



Baker Atlas

RADIAL ANALYSIS BOND LOG

File No: 83783 Company WPX ENERGY

Well SAVAGE RWF 414-25

API No: 05045219840000 Field RULISON

County GARFIELD State CO

Location Other Services

S2S T6S R94W SHL: 1617' FSL 2294' FWL

RIG: NABORS 577 BHL: 856' PBL 819' FWL (SWSW)

PAD: RWF 23-25 SEC 25 TWP 6S RGE 94W

Permanent Datum GL Elevation 6096 ft

Log Measured From KB 26 ft Above P. D.

Drill Measured From KB Elevations KB 6122 ft DF GL 6096 ft

Date	24/MAR/14	
Run	1	
Service Order	625365	
Depth Driller	8731 ft	
Depth Logger	8688 ft	
Bottom Logged Interval	8678 ft	
Top Logged Interval	0 ft	
Time Started	1145	
Time Finished	1515	
Operator Rig Time	3.5	
Type of Fluid in Hole	H2O	
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	236 degF	
Reference Log	NONE	
Reference Log Date	NA	
Equipment No.	4271	GRAND JCT
Recorded By	D SMITH/JF RENEAU	
Witnessed By	CADY	

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In making interpretations of logs, our employees will give the customer the benefit of their best judgement. But since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the customer resulting from any interpretation made by any of our employees.

Borehole Record		
Bit Size	From	To
13.4 in	26 ft	1135 ft
8.75 in	1135 ft	8731 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in	32 lbm/ft		26 ft	1135 ft
4.5 in	11.6 lbm/ft	180	1135 ft	8731 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 11 feet.
Logged with zero PSI at wellhead.
BHT = 236° F
SHORT JOINT 5337'- 5360'

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

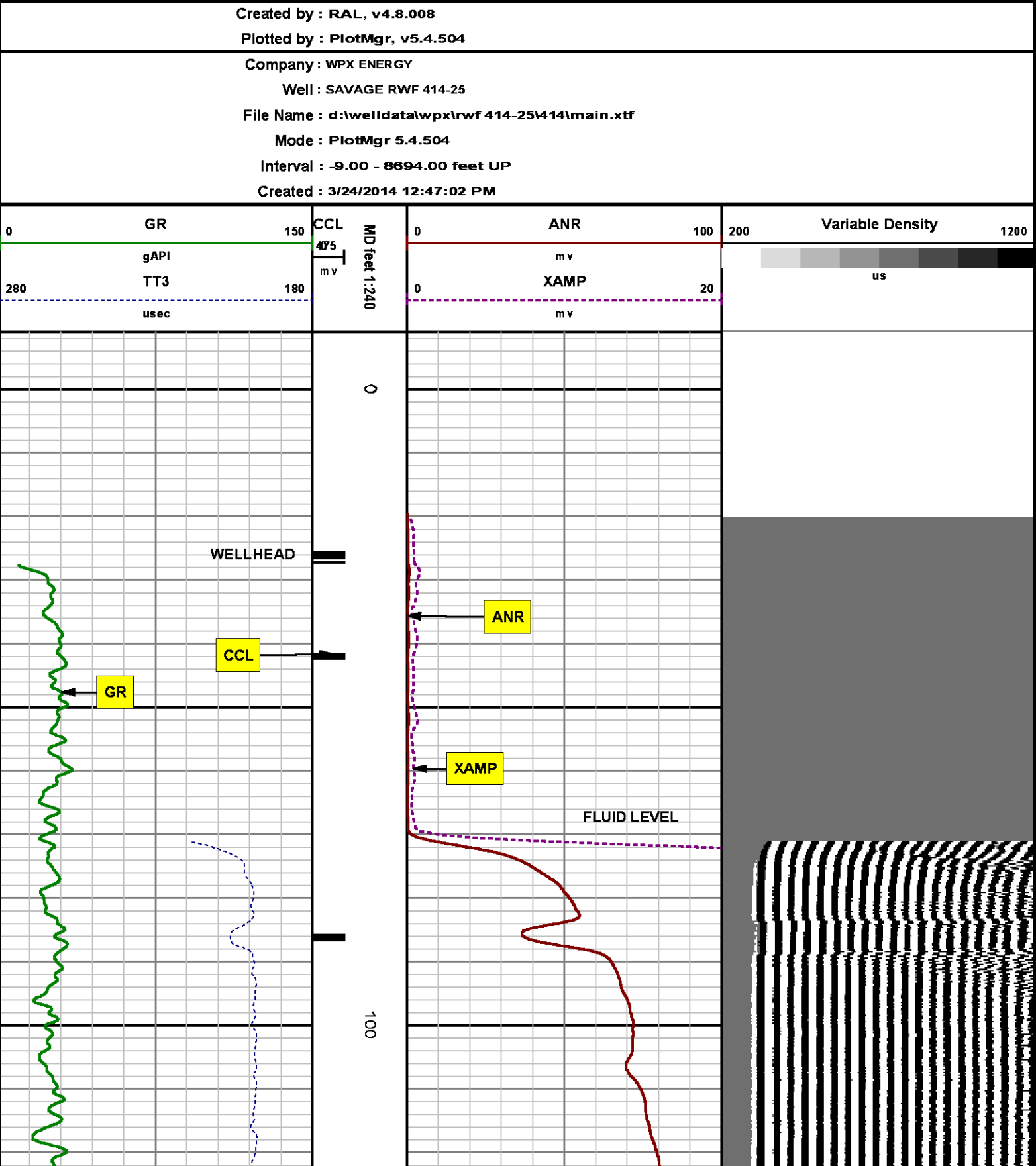
PRIMARY PRESENTATION
0 PSI

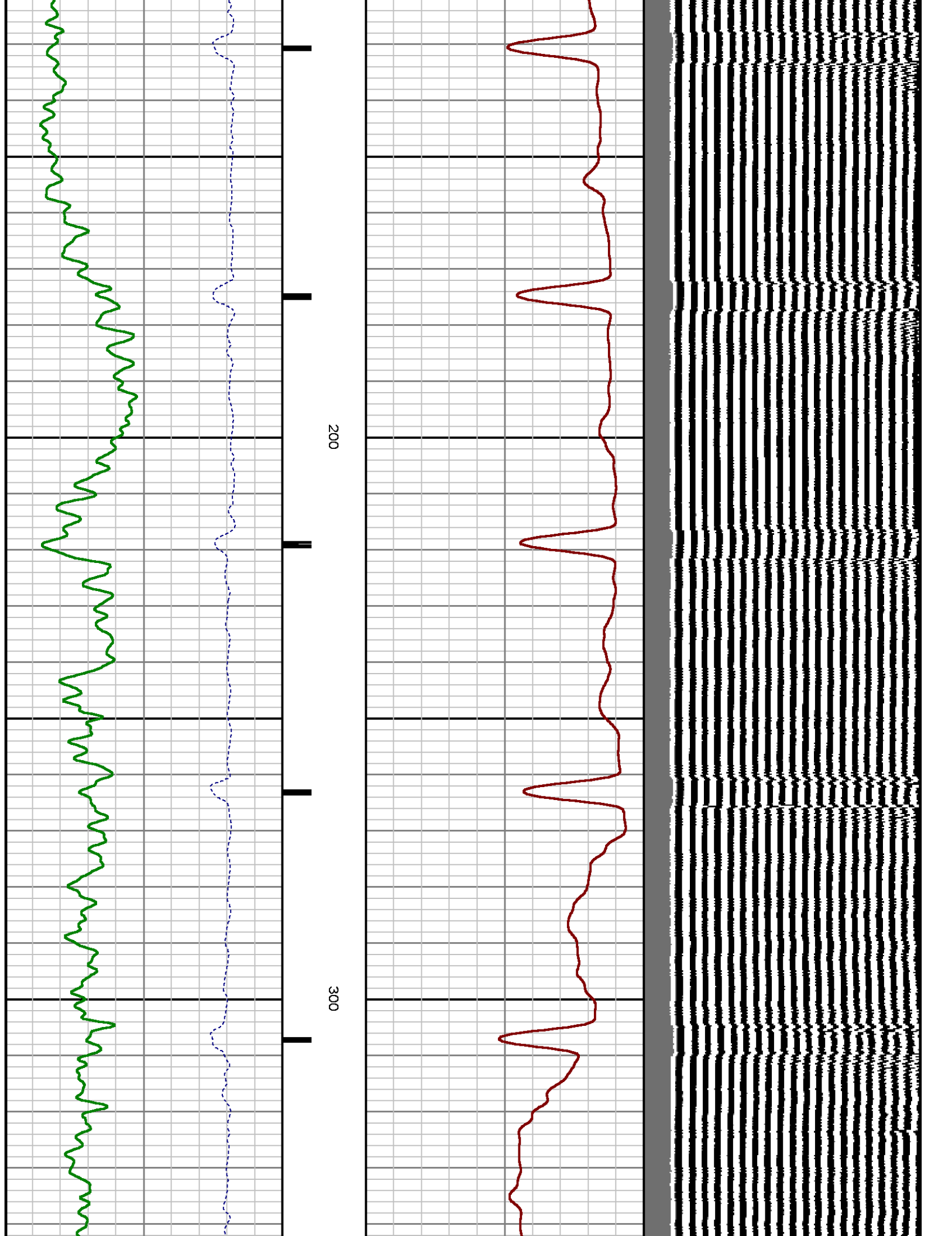
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	35.999	8691.000
RAL	Amp Gate Start Near	195.000	usec	35.999	8691.000
RAL	Amp Gate Start Radial	195.000	usec	35.999	8691.000
RAL	Amp Gate Width Far	25.000	usec	35.999	8691.000
RAL	Amp Gate Width Near	25.000	usec	35.999	8691.000
RAL	Amp Gate Width Radial	25.000	usec	35.999	8691.000
RAL	casing od	4.500	inches	35.999	8691.000
RAL	casing wt	11.600	lbm/ft	35.999	8691.000
RAL	FB Start Far	291.900	usec	35.999	8691.000
RAL	FB Start Near	180.000	usec	35.999	8691.000
RAL	FB Start Radial	180.000	usec	35.999	8691.000
RAL	FB Thresh Far	10.000	mv	35.999	8691.000
RAL	FB Thresh Near	4.000	mv	35.999	8691.000
RAL	FB Thresh Radial	4.000	mv	35.999	8691.000
RAL	Fluid Travel Time	200.000	usec/ft	35.999	8691.000

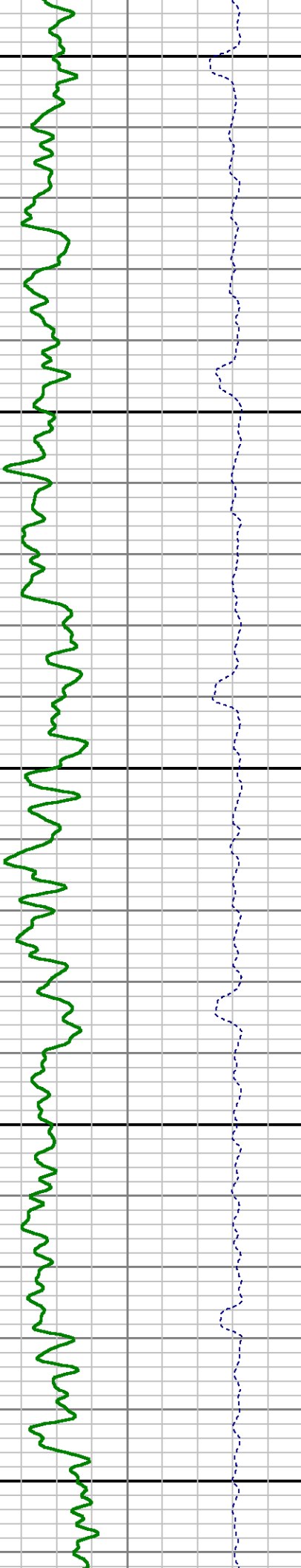
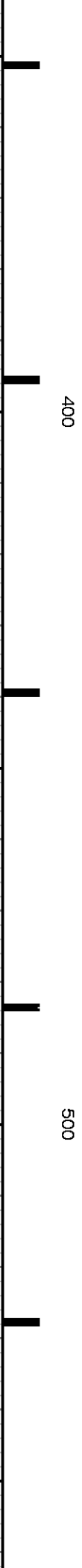
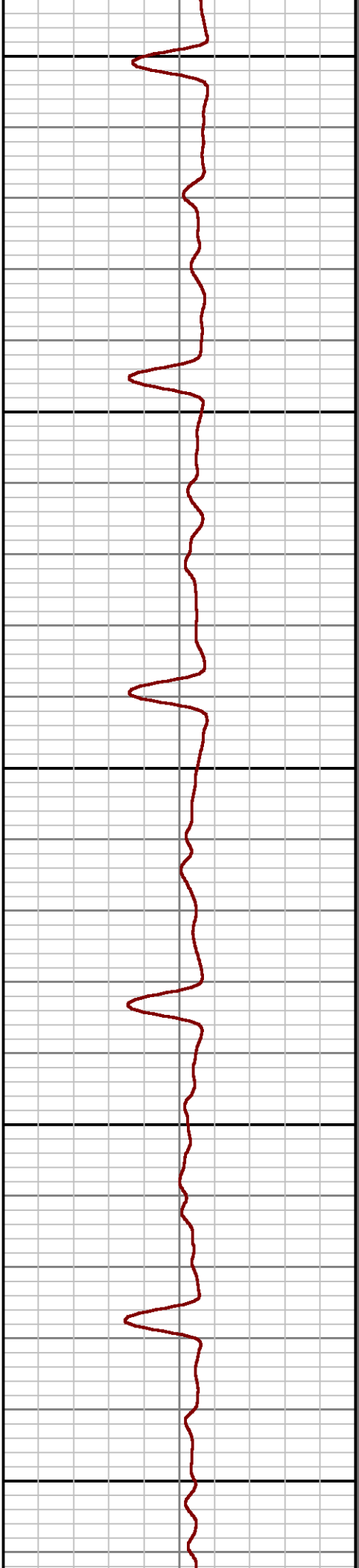
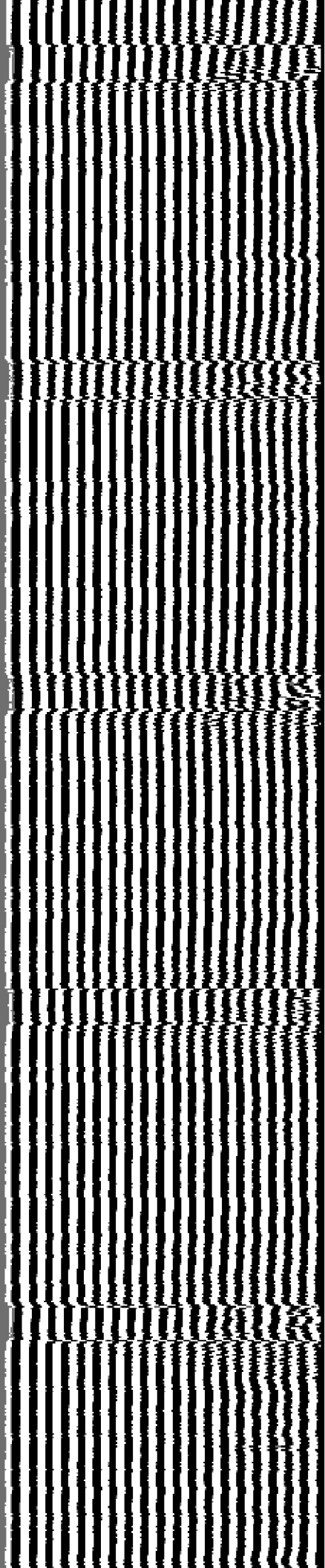
DEPTH OFFSETS
(for Acquired Curves)

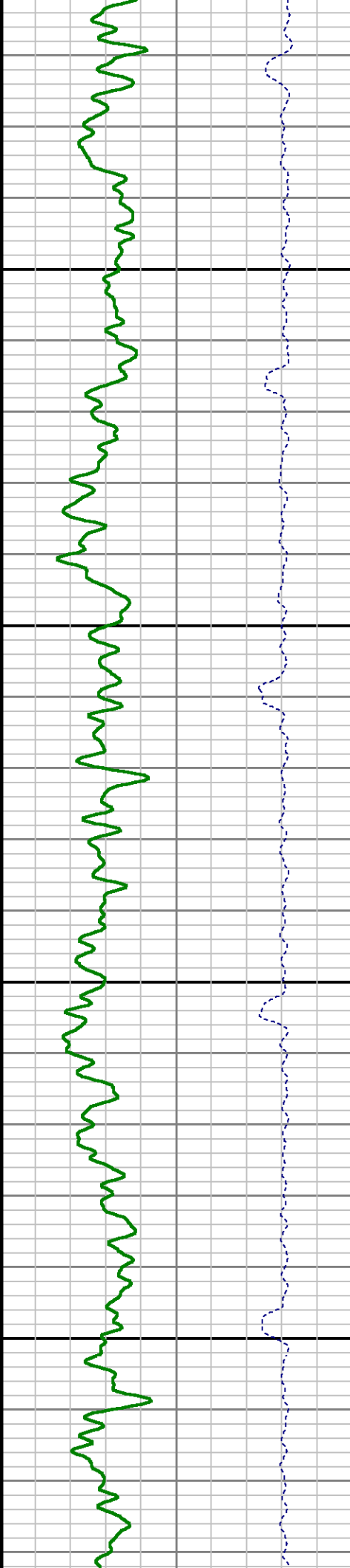
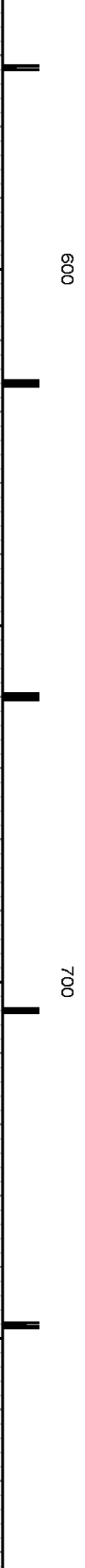
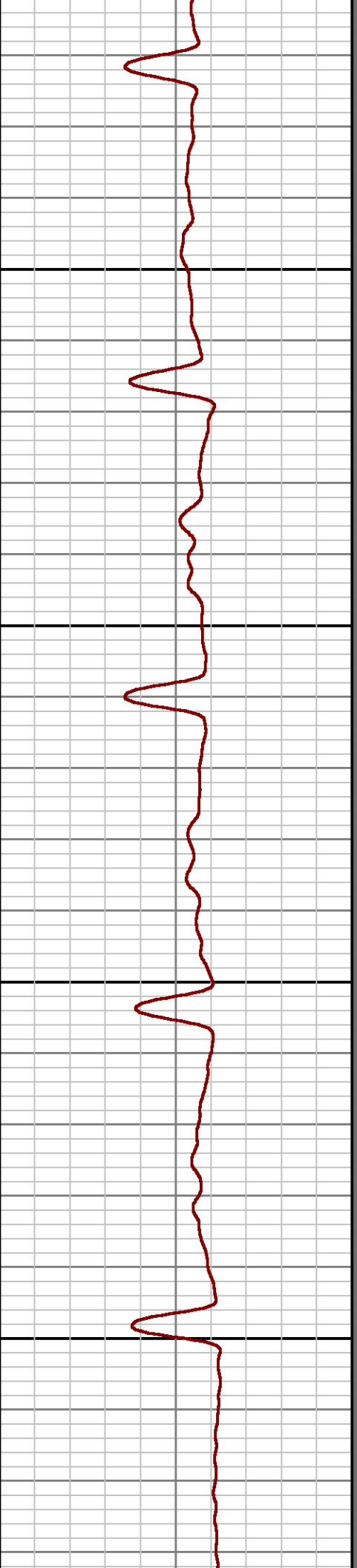
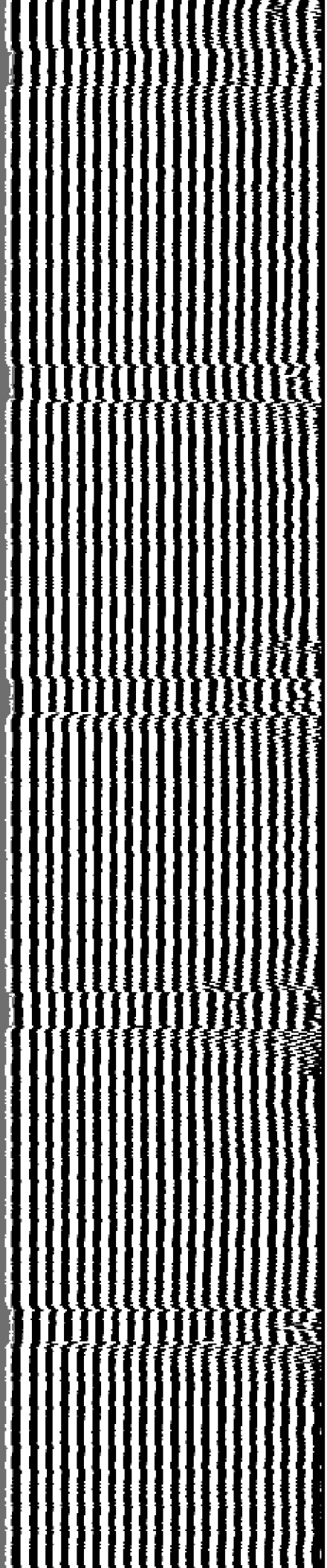
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2

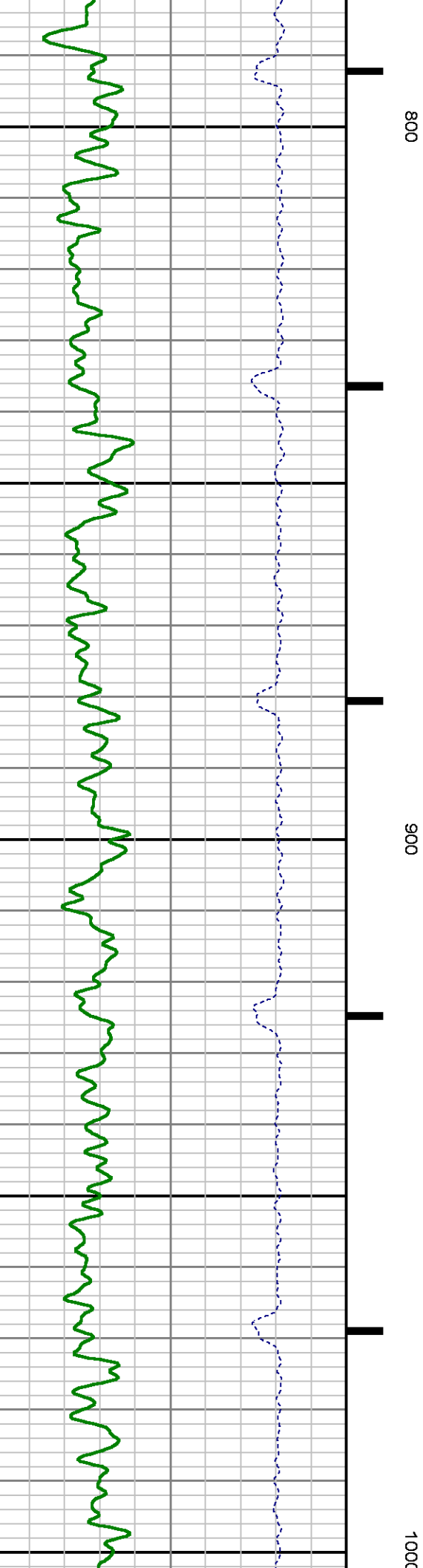
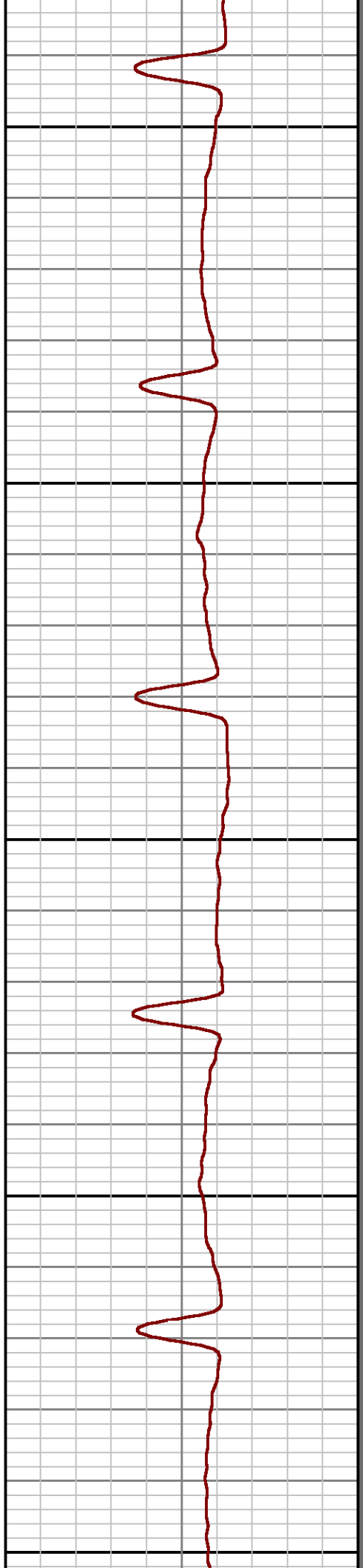
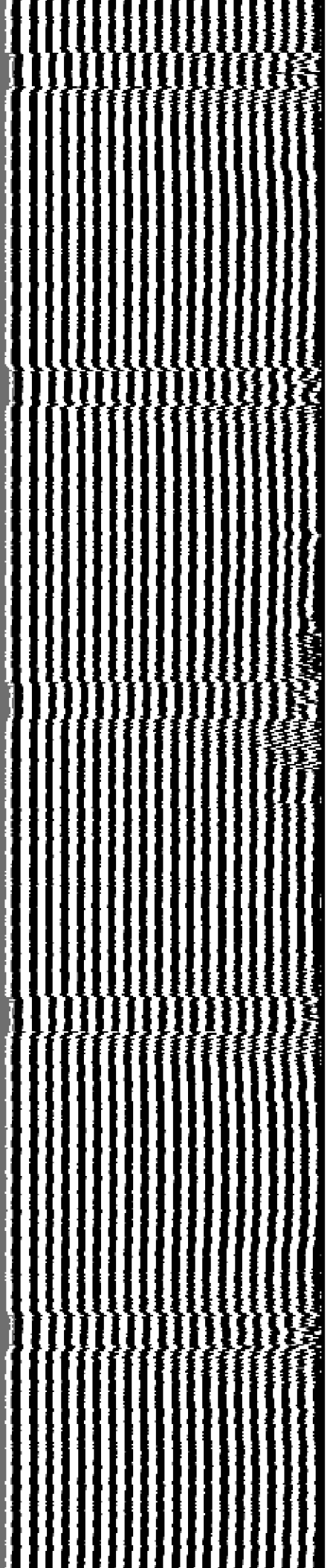
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

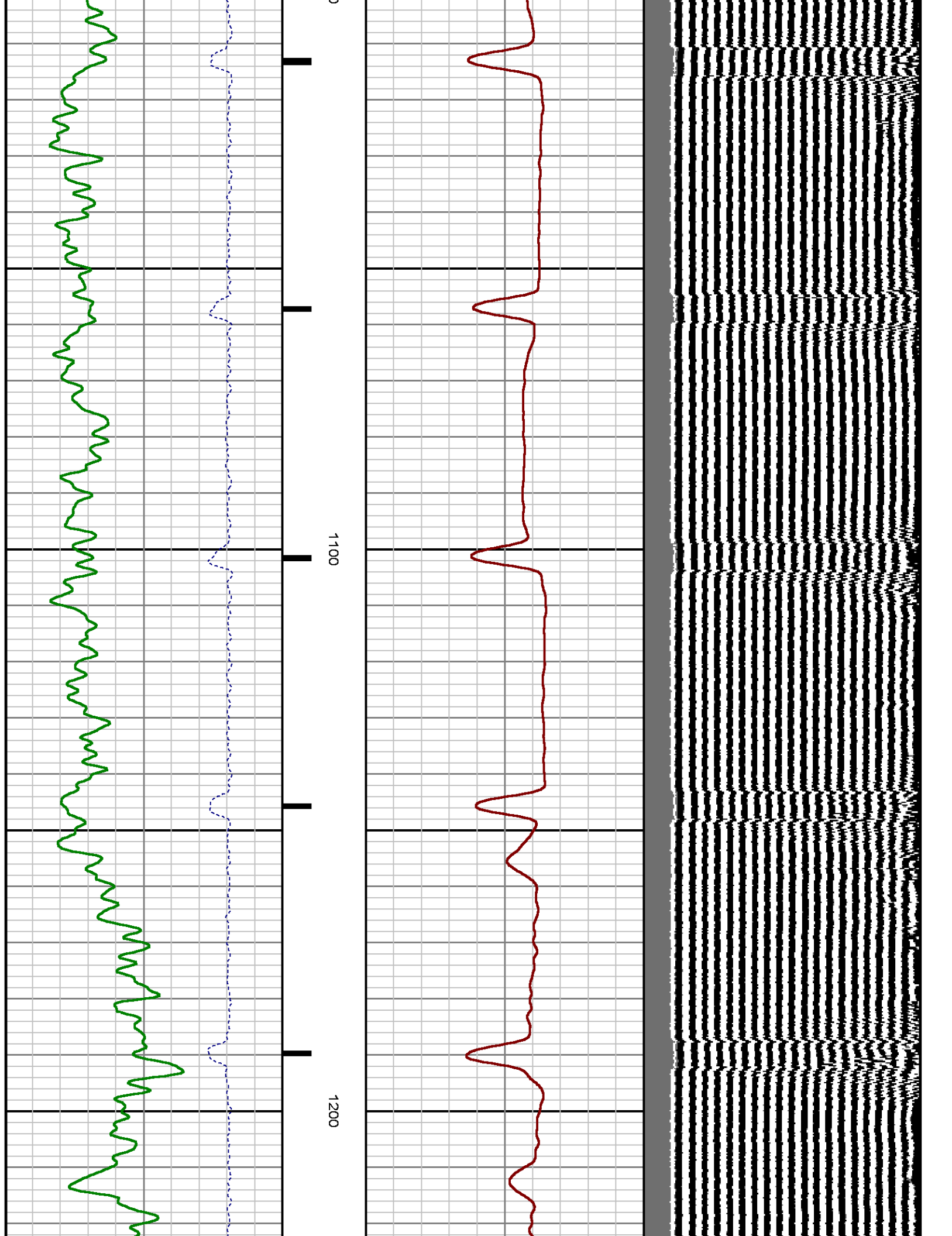


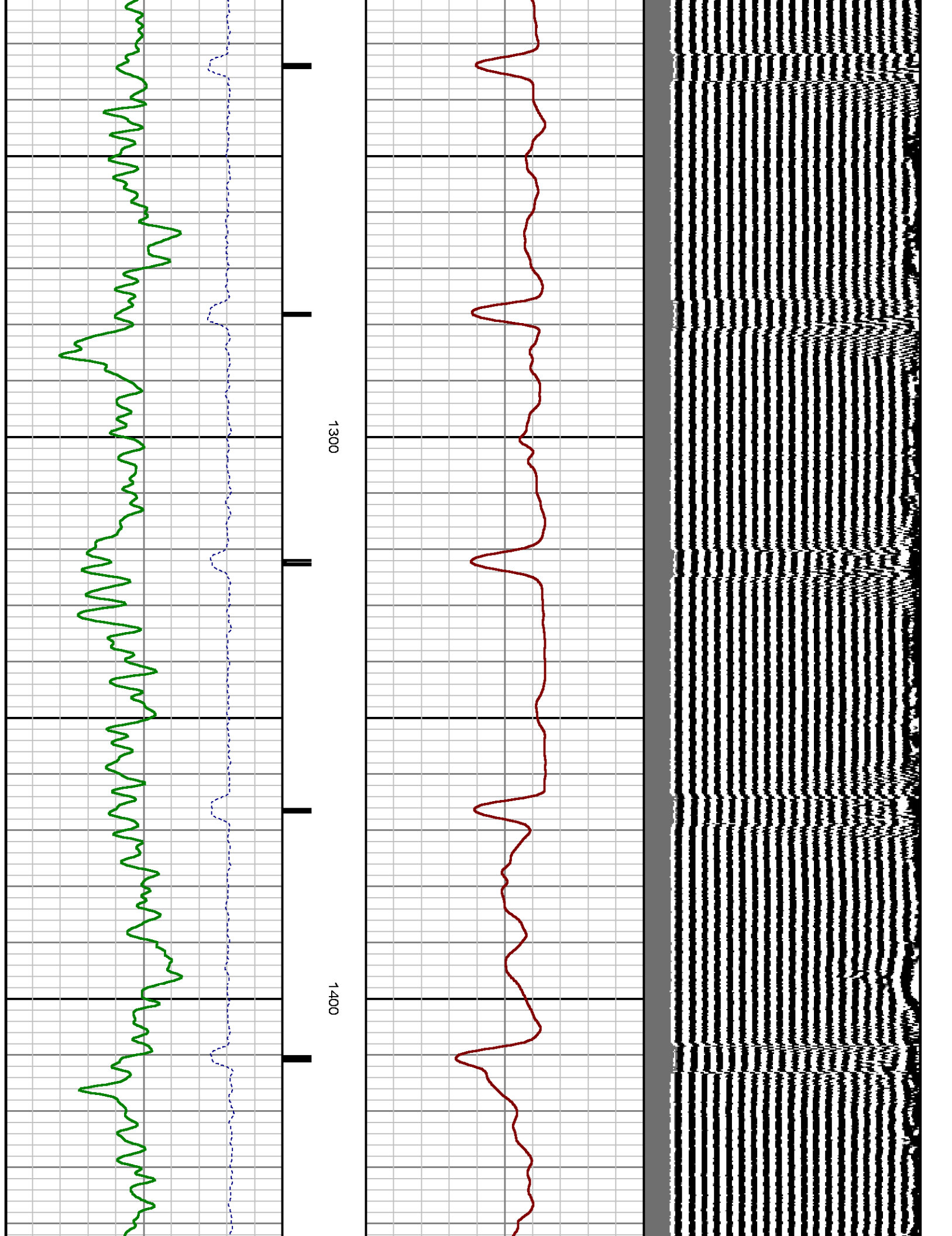


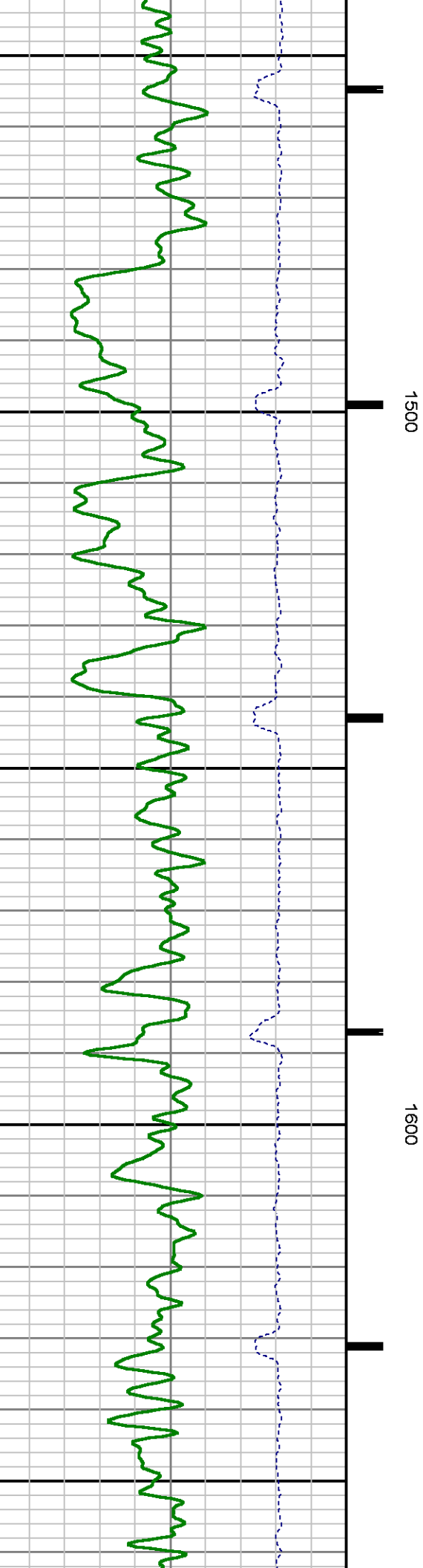
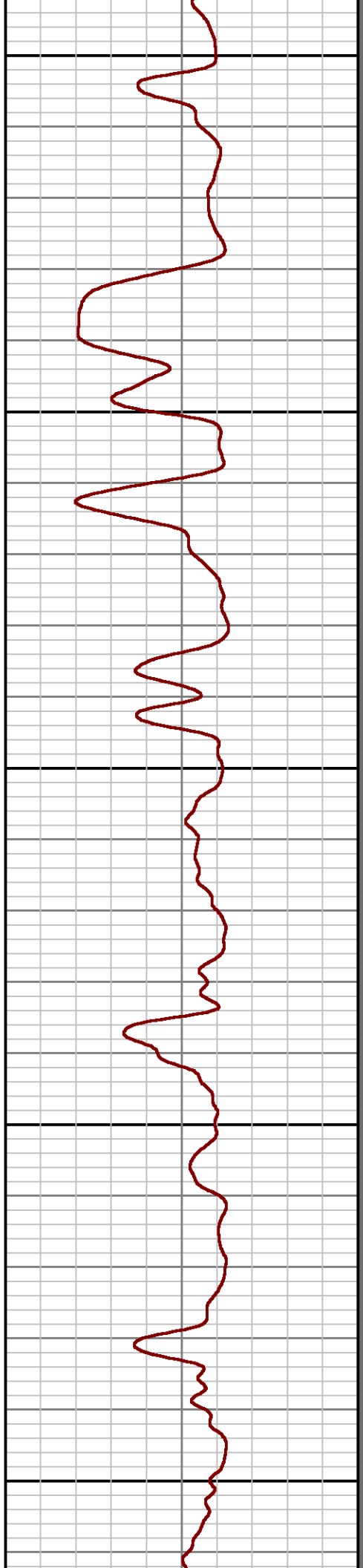
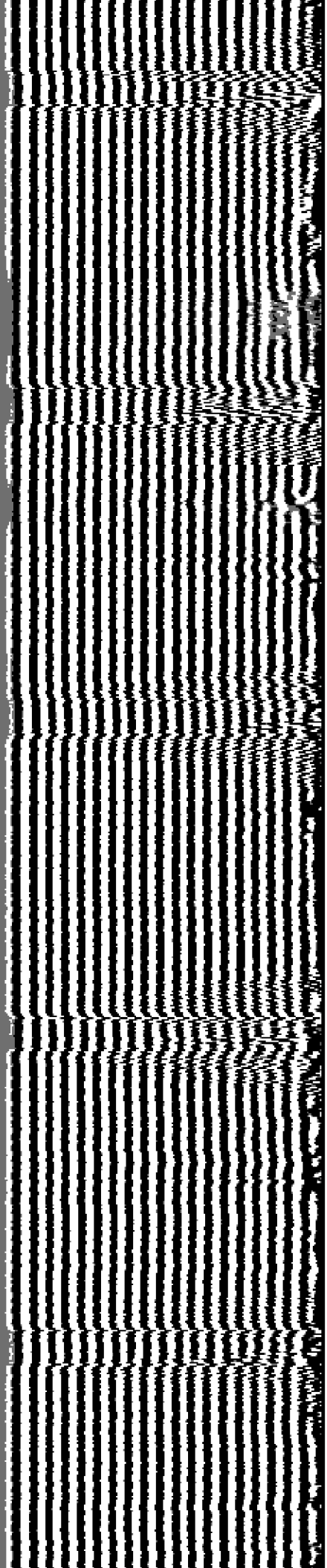


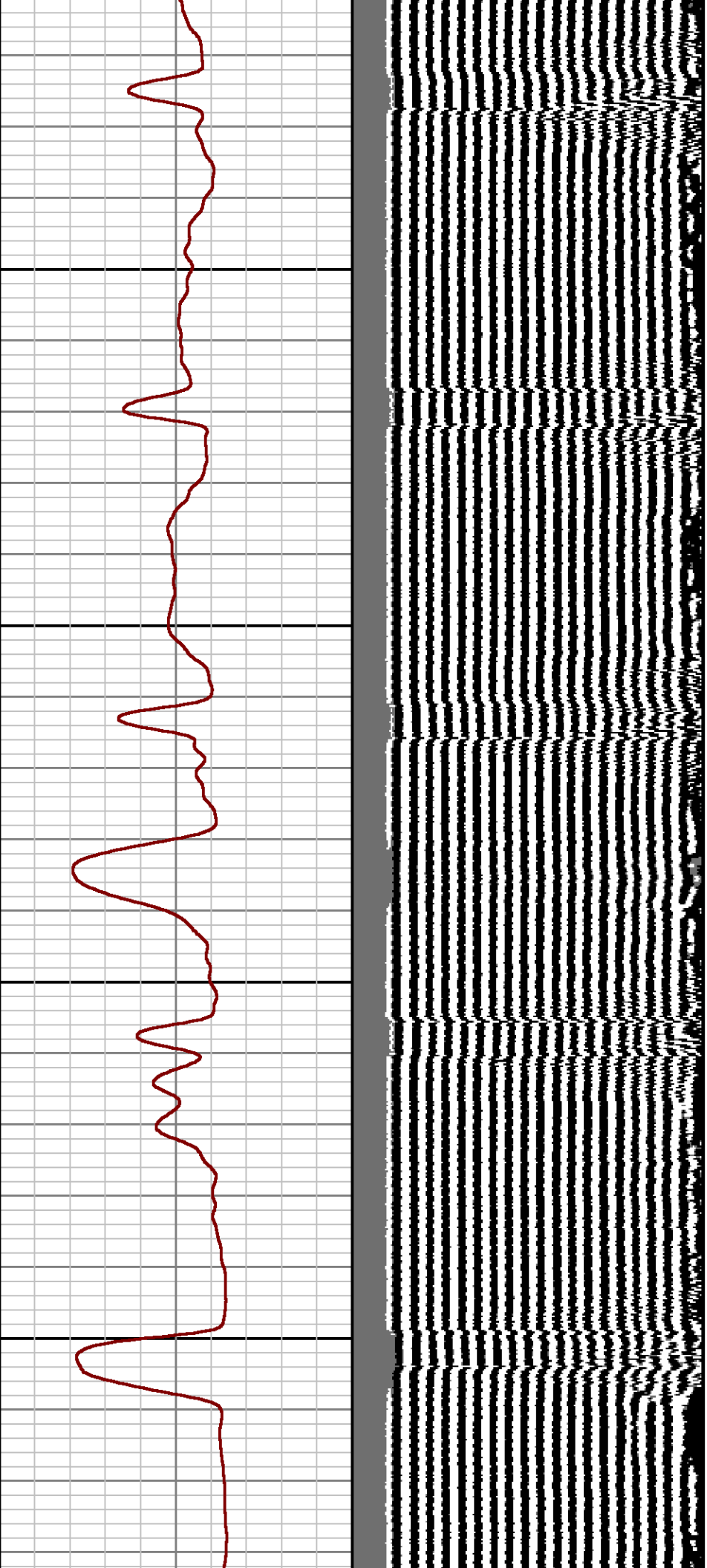






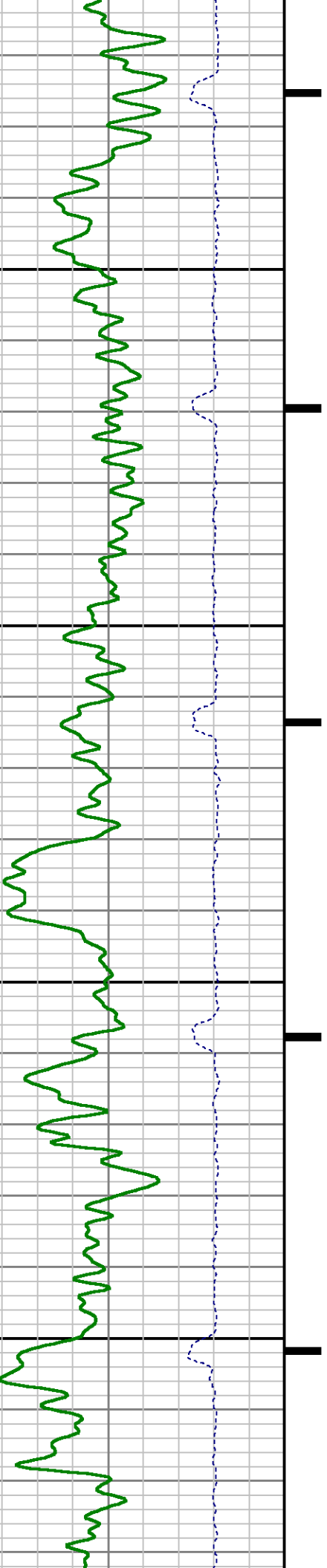


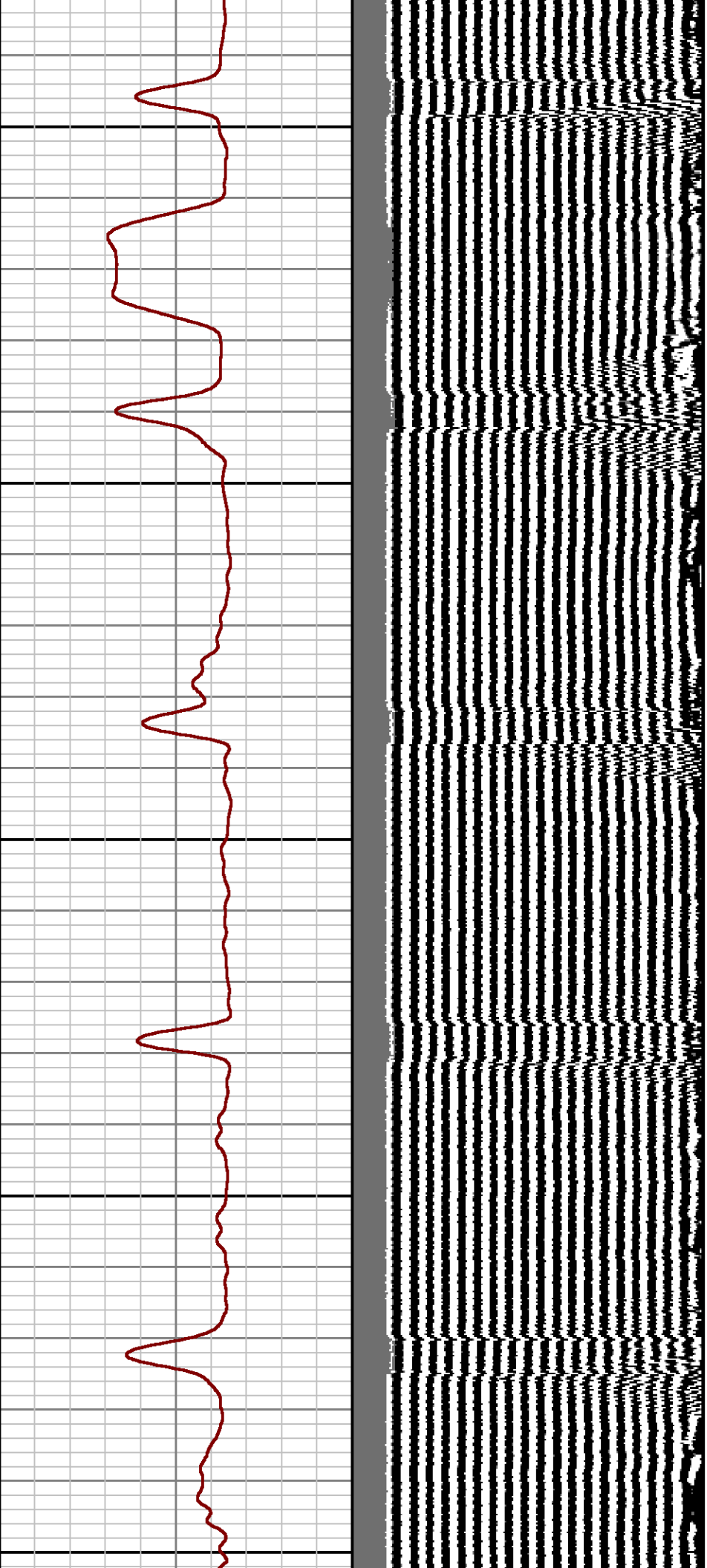




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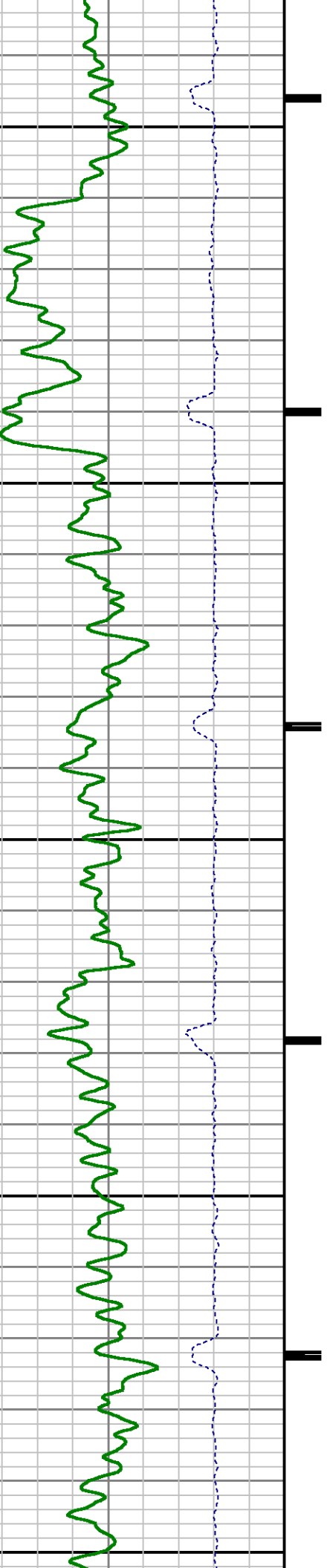


