



RADIAL ANALYSIS BOND LOG

Baker Atlas

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

CH085744 **Well** **C&C ENERGY GM 422-13**

API No: **Field** **GRAND VALLEY**

05045222640000 **County** **GARFIELD** **State** **COLORADO**

Location

13 75 96W **SHL: 266' FSL & 1029' FWL (SEC 12)**

GM 24-12 PAD **BHT: 2040' FNL & 2640' FWL (NENW SEC 13)**

H&P 318 **SEC 13 TWP 7S RGE 96W**

Other Services

RPM

Permanent Datum **GL** **Elevation** **5141 ft**

Log Measured From **KB** **24 ft** **Above P. D.**

Drill Measured From **KELLY BUSHING**

Elevations

KB 5165 ft

DF

GL 5141 ft

Date	27/MAY/14	
Run	ONE	
Service Order	US085744J	
Depth Driller	6810 ft	
Depth Logger	6766 ft	
Bottom Logged Interval	6756 ft	
Top Logged Interval	24 ft	
Time Started	1115	
Time Finished	1345	
Operator Rig Time	3.5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	60 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	66 fpm	
Maximum Recorded Temperature	199 degF	
Reference Log	NONE	
Reference Log Date	NA	
Equipment No.	4271	GRAND UCT
Recorded By	FLOYD RENEAU	
Witnessed By	JEFF BRADY	

- 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	24 ft	1515 ft
8.75 in	1515 ft	6810 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			24 ft	1515 ft
4.5 in	11.6 lbm/ft	I-80	24 ft	6810 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 14 feet.
Logged with zero PSI at wellhead.
BHT = 199°F
SJ = 3195'-3217'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10124106	CENT
1	1	GR/CCL	2459XA	10417456	CENT

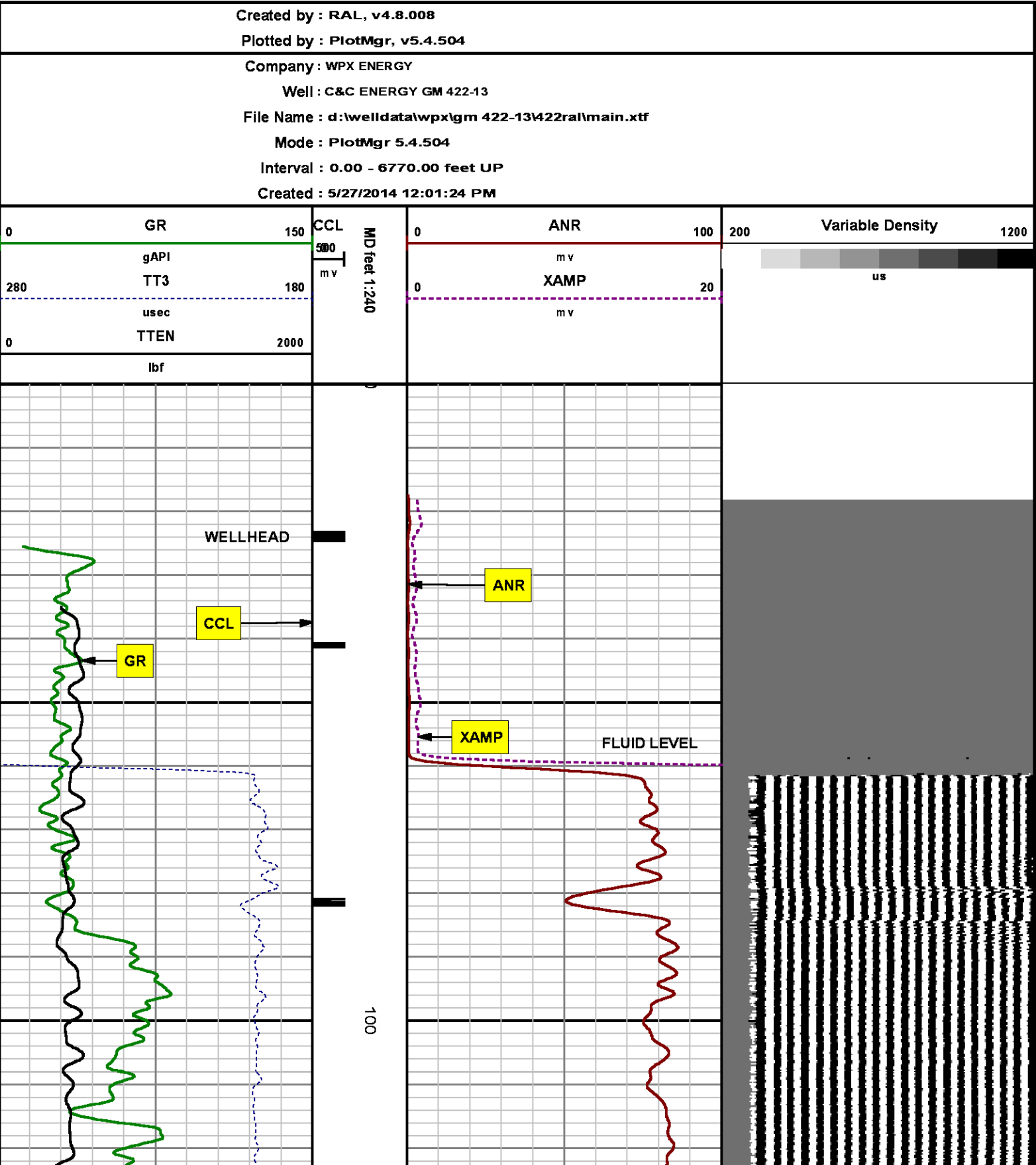
PRIMARY PRESENTATION
0 PSI

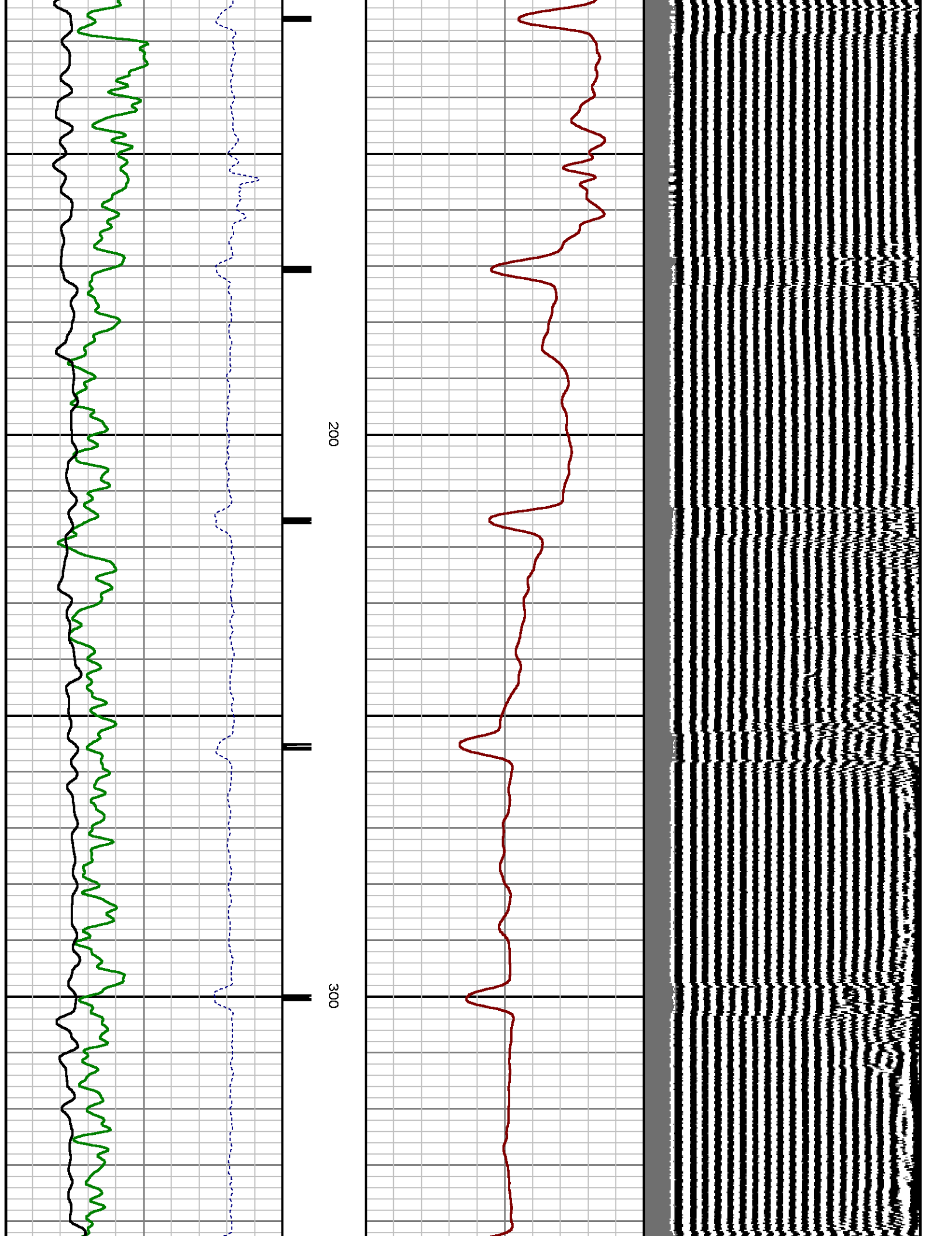
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	33.631	6767.500
RAL	Amp Gate Start Near	195.000	usec	33.631	6767.500
RAL	Amp Gate Start Radial	195.000	usec	33.631	6767.500
RAL	Amp Gate Width Far	25.000	usec	33.631	6767.500
RAL	Amp Gate Width Near	25.000	usec	33.631	6767.500
RAL	Amp Gate Width Radial	25.000	usec	33.631	6767.500
RAL	casing od	4.500	inches	33.631	6767.500
RAL	casing wt	11.600	lbm/ft	33.631	6767.500
RAL	FB Start Far	291.900	usec	33.631	6767.500
RAL	FB Start Near	180.000	usec	33.631	6767.500
RAL	FB Start Radial	180.000	usec	33.631	6767.500
RAL	FB Thresh Far	10.000	mv	33.631	6767.500
RAL	FB Thresh Near	4.000	mv	33.631	6767.500
RAL	FB Thresh Radial	4.000	mv	33.631	6767.500
RAL	Fluid Travel Time	200.000	usec/ft	33.631	6767.412

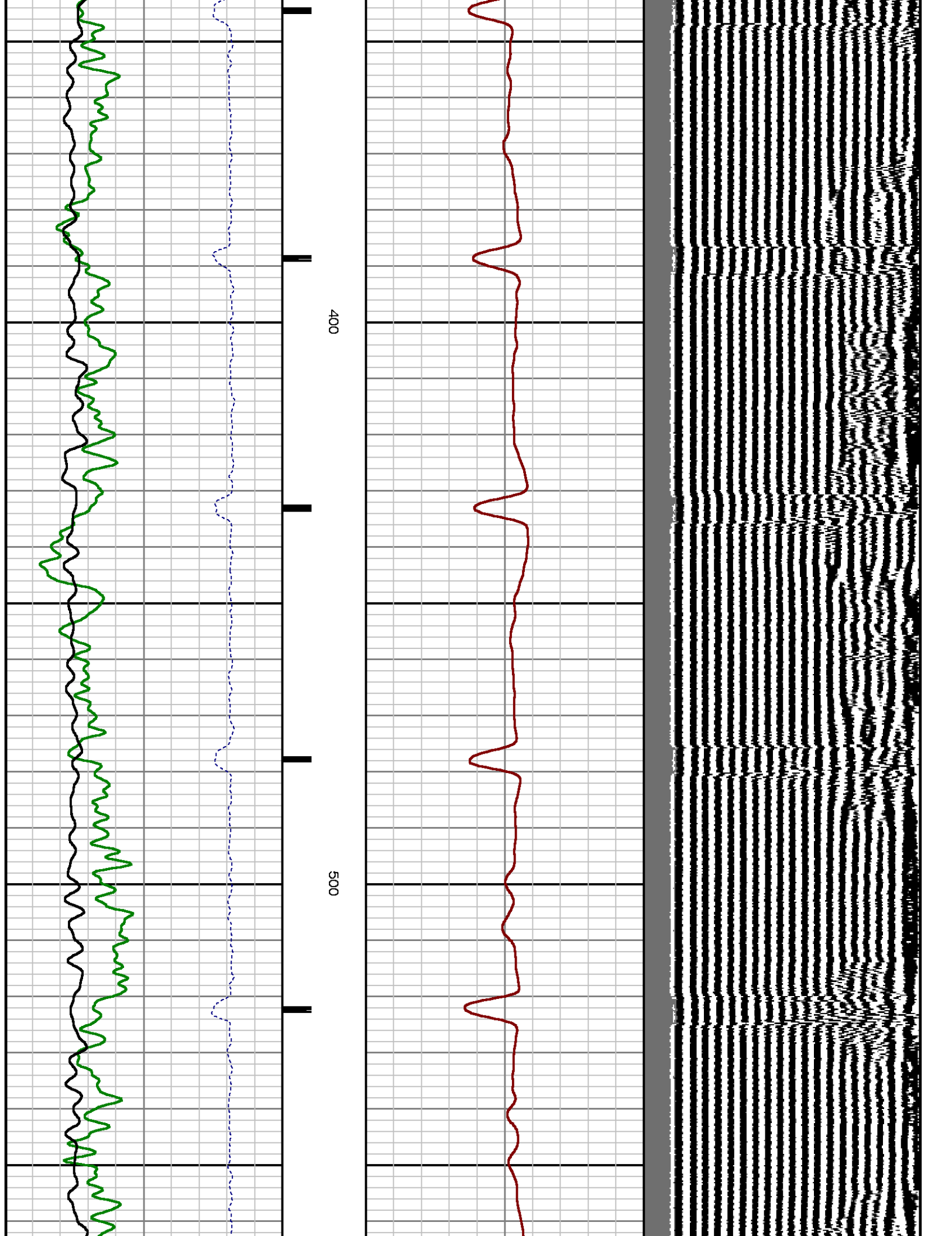
DEPTH OFFSETS
(for Acquired Curves)

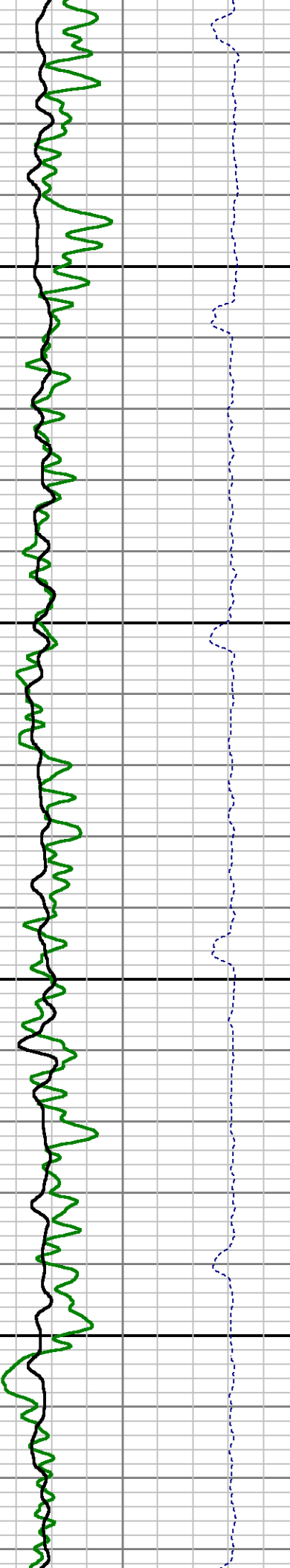
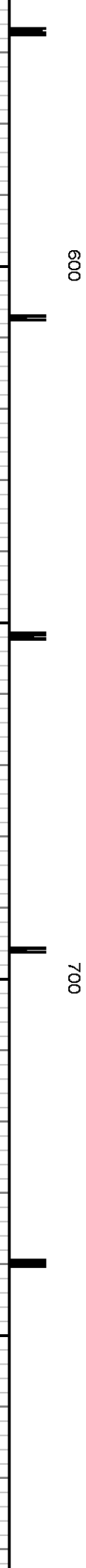
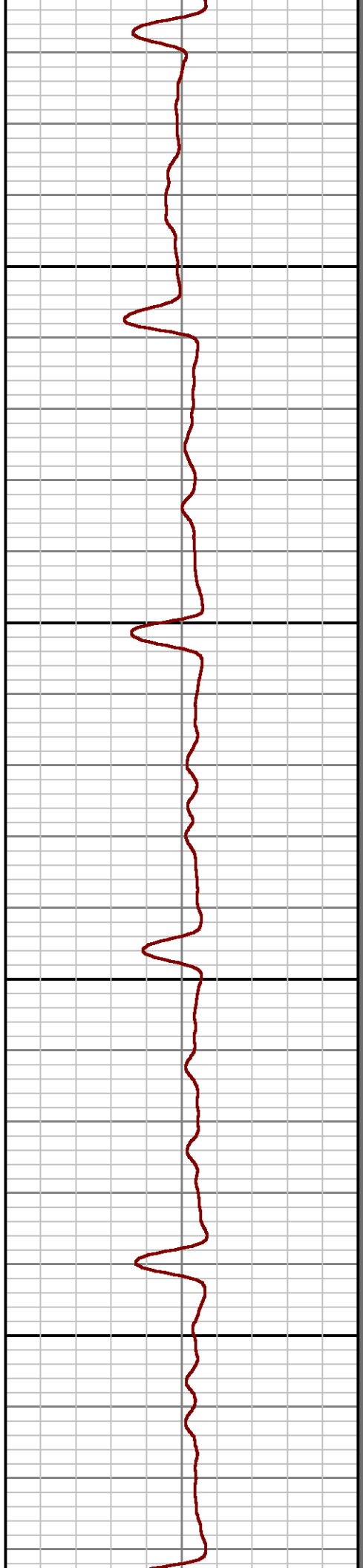
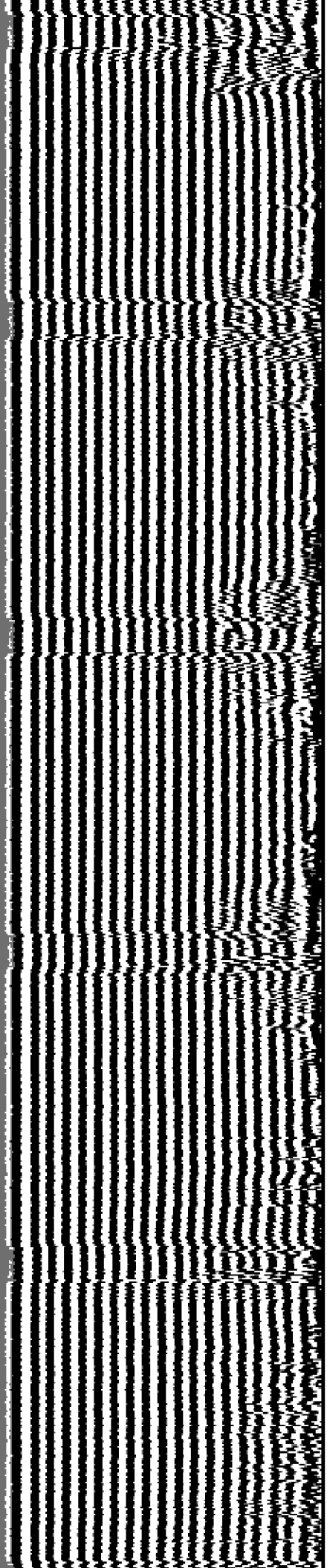
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
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		AR5	AR6	AR7	AR8	CHV	FPR2

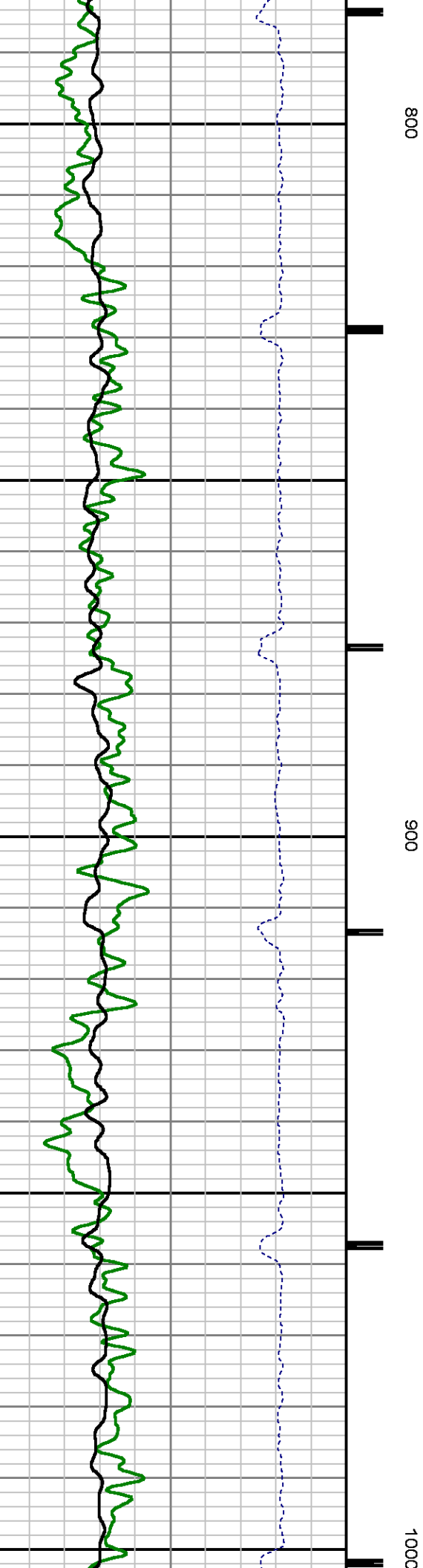
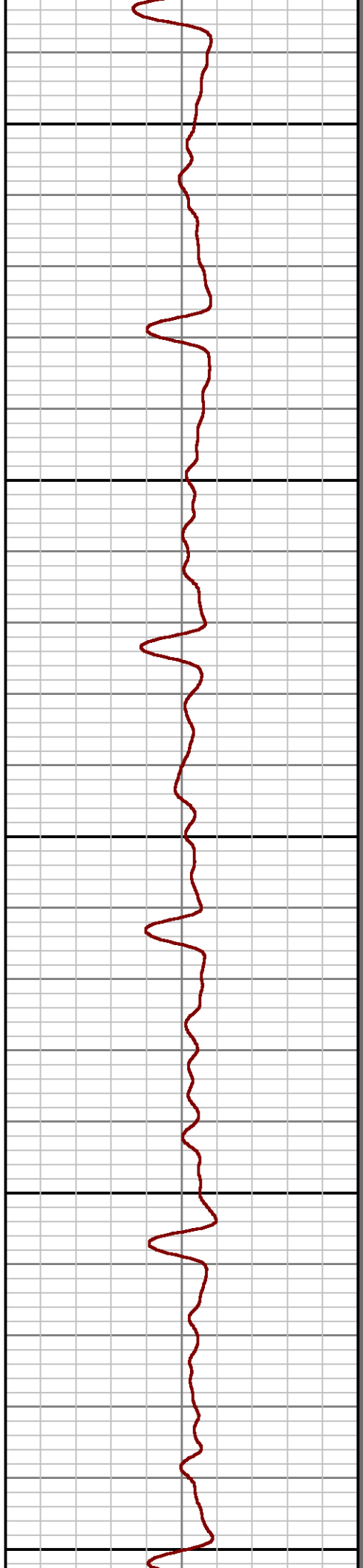
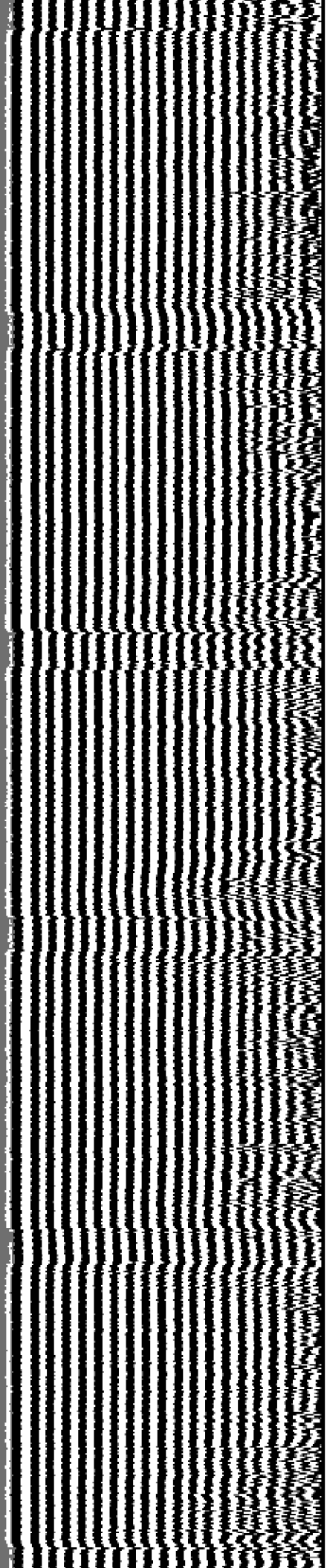
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

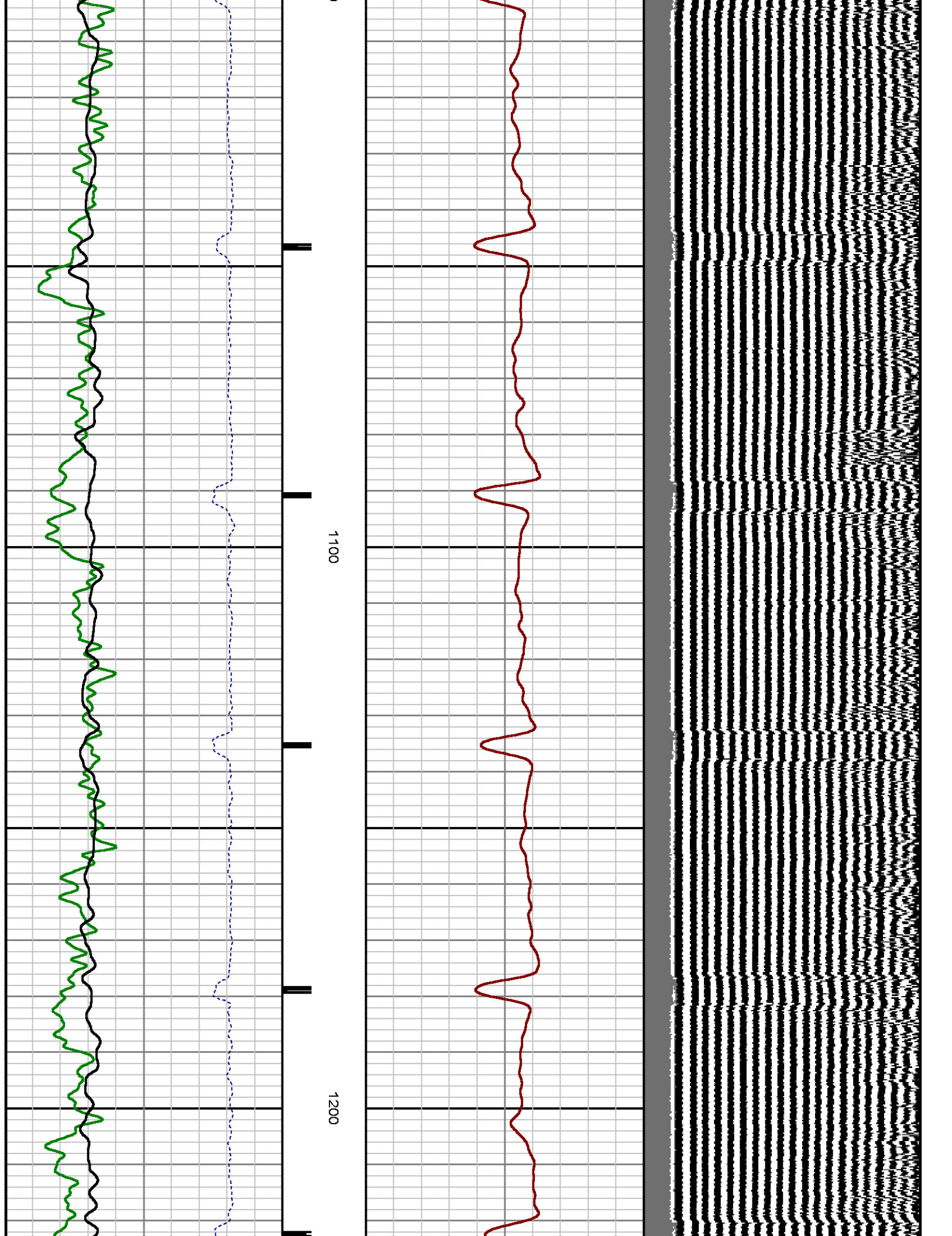


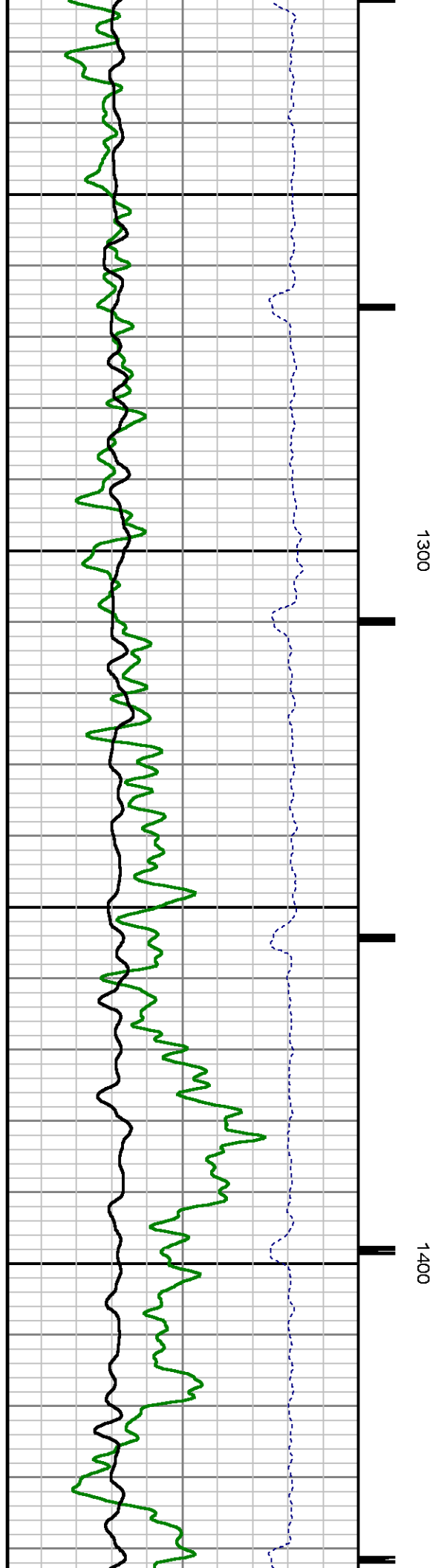
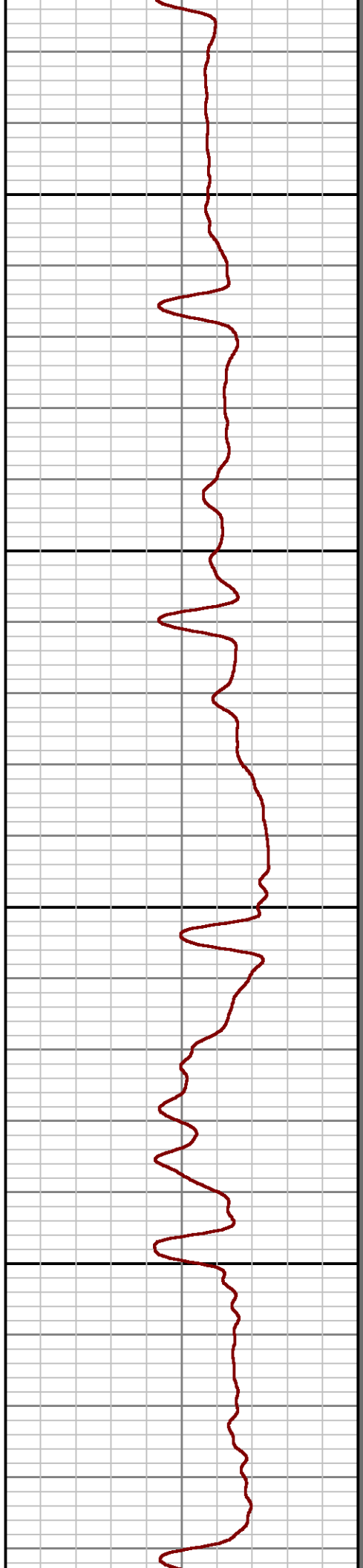
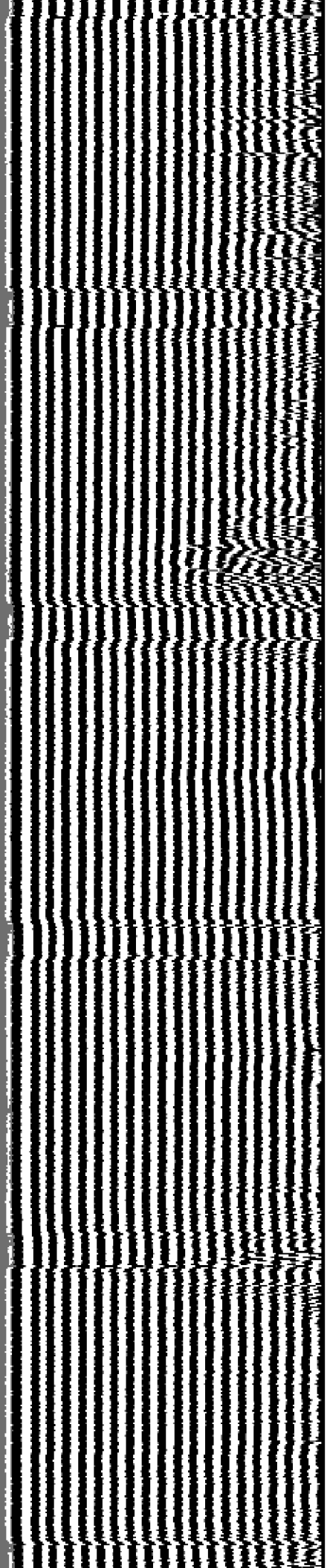


