



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: WPX ENERGY

CH083166 FEDERAL PA 42-21

API No: PARACHUTE

05045220370000 GARFIELD State COLORADO

21 6S 95W Location

PA 22-21 PAD SHL: 2610' FNL & 1441' FWL

NABORS 573 BHL: 1610' FNL & 251' FEL (SENE)

SEC 21 TWP 6S RGE 95W

Other Services

RPM

Permanent Datum GL Elevation 6030 ft

Log Measured From KB 26 ft Above P. D.

Drill Measured From KELLY BUSHING KB 6056 ft DF GL 6030 ft

Date	27/FEB/14	
Run	ONE	
Service Order	US625295	
Depth Driller	9996 ft	
Depth Logger	9966 ft	
Bottom Logged Interval	9956 ft	
Top Logged Interval	26 ft	
Time Started	1230	
Time Finished	1715	
Operator Rig Time	4.75 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	77 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	66 fpm	
Maximum Recorded Temperature	24.8 degF	
Reference Log	NONE	
Reference Log Date	NA	
Equipment No.	4271	GRAND JCT
Recorded By	FLYOD RENEAU	
Witnessed By	COLLEAPPELLO	

- FOLD HERE

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

Borehole Record		
Bit Size	From	To
13.5 in	26 ft	2238 ft
8.75 in	2238 ft	9996 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			26 ft	2238 ft
4.5 in	11.6 lbm/ft	1-80	26 ft	9996 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 19.5 feet.
Logged with zero PSI at wellhead.
BHT = 248 °F
SJ = 6344'-6368'

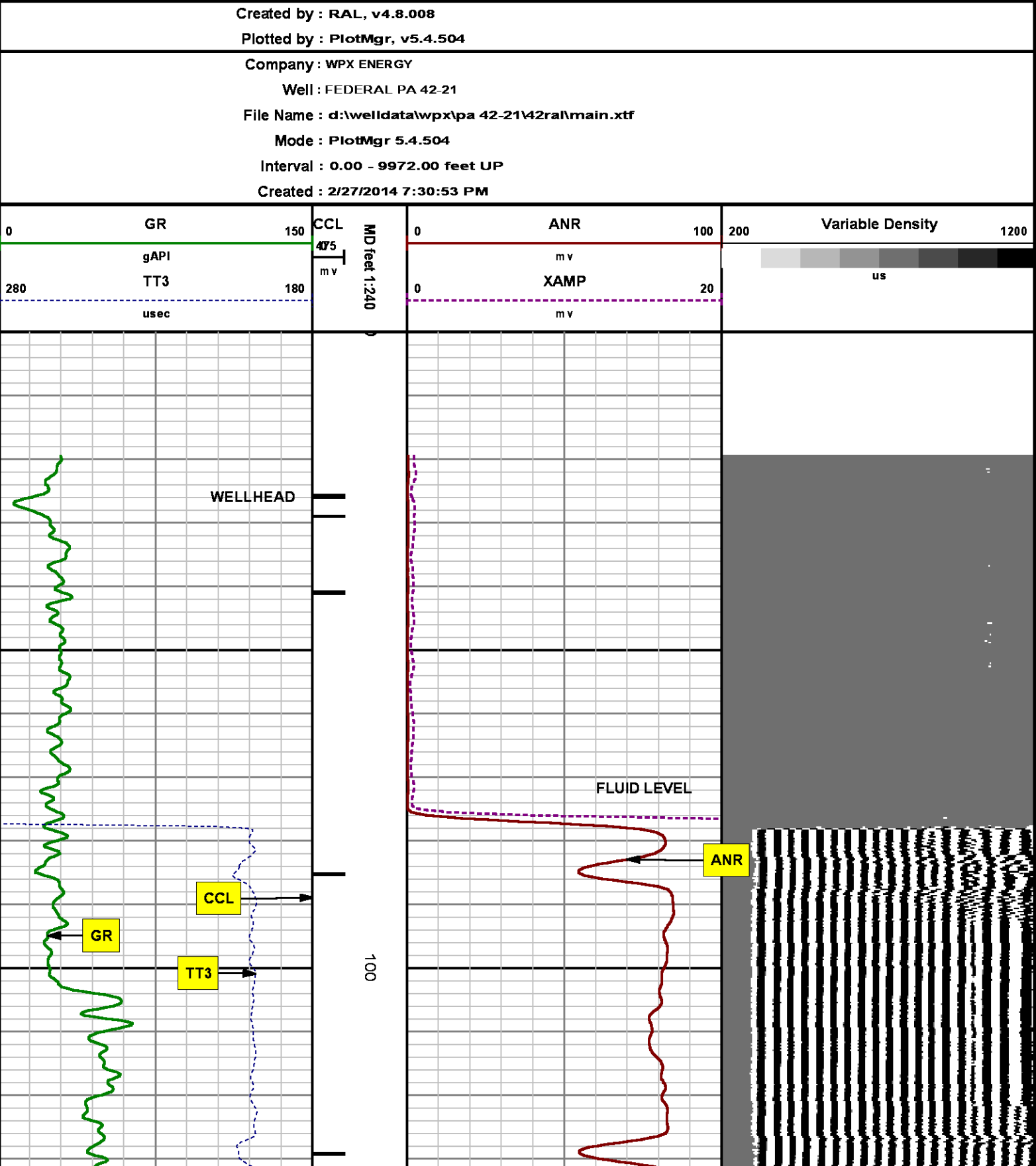
Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10218496	CENT
1	1	GR/CCL	2459XA	10124121	CENT

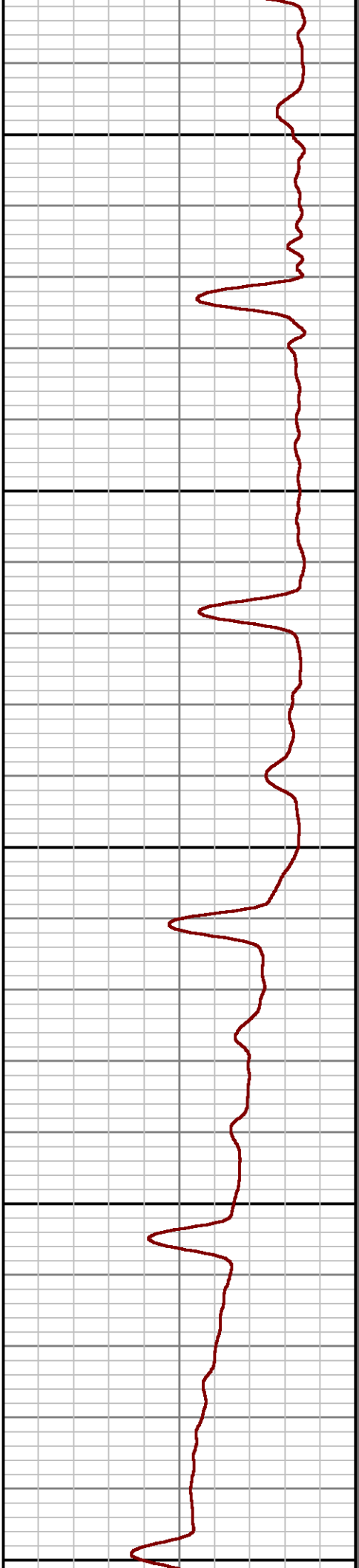
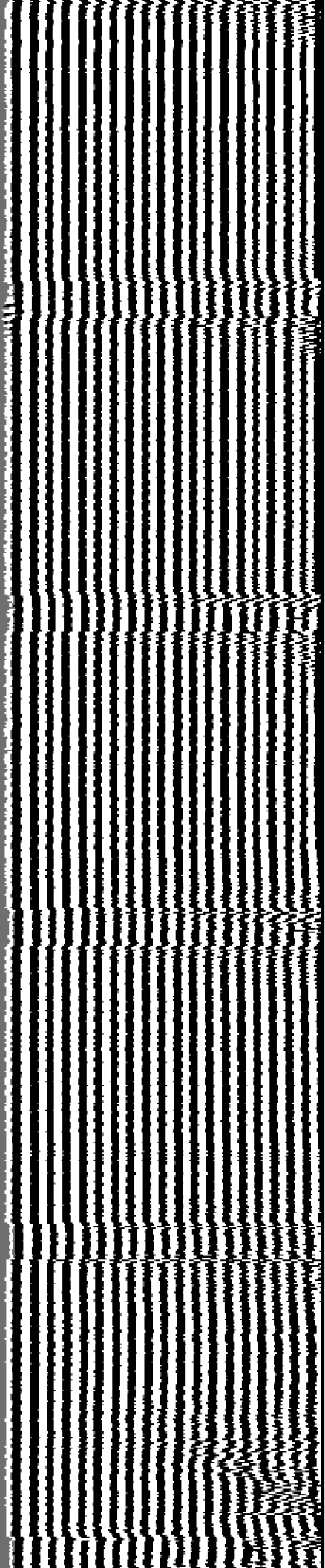
PRIMARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	22.712	9973.500
RAL	Amp Gate Start Near	195.000	usec	22.712	9973.500
RAL	Amp Gate Start Radial	195.000	usec	22.712	9973.500
RAL	Amp Gate Width Far	25.000	usec	22.712	9973.500
RAL	Amp Gate Width Near	25.000	usec	22.712	9973.500
RAL	Amp Gate Width Radial	25.000	usec	22.712	9973.500
RAL	casing od	4.500	inches	22.712	9973.500
RAL	casing wt	11.600	lbm/ft	22.712	9973.500
RAL	FB Start Far	291.900	usec	22.712	9973.500
RAL	FB Start Near	180.000	usec	22.712	9973.500
RAL	FB Start Radial	180.000	usec	22.712	9973.500
RAL	FB Thresh Far	10.000	mv	22.712	9973.500
RAL	FB Thresh Near	4.000	mv	22.712	9973.500
RAL	FB Thresh Radial	4.000	mv	22.712	9973.500
RAL	Fluid Travel Time	200.000	usec/ft	22.712	9973.500

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

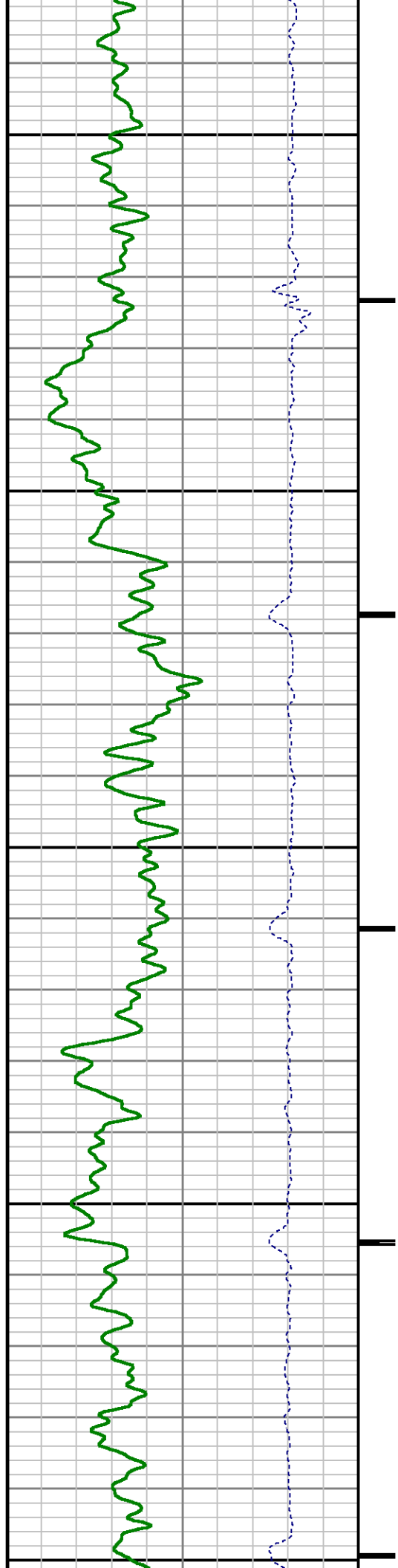
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

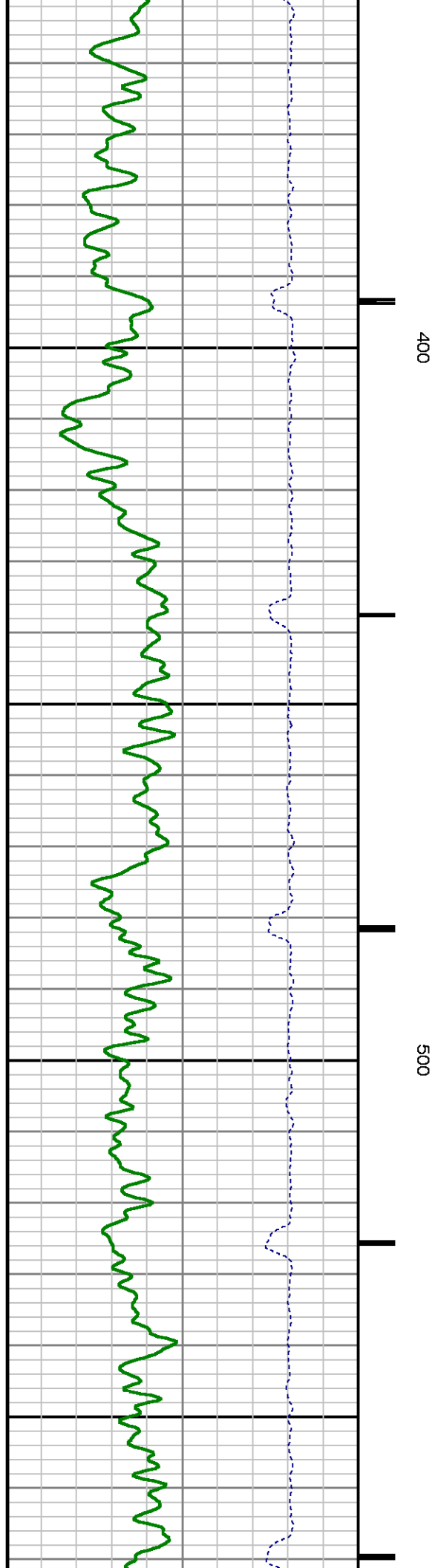
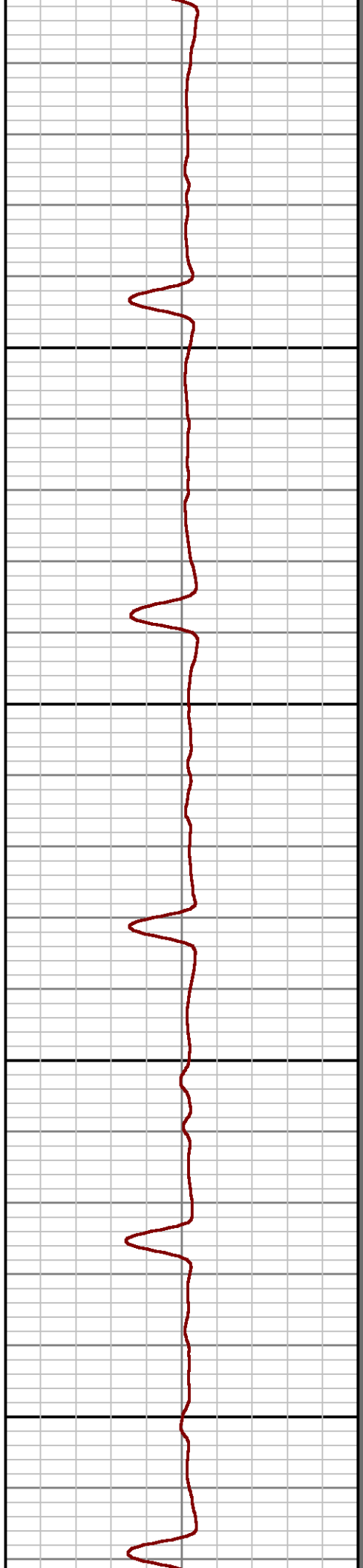
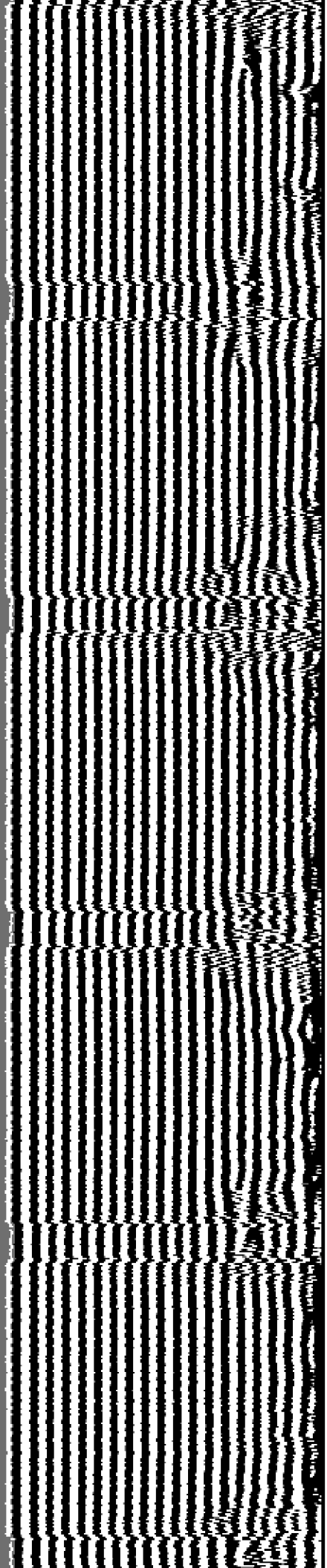


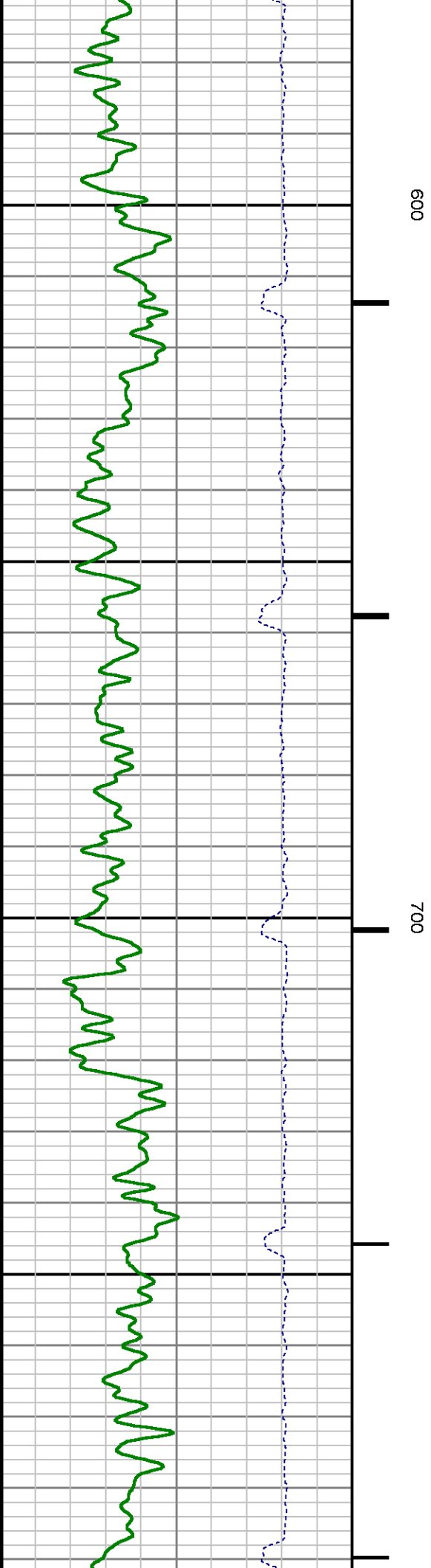
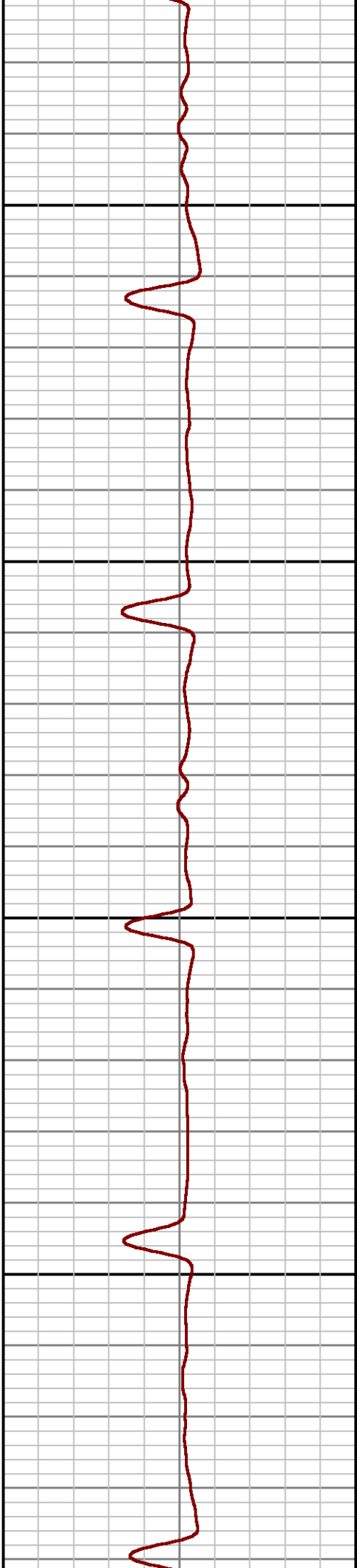
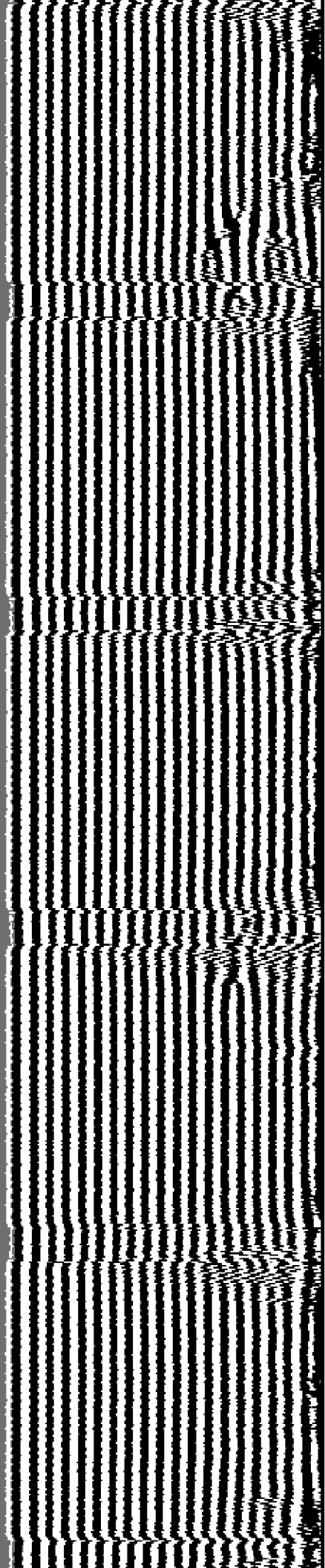


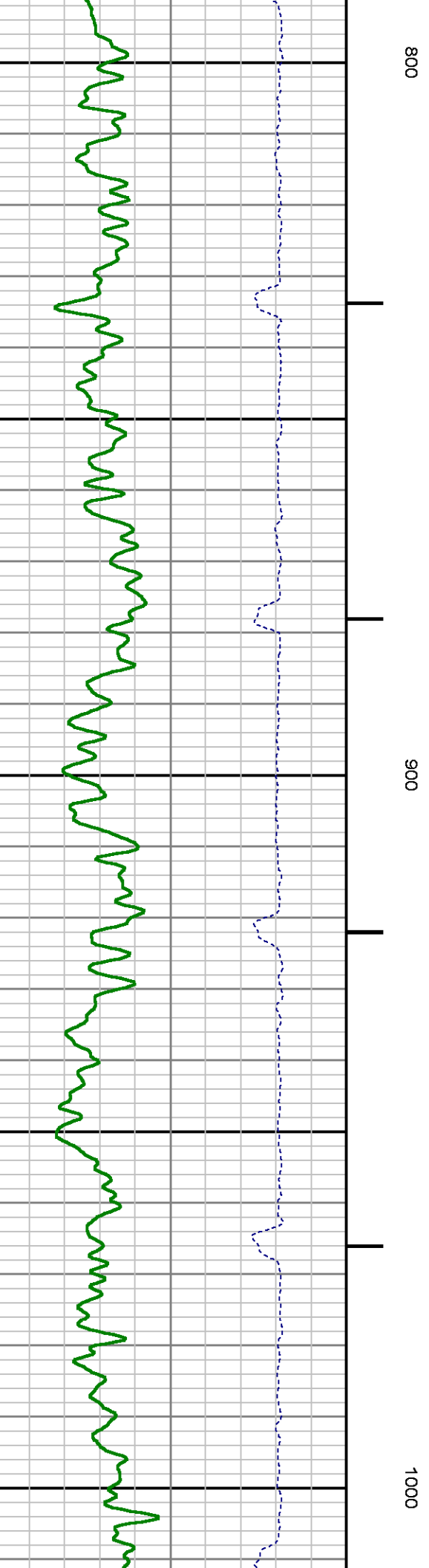
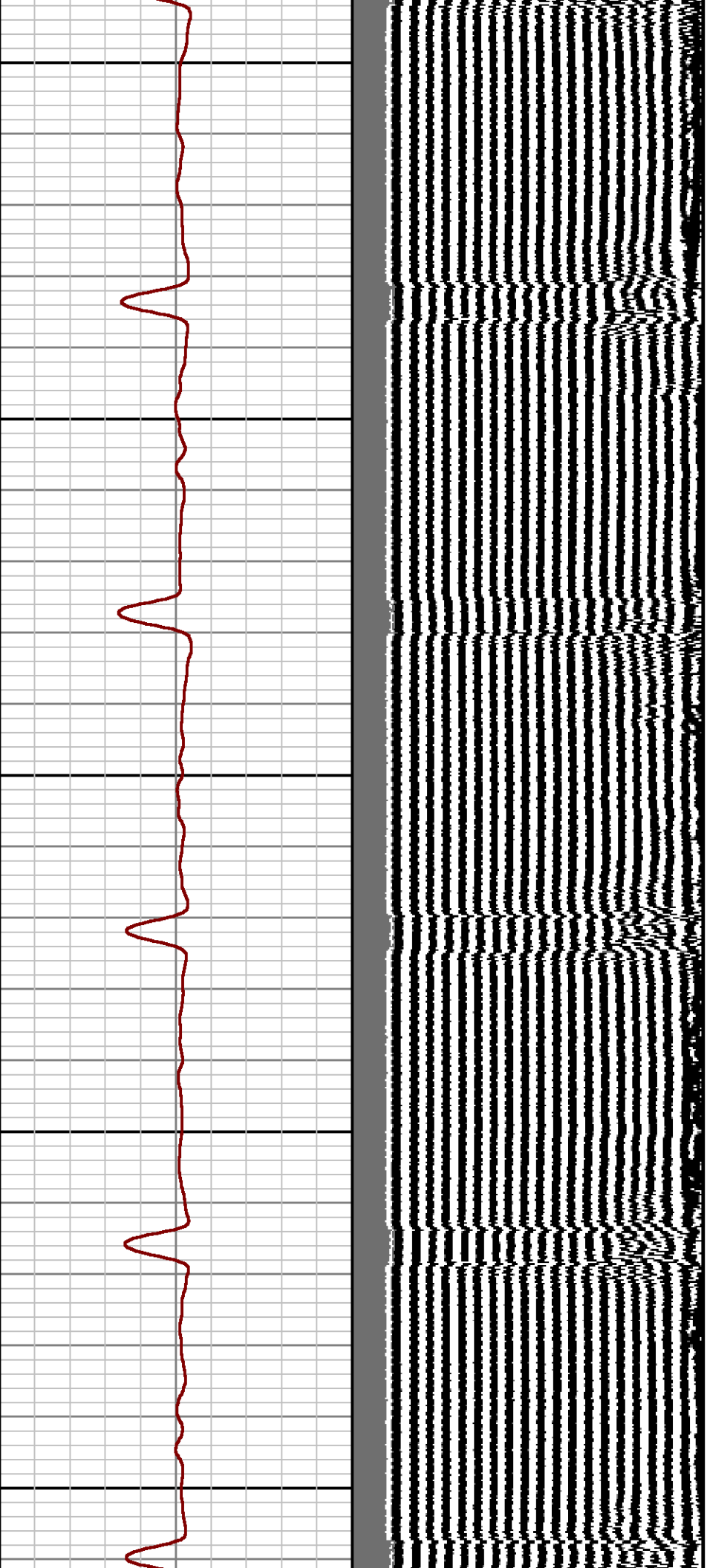
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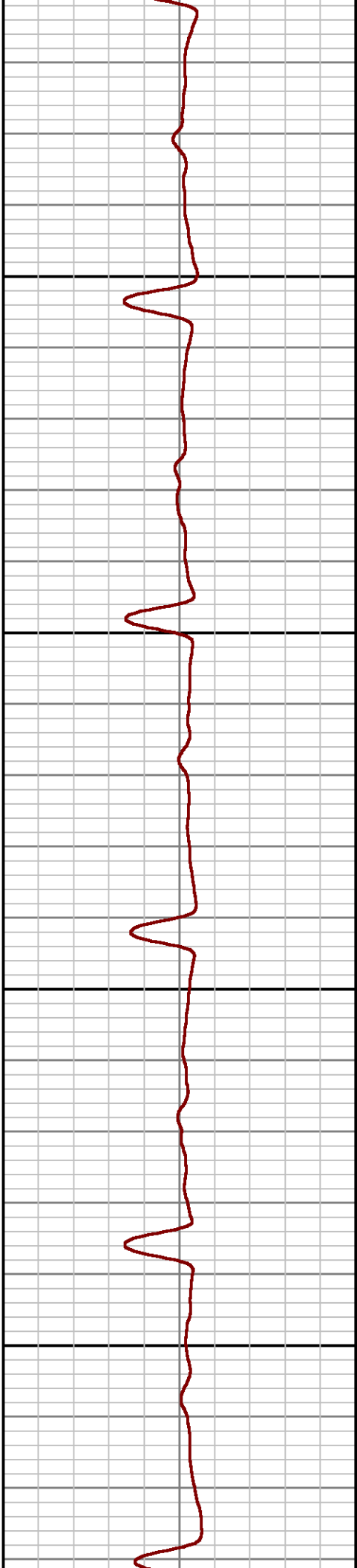
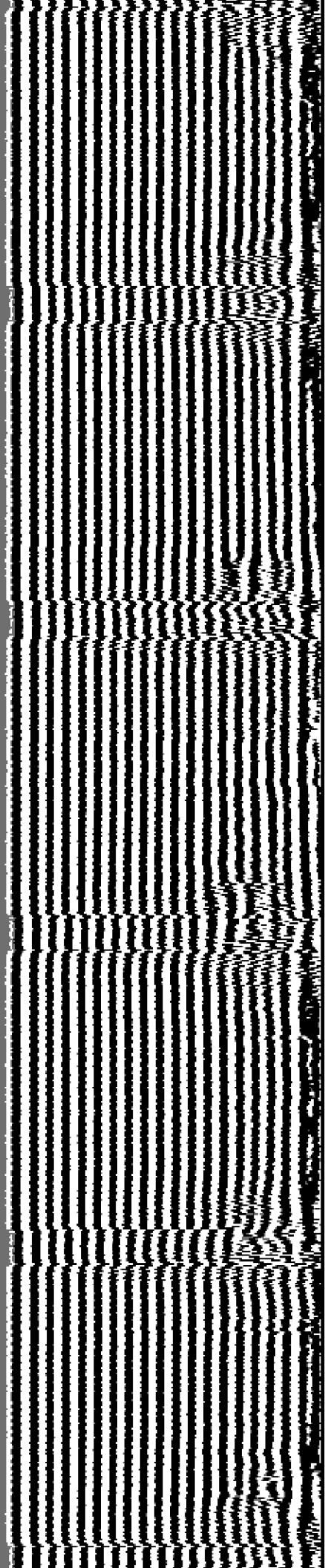
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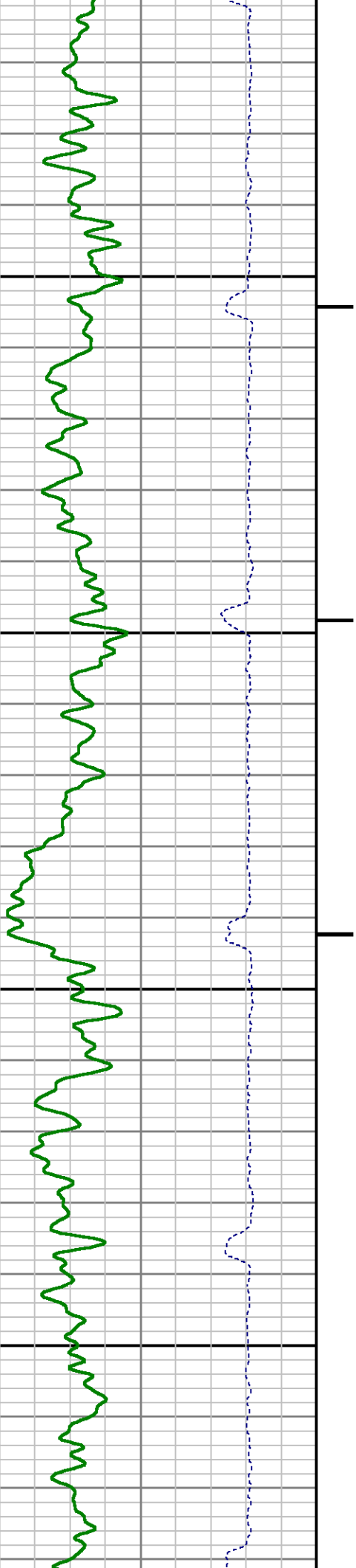


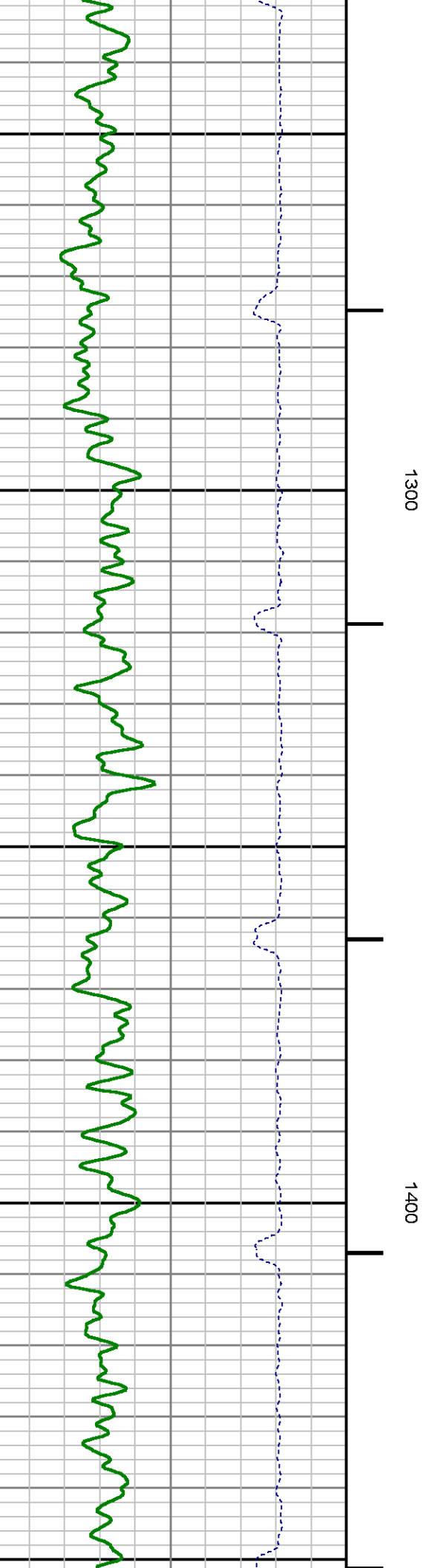
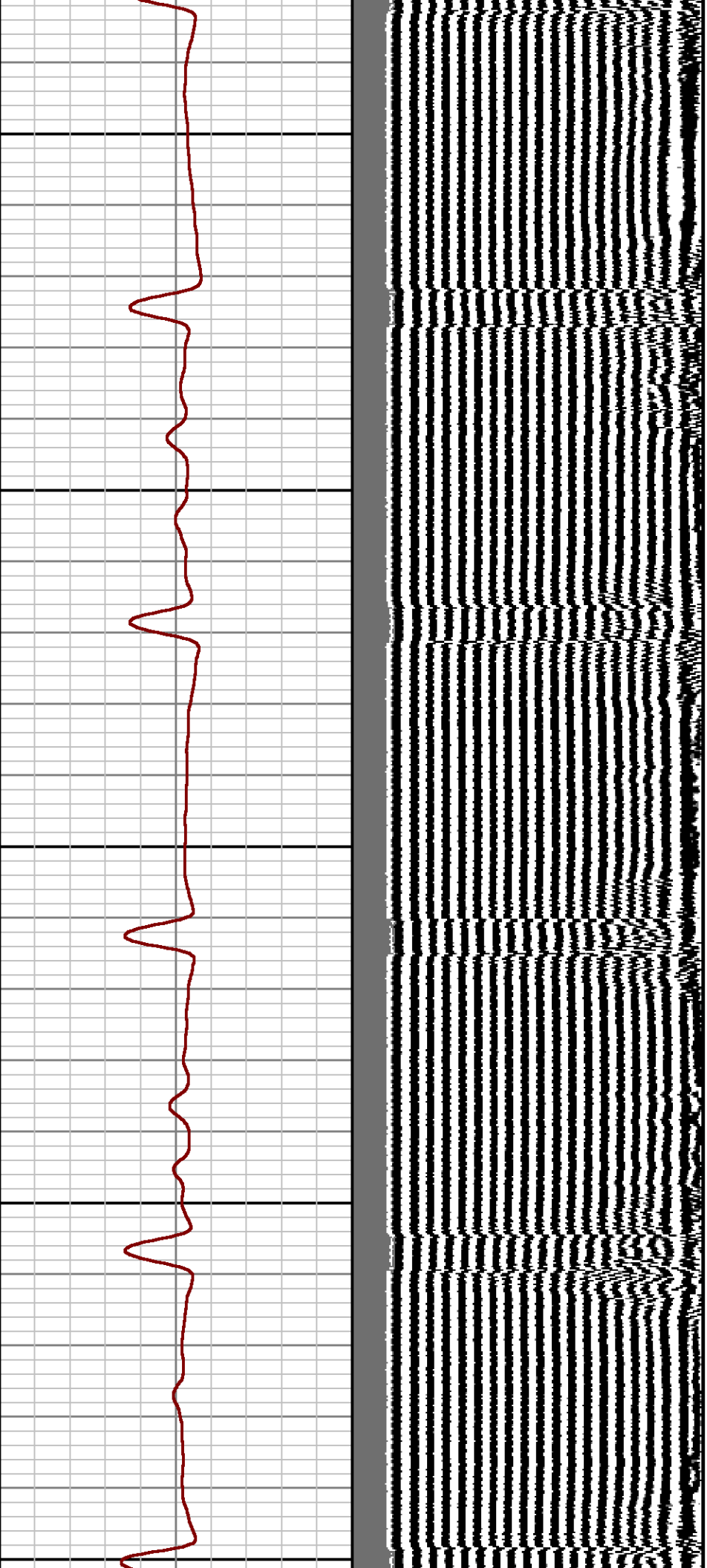


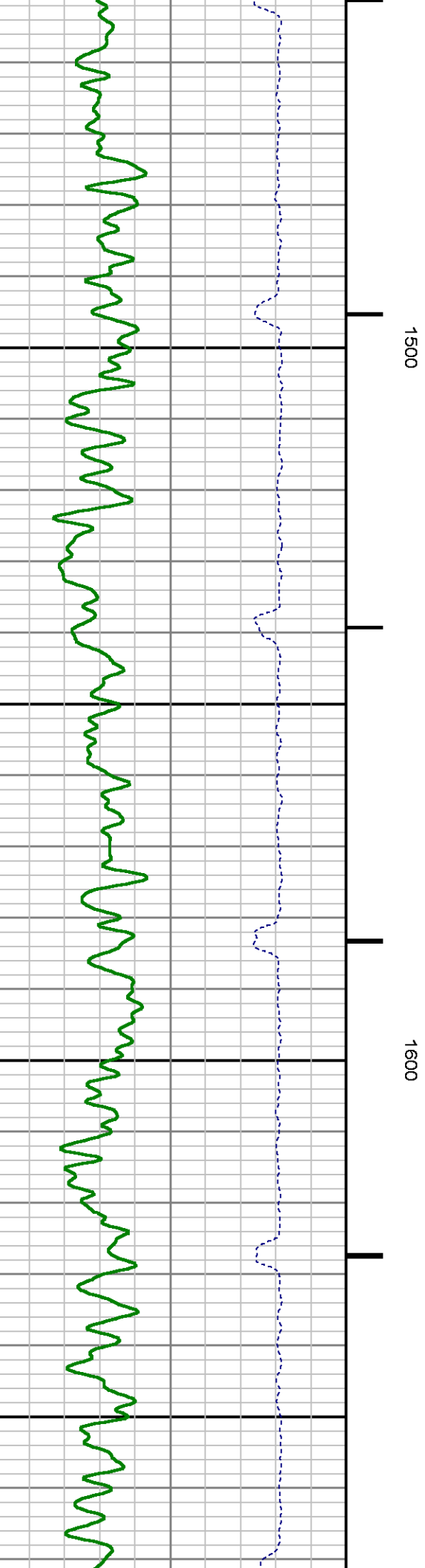
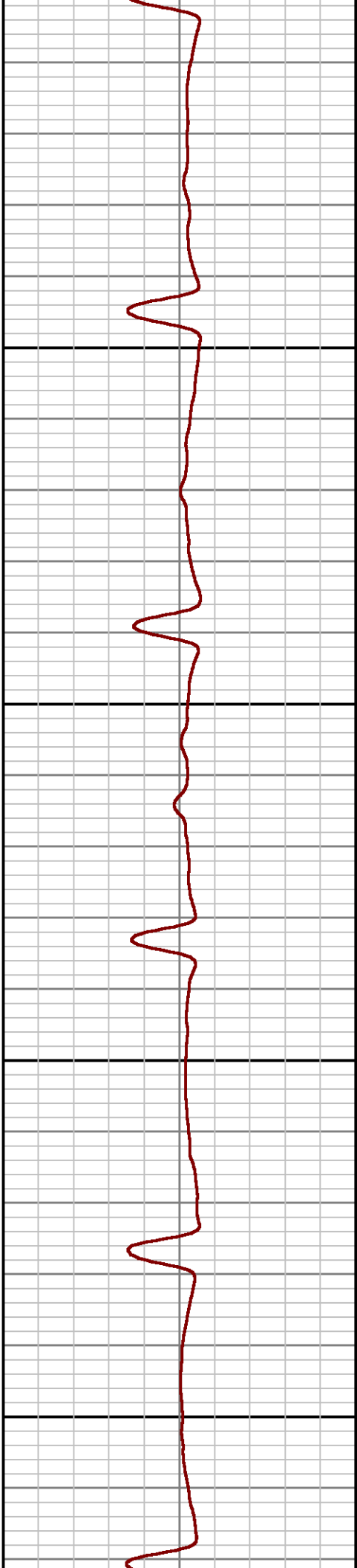
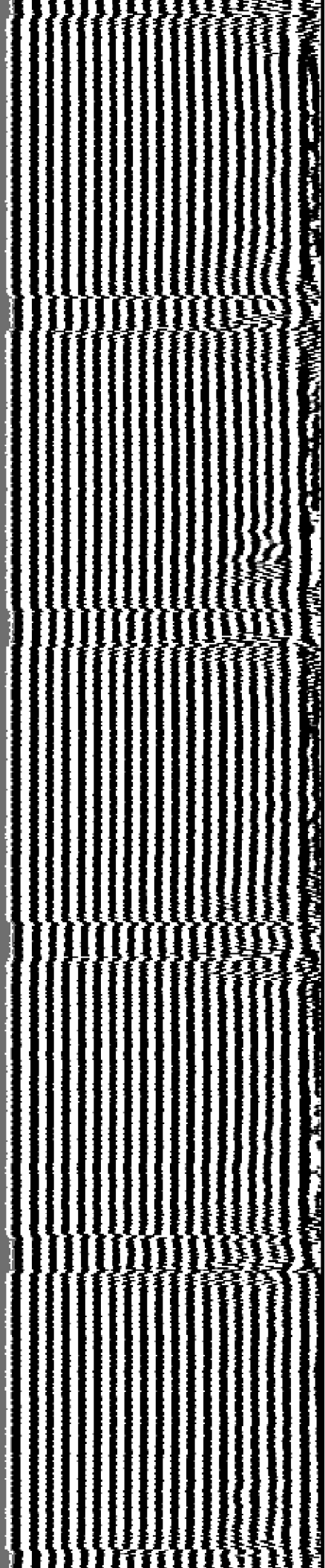


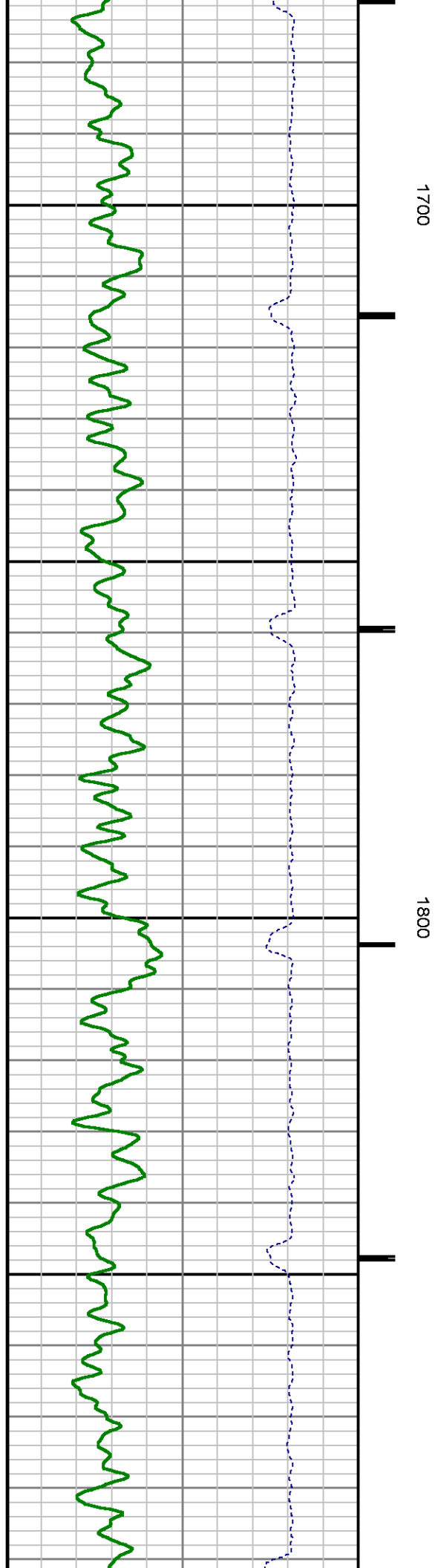
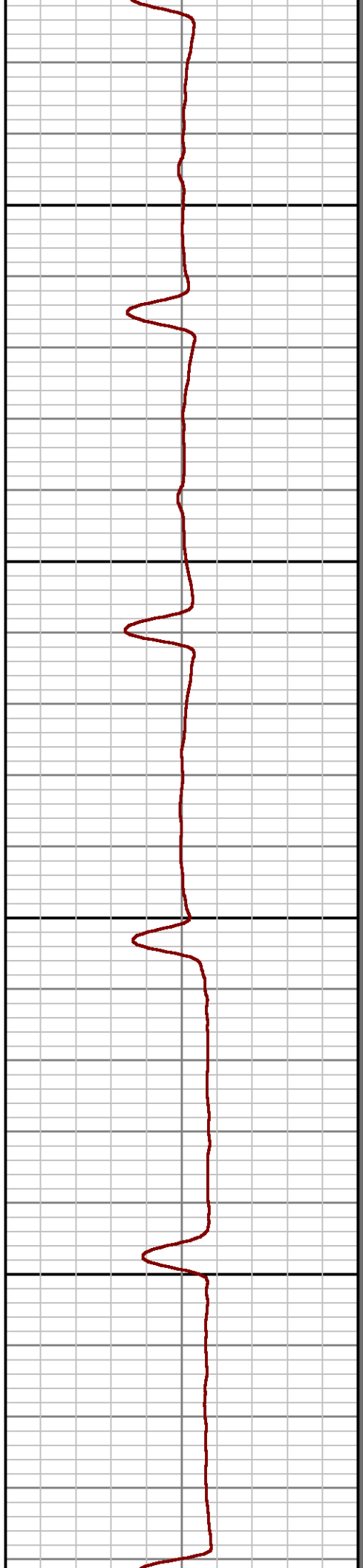
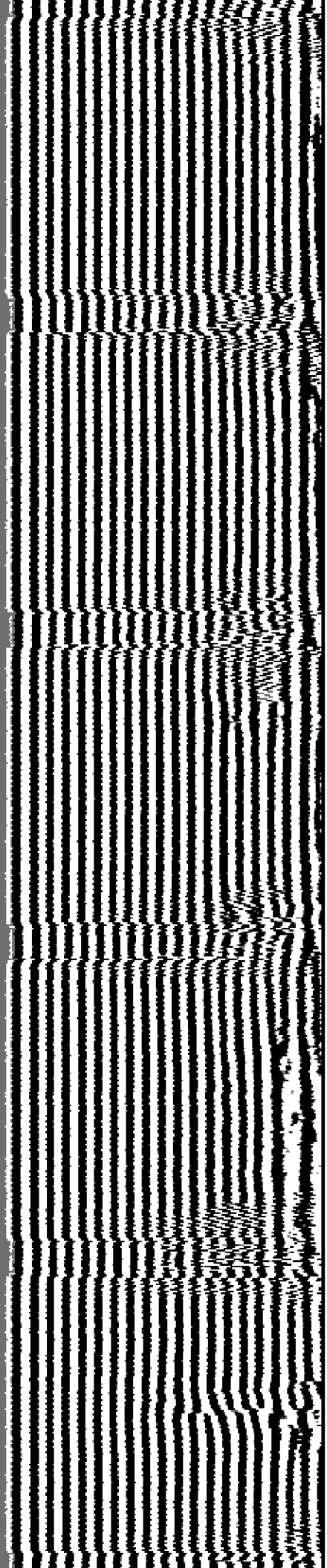
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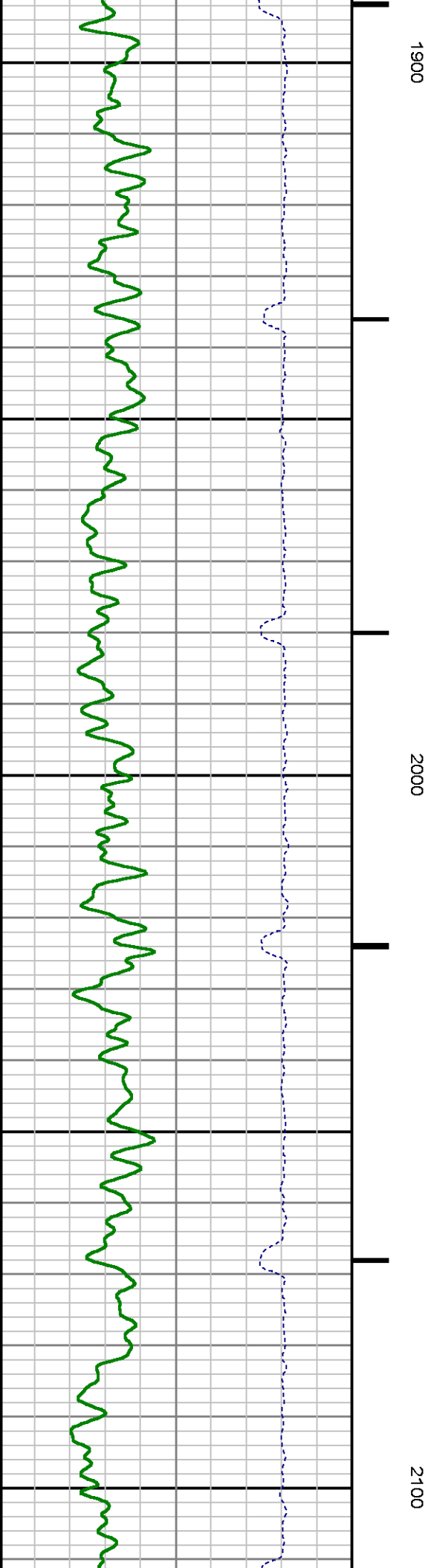
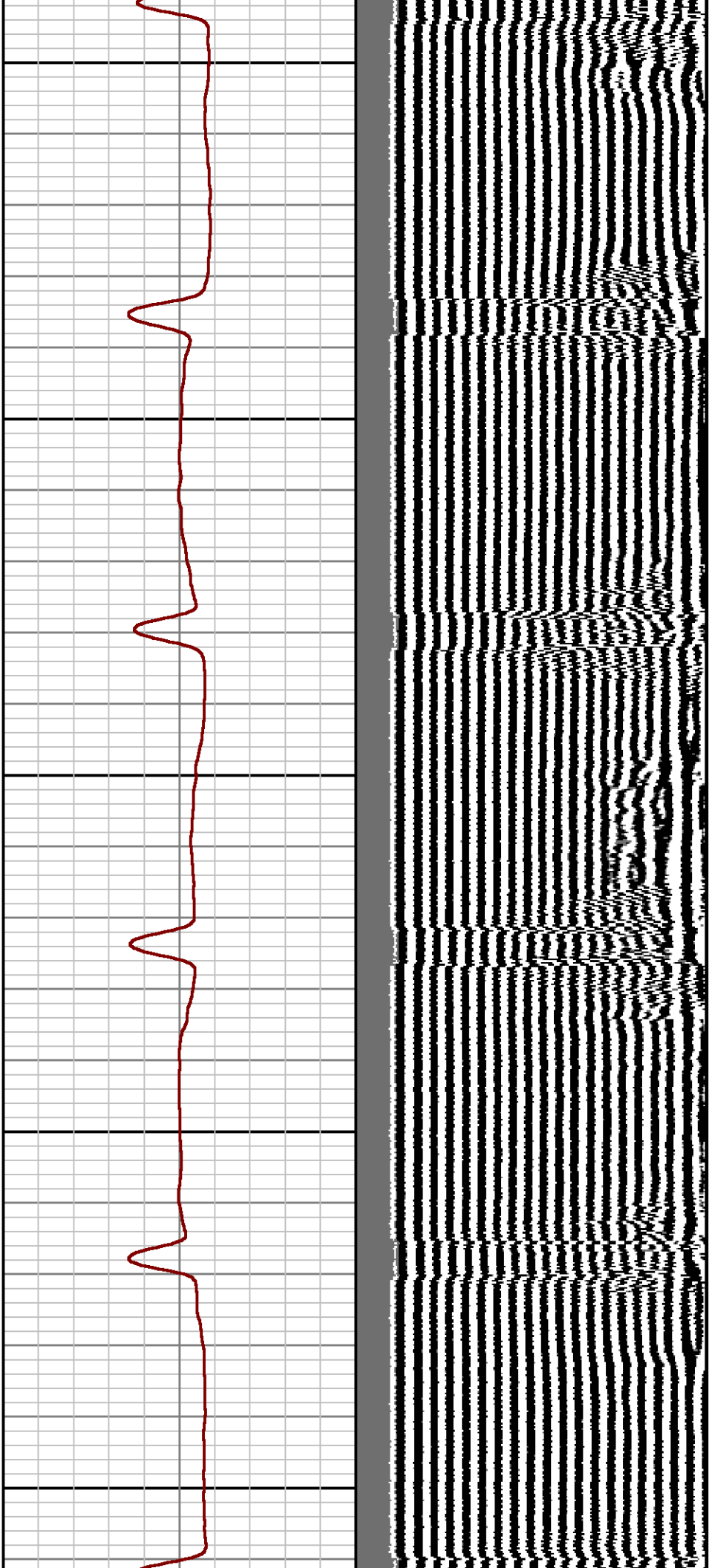
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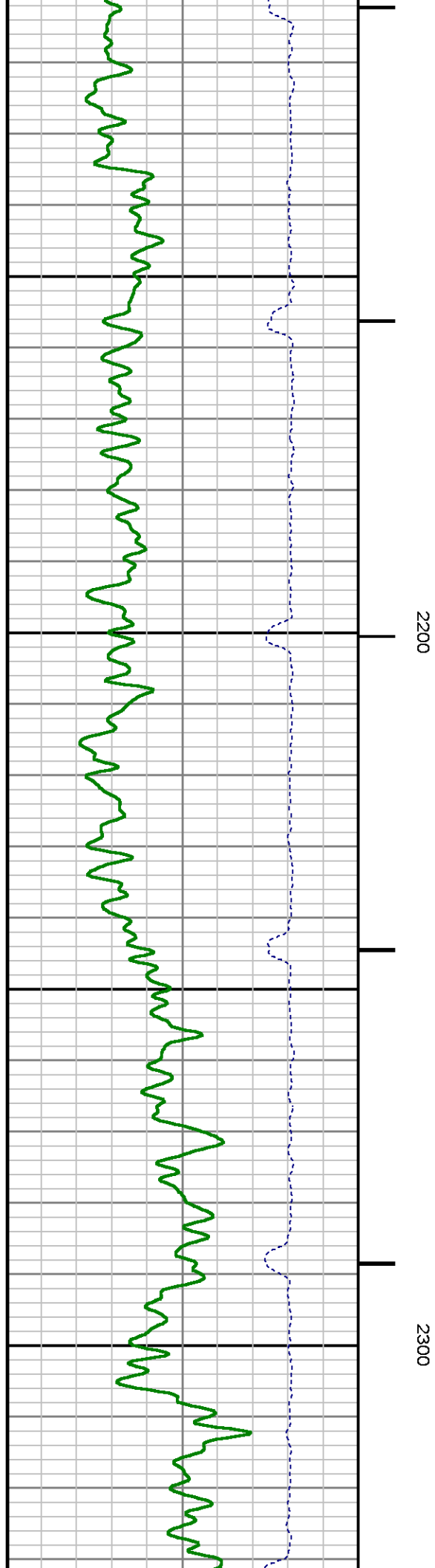
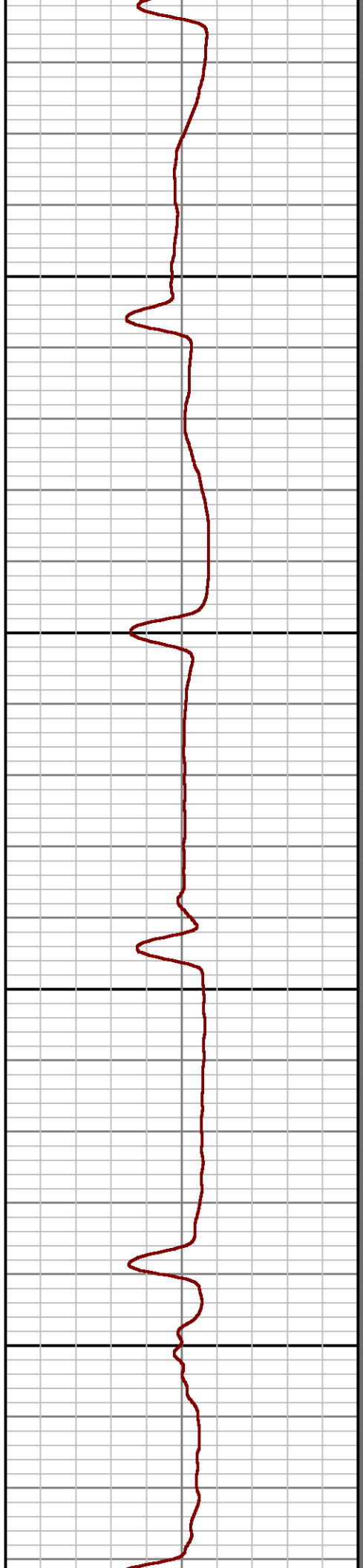
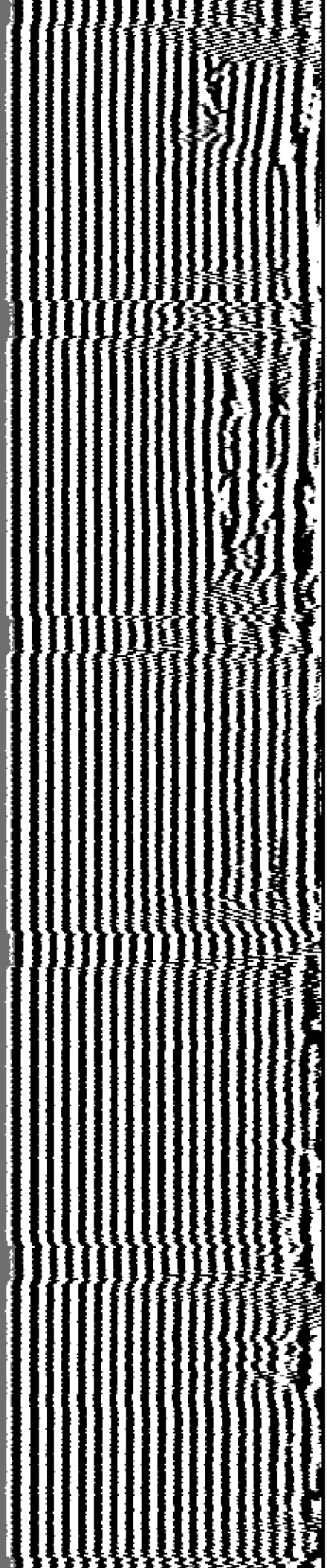


