



# RADIAL ANALYSIS BOND LOG

**Baker Atlas**

File No: \_\_\_\_\_ Company: EXXONMOBIL PRODUCTION COMPANY  
 1555 Well: POU 297-11B1  
 API No: \_\_\_\_\_ Field: PICEANCE CREEK  
 09-103-11379-0000 County: RIO BLANCO State: COLORADO

Location: 364' FEL & 487' FEL  
 SEC 11 TWP 25 RGE 97W  
 Other Services: RPL

Permanent Datum: \_\_\_\_\_ G.L. \_\_\_\_\_ Elevation: 7131 ft  
 Log Measured From: \_\_\_\_\_ K.B. \_\_\_\_\_ 28.5 ft Above P. D.  
 Drill Measured From: KELLY BUSHING  
 Elevations: KB 7157.5 ft, DF 7156.5 ft, GL 7131 ft

Date	13-JAN-2010
Run	ONE
Service Order	576412
Depth Driller	12969 ft
Depth Logger	12962 ft
Bottom Logged Interval	12822 ft
Top Logged Interval	5600 ft
Time Started	03:30
Time Finished	08:30
Operator Rig Time	3 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	49 fpm
Maximum Recorded Temperature	N/A
Reference Log	86/99M
Reference Log Date	13-JAN-10
Equipment No.	4271
Location	VERNAL, UT
Recorded By	TIM KAUFF
Witnessed By	MR. GREG AUTHMENT

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.

Bit Size	From	To
9.875 in		
8.125 in		

Size	Weight	Grade	From	To
7 in	26 lbm/ft	P-110	SURFACE	8992 ft
4.5 in	15.1 lbm/ft	P-110	SURFACE	12969 ft

Remarks  
 THE CREW OF 4271 THANKS YOU.

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	MANDREL	1428XA	10404539	CENTRALIZED

# MAIN SECTION PRIMARY PRESENTATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	5514.099	12843.000
RAL	Amp Gate Start Near	197.754	usec	5514.099	12843.000
RAL	Amp Gate Start Radial	197.754	usec	5514.099	12843.000
RAL	Amp Gate Width Far	30.000	usec	5514.099	12843.000
RAL	Amp Gate Width Near	30.000	usec	5514.099	12843.000
RAL	Amp Gate Width Radial	30.000	usec	5514.099	12843.000
RAL	casing od	4.500	inches	5514.099	12843.000
RAL	casing wt	15.100	lbm/ft	5514.099	12843.000
RAL	FB Start Far	289.263	usec	5514.099	12843.000
RAL	FB Start Near	172.754	usec	5514.099	12843.000
RAL	FB Start Radial	172.754	usec	5514.099	12843.000
RAL	FB Thresh Far	15.000	mv	5514.099	12843.000
RAL	FB Thresh Near	10.000	mv	5514.099	12843.000
RAL	FB Thresh Radial	10.000	mv	5514.099	12843.000
RAL	Fluid Travel Time	200.000	usec/ft	5514.099	12843.817

## 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	-14.380	AFAR	SIG	TT5					
1426XA	-7.250	OCL							
1426XA	-5.390	GR							
1426XA	0.000	NEU							

Created by : MIXED

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

Well : PCU 297-11B1

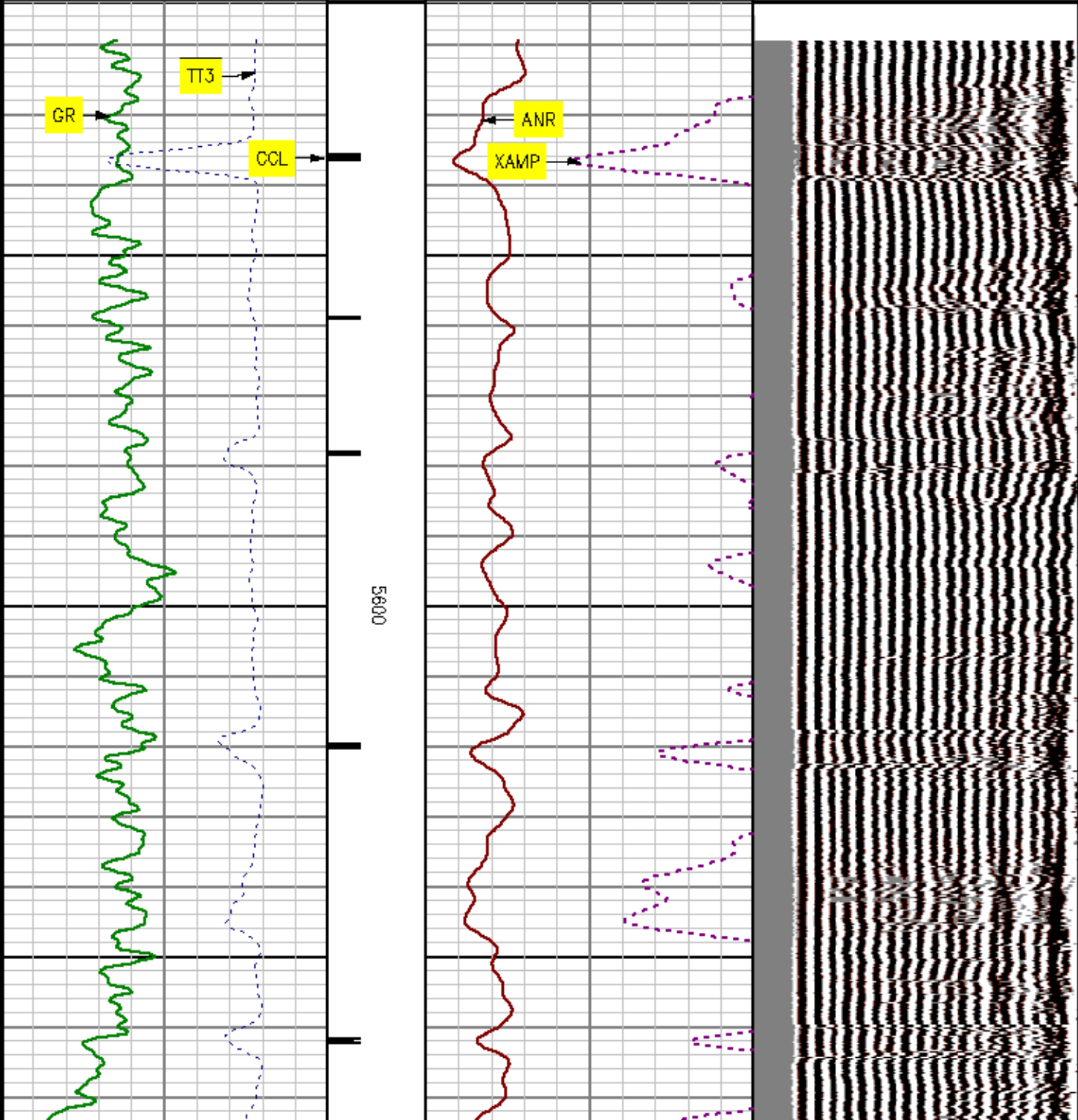
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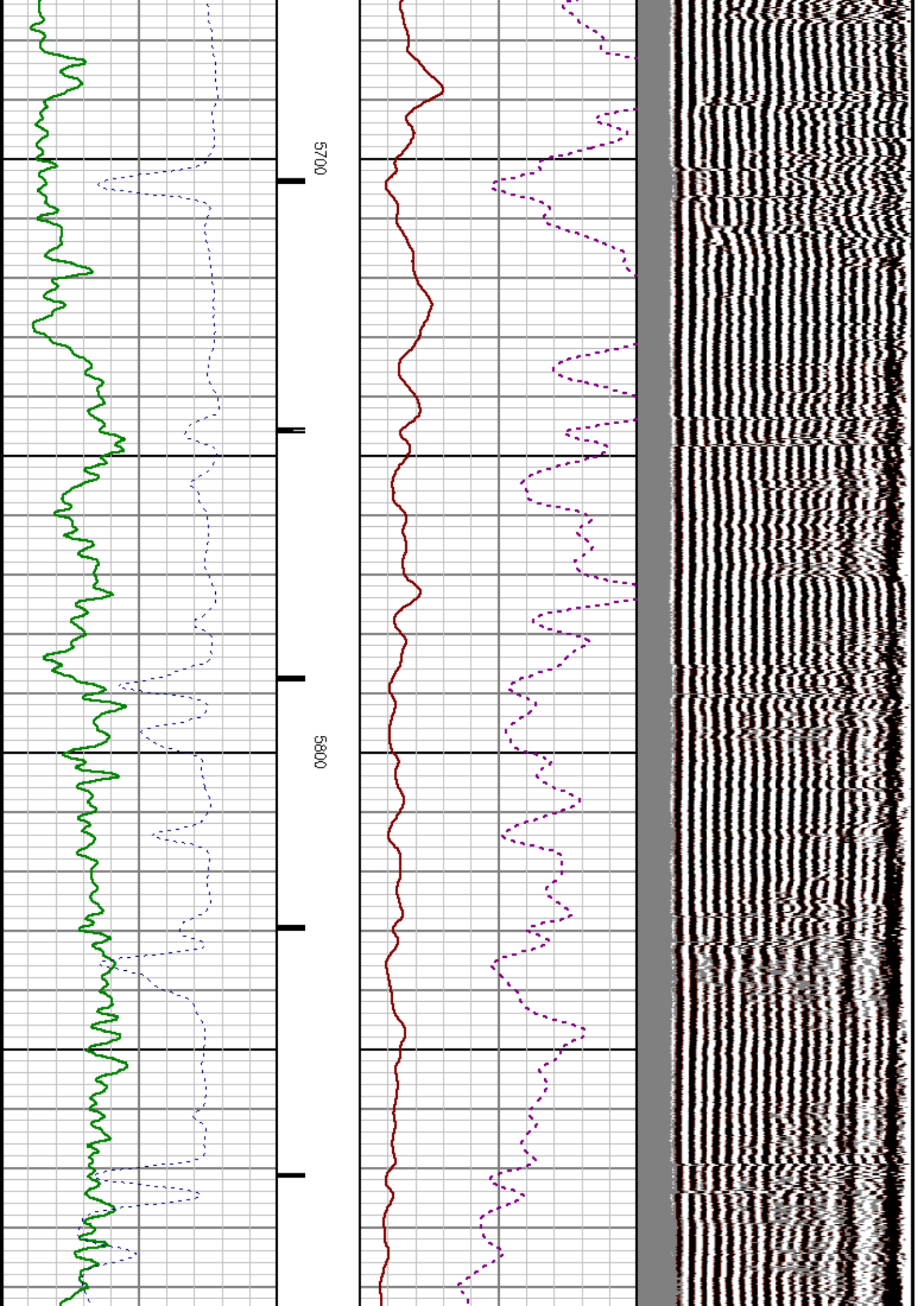
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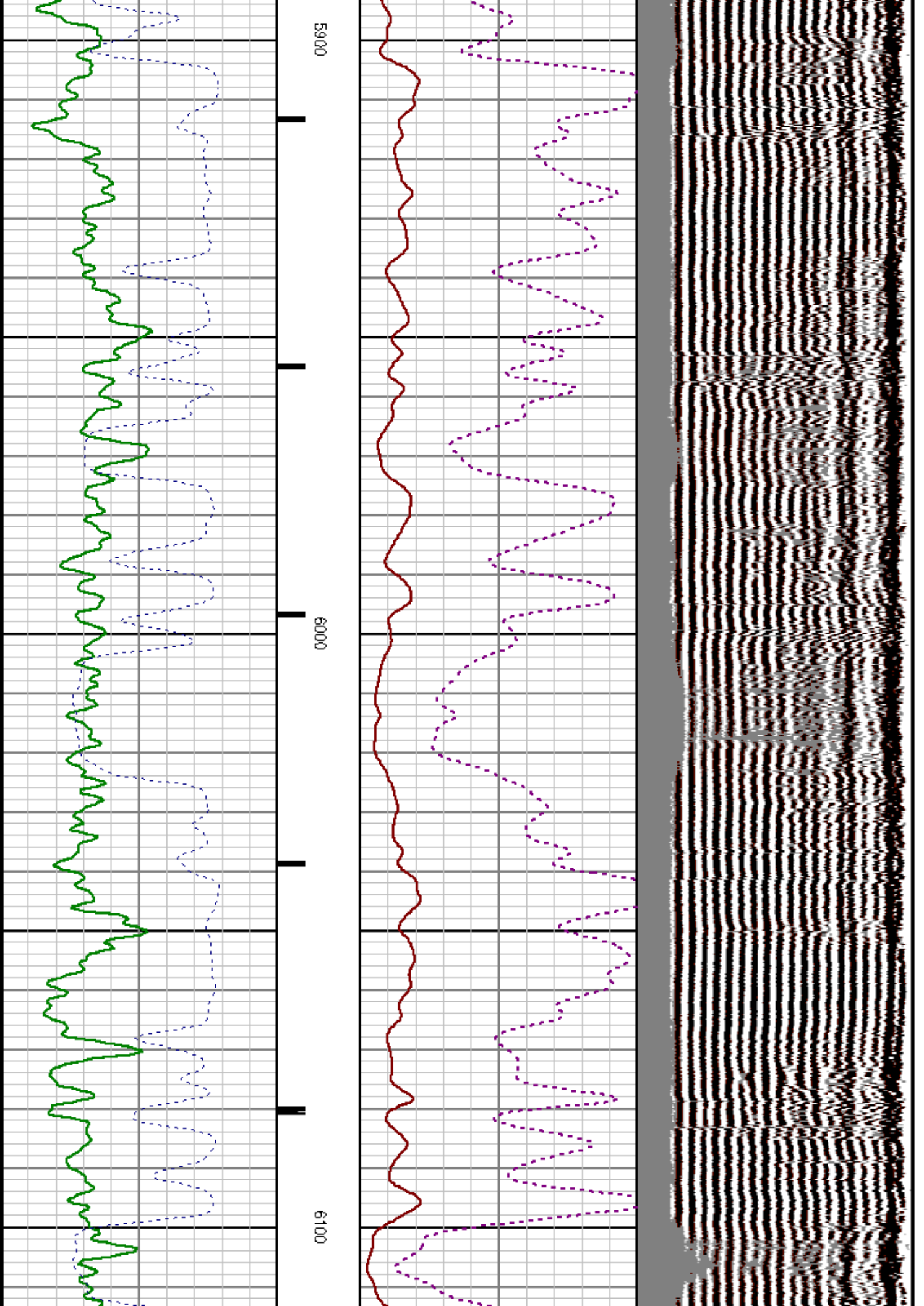
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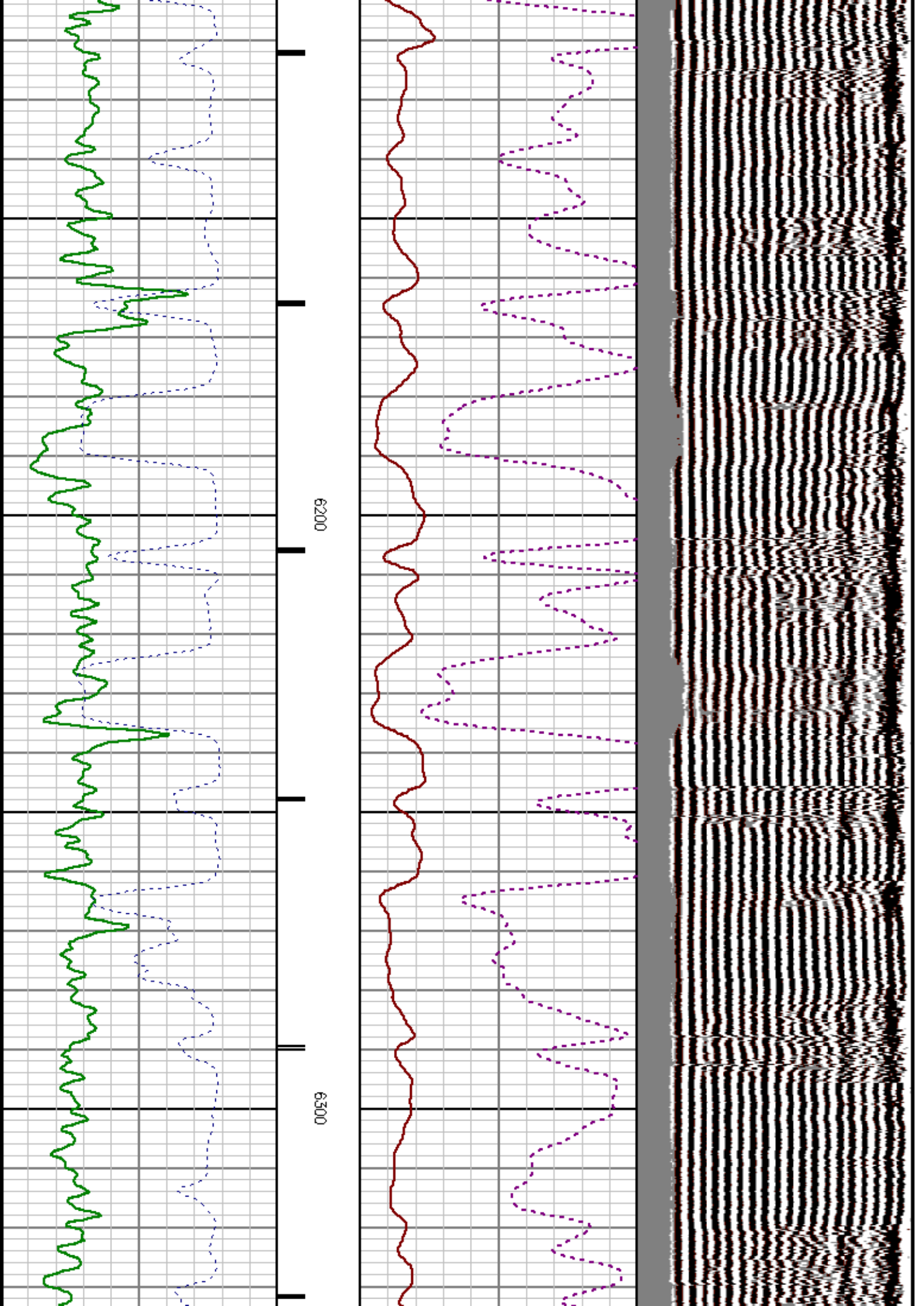
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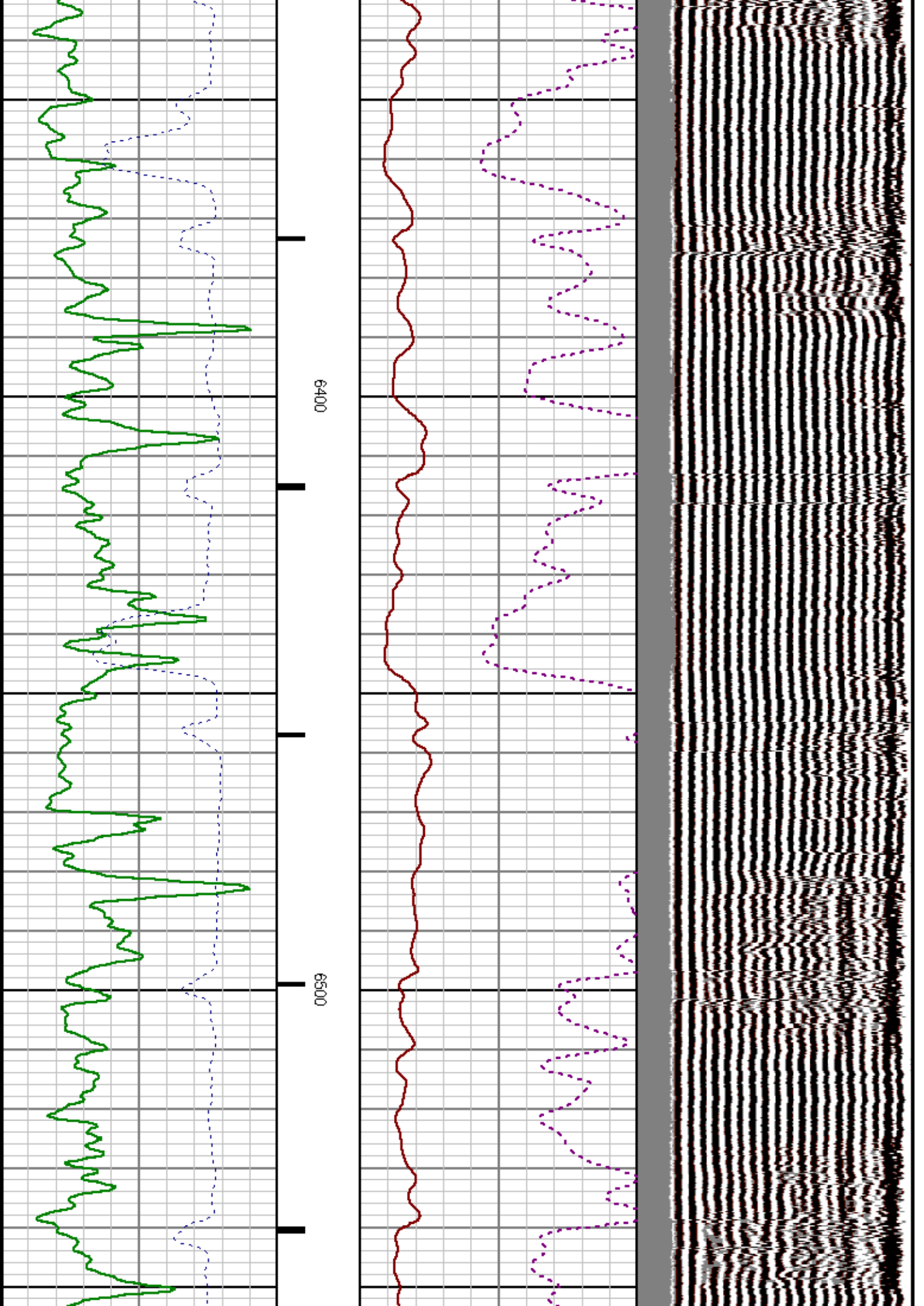
0	GR	150	CCL	185	mv	0	ANR	100	200	Variable Density	1200
	gAPI						mv				us
280	TT3	180				0	XAMP	20			
	usec						mv				