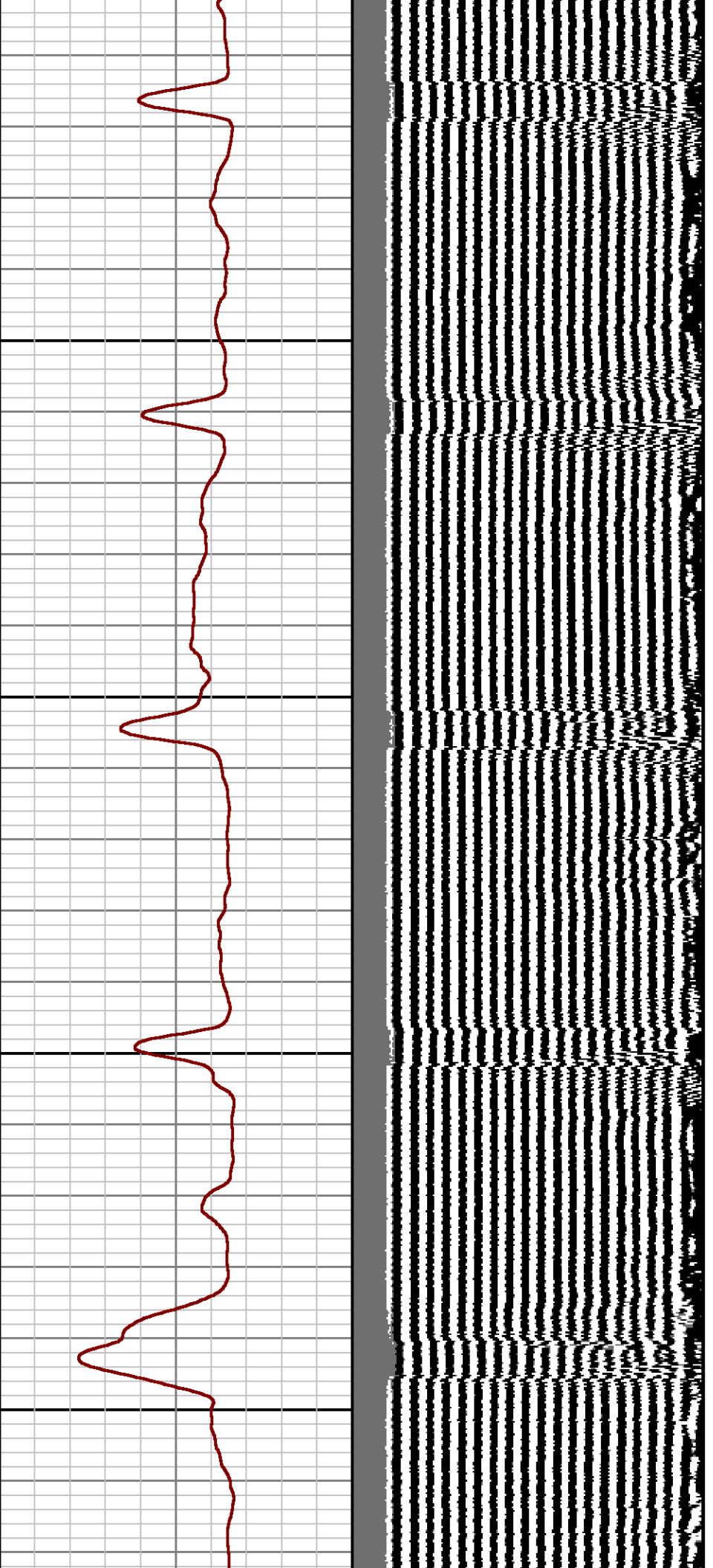


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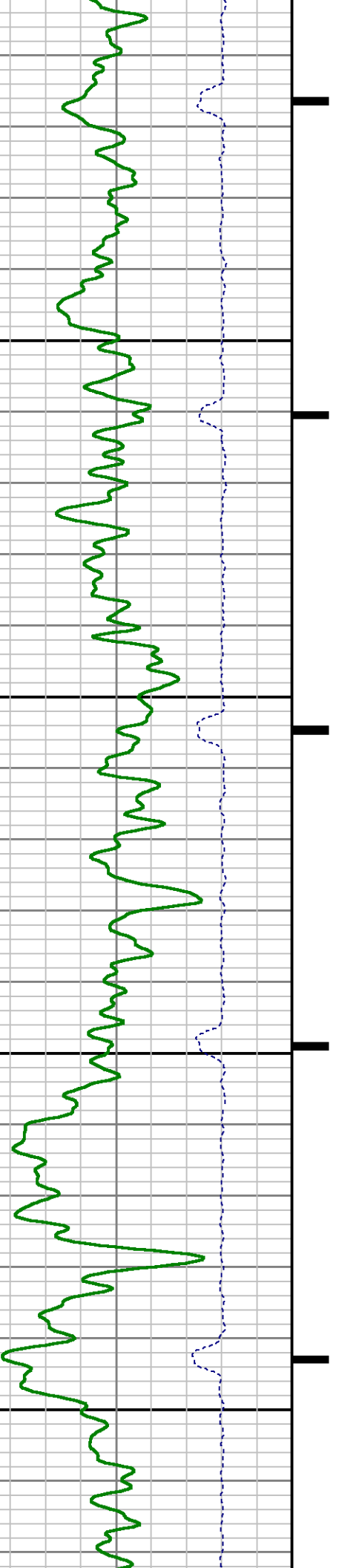
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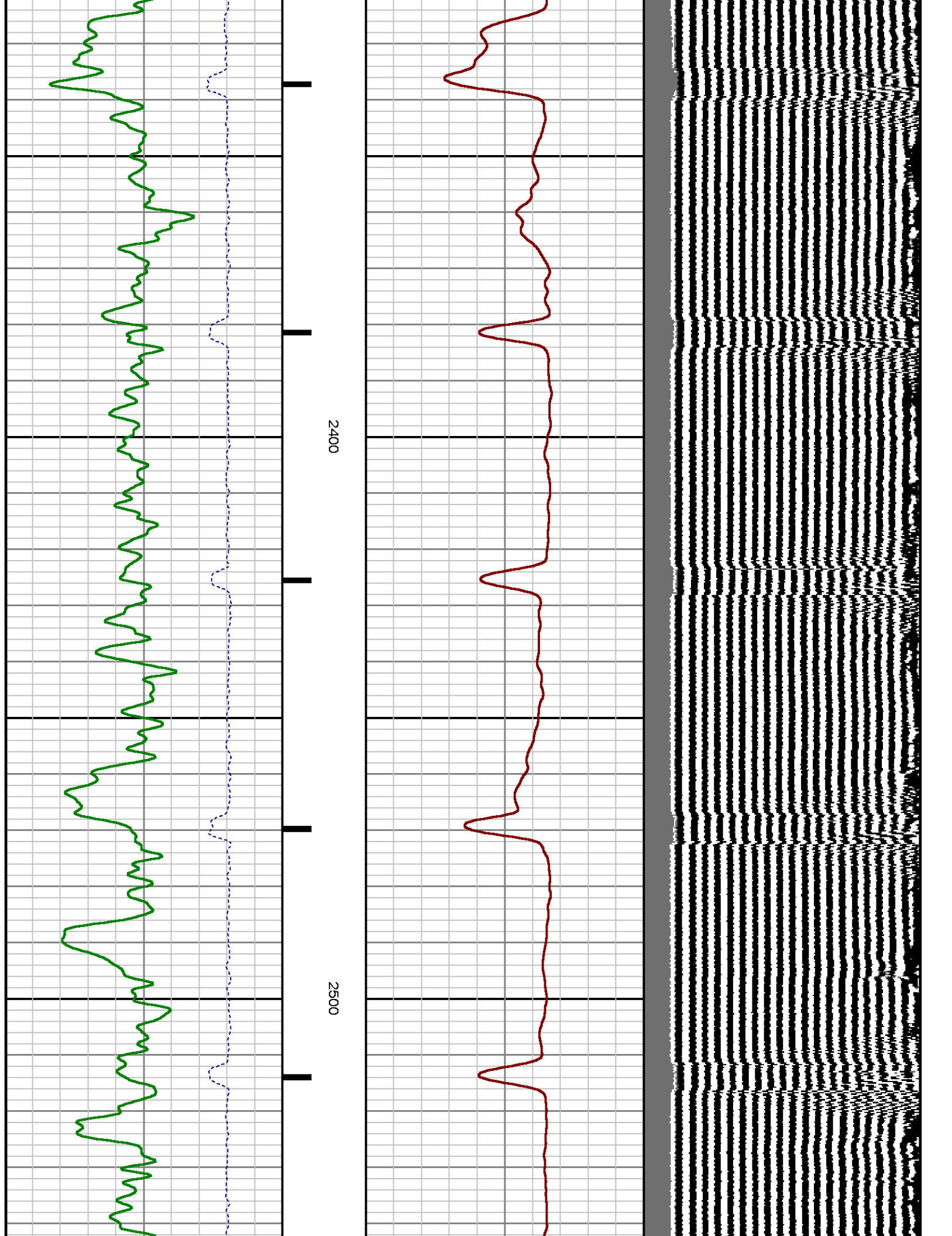


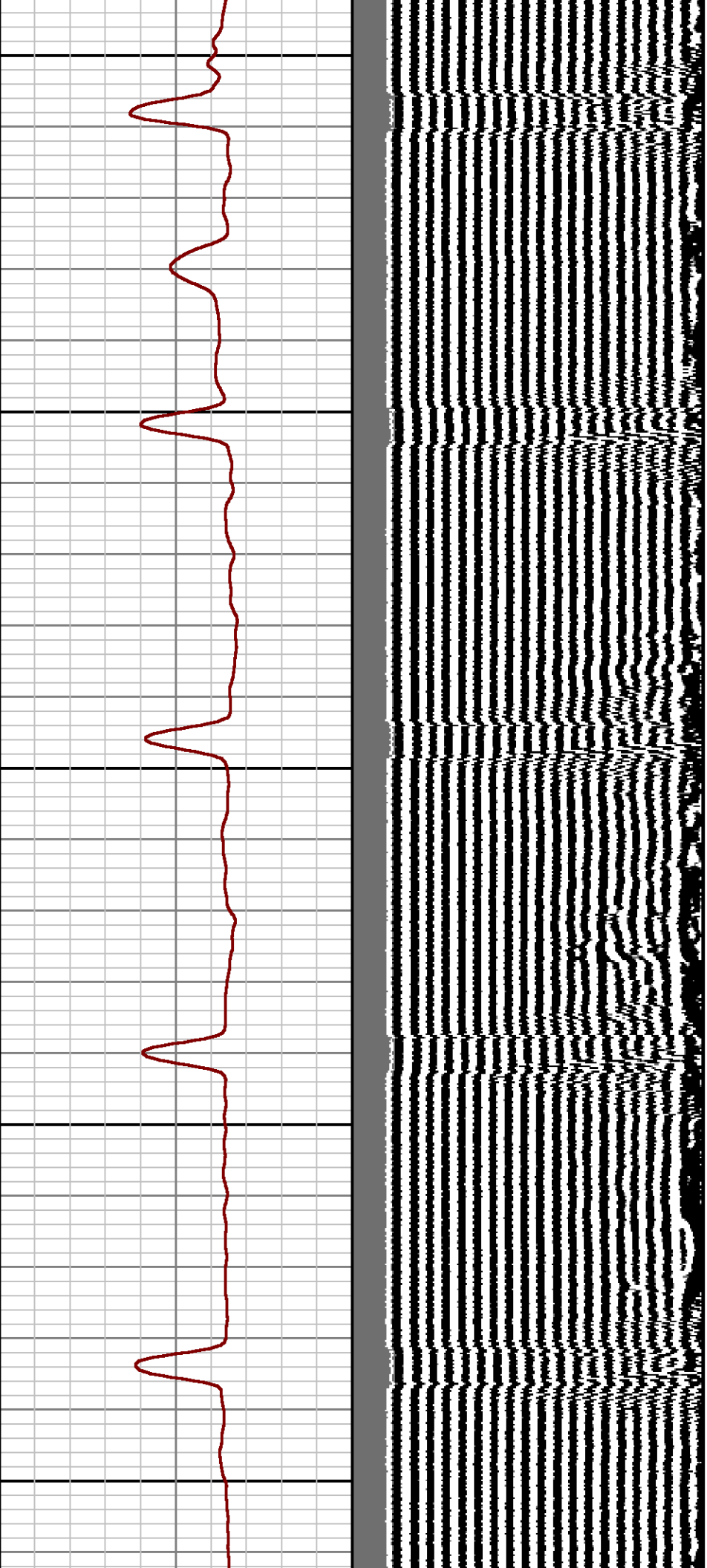


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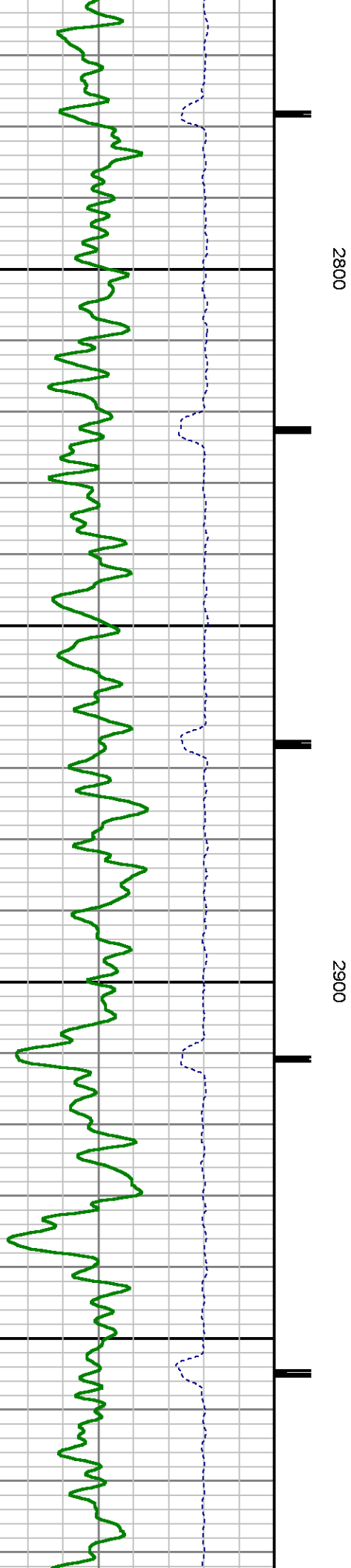
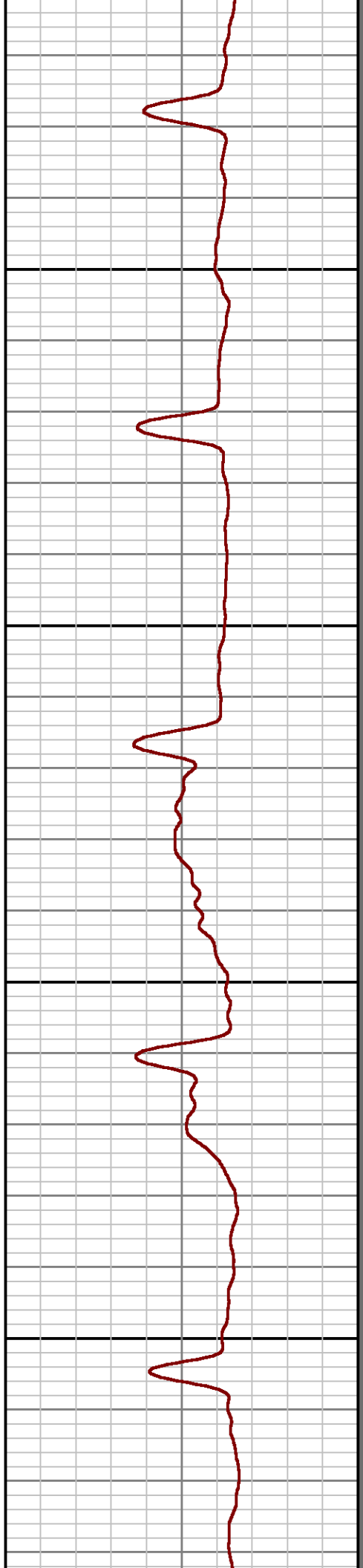
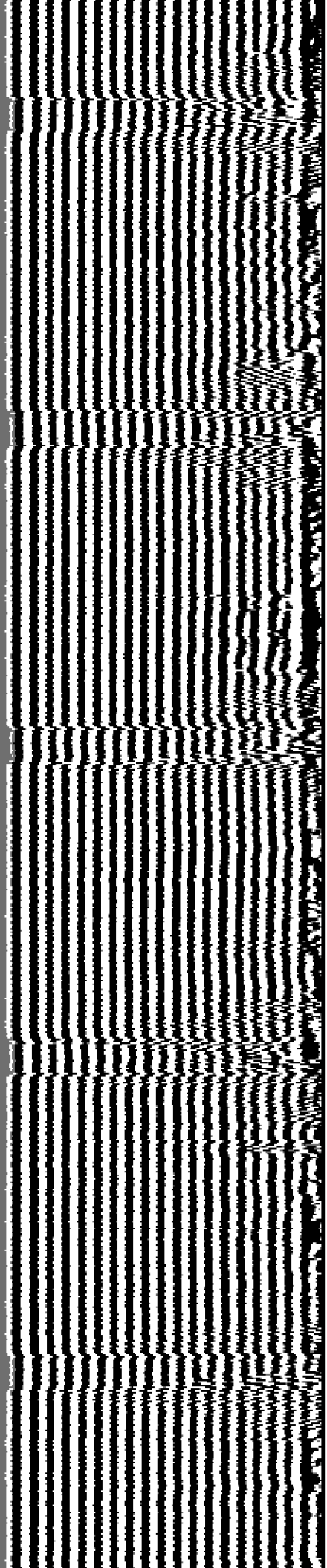


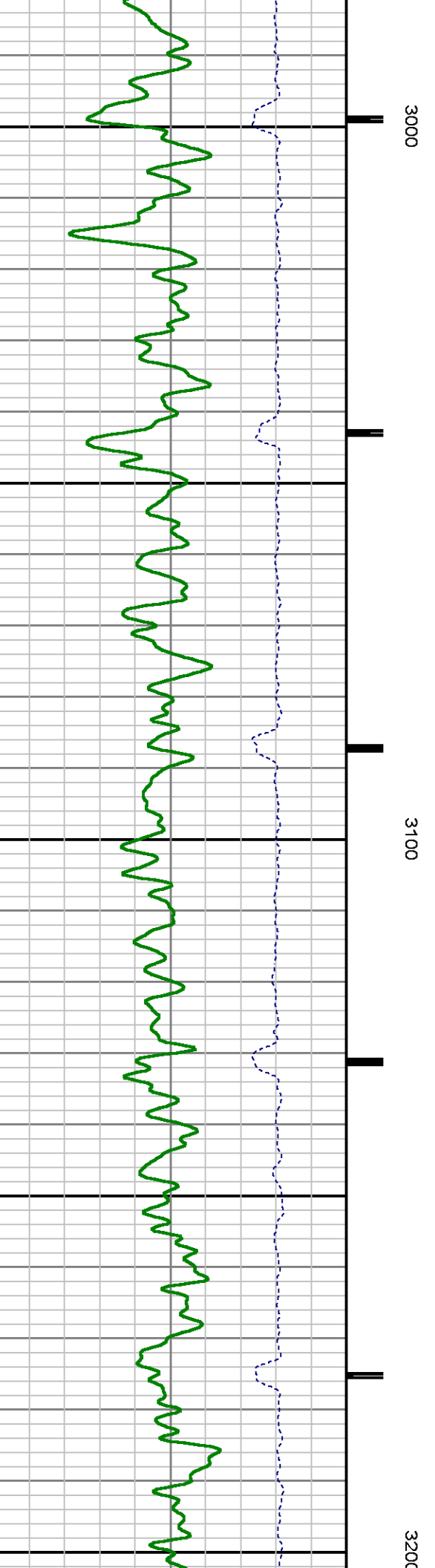
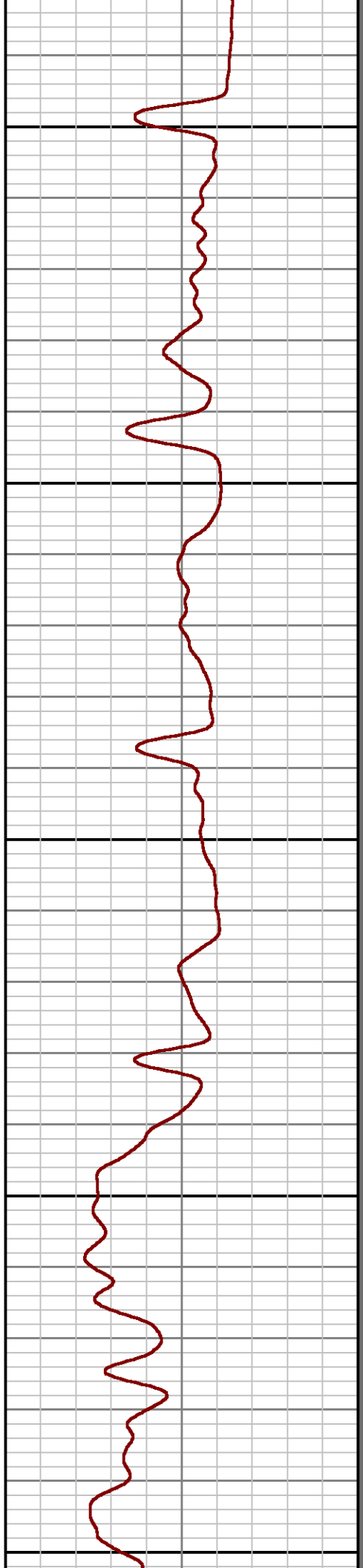
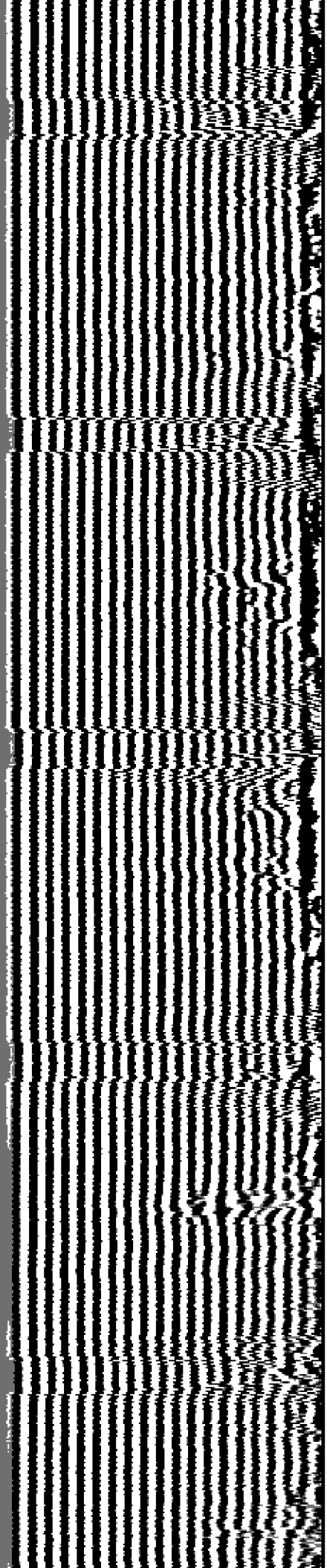


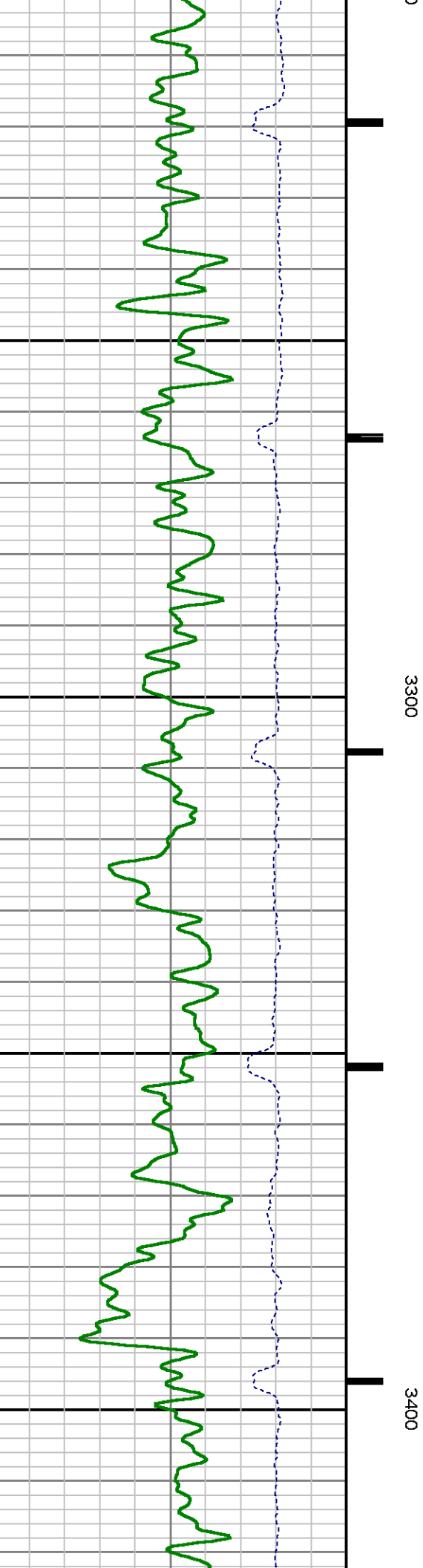
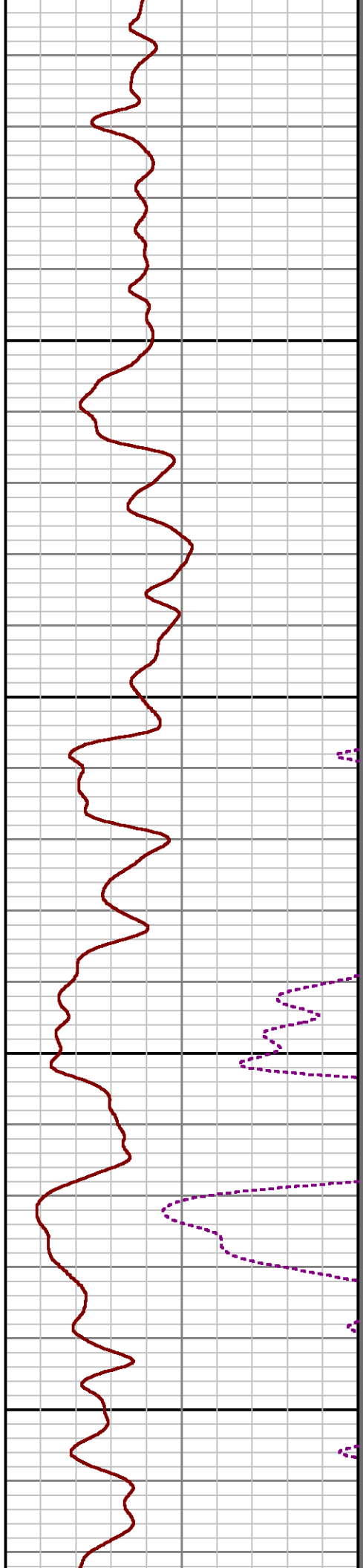
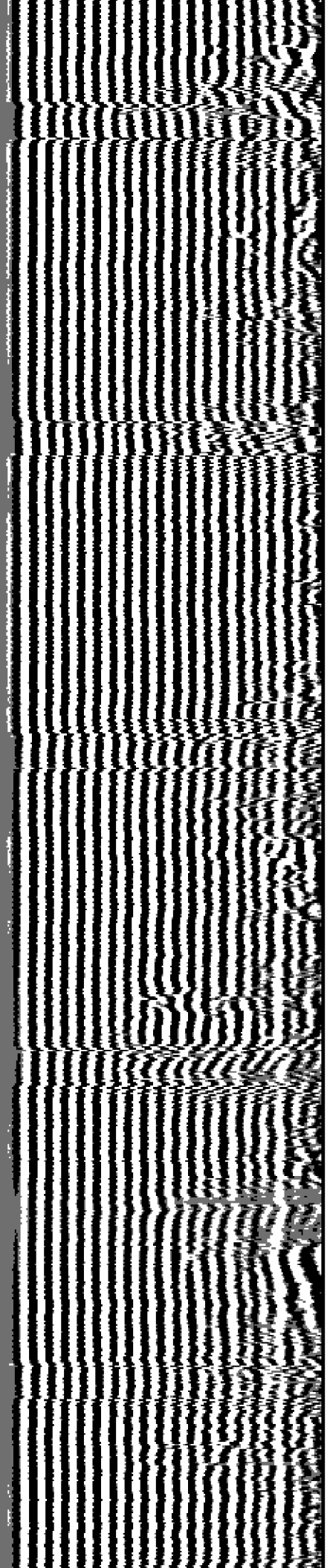


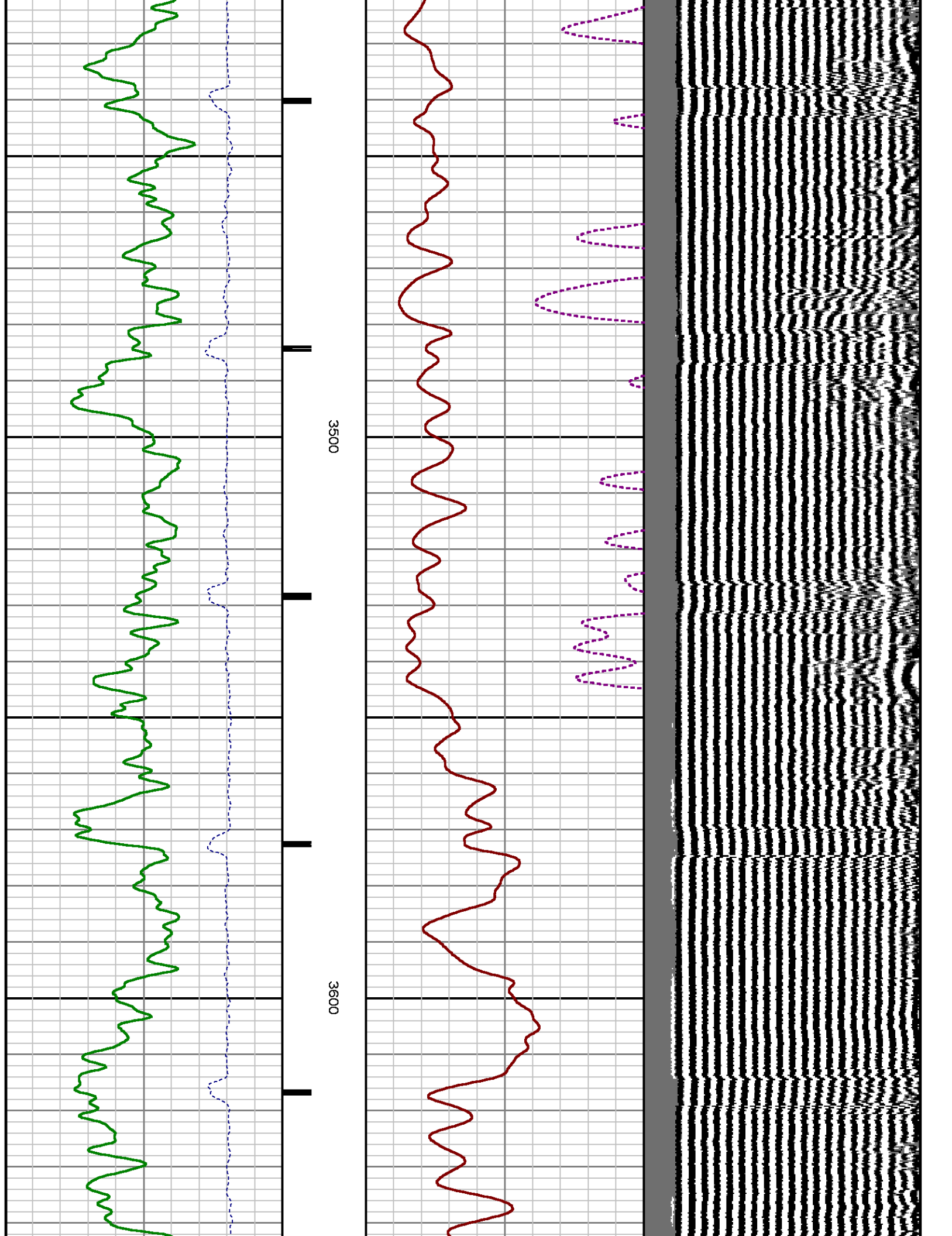
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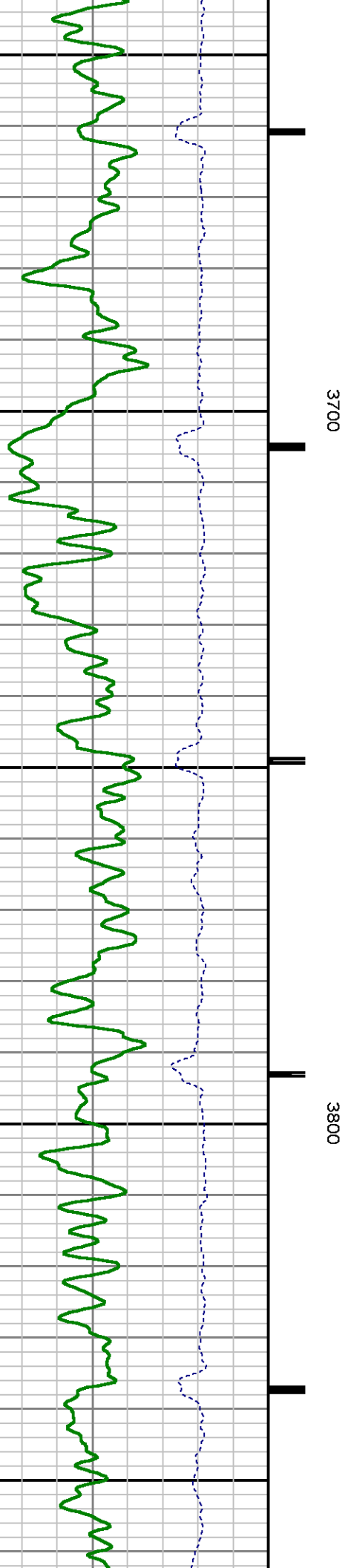
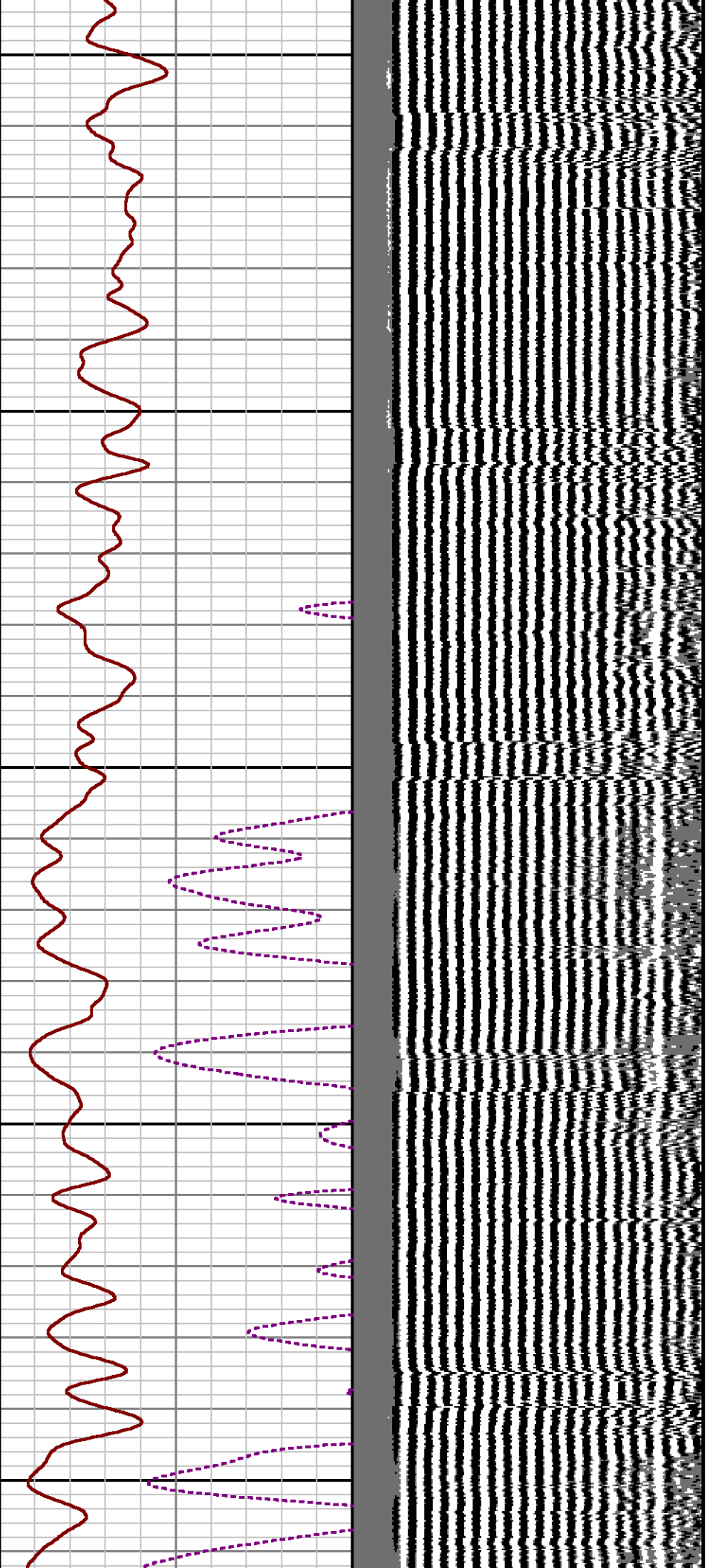
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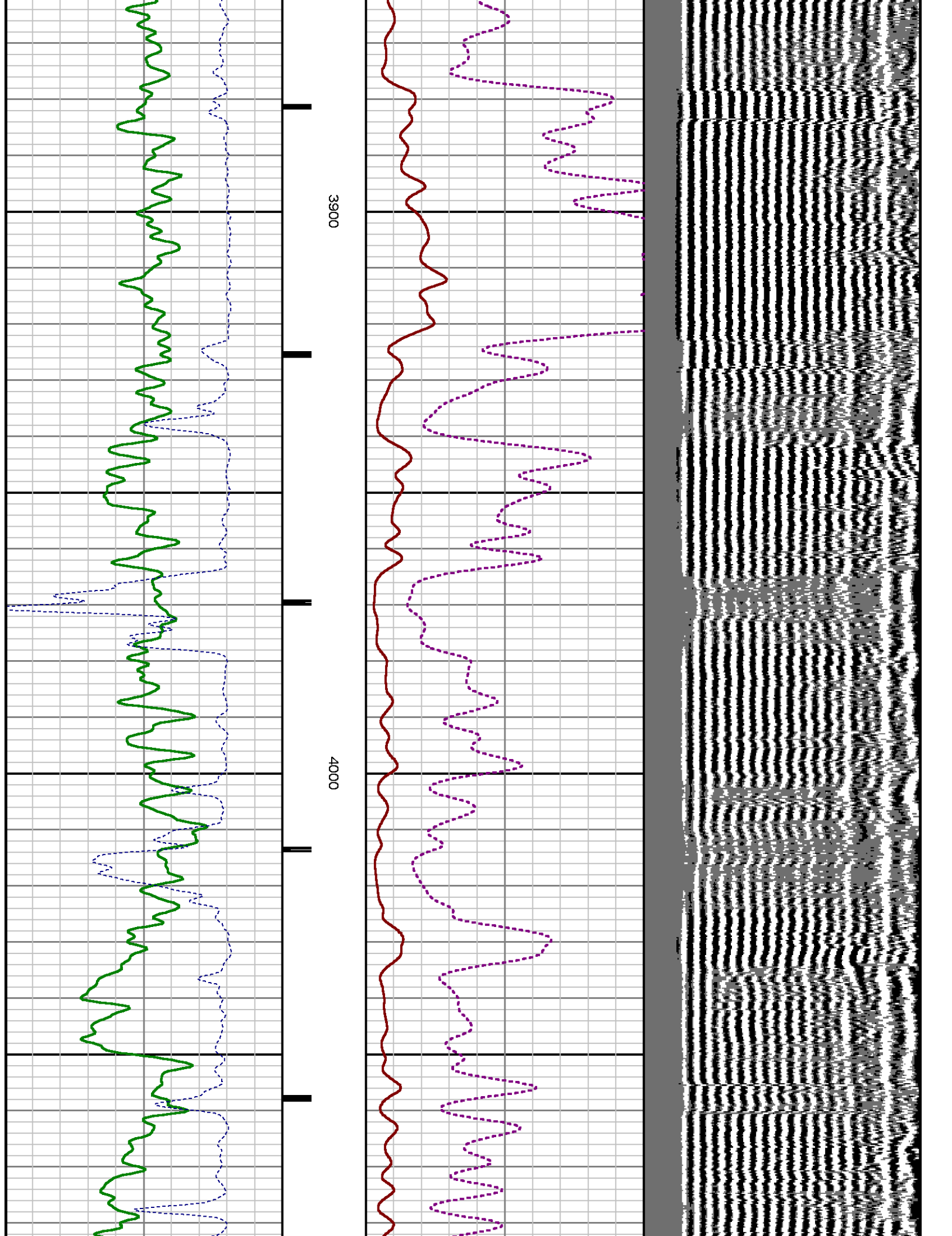