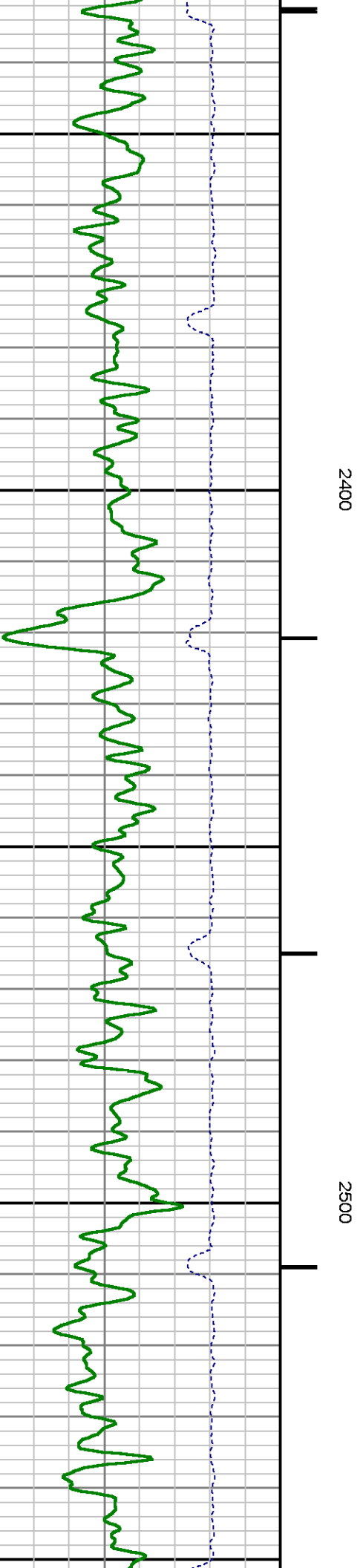
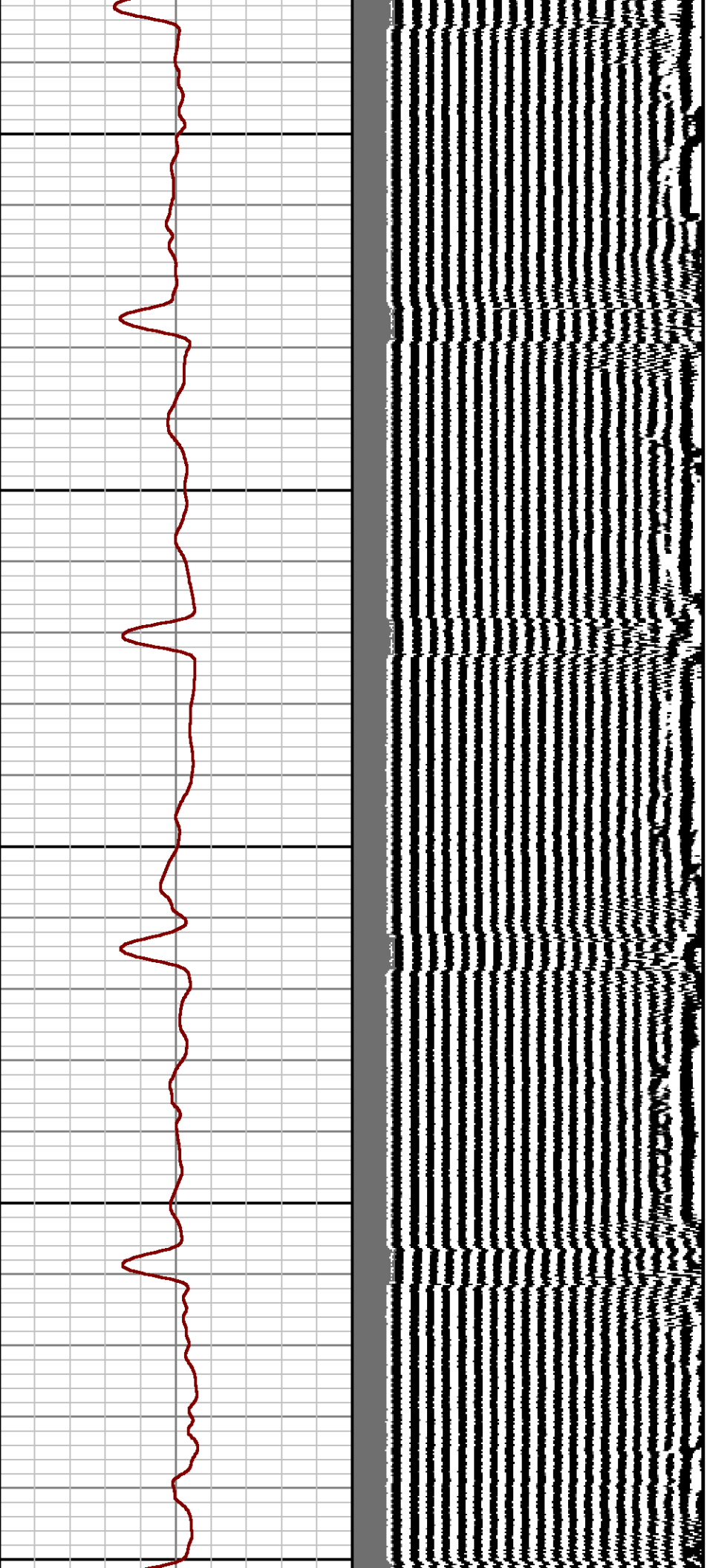


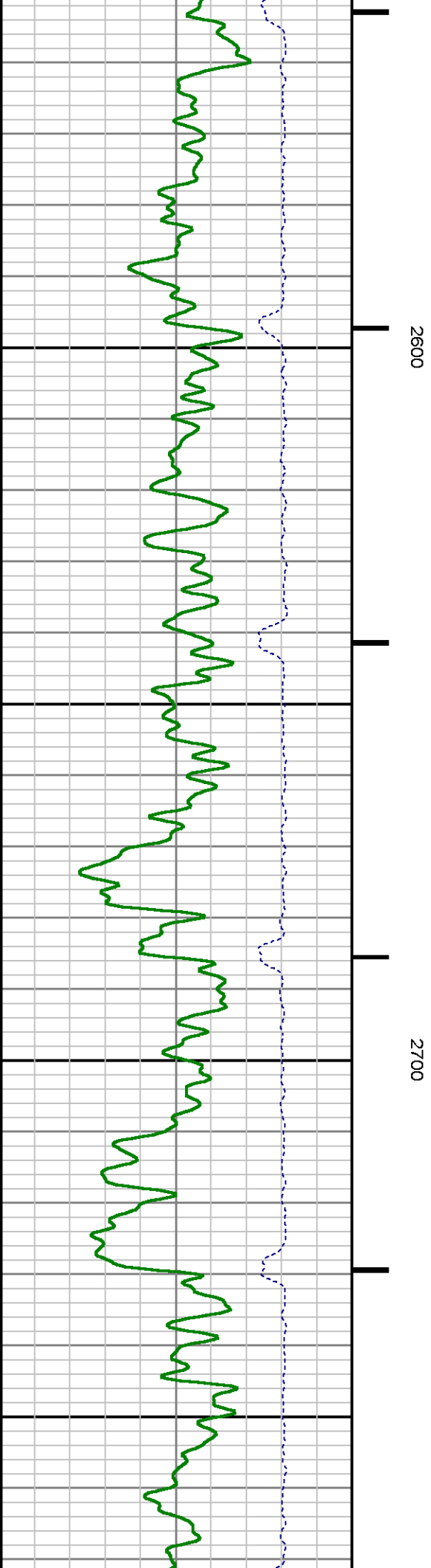
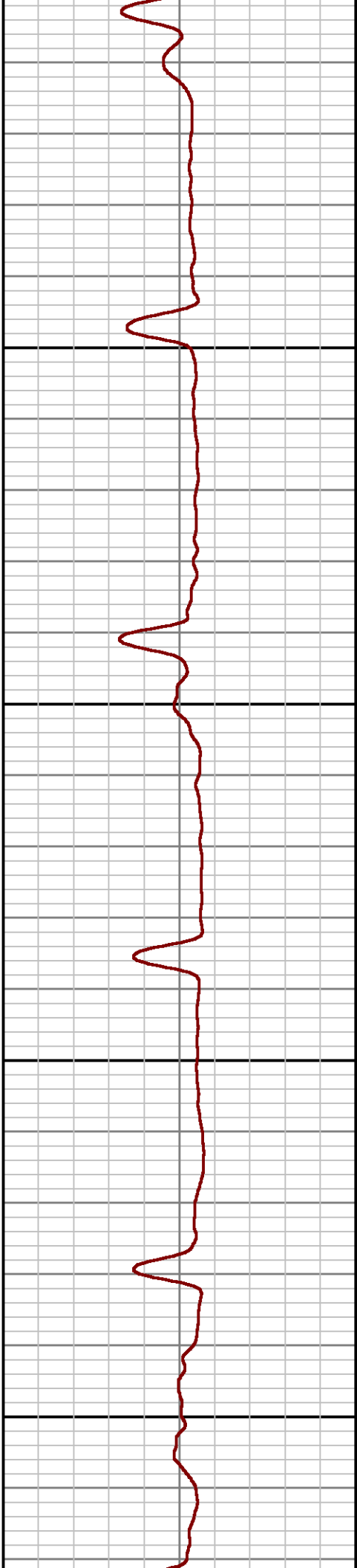
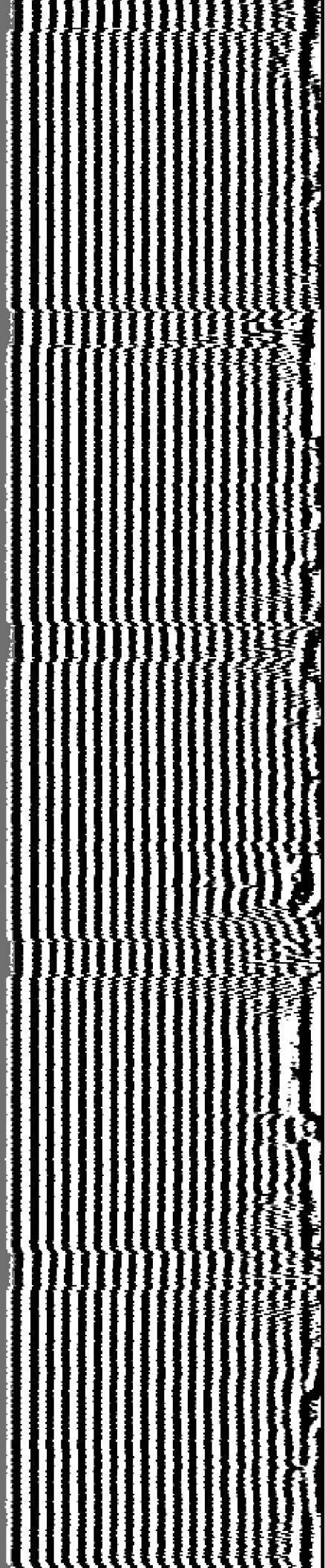


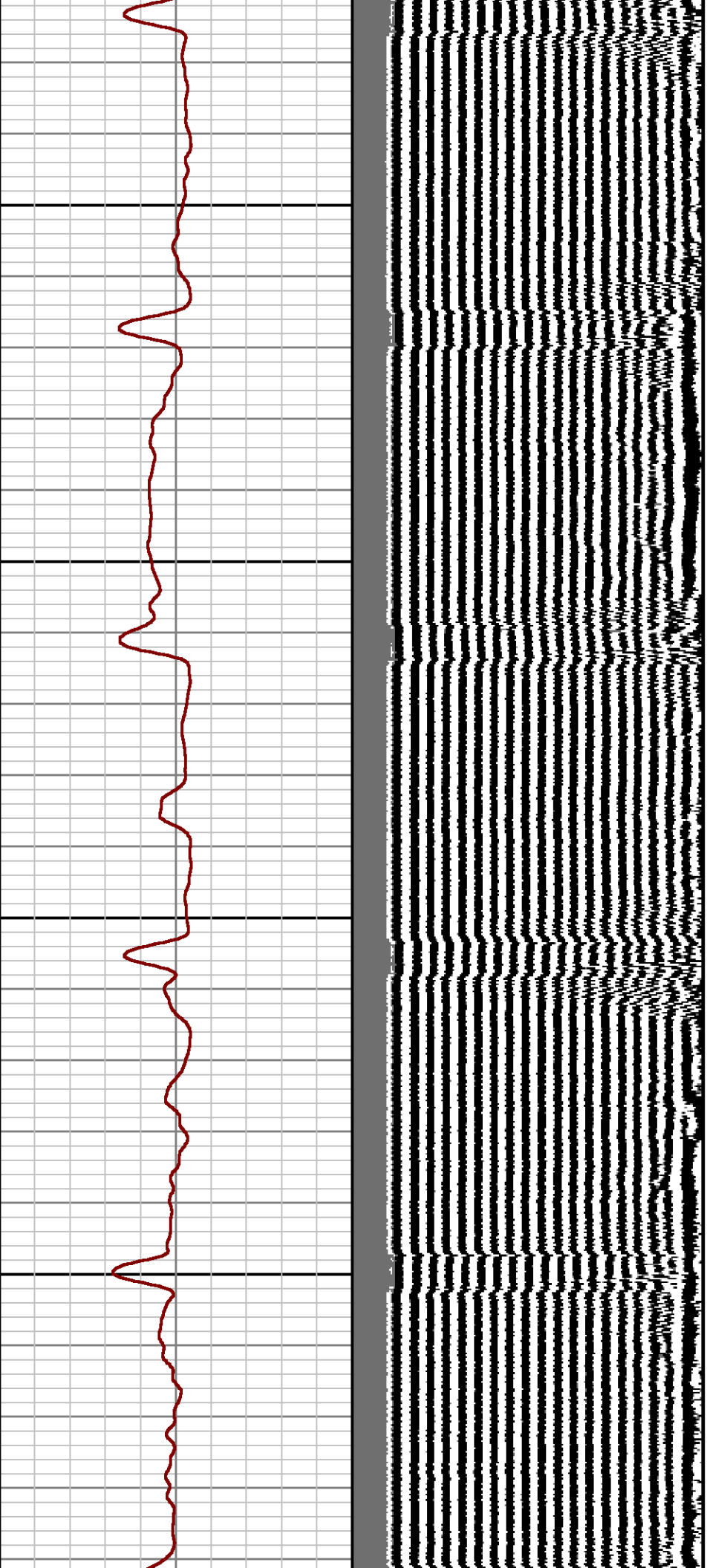






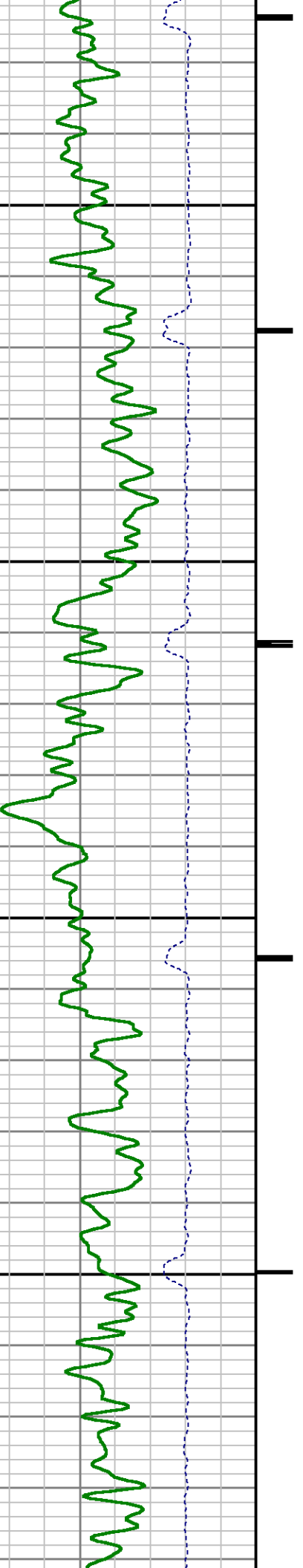


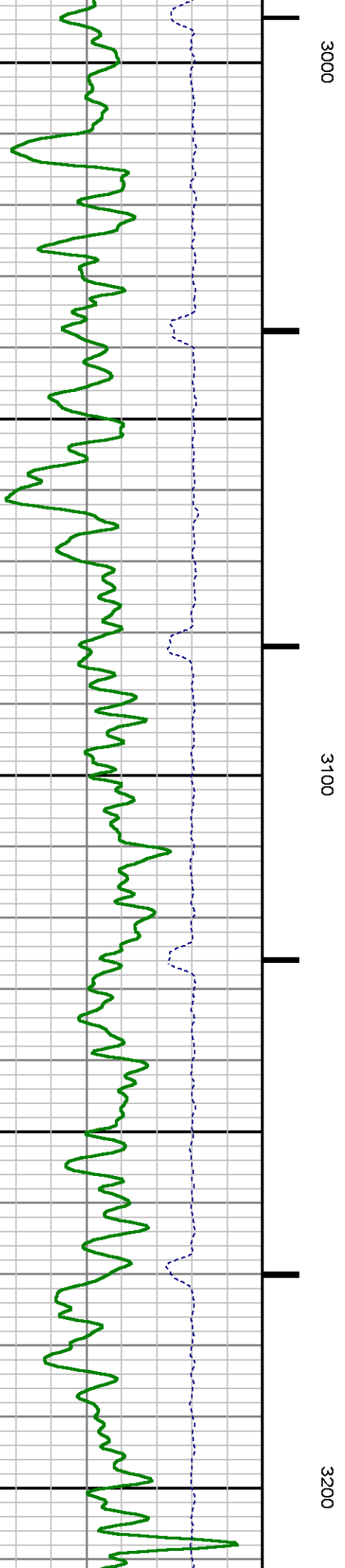
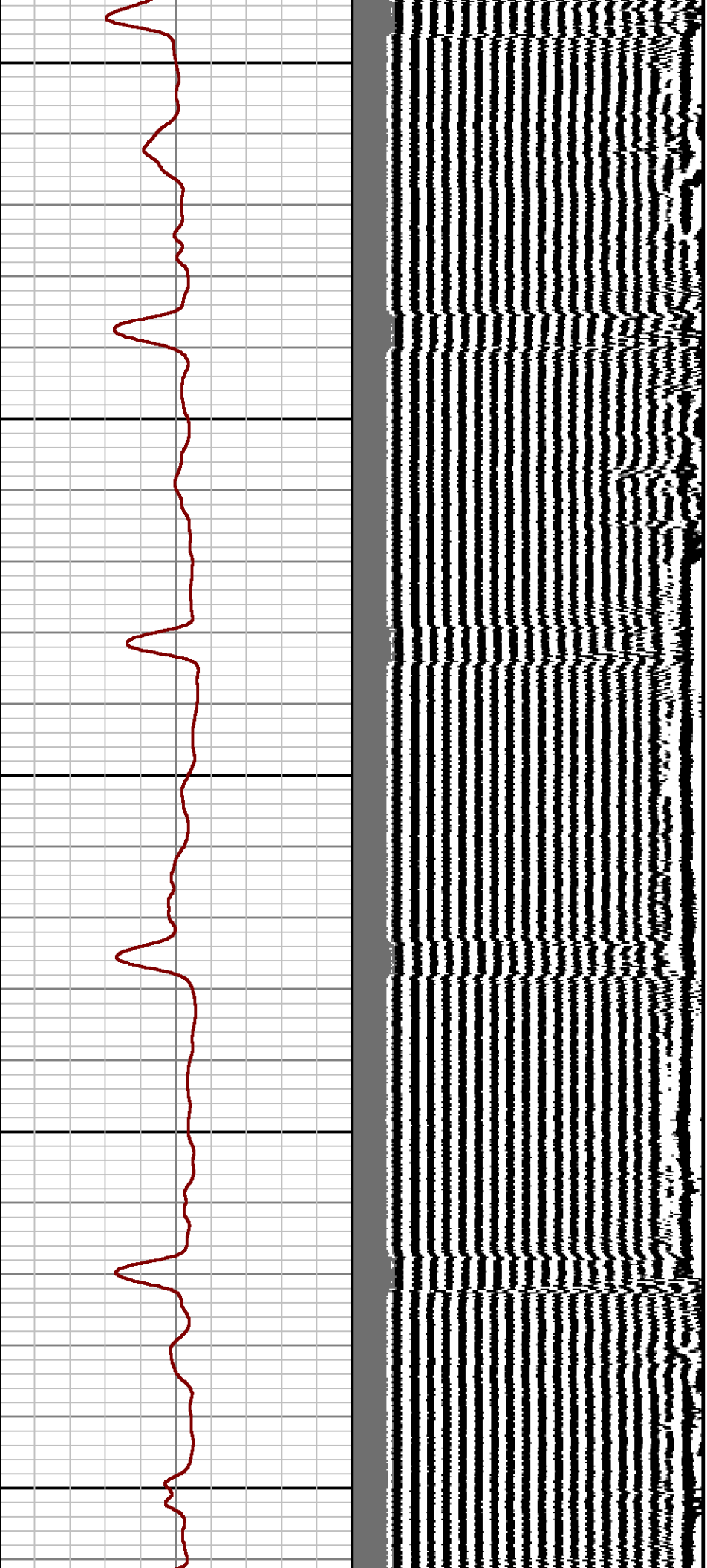


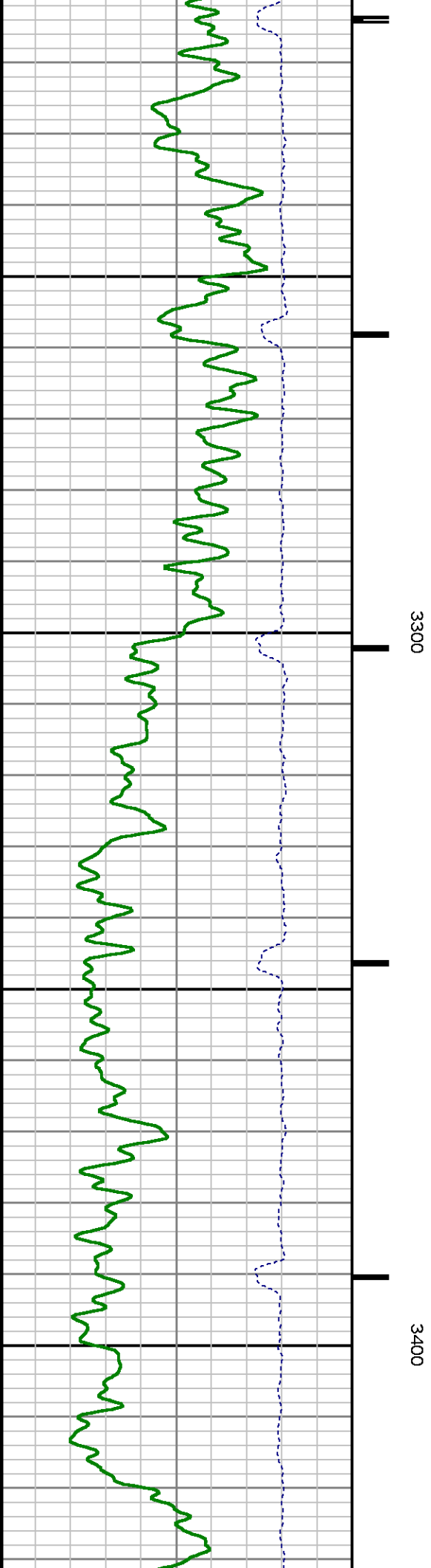
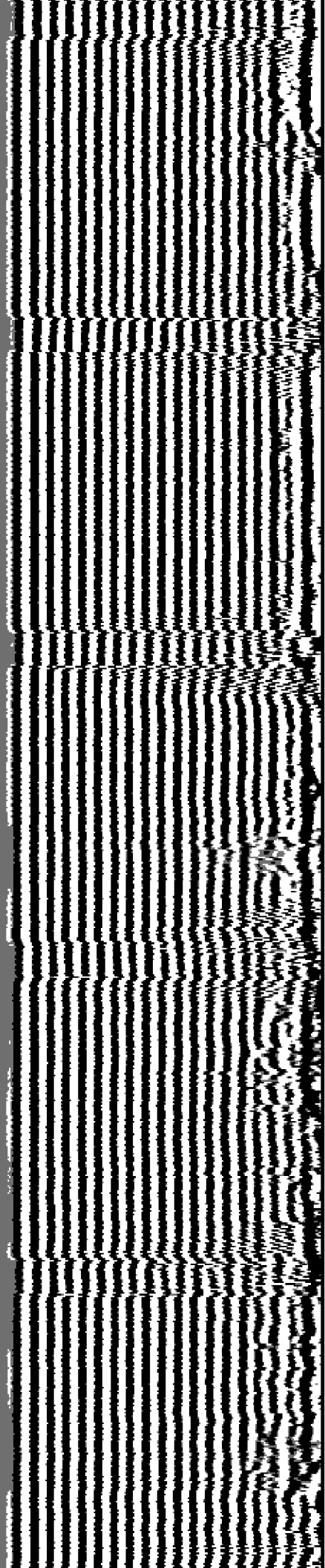


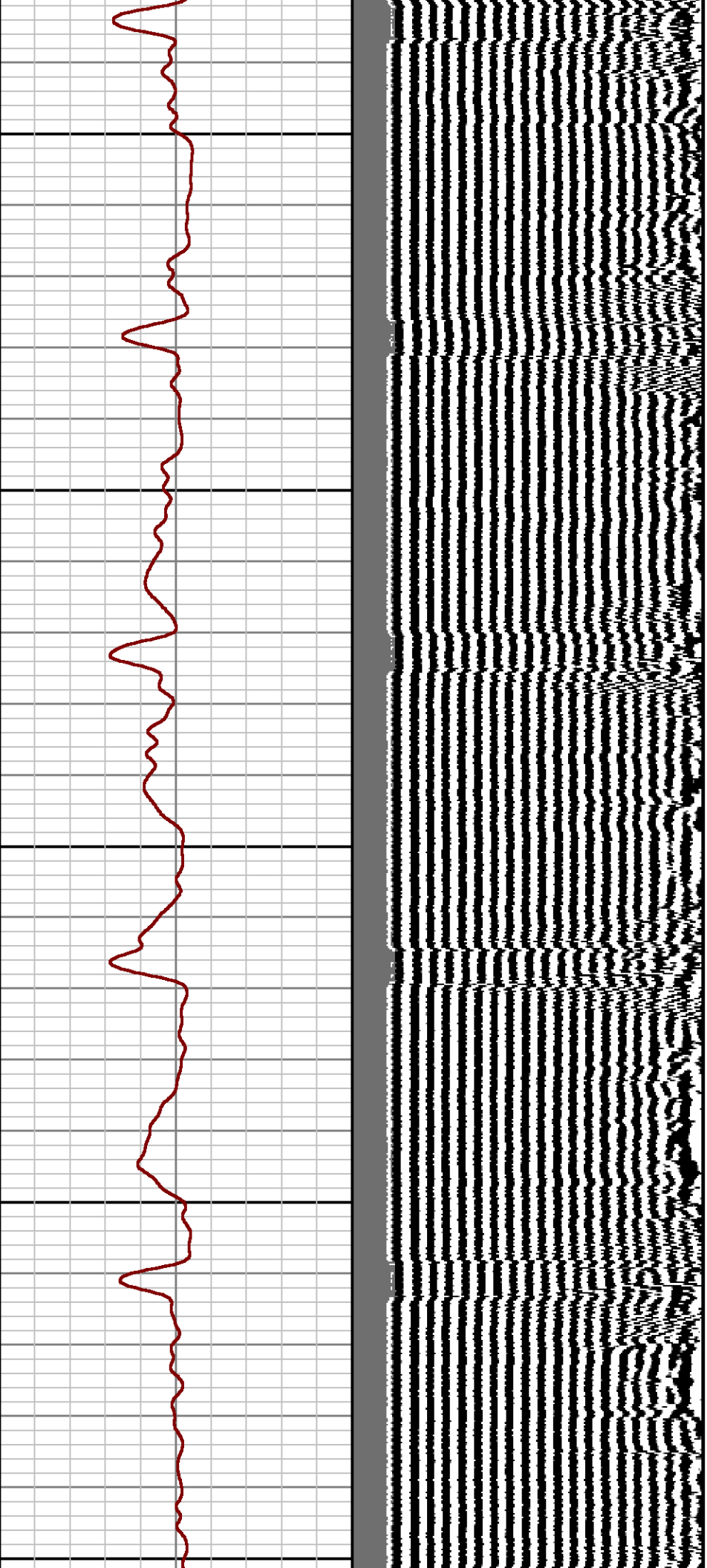
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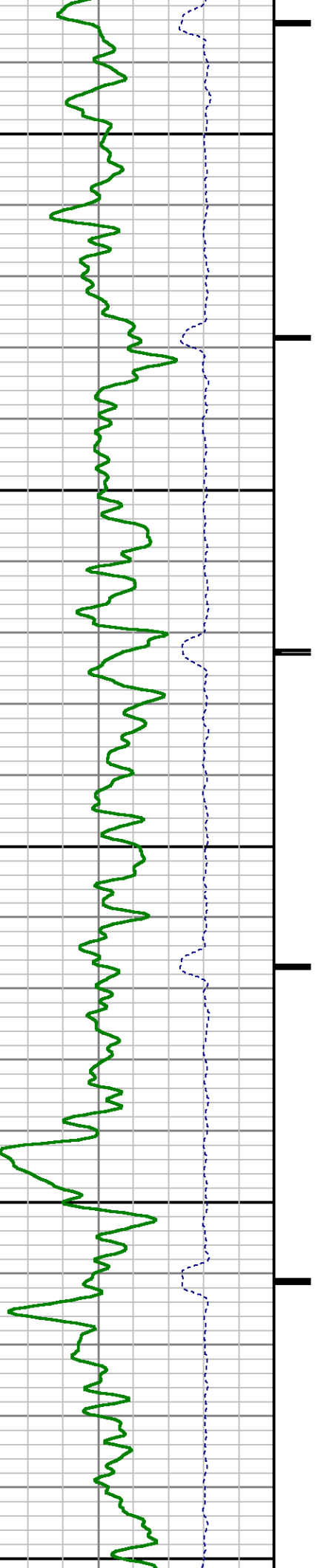


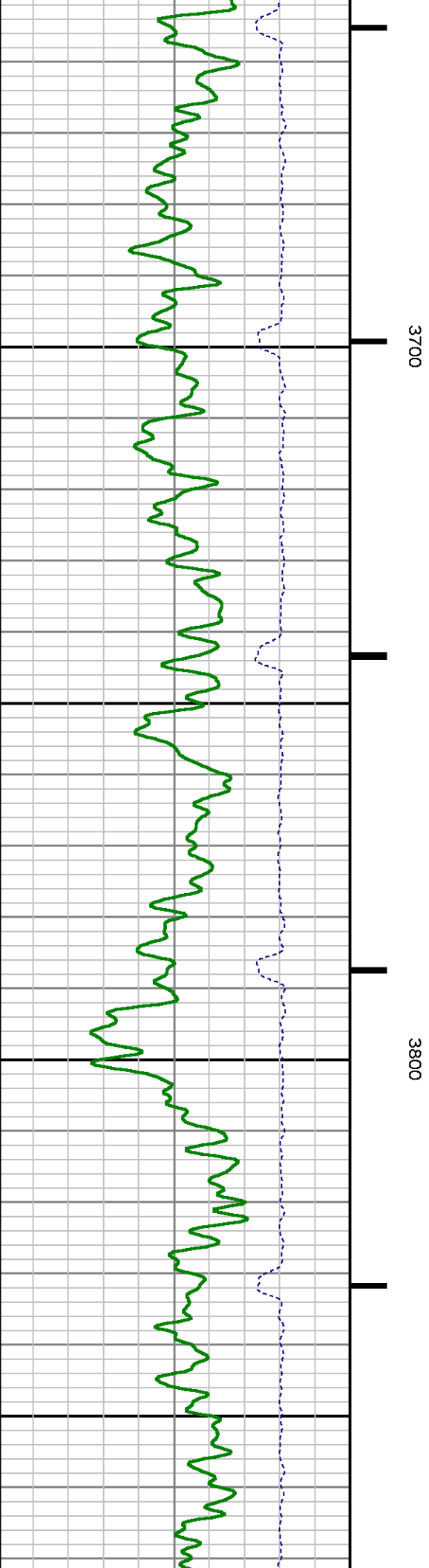
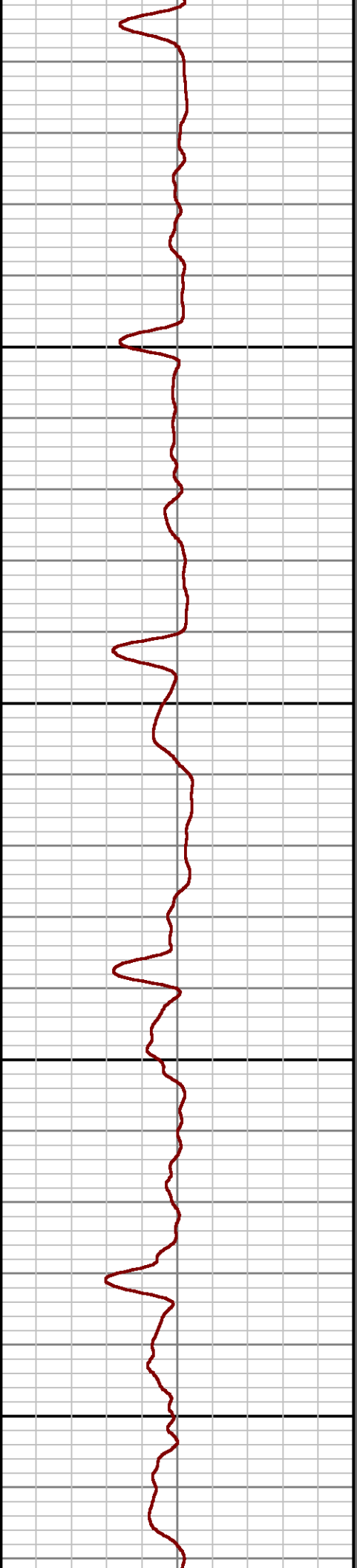
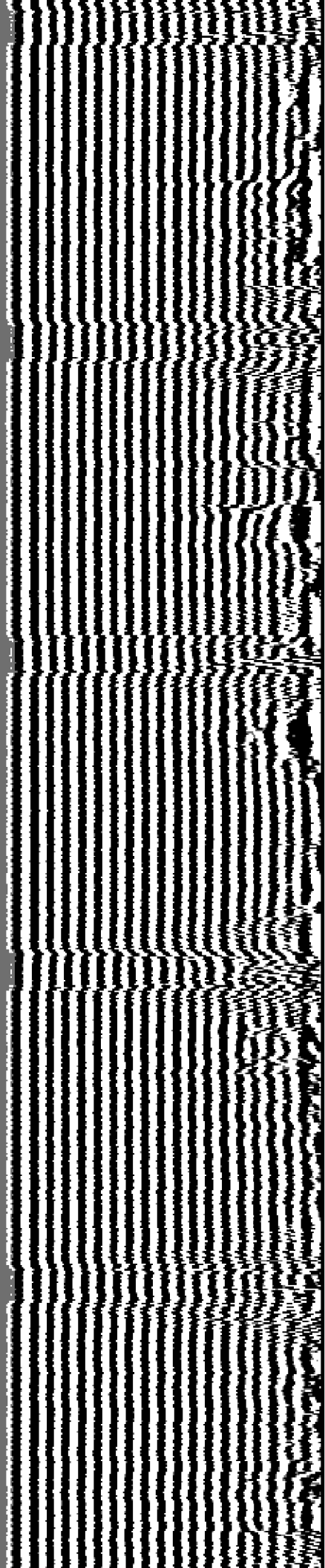


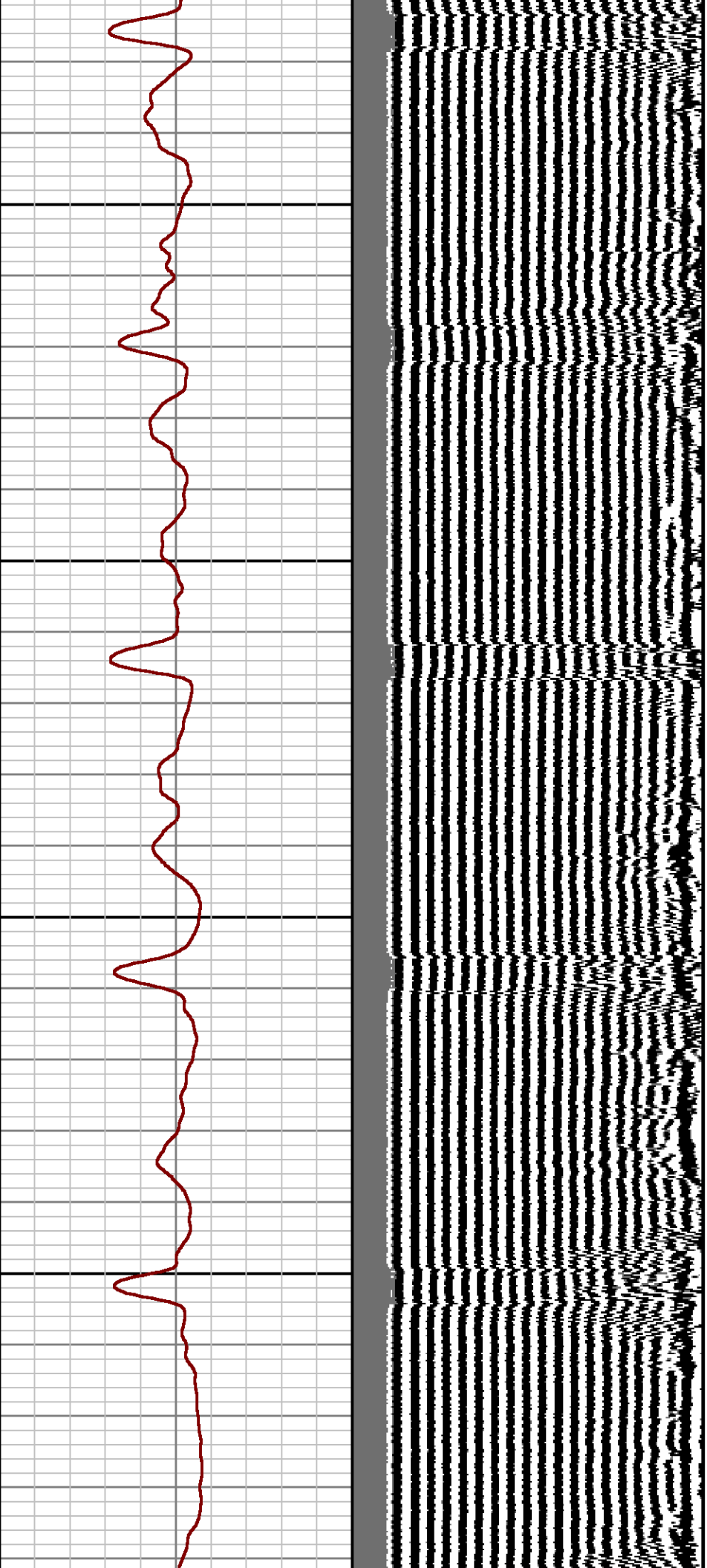


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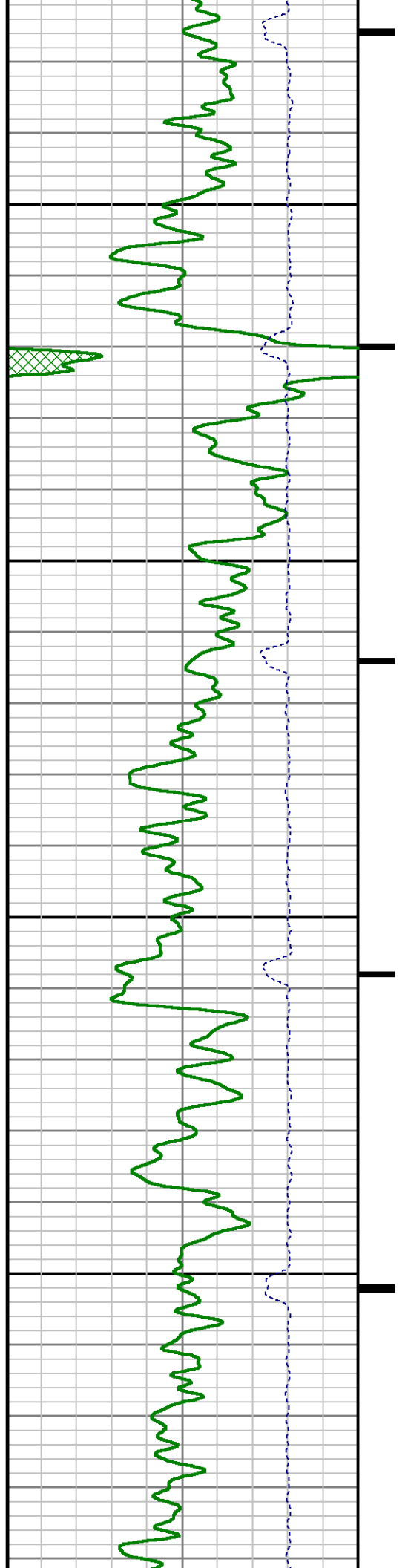


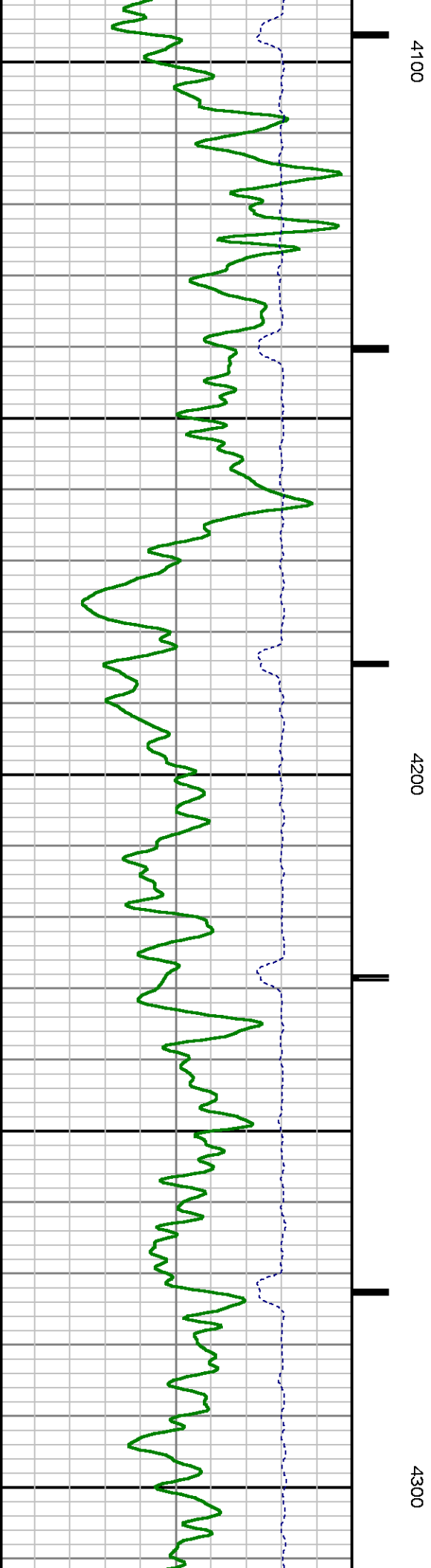
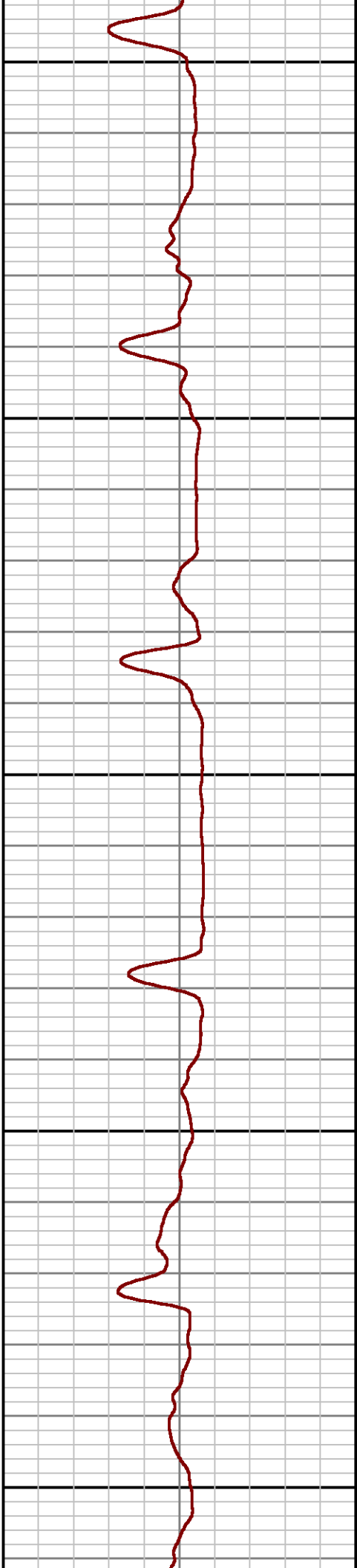
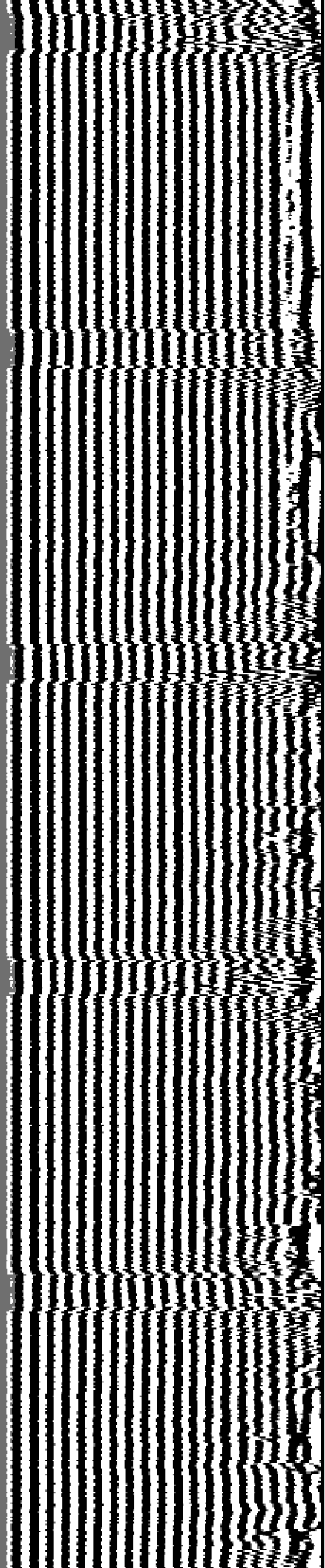


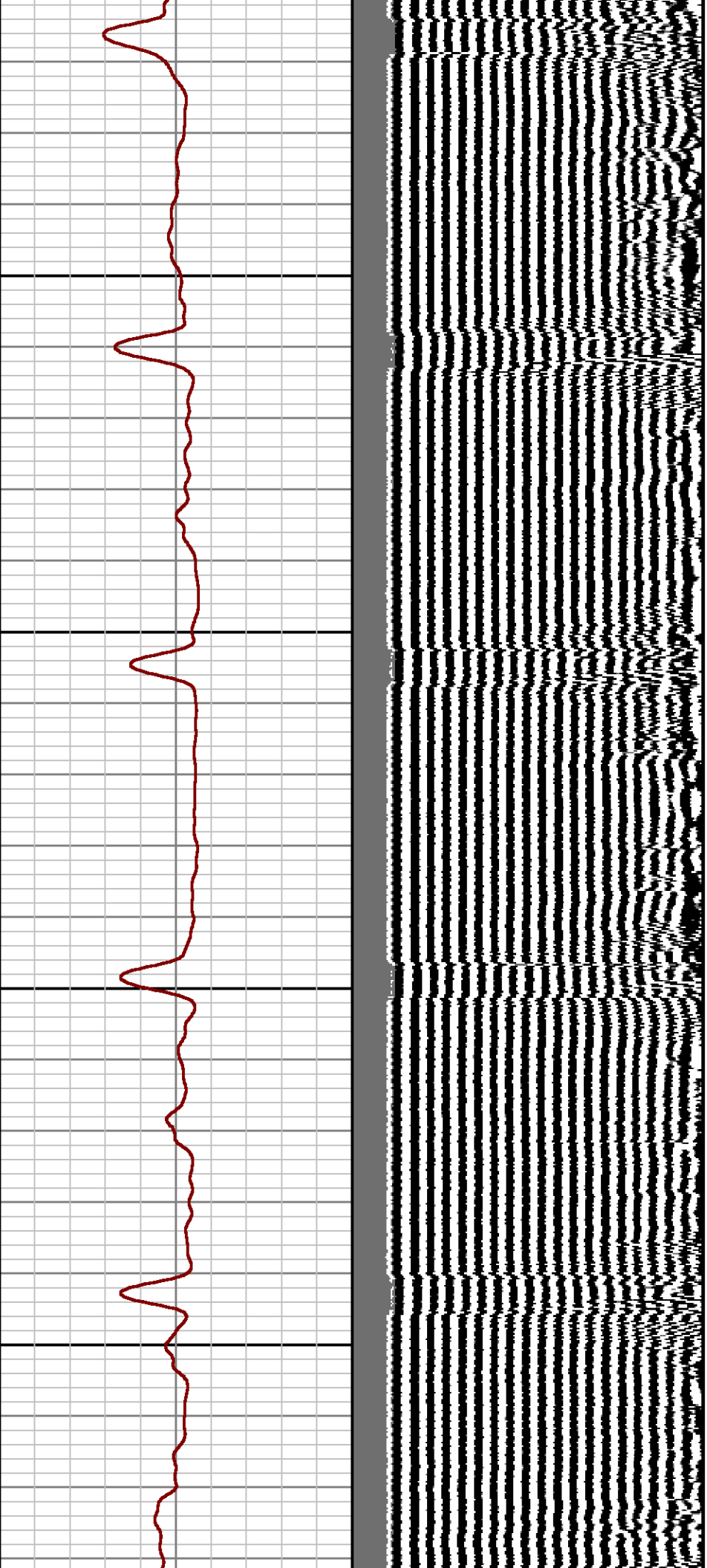


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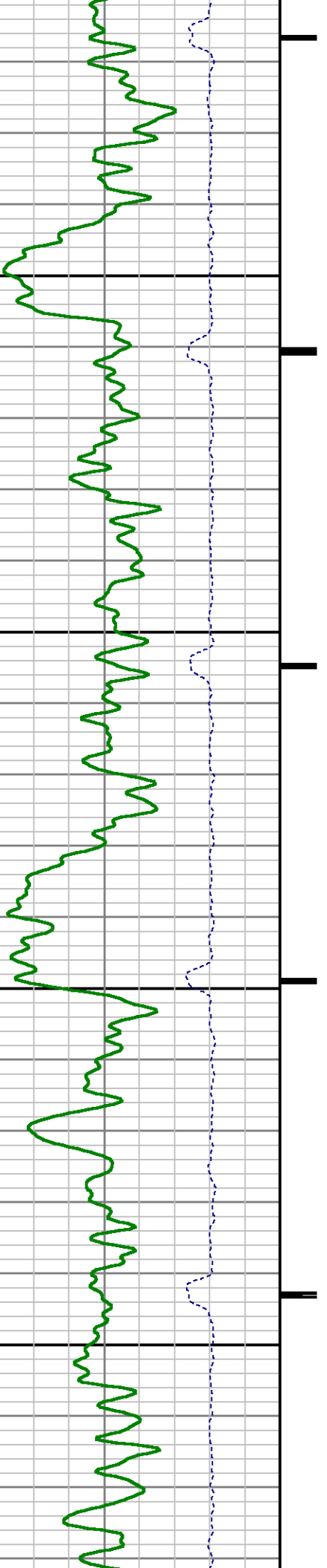


