



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: EXXONMOBIL PRODUCTION COMPANY

1724 Well FRU 197-3346

API No: PICEANCE CREEK

05103115350000 County RIO BLANCO State COLORADO

Location

SHL: B18' FSL: A2388' FEL

Other Services

RPM

SEC 33 TWP 15 RGE 97W

GL Elevation 6388 ft

KB 29.4 ft Above P. D.

KELLY BUSHING

Elevations

KB 6417.4 ft

DF 6416.4 ft

GL 6388 ft

Permanent Datum
Log Measured From
Drill Measured From

Date 21/APR/10

Run ONE

Service Order 576799

Depth Driller 12507 ft

Depth Logger 12123 ft

Bottom Logged Interval 12123 ft

Top Logged Interval 3500 ft

Time Started 13.30

Time Finished 17:30

Operator Rig Time 4.5 hrs

Type of Fluid in Hole WATER

Fluid Density N/A

Salinity N/A

Fluid Level FULL

Logged Cement Top N/A

Wellhead Pressure 0 psi

Maximum Hole Deviation N/A

Nominal Logging Speed 45 fpm

Maximum Recorded Temperature N/A

Reference Log NONE

Reference Log Date N/A

Equipment No. 4271 Location VERMIL, UT.

Recorded By J. WIESER

Witnessed By MR. MIKE ROBERSON

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
9.875 in	SURFACE	8438 ft
8.125 in	8438 ft	12264 ft

Casing Record

Size	Weight	Grade	From	To
7 in	26 lbm/ft	P-110	SURFACE	8438 ft
4.5 in	15.1 lbm/ft	P-110	SURFACE	12264 ft

Remarks

THIS IS THE FIRST LOG OF THE WELL.
WELL WAS LOGGED WITH 0 psi AT THE WELLHEAD.
SHORT JOINTS @ 6197' - 6200'
7200' - 7203'
8206' - 8208'
9206' - 9208'
10211' - 10214'
11171' - 11174'

Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	496	CENTRALIZED
1	1	GR/CCL/TEL	2459XA	450	CENTRALIZED

MAIN SECTION PRIMARY PRESENTATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	3495.330	12142.000
RAL	Amp Gate Start Near	197.754	usec	3495.330	12142.000
RAL	Amp Gate Start Radial	197.754	usec	3495.330	12142.000
RAL	Amp Gate Width Far	25.000	usec	3495.330	12142.000
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RAL	Fluid Travel Time	200.000	usec/ft	3495.330	12142.518

DEPTH OFFSETS (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-15.360	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2

1426XA -14.360
 1426XA -7.250
 1426XA -5.390
 1426XA 0.000

FPR3 FPR5 TT3 TTR1 TTR2 TTR3
 TTR4 TTR5 TTR6 TTR7 TTR8 XAMP
 AFAR SIG TT5
 CCL
 GR
 NEU

Created by : RAL, v4.8.007

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBILE PRODUCTION COMPANY

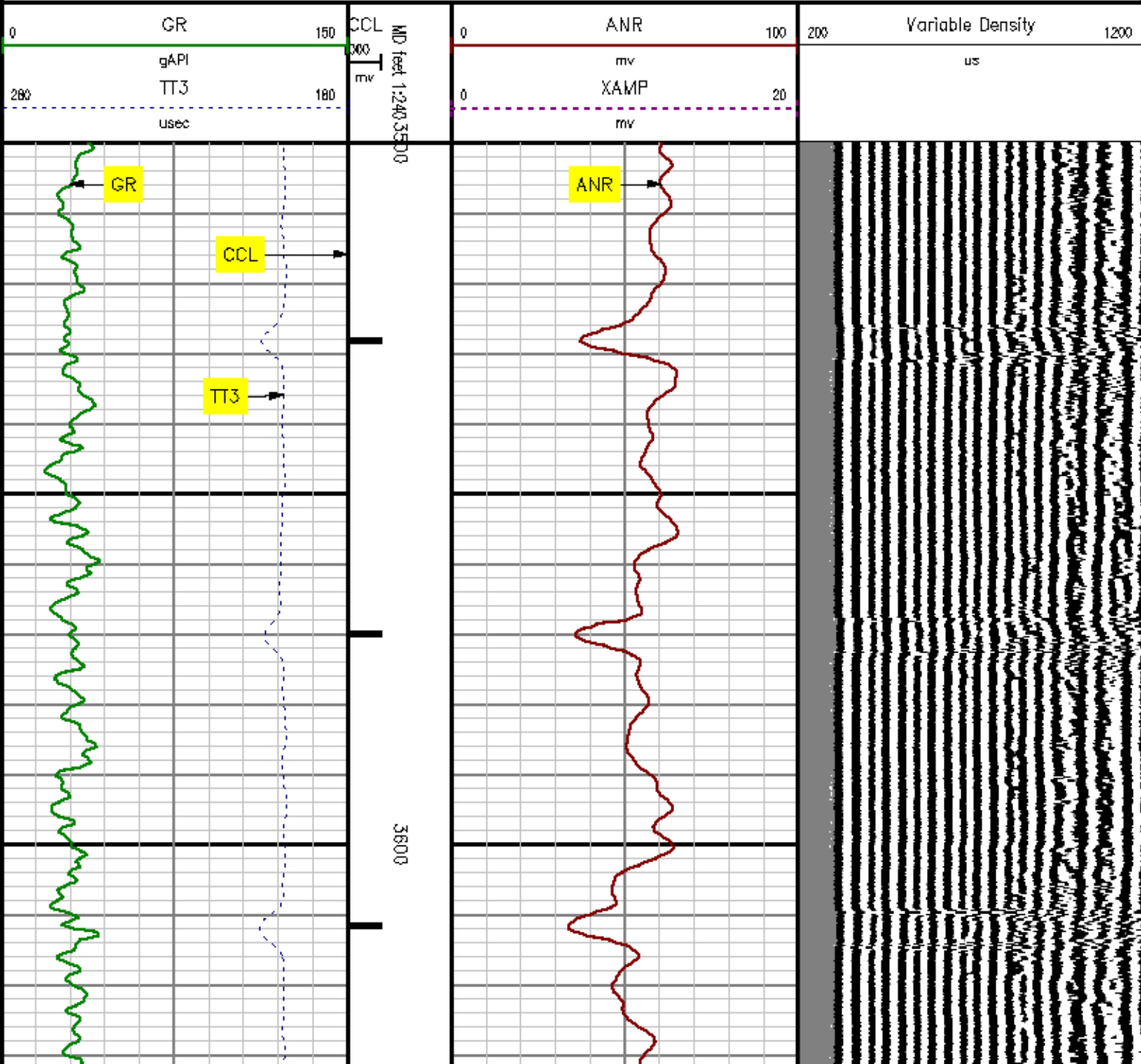
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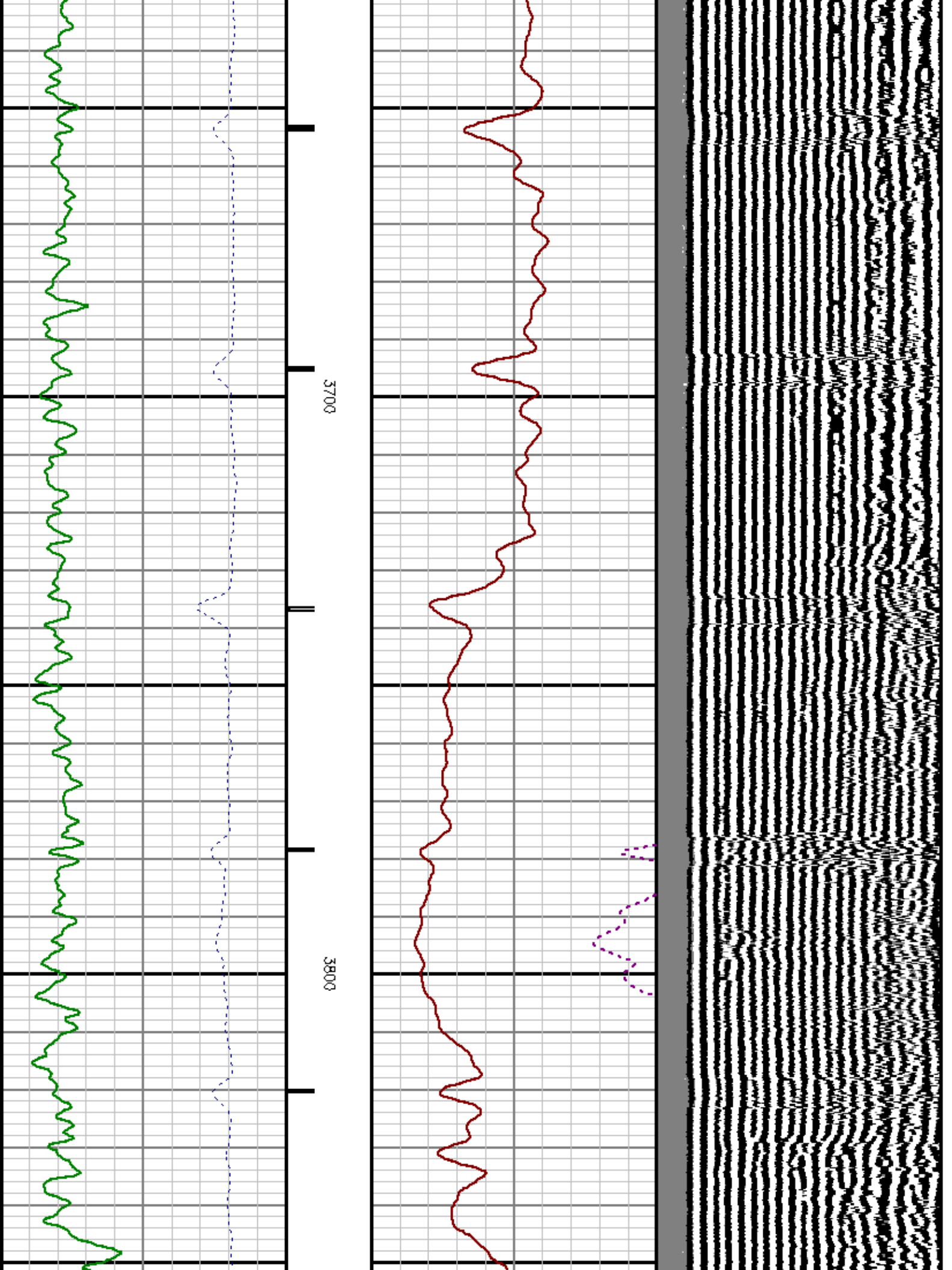
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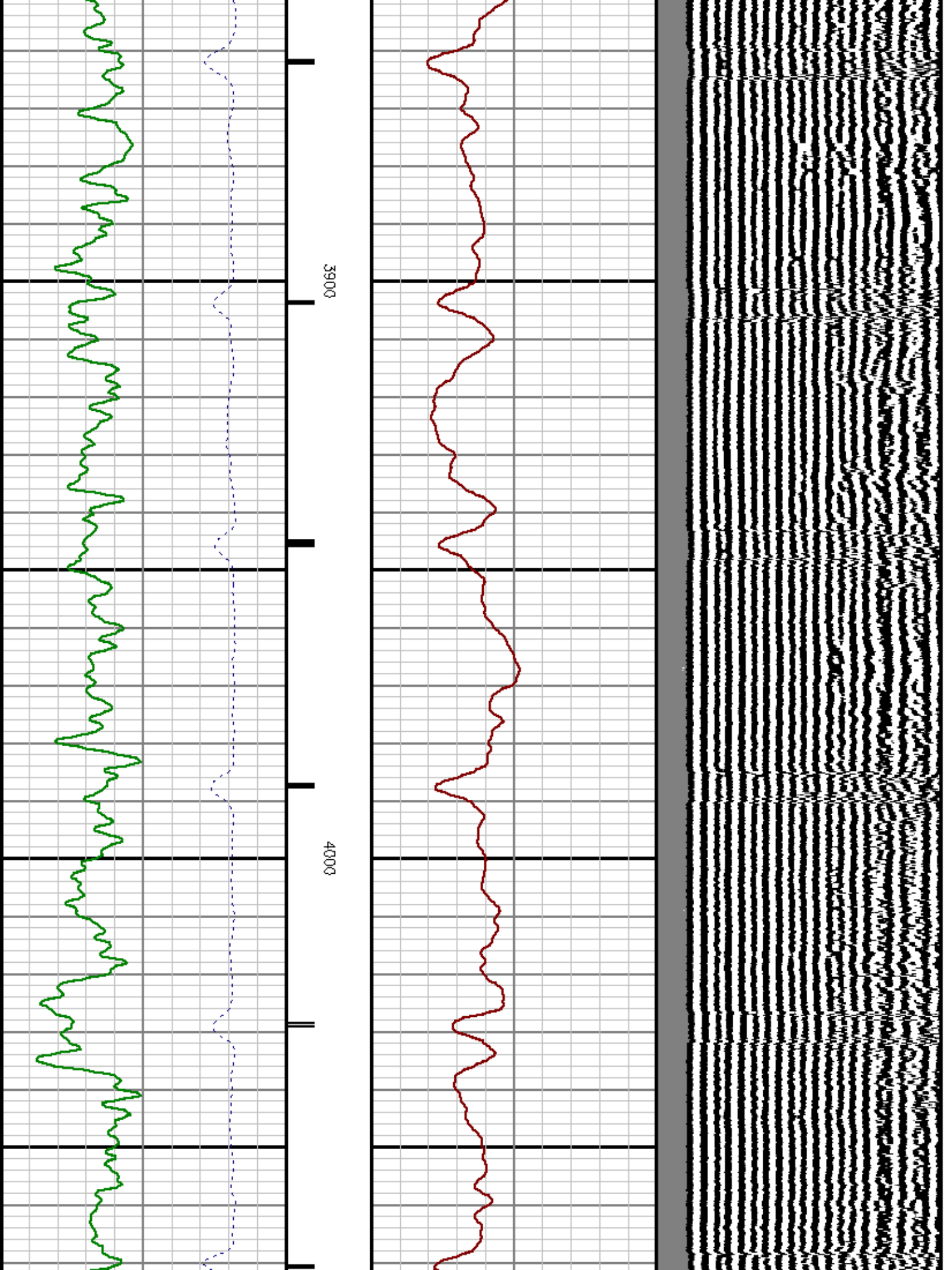
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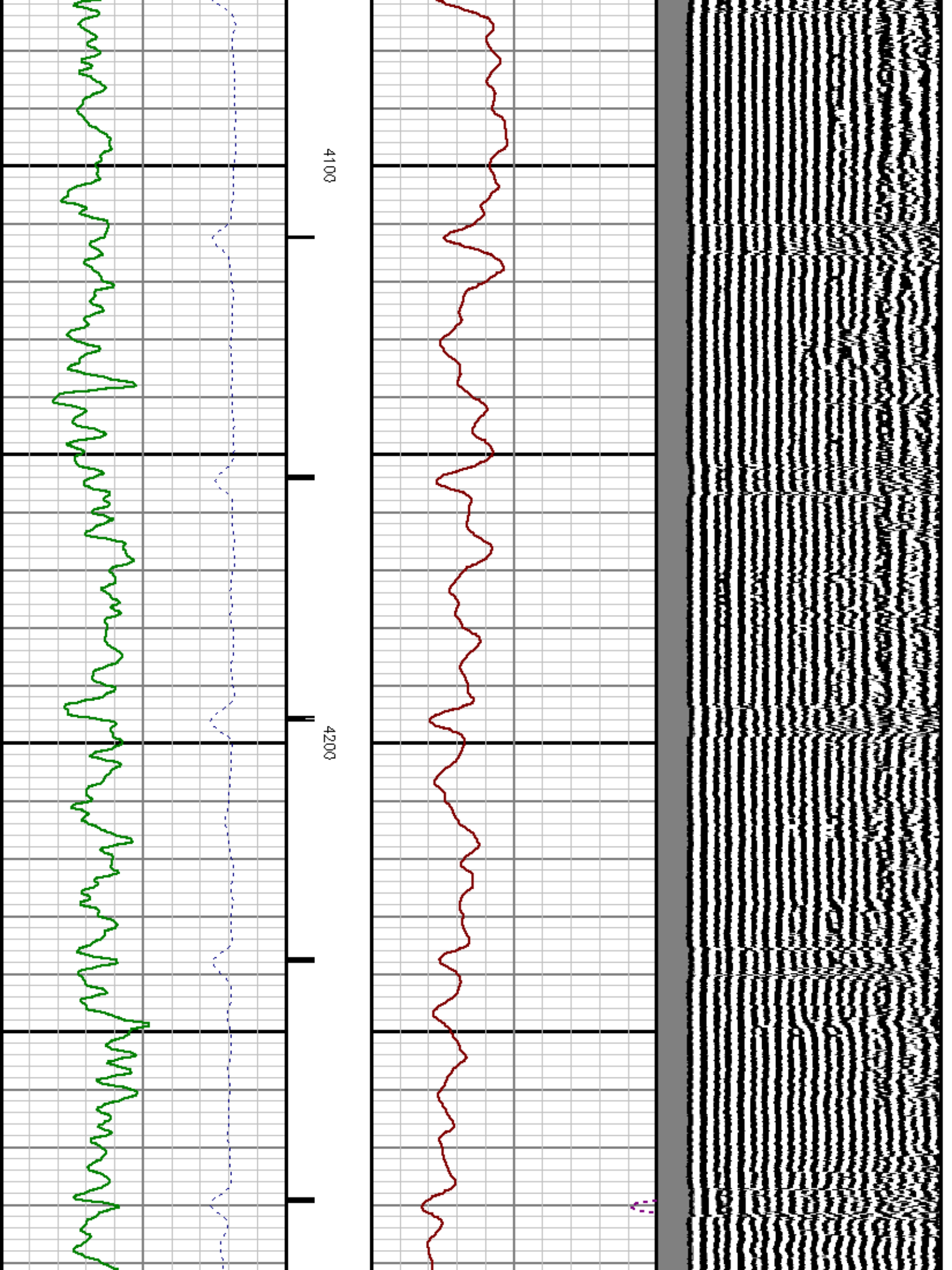
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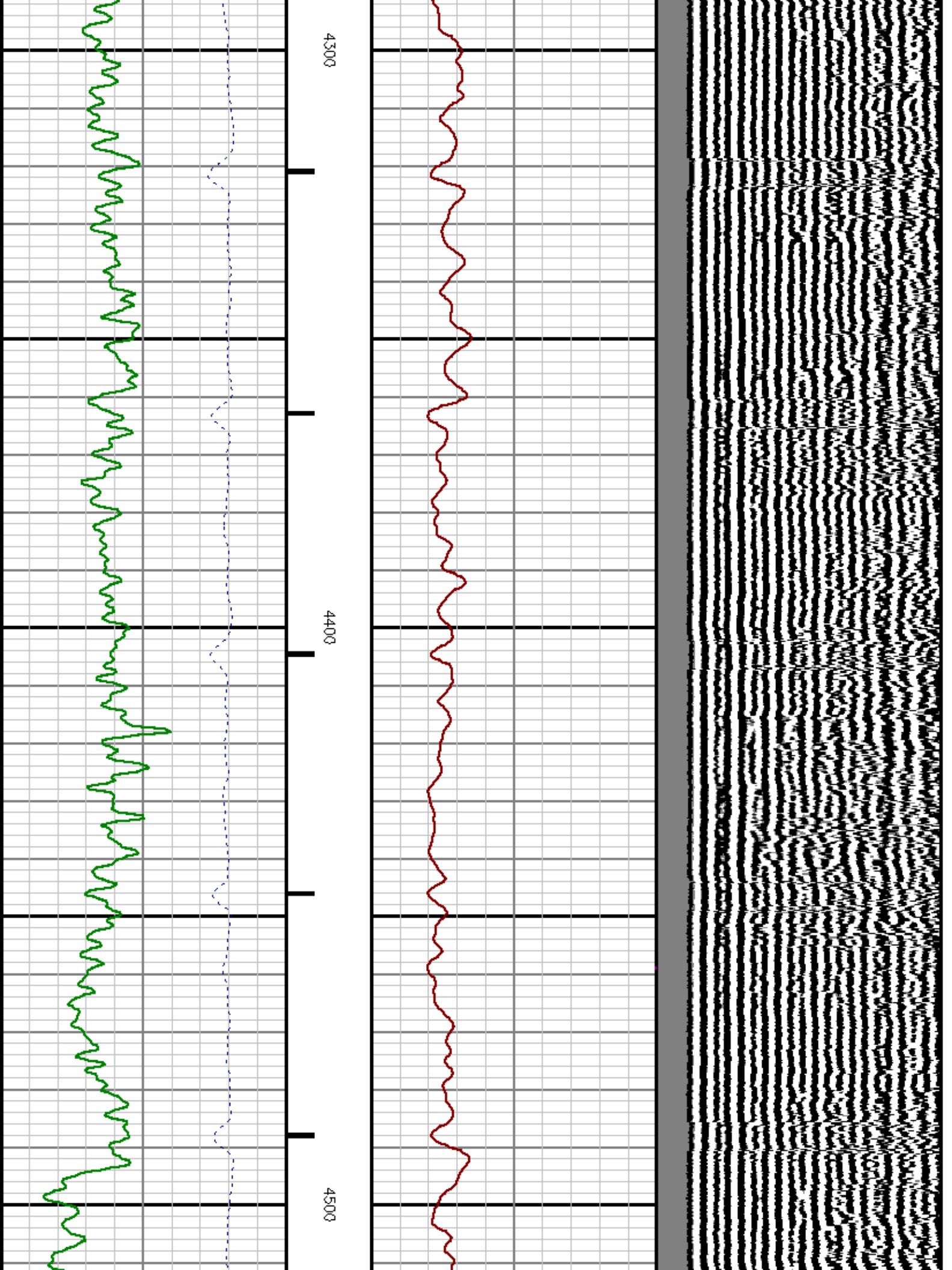
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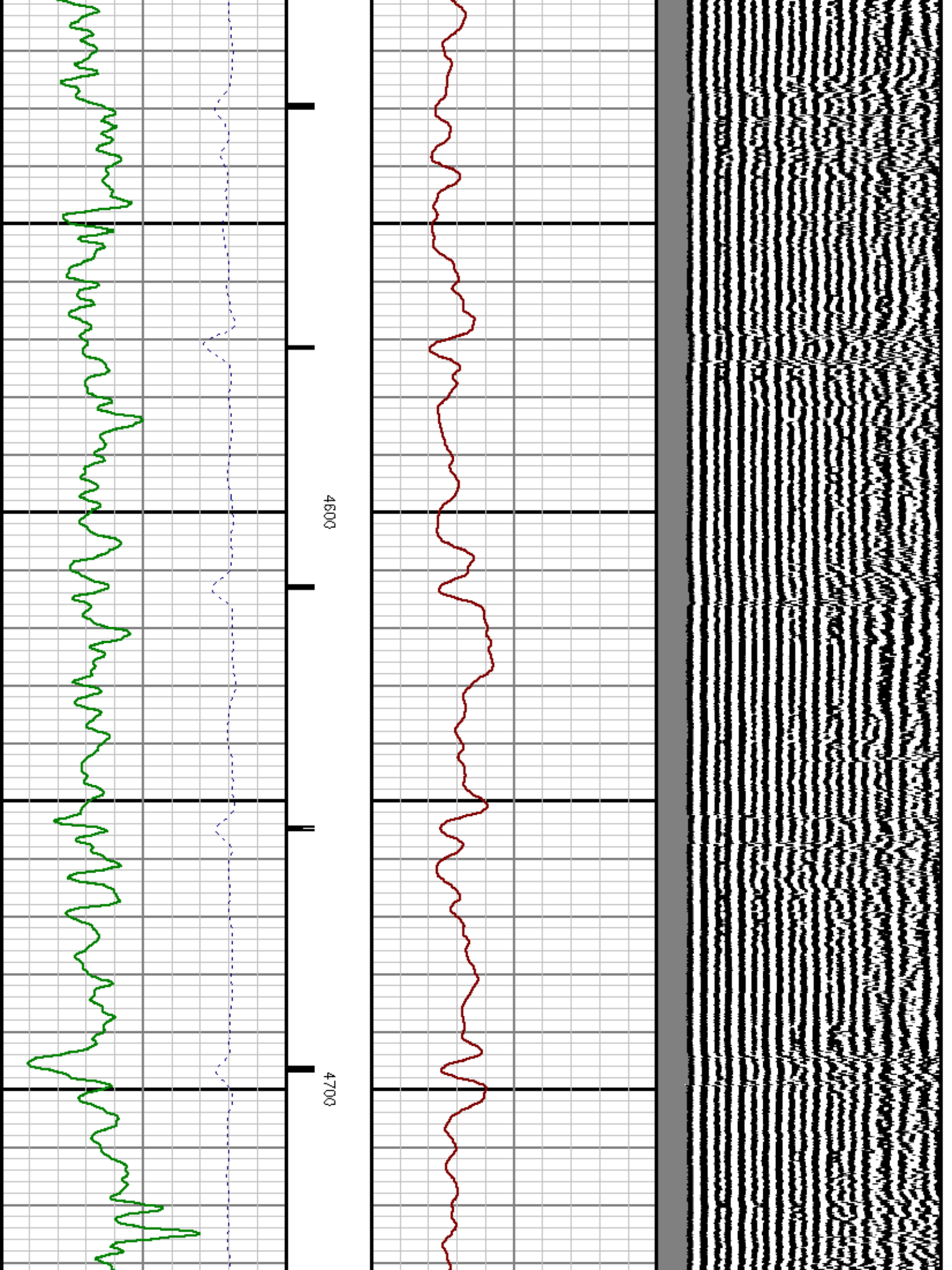