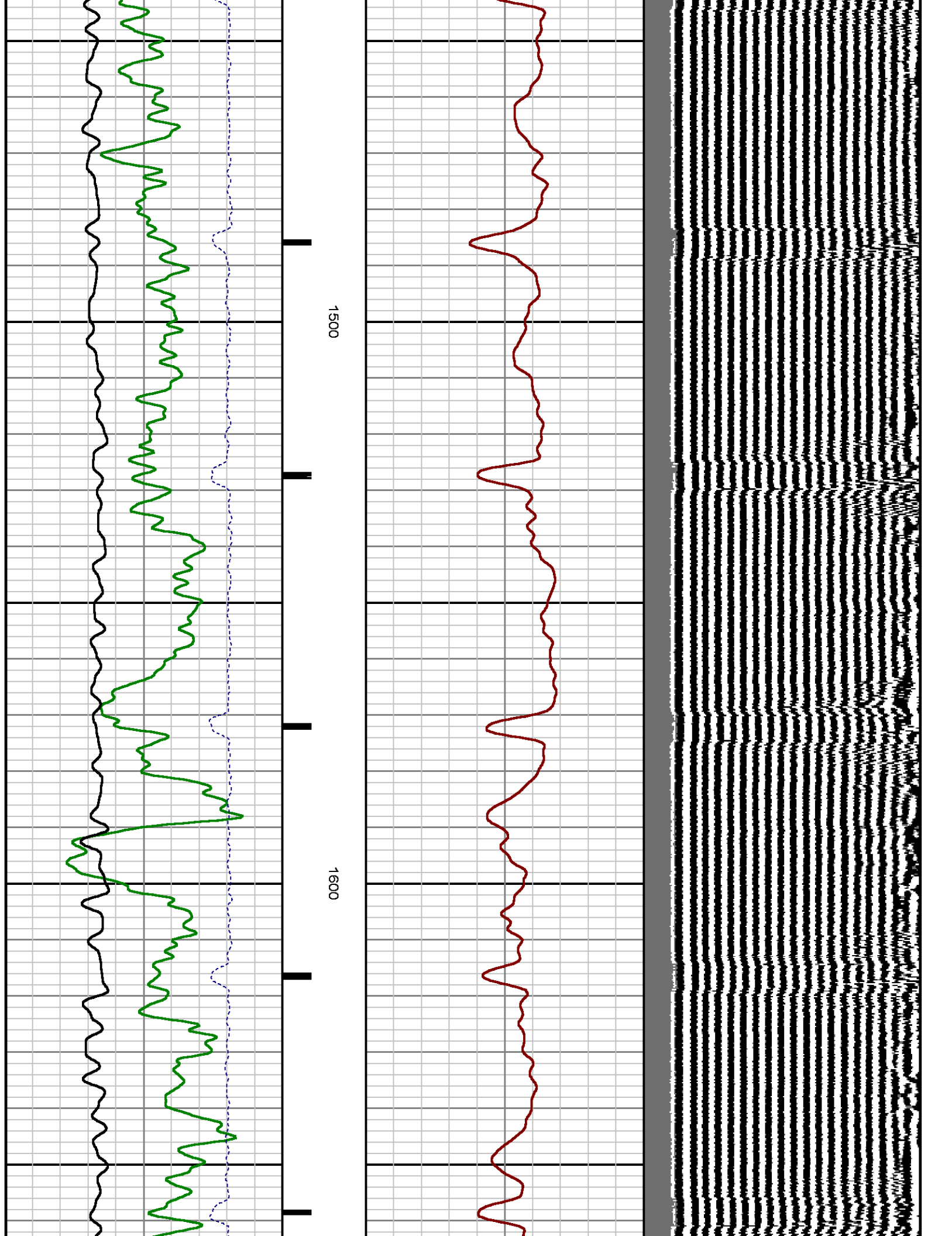


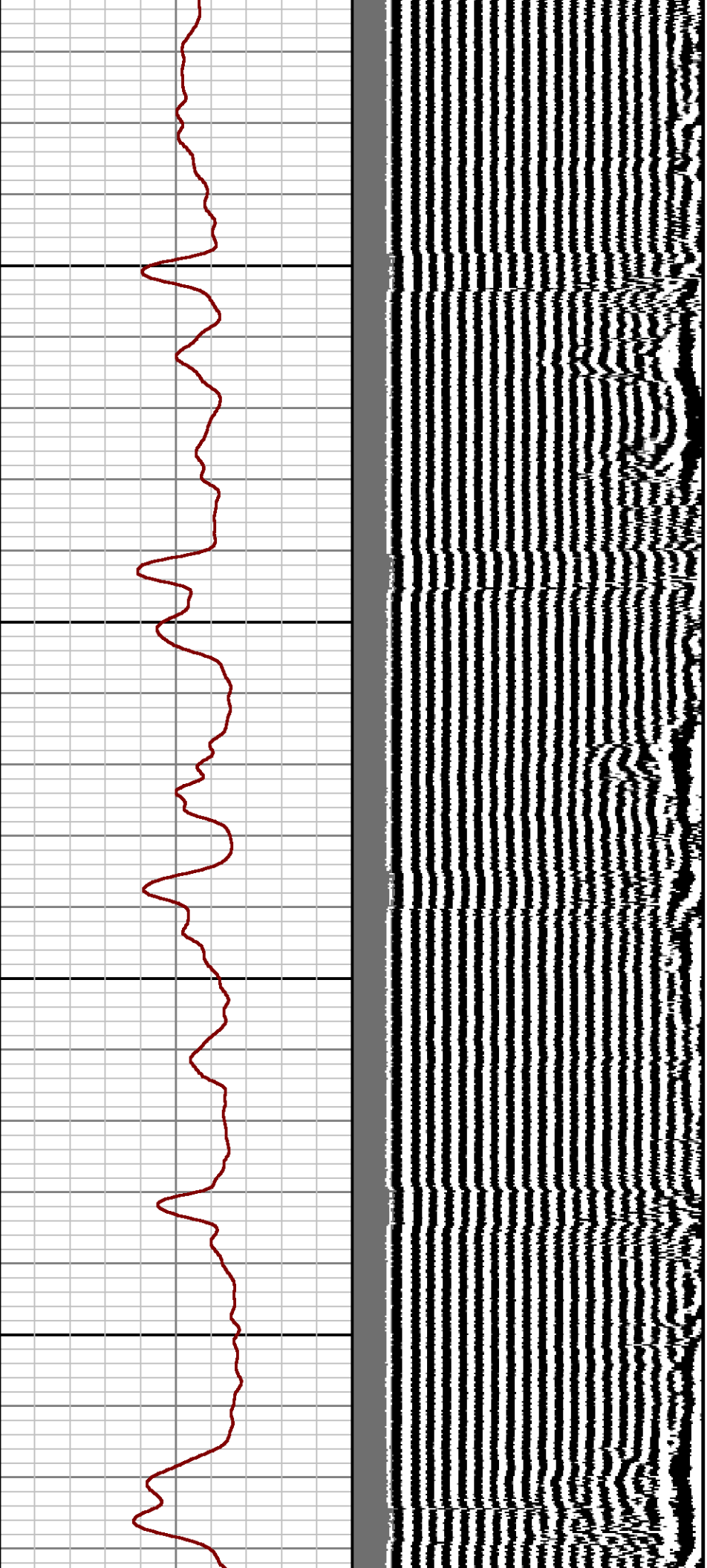






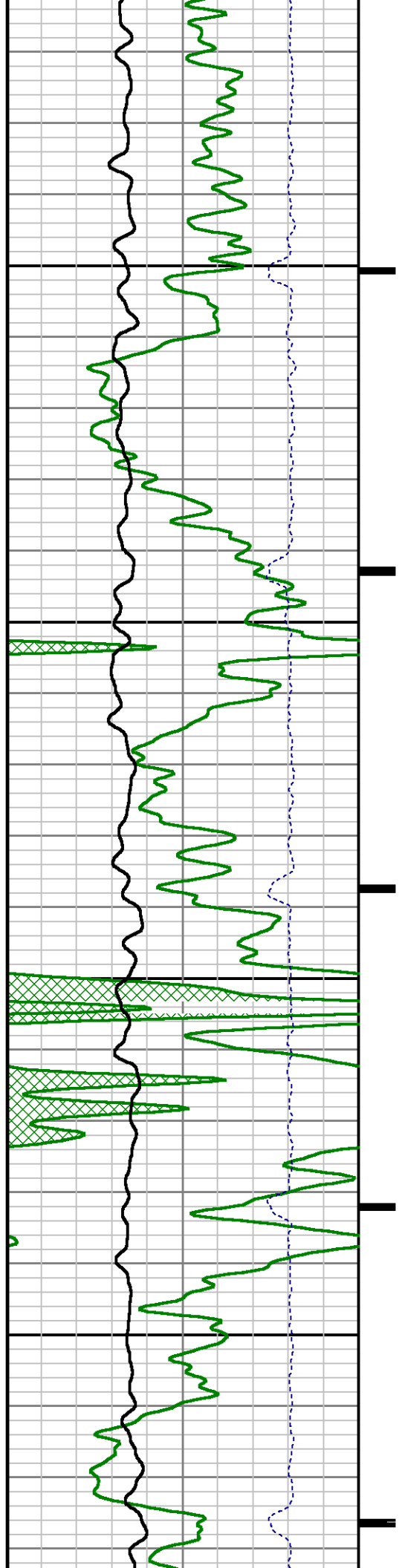


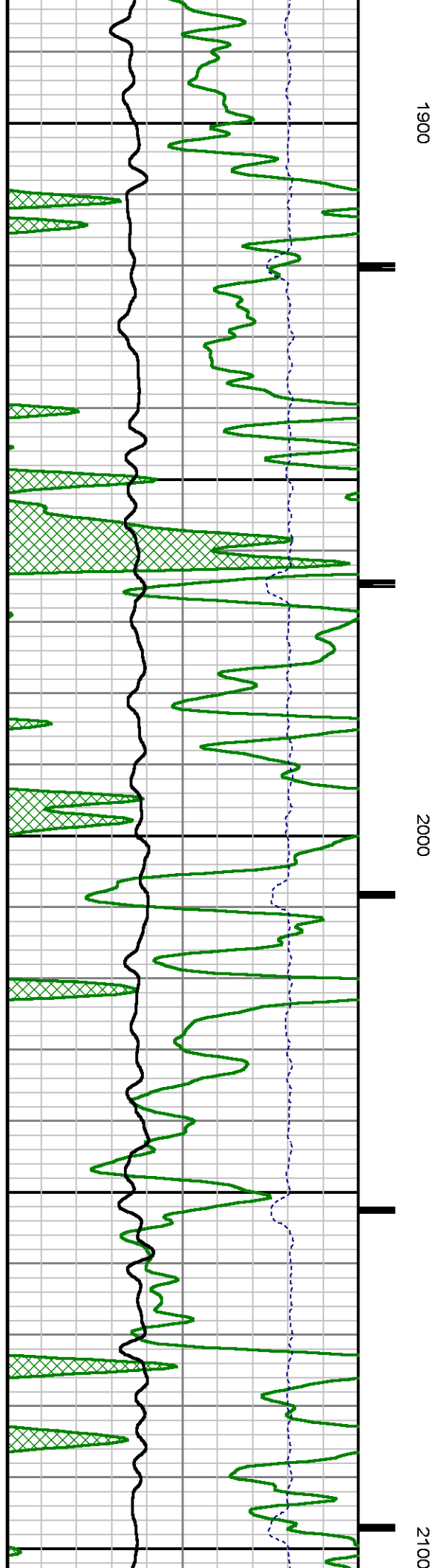
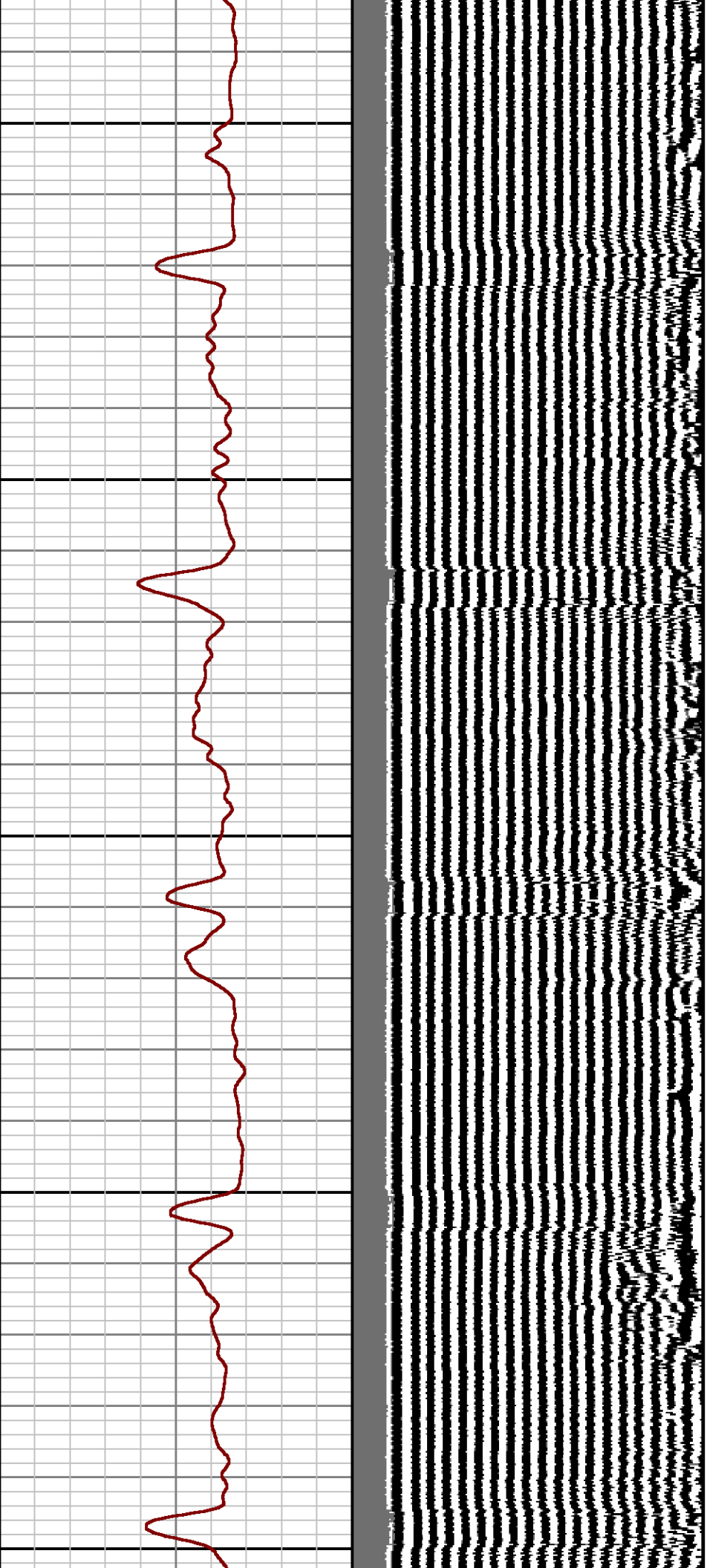


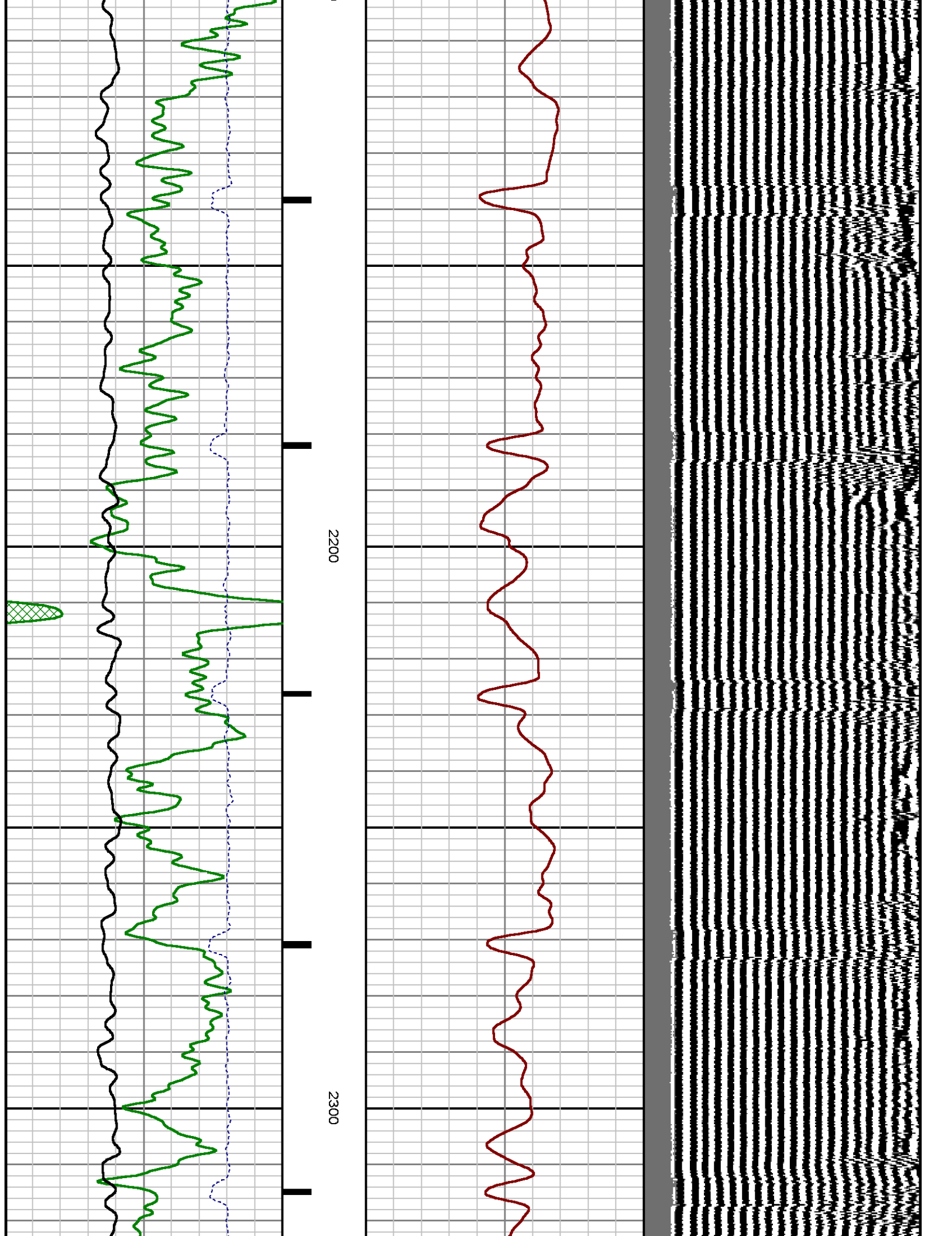


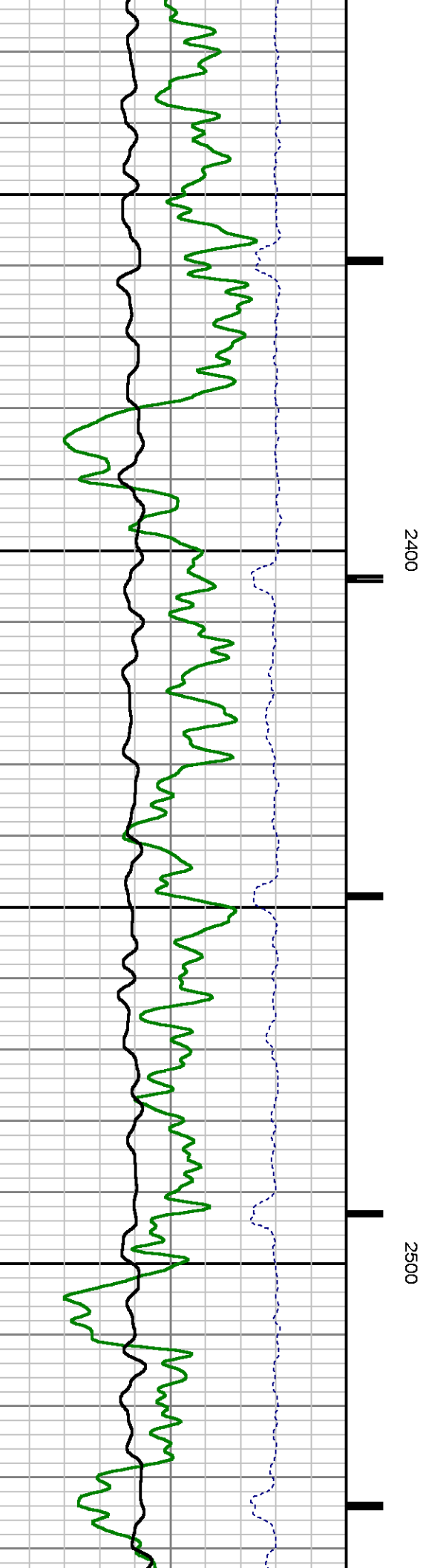
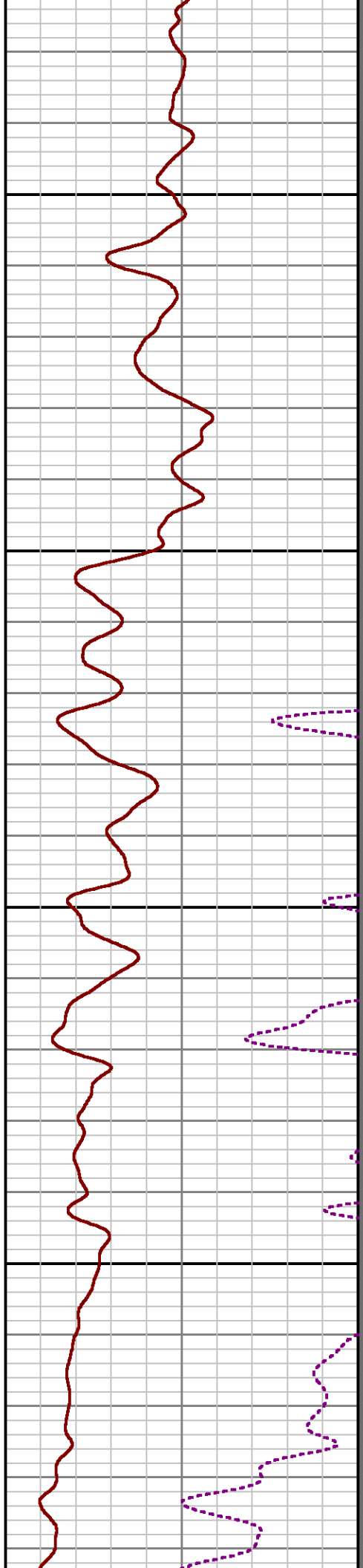
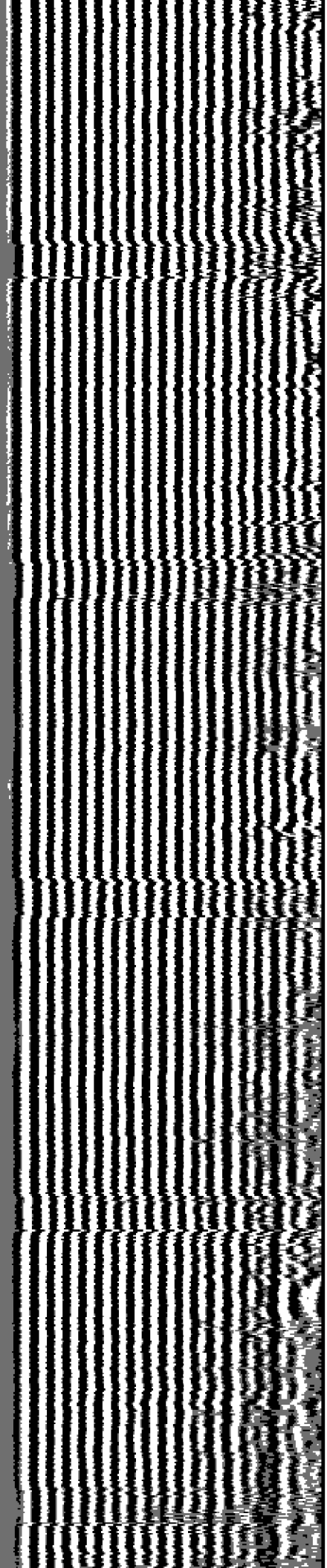
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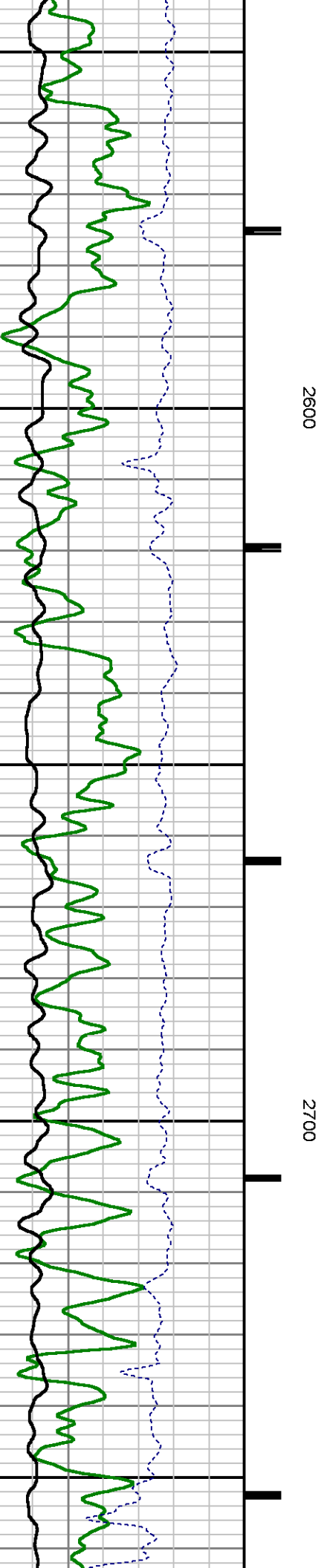
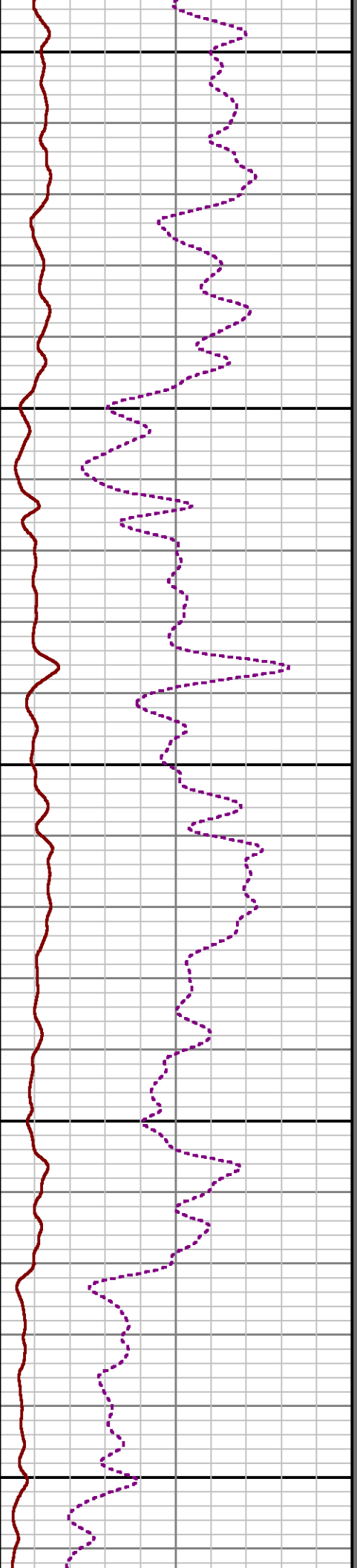
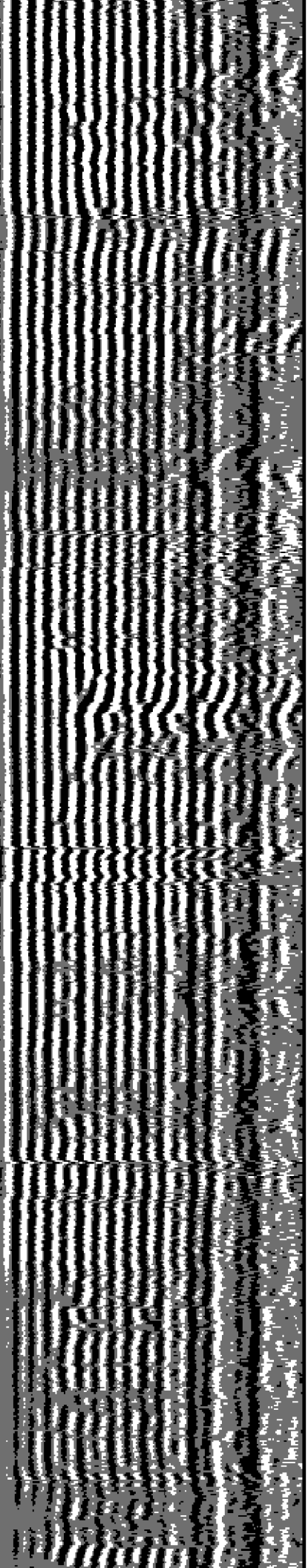
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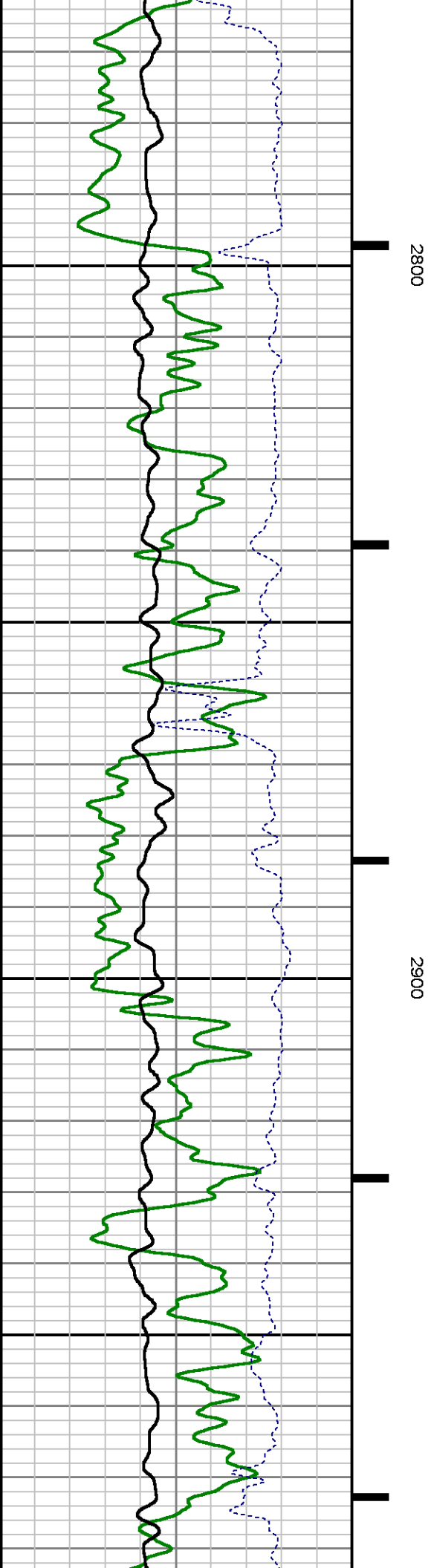
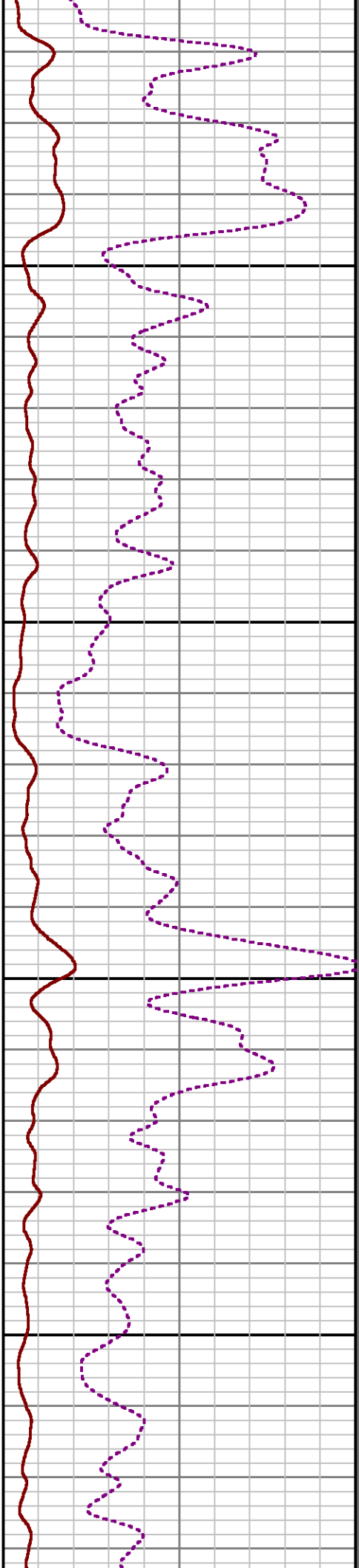
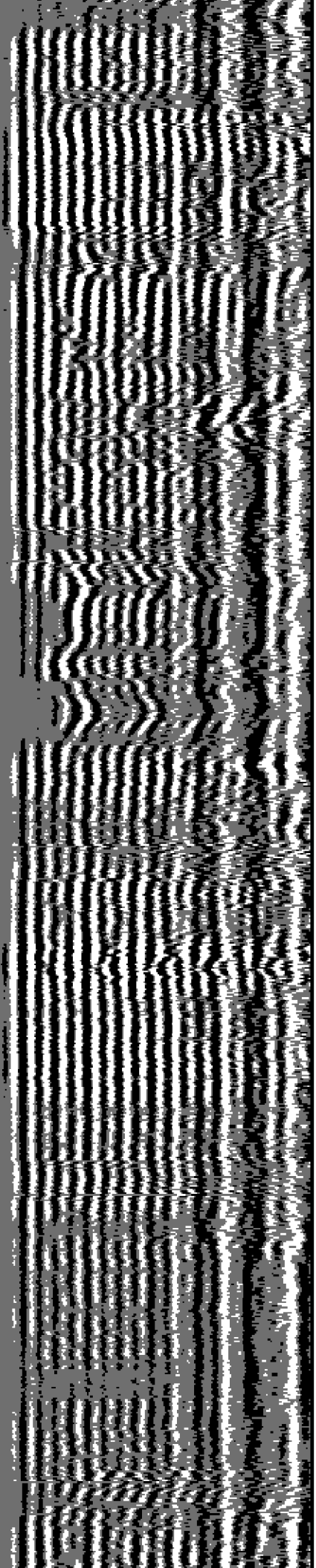