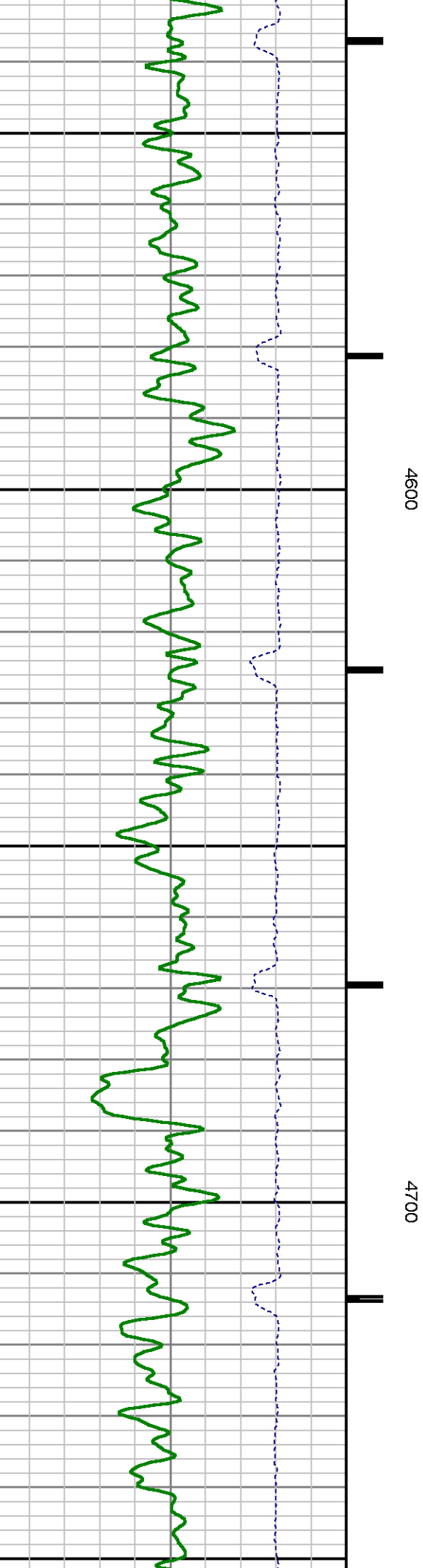
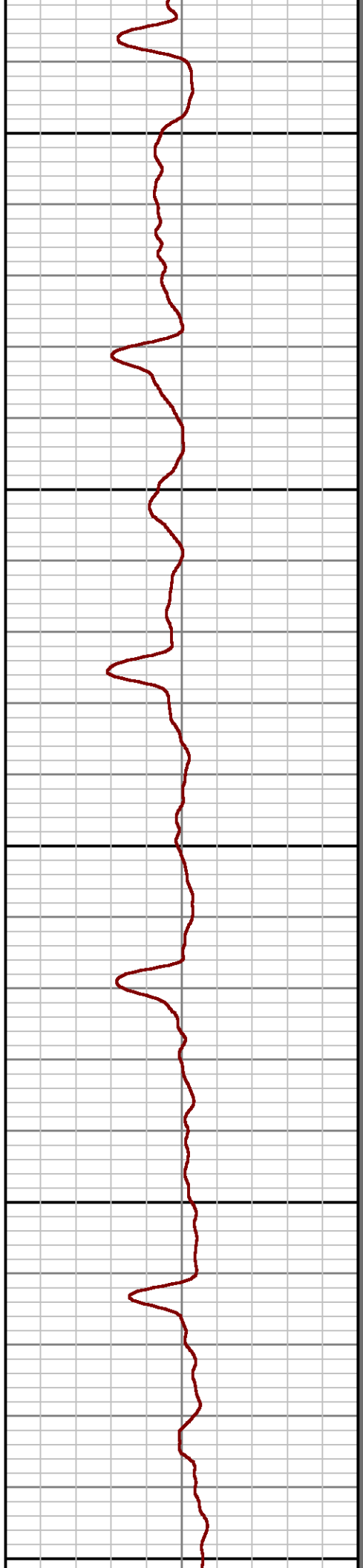
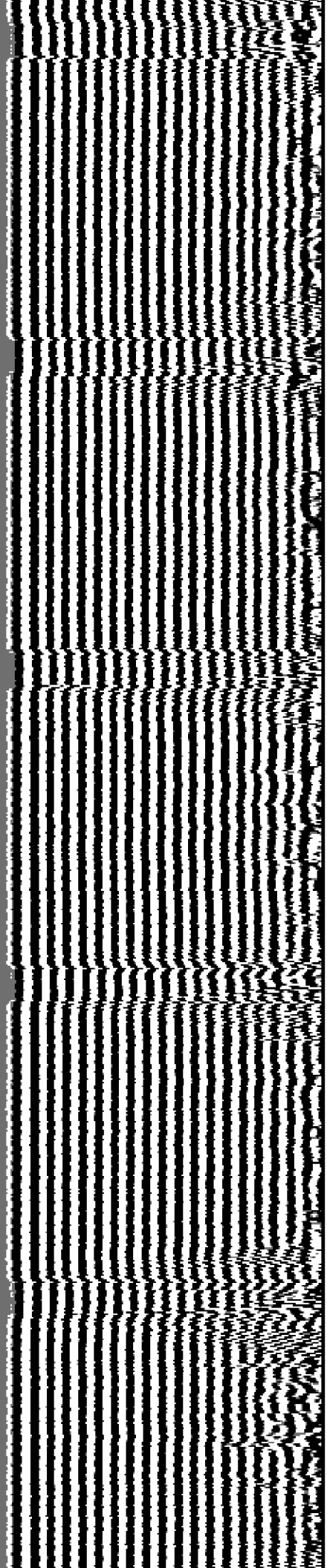


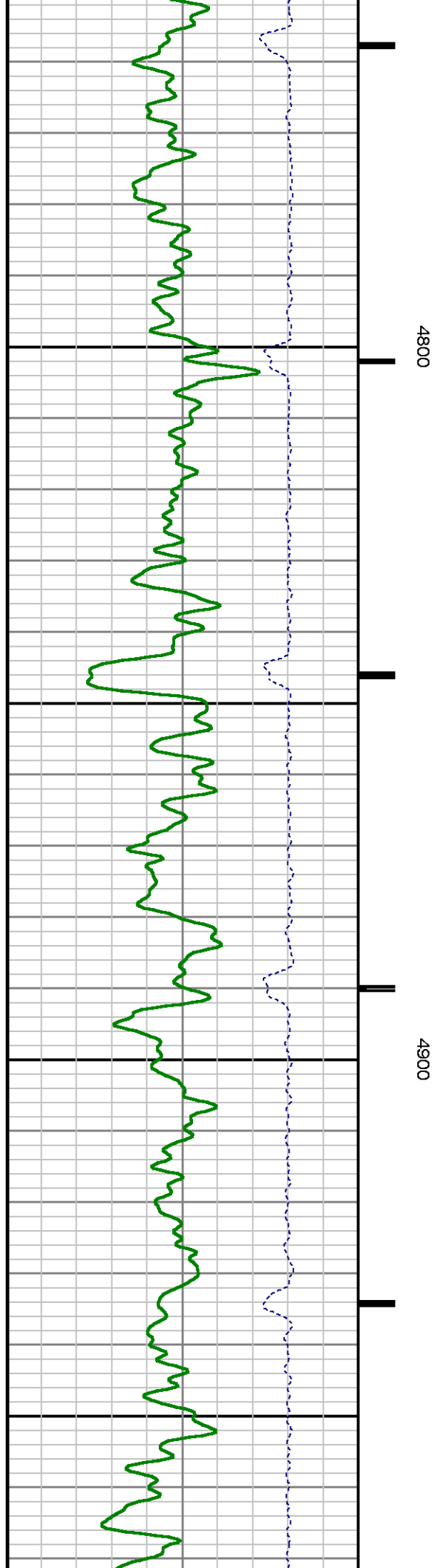
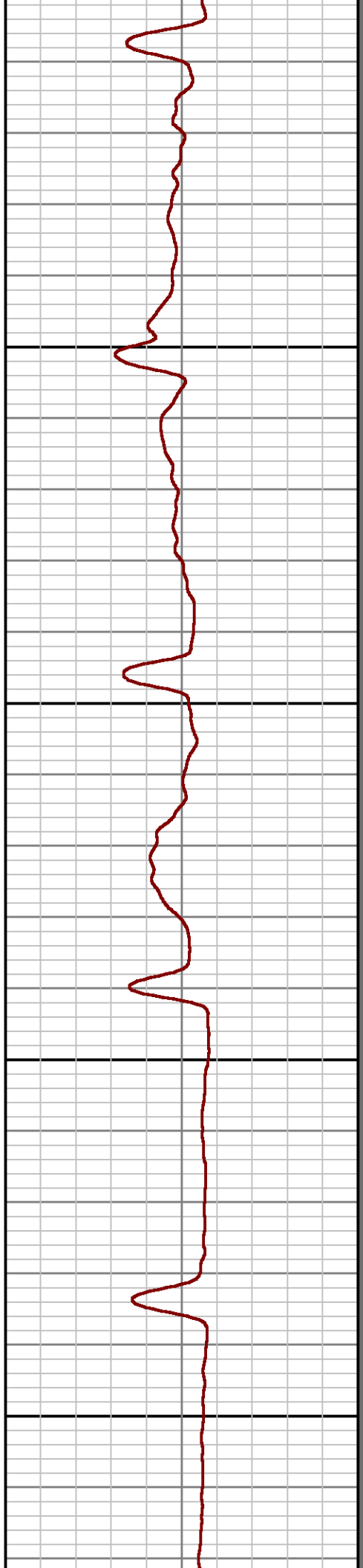
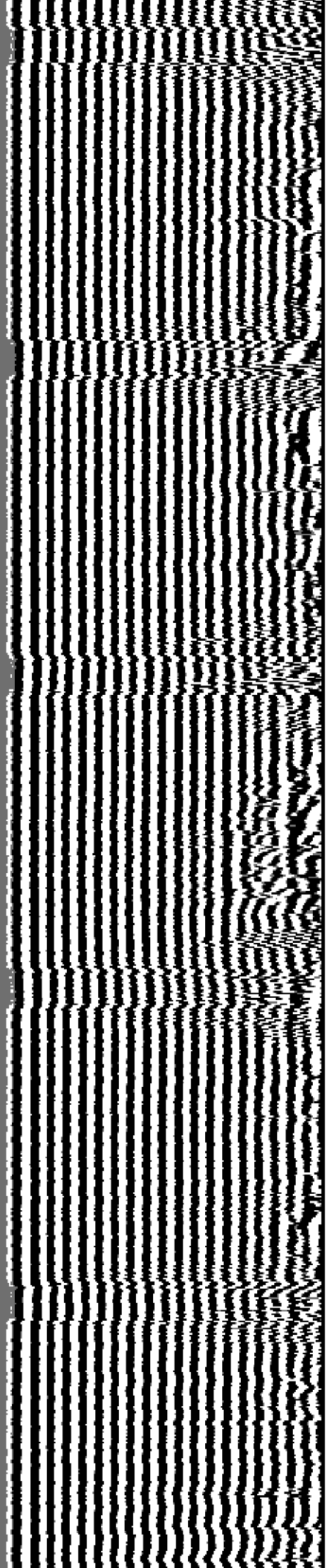


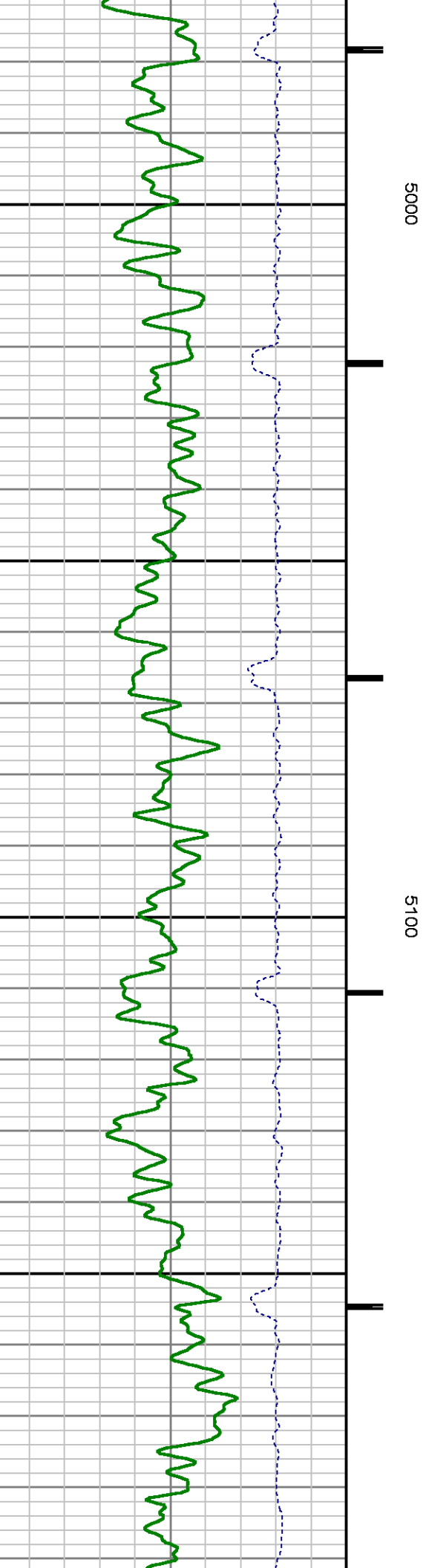
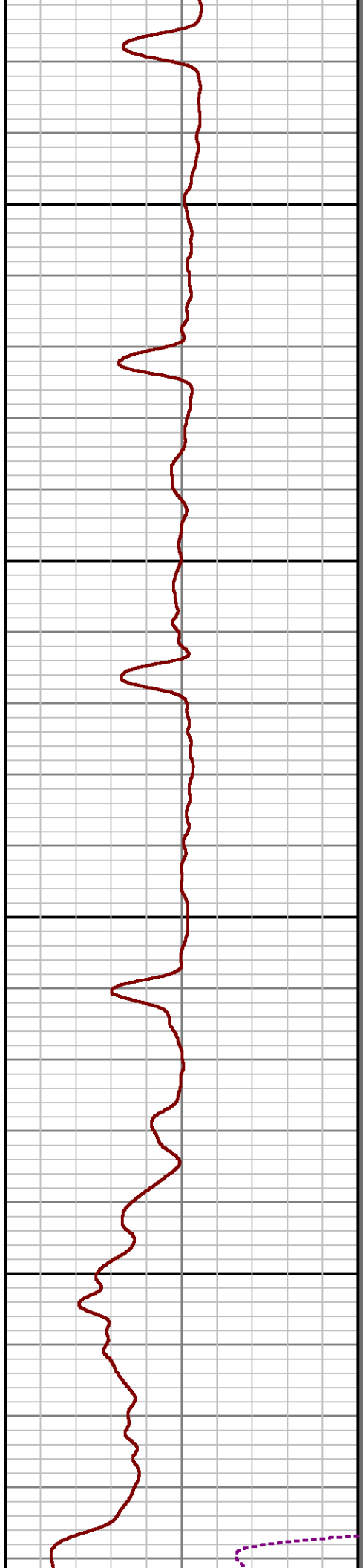
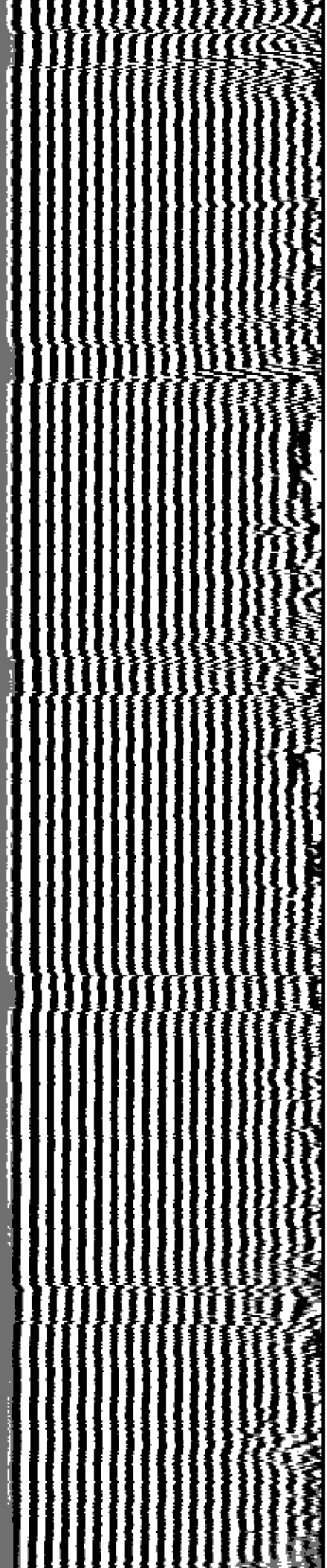
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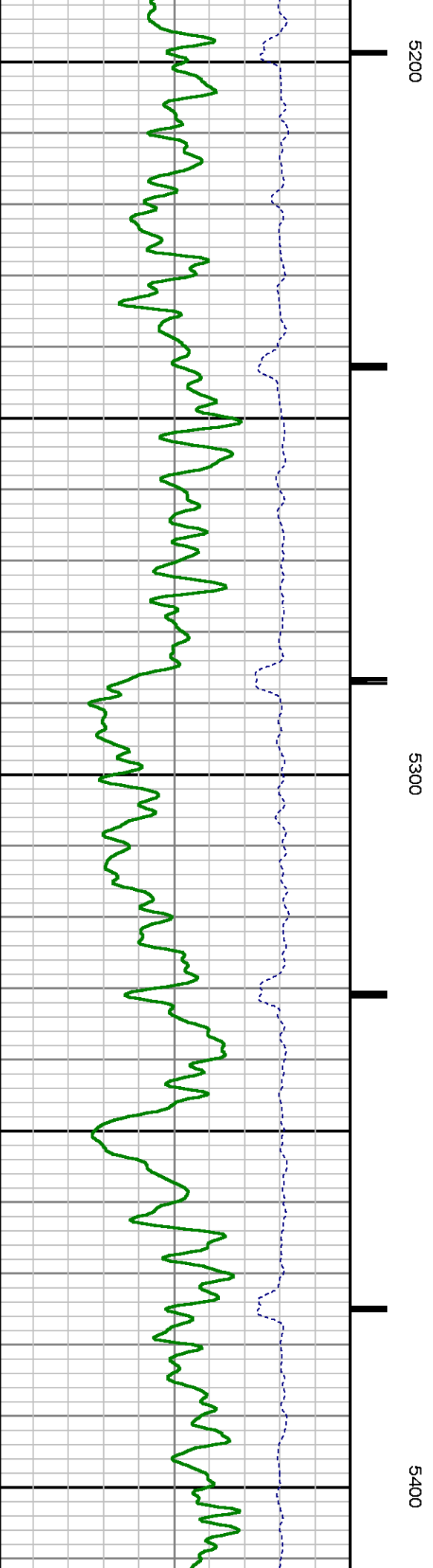
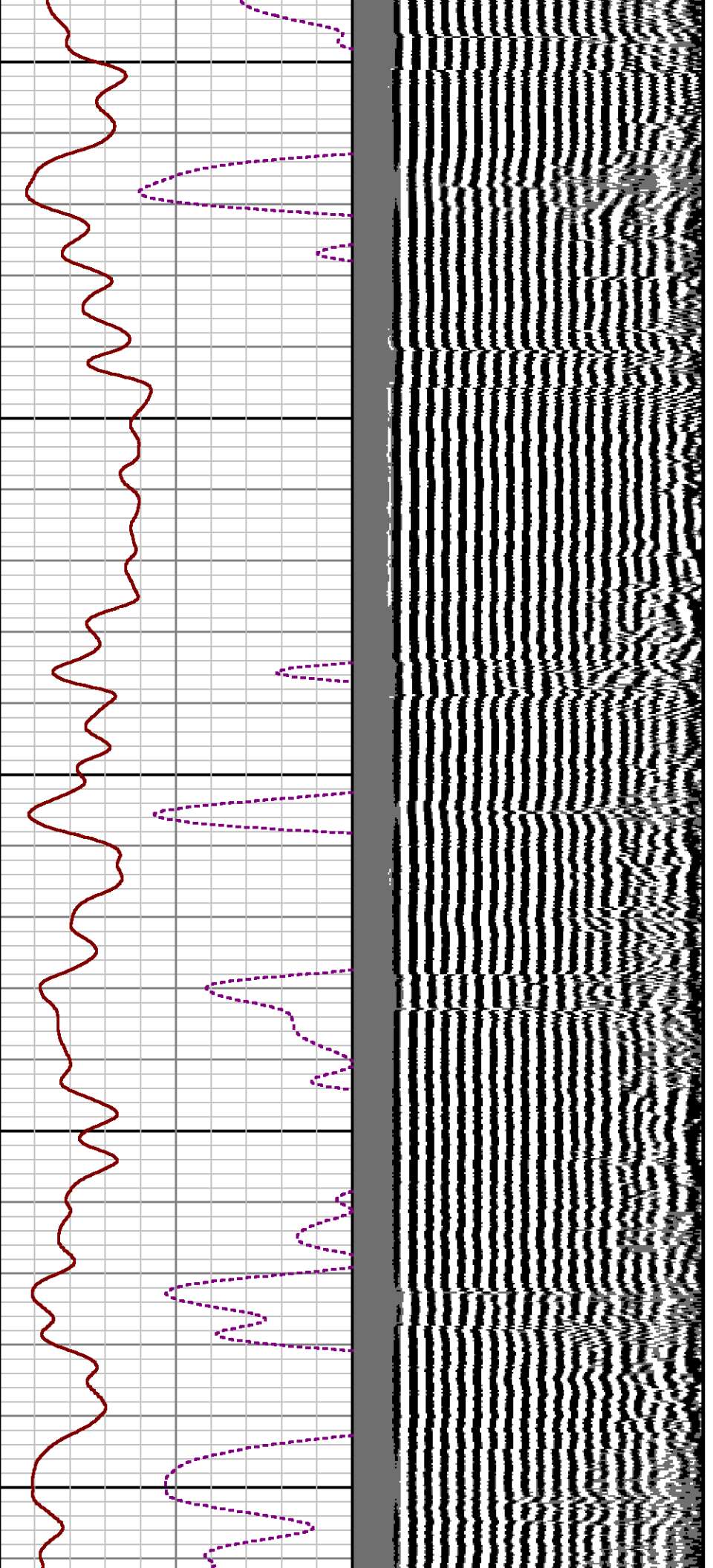
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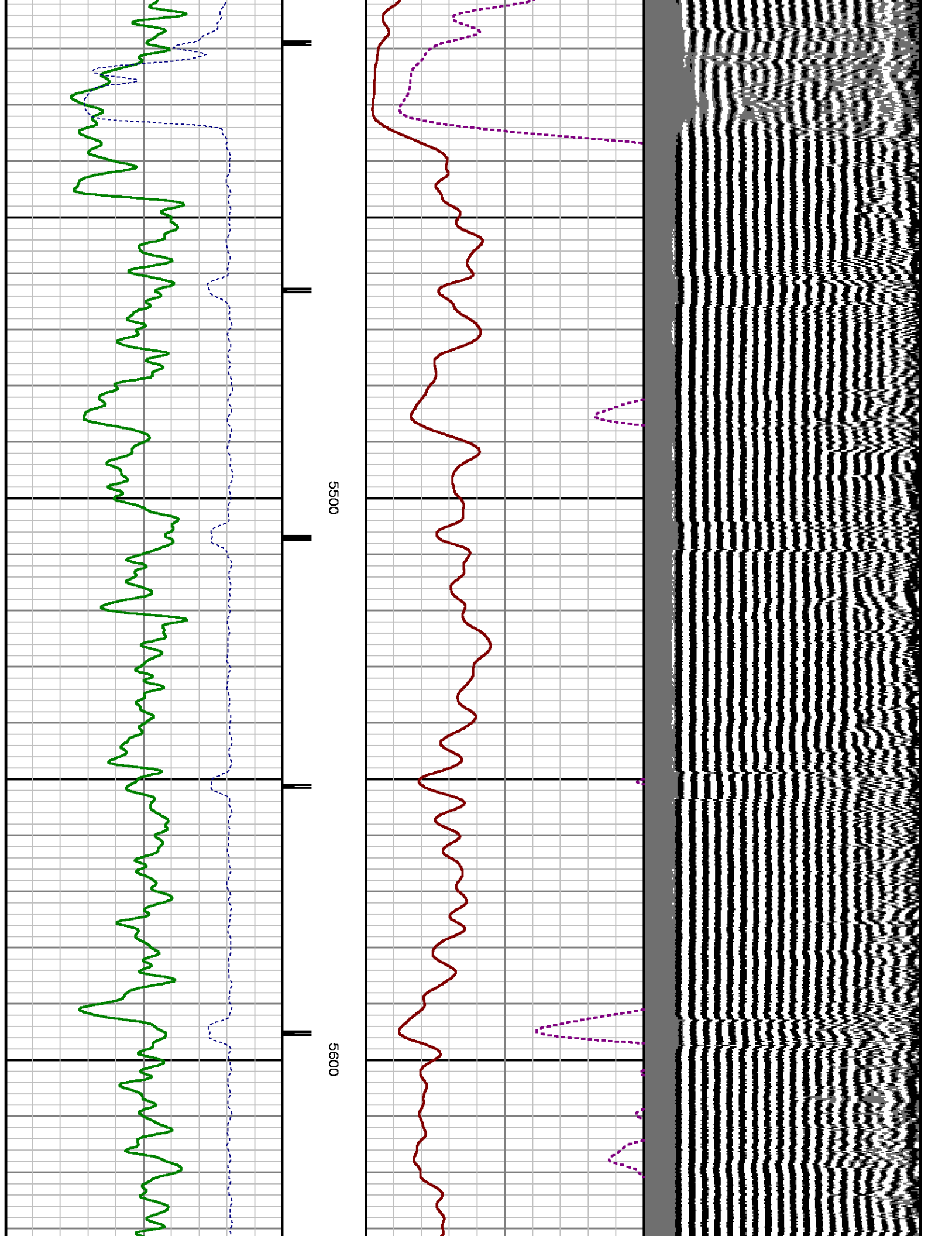


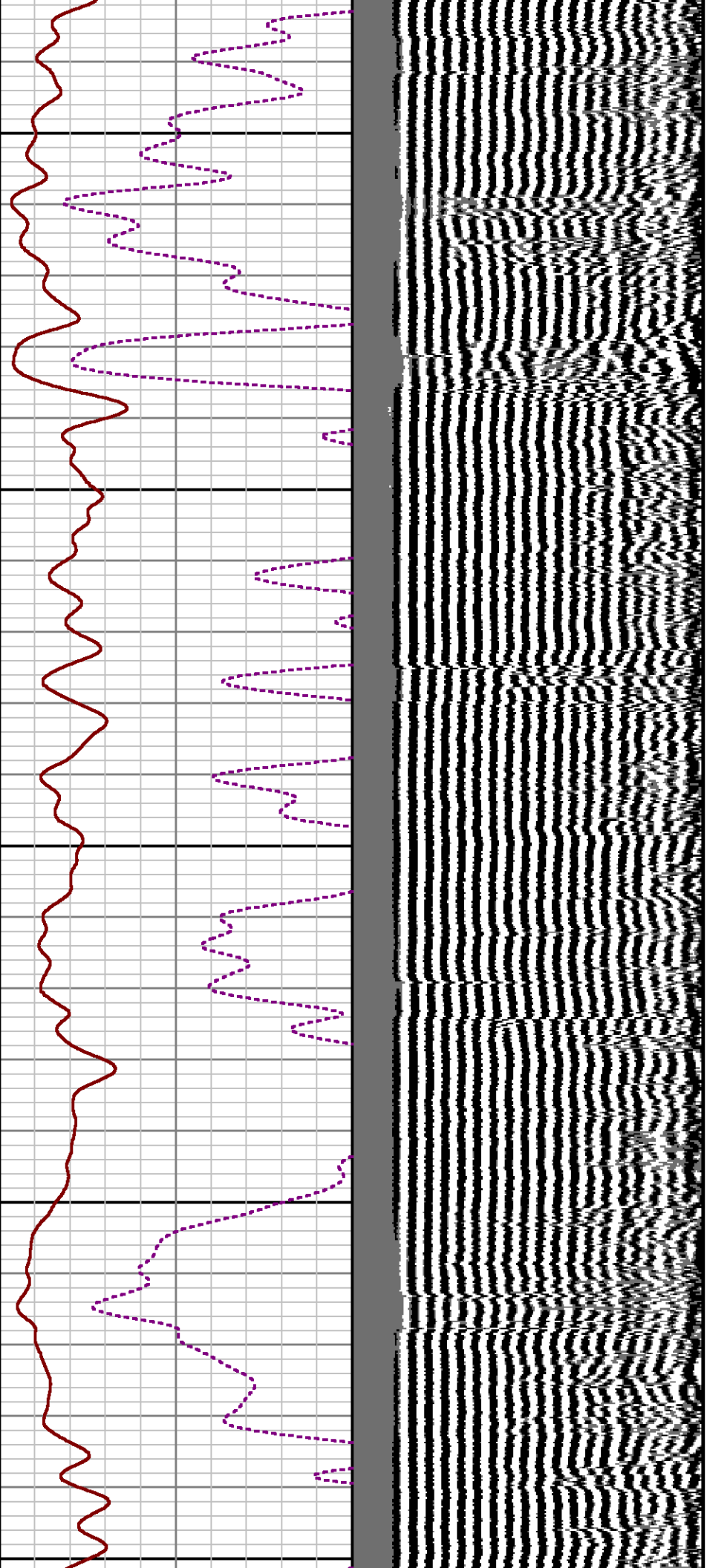






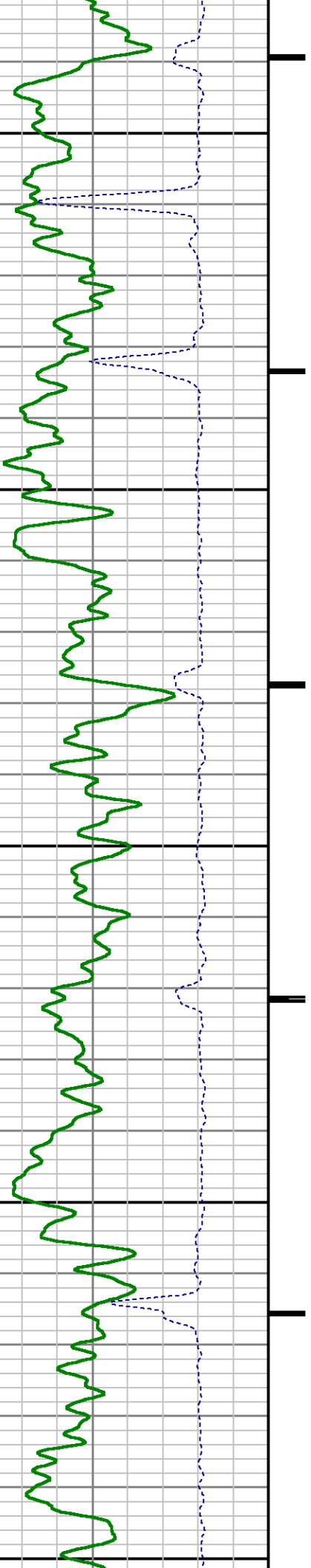


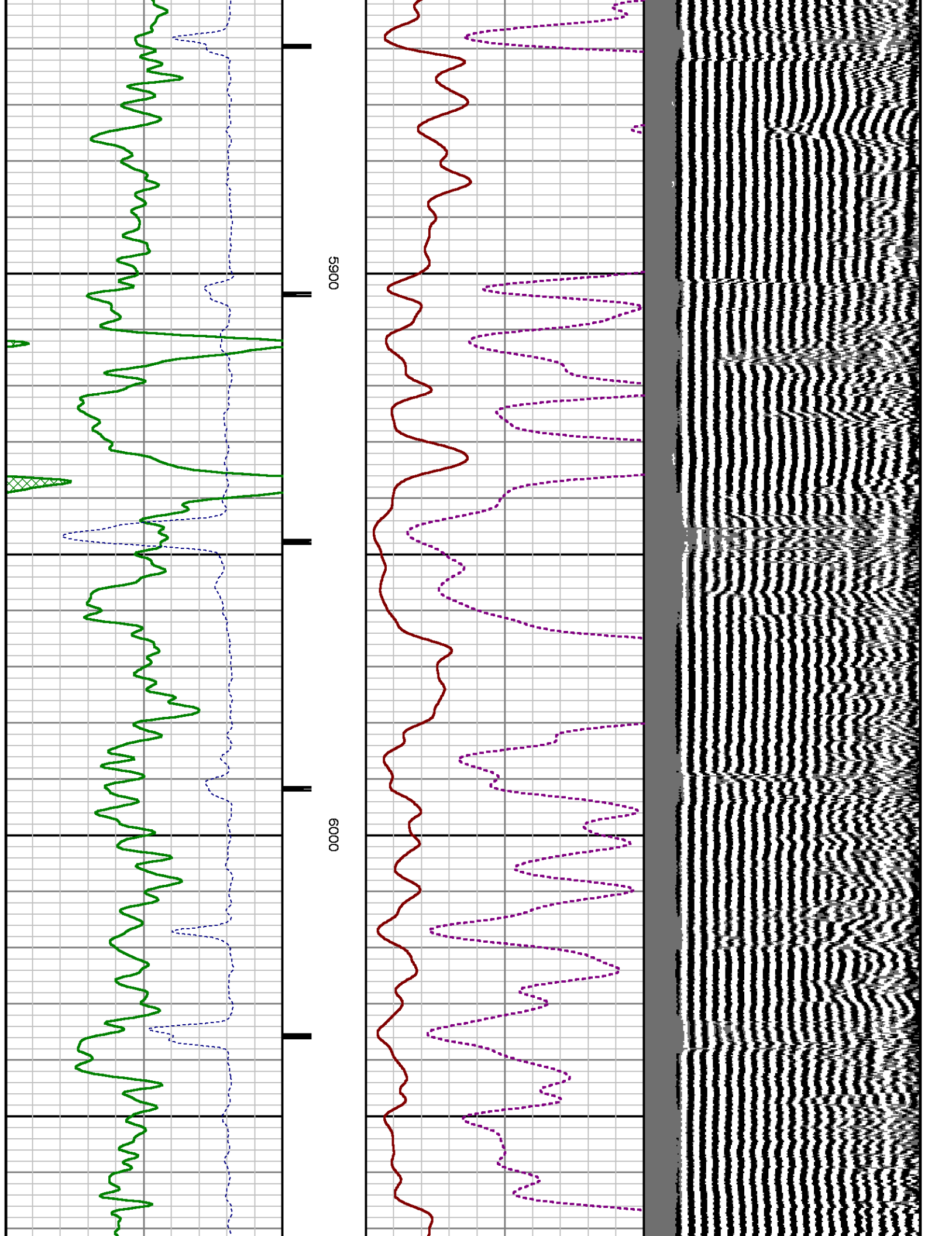


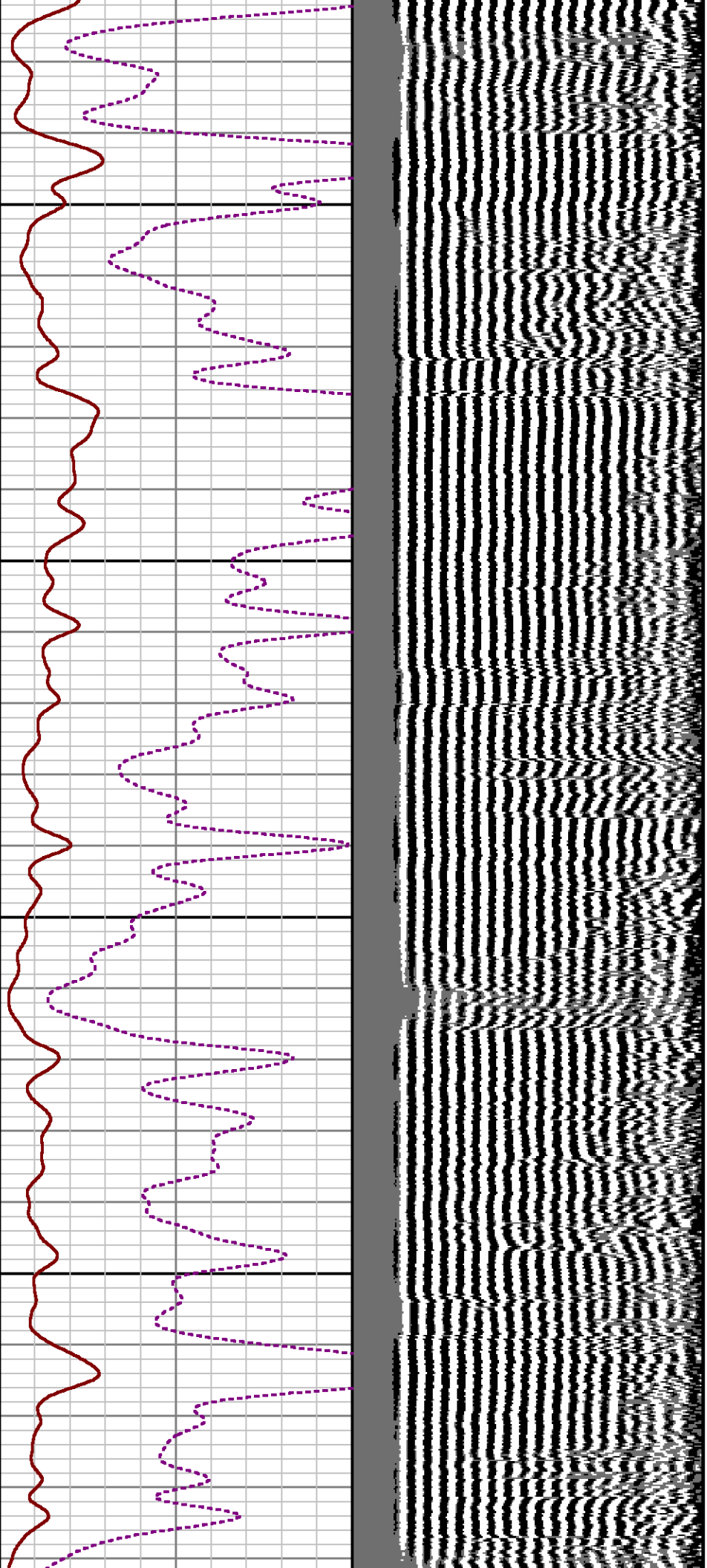


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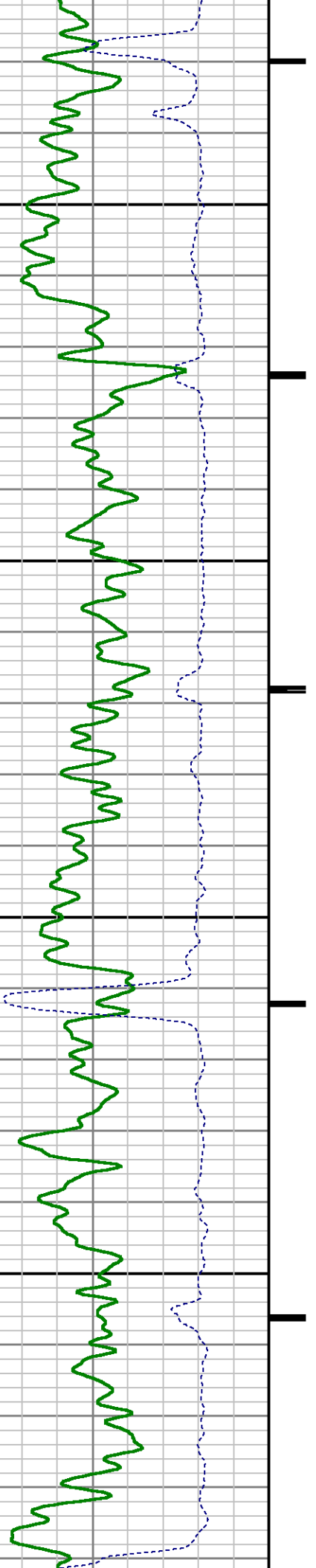


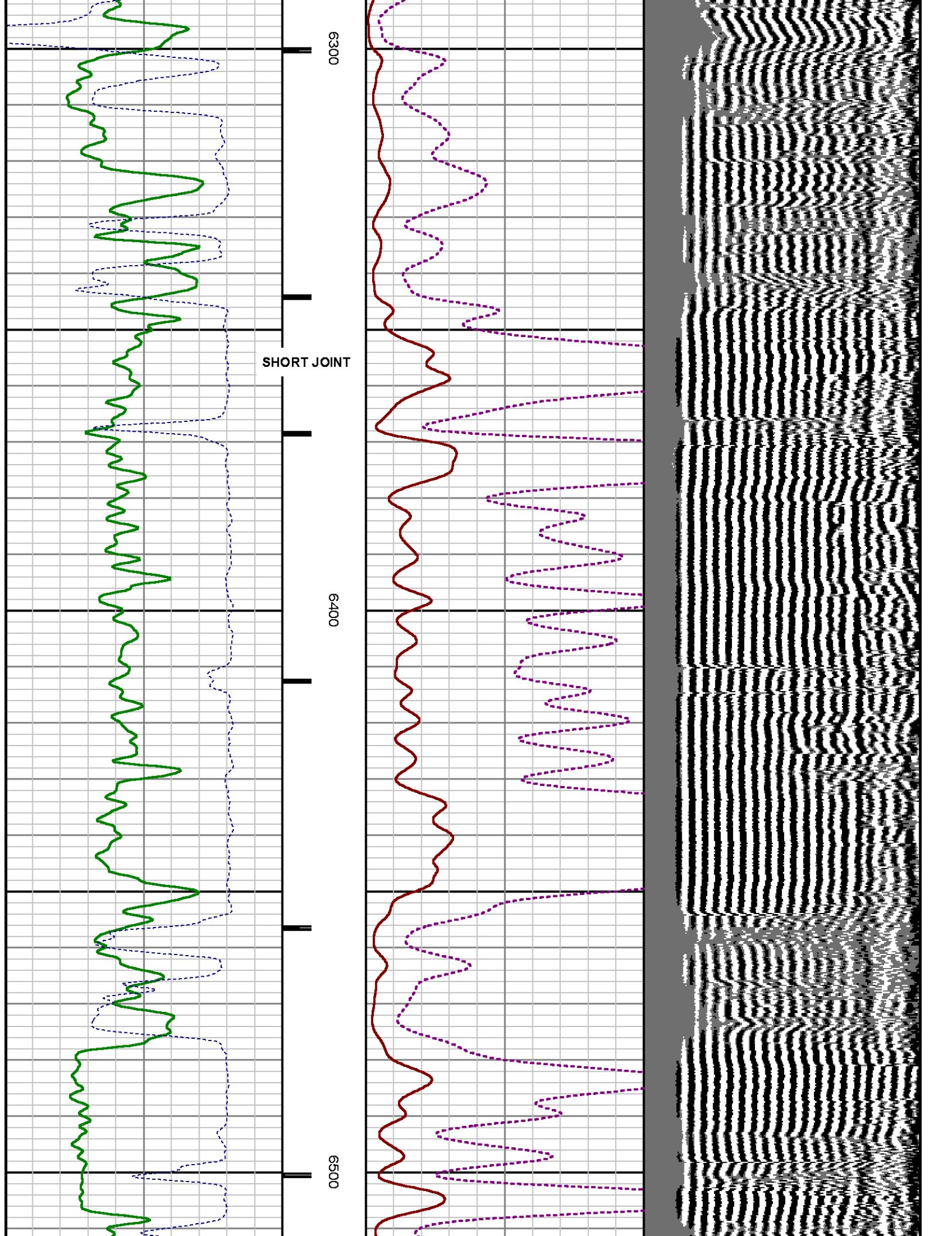


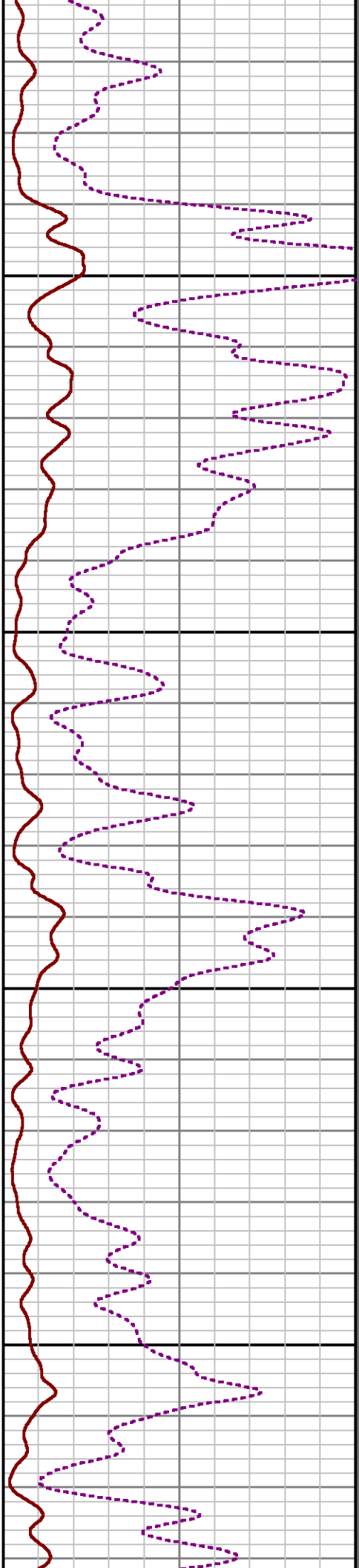
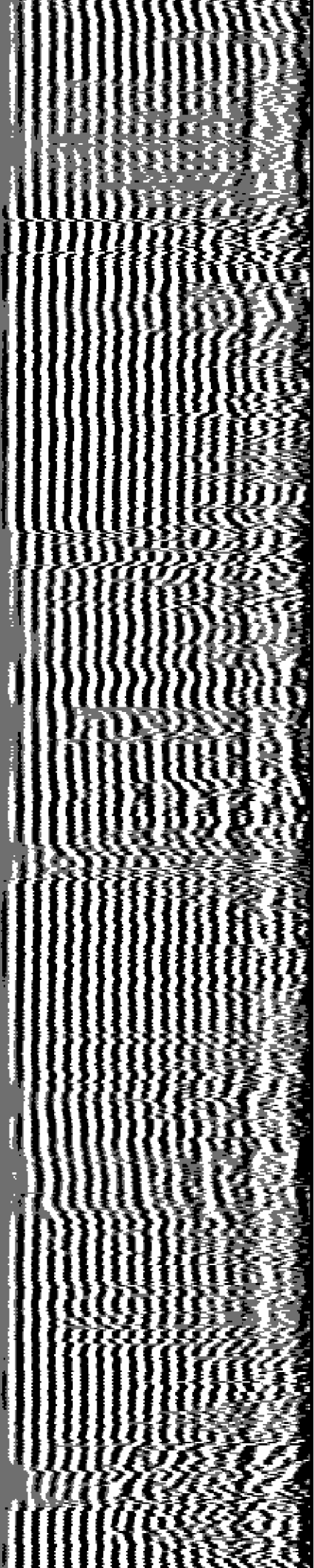


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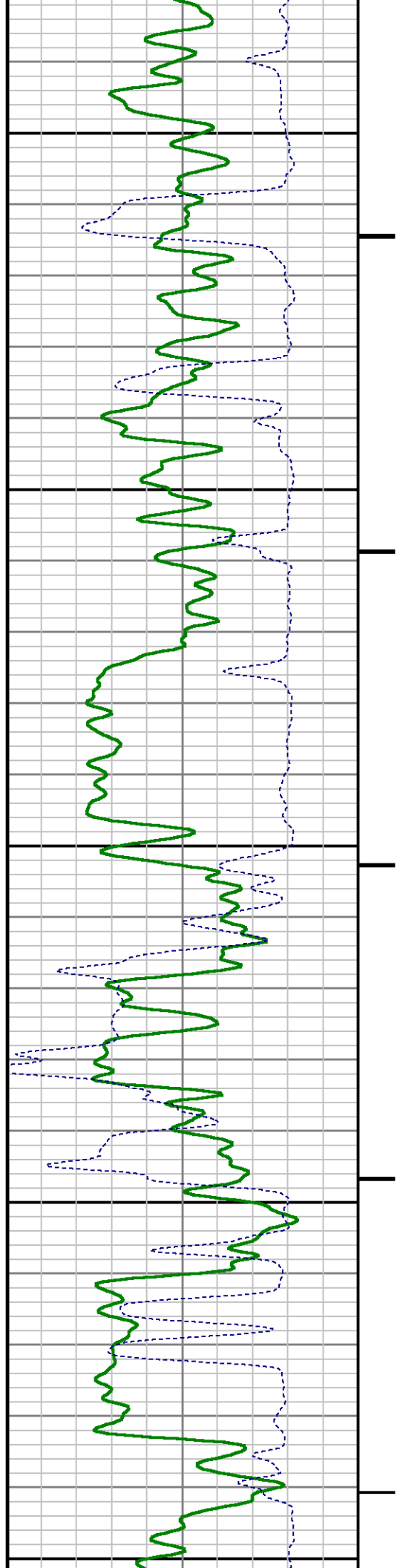






