



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH084642

Company Well WPX ENERGY FEDERAL RG 341-15-298

API No: Field SULPHUR CREEK

County State RIO BLANCO COLORADO

06103117930000

Location

SHL: 1620' FNL & 506' FWL SEC 14 2S 98W

BHL: 693' FNL & 655' FEL SEC 15 2S 98W

SEC 15 TWP 2S RGE 98W

Other Services

RPM

Permanent Datum GL Elevation 6560 ft

Log Measured From KB 21 ft Above P. D.

Drill Measured From KELLY BUSHING KB 6581 ft DF GL 6560 ft

Date	11/APR/14	
Run	ONE	
Service Order	US625380	
Depth Driller	11036 ft	
Depth Logger	10965 ft	
Bottom Logged Interval	10955 ft	
Top Logged Interval	21 ft	
Time Started	0930	
Time Finished	1400	
Operator Rig Time	4.5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	72 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	66 fpm	
Maximum Recorded Temperature	266 degF	
Reference Log	NONE	
Reference Log Date	NA	
Equipment No.	4271	GRAND JCT
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	0 ft	80 ft
14.75/13.5	80 ft	3108 ft
8.75/7.875	3108 ft	11036 ft

Casing Record				
Size	Weight	Grade	From	To
18 in			0 ft	80 ft
9.625 in			0 ft	3108 ft
4.5 in	11.6 lbm/ft	P-110	0 ft	11036 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.
Top ccl mark is 8' above ground level (height of flange on production tree).
The amount of linear shift is 17 feet.
Logged with zero PSI at wellhead.
BHT = 266°F

SJ = 5737'-5759'

LOG SPLICED @ 5706'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10124106	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	23.159	5723.000
RAL	Amp Gate Start Near	195.000	usec	23.159	5723.000
RAL	Amp Gate Start Radial	195.000	usec	23.159	5723.000
RAL	Amp Gate Width Far	25.000	usec	23.159	5723.000
RAL	Amp Gate Width Near	25.000	usec	23.159	5723.000
RAL	Amp Gate Width Radial	25.000	usec	23.159	5723.000
RAL	casing od	4.500	inches	23.159	5723.000
RAL	casing wt	11.600	lbm/ft	23.159	5723.000
RAL	FB Start Far	291.900	usec	23.159	5723.000
RAL	FB Start Near	180.000	usec	23.159	5723.000
RAL	FB Start Radial	180.000	usec	23.159	5723.000
RAL	FB Thresh Far	10.000	mv	23.159	5723.000
RAL	FB Thresh Near	4.000	mv	23.159	5723.000
RAL	FB Thresh Radial	4.000	mv	23.159	5723.000
RAL	Fluid Travel Time	200.000	usec/ft	23.159	5723.000
RAL	Amp Gate Start Far	305.000	usec	5723.000	10967.000
RAL	Amp Gate Start Near	195.000	usec	5723.000	10967.000
RAL	Amp Gate Start Radial	195.000	usec	5723.000	10967.000
RAL	Amp Gate Width Far	25.000	usec	5723.000	10967.000
RAL	Amp Gate Width Near	25.000	usec	5723.000	10967.000
RAL	Amp Gate Width Radial	25.000	usec	5723.000	10967.000
RAL	casing od	4.500	inches	5723.000	10967.000
RAL	casing wt	11.600	lbm/ft	5723.000	10967.000
RAL	FB Start Far	291.900	usec	5723.000	10967.000
RAL	FB Start Near	180.000	usec	5723.000	10967.000
RAL	FB Start Radial	180.000	usec	5723.000	10967.000
RAL	FB Thresh Far	10.000	mv	5723.000	10967.000
RAL	FB Thresh Near	4.000	mv	5723.000	10967.000
RAL	FB Thresh Radial	4.000	mv	5723.000	10967.000
RAL	Fluid Travel Time	200.000	usec/ft	5723.000	10967.000

RAL	FB Start Far	291.900	u sec	5723.000	10967.000
RAL	FB Start Near	180.000	u sec	5723.000	10967.000
RAL	FB Start Radial	180.000	u sec	5723.000	10967.000
RAL	FB Thresh Far	10.000	m v	5723.000	10967.000
RAL	FB Thresh Near	4.000	m v	5723.000	10967.000
RAL	FB Thresh Radial	4.000	m v	5723.000	10967.000
RAL	Fluid Travel Time	200.000	u sec/ft	5723.000	10967.000

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

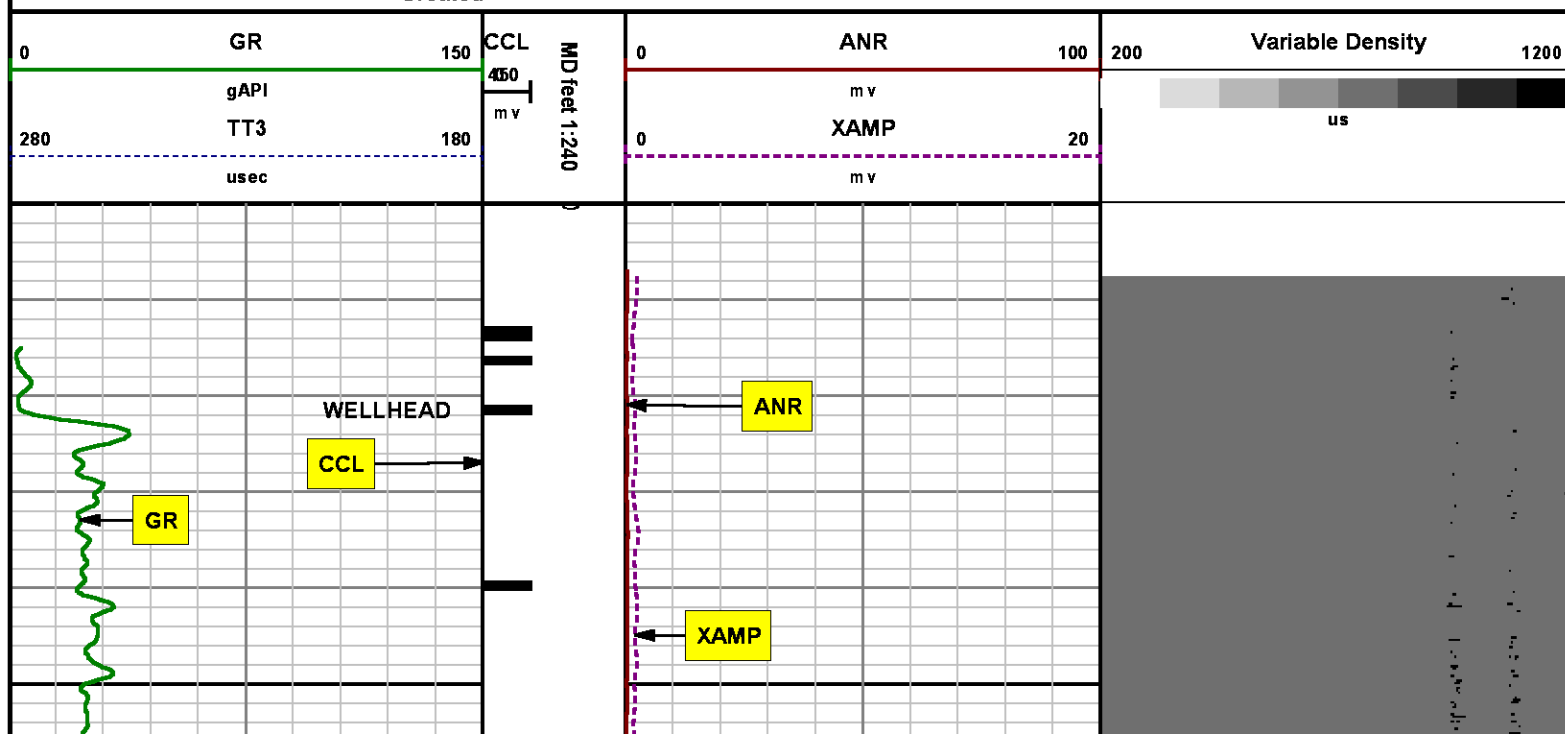
Well : FEDERAL RG 341-15-298

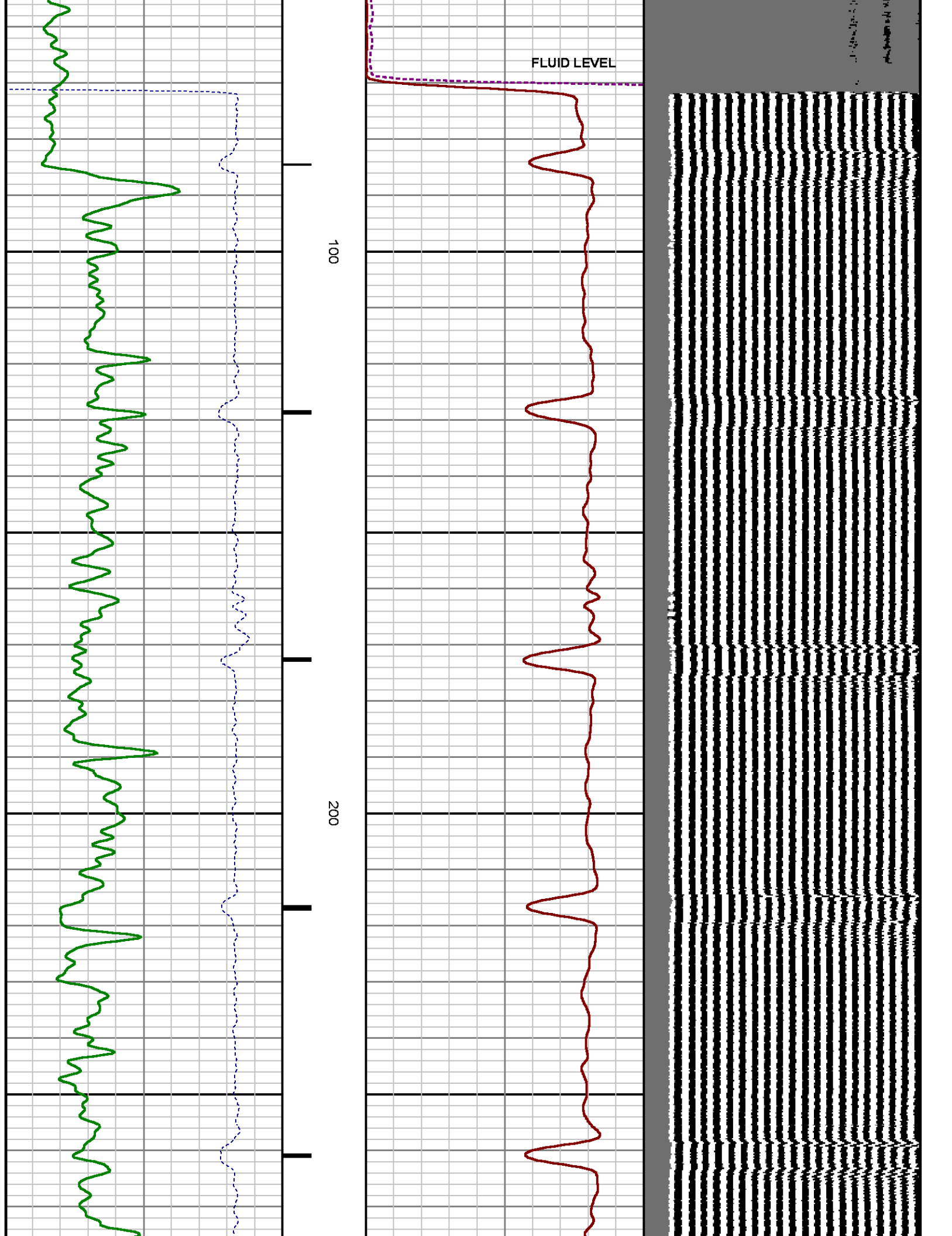
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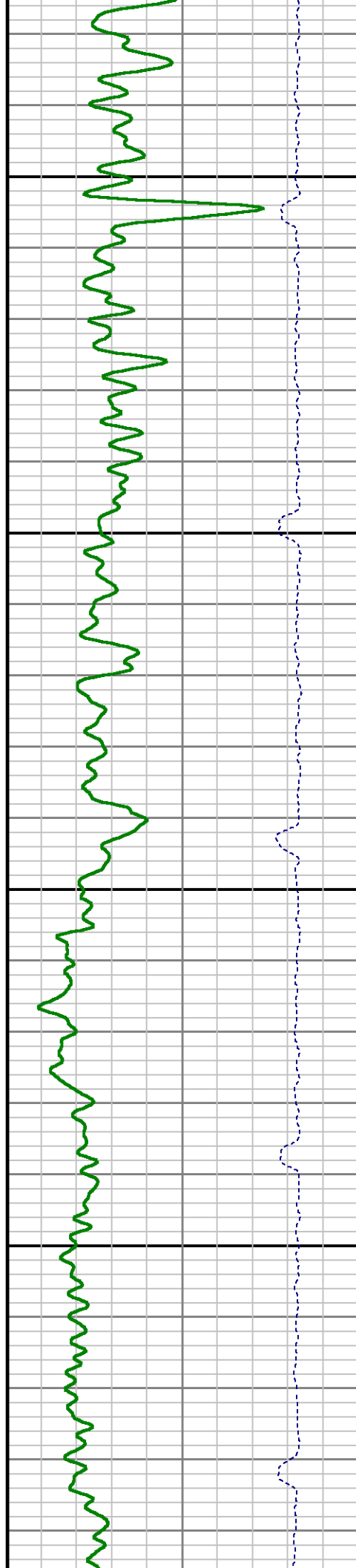
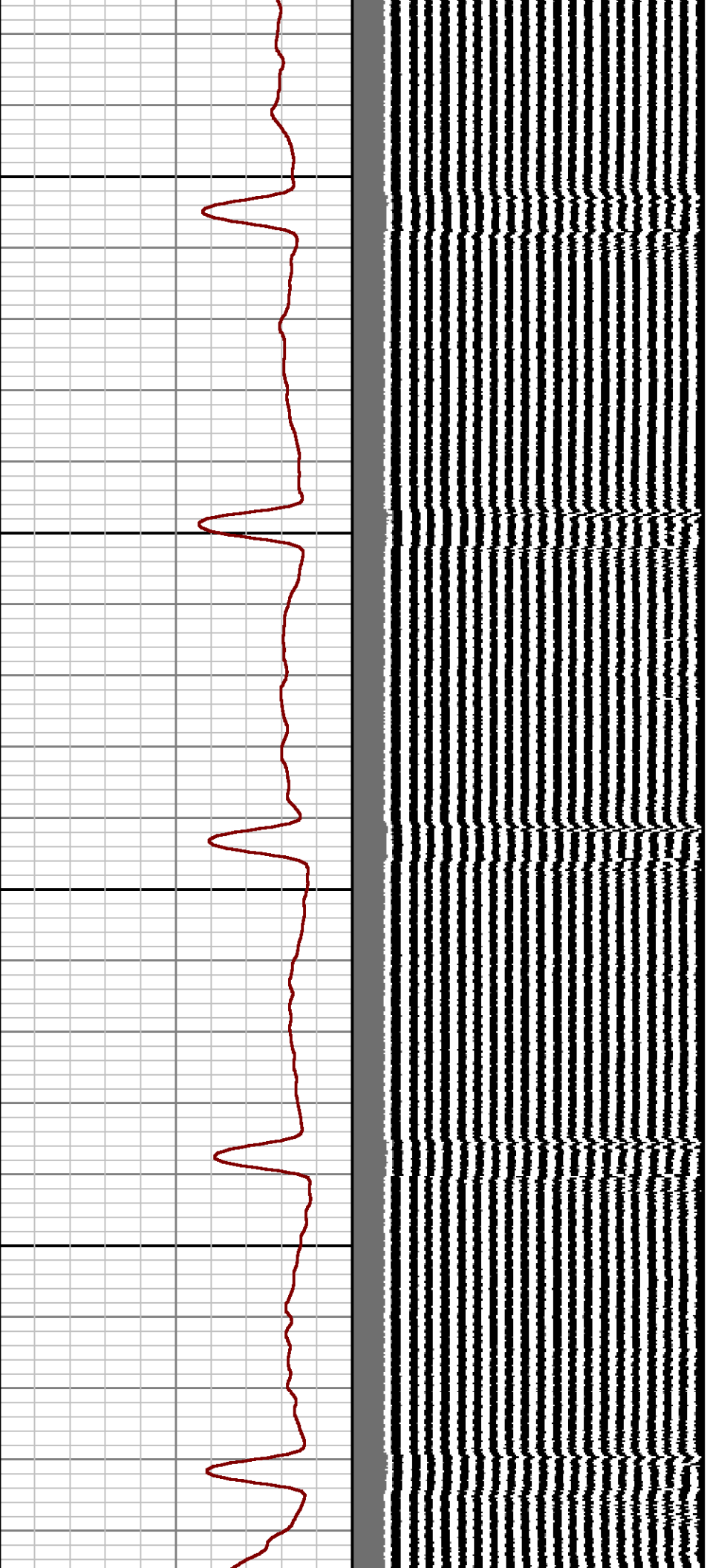
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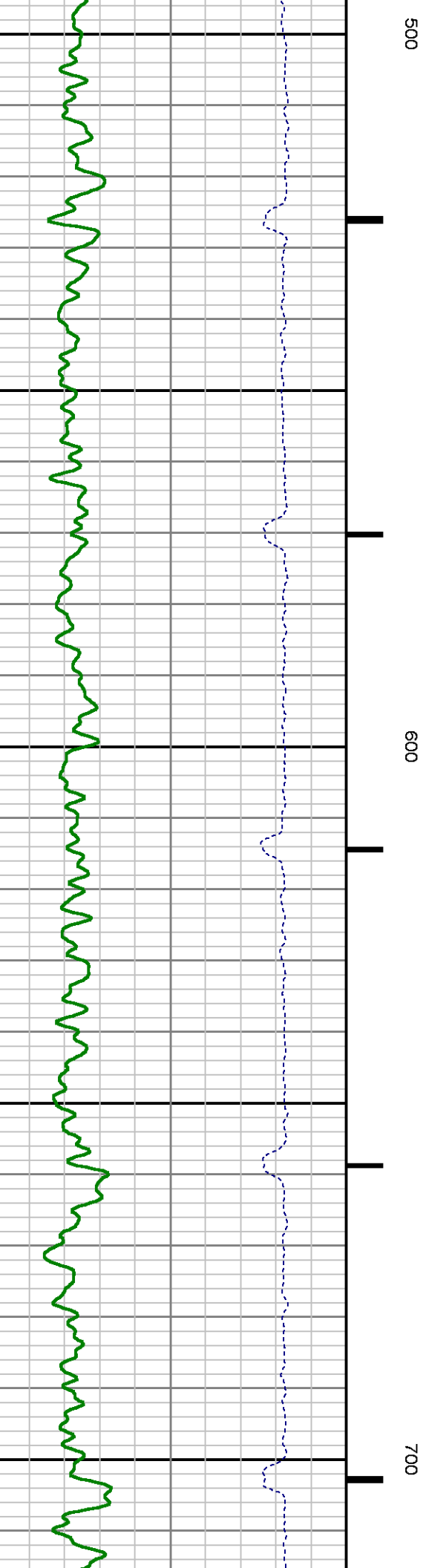
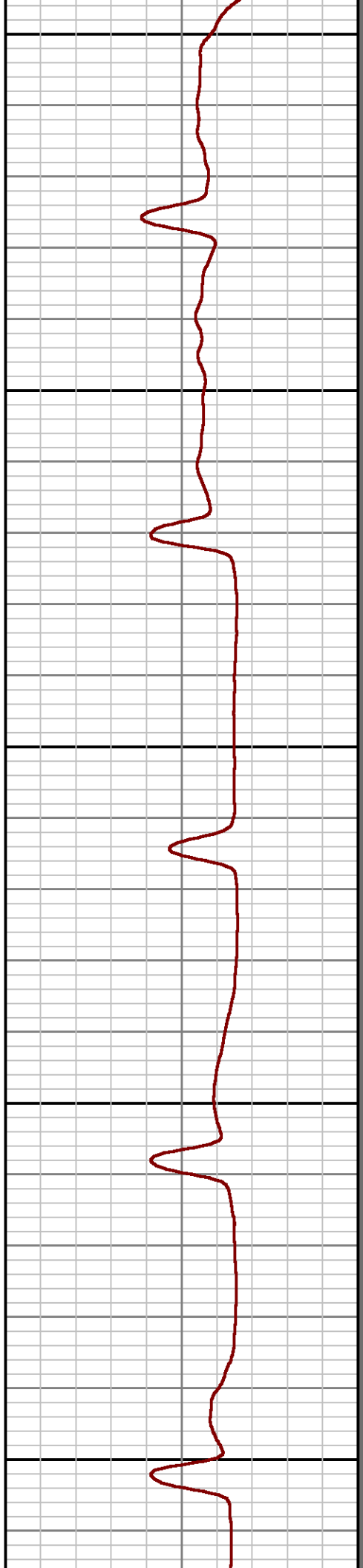
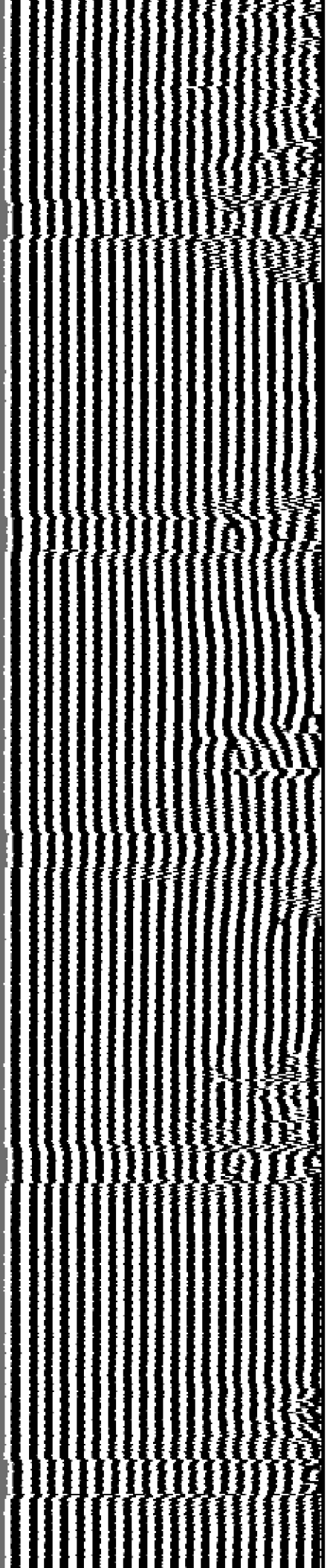
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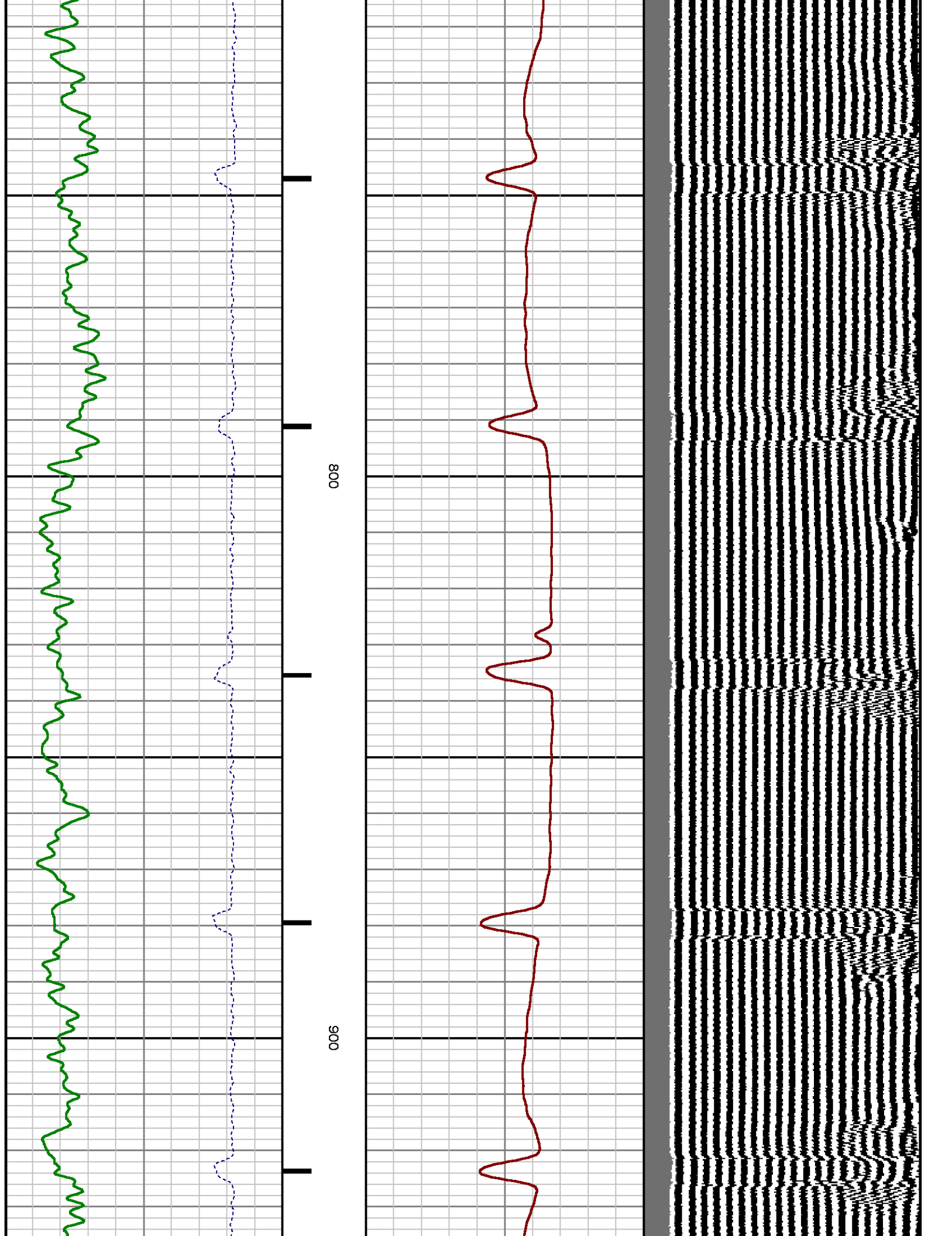
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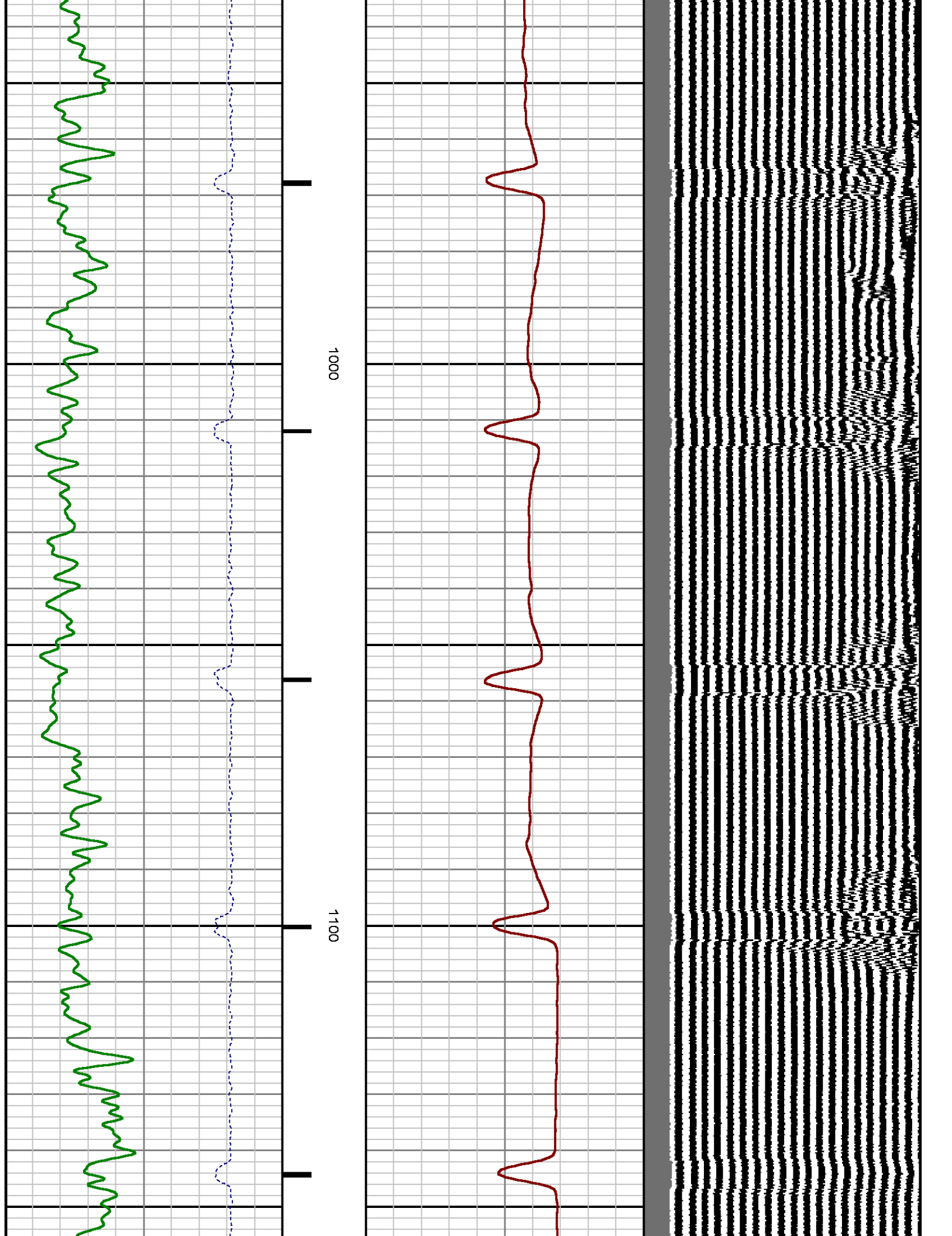


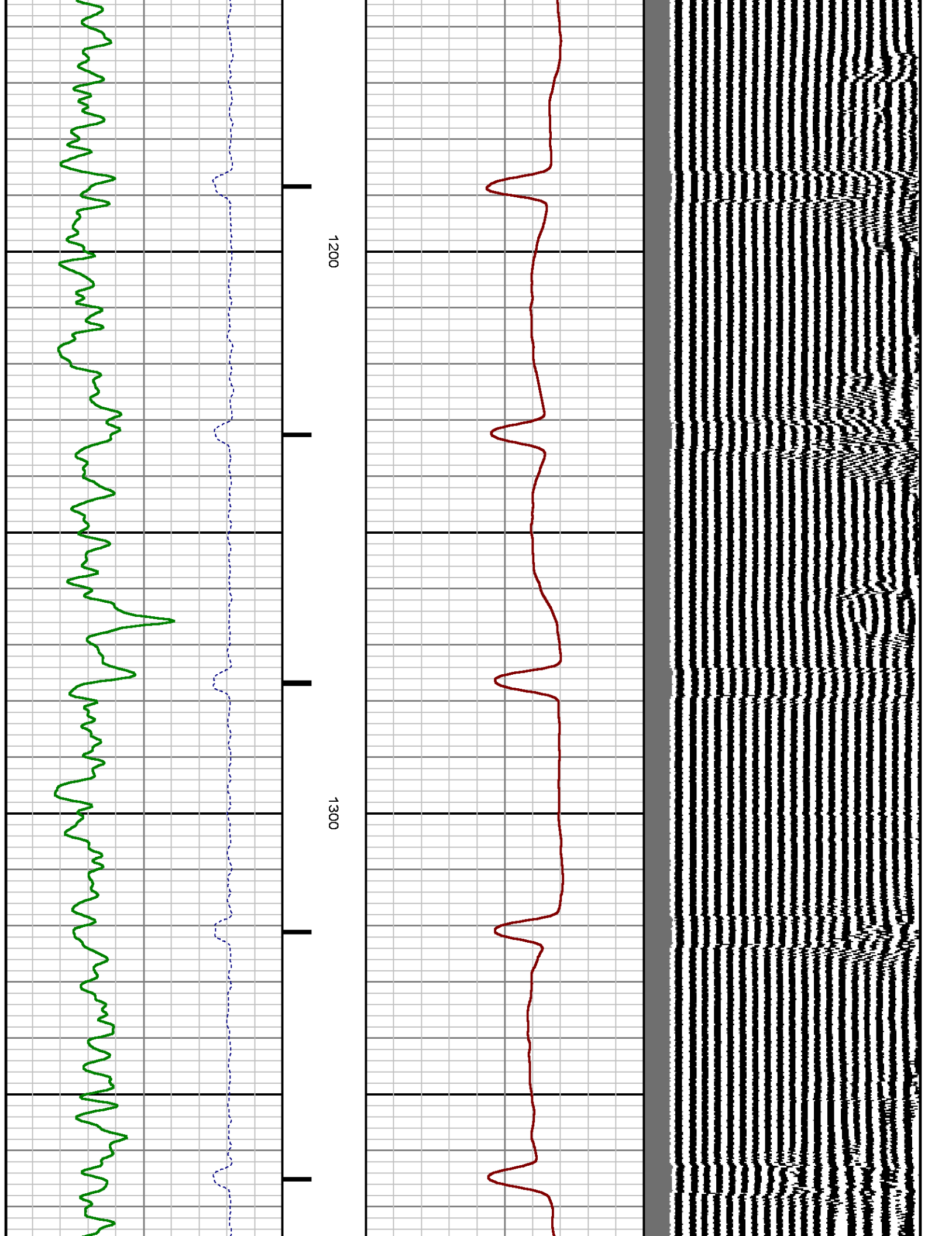


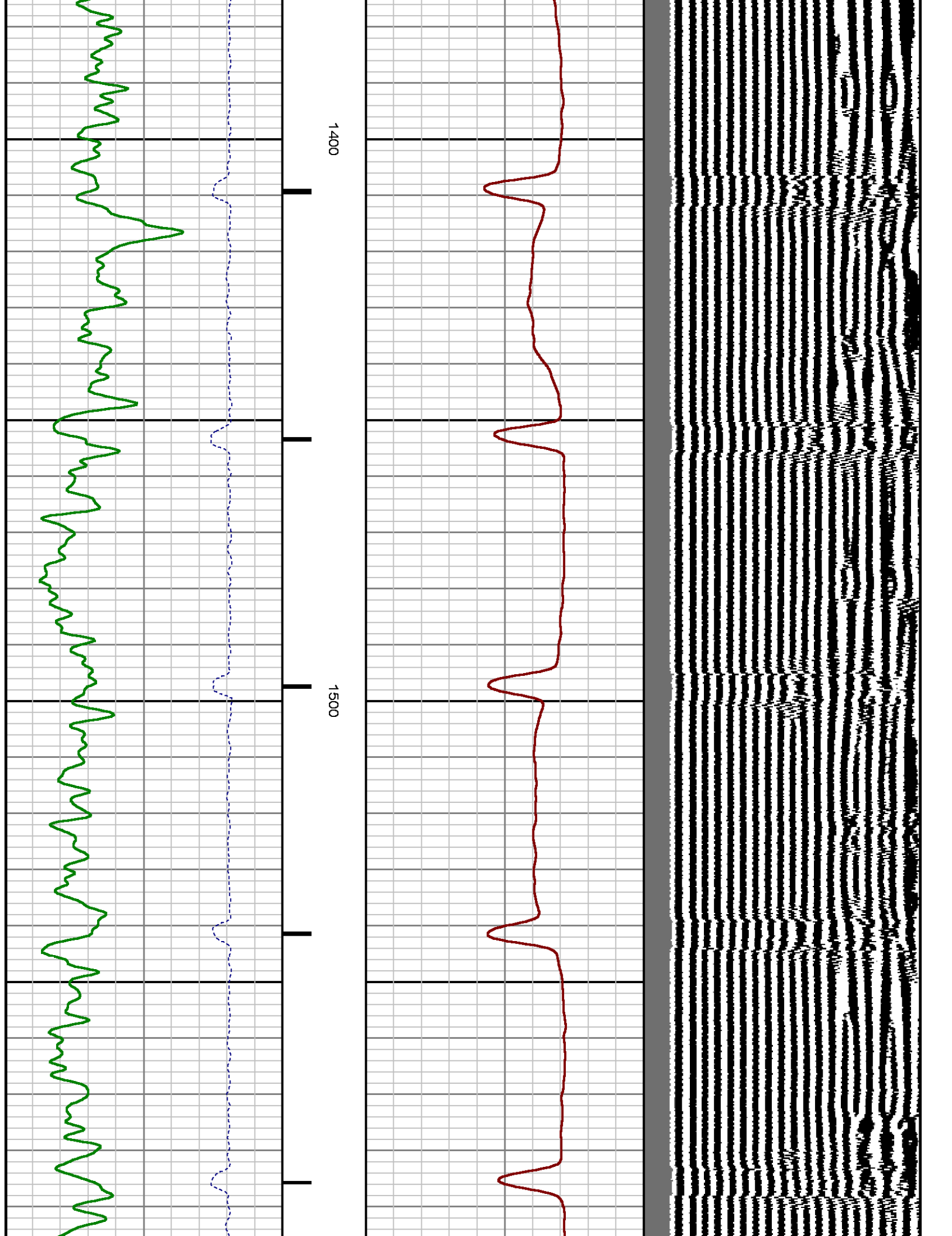


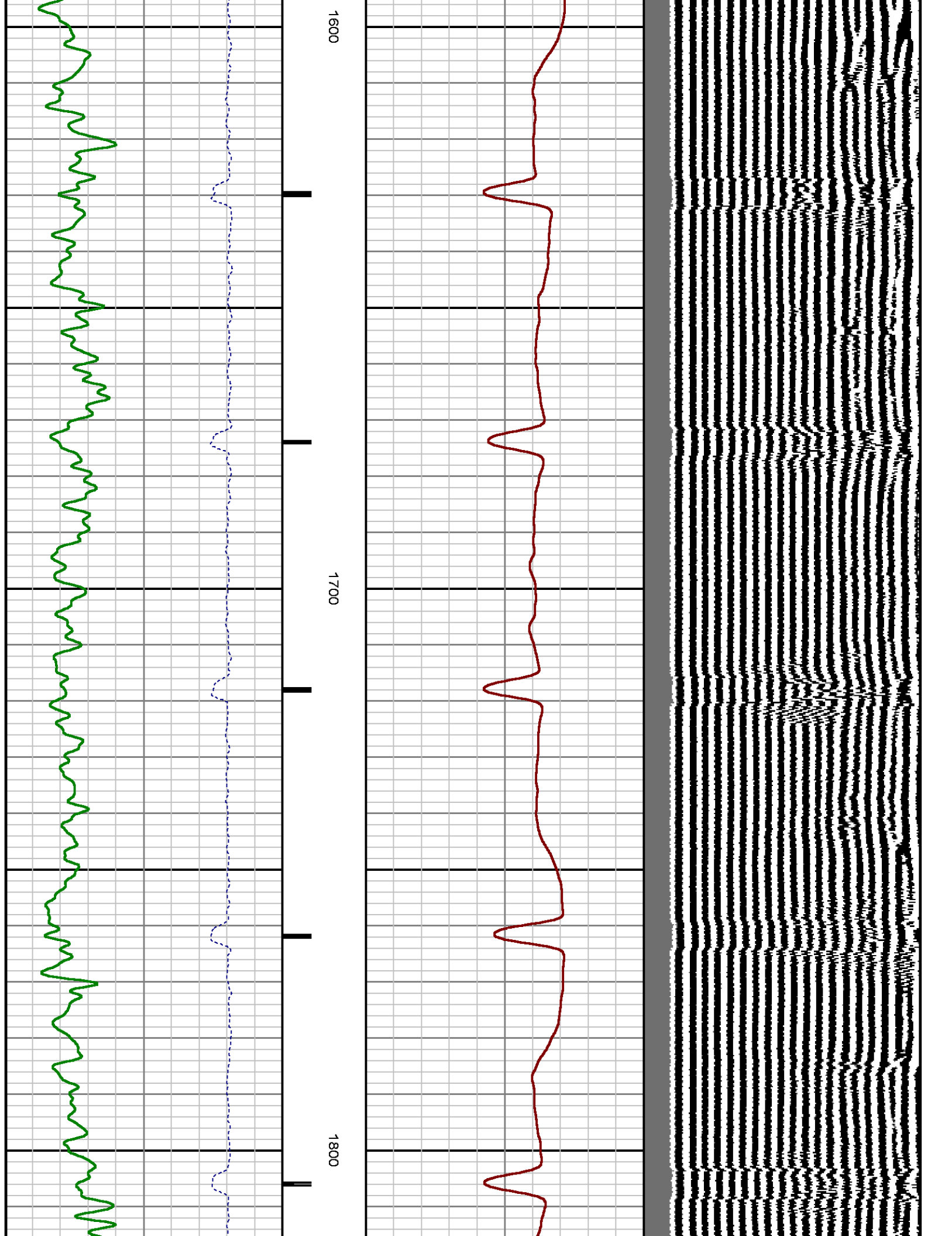


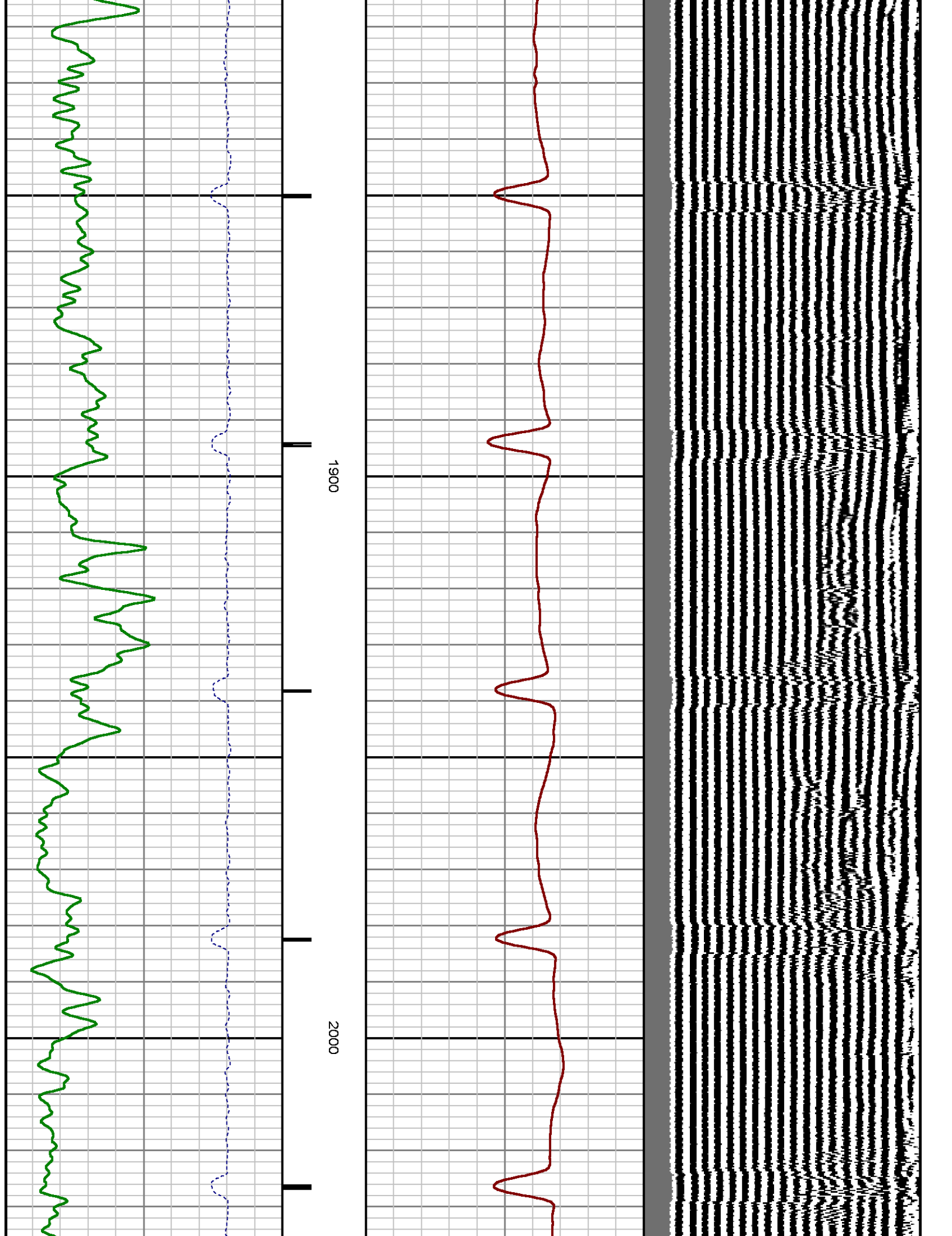


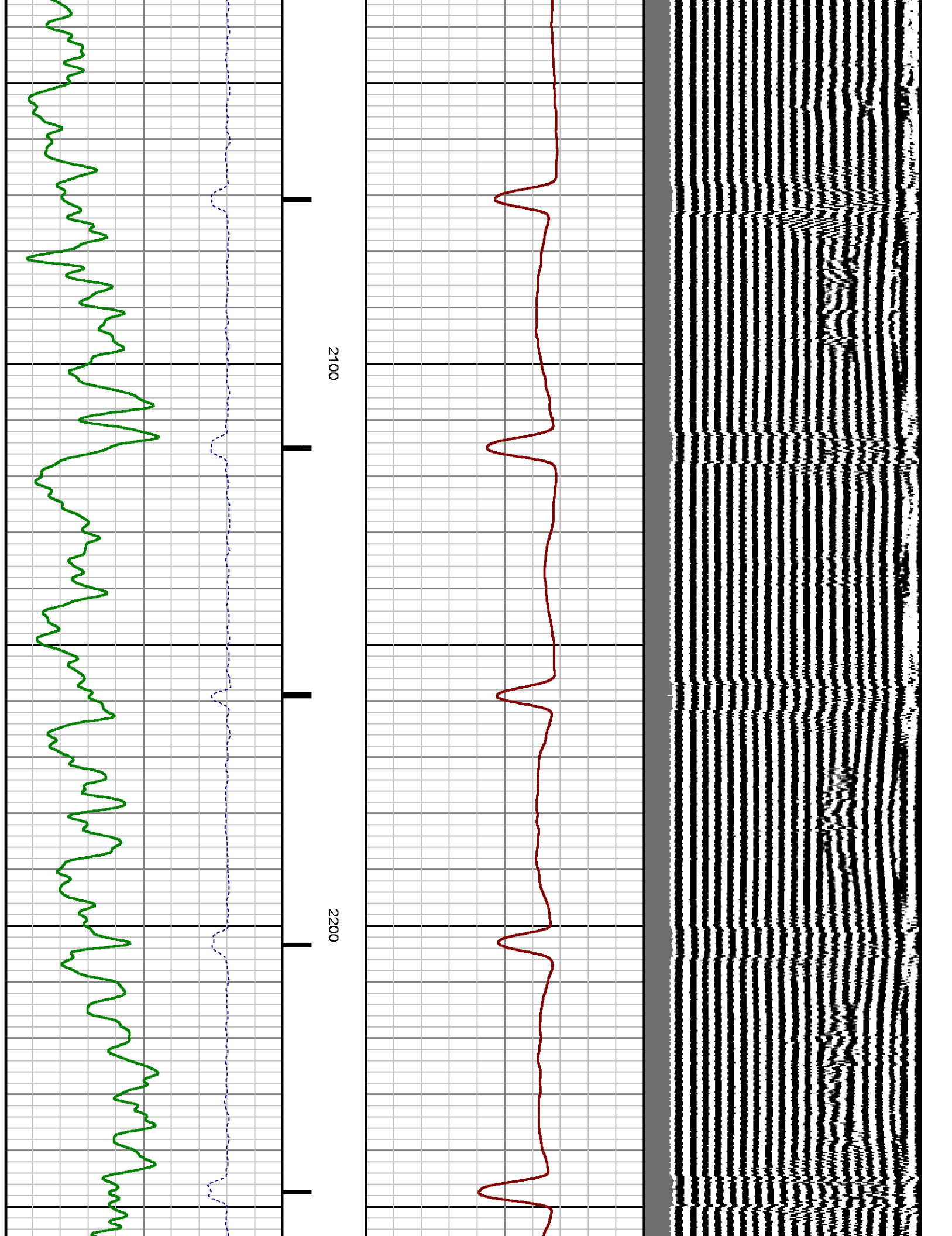


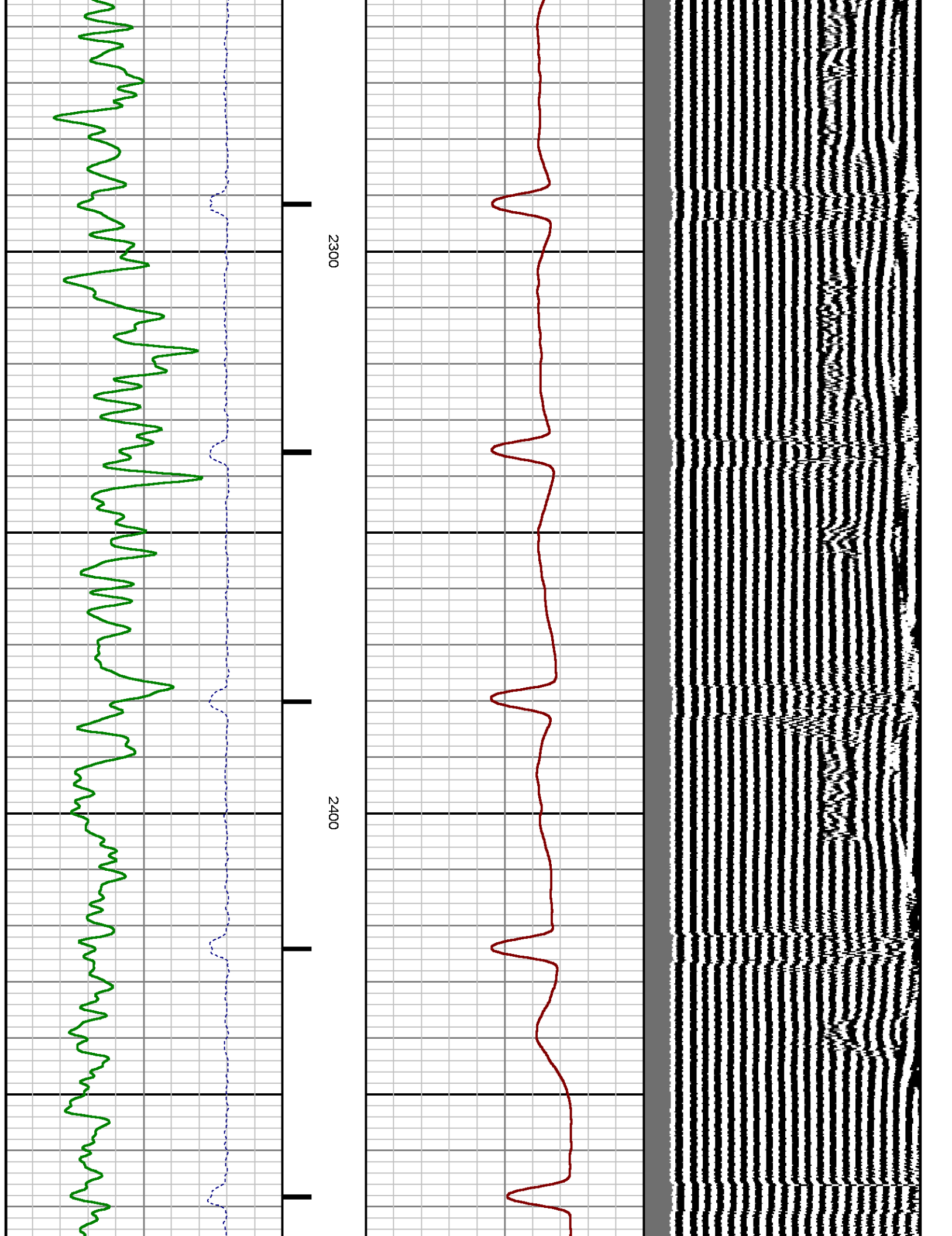


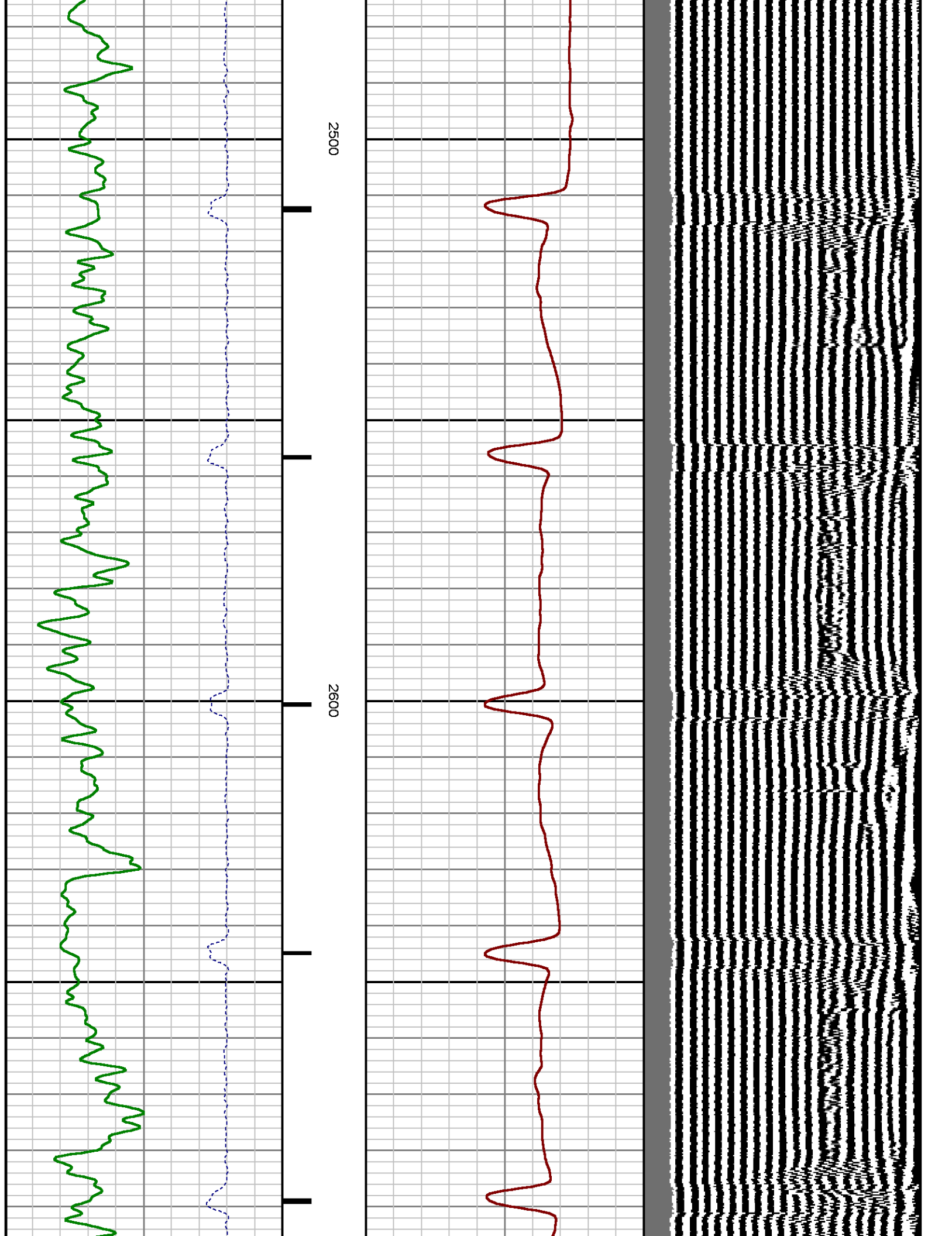


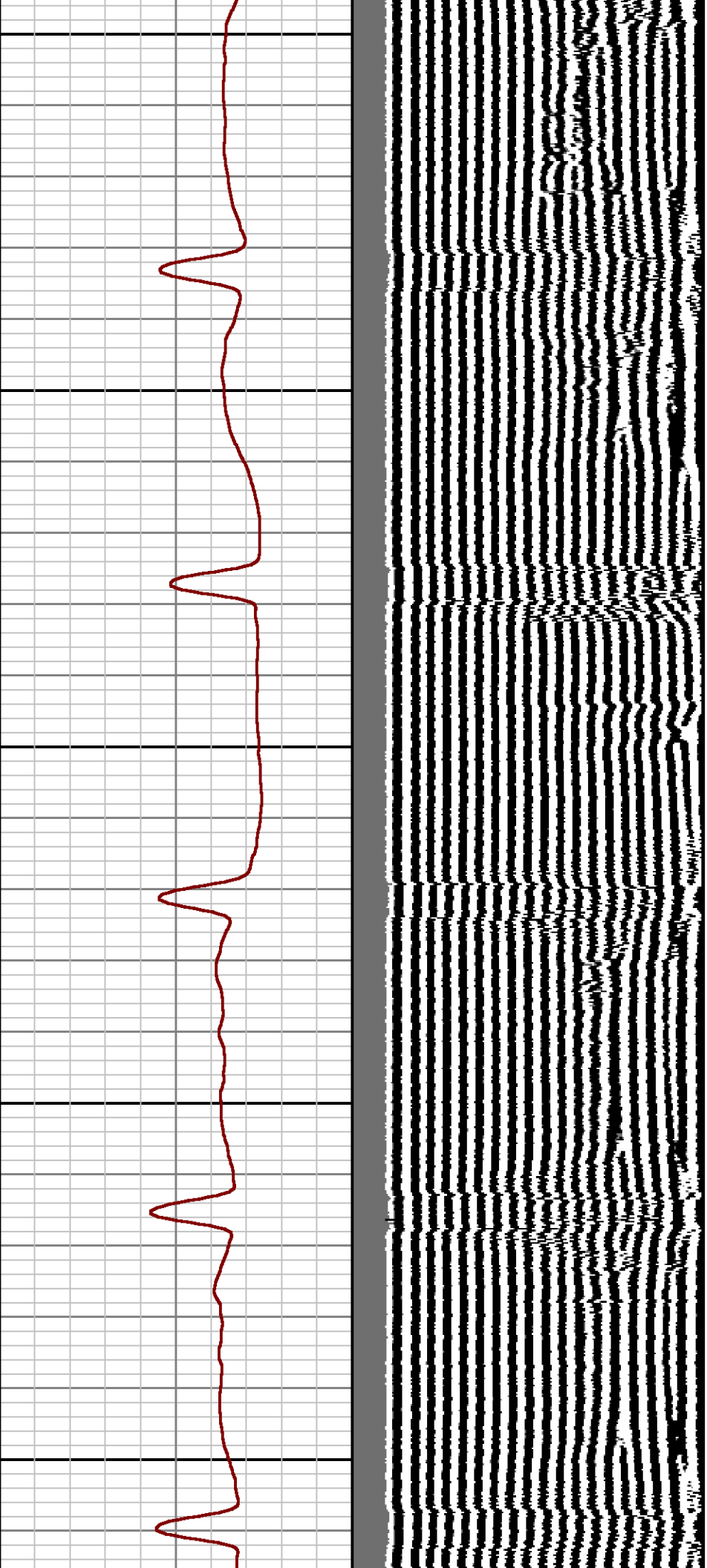








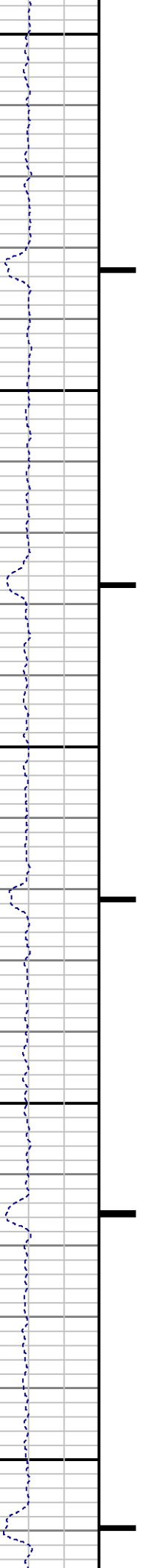


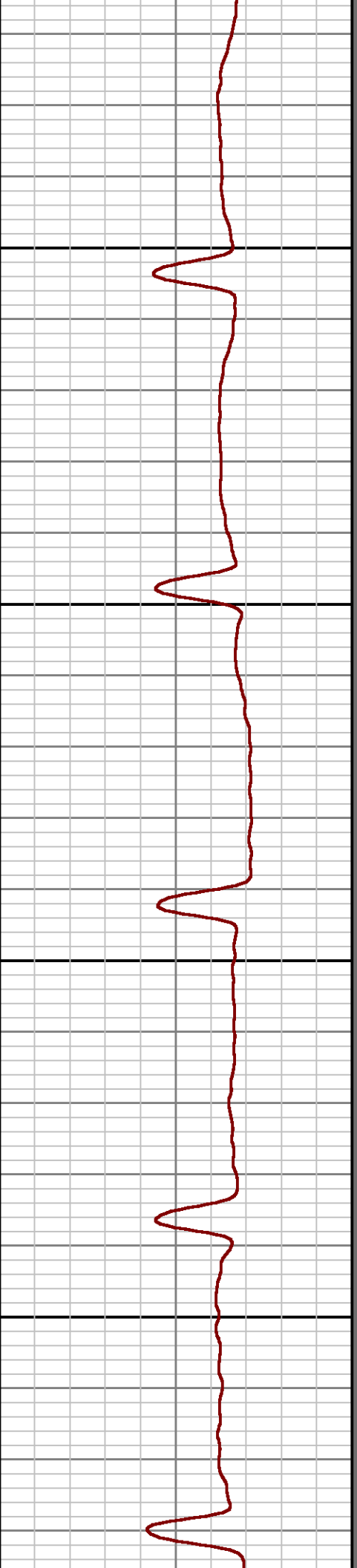
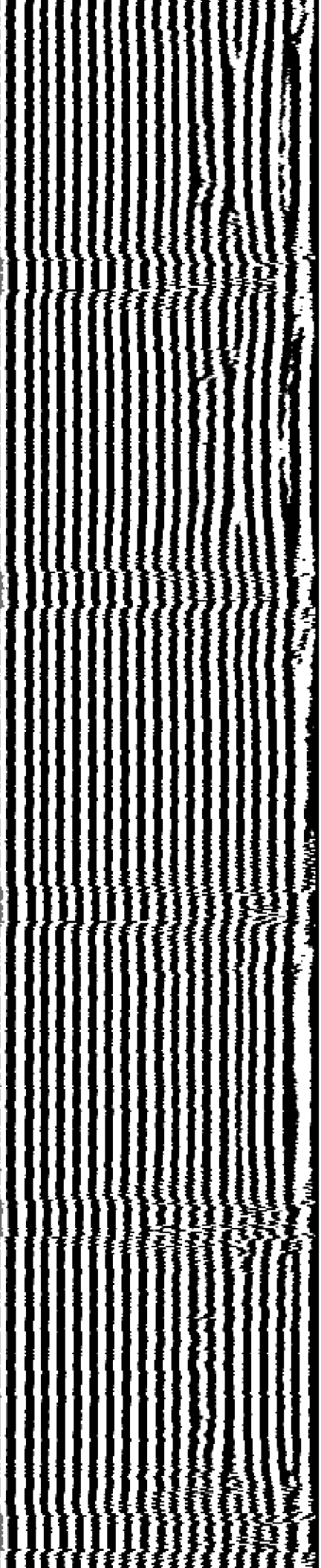


