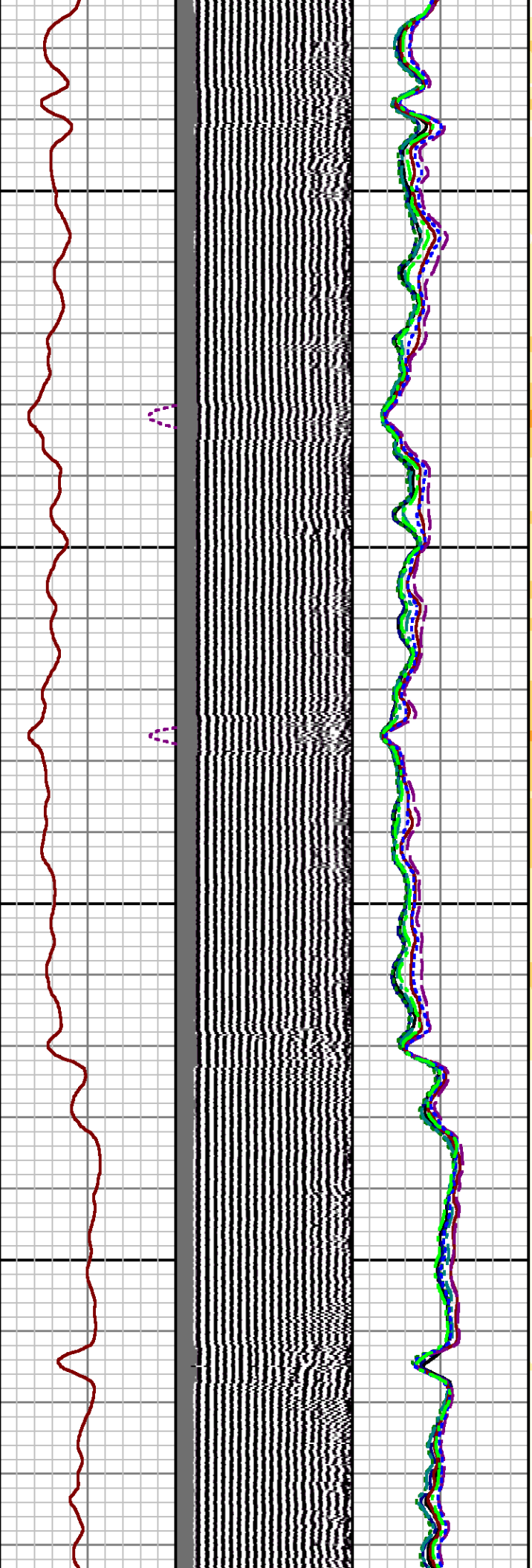
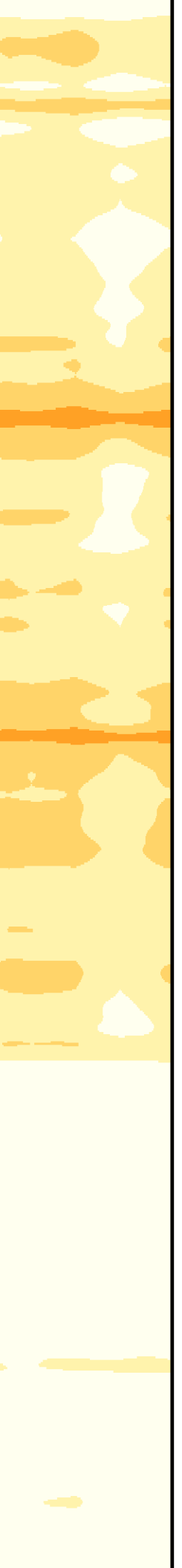


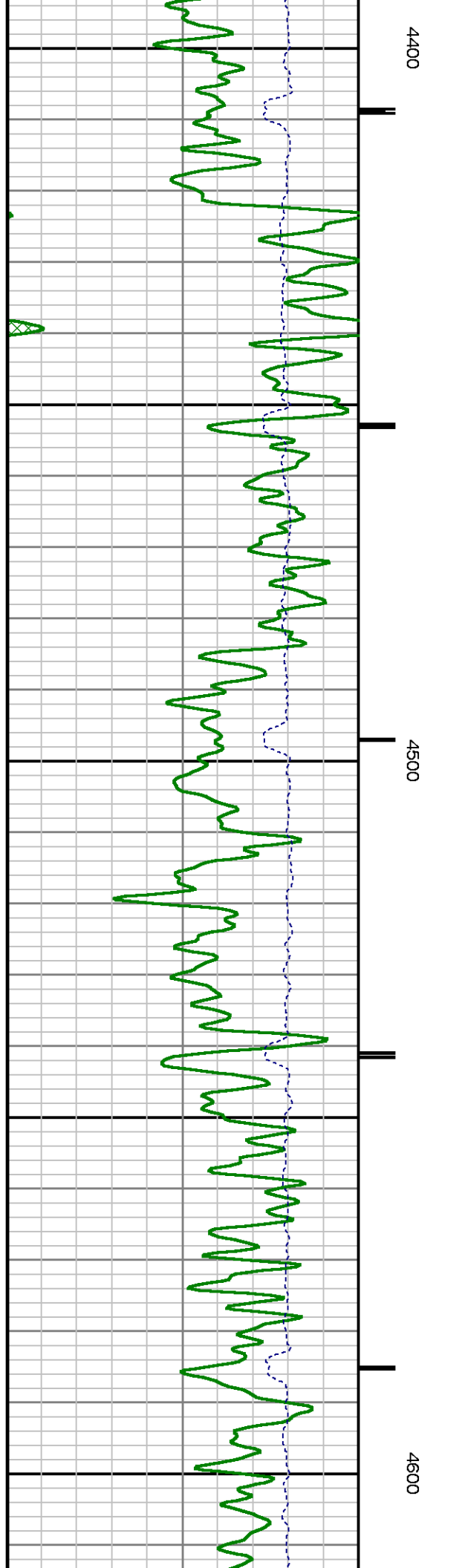
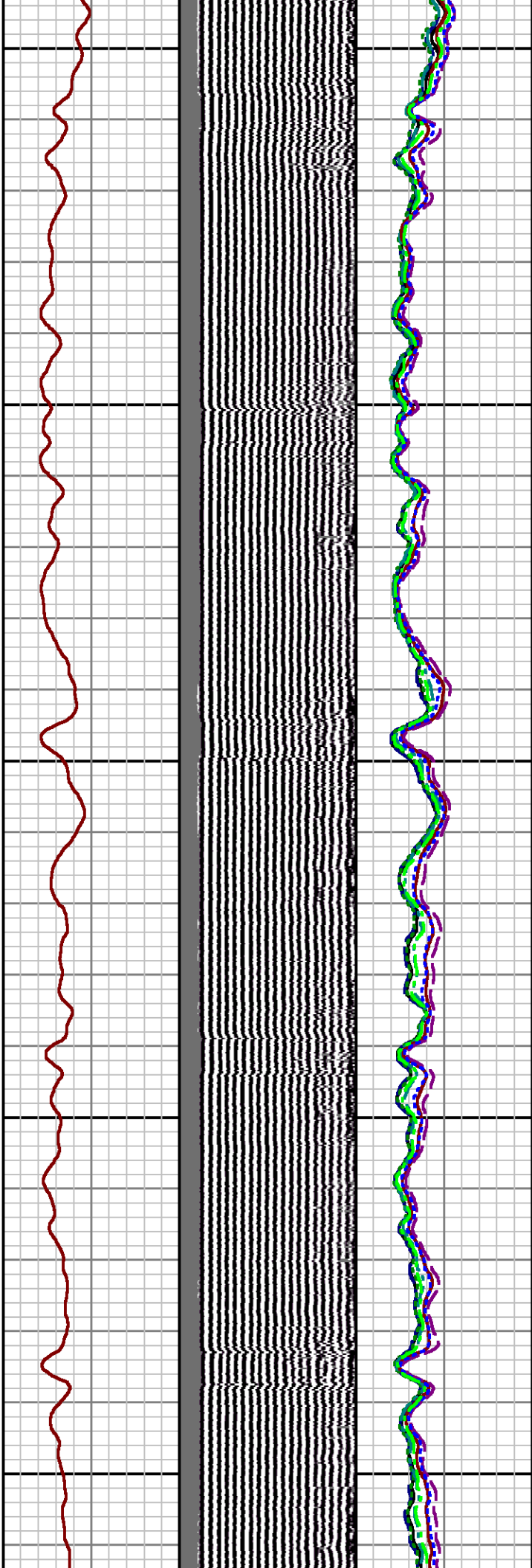
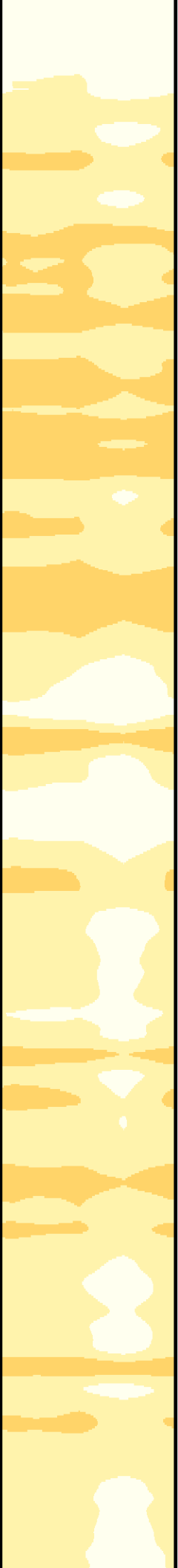


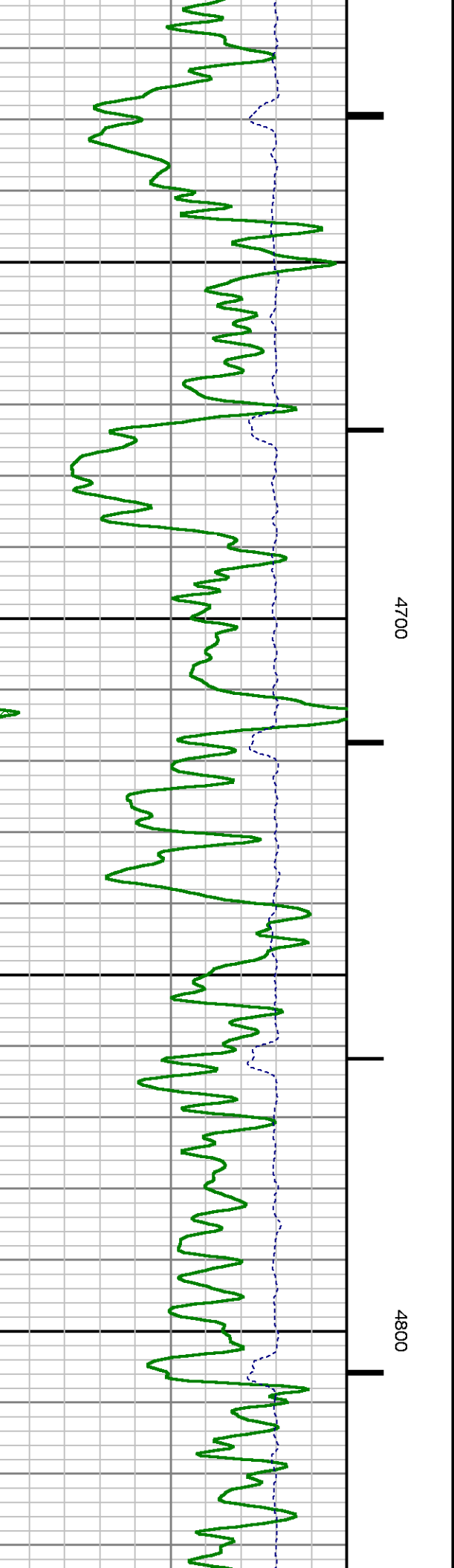
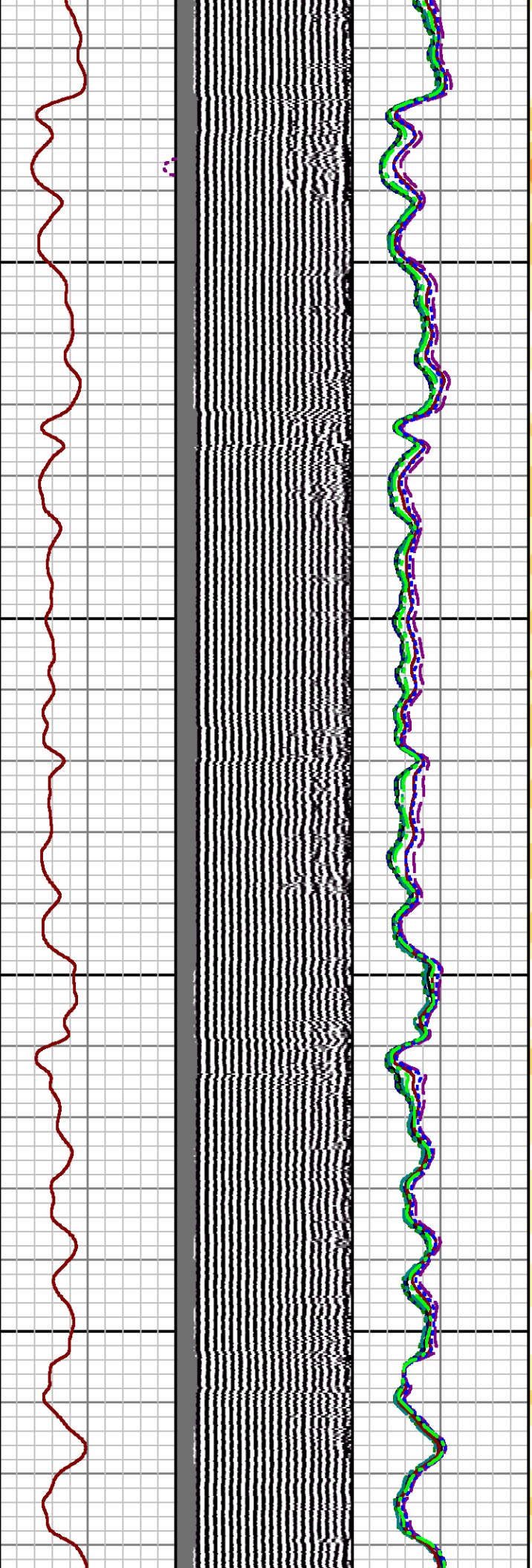




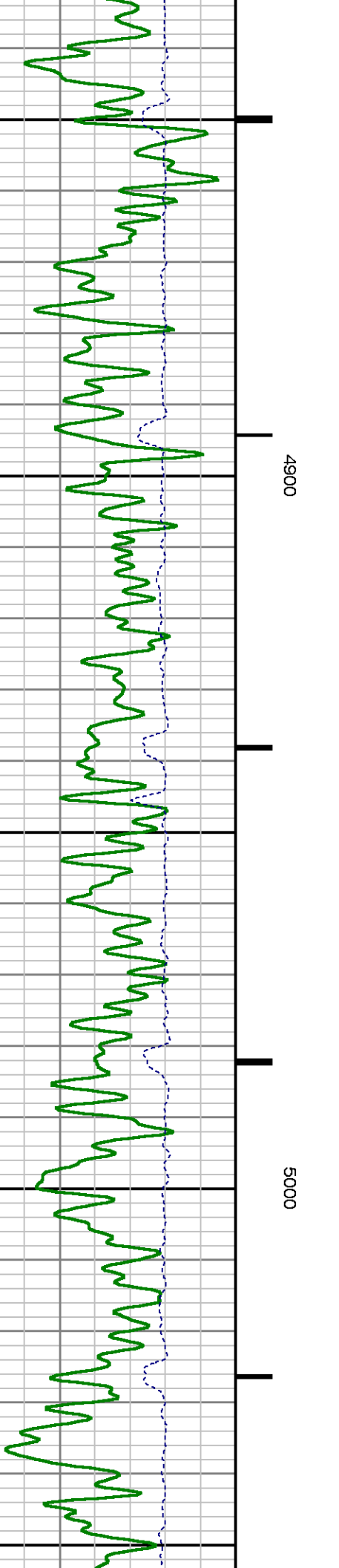
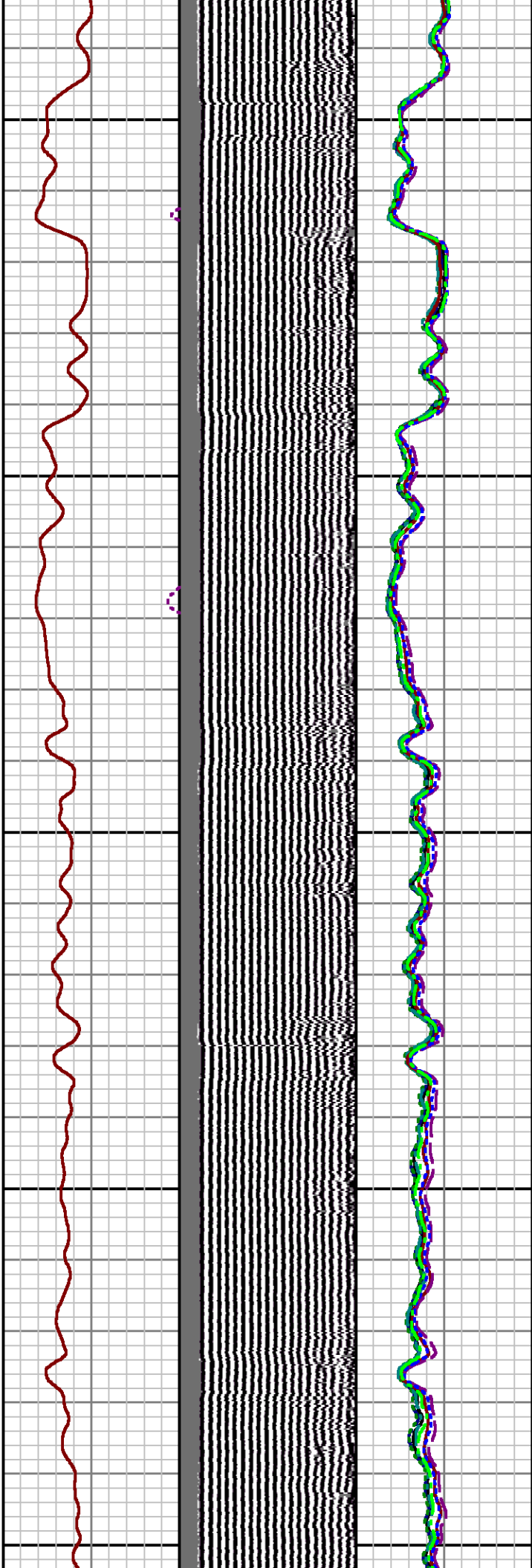
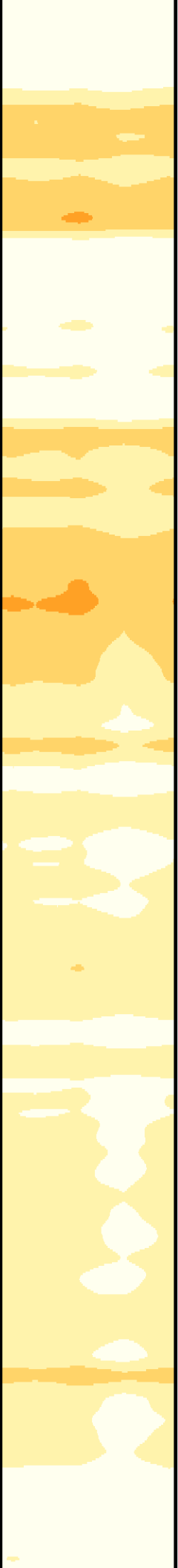