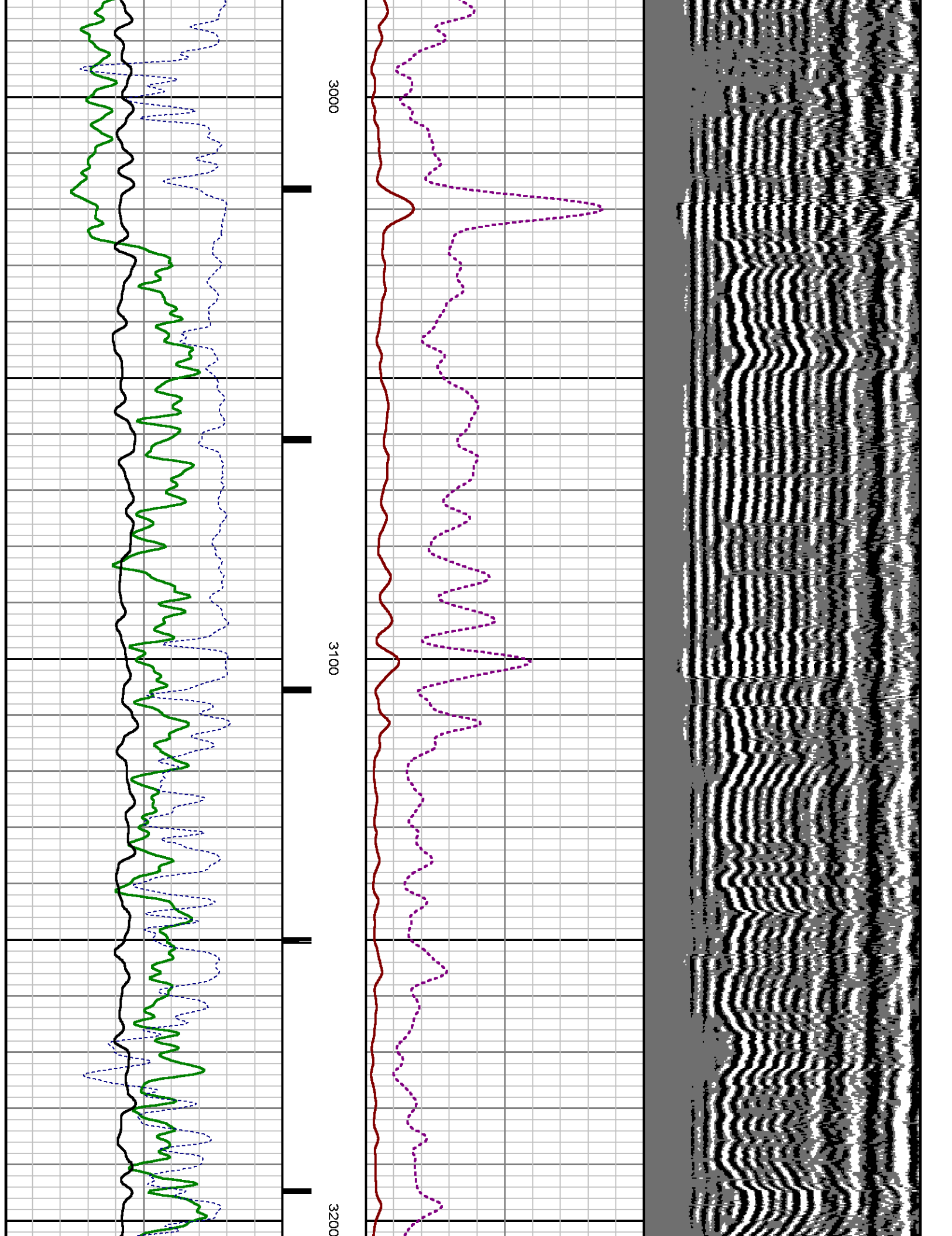


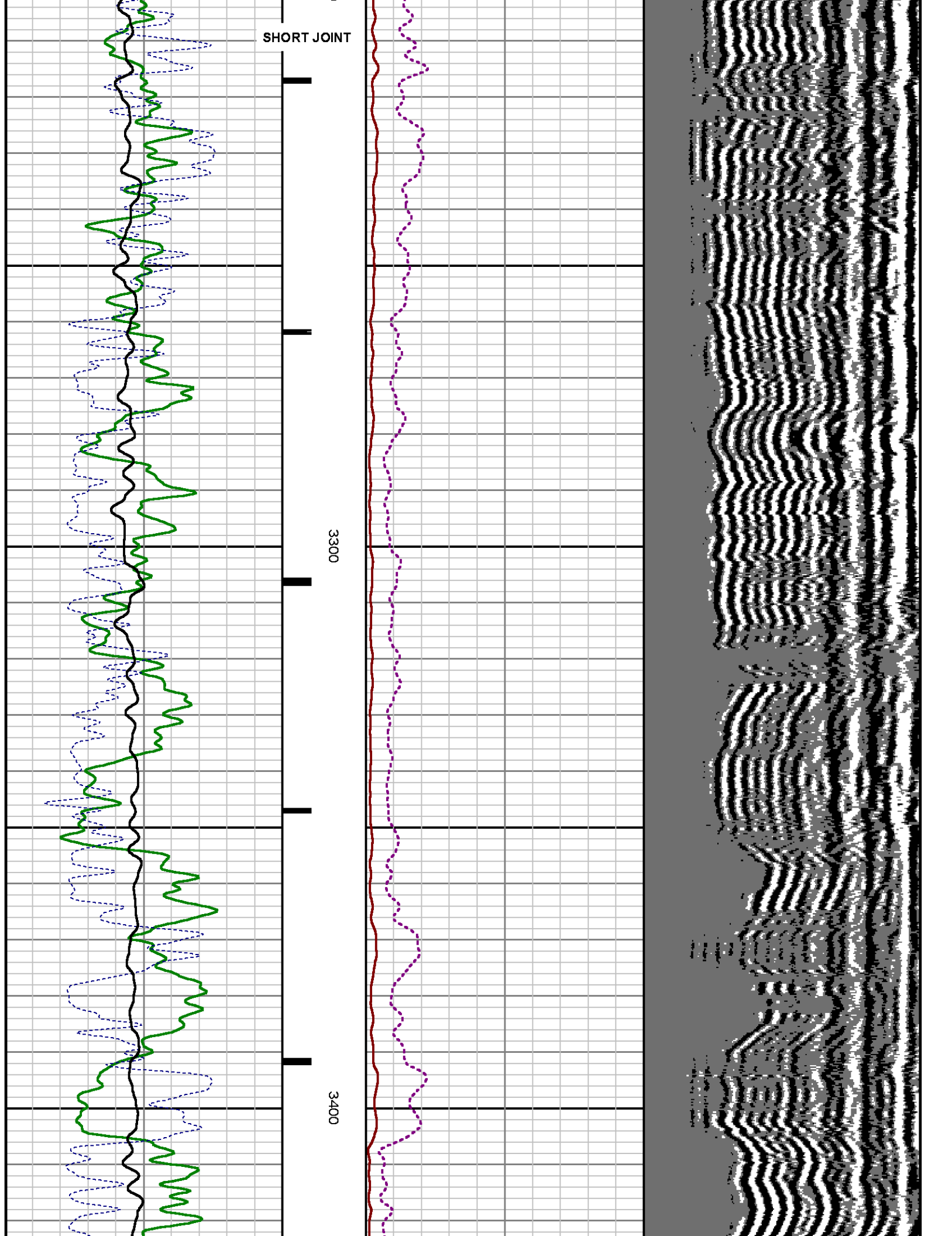


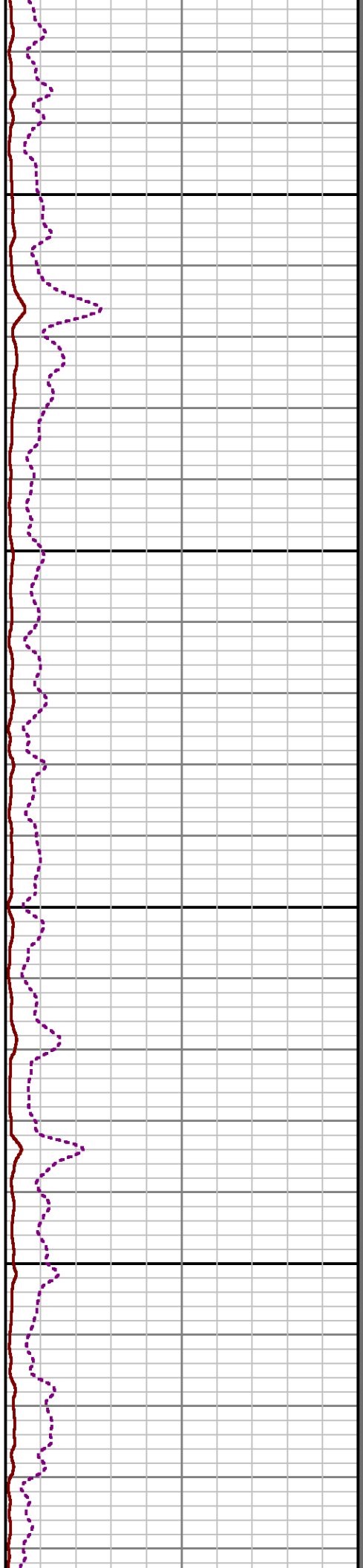
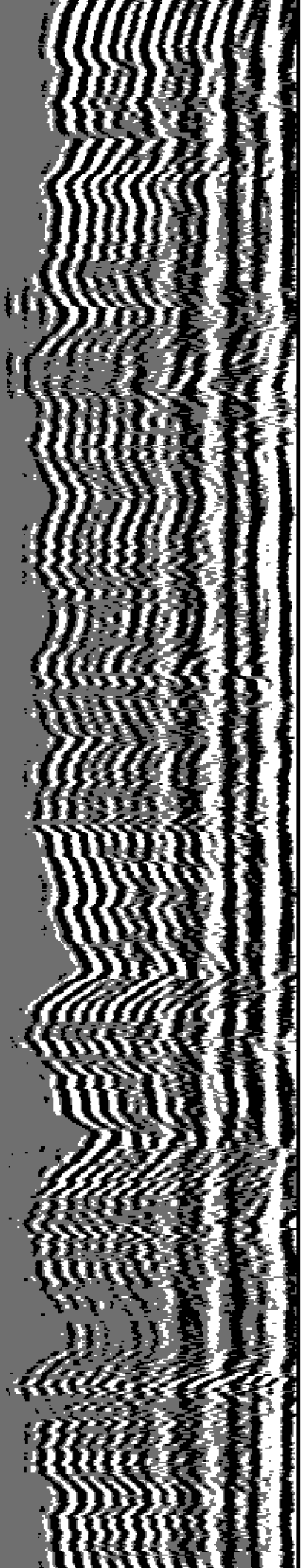






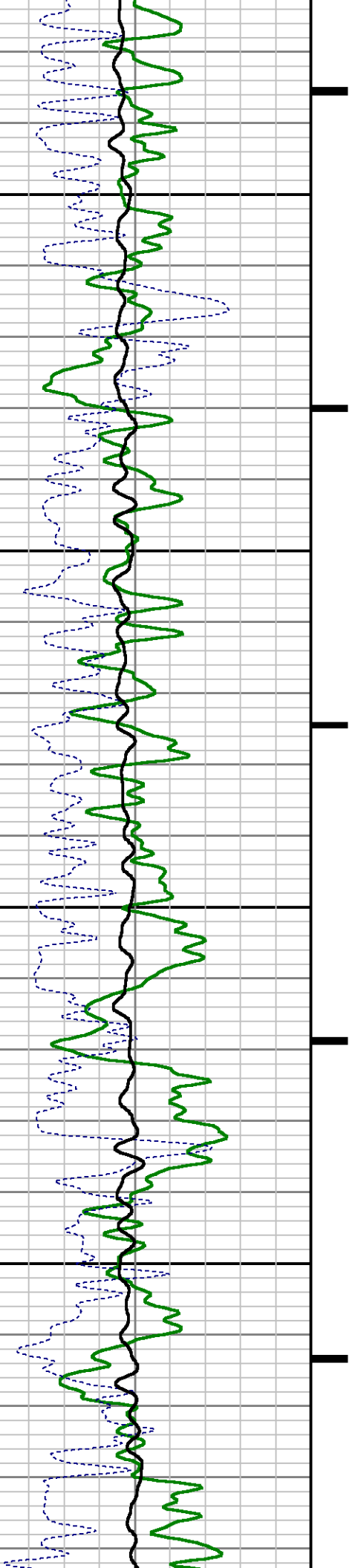


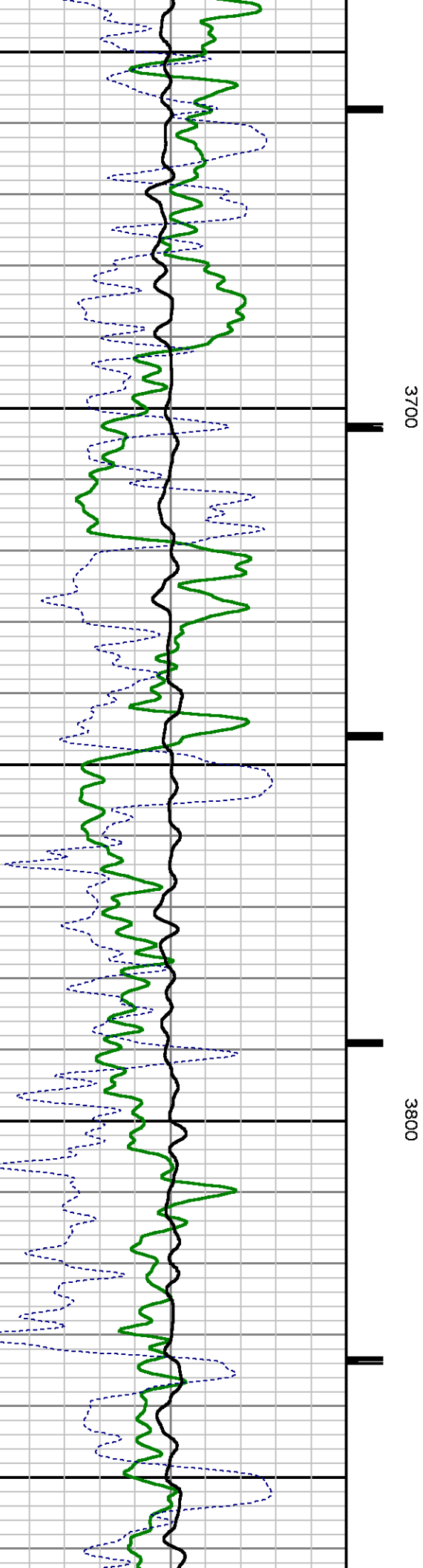
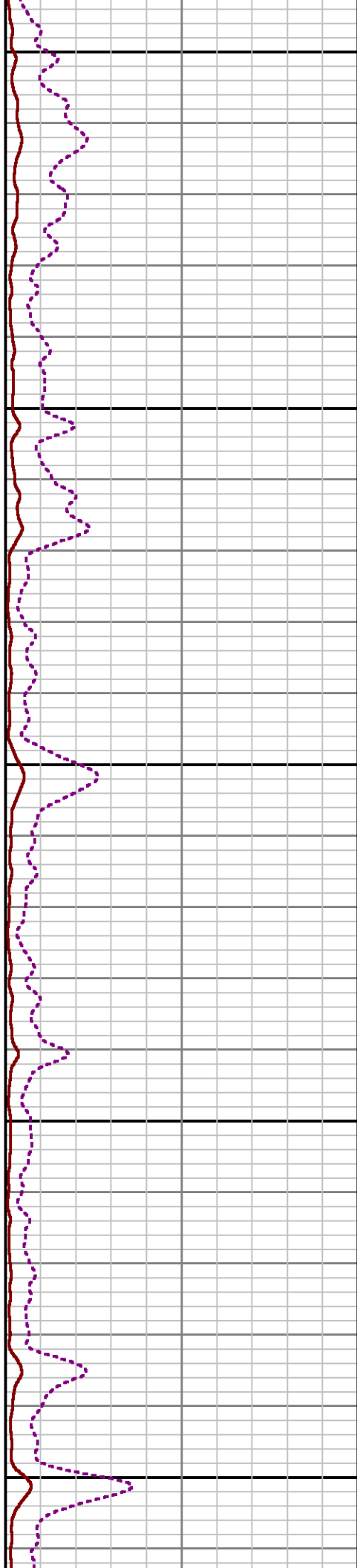
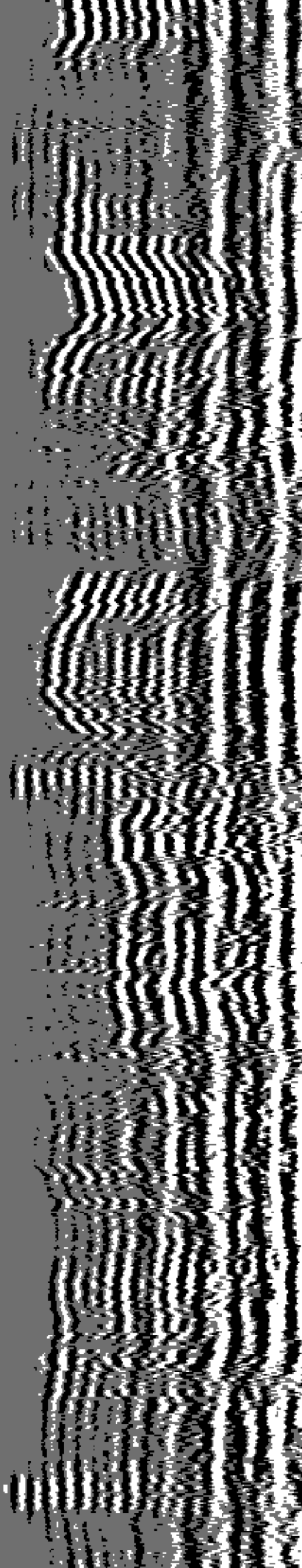


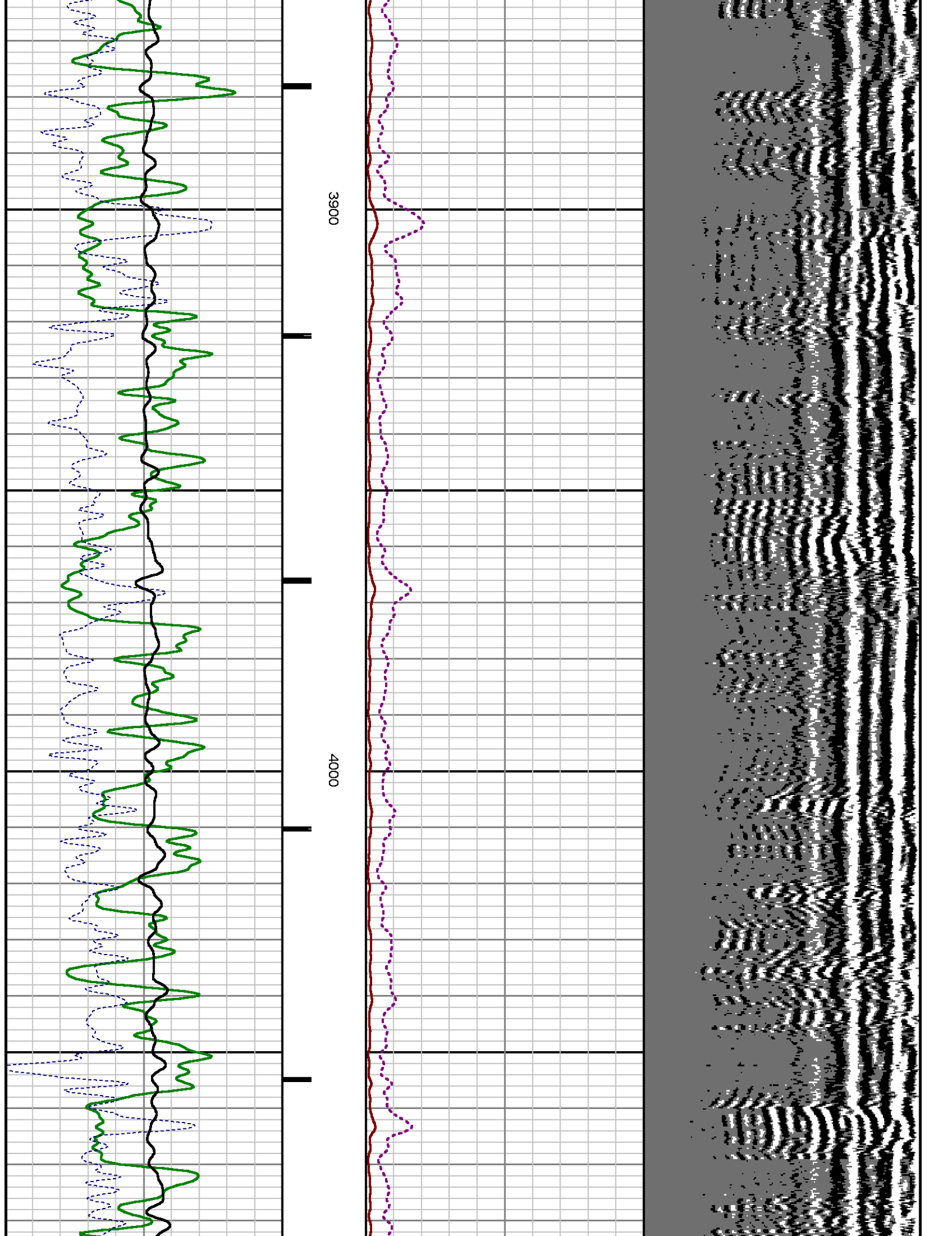


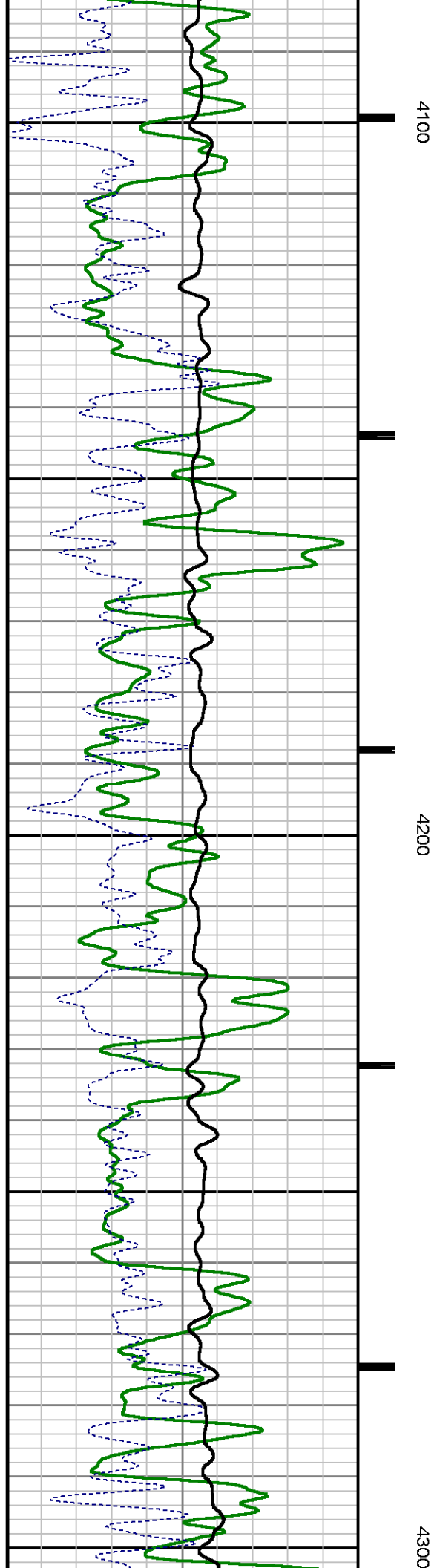
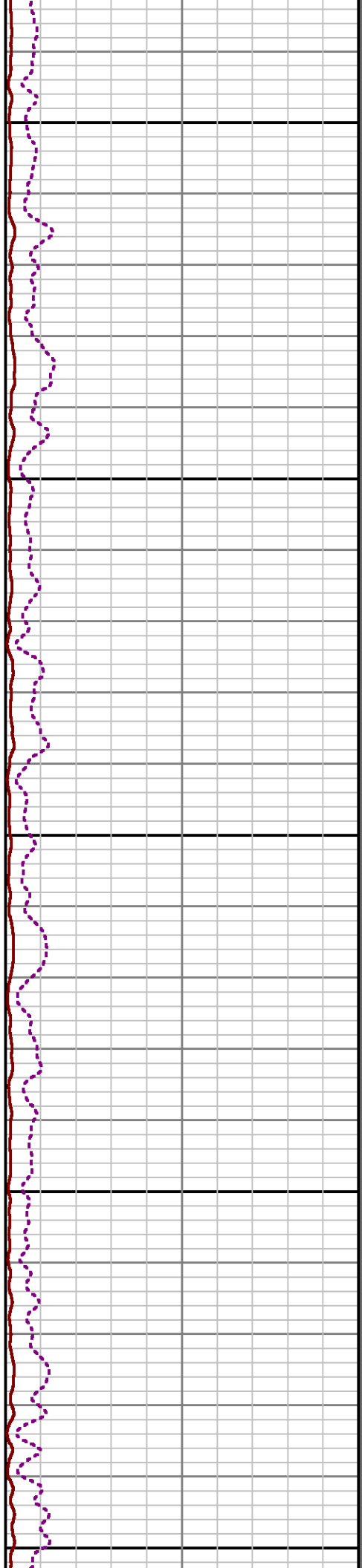
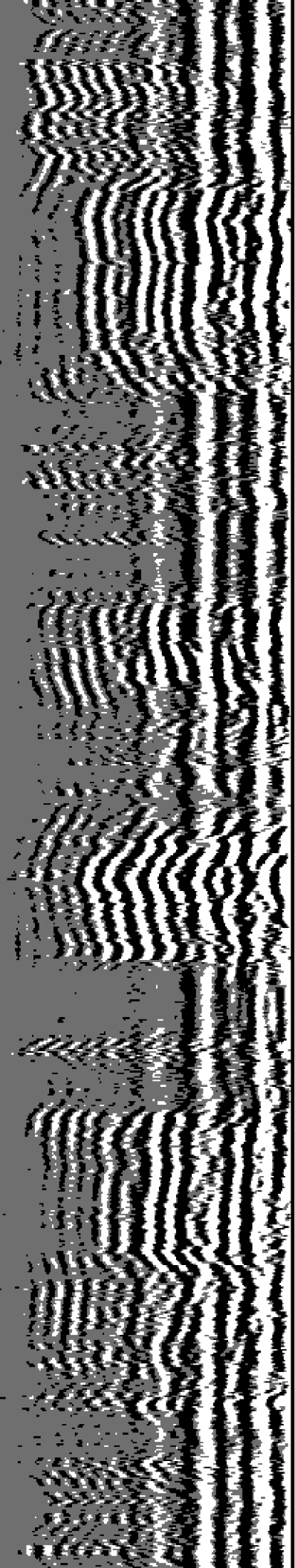
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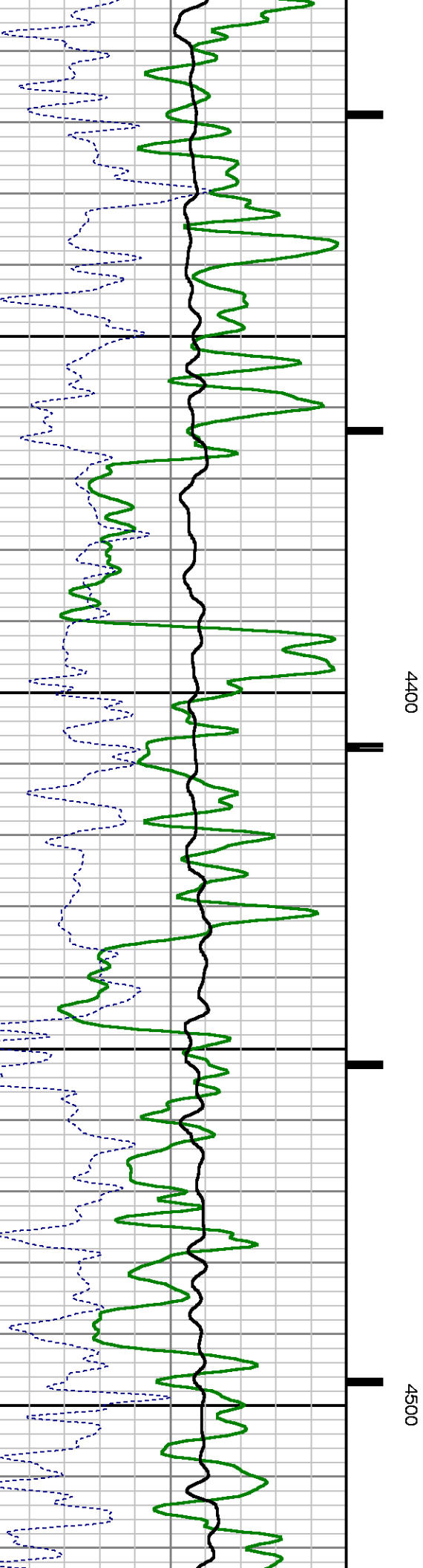
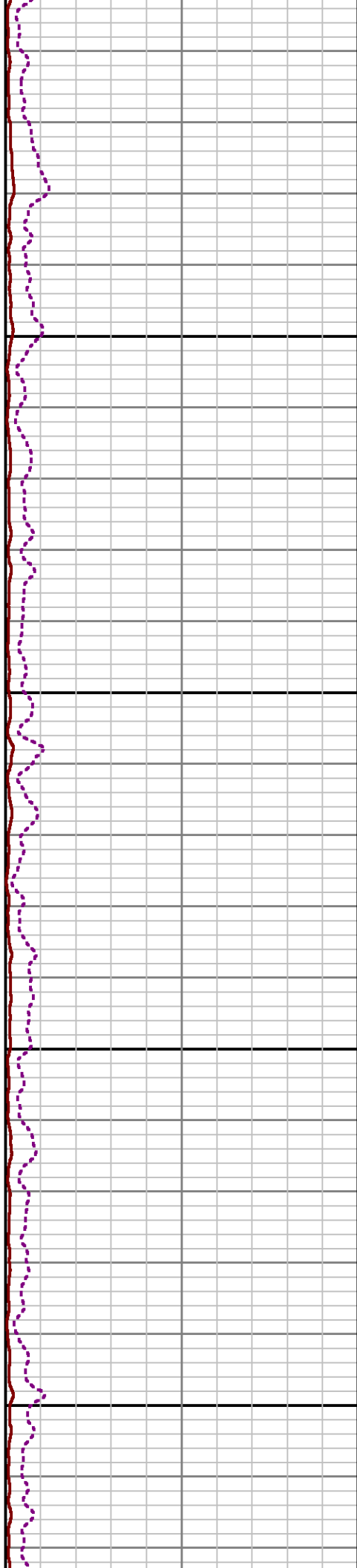
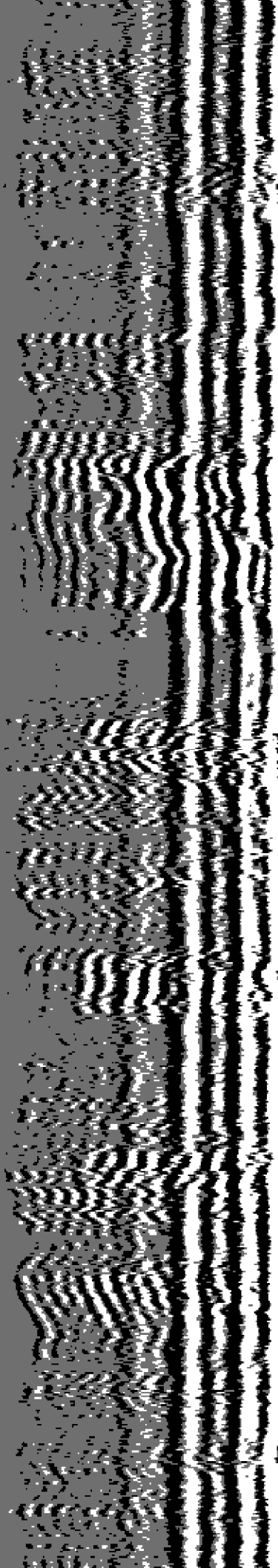
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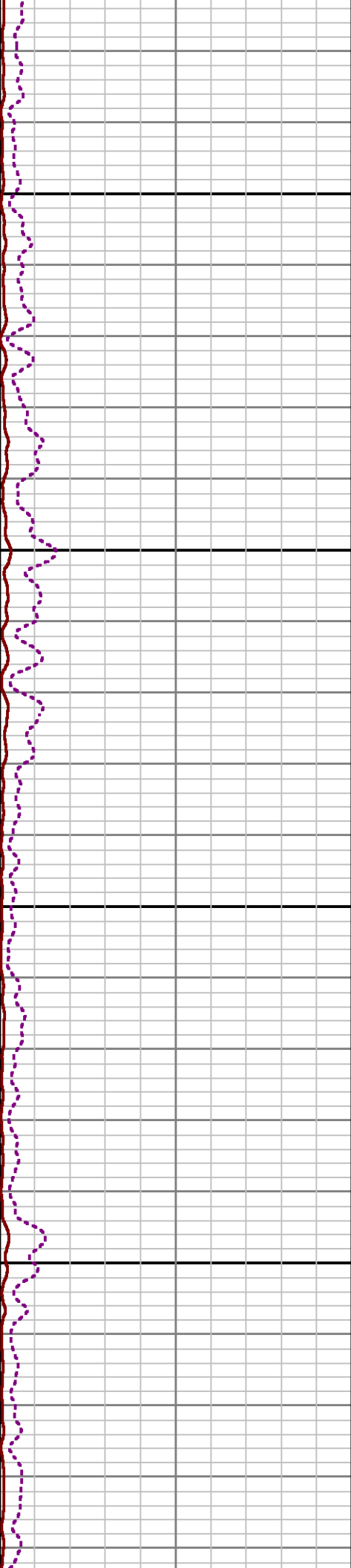
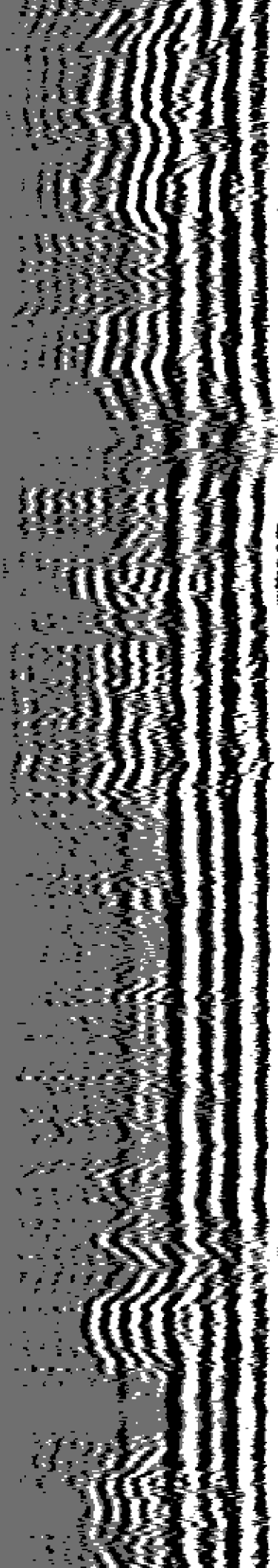