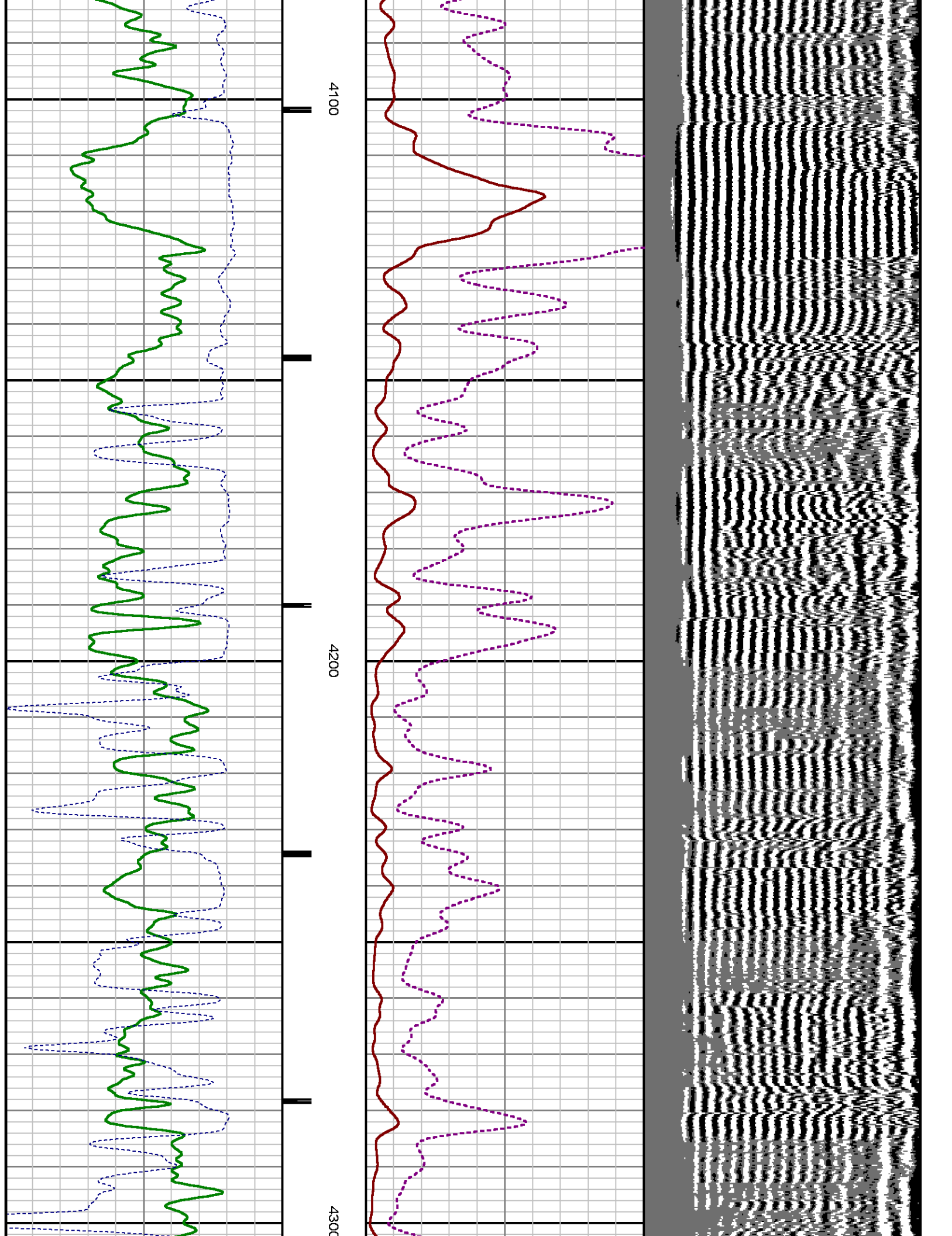


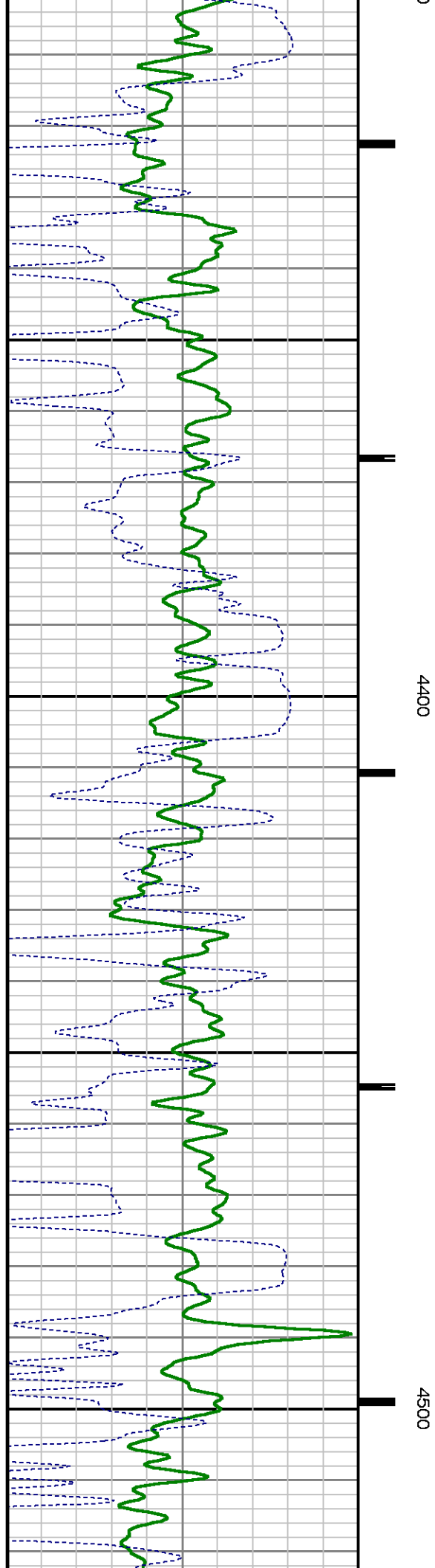
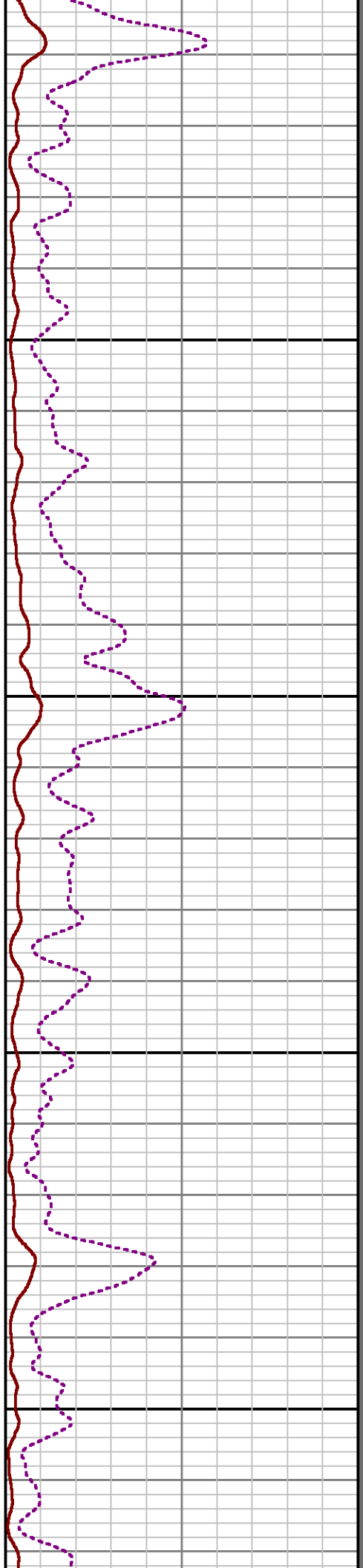
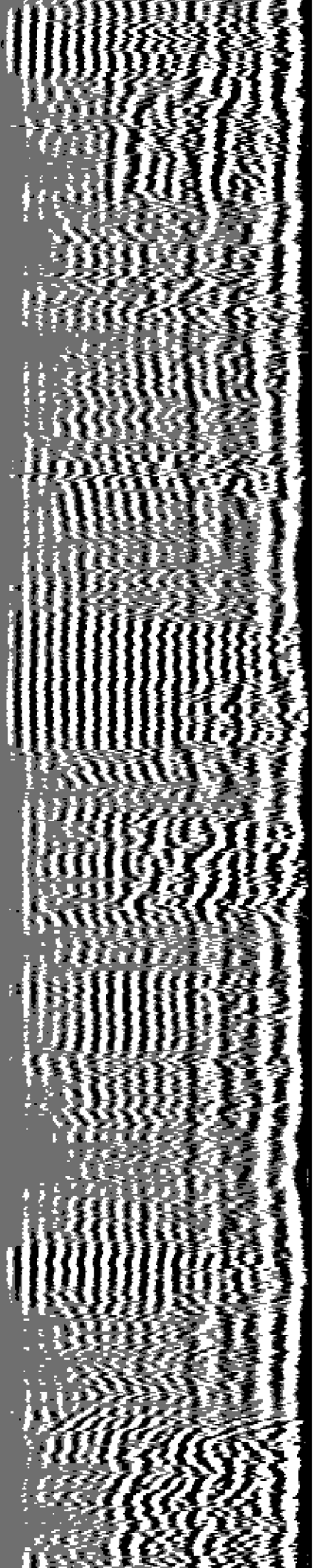


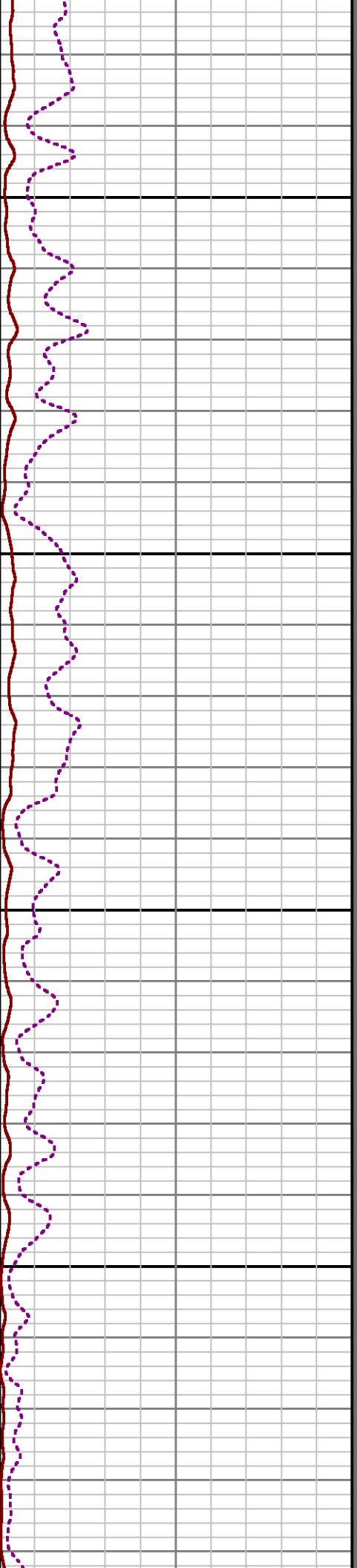
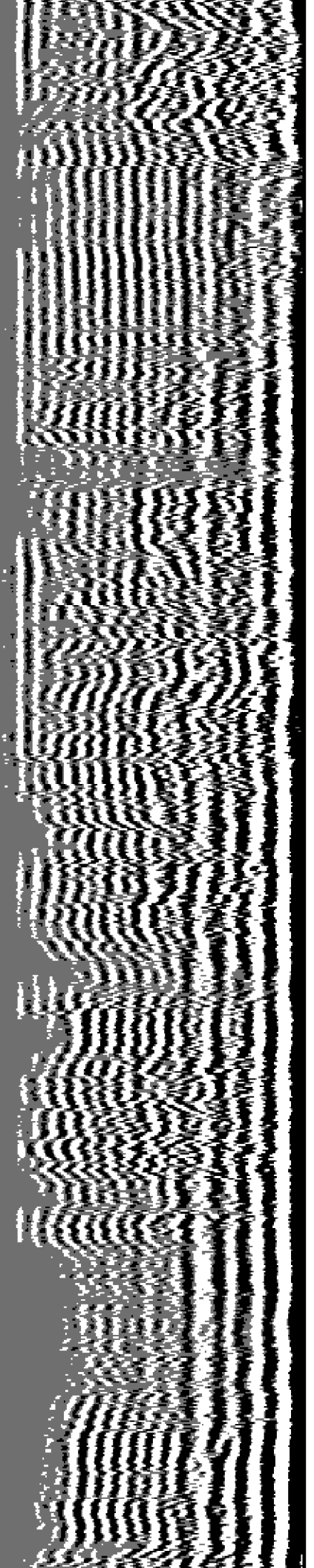






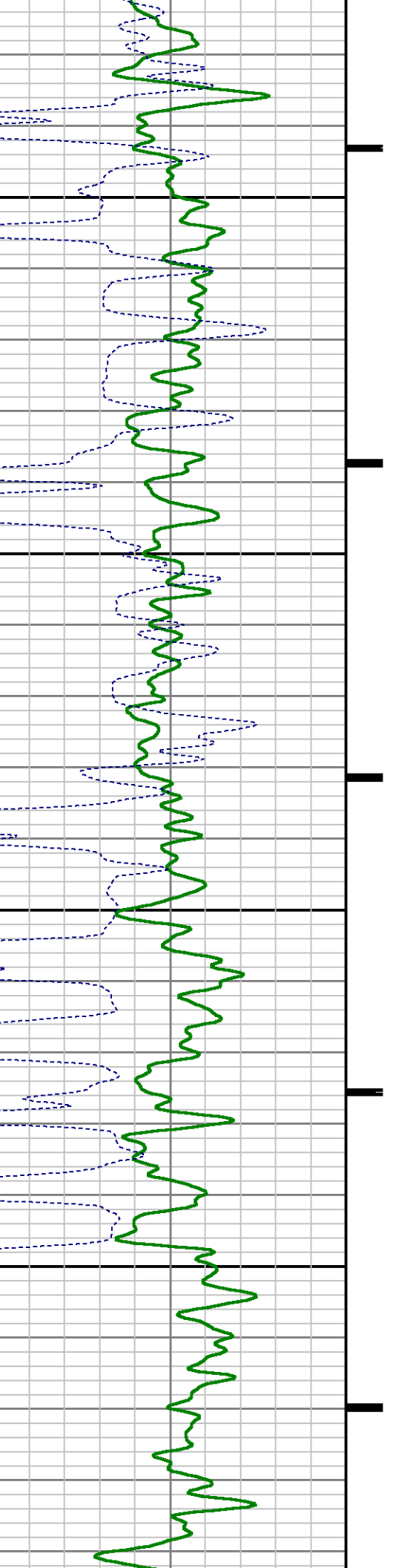


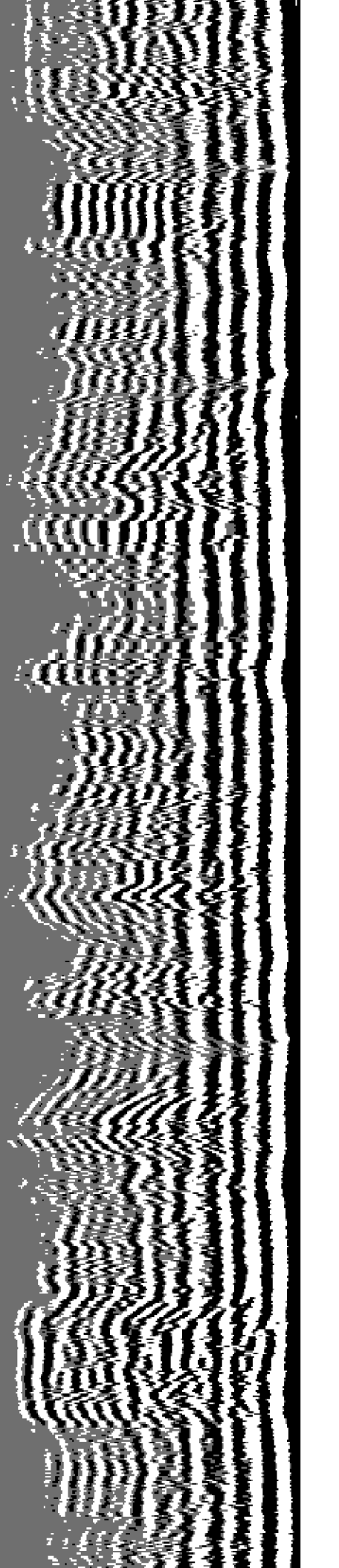




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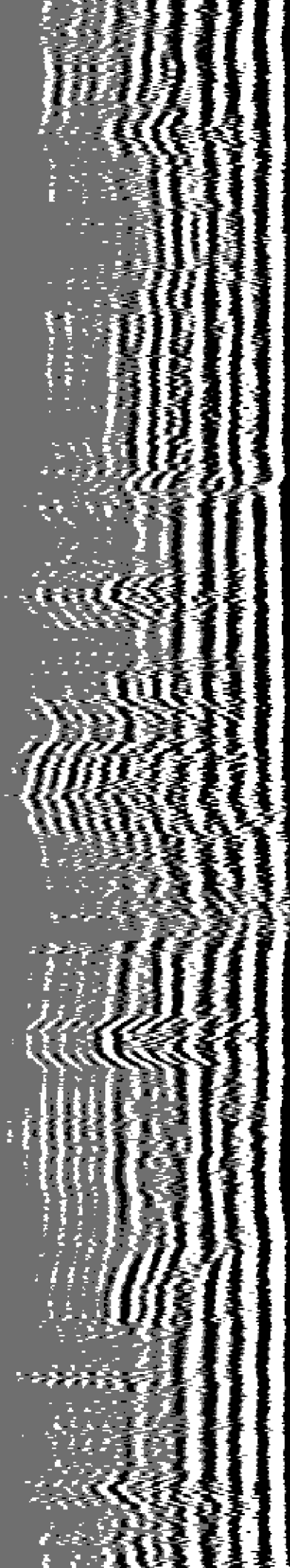




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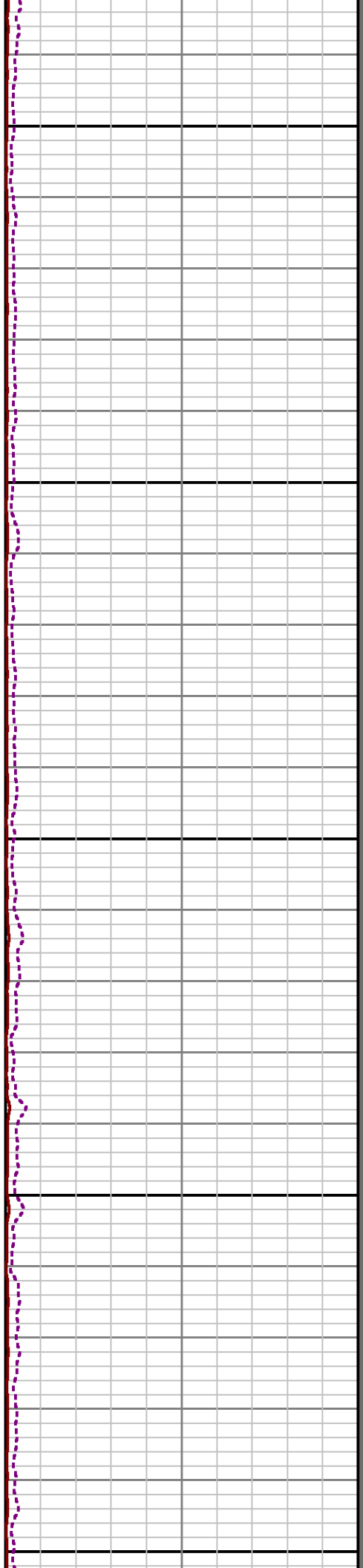
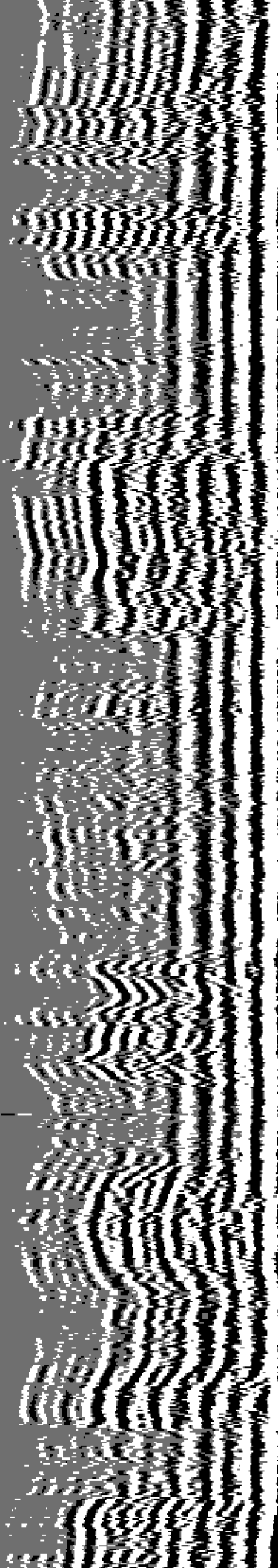




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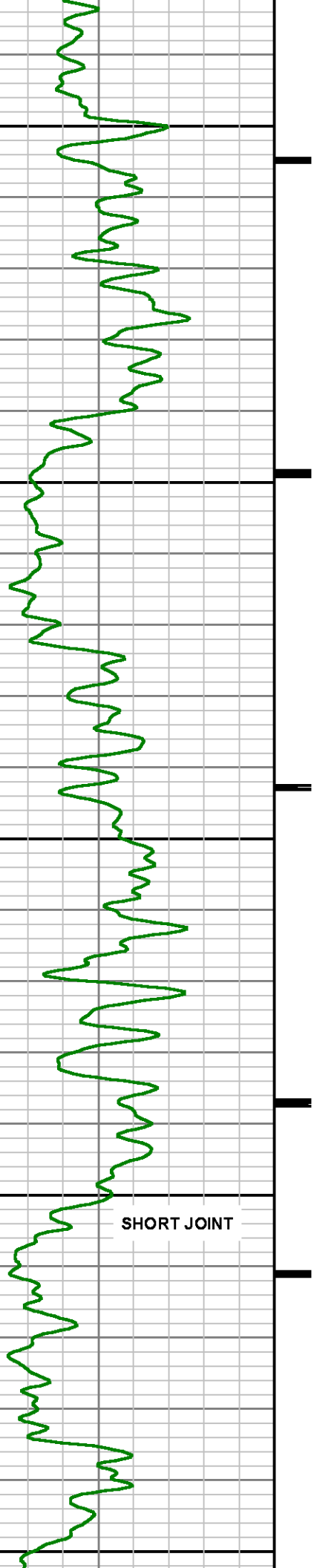
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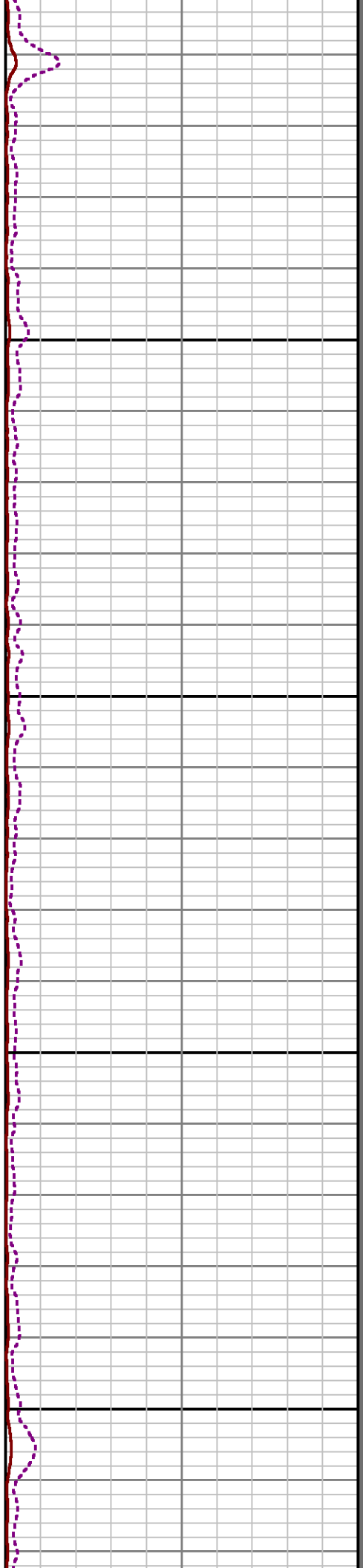
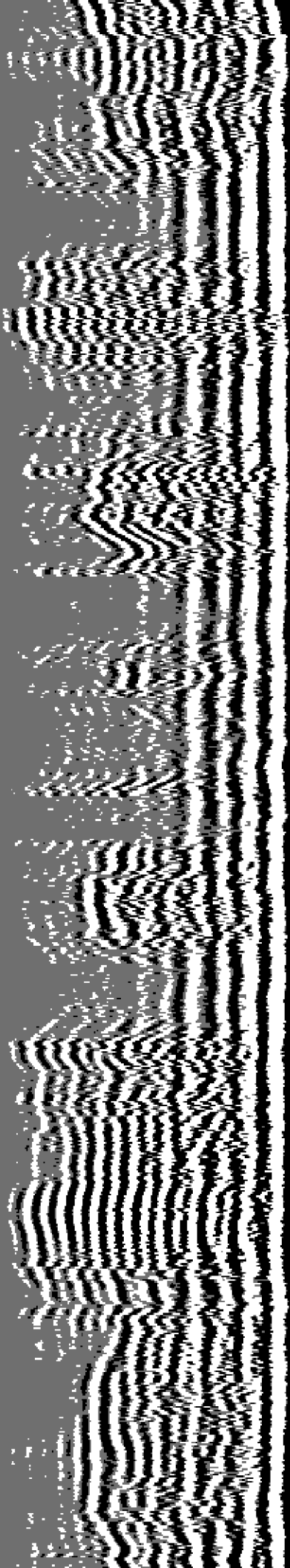




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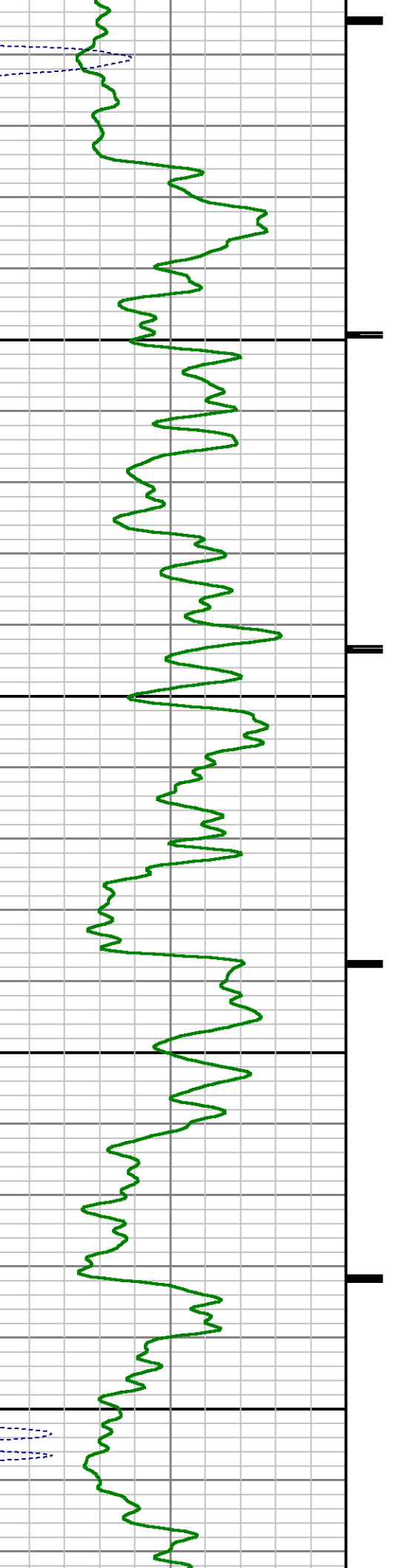
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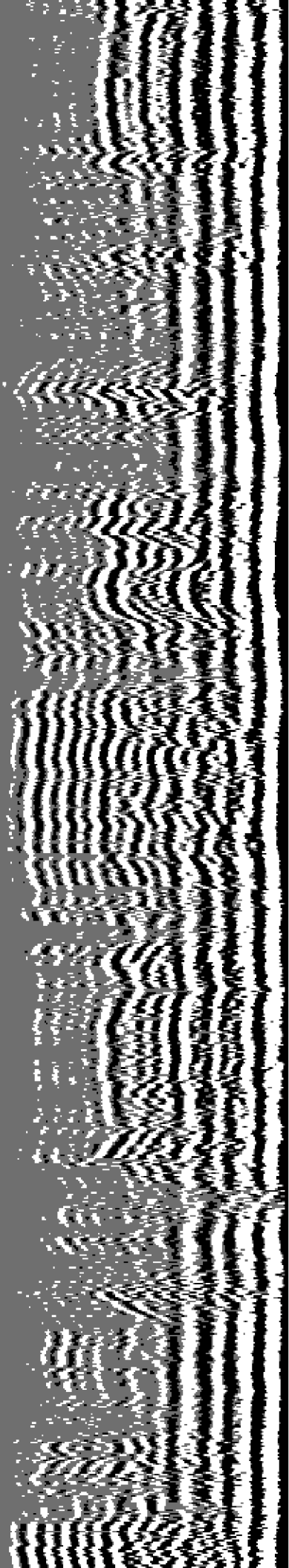




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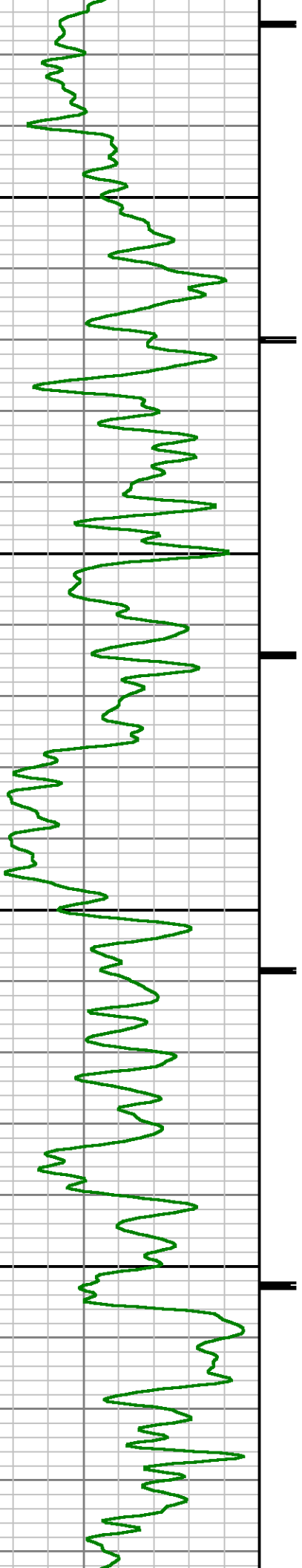
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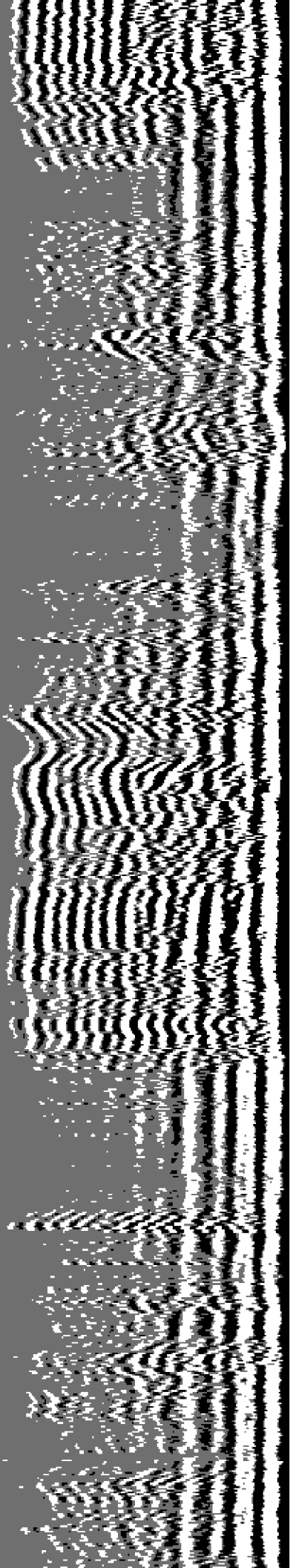




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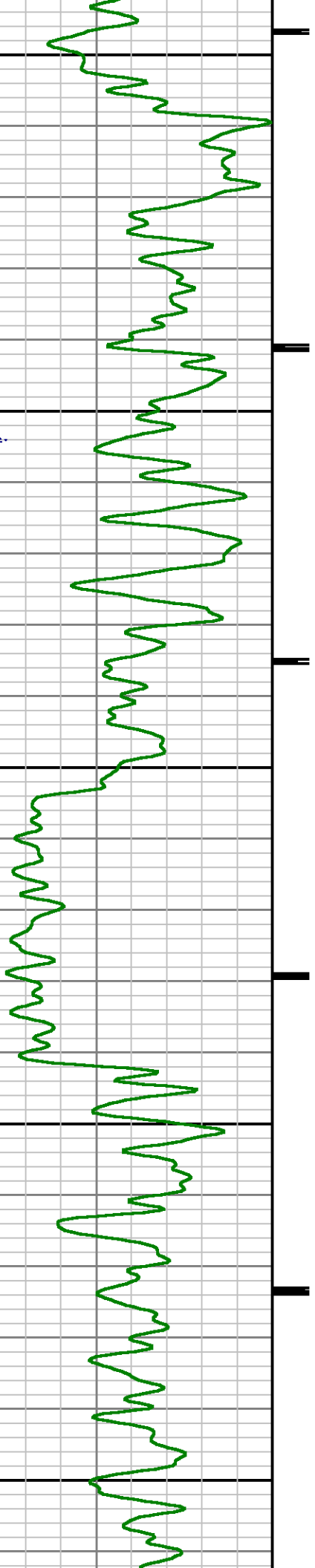
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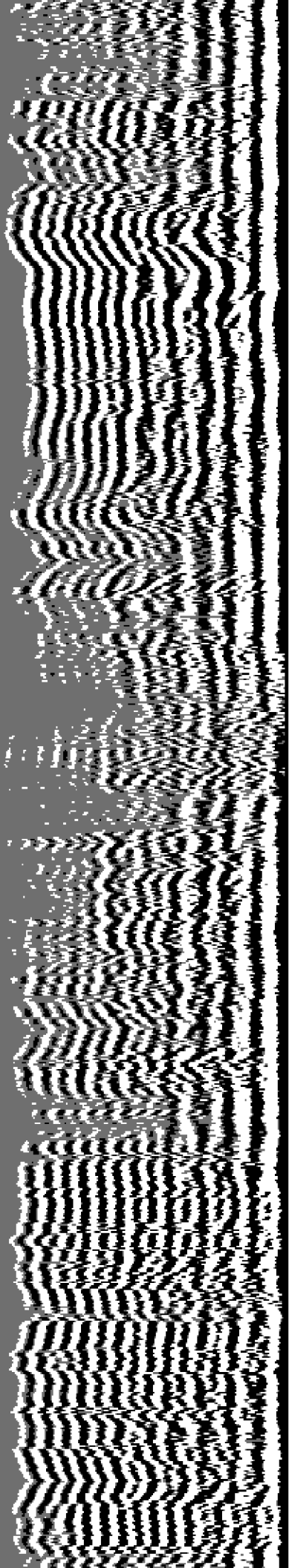




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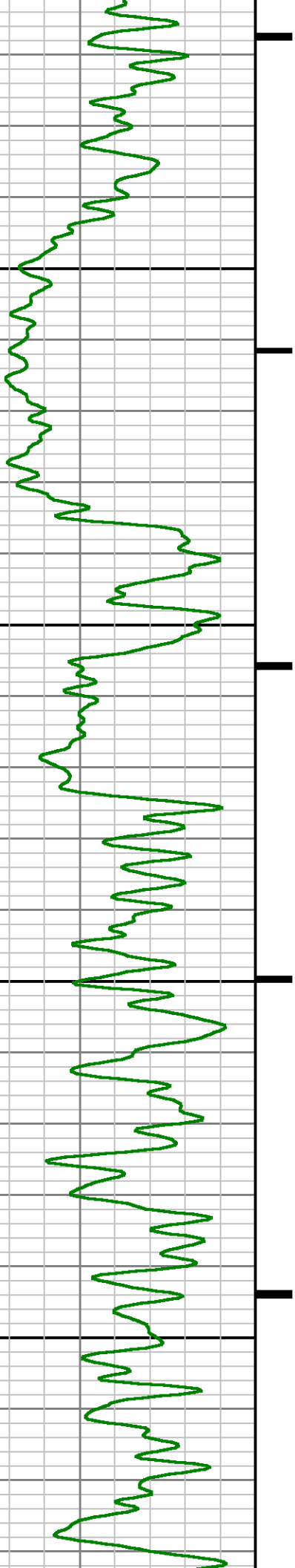
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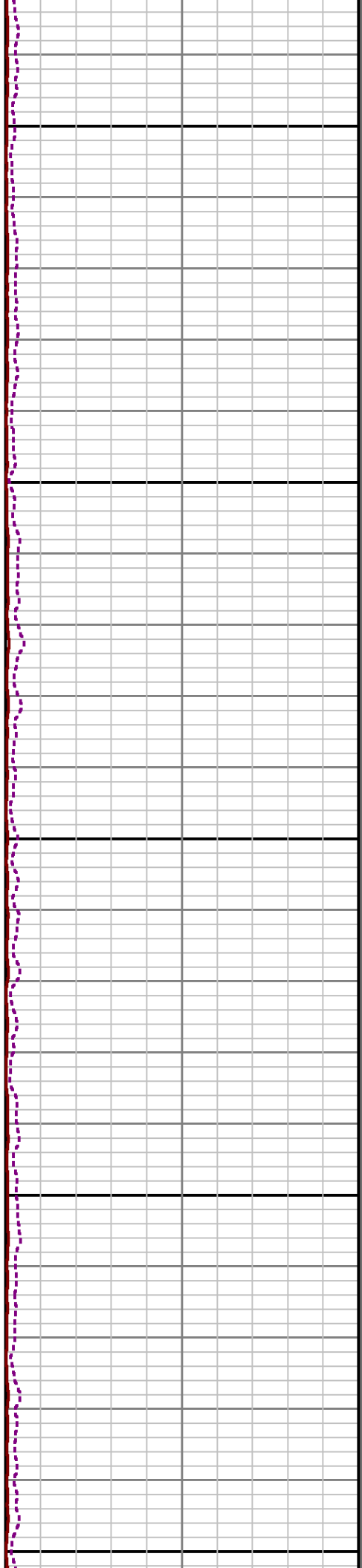
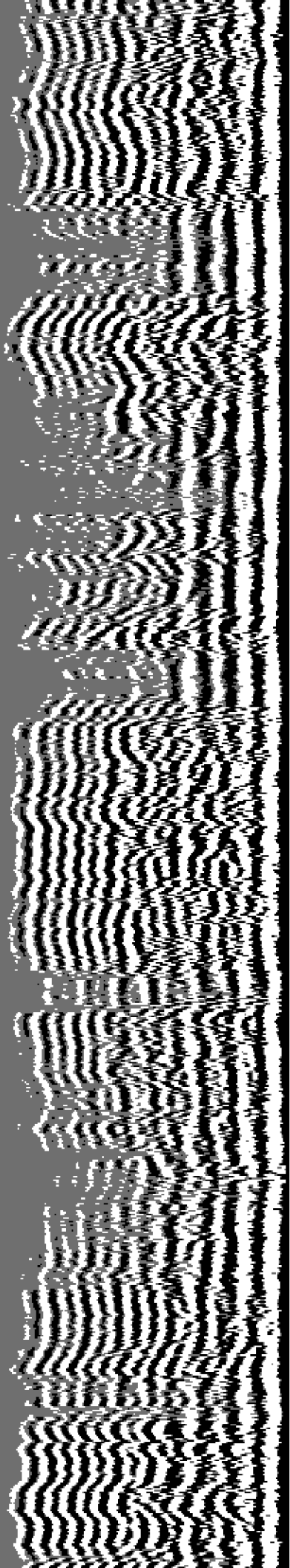
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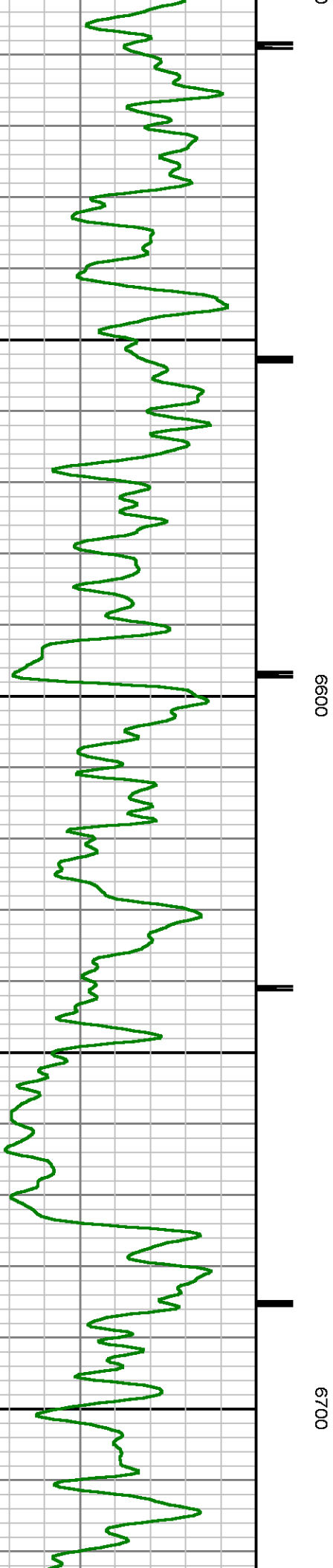
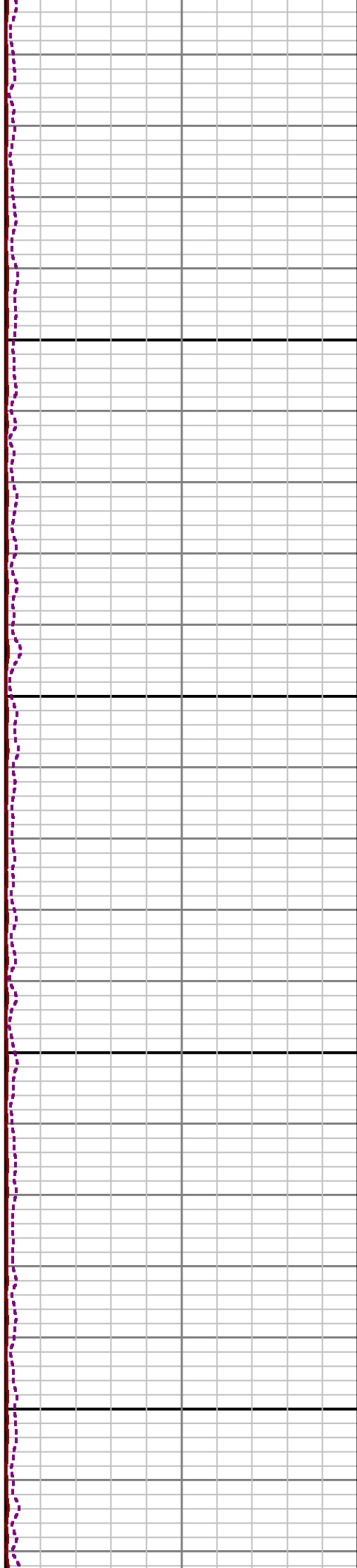
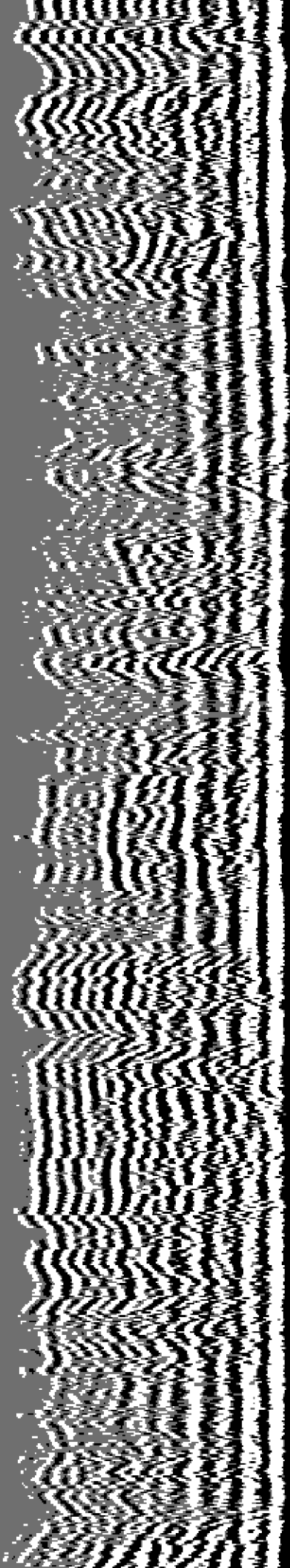