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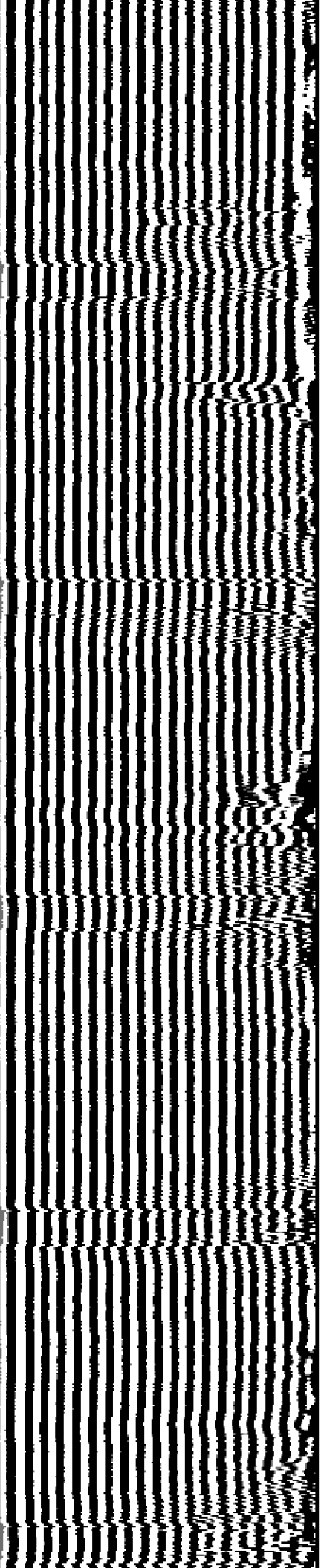




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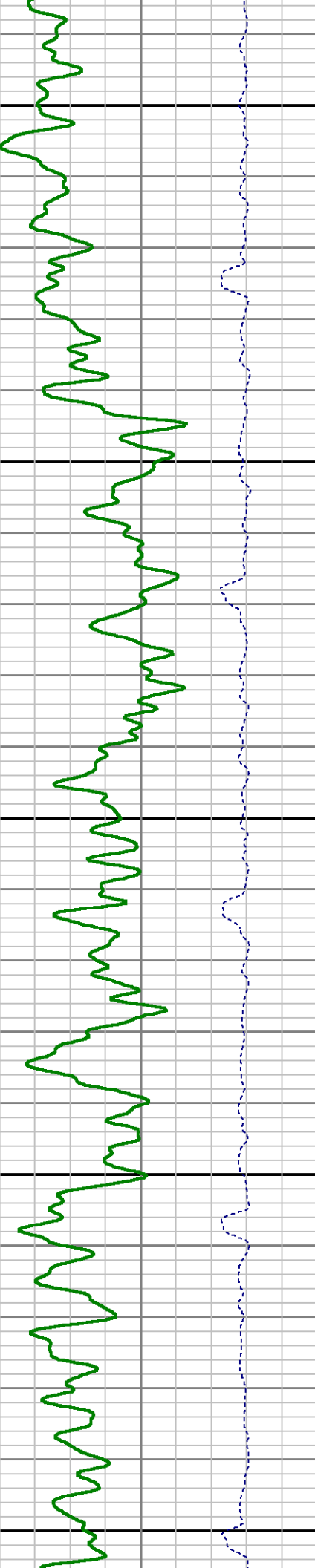
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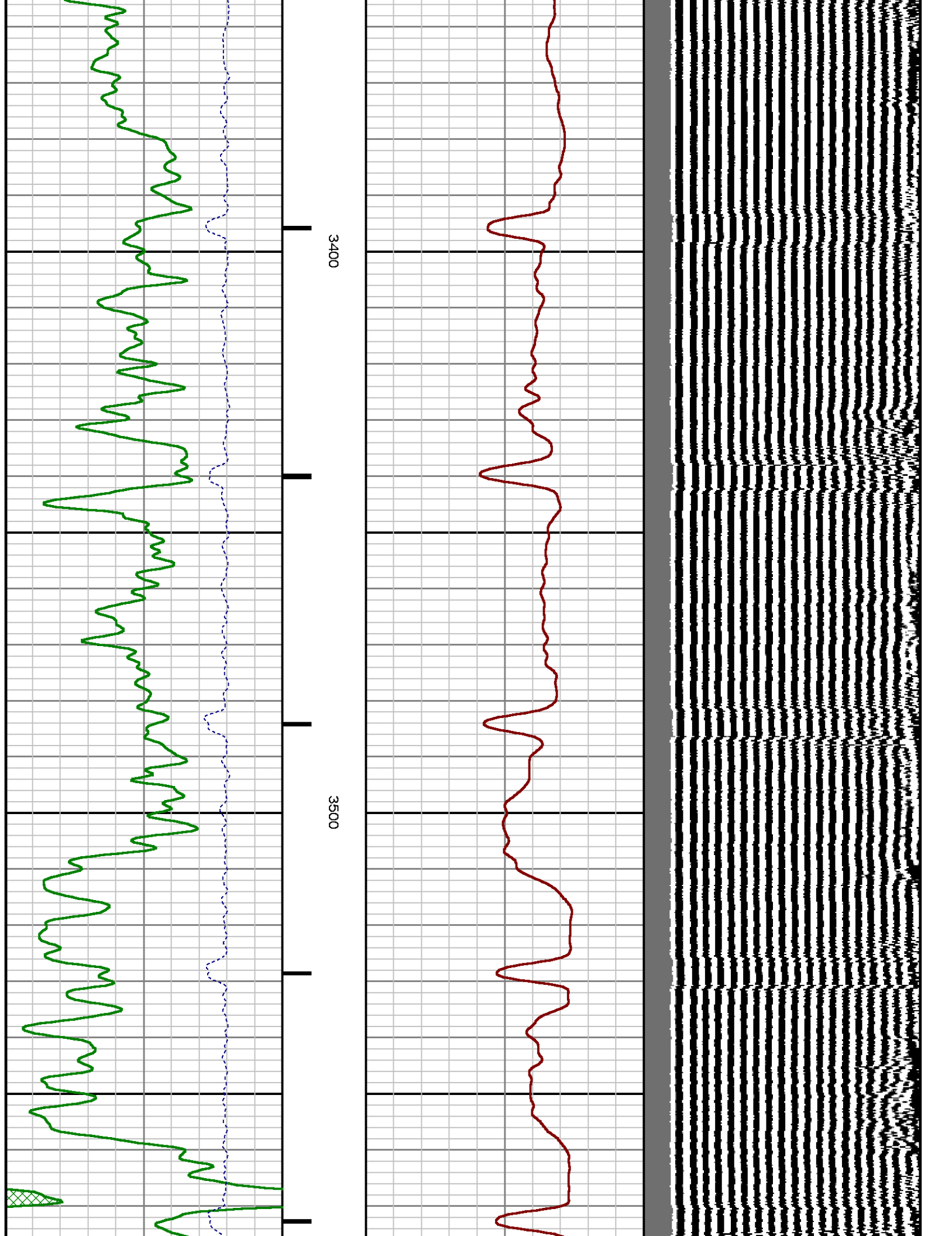


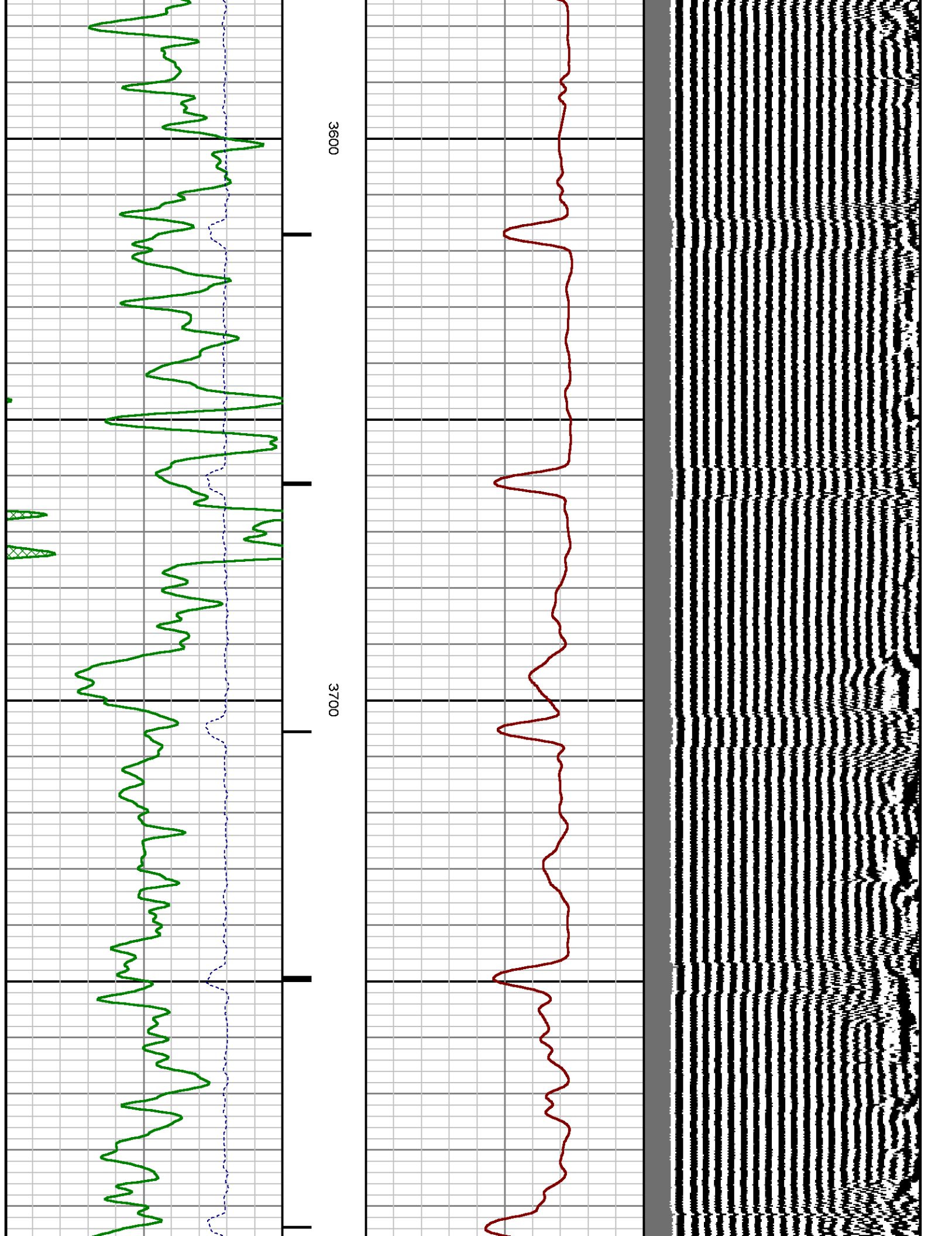


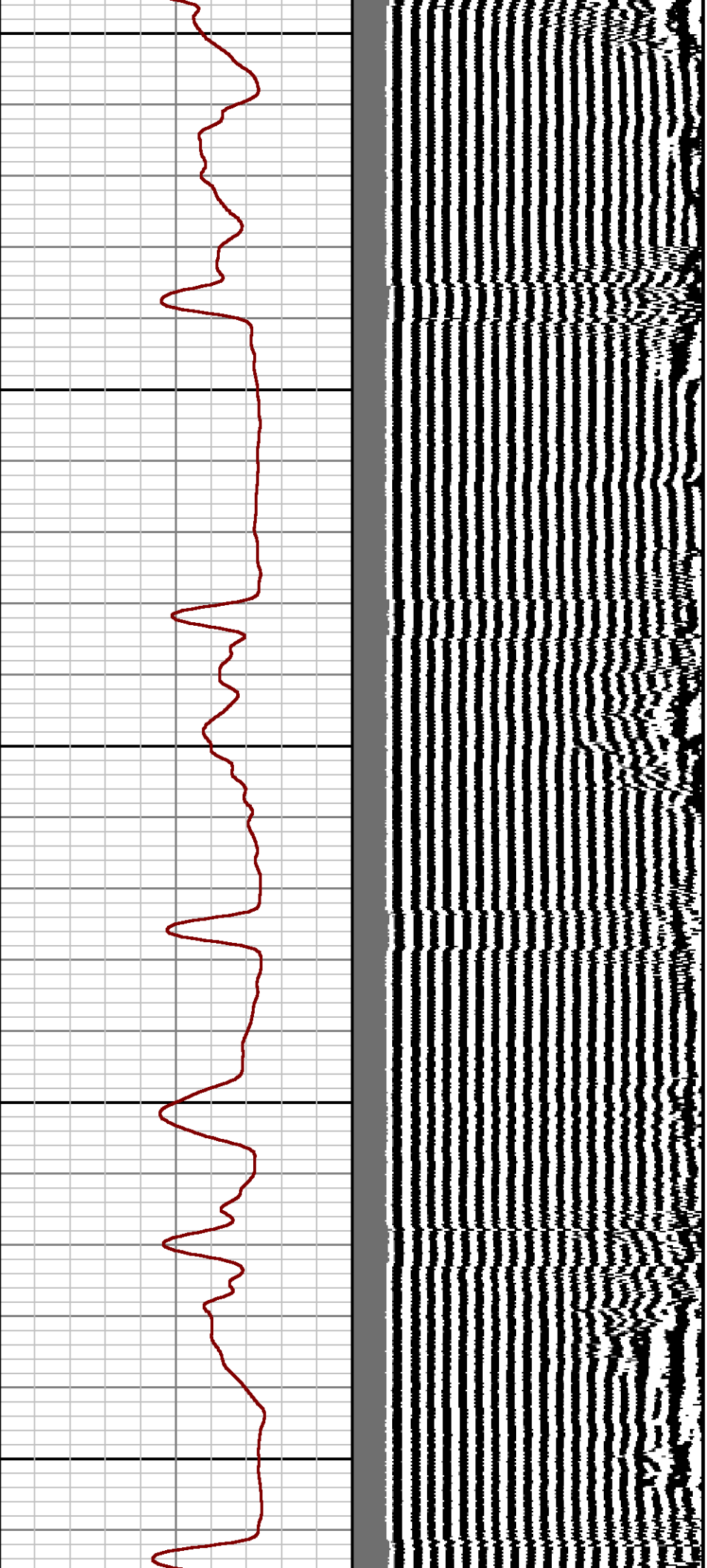
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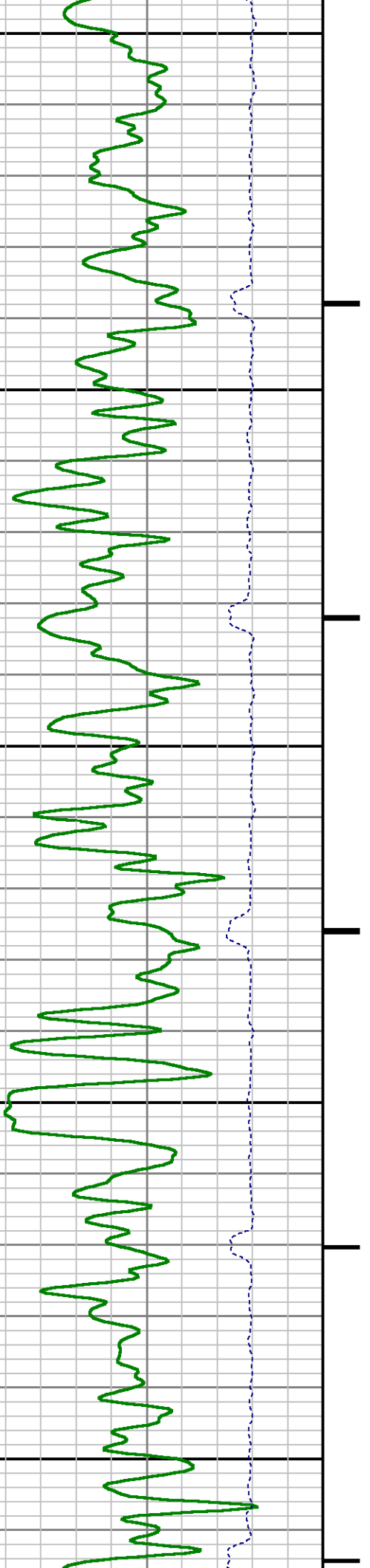


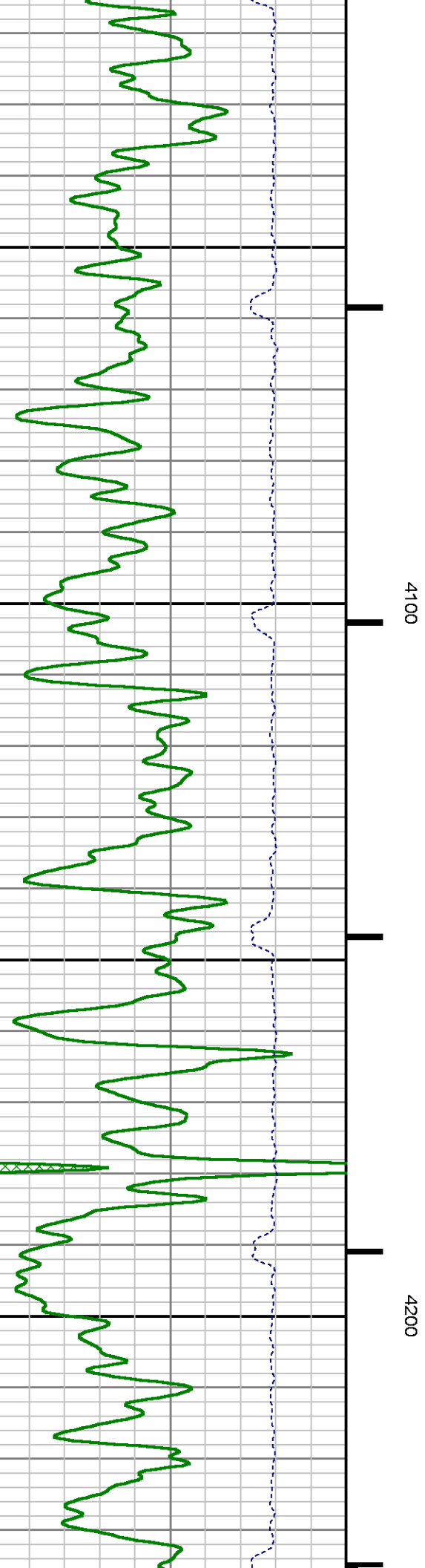
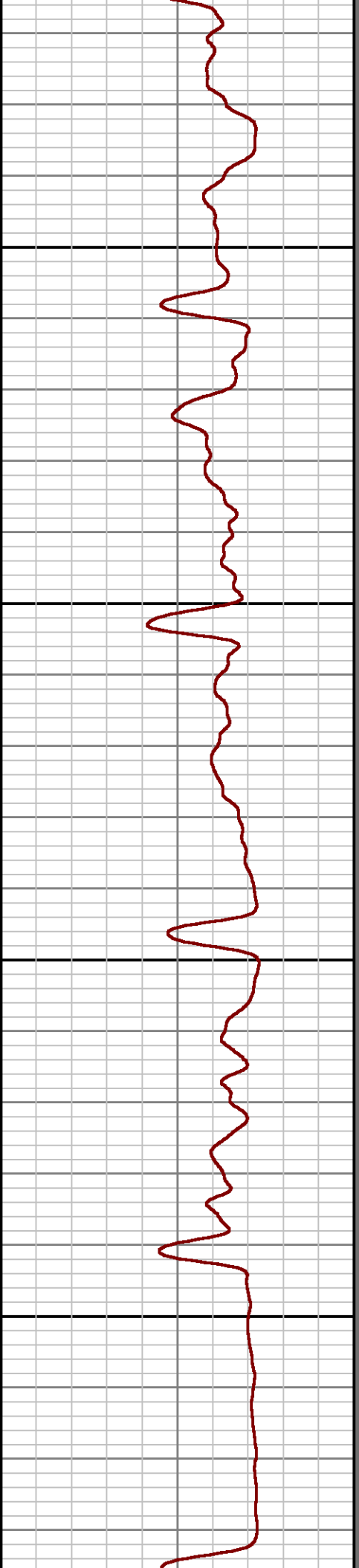
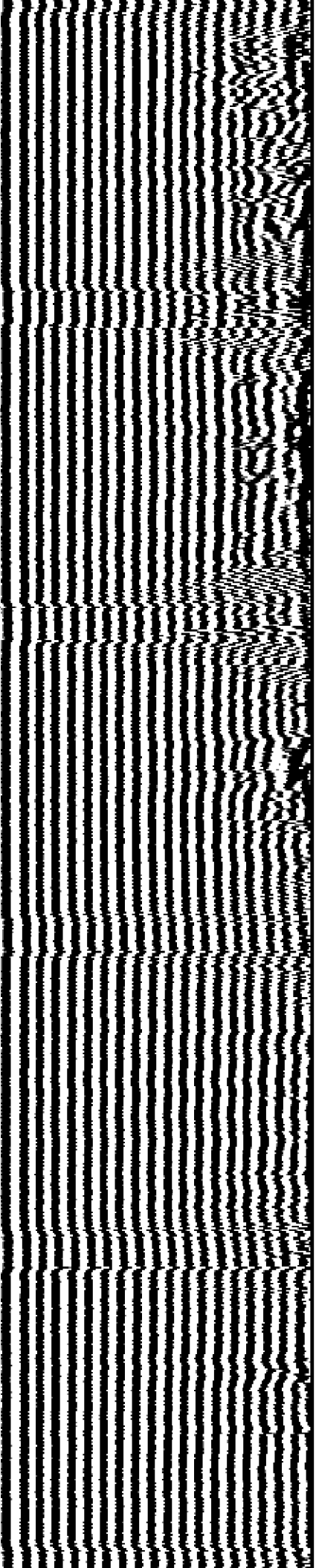


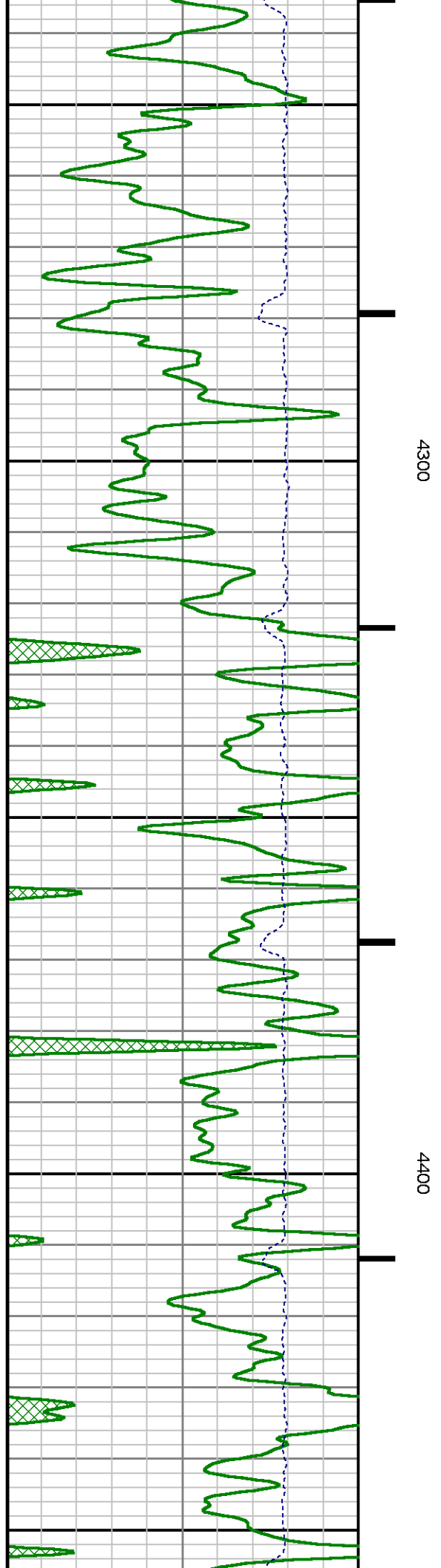
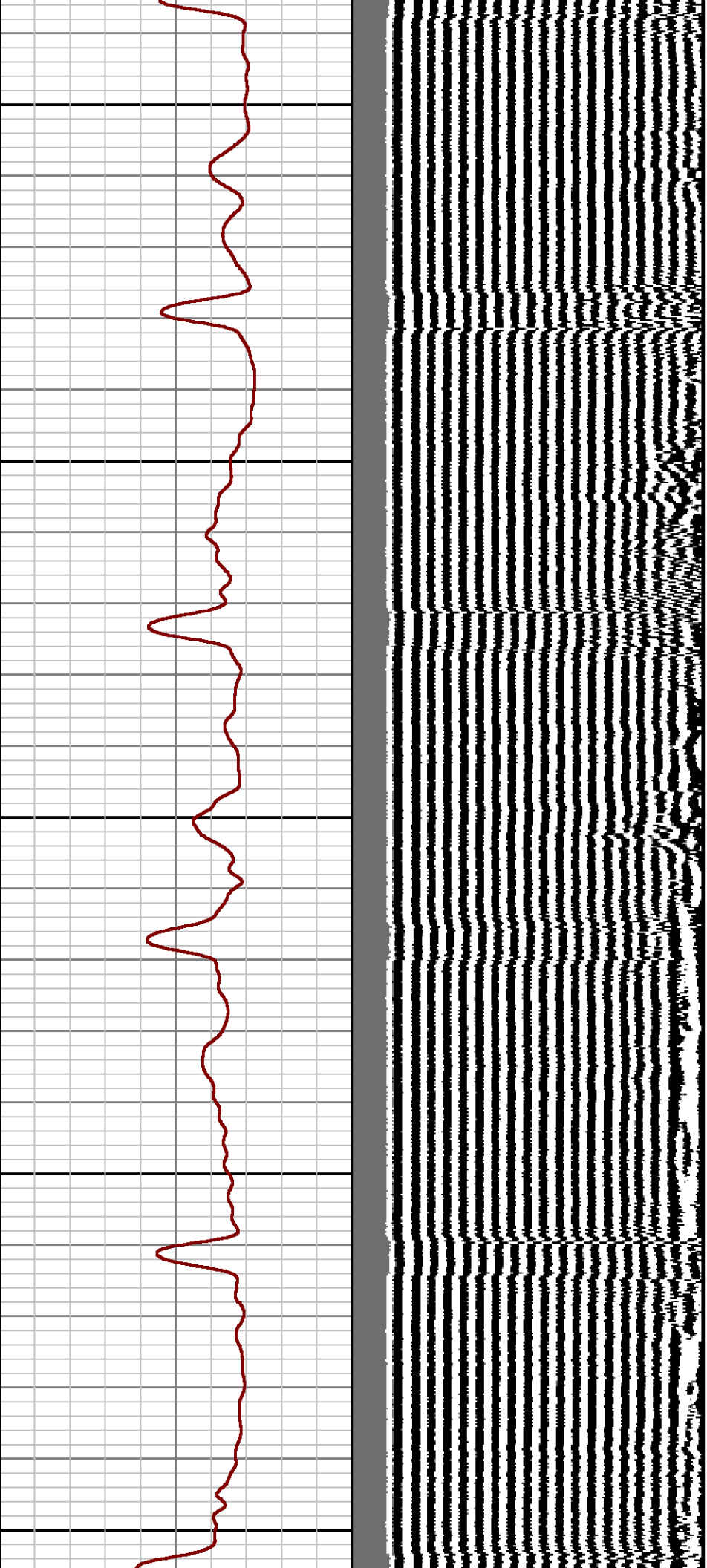
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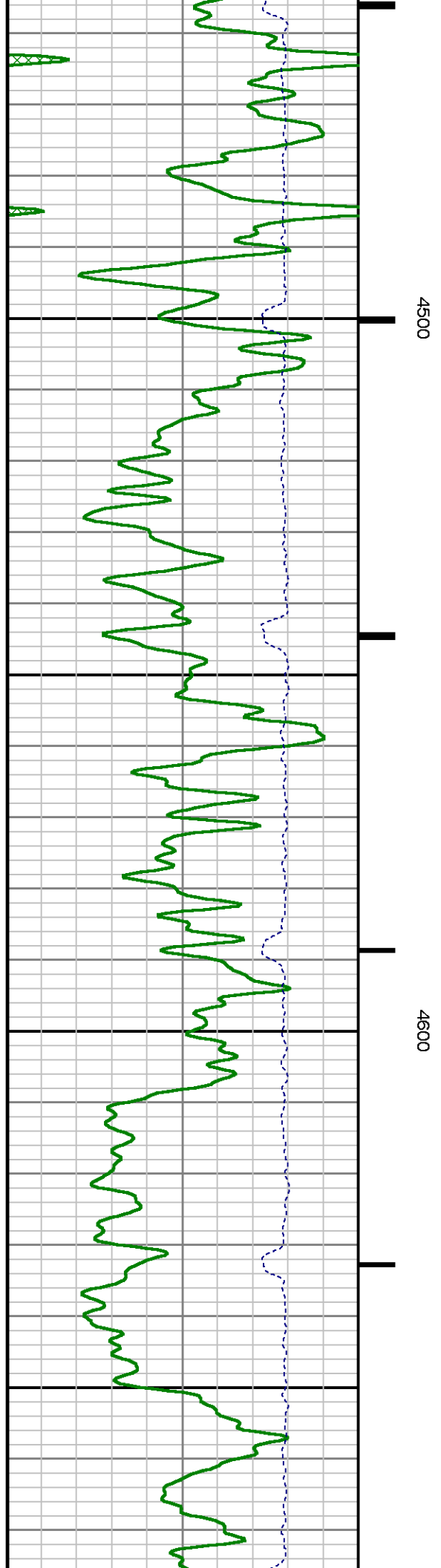
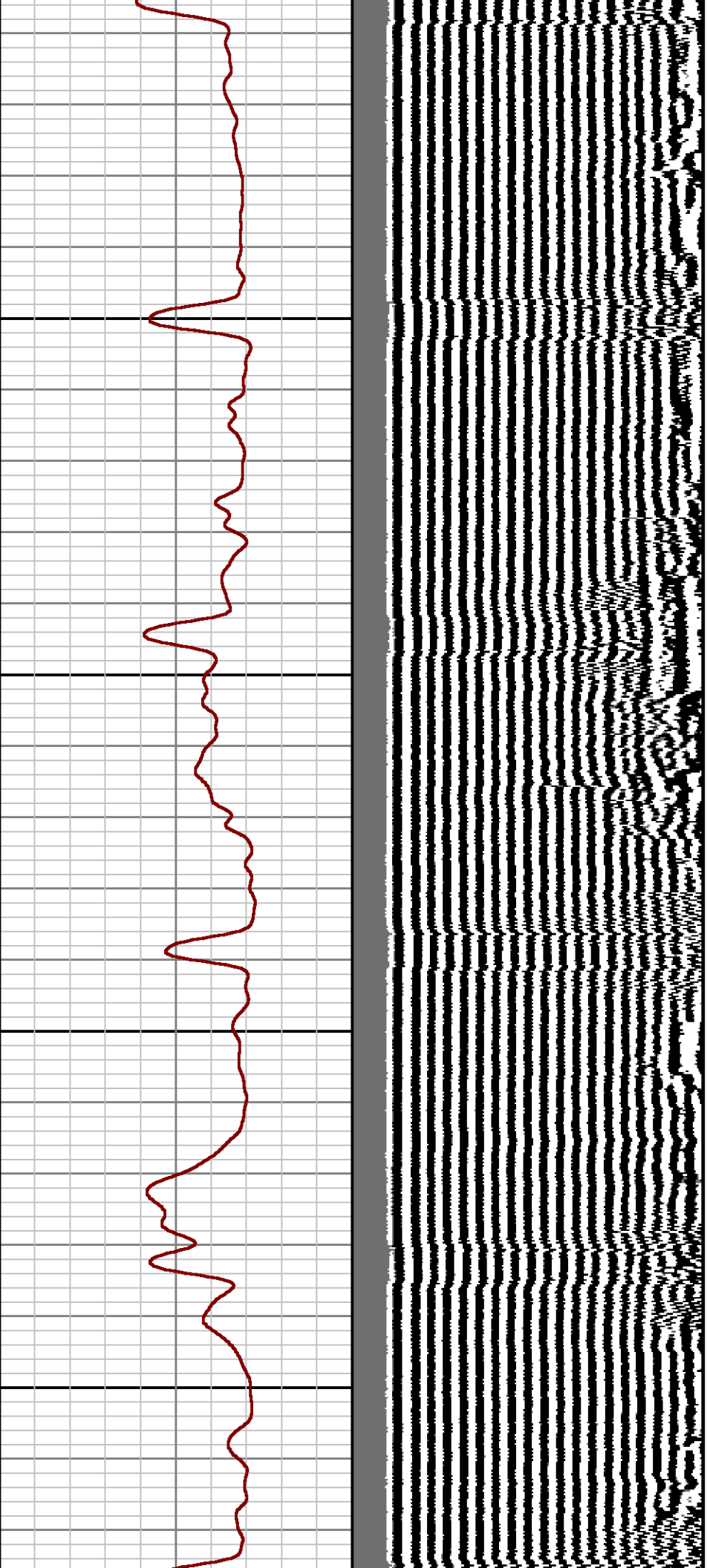
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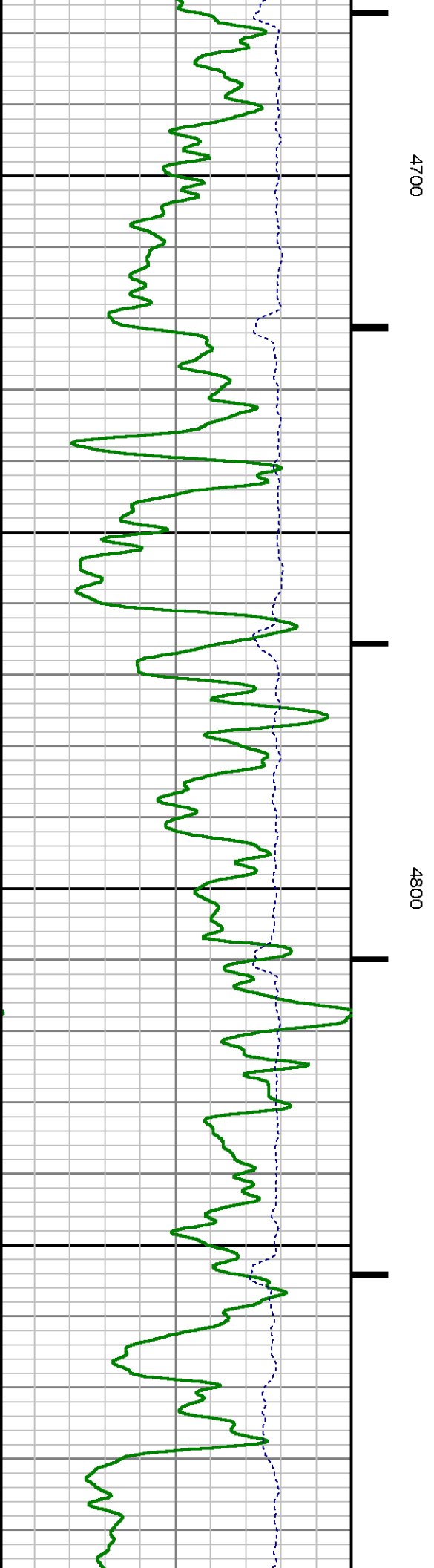
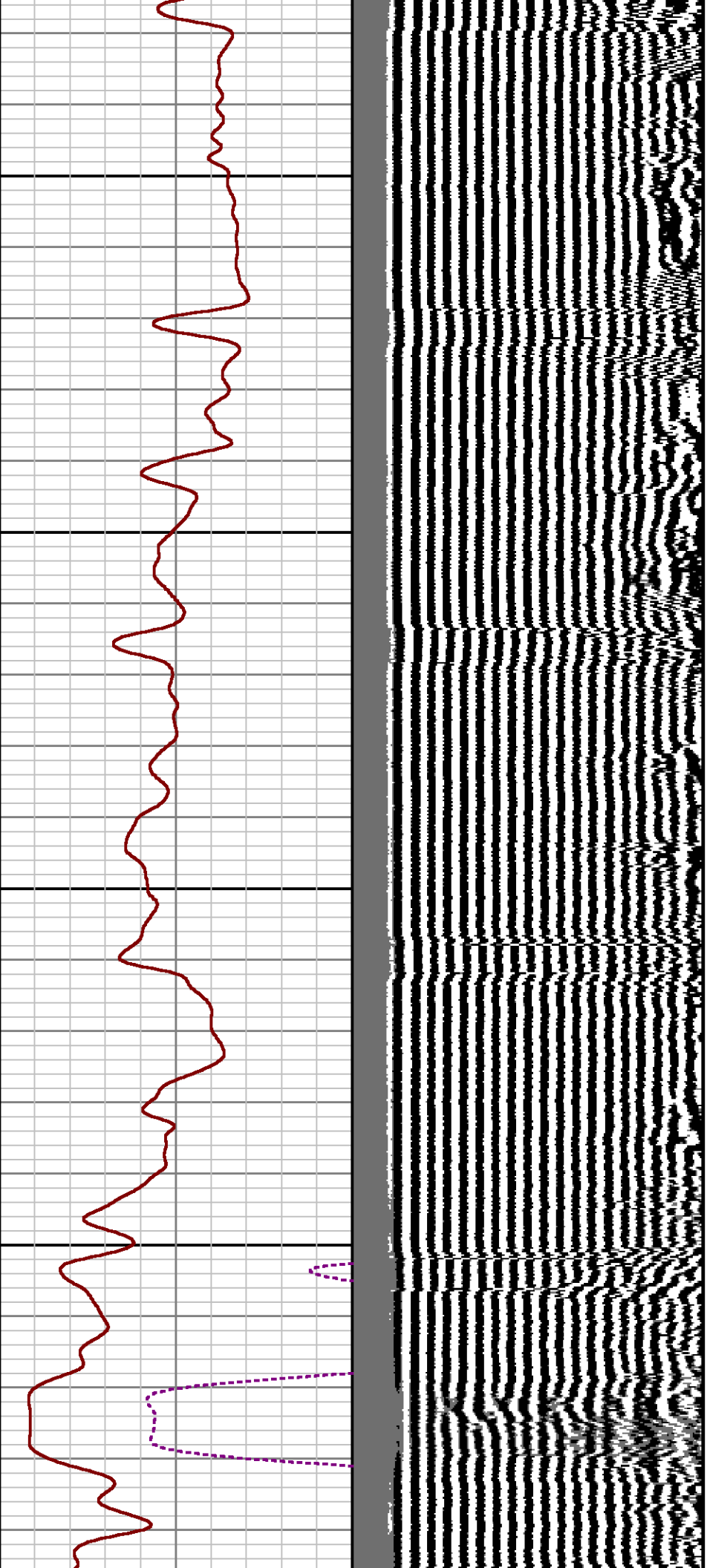
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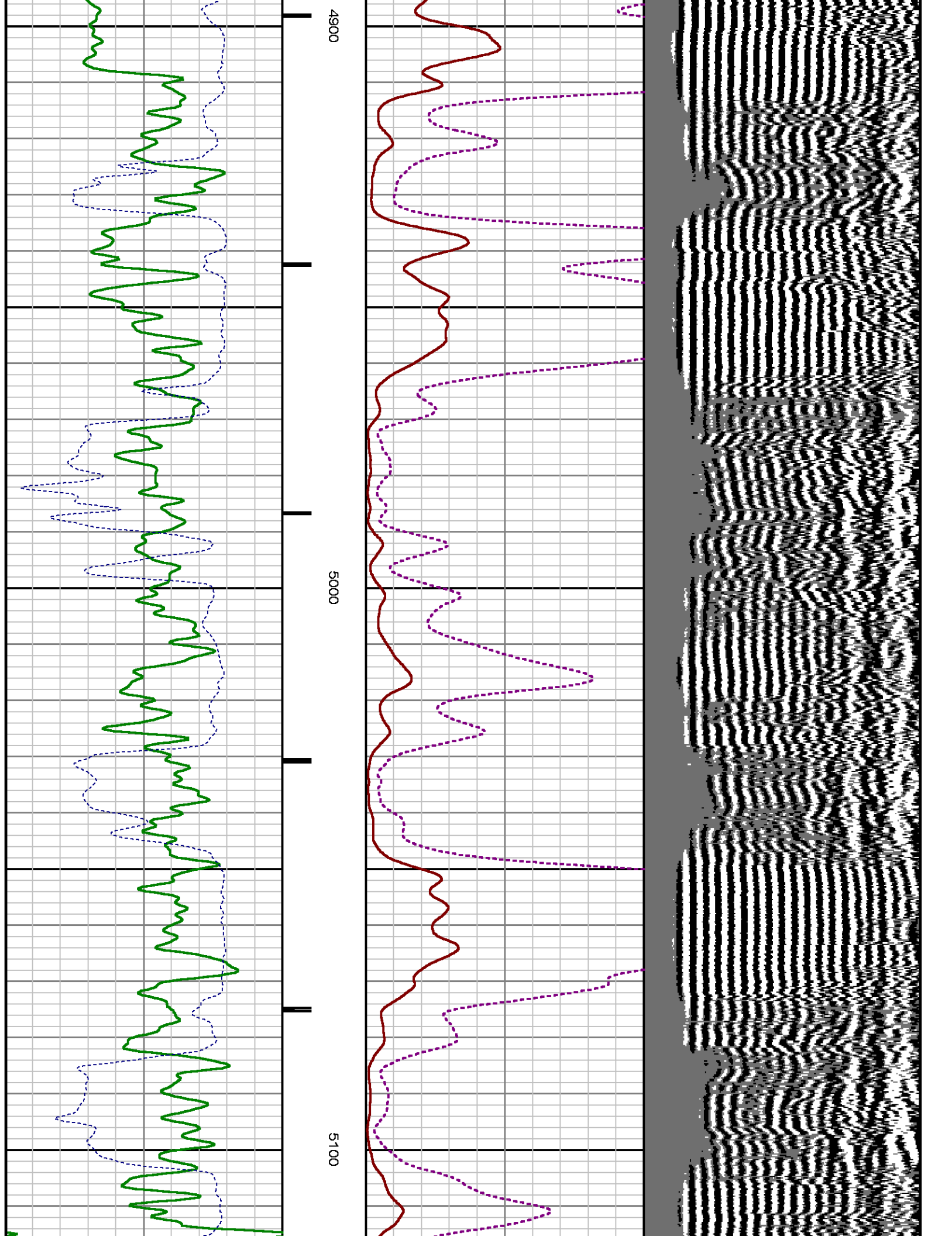