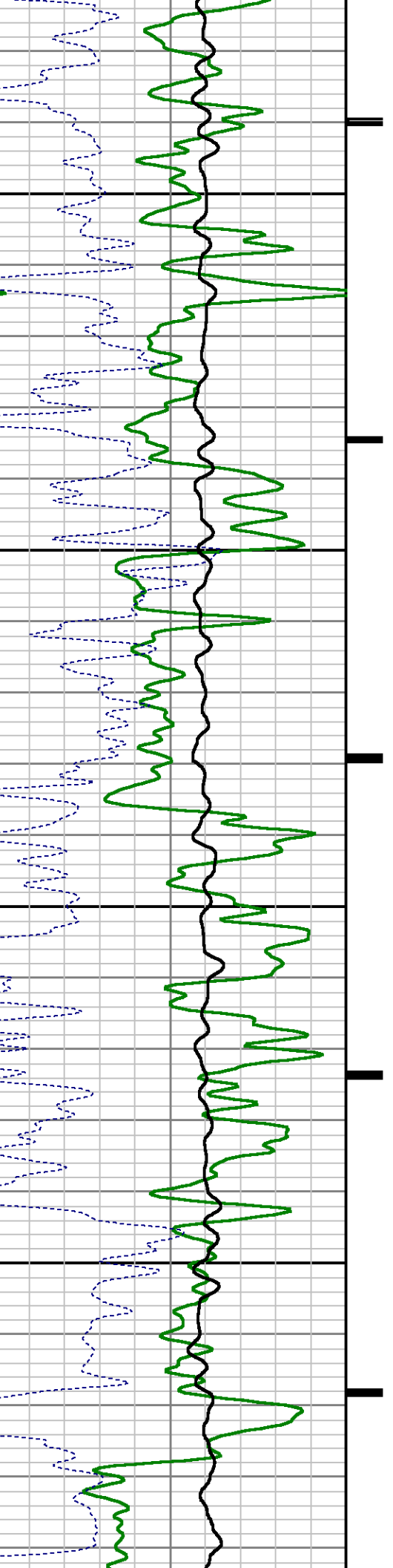


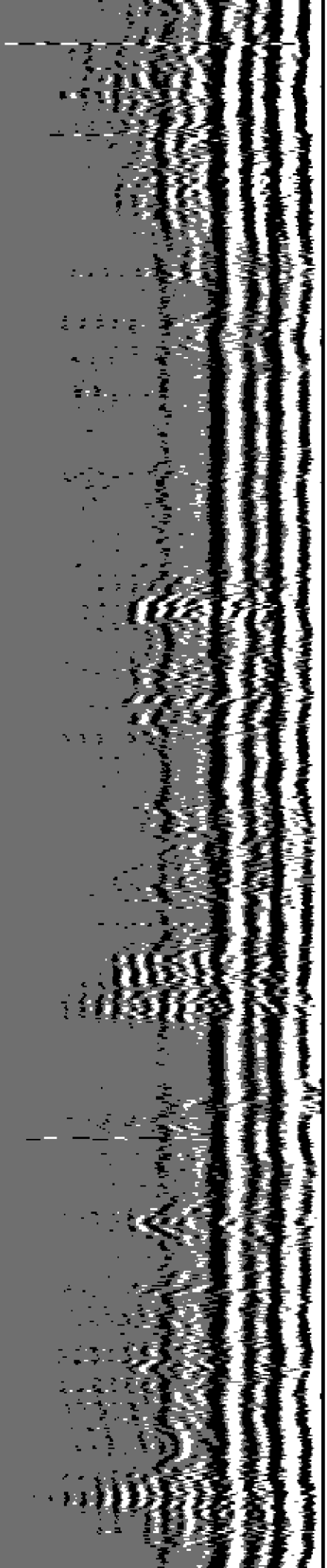




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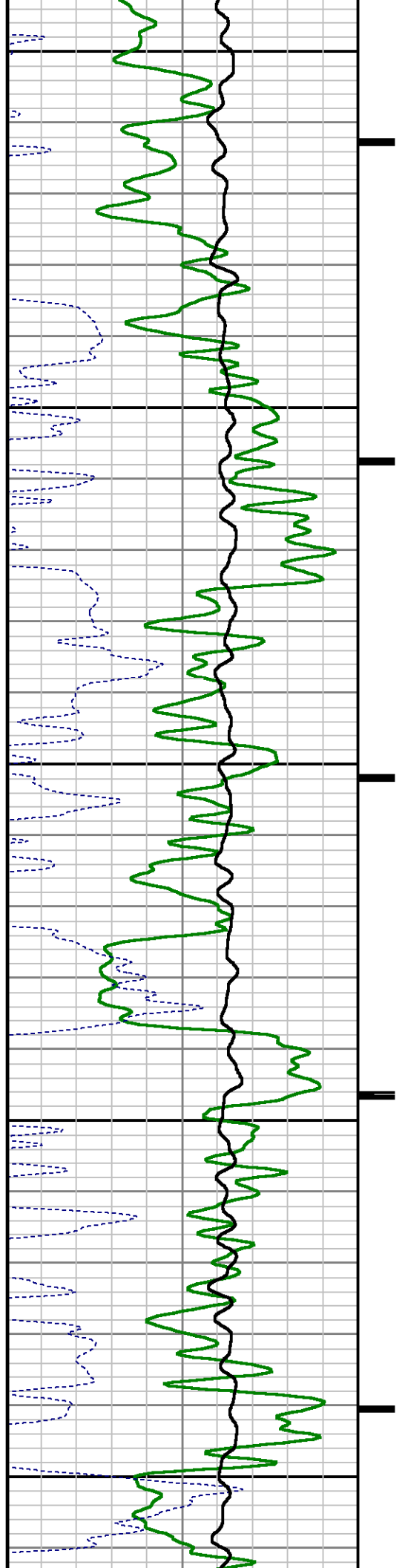
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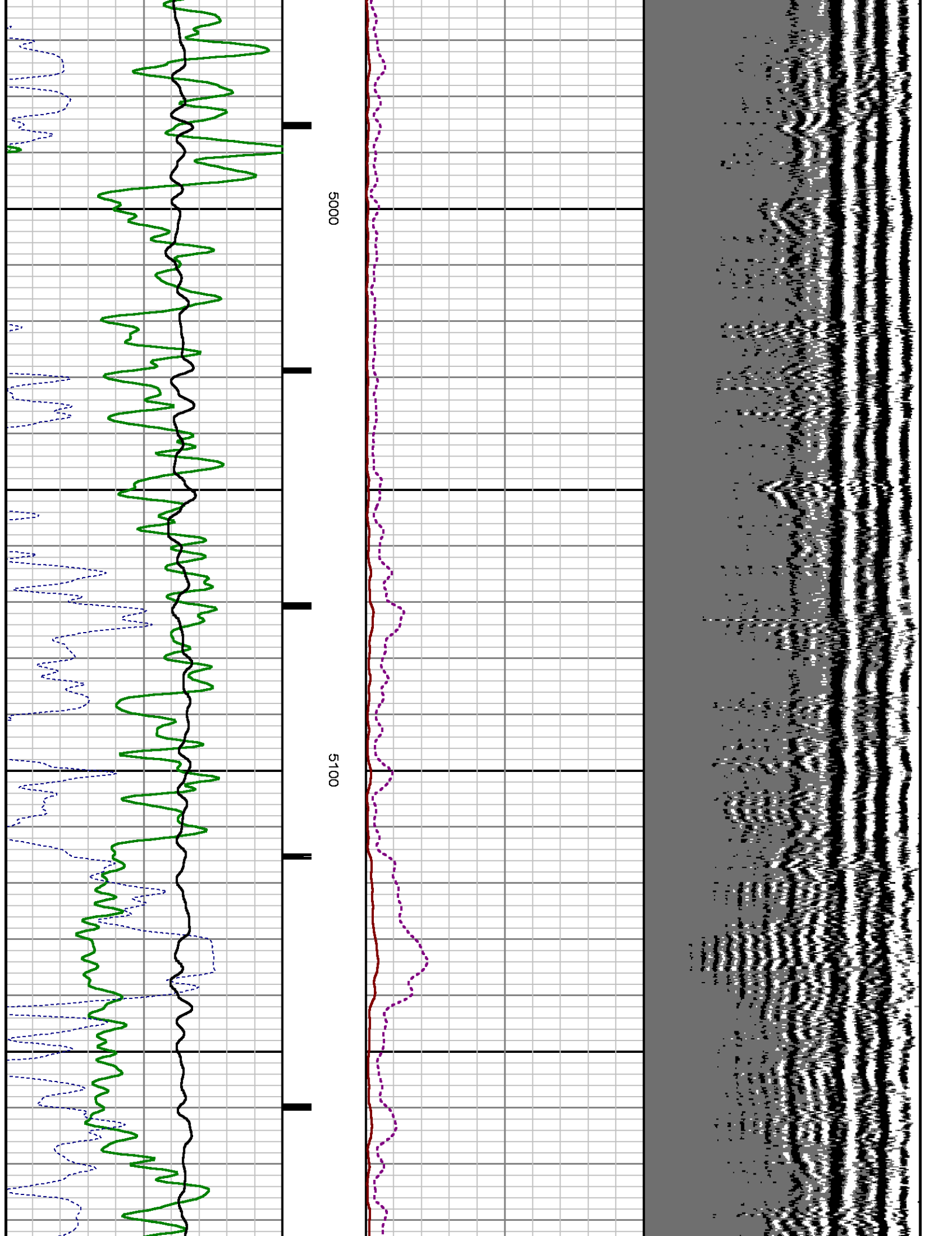


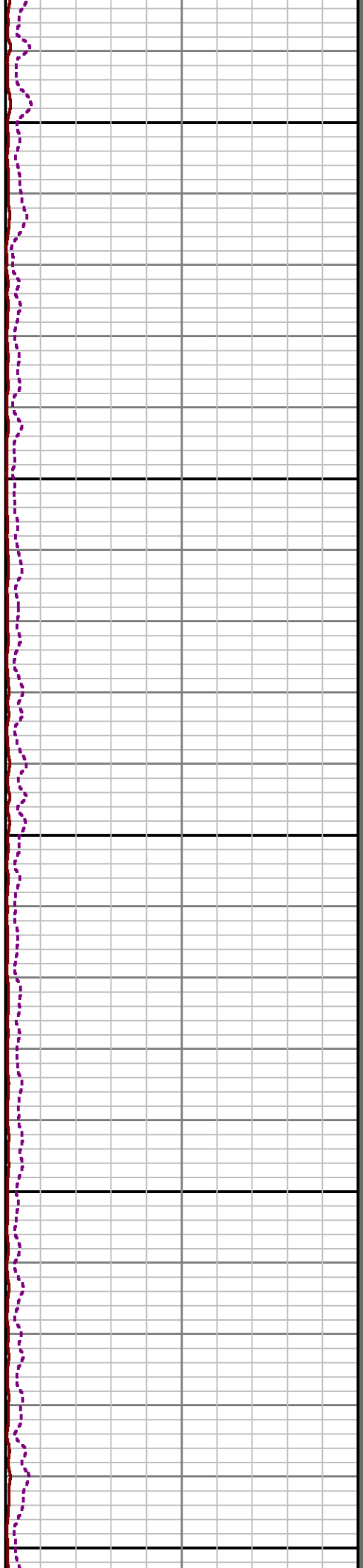
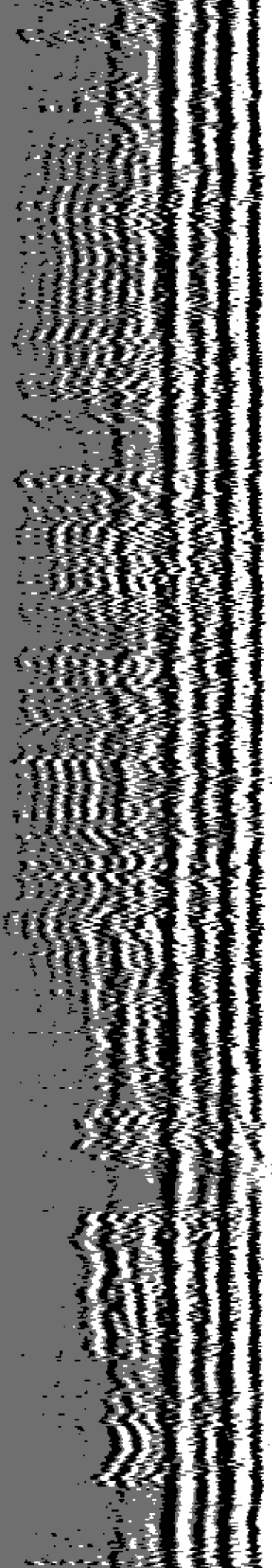


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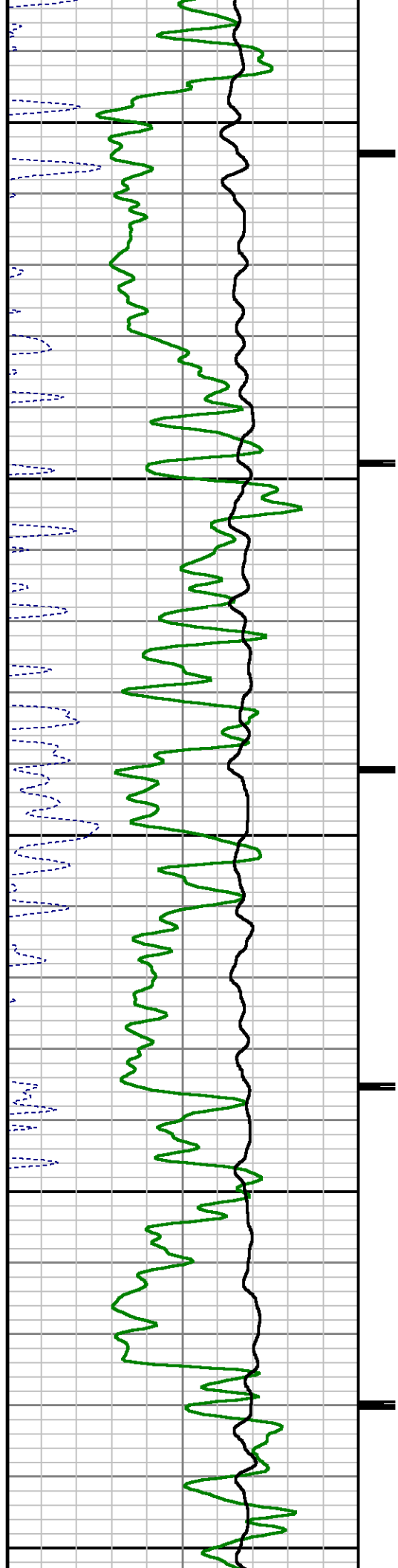


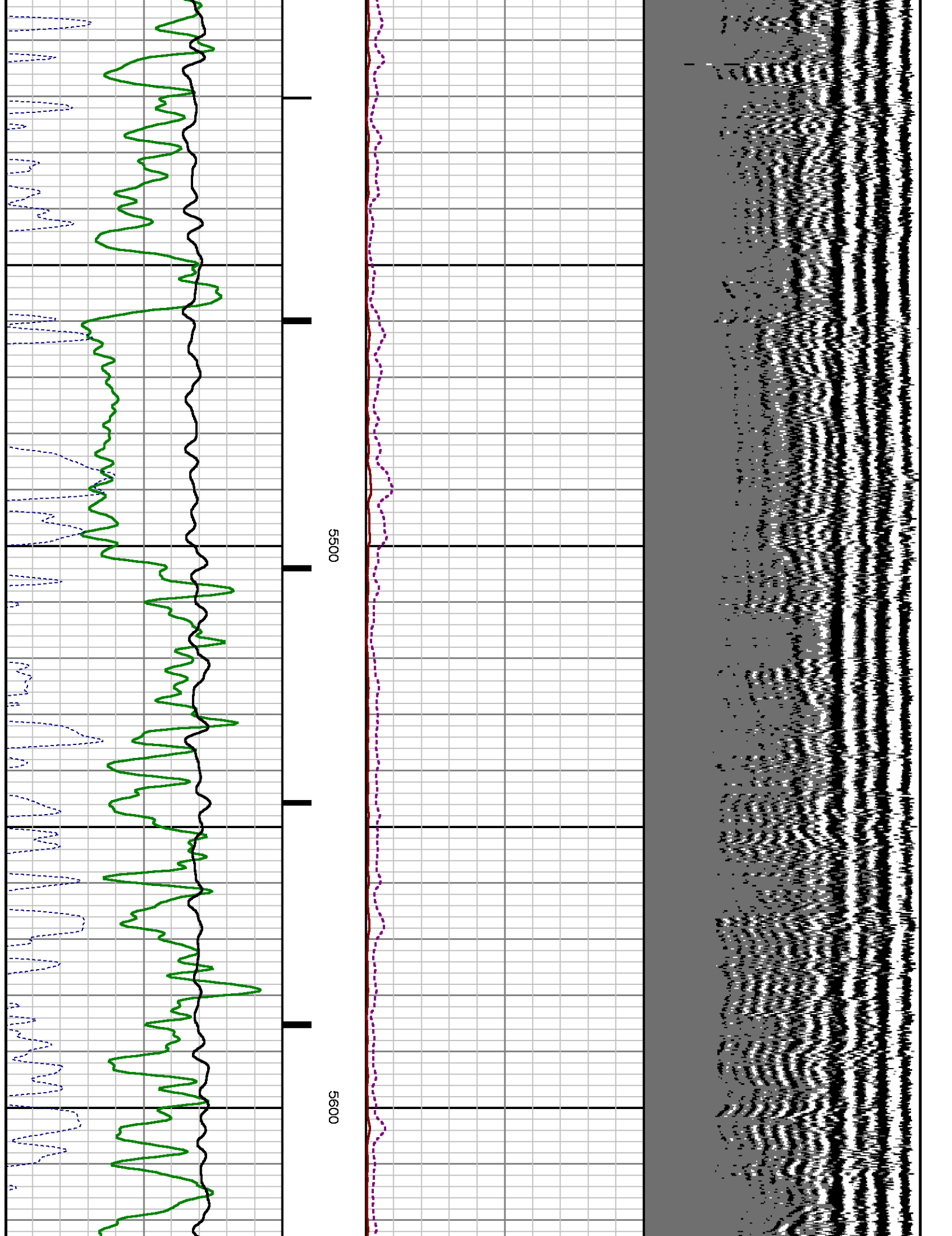


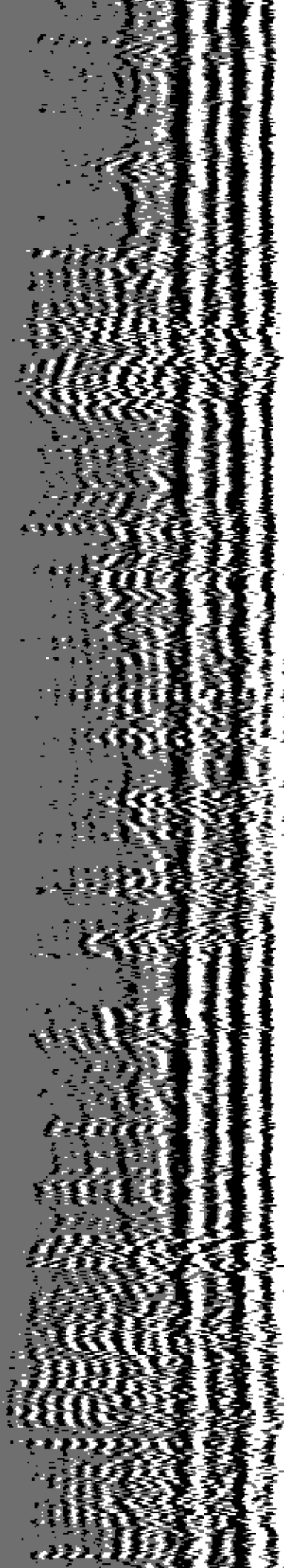
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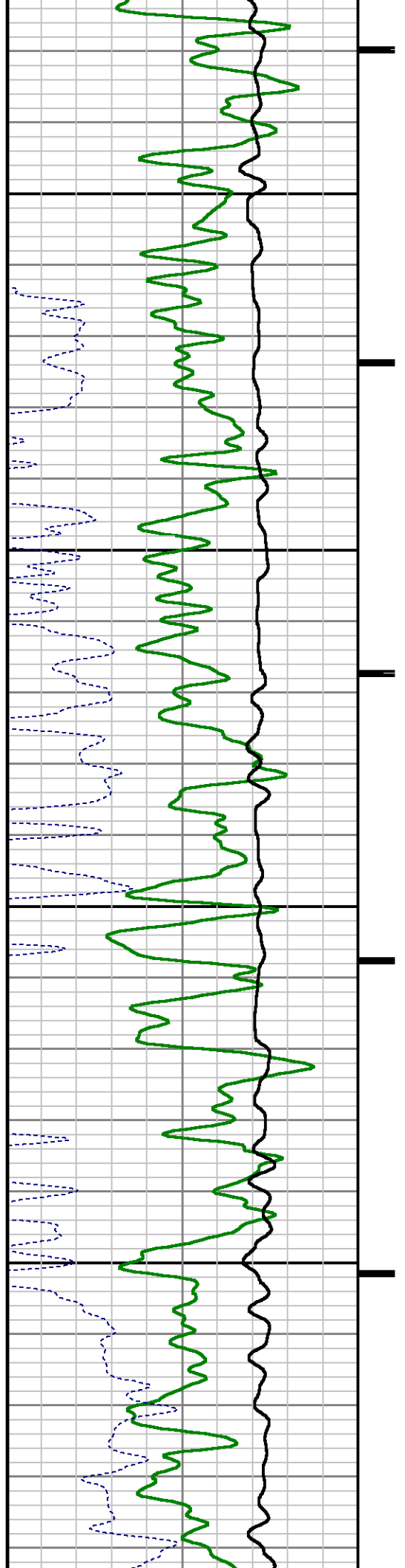


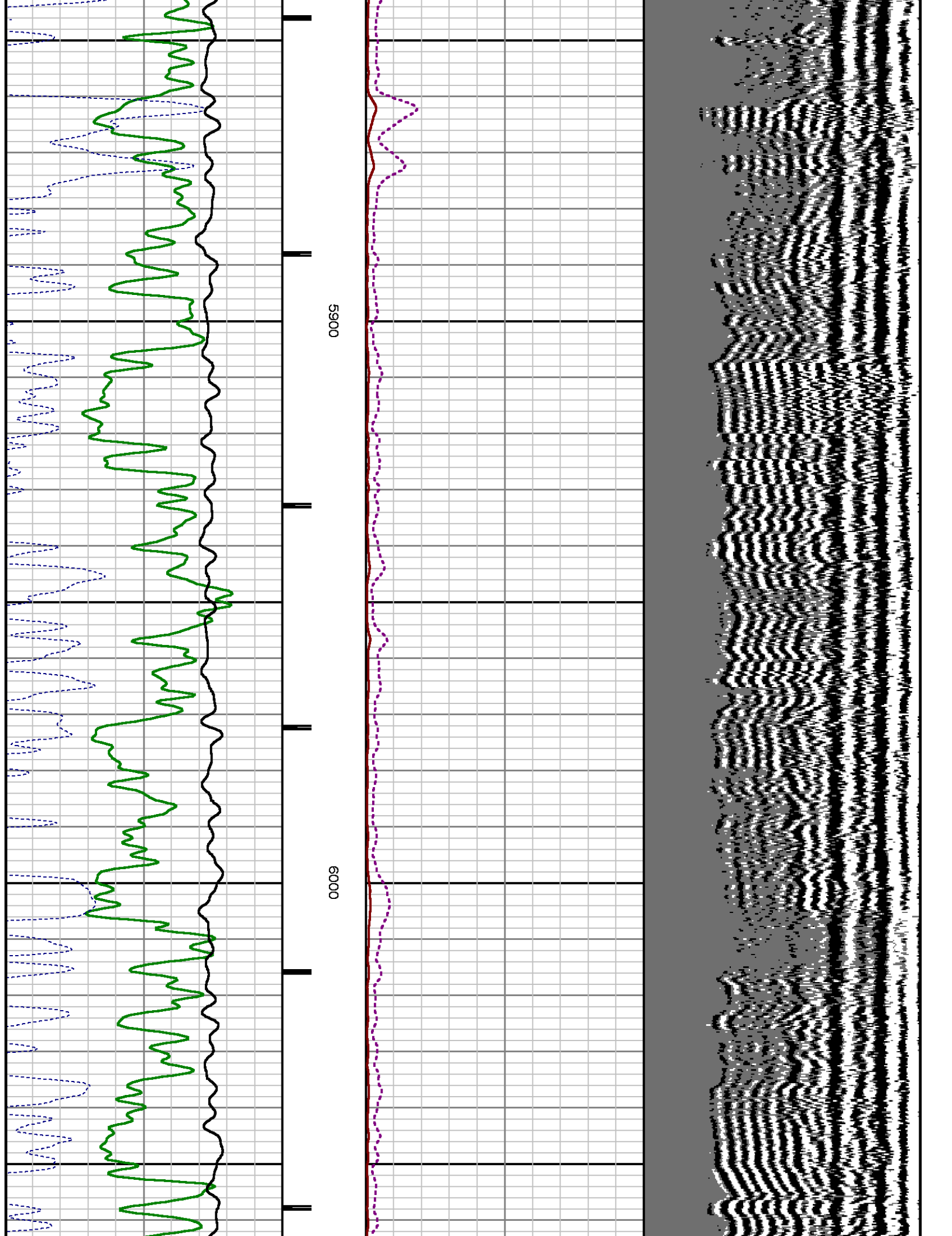


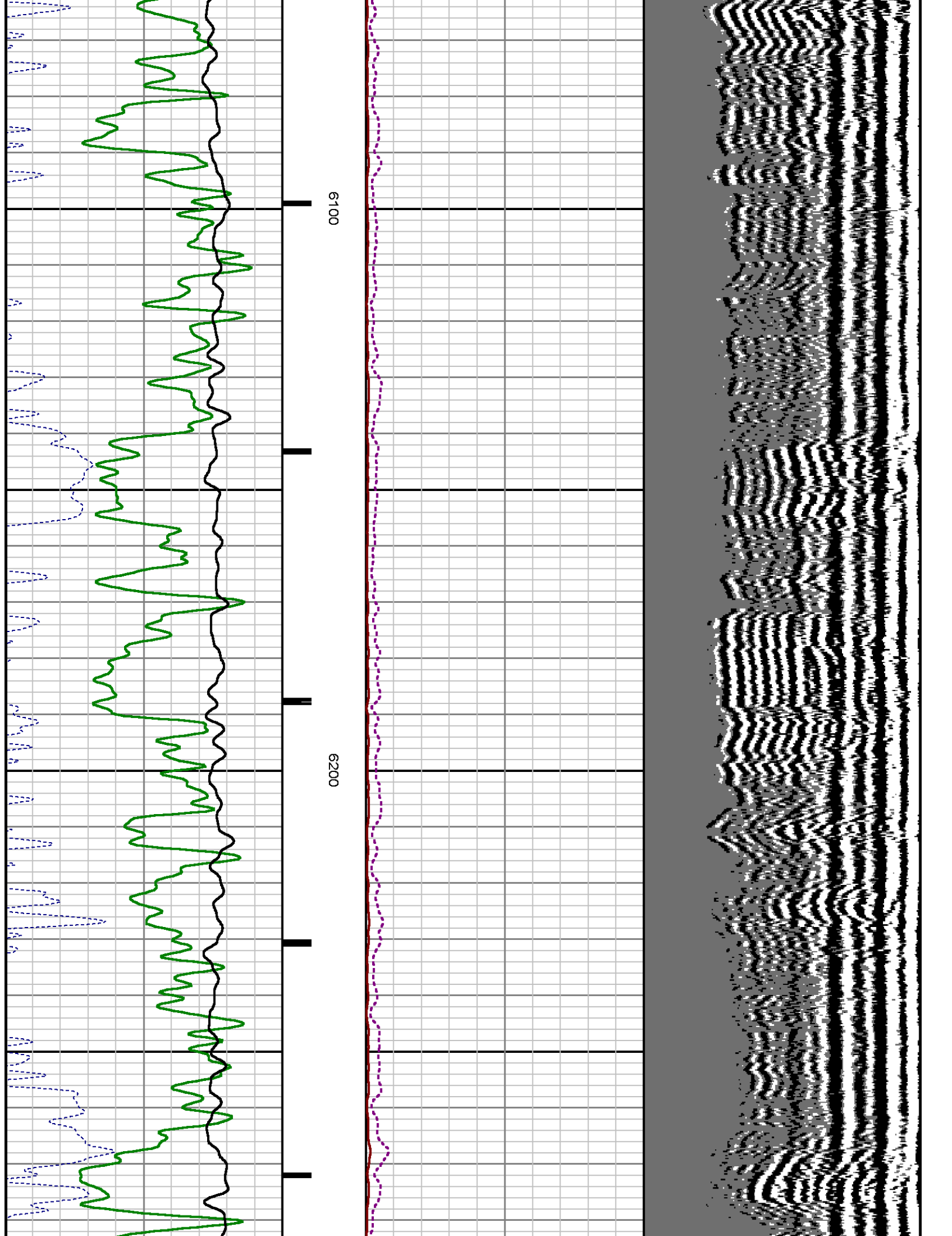


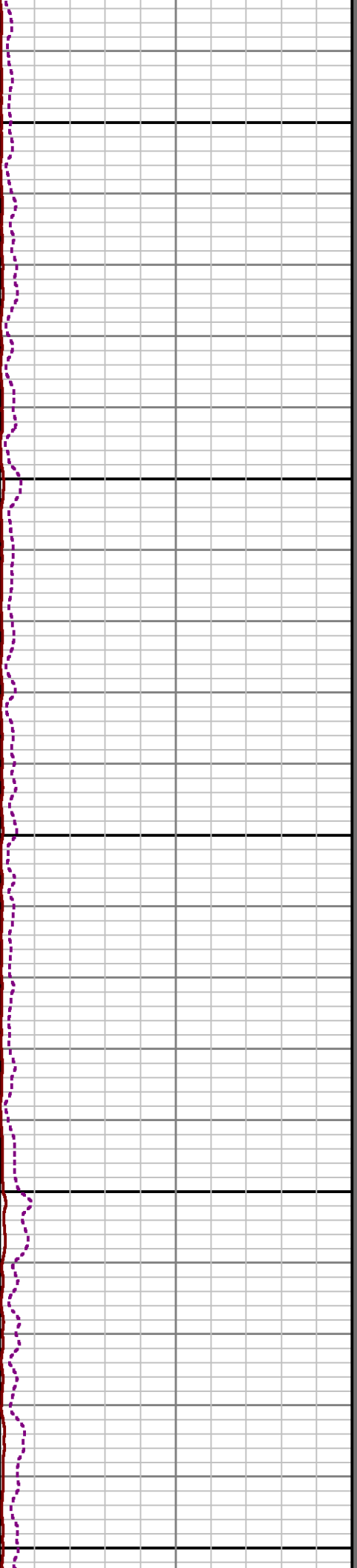
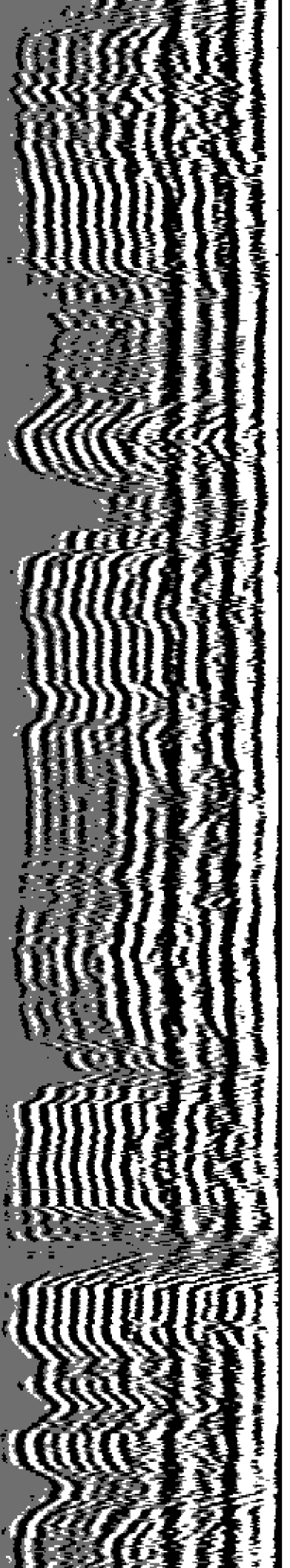
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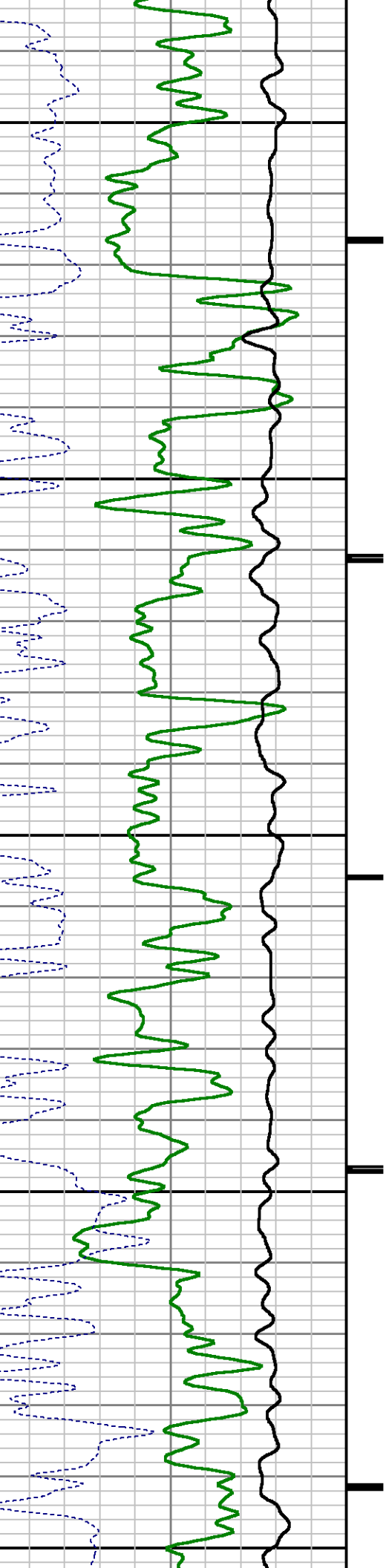


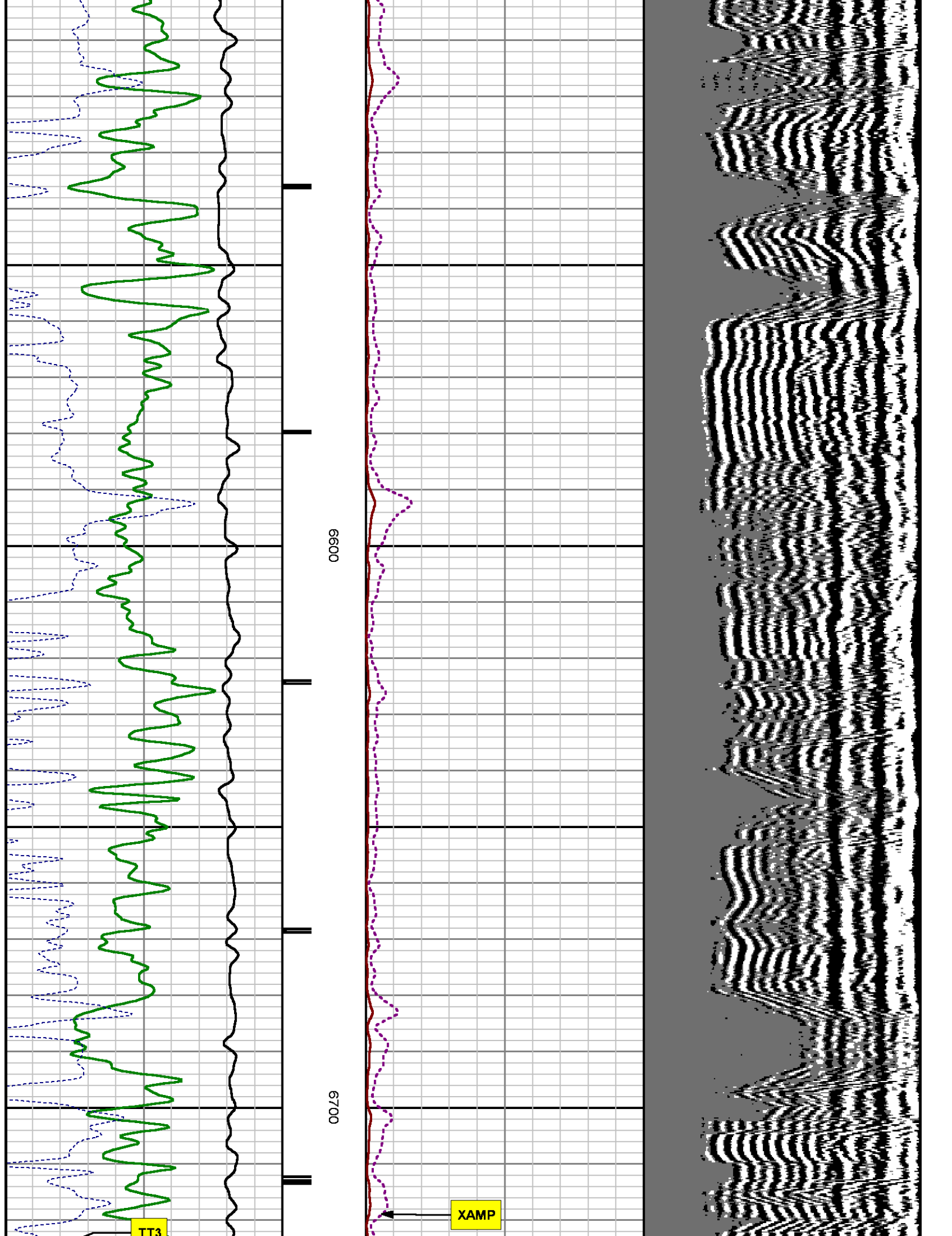


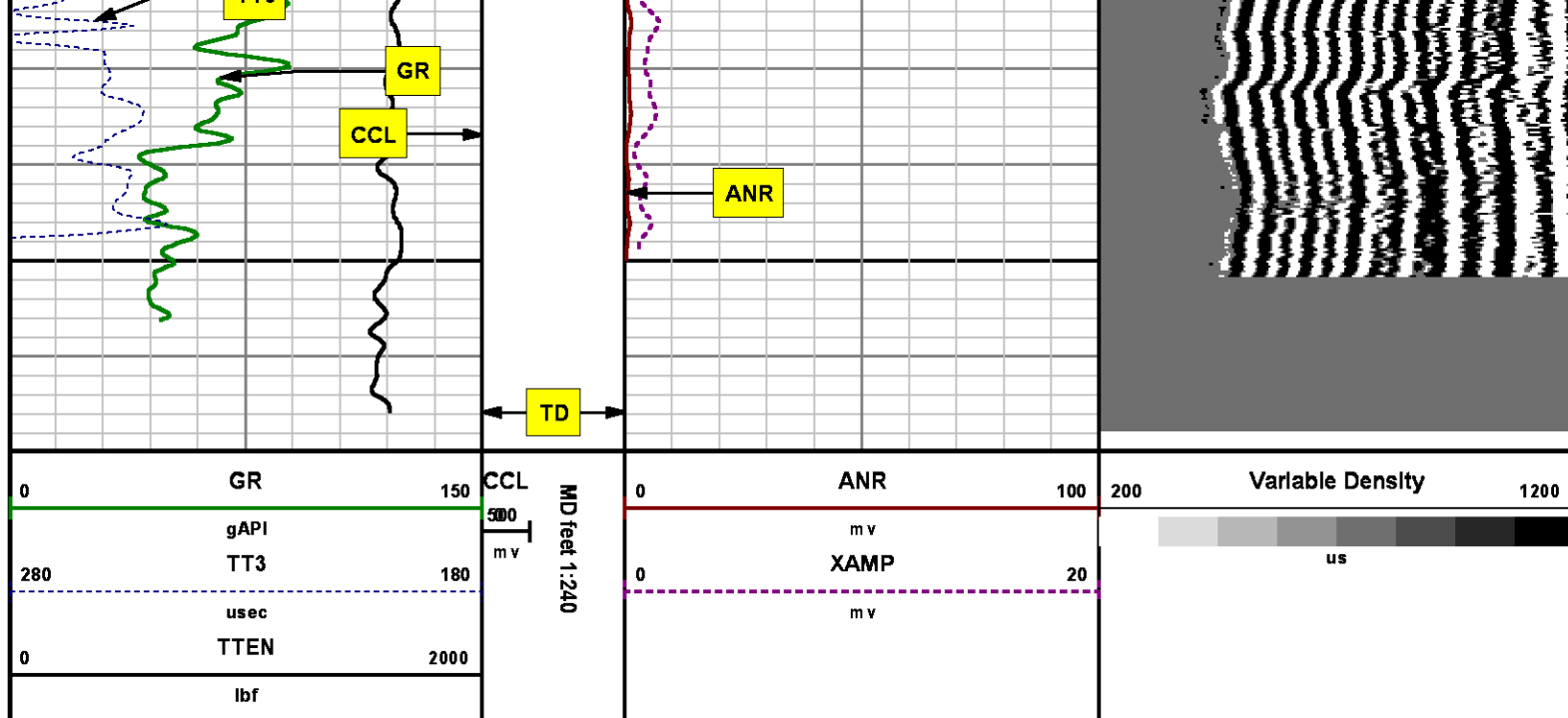
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6400