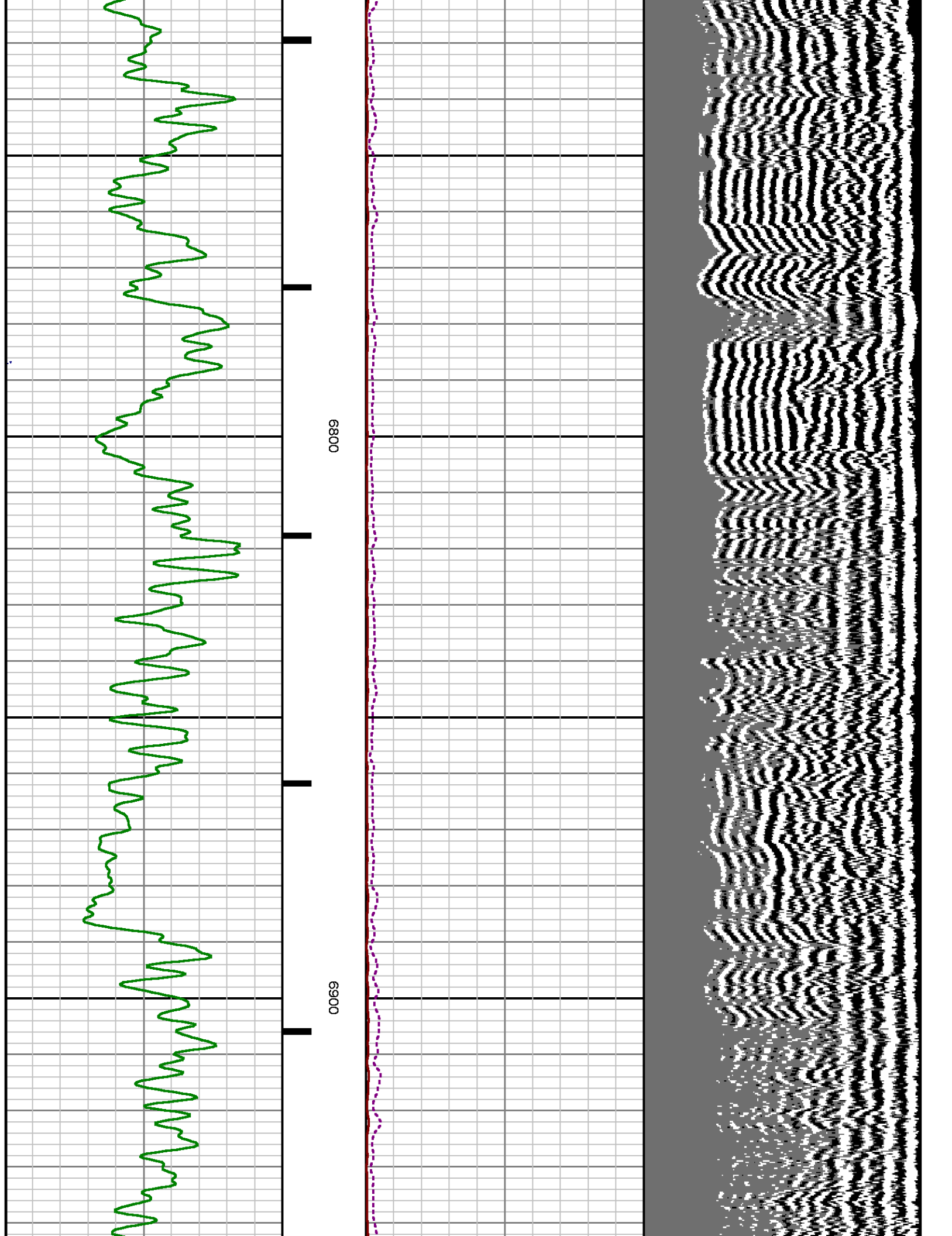
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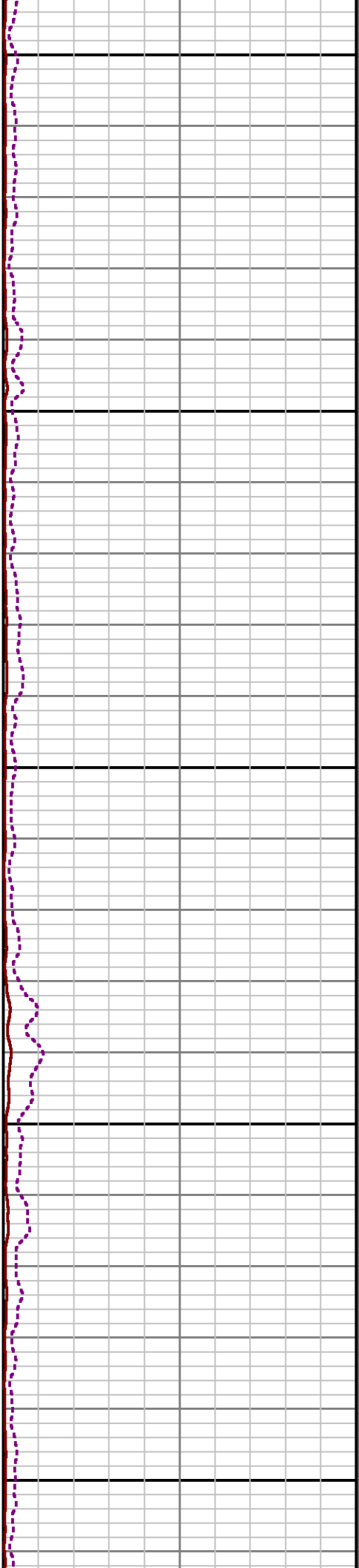
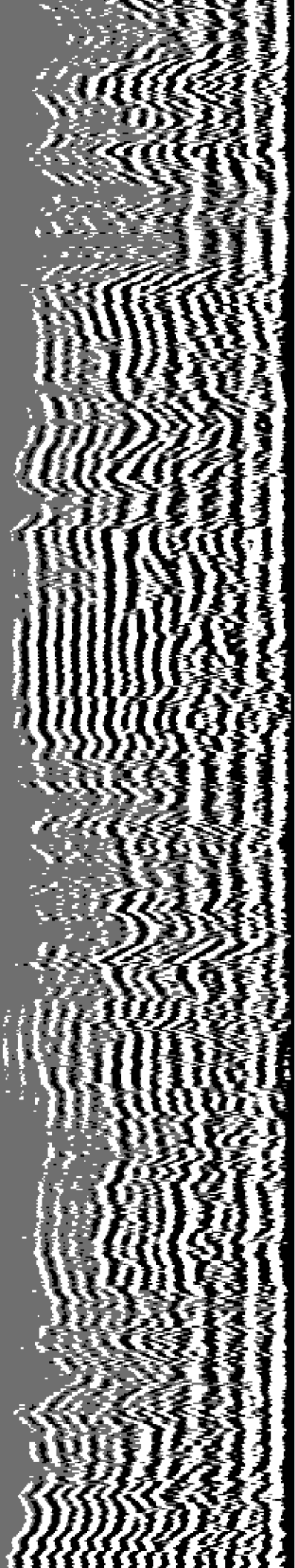
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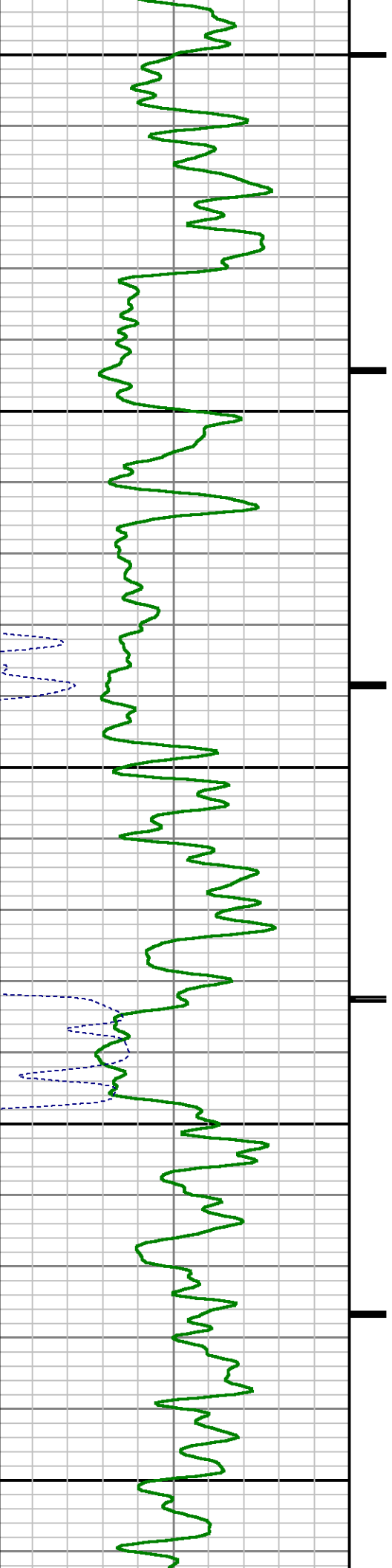


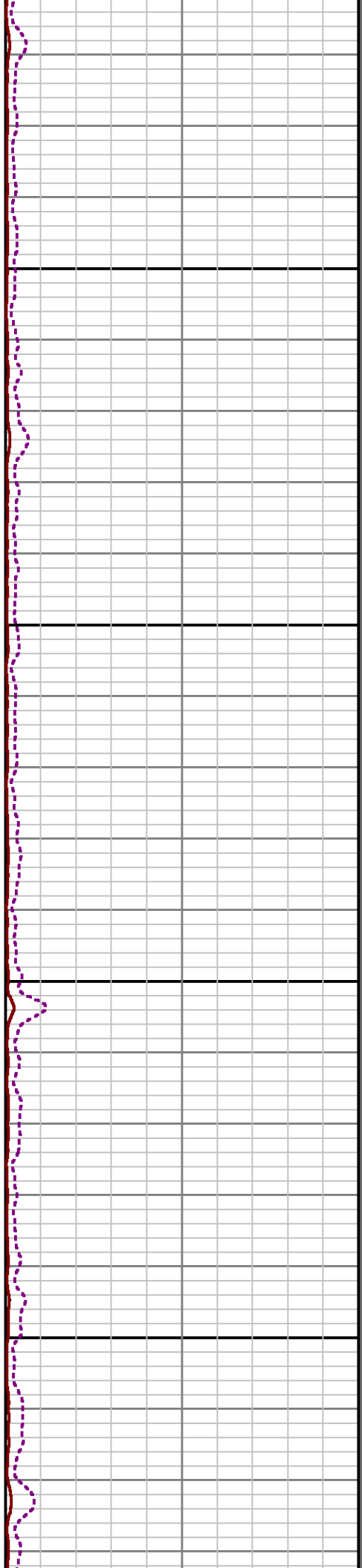
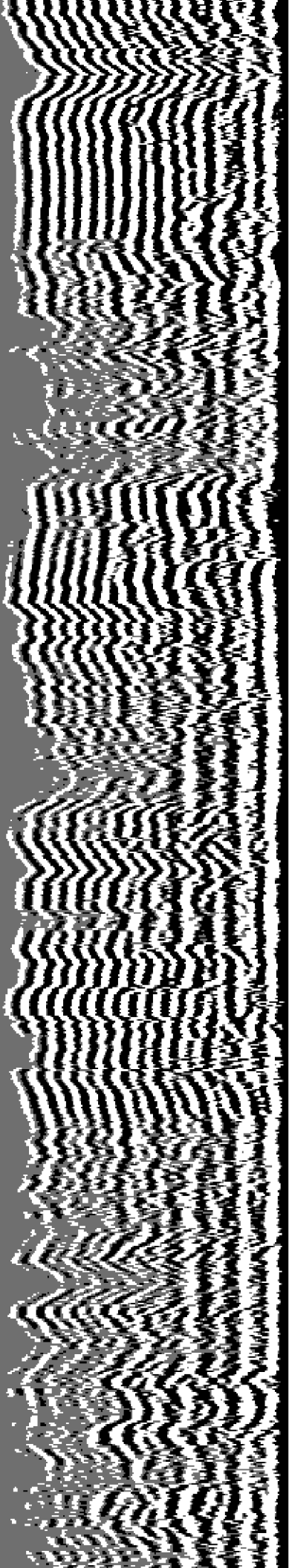




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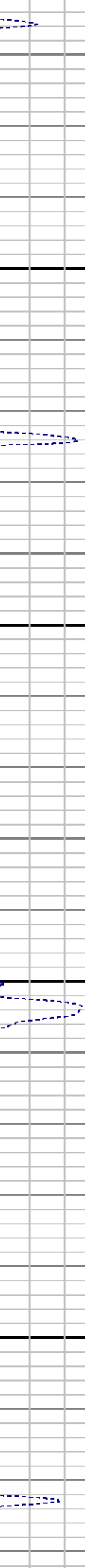
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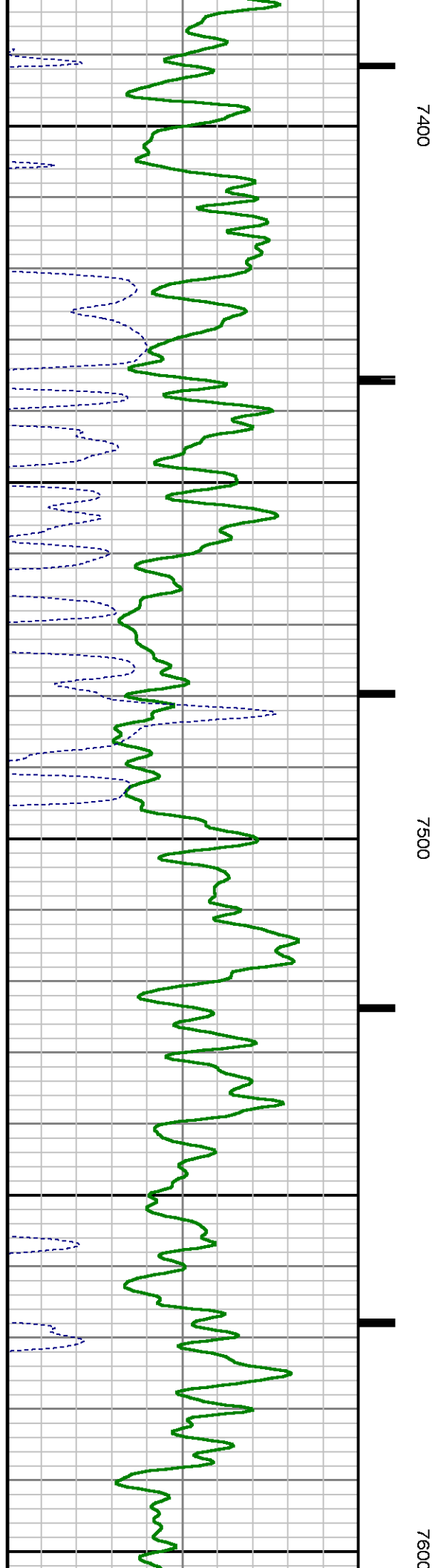
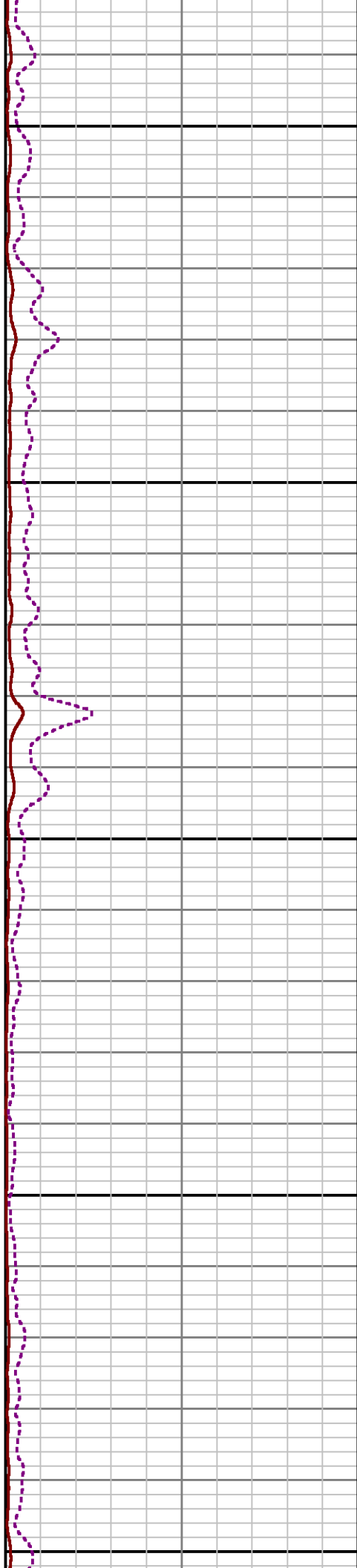
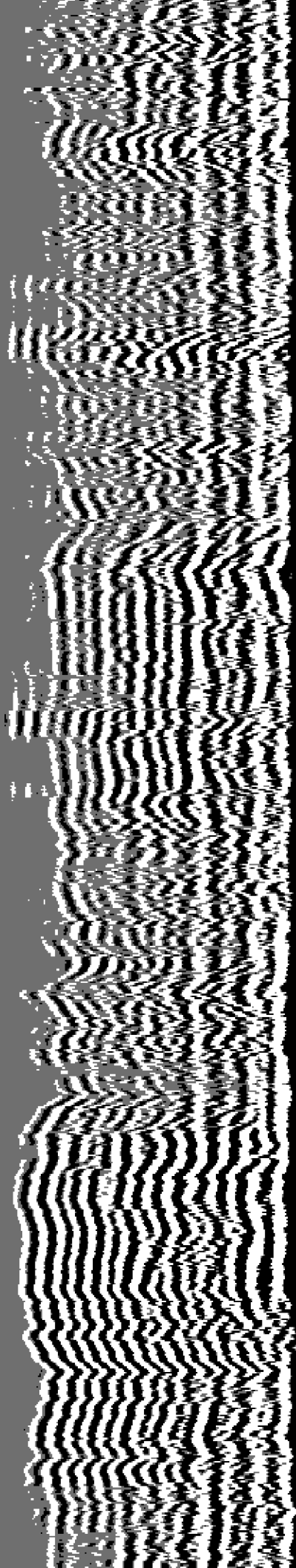


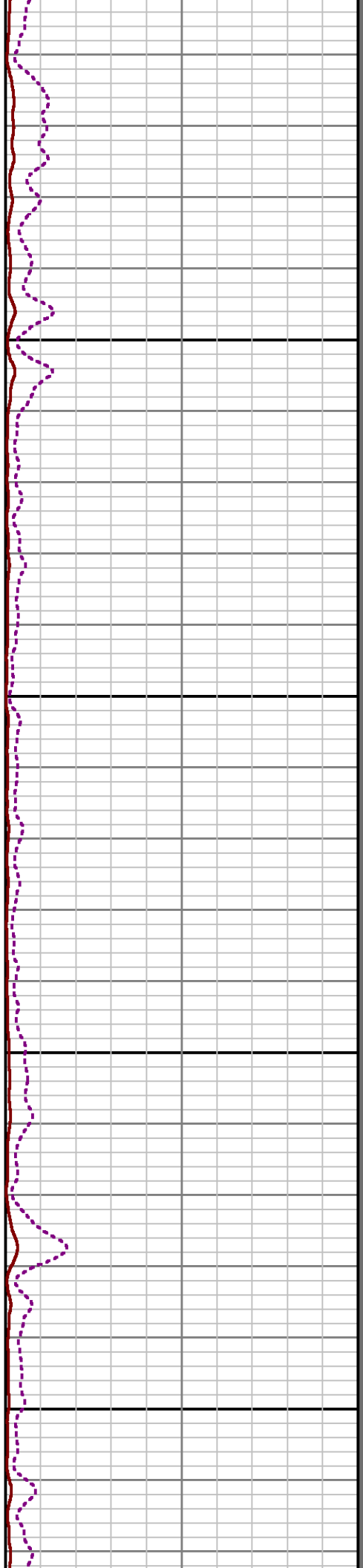
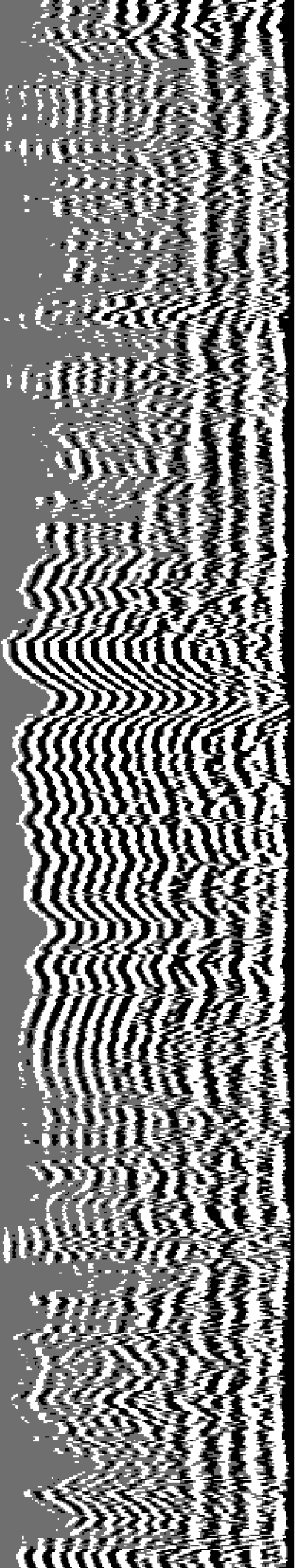


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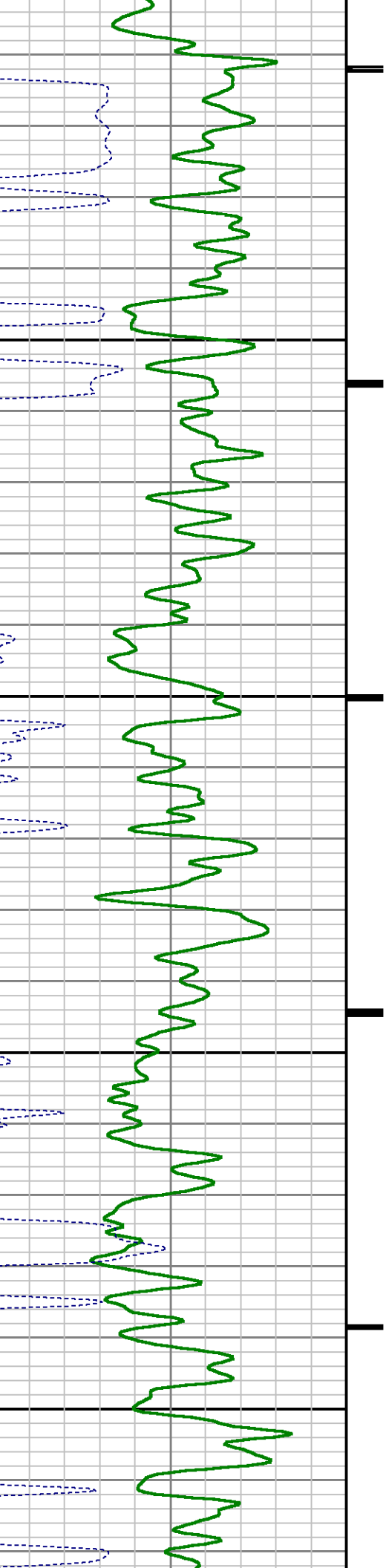


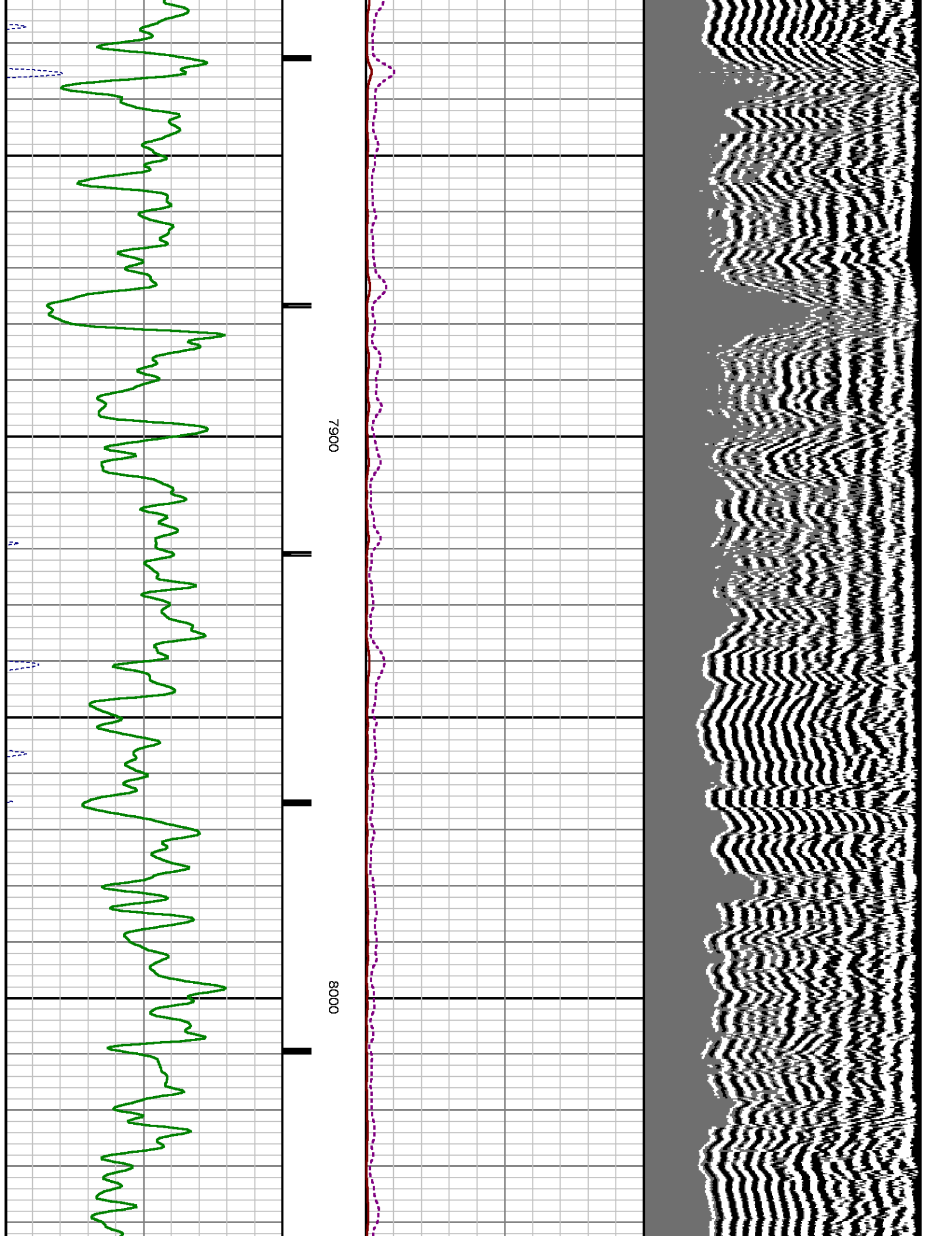


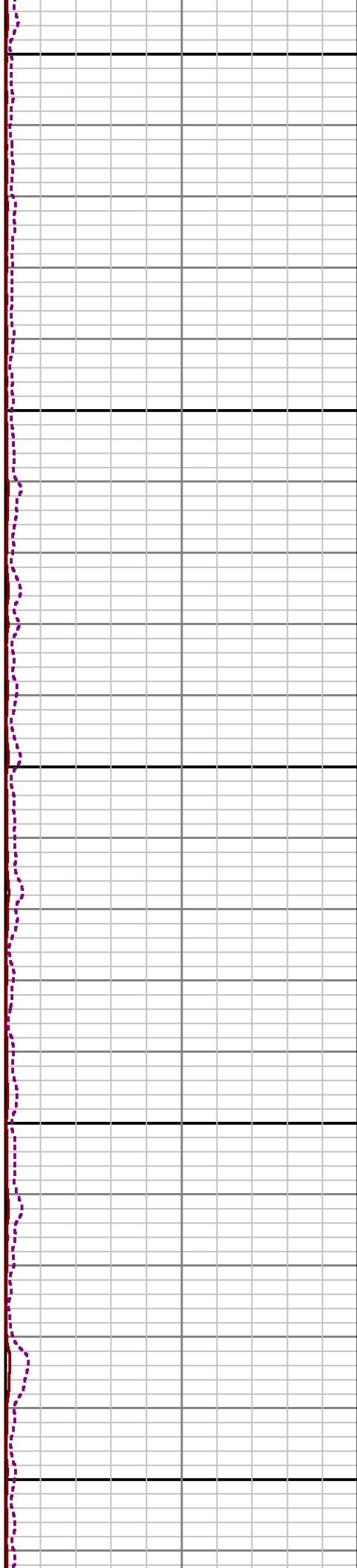
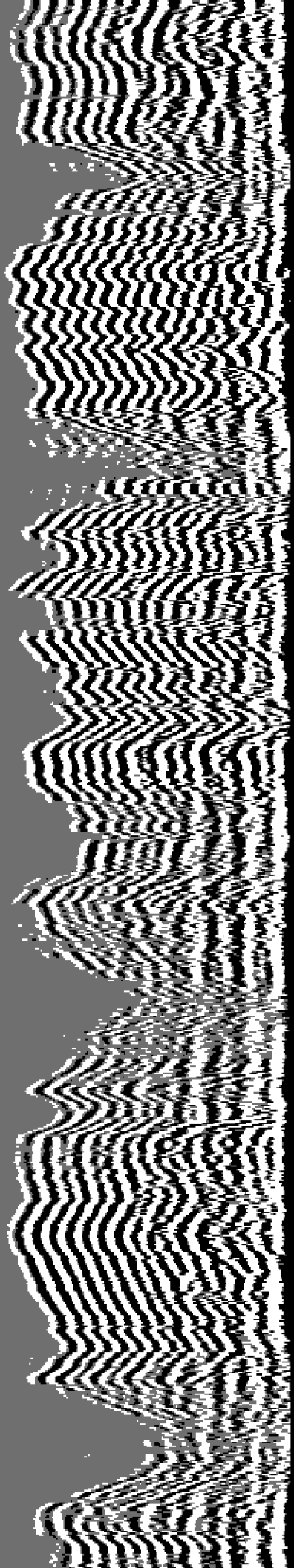


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7800

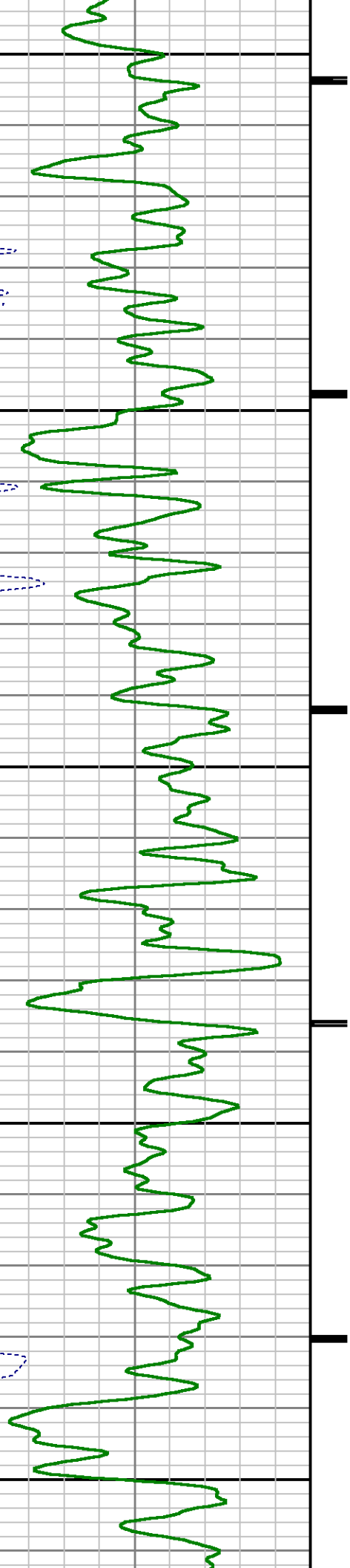


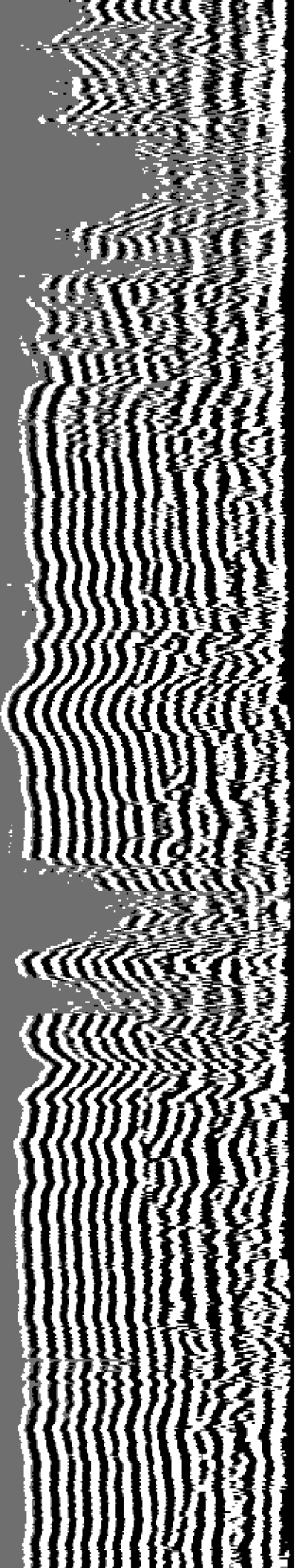




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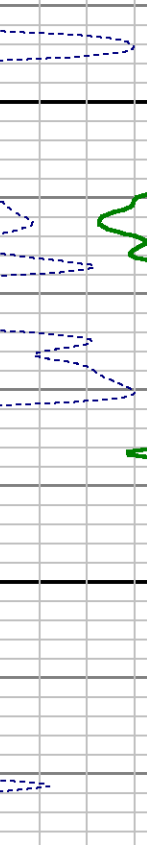
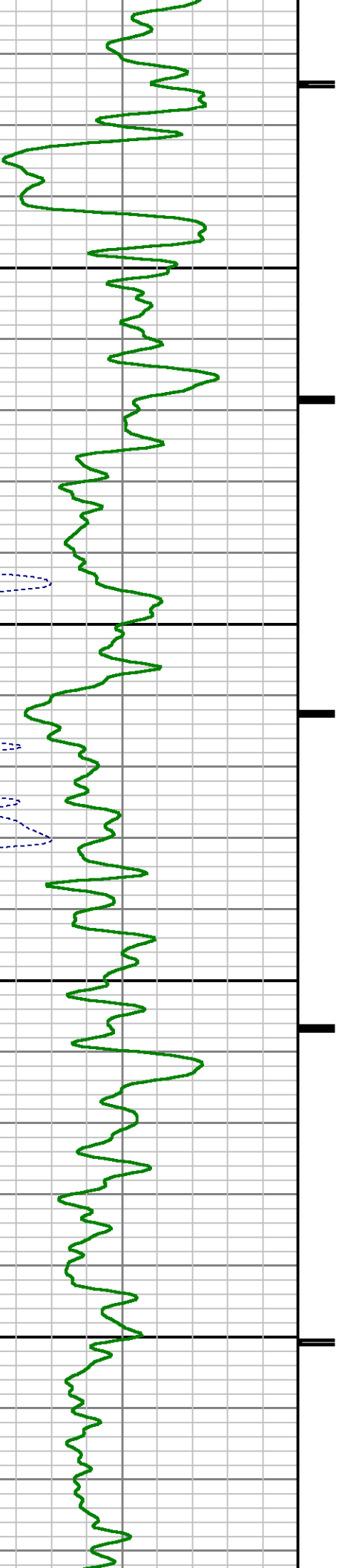
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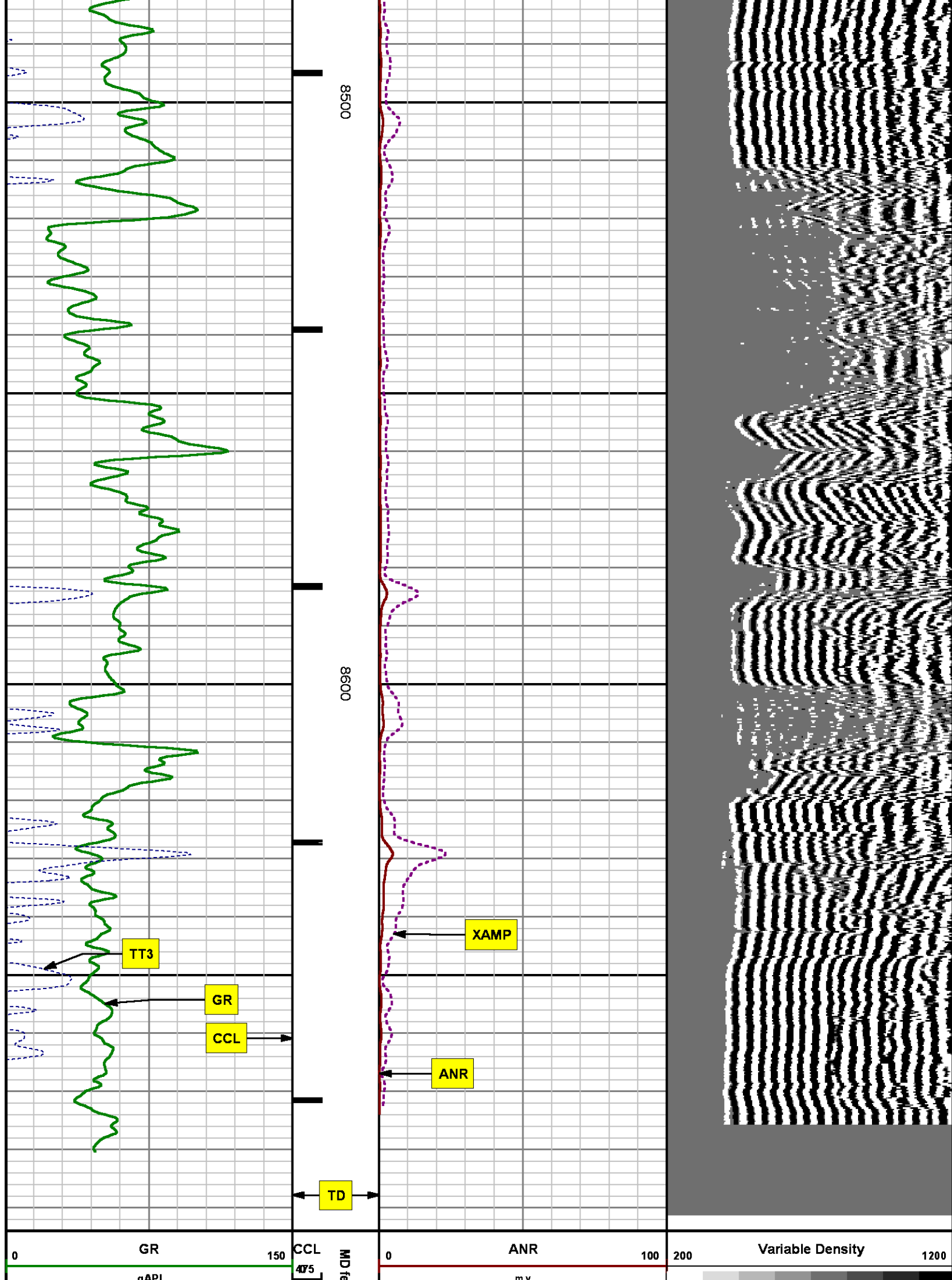




8300

8400







SECONDARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	u sec	35.999	8691.000
RAL	Amp Gate Start Near	195.000	u sec	35.999	8691.000
RAL	Amp Gate Start Radial	195.000	u sec	35.999	8691.000
RAL	Amp Gate Width Far	25.000	u sec	35.999	8691.000
RAL	Amp Gate Width Near	25.000	u sec	35.999	8691.000
RAL	Amp Gate Width Radial	25.000	u sec	35.999	8691.000
RAL	casing od	4.500	inches	35.999	8691.000
RAL	casing wt	11.600	lbm/ft	35.999	8691.000
RAL	FB Start Far	291.900	u sec	35.999	8691.000
RAL	FB Start Near	180.000	u sec	35.999	8691.000
RAL	FB Start Radial	180.000	u sec	35.999	8691.000
RAL	FB Thresh Far	10.000	m v	35.999	8691.000
RAL	FB Thresh Near	4.000	m v	35.999	8691.000
RAL	FB Thresh Radial	4.000	m v	35.999	8691.000
RAL	Fluid Travel Time	200.000	u sec/ft	35.999	8691.000

DEPTH OFFSETS
(for Acquired Curves)