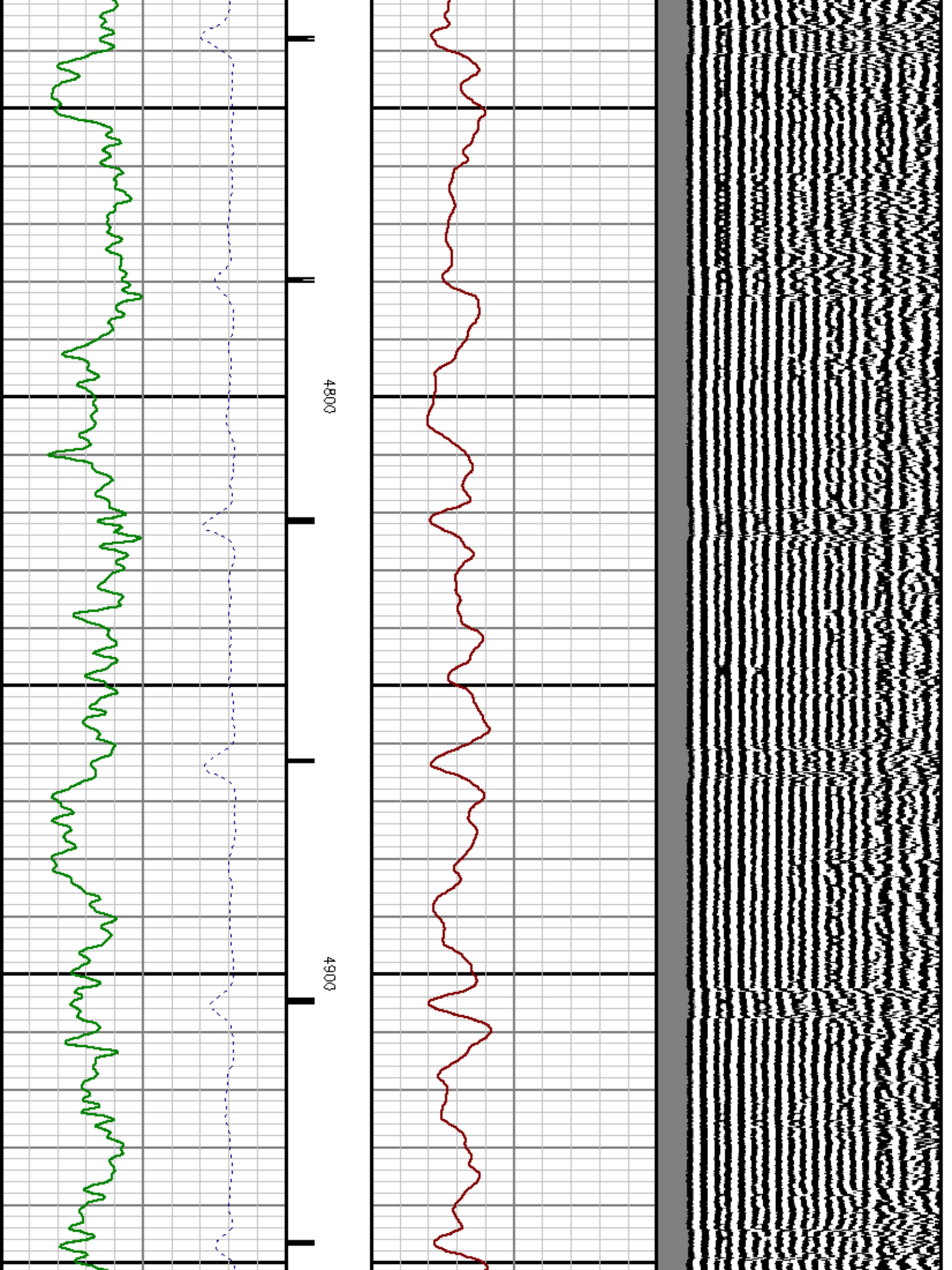


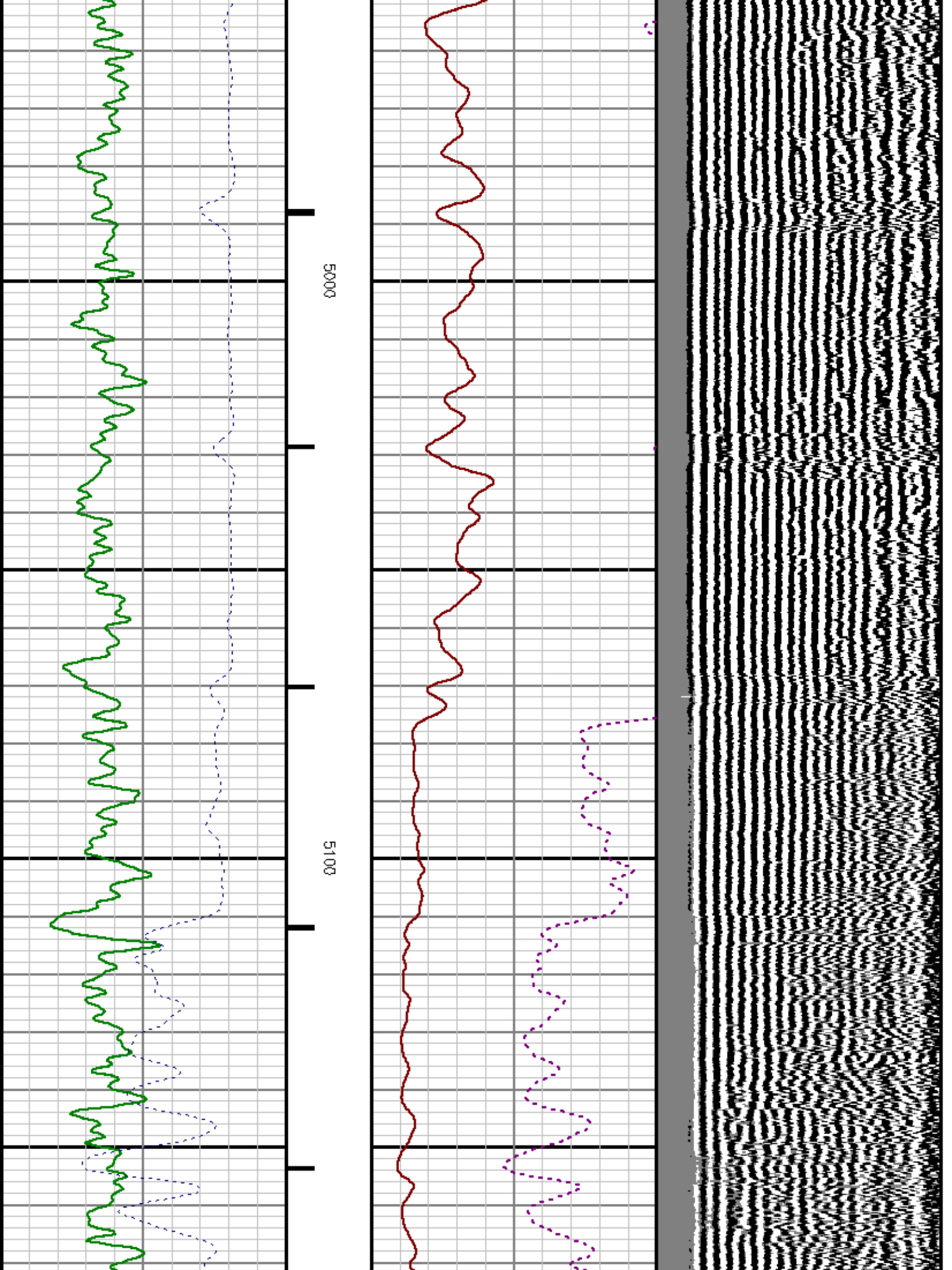


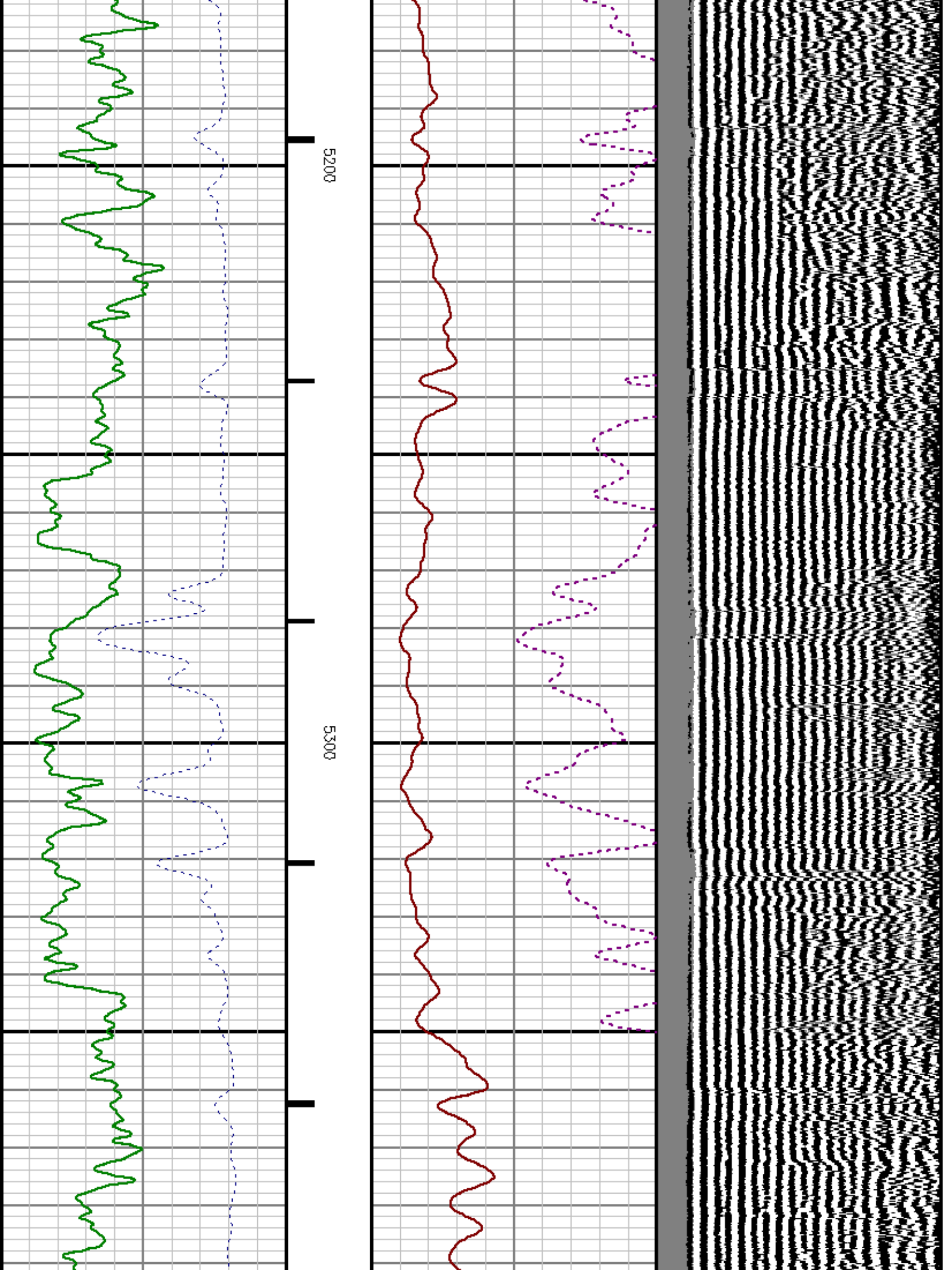


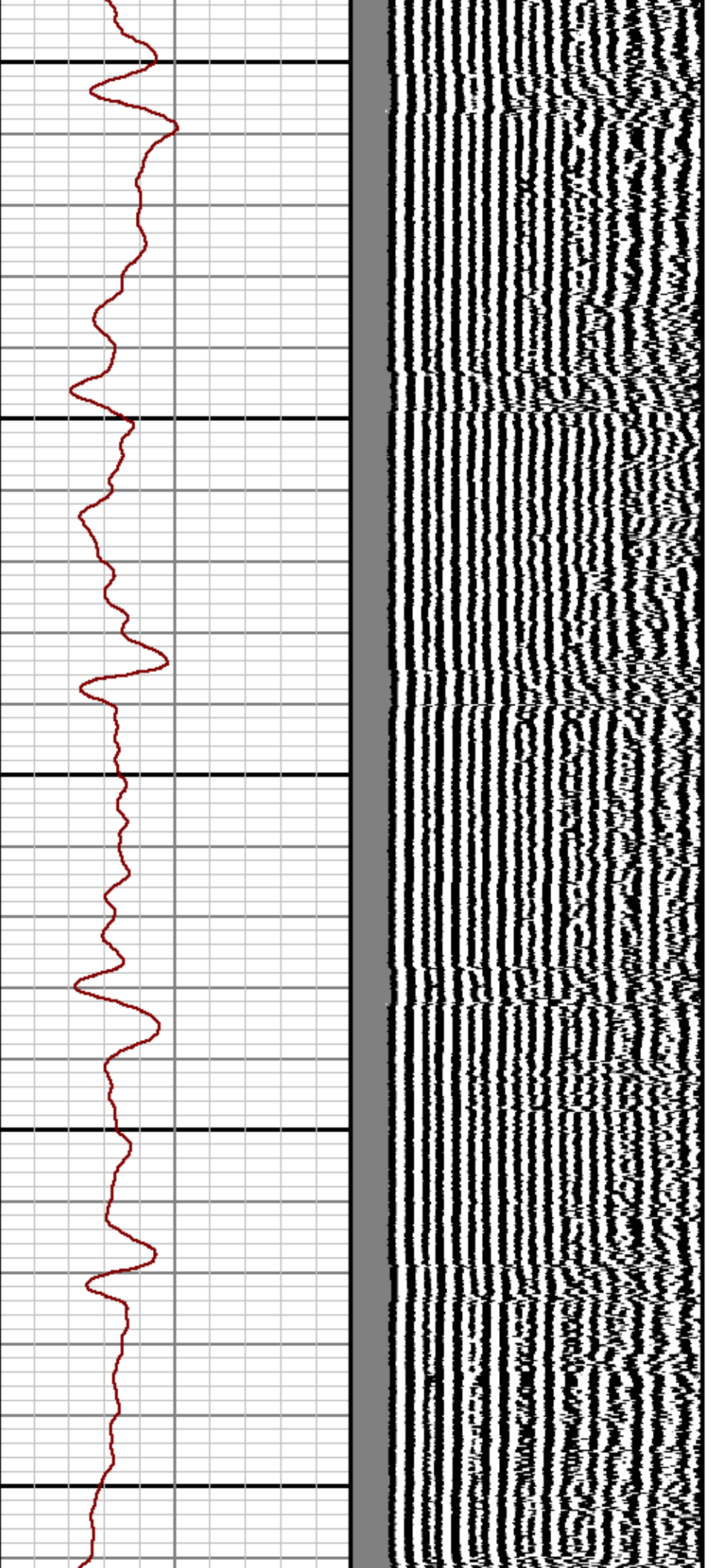








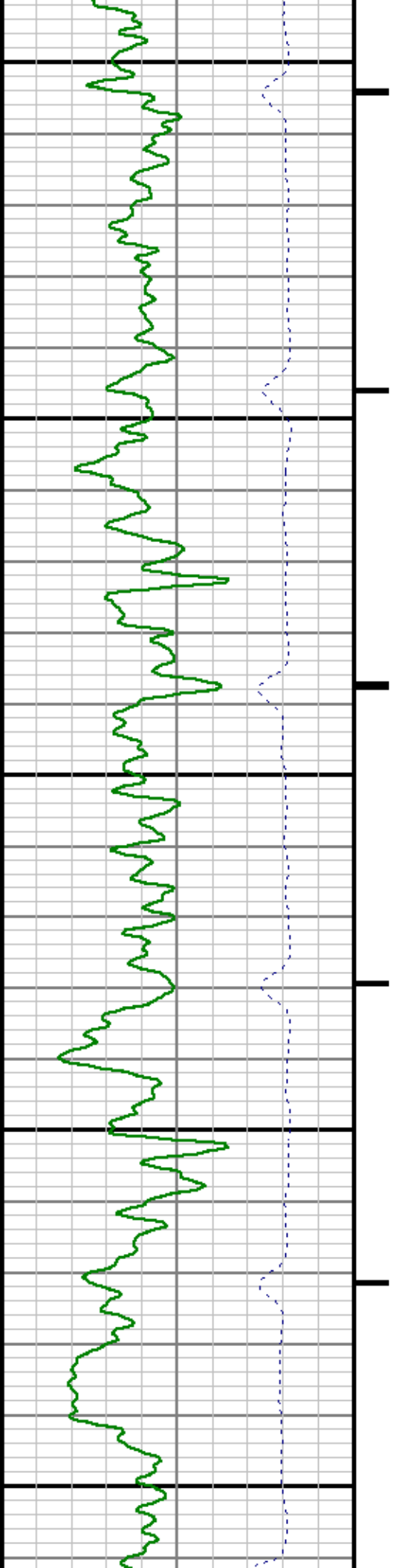


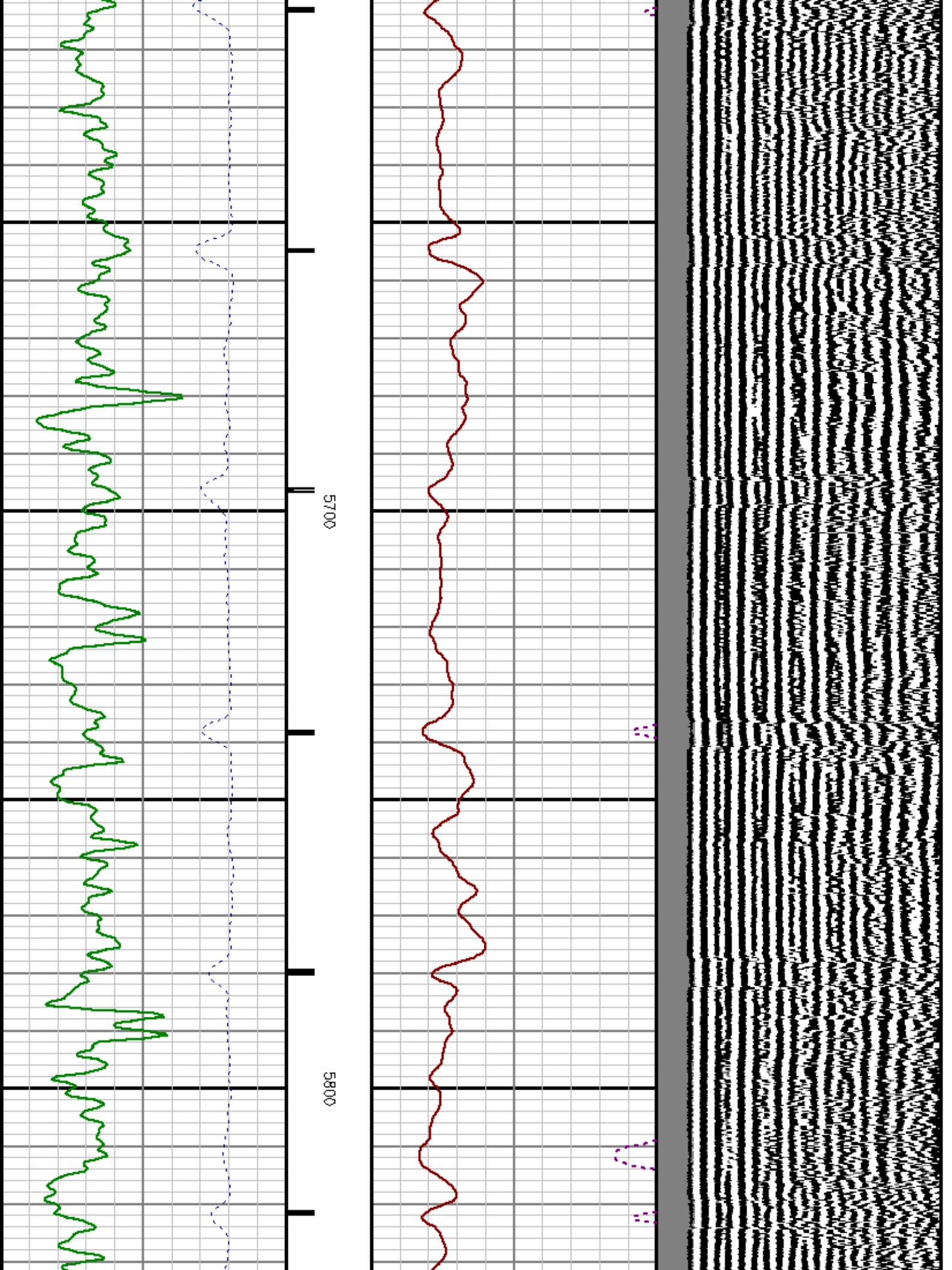


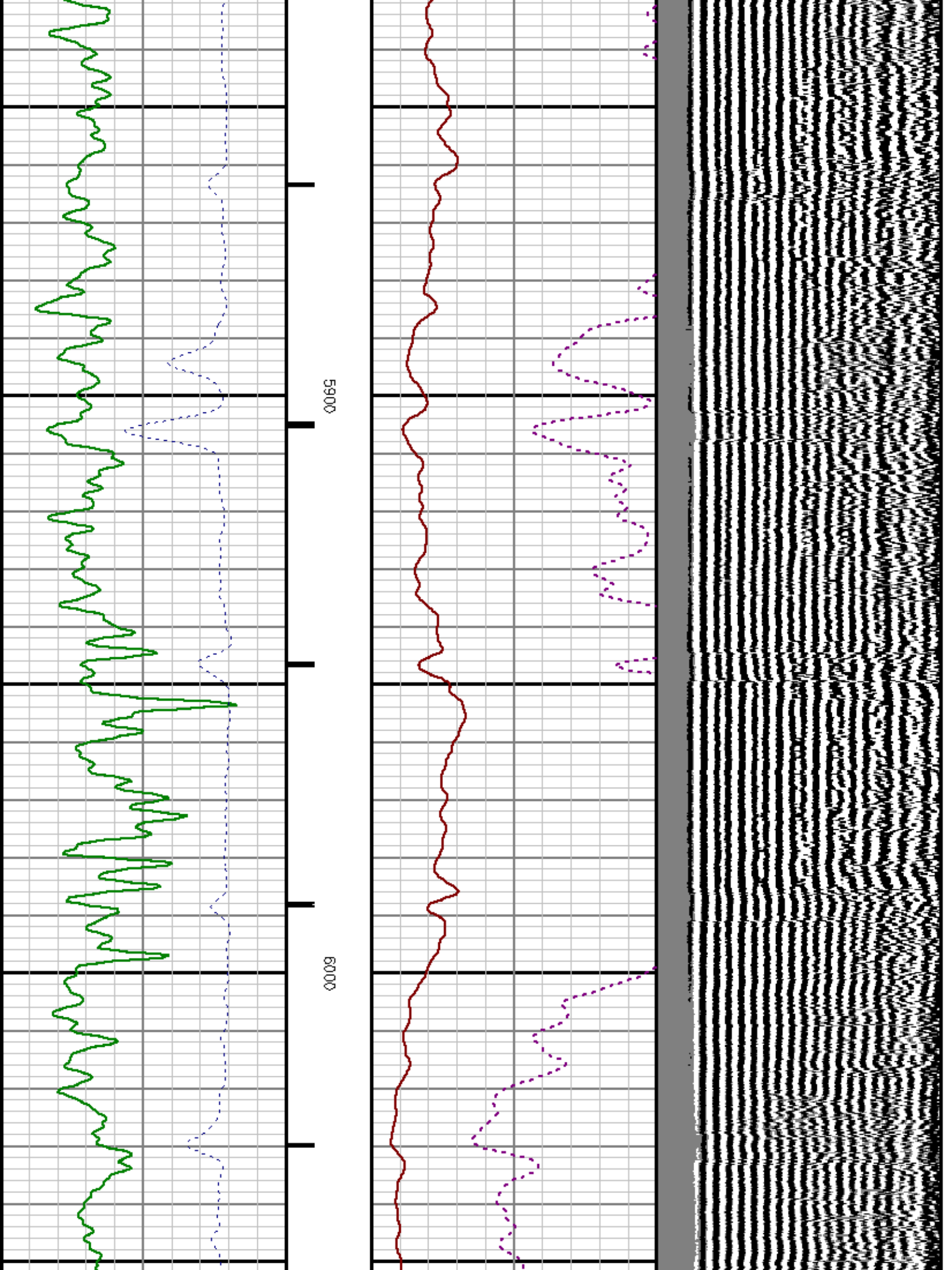
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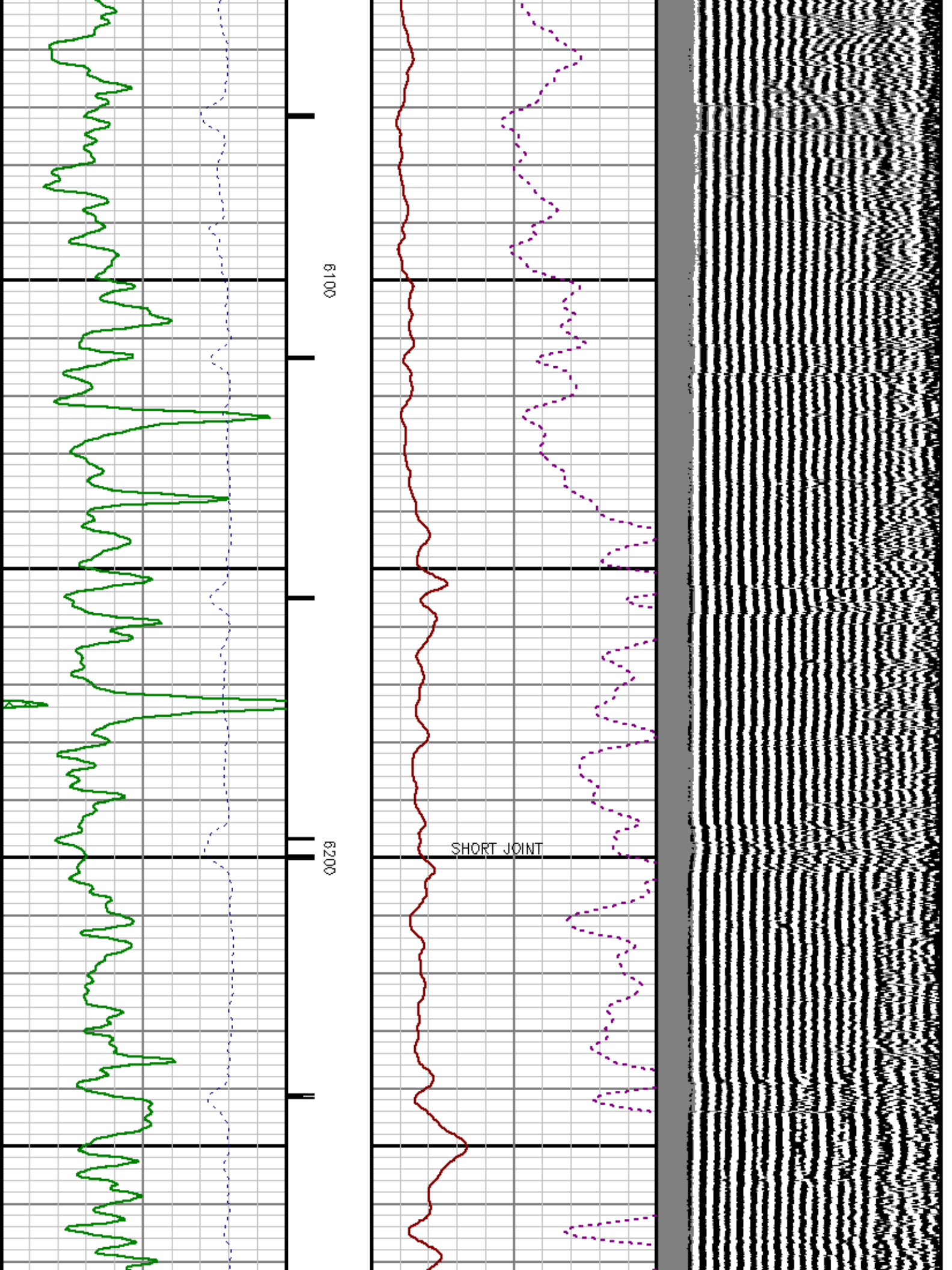
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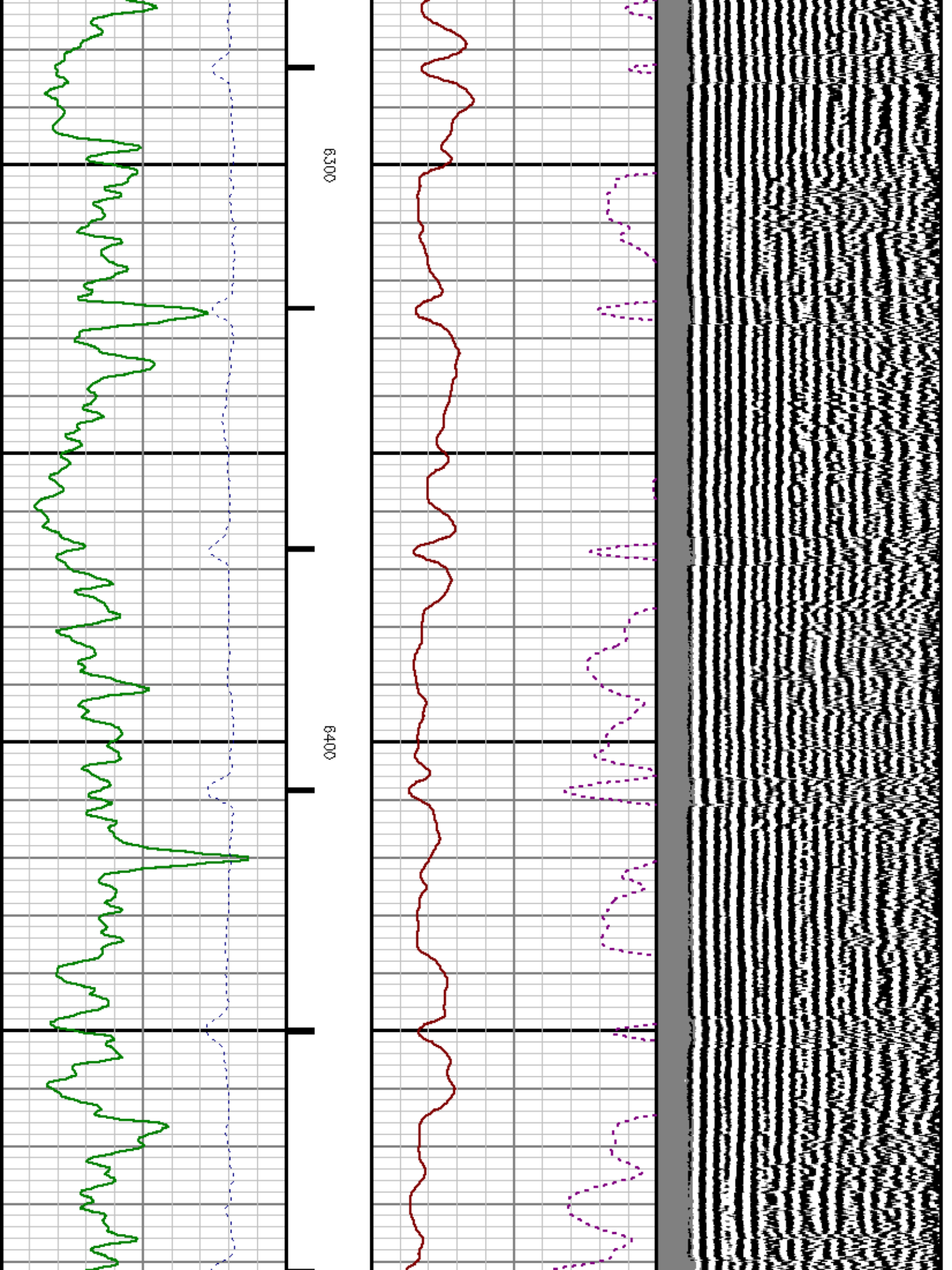
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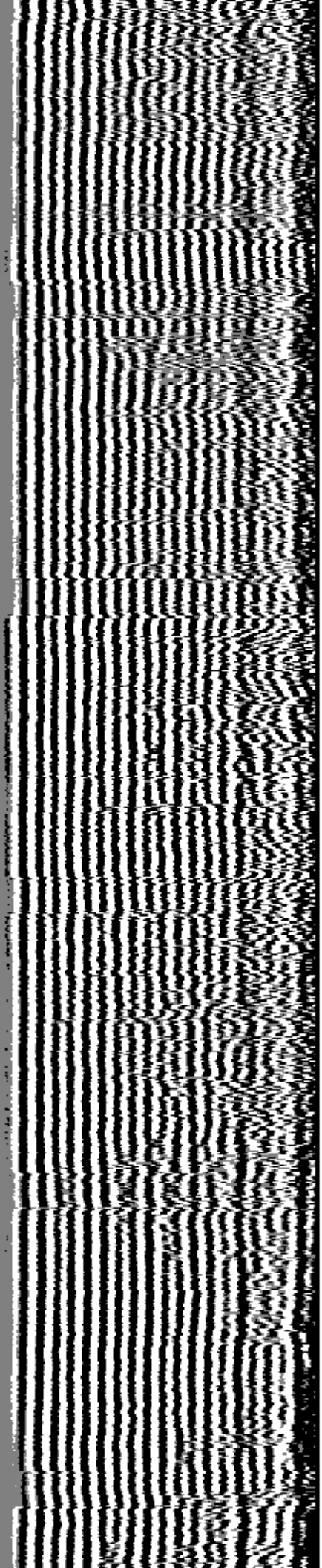
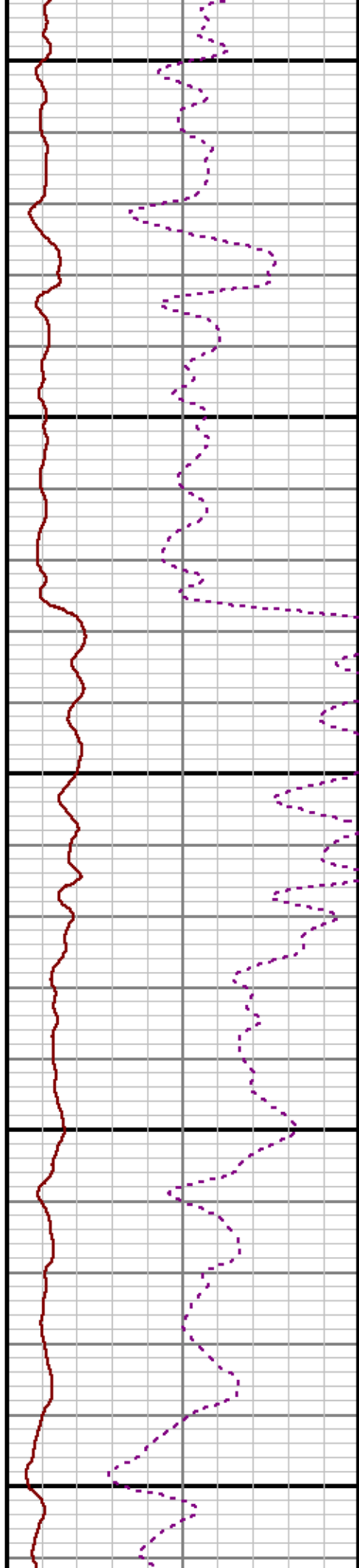
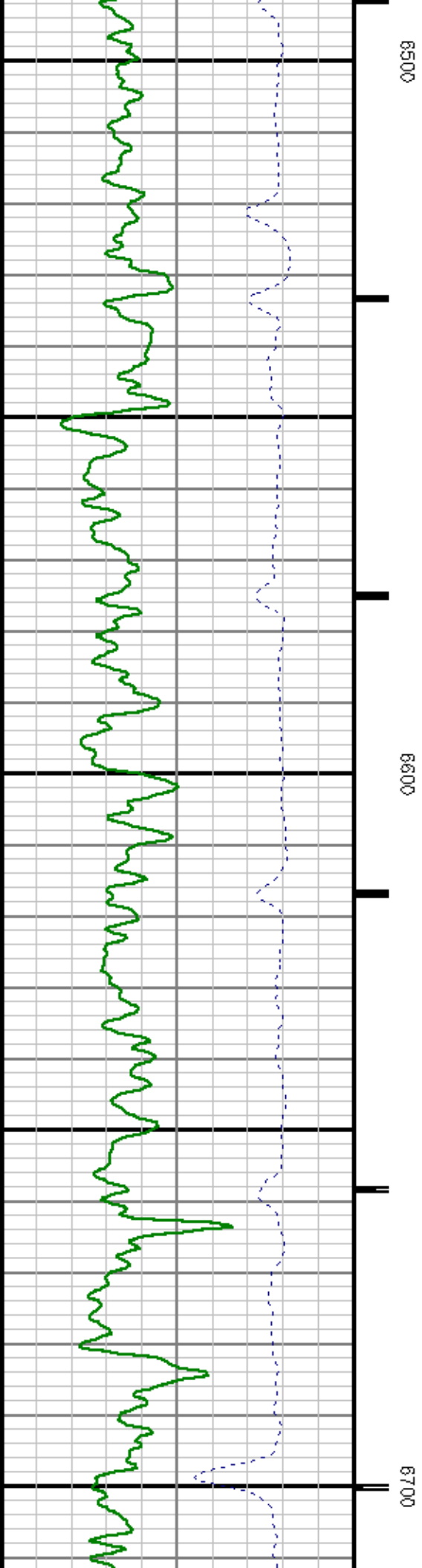


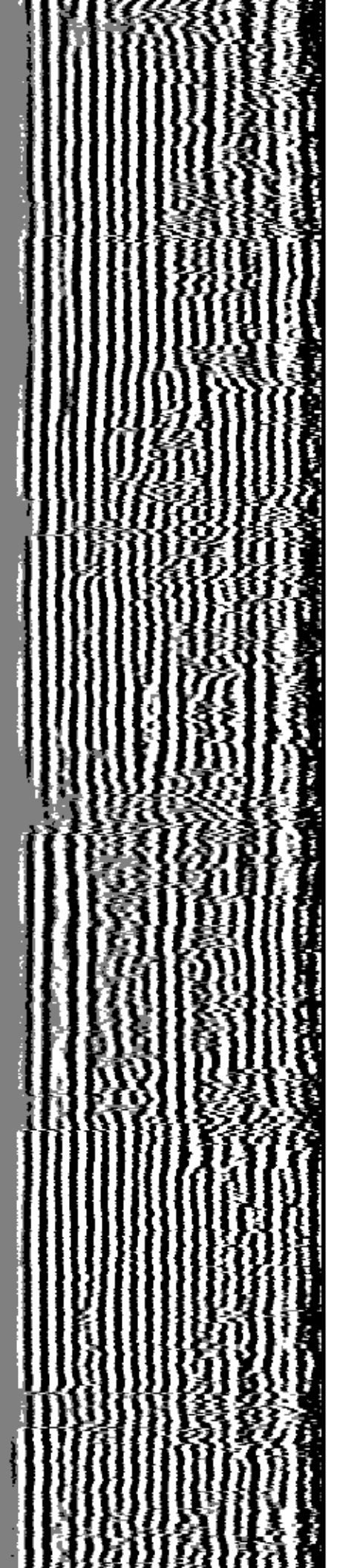
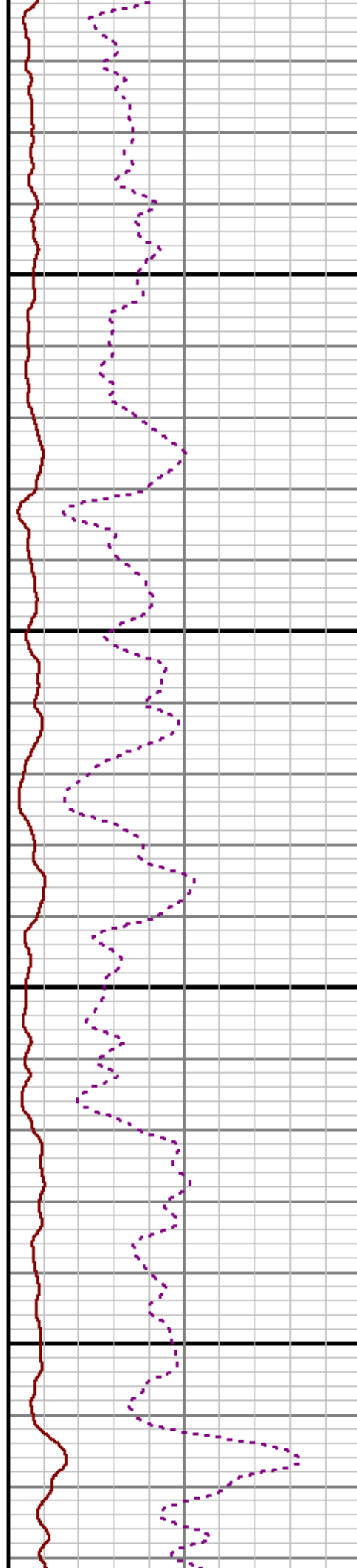
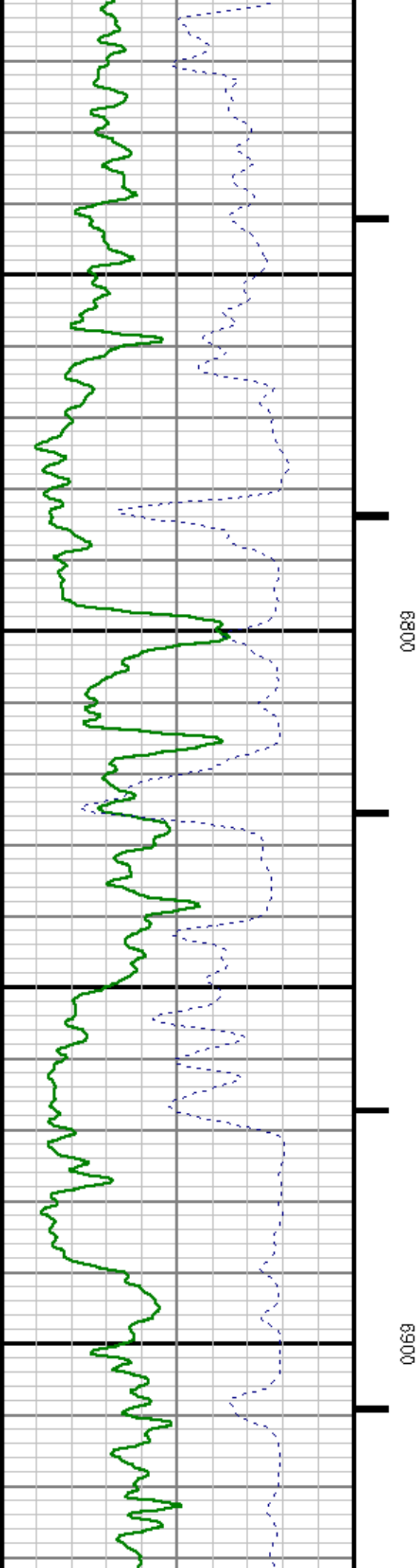