6500







SECONDARY PRESENTATION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	u sec	33.631	6767.500
RAL	Amp Gate Start Near	195.000	u sec	33.631	6767.500
RAL	Amp Gate Start Radial	195.000	u sec	33.631	6767.500
RAL	Amp Gate Width Far	25.000	u sec	33.631	6767.500
RAL	Amp Gate Width Near	25.000	u sec	33.631	6767.500
RAL	Amp Gate Width Radial	25.000	u sec	33.631	6767.500
RAL	casing od	4.500	inches	33.631	6767.500
RAL	casing wt	11.600	lbm/ft	33.631	6767.500
RAL	FB Start Far	291.900	u sec	33.631	6767.500
RAL	FB Start Near	180.000	u sec	33.631	6767.500
RAL	FB Start Radial	180.000	u sec	33.631	6767.500
RAL	FB Thresh Far	10.000	m v	33.631	6767.500
RAL	FB Thresh Near	4.000	m v	33.631	6767.500
RAL	FB Thresh Radial	4.000	m v	33.631	6767.500
RAL	Fluid Travel Time	200.000	u sec/ft	33.631	6767.412

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

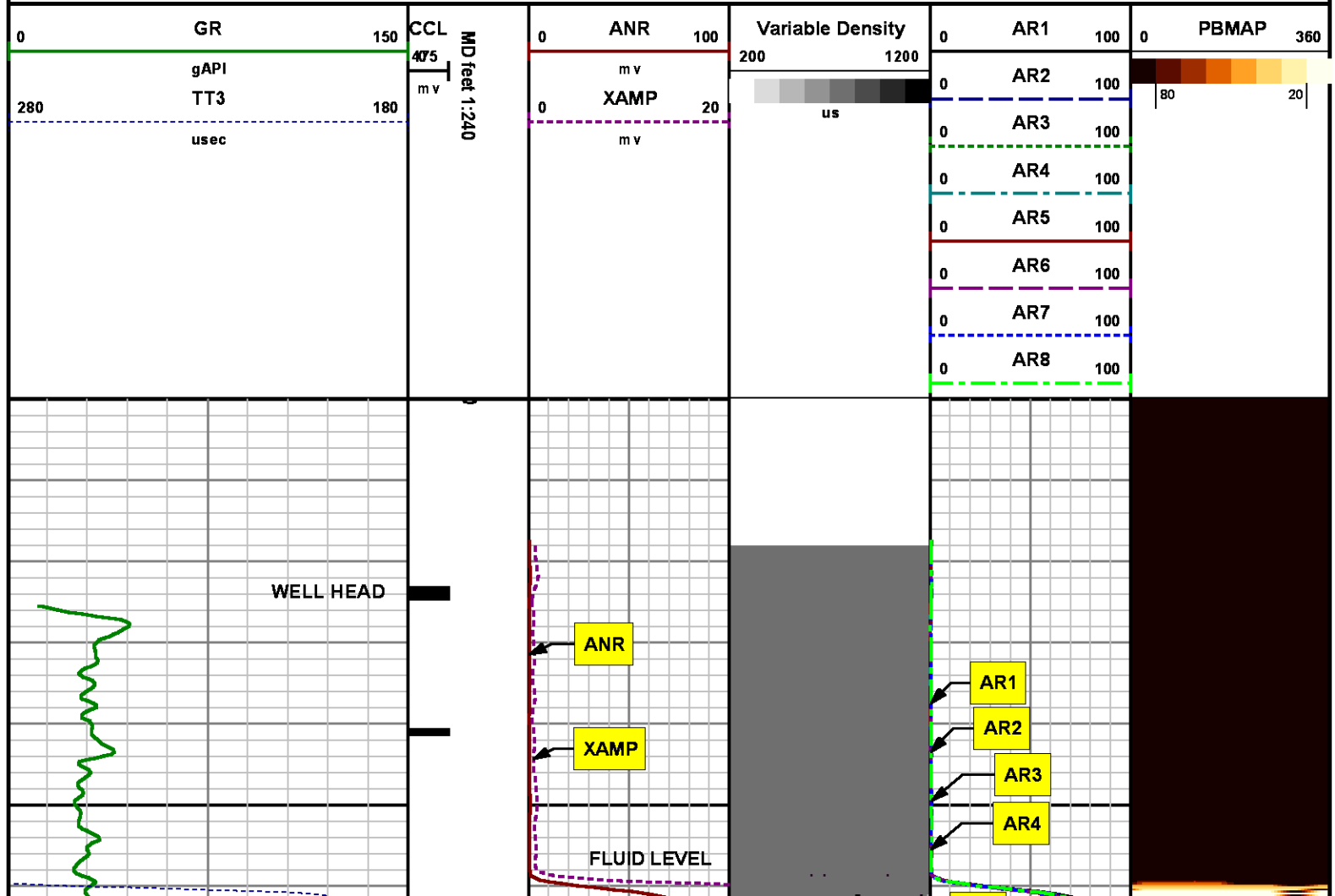
Well : C&C ENERGY GM 422-13

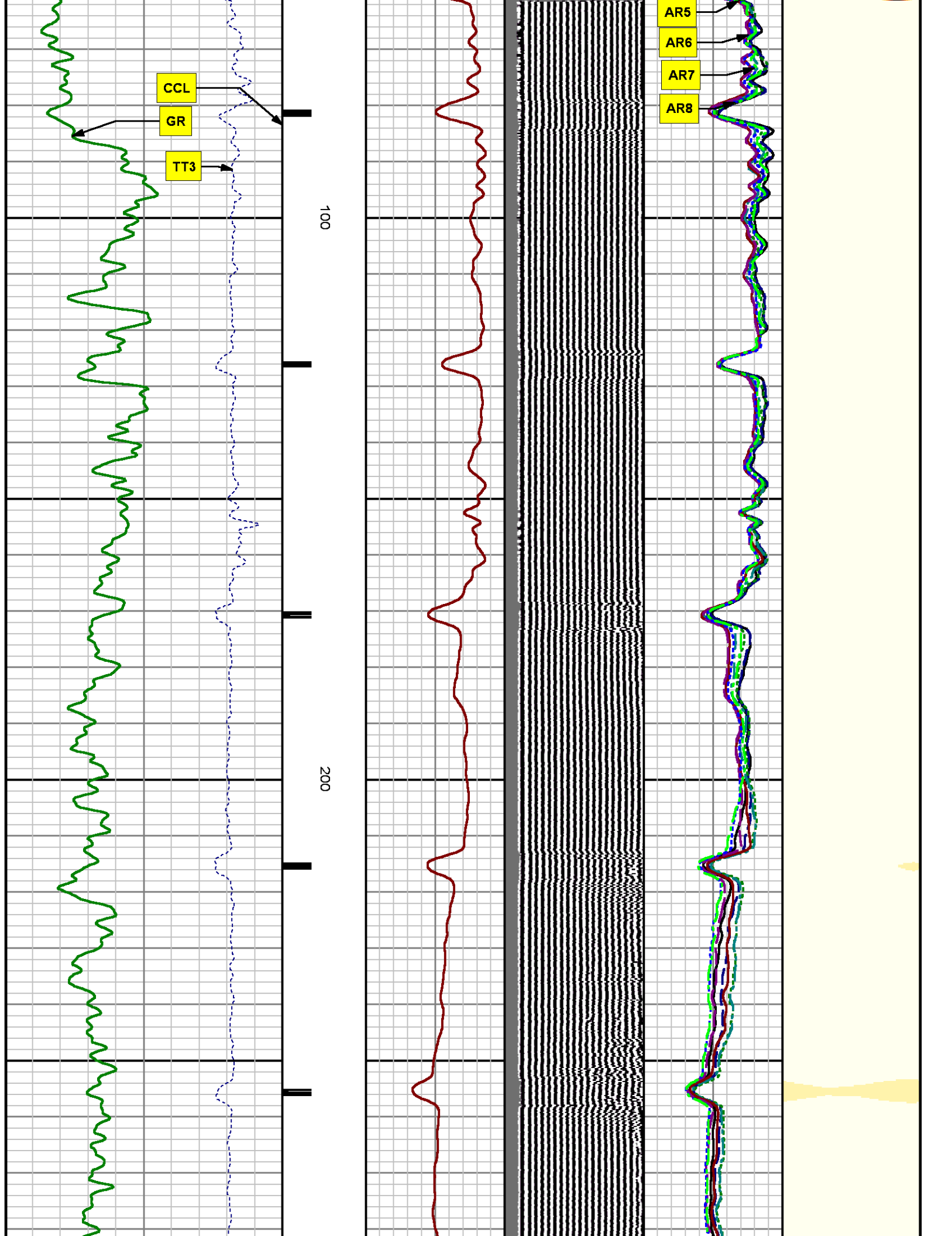
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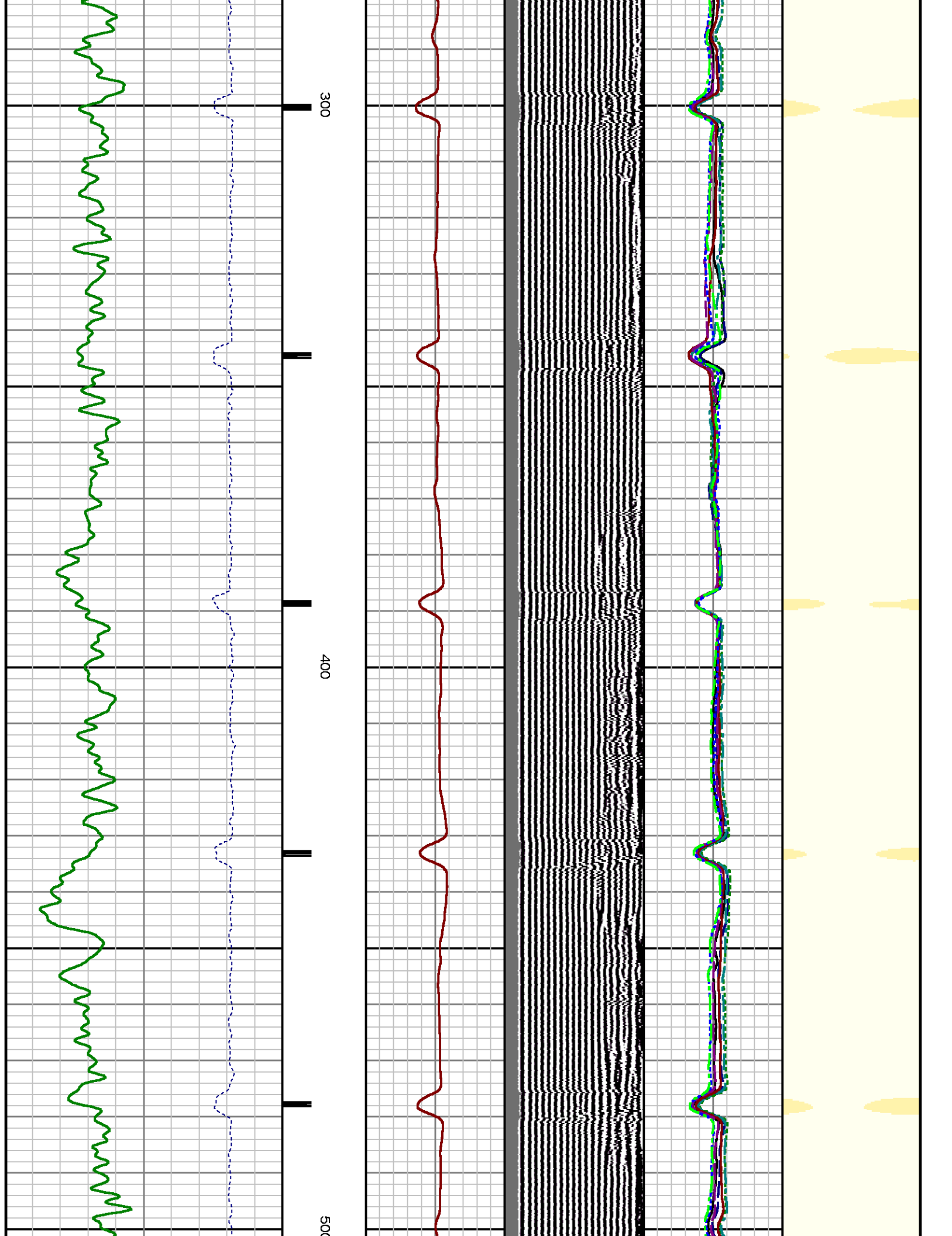
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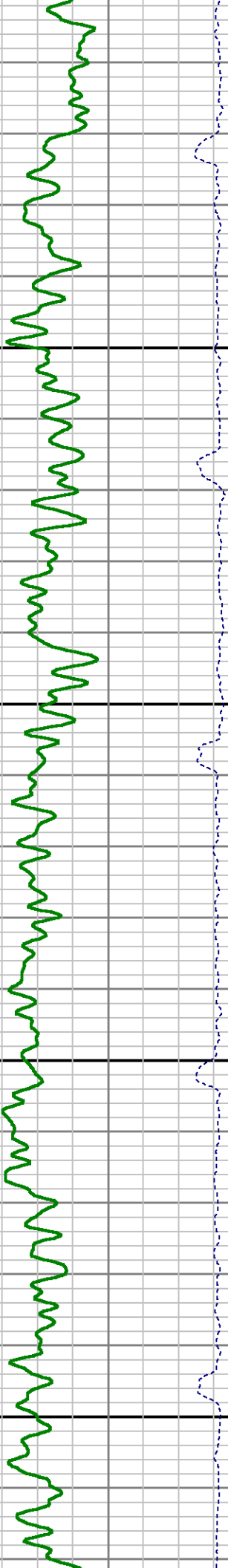
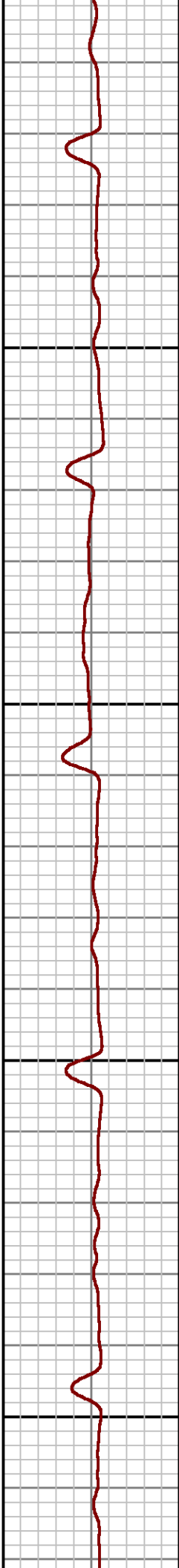
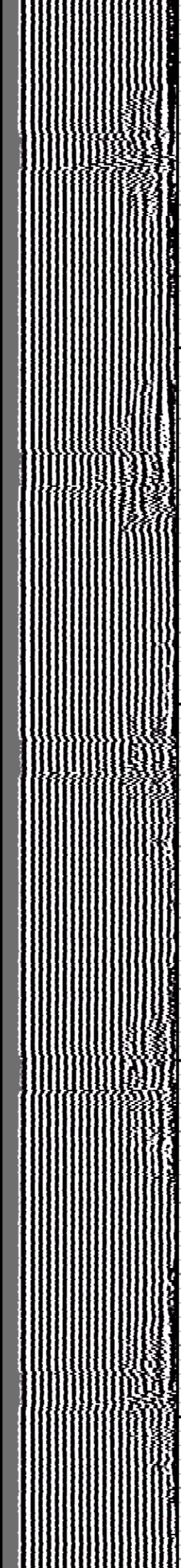
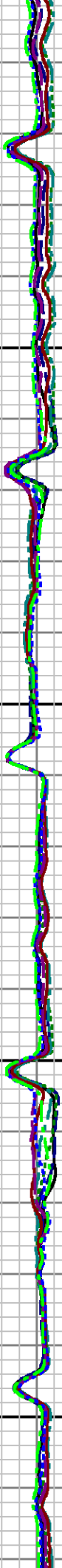
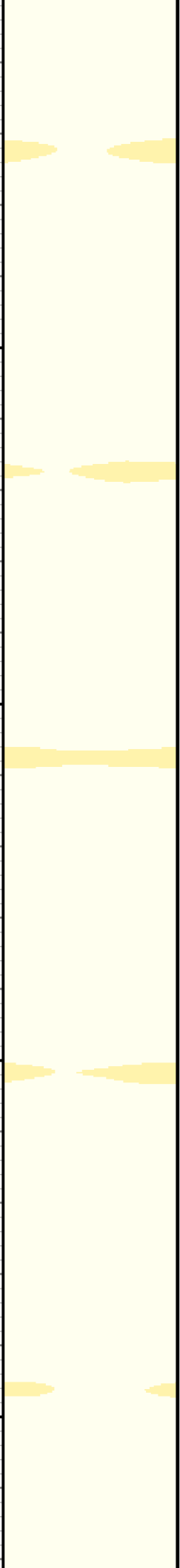
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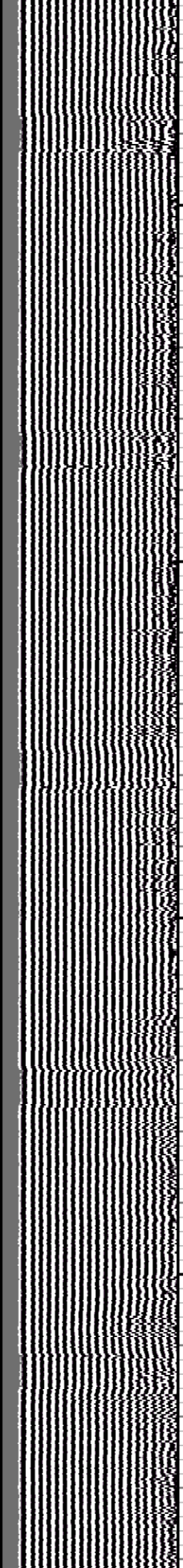
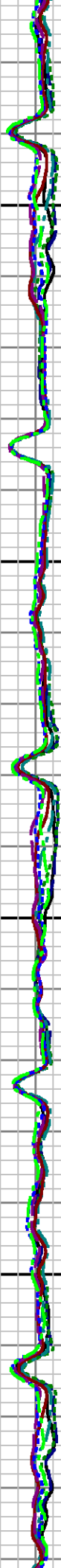
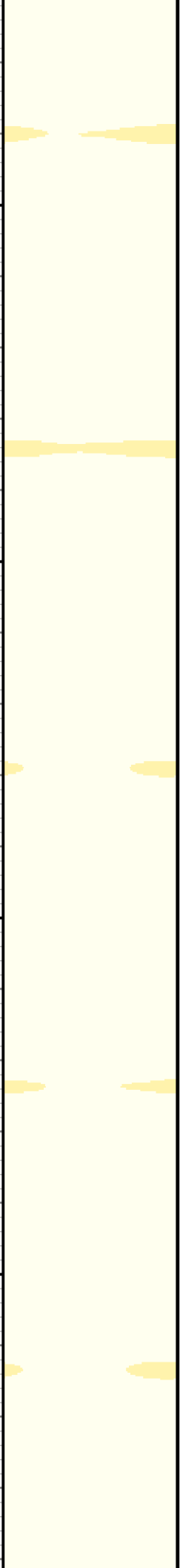
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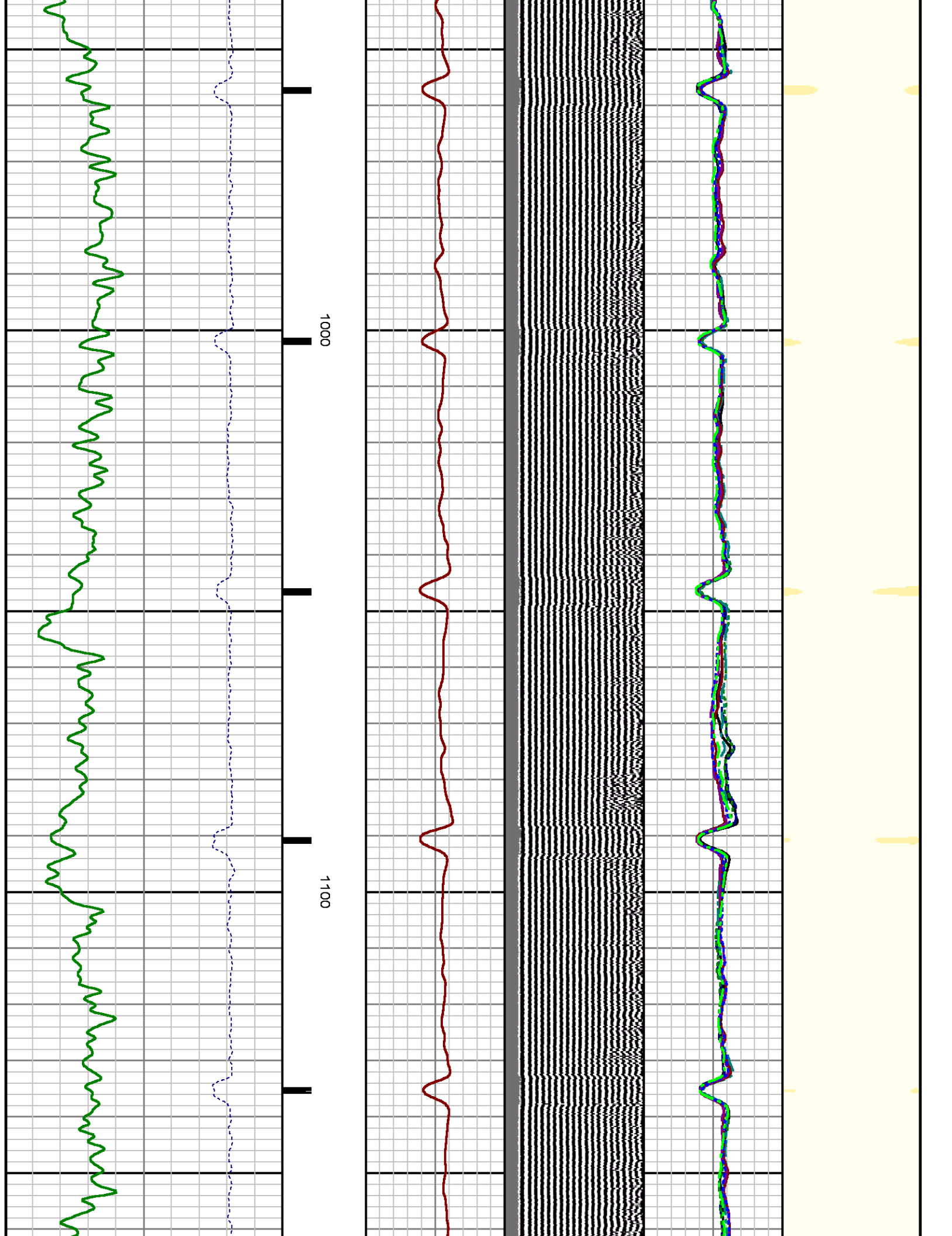