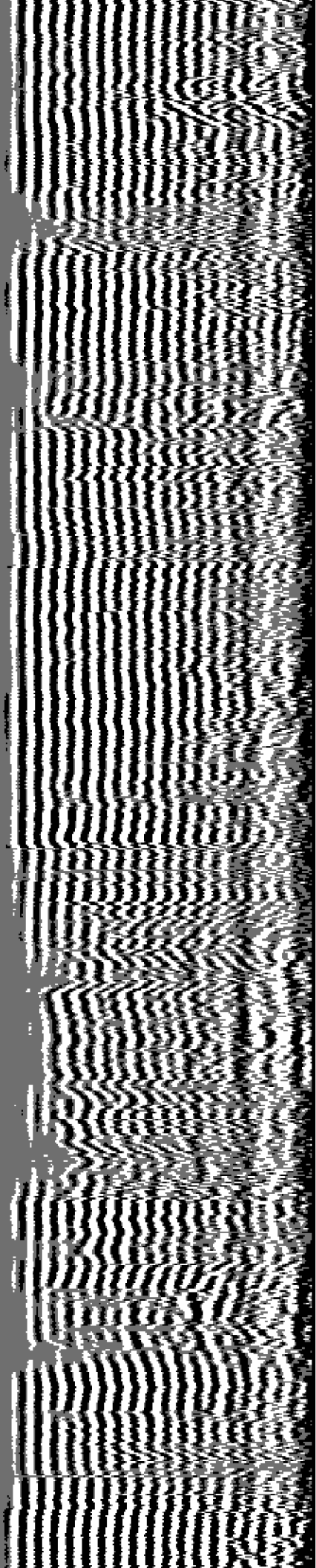
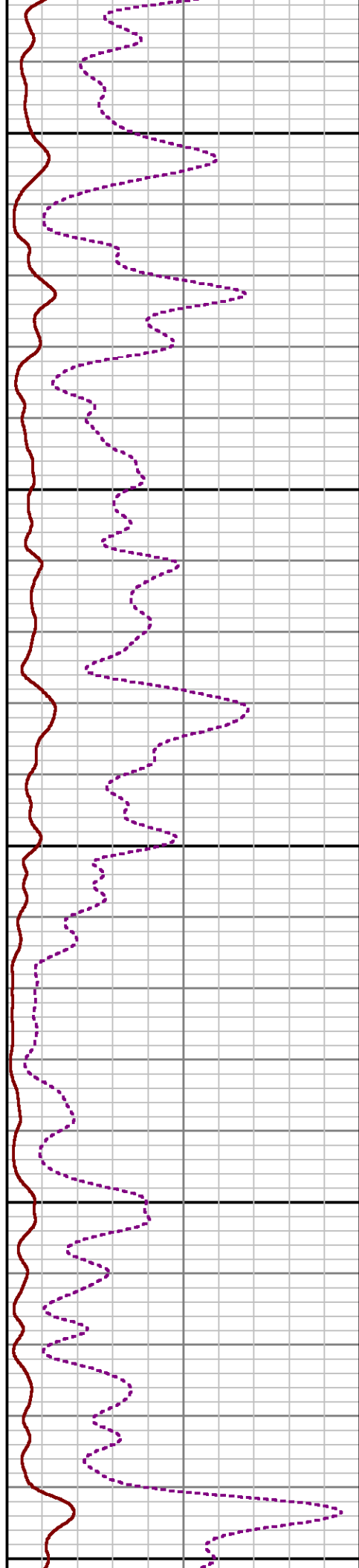
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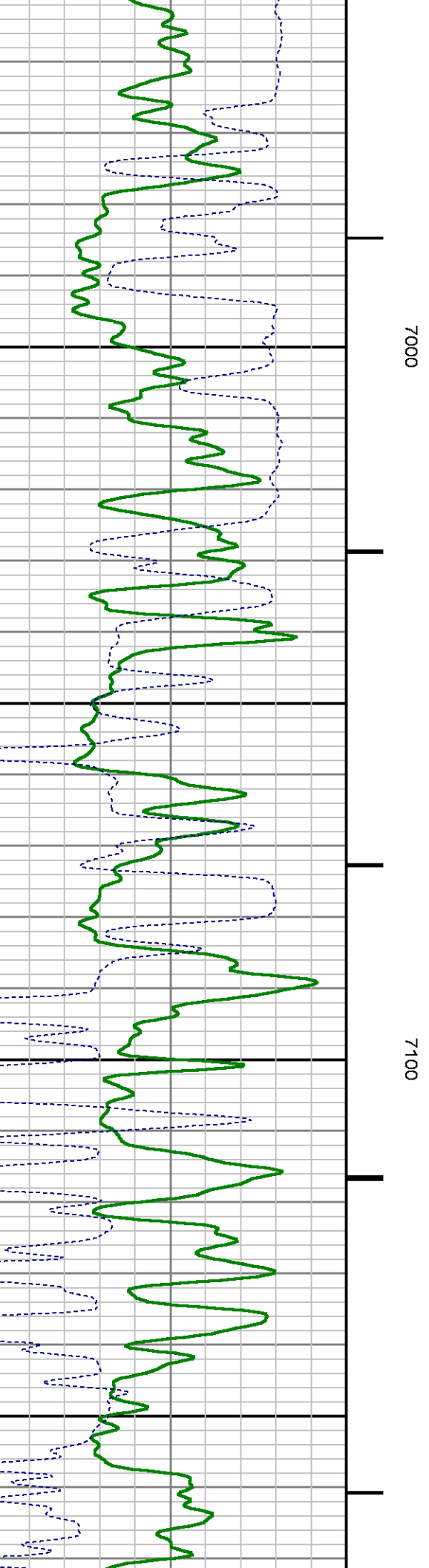
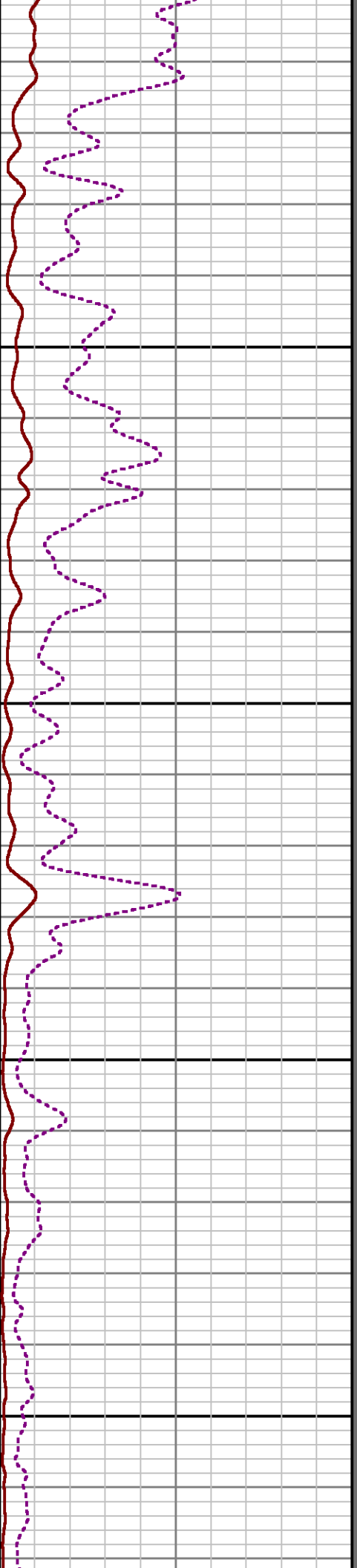
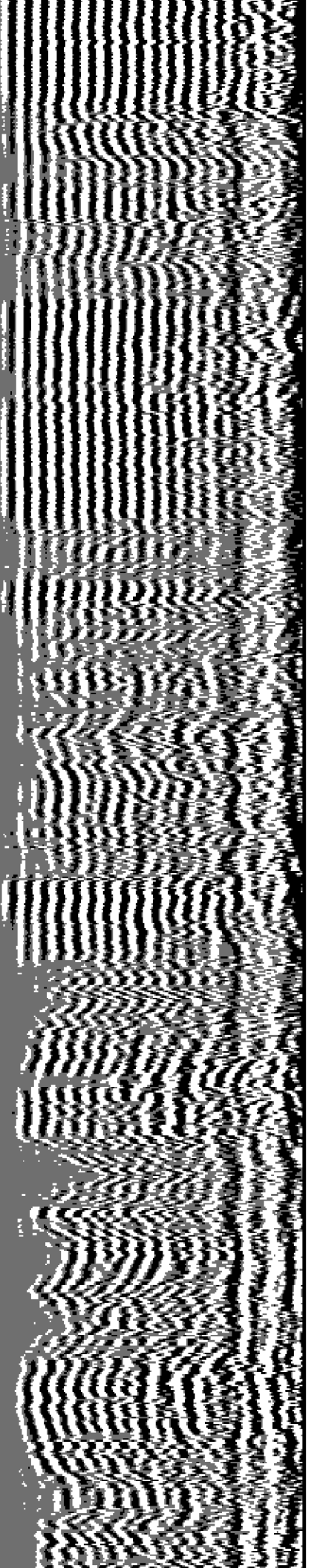
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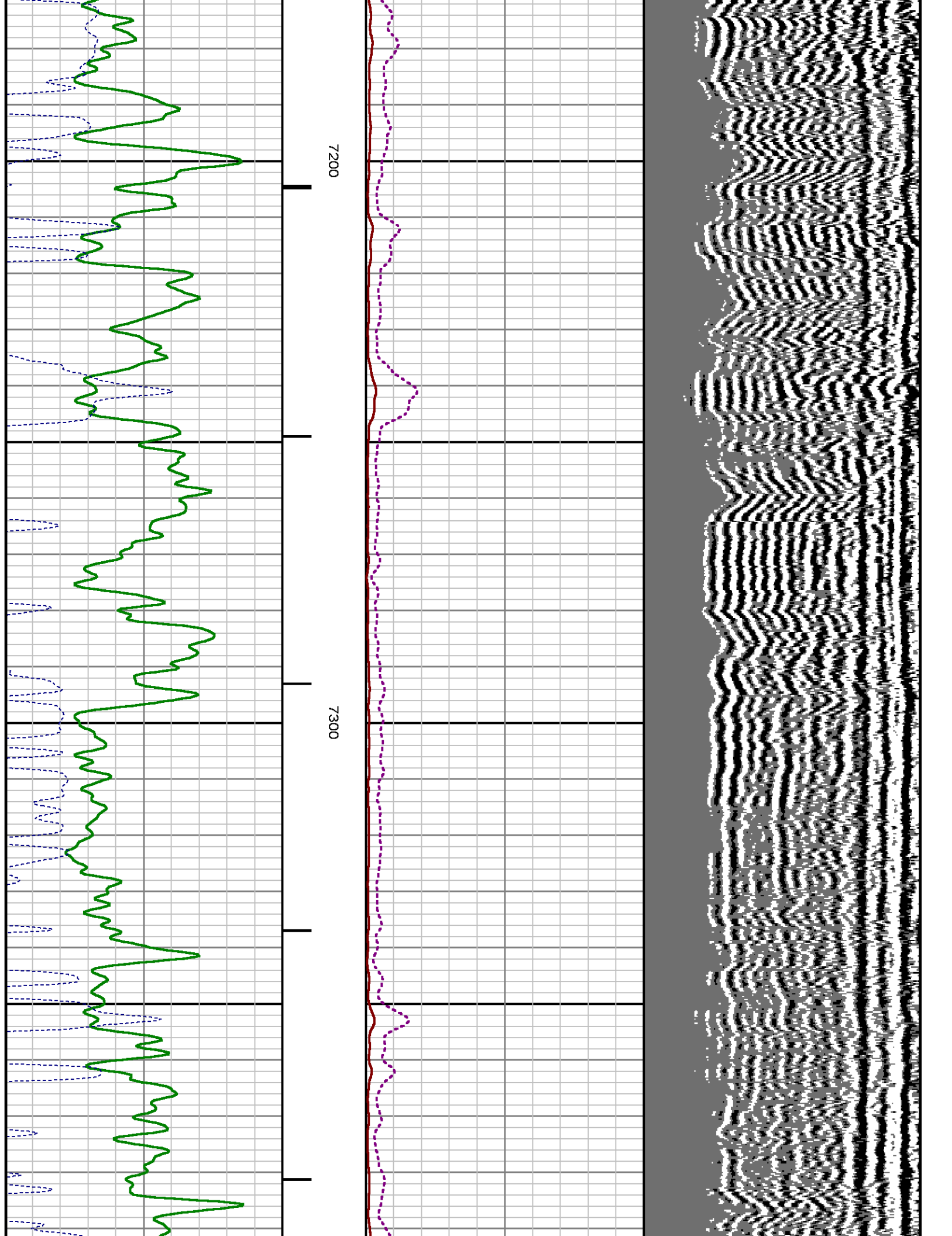


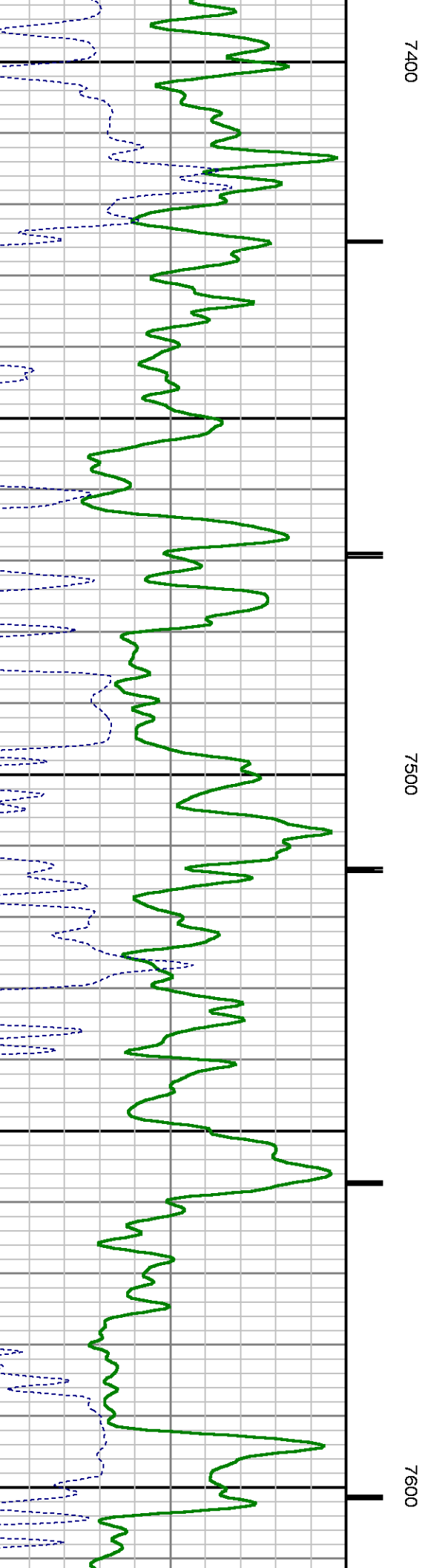
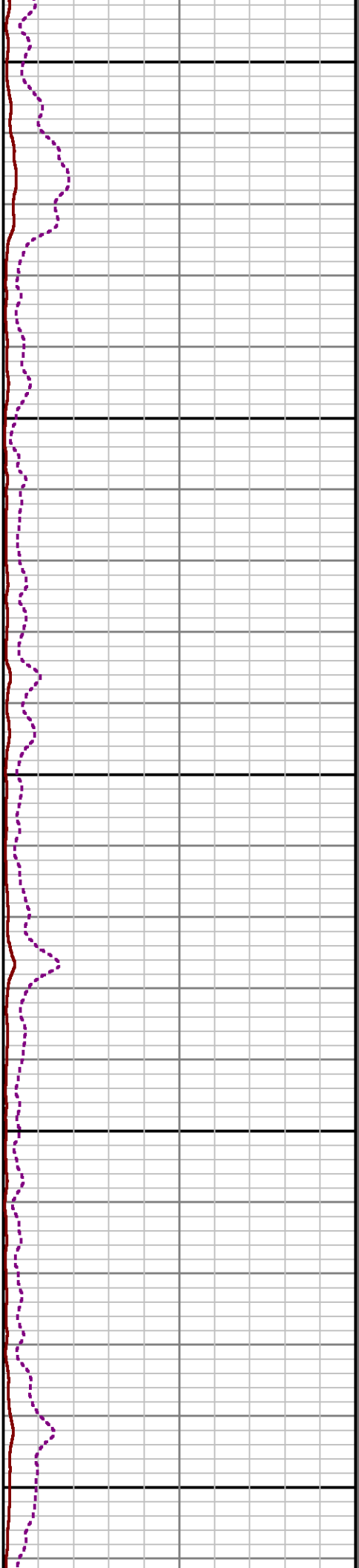
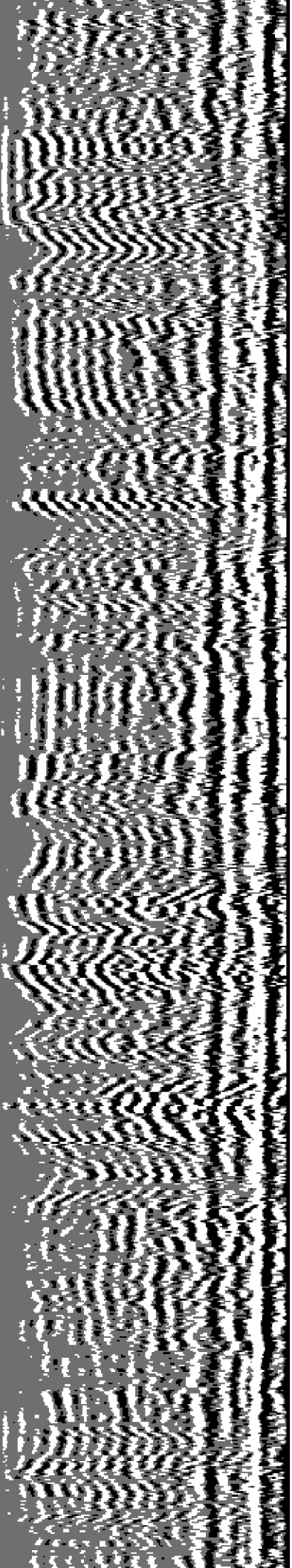
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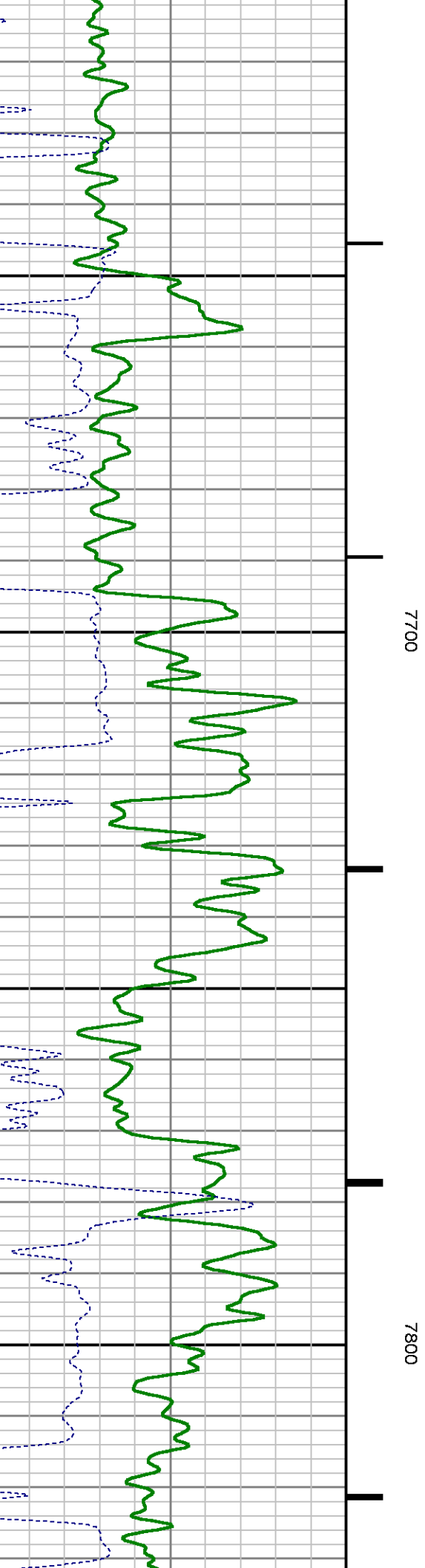
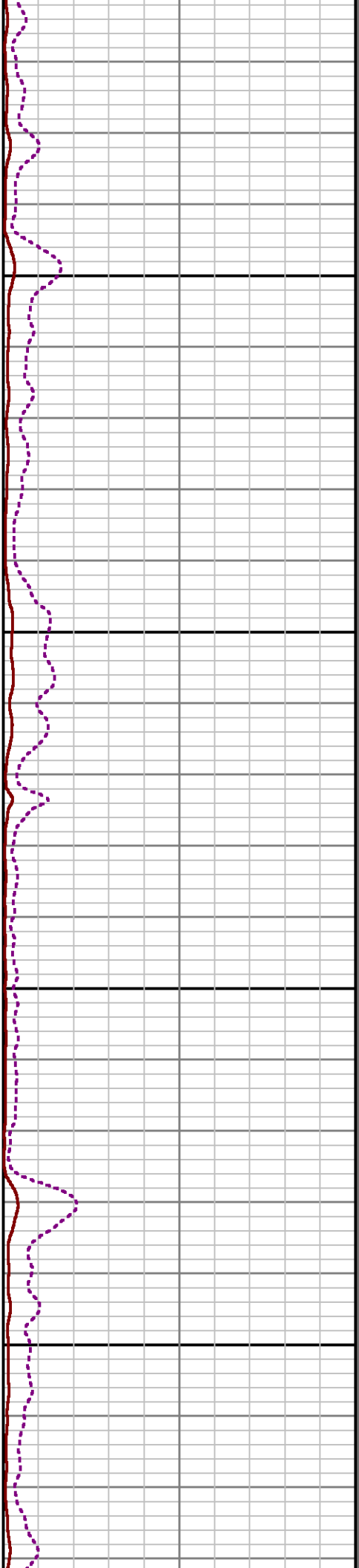
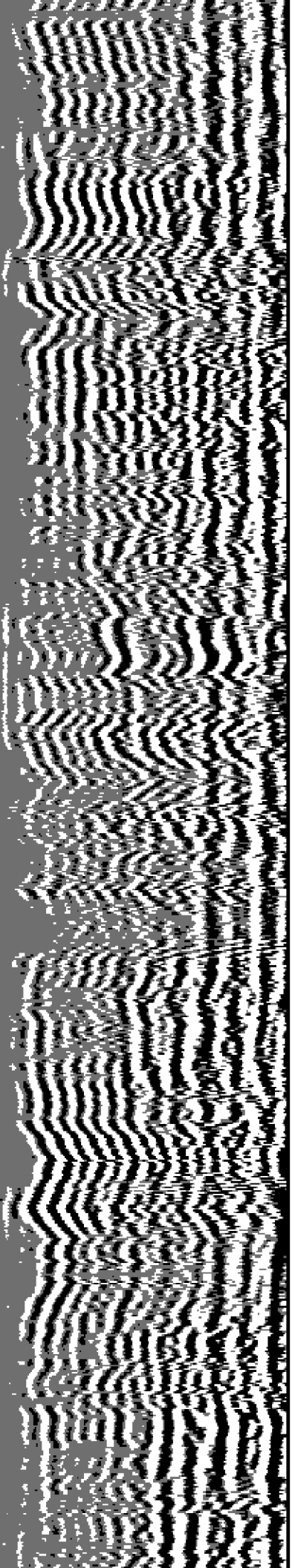
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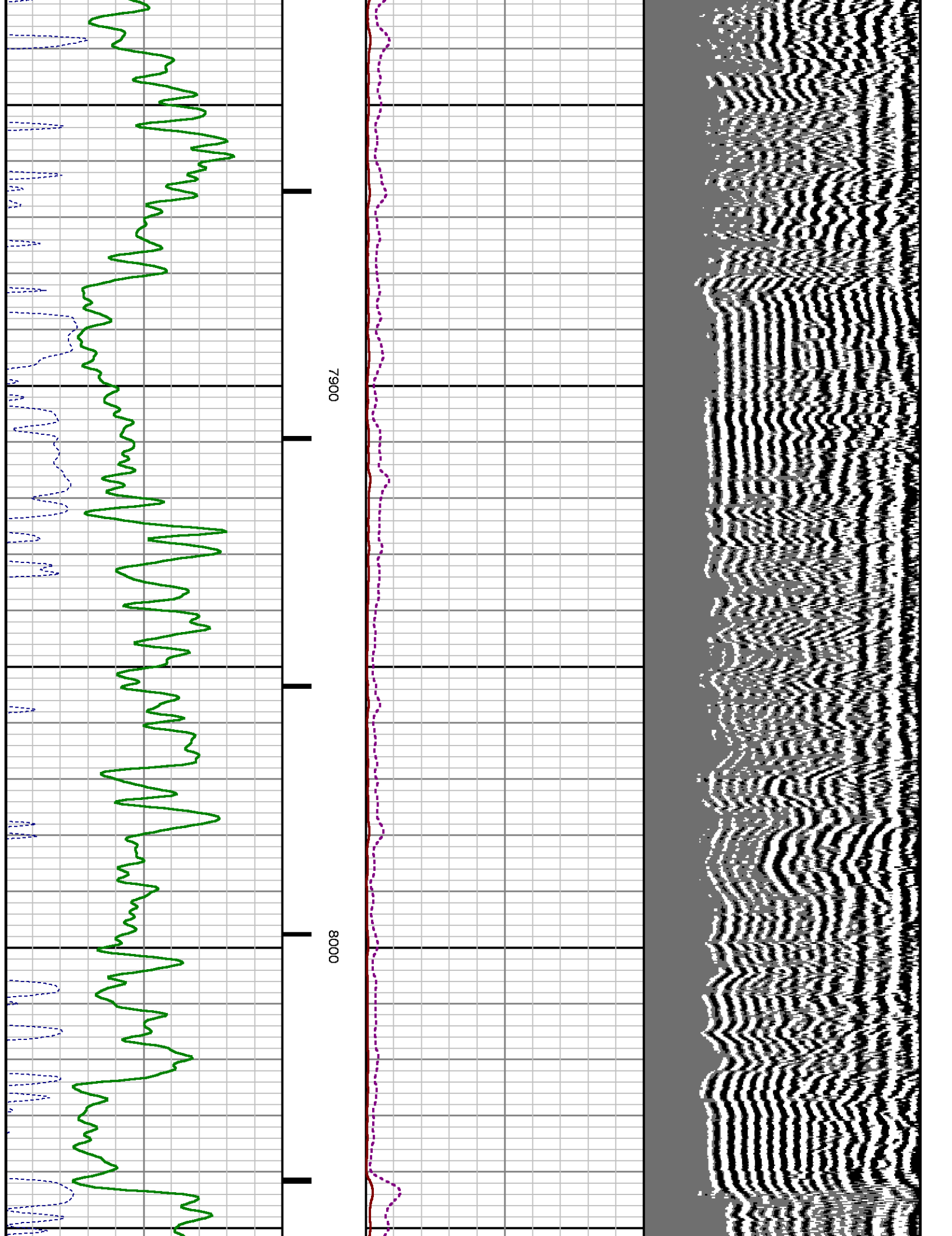


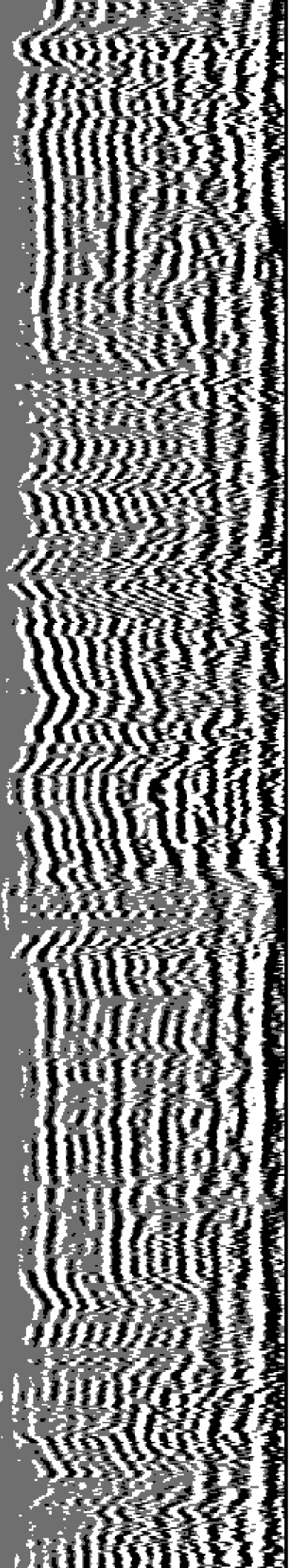






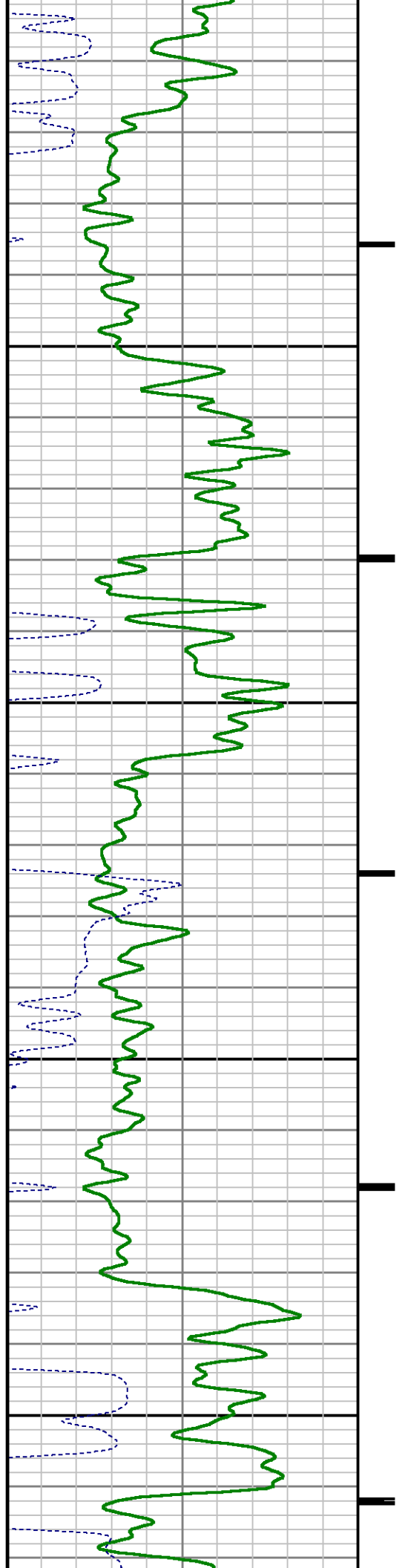


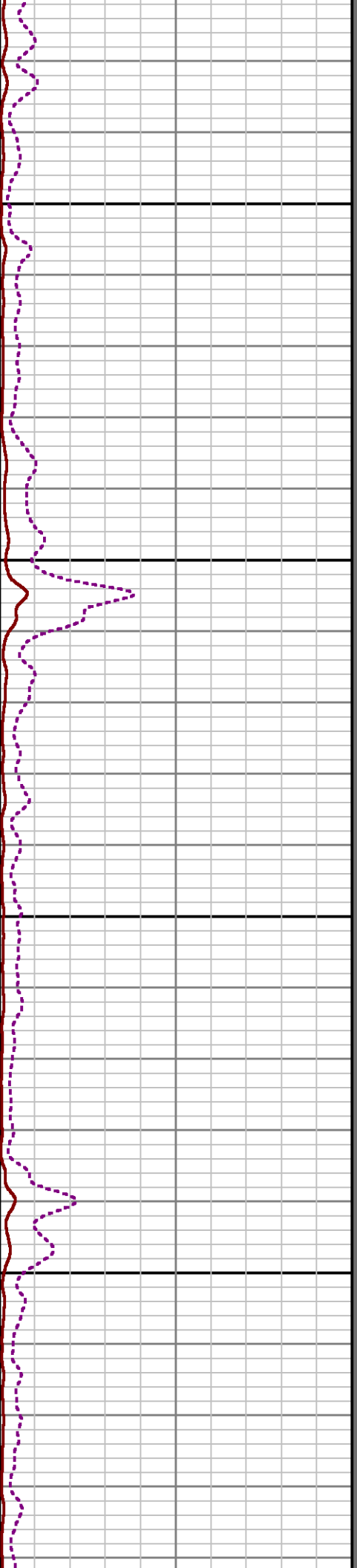
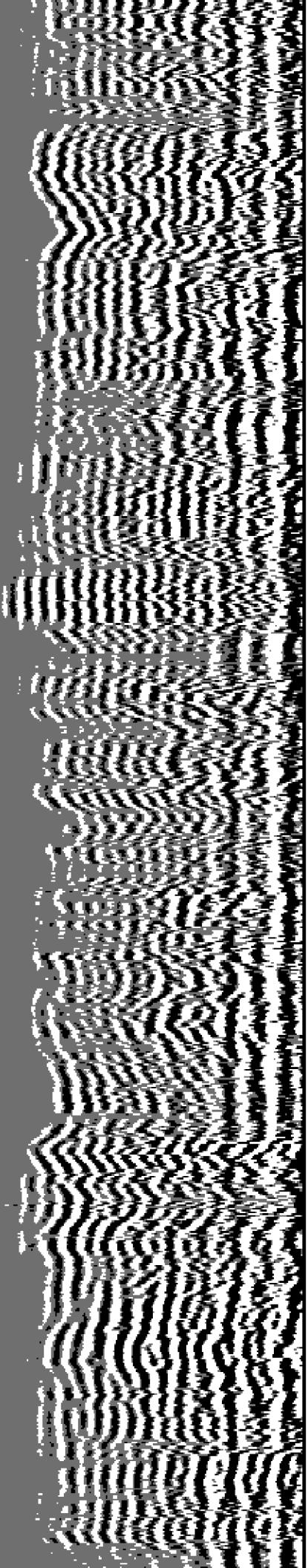




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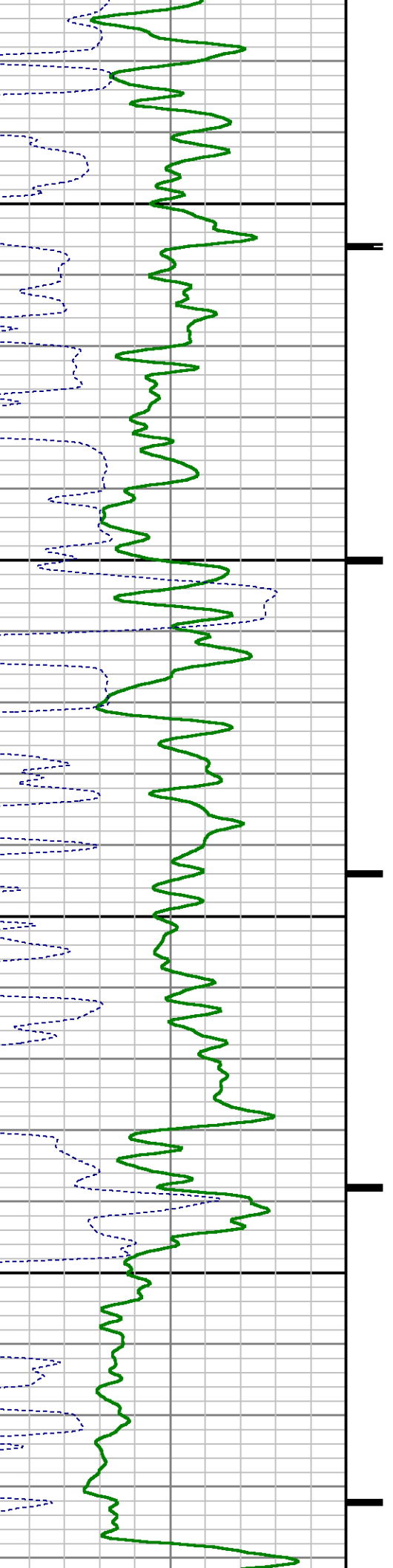
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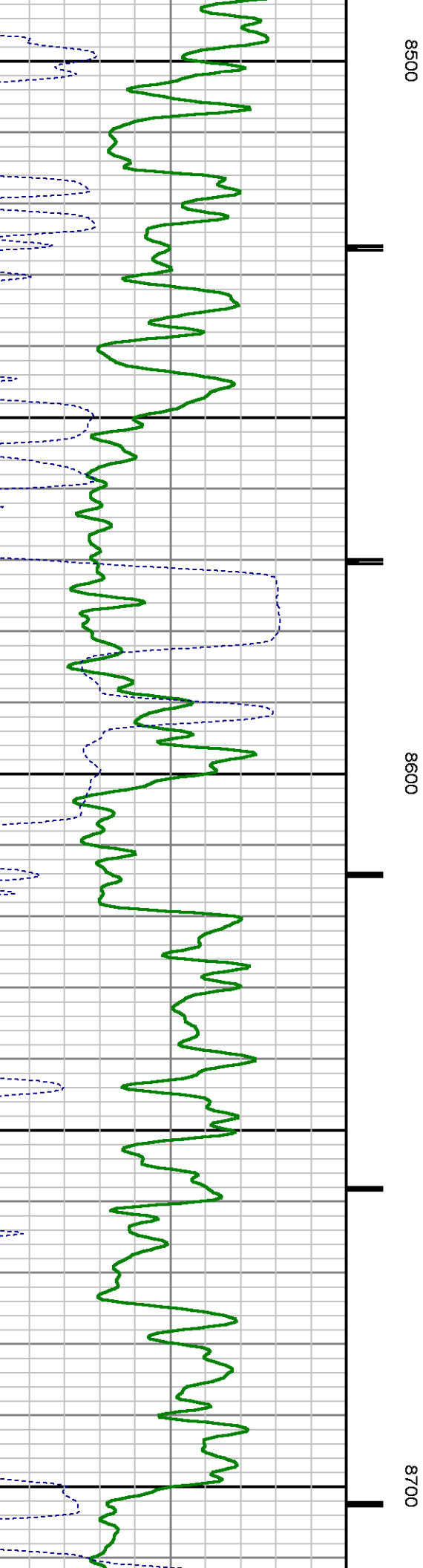
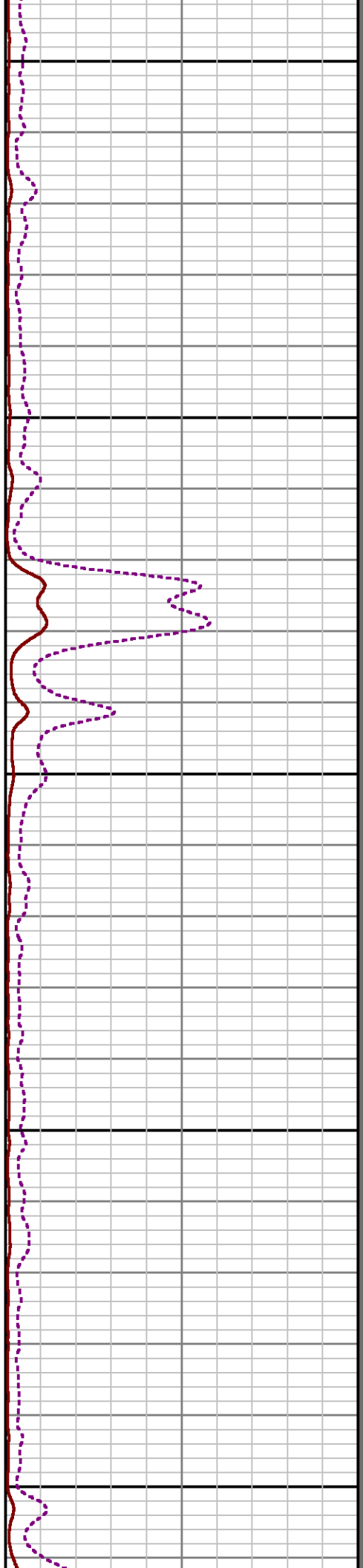
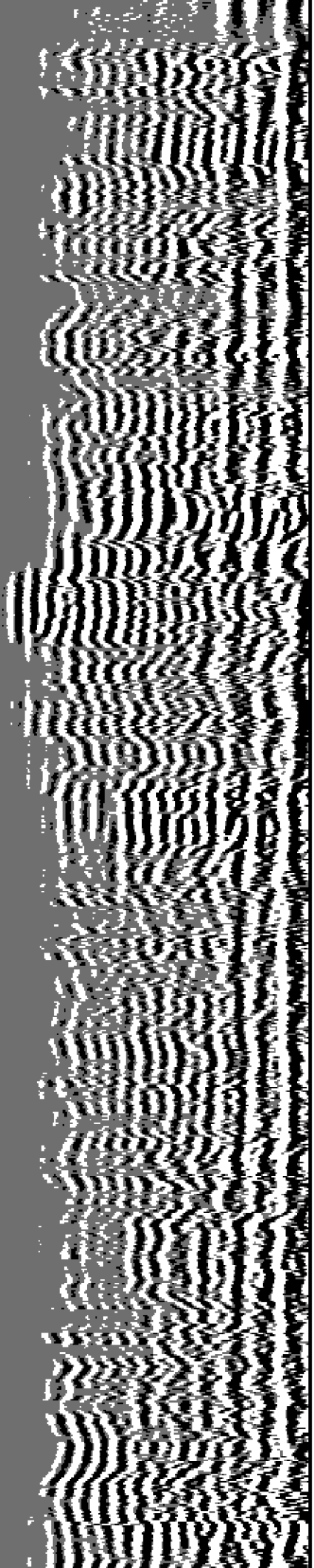


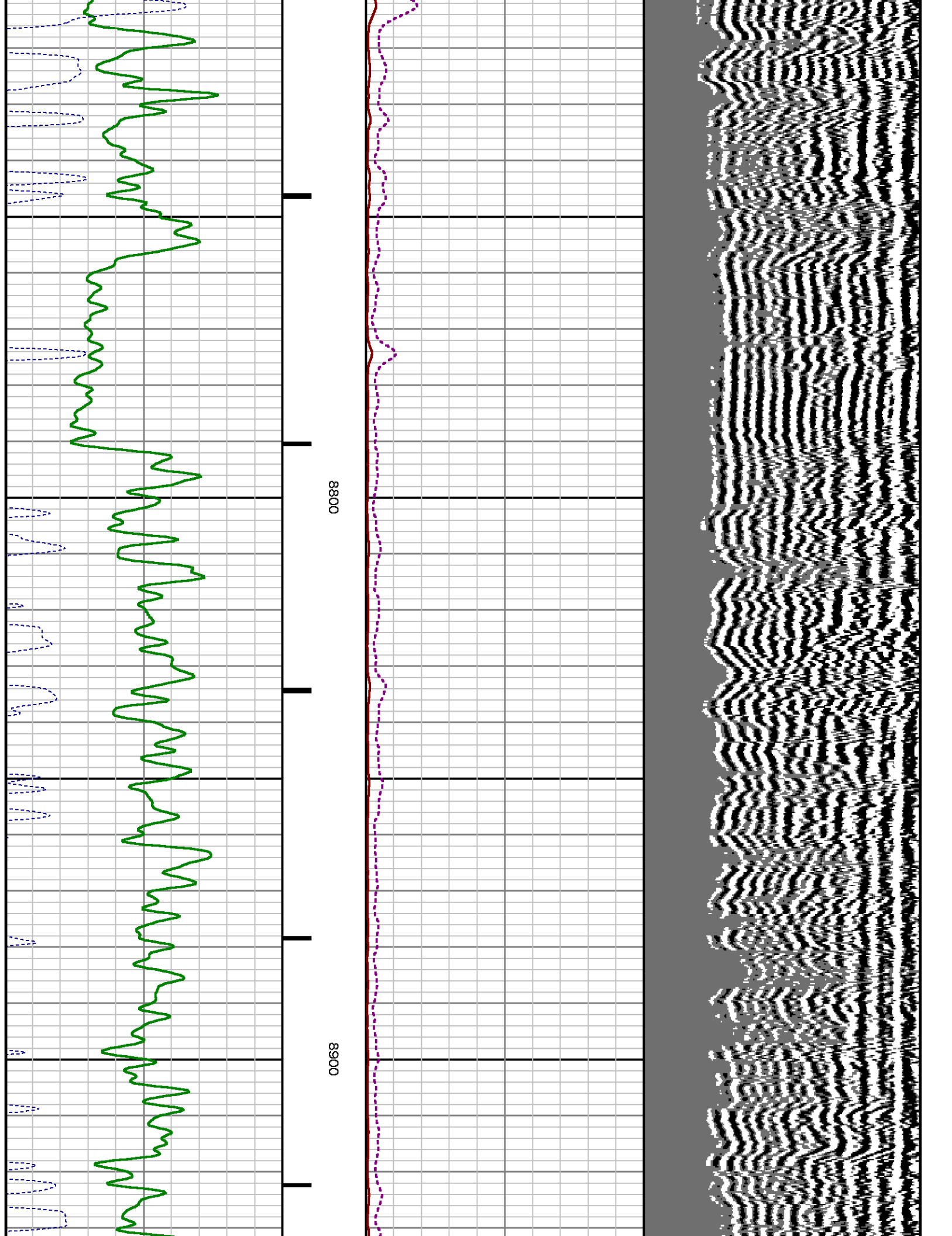


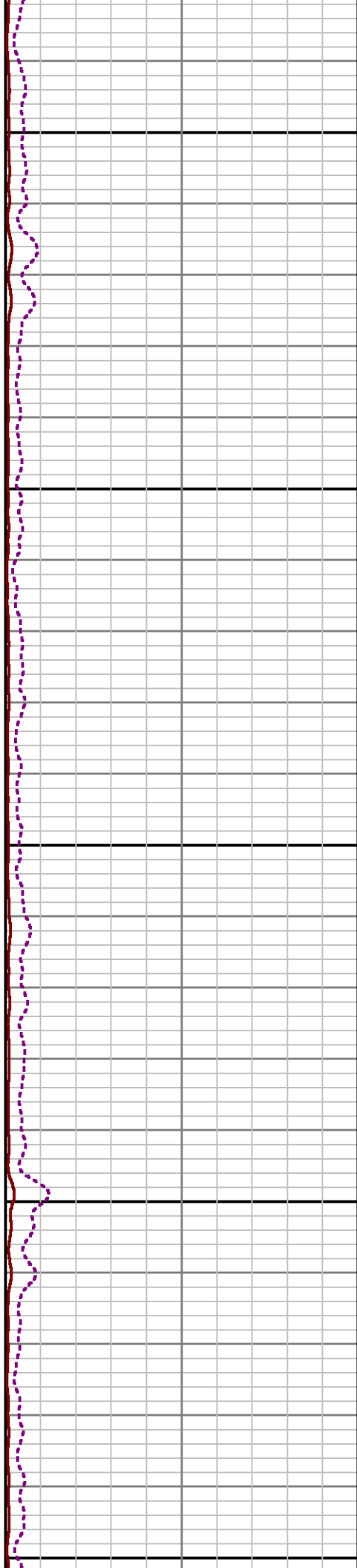
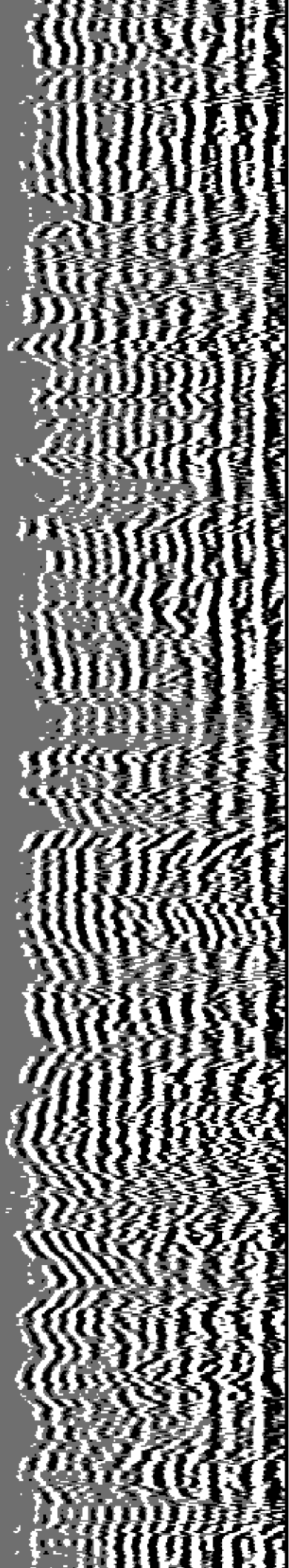
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8400



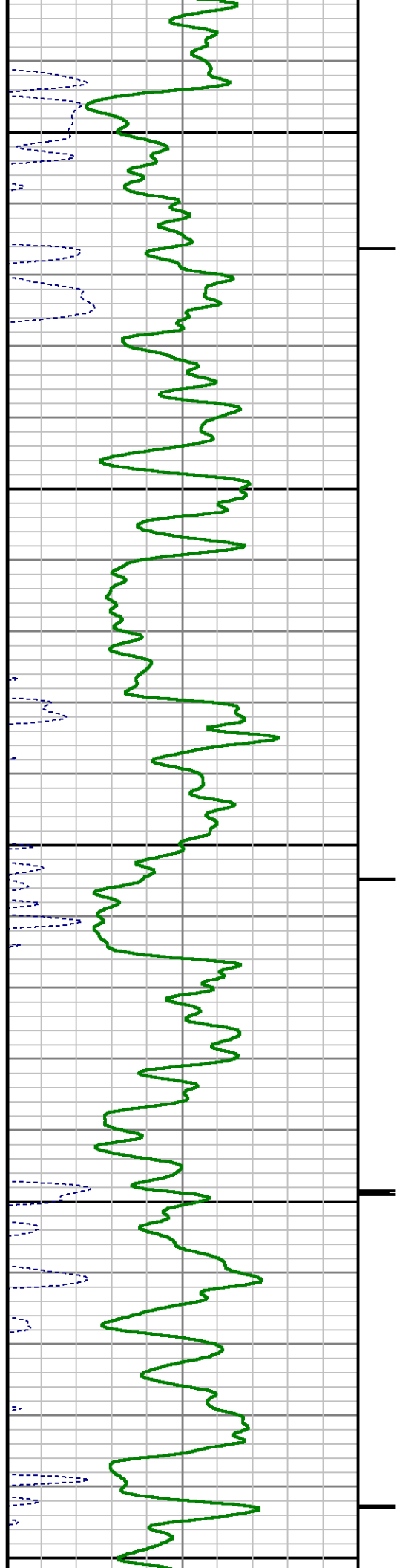


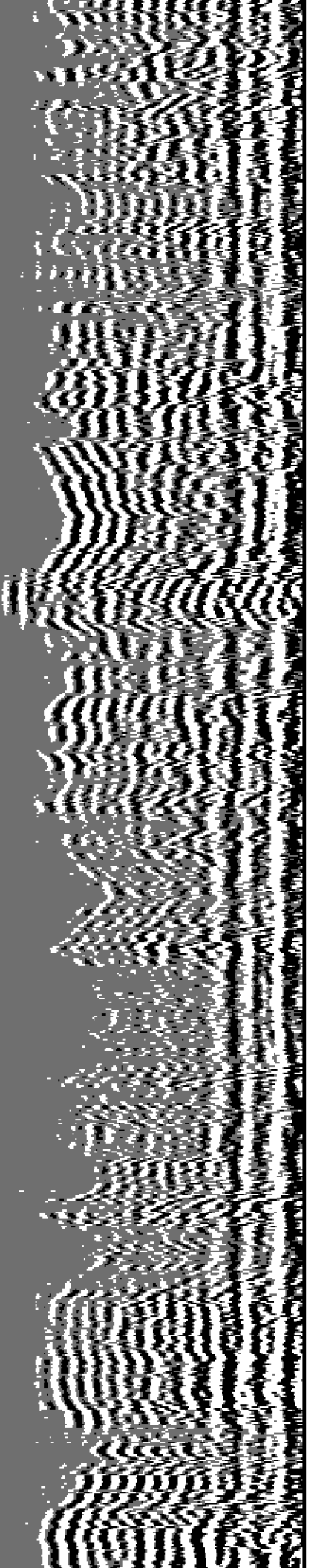




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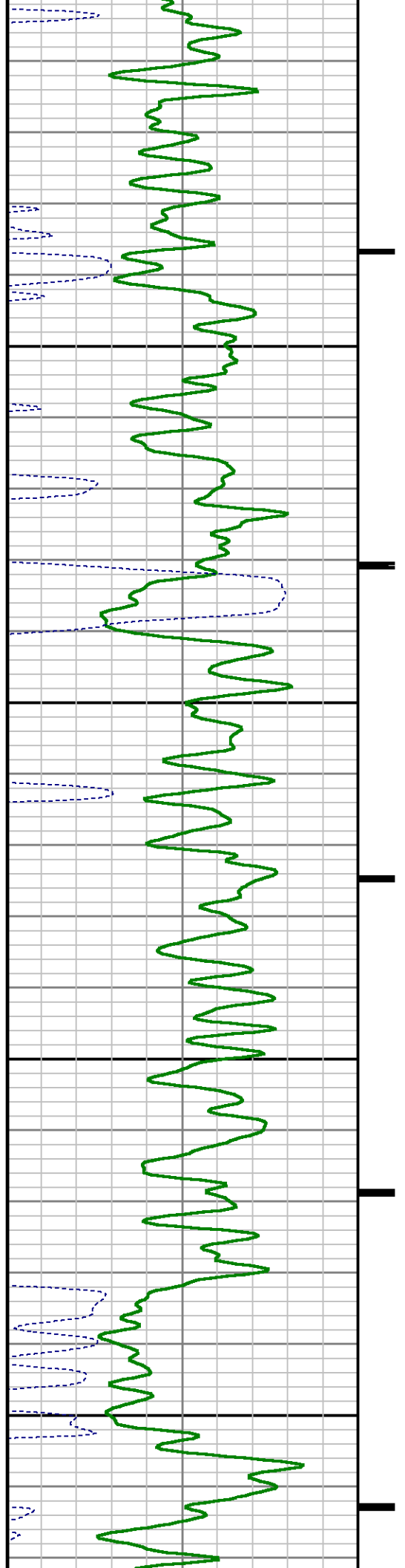
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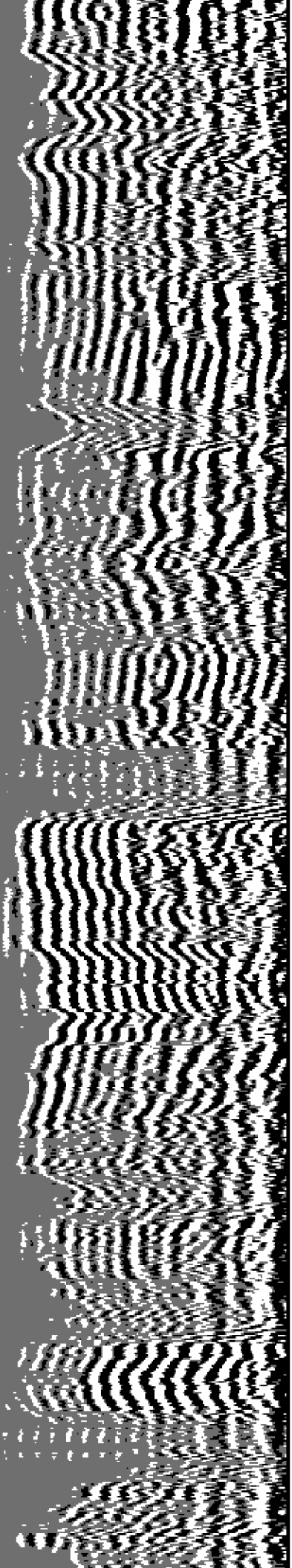




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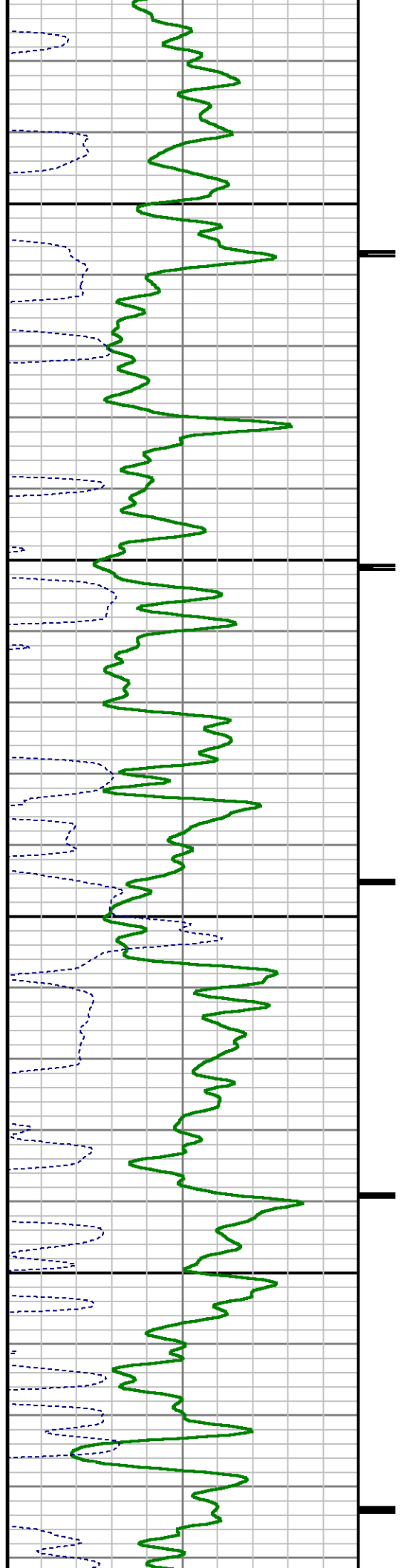
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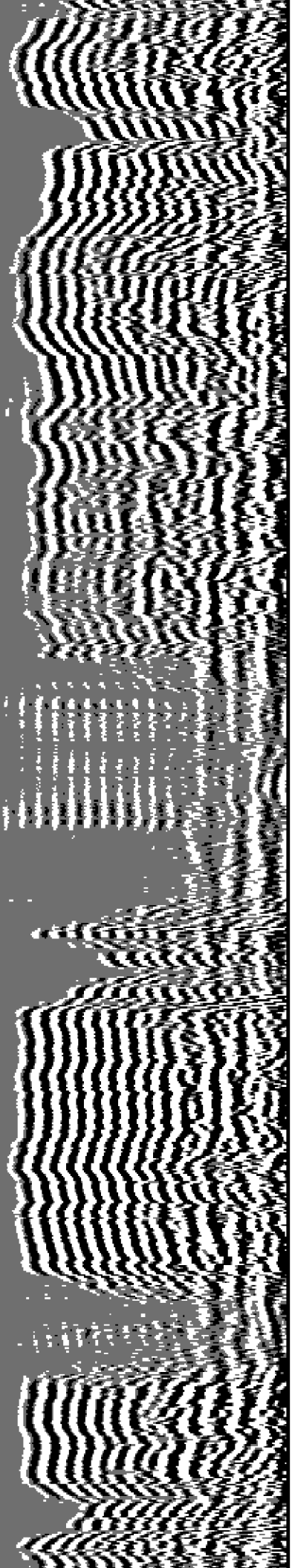




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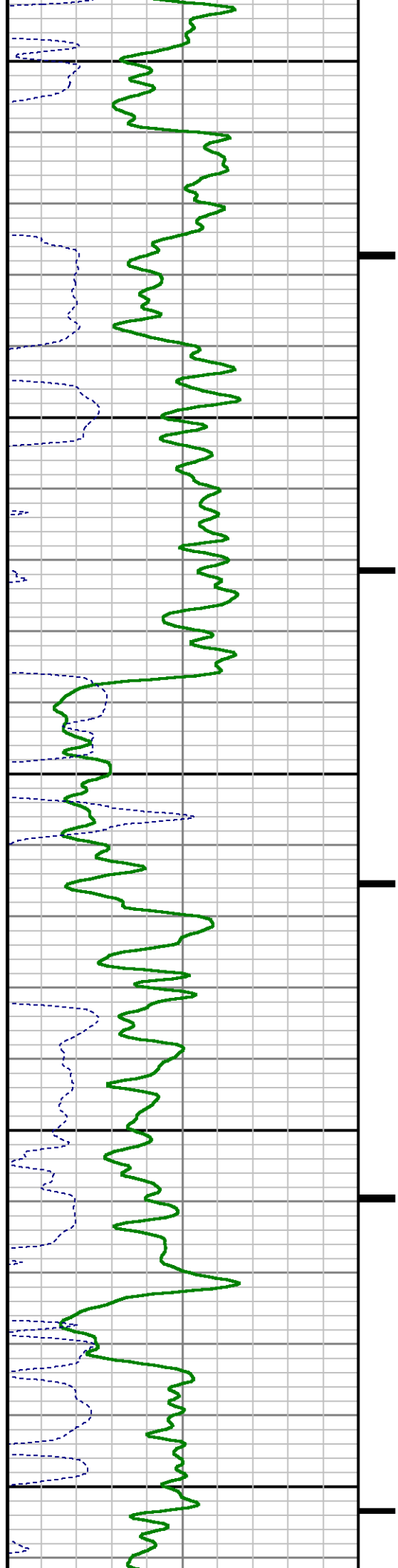