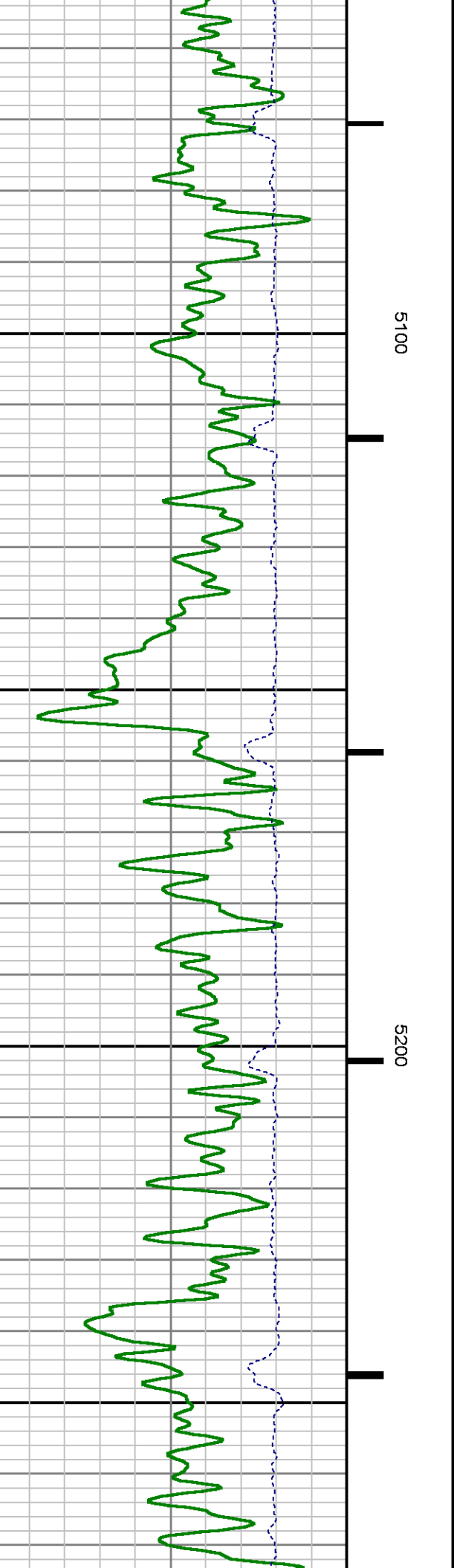
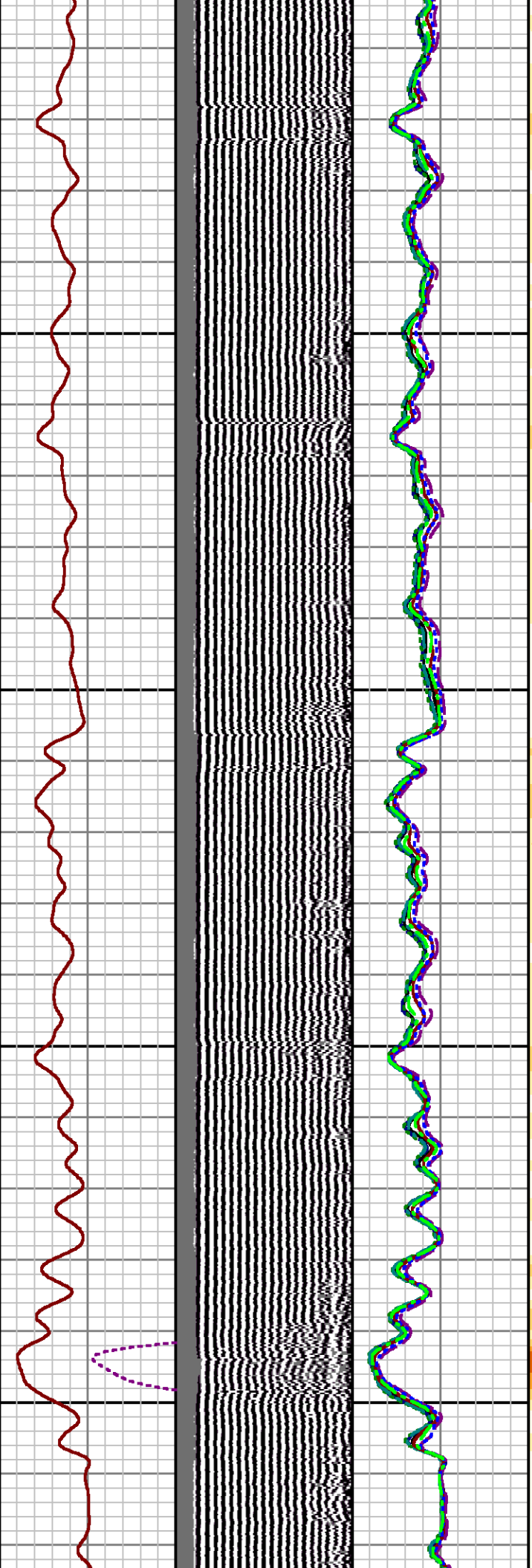
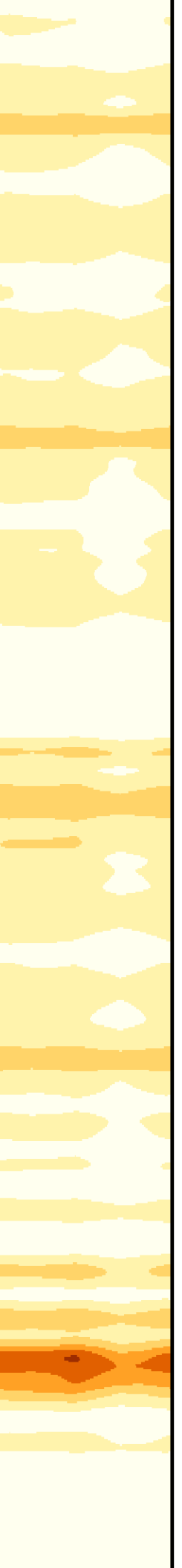


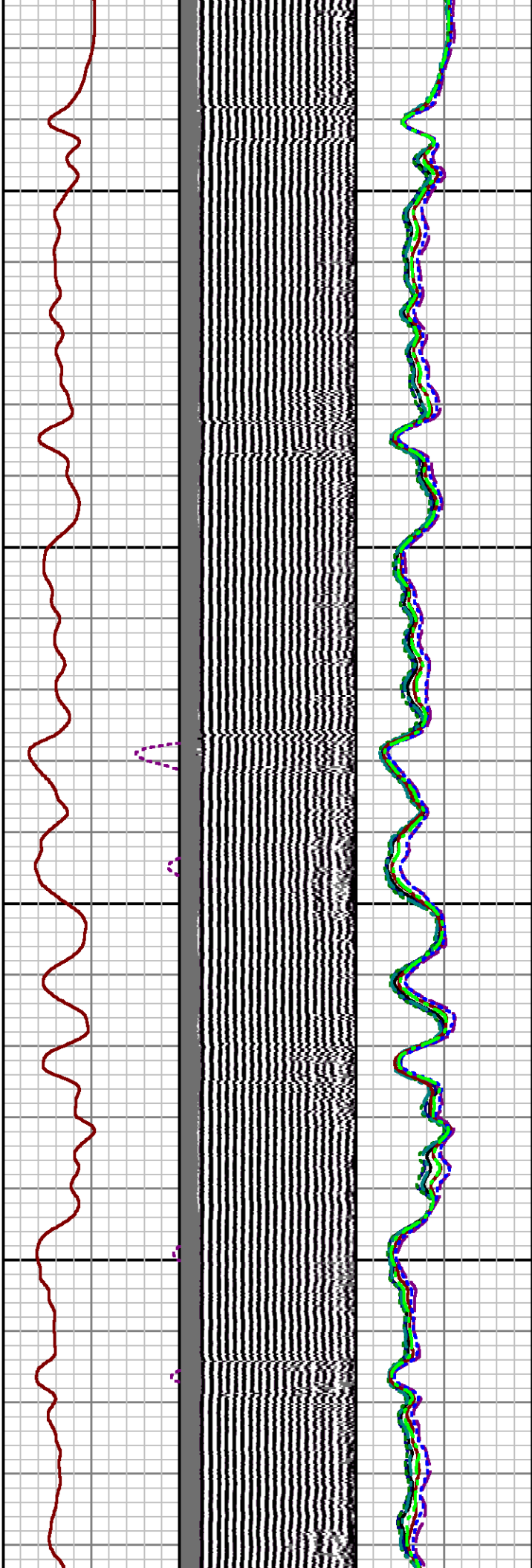
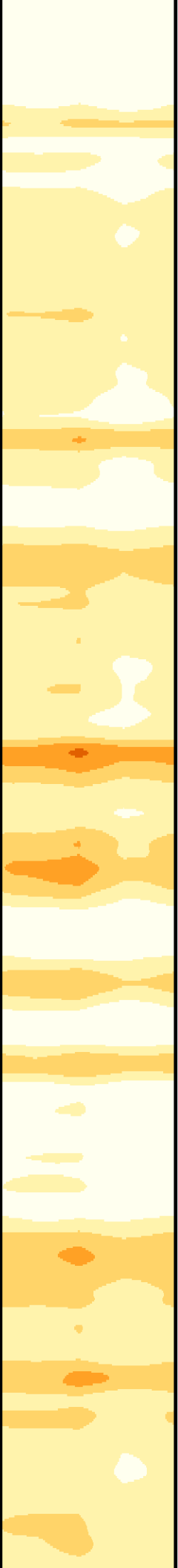






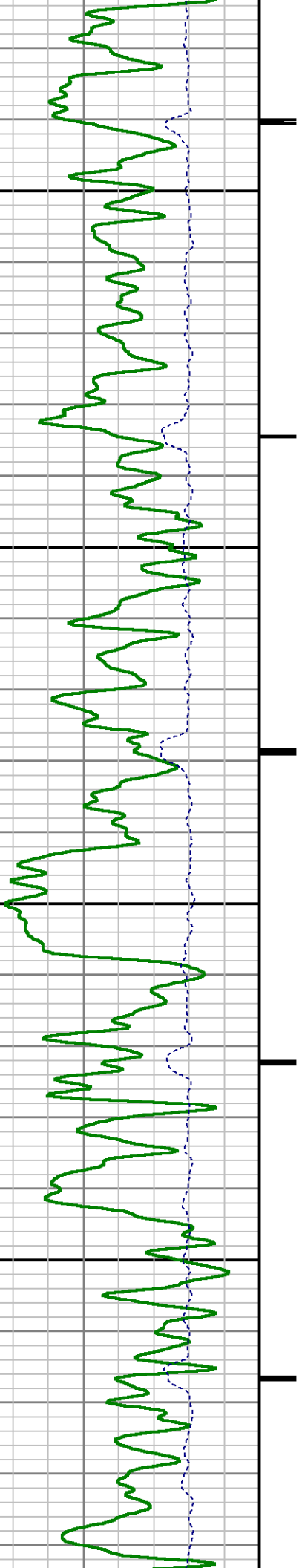


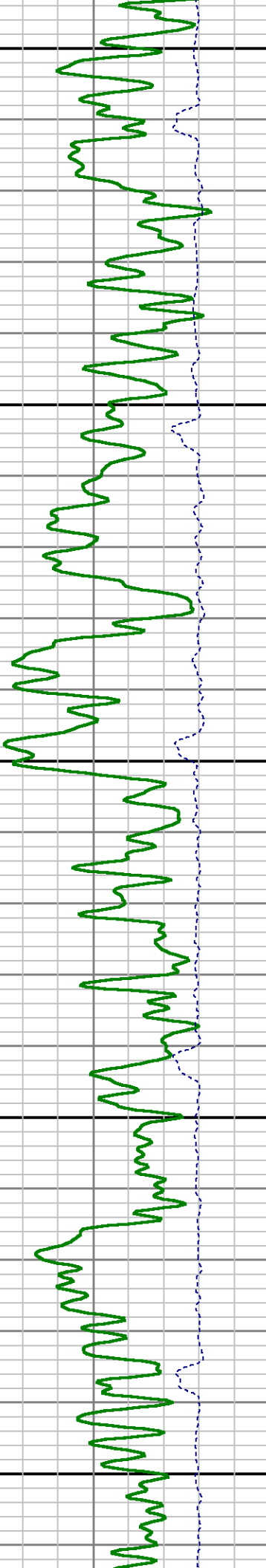
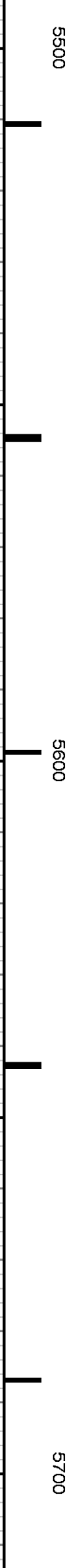
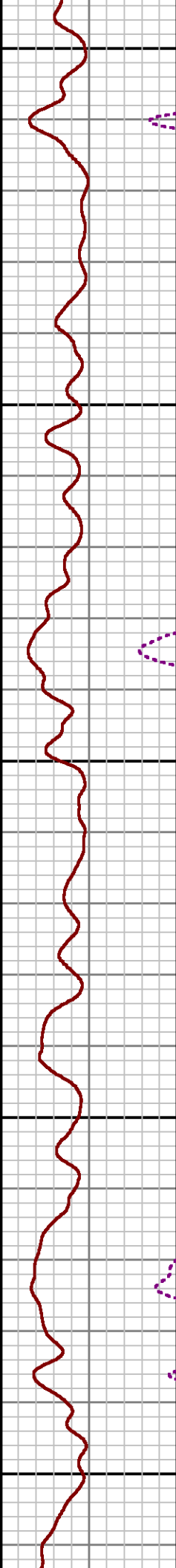
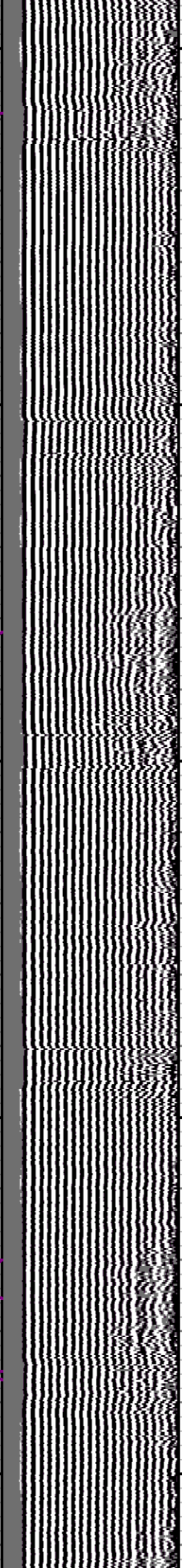
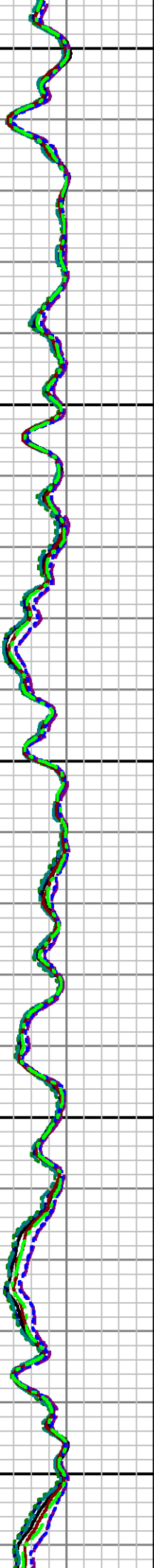
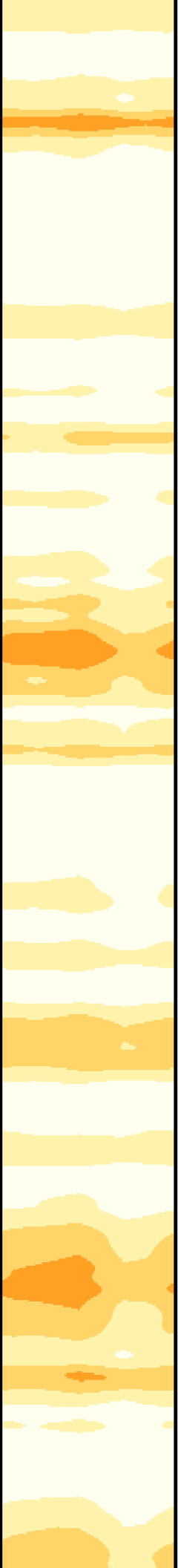