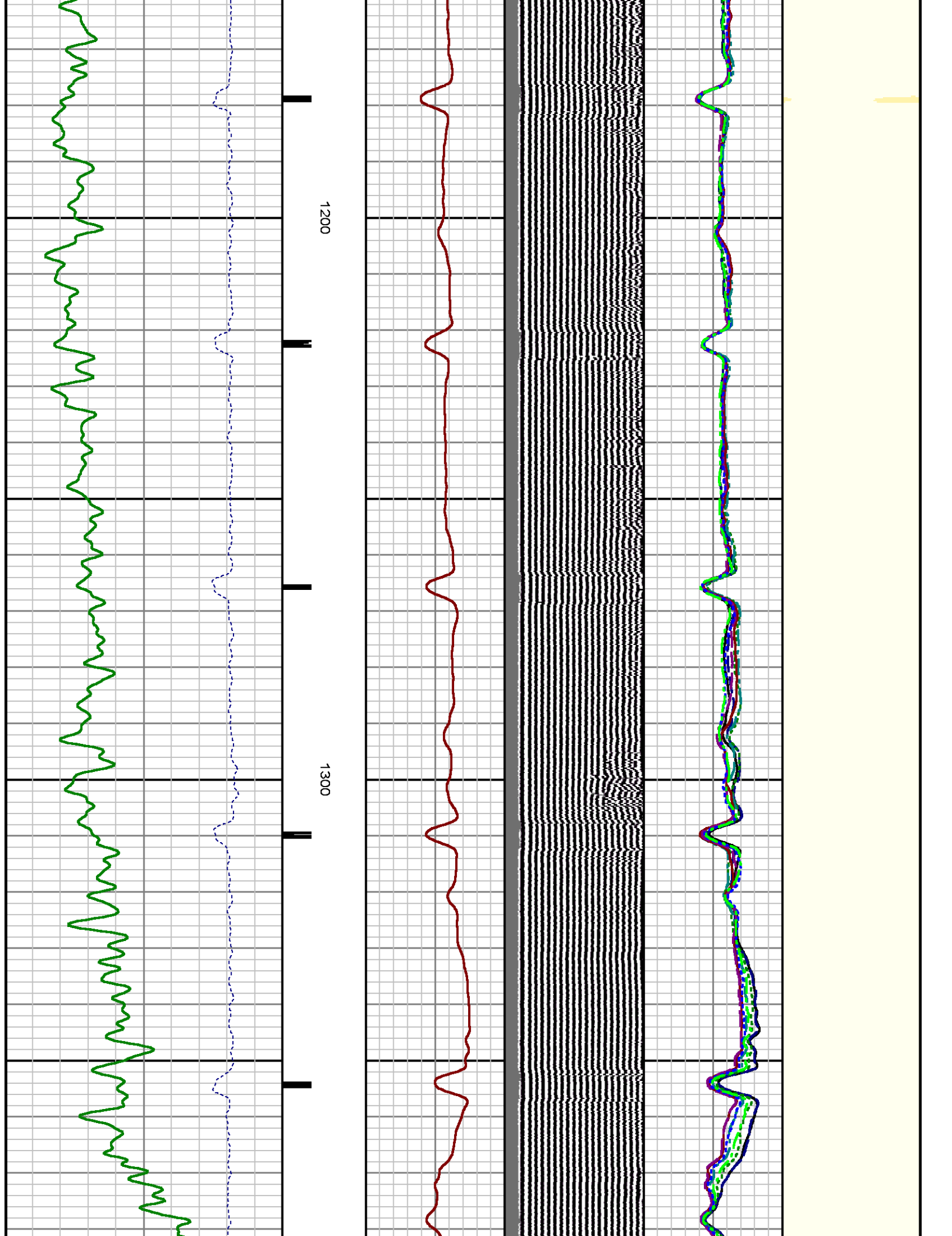


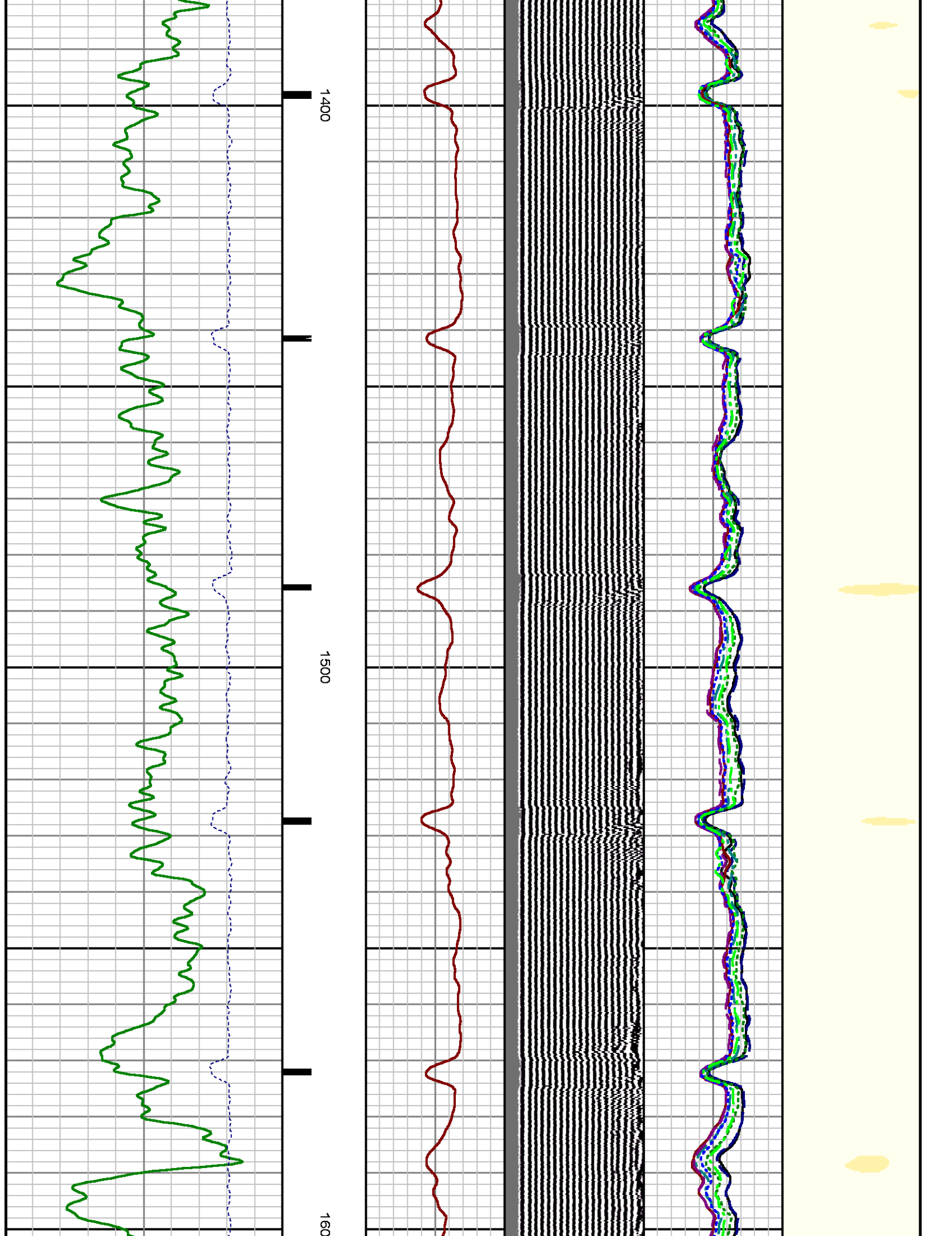


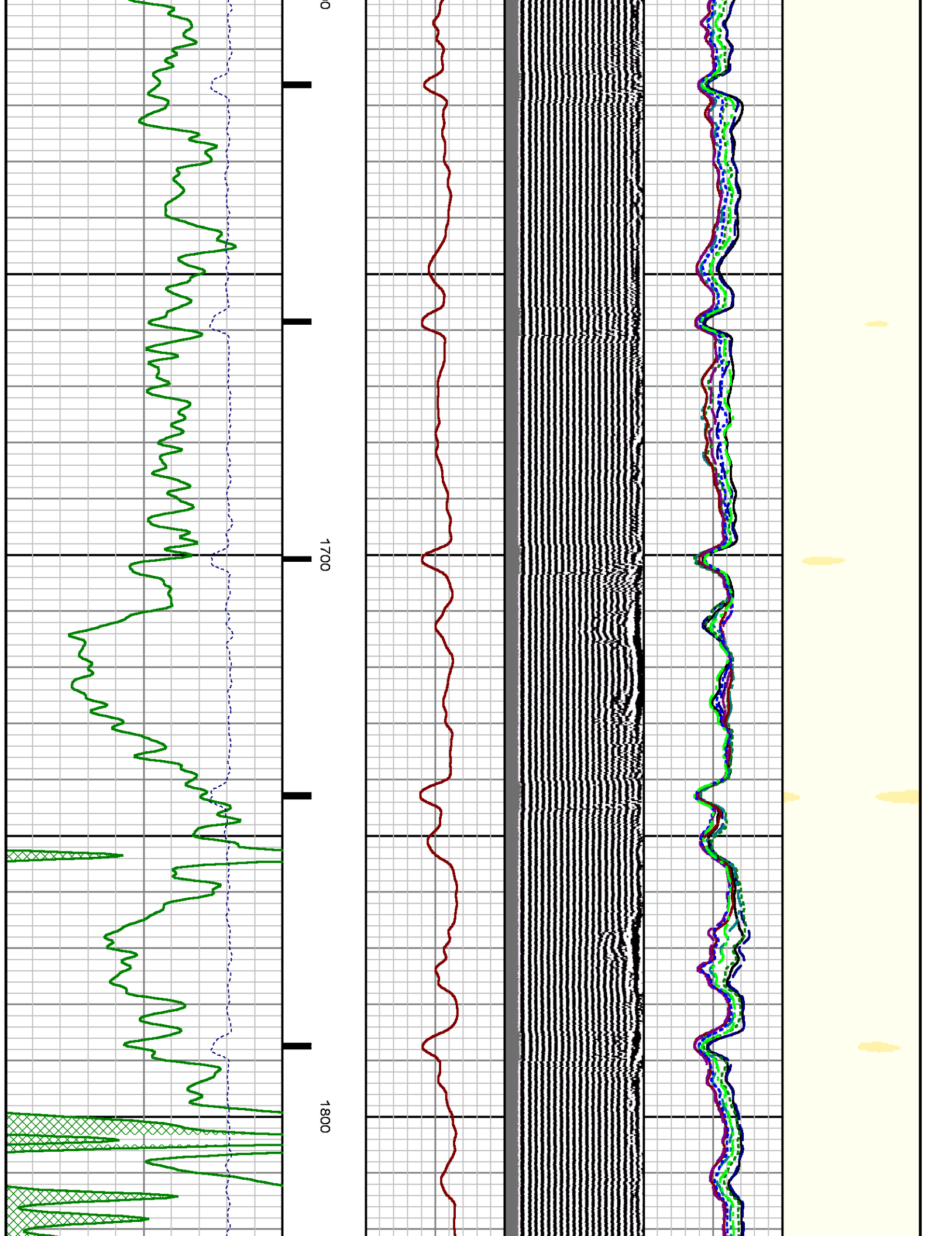


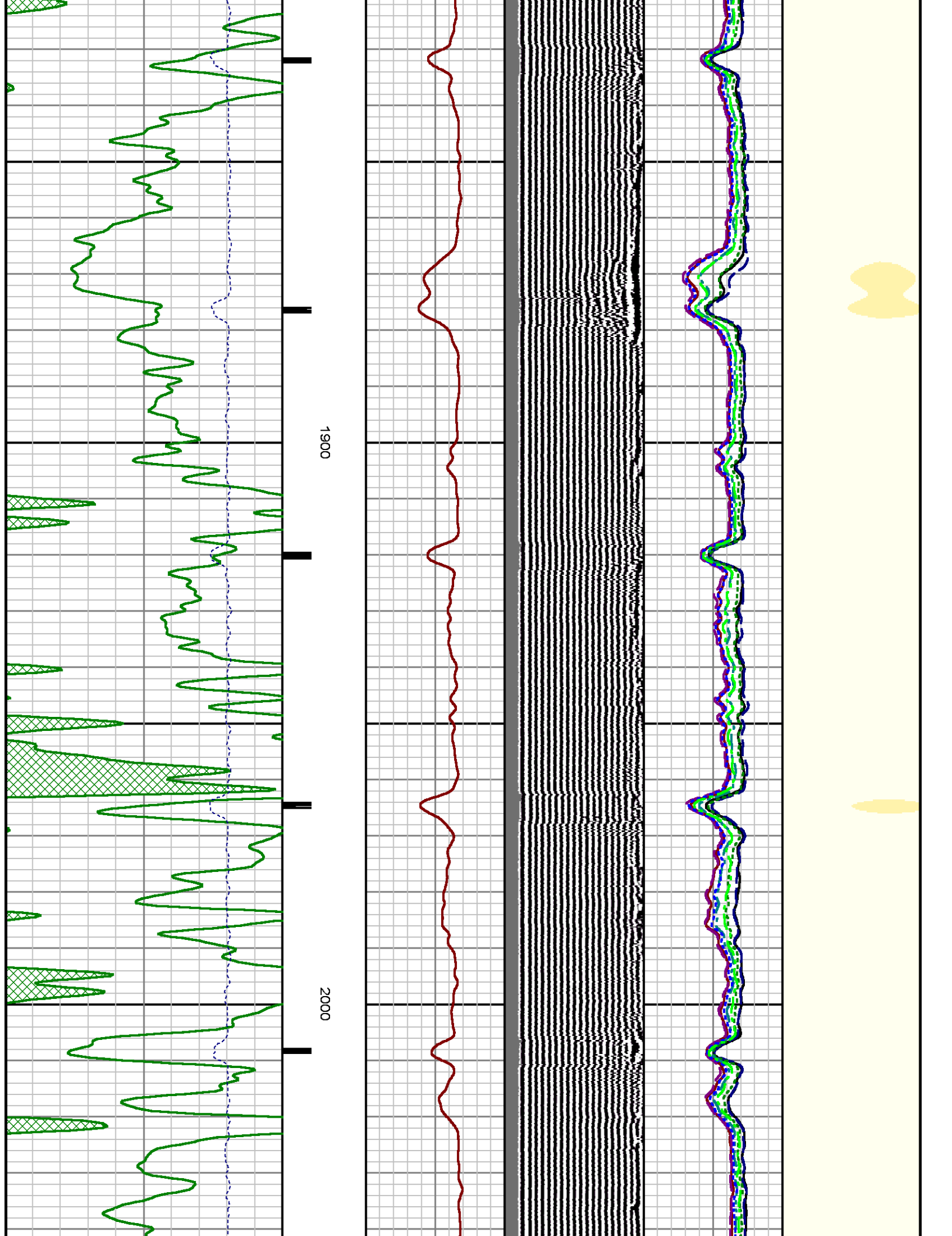


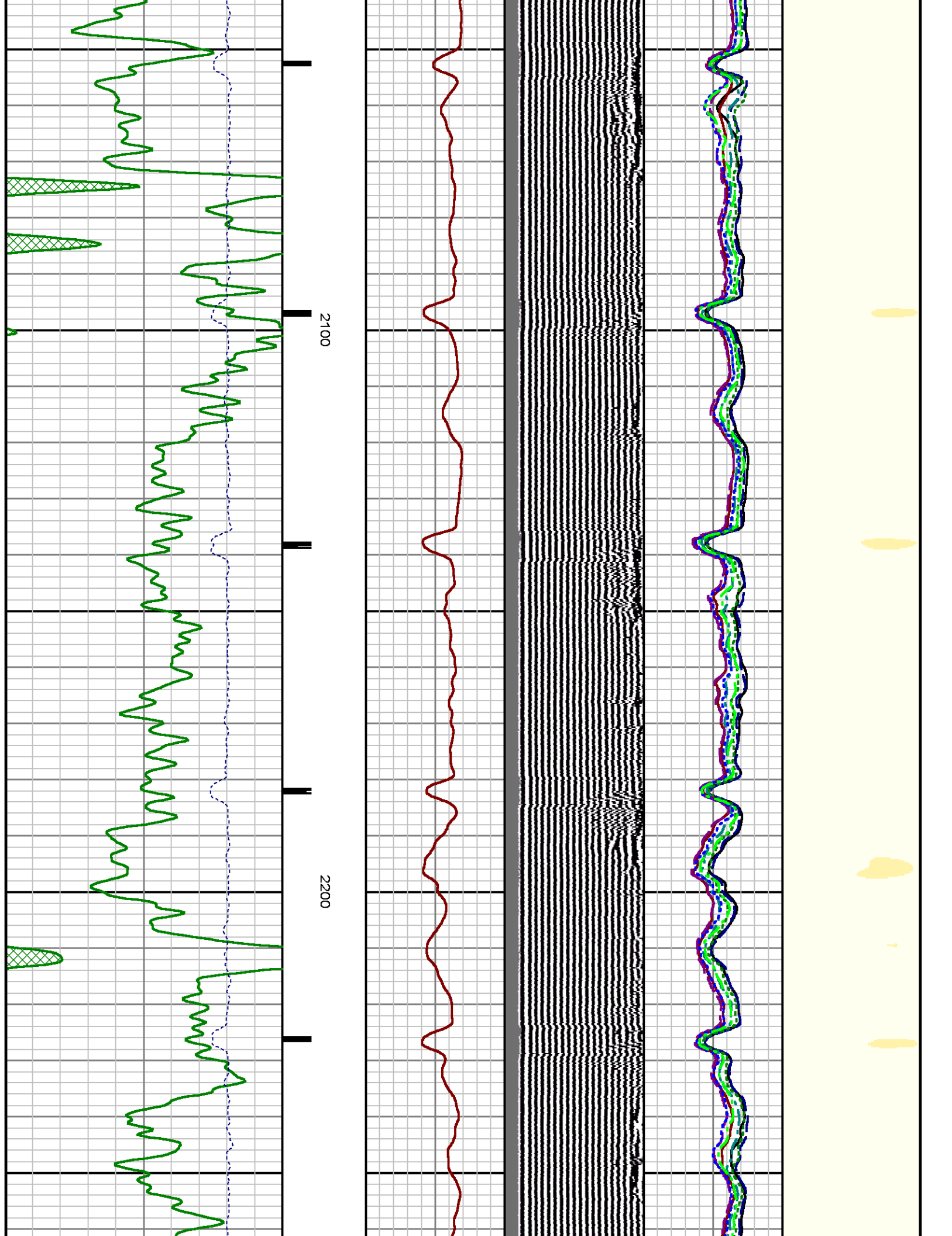


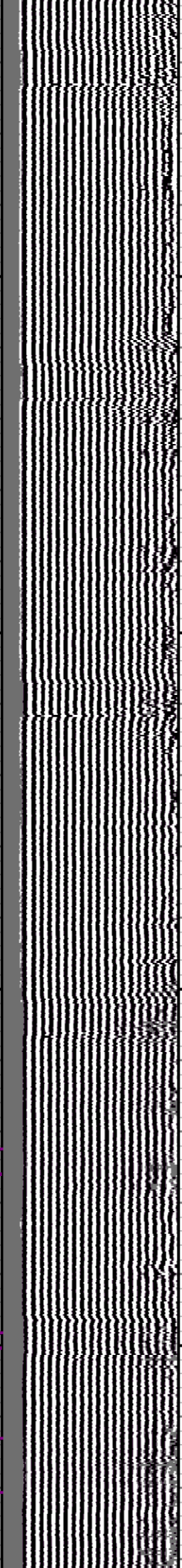
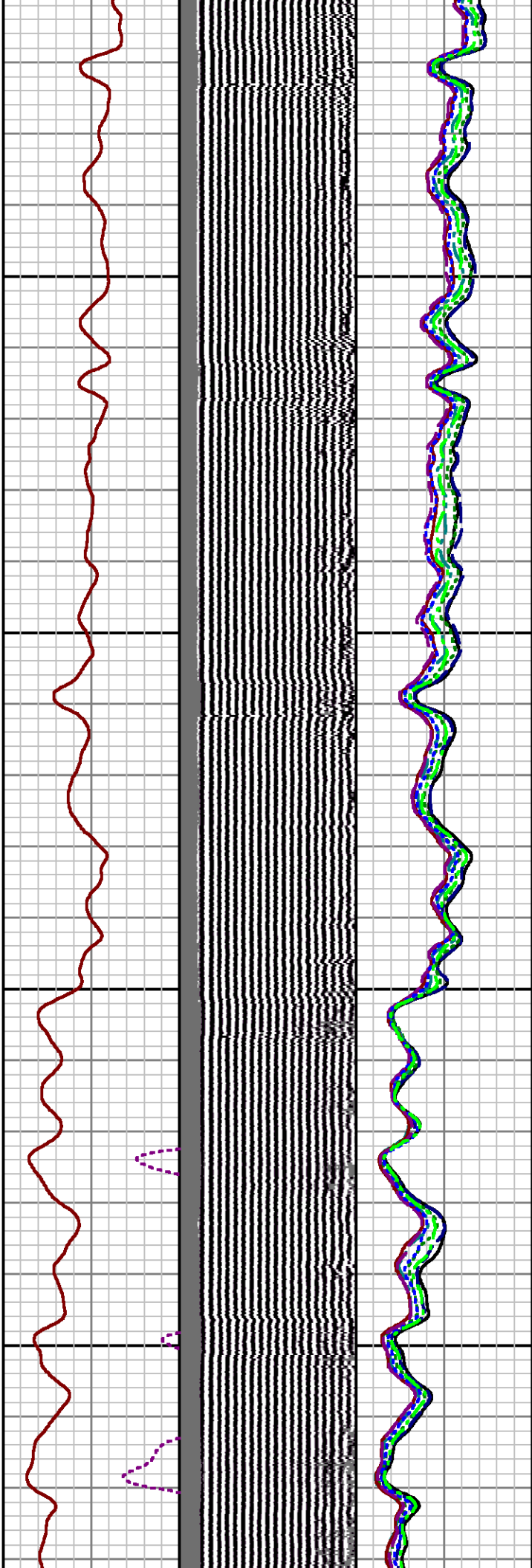
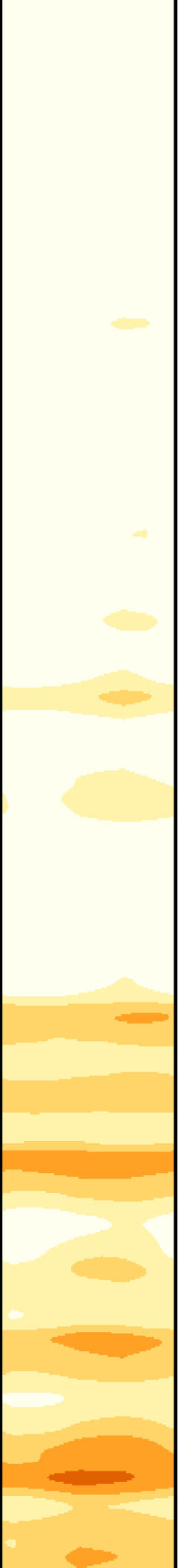






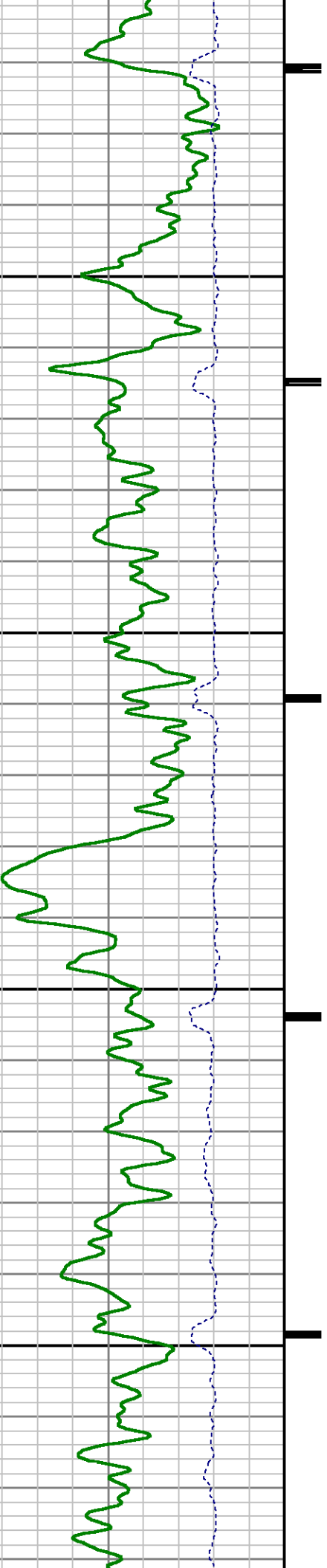


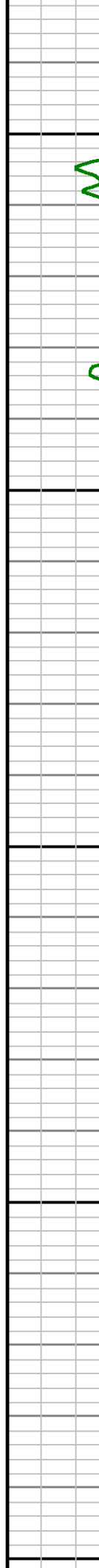
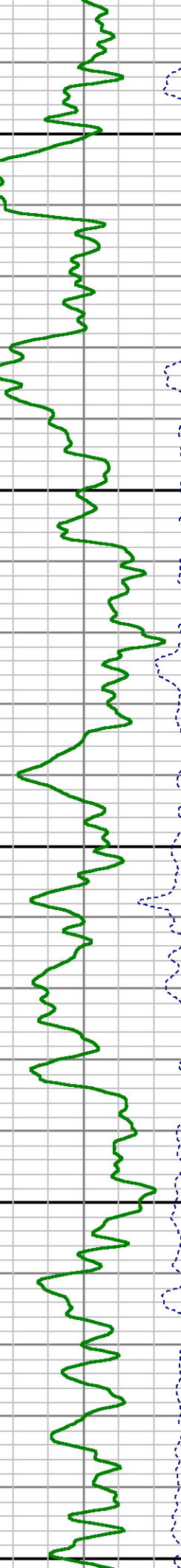
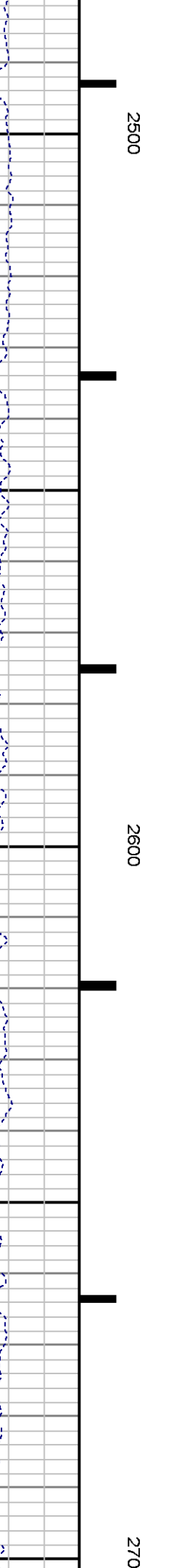
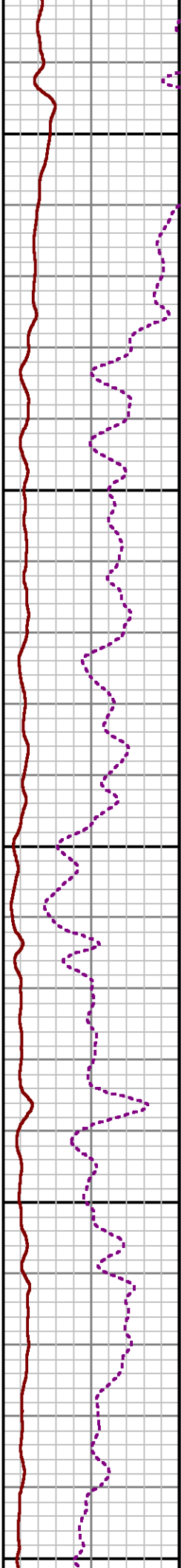
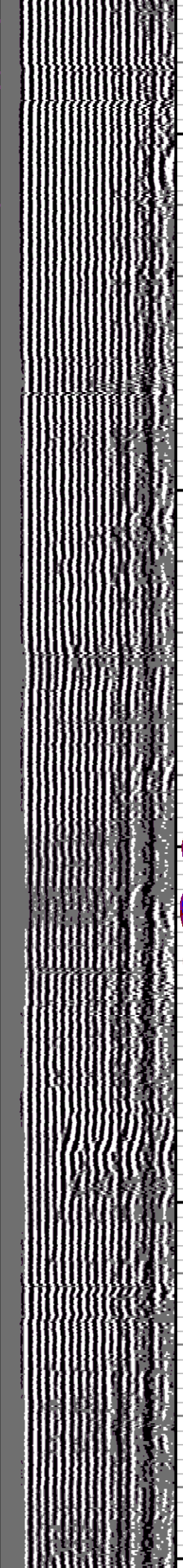
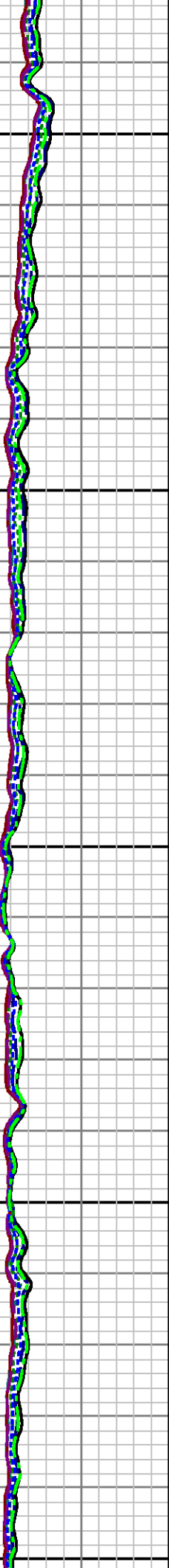


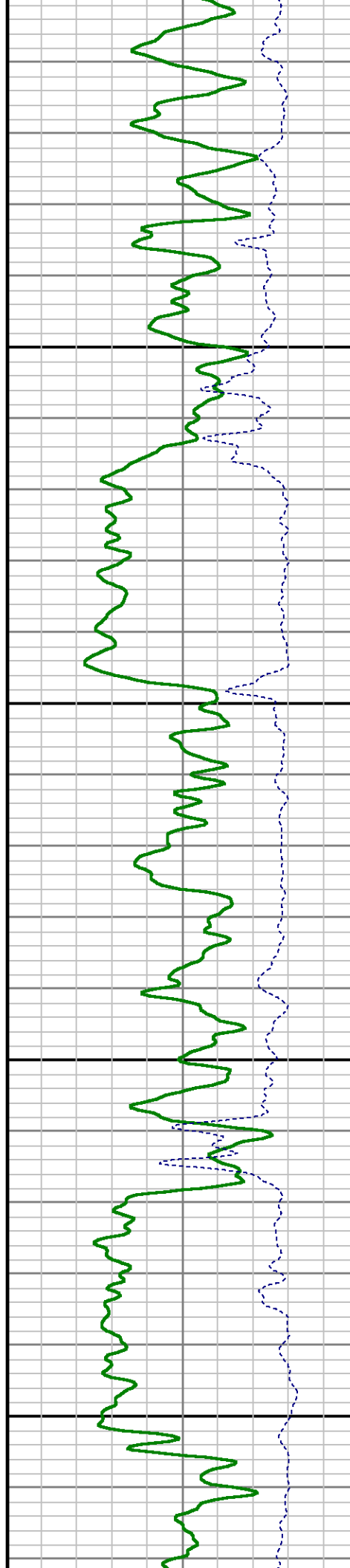
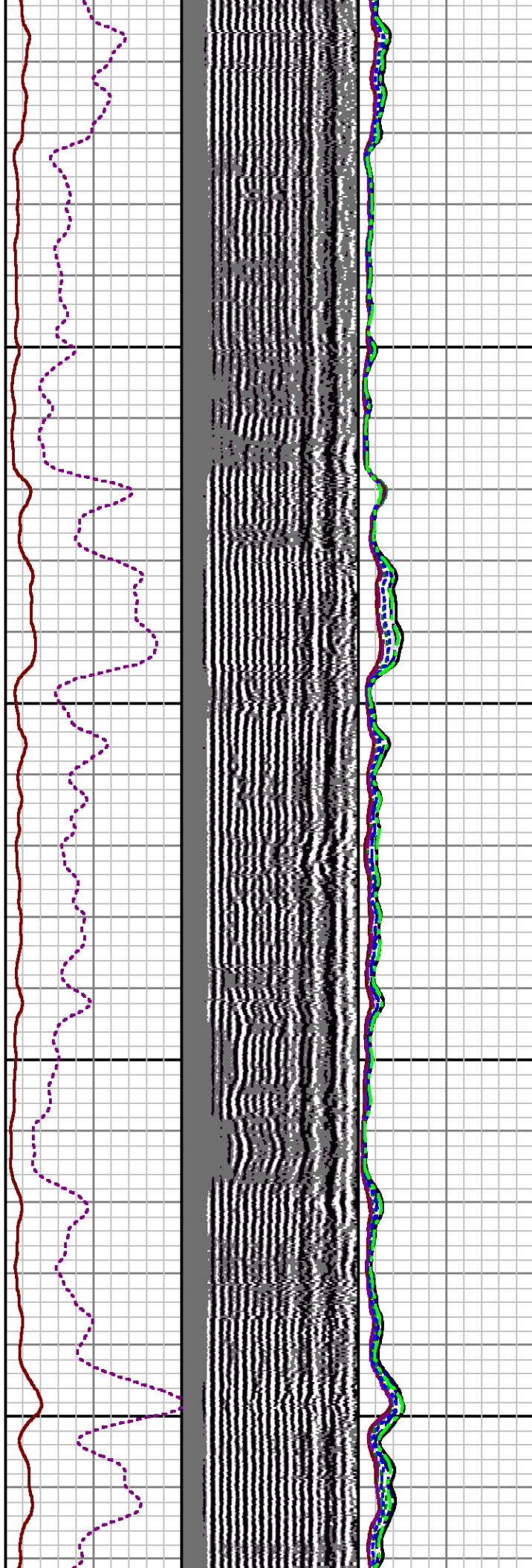


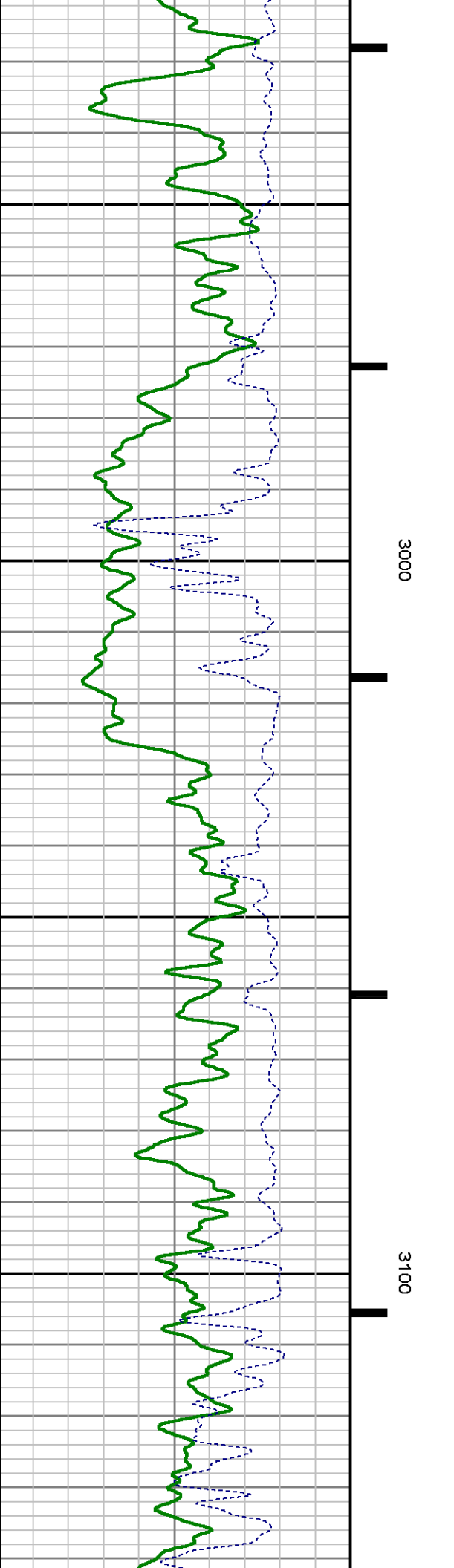
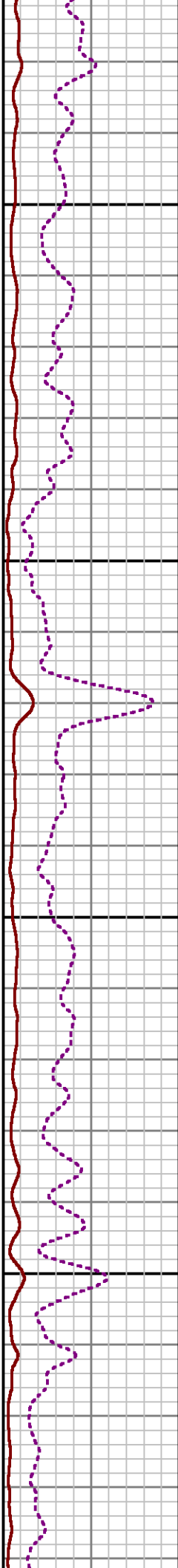
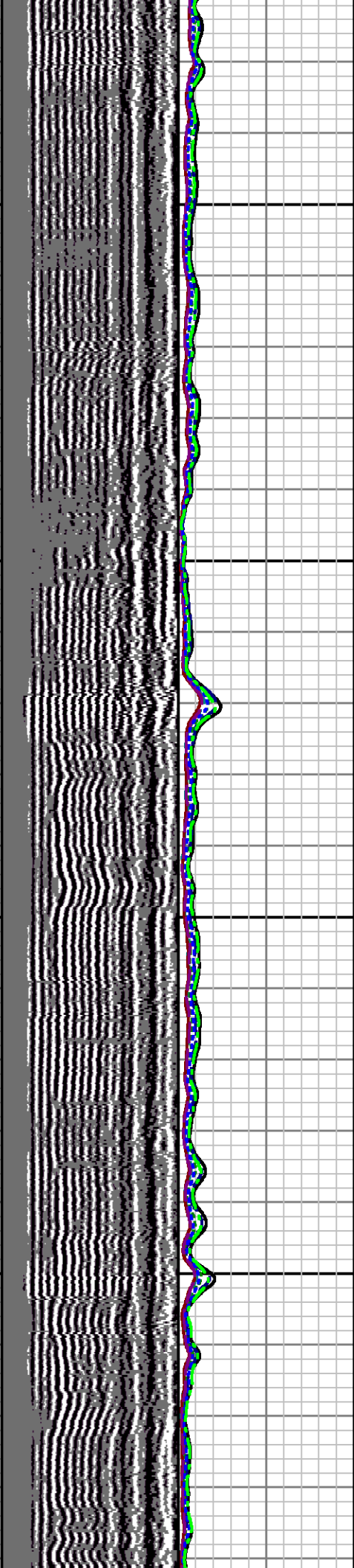
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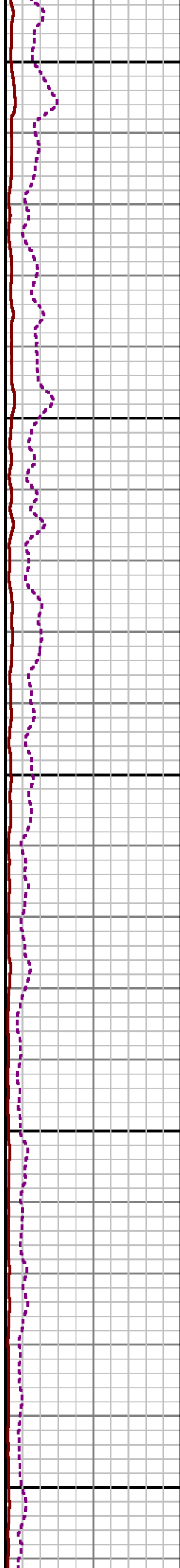
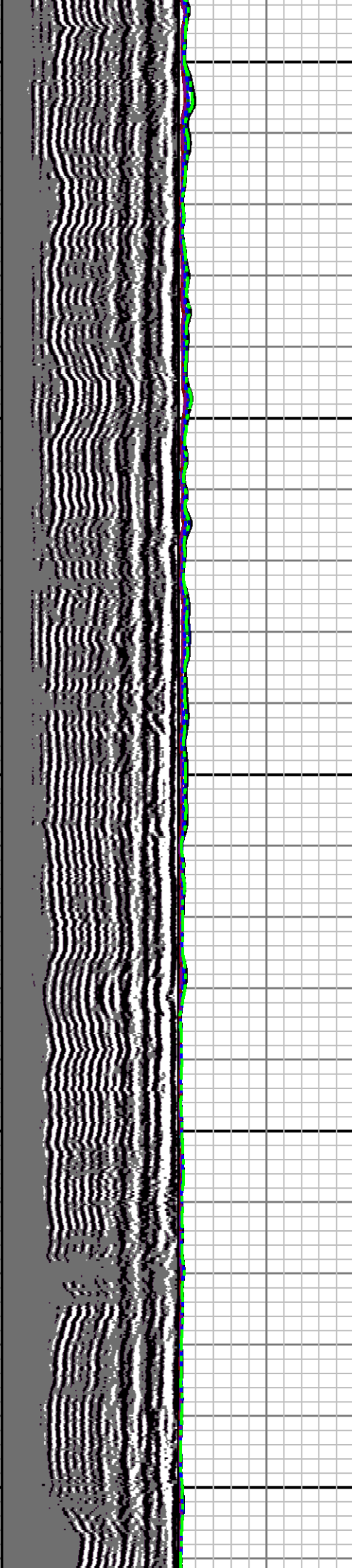
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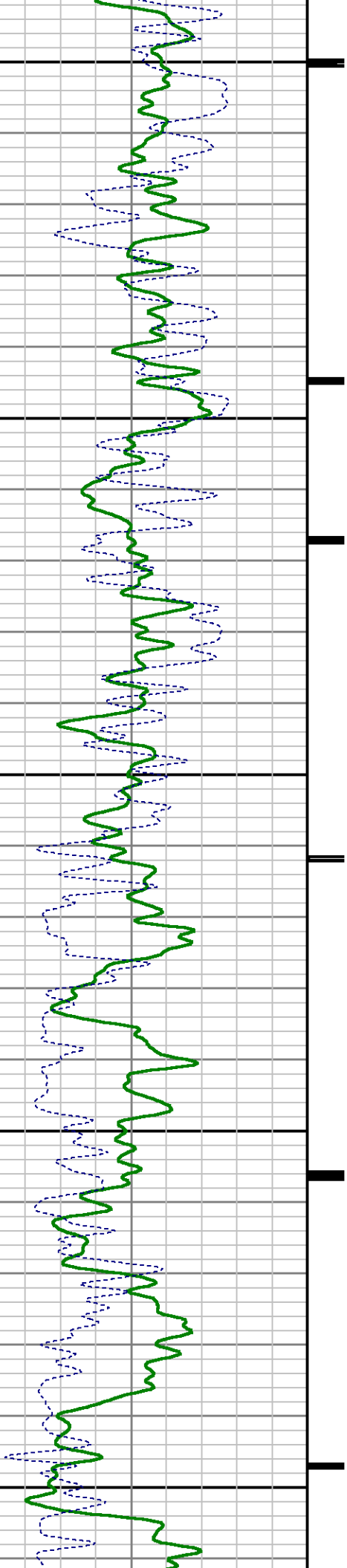


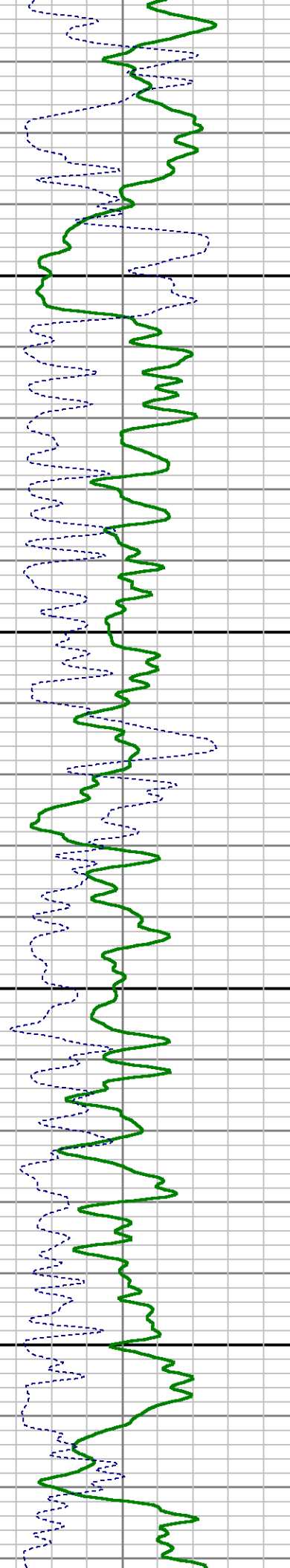
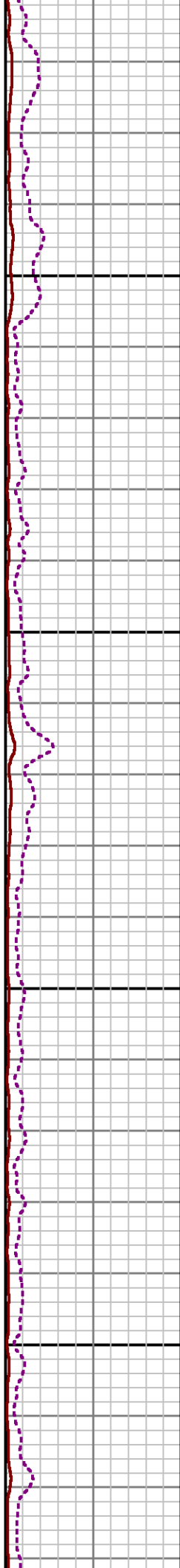
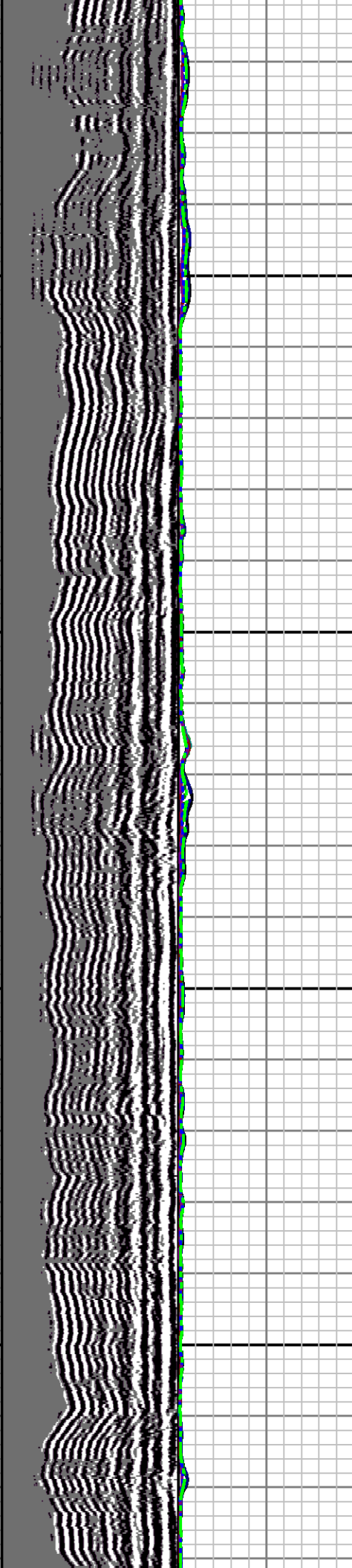
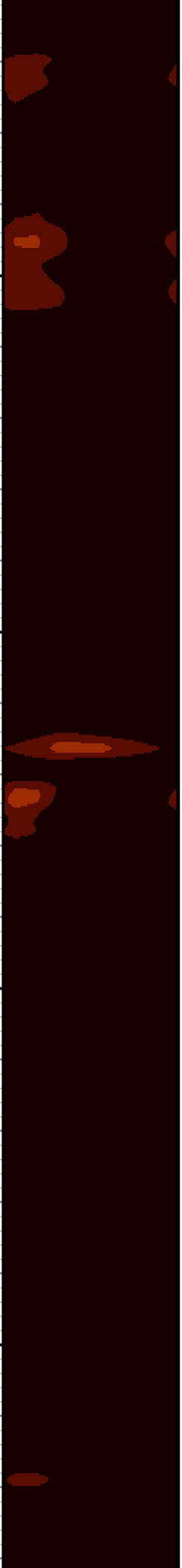