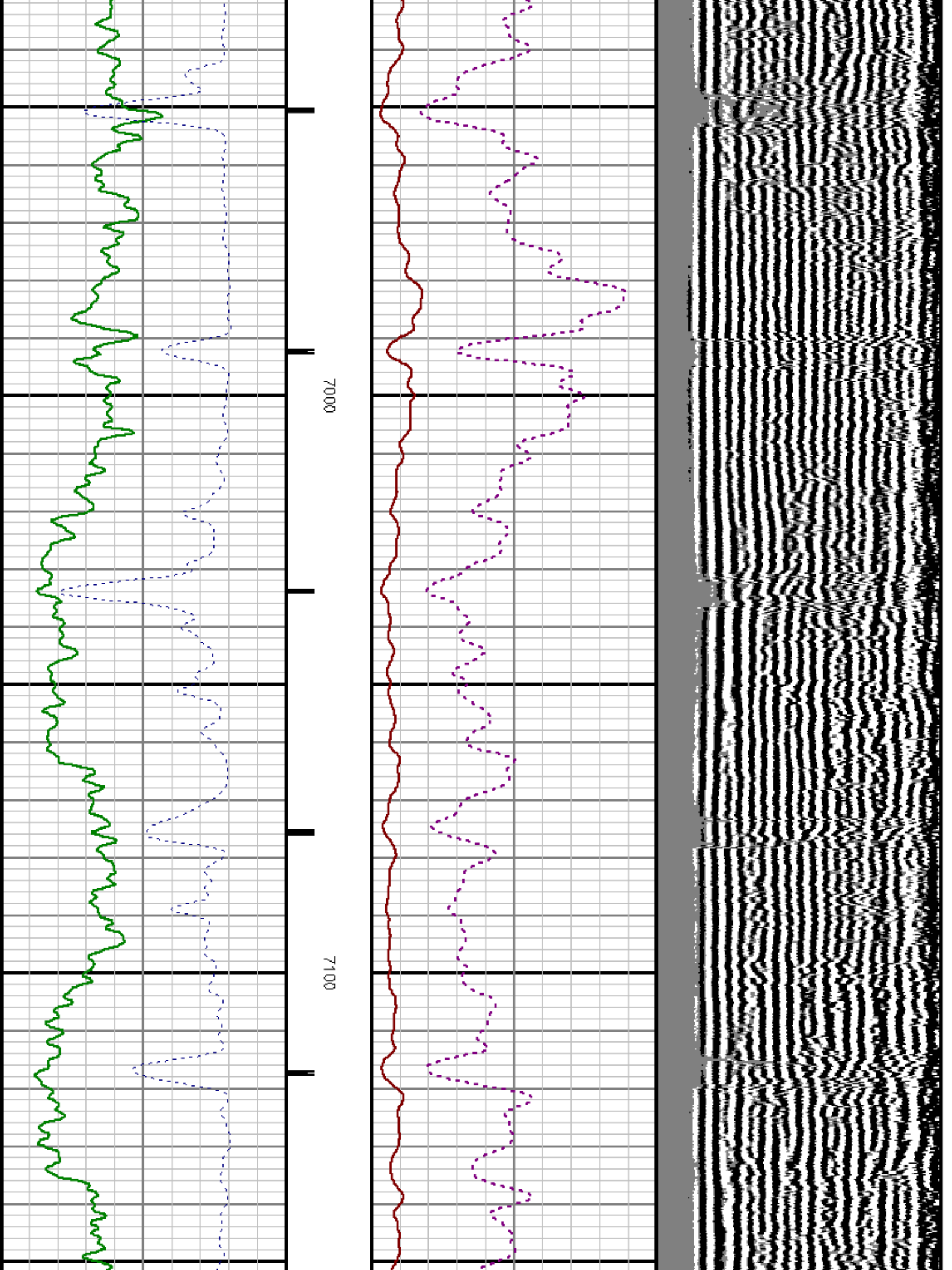


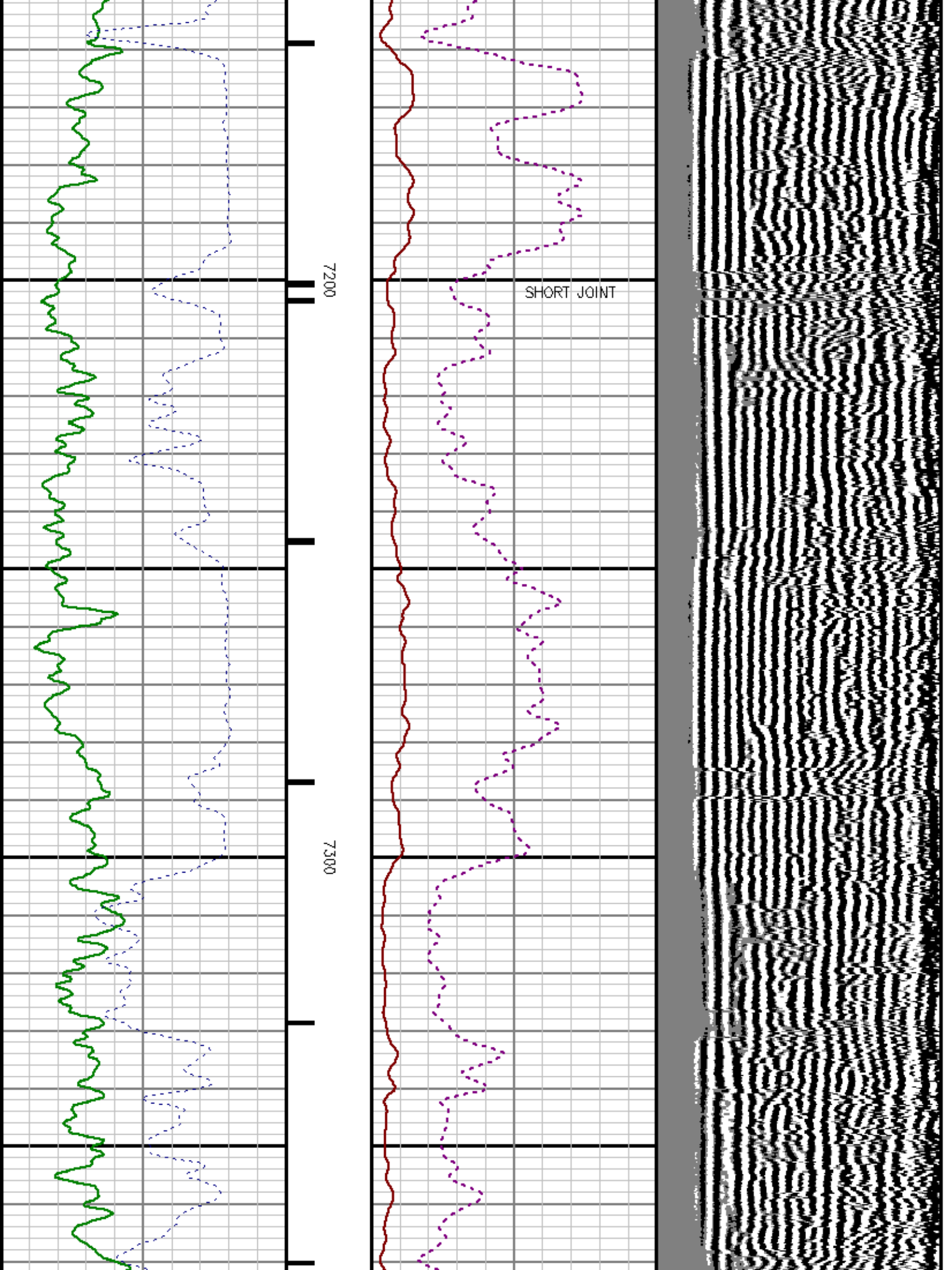


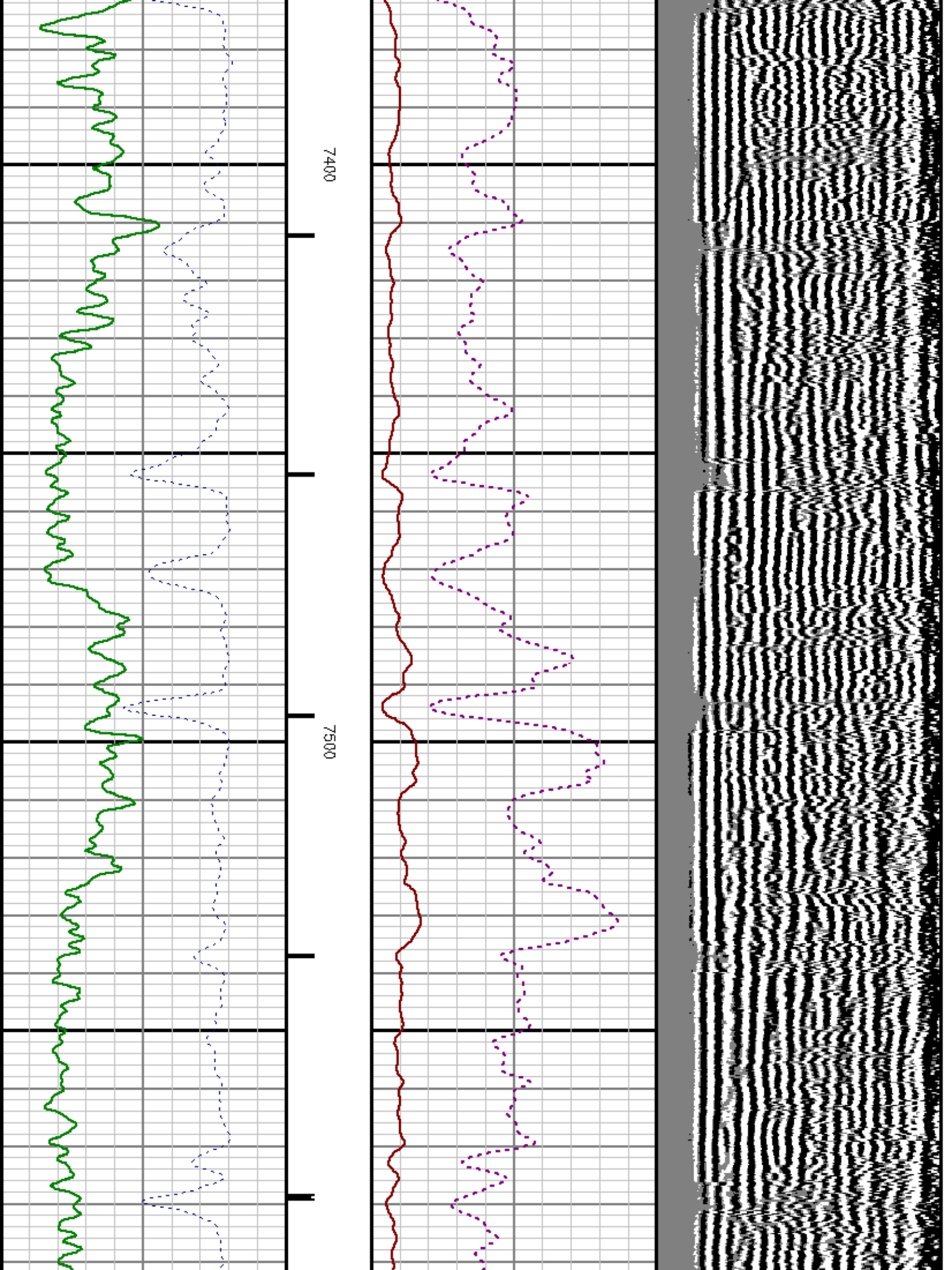


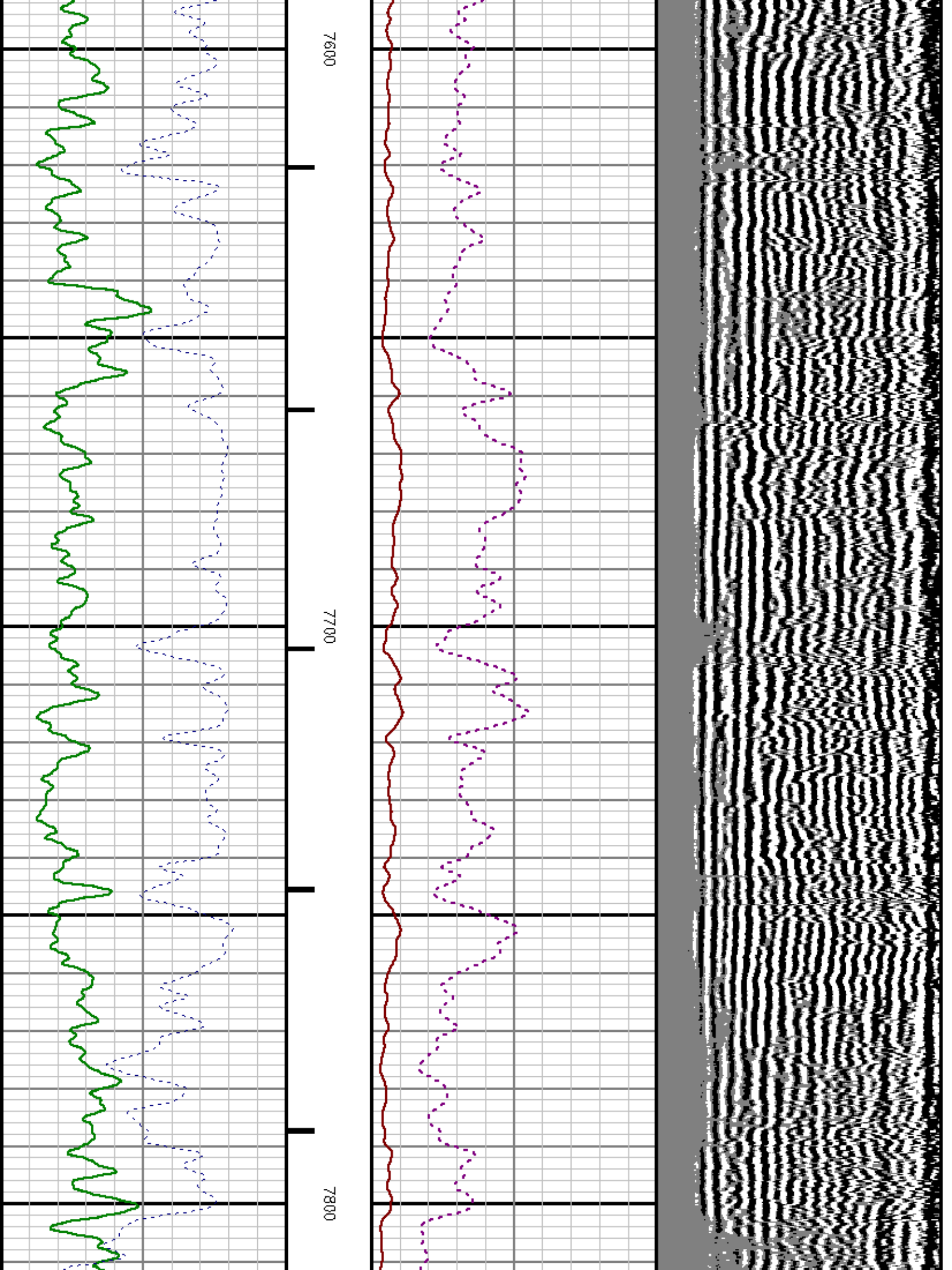


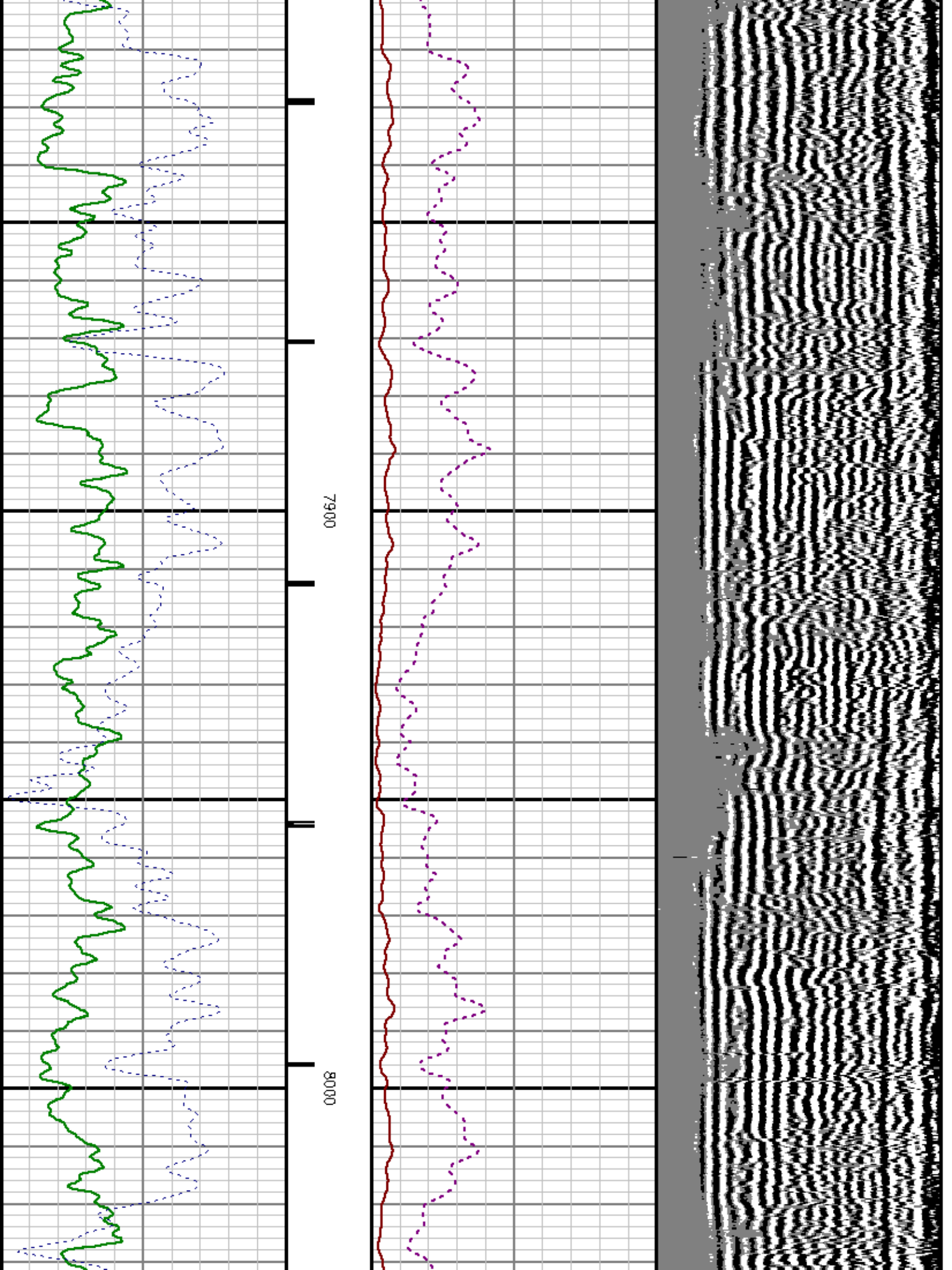


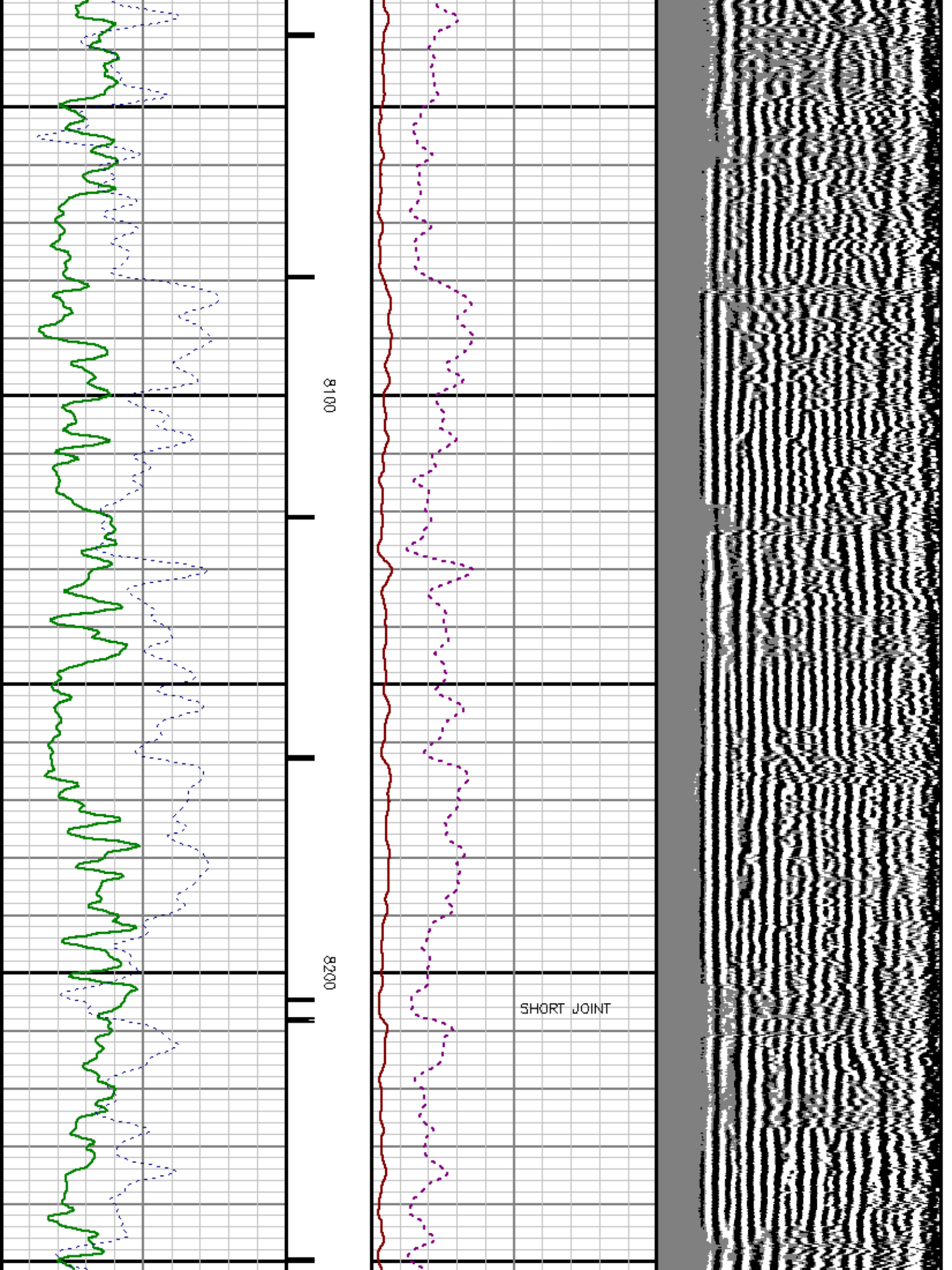


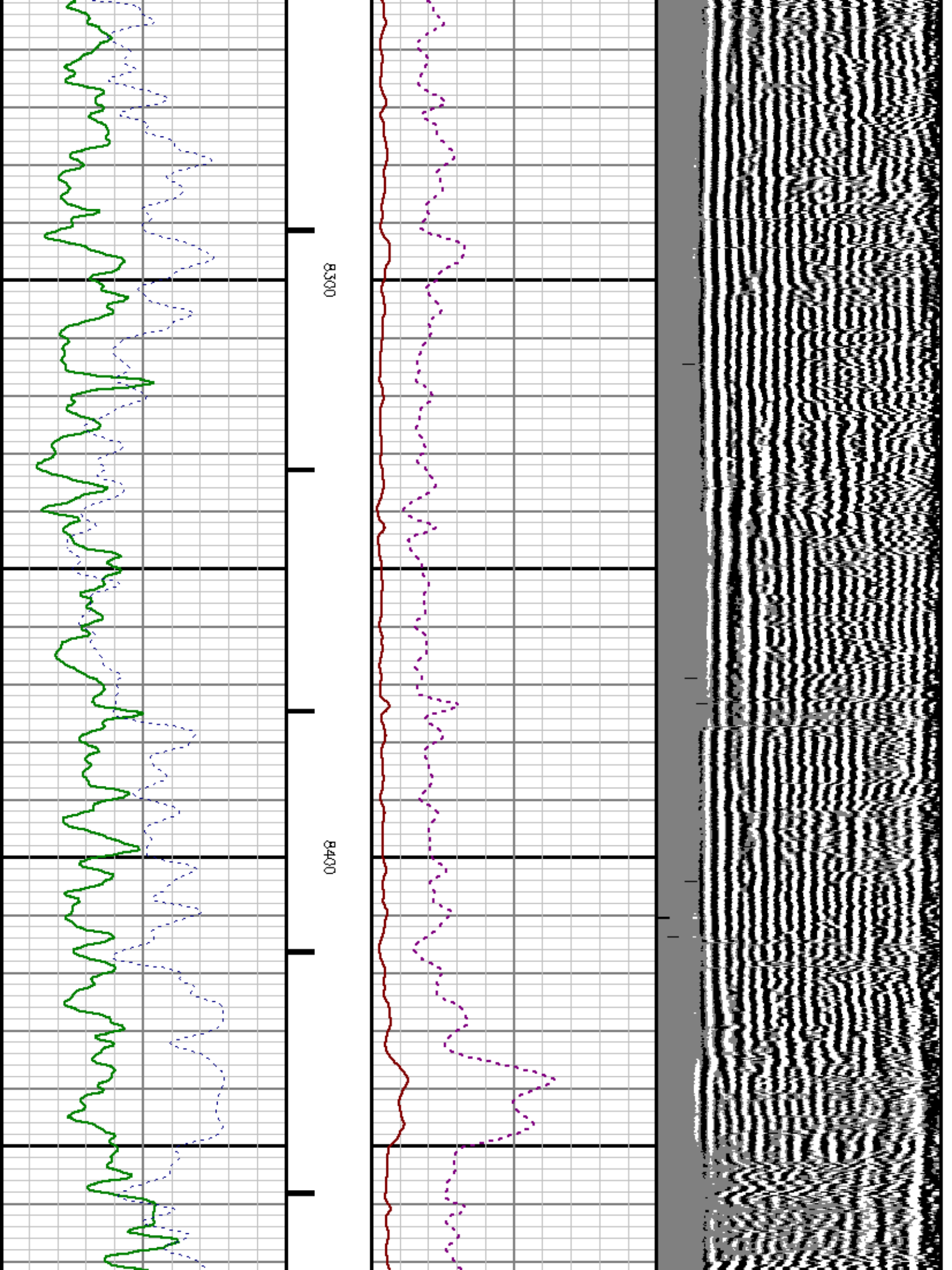


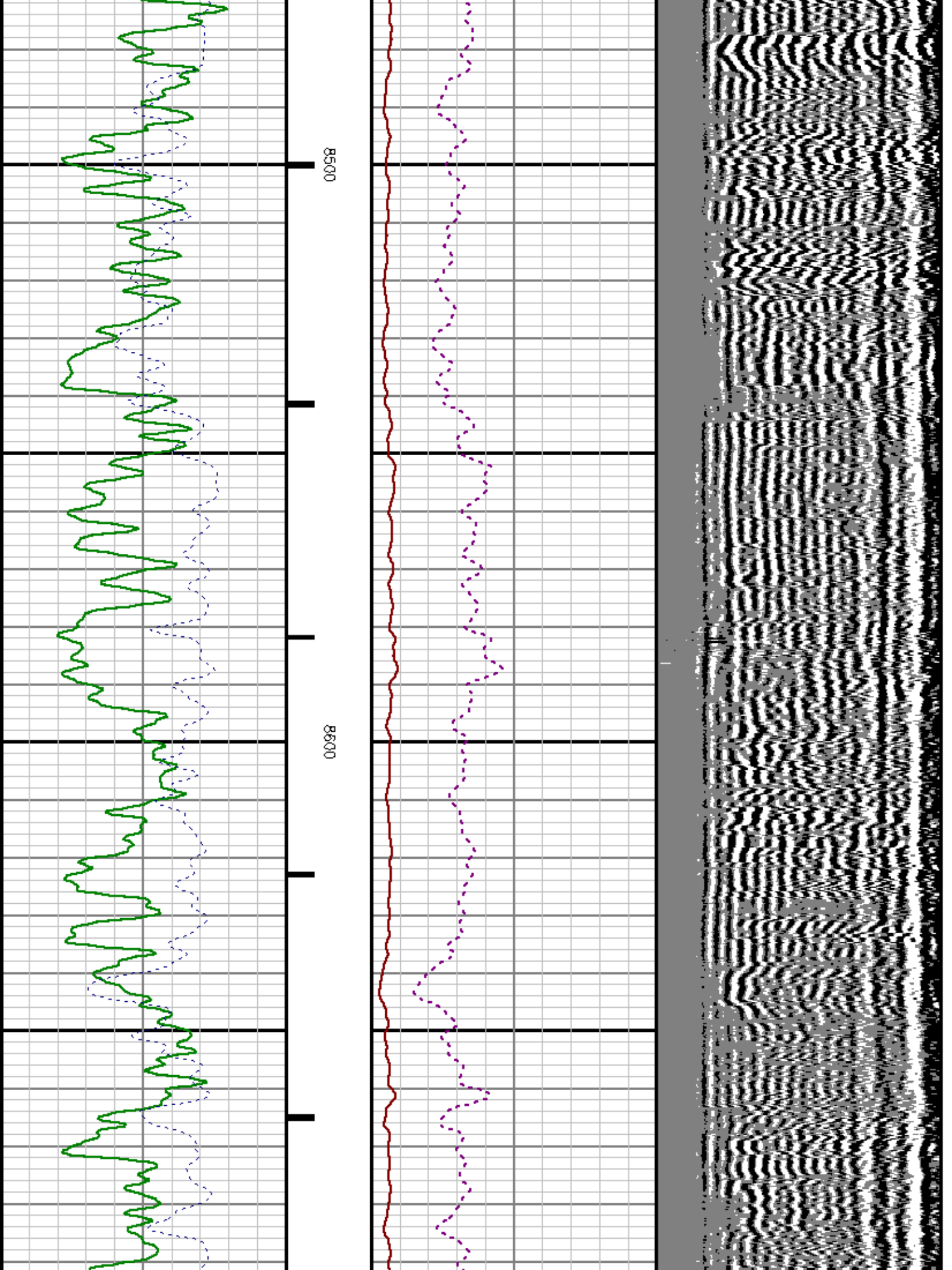


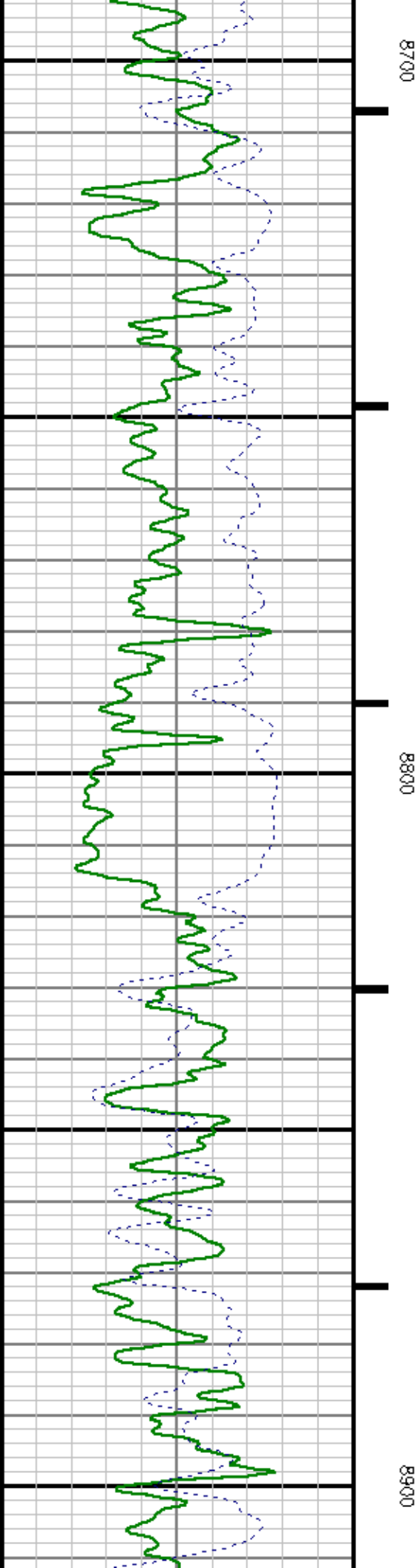
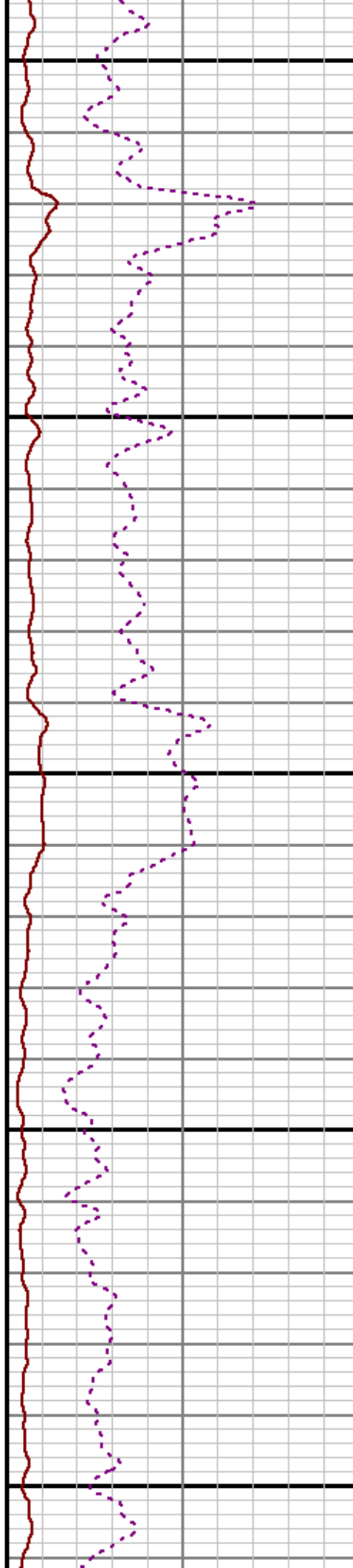
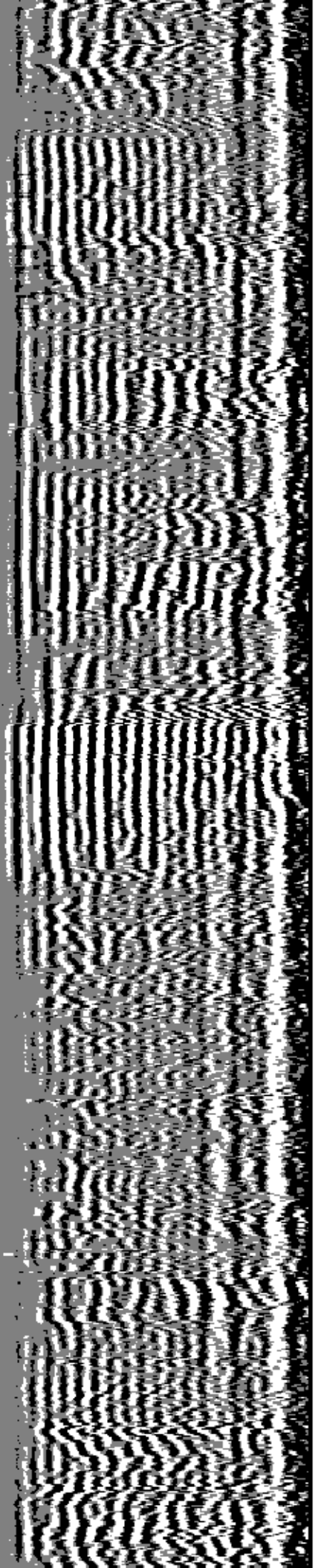


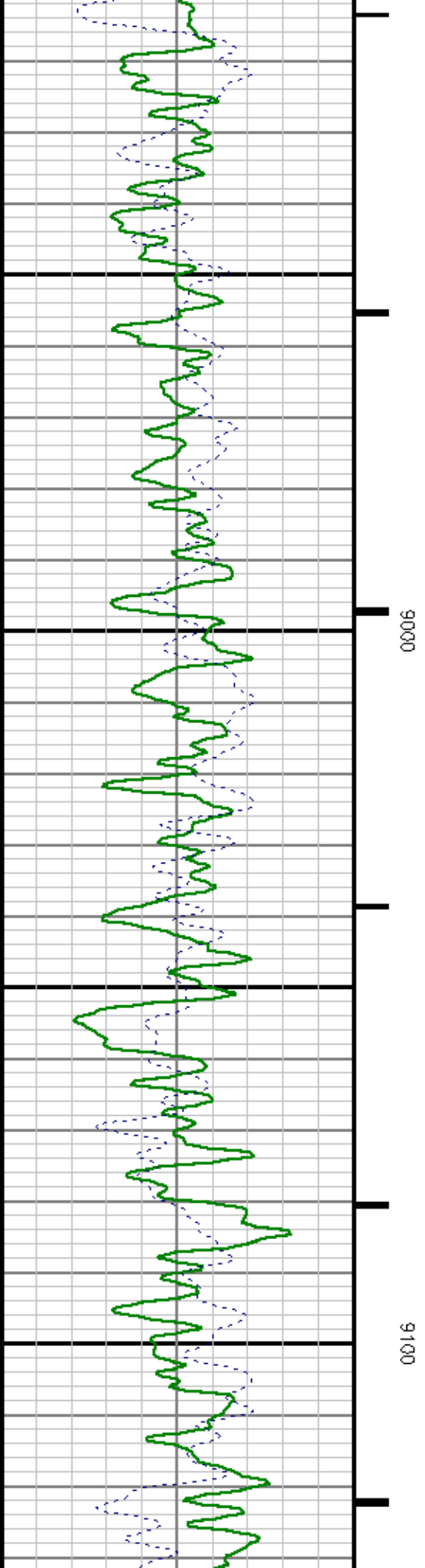
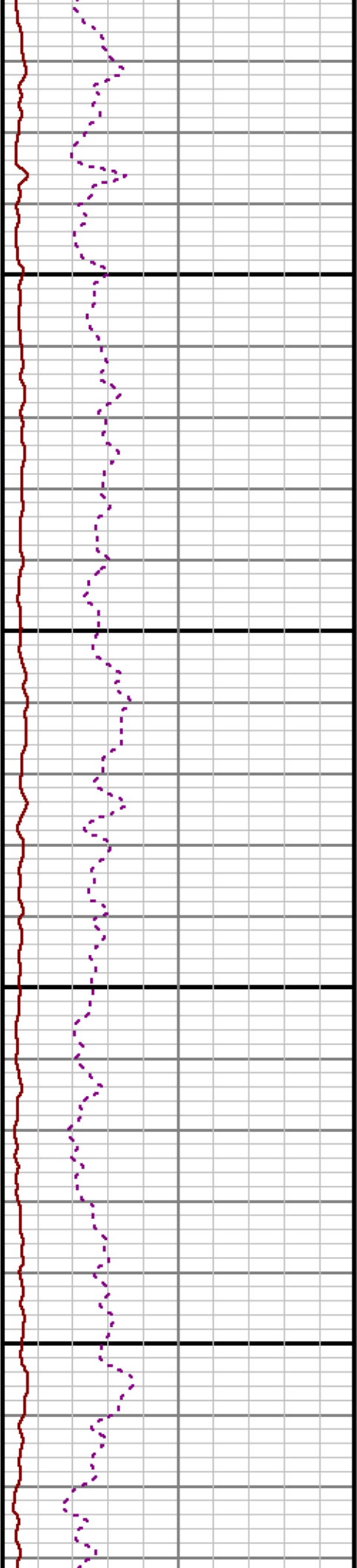
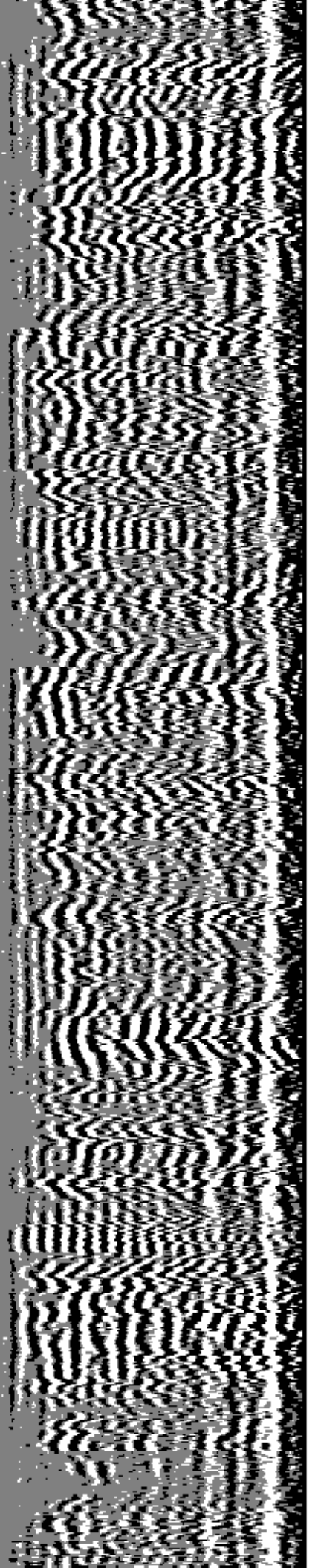


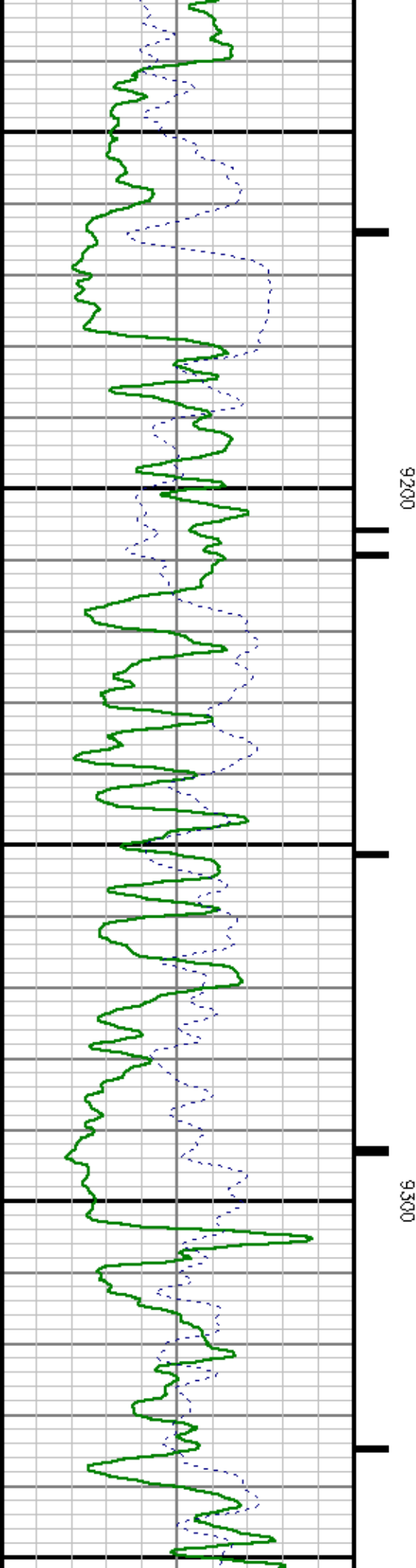
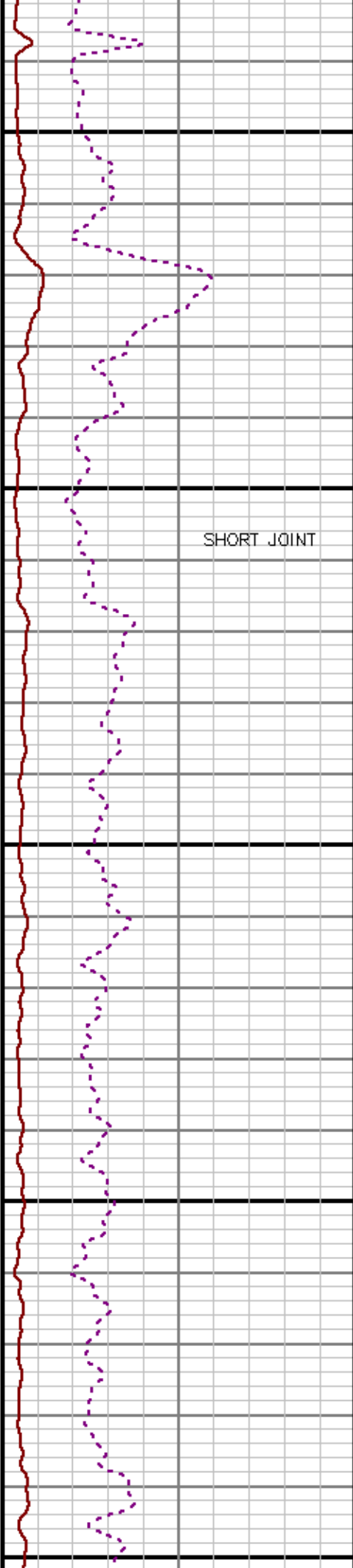
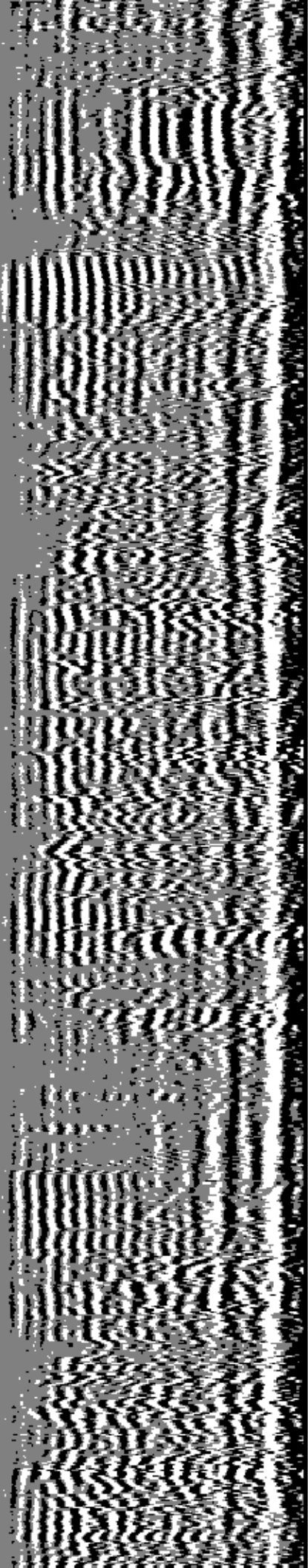


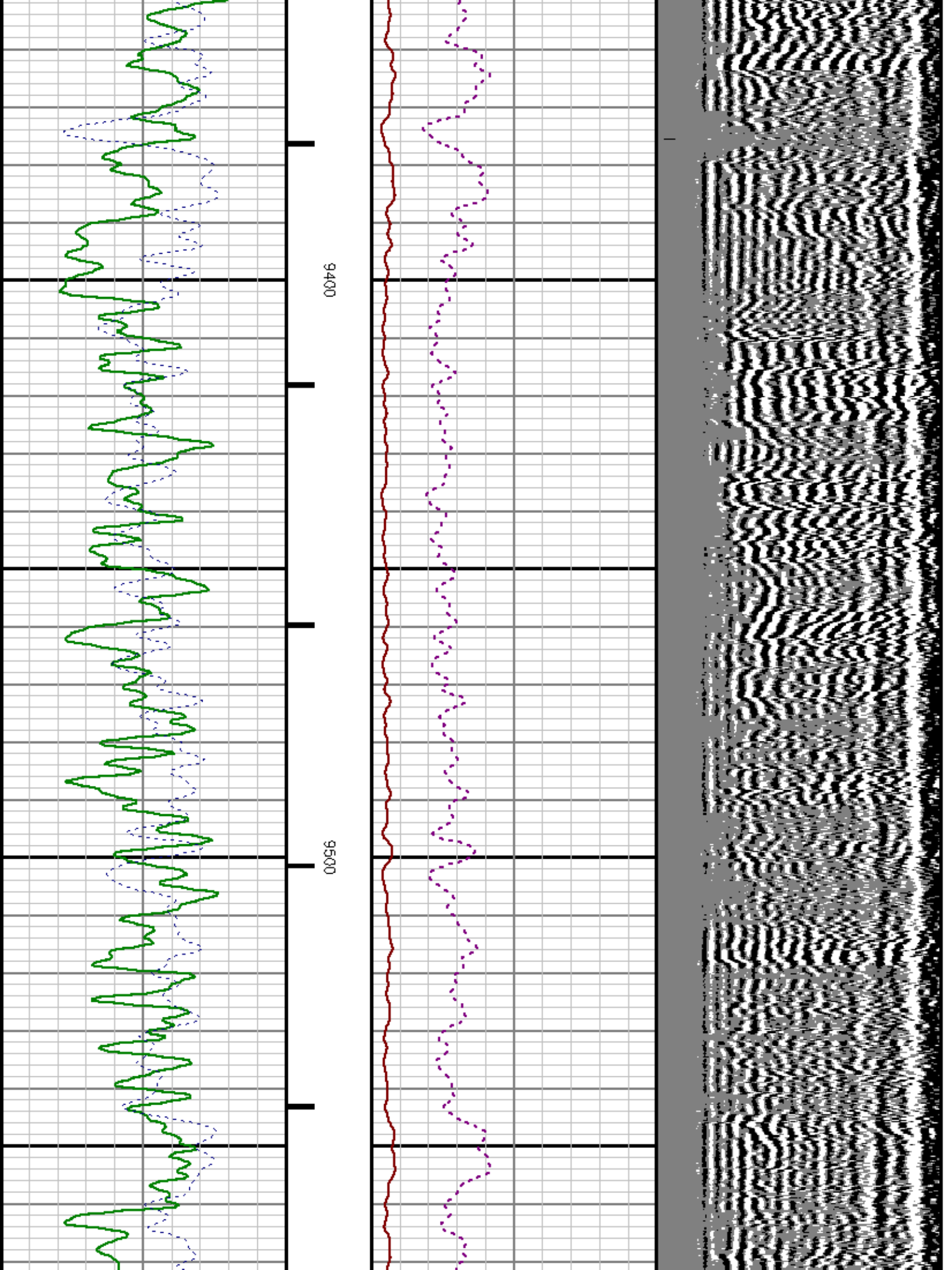


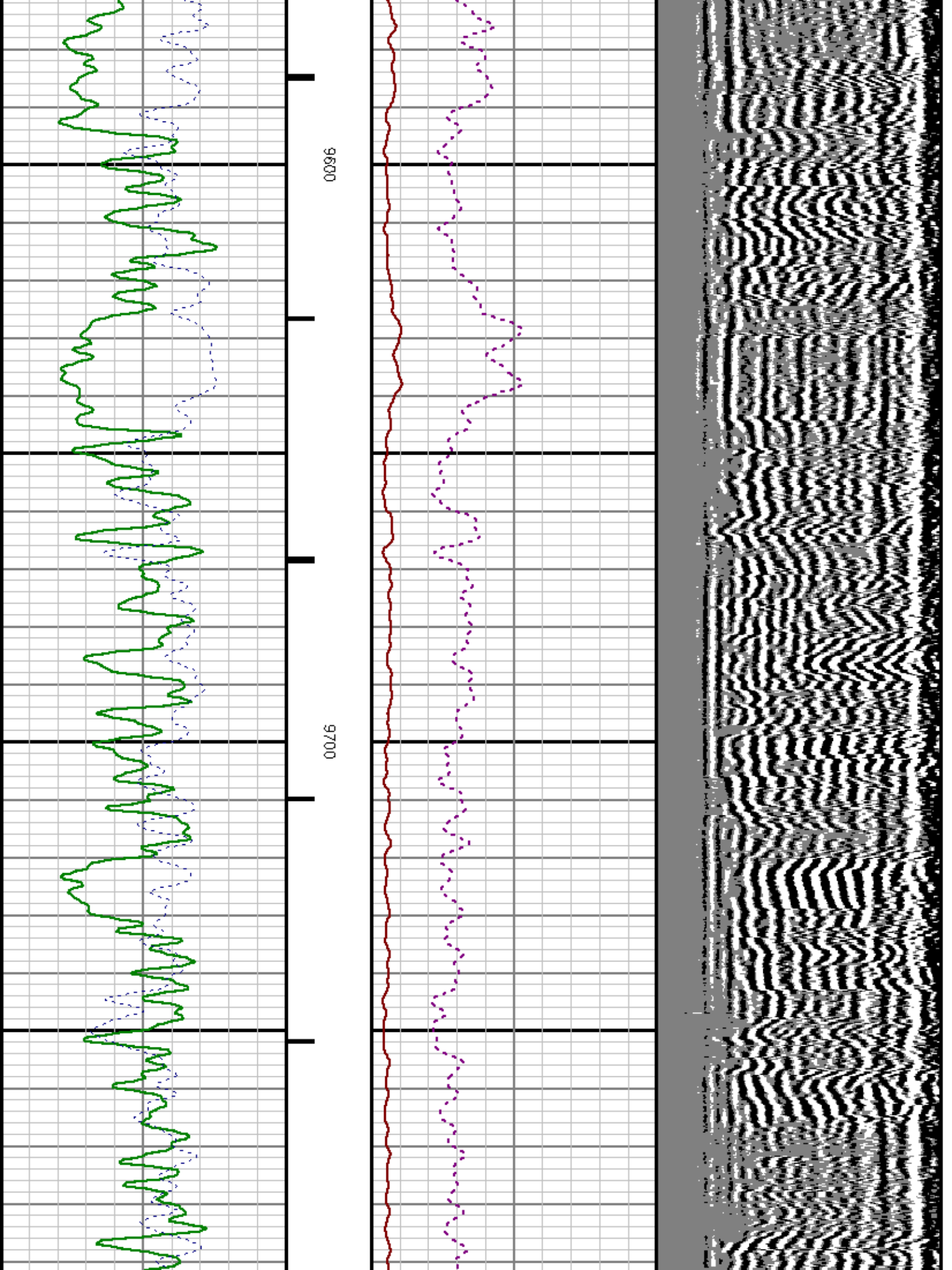


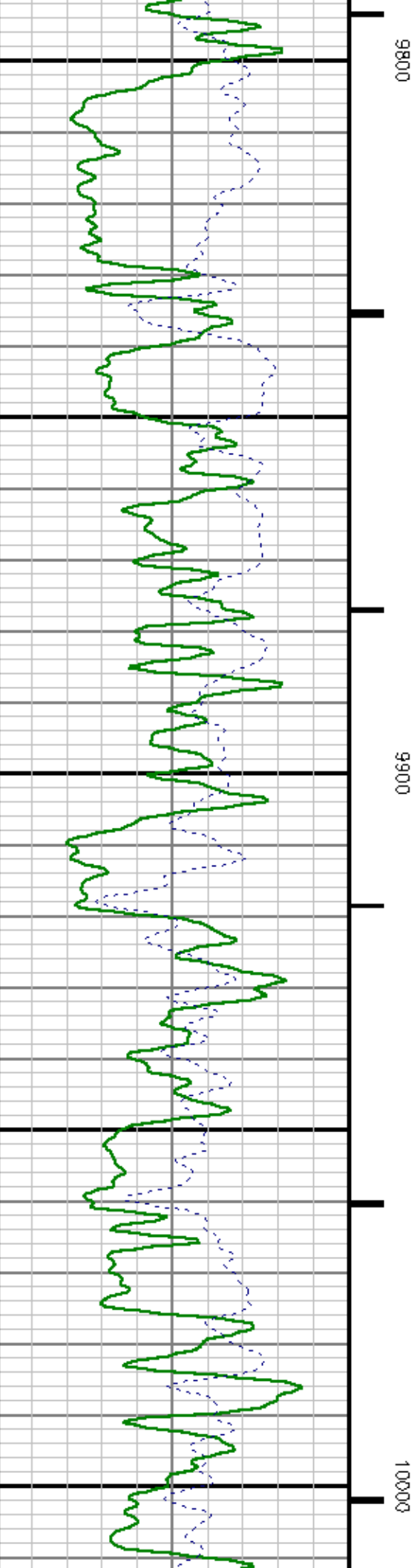
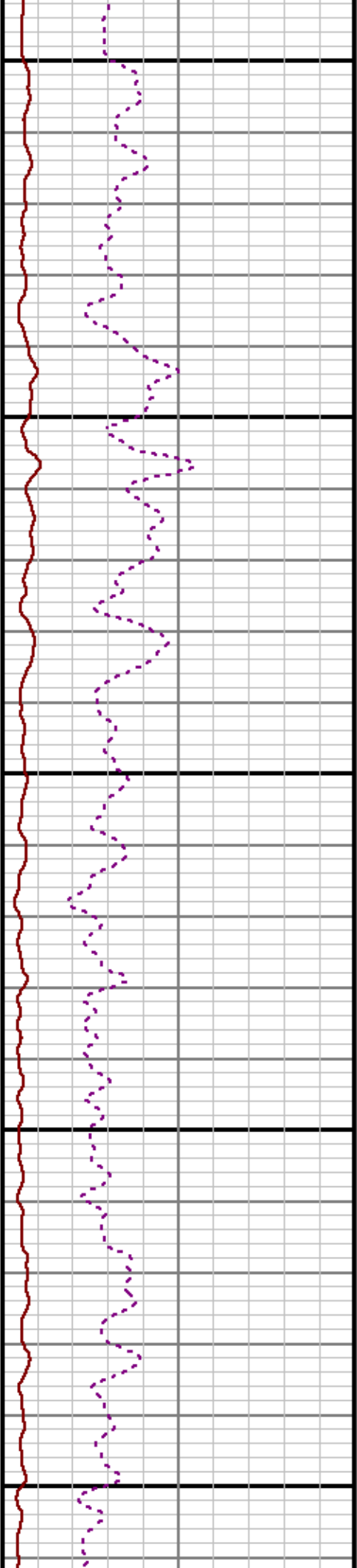
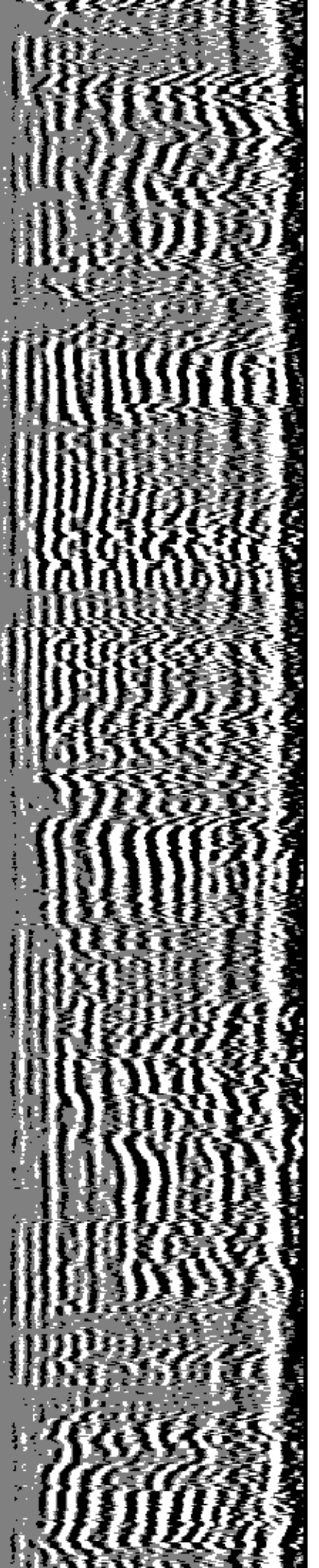


