



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: **Company** **WPX ENERGY**

CH087684 **Well** **FEDERAL RGU 333-24-198**

API No: **Field** **SULPHUR CREEK**

05103120780000 **County** **RIO BLANCO** **State** **COLORADO**

24 1'S 98W **Location** **SHL: 2139' FSL & 1698' FEL**

RGU 33-24-198 PAD **BHL: 1862' FSL & 1808' FEL (NWSE)**

CYCLONE 29 **SEC** **24** **TWP** **1S** **RGE** **98W**

Other Services
RPM

Permanent Datum **GL** **Elevation** **6596 ft**

Log Measured From **KB** **21 ft** **Above P. D.**

Drill Measured From **KELLY BUSHING** **Elevations**
KB **6617 ft**
DF
GL **6596 ft**

Date	08/JUL/14	
Run	ONE	
Service Order	US087684J	
Depth Driller	12710 ft	
Depth Logger	12663 ft	
Bottom Logged Interval	12663 ft	
Top Logged Interval	21 ft	
Time Started	1330	
Time Finished	1800	
Operator Rig Time	4.5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	87 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	66 fpm	
Maximum Recorded Temperature	278 degF	
Reference Log	NONE	
Reference Log Date	NA	
Equipment No.	Location	GRAND UCT
Recorded By	FLOYD RENEAU	
Witnessed By	WAYNE MARGOTTE	

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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
30 in	21 ft	80 ft
14.73/13.5	80 ft	3895 ft
8.75/7.875	3895 ft	12710 ft

Casing Record				
Size	Weight	Grade	From	To
18 in			21 ft	80 ft
9.625 in			21 ft	3895 ft
4.5 in	11.6 lbm/ft	P-110	21 ft	12710 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 -5 feet.
Logged with zero PSI at wellhead.
BHT = 278°F

Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10218496	CENT
1	1	GRICCL	2459XA	10417456	CENT

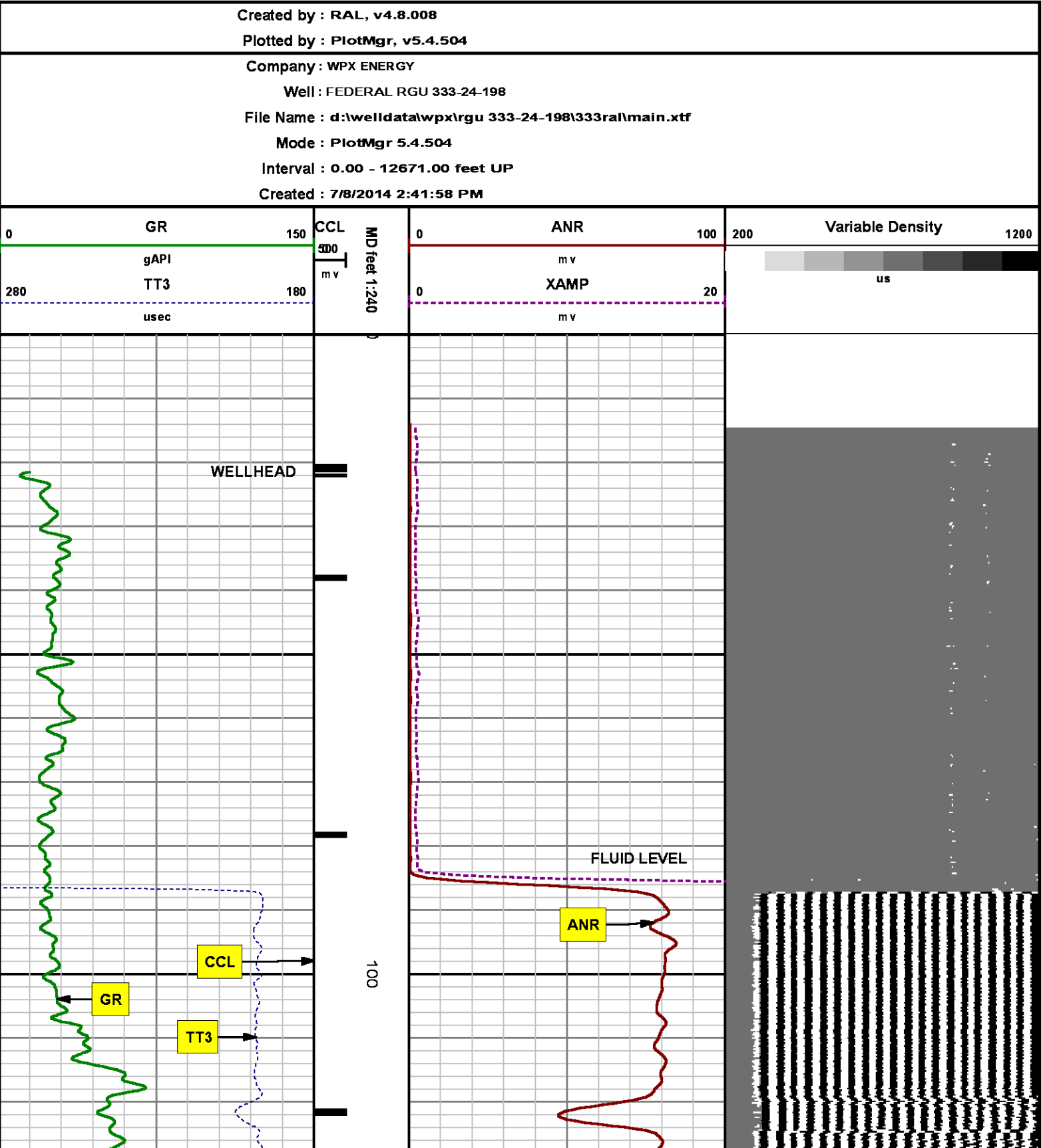
PRIMARY PRESENTATION
0 PSI

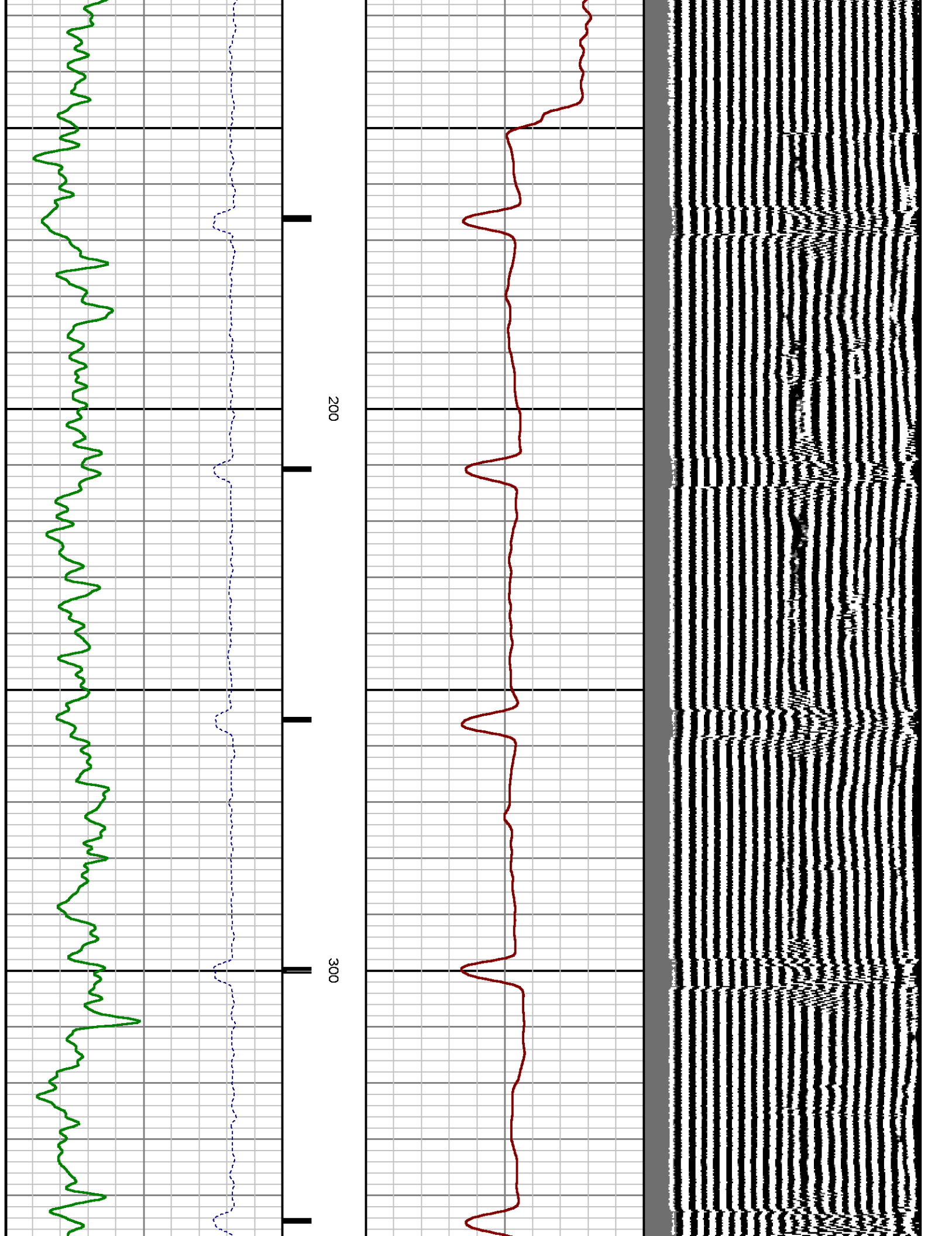
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	27.874	12671.000
RAL	Amp Gate Start Near	195.000	usec	27.874	12671.000
RAL	Amp Gate Start Radial	195.000	usec	27.874	12671.000
RAL	Amp Gate Width Far	25.000	usec	27.874	12671.000
RAL	Amp Gate Width Near	25.000	usec	27.874	12671.000
RAL	Amp Gate Width Radial	25.000	usec	27.874	12671.000
RAL	casing od	4.500	inches	27.874	12671.000
RAL	casing wt	11.600	lbm/ft	27.874	12671.000
RAL	FB Start Far	291.900	usec	27.874	12671.000
RAL	FB Start Near	180.000	usec	27.874	12671.000
RAL	FB Start Radial	180.000	usec	27.874	12671.000
RAL	FB Thresh Far	10.000	mv	27.874	12671.000
RAL	FB Thresh Near	4.000	mv	27.874	12671.000
RAL	FB Thresh Radial	4.000	mv	27.874	12671.000
RAL	Fluid Travel Time	200.000	usec/ft	27.874	12670.937

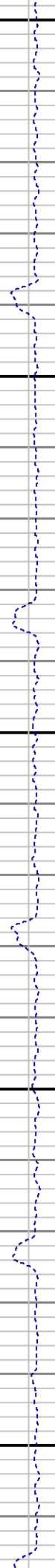
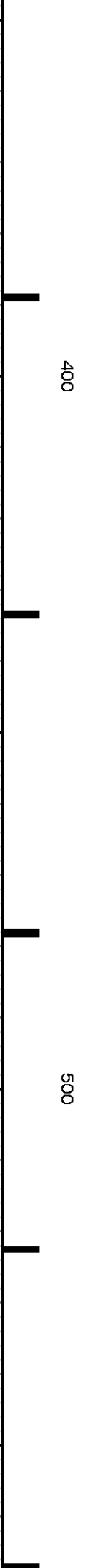
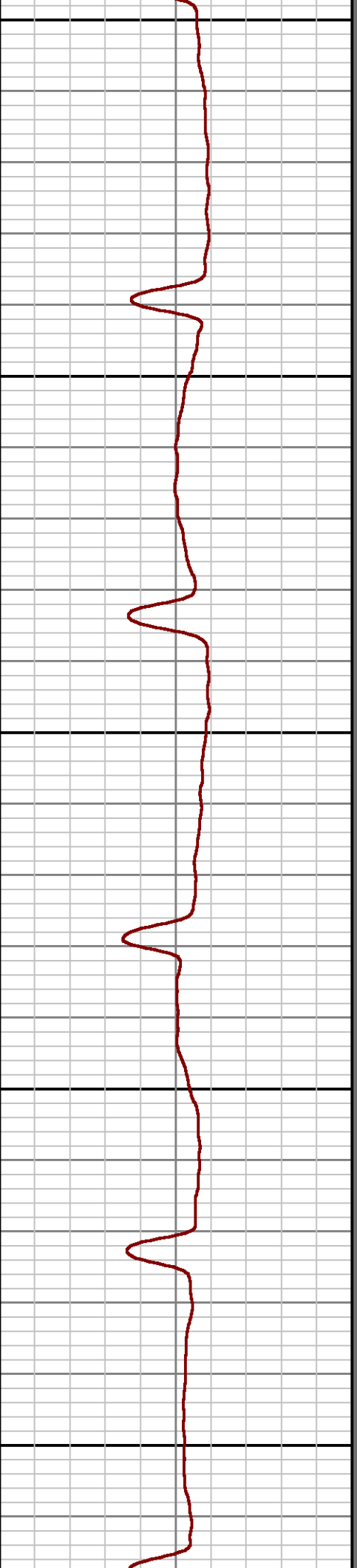
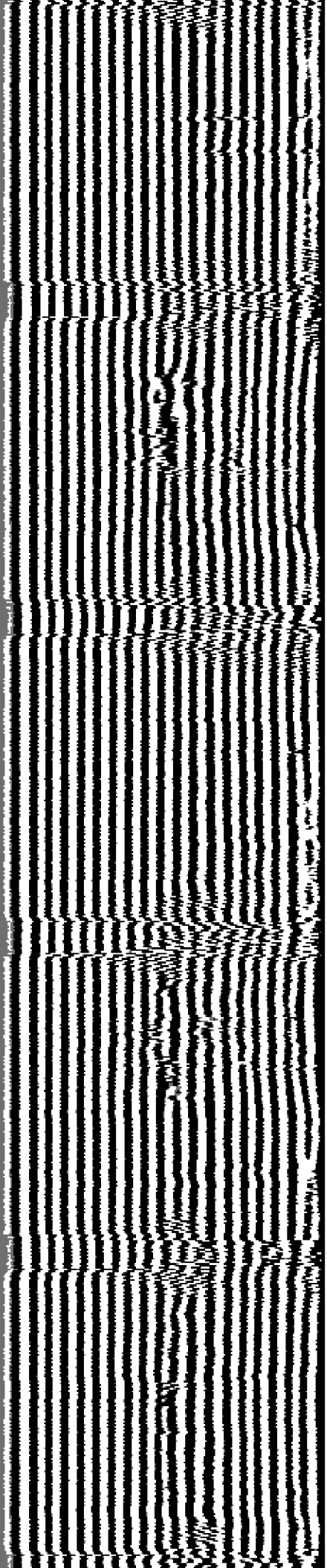
DEPTH OFFSETS
(for Acquired Curves)

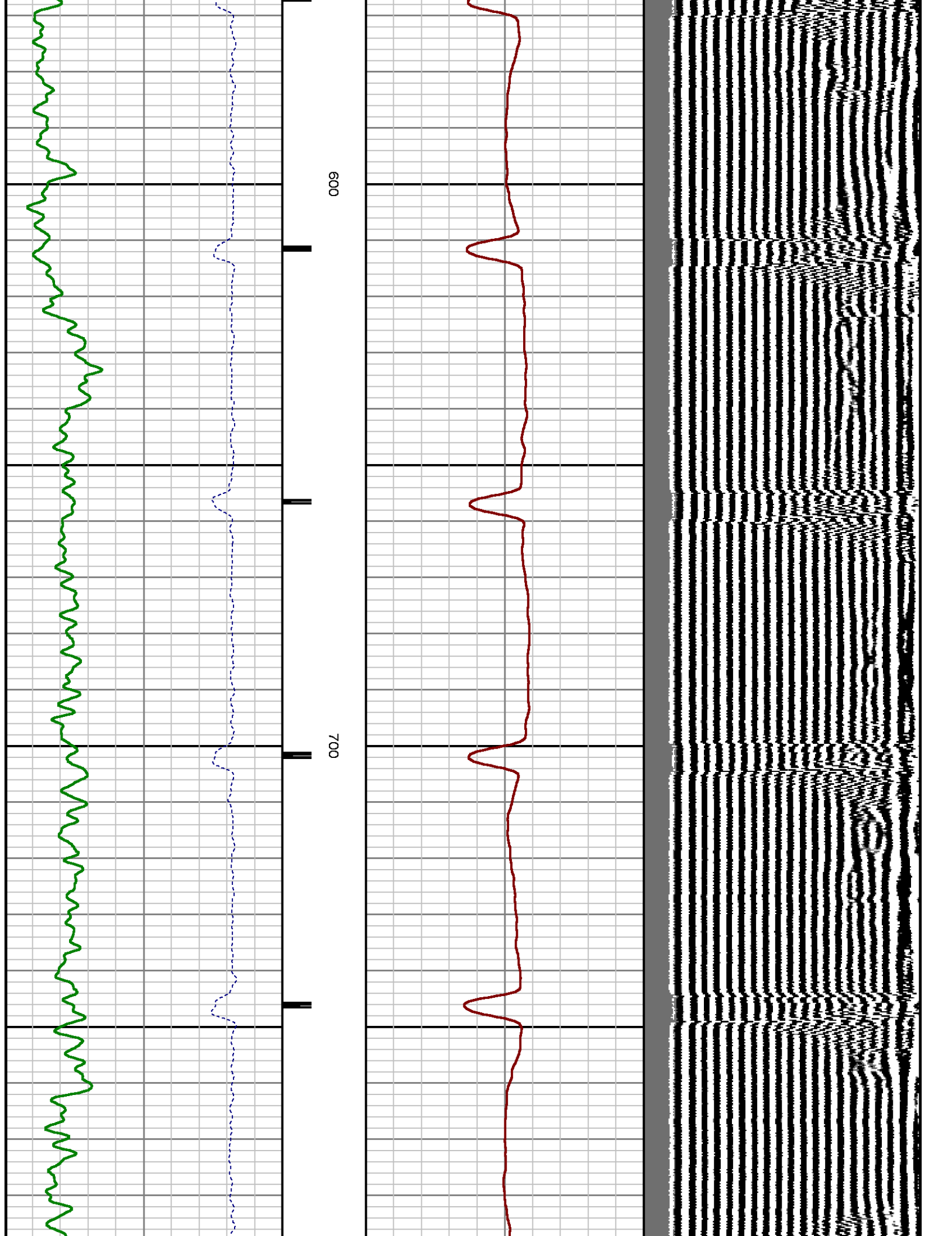
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	ACAL	ANR	AR1	AR2	AR3	AR4

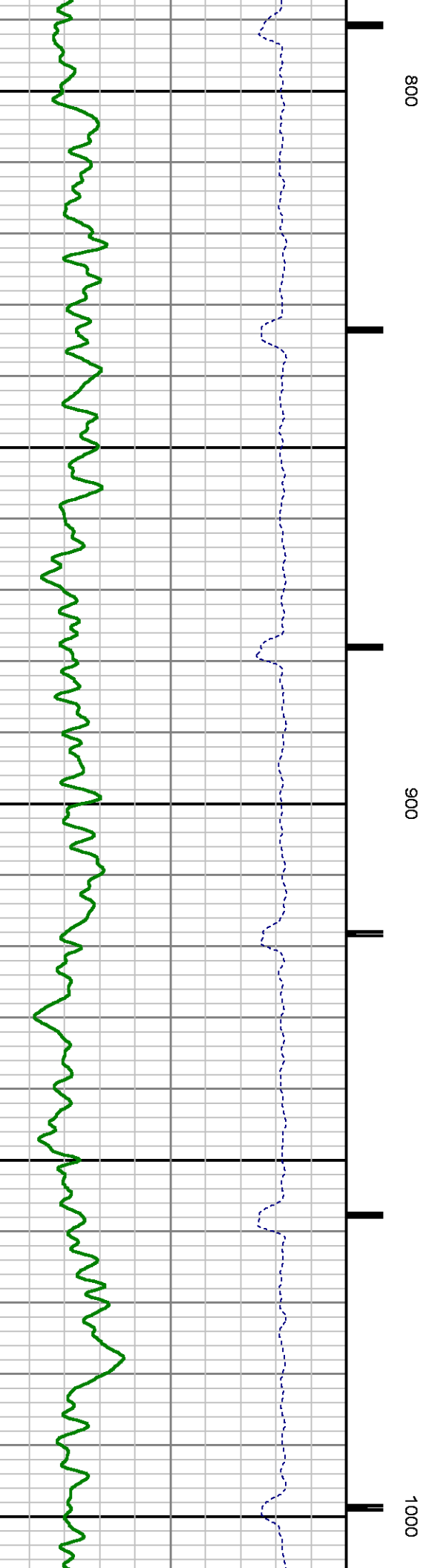
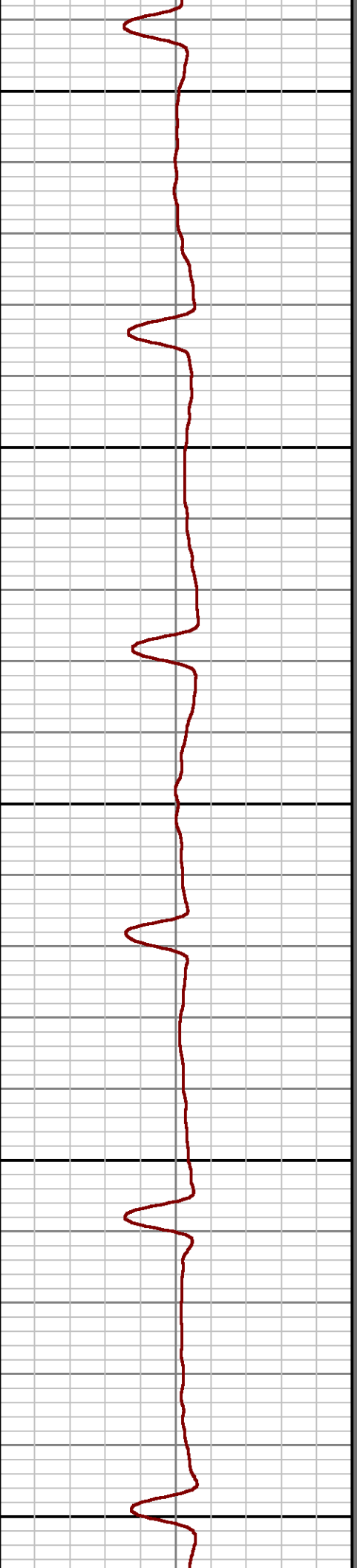
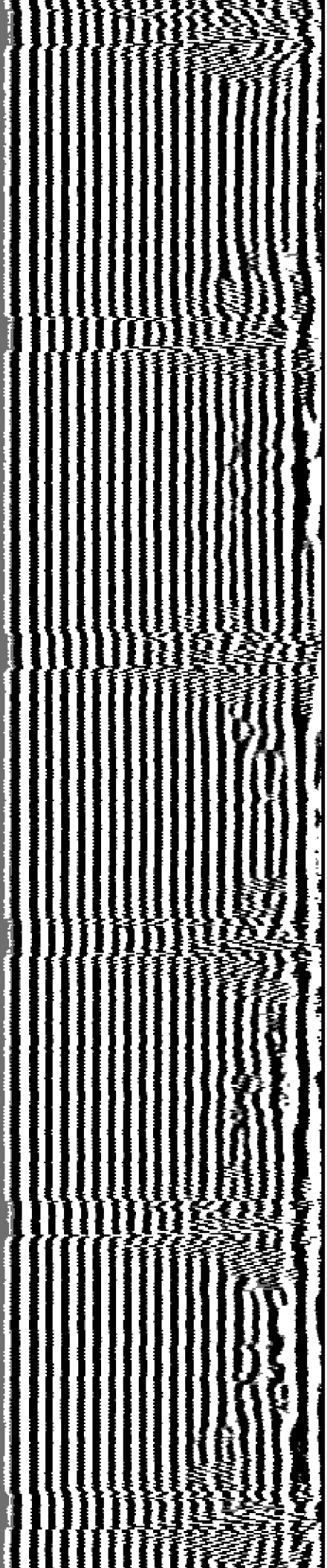
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					

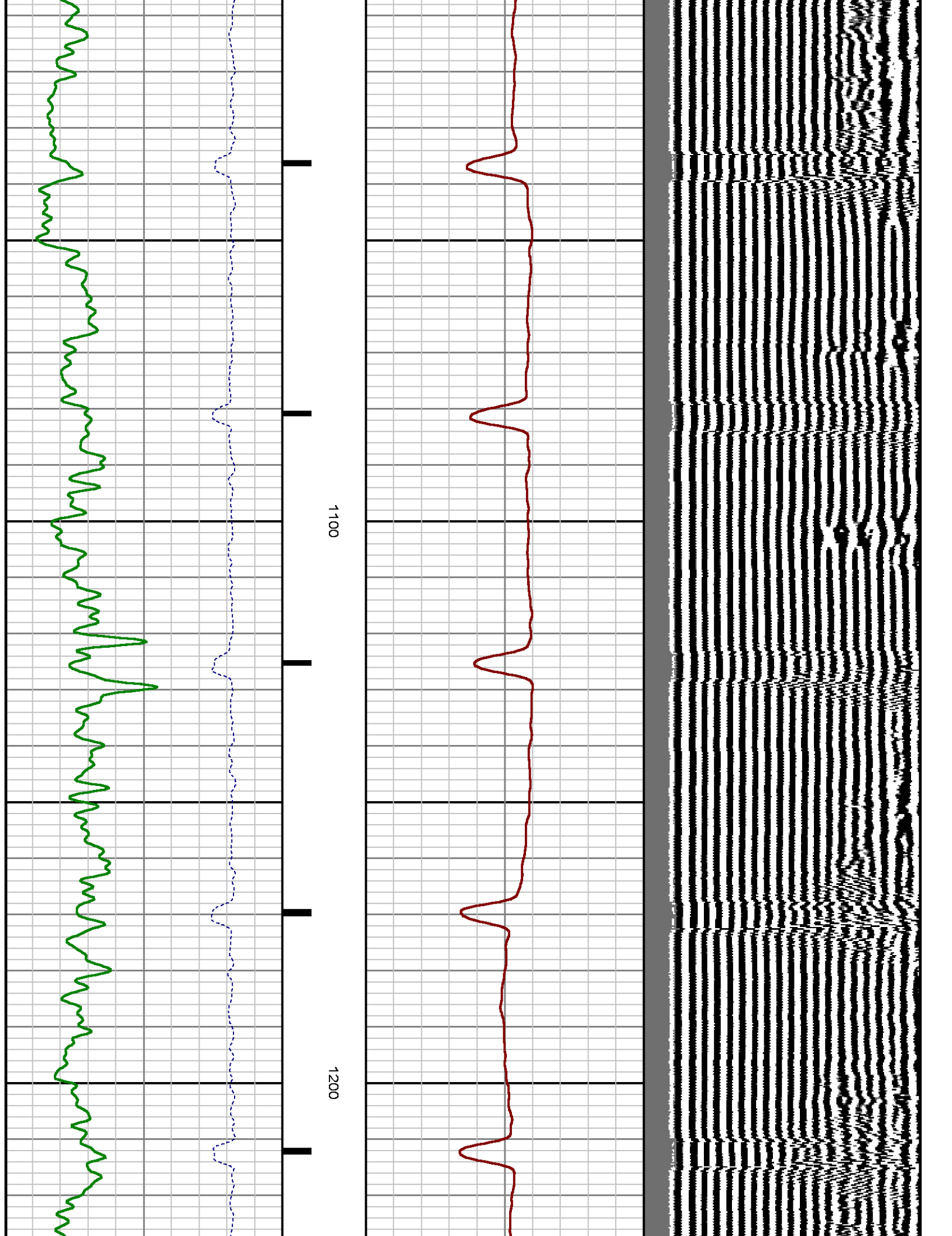


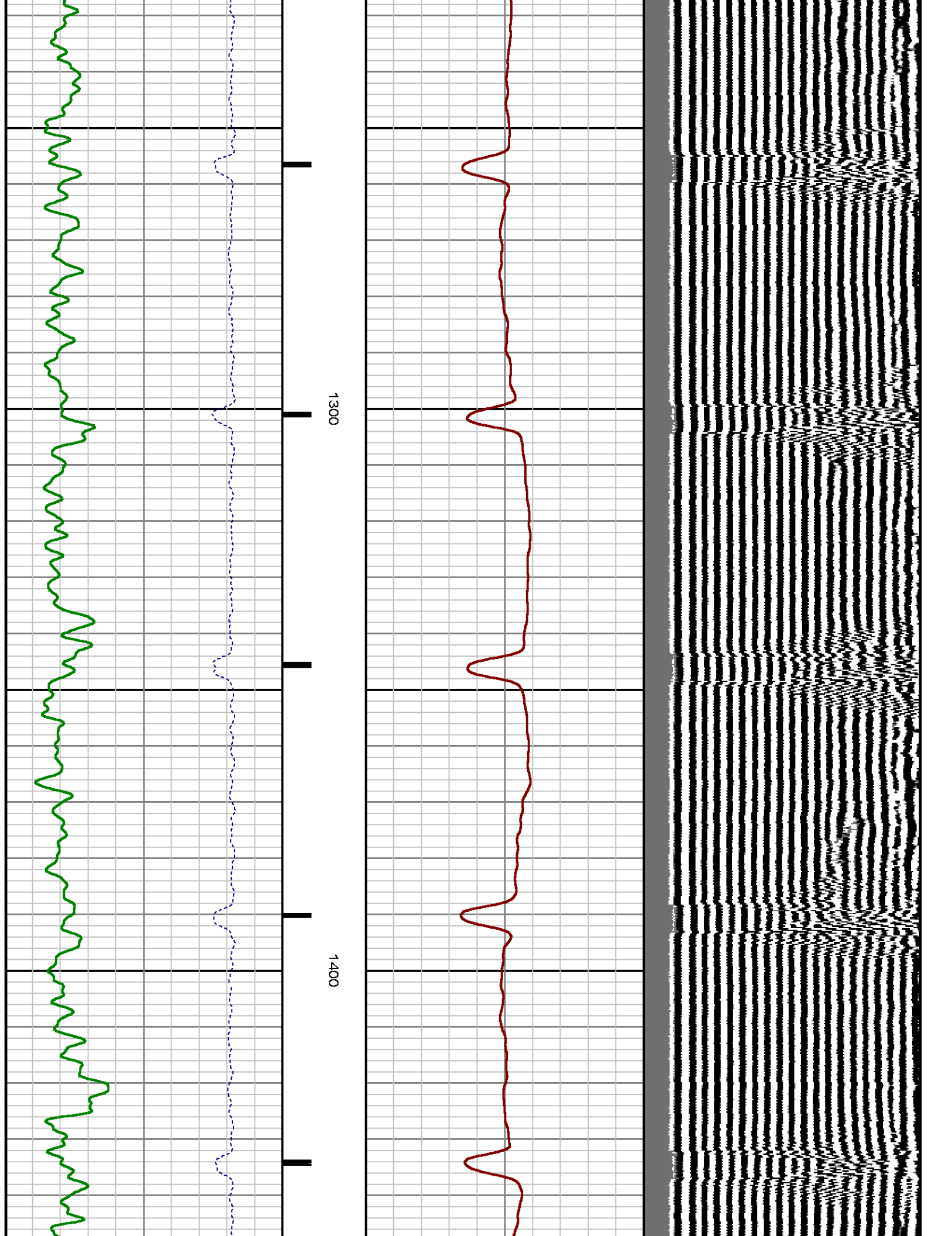


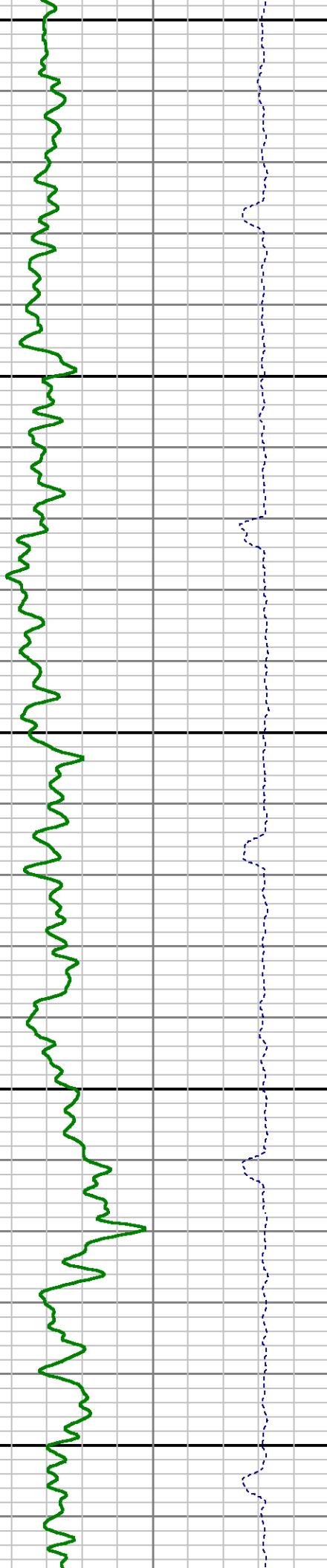
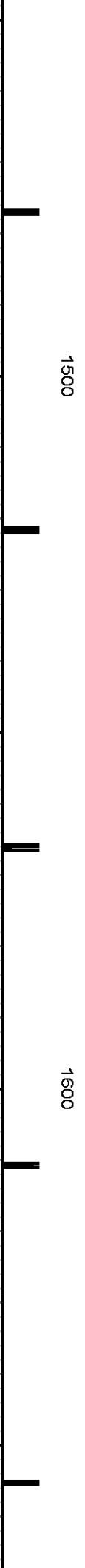
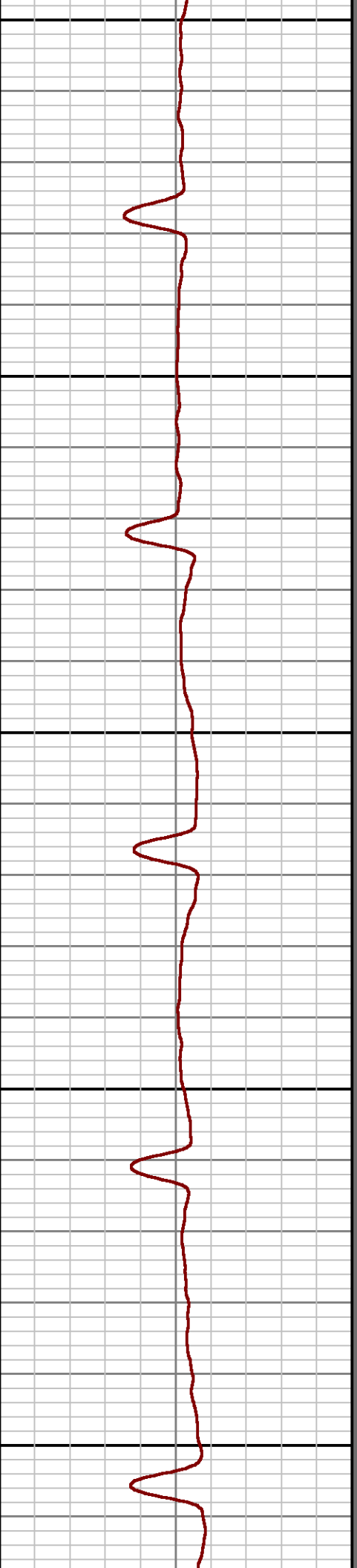
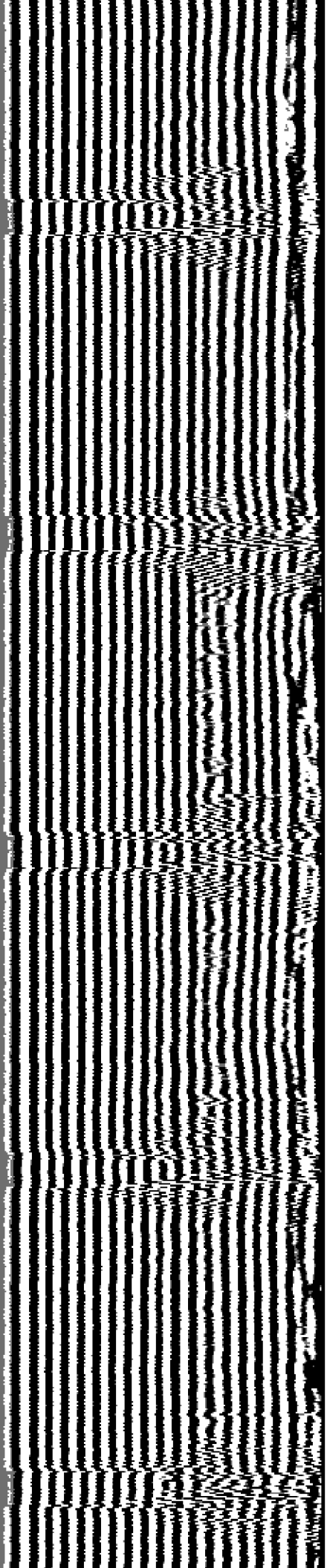


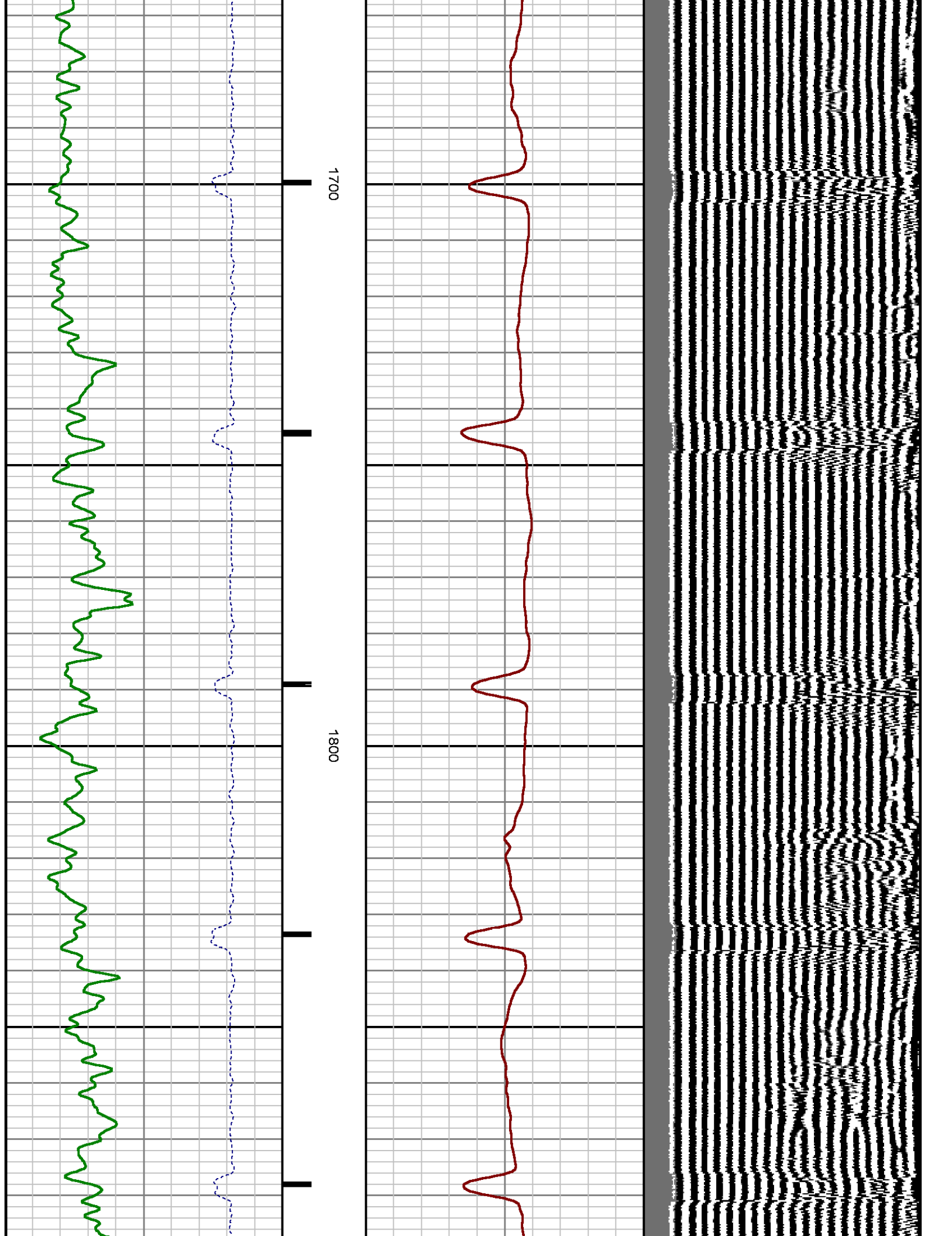


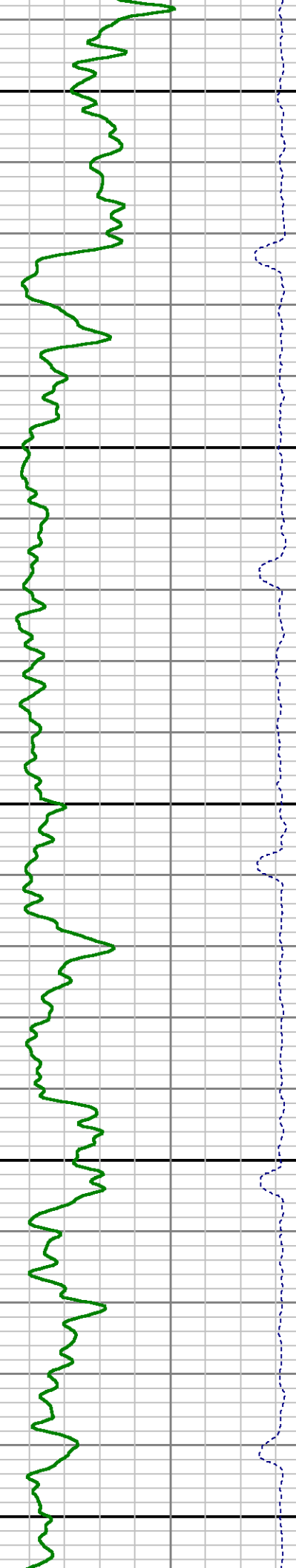
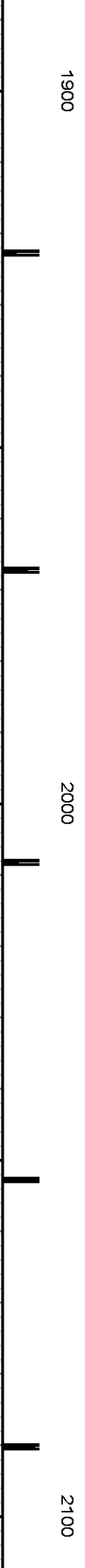
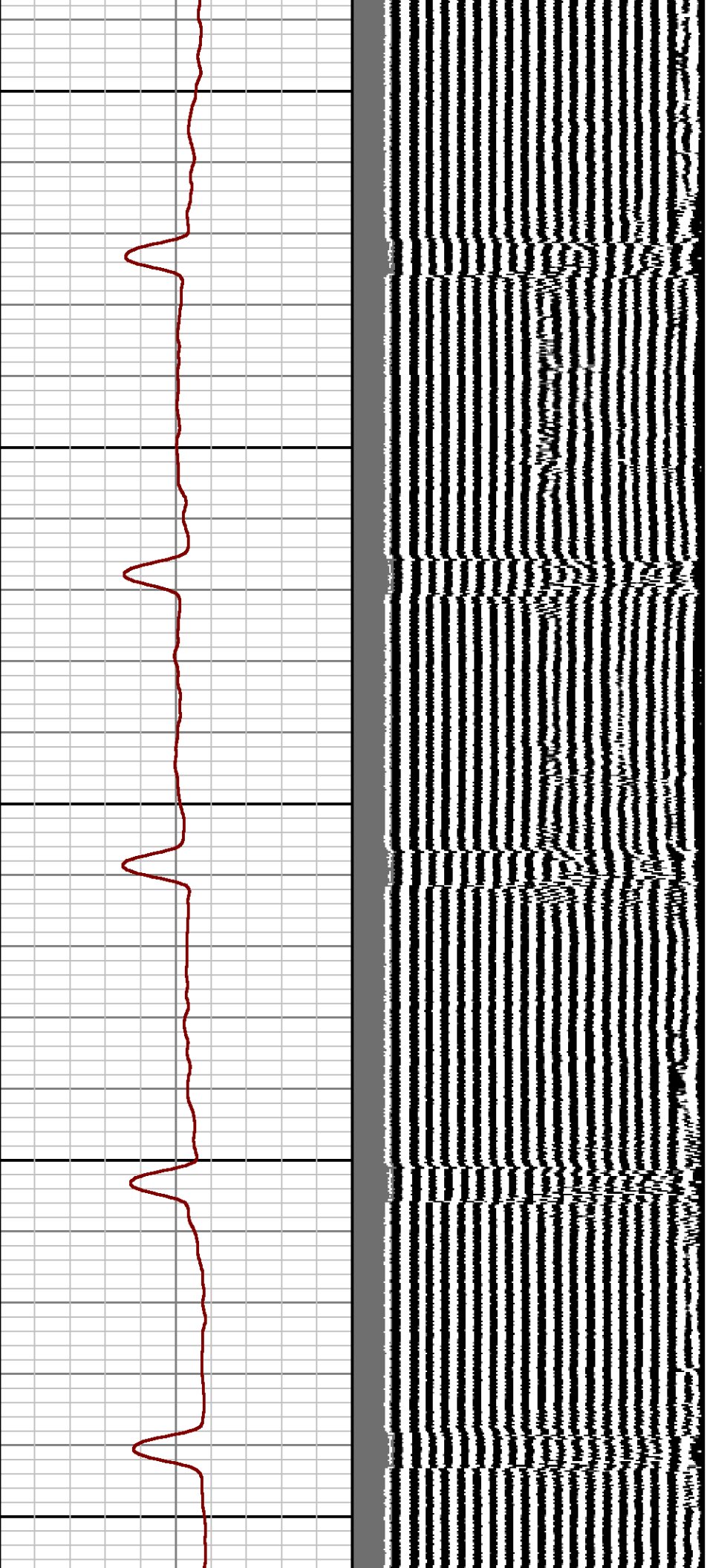


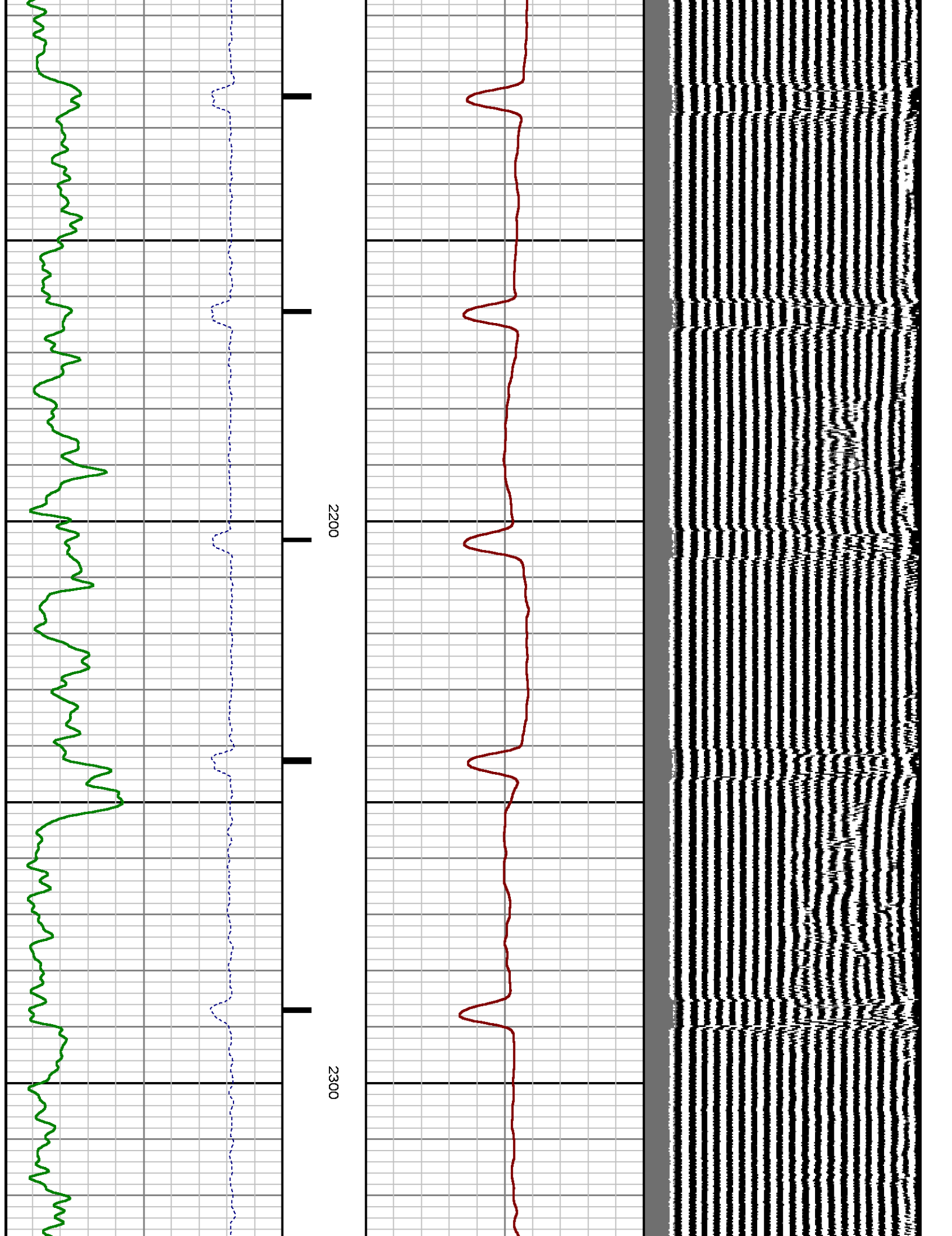


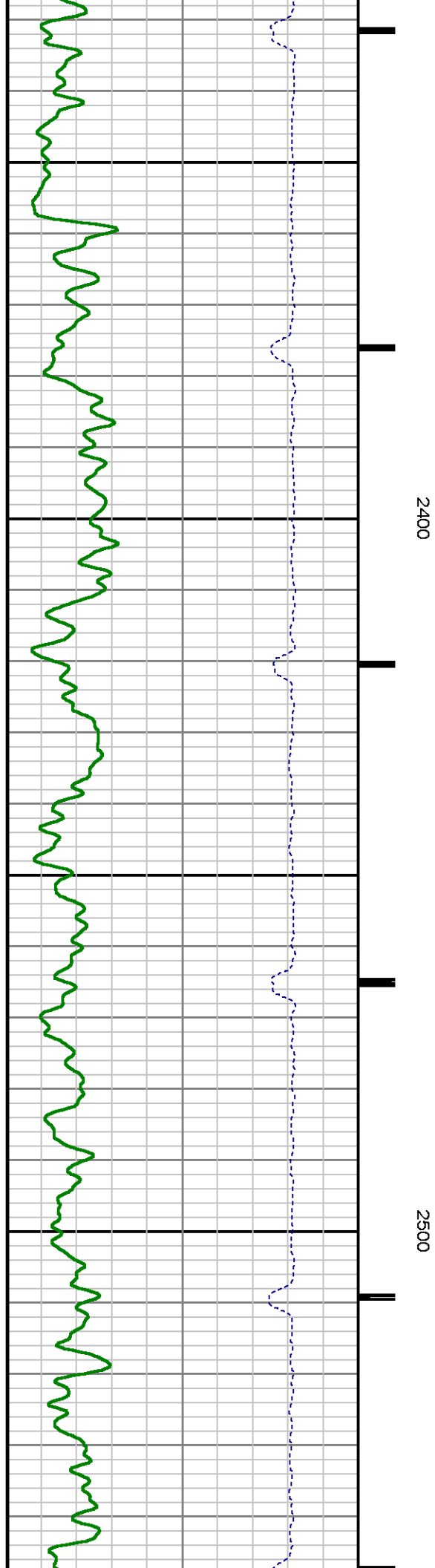
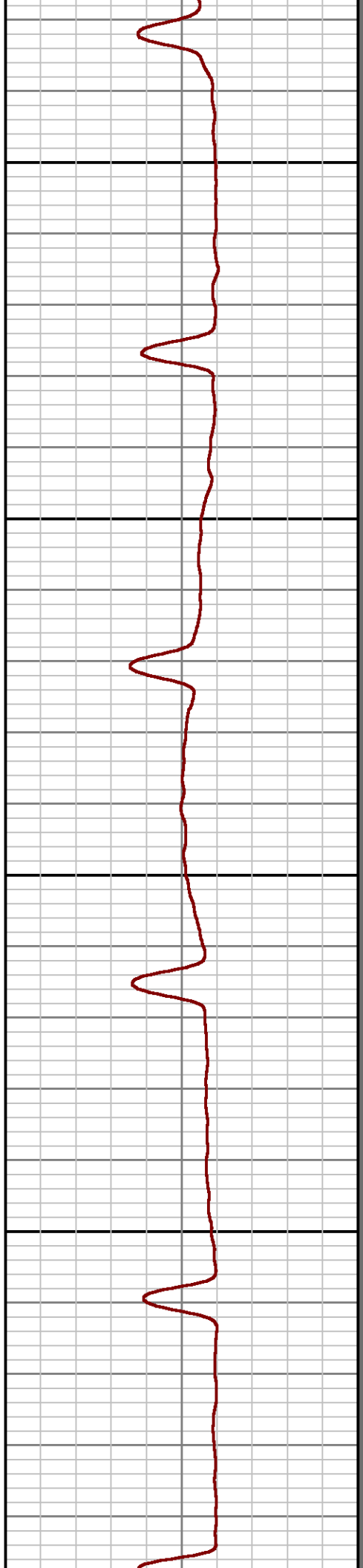
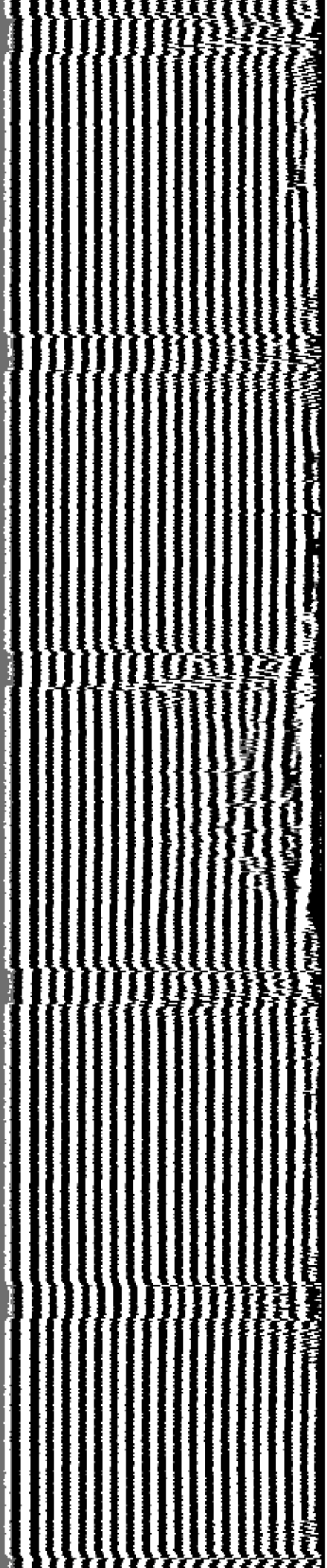


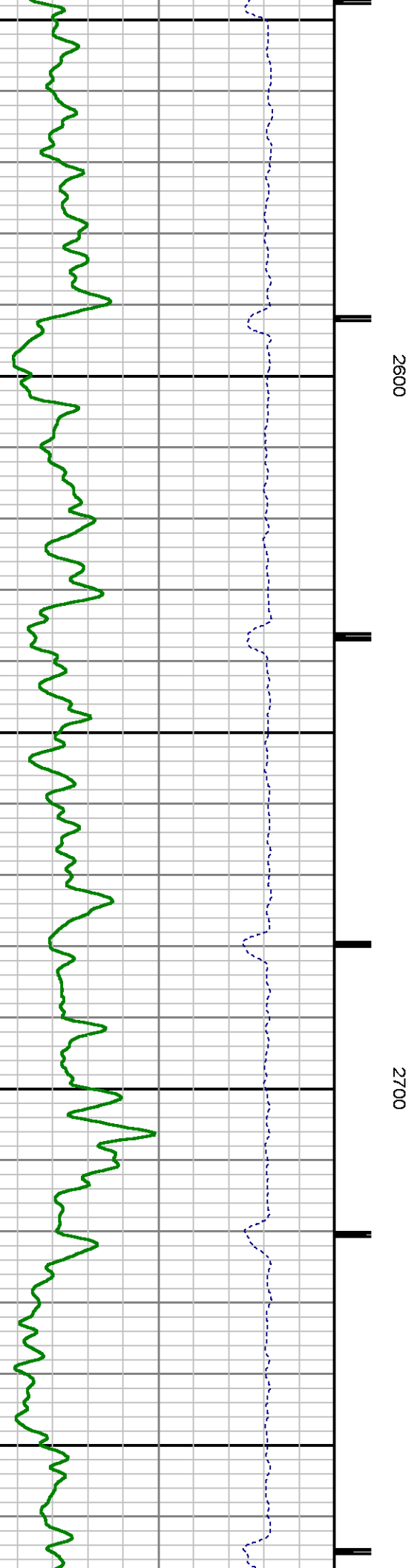
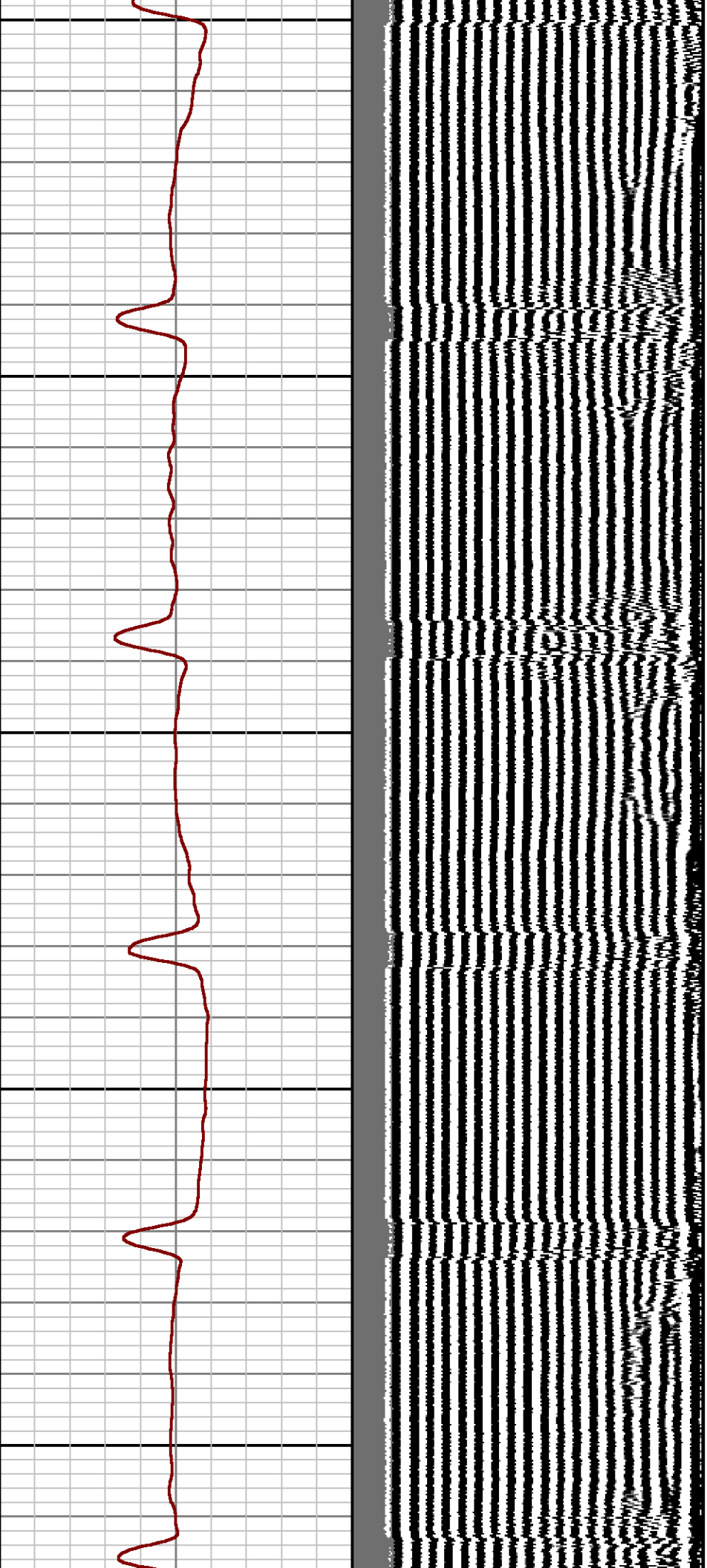


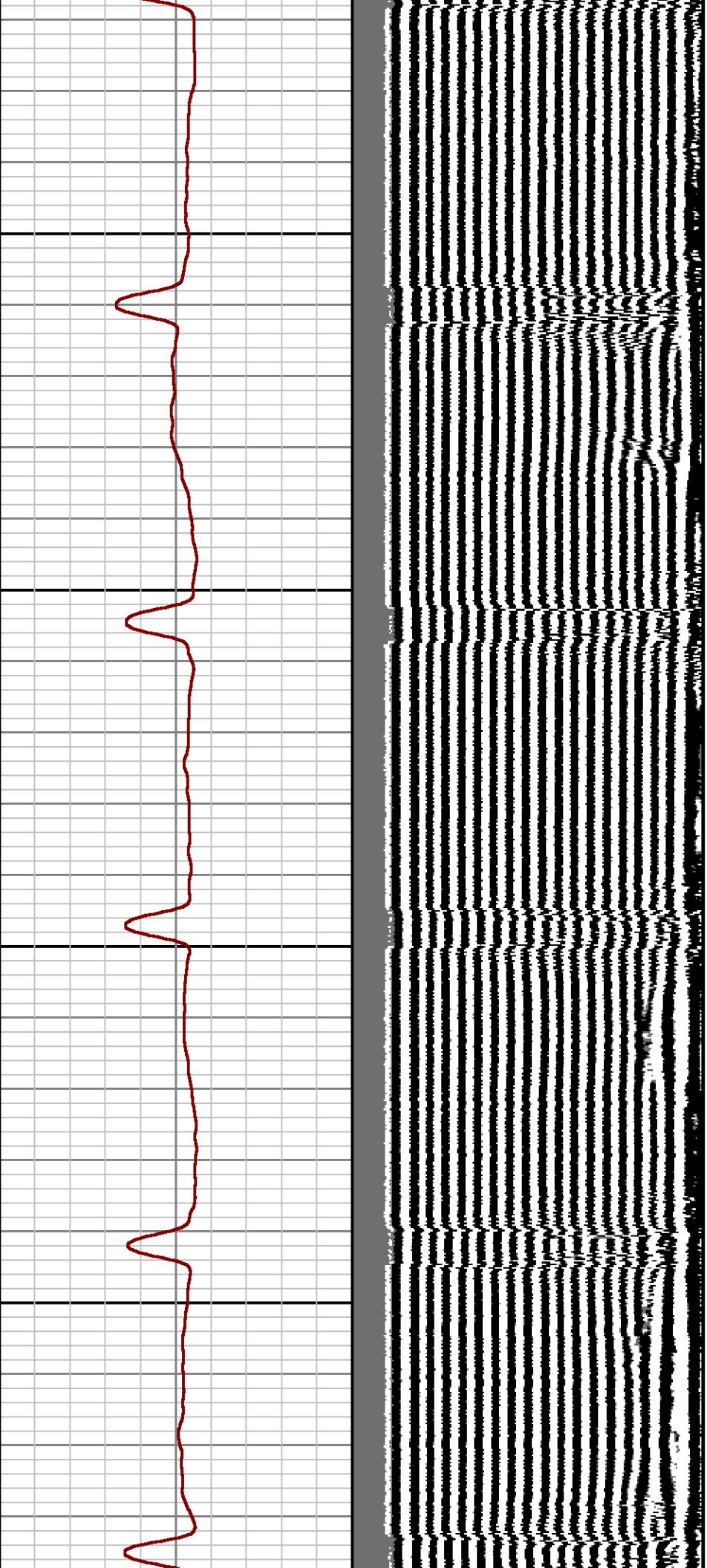






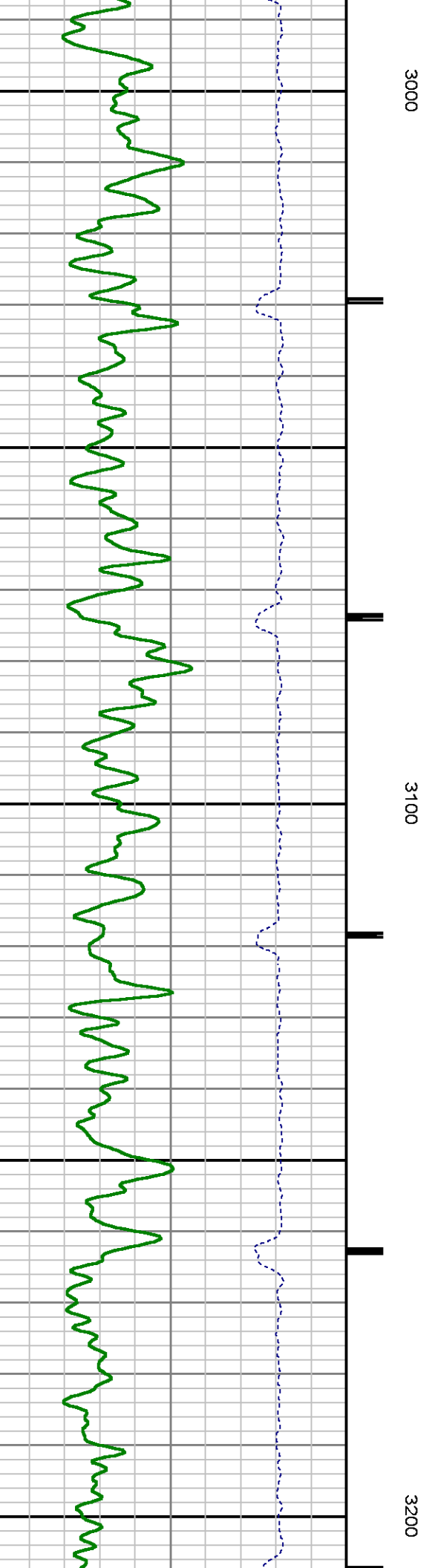
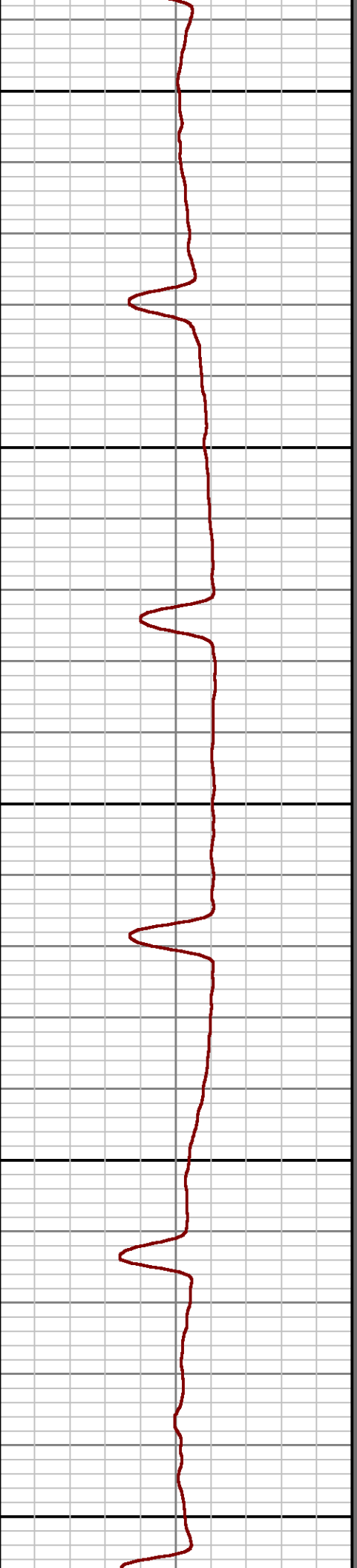
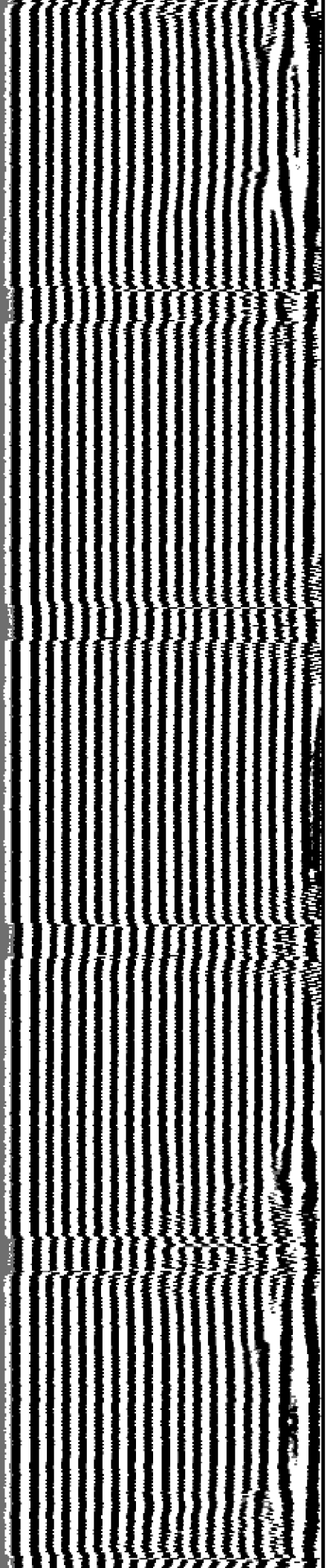