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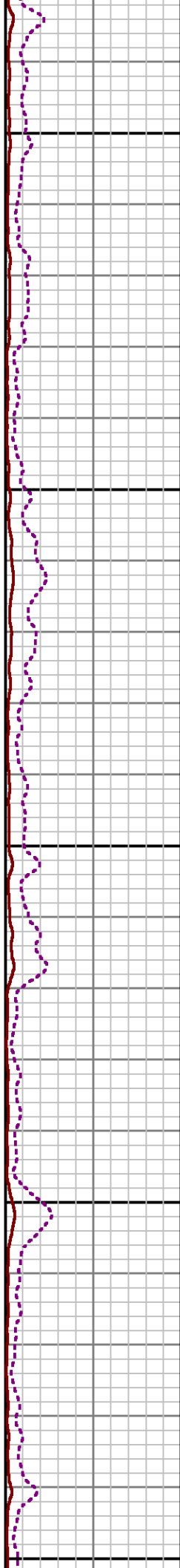
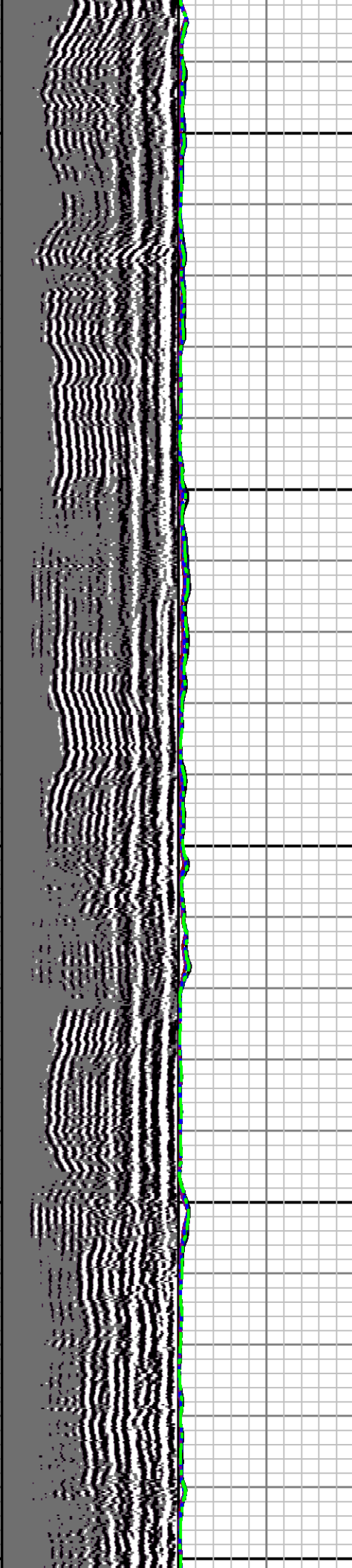
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3400

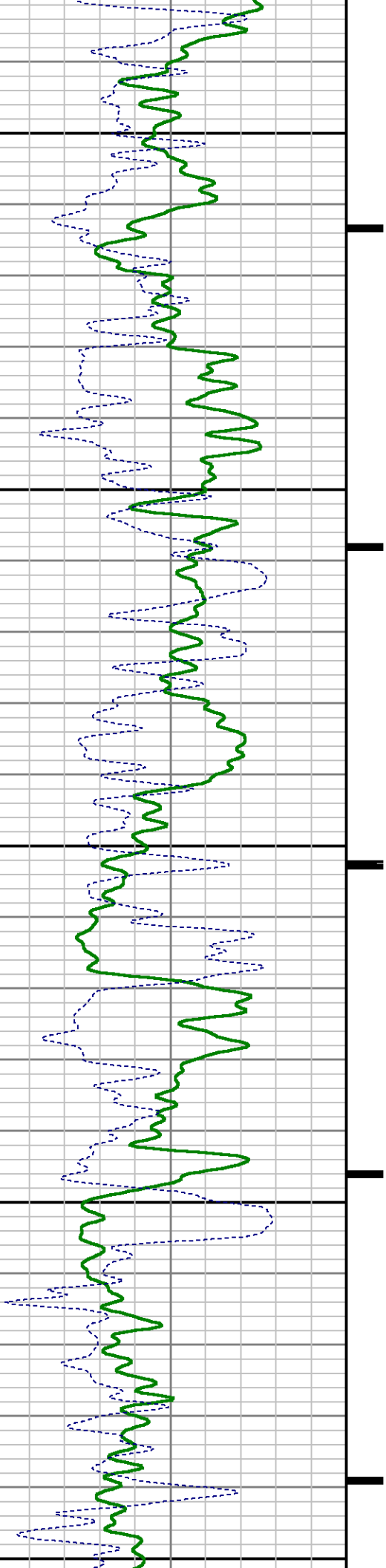
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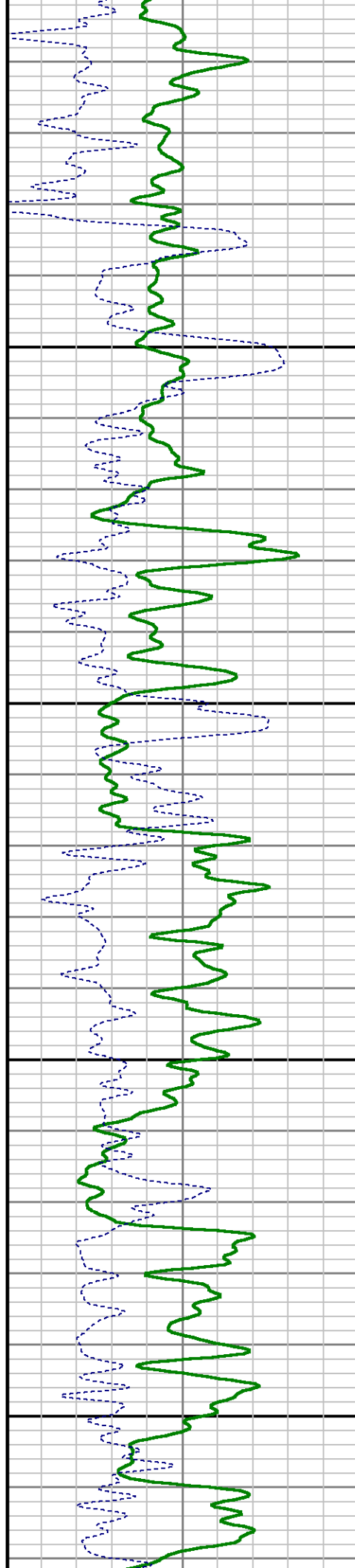
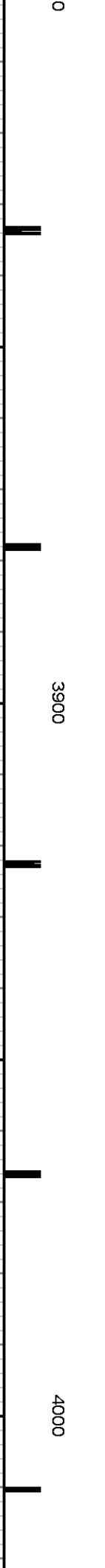
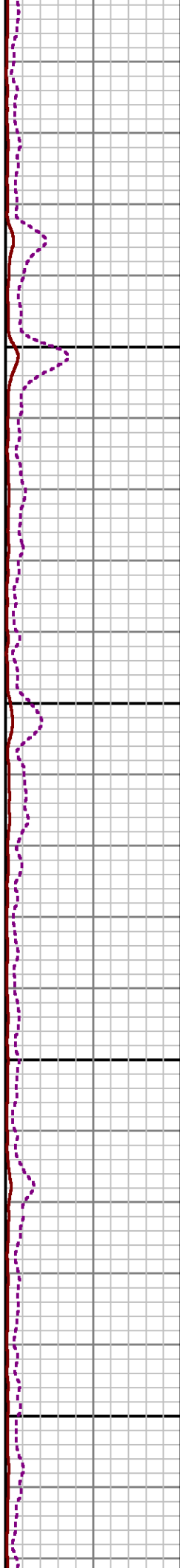
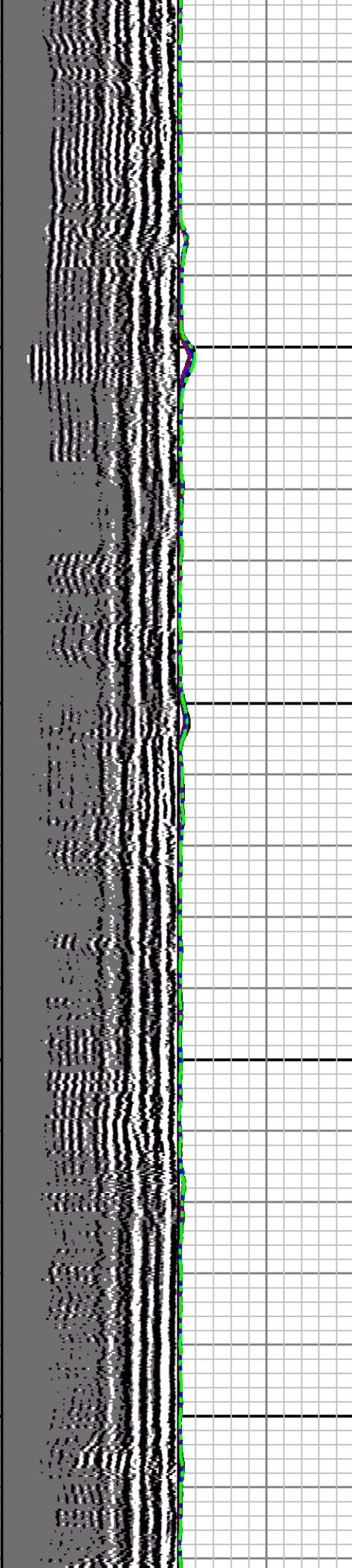


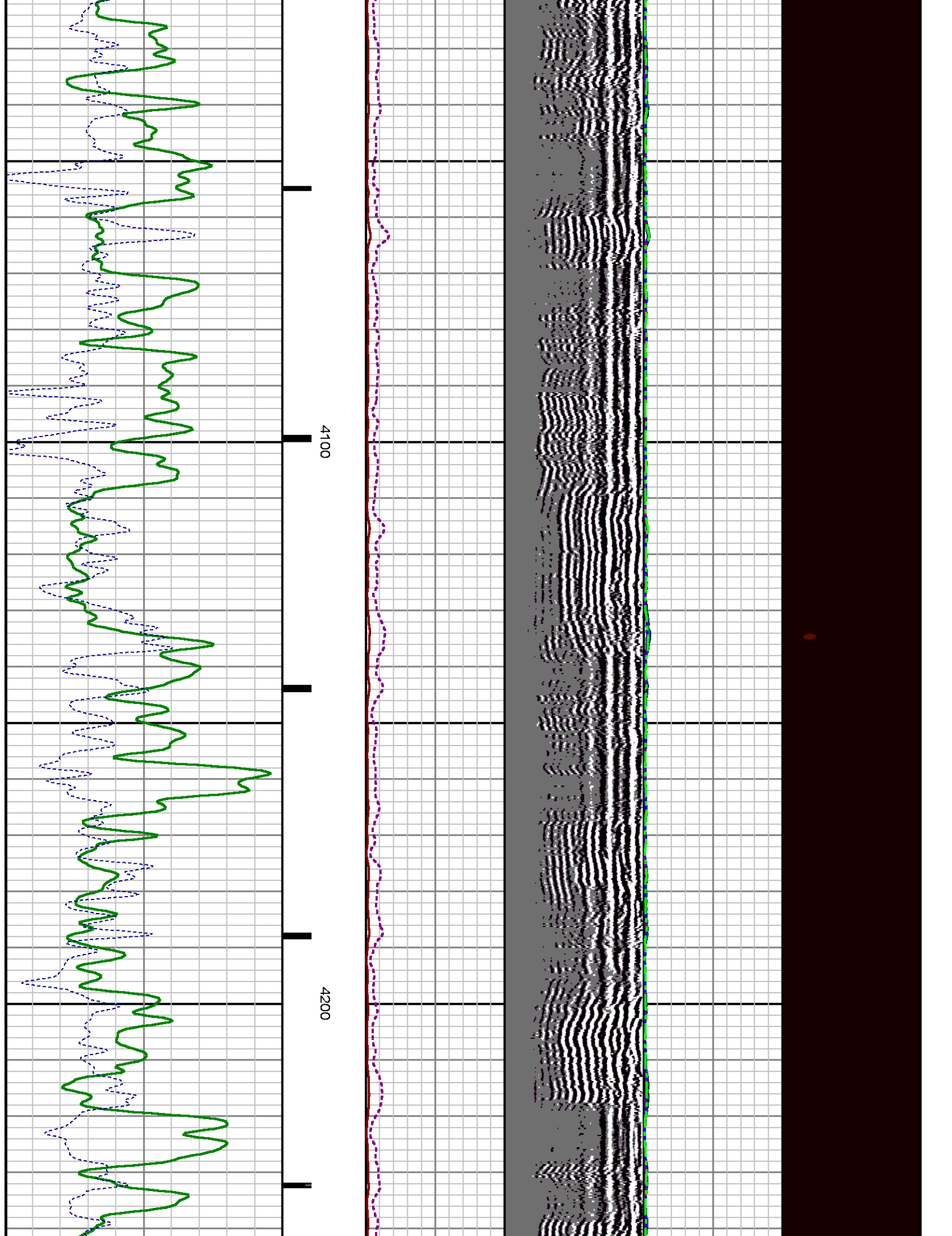
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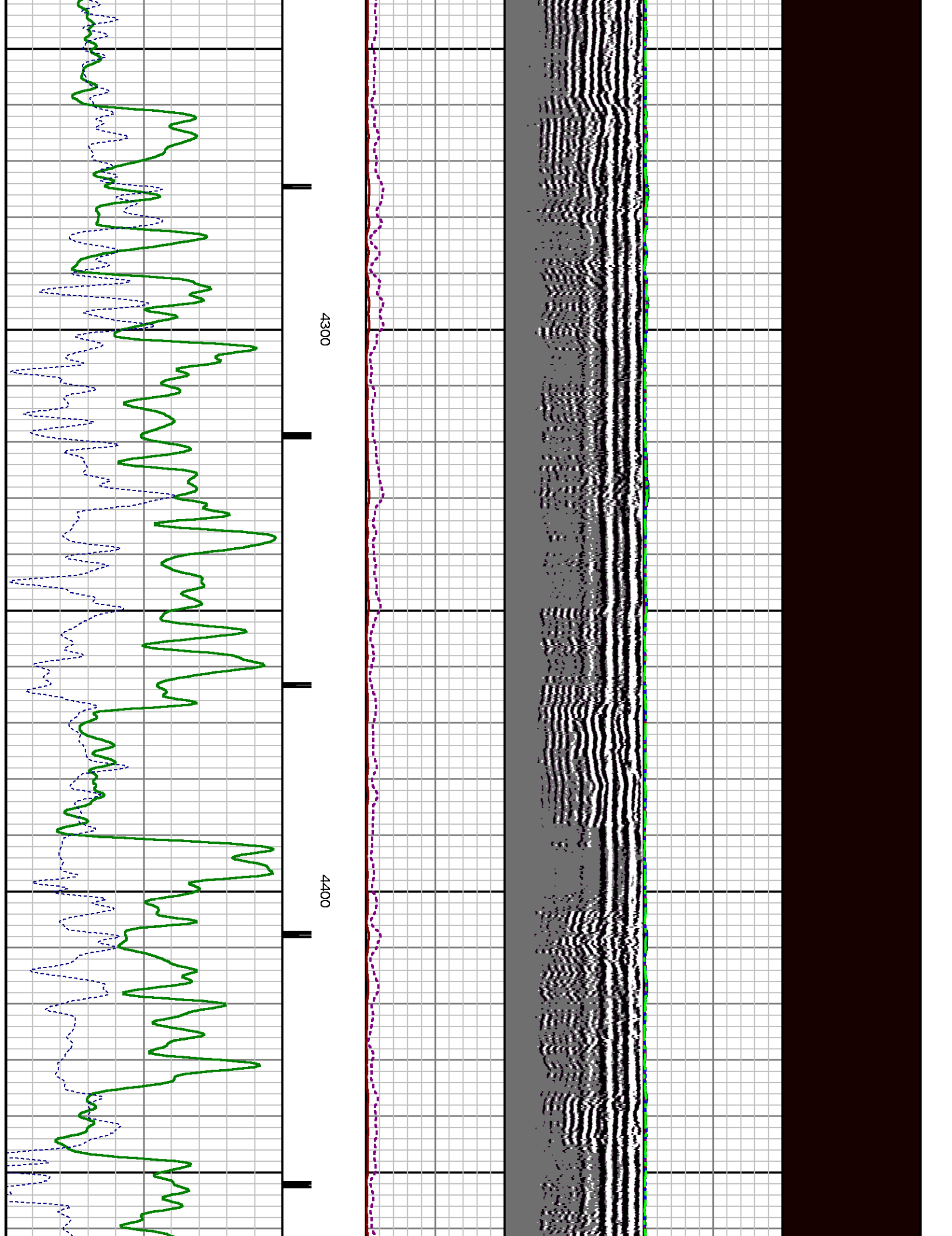
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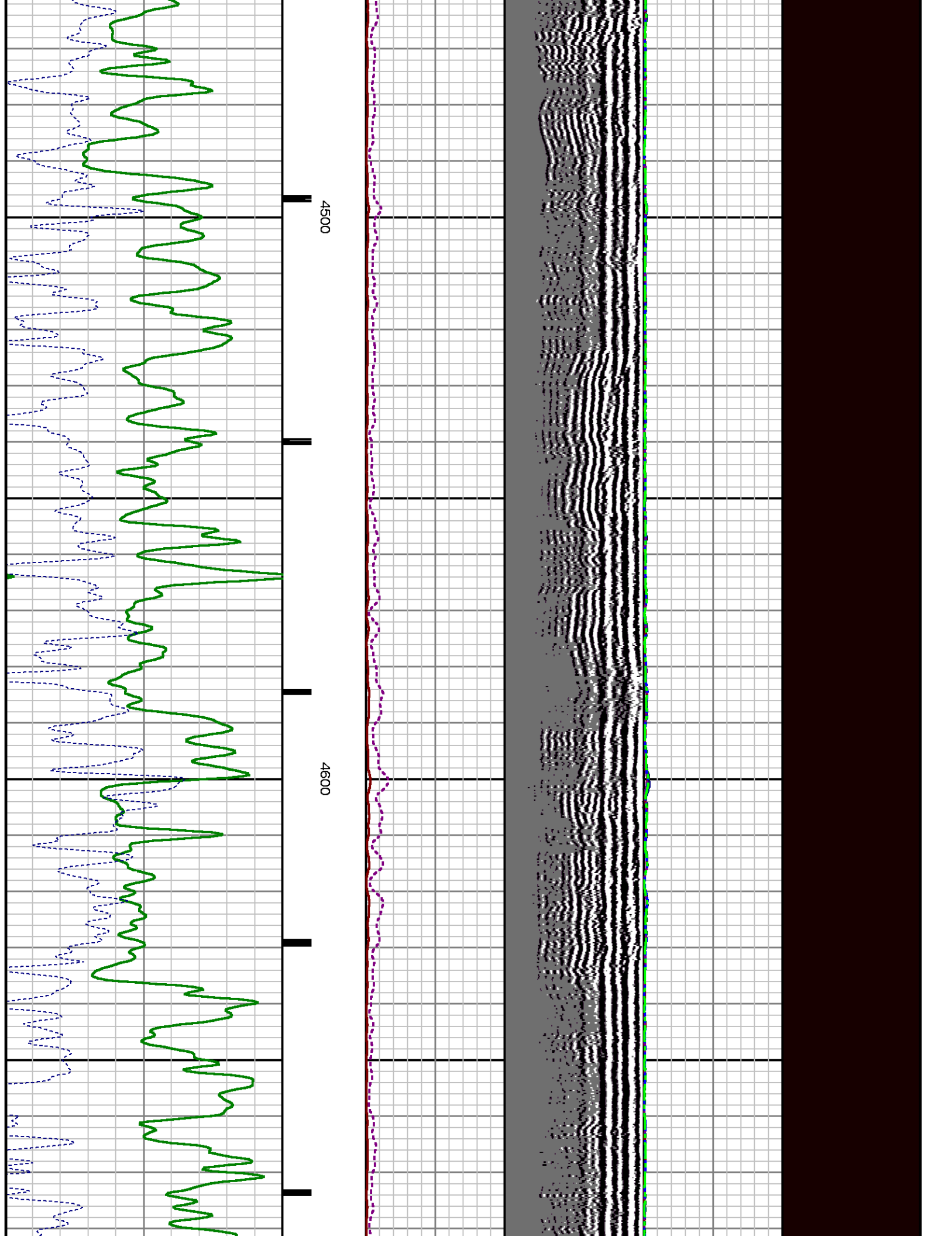
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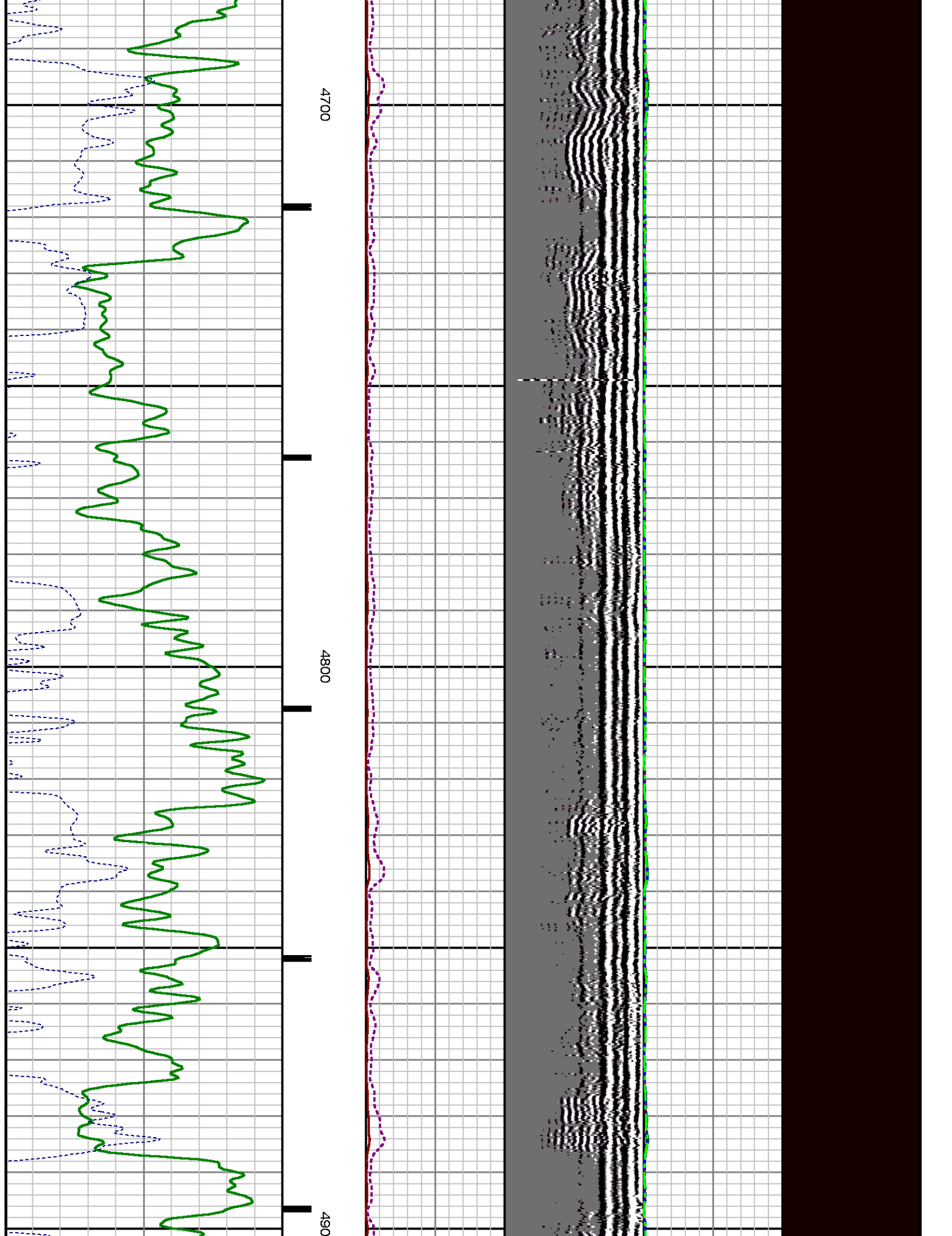