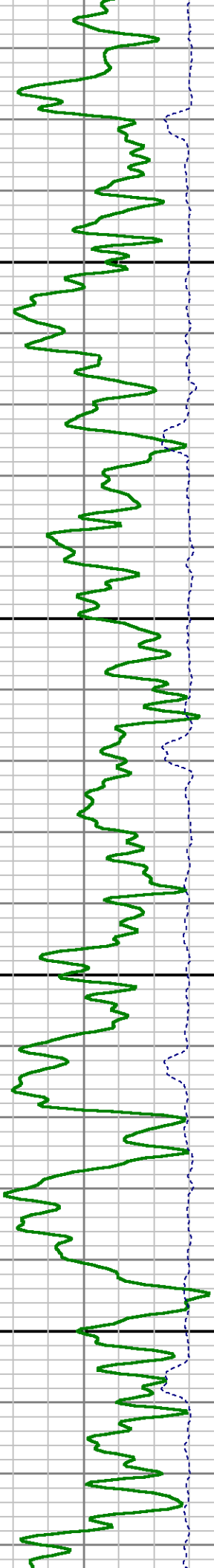
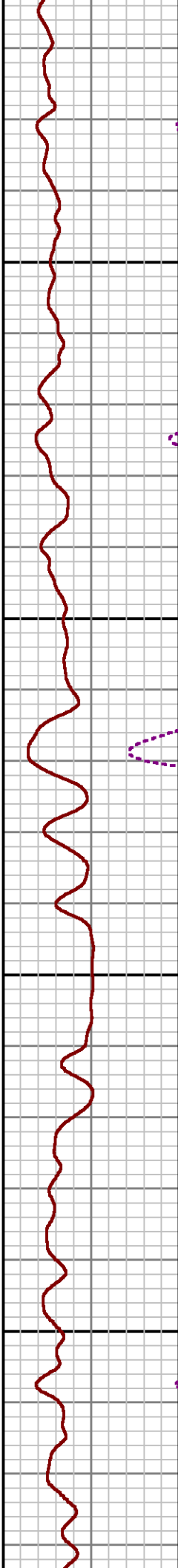
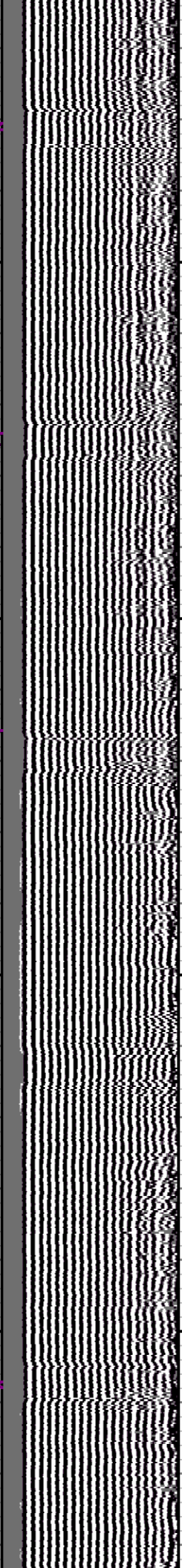
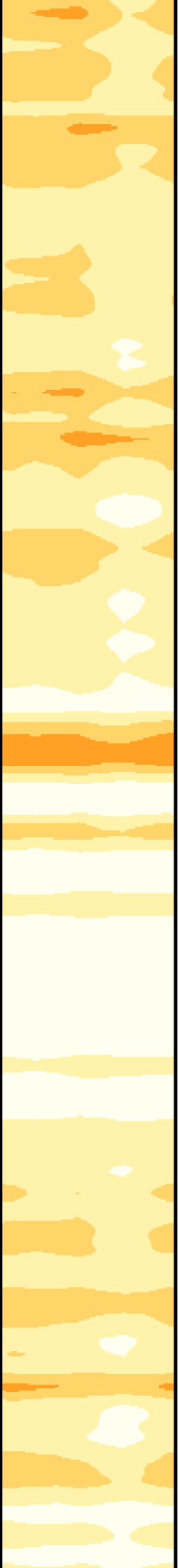


5300

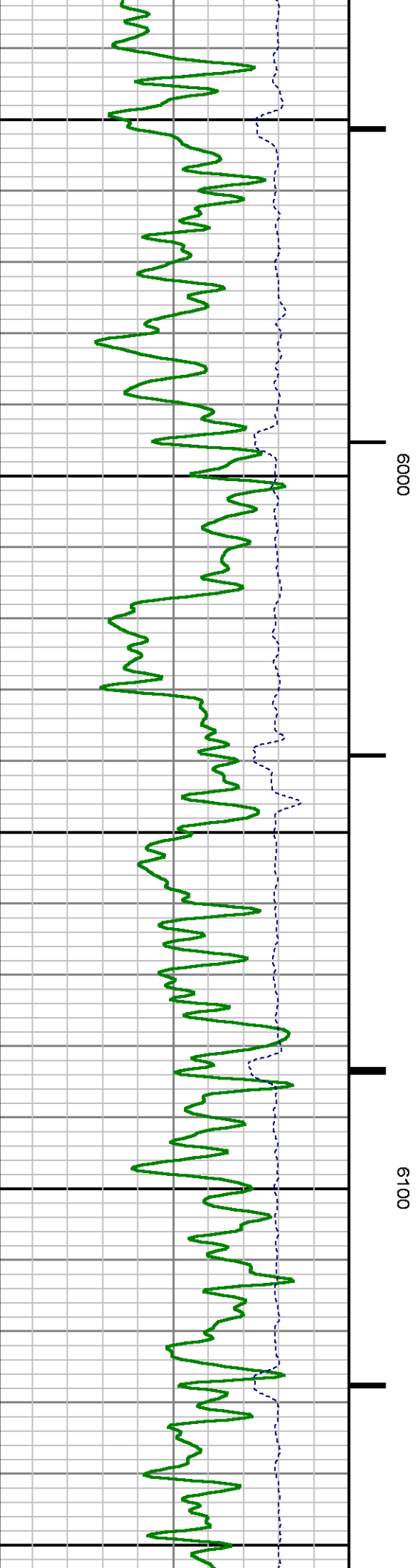
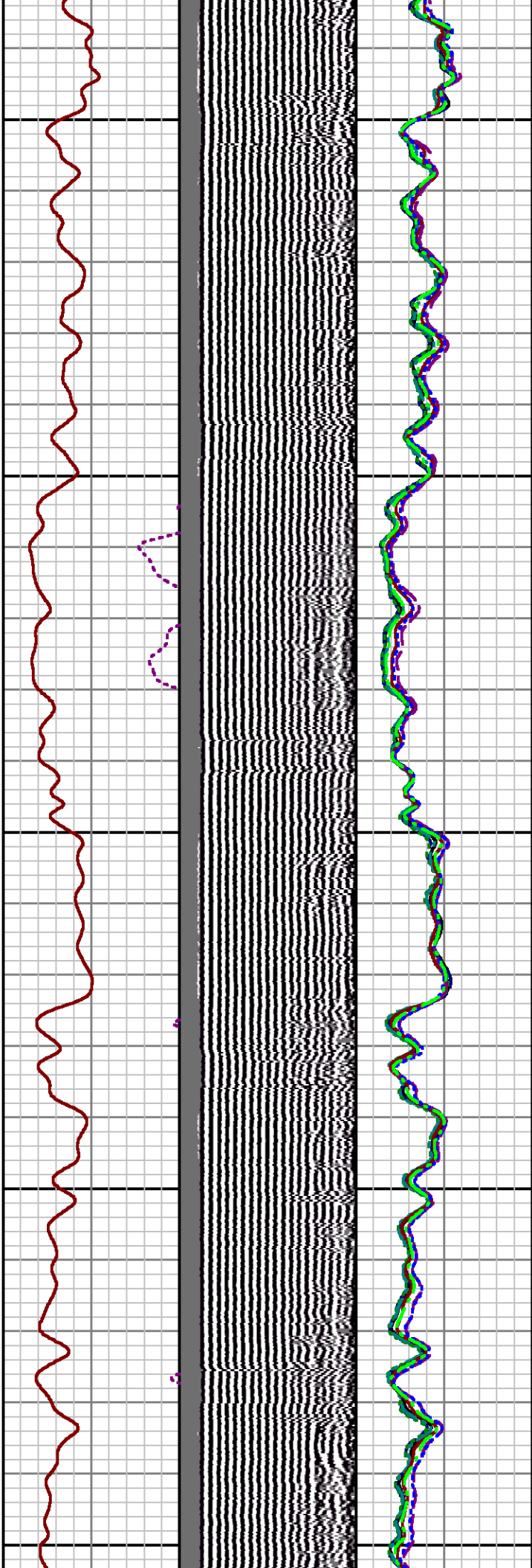
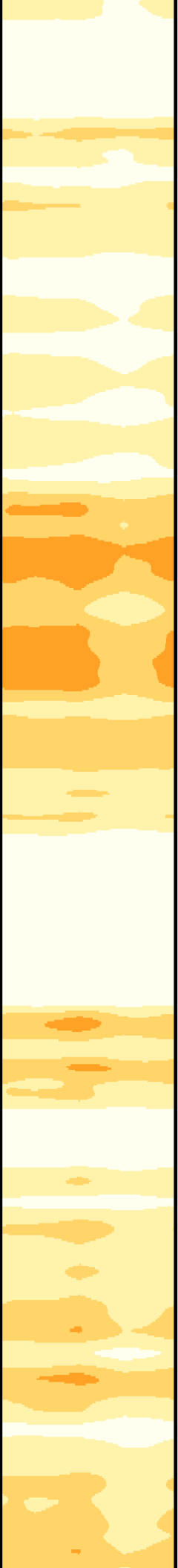
5400



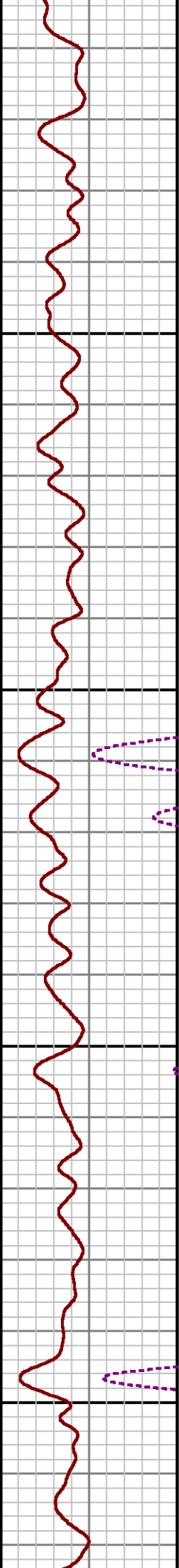
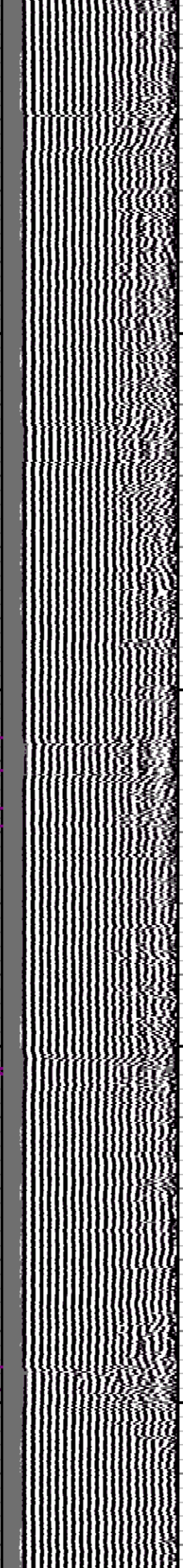
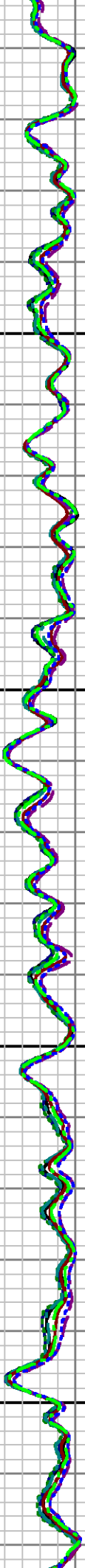
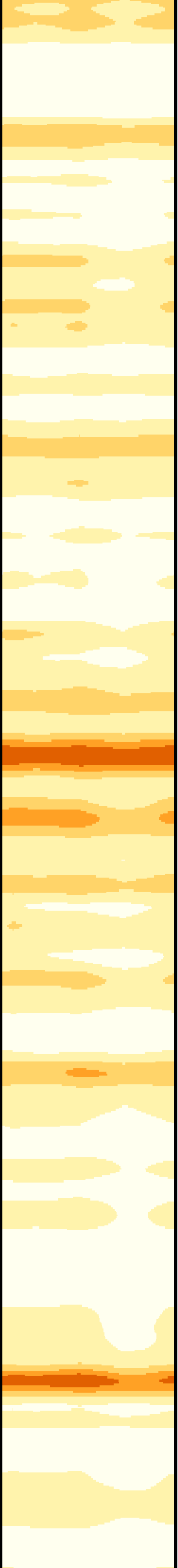






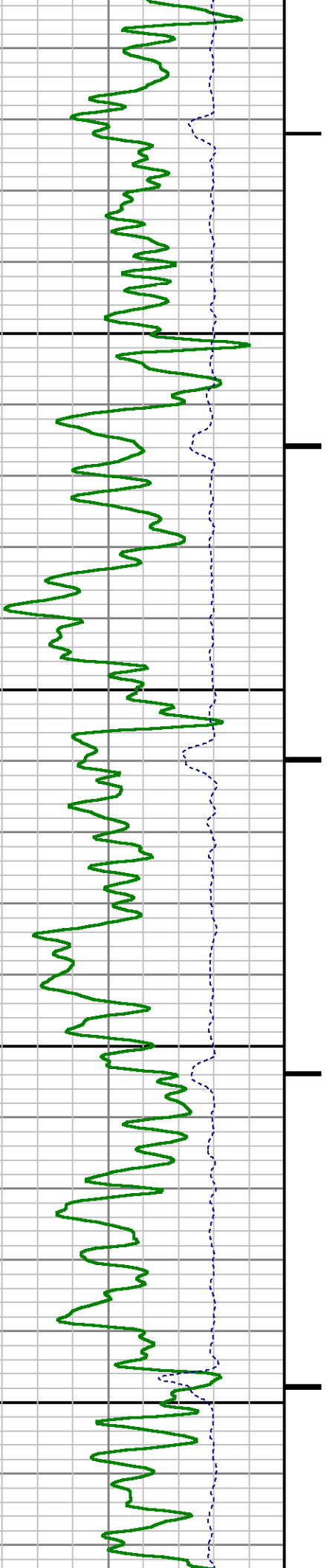


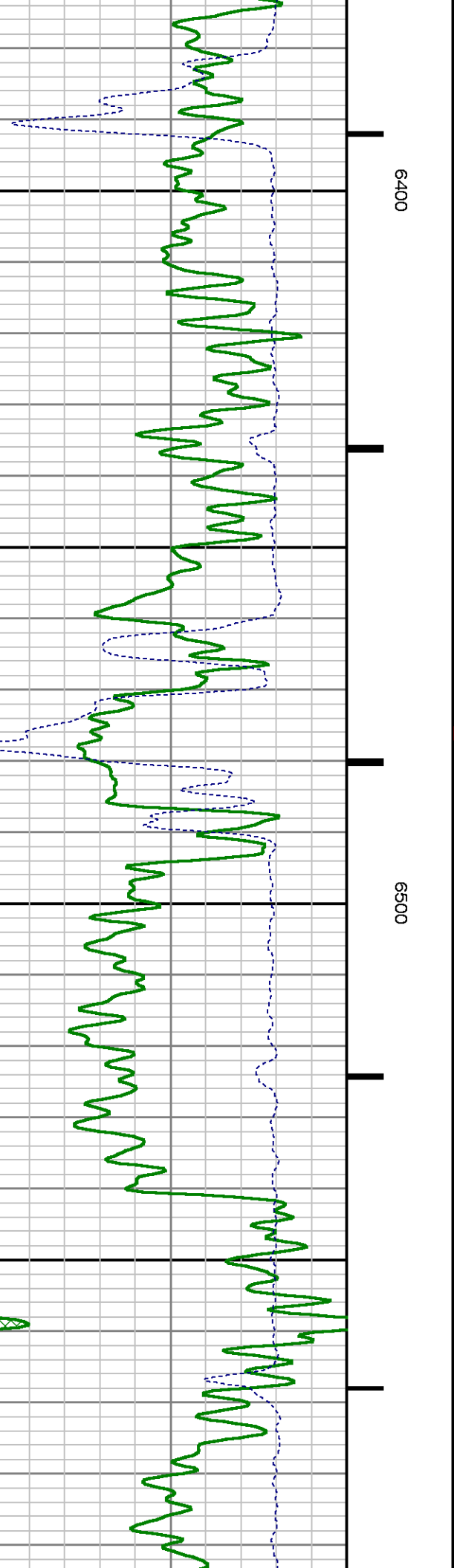
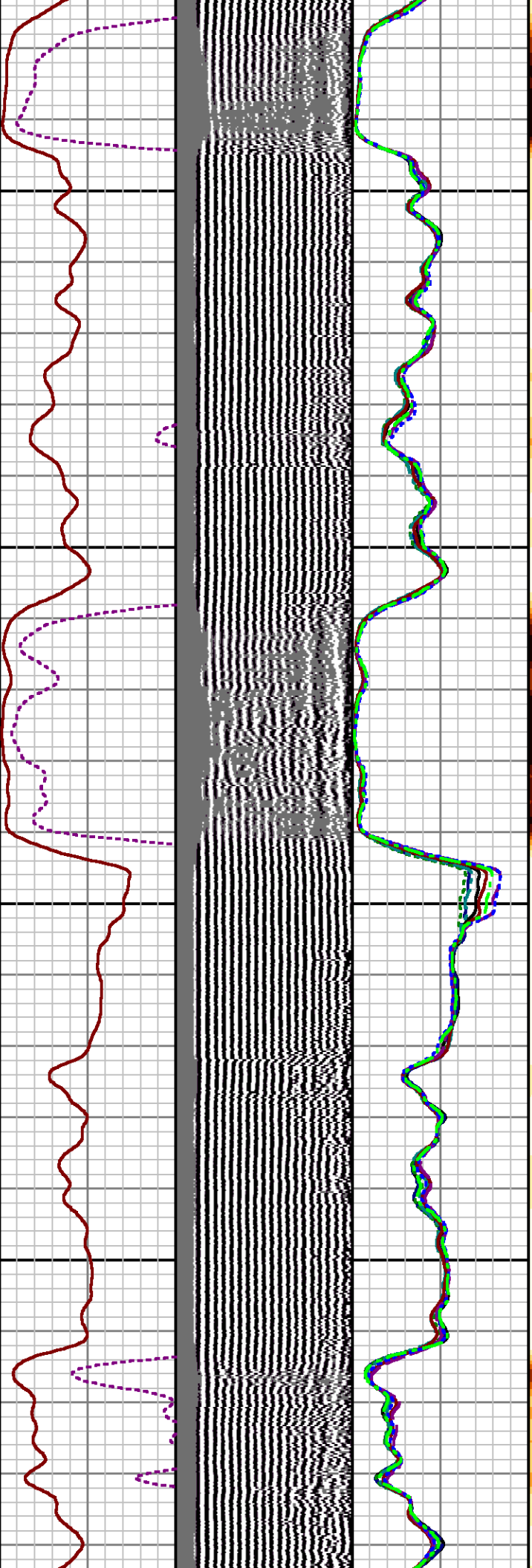