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

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

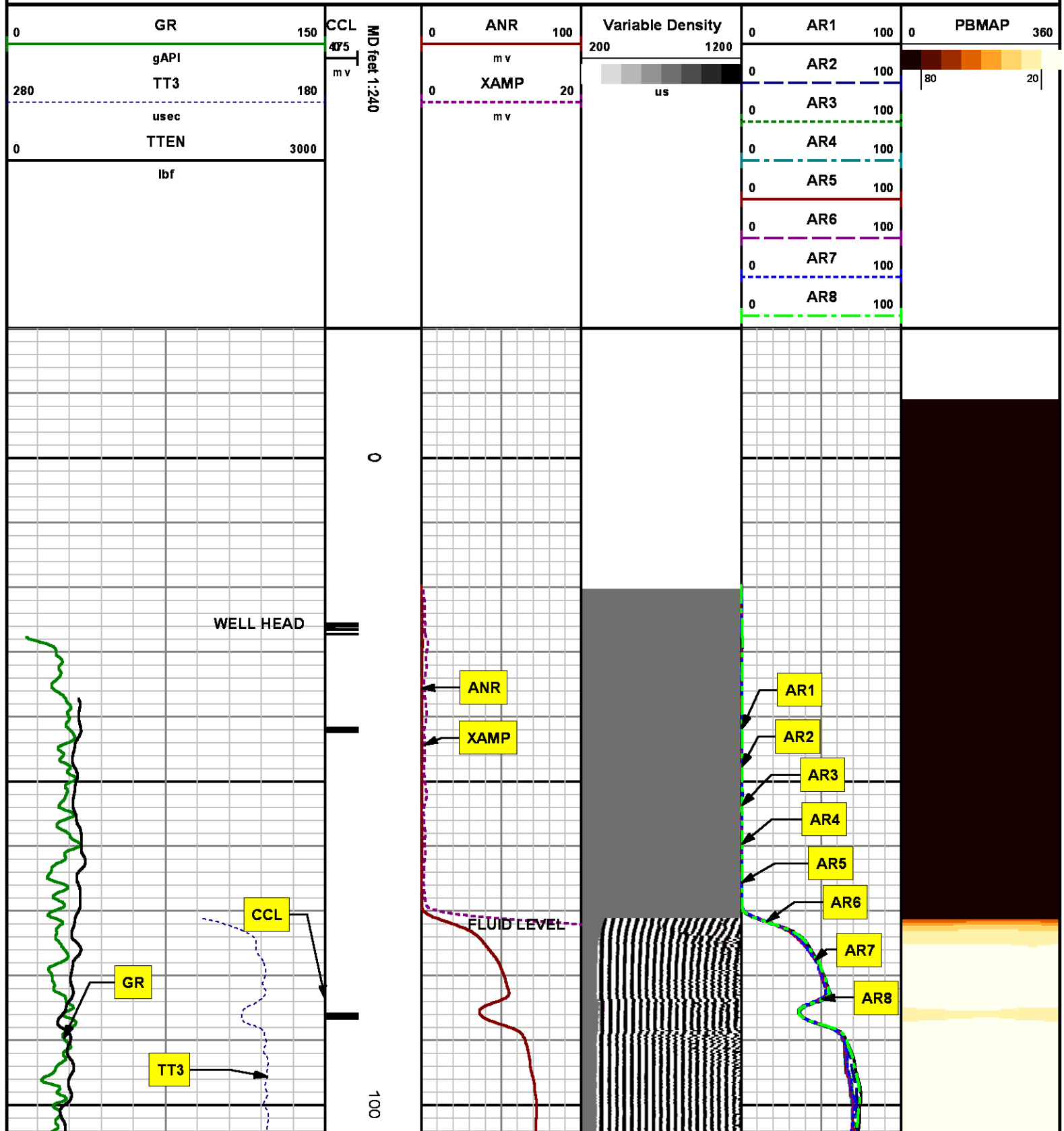
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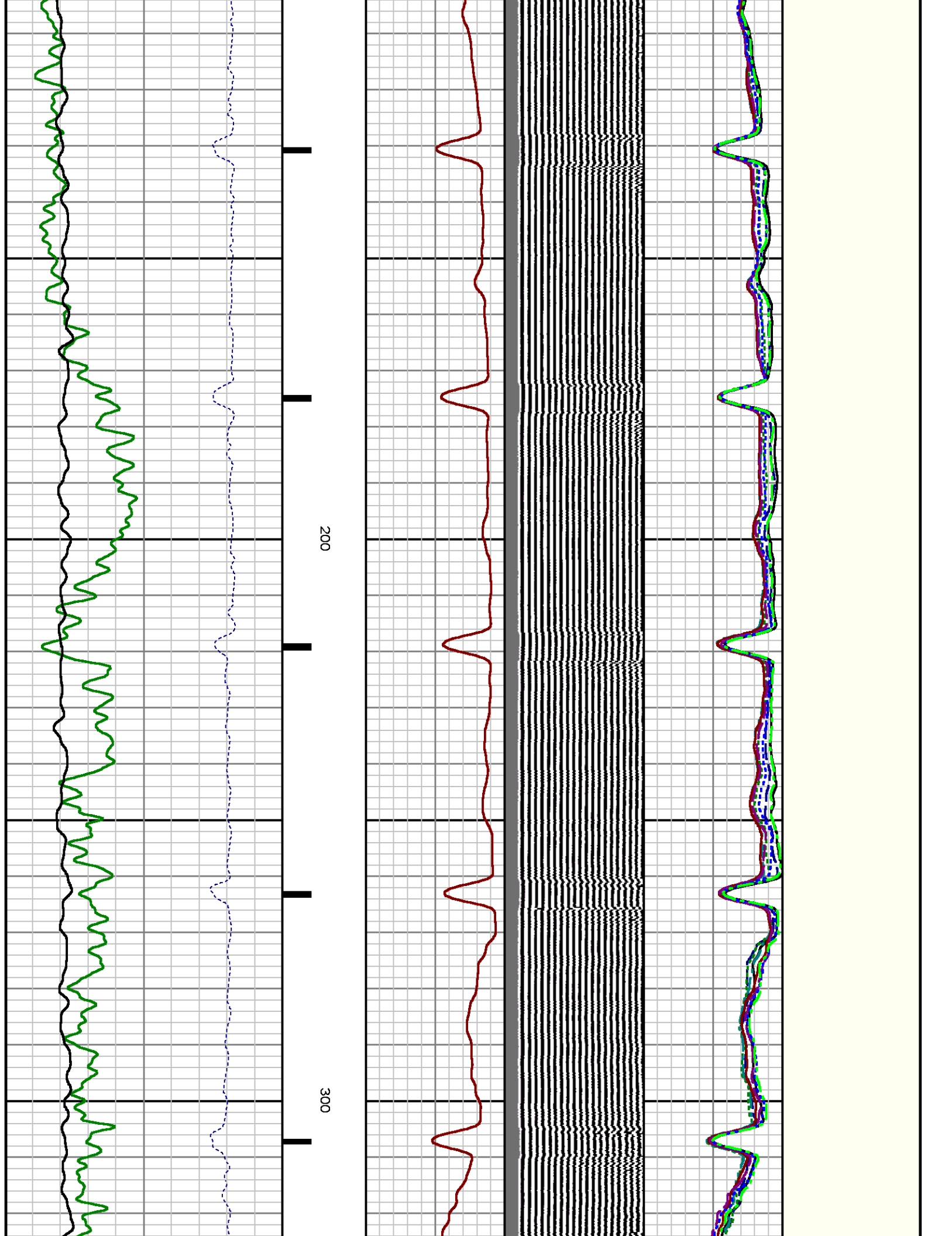
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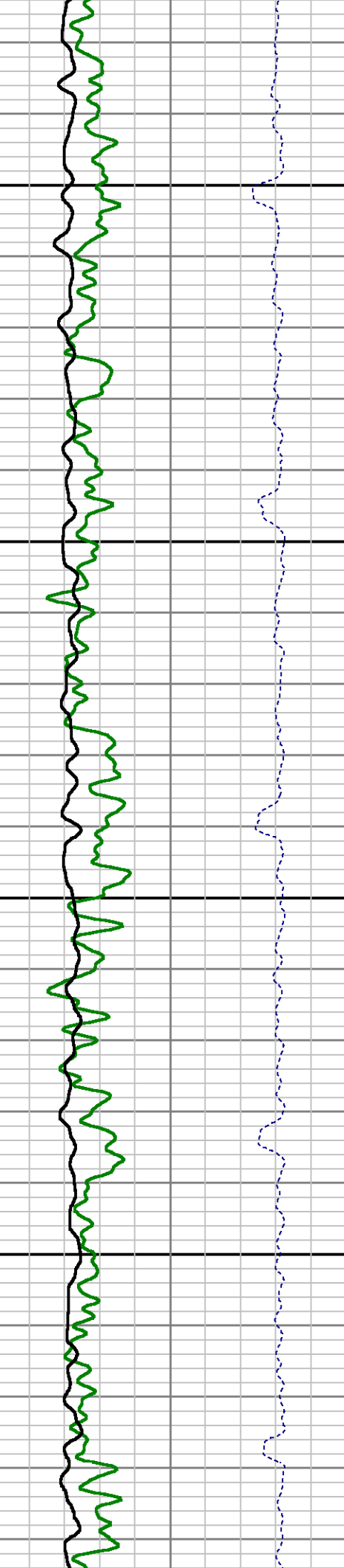
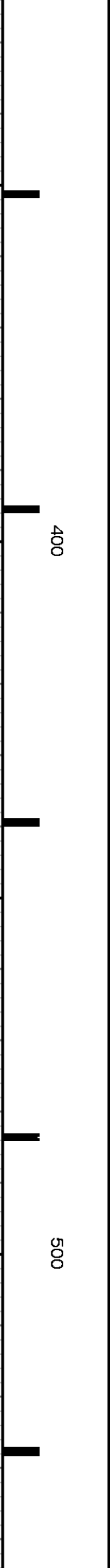
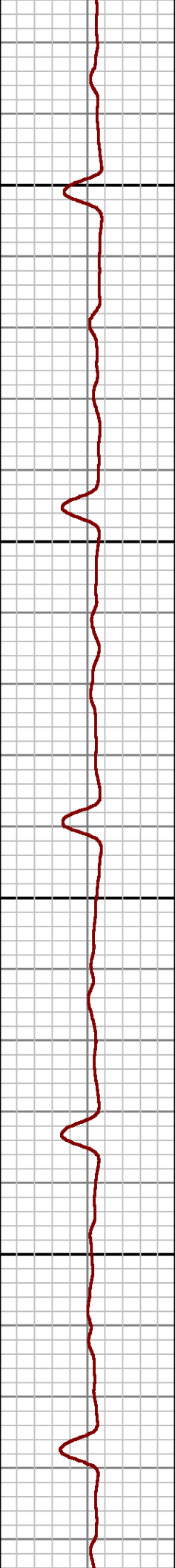
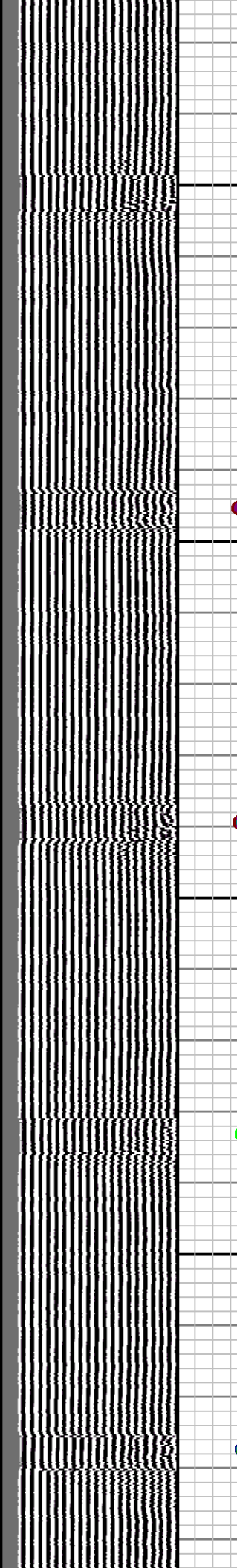
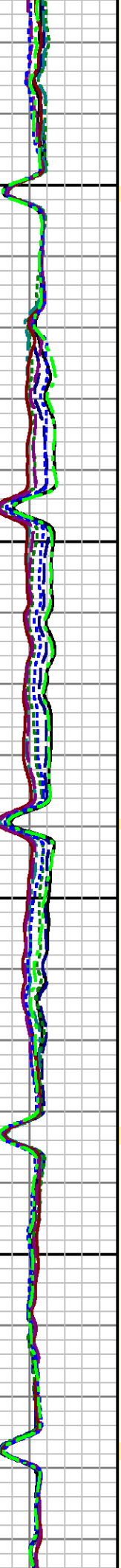
Mode : PlotMgr 5.4.504

Interval : -20.00 - 8694.00 feet UP

Created : 3/24/2014 12:47:02 PM

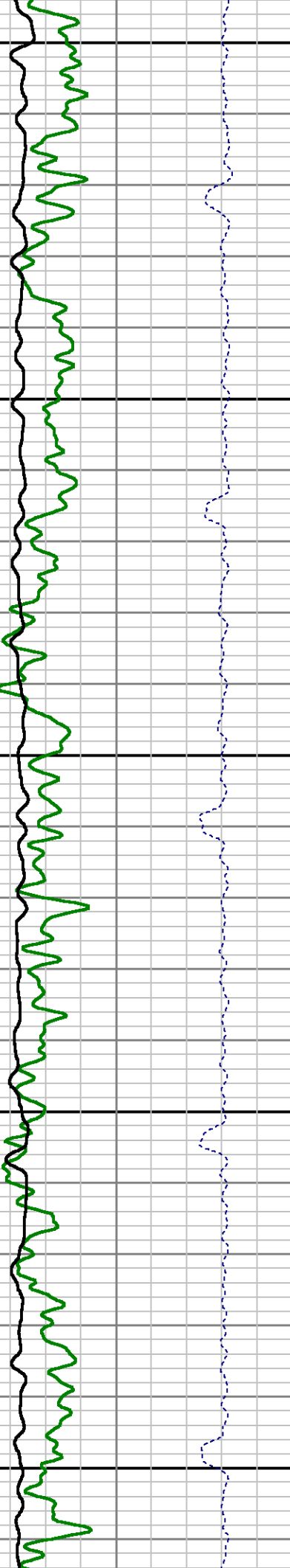
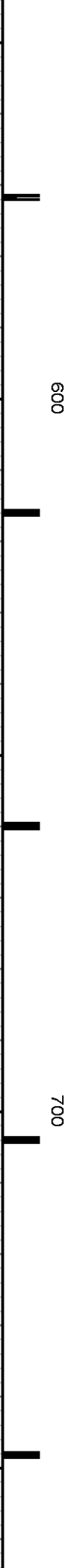
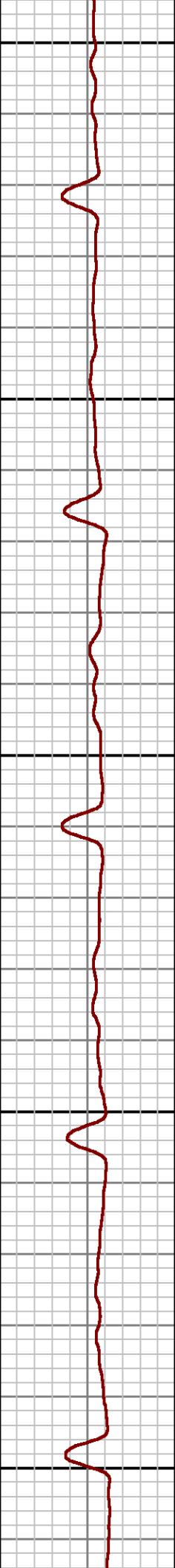
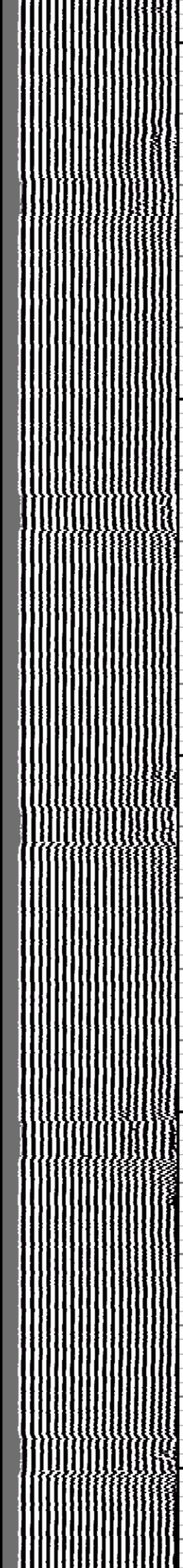
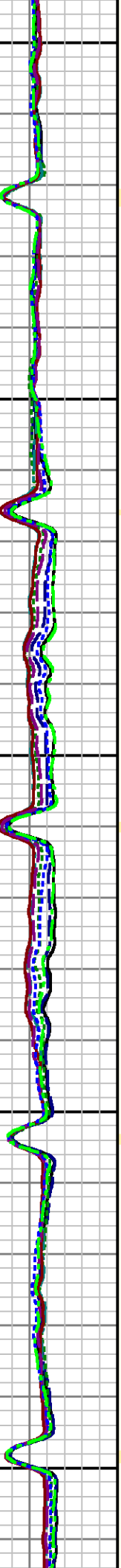


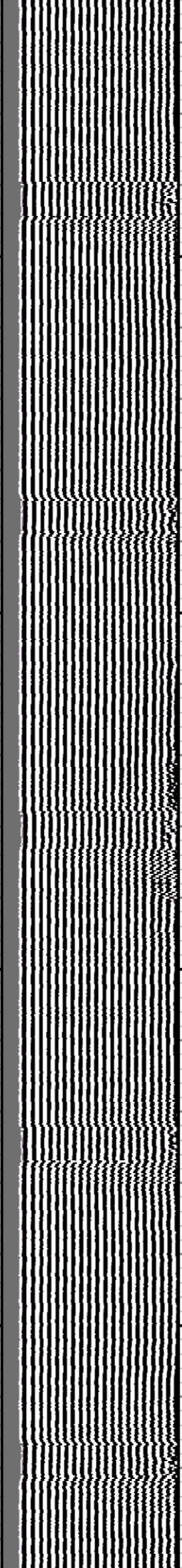
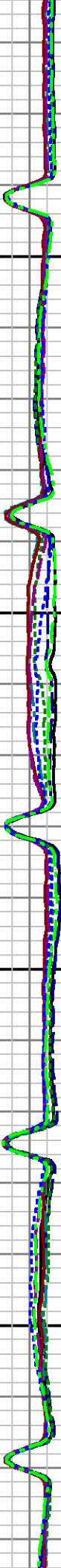
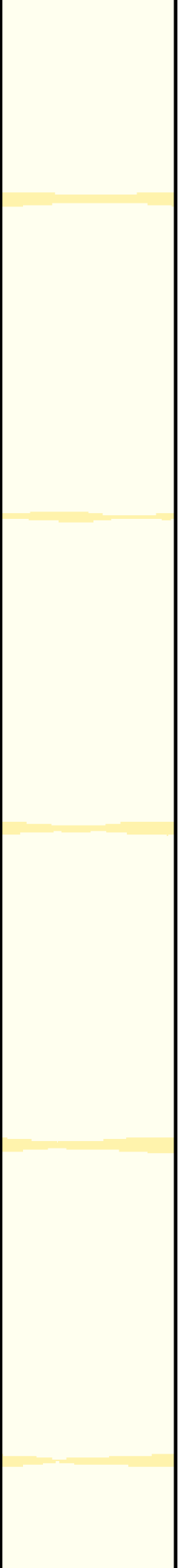




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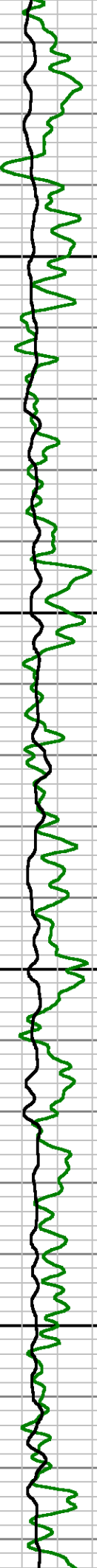
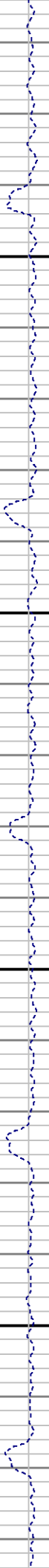
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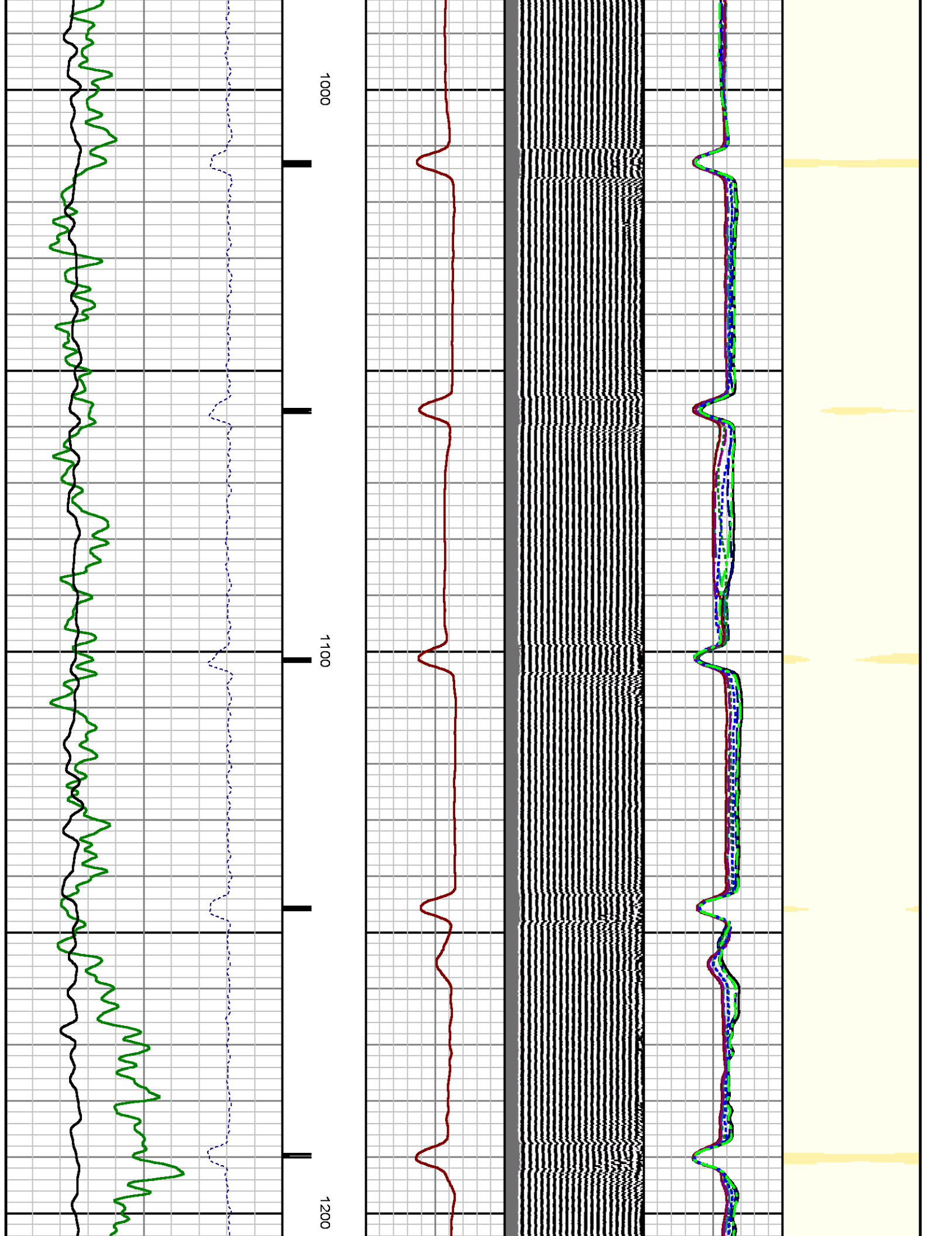


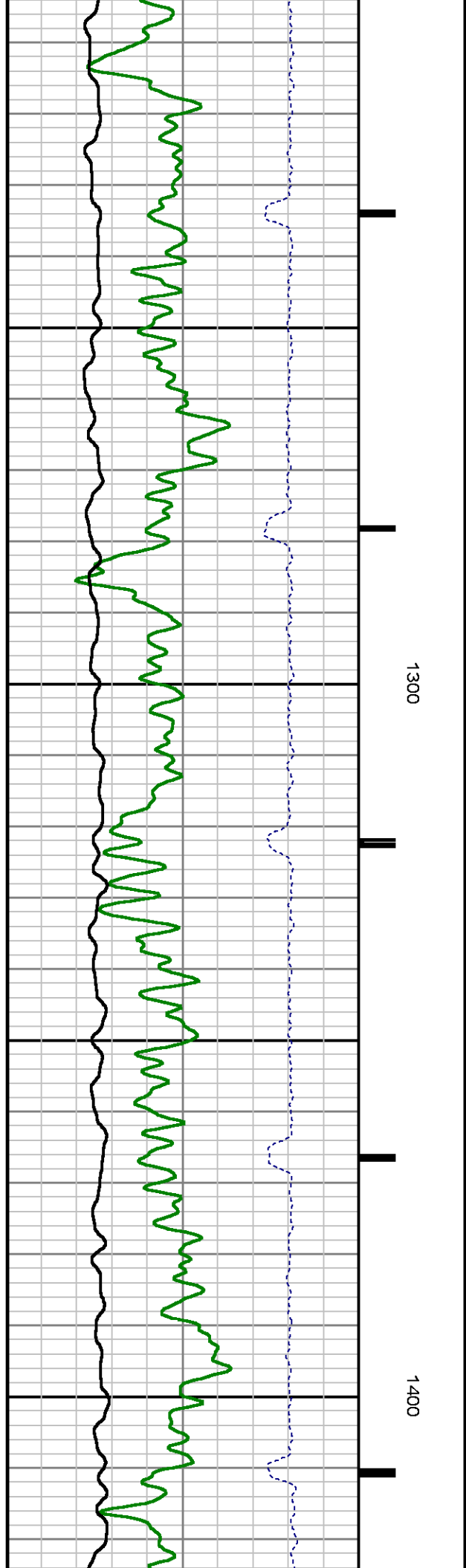
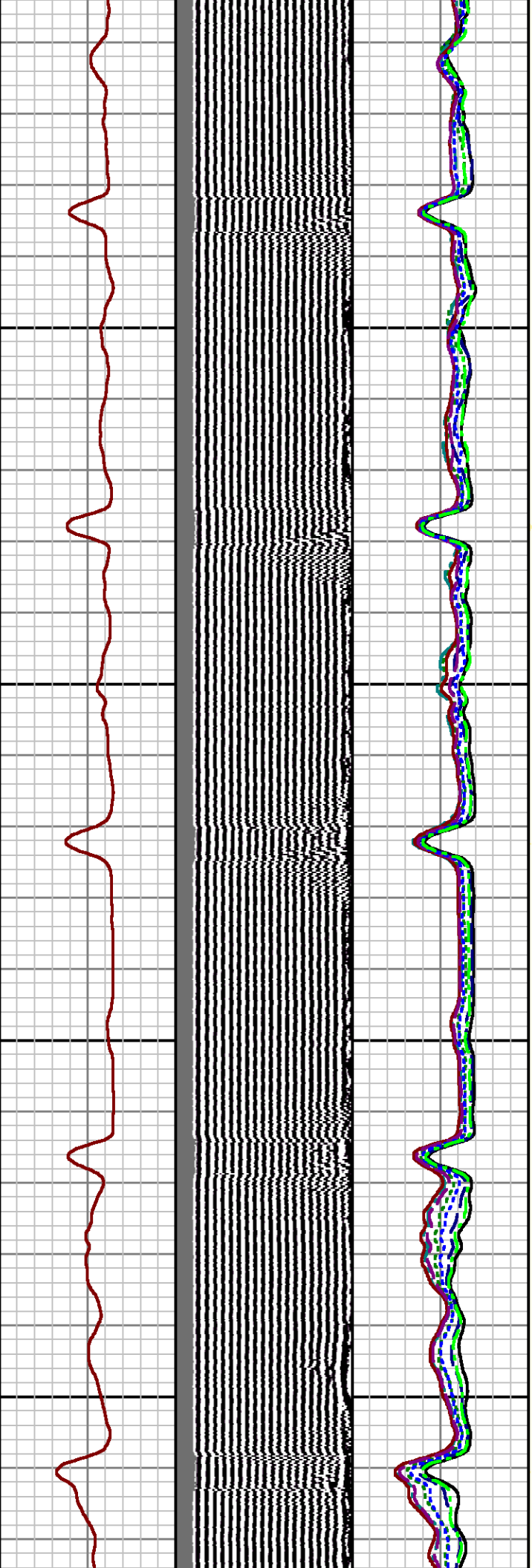
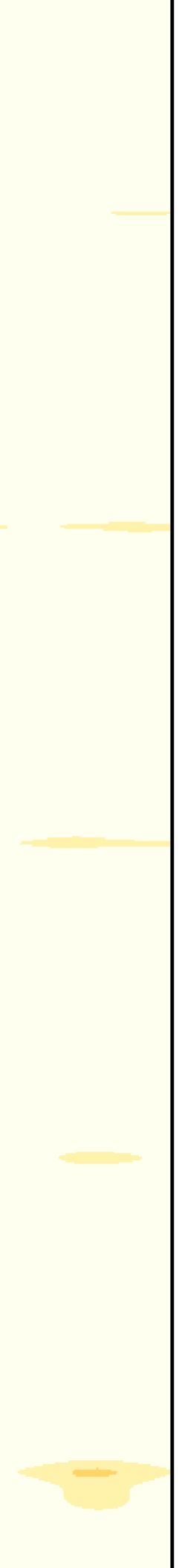


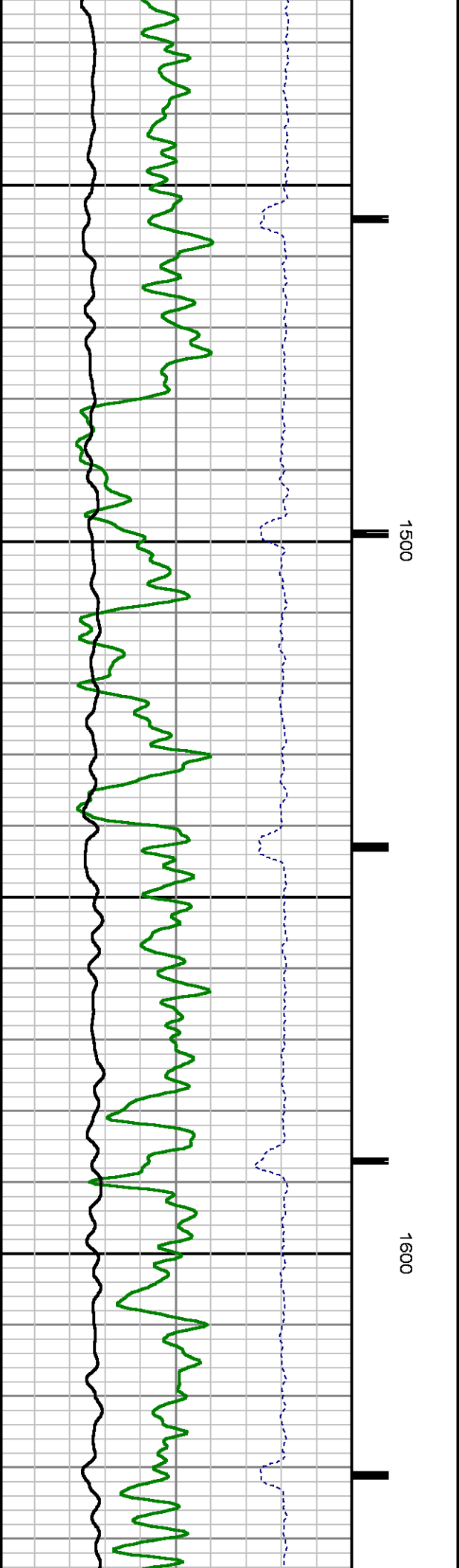
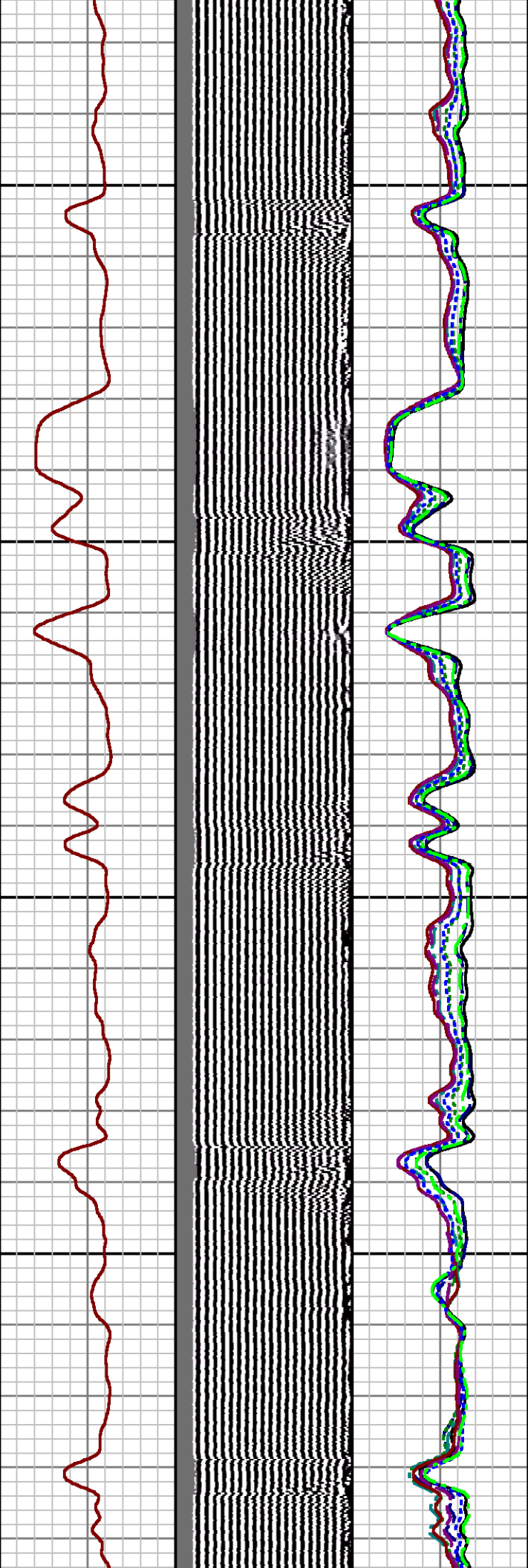
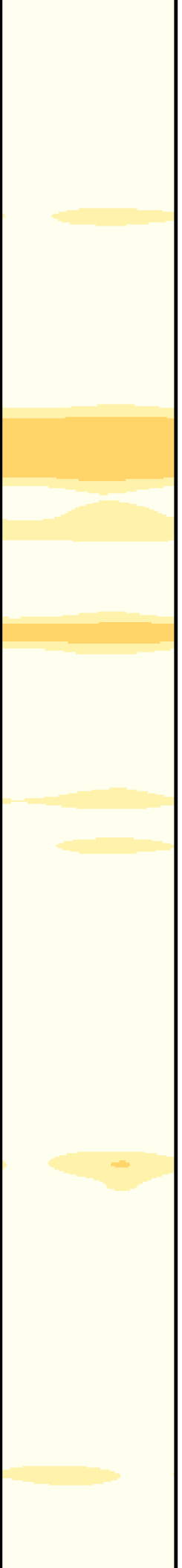
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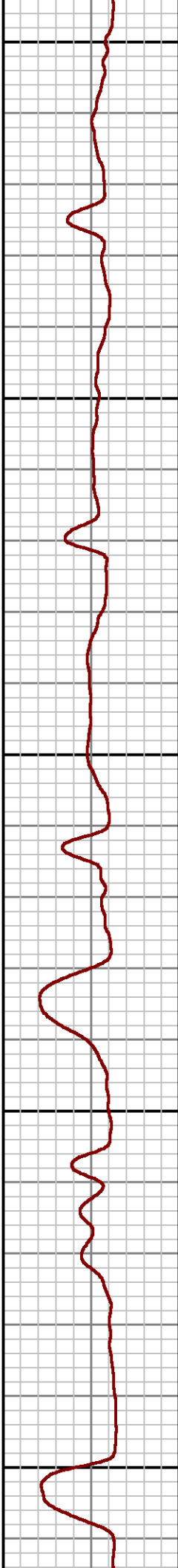
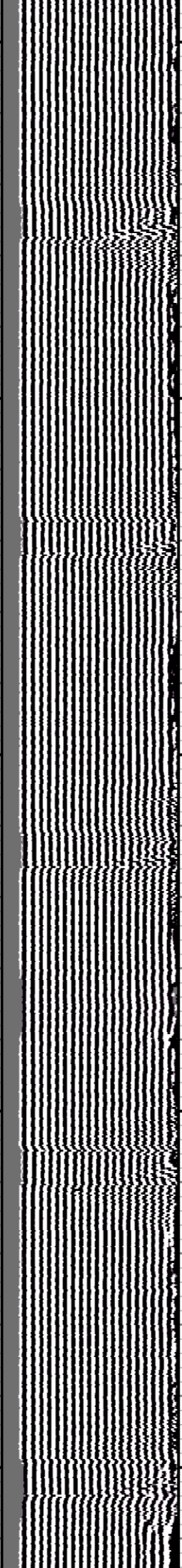
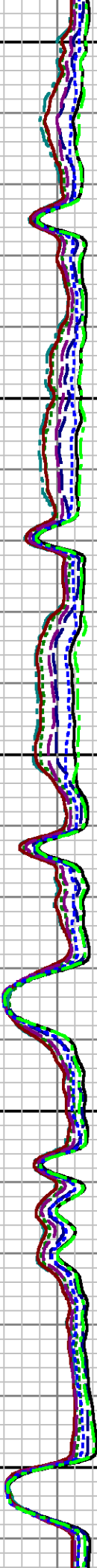
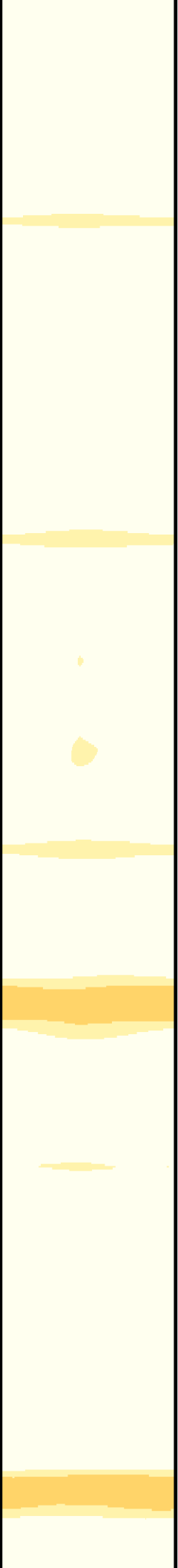
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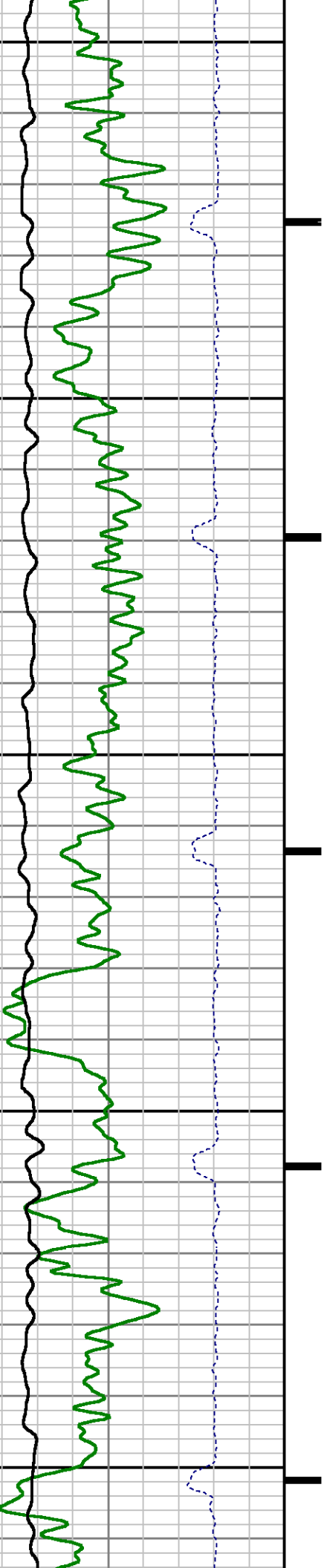


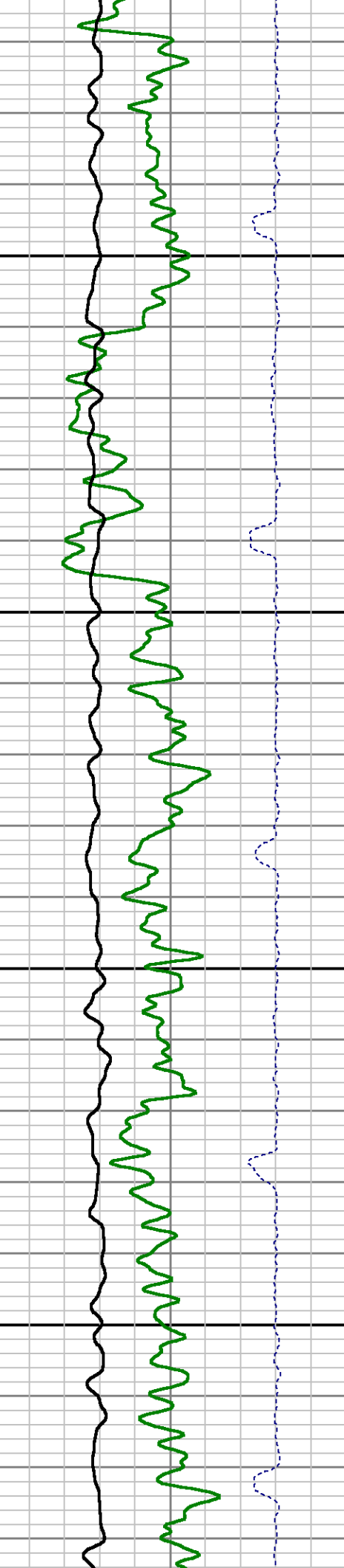
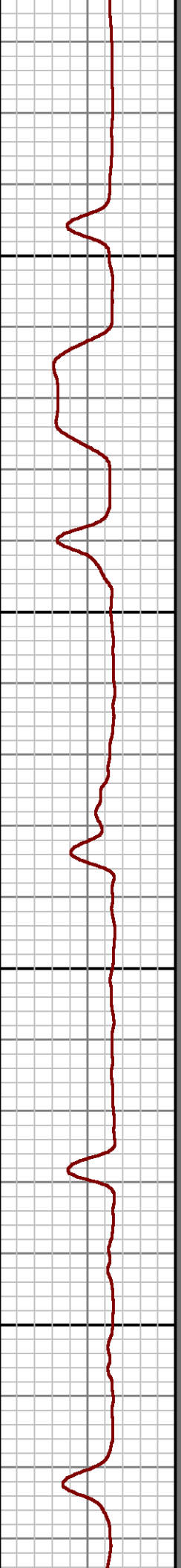
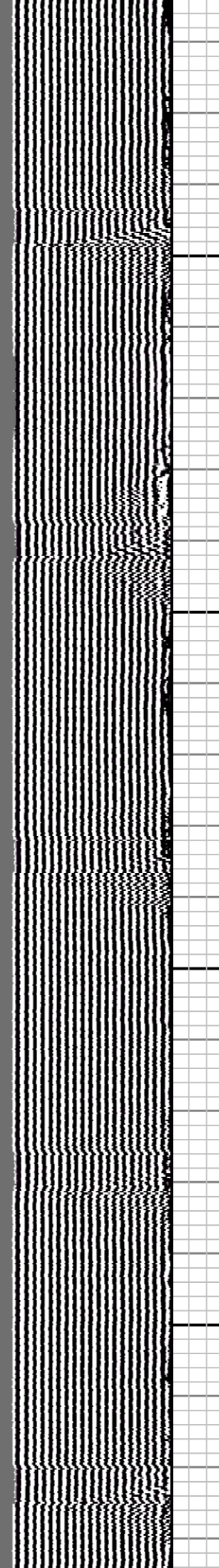
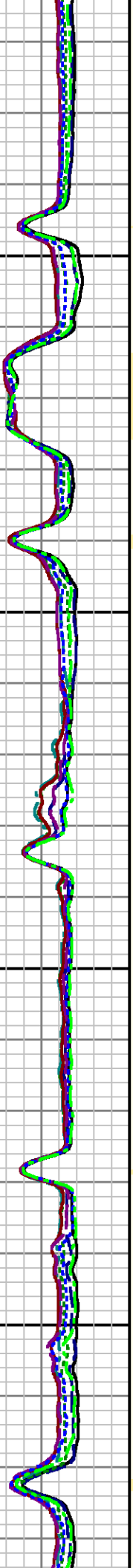