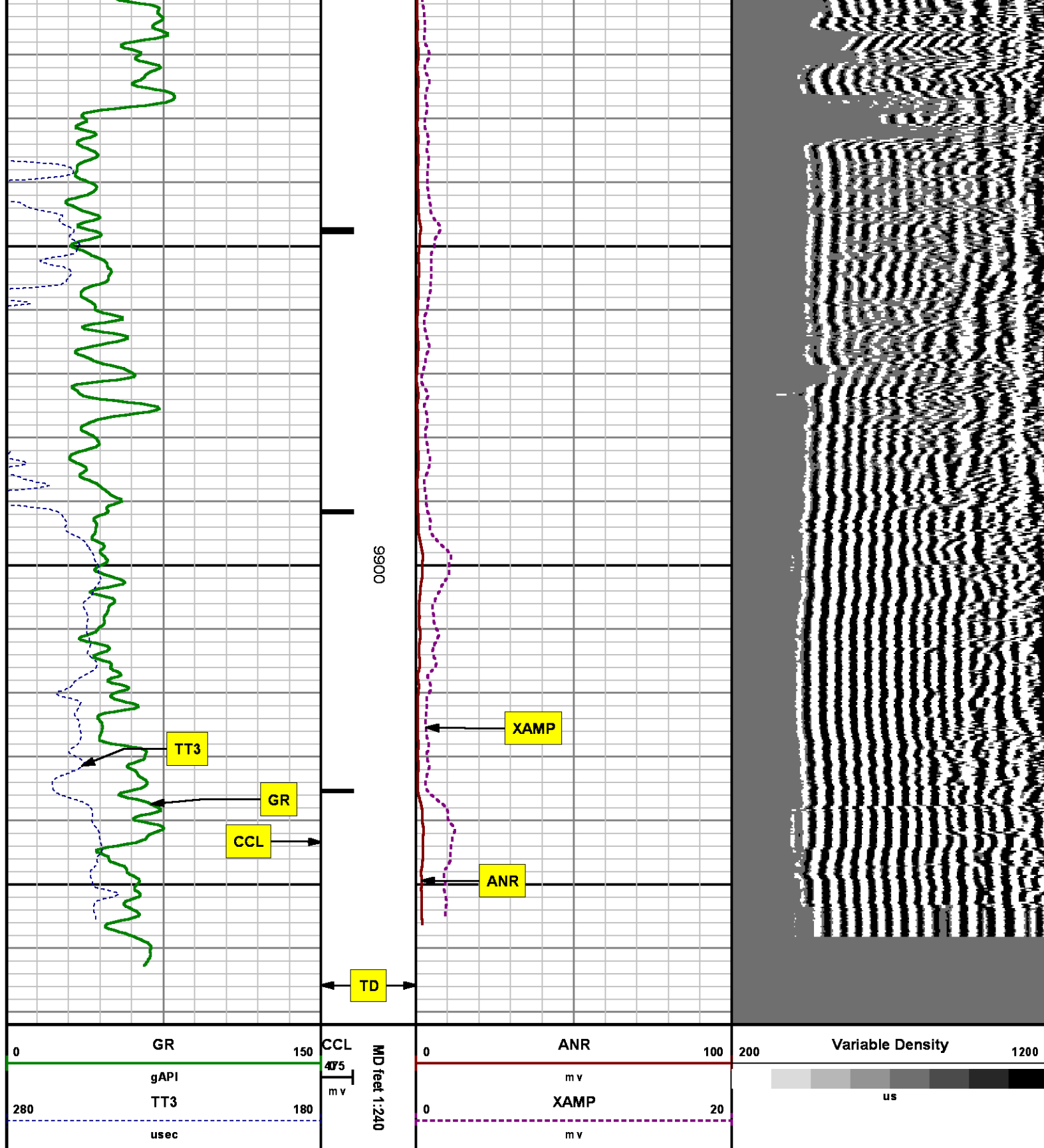


0096

9700

9800





SECONDARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	22.712	9973.500
RAL	Amp Gate Start Near	195.000	usec	22.712	9973.500
RAL	Amp Gate Start Radial	195.000	usec	22.712	9973.500
RAL	Amp Gate Width Far	25.000	usec	22.712	9973.500
RAL	Amp Gate Width Near	25.000	usec	22.712	9973.500
RAL	Amp Gate Width Radial	25.000	usec	22.712	9973.500
RAL	casing od	4.500	inches	22.712	9973.500
RAL	casing wt	11.600	lbm/ft	22.712	9973.500
RAL	FB Start Far	291.900	usec	22.712	9973.500
RAL	FB Start Near	180.000	usec	22.712	9973.500
RAL	FB Start Radial	180.000	usec	22.712	9973.500
RAL	FB Thresh Far	10.000	mv	22.712	9973.500
RAL	FB Thresh Near	4.000	mv	22.712	9973.500
RAL	FB Thresh Radial	4.000	mv	22.712	9973.500
RAL	Fluid Travel Time	200.000	usec/ft	22.712	9973.500

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

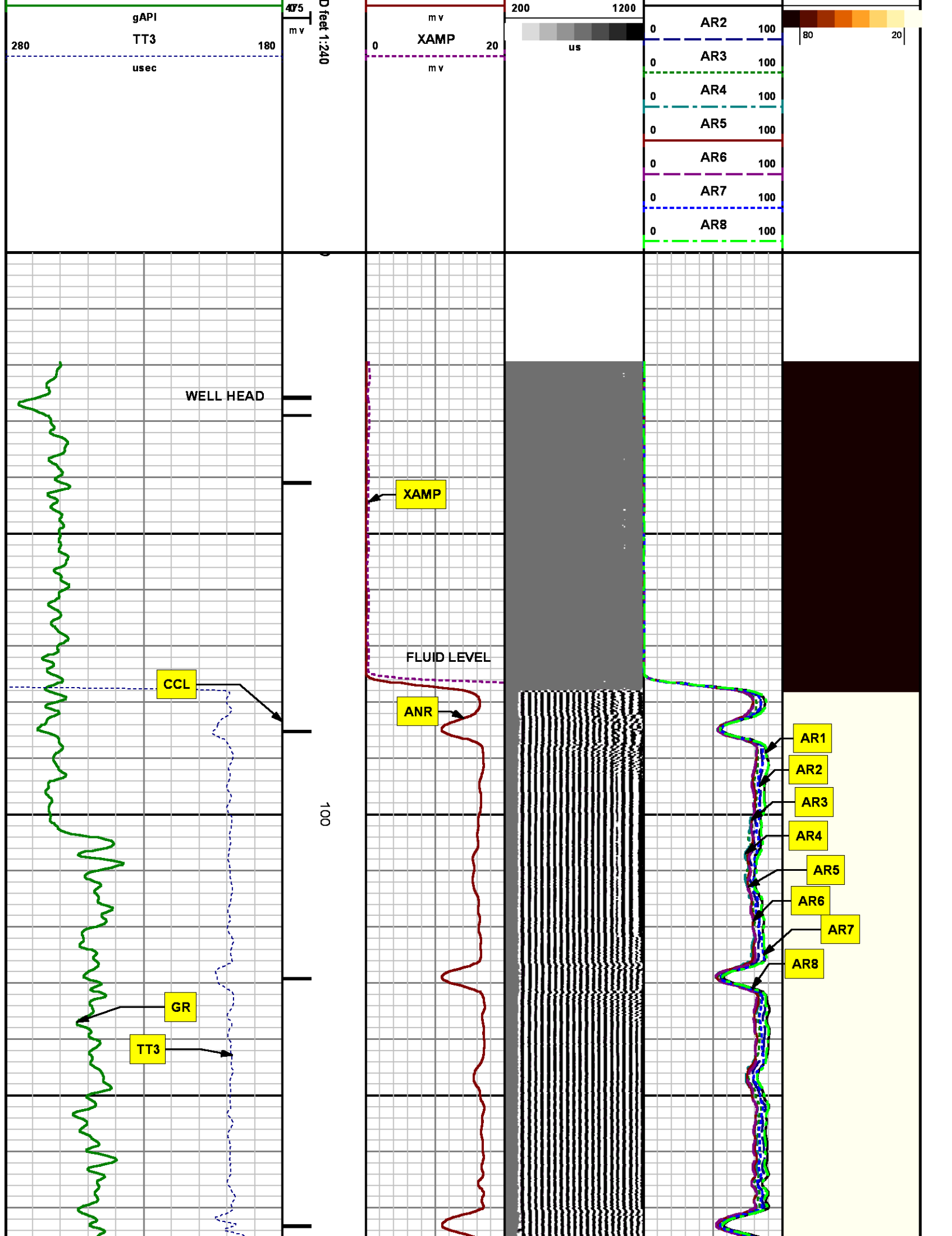
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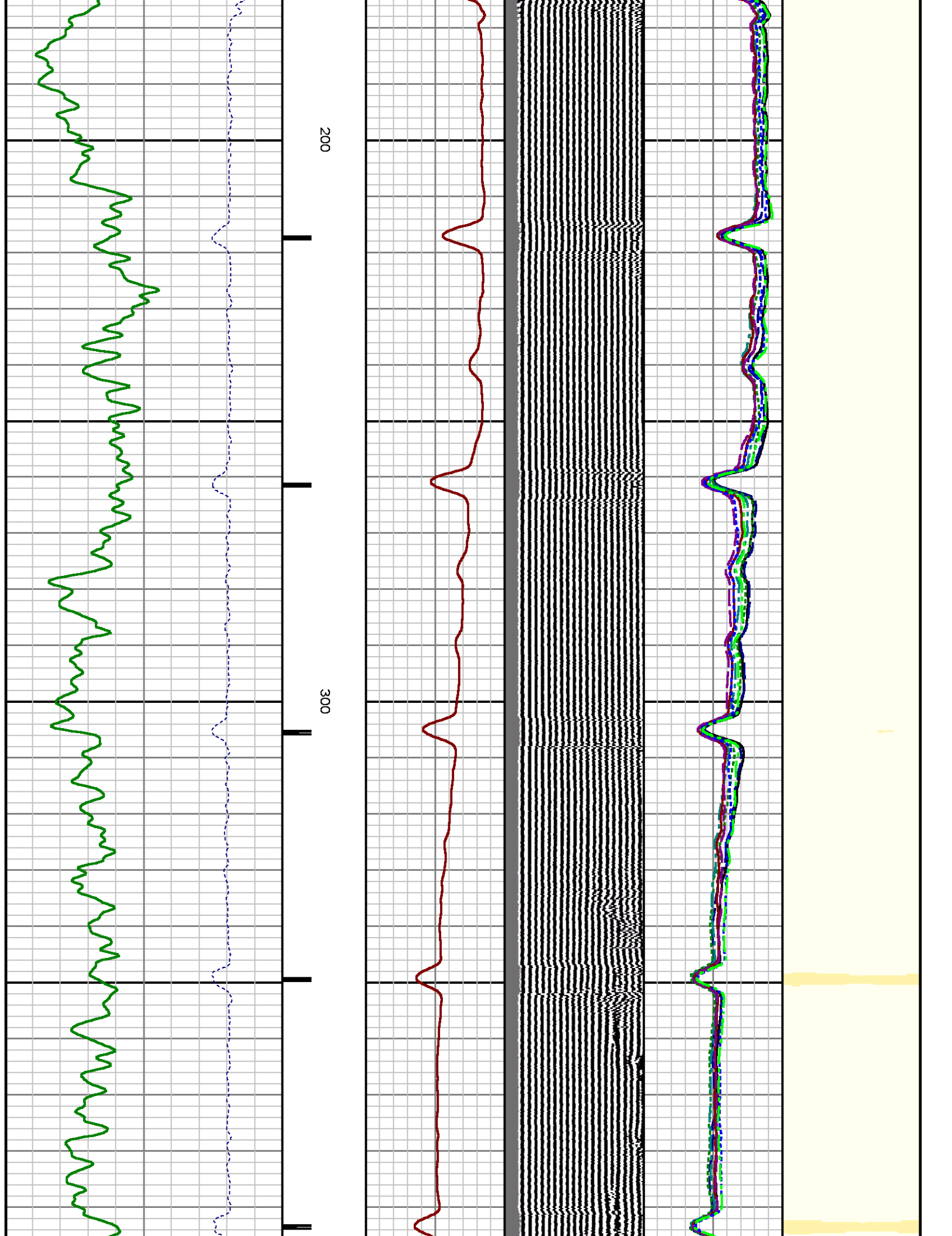
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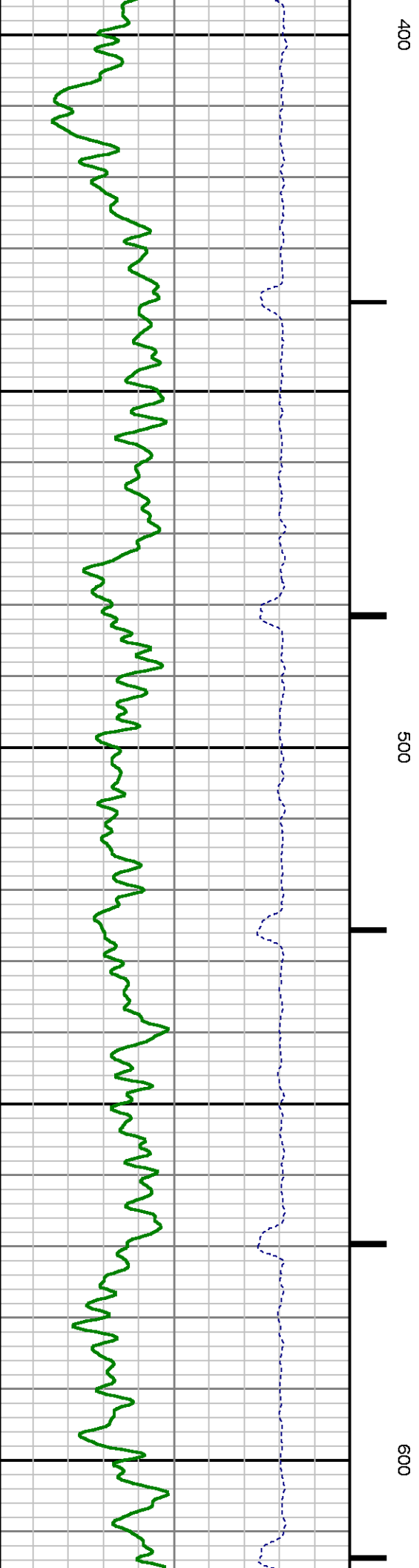
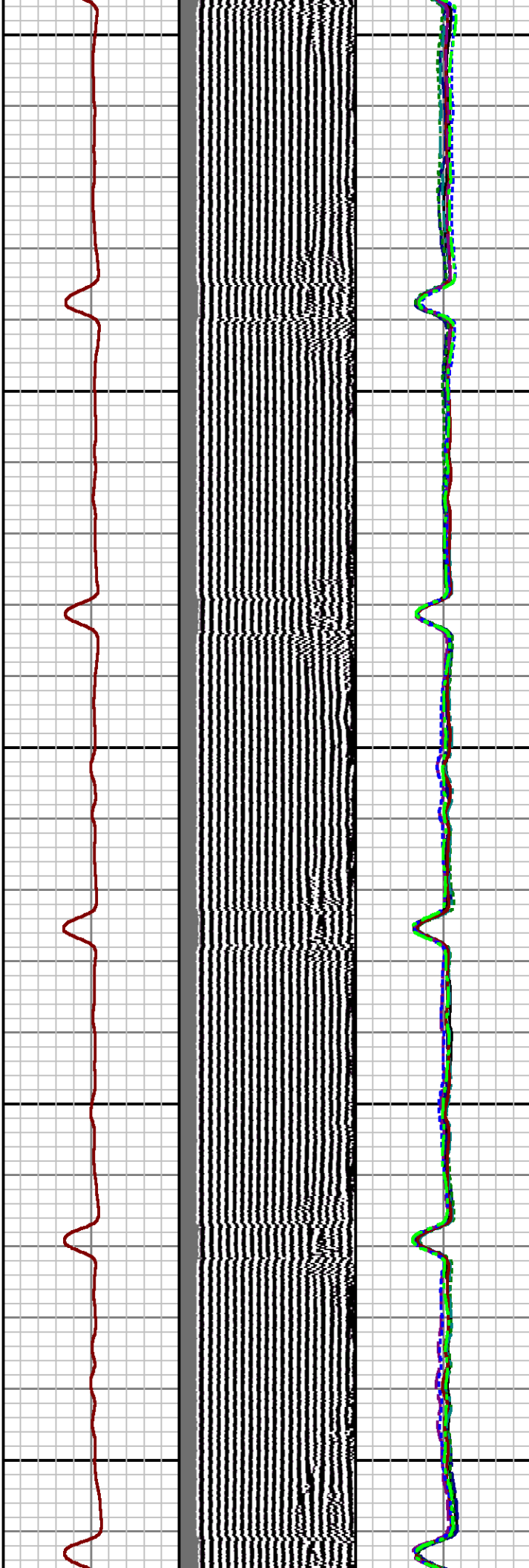
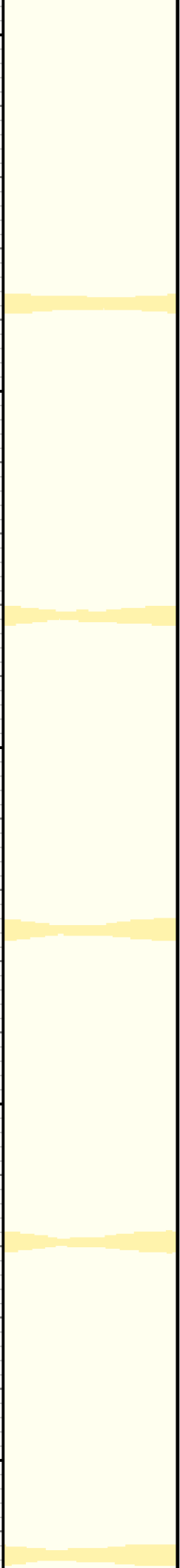
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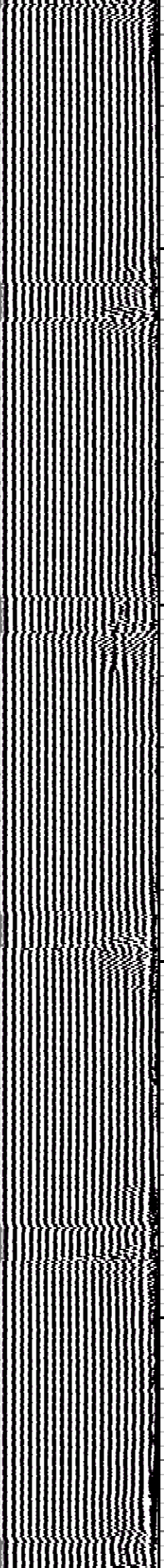
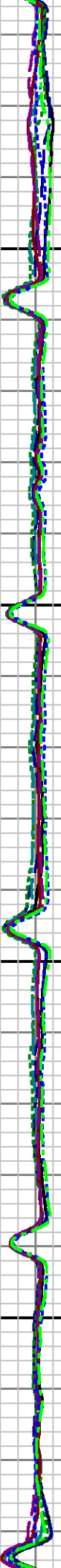
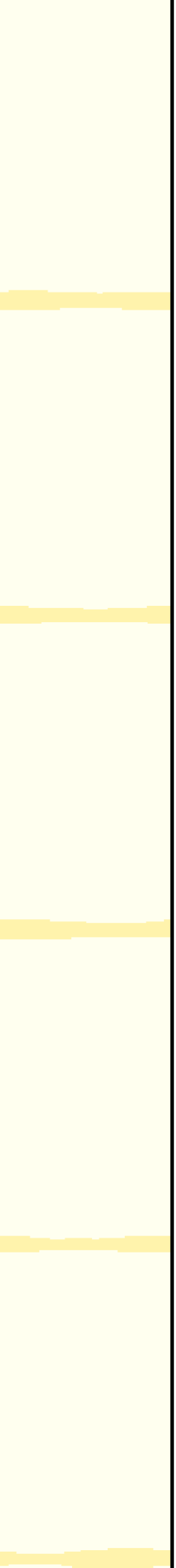
Interval : 0.00 - 9972.00 feet UP

Created : 2/27/2014 7:30:53 PM



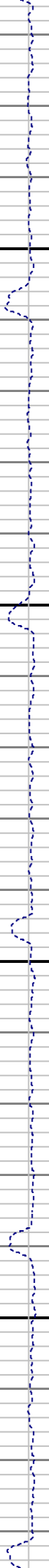


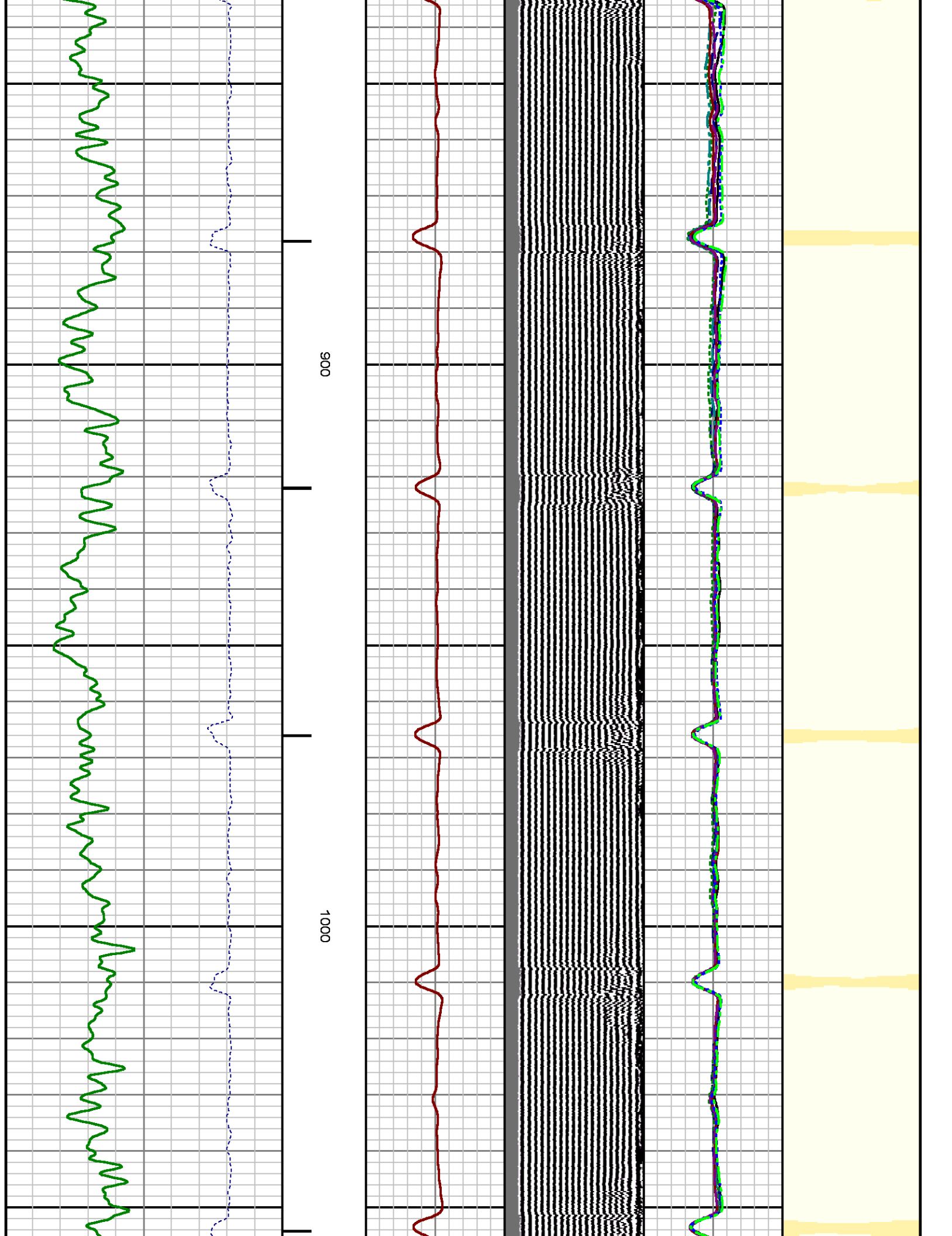


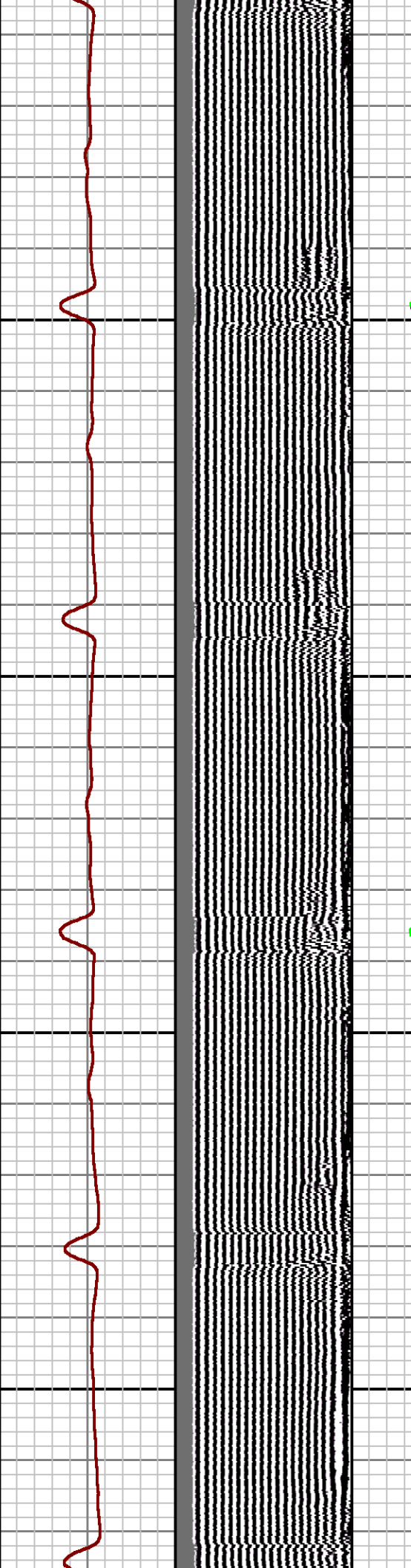
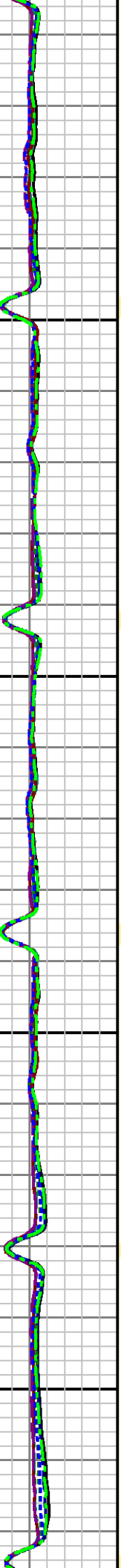


700

800

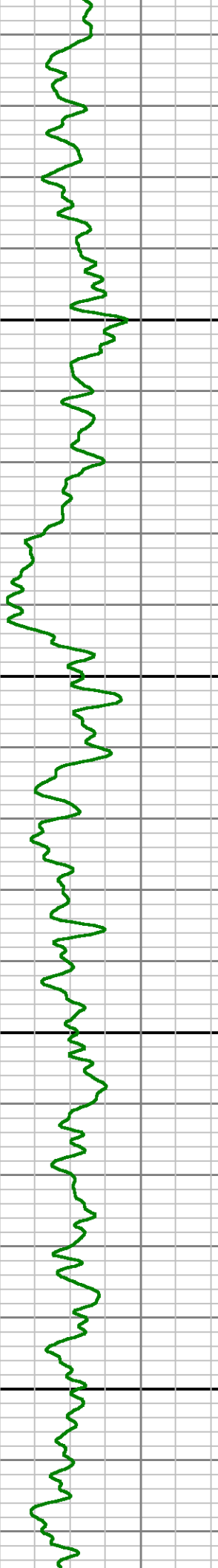
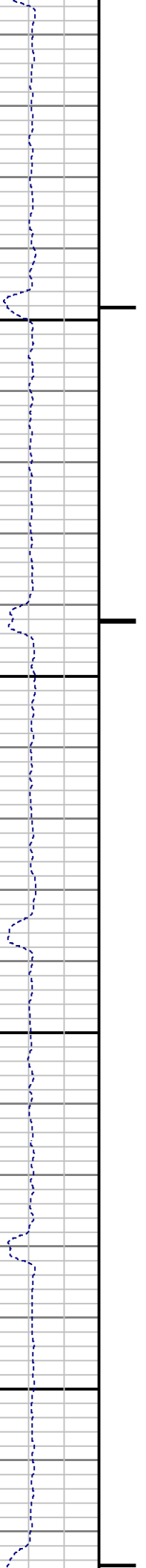


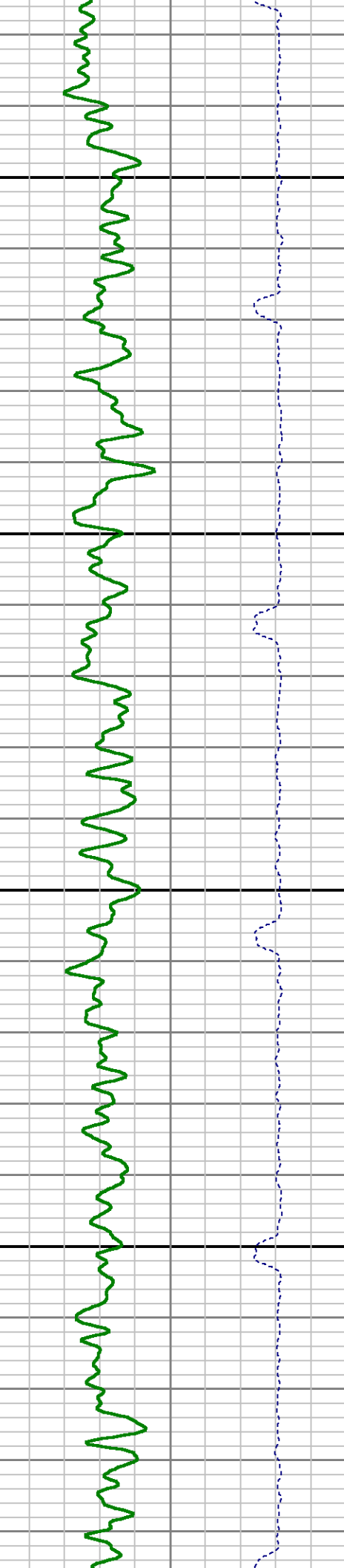
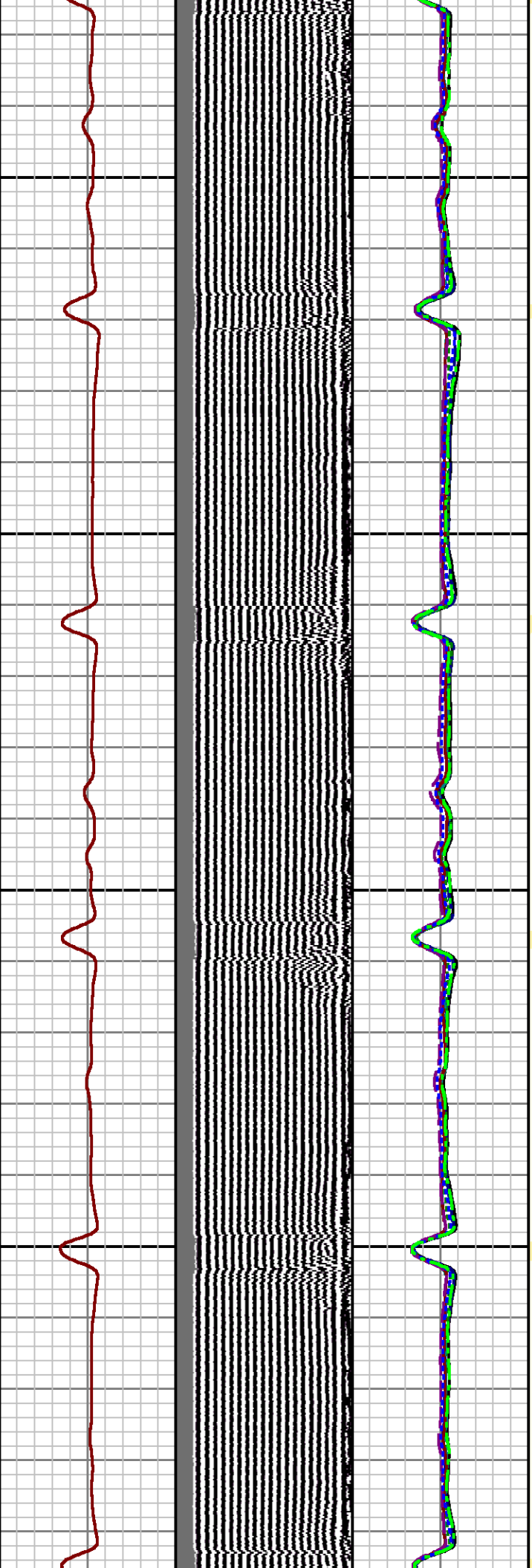
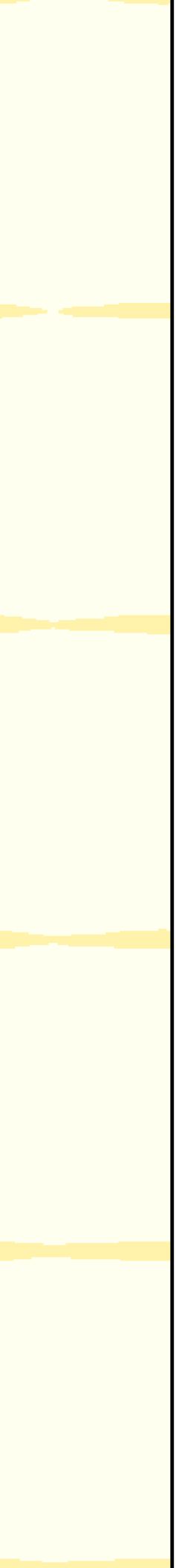




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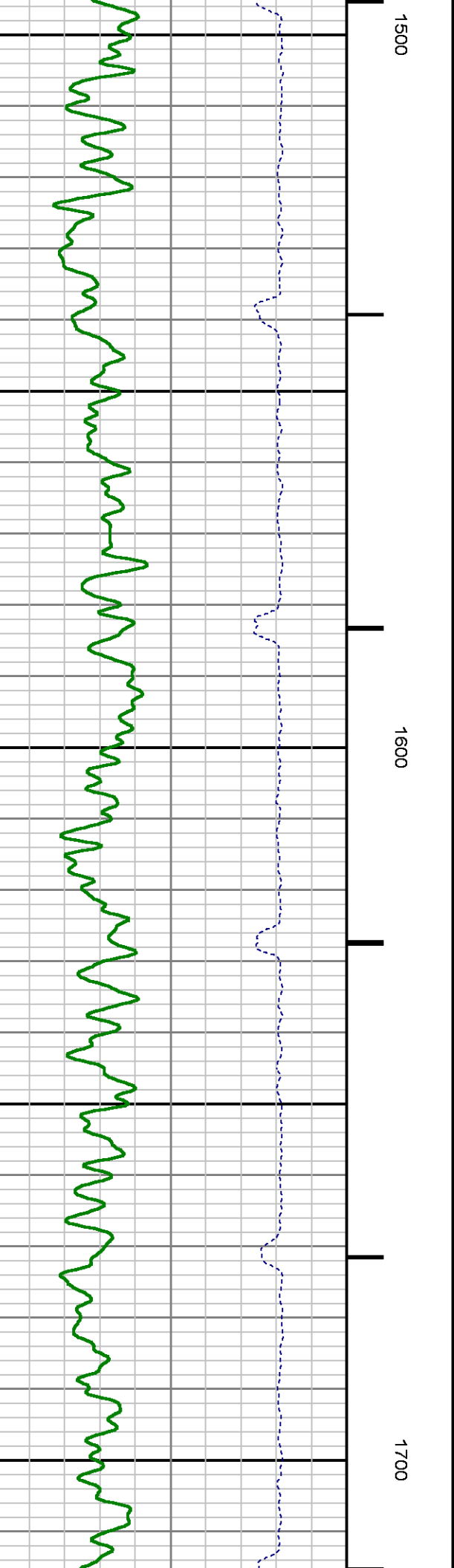
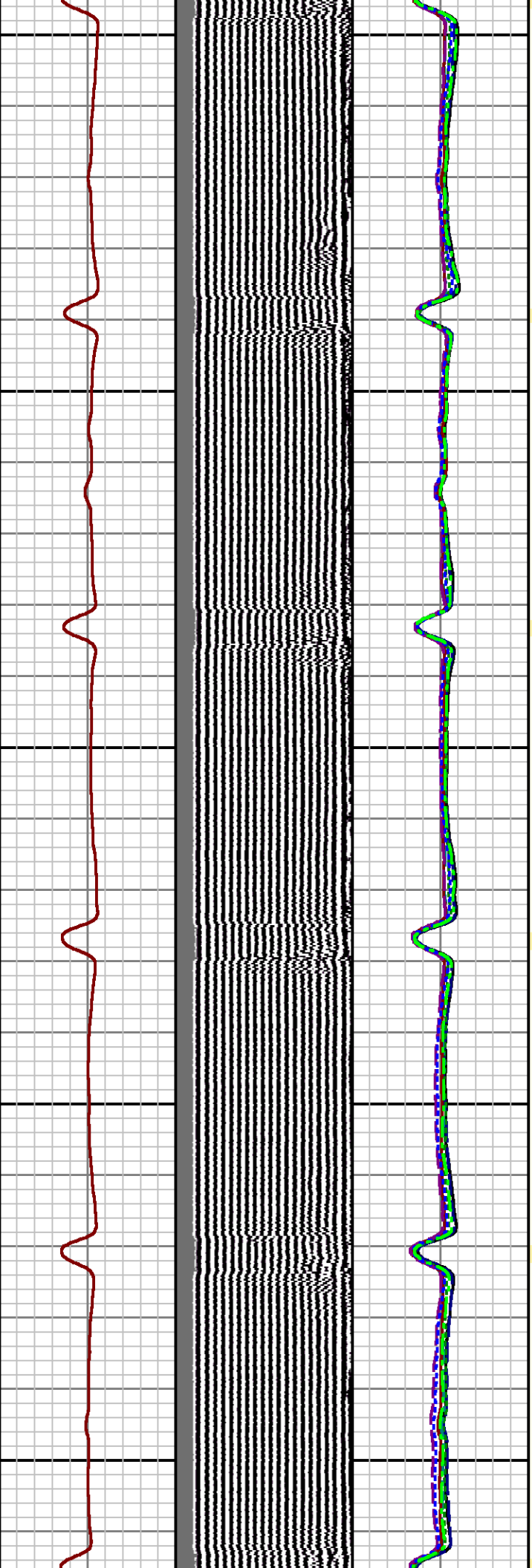
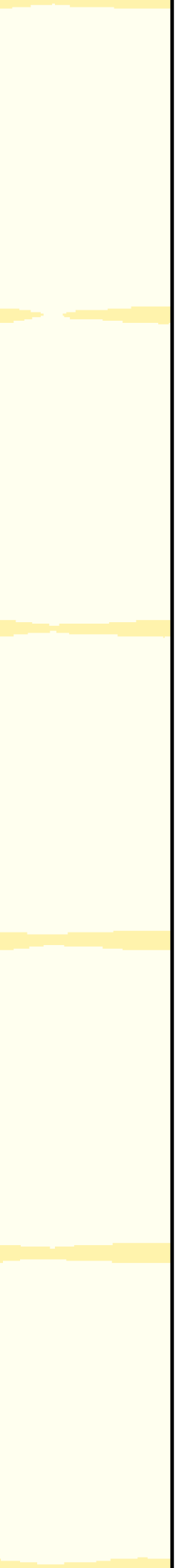
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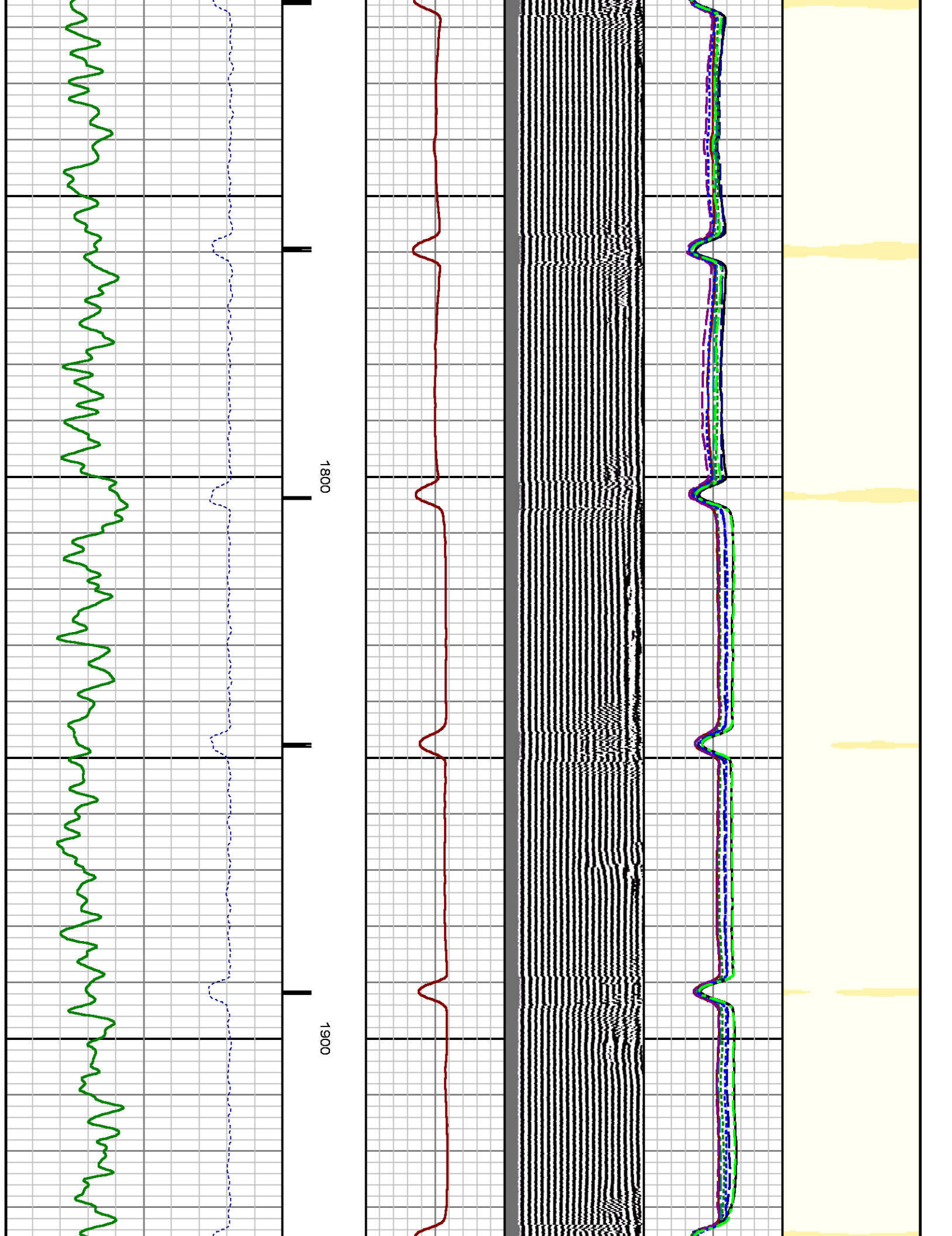


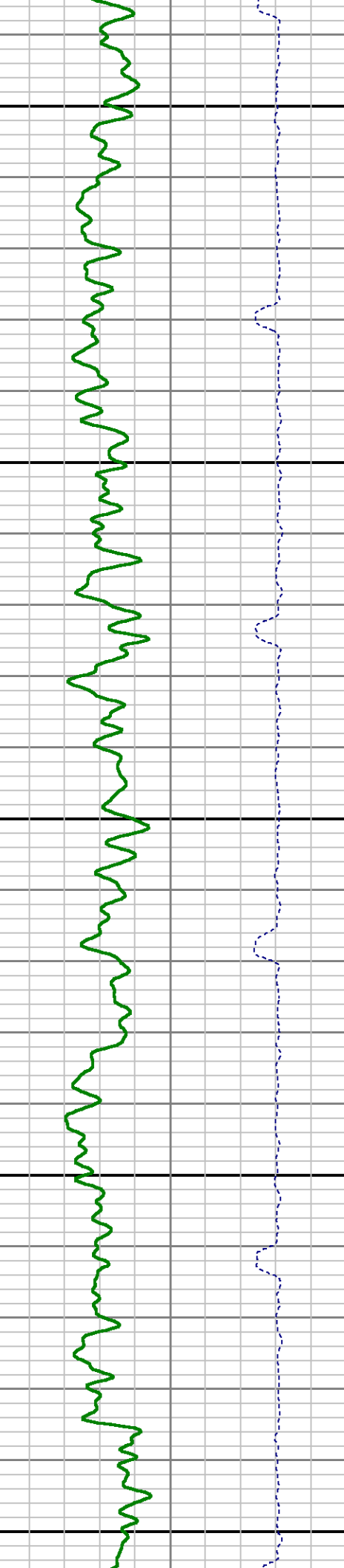
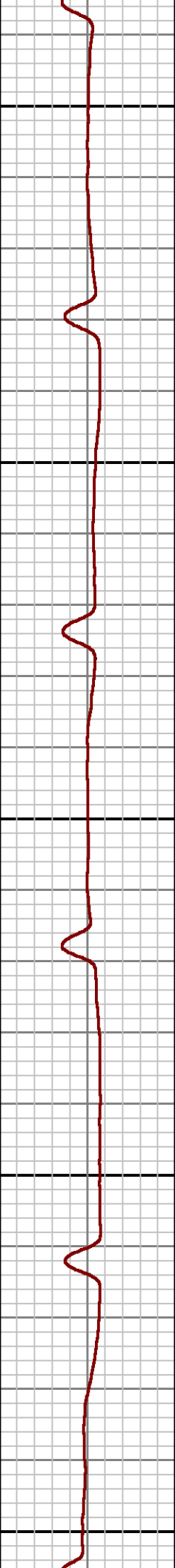
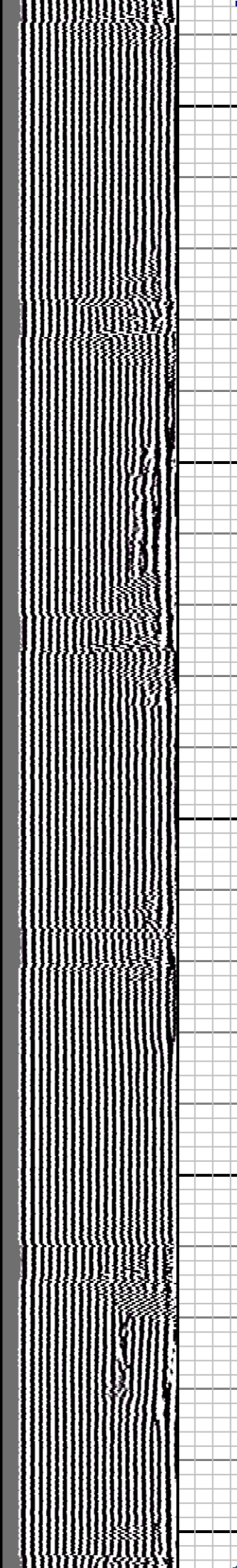
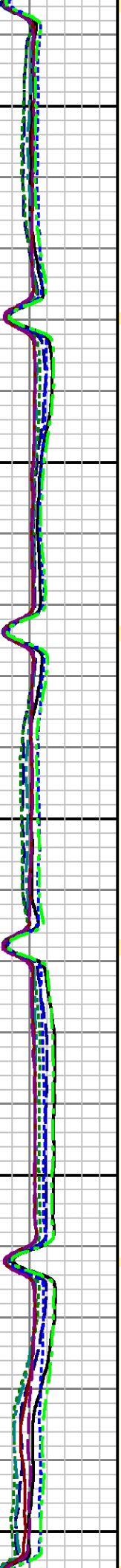
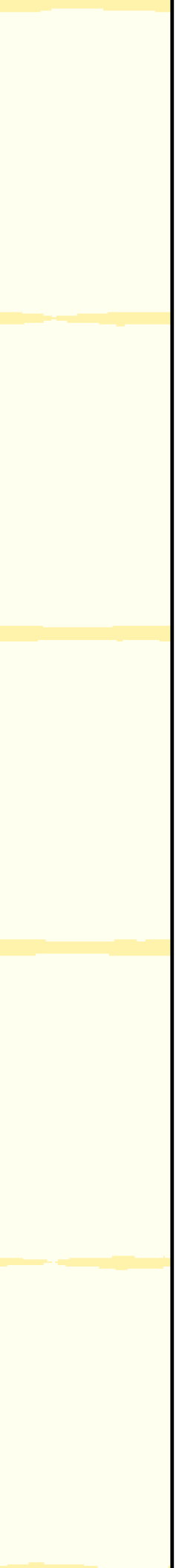


1300

1400

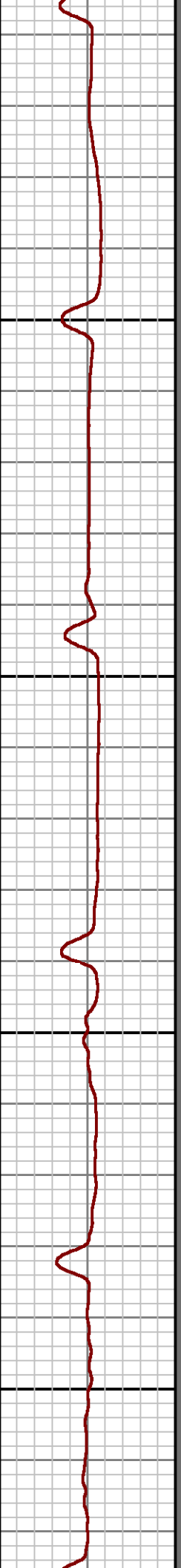
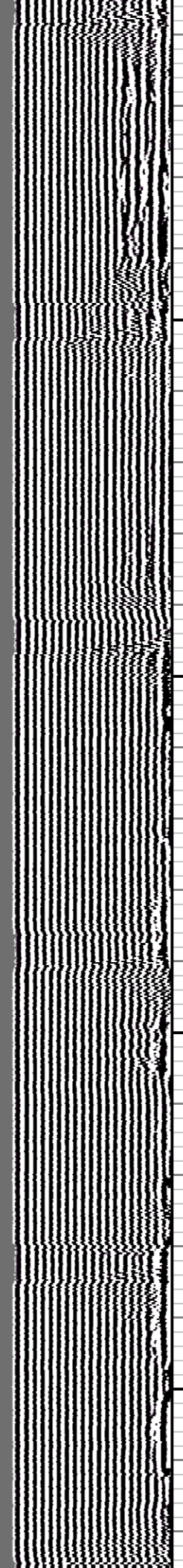
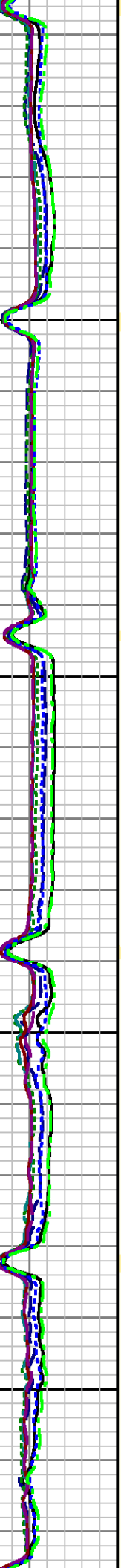
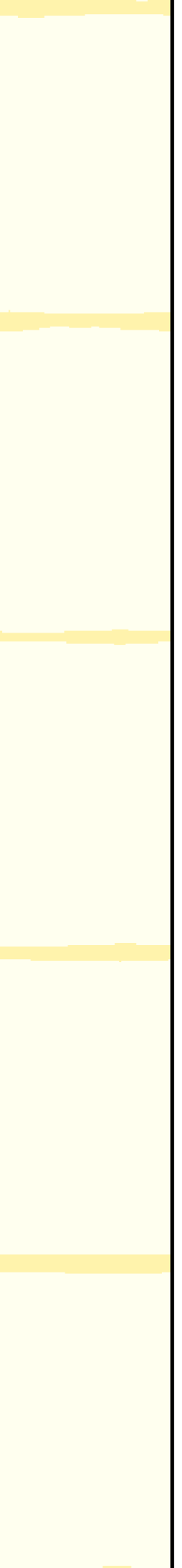