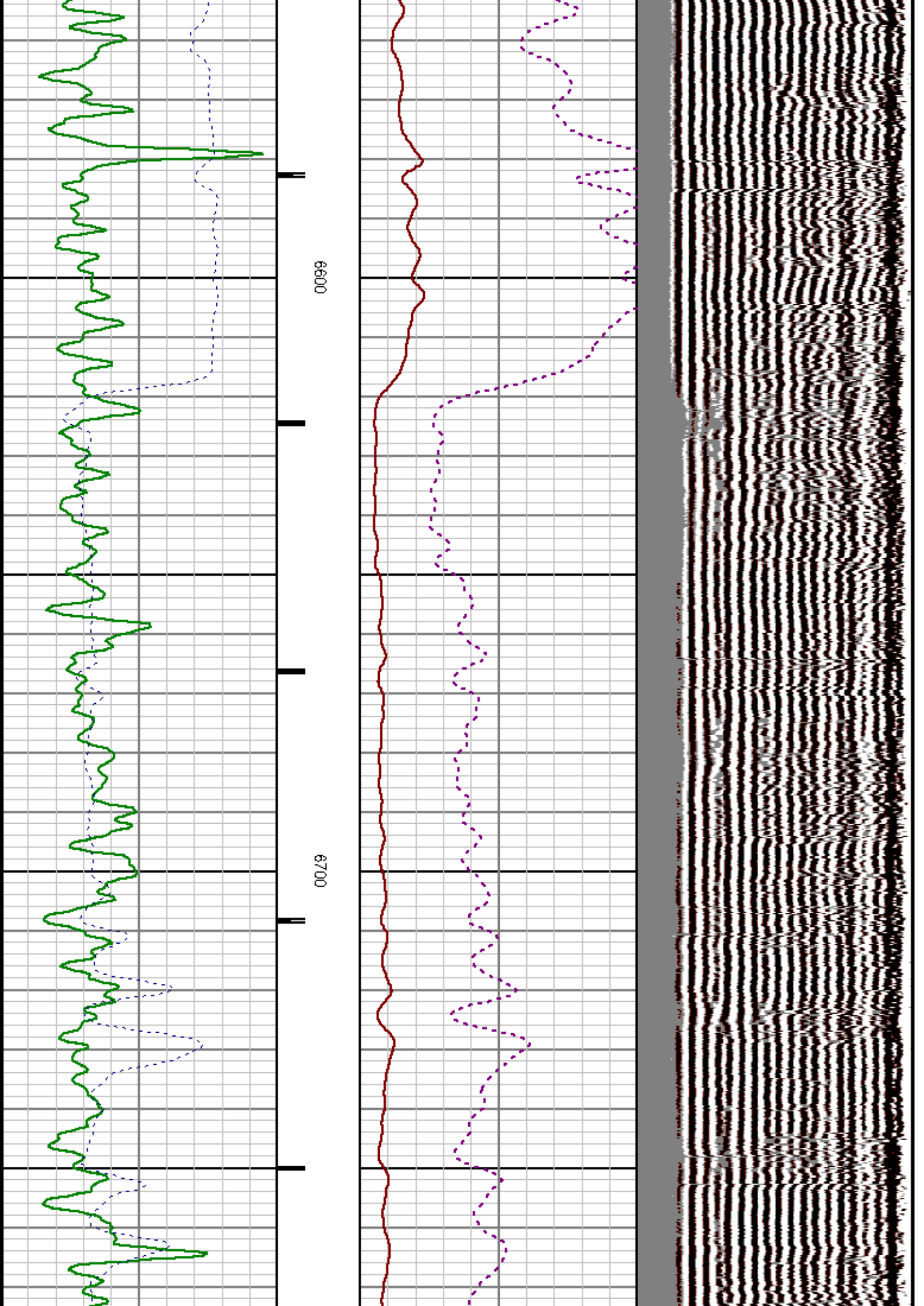


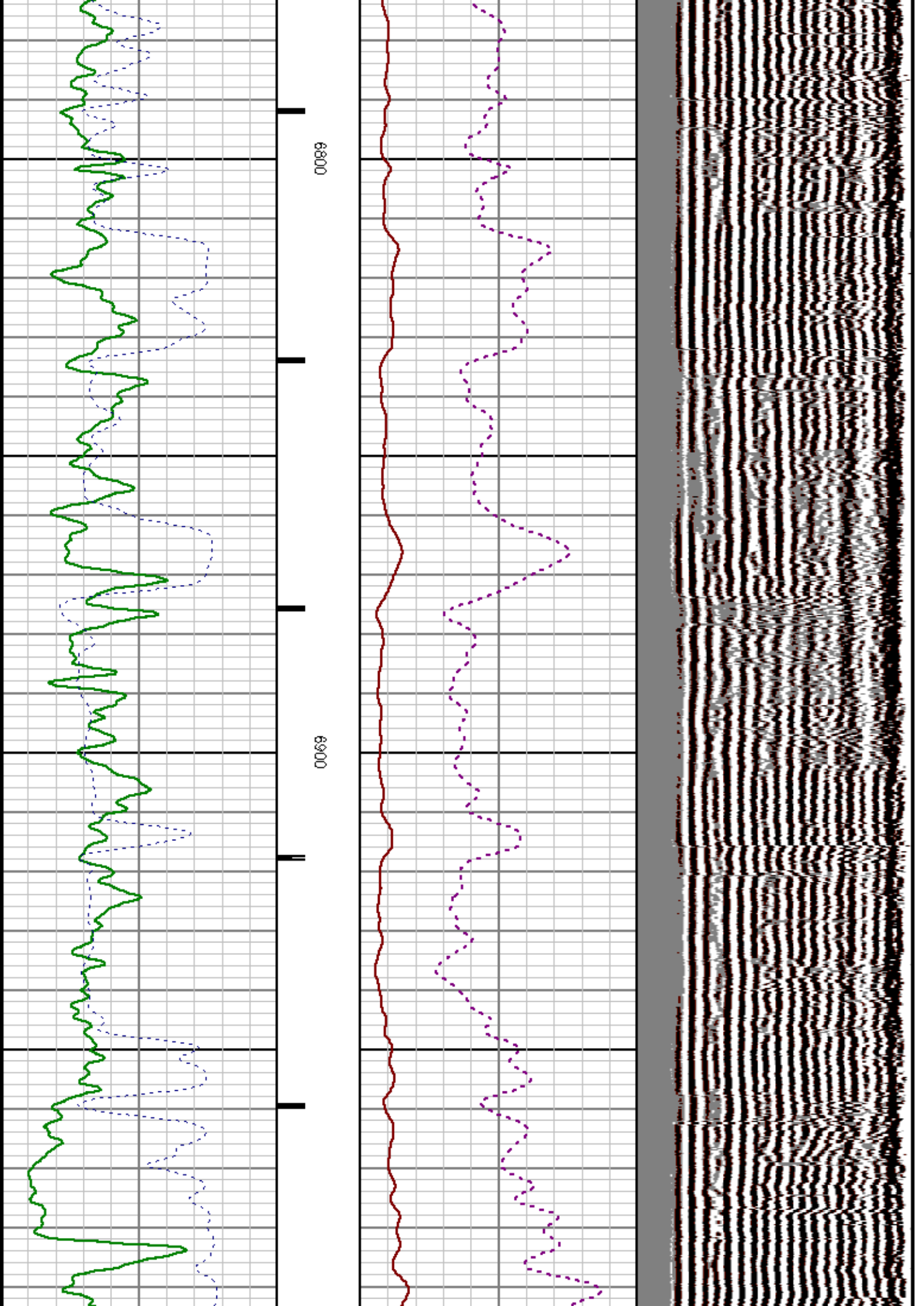


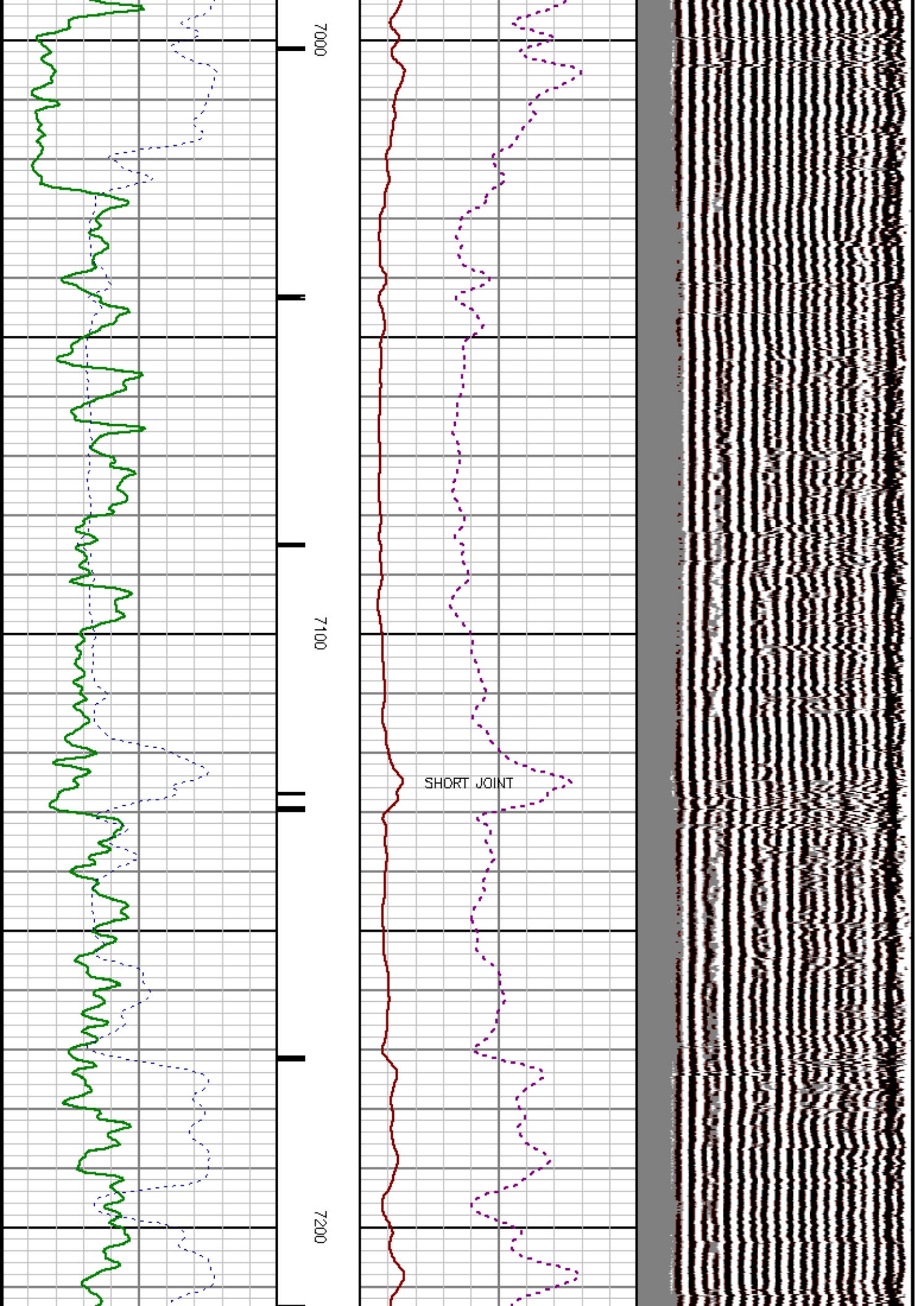


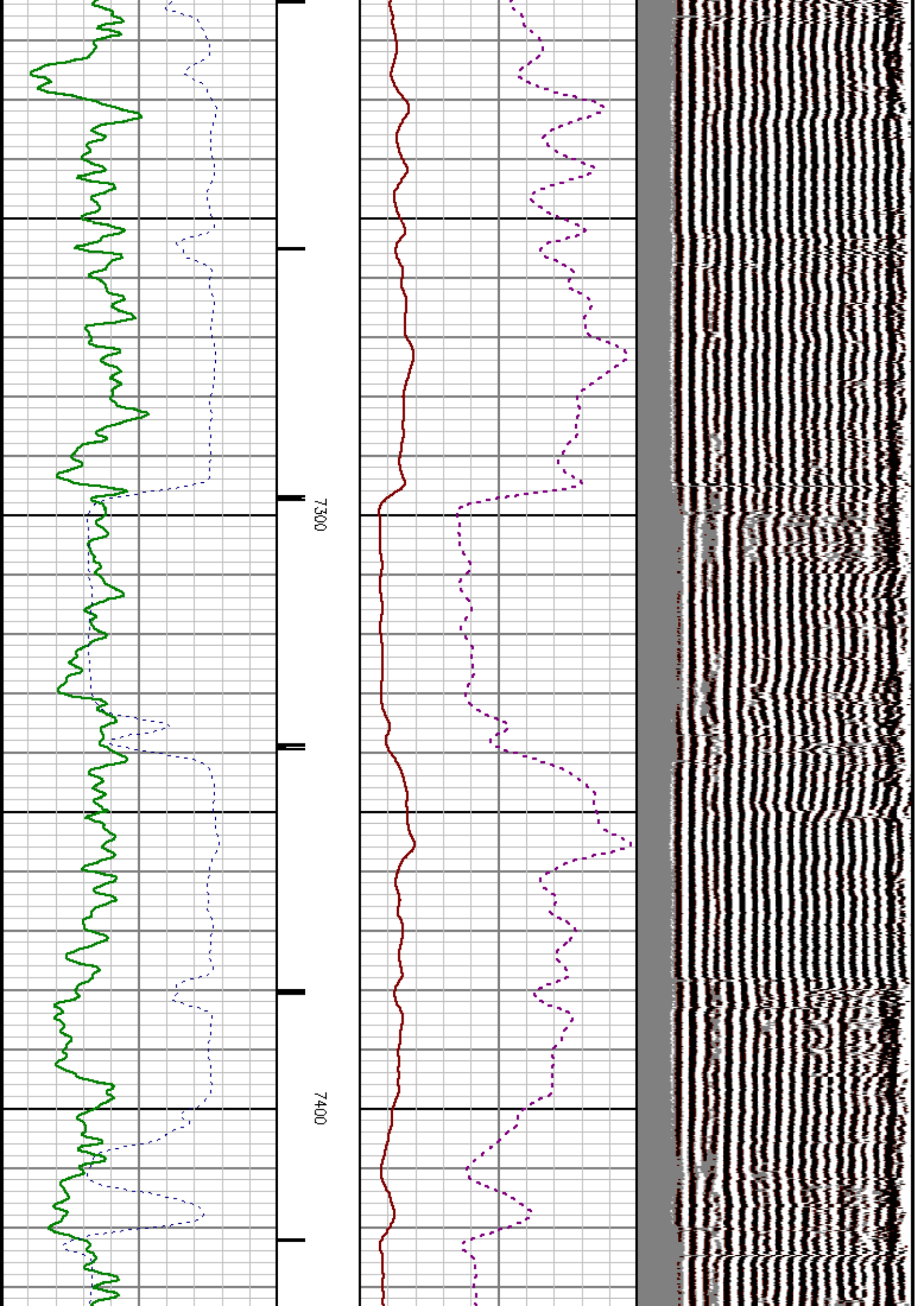


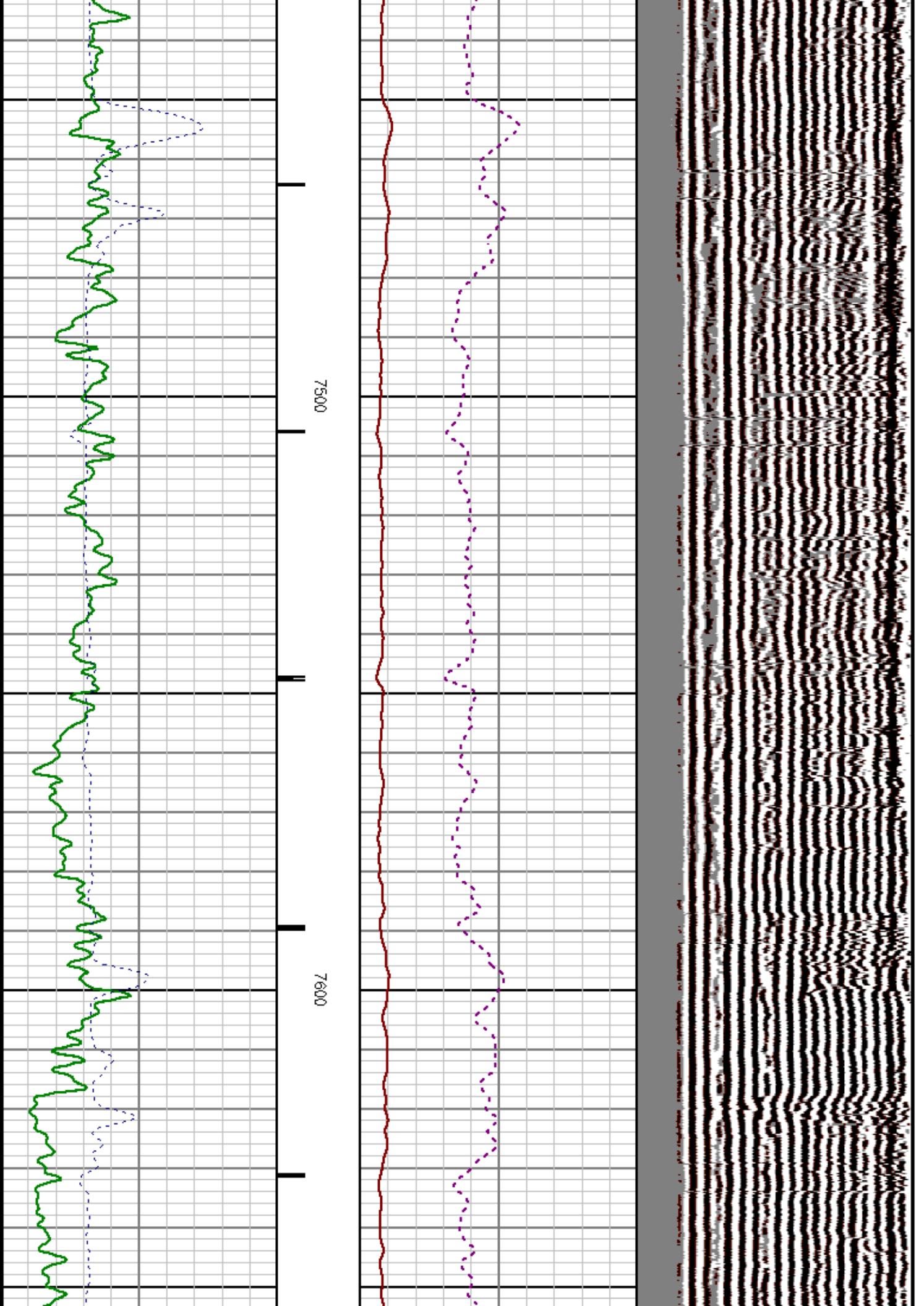


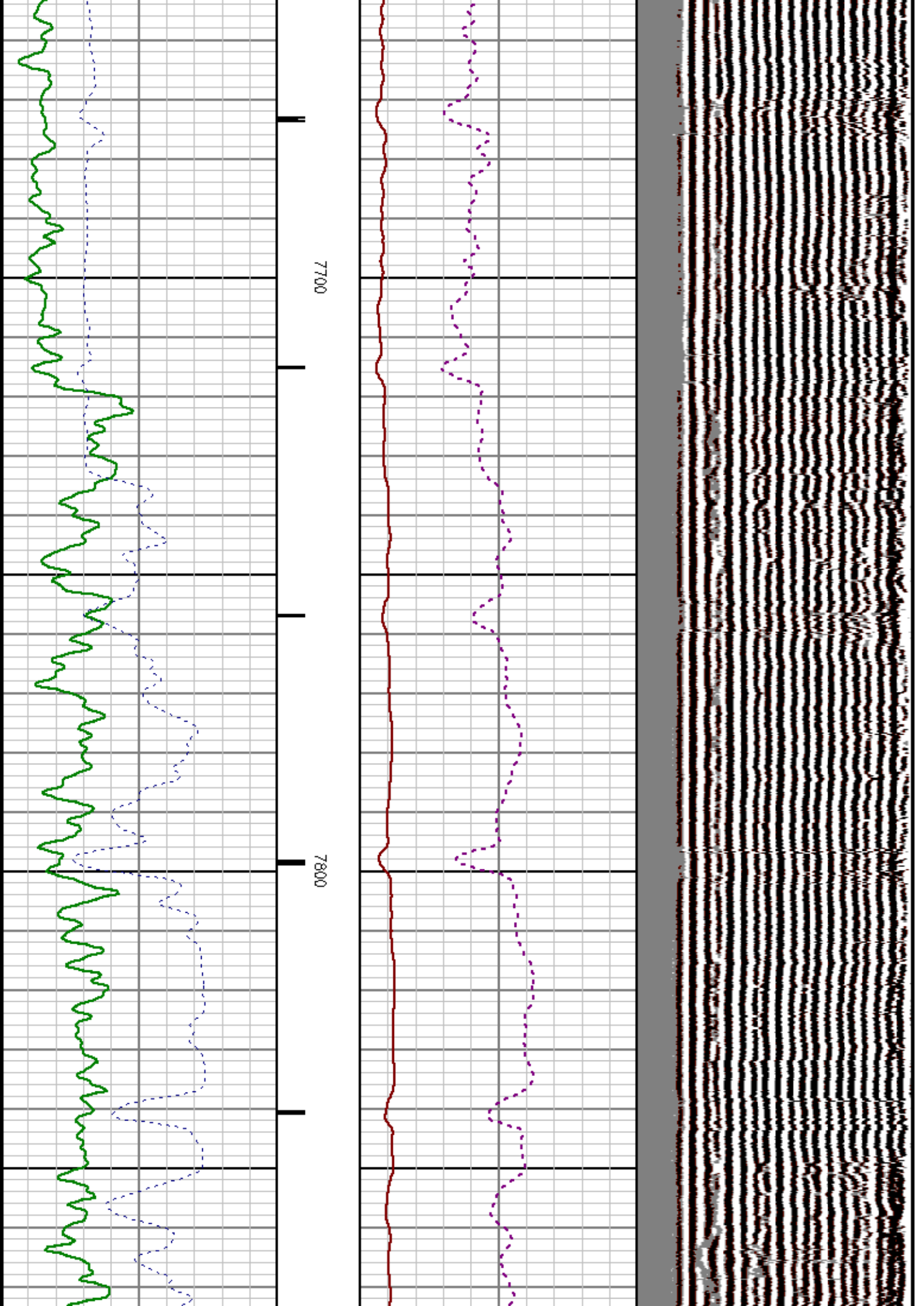


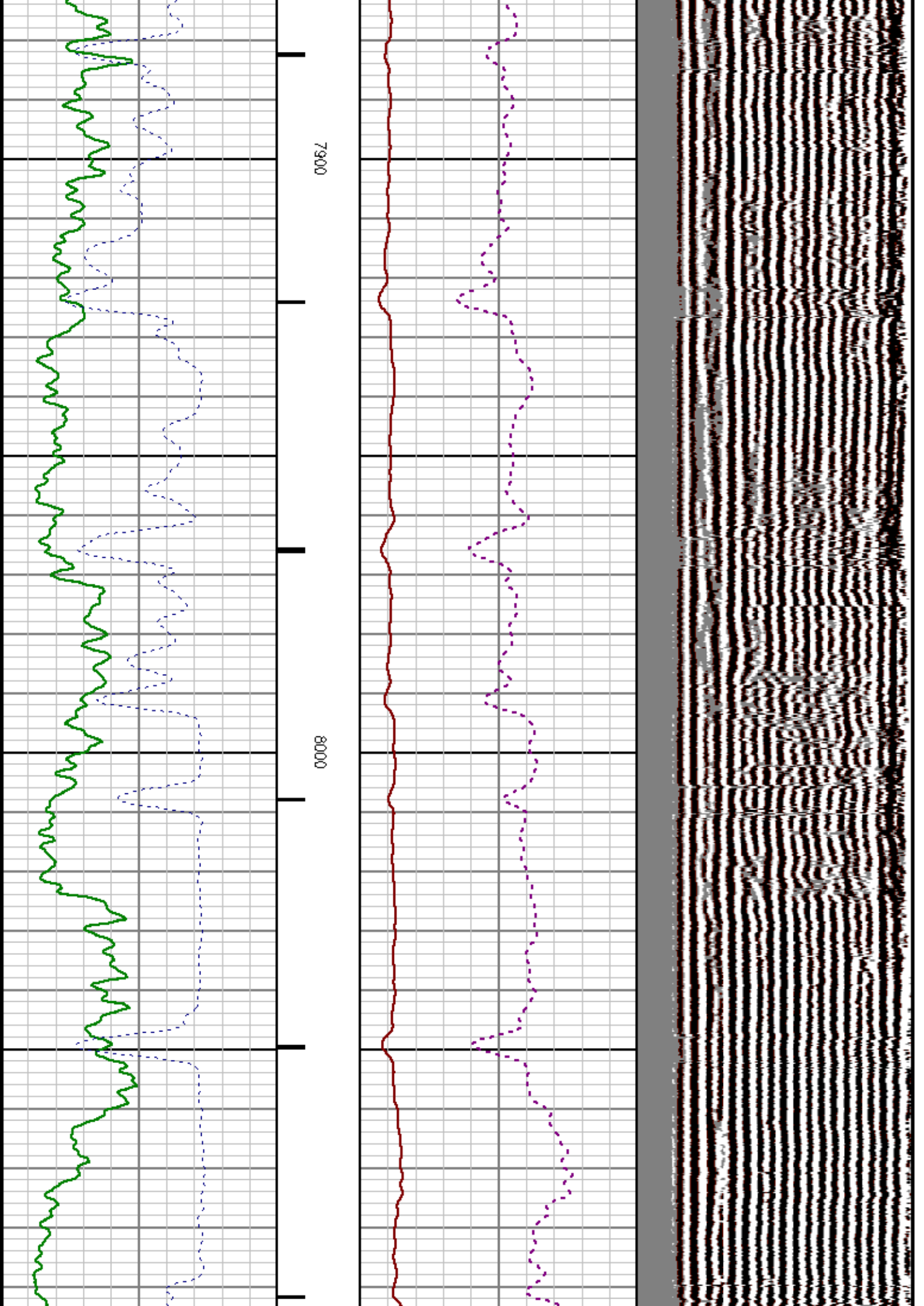










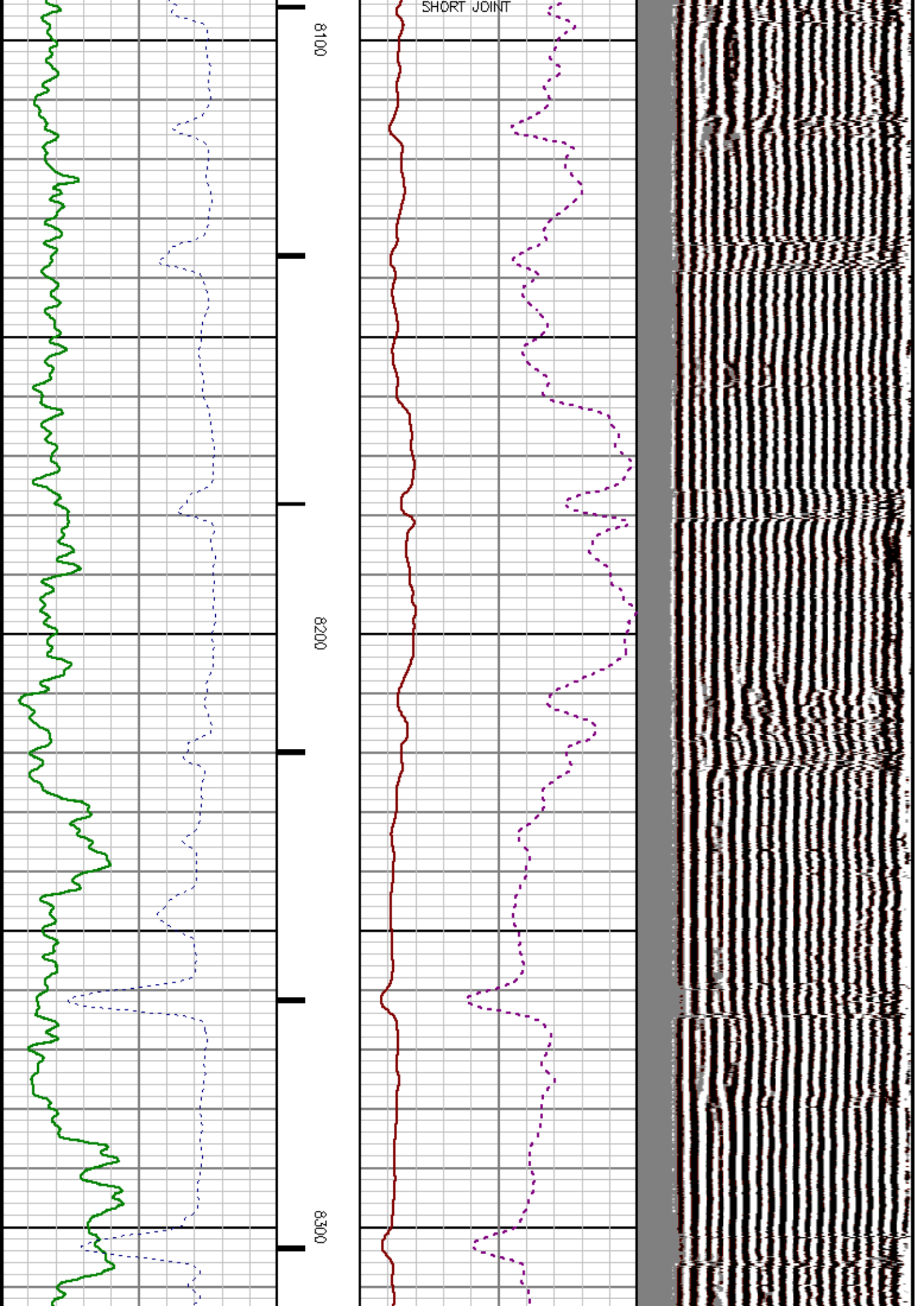


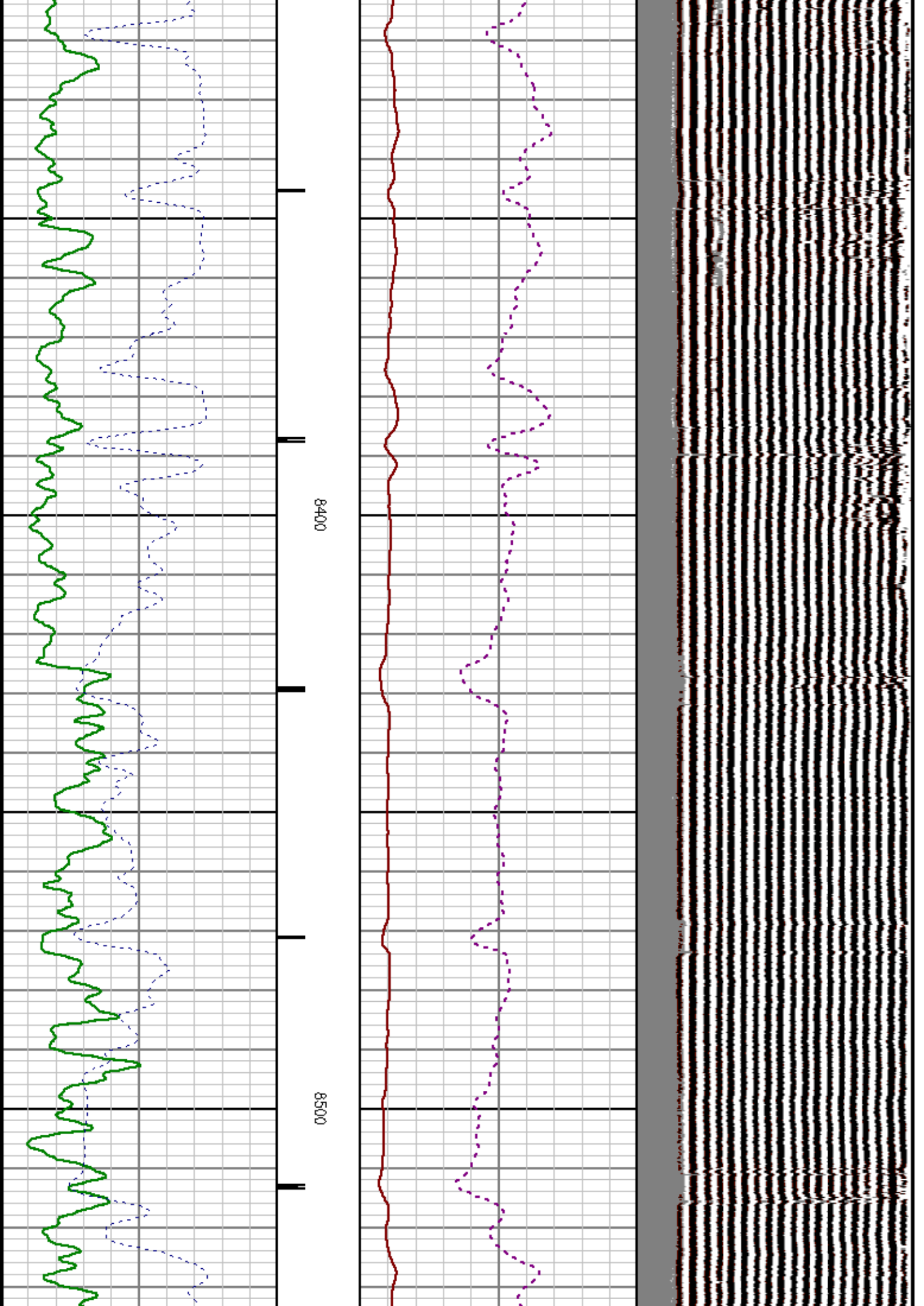
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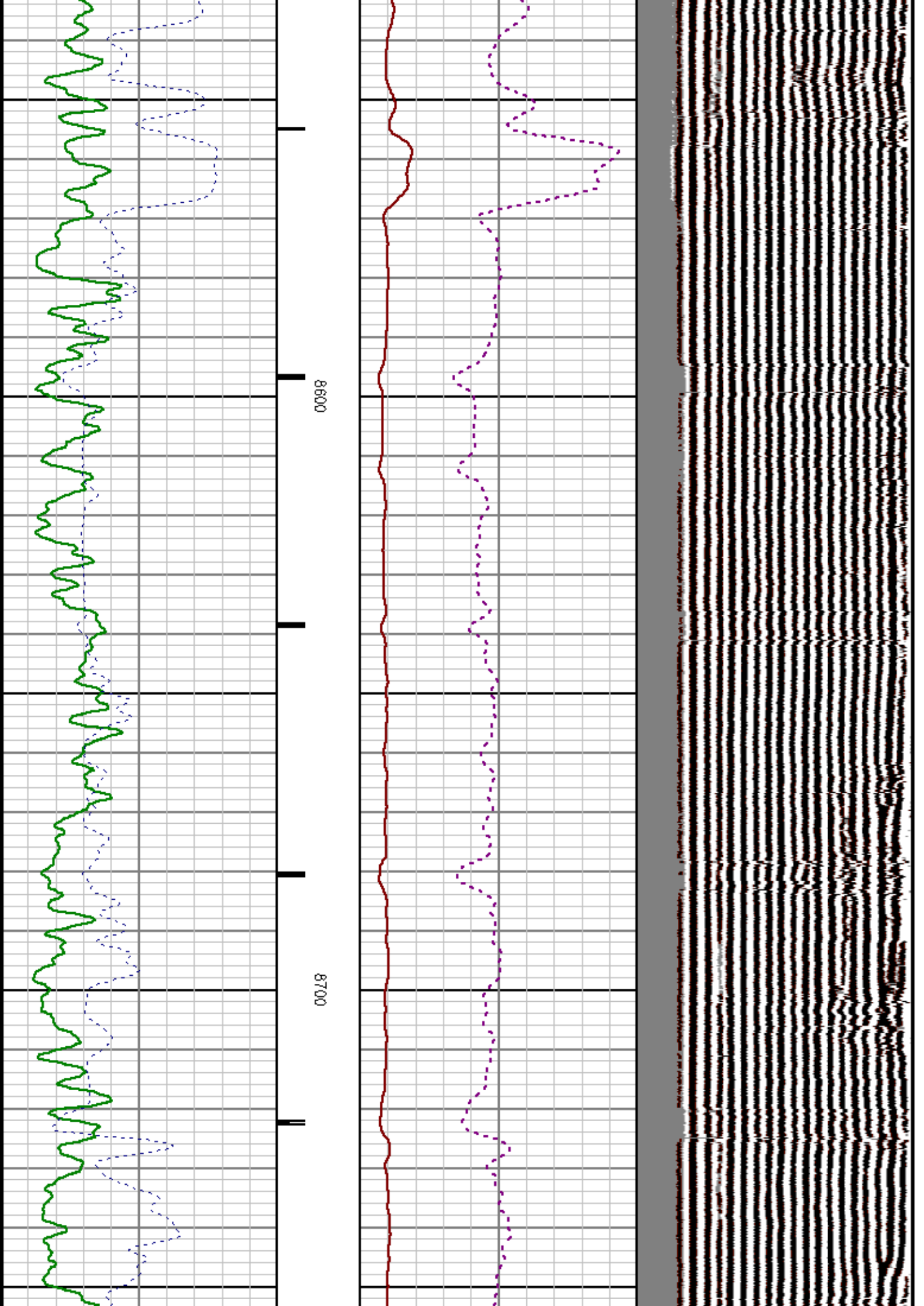
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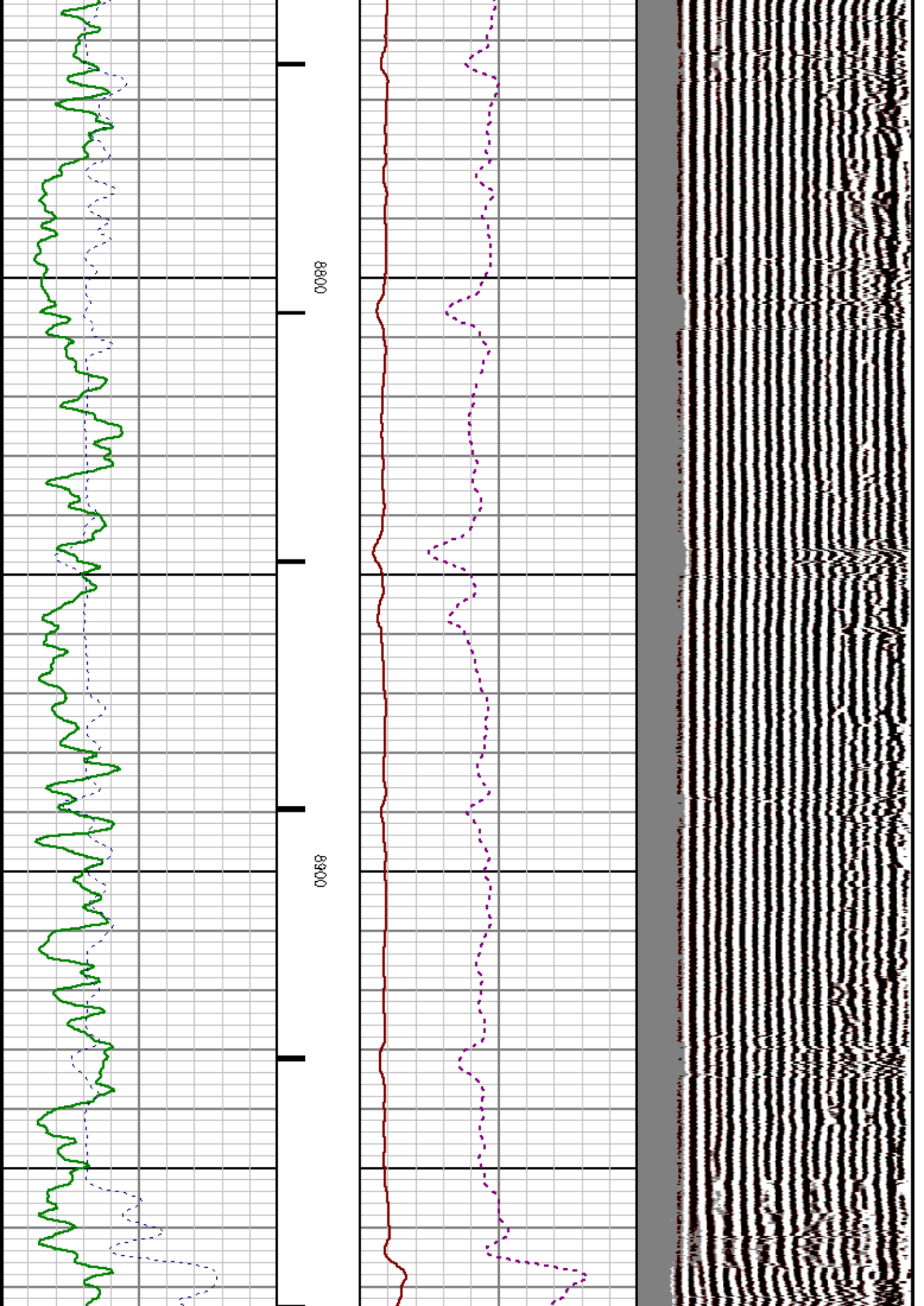
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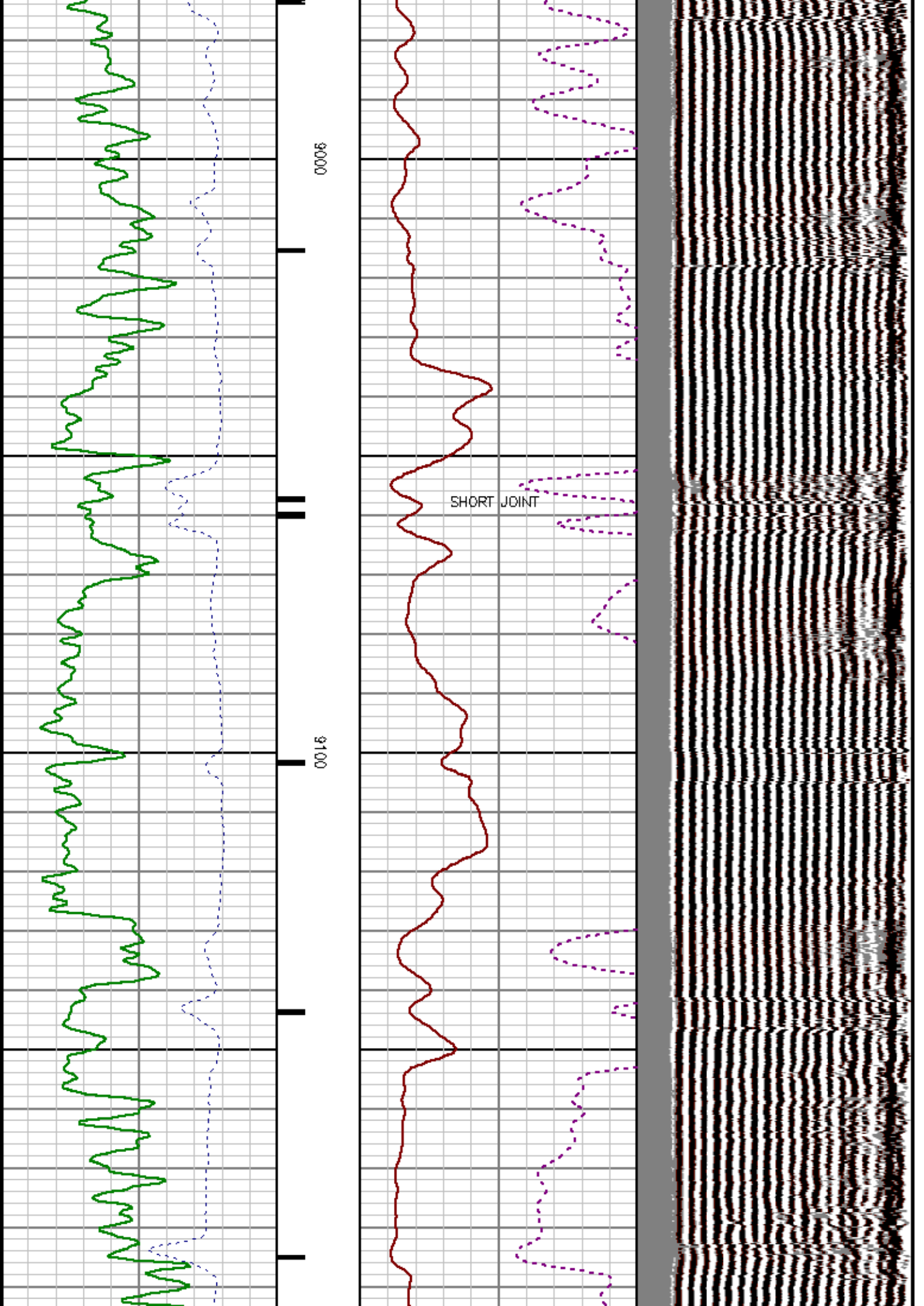
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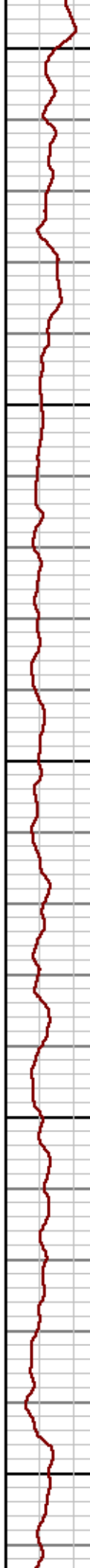
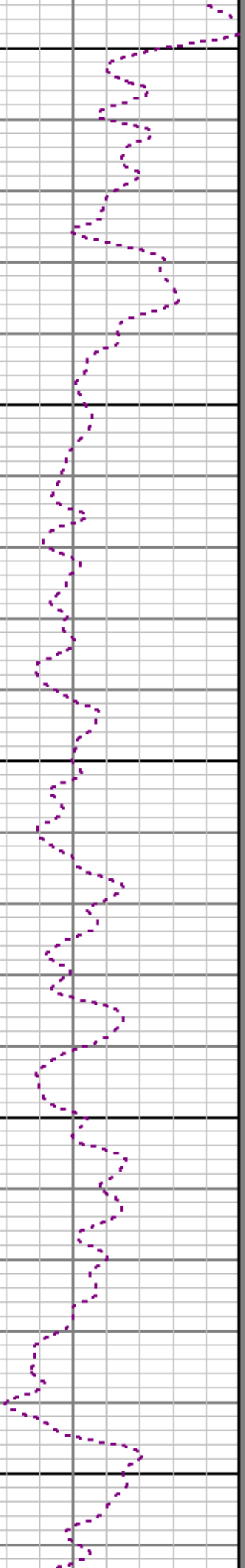
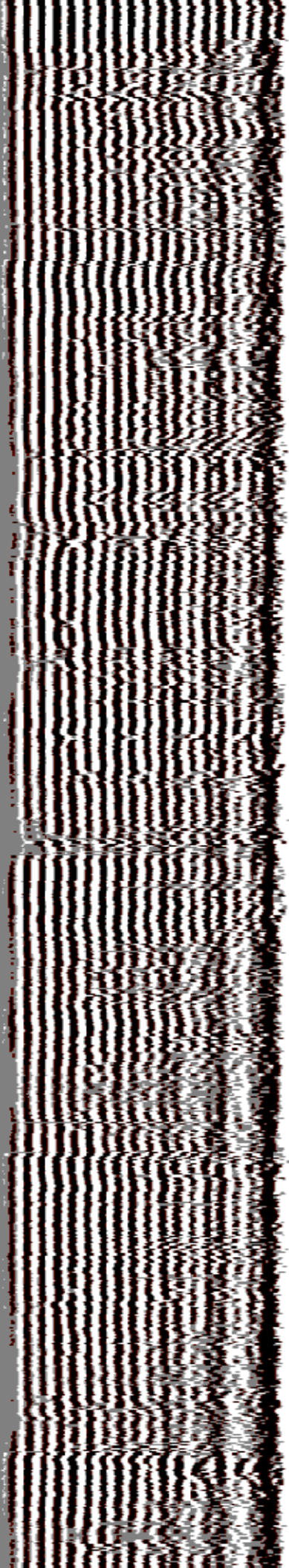