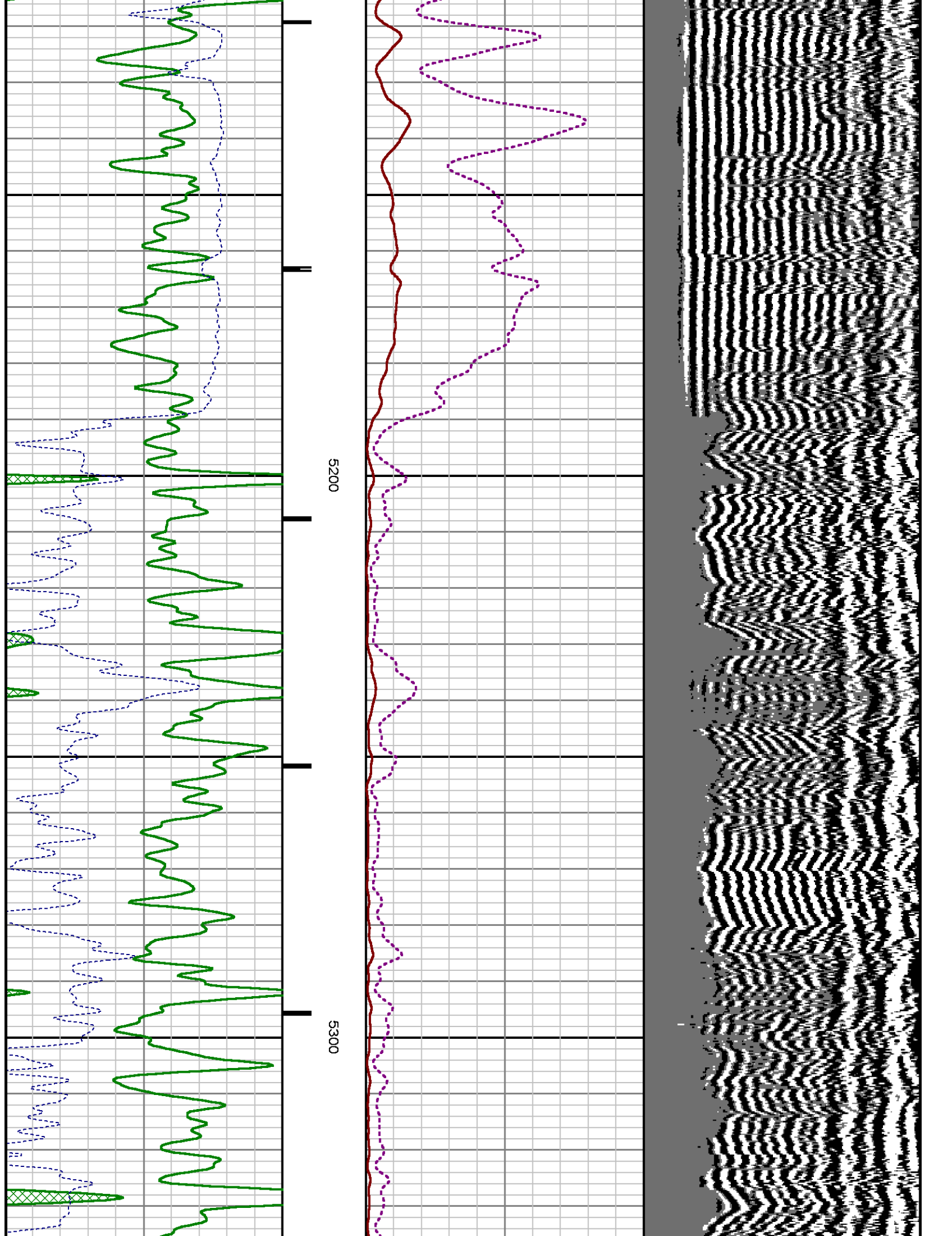


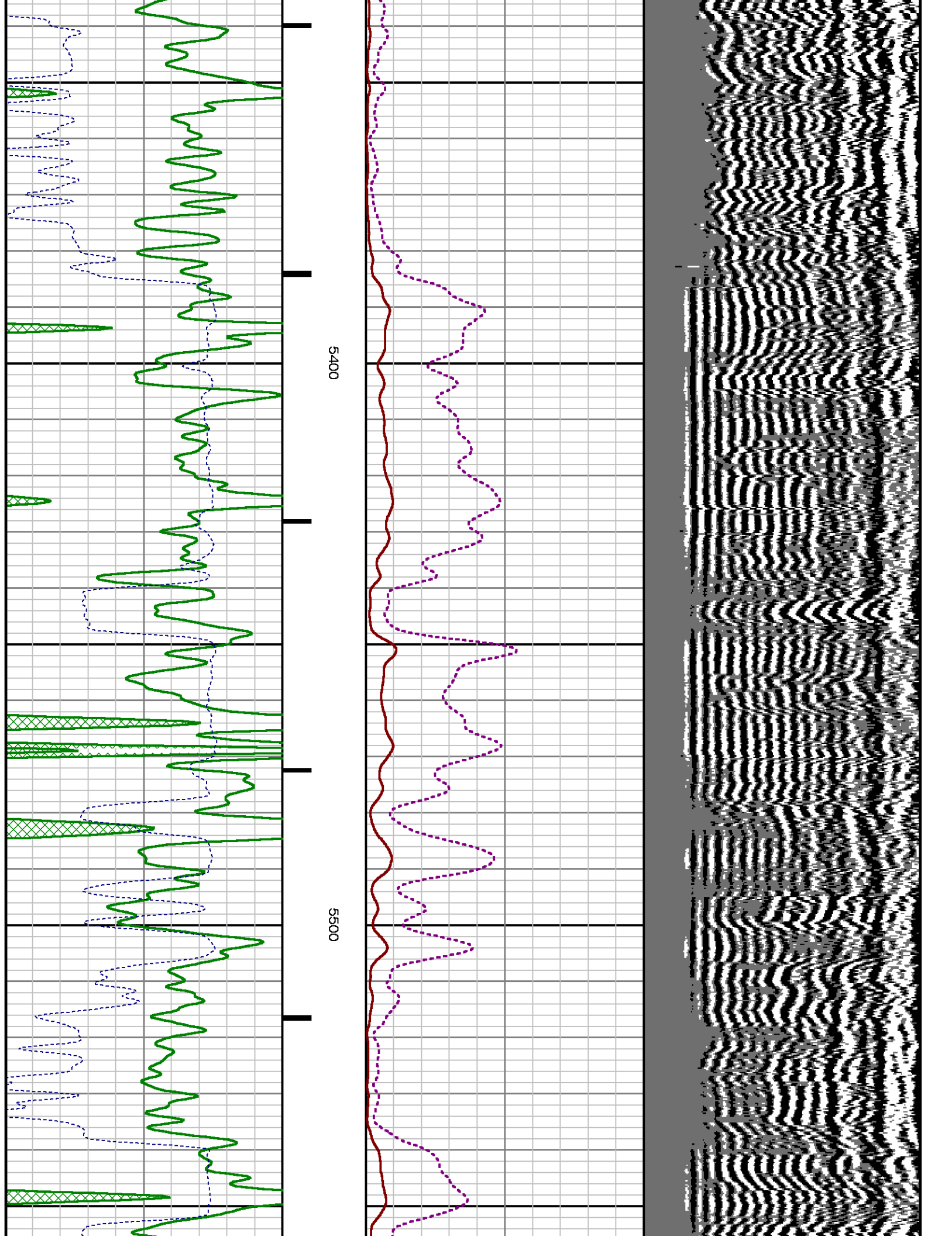


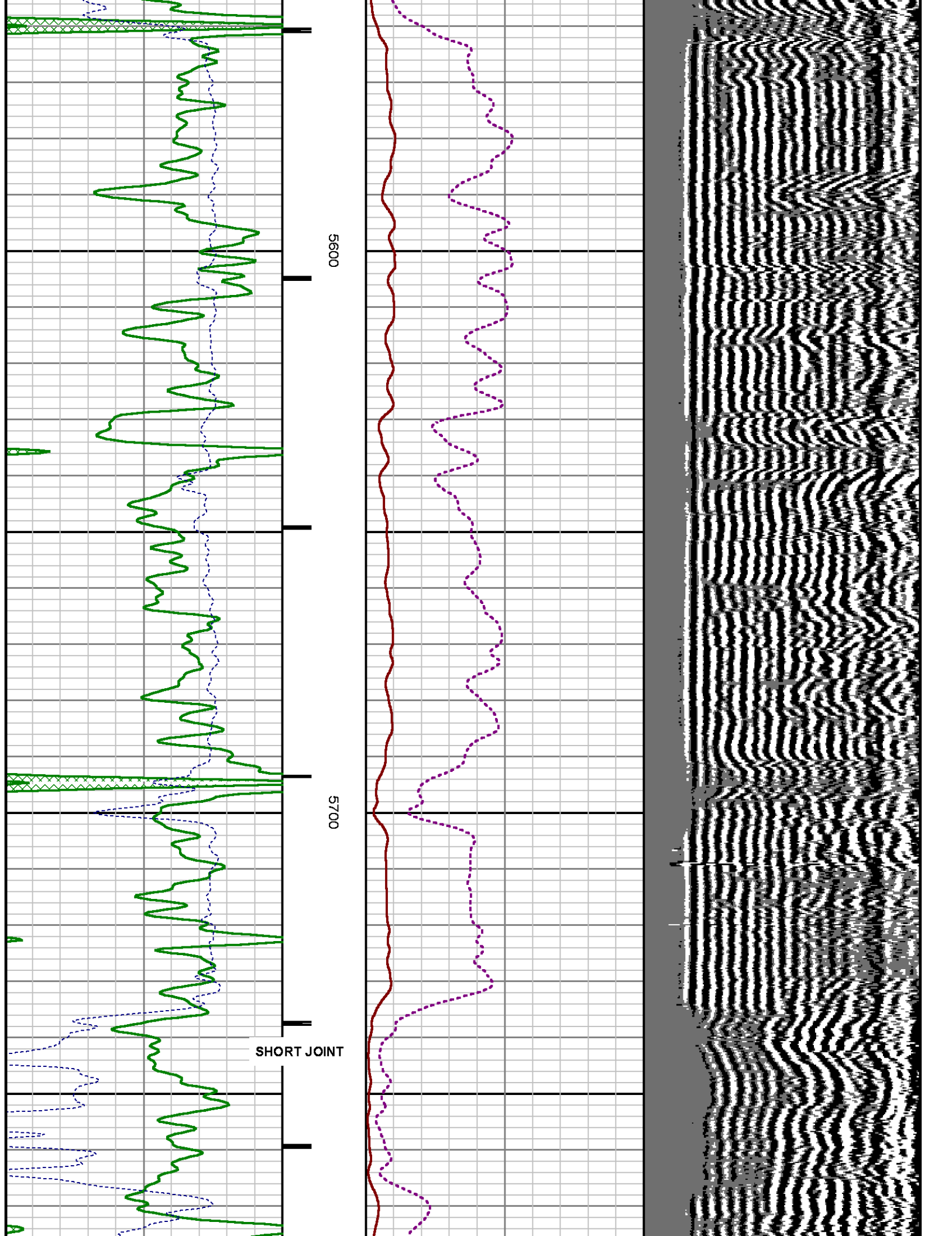


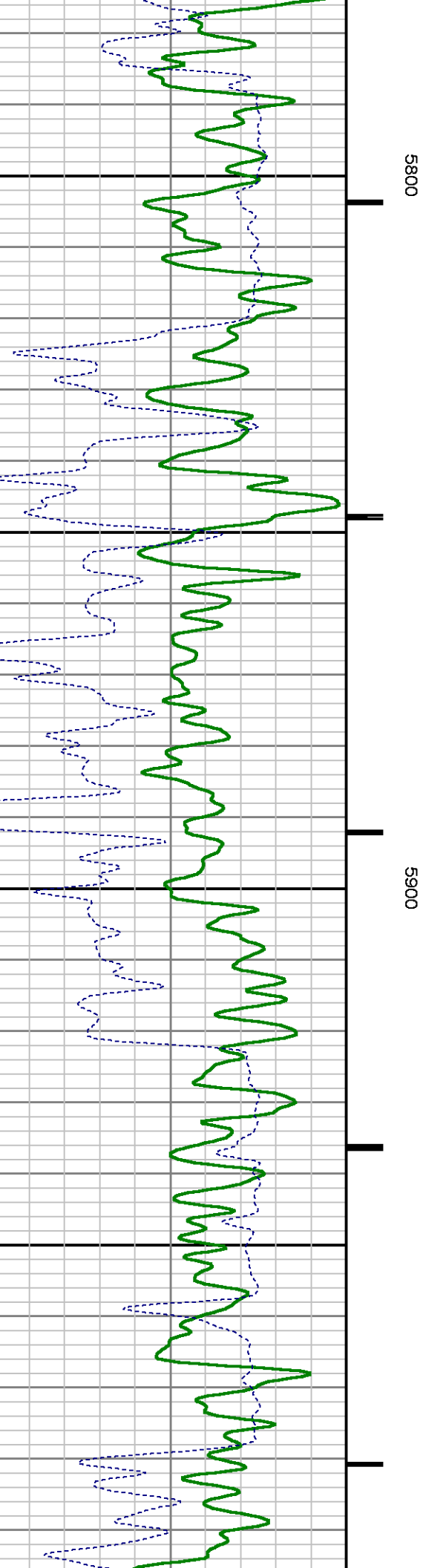
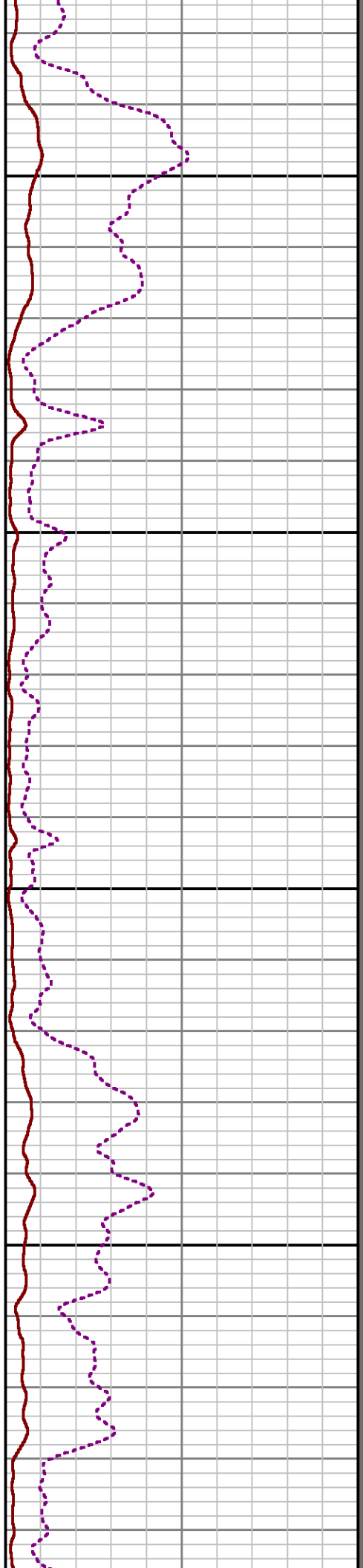
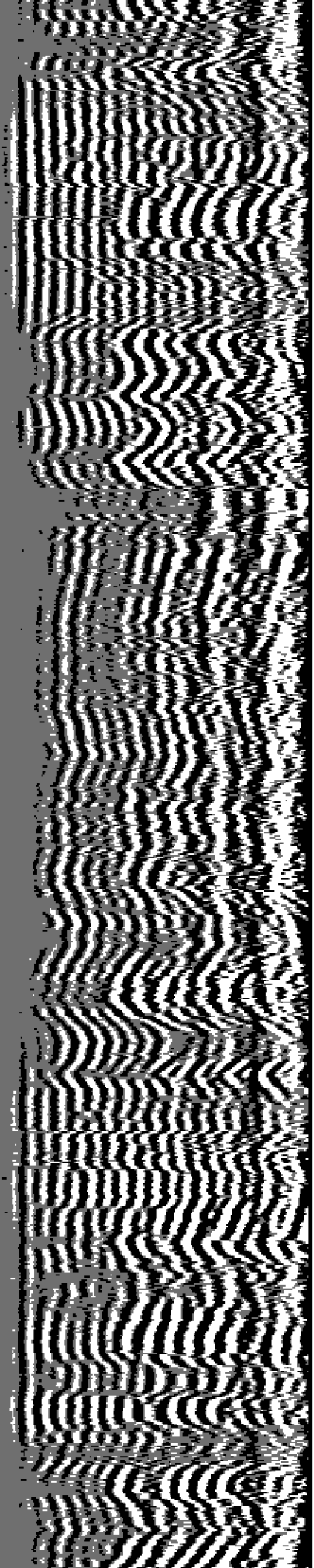


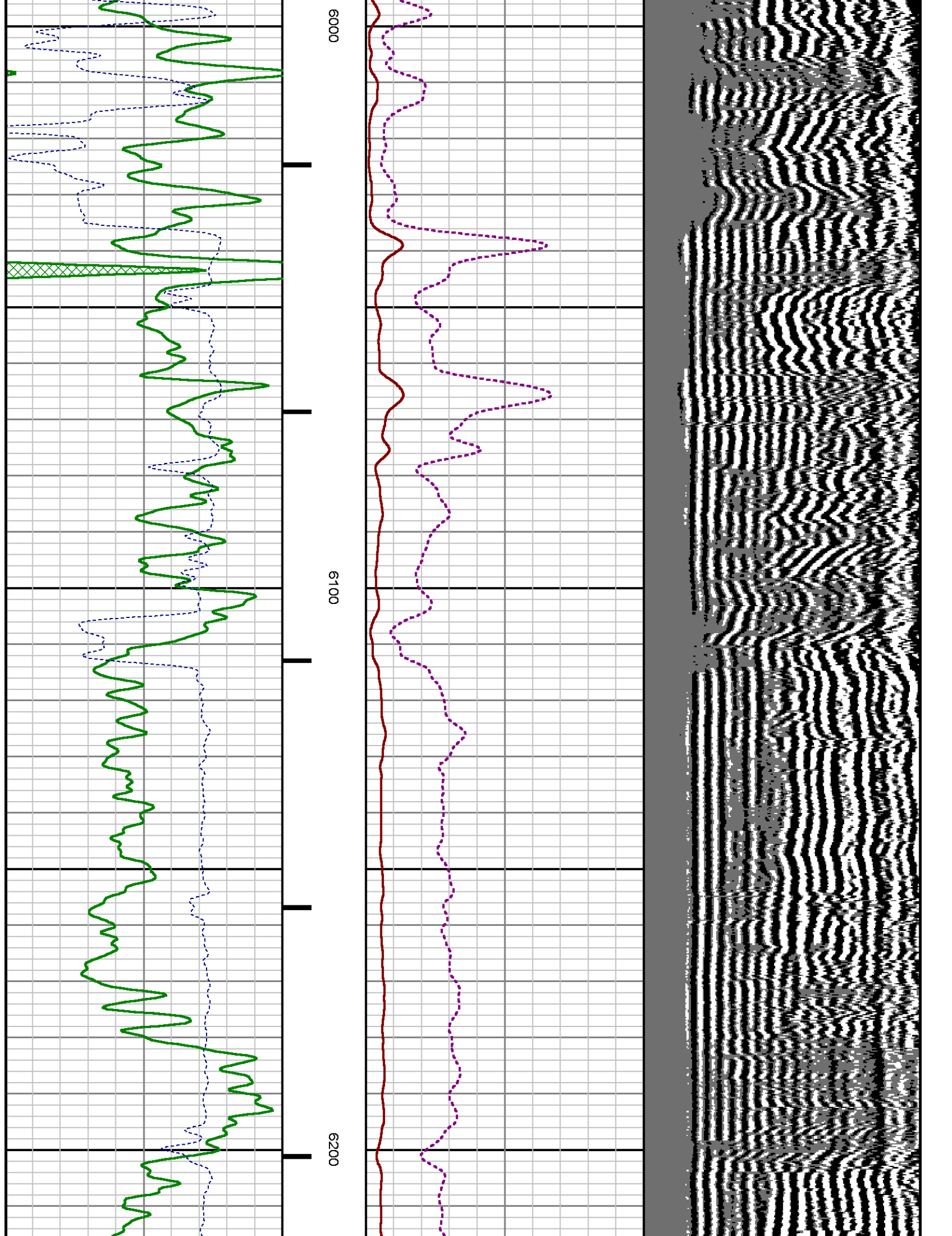


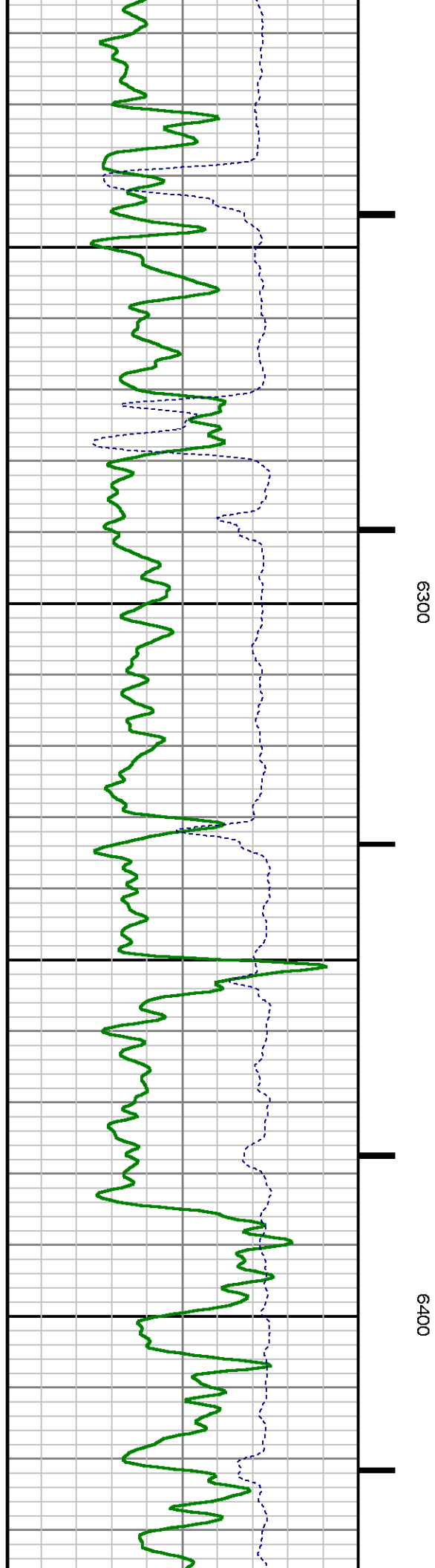
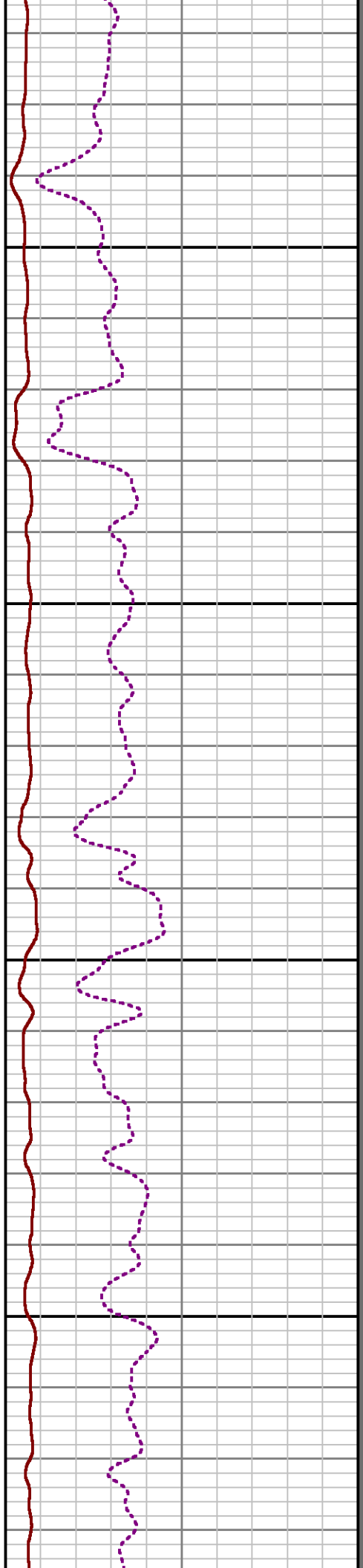
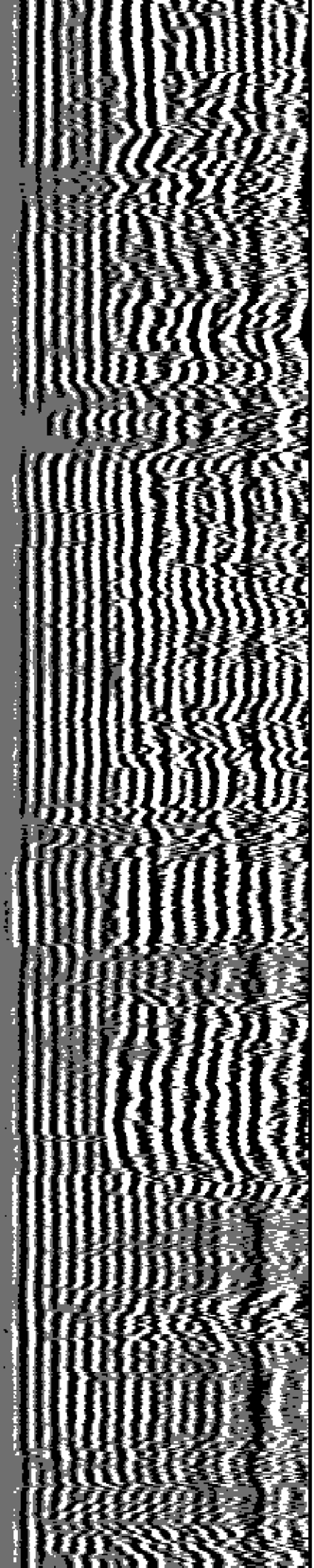


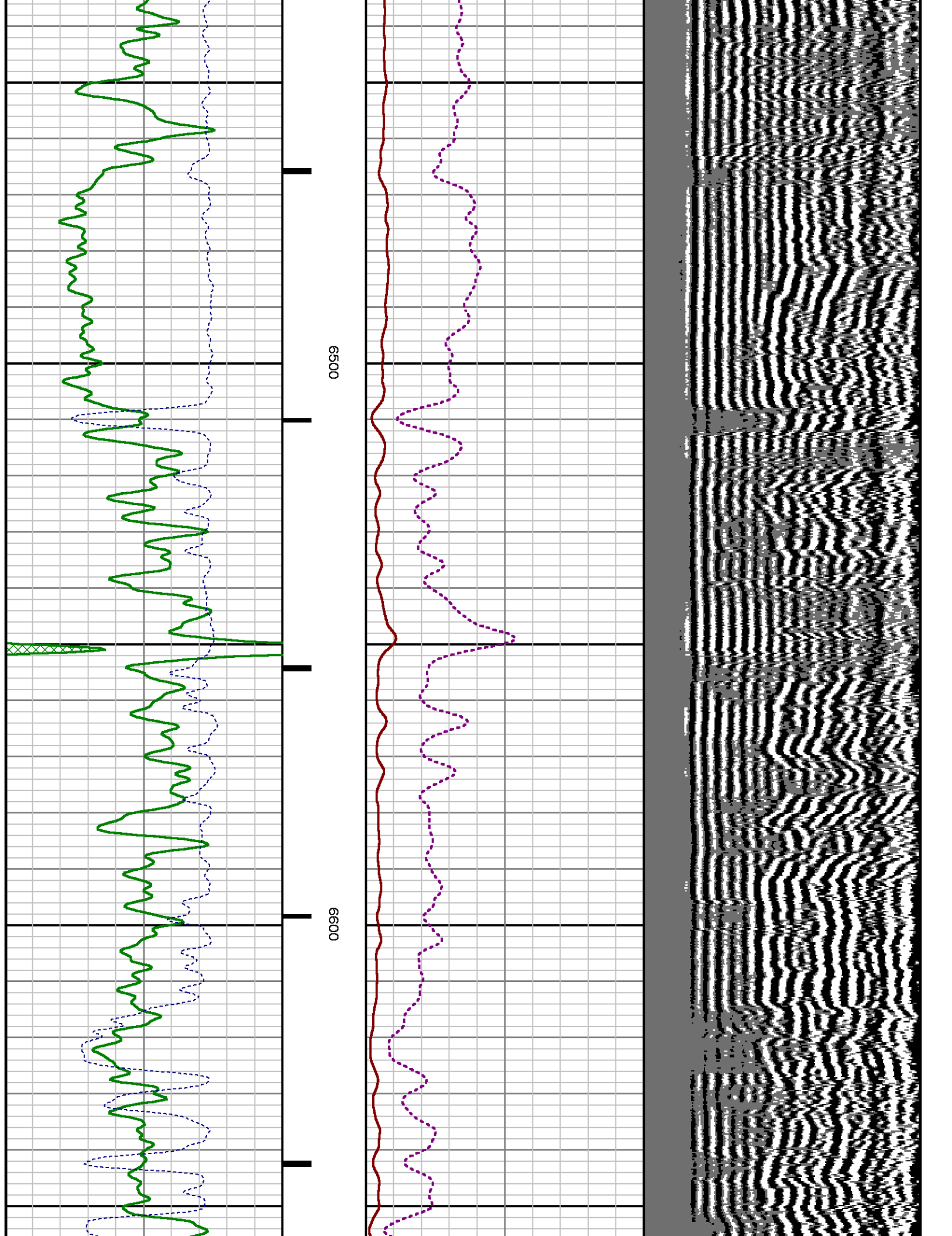


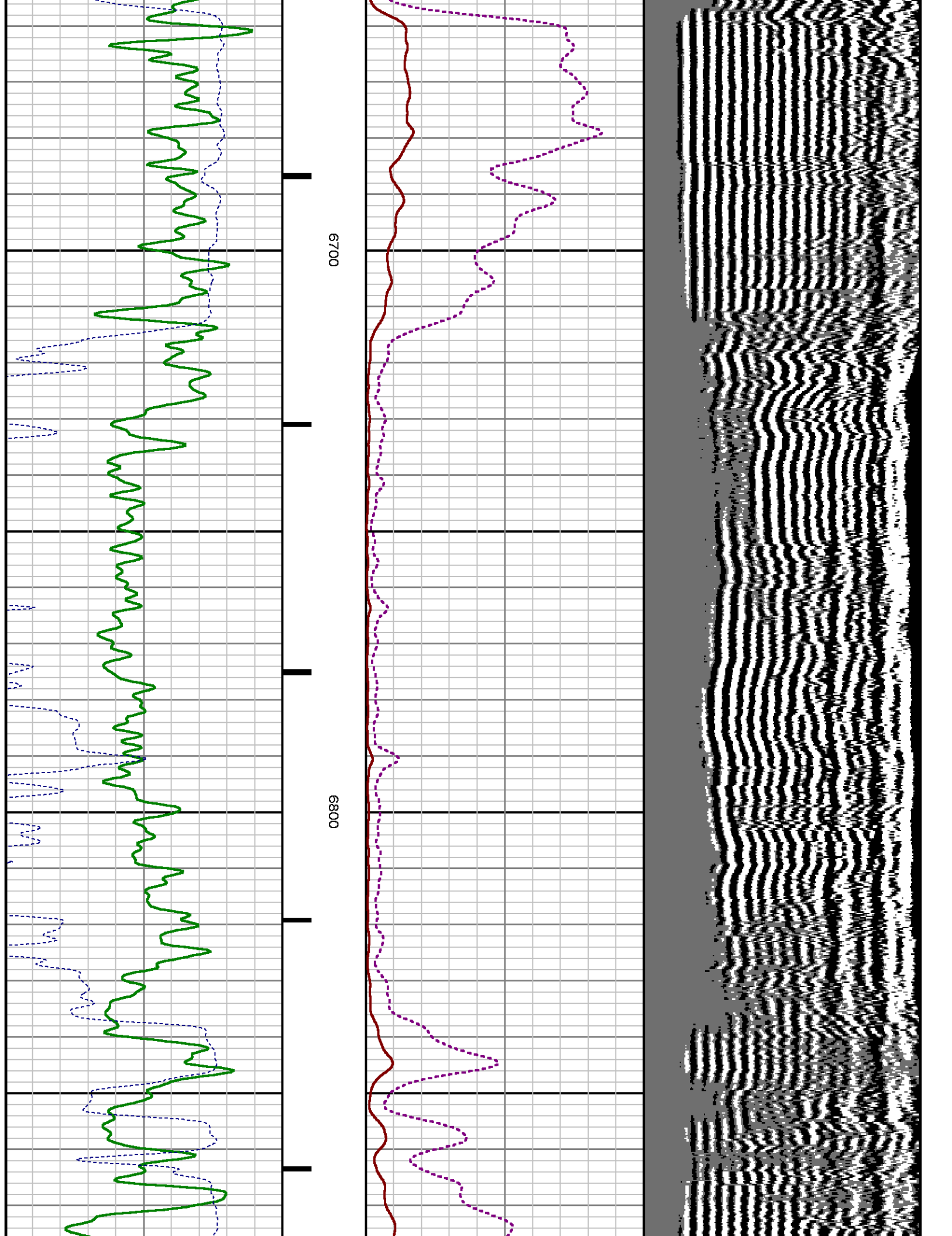


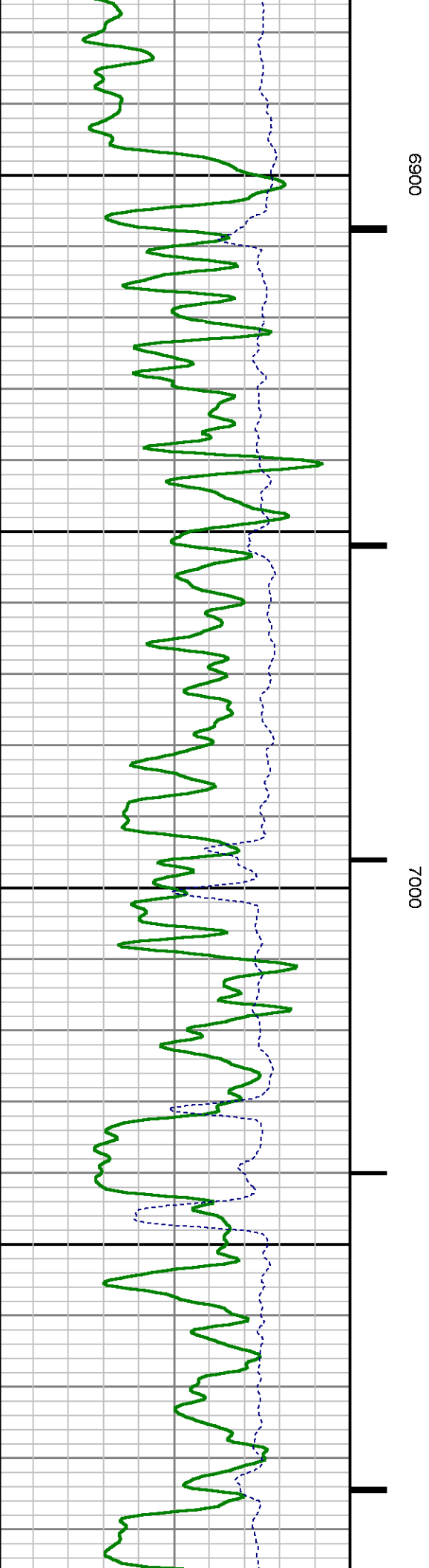
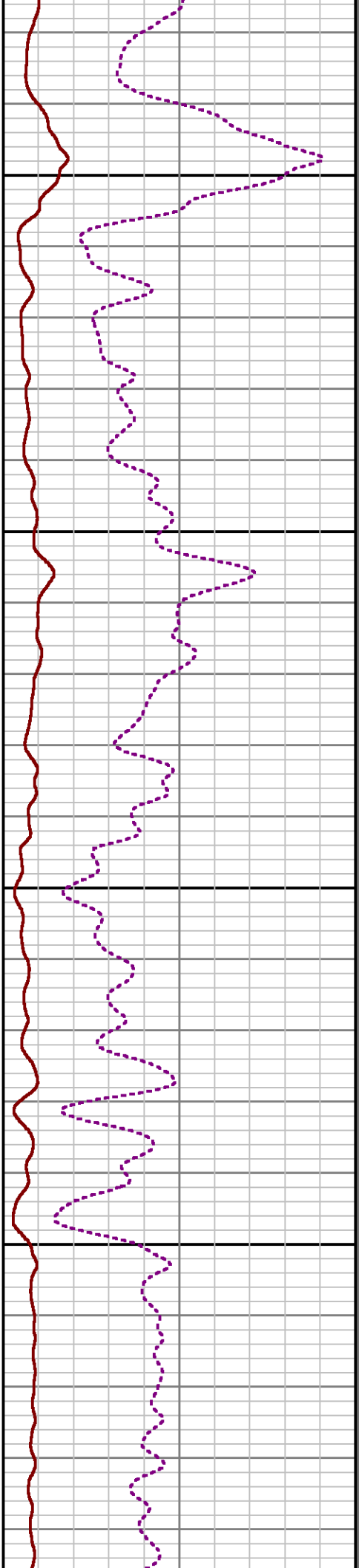
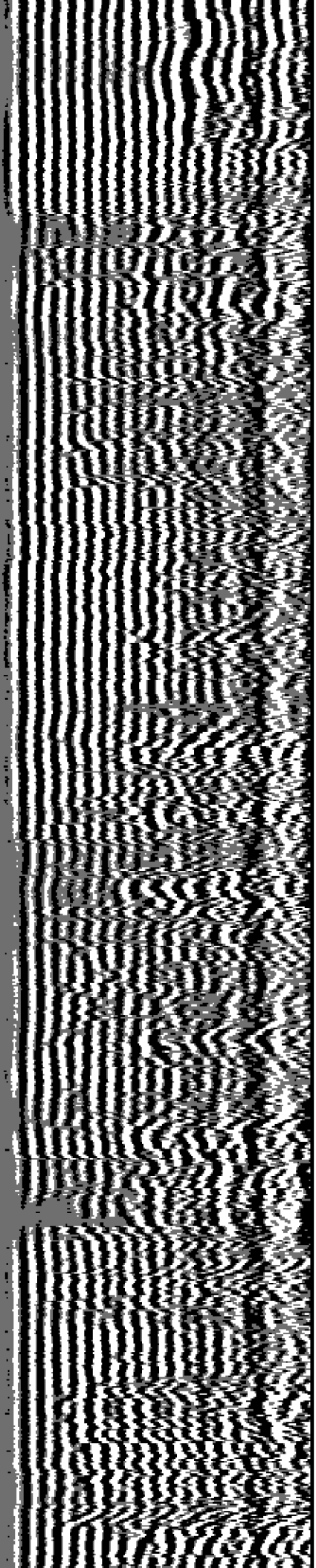


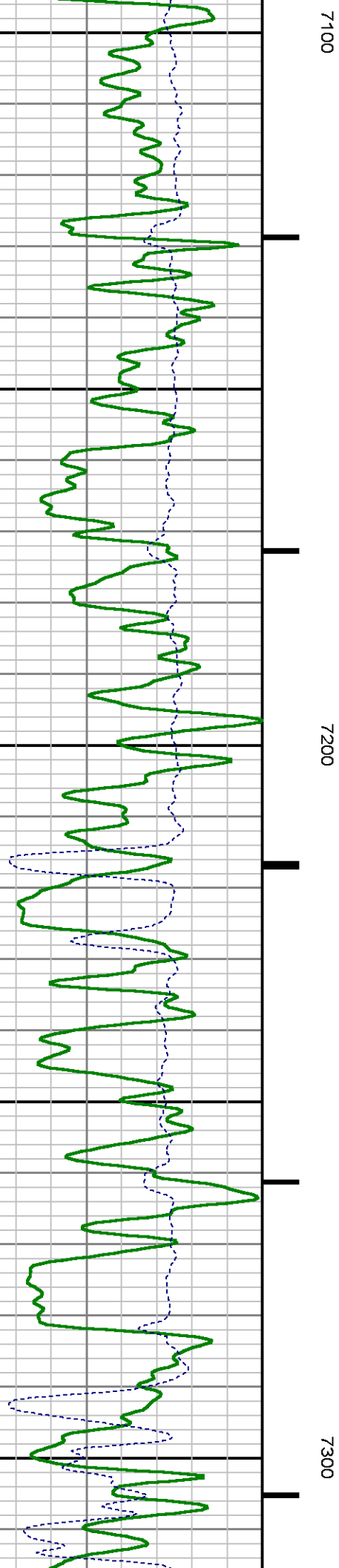
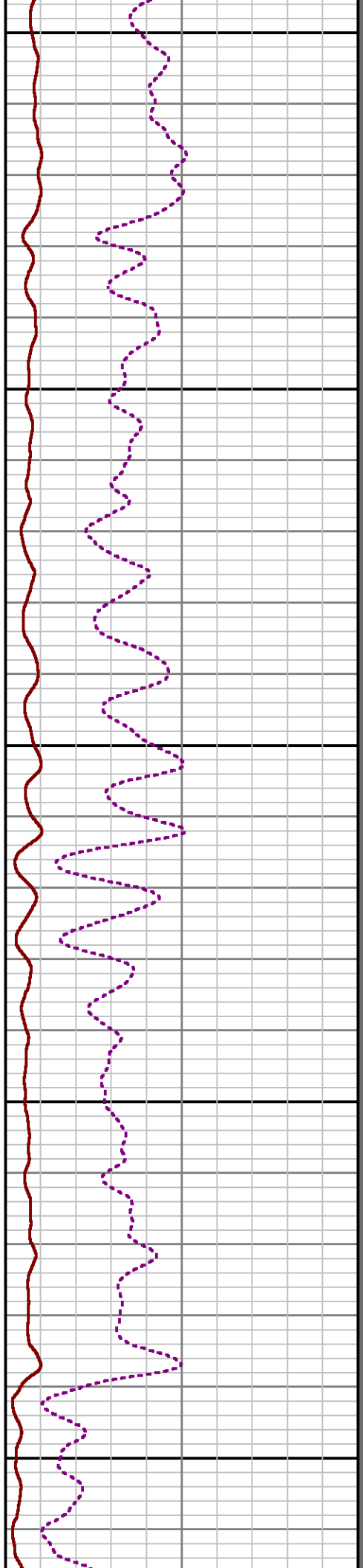
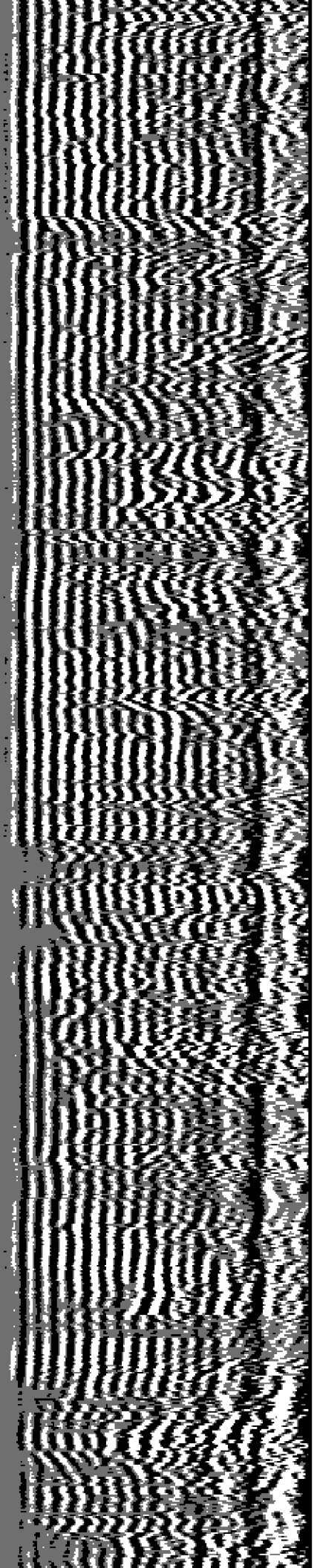