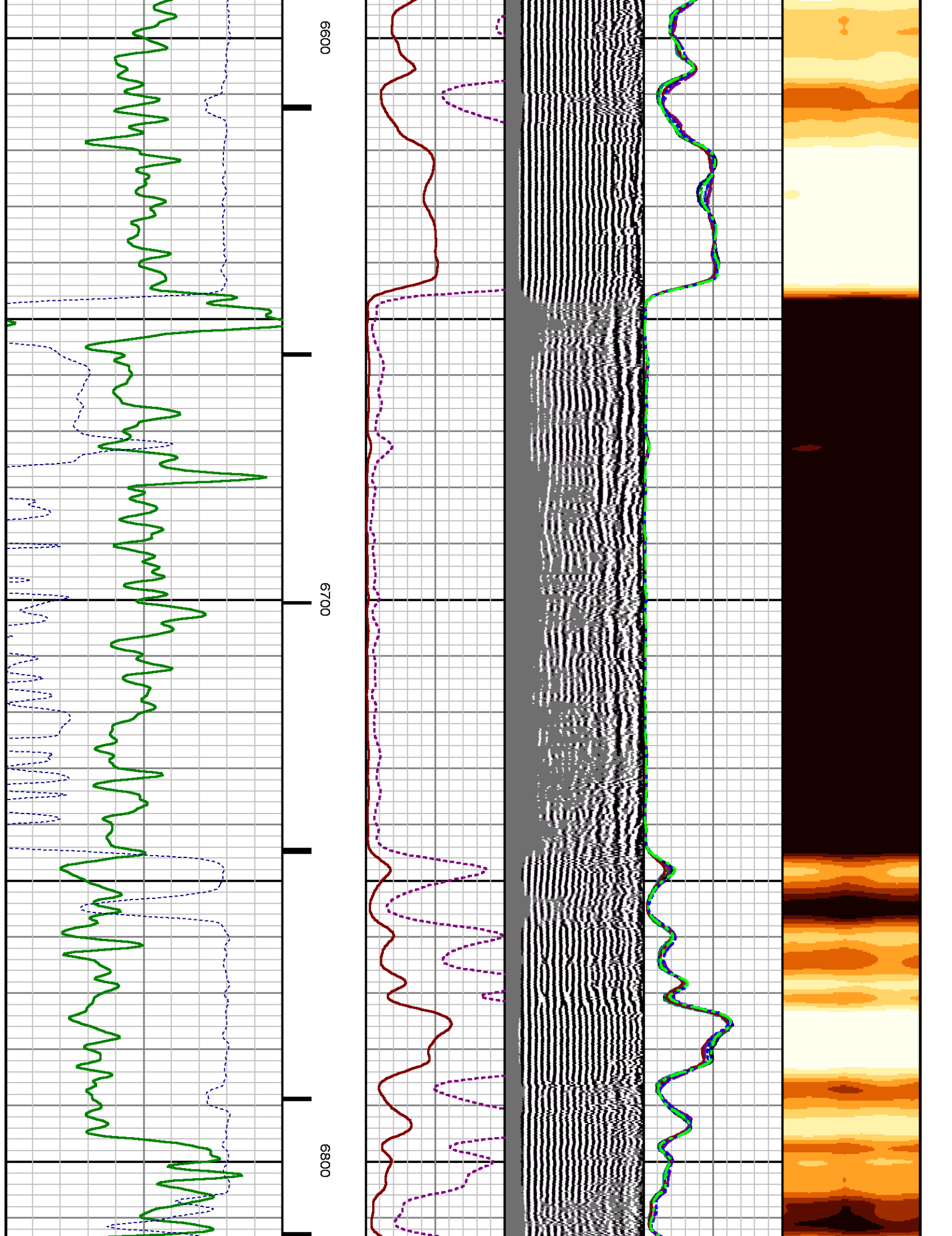


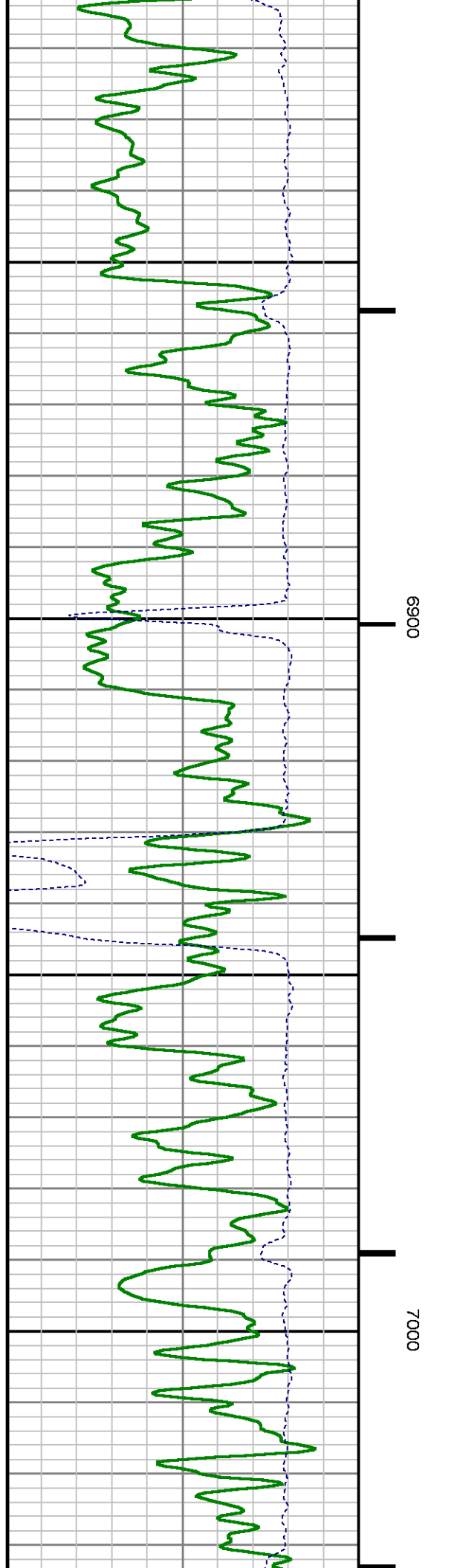
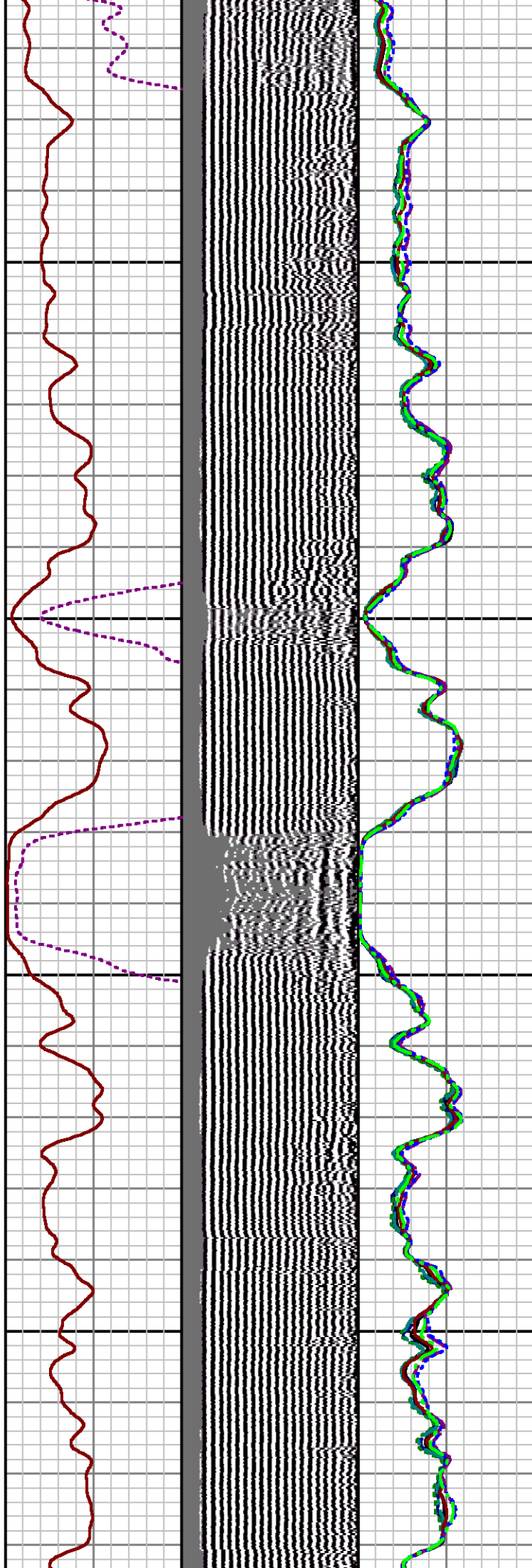
6200

6300

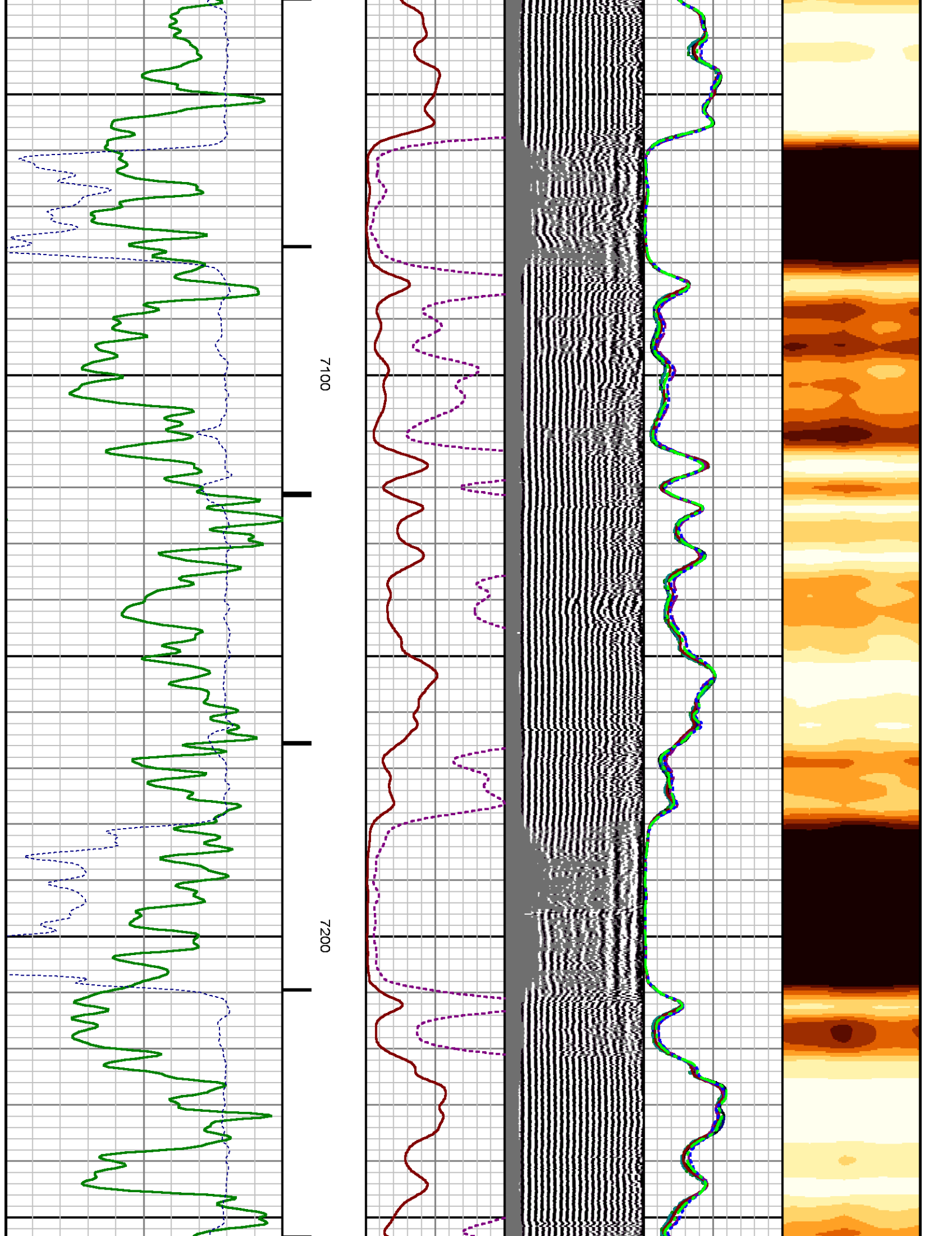




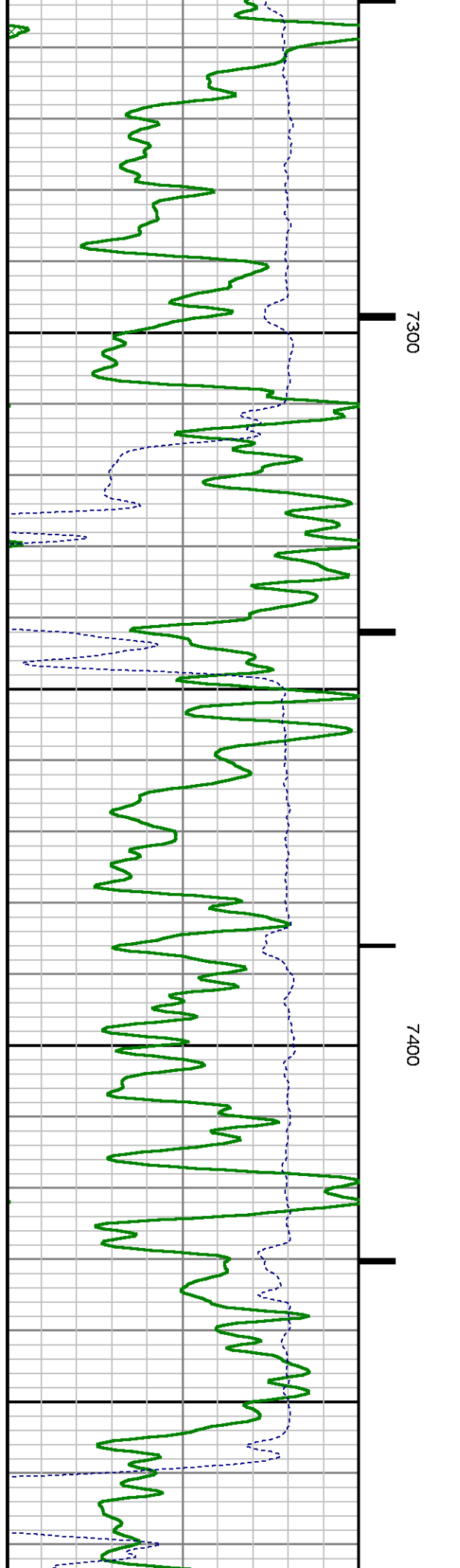
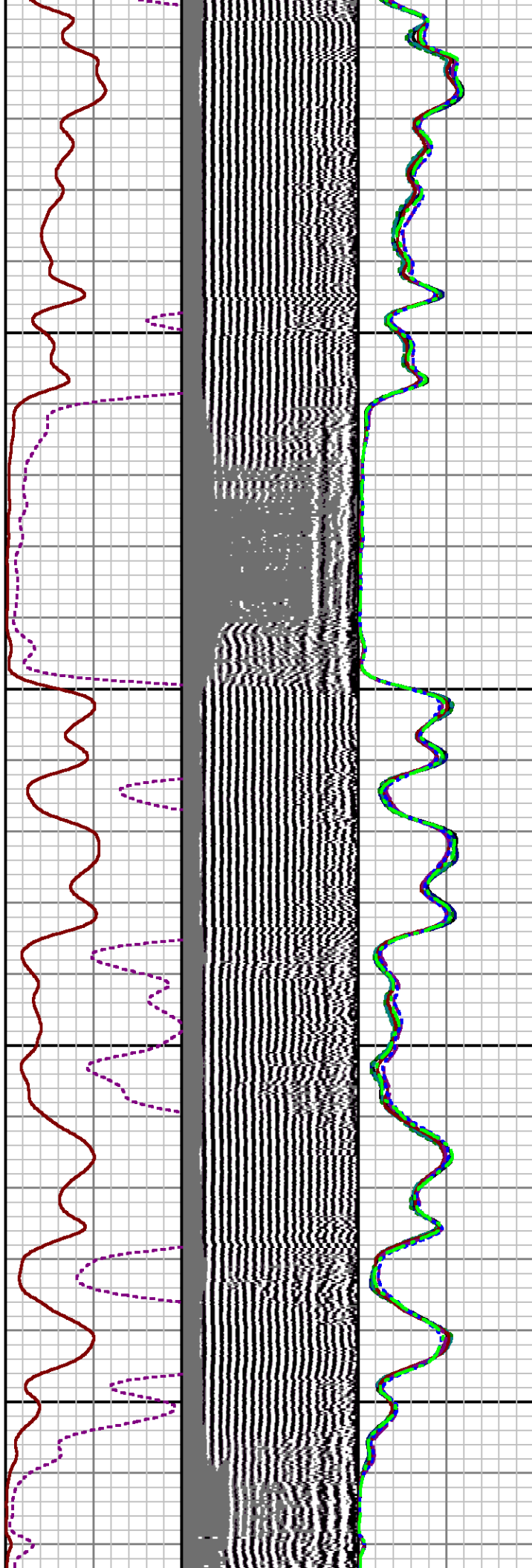
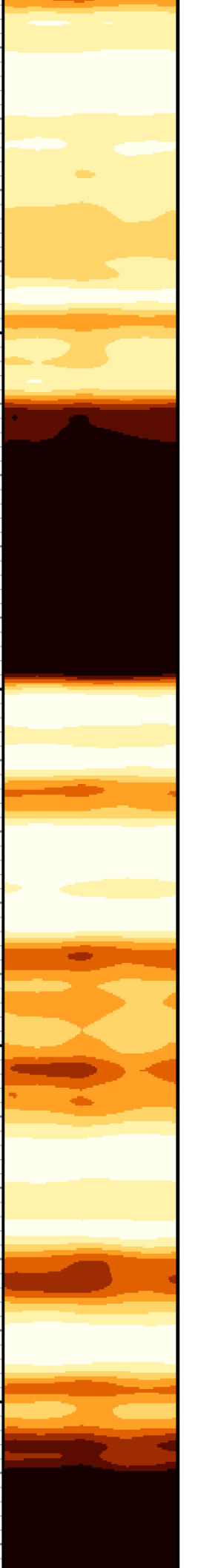