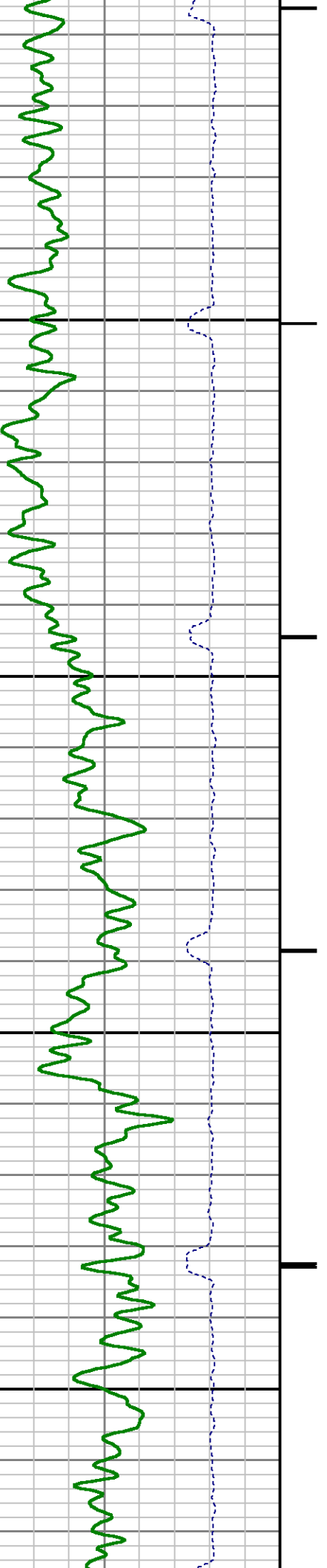
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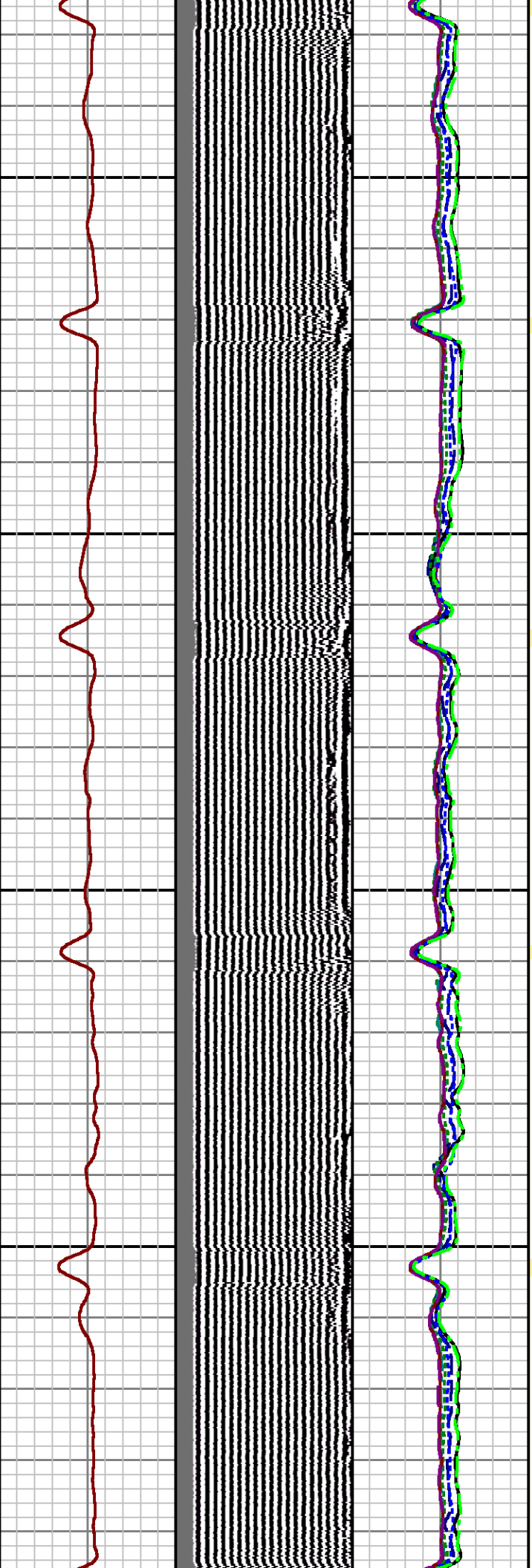
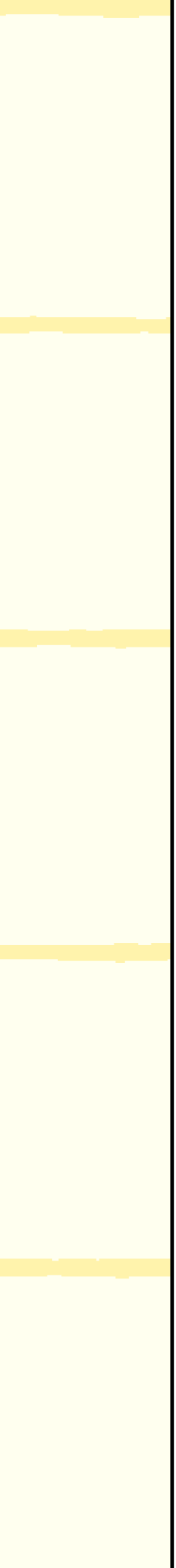
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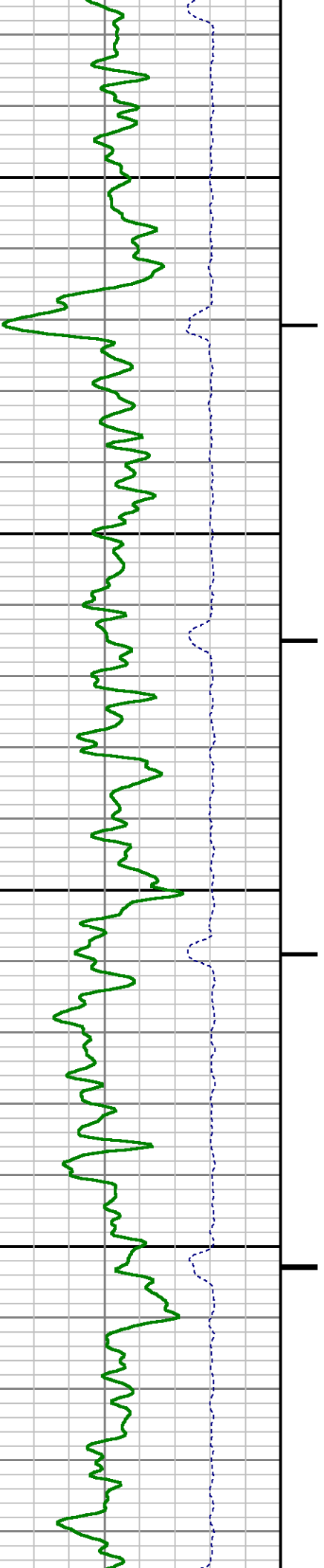
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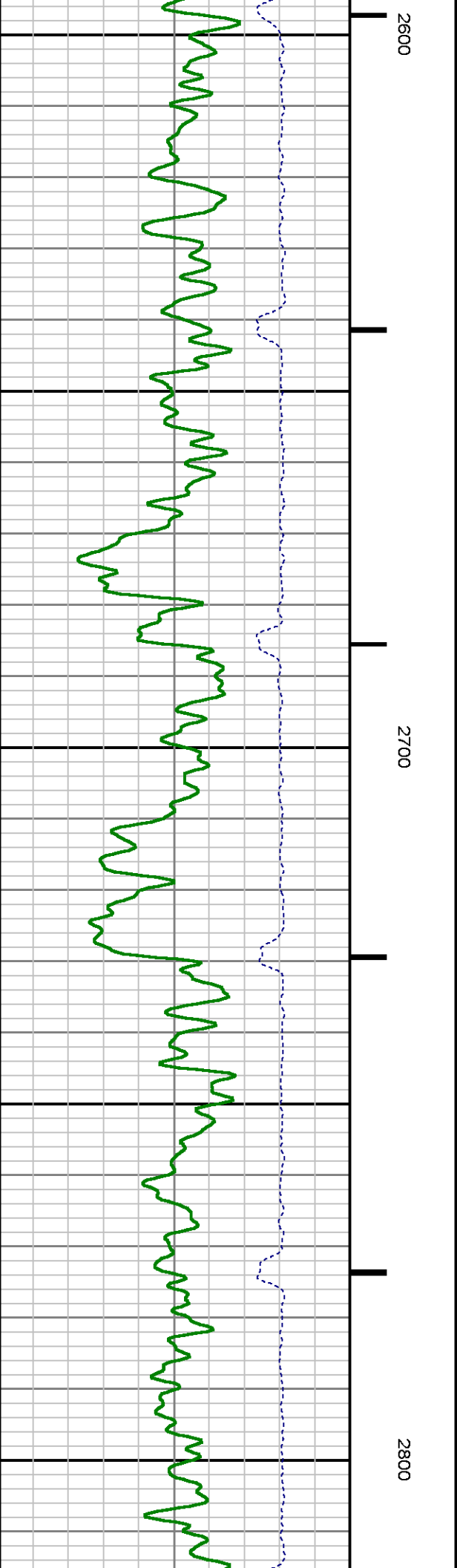
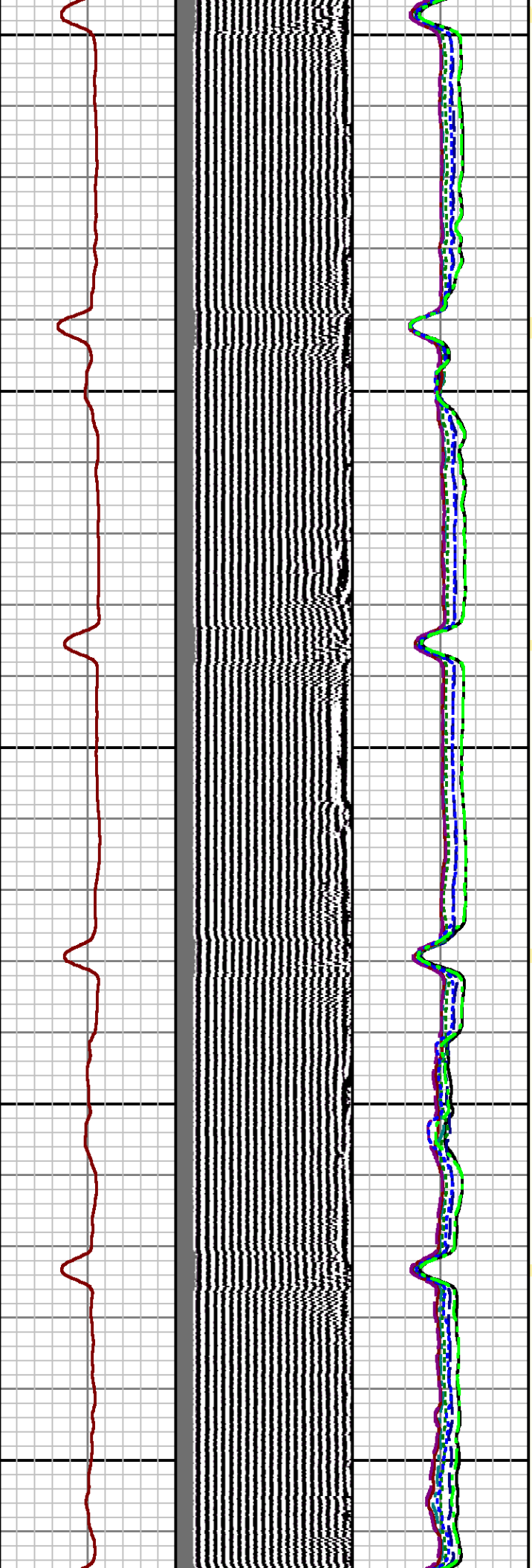


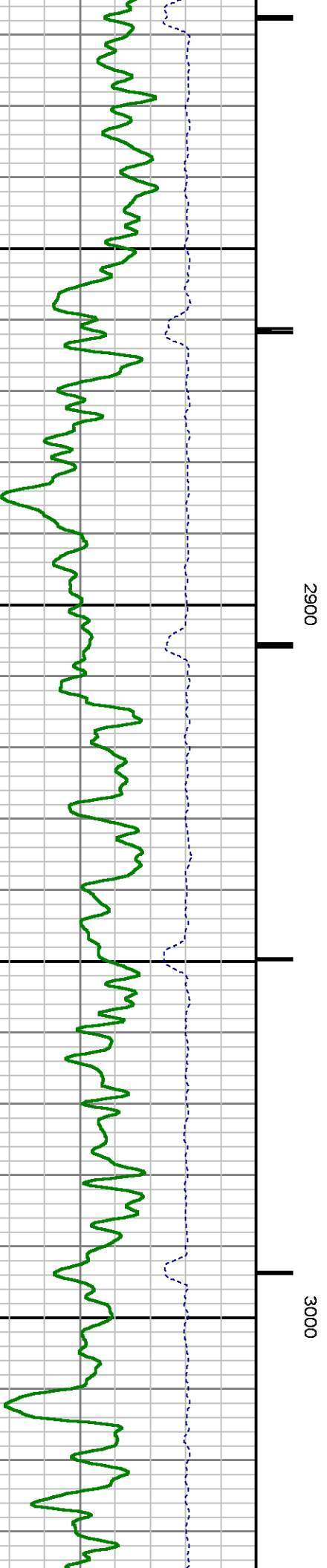
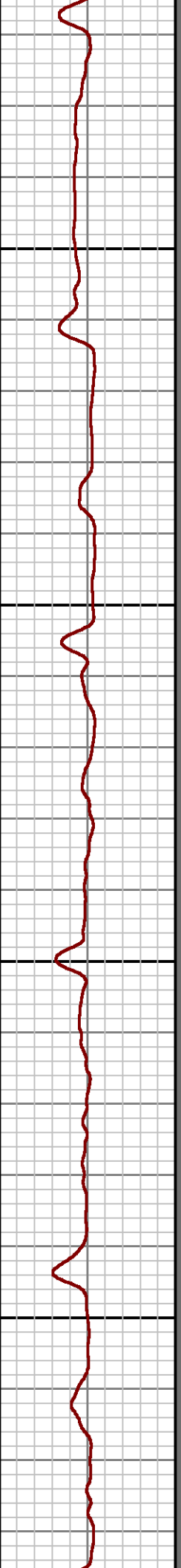
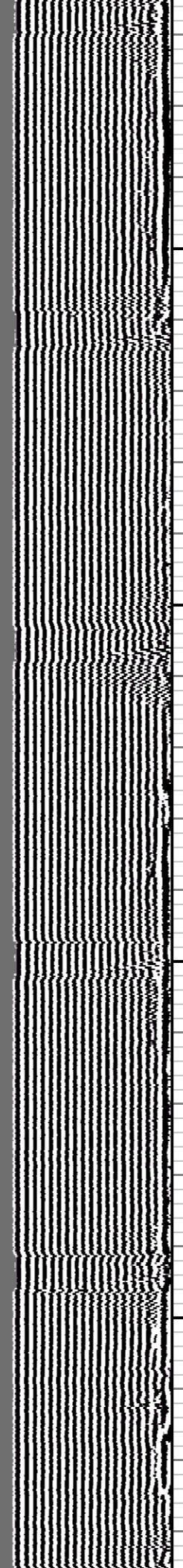
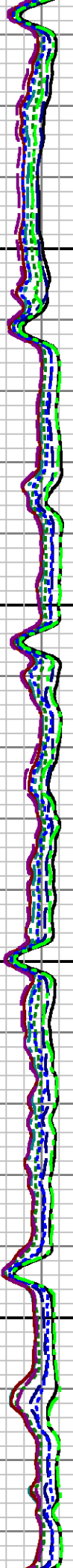


2400

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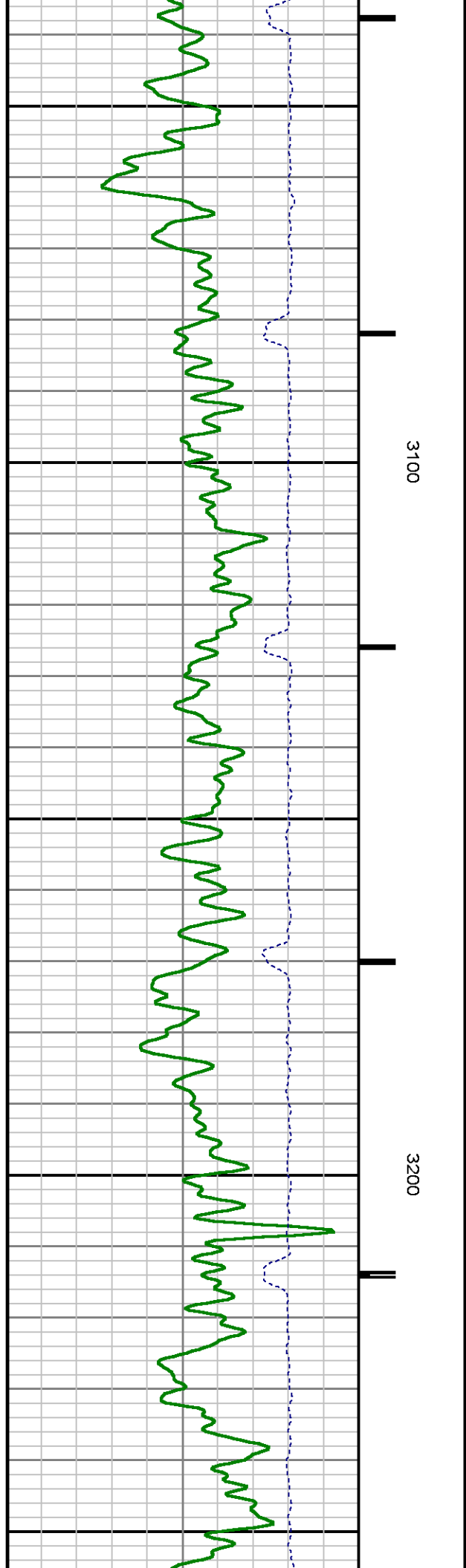
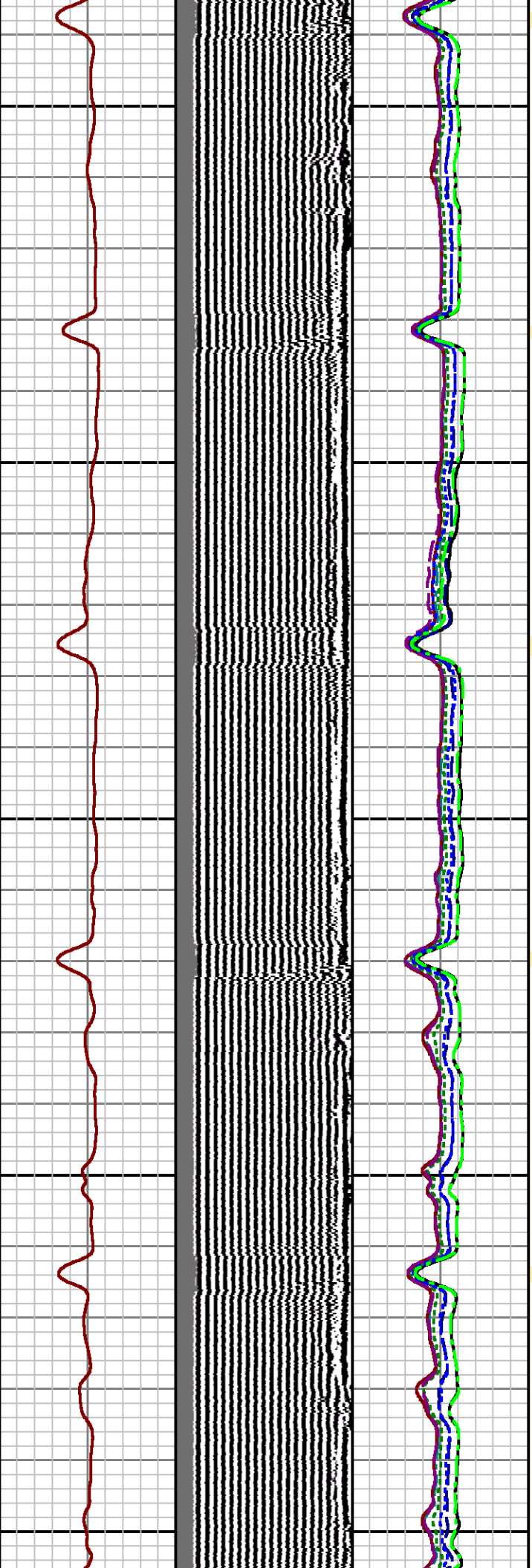


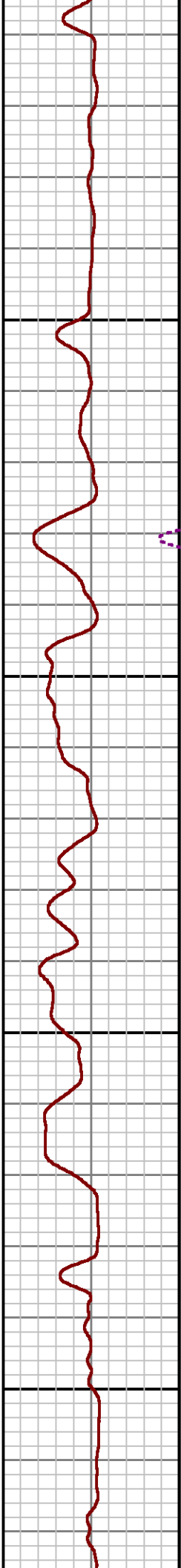
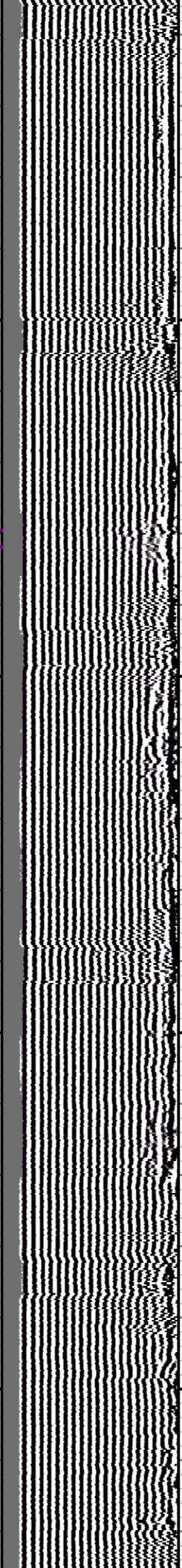
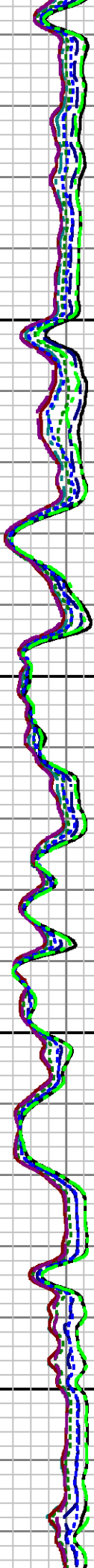
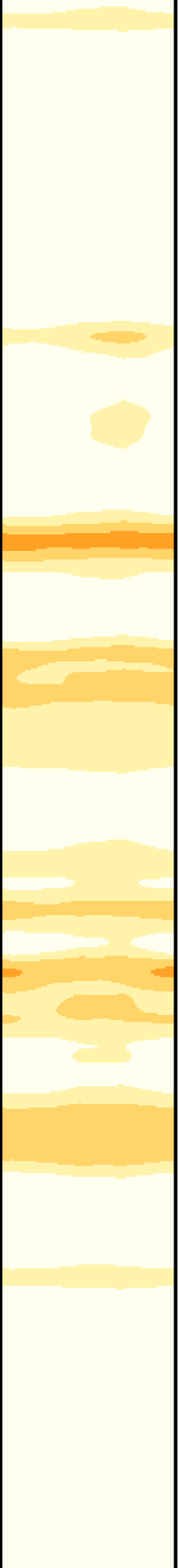




2900

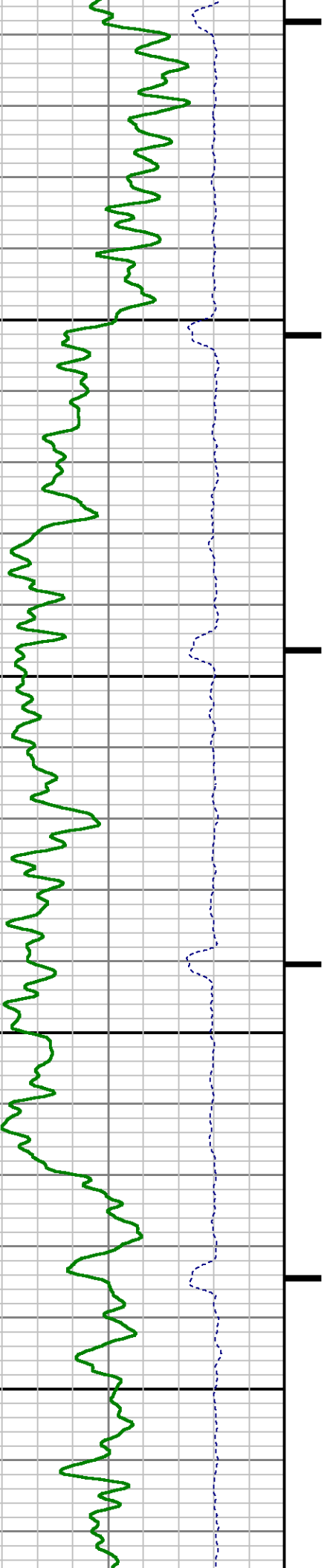
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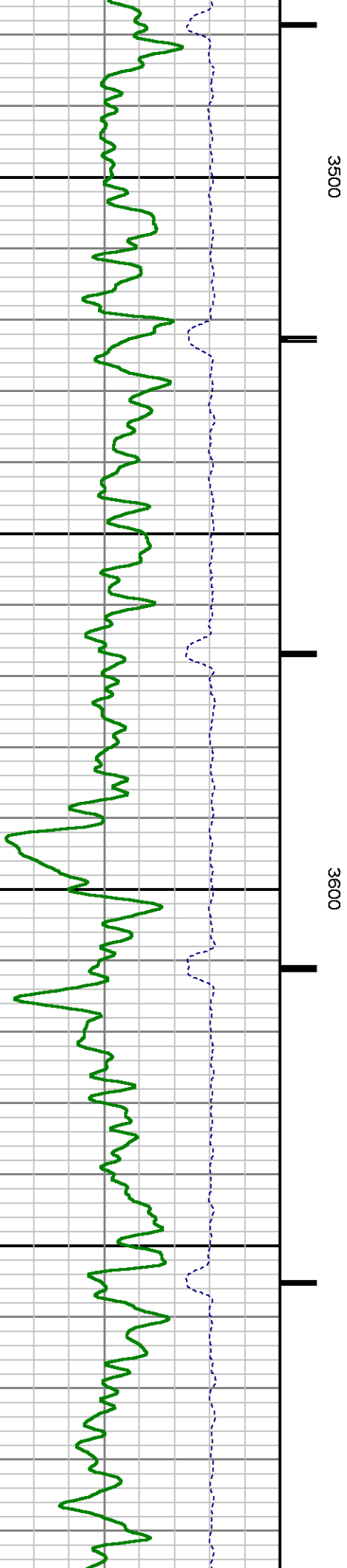
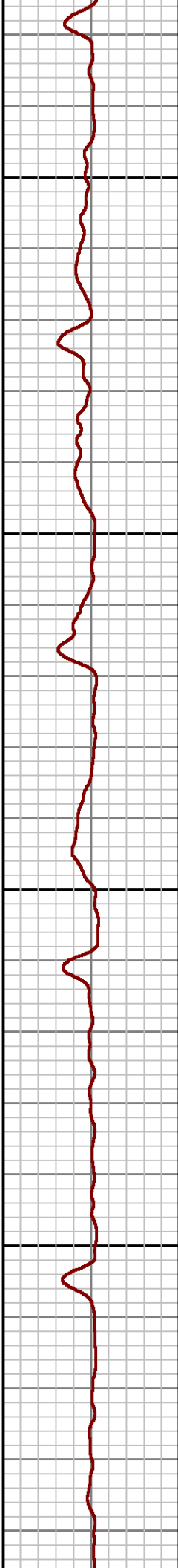
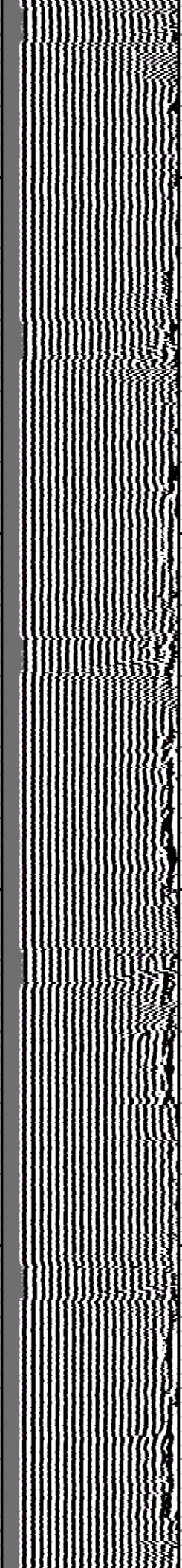
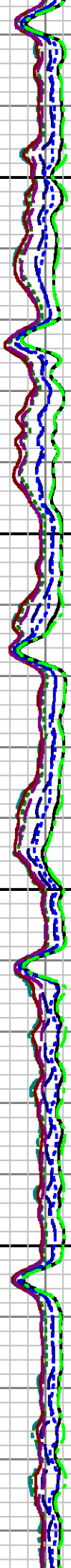
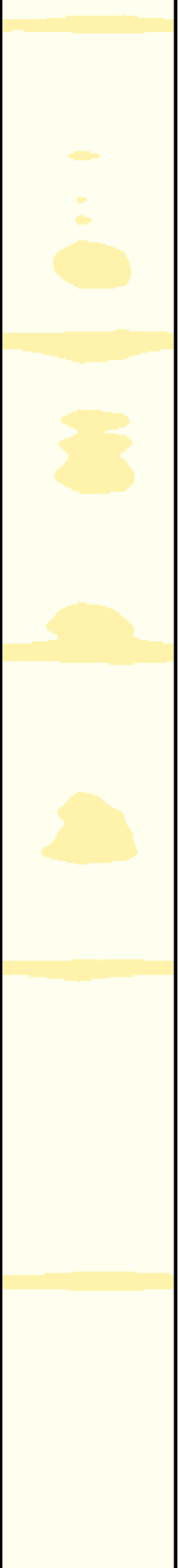


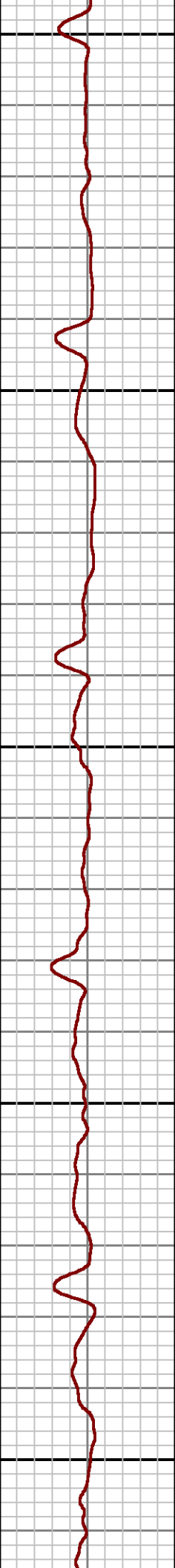
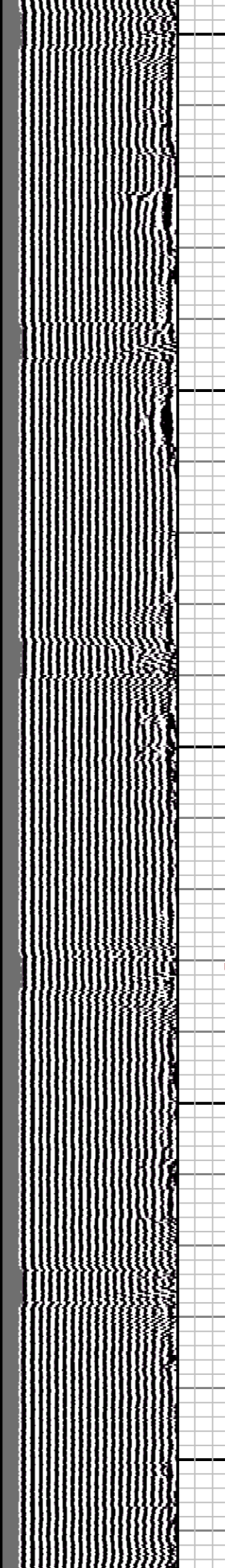
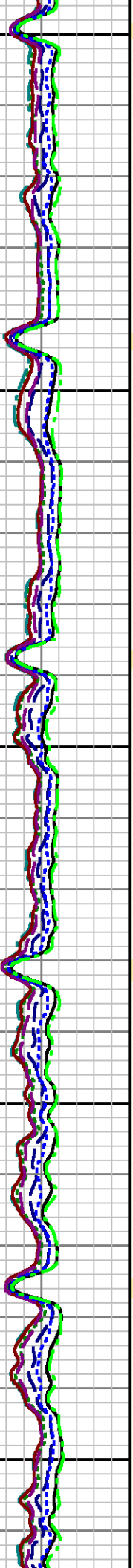
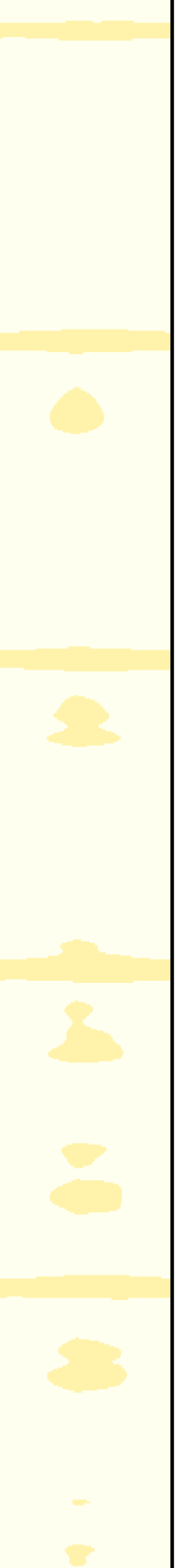


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3400



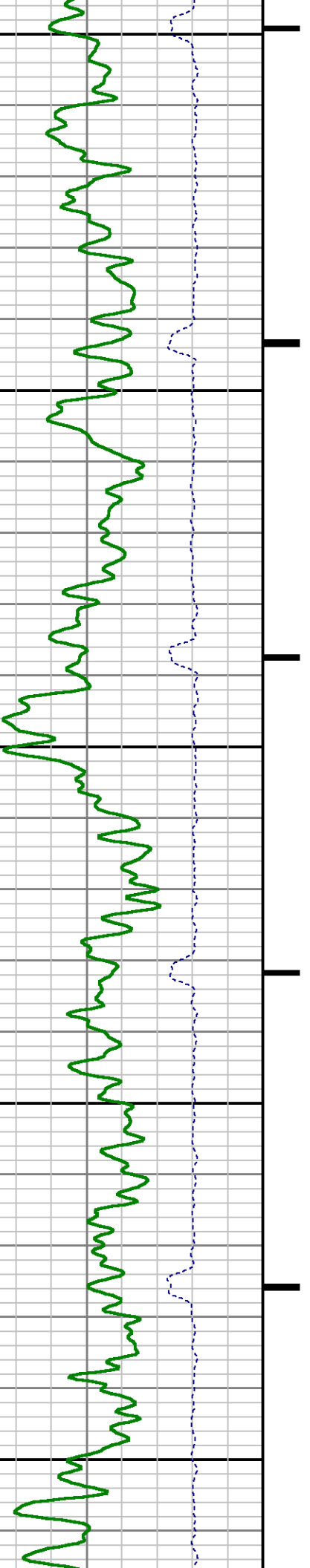


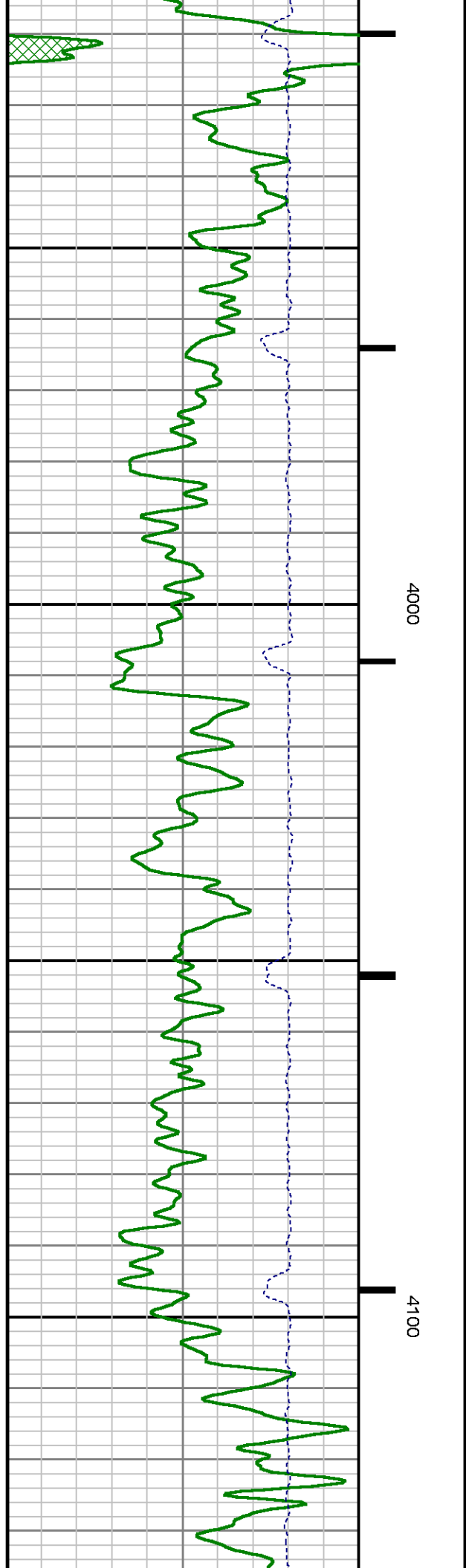
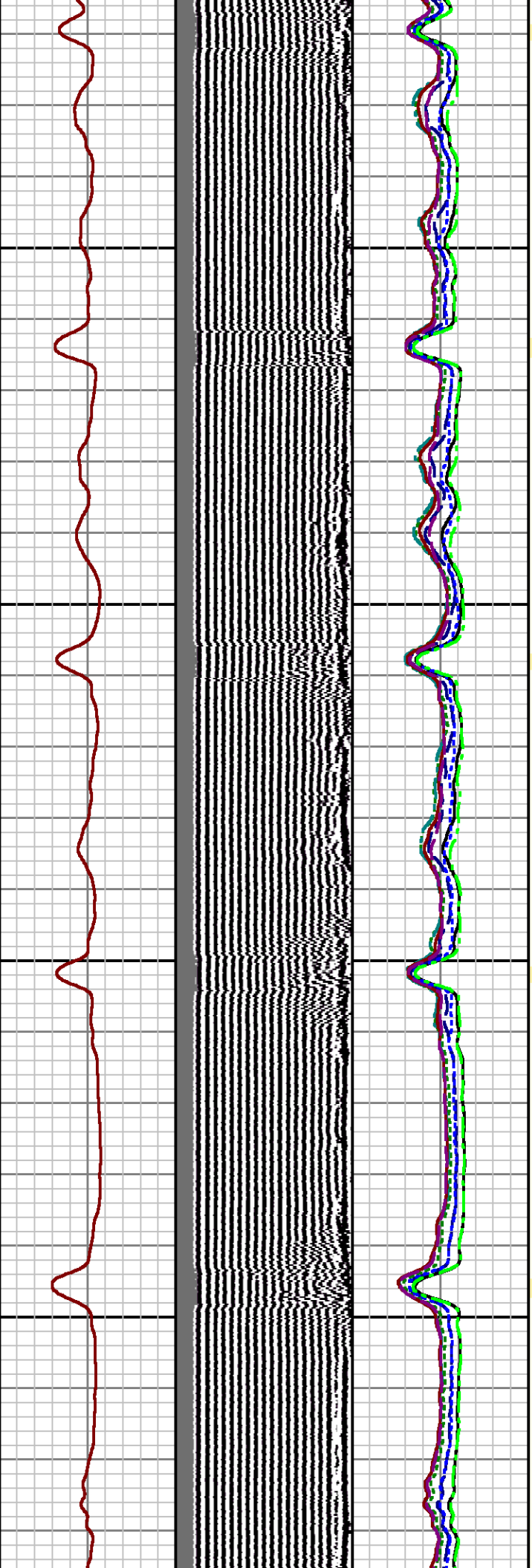


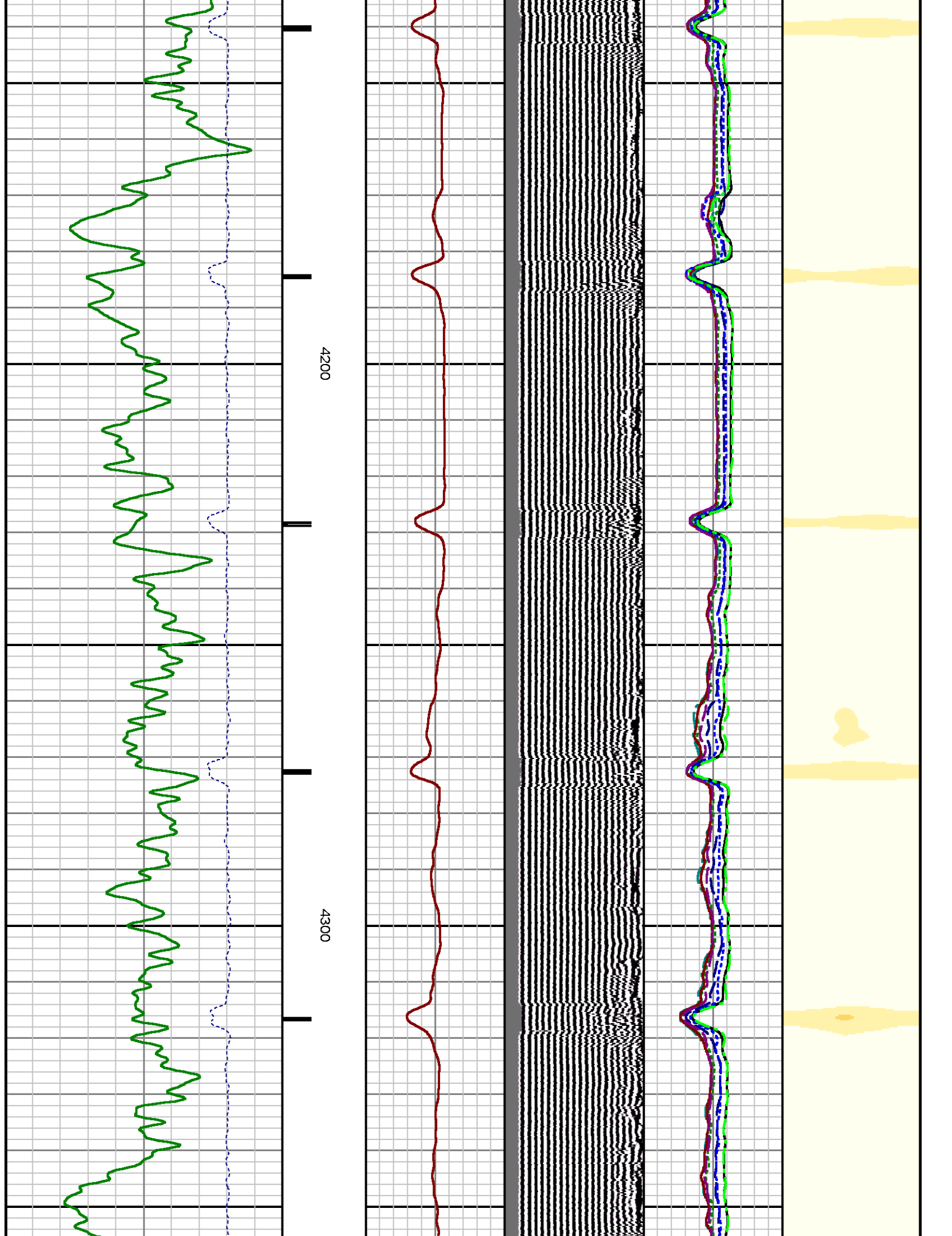
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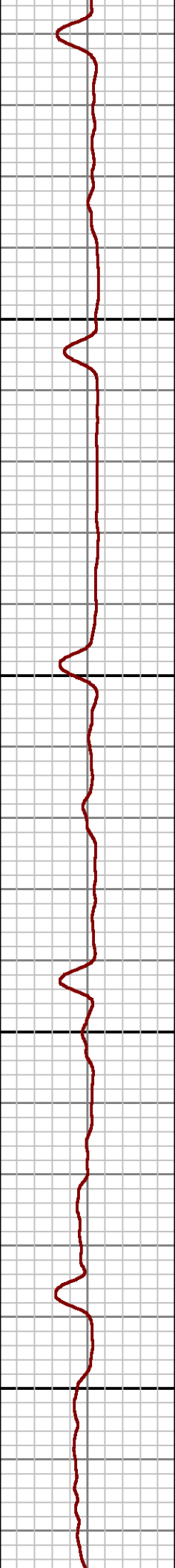
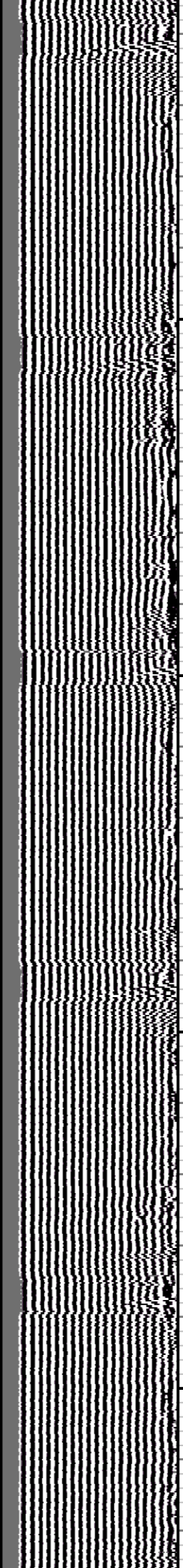
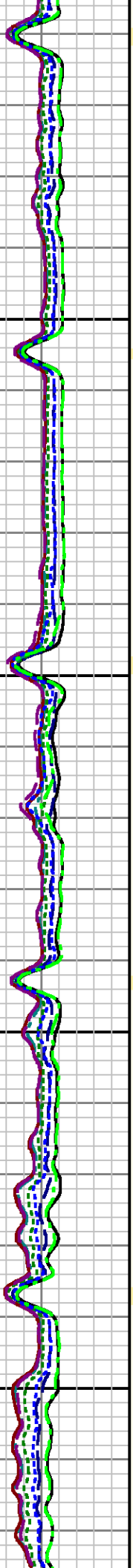
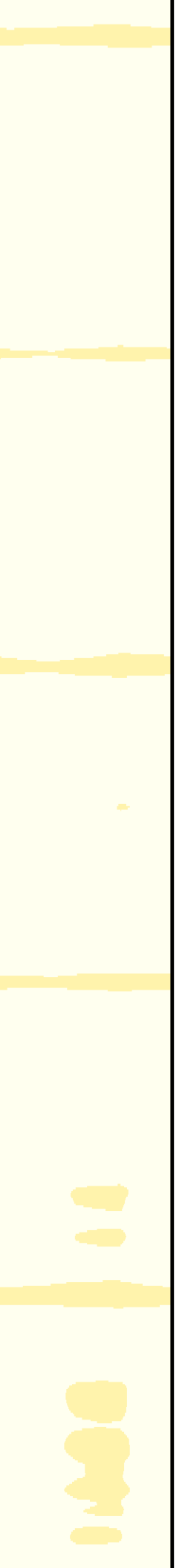
3800

3900



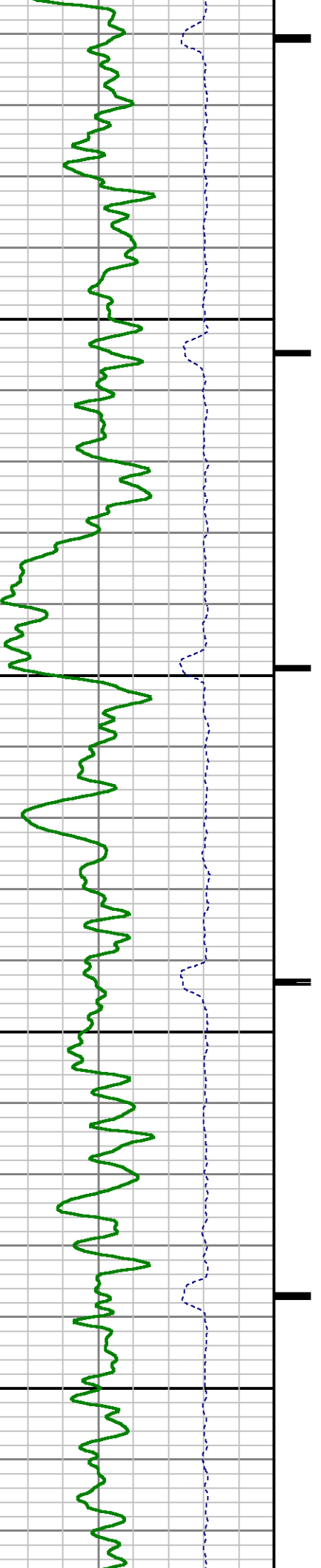


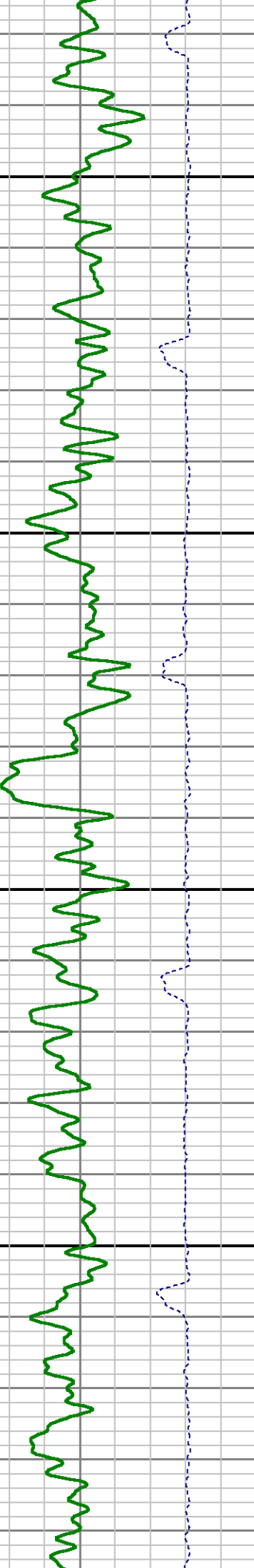
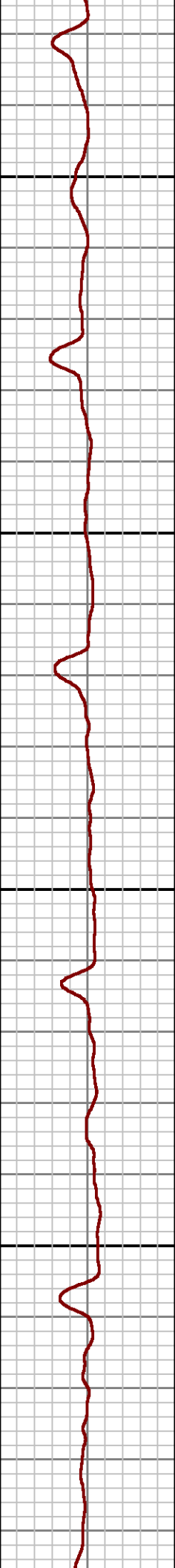
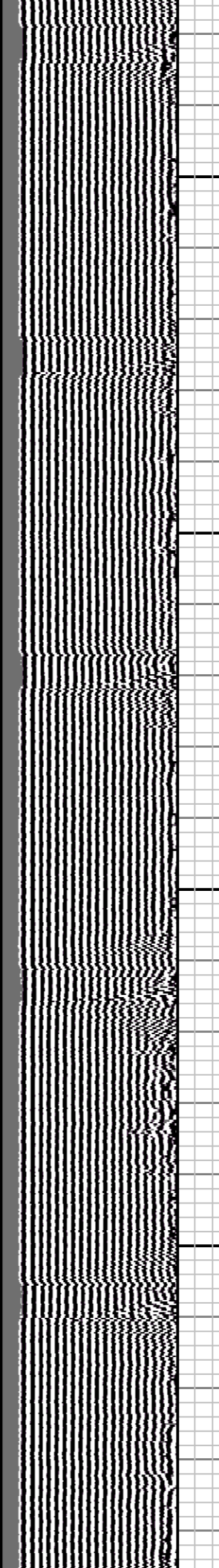
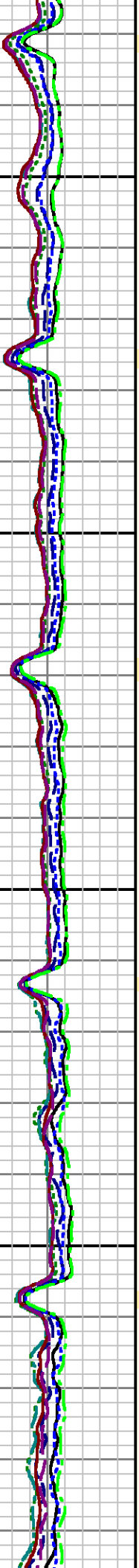


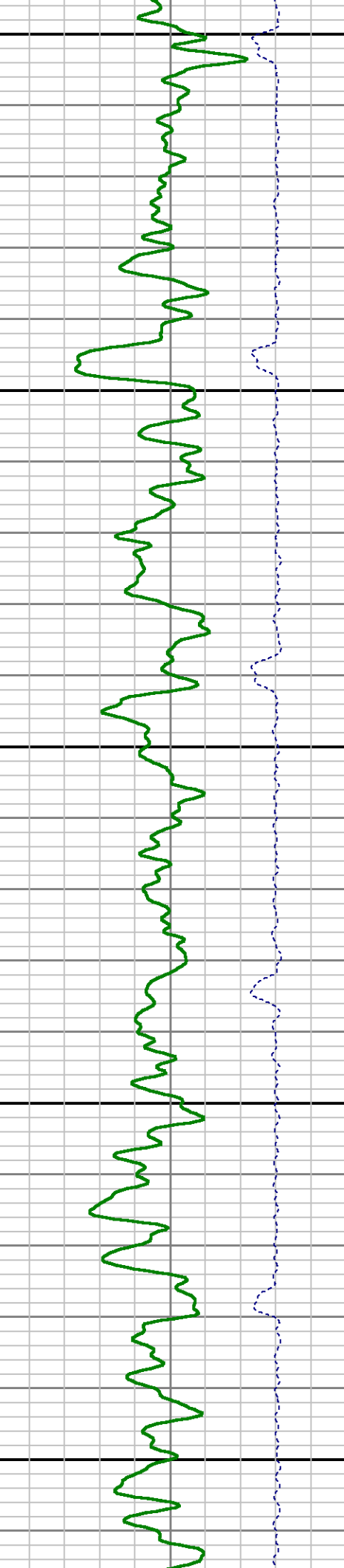
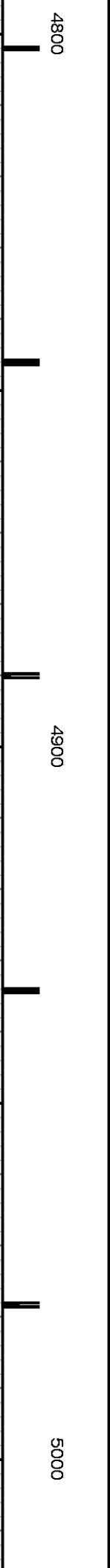
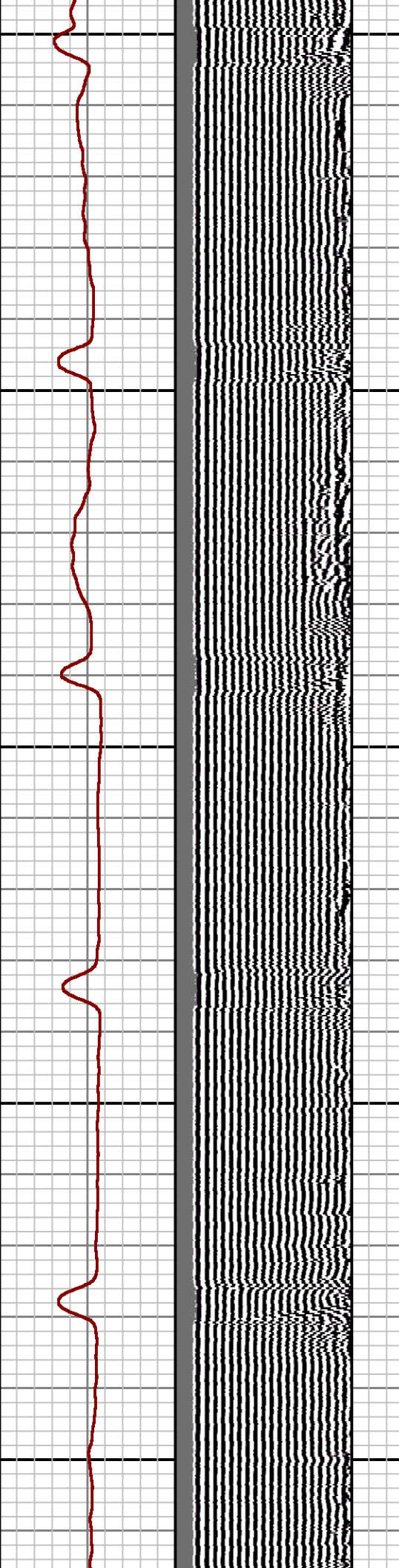
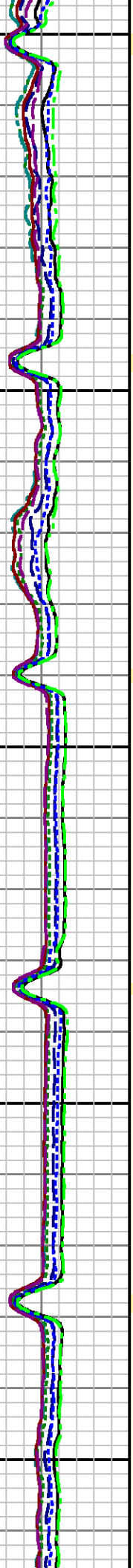
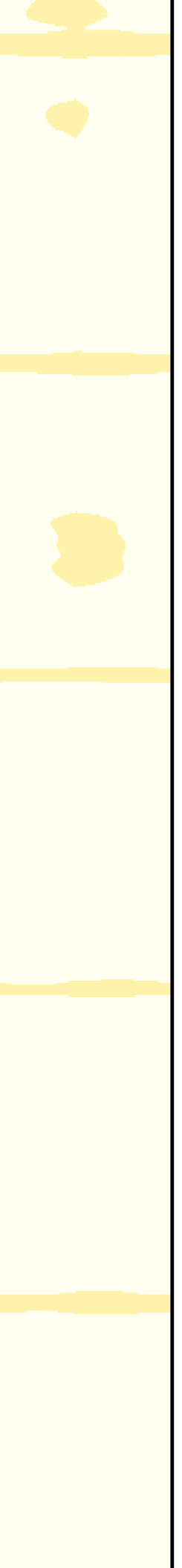