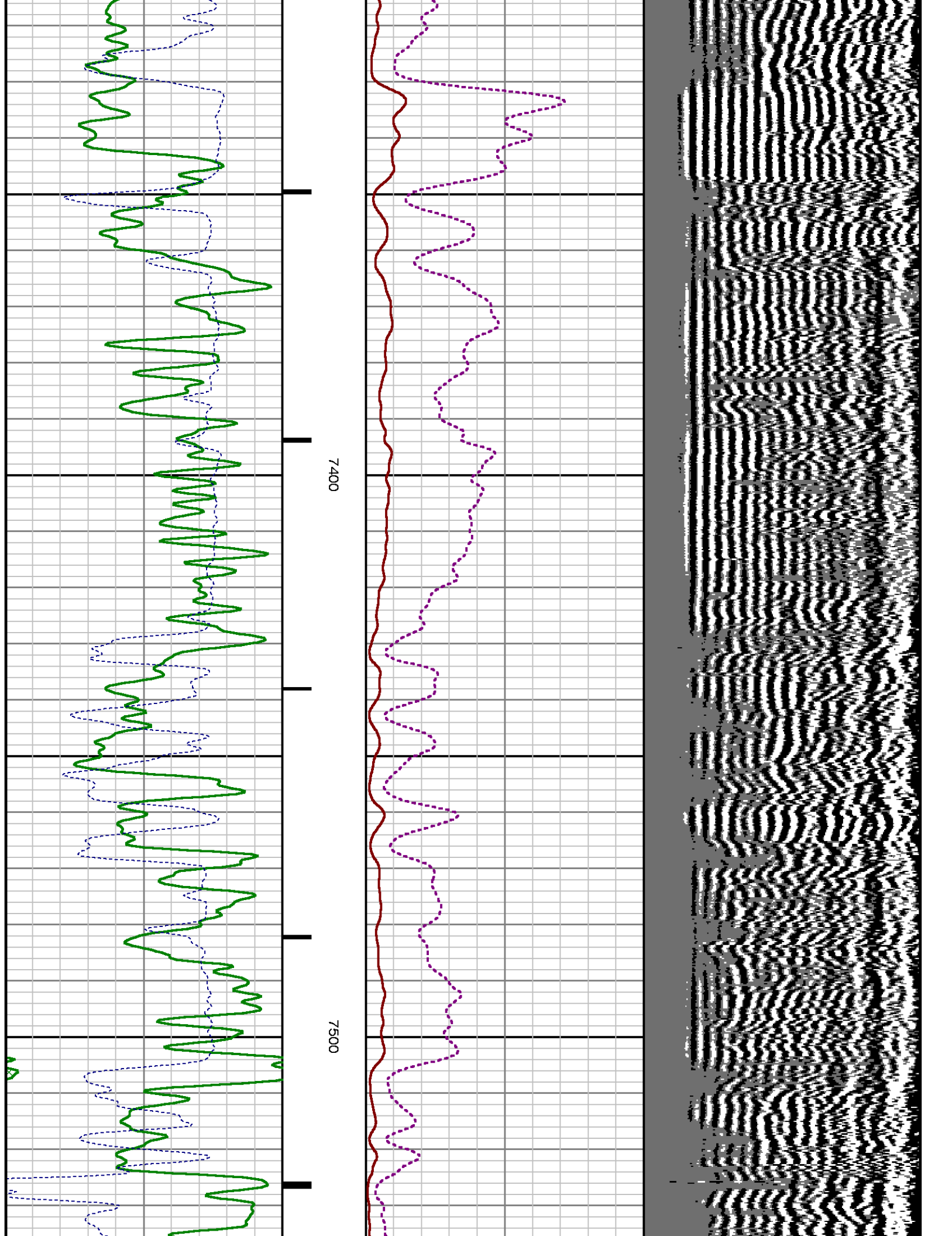


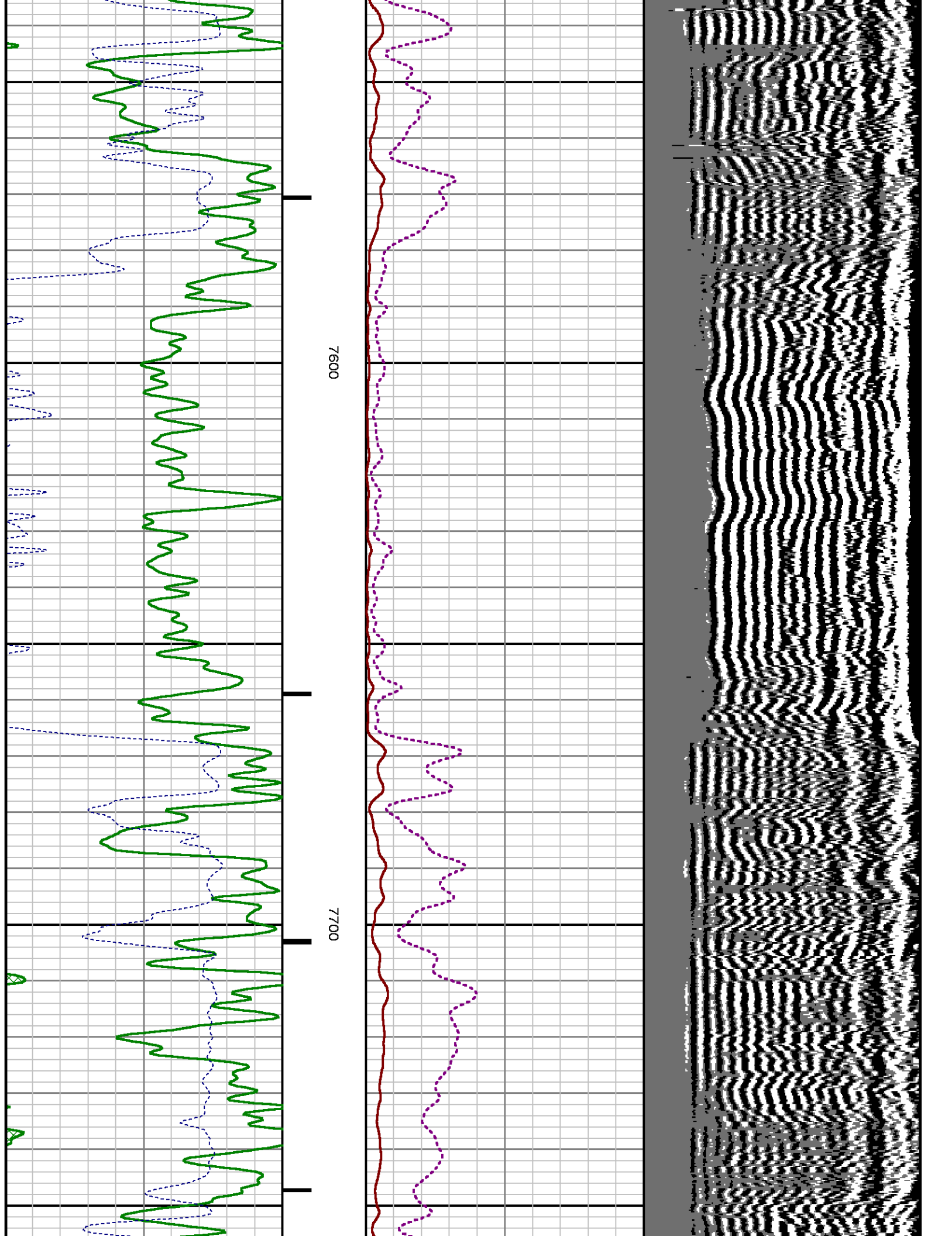


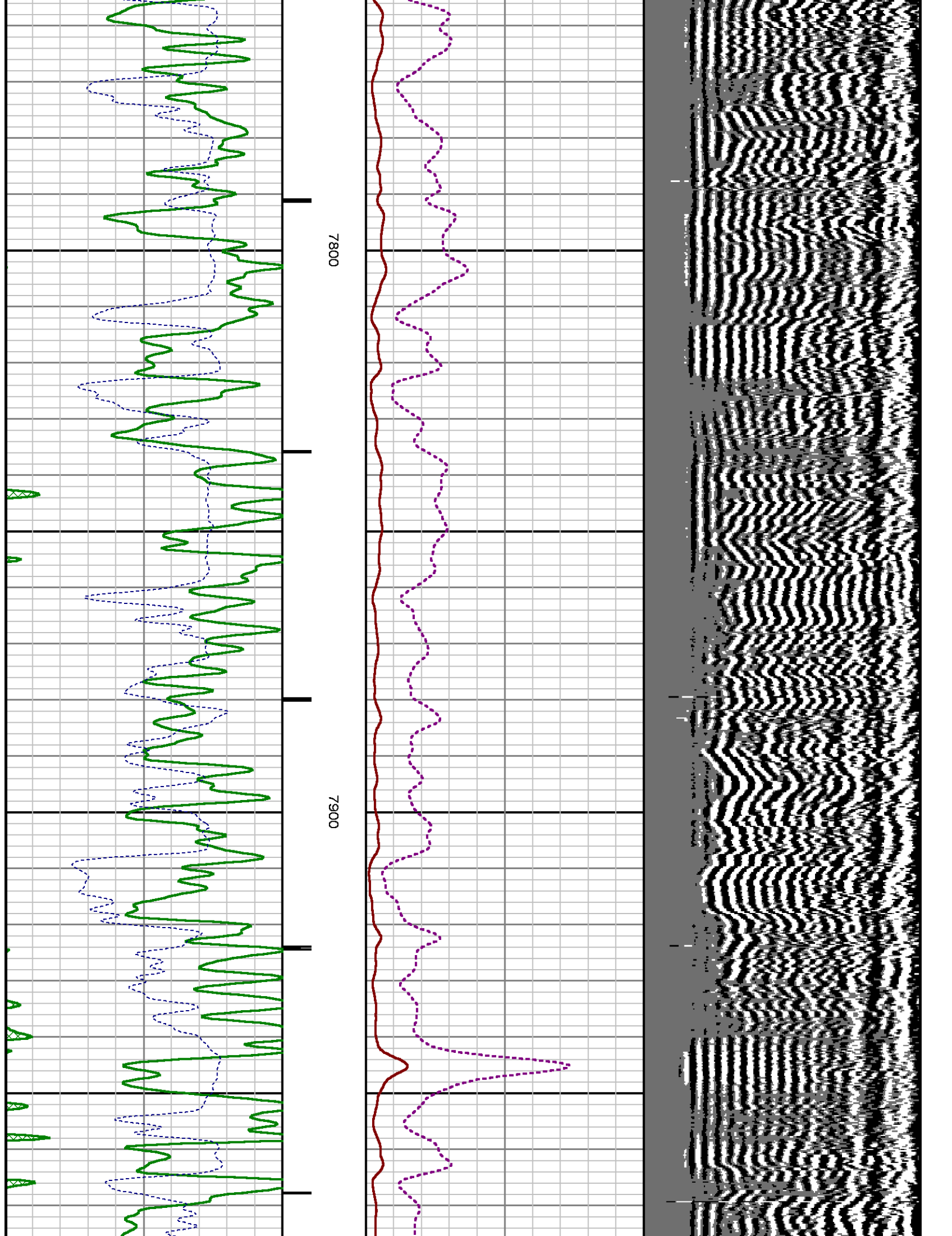


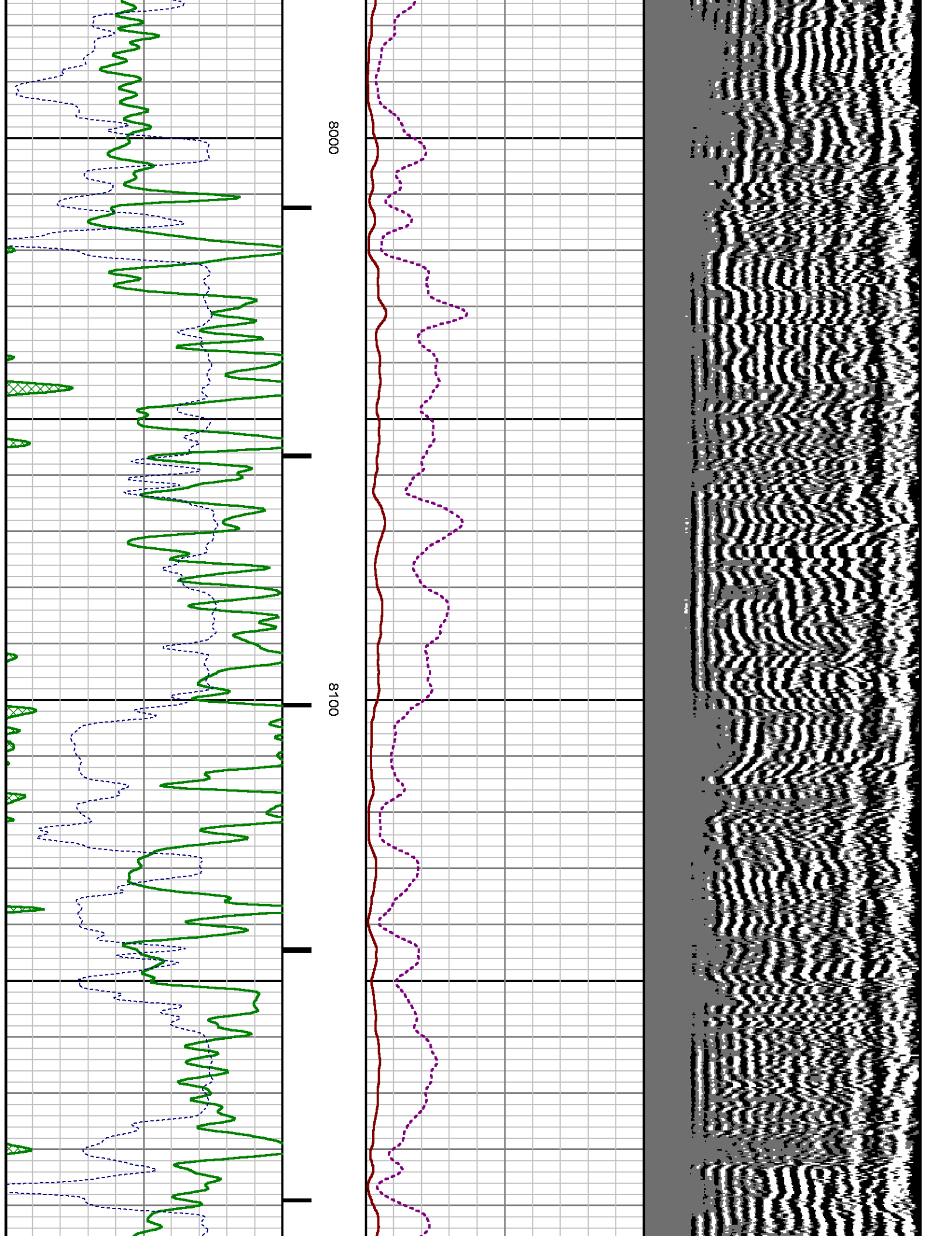


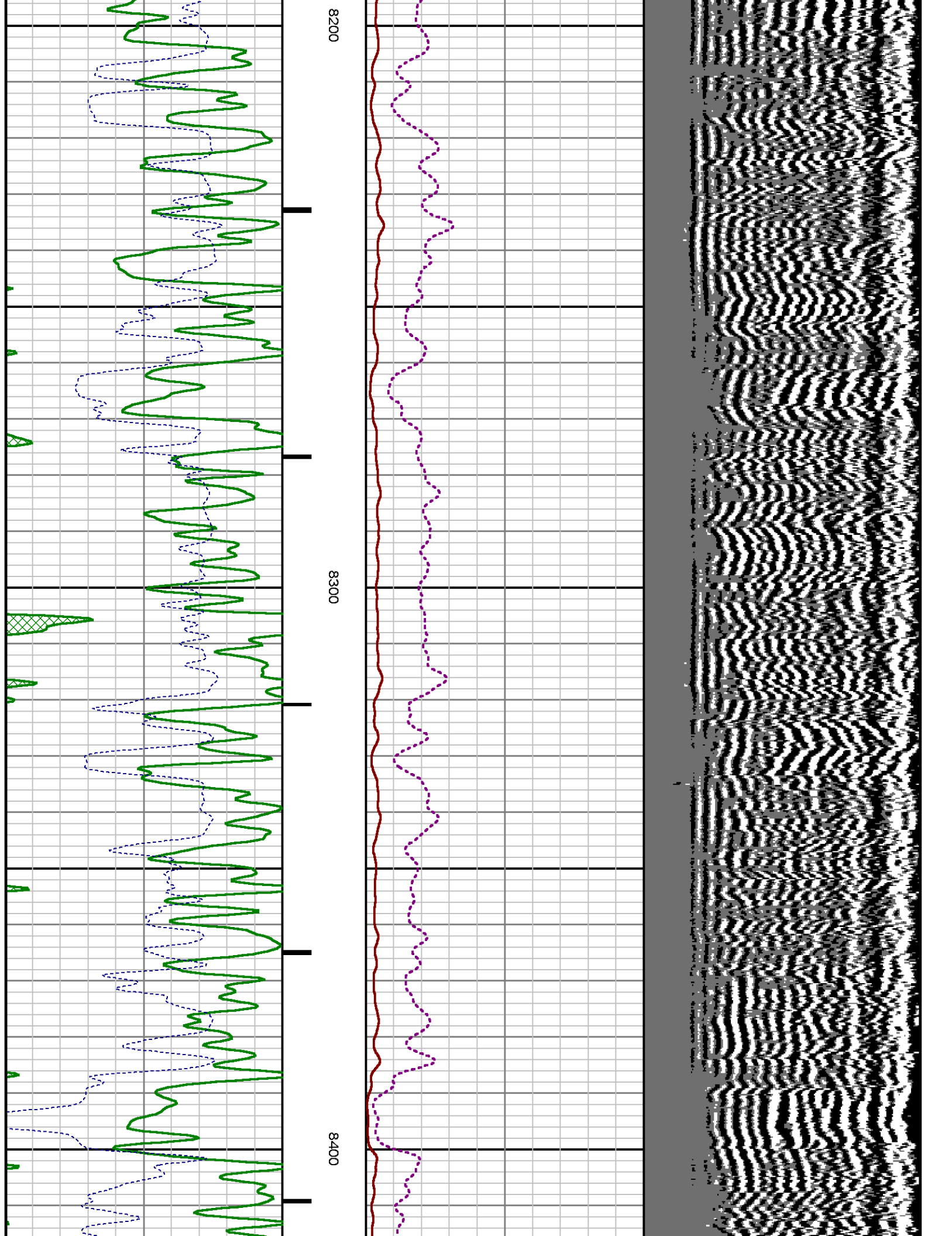


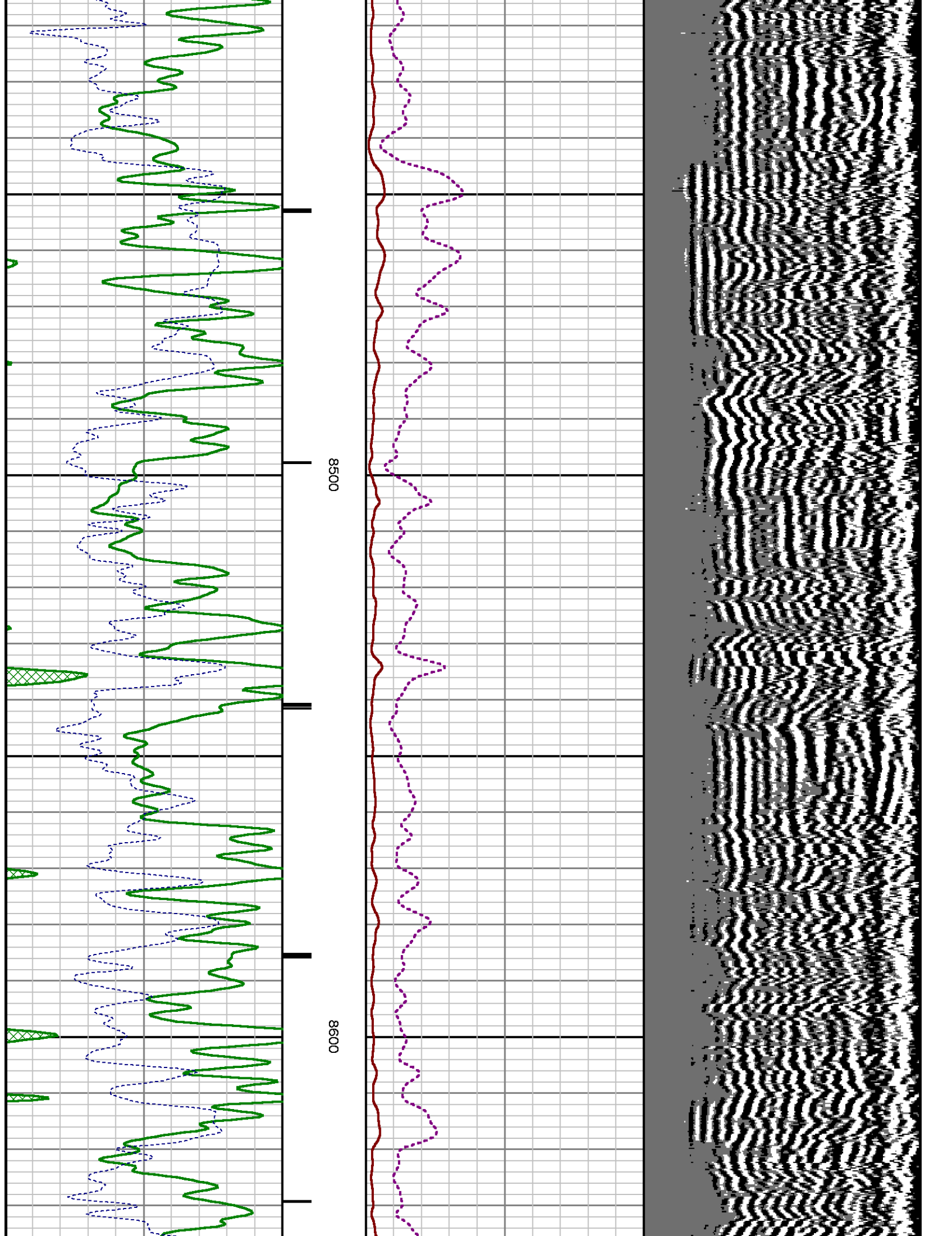


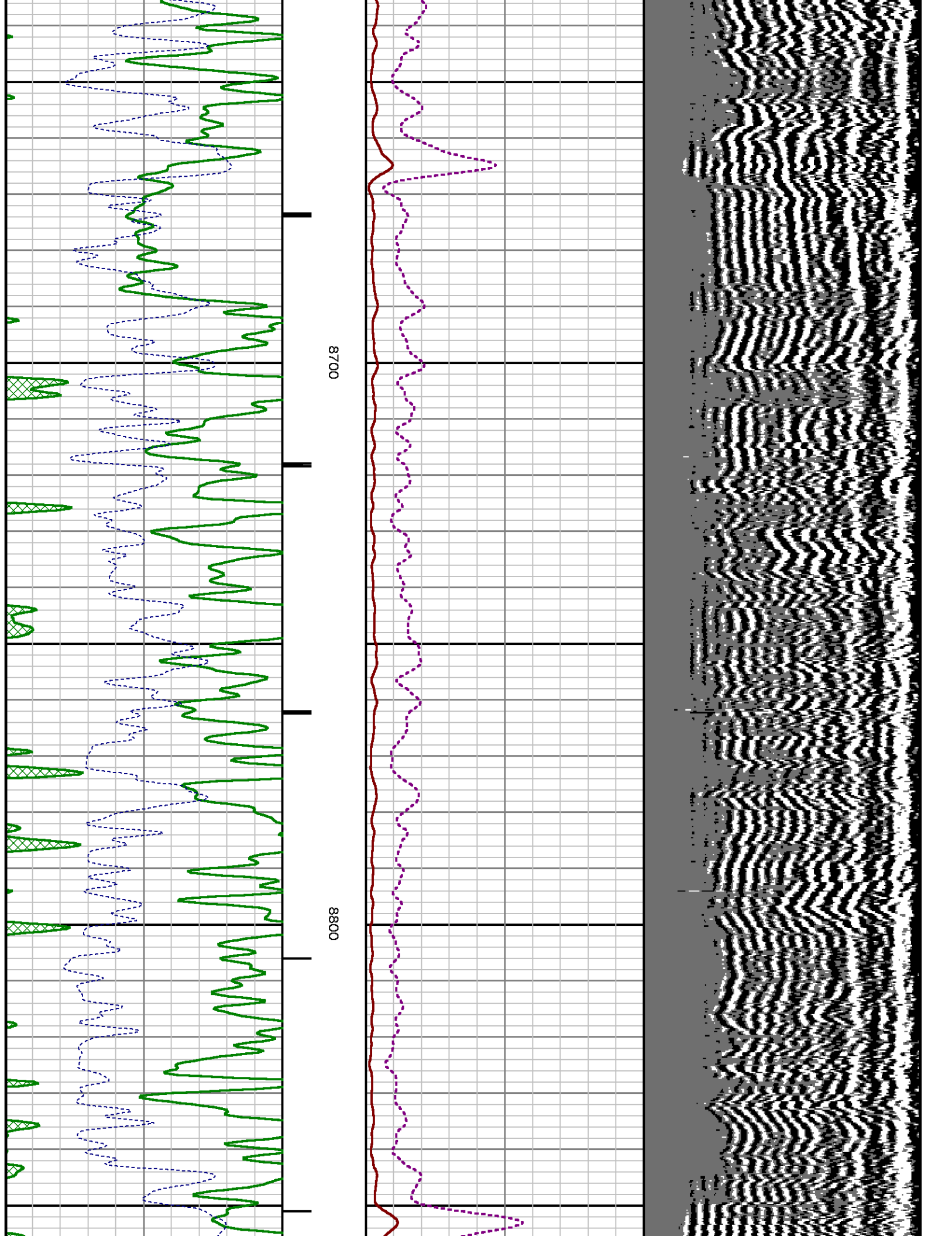


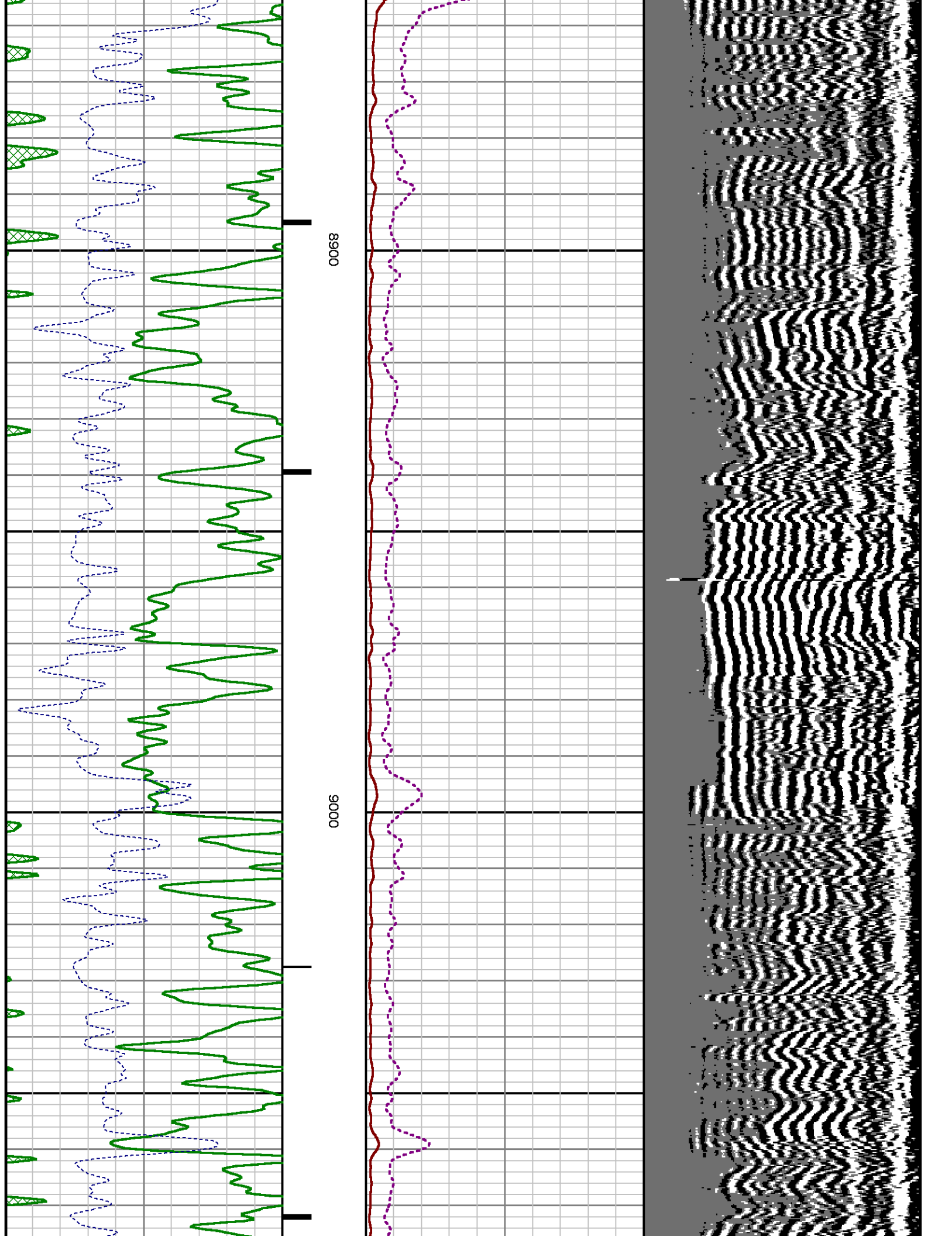


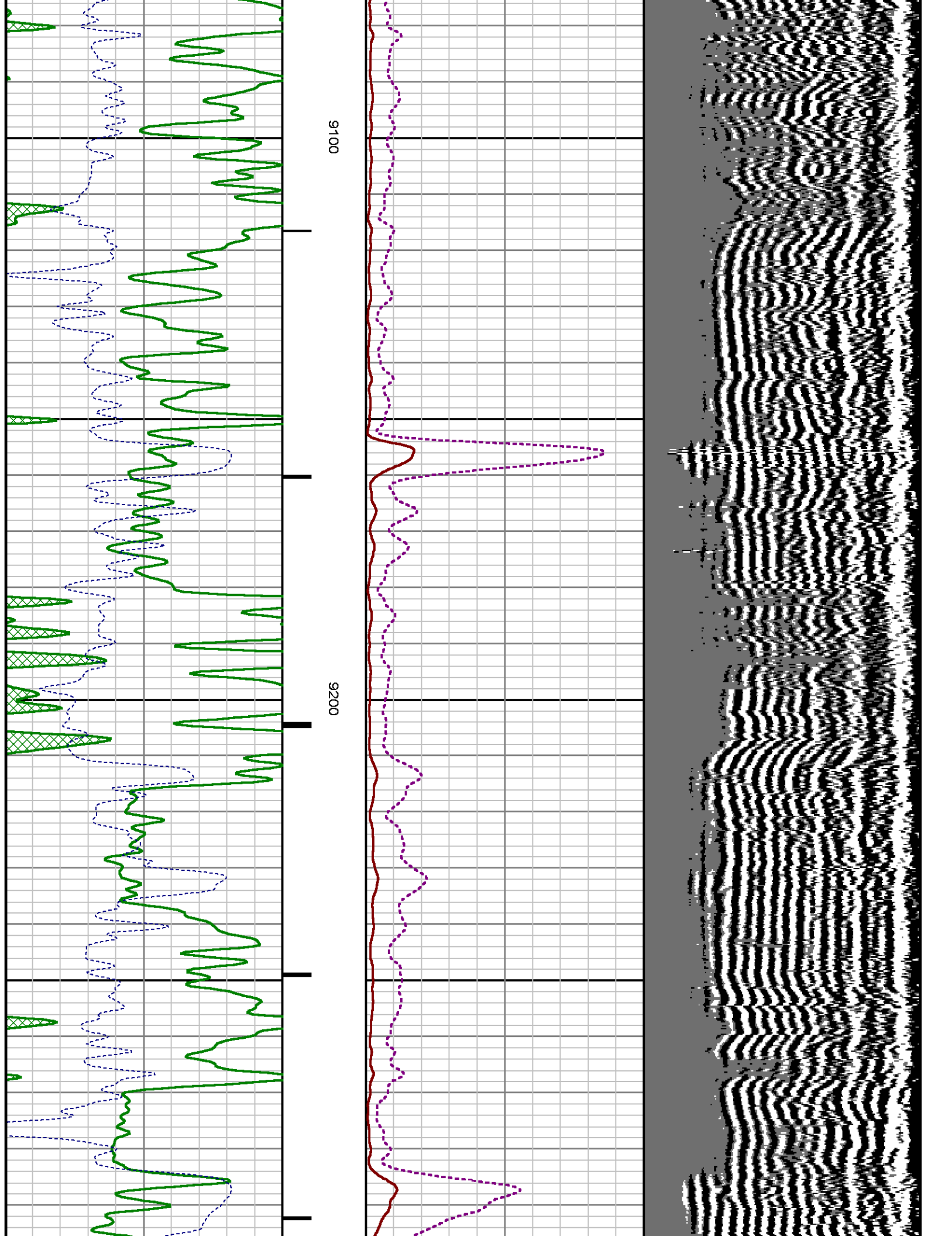


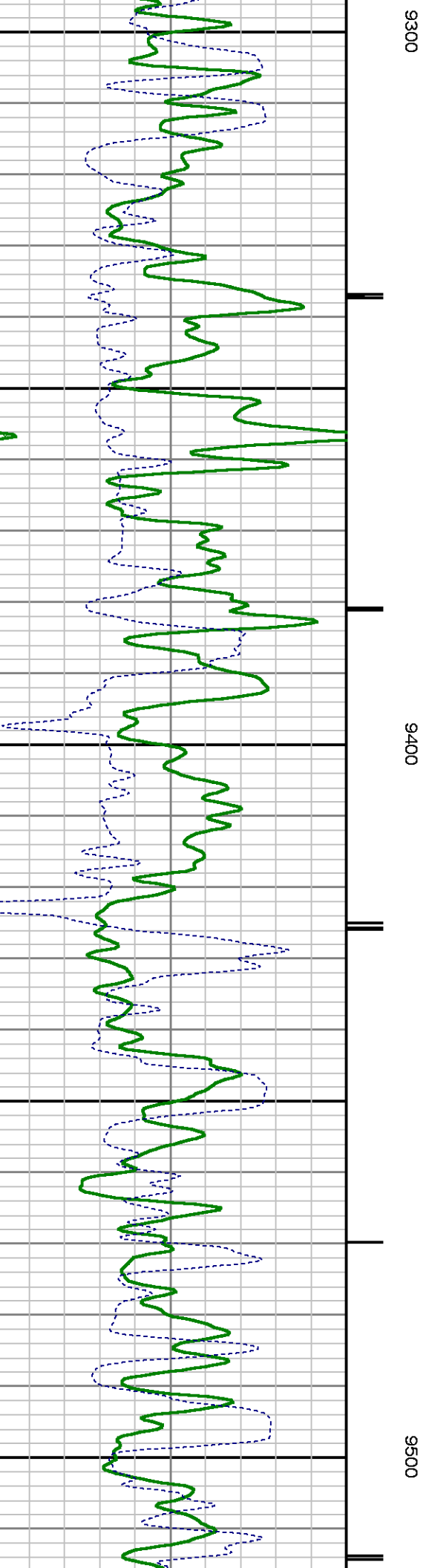
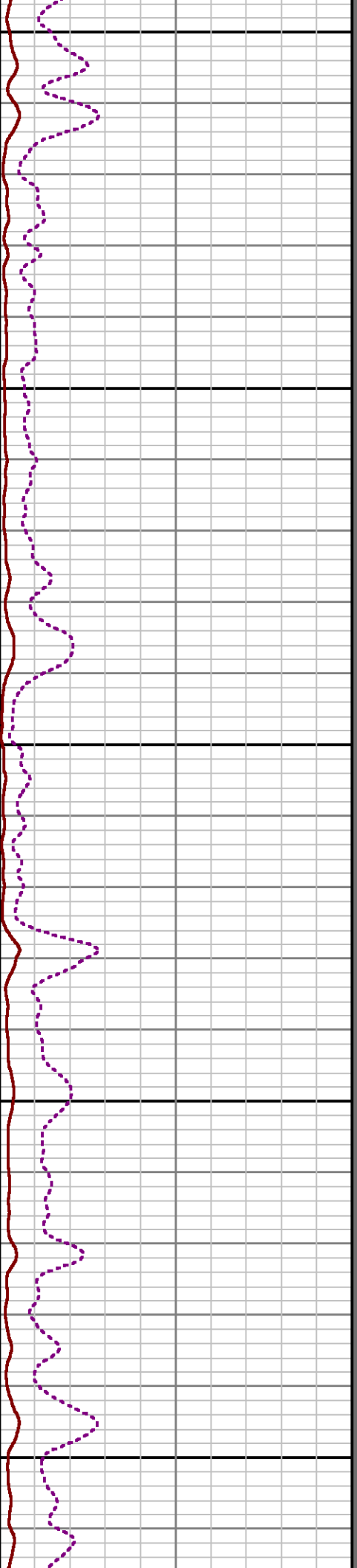
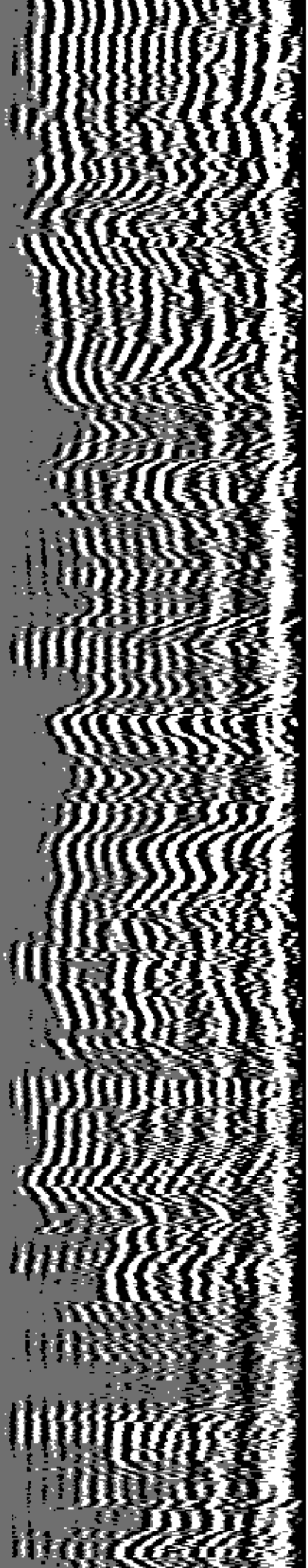


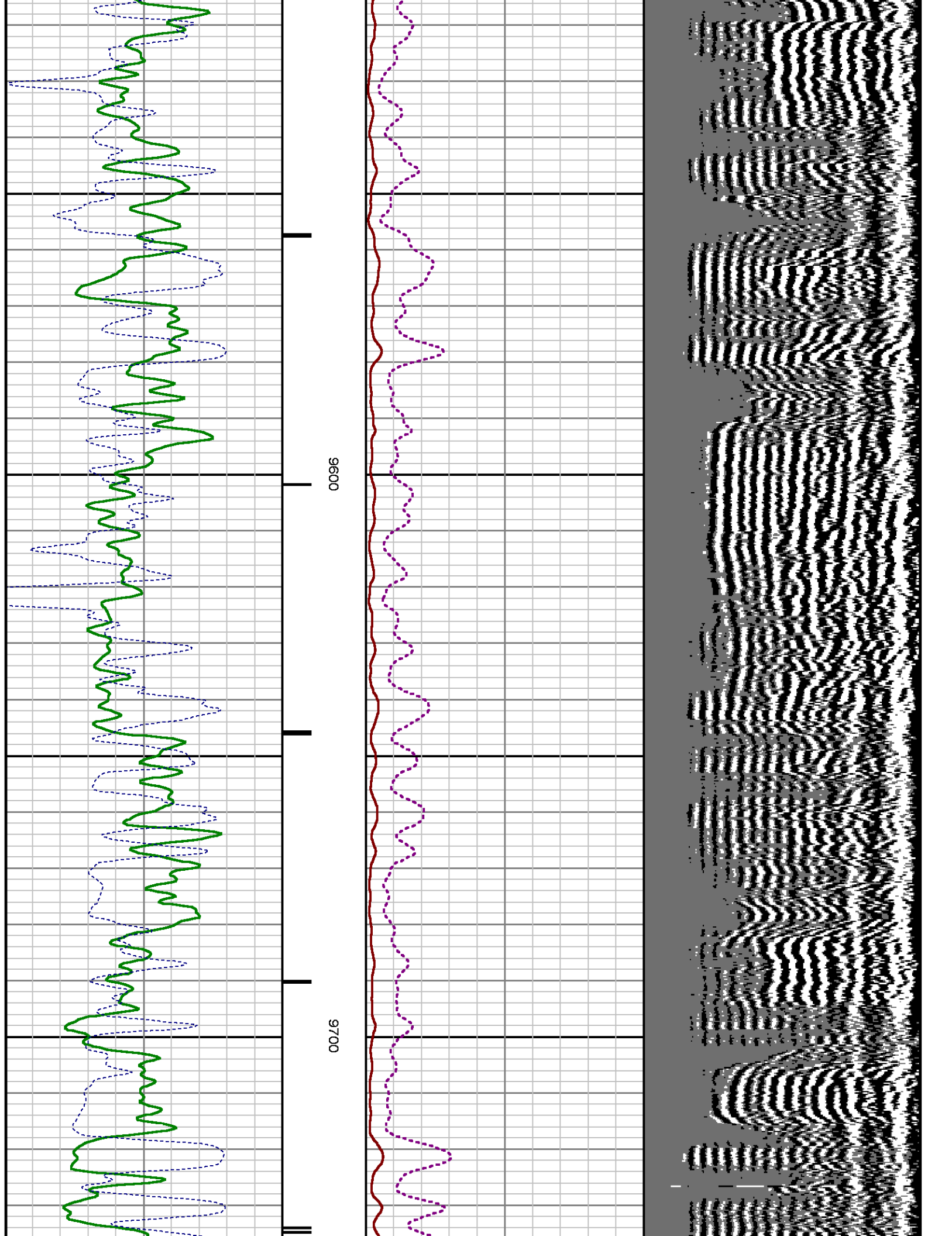


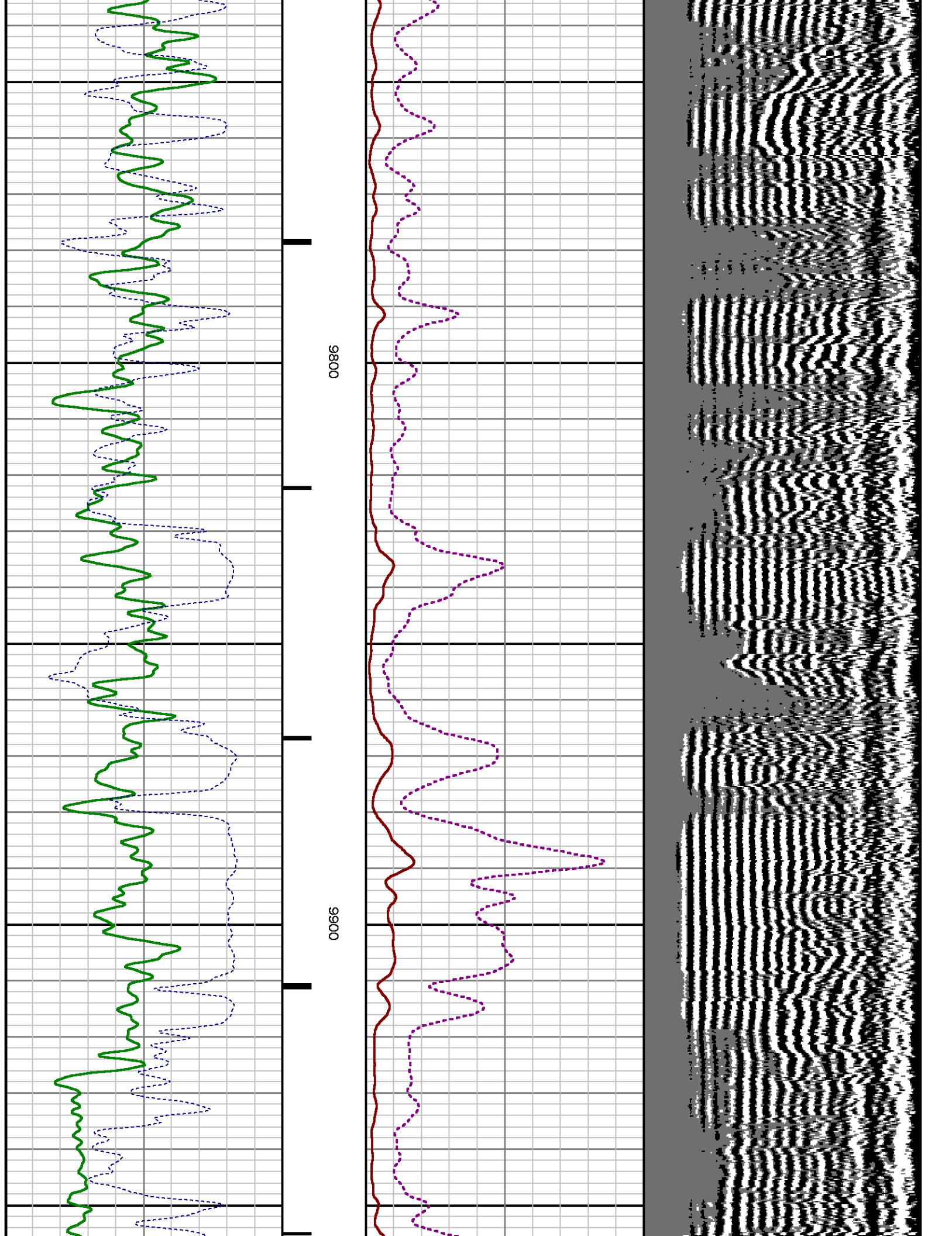


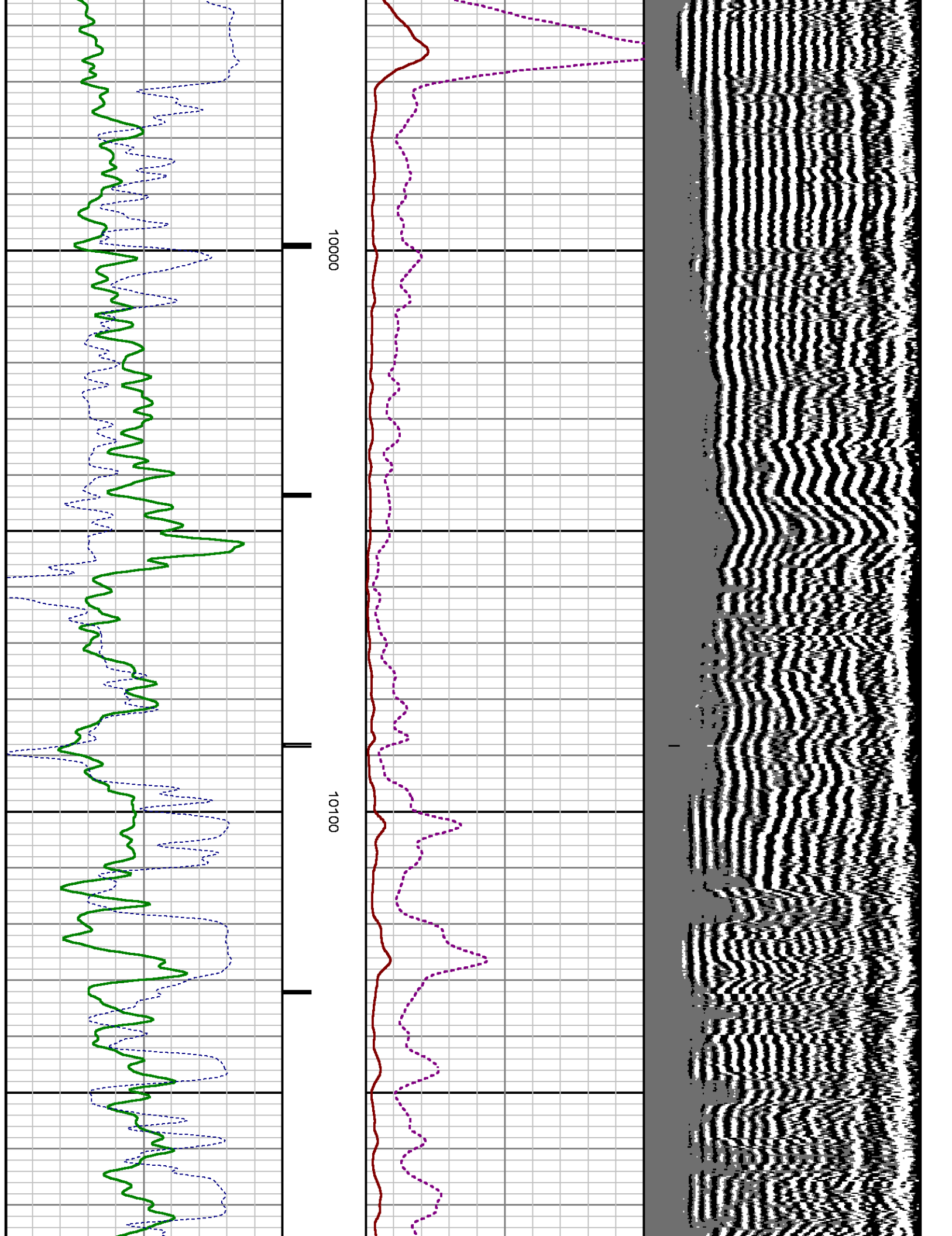


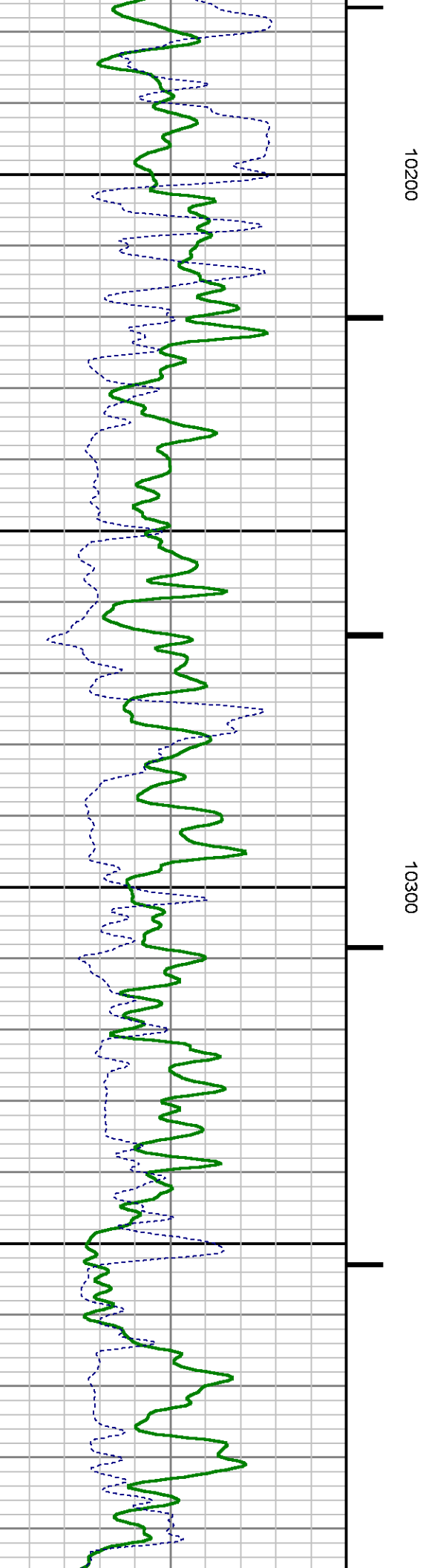
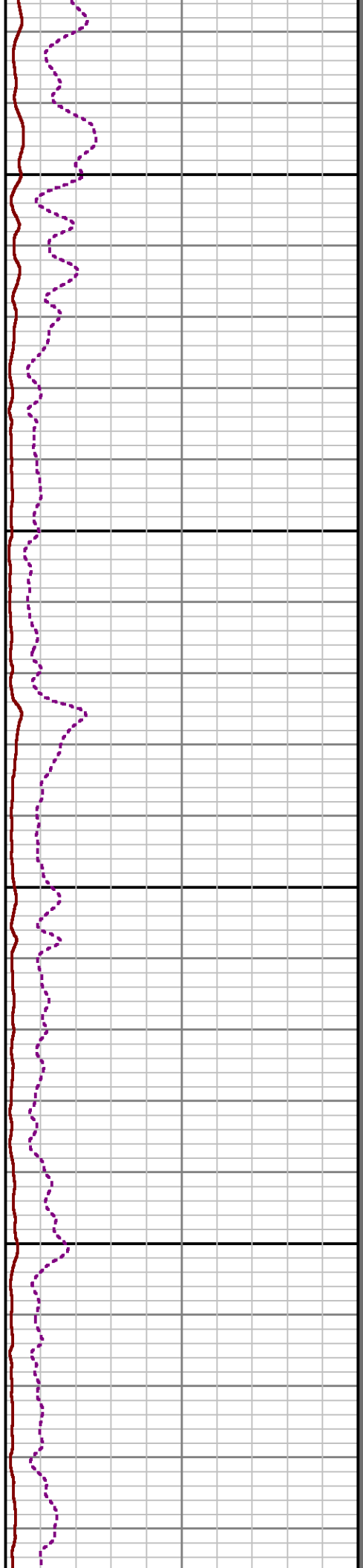
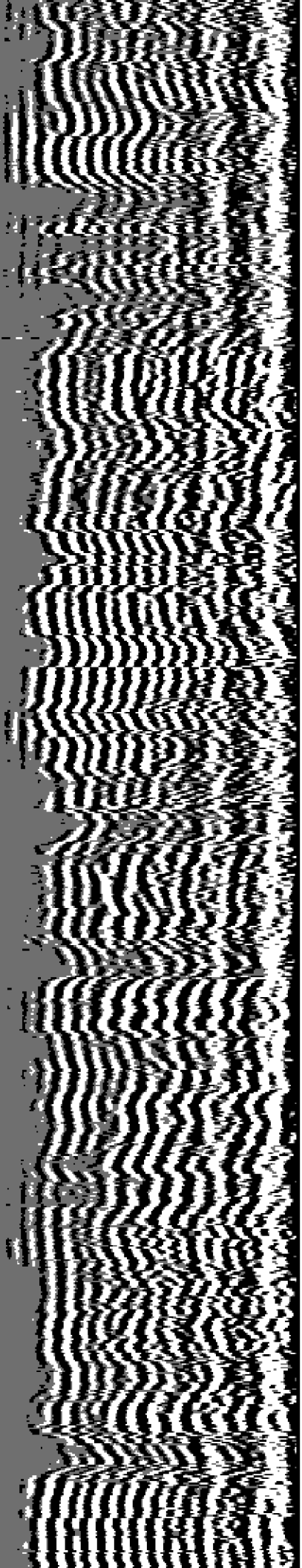


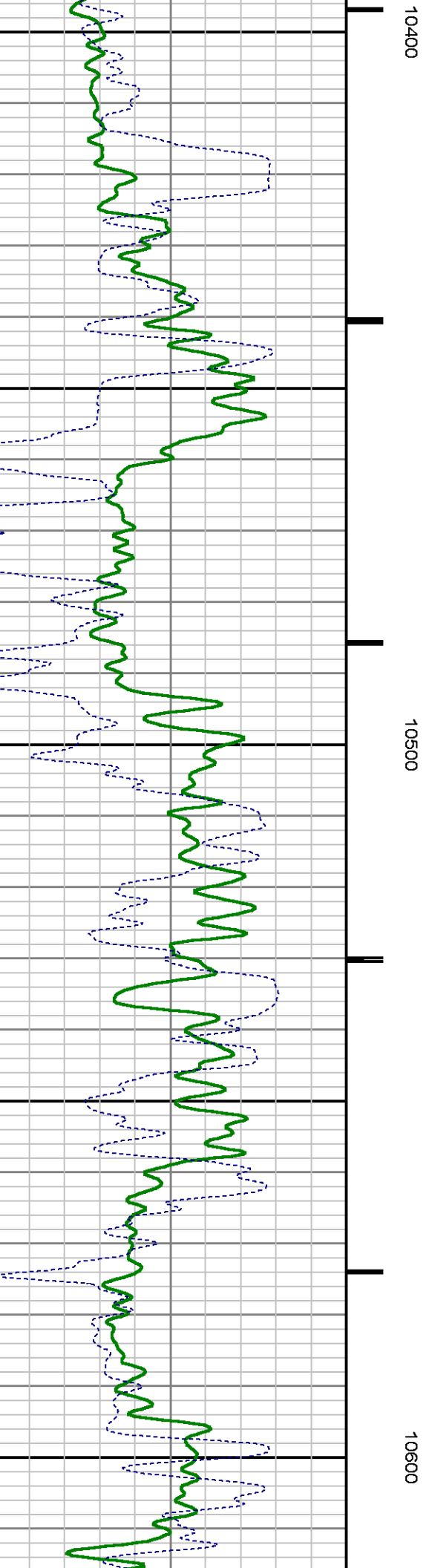
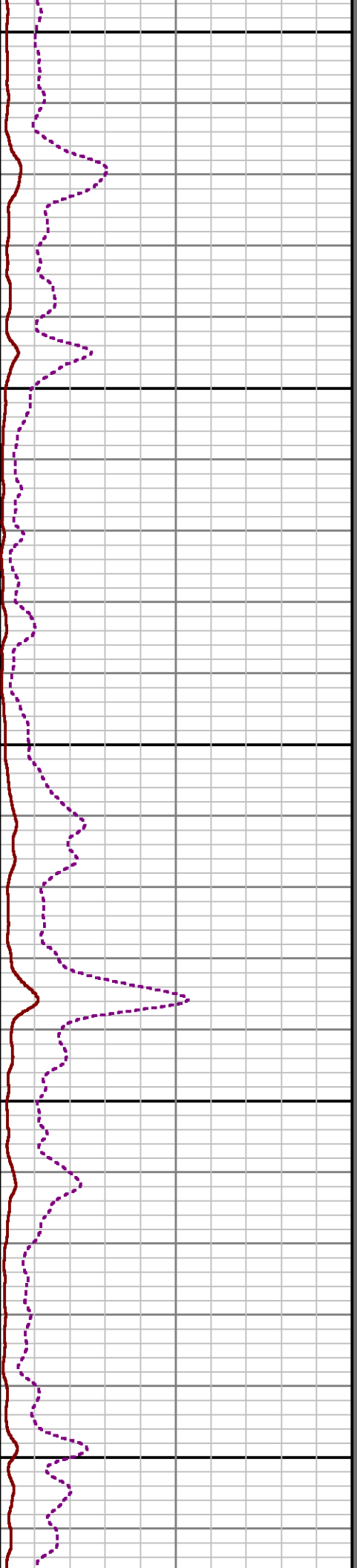
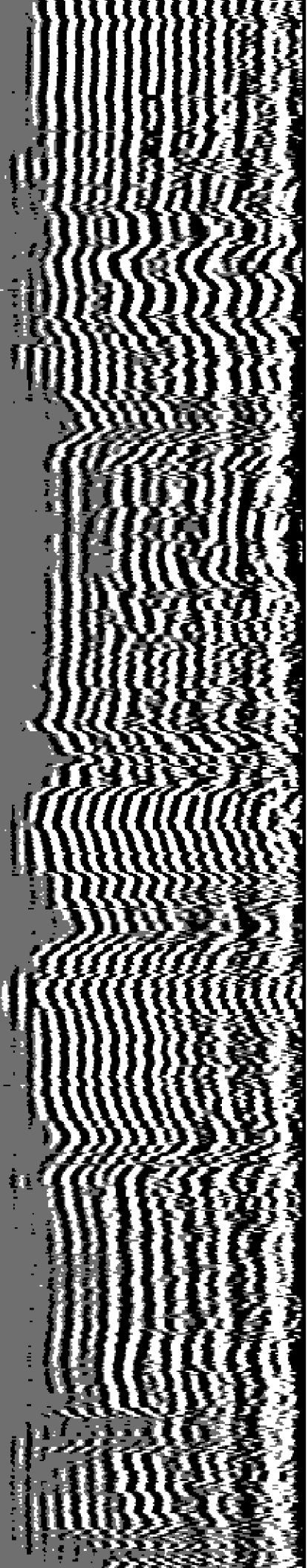


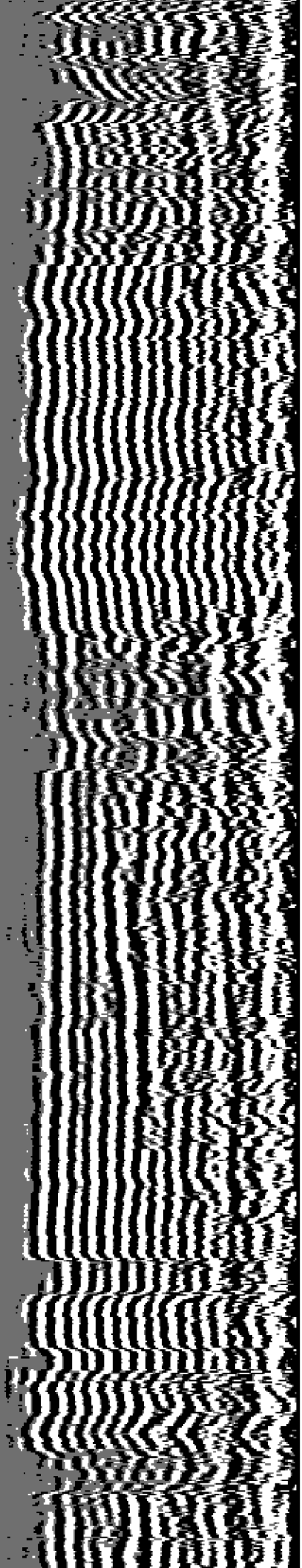






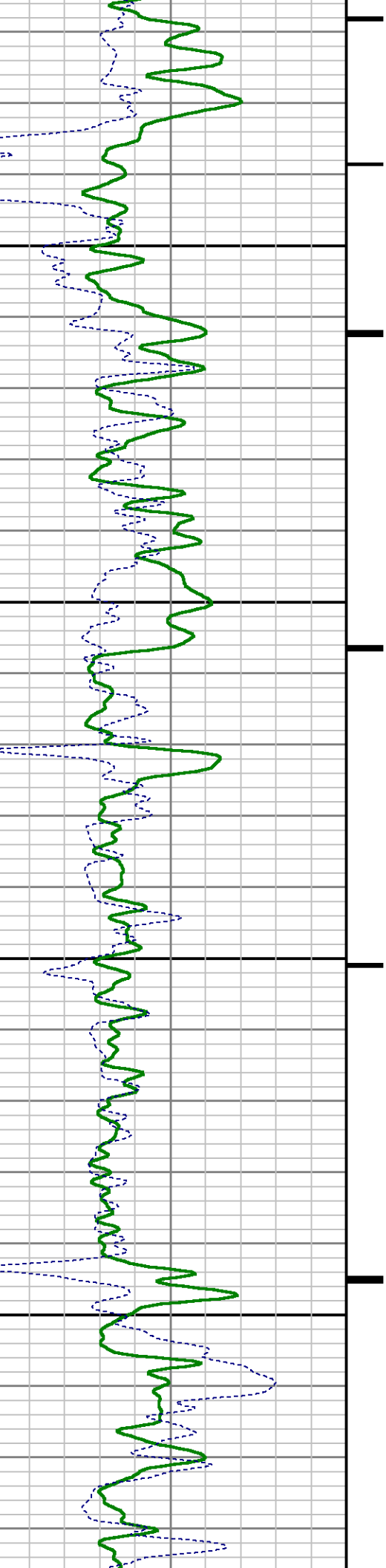


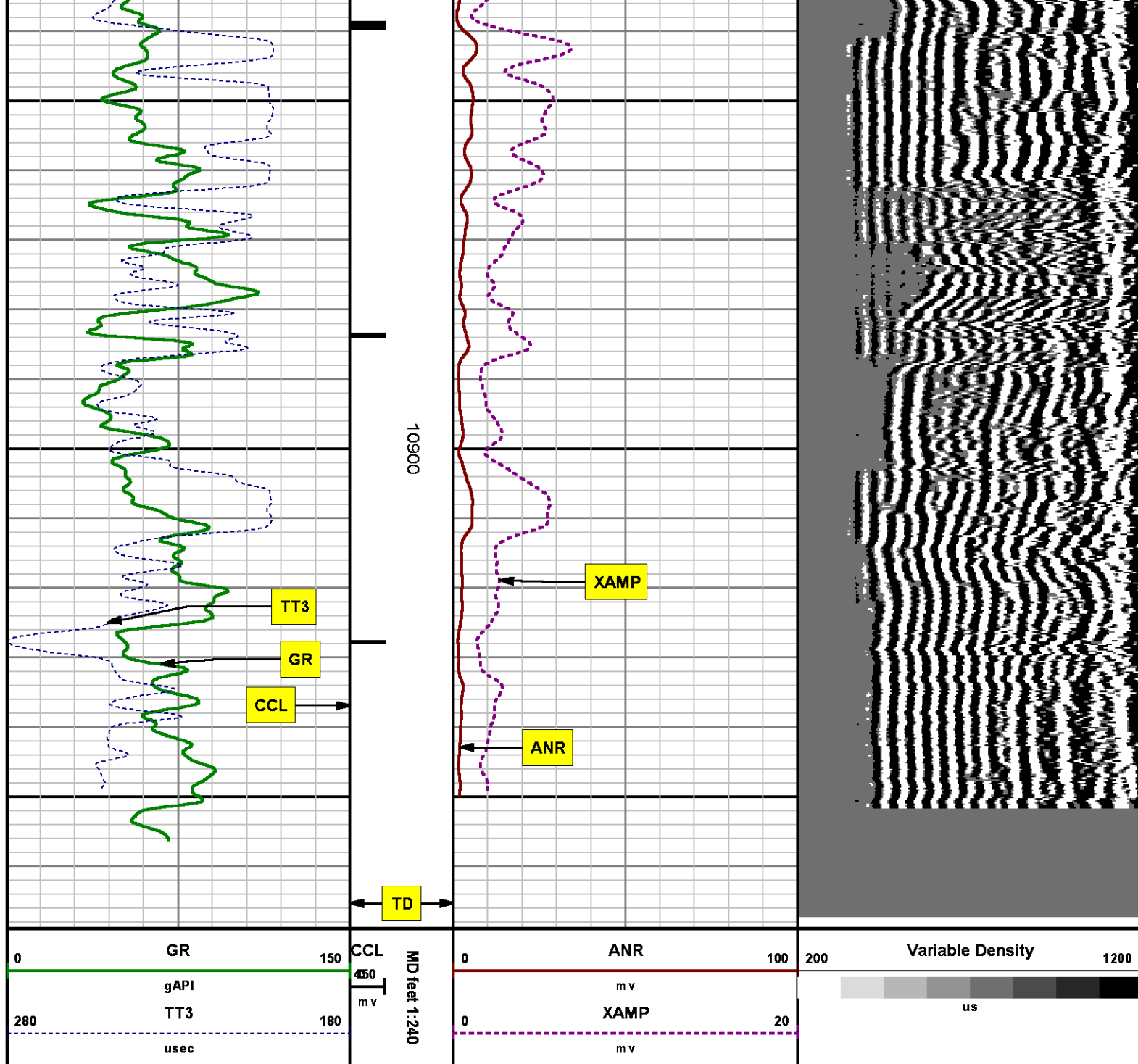




10700

10800





SECONDARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	23.159	5723.000
RAL	Amp Gate Start Near	195.000	usec	23.159	5723.000
RAL	Amp Gate Start Radial	195.000	usec	23.159	5723.000
RAL	Amp Gate Width Far	25.000	usec	23.159	5723.000
RAL	Amp Gate Width Near	25.000	usec	23.159	5723.000
RAL	Amp Gate Width Radial	25.000	usec	23.159	5723.000
RAL	casing od	4.500	inches	23.159	5723.000
RAL	casing wt	11.600	lbm/ft	23.159	5723.000
RAL	FB Start Far	291.900	usec	23.159	5723.000
RAL	FB Start Near	180.000	usec	23.159	5723.000
RAL	FB Start Radial	180.000	usec	23.159	5723.000
RAL	FB Thresh Far	10.000	mv	23.159	5723.000
RAL	FB Thresh Near	4.000	mv	23.159	5723.000
RAL	FB Thresh Radial	4.000	mv	23.159	5723.000
RAL	Fluid Travel Time	200.000	usec/ft	23.159	5723.000
RAL	Amp Gate Start Far	305.000	usec	5723.000	10967.000
RAL	Amp Gate Start Near	195.000	usec	5723.000	10967.000
RAL	Amp Gate Start Radial	195.000	usec	5723.000	10967.000
RAL	Amp Gate Width Far	25.000	usec	5723.000	10967.000
RAL	Amp Gate Width Near	25.000	usec	5723.000	10967.000
RAL	Amp Gate Width Radial	25.000	usec	5723.000	10967.000
RAL	casing od	4.500	inches	5723.000	10967.000
RAL	casing wt	11.600	lbm/ft	5723.000	10967.000
RAL	FB Start Far	291.900	usec	5723.000	10967.000
RAL	FB Start Near	180.000	usec	5723.000	10967.000
RAL	FB Start Radial	180.000	usec	5723.000	10967.000
RAL	FB Thresh Far	10.000	mv	5723.000	10967.000
RAL	FB Thresh Near	4.000	mv	5723.000	10967.000
RAL	FB Thresh Radial	4.000	mv	5723.000	10967.000
RAL	Fluid Travel Time	200.000	usec/ft	5723.000	10967.000