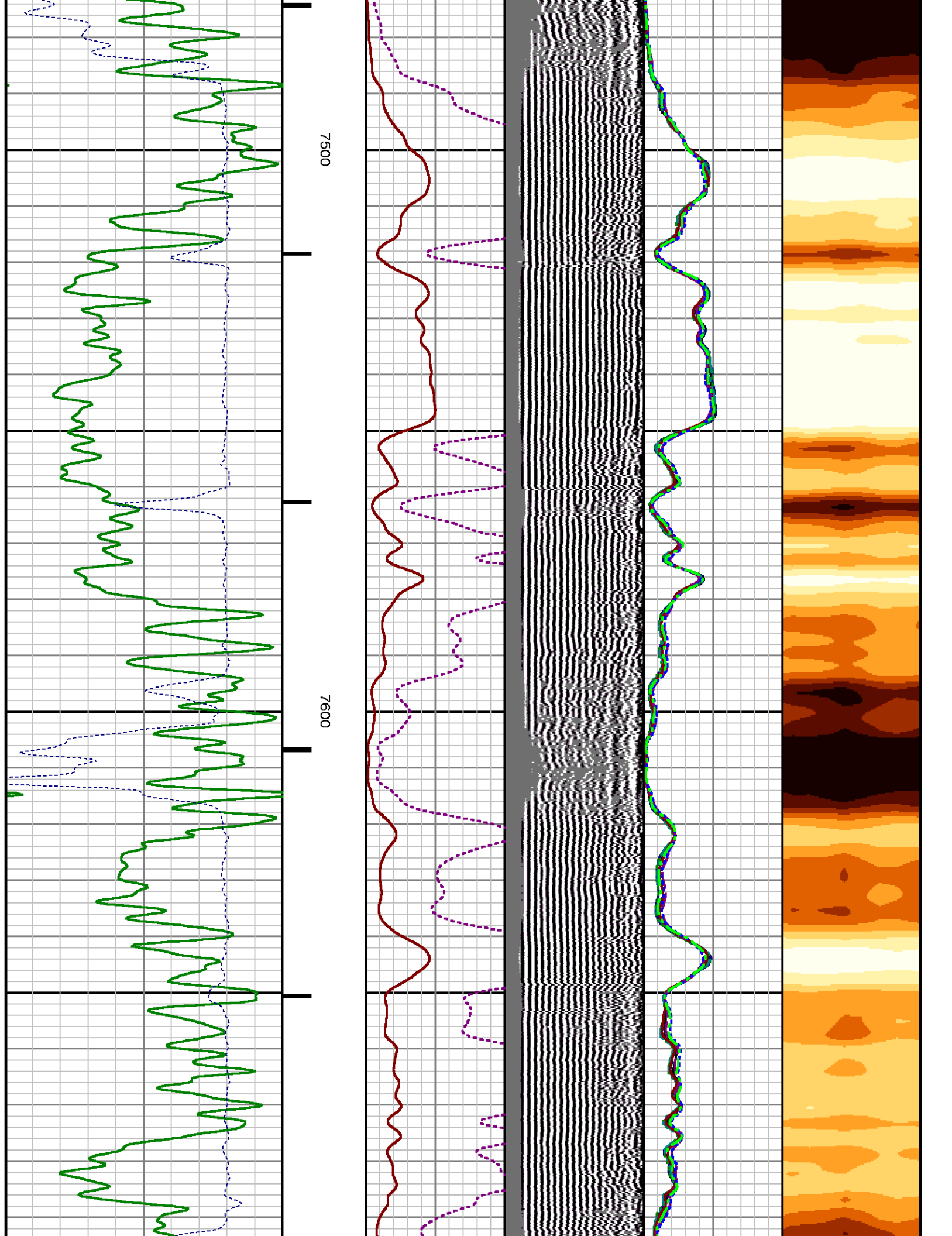


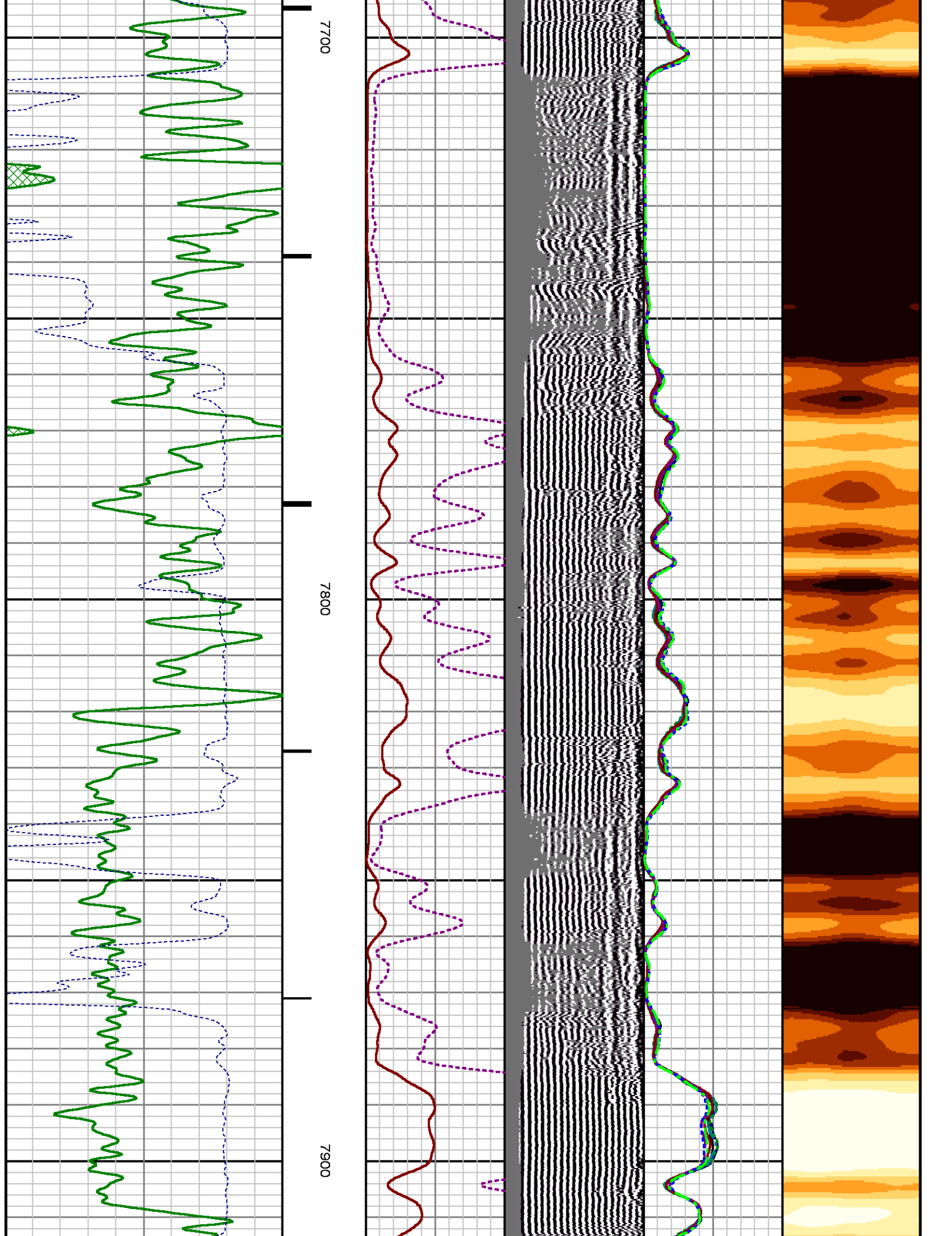


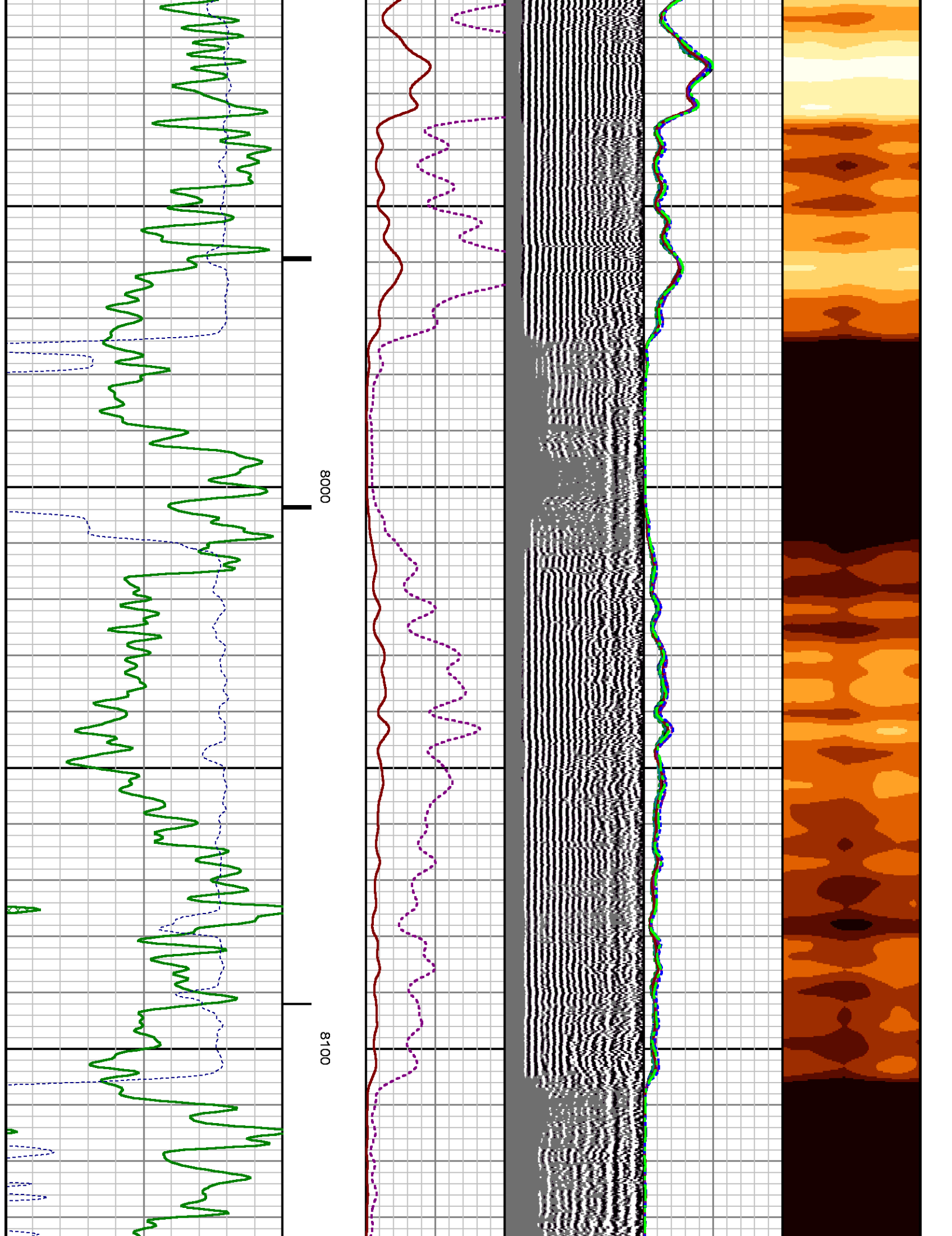




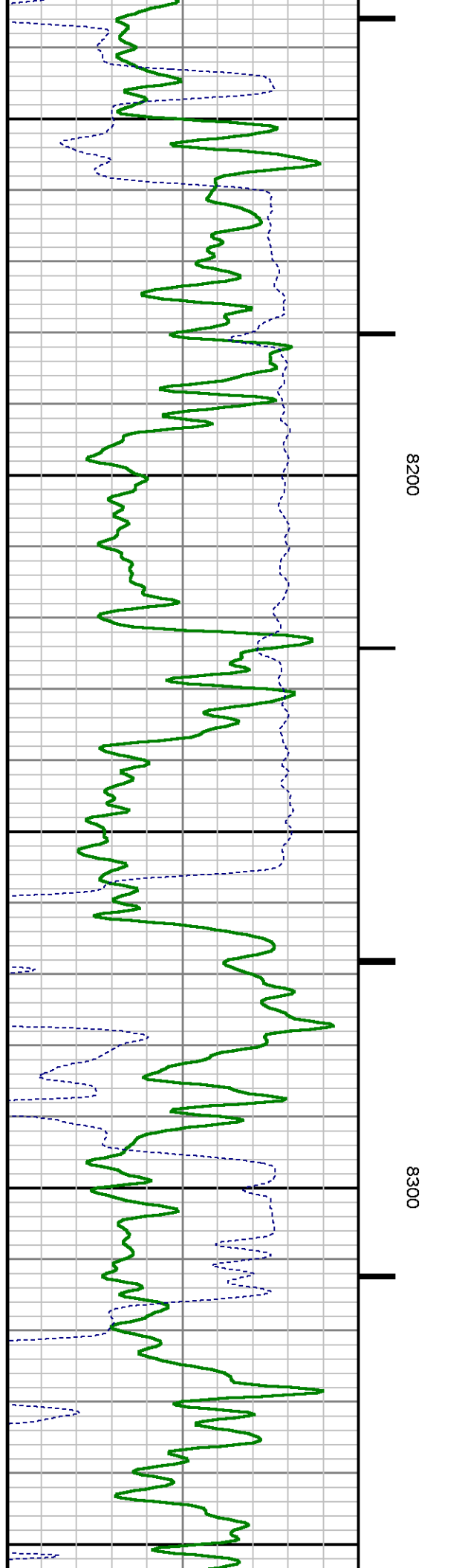
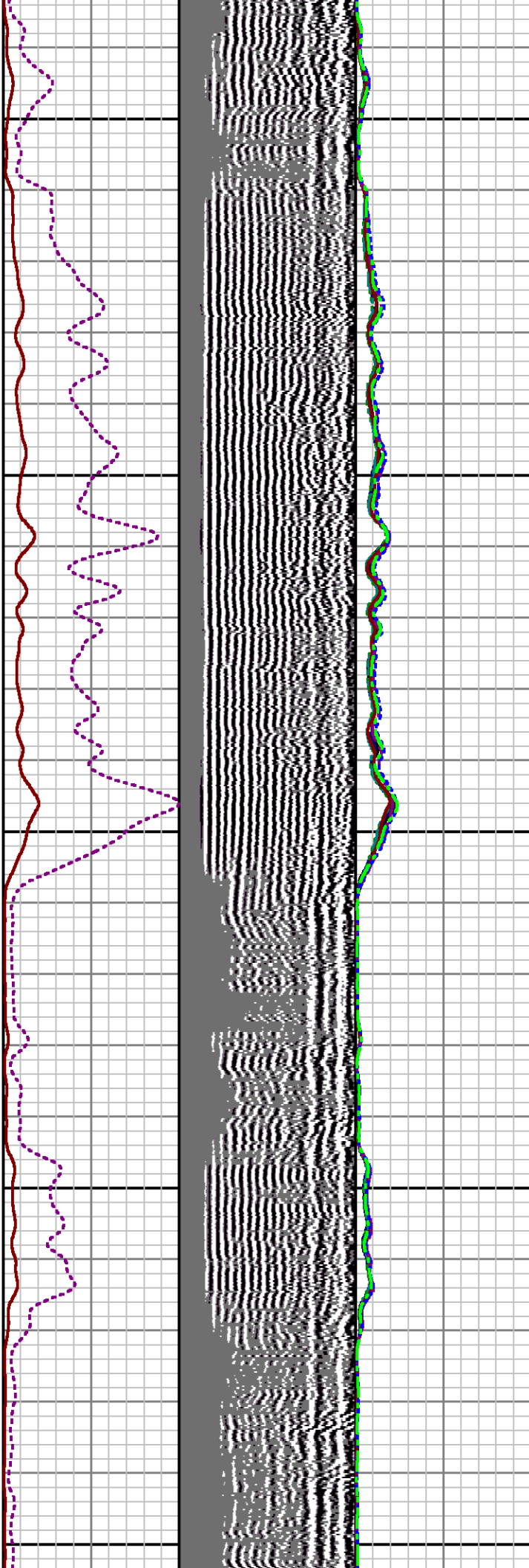
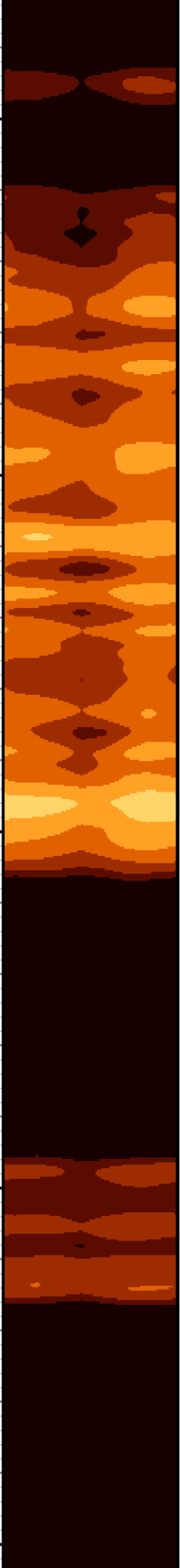