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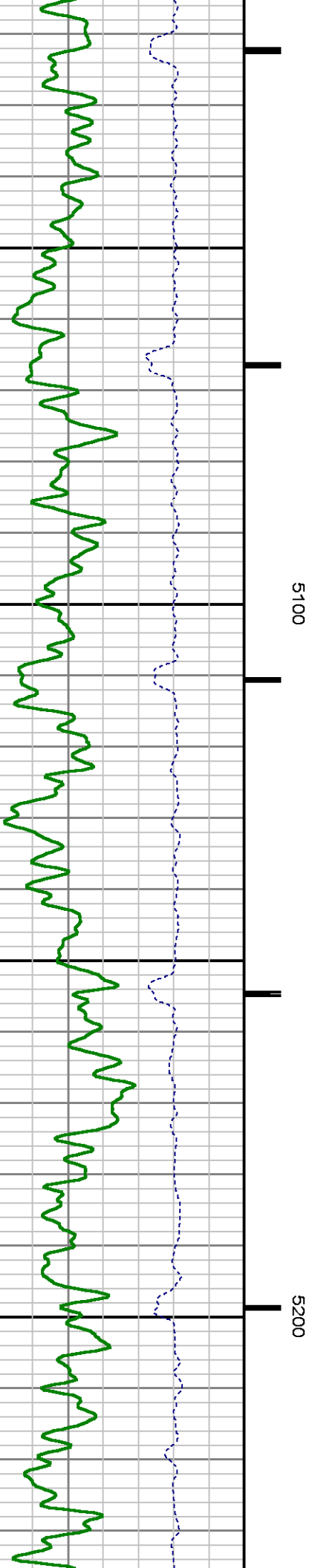
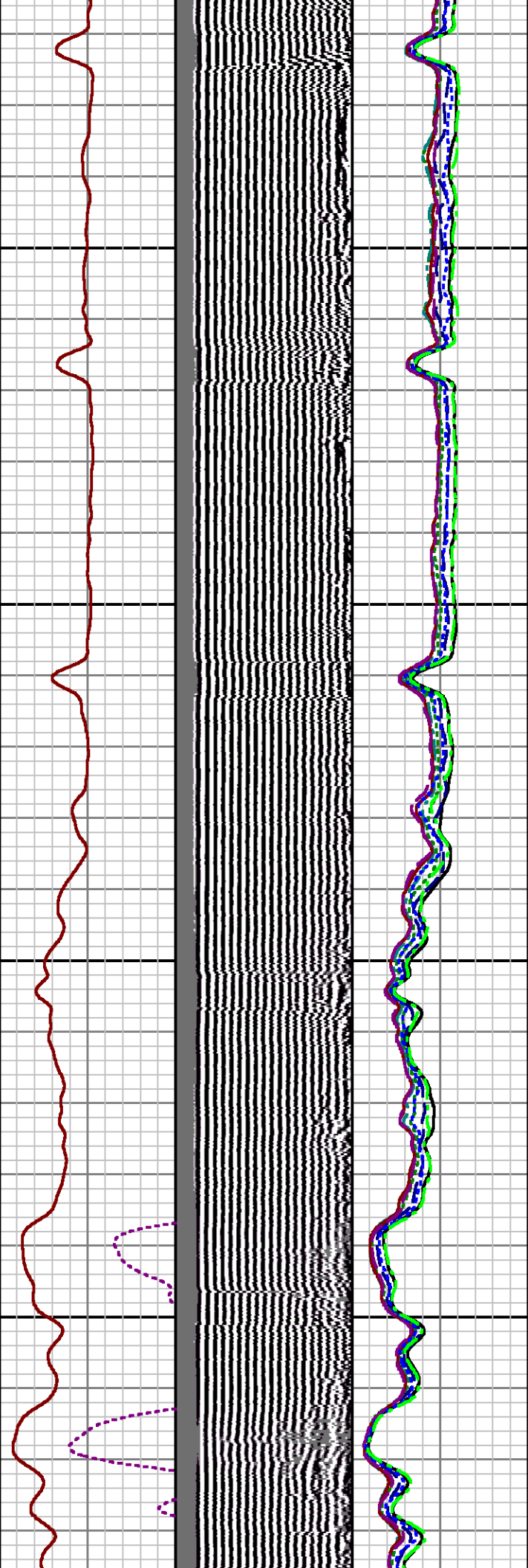
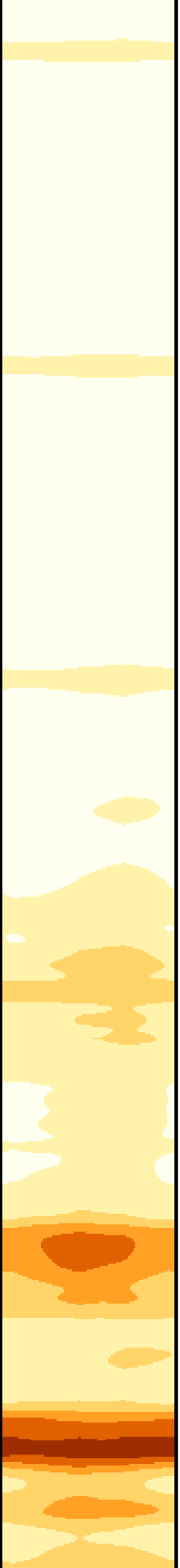


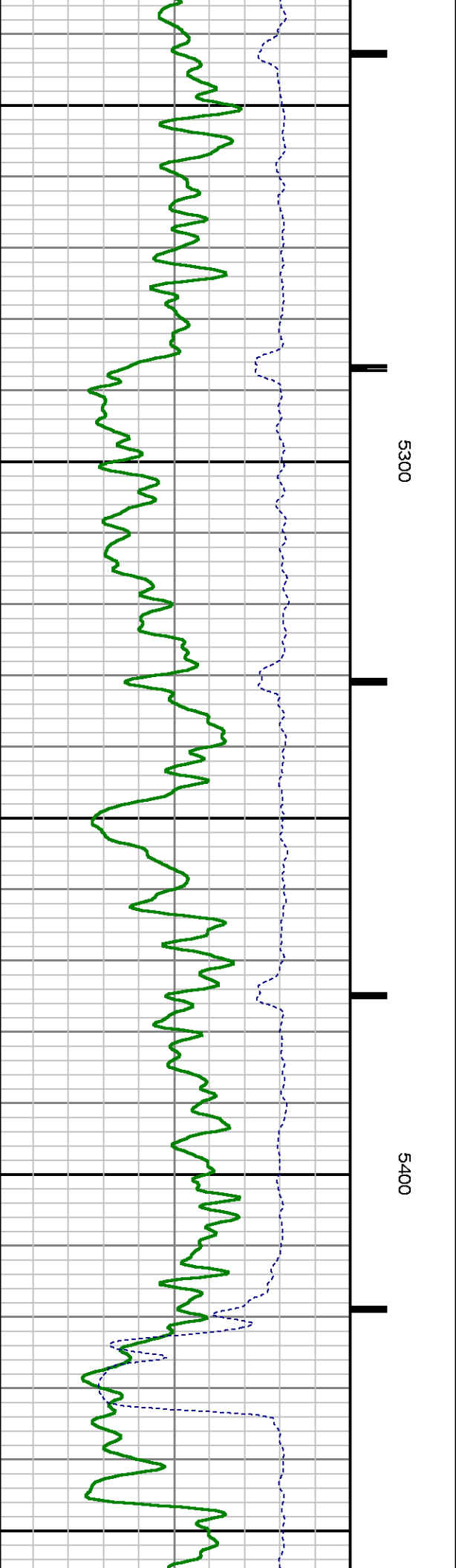
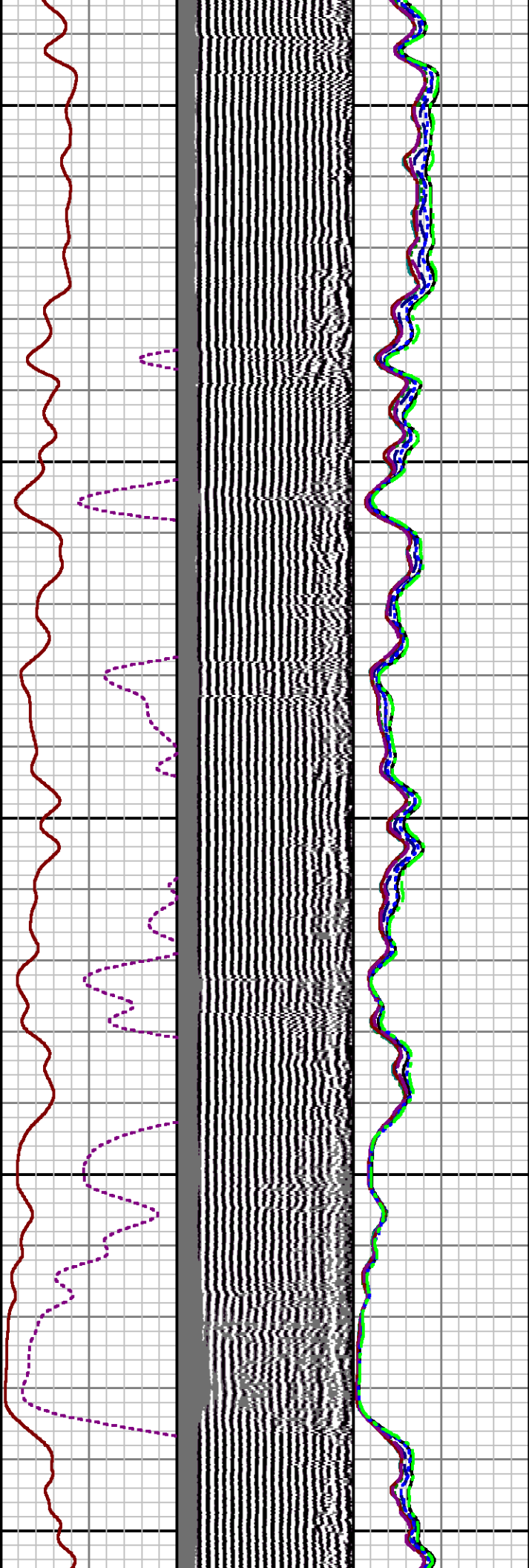
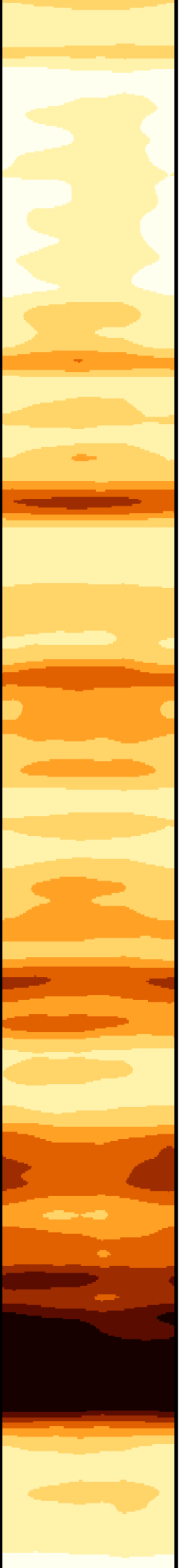


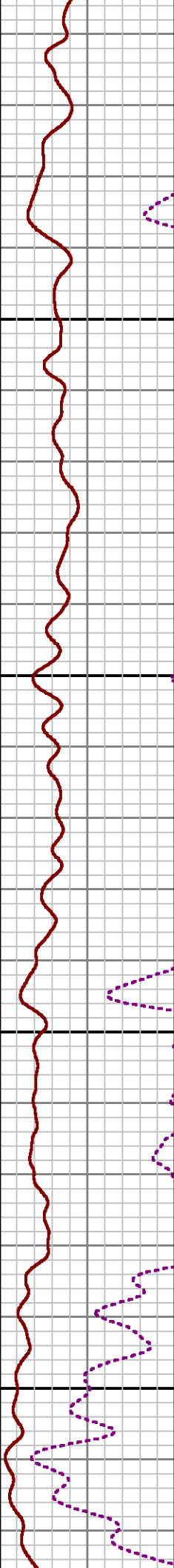
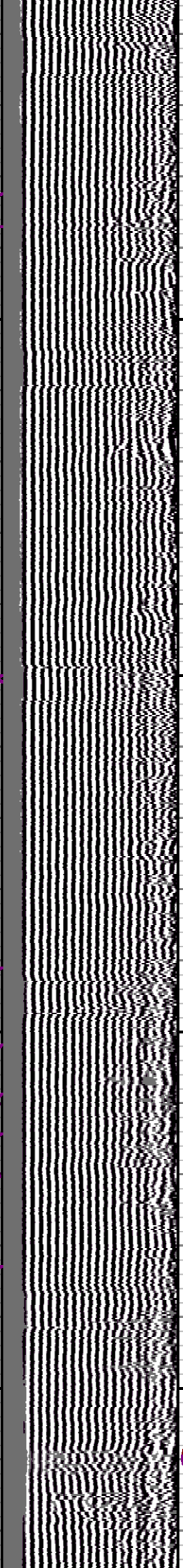
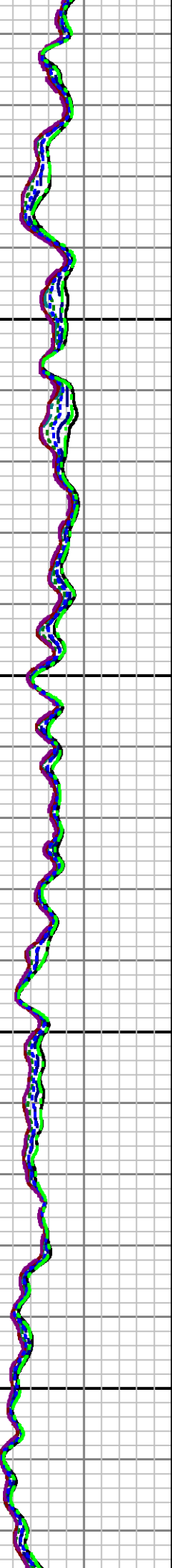
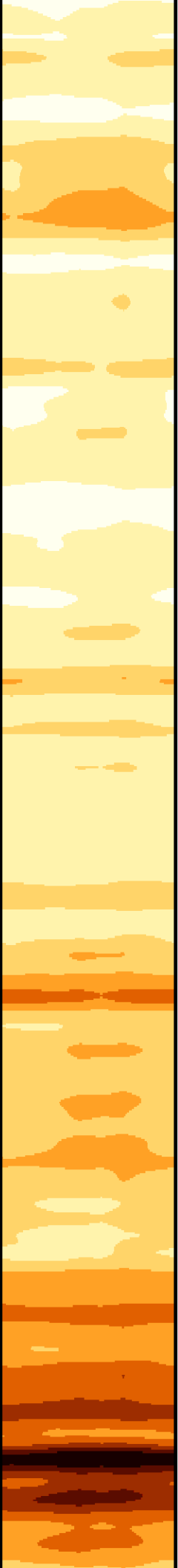
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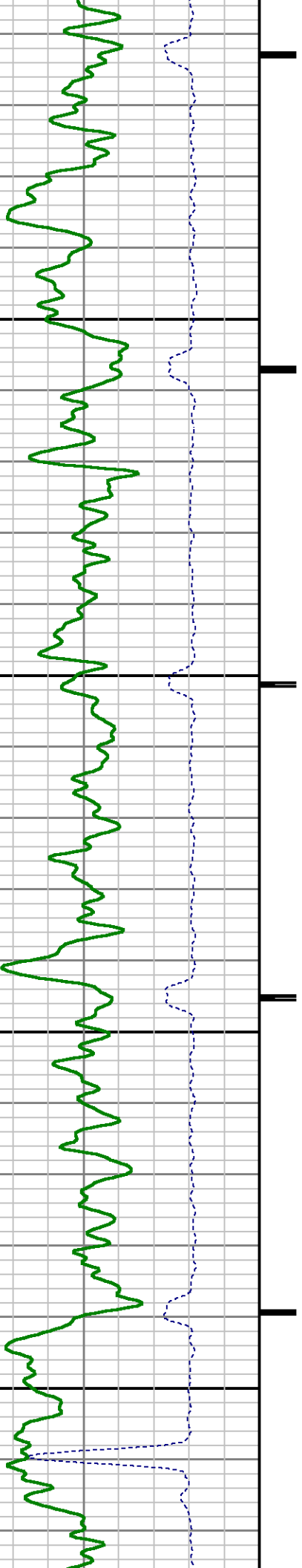


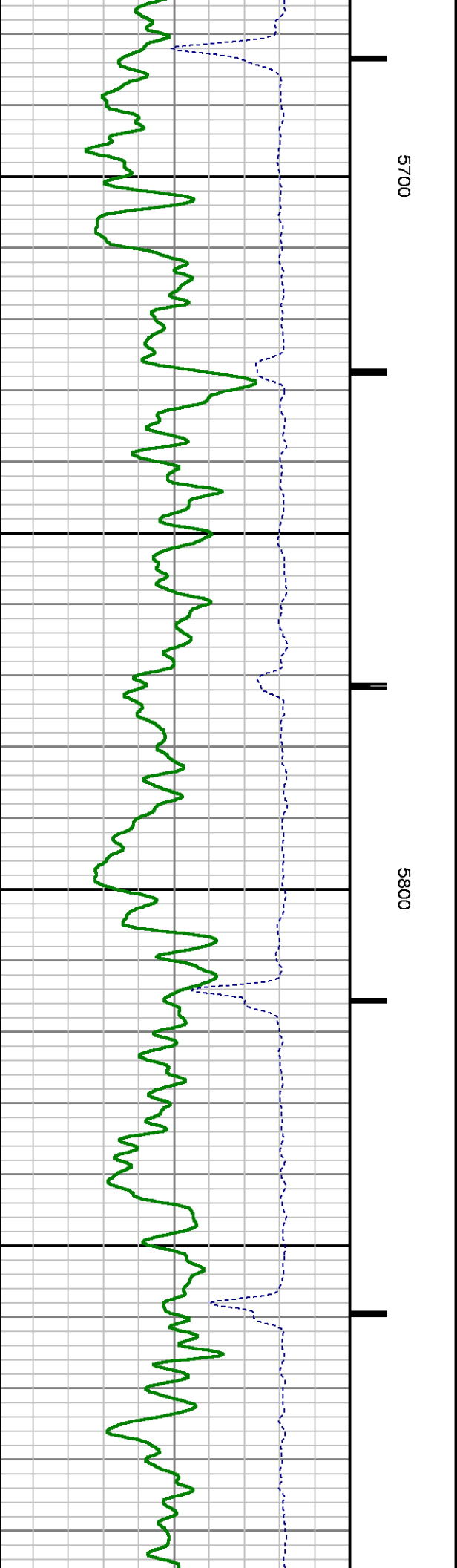
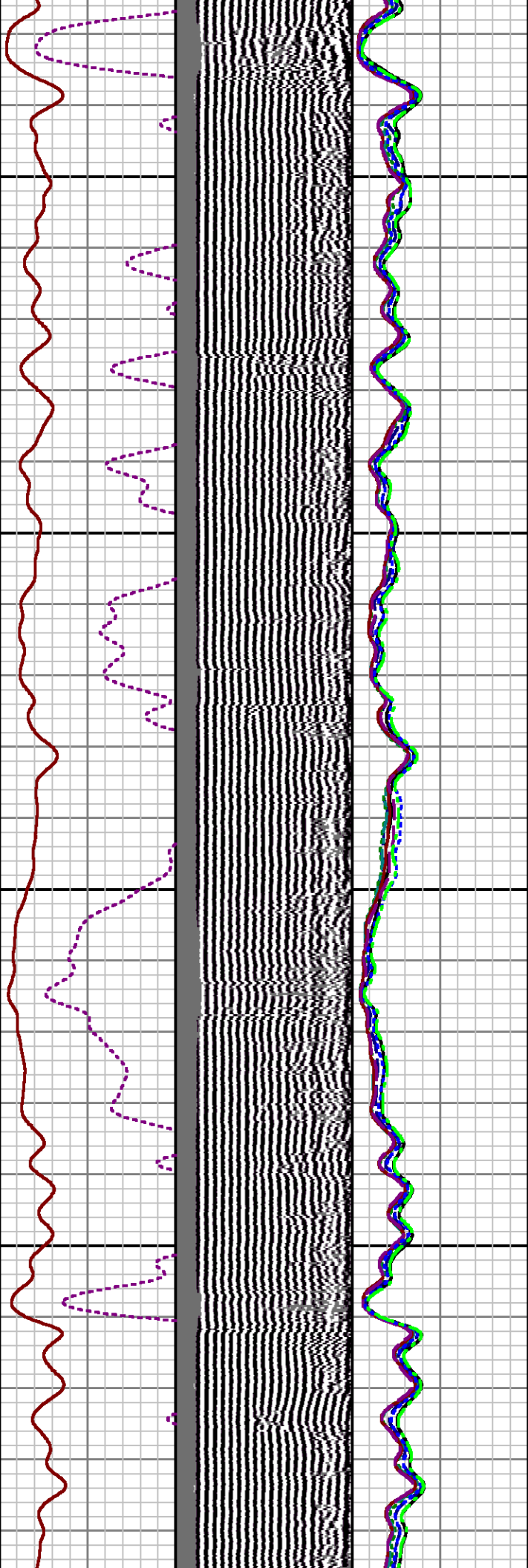


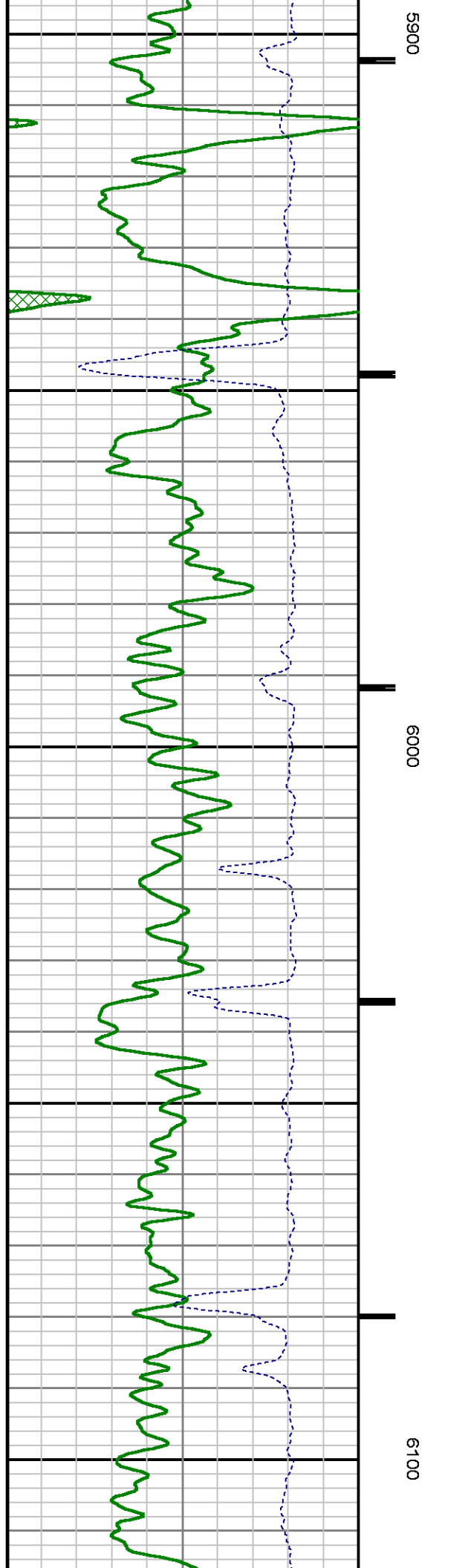
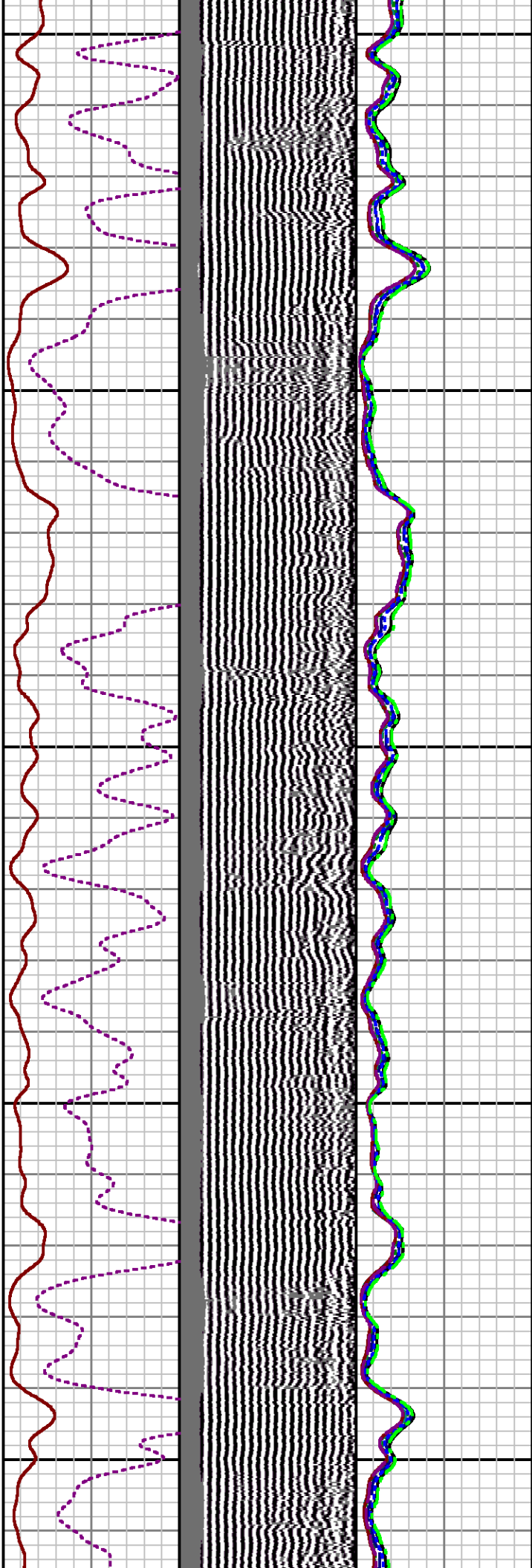


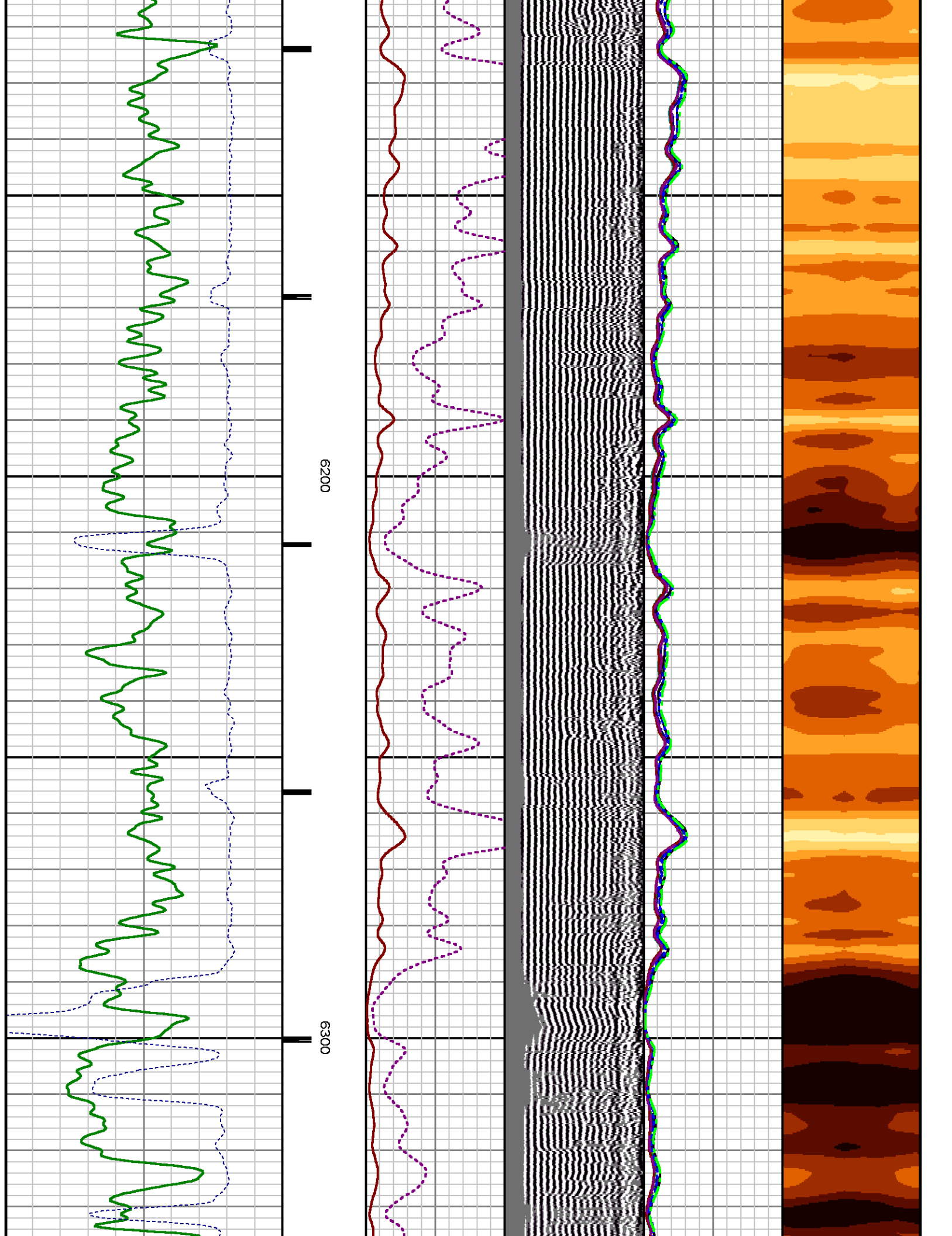
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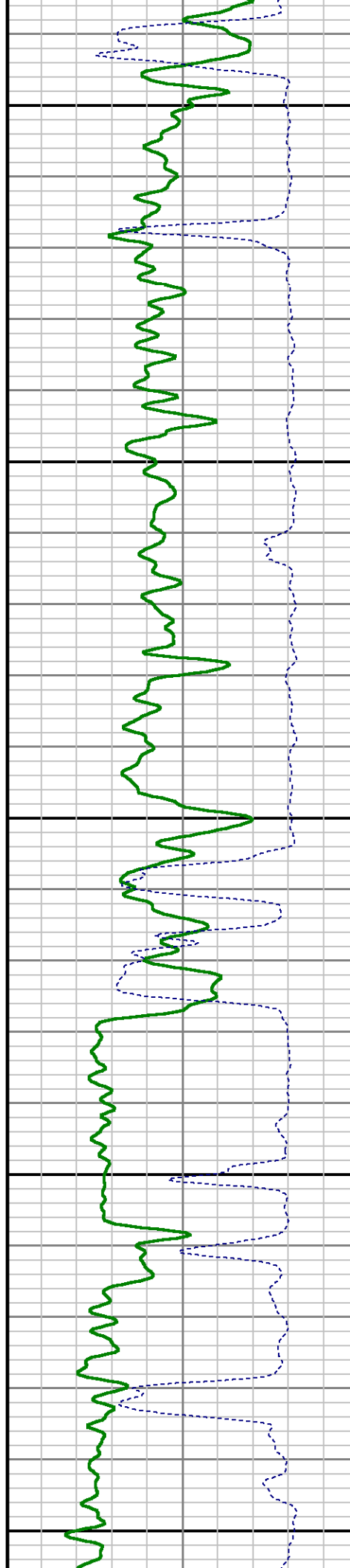
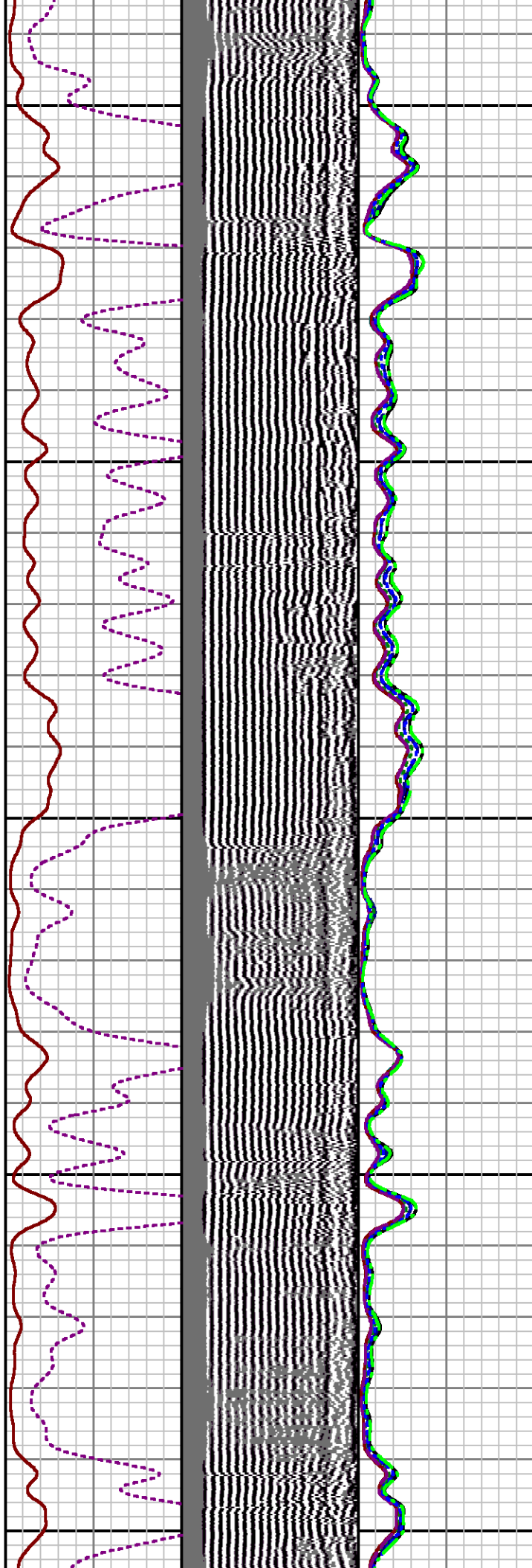
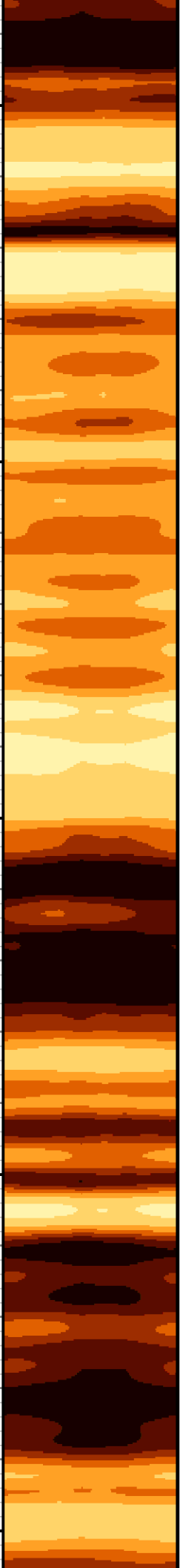
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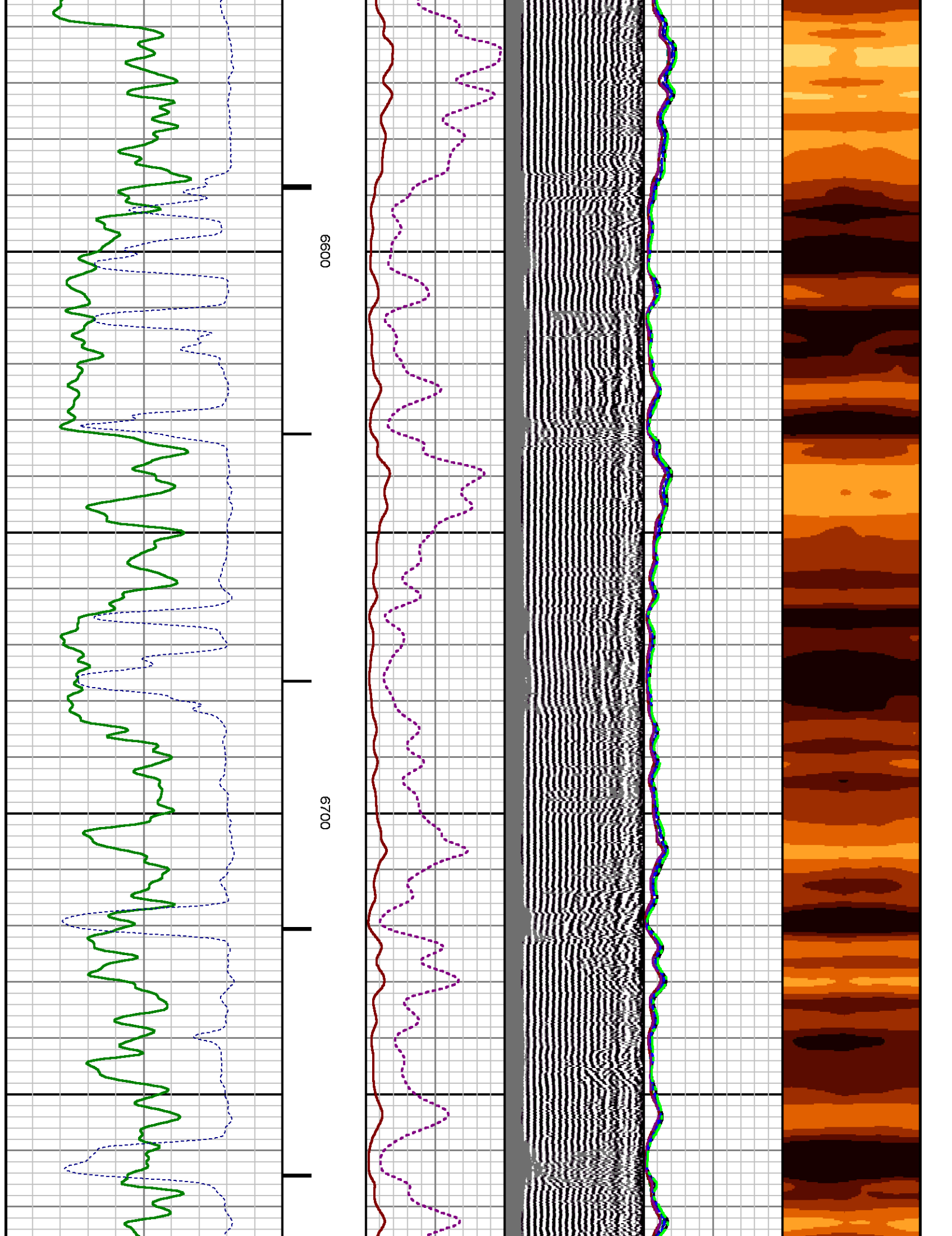


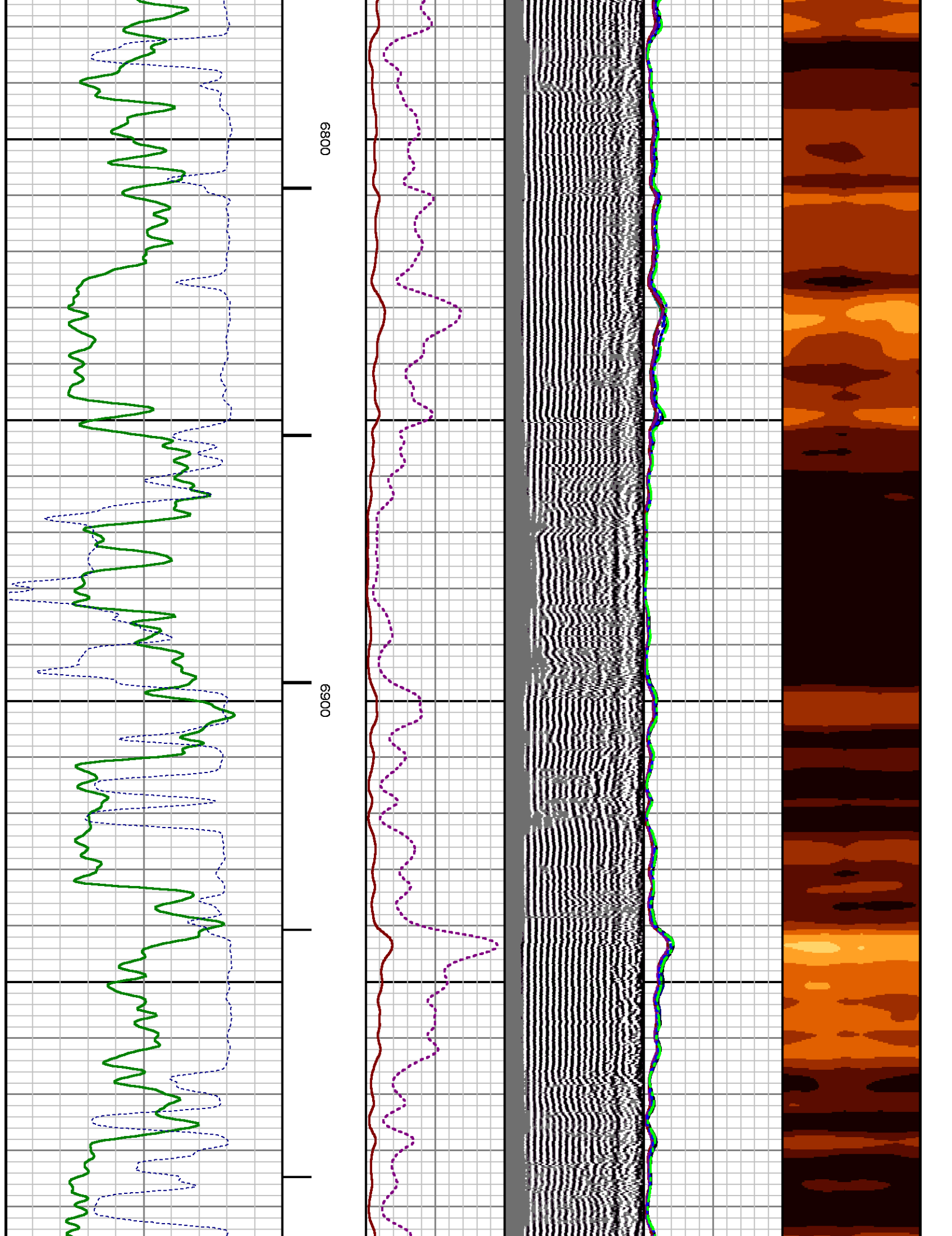


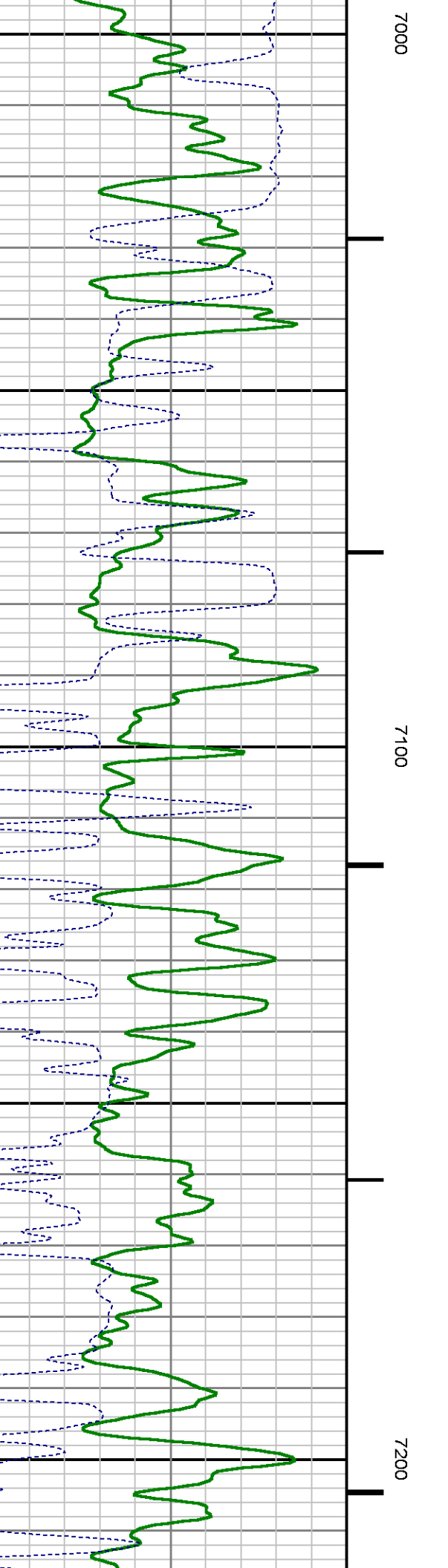
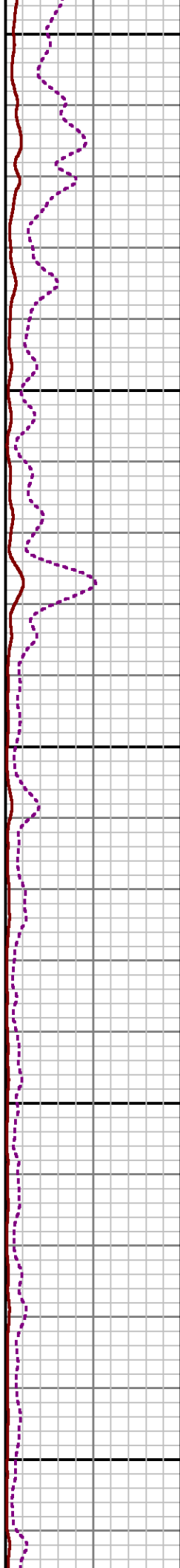
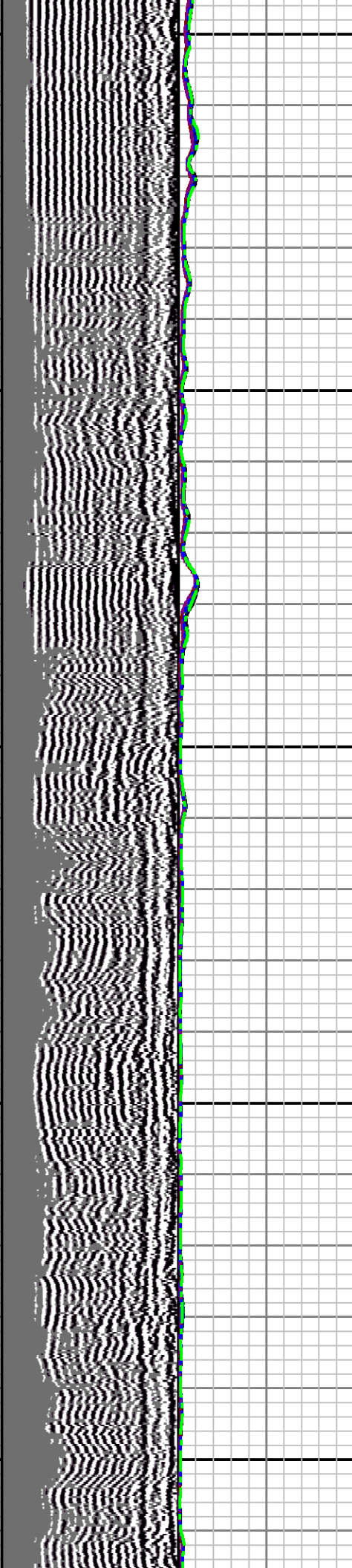