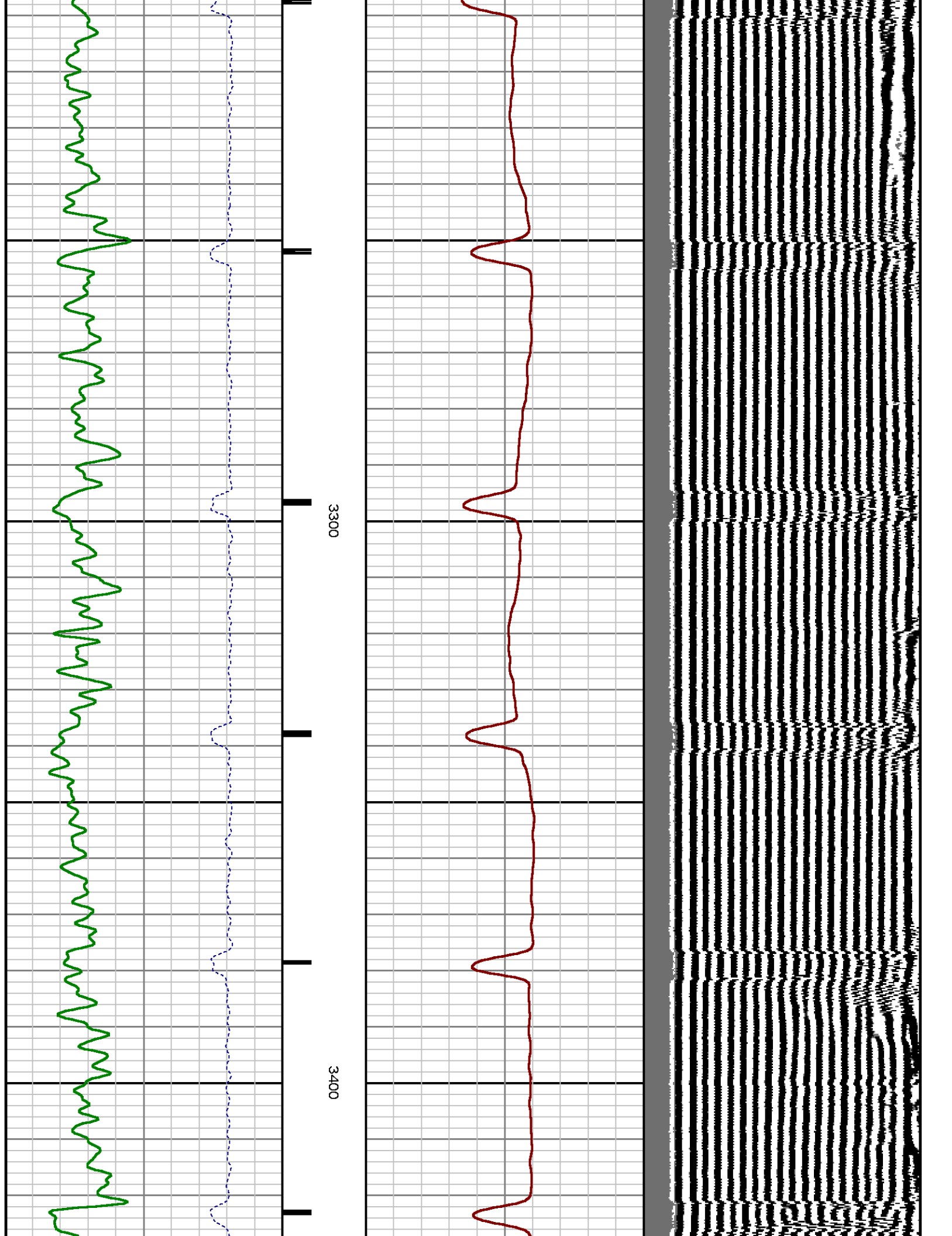


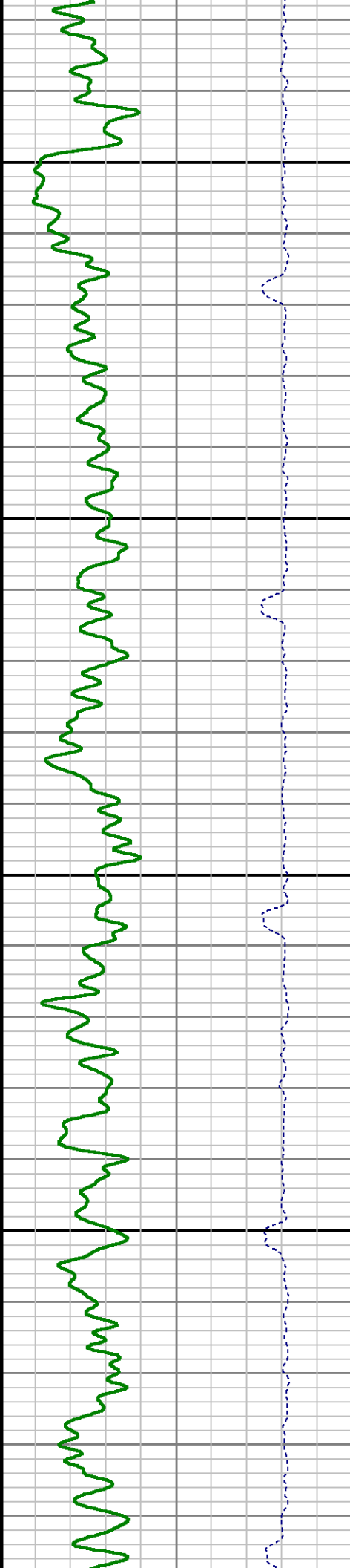
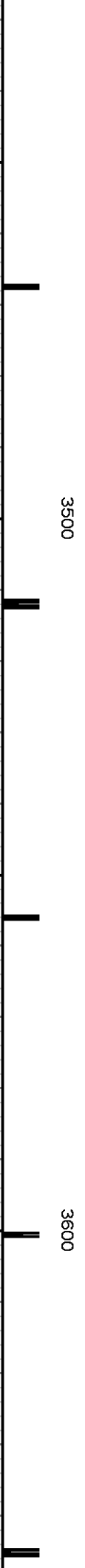
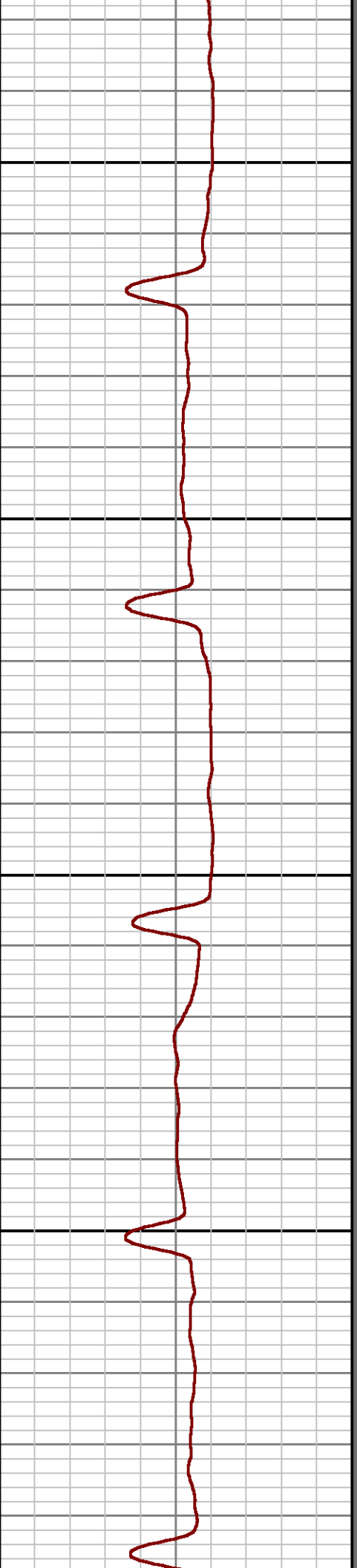
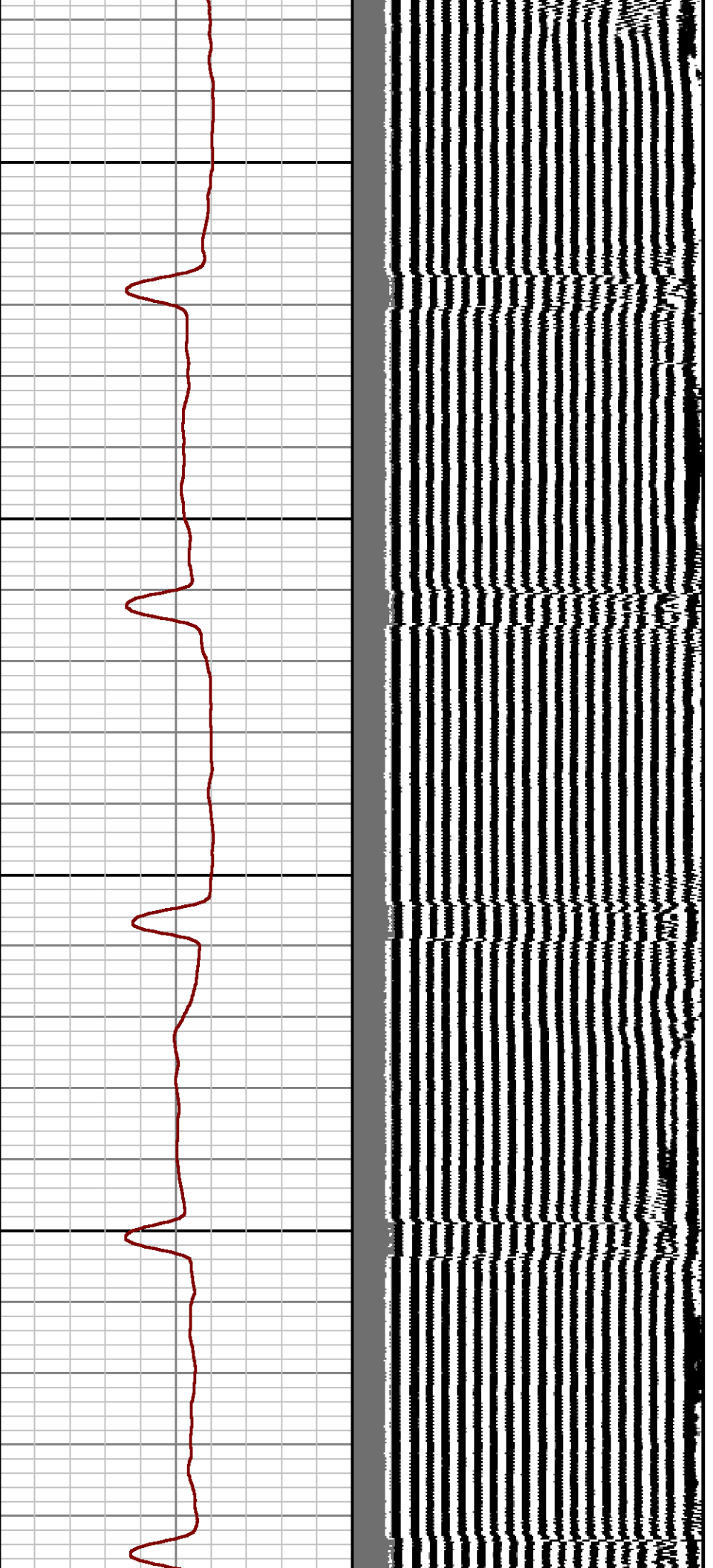


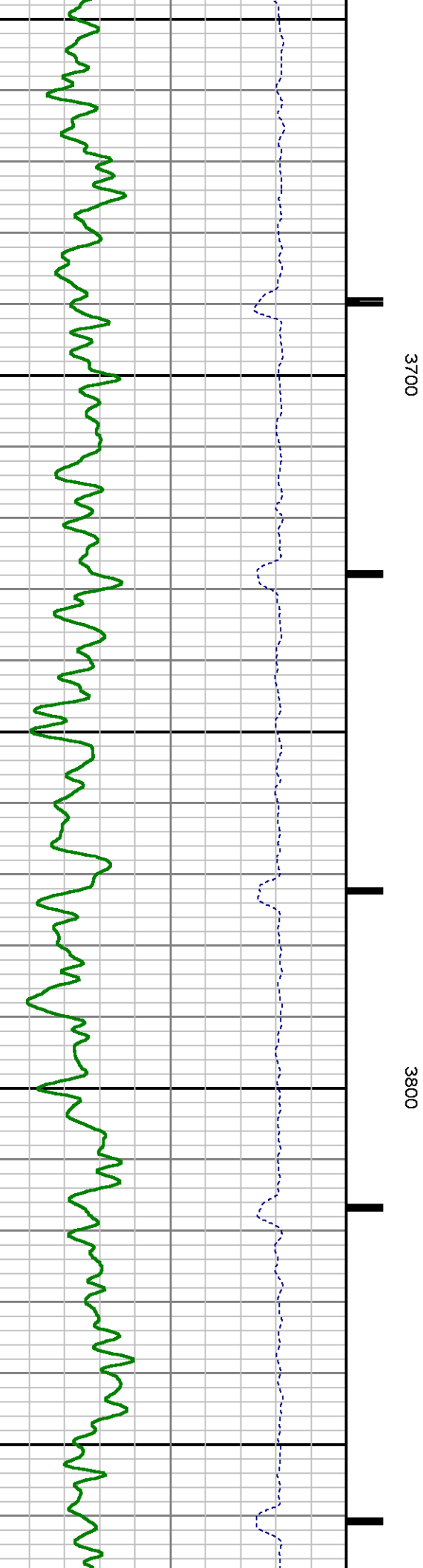
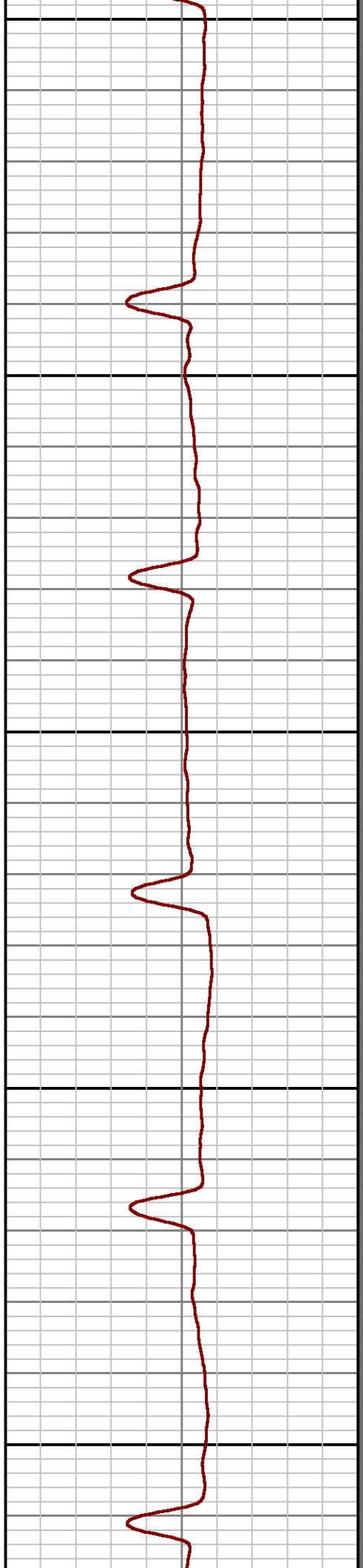
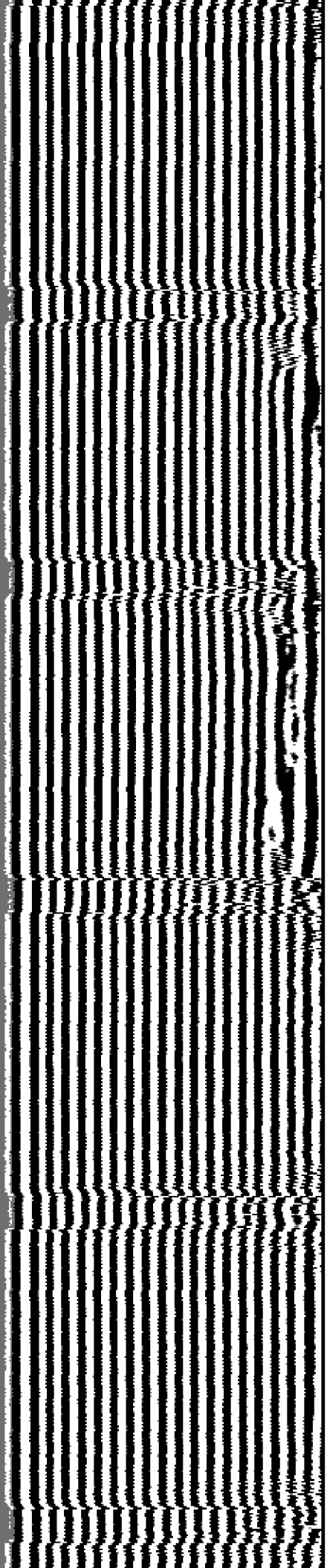
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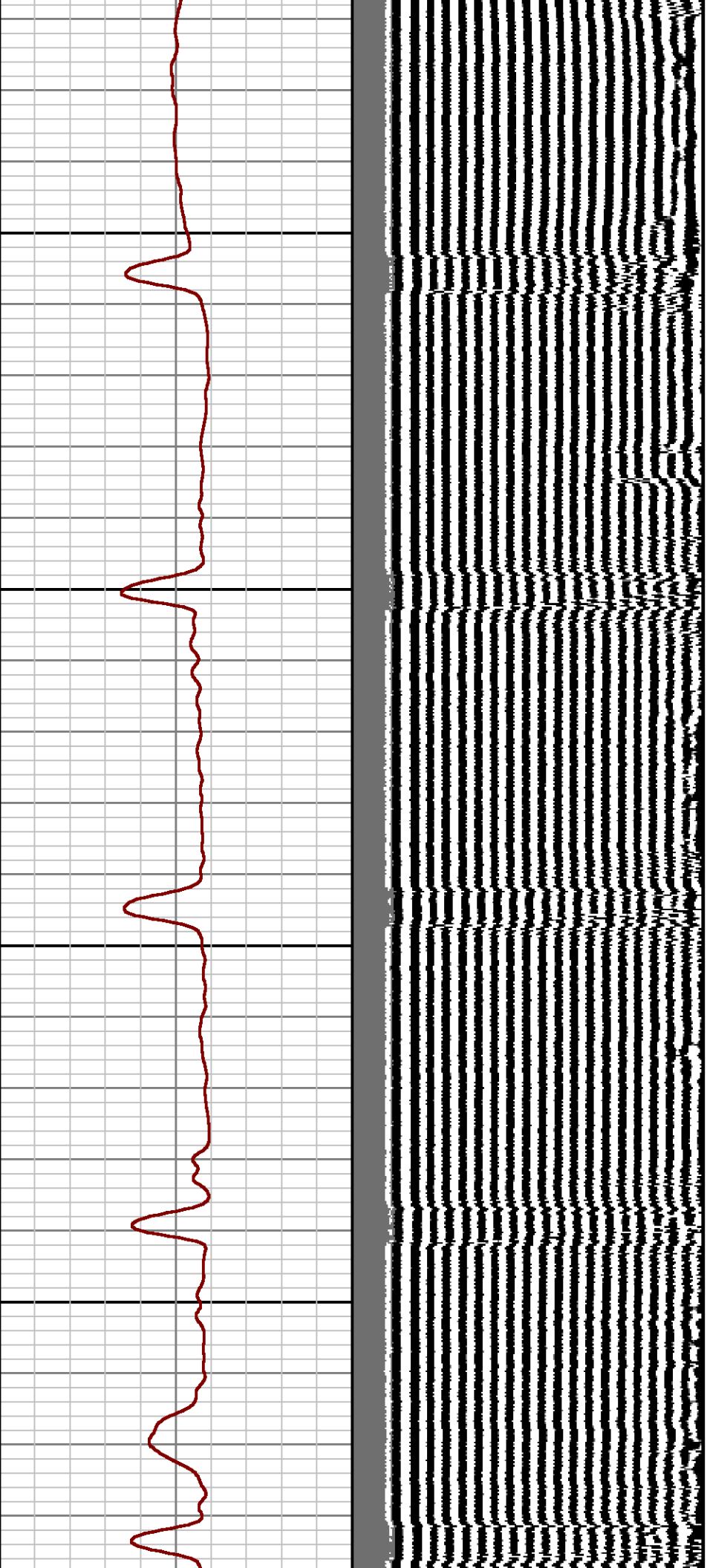
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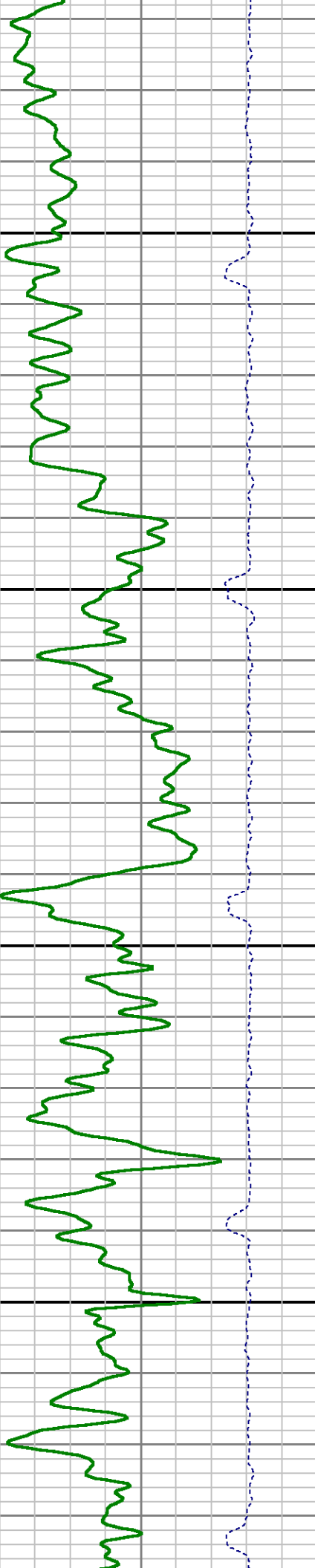


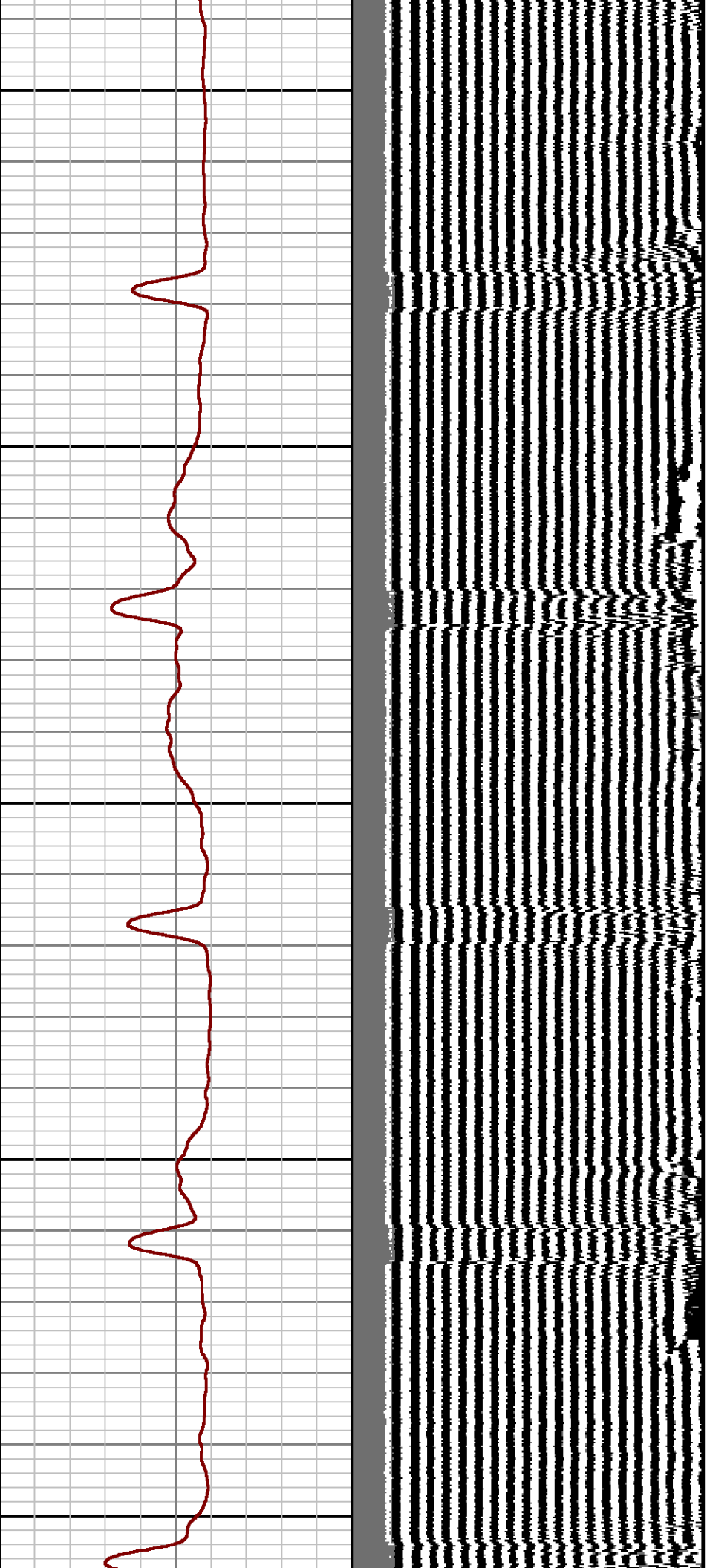




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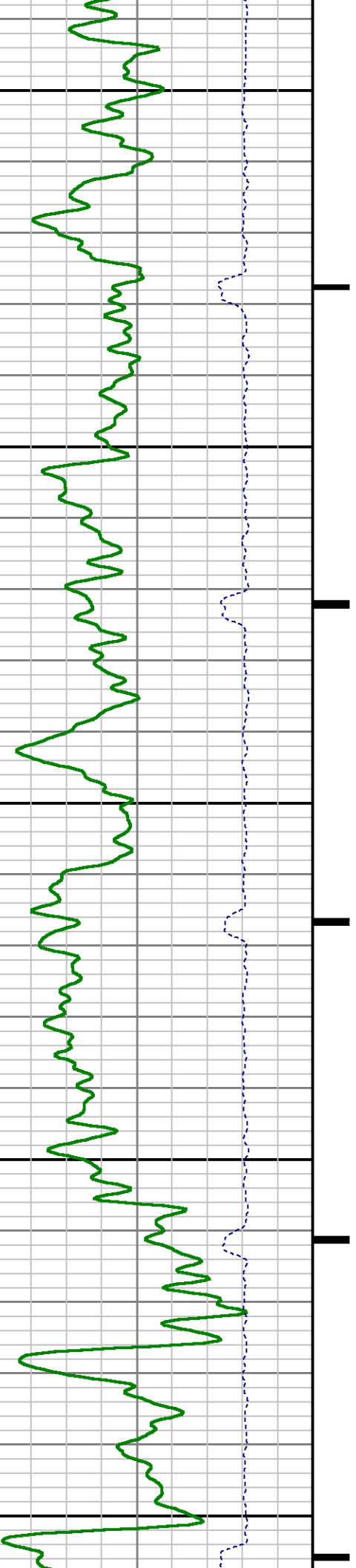


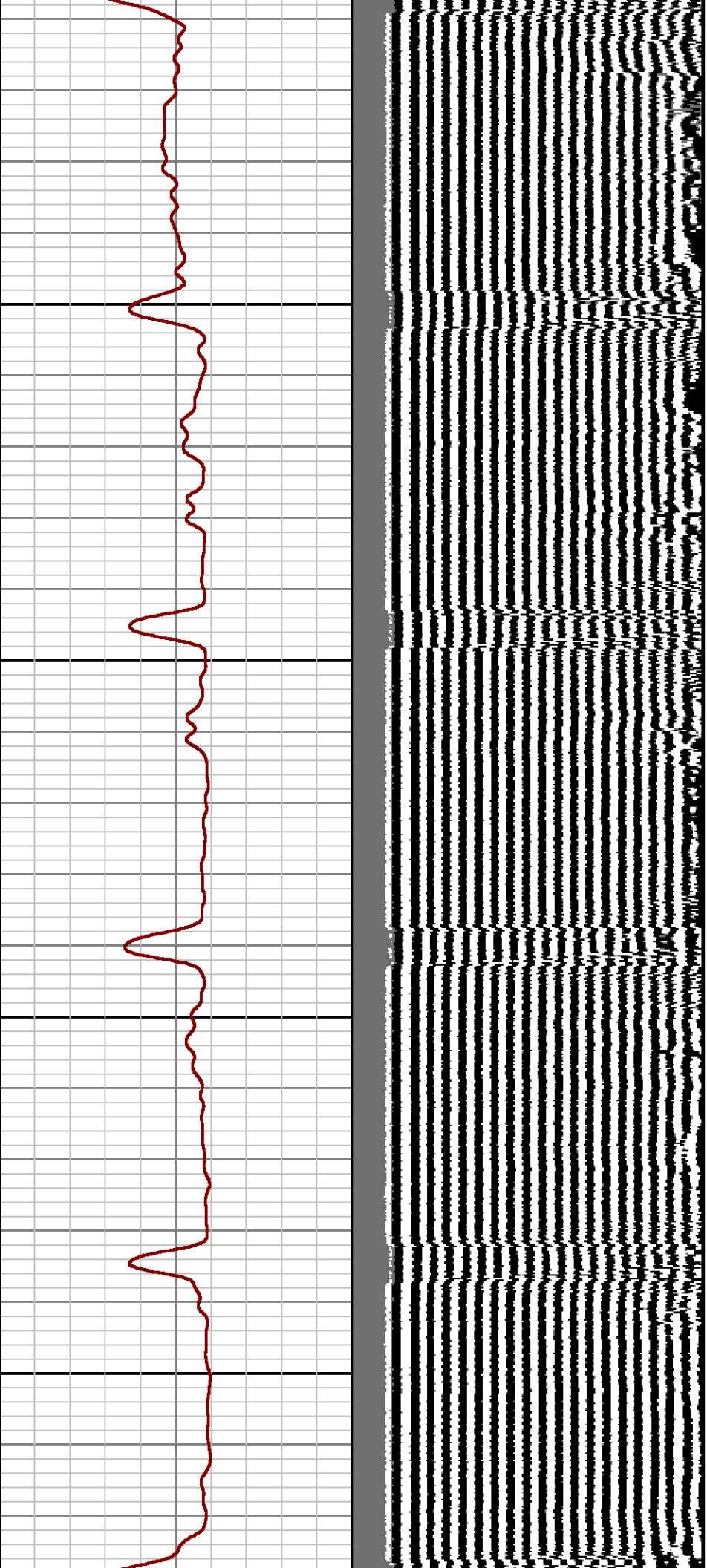


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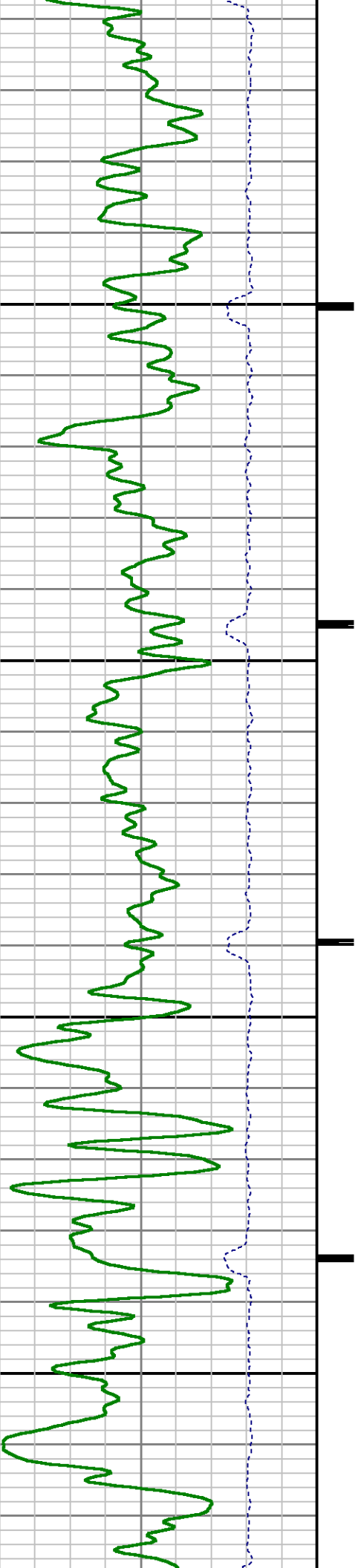
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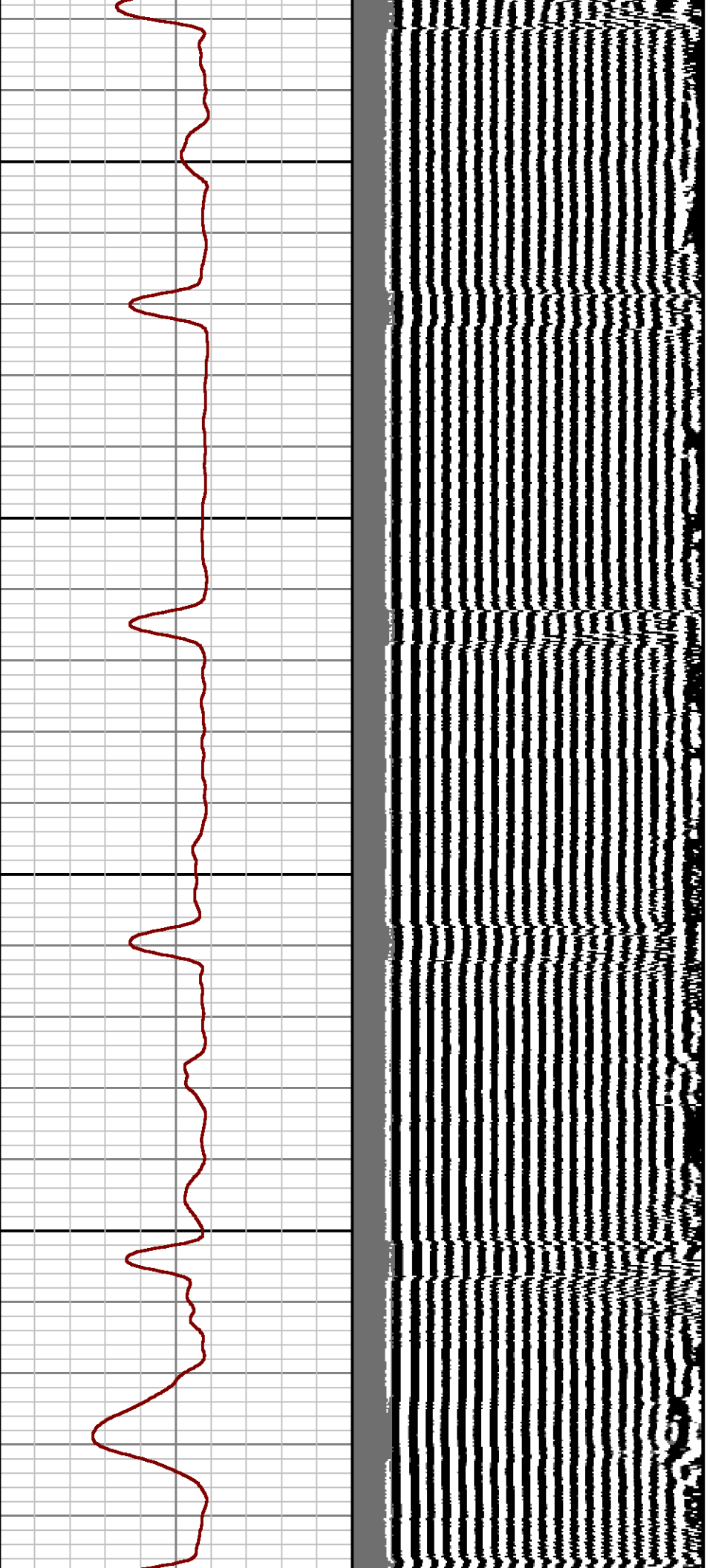




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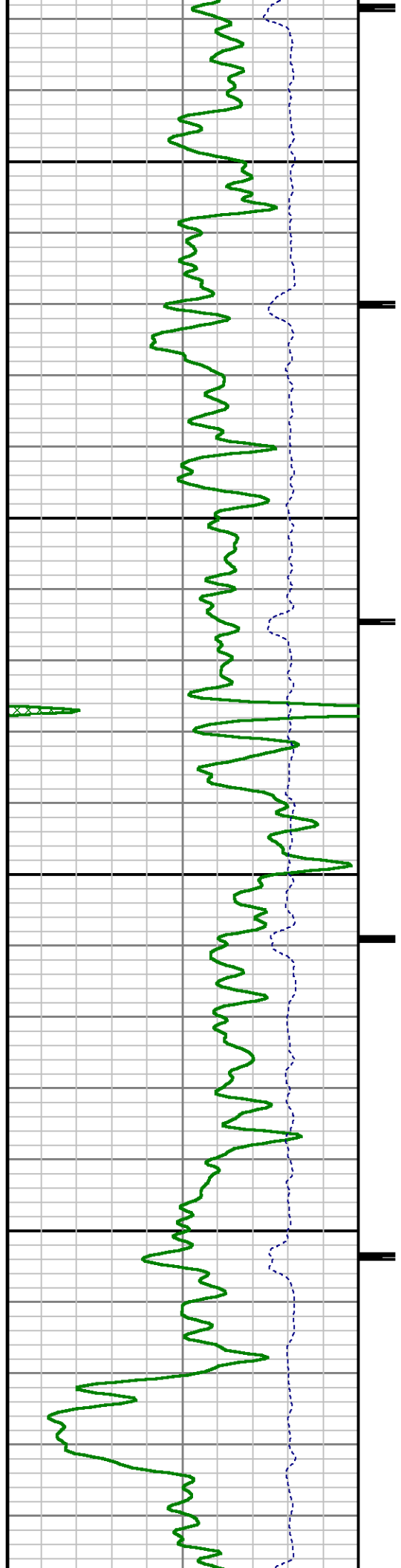
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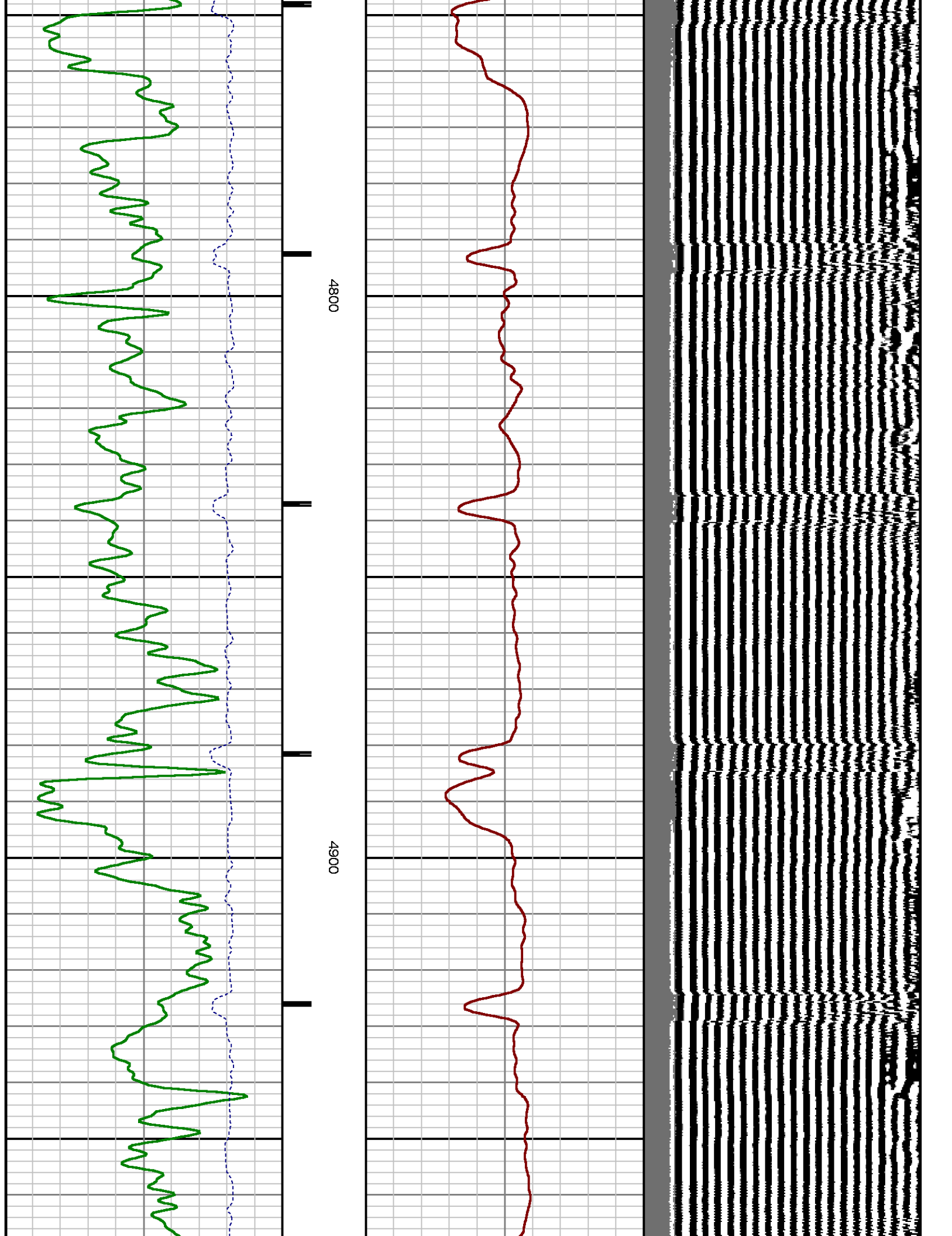


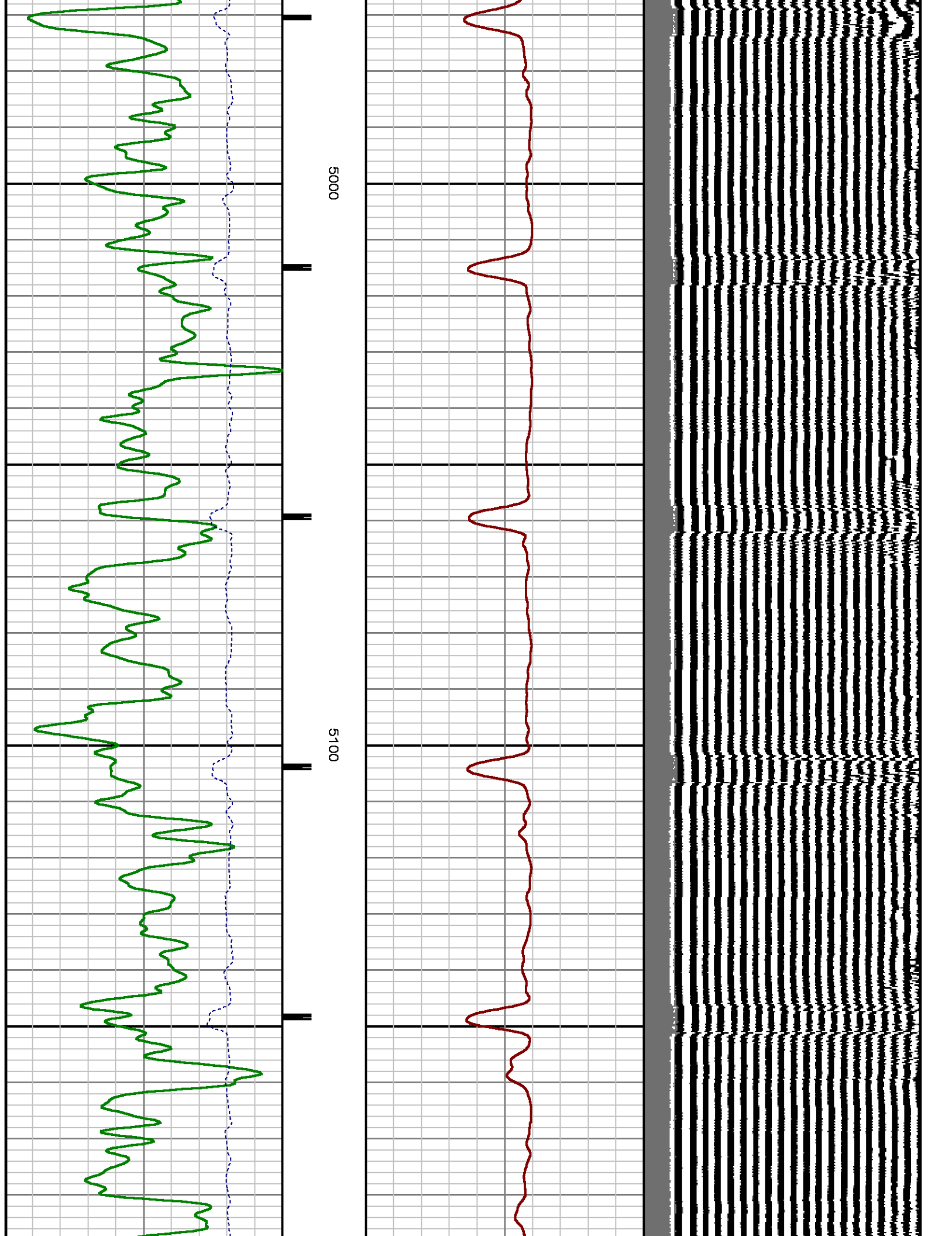


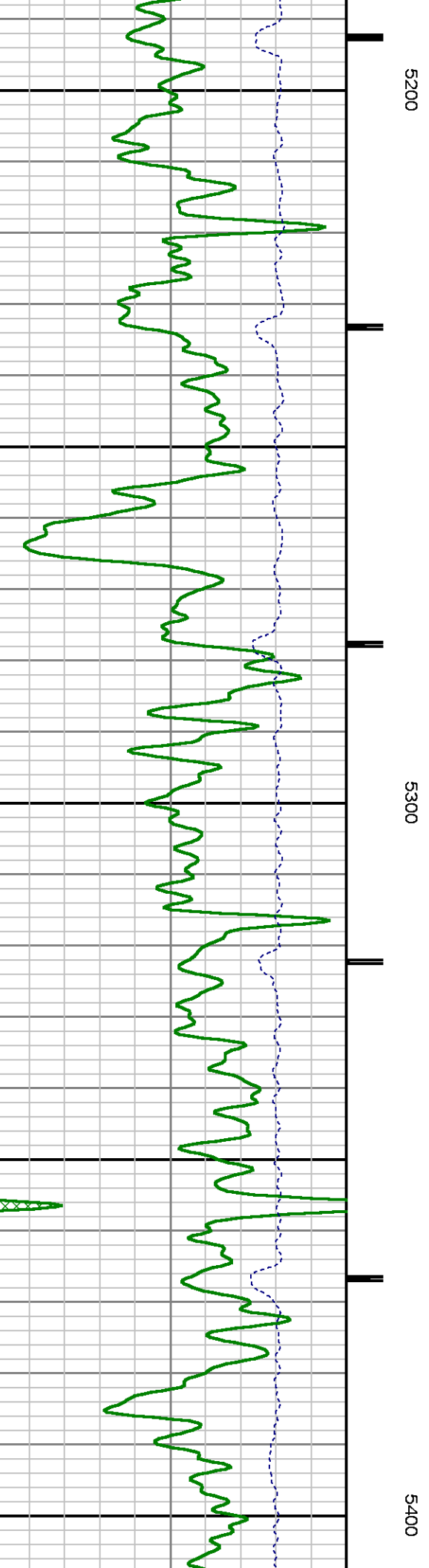
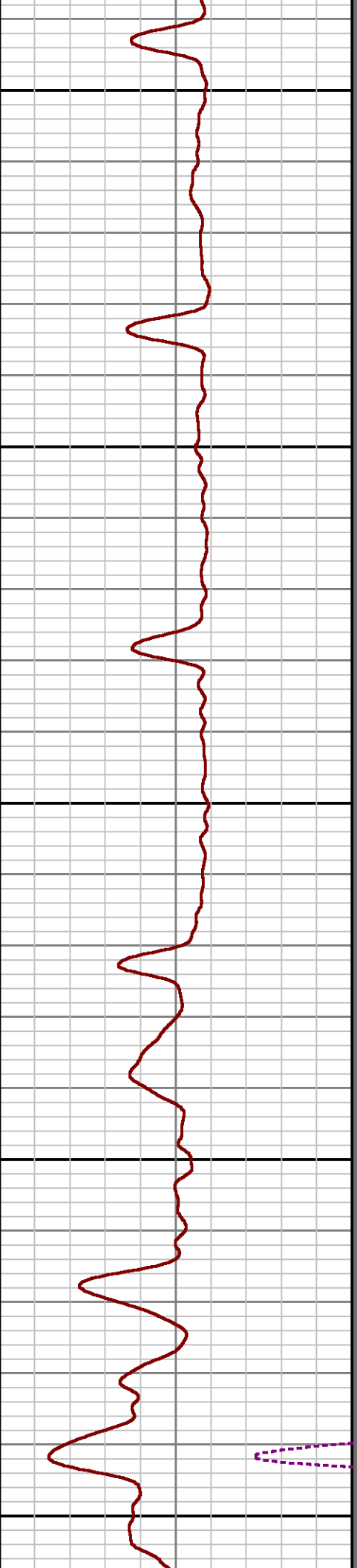
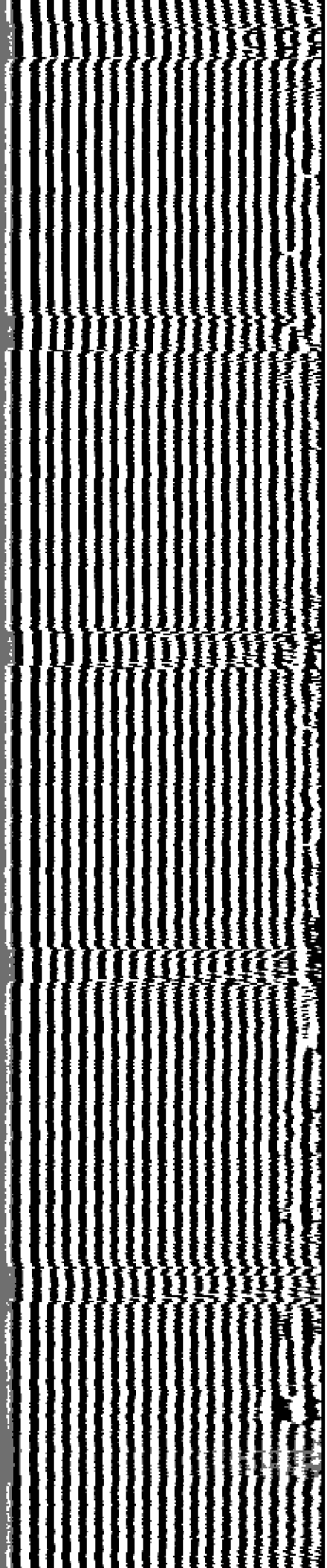
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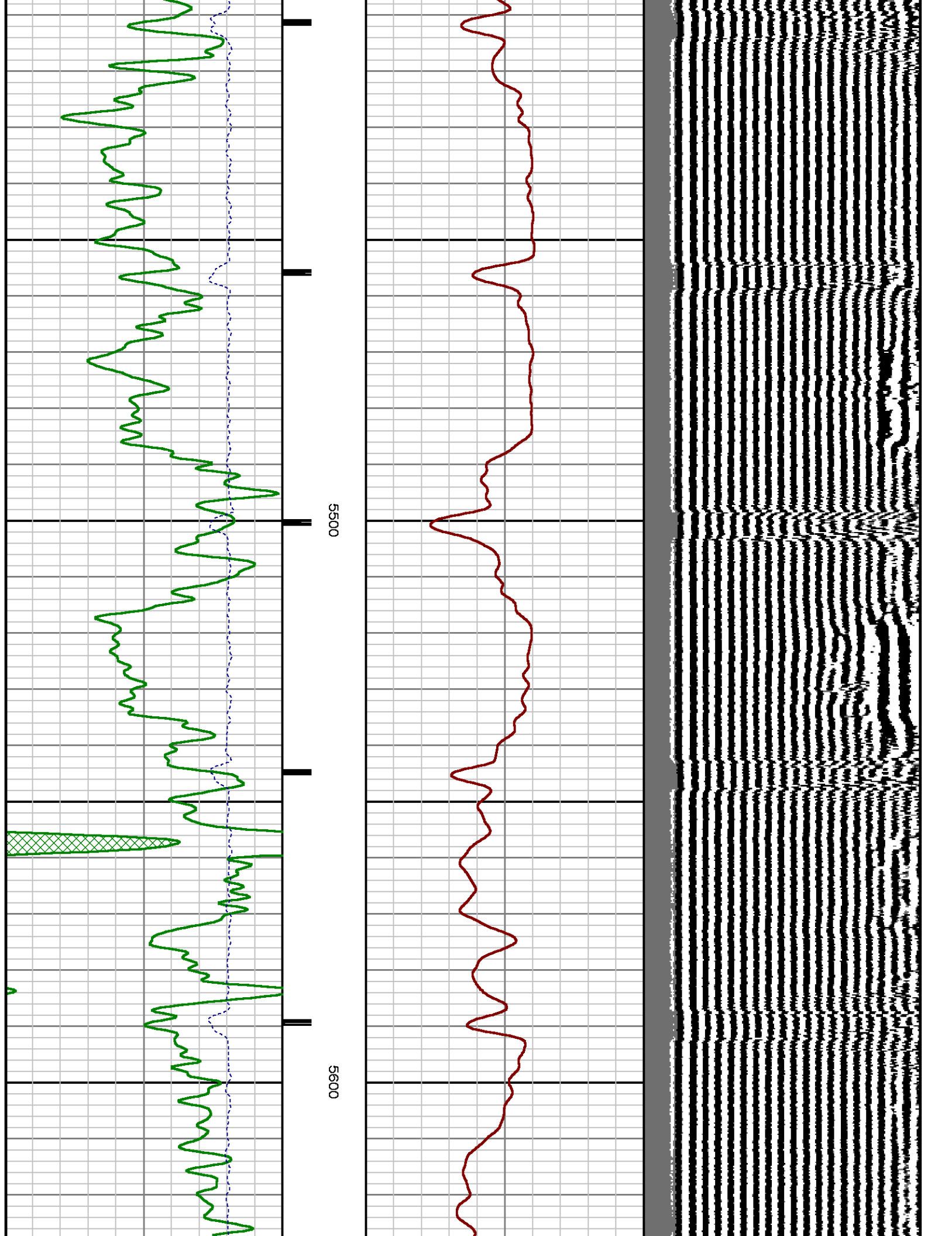
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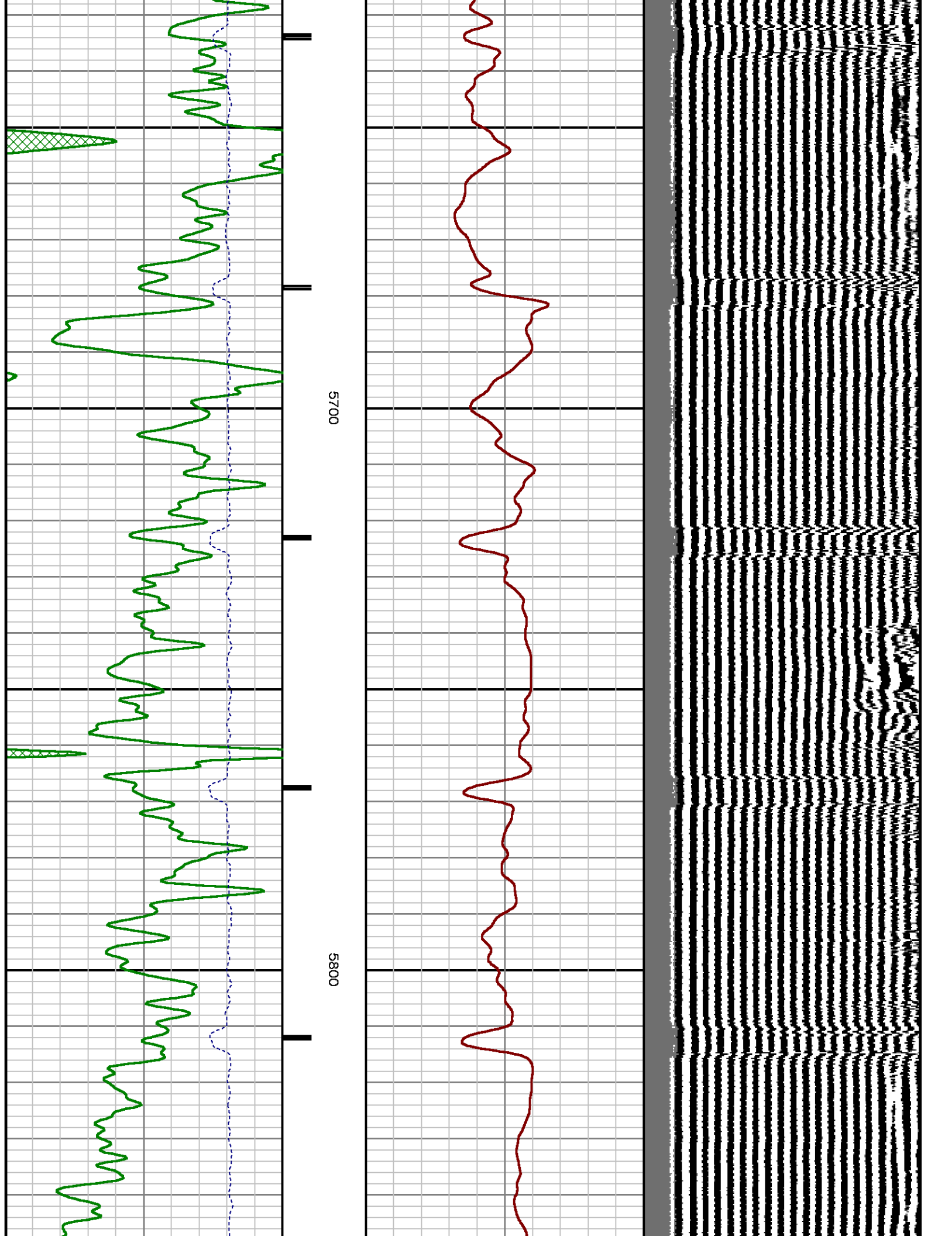


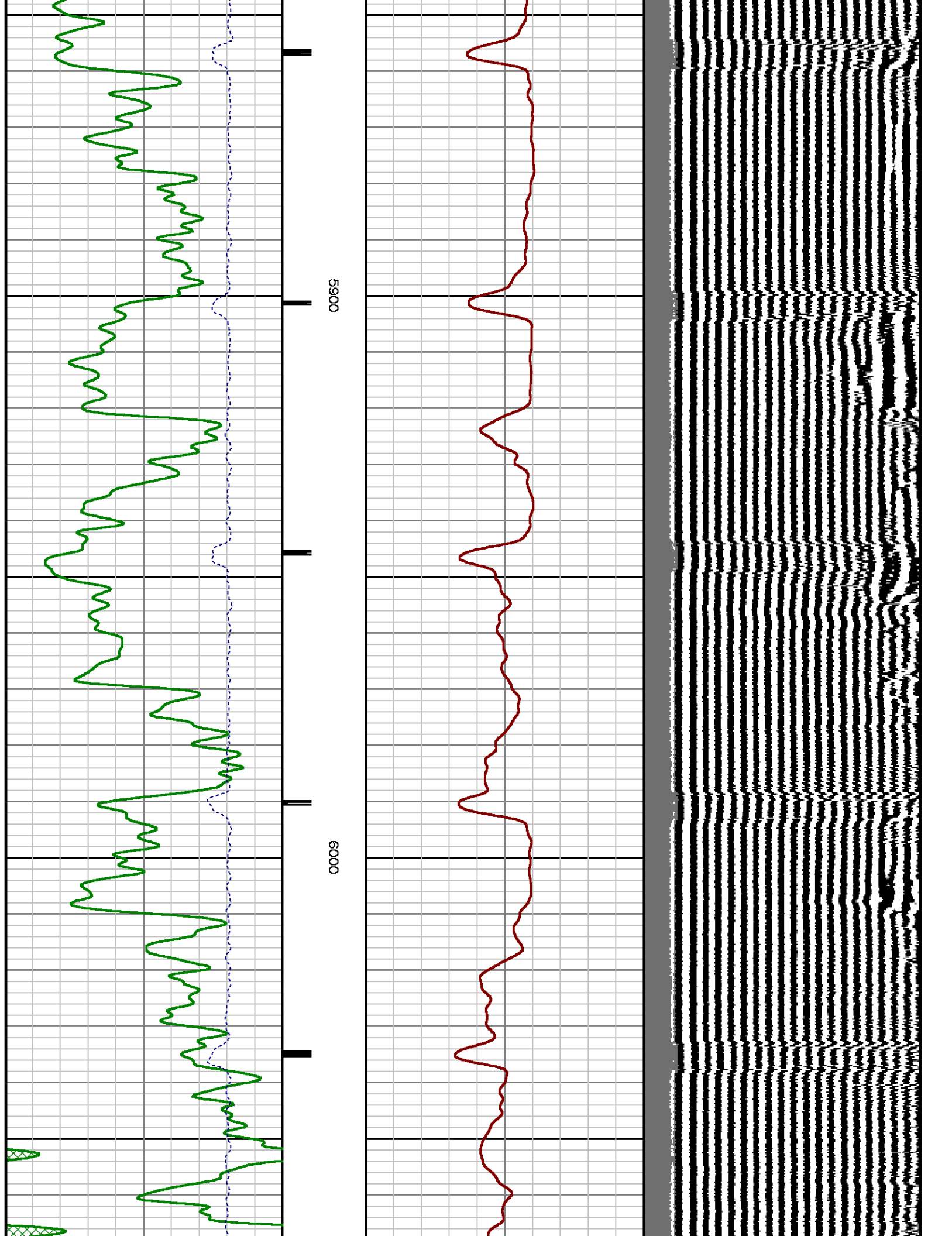


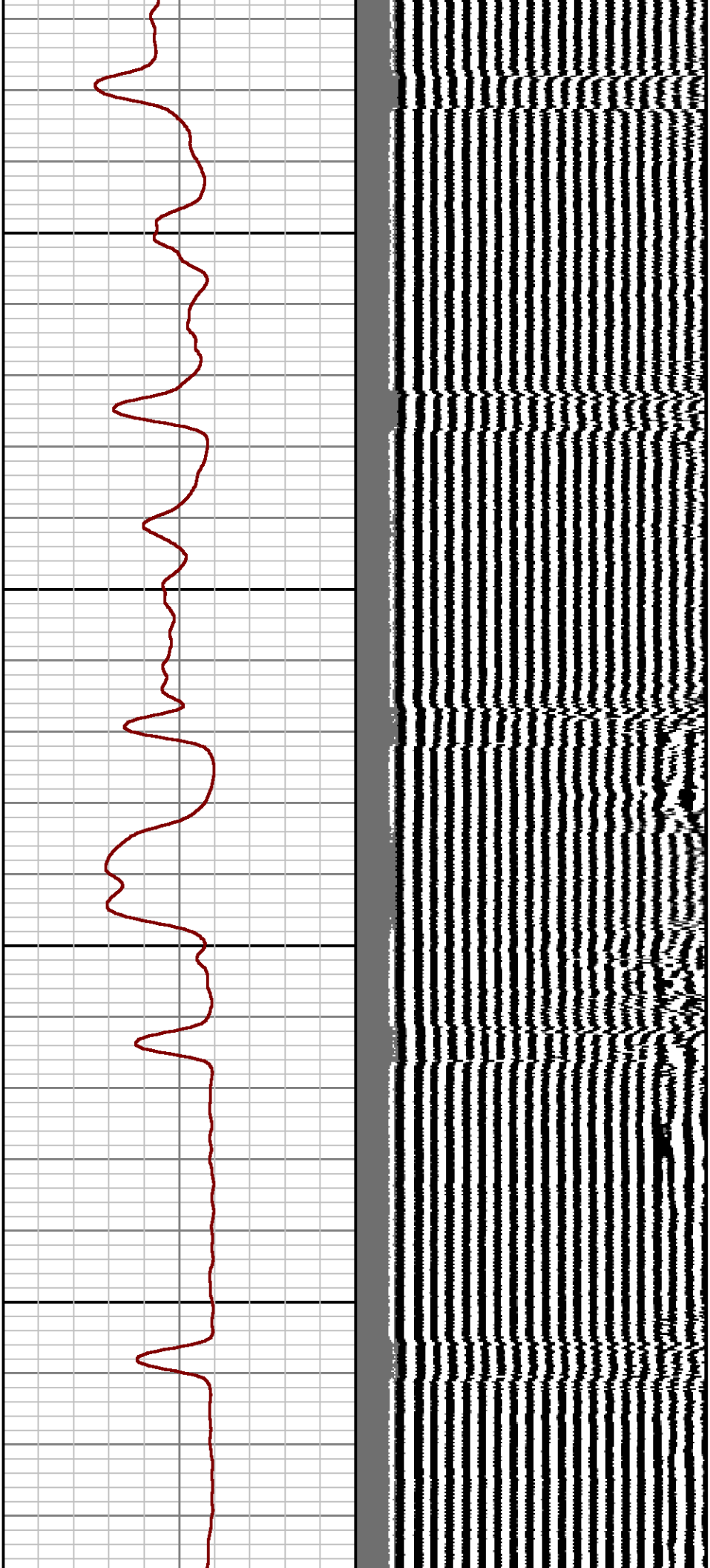






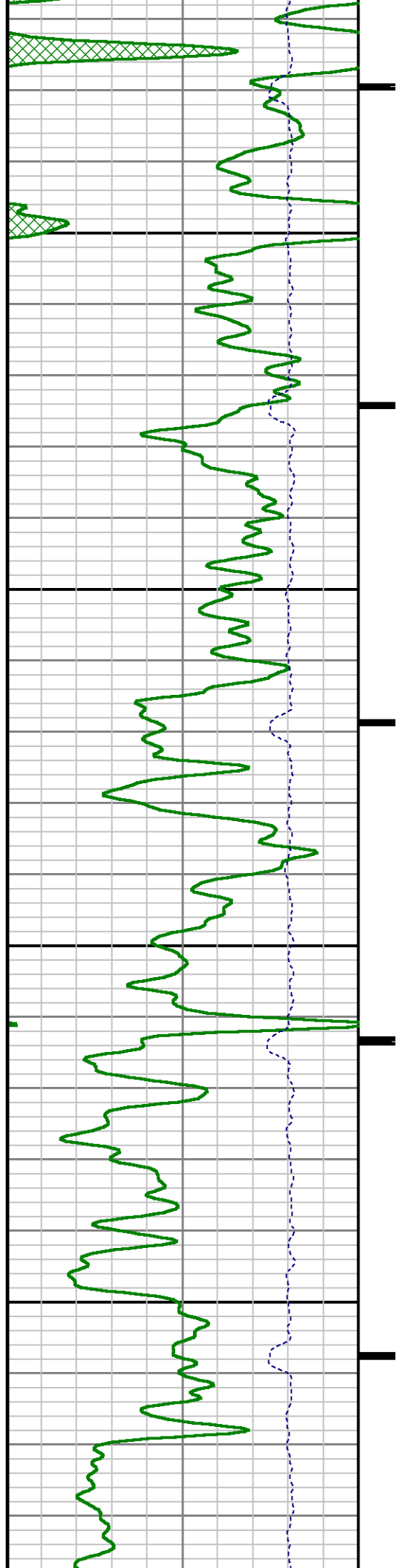


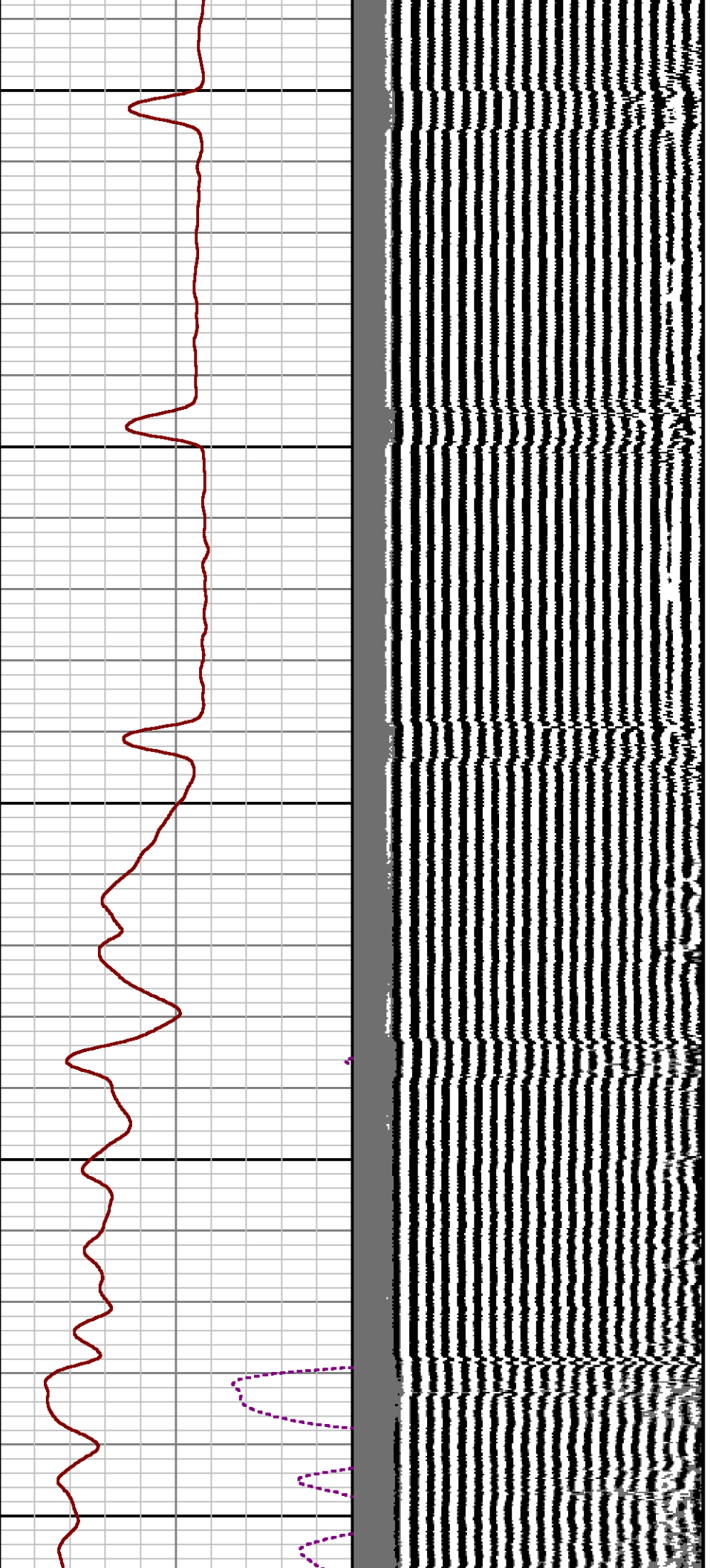




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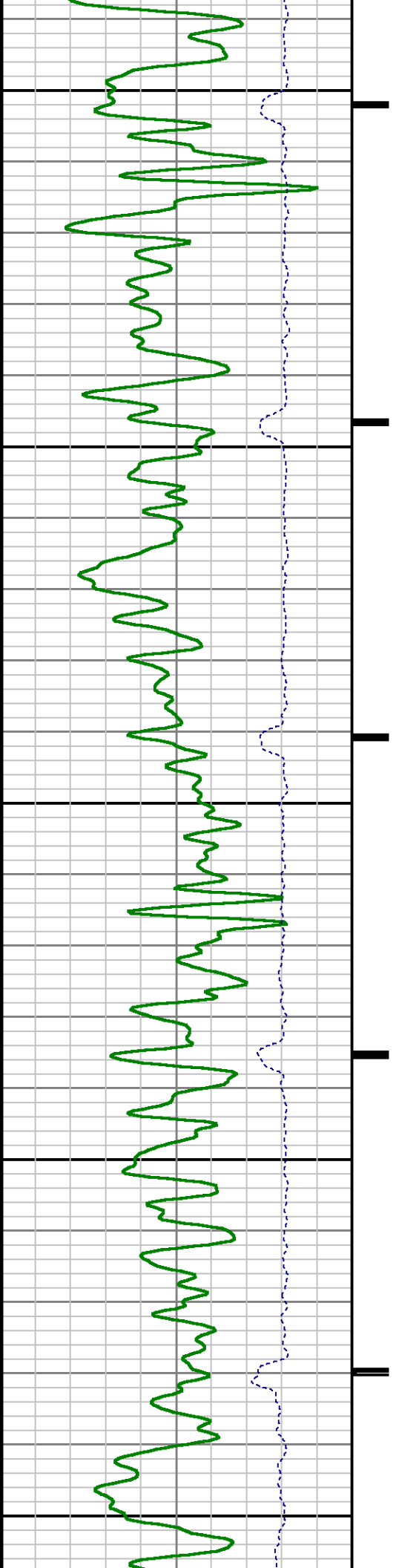