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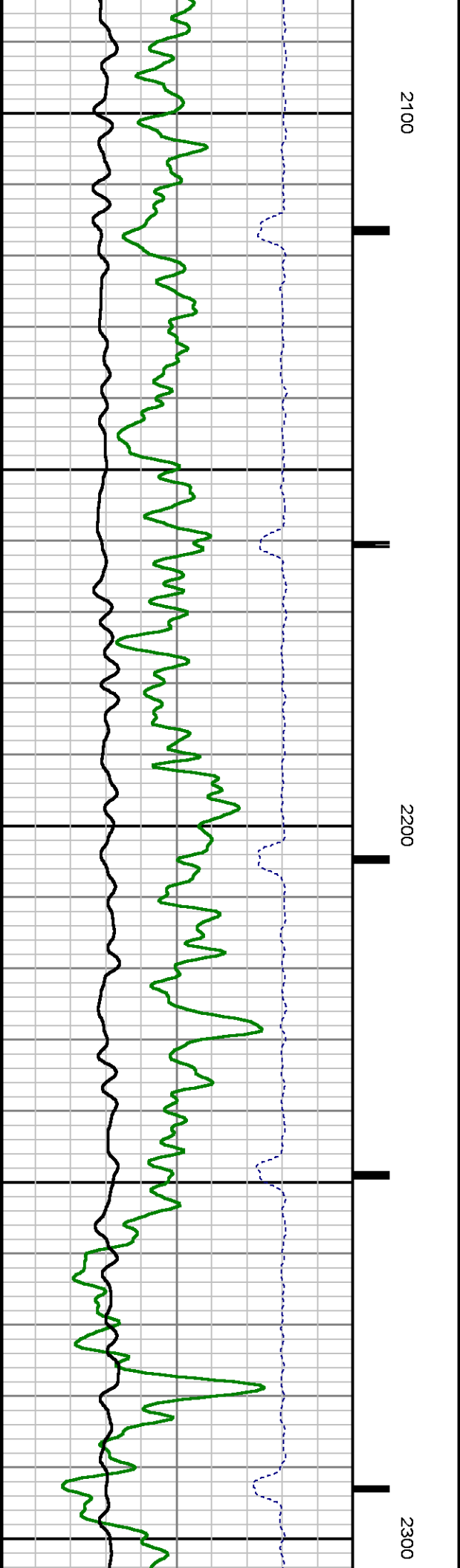
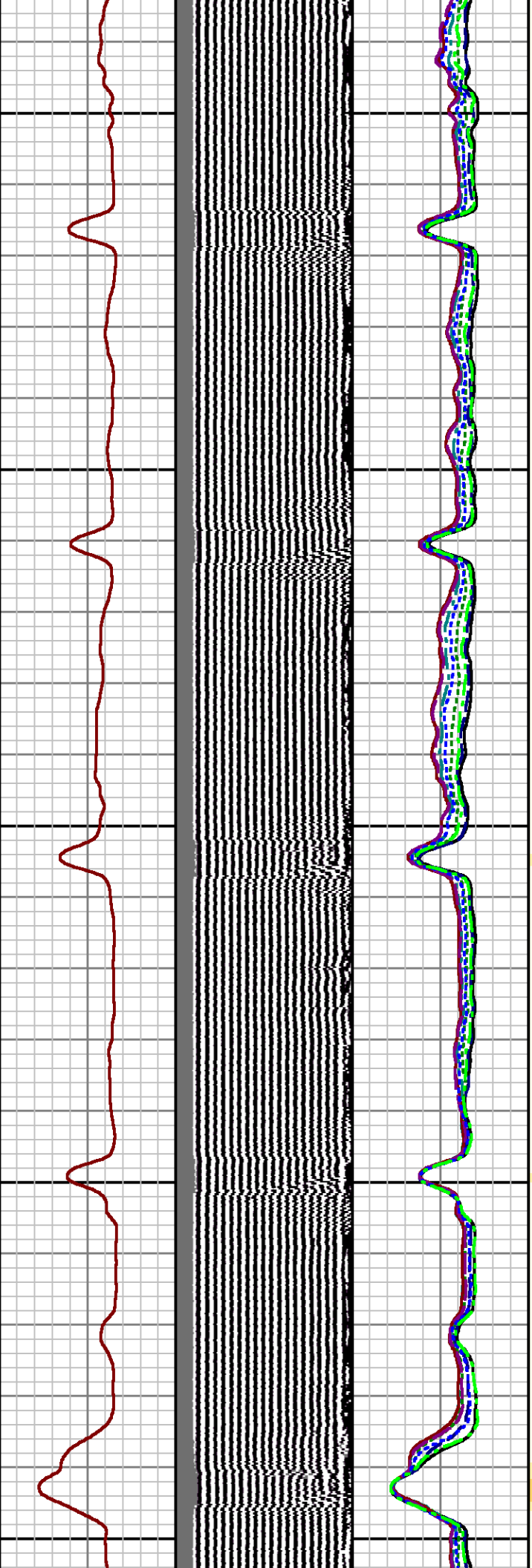
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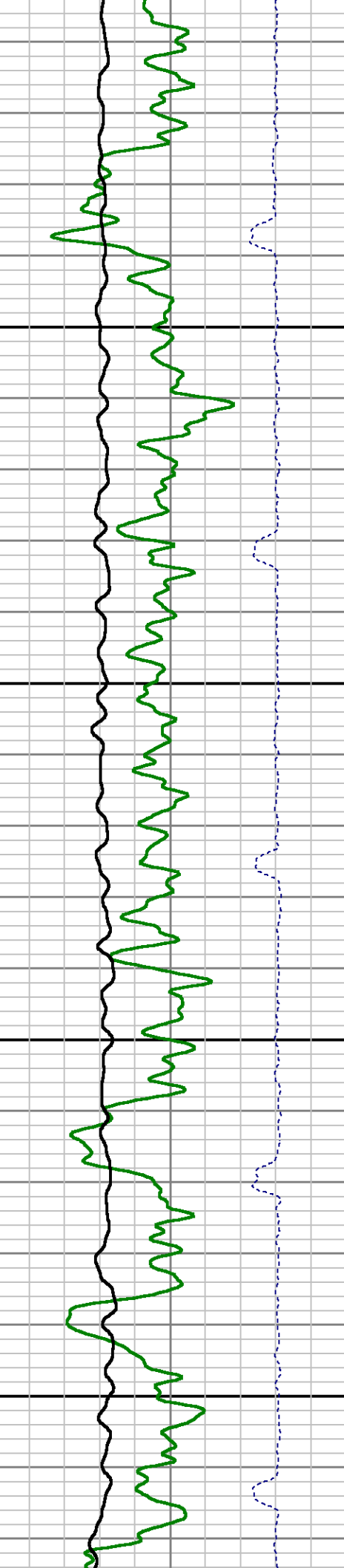
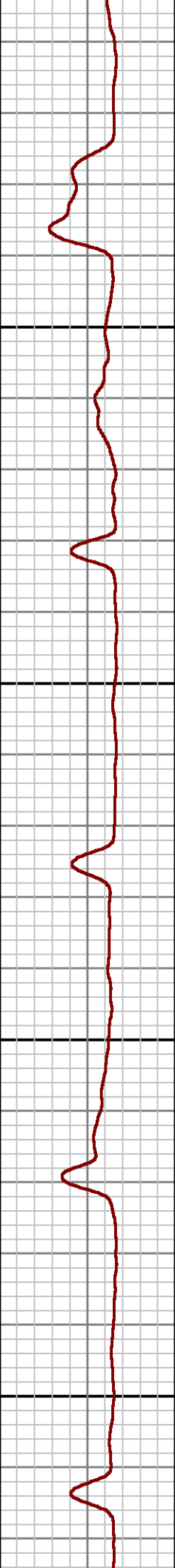
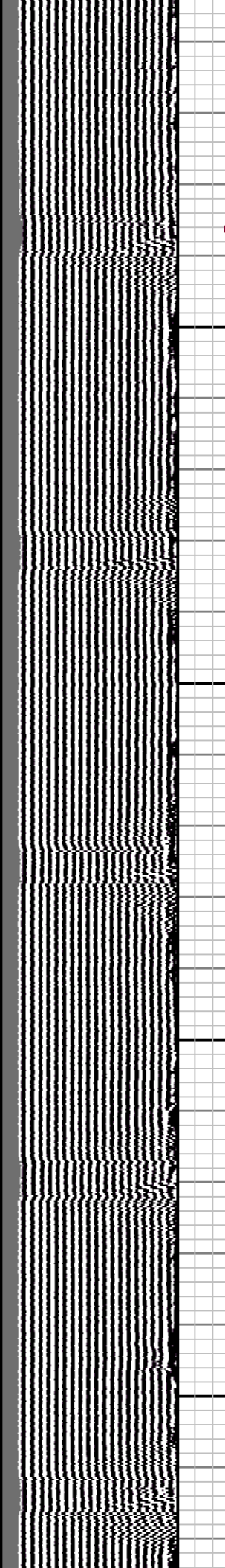
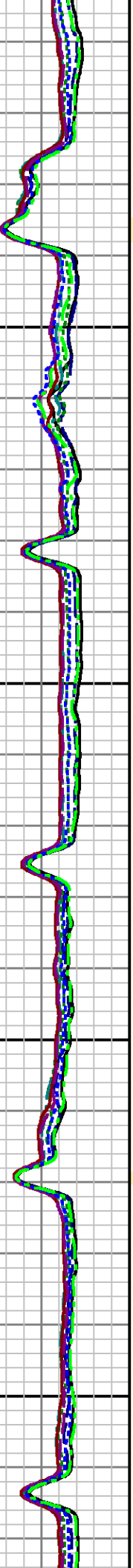
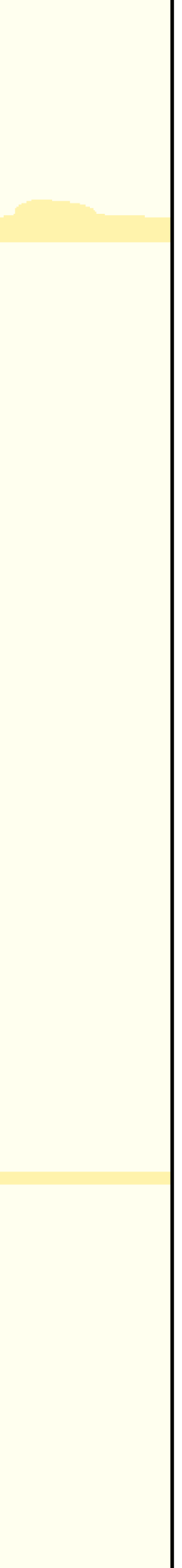


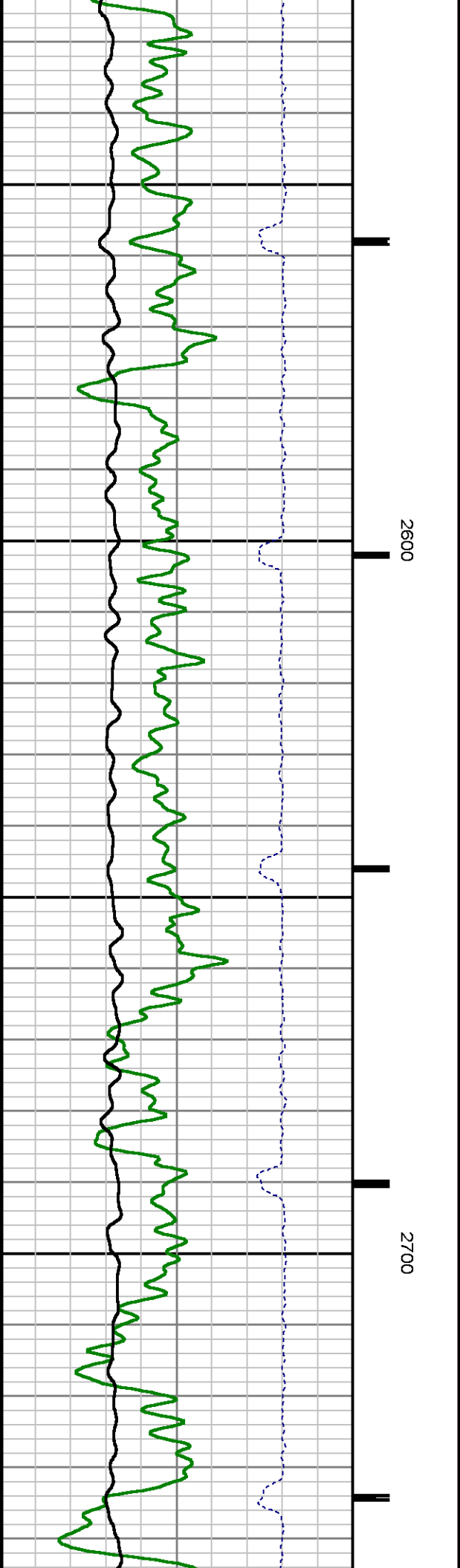
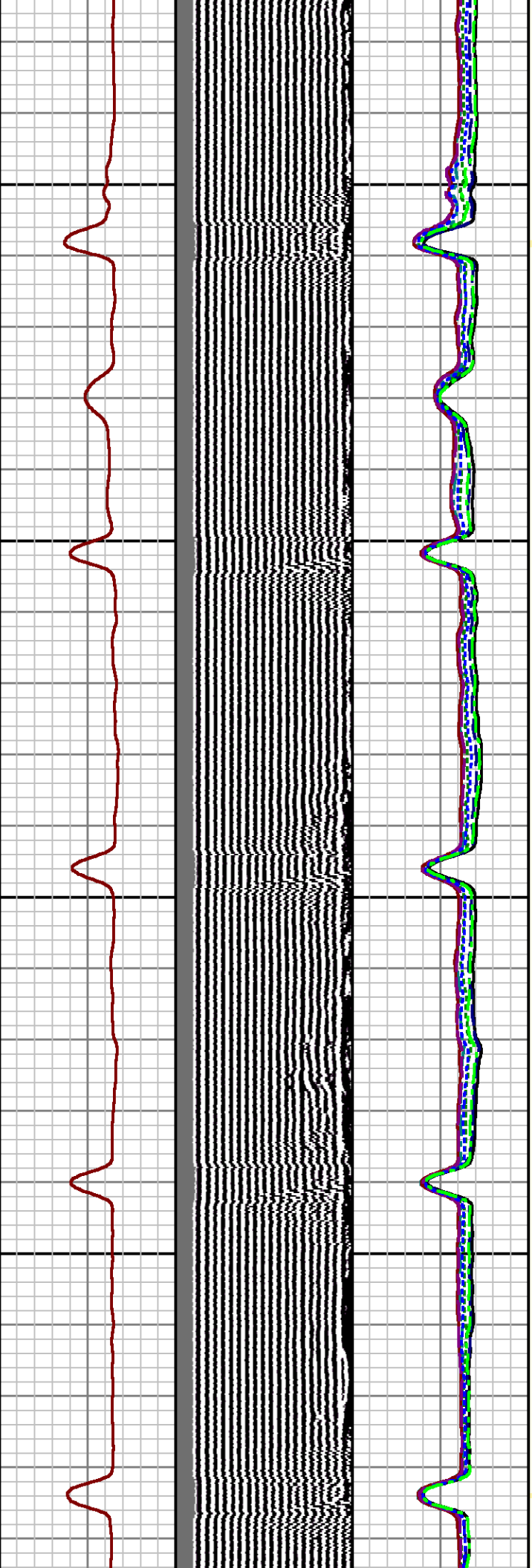


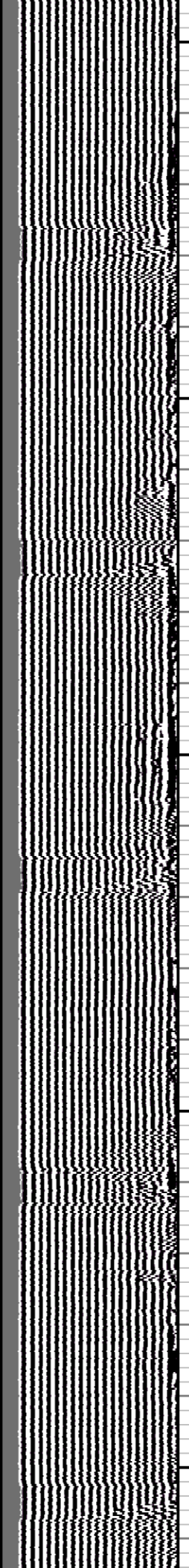
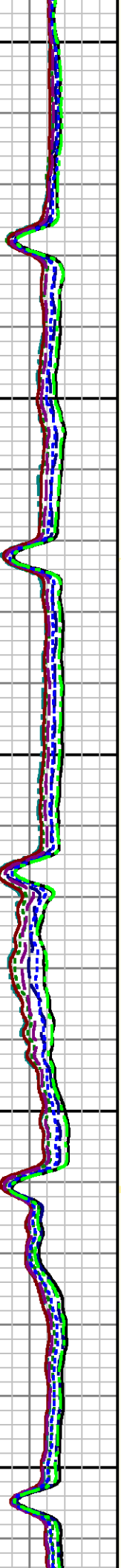
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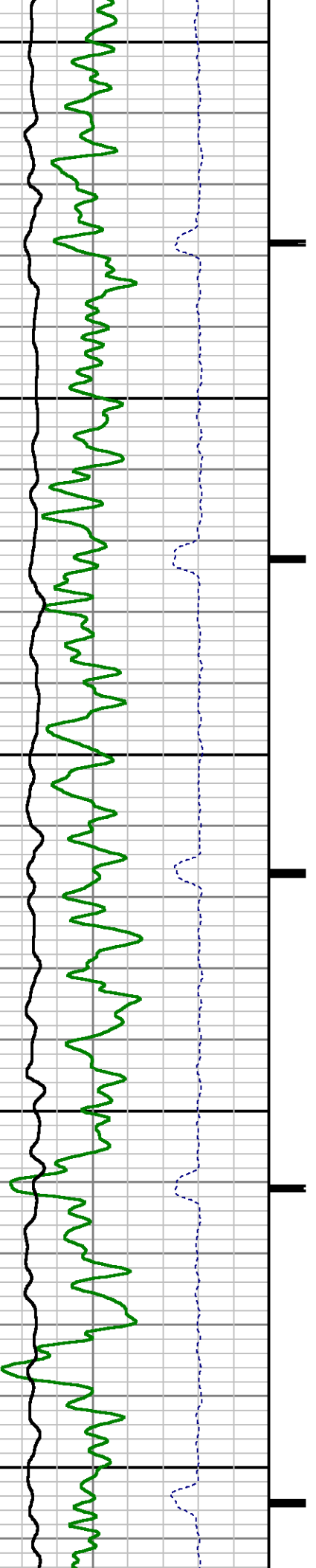


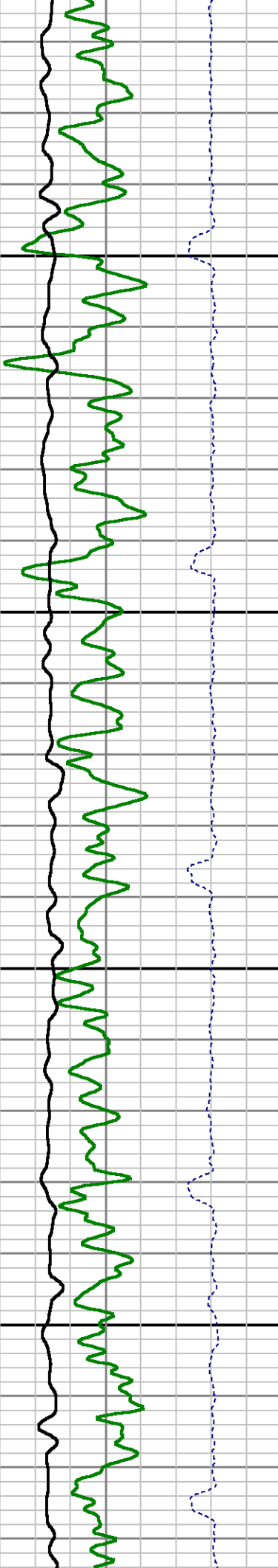
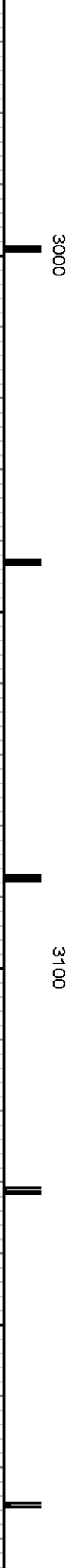
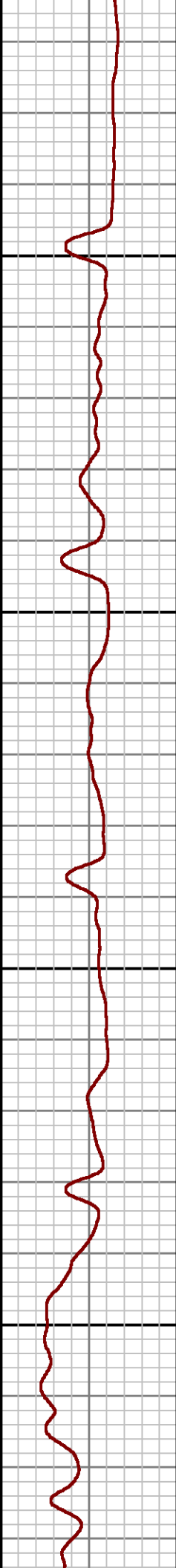
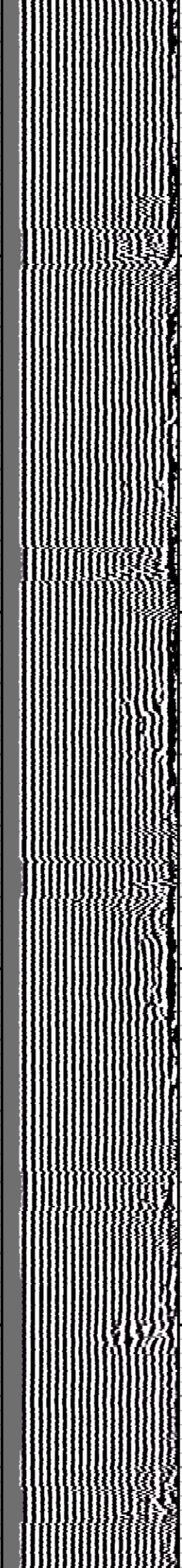
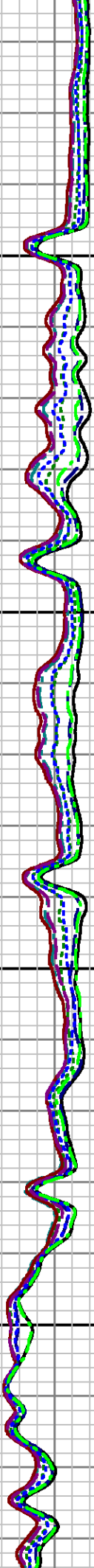
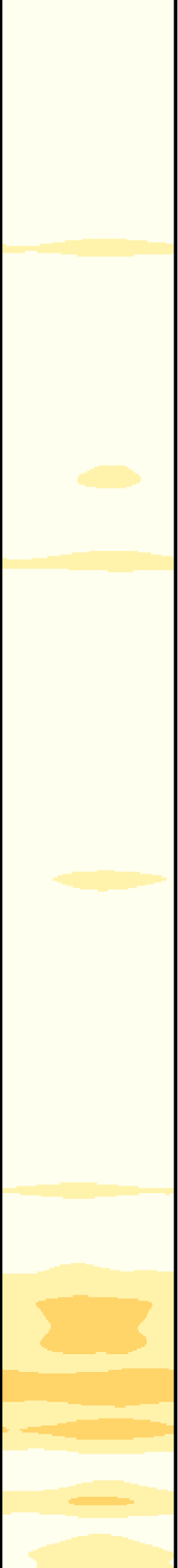


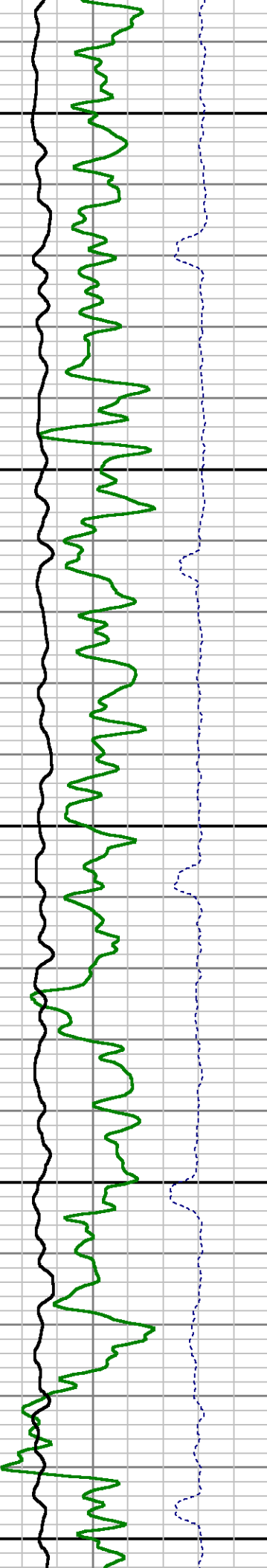
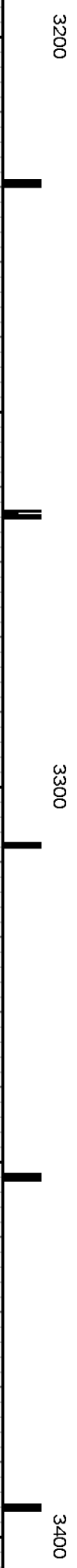
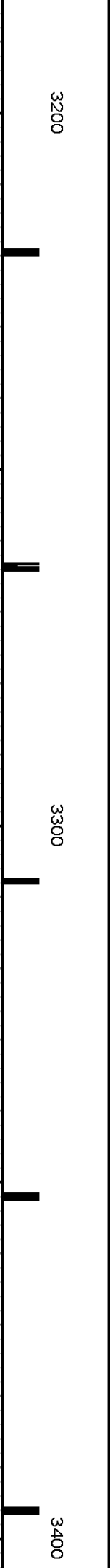
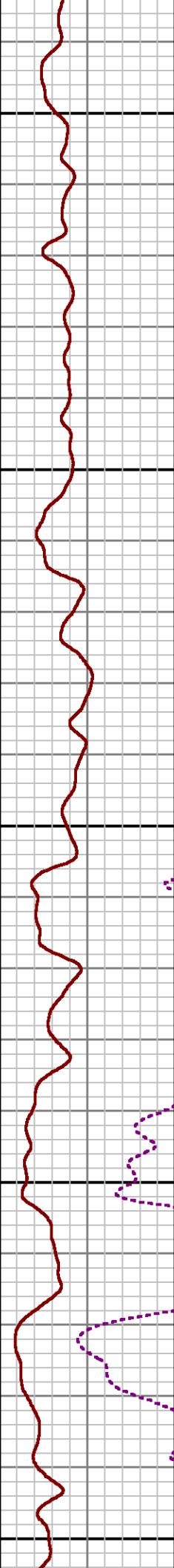
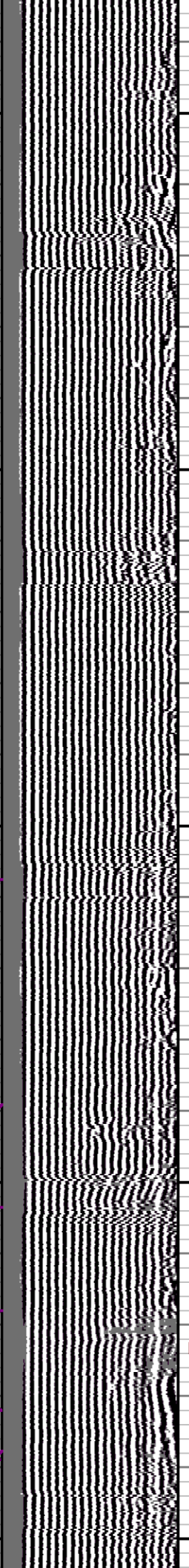
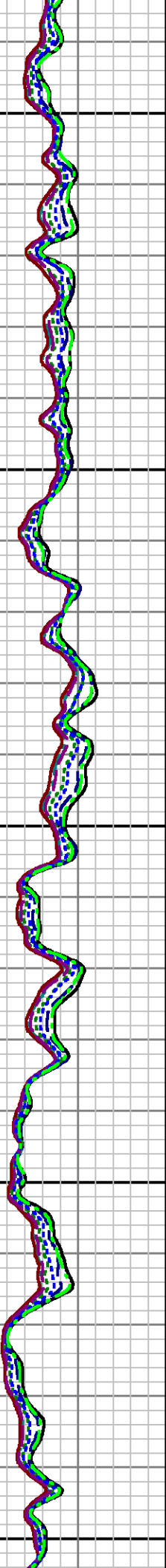
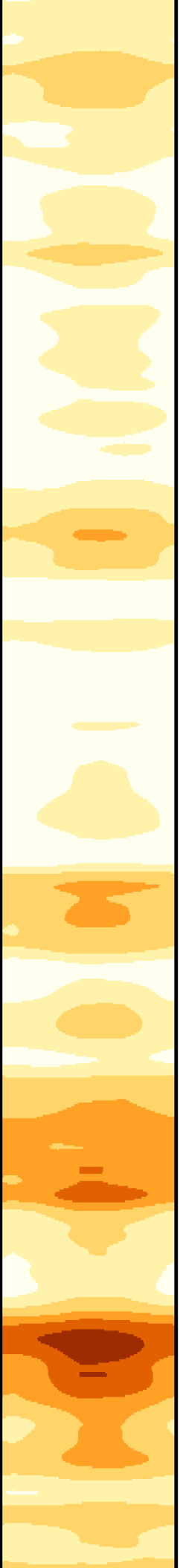


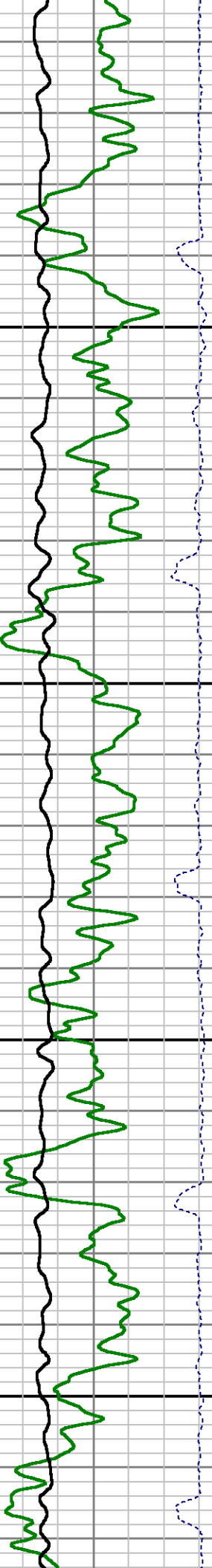
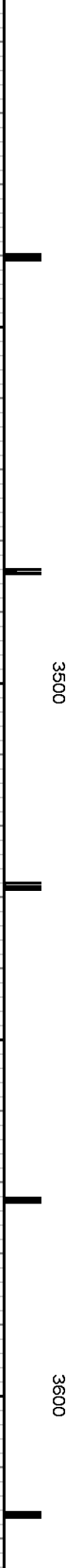
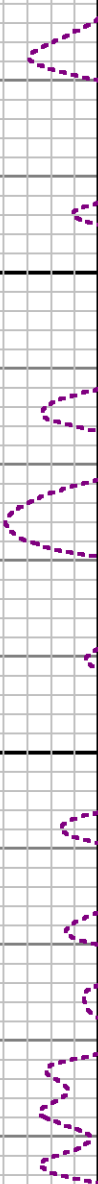
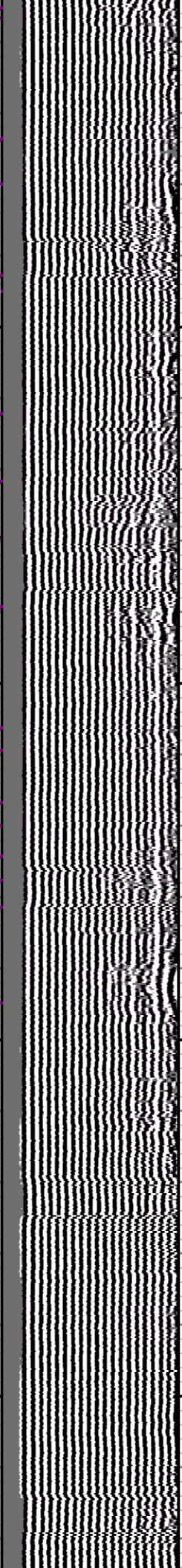
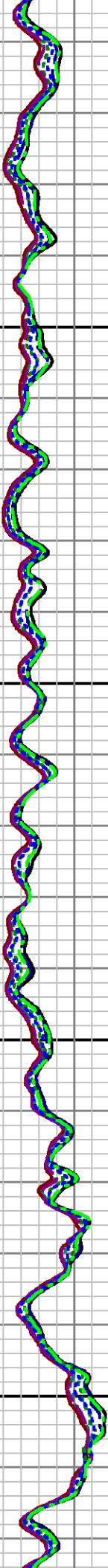
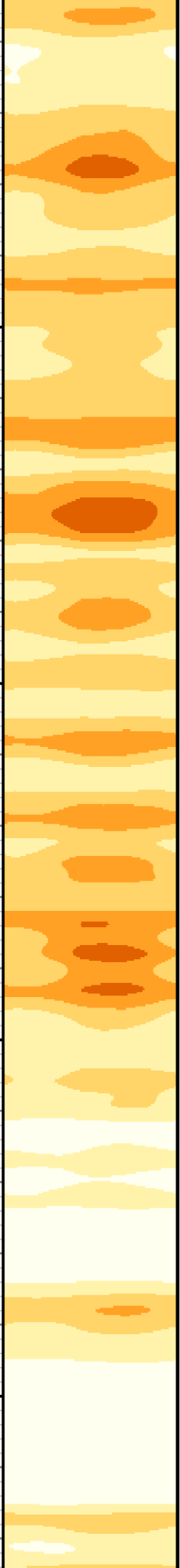
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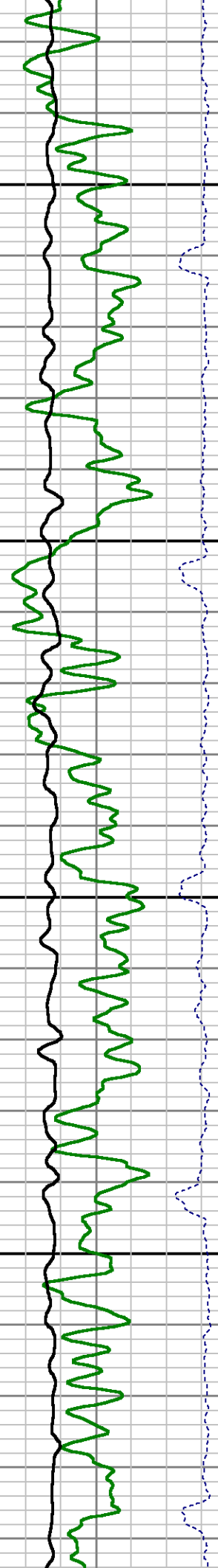
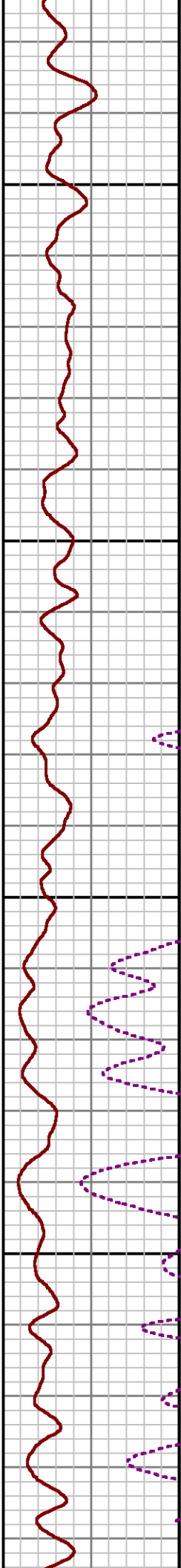
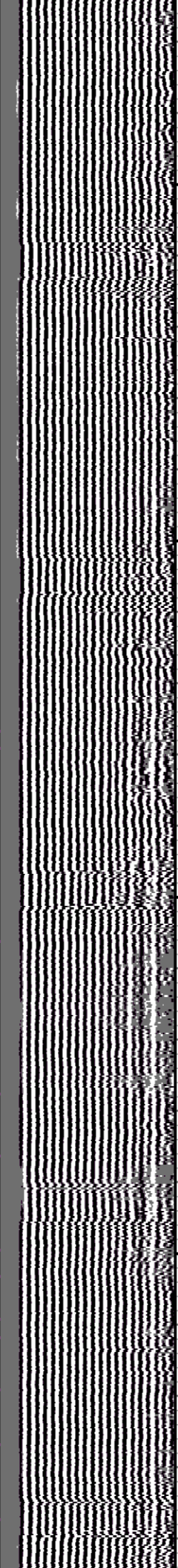
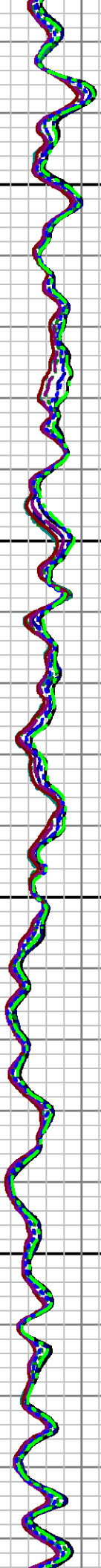
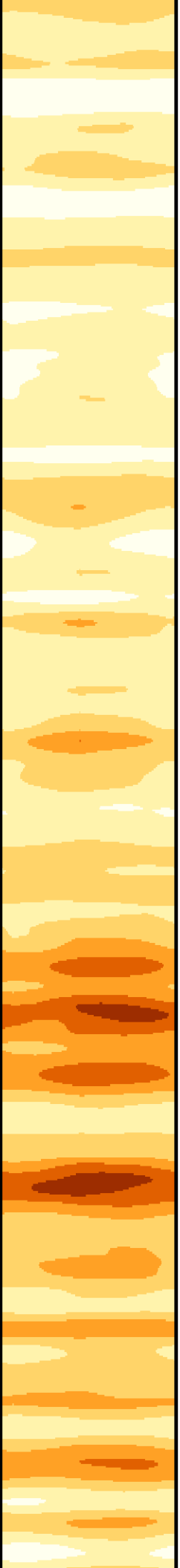
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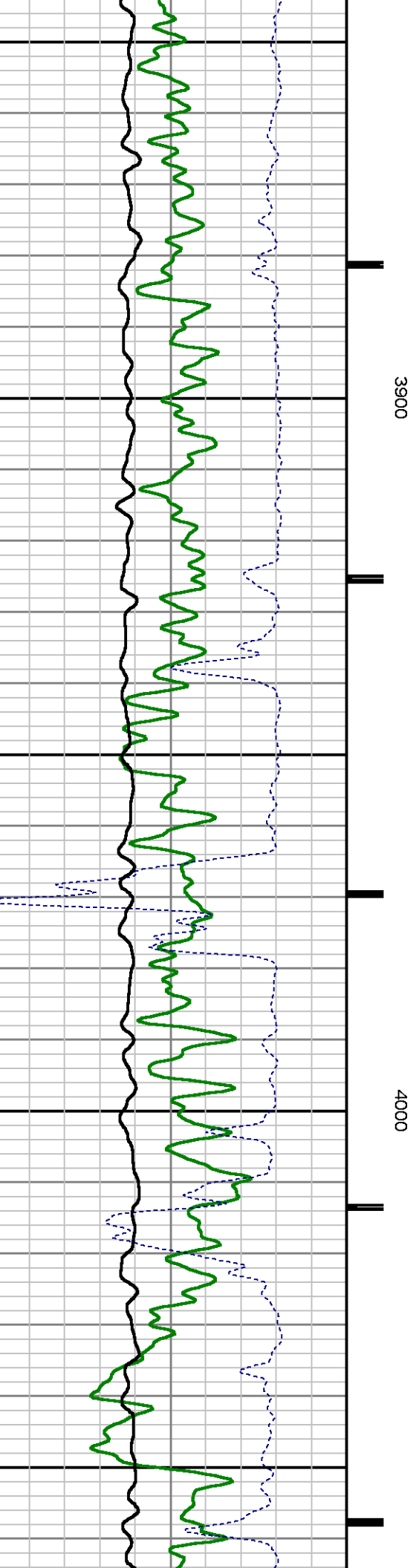
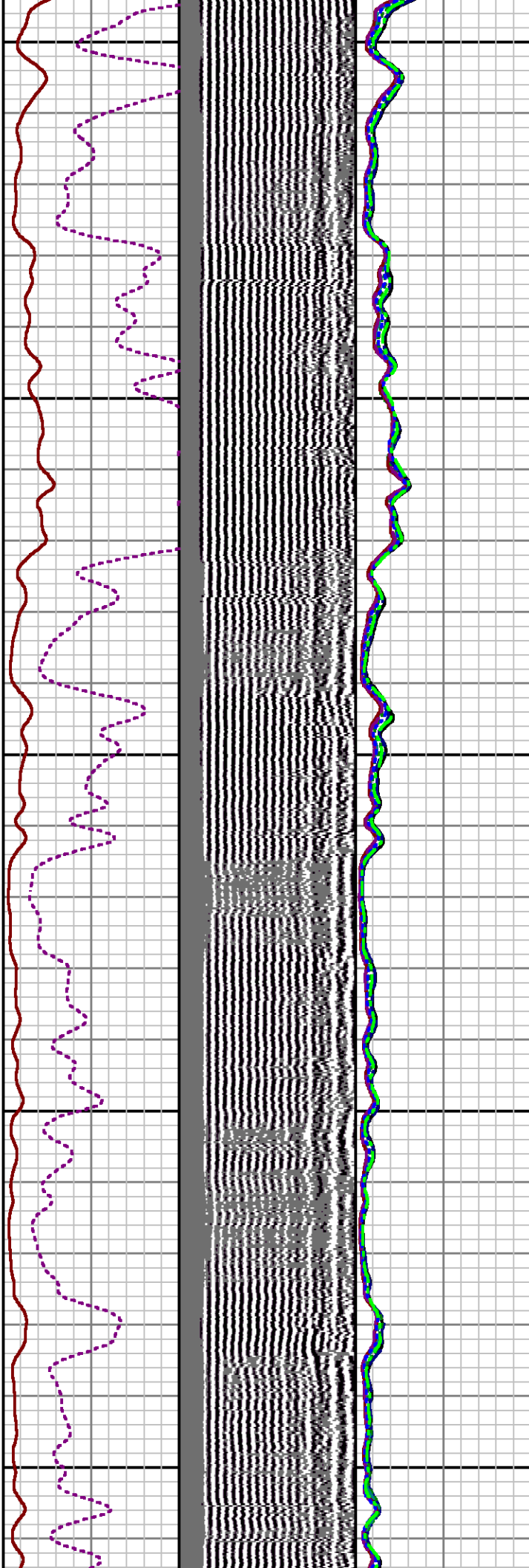


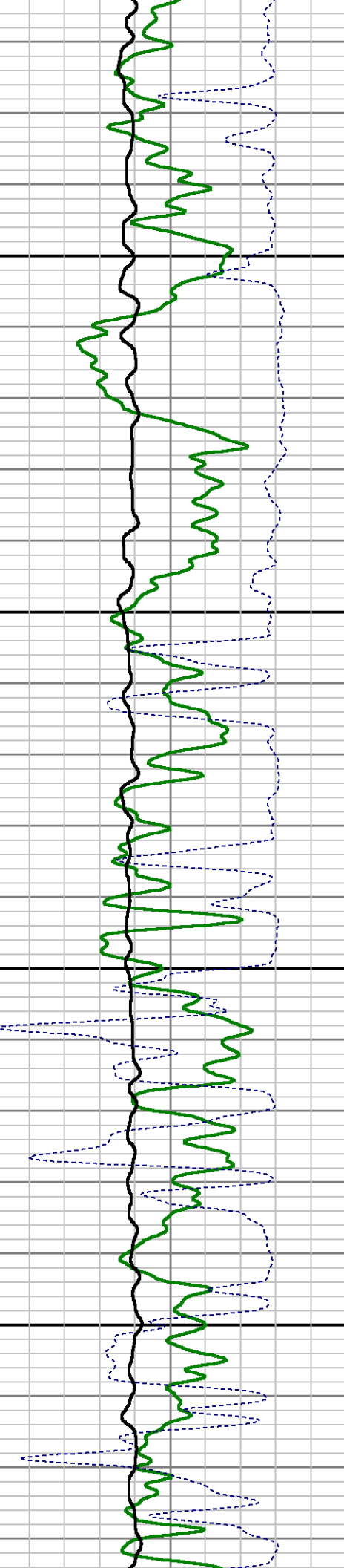
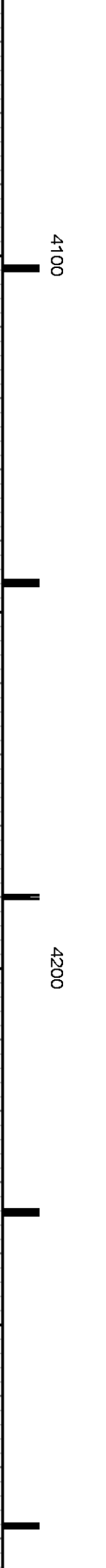
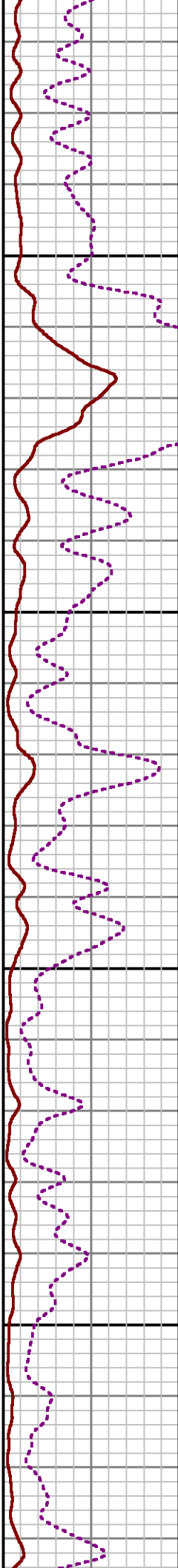
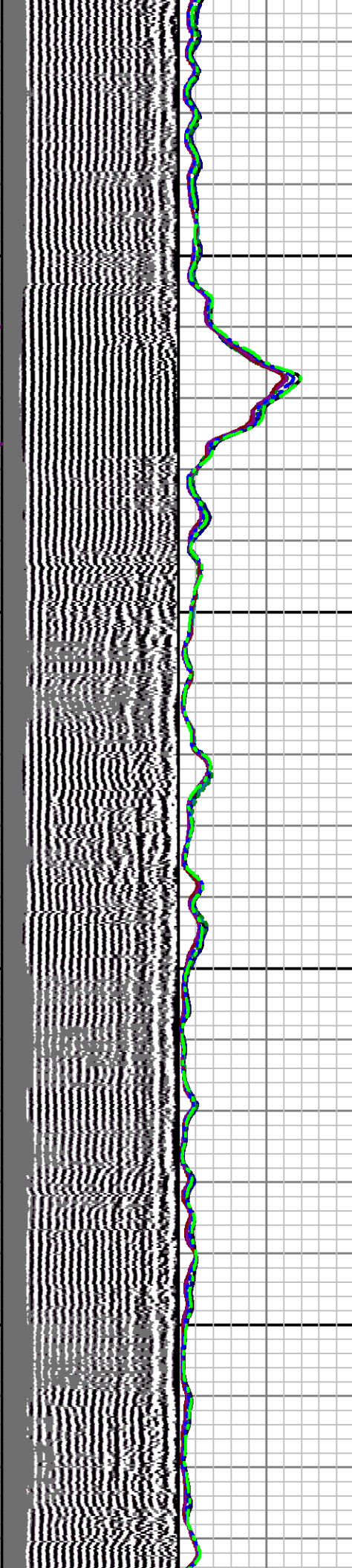