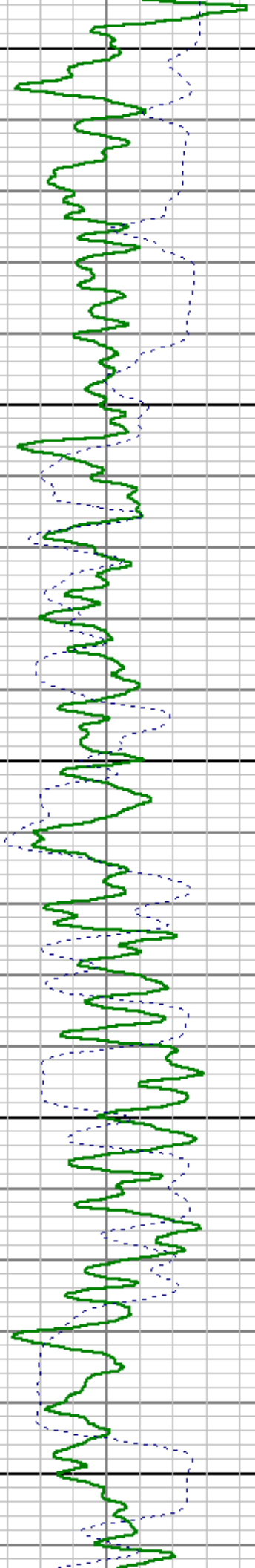


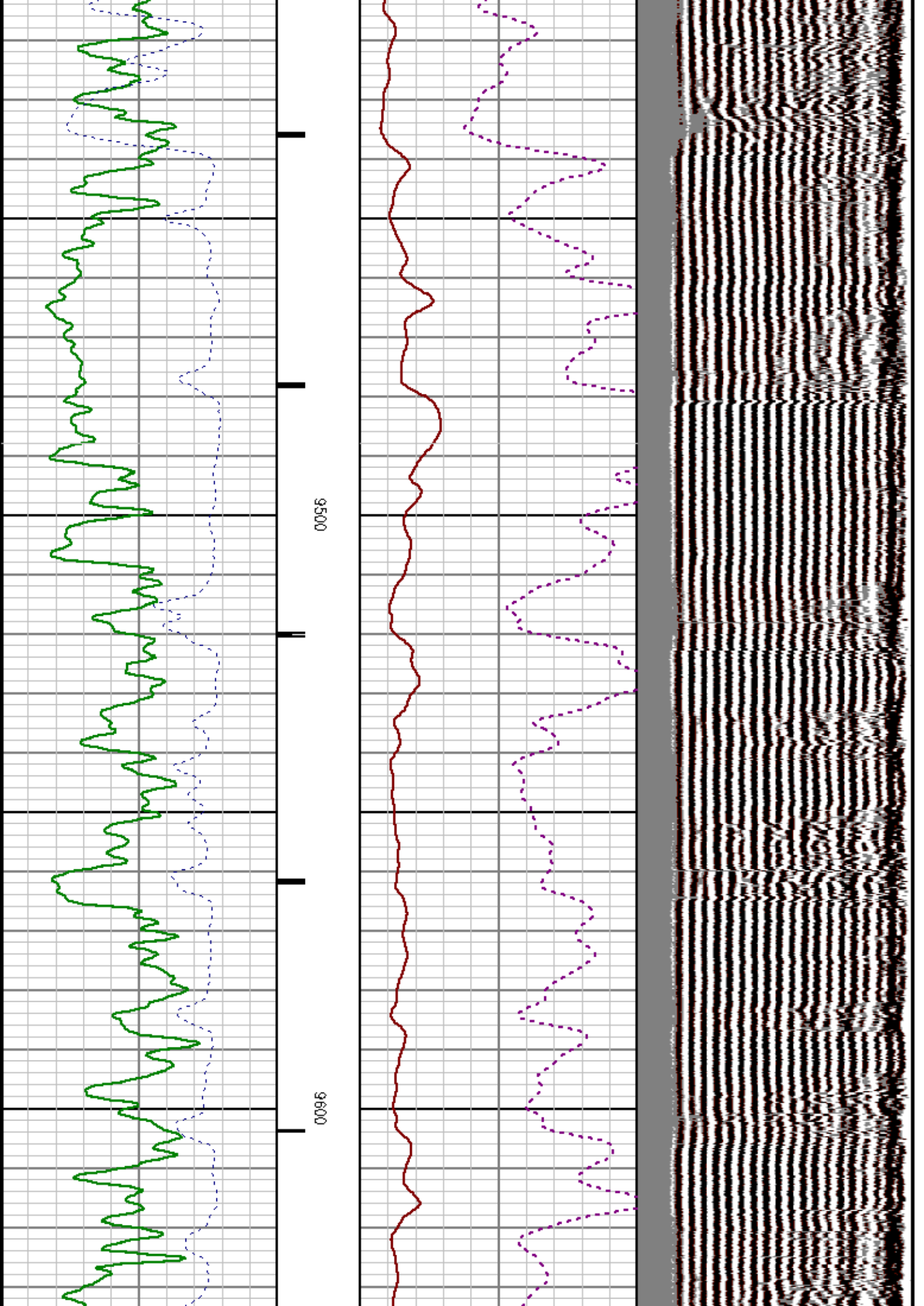


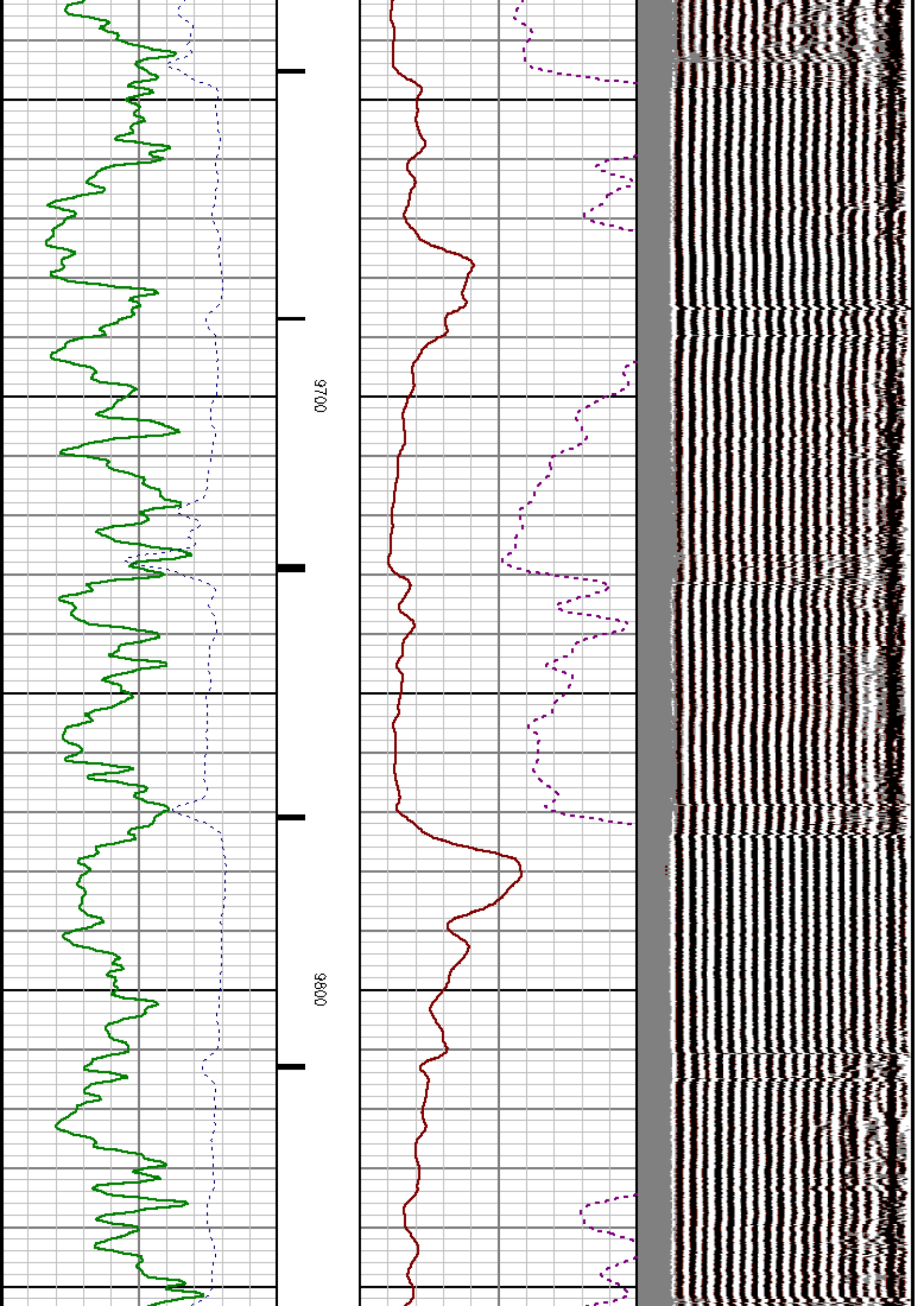
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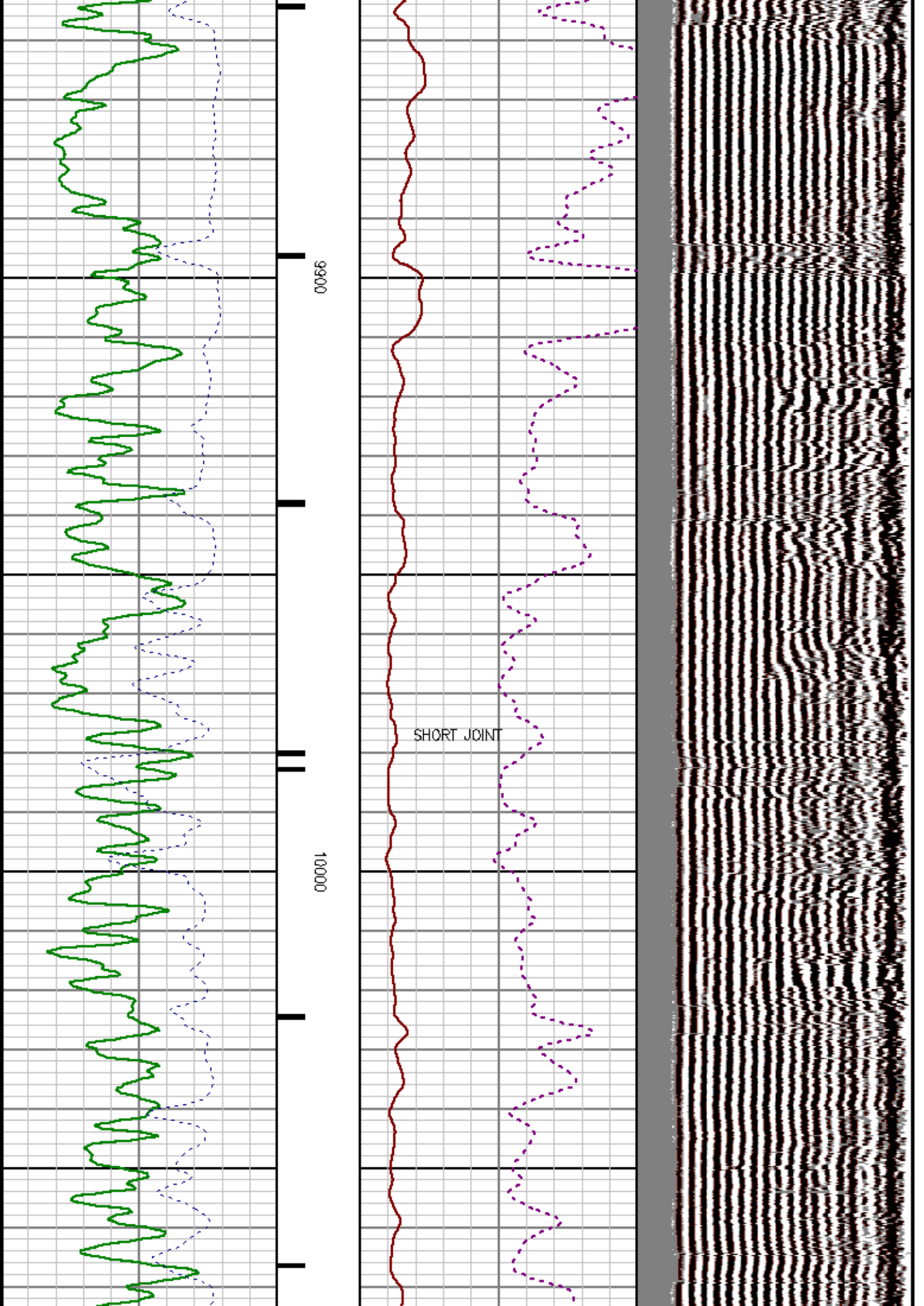
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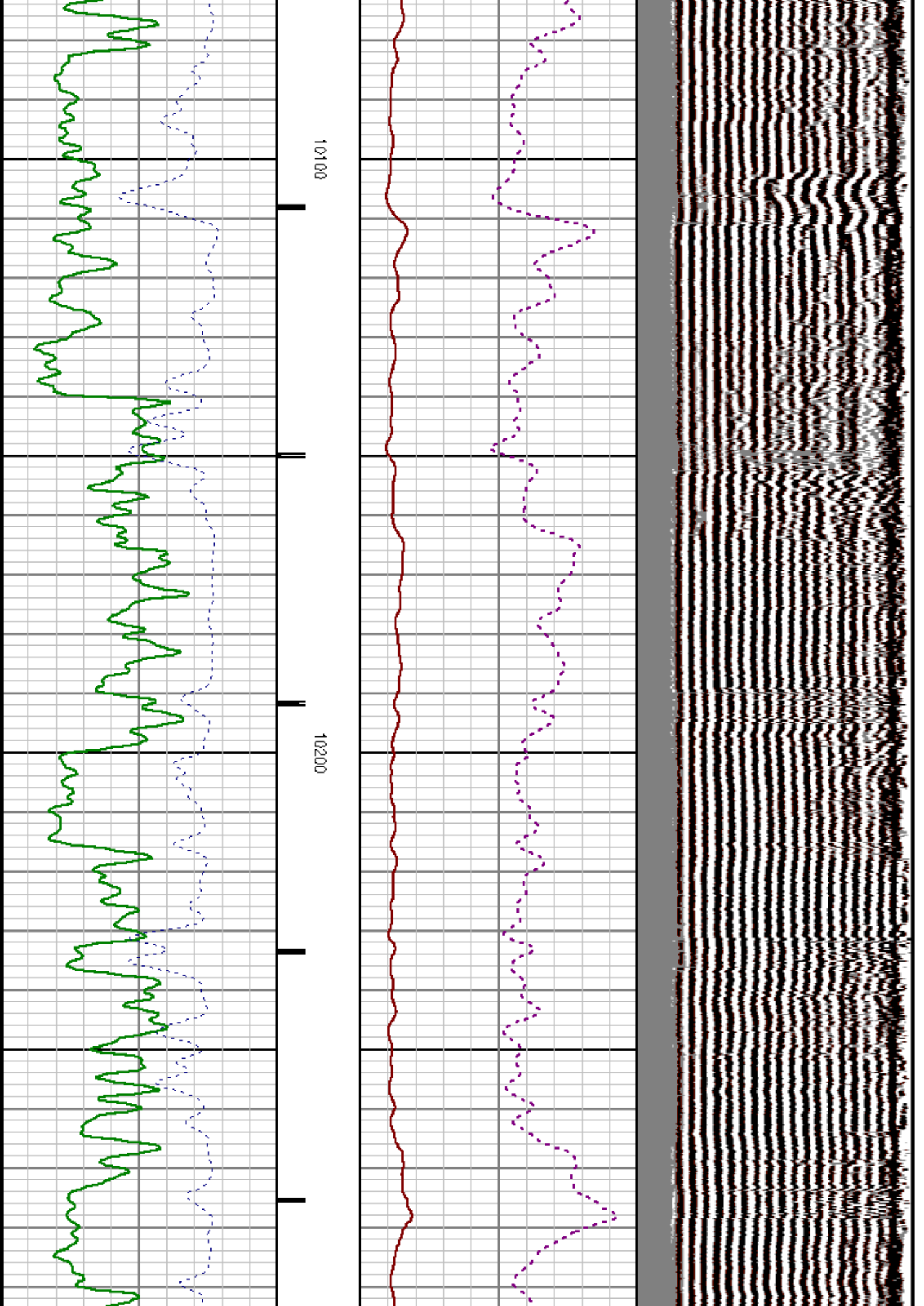
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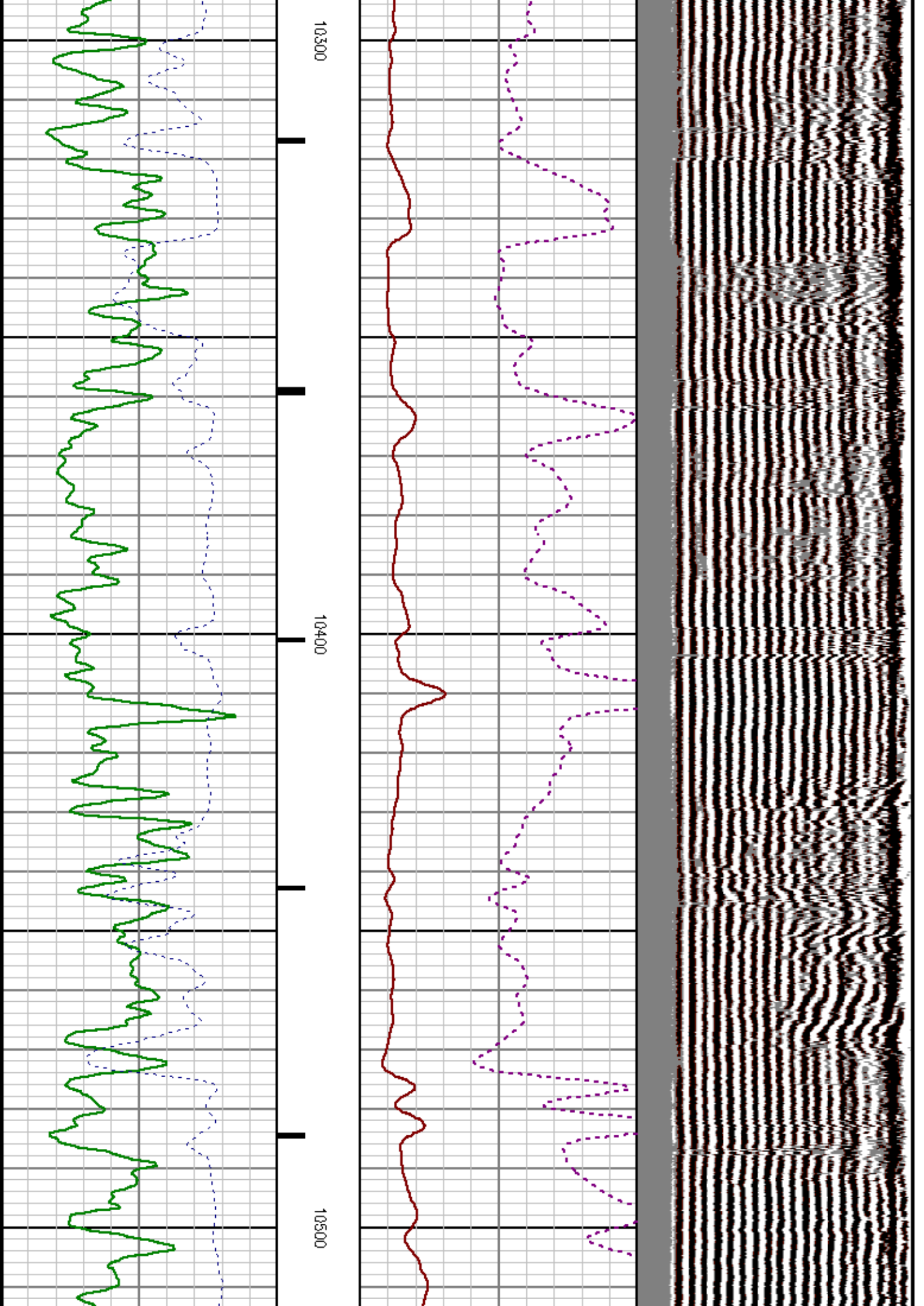