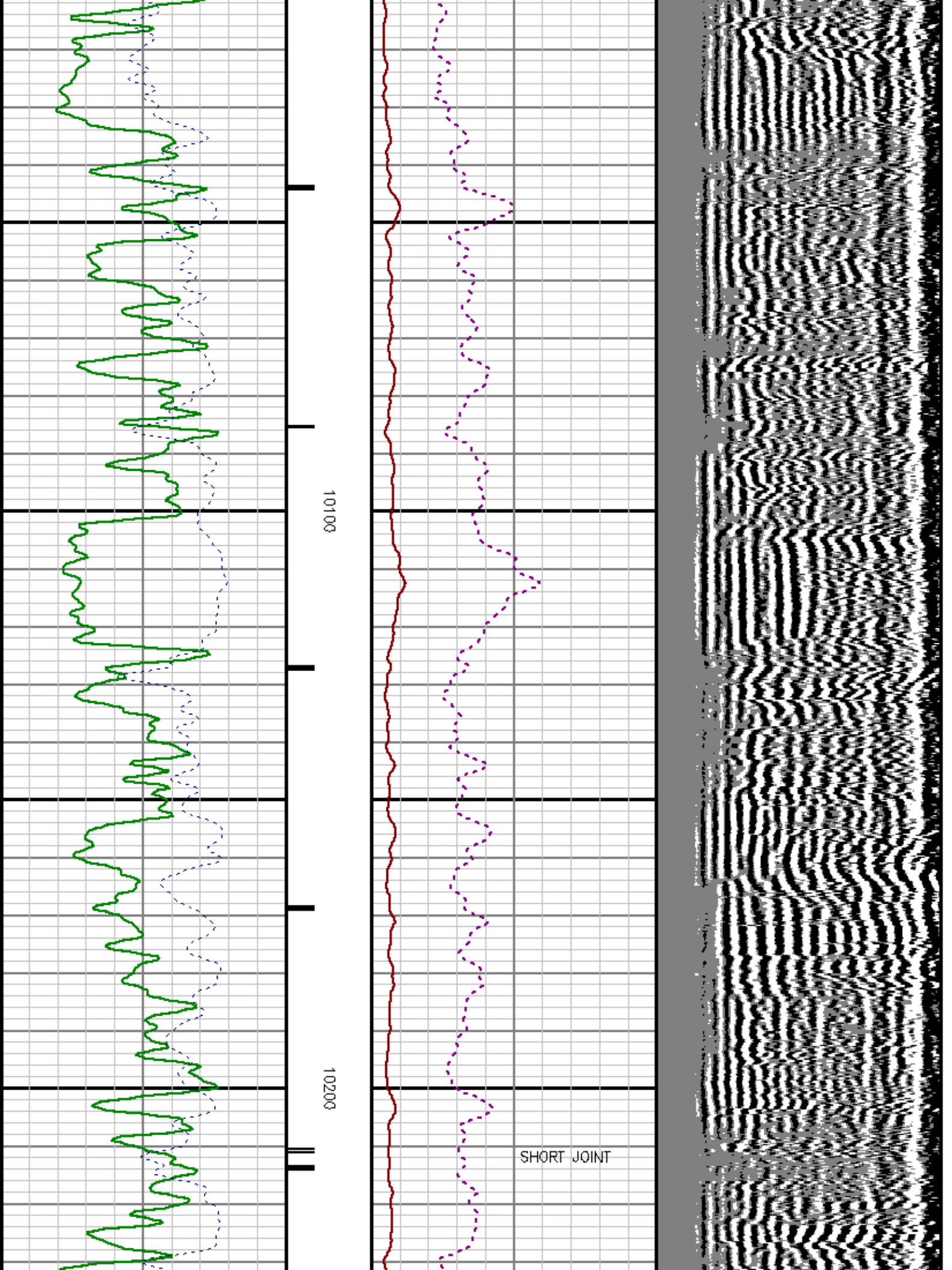


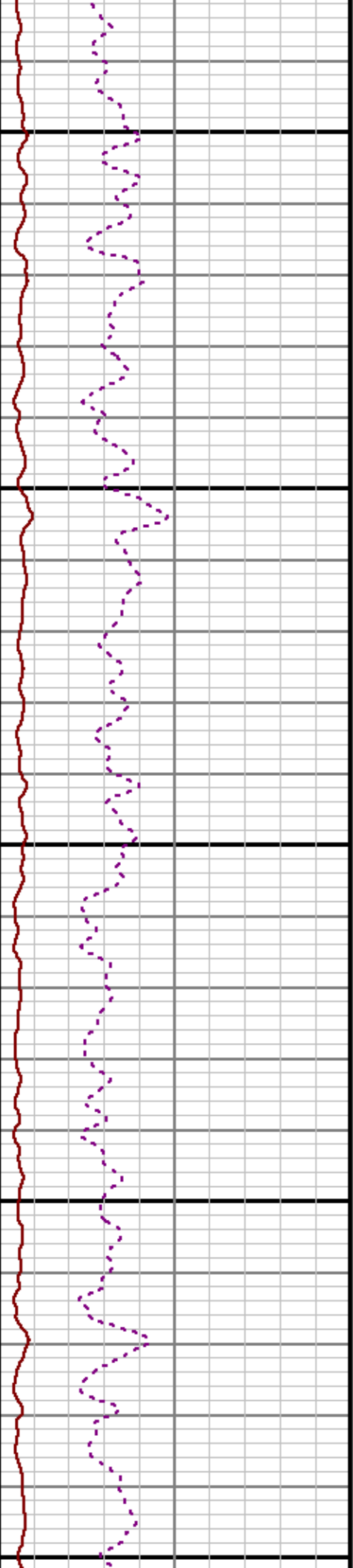
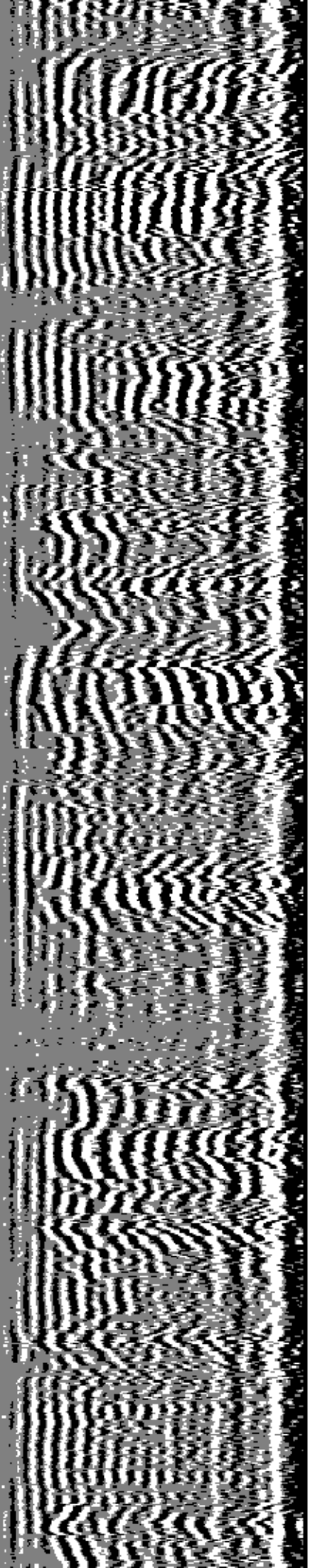






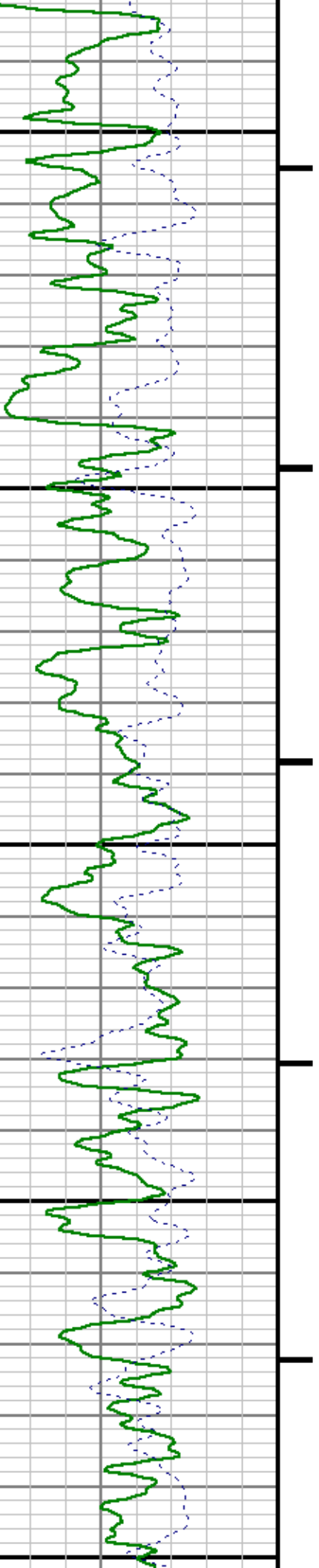


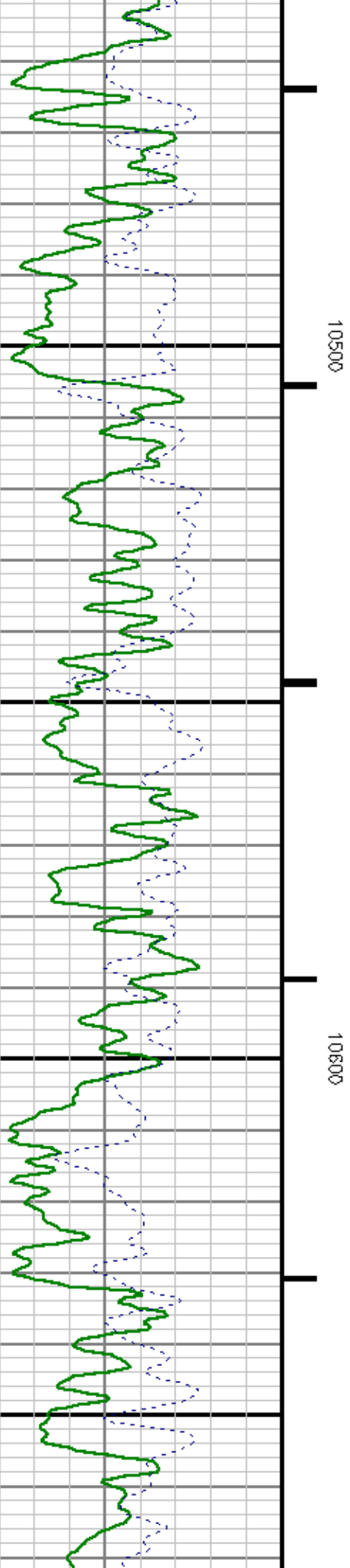
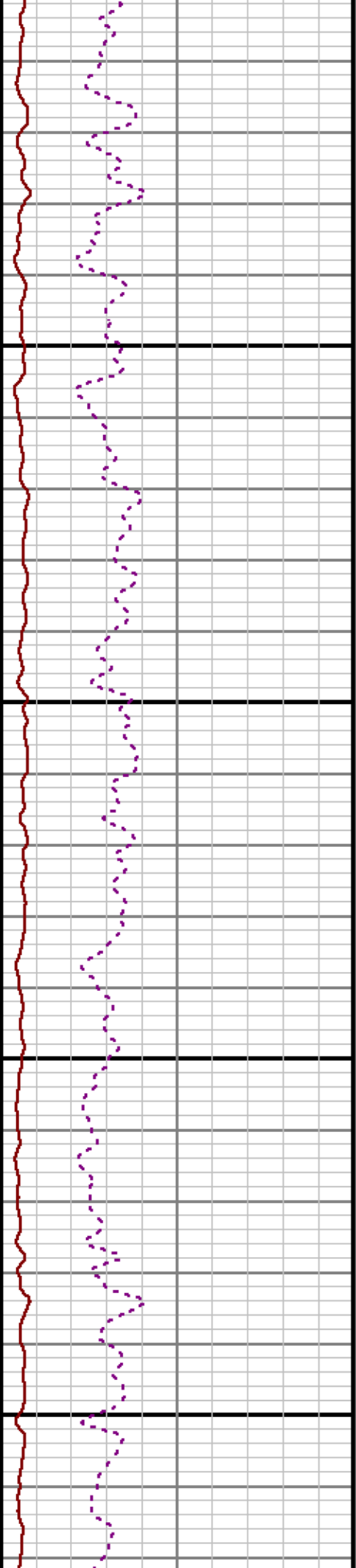
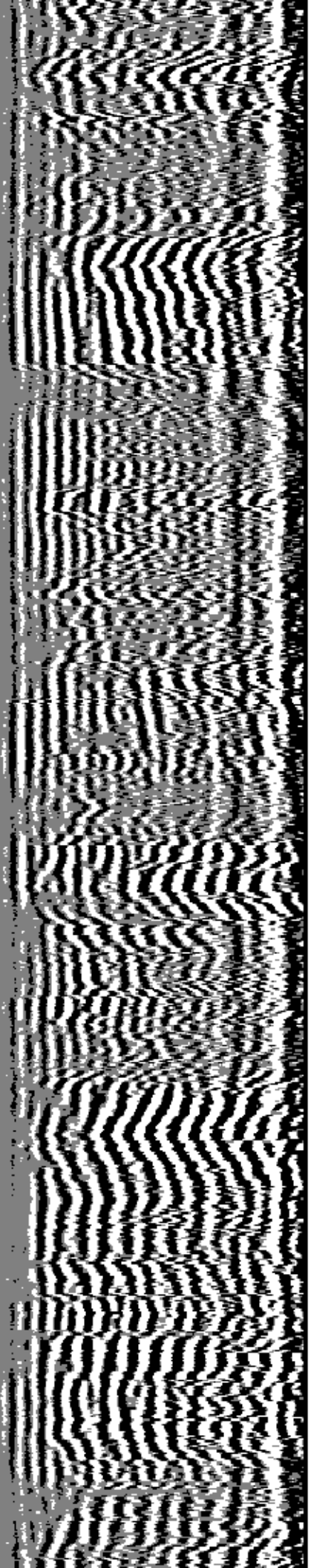


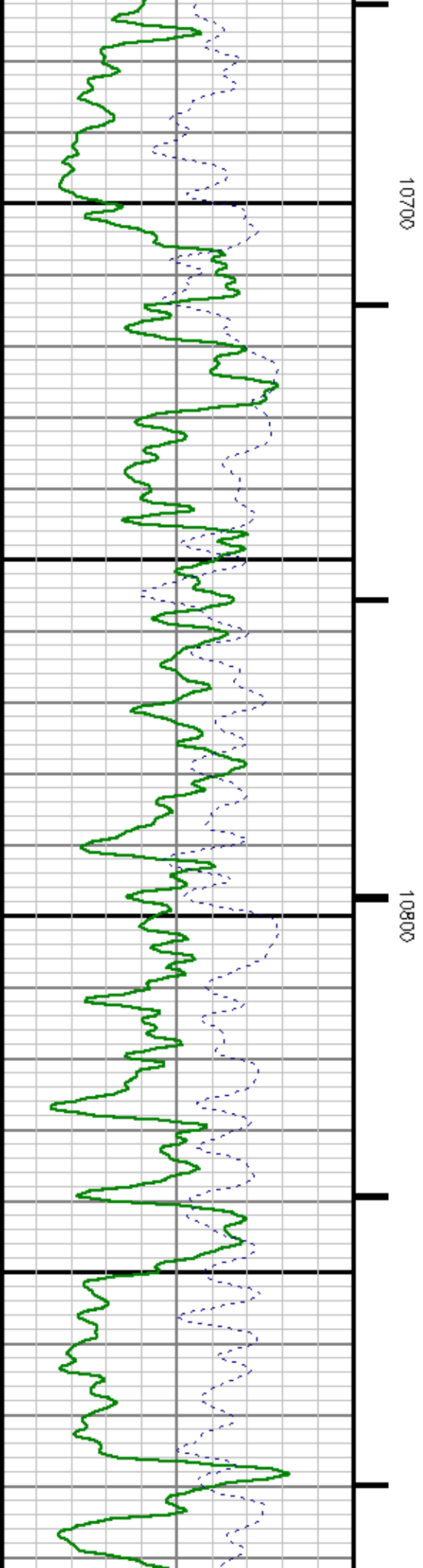
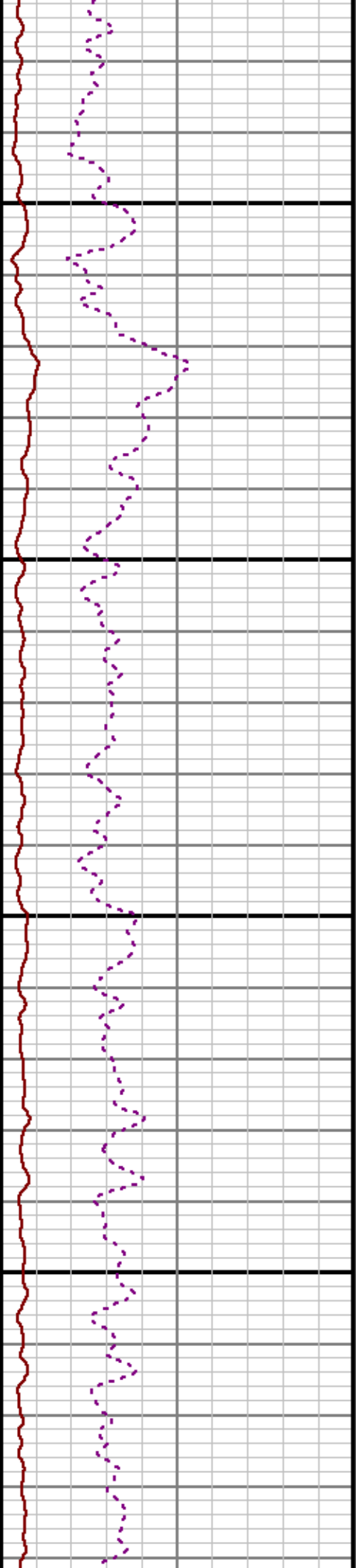
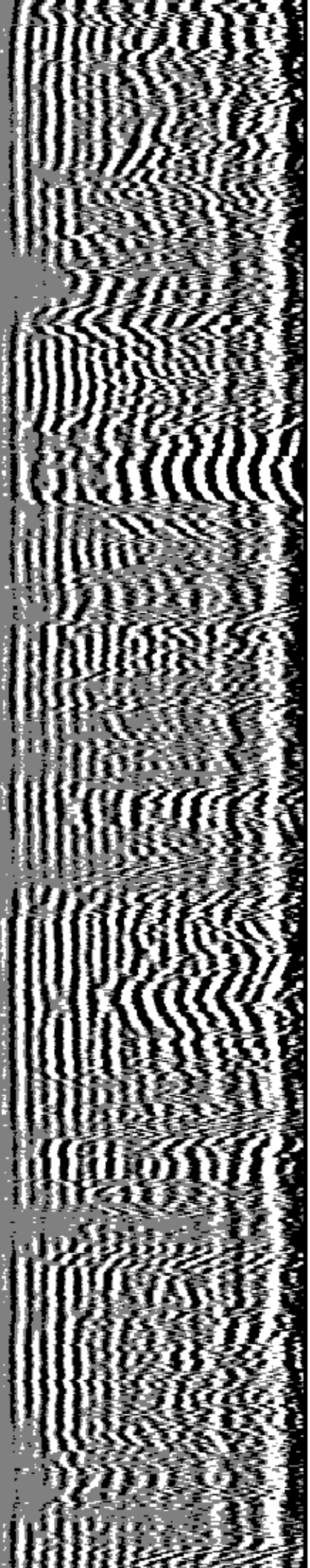


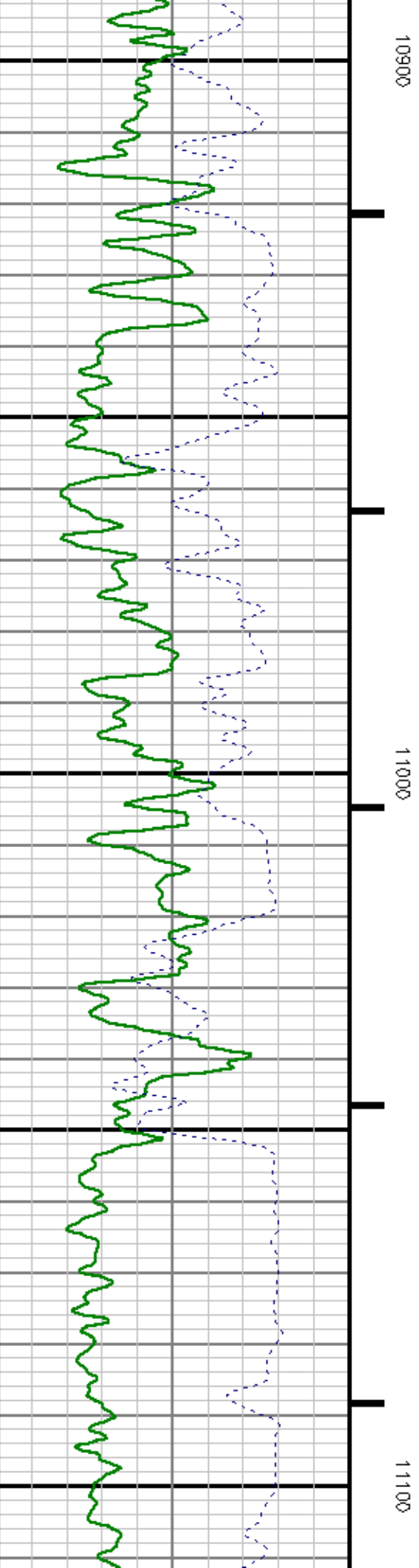
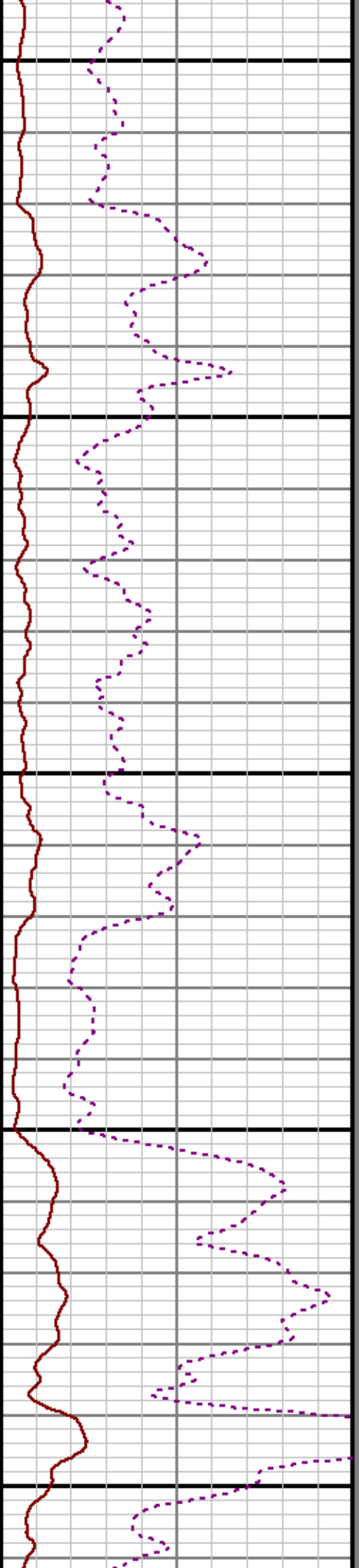
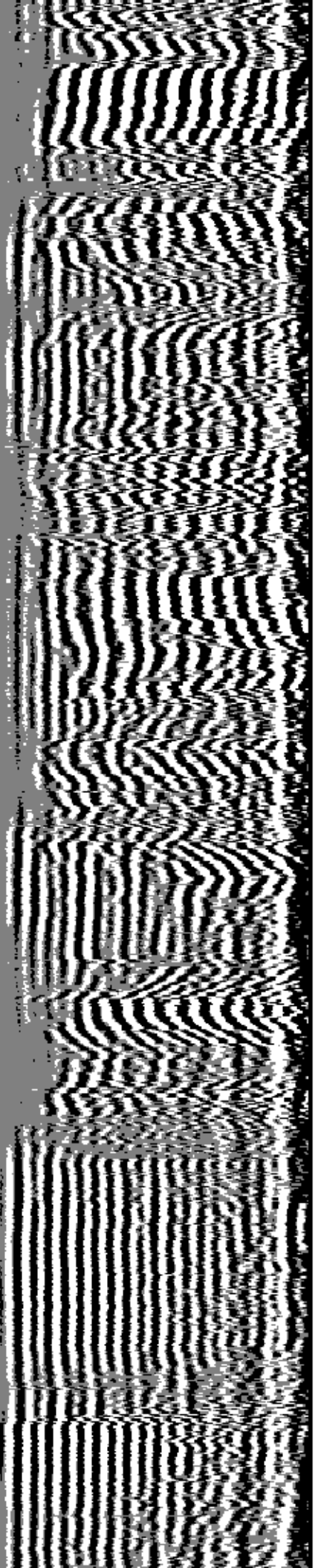
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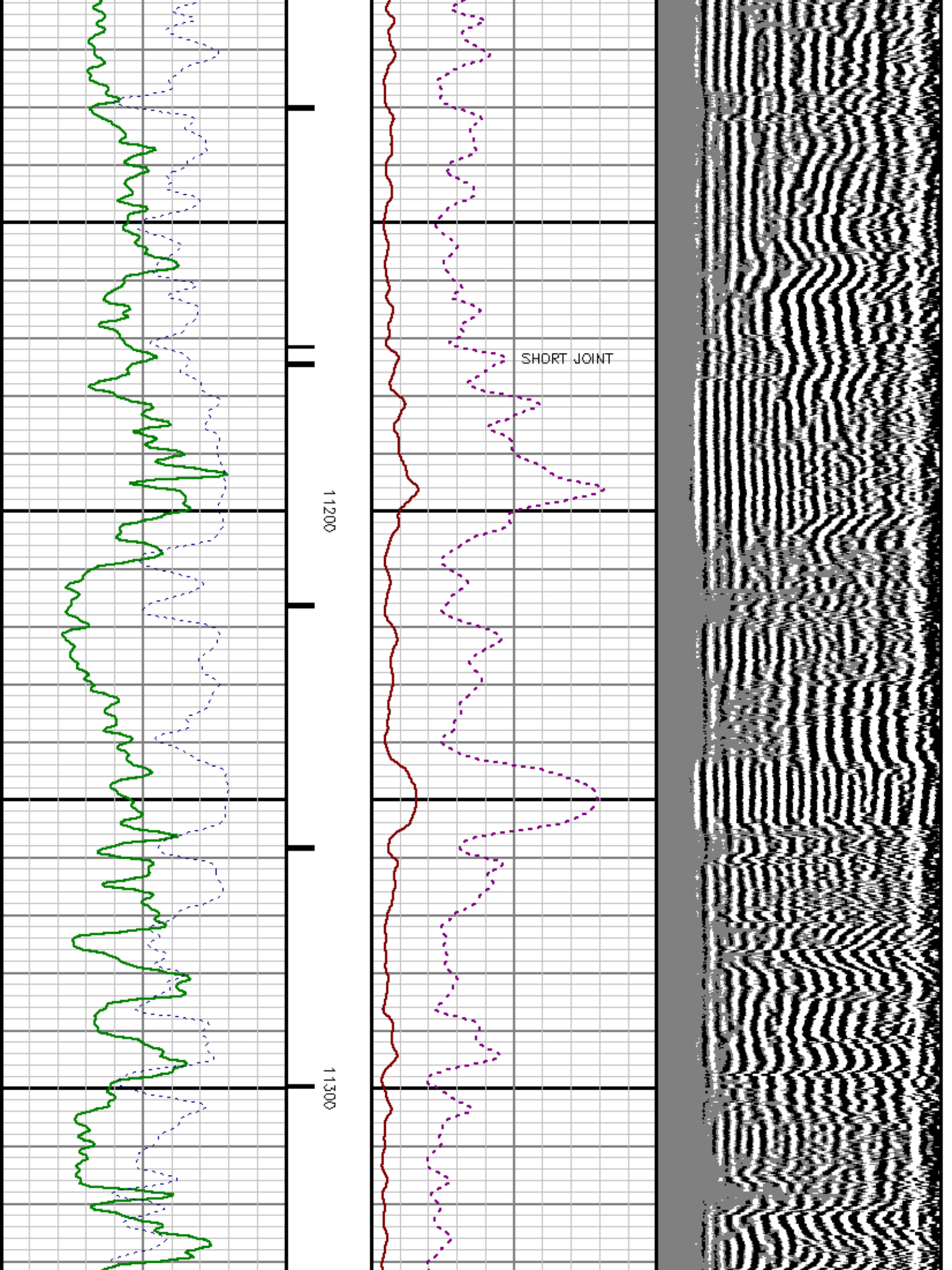
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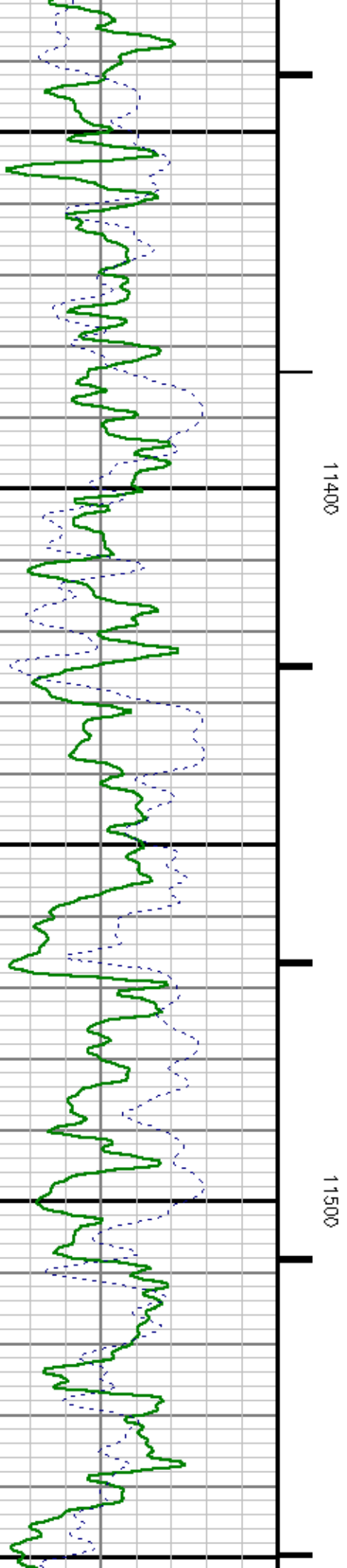
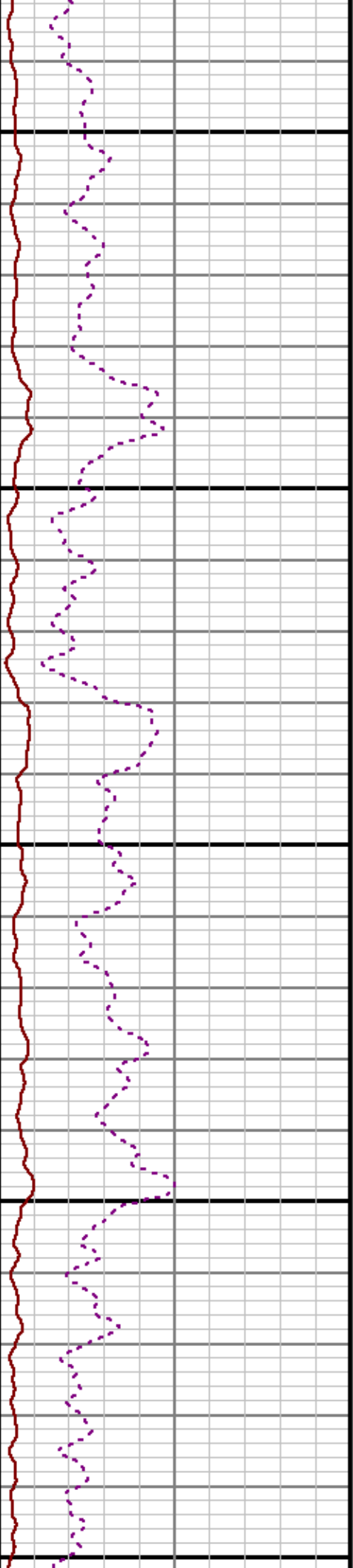
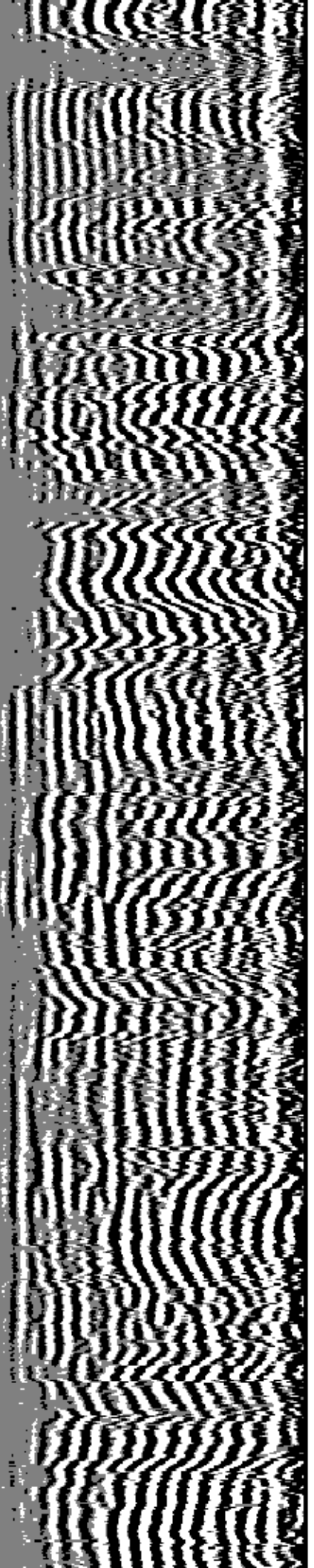


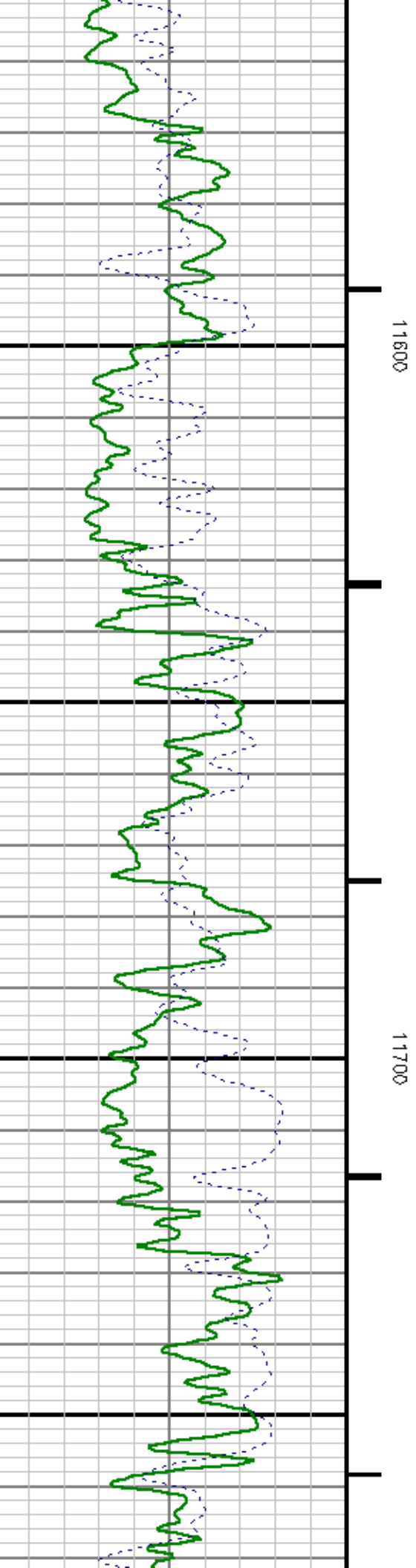
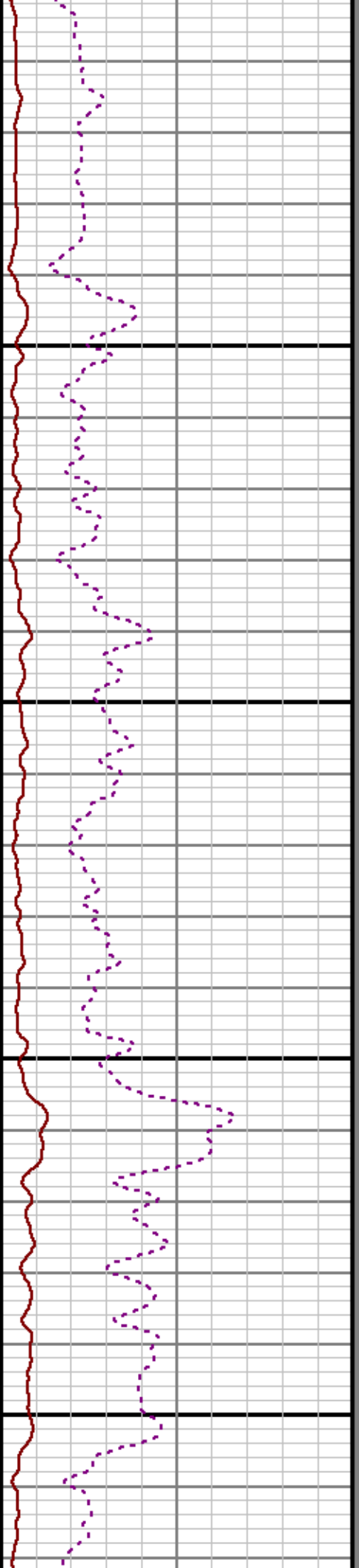
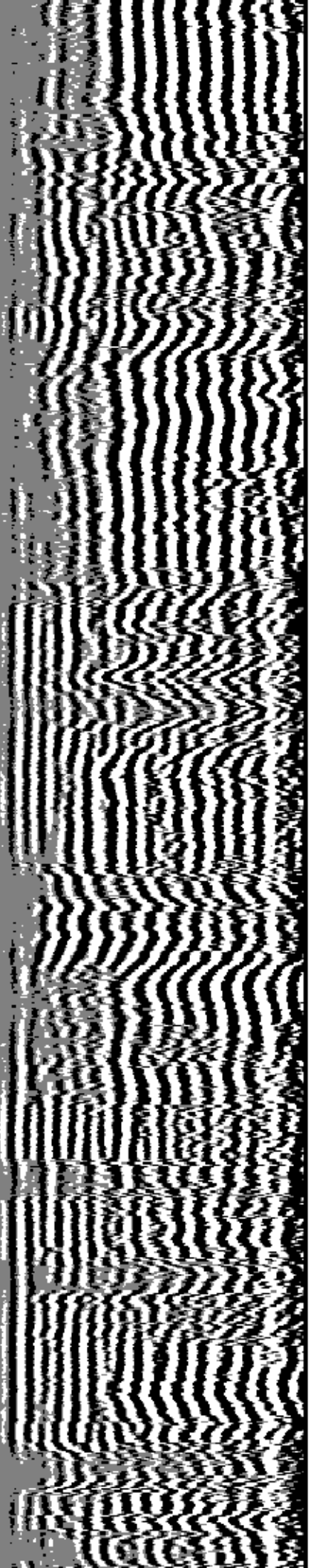


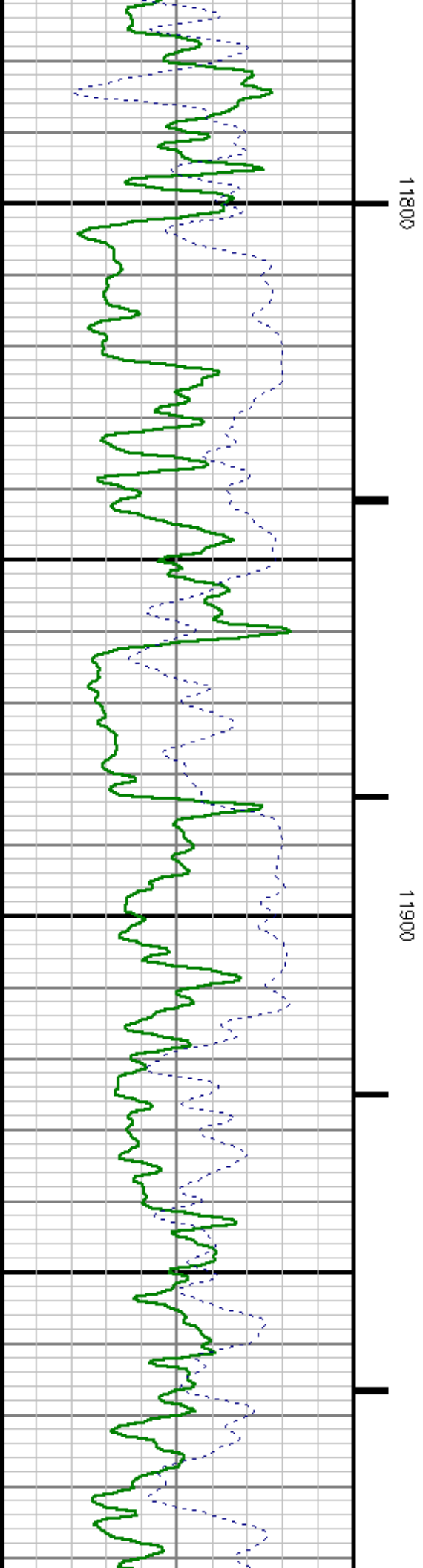
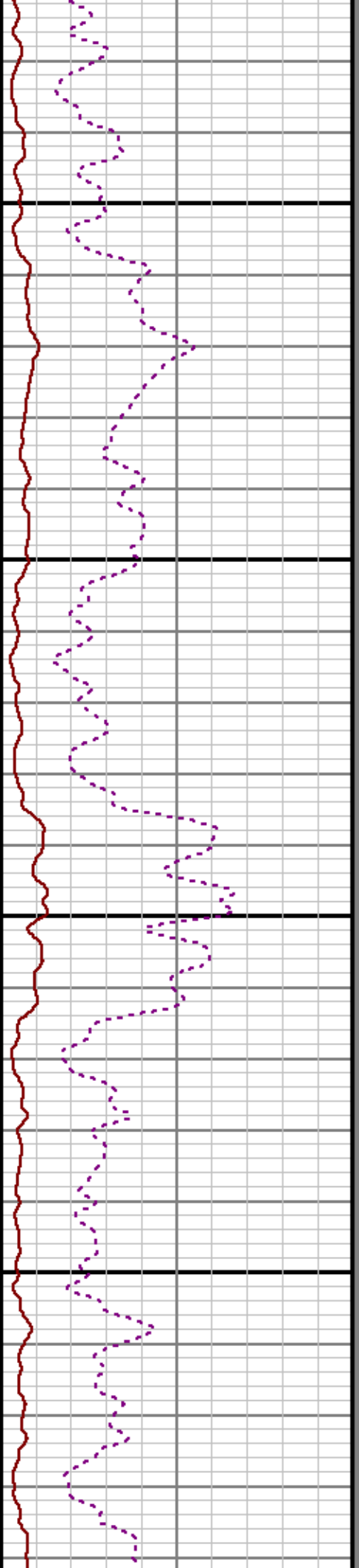
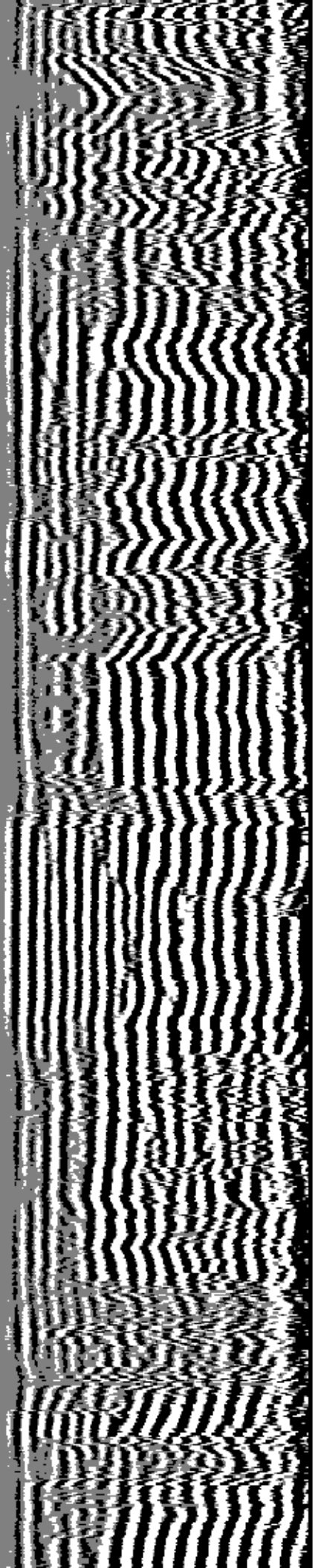