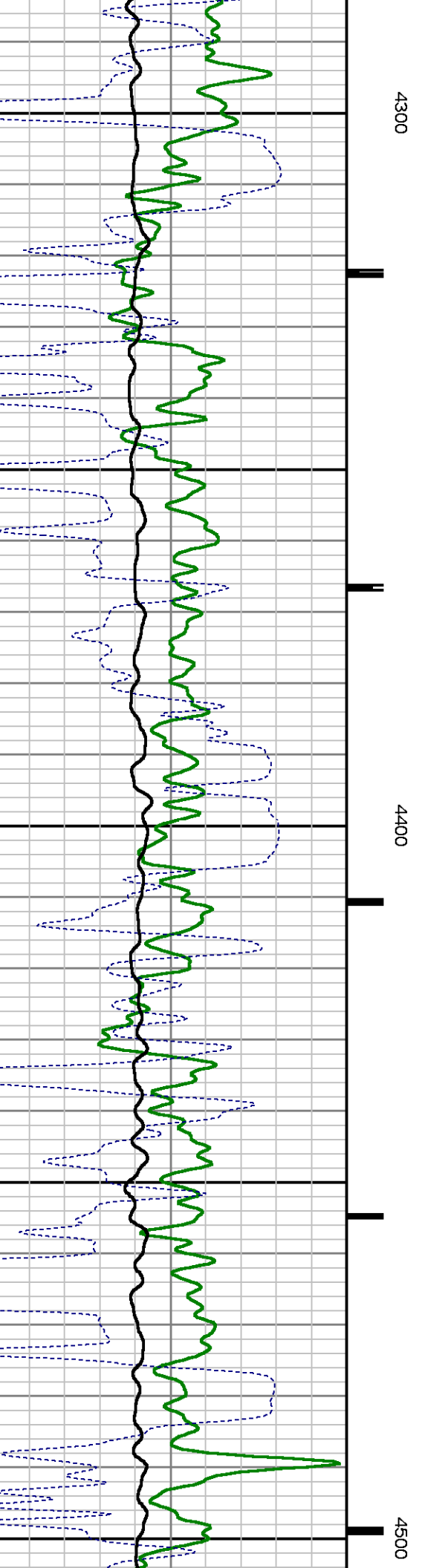
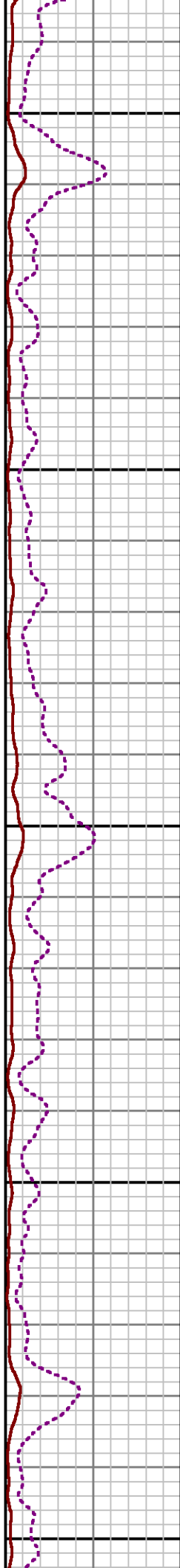
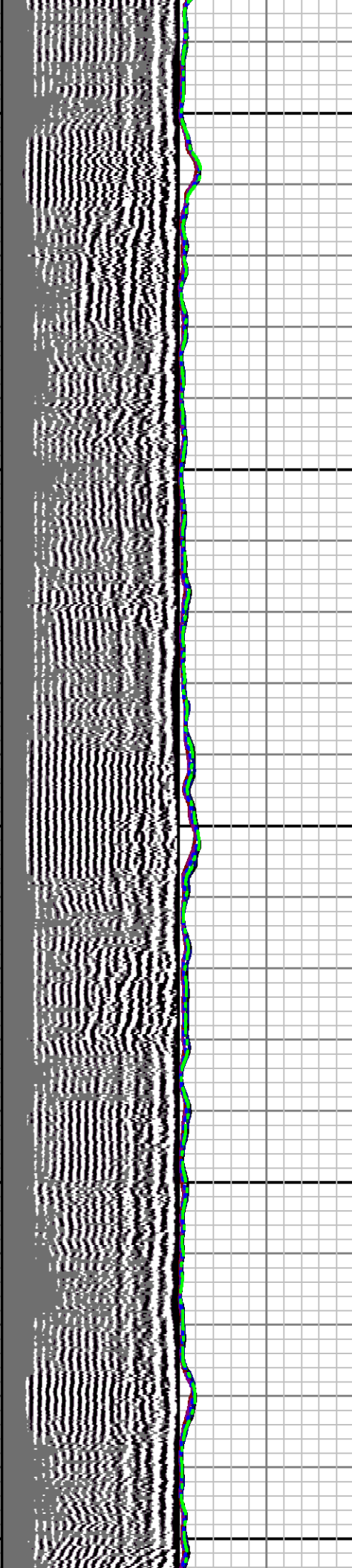


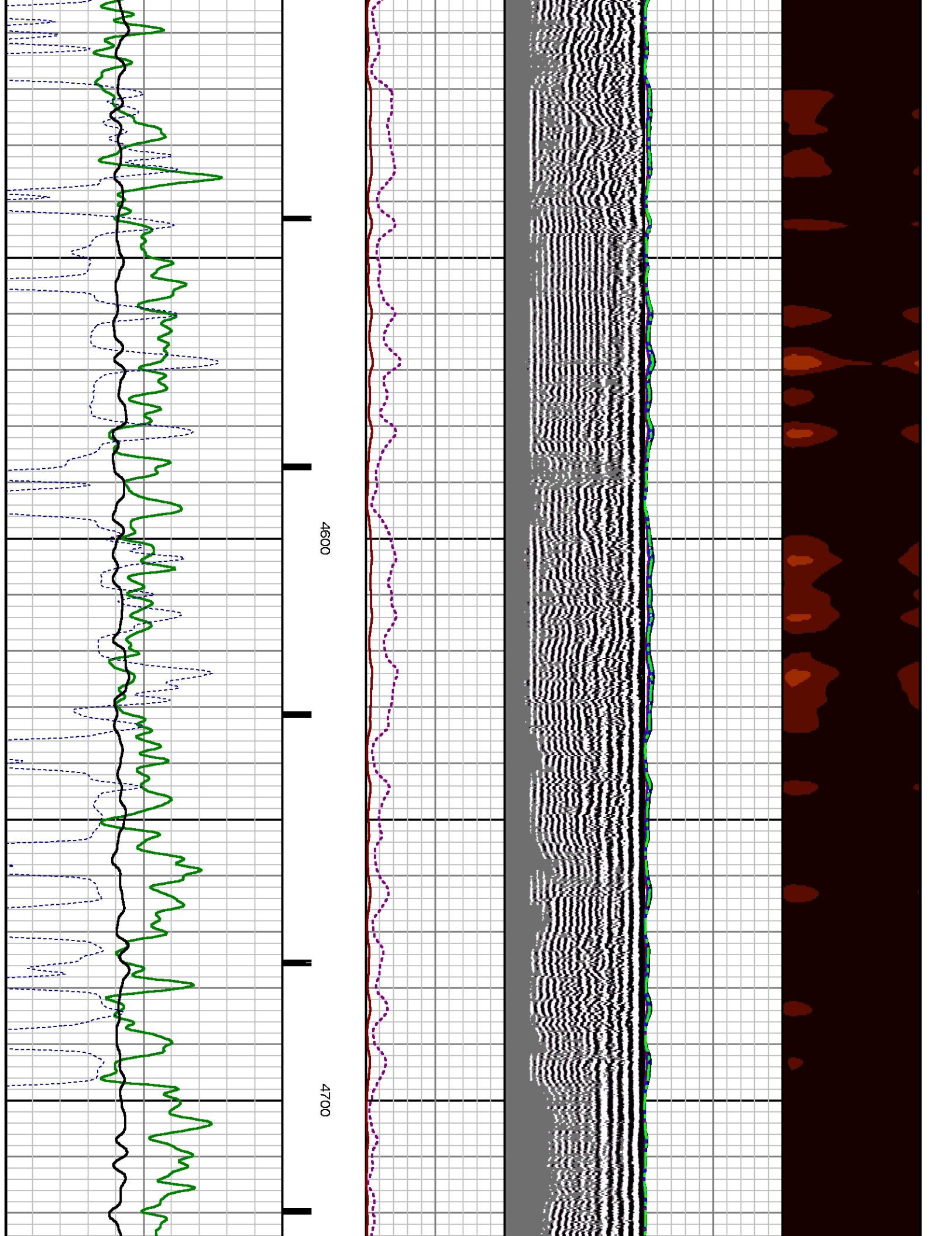
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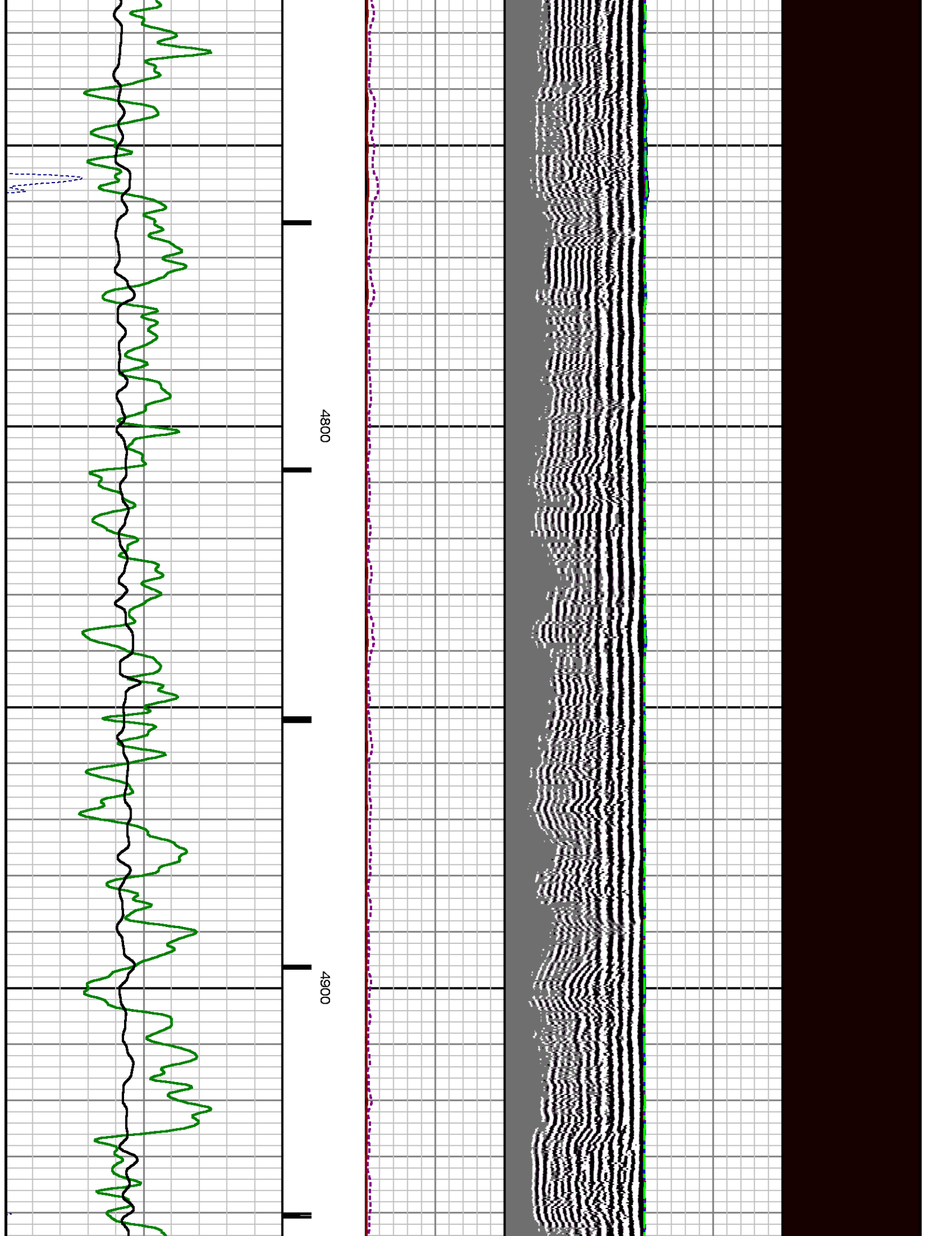
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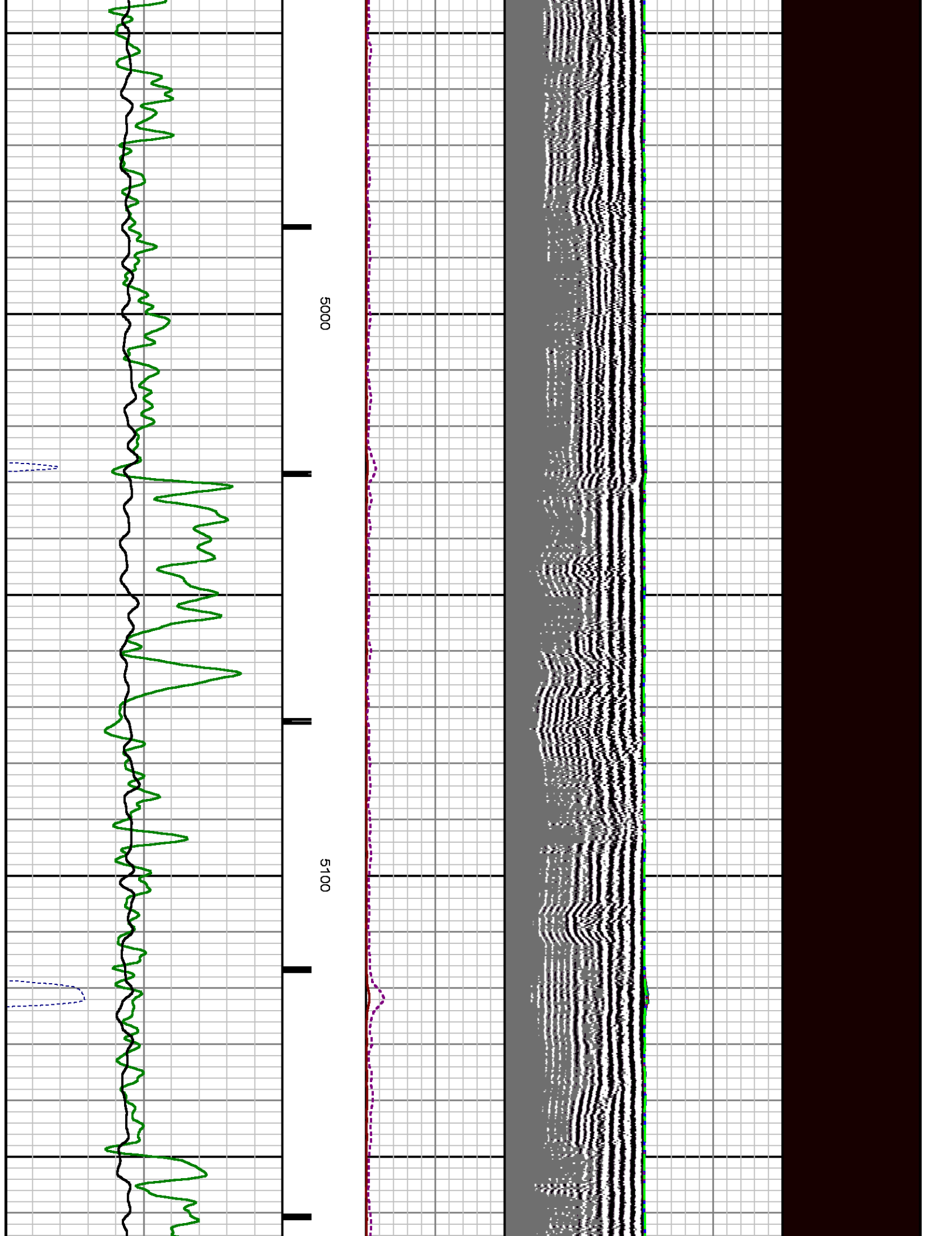