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

Company : WPX ENERGY

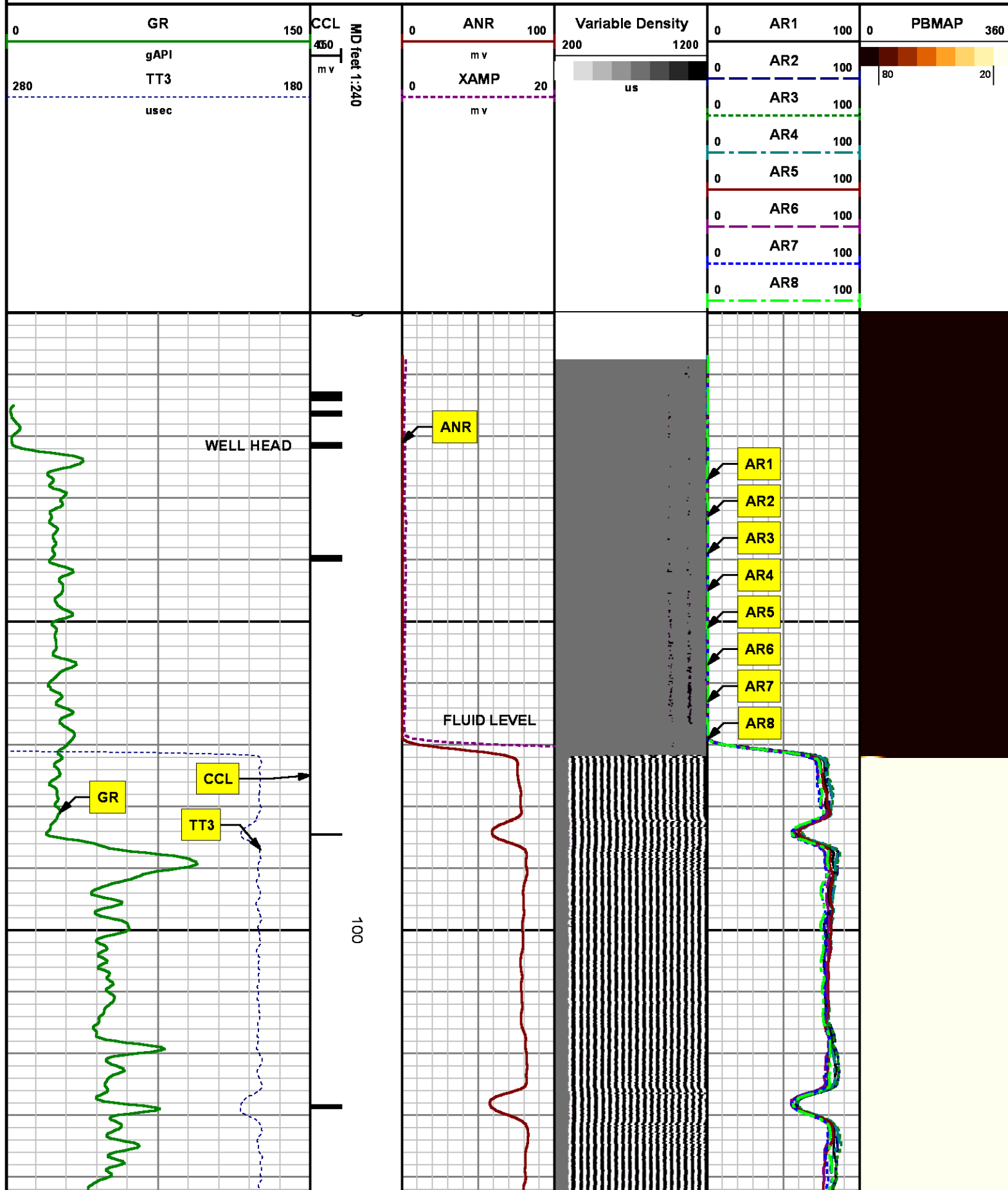
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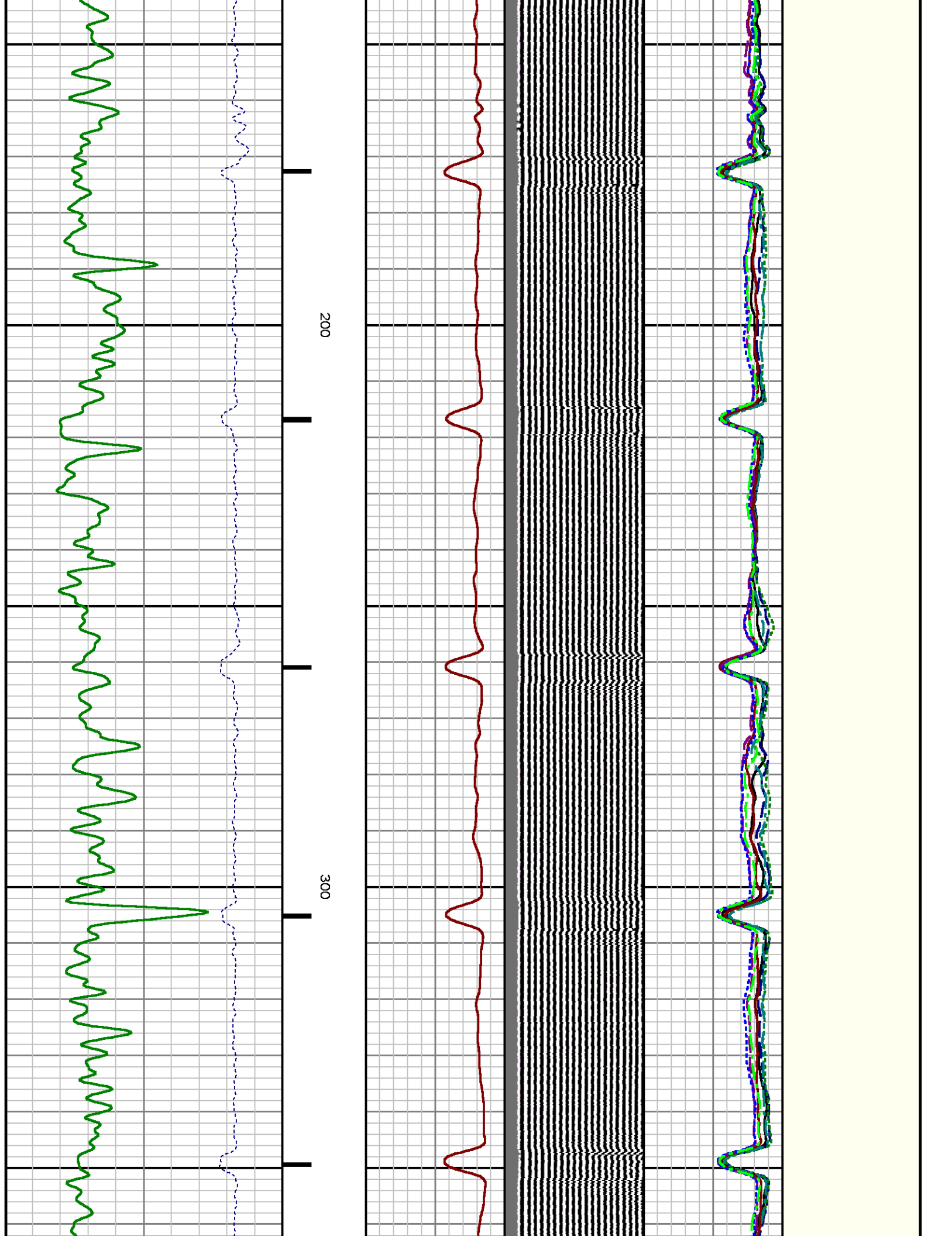
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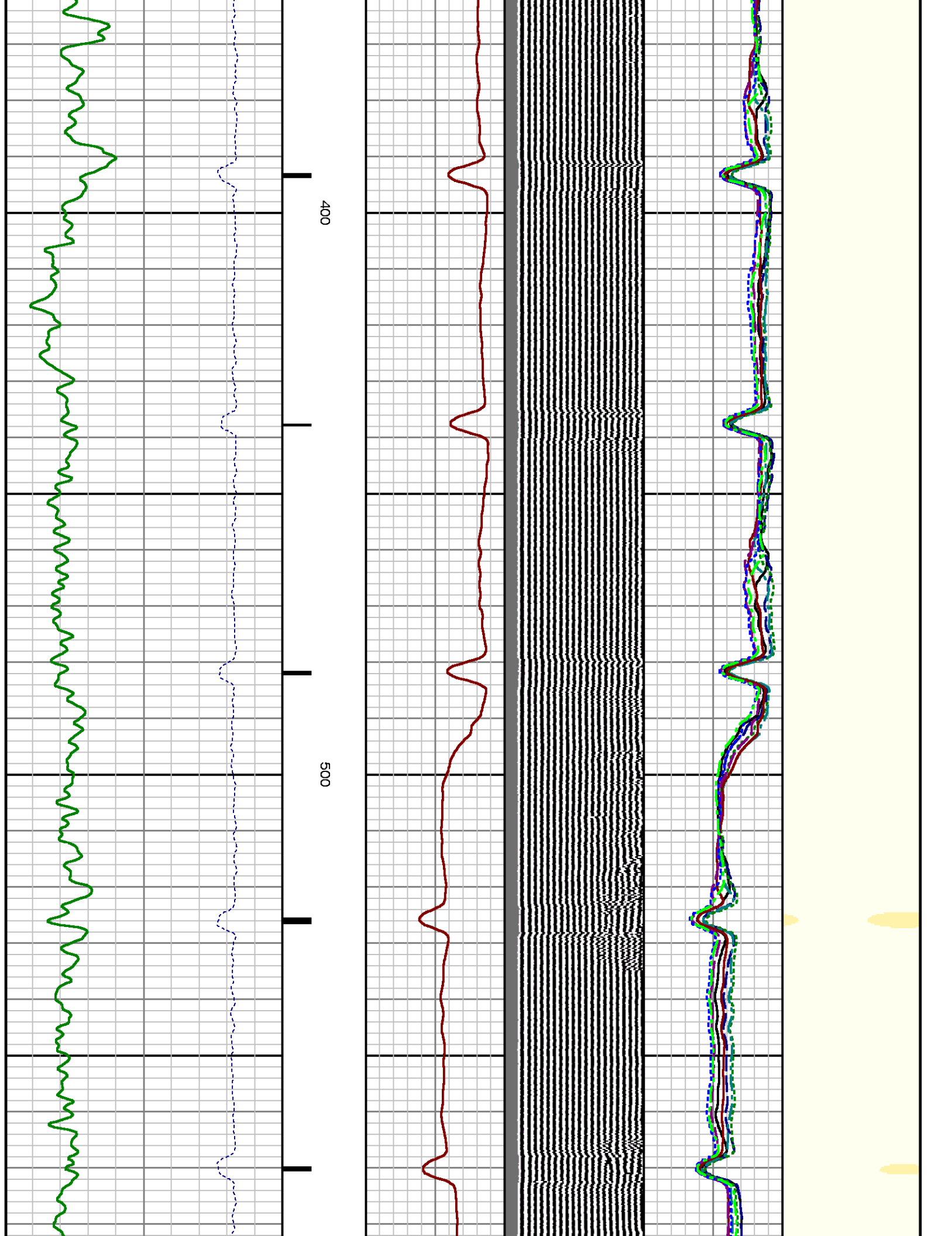
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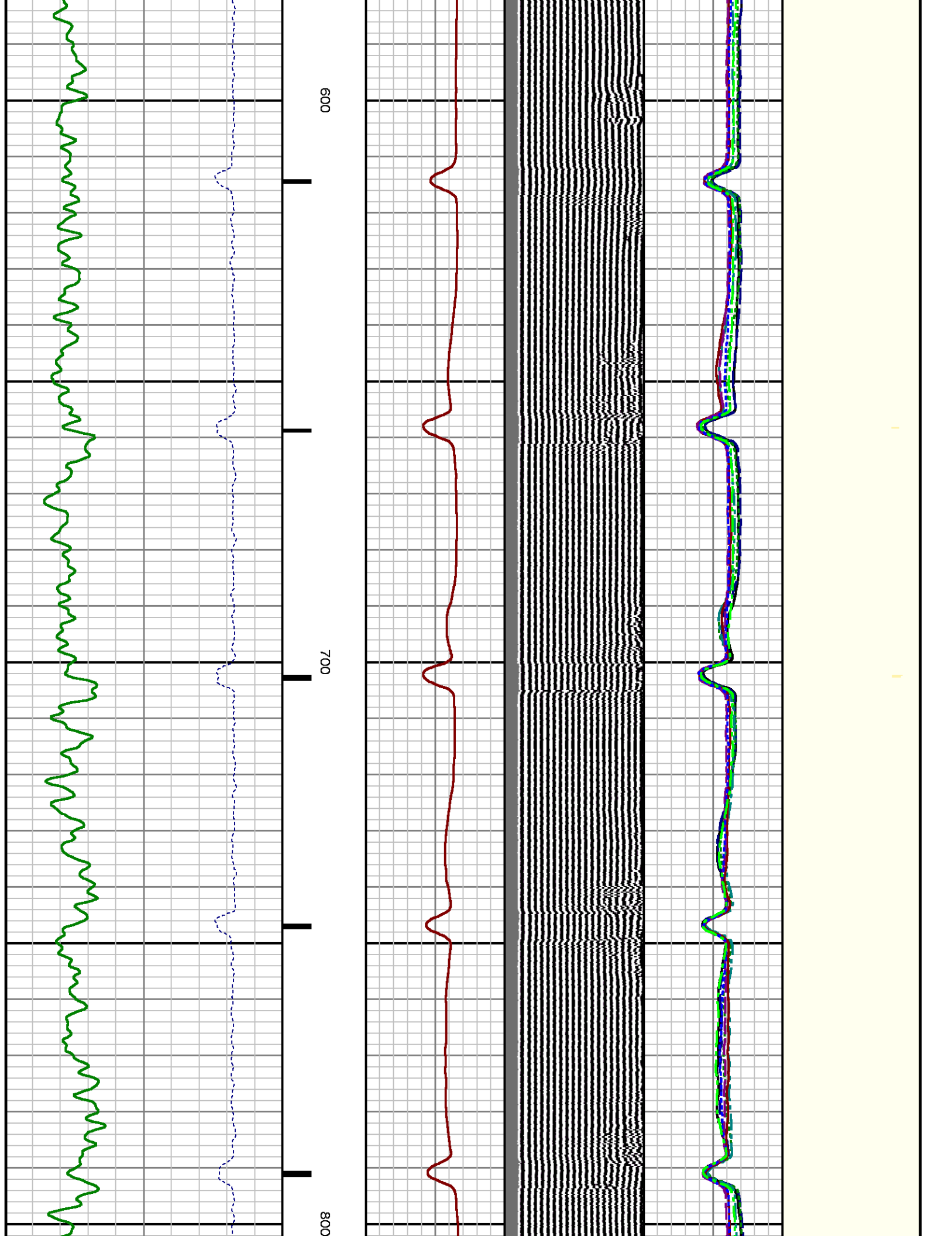
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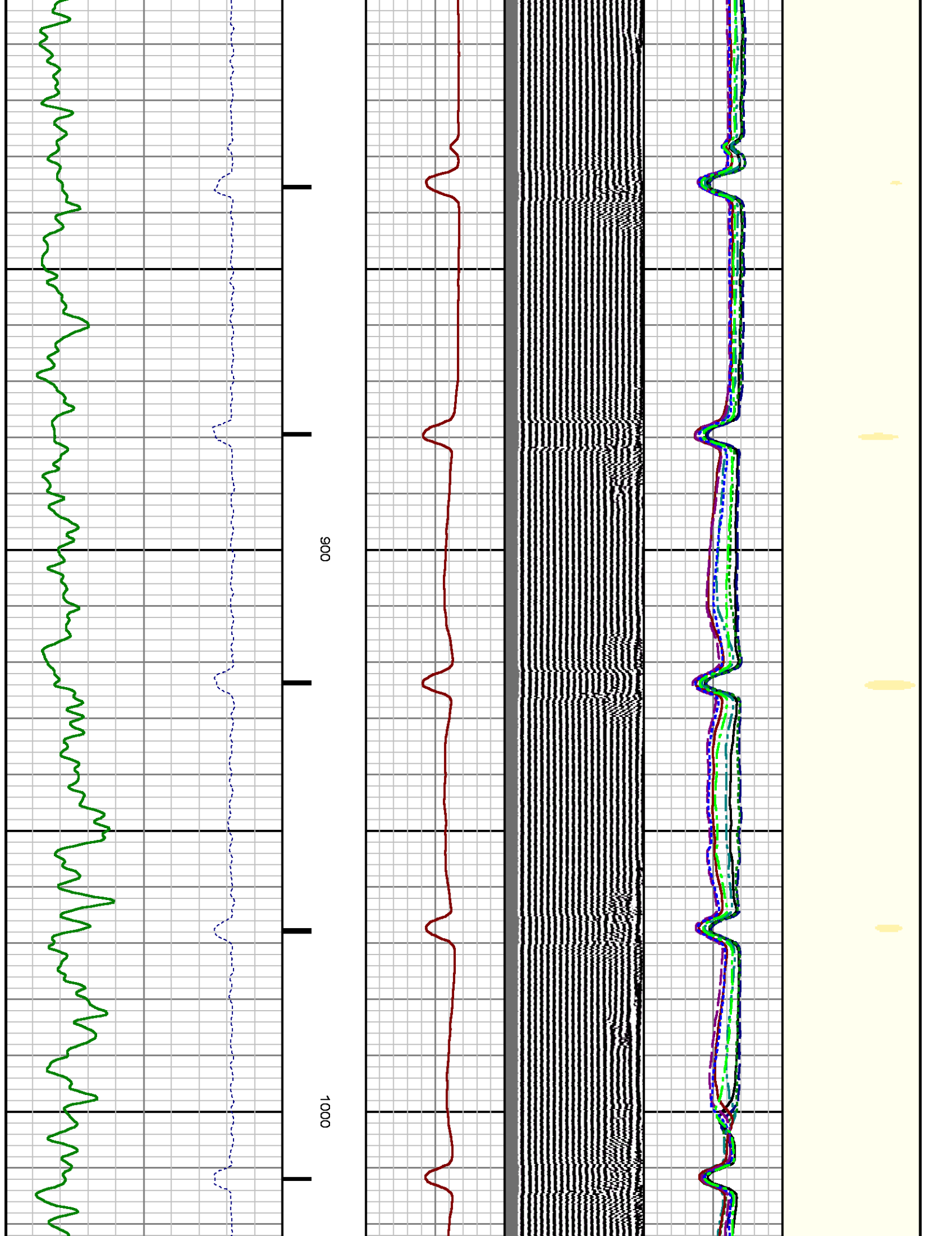
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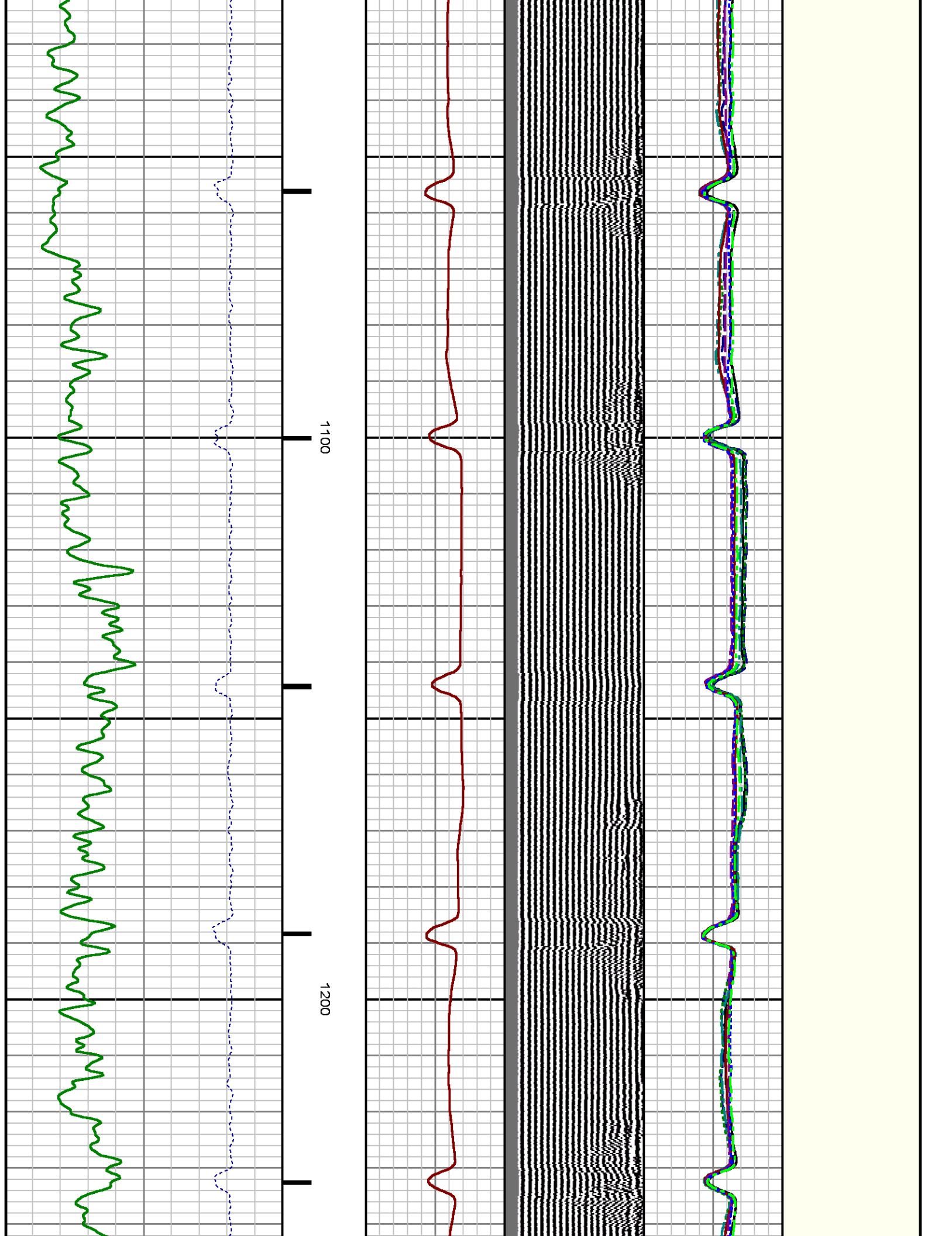