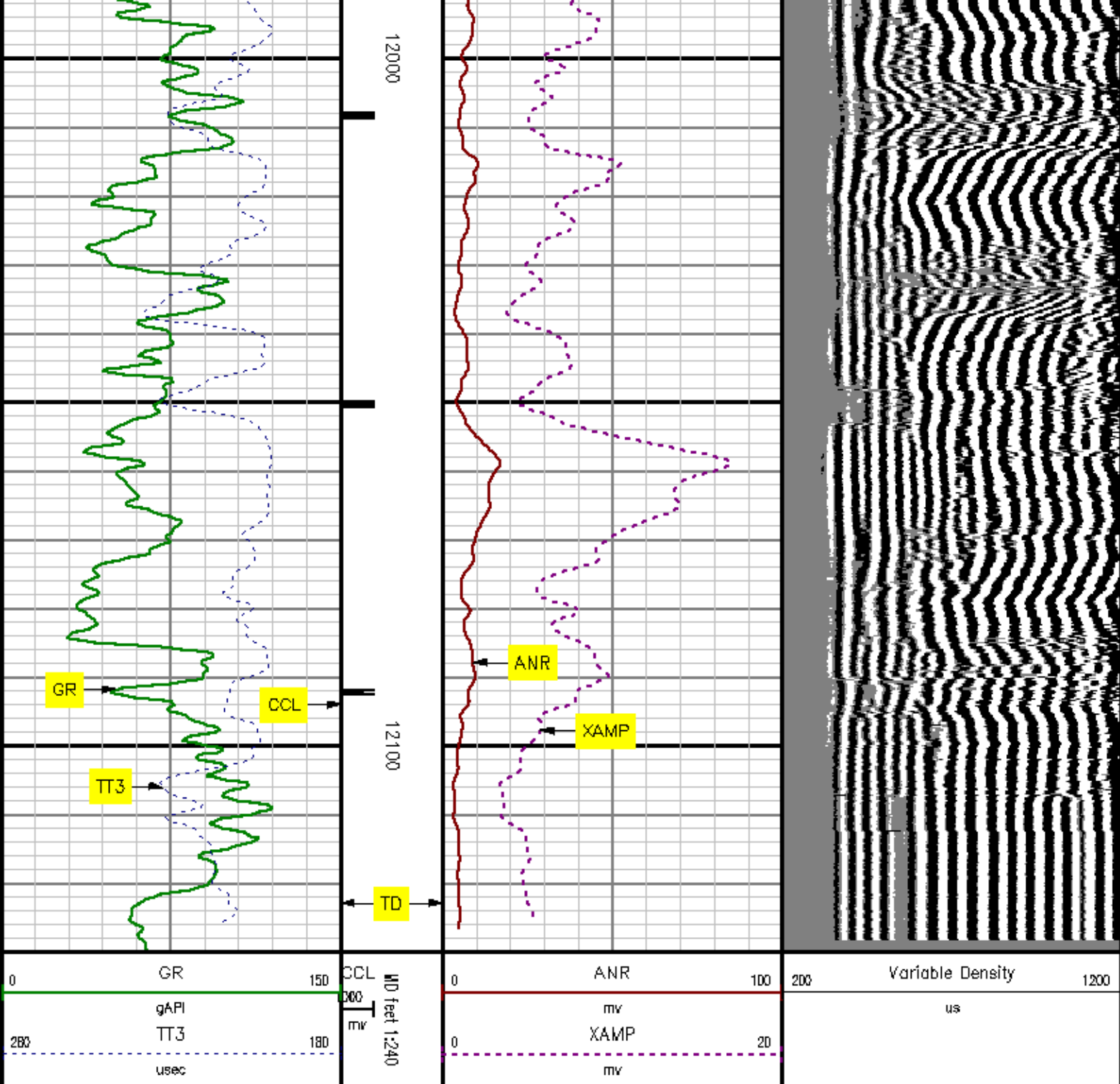












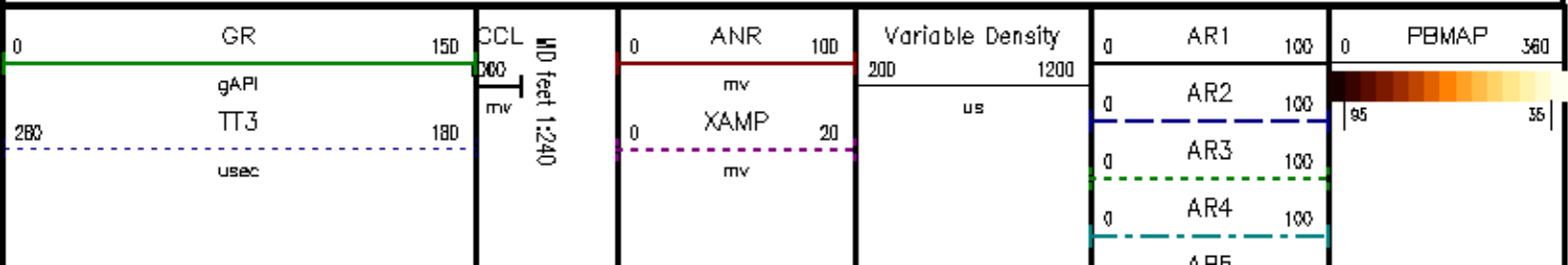
MAIN SECTION
SECONDARY PRESENTATION

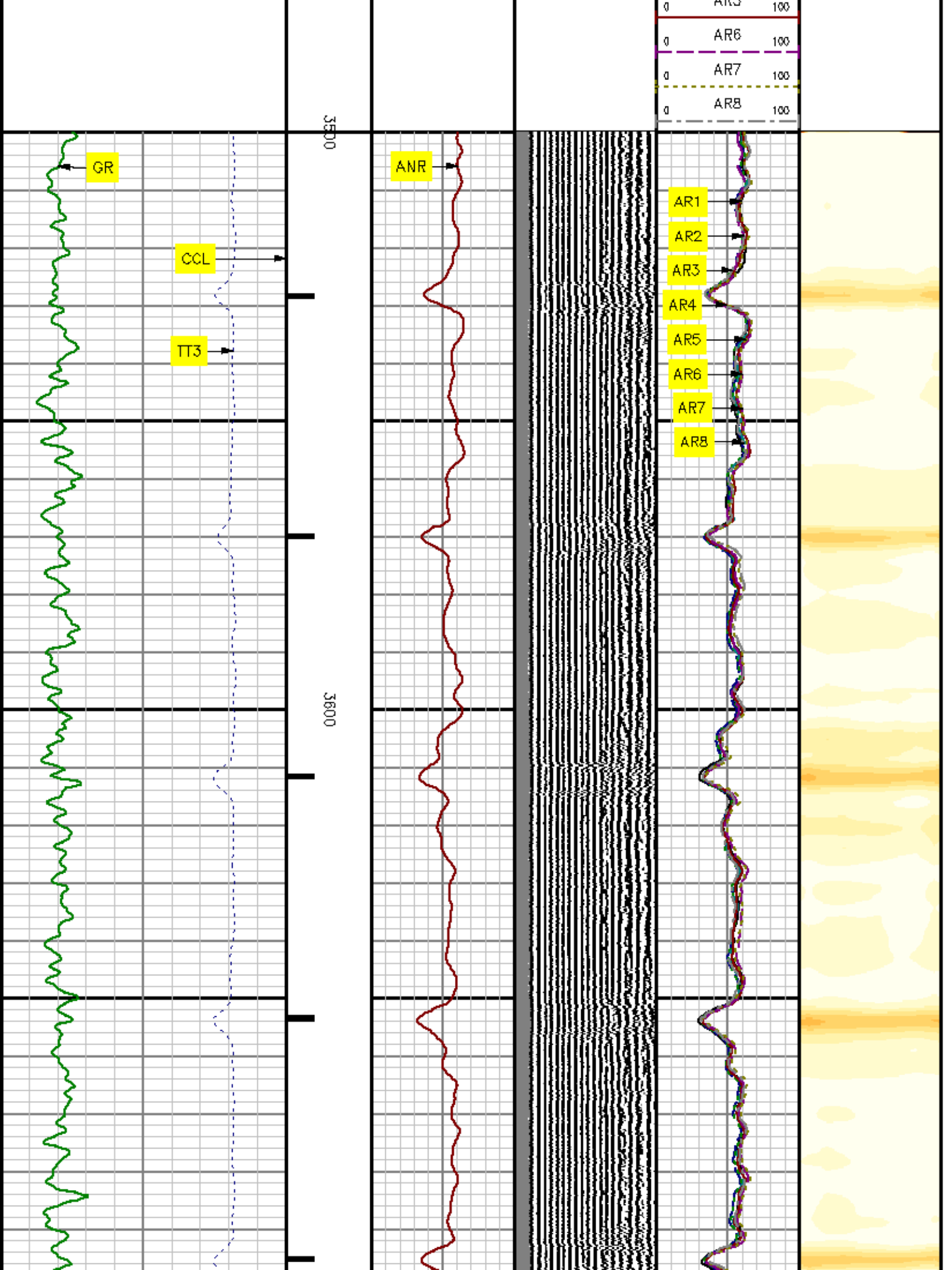
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RAL	Fluid Travel Time	200.000	usec/ft	3495.330	12142.518

DEPTH OFFSETS
(for Acquired Curves)

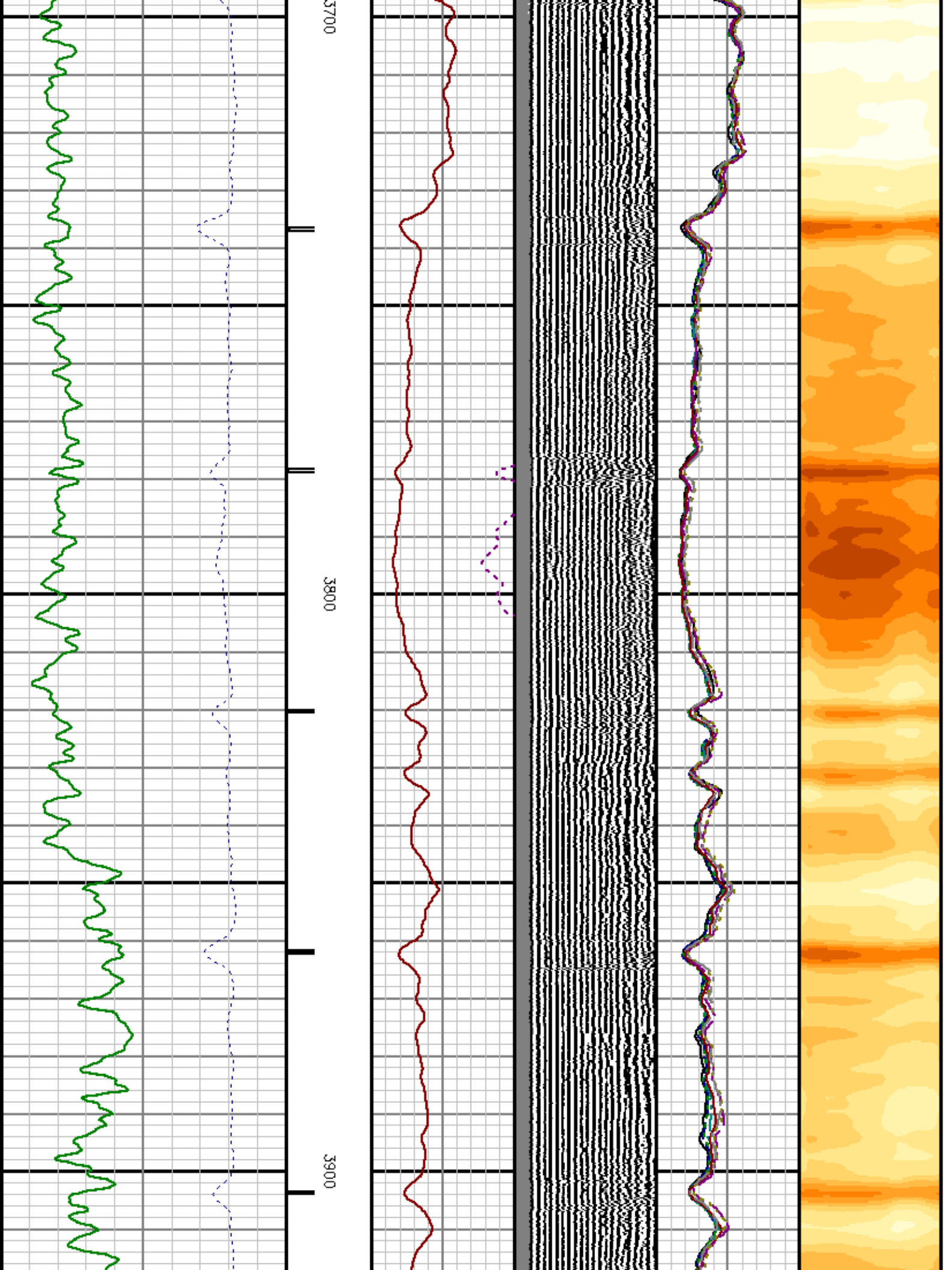
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-15.360	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	QHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-14.360	AFAR	SIG	TT5			
1426XA	-7.250	CCL					
1426XA	-5.390	GR					
1426XA	0.000	NEU					

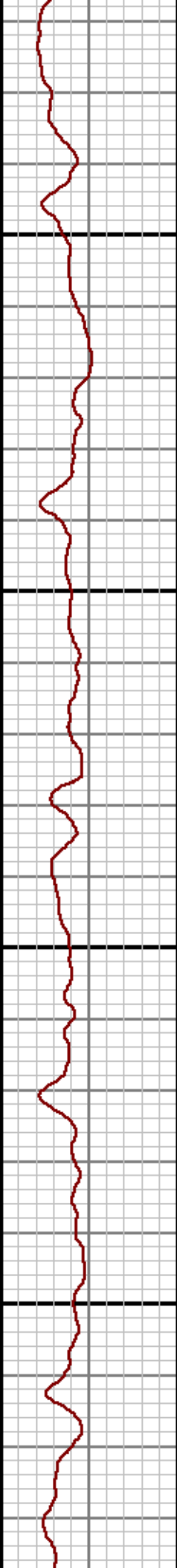
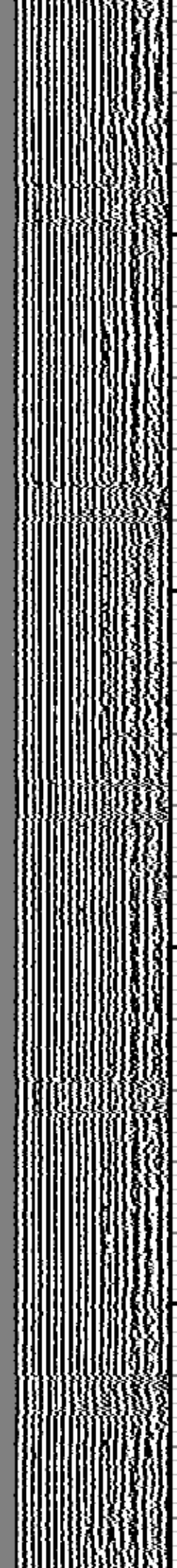
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Plotted by : PlotMgr, v5.4.504
Company : EXXONMOBILE PRODUCTION COMPANY
Well : FRU 197-33A6
File Name : d:\well\data\rada6\main_cbl.f.xtf
Mode : PlotMgr 5.4.504
Interval : 3500.00 - 12130.00 feet UP
Created : 4/21/2010 5:36:58 PM





0	AR1	100
0	AR6	100
0	AR7	100
0	AR8	100

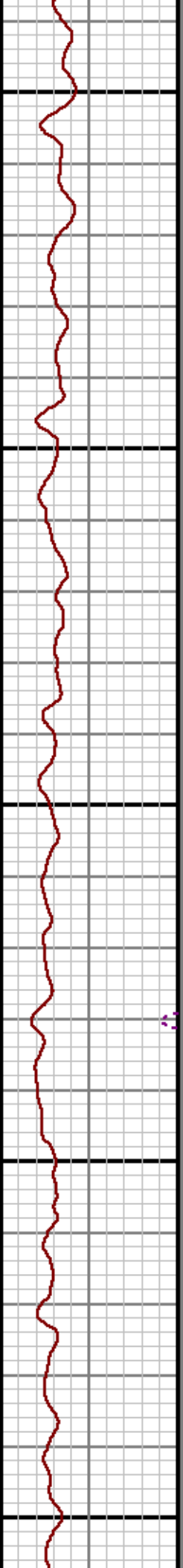
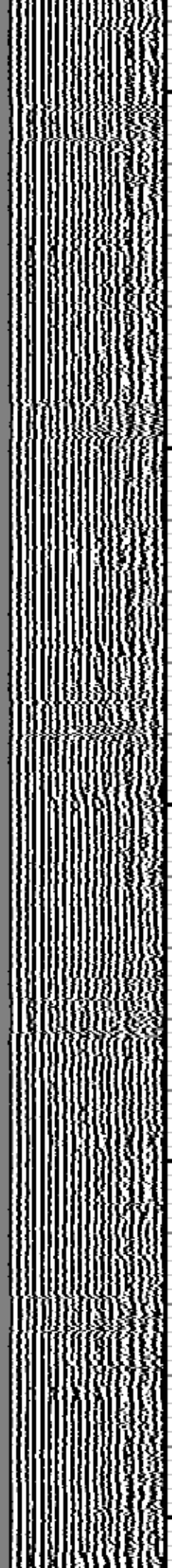
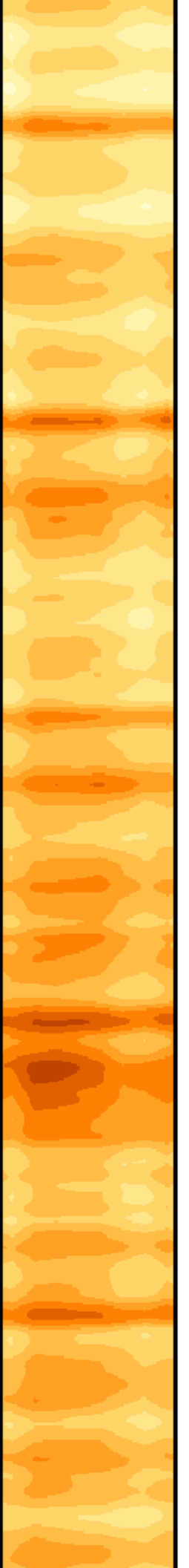




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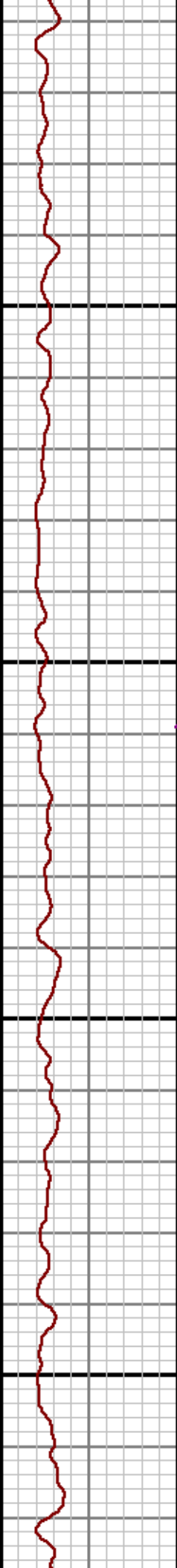
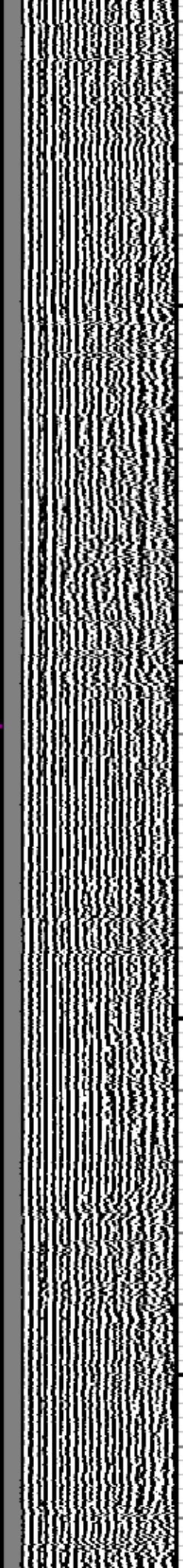
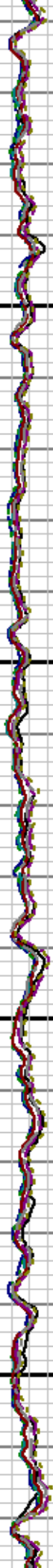




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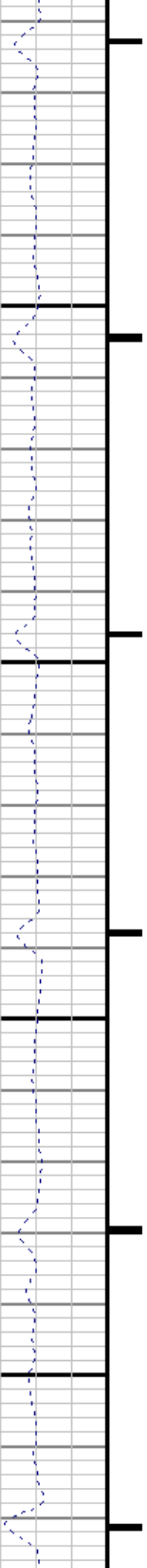
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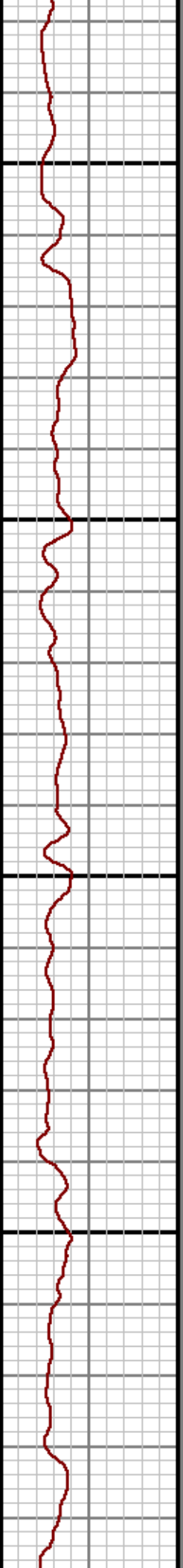
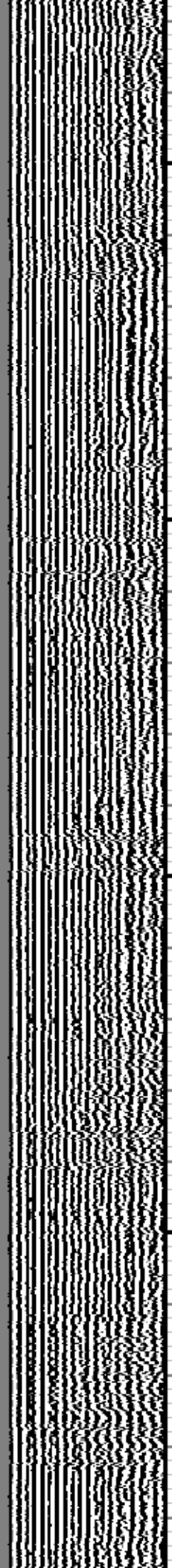
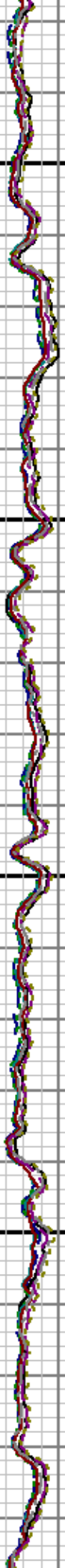




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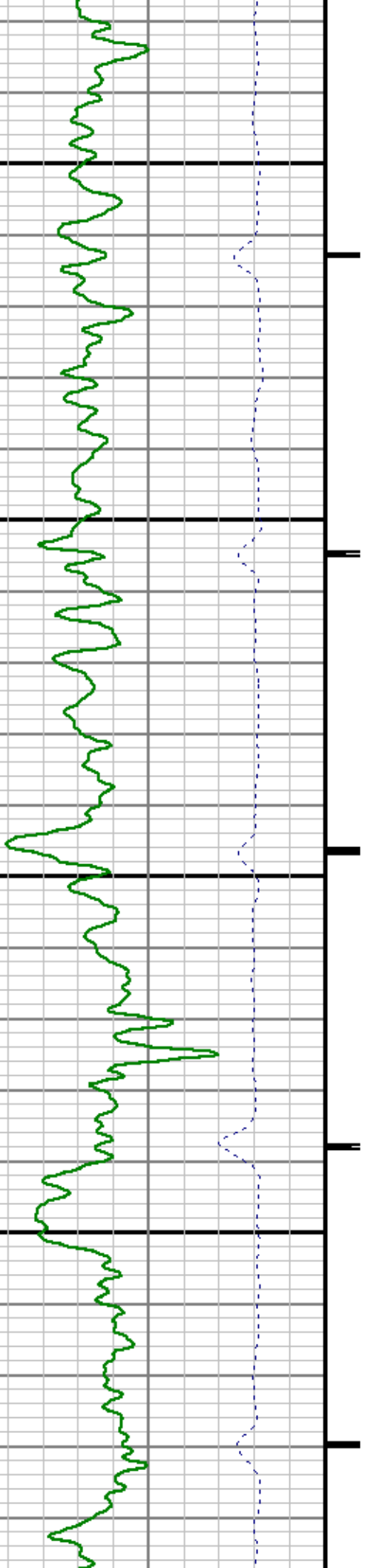
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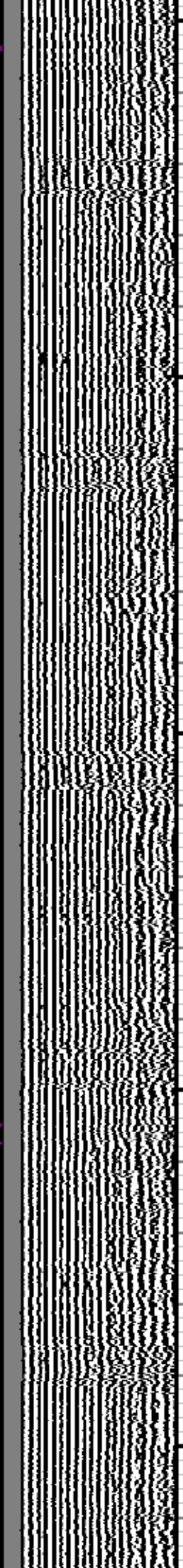
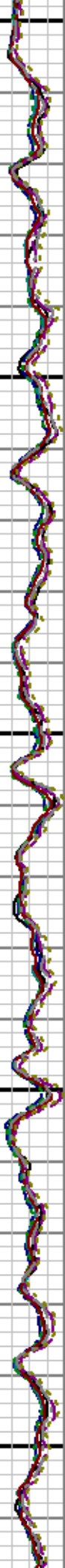
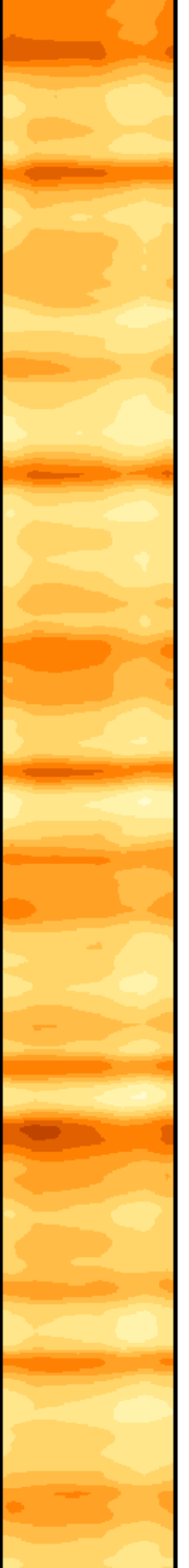




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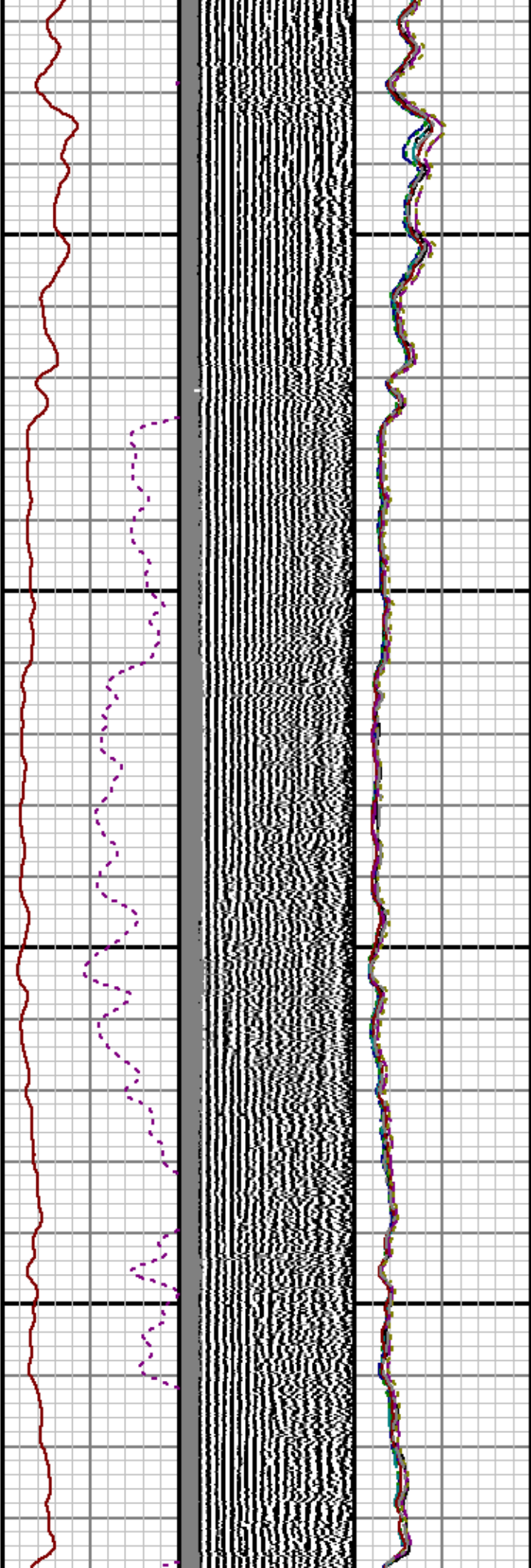


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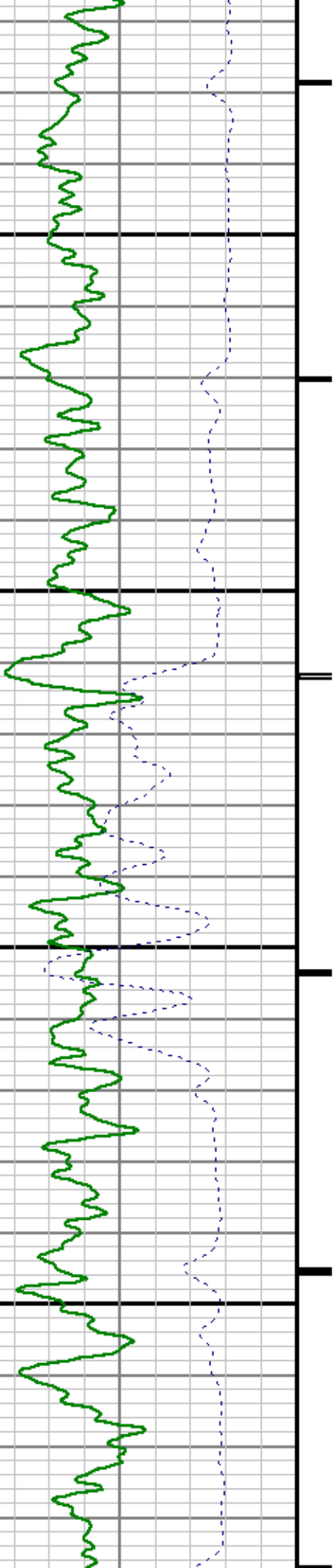
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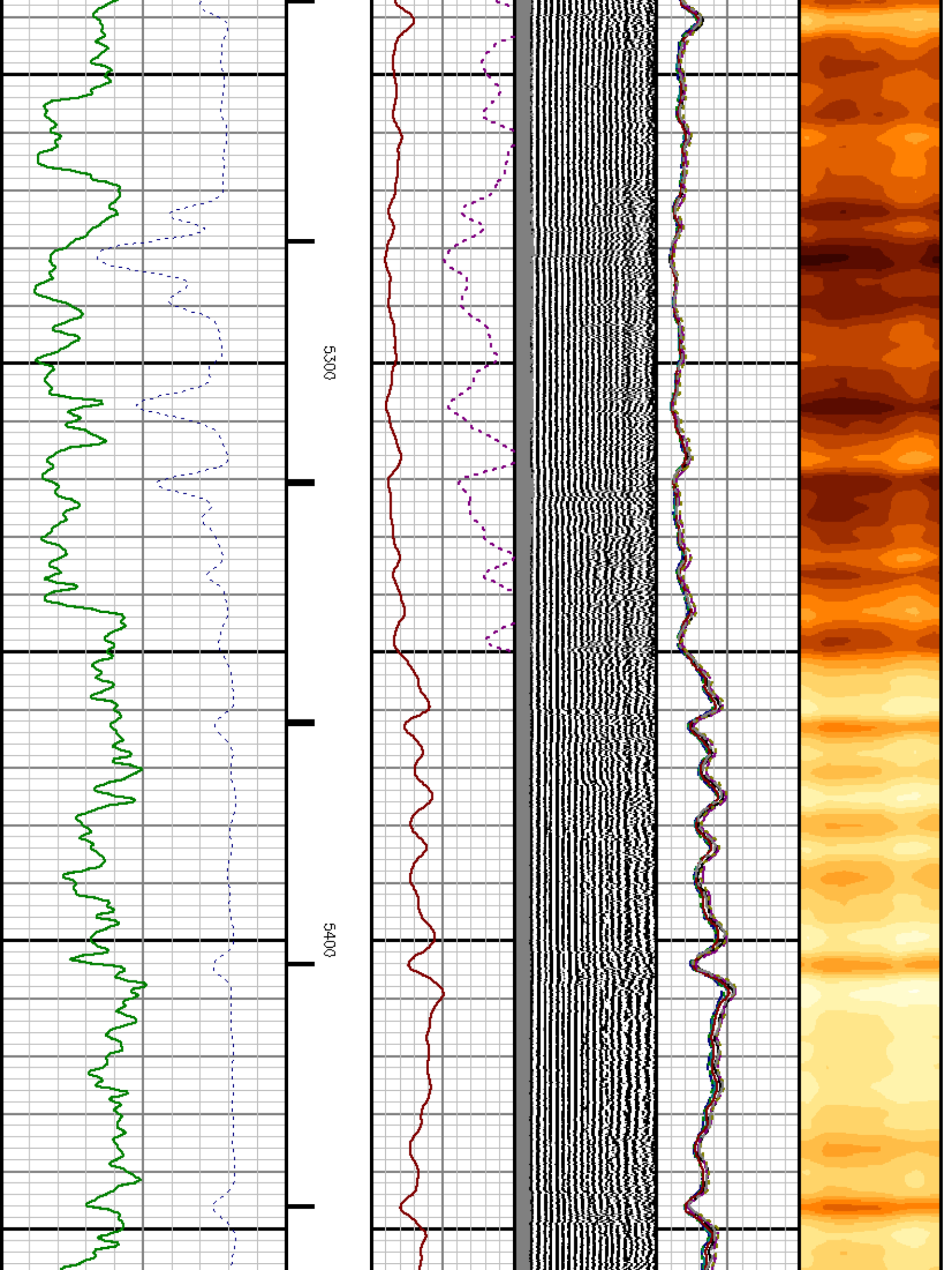


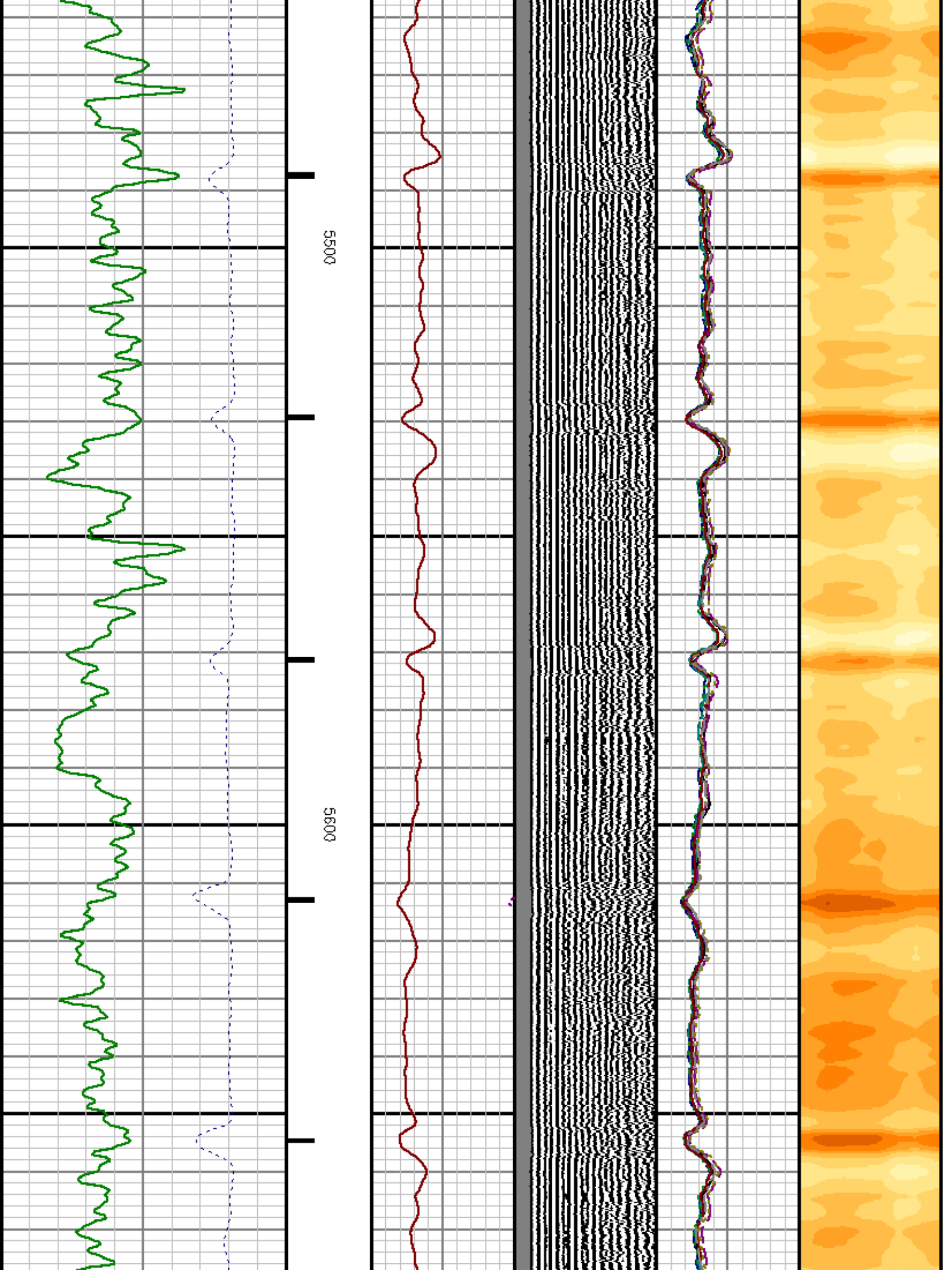


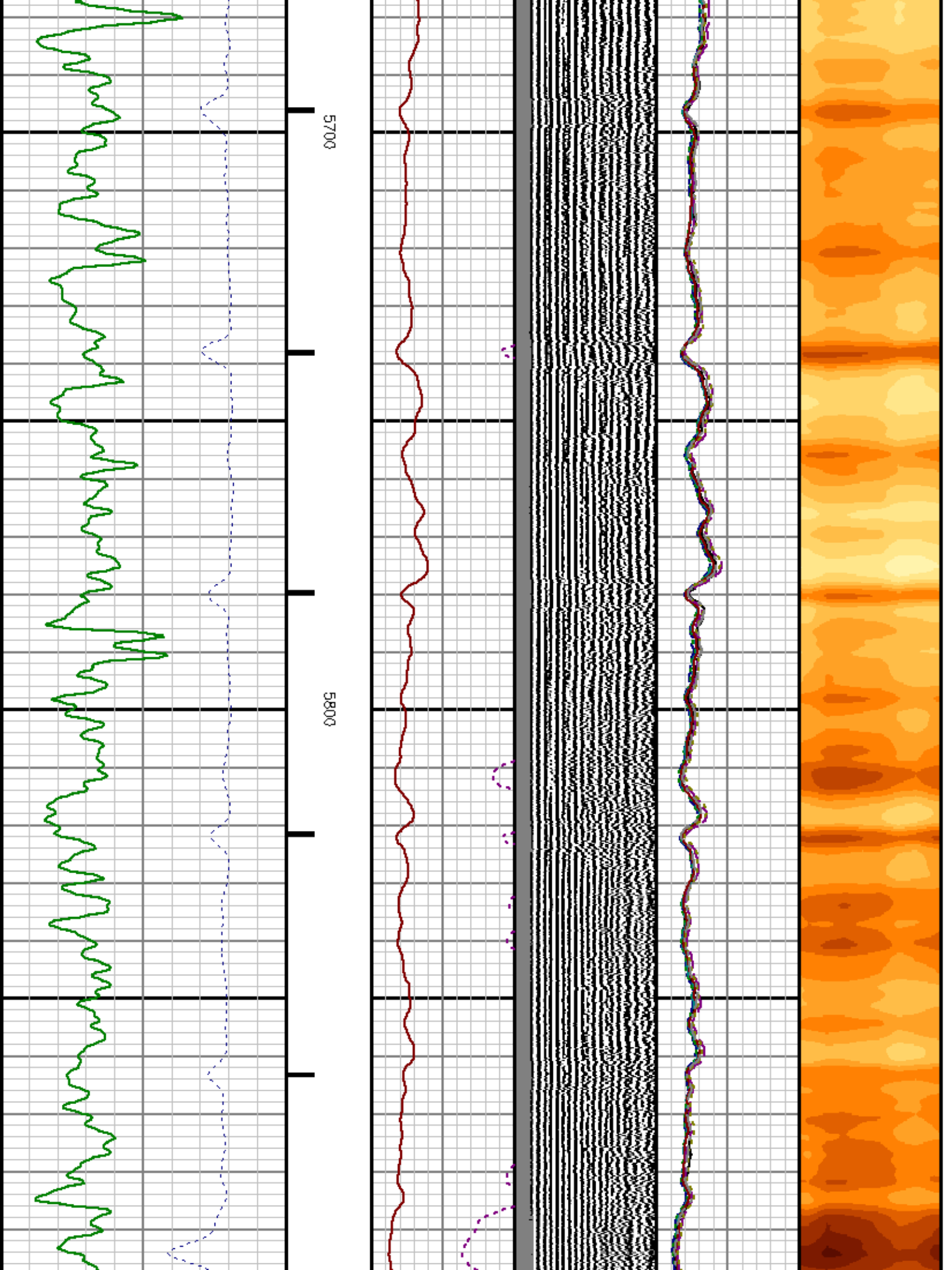
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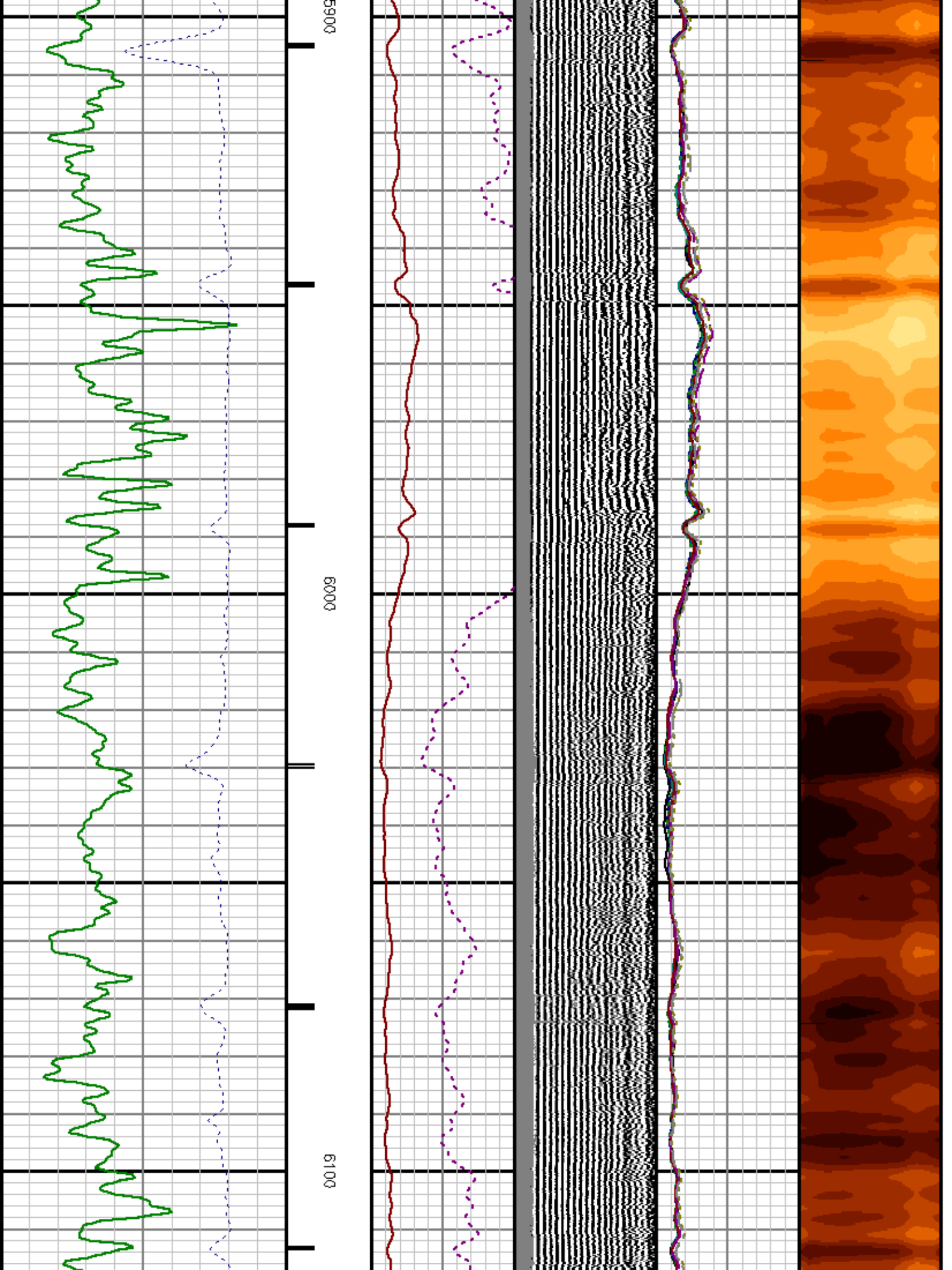
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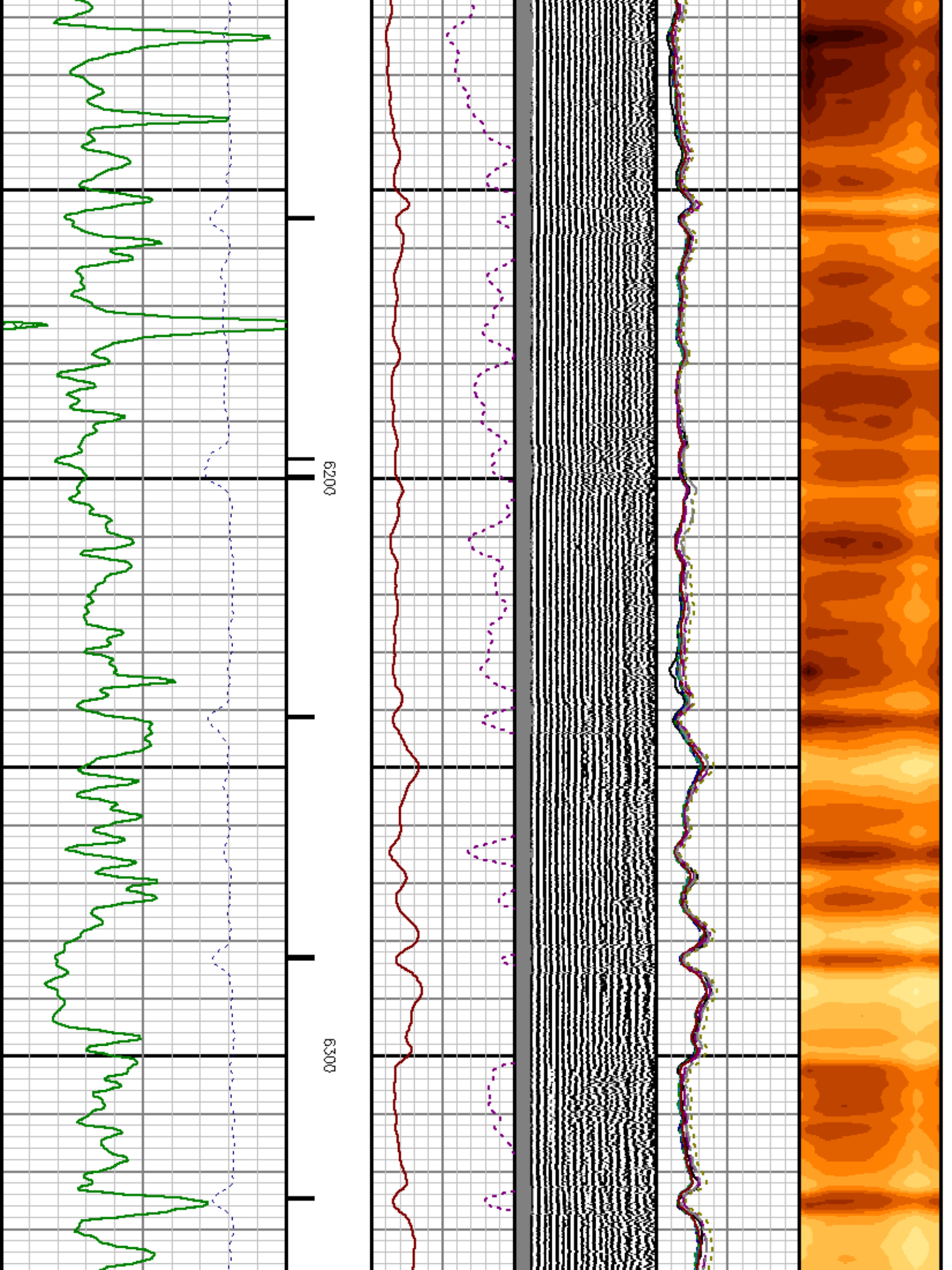


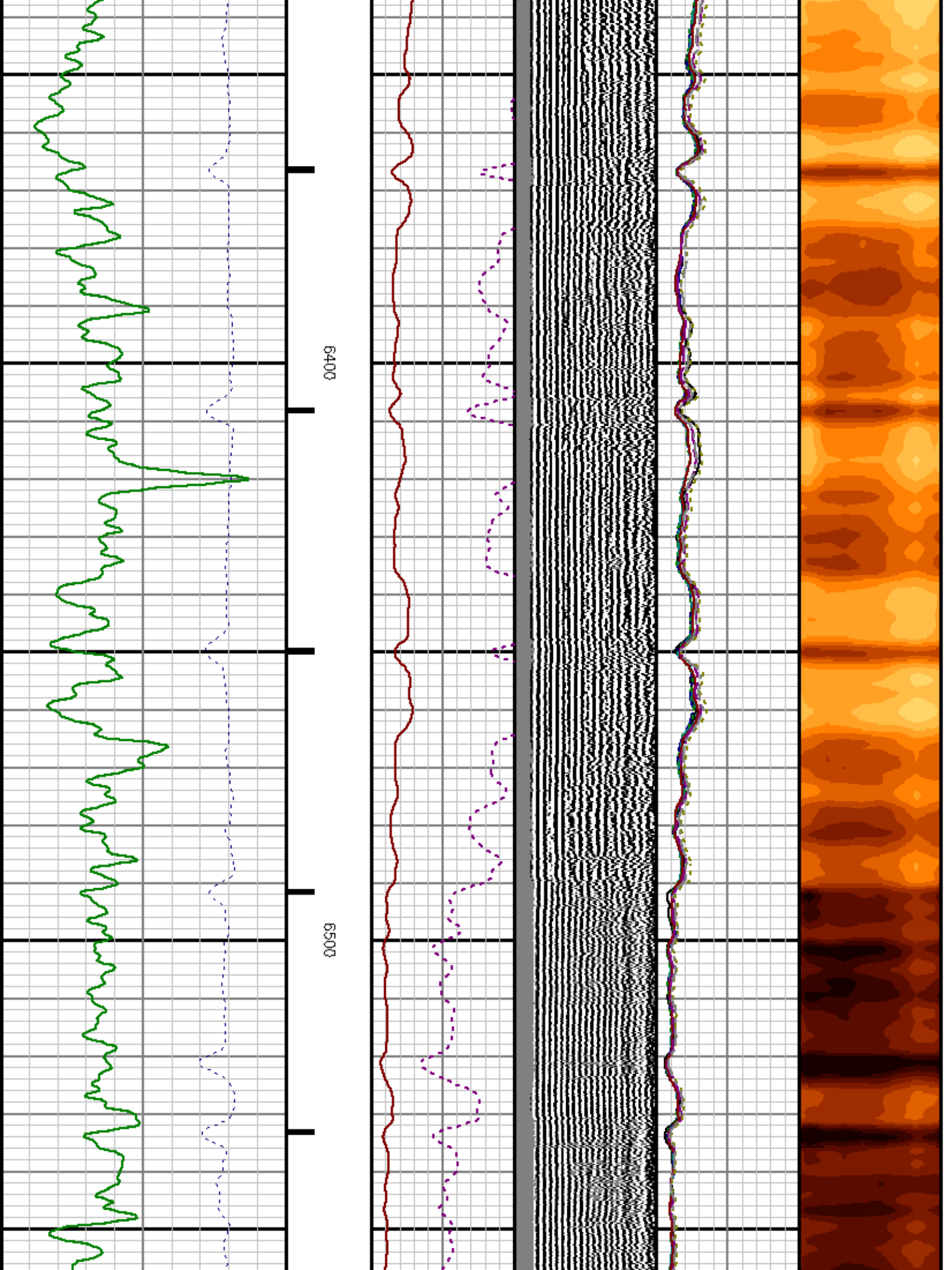


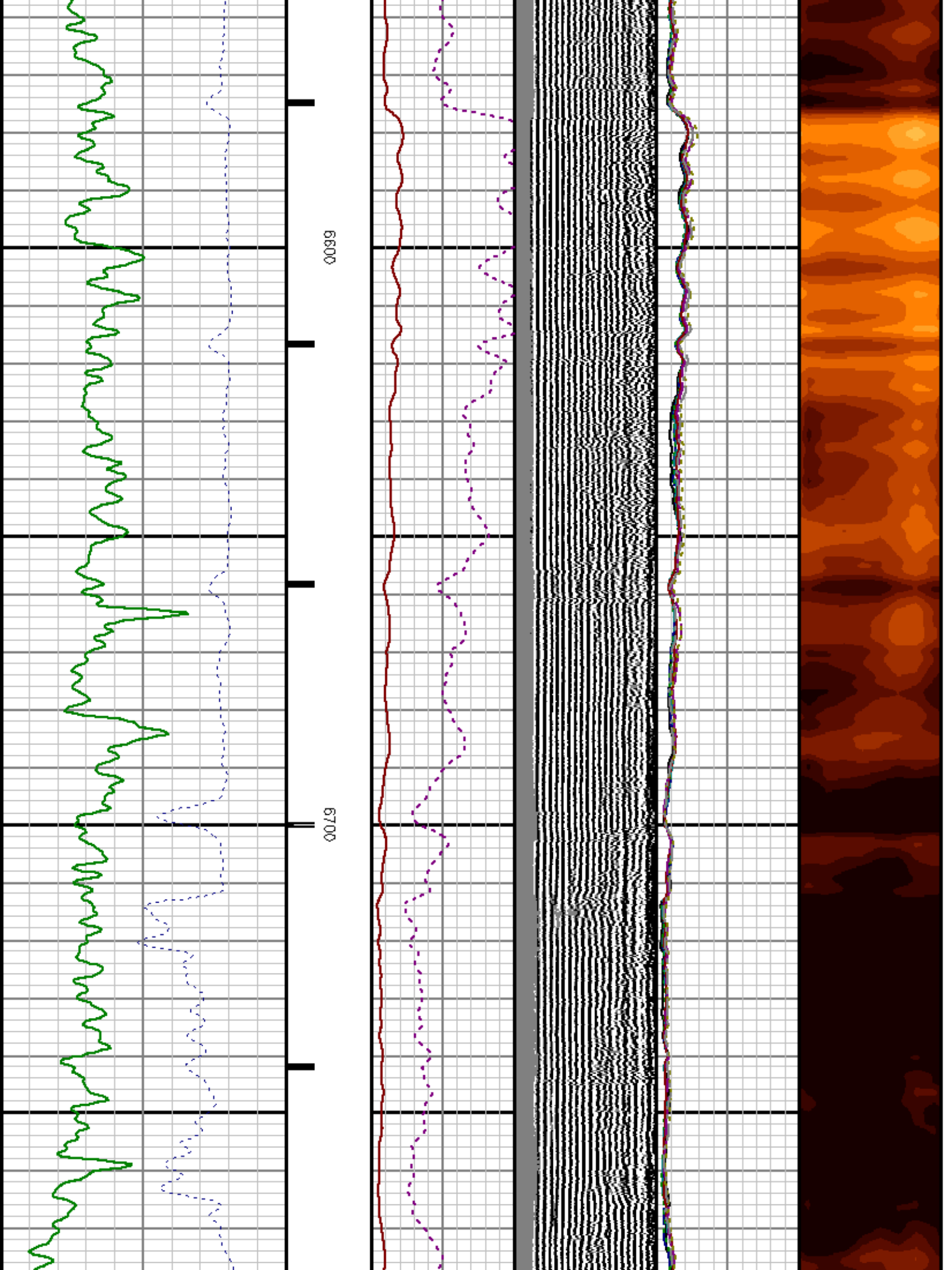


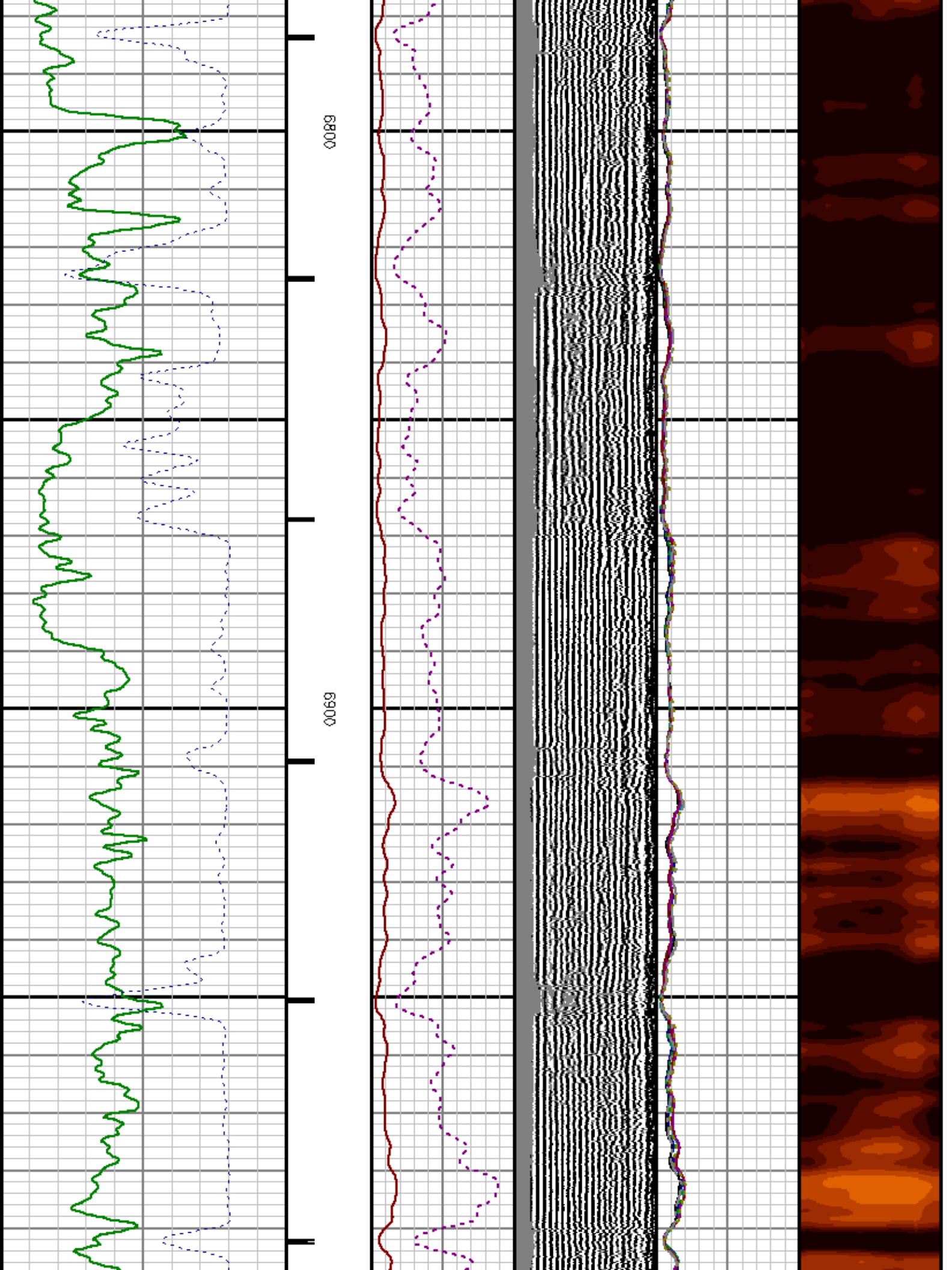


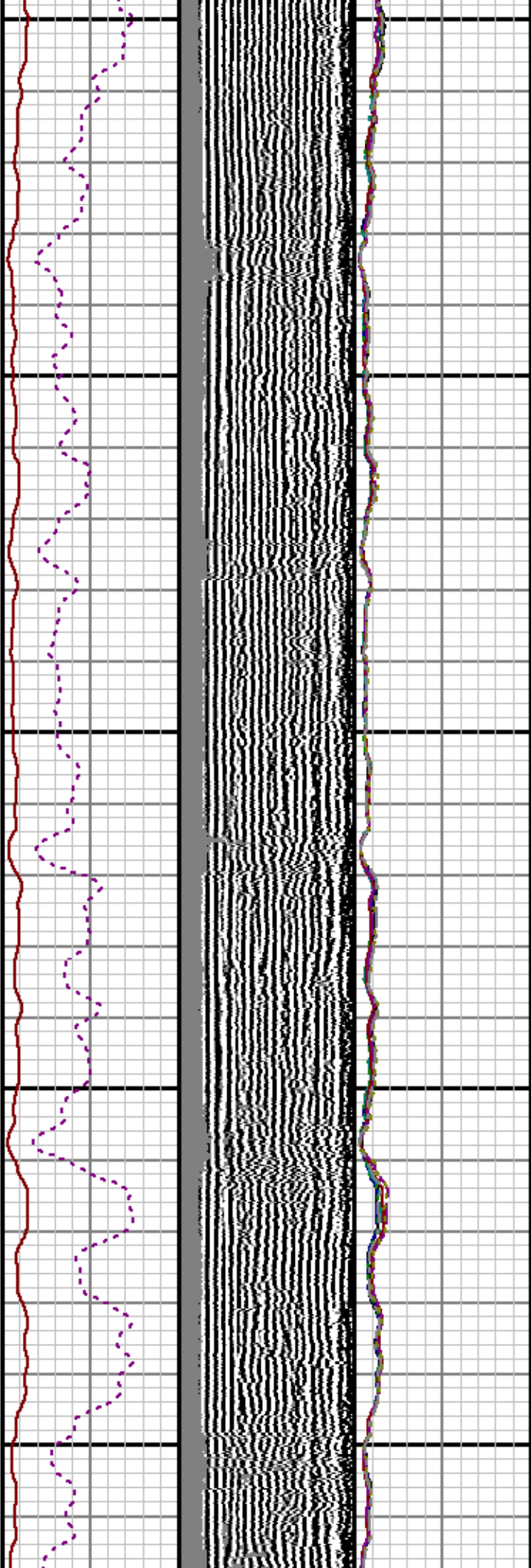








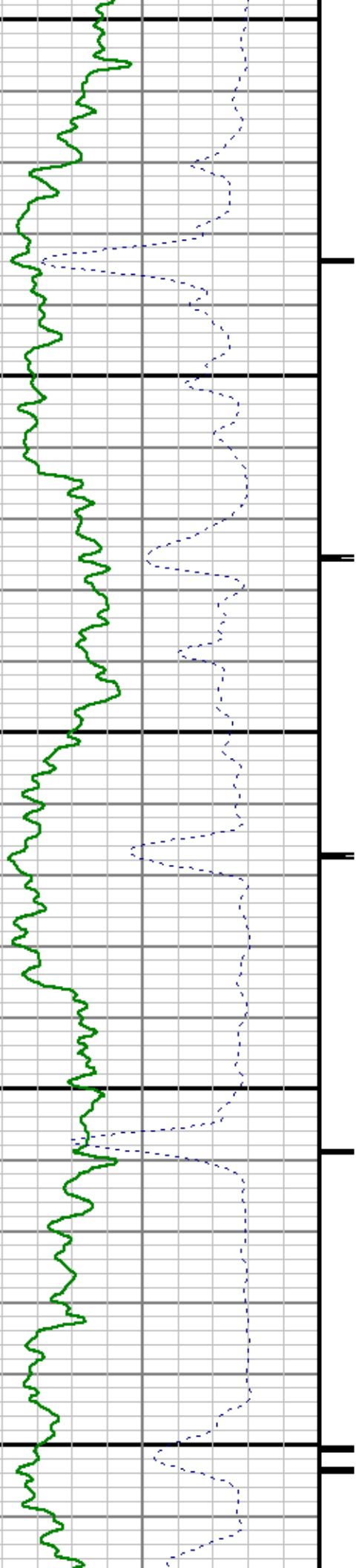


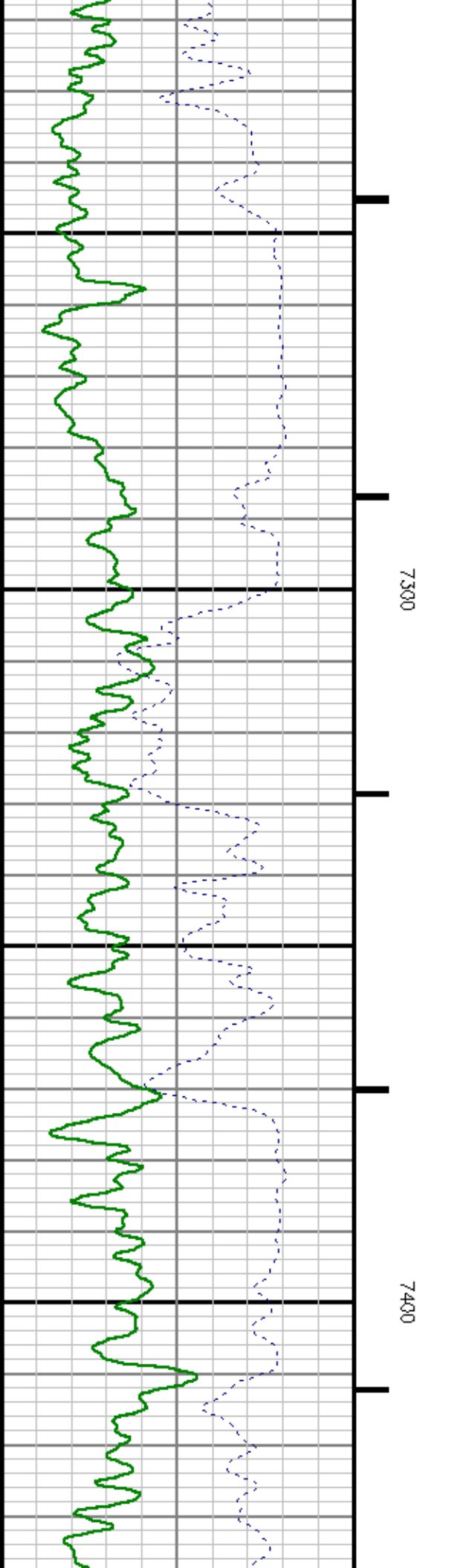
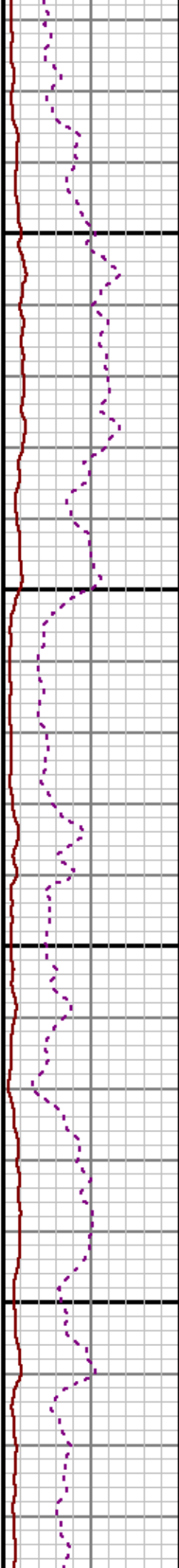
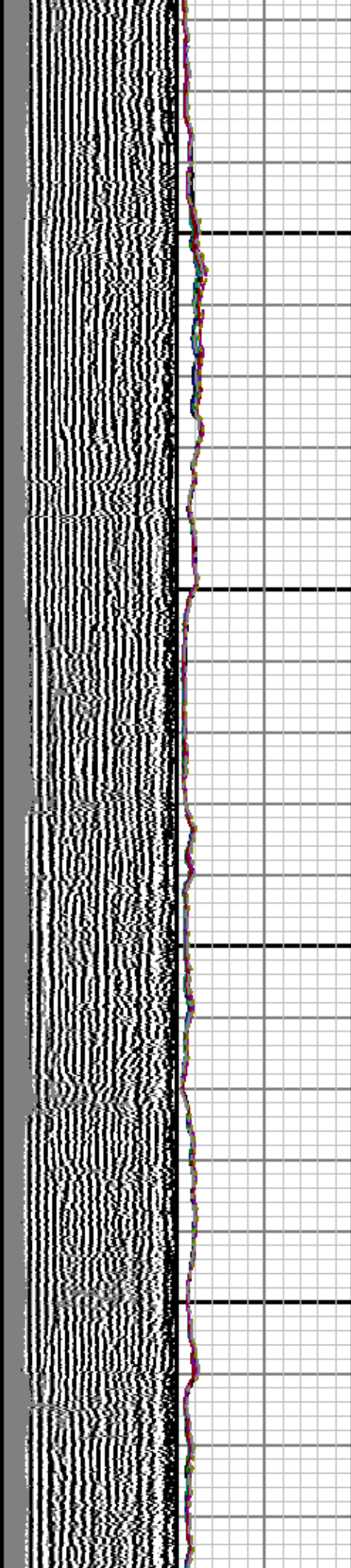


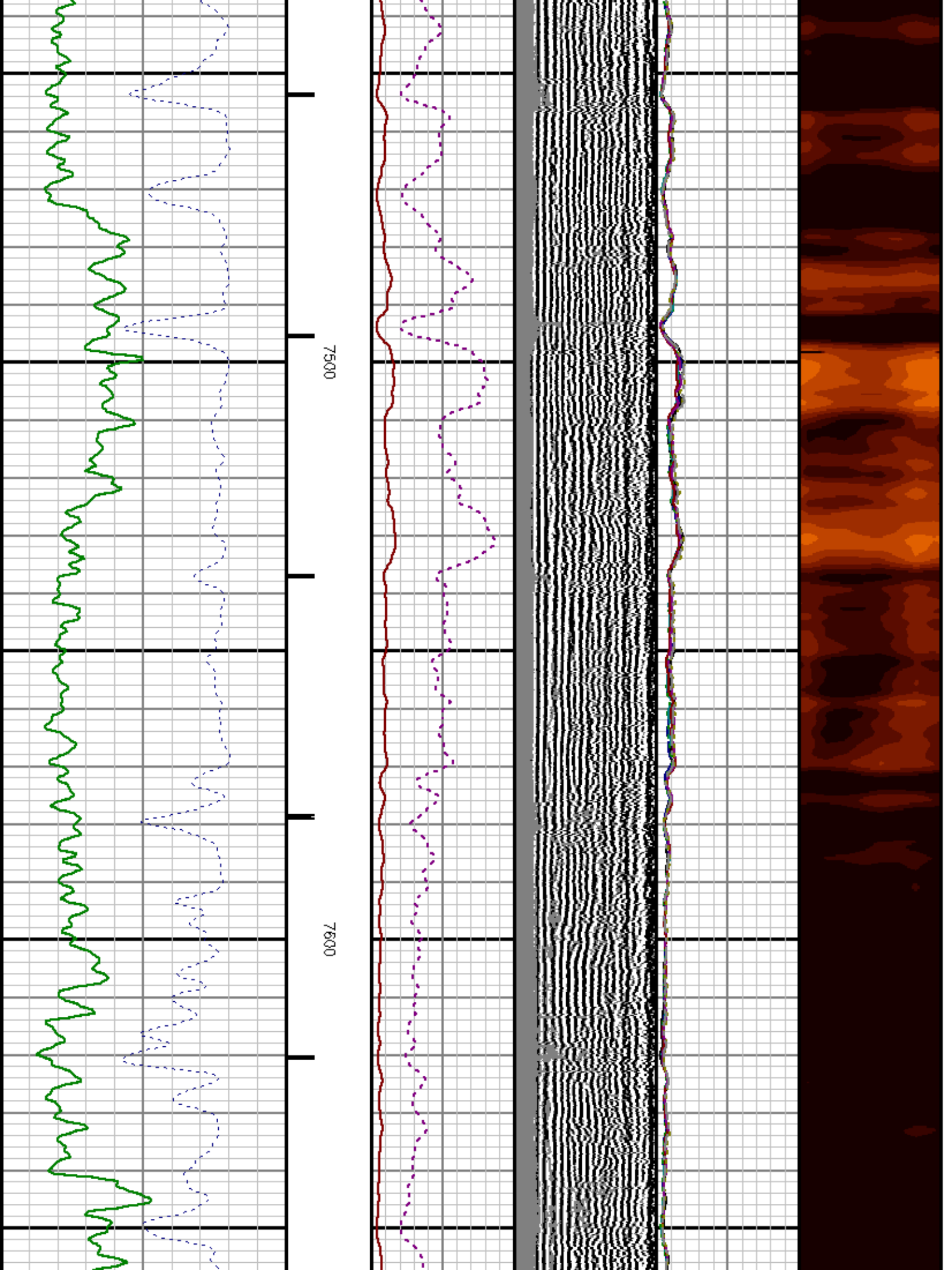
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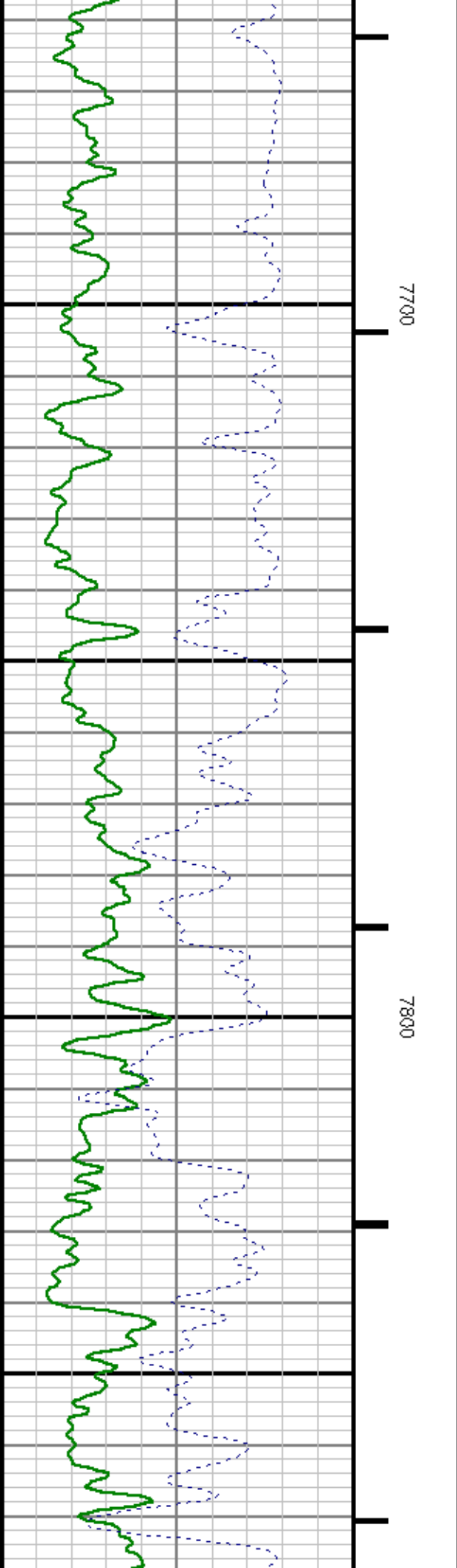
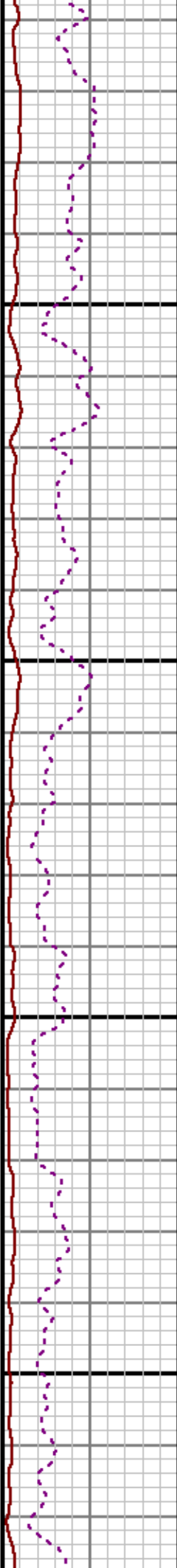
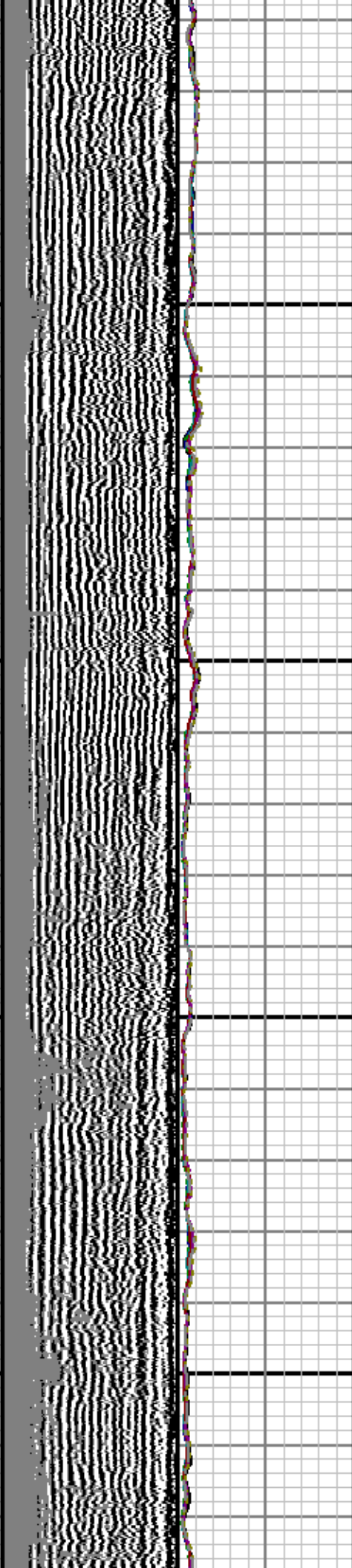
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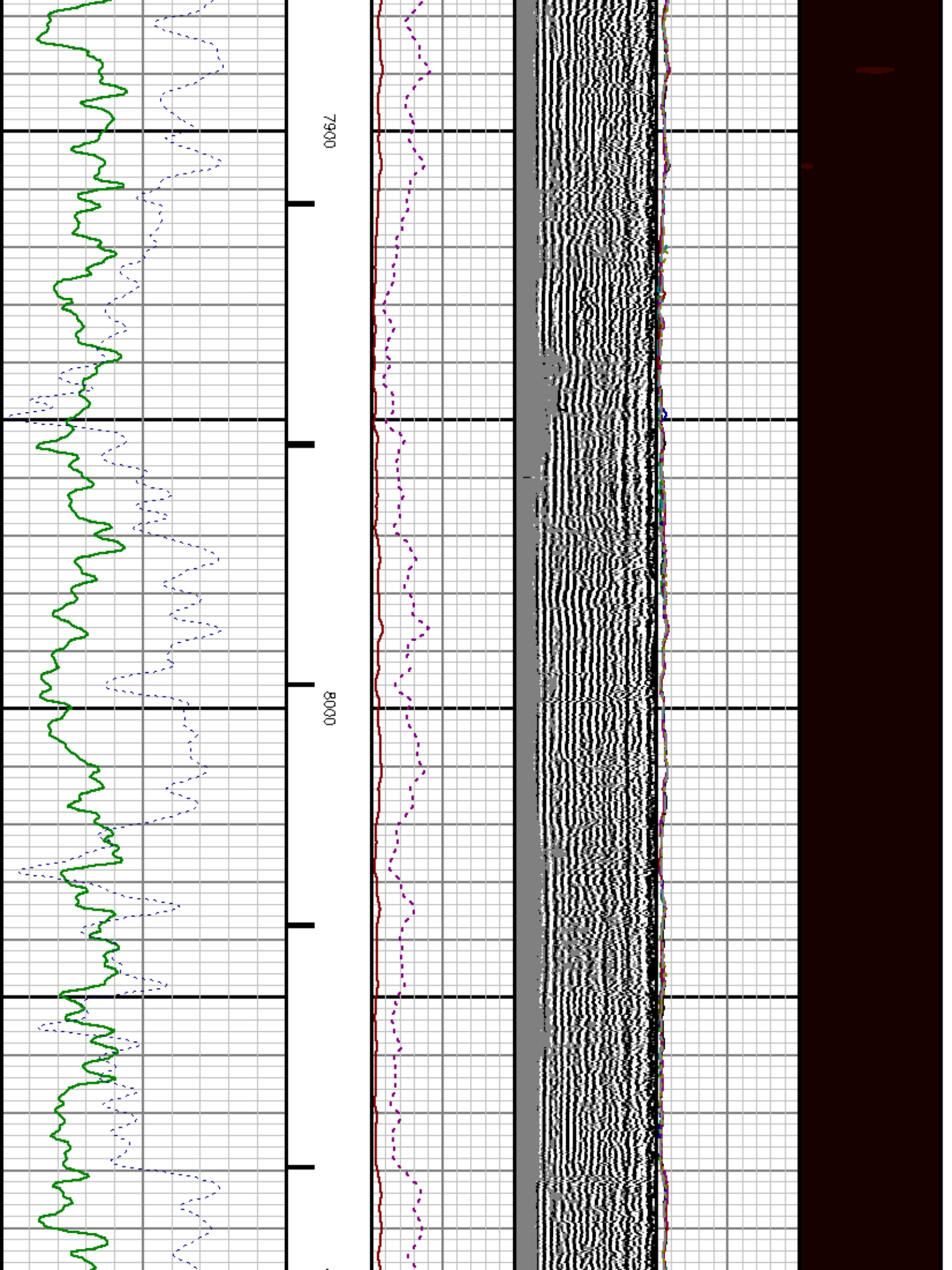
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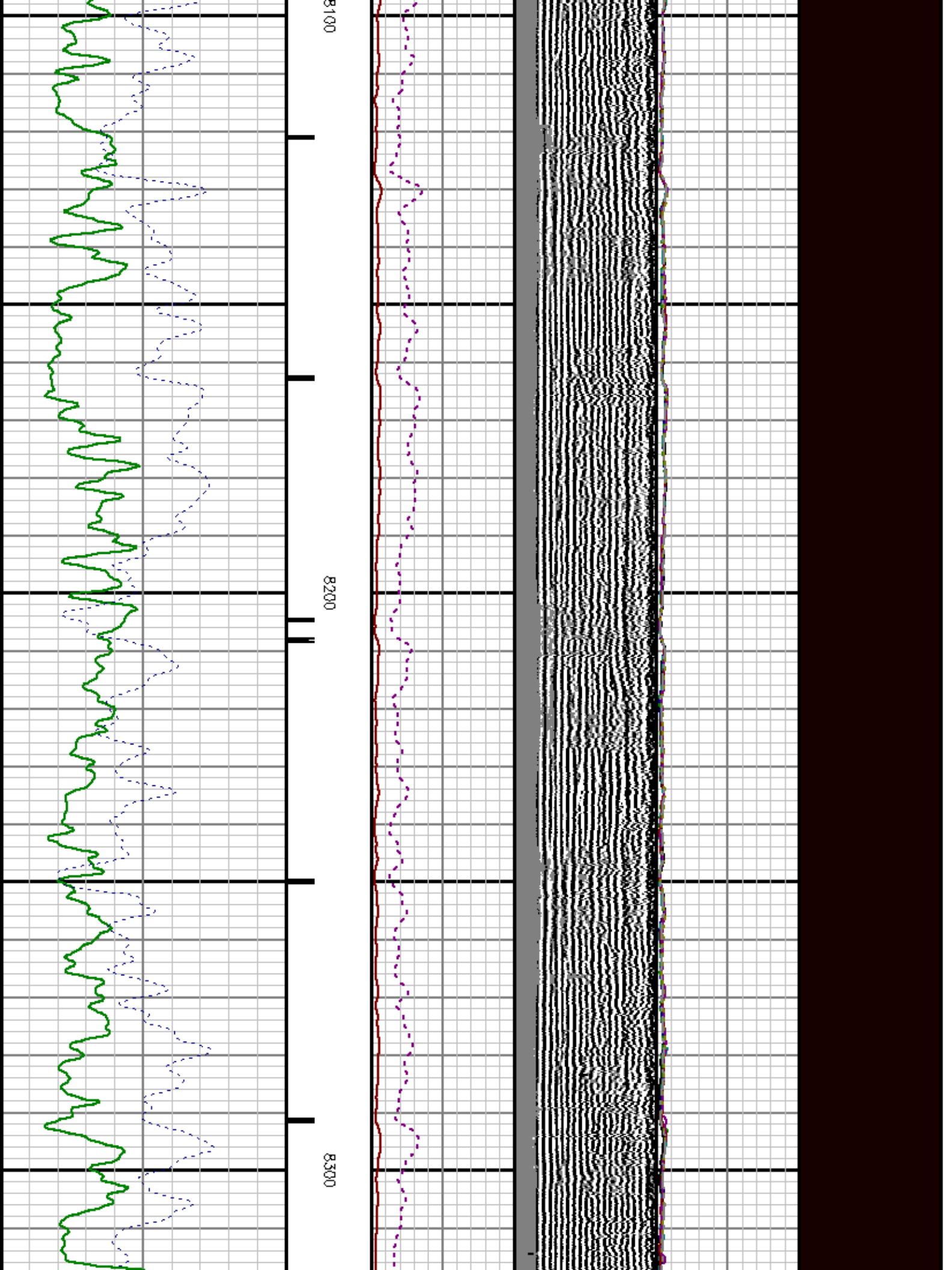


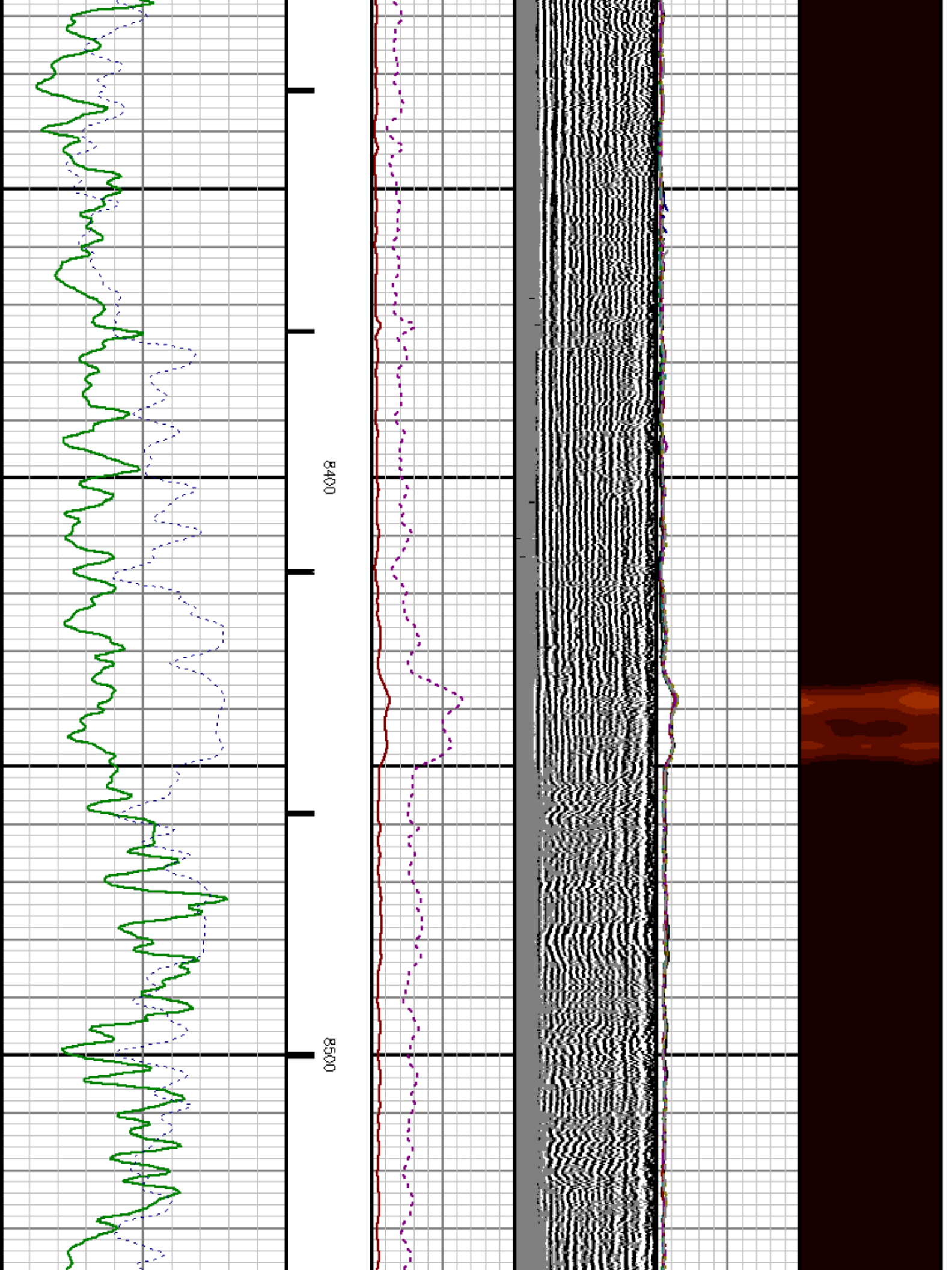


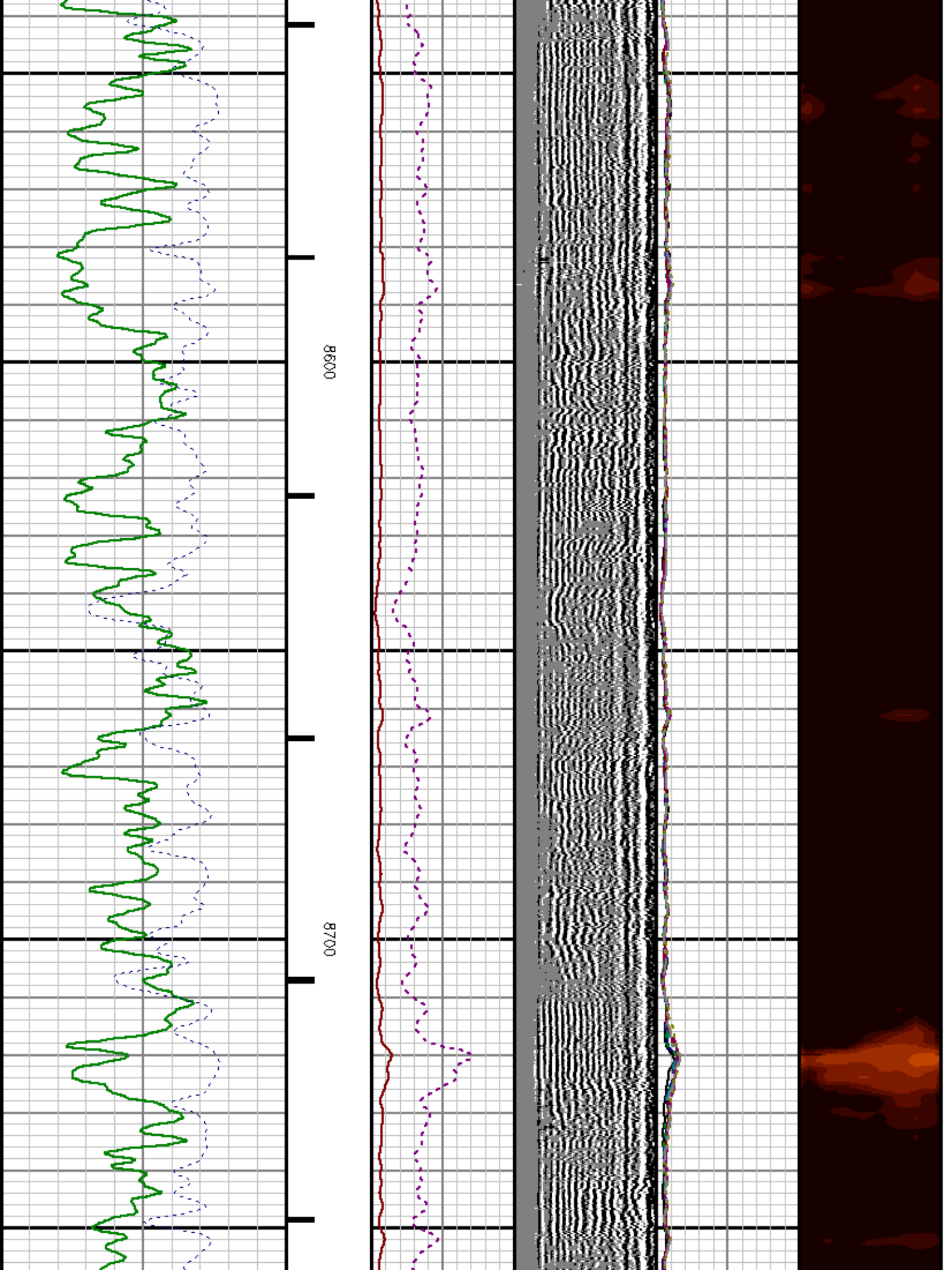


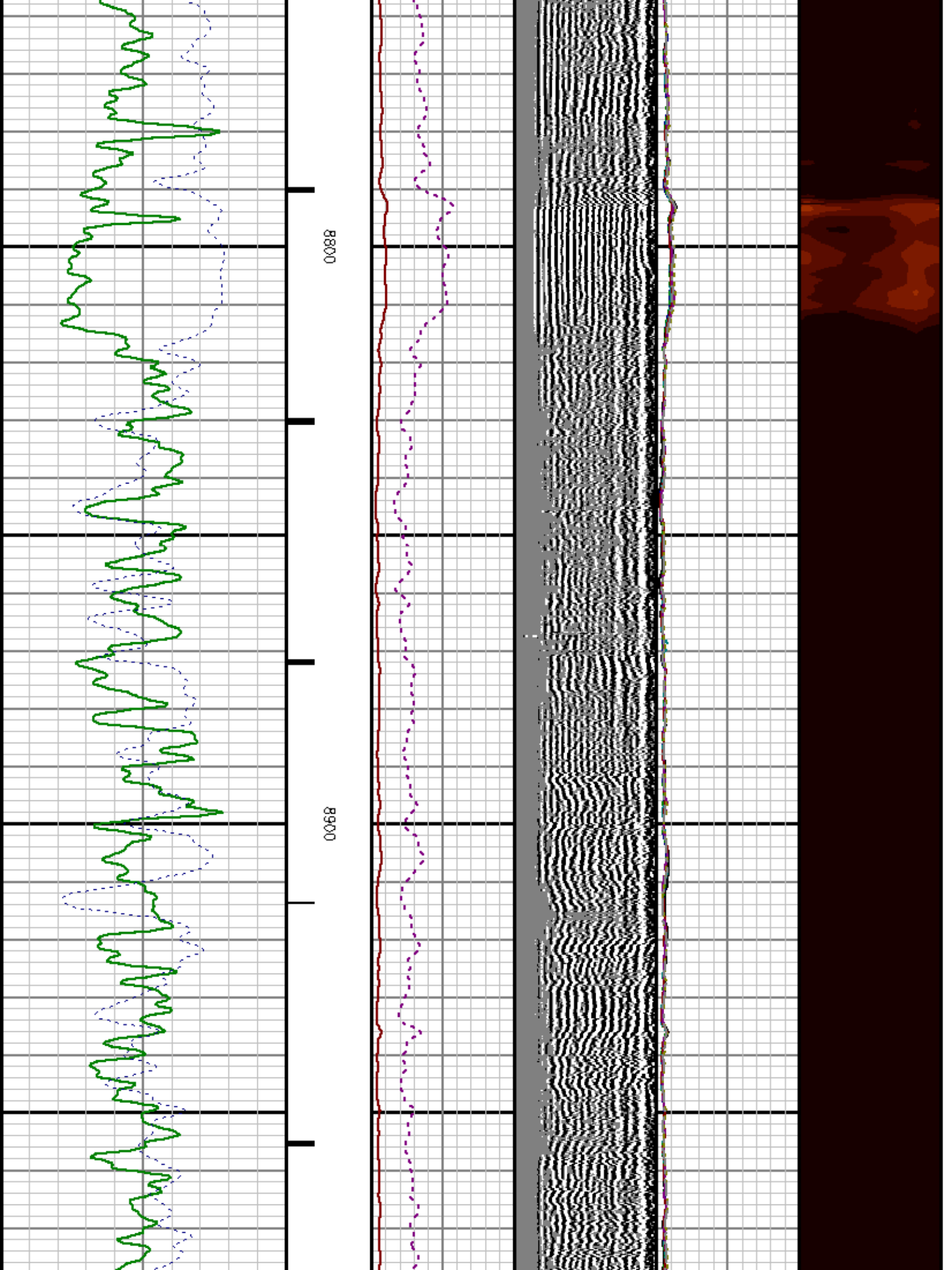


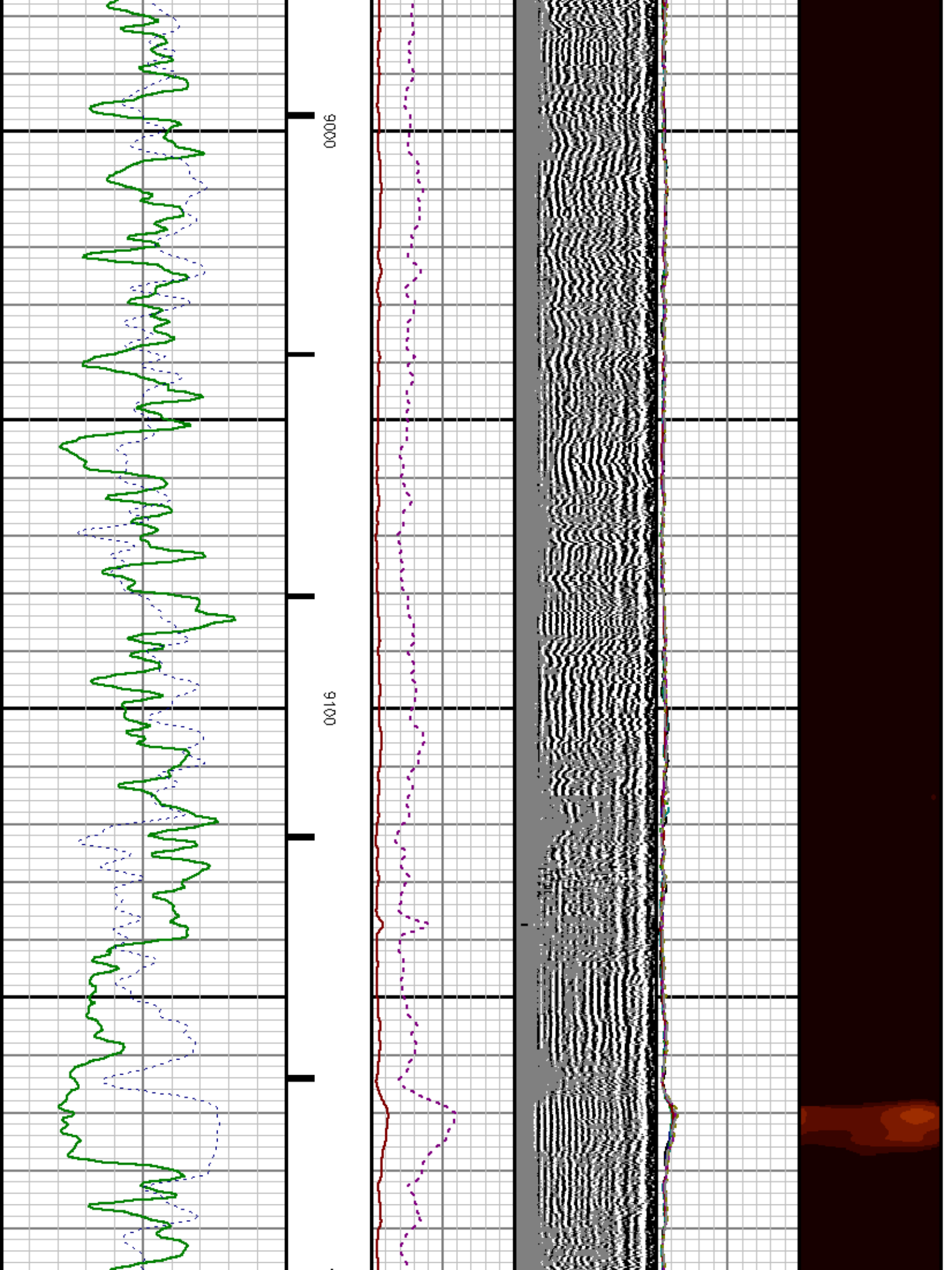


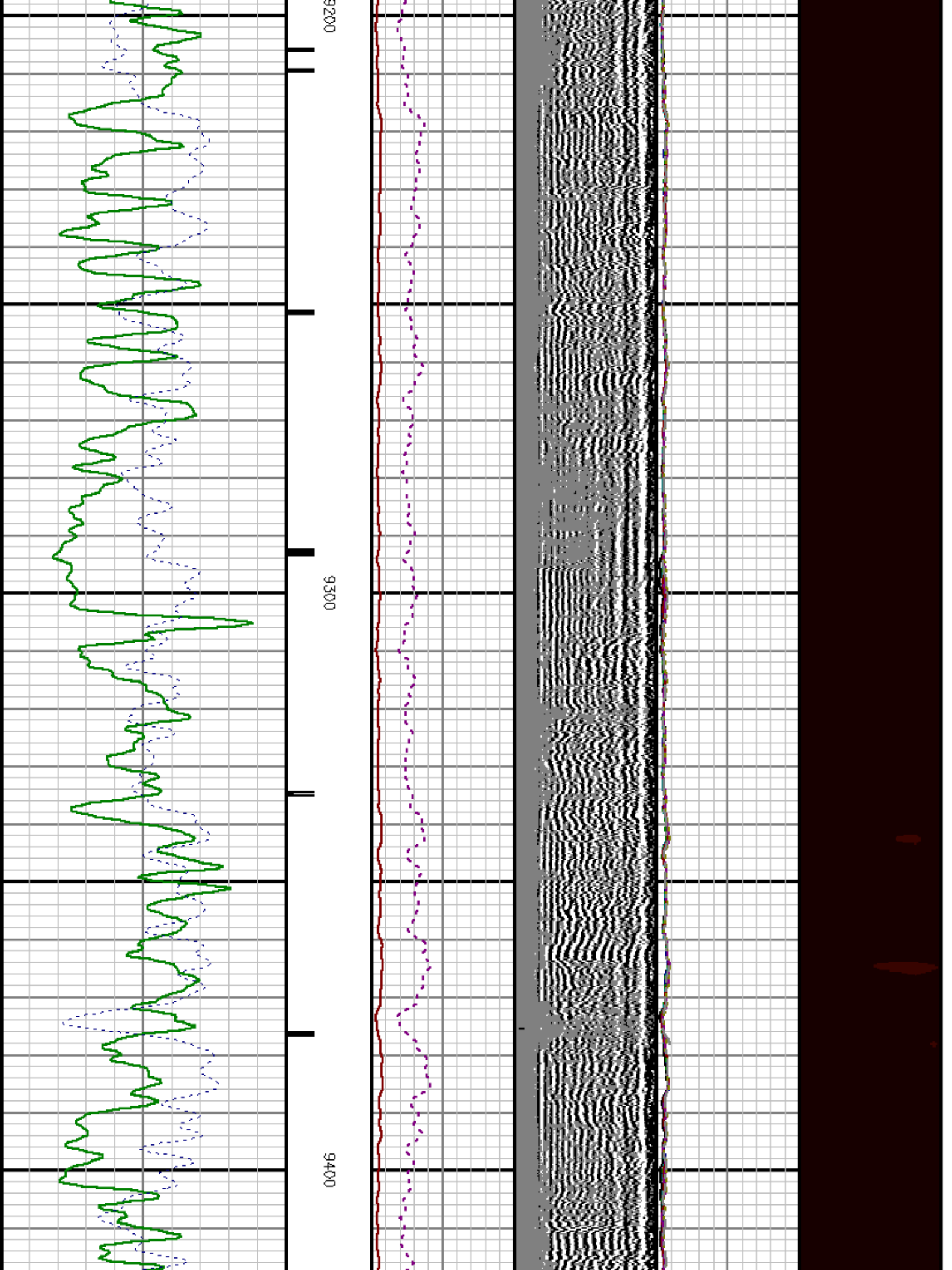


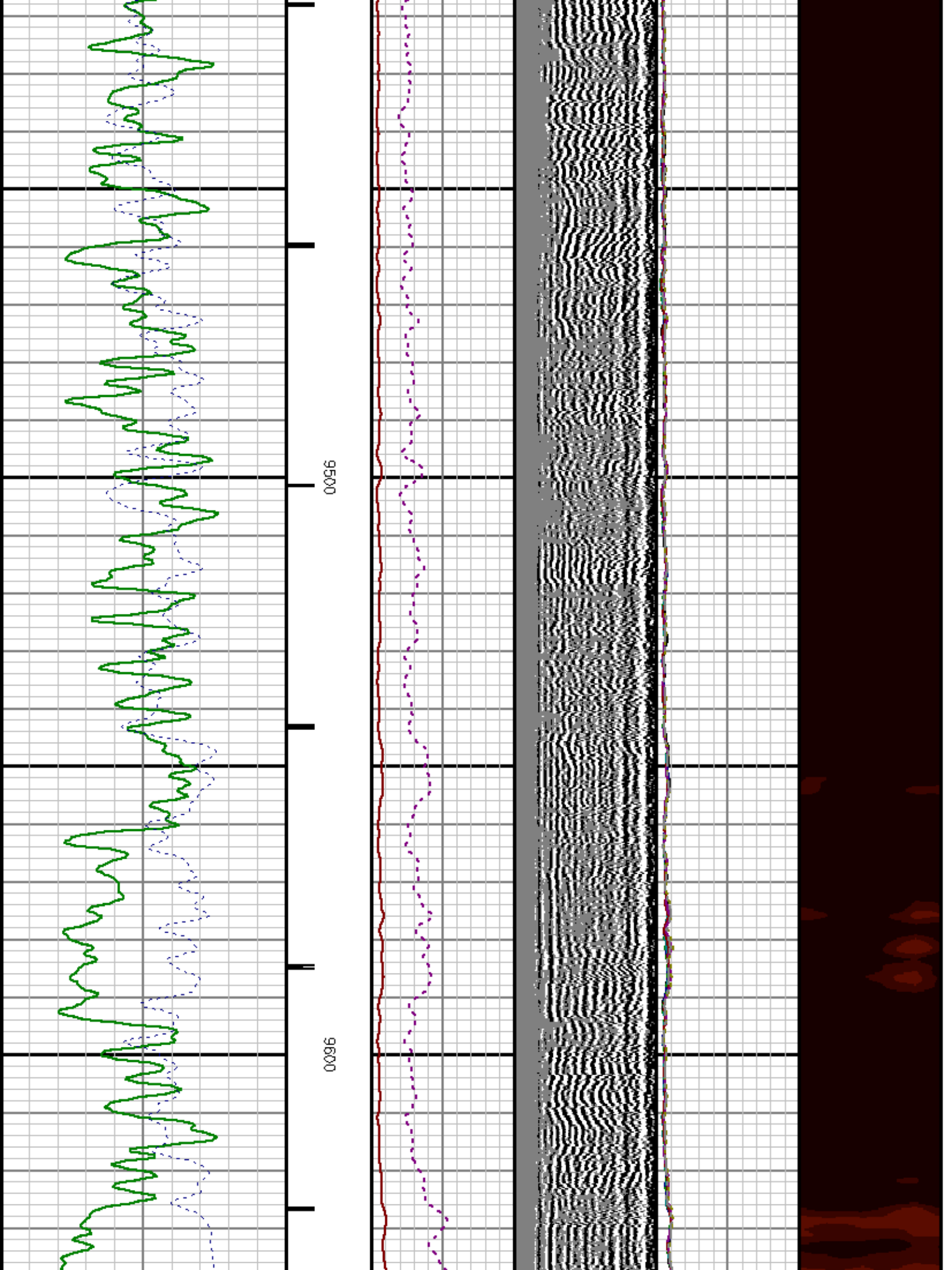


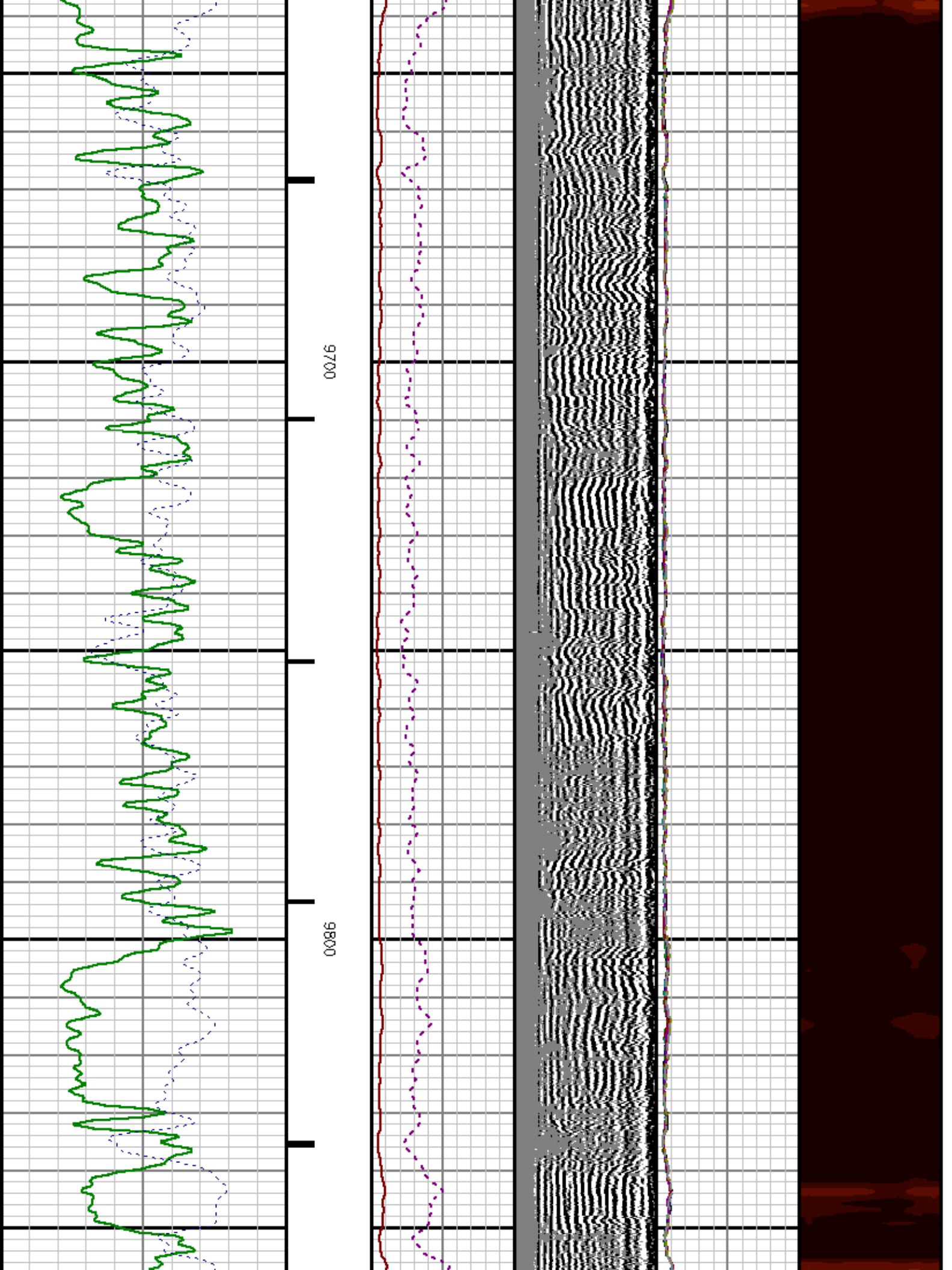


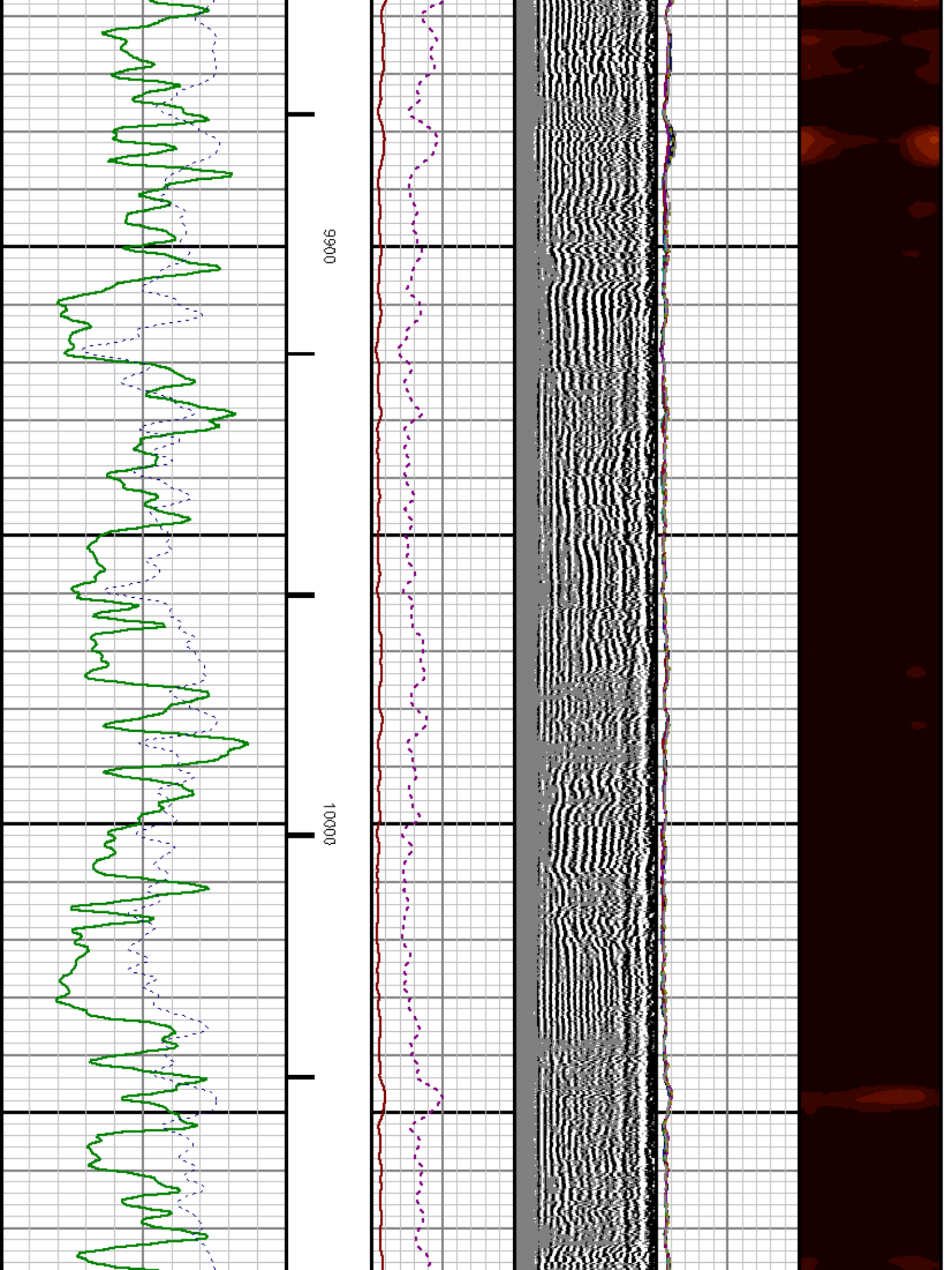


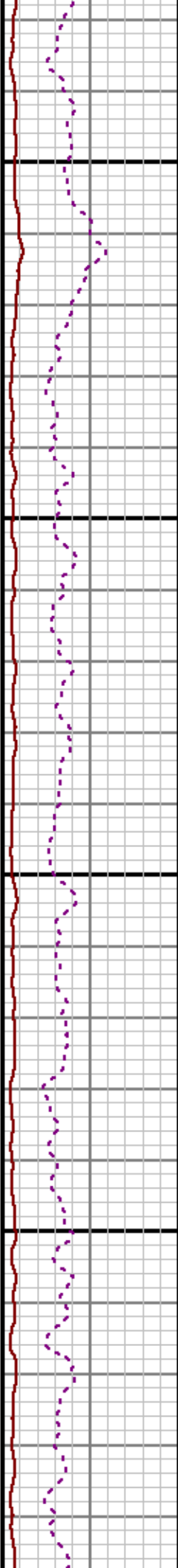
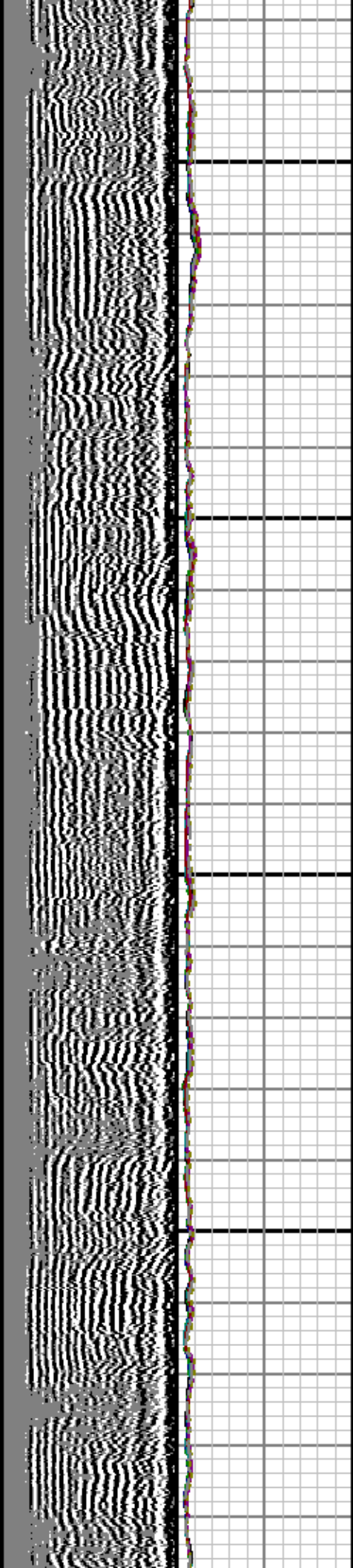








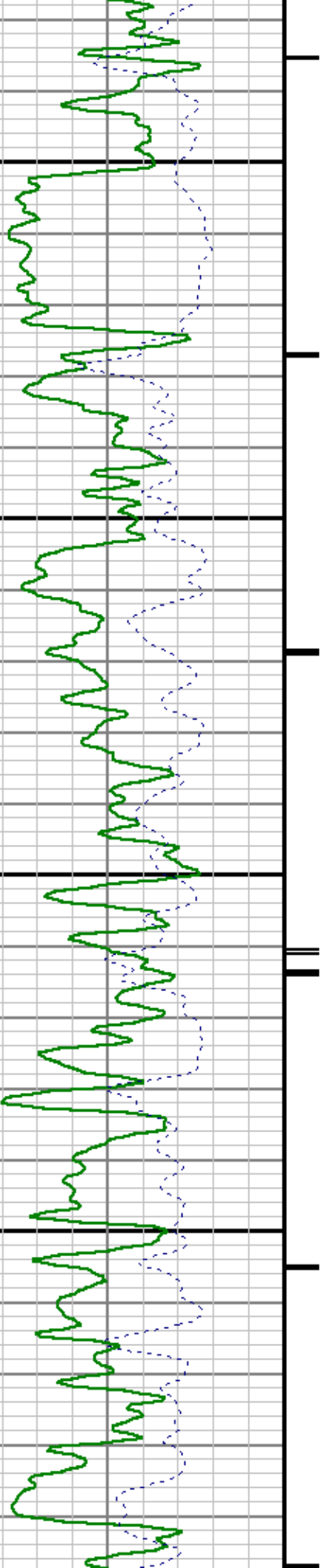


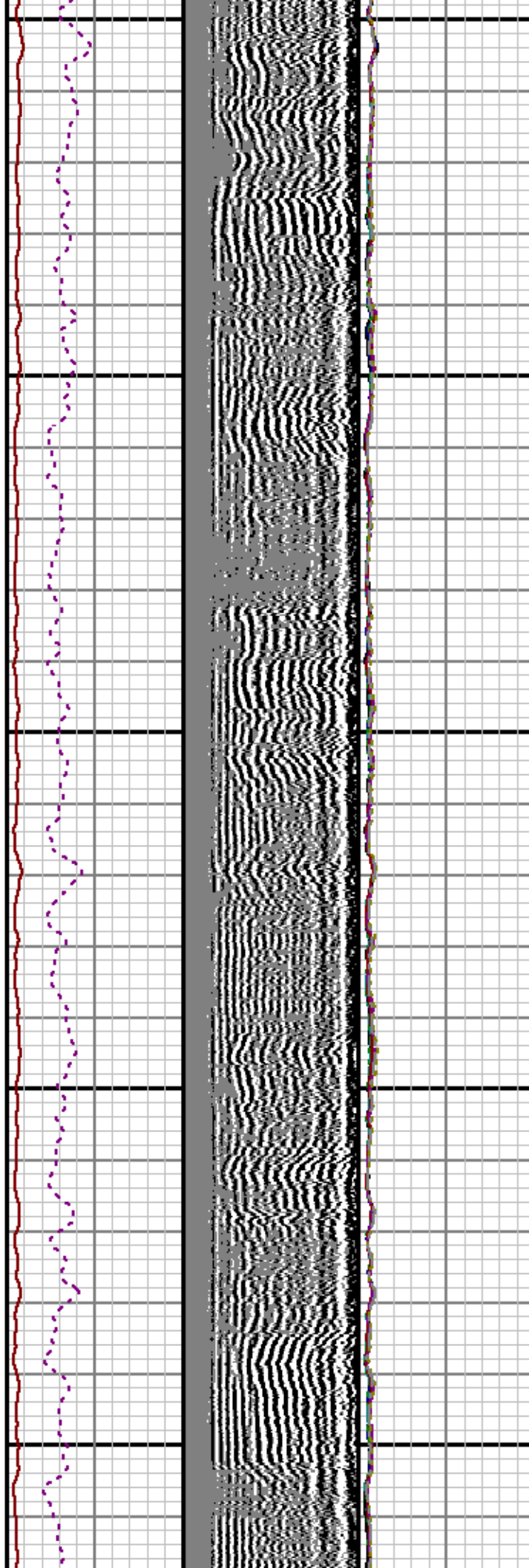


10100

10200

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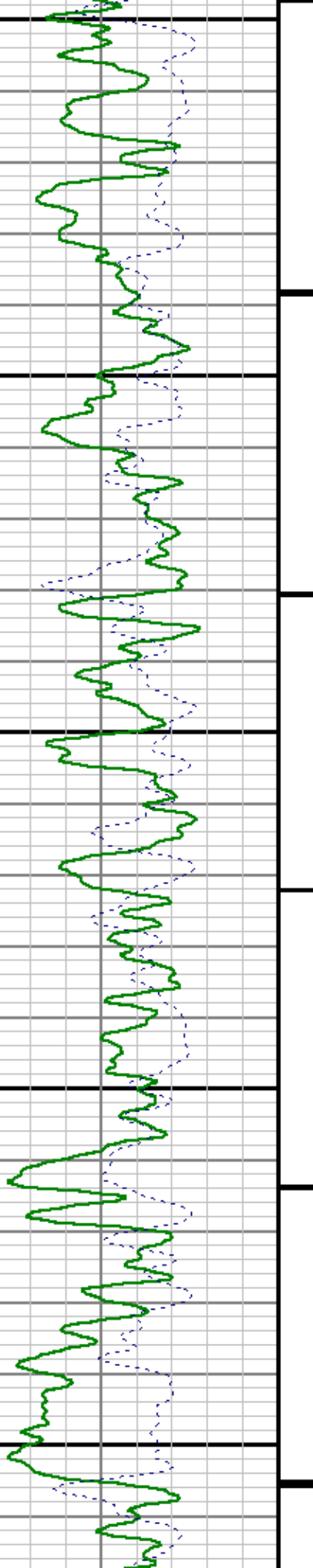


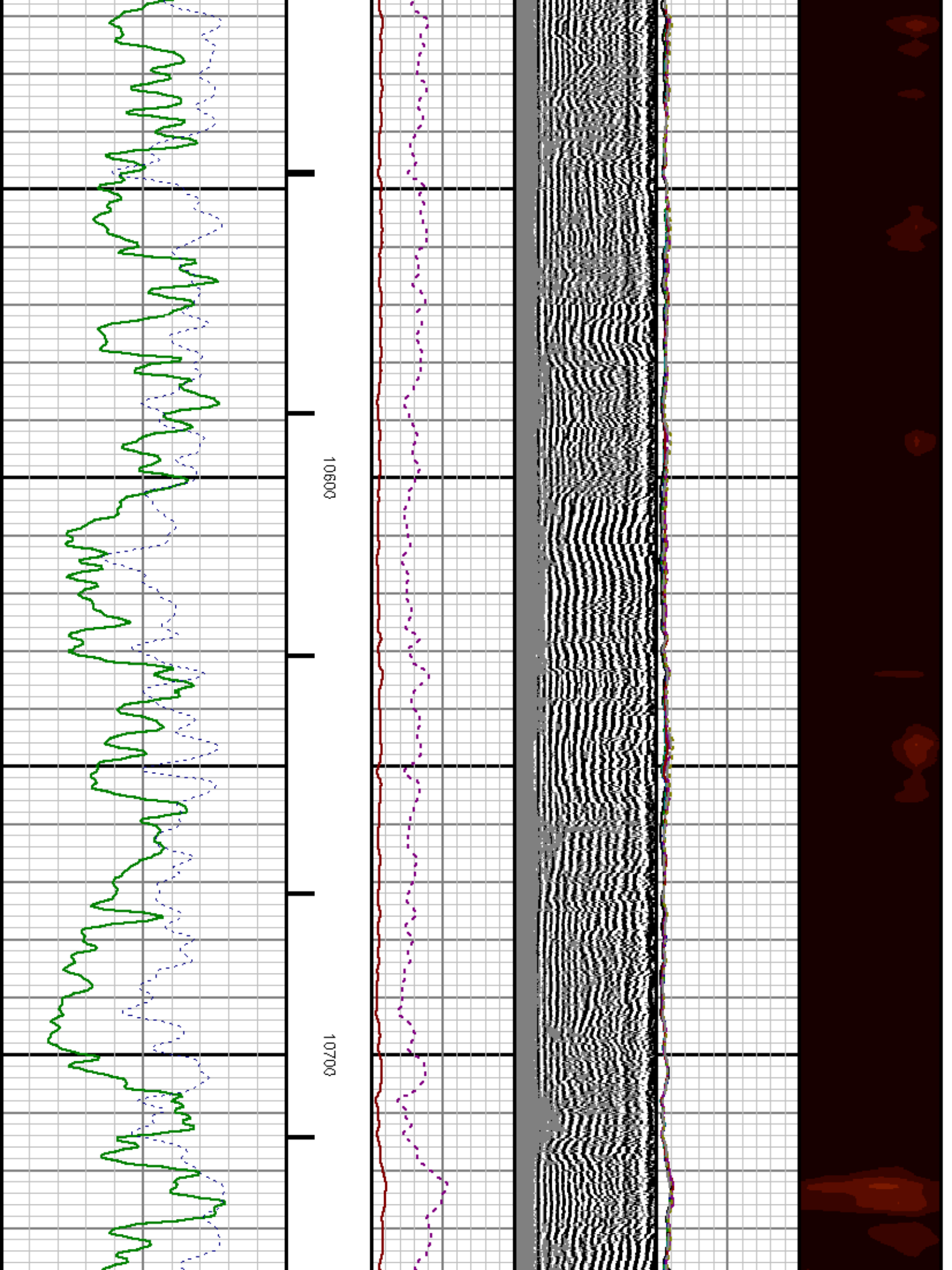


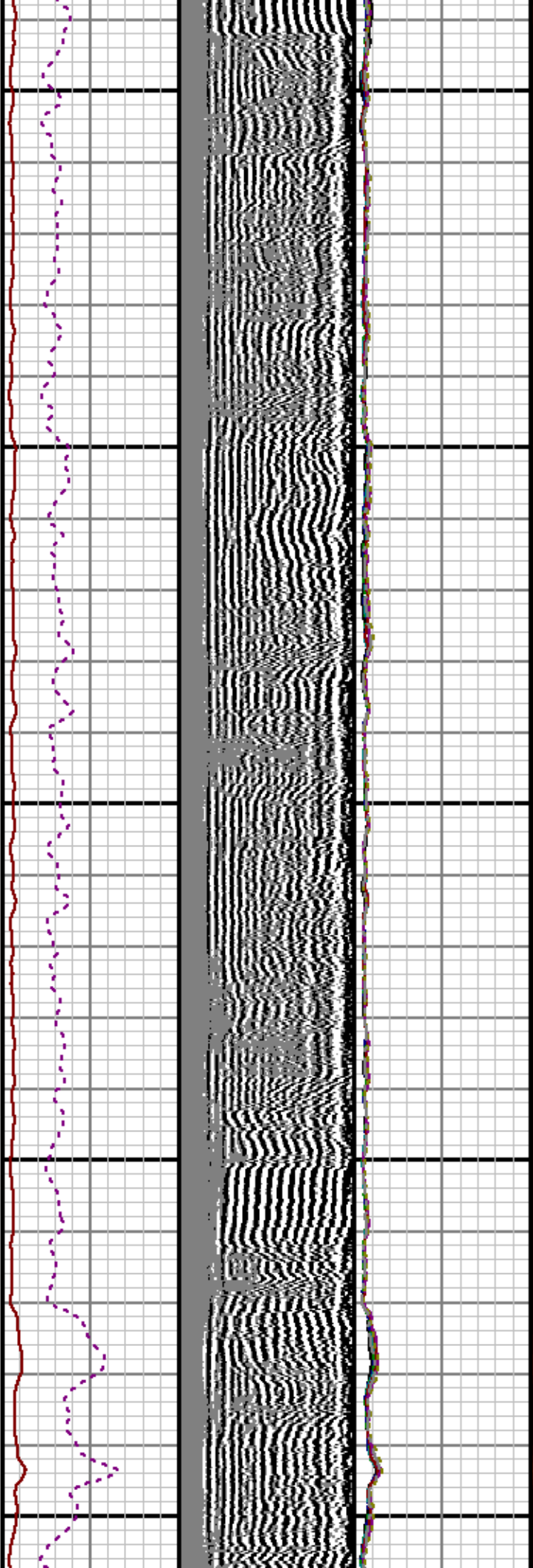
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10400