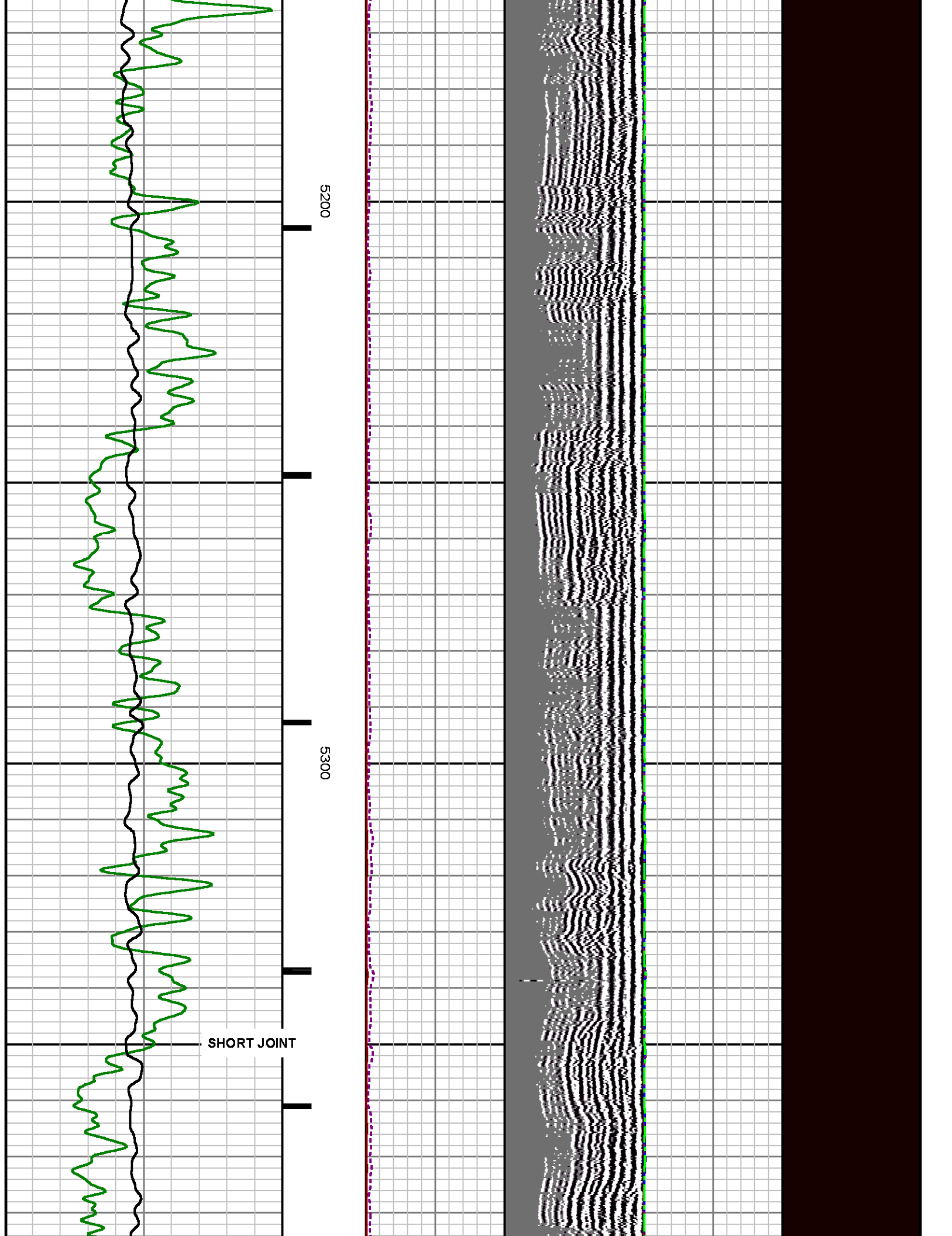


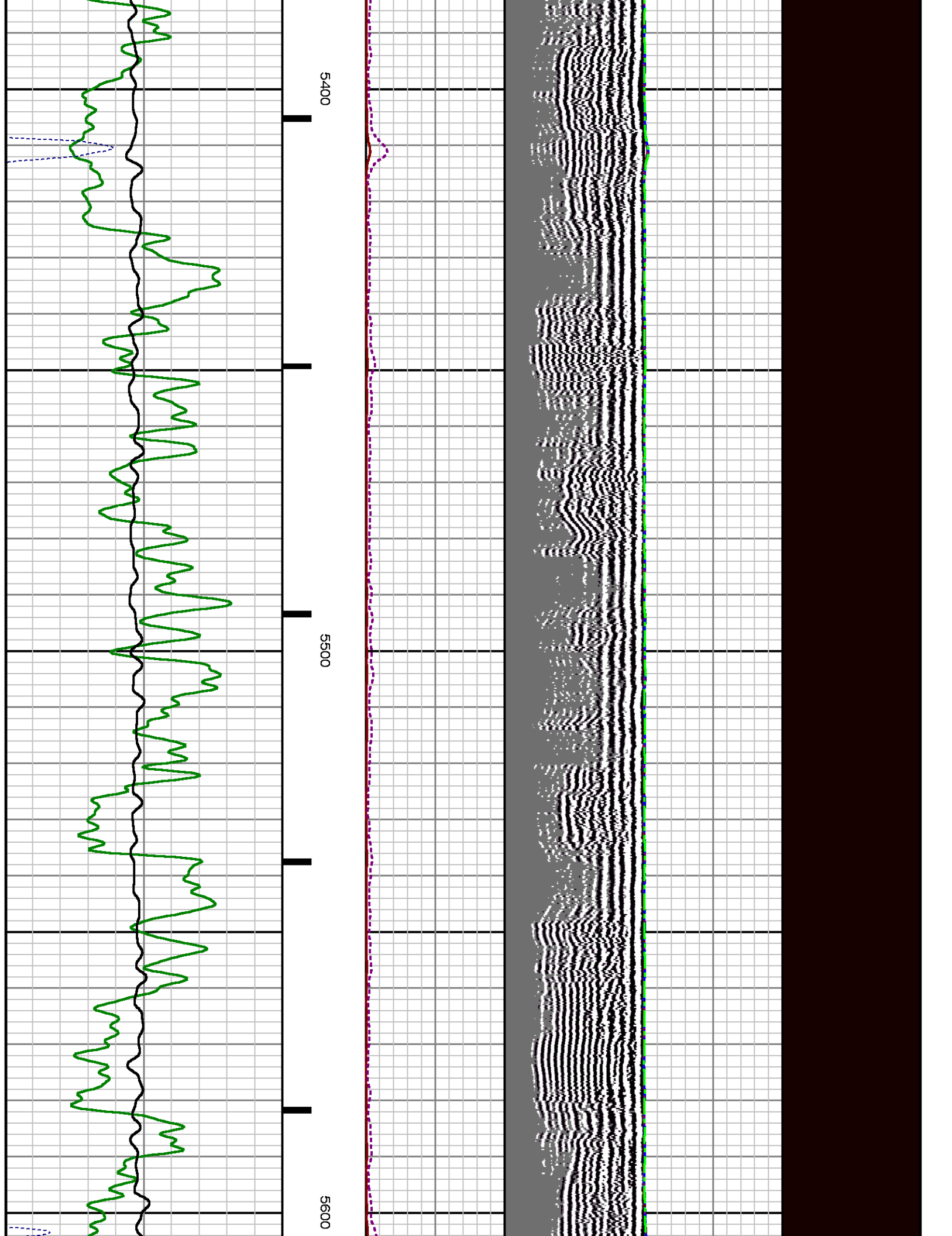


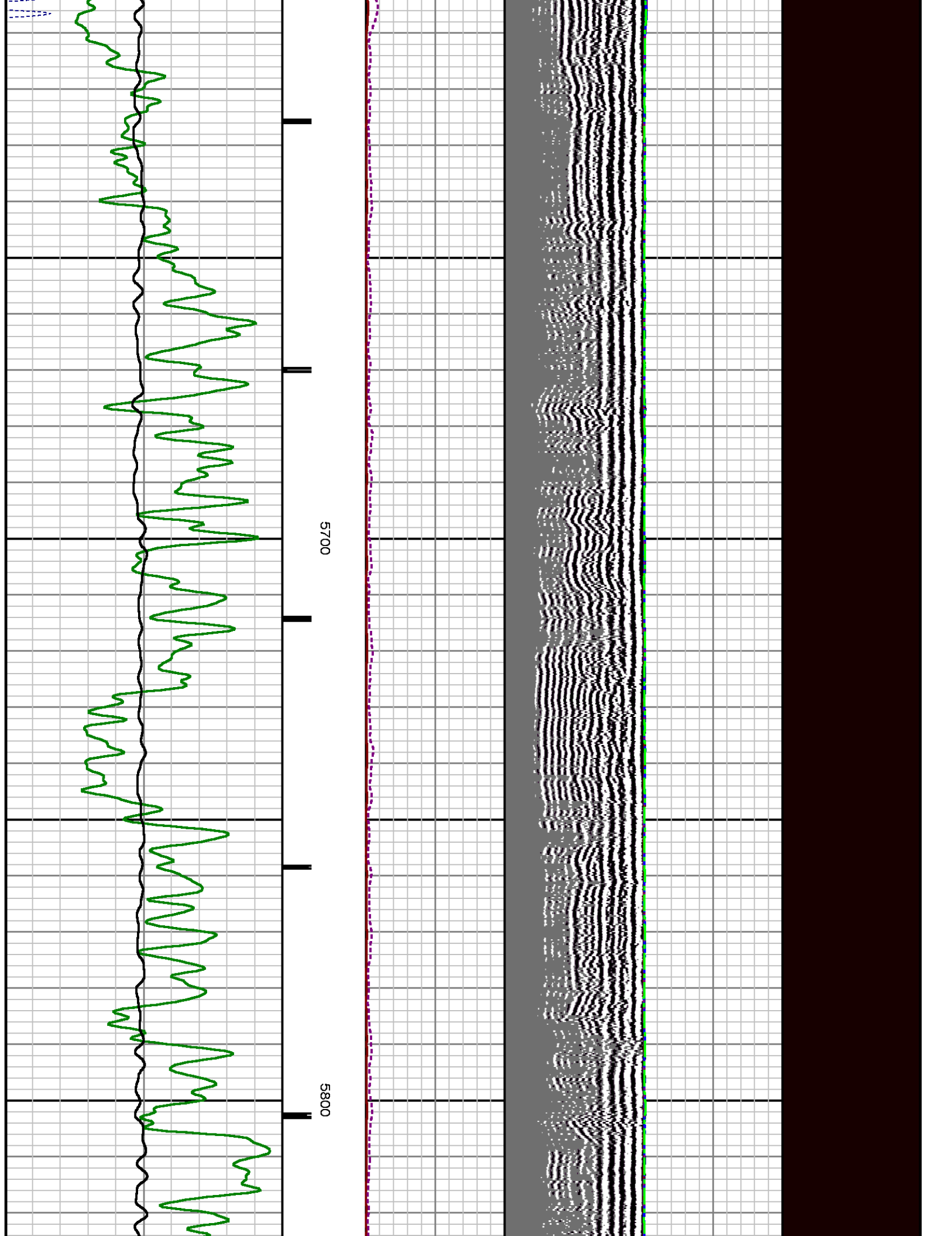


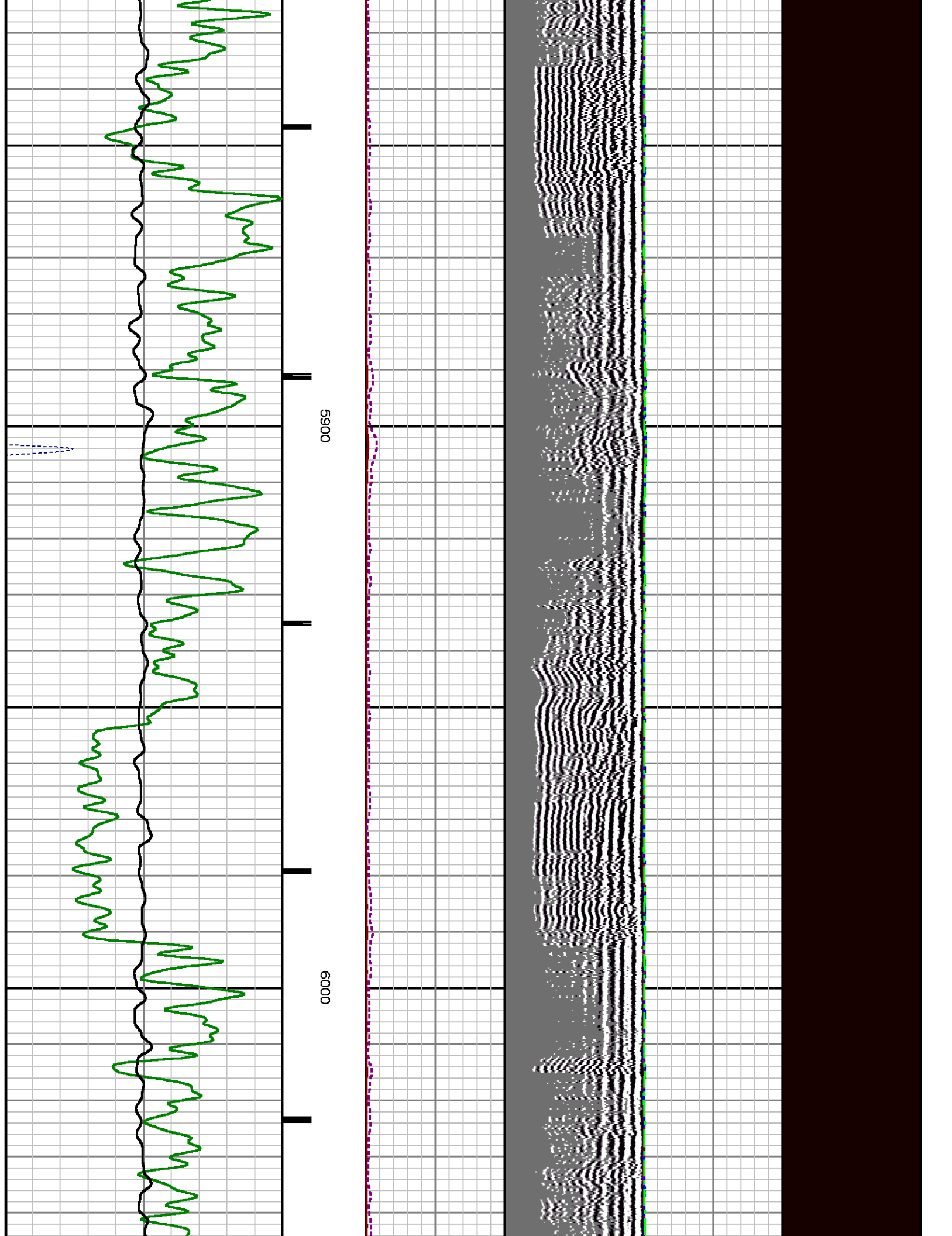


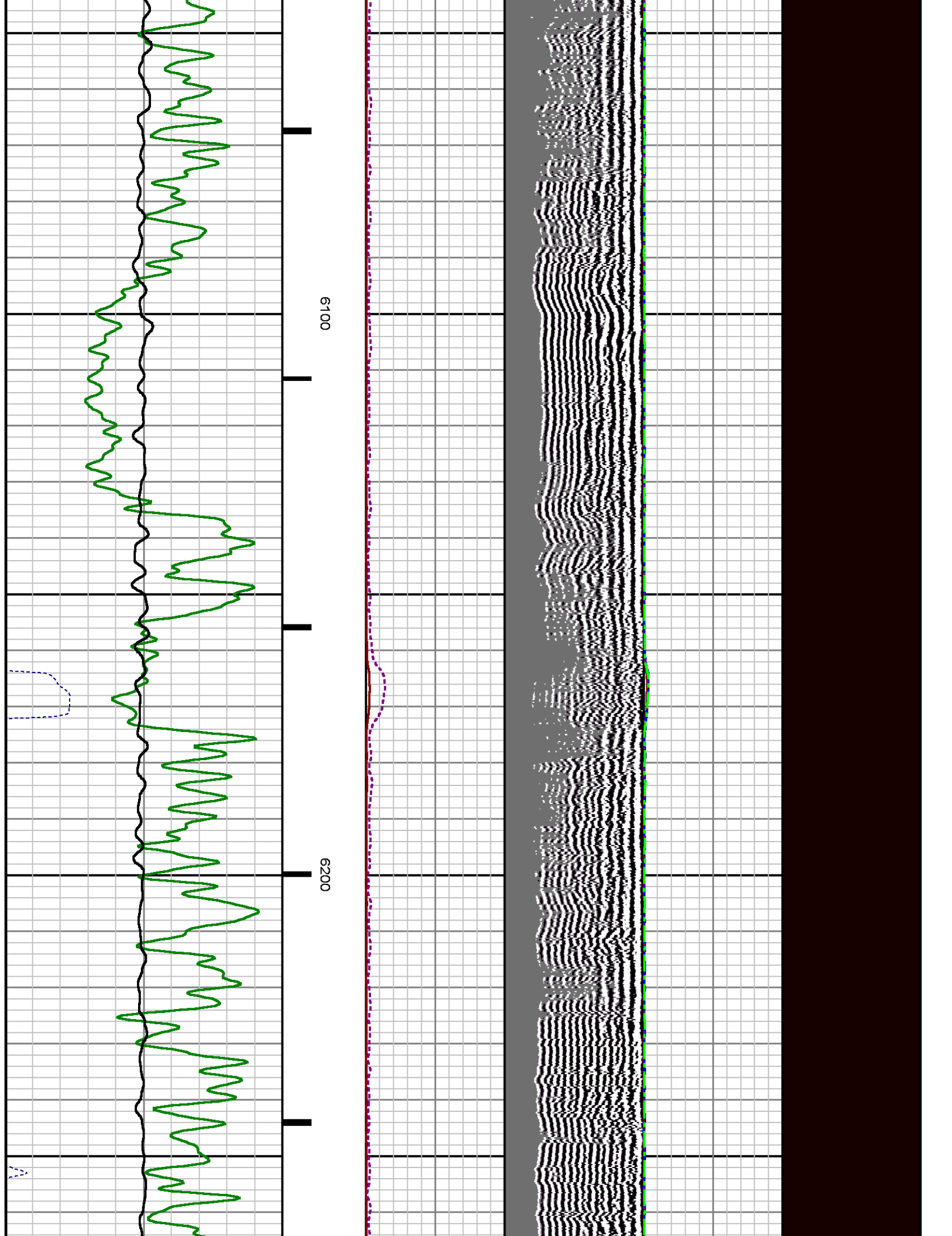


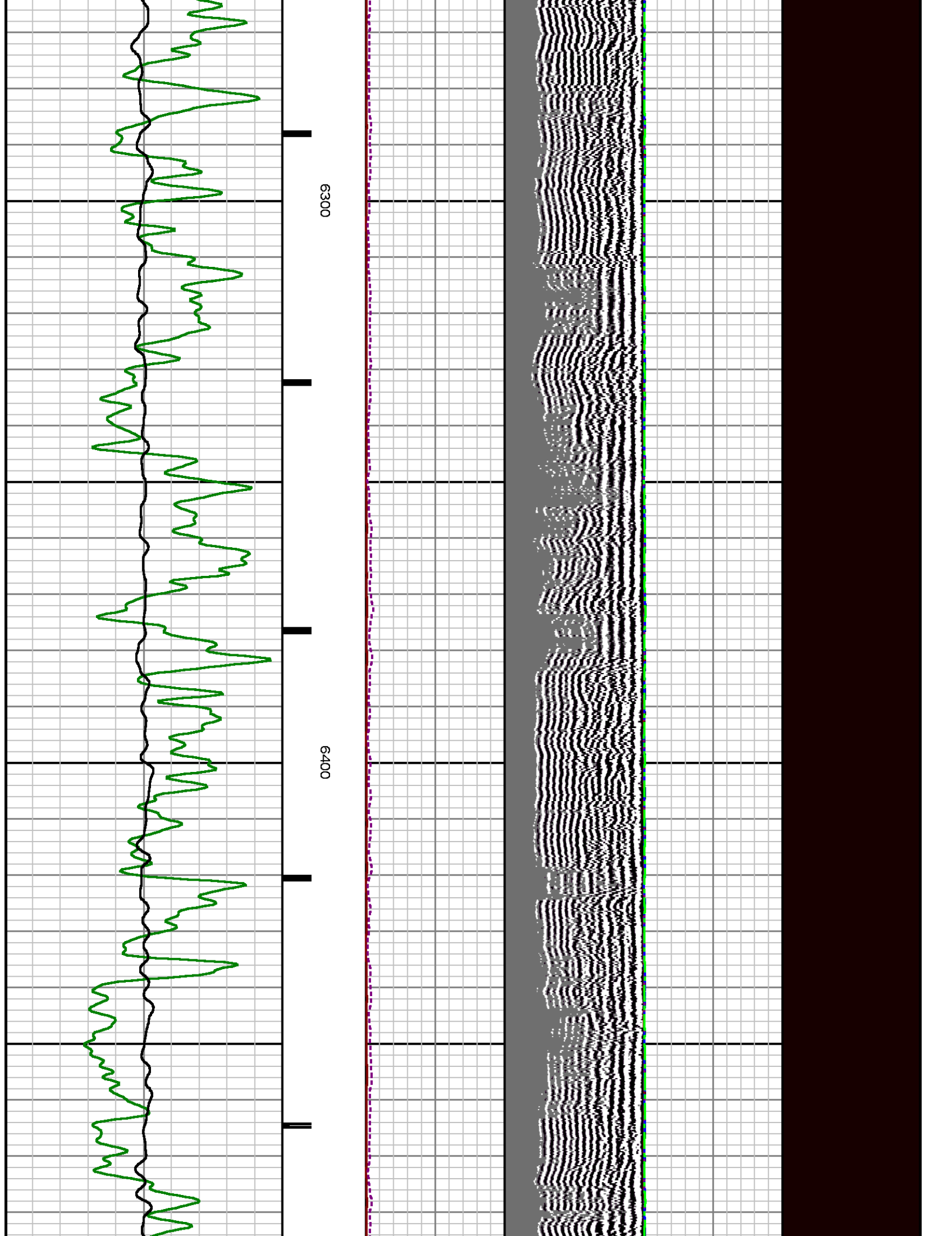


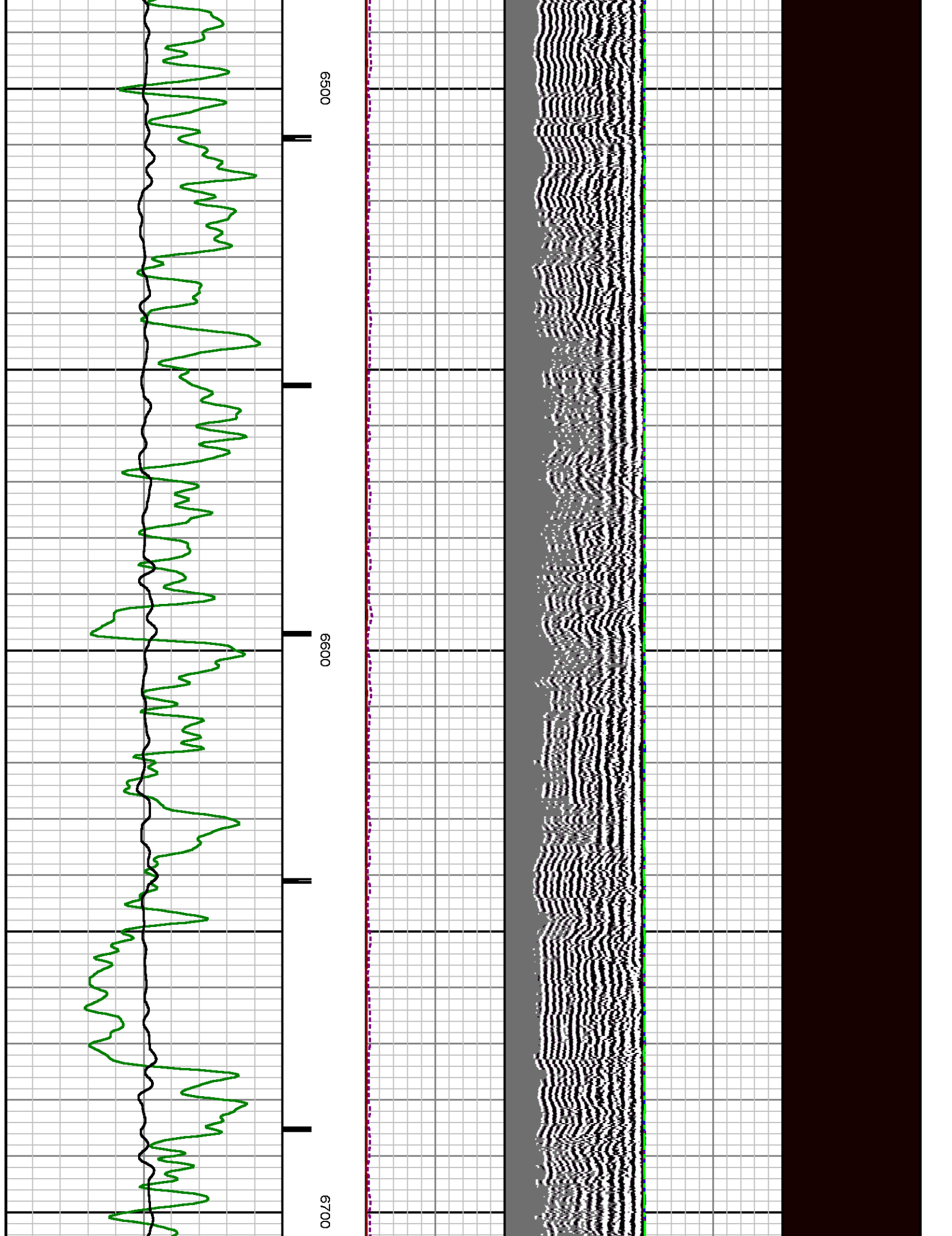


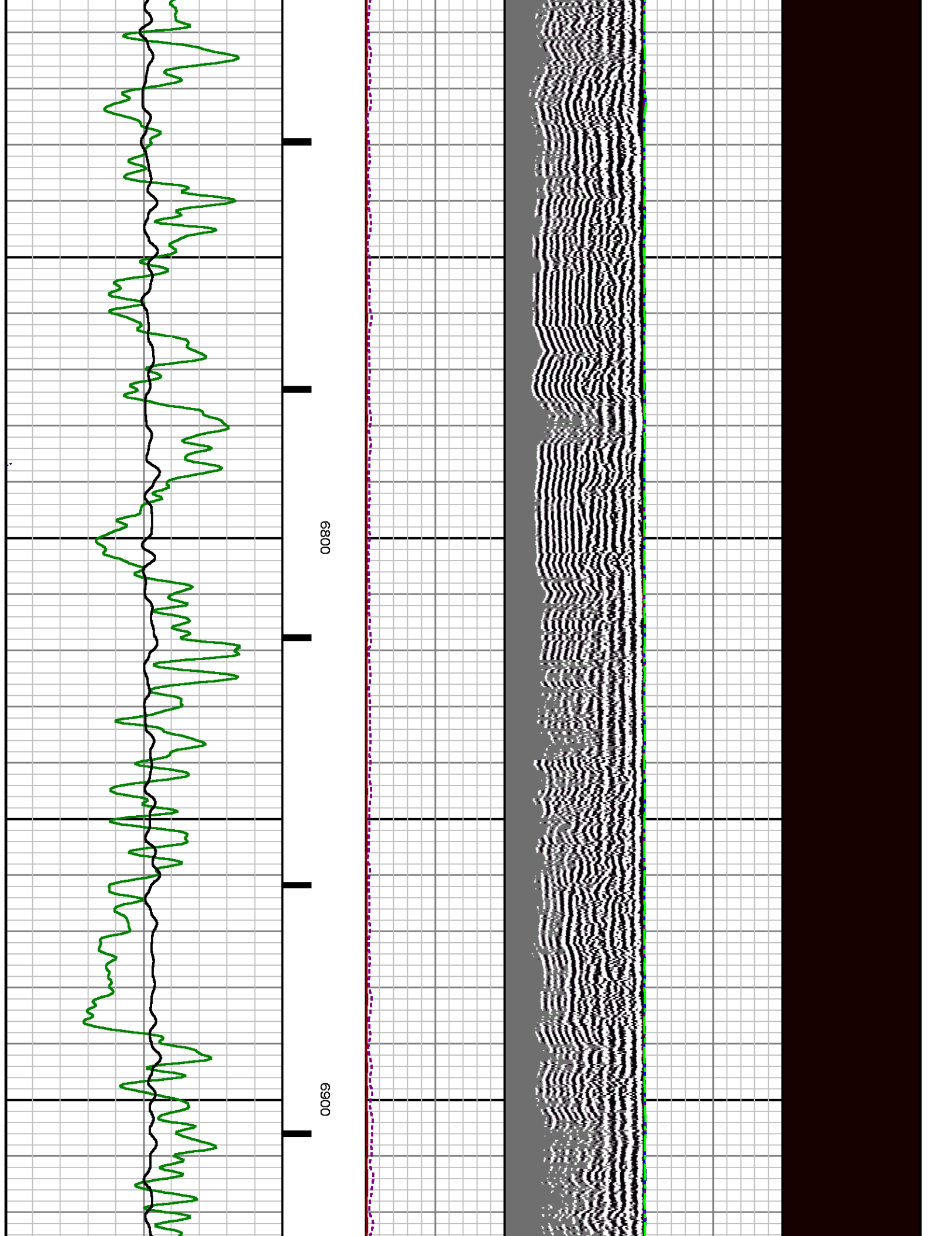


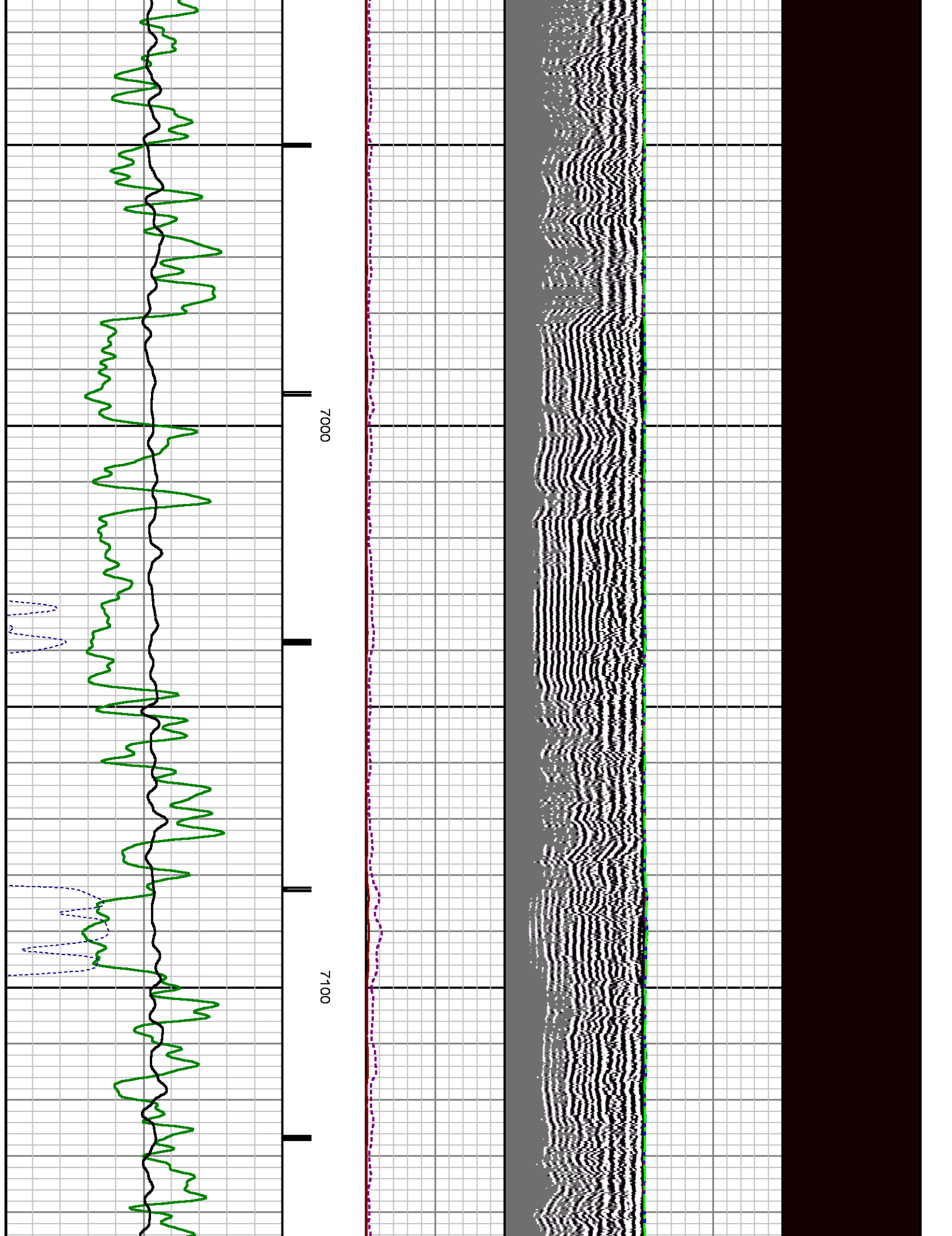


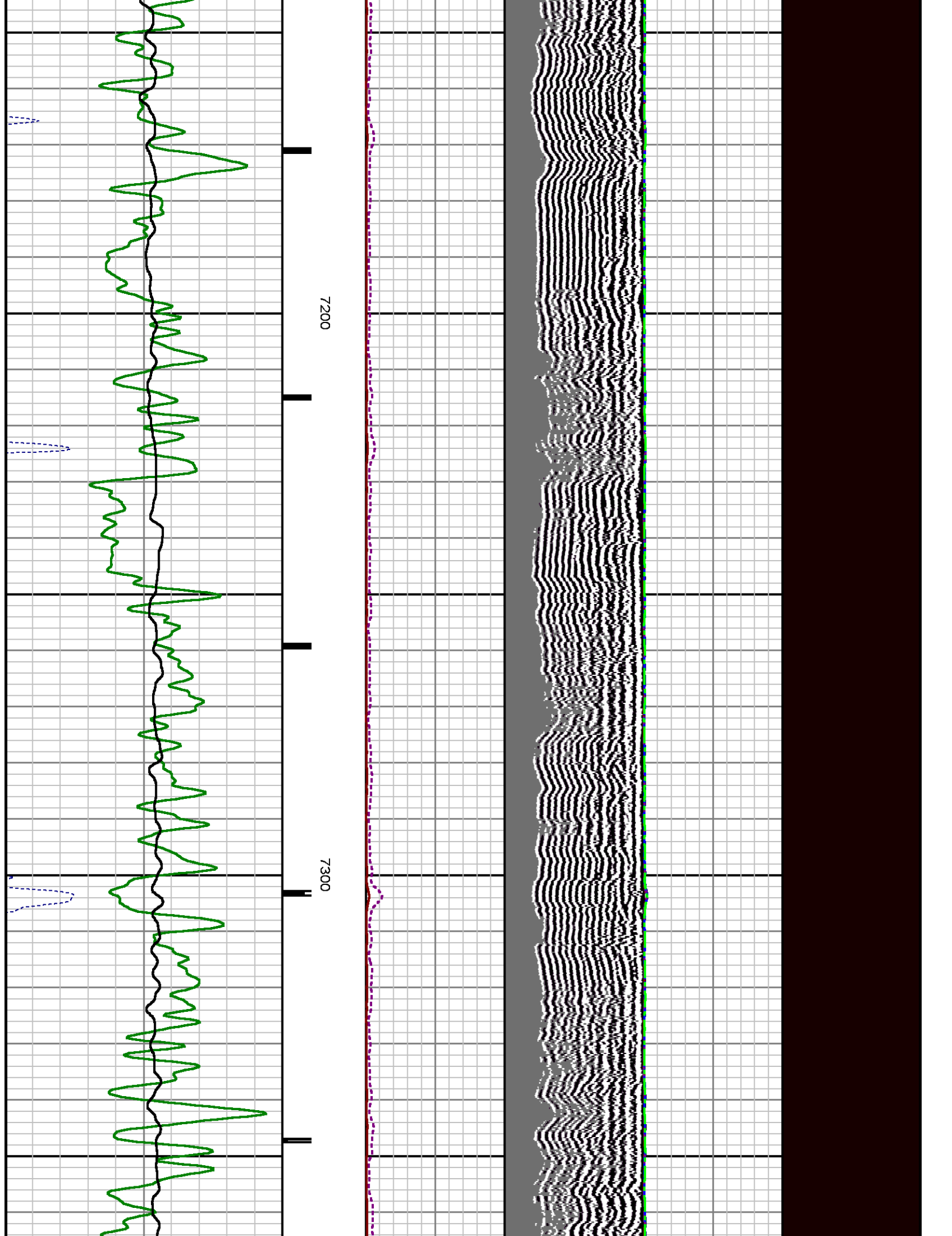


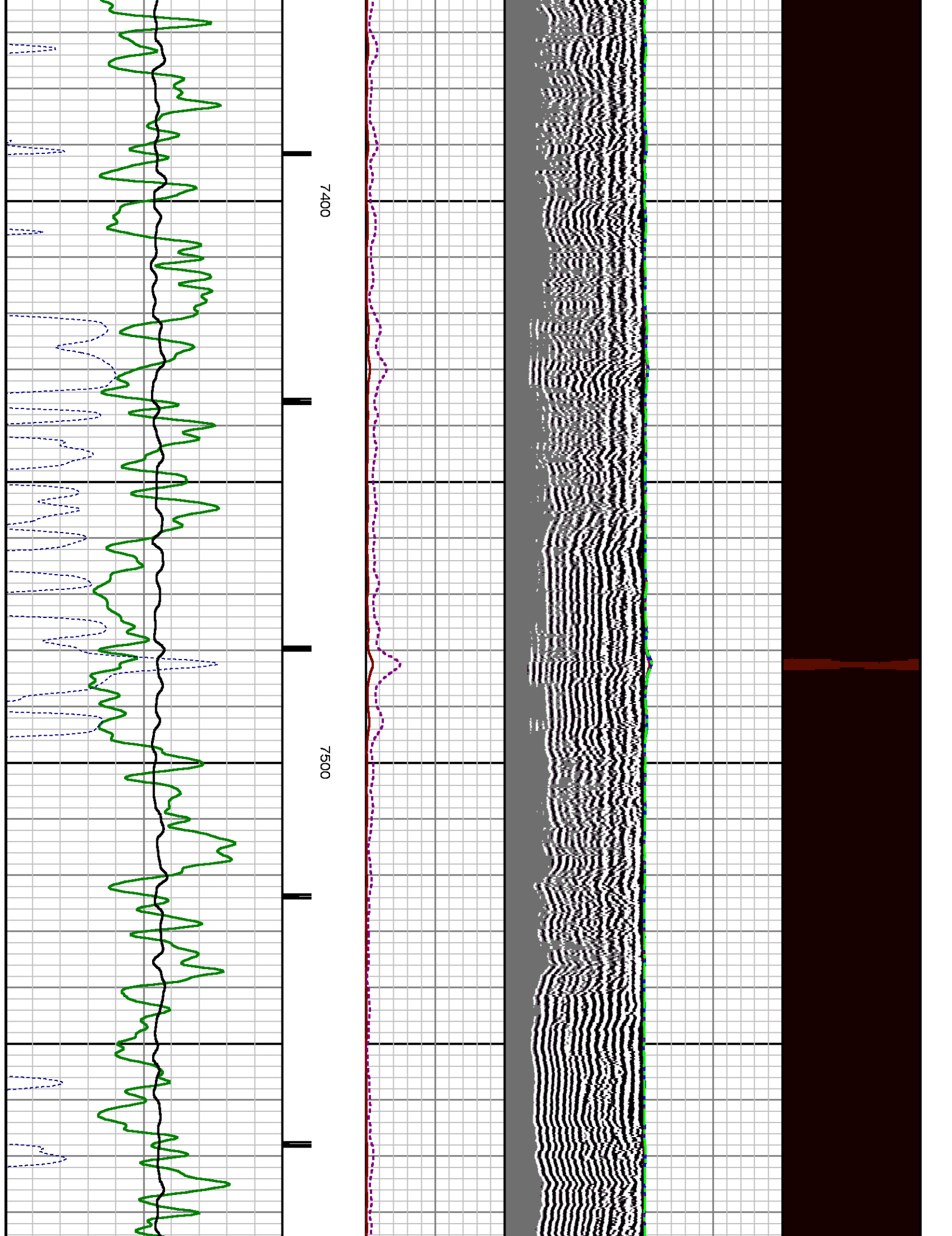


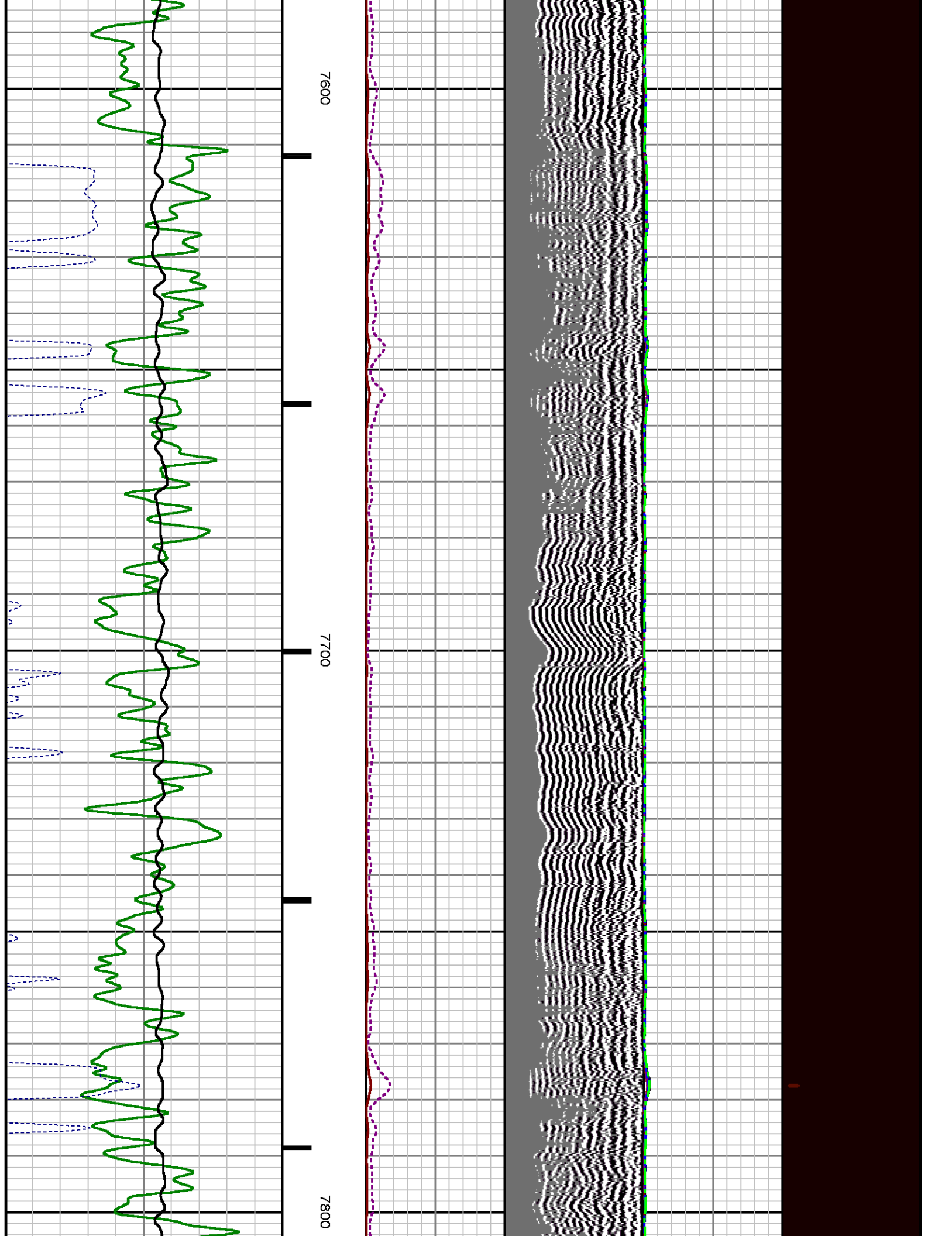


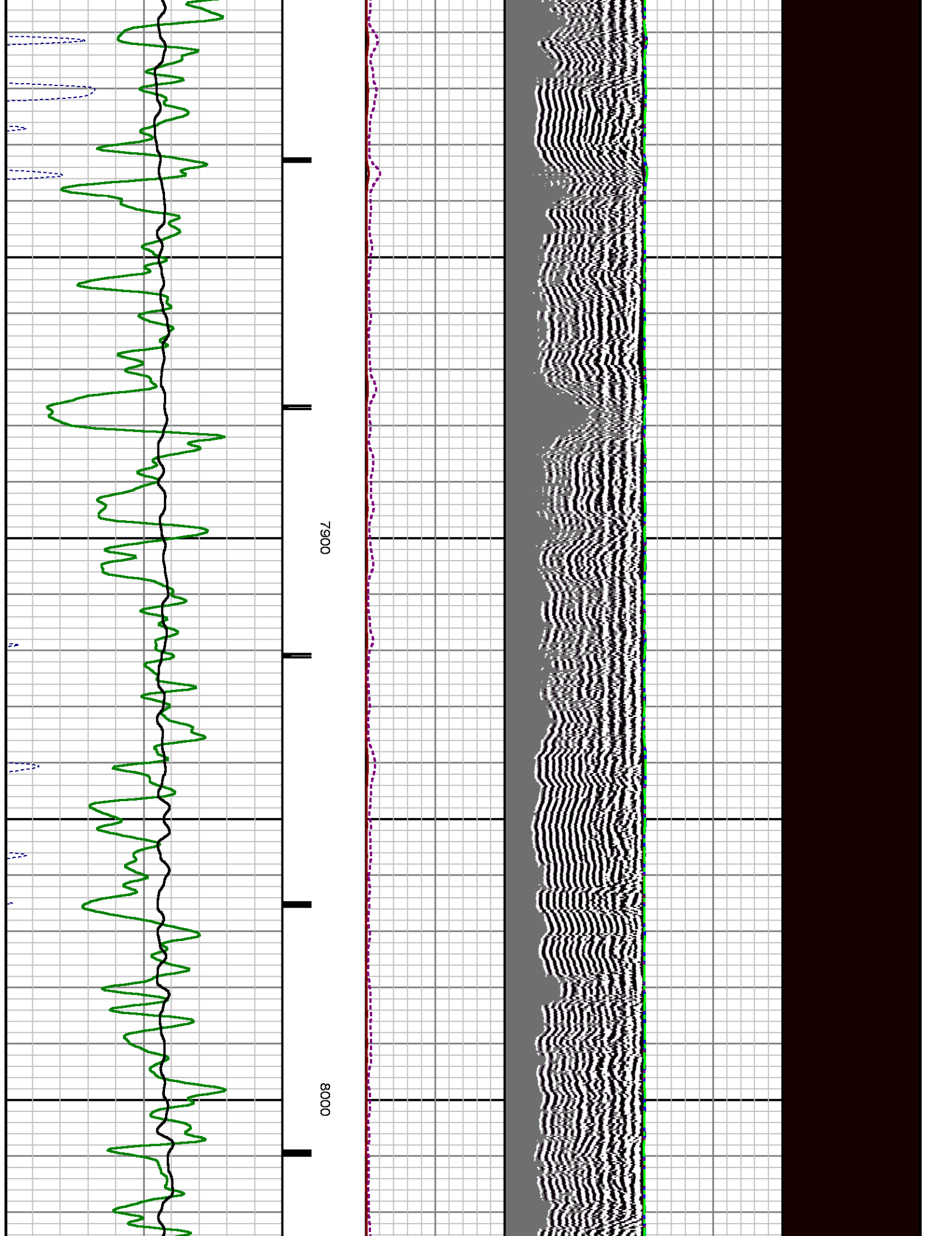


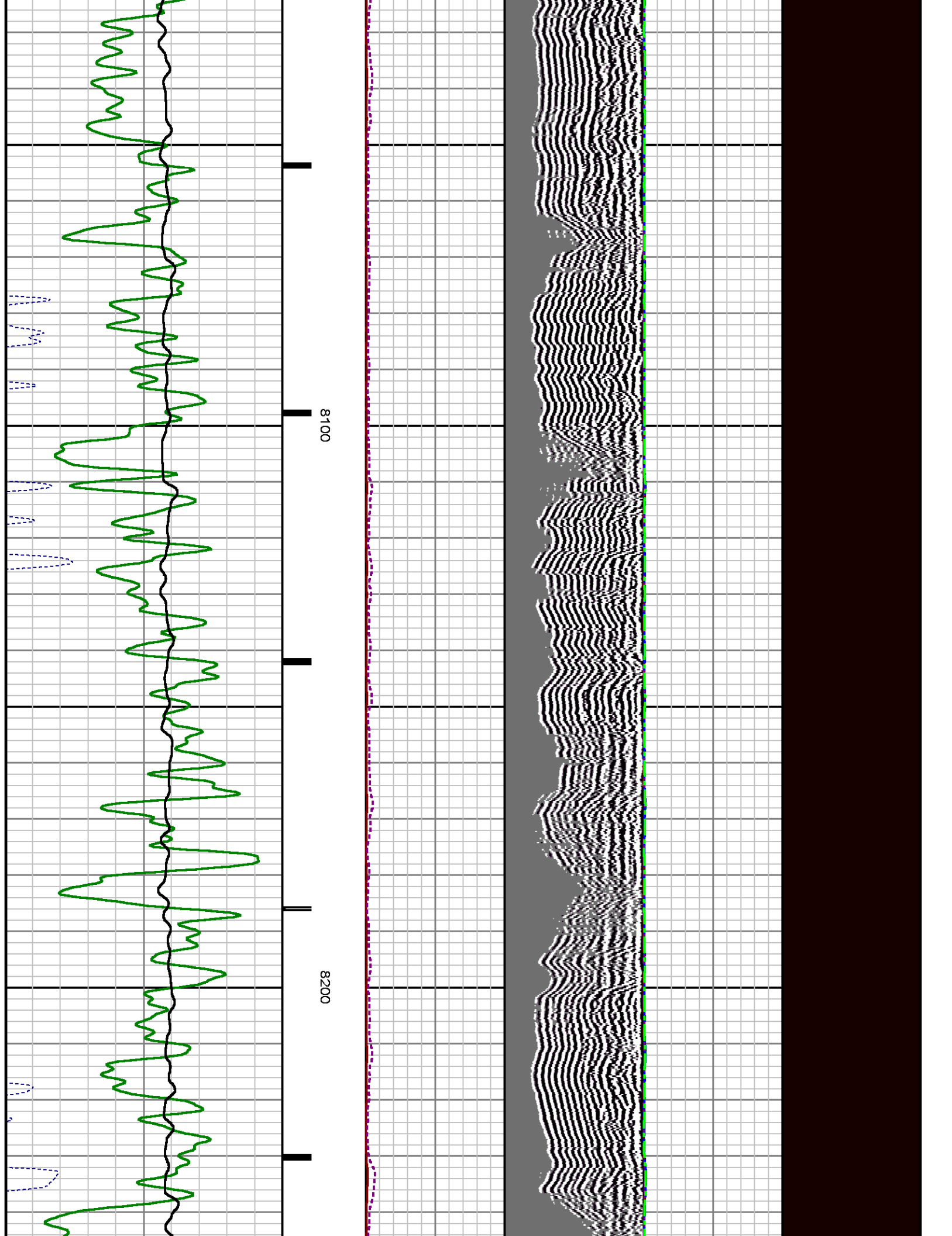


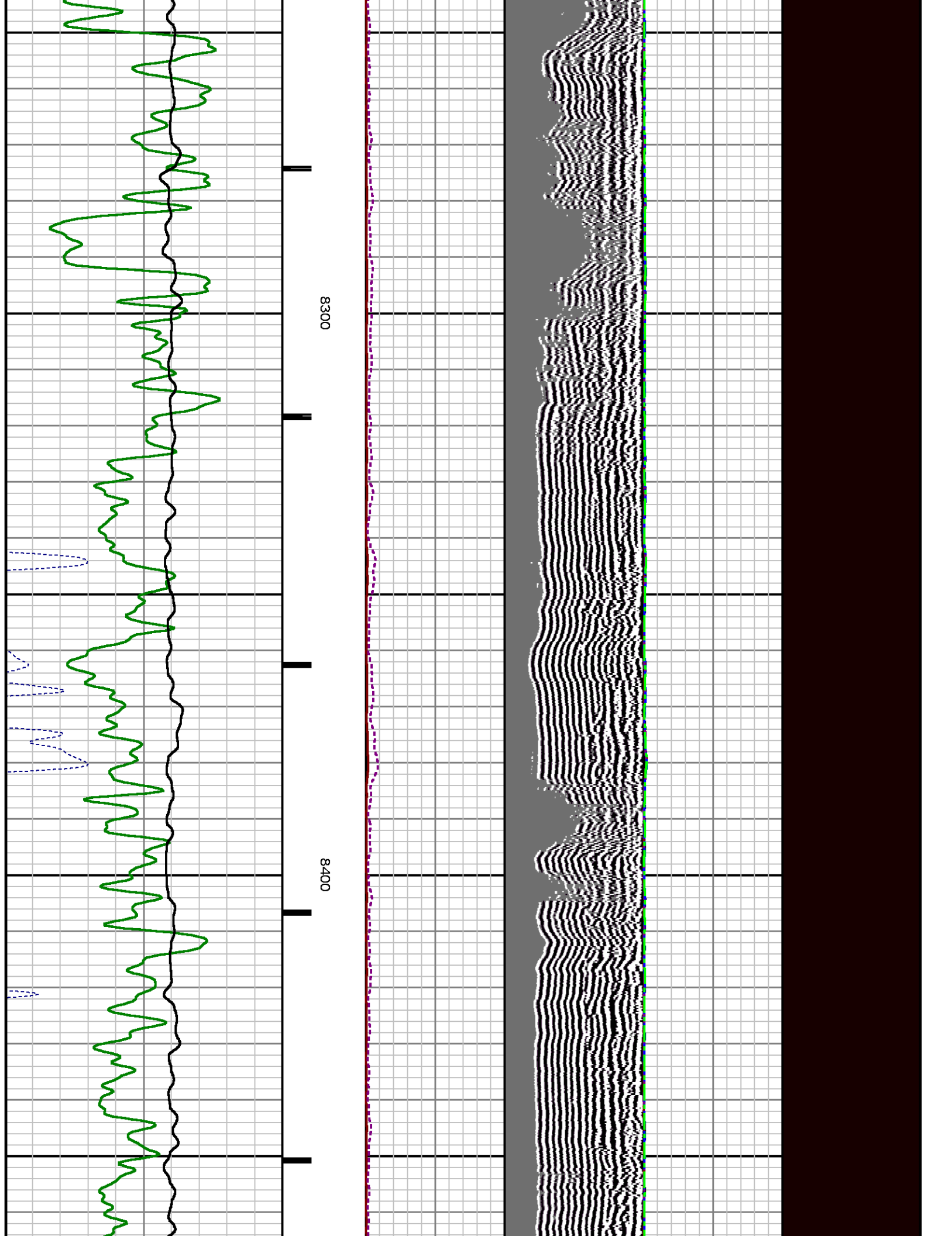


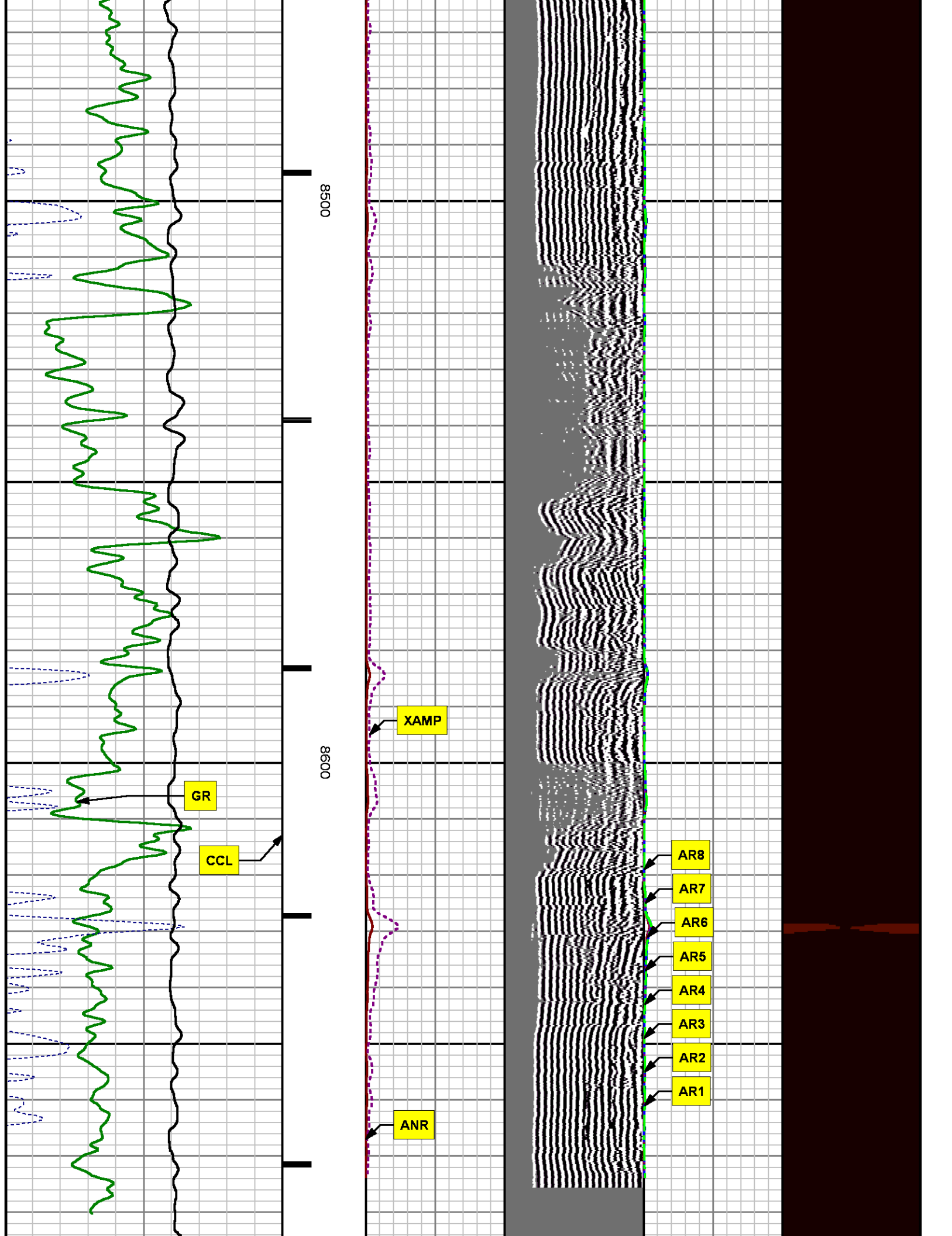


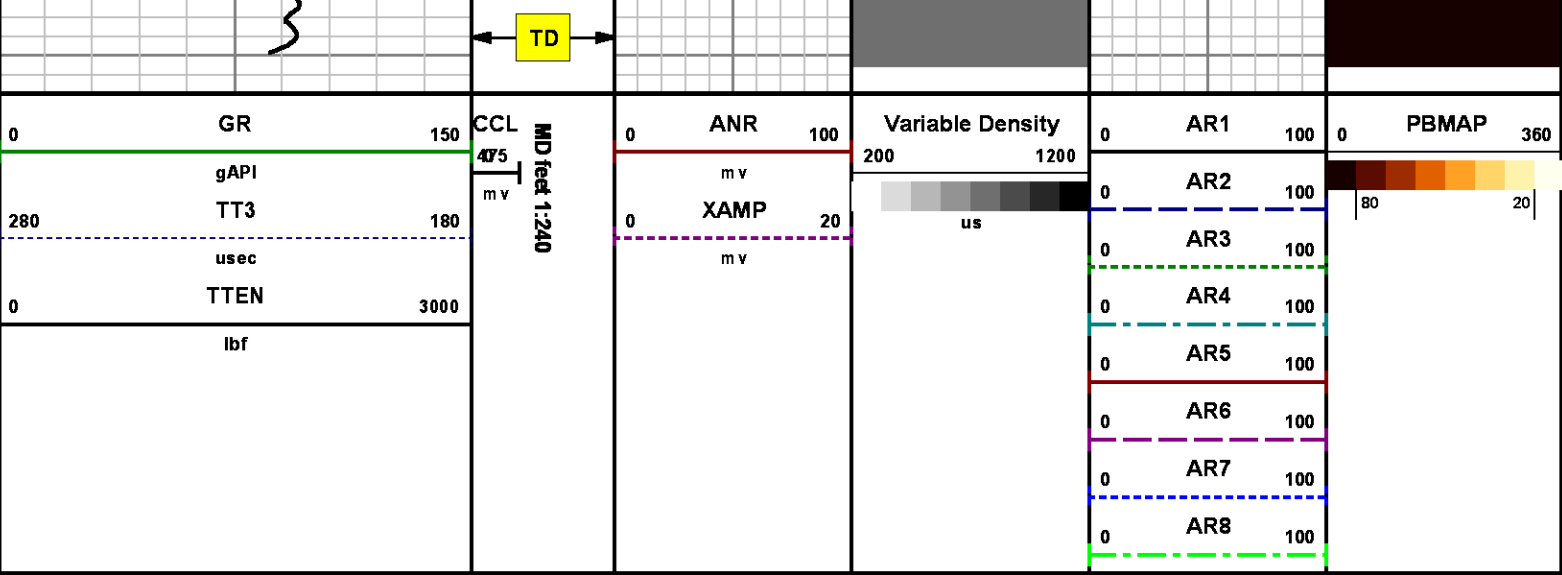












REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	8360.772	8690.930
RAL	Amp Gate Start Near	195.000	usec	8360.772	8690.930
RAL	Amp Gate Start Radial	195.000	usec	8360.772	8690.930
RAL	Amp Gate Width Far	25.000	usec	8360.772	8690.930
RAL	Amp Gate Width Near	25.000	usec	8360.772	8690.930
RAL	Amp Gate Width Radial	25.000	usec	8360.772	8690.930
RAL	casing od	4.500	inches	8360.772	8690.930
RAL	casing wt	11.600	lbm/ft	8360.772	8690.930
RAL	FB Start Far	291.900	usec	8360.772	8690.930
RAL	FB Start Near	180.000	usec	8360.772	8690.930
RAL	FB Start Radial	180.000	usec	8360.772	8690.930
RAL	FB Thresh Far	10.000	mV	8360.772	8690.930
RAL	FB Thresh Near	4.000	mV	8360.772	8690.930
RAL	FB Thresh Radial	4.000	mV	8360.772	8690.930
RAL	Fluid Travel Time	200.000	usec/ft	8360.772	8690.897

DEPTH OFFSETS

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

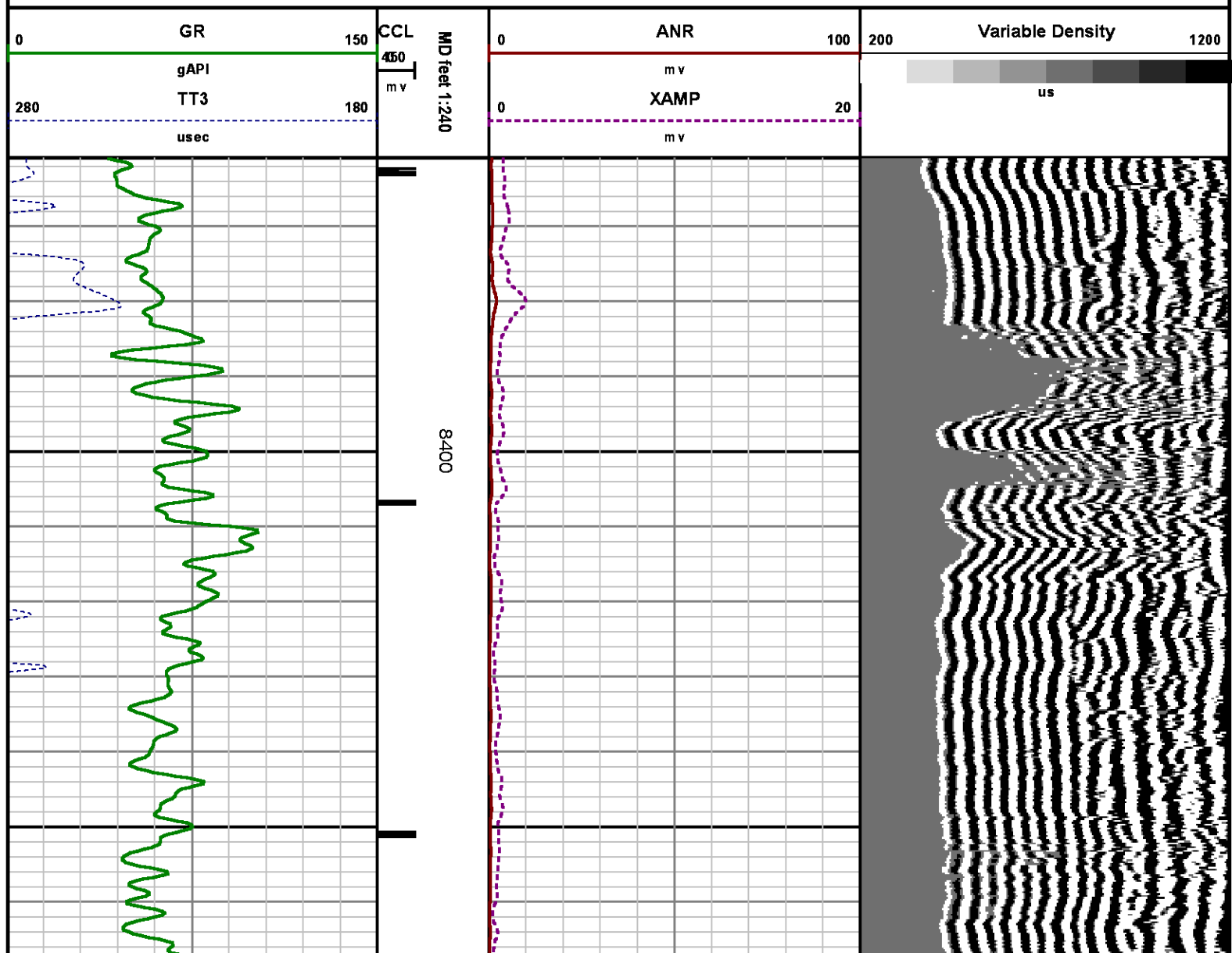
Well : SAVAGE RWF 414-25

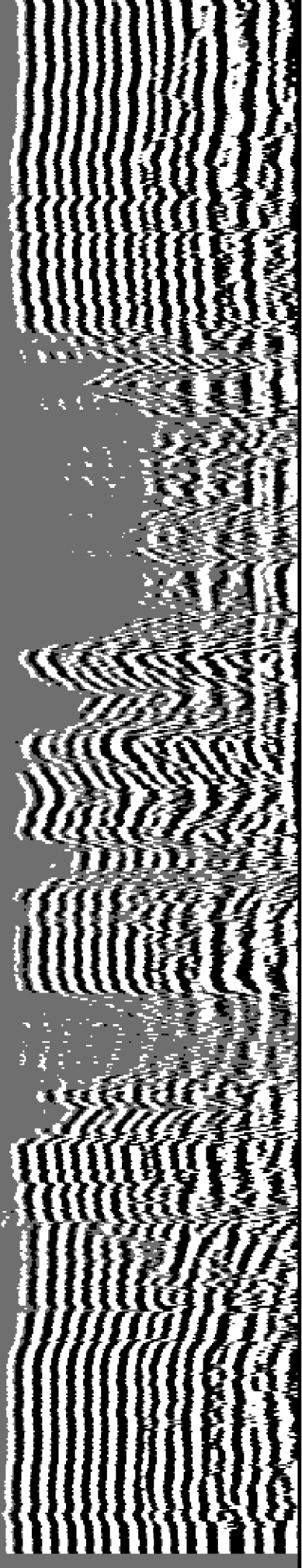
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Mode : PlotMgr 5.4.504

Interval : 8360.93 - 8690.93 feet UP

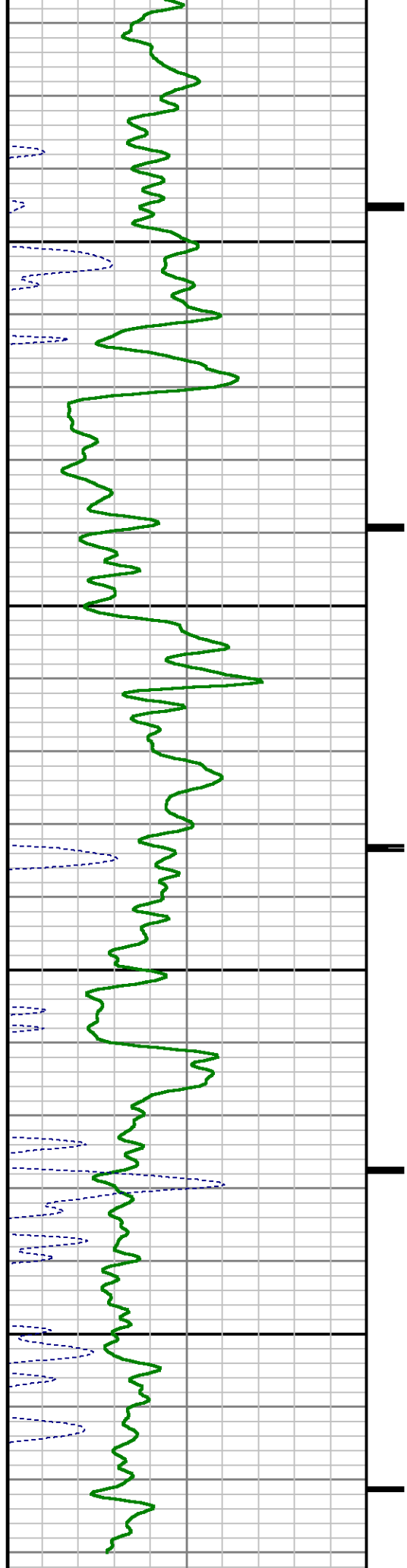
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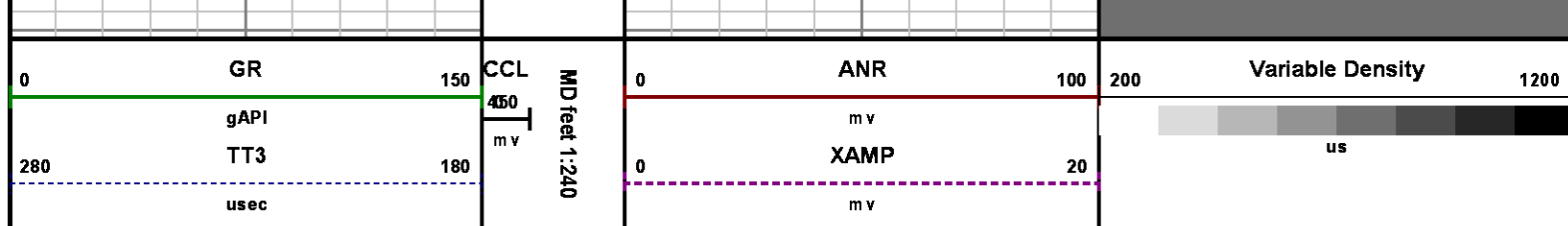




8500

8600





CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\496M24_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Mar 24 11:49:35 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: M24

Tool Delay [usec] -56.00 Tank OD in 5.50 Tank Wt lbm/ft 15.50 Tank ID in 4.95

RECEIVER	Travel Time [usec]	Amp. Gate Start [usec]	Amp. Gate Width [usec]	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor
CAL Pulse	216	216	30	166	25	0.138	100.00	0.16
3 Ft. Receiver	216	216	30	166	25	2.449	100.00	0.16
5 Ft. Receiver	326	325	30	271	25	3.508	150.00	0.18
Radial #1	216	216	30	166	25	1.984	100.00	0.16
Radial #2	216	216	30	166	25	1.682	100.00	0.16
Radial #3	216	216	30	166	25	1.292	100.00	0.16
Radial #4	216	216	30	166	25	2.217	100.00	0.16
Radial #5	216	216	30	166	25	2.666	100.00	0.16
Radial #6	215	216	30	166	25	2.465	100.00	0.16
Radial #7	215	216	30	166	25	1.417	100.00	0.16
Radial #8	216	216	30	166	25	1.834	100.00	0.16

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496M24_fid.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Mar 24 11:55:11 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: M24

Tool Delay [usec] -56.00 Casing OD in 4.50 Casing Wt lbm/ft 11.60 Casing ID in 4.00

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	166	25	0.062	0.000	0.96	100.000
3 Ft. Receiver	195	25	1.880			
5 Ft. Receiver	305	20	2.497			
Radial #1	195	25	1.263			
Radial #2	195	25	1.265			
Radial #3	195	25	1.472			
Radial #4	195	25	1.512			
Radial #5	195	25	1.767			
Radial #6	195	25	1.811			
Radial #7	195	25	1.507			
Radial #8	195	25	1.381			

GAMMA RAY

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

CALIBRATION SUMMARY

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

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

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

PRIMARY LOG VERIFICATION

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

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

TOOL DIAGRAM

OTA SHORT CABLE HEAD



21.81'

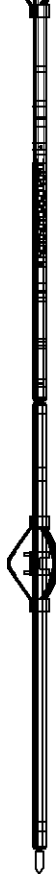
PROBE 2 3/4 DUAL RECEIVER RADII

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

SAVAGE RWF 414-25

Field

RULISON

County

GARFIELD

State

CO

Location

SHL: 1617' FSL 2294' FWL

BHL: 856' FSL 819' FWL (SWSW)

SEC 25

TWP 6S

RGE 94W

Elevations

KB 6122 ft

DF

GL 6096 ft

File No:

83783

API No:

05045219840000

S25 T6S R94W

RIG: NABORS 577

PAD: RWF 23-25