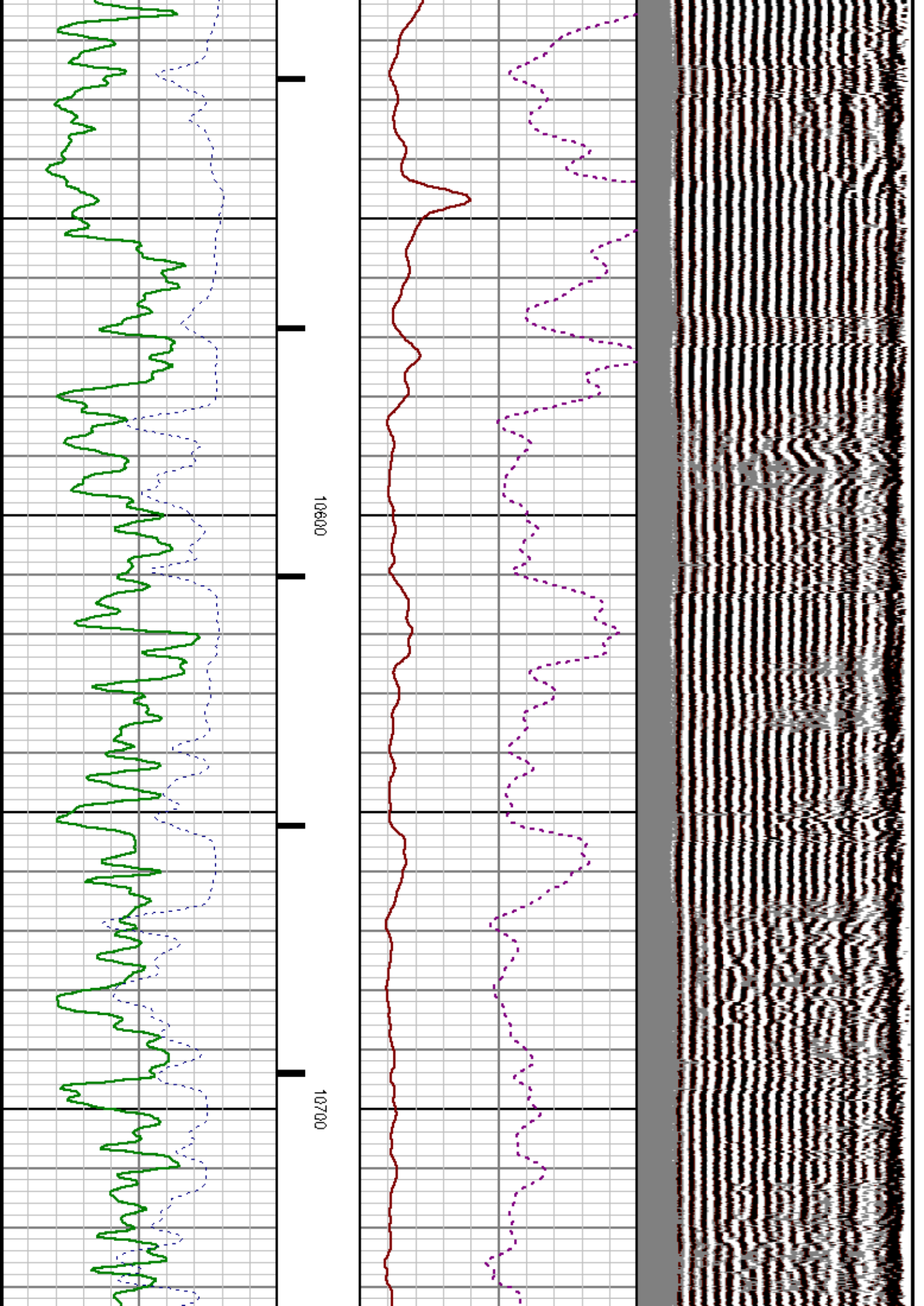


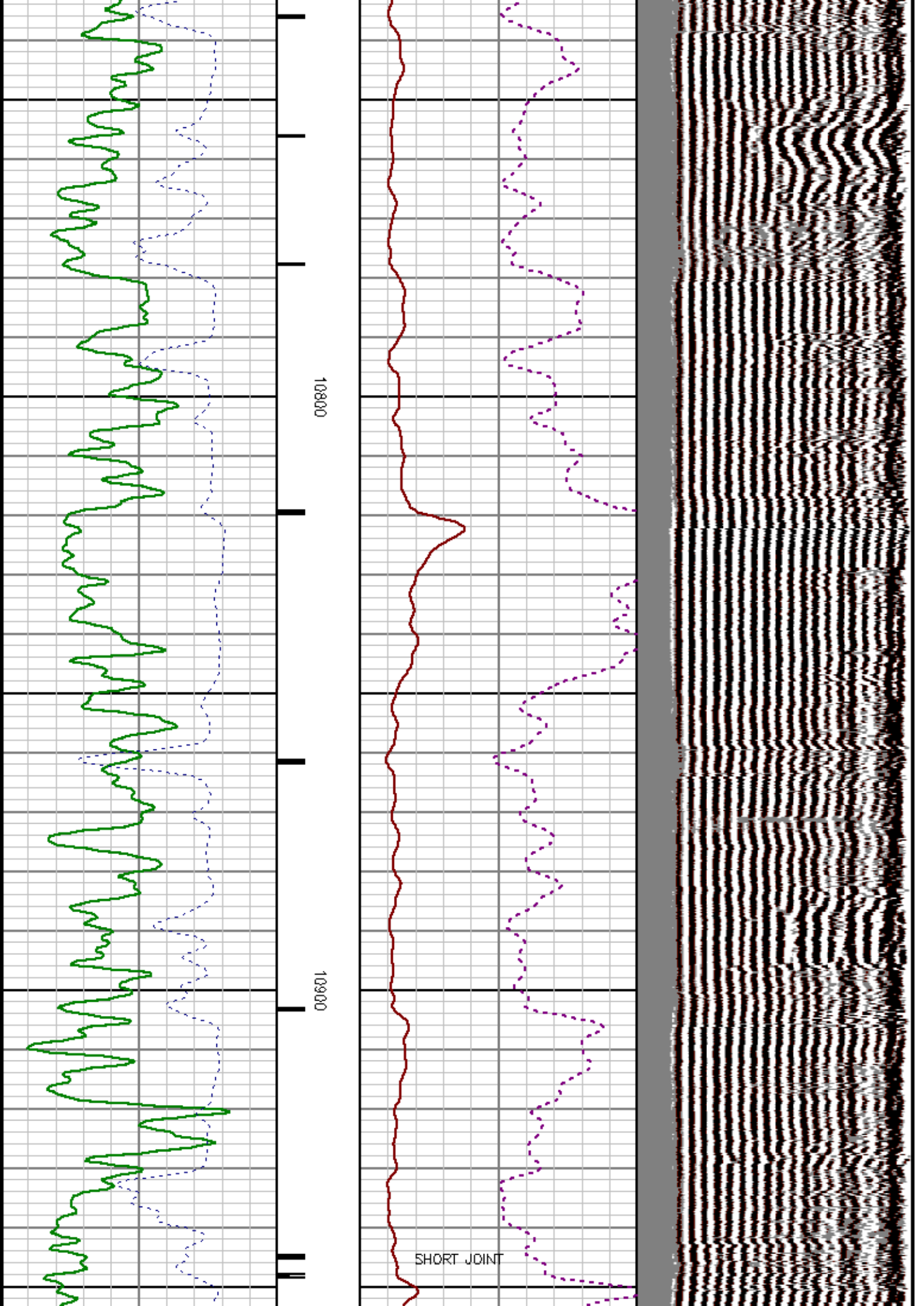


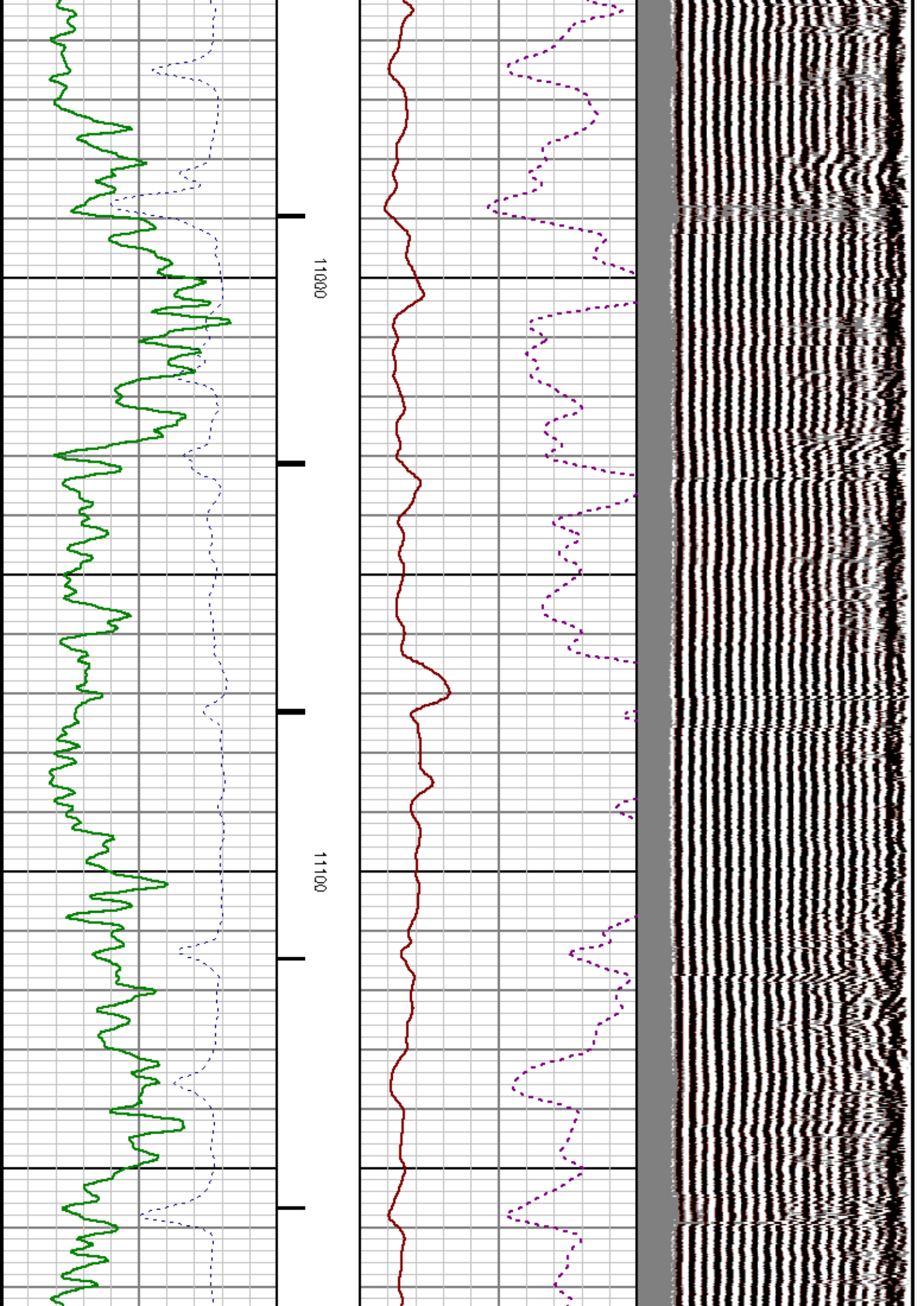


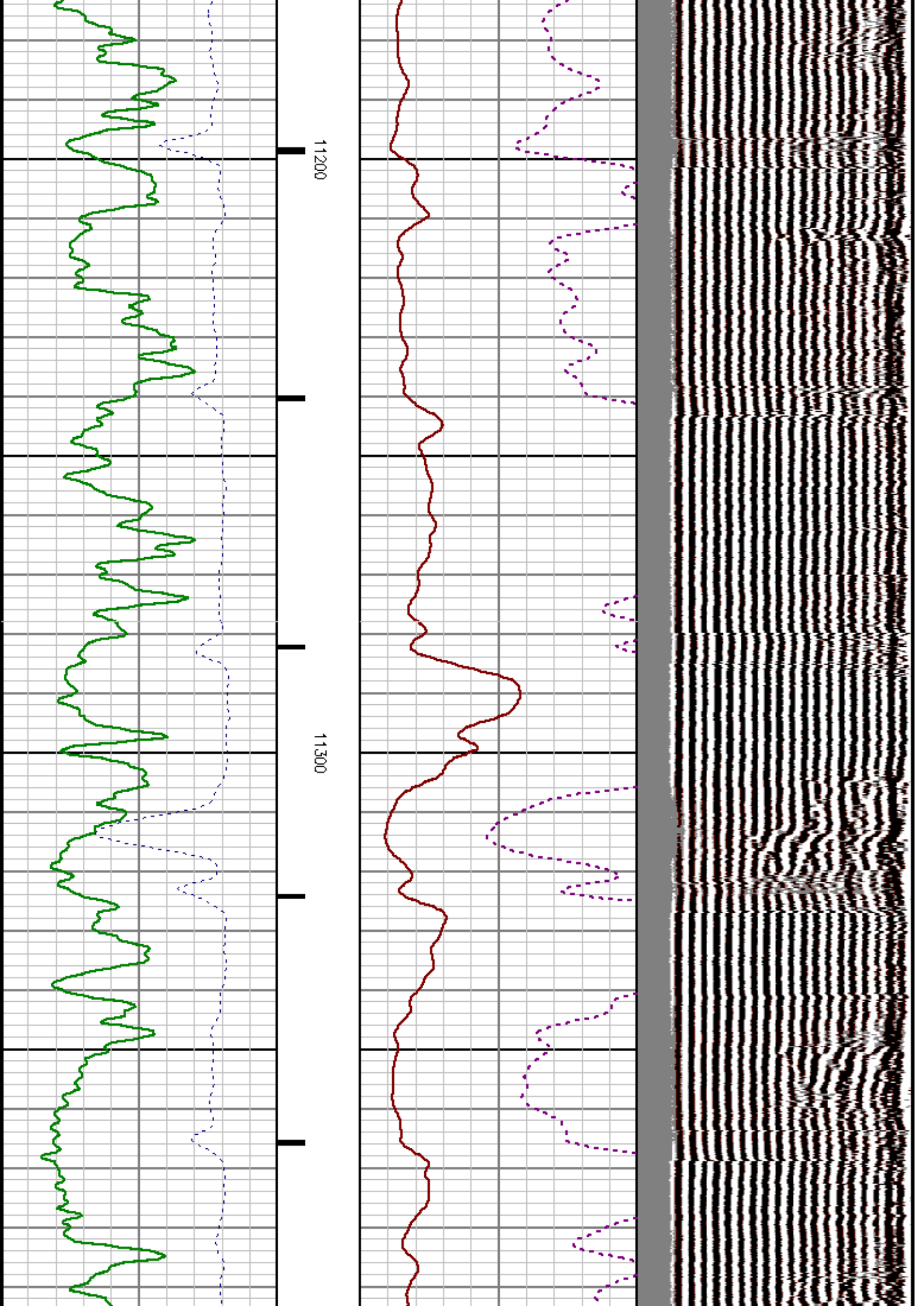


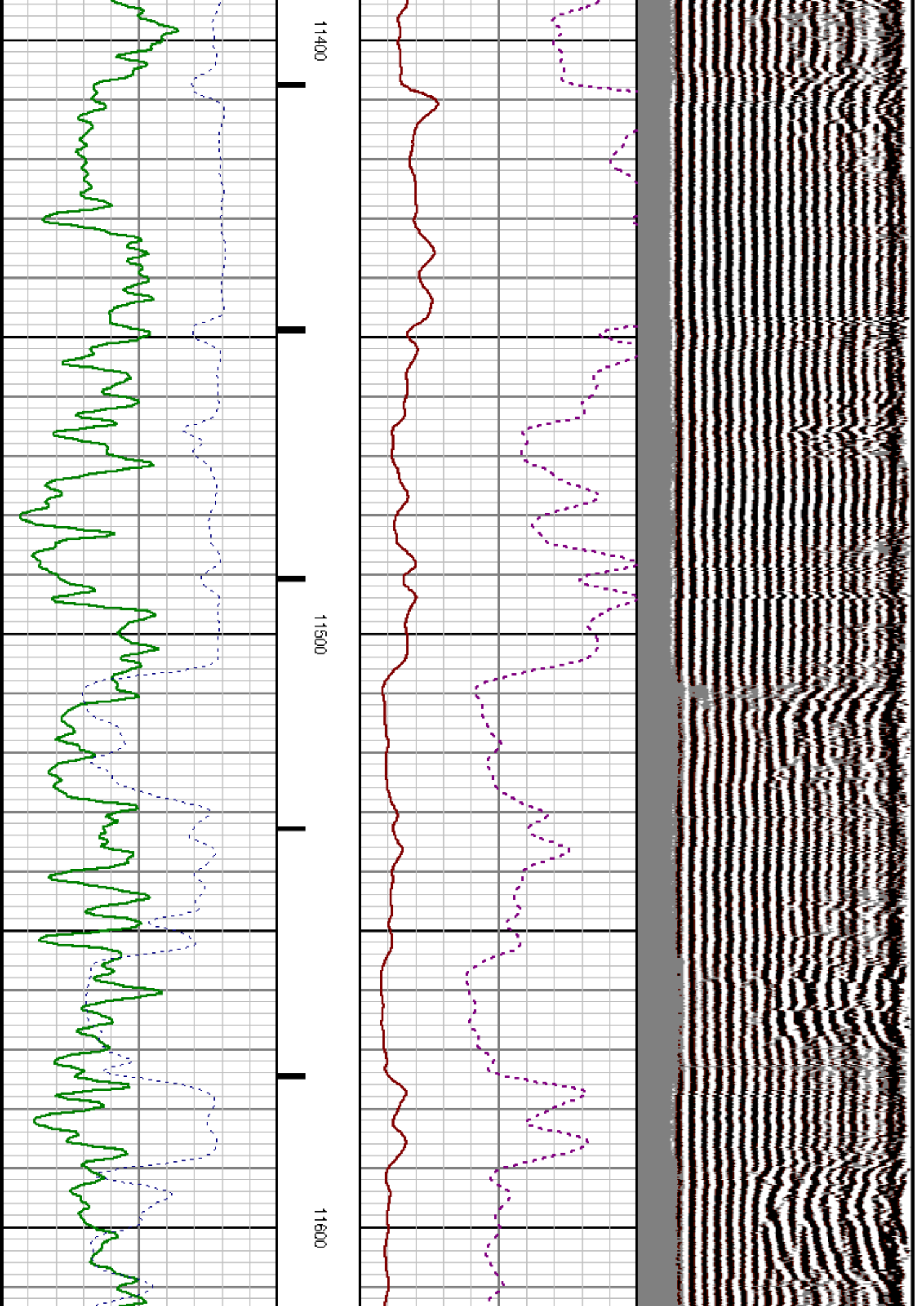


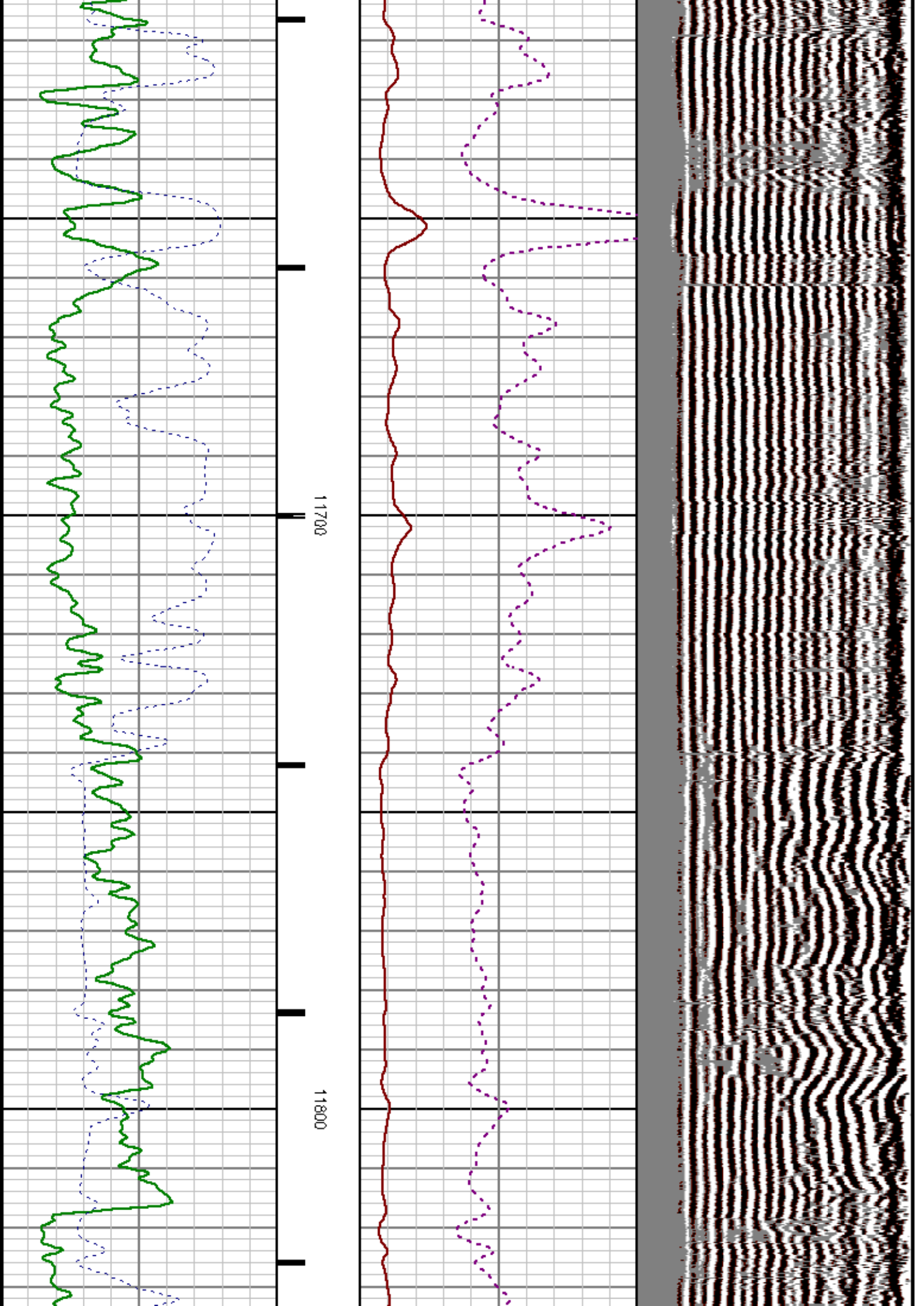


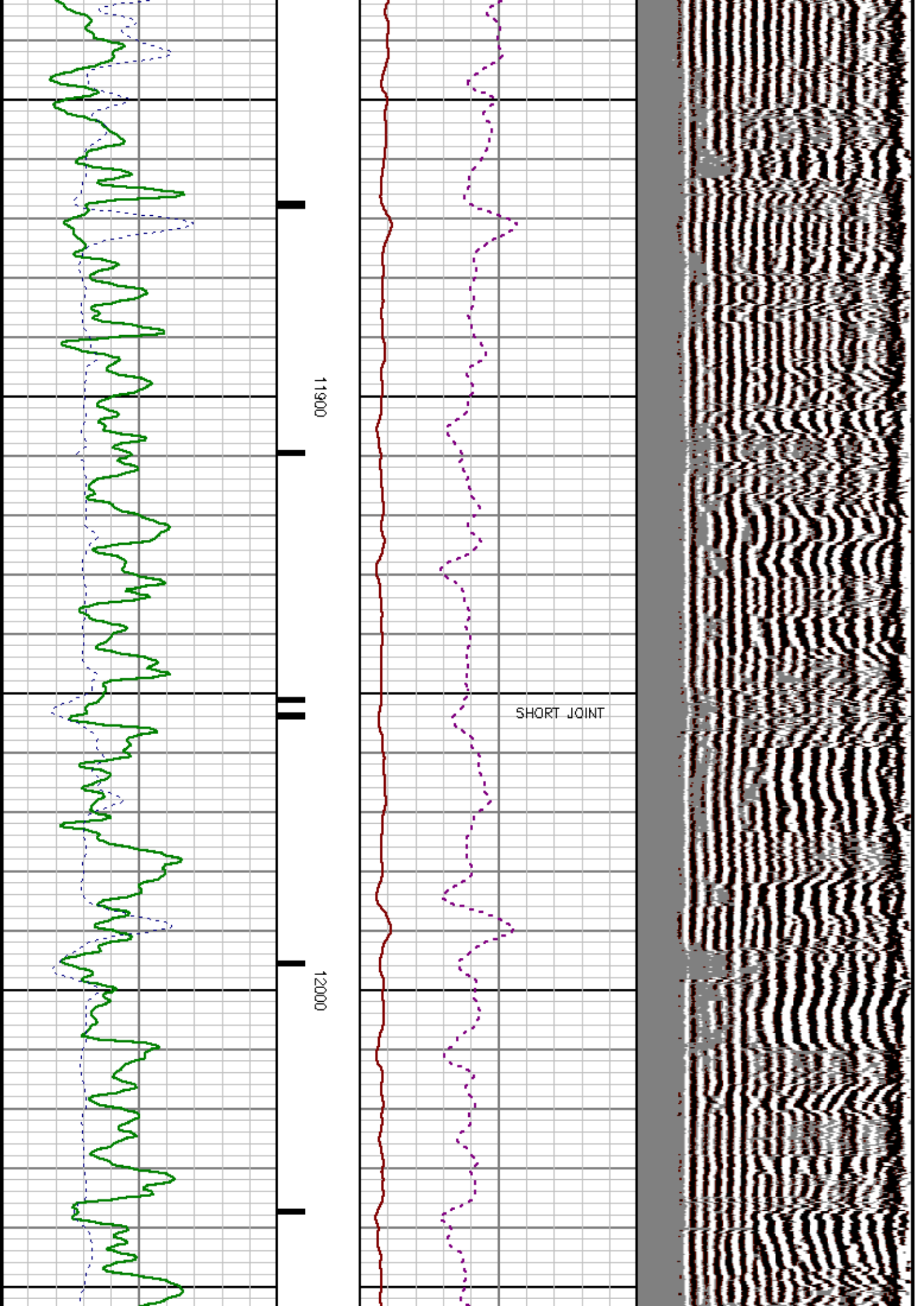


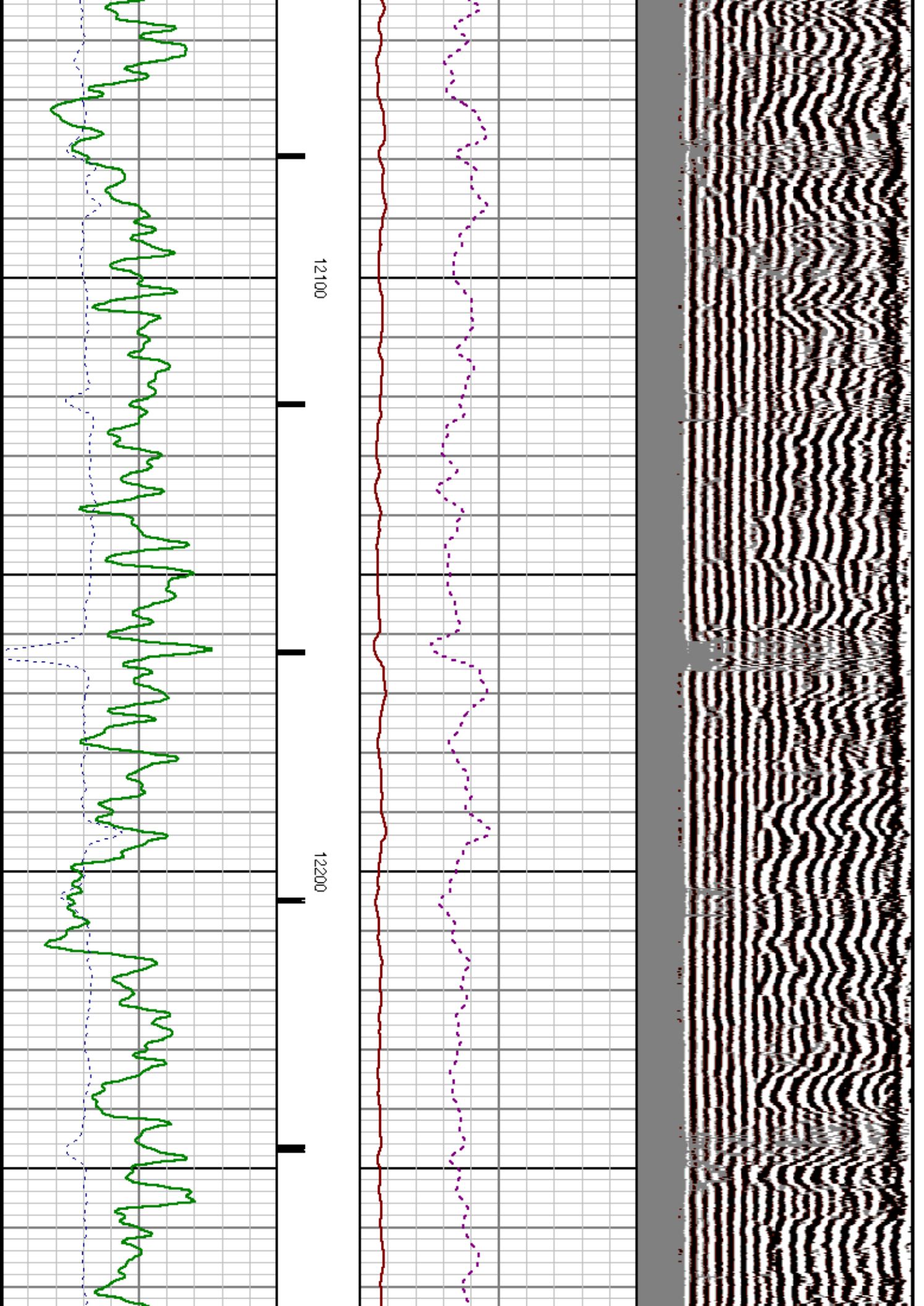


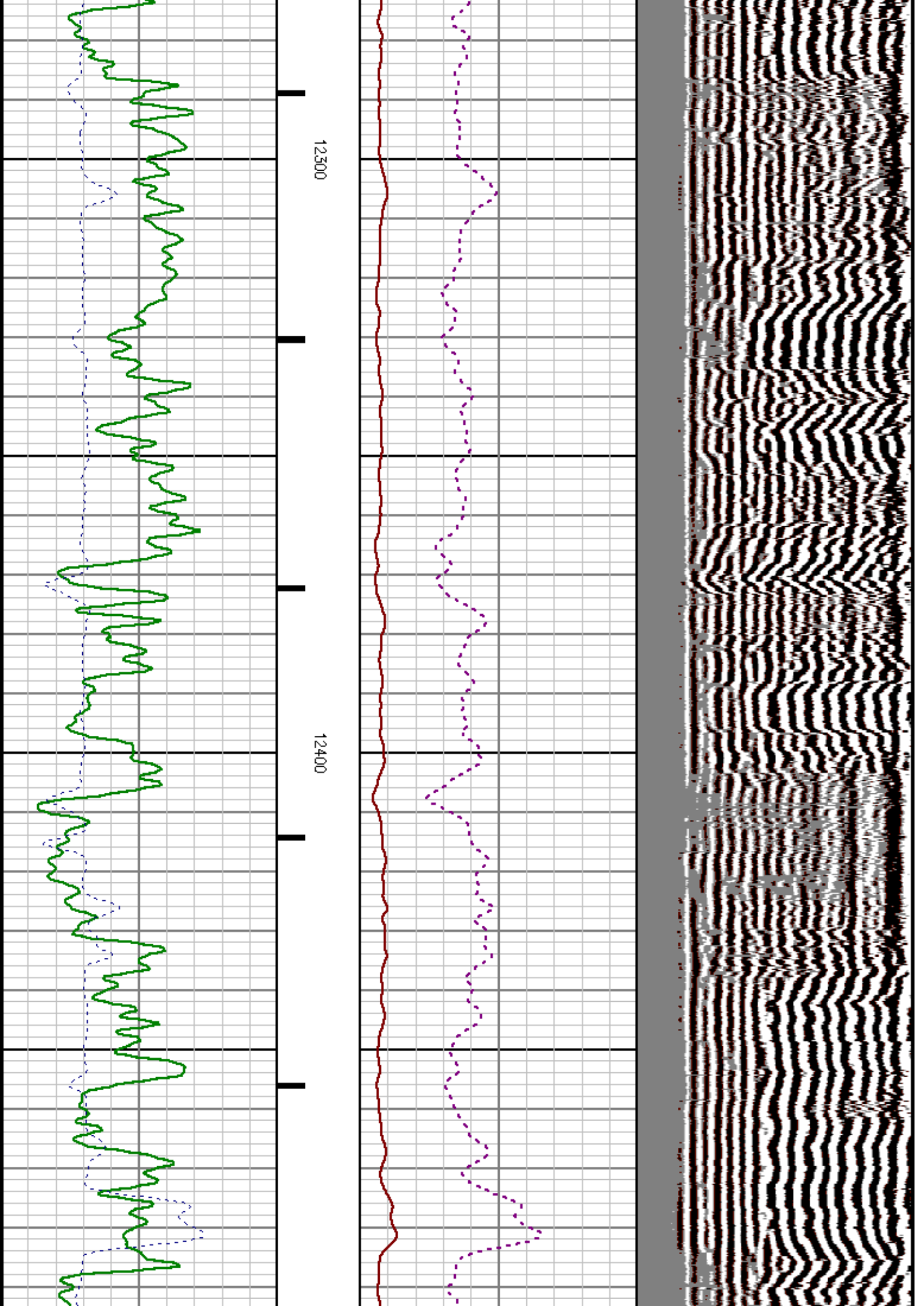


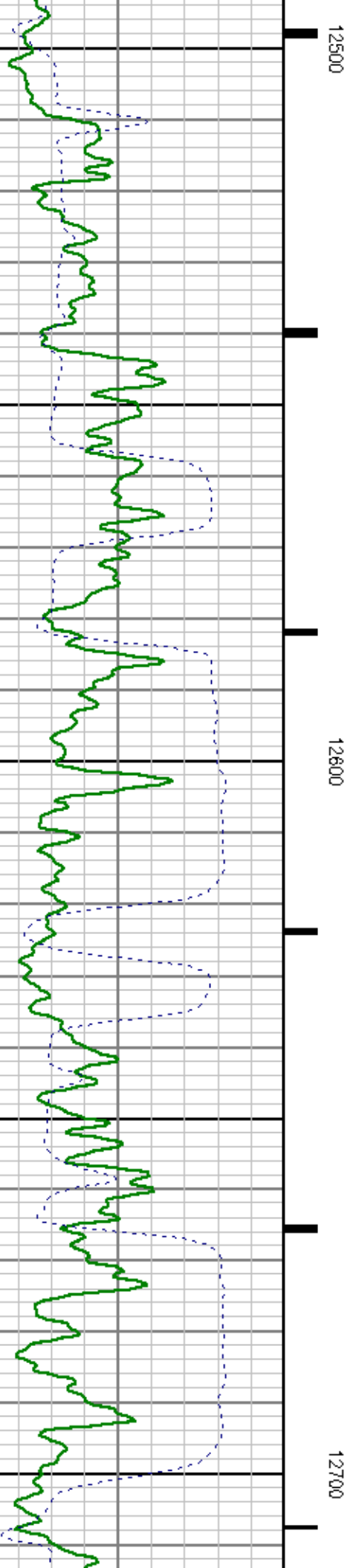
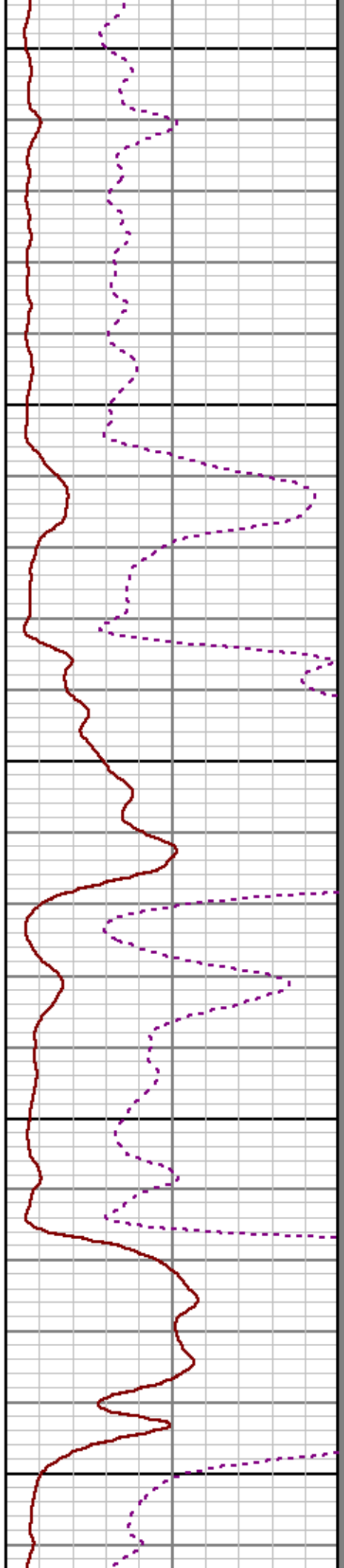
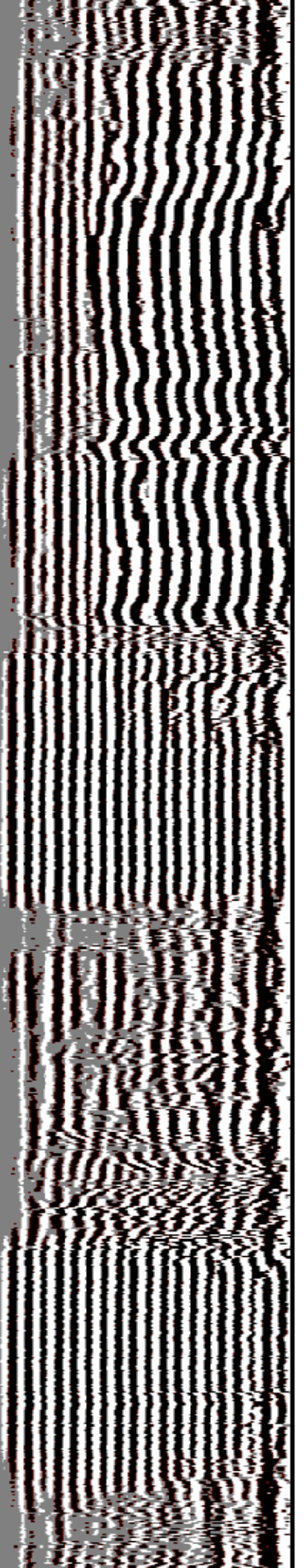


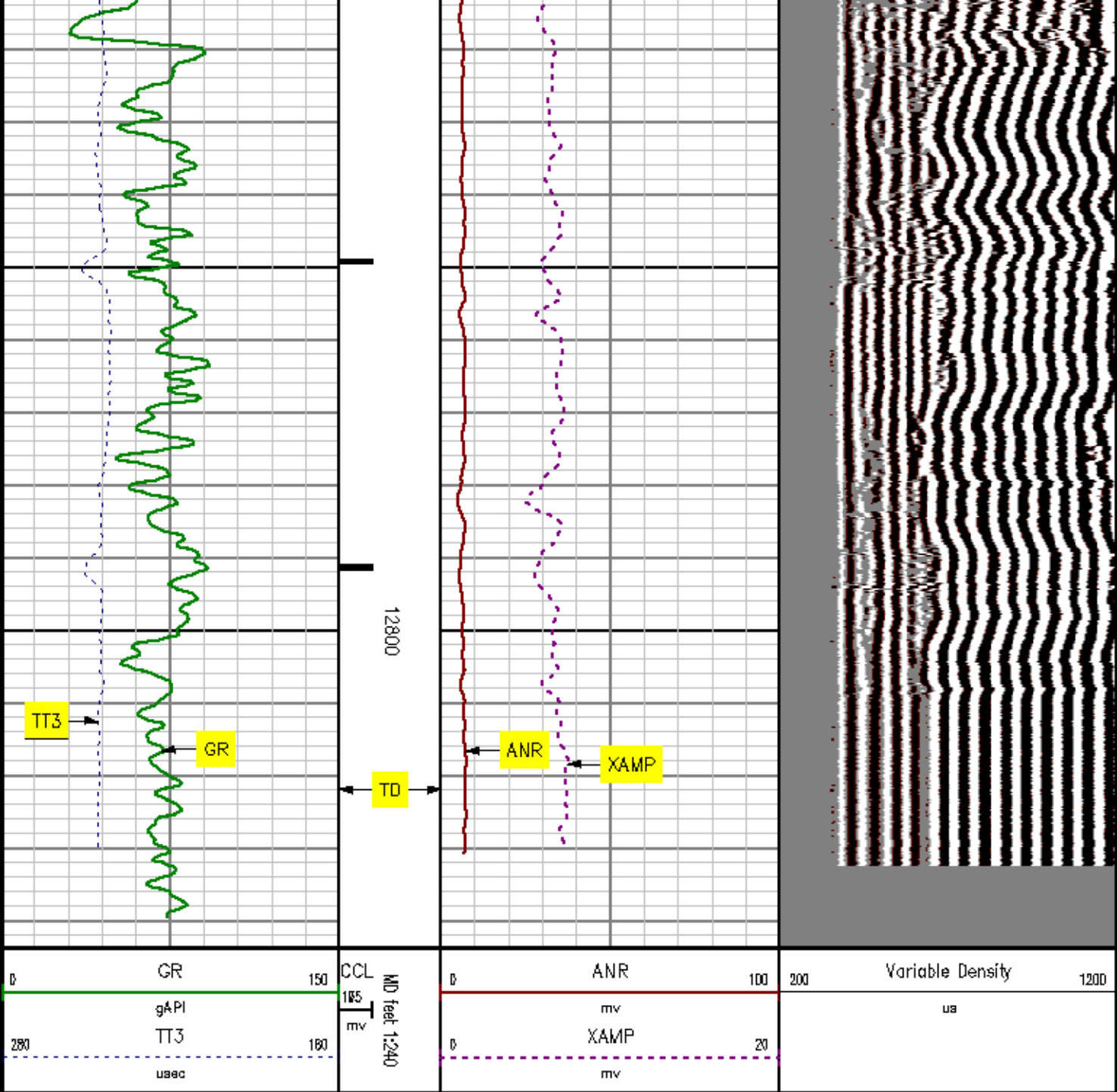












MAIN SECTION  
SECONDARY PRESENTATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	5514.099	12843.000
RAL	Amp Gate Start Near	197.754	usec	5514.099	12843.000
RAL	Amp Gate Start Radial	197.754	usec	5514.099	12843.000
RAL	Amp Gate Width Far	30.000	usec	5514.099	12843.000
RAL	Amp Gate Width Near	30.000	usec	5514.099	12843.000
RAL	Amp Gate Width Radial	30.000	usec	5514.099	12843.000
RAL	casing od	4.500	Inches	5514.099	12843.000
RAL	casing wt	15.100	lbm/ft	5514.099	12843.000
RAL	FB Start Far	289.263	usec	5514.099	12843.000
RAL	FB Start Near	172.754	usec	5514.099	12843.000
RAL	FB Start Radial	172.754	usec	5514.099	12843.000
RAL	FB Thresh Far	15.000	mv	5514.099	12843.000
RAL	FB Thresh Near	10.000	mv	5514.099	12843.000
RAL	FB Thresh Radial	10.000	mv	5514.099	12843.000
RAL	Fluid Travel Time	200.000	usec/ft	5514.099	12843.817

### DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-15.360	ACAL	ANR	AR1	AR2	AR3	AR4	AR5	AR6
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3	TTR4	TTR5
		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 : MIXED

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

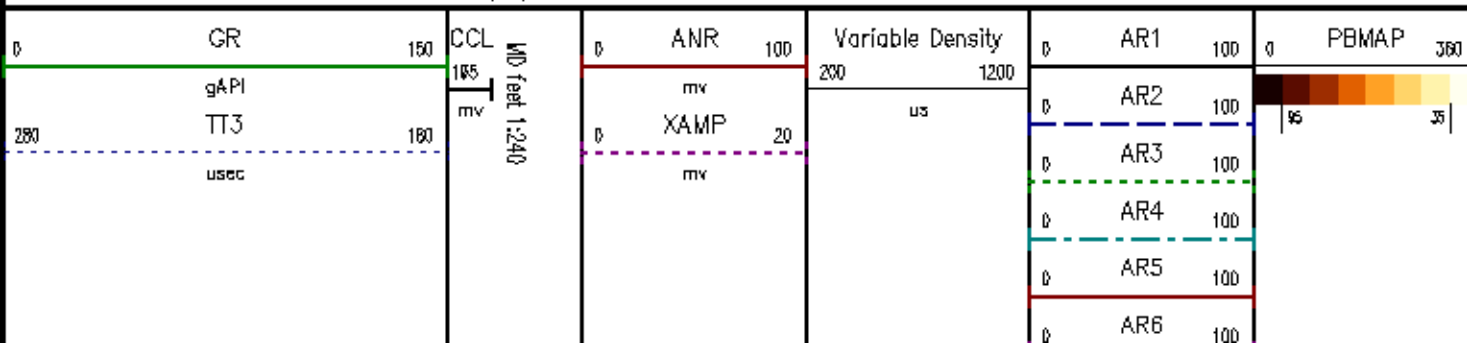
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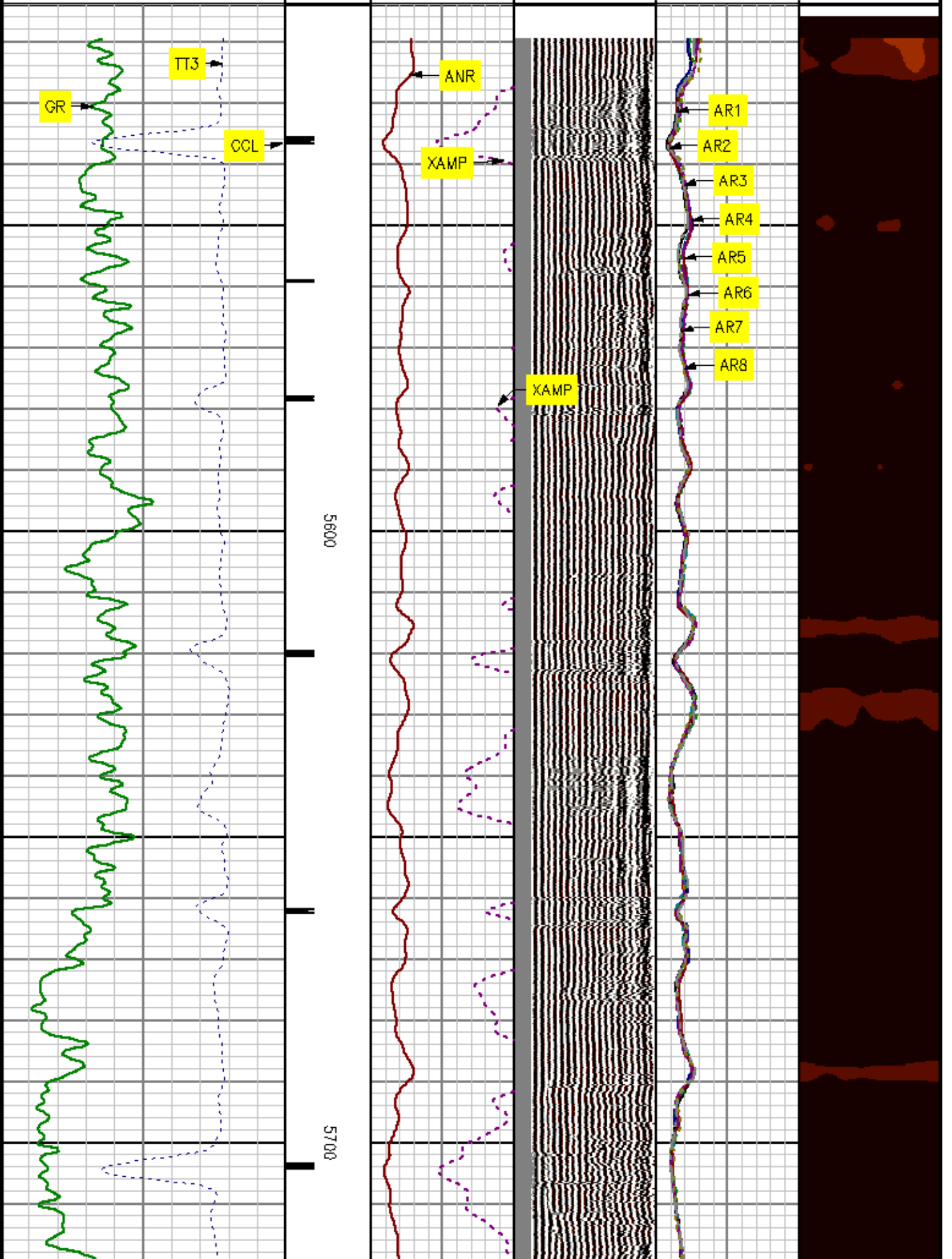
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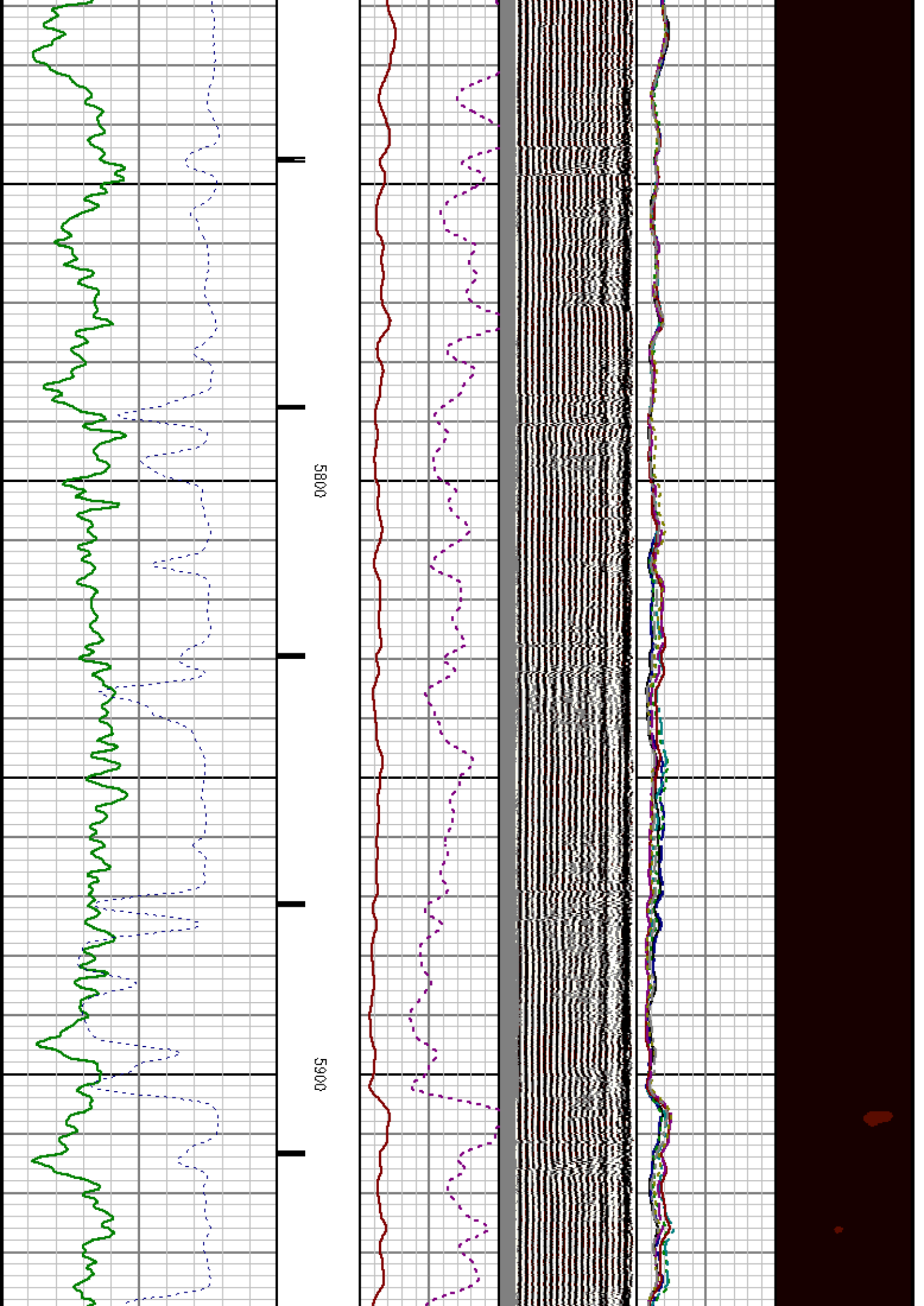
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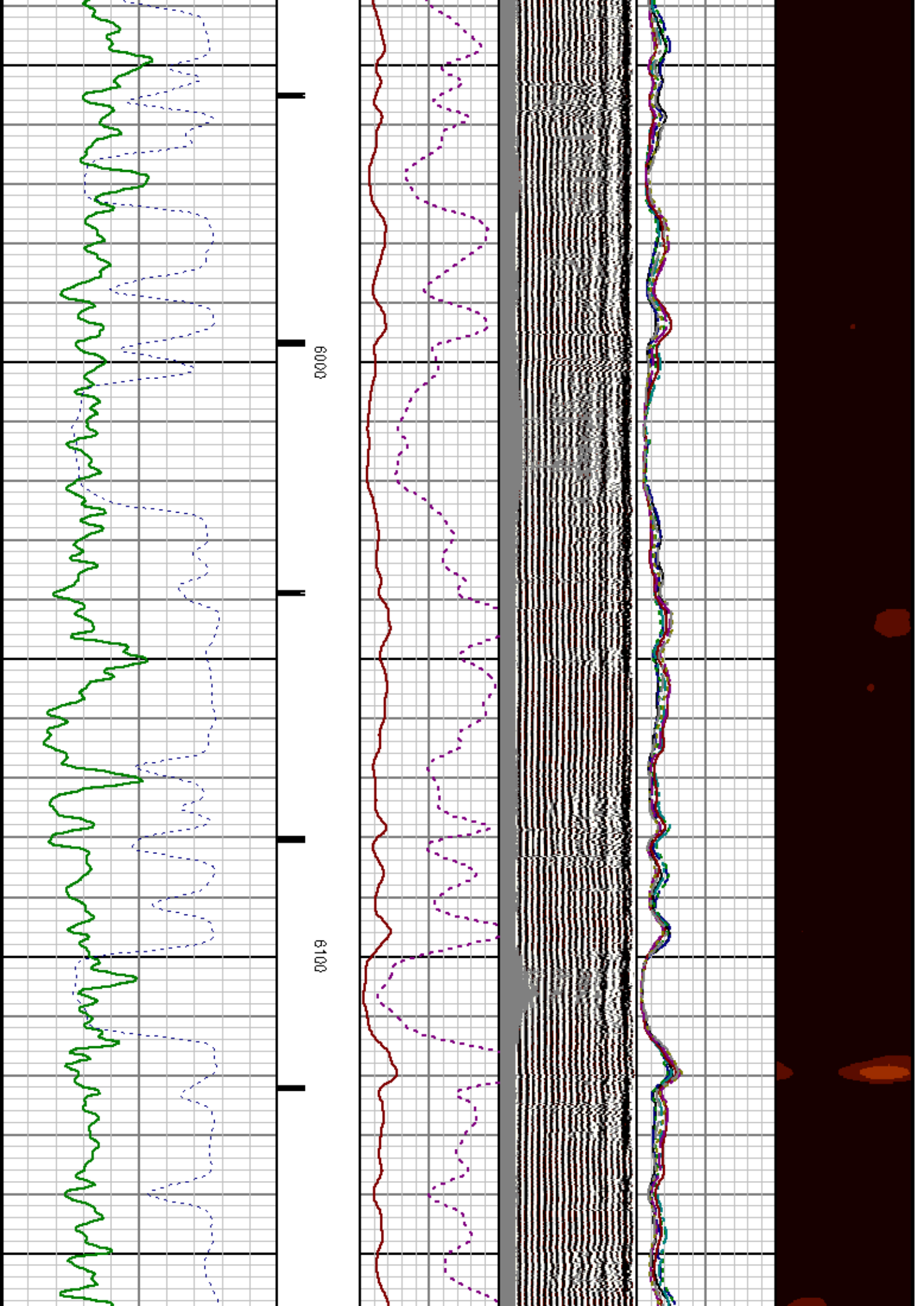
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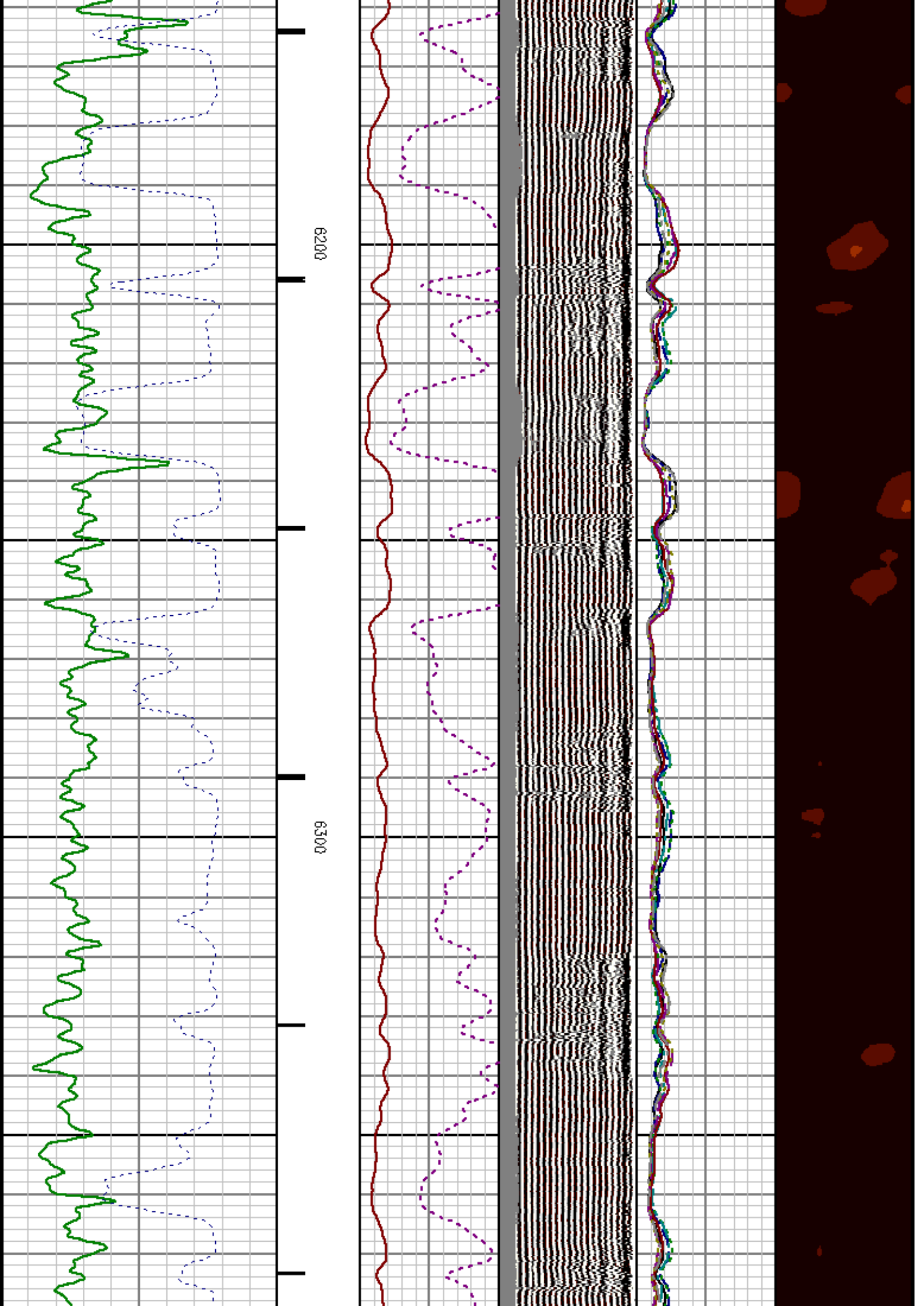


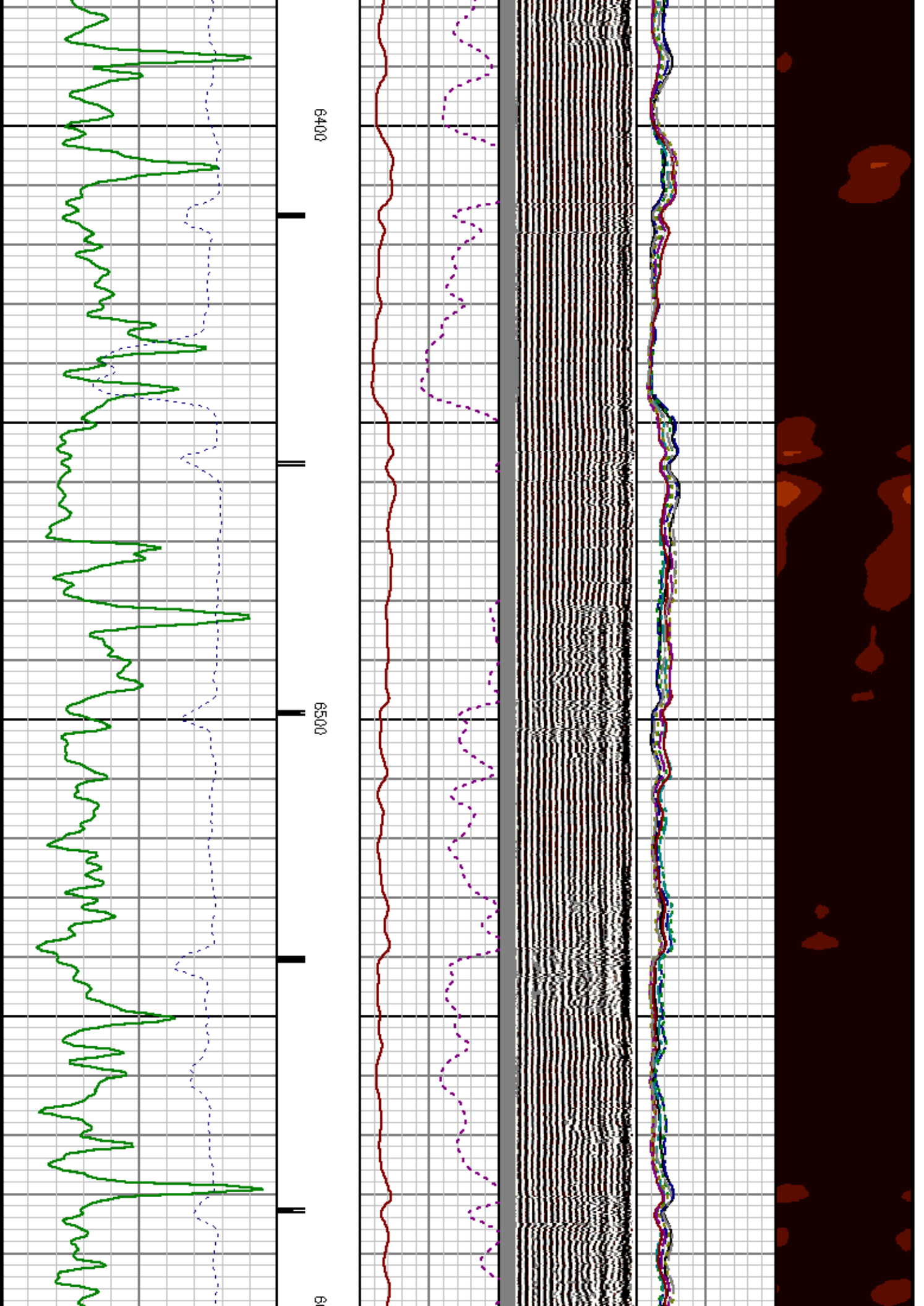
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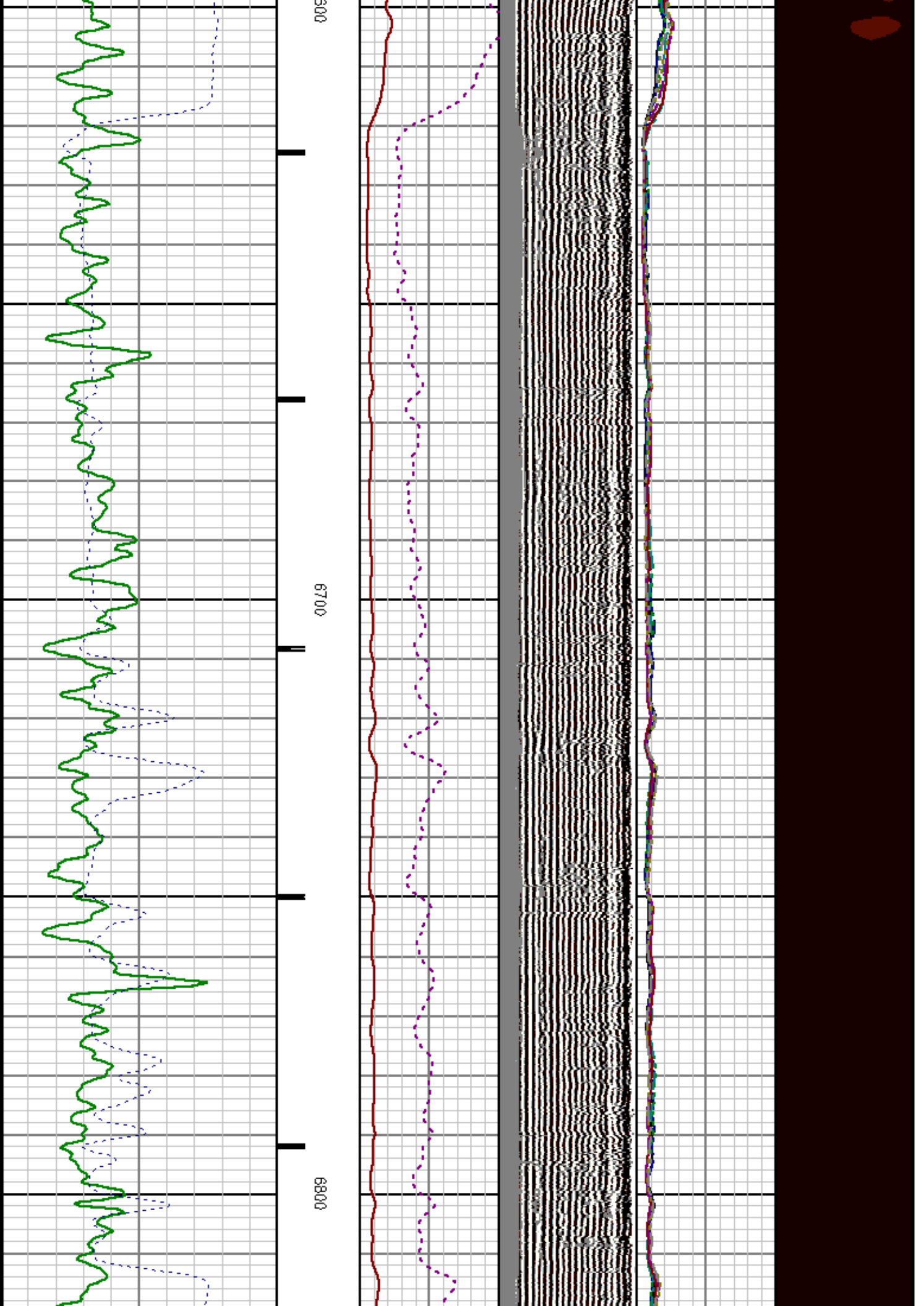


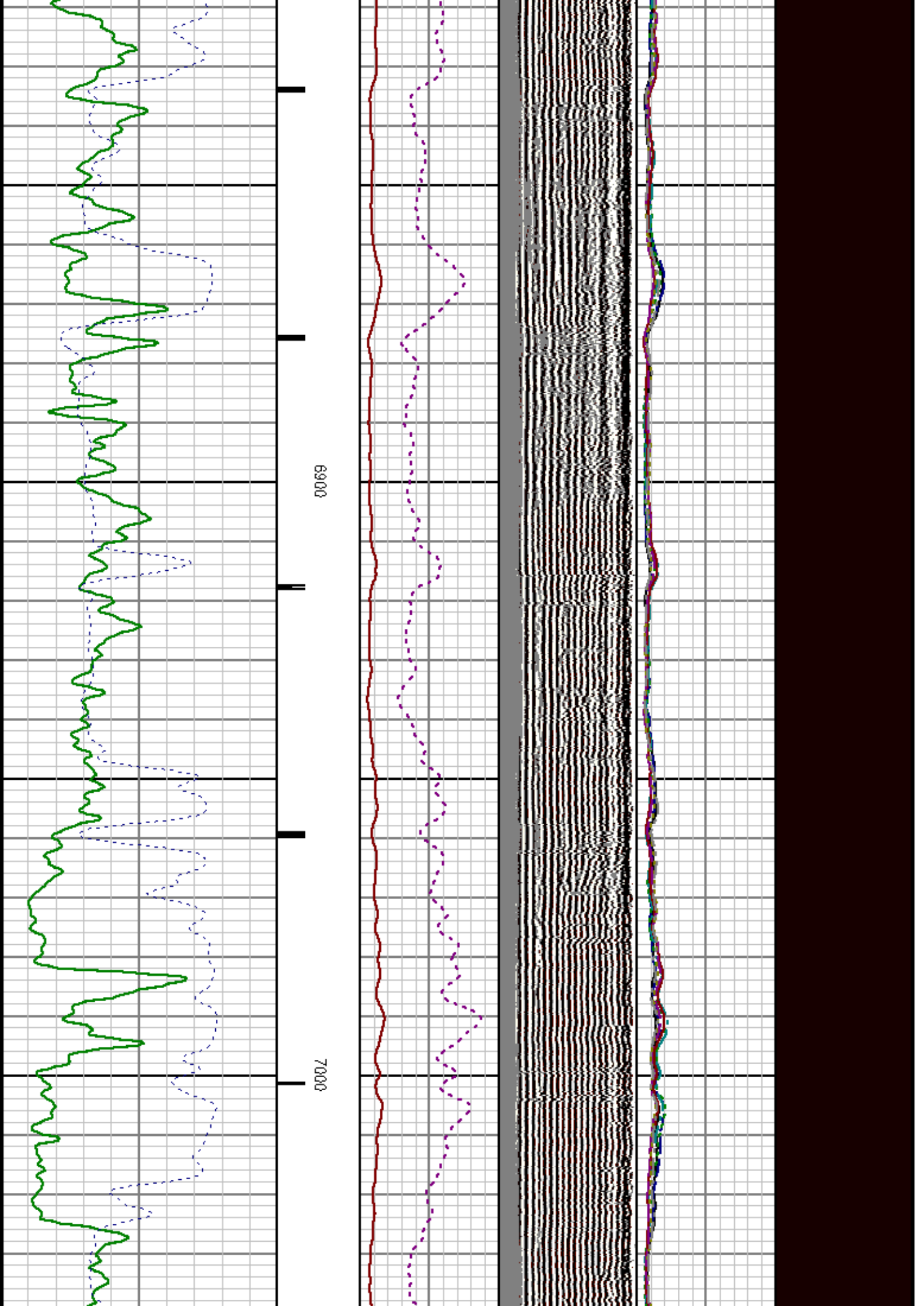


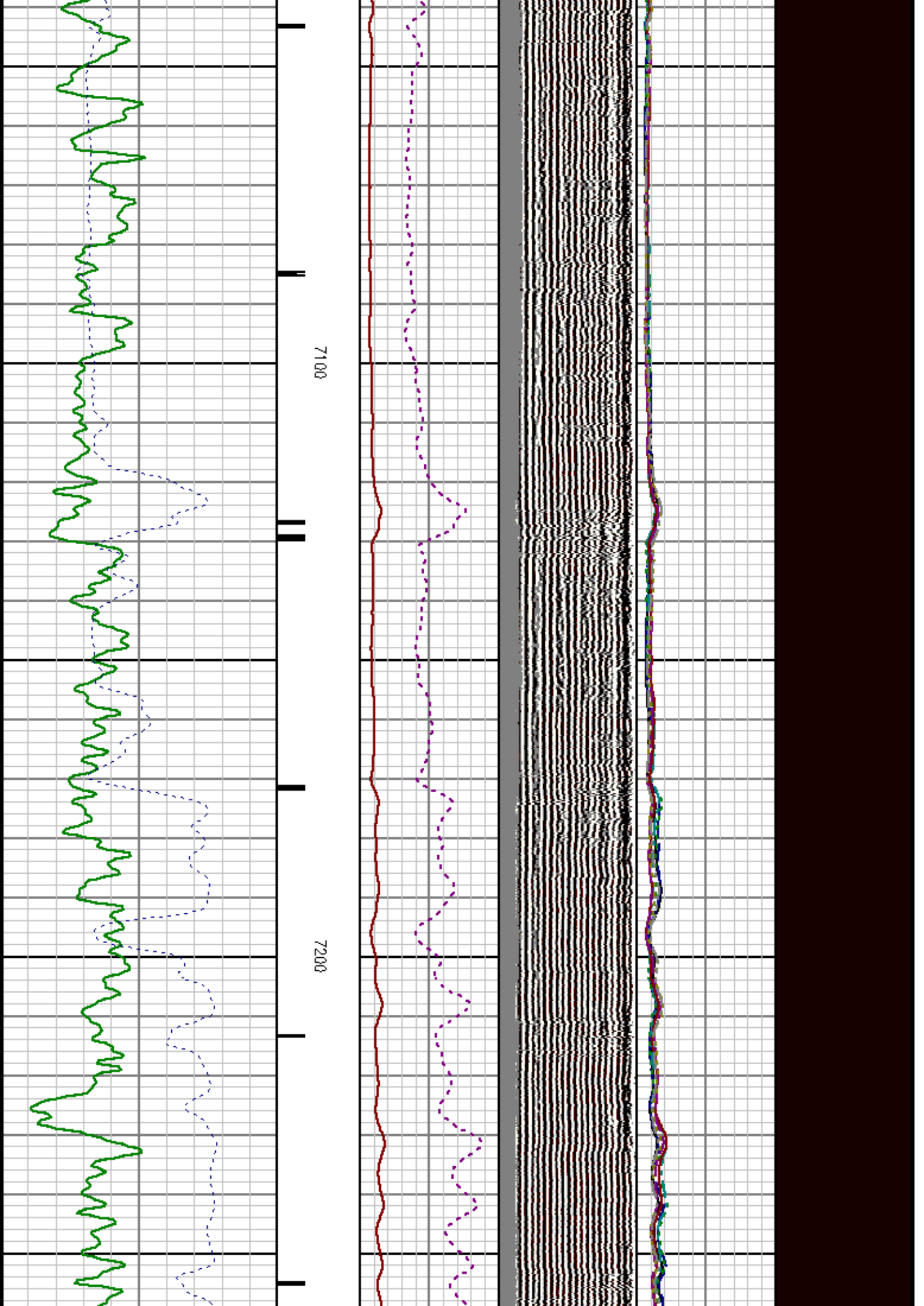


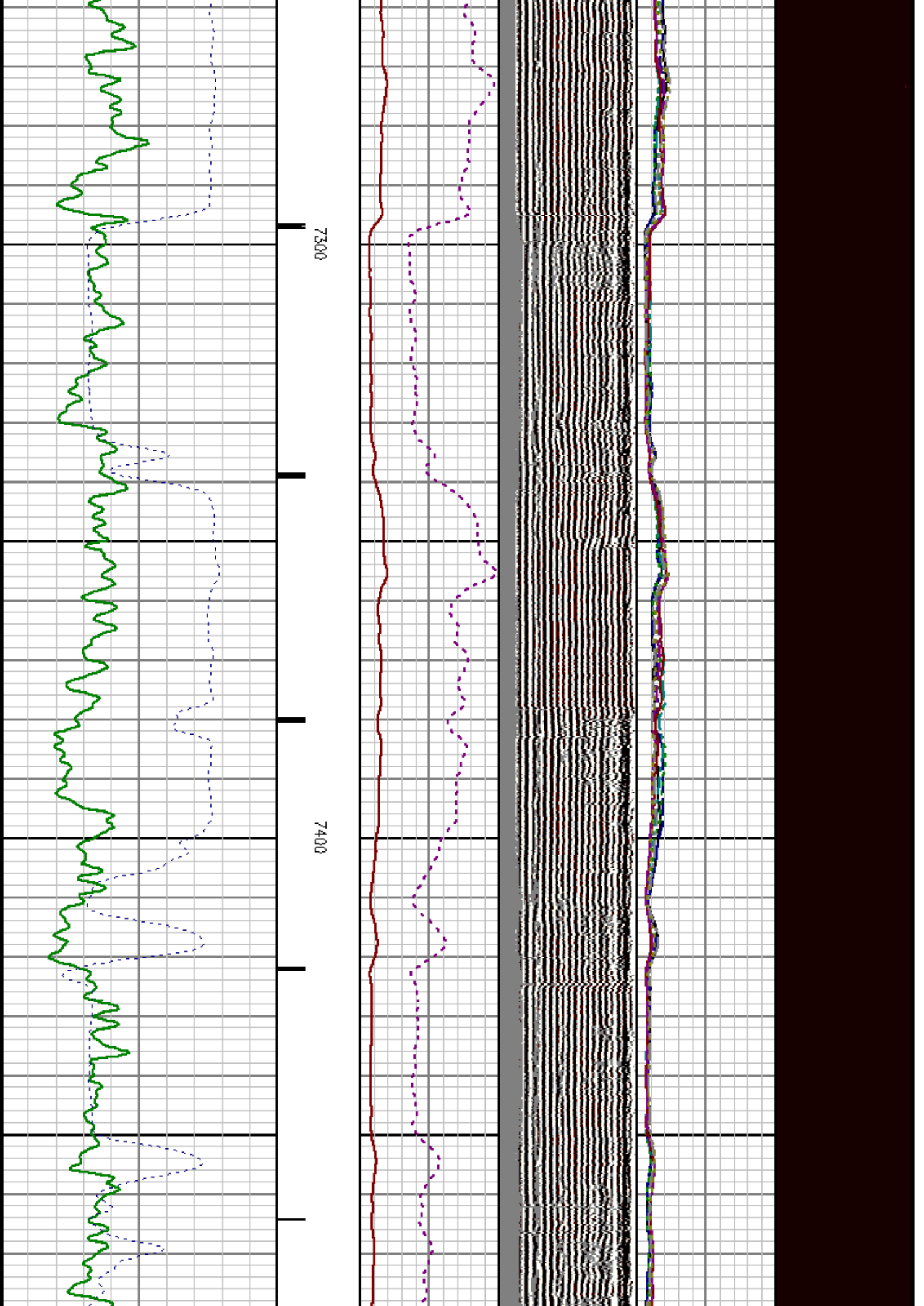


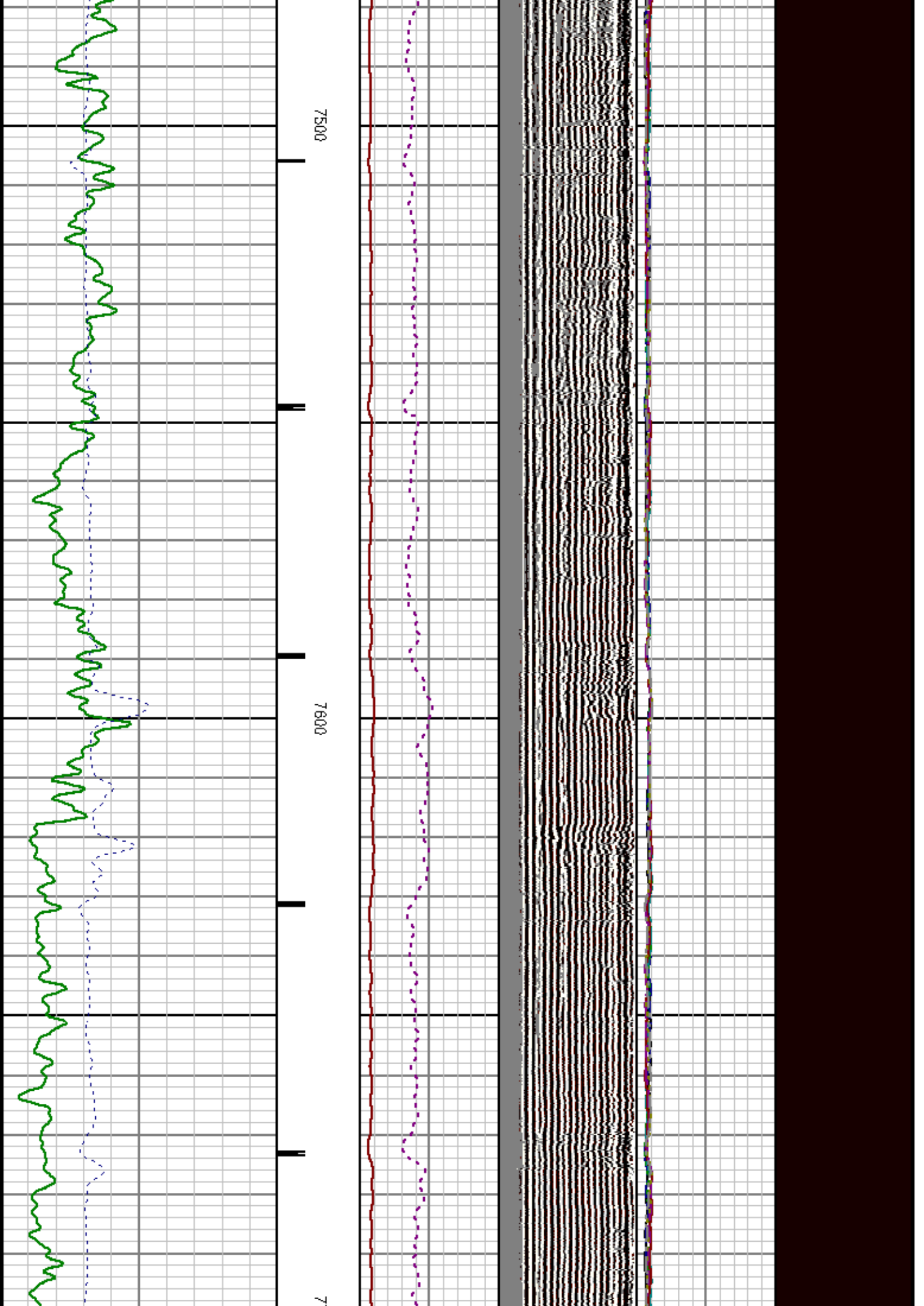


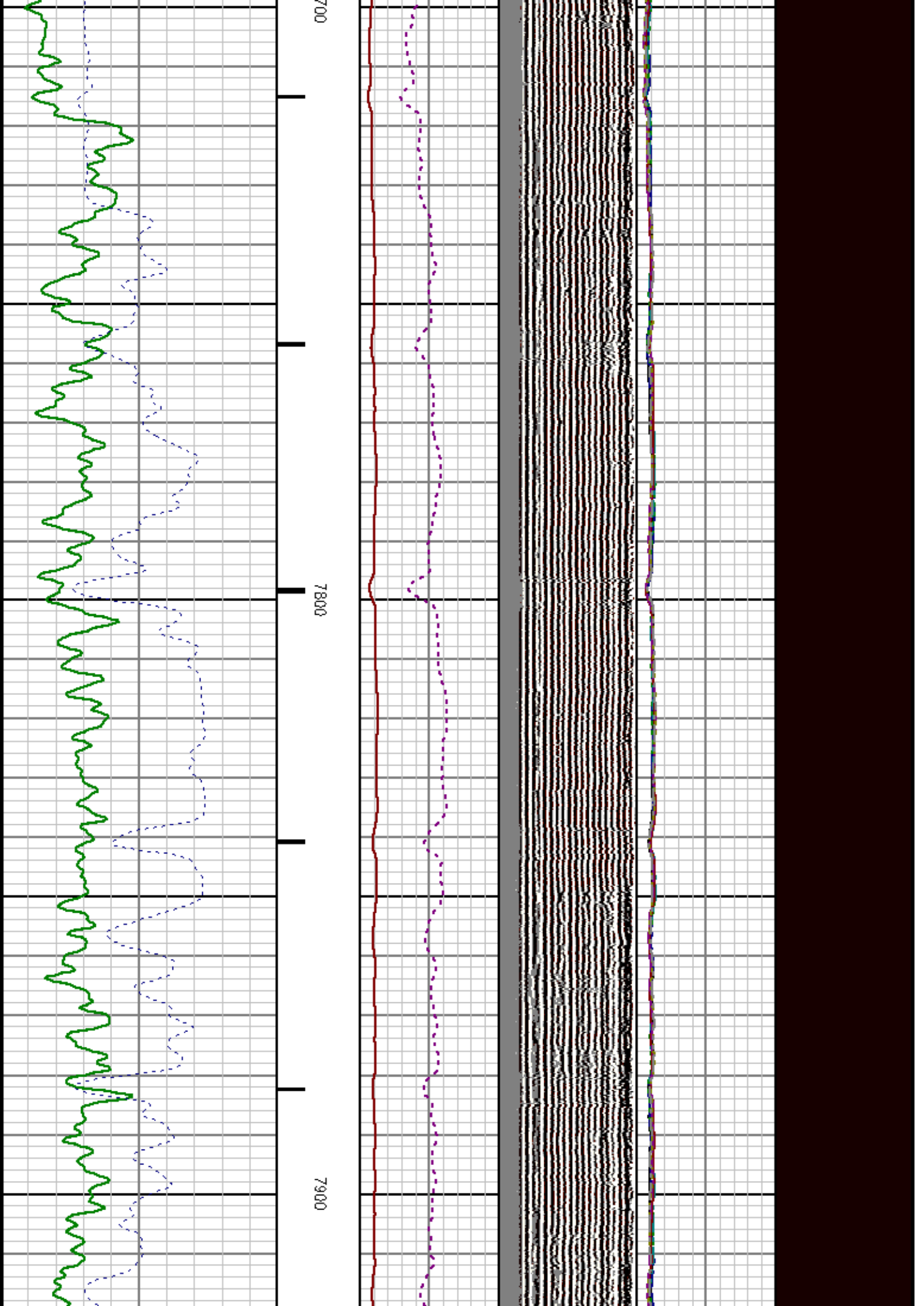


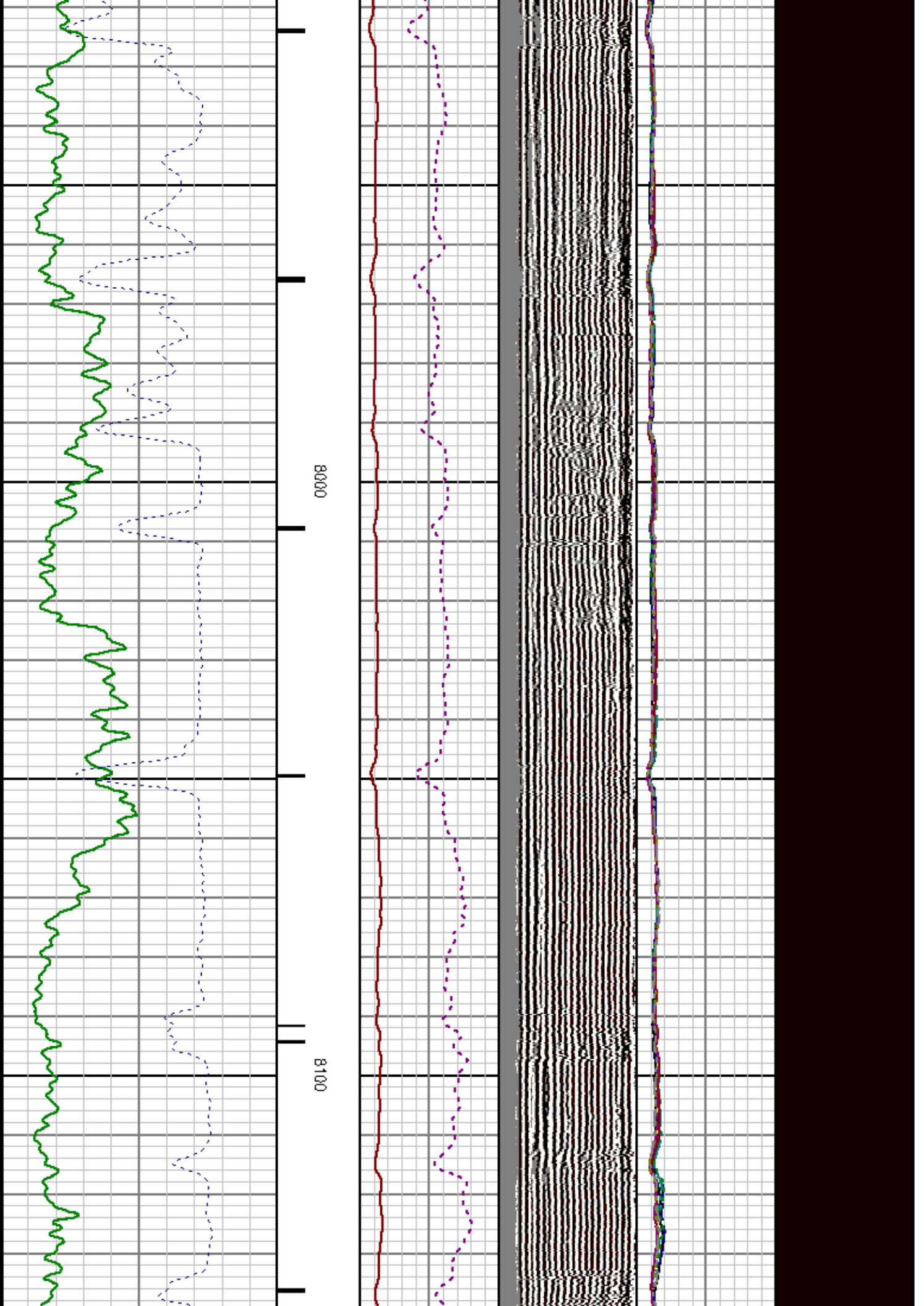


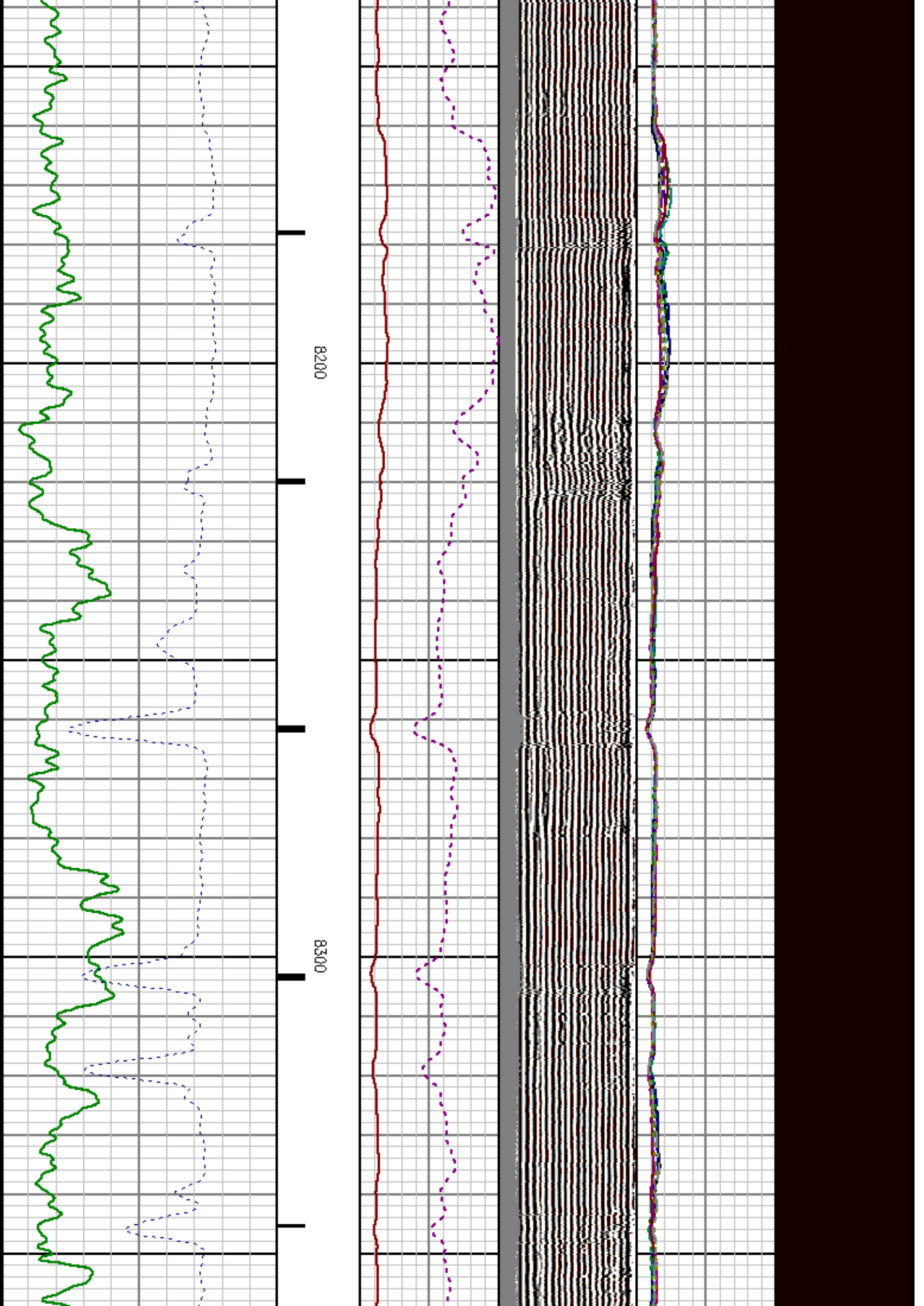


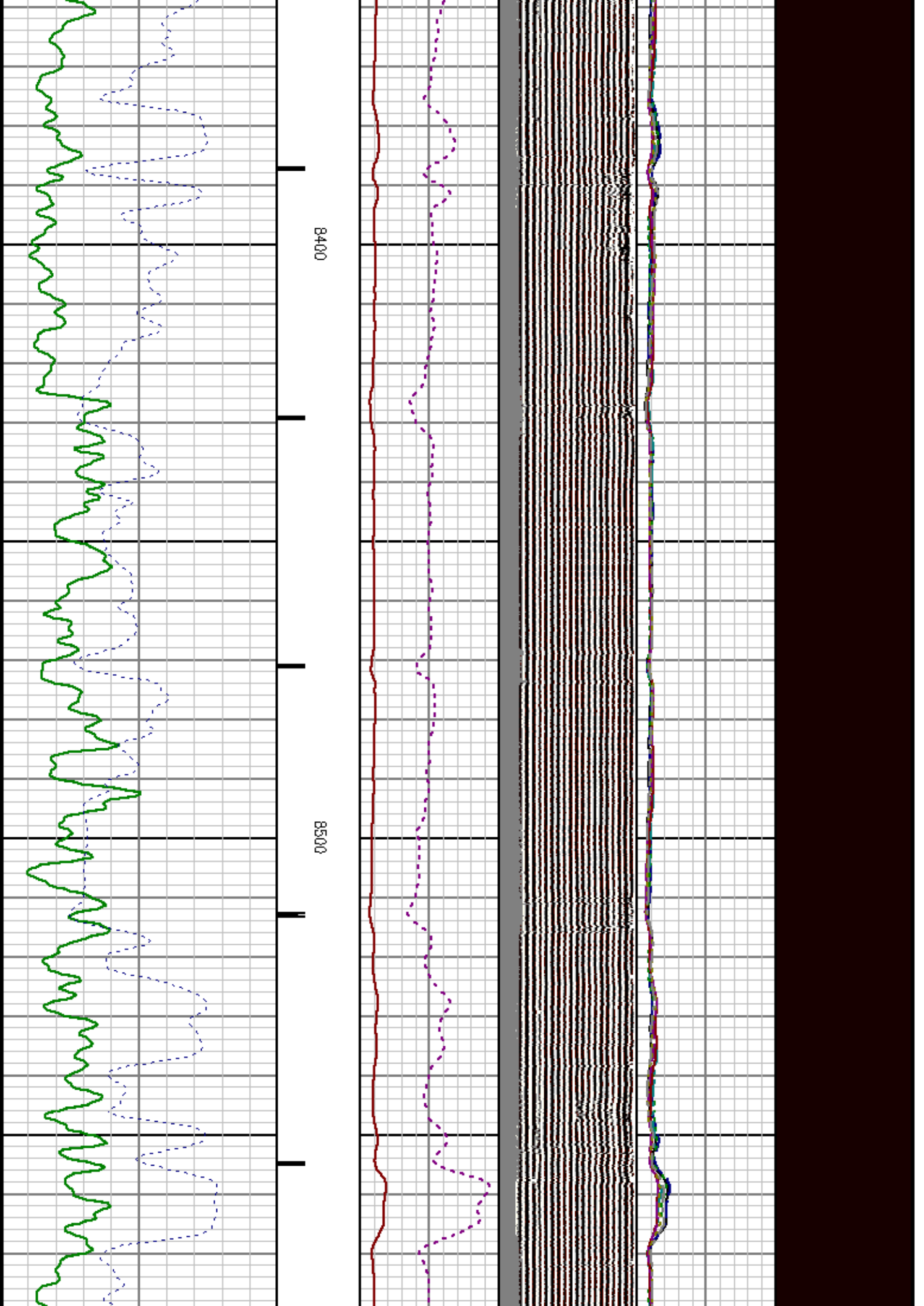


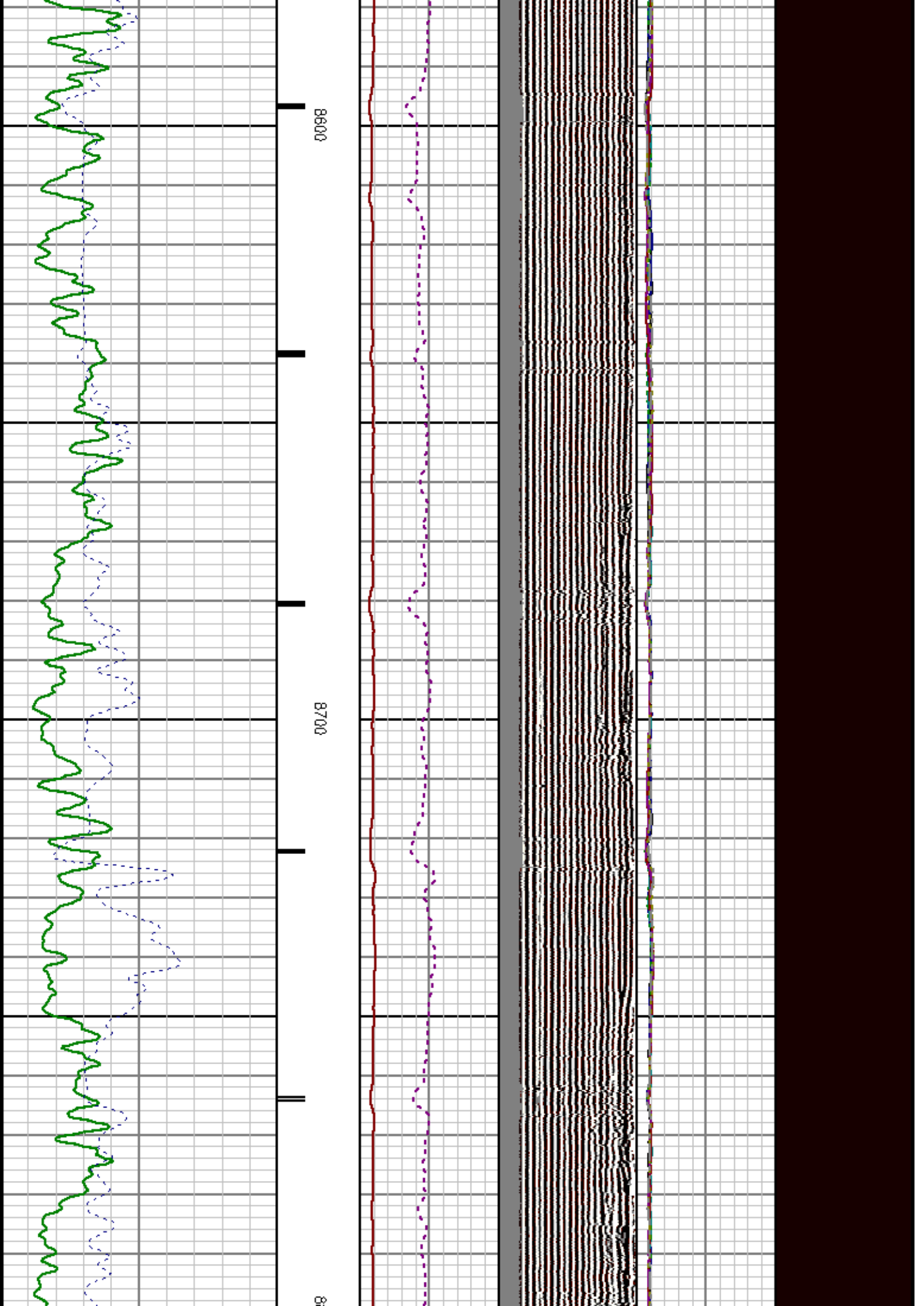


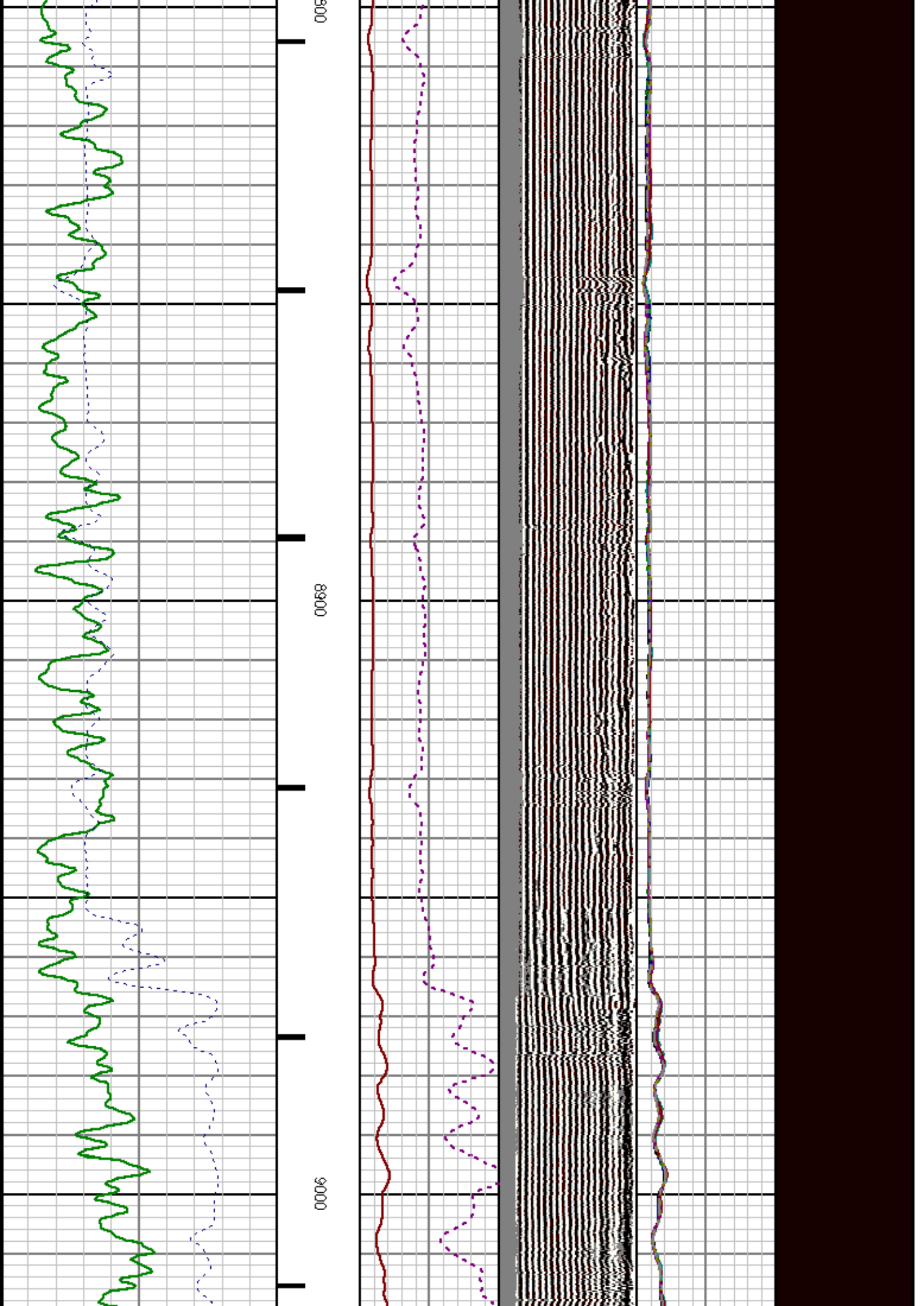


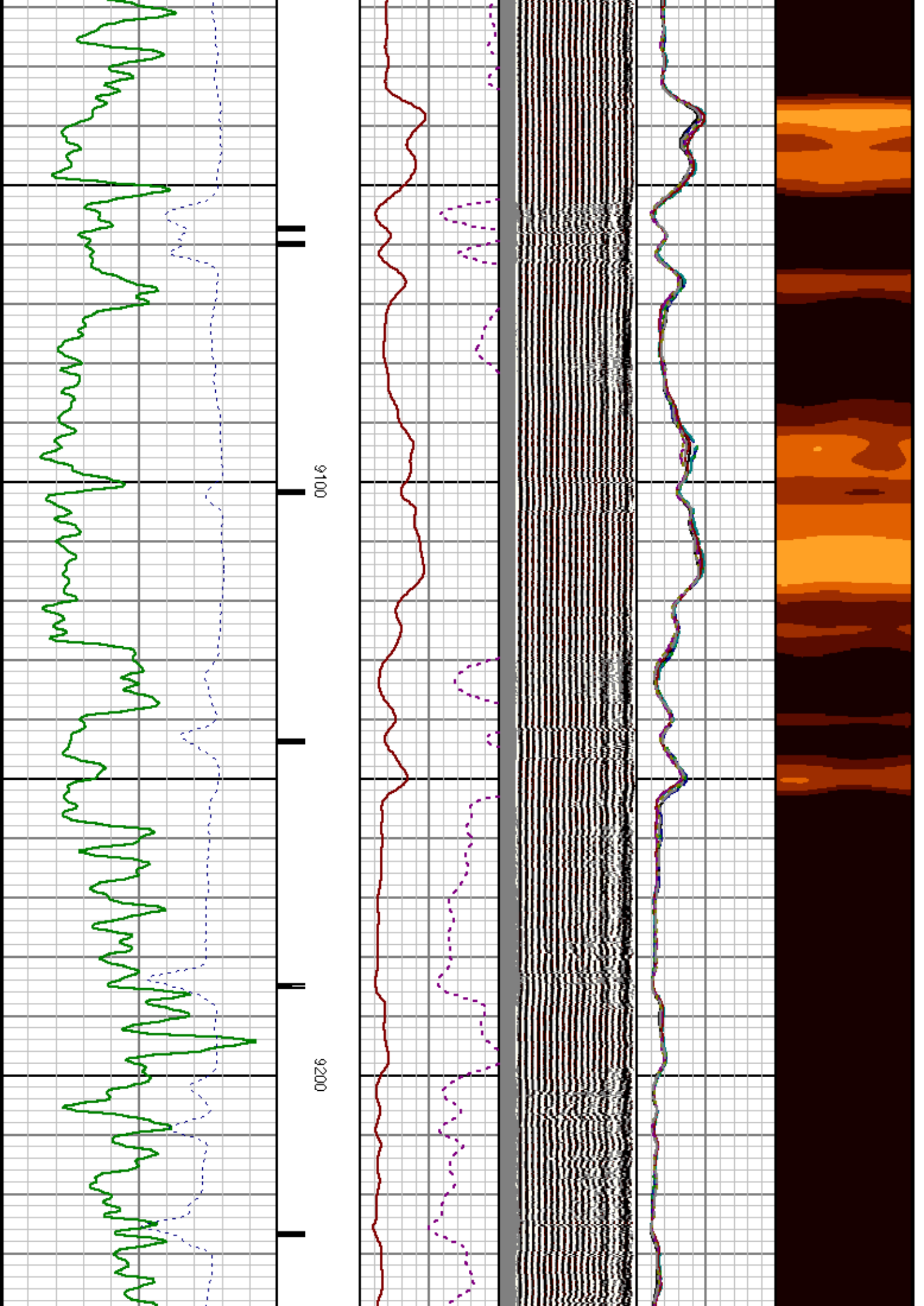


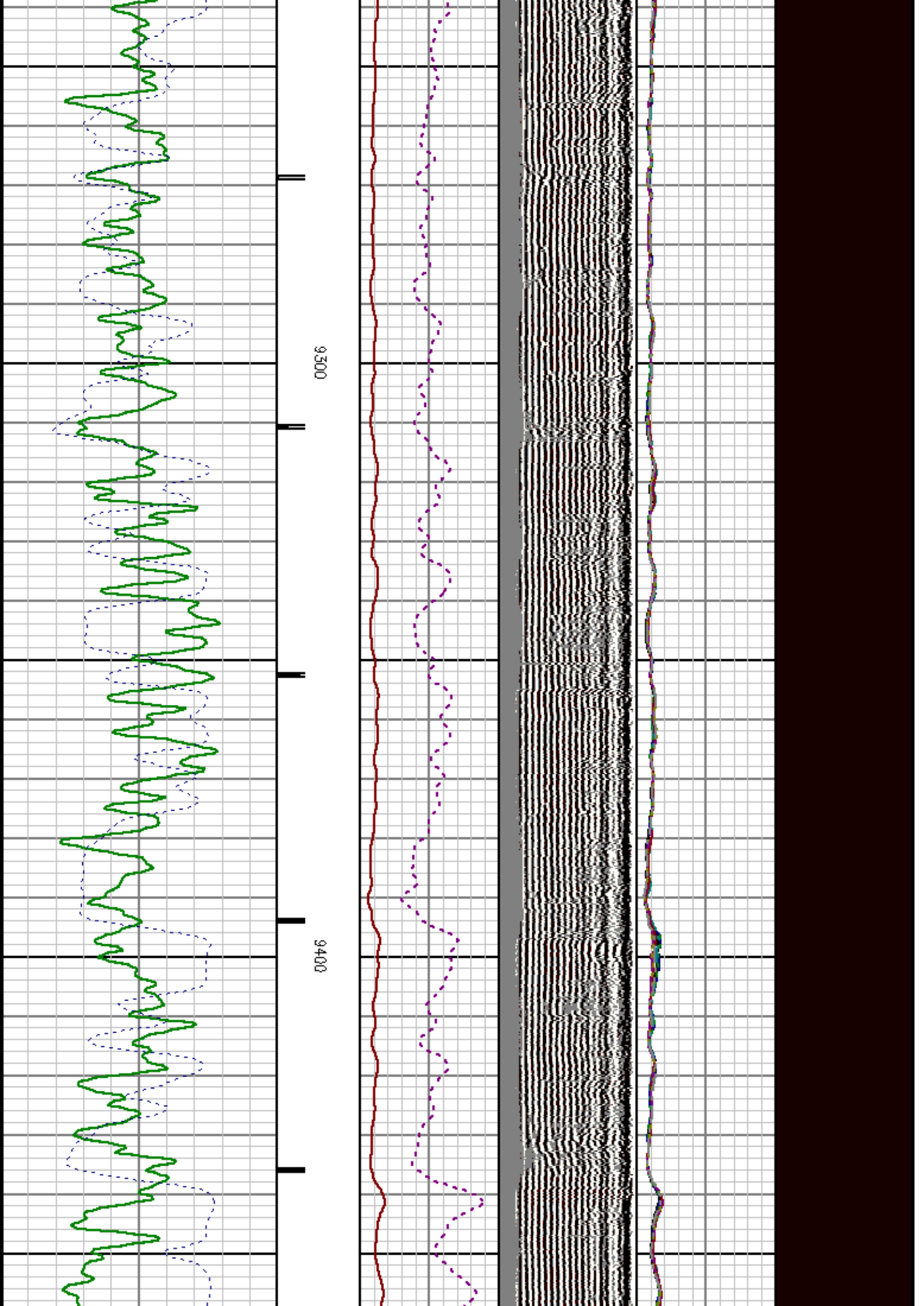


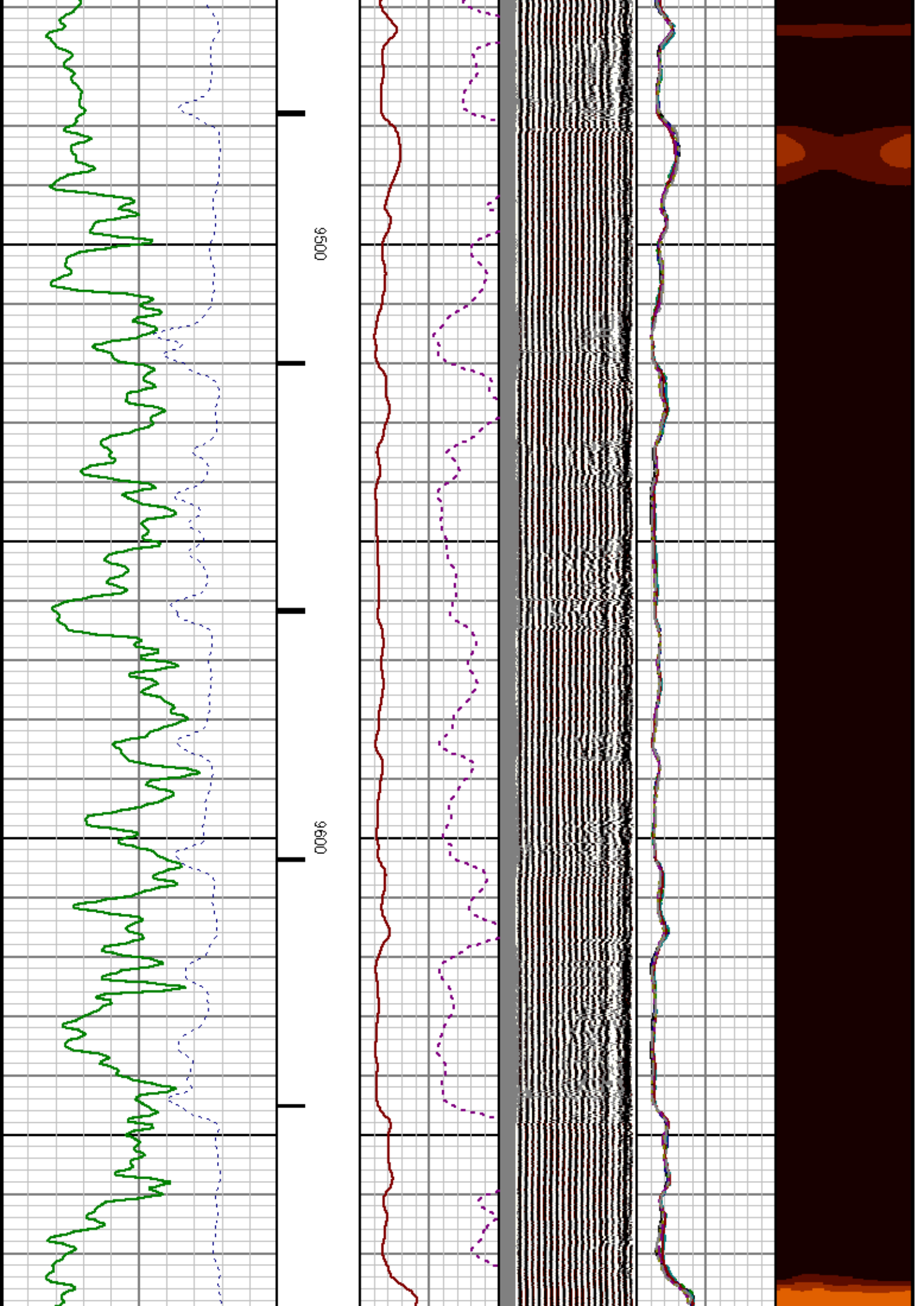


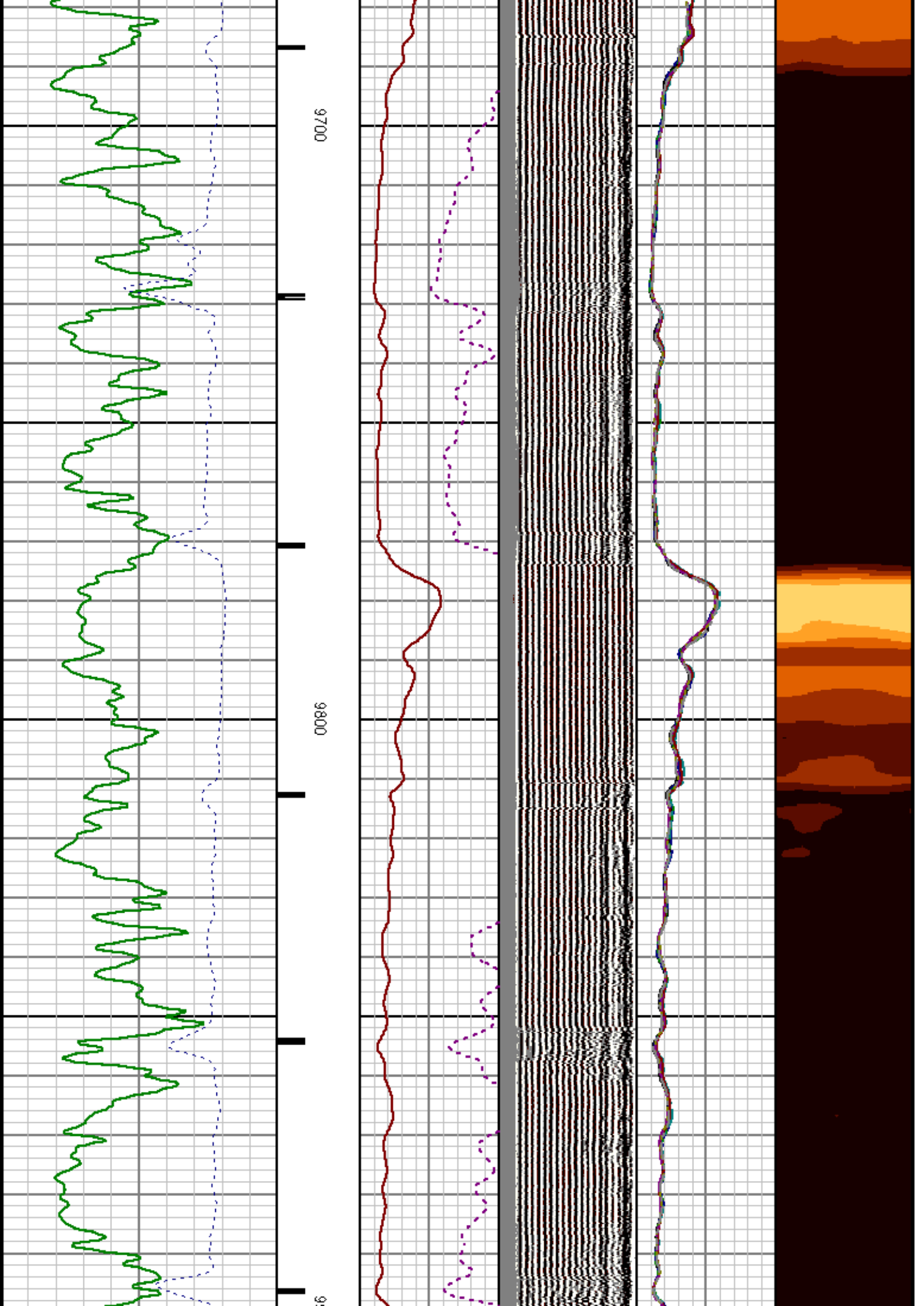


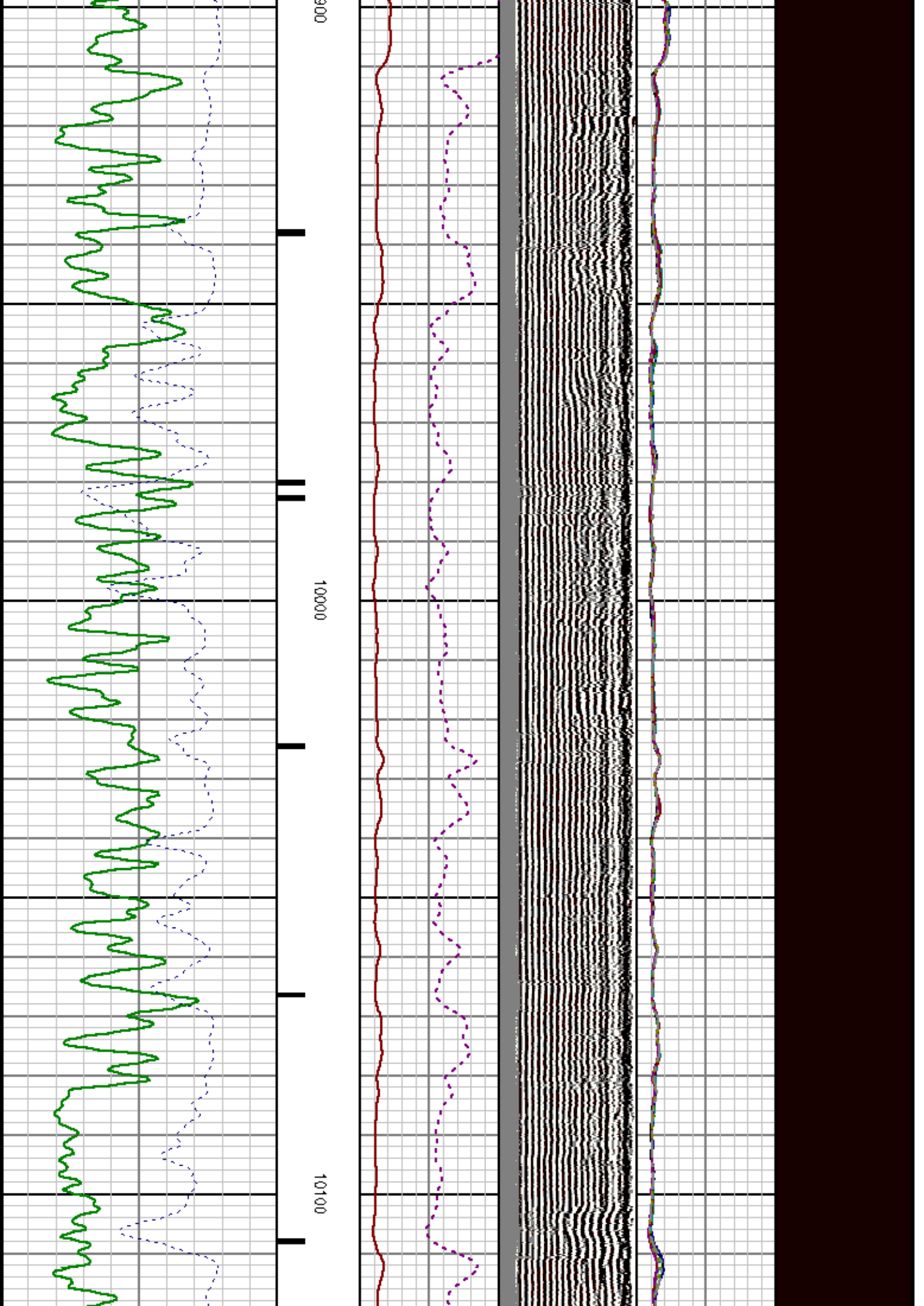


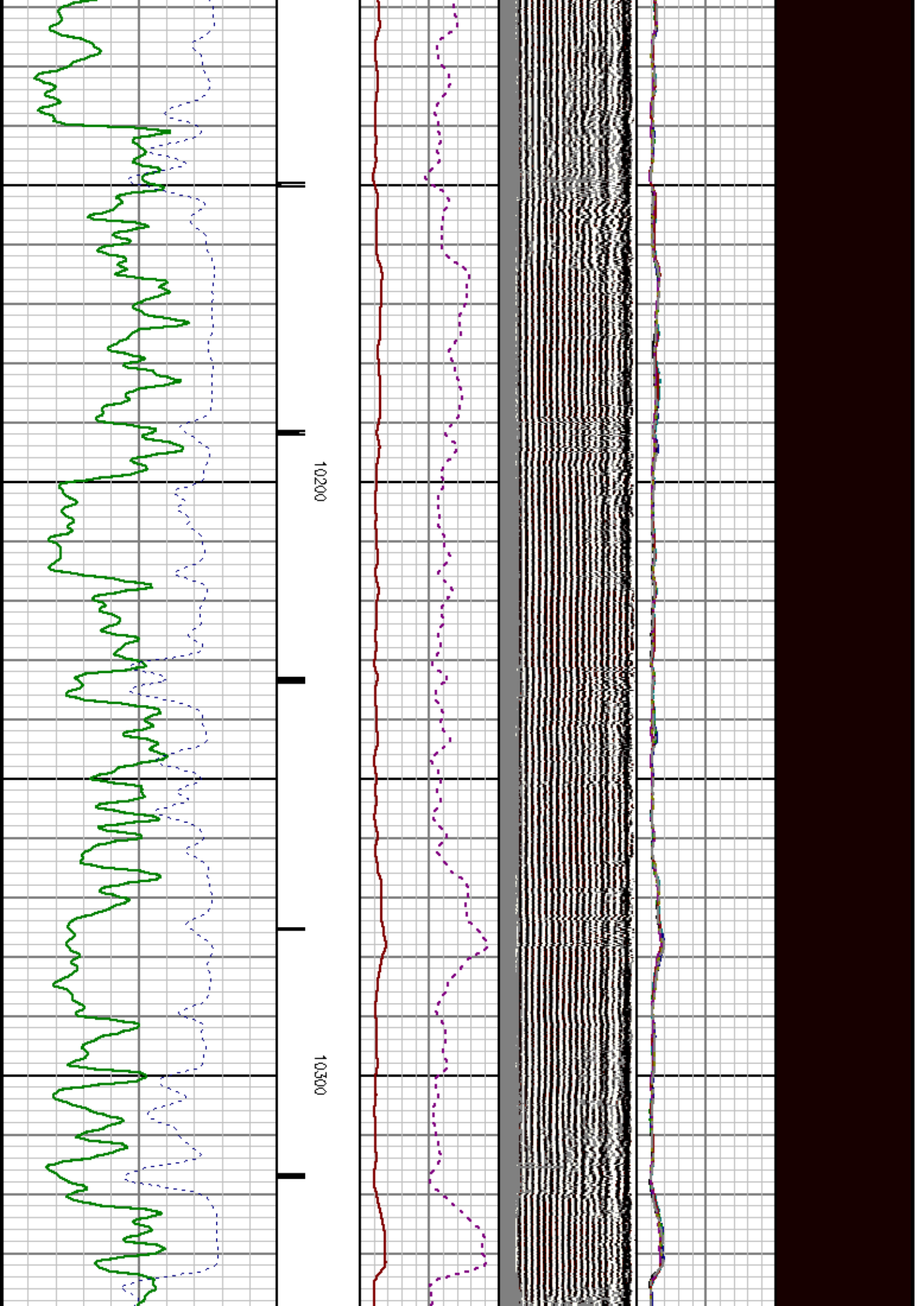


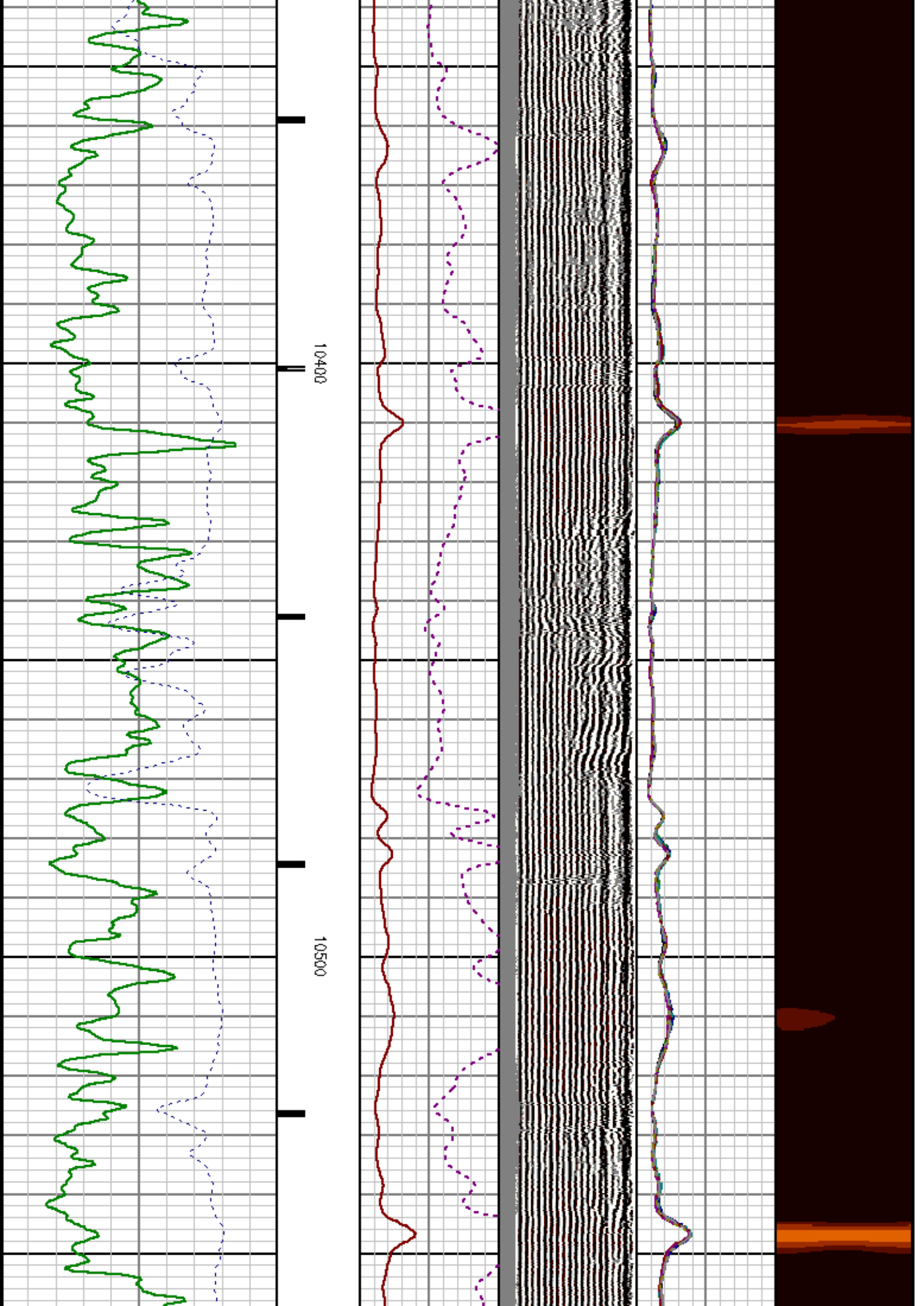


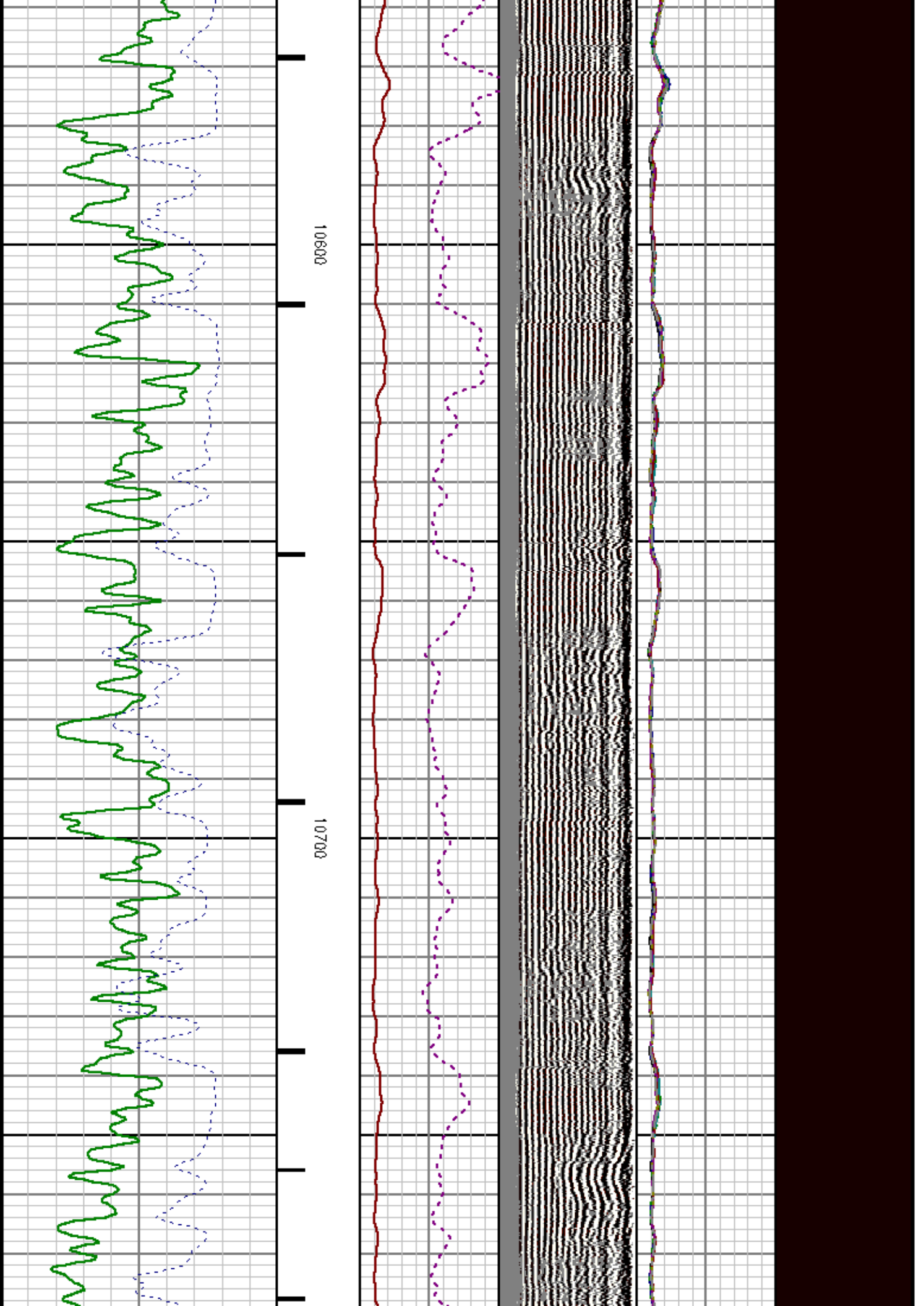


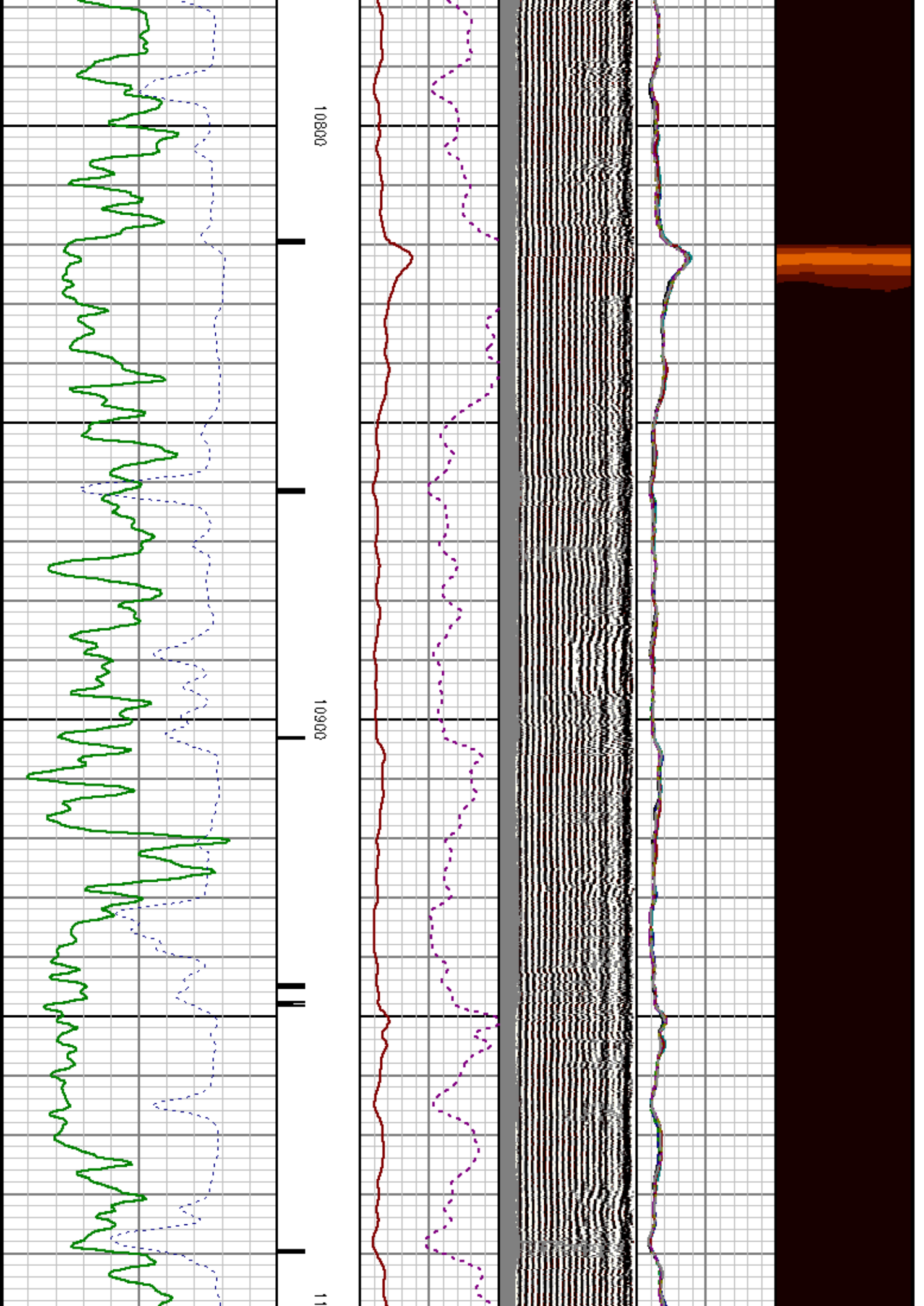


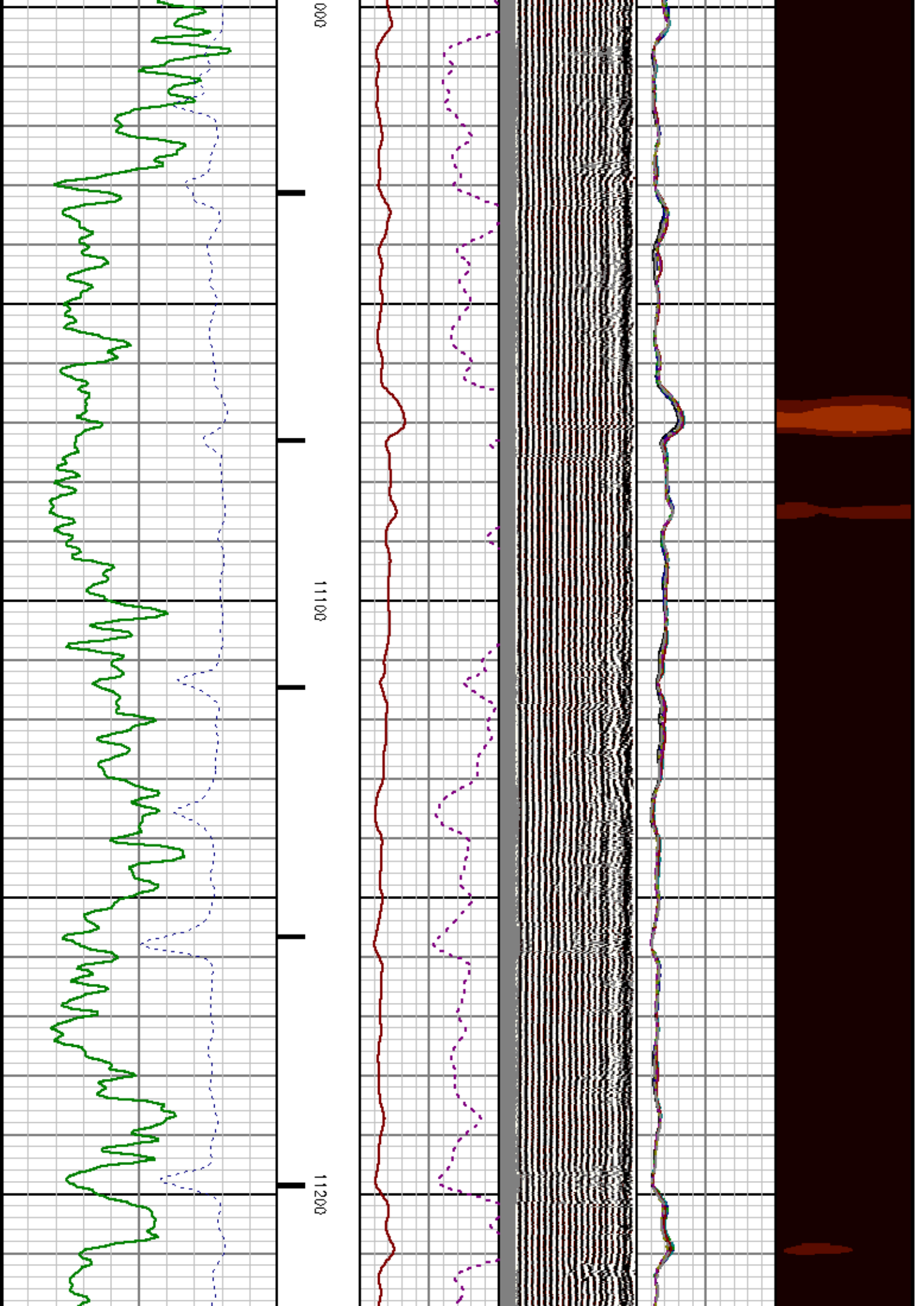


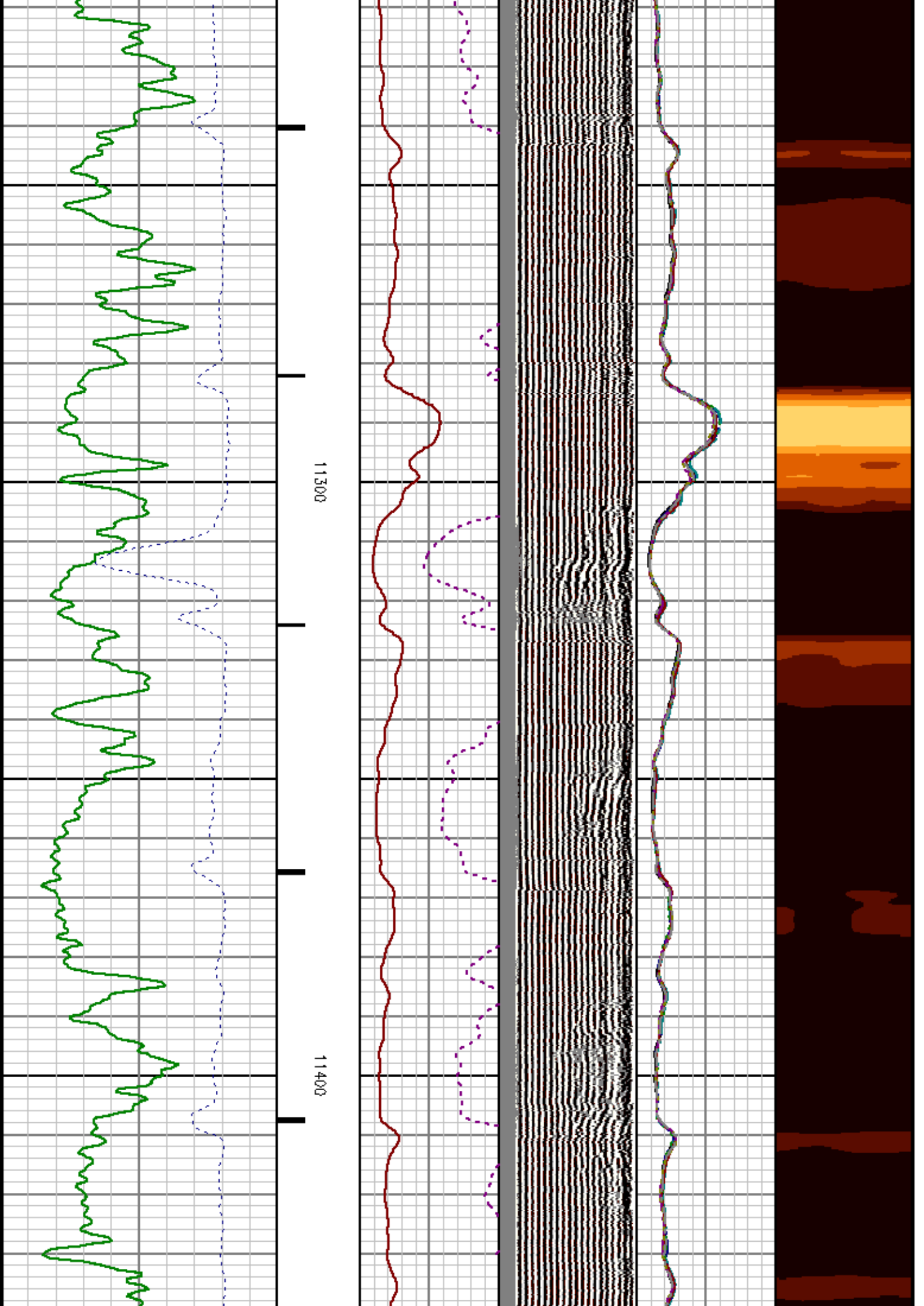


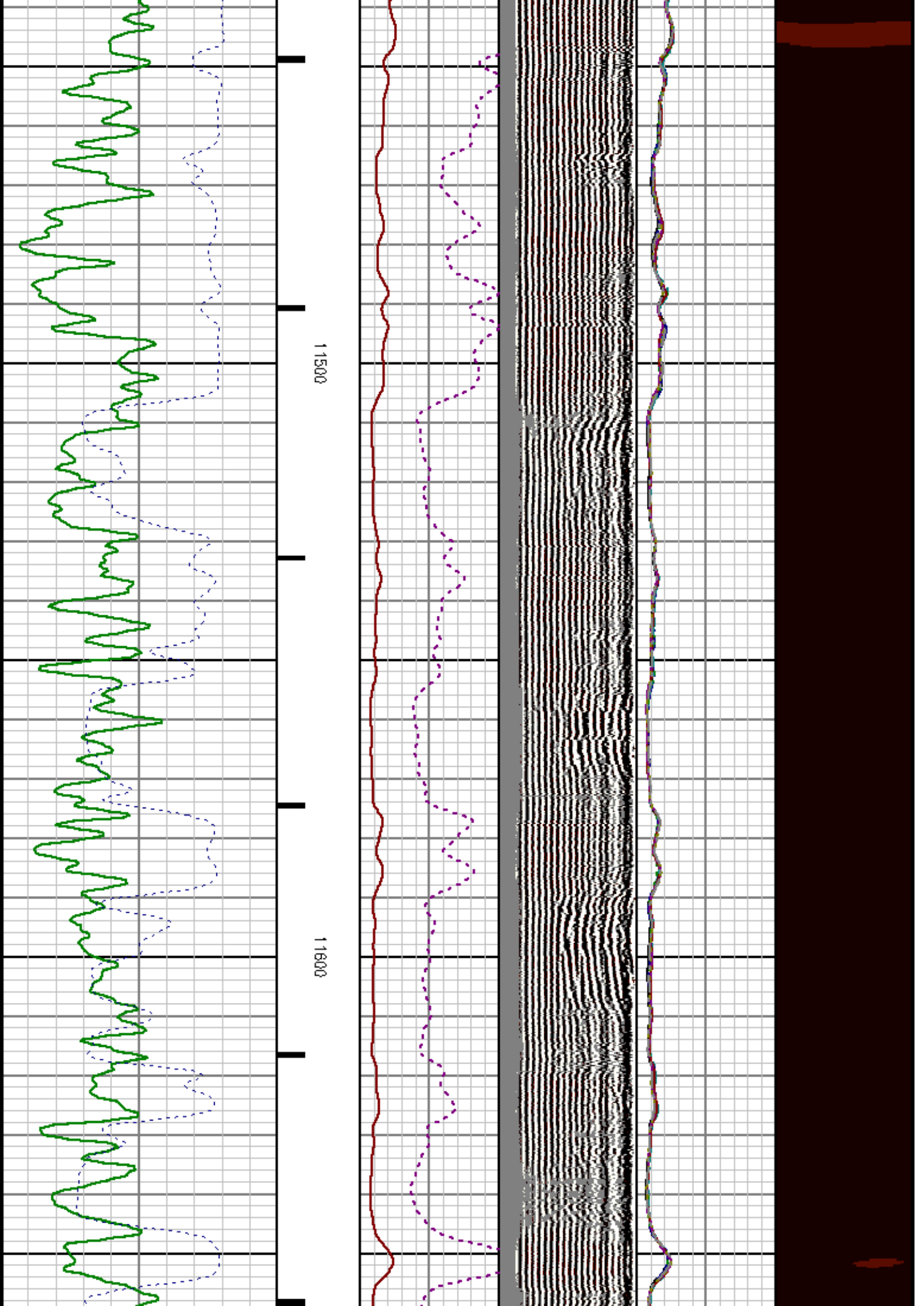


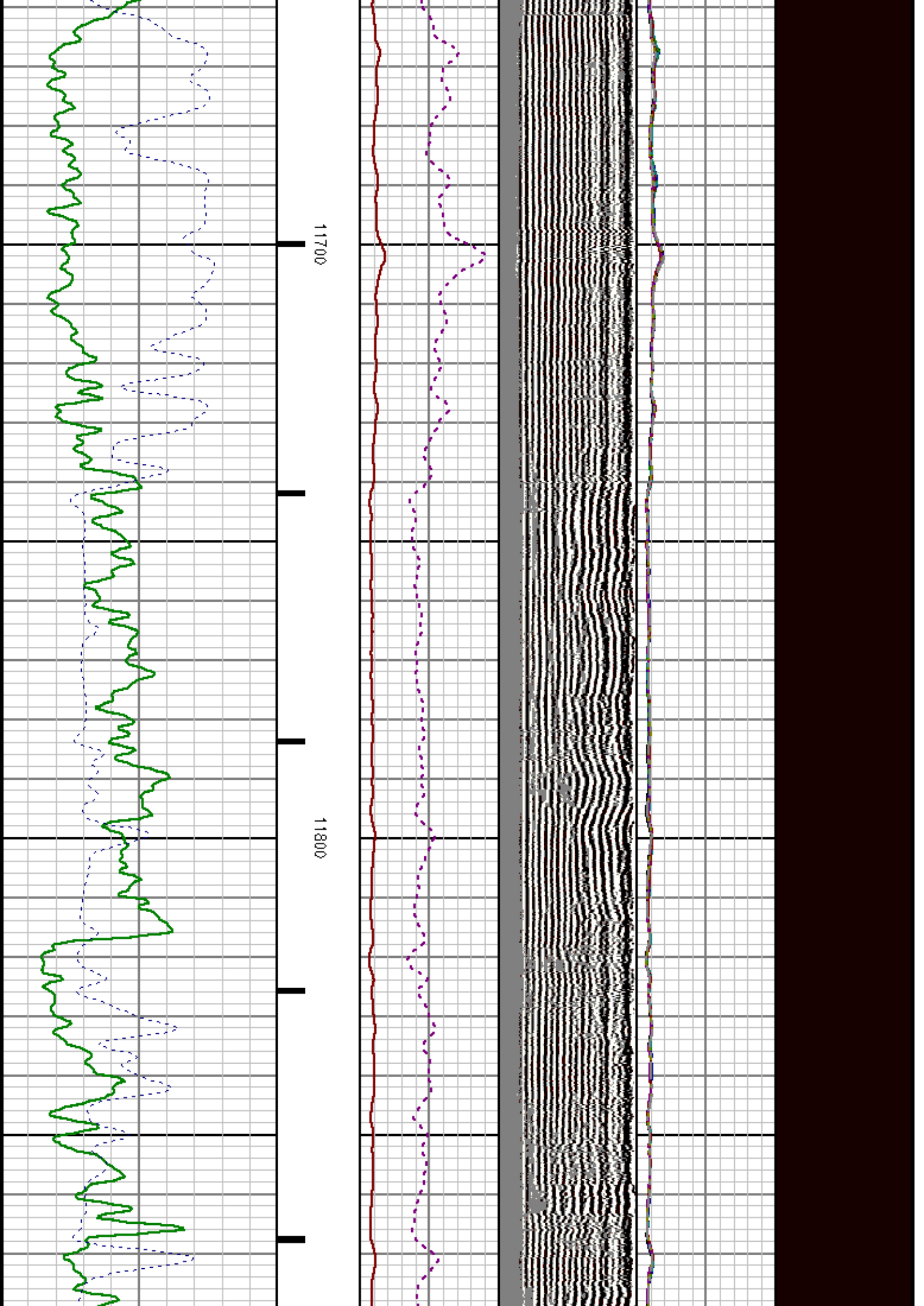


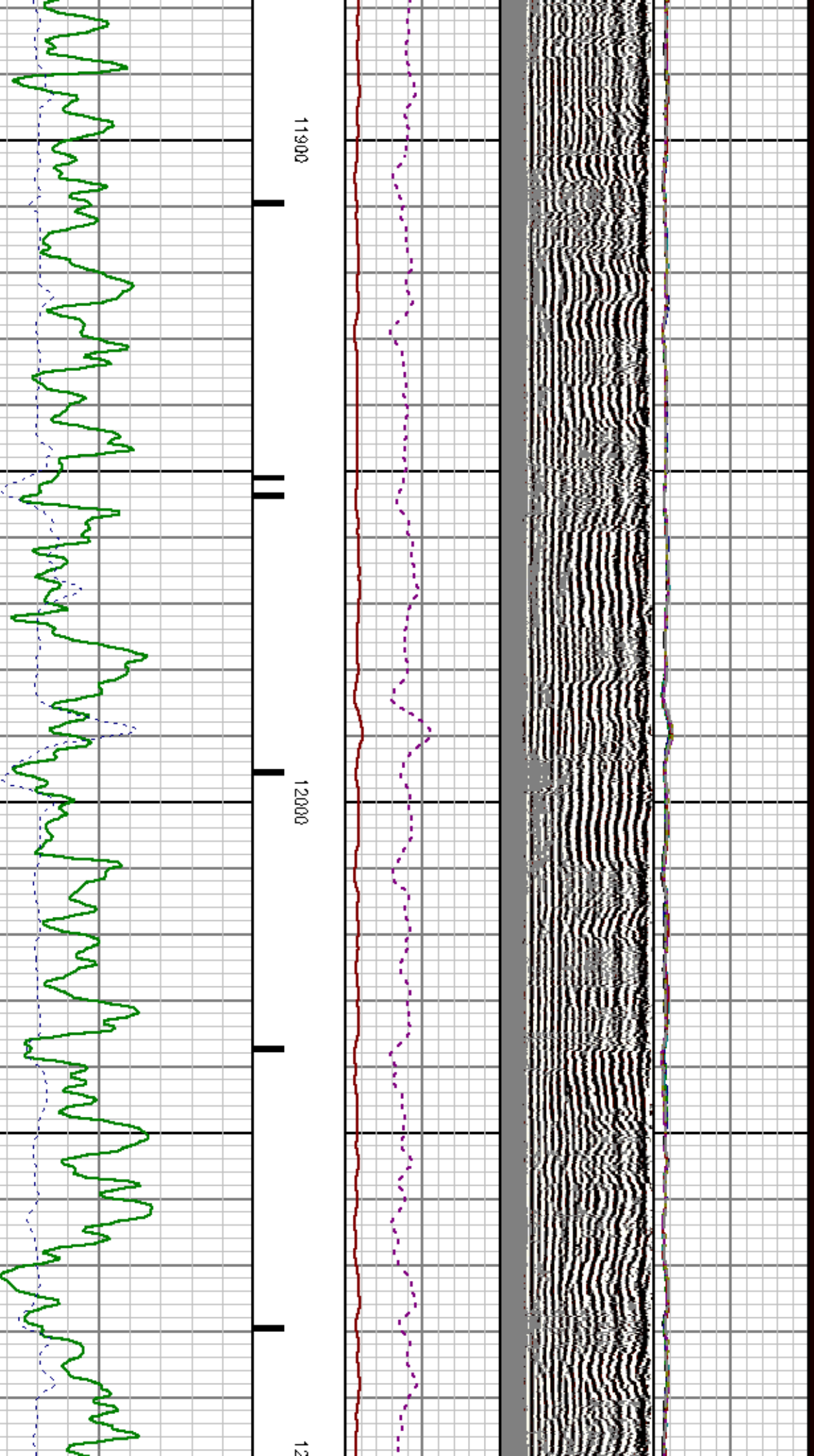


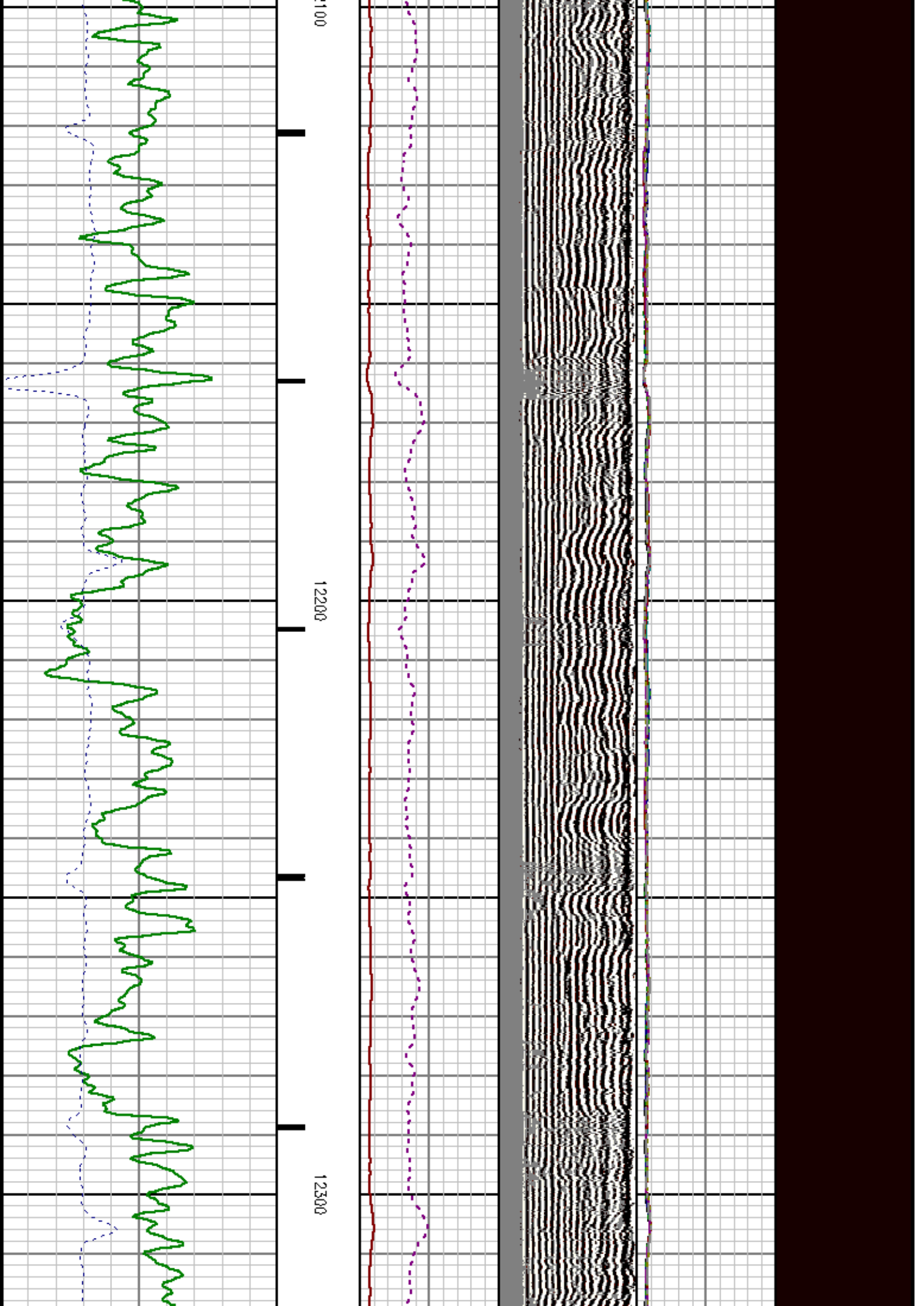


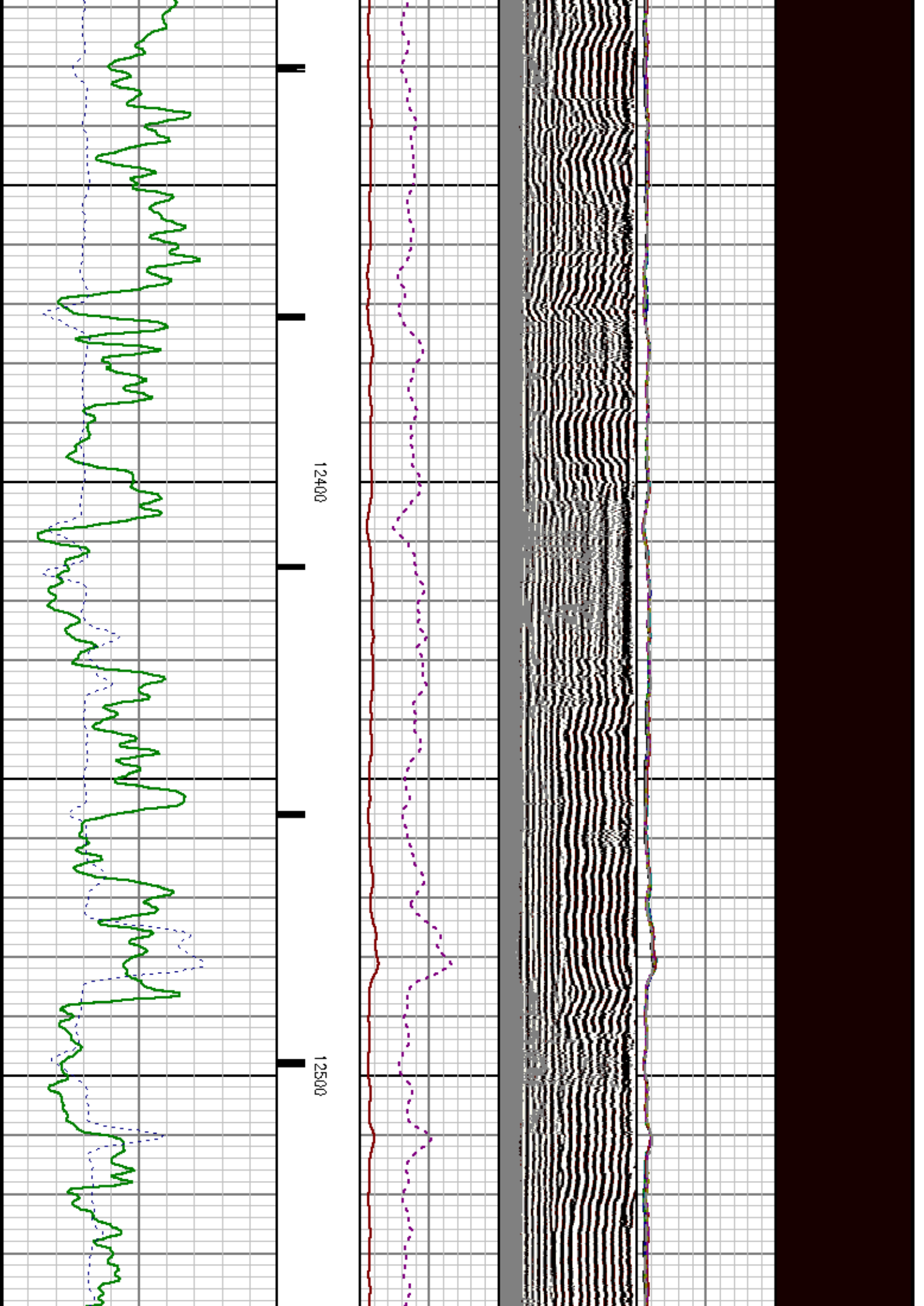


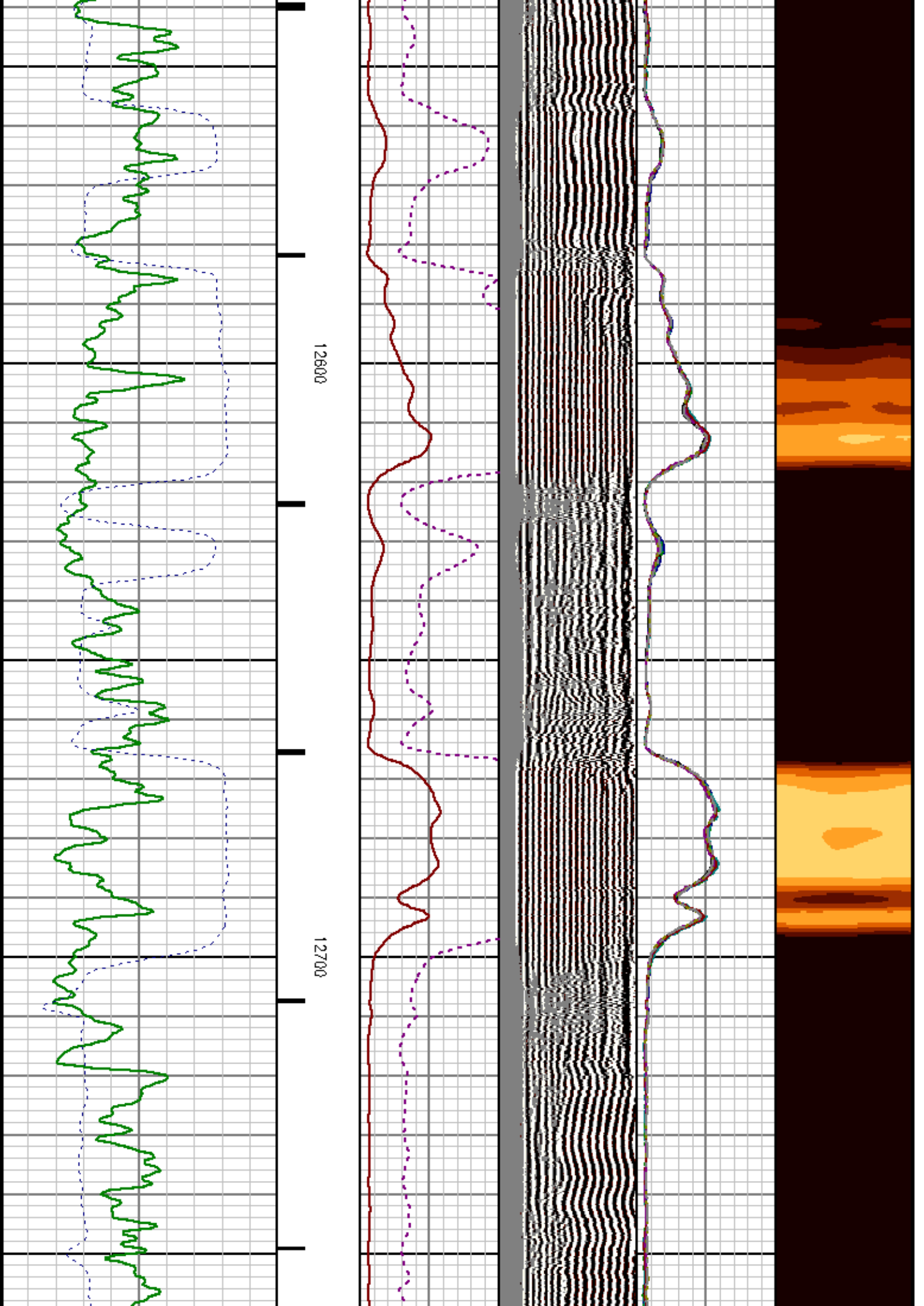


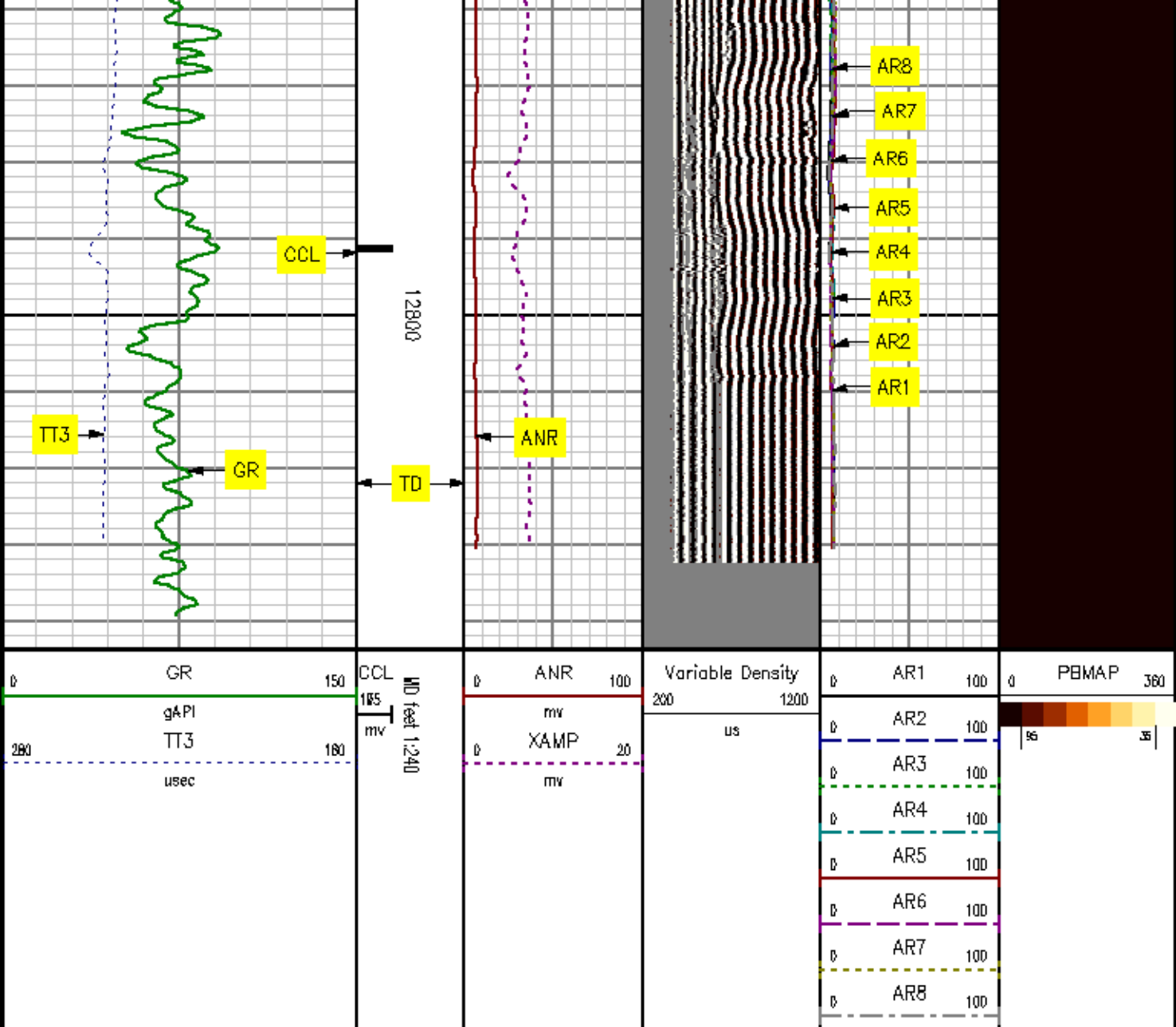












REPEAT SECTION

REPEAT SECTION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	12579.750	12840.000
RAL	Amp Gate Start Near	197.754	usec	12579.750	12840.000
RAL	Amp Gate Start Radial	197.754	usec	12579.750	12840.000
RAL	Amp Gate Width Far	30.000	usec	12579.750	12840.000
RAL	Amp Gate Width Near	30.000	usec	12579.750	12840.000
RAL	Amp Gate Width Radial	30.000	usec	12579.750	12840.000
RAL	casing od	4.500	inches	12579.750	12840.000
RAL	casing wt	15.100	lbm/ft	12579.750	12840.000
RAL	FB Start Far	289.263	usec	12579.750	12840.000
RAL	FB Start Near	172.754	usec	12579.750	12840.000
RAL	FB Start Radial	172.754	usec	12579.750	12840.000
RAL	FB Thresh Far	15.000	mv	12579.750	12840.000
RAL	FB Thresh Near	10.000	mv	12579.750	12840.000
RAL	FB Thresh Radial	10.000	mv	12579.750	12840.000
RAL	Fluid Travel Time	200.000	usec/ft	12579.750	12839.942

DEPTH OFFSETS  
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
		ACAL	ANR	AR1	AR2	AR3	AR4	AR5	AR6
1426XA	-15.360	FPR3	FPR5	TT3	TTR1	TTR2	TTR3	TTR4	TTR5
1426XA	-14.380	AFAR	SIG	TT5					
1426XA	-7.250	CCL							
1426XA	-5.390	GR							
1426XA	0.000	NEU							

Created by : RAL, v4.8.008

Plotted by : PlatMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

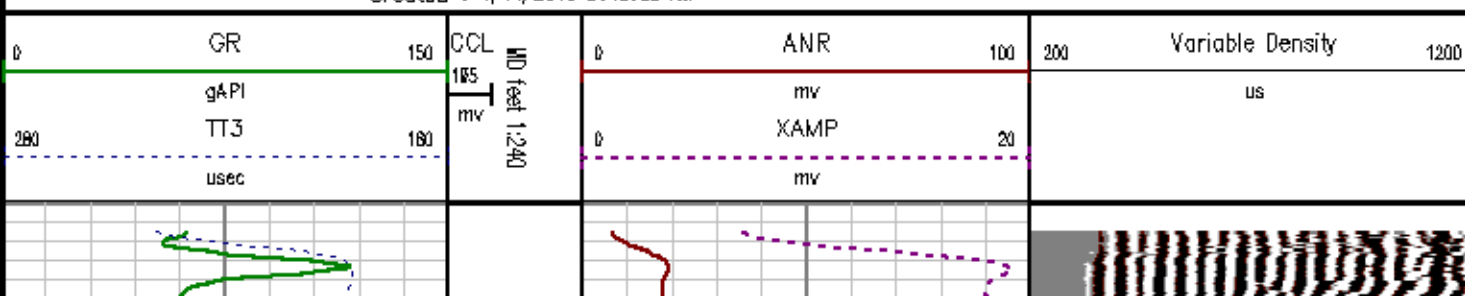
Well : PCU 297-11B1

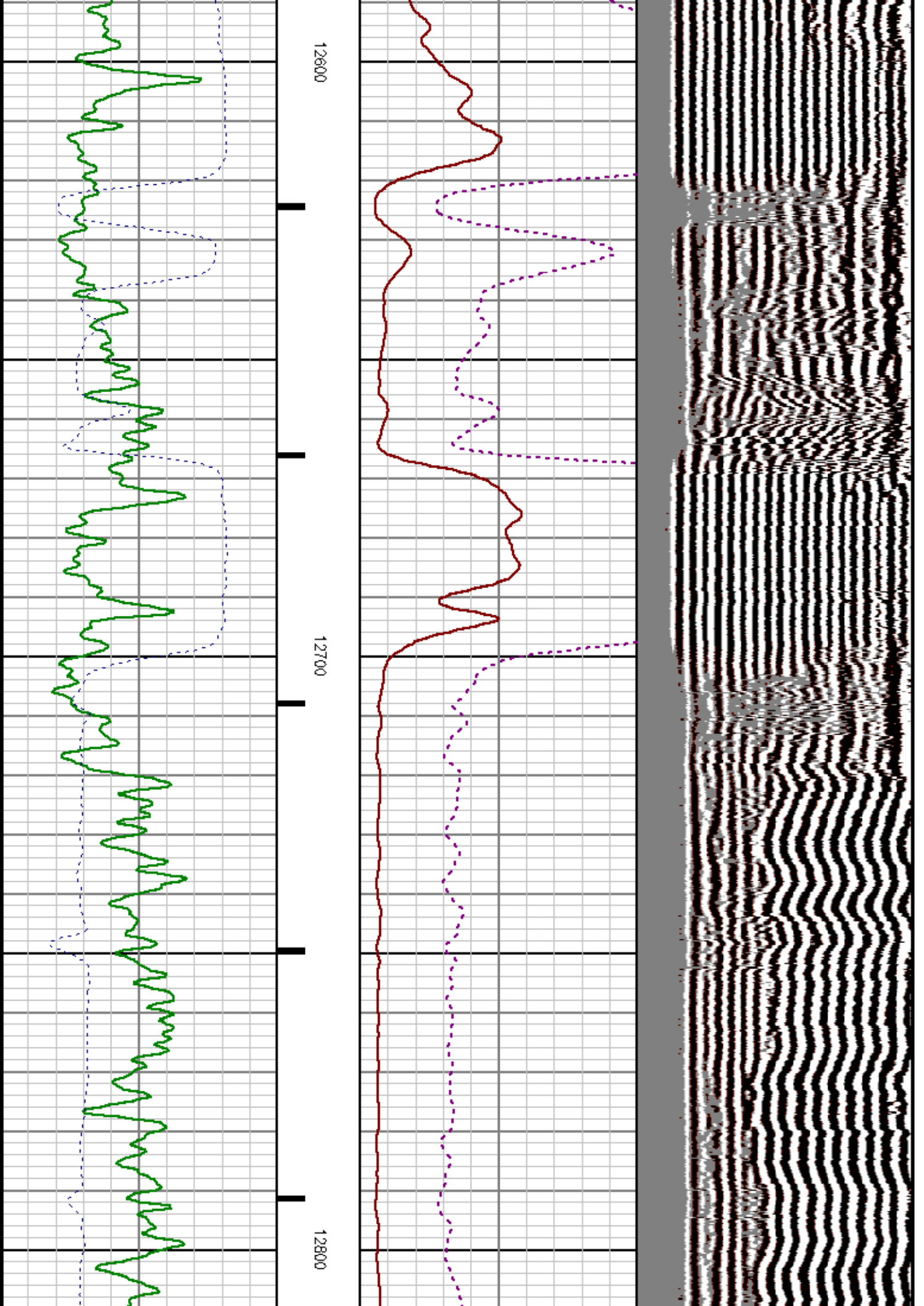
File Name : d:\well\data\1rad\repeat.ktf

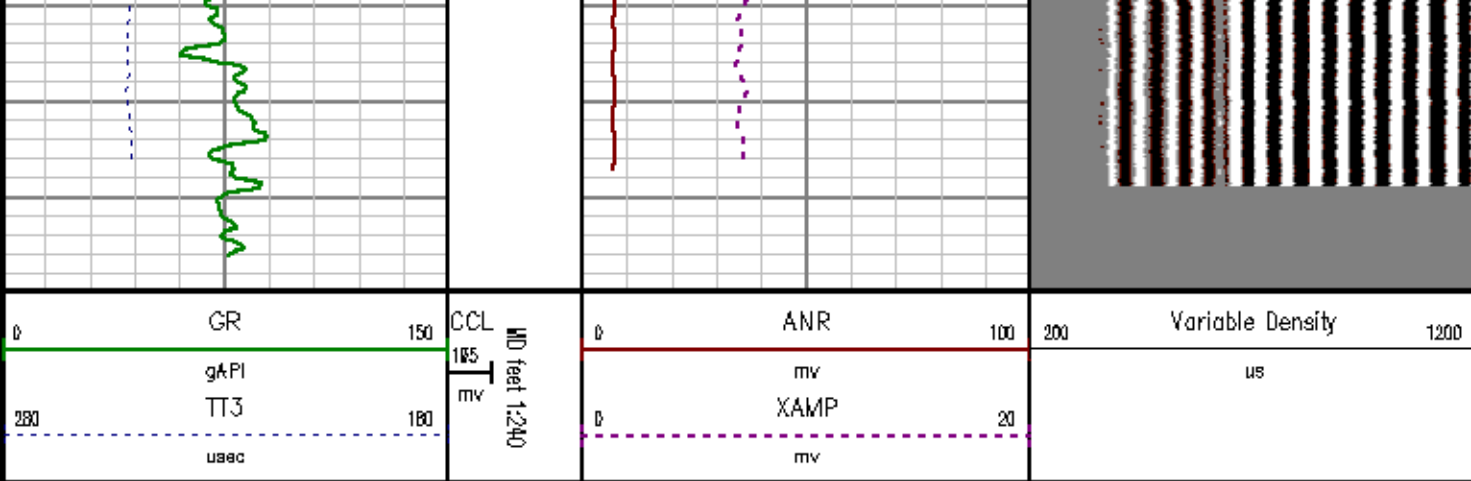
Mode : PlatMgr 5.4.504

Interval : 12580.00 - 12840.00 feet UP

Created : 1/14/2010 3:48:55 AM







## FREE PIPE SECTION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	104.750	331.000
RAL	Amp Gate Start Near	197.754	usec	104.750	331.000
RAL	Amp Gate Start Radial	197.754	usec	104.750	331.000
RAL	Amp Gate Width Far	30.000	usec	104.750	331.000
RAL	Amp Gate Width Near	30.000	usec	104.750	331.000
RAL	Amp Gate Width Radial	30.000	usec	104.750	331.000
RAL	casing od	4.500	inches	104.750	331.000
RAL	casing wt	15.100	lbm/ft	104.750	331.000
RAL	FB Start Far	289.263	usec	104.750	331.000
RAL	FB Start Near	172.754	usec	104.750	331.000
RAL	FB Start Radial	172.754	usec	104.750	331.000
RAL	FB Thresh Far	15.000	mv	104.750	331.000
RAL	FB Thresh Near	10.000	mv	104.750	331.000
RAL	FB Thresh Radial	10.000	mv	104.750	331.000
RAL	Fluid Travel Time	200.000	usec/ft	104.750	330.942

DEPTH OFFSETS  
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-15.380	ACAL	ANR	AR1	AR2	AR3	AR4		
		AR5	AR6	AR7	ARB	CHV	FPR2		
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3		
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP		
1426XA	-14.360	AFAR	SIG	TT5					
1426XA	-7.250	OCL							
1426XA	-5.380	GR							
1426XA	0.000	NEU							

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

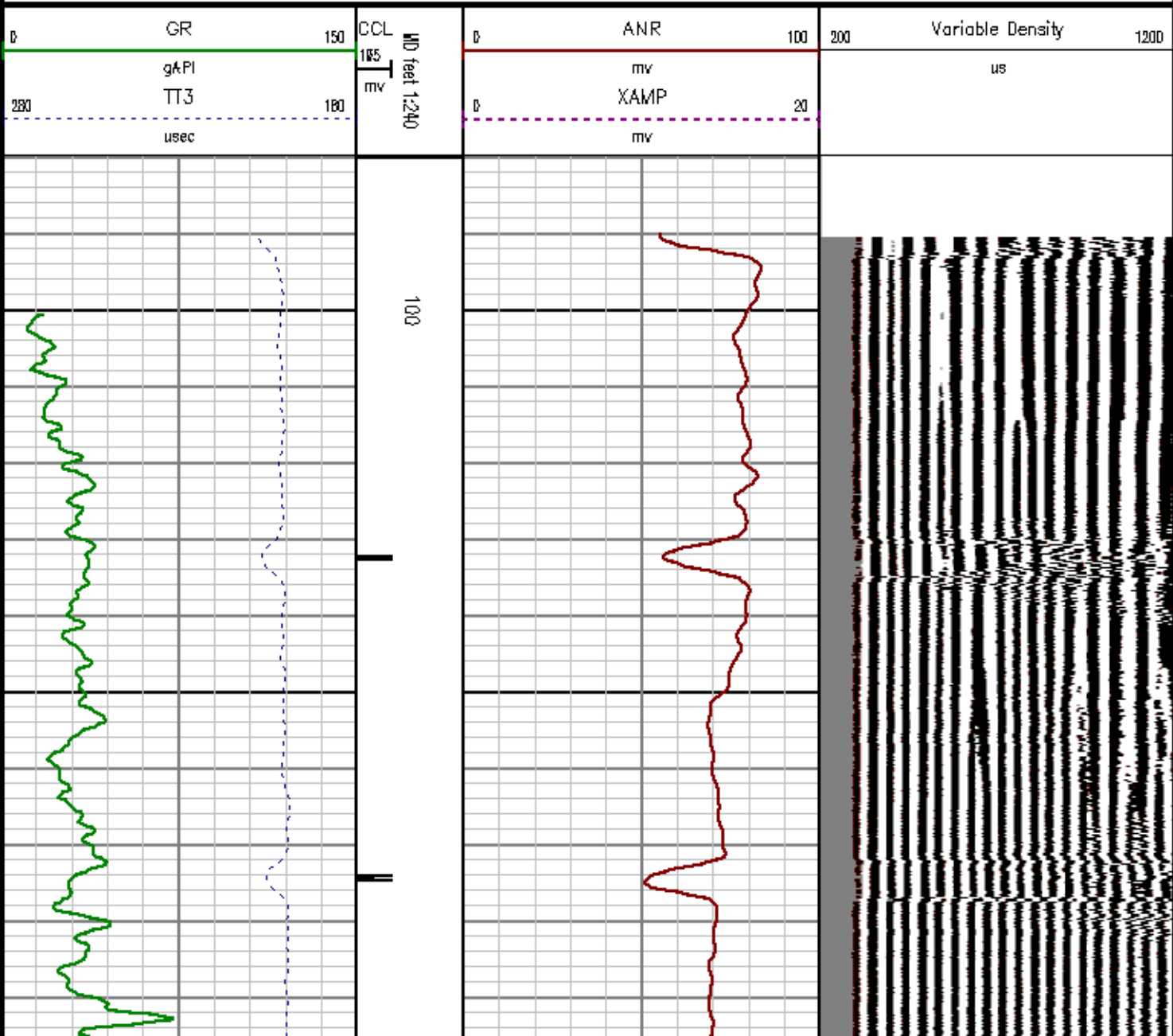
Well : PCU 297-11B1

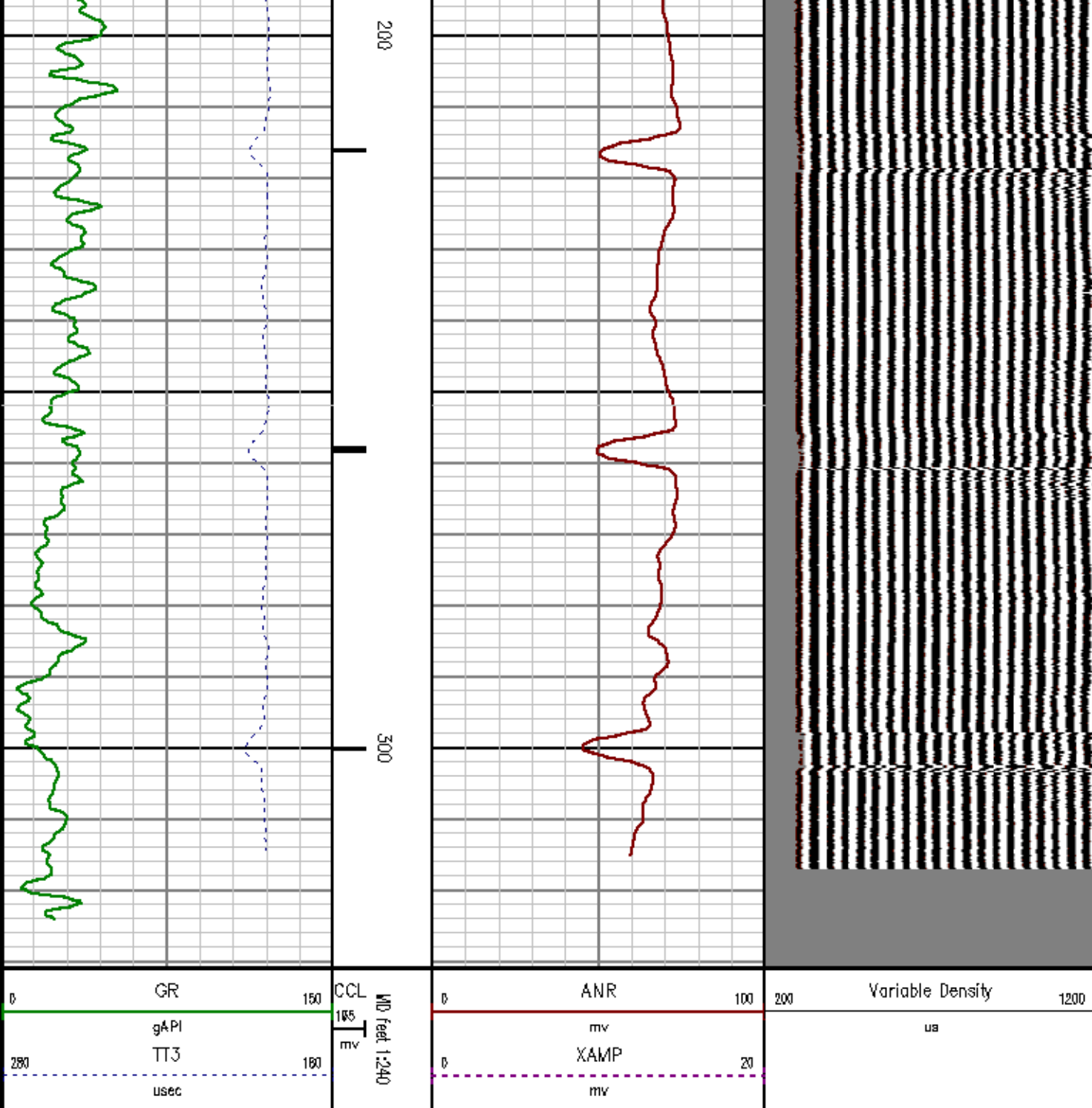
File Name : D:\WELLDATA\1RAD\FREE1.XTF

Mode : PlotMgr 5.4.504

Interval : 80.00 - 331.00 feet UP

Created : 1/14/2010 6:40:02 AM





## CALIBRATION SUMMARY

*RALSHP*

## SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Dec 12 10:31:46 2009 TOOL SERIES: 1426XA ASSET: 539 SEQ: J1

Tool Delay [usec]  Tank OD  Tank Wt  Tank ID   
In In/lbm/ft In

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	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="25"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="0.216"/>	<input type="text" value="100.00"/>	<input type="text" value="0.24"/>
3 Ft Receiver	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="25"/>	<input type="text" value="148"/>	<input type="text" value="25"/>	<input type="text" value="0.158"/>	<input type="text" value="100.00"/>	<input type="text" value="0.24"/>
5 Ft Receiver	<input type="text" value="328"/>	<input type="text" value="332"/>	<input type="text" value="25"/>	<input type="text" value="212"/>	<input type="text" value="25"/>	<input type="text" value="0.114"/>	<input type="text" value="150.00"/>	<input type="text" value="0.26"/>
Radial #1	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="25"/>	<input type="text" value="83"/>	<input type="text" value="41"/>	<input type="text" value="0.033"/>	<input type="text" value="100.00"/>	<input type="text" value="0.24"/>
Radial #2	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="25"/>	<input type="text" value="83"/>	<input type="text" value="41"/>	<input type="text" value="-0.410"/>	<input type="text" value="100.00"/>	<input type="text" value="0.24"/>
Radial #3	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="25"/>	<input type="text" value="83"/>	<input type="text" value="41"/>	<input type="text" value="-0.140"/>	<input type="text" value="100.00"/>	<input type="text" value="0.24"/>
Radial #4	<input type="text" value="219"/>	<input type="text" value="216"/>	<input type="text" value="25"/>	<input type="text" value="83"/>	<input type="text" value="41"/>	<input type="text" value="0.096"/>	<input type="text" value="100.00"/>	<input type="text" value="0.24"/>
Radial #5	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="25"/>	<input type="text" value="83"/>	<input type="text" value="41"/>	<input type="text" value="-0.367"/>	<input type="text" value="100.00"/>	<input type="text" value="0.24"/>
Radial #6	<input type="text" value="218"/>	<input type="text" value="216"/>	<input type="text" value="25"/>	<input type="text" value="83"/>	<input type="text" value="41"/>	<input type="text" value="0.044"/>	<input type="text" value="100.00"/>	<input type="text" value="0.24"/>
Radial #7	<input type="text" value="217"/>	<input type="text" value="216"/>	<input type="text" value="25"/>	<input type="text" value="83"/>	<input type="text" value="41"/>	<input type="text" value="0.144"/>	<input type="text" value="100.00"/>	<input type="text" value="0.24"/>
Radial #8	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="25"/>	<input type="text" value="83"/>	<input type="text" value="41"/>	<input type="text" value="-0.404"/>	<input type="text" value="100.00"/>	<input type="text" value="0.24"/>

**RALFLD**

Well site Calibration: C:\apps\calver\RALFLD\539J1 fld.cal

## WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Dec 12 10:33:22 2009 TOOL SERIES: 1426XA ASSET: 539 SEQ: J1

Tool Delay [usec]  Casing OD  Casing Wt  Casing ID   
In In/lbm/ft In

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="0.052"/>	<input type="text" value="0.000"/>	<input type="text" value="1.00"/>	<input type="text" value="100.000"/>
3 Ft Receiver	<input type="text" value="198"/>	<input type="text" value="25"/>	<input type="text" value="-0.212"/>			
5 Ft Receiver	<input type="text" value="314"/>	<input type="text" value="25"/>	<input type="text" value="0.915"/>			
Radial #1	<input type="text" value="198"/>	<input type="text" value="25"/>	<input type="text" value="-0.128"/>			
Radial #2	<input type="text" value="198"/>	<input type="text" value="25"/>	<input type="text" value="-0.221"/>			
Radial #3	<input type="text" value="198"/>	<input type="text" value="25"/>	<input type="text" value="-0.116"/>			
Radial #4	<input type="text" value="198"/>	<input type="text" value="25"/>	<input type="text" value="-0.101"/>			
Radial #5	<input type="text" value="198"/>	<input type="text" value="25"/>	<input type="text" value="-0.202"/>			
Radial #6	<input type="text" value="198"/>	<input type="text" value="25"/>	<input type="text" value="-0.205"/>			
Radial #7	<input type="text" value="198"/>	<input type="text" value="25"/>	<input type="text" value="-0.191"/>			
Radial #8	<input type="text" value="198"/>	<input type="text" value="25"/>	<input type="text" value="-0.176"/>			

**GAMMA RAY**

Well site Calibration: C:\apps\calver\GR\157J1 cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Jan 01 10:54:54 2010 TOOL SERIES: 1426XA ASSET: 457 SEQ: J1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K DAB56	26.13	170.31	1.283	33.53	218.53	185.00

Verification File: C:\case\calver\GR\457J1.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Fri Jan 01 10:56:30 2010 TOOL SERIES: 1426XA ASSET: 457 SEQ: J1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K DAB56	27.35	170.58	1.283	35.09	218.87	183.78

# TOOL DIAGRAM

OTA SHORT CABLE HEAD

CENTRALIZER

Series RALCENT  
 Mnemonic CENT  
 Diameter 3.12"  
 Weight 20.00 lb

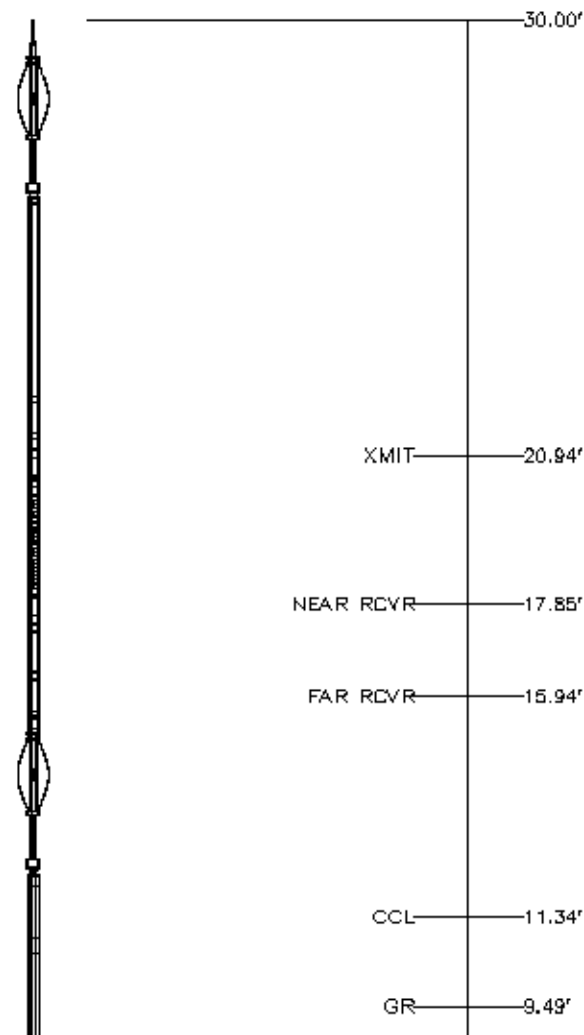
PROBE 2 3/4 DUAL RECEIVER RADII (1426XA)

CENTRALIZER

Series RALCENT  
 Mnemonic CENT  
 Diameter 3.12"  
 Weight 20.00 lb

Probe GR/CCL/NEU

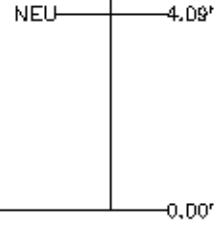
Series 2459XA



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



Total Length: 30.00'  
 Total Weight: Not Available  
 Max Diameter: 0' 3.12"



Baker Atlas



Company	EXXONMOBIL PRODUCTION COMPANY	
Well	PCU 297-11B1	
Field	PICEANCE CREEK	
County	RIO BLANCO	State COLORADO

File No:	1565
API No:	05-103-11.378-0000

Location	354' FSL & 487' FEL				
SEC	11	TWP	2S	RGE	97W

Elevations	
KB	7157.5 ft
DF	7156.5 ft
GL	7131 ft