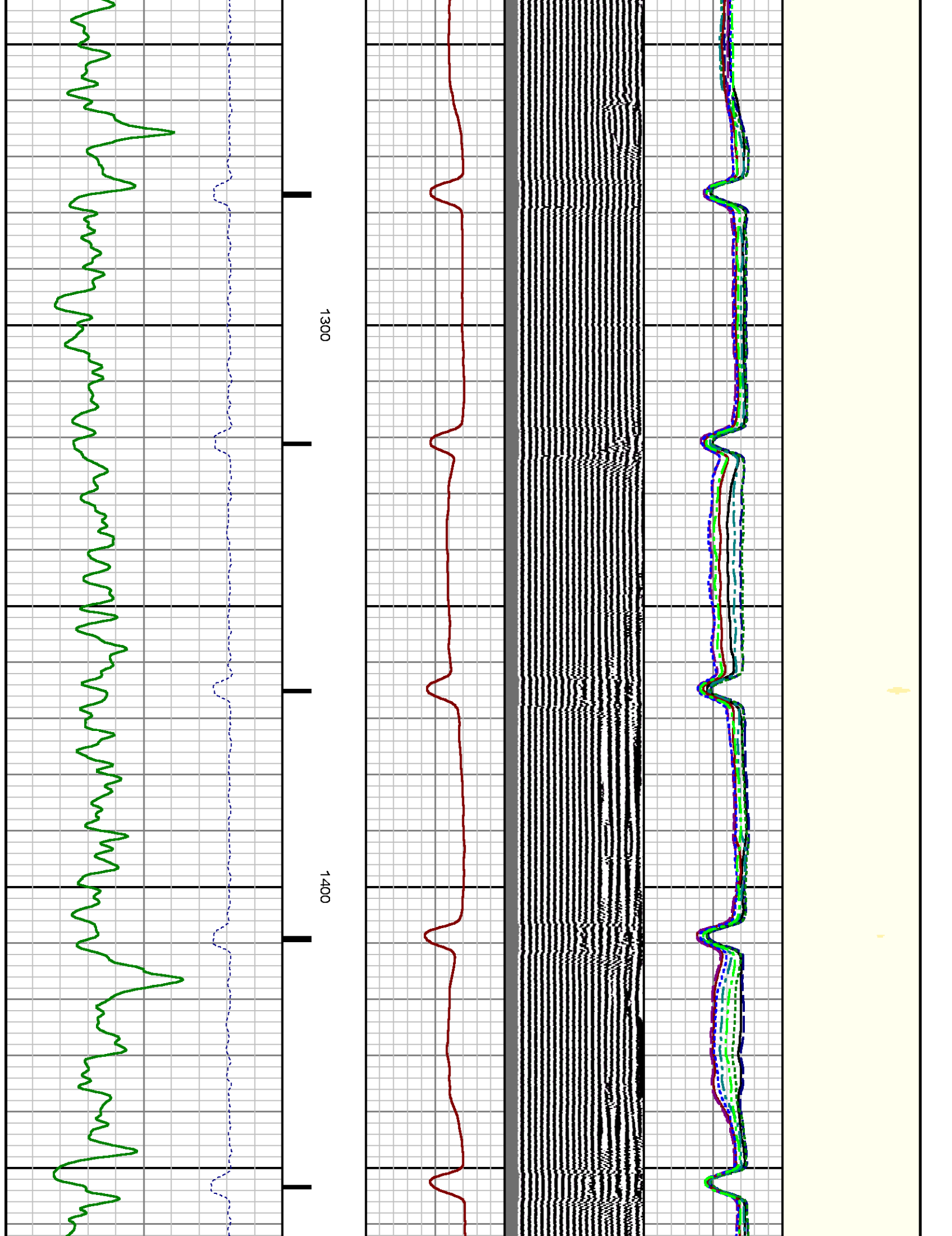


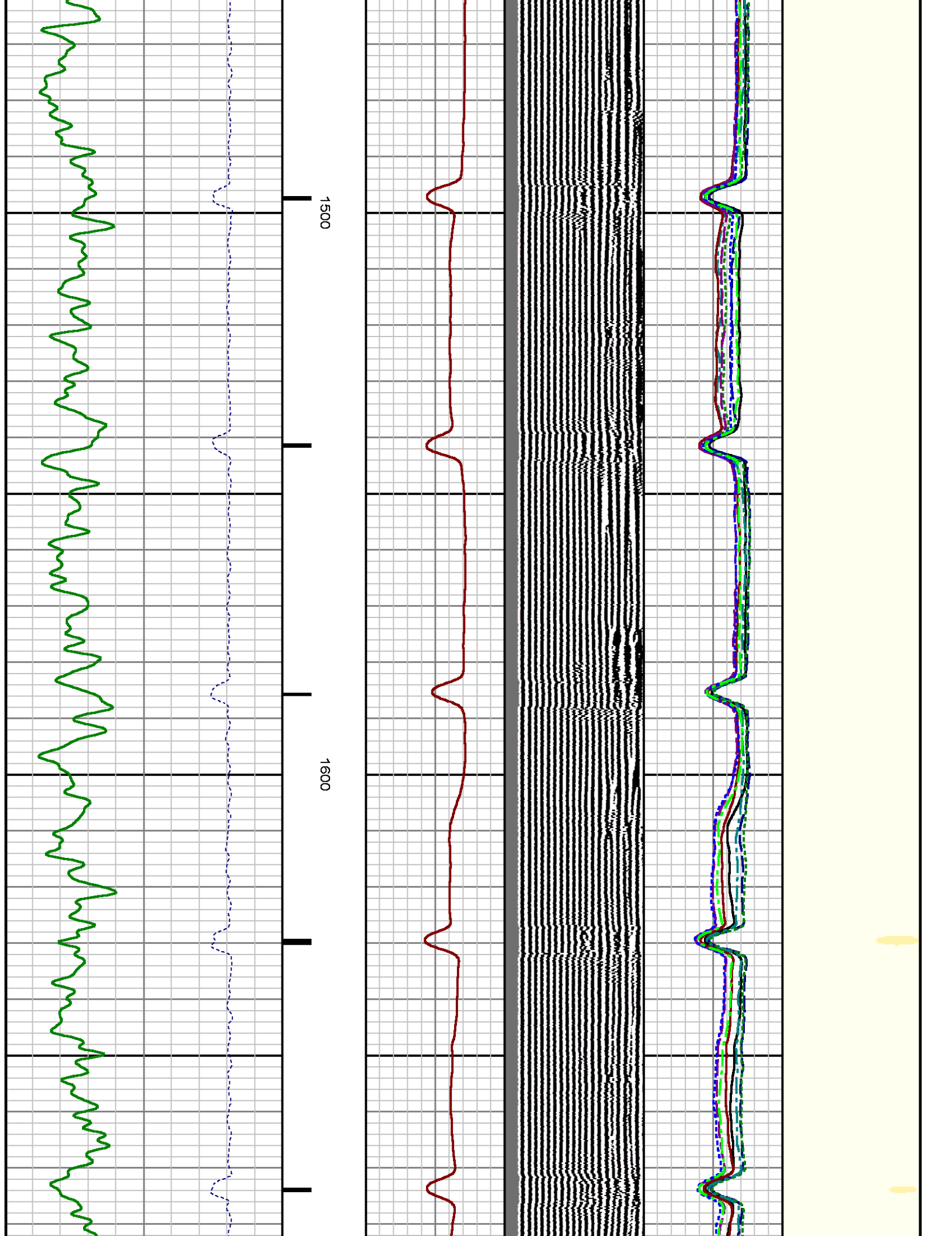


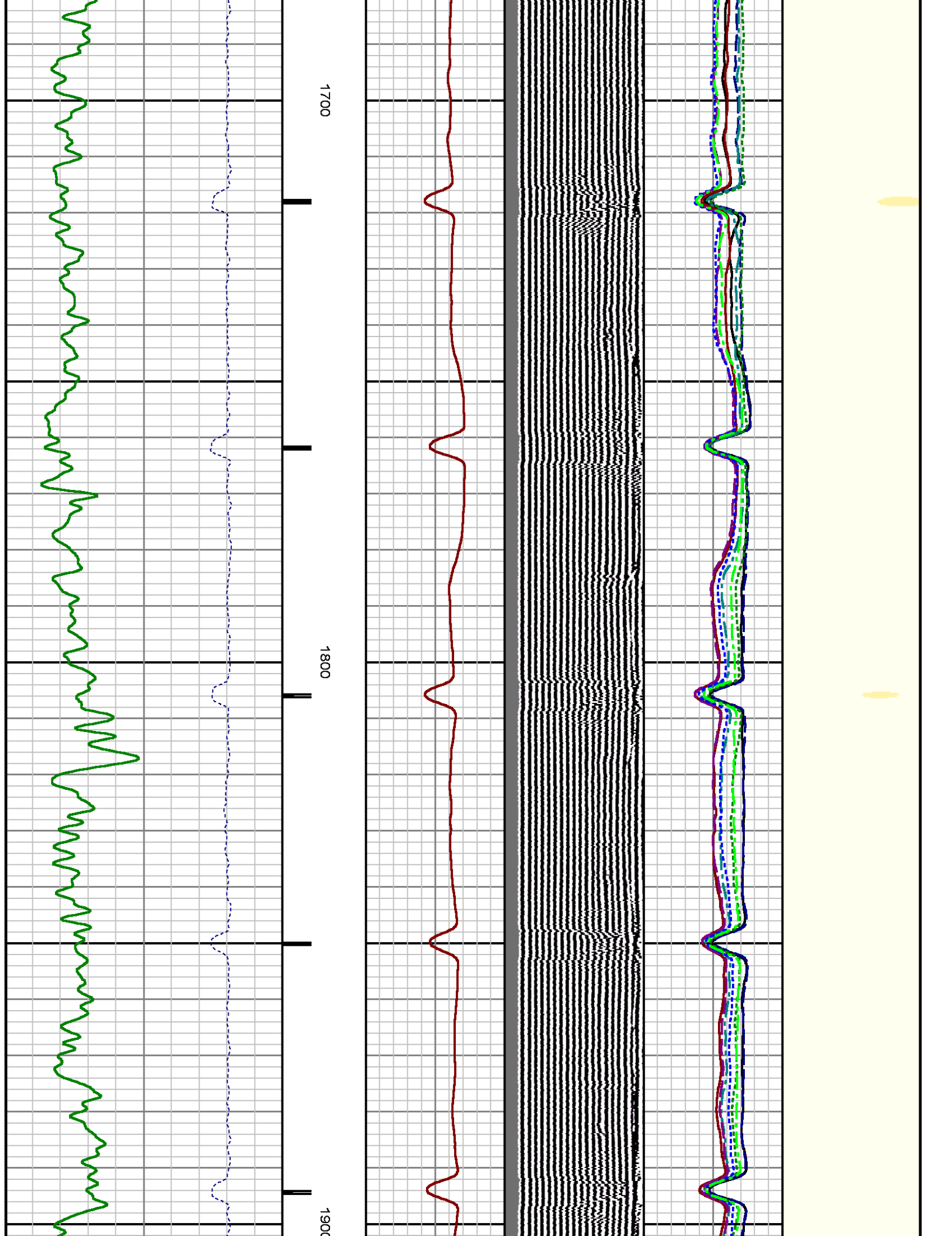


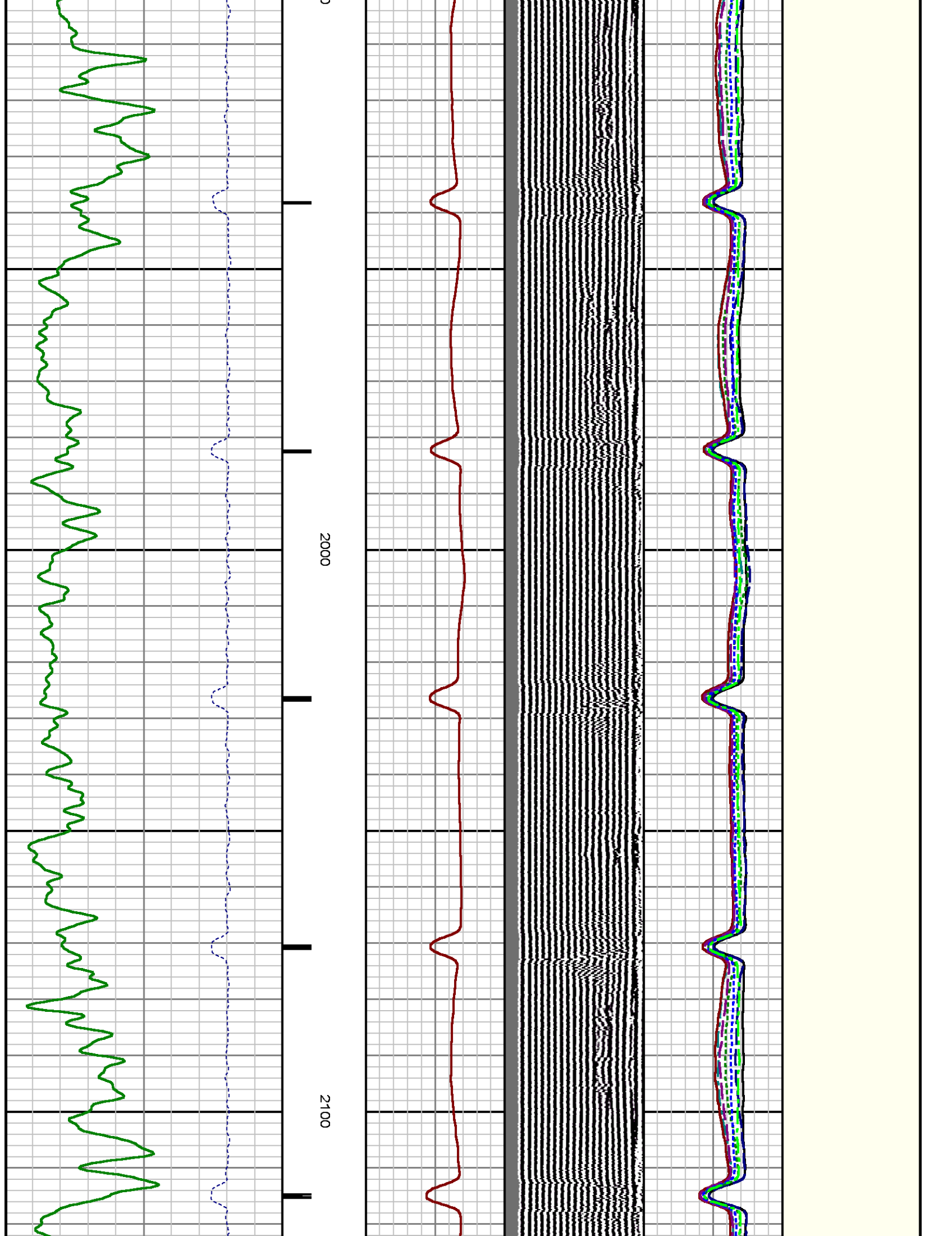


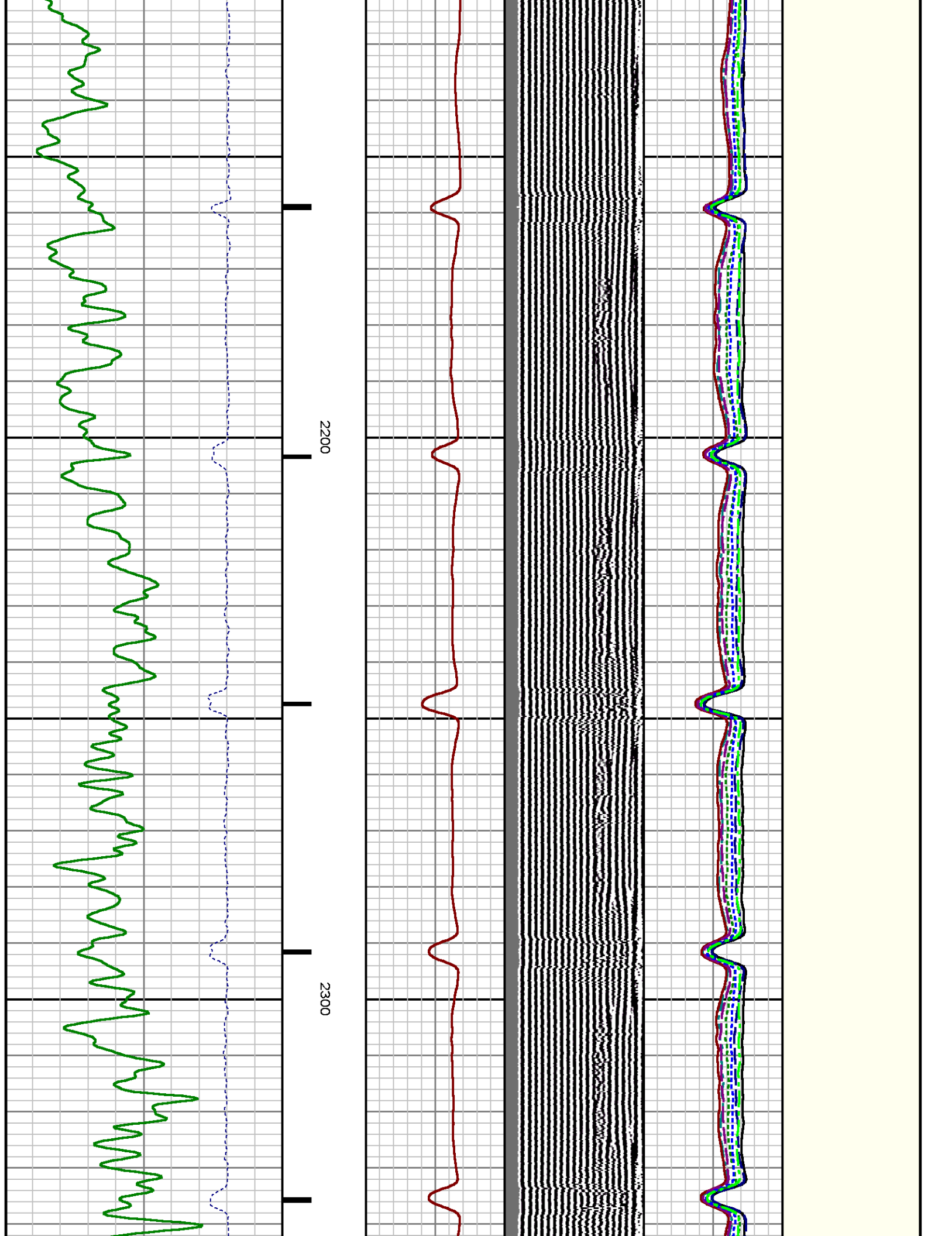


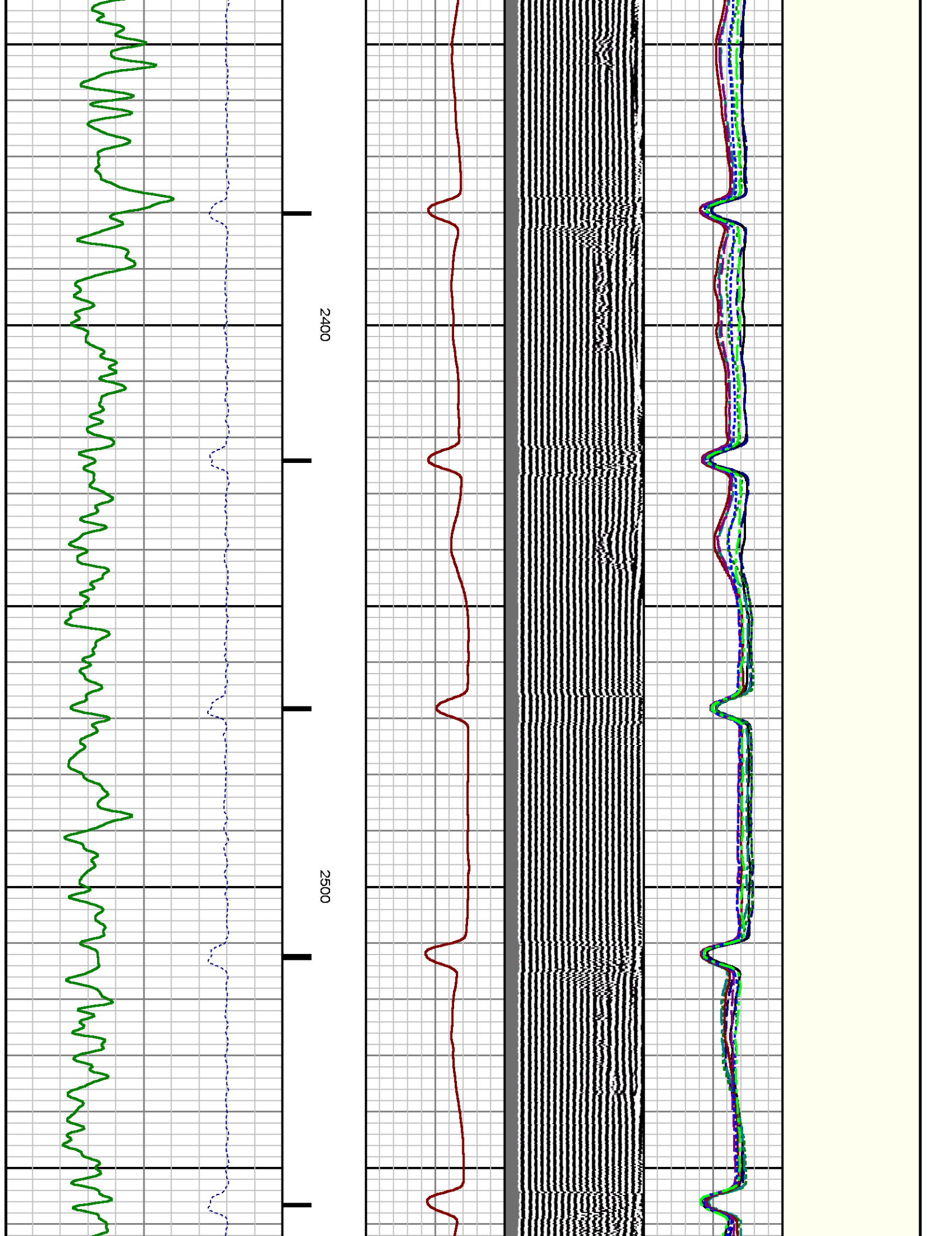


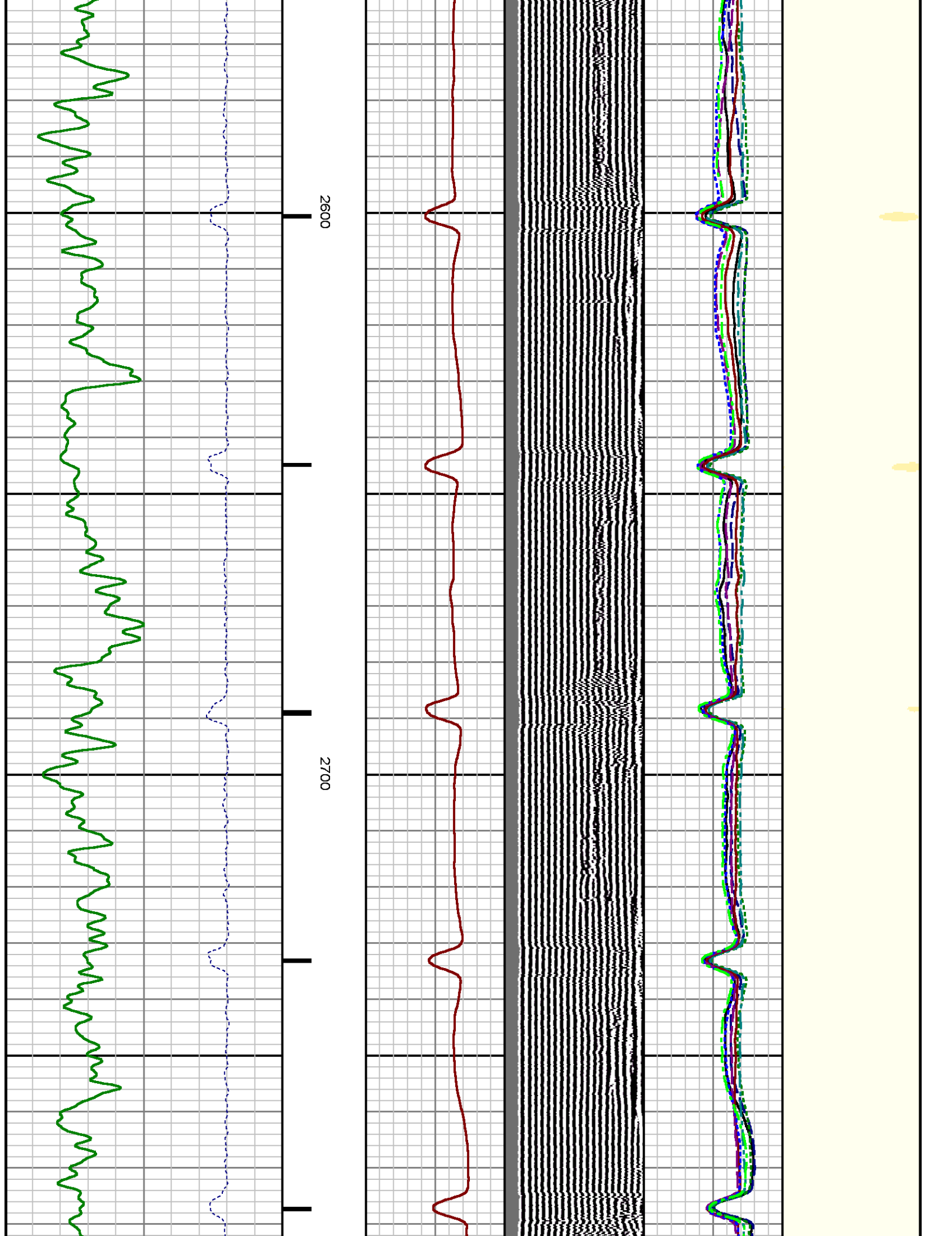


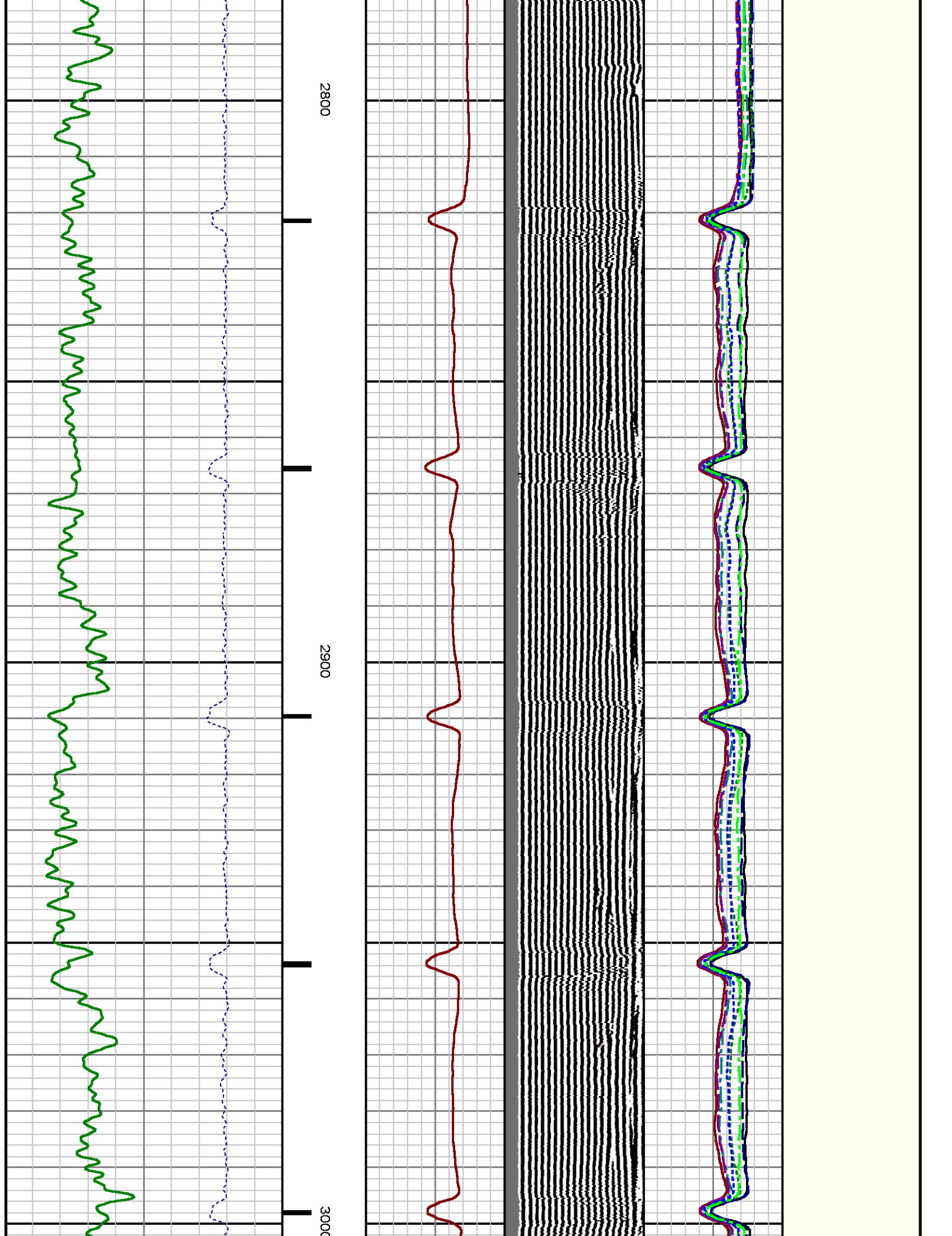


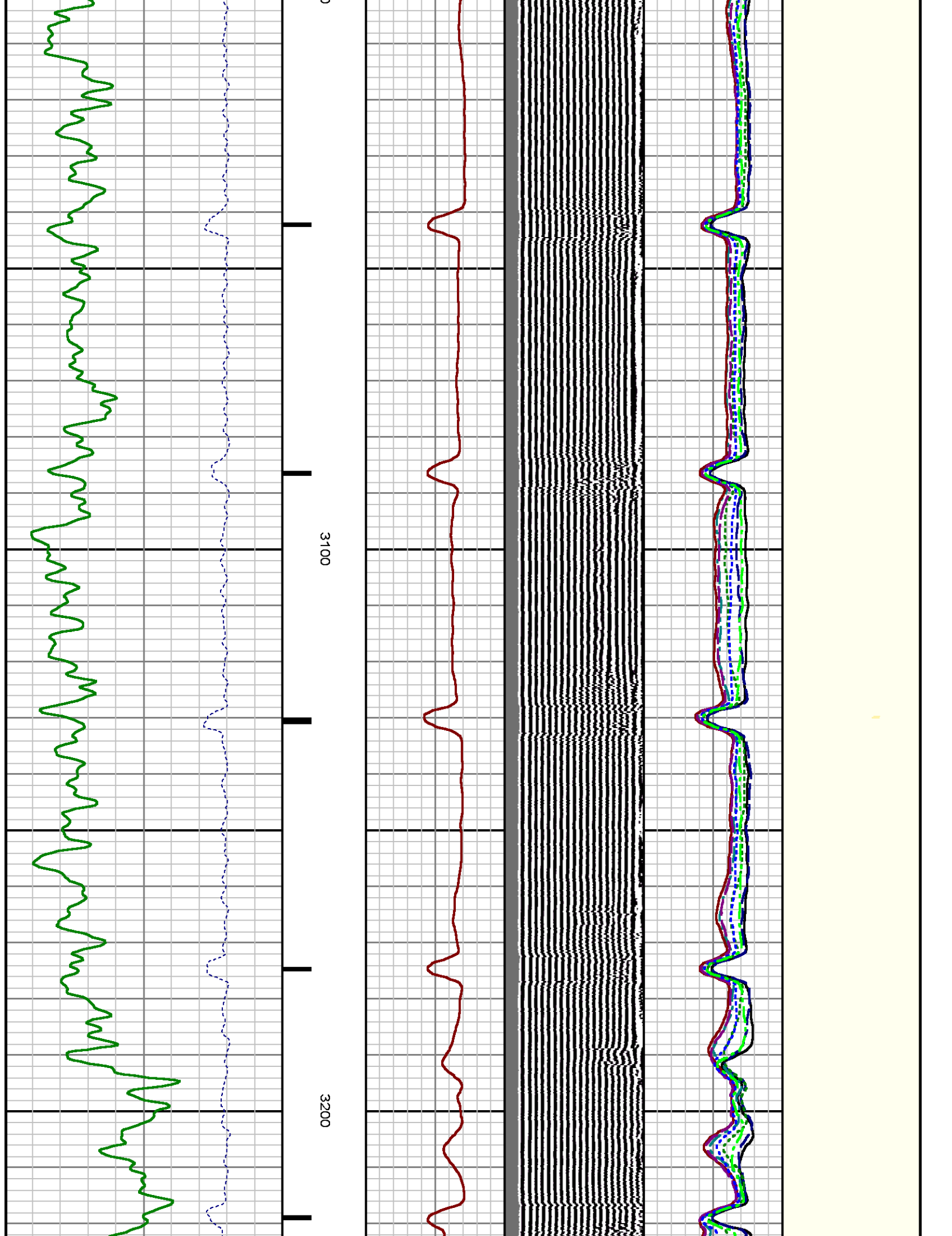


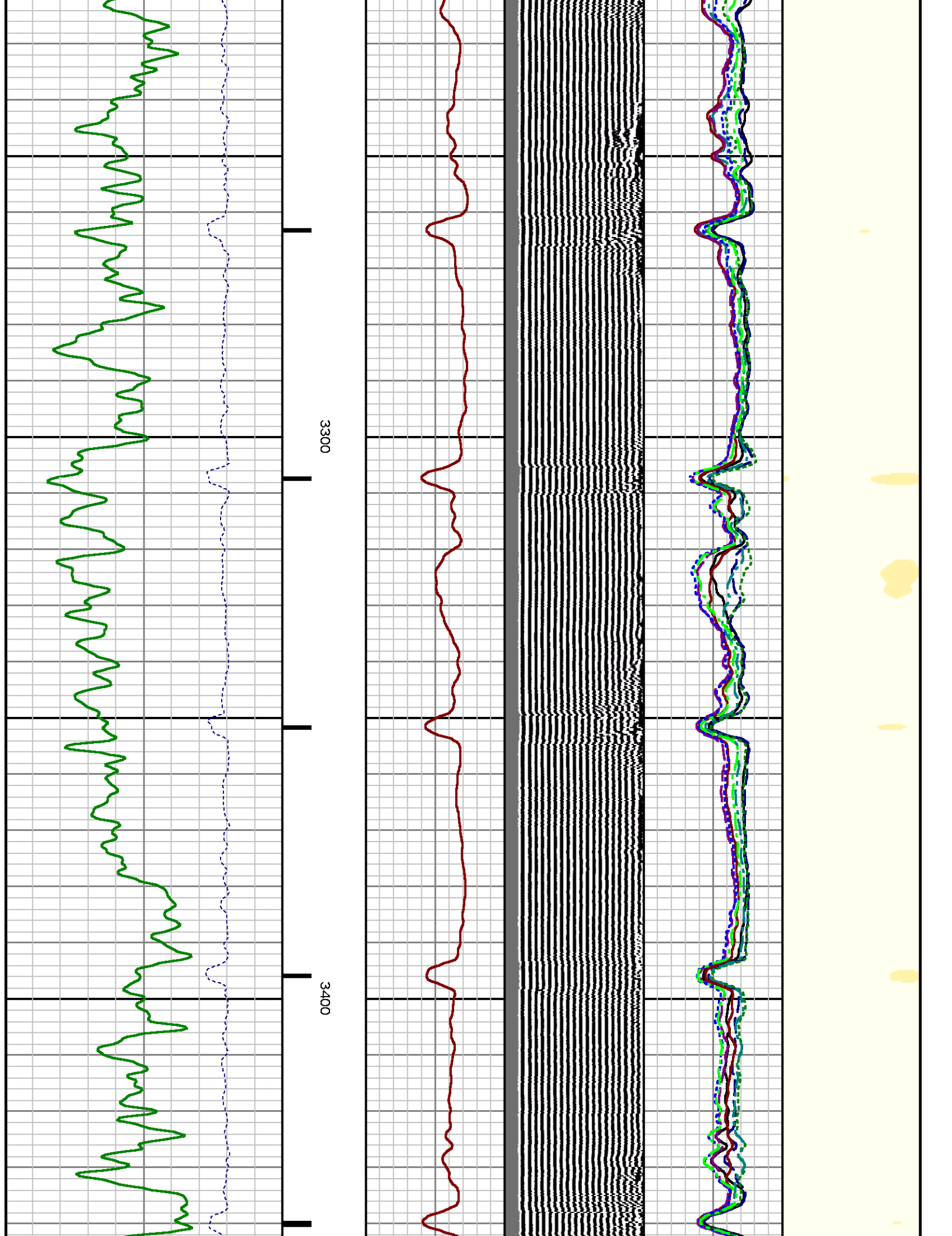


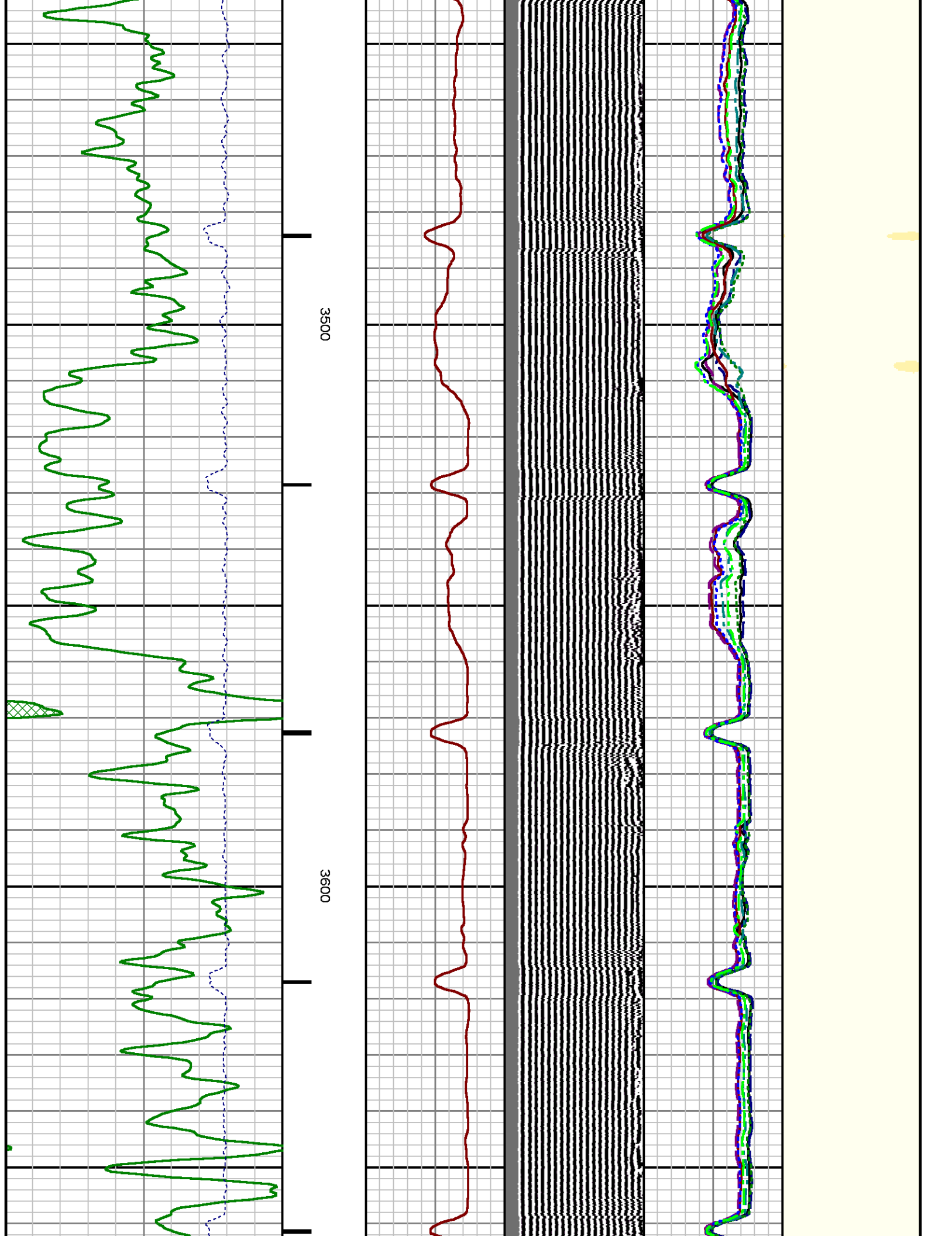


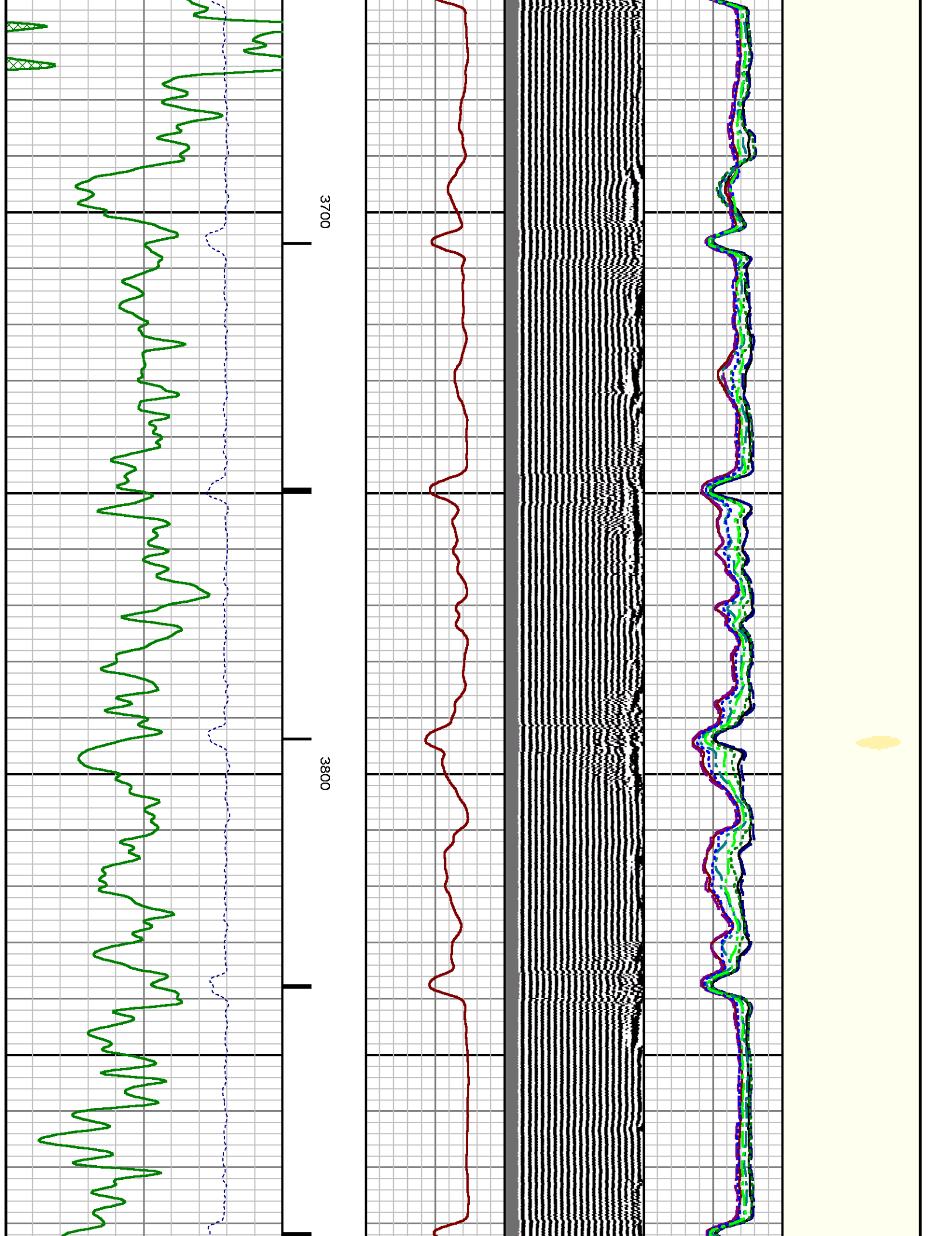


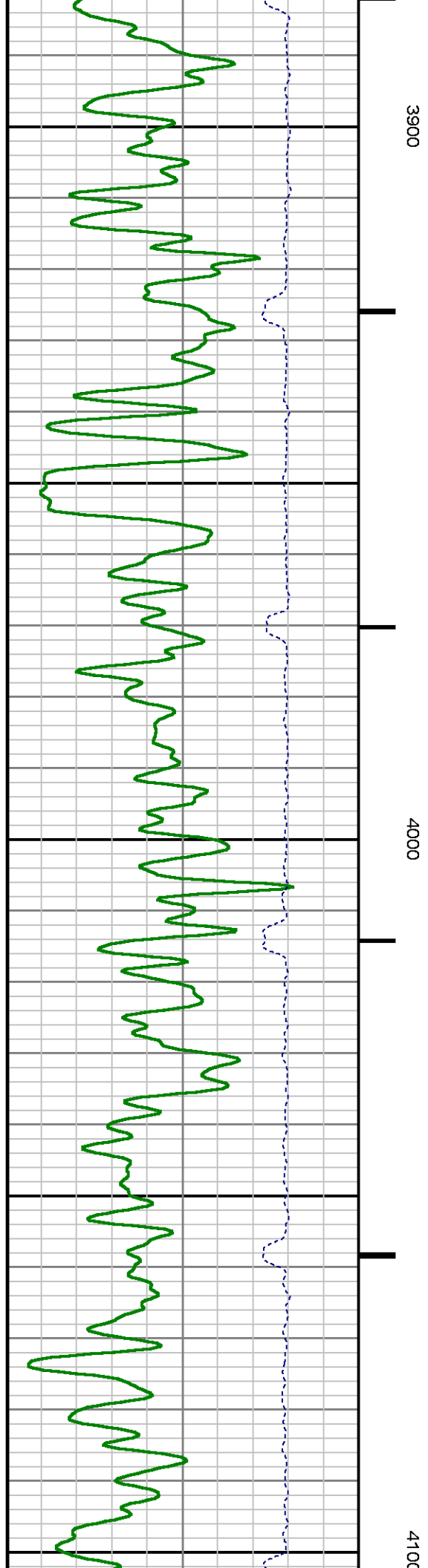
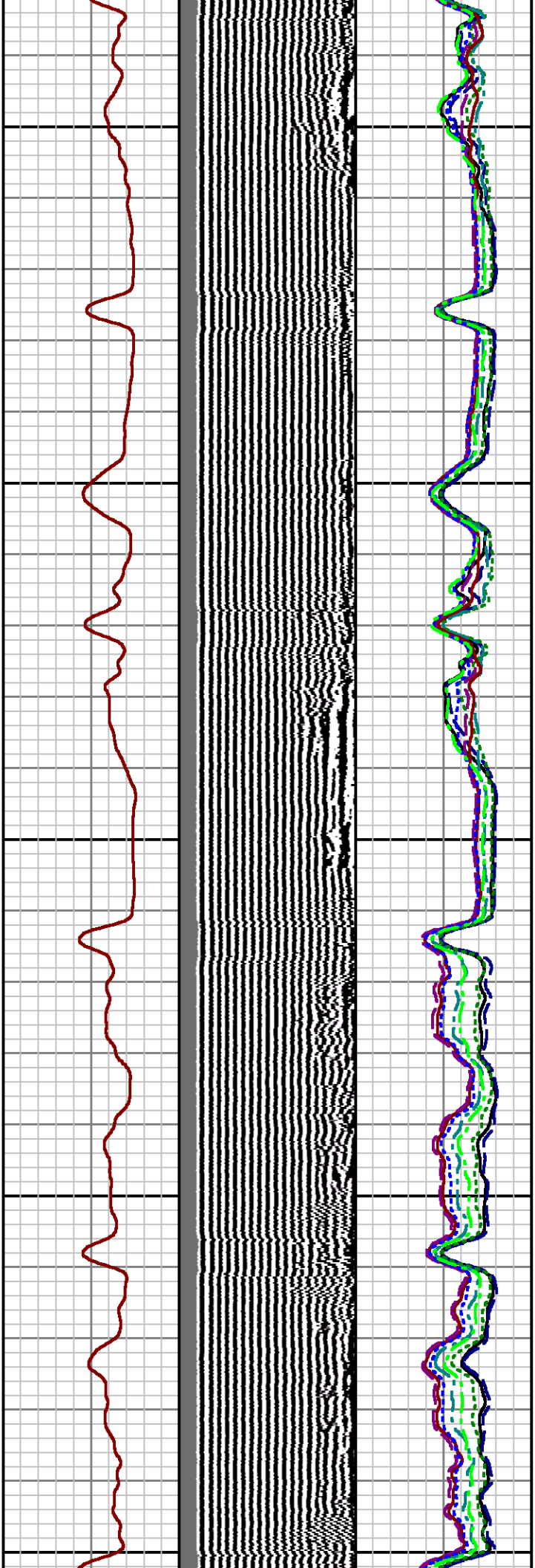


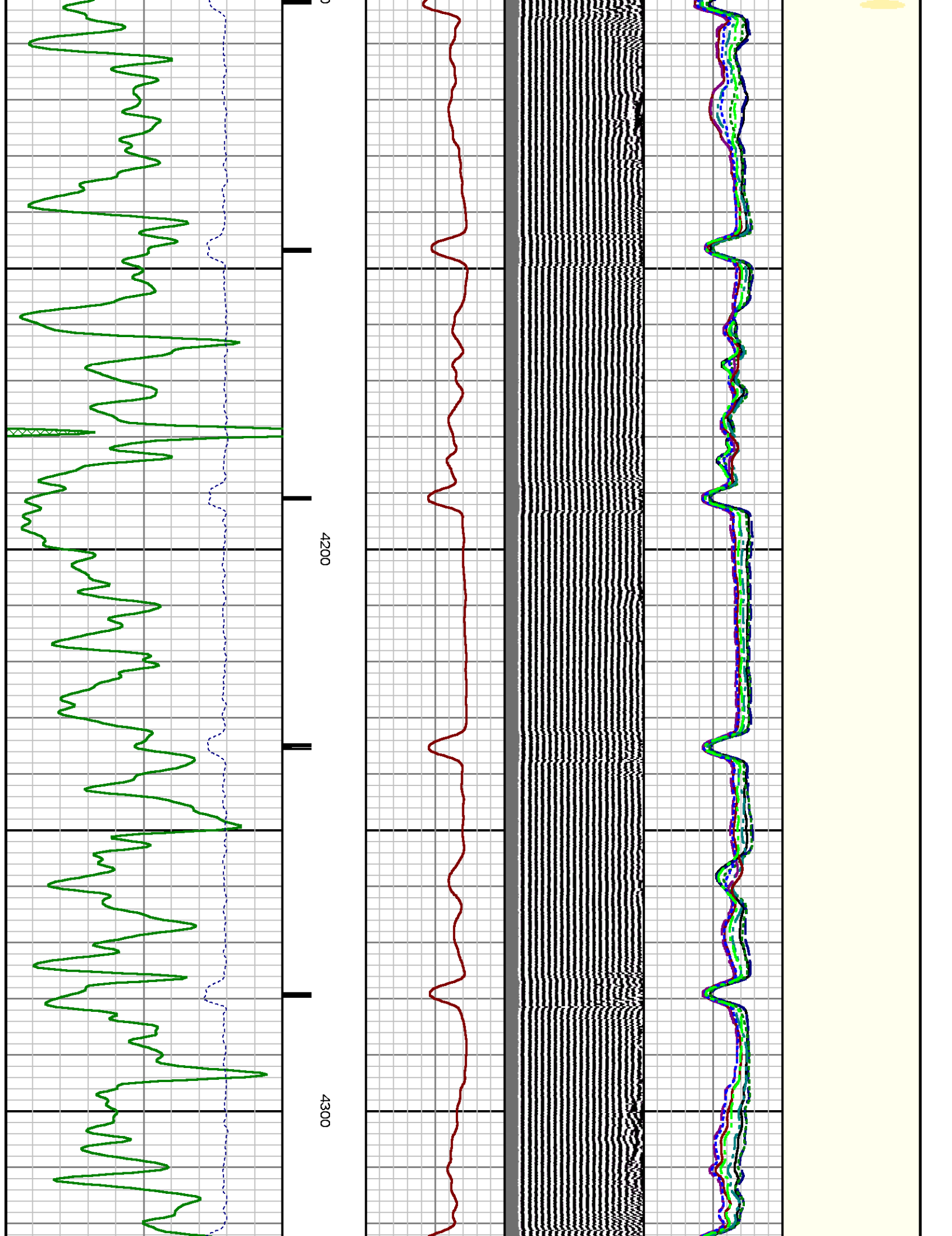


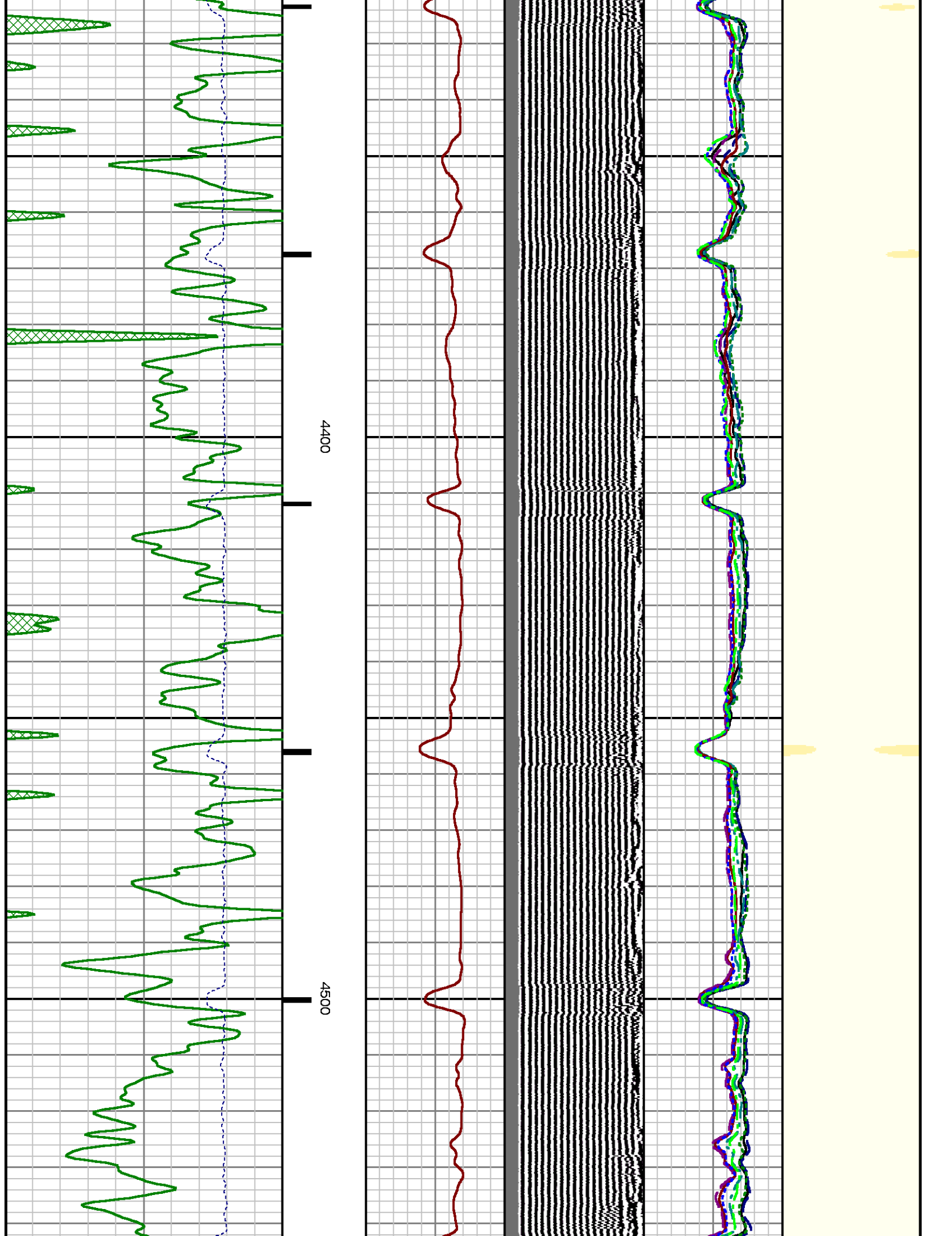


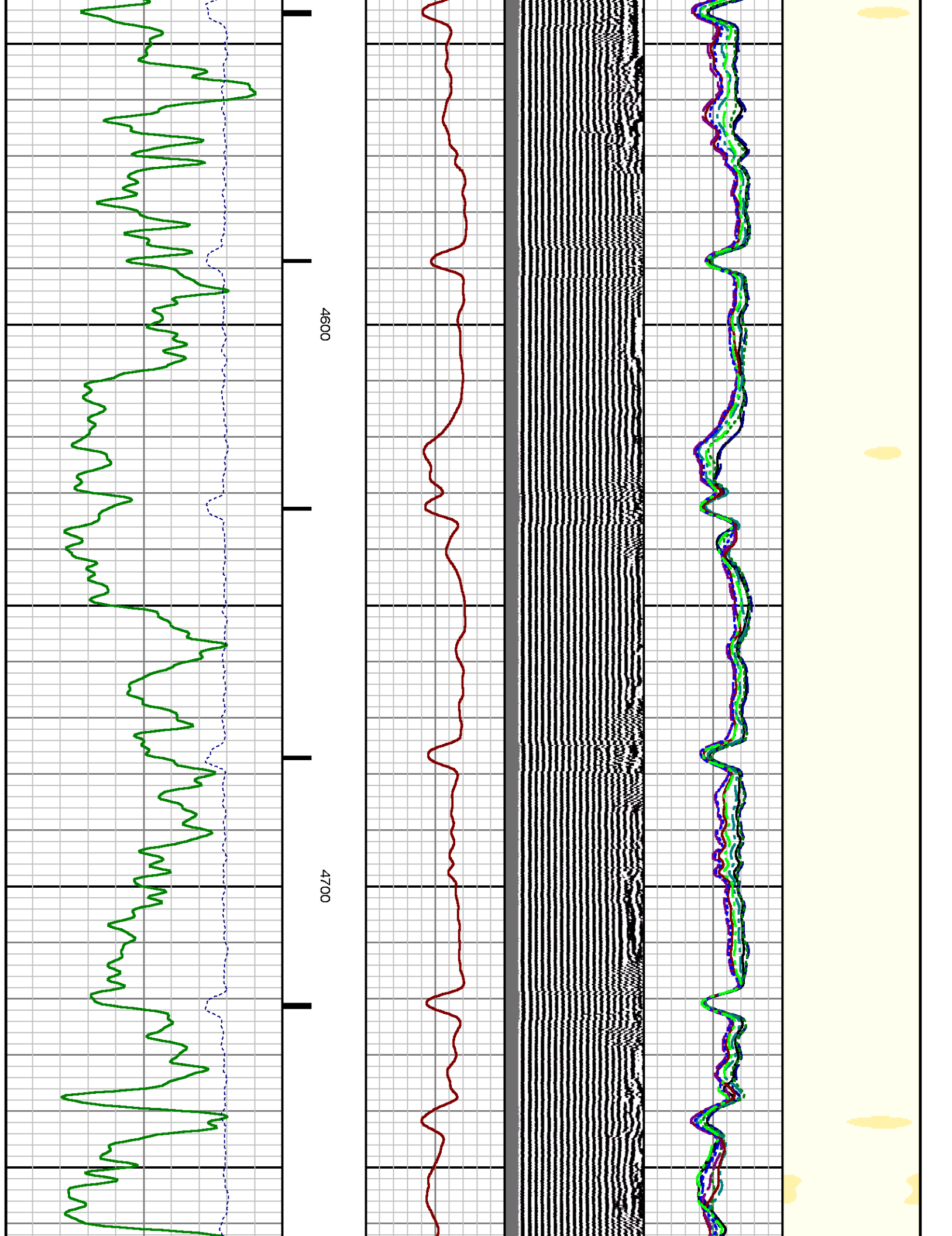


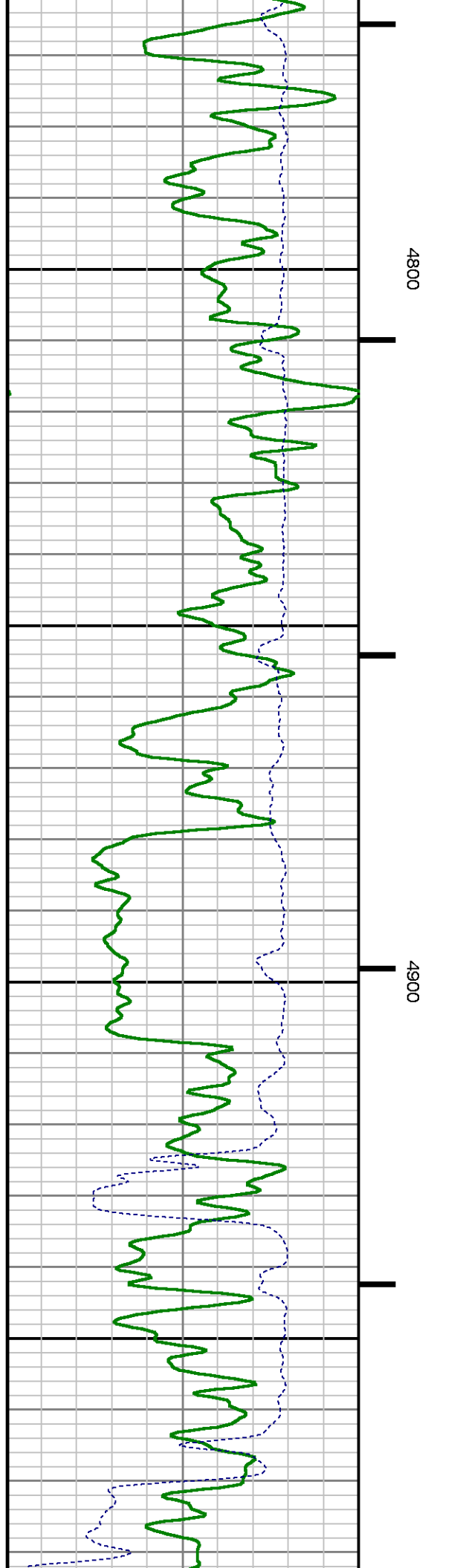
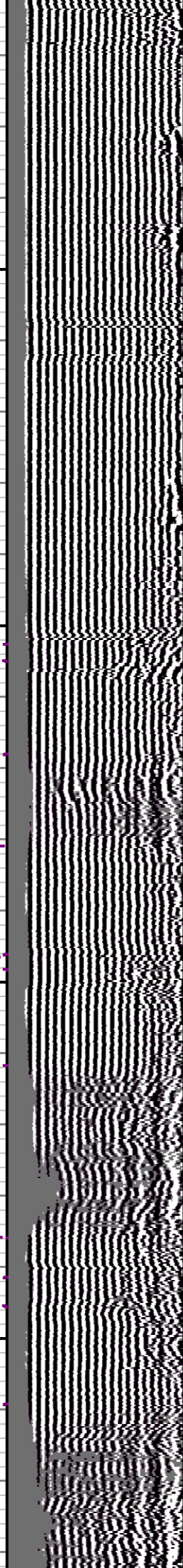
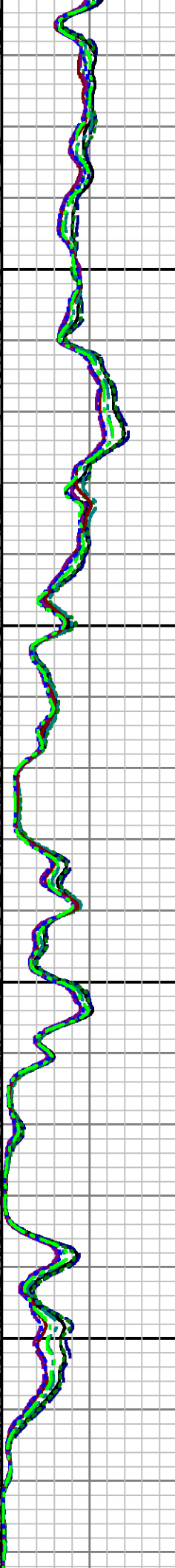
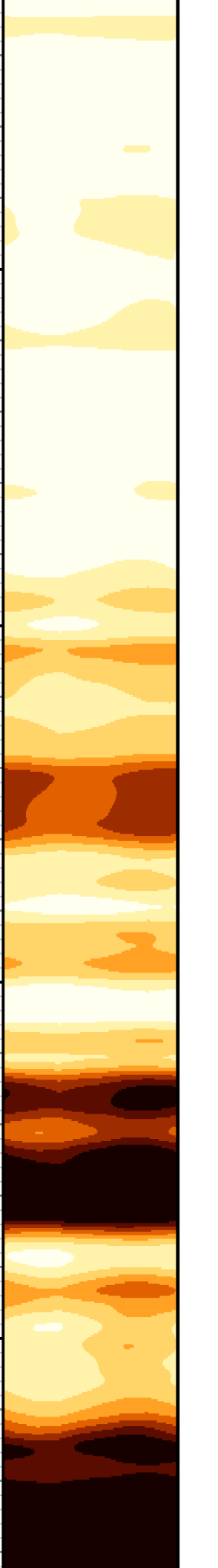


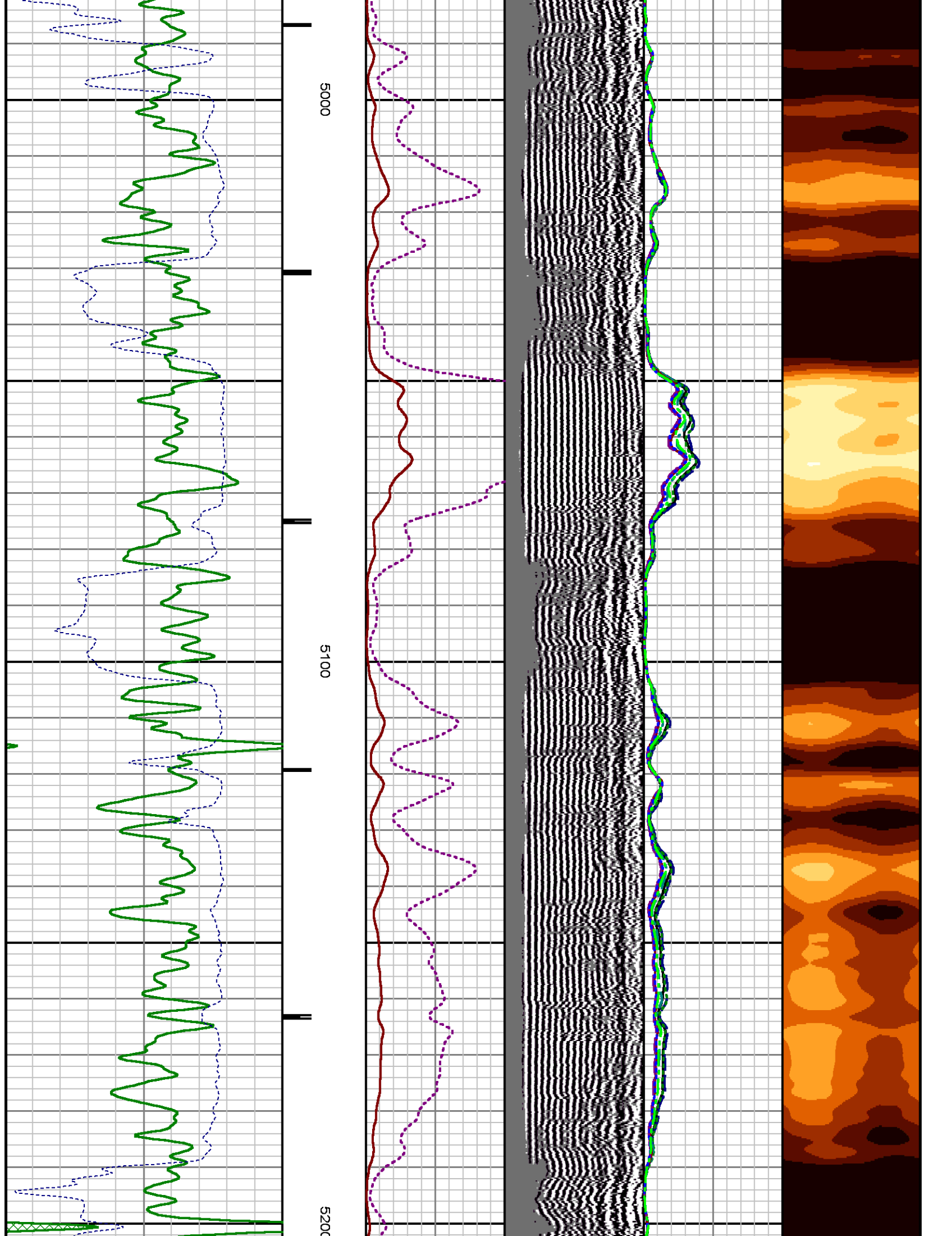


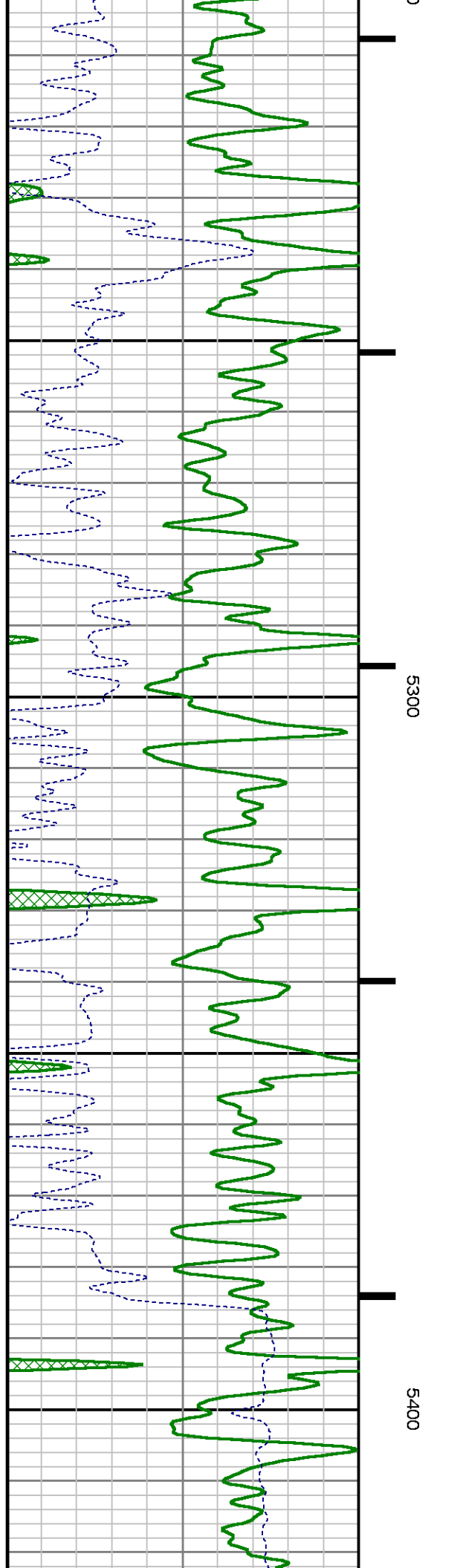
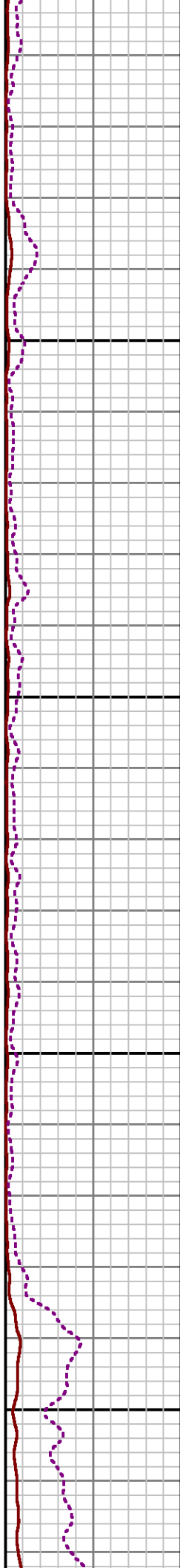
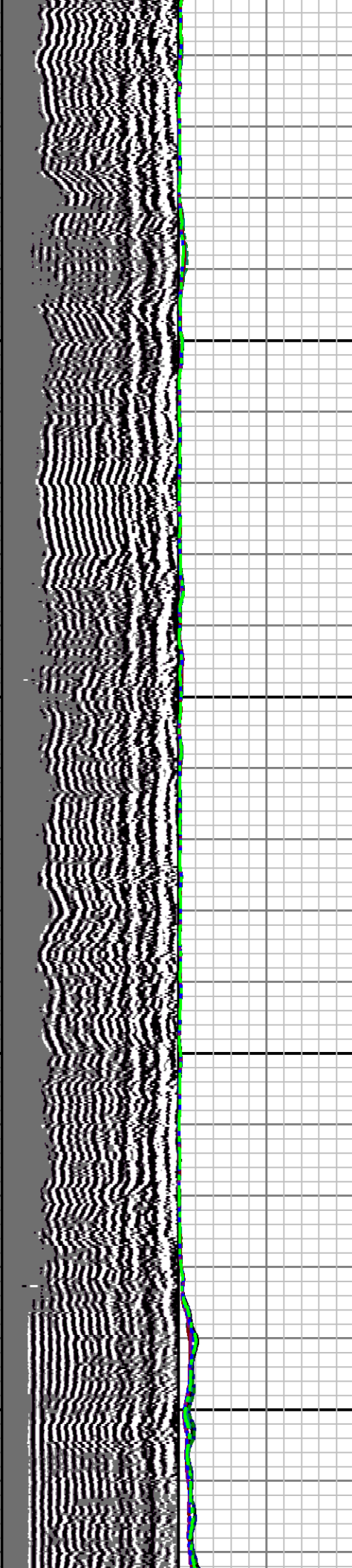


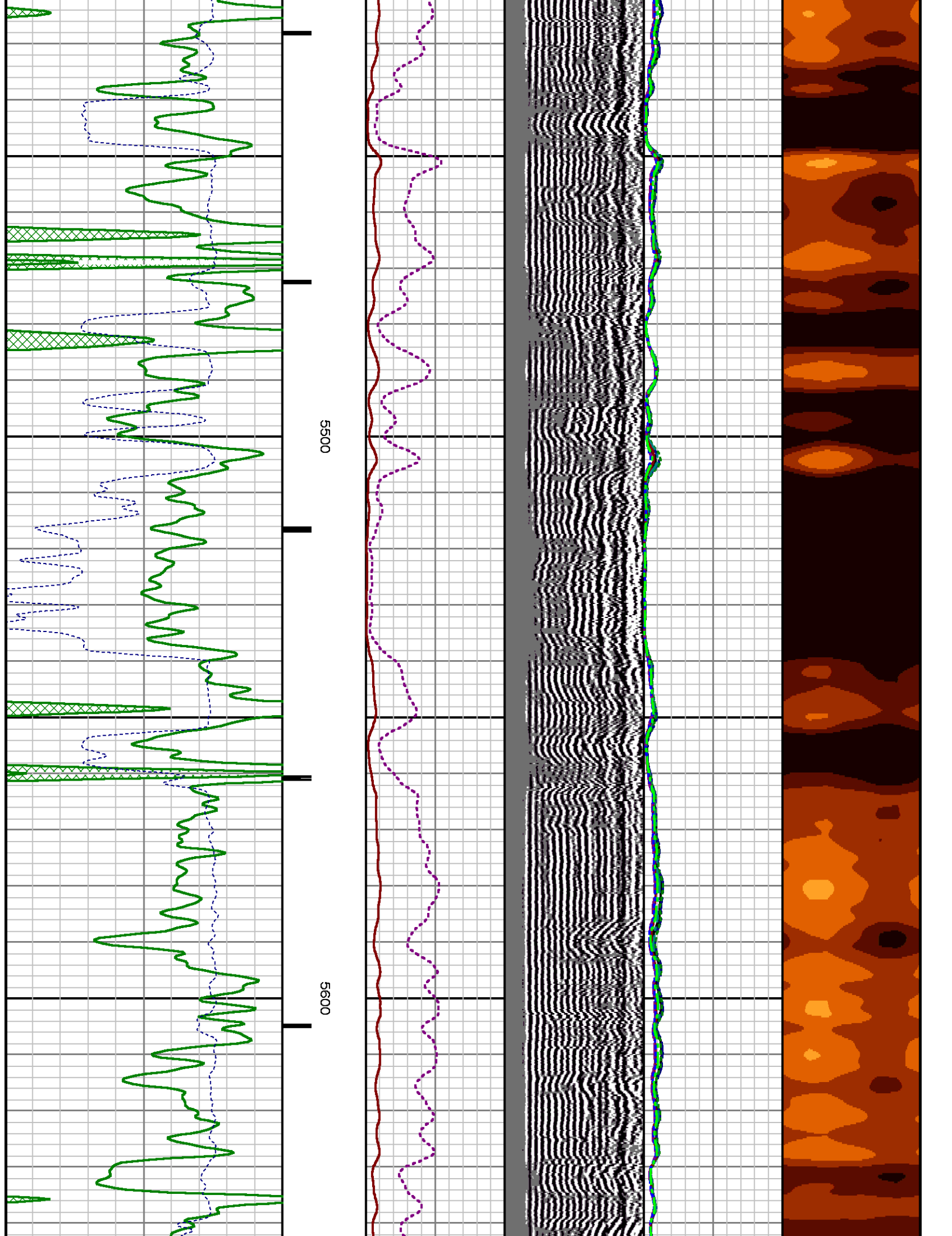


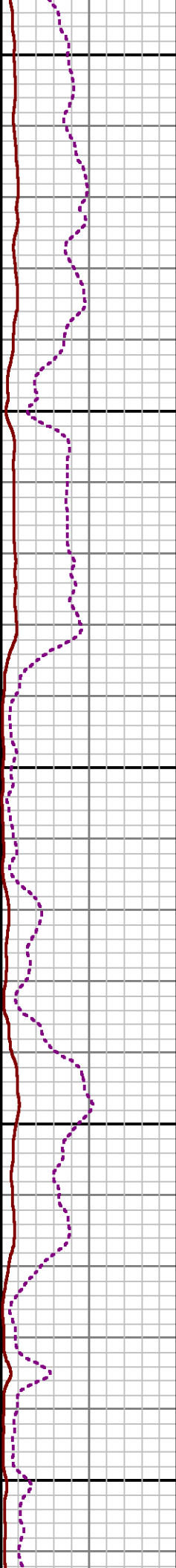
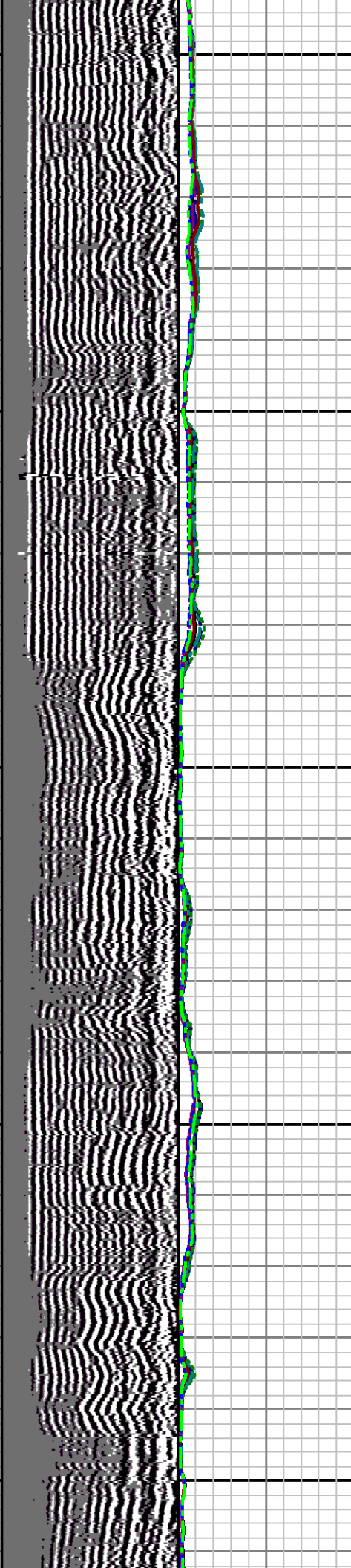






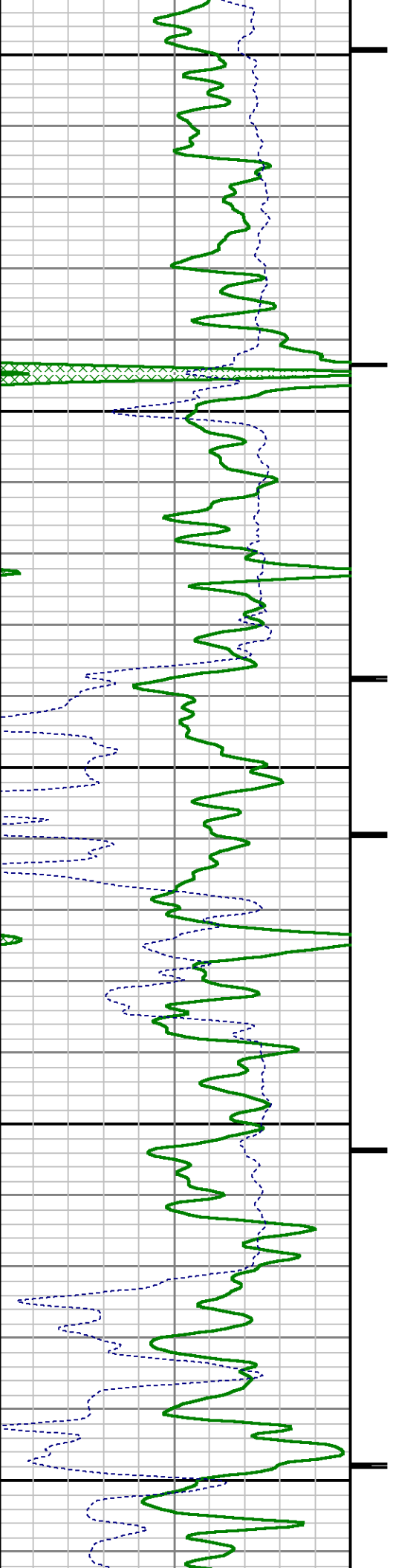


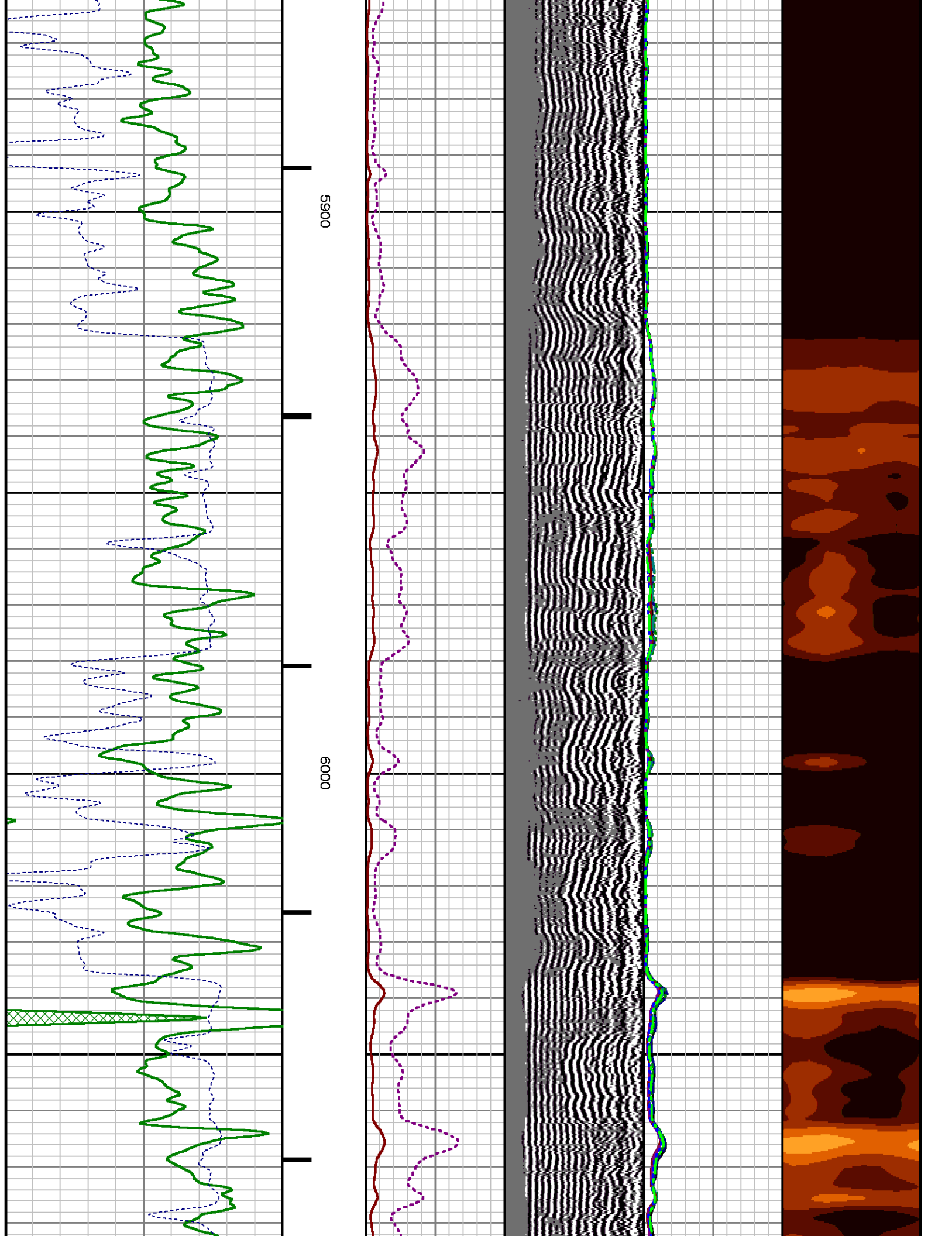


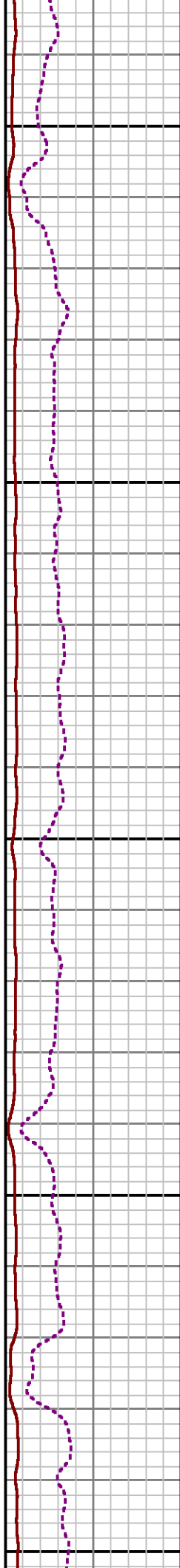
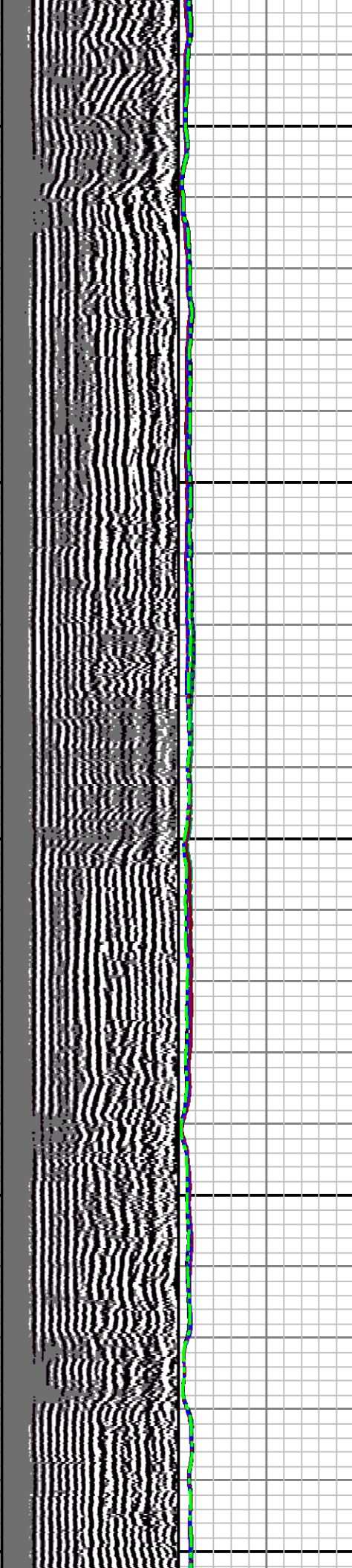


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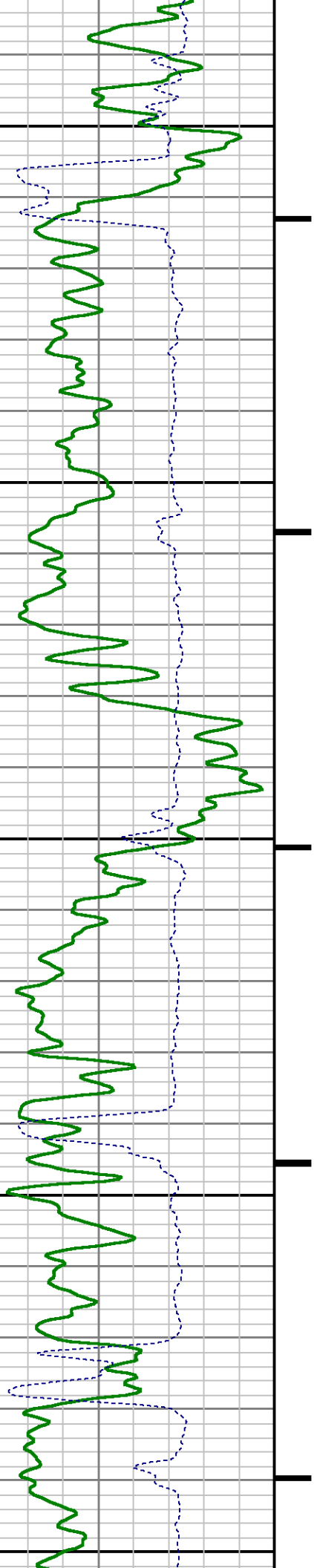
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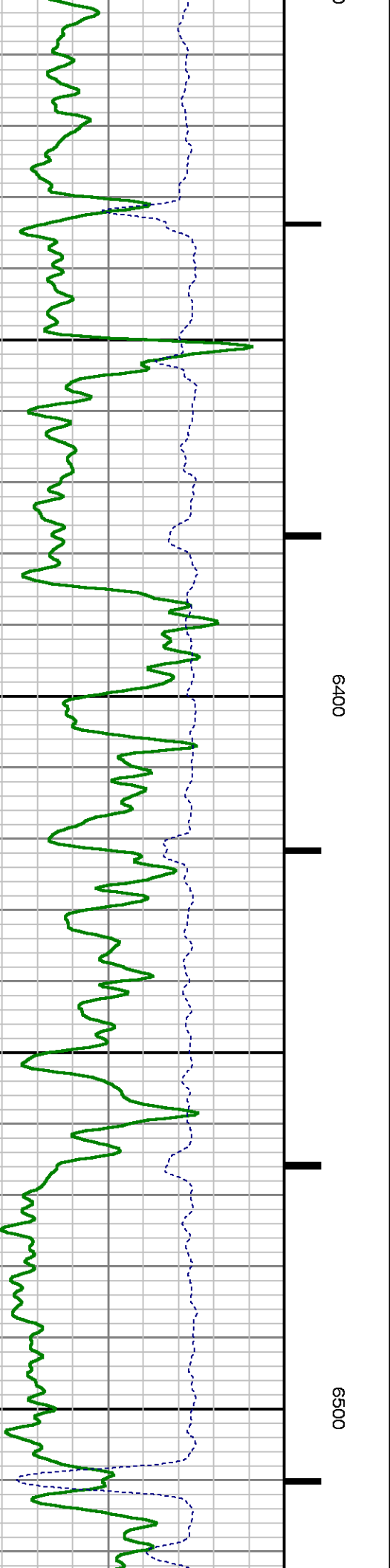
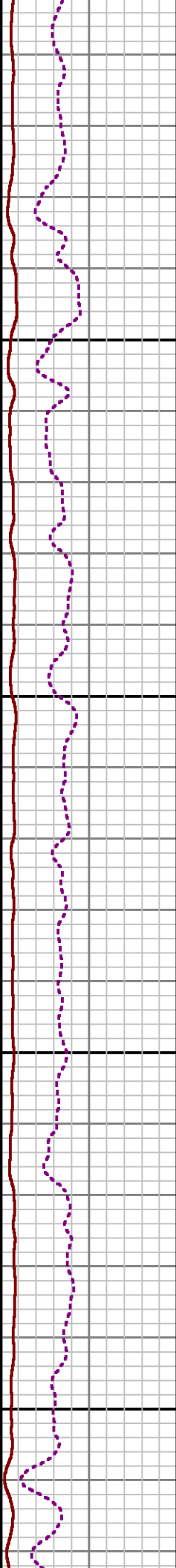
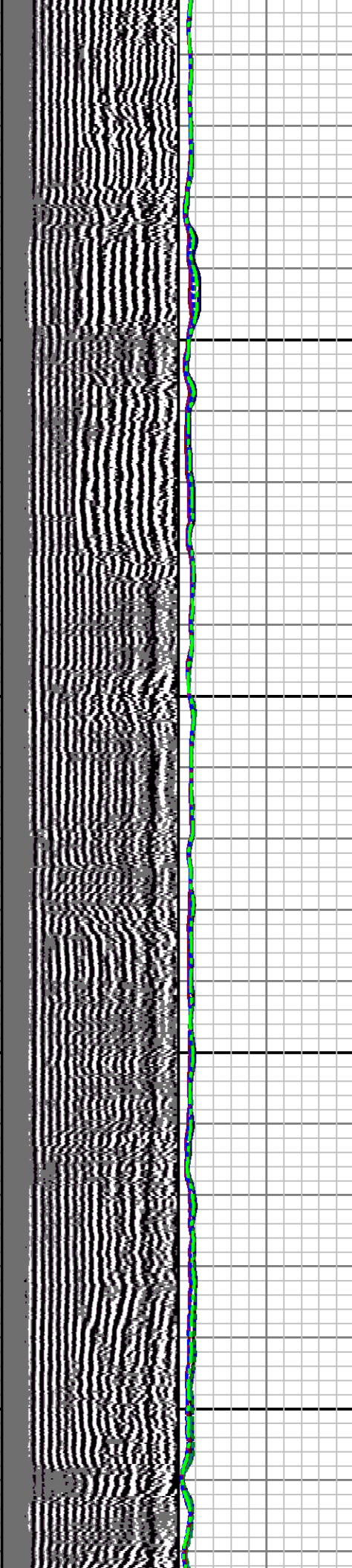


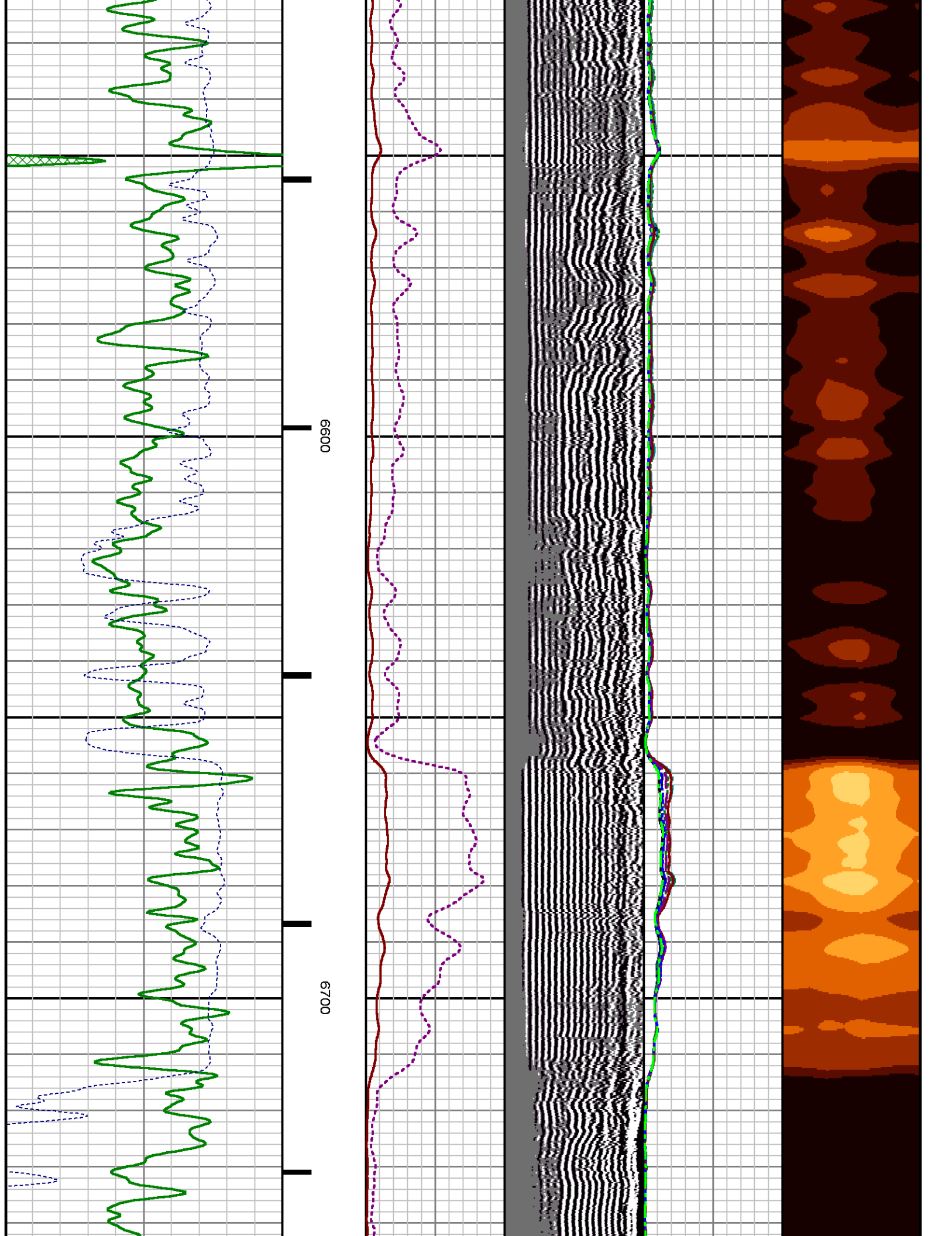


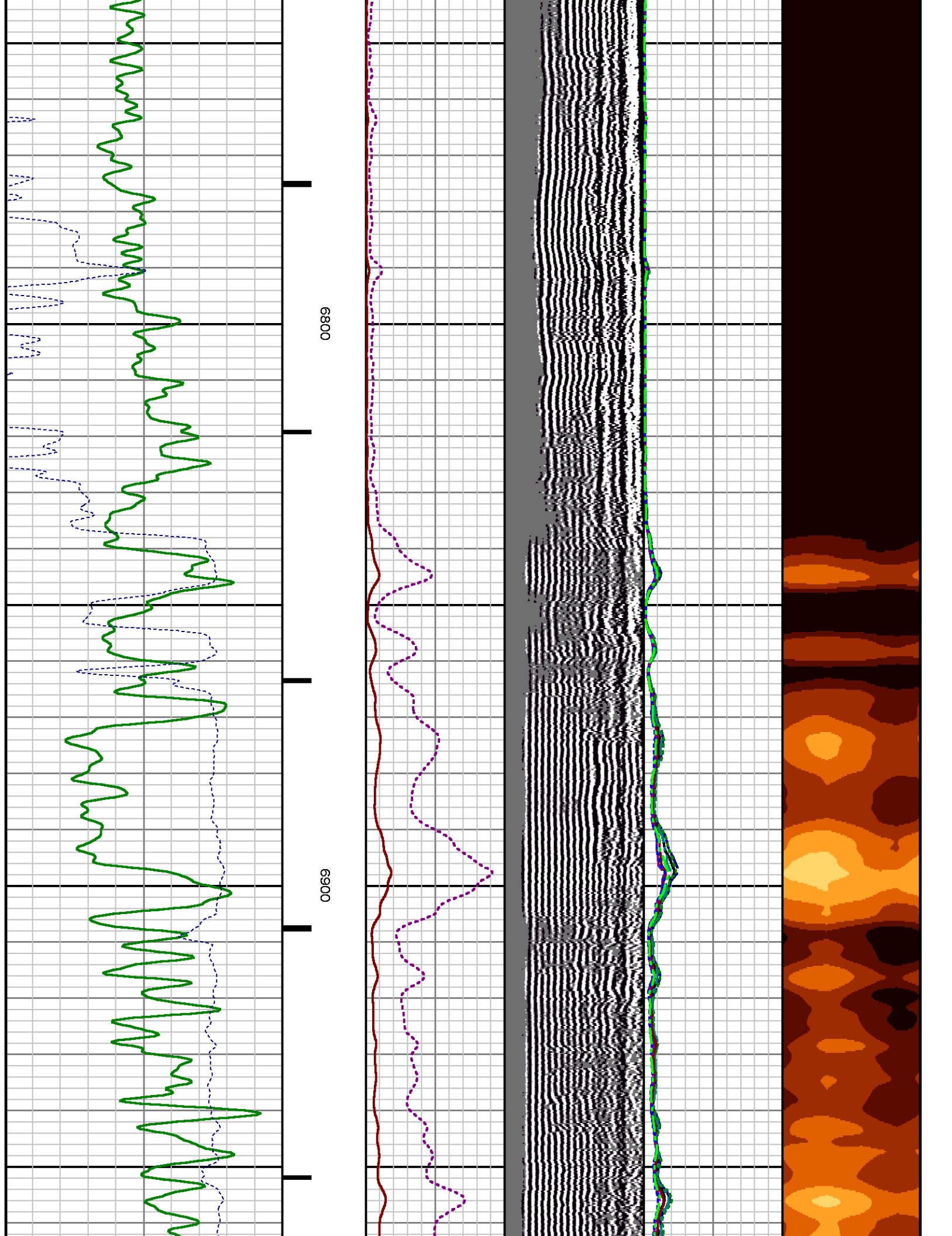


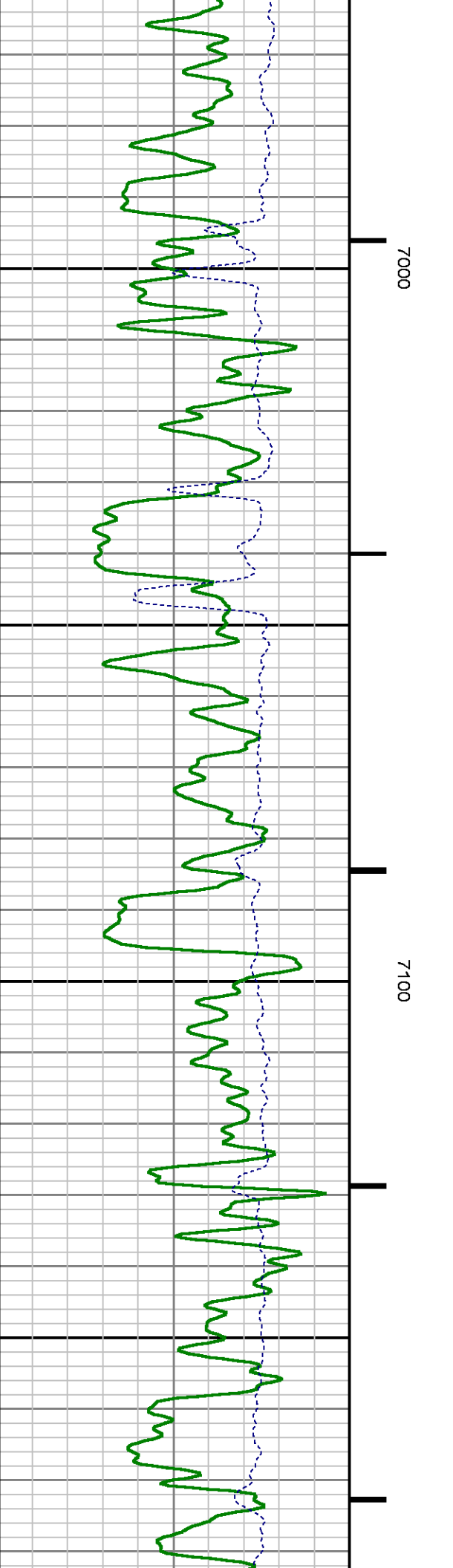
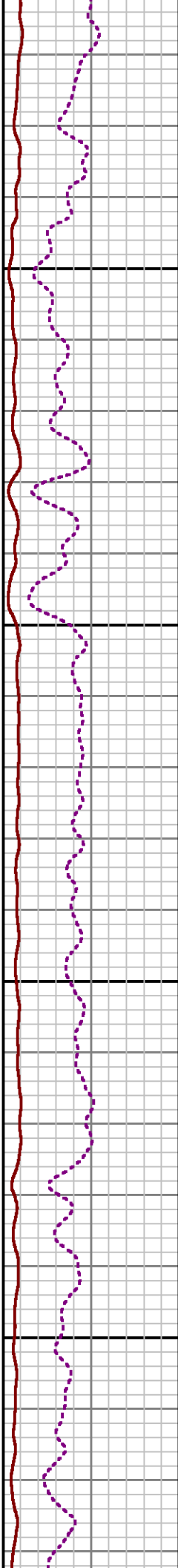
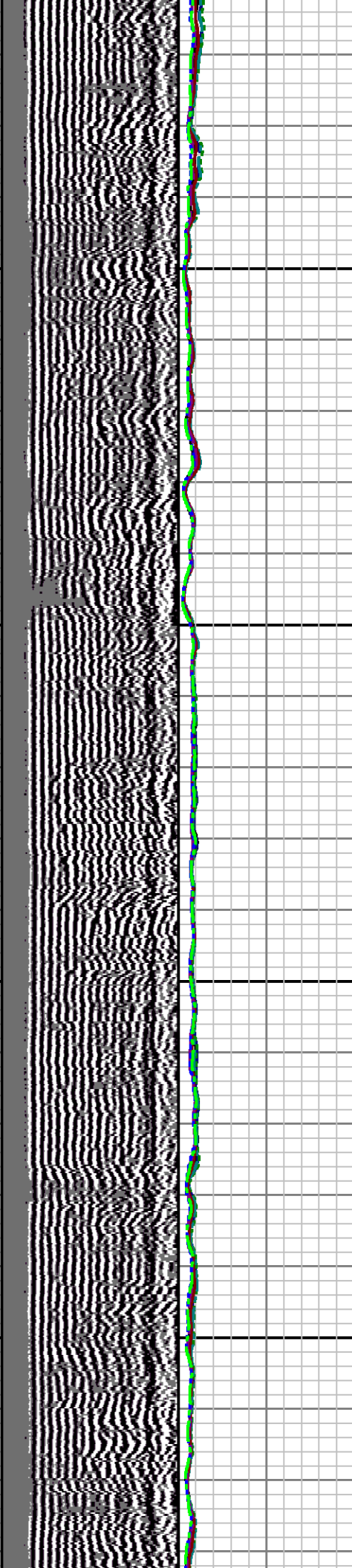
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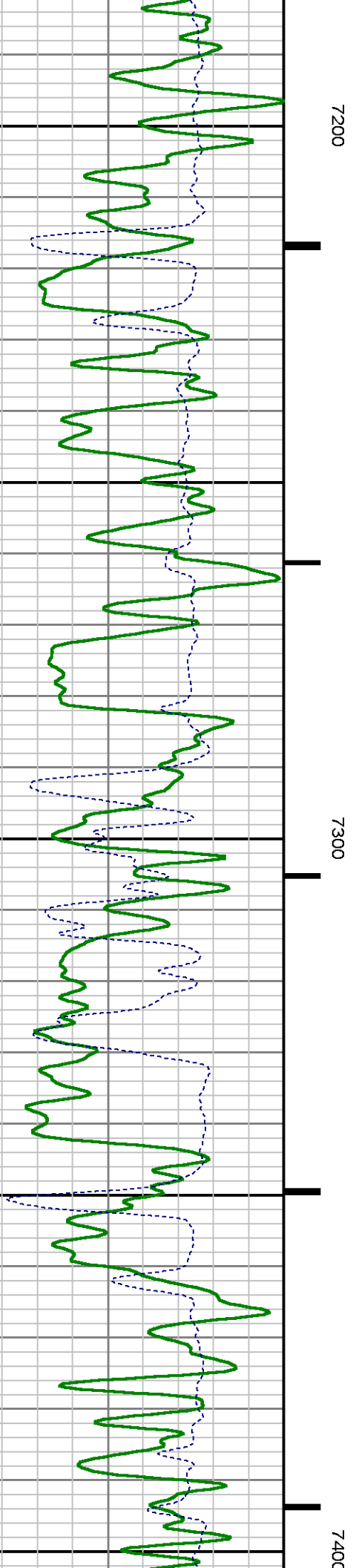
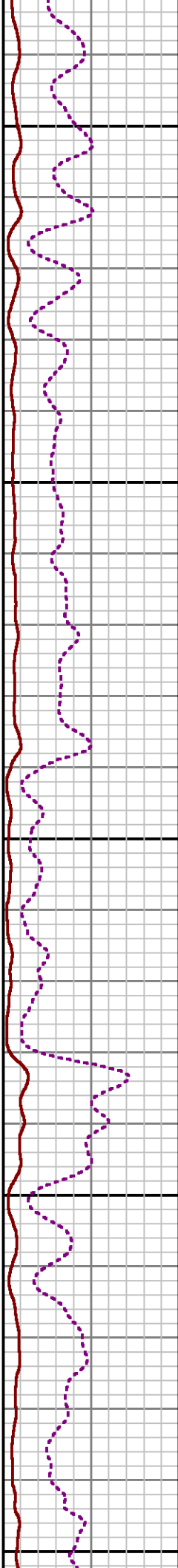
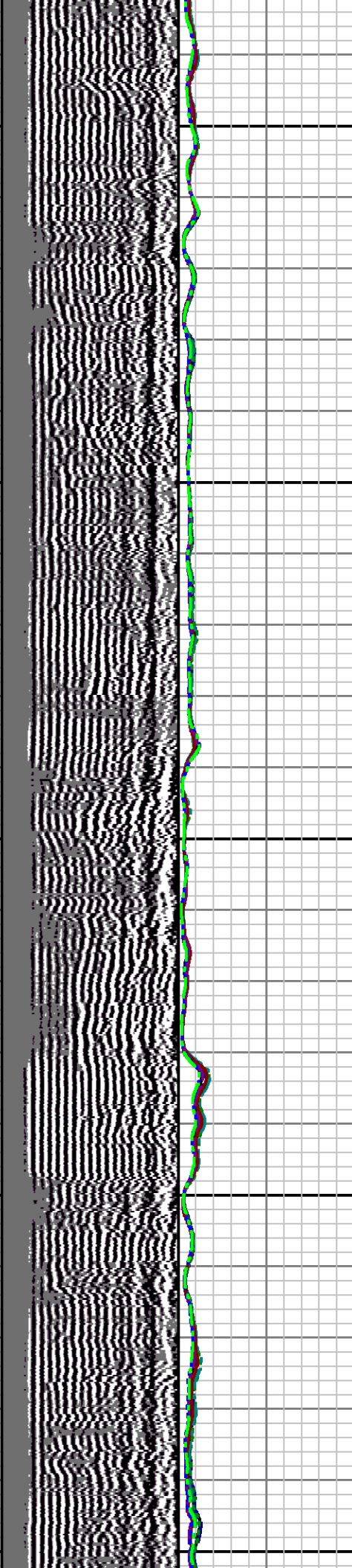
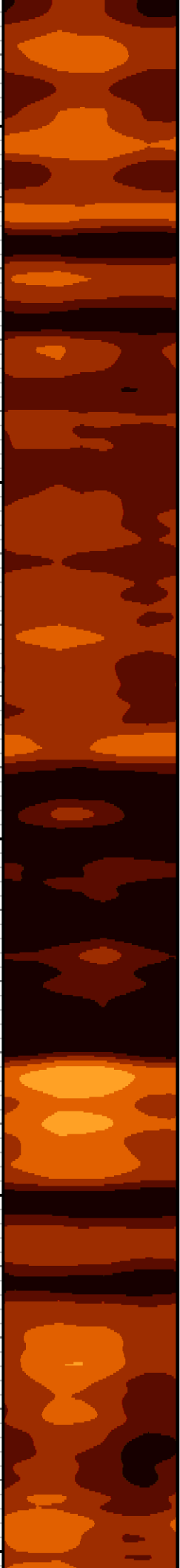


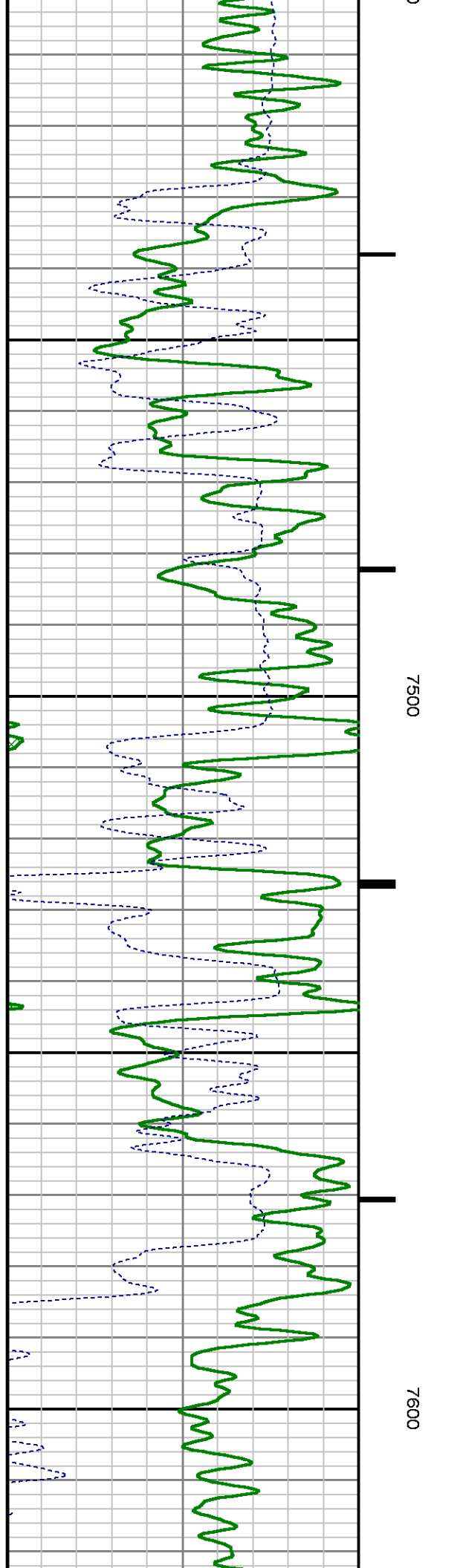
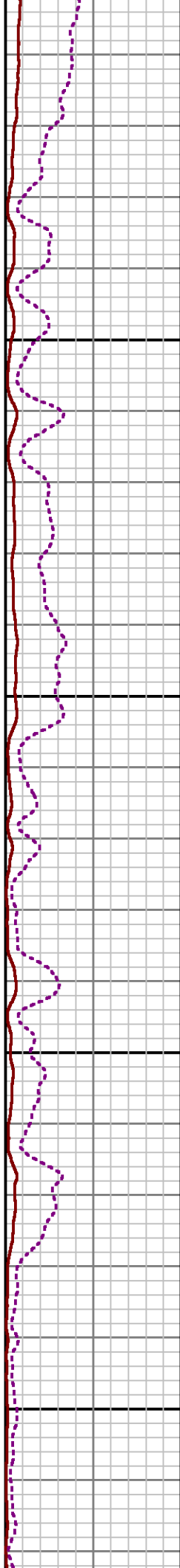
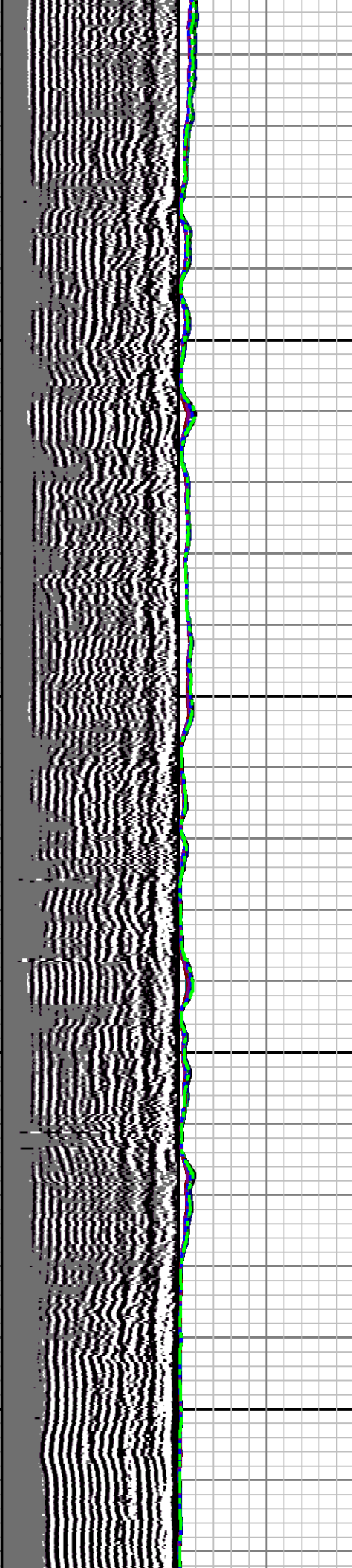


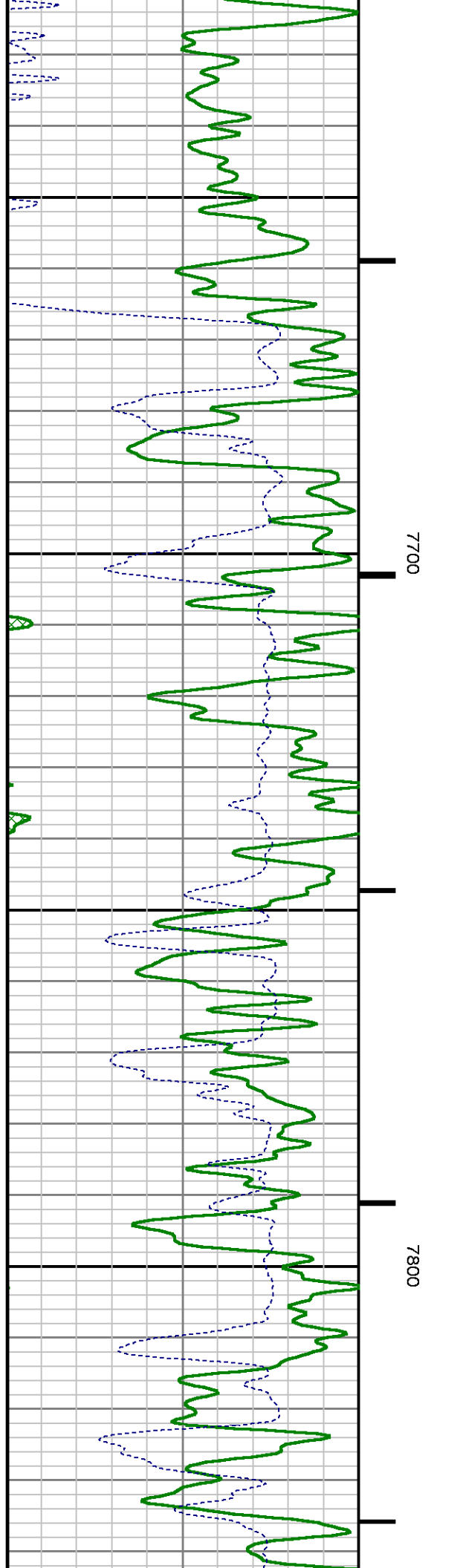
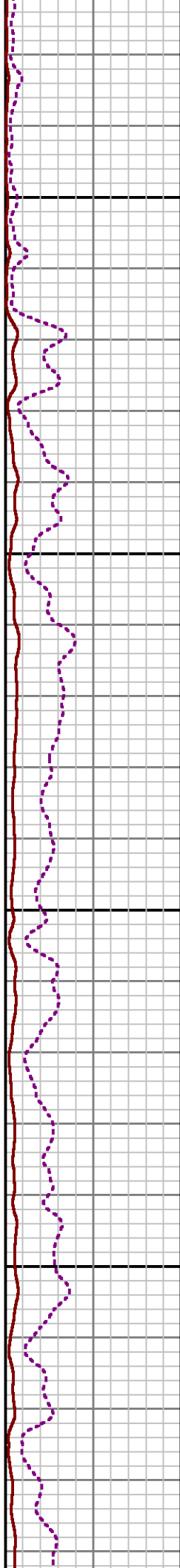
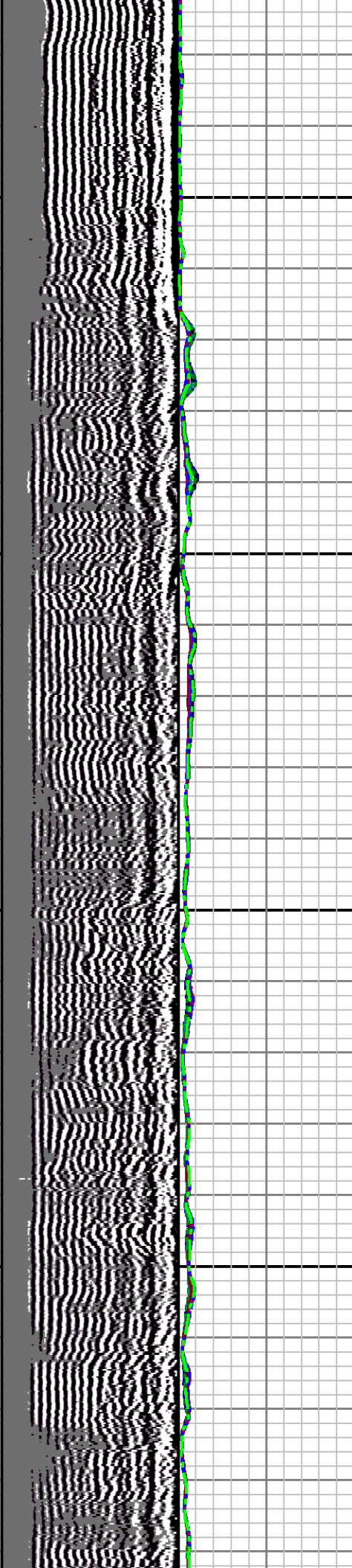
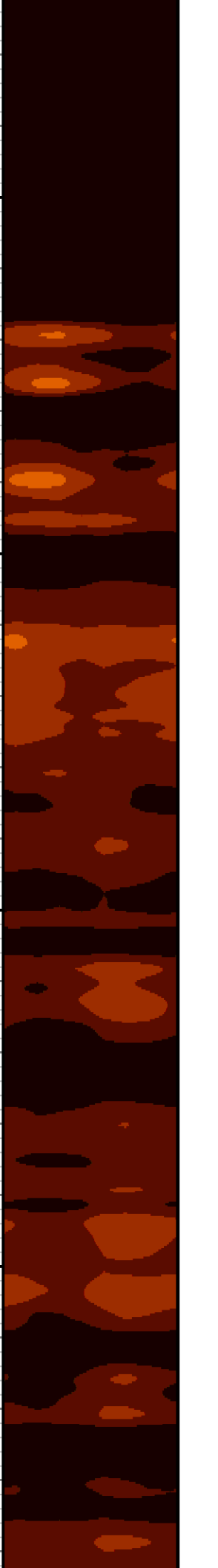


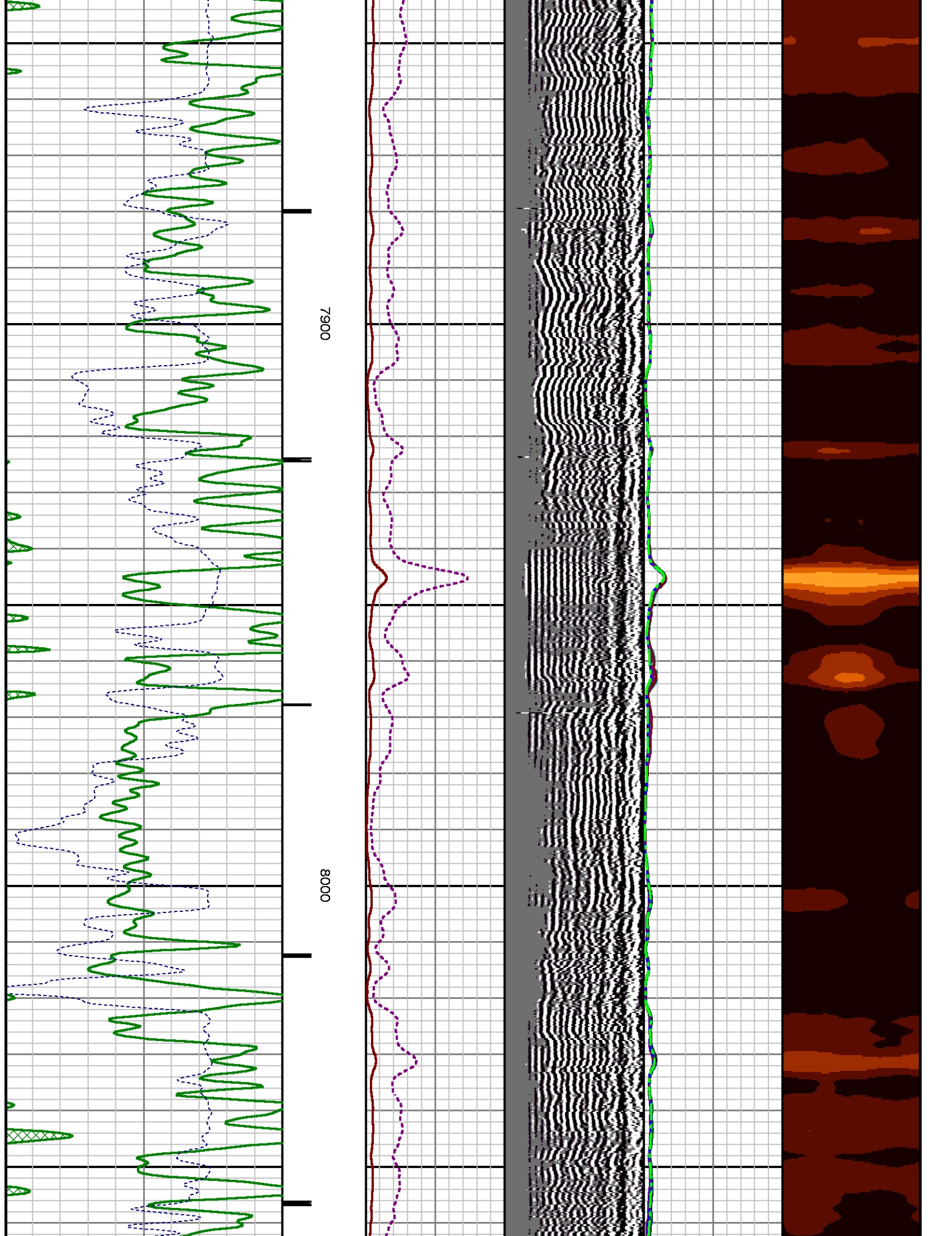


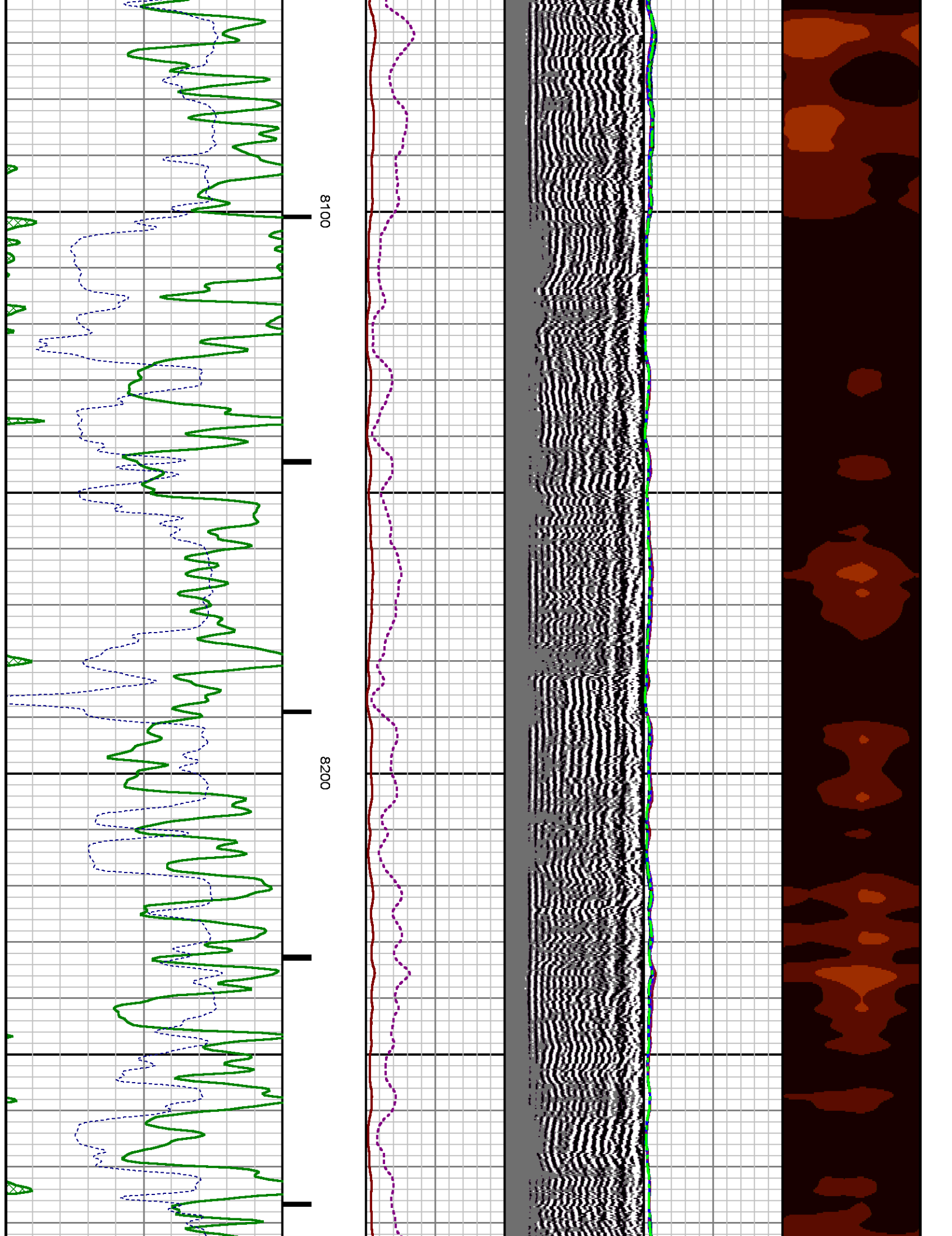


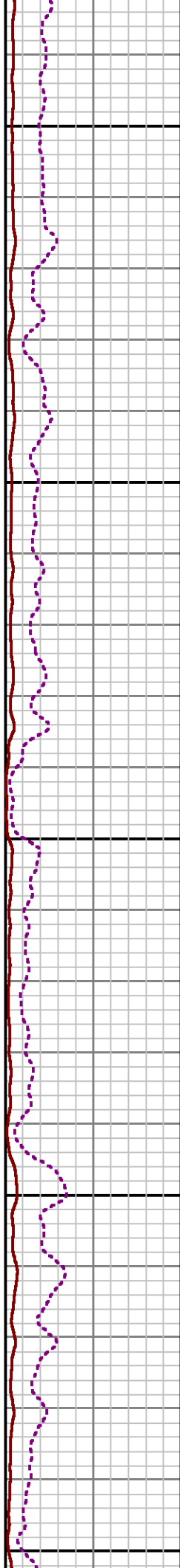
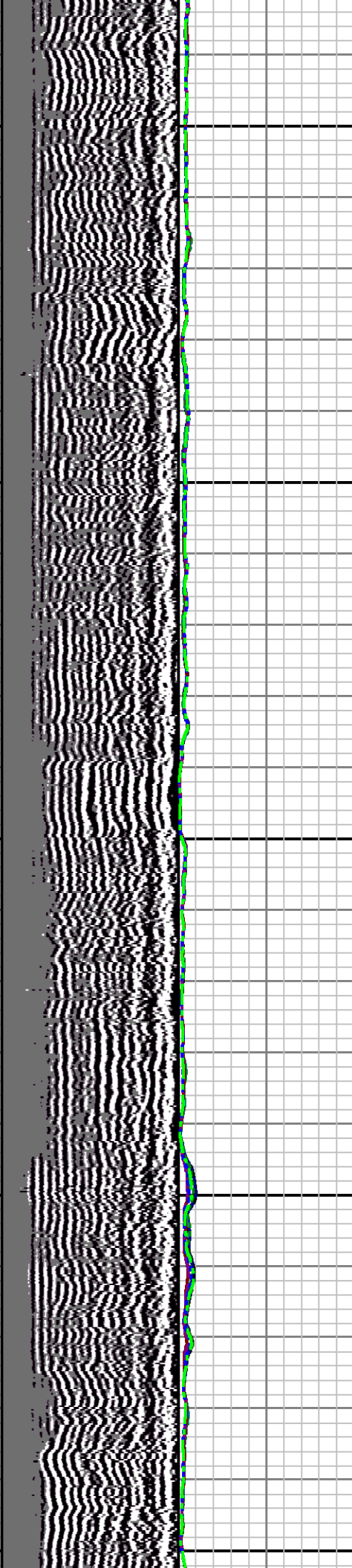








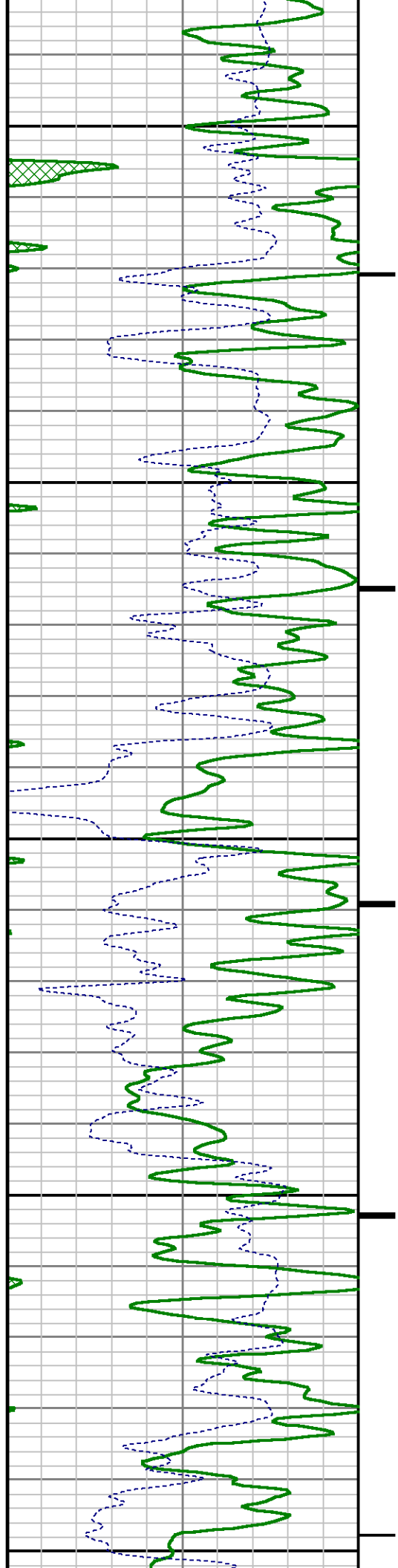


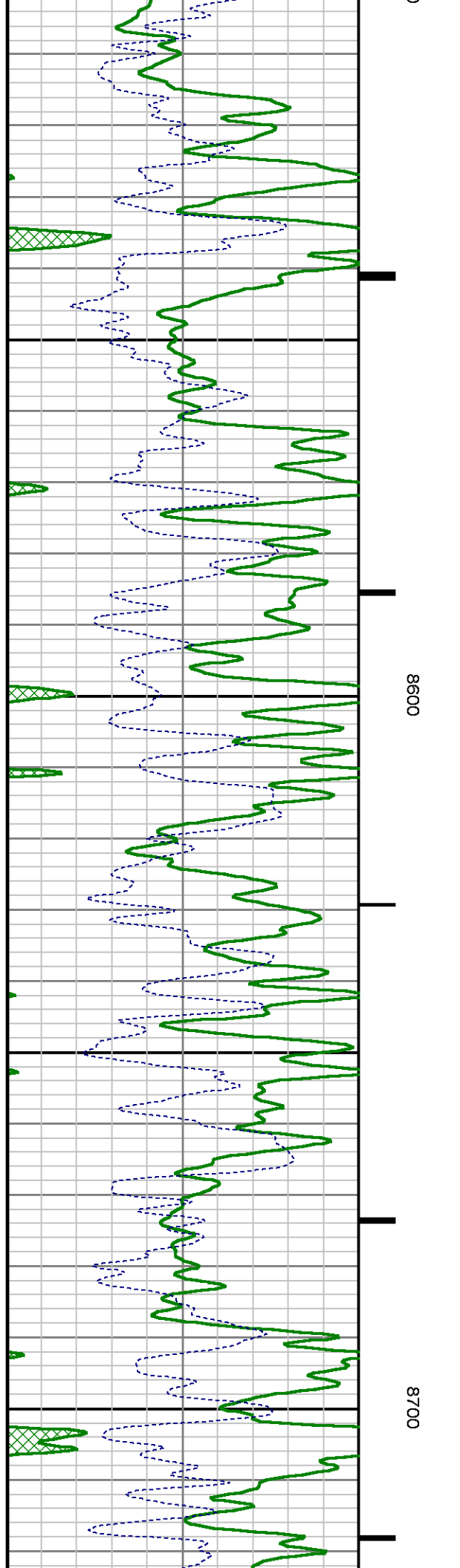
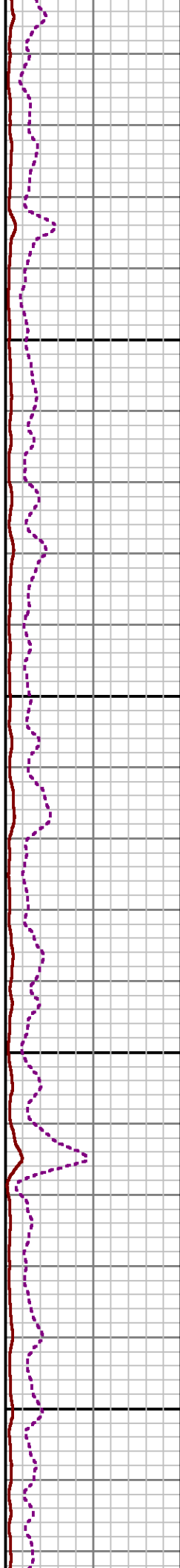
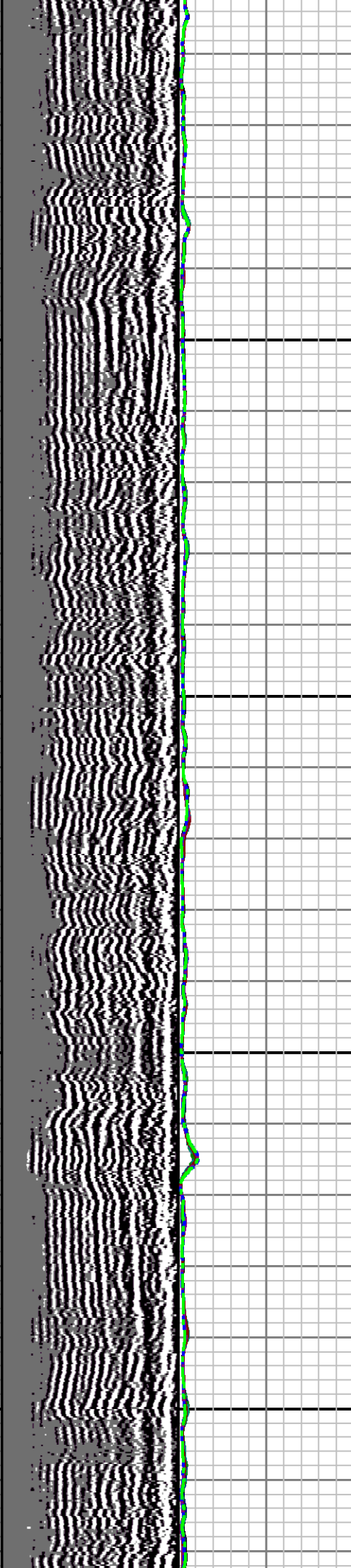


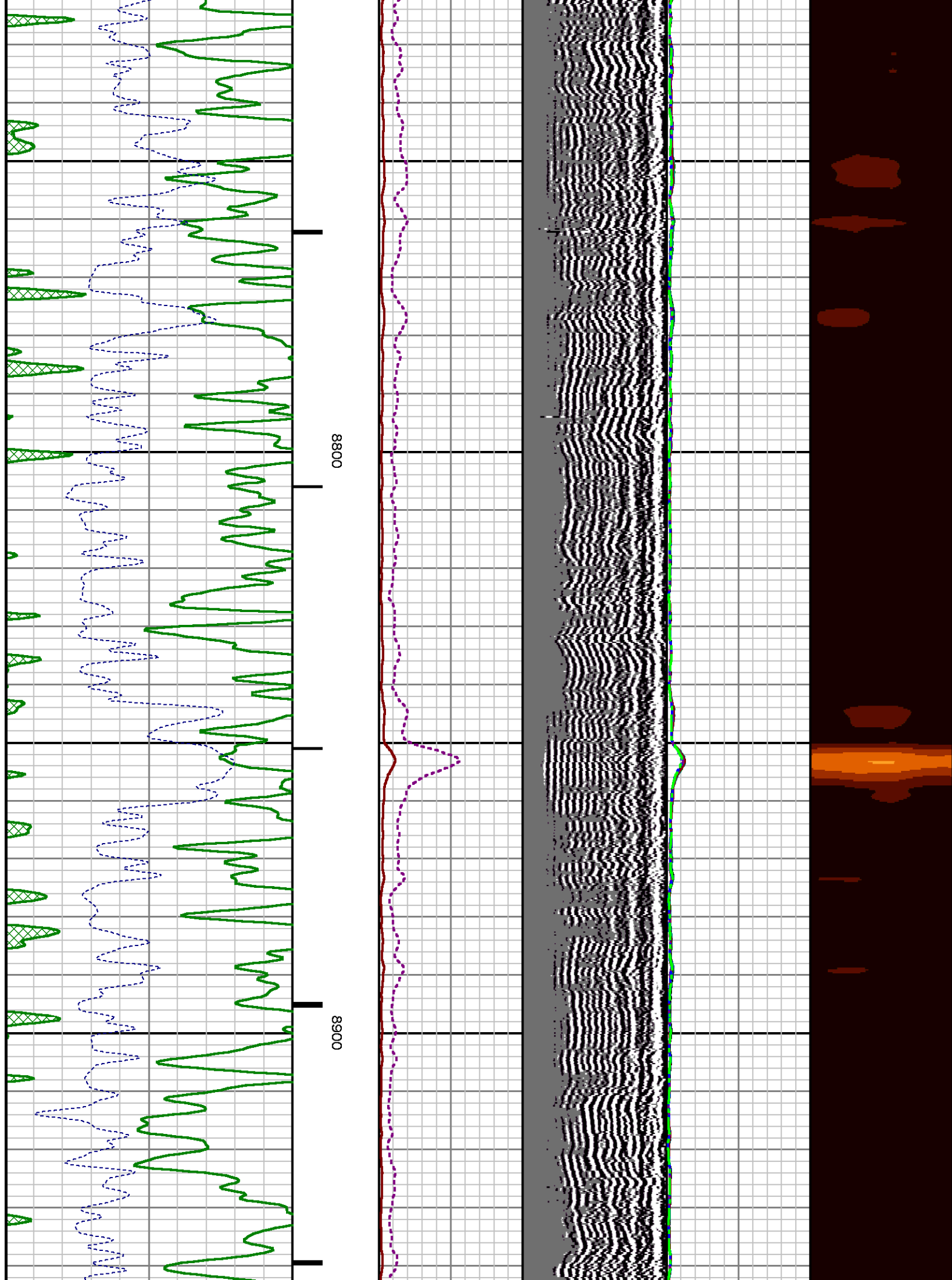
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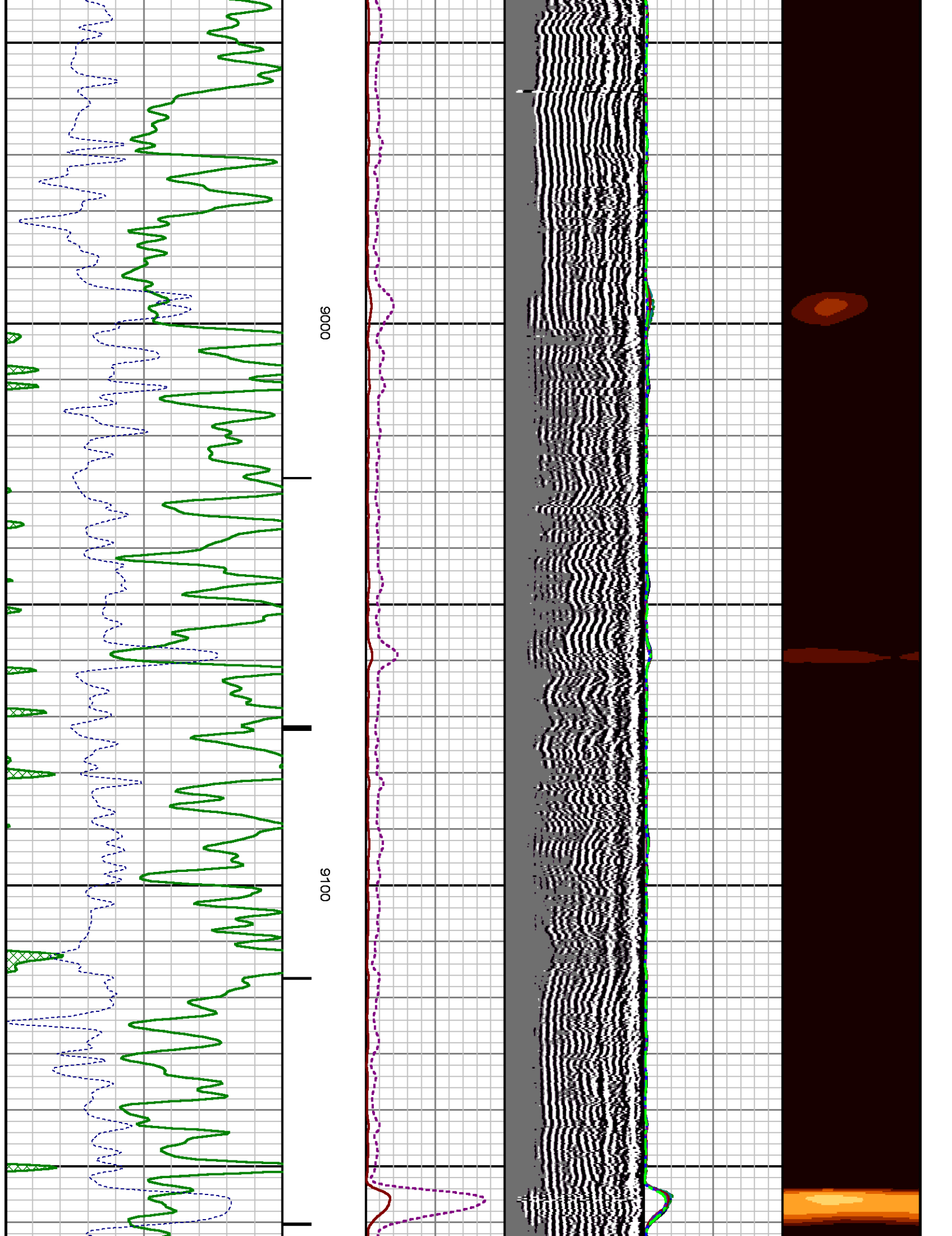
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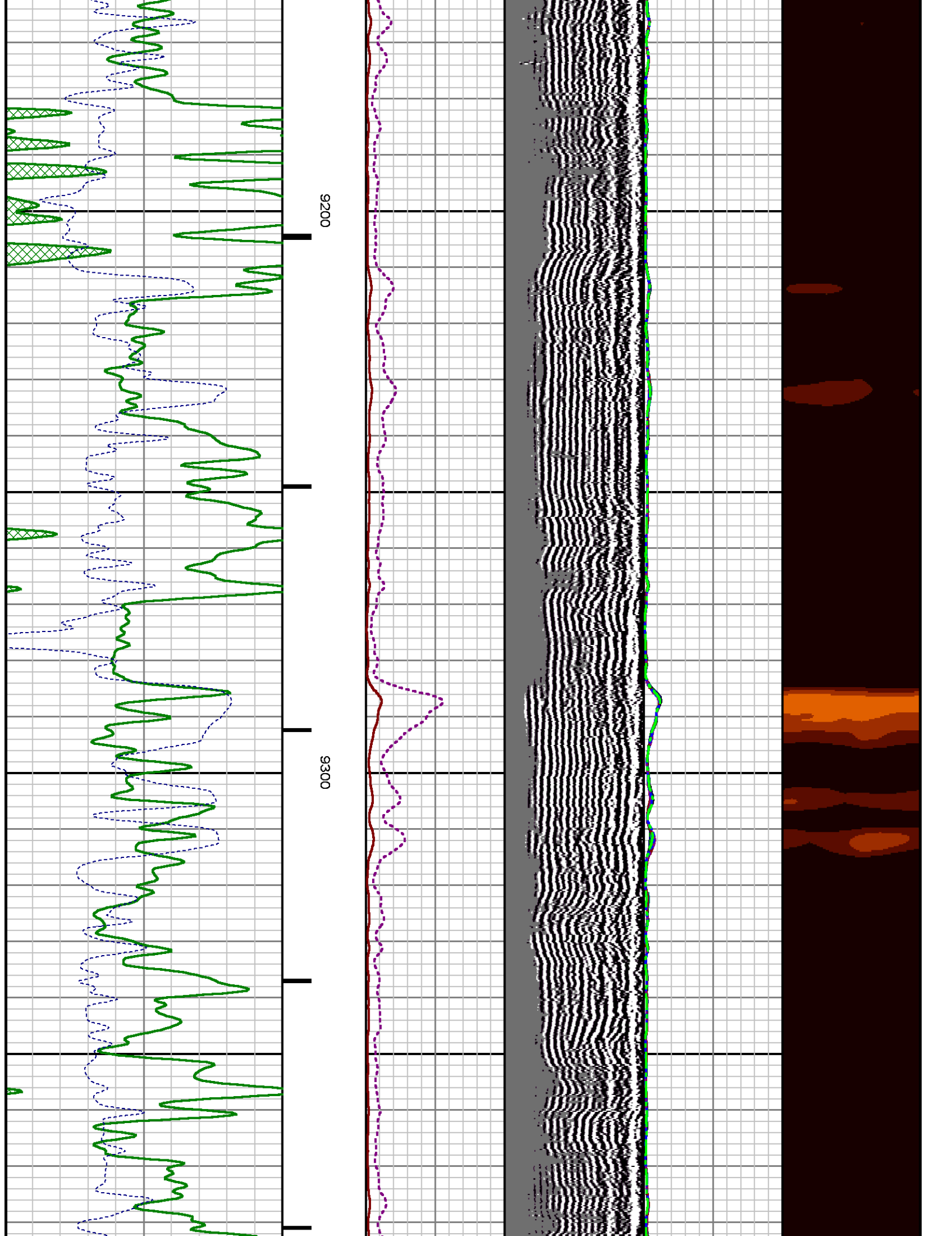
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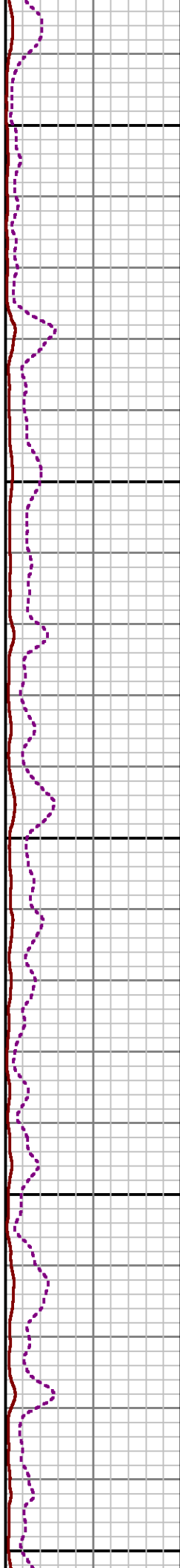
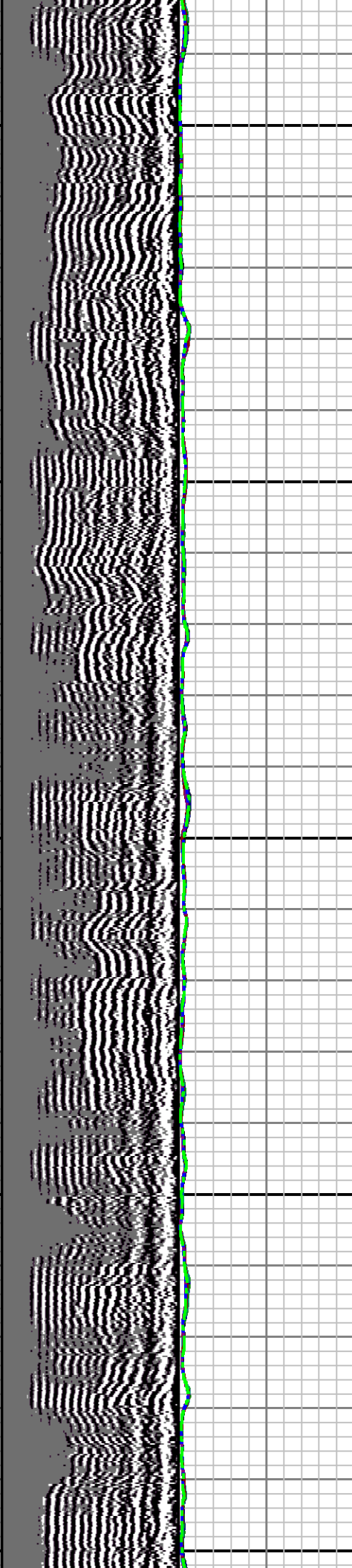








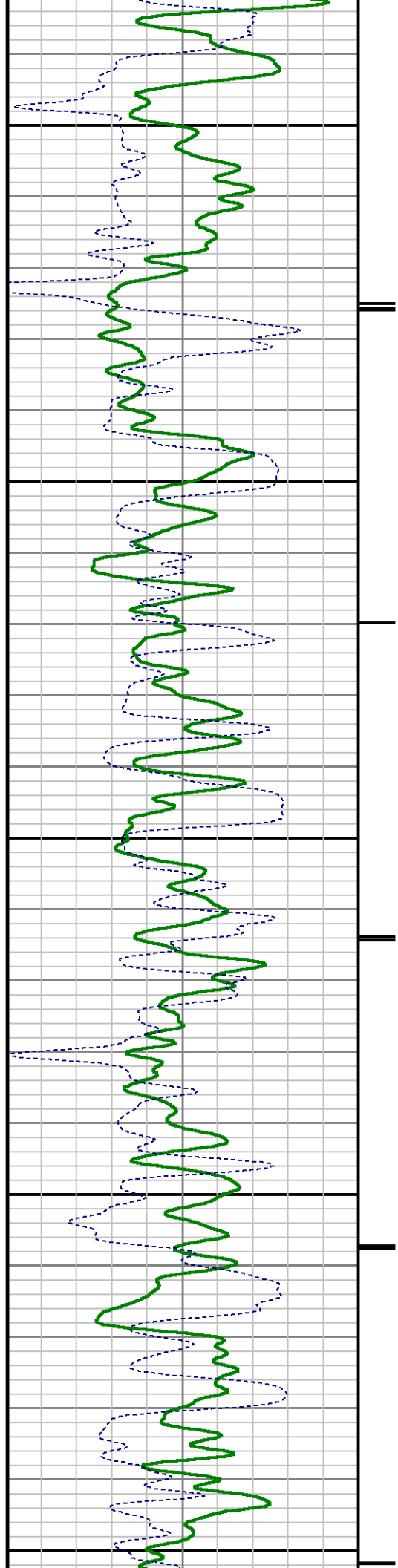


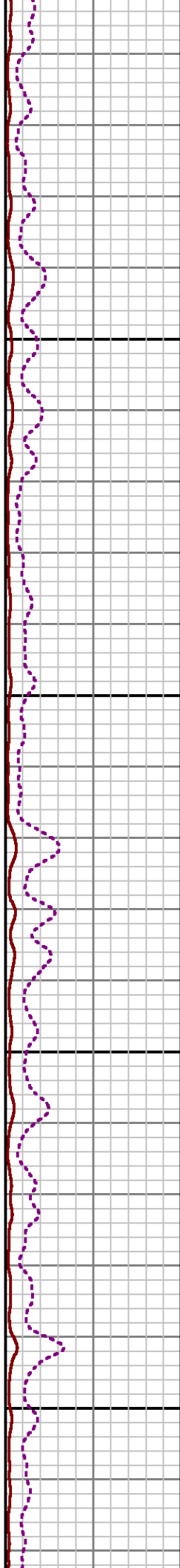
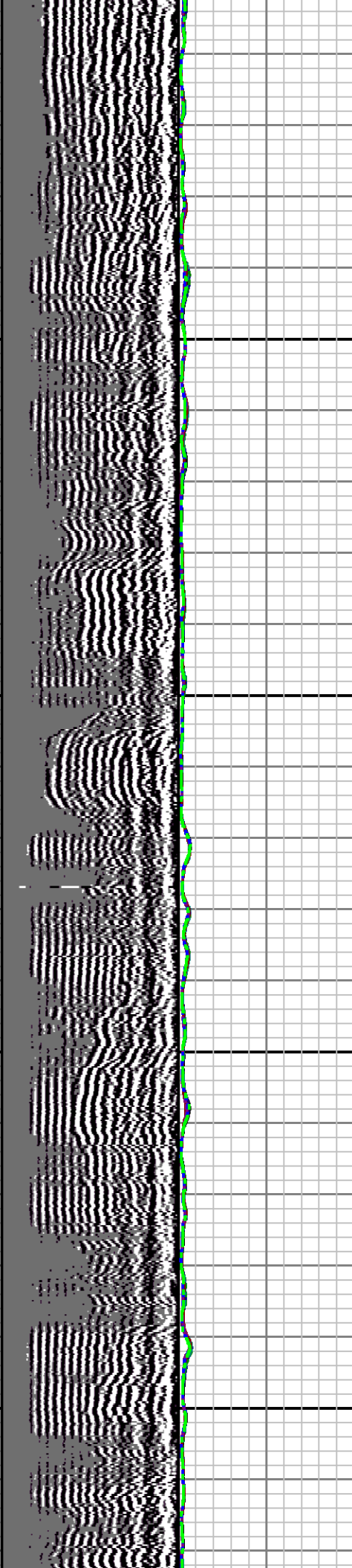


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9500

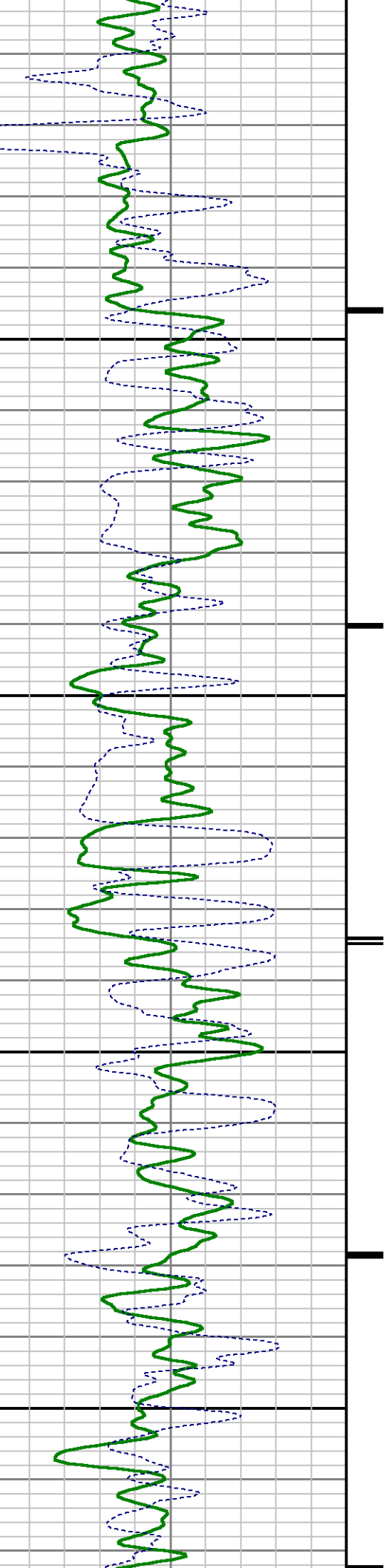
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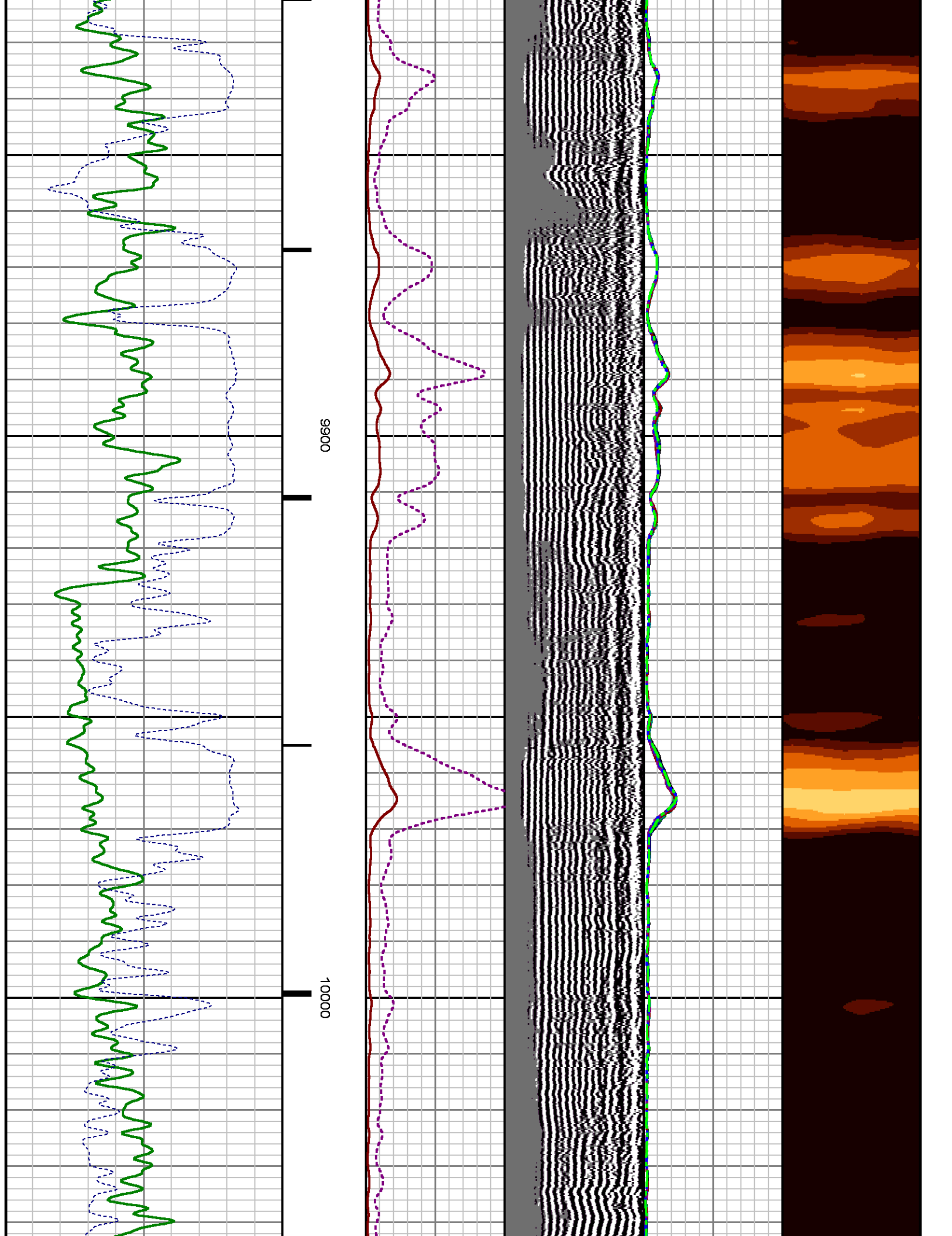


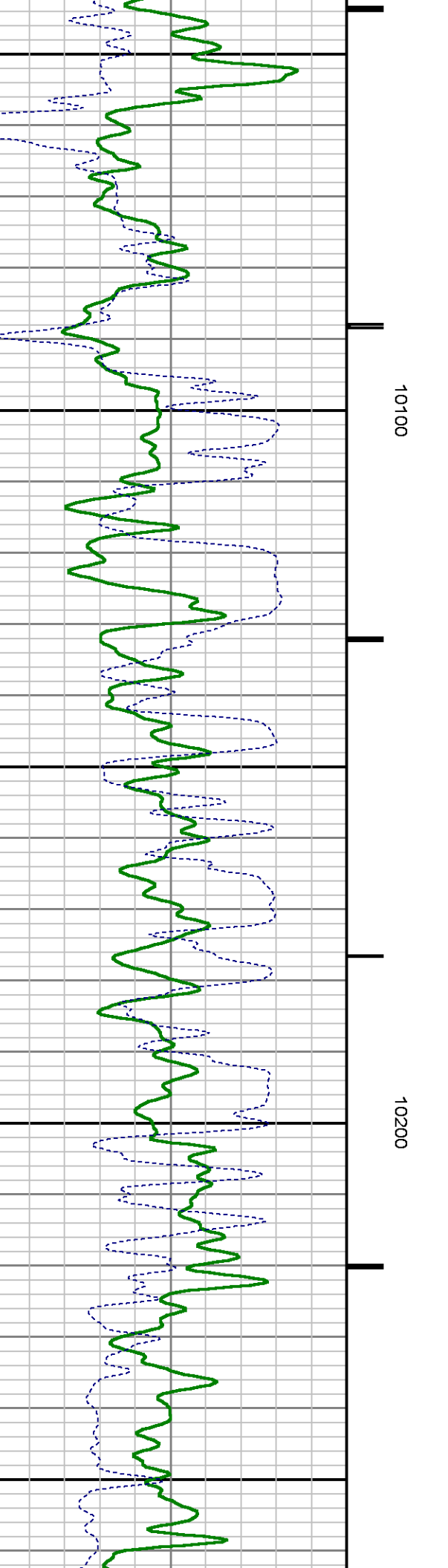
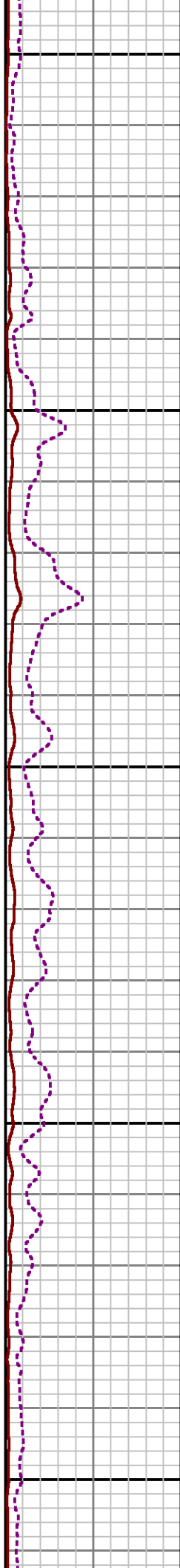
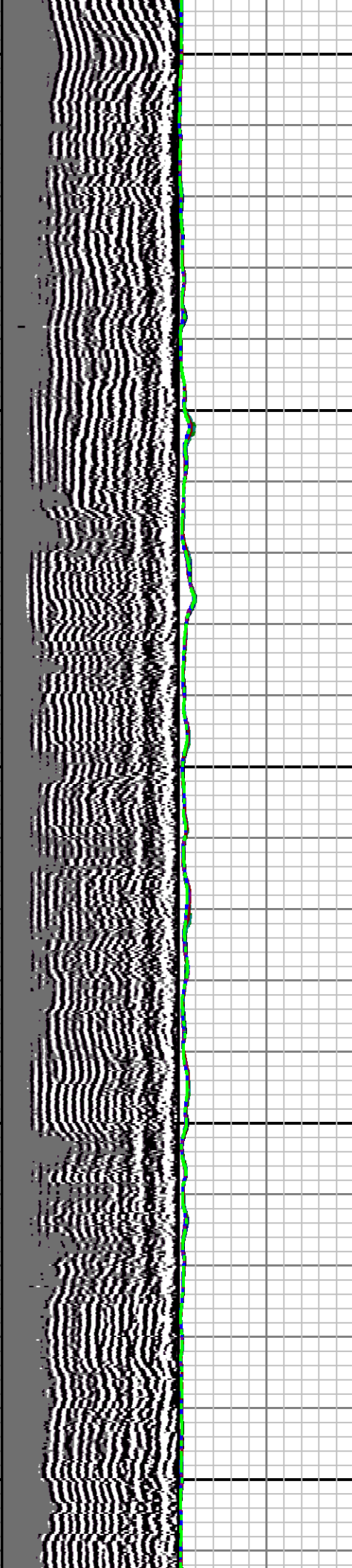


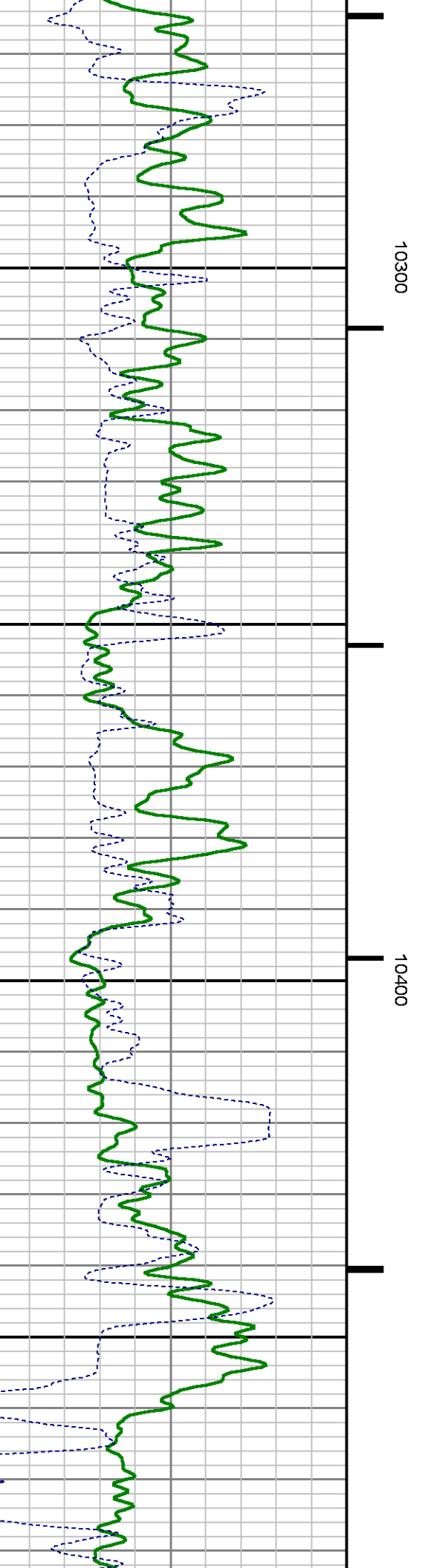
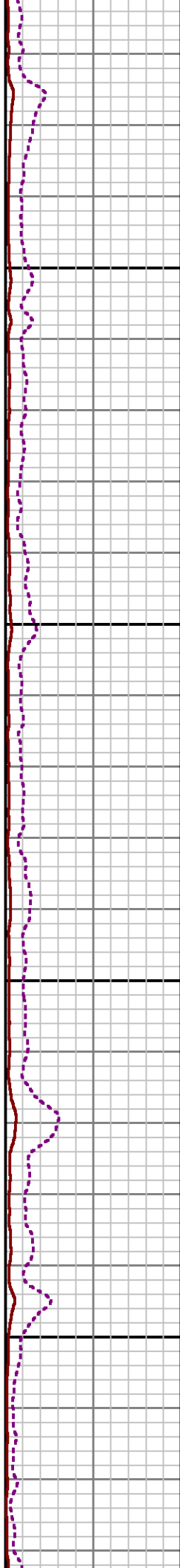
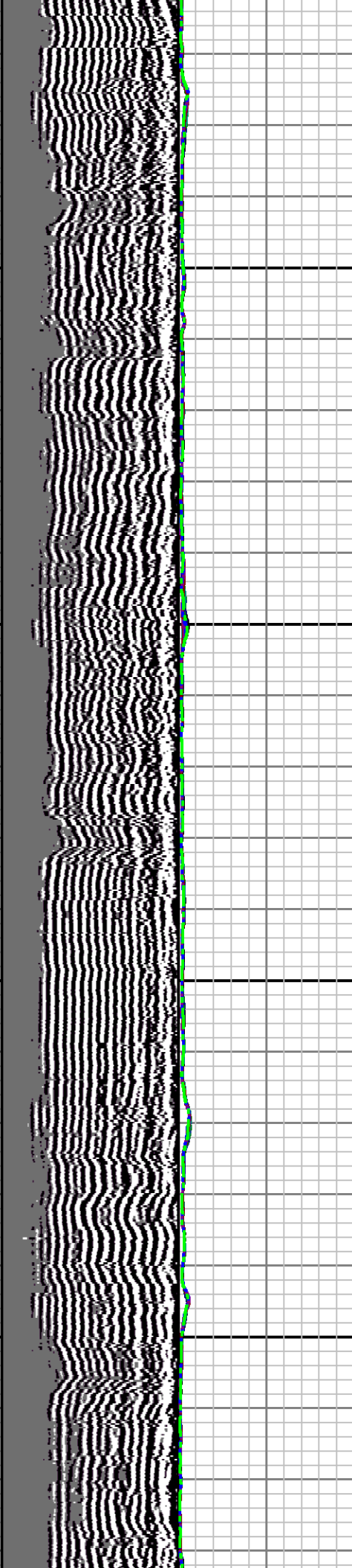
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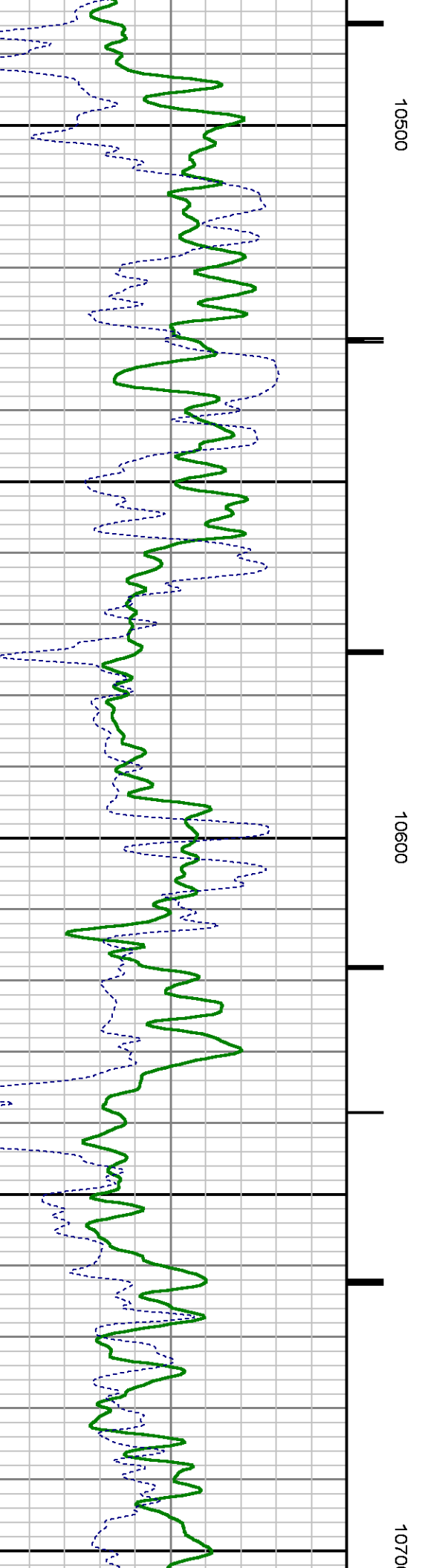
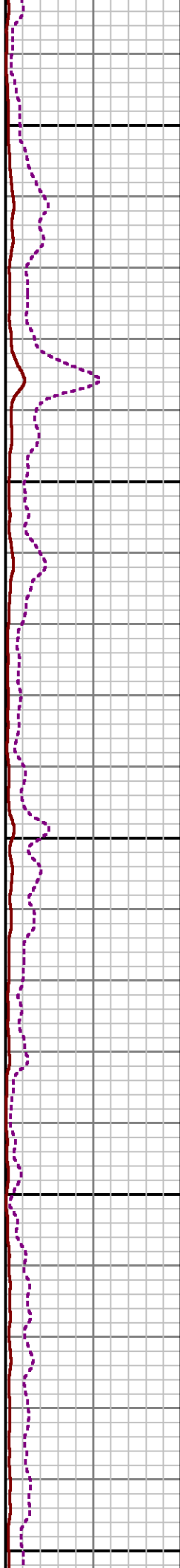
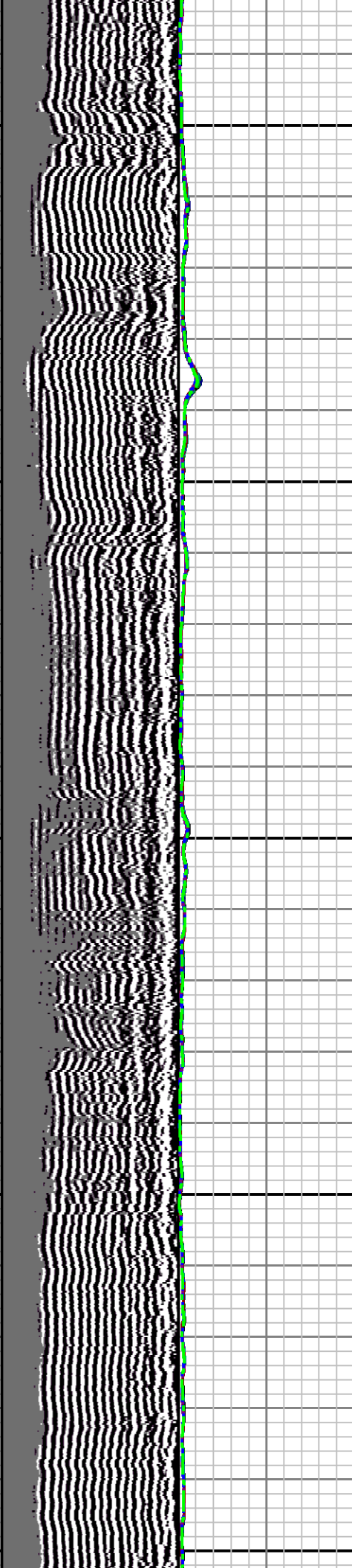
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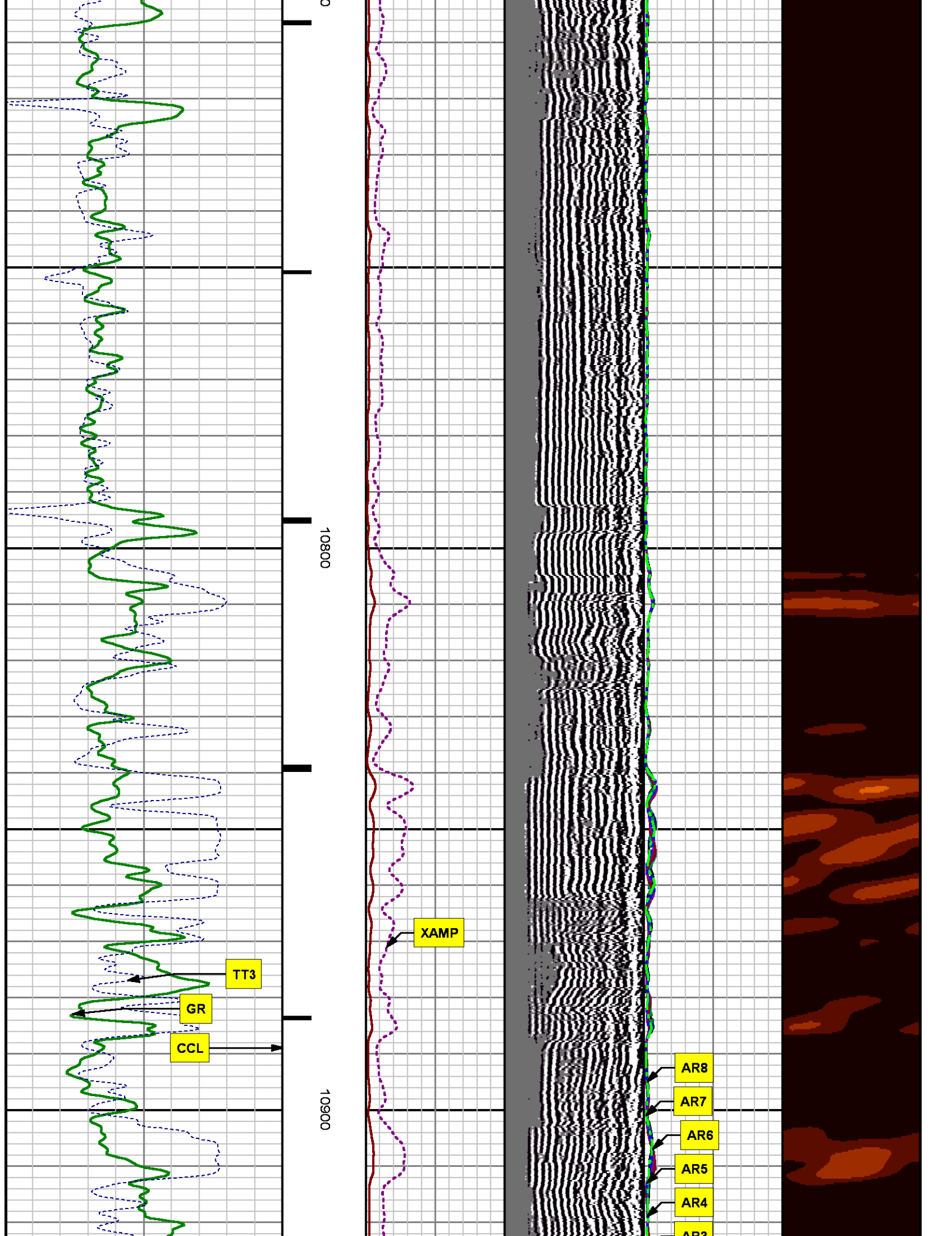


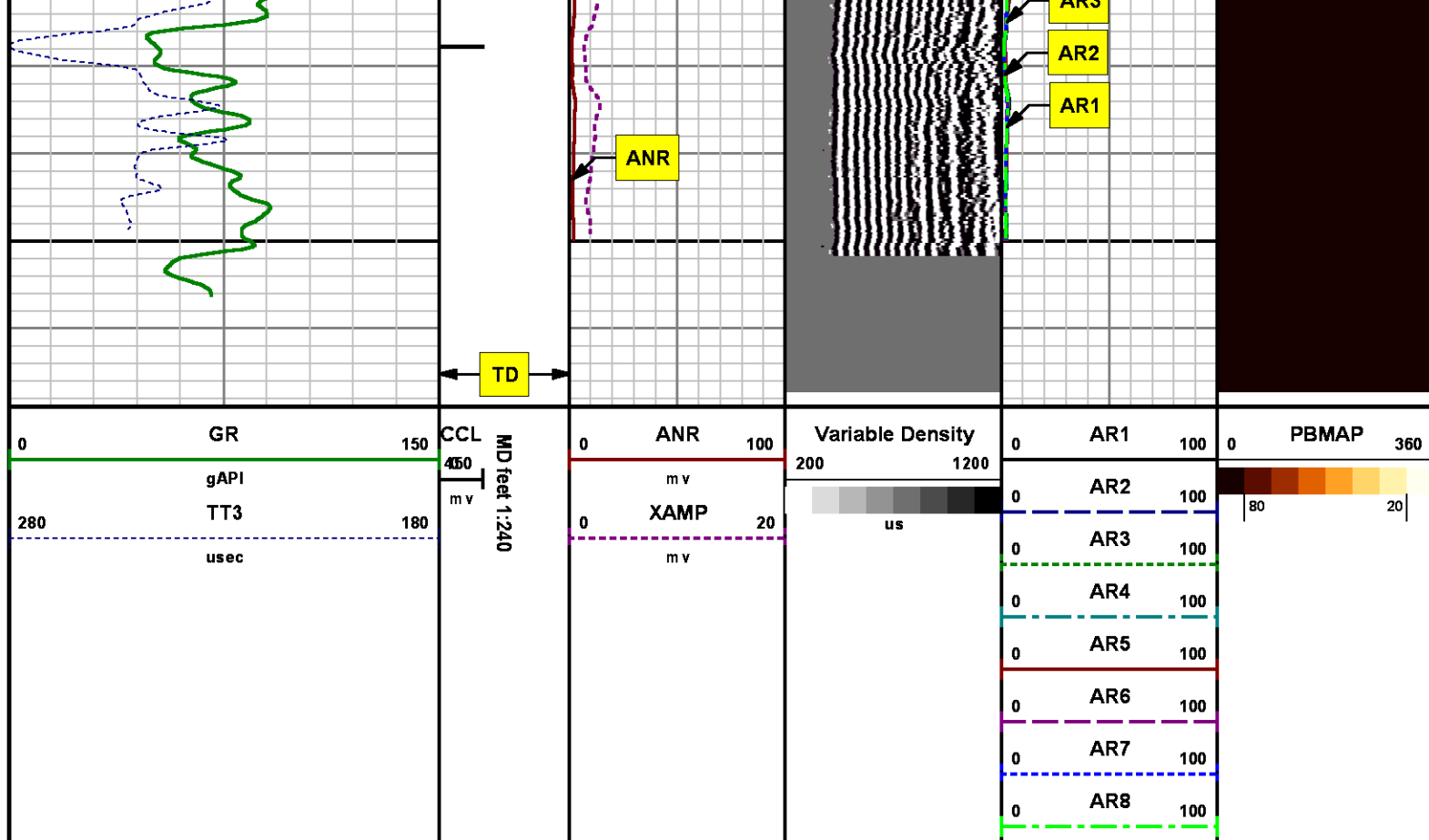












REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	u sec	10655.768	10974.890
RAL	Amp Gate Start Near	195.000	u sec	10655.768	10974.890
RAL	Amp Gate Start Radial	195.000	u sec	10655.768	10974.890
RAL	Amp Gate Width Far	25.000	u sec	10655.768	10974.890
RAL	Amp Gate Width Near	25.000	u sec	10655.768	10974.890
RAL	Amp Gate Width Radial	25.000	u sec	10655.768	10974.890
RAL	casing od	4.500	inches	10655.768	10974.890
RAL	casing wt	11.600	lbm/ft	10655.768	10974.890
RAL	FB Start Far	291.900	u sec	10655.768	10974.890
RAL	FB Start Near	180.000	u sec	10655.768	10974.890
RAL	FB Start Radial	180.000	u sec	10655.768	10974.890
RAL	FB Thresh Far	10.000	mv	10655.768	10974.890

RAL	FB Thresh Near	4.000	mv	10655.768	10974.890
RAL	FB Thresh Radial	4.000	mv	10655.768	10974.890
RAL	Fluid Travel Time	200.000	usec/ft	10655.768	10974.861

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES
1426XA	-16.750	ACAL ANR AR1 AR2 AR3 AR4 AR5 AR6 AR7 AR8 CHV FPR2 FPR3 FPR5 TT3 TTR1 TTR2 TTR3 TTR4 TTR5 TTR6 TTR7 TTR8 XAMP
1426XA	-15.750	AFAR SIG TT5
2459XA	-11.340	CCL
2459XA	-9.490	GR
2459XA	-4.090	NEU

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

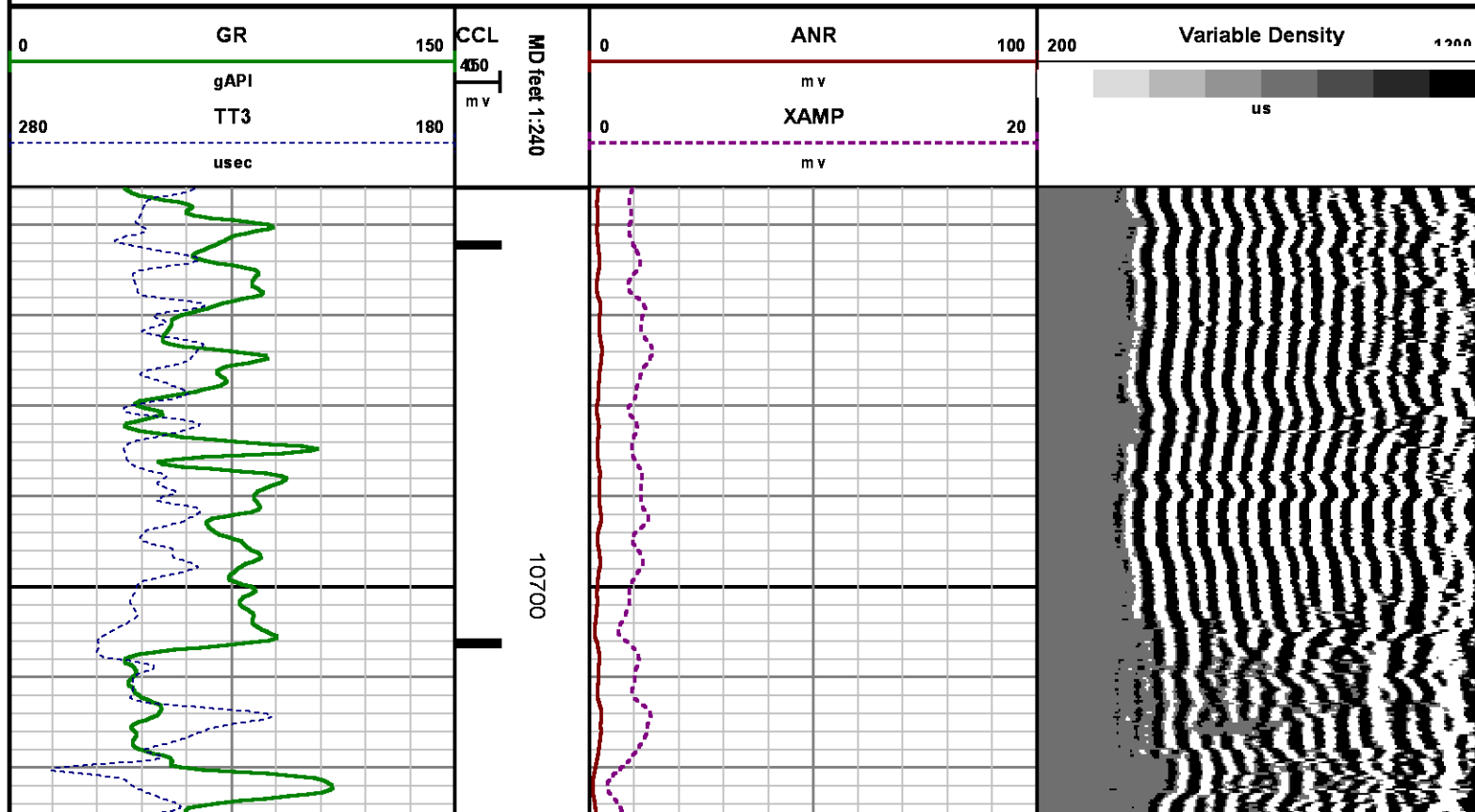
Well : FEDERAL RG 341-15-298

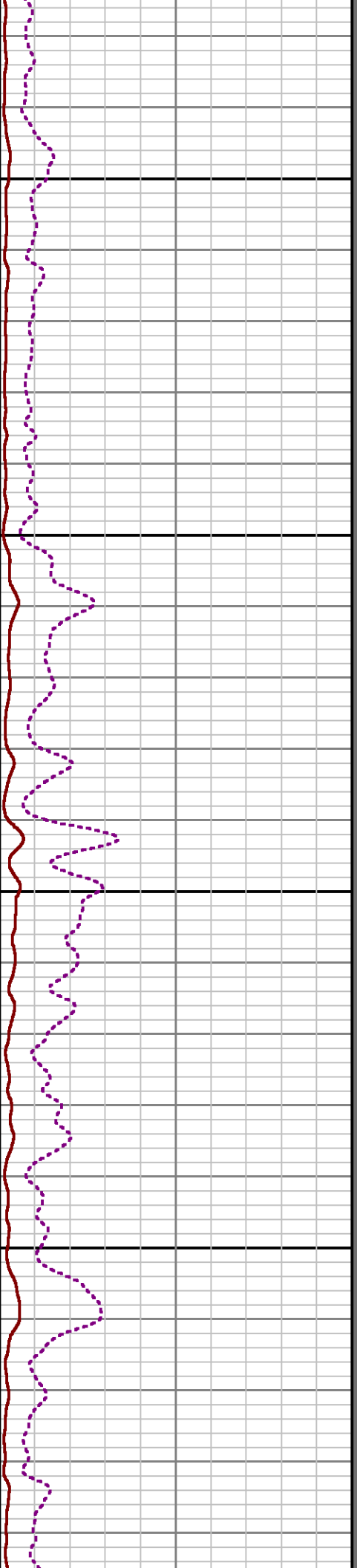
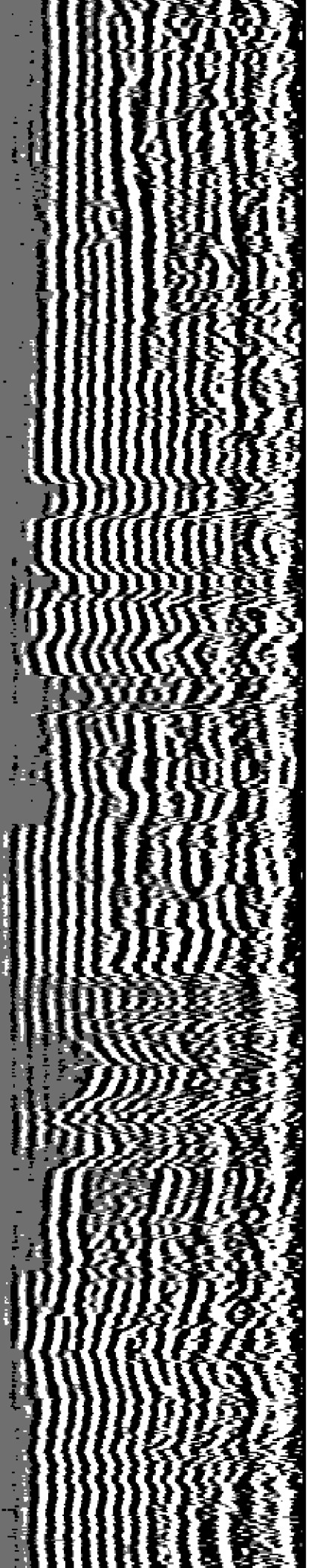
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Mode : PlotMgr 5.4.504

Interval : 10655.89 - 10974.89 feet UP

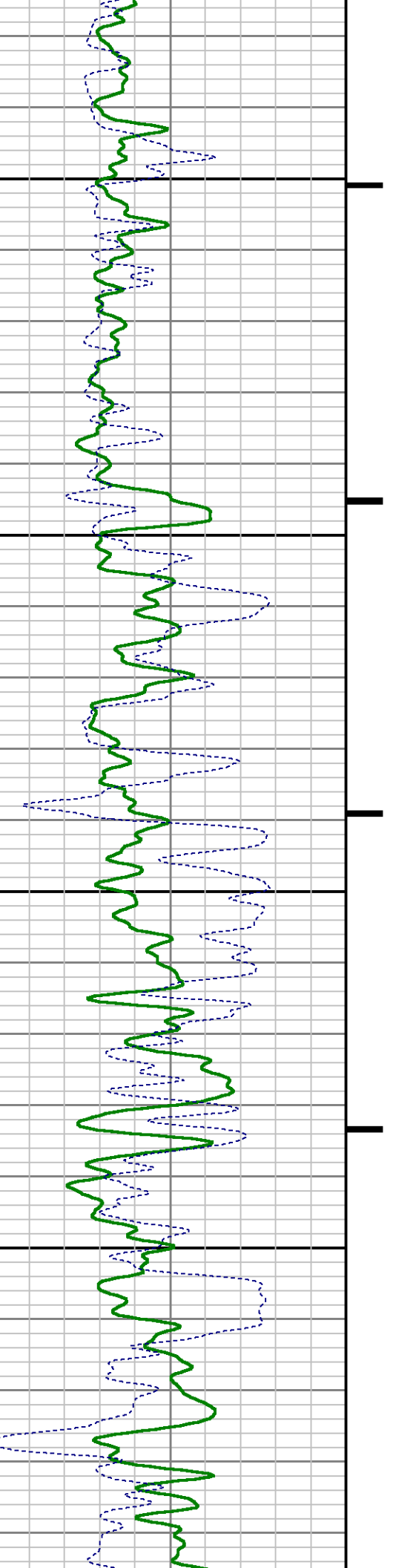
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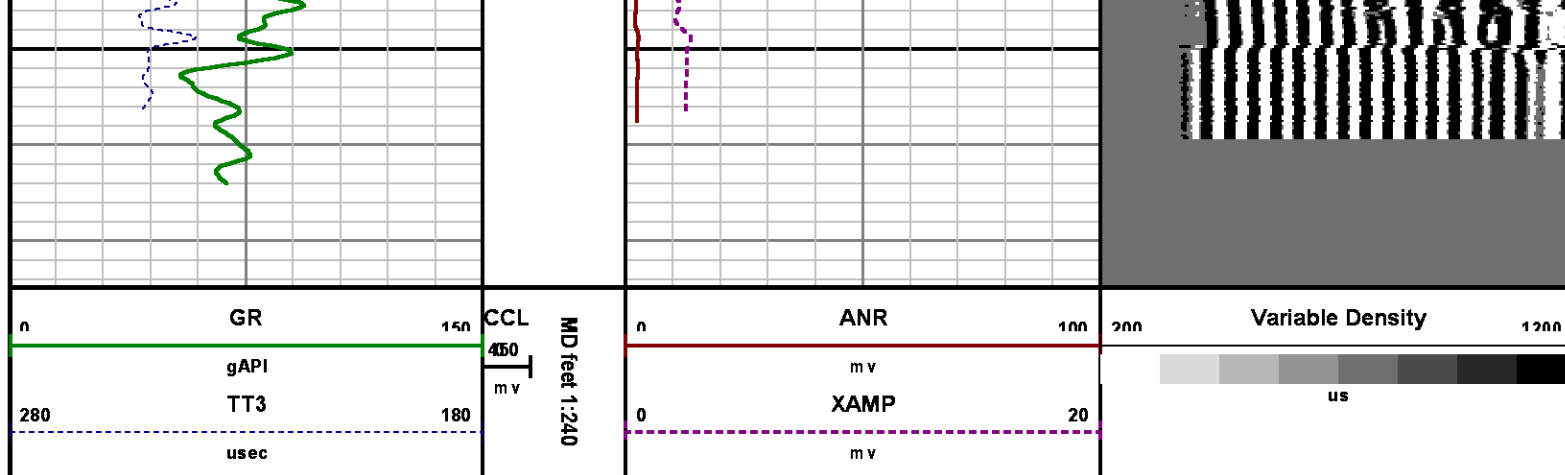




10800

10900





CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\106A10_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Apr 10 13:58:46 2014 TOOL SERIES: 1426XA ASSET: 106 SEQ: A10

Tool Delay [usec] -51.00 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	220	216	30	166	25	0.140	100.00	0.16
3 Ft. Receiver	219	216	30	153	25	-0.241	100.00	0.16
5 Ft. Receiver	327	325	30	223	25	0.575	150.00	0.18
Radial #1	219	216	30	166	25	-0.591	100.00	0.16
Radial #2	218	216	30	166	25	-0.237	100.00	0.16
Radial #3	218	216	30	166	25	-0.281	100.00	0.16
Radial #4	219	216	30	166	25	-0.210	100.00	0.16
Radial #5	219	216	30	166	25	-0.288	100.00	0.16
Radial #6	219	216	30	166	25	-0.143	100.00	0.16
Radial #7	219	216	30	166	25	-0.366	100.00	0.16
Radial #8	220	216	30	166	25	-0.356	100.00	0.16

RALFLD

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Apr 10 14:00:52 2014 TOOL SERIES: 1426XA ASSET: 106 SEQ: A10

Tool Delay [usec] Casing OD Casing Wt Casing ID
in lbm/ft in

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-0.029"/>	<input type="text" value="0.000"/>	<input type="text" value="1.01"/>	<input type="text" value="100.000"/>
3 Ft. Receiver	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.050"/>			
5 Ft. Receiver	<input type="text" value="305"/>	<input type="text" value="25"/>	<input type="text" value="-1.182"/>			
Radial #1	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.984"/>			
Radial #2	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.568"/>			
Radial #3	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.228"/>			
Radial #4	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.399"/>			
Radial #5	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.134"/>			
Radial #6	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.256"/>			
Radial #7	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-0.892"/>			
Radial #8	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-1.057"/>			

GAMMA RAY

Calibration File: C:\case\calver\GRV456A3.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Apr 03 13:37:28 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: A3

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	<input type="text" value="76.84"/>	<input type="text" value="356.71"/>	<input type="text" value="0.661"/>	<input type="text" value="50.80"/>	<input type="text" value="235.80"/>	<input type="text" value="185.00"/>

Verification File: C:\case\calver\GRV456A3.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Thu Apr 03 13:38:35 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: A3

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	<input type="text" value="80.98"/>	<input type="text" value="351.78"/>	<input type="text" value="0.661"/>	<input type="text" value="53.53"/>	<input type="text" value="232.54"/>	<input type="text" value="179.01"/>

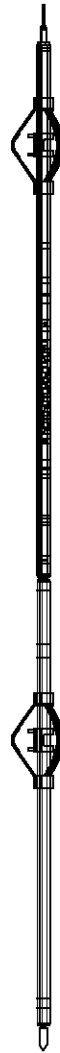
TOOL DIAGRAM

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

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



21.81'

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 RG 341-15-298

Field

SULPHUR CREEK

County

RIO BLANCO

State

COLORADO

Location

SHL: 1620' FNL & 506' FWL SEC 14 2S 98W

BHL: 693' FNL & 655' FEL SEC 15 2S 98W

SEC 15

TWP 2S

RGE 98W

Elevations

KB 6581 ft

DF

GL 6560 ft

File No:

CH084542

API No:

05103117930000

15 2S 98W

RG 12-14-298 PAD

CYCLONE 29