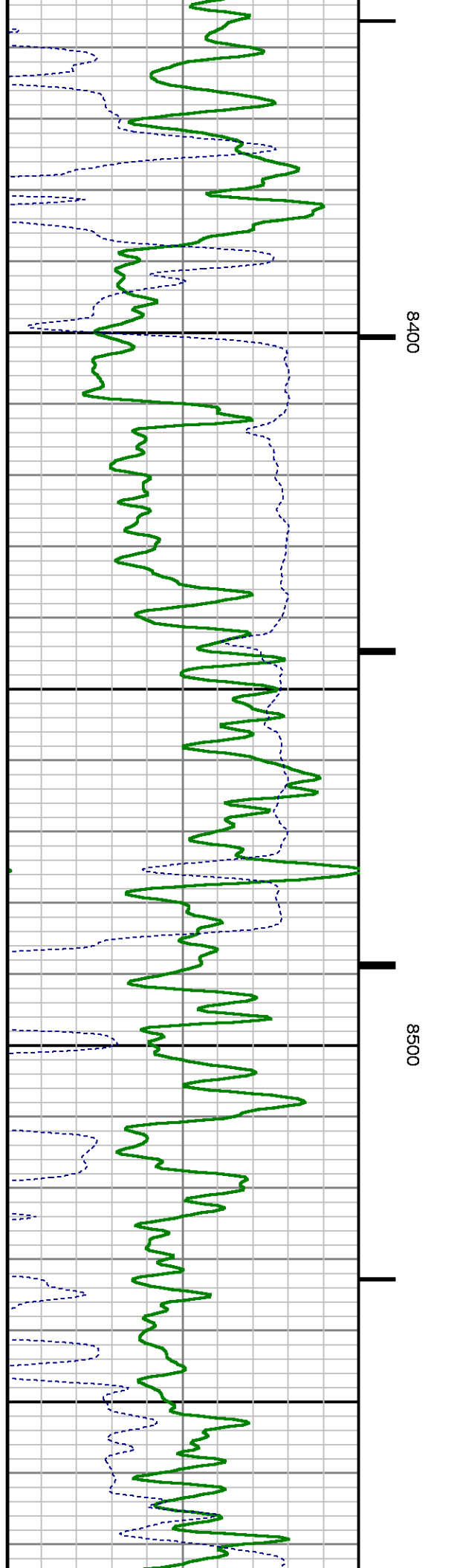
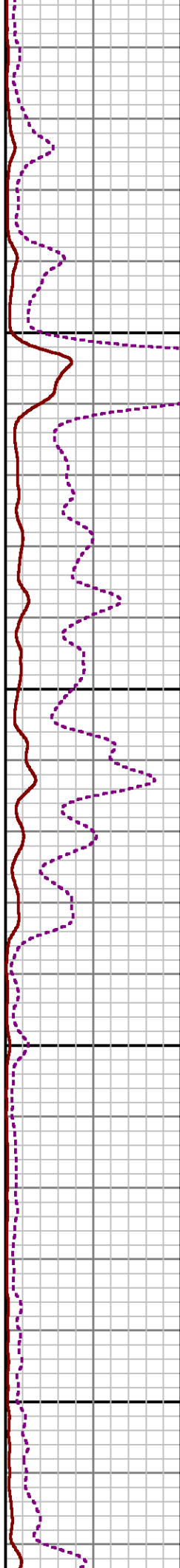
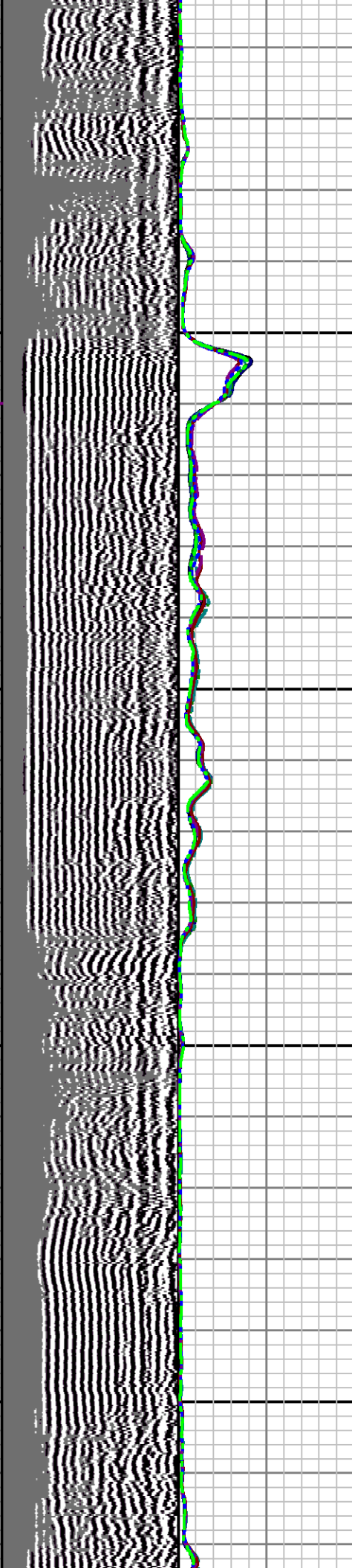


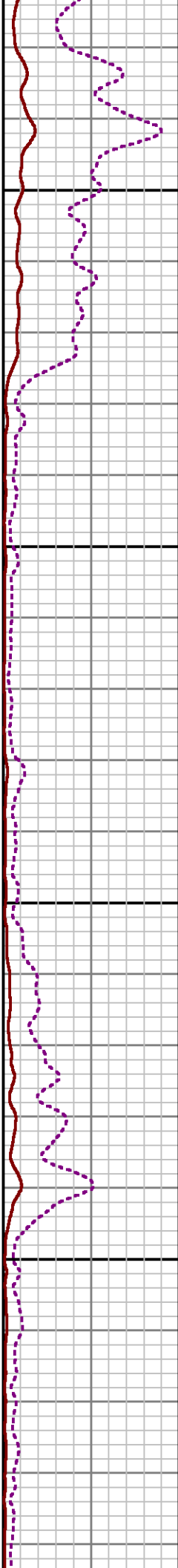
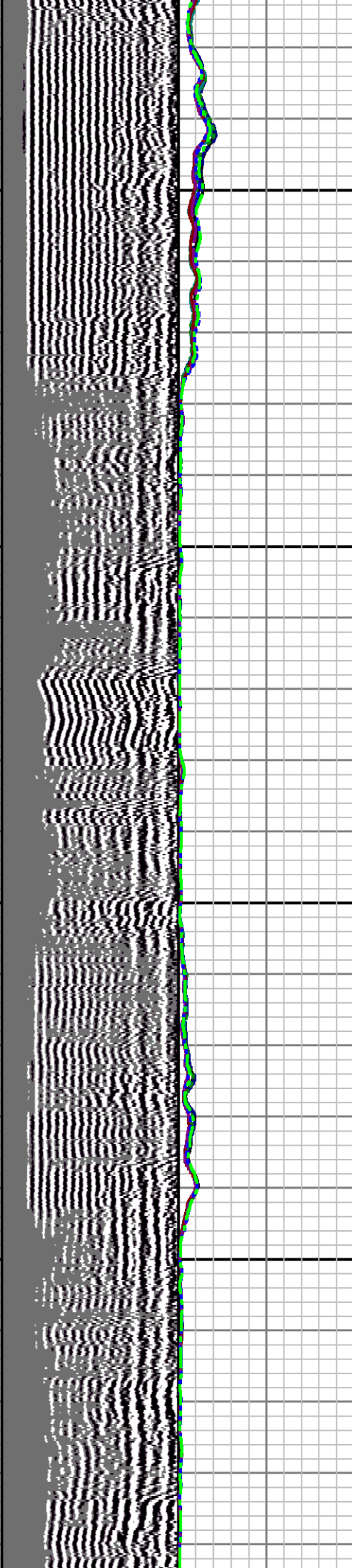






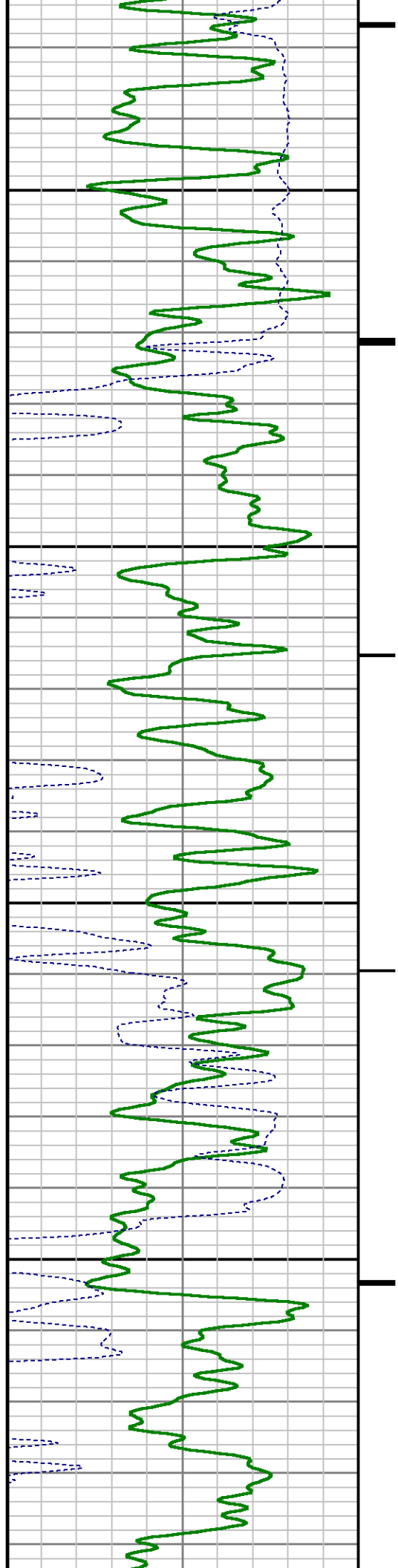


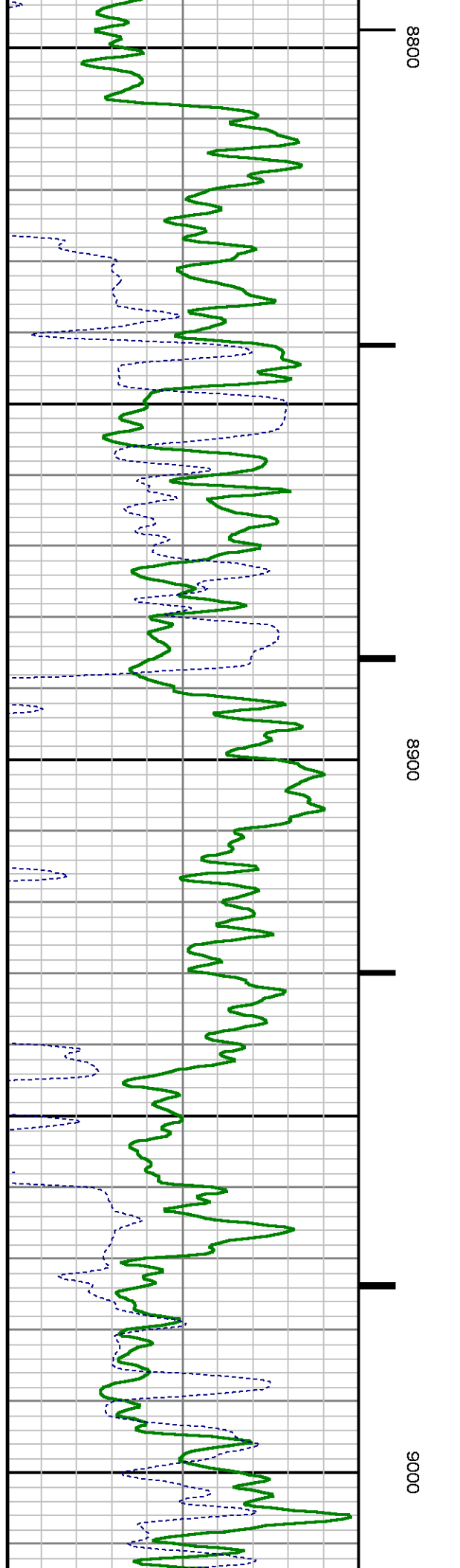
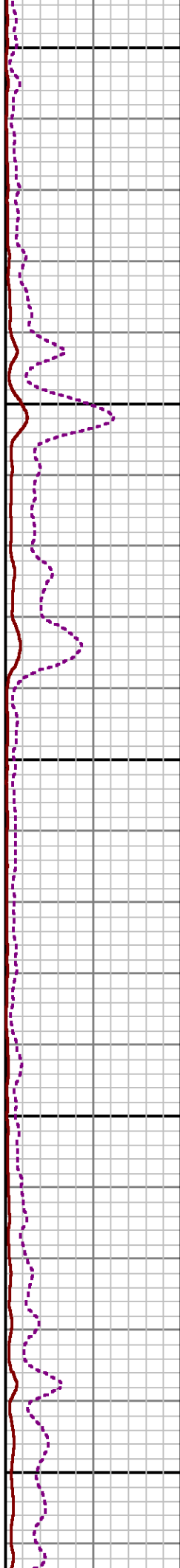
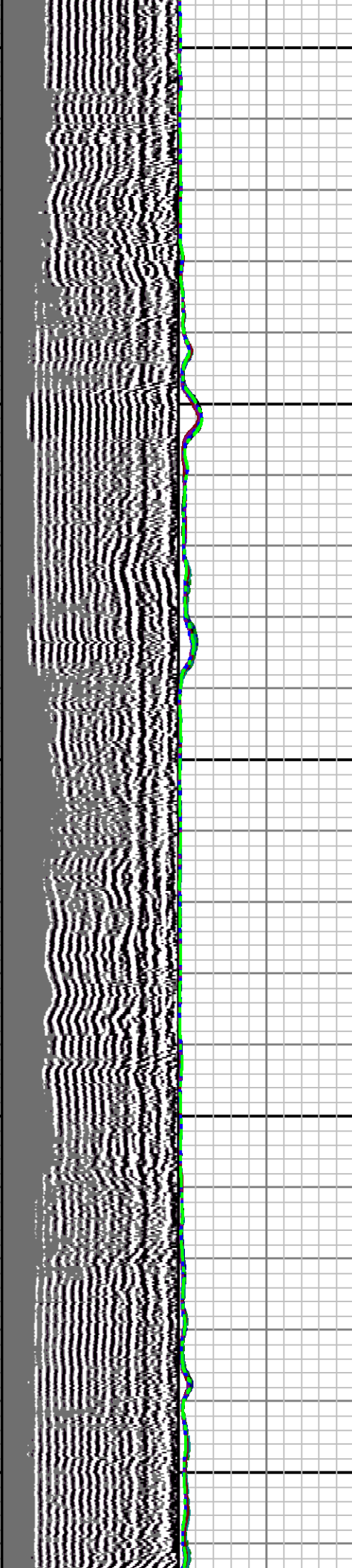