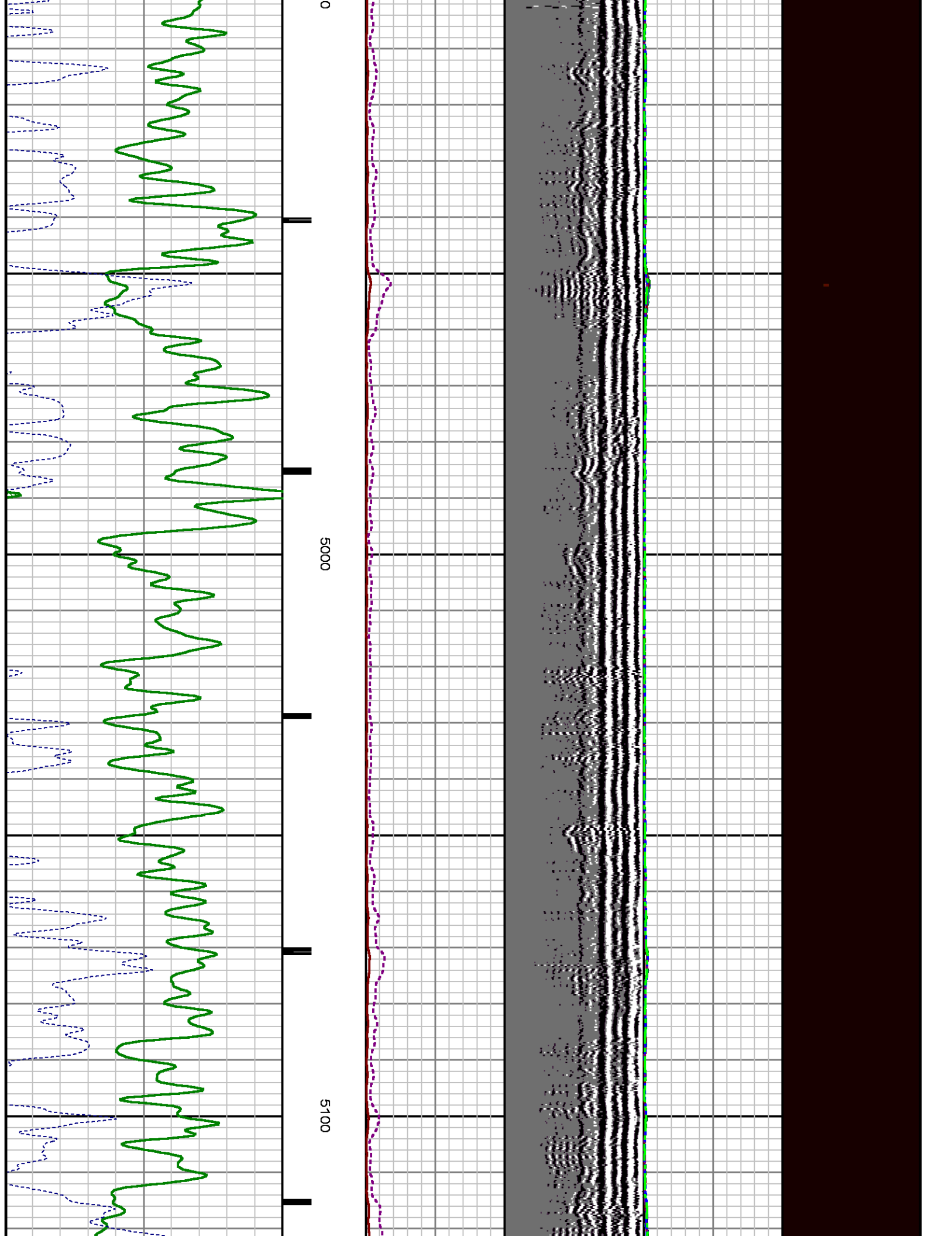


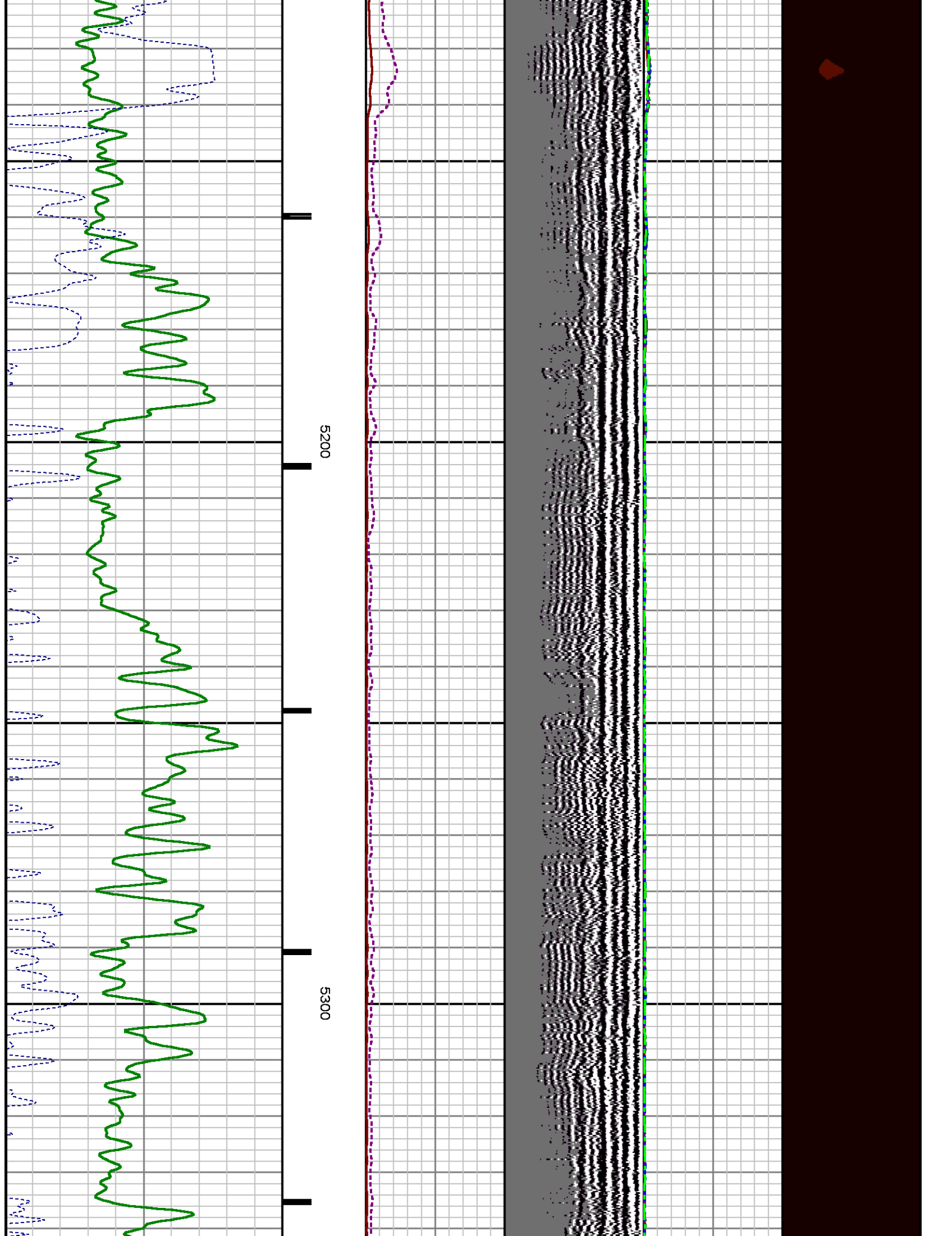


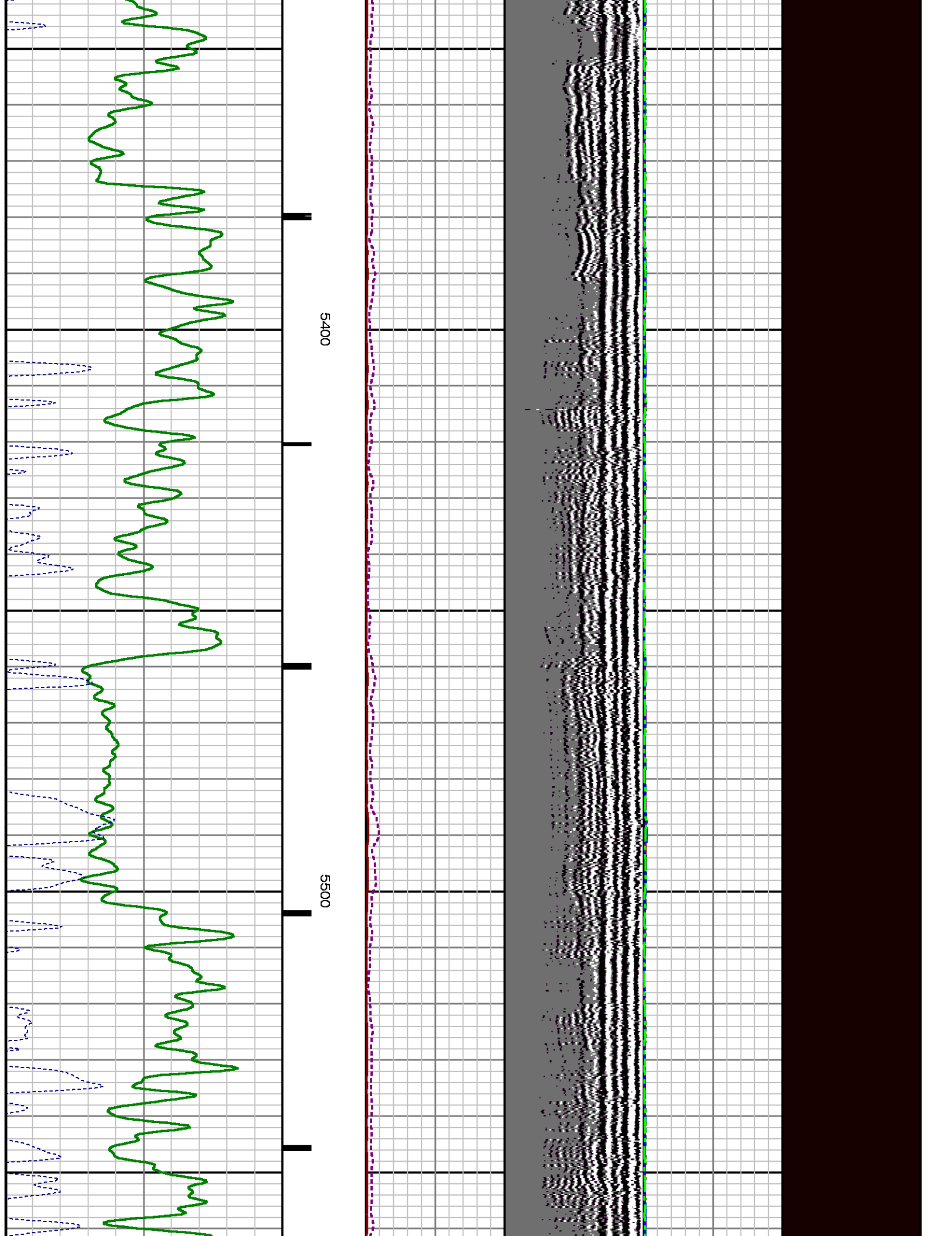


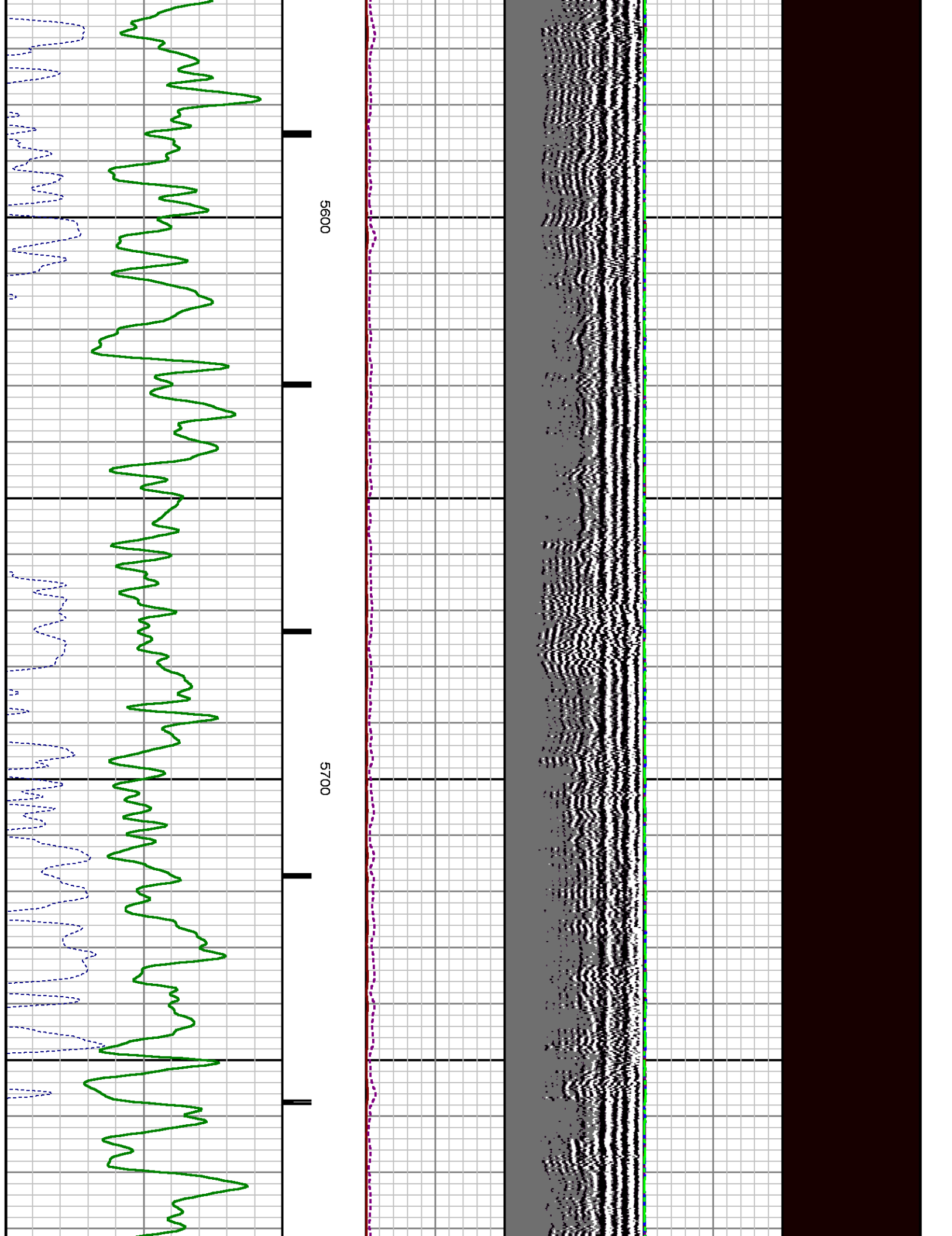


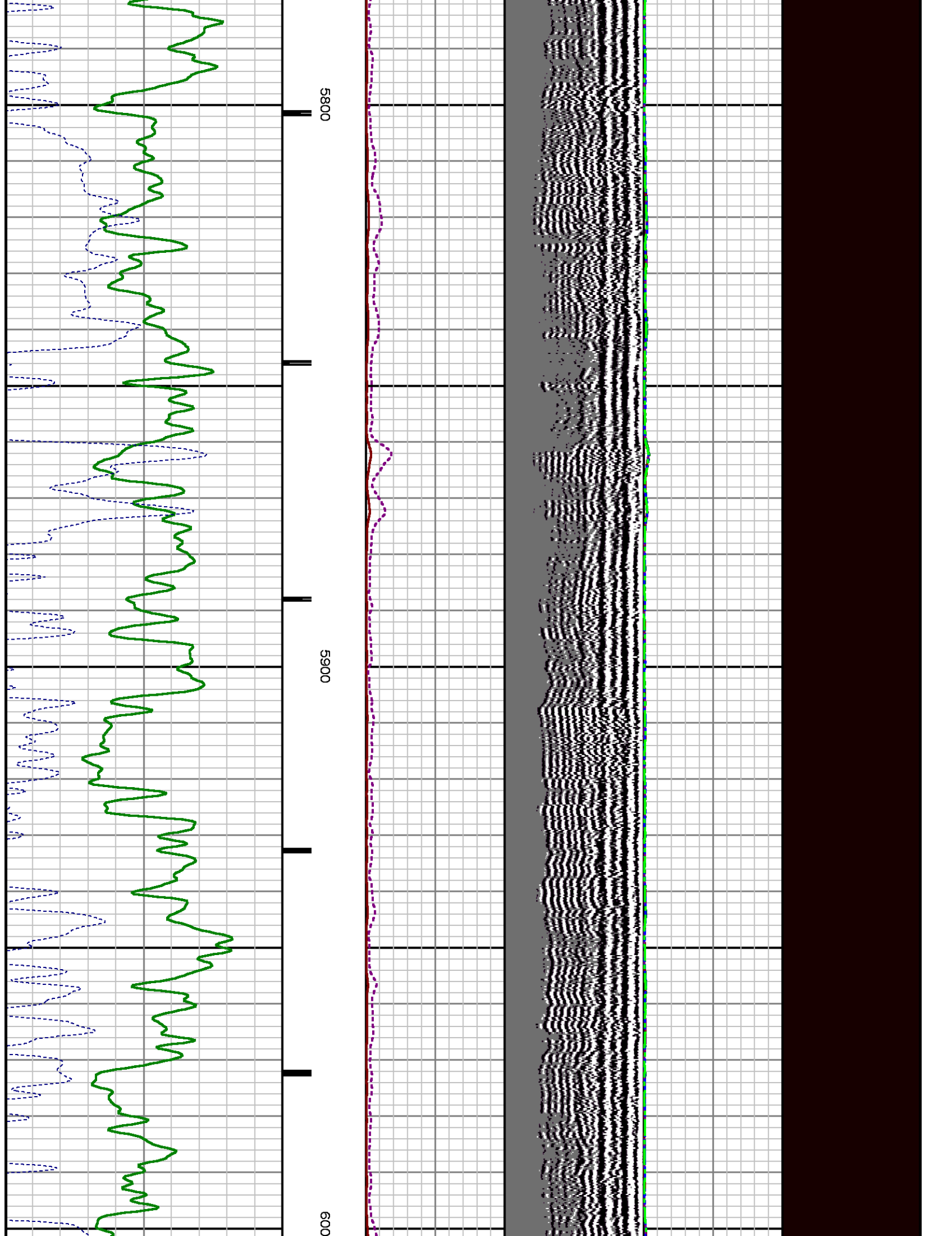


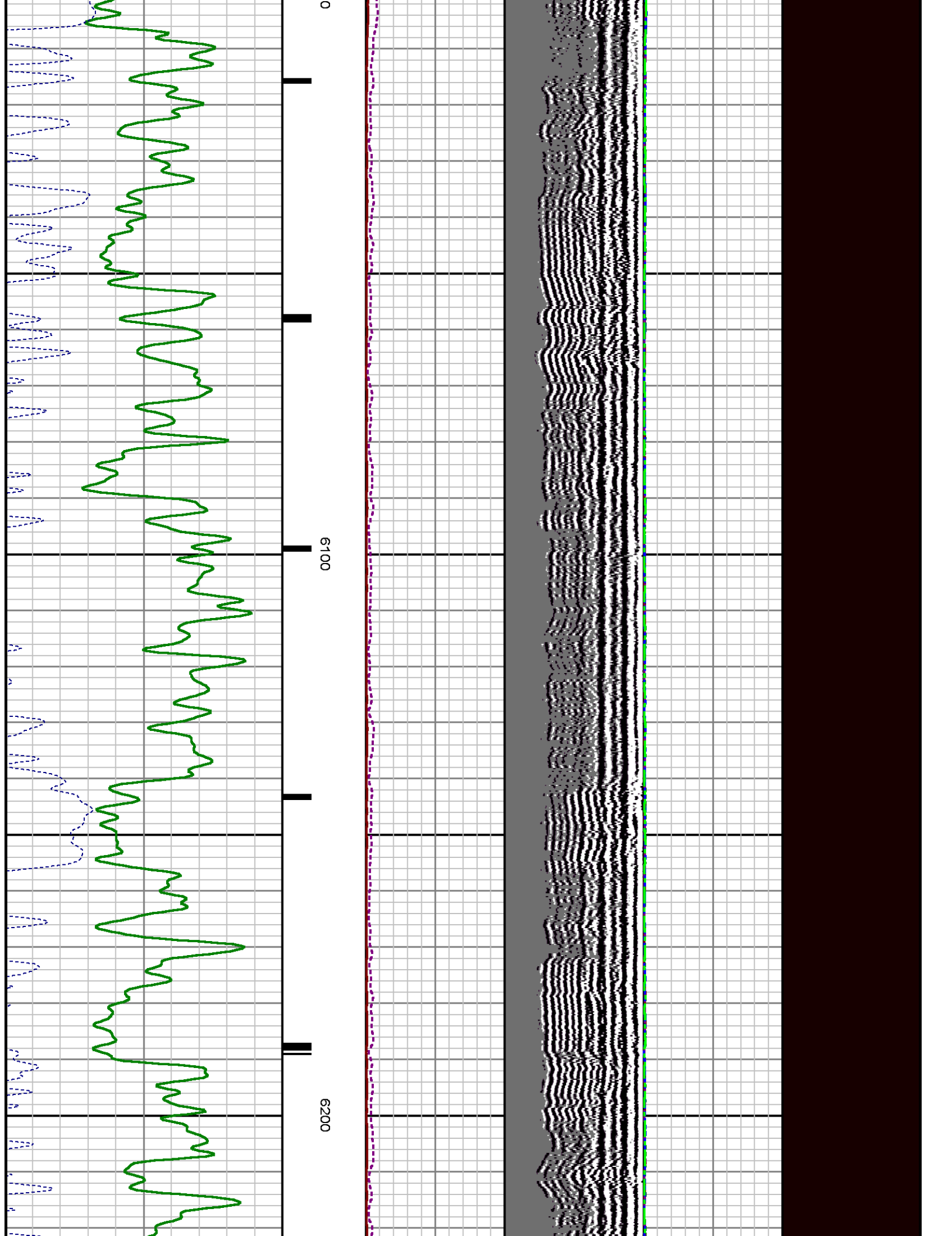


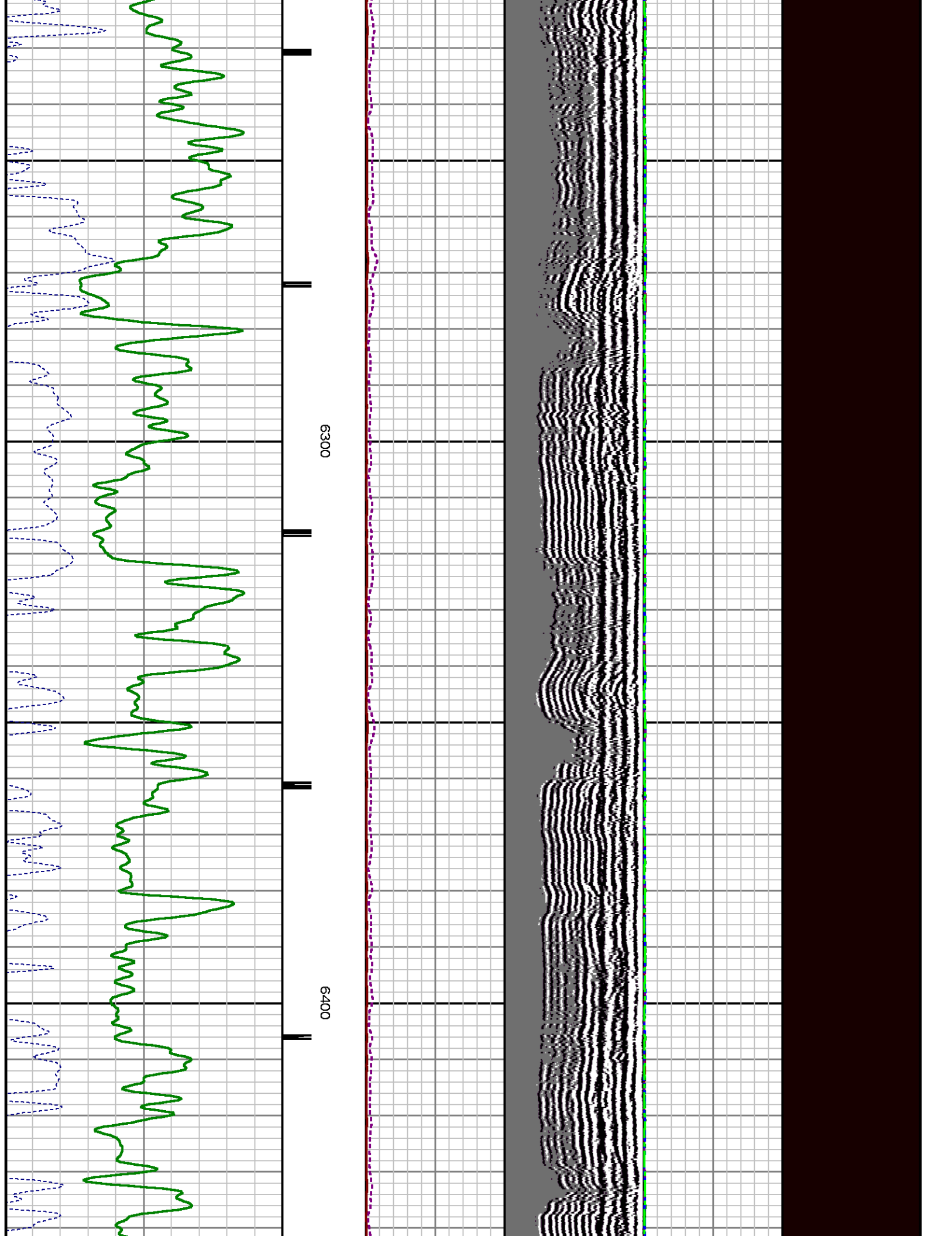


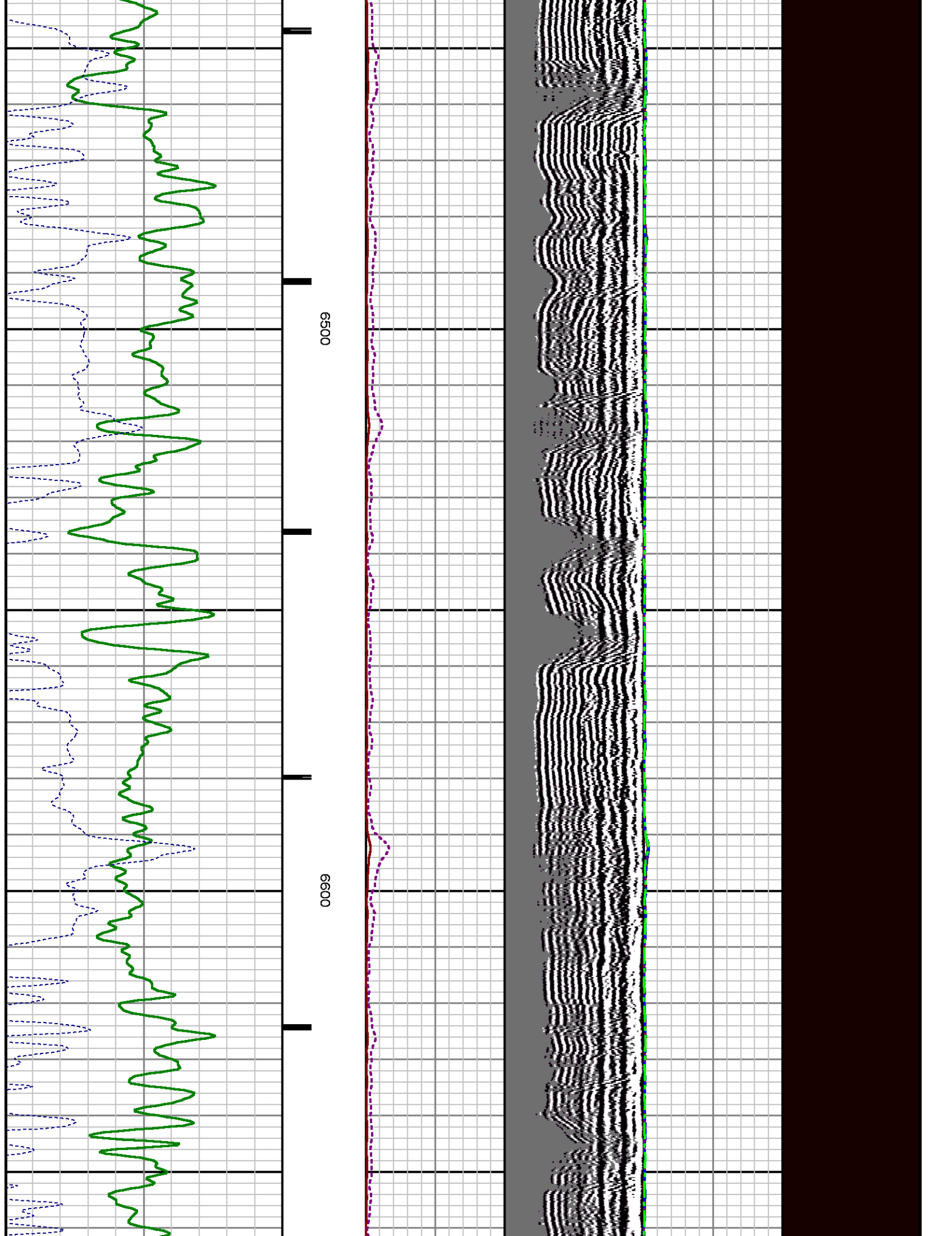


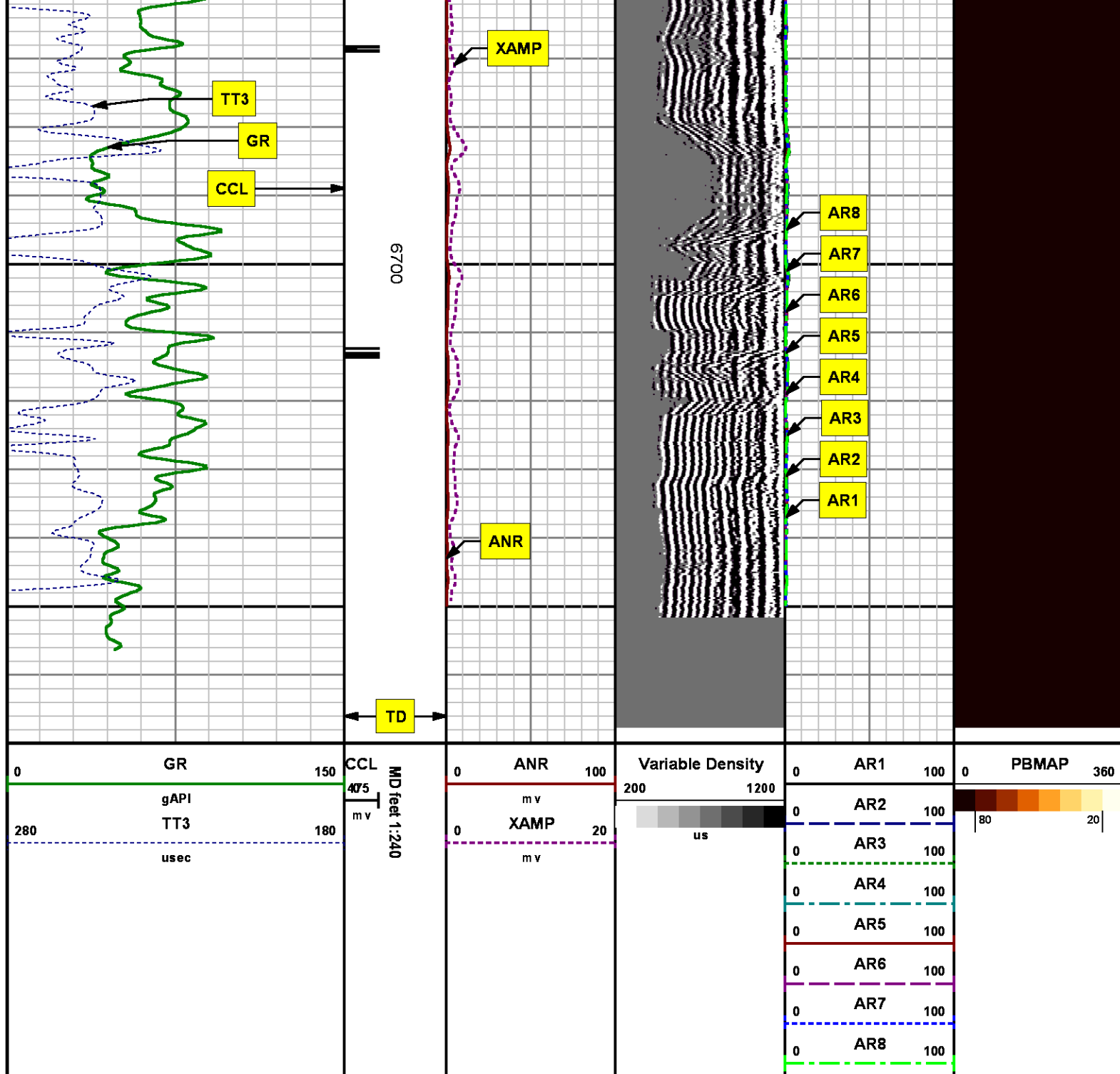












REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	6443.205	6767.230
RAL	Amp Gate Start Near	195.000	usec	6443.205	6767.230
RAL	Amp Gate Start Radial	195.000	usec	6443.205	6767.230
RAL	Amp Gate Width Far	25.000	usec	6443.205	6767.230
RAL	Amp Gate Width Near	25.000	usec	6443.205	6767.230
RAL	Amp Gate Width Radial	25.000	usec	6443.205	6767.230
RAL	casing od	4.500	inches	6443.205	6767.230
RAL	casing wt	11.600	lbm/ft	6443.205	6767.230
RAL	FB Start Far	291.900	usec	6443.205	6767.230
RAL	FB Start Near	180.000	usec	6443.205	6767.230
RAL	FB Start Radial	180.000	usec	6443.205	6767.230
RAL	FB Thresh Far	10.000	mV	6443.205	6767.230
RAL	FB Thresh Near	4.000	mV	6443.205	6767.230
RAL	FB Thresh Radial	4.000	mV	6443.205	6767.230
RAL	Fluid Travel Time	200.000	usec/ft	6443.205	6767.230

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

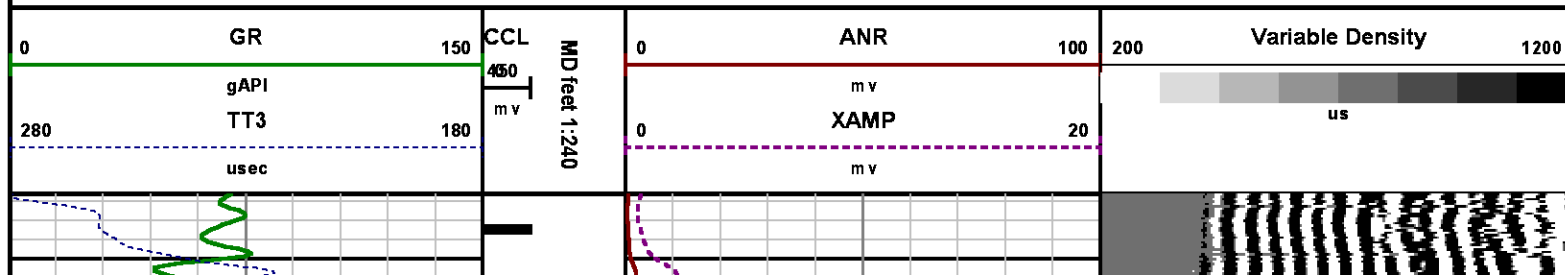
Well : C&C ENERGY GM 422-13

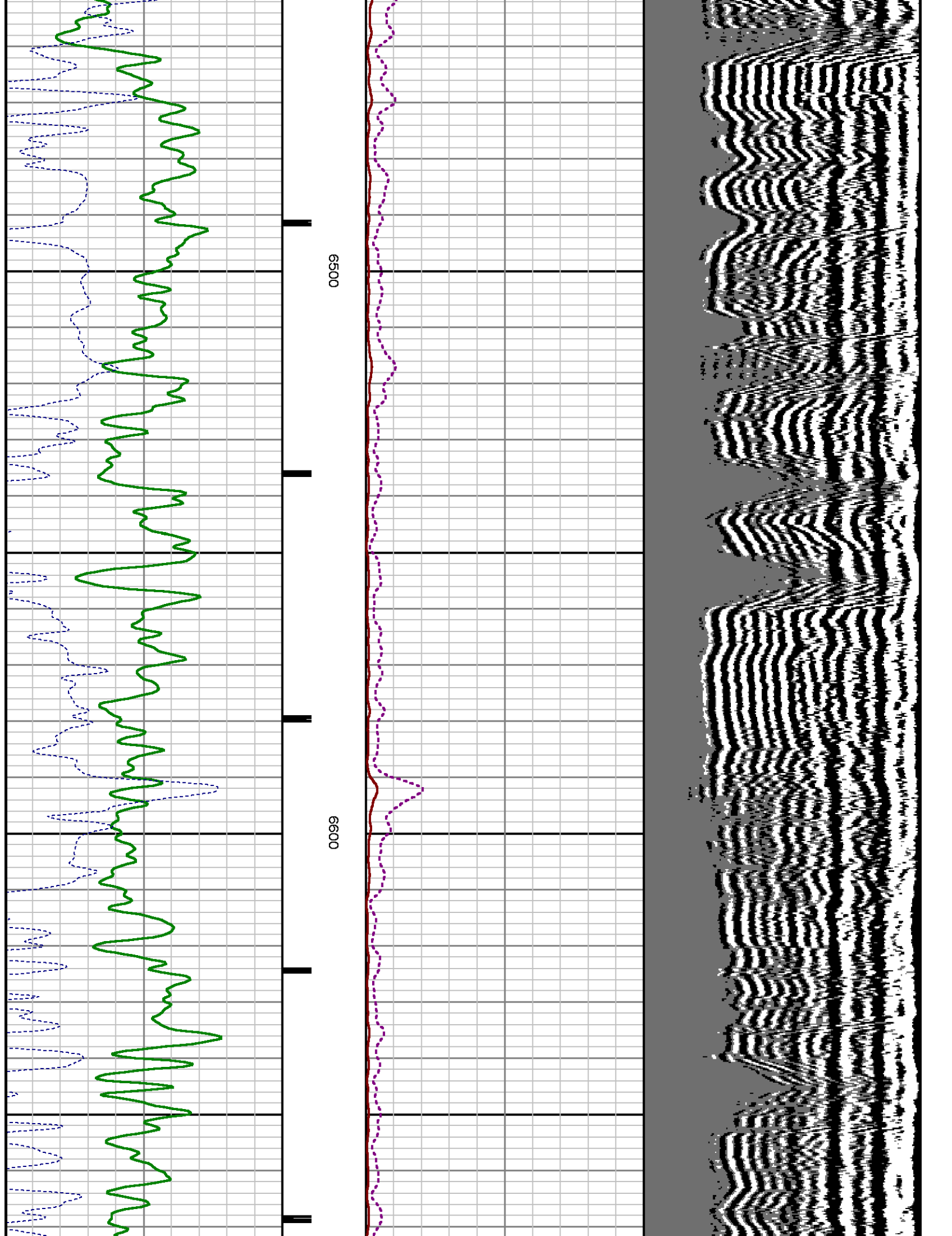
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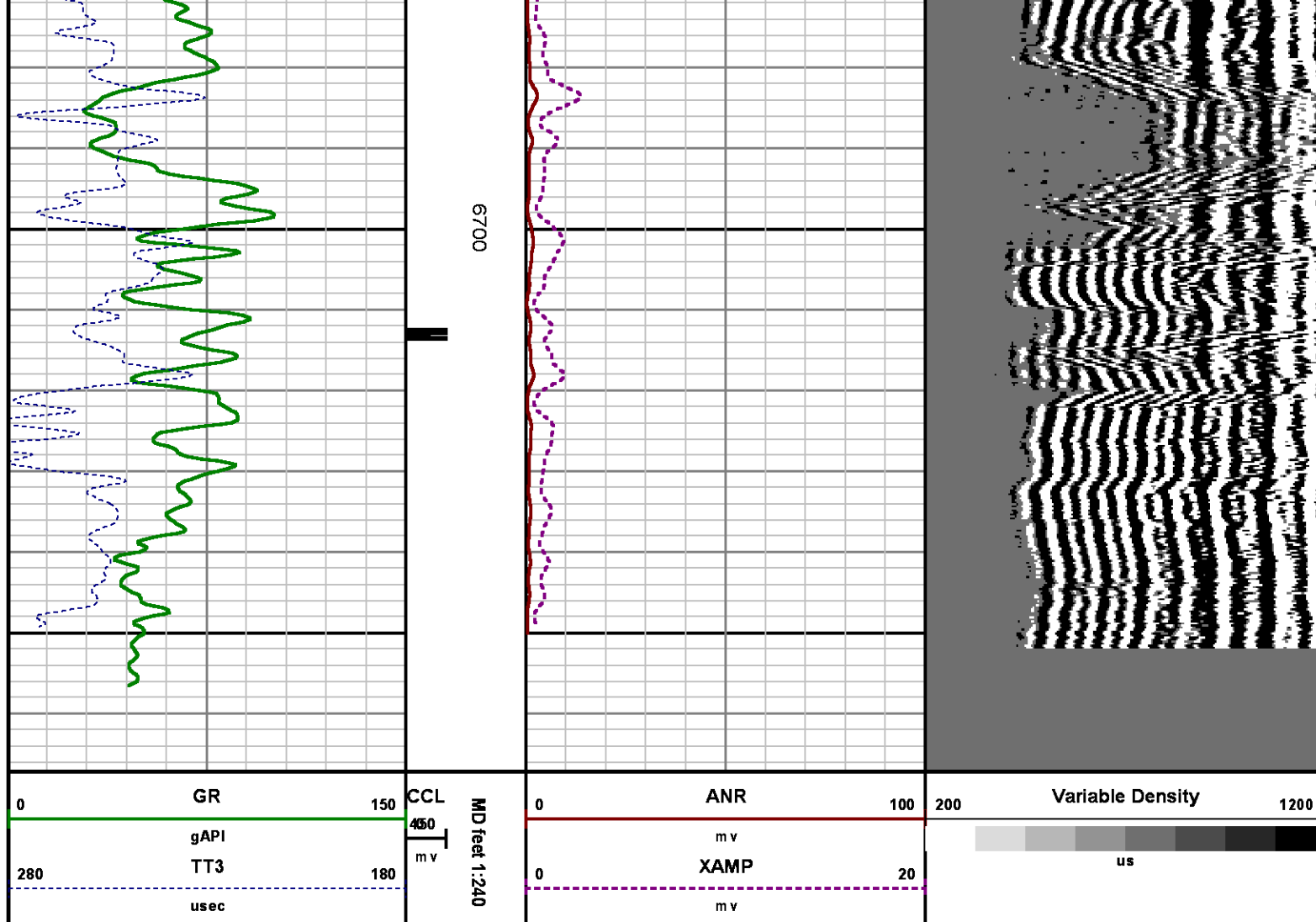
Mode : PlotMgr 5.4.504

Interval : 6443.23 - 6767.23 feet UP

Created : 5/27/2014 11:52:25 AM







CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RAL SHP\106M27_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue May 27 09:06:15 2014 TOOL SERIES: 1426XA ASSET: 106 SEQ: M27

Tool Delay [usec] -51.00 Tank OD in 5.50 Tank Wt lbm/ft 15.50 Tank ID in 4.95

RECEIVER	Travel Time [usec]	Amp. Gate Start [usec]	Amp. Gate Width [usec]	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor
CAL Pulse	218	216	30	166	25	-0.652	100.00	0.43
3 Ft. Receiver	218	216	30	166	25	-0.206	100.00	0.43
5 Ft Receiver	326	325	30	237	25	0.113	150.00	0.46

3 Ft. Receiver	218	216	30	166	25	-0.573	100.00	0.43
Radial #1	218	216	30	166	25	-0.573	100.00	0.43
Radial #2	216	216	30	166	25	-0.635	100.00	0.43
Radial #3	217	216	30	166	25	-0.276	100.00	0.43
Radial #4	217	216	30	166	25	-0.619	100.00	0.43
Radial #5	218	216	30	166	25	-0.208	100.00	0.44
Radial #6	218	216	30	166	25	-0.443	100.00	0.44
Radial #7	217	216	30	166	25	-0.335	100.00	0.44
Radial #8	218	216	30	166	25	-0.432	100.00	0.43

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\106M27_fid.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue May 27 09:08:35 2014 TOOL SERIES: 1426XA ASSET: 106 SEQ: M27

Tool Delay [usec] -51.00 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	-0.071	0.000	0.99	100.000
3 Ft. Receiver	195	25	-1.733			
5 Ft. Receiver	305	25	-2.724			
Radial #1	195	25	-3.151			
Radial #2	195	25	-2.752			
Radial #3	195	25	-2.523			
Radial #4	195	25	-2.540			
Radial #5	195	25	-2.125			
Radial #6	195	25	-2.030			
Radial #7	195	25	-1.433			
Radial #8	195	25	-1.983			

GAMMA RAY

Calibration File: C:\case\calver\GR\45608.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu May 08 09:48:12 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: 08

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	97.82	367.47	0.686	67.11	252.11	185.00

Verification File: C:\case\calver\GR\45608.VP

DATE/TIME PERFORMED: Thu May 08 09:49:43 2014

TOOL SERIES: 2459XA ASSET: 456 SEQ: 08

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	98.76	372.44	0.686	67.76	255.53	187.77

TOOL DIAGRAM

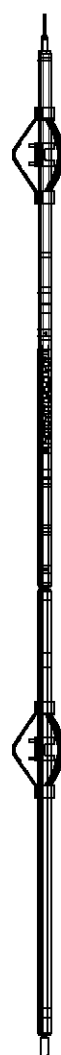
OTA SHORT CABLE HEAD

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



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

<div>BAKER HUGHES</div> <div>Baker Atlas</div> <div>CASE</div>	Well	C&C ENERGY GM 422-13		CH085744
	Field	GRAND VALLEY		API No:
	County	GARFIELD	State	COLORADO
	Location		Elevations	
SHL: 266' FSL & 1029' FWL (SEC 12)		KB	5165 ft	13 7S 96W
BHT: 2040' FNL & 2640' FWL (NENW SEC 13)		DF		GM 24-12 PAD
		GL	5141 ft	H&P 318
SEC 13		TWP 7S	RGE 96W	