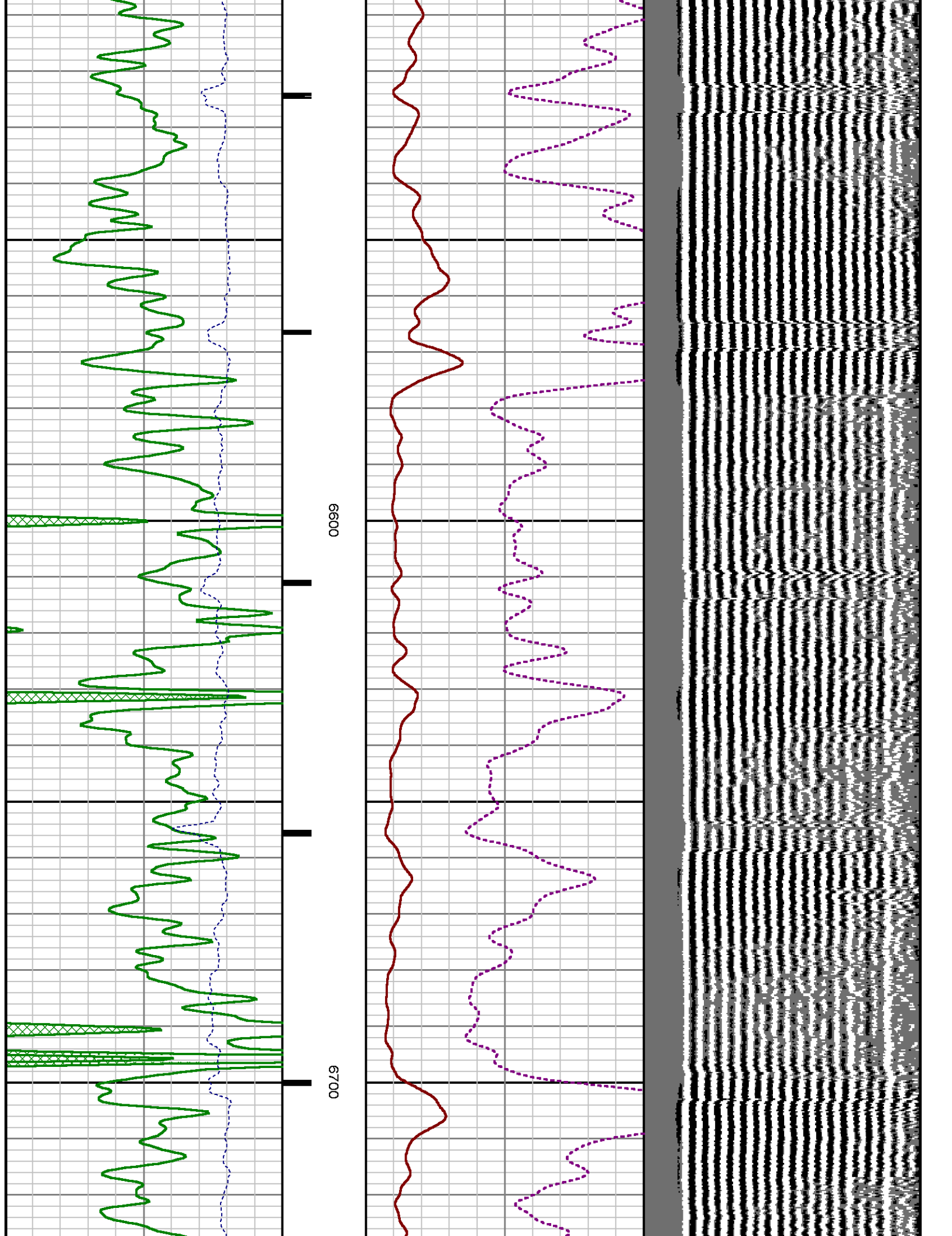


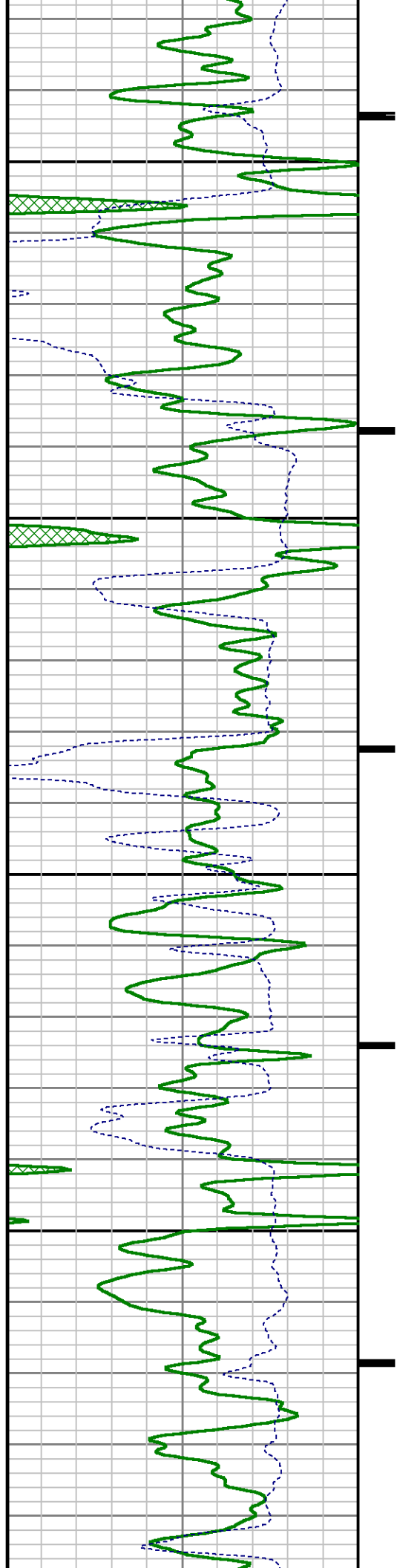
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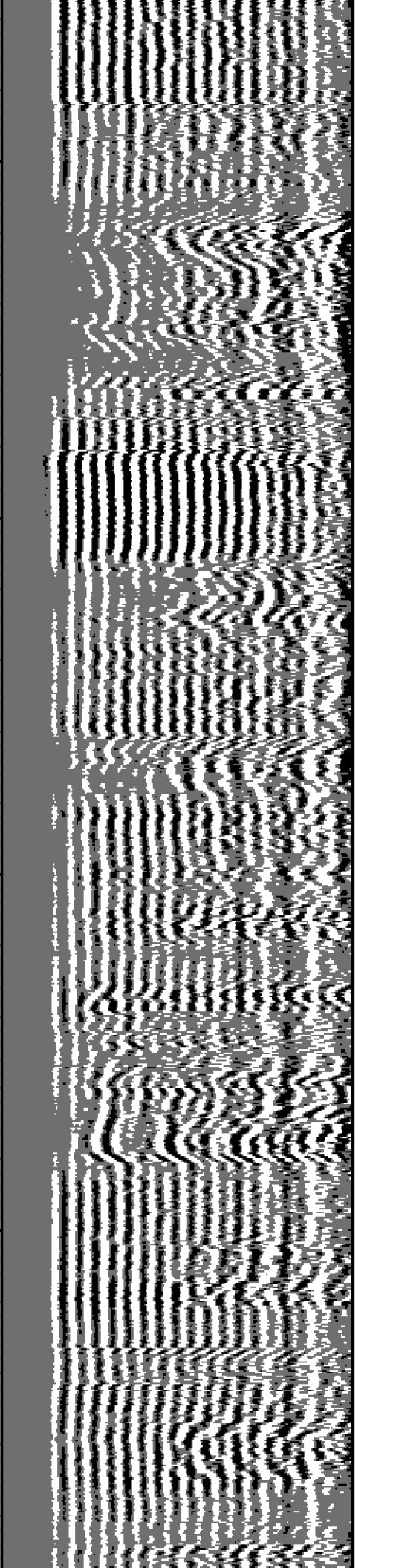
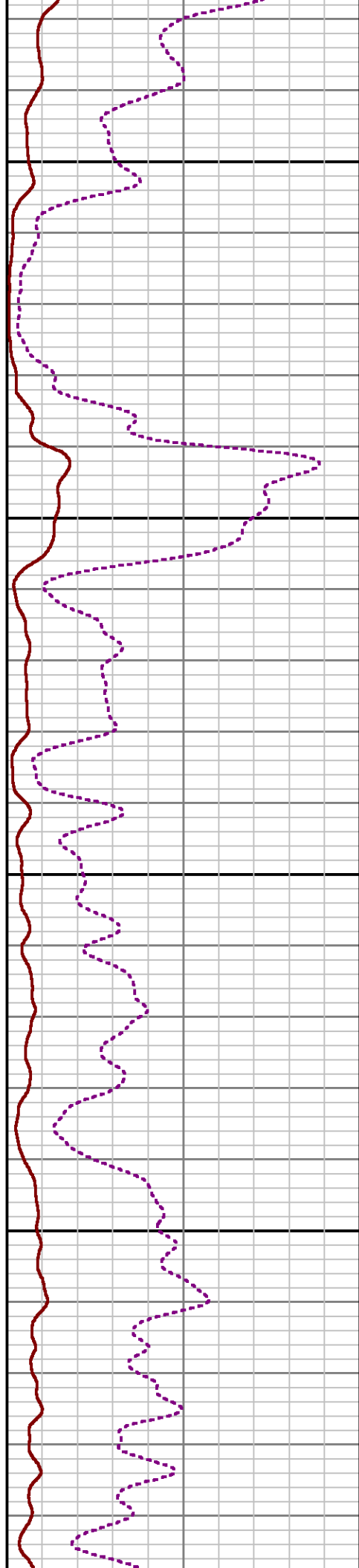


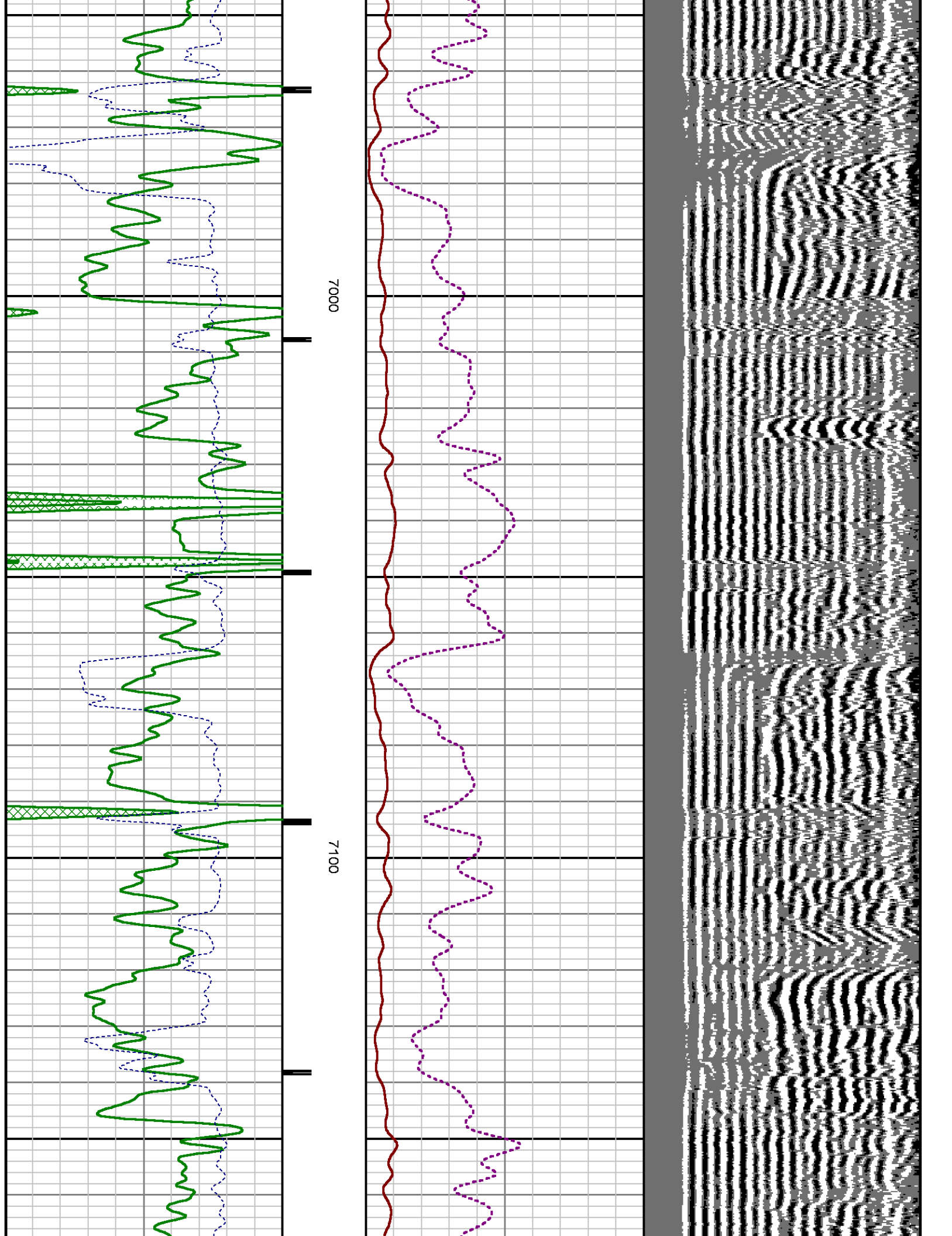


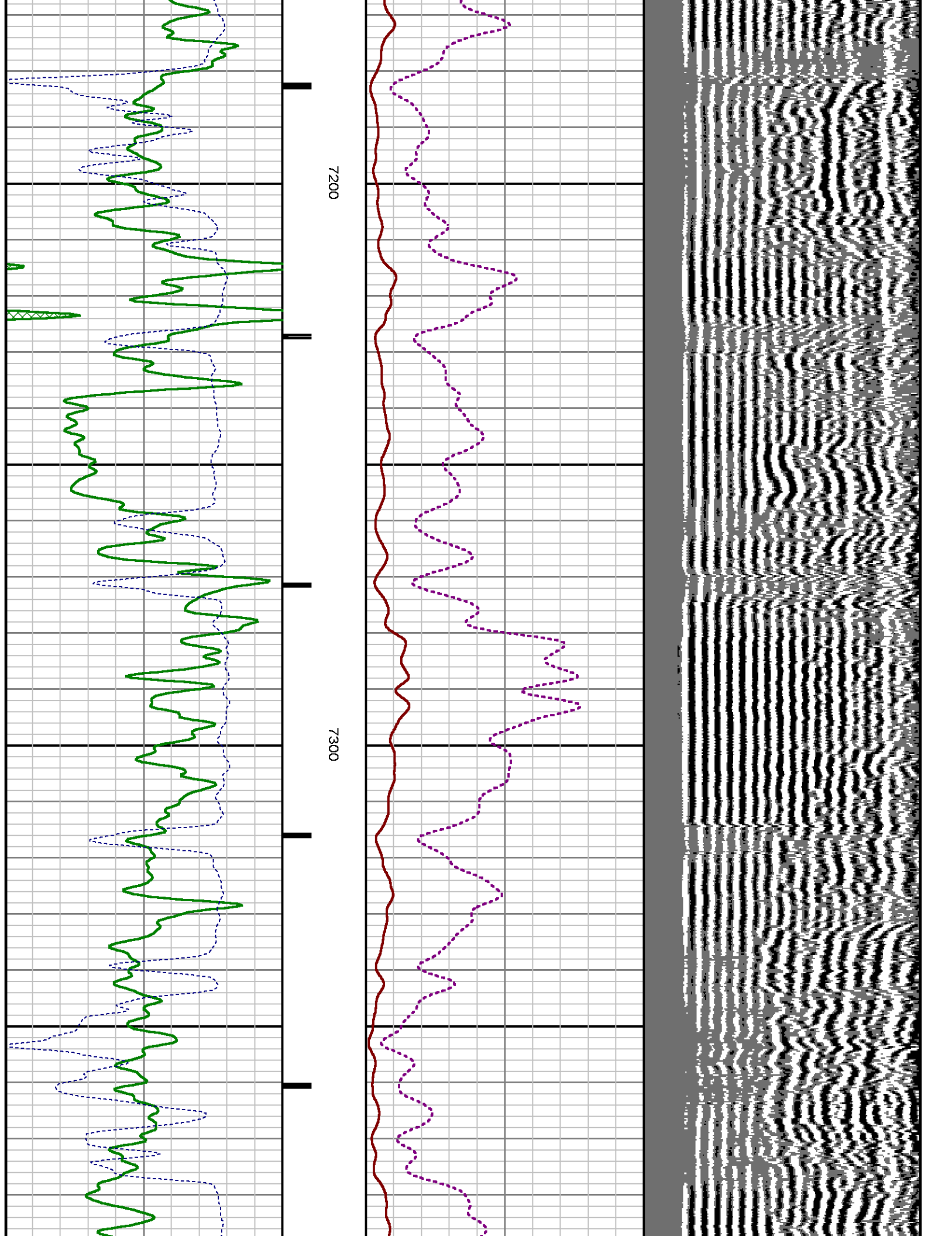


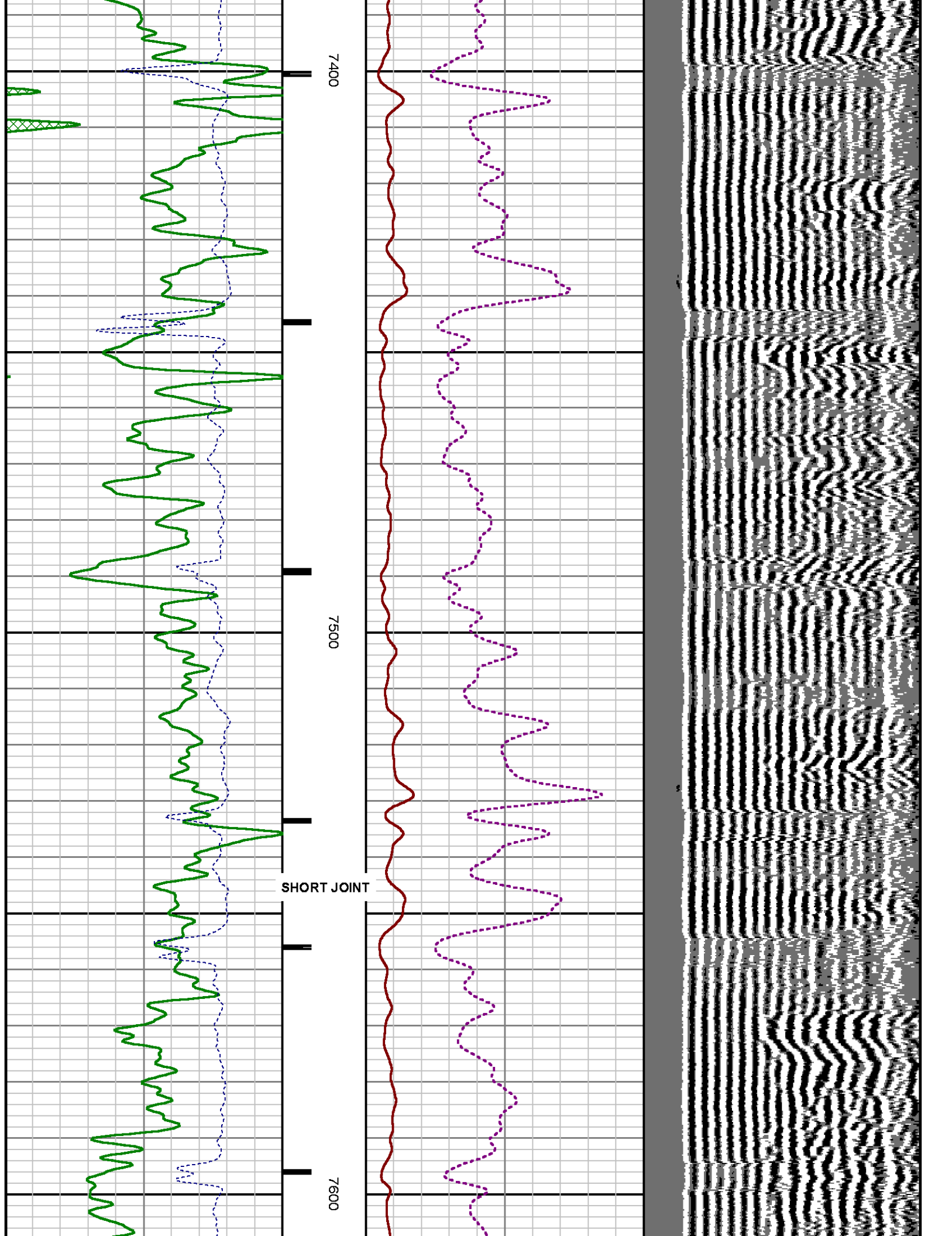
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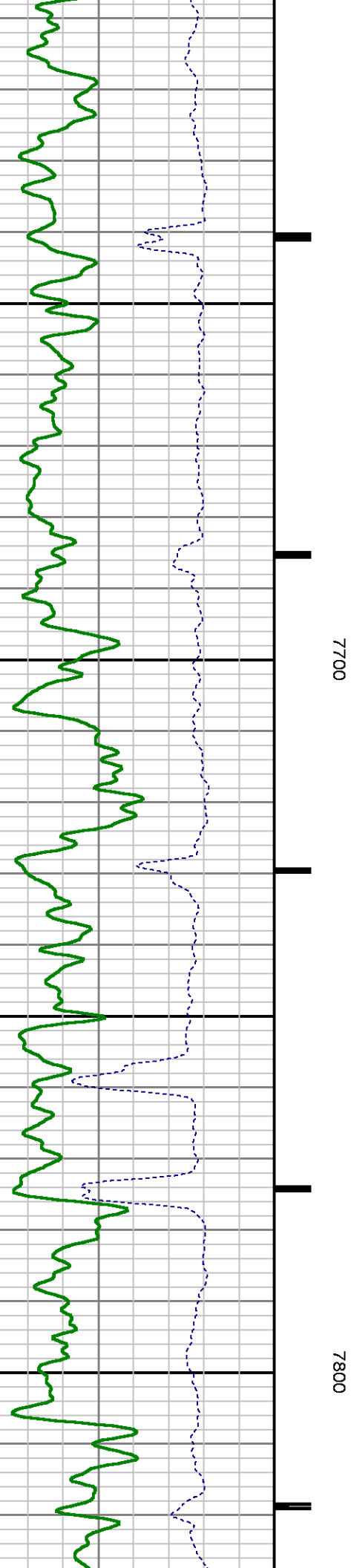
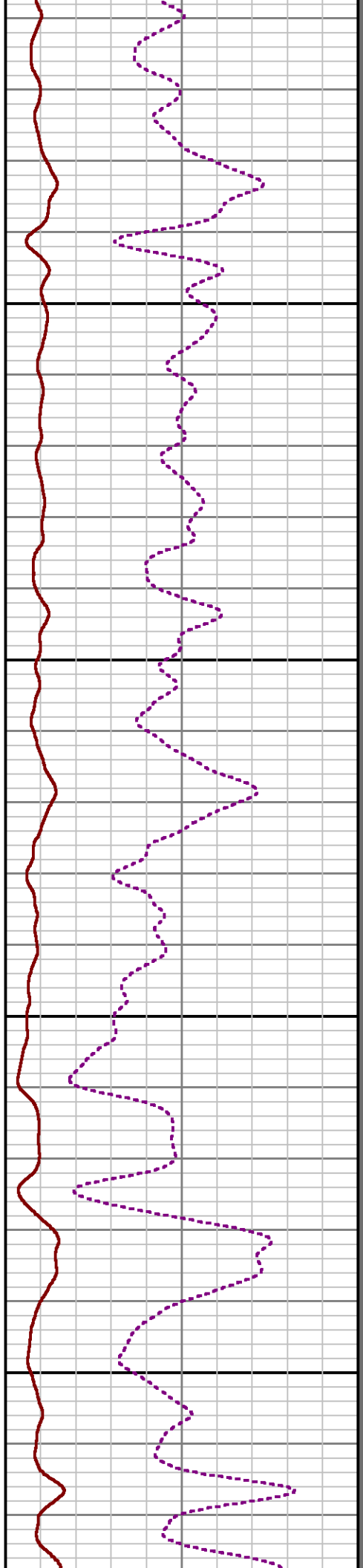
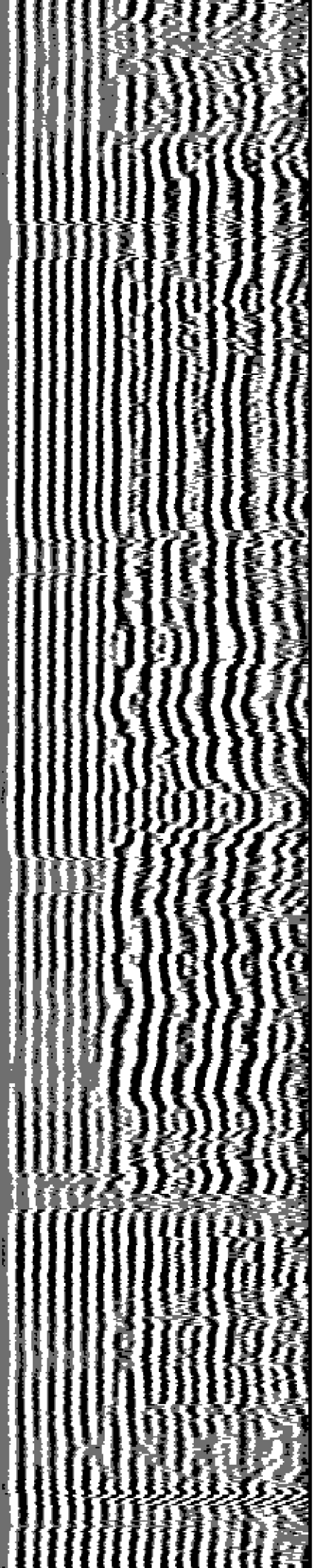
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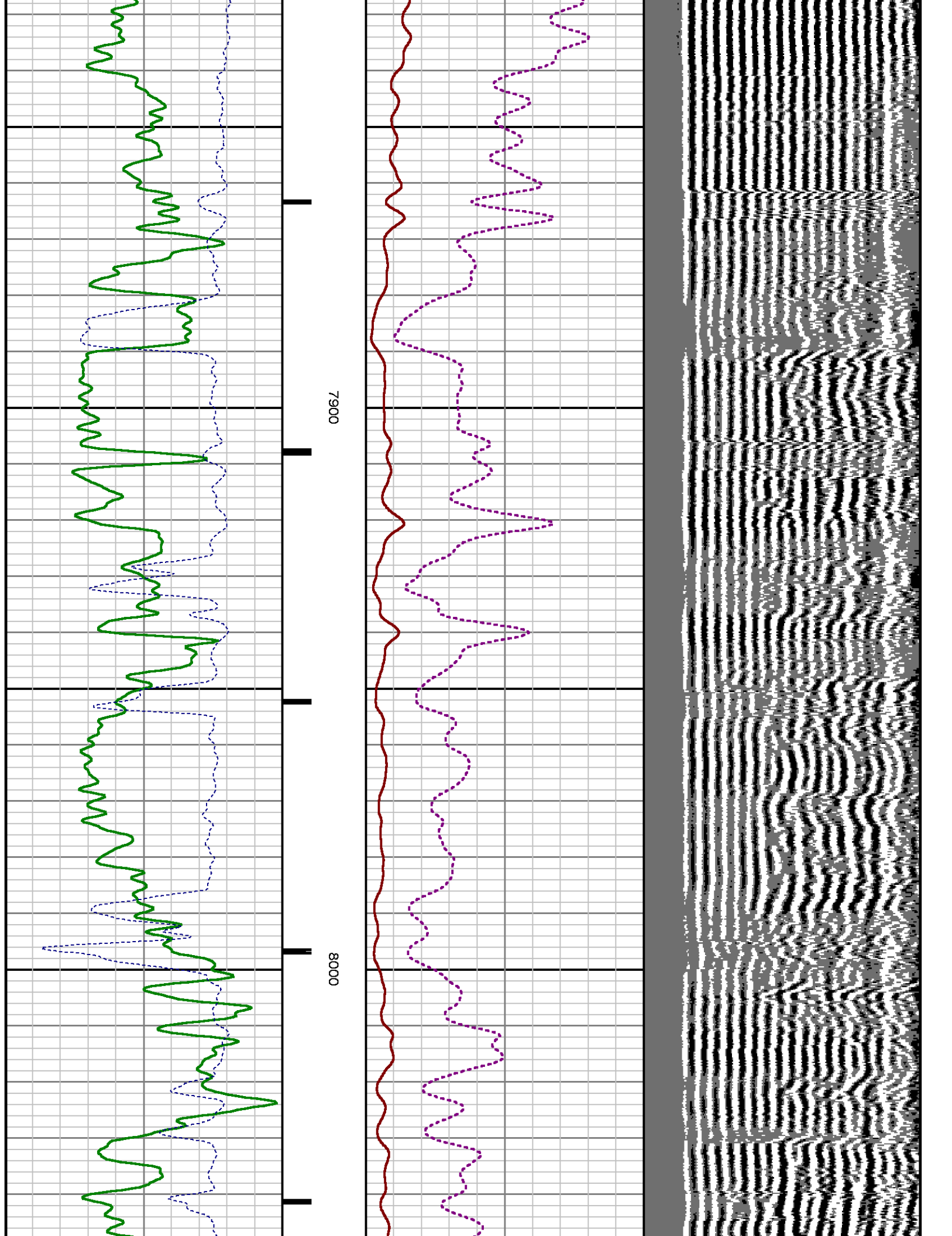


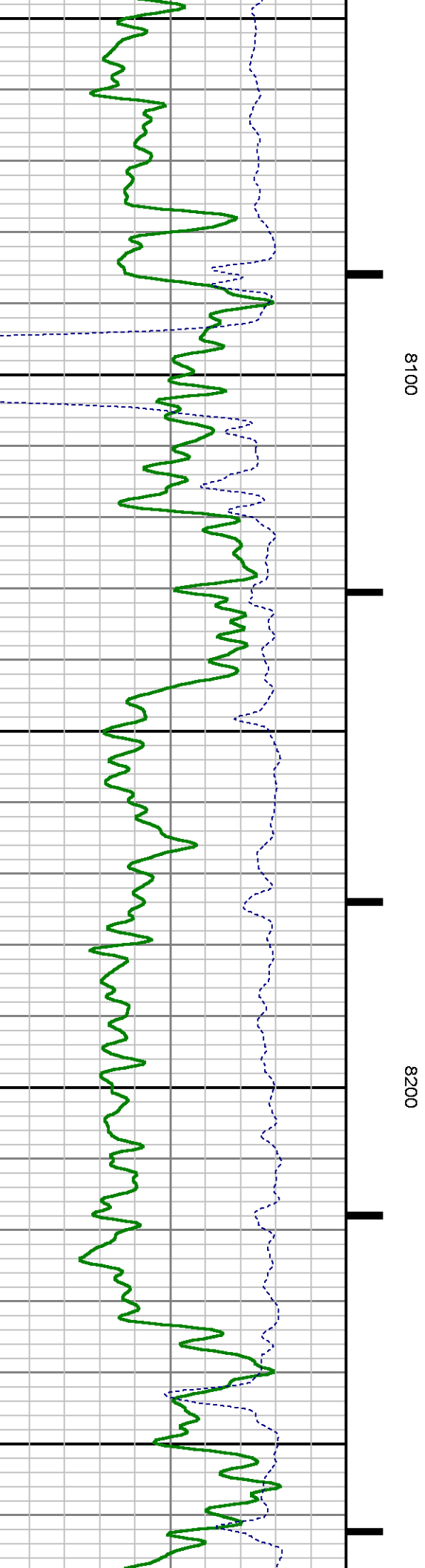
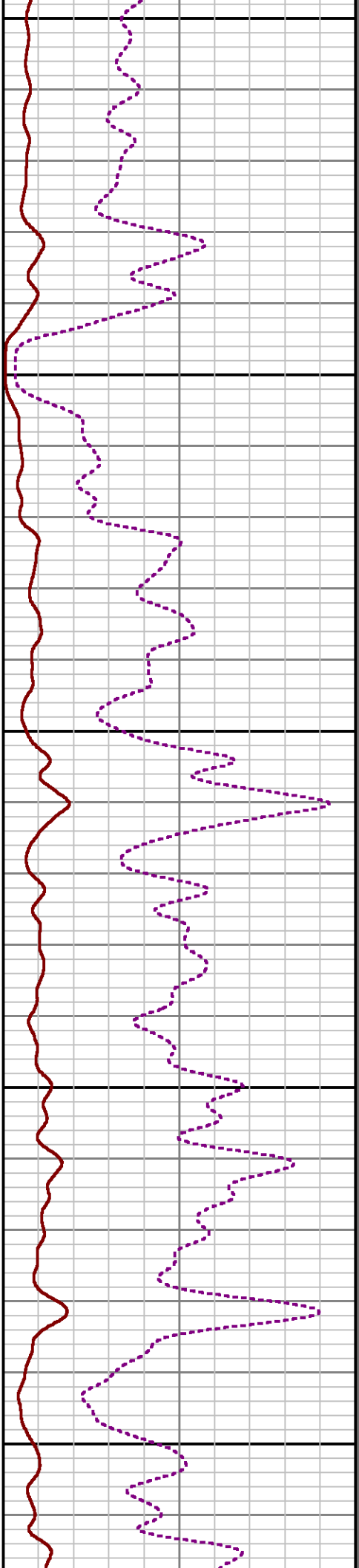
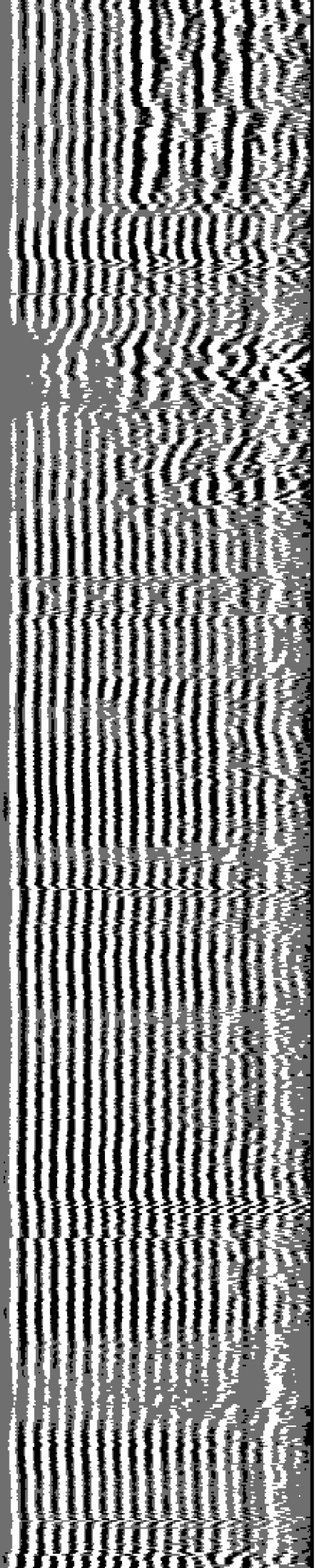


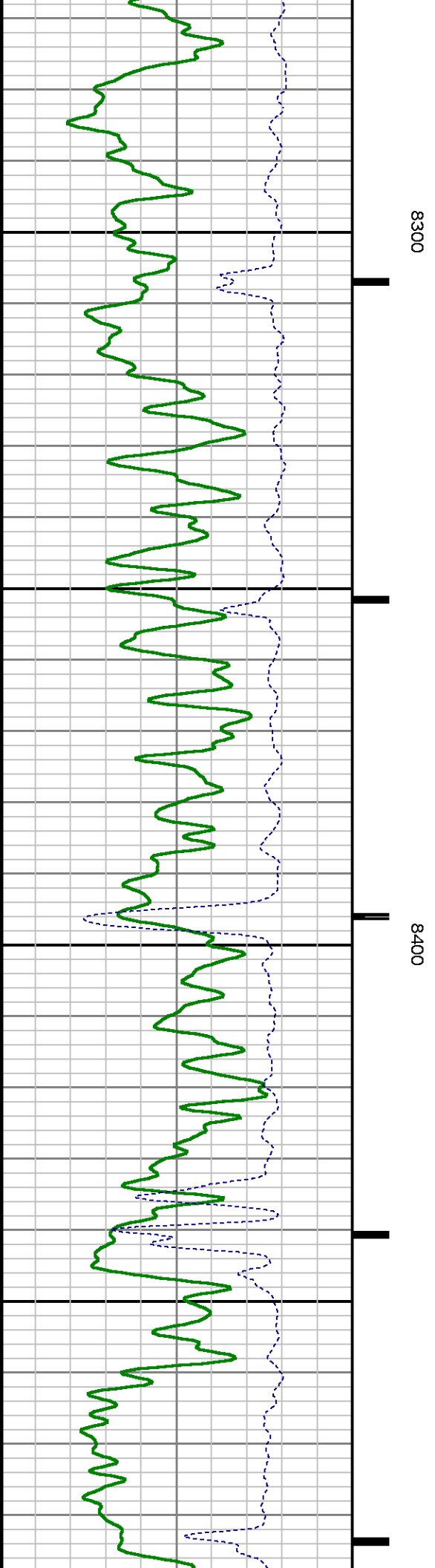
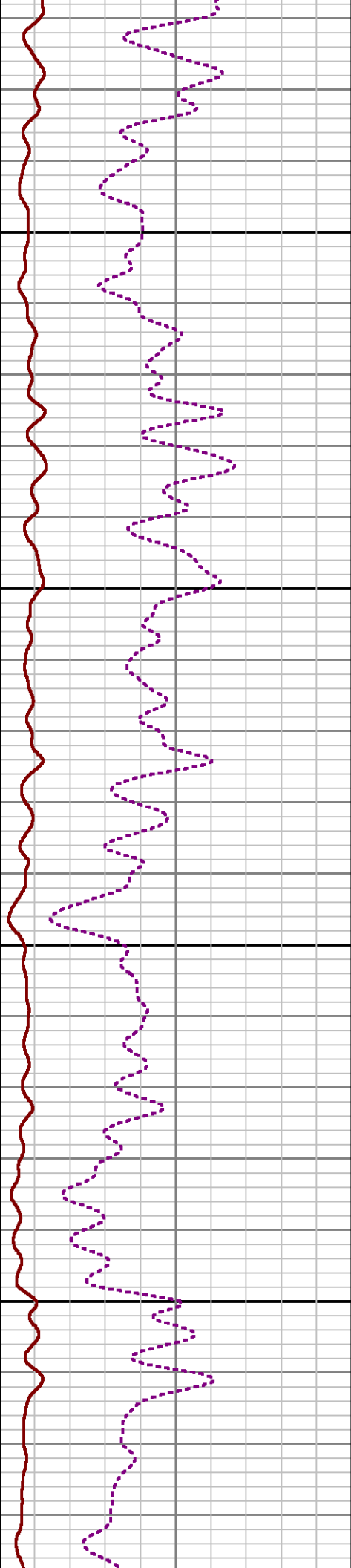
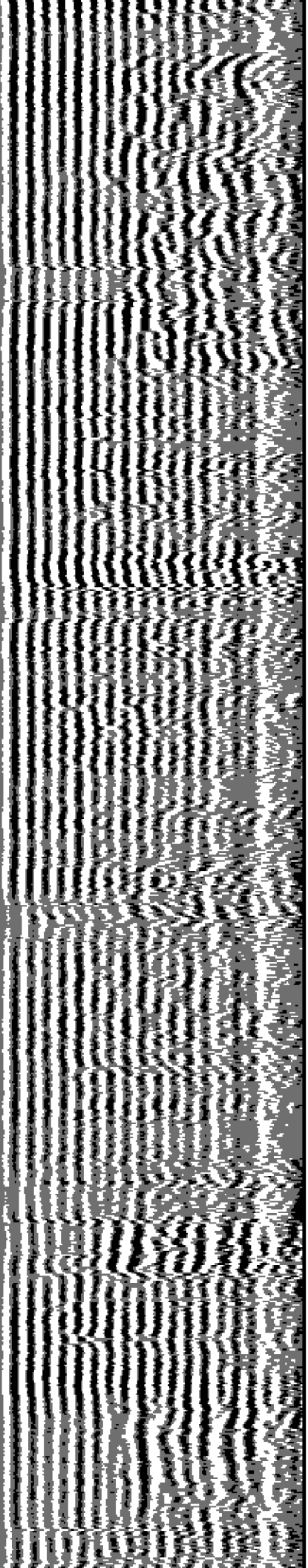


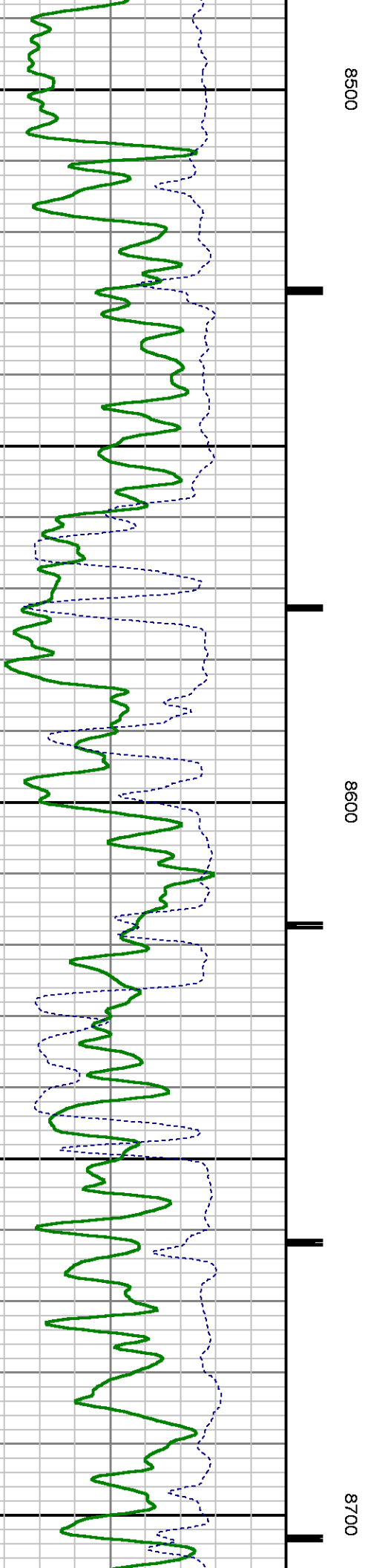
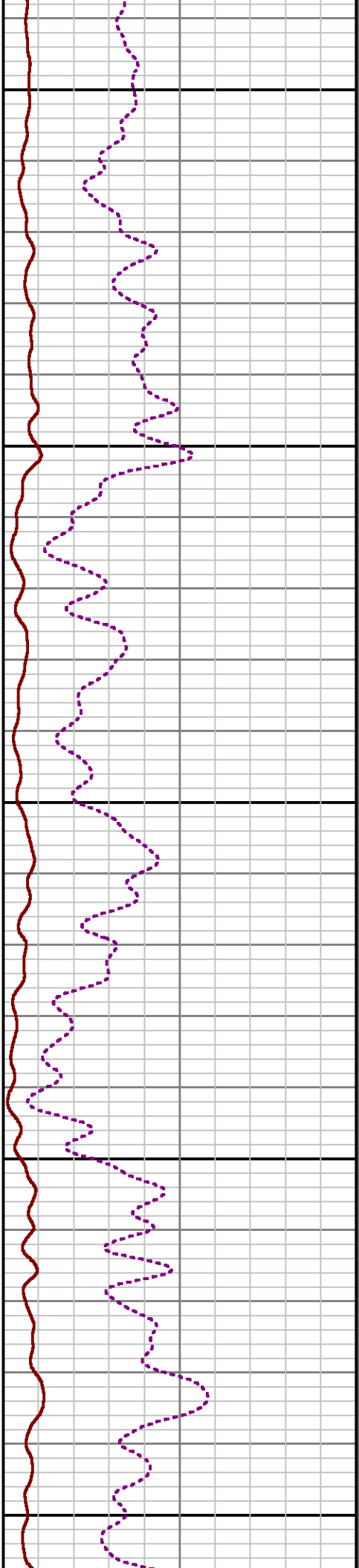
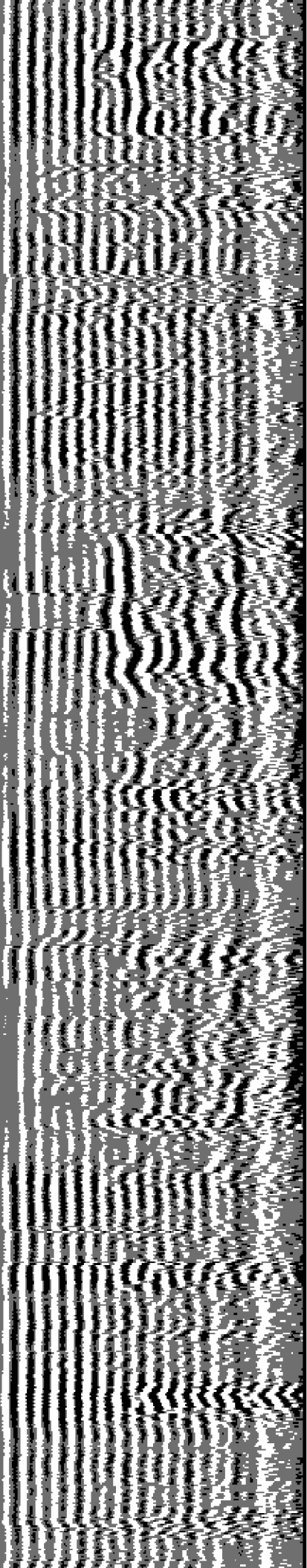


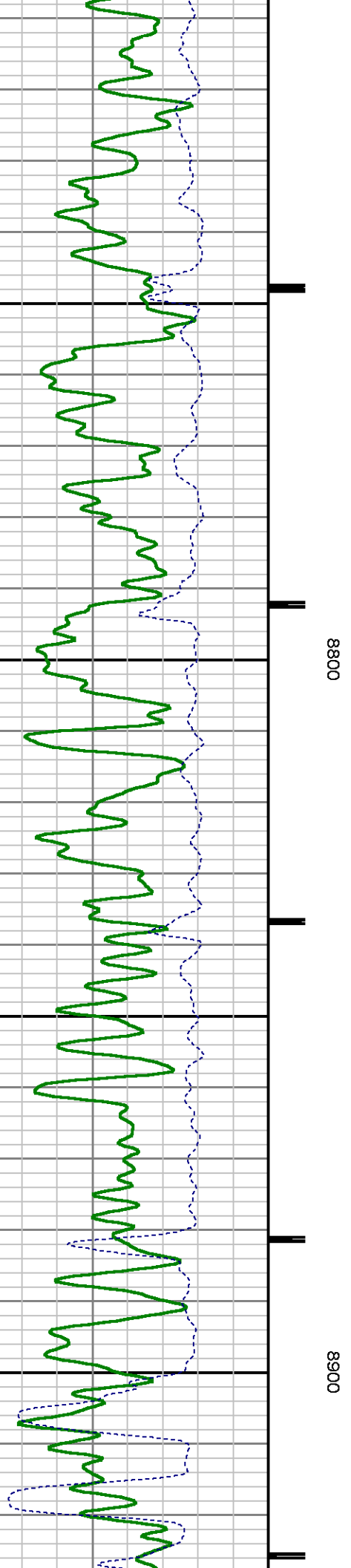
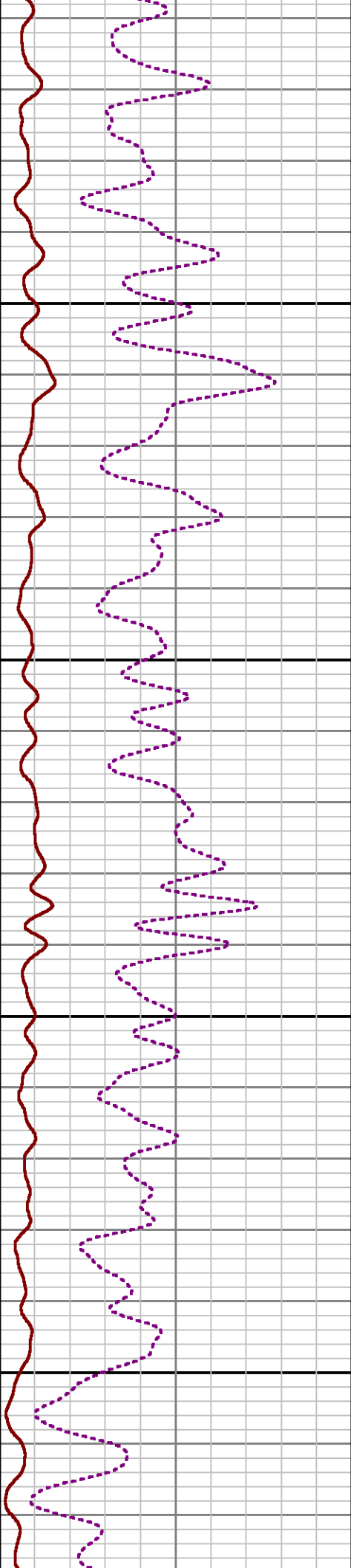
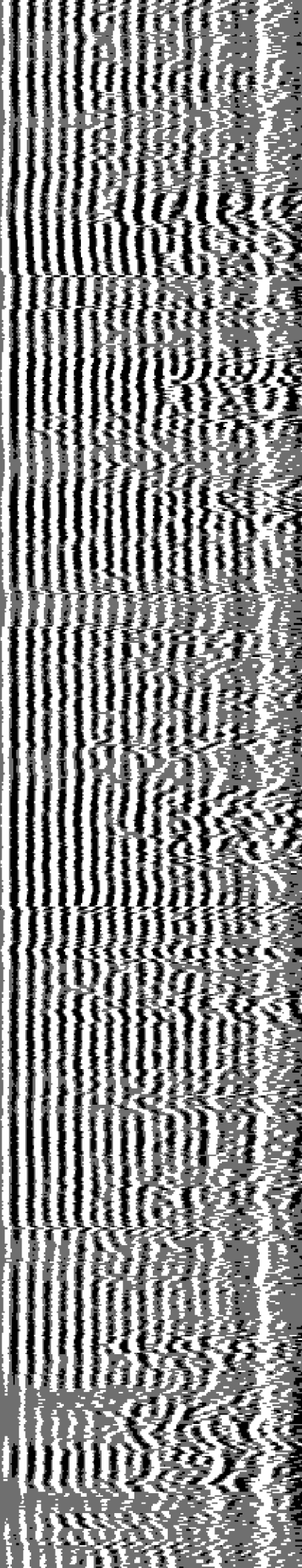


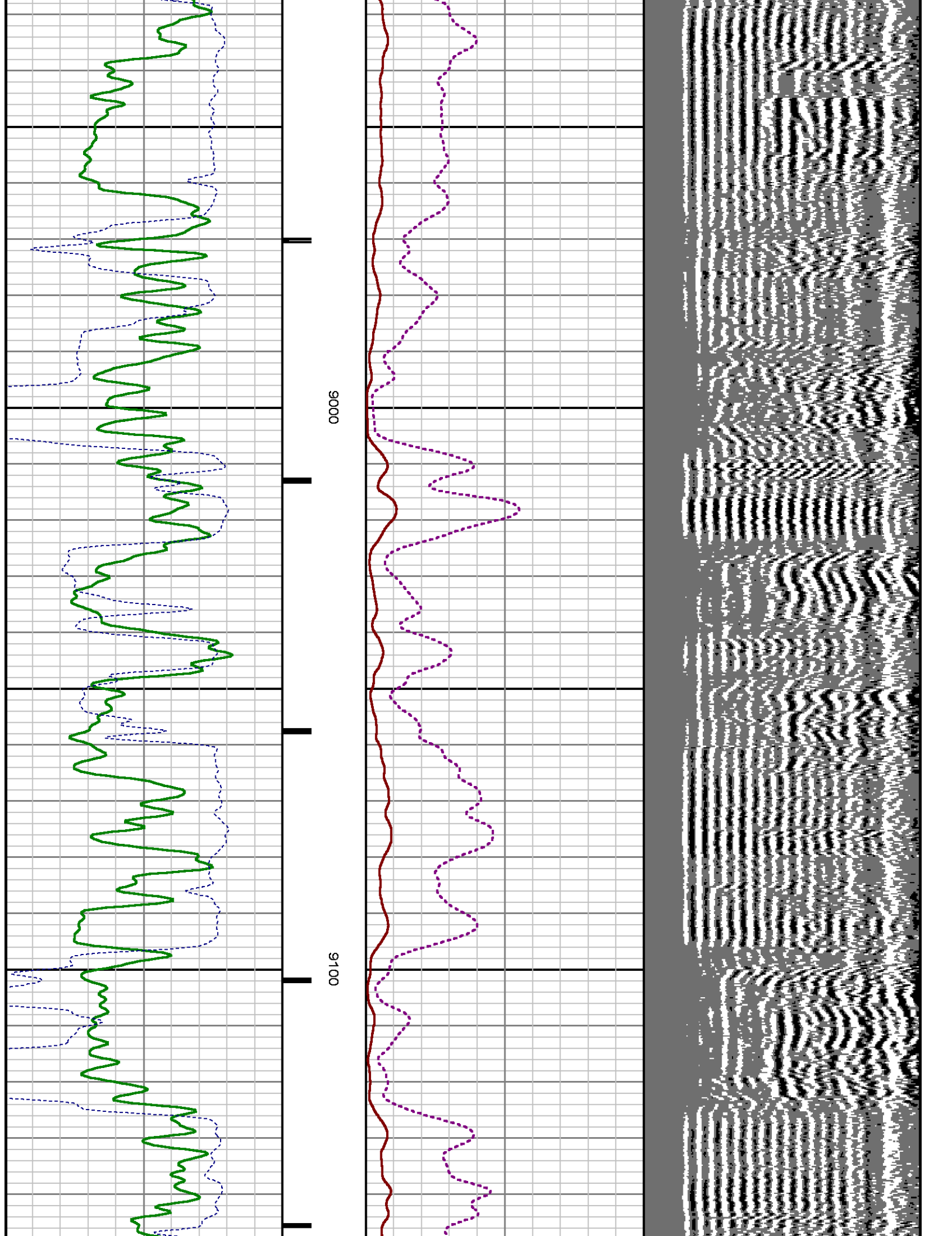


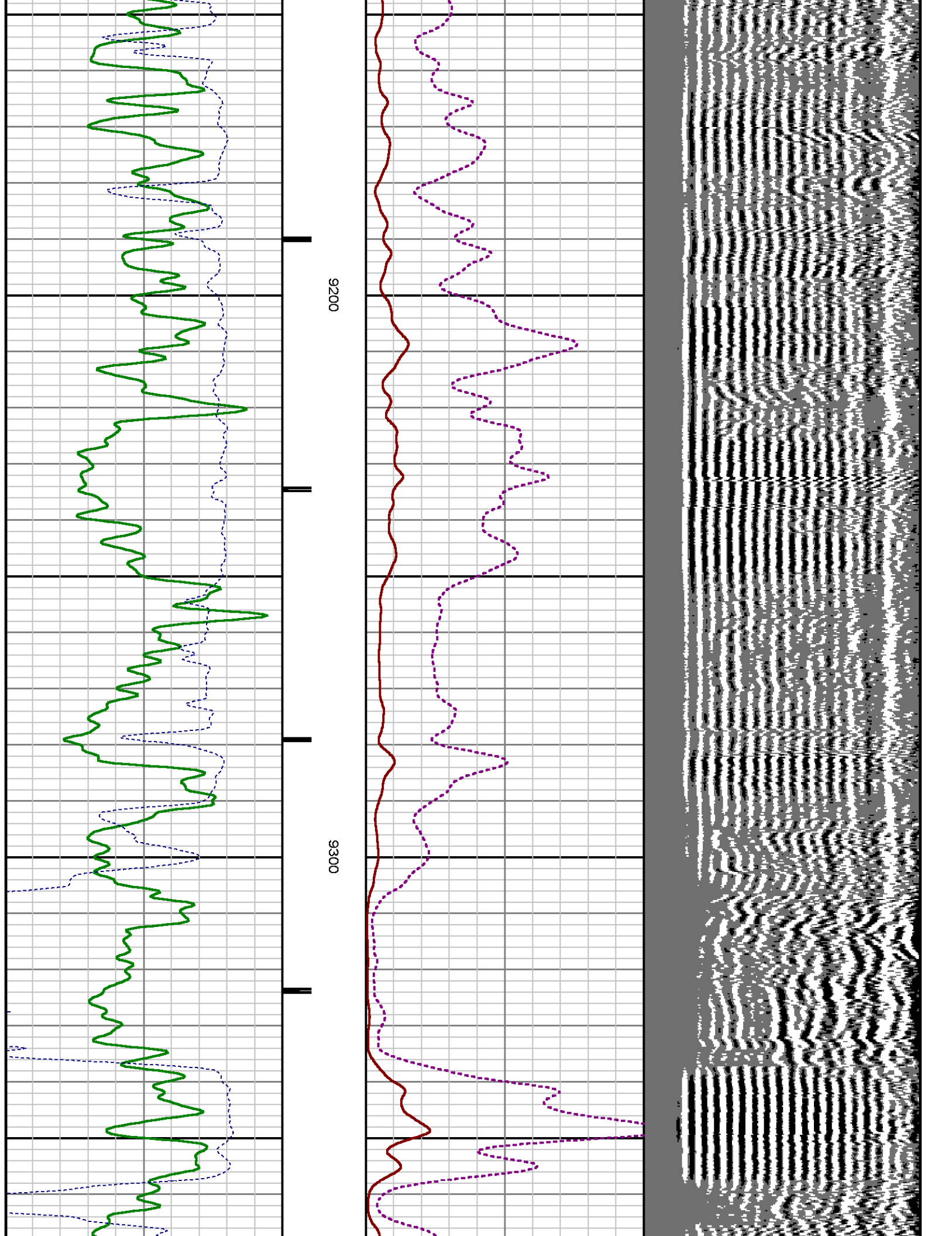


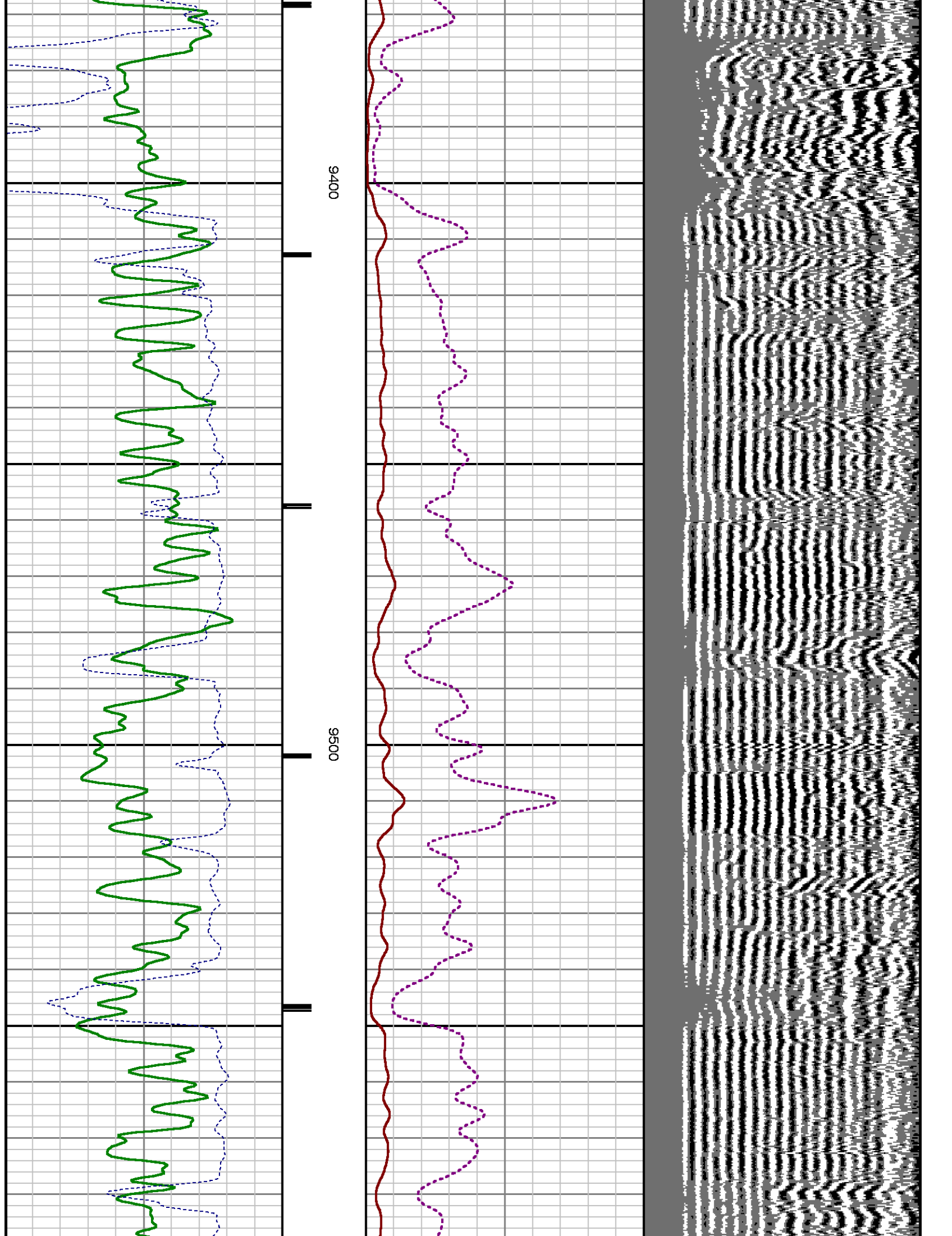


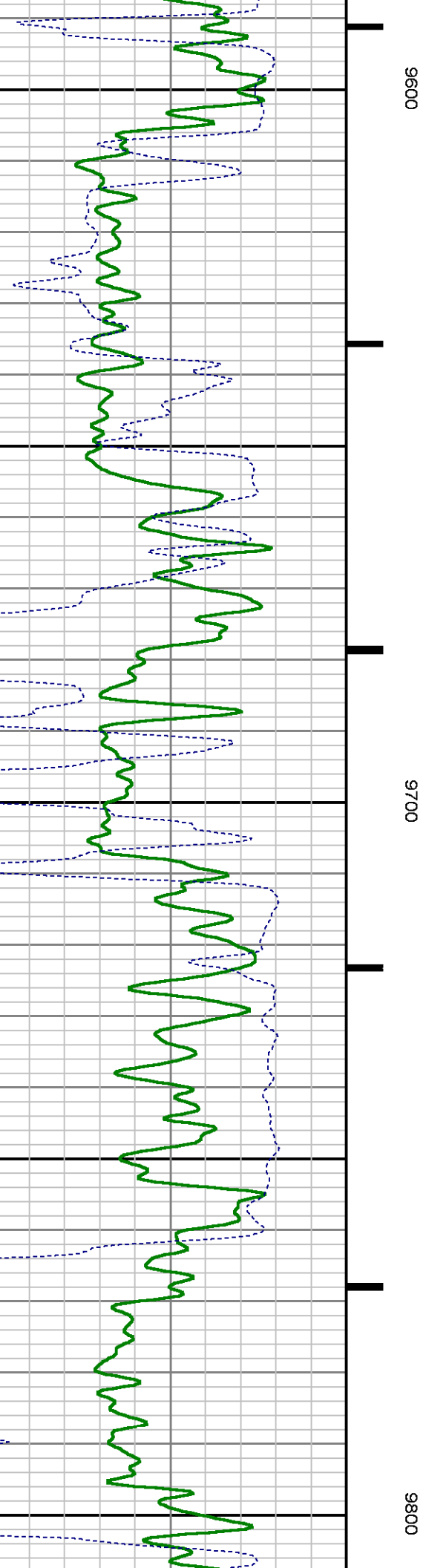
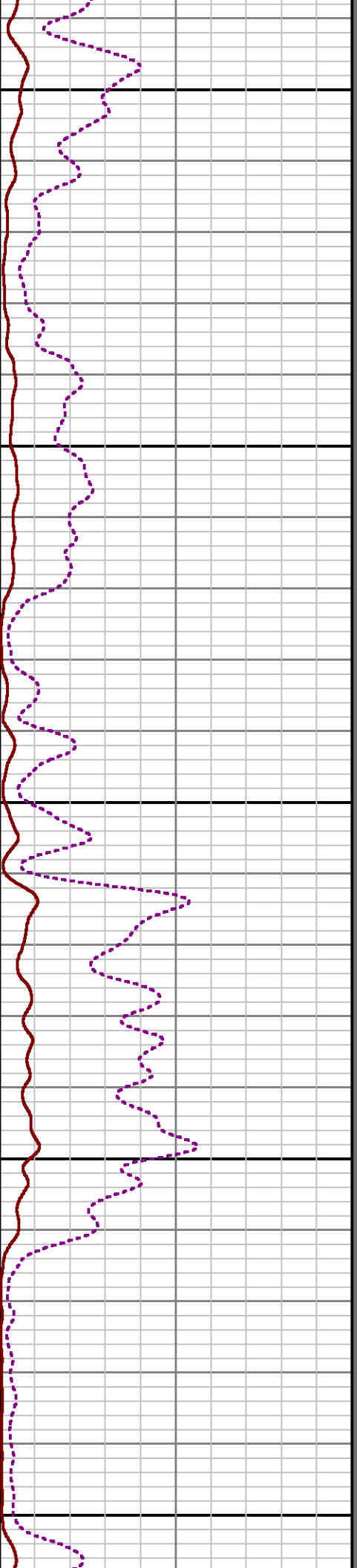
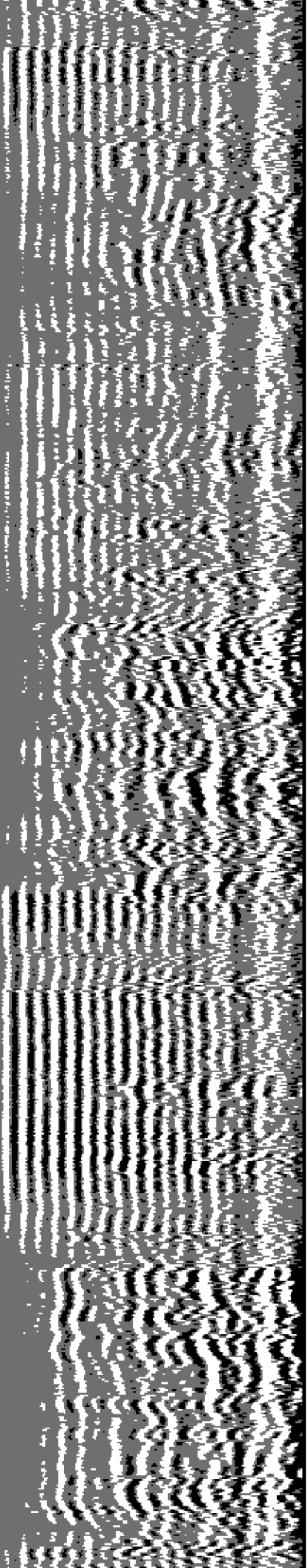