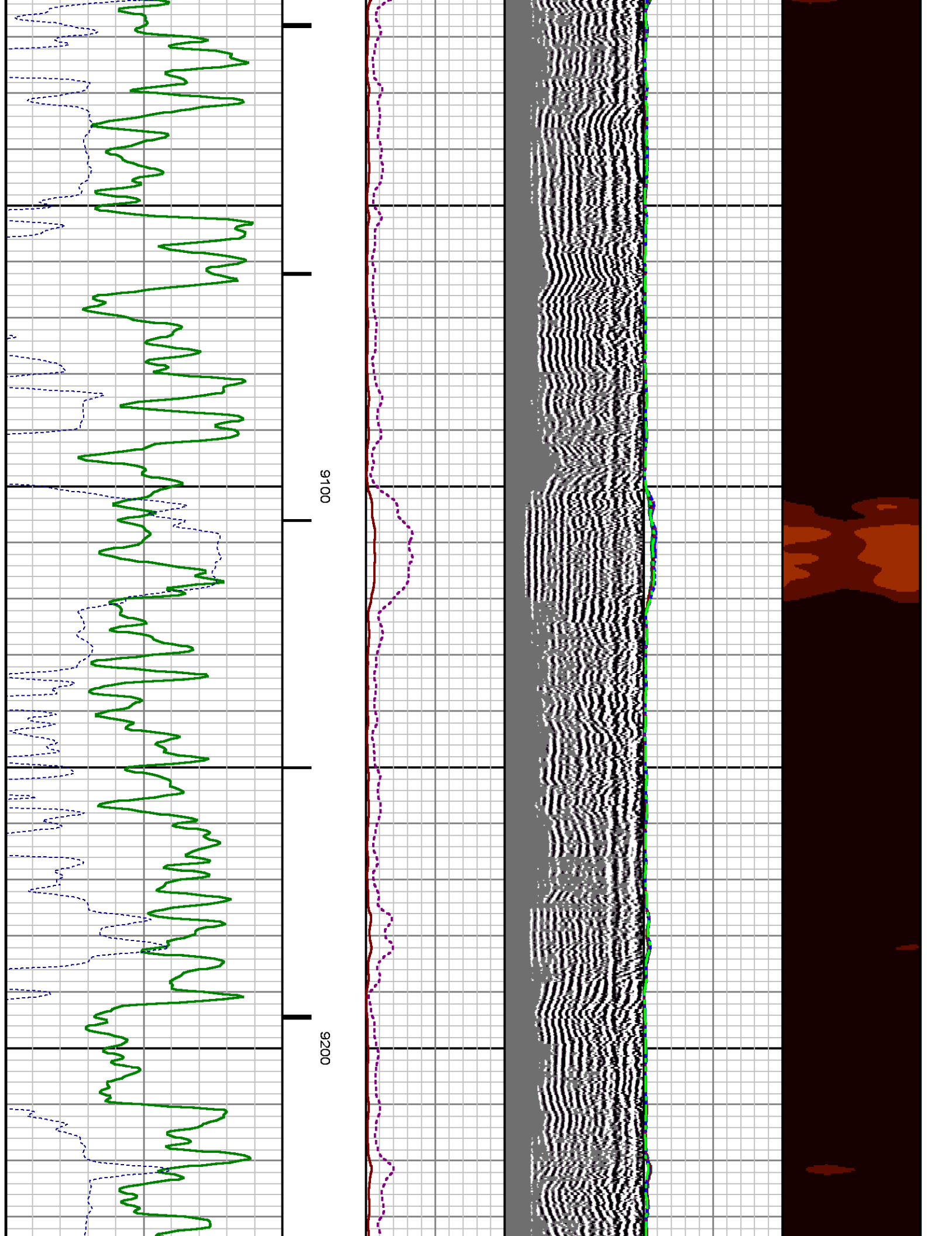


8600

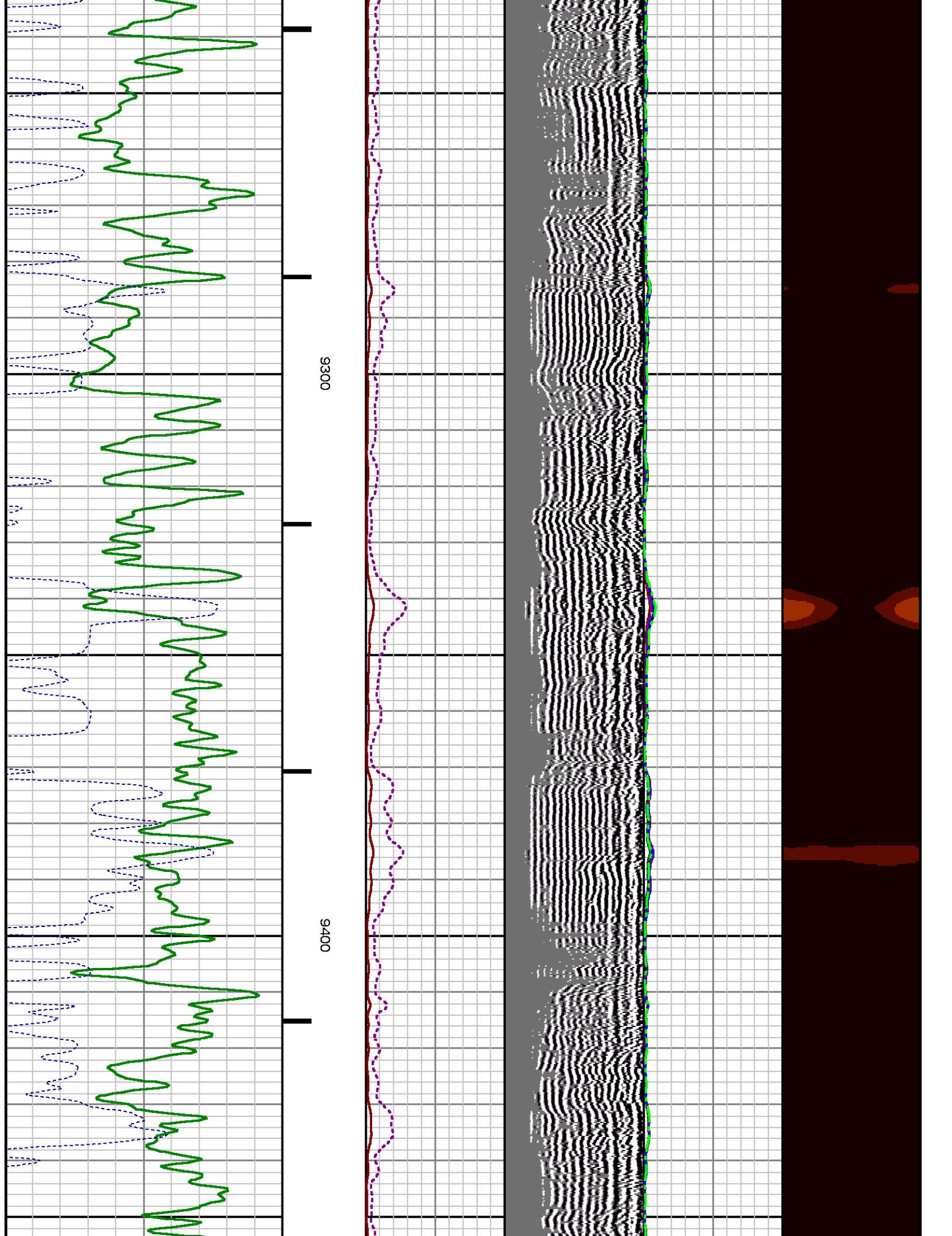
8700



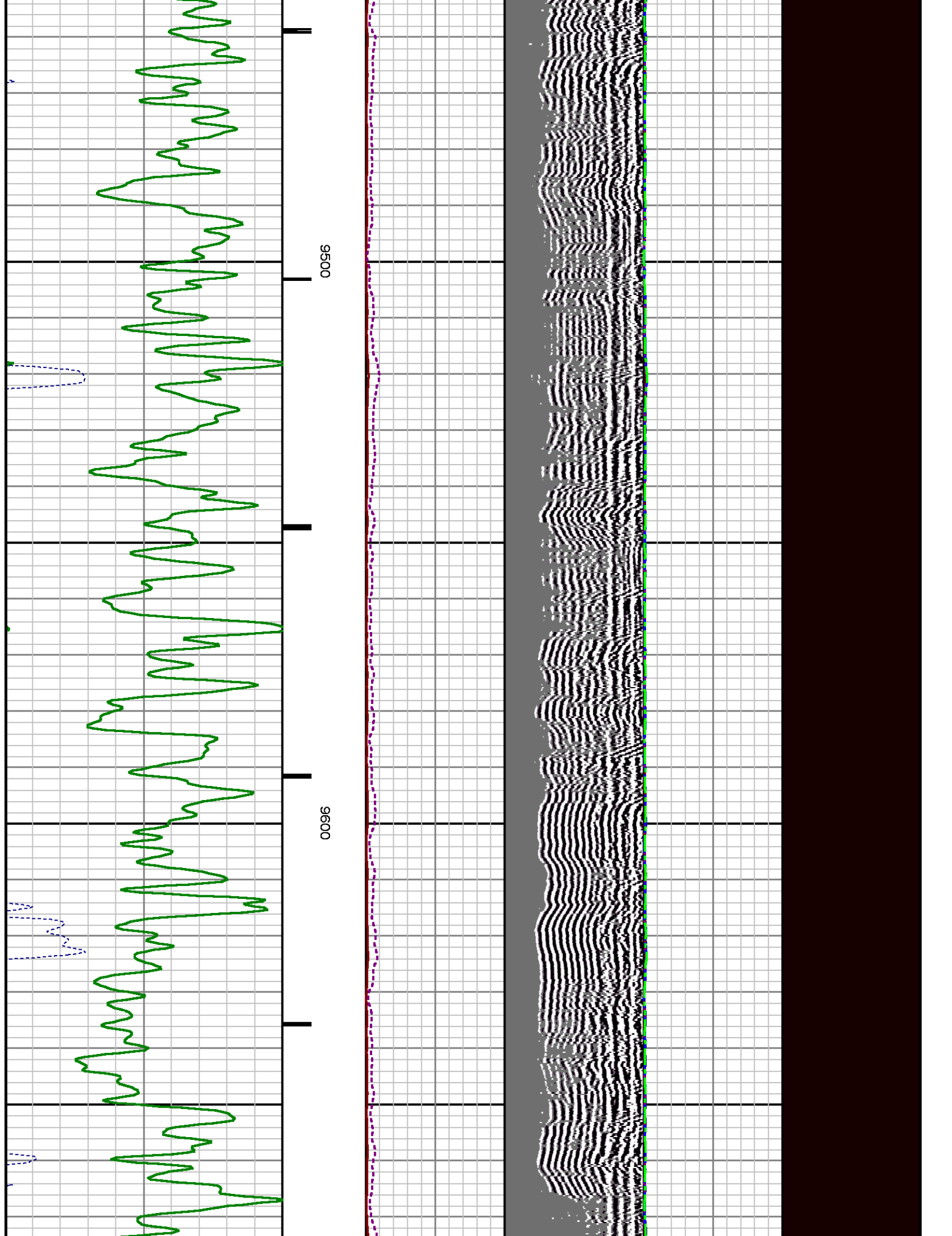


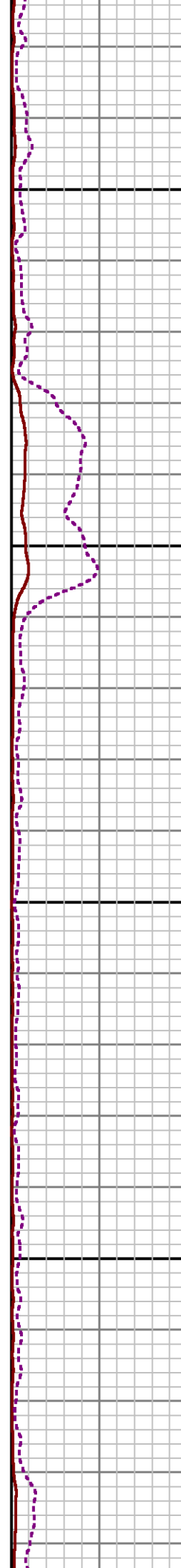
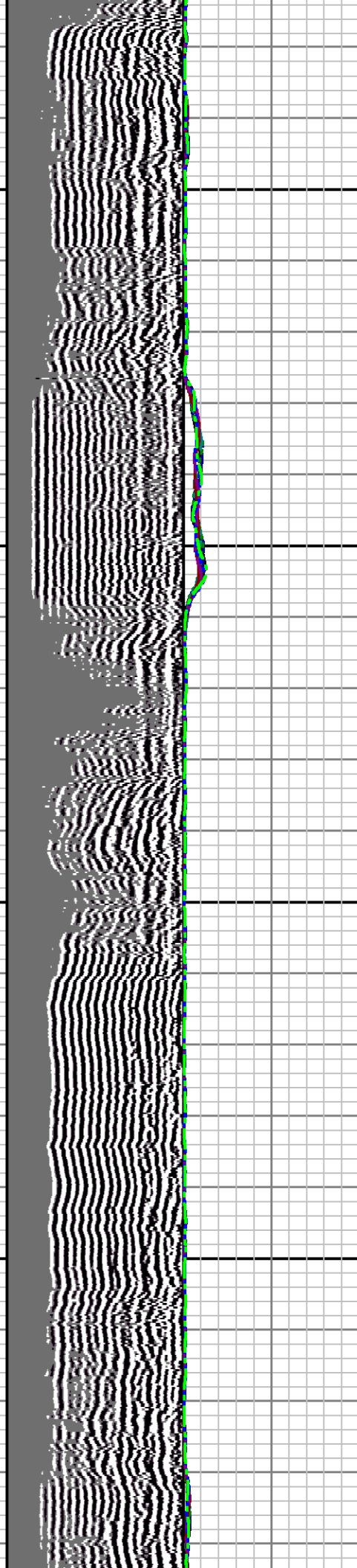
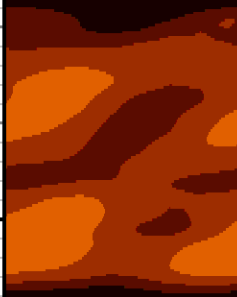






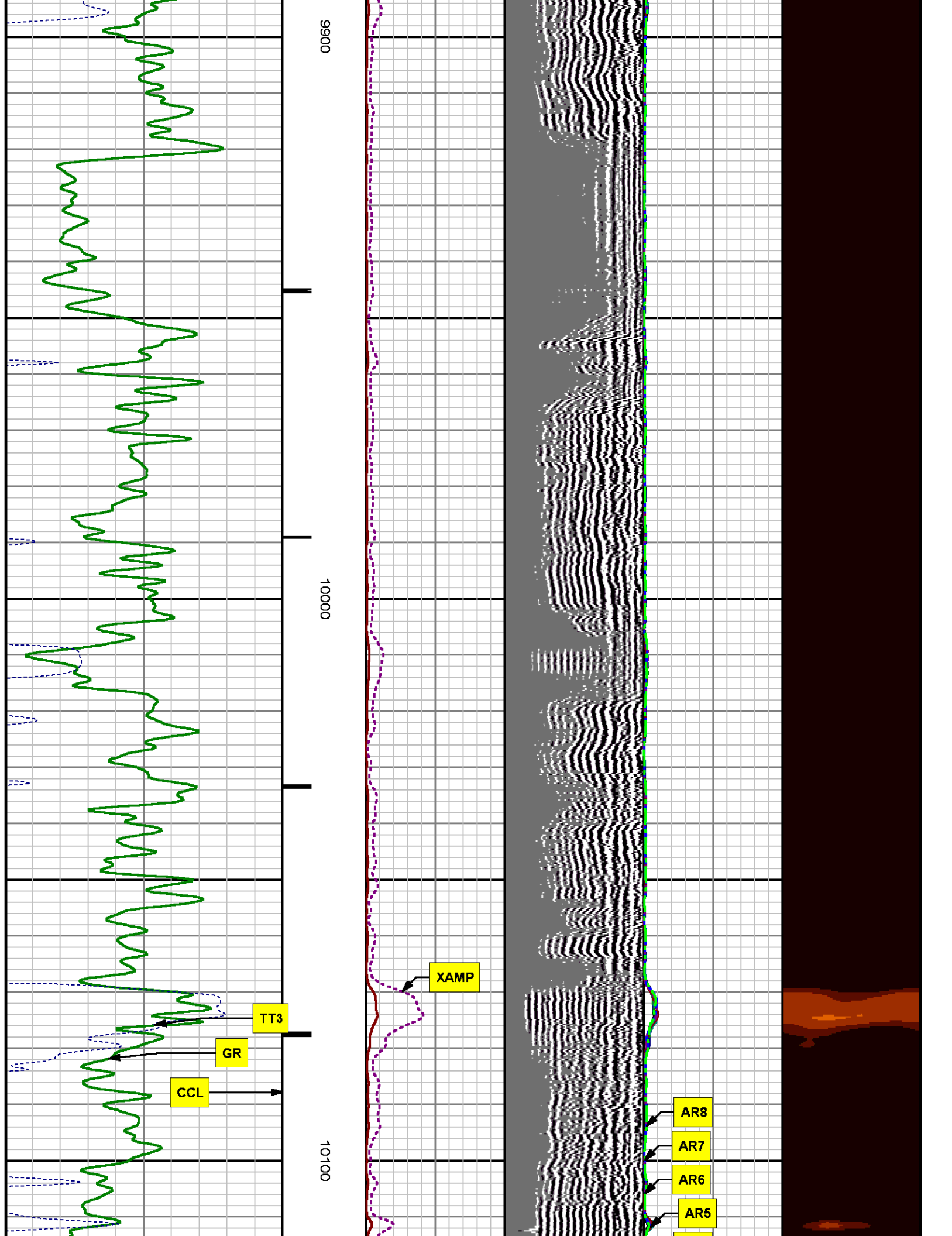


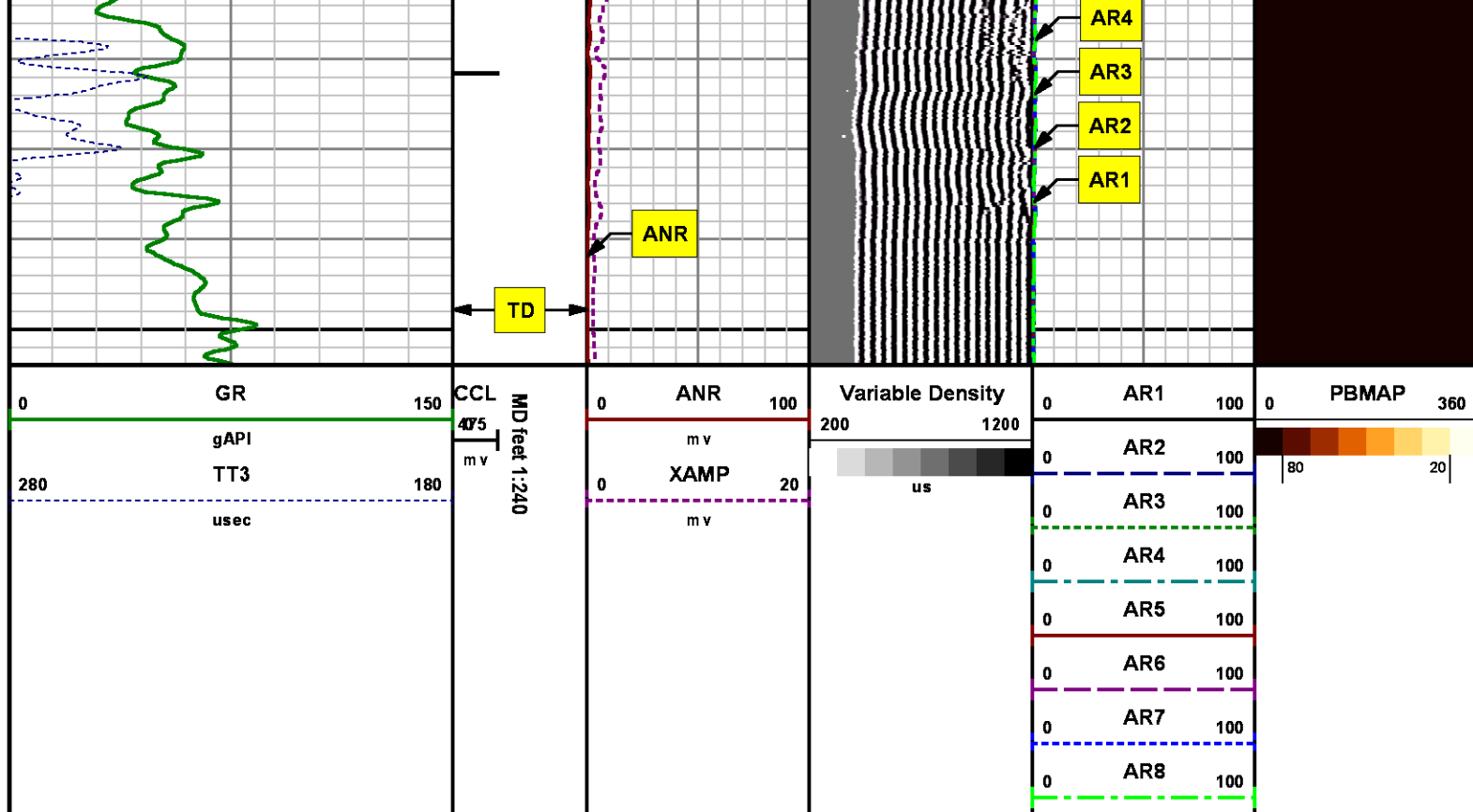




9700

9800





REPEAT SECTION  
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	9843.618	10178.750
RAL	Amp Gate Start Near	195.000	usec	9843.618	10178.750
RAL	Amp Gate Start Radial	195.000	usec	9843.618	10178.750
RAL	Amp Gate Width Far	25.000	usec	9843.618	10178.750
RAL	Amp Gate Width Near	25.000	usec	9843.618	10178.750
RAL	Amp Gate Width Radial	25.000	usec	9843.618	10178.750
RAL	casing od	4.500	inches	9843.618	10178.750
RAL	casing wt	11.600	lbm/ft	9843.618	10178.750
RAL	FB Start Far	291.900	usec	9843.618	10178.750
RAL	FB Start Near	180.000	usec	9843.618	10178.750
RAL	FB Start Radial	180.000	usec	9843.618	10178.750
RAL	FB Thresh Far	10.000	mV	9843.618	10178.750
RAL	FB Thresh Near	4.000	mV	9843.618	10178.750