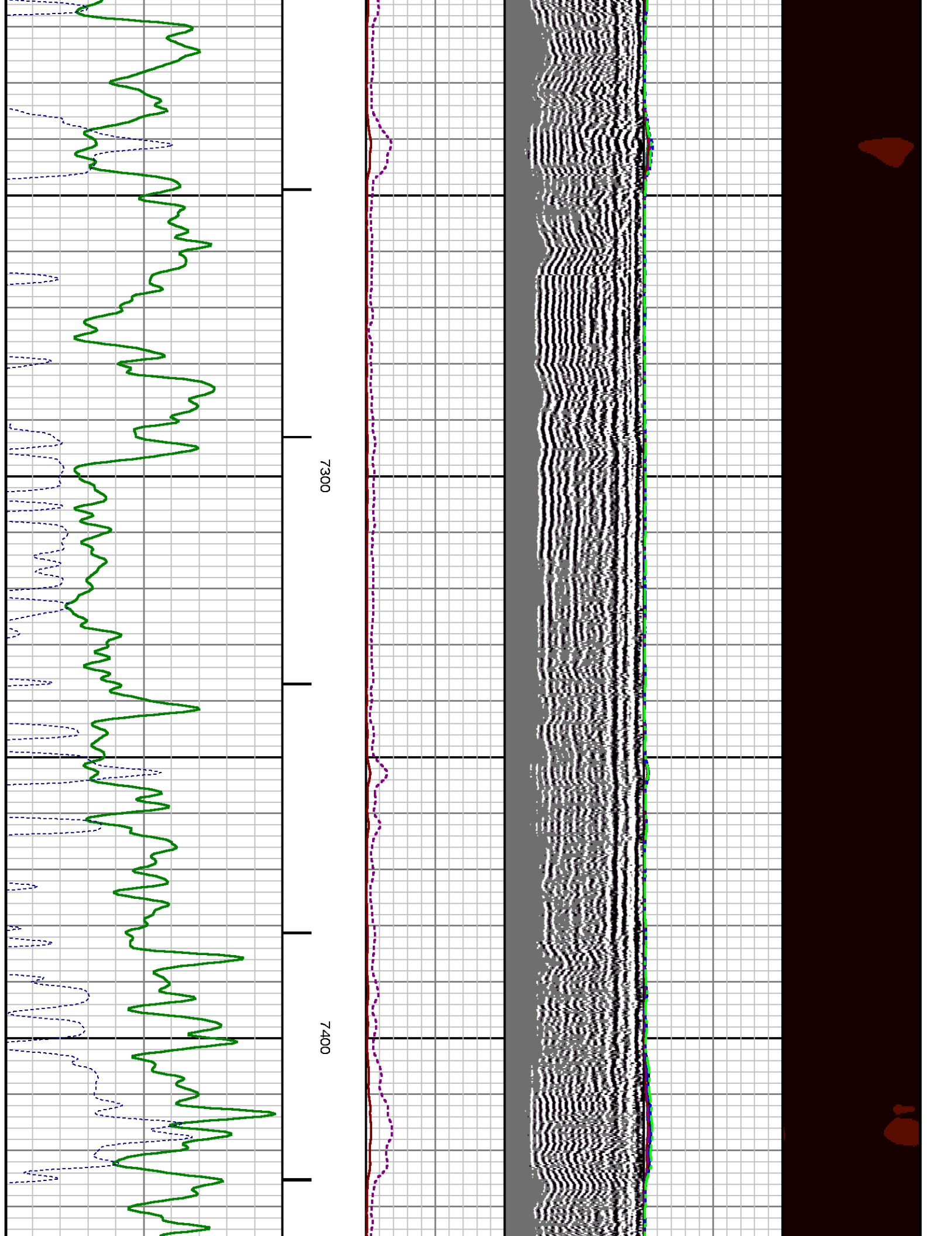


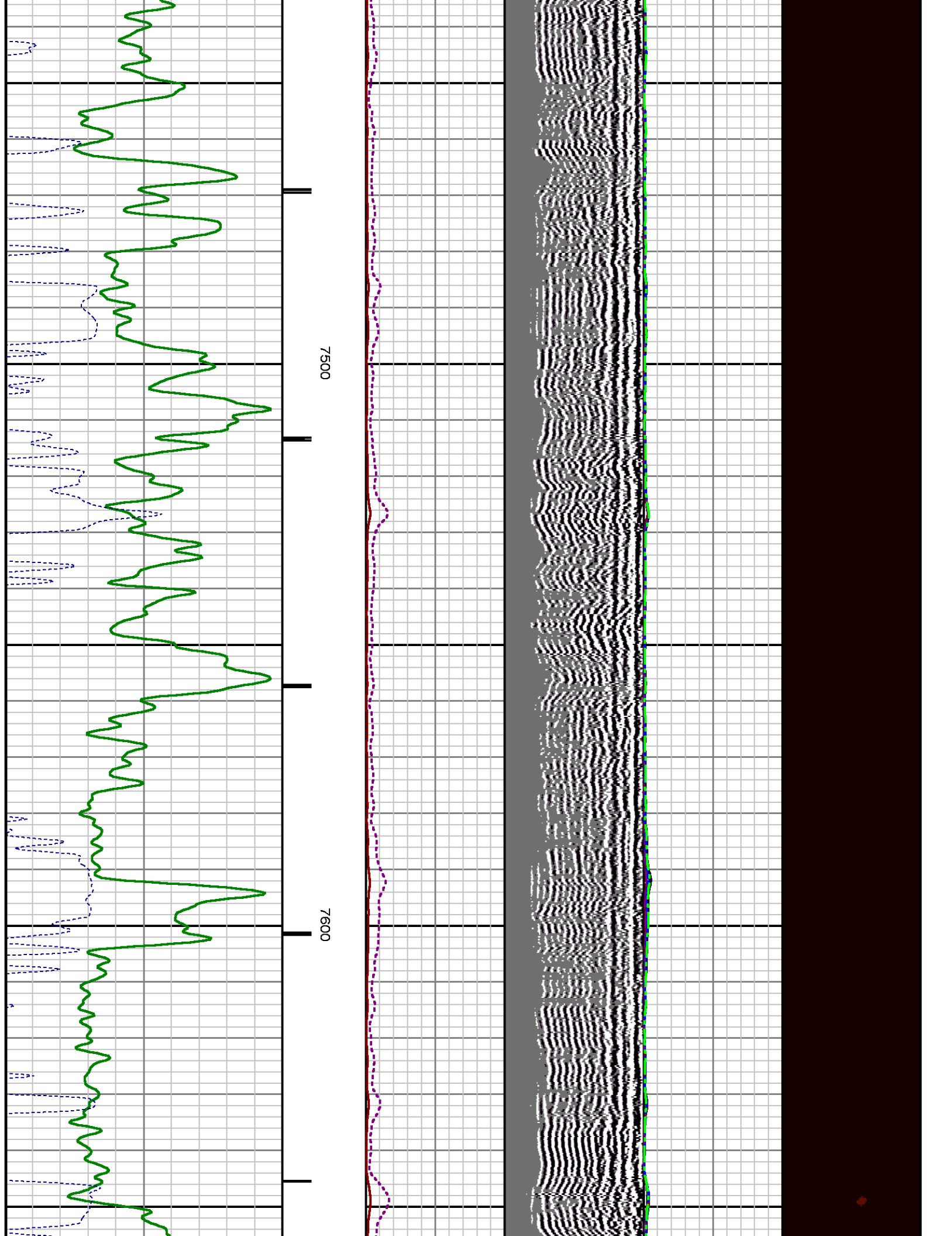


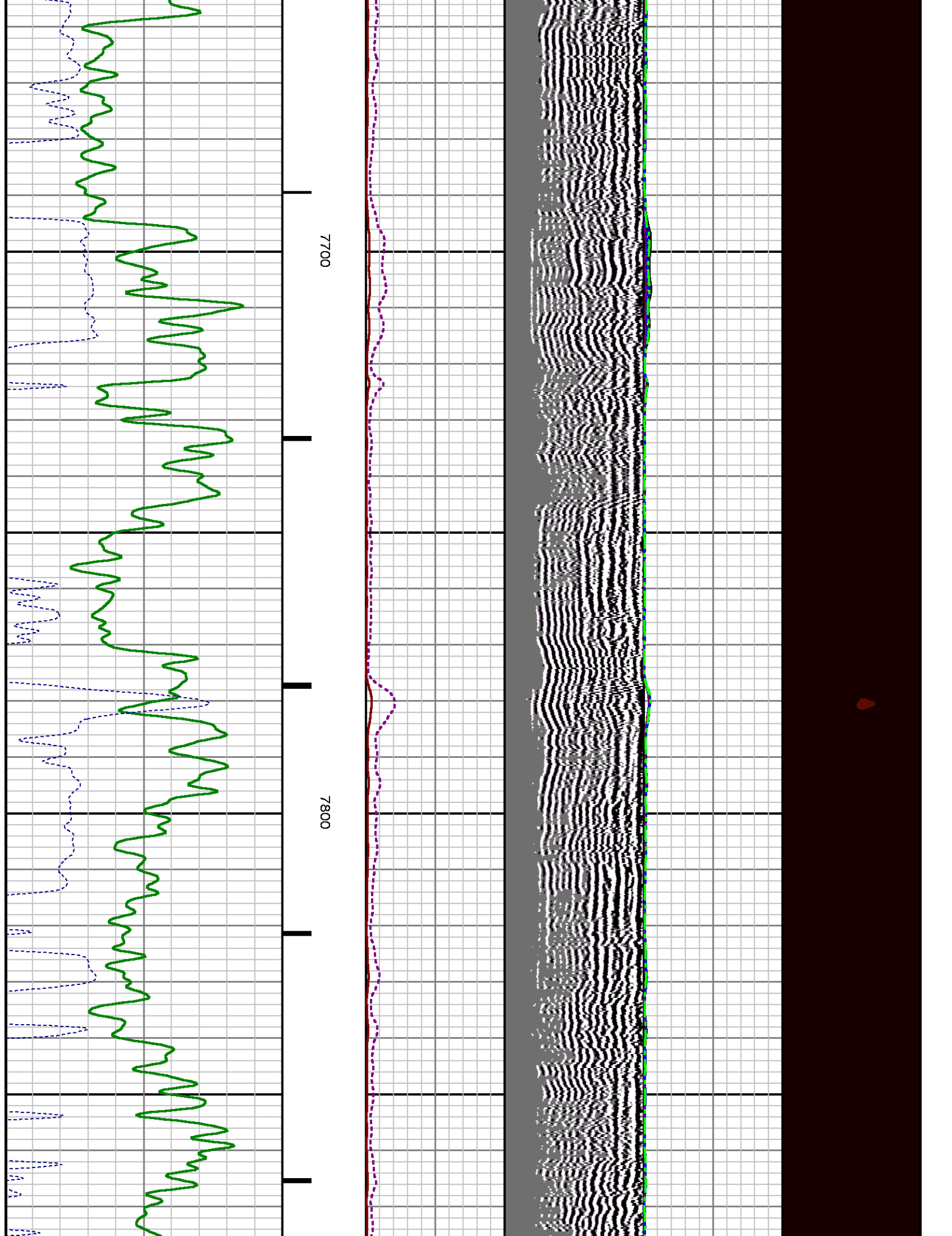


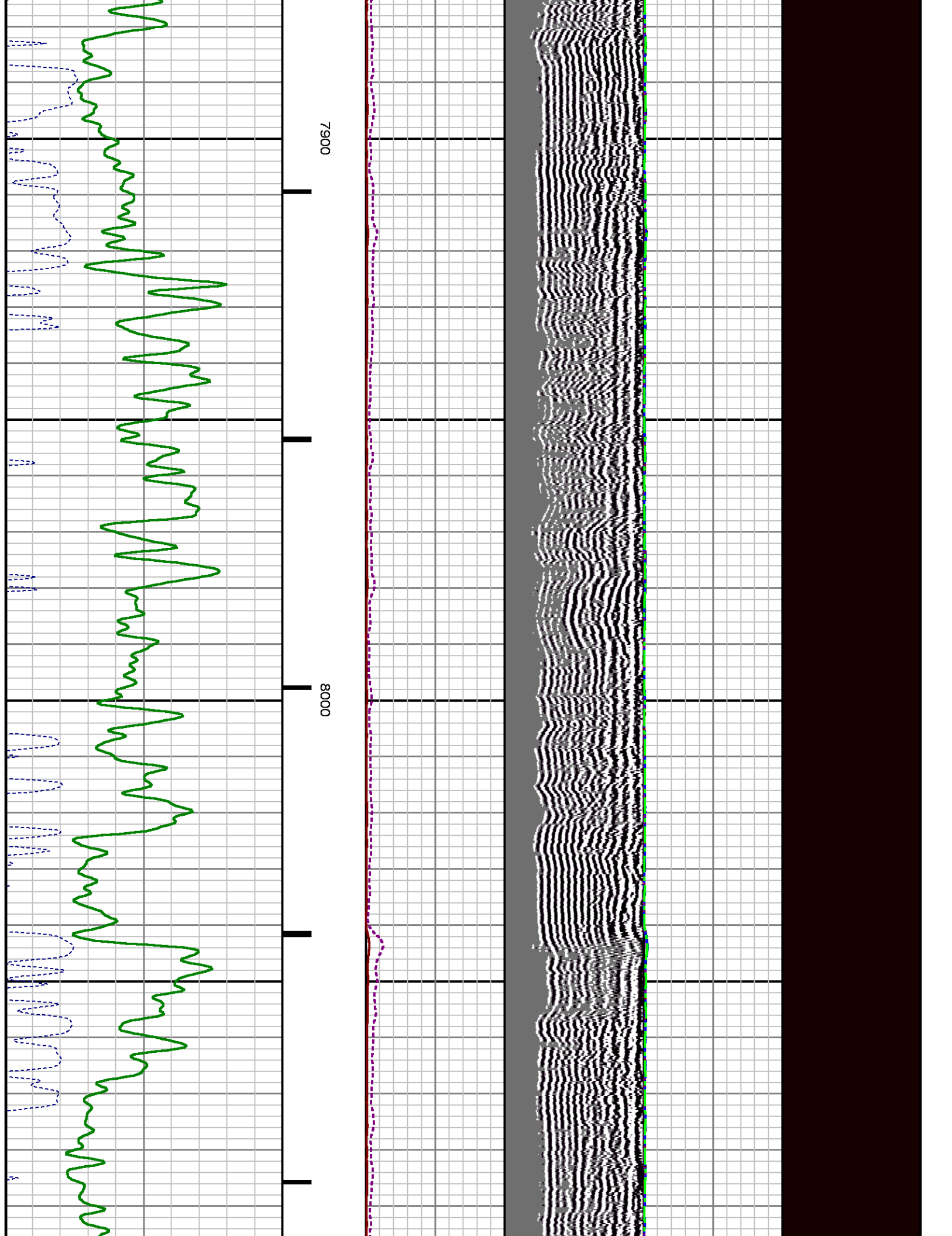


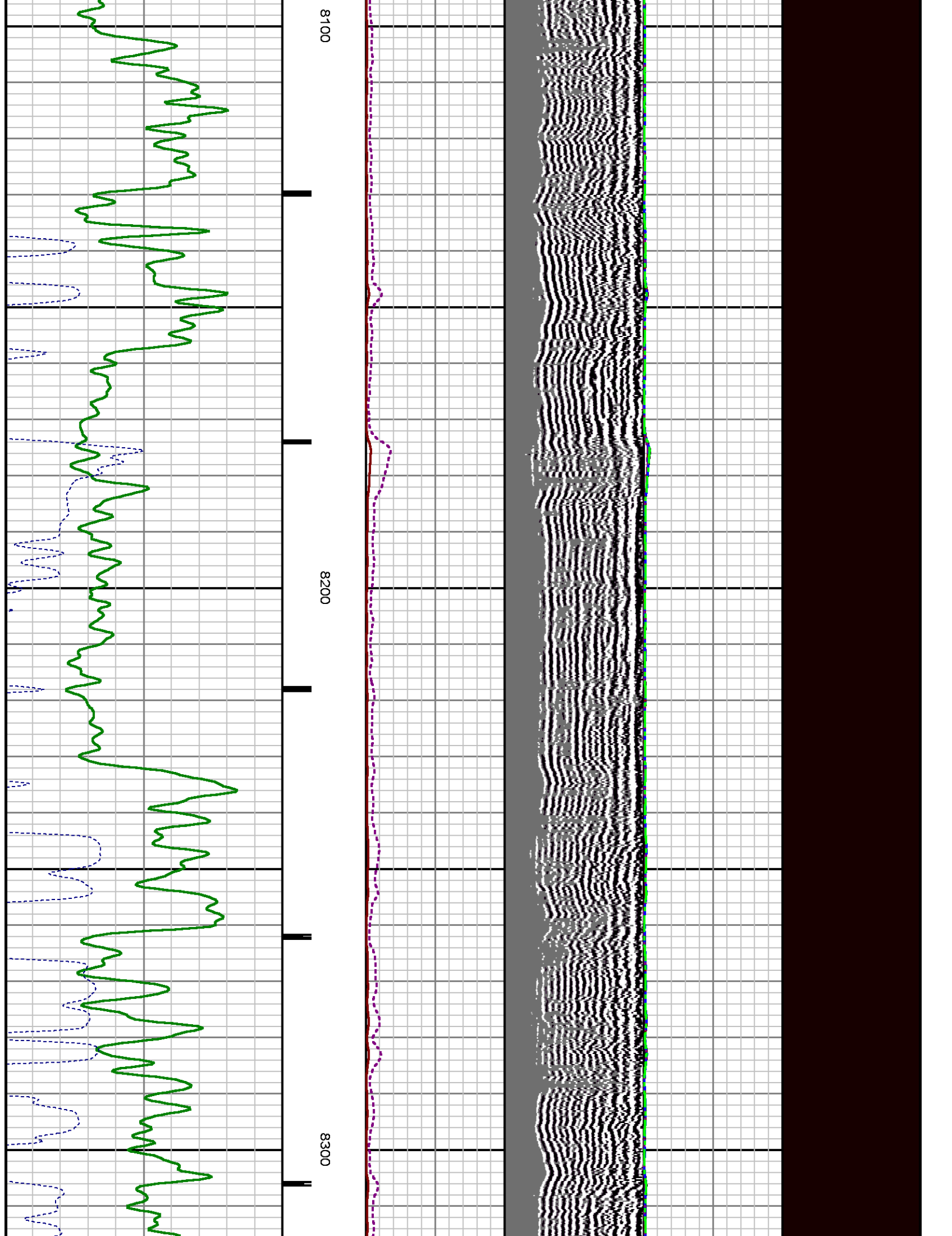


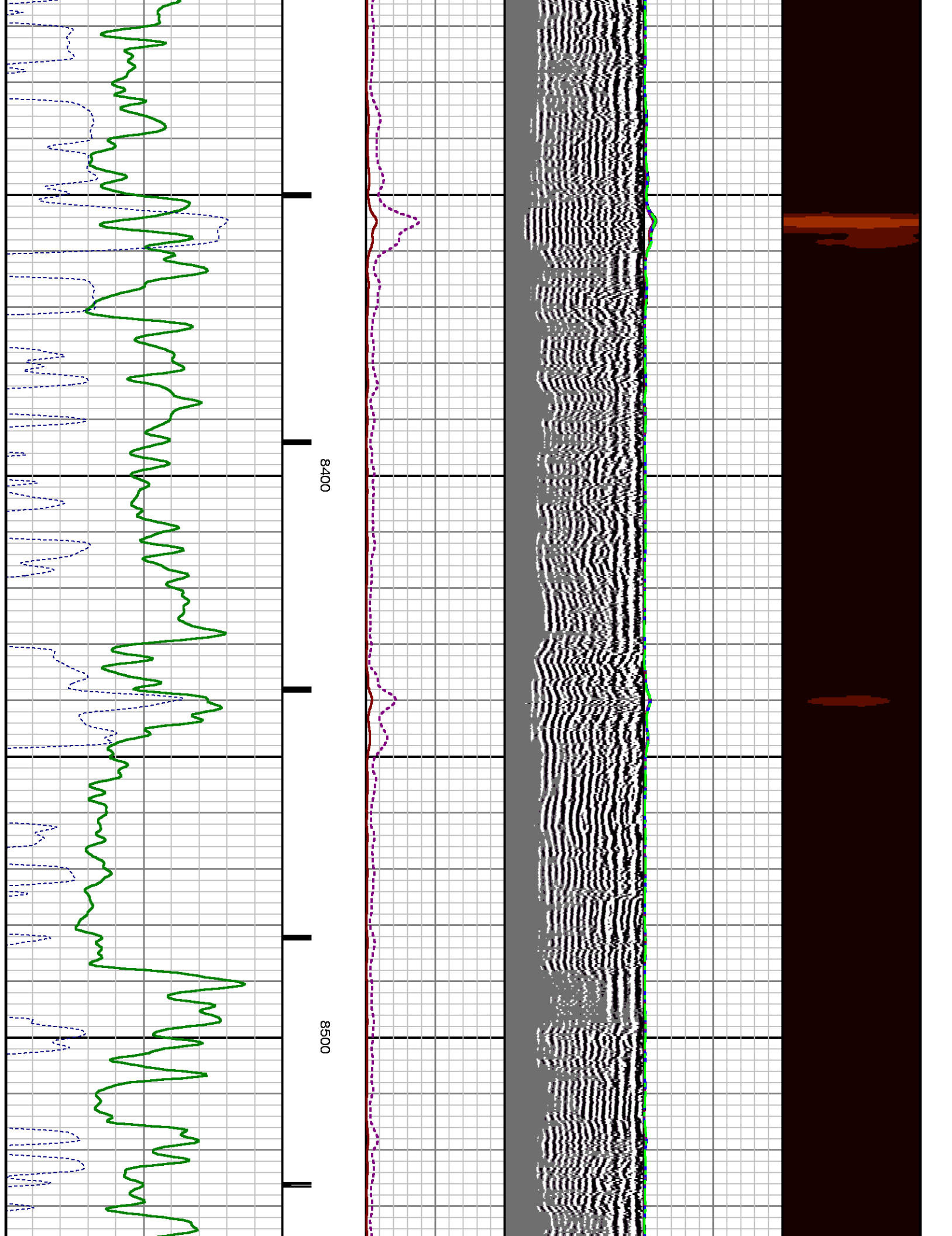


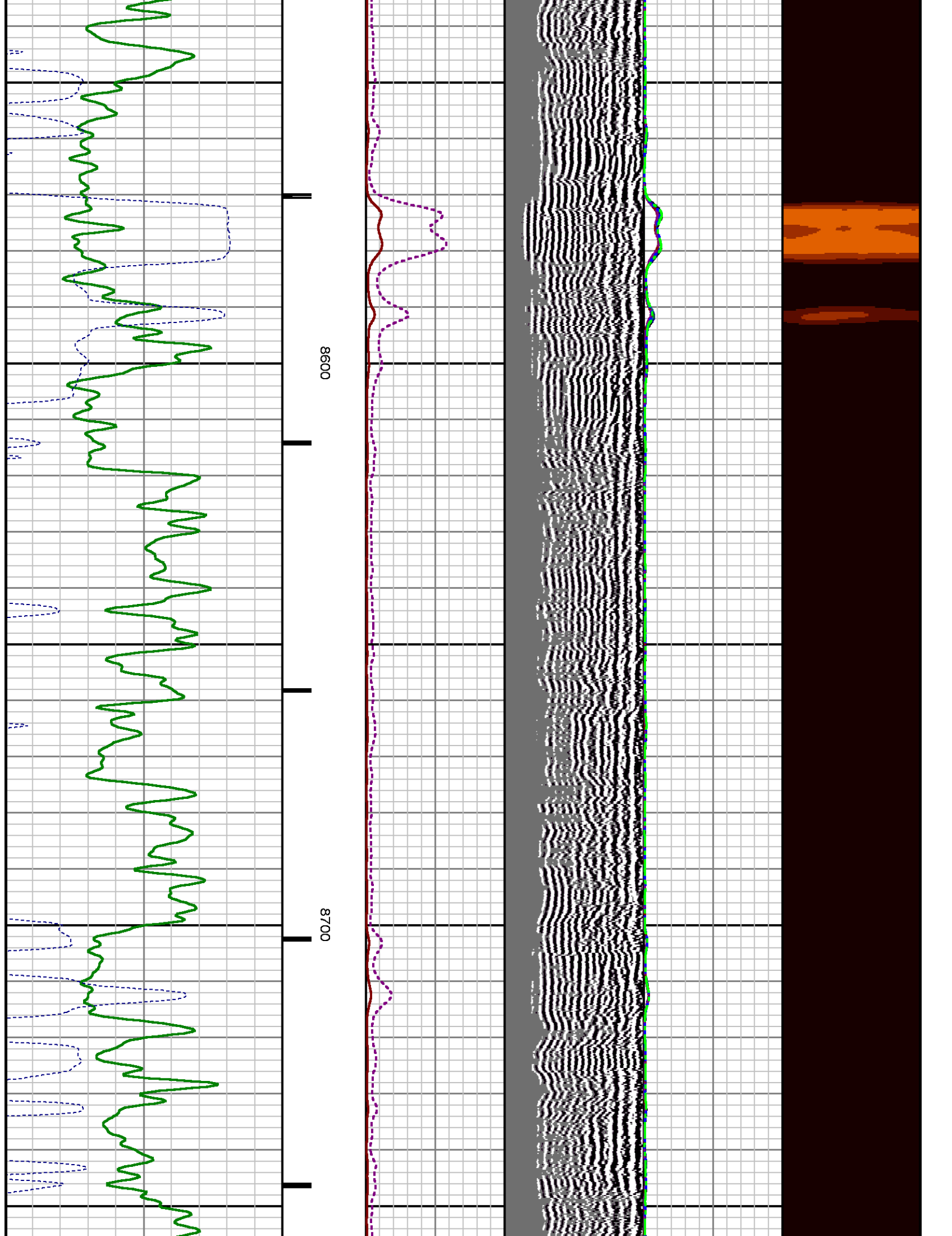


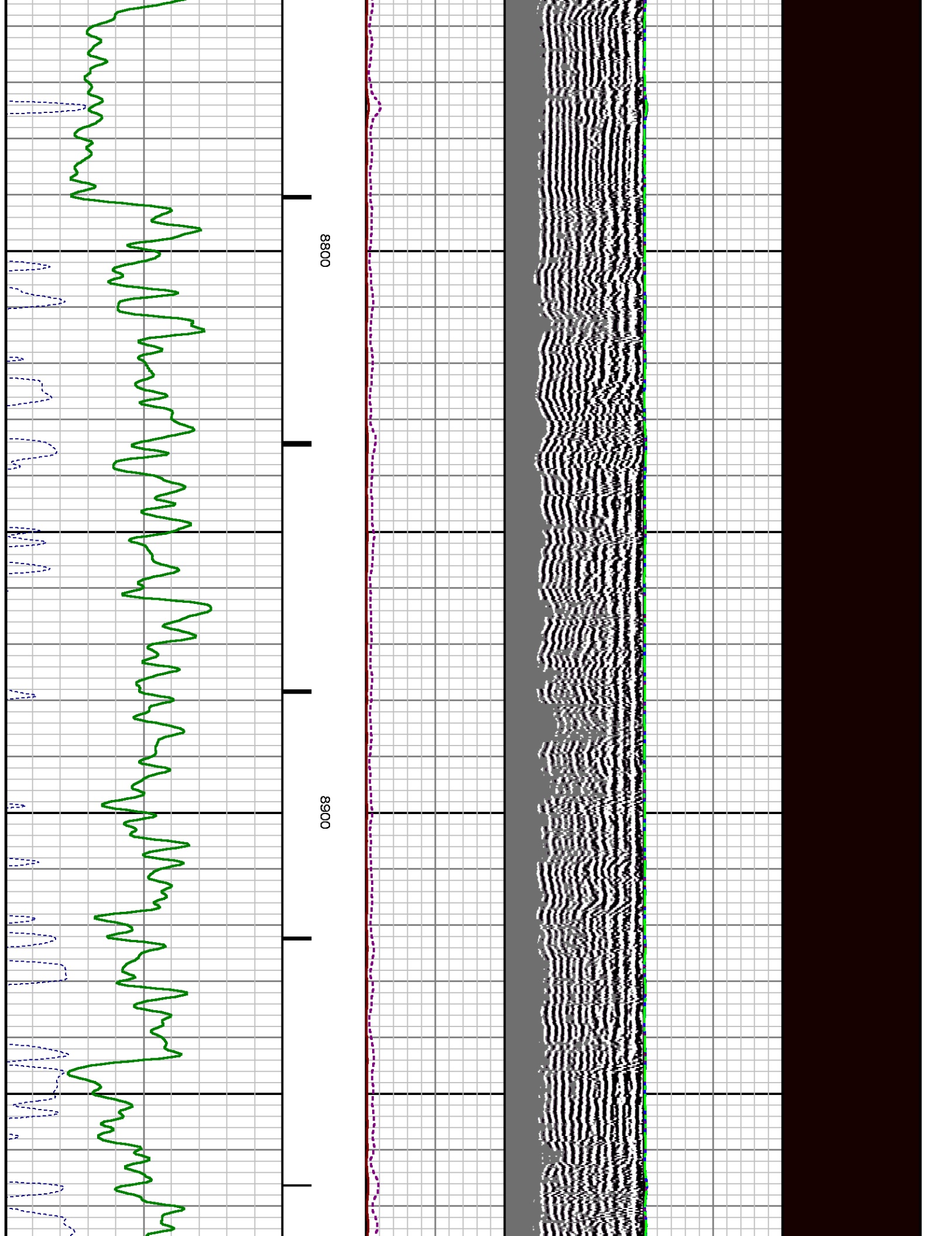


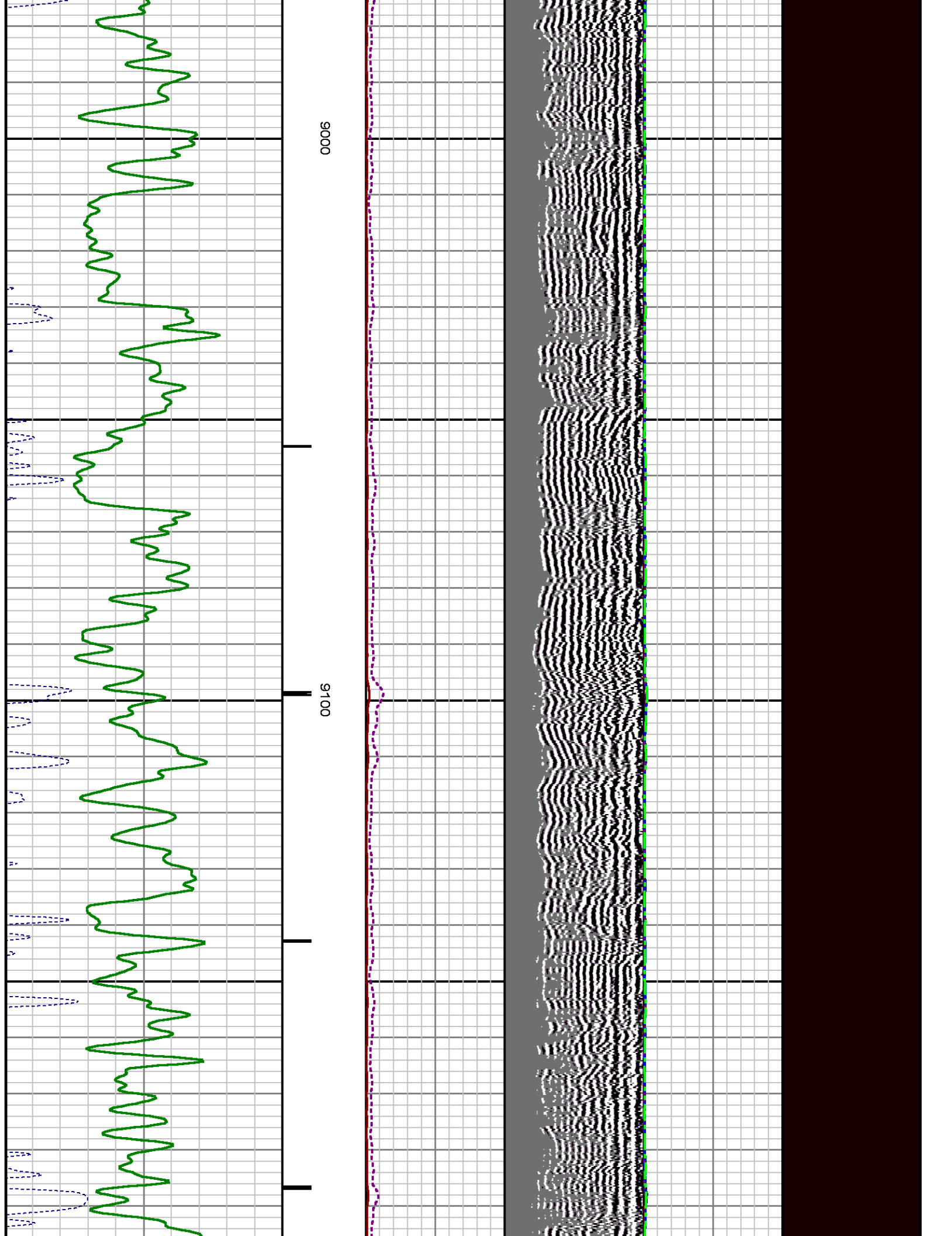


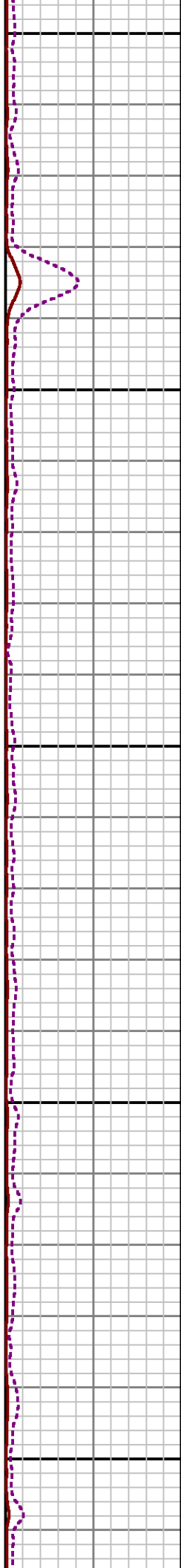
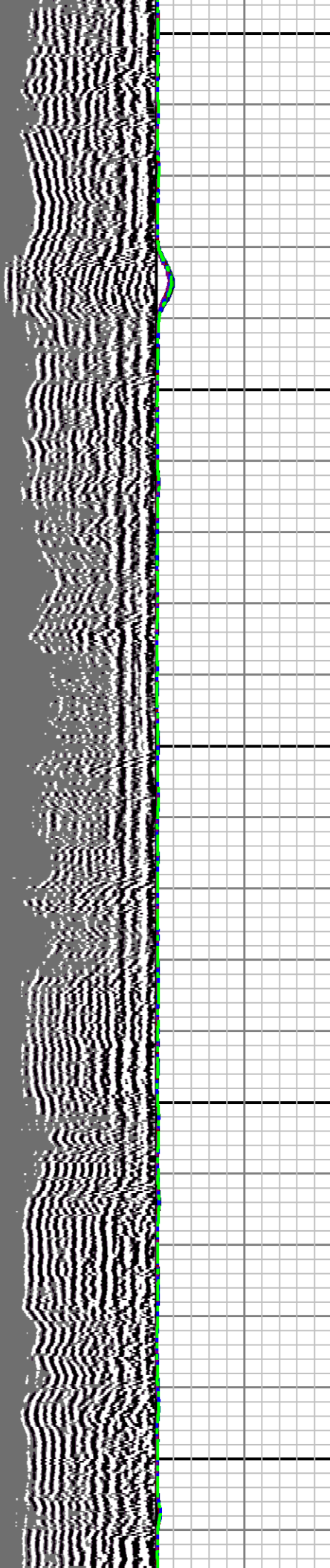








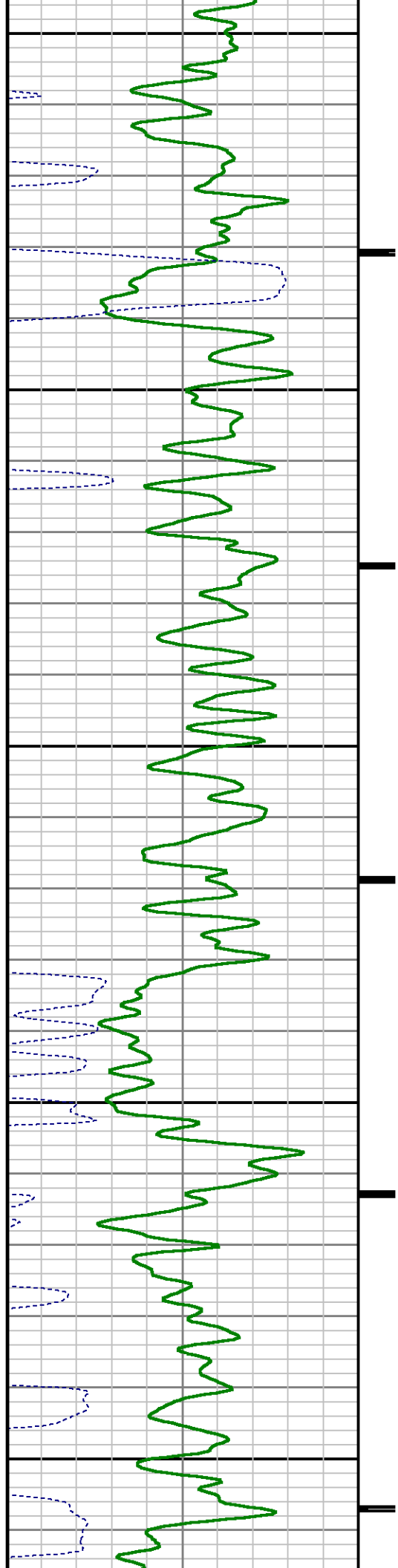


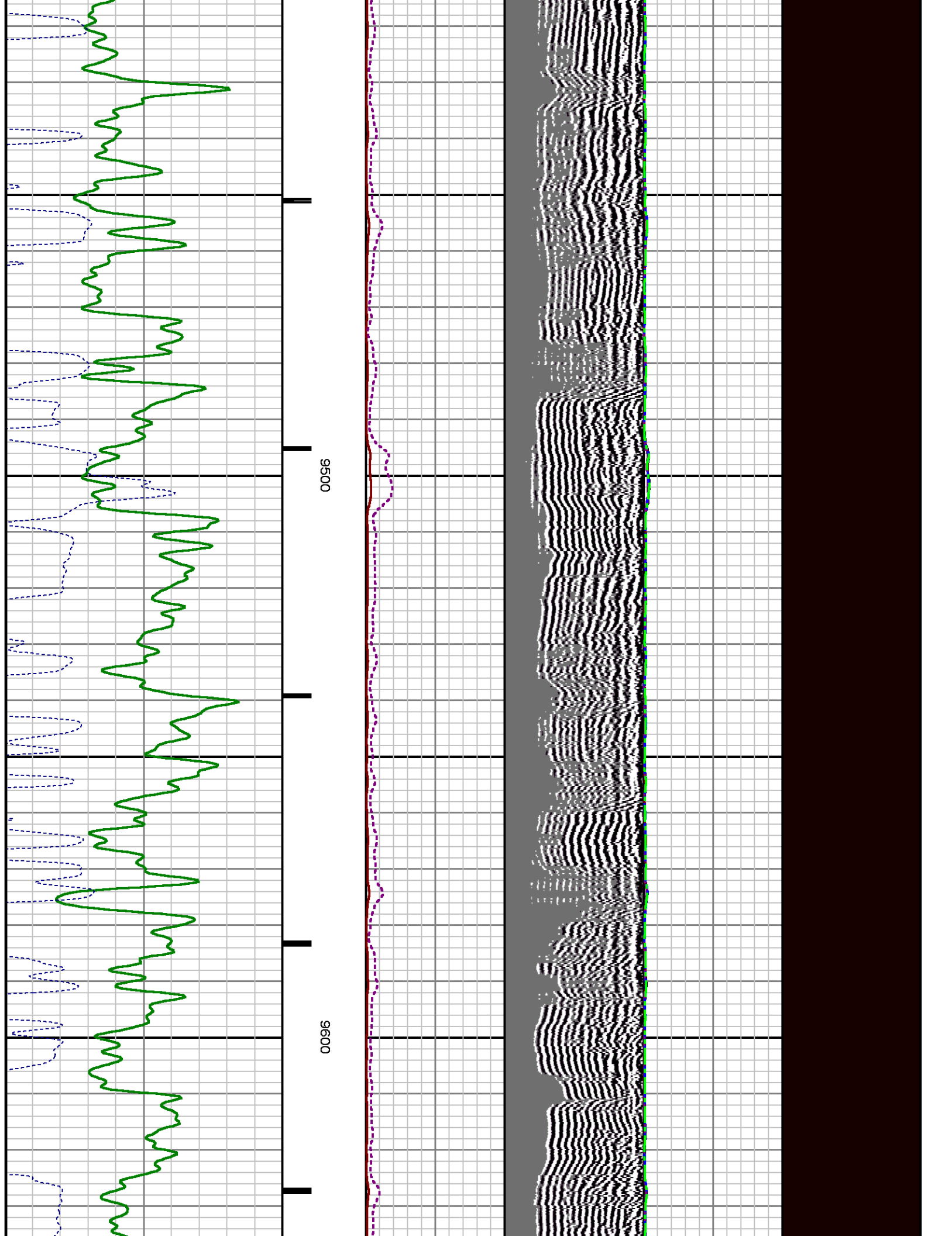


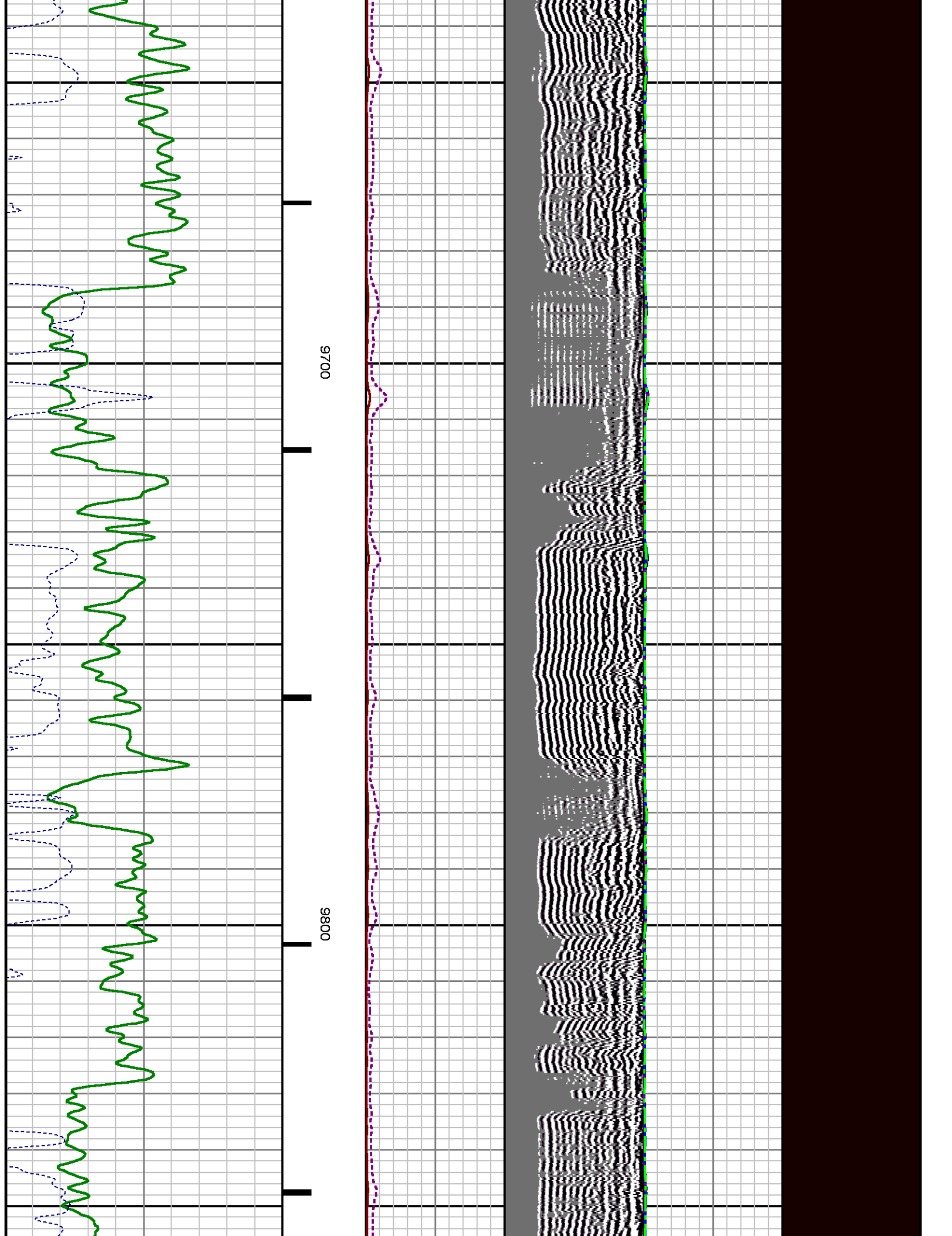
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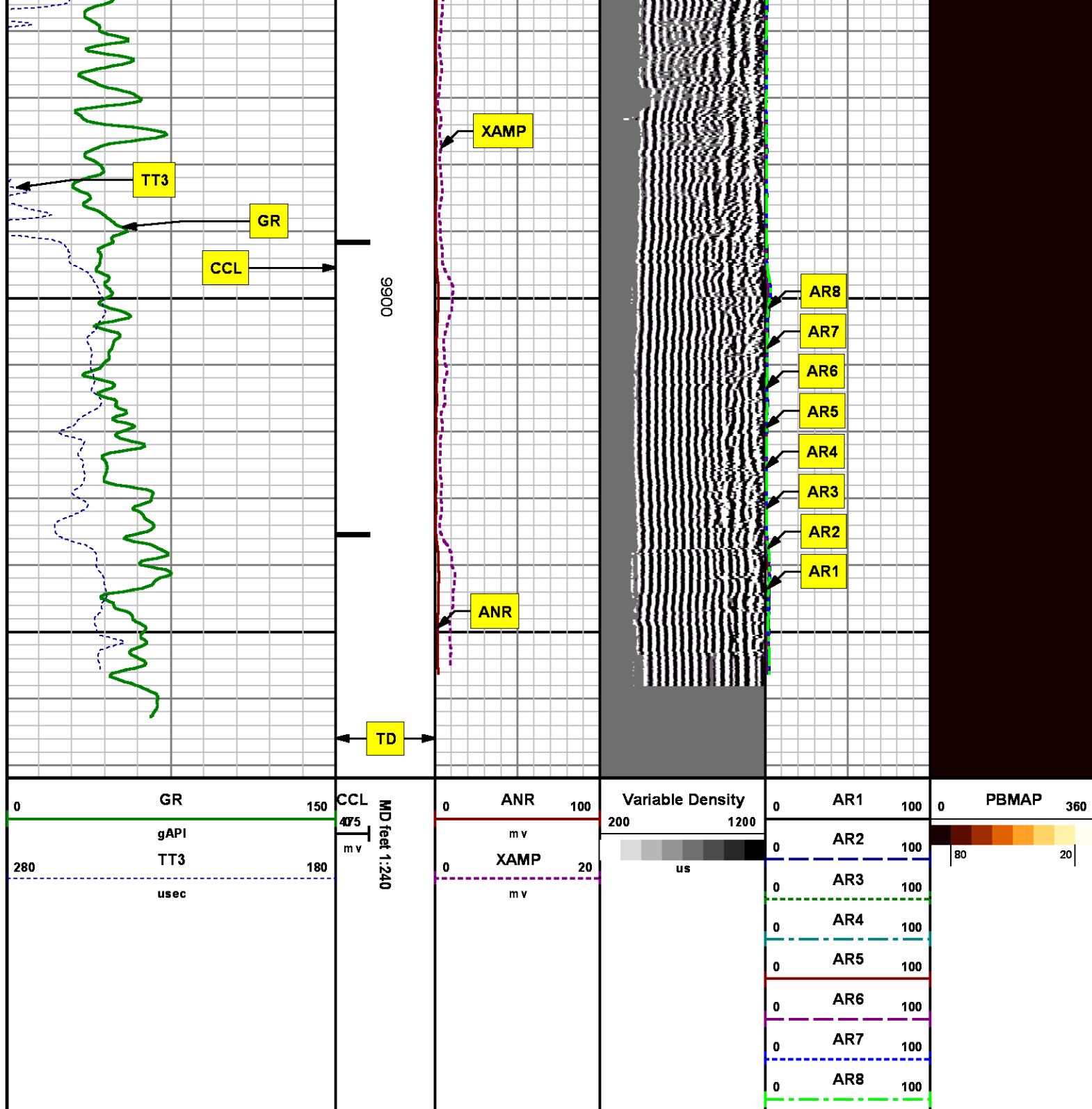
9300

9400









REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	9639.150	9971.150
RAL	Amp Gate Start Near	195.000	usec	9639.150	9971.150
RAL	Amp Gate Start Radial	195.000	usec	9639.150	9971.150
RAL	Amp Gate Width Far	25.000	usec	9639.150	9971.150
RAL	Amp Gate Width Near	25.000	usec	9639.150	9971.150
RAL	Amp Gate Width Radial	25.000	usec	9639.150	9971.150
RAL	casing od	4.500	inches	9639.150	9971.150
RAL	casing wt	11.600	lbm/ft	9639.150	9971.150
RAL	FB Start Far	291.900	usec	9639.150	9971.150
RAL	FB Start Near	180.000	usec	9639.150	9971.150
RAL	FB Start Radial	180.000	usec	9639.150	9971.150
RAL	FB Thresh Far	10.000	mV	9639.150	9971.150
RAL	FB Thresh Near	4.000	mV	9639.150	9971.150
RAL	FB Thresh Radial	4.000	mV	9639.150	9971.150
RAL	Fluid Travel Time	200.000	usec/ft	9639.150	9972.144

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

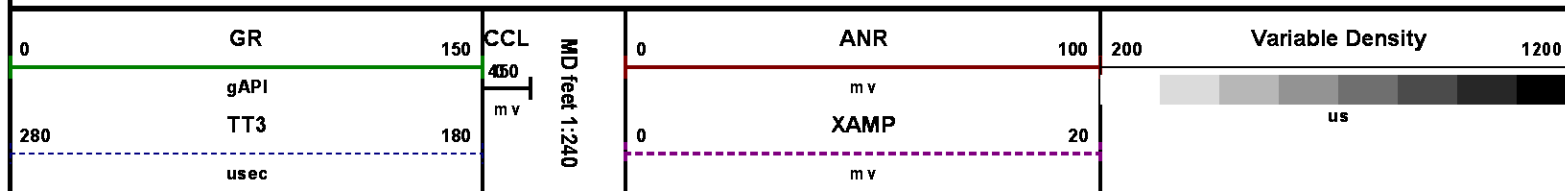
Well : FEDERAL PA 42-21

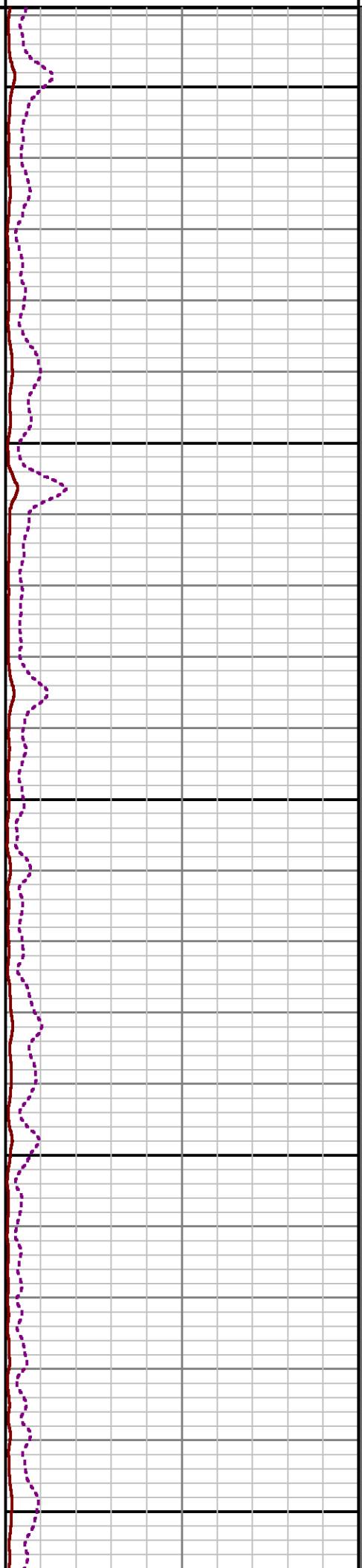
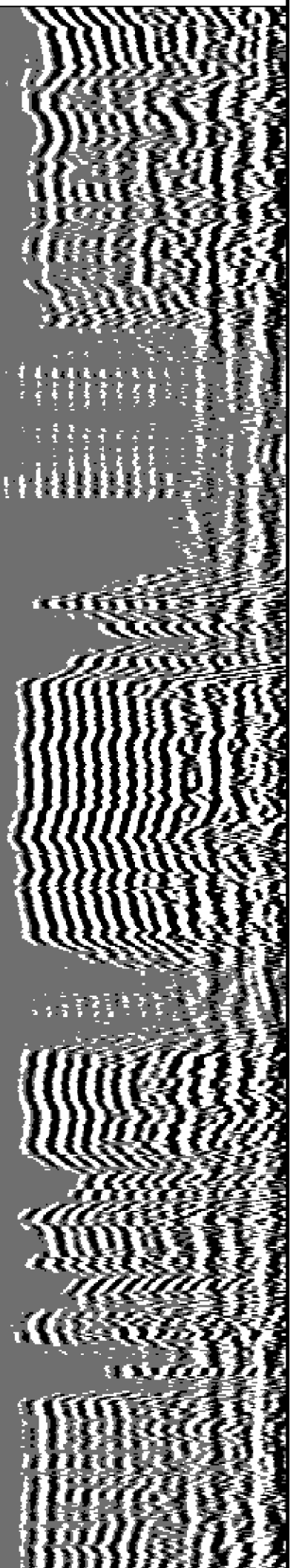
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Mode : PlotMgr 5.4.504

Interval : 9638.90 - 9972.15 feet UP

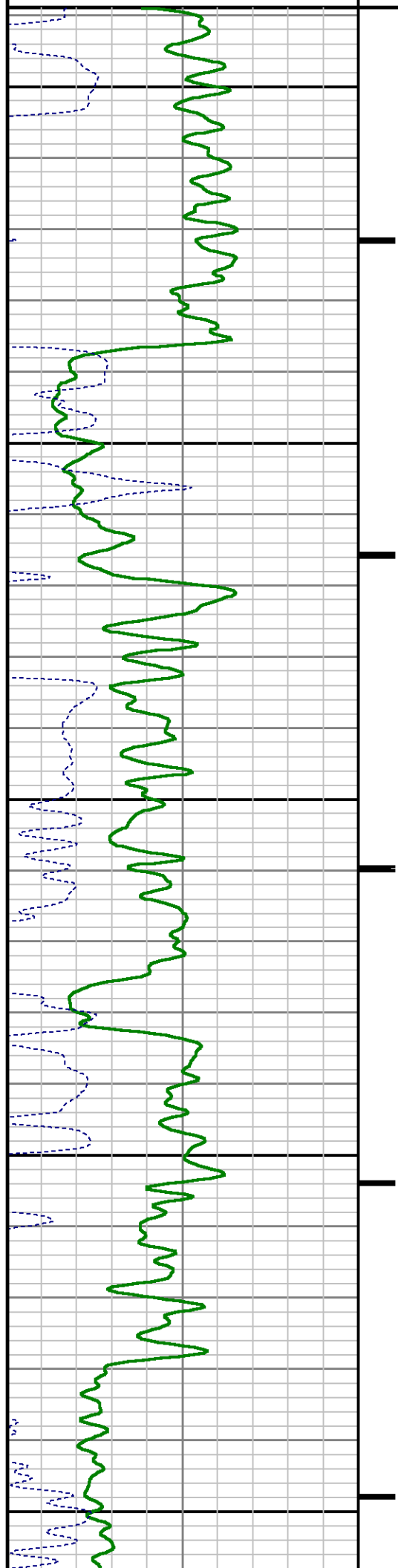
Created : 2/27/2014 7:36:44 PM

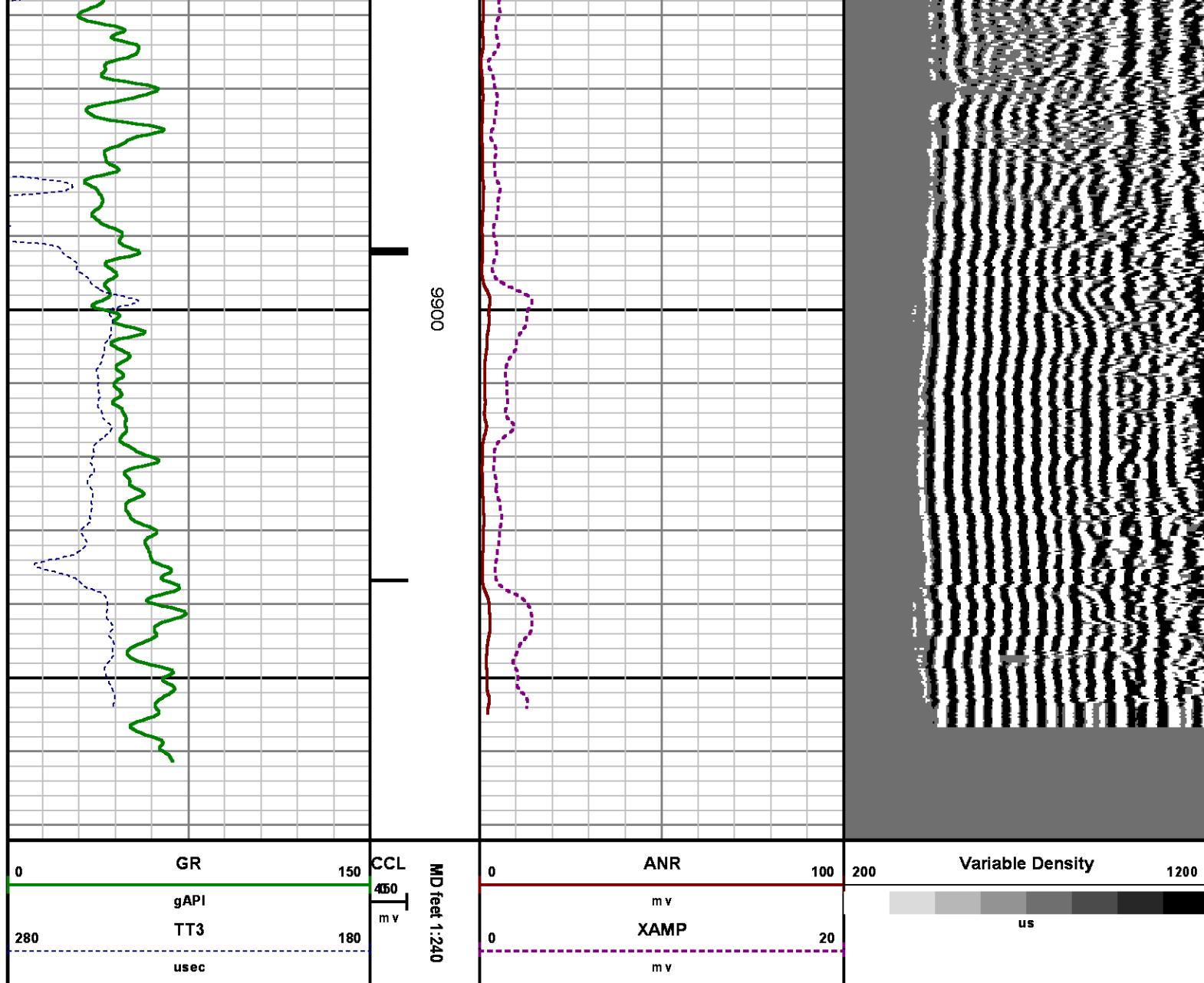




9700

9800





CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\496F27_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Feb 27 17:21:44 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: F27

Tool Delay [u sec]	-56.00	Tank OD in	5.50	Tank Wt lbm/ft	15.50	Tank ID in	4.95
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RECEIVER	Travel Time [usec]	Amp. Gate Start [usec]	Amp. Gate Width [usec]	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor
CAL Pulse	217	216	30	166	25	-0.051	100.00	0.16
3 Ft. Receiver	217	216	30	144	25	-0.231	100.00	0.16
5 Ft. Receiver	325	324	30	238	25	0.008	150.00	0.18
Radial #1	217	216	30	147	25	-0.329	100.00	0.16
Radial #2	217	216	30	147	25	-0.210	100.00	0.16
Radial #3	217	216	30	147	25	-0.075	100.00	0.16
Radial #4	217	216	30	147	25	-0.213	100.00	0.16
Radial #5	217	216	30	147	25	-0.243	100.00	0.16
Radial #6	216	216	30	147	25	-0.148	100.00	0.16
Radial #7	214	216	30	147	25	-0.097	100.00	0.16
Radial #8	217	216	30	147	25	-0.033	100.00	0.16

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496F27 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Feb 27 17:24:12 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: F27

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	0.043	0.000	1.00	100.000
3 Ft. Receiver	195	25	1.813			
5 Ft. Receiver	305	25	2.260			
Radial #1	195	25	1.262			
Radial #2	195	25	1.307			
Radial #3	195	25	1.459			
Radial #4	195	25	1.505			
Radial #5	195	25	1.657			
Radial #6	195	25	1.789			
Radial #7	195	25	1.432			
Radial #8	195	25	1.402			

GAMMA RAY

Calibration File: C:\case\calver\GR\1012412122.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Feb 22 12:18:15 2014 TOOL SERIES: 2459XA ASSET: 10124121 SEQ: 22

Calibrator # Background [cps] Calibrator On [cps] Multiplicative Background [api] Calibrator On [api] Differential [api]

S2K	WA-612	36.22	291.56	0.725	26.24	211.24	185.00
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Verification File: C:\case\calver\GR\1012412122.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Sat Feb 22 12:19:23 2014 TOOL SERIES: 2459XA ASSET: 10124121 SEQ: 22

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	41.96	293.60	0.725	30.40	212.73	182.33

TOOL DIAGRAM

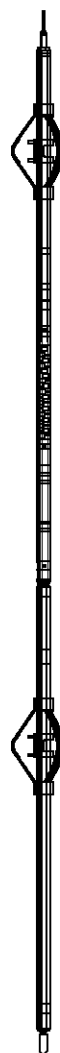
OTA SHORT CABLE HEAD

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"

<div> BAKER HUGHES</div> <div>Baker Atlas</div> <div>CASE</div>	Company	WPX ENERGY		File No:	
	Well	FEDERAL PA 42-21		CH083166	
	Field	PARACHUTE		API No:	
	County	GARFIELD	State	COLORADO	05045220370000
	Location	SHL: 2610' FNL & 1441' FWL BHL: 1610' FNL & 251' FEL (SENE)		Elevations KB 6056 ft DF GL 6030 ft	21 6S 95W PA 22-21 PAD NABORS 573
SEC 21		TWP 6S	RGE 95W		