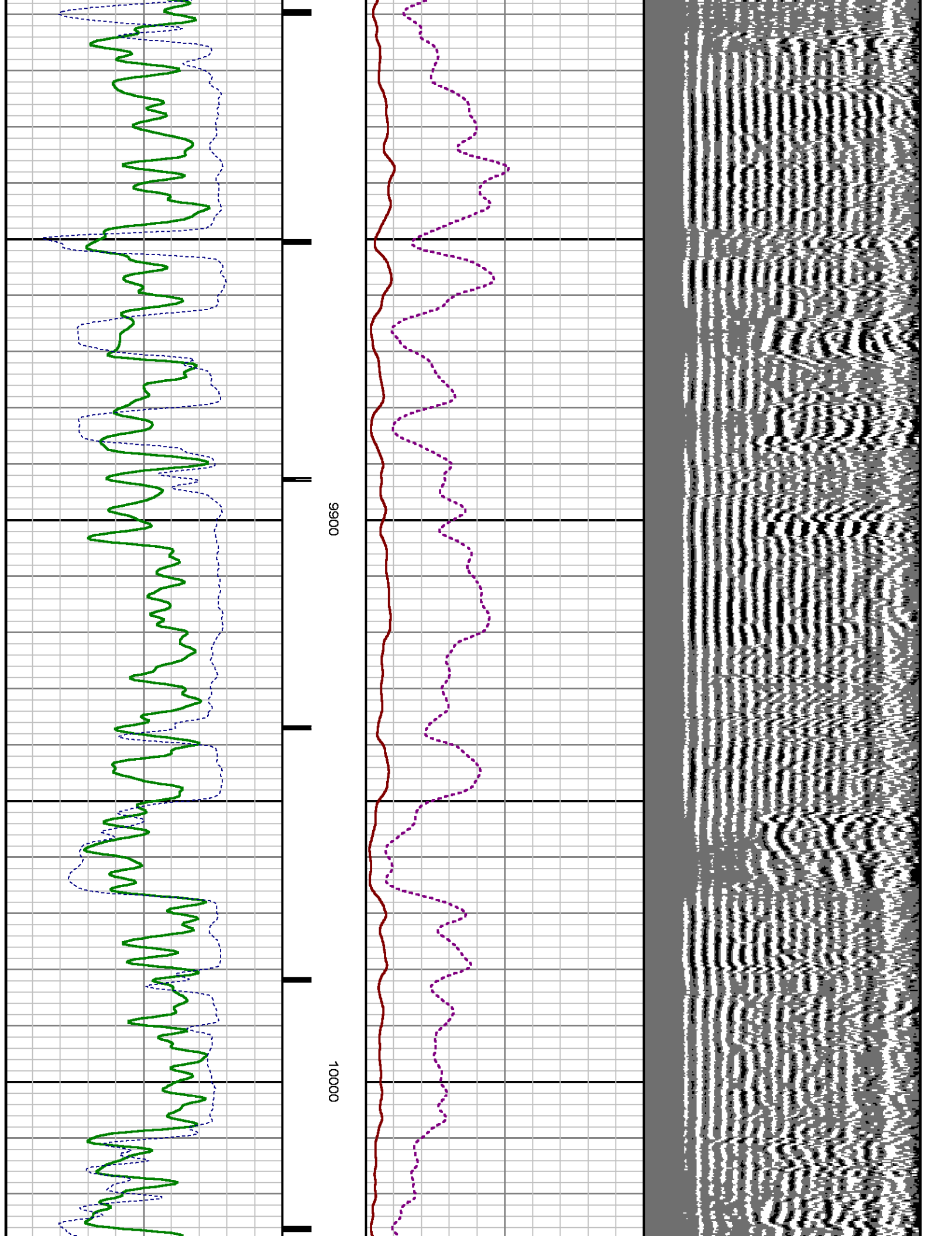


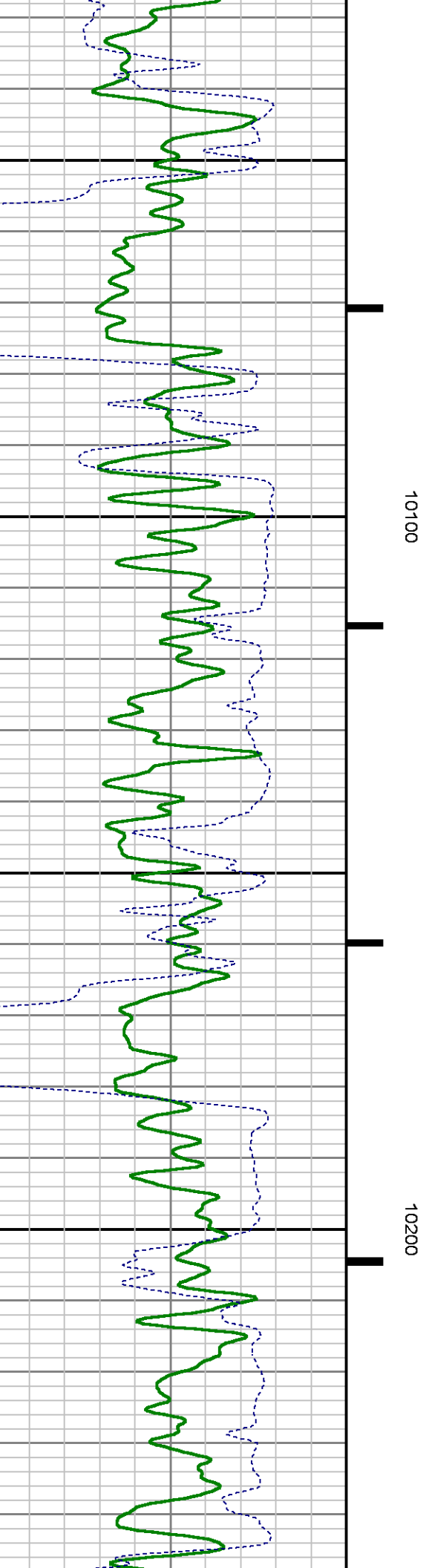
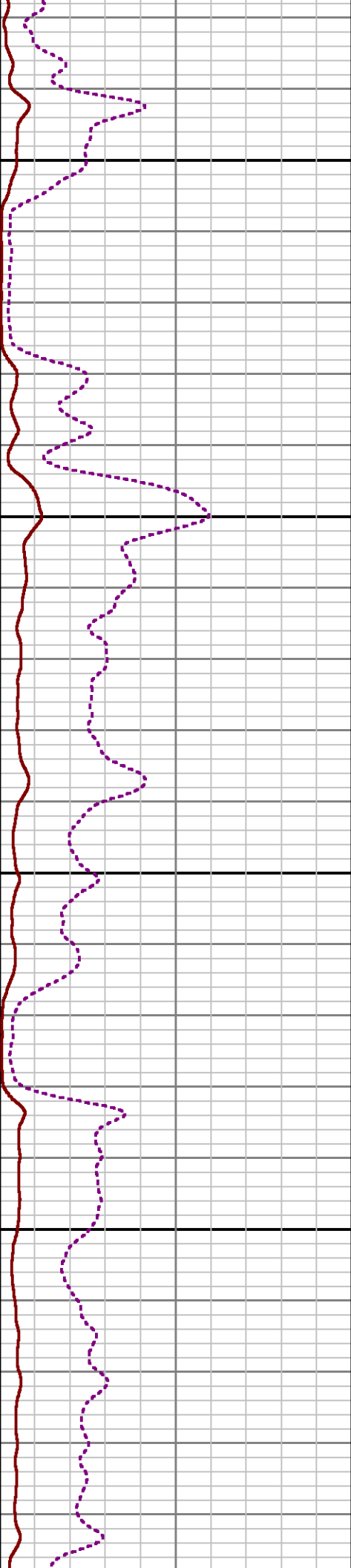
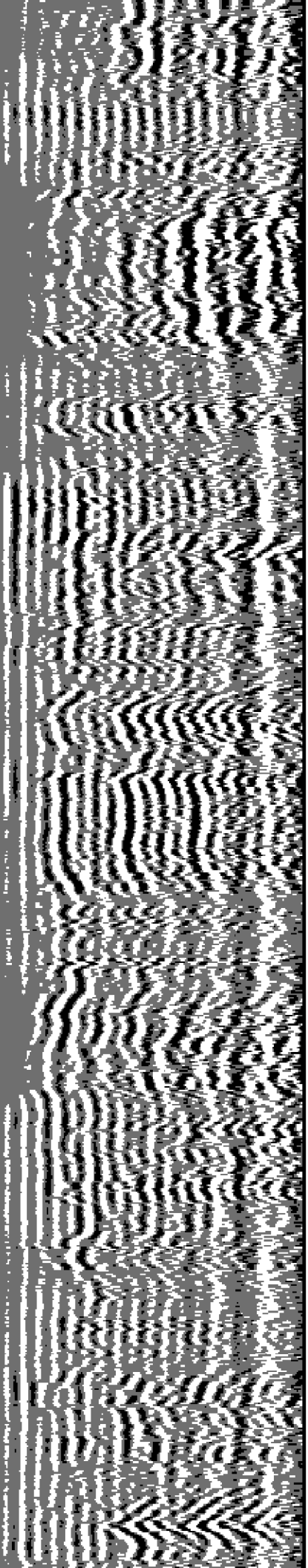


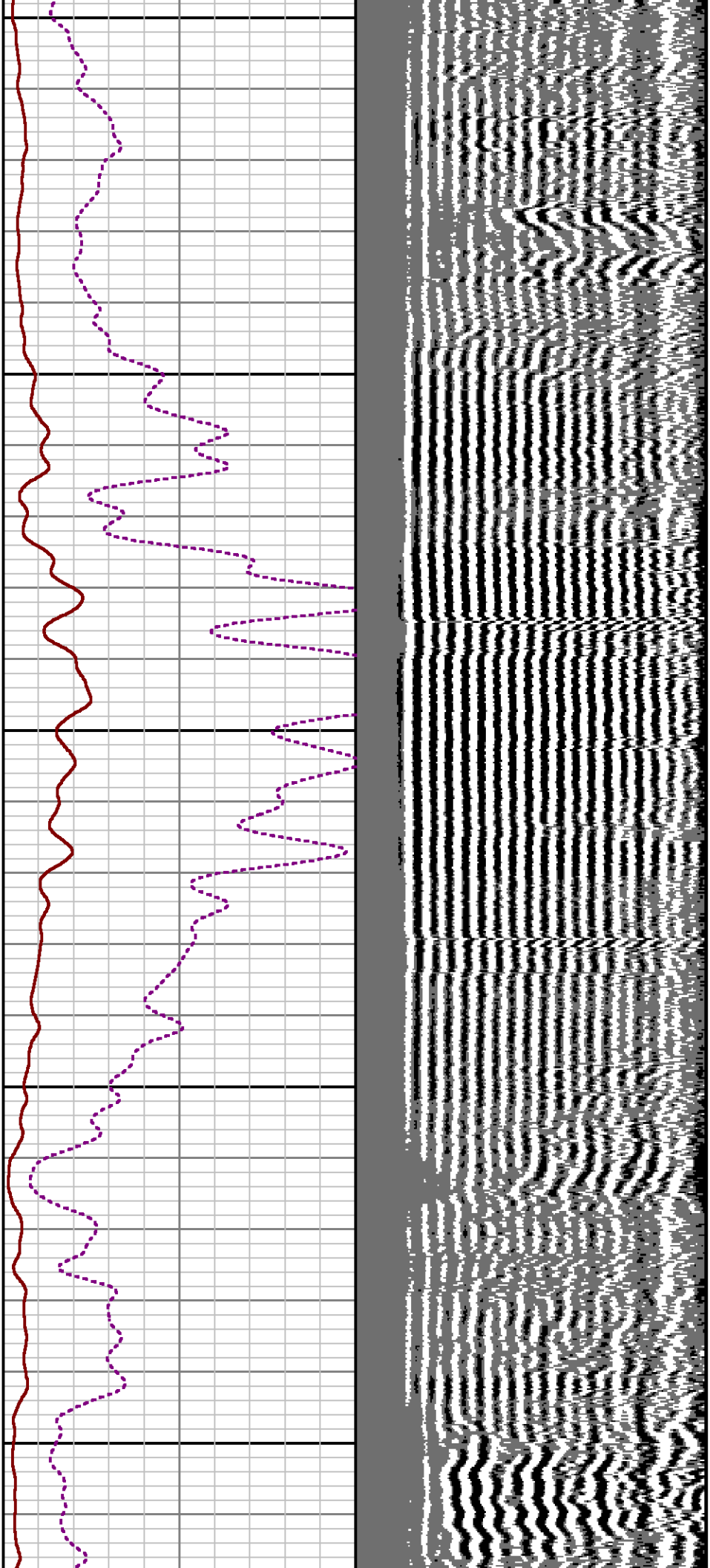






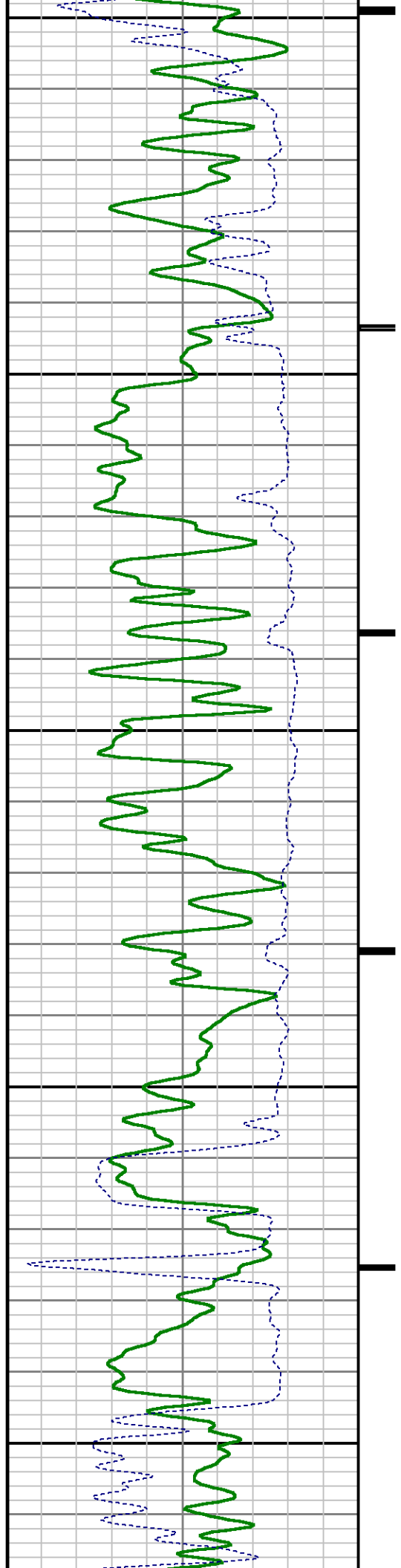


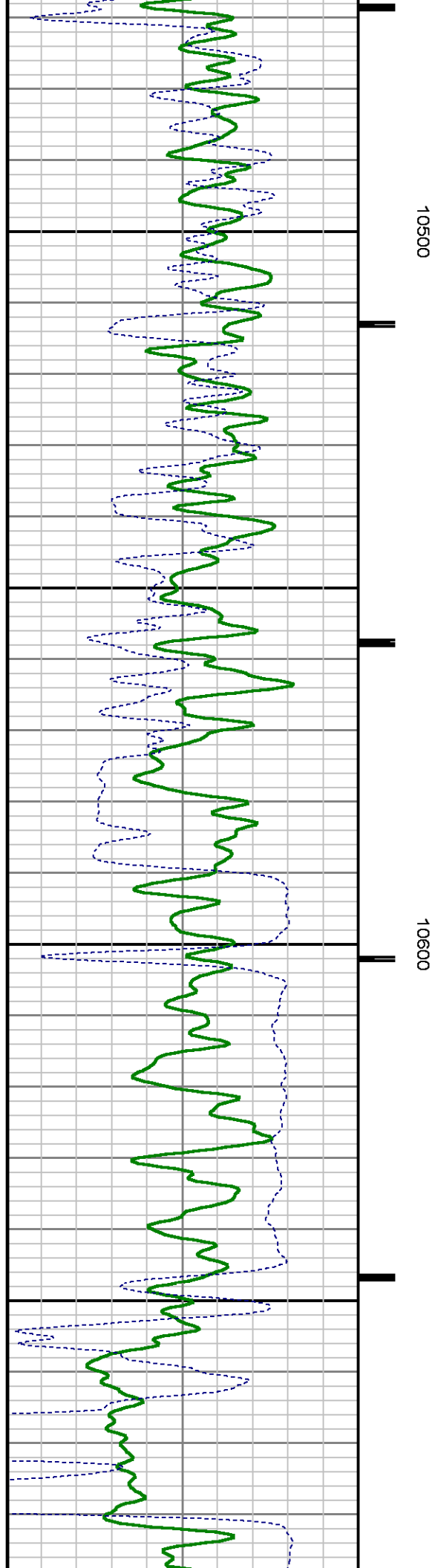
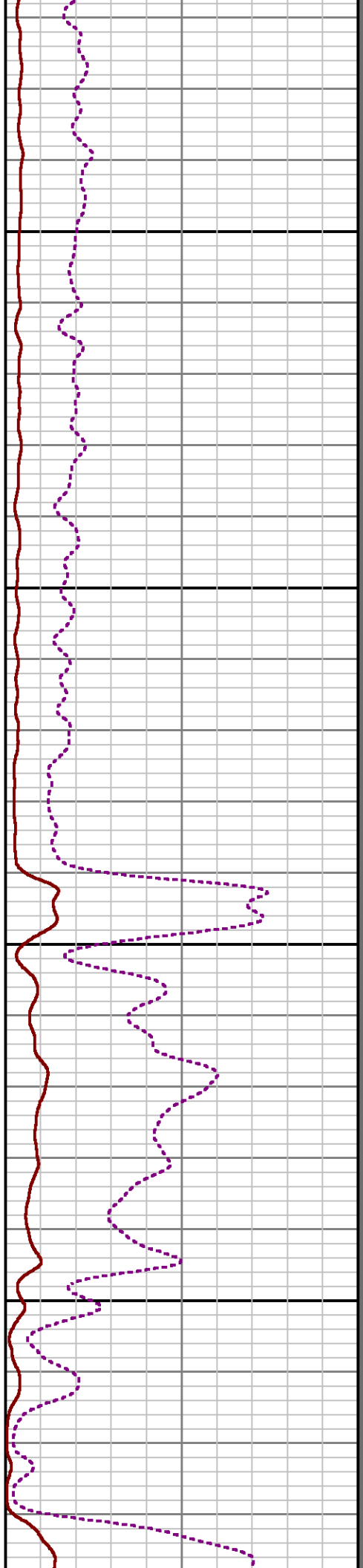
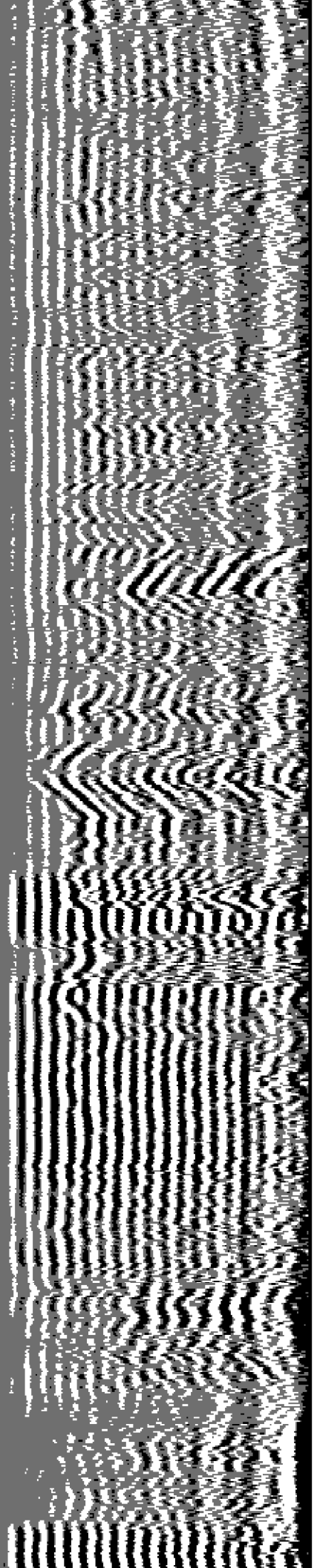


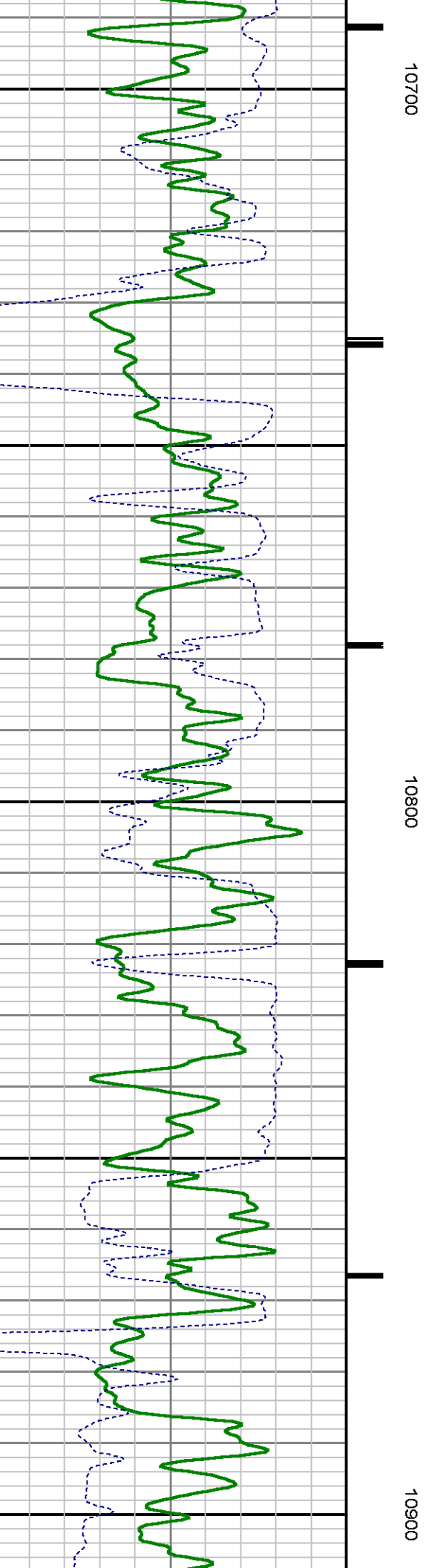
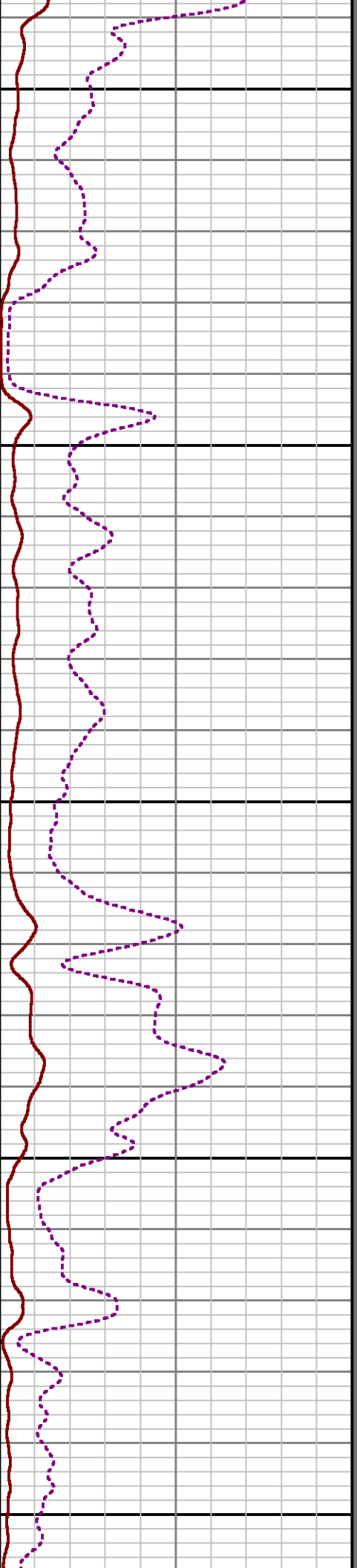
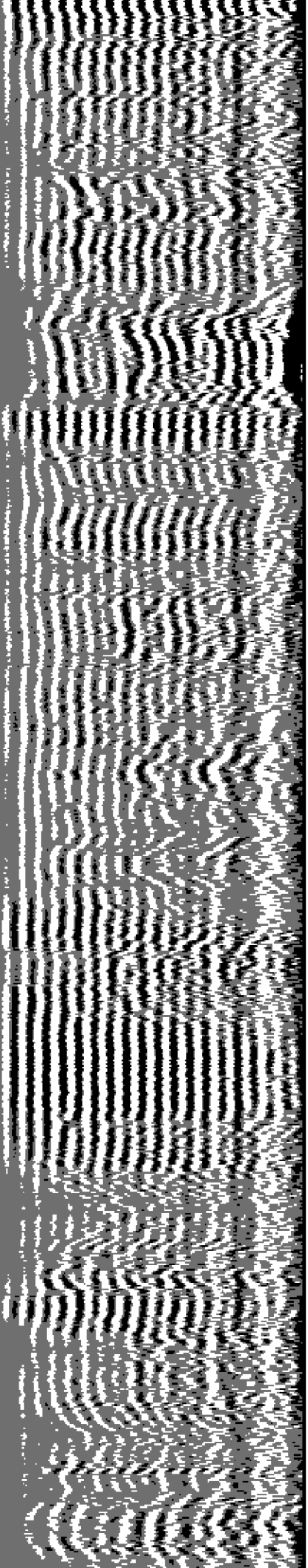


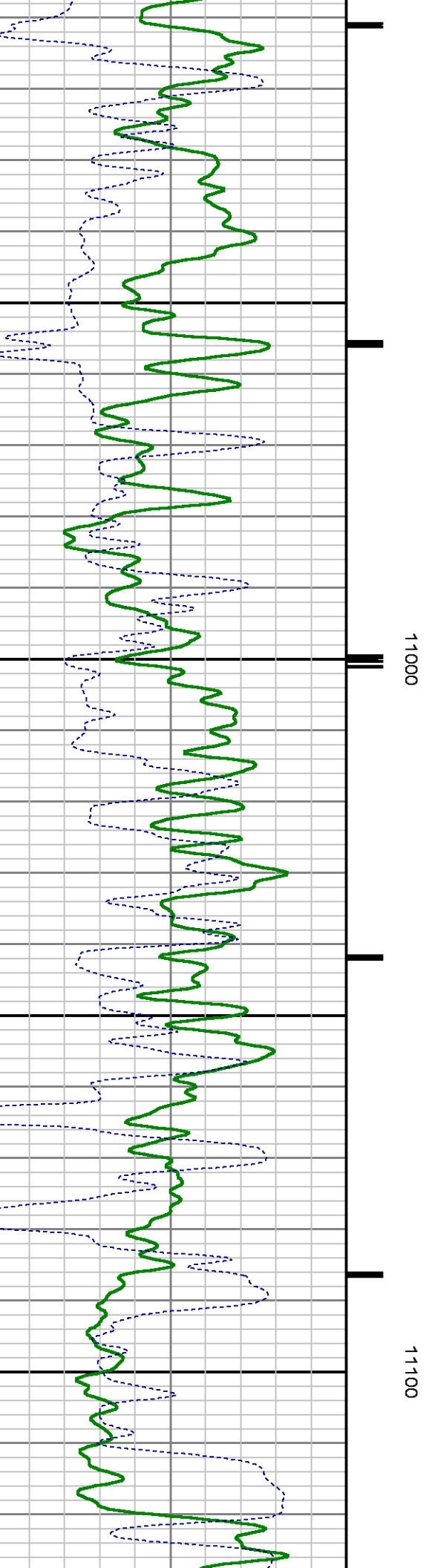
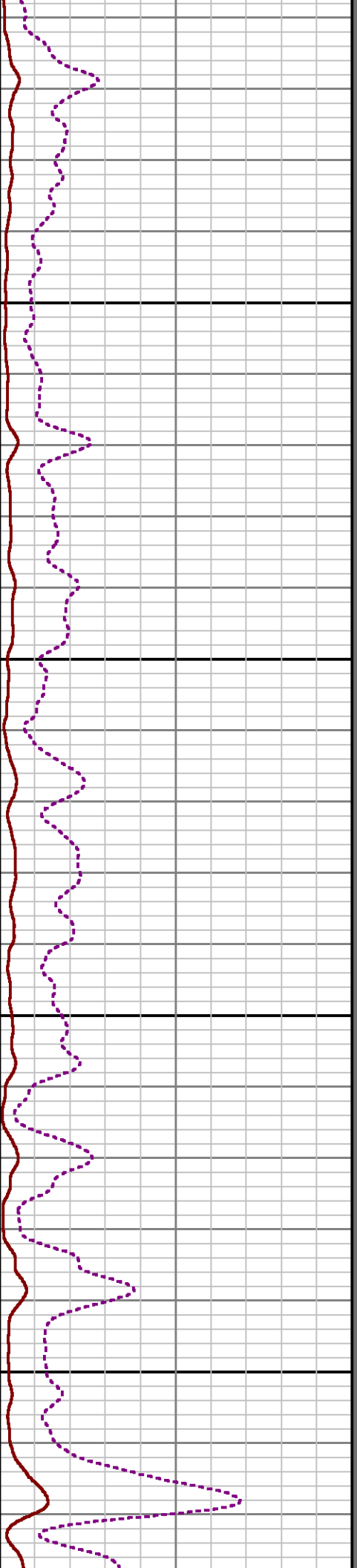
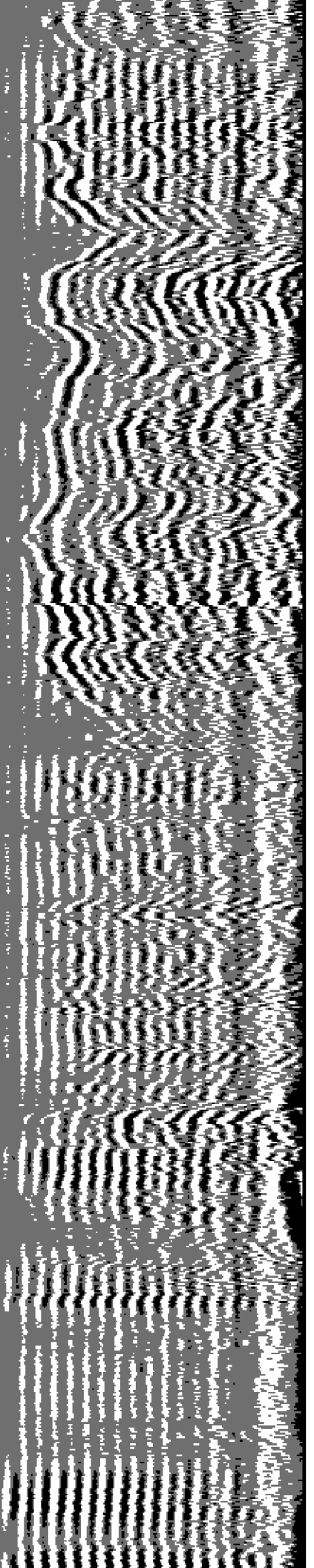
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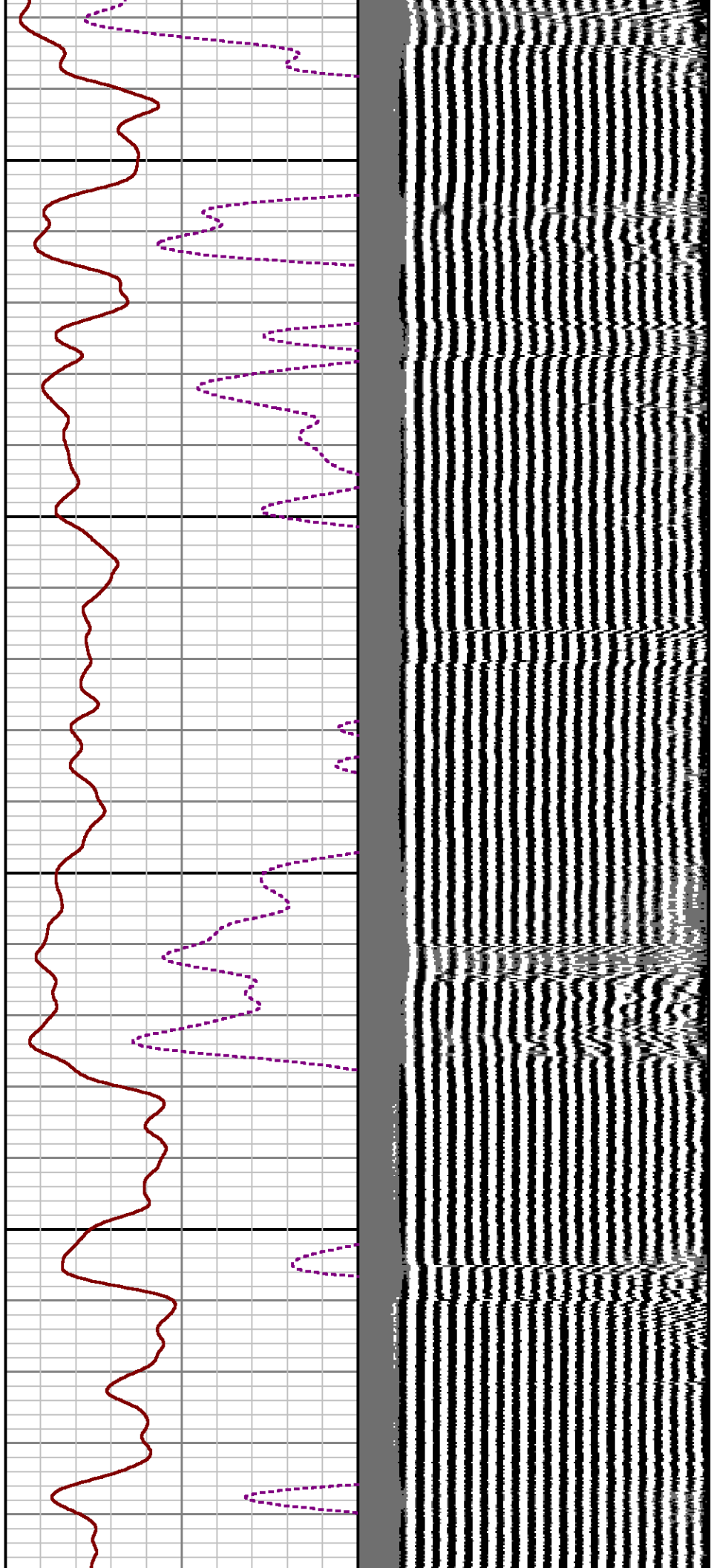
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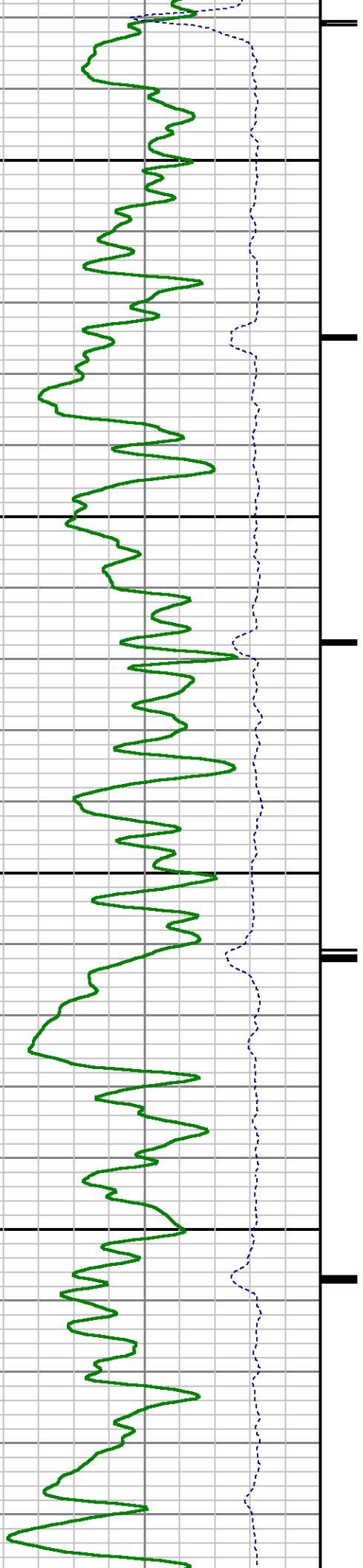


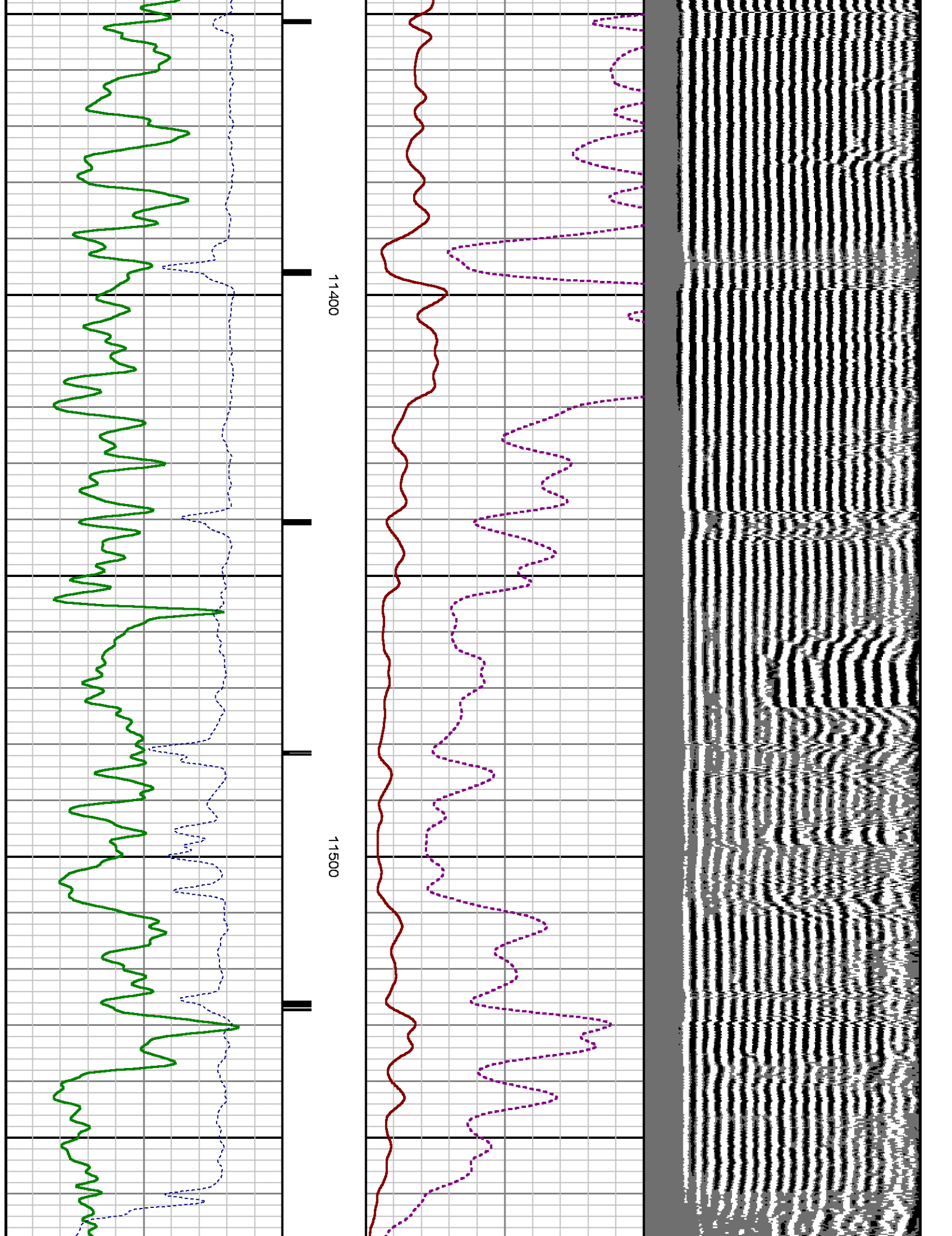


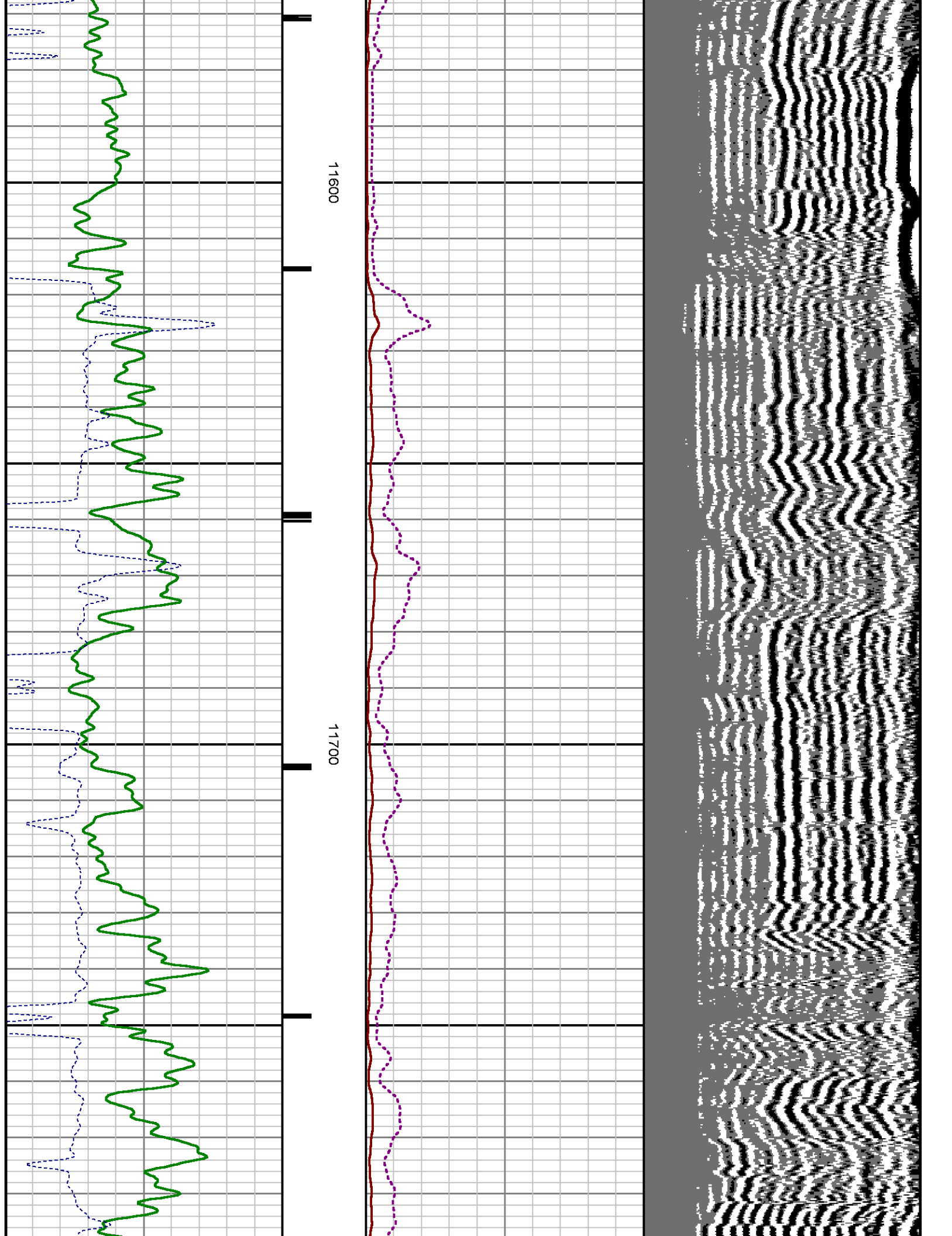


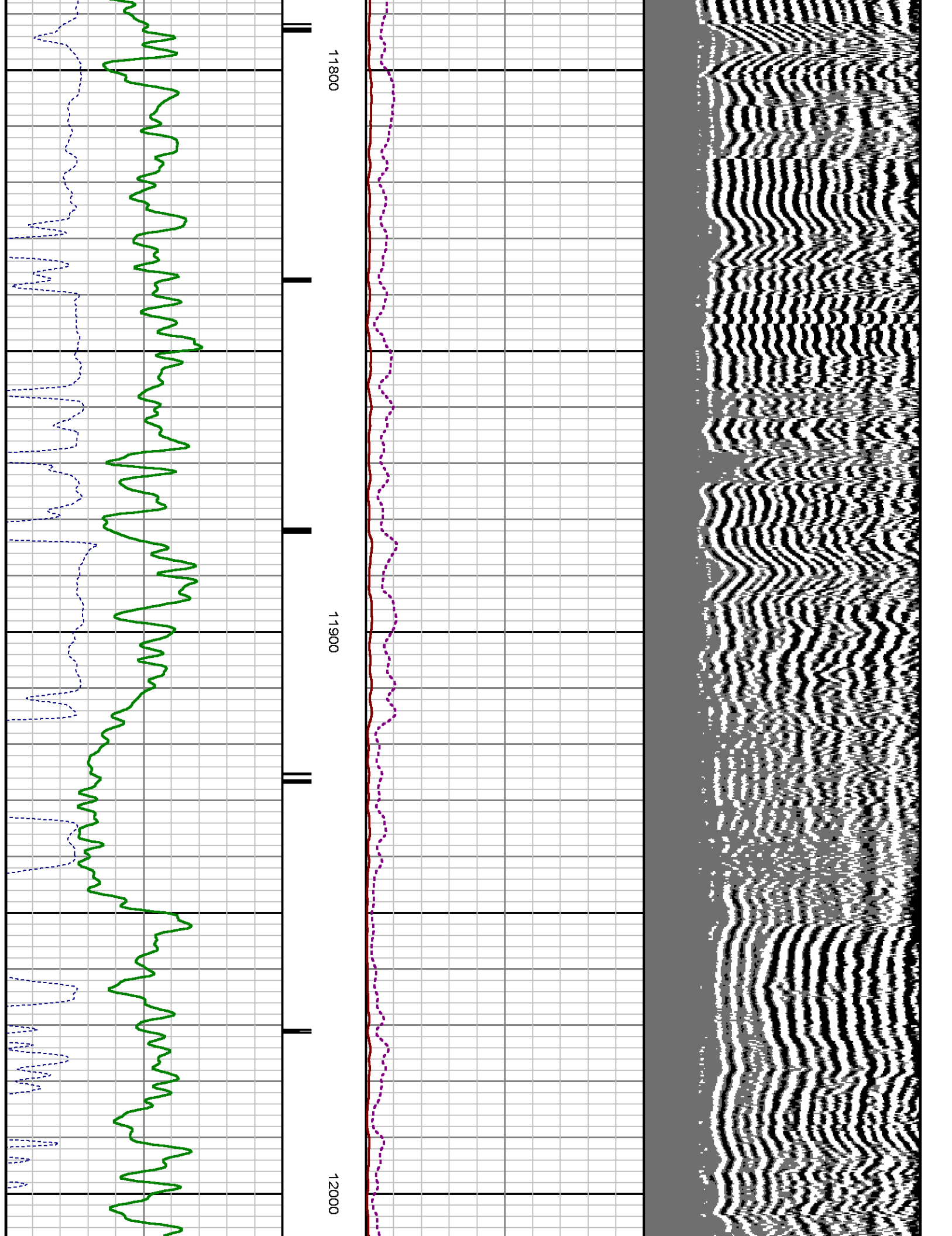
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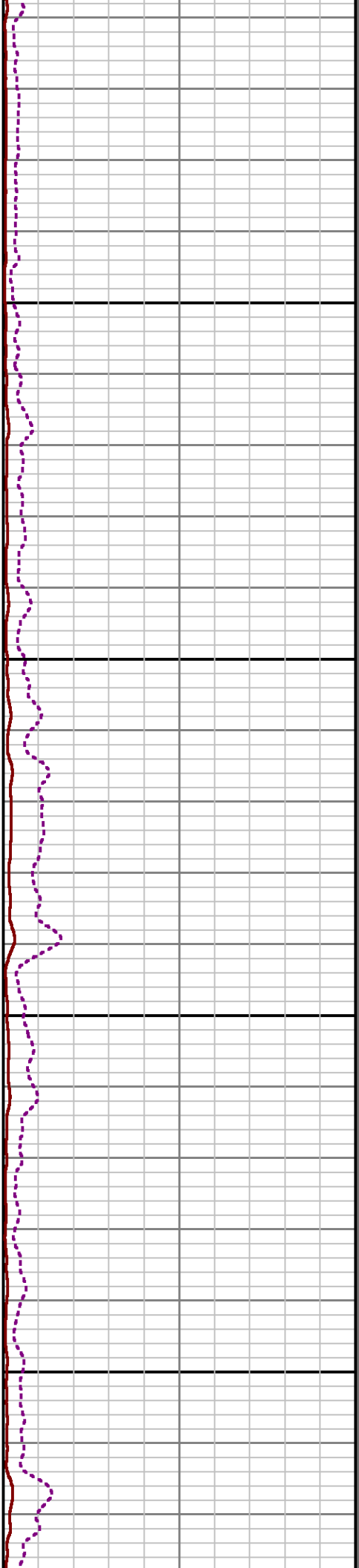
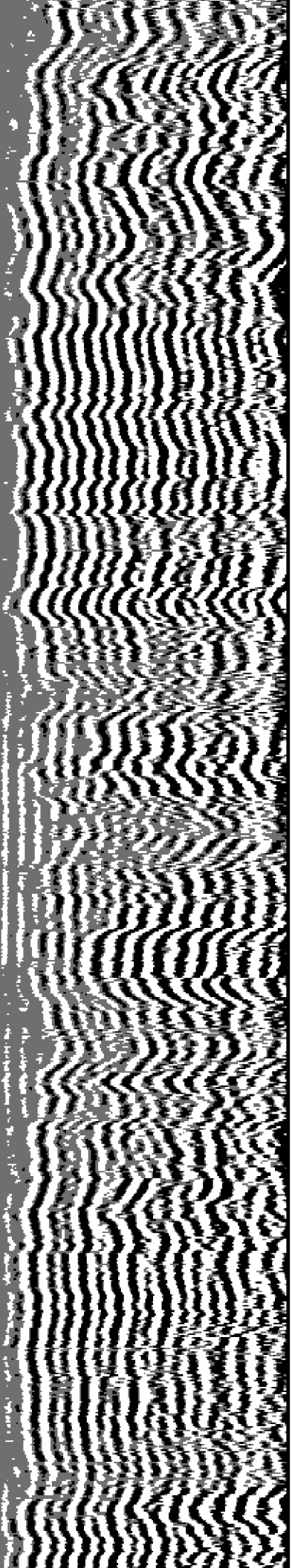
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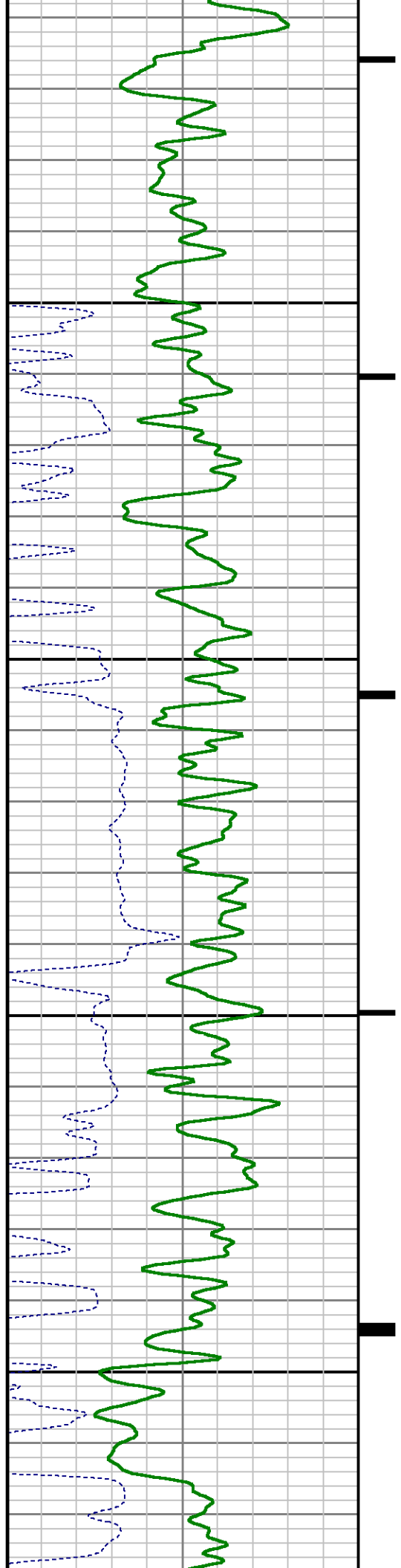


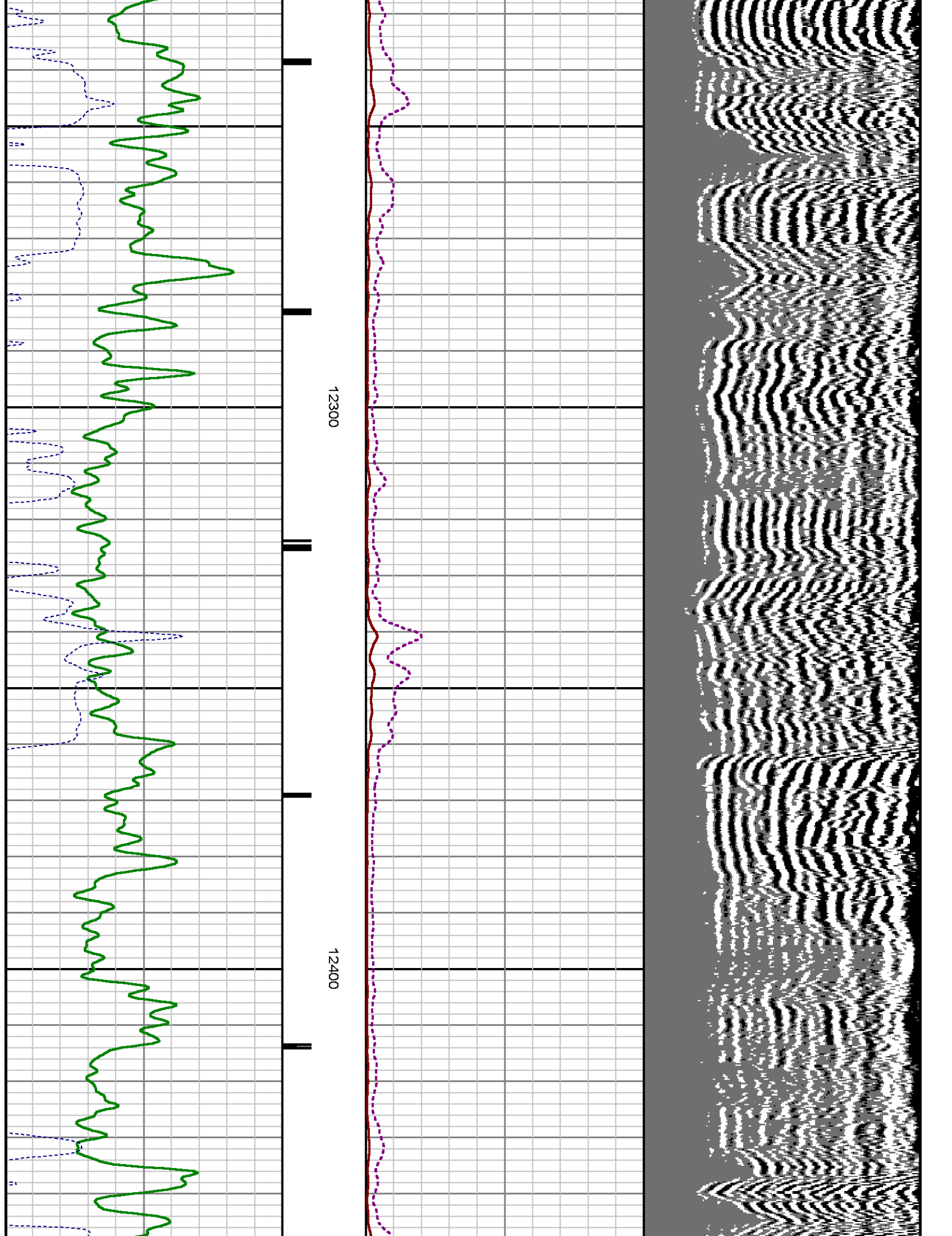


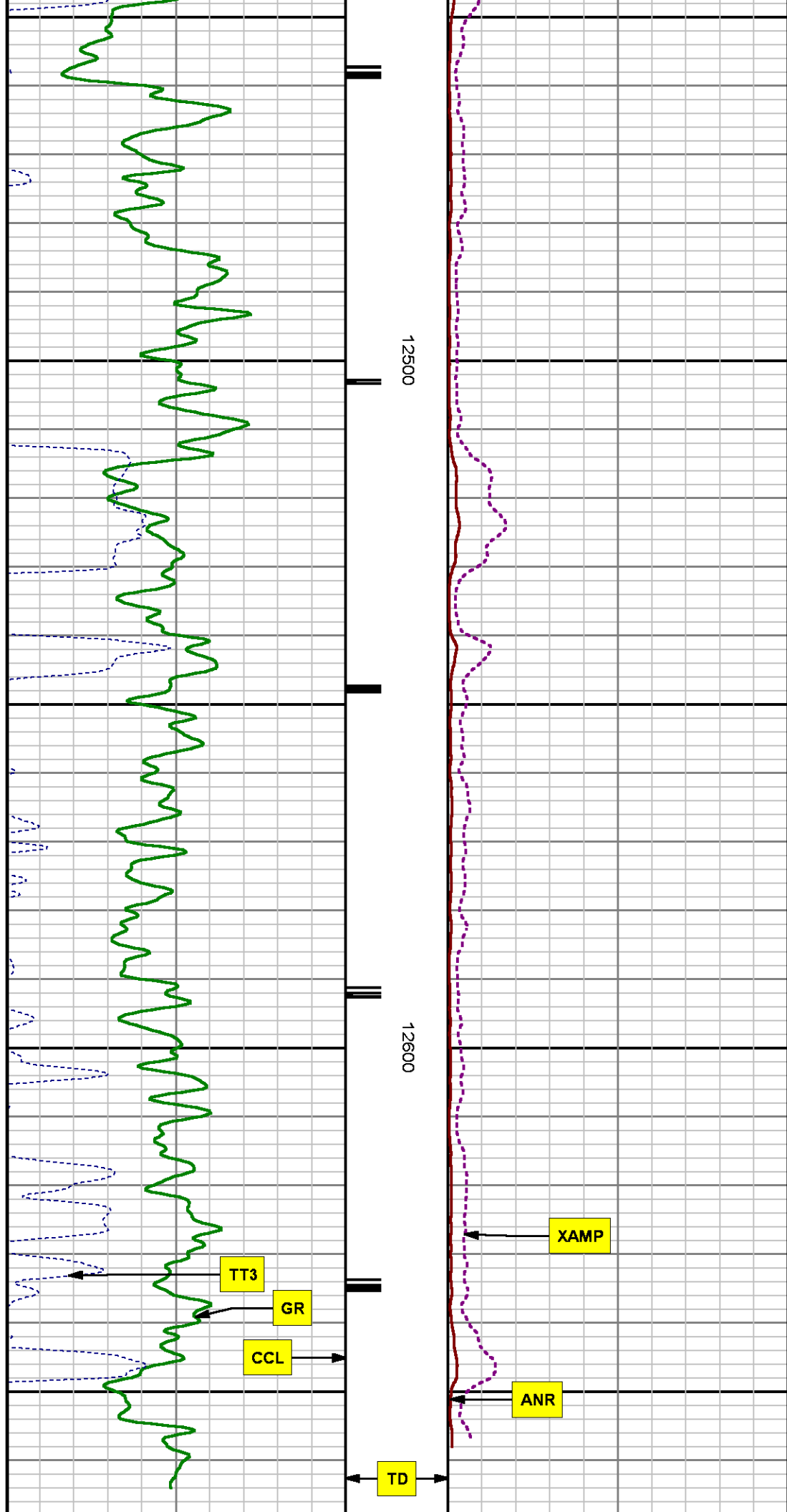
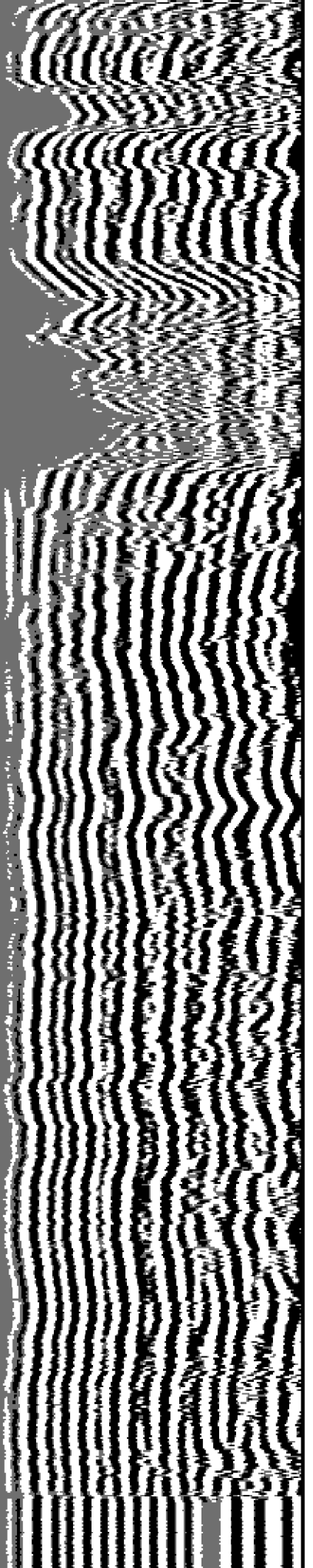


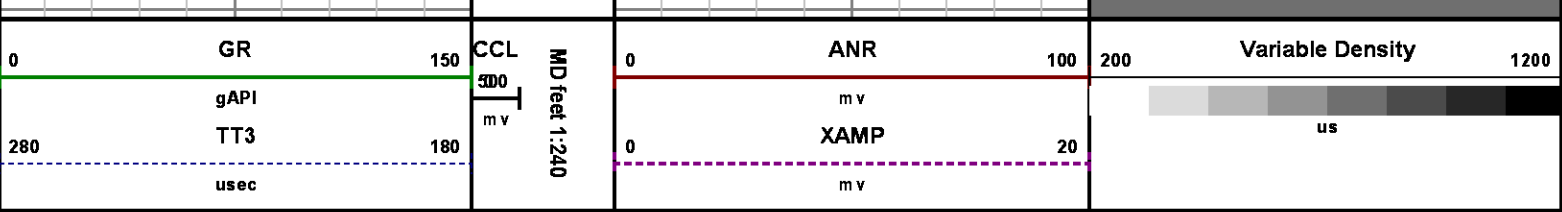
12100

12200









SECONDARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	u sec	27.874	12671.000
RAL	Amp Gate Start Near	195.000	u sec	27.874	12671.000
RAL	Amp Gate Start Radial	195.000	u sec	27.874	12671.000
RAL	Amp Gate Width Far	25.000	u sec	27.874	12671.000
RAL	Amp Gate Width Near	25.000	u sec	27.874	12671.000
RAL	Amp Gate Width Radial	25.000	u sec	27.874	12671.000
RAL	casing od	4.500	inches	27.874	12671.000
RAL	casing wt	11.600	lbm/ft	27.874	12671.000
RAL	FB Start Far	291.900	u sec	27.874	12671.000
RAL	FB Start Near	180.000	u sec	27.874	12671.000
RAL	FB Start Radial	180.000	u sec	27.874	12671.000
RAL	FB Thresh Far	10.000	mv	27.874	12671.000
RAL	FB Thresh Near	4.000	mv	27.874	12671.000
RAL	FB Thresh Radial	4.000	mv	27.874	12671.000
RAL	Fluid Travel Time	200.000	u sec/ft	27.874	12670.937

DEPTH OFFSETS
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-11.360	AFAR	SIG	TT5			

2459XA	-7.250	CCL
2459XA	-5.390	GR
2459XA	0.000	NEU

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

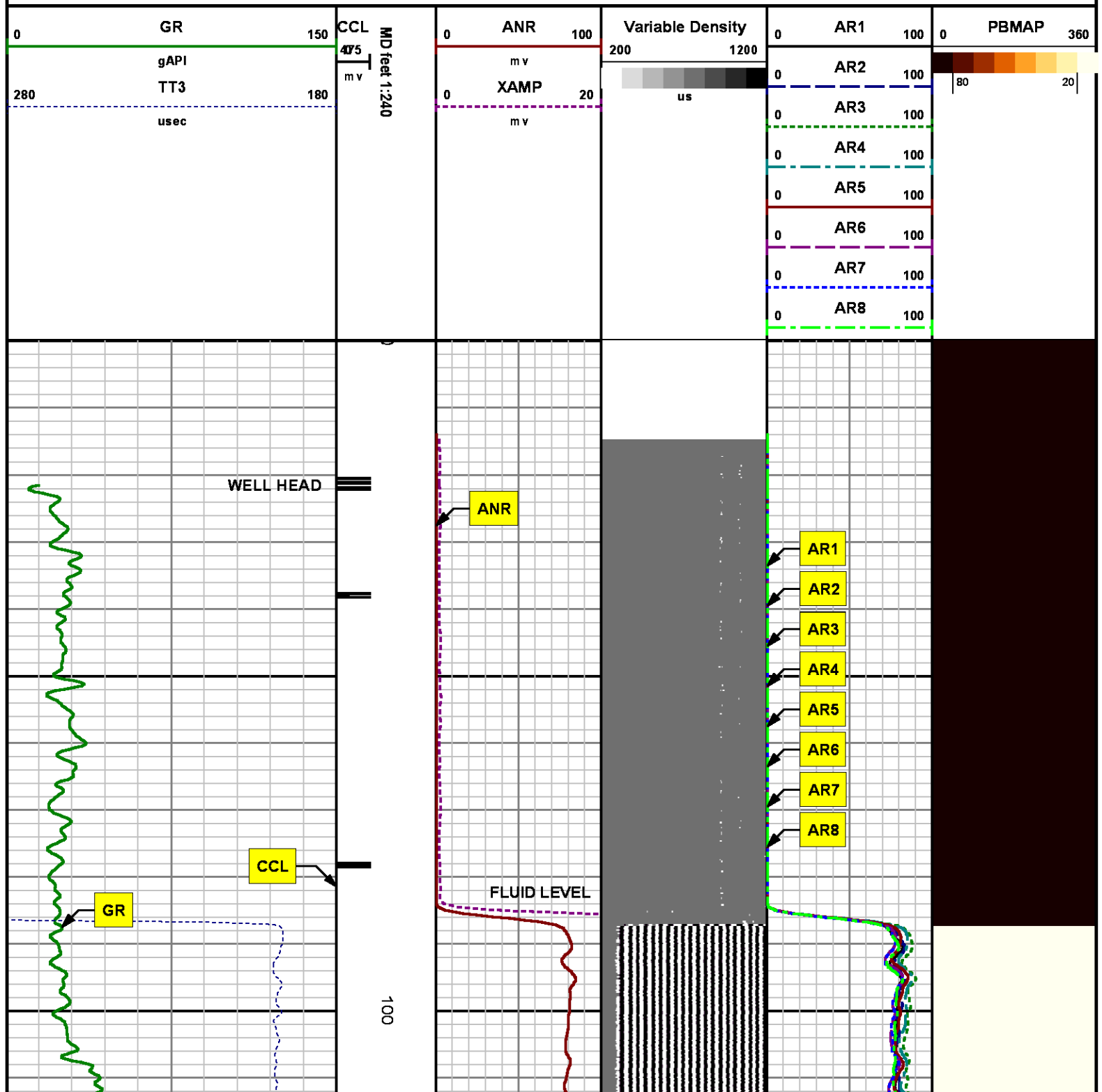
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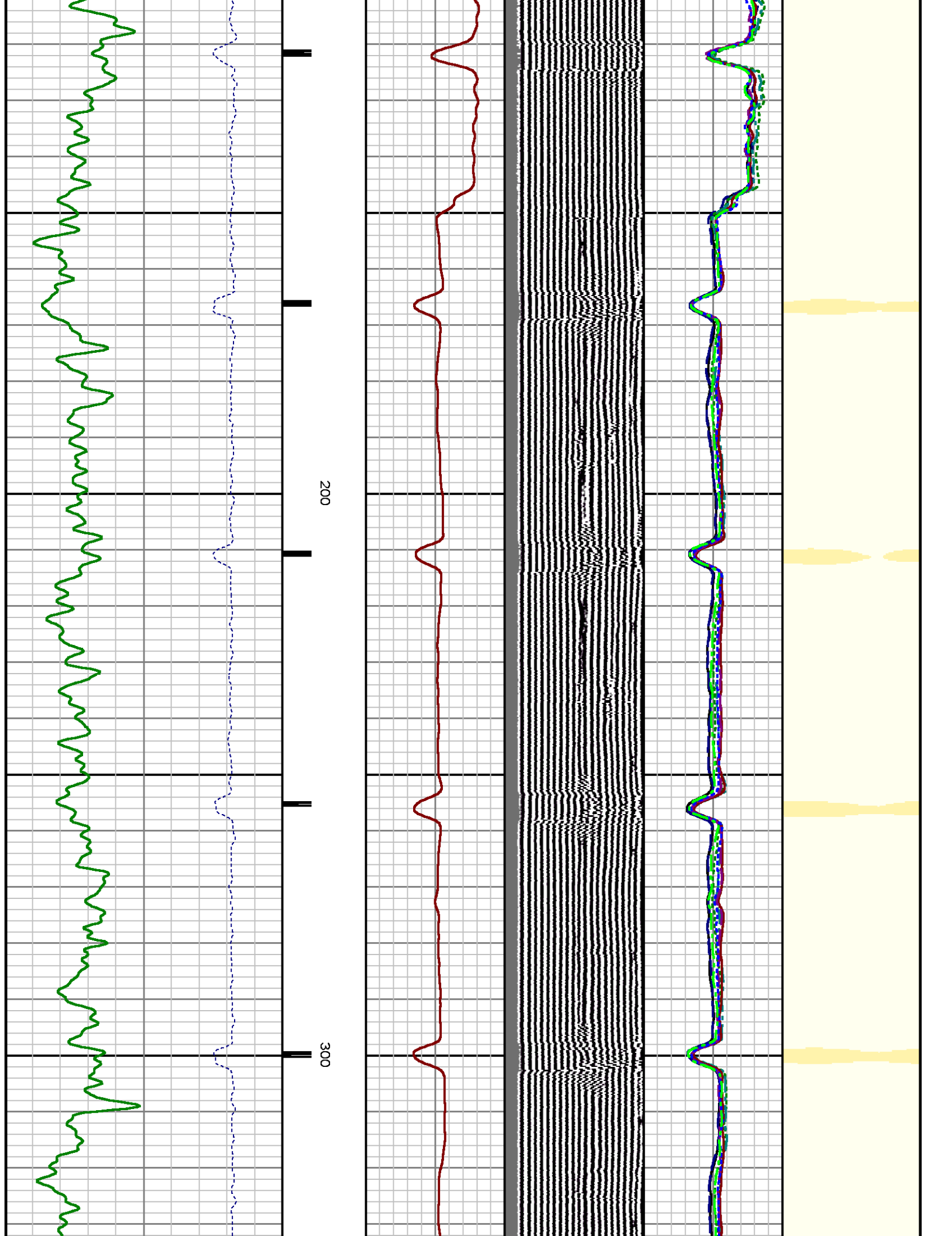
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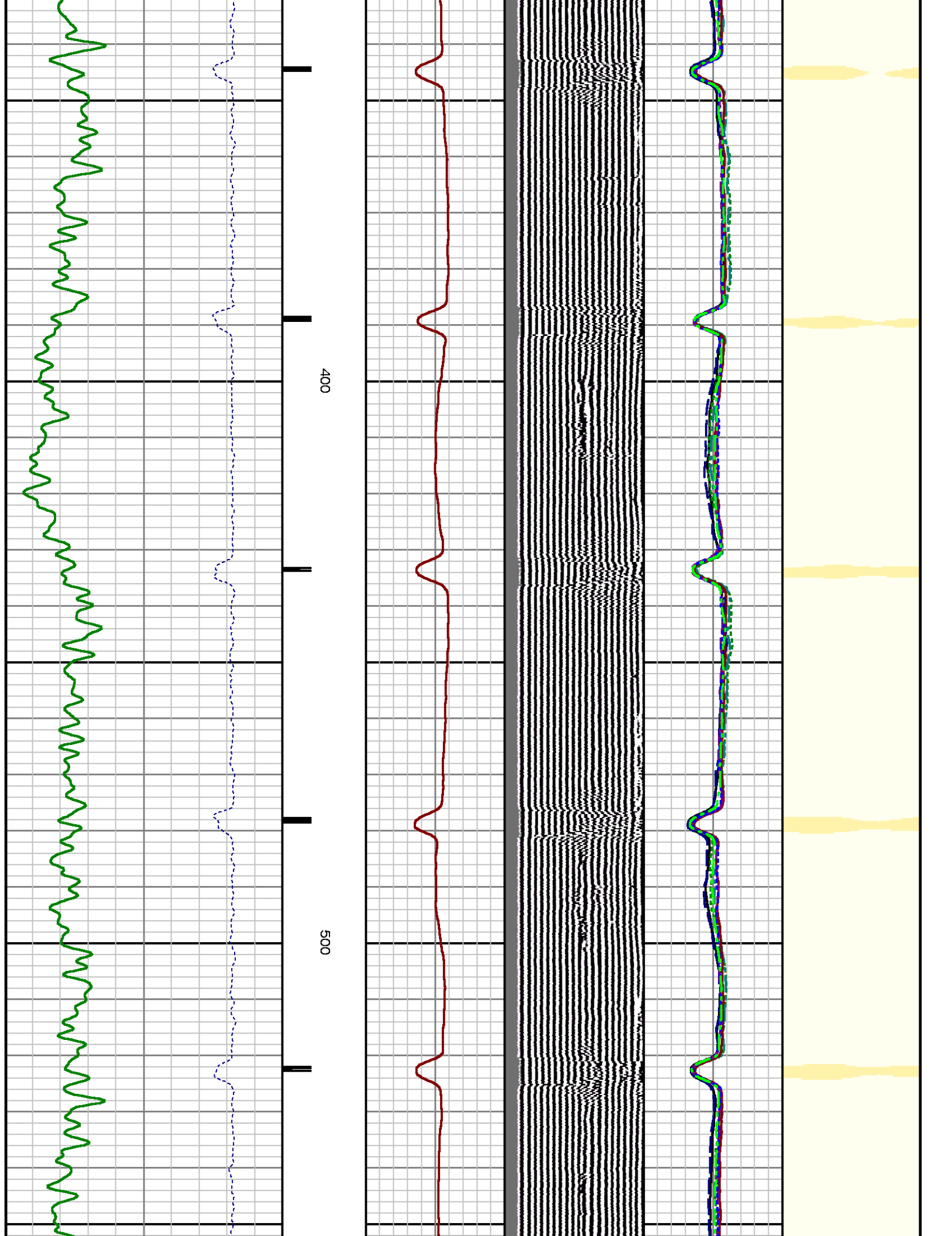
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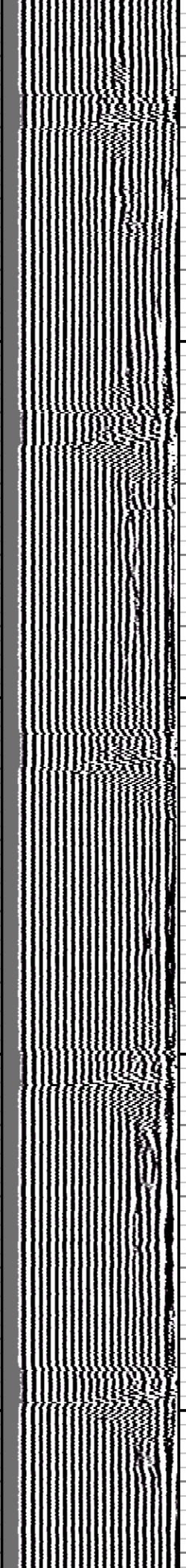
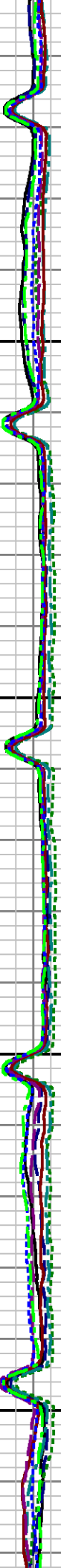
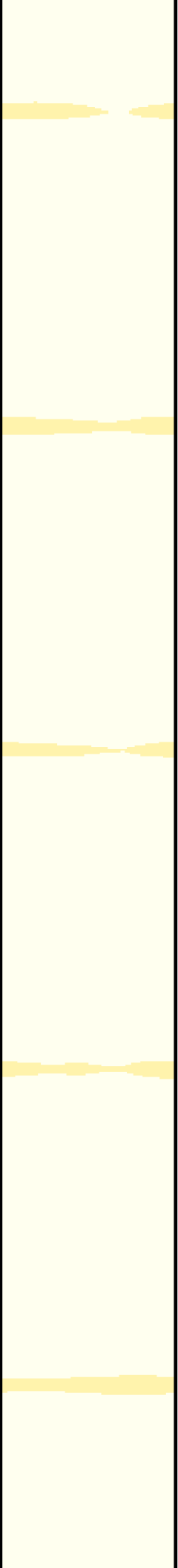
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Created : 7/8/2014 2:41:58 PM



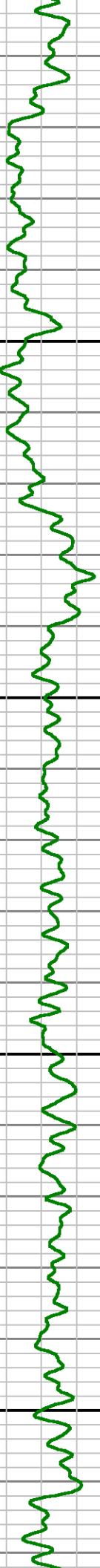
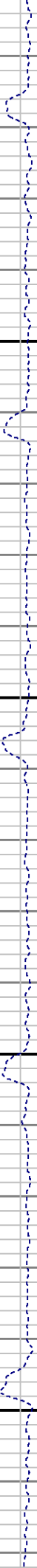


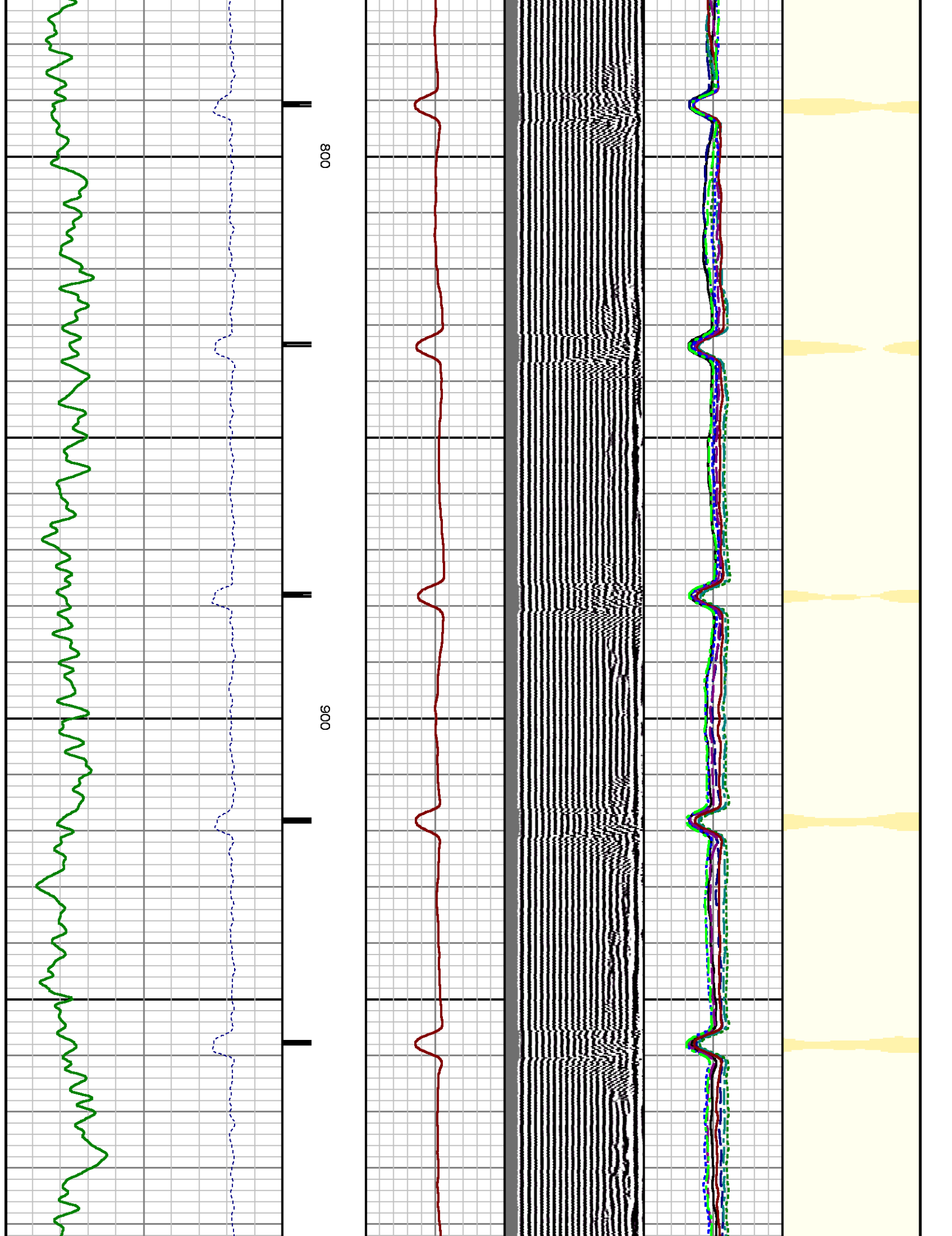


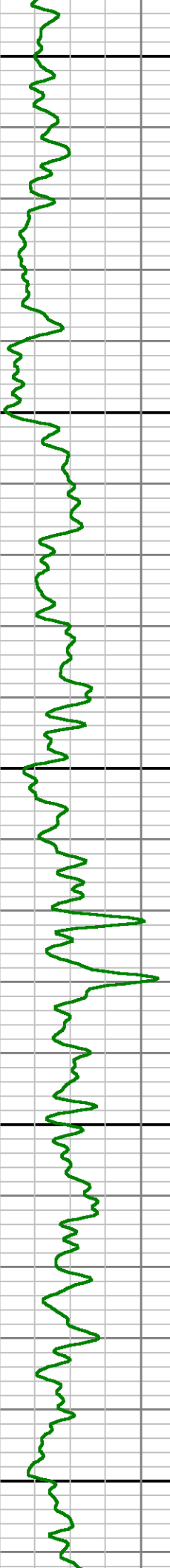
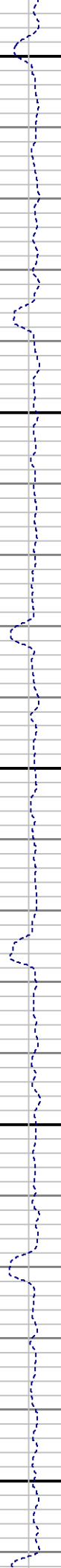
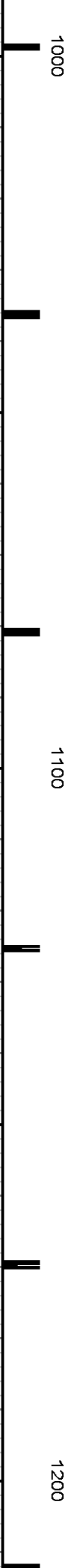
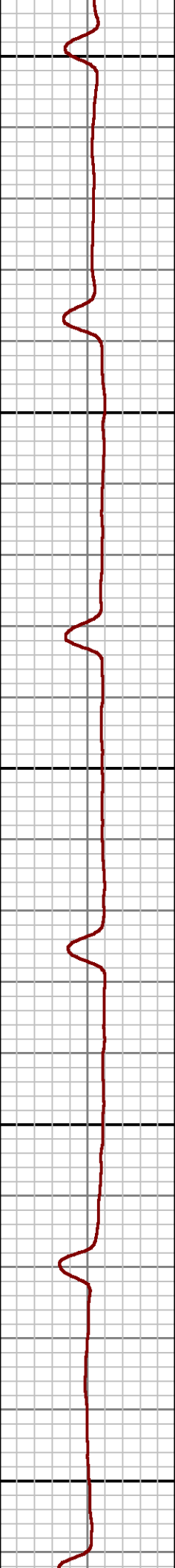
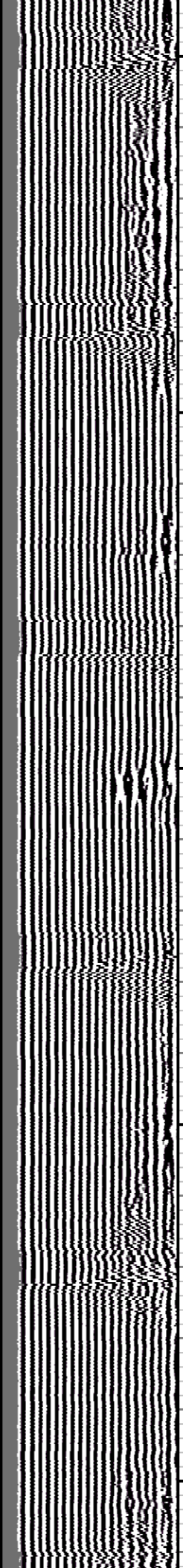
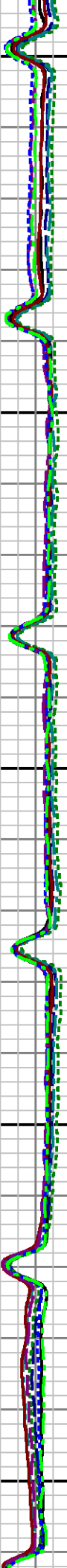
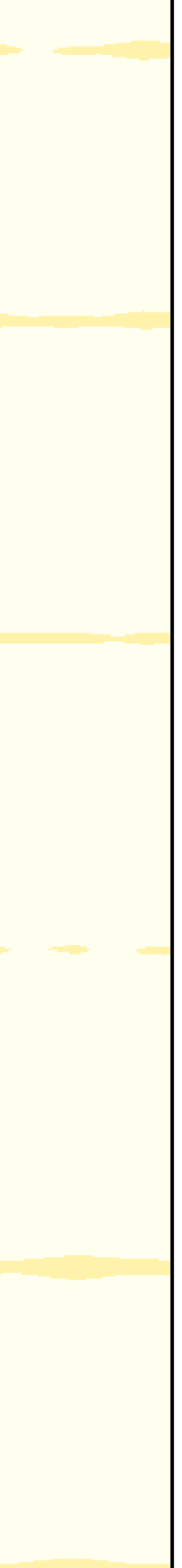


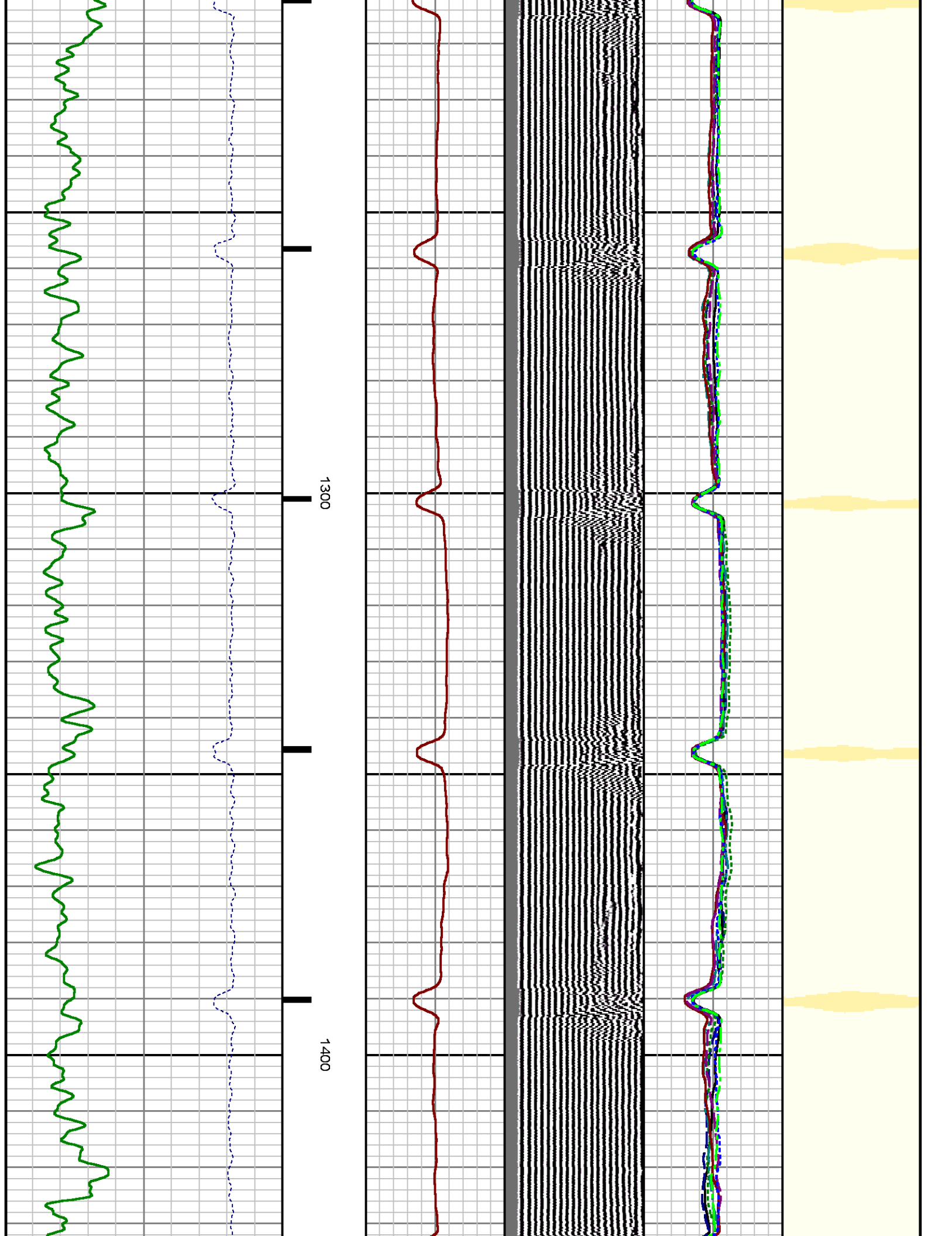
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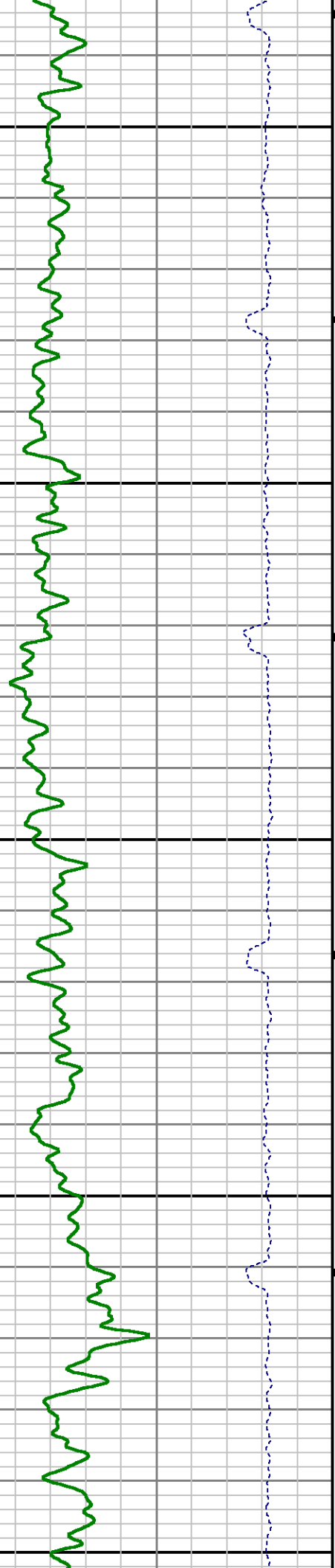
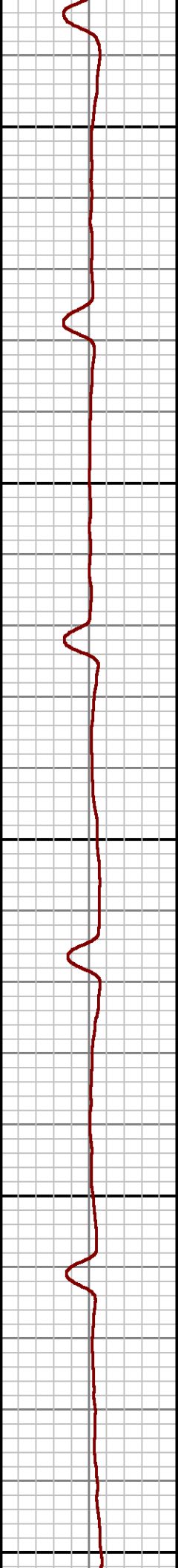
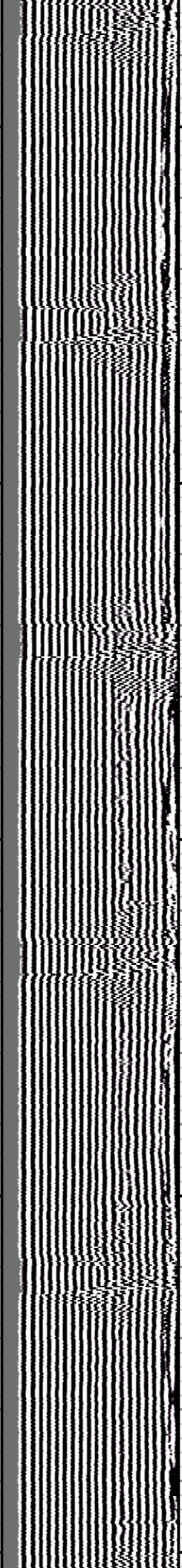
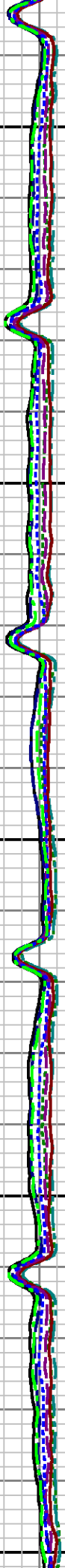
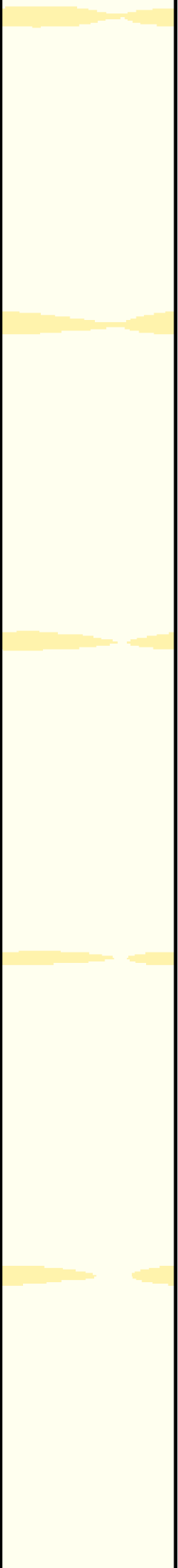
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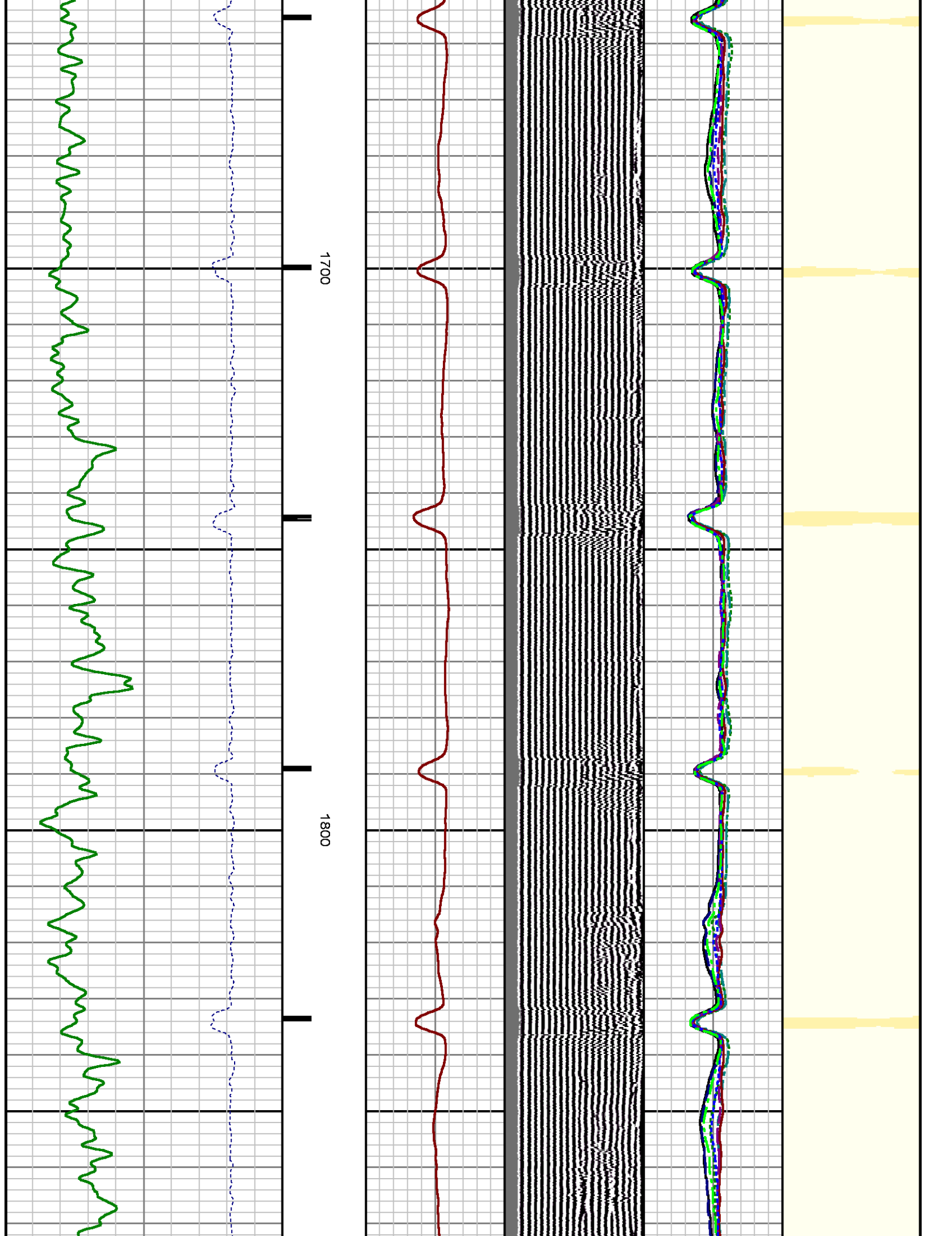


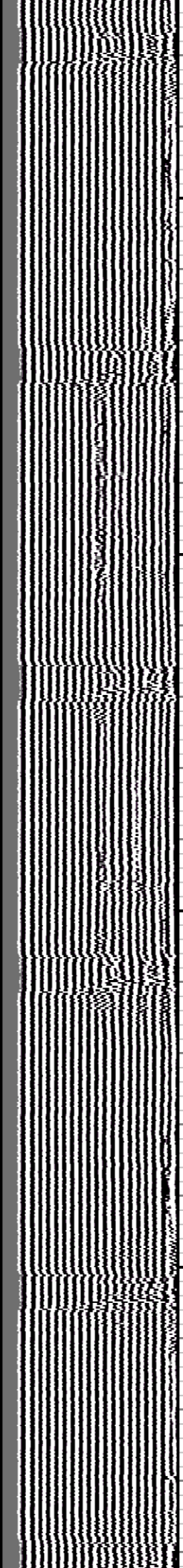
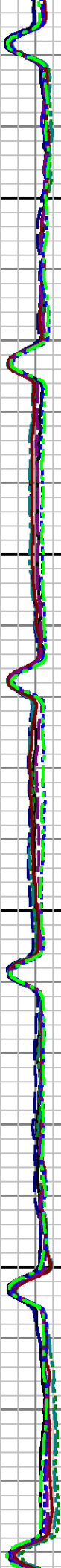
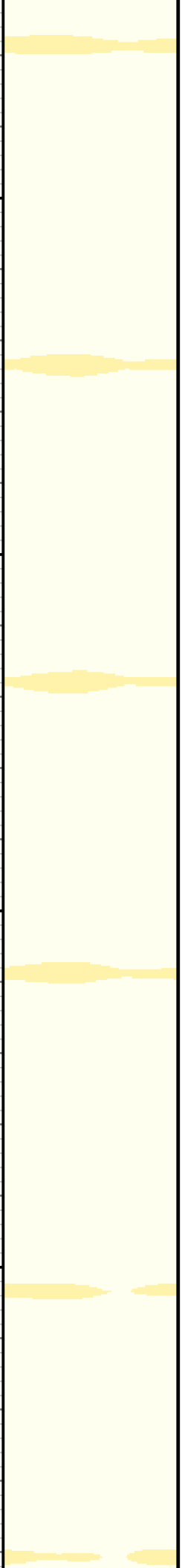




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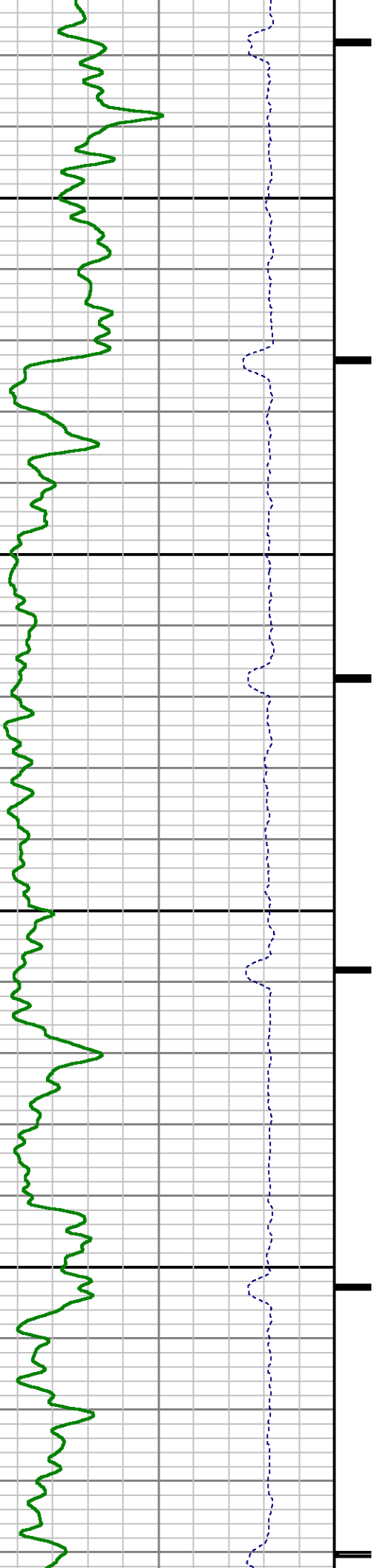
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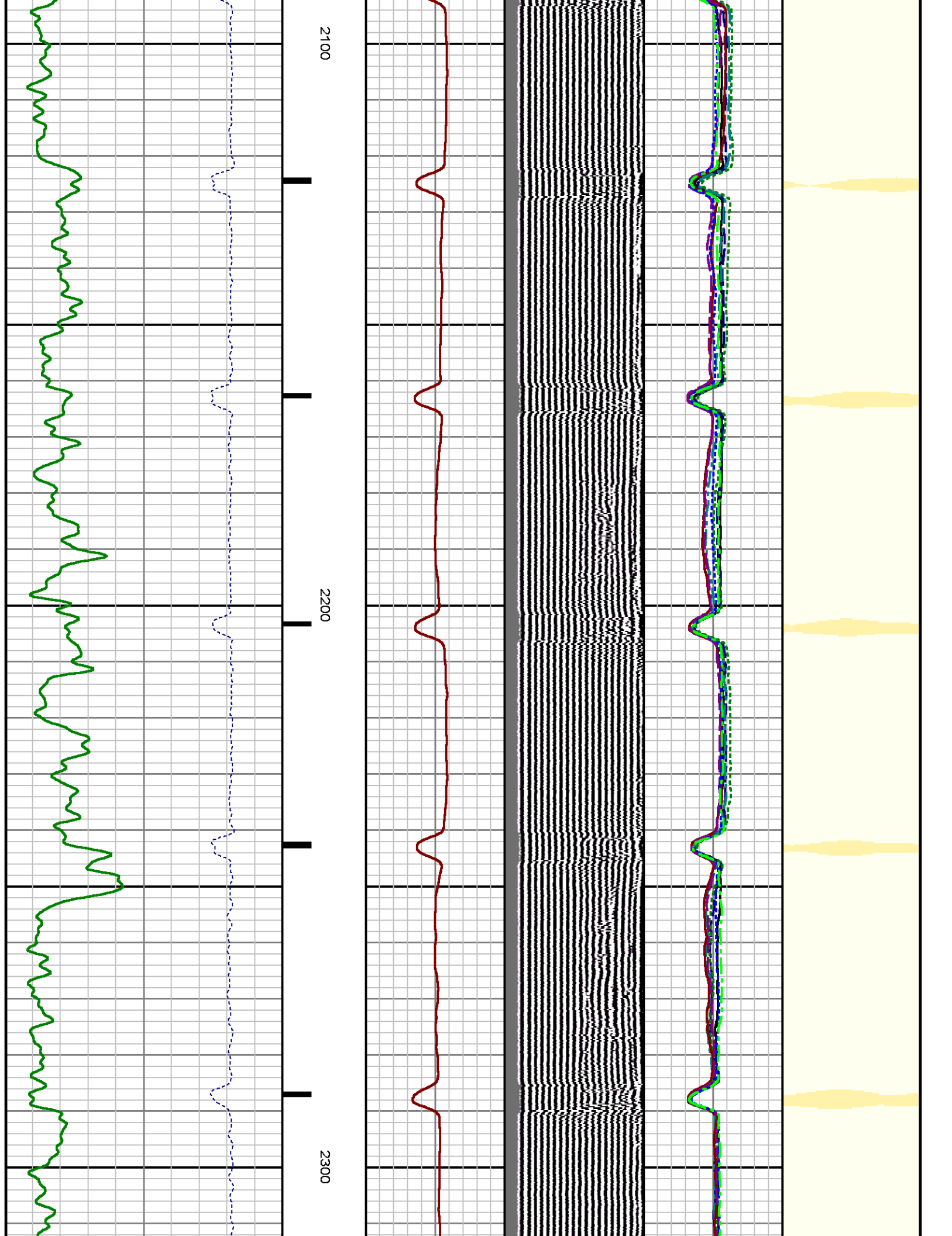


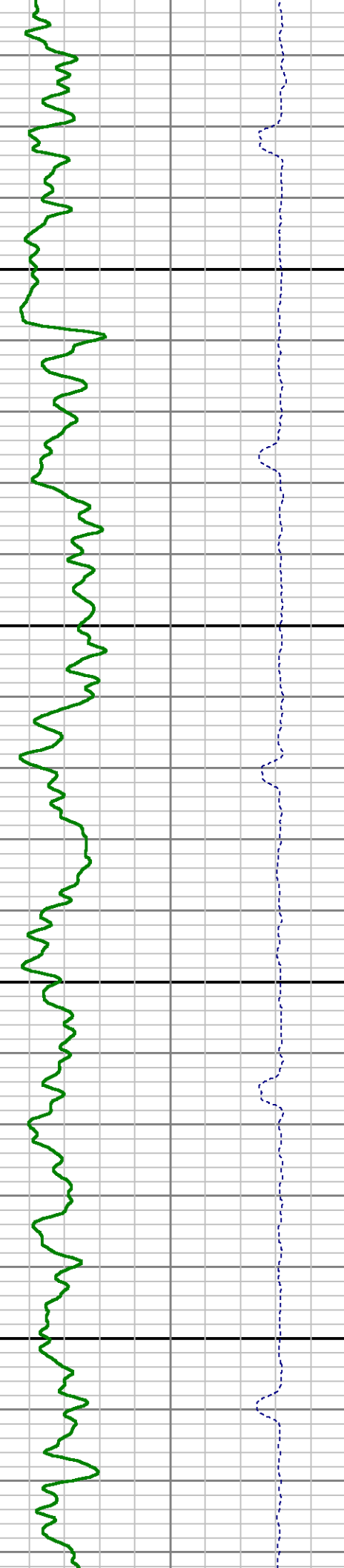
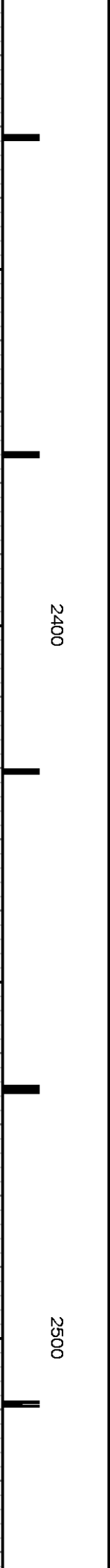
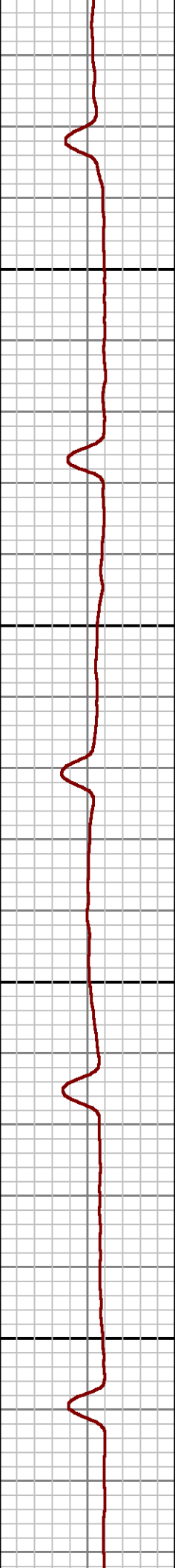
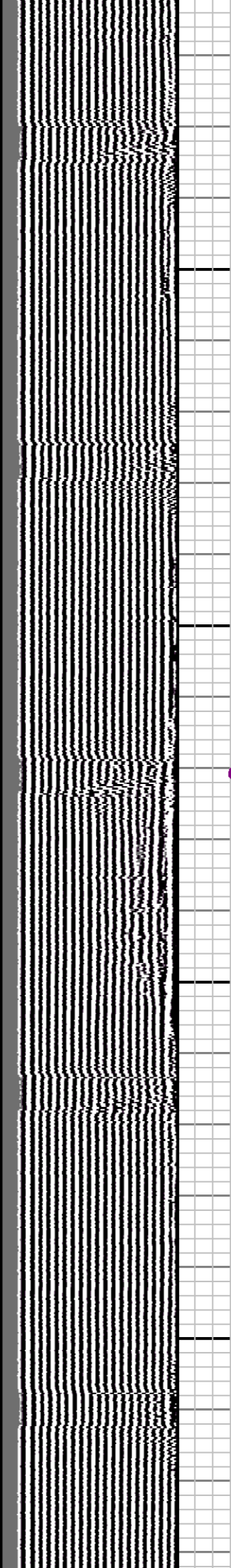
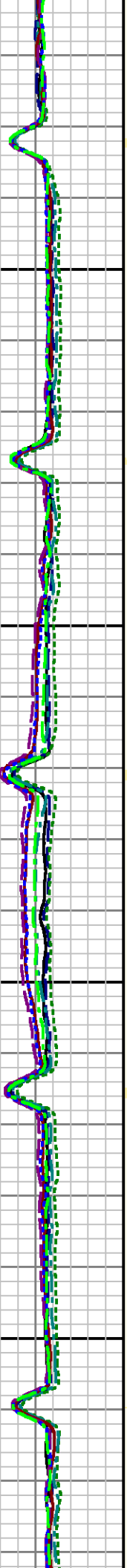
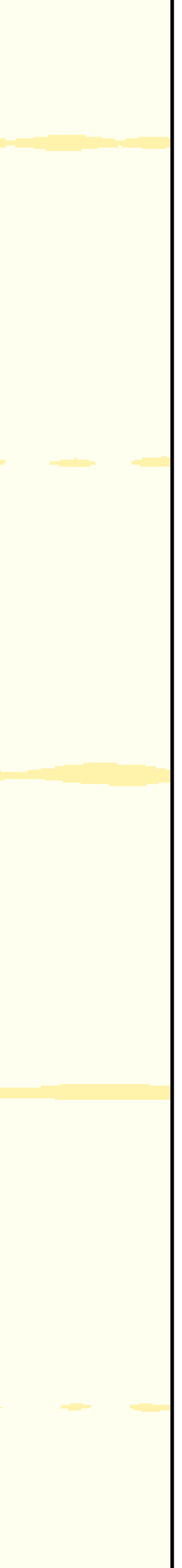


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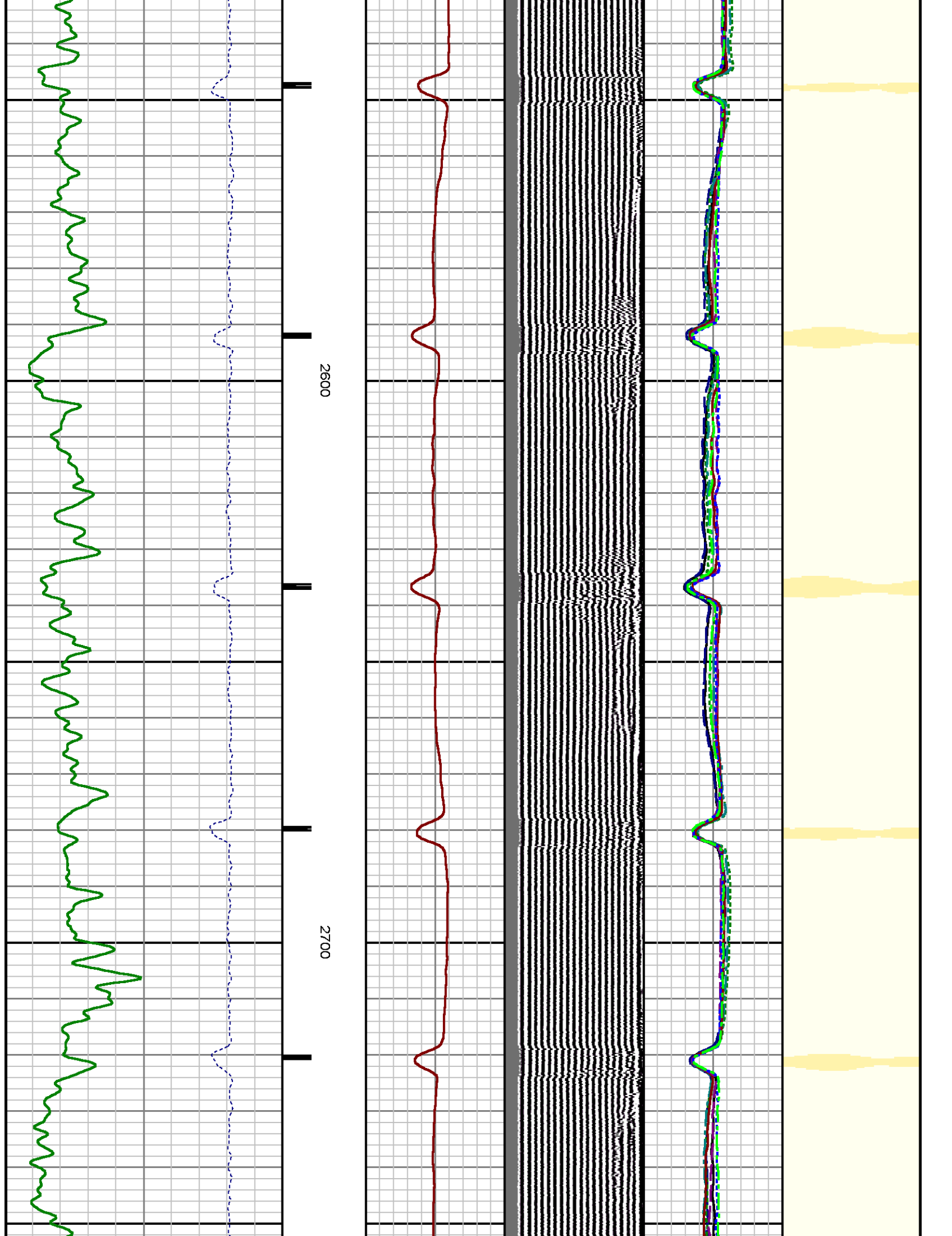


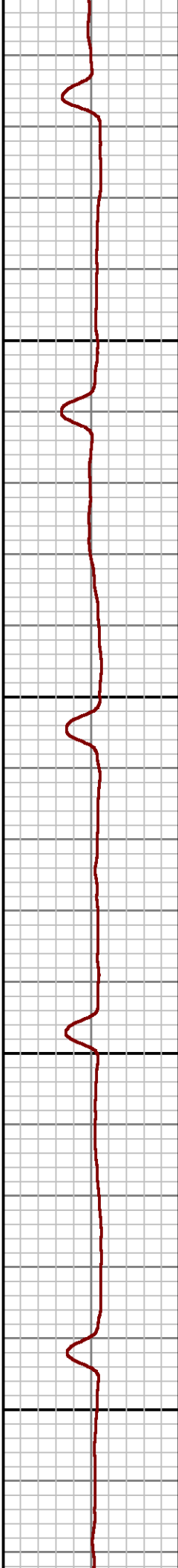
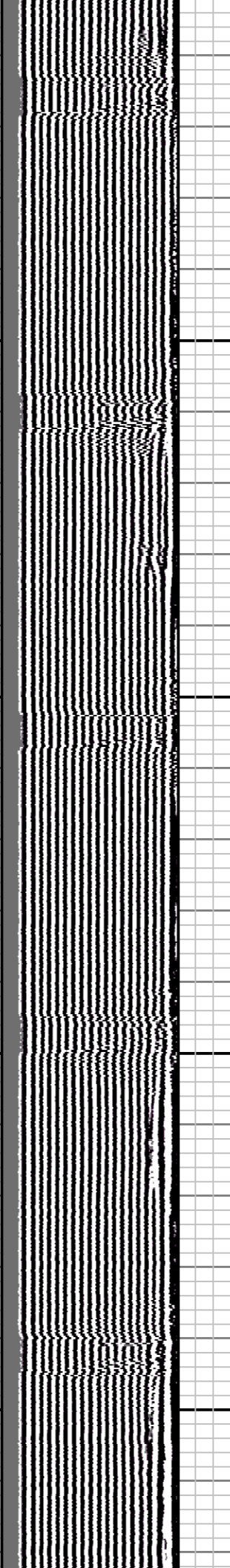
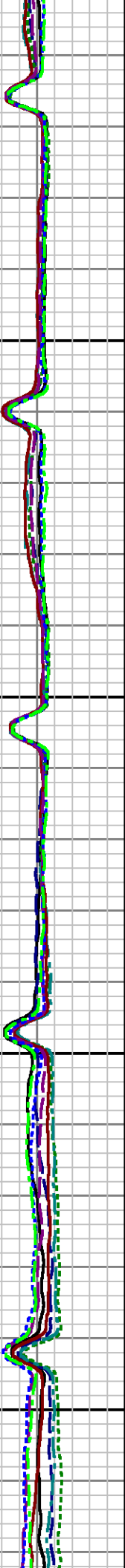
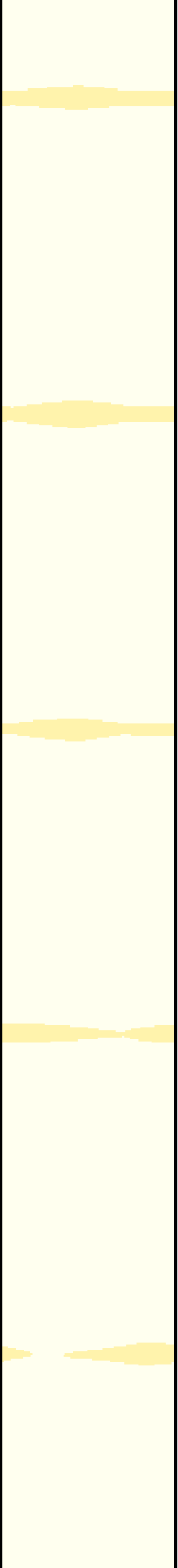




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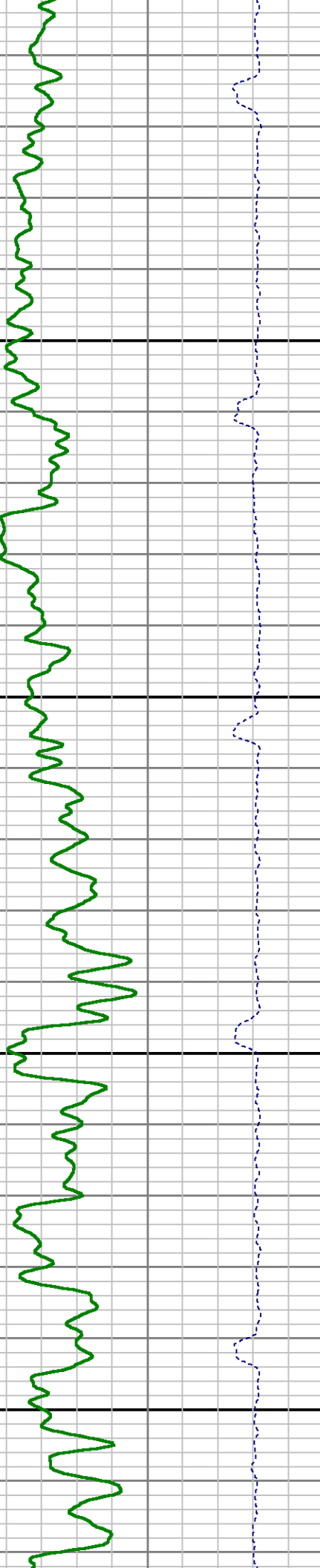
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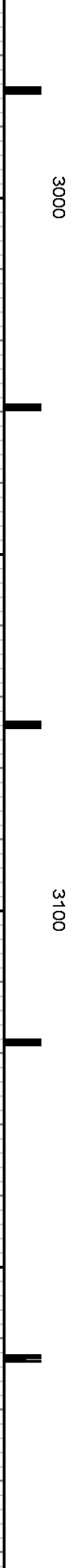
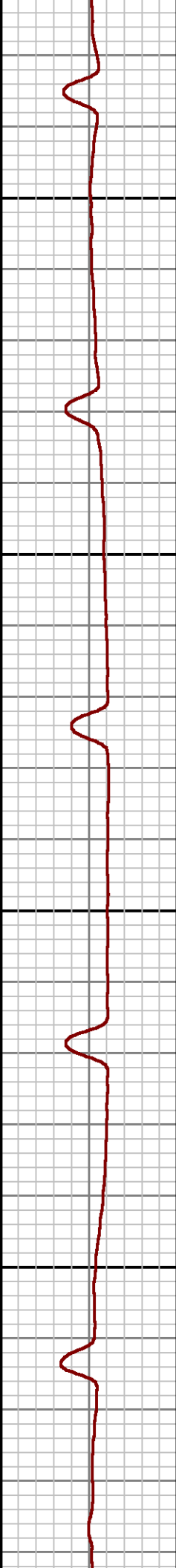
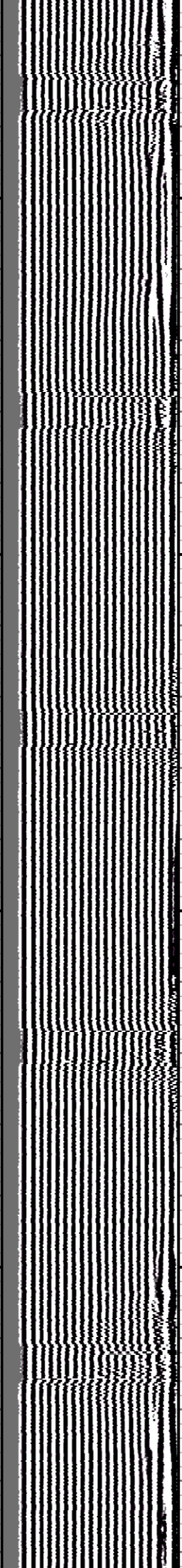
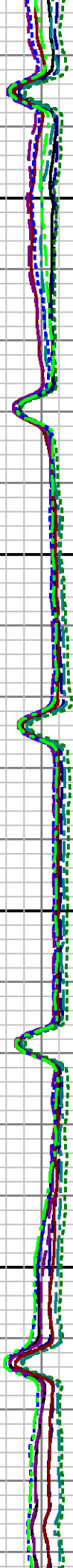
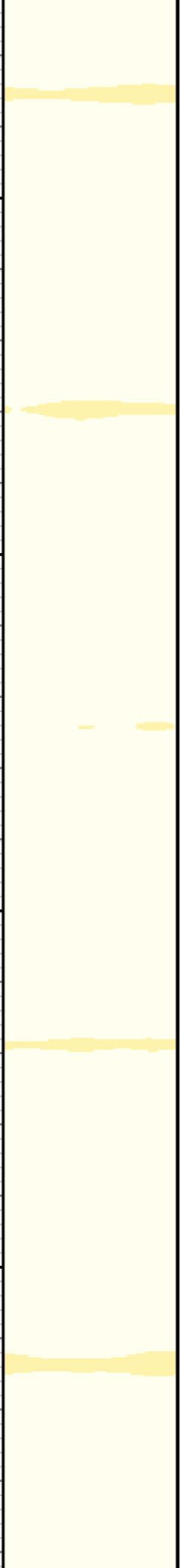




2800

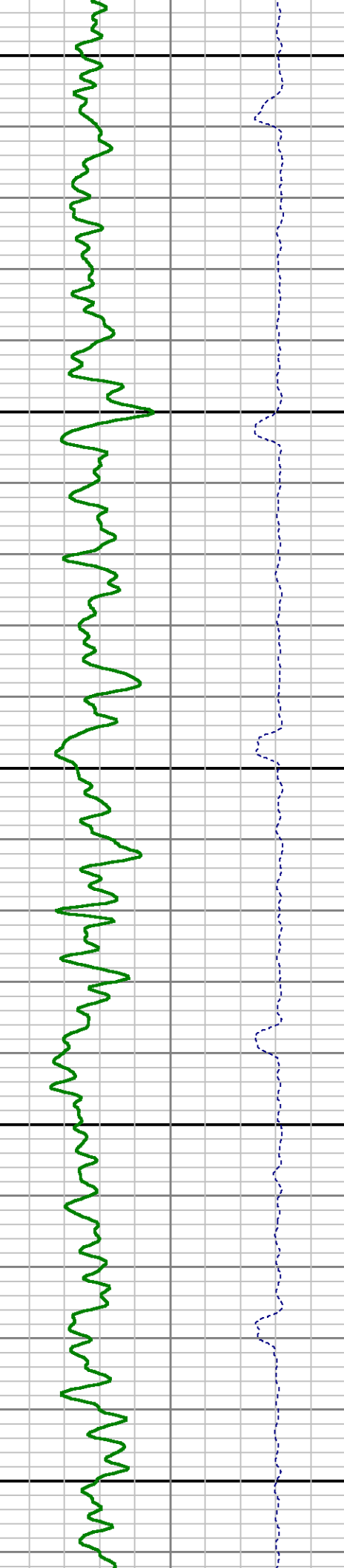
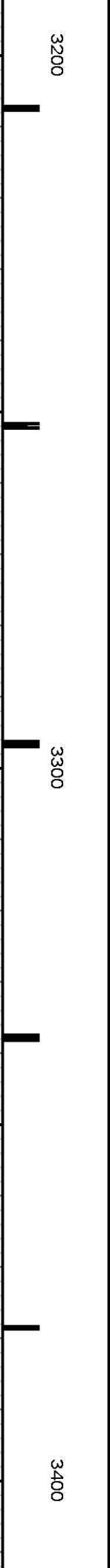
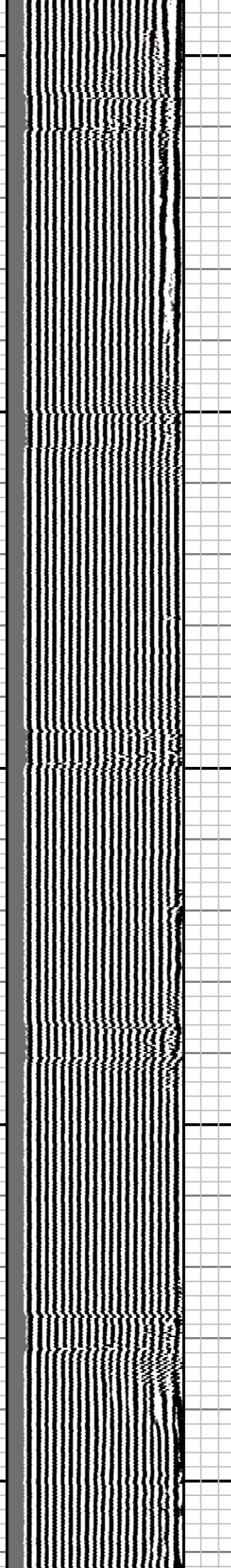
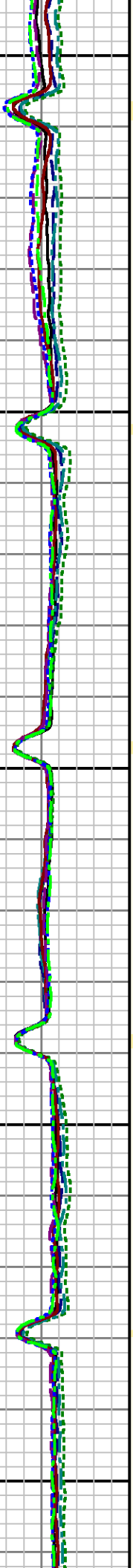
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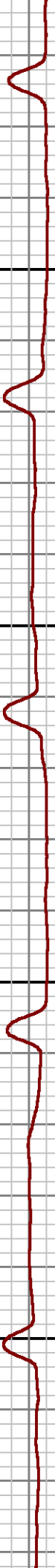
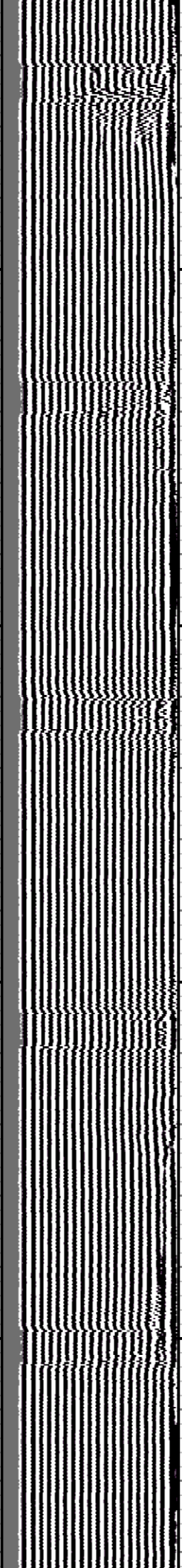
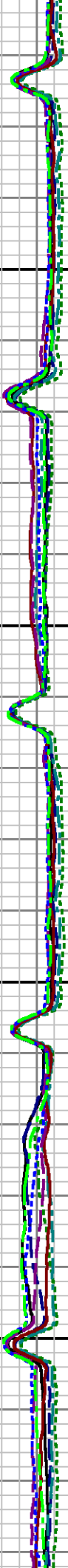
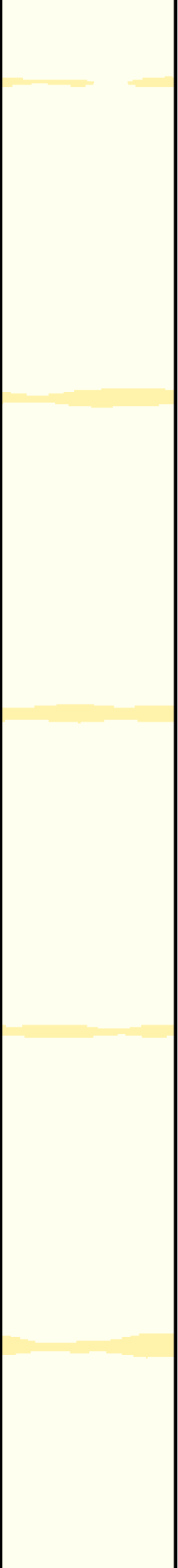
3100



3200

3300

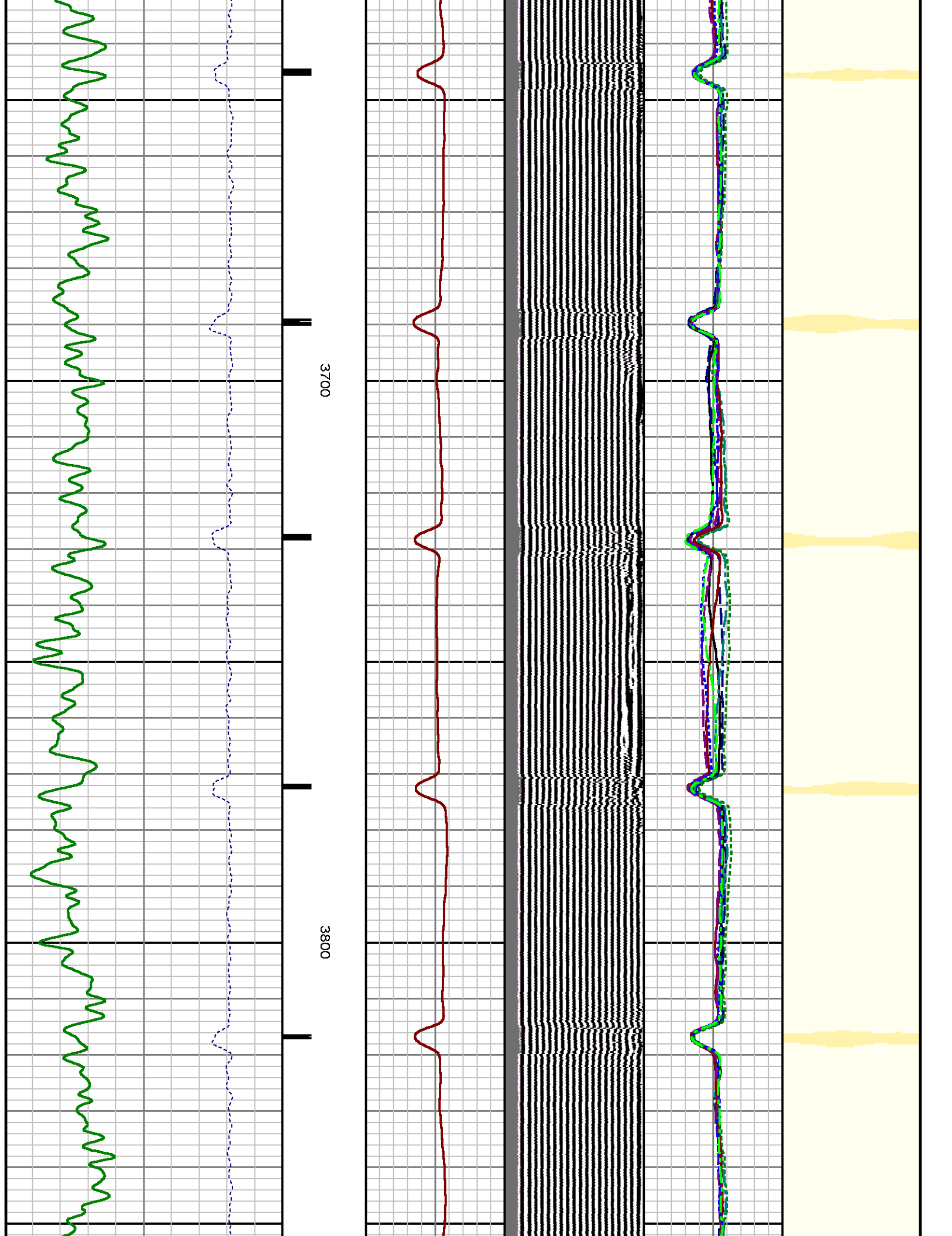
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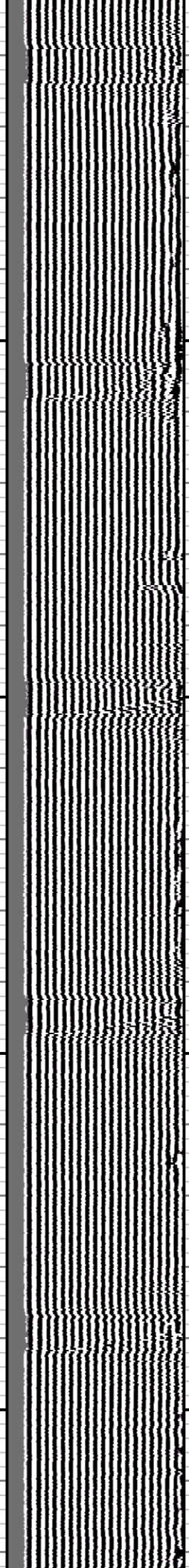
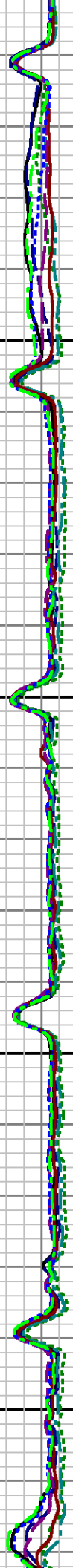
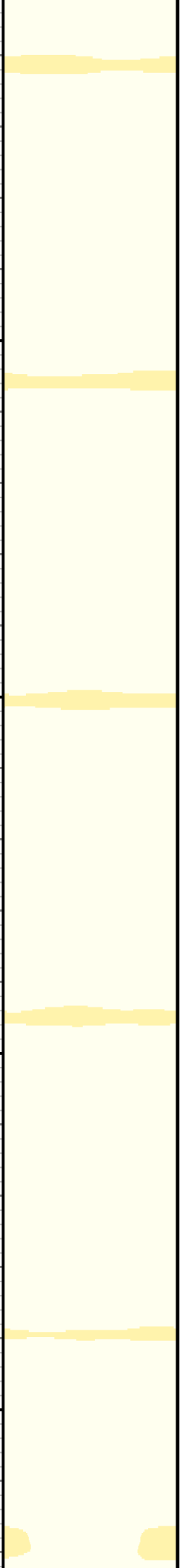


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3600

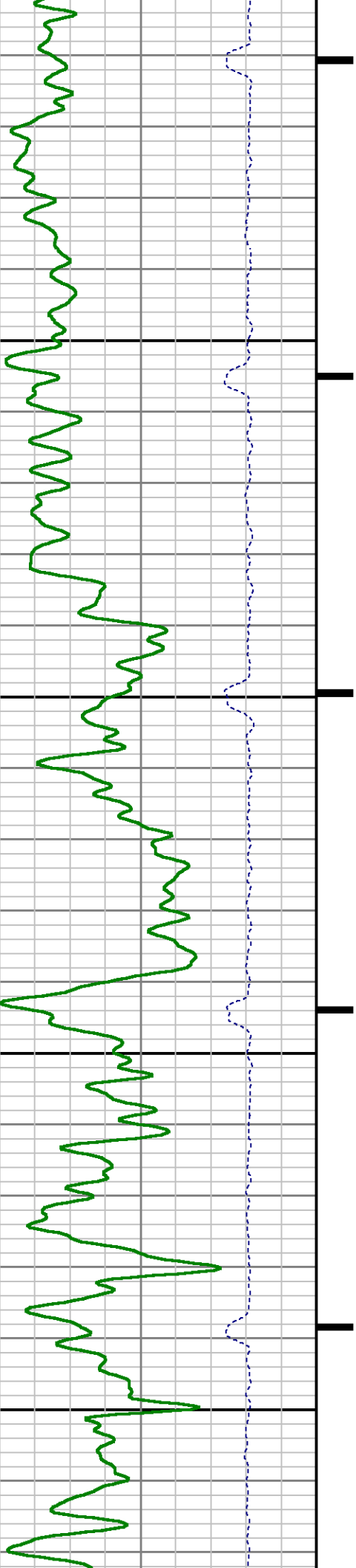


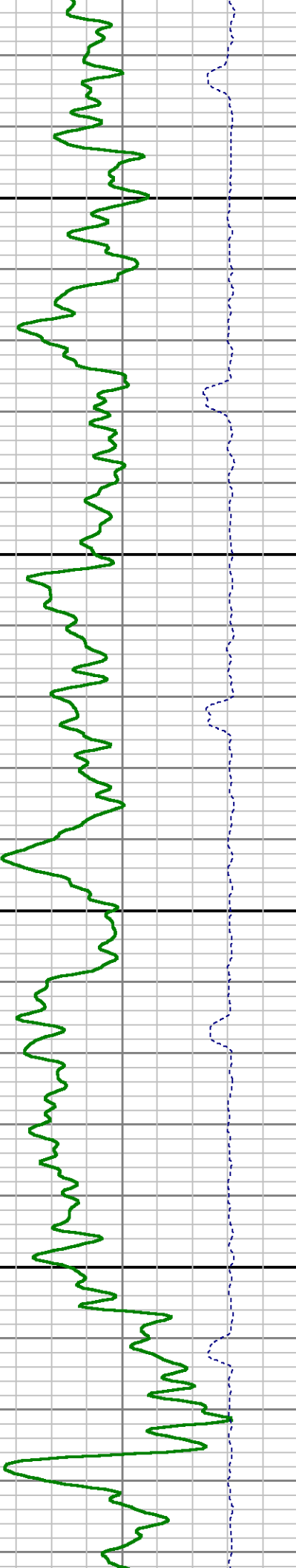
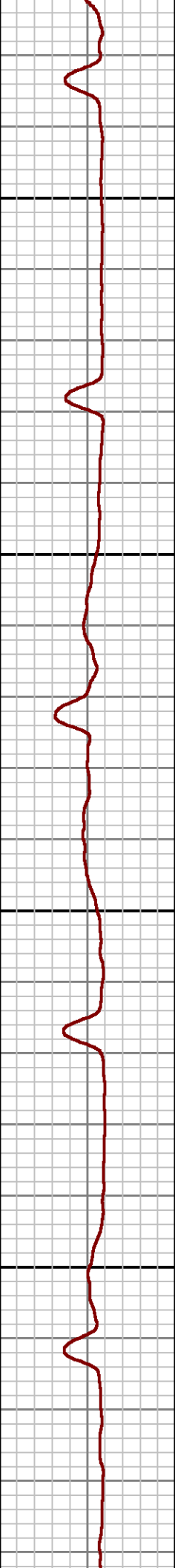
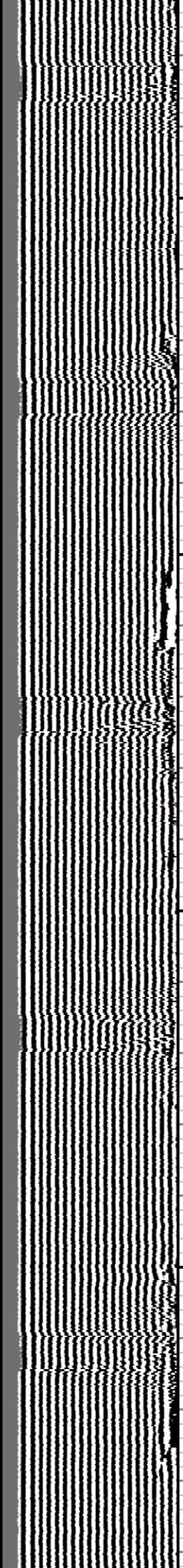
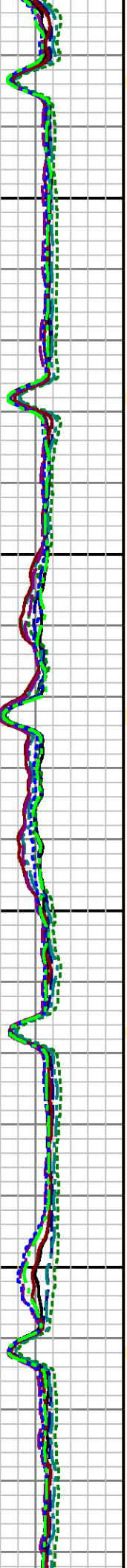


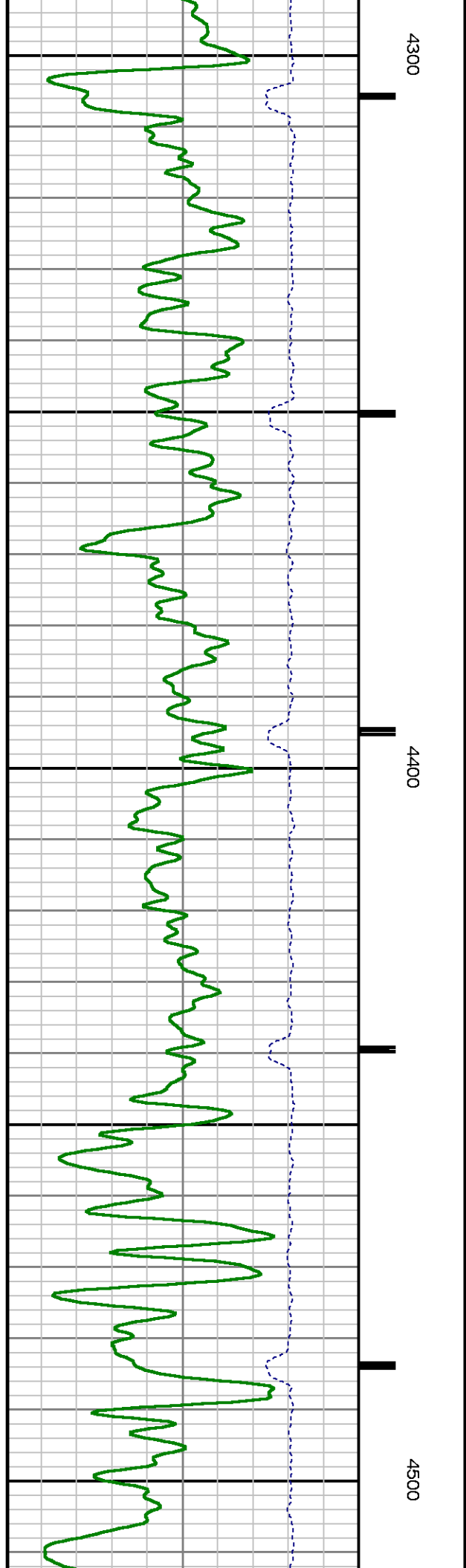
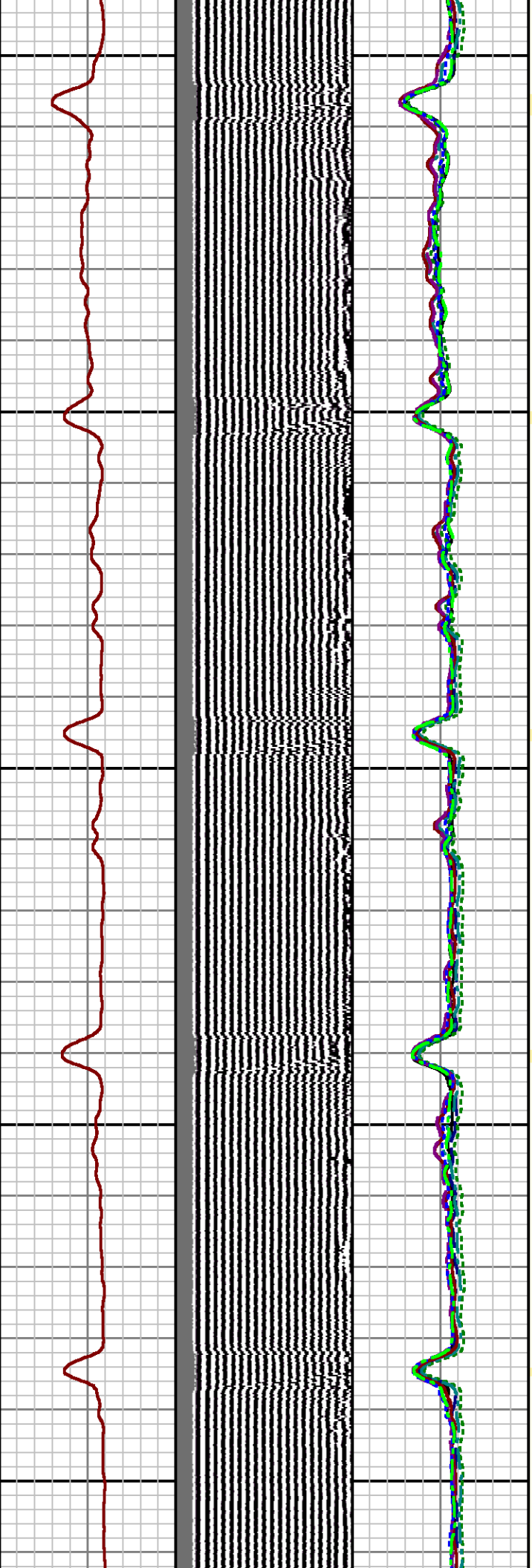


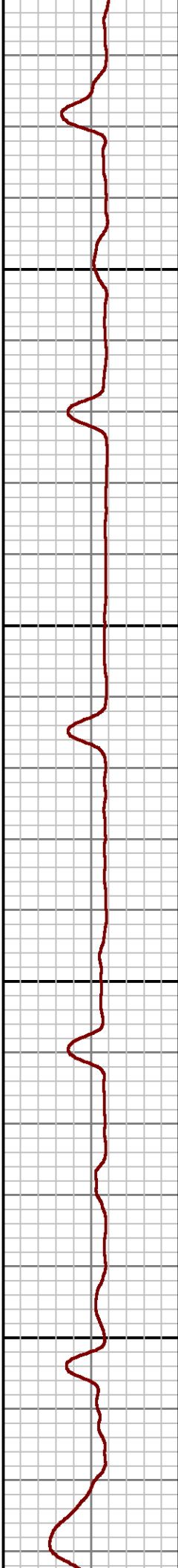
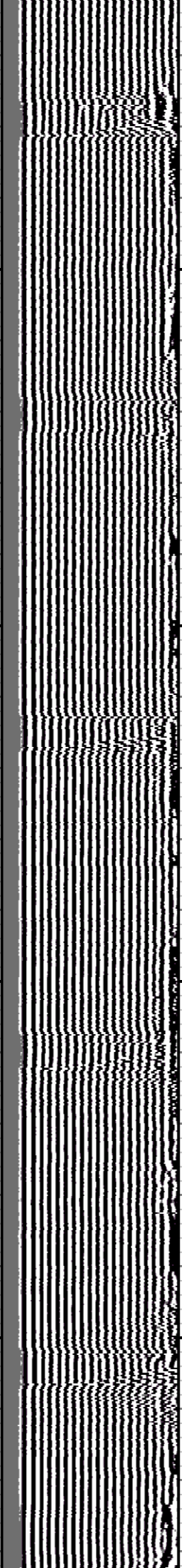
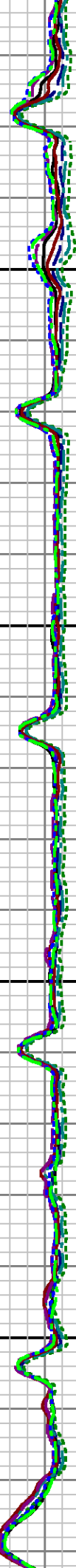
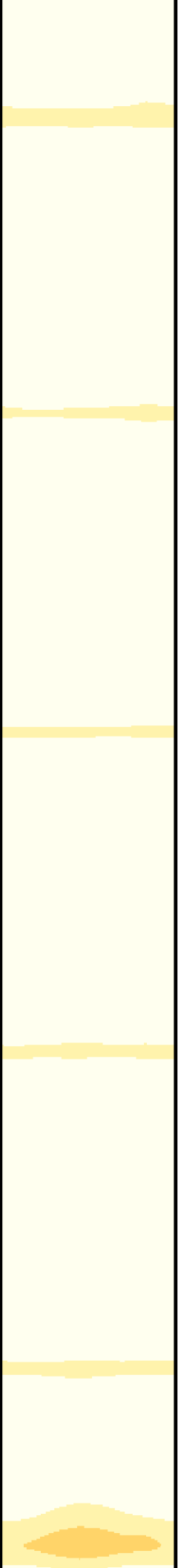
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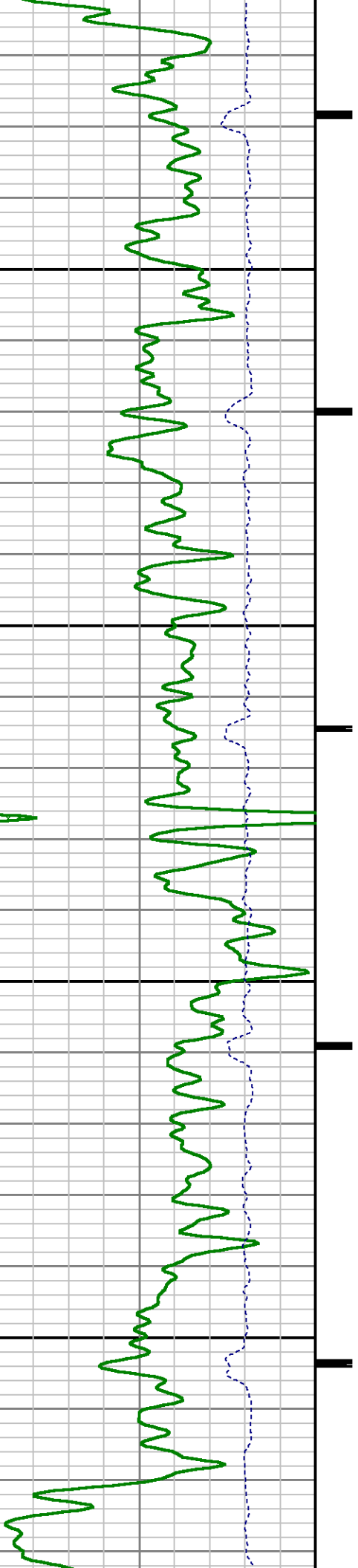


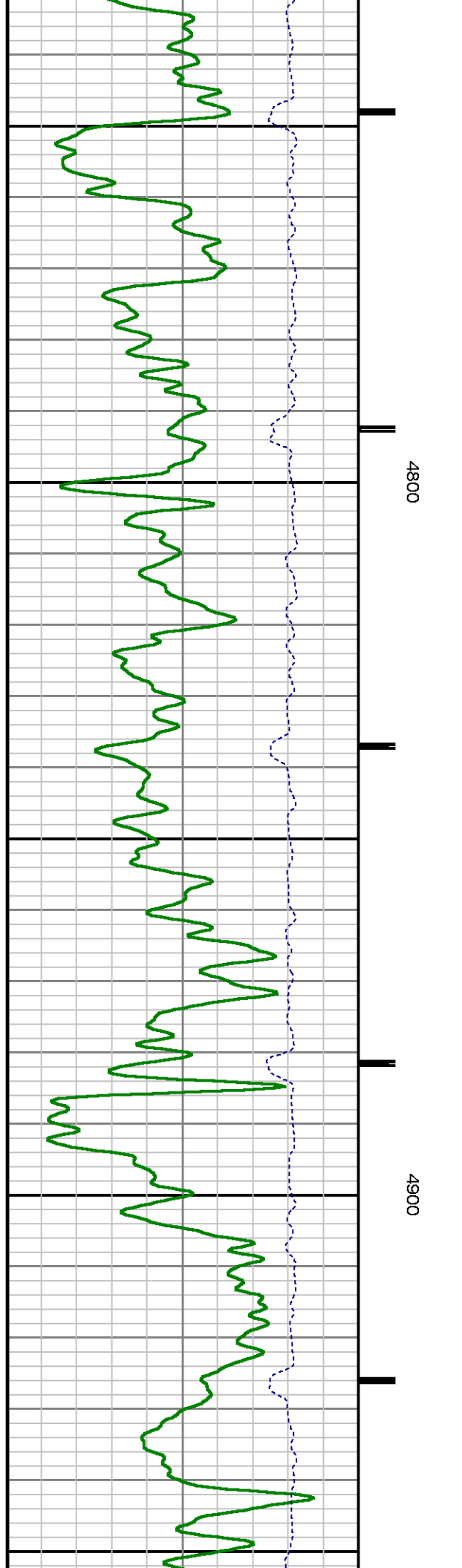
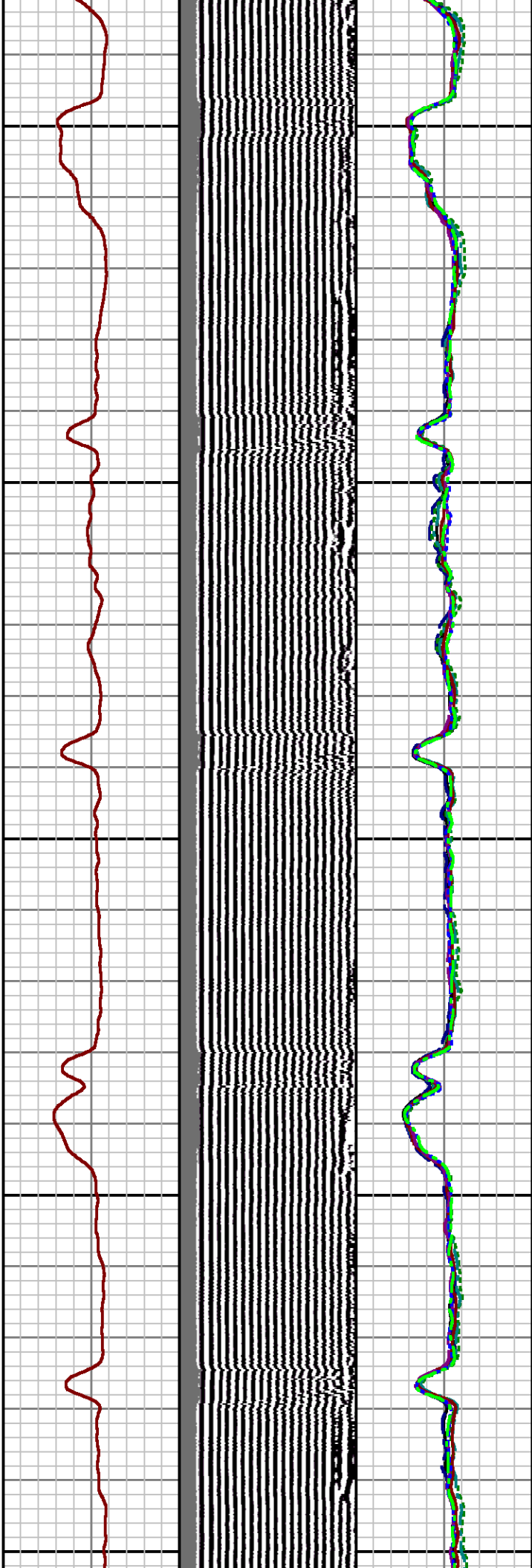
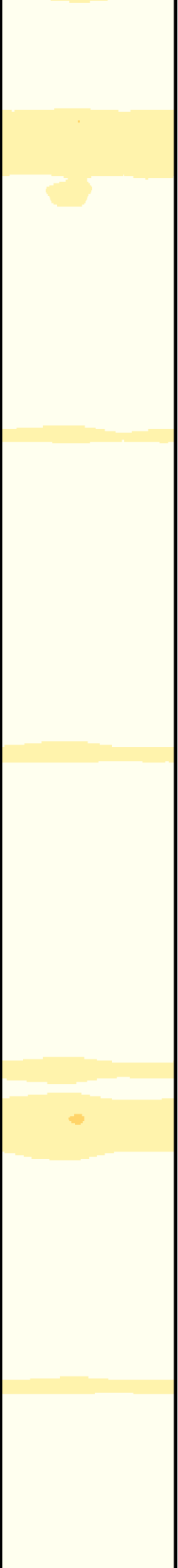


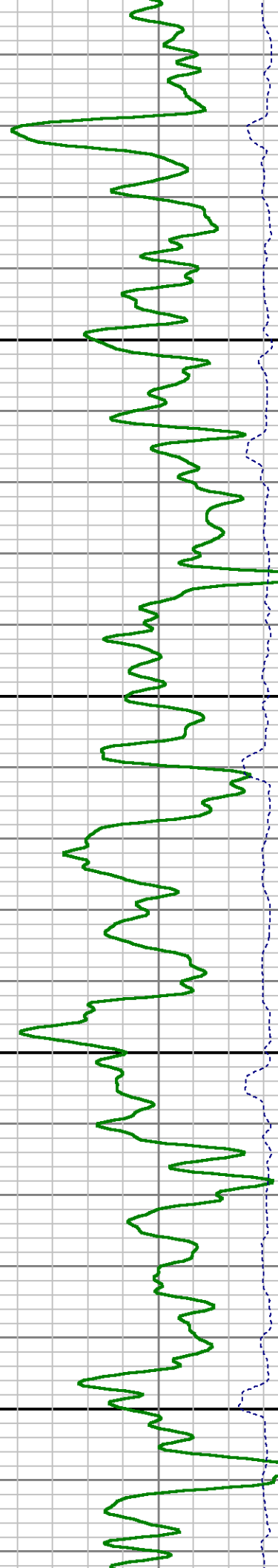
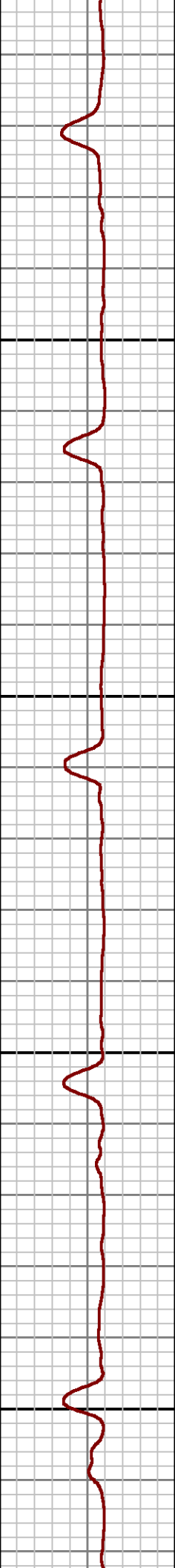
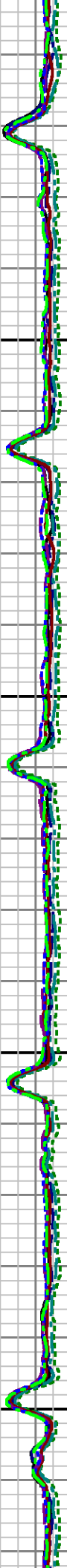


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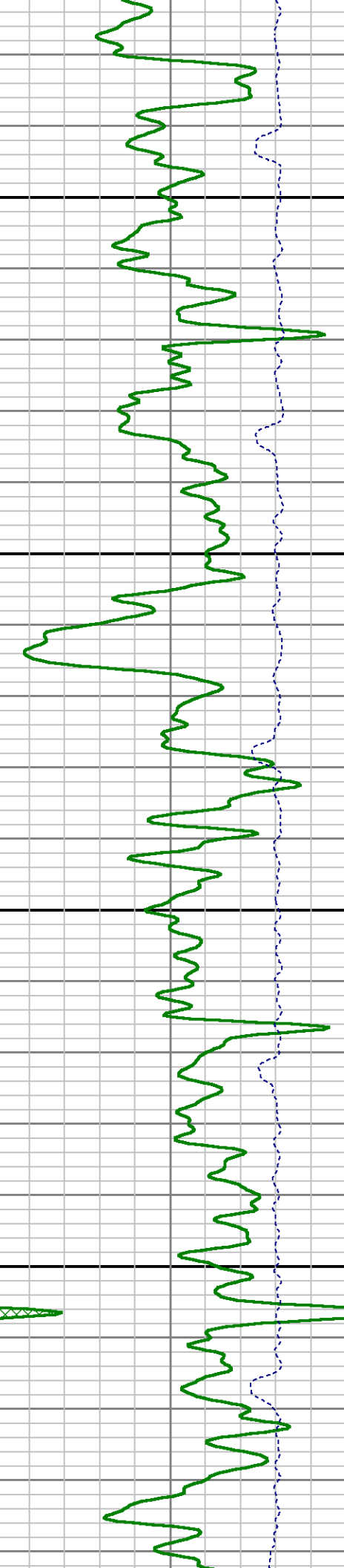
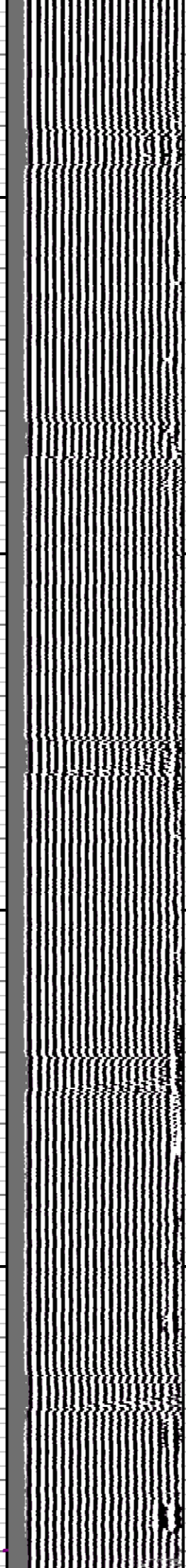
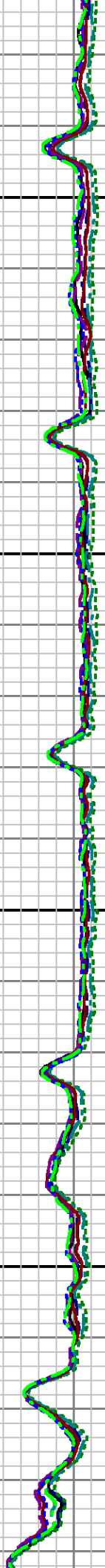
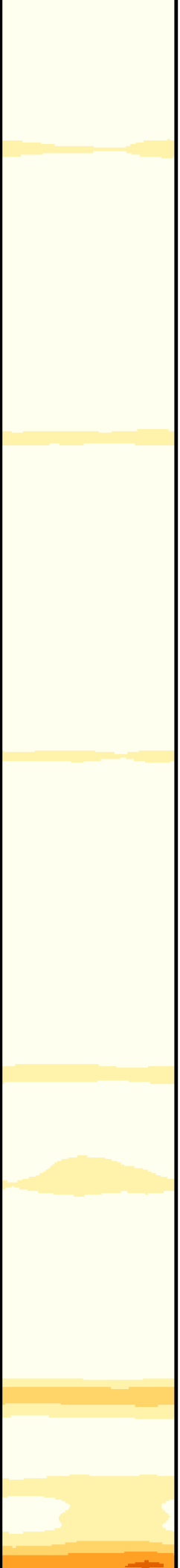


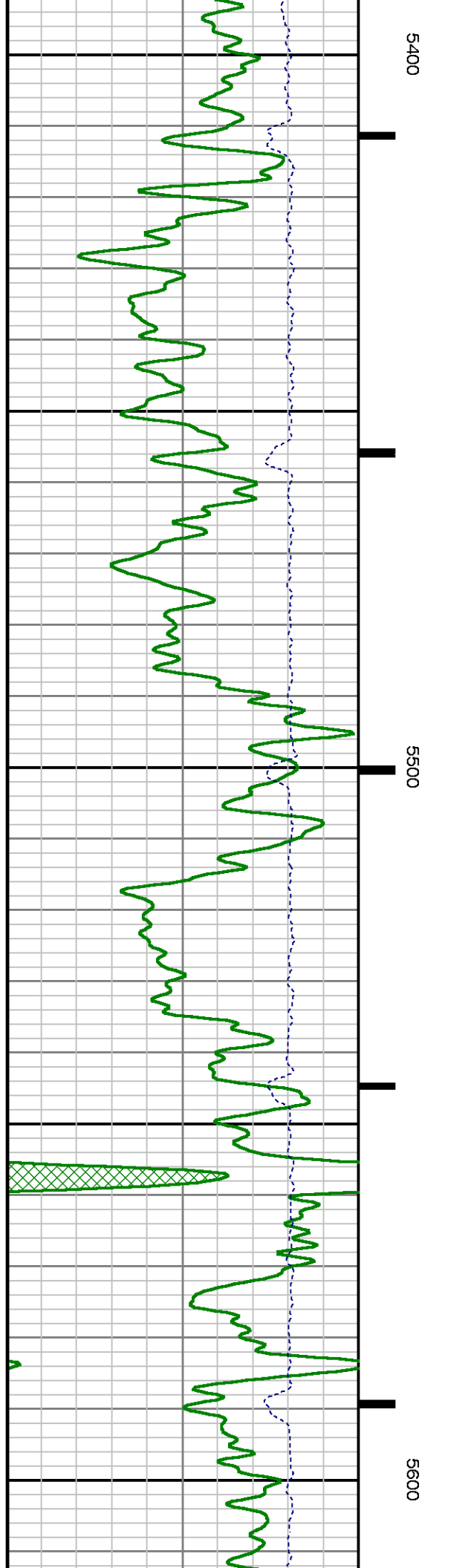
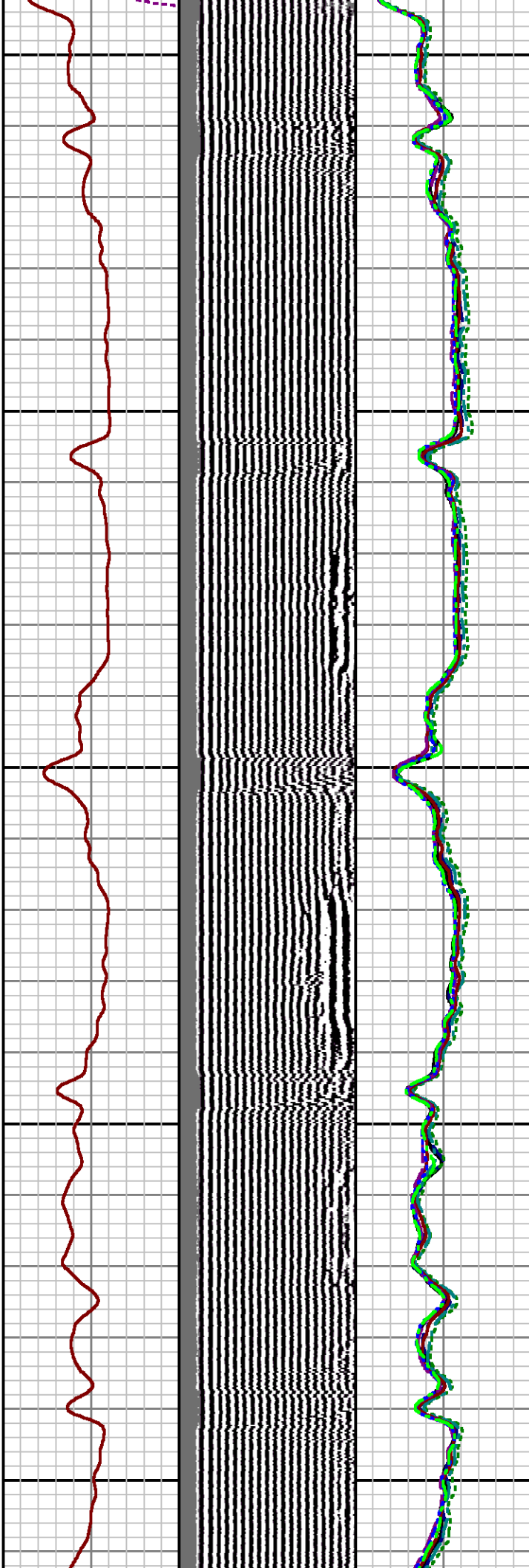
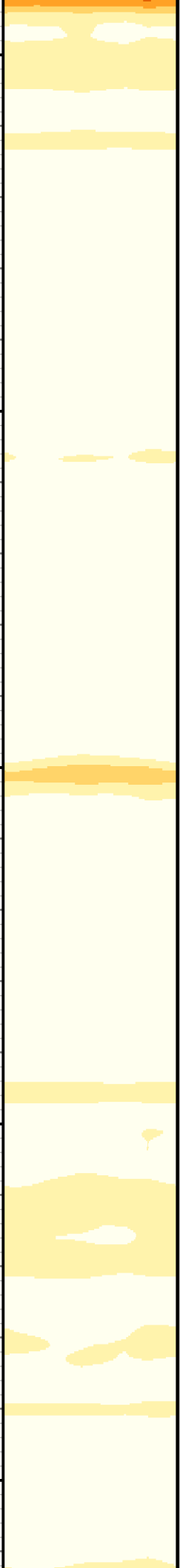


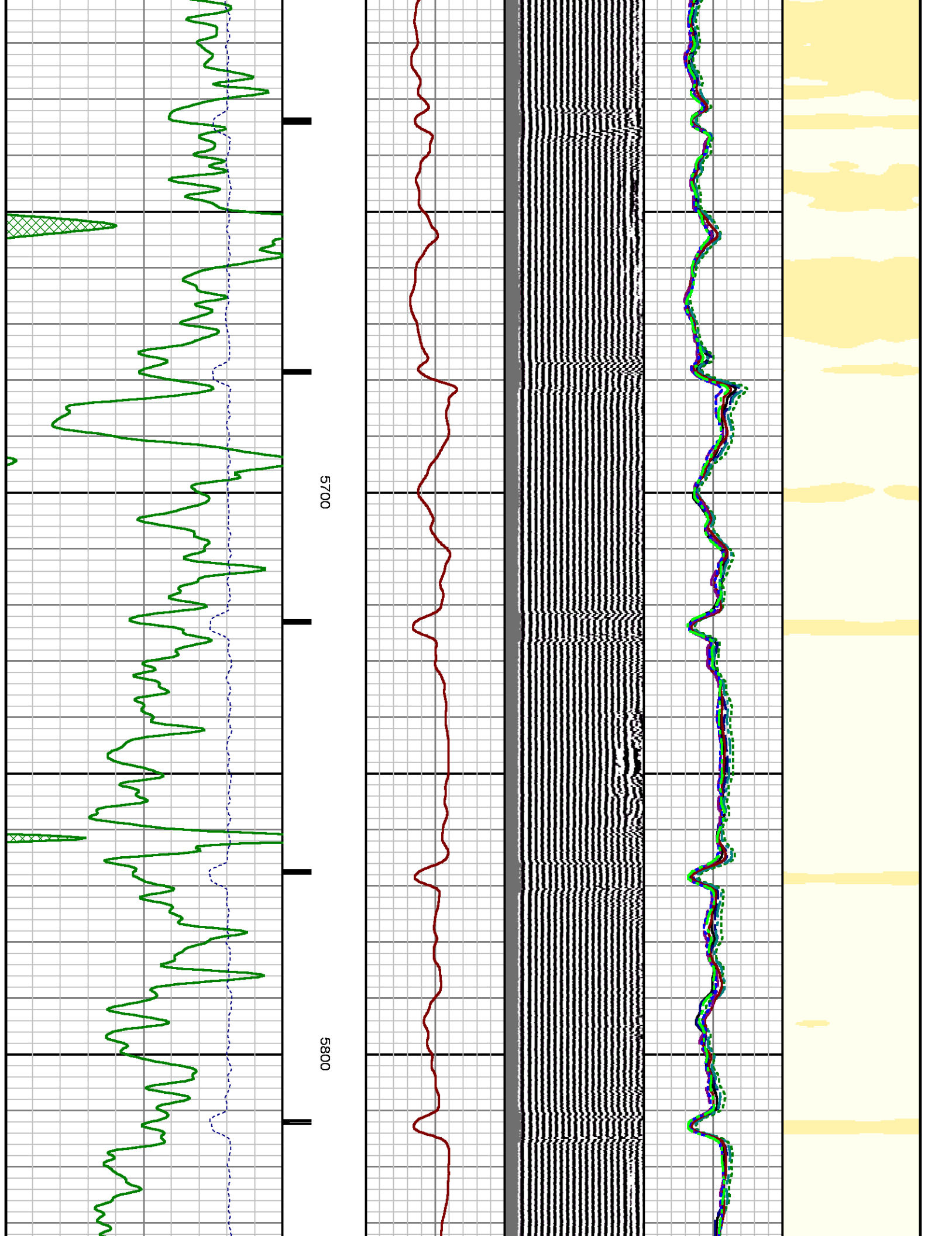


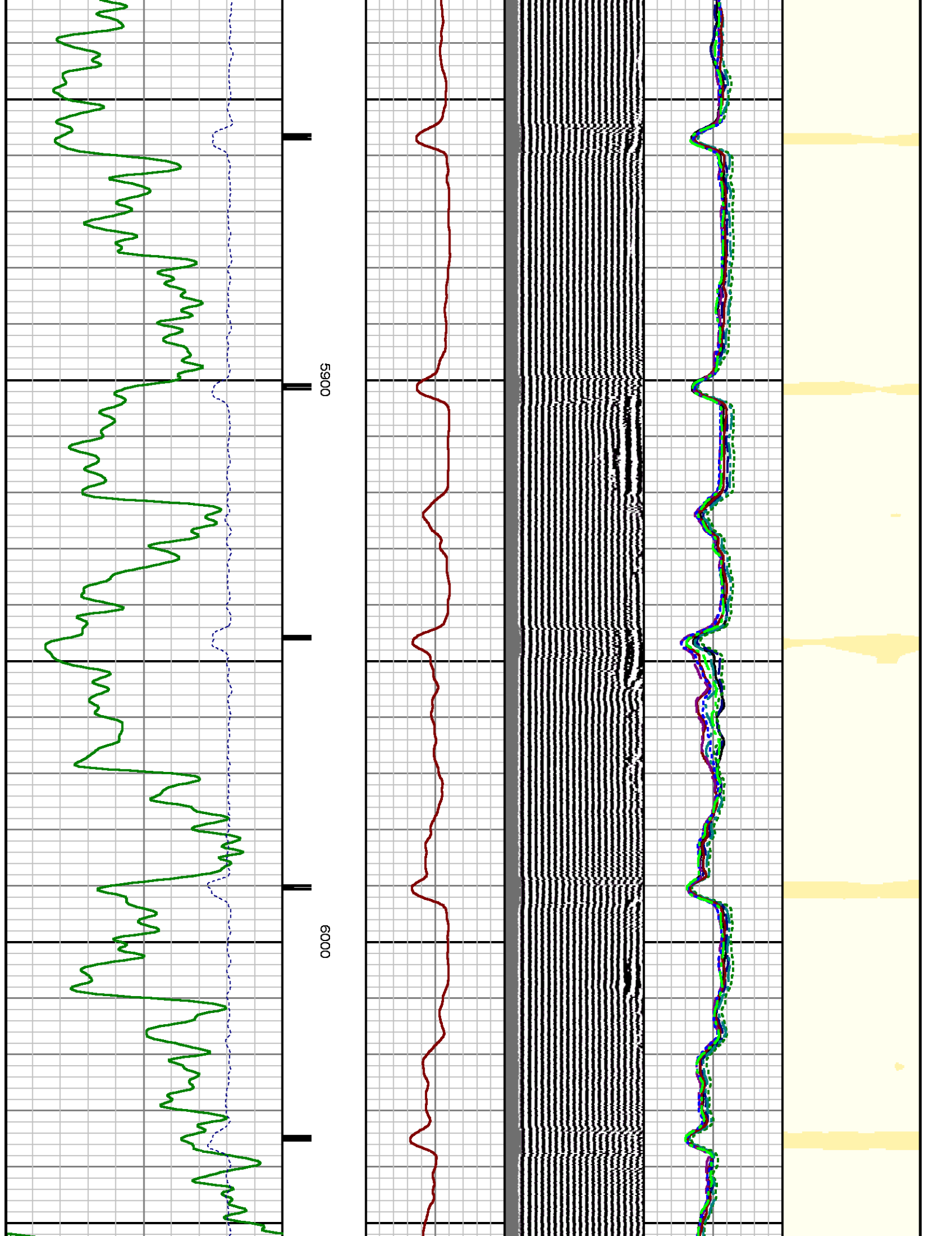
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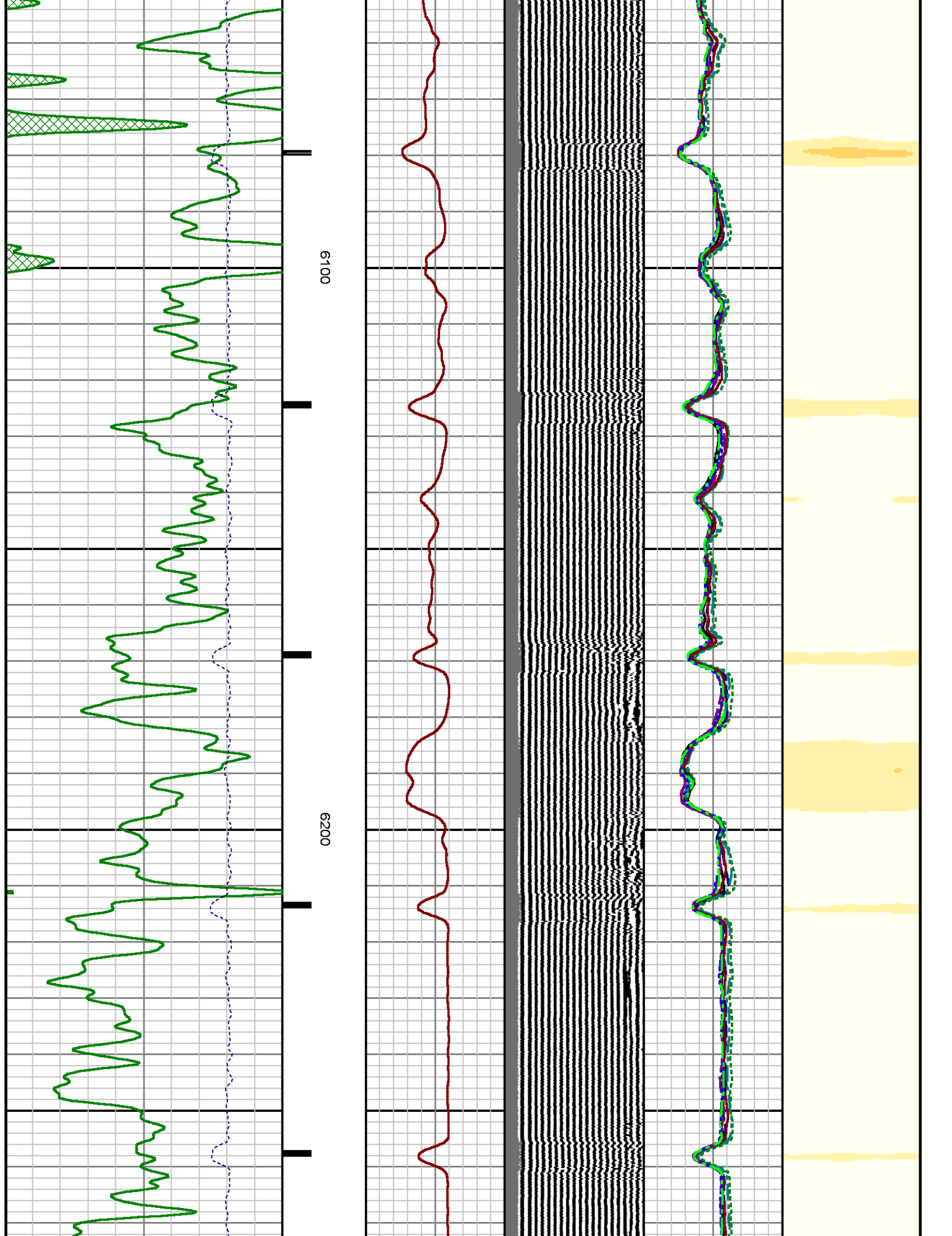
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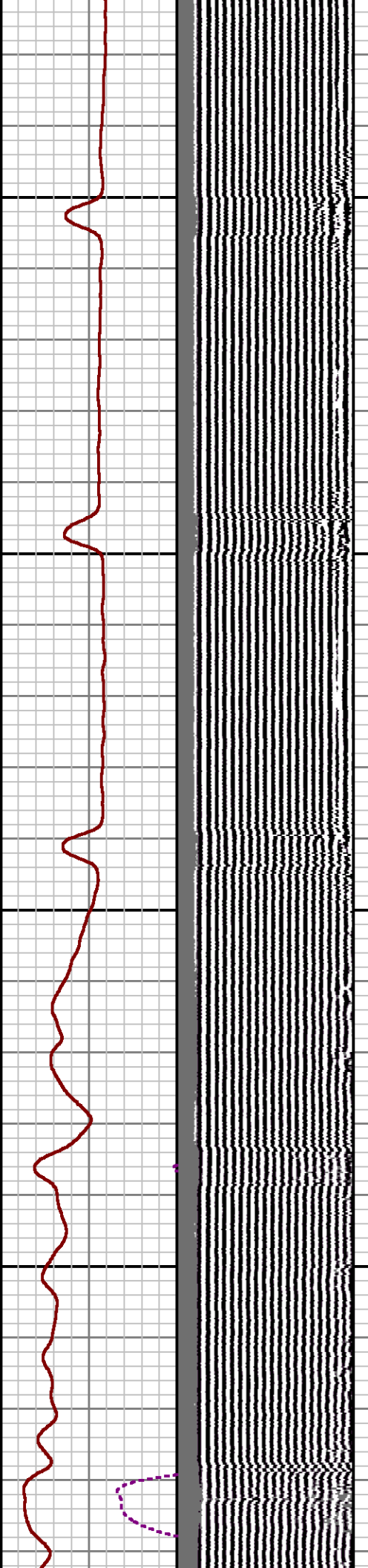
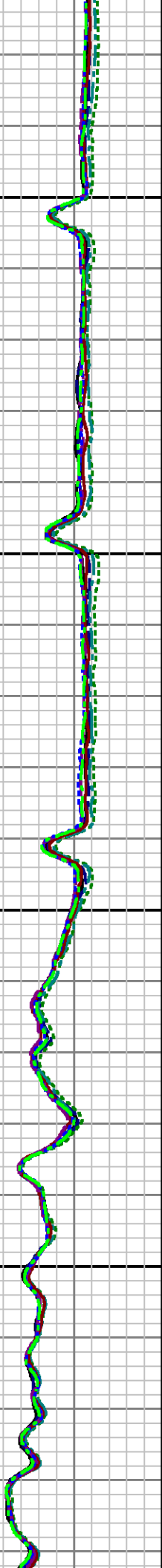
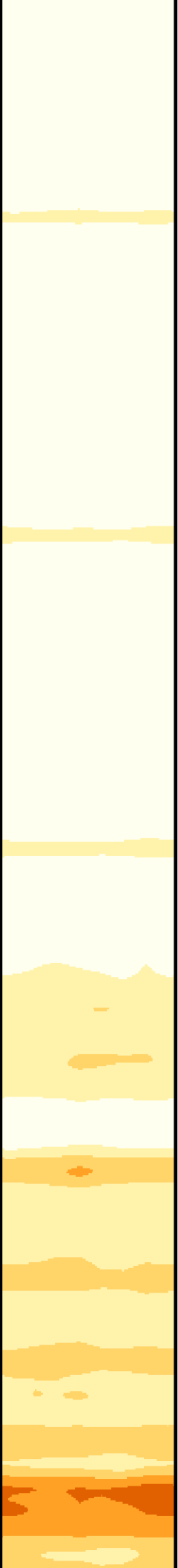






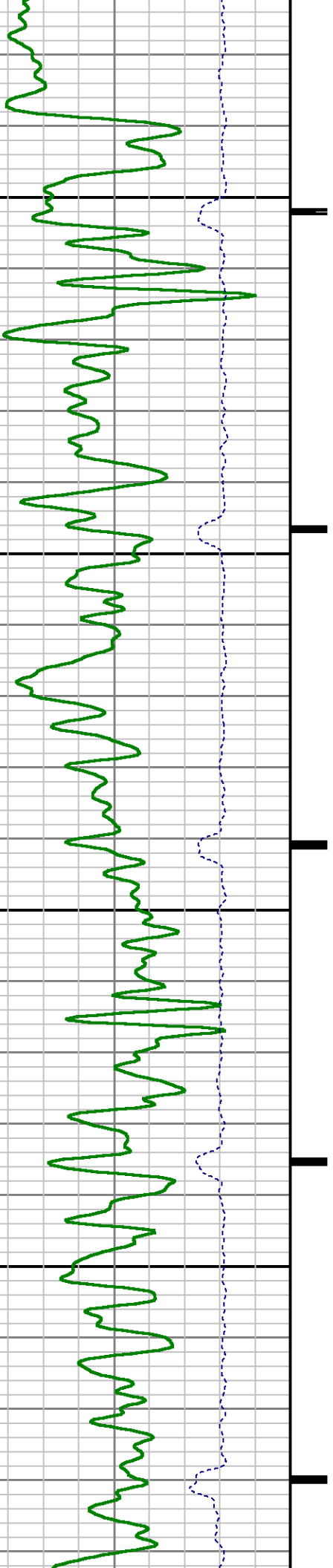


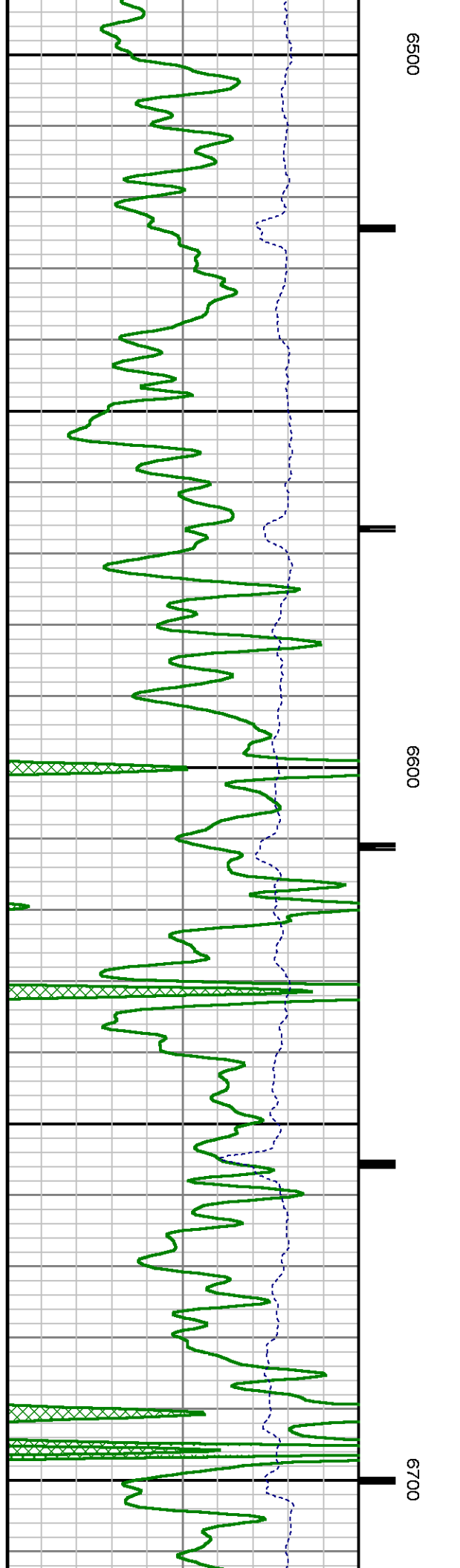
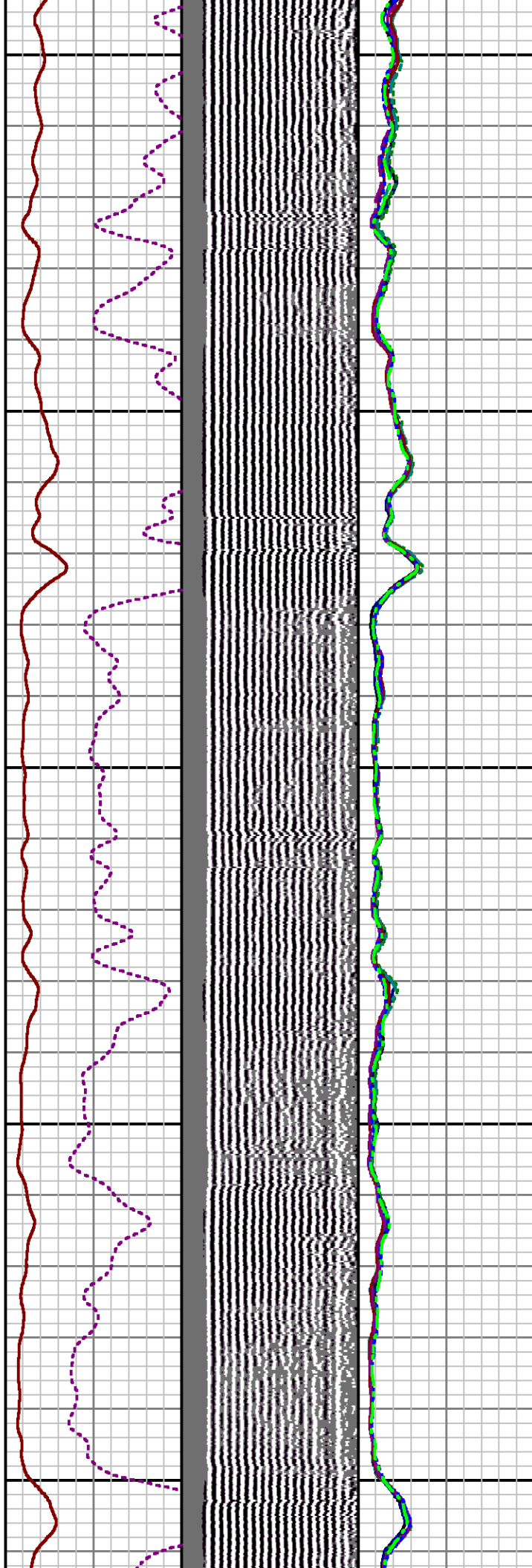
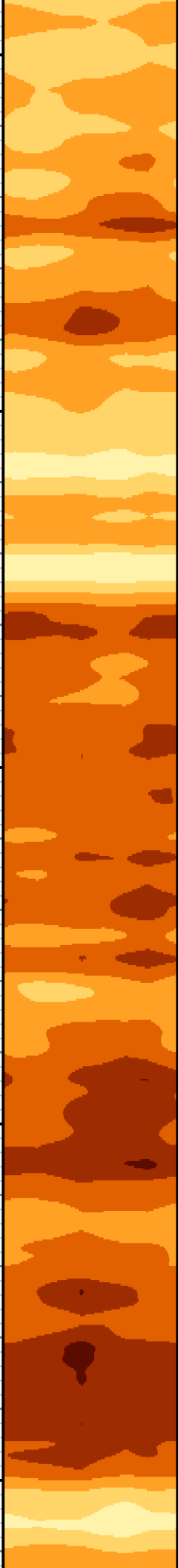


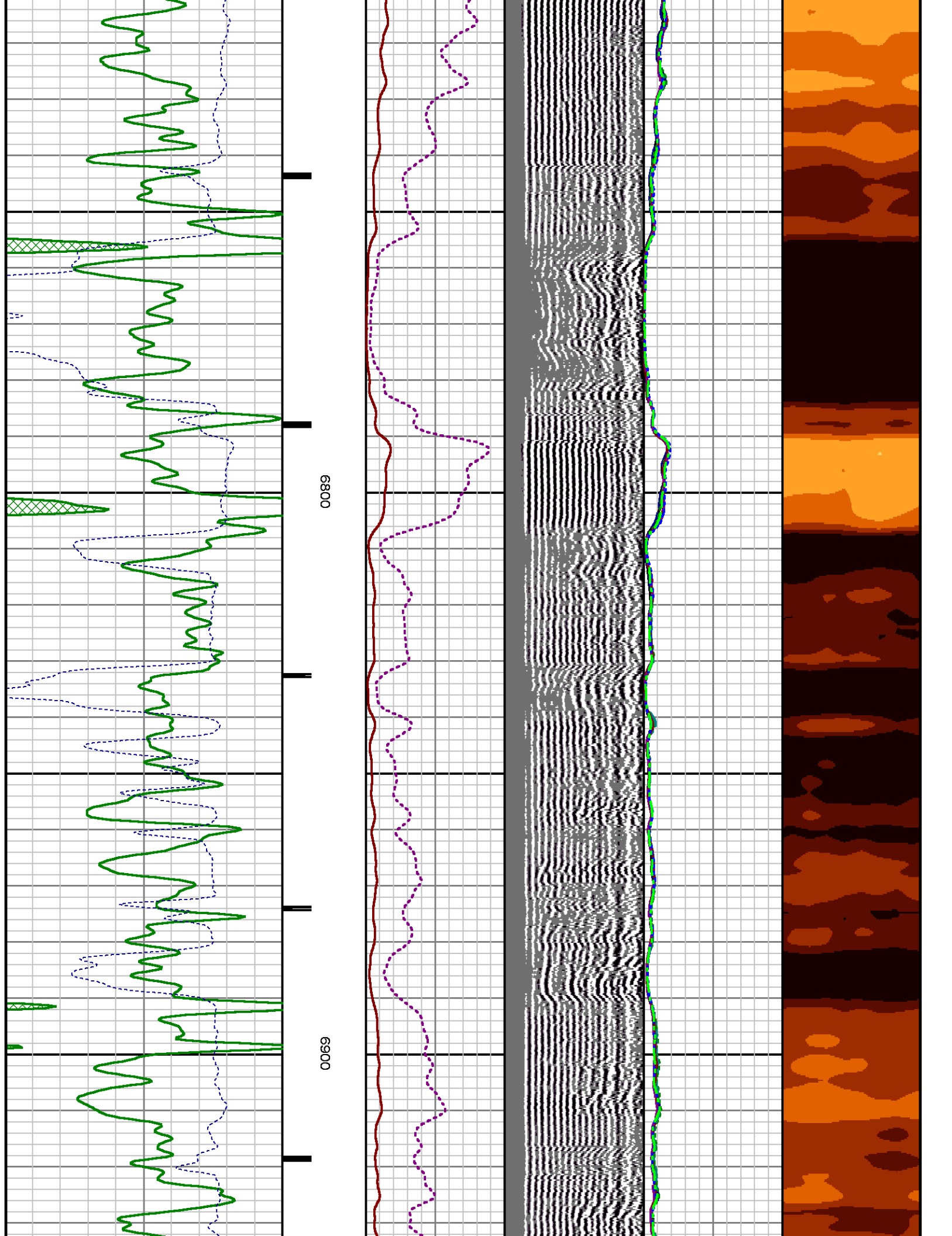


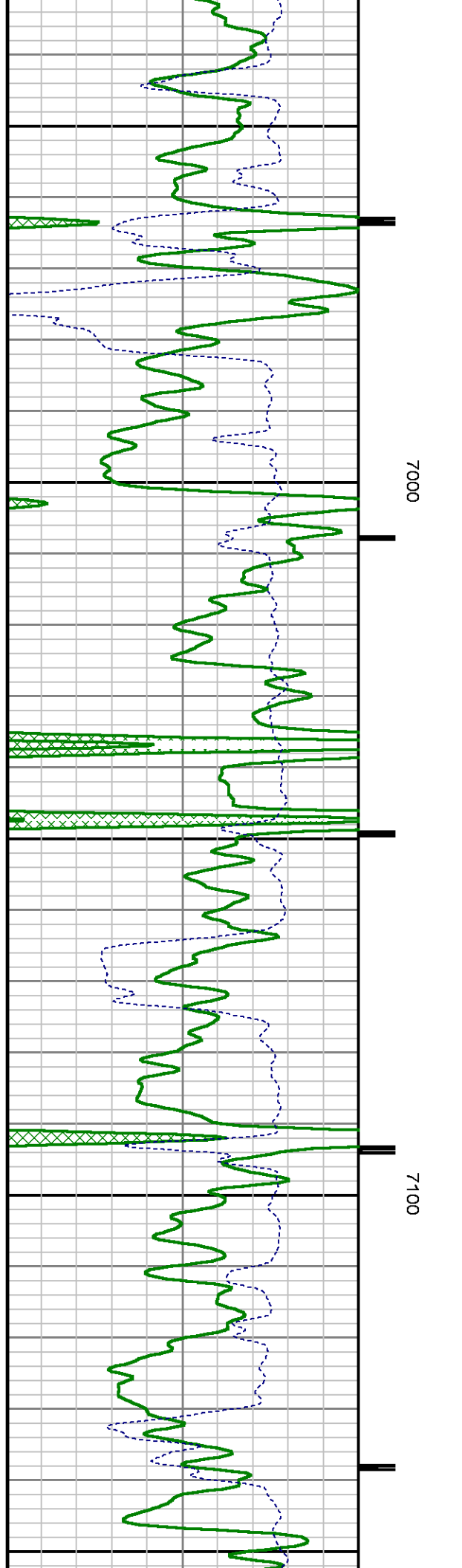
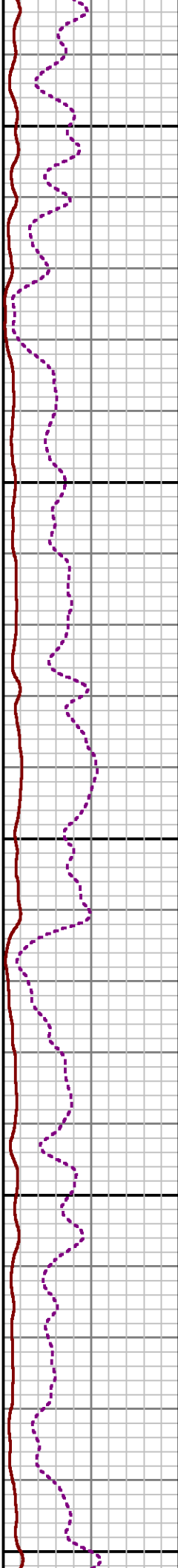
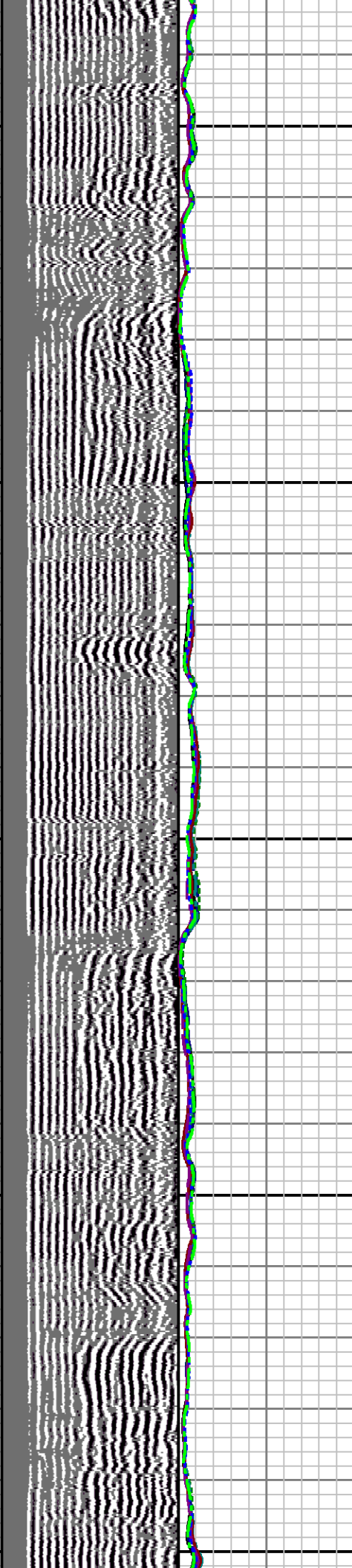
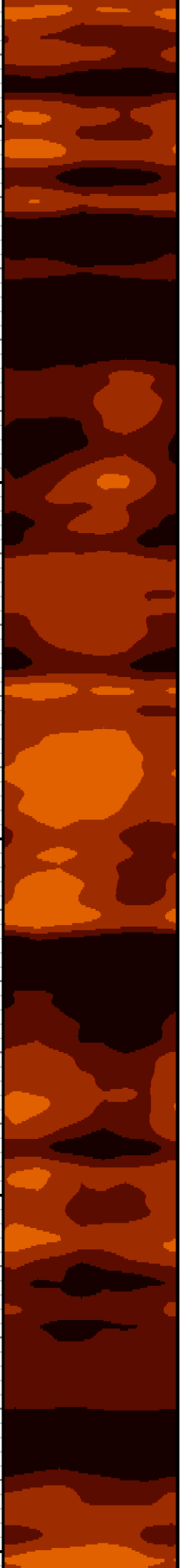
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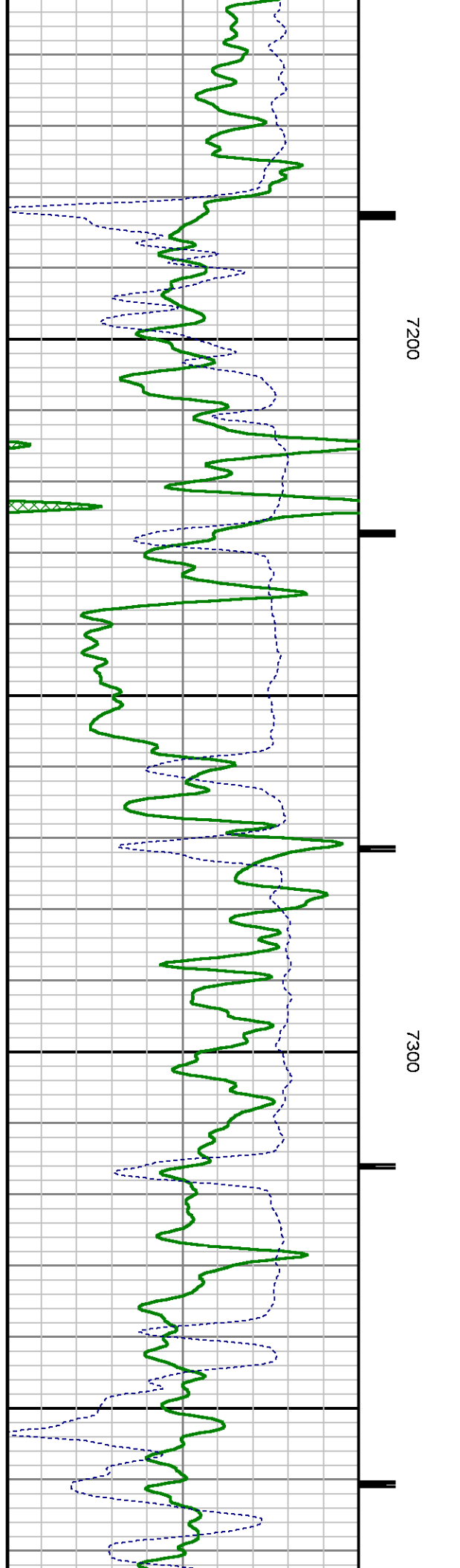
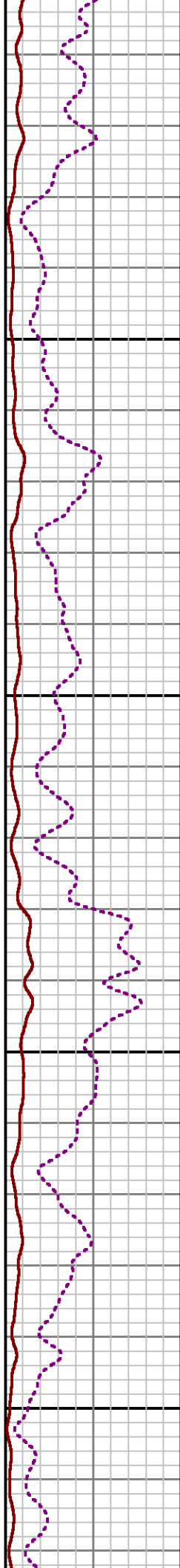
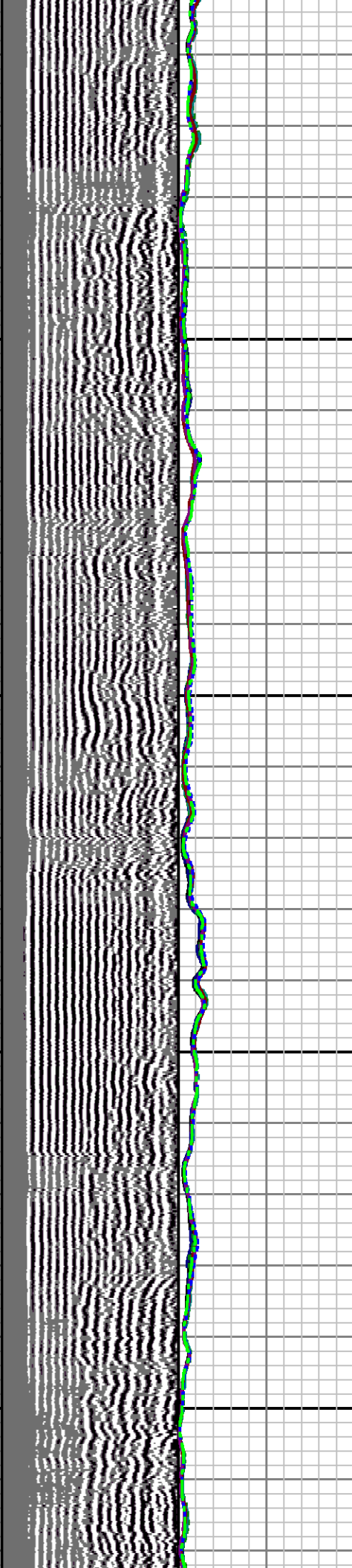
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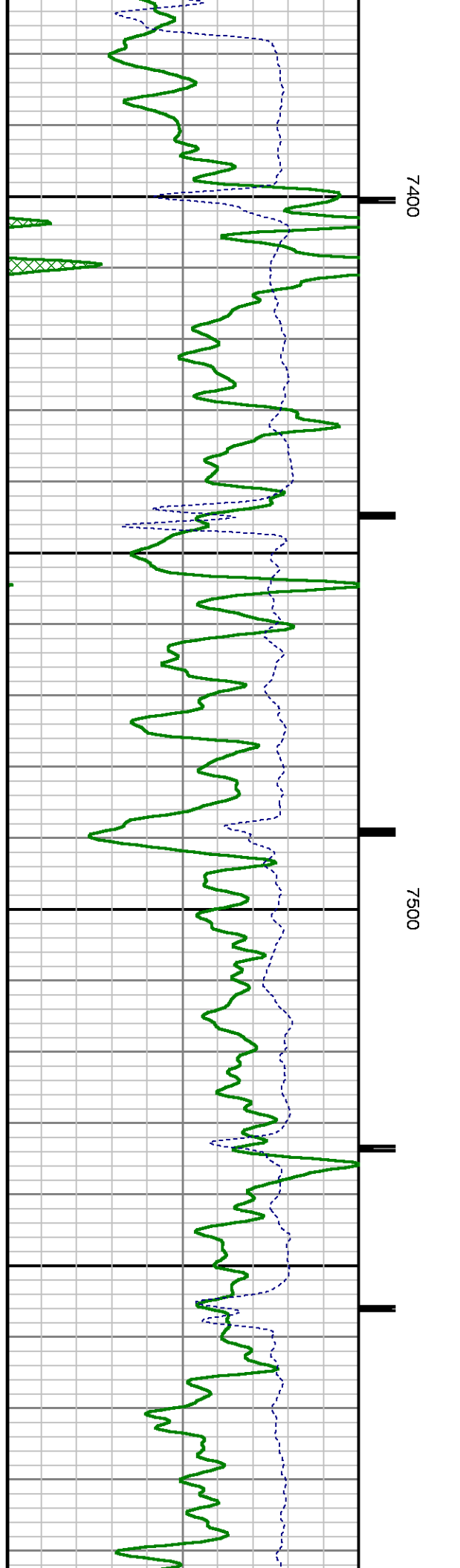
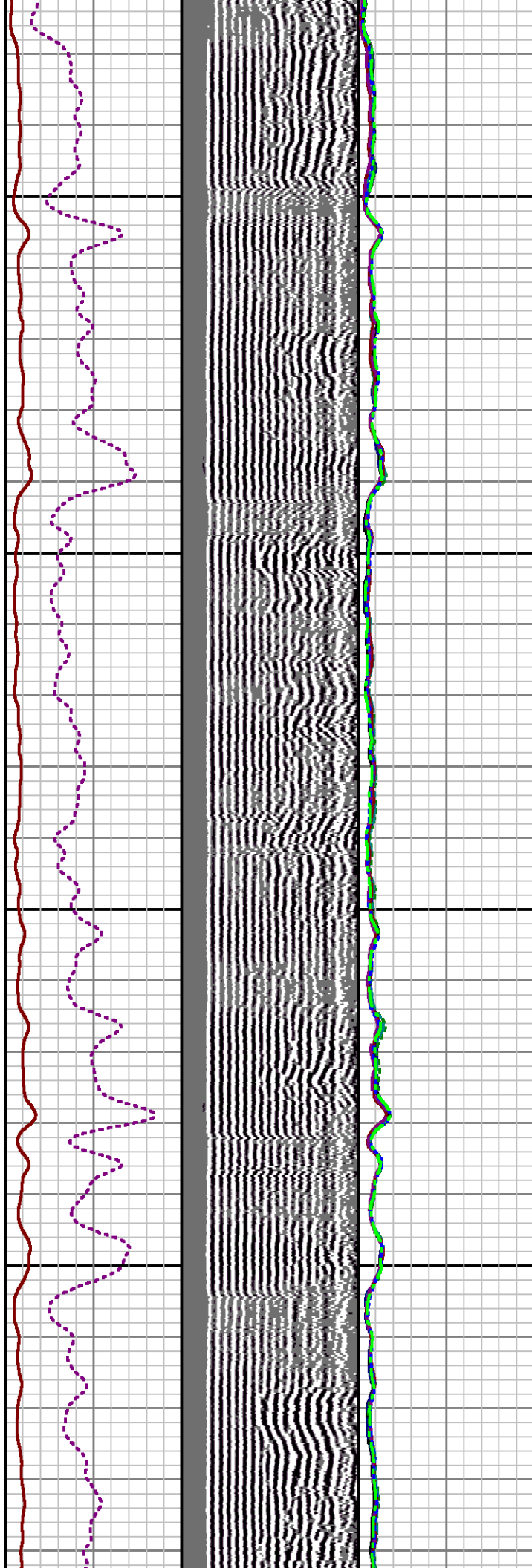


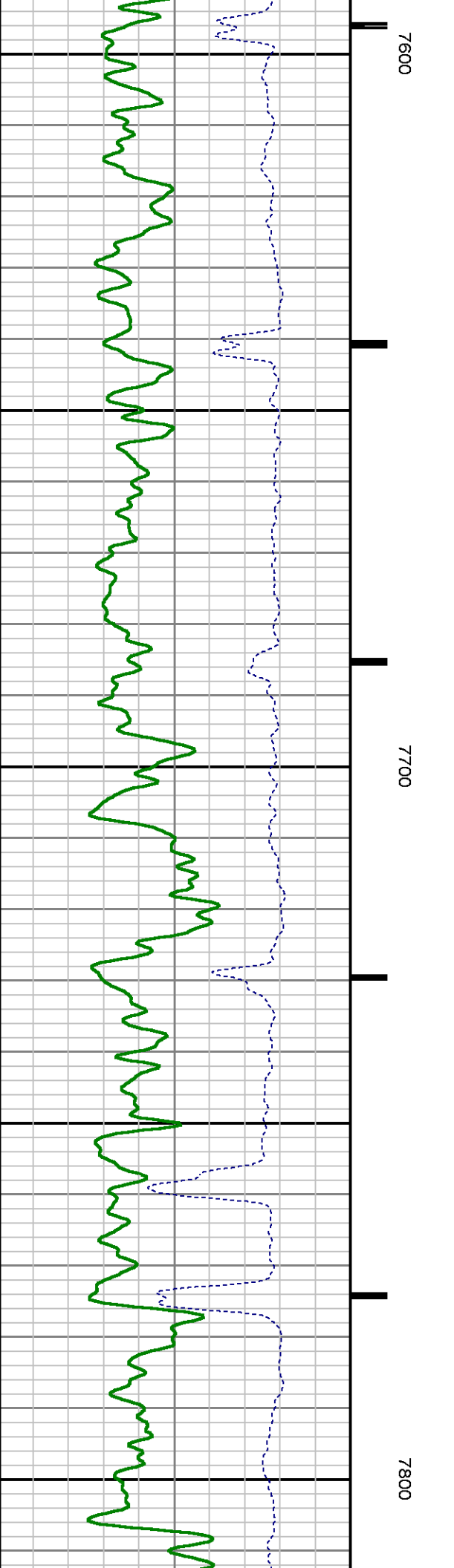
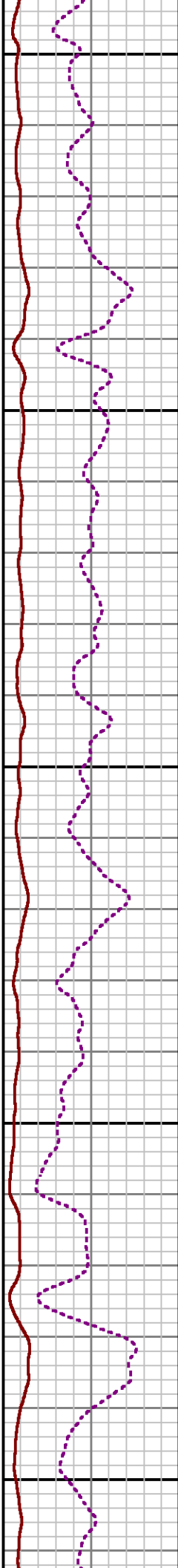
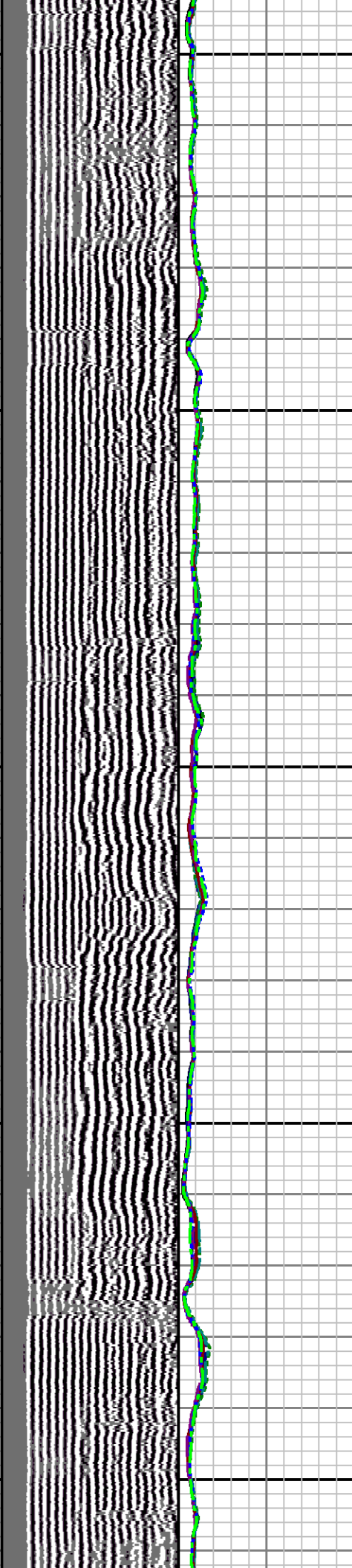


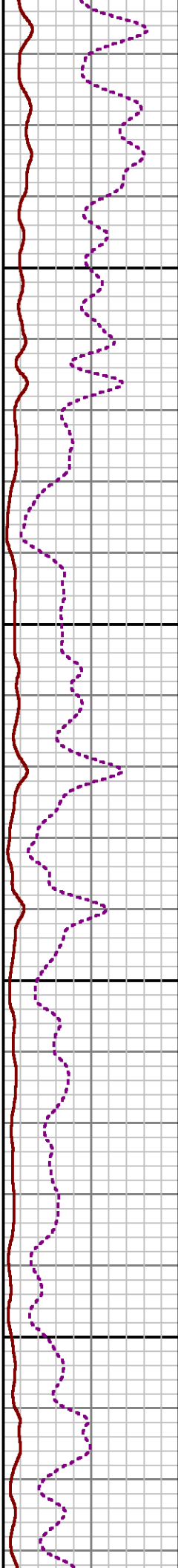
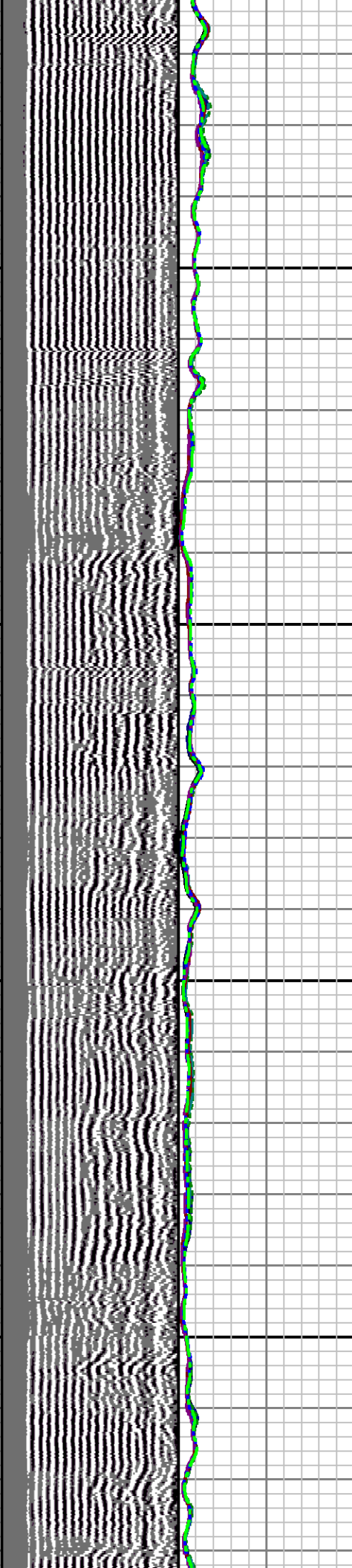
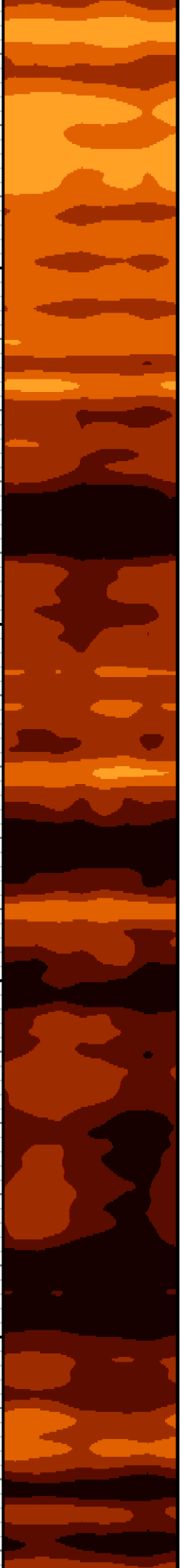






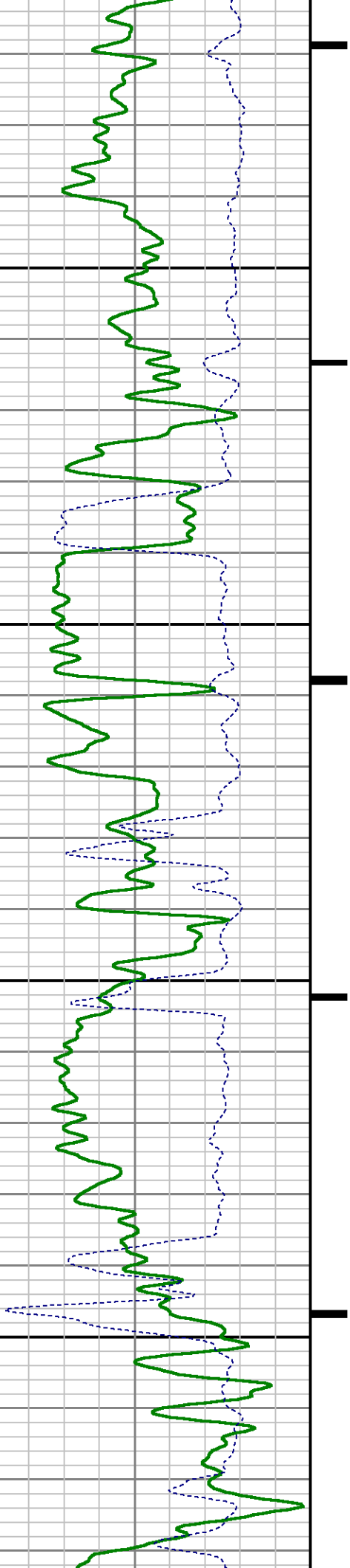


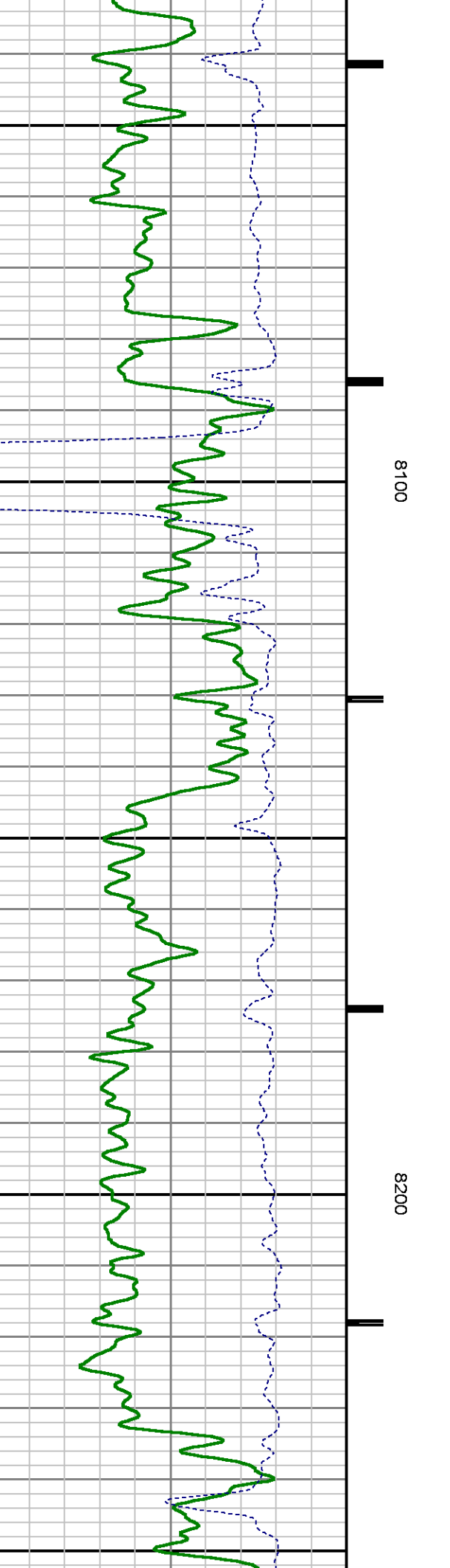
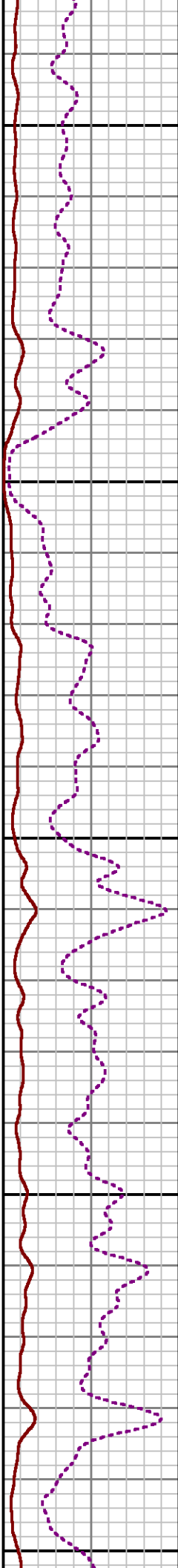
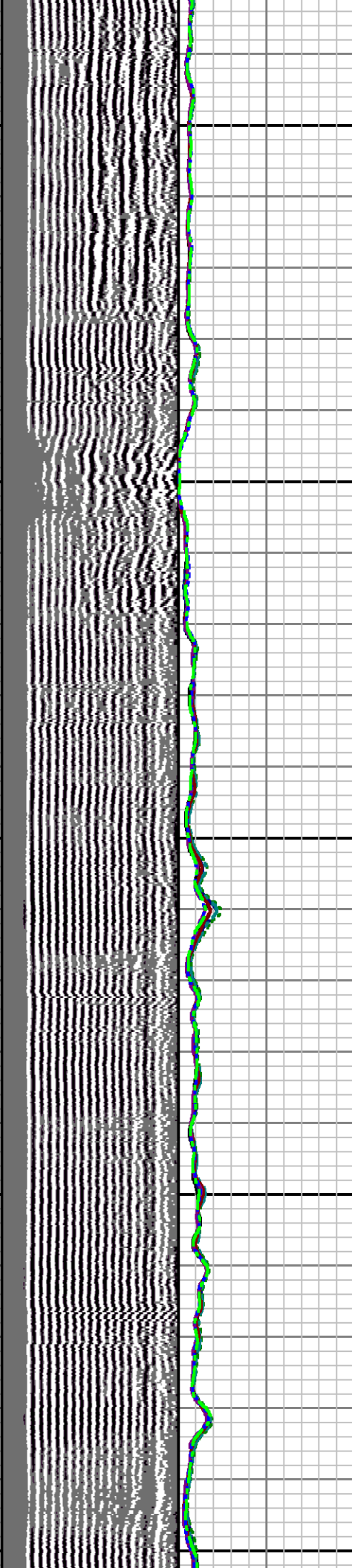
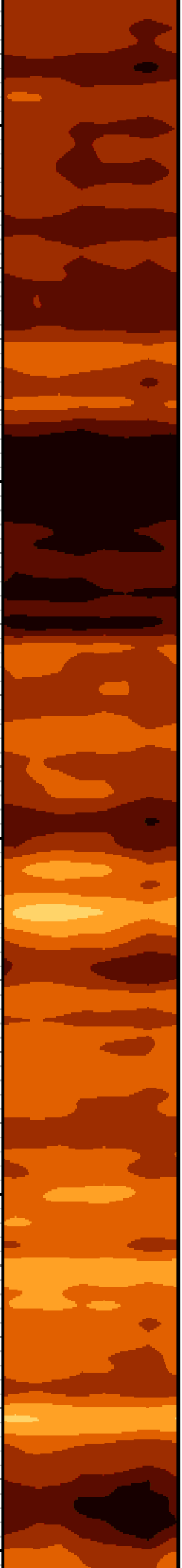


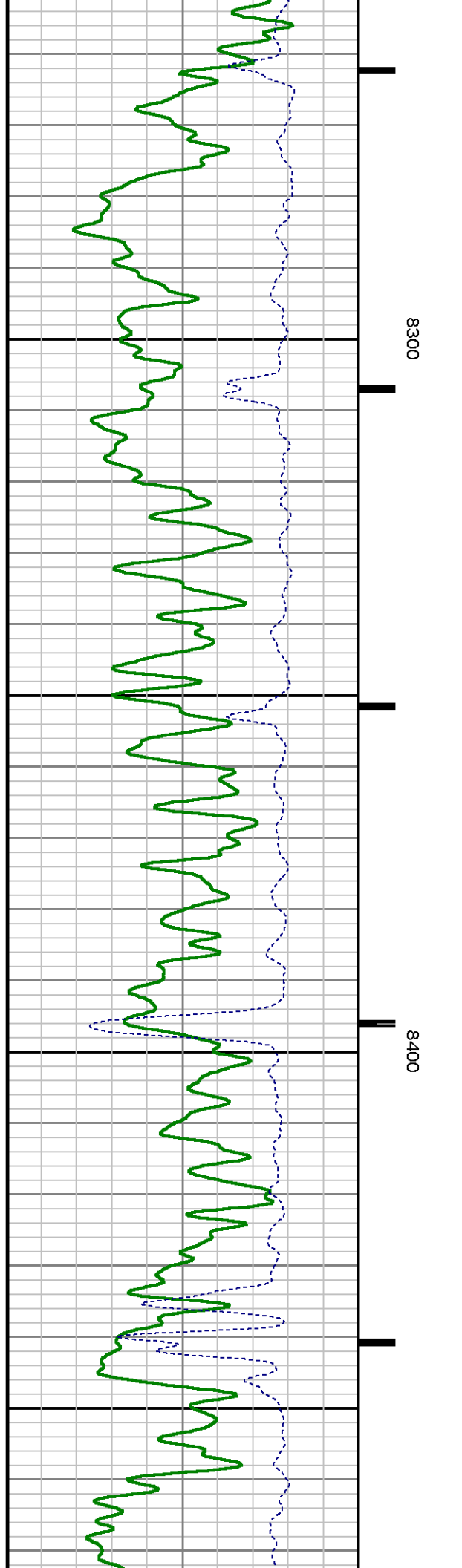
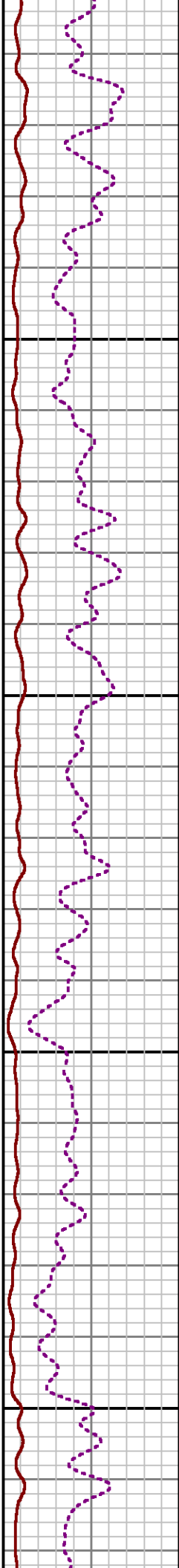
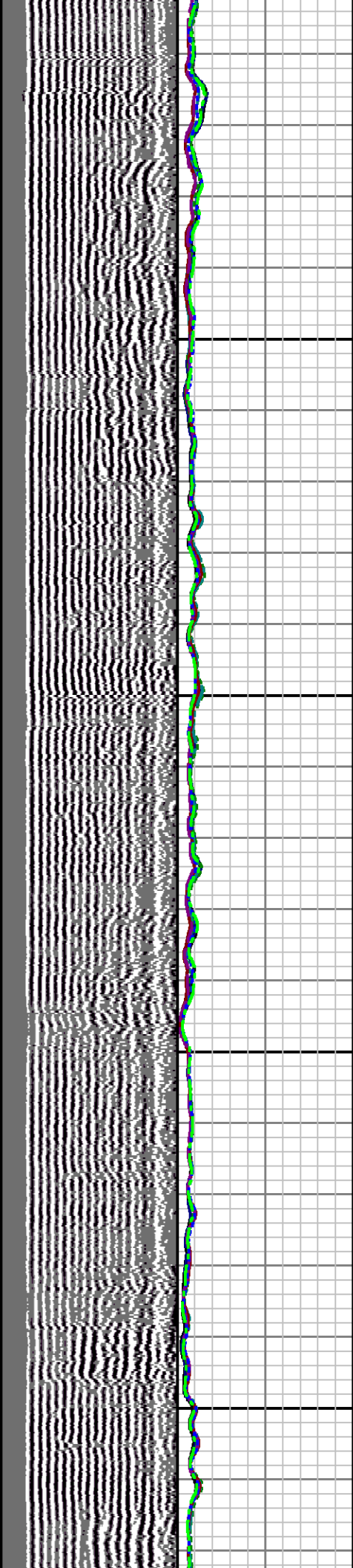
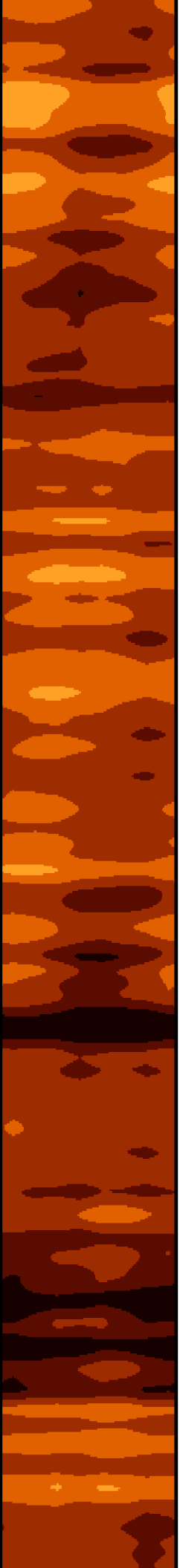


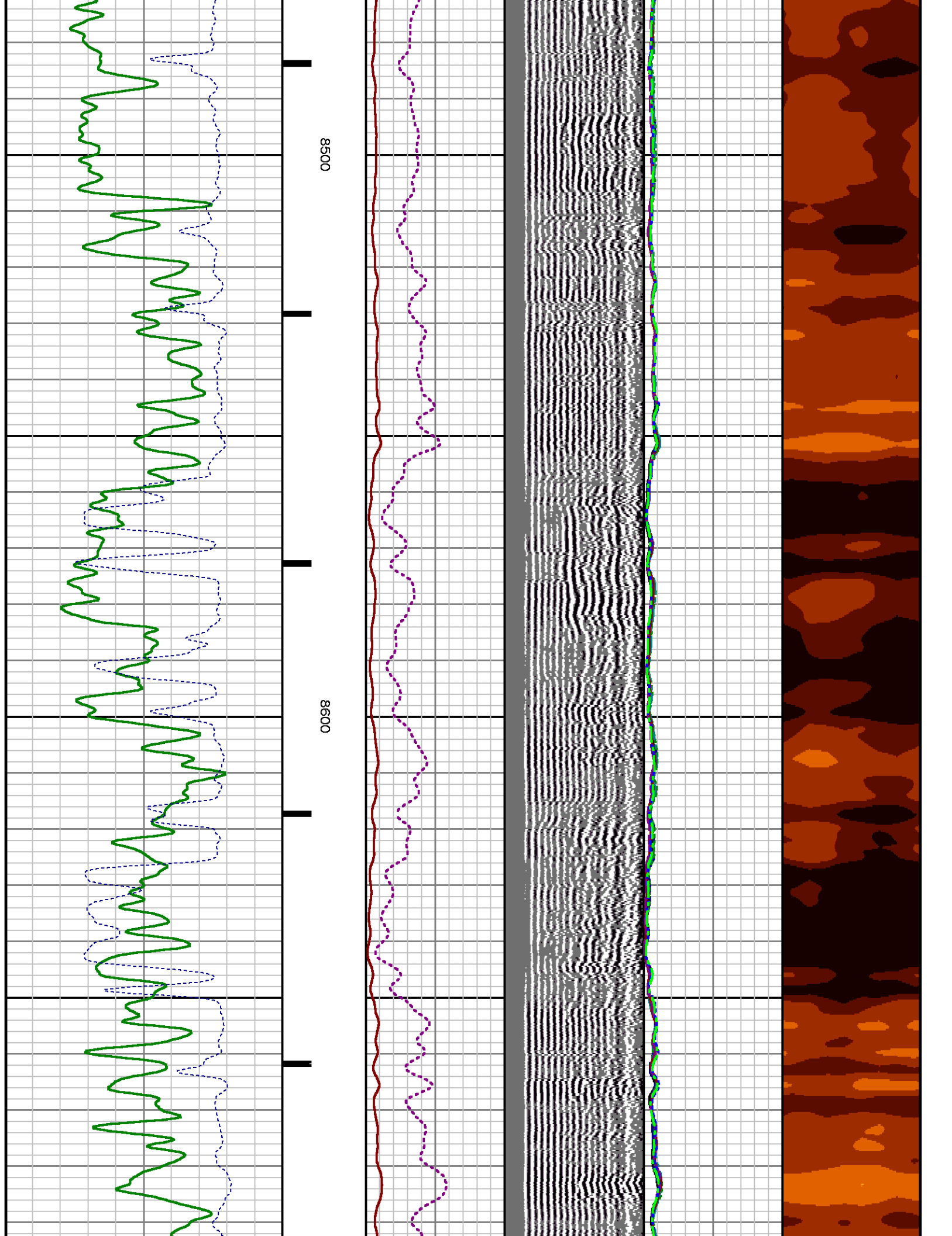
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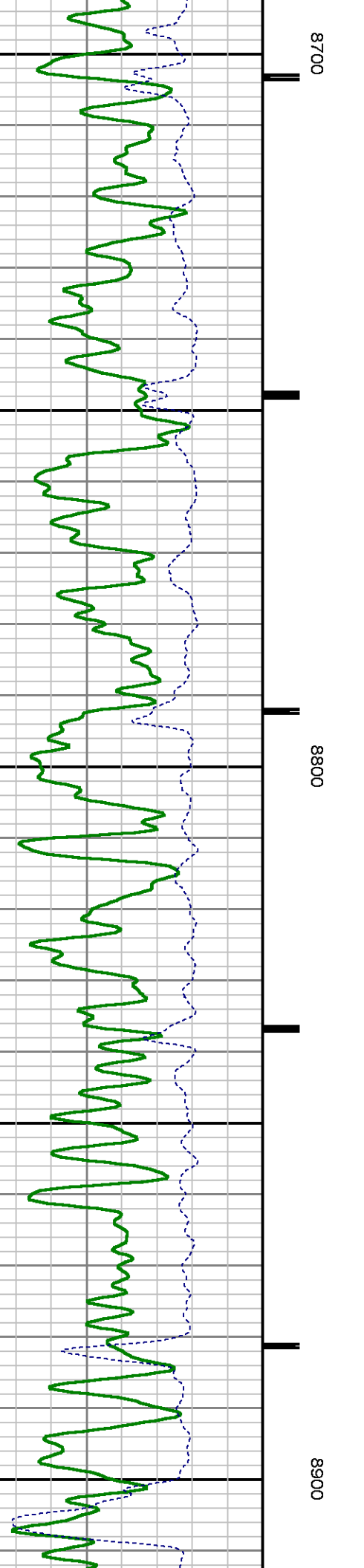
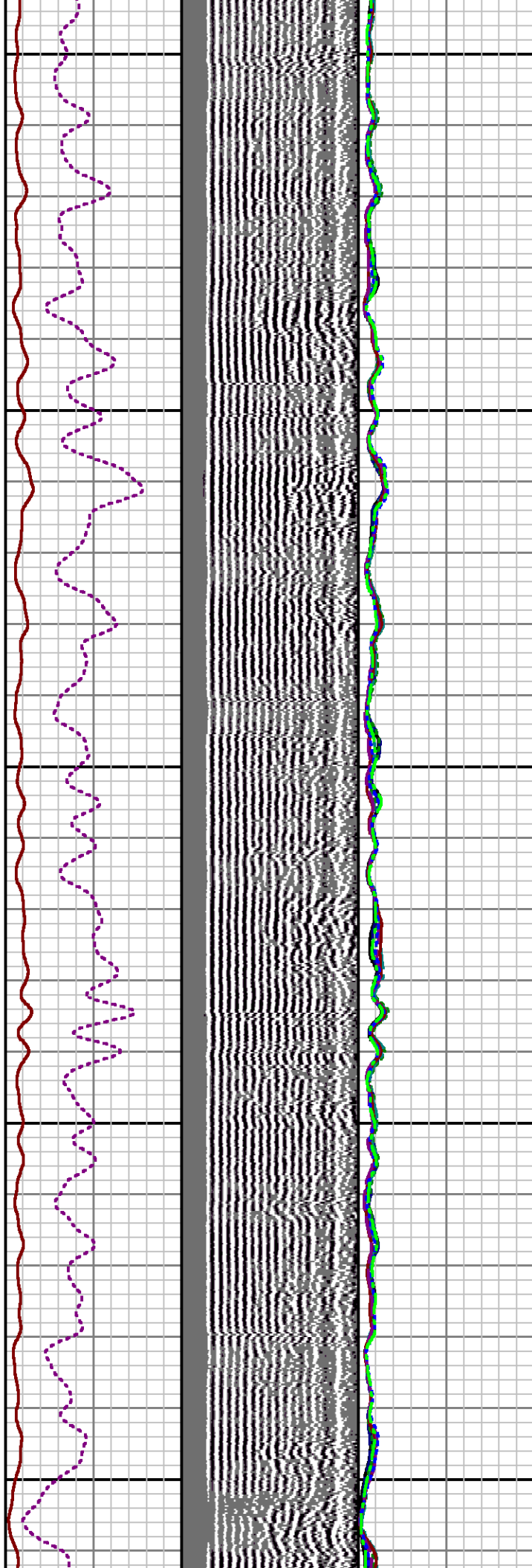
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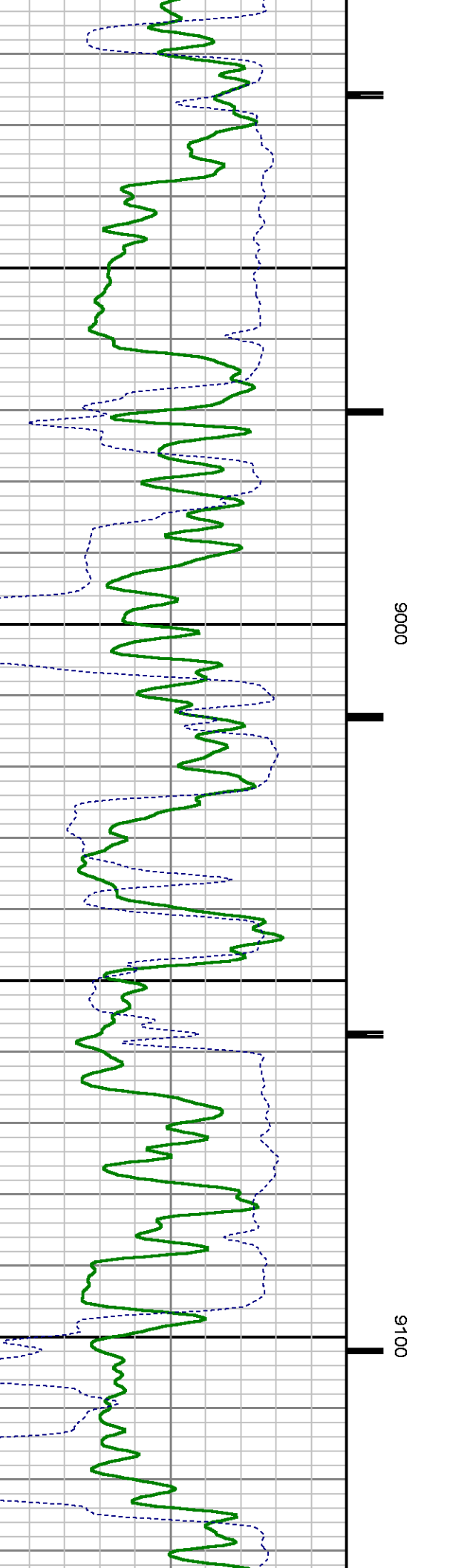
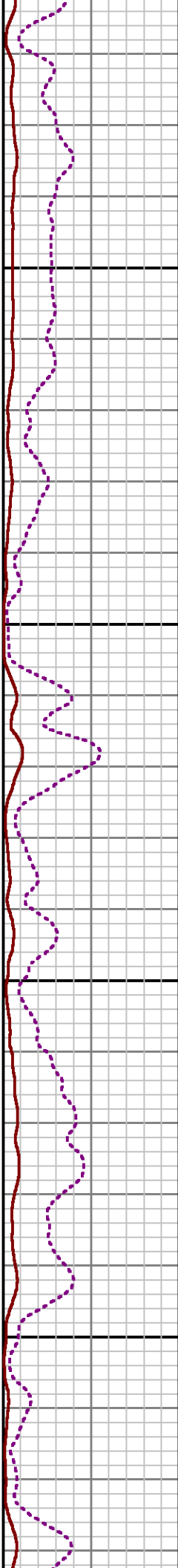
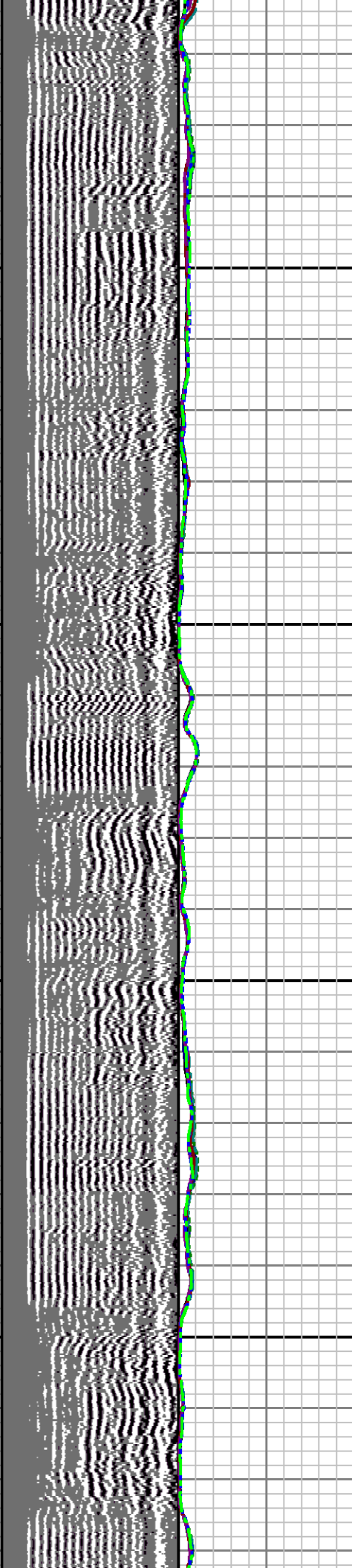


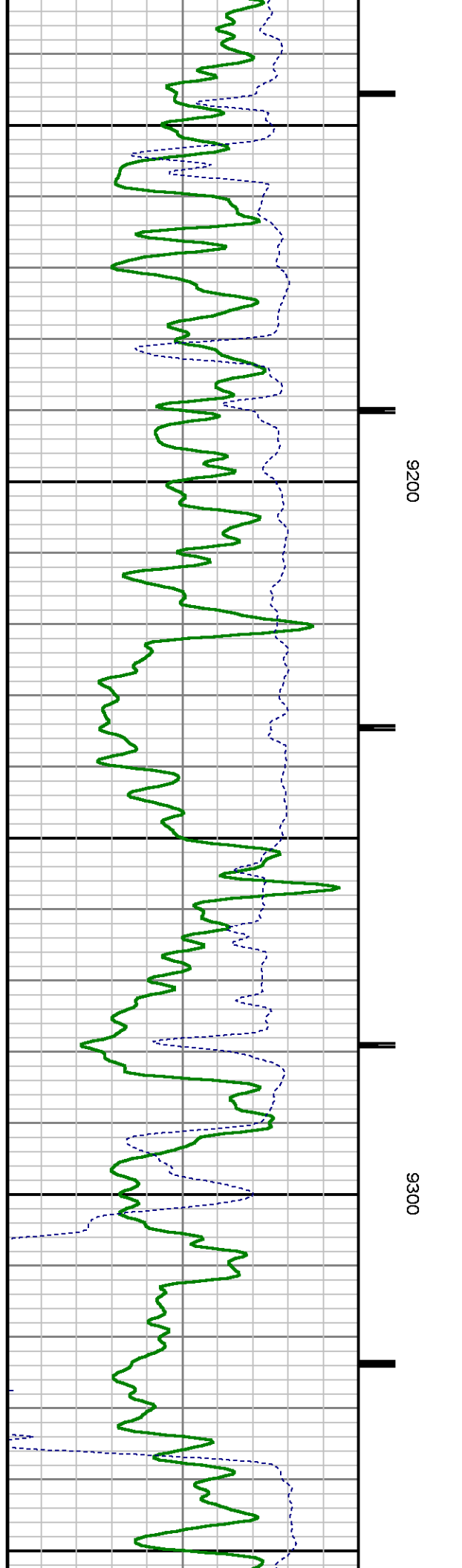
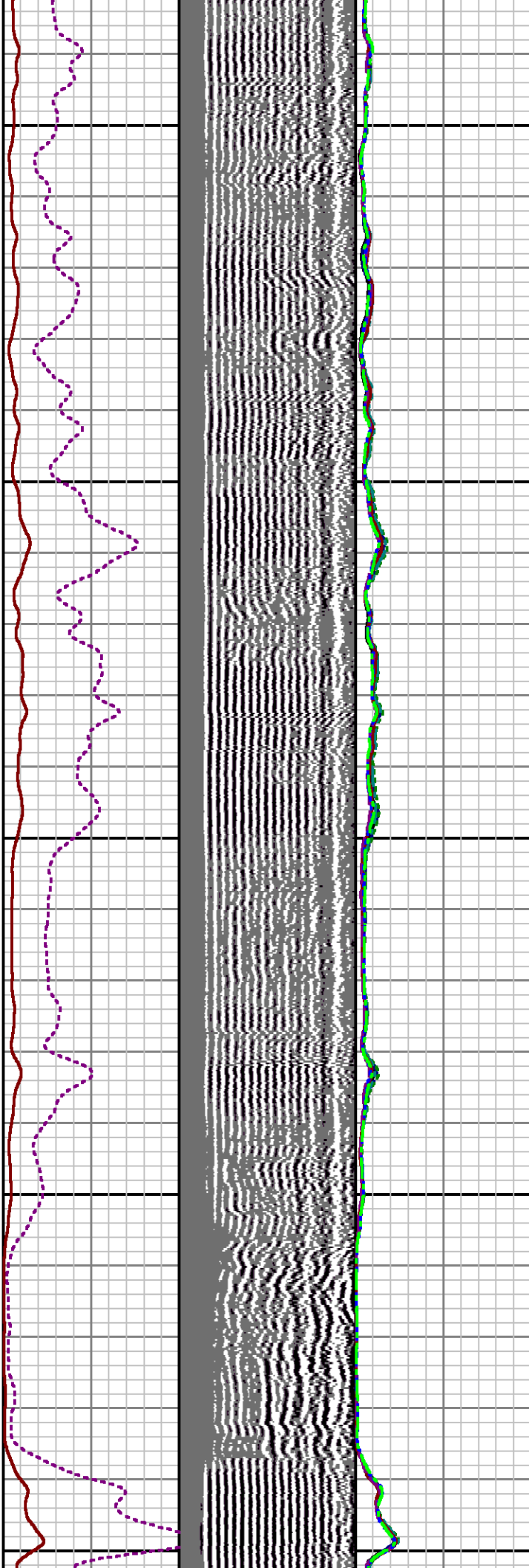


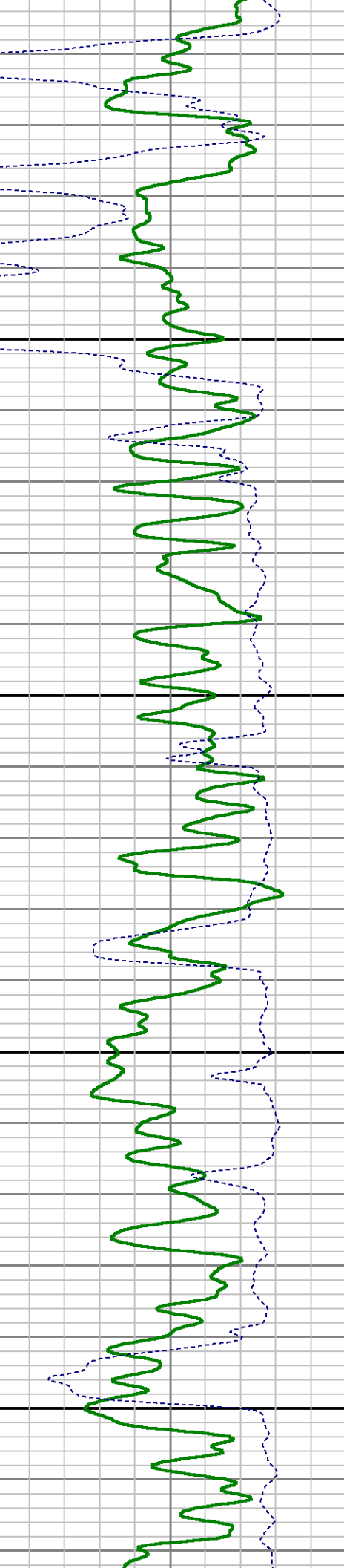
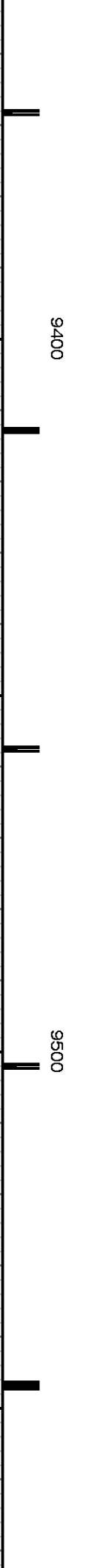
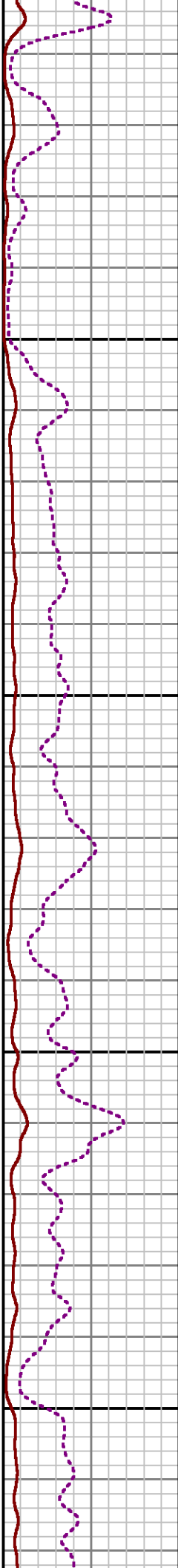
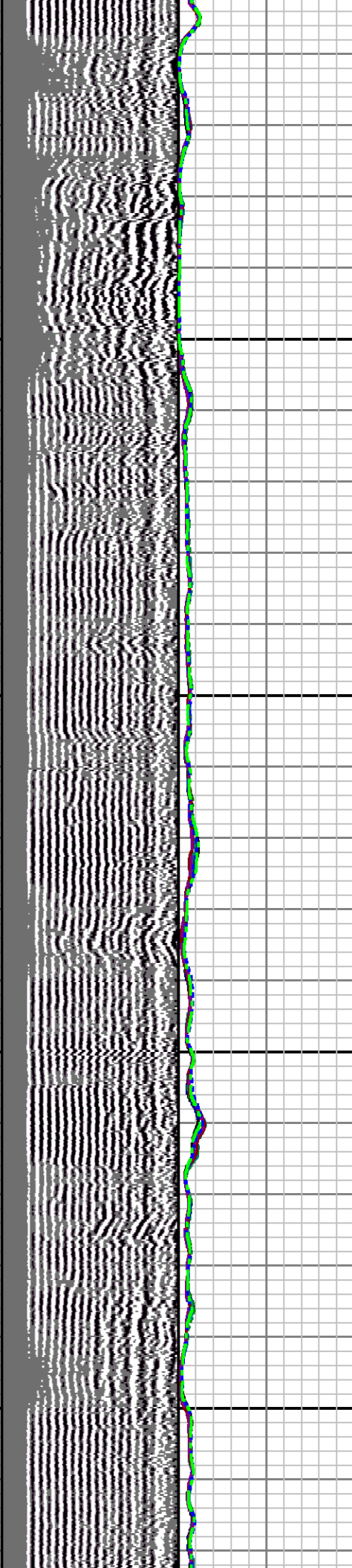
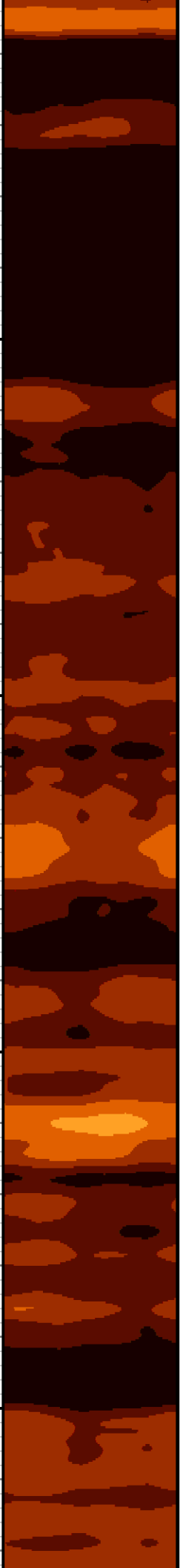


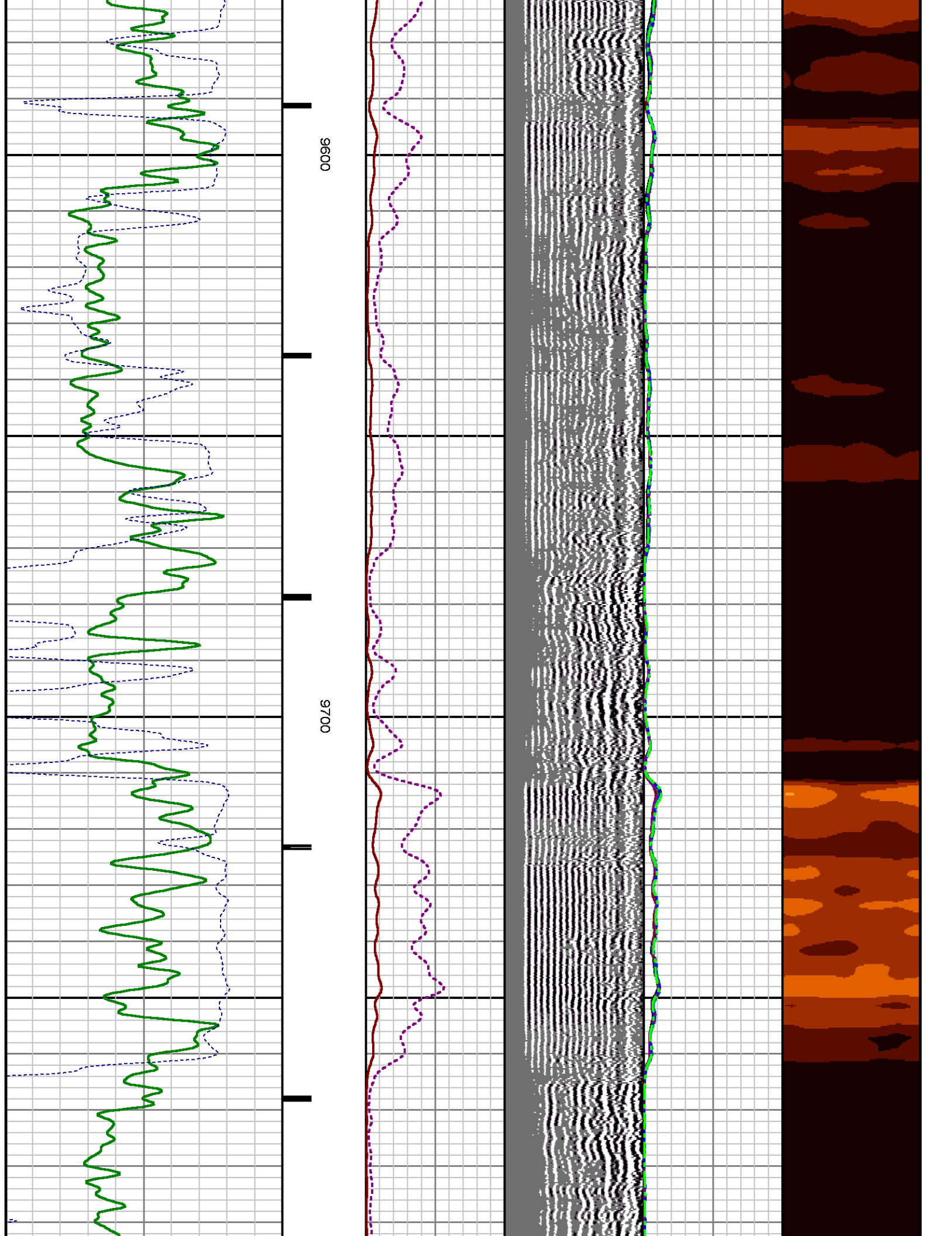


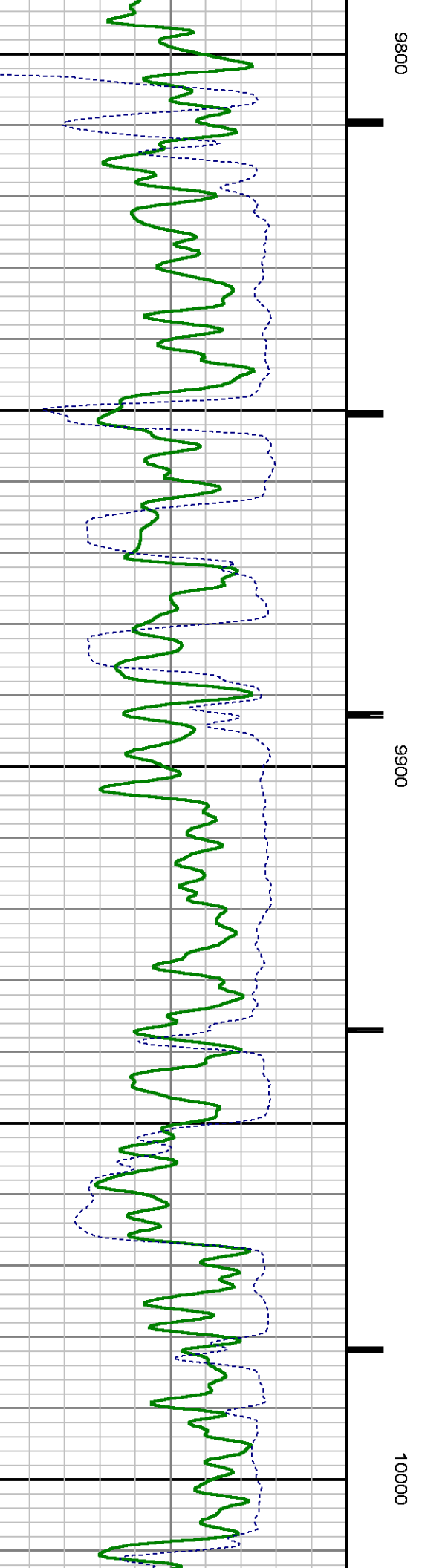
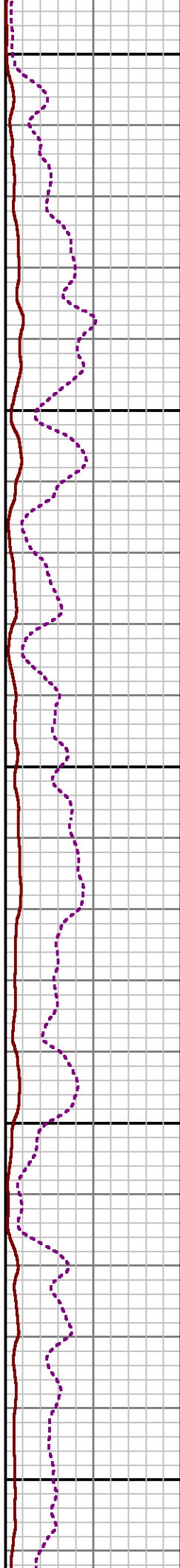
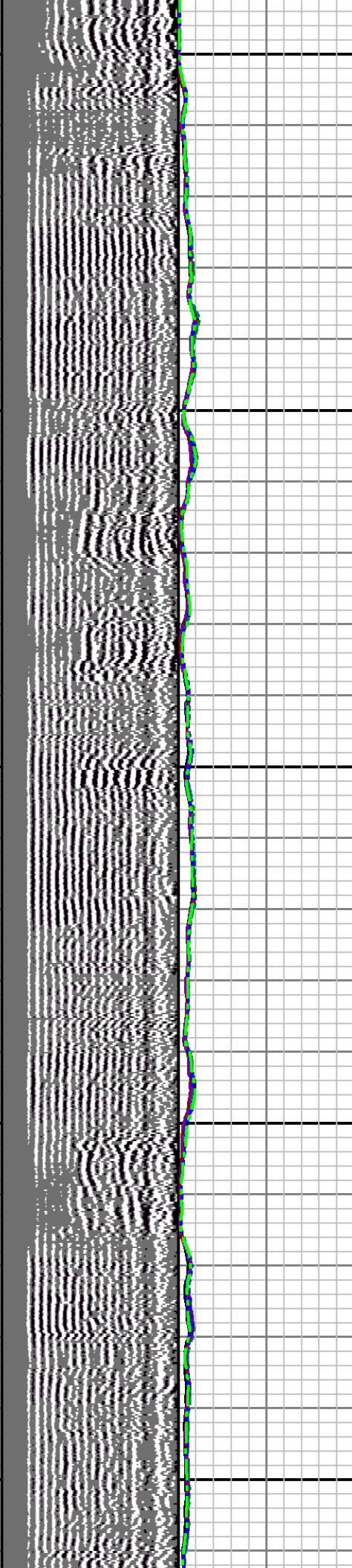


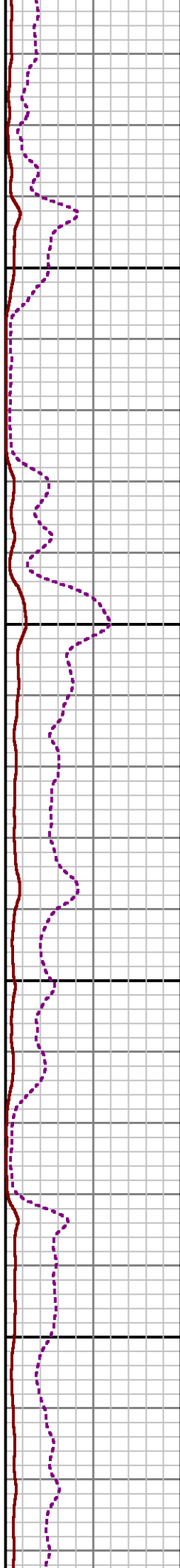
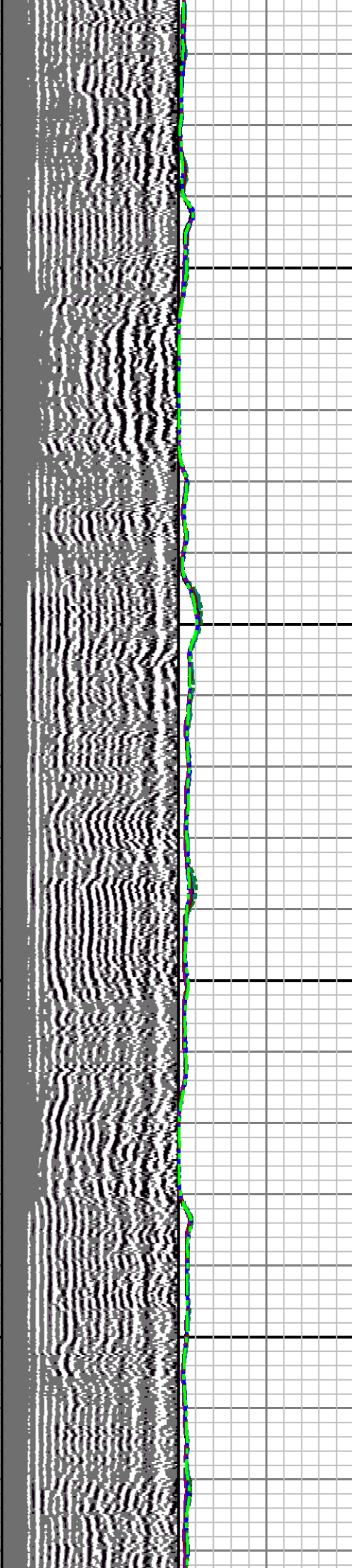
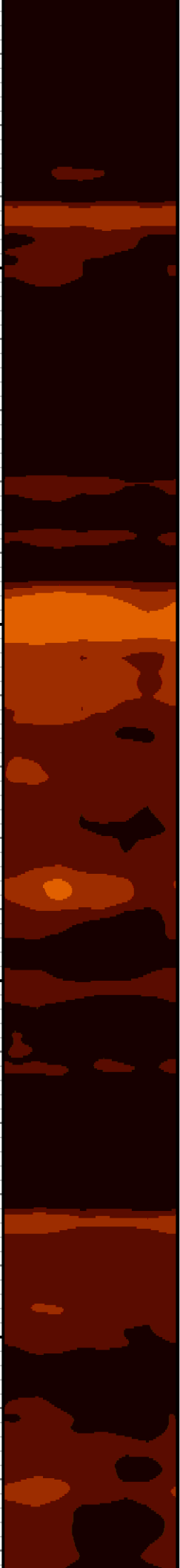






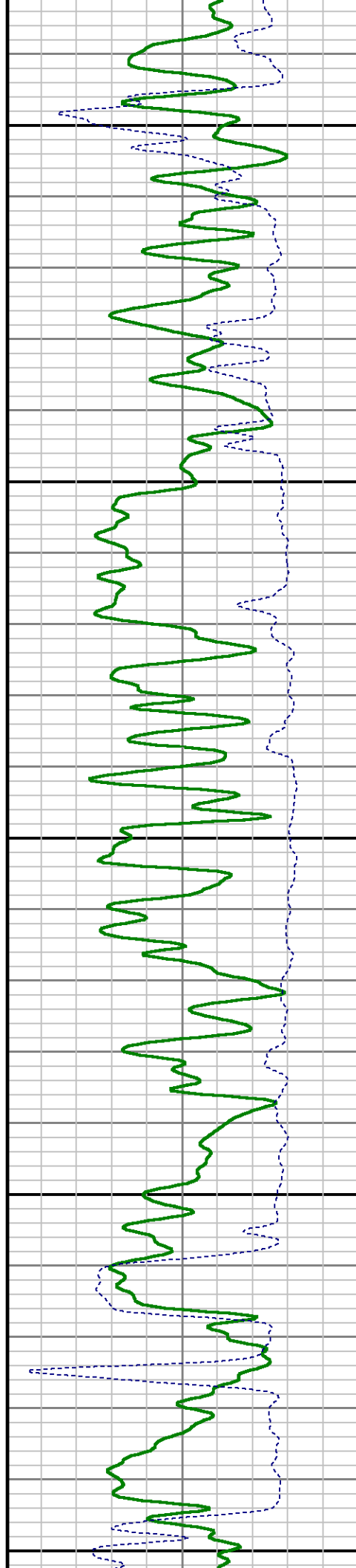
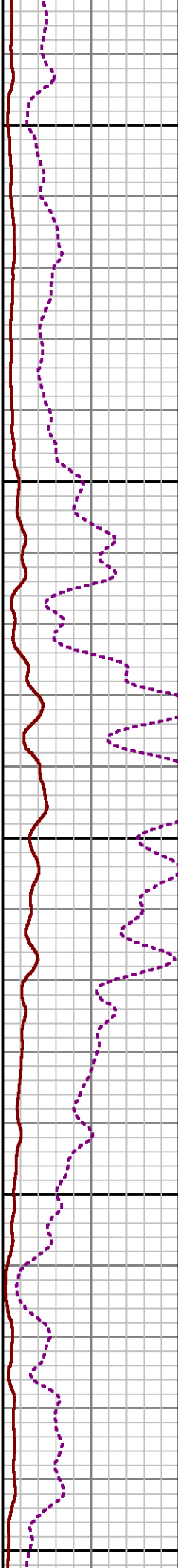
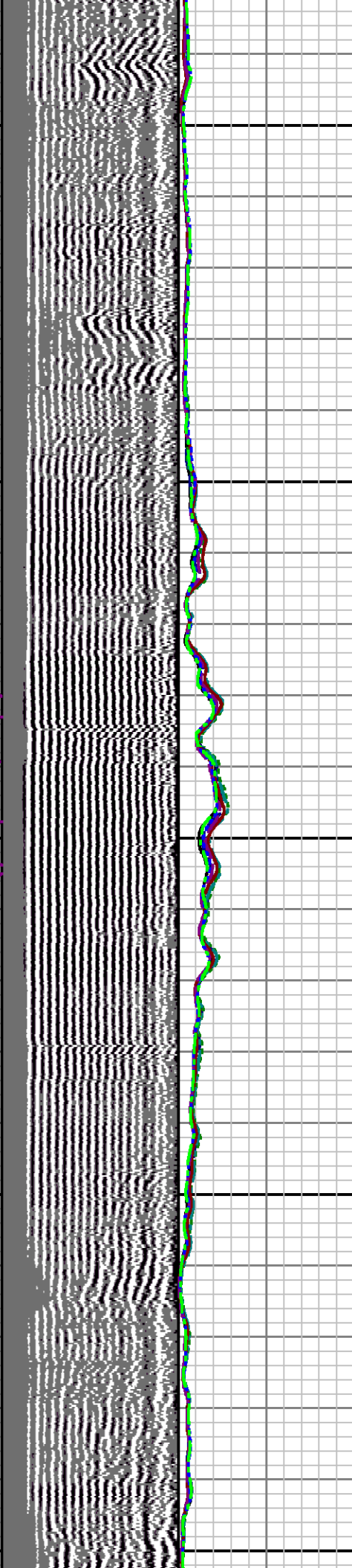
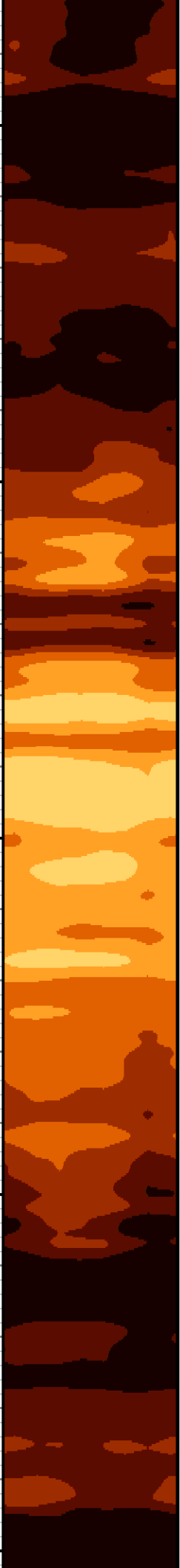


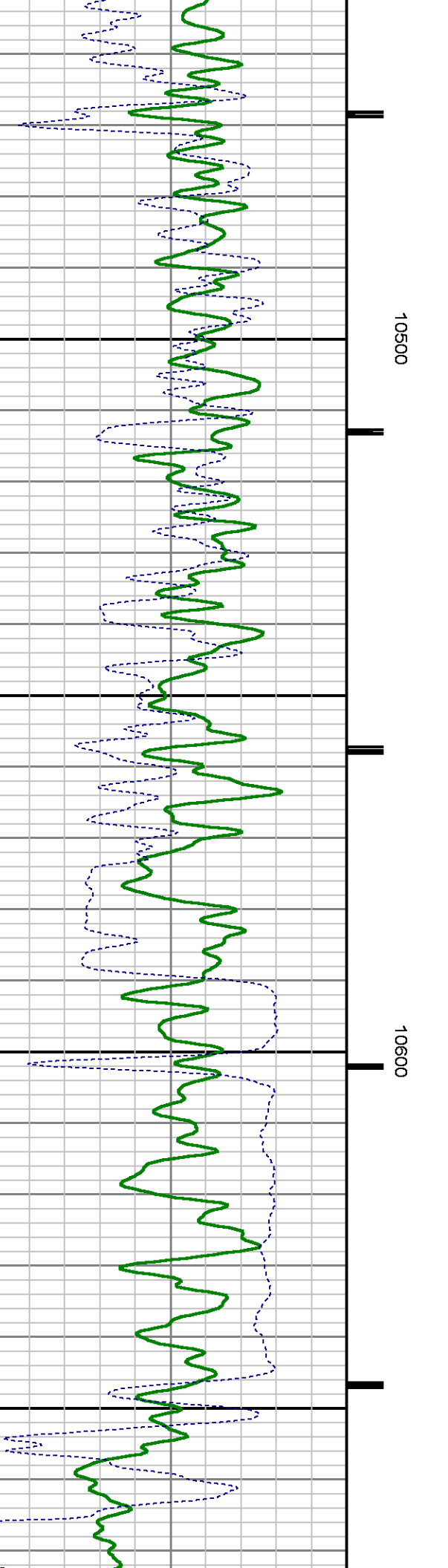
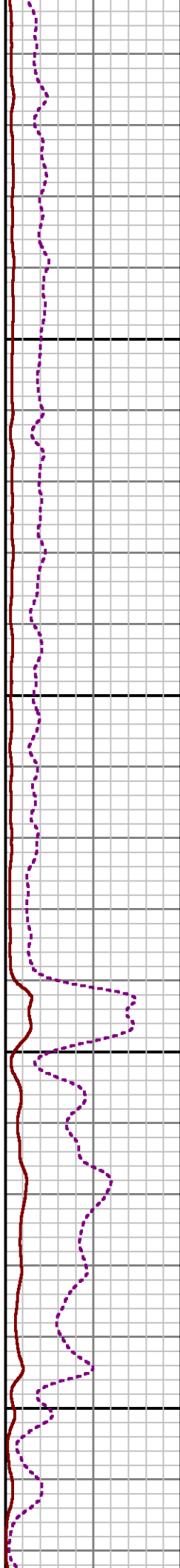
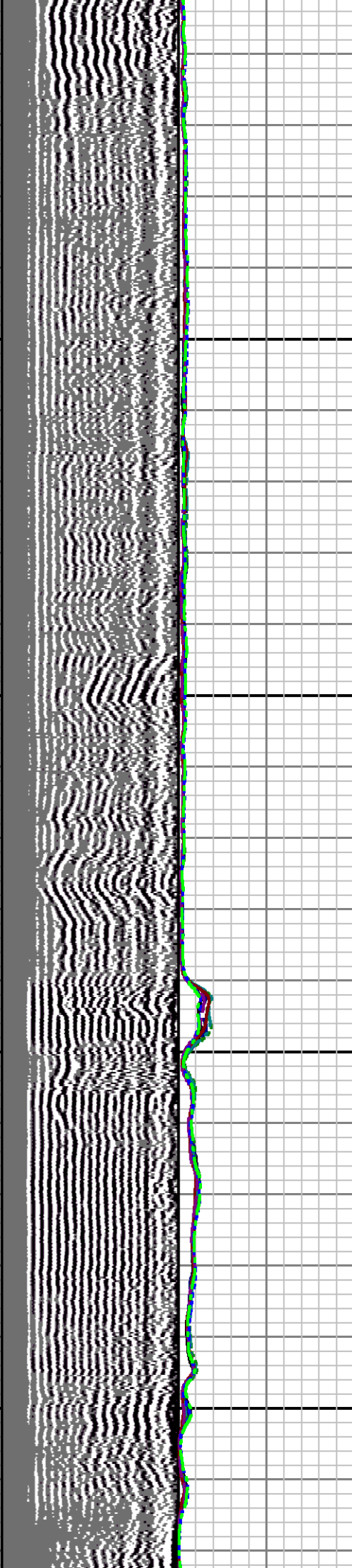


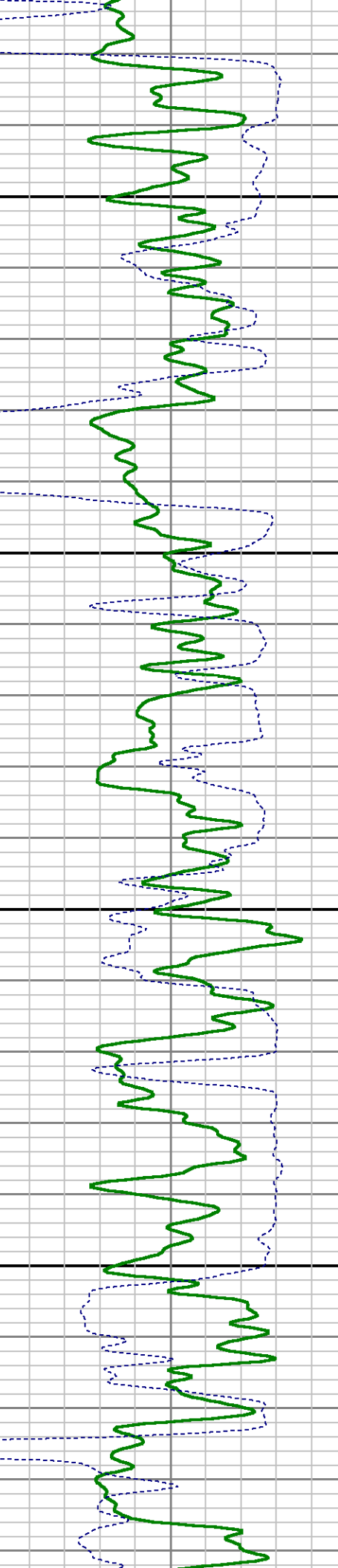
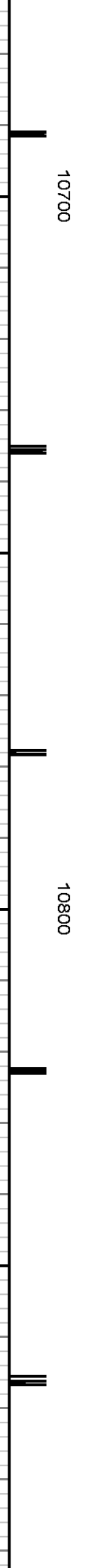
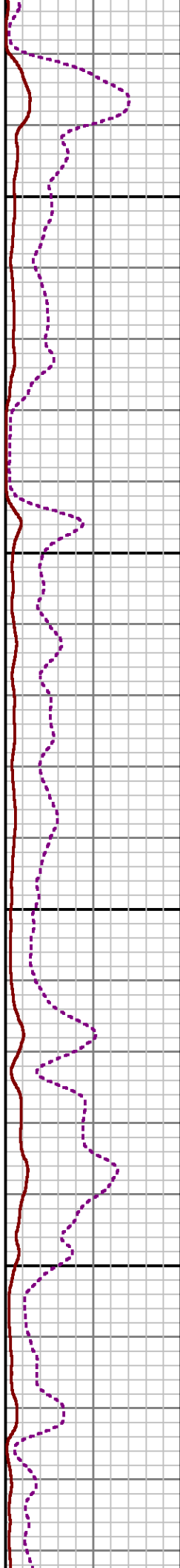
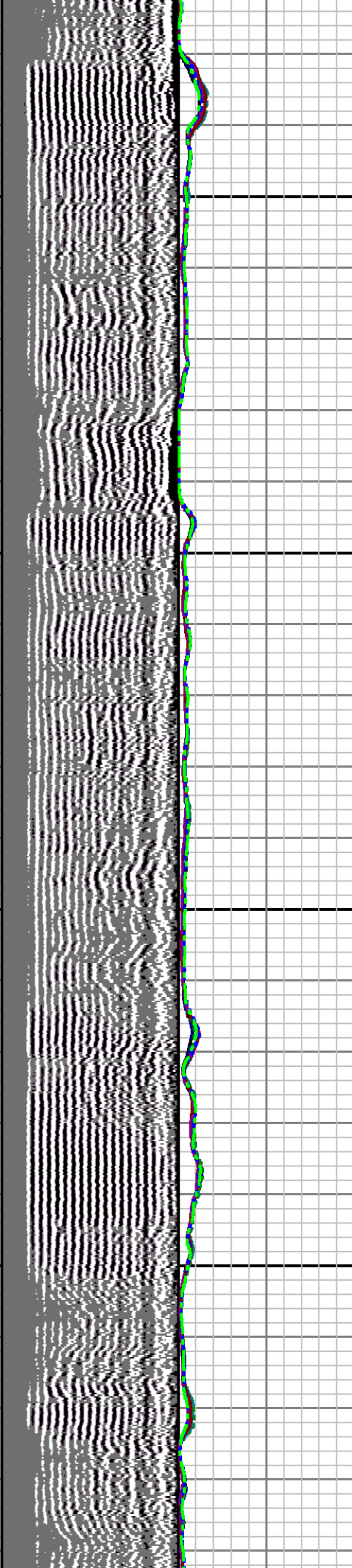


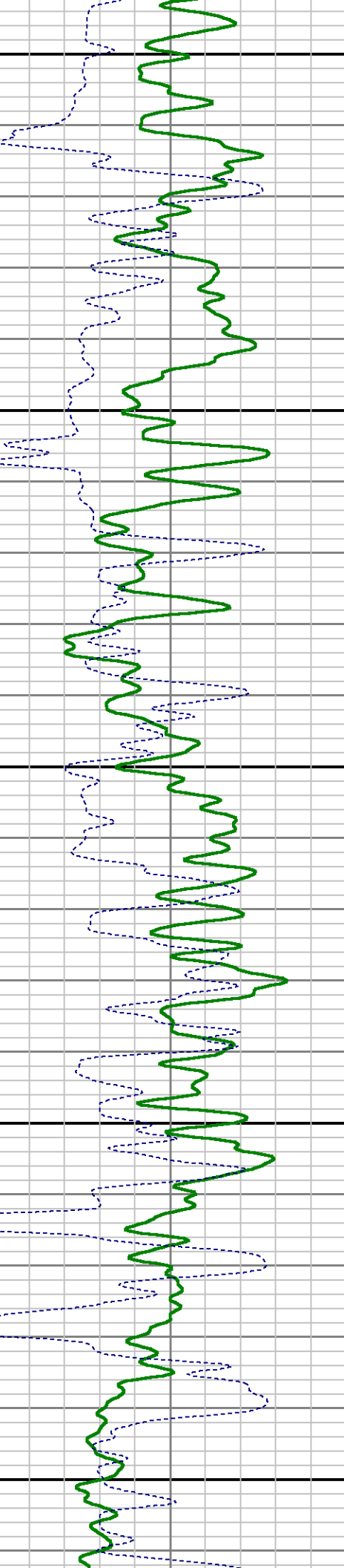
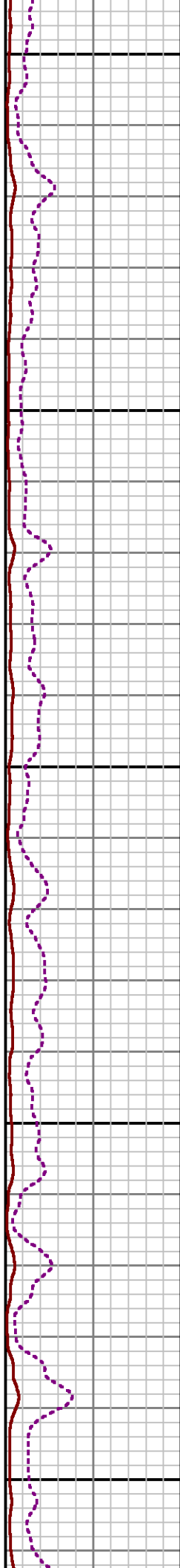
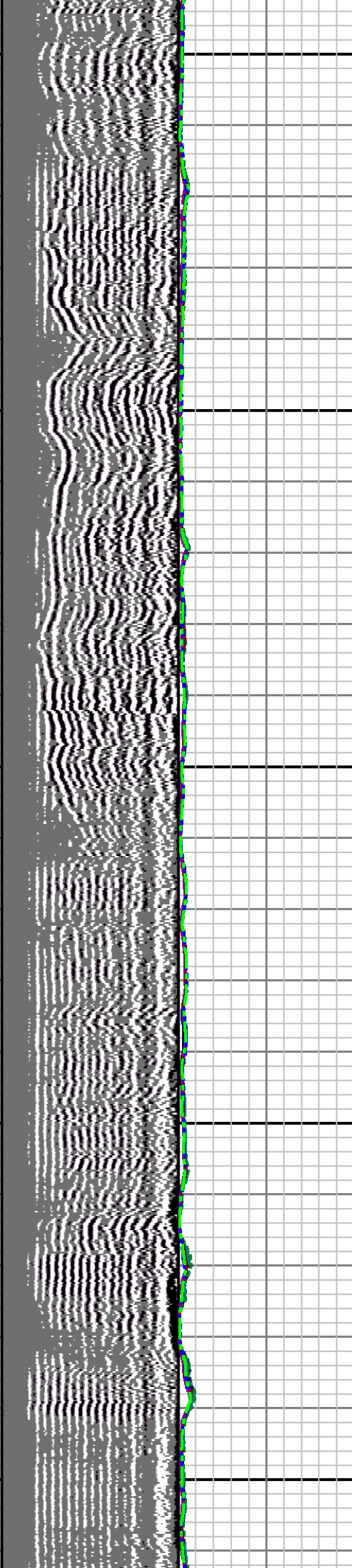
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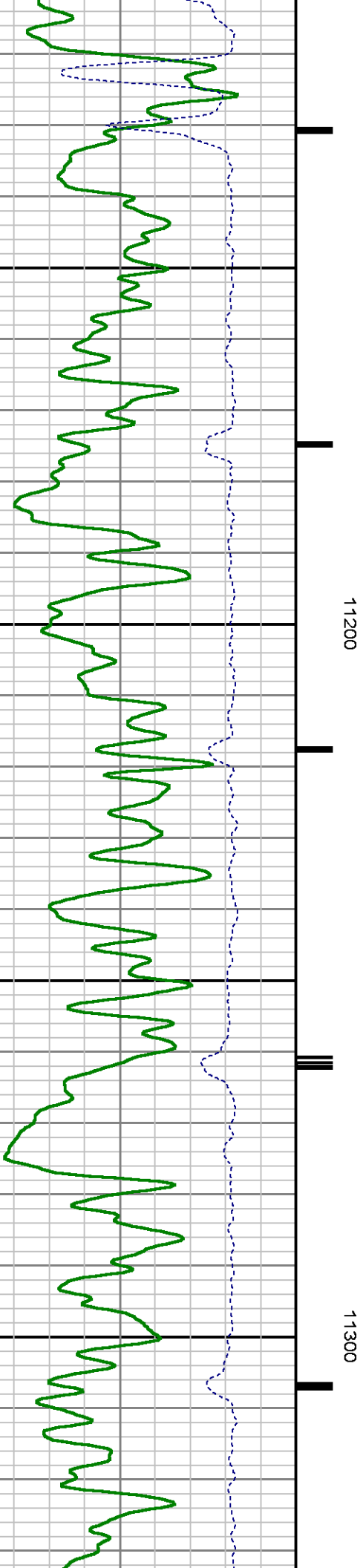
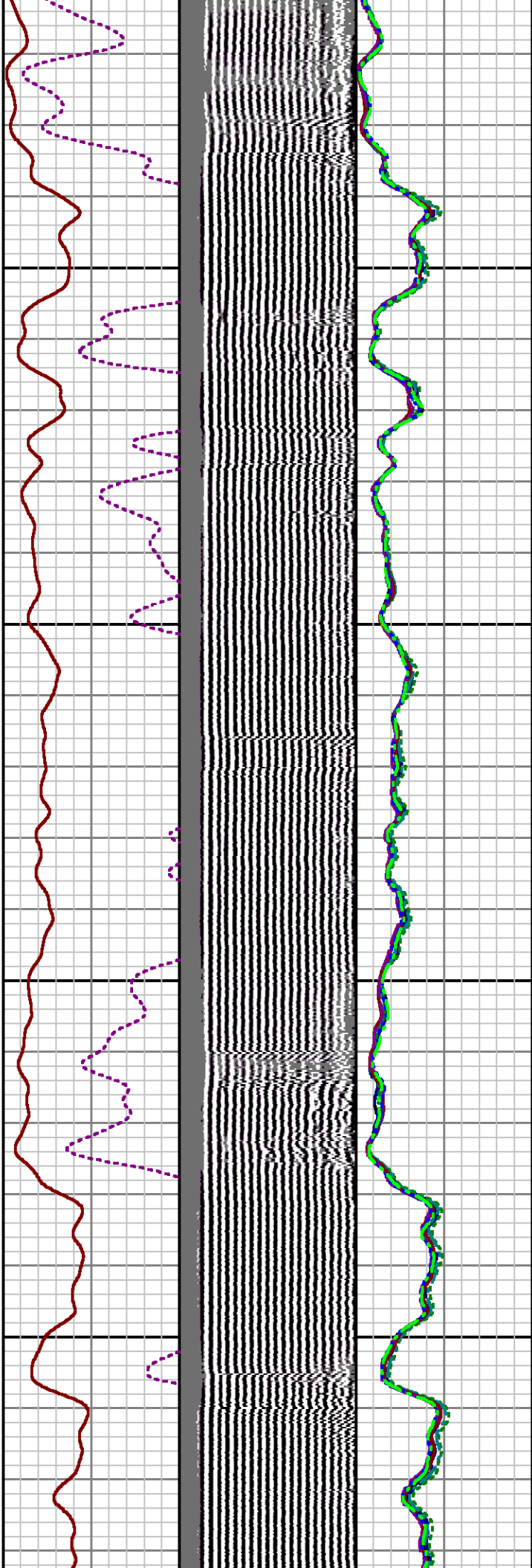
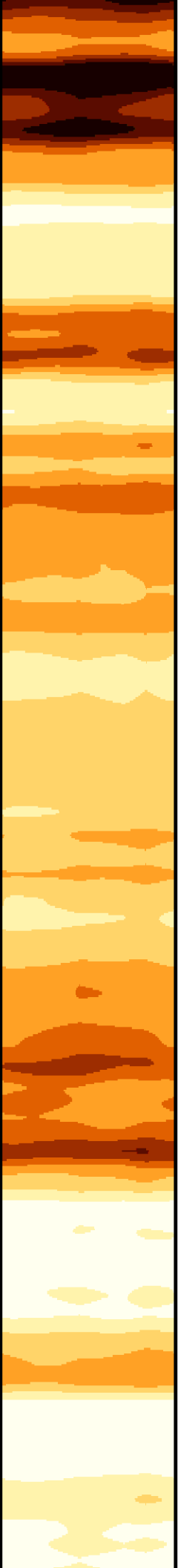
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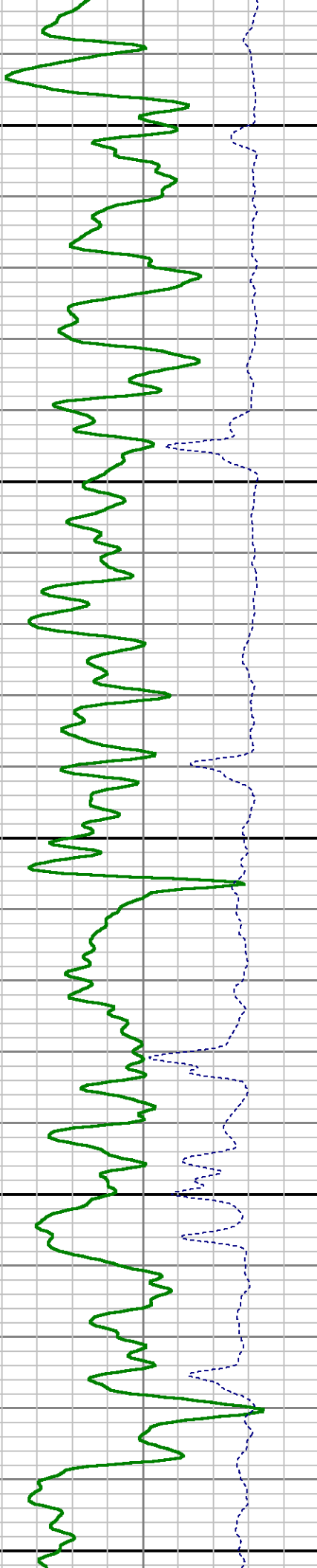
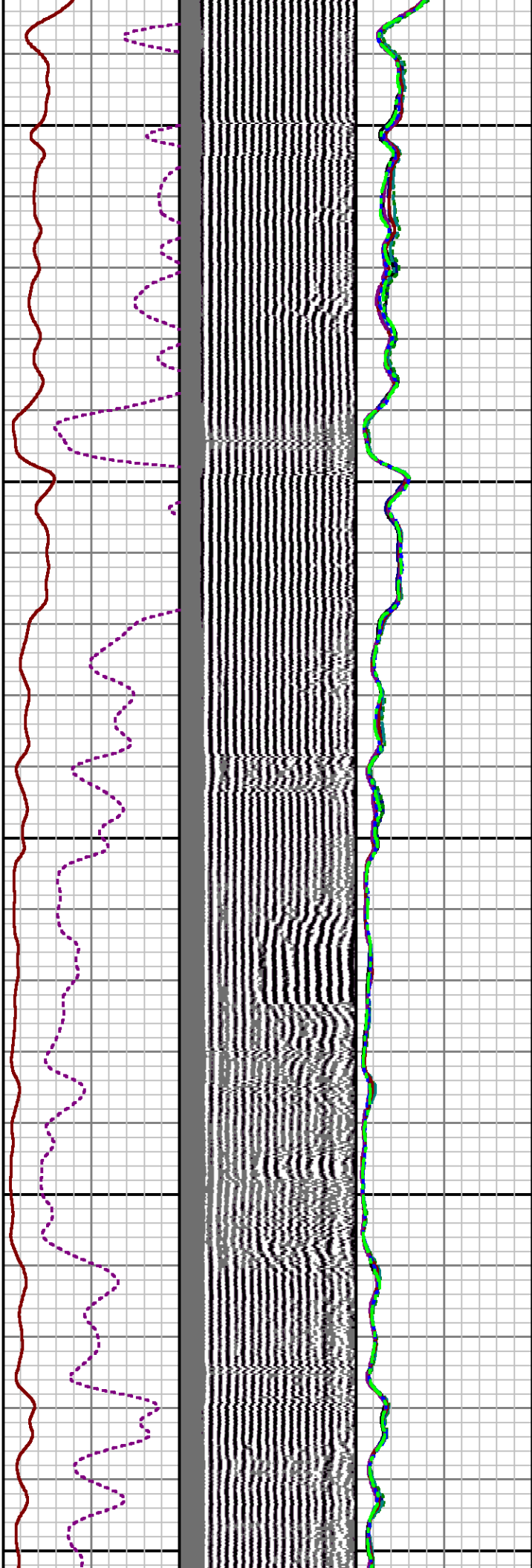


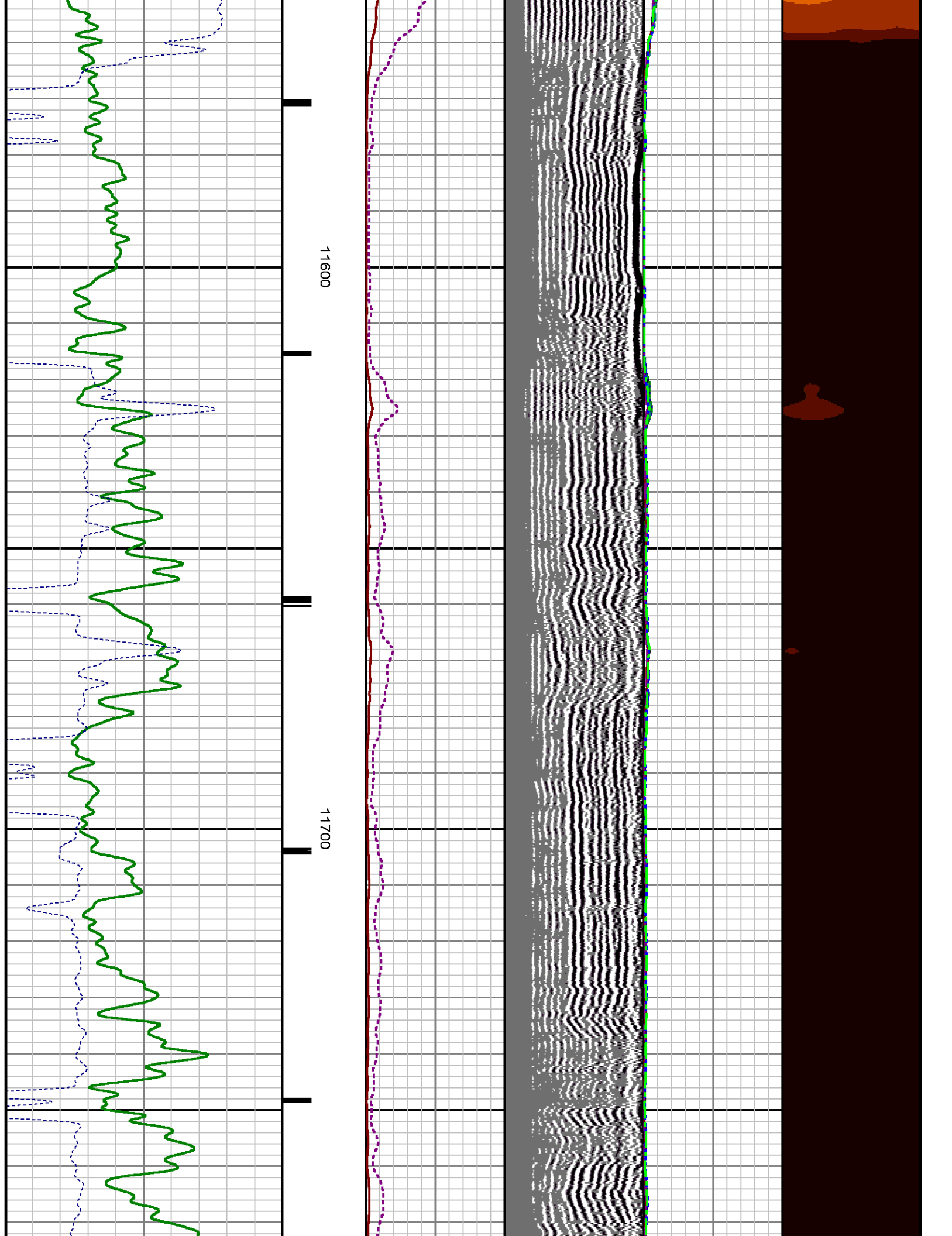


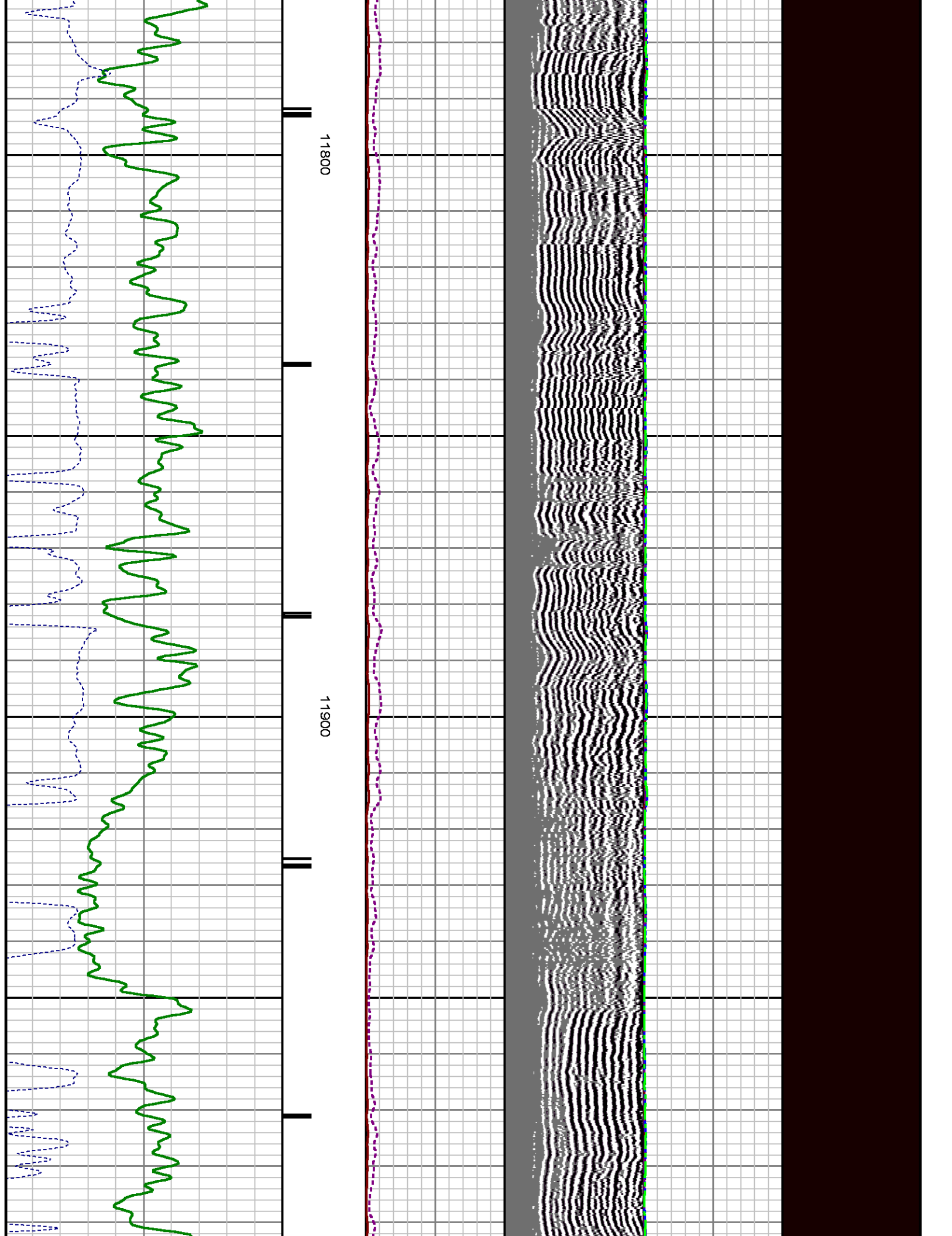


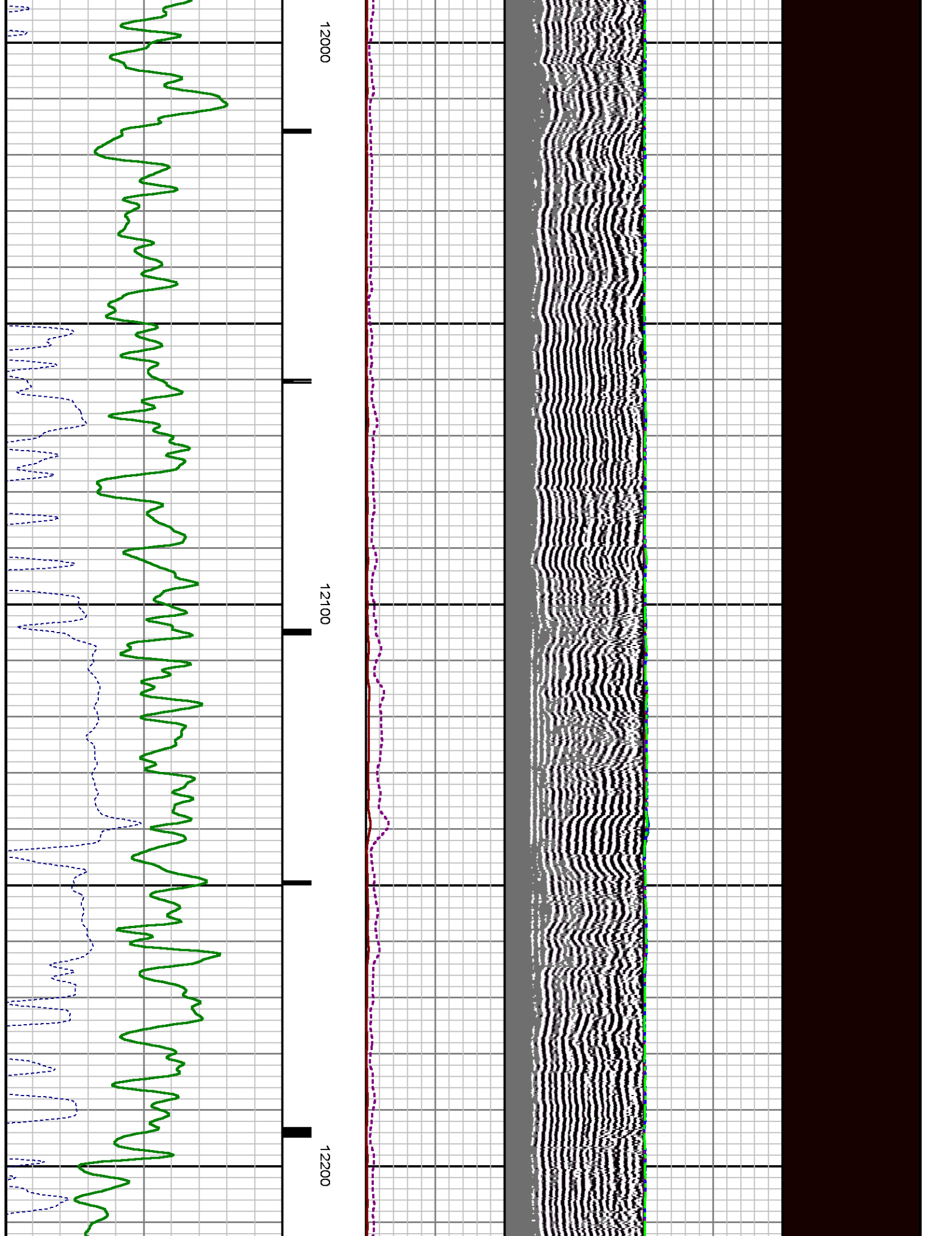


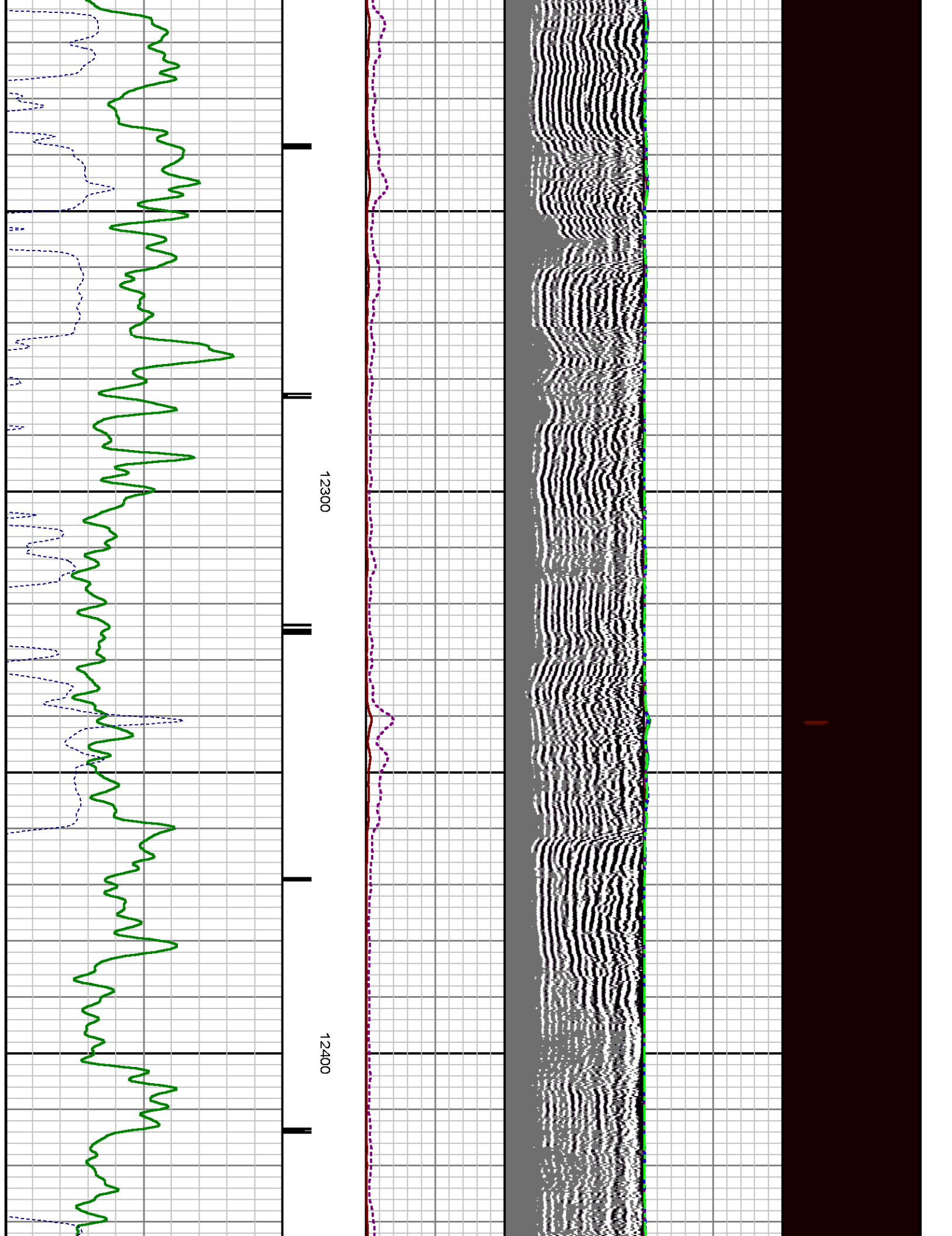


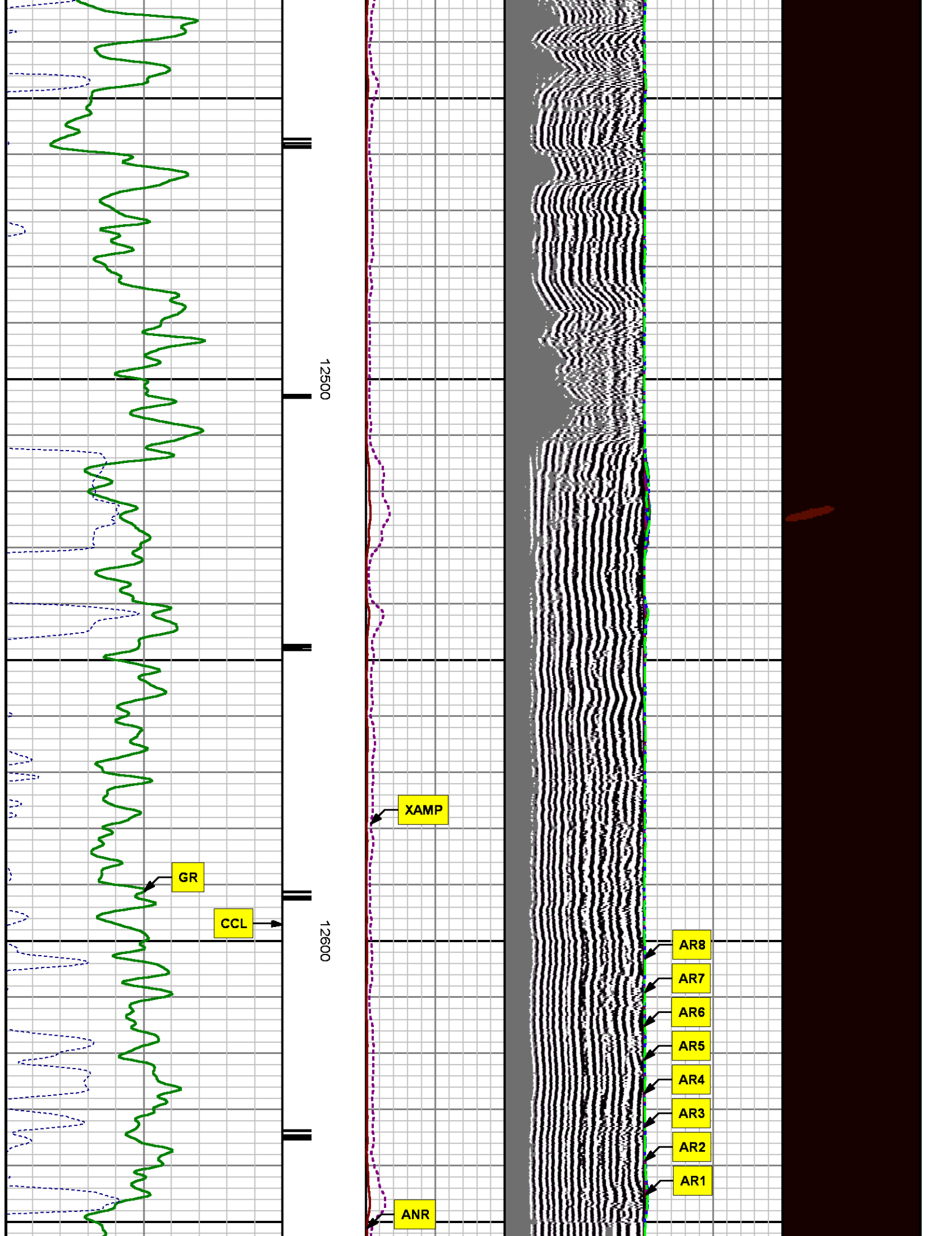


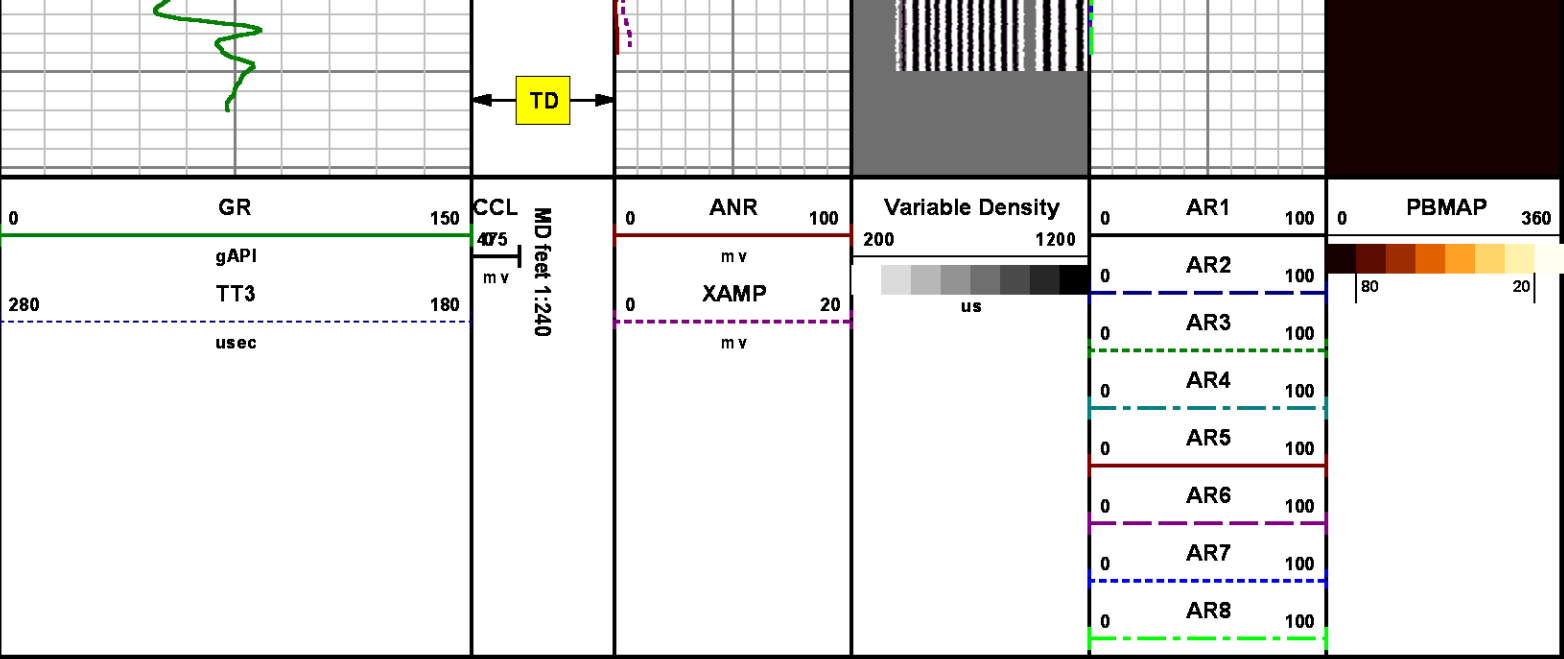












REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	12344.610	12669.860
RAL	Amp Gate Start Near	195.000	usec	12344.610	12669.860
RAL	Amp Gate Start Radial	195.000	usec	12344.610	12669.860
RAL	Amp Gate Width Far	25.000	usec	12344.610	12669.860
RAL	Amp Gate Width Near	25.000	usec	12344.610	12669.860
RAL	Amp Gate Width Radial	25.000	usec	12344.610	12669.860
RAL	casing od	4.500	inches	12344.610	12669.860
RAL	casing wt	11.600	lbm/ft	12344.610	12669.860
RAL	FB Start Far	291.900	usec	12344.610	12669.860
RAL	FB Start Near	180.000	usec	12344.610	12669.860
RAL	FB Start Radial	180.000	usec	12344.610	12669.860
RAL	FB Thresh Far	10.000	mV	12344.610	12669.860
RAL	FB Thresh Near	4.000	mV	12344.610	12669.860
RAL	FB Thresh Radial	4.000	mV	12344.610	12669.860
RAL	Fluid Travel Time	200.000	usec/ft	12344.610	12669.547

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-12.360	ACAL	ANR	AR1	AR2	AR3	AR4		
		AR5	AR6	AR7	AR8	CHV	FPR2		
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3		
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP		
1426XA	-11.360	AFAR	SIG	TT5					
2459XA	-7.250	CCL							
2459XA	-5.390	GR							
2459XA	0.000	NEU							

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

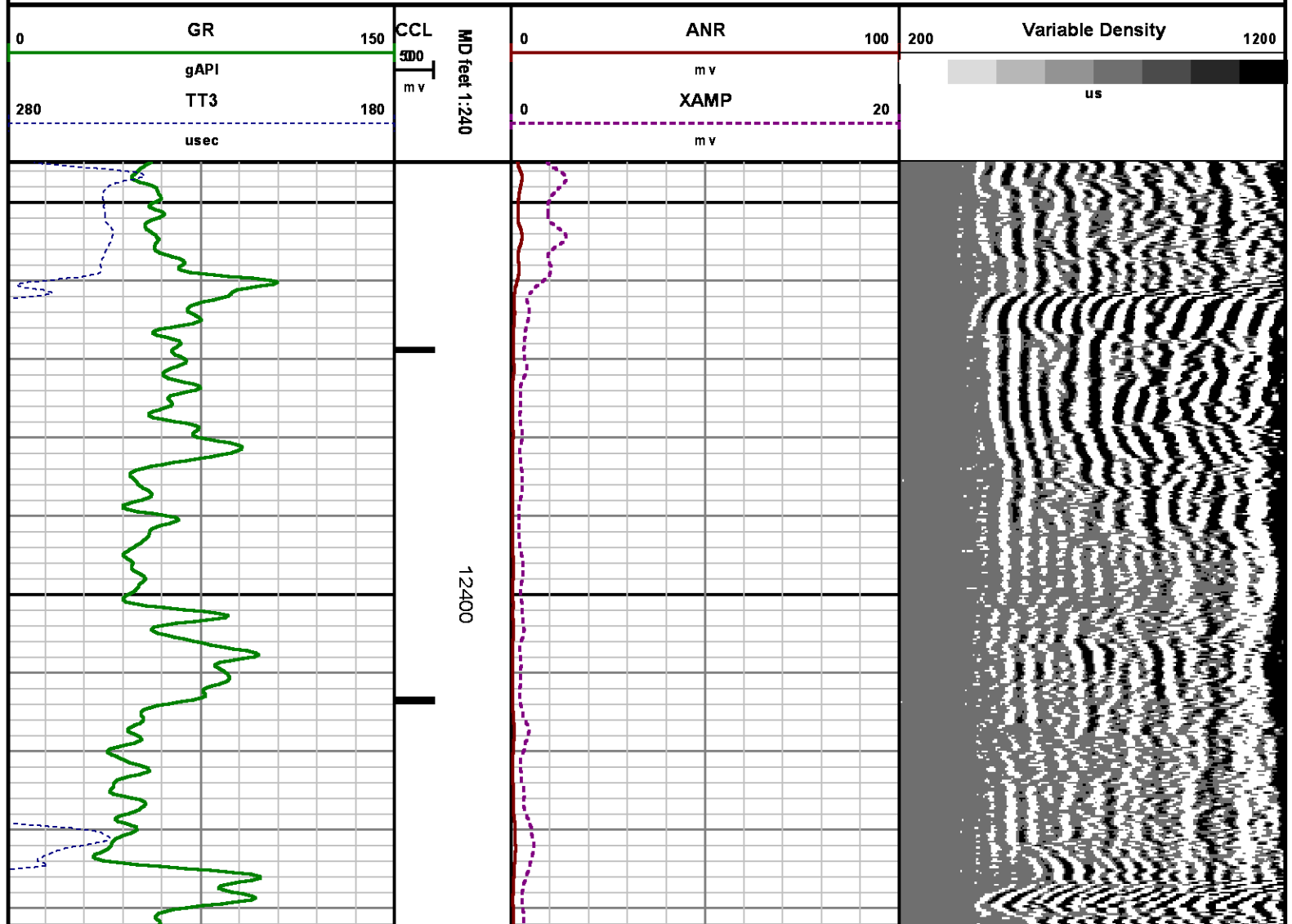
Well : FEDERAL RGU 333-24-198

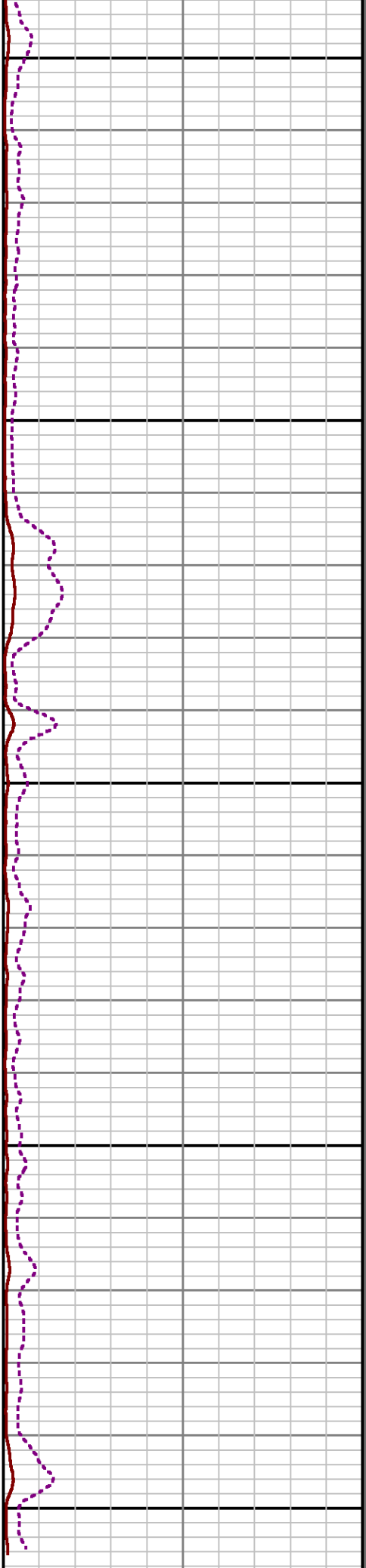
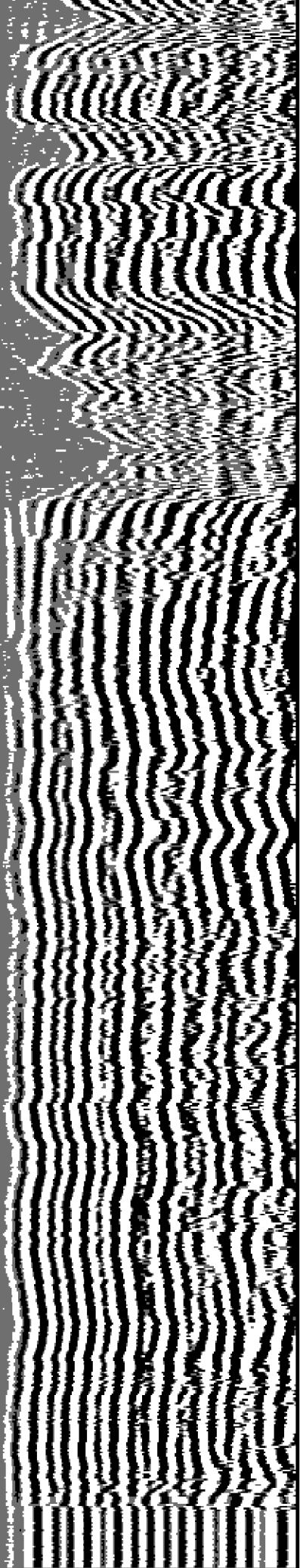
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Mode : PlotMgr 5.4.504

Interval : 12344.86 - 12669.86 feet UP

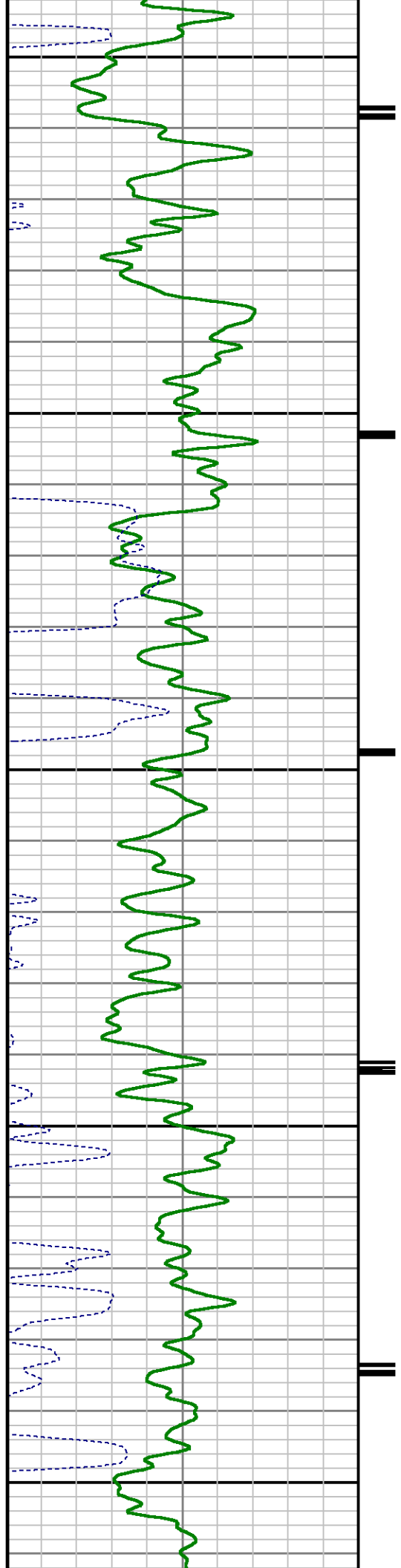
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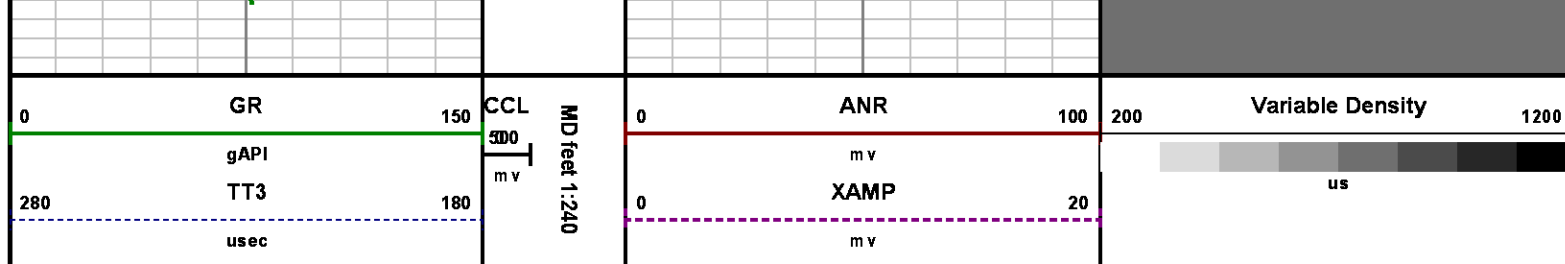




12500

12600





CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\496JY06_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Jul 06 08:20:57 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: JY06

Tool Delay [usec] -54.00 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	0.221	100.00	0.32
3 Ft. Receiver	217	216	30	166	25	2.540	100.00	0.31
5 Ft. Receiver	325	325	30	230	25	0.076	150.00	0.35
Radial #1	218	216	30	166	25	1.999	100.00	0.32
Radial #2	217	216	30	166	25	1.732	100.00	0.31
Radial #3	216	216	30	166	25	2.413	100.00	0.31
Radial #4	216	216	30	166	25	2.758	100.00	0.31
Radial #5	217	216	30	166	25	2.451	100.00	0.31
Radial #6	218	216	30	166	25	2.625	100.00	0.32
Radial #7	218	216	30	166	25	2.049	100.00	0.32
Radial #8	220	216	30	166	25	1.815	100.00	0.32

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496JY06 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Jul 06 08:24:20 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: JY06

Tool Delay -54.00 Casing OD 4.50 Casing Wt 11.60 Casing ID 4.00

[usec]

04.00

in

4.00

lbm/ft

11.00

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	0.127	0.000	1.00	100.000
3 Ft. Receiver	195	25	3.522			
5 Ft. Receiver	305	25	5.192			
Radial #1	195	25	3.305			
Radial #2	195	25	3.335			
Radial #3	195	25	3.784			
Radial #4	195	25	3.912			
Radial #5	195	25	4.089			
Radial #6	195	25	4.089			
Radial #7	195	25	2.824			
Radial #8	195	25	2.921			

GAMMA RAY

Calibration File: C:\case\calver\GR\456J1.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Jun 10 11:37:19 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: J1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	93.20	369.51	0.670	62.40	247.40	185.00

Verification File: C:\case\calver\GR\456J1.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Tue Jun 10 11:38:30 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: J1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	101.16	371.24	0.670	67.73	248.56	180.83

TOOL DIAGRAM

OTA SHORT CABLE HEAD

21.81'



PROBE 2 3/4 DUAL RECEIVER RADII

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

Probe GR/CCL/NEU

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

XMIT	15.62'
NEAR RCVR	12.54'
FAR RCVR	10.62'
CCL	8.92'
GR	7.06'
NEU	1.67'
	0.00'

Total Length: 21.81'
Total Weight: Not Available
Max Diameter: 0' 2.75"

**Baker Atlas***CASE***Company**

WPX ENERGY

Well

FEDERAL RGU 333-24-198

Field

SULPHUR CREEK

County

RIO BLANCO

State

COLORADO

Location

SHL: 2139' FSL & 1698' FEL

BHL: 1862' FSL & 1808' FEL (NWSE)

SEC 24

TWP 1S

RGE 98W

Elevations

KB 6617 ft

DF

GL 6596 ft

File No:

CH087684

API No:

05103120780000

24 1S 98W

RGU 33-24-198 PAD

CYCLONE 29