



# Cement Bond Log Gamma Ray / CCL

Baker Atlas

File No: Company EXXONMOBIL PRODUCTION COMPANY

API No: Well PCU 287-1109

Field PICEANCE CREEK

County RIO BLANCO State COLORADO

08103111+710000

Location  
1021' FIL & 894' FIL

Other Services  
RPM

SEC 11 TWP 25 RGE 97W

G.L. Elevation 8963 ft

K.B. 30.2 ft Above P. D.

Drill Measured From KELLY BUSHING

Elevations

KB 8963.2 ft

DF 8992.2 ft

GL 8963 ft

Permanent Datum

Log Measured From

Drill Measured From

Date 02-AUG-2010

Run ONE

Service Order 5756228

Depth Driller 12750 ft

Depth Logger 12828 ft

Bottom Logged Interval 12828 ft

Top Logged Interval 5000 ft

Time Started 18:30

Time Finished 01:30

Operator Rig Time 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 N/A

Equipment No. 4271 Location GRAD JCT, CO

Recorded By TIM KAUFF

Witnessed By MR. JIM JONES

- FOLD HERE

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

## Borehole Record

Bit Size	From	To
9.875 in		
8.125 in		

## Casing Record

Size	Weight	Grade	From	To
7 in	26 lbm/ft	P-110	SURFACE	8881.8 ft
4.5 in	15.1 lbm/ft	P-110	SURFACE	12760 ft

## Remarks

SHORT JOINTS ARE MARKED ON LOG  
THE CREW OF 4271 THANKS YOU.

## Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position

1	1	MANUREL	1426XA	10417452	CENTRALIZED
1	1	GAMMA RAY	2458XA	10417457	CENTRALIZED

## MAIN SECTION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	4999.750	12660.000
RAL	Amp Gate Start Near	197.754	usec	4999.750	12660.000
RAL	Amp Gate Start Radial	197.754	usec	4999.750	12660.000
RAL	Amp Gate Width Far	25.000	usec	4999.750	12660.000
RAL	Amp Gate Width Near	25.000	usec	4999.750	12660.000
RAL	Amp Gate Width Radial	25.000	usec	4999.750	12660.000
RAL	casing od	4.500	inches	4999.750	12660.000
RAL	casing wt	15.100	lbm/ft	4999.750	12660.000
RAL	FB Start Far	289.263	usec	4999.750	12660.000
RAL	FB Start Near	172.754	usec	4999.750	12660.000
RAL	FB Start Radial	172.754	usec	4999.750	12660.000
RAL	FB Thresh Far	15.000	mv	4999.750	12660.000
RAL	FB Thresh Near	10.000	mv	4999.750	12660.000
RAL	FB Thresh Radial	10.000	mv	4999.750	12660.000
RAL	Fluid Travel Time	200.000	usec/ft	4999.750	12659.999

## 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	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-14.360	AFAR	SIG	TT5			
1426XA	-7.250	GCL					
1426XA	-5.390	GR					
1426XA	0.000	NEU					

Created by : RAL, v4.8.007

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

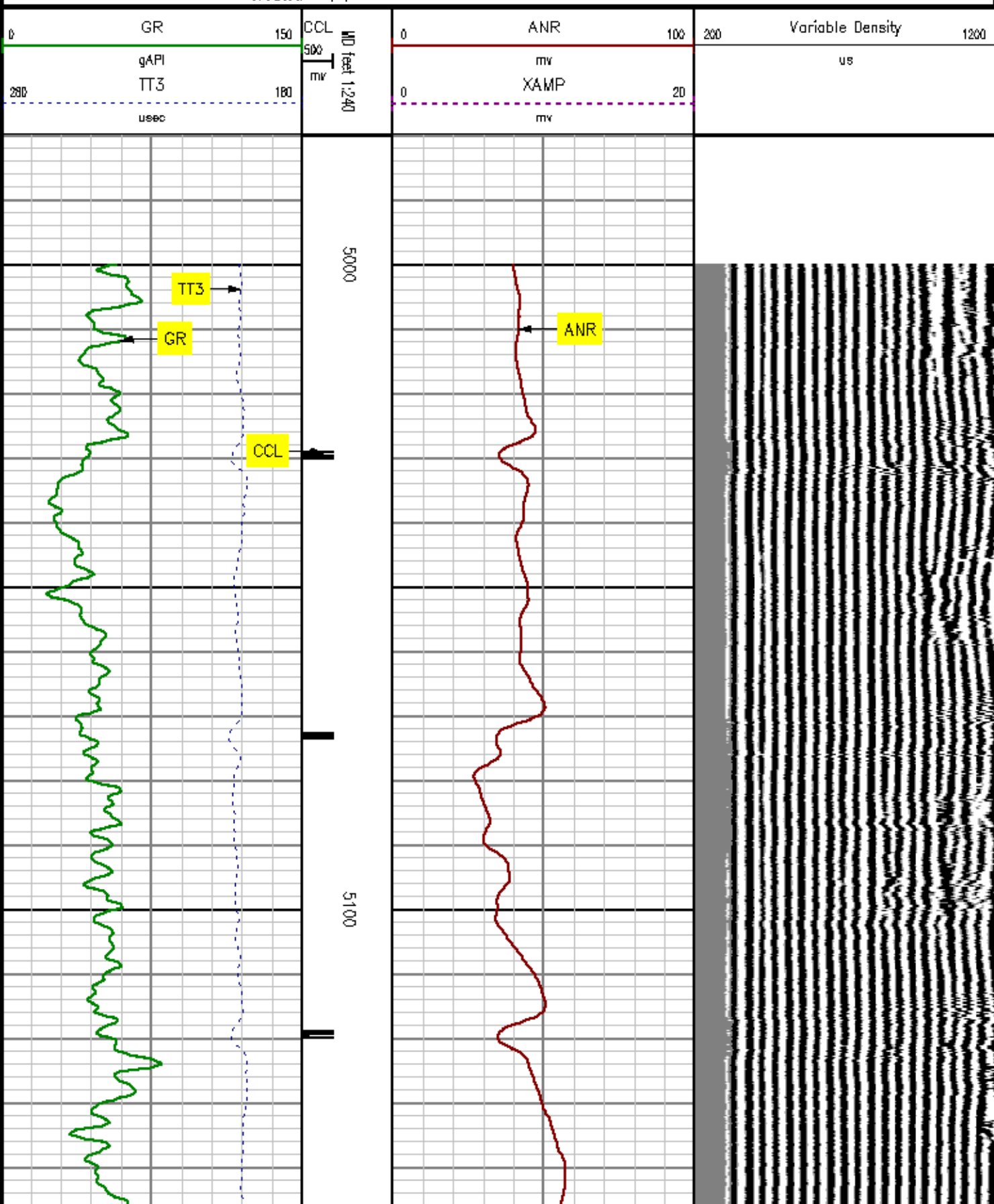
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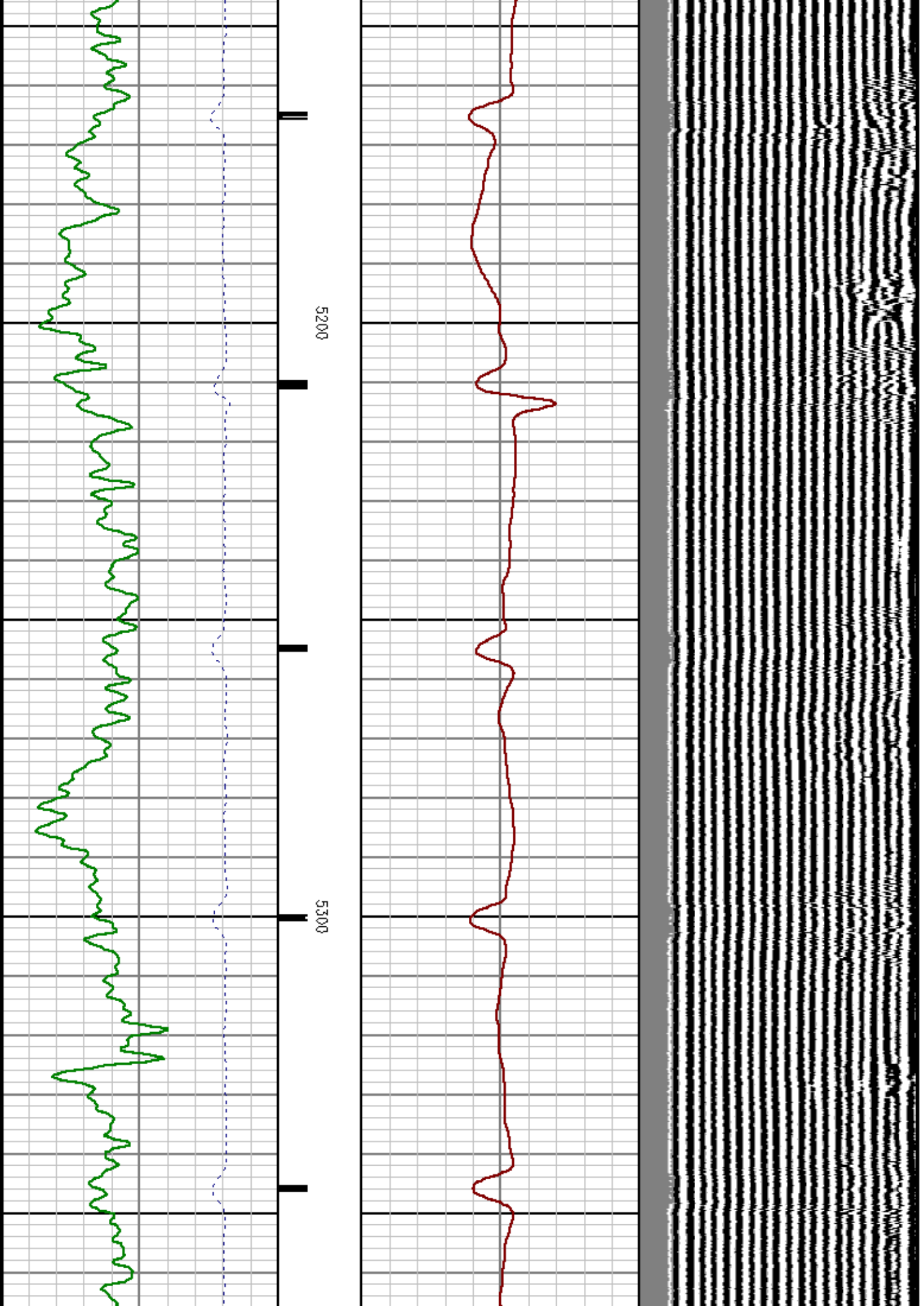
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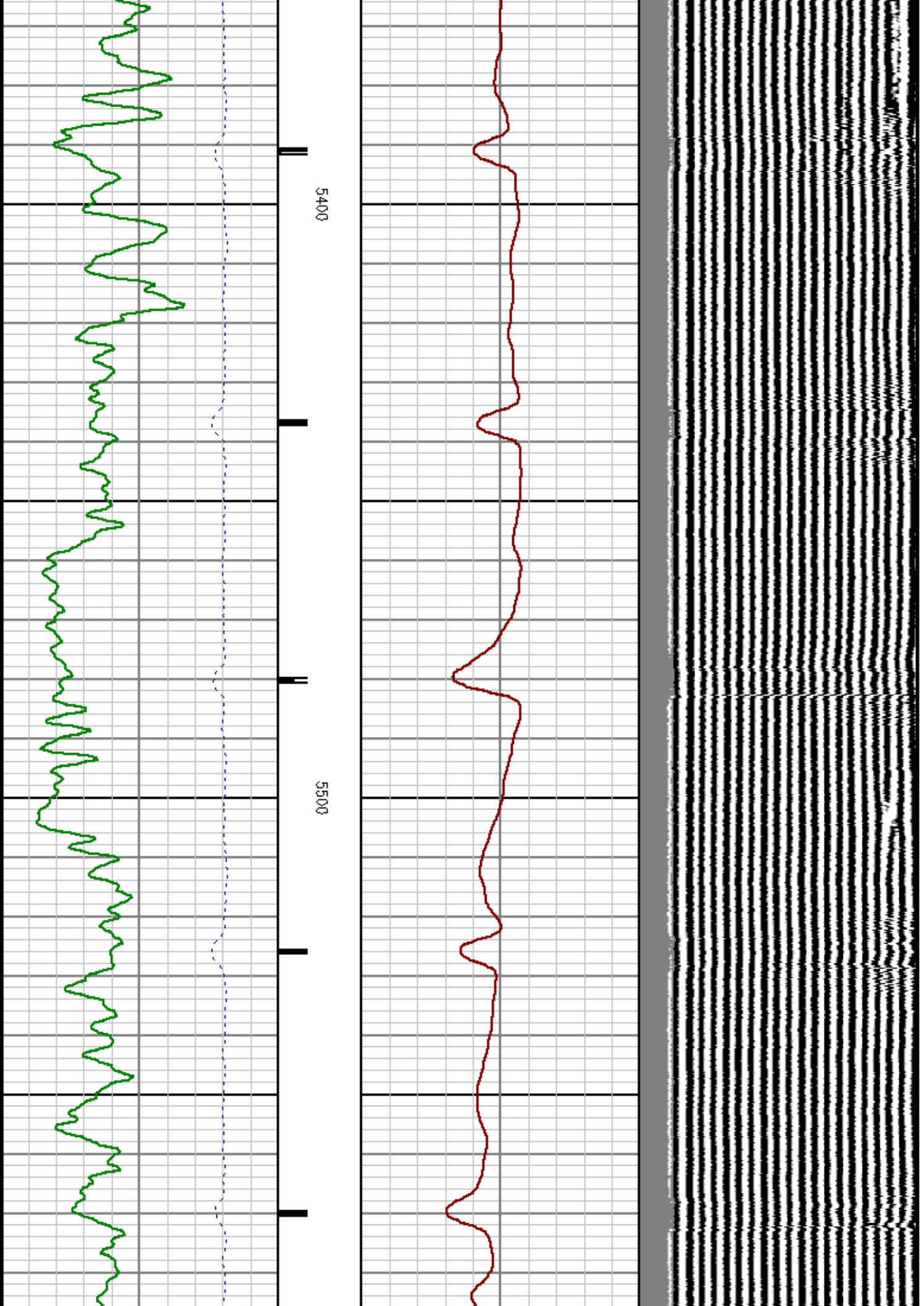
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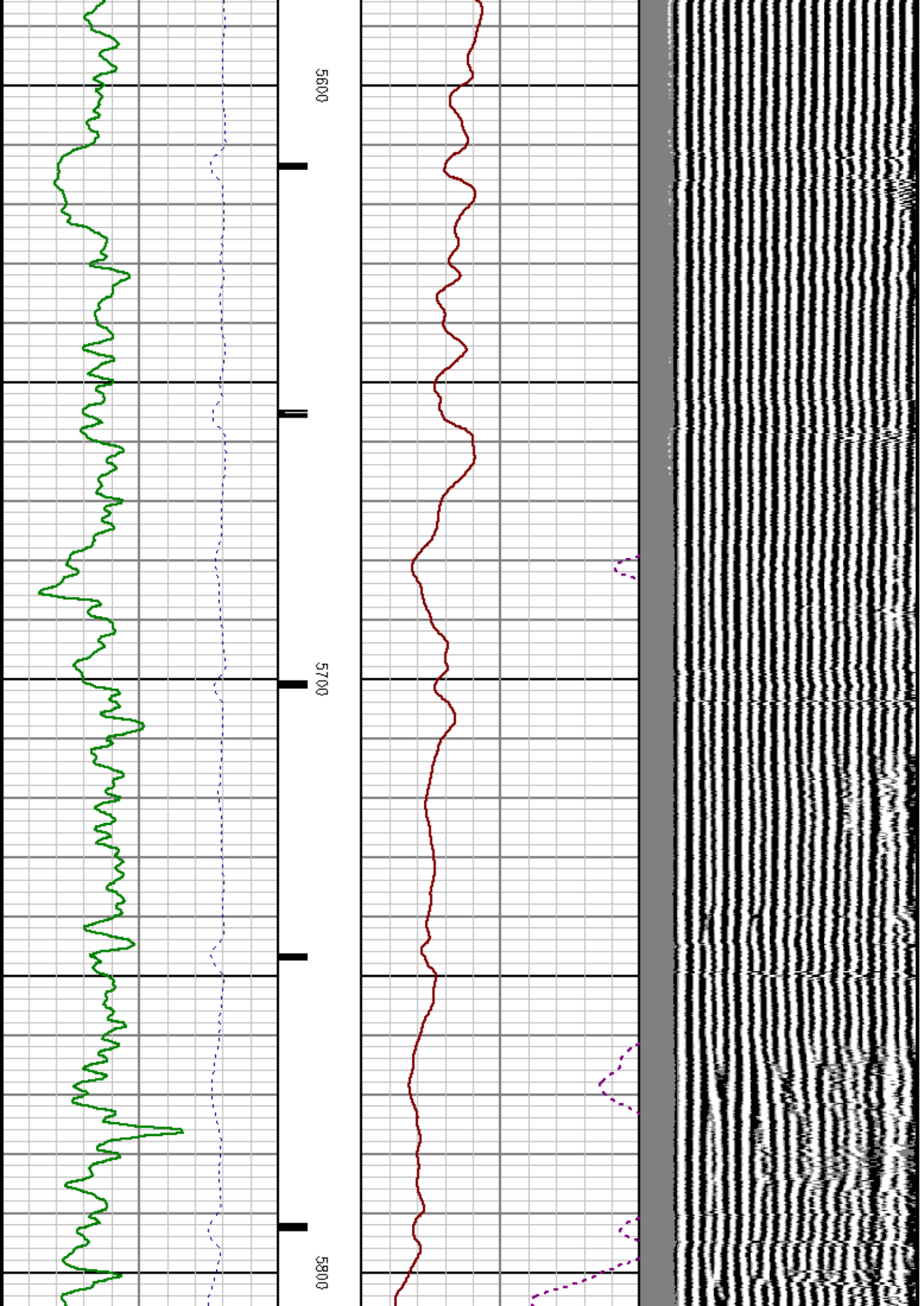
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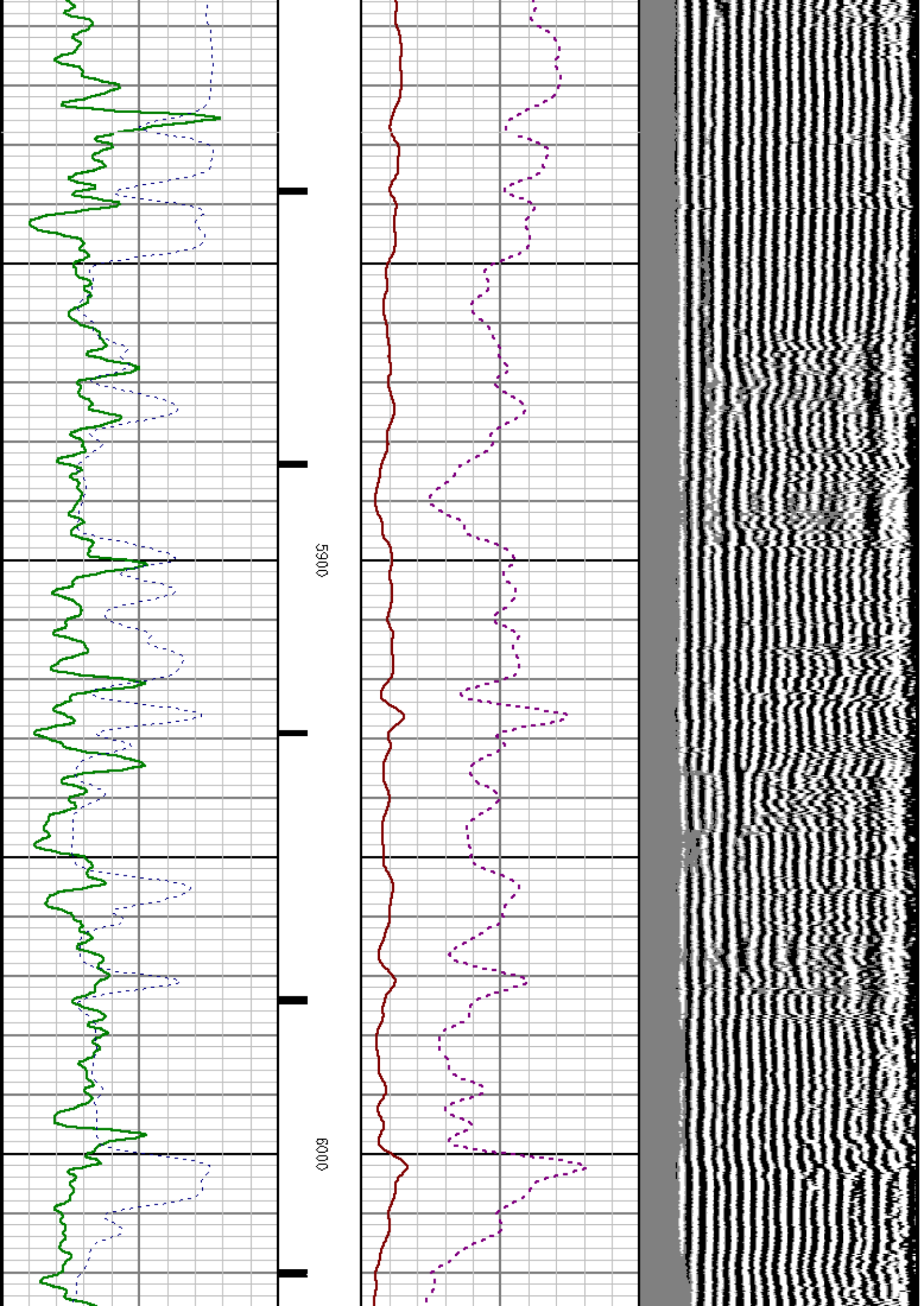


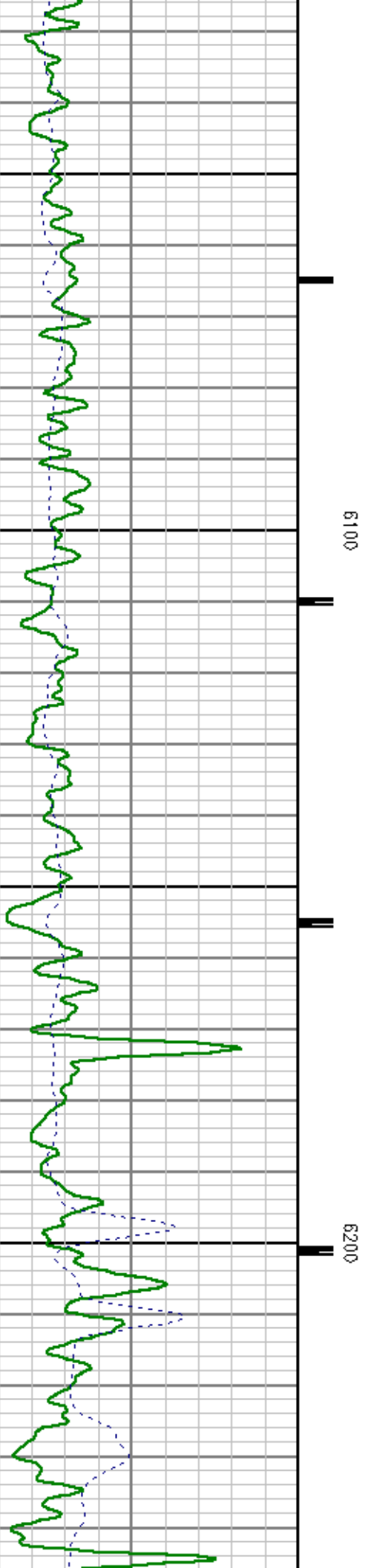
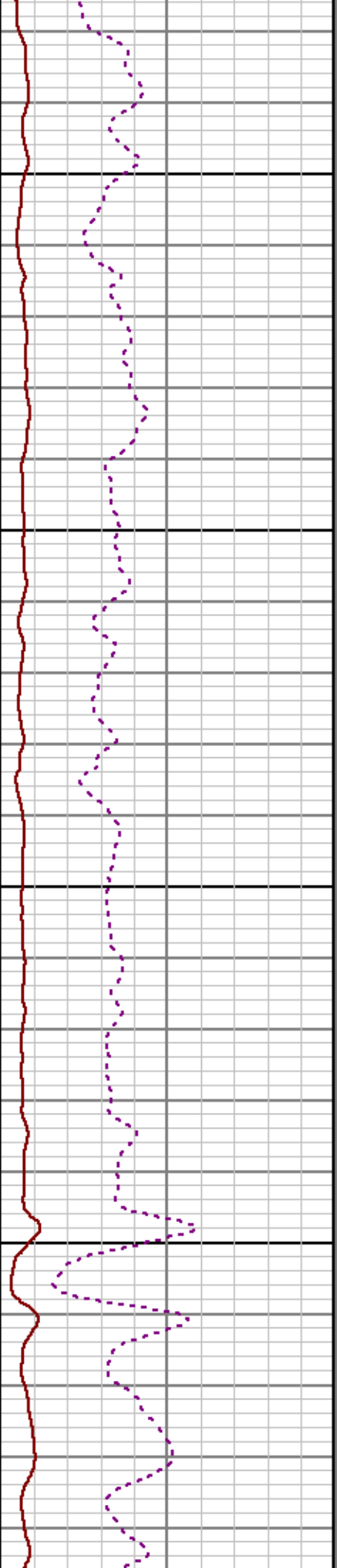
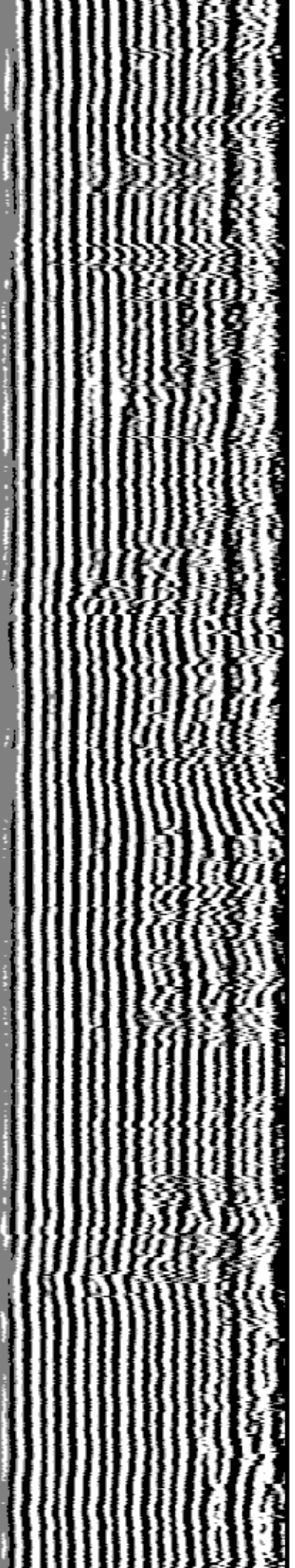










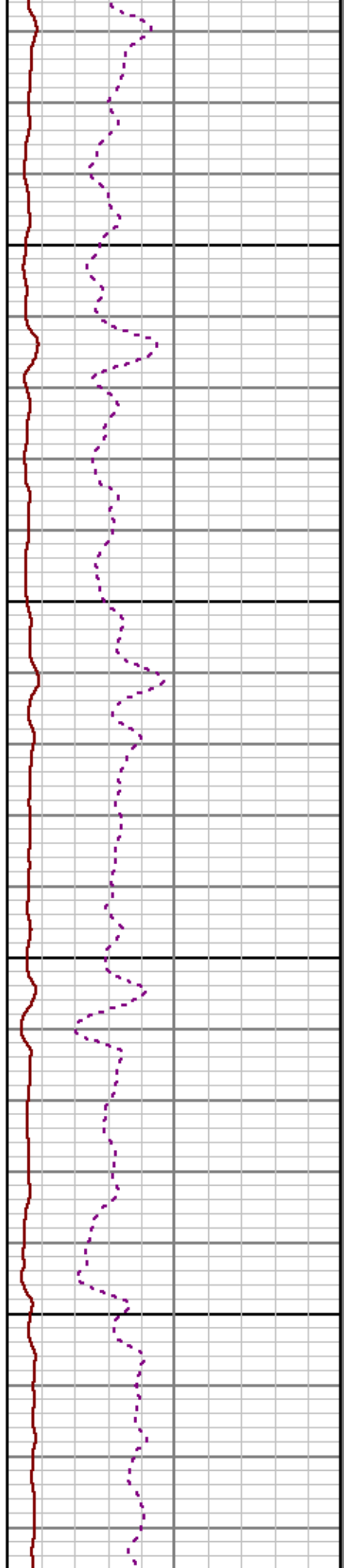
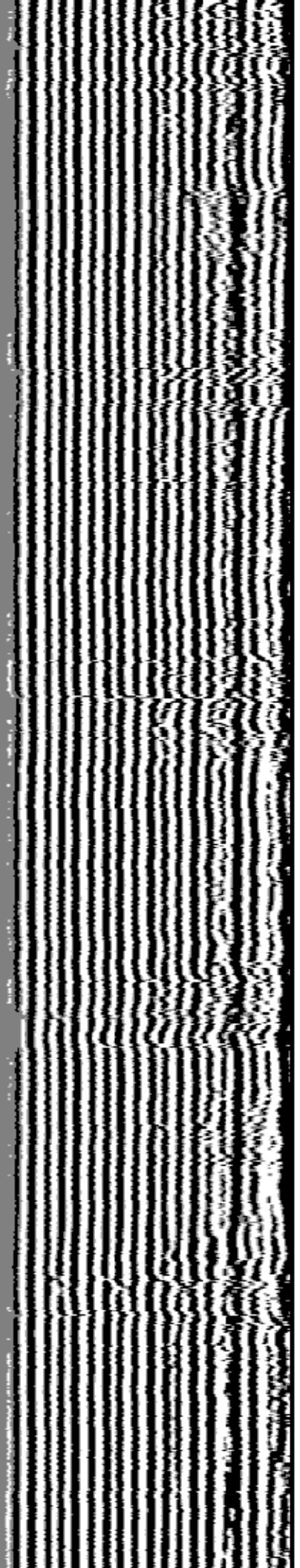




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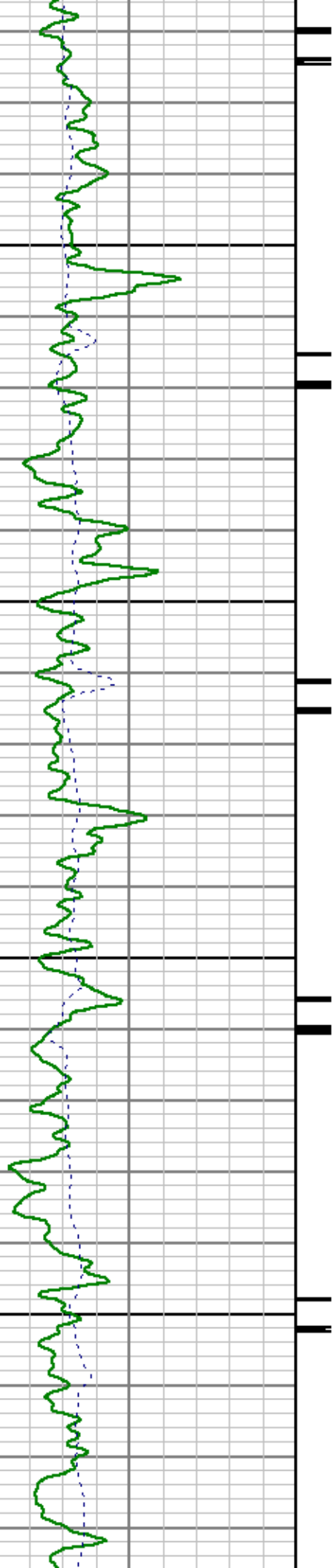
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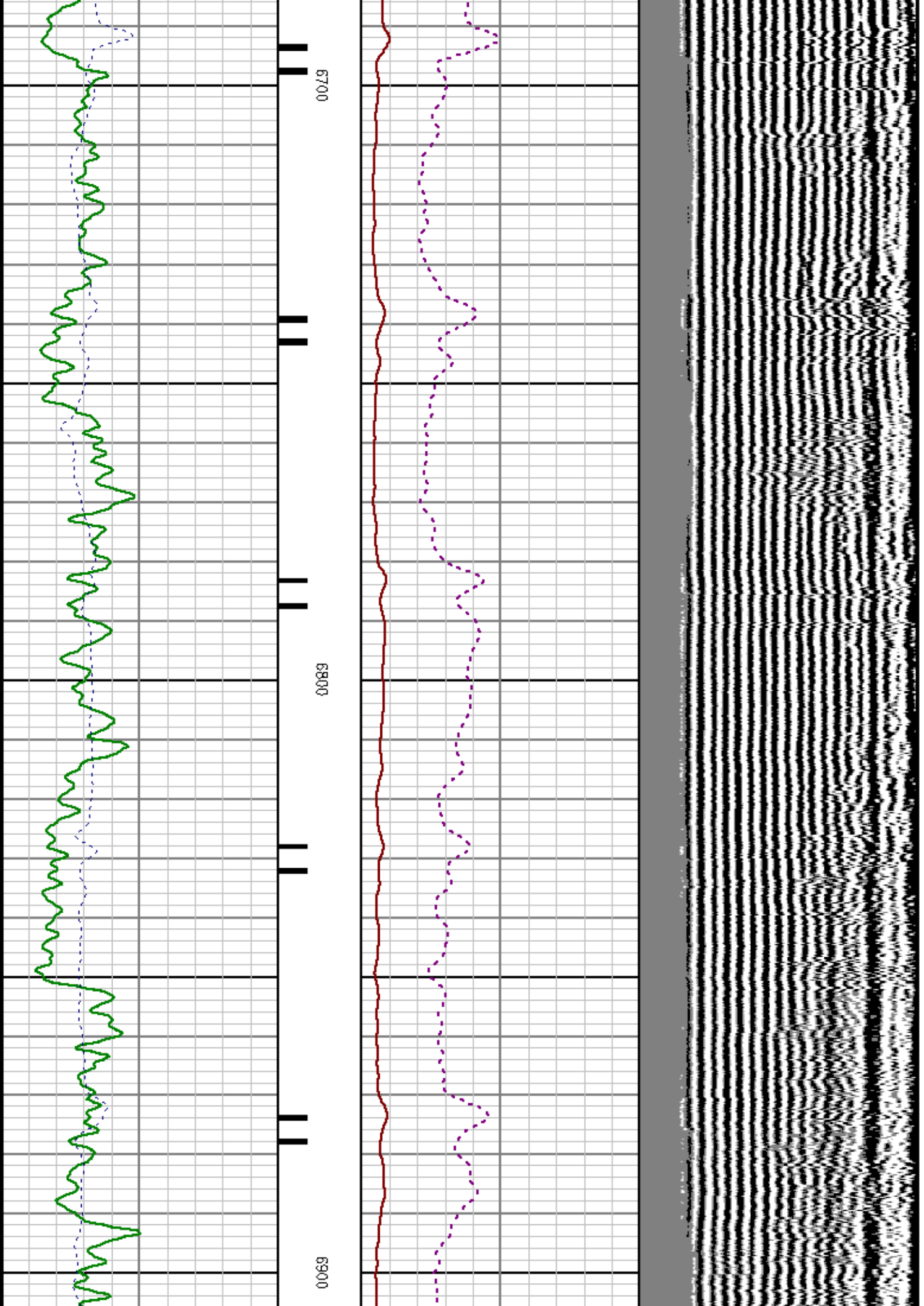
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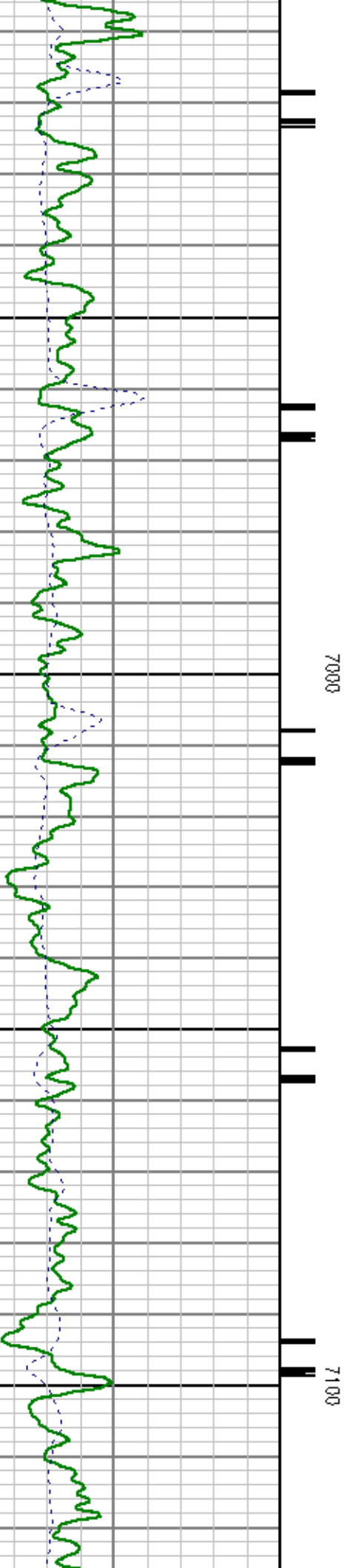
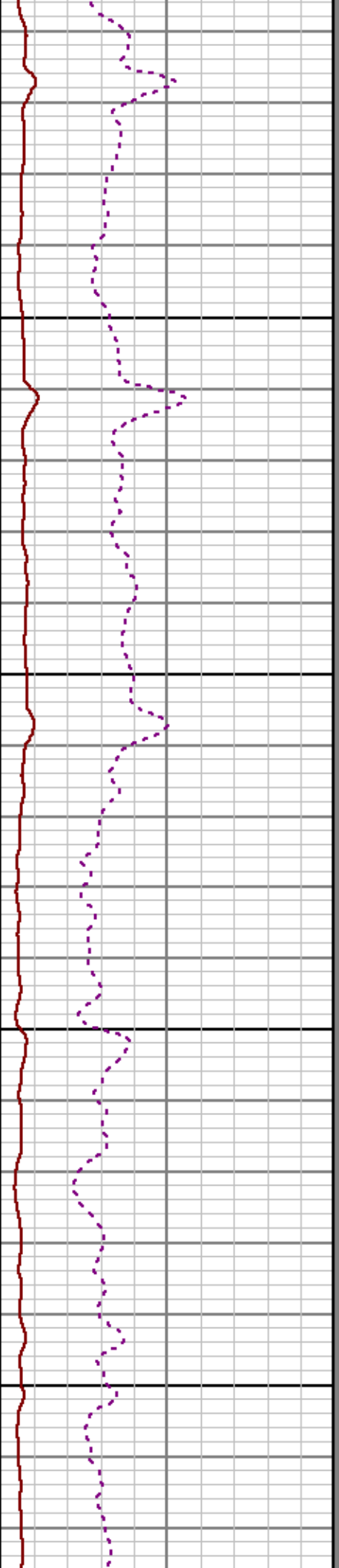
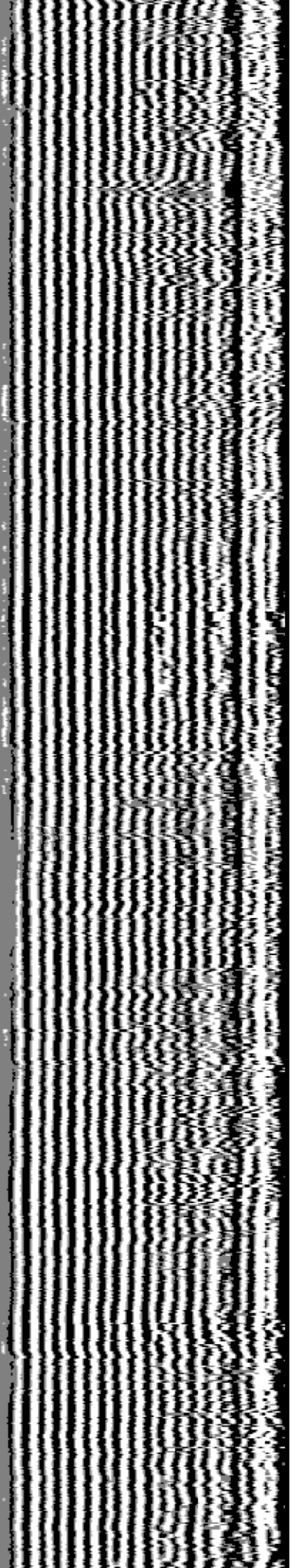
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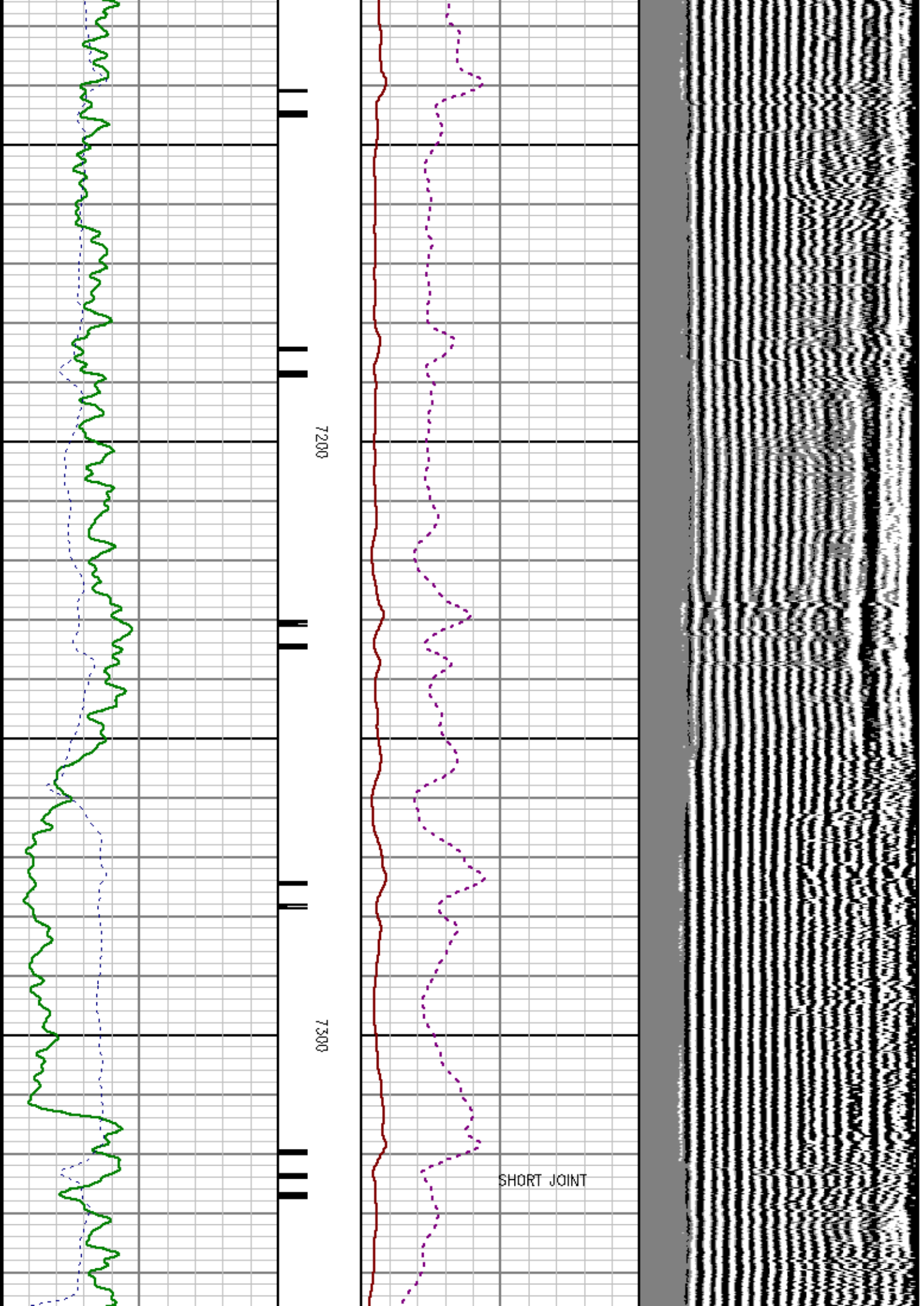
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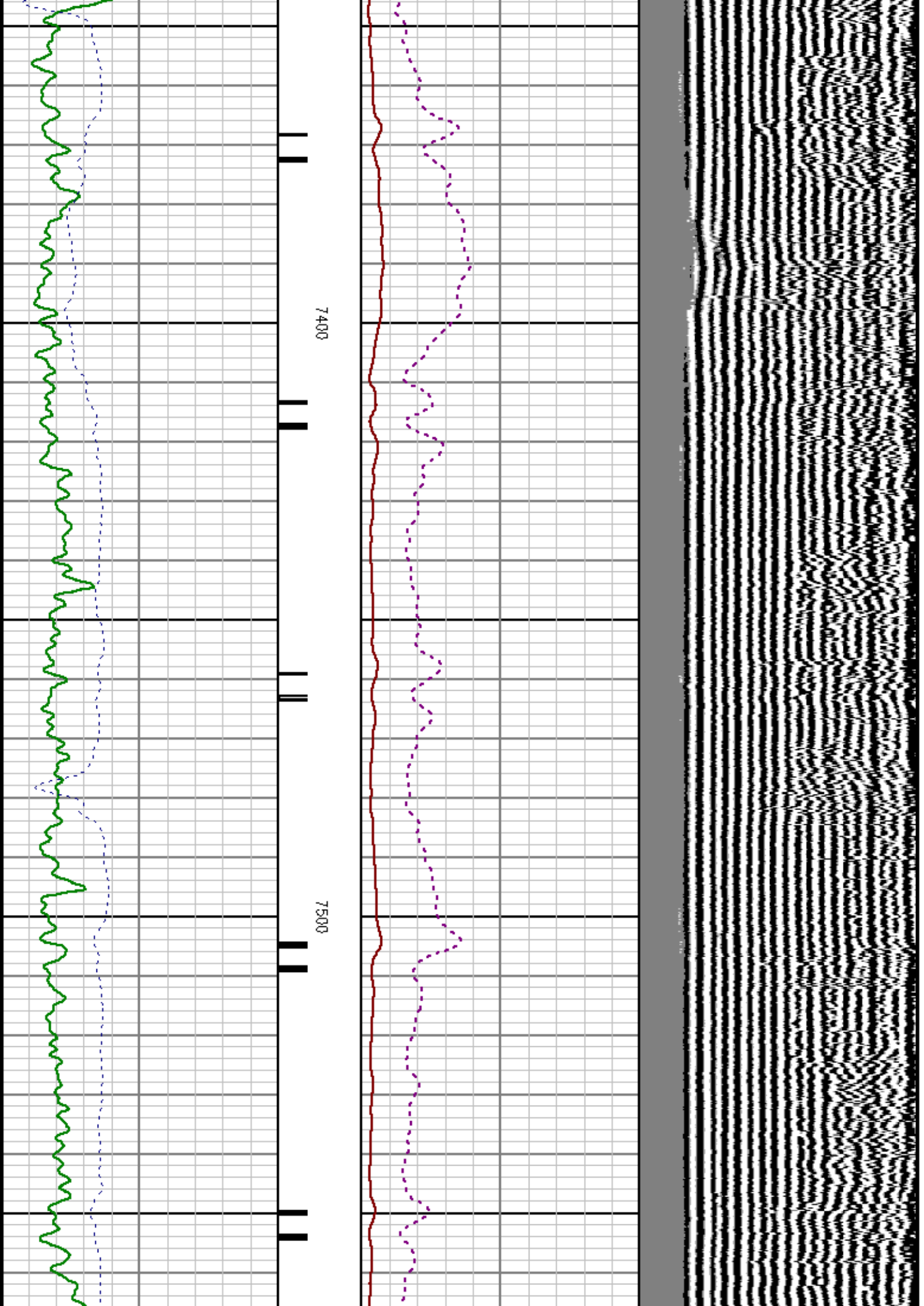


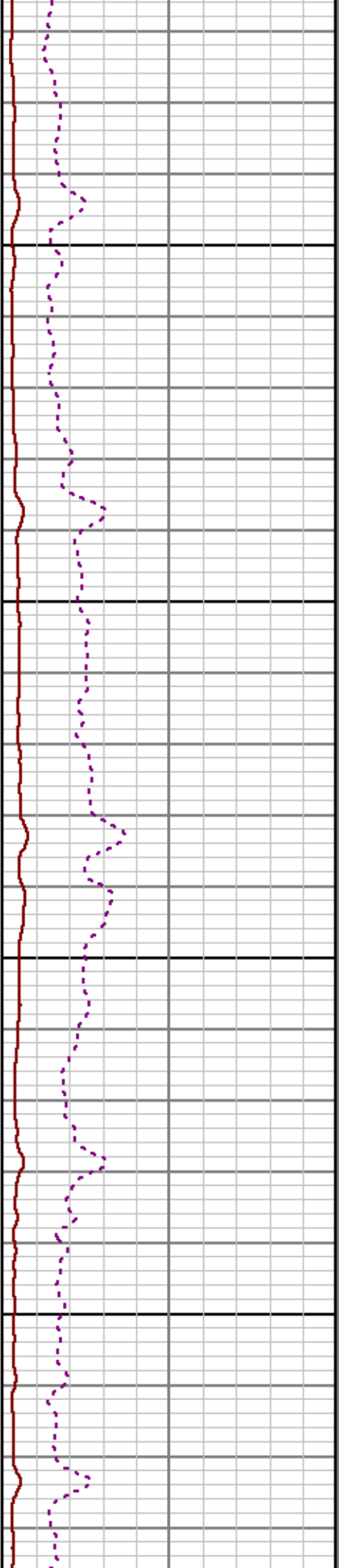
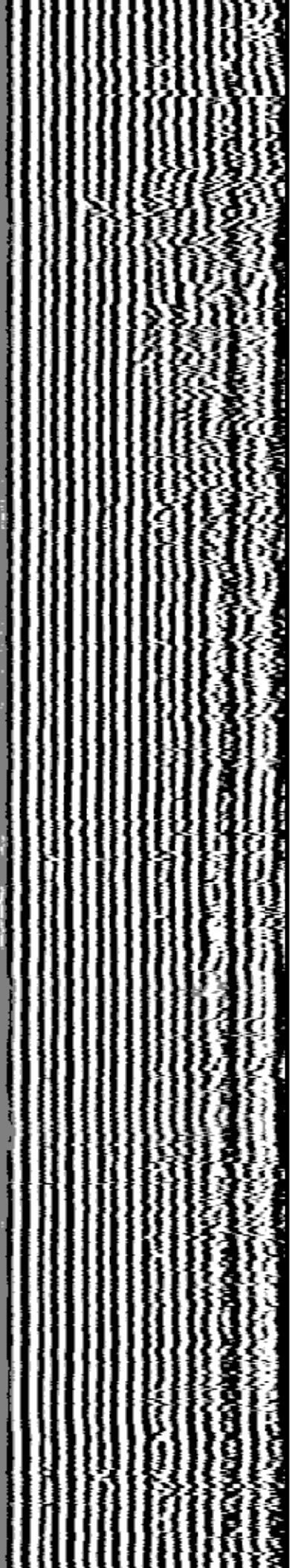






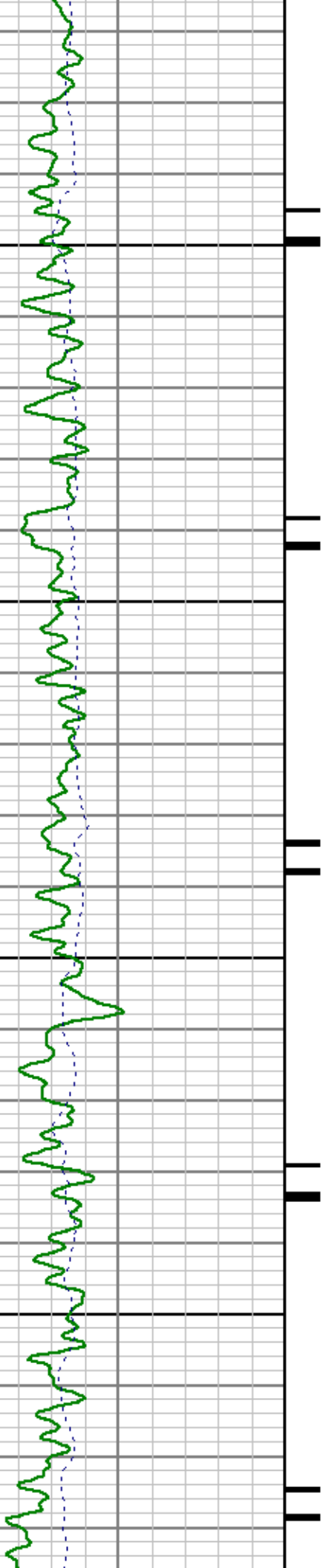


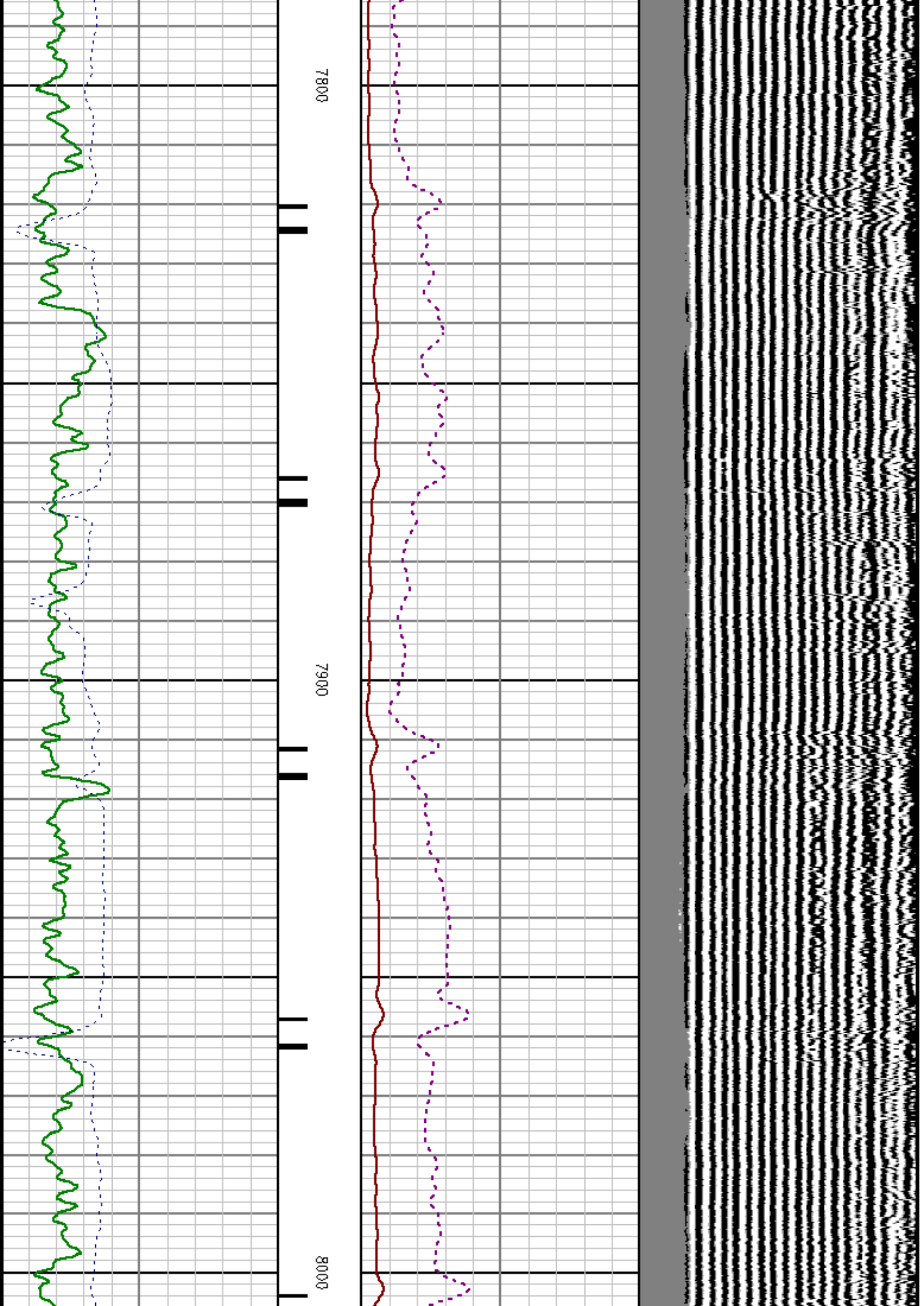


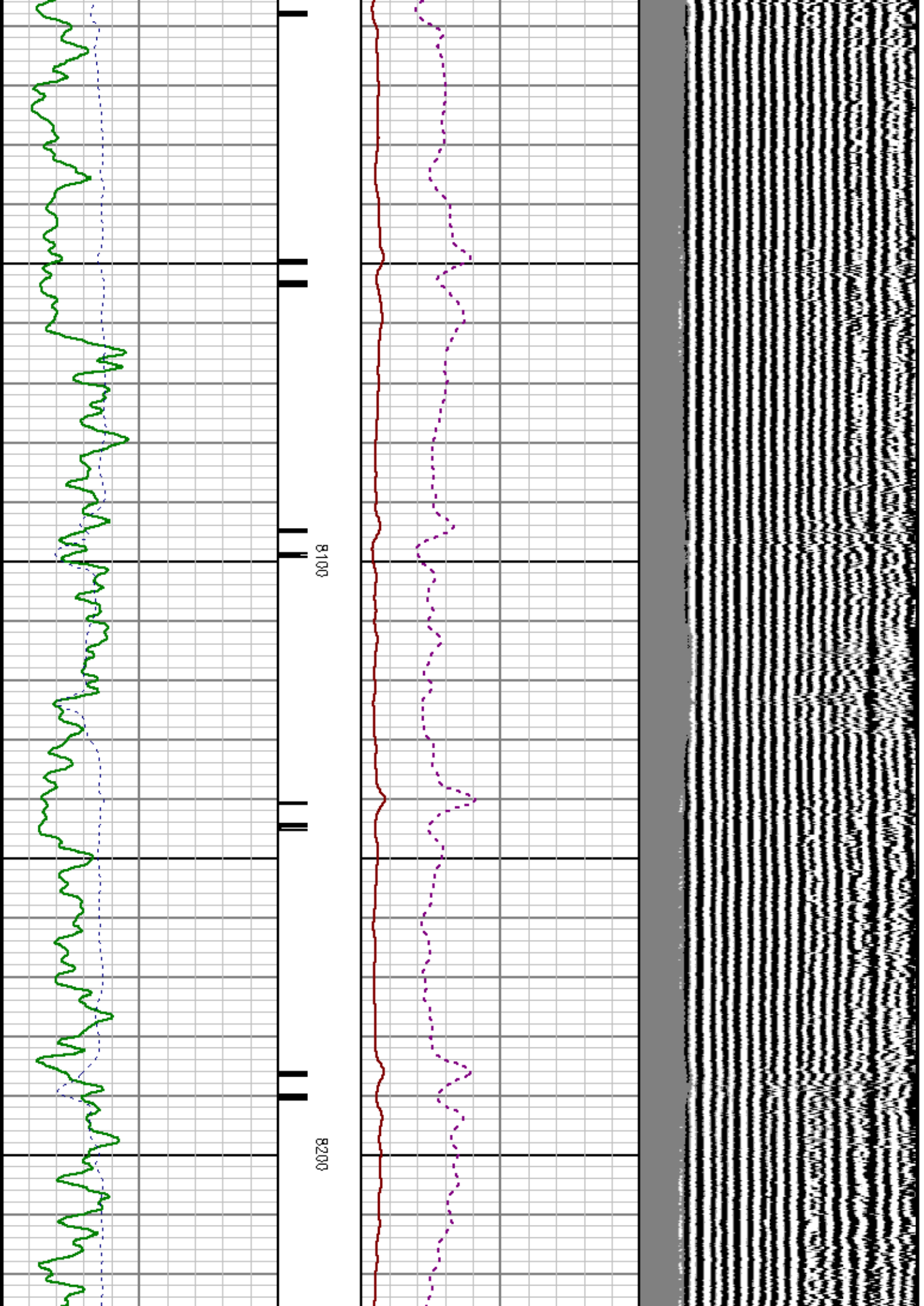


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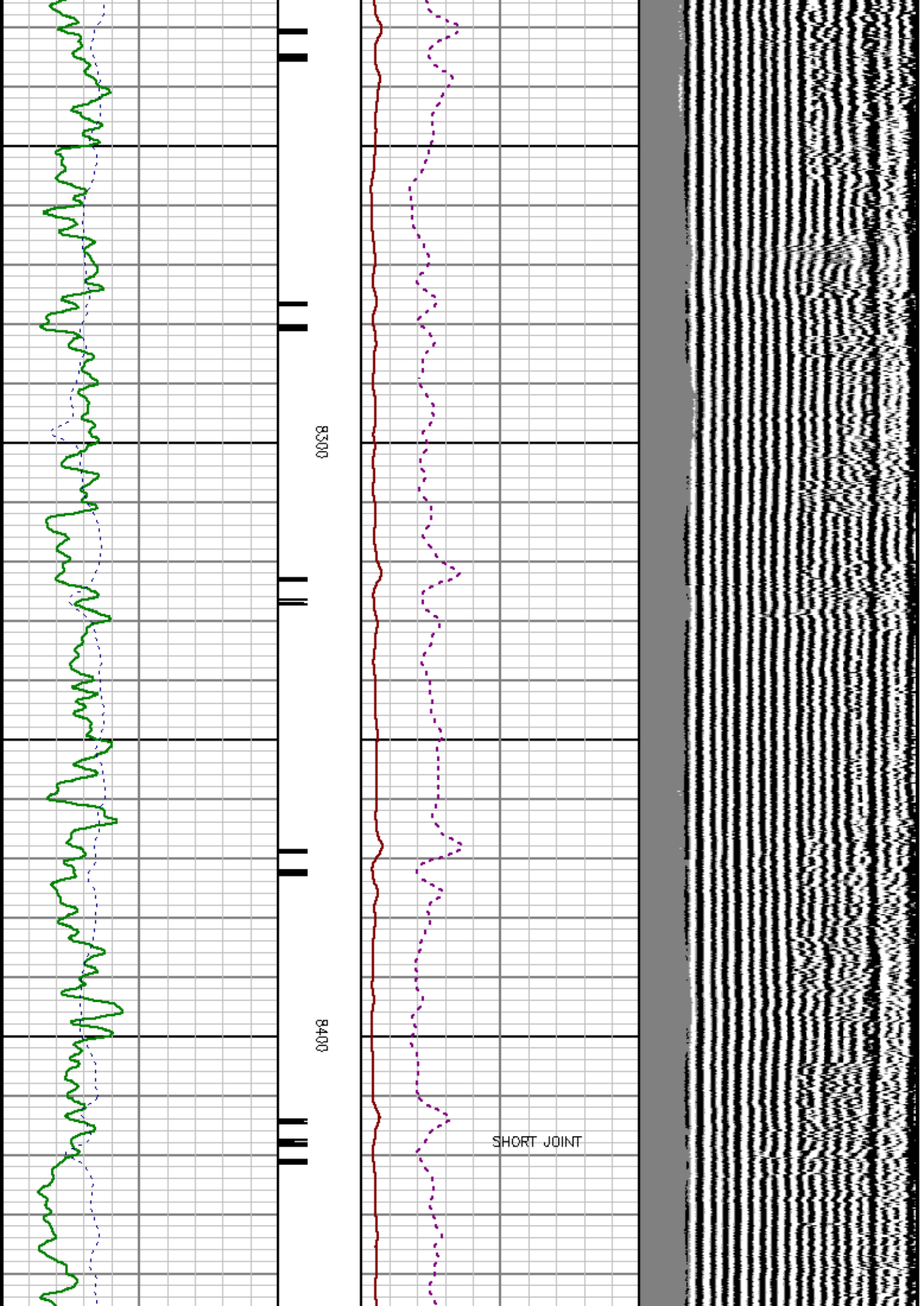
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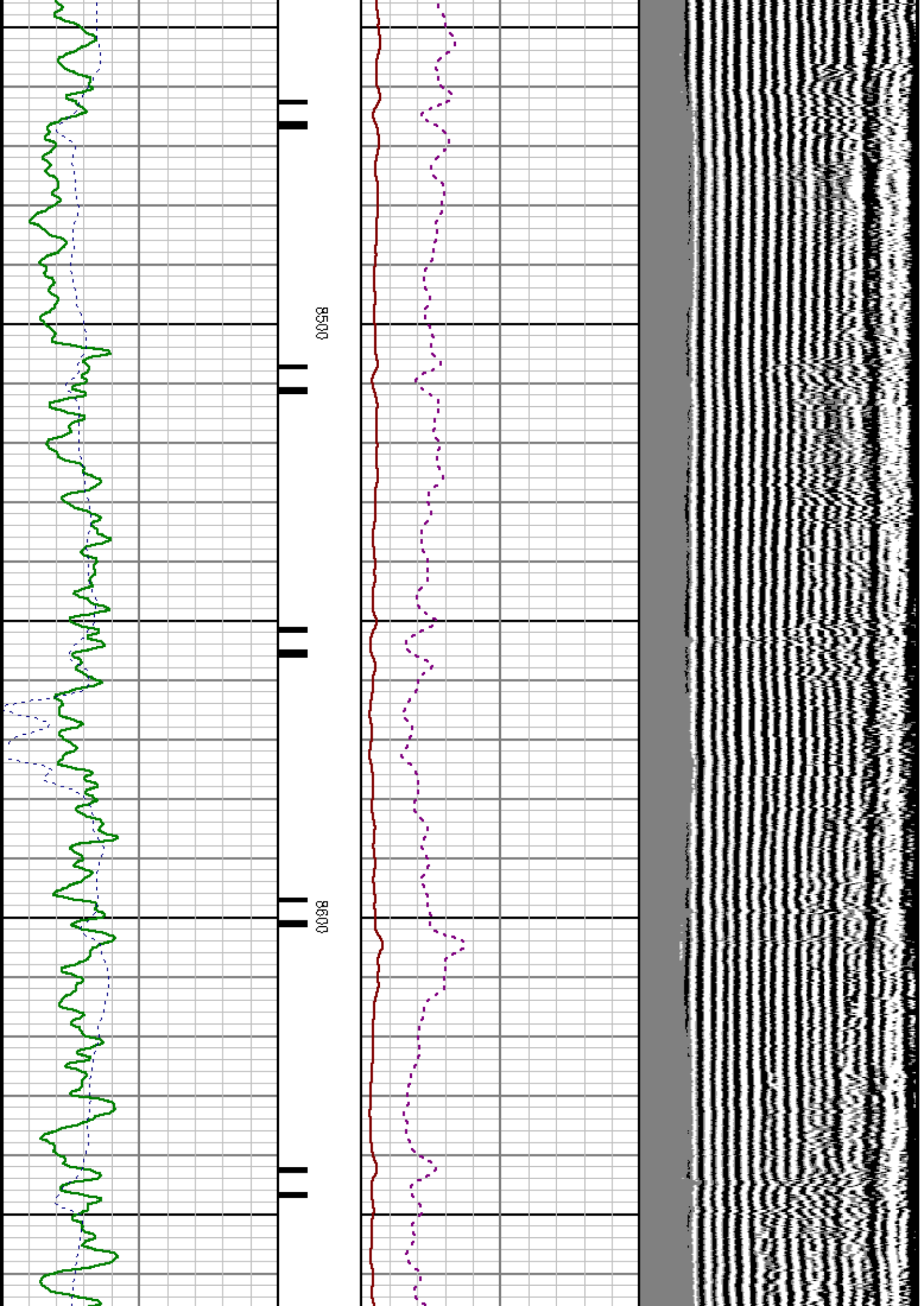


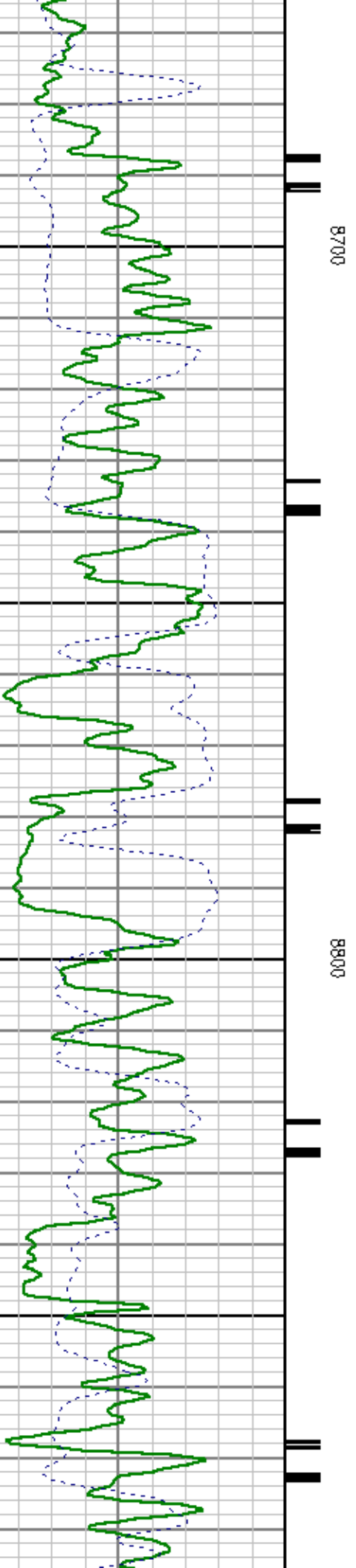
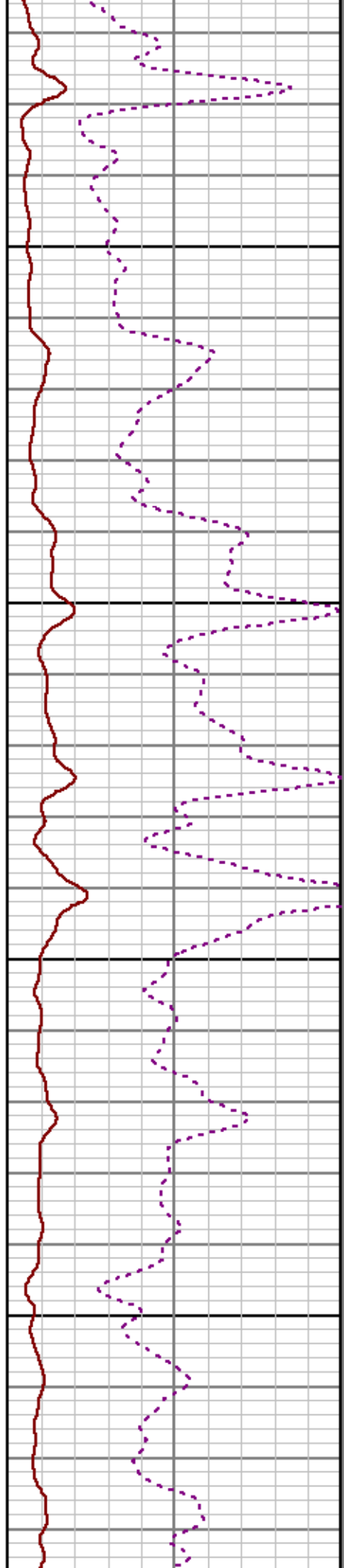
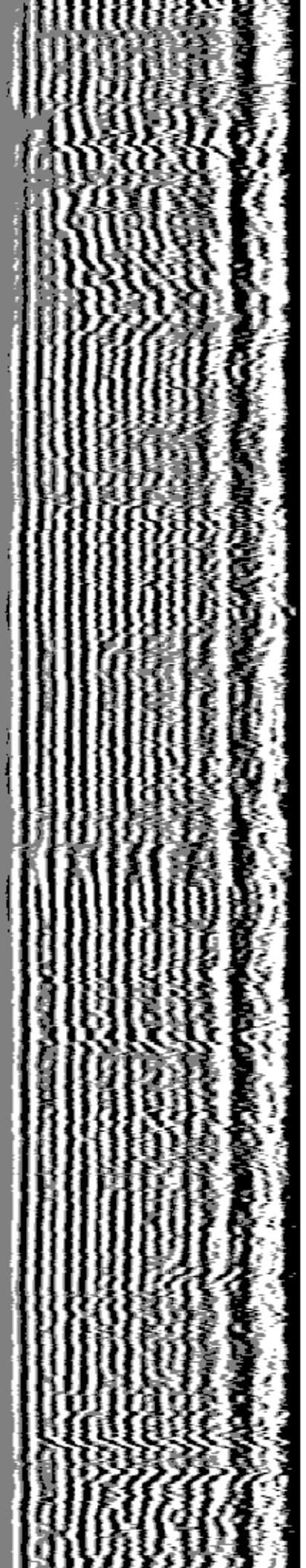


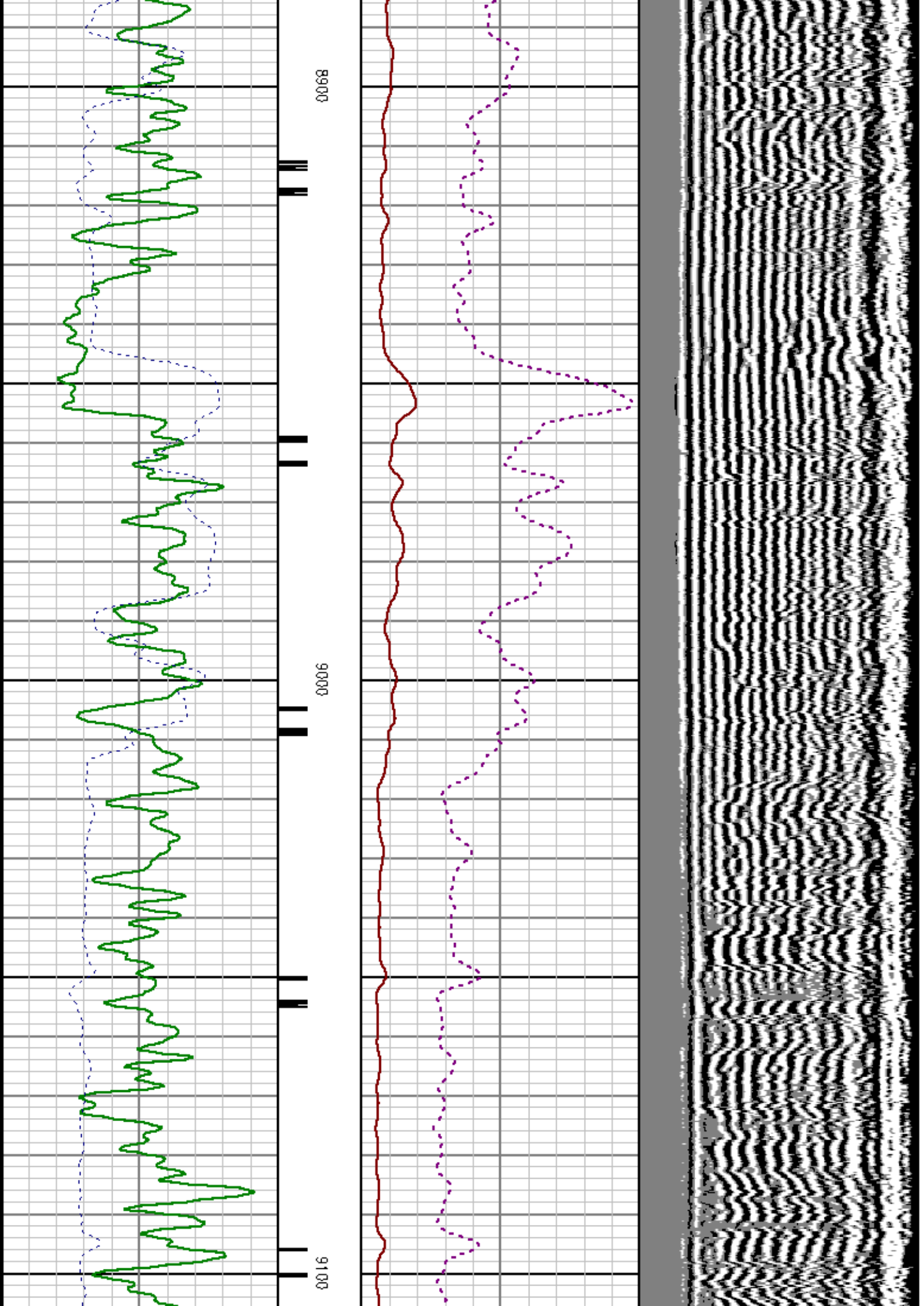




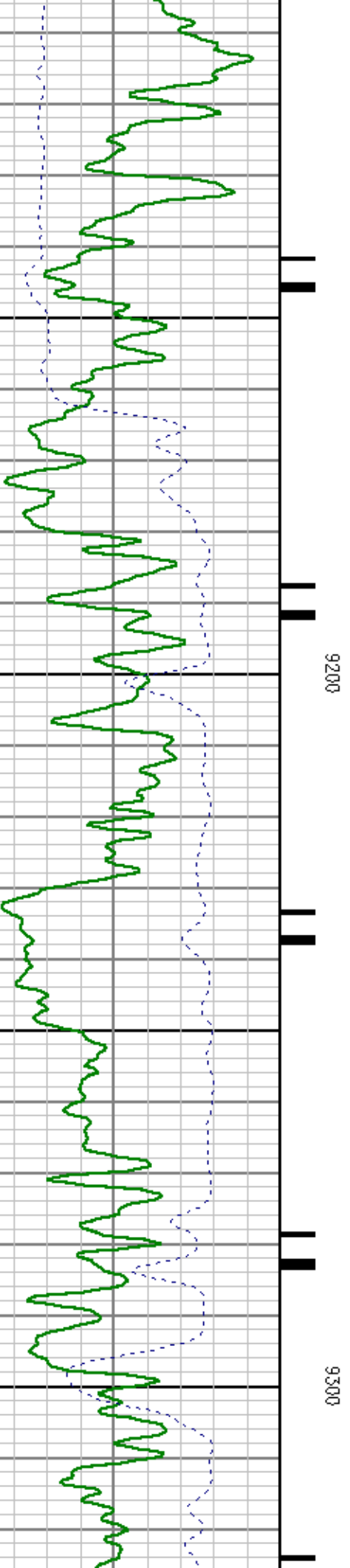
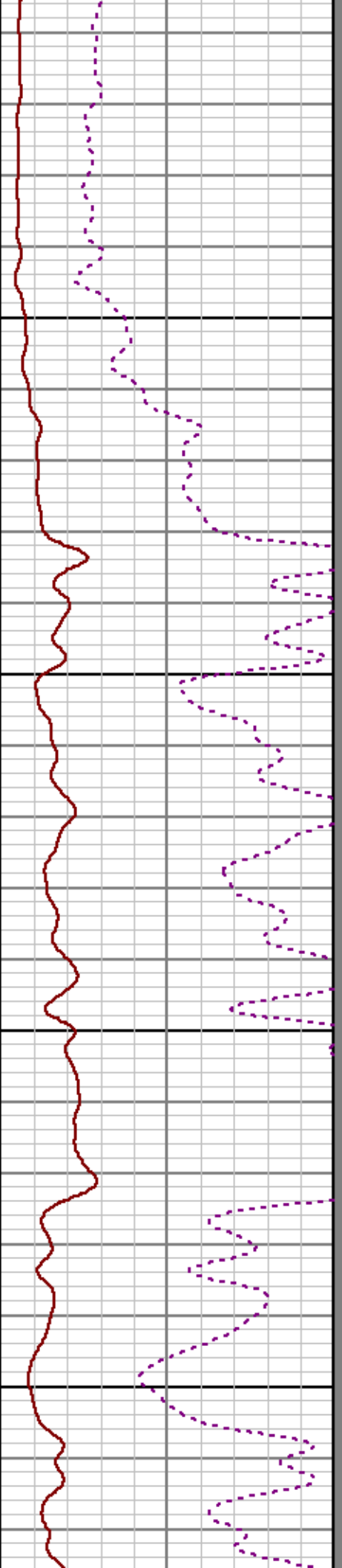
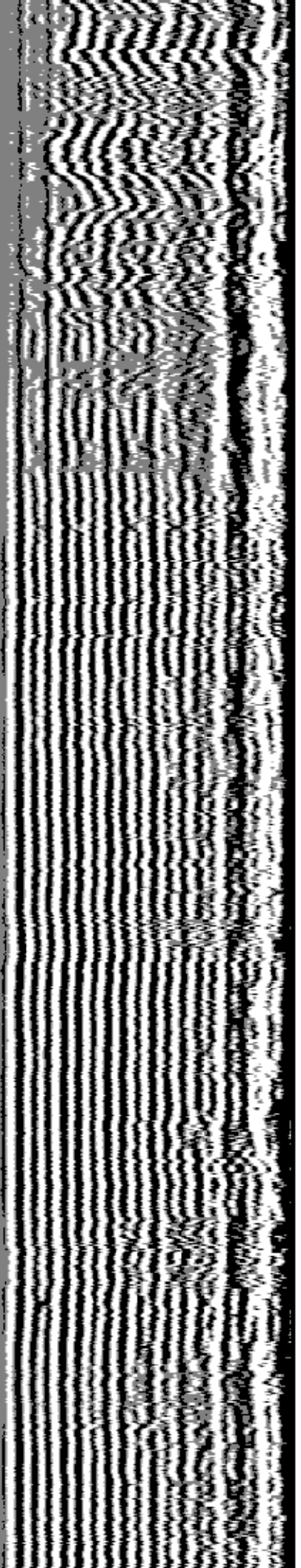


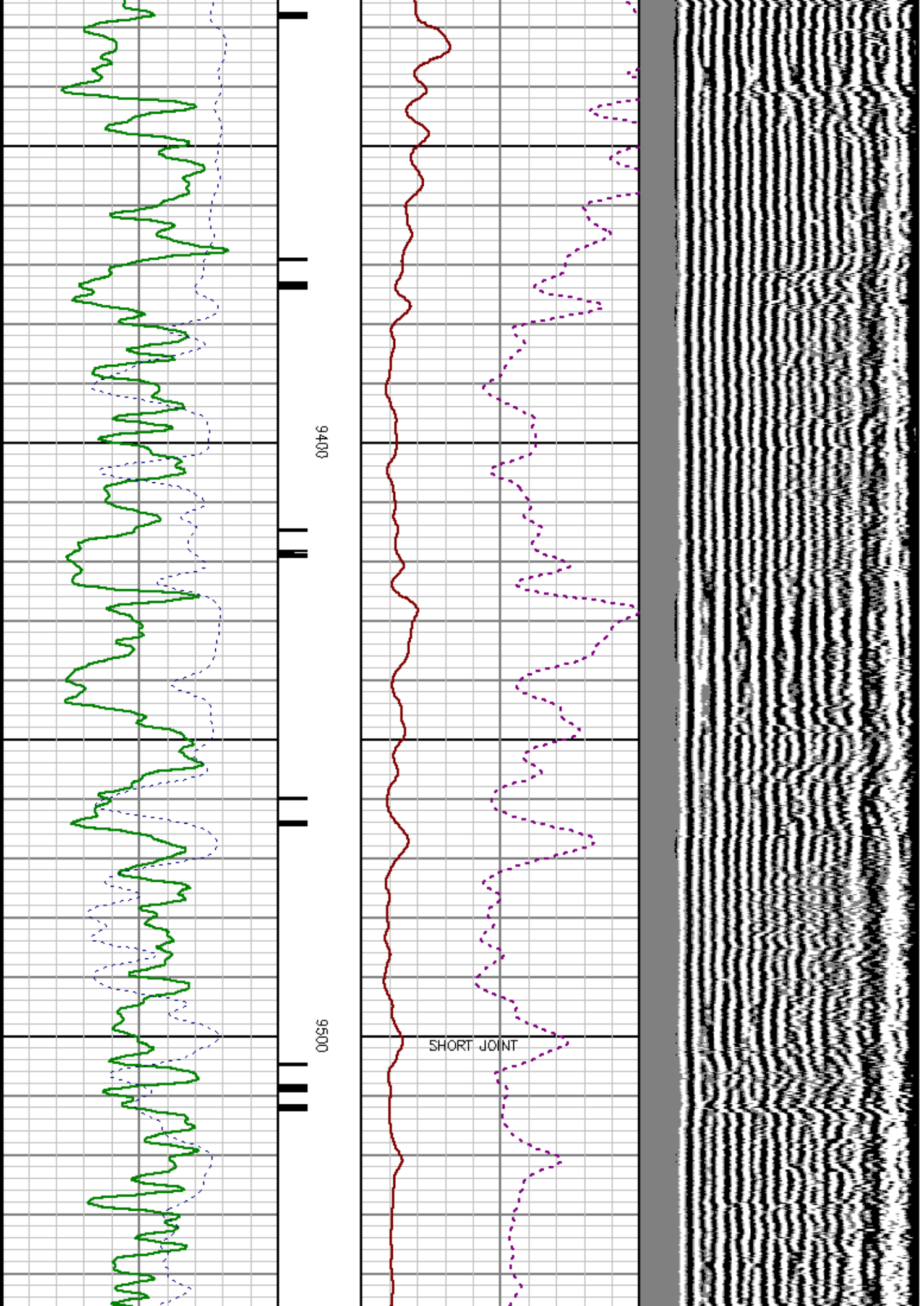




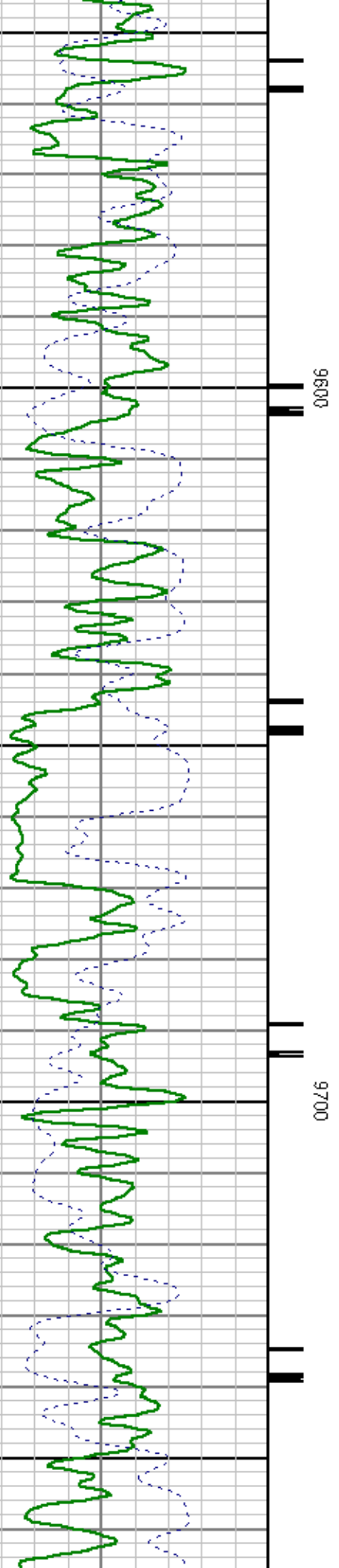
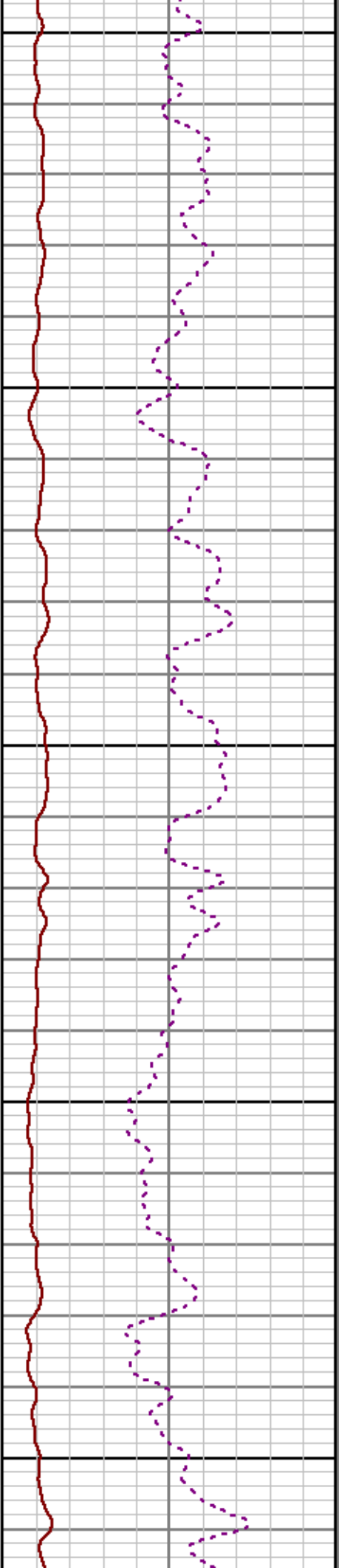
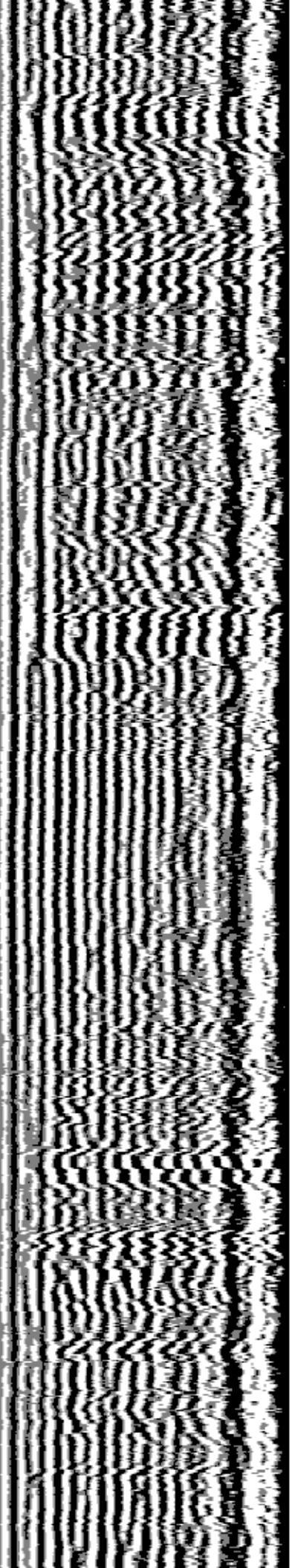


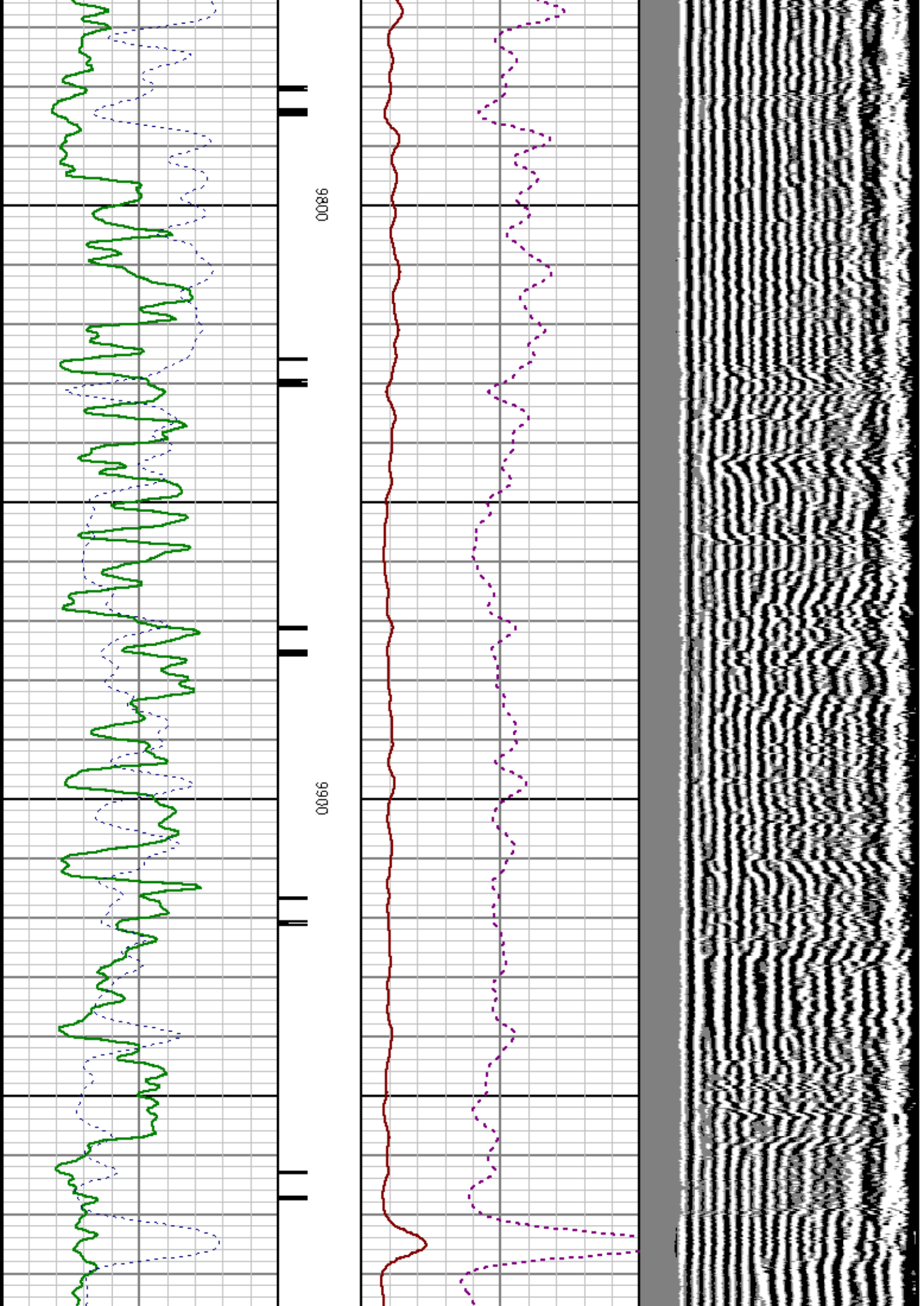


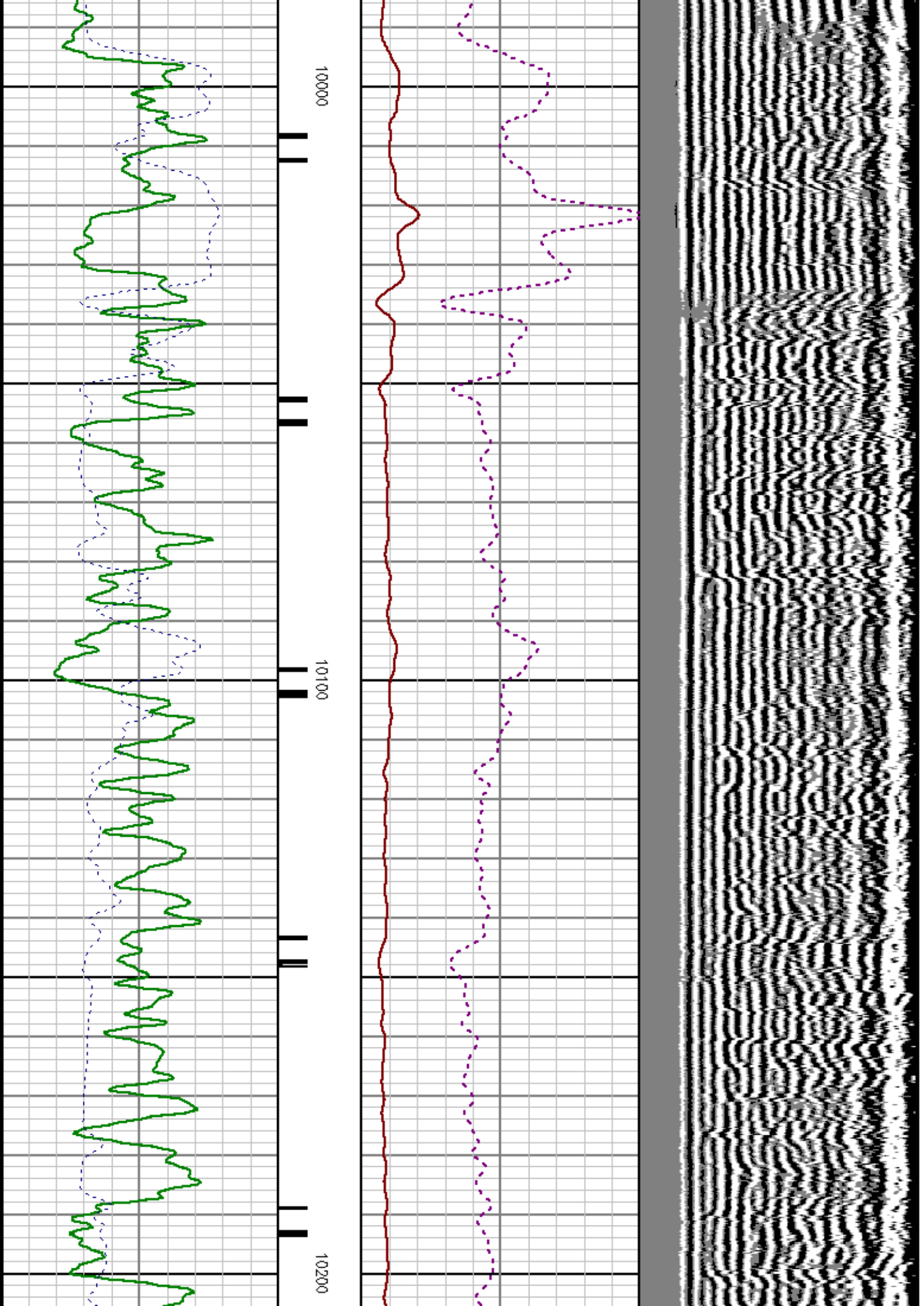




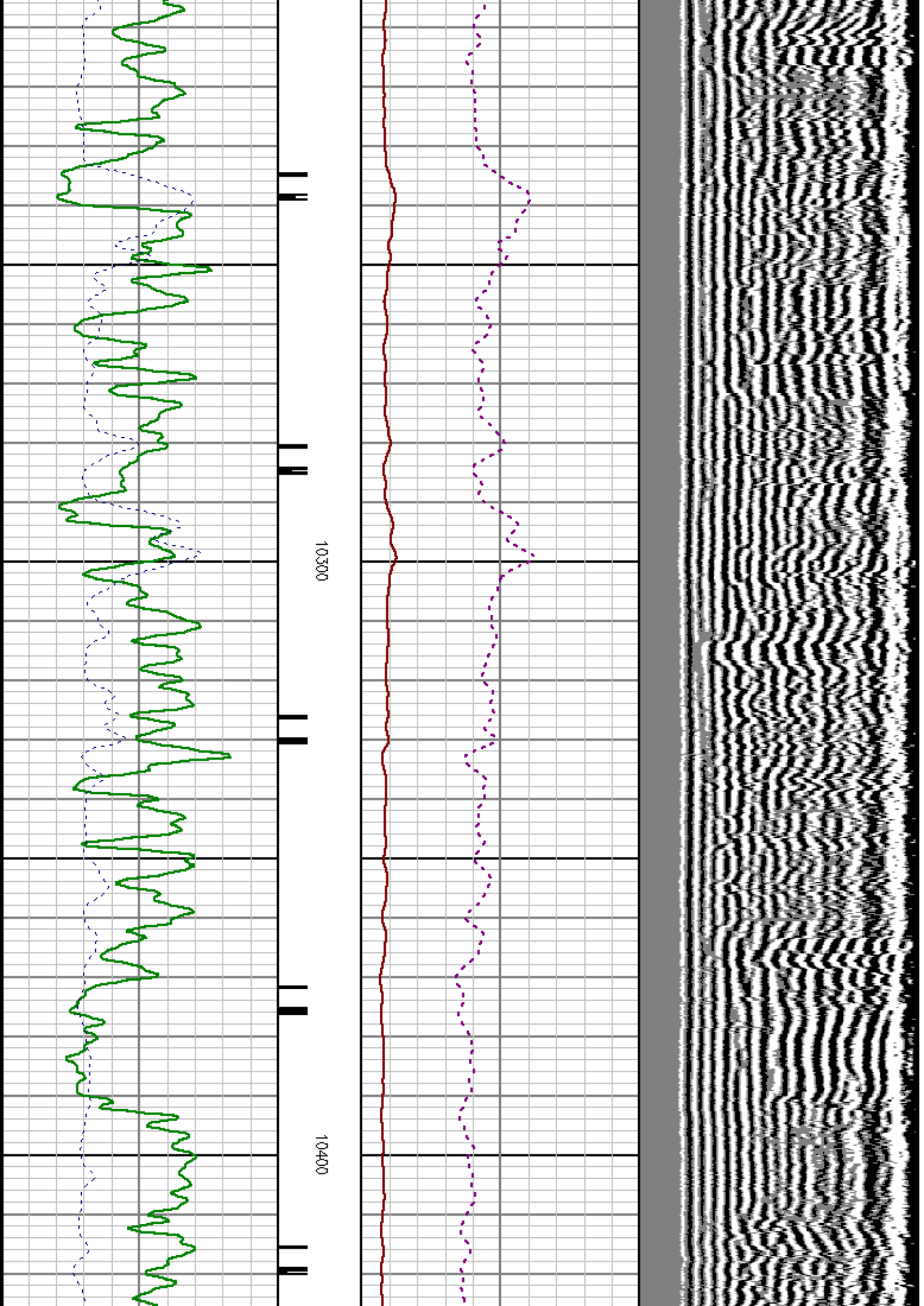




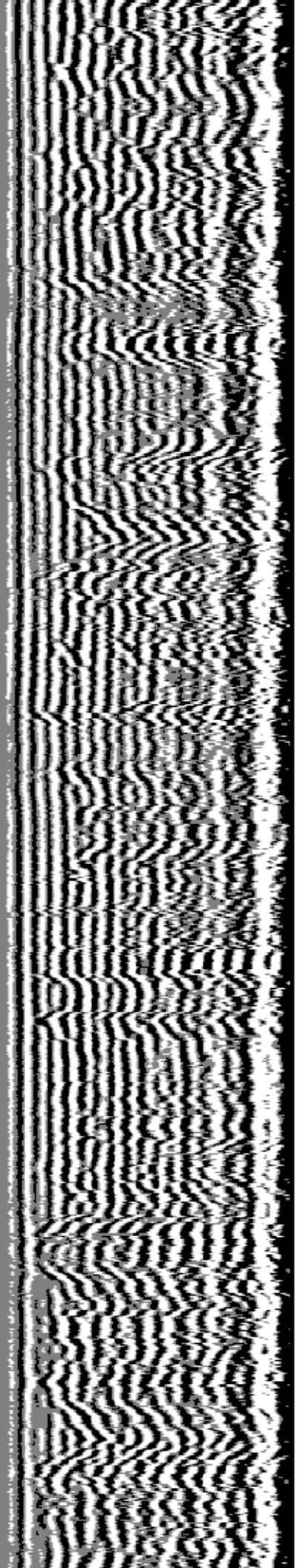








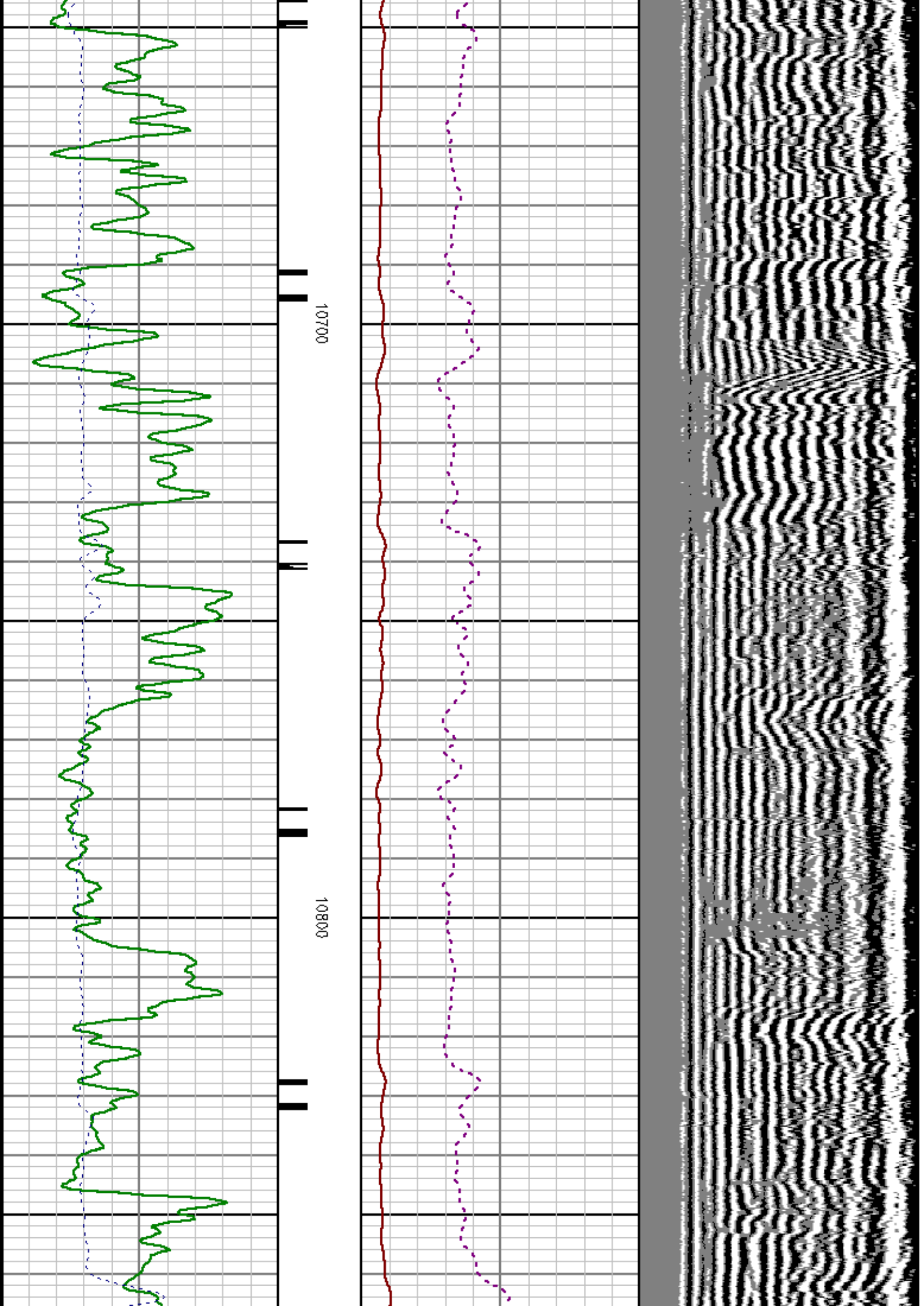


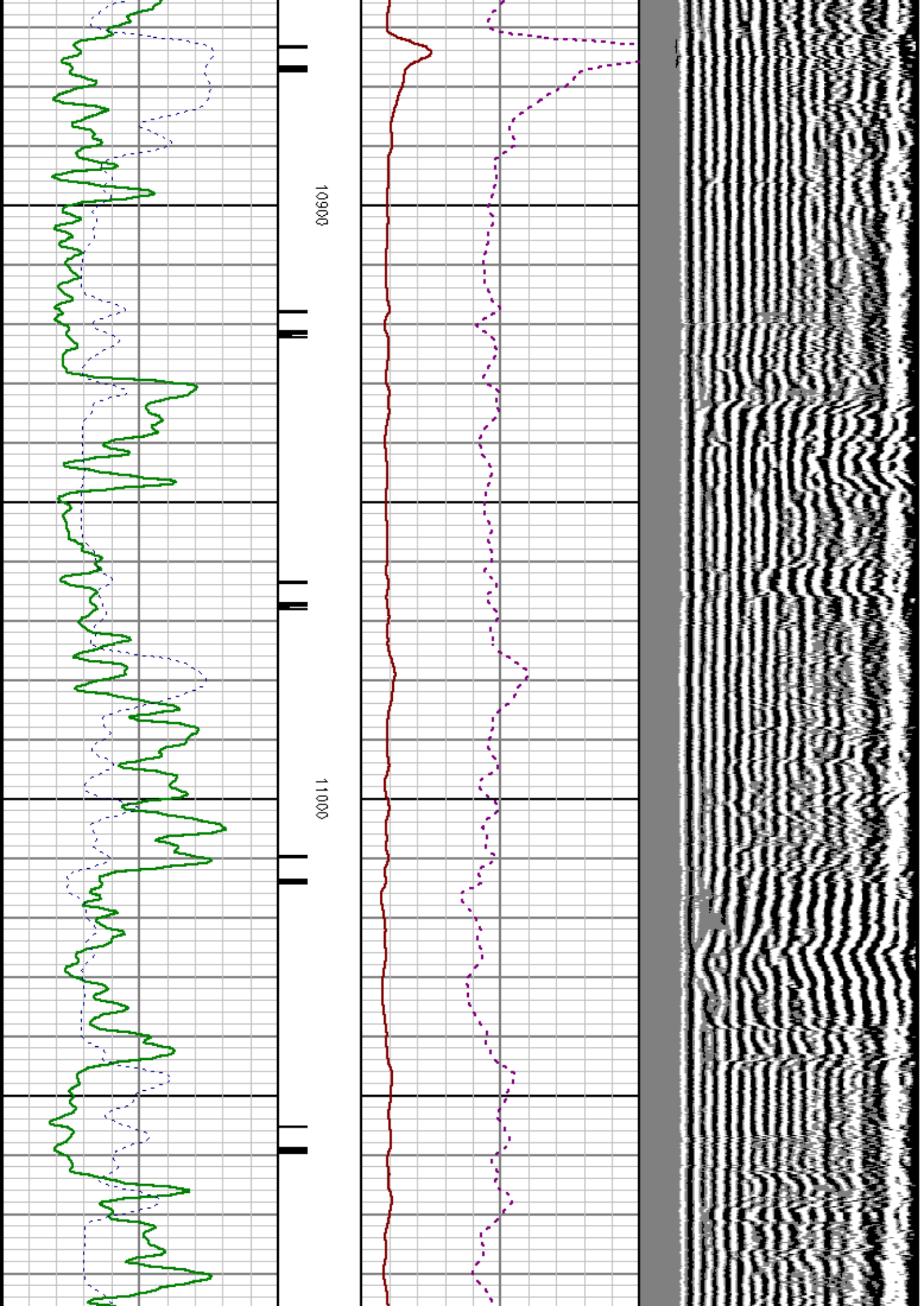


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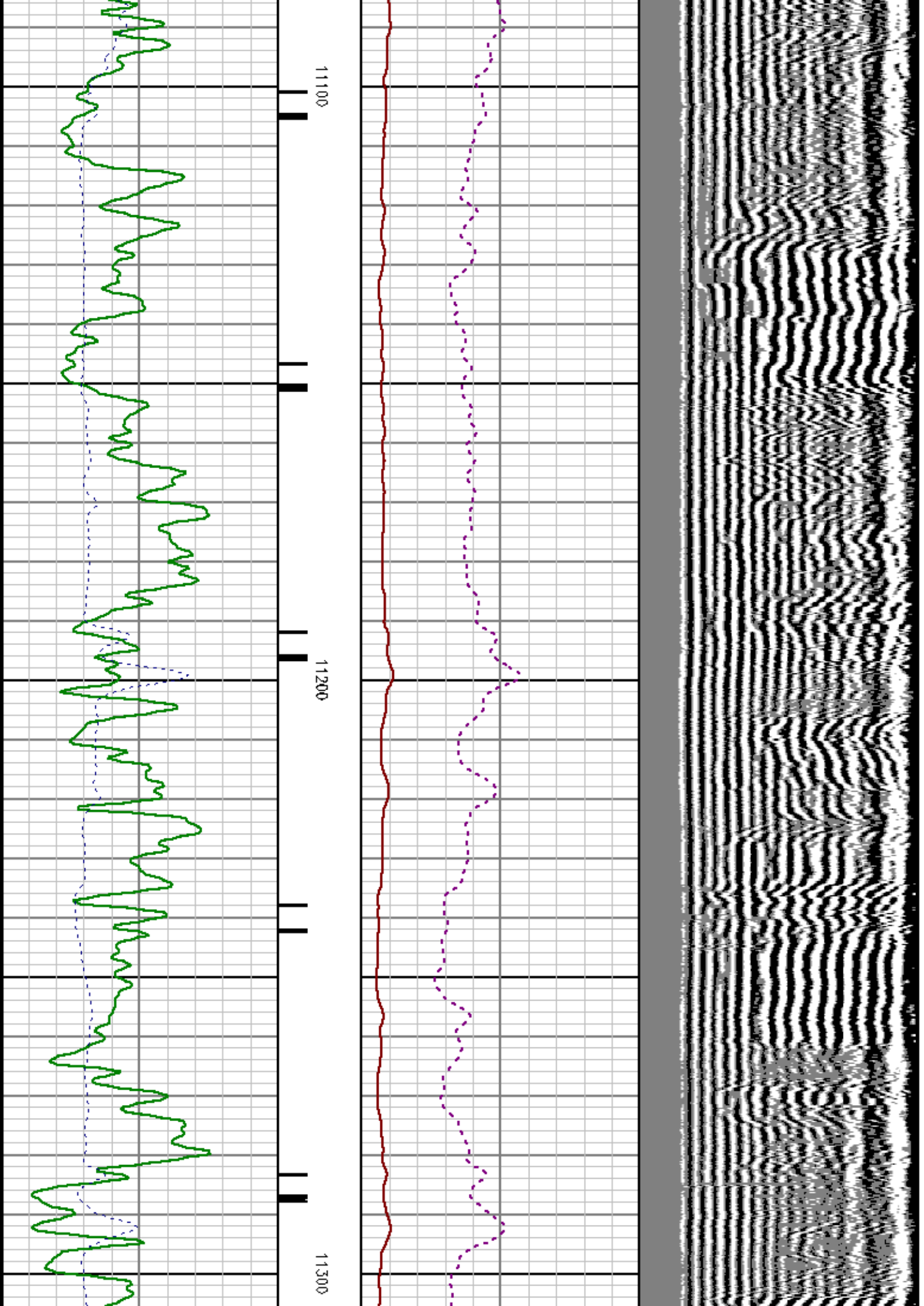
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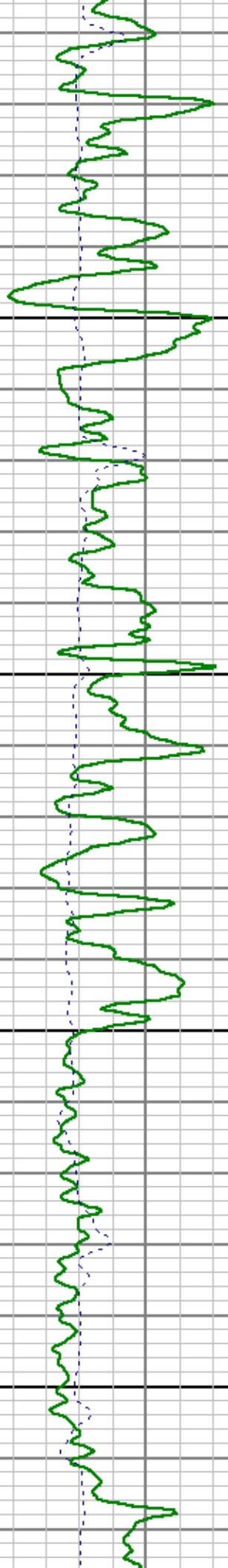
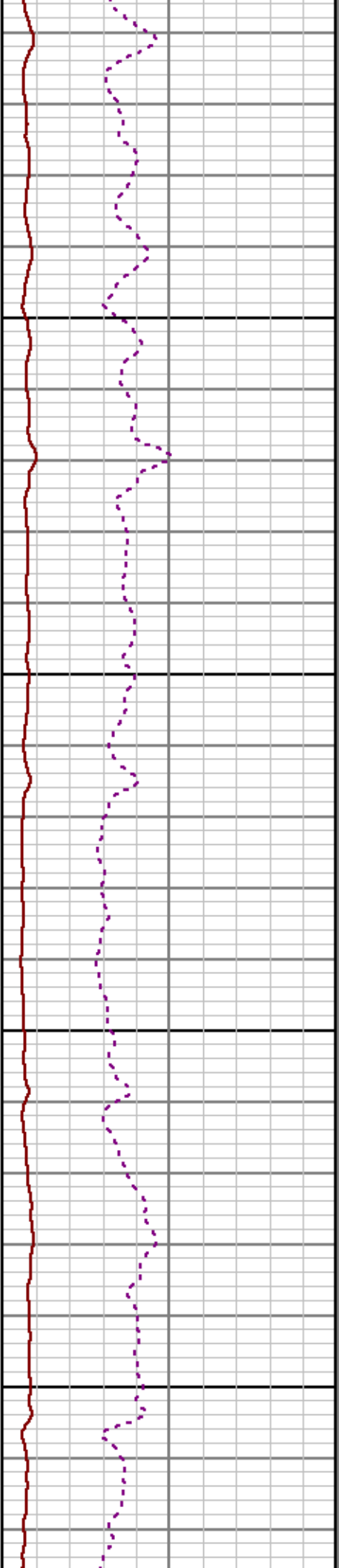
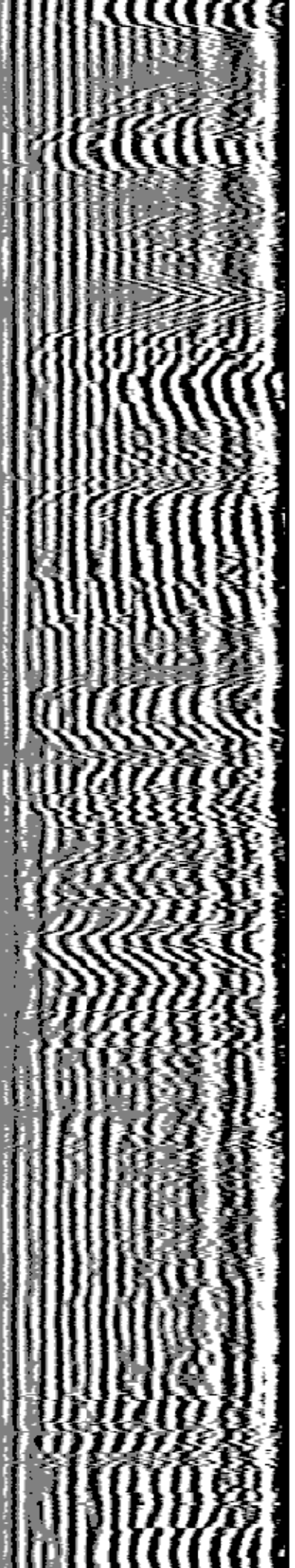


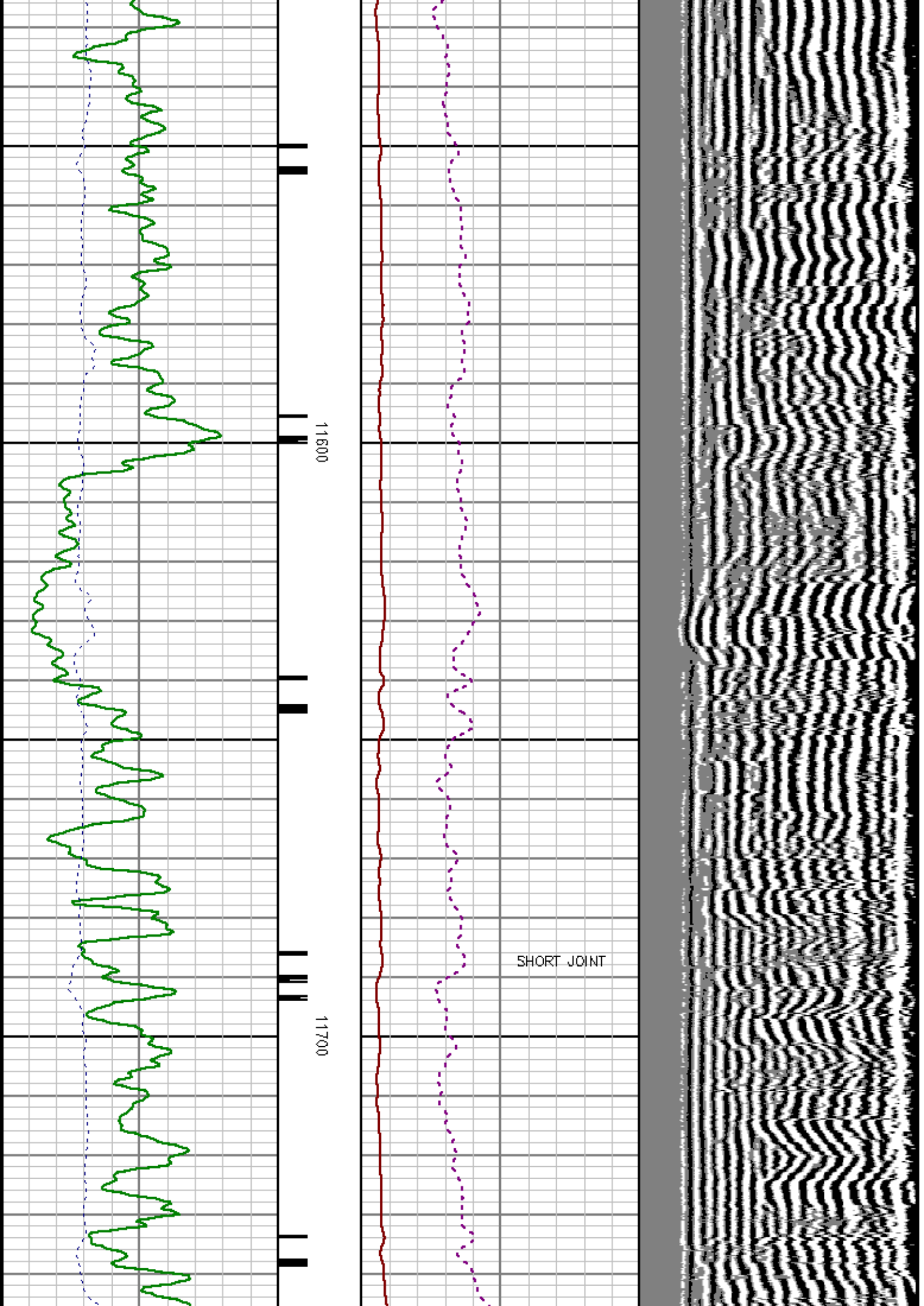


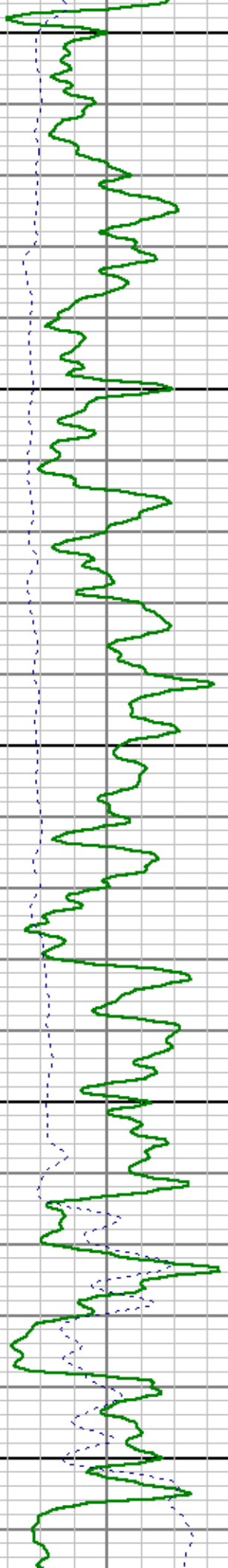
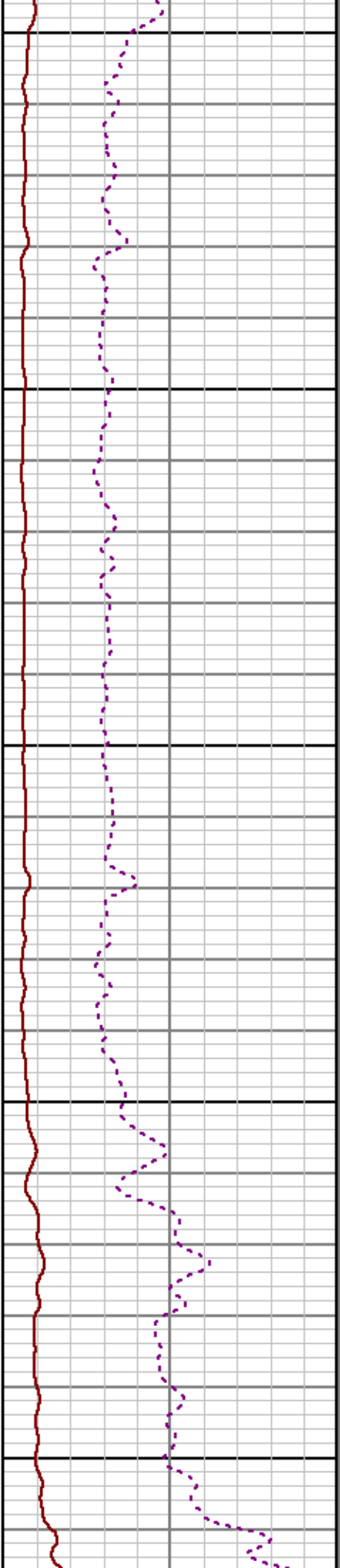
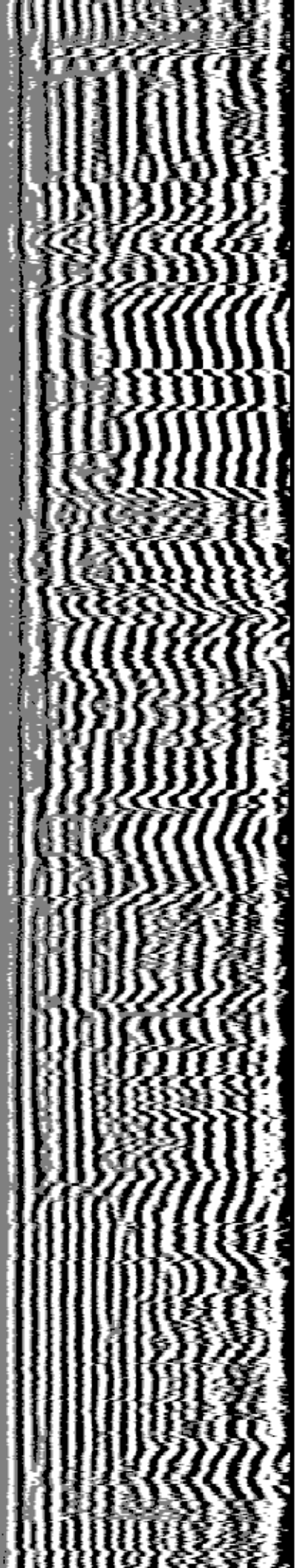




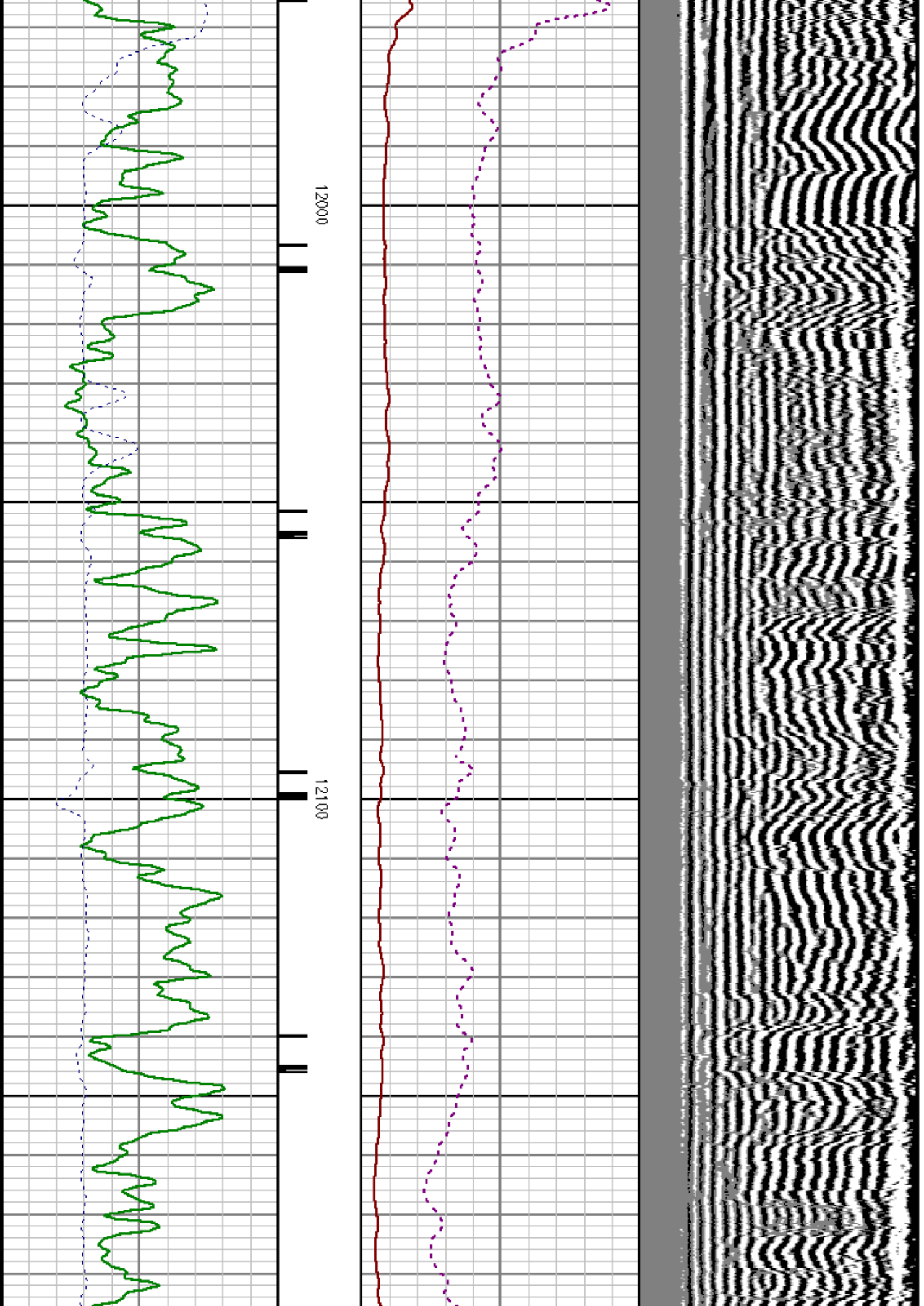




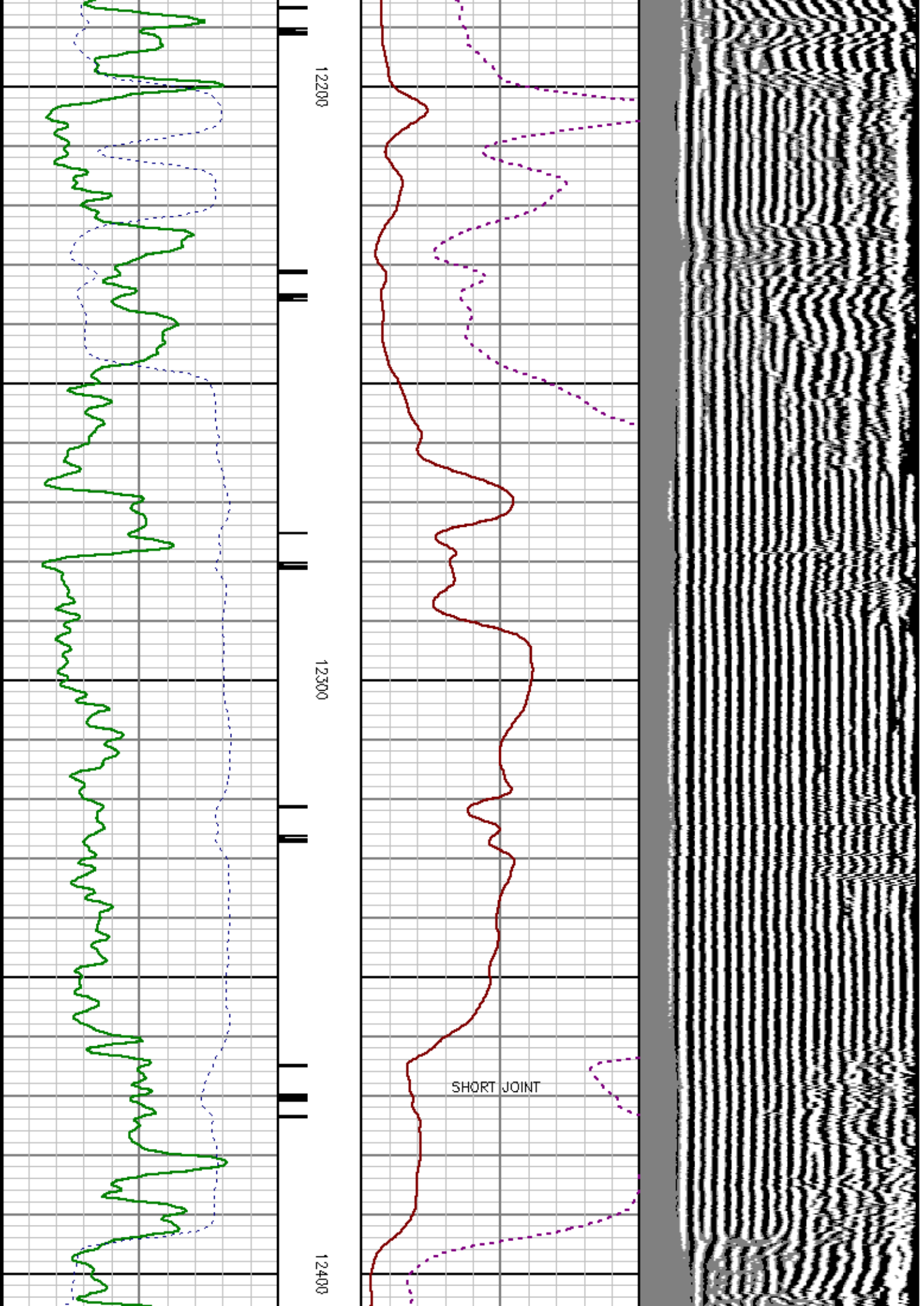