RAL	FB Thresh Radial	4.000	mv	9843.618	10178.750
RAL	Fluid Travel Time	200.000	usec/ft	9843.618	10178.712

# DEPTH OFFSETS (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-11.000	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	-10.040	AFAR	SIG	TT5			
1355XA	-5.620	CCL					
1355XA	-1.500	GR					
1355XA	0.000	TEMP					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

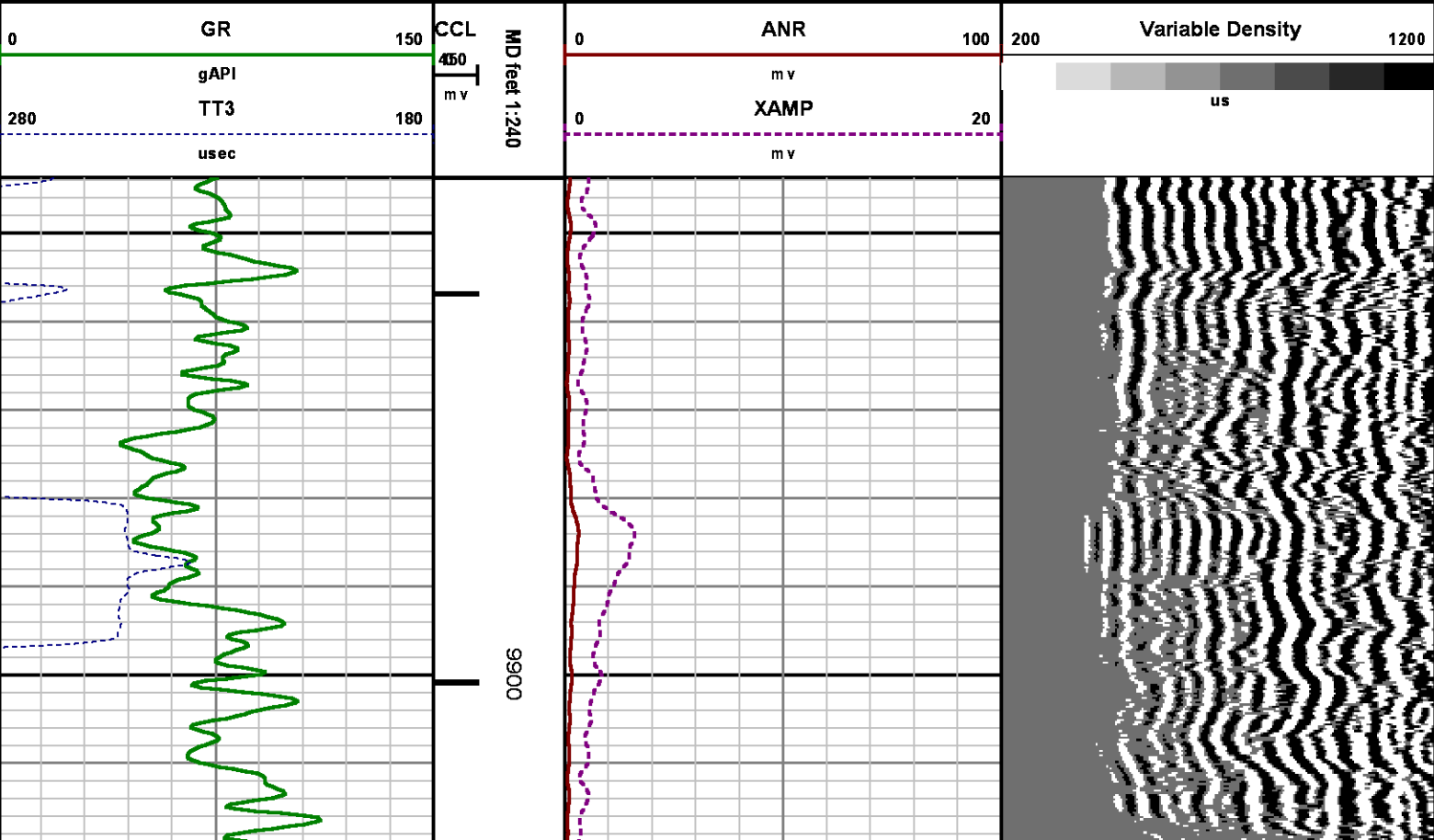
Well : FEDERAL PA 341-21

File Name : d:\well\data\wpx\pa 341-21\cbl341\repeat.xtf

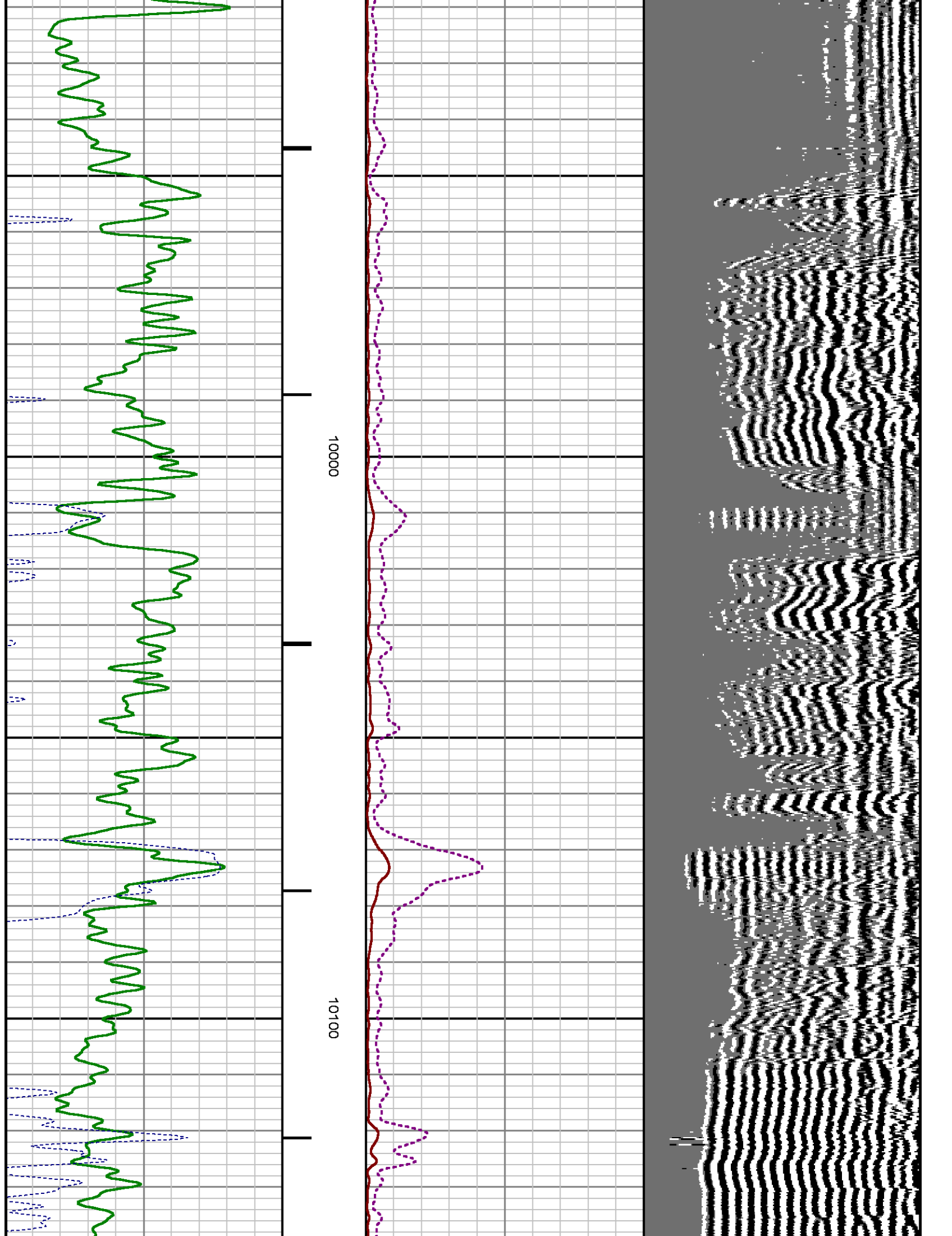
Mode : PlotMgr 5.4.504

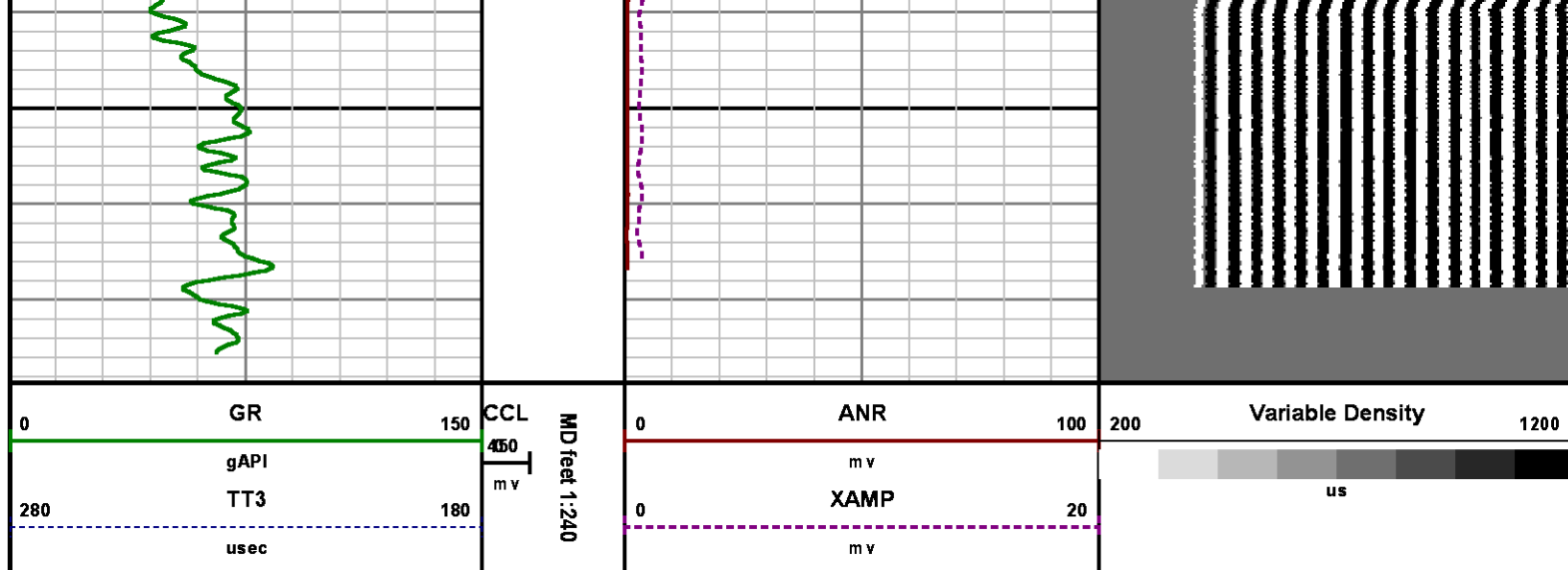
Interval : 9843.75 - 10178.75 feet UP

Created : 1/19/2014 6:23:52 PM









## CALIBRATION SUMMARY

*RALSHP*

Shop Calibration: C:\case\calver\RALSHP\495J19\_shp.cal

### SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Jan 19 17:35:08 2014 TOOL SERIES: 1426XA ASSET: 495 SEQ: J19

Tool Delay [u sec]  Tank OD  Tank Wt  Tank ID

RECEIVER	Travel Time [u sec]	Amp. Gate Start [u sec]	Amp. Gate Width [u sec]	Zero Gate Start [u sec]	Zero Gate Width [u sec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor
CAL Pulse	218	216	30	166	25	0.115	100.00	0.16
3 Ft. Receiver	219	216	30	146	25	-0.276	100.00	0.16
5 Ft. Receiver	327	324	30	236	25	0.215	150.00	0.18
Radial #1	219	216	30	145	25	-0.067	100.00	0.16
Radial #2	219	216	30	145	25	-0.249	100.00	0.16
Radial #3	219	216	30	145	25	-0.328	100.00	0.16
Radial #4	219	216	30	145	25	-0.028	100.00	0.16
Radial #5	219	216	30	145	25	0.040	100.00	0.16
Radial #6	218	216	30	145	25	-0.334	100.00	0.16
Radial #7	217	216	30	145	25	-0.015	100.00	0.16
Radial #8	219	216	30	145	25	-0.151	100.00	0.16

*RAI FLD*

Wellsite Calibration: C:\case\calver\RALELD\495J19 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Jan 19 17:40:25 2014 TOOL SERIES: 1426XA ASSET: 495 SEQ: J19

Tool Delay [usec] -55.00 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	0.048	0.000	1.01	100.000
3 Ft. Receiver	195	25	1.818			
5 Ft. Receiver	305	25	2.173			
Radial #1	195	25	1.266			
Radial #2	195	25	1.252			
Radial #3	195	25	1.448			
Radial #4	195	25	1.466			
Radial #5	195	25	1.664			
Radial #6	195	25	1.800			
Radial #7	195	25	1.508			
Radial #8	195	25	1.415			

## GAMMA RAY

Calibration File: C:\case\calver\GR\510J7.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Jan 17 16:04:59 2014 TOOL SERIES: 2459XA ASSET: 510 SEQ: J7

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
SK2 VA905	46.71	217.87	1.081	50.49	235.49	185.00

Verification File: C:\case\calver\GR\510J7.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Fri Jan 17 16:06:08 2014 TOOL SERIES: 2459XA ASSET: 510 SEQ: J7

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
SK2 VA905	49.24	208.80	1.081	53.23	225.69	172.46

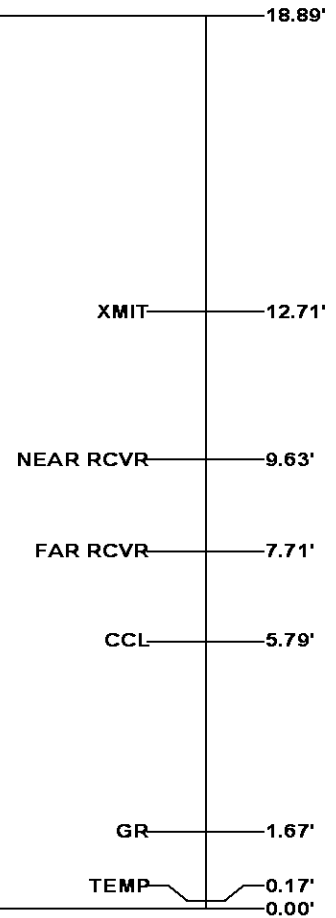
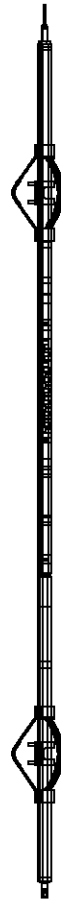
## TOOL DIAGRAM

**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

**RAL GR/TEMP/CCL/CHV DETECTOR**

Series	1355XA
Mnemonic	RAL
Diameter	2.75"
Weight	85.00 lb
Length	6.96'
Measure Point	0.17' TEMP
Measure Point	1.67' GR
Measure Point	5.79' CCL
Temp Rating	400.00 °F
Press Rating	20000.00 PSI



**Total Length: 18.89'**  
**Total Weight: Not Available**  
**Max Diameter: 0' 2.75"**

**Baker Atlas****CASE****Company****WPX ENERGY****Well****FEDERAL PA 341-21****Field****PARACHUTE****County****GARFIELD****State****COLORADO****Location****SHL: 2600' FNL & 1463' FWL****BHL: 628' FNL & 270' FEL (NENE)****Elevations****KB 6056 ft****DF****GL 6030 ft****SEC 21 TWP 6S RGE 95W****File No:****CH081805****API No:****05045220330000****21 6S 95W****PA 22-21 PAD****NABORS 573**