10500

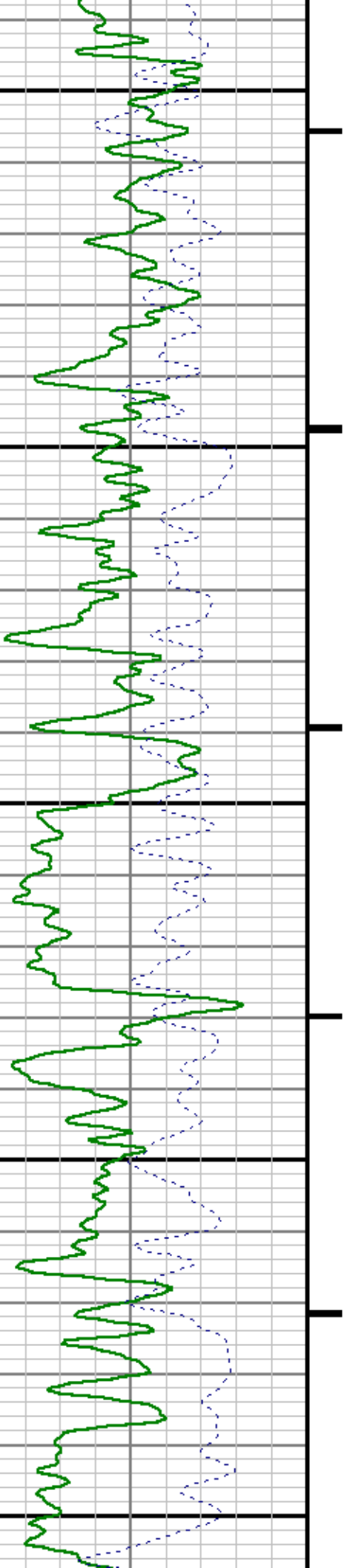


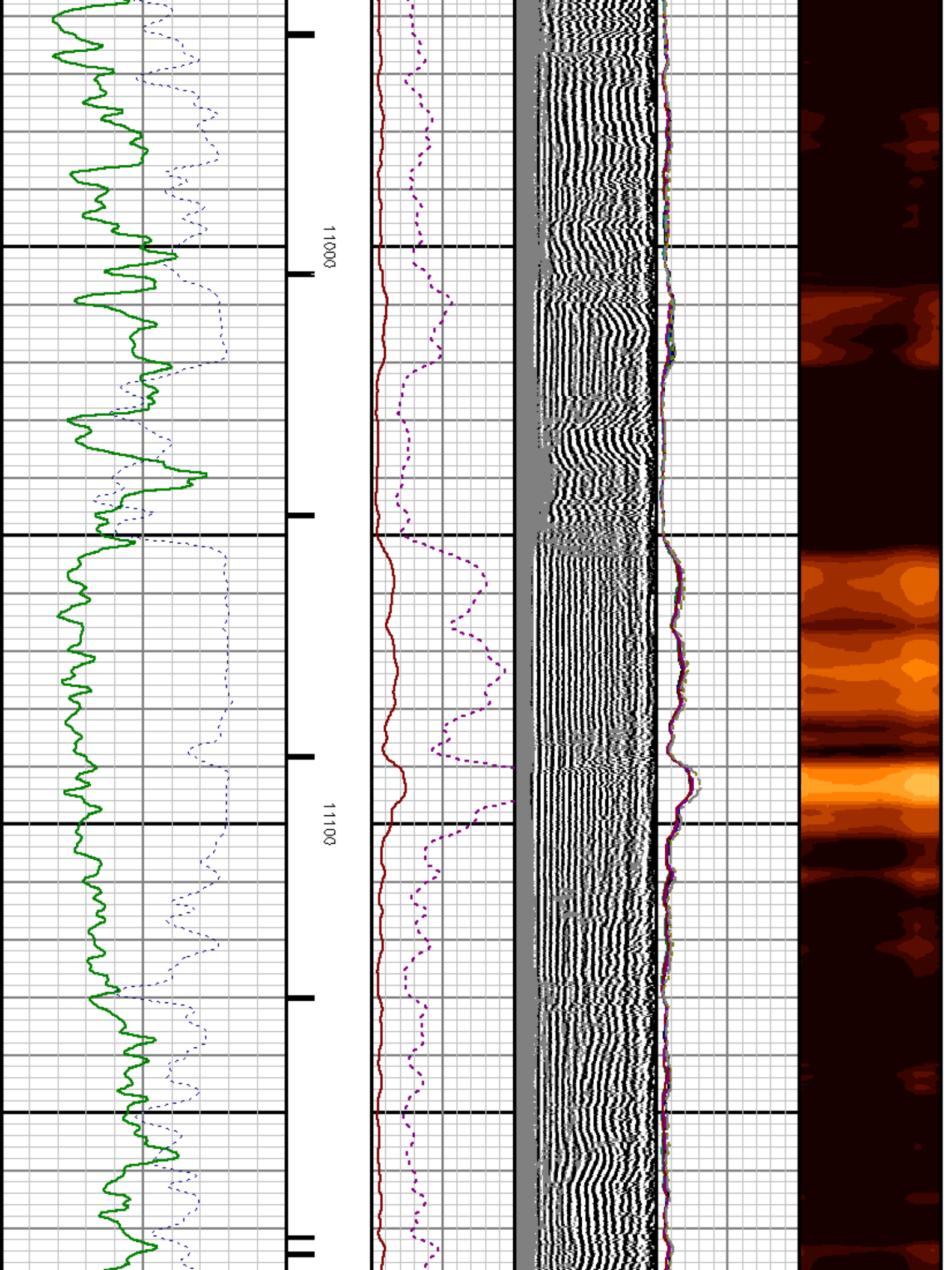


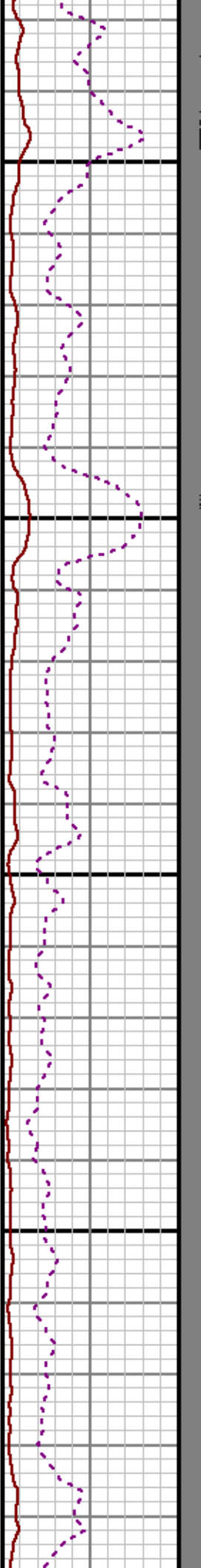
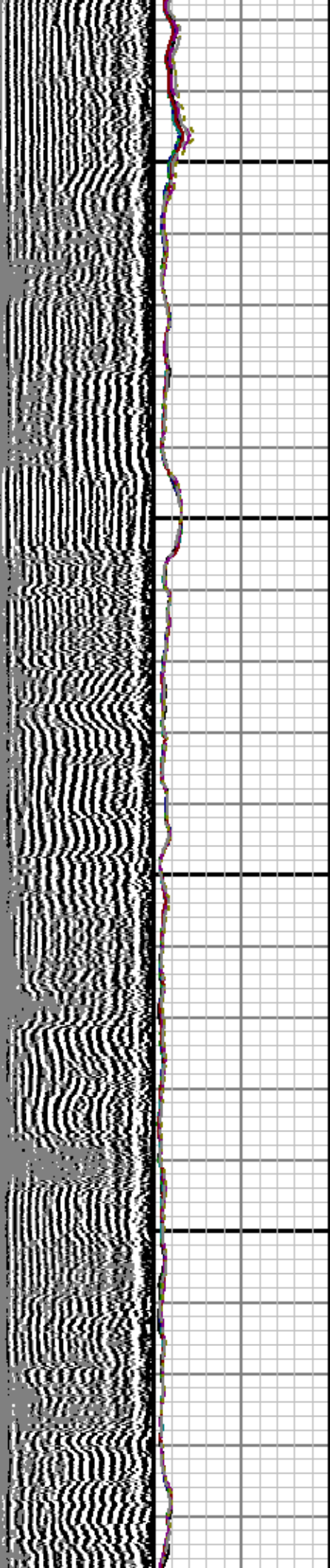


10800

10900



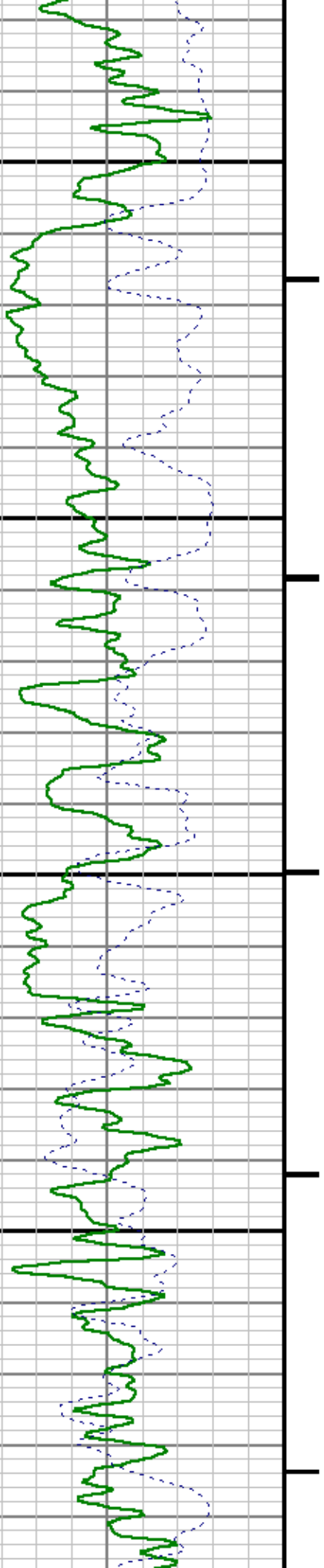


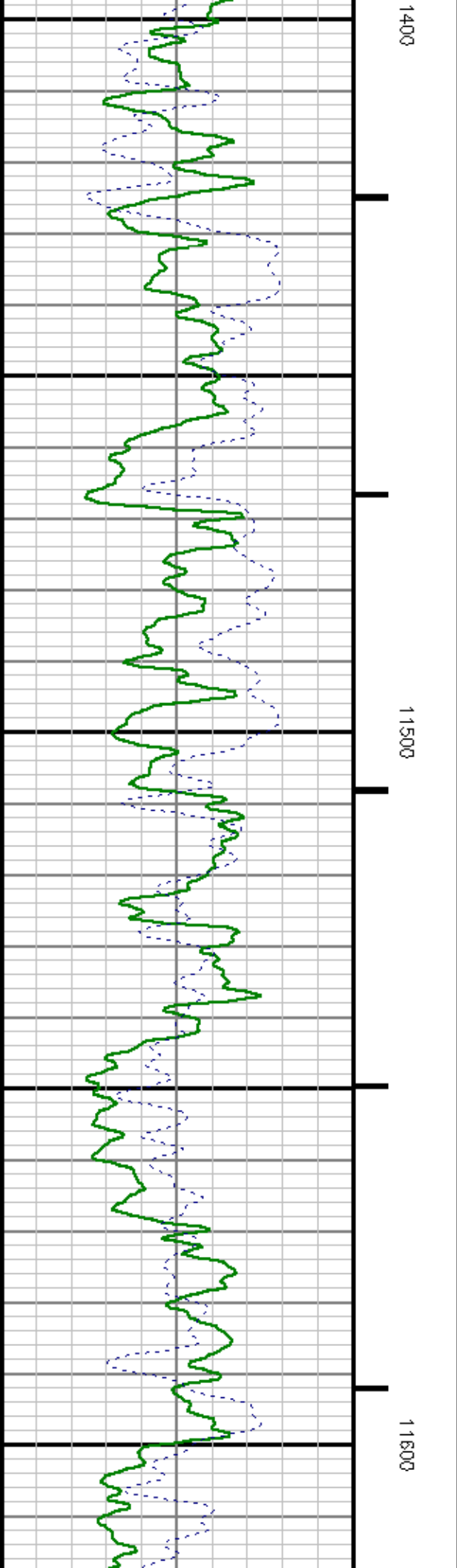
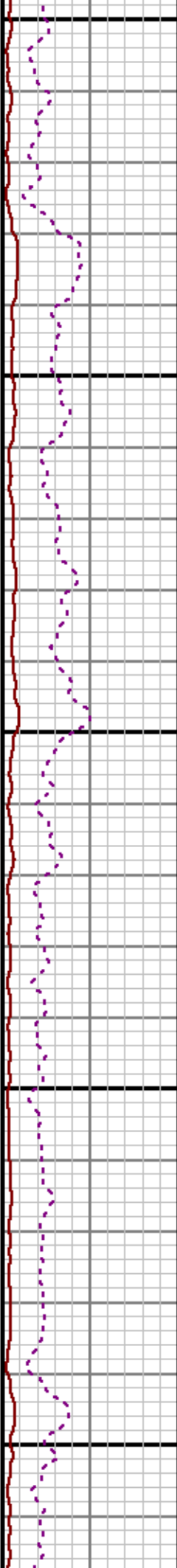
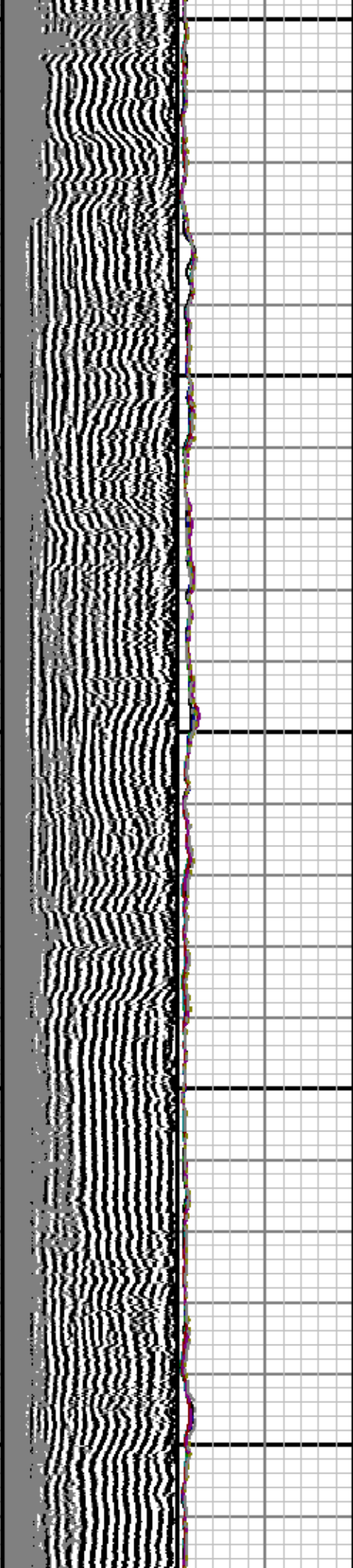


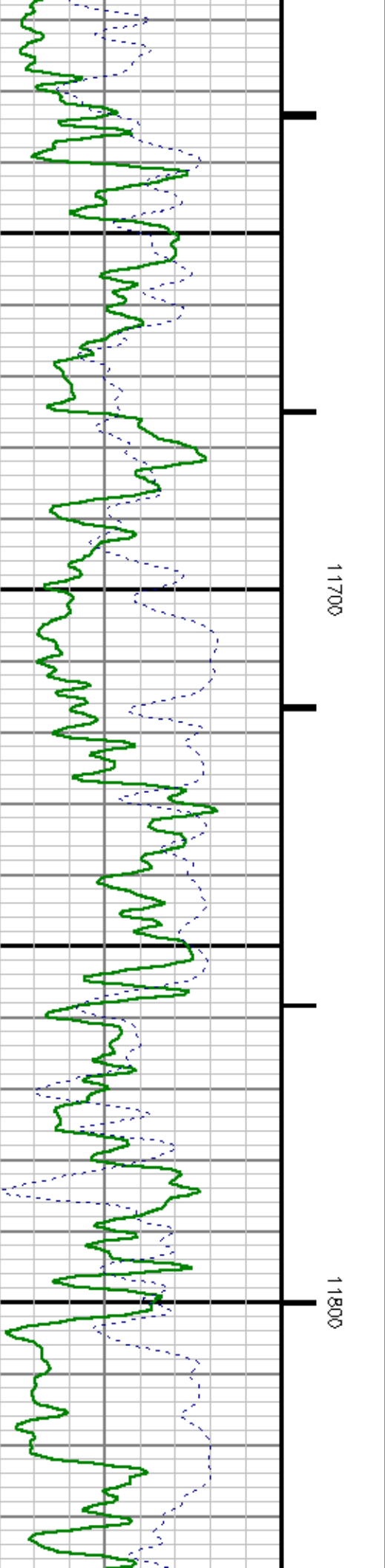
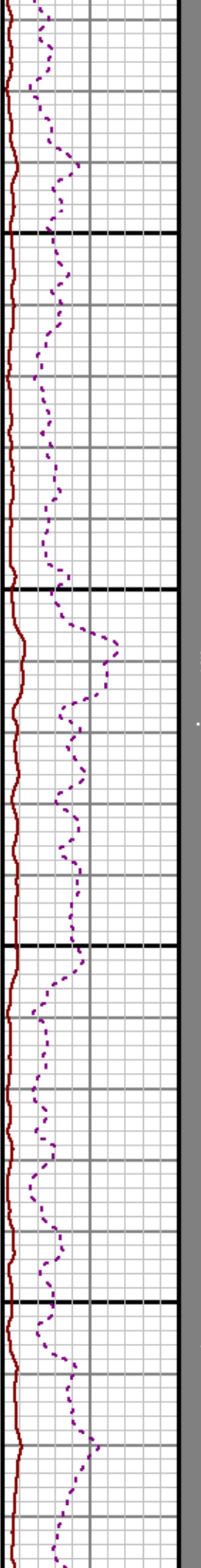
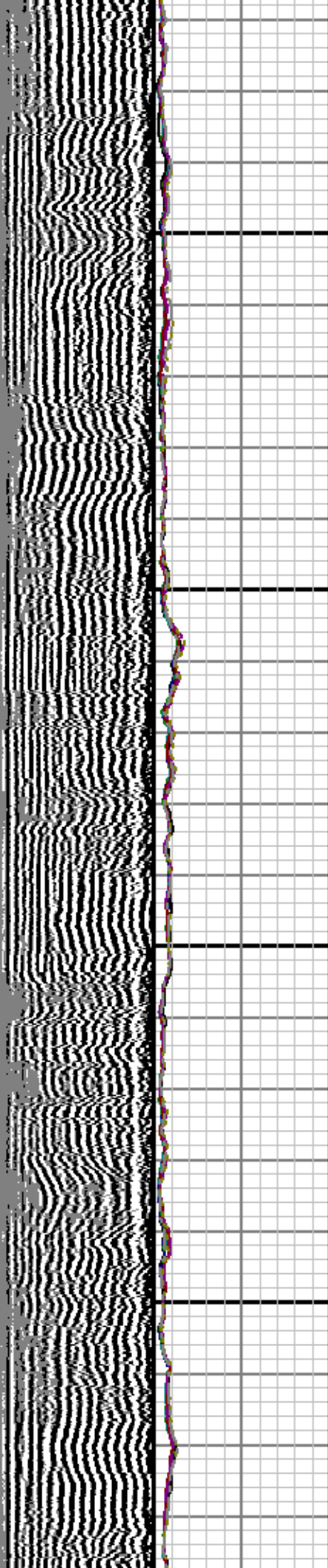
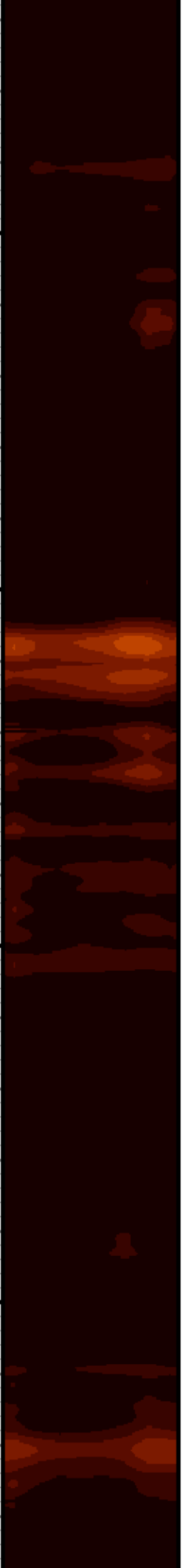
11200

11300

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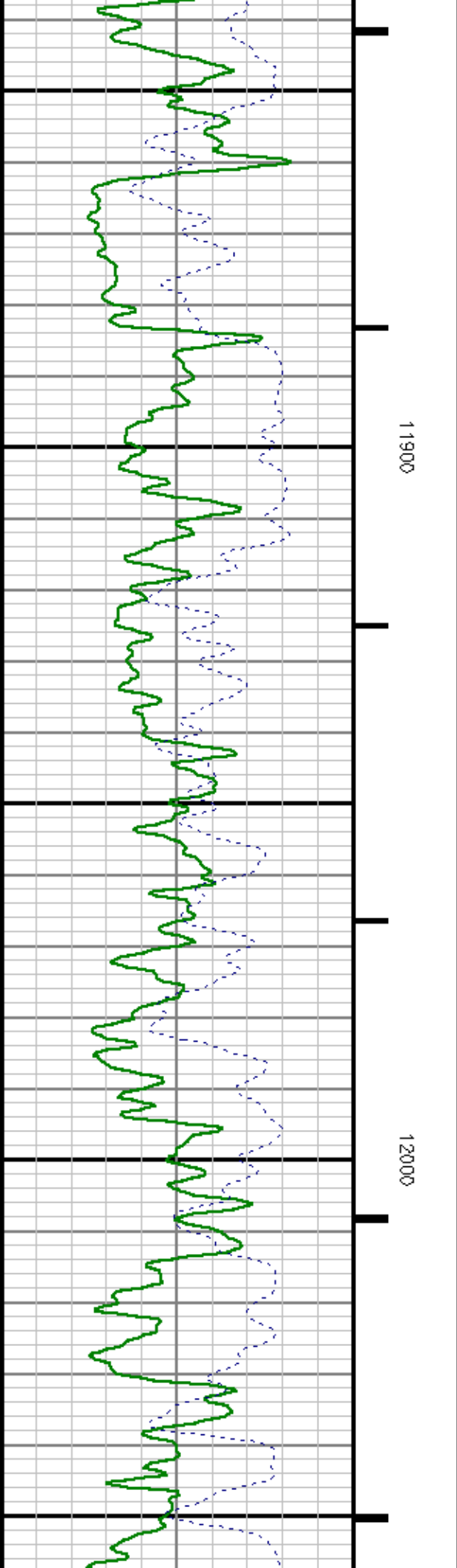
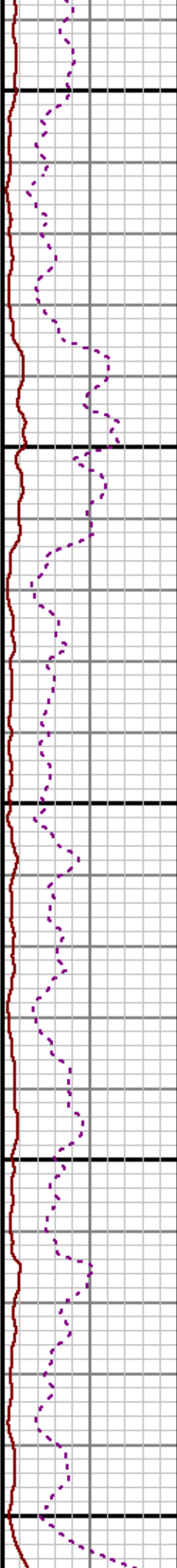
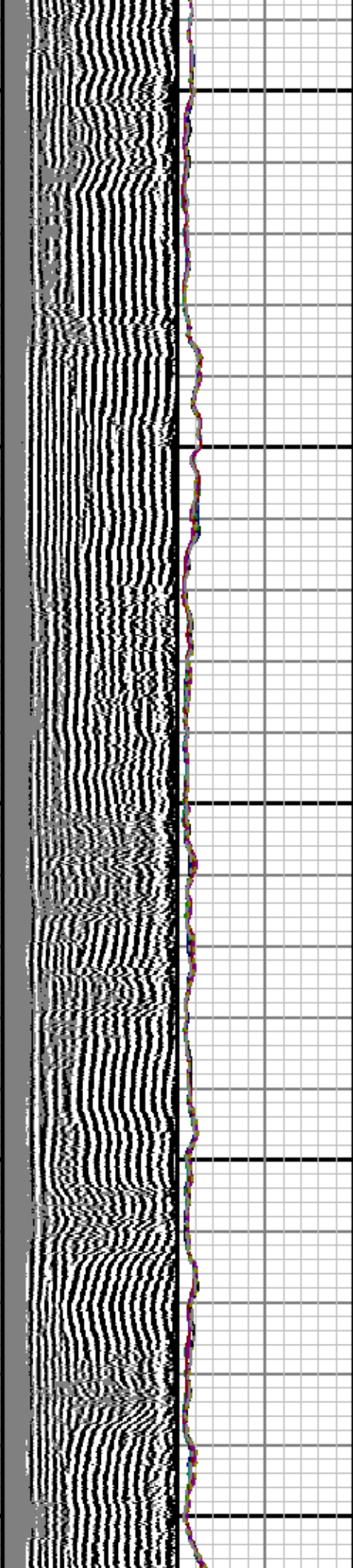






11700

11800



RAL	FB Start Far	289.263	usec	11849.924	12143.000
RAL	FB Start Near	172.754	usec	11849.924	12143.000
RAL	FB Start Radial	172.754	usec	11849.924	12143.000
RAL	FB Thresh Far	10.000	mv	11849.924	12143.000
RAL	FB Thresh Near	4.000	mv	11849.924	12143.000
RAL	FB Thresh Radial	4.000	mv	11849.924	12143.000
RAL	Fluid Travel Time	200.000	usec/ft	11849.924	12142.800

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-15.360	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-14.360	AFAR	SIG	TT5			
1426XA	-7.250	CCL					
1426XA	-5.390	GR					
1426XA	0.000	NEU					

Created by : RAL, v4.8.007

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBILE PRODUCTION COMPANY

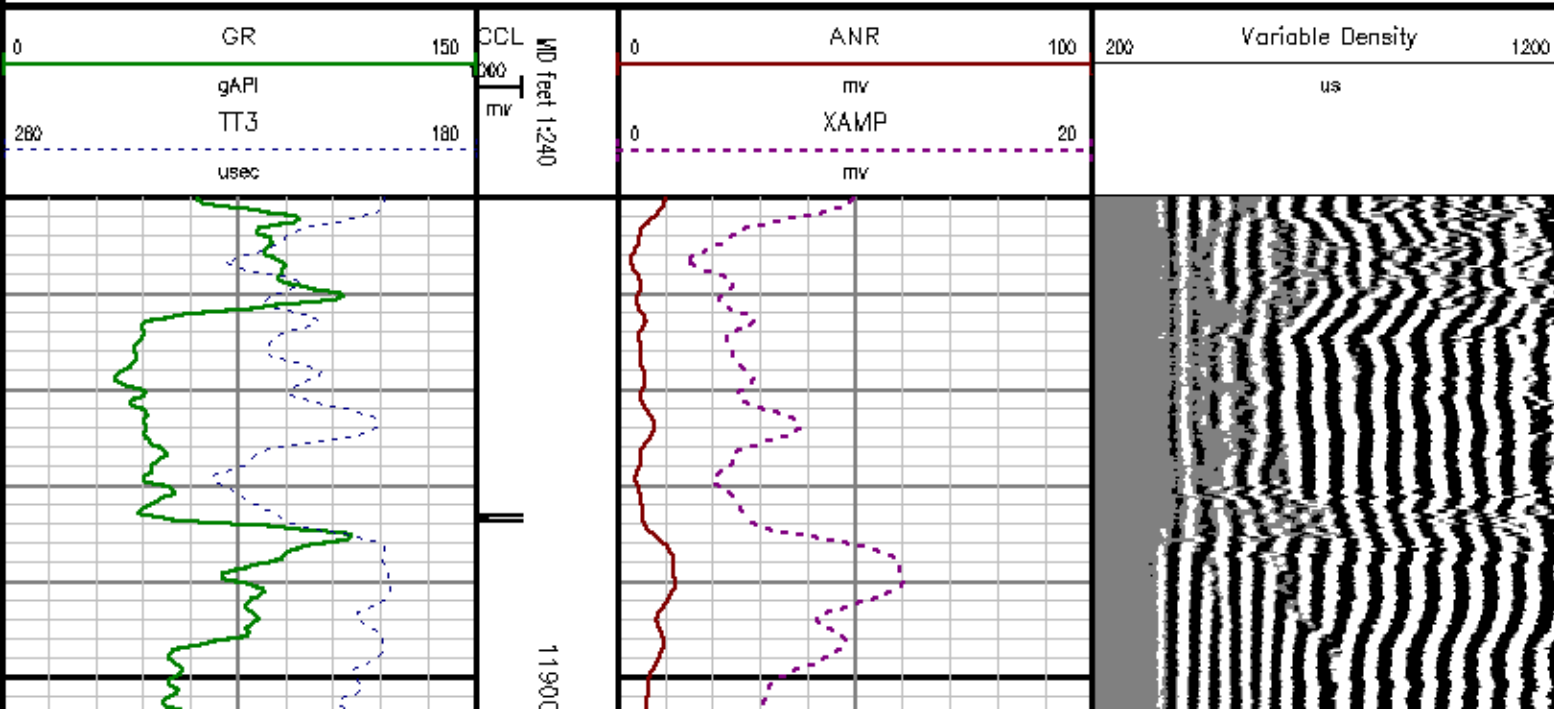
Well : FRU 197-33A6

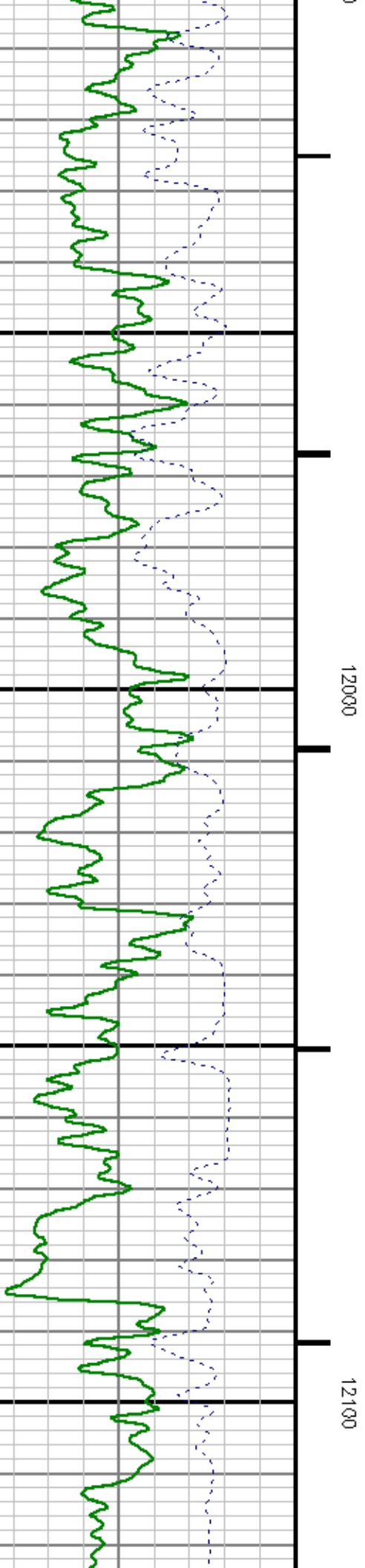
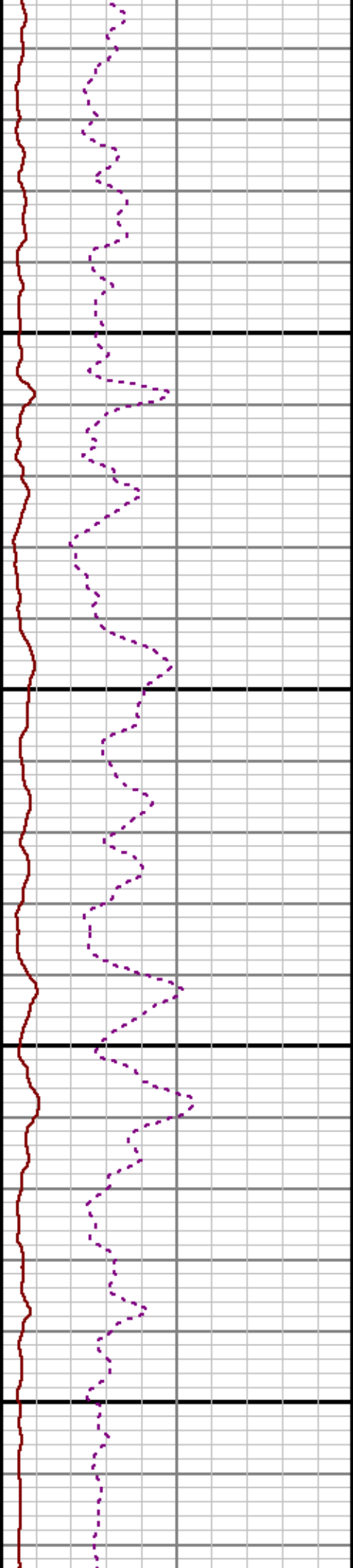
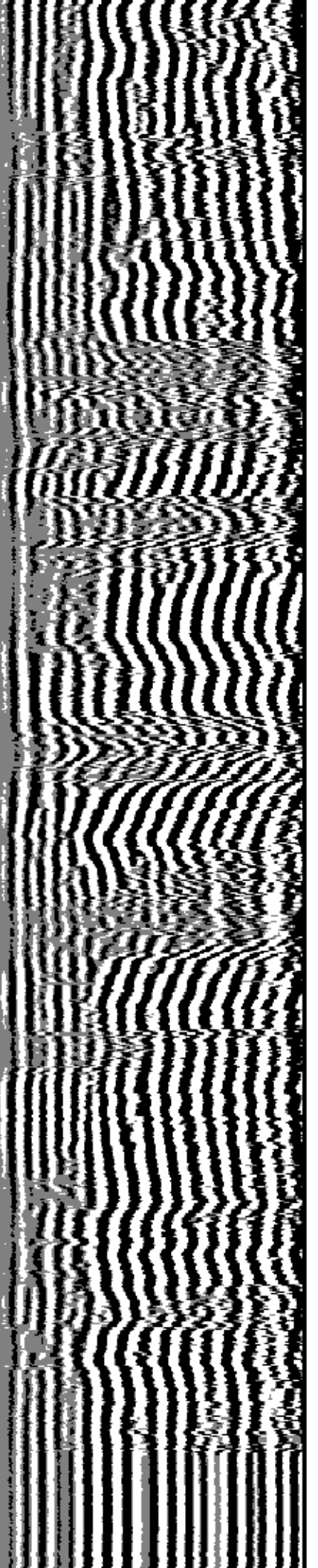
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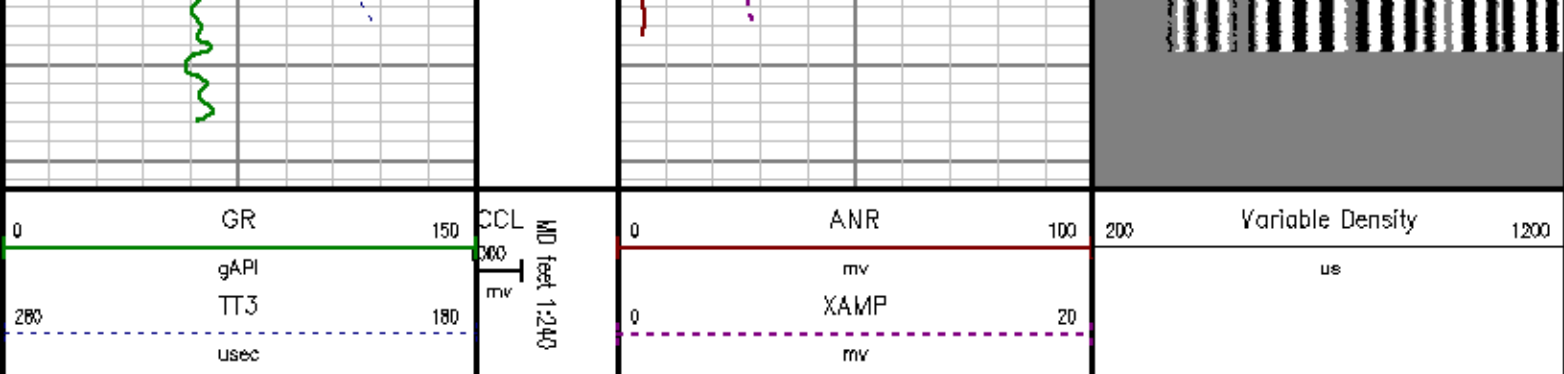
Mode : PlotMgr 5.4.504

Interval : 11850.00 - 12143.00 feet UP

Created : 4/21/2010 2:21:29 PM







CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\450A1.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Apr 08 03:38:56 2010 TOOL SERIES: 2459XA ASSET: 450 SEQ: A1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K DA905	59.82	301.96	0.764	45.71	230.71	185.00

Verification File: C:\case\calver\GR\450A1.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Thu Apr 08 03:43:20 2010 TOOL SERIES: 2459XA ASSET: 450 SEQ: A1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K DA905	58.62	302.13	0.764	44.79	230.84	186.05

RALSHP

Shop Calibration: C:\case\calver\RALSHP\49621AP.shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Apr 21 13:30:05 2010 TOOL SERIES: 1426XA ASSET: 496 SEQ: 21AP

Tool Delay [usec]	Tank OD in	Tank Wt lbm/ft	Tank ID in
-53.00	5.50	15.50	4.95

RECEIVER Travel Time Amp. Gate Amp. Gate Zero Gate Zero Gate Zero Amp. Amp. Ref. Shop Factor

CAL Pulse	220	219	25	119	58	-0.194	100.00	0.24
3 FL Receiver	219	216	30	120	58	-0.205	100.00	0.23
5 FL Receiver	326	324	30	205	83	0.024	150.00	0.26
Radial #1	220	218	30	131	51	-0.095	100.00	0.23
Radial #2	220	218	30	131	51	-0.276	100.00	0.23
Radial #3	220	216	30	131	51	-0.163	100.00	0.23
Radial #4	219	216	30	131	51	-0.055	100.00	0.23
Radial #5	218	216	30	131	51	-0.304	100.00	0.23
Radial #6	217	216	30	131	51	0.107	100.00	0.23
Radial #7	217	218	30	131	51	-0.224	100.00	0.23
Radial #8	220	216	30	131	51	-0.018	100.00	0.23

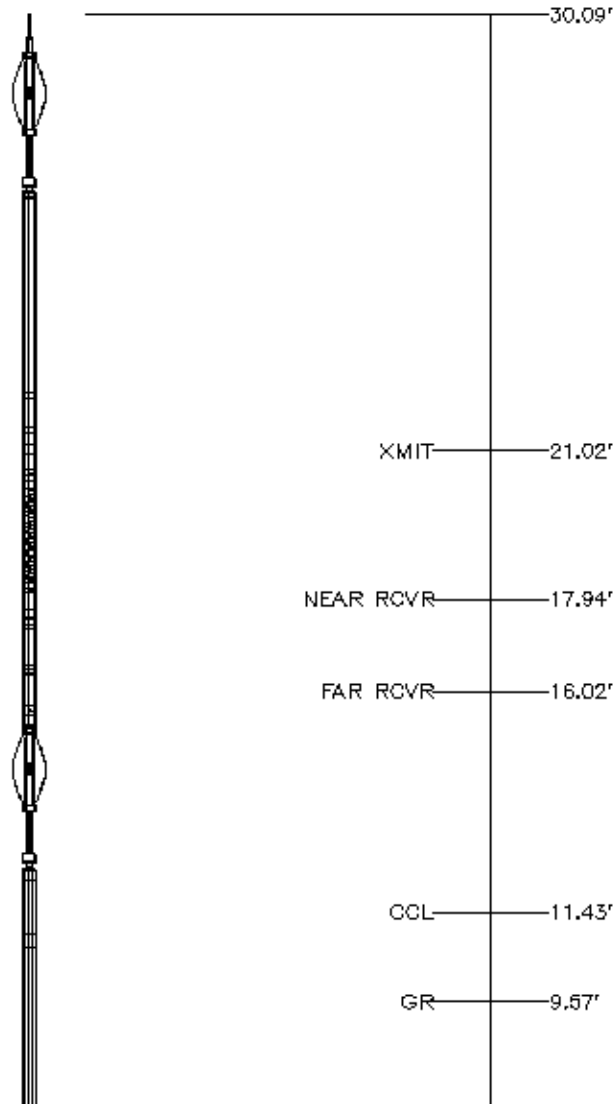
TOOL DIAGRAM

OTA SHORT CABLE HEAD	
CENTRALIZER	
Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb

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

CENTRALIZER	
Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb

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

CENTRALIZER

Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb

NEU	4.18'
	0.00'

Total Length: 30.09'
Total Weight: Not Available
Max Diameter: 0' 3.12"



Company	EXXONMOBIL PRODUCTION COMPANY		
Well	FRU 197-33A6		
Field	PICEANCE CREEK		
County	RIO BLANCO	State	COLORADO

File No:	1724
API No:	06103115360000

Location

SHL: 816' FSL 2388' FEL

Elevations

KB	8417.4 ft
DF	8416.4 ft
GL	8388 ft

SEC 33 TWP 1S RGE 9W

63456'

Baker Atlas