



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No:	Company	EXXONMOBIL PRODUCTION COMPANY	
1728	Well	FRU 187-3348	
API No:	Field	PICEANCE CREEK	
00103114010000	County	RIO BLANCO	State
			COLORADO
Location		Other Services	
SHA: 845' PSL & 2380' FEL		RFM	
SEC 33 TWP 1S RGE 8W			
Permanent Datum	GL	Elevation	6388 ft
Log Measured From	KB	29.4 ft	Above P. D.
Drill Measured From	KELLY BUSHING	KB	6417.4 ft
		DF	6416.4 ft
		GL	6388 ft

Date	23 APR 2010	
Run	ONE	
Service Order	589778	
Depth Driller	12341 ft	
Depth Logger	12151 ft	
Bottom Logged Interval	12151 ft	
Top Logged Interval	1000 ft	
Time Started	01:00	
Time Finished	05:30	
Operator Rig Time	4.5 hrs	
Type of Fluid in Hole	WATER	
Fluid Density	N/A	
Salinity	N/A	
Fluid Level	PULL	
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	VERNAL, UT.
Recorded By	J. OSTLER	
Witnessed By	MR. MIKE ROBERTSON	

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

Borehole Record		
Bit Size	From	To
9.875 in	SURFACE	8617 ft
6.125 in	SURFACE	12341 ft

Casing Record				
Size	Weight	Grade	From	To
7 in	26 lbm/ft	P-110	SURFACE	8617 ft
4.5 in	15.1 lbm/ft	P-110	SURFACE	12341 ft

Remarks

THIS IS THE FIRST LOG OF THE WELL
WELL WAS LOGGED WITH 0 PSI AT THE WELL HEAD
SHORT JOINT TOPS AT 6043', 7112', 8176', 8250', 10306', 11324'

Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position

	1	VDL	1426XA	UNKNOWN	CENTRALIZED
1	1	GR/CCL/NEU	2459KA	460	CENTRALIZED

MAIN SECTION
PRIMARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	901.250	1599.500
RAL	Amp Gate Start Near	197.754	usec	901.250	1599.500
RAL	Amp Gate Start Radial	197.754	usec	901.250	1599.500
RAL	Amp Gate Width Far	25.000	usec	901.250	1599.500
RAL	Amp Gate Width Near	25.000	usec	901.250	1599.500
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RAL	casing od	4.500	inches	901.250	1599.500
RAL	casing wt	15.100	lbm/ft	901.250	1599.500
RAL	FB Start Far	289.263	usec	901.250	1599.500
RAL	FB Start Near	172.754	usec	901.250	1599.500
RAL	FB Start Radial	172.754	usec	901.250	1599.500
RAL	FB Thresh Far	10.000	mv	901.250	1599.500
RAL	FB Thresh Near	4.000	mv	901.250	1599.500
RAL	FB Thresh Radial	4.000	mv	901.250	1599.500
RAL	Fluid Travel Time	200.000	usec/ft	901.250	1599.500

DEPTH OFFSETS
(for Acquired Curves)

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

1426XA
1426XA

-5.390
0.000

GR
NEU

Created by : MIXED

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

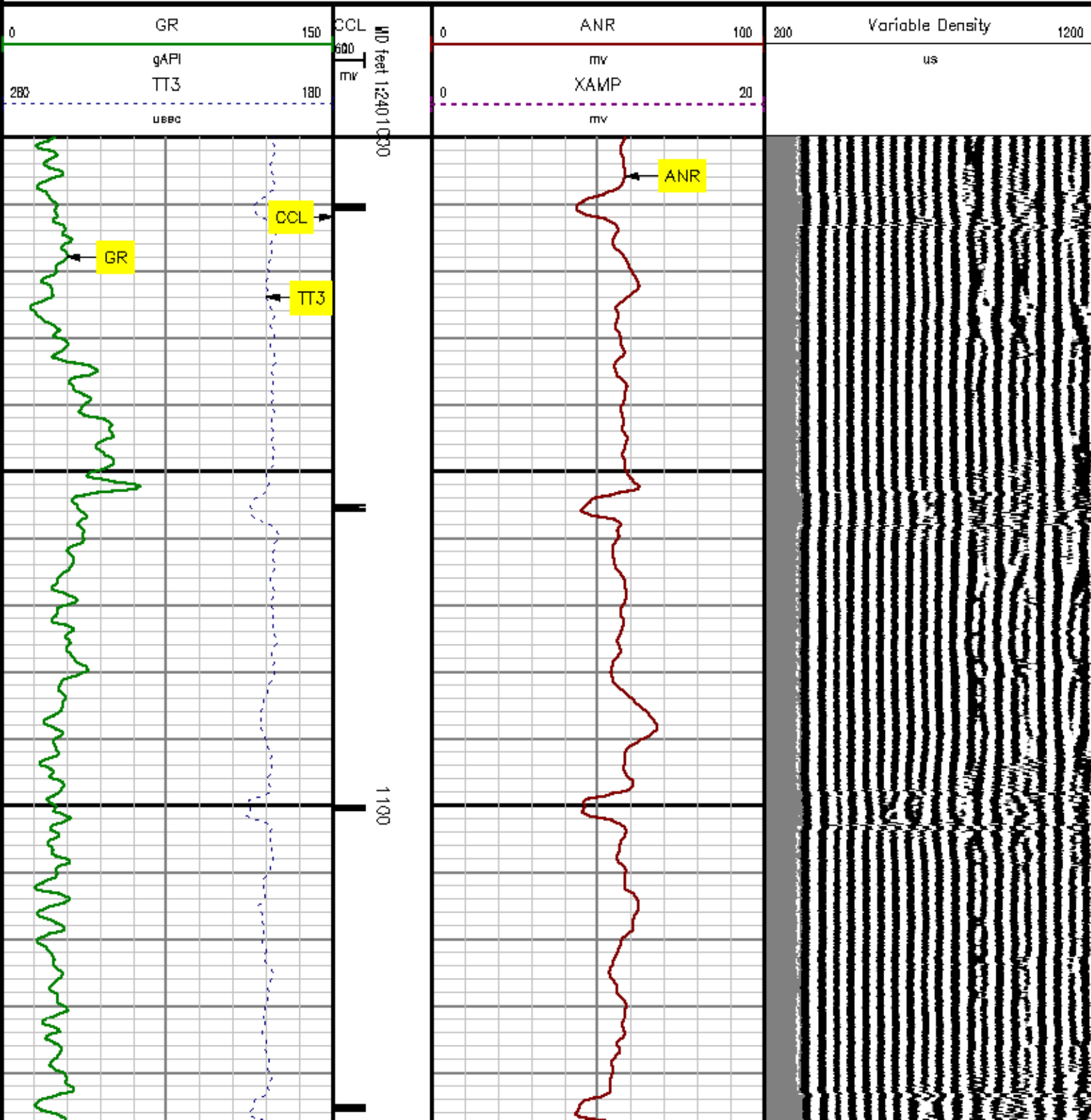
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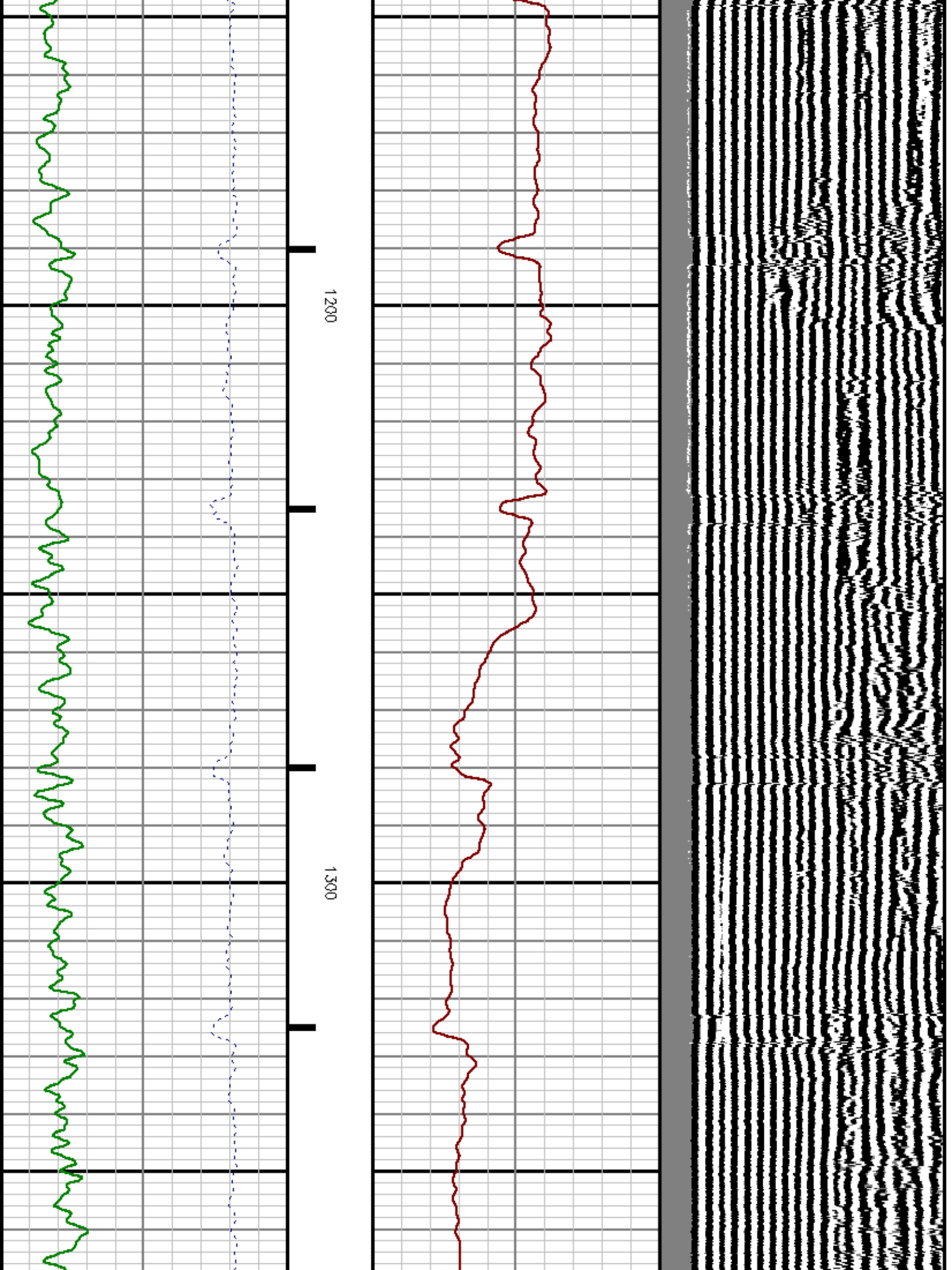
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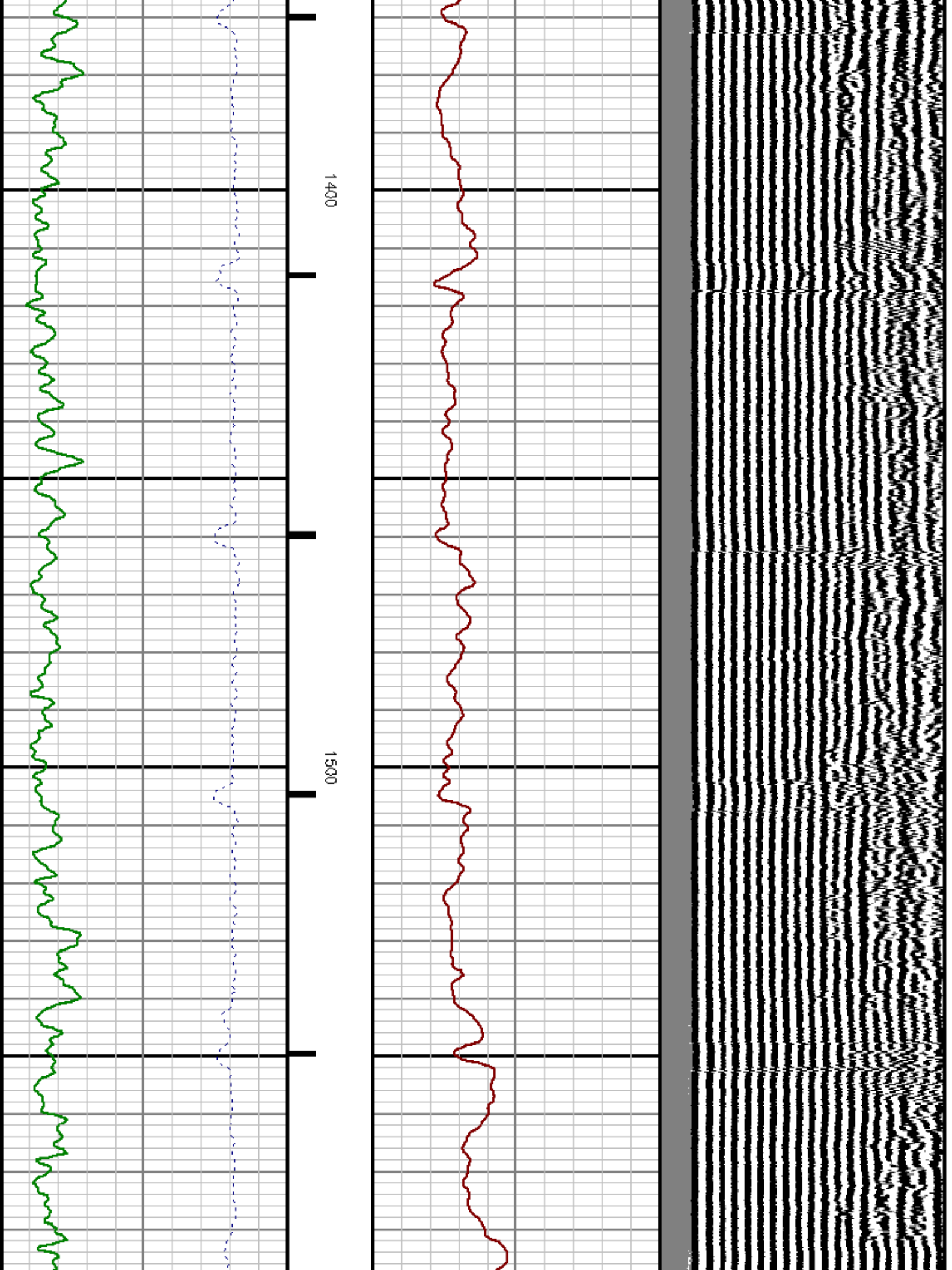
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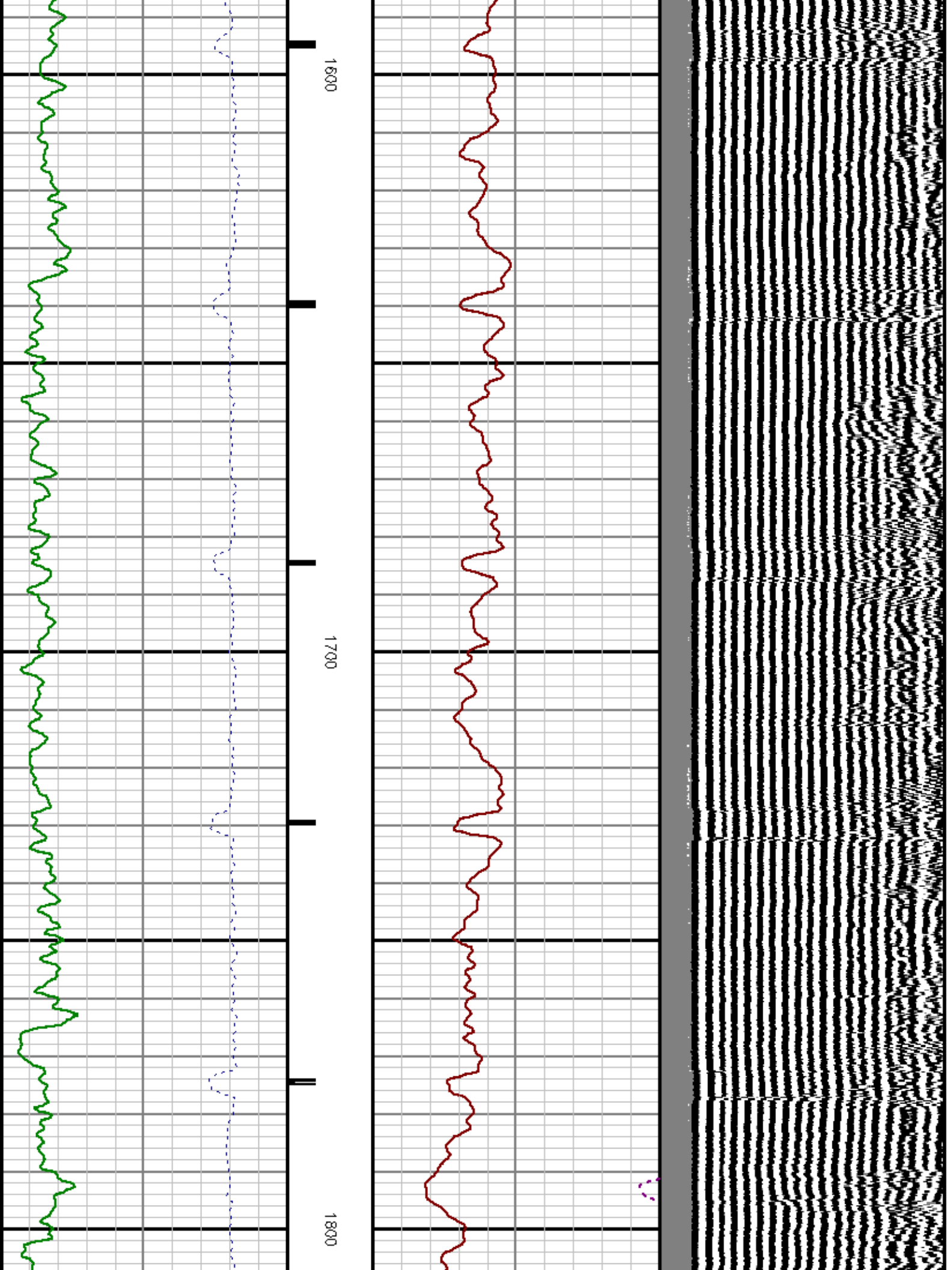
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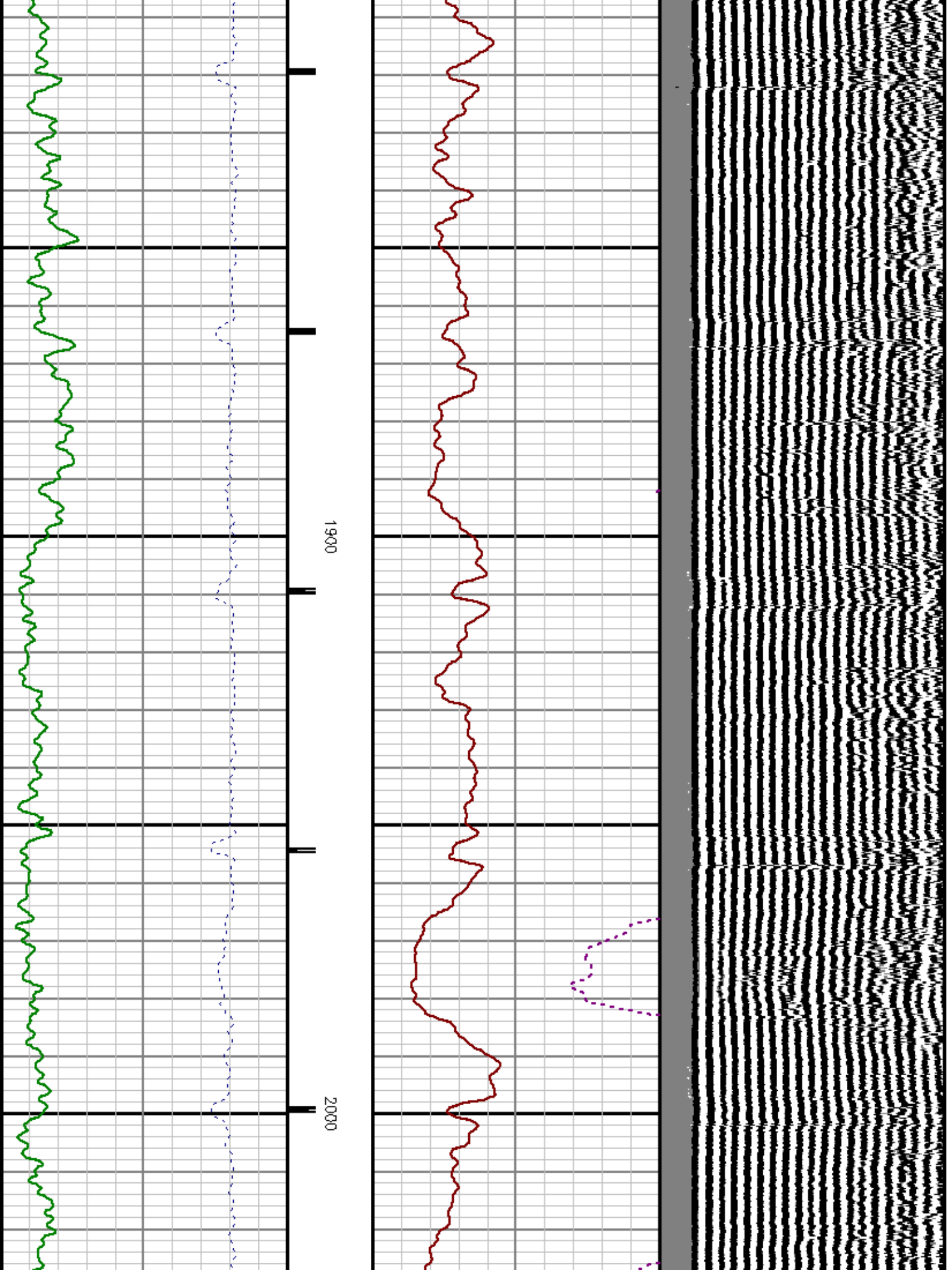
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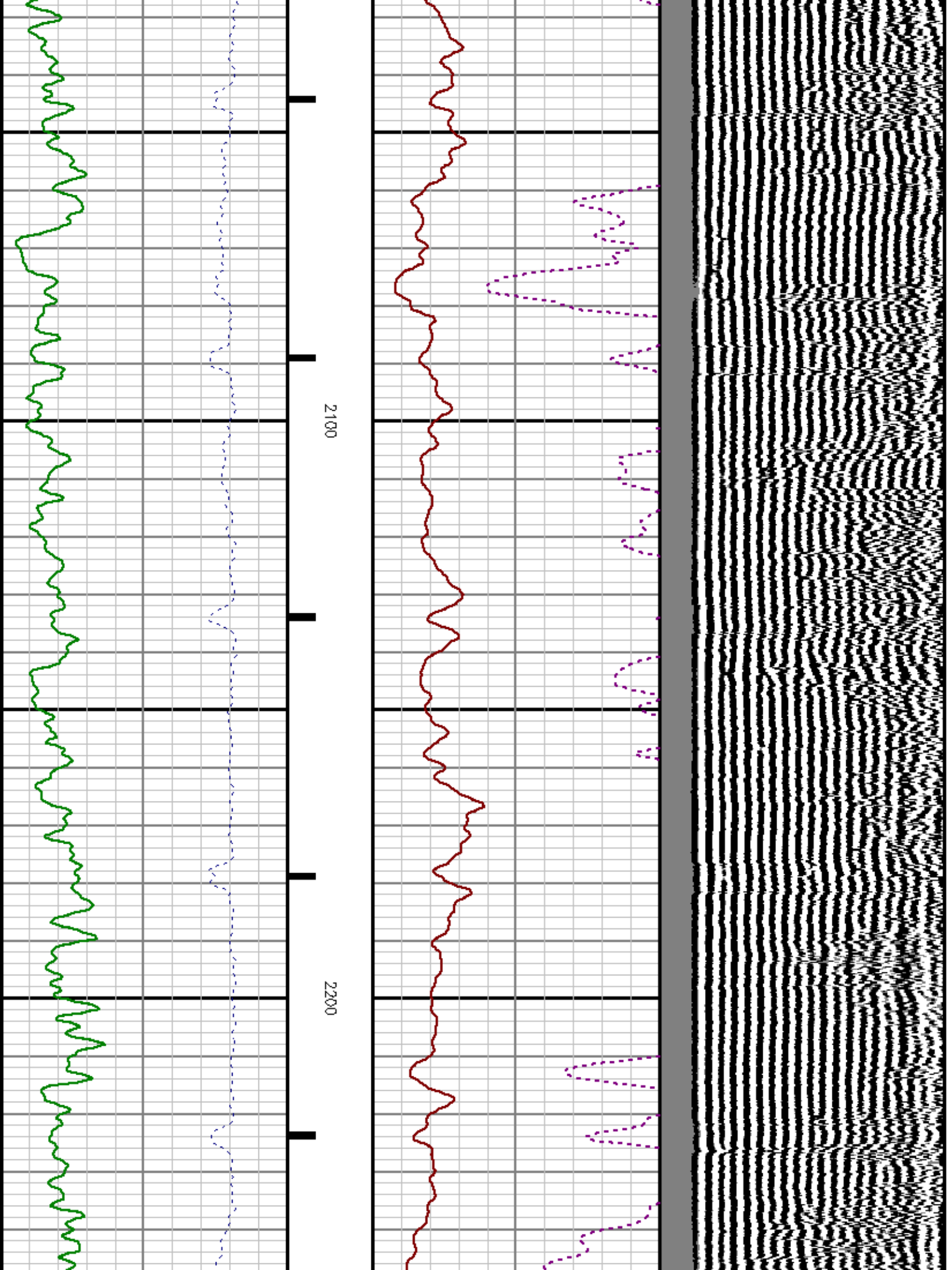


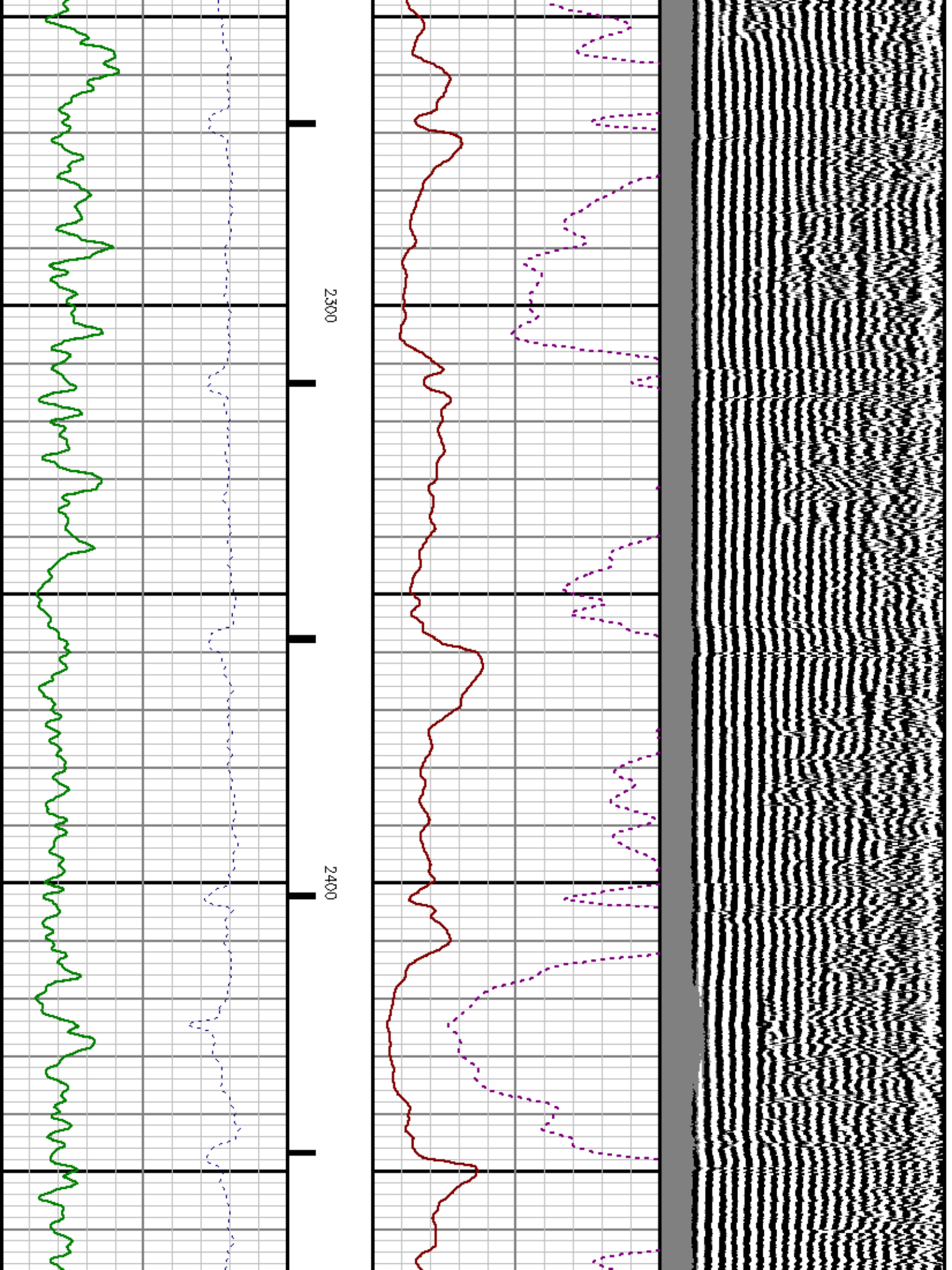


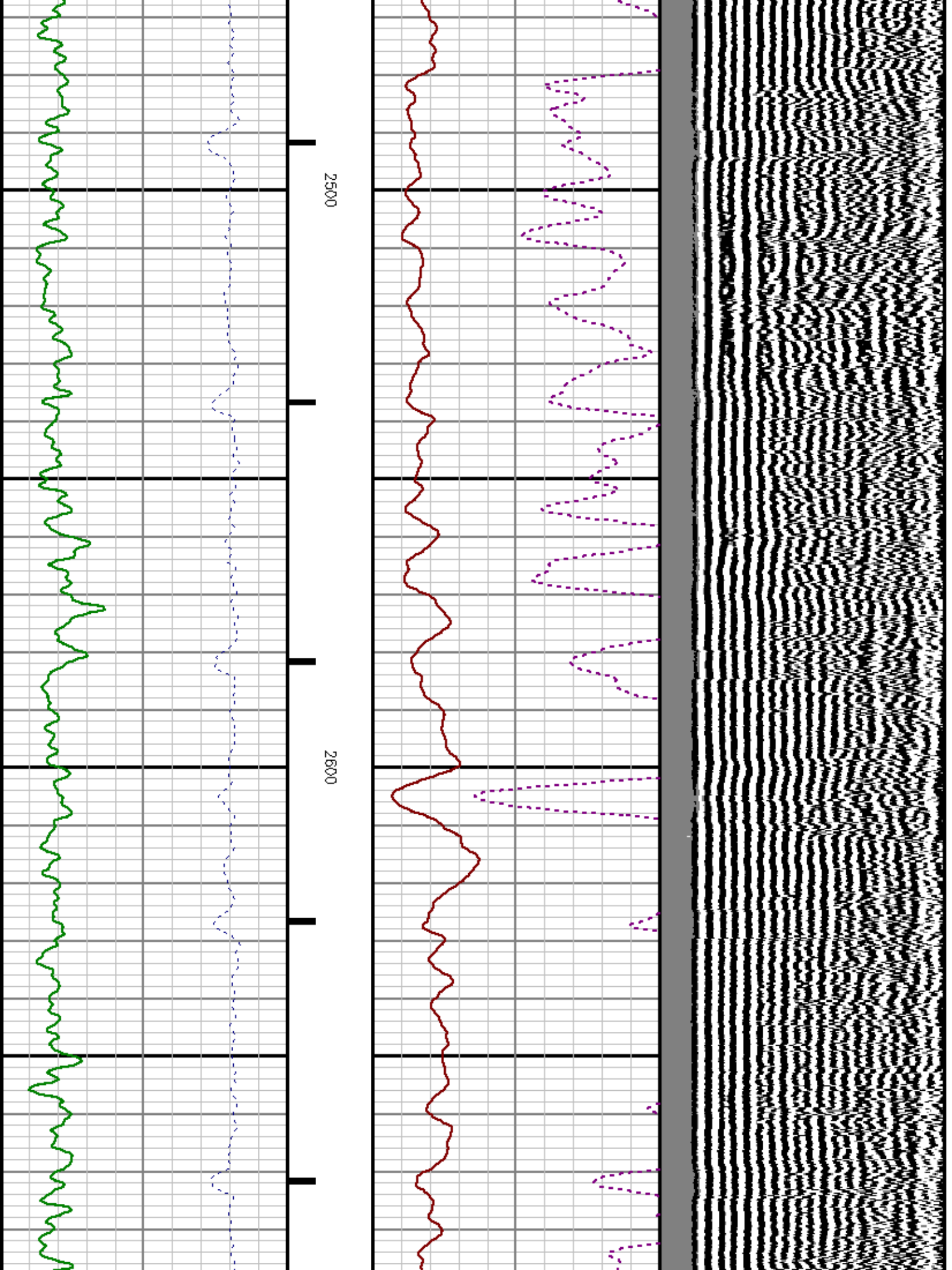


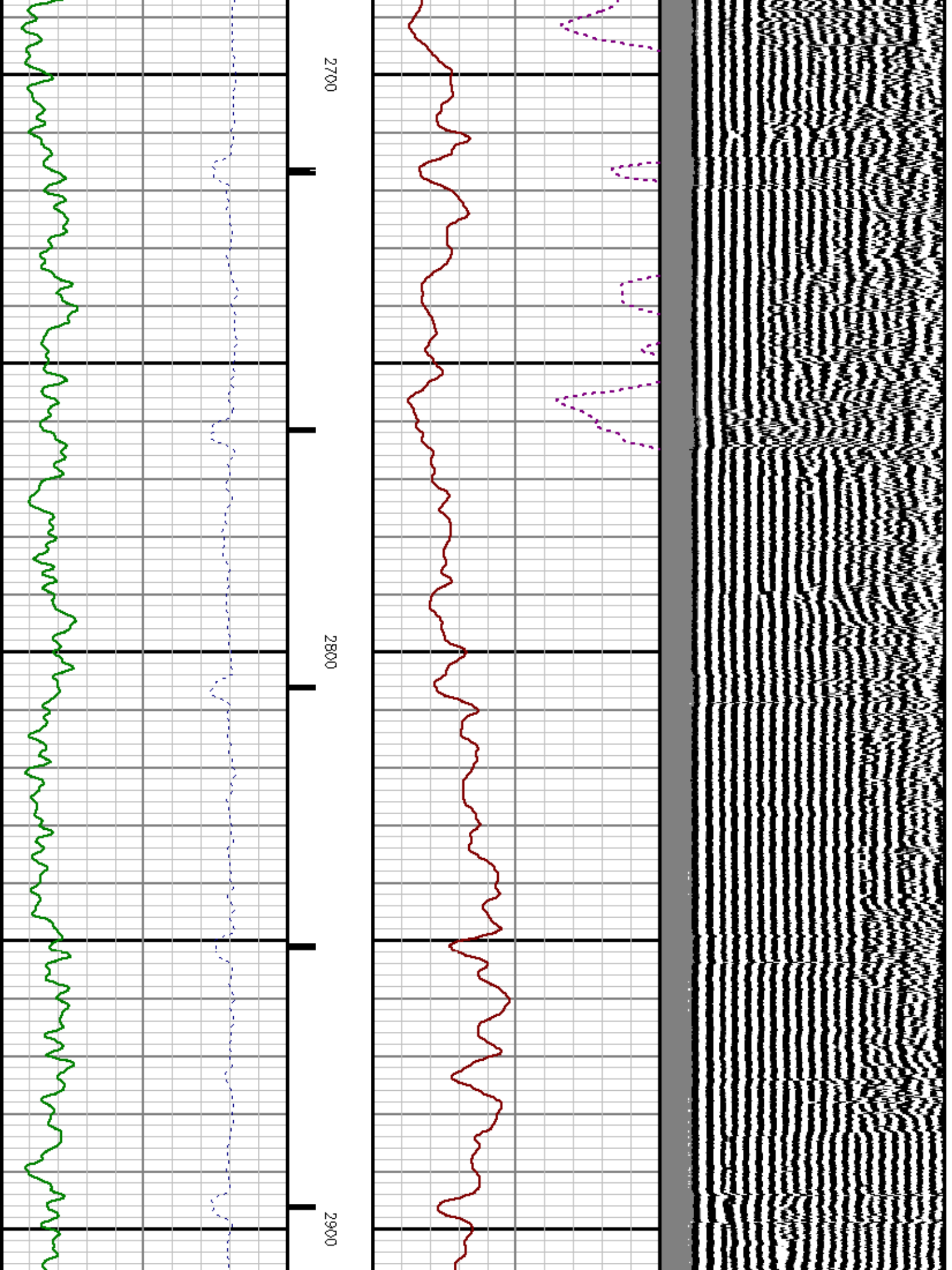


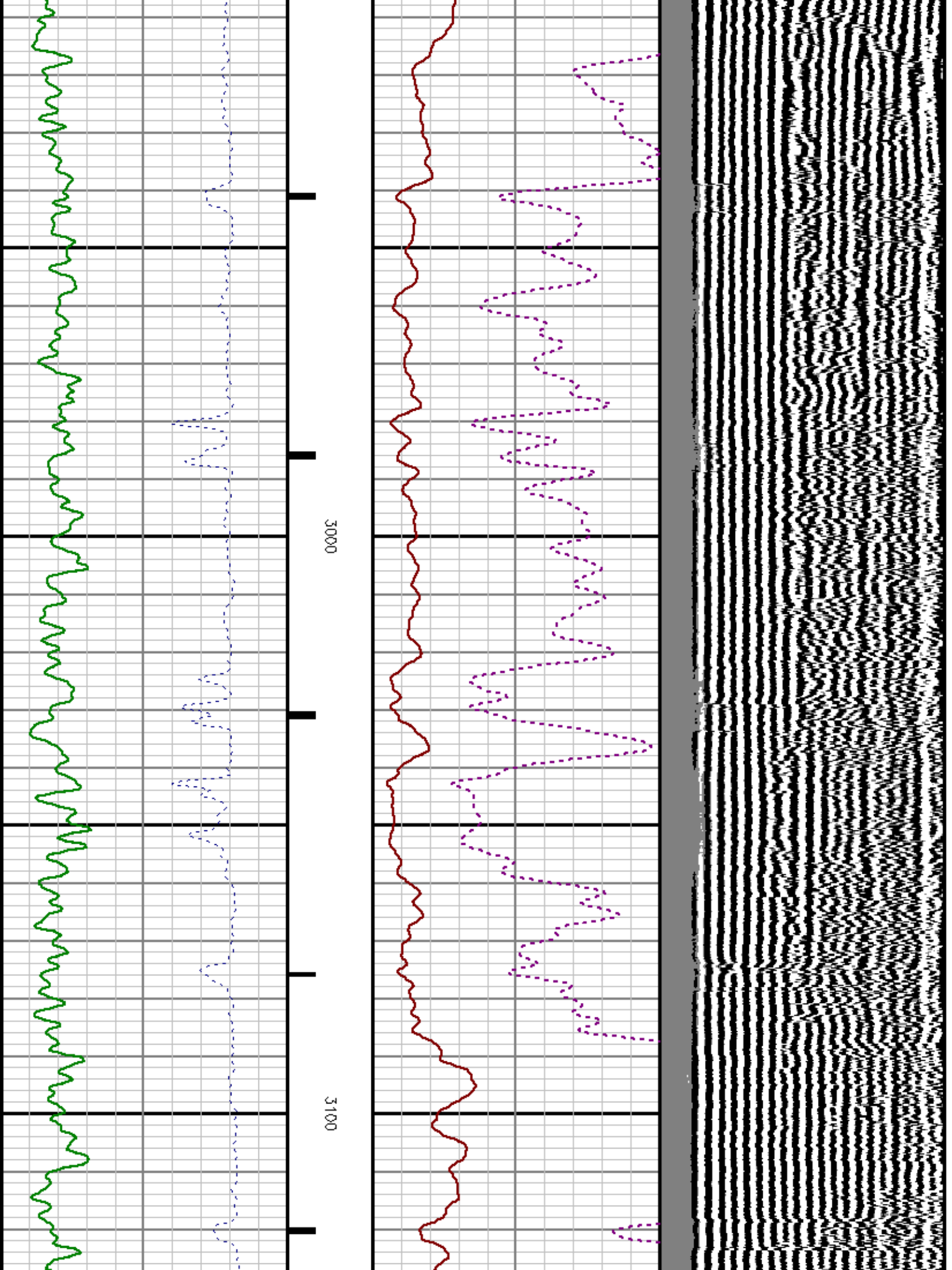


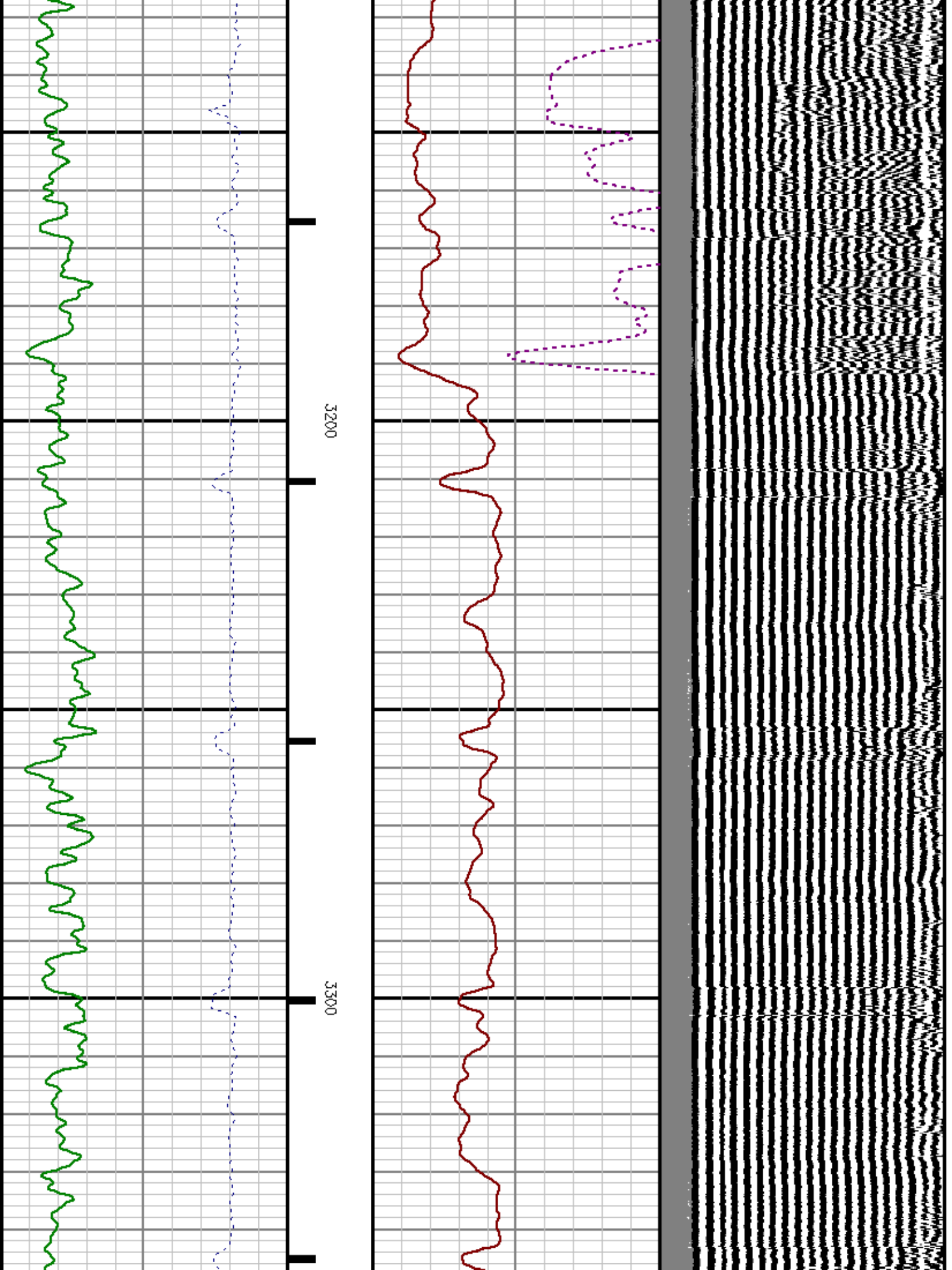


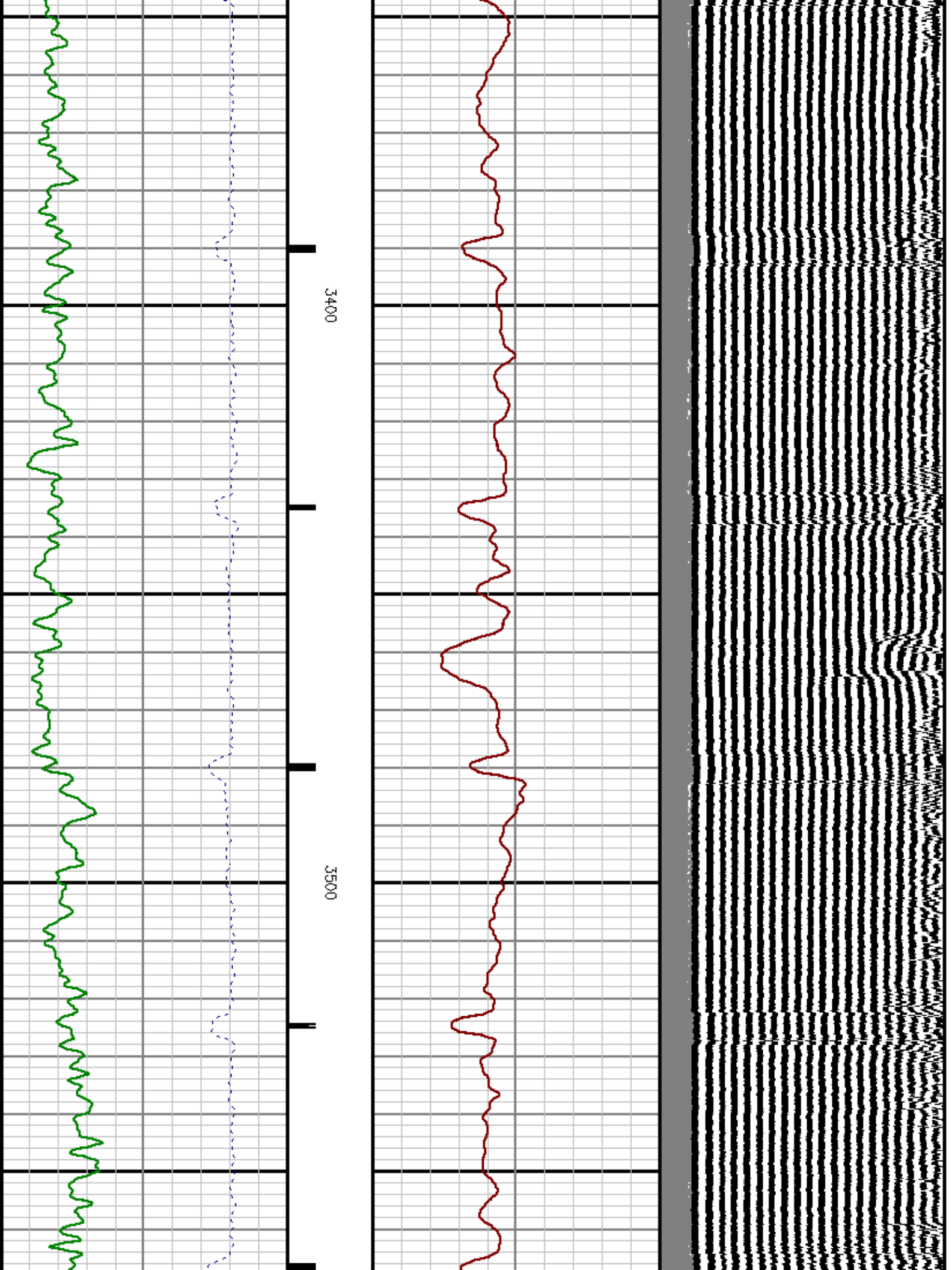


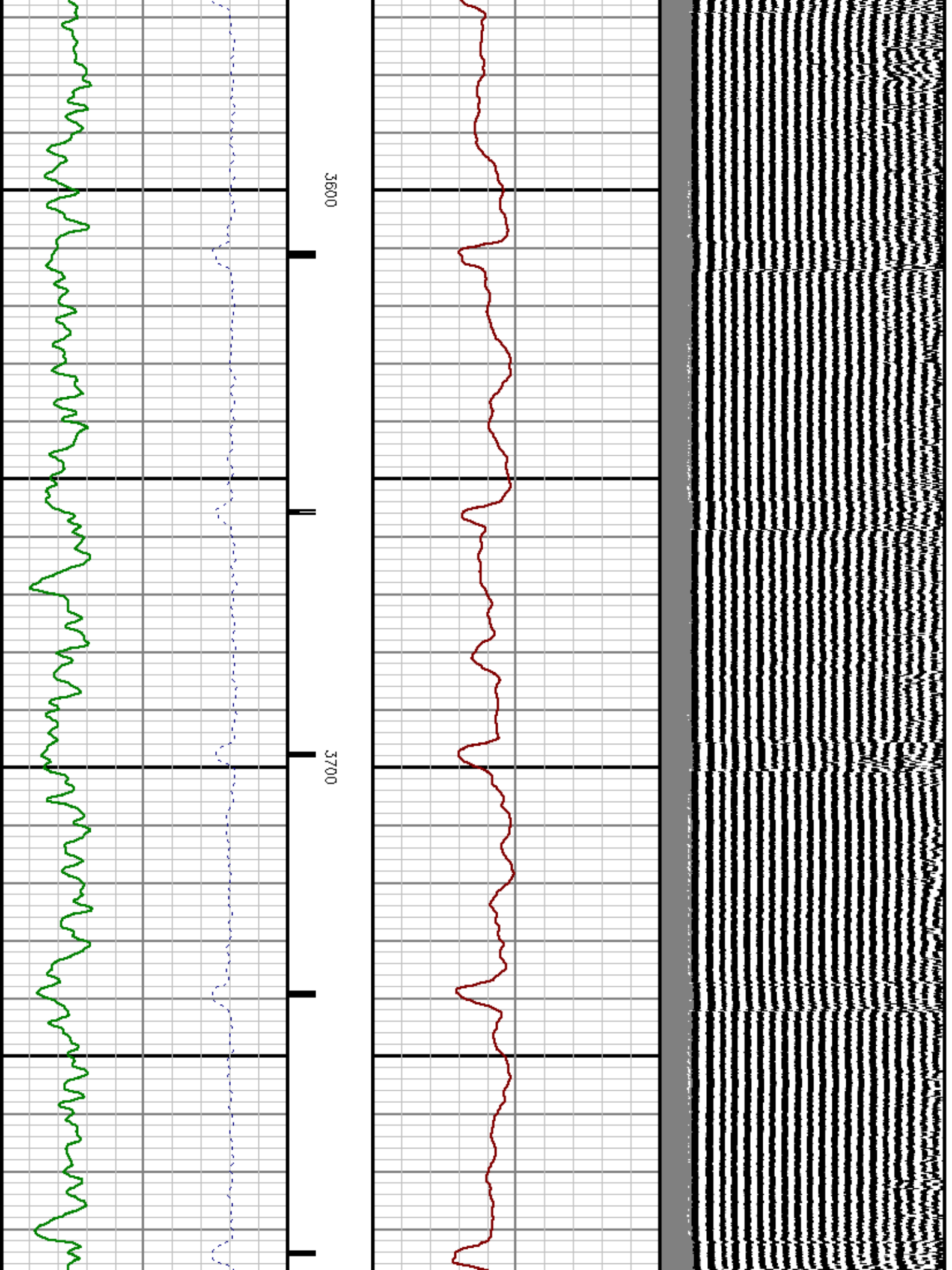


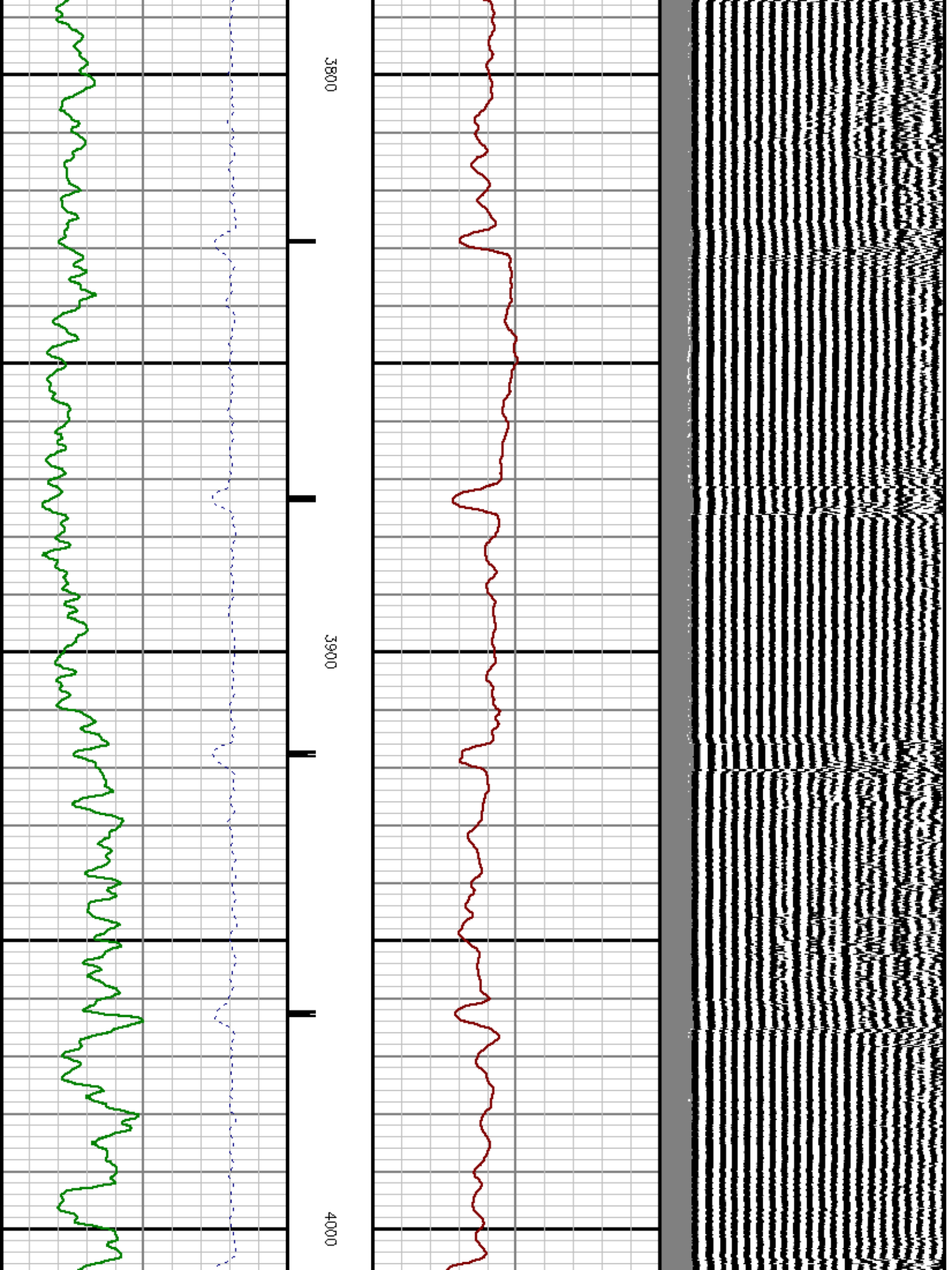


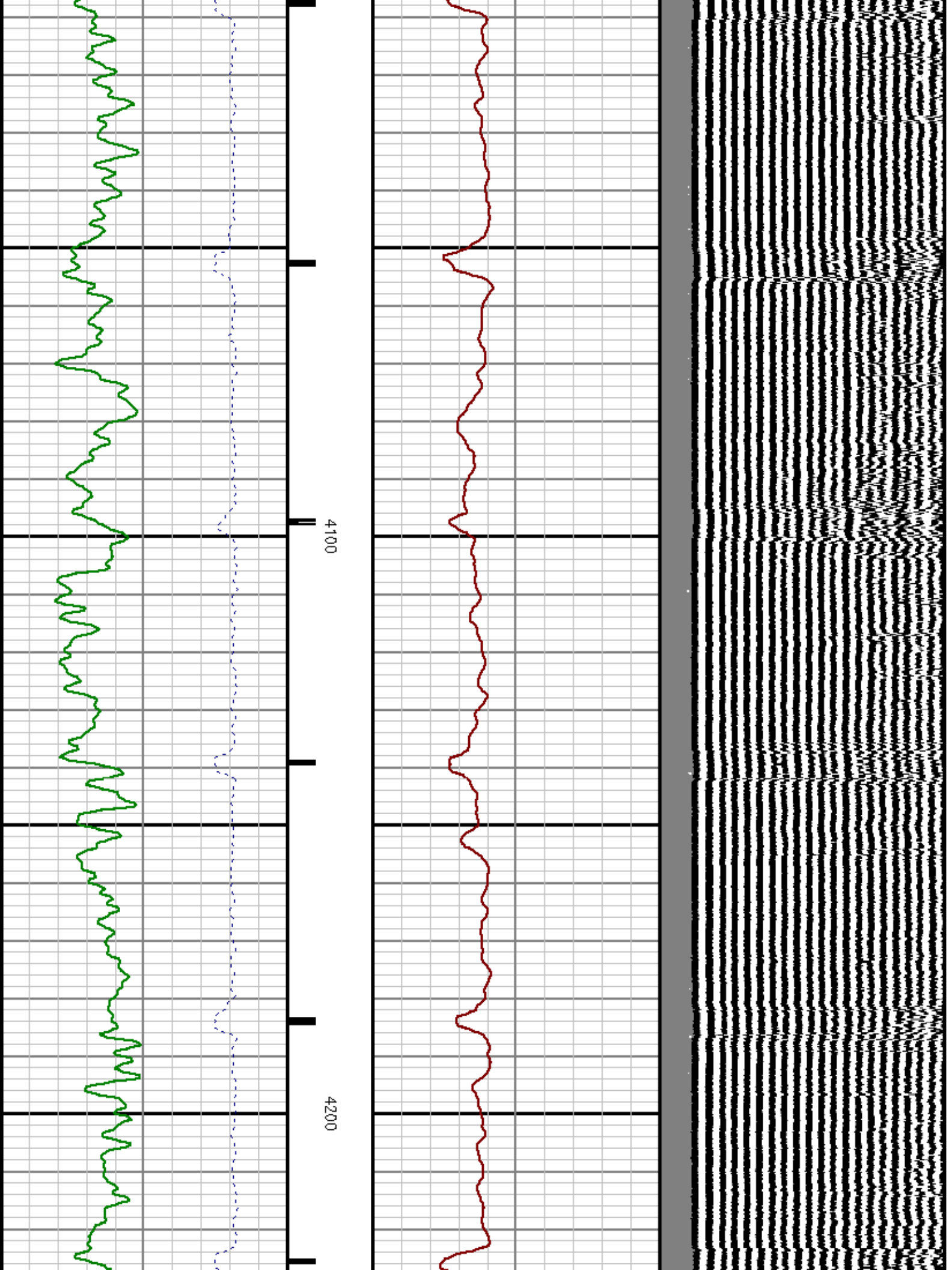


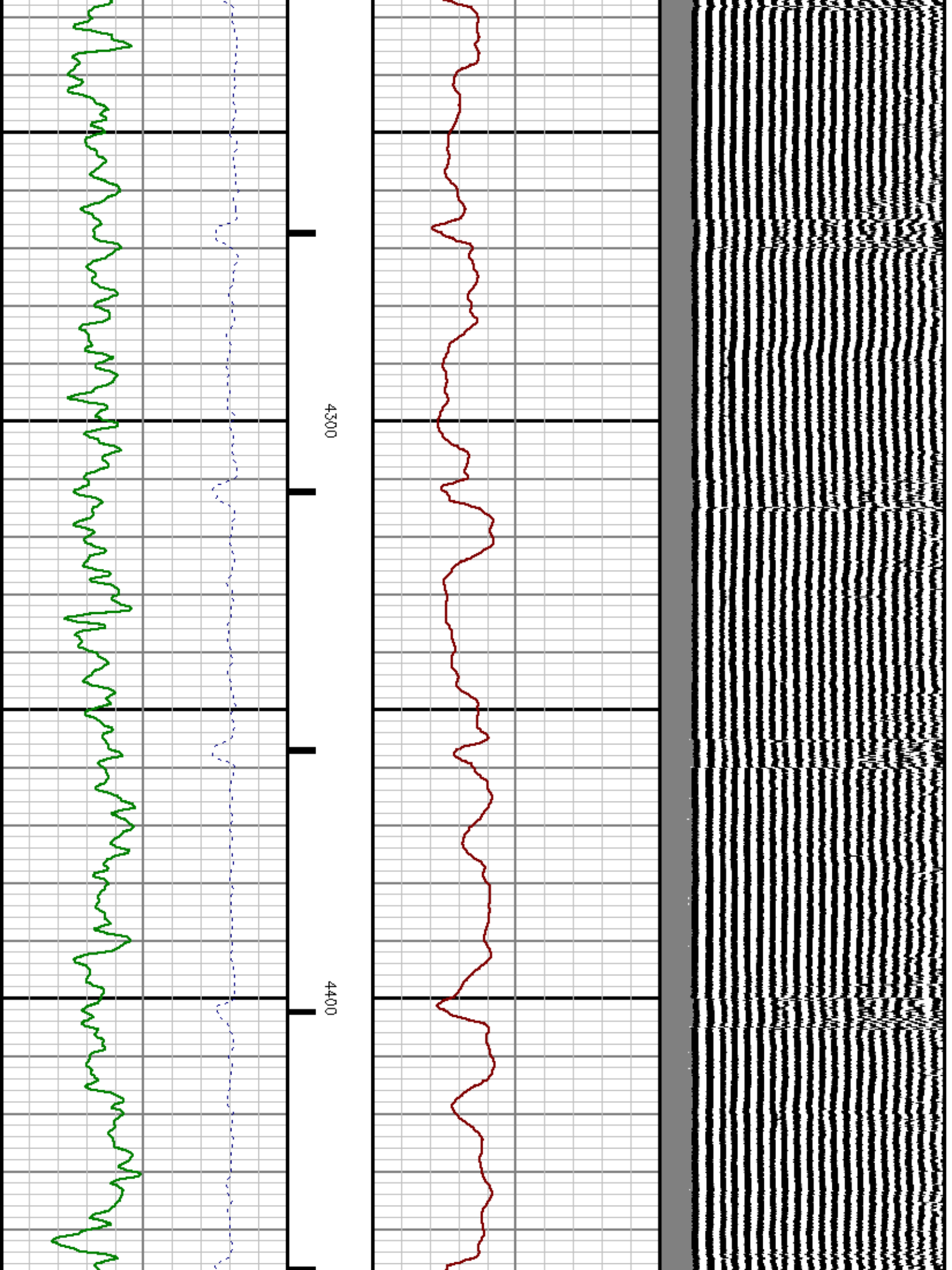


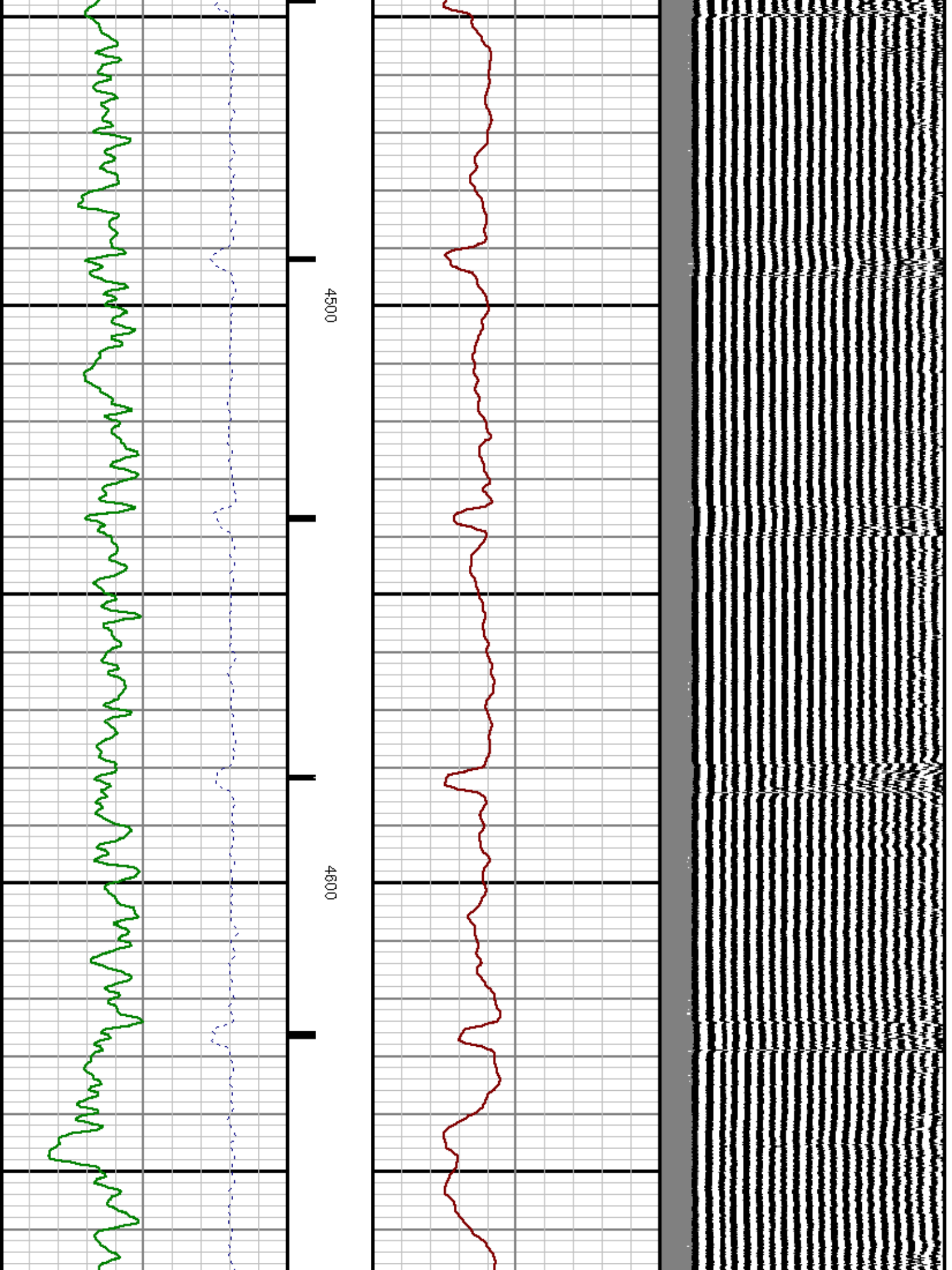


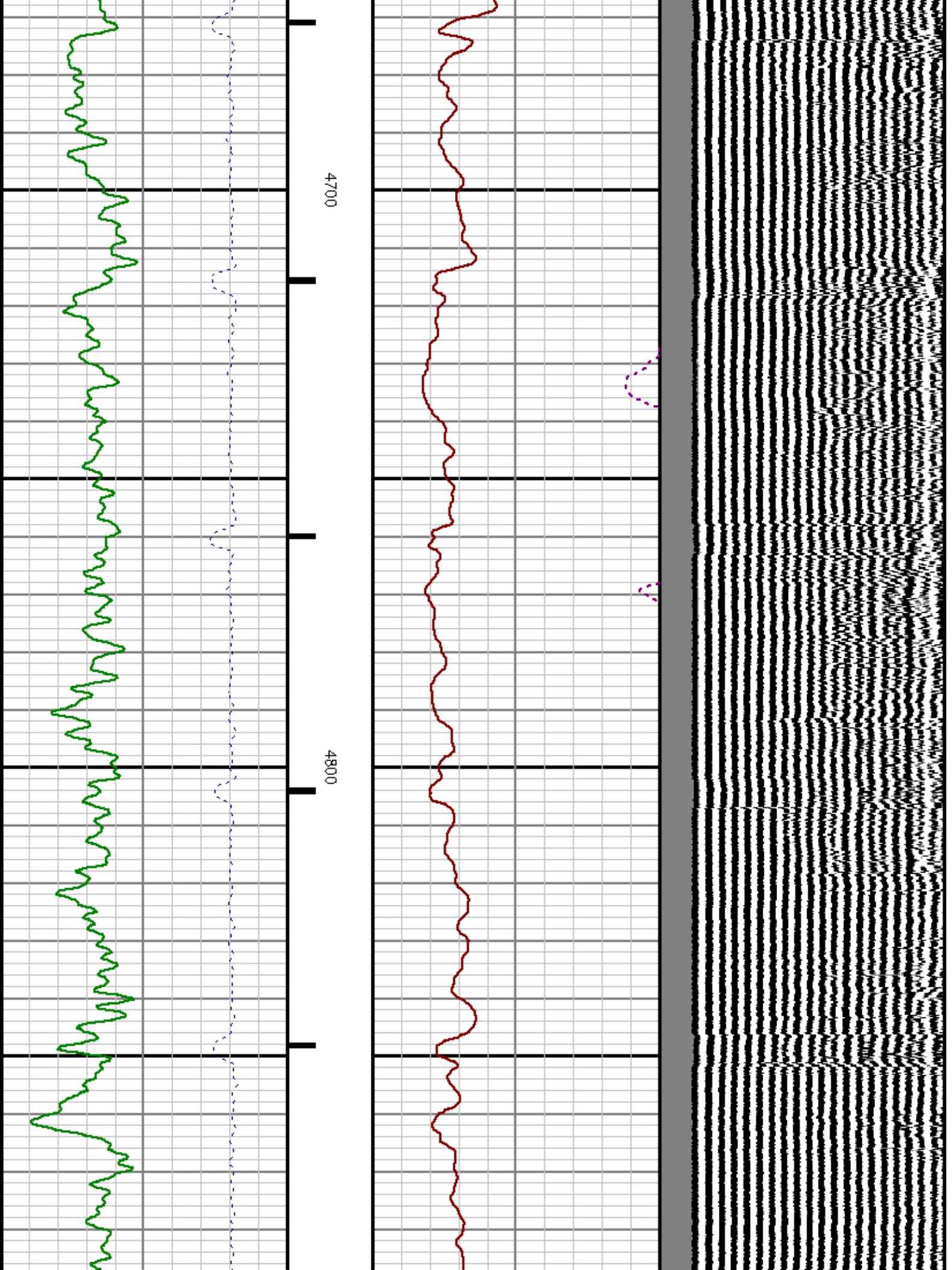


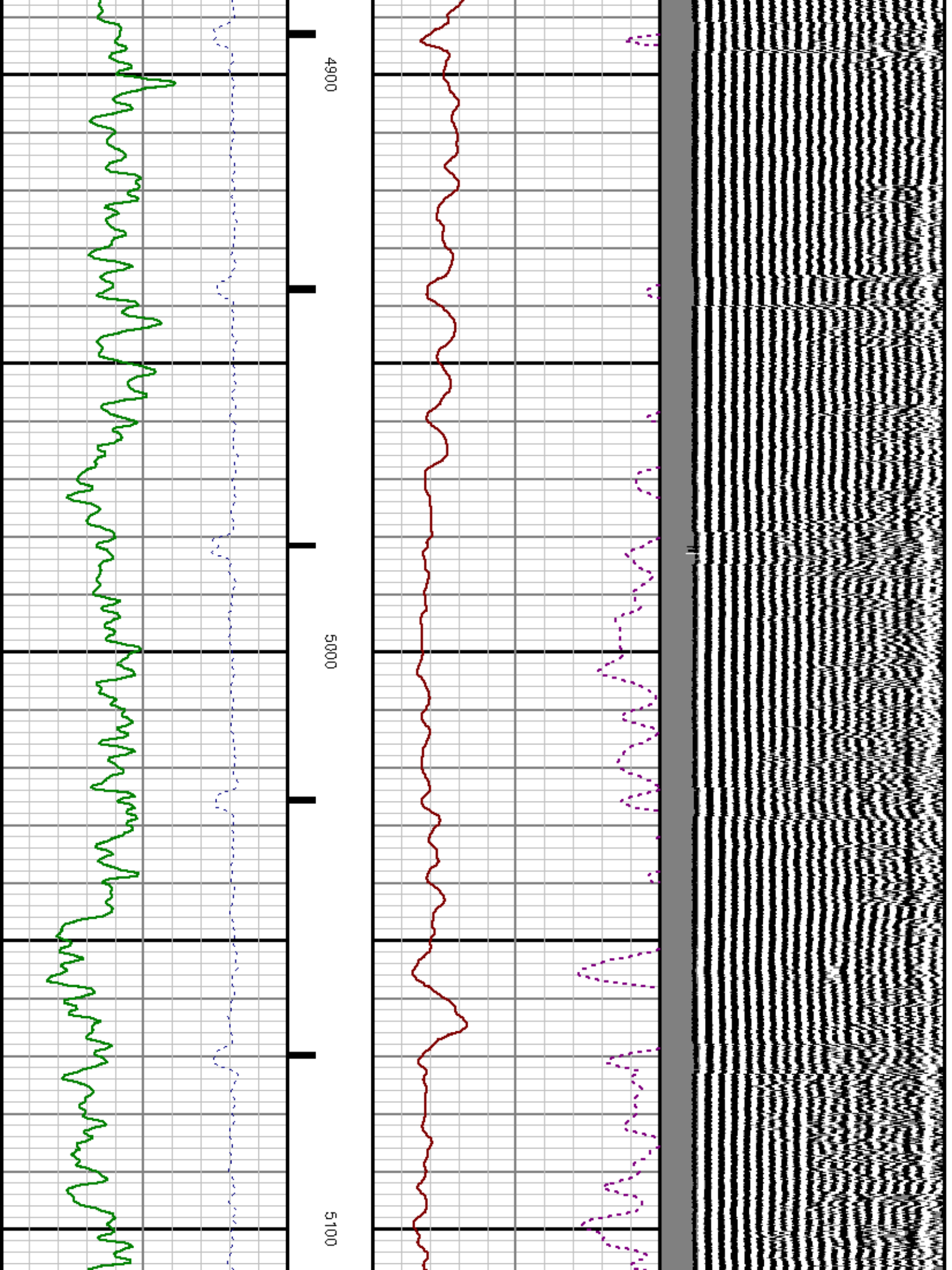


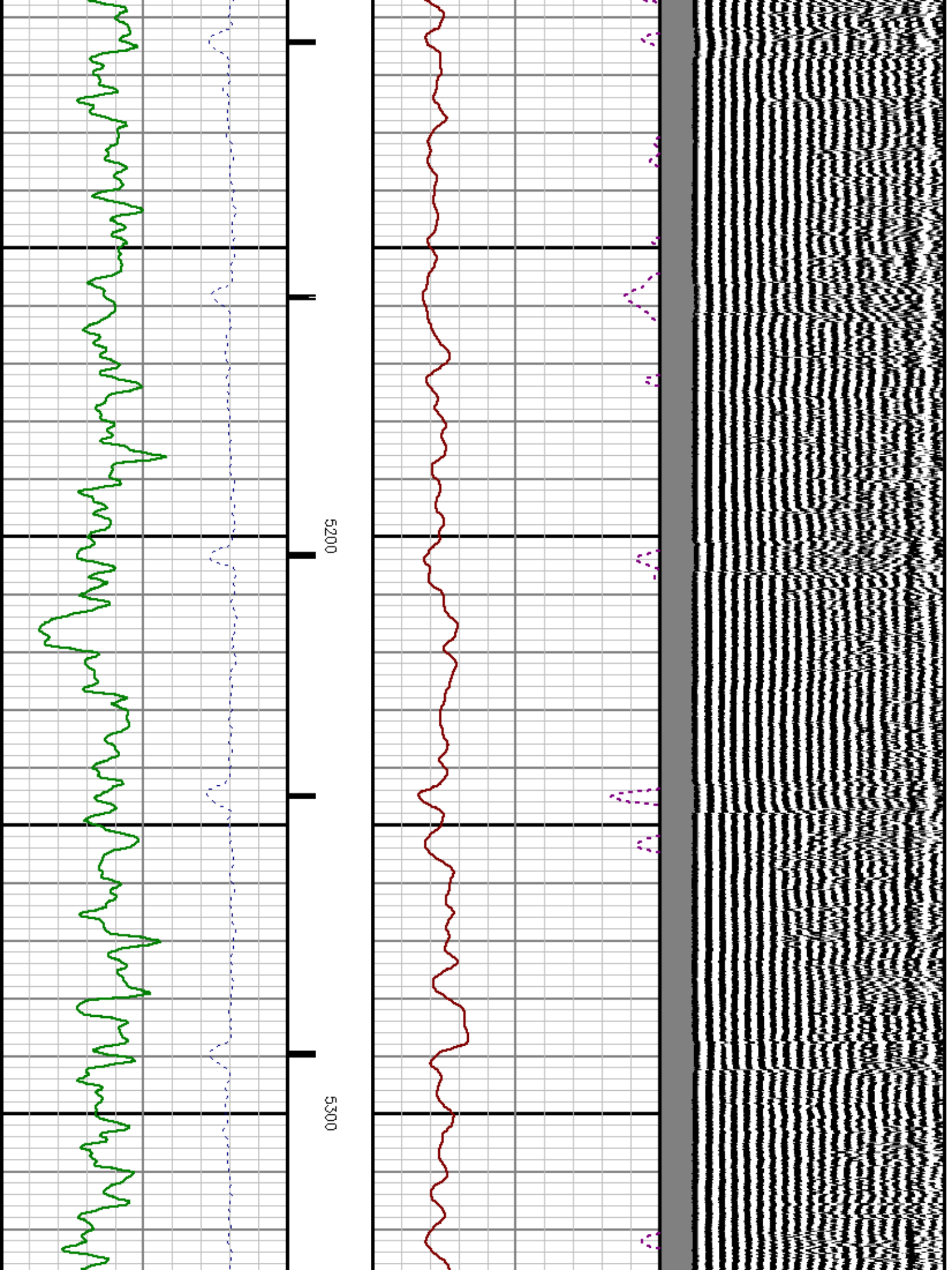


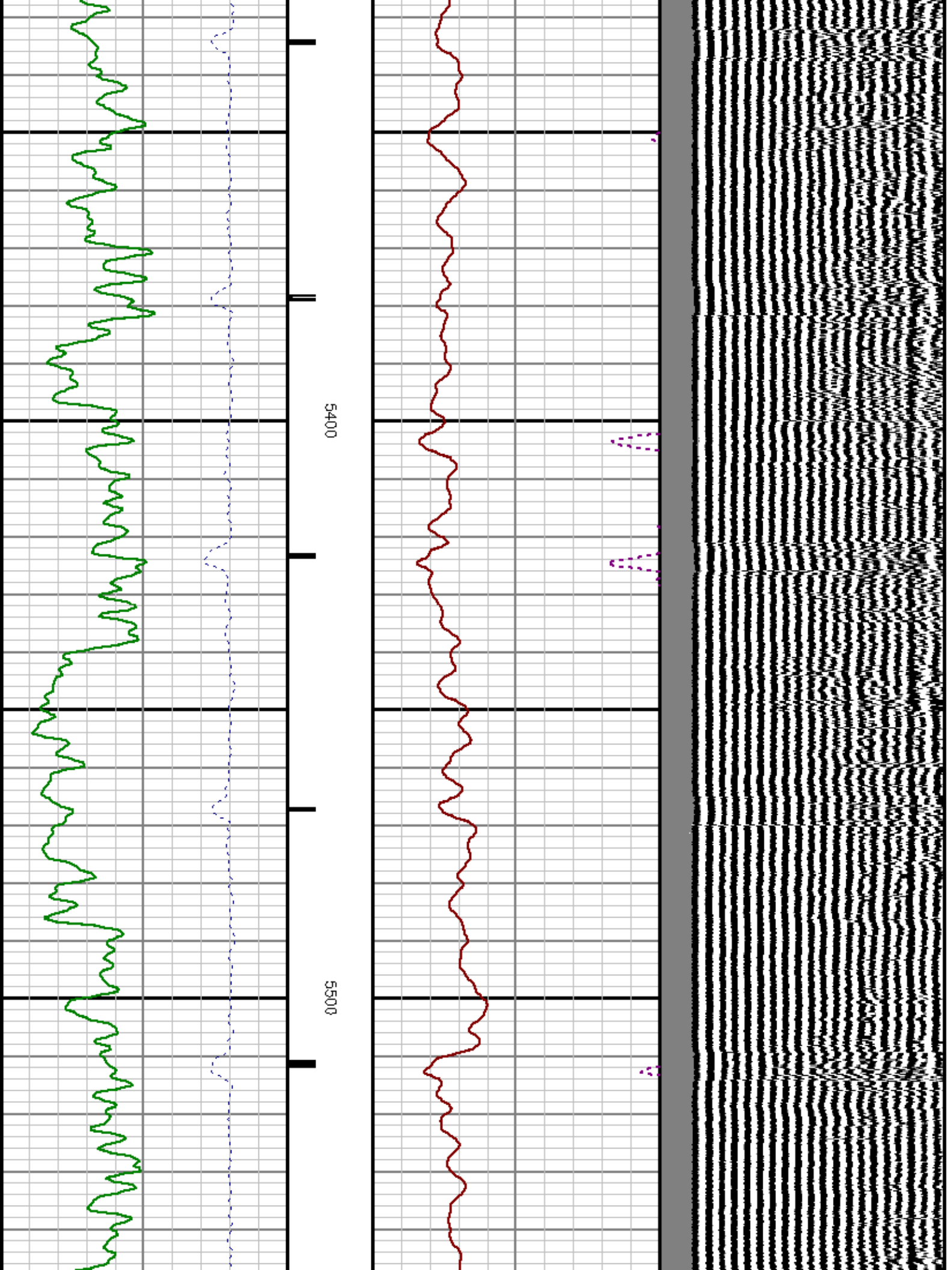


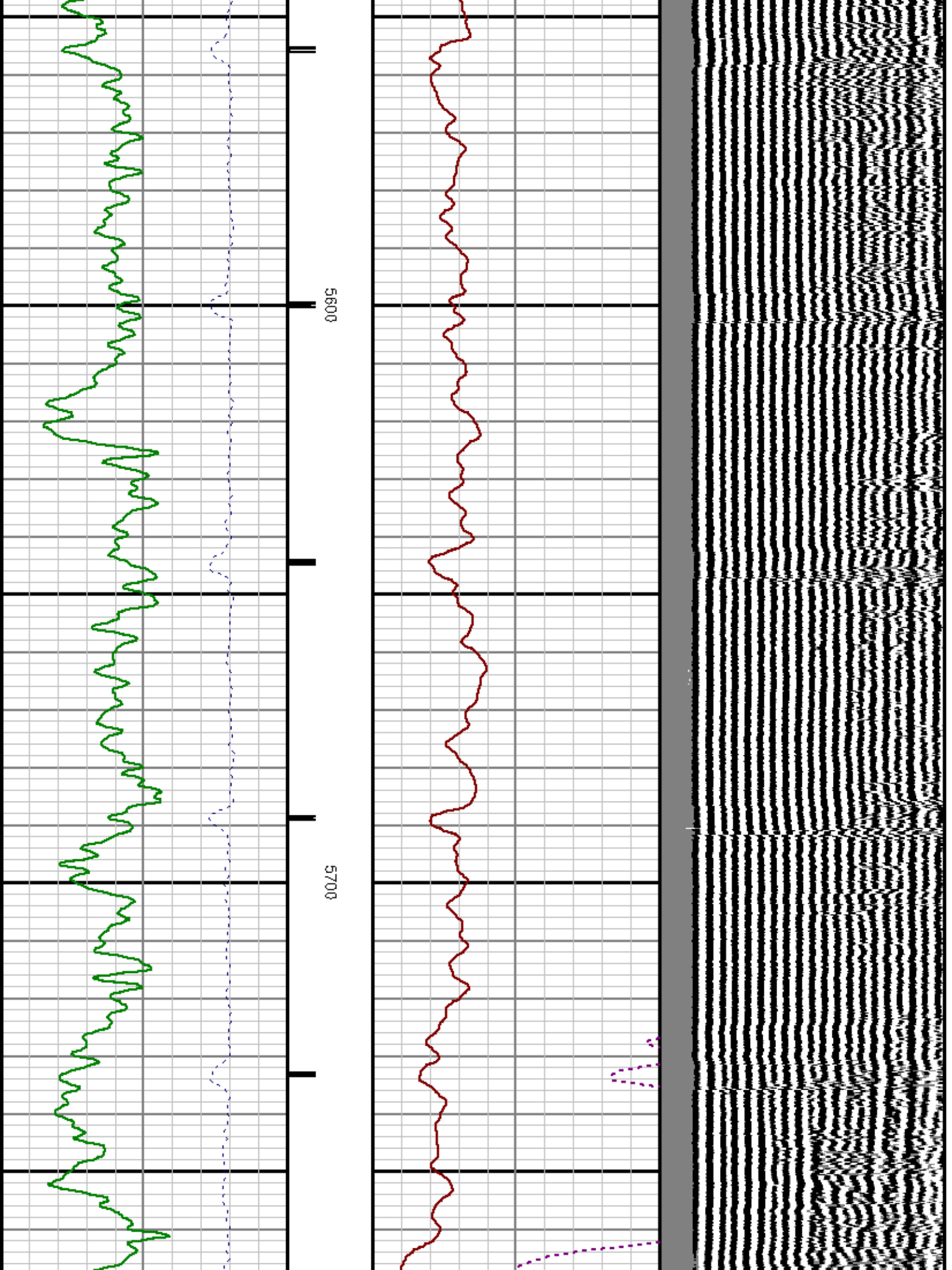


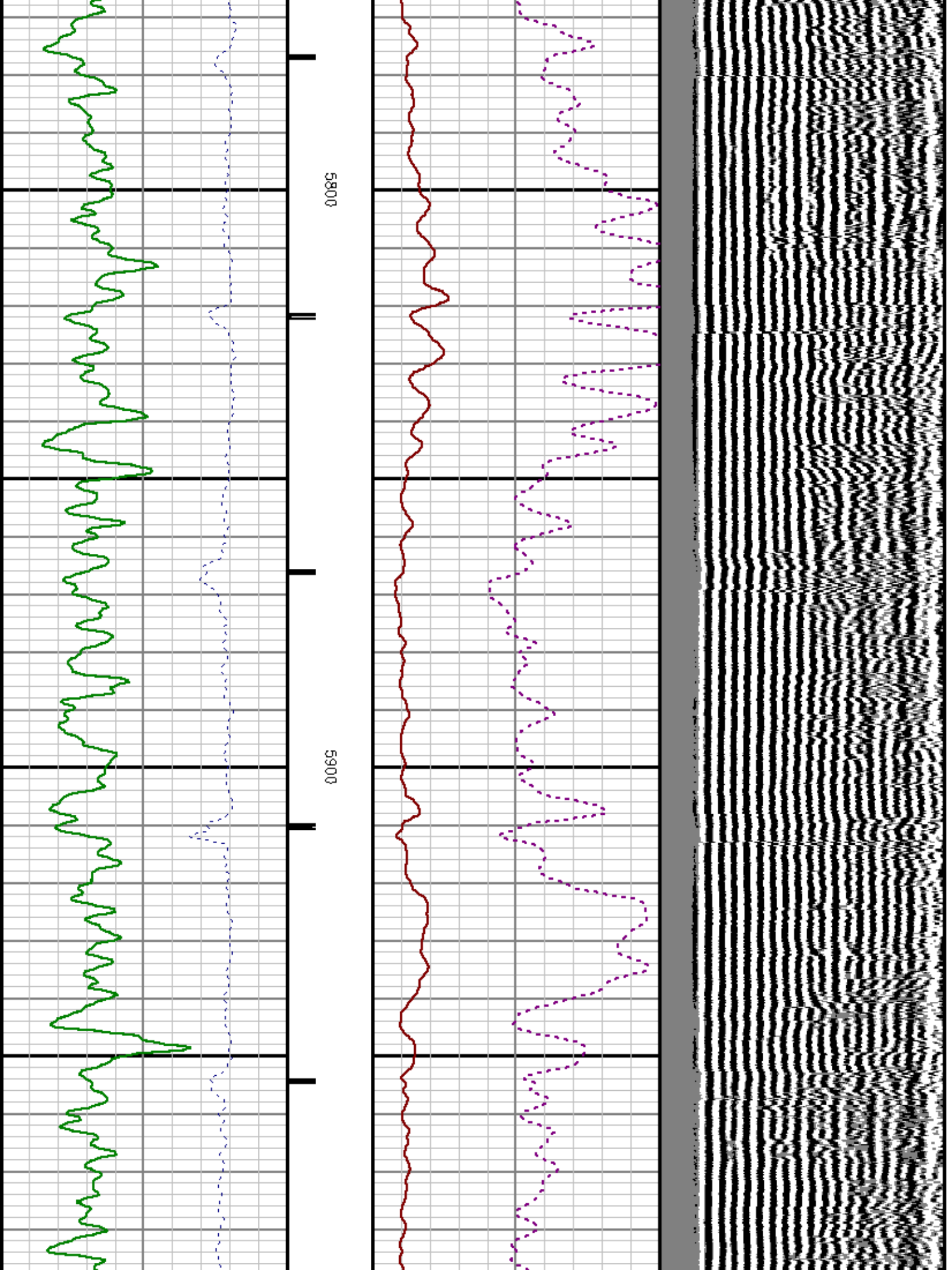


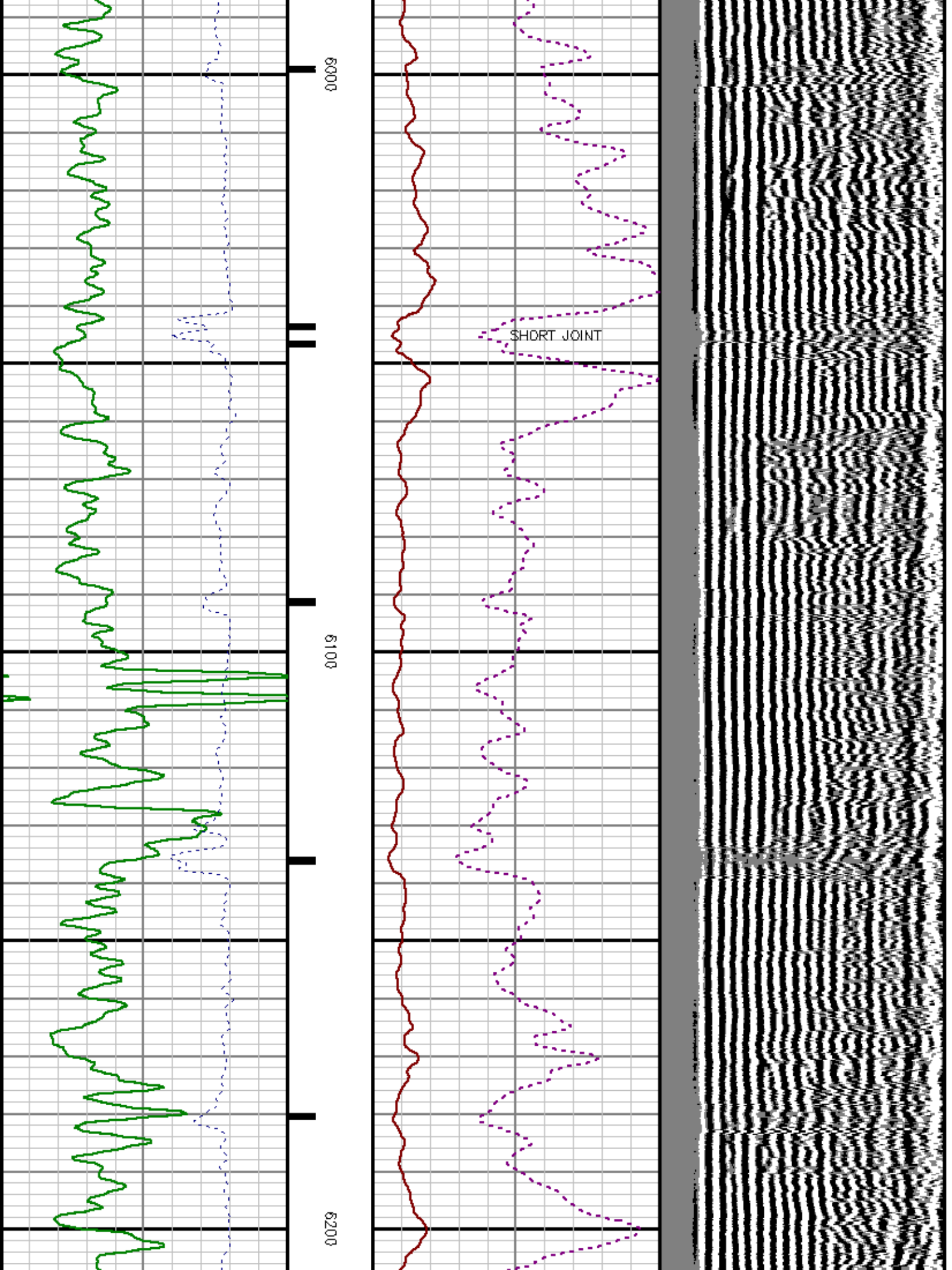


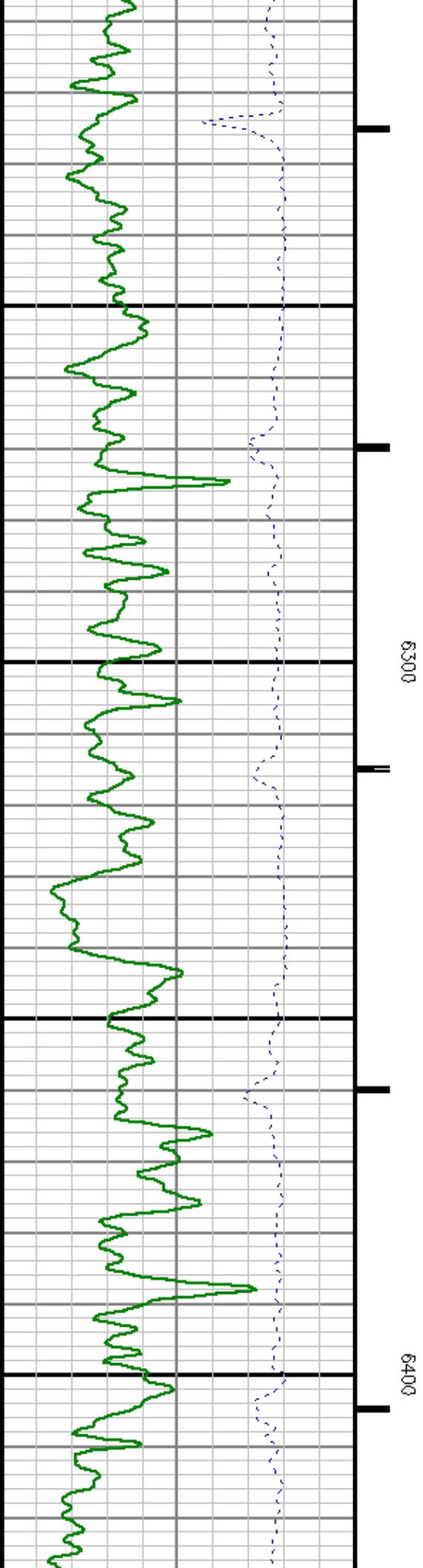
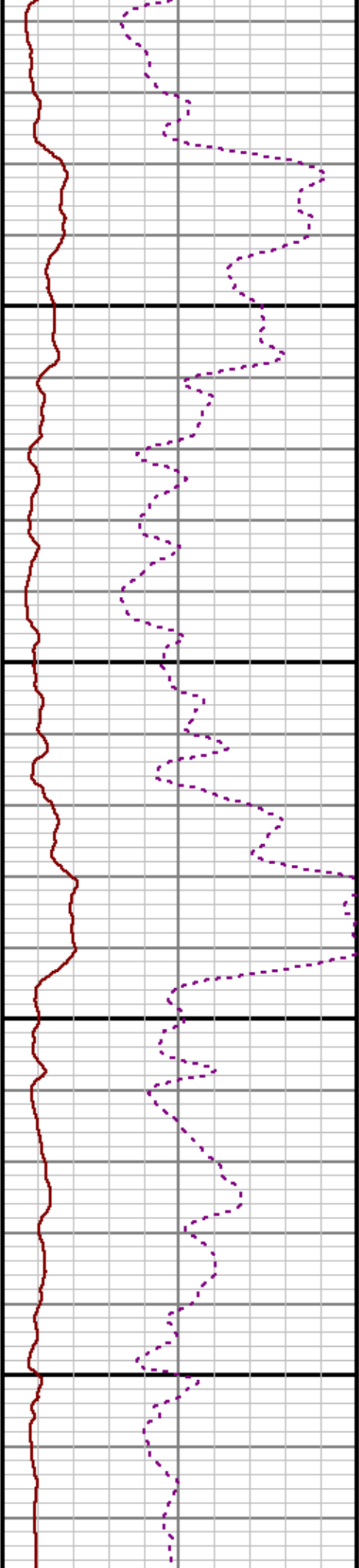
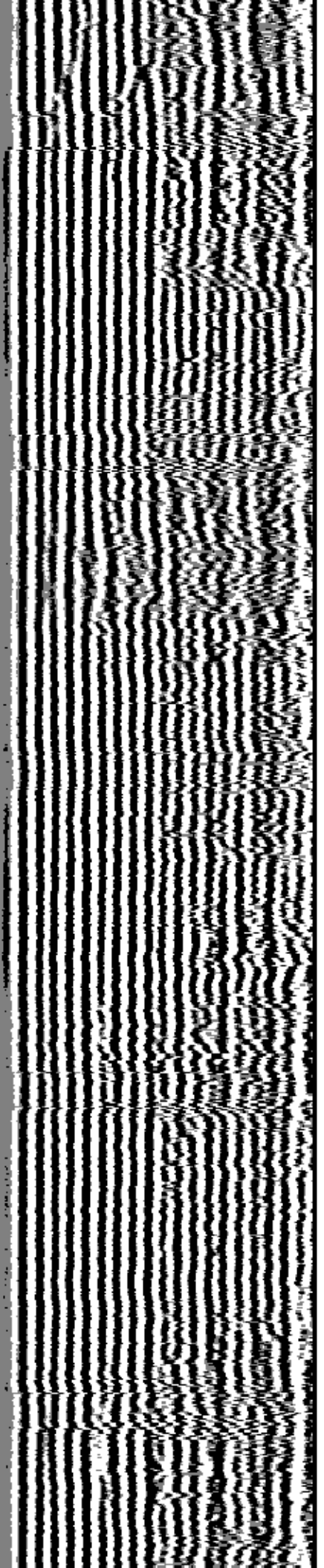


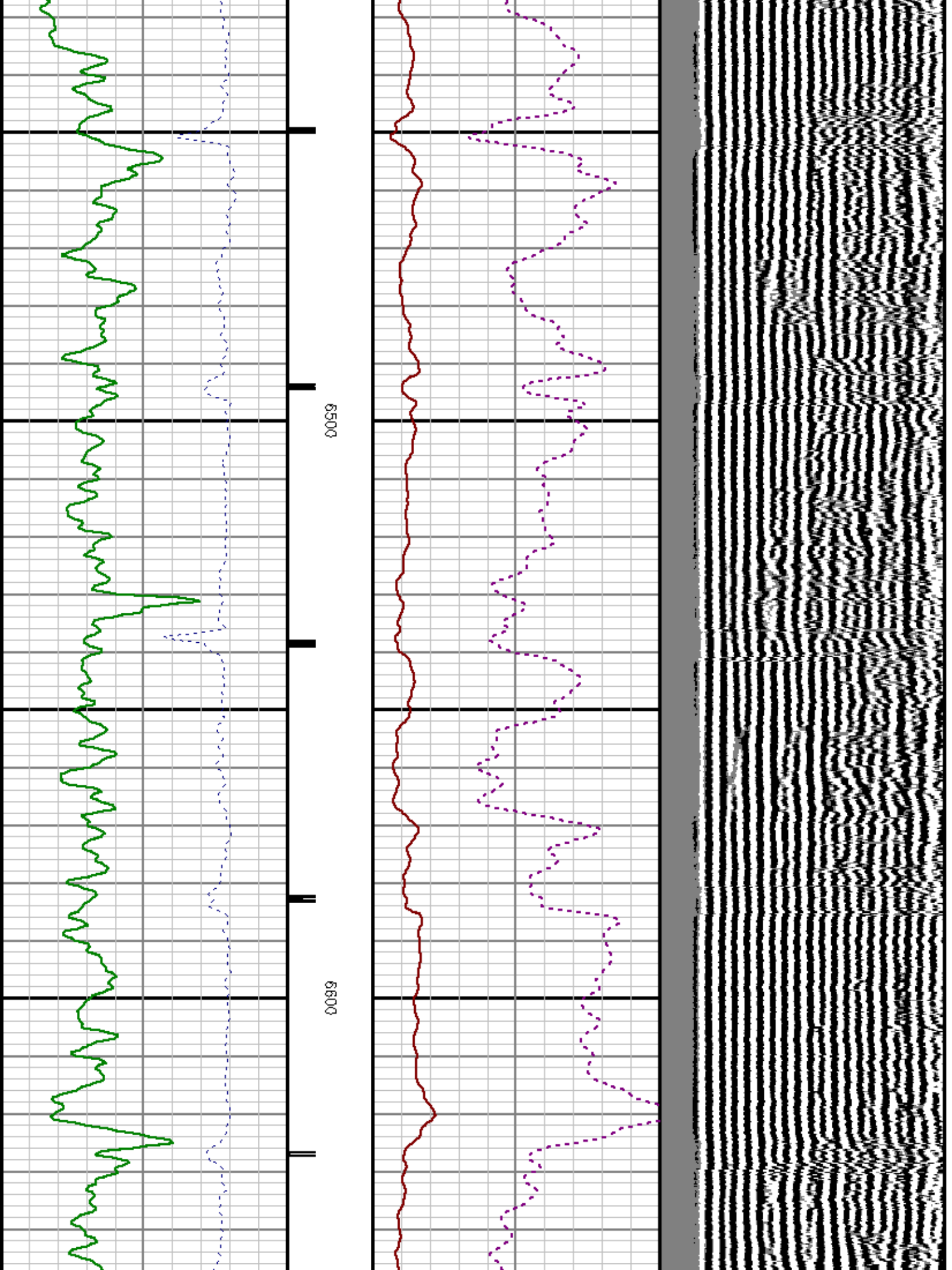


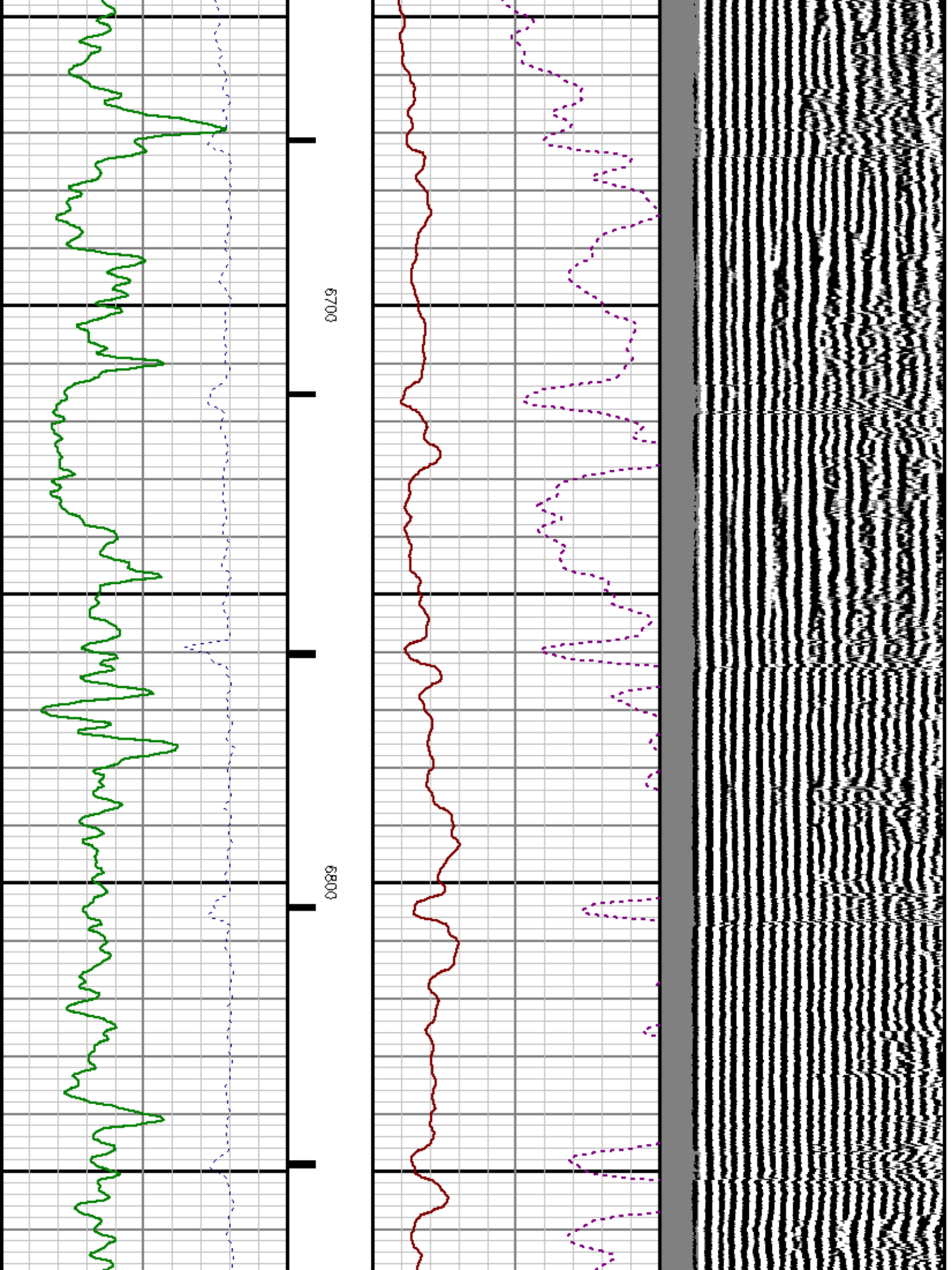


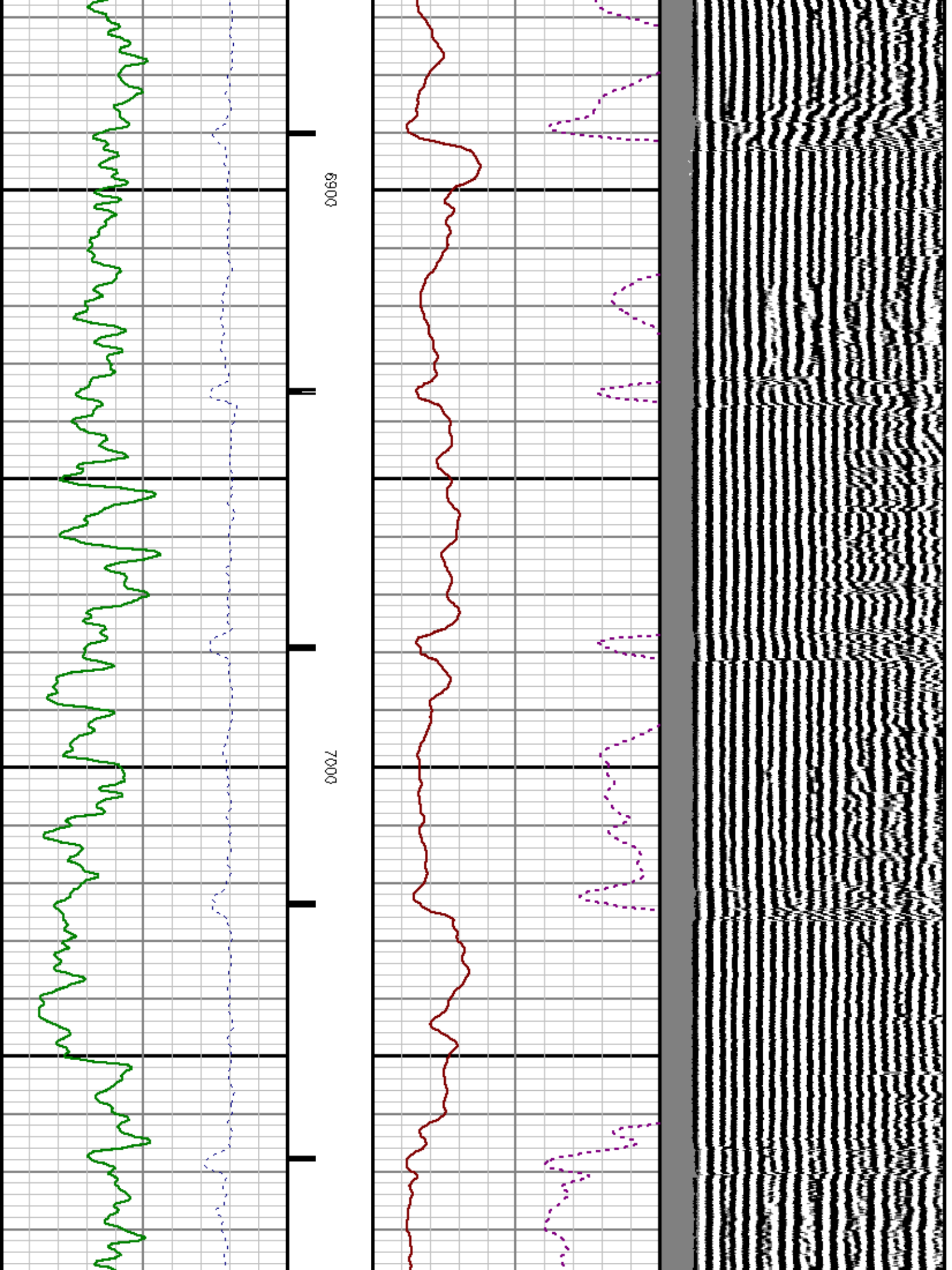


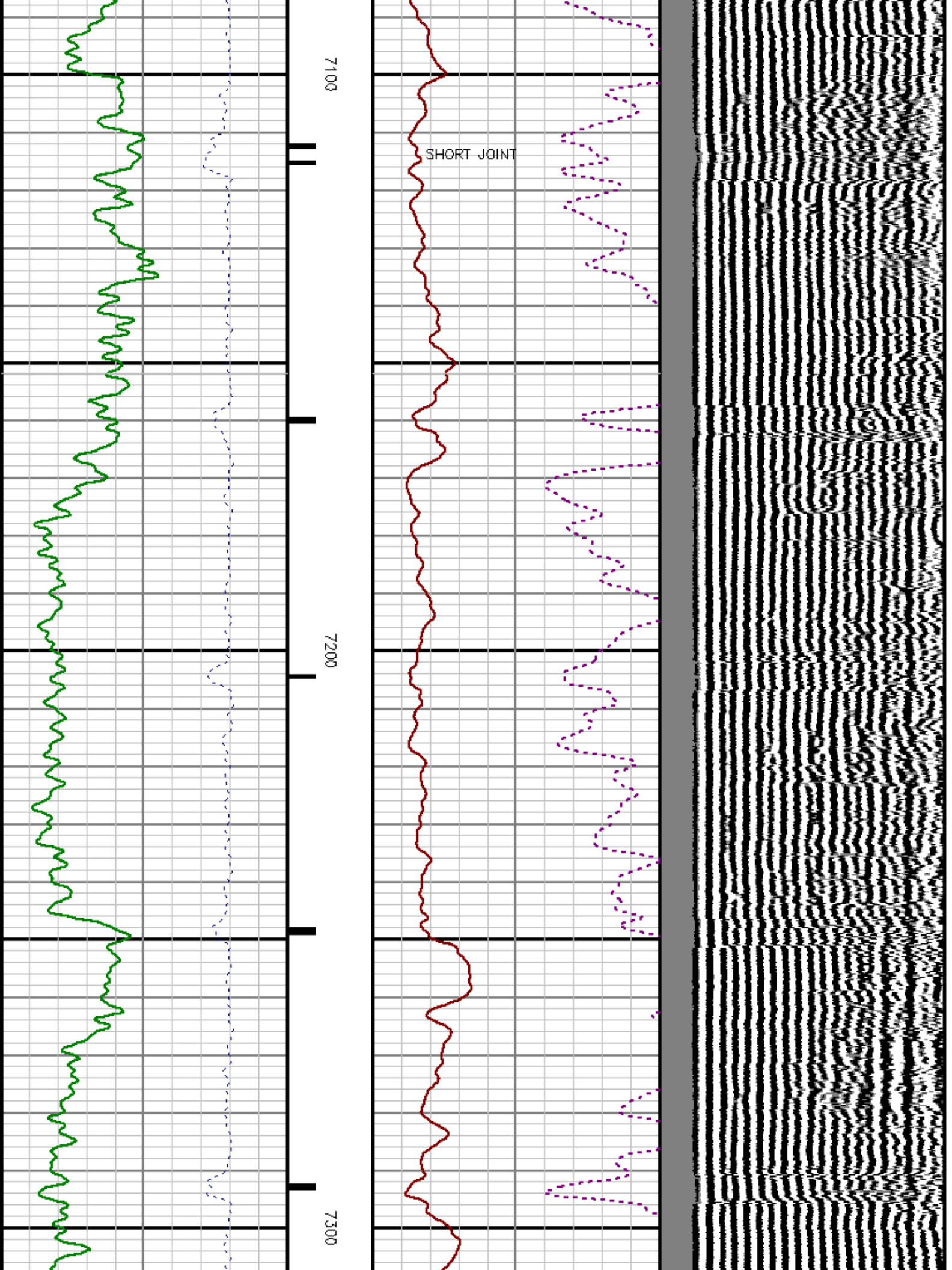


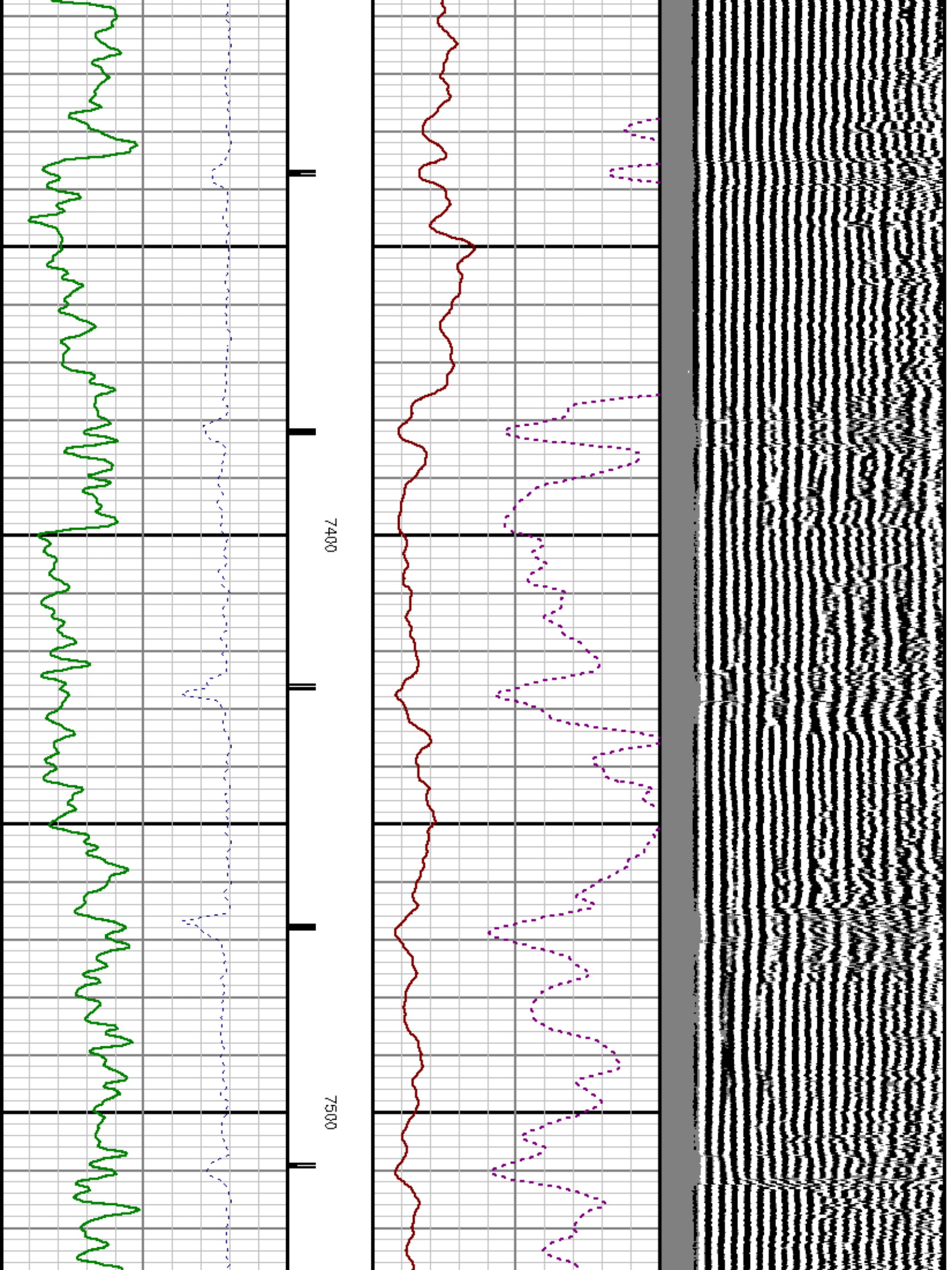


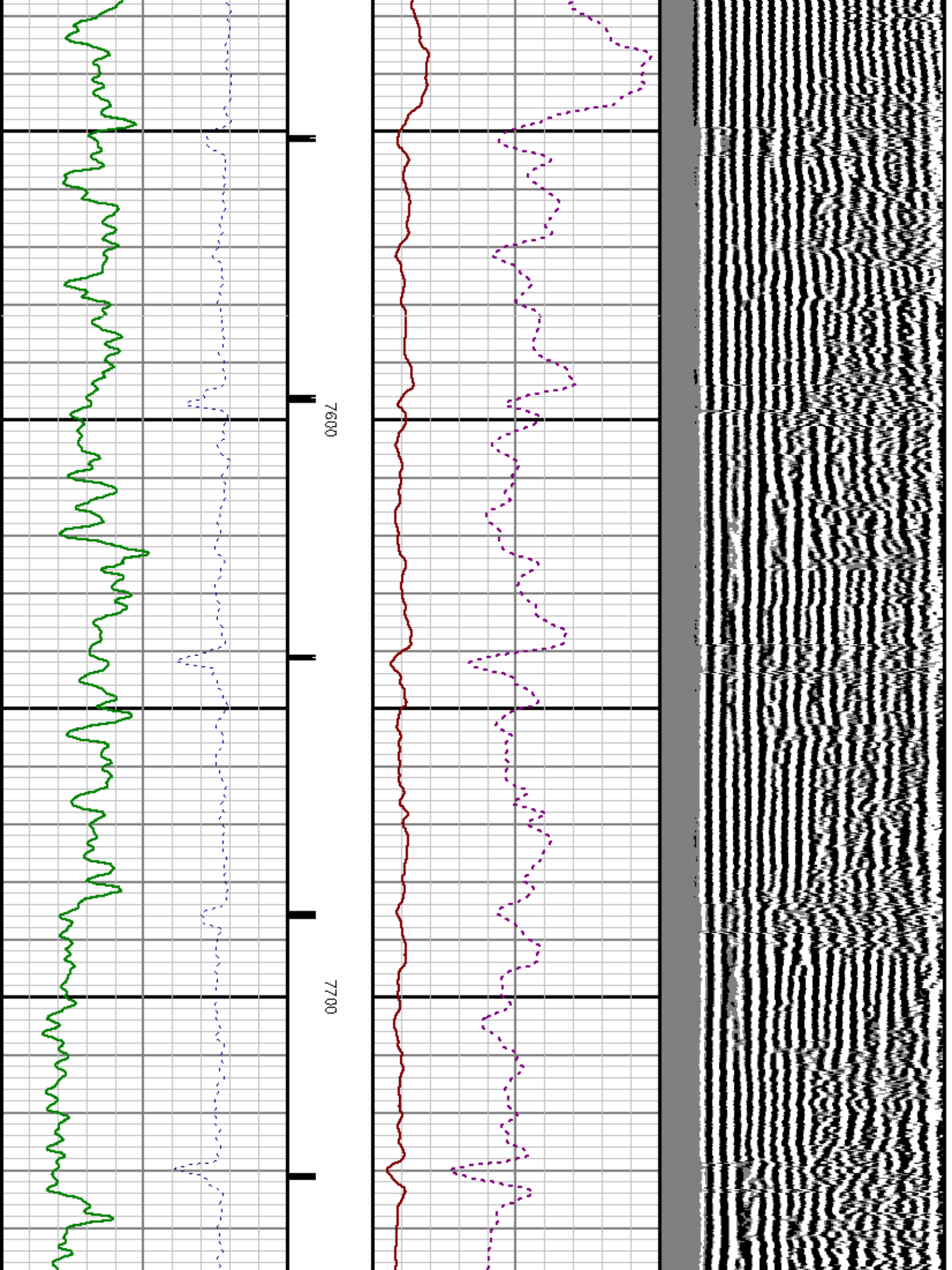


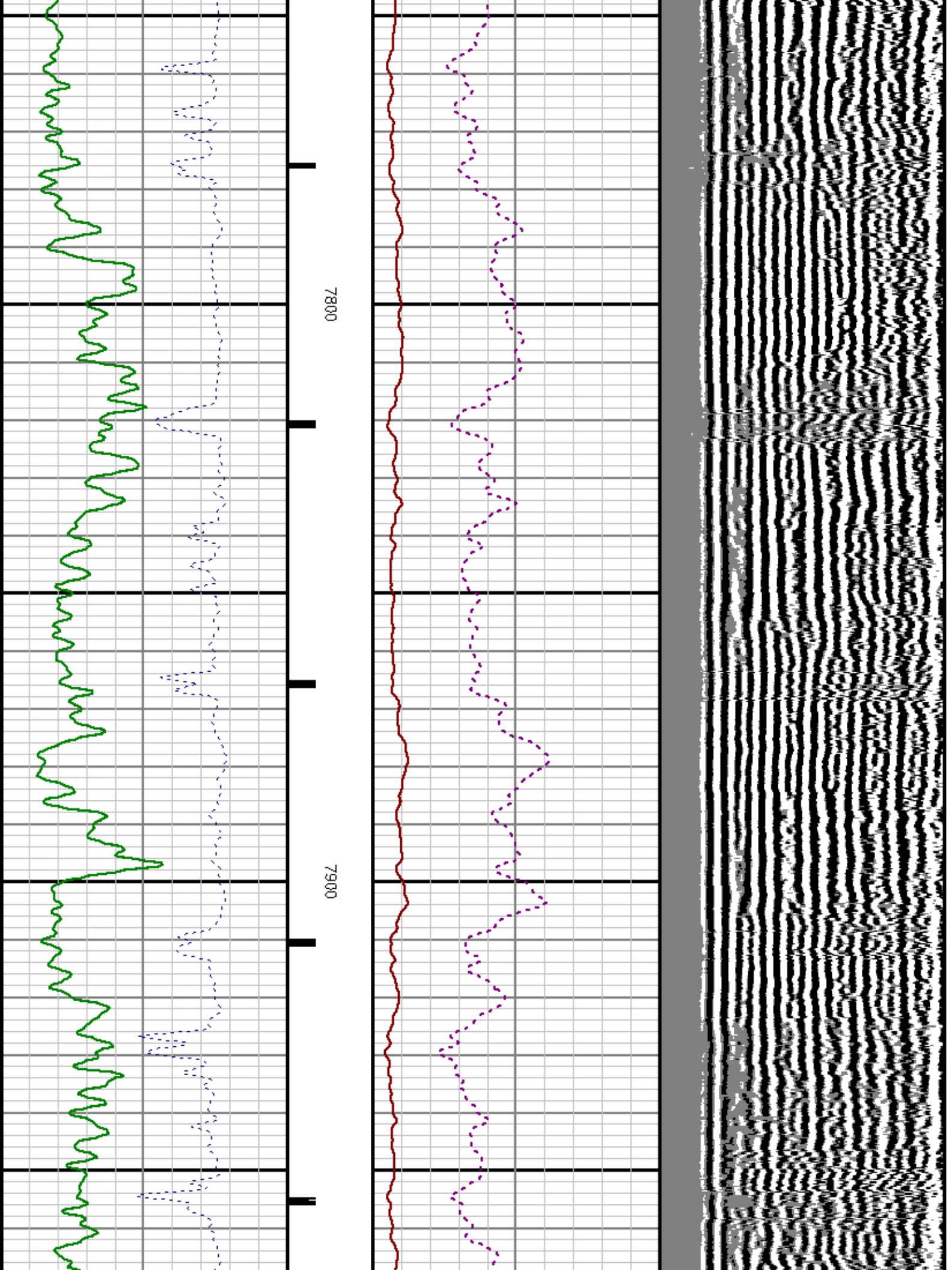


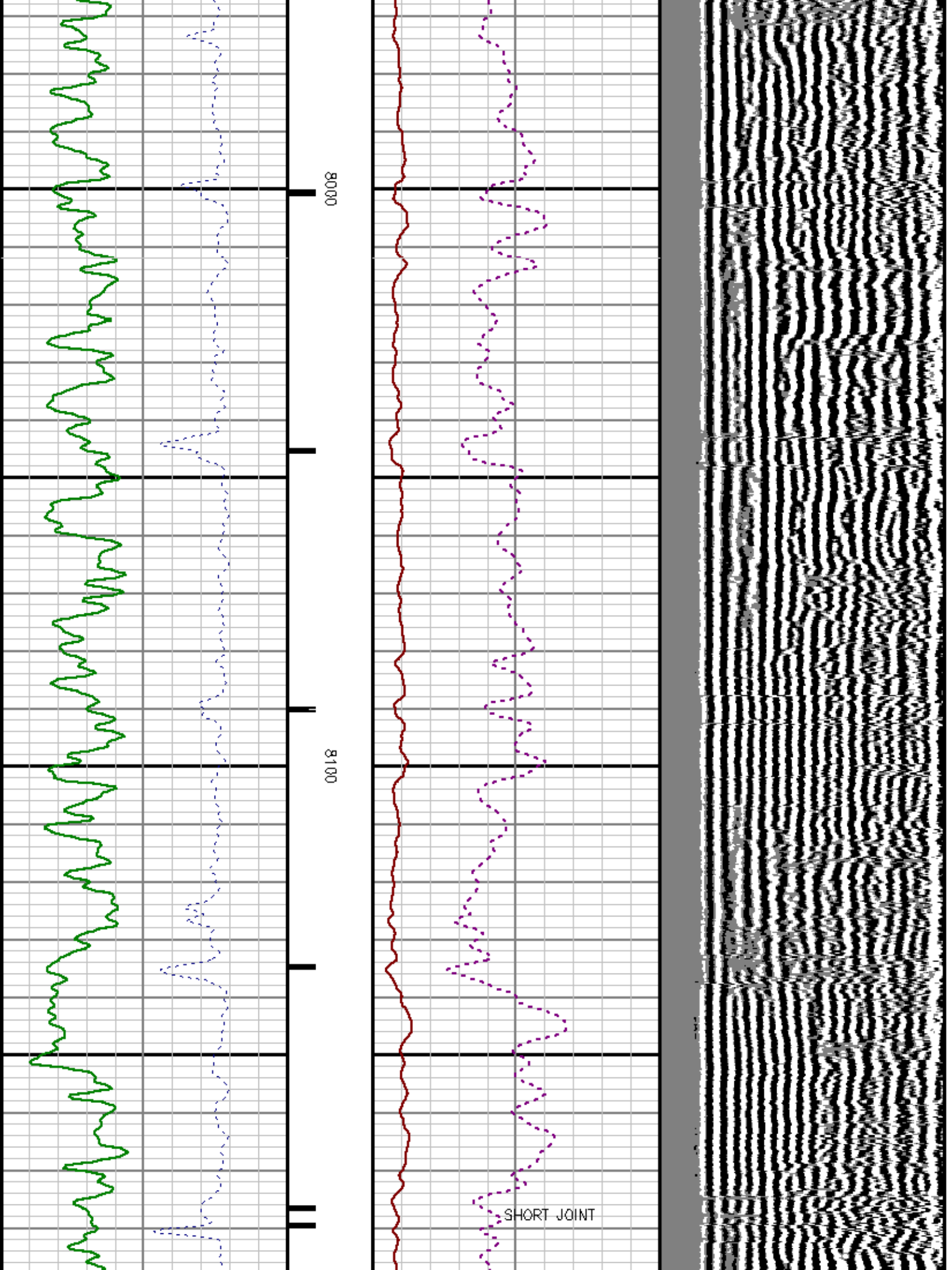


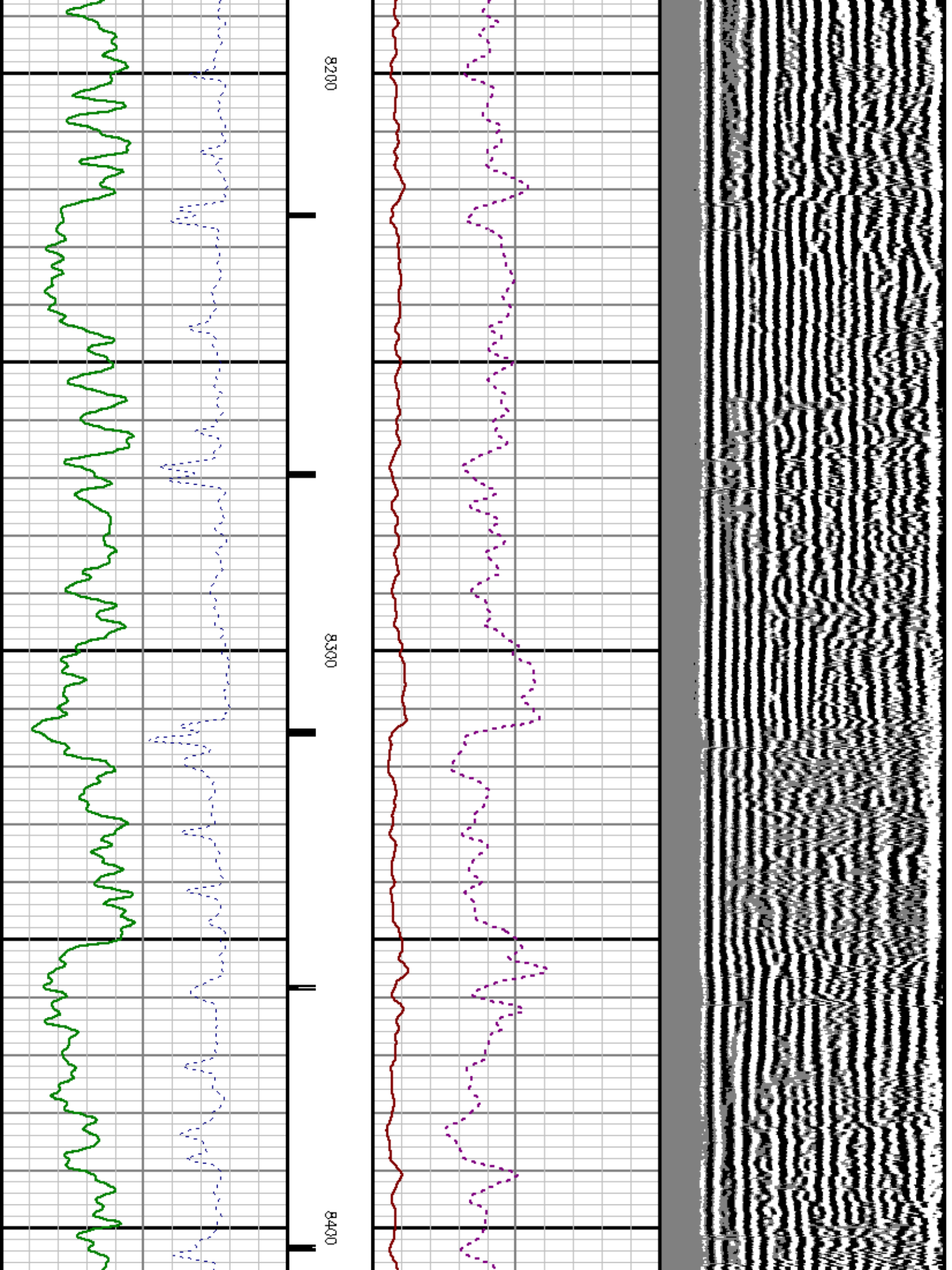


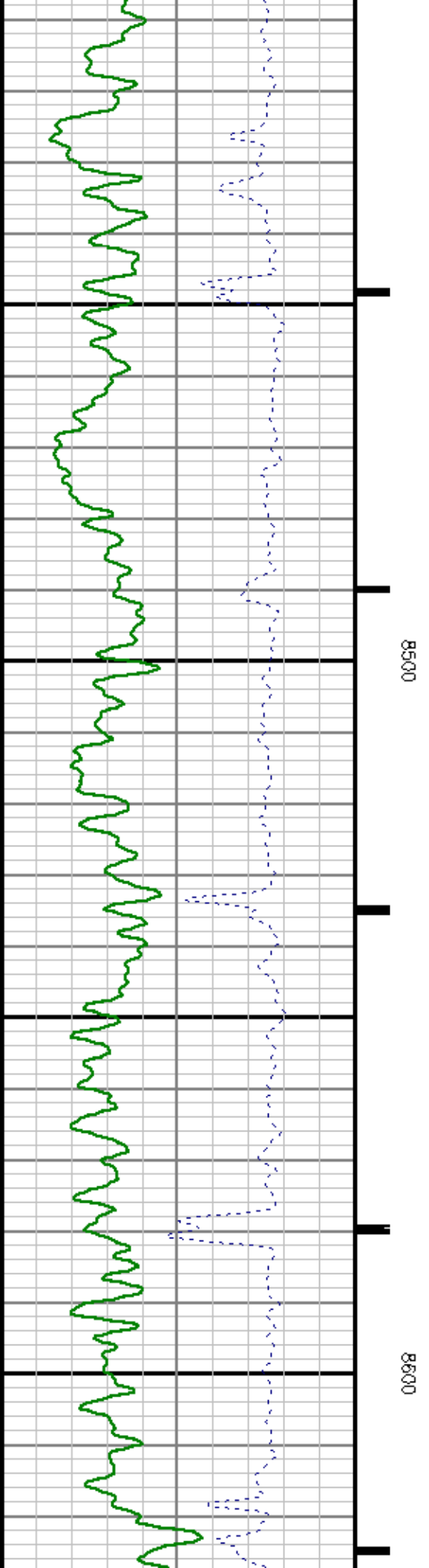
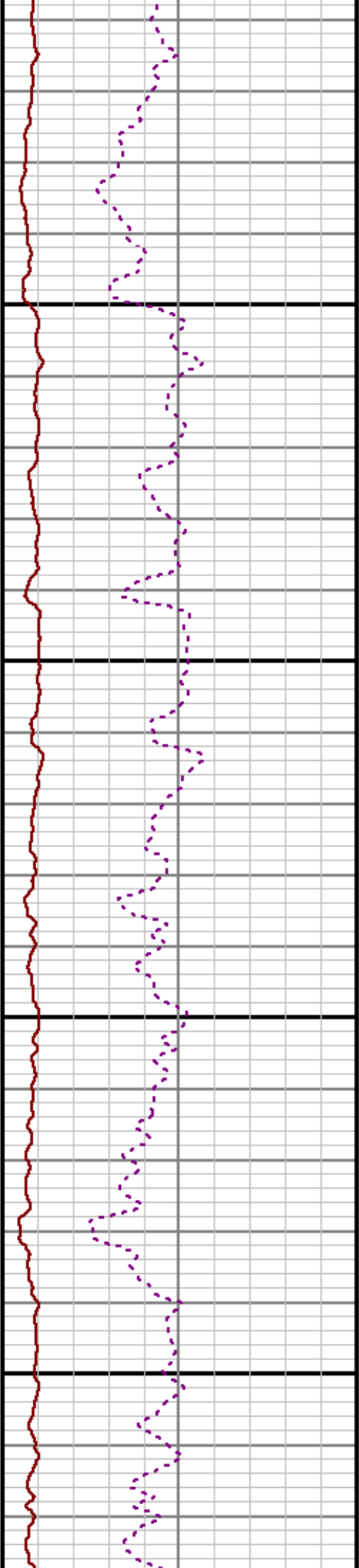
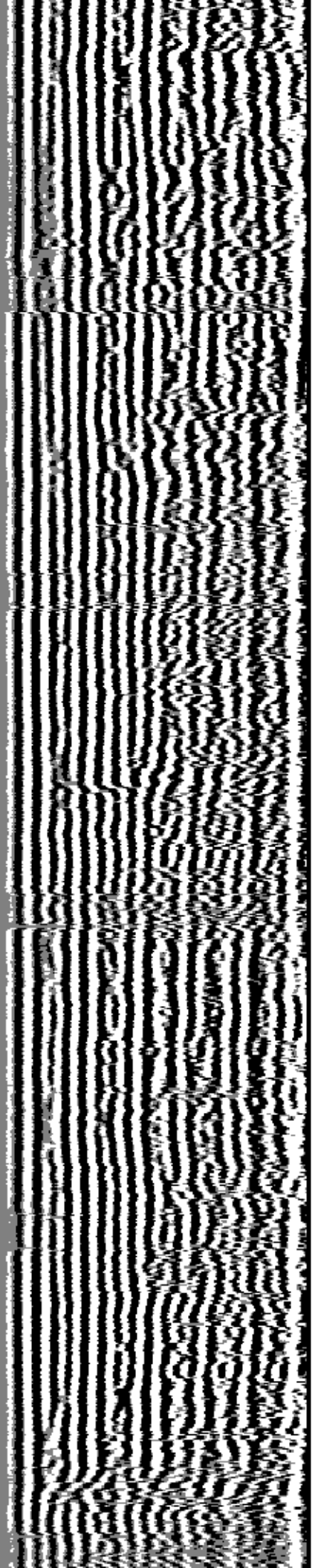


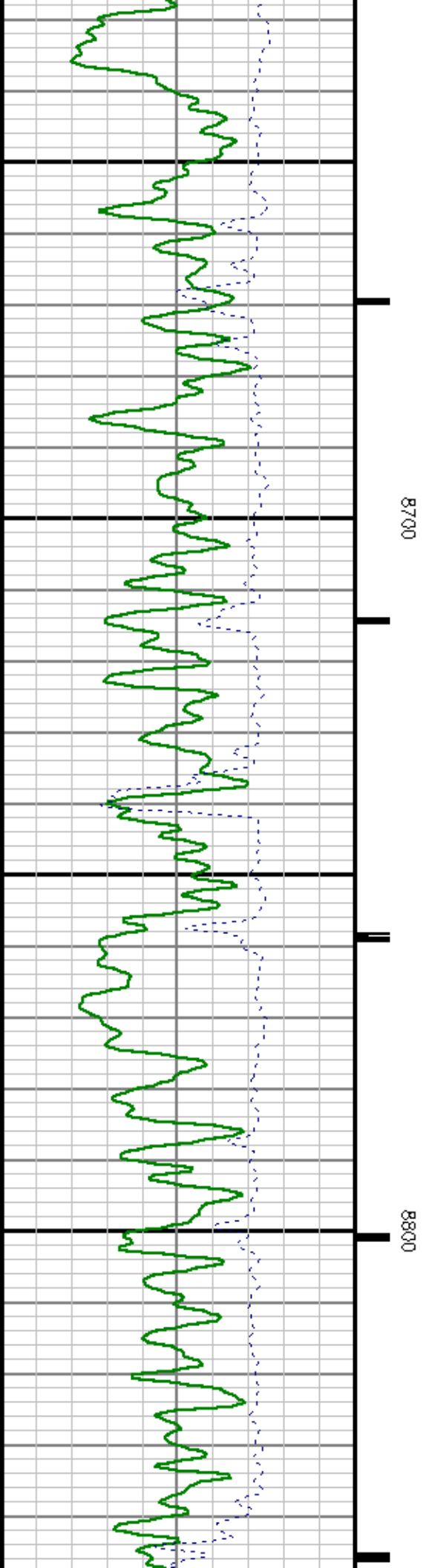
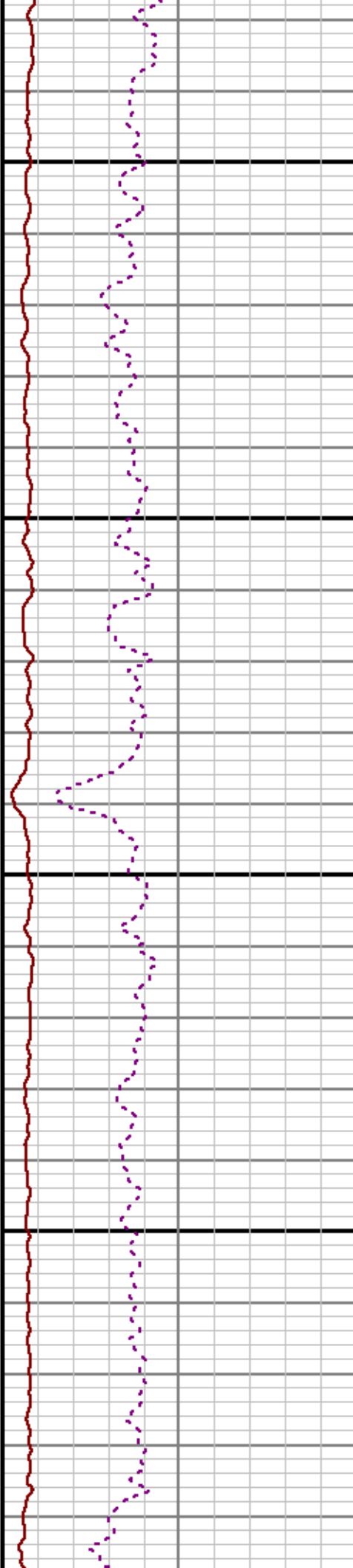
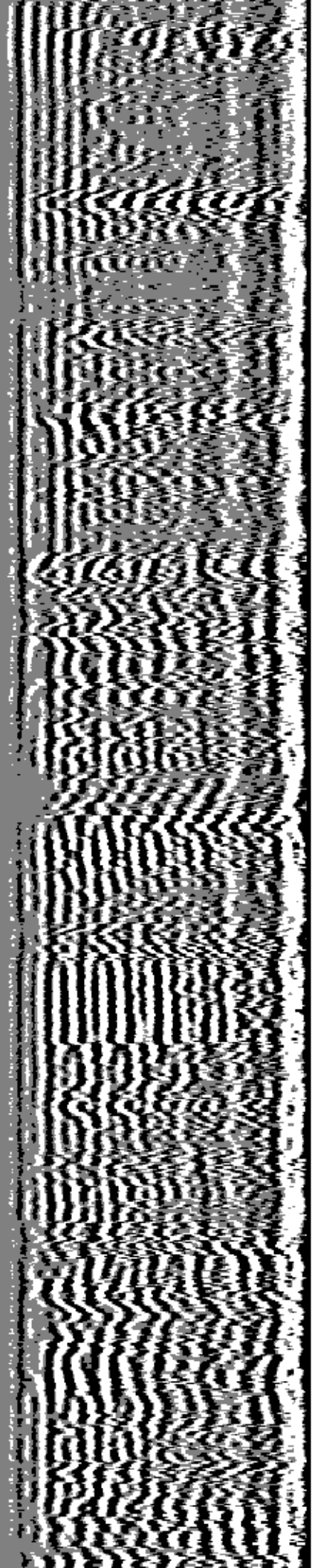


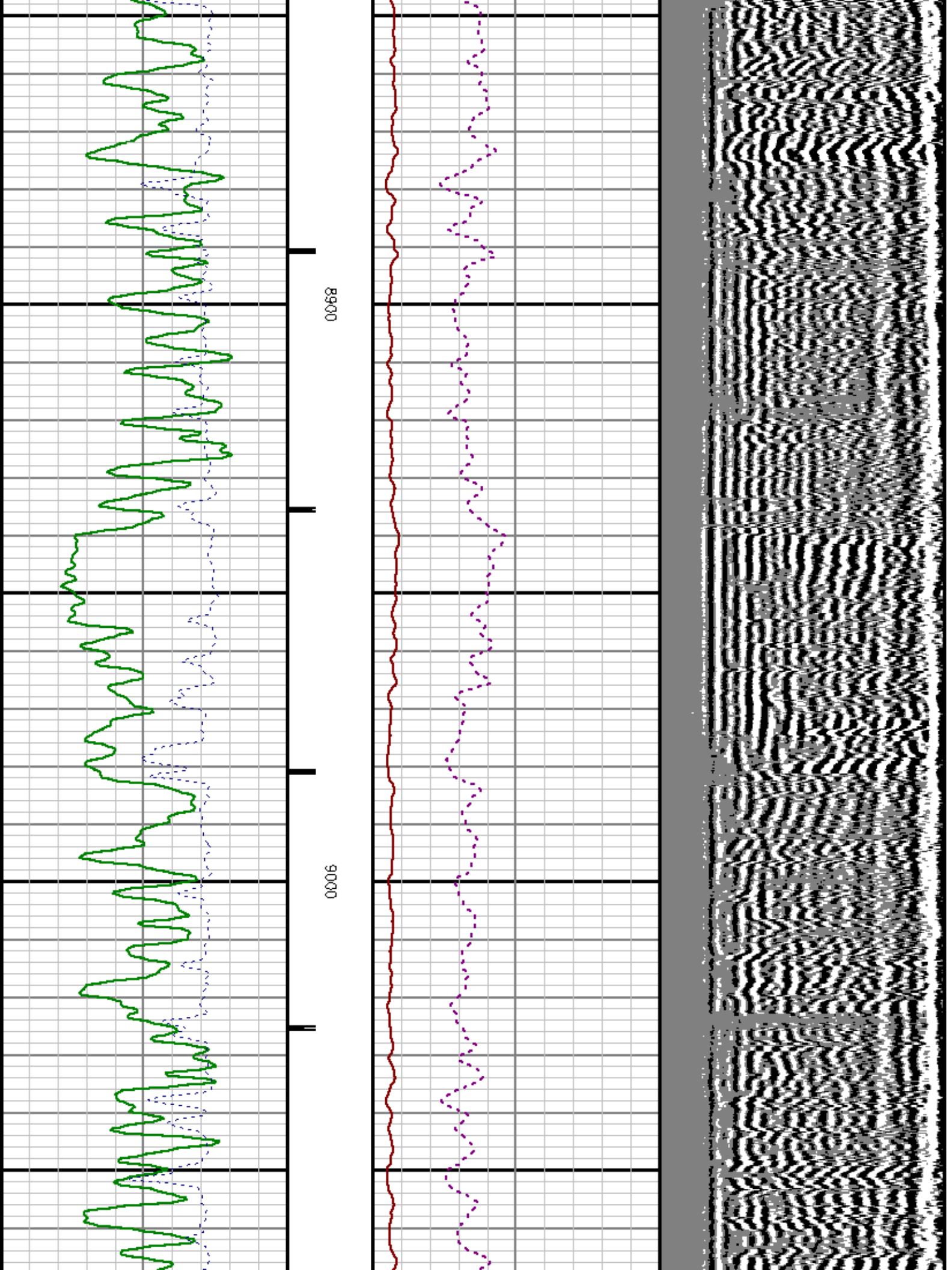


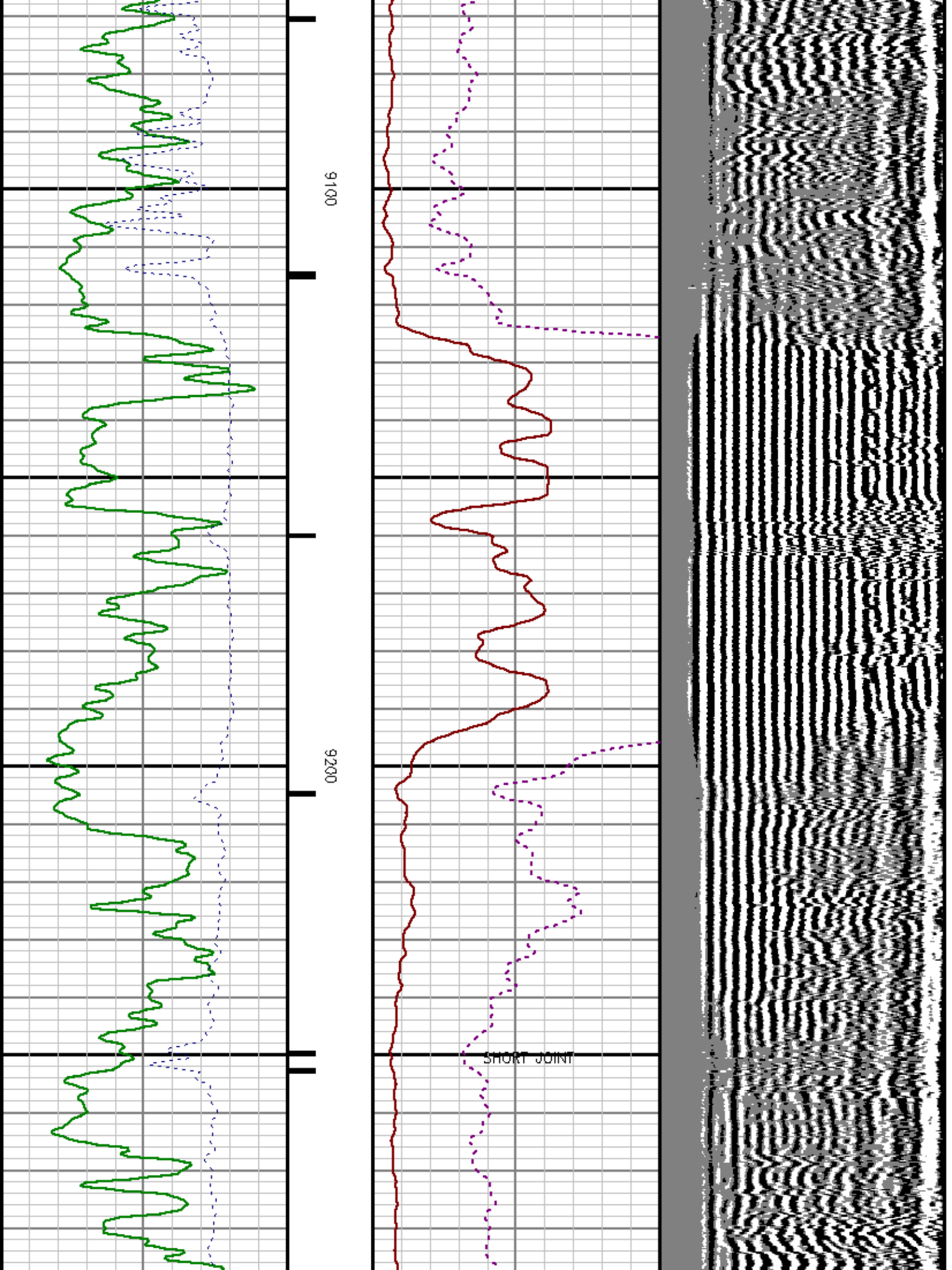


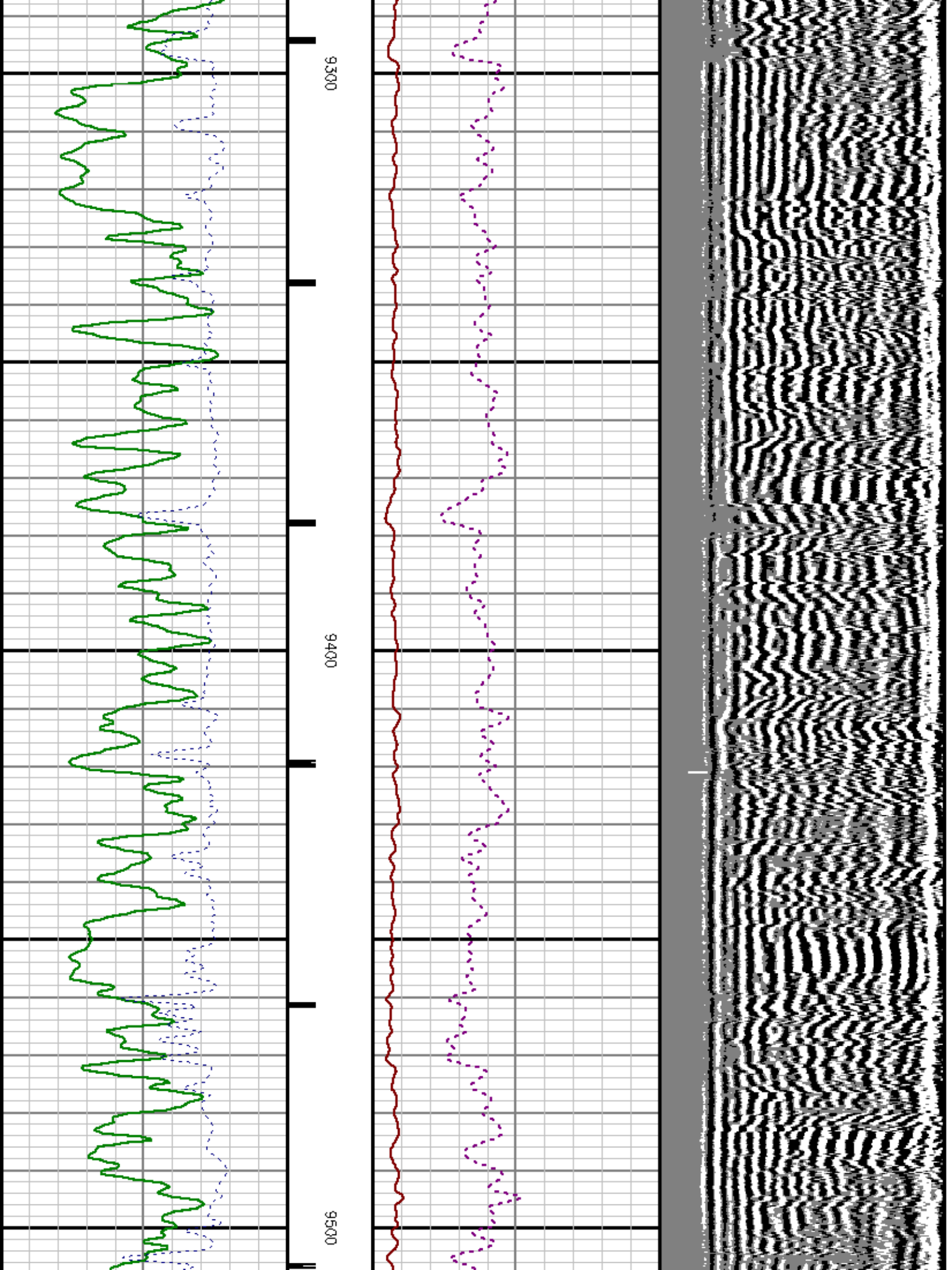


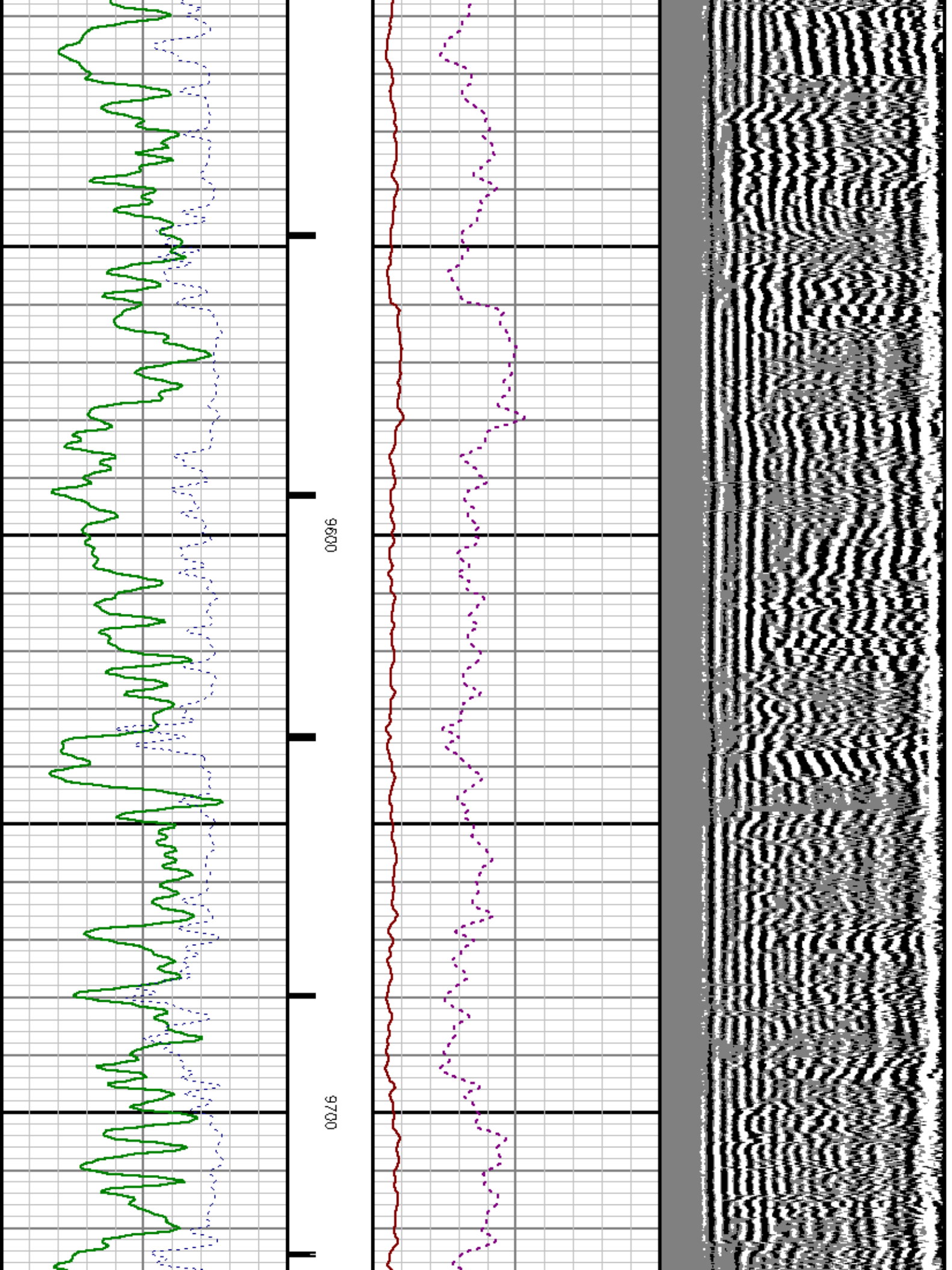


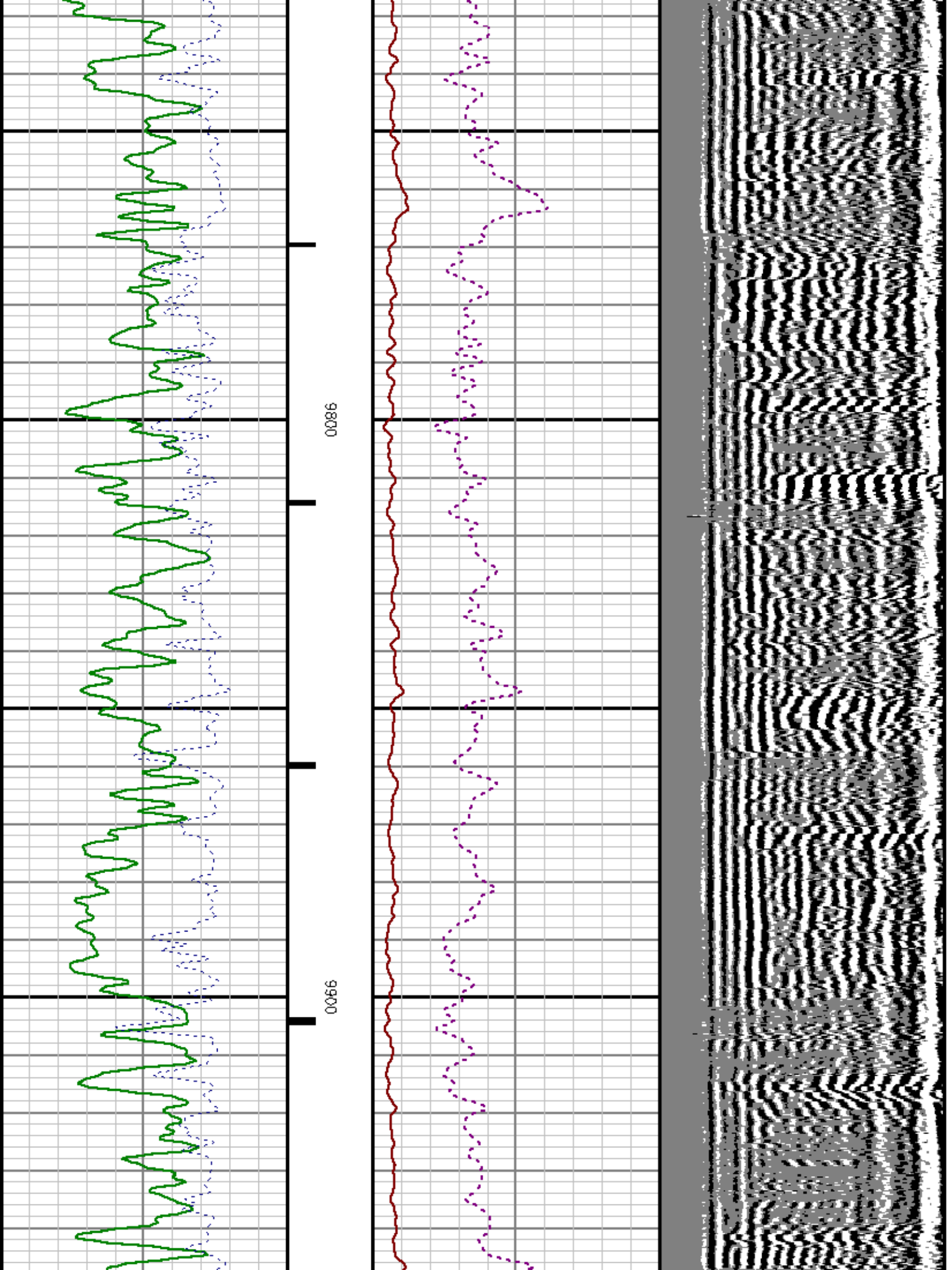


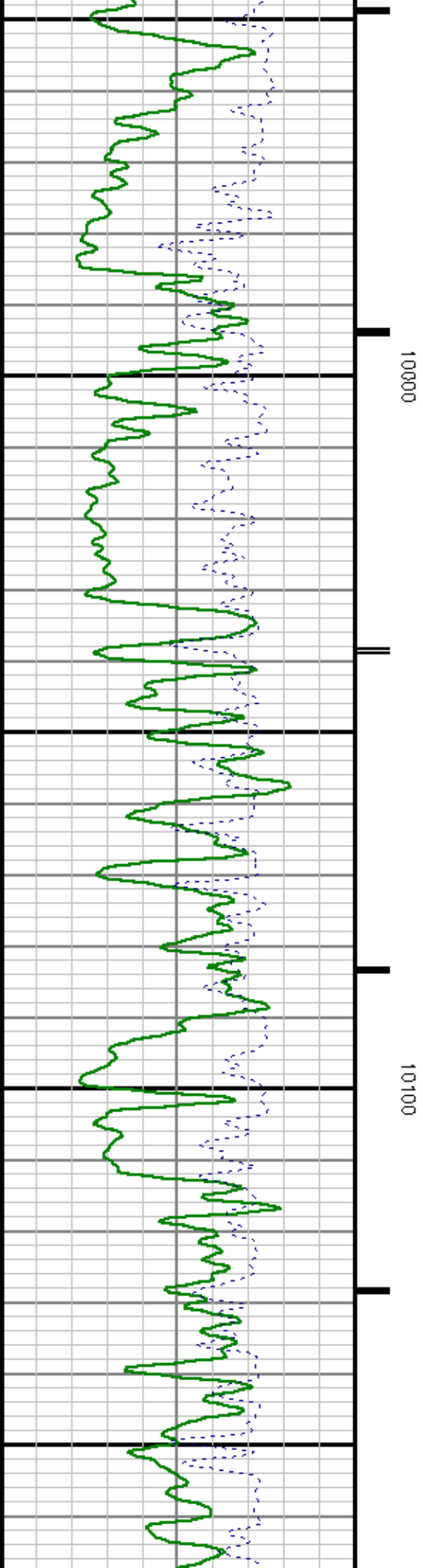
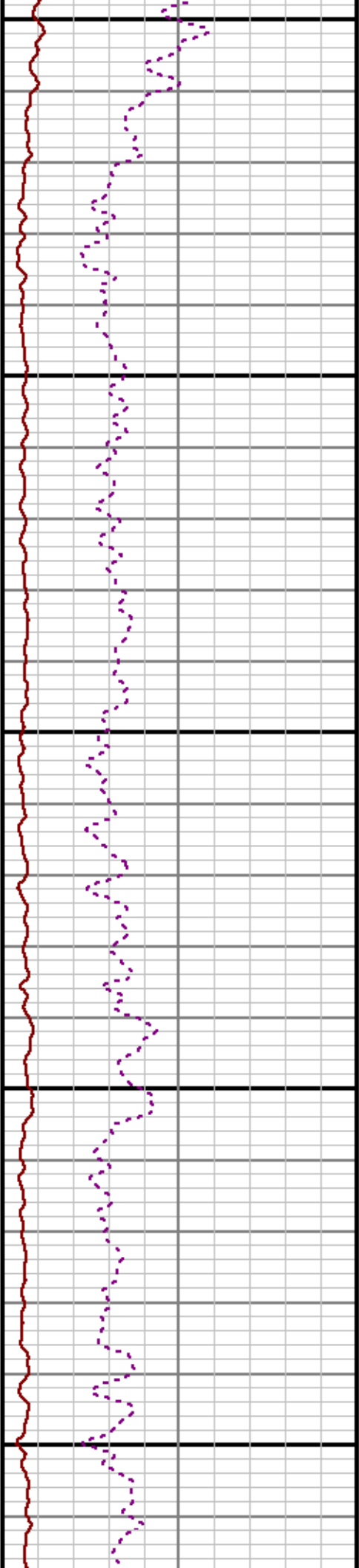
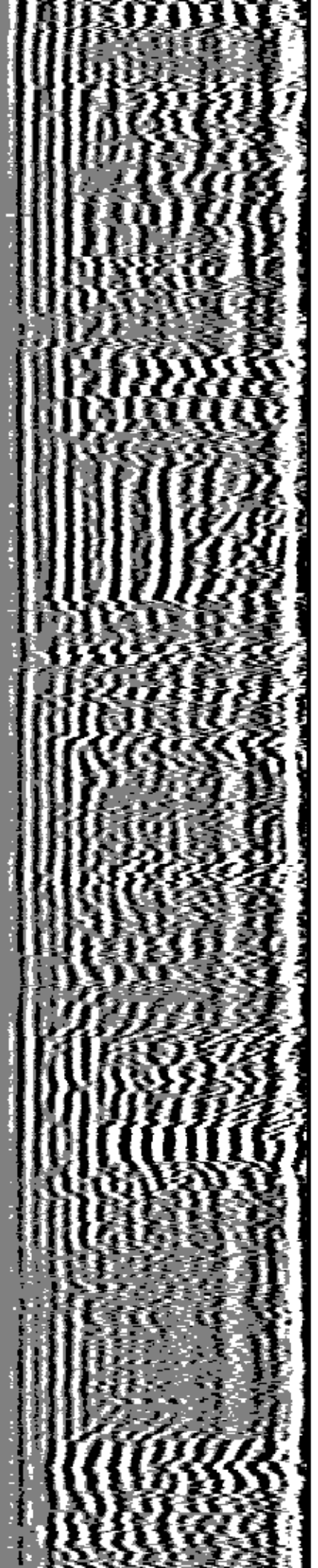


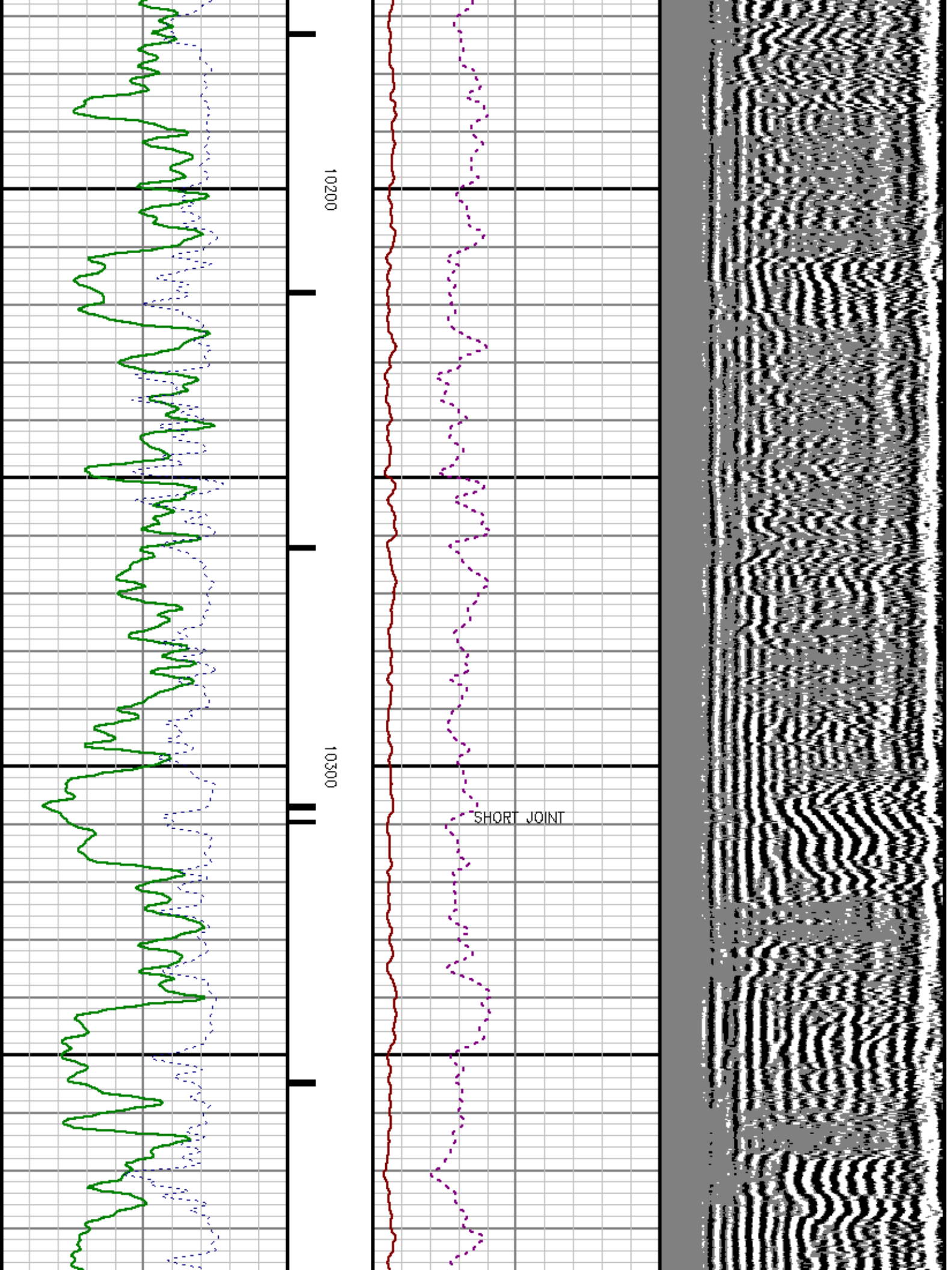


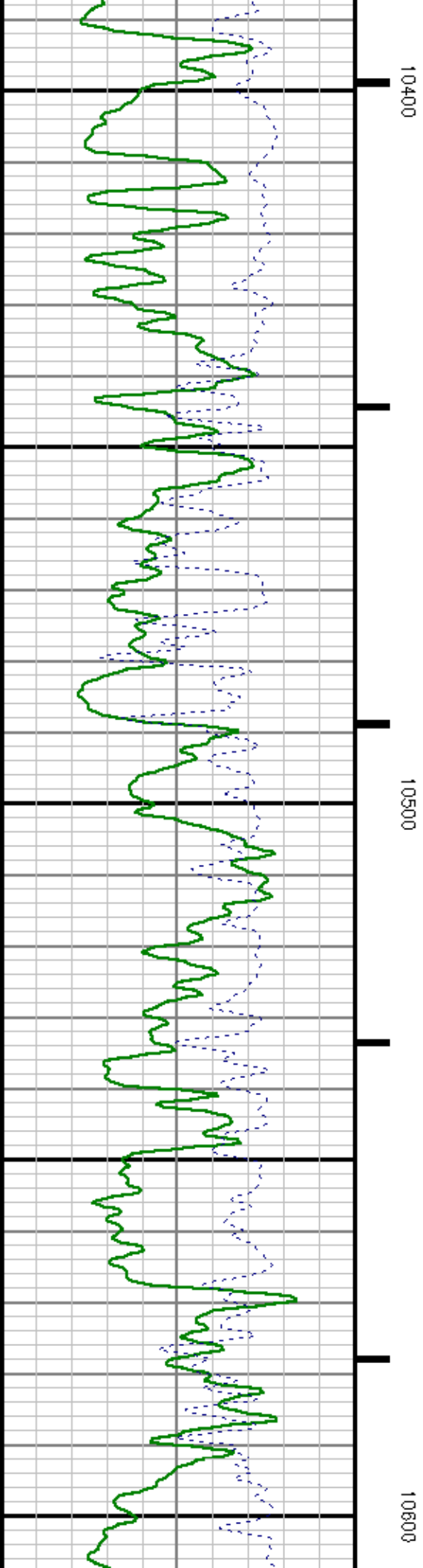
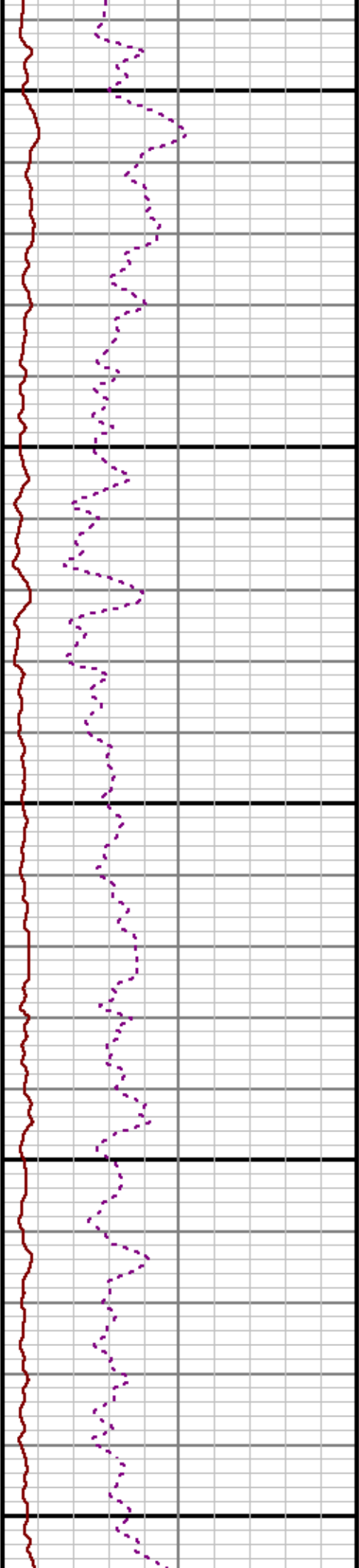
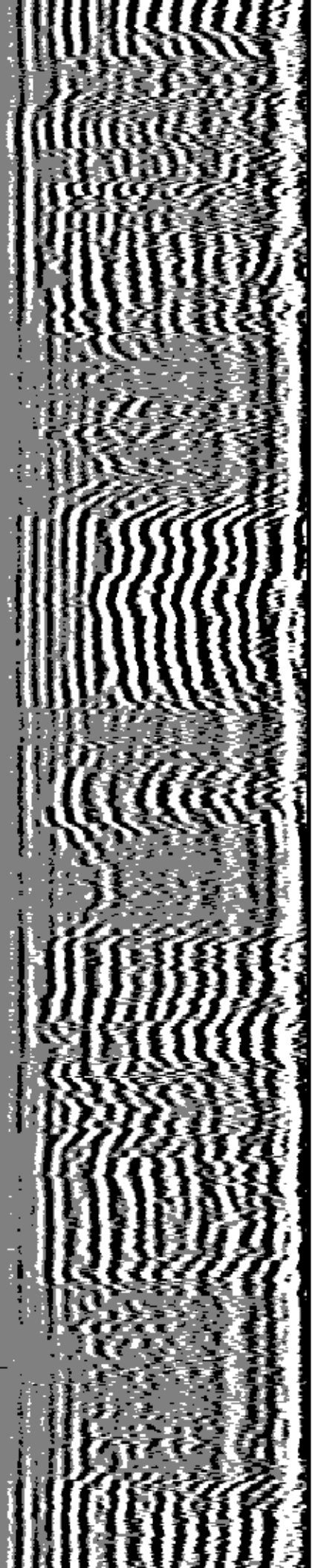


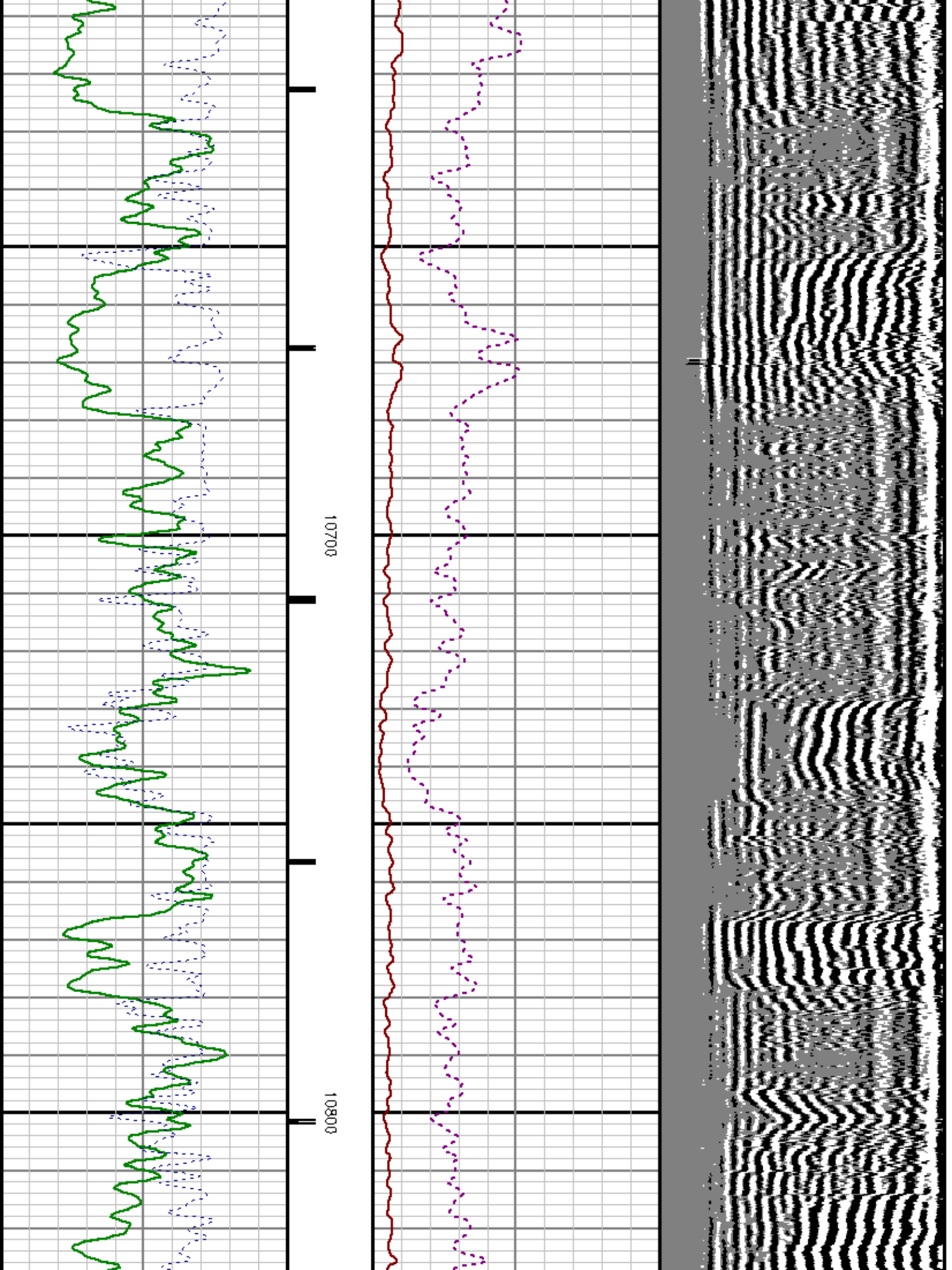


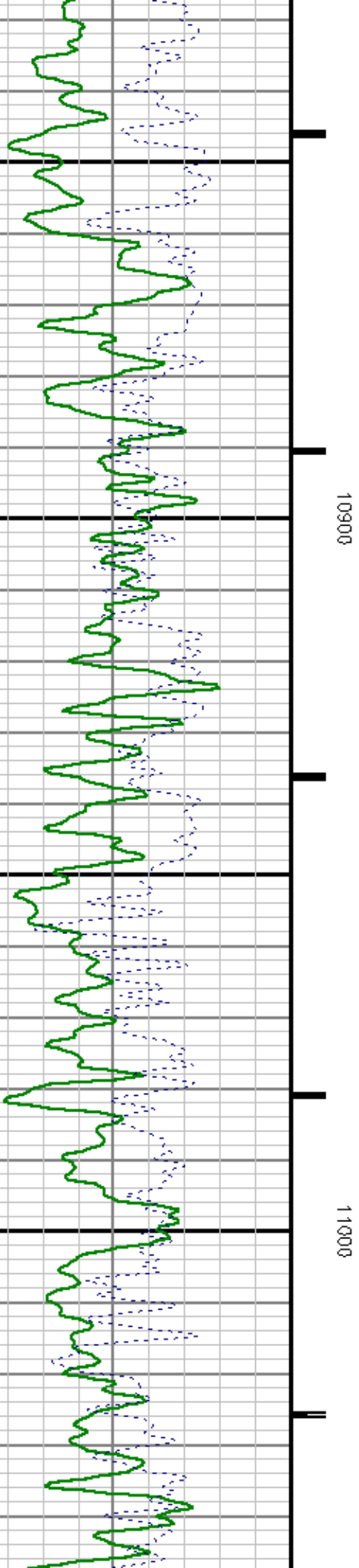
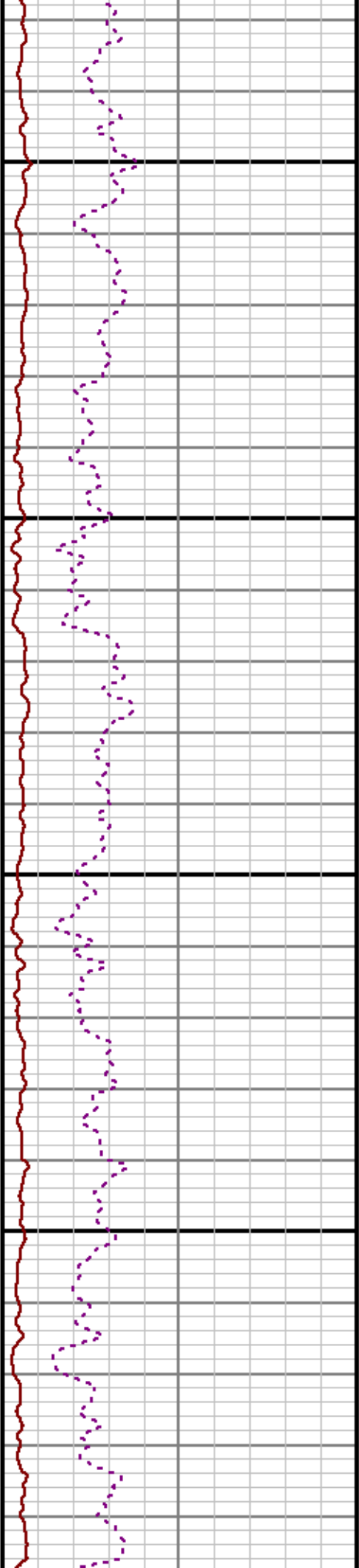
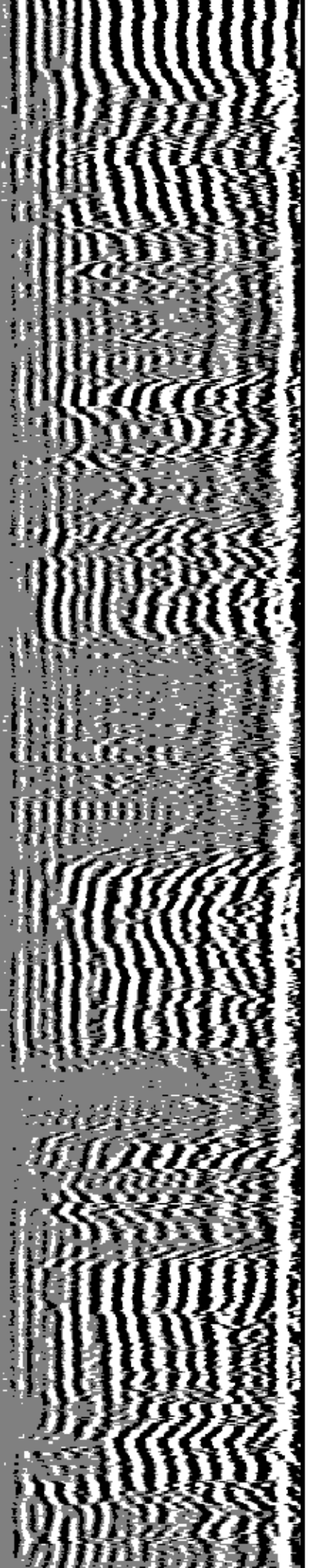


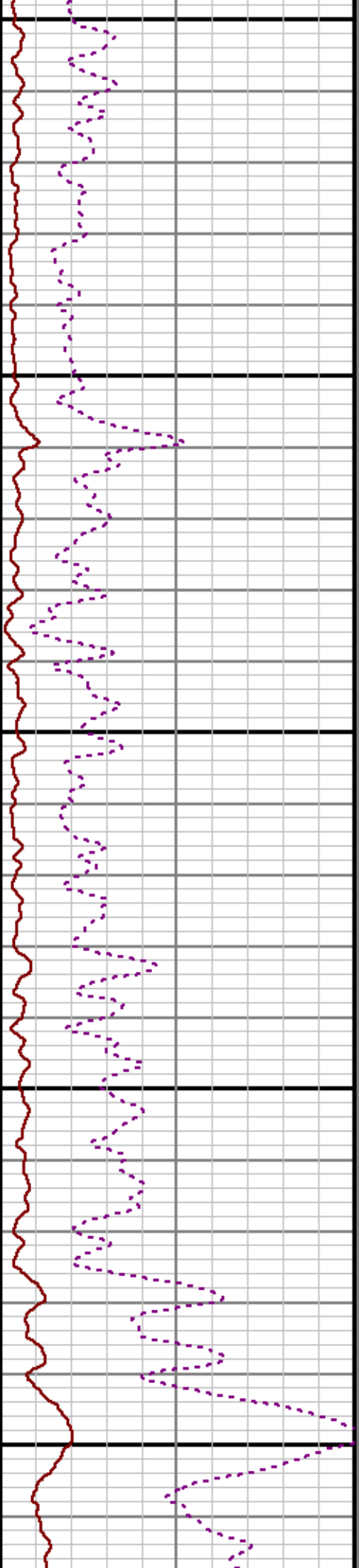
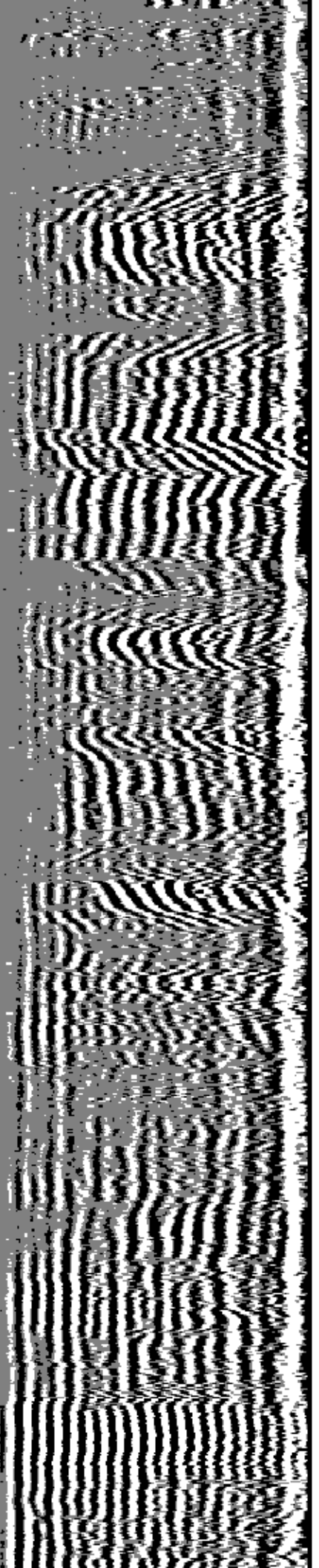






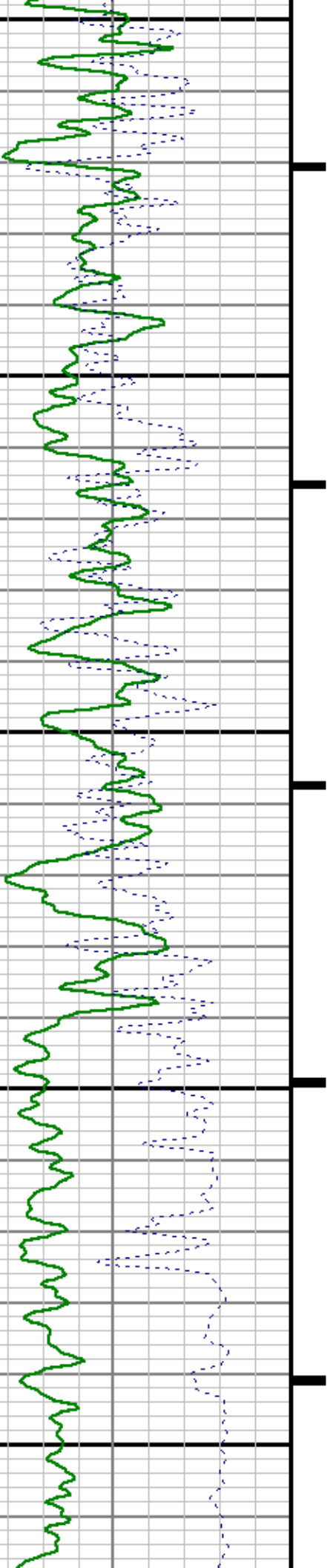


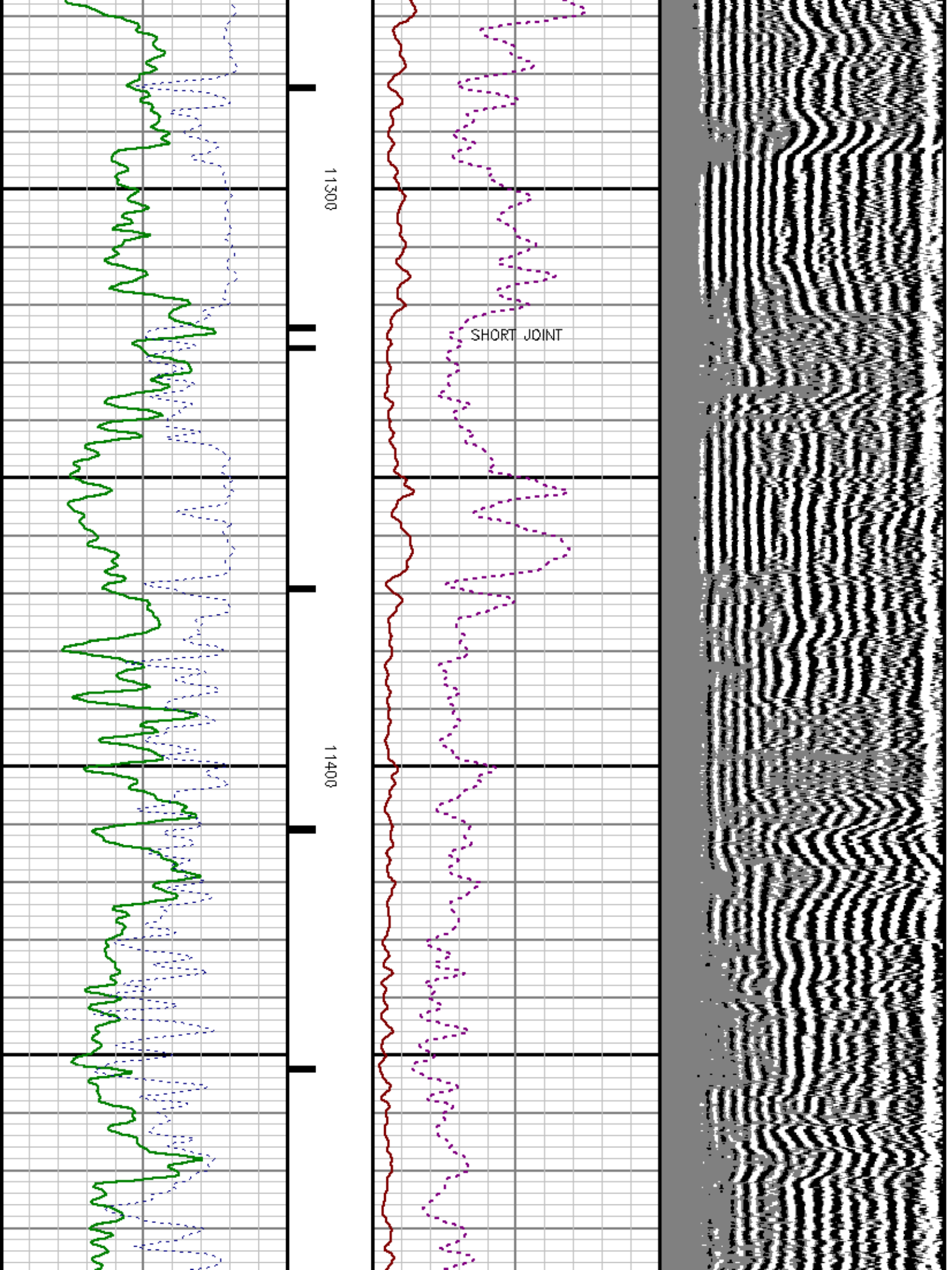


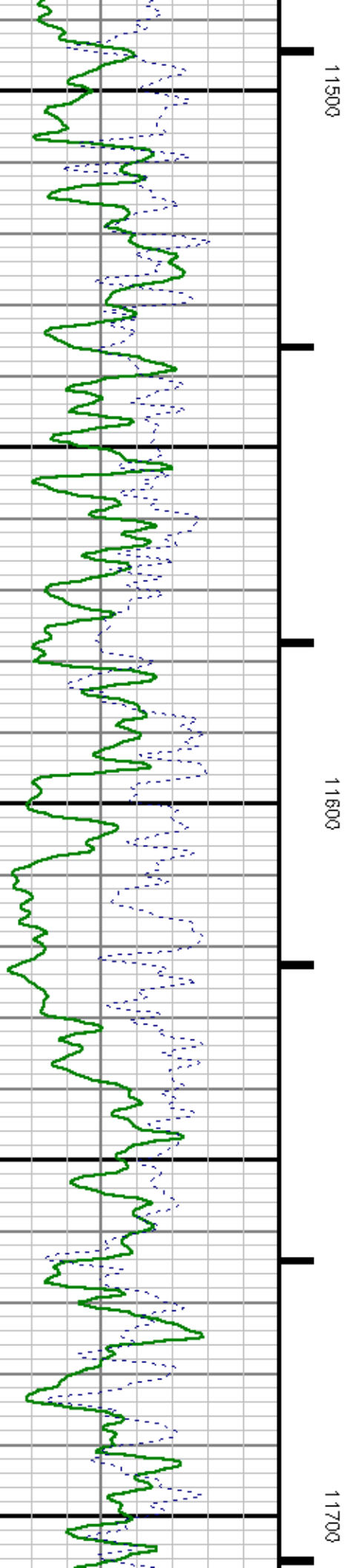
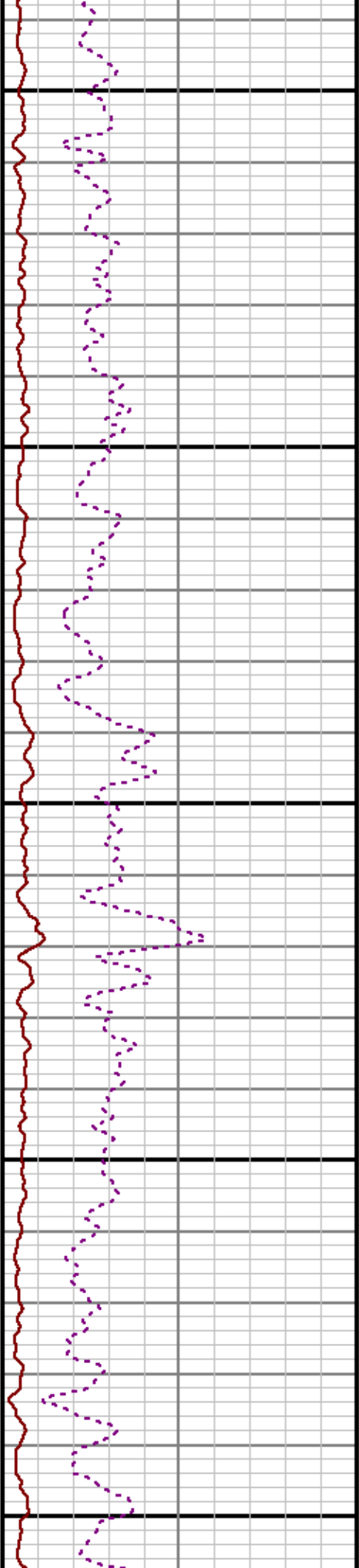
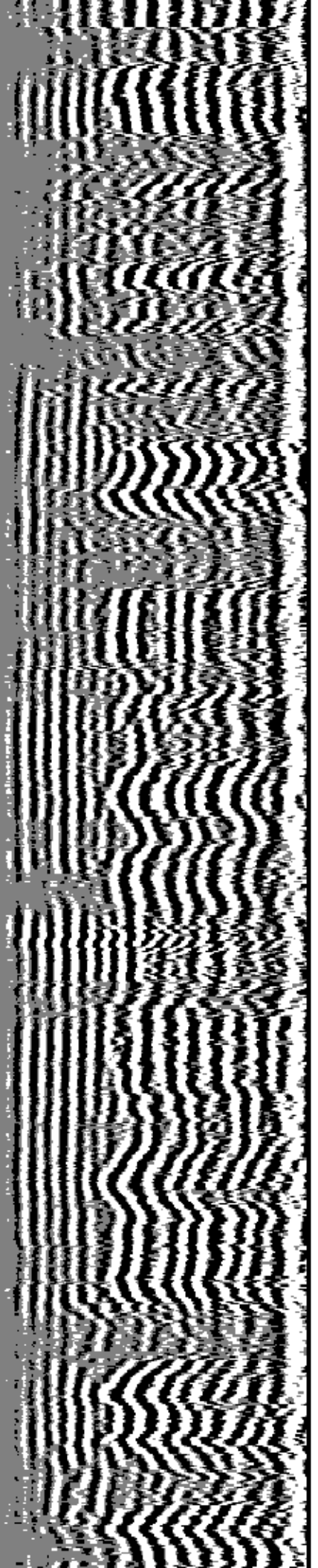


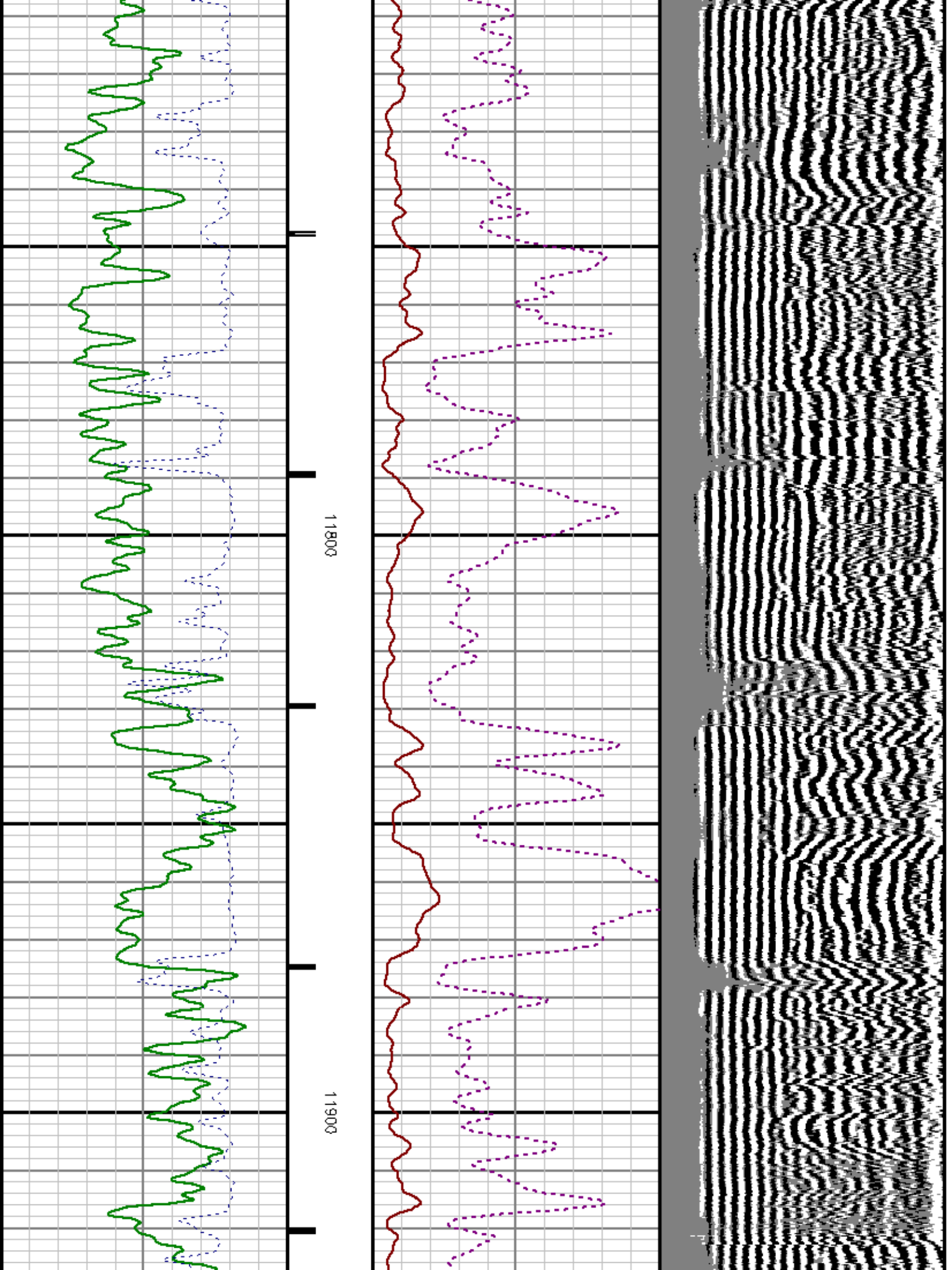
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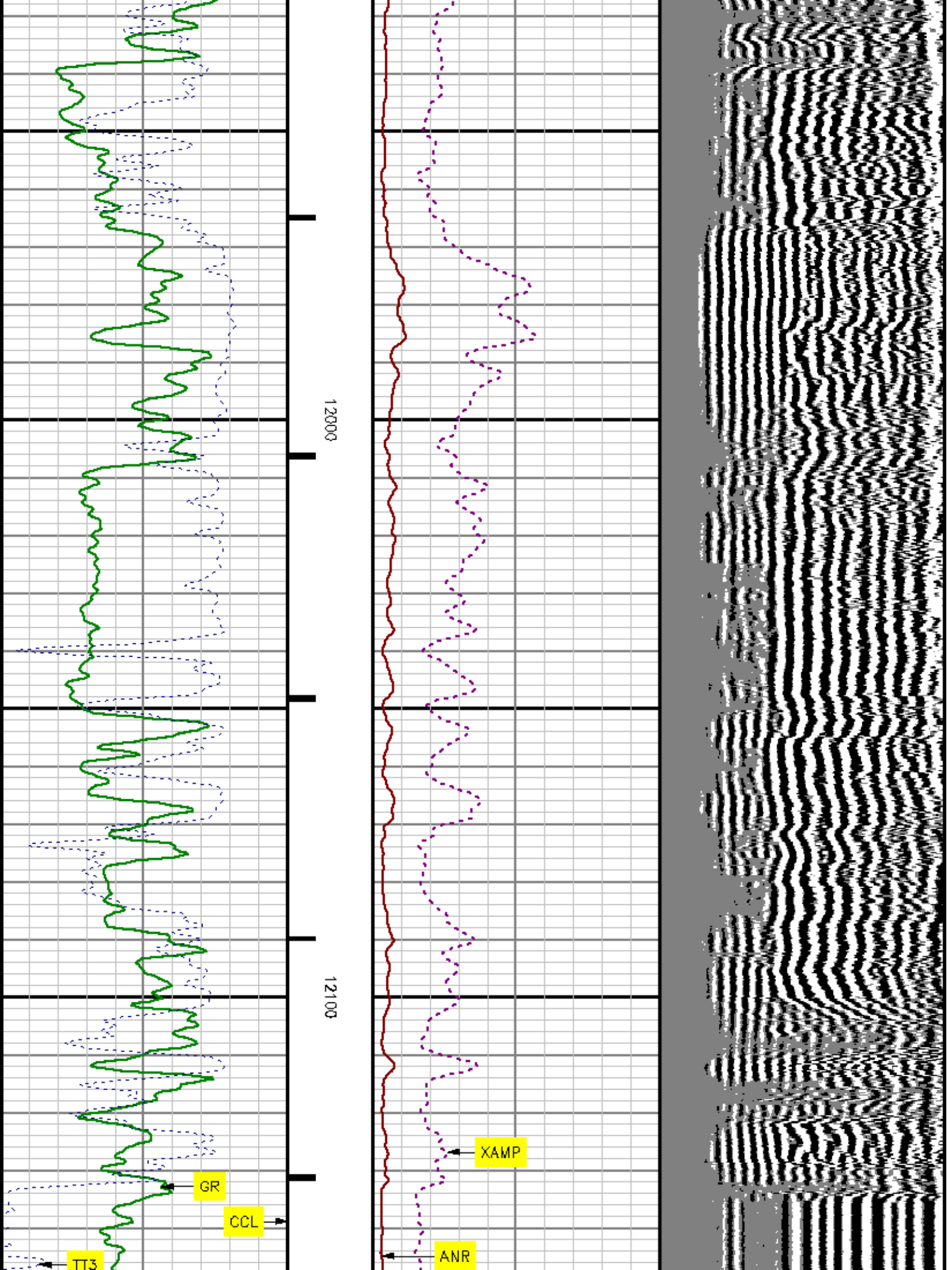
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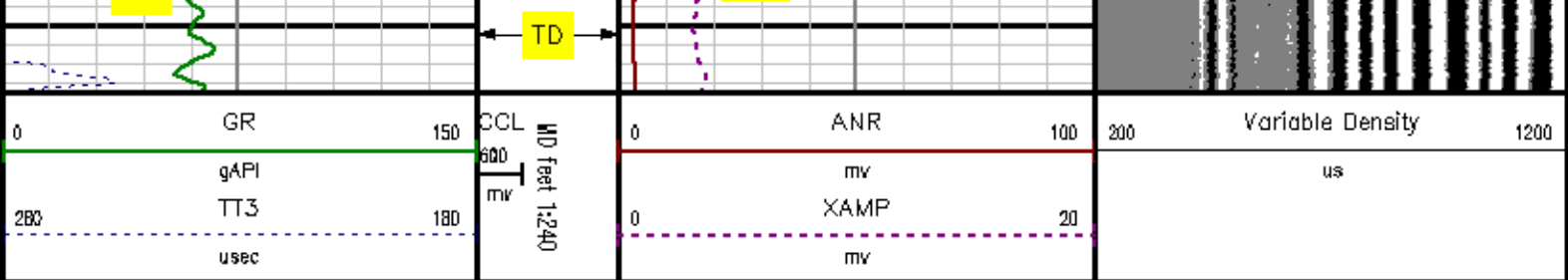












MAIN SECTION *SECONDARY PRESENTATION* *0 PSI*

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	u sec	901.250	1599.500
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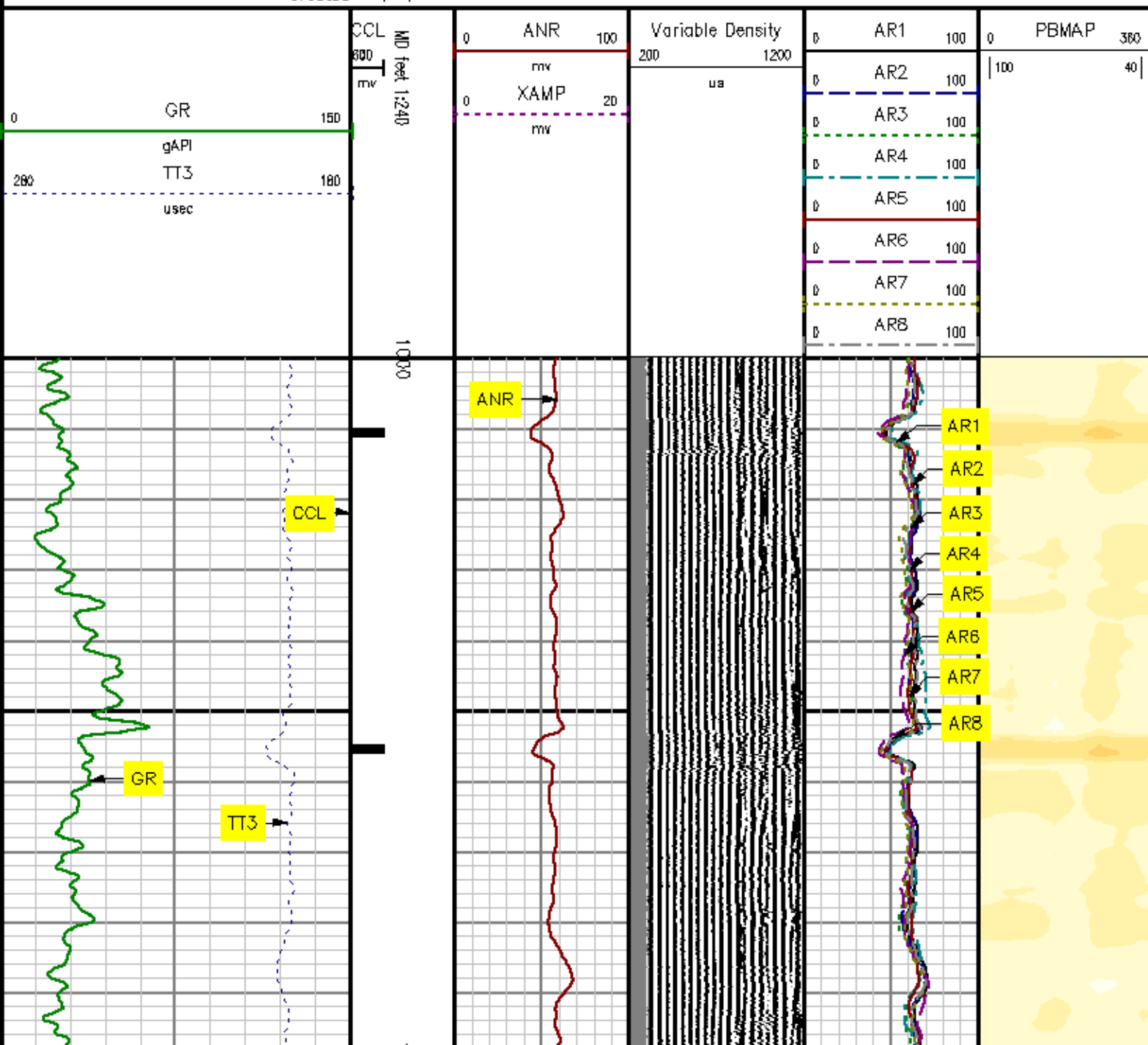
DEPTH OFFSETS (for Acquired Curves)

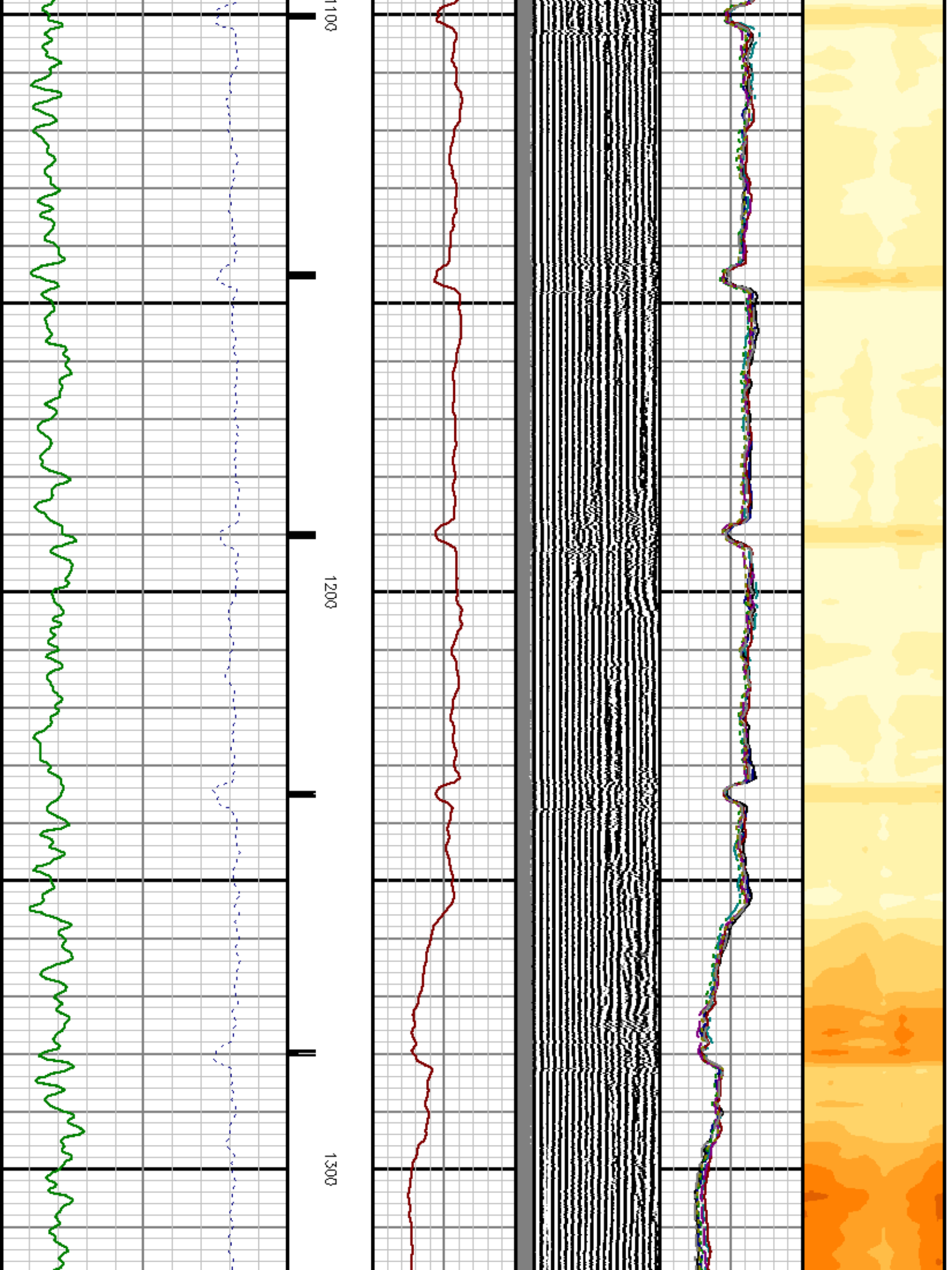
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-15.360	ACAL	ANR	AR1	AR2	AR3	AR4

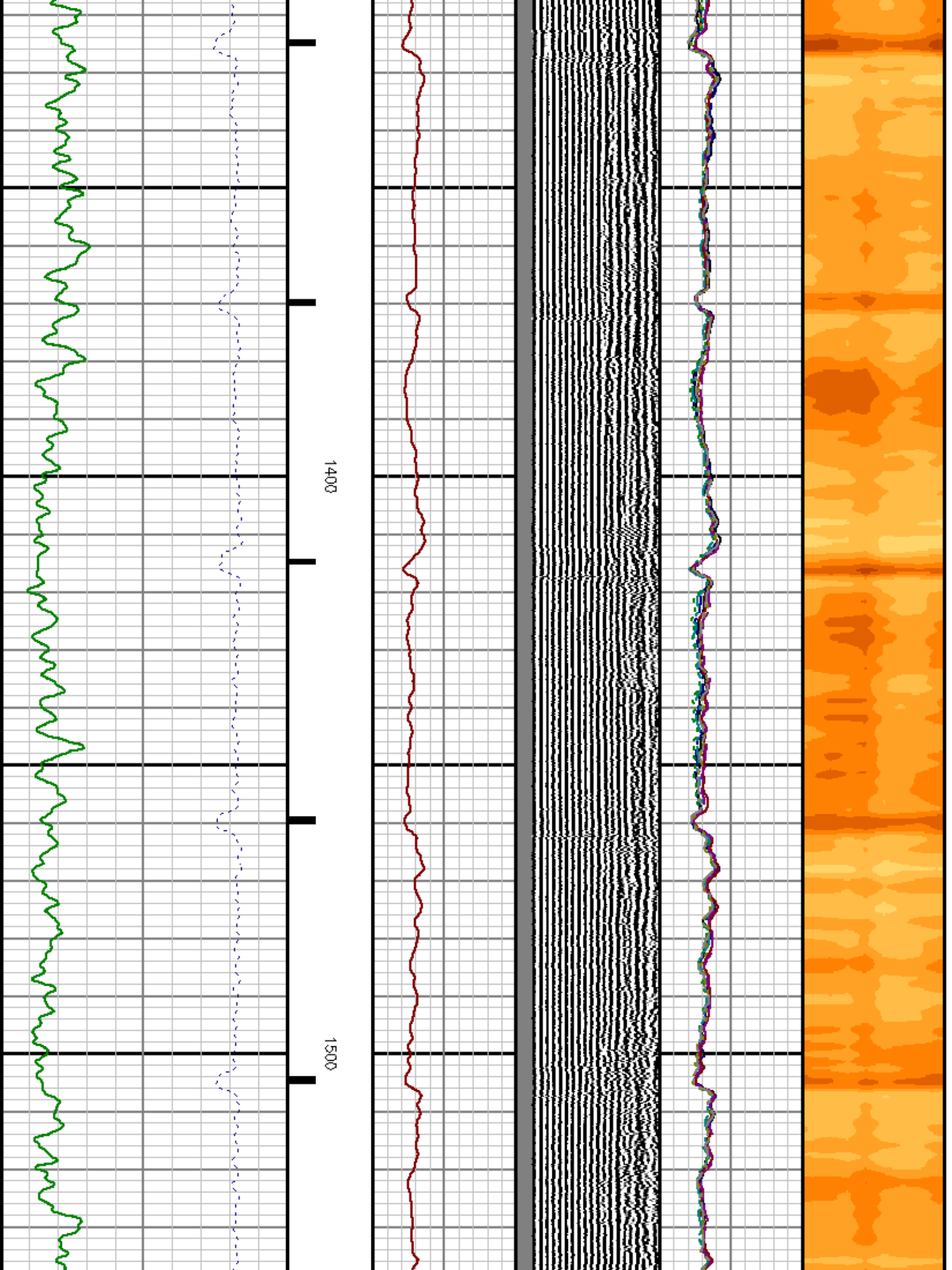
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 1426XA -7.250
 1426XA -5.390
 1426XA 0.000

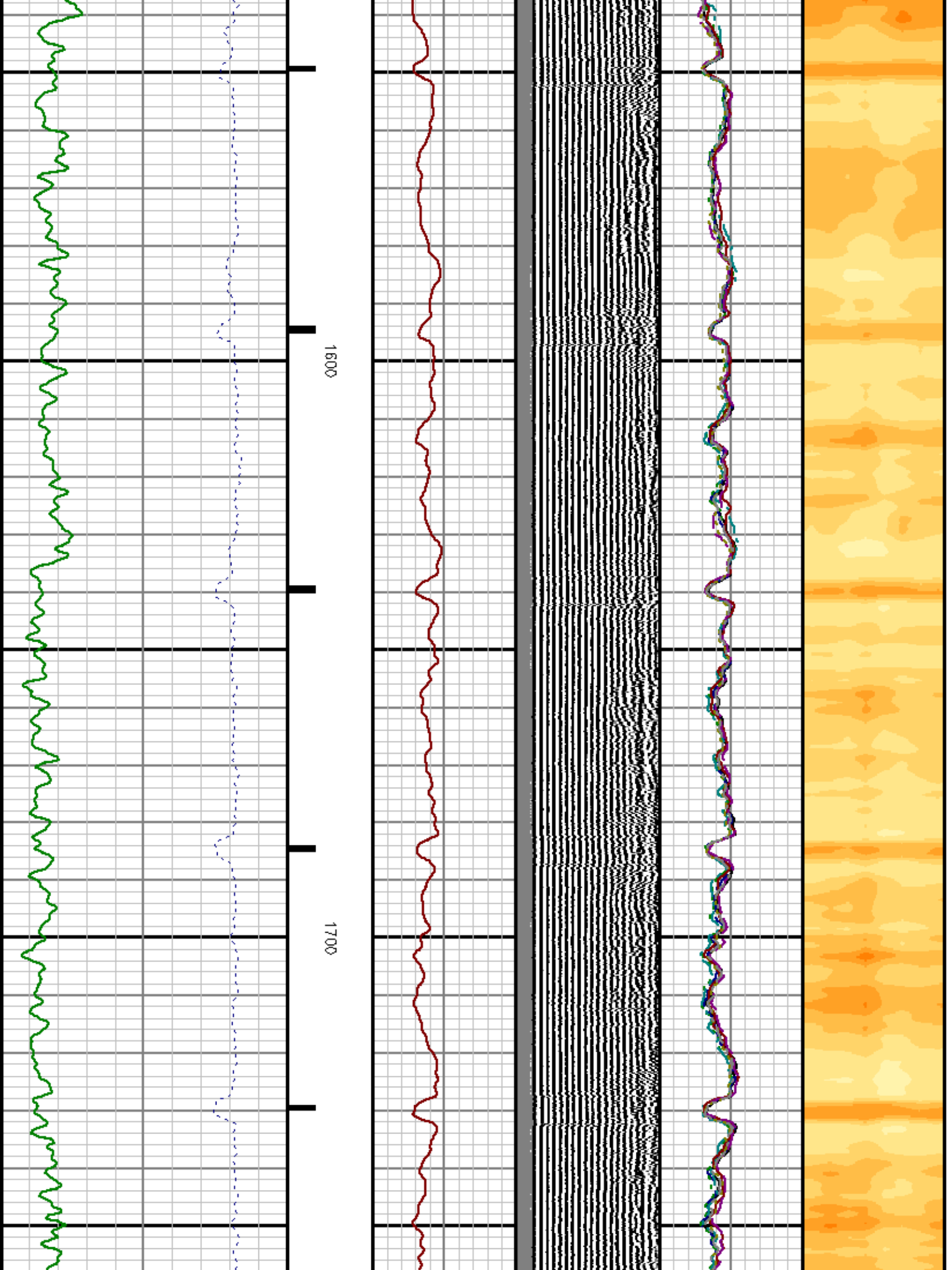
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TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
AFAR	SIG	TT5			
CCL					
GR					
NEU					

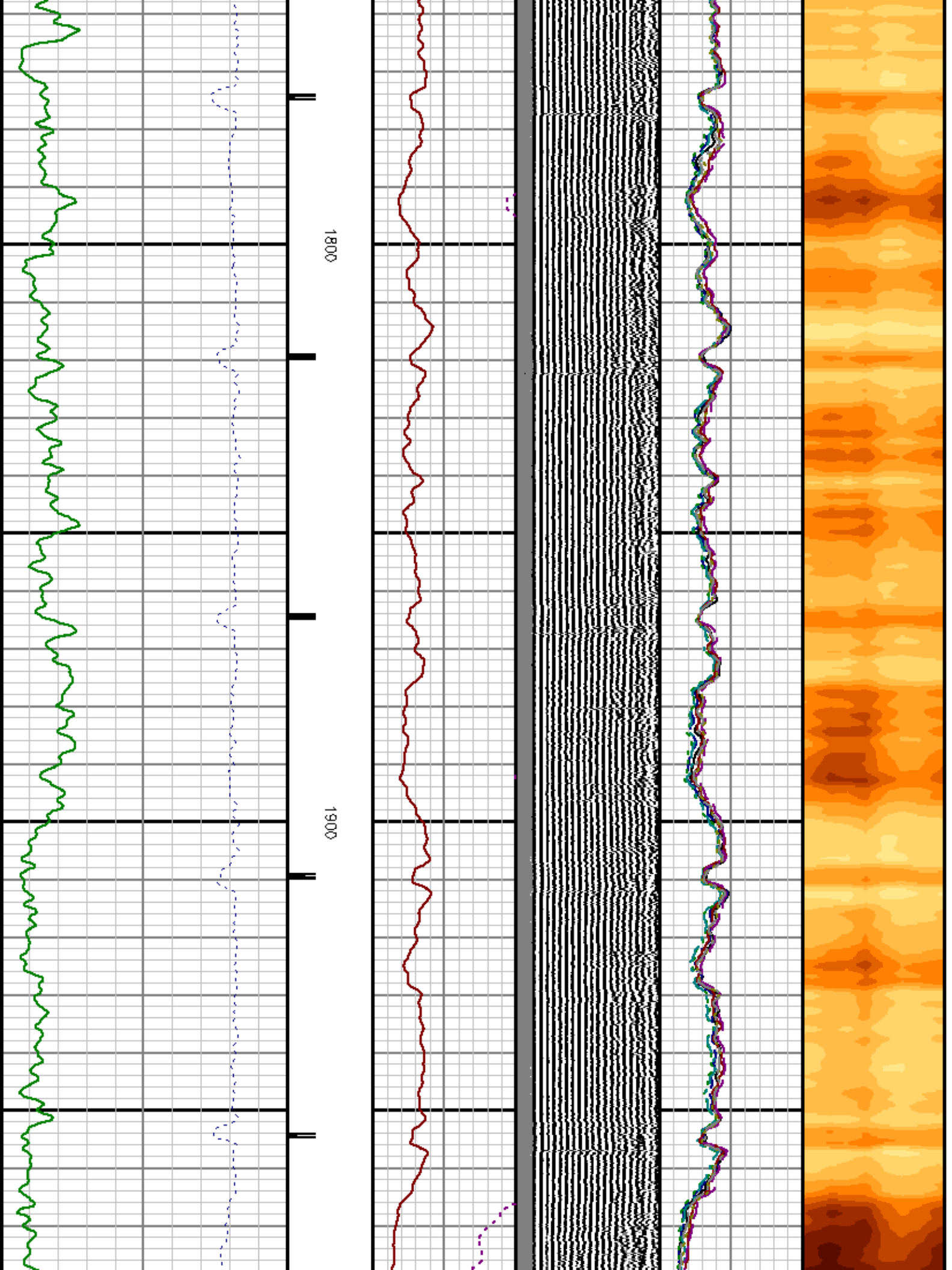
Created by : MIXED
 Plotted by : PlotMgr, v5.4.5D4
 Company : EXXONMOBIL PRODUCTION COMPANY
 Well : FRU 197-33AB
 File Name : d:\welldata\rodaB\main2.xtf
 Mode : PlotMgr 5.4.5D4
 Interval : 1000.00 - 12157.00 feet UP
 Created : 4/23/2010 4:45:18 AM

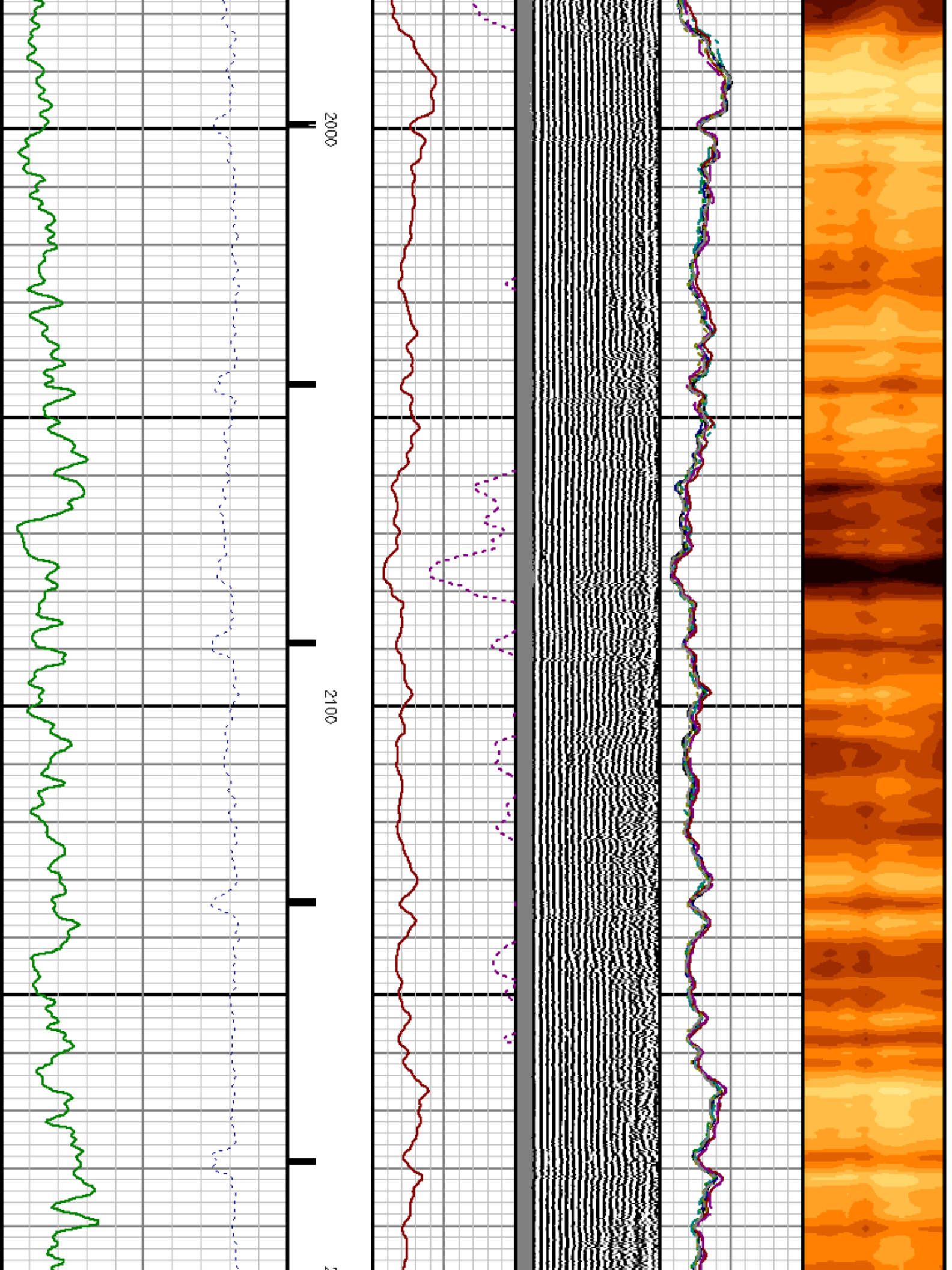


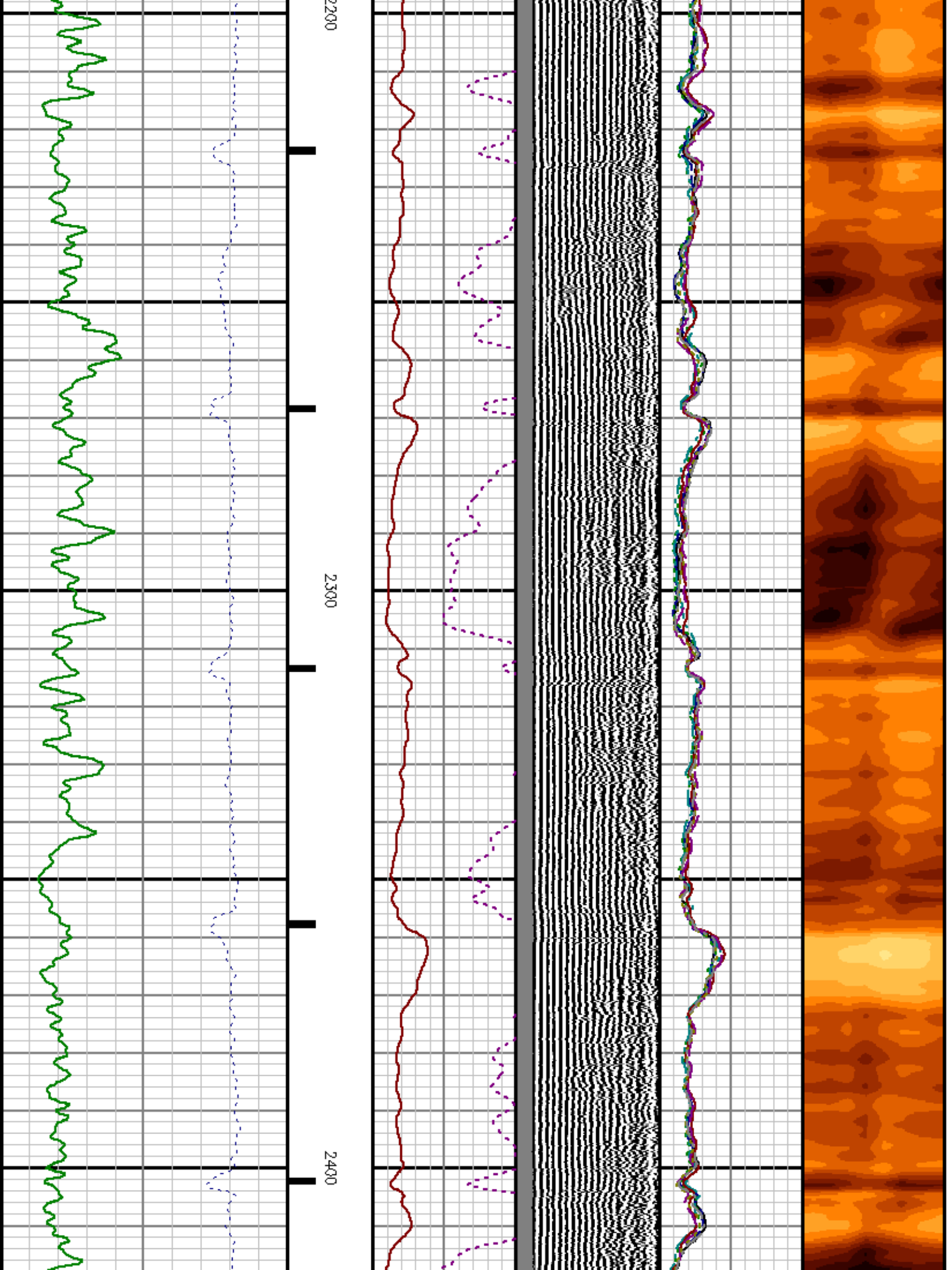


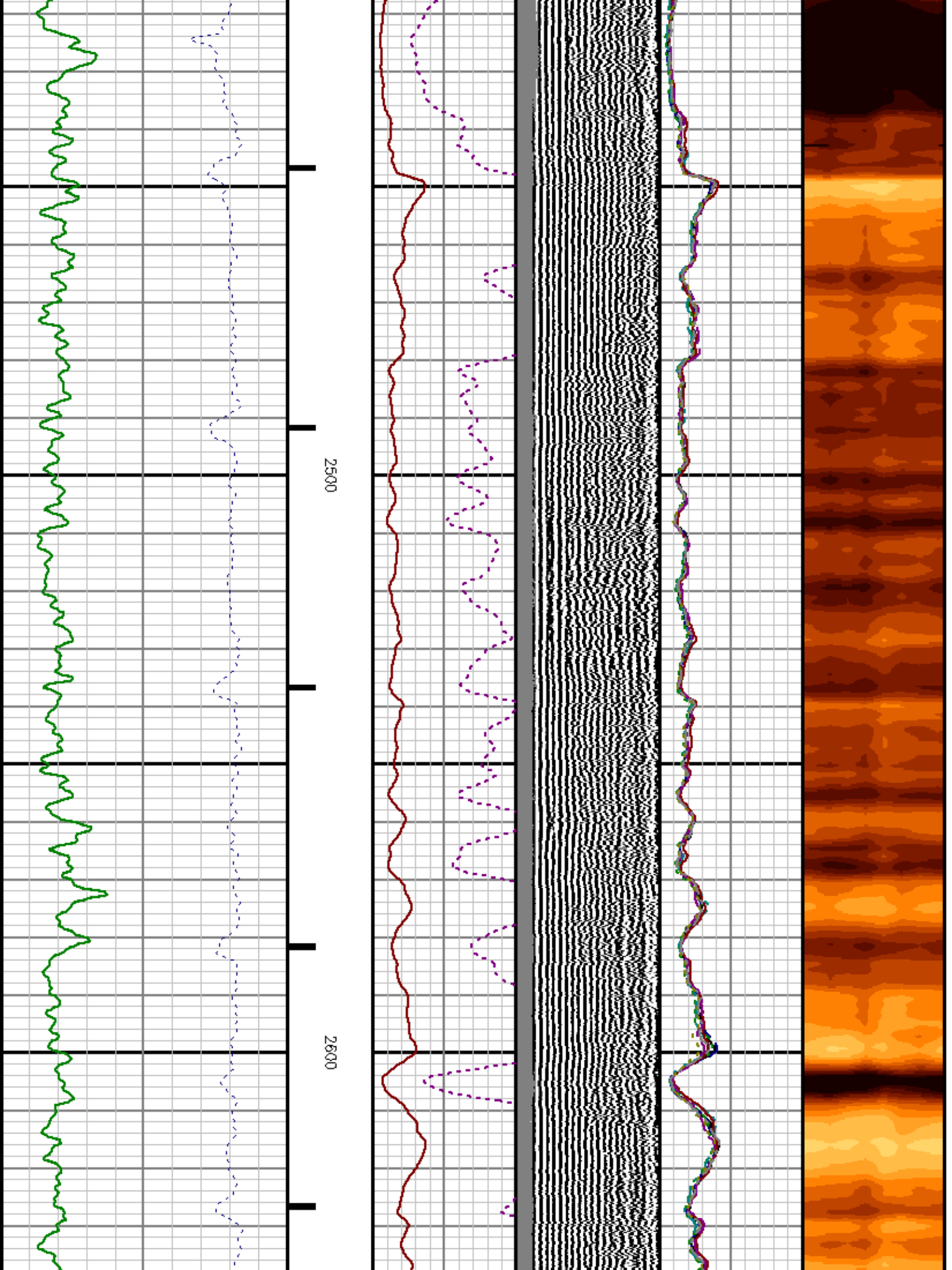


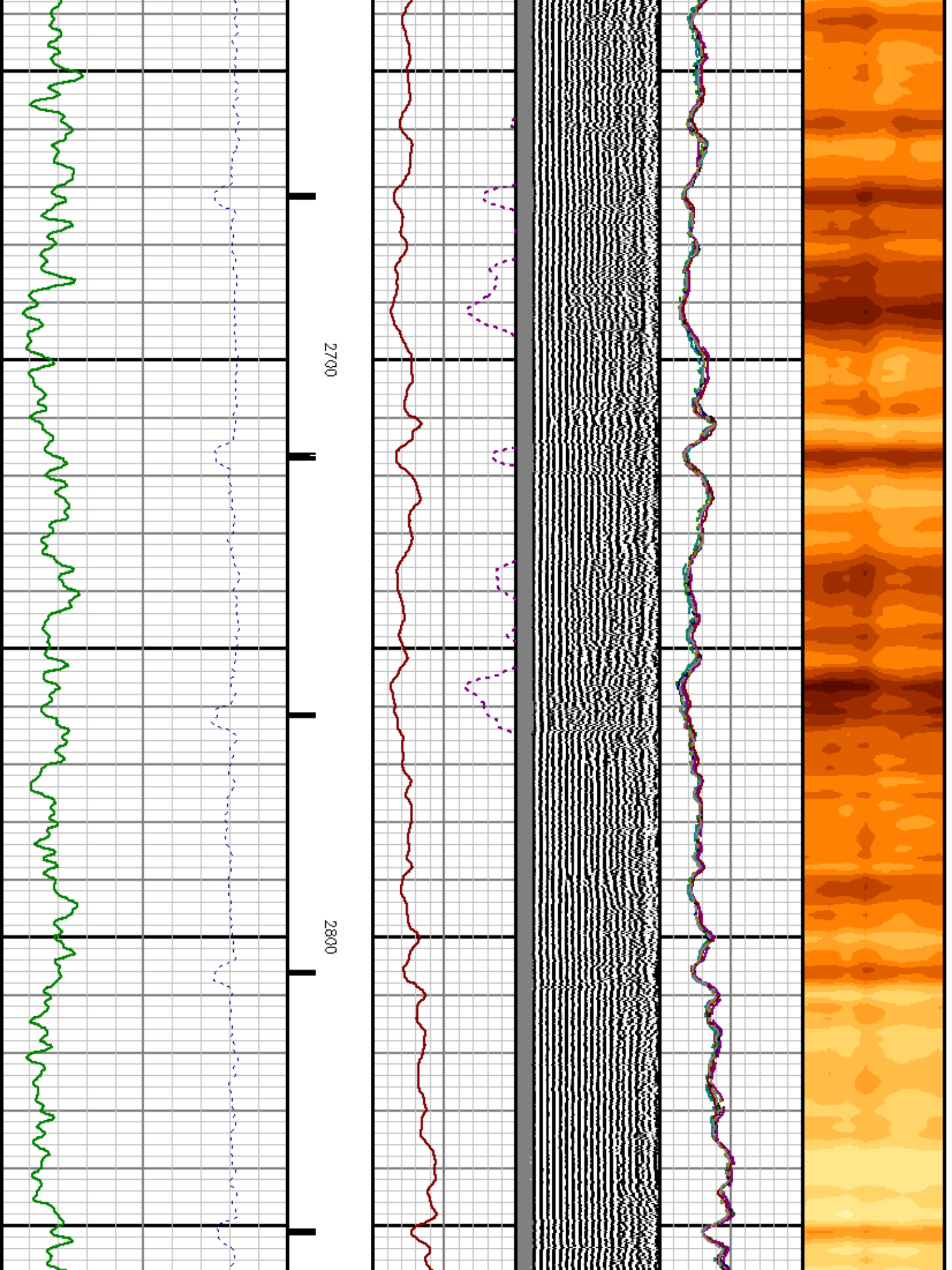


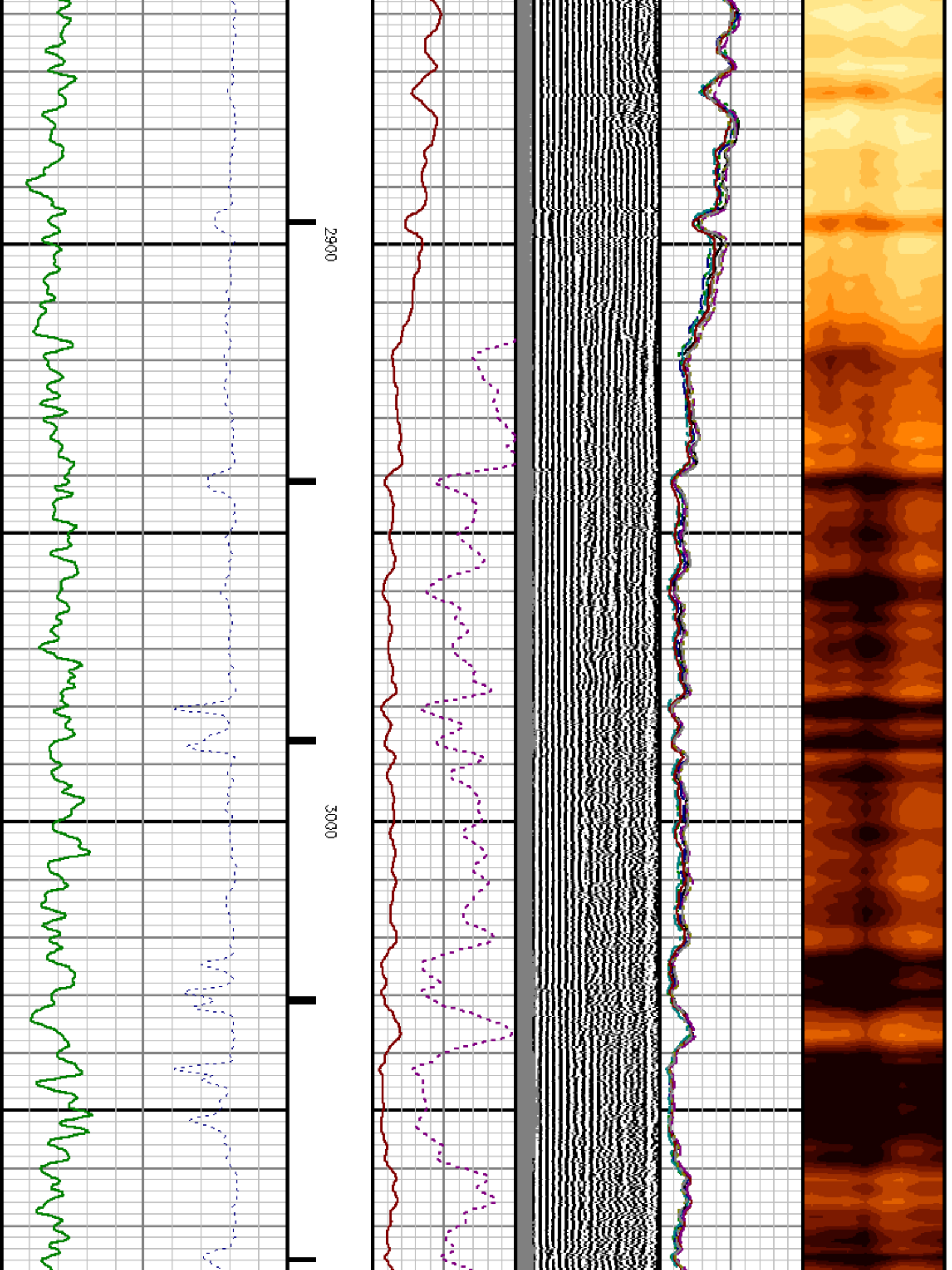


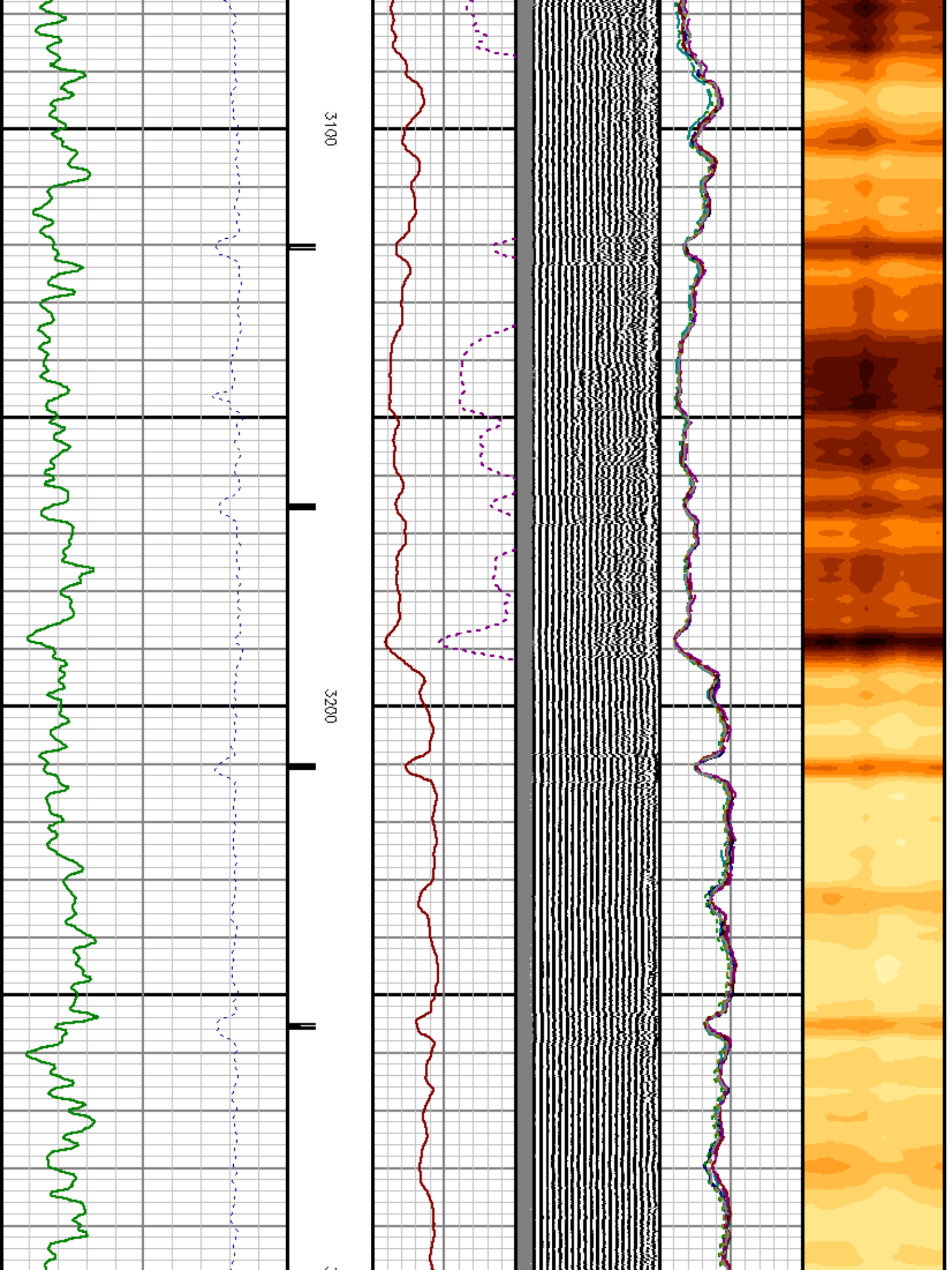


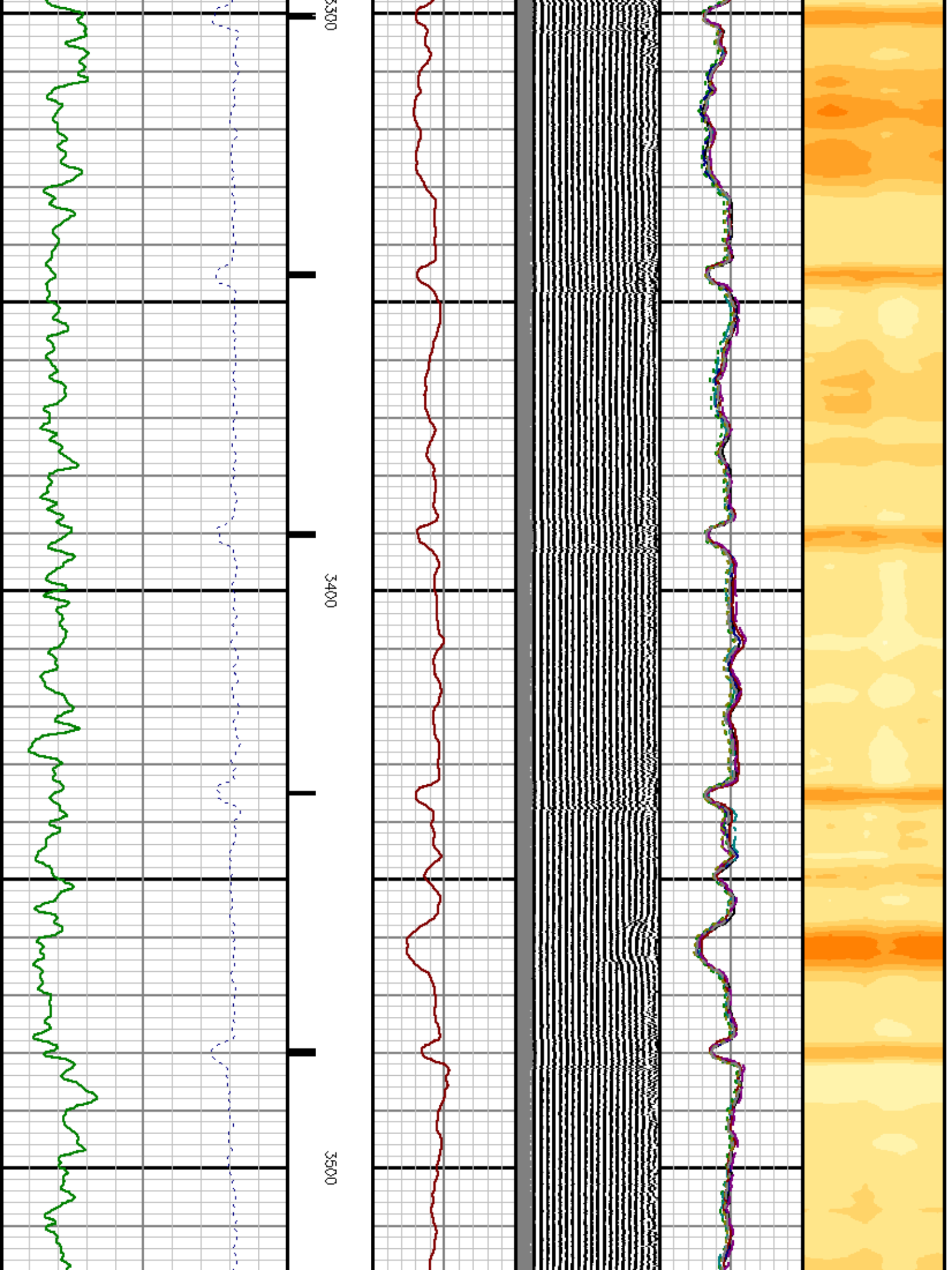


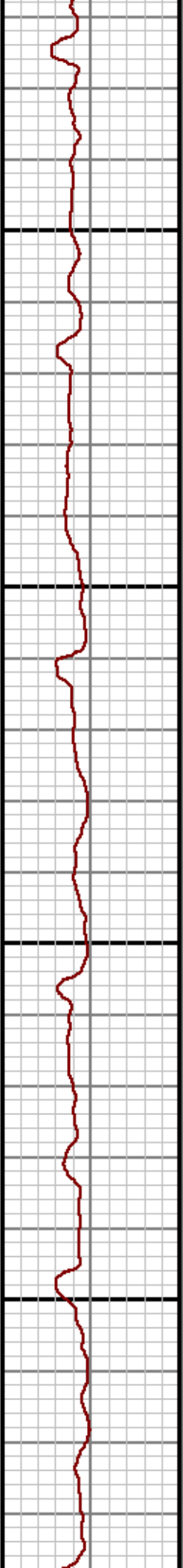
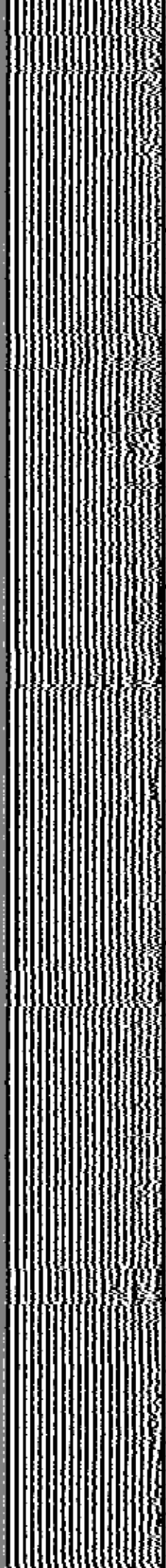
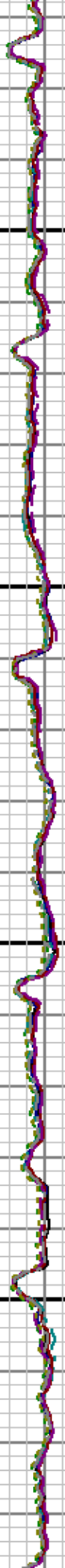






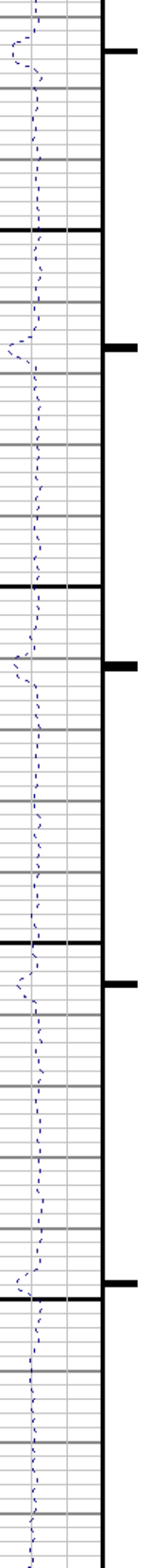


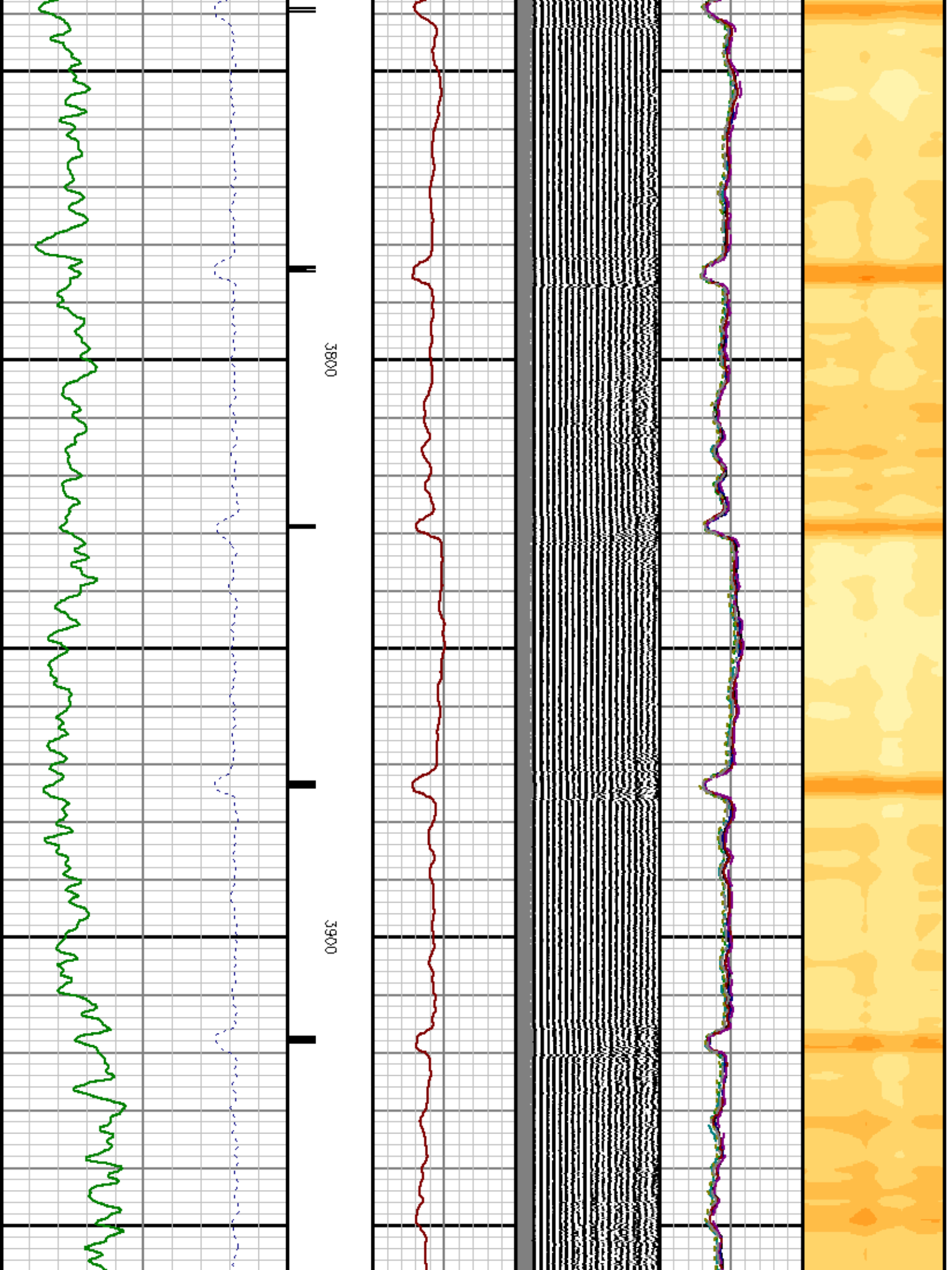


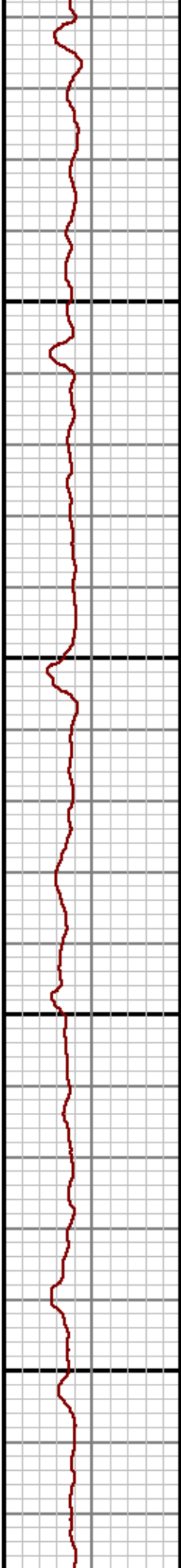
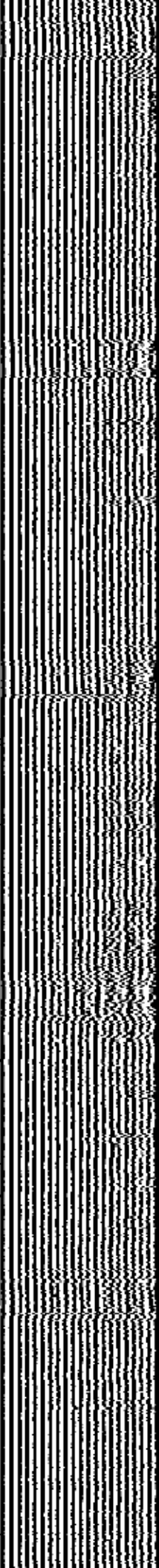
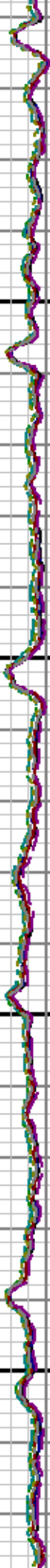
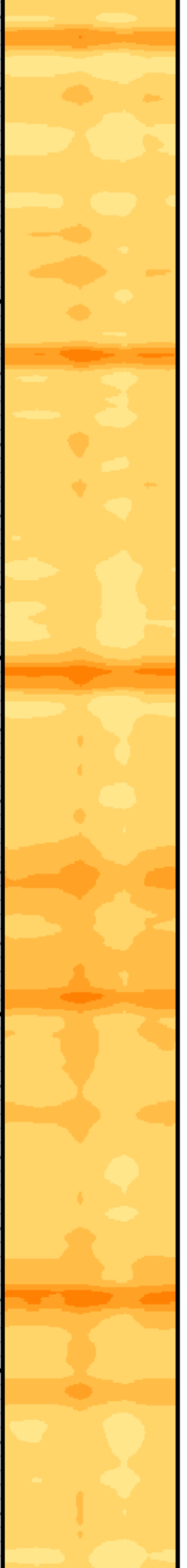


3600

3700



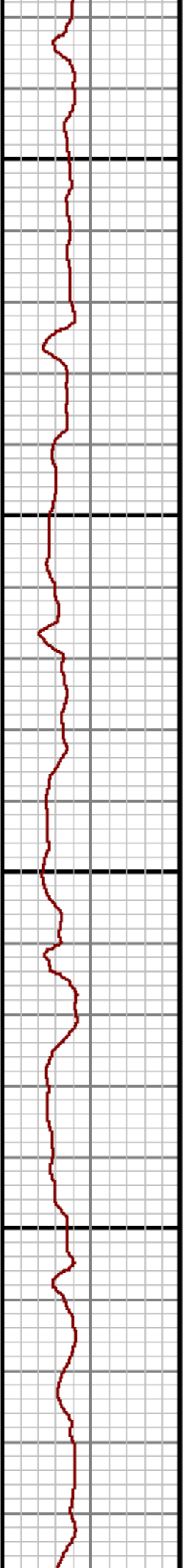
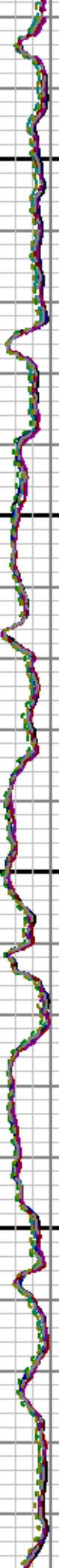




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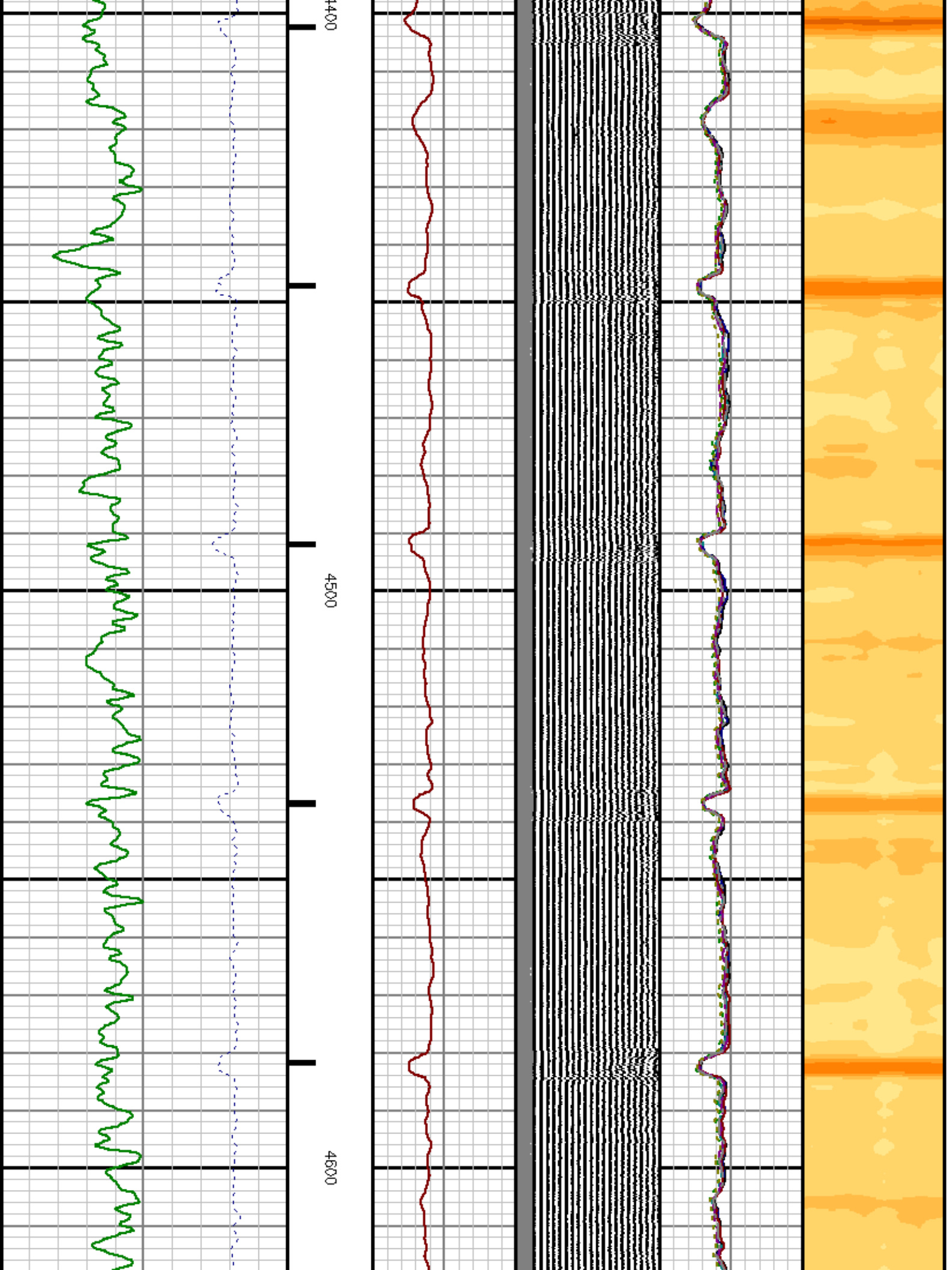


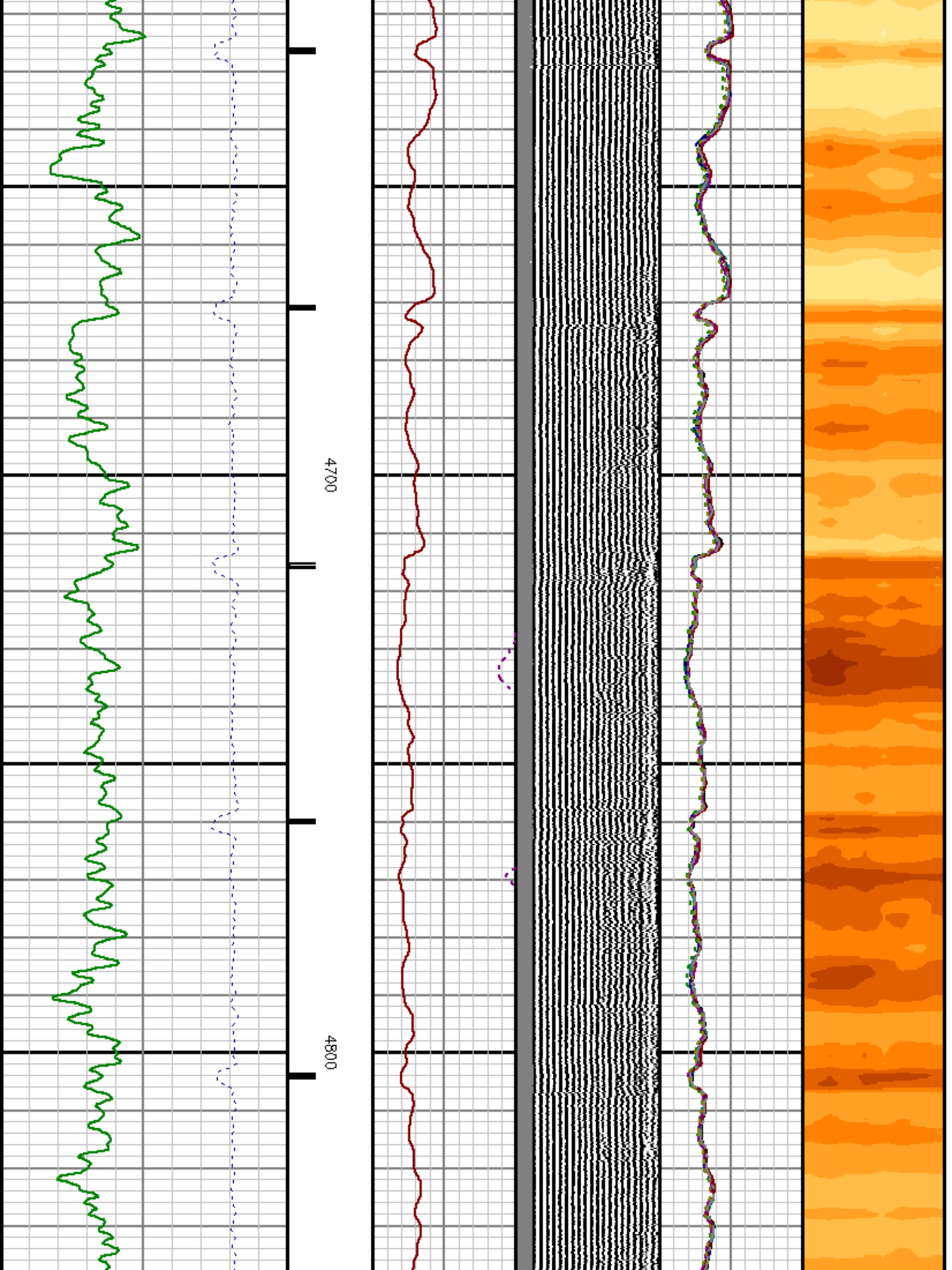


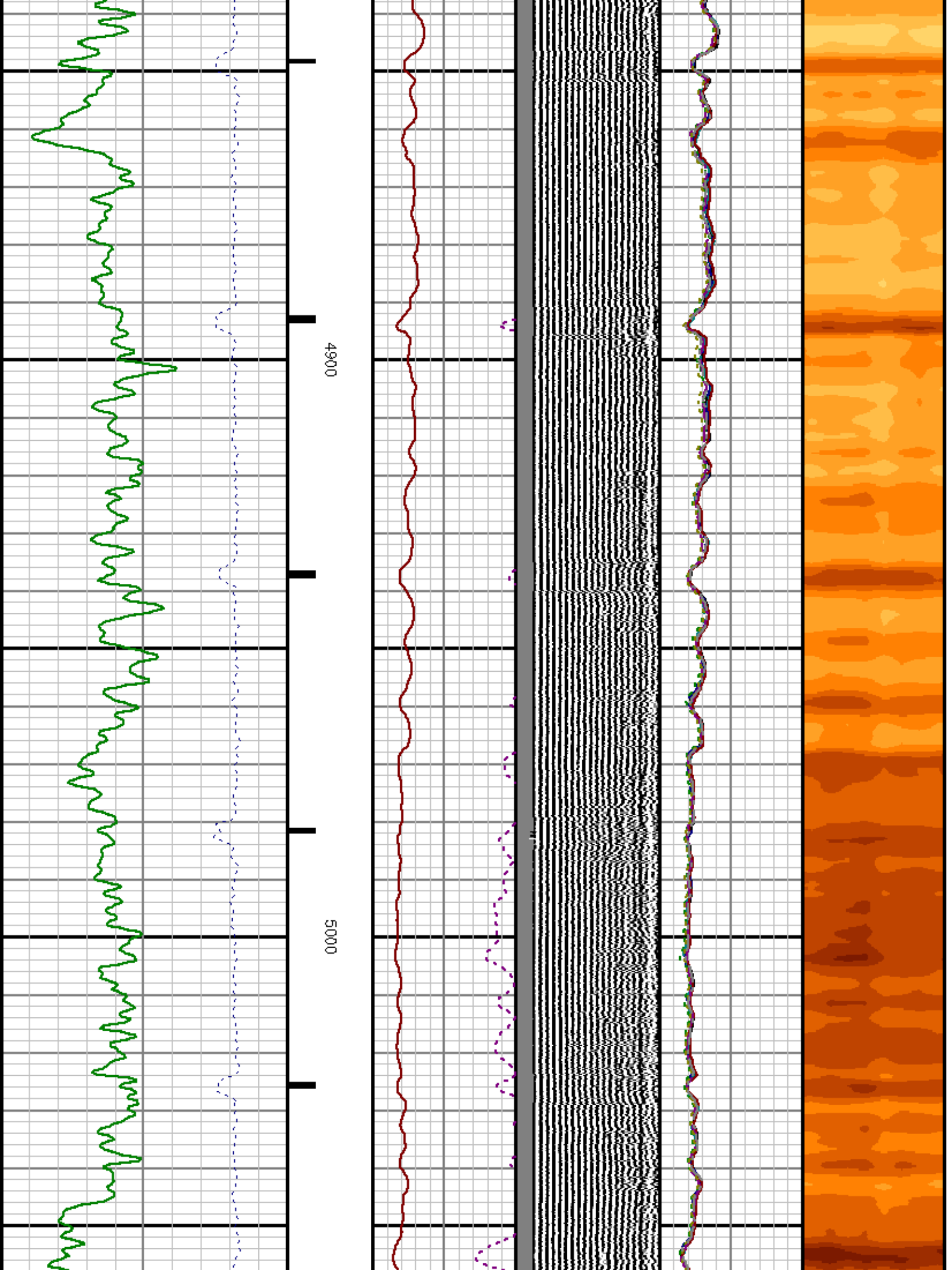
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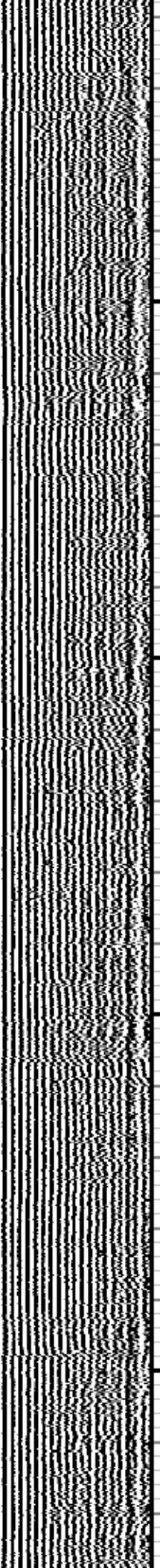
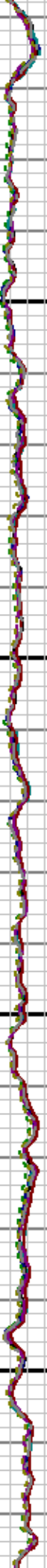
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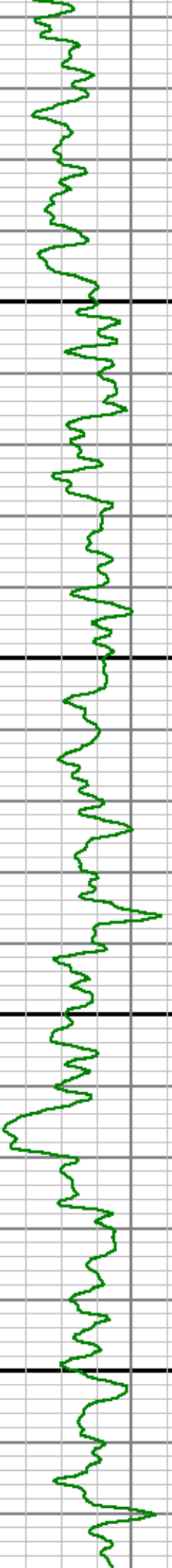
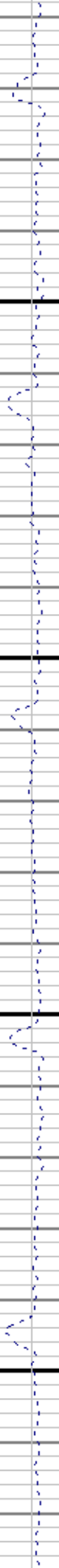


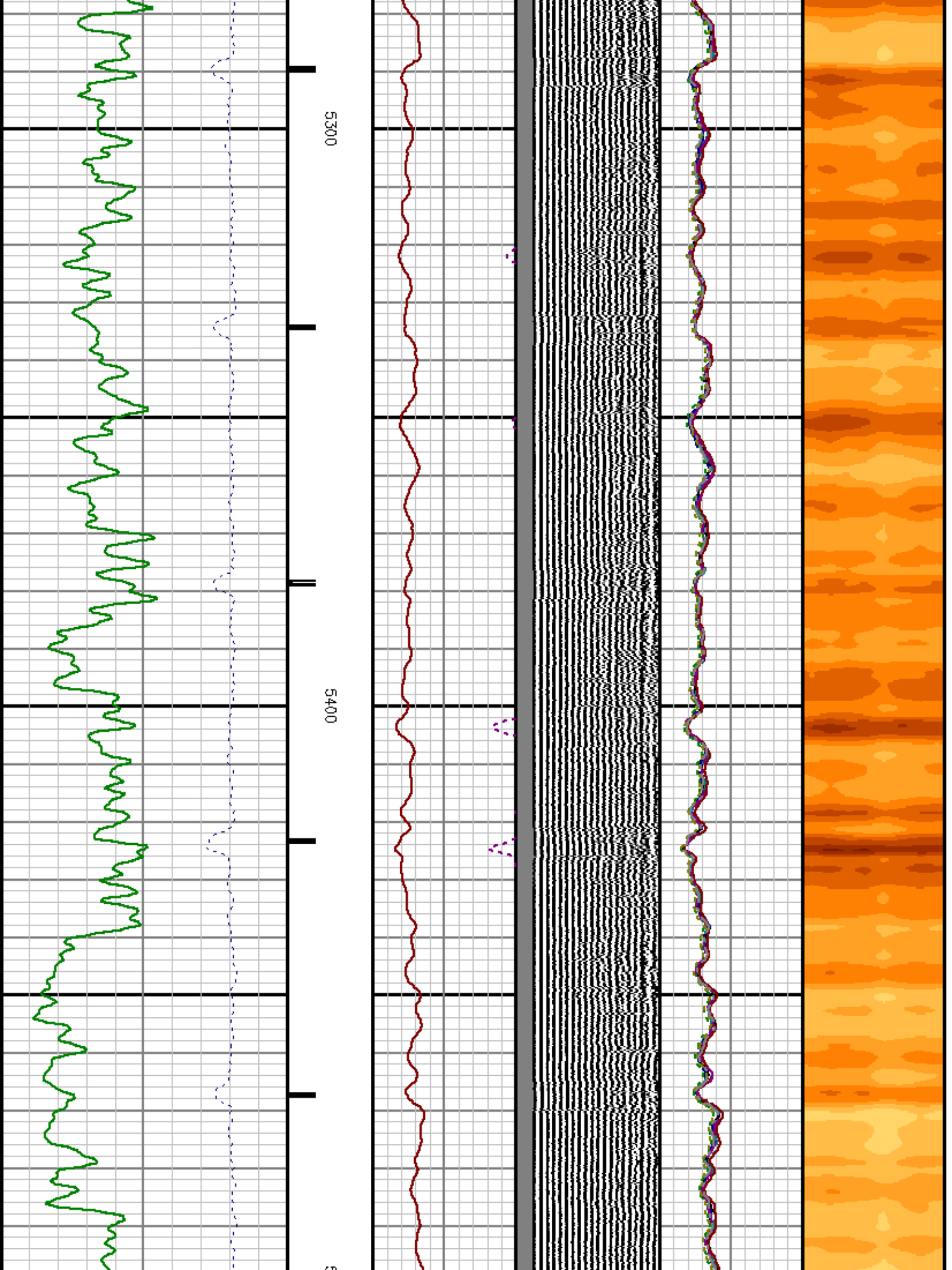


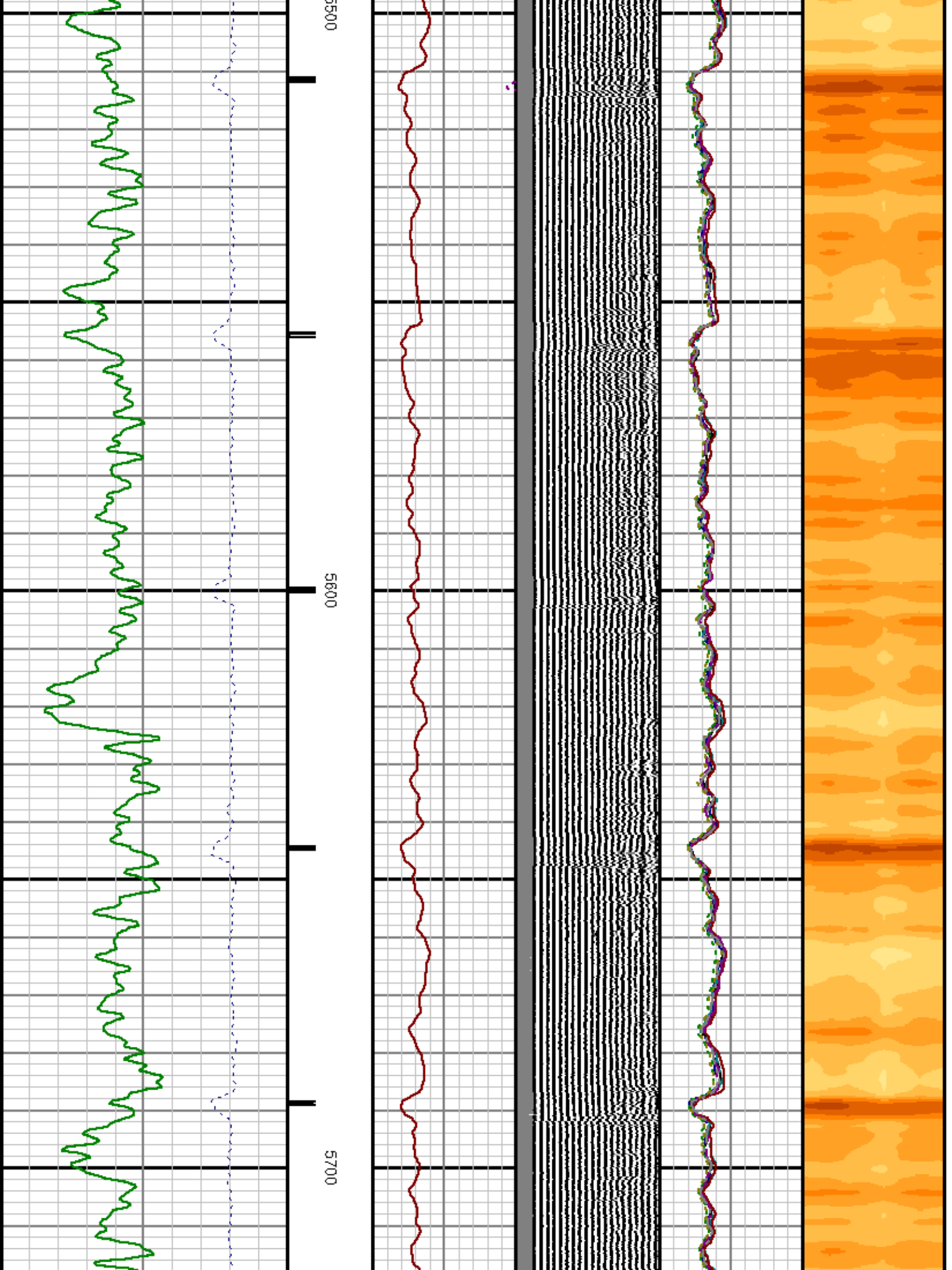


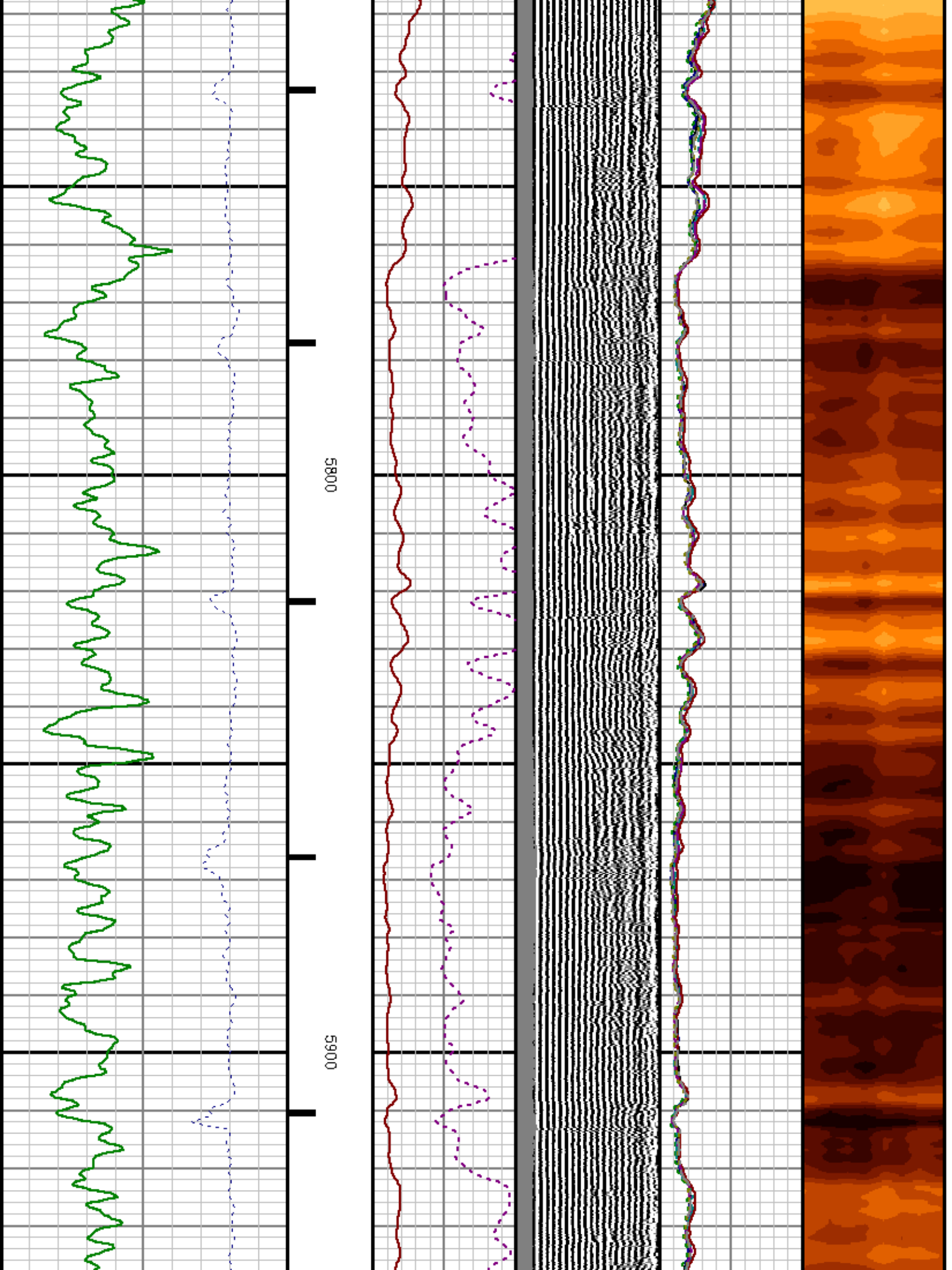
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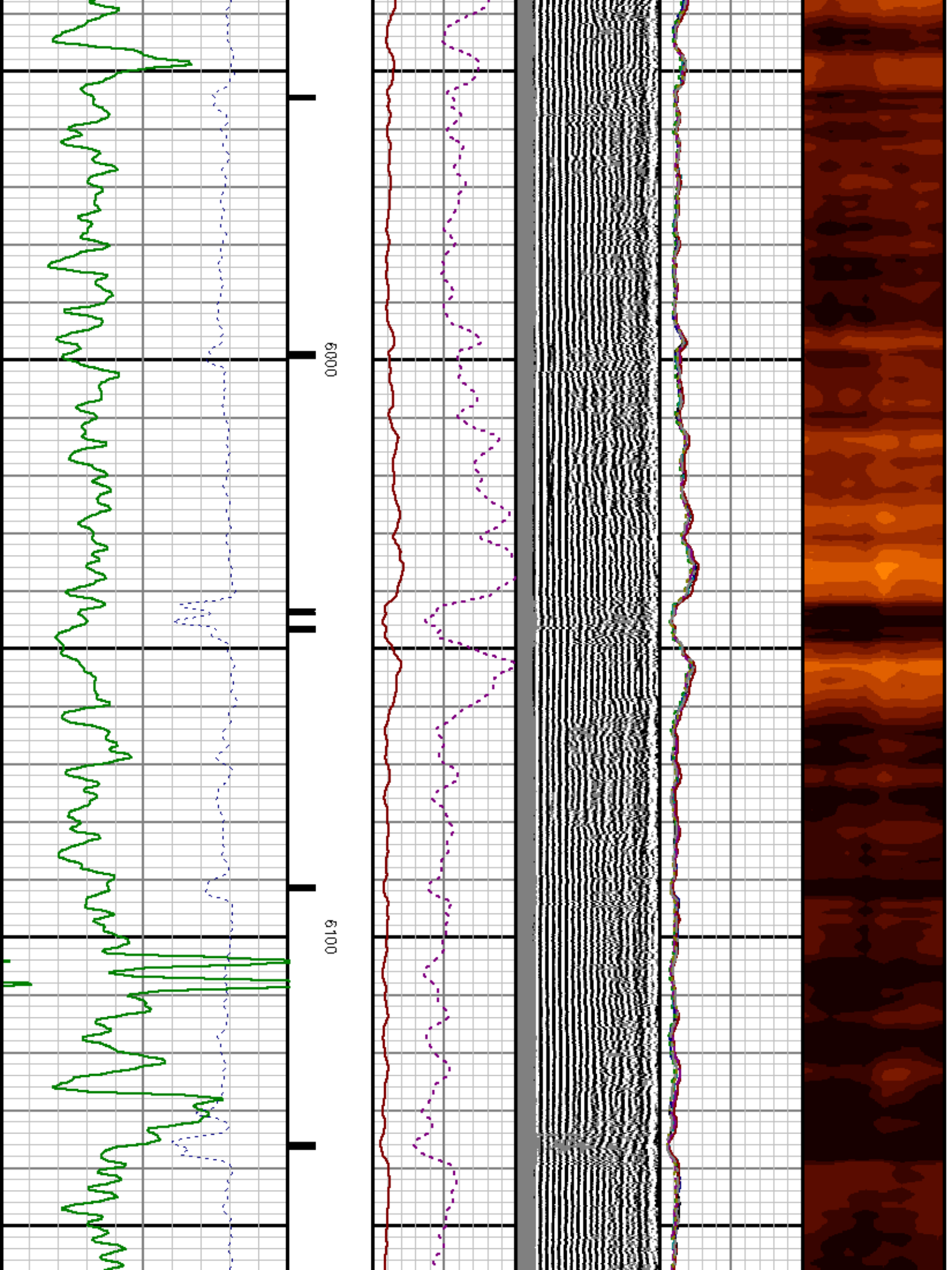
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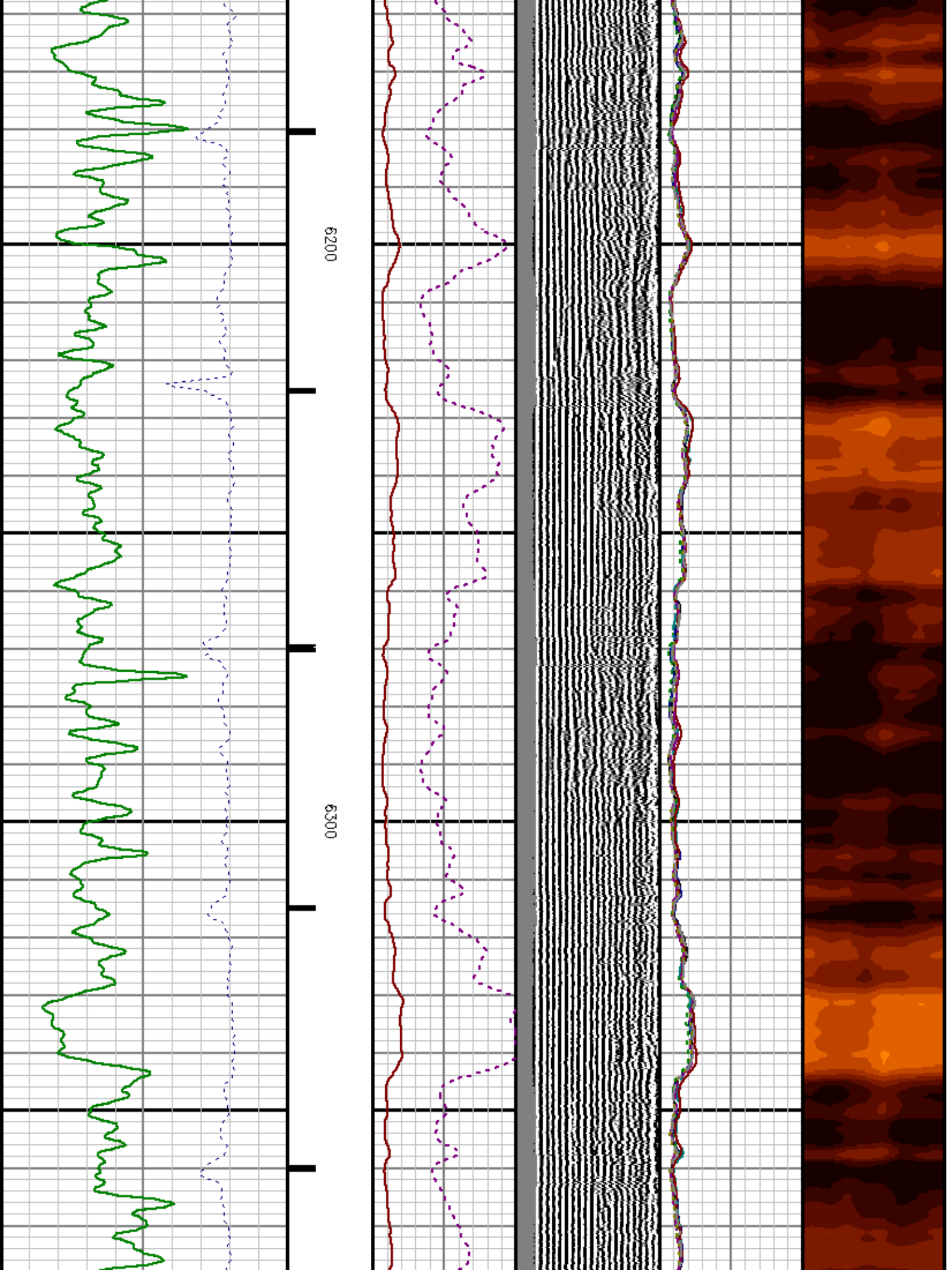


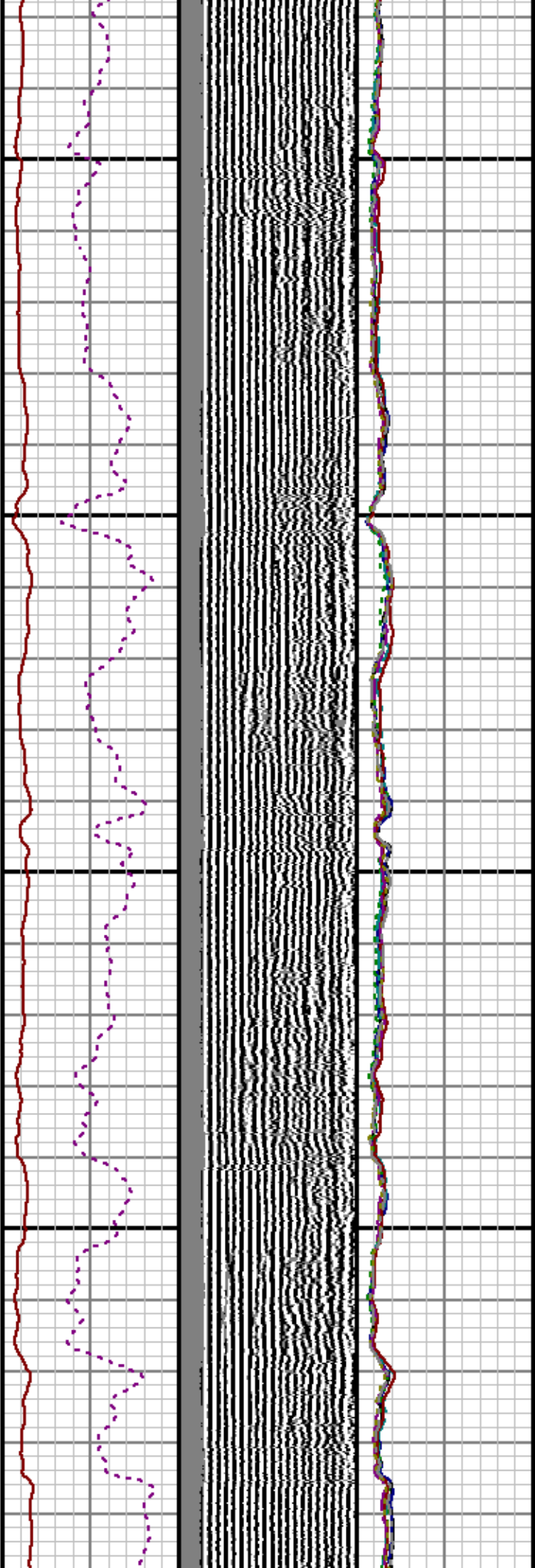
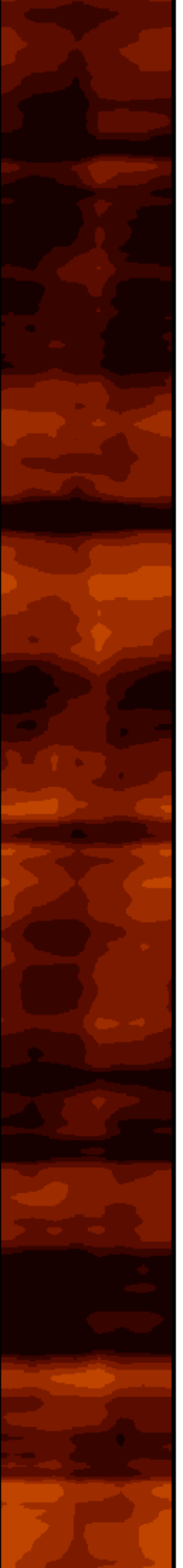








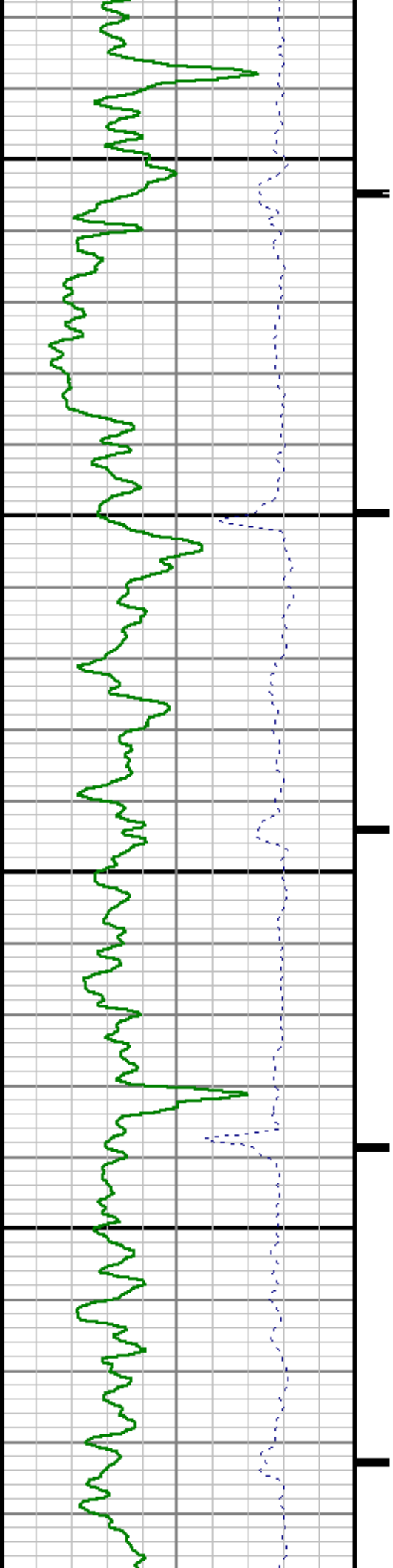


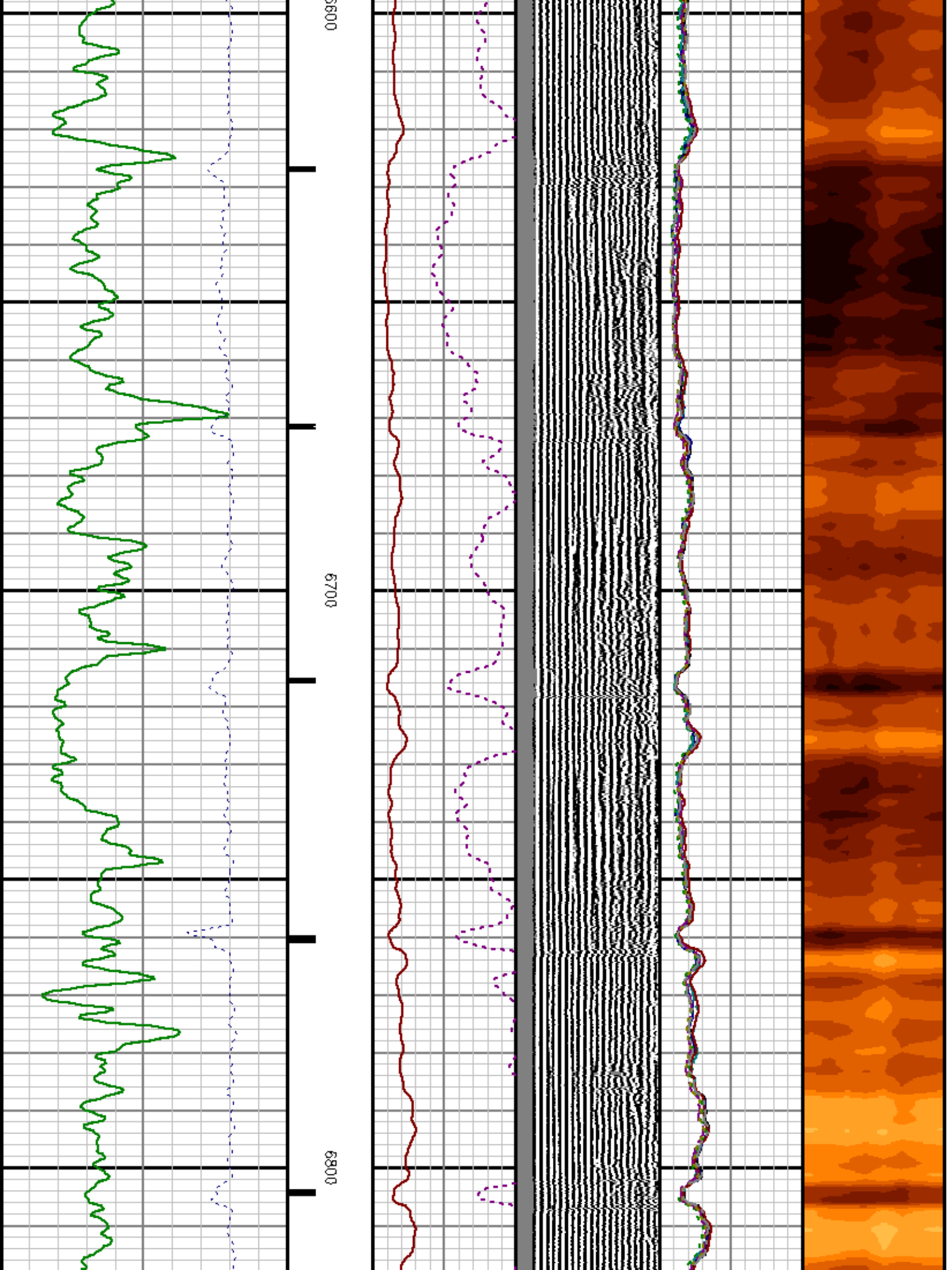


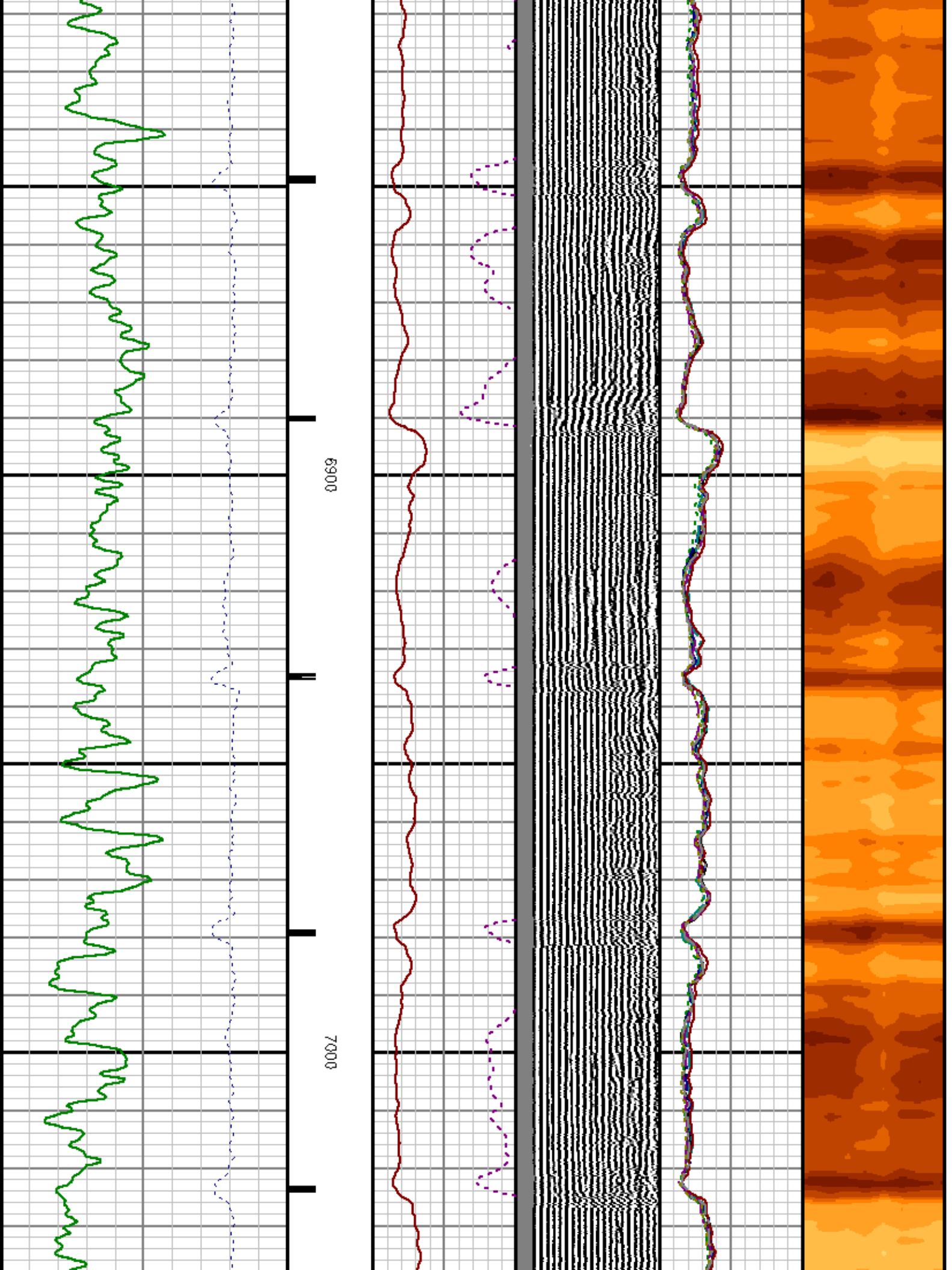
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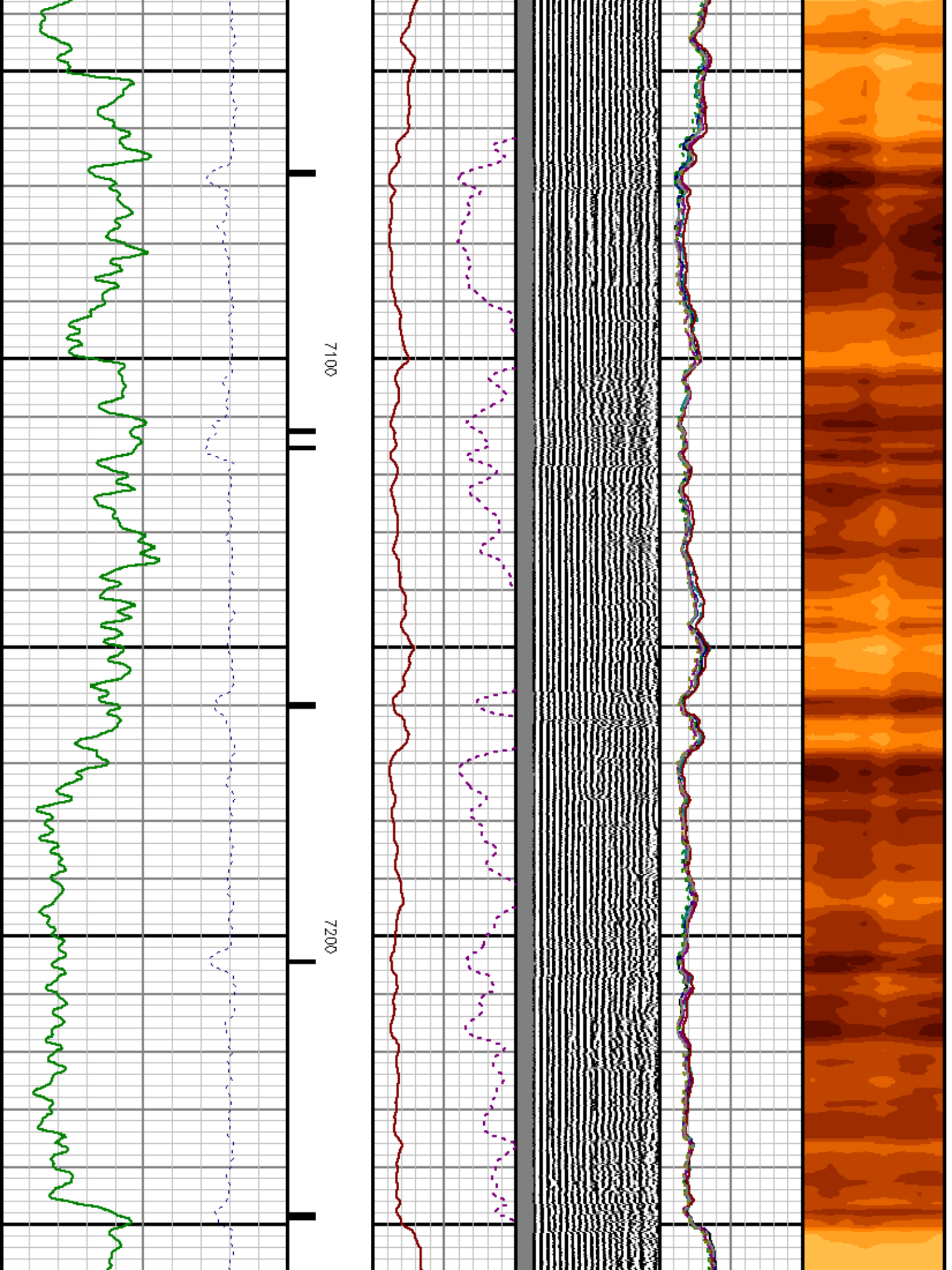
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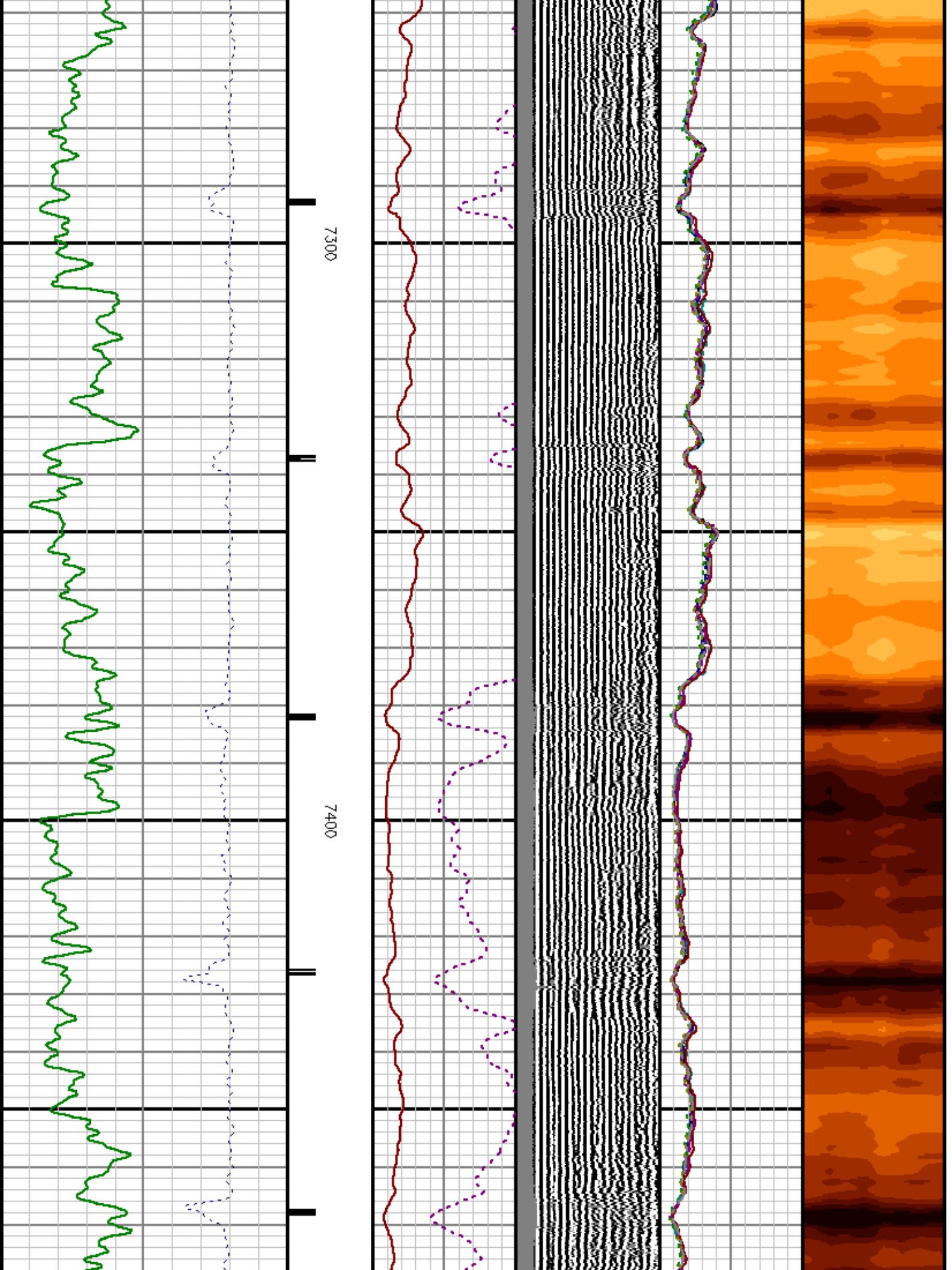
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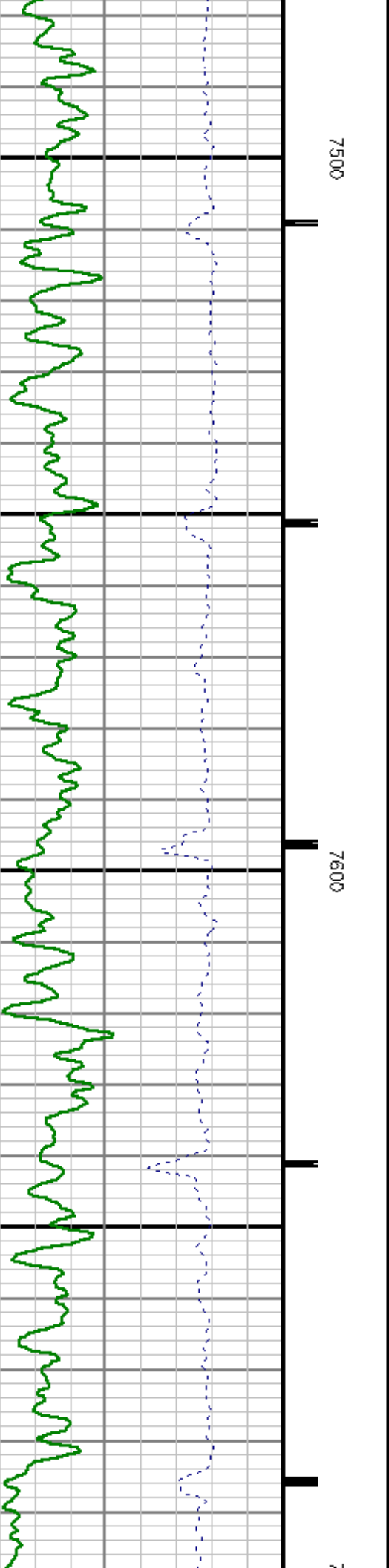
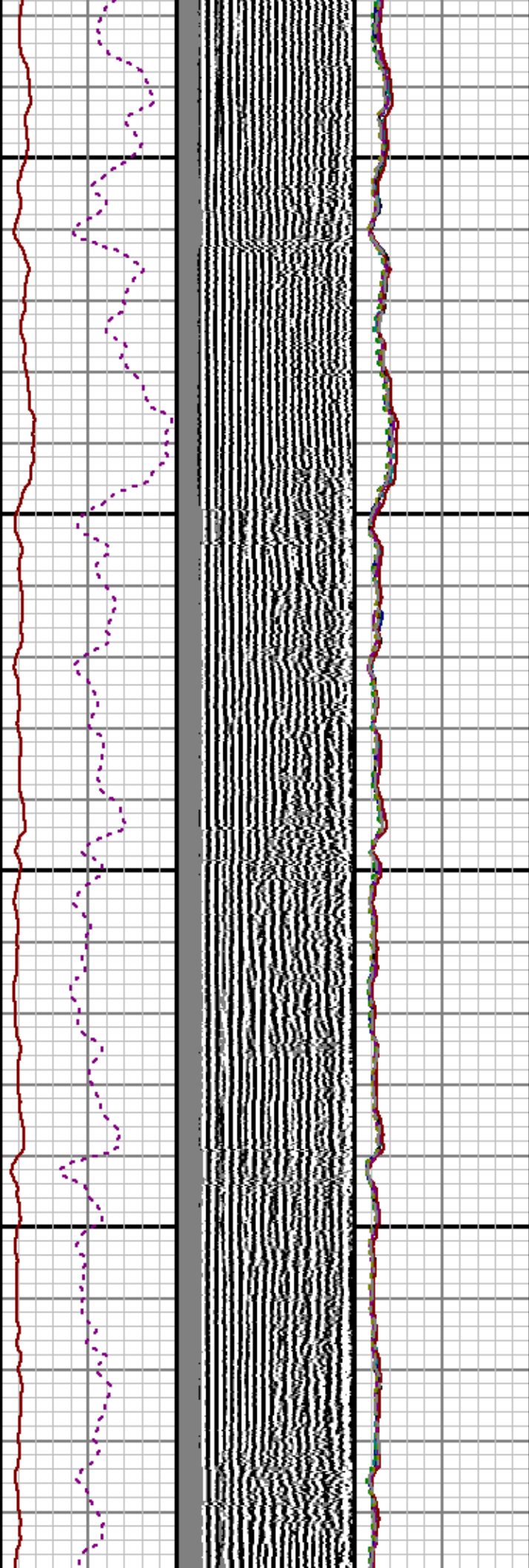
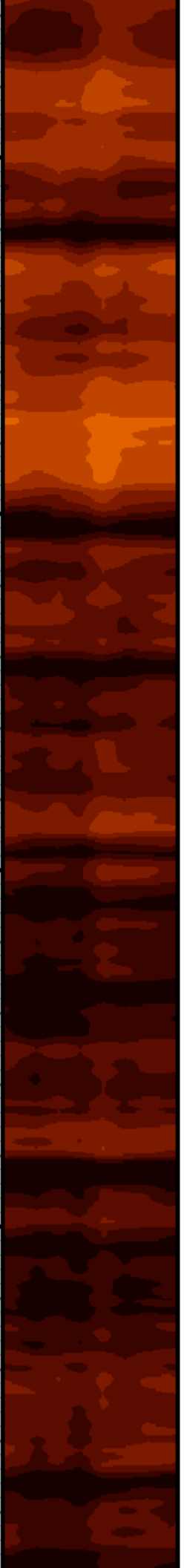


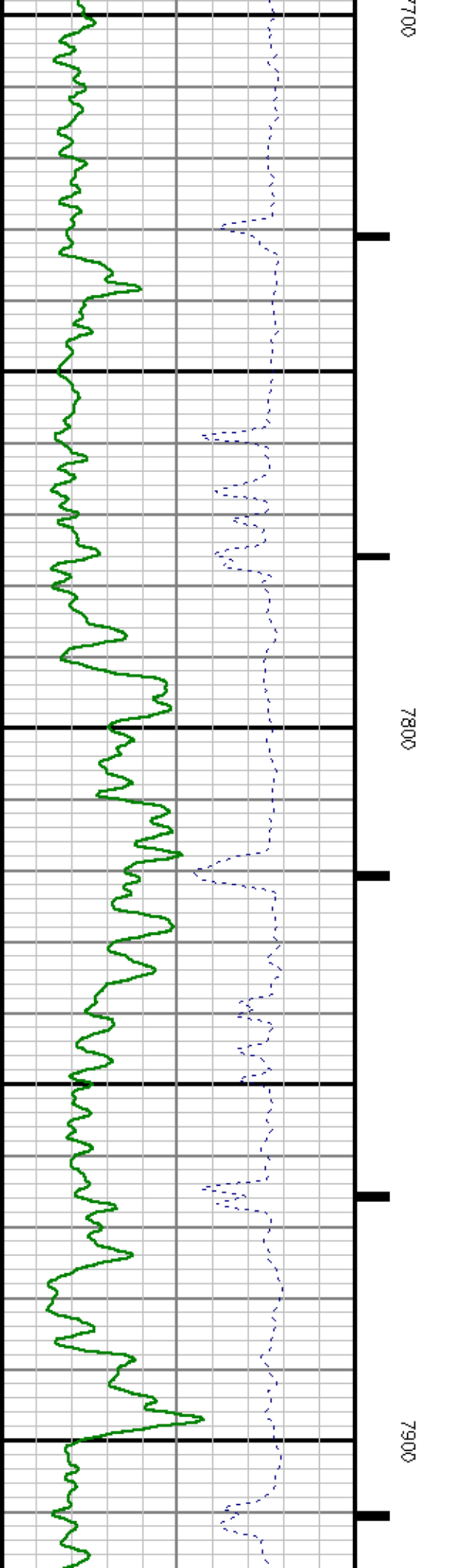
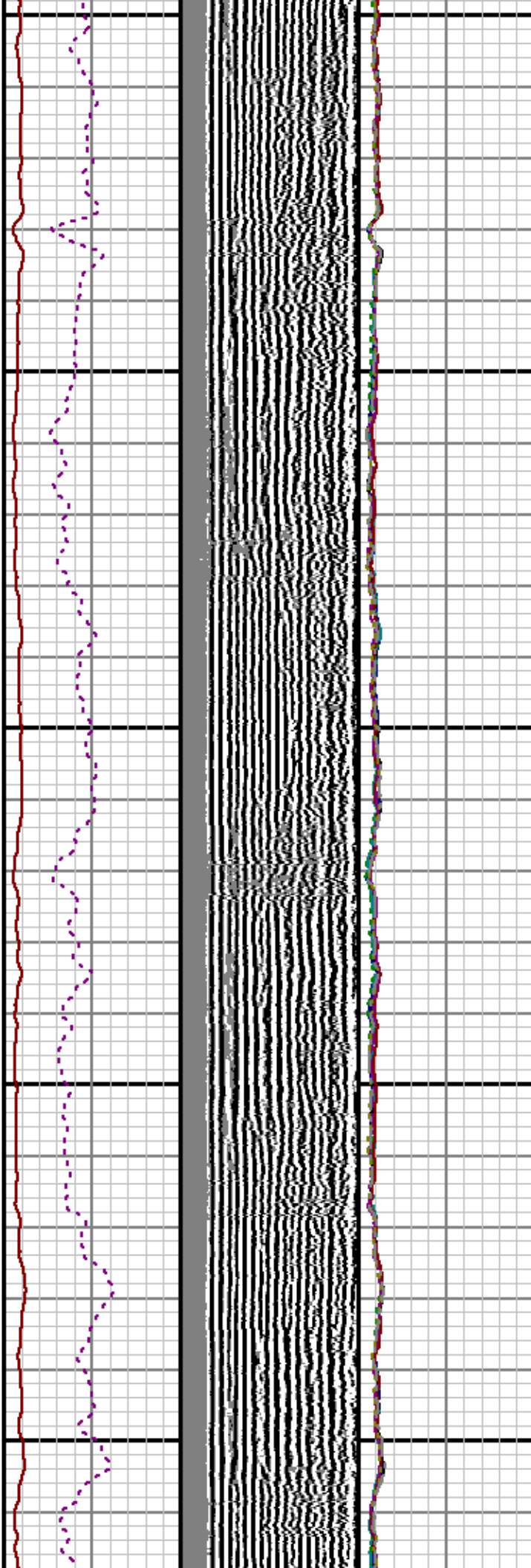
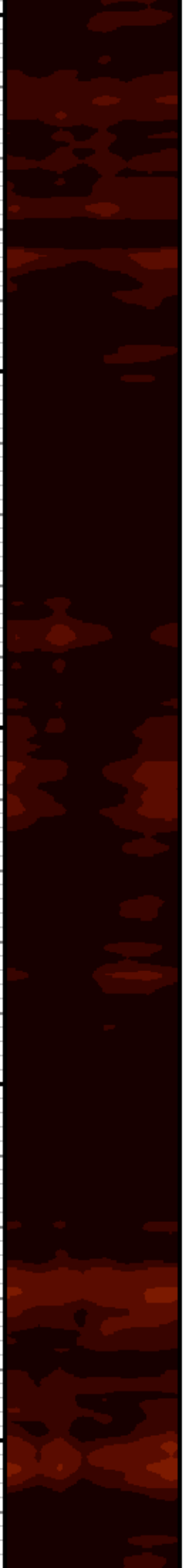


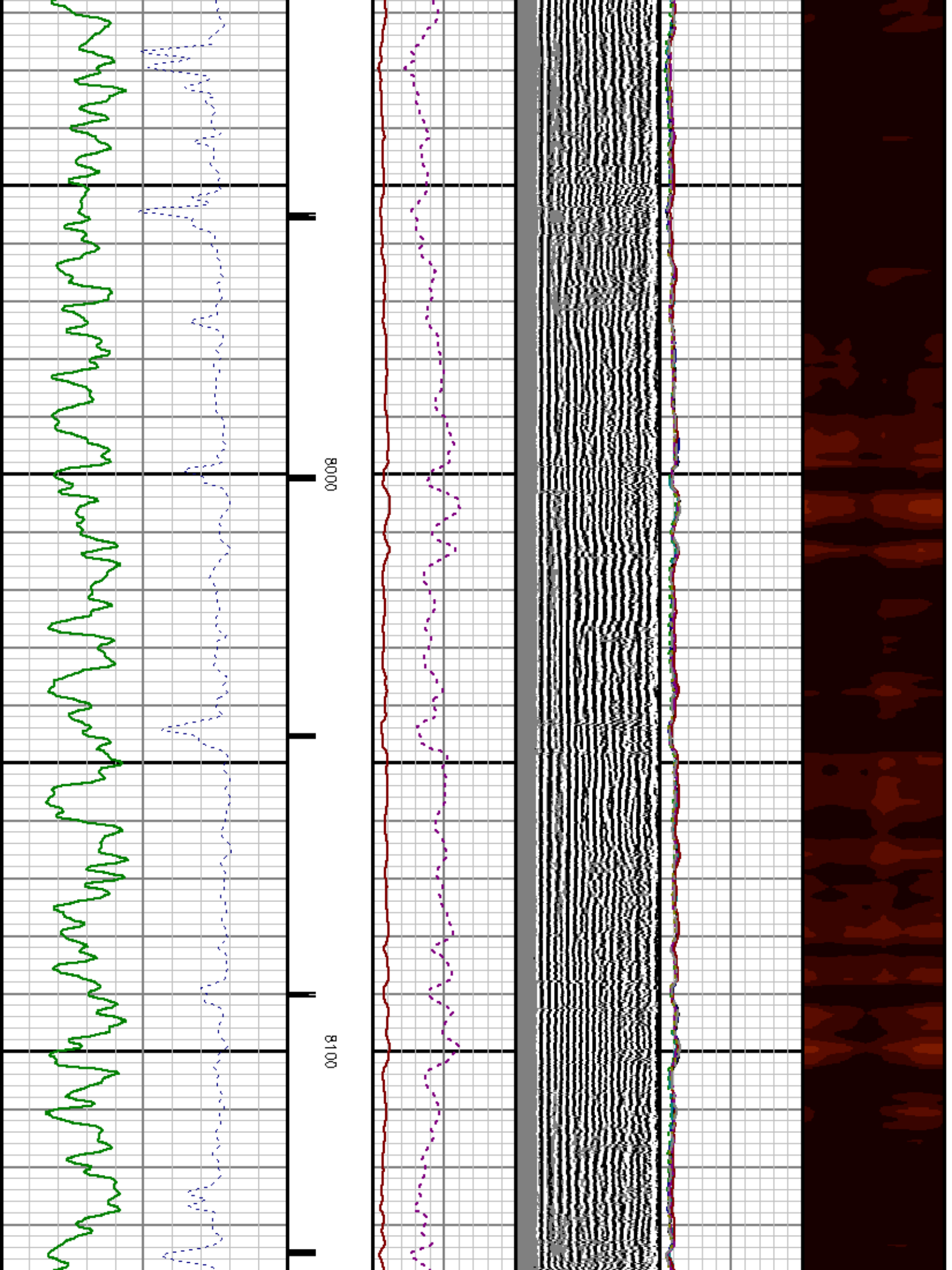


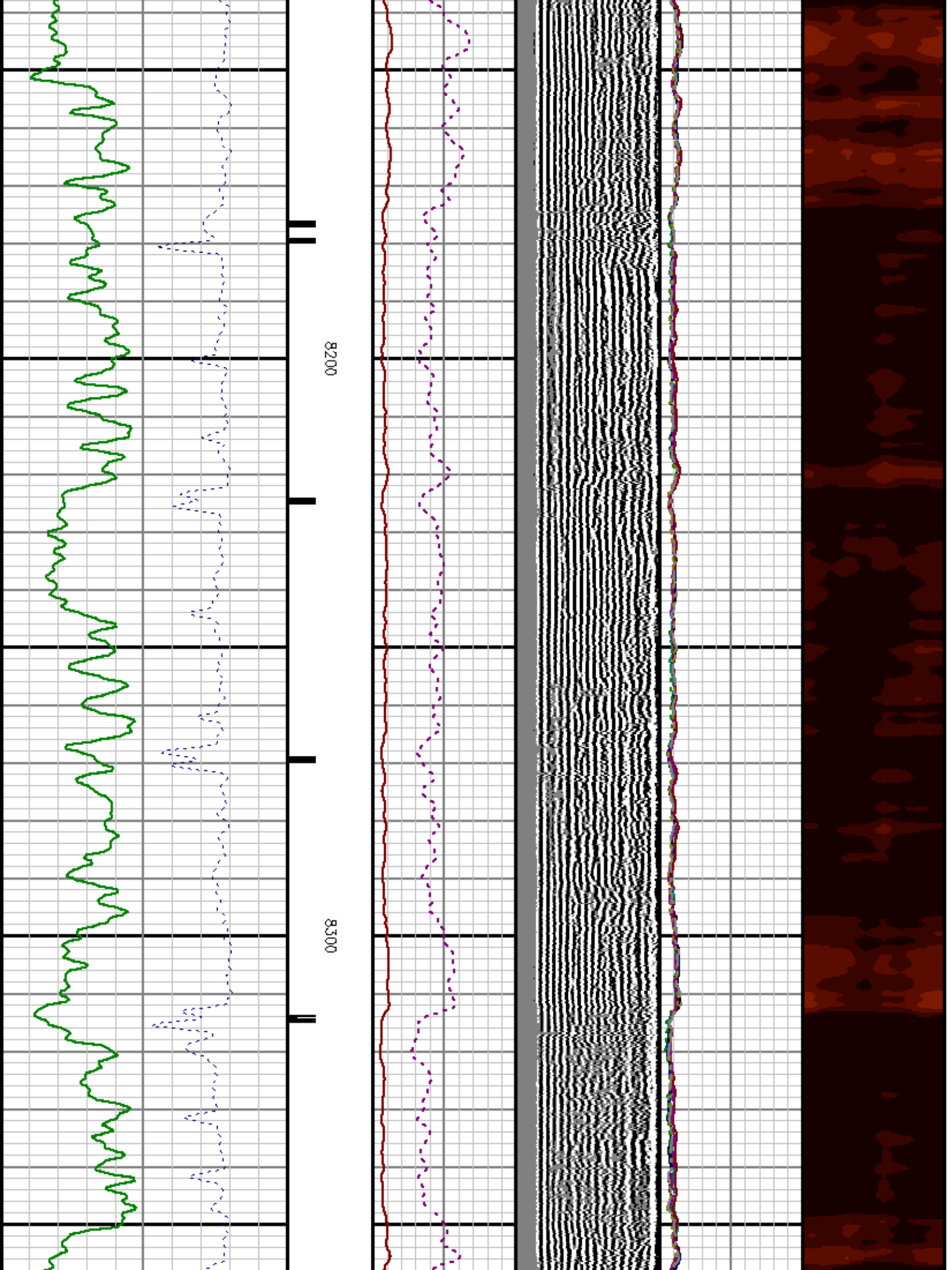


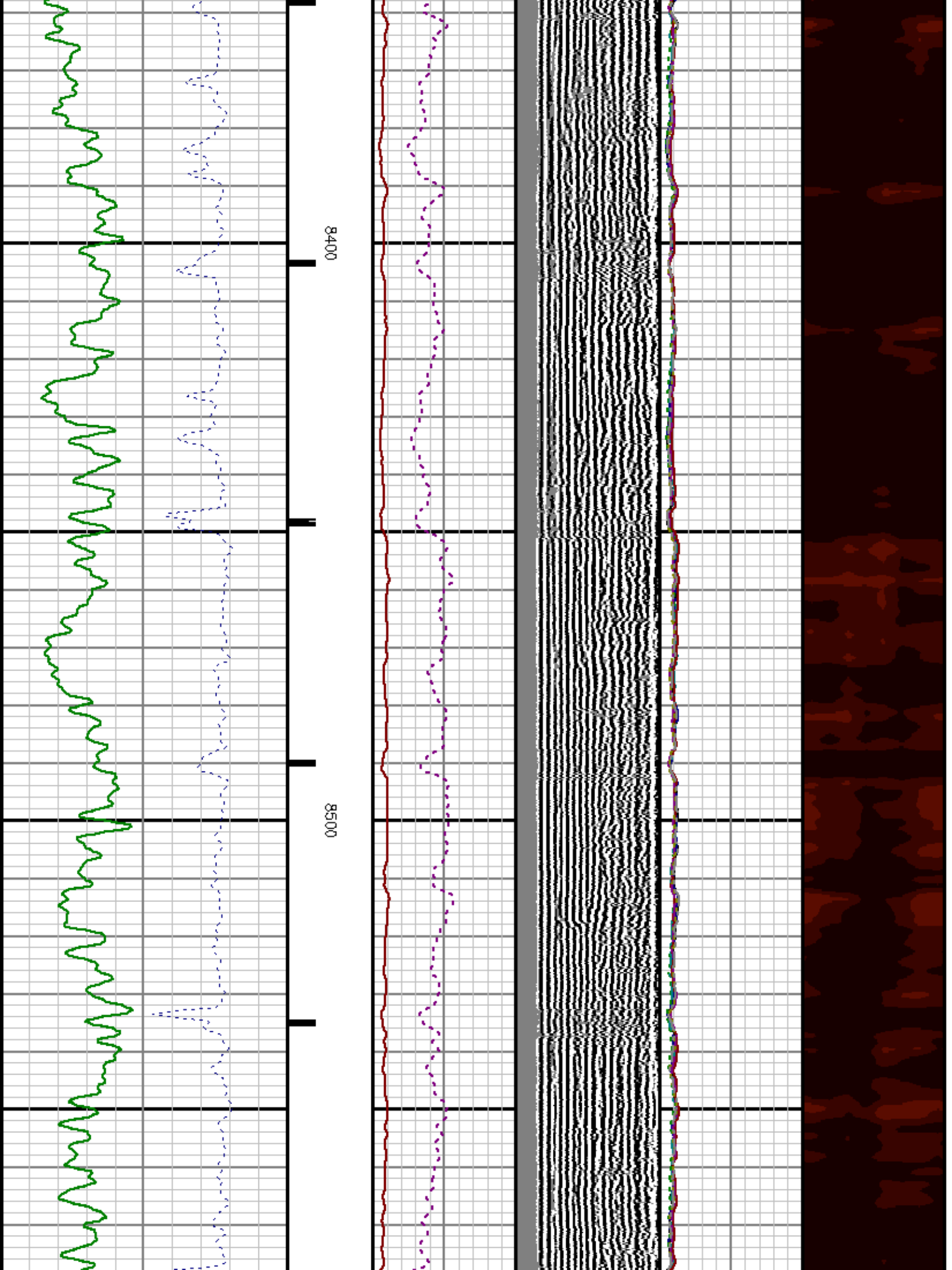


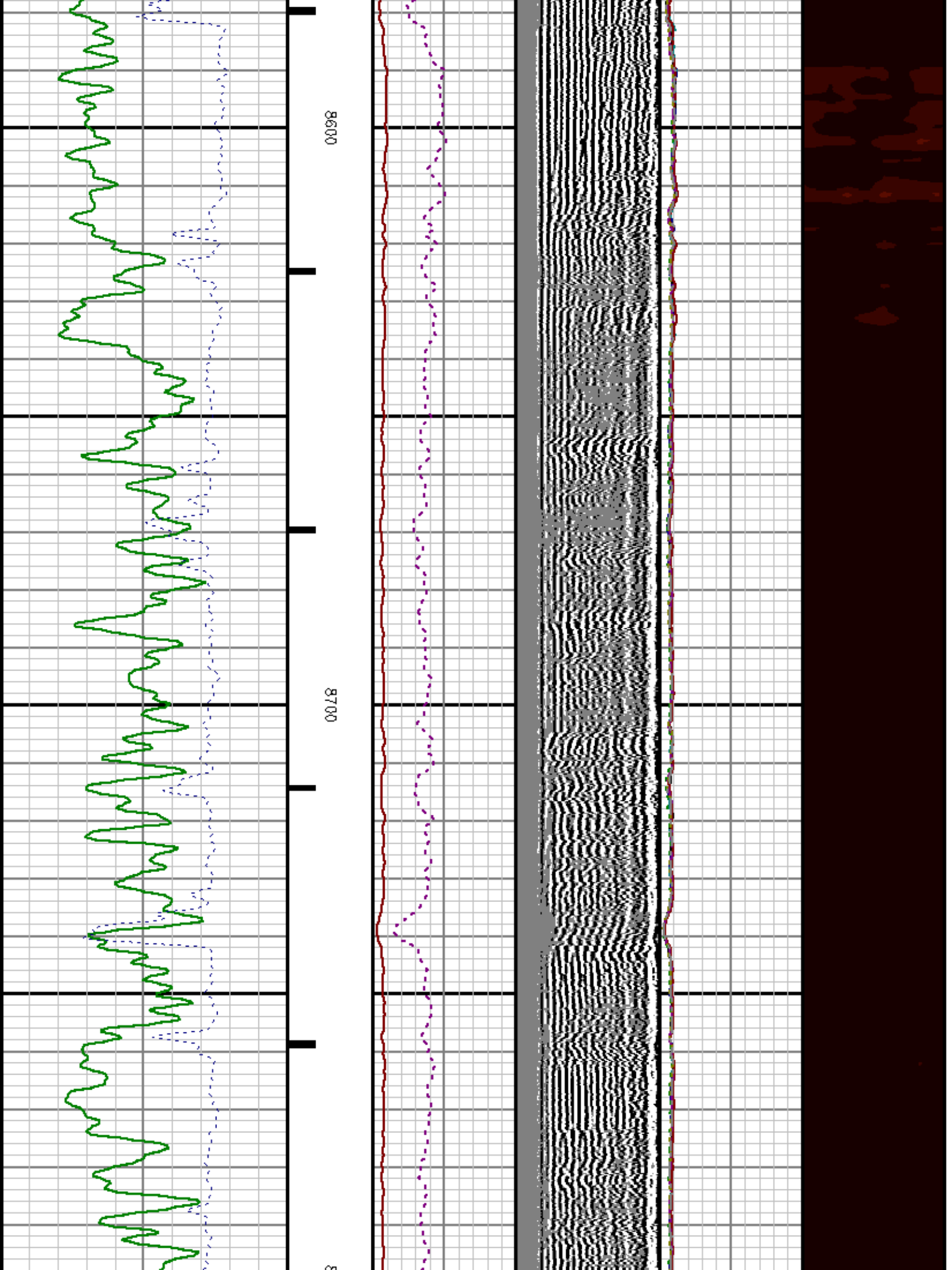


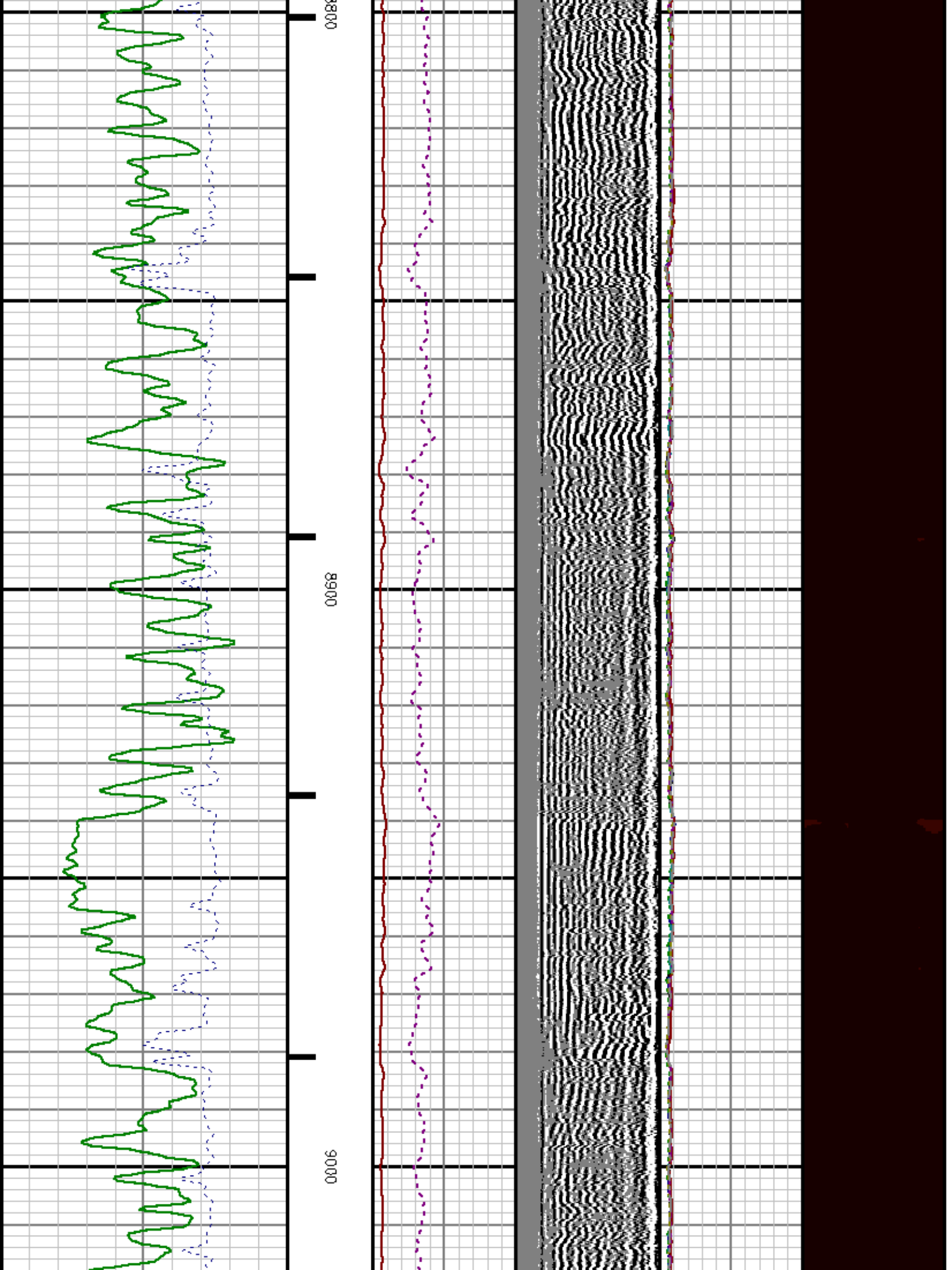


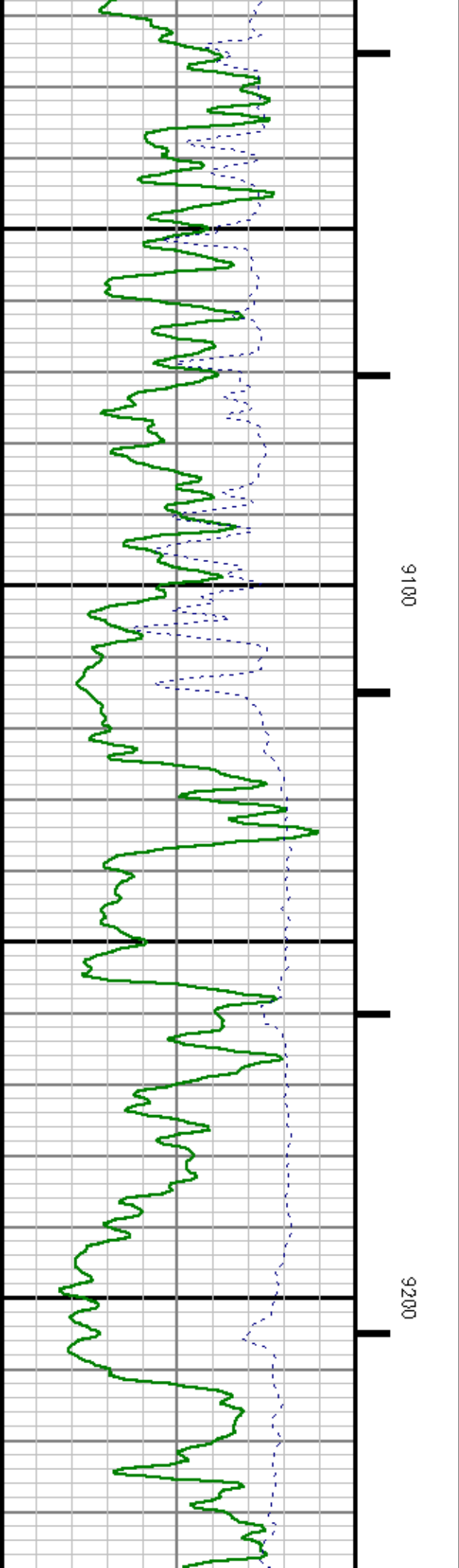
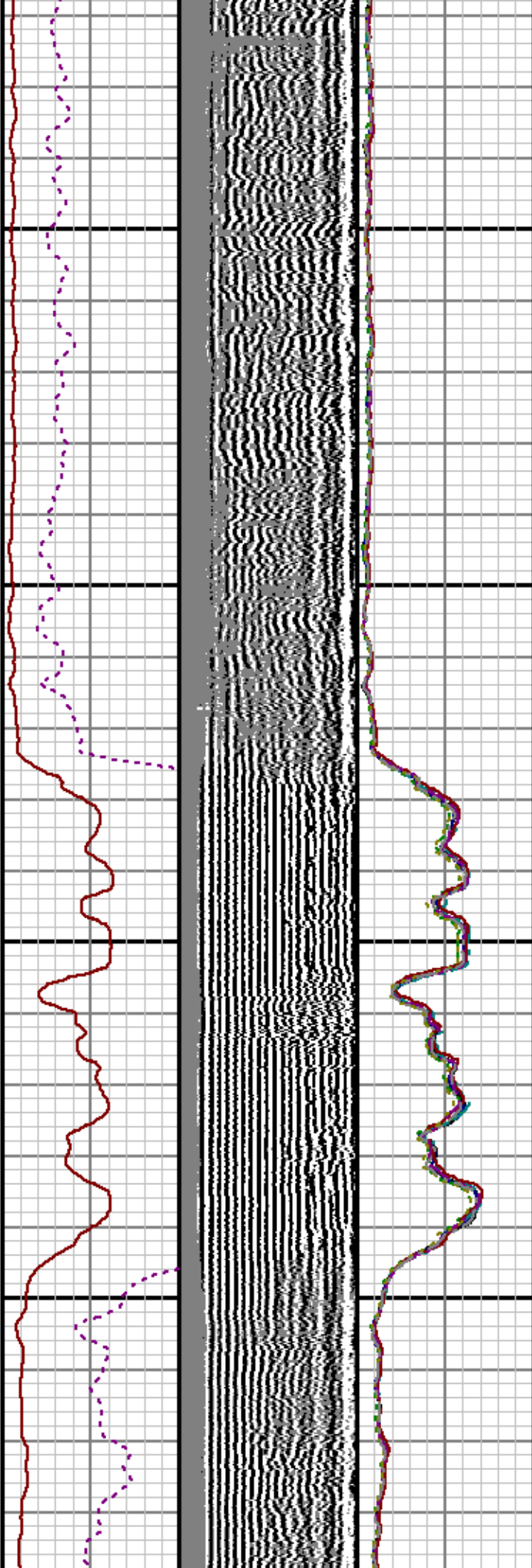
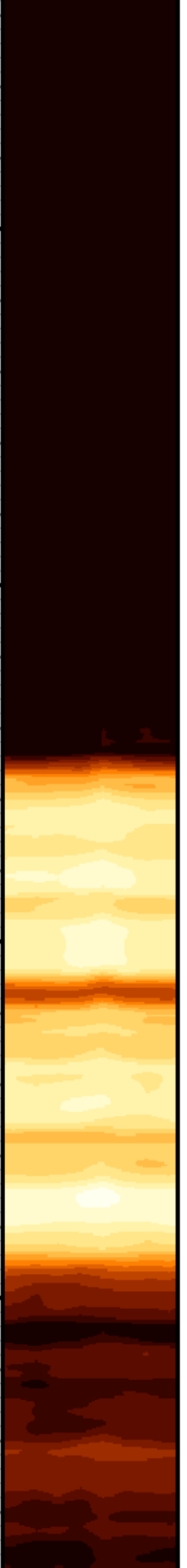


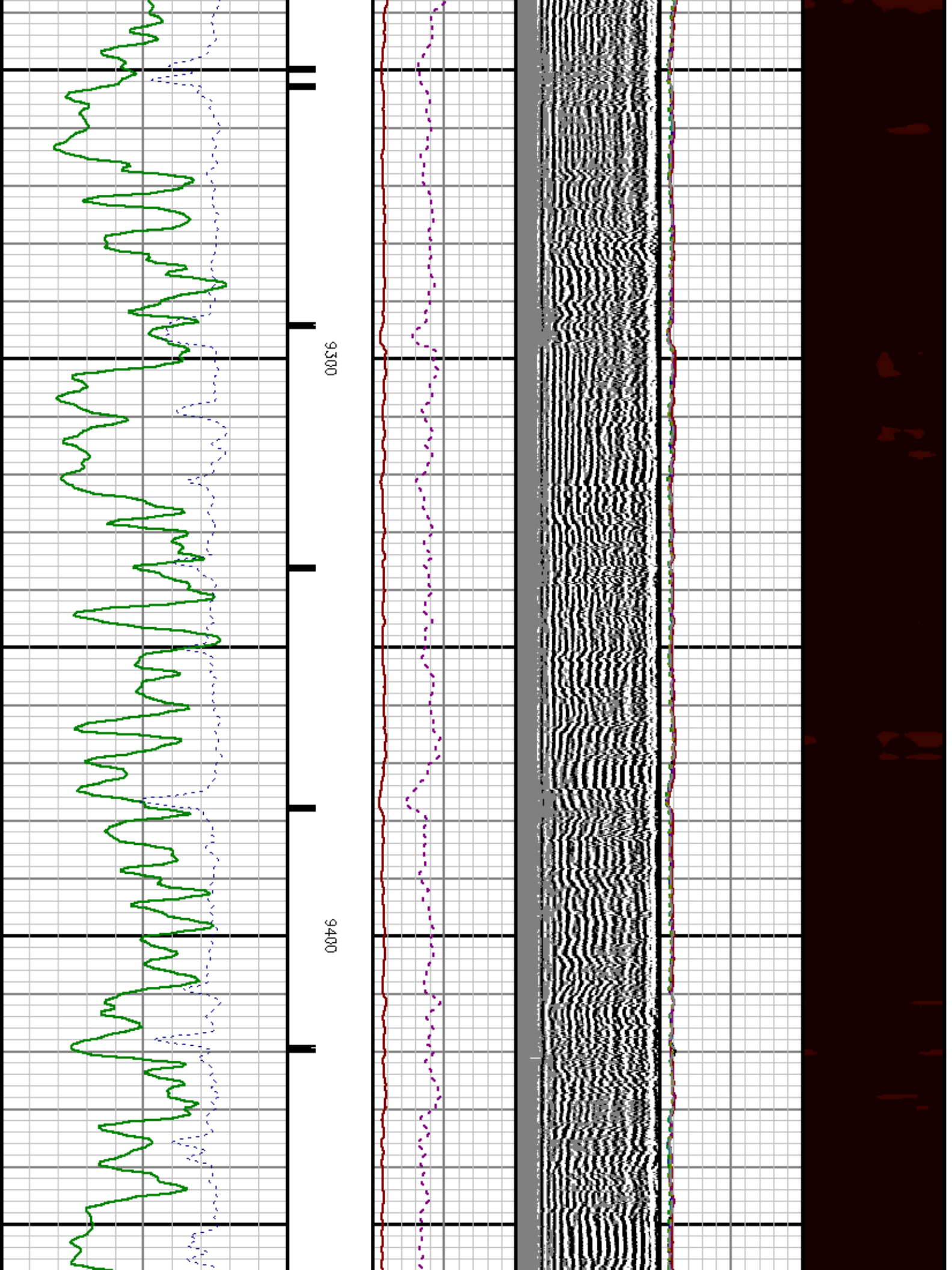


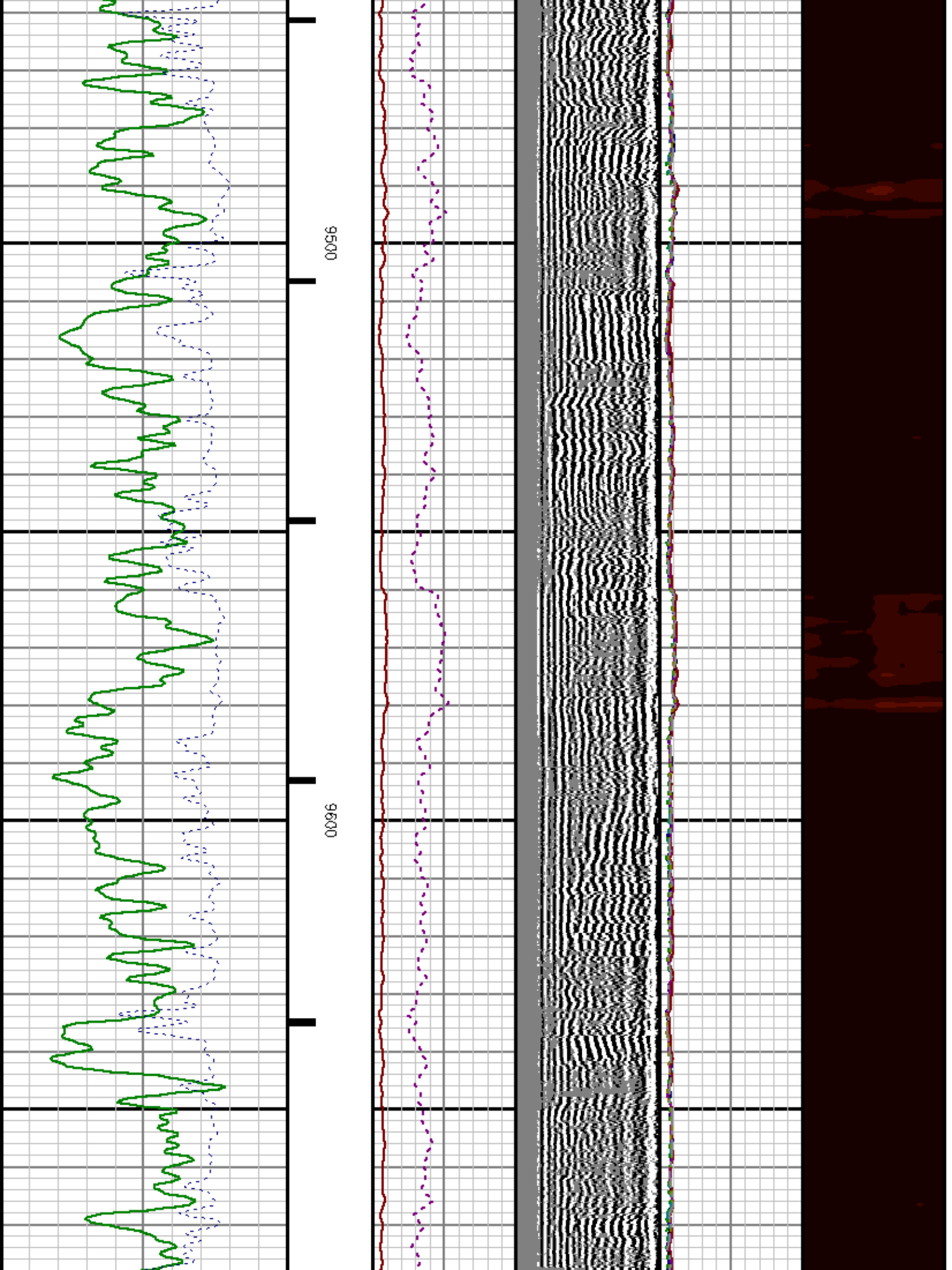


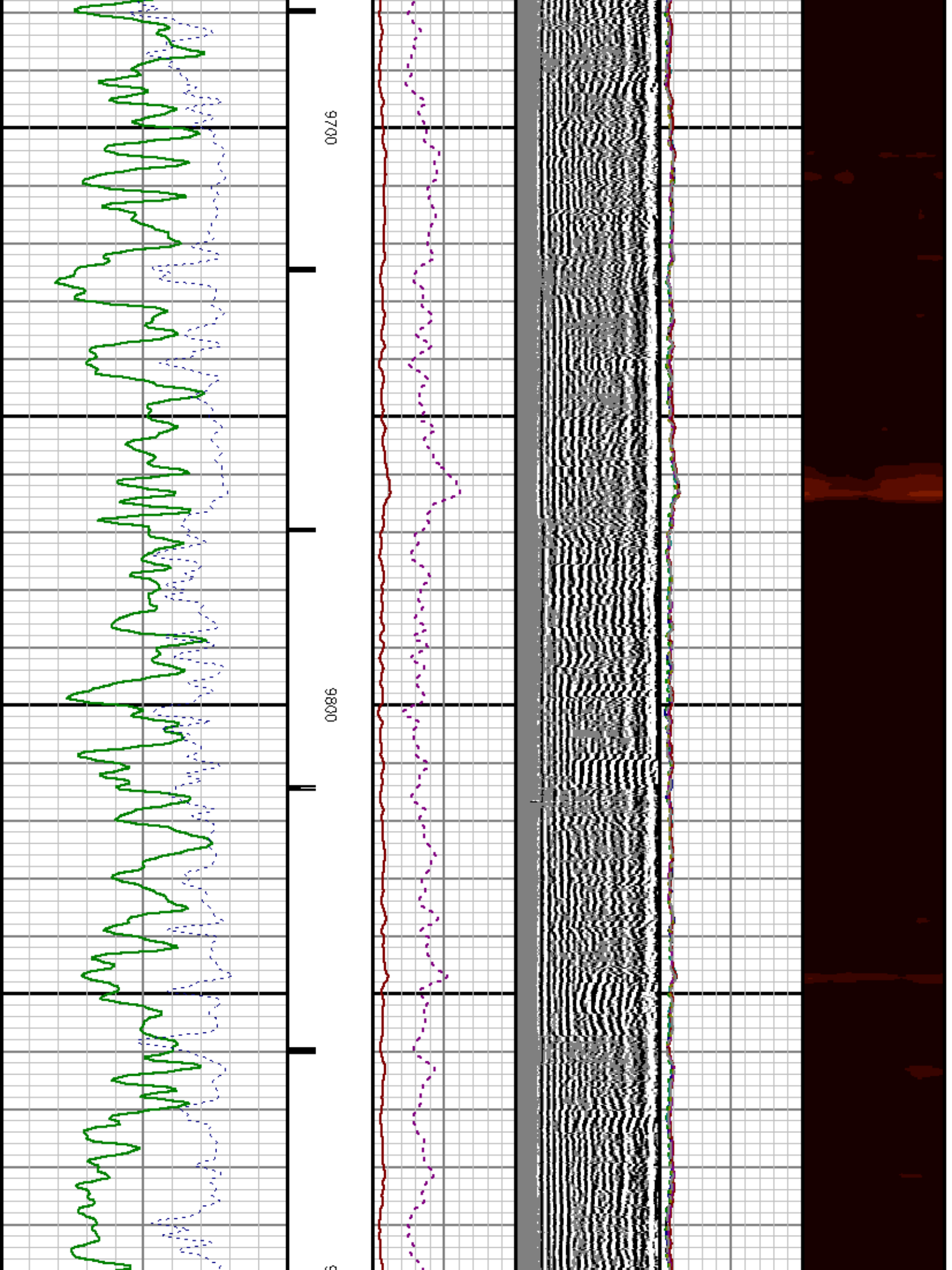


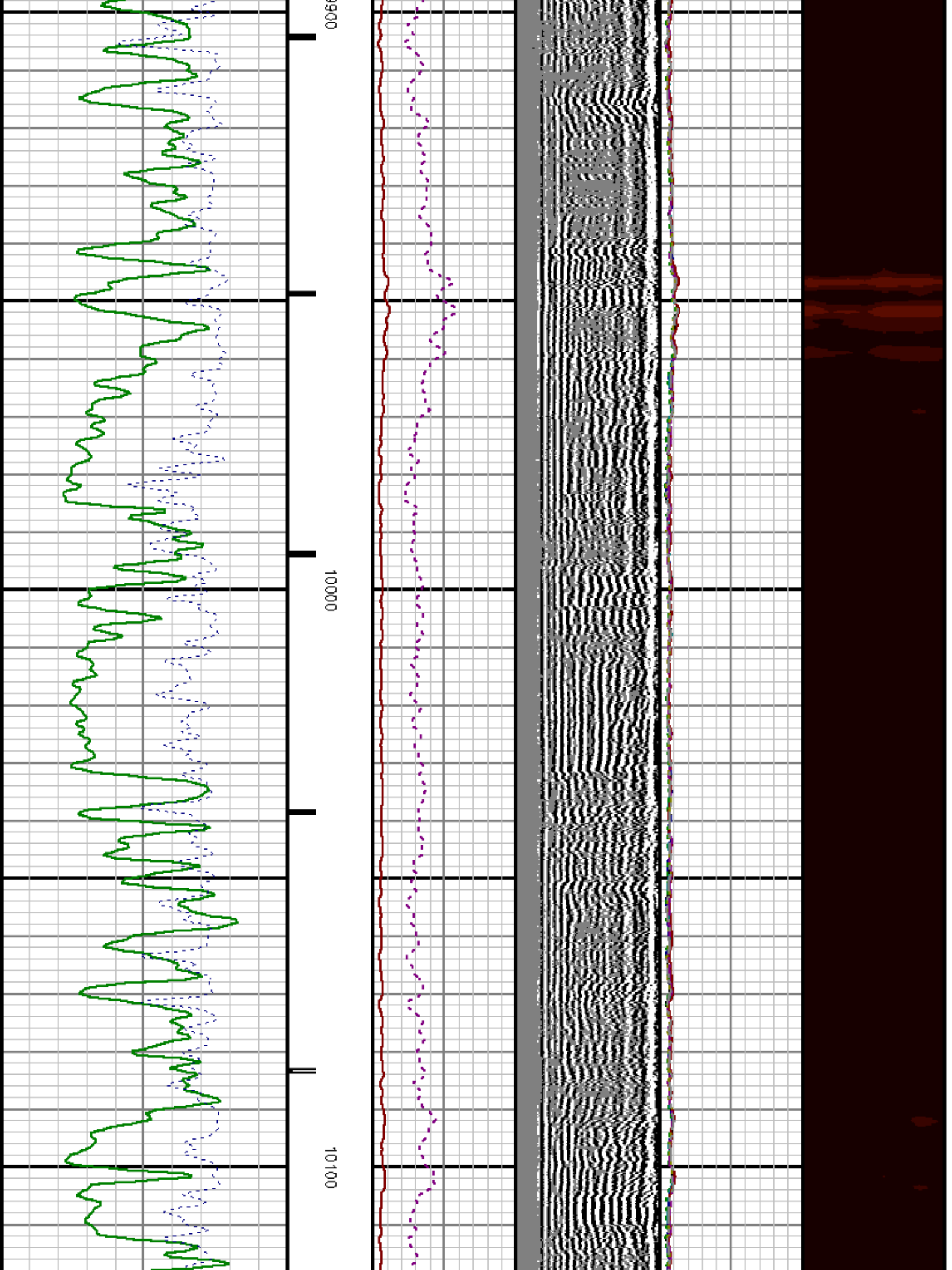


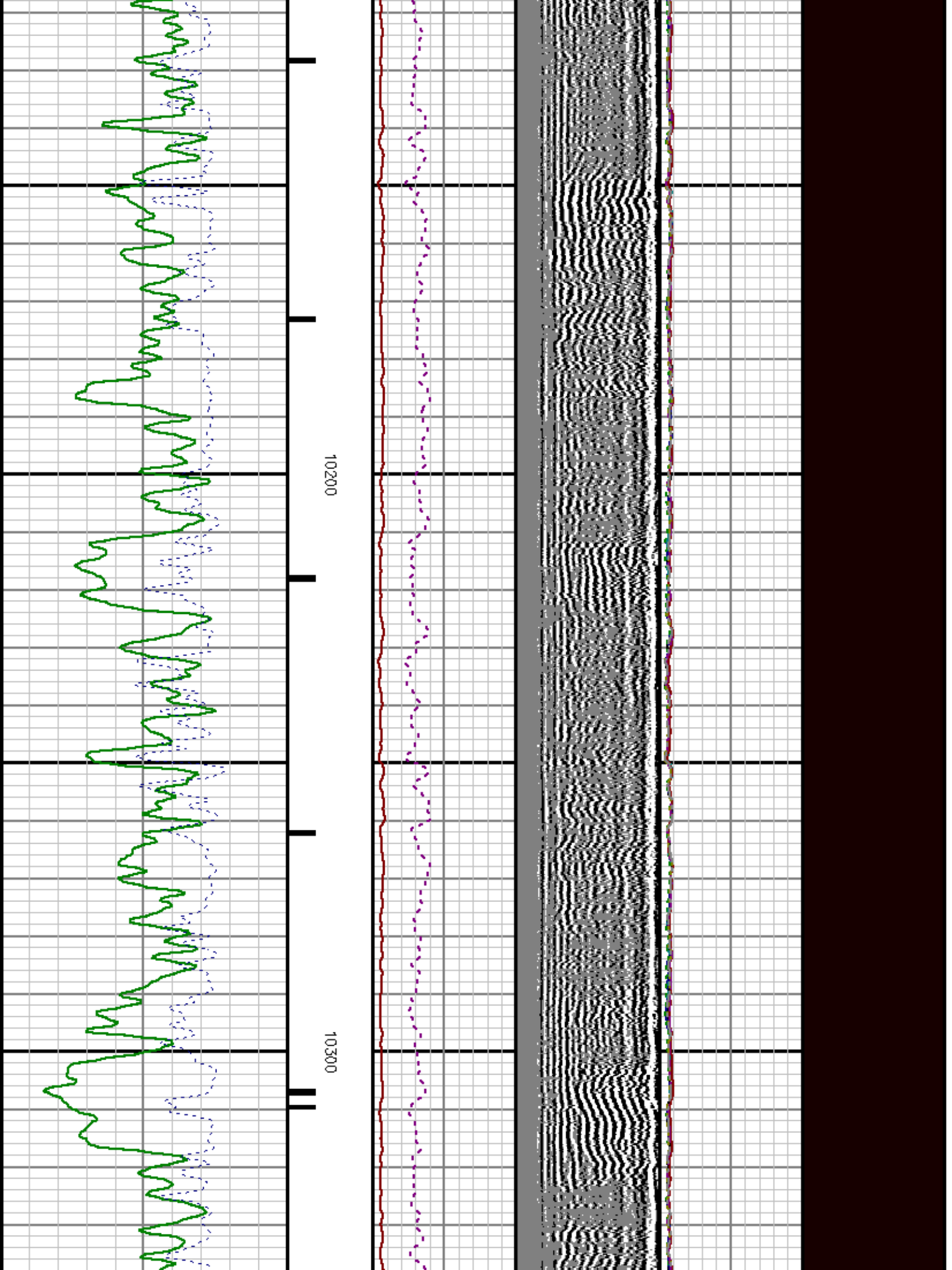


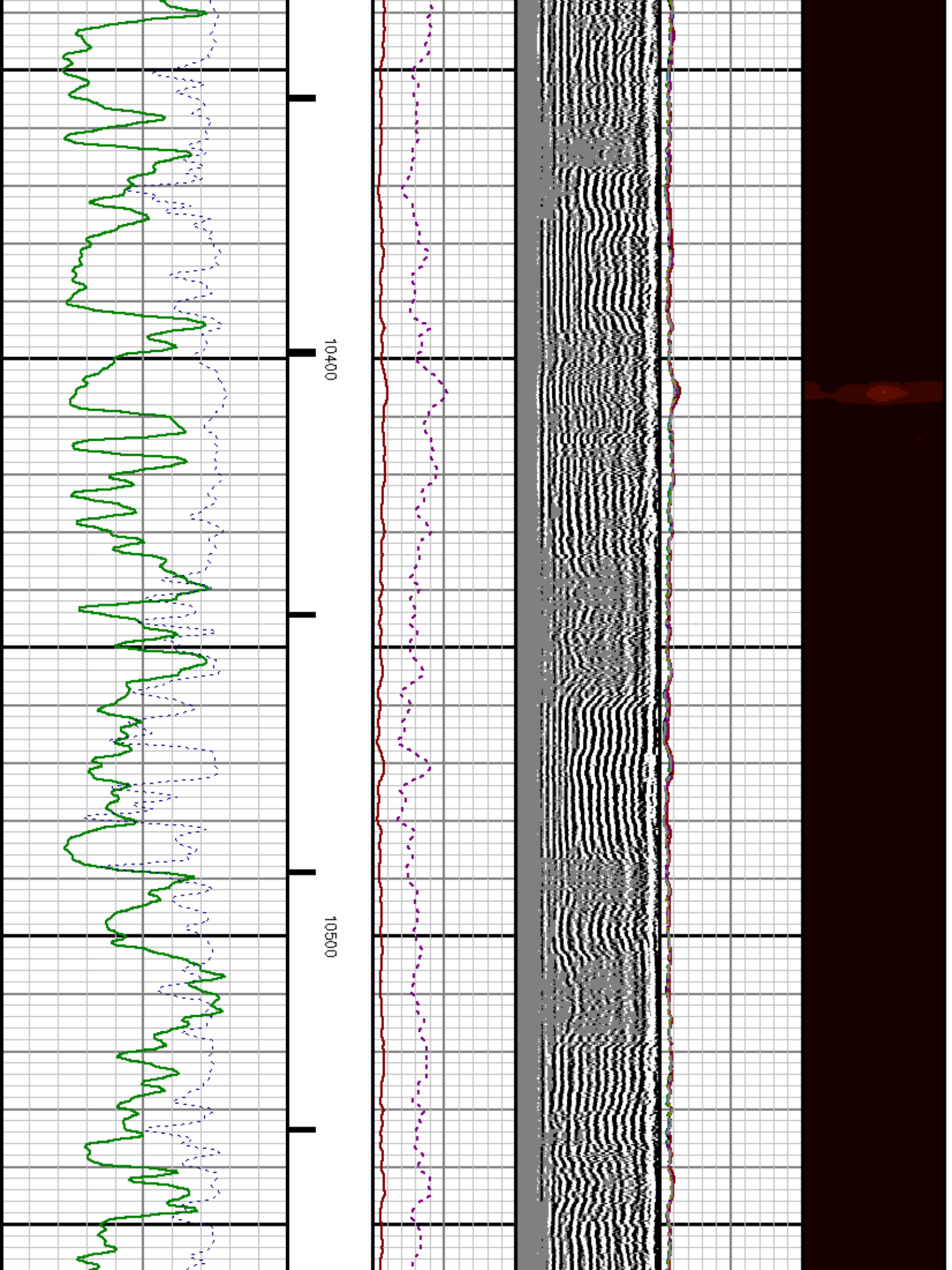


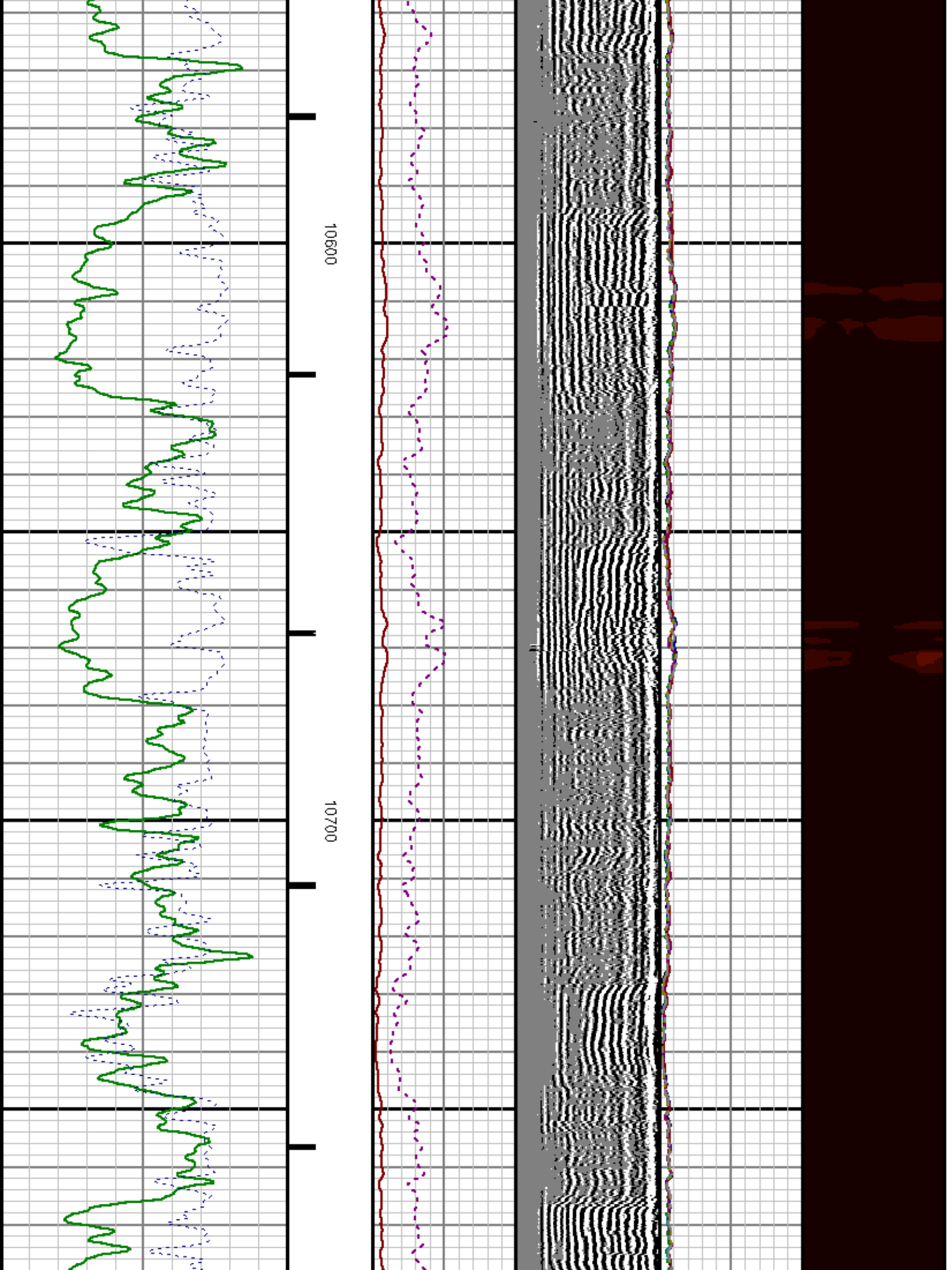


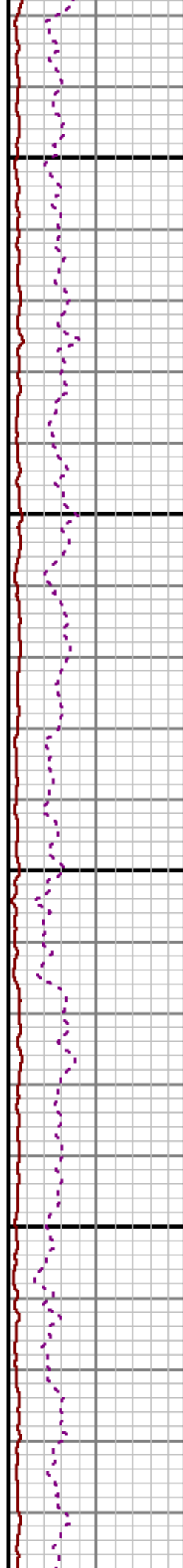
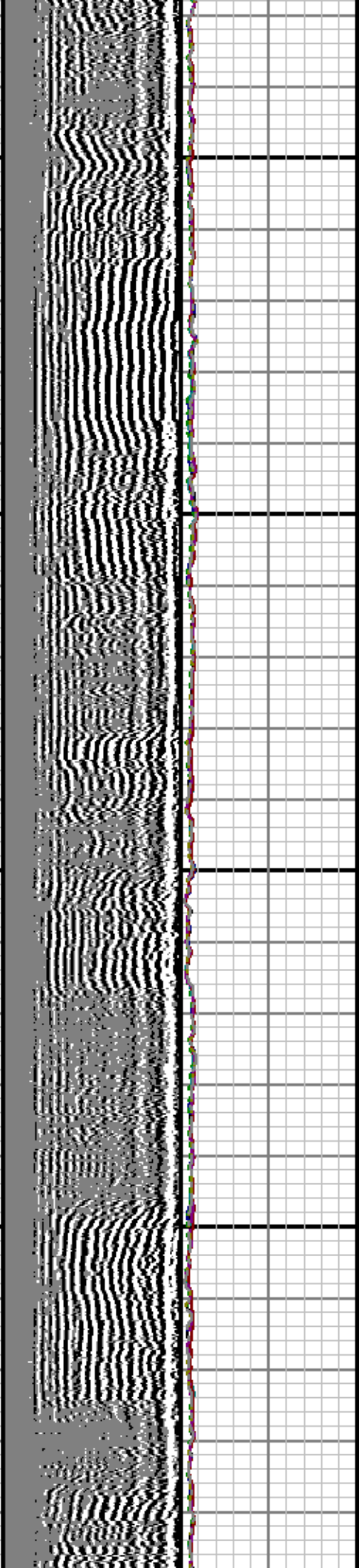








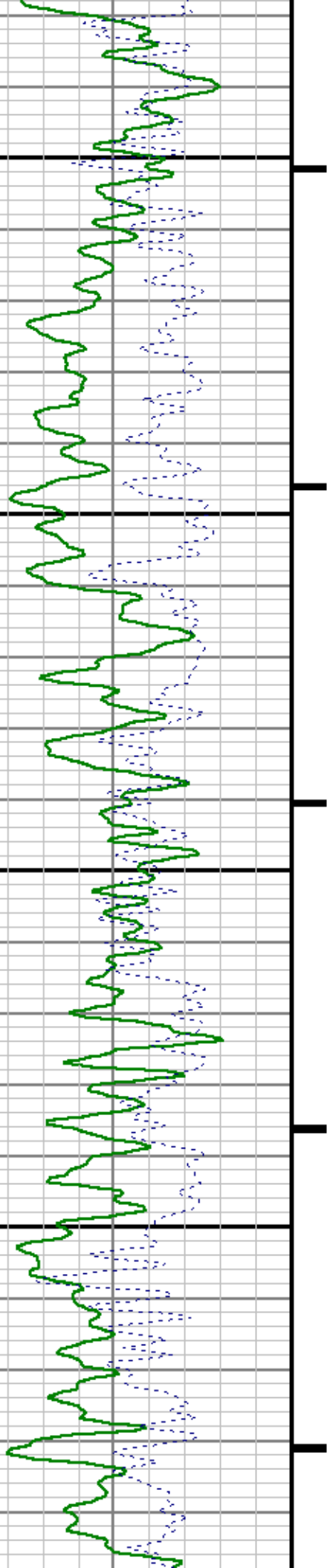


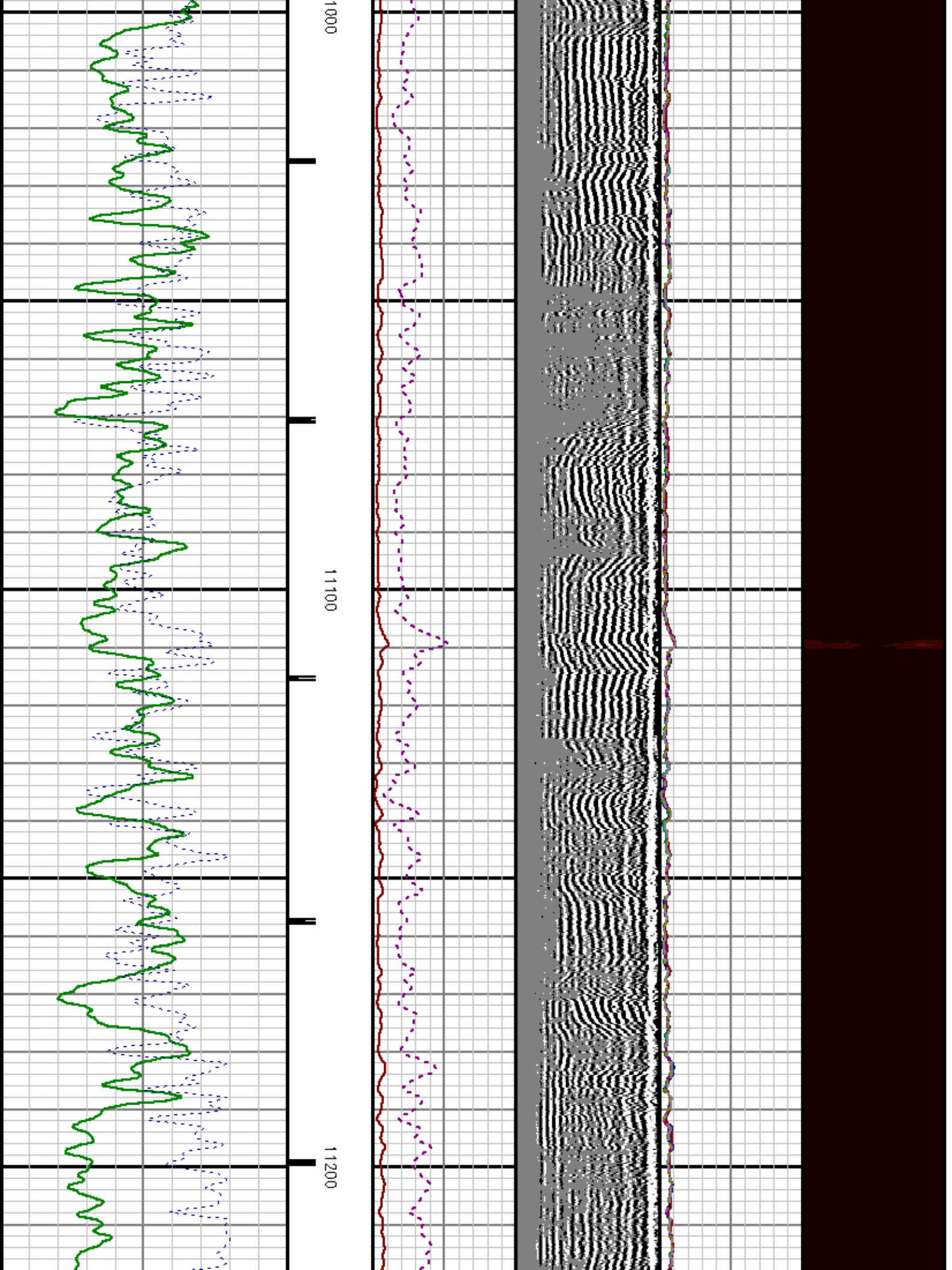


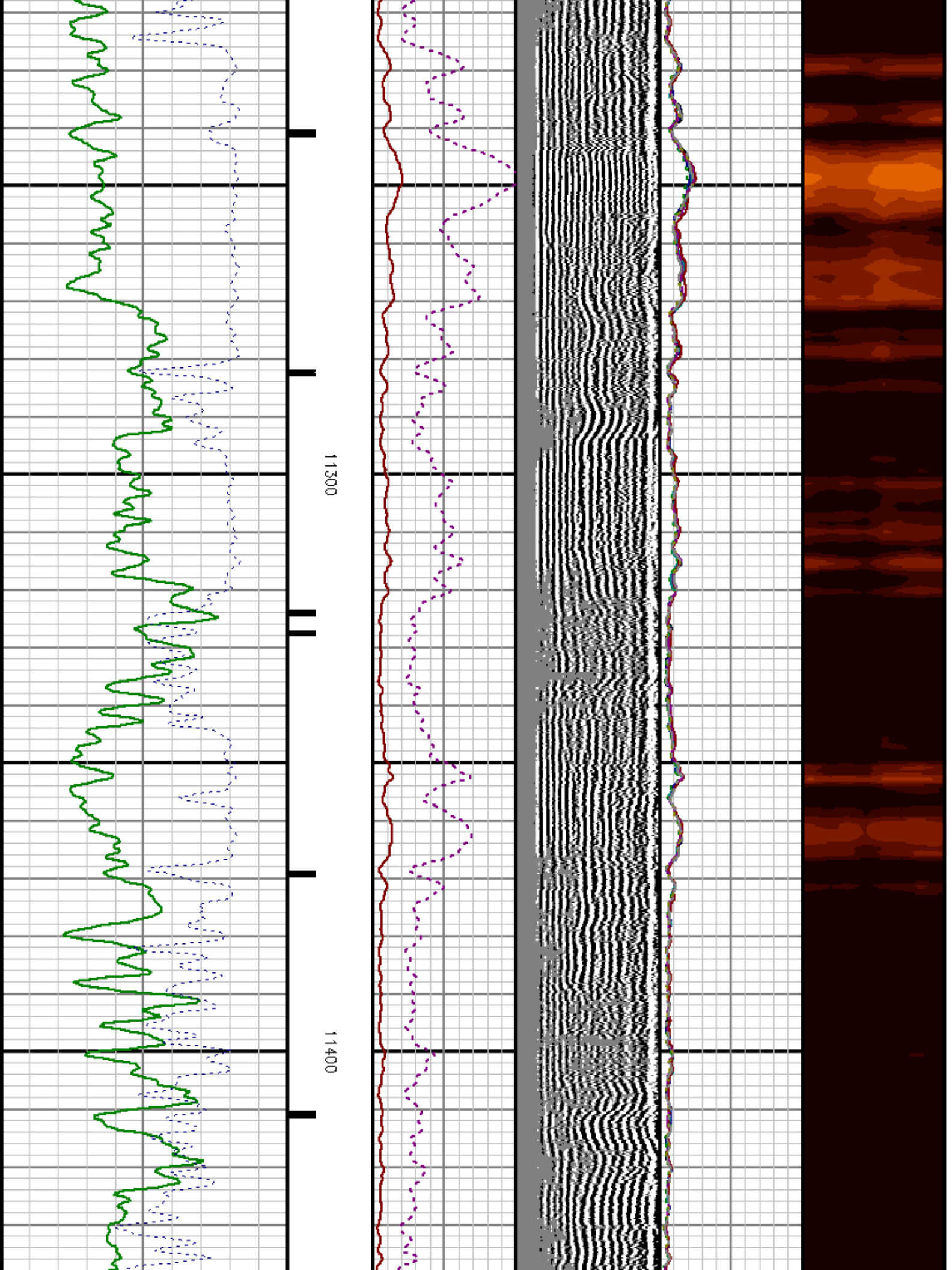
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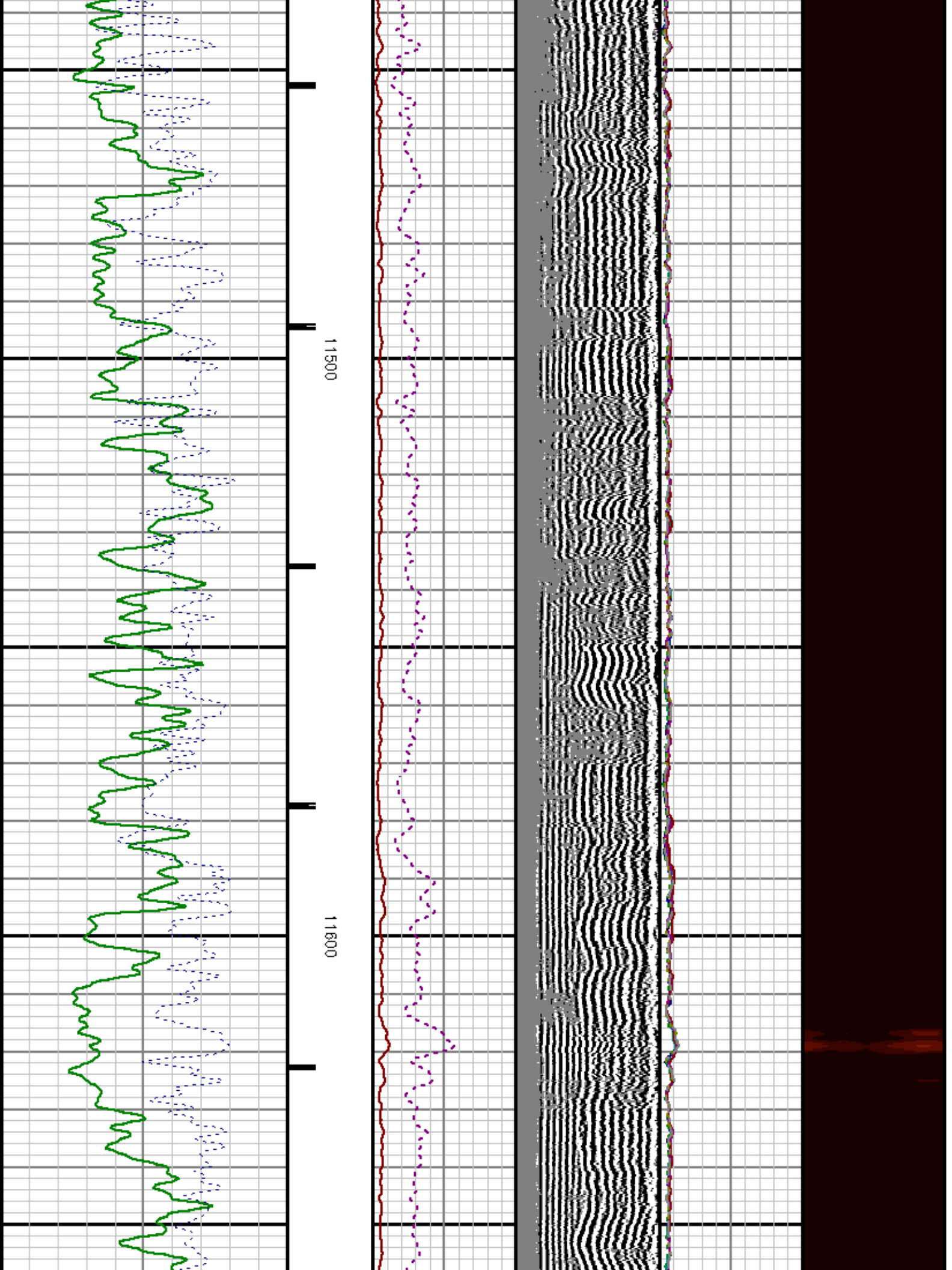
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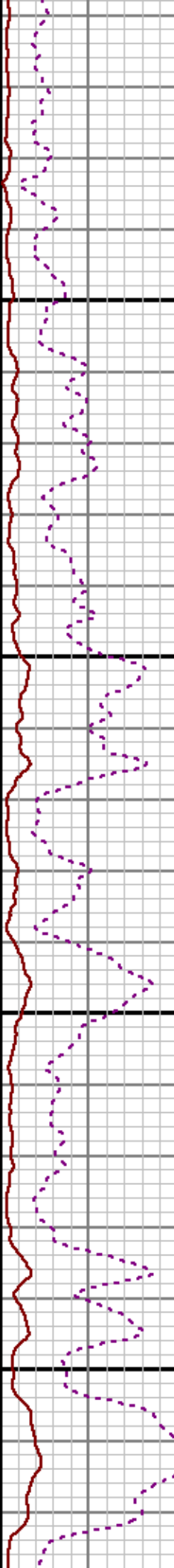
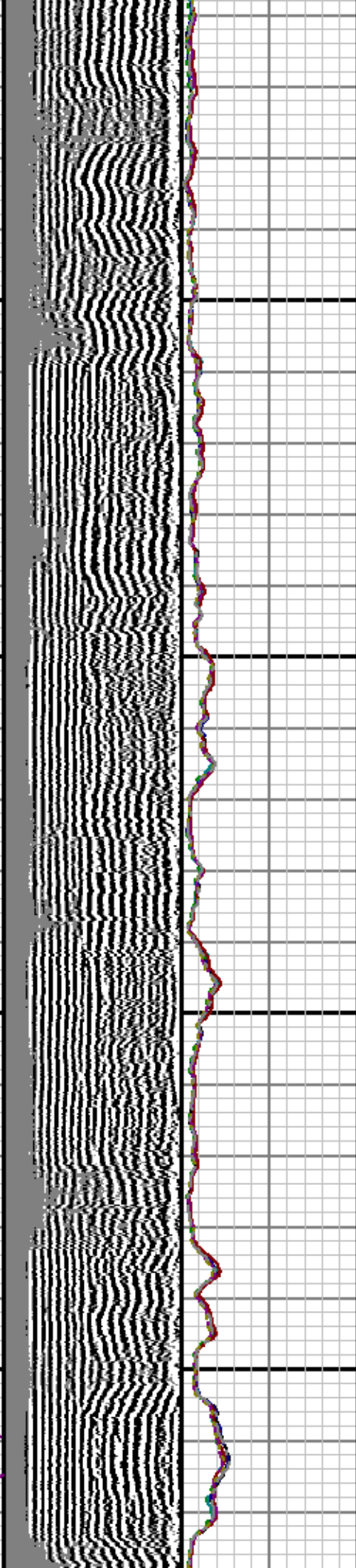
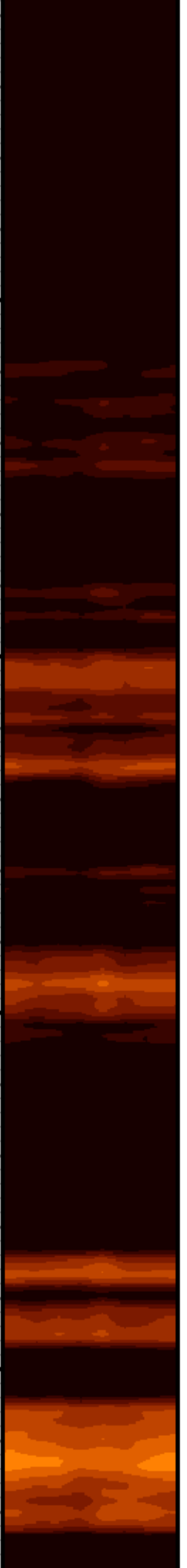
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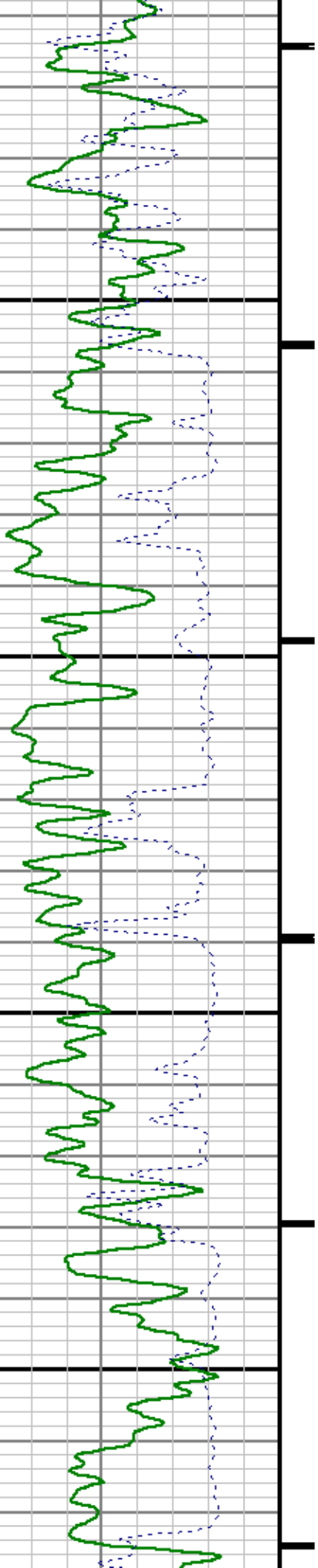


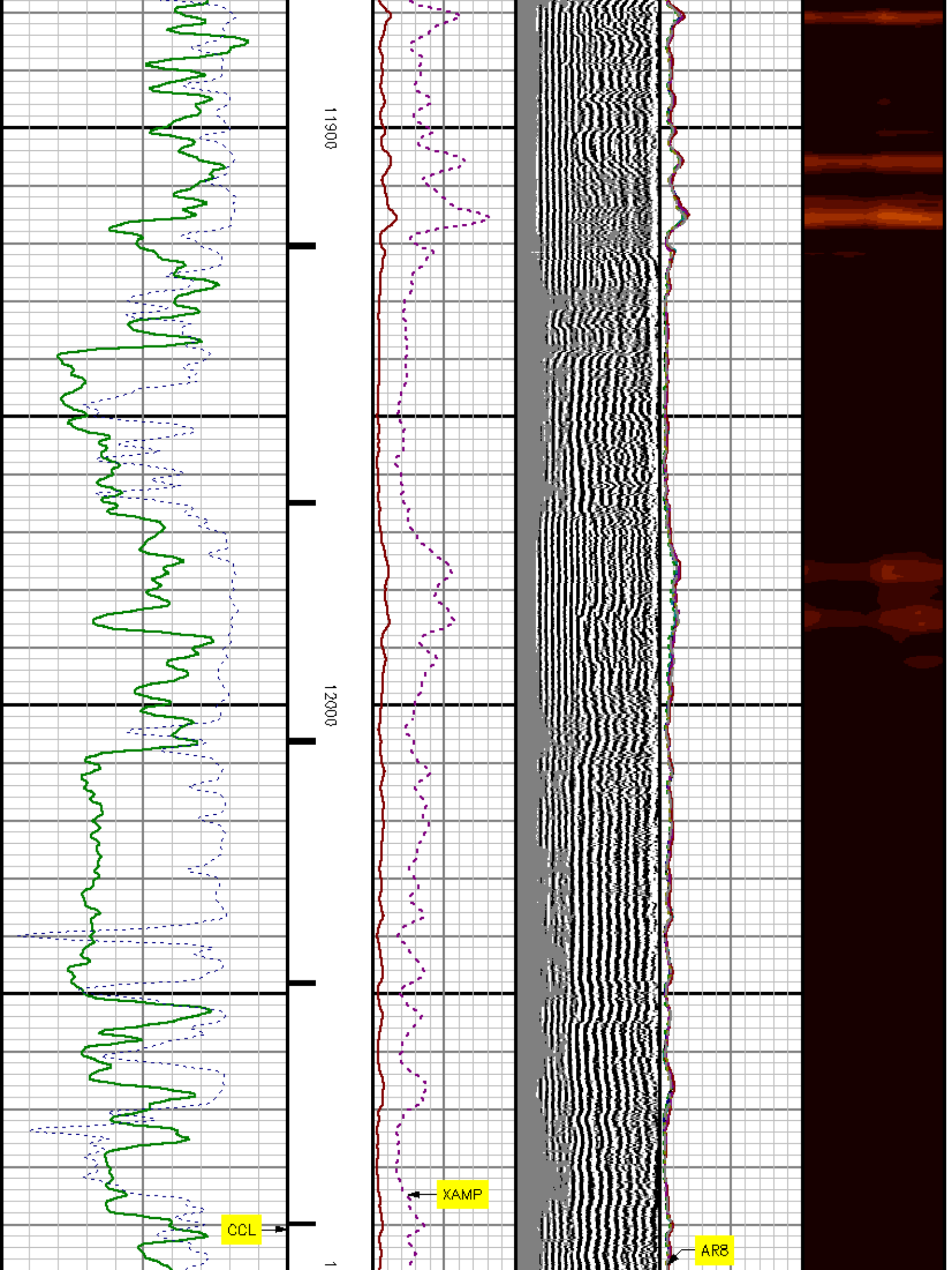


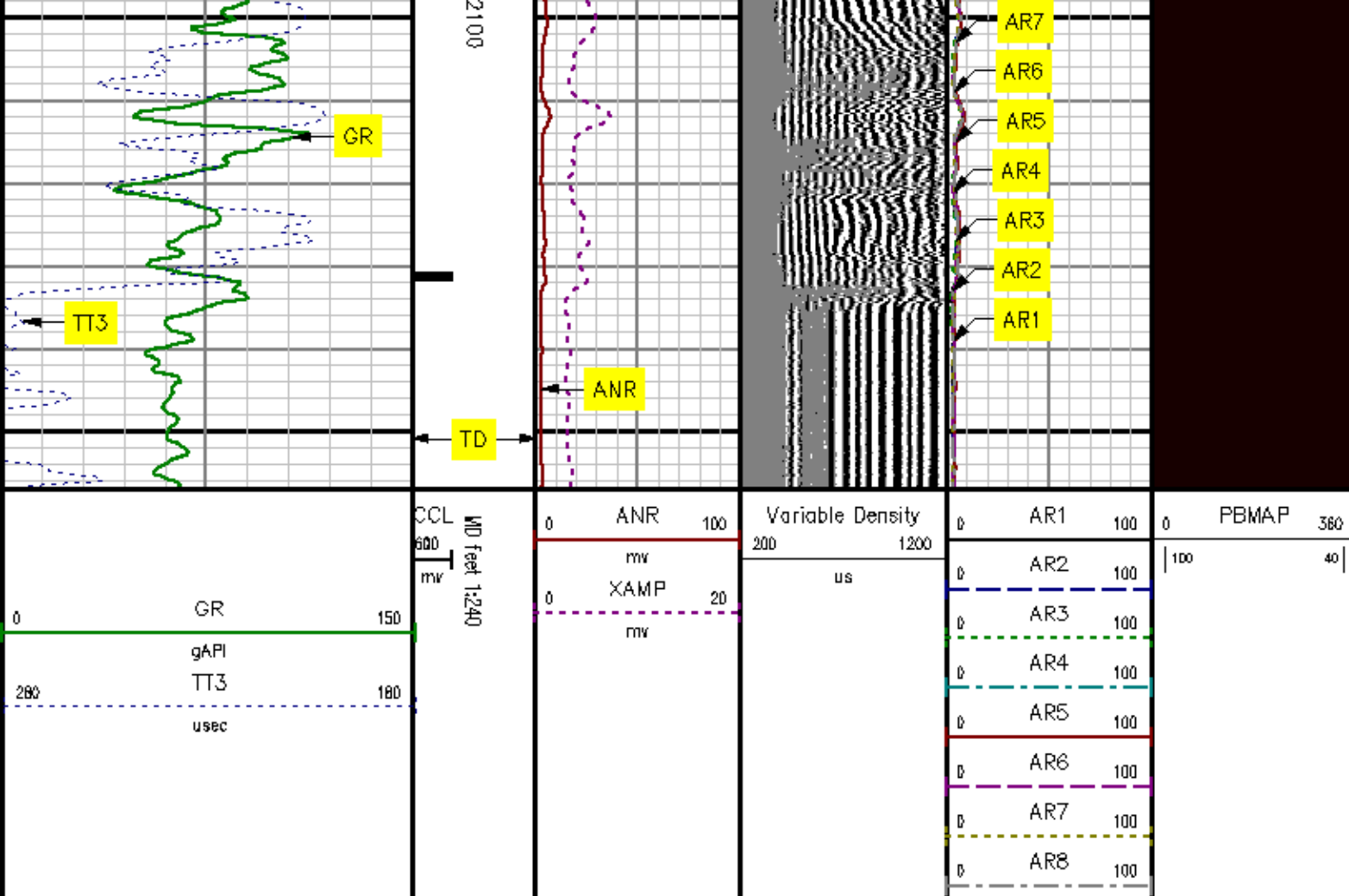


11700

11800







REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	uSec	11749.800	12190.000
RAL	Amp Gate Start Near	197.754	uSec	11749.800	12190.000
RAL	Amp Gate Start Radial	197.754	uSec	11749.800	12190.000
RAL	Amp Gate Width Far	25.000	uSec	11749.800	12190.000
RAL	Amp Gate Width Near	25.000	uSec	11749.800	12190.000
RAL	Amp Gate Width Radial	25.000	uSec	11749.800	12190.000
RAL	casing od	4.500	Inches	11749.800	12190.000
RAL	casing wt	15.100	lbm/ft	11749.800	12190.000
RAL	FB Start Far	289.263	uSec	11749.800	12190.000

RAL	FB Start Near	172.754	usec	11749.800	12190.000
RAL	FB Start Radial	172.754	usec	11749.800	12190.000
RAL	FB Thresh Far	10.000	mv	11749.800	12190.000
RAL	FB Thresh Near	4.000	mv	11749.800	12190.000
RAL	FB Thresh Radial	4.000	mv	11749.800	12190.000
RAL	Fluid Travel Time	200.000	usec/ft	11749.800	12190.000

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 : EXXONMOBIL PRODUCTION COMPANY

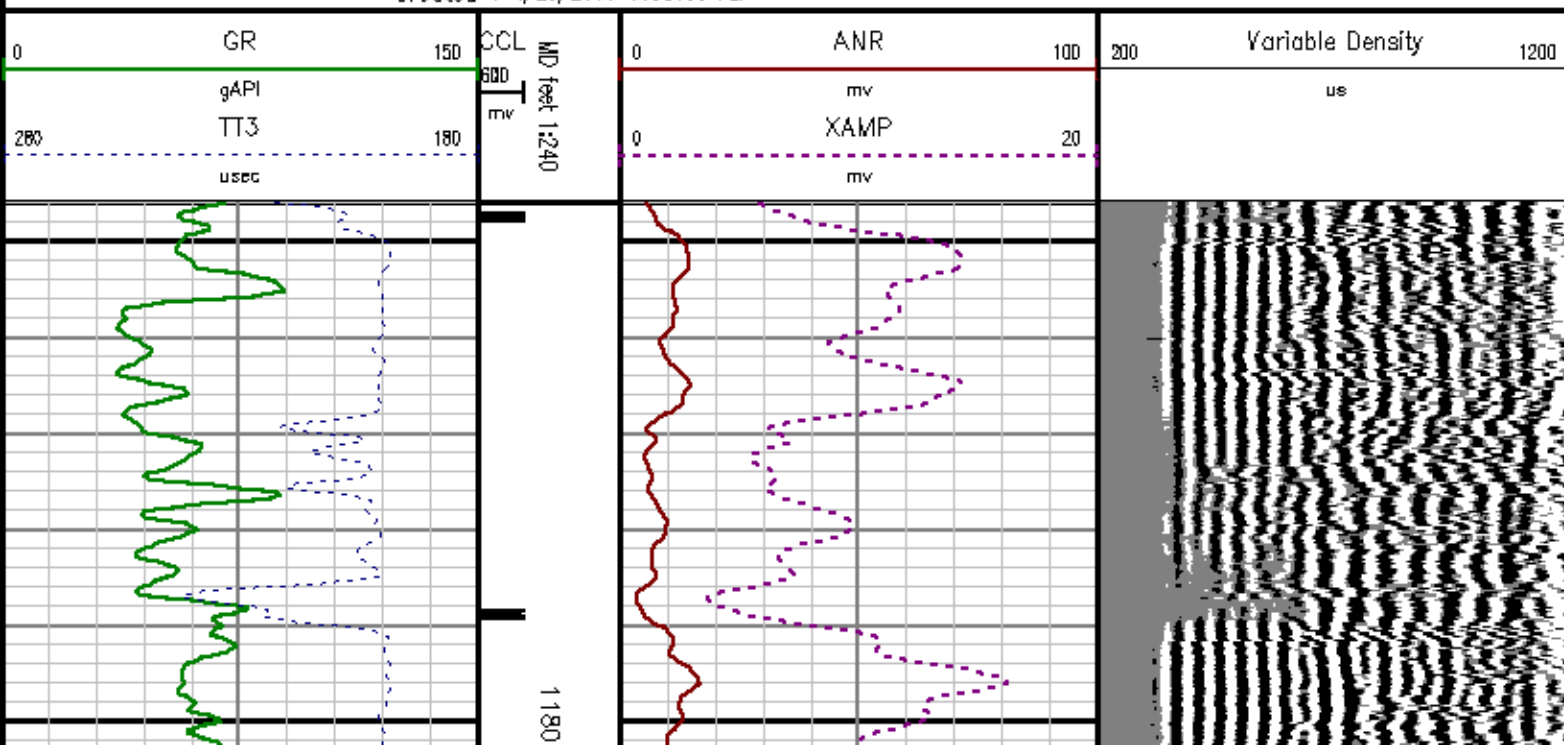
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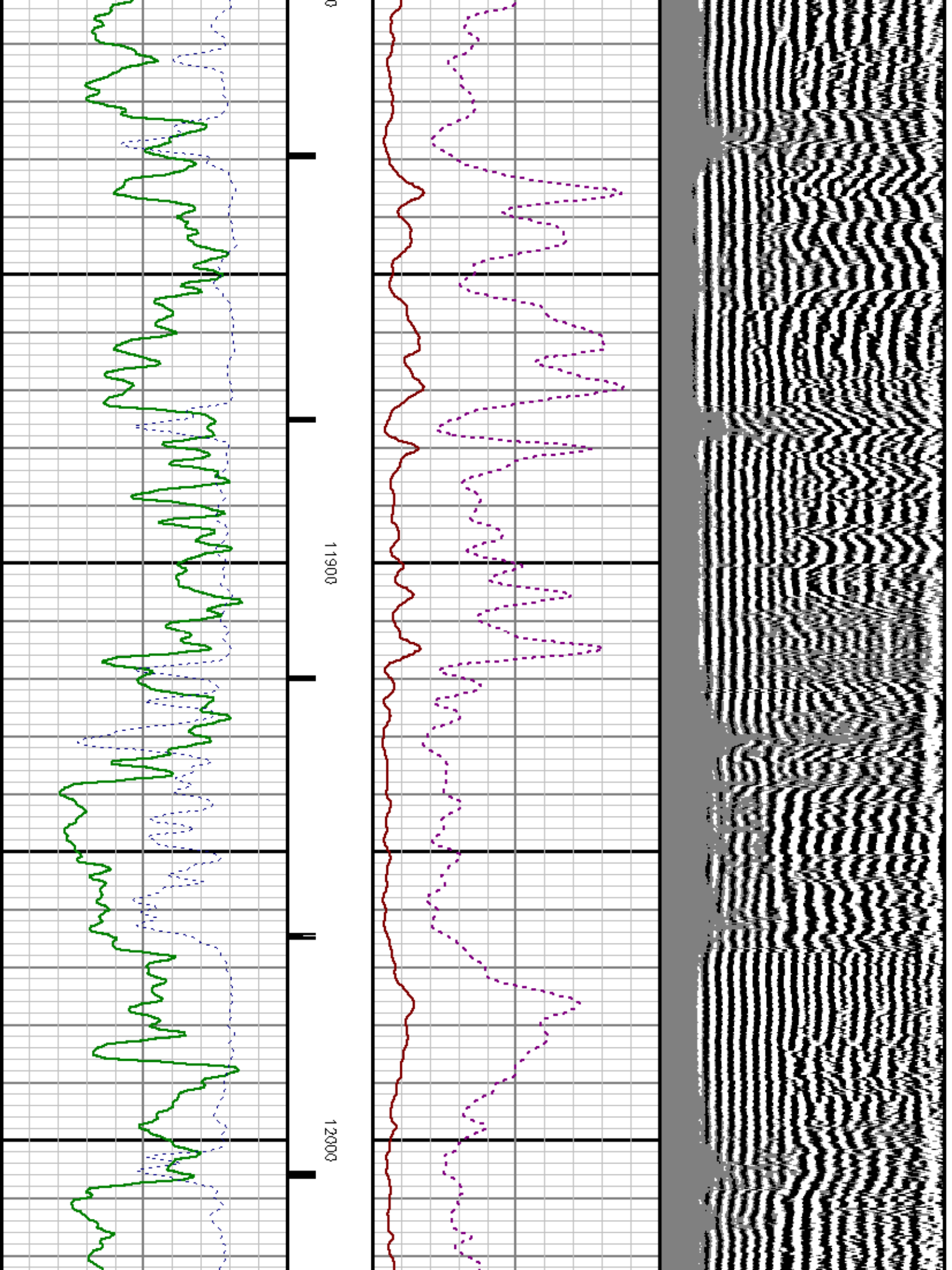
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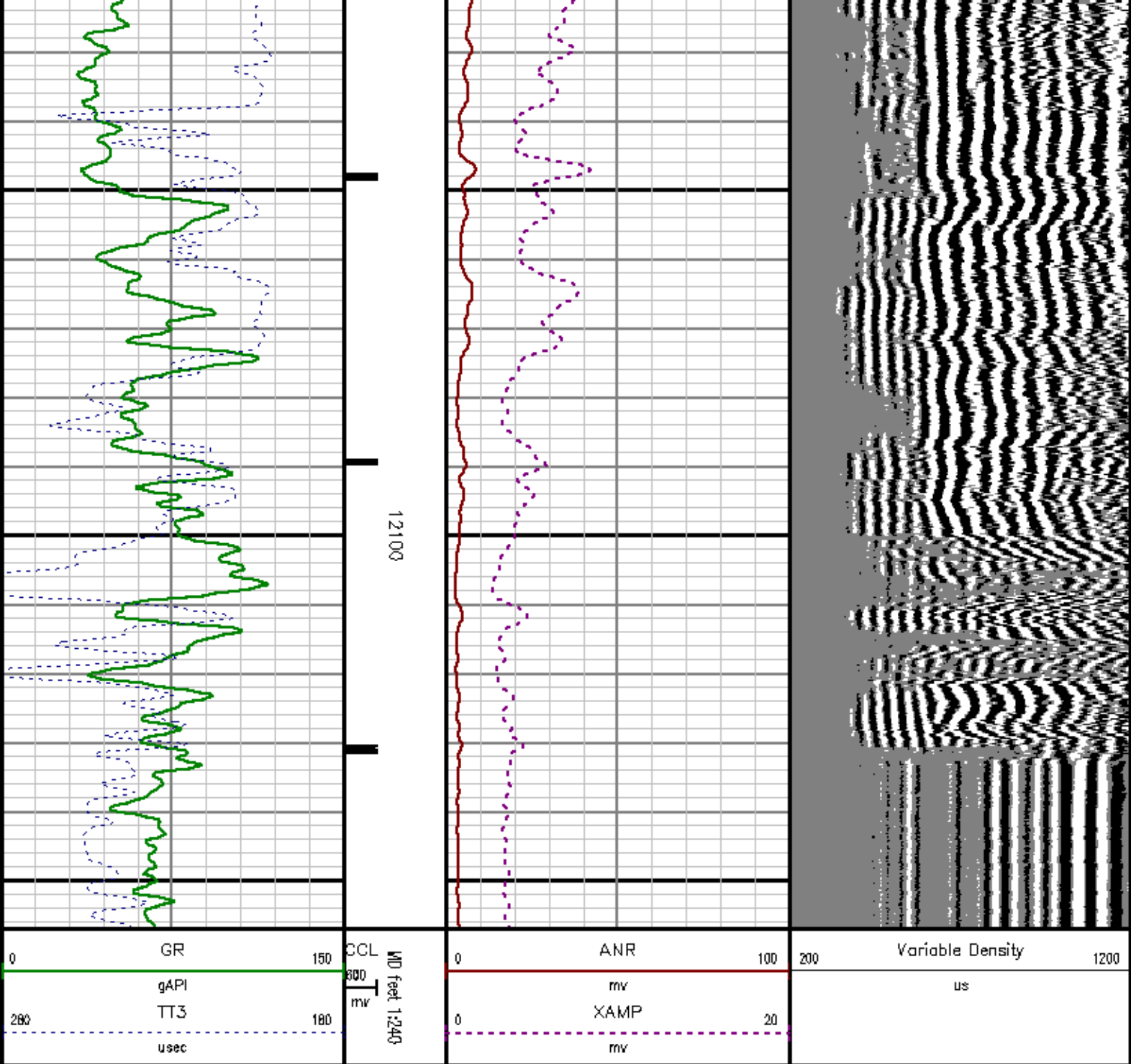
Mode : PlotMgr 5.4.504

Interval : 11746.00 - 12157.00 feet UP

Created : 4/23/2010 1:38:53 AM







CALIBRATION SUMMARY

GAMMA RAY

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 DA9D5	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 DA9D5	58.62	302.13	0.764	44.79	230.84	186.05

RALSHP

Shop Calibration: C:\case\calver\RALSHP\1000A21_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Apr 21 17:54:02 2010 TOOL SERIES: 1426XA ASSET: 1000 SEQ: A21

Tool Delay [usec]	Tank OD in	Tank Wt lbm/ft	Tank ID in
-54.00	5.50	15.50	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	217	216	30	147	25	0.012	100.00	0.21
3 Ft. Receiver	219	216	30	156	25	0.106	100.00	0.20
5 Ft. Receiver	327	326	30	264	25	1.039	150.00	0.22
Radial #1	218	216	30	158	25	0.143	100.00	0.20
Radial #2	218	216	30	158	25	0.233	100.00	0.20
Radial #3	219	216	30	158	25	0.321	100.00	0.20
Radial #4	220	216	30	158	25	-0.023	100.00	0.20
Radial #5	220	216	30	158	25	-0.483	100.00	0.20
Radial #6	219	216	30	158	25	-0.108	100.00	0.20
Radial #7	218	216	30	158	25	0.014	100.00	0.20
Radial #8	218	216	30	158	25	-0.018	100.00	0.20

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\1000A21 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Apr 21 18:00:25 2010 TOOL SERIES: 1426XA ASSET: 1000 SEQ: A21

Tool Delay [usec]	Casing OD in	Casing Wt lbm/ft	Casing ID in
-54.00	4.50	15.10	3.83

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	147	25	0.061	0.000	1.00	100,000
3 Ft. Receiver	198	25	-0.489			
5 Ft. Receiver	314	25	-0.058			
Radial #1	198	25	-0.921			
Radial #2	198	25	-0.848			
Radial #3	198	25	-0.663			
Radial #4	198	25	-1.019			
Radial #5	198	25	-1.079			
Radial #6	198	25	-1.000			
Radial #7	198	25	-1.100			
Radial #8	198	25	-0.934			

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

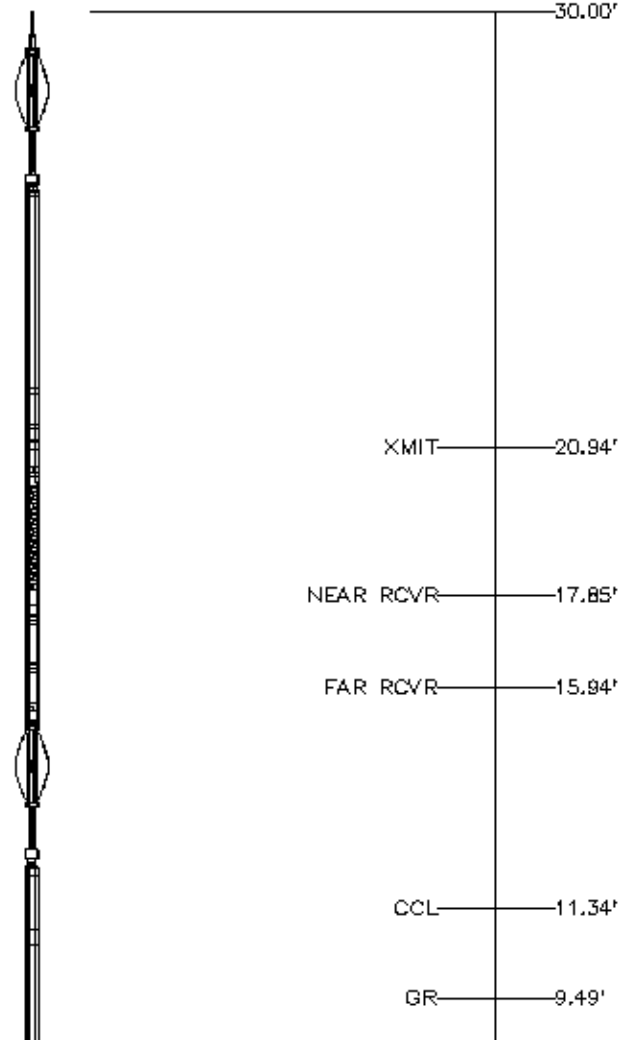
Series	1426XA
Mnemonic	PROB
Diameter	2.75"
Length	11.17'
Measure Point	0.75' FAR RCVR
Measure Point	2.67' NEAR RCVR
Measure Point	5.75' XMIT
Temp Rating	350.00 °F
Press Rating	18000.00 PSI

CENTRALIZER

Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb

Probe GR/CCL/NEU

Series	2459XA
Mnemonic	PROB



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 4.09'

0.00'

Total Length: 30.00'

Total Weight: Not Available

Max Diameter: 0' 3.12"



Baker Atlas



Company EXXONMOBIL PRODUCTION COMPANY

Well FRU 197-3348

Field PICEANCE CREEK

County RIO BLANCO State COLORADO

Location

SHL: 846' FSL & 2380' FEL

SEC 33 TWP 15 RGE 87W

Elevations

KB 6417.4 ft

DF 6416.4 ft

GL 6388 ft

File No:

1728

API No:

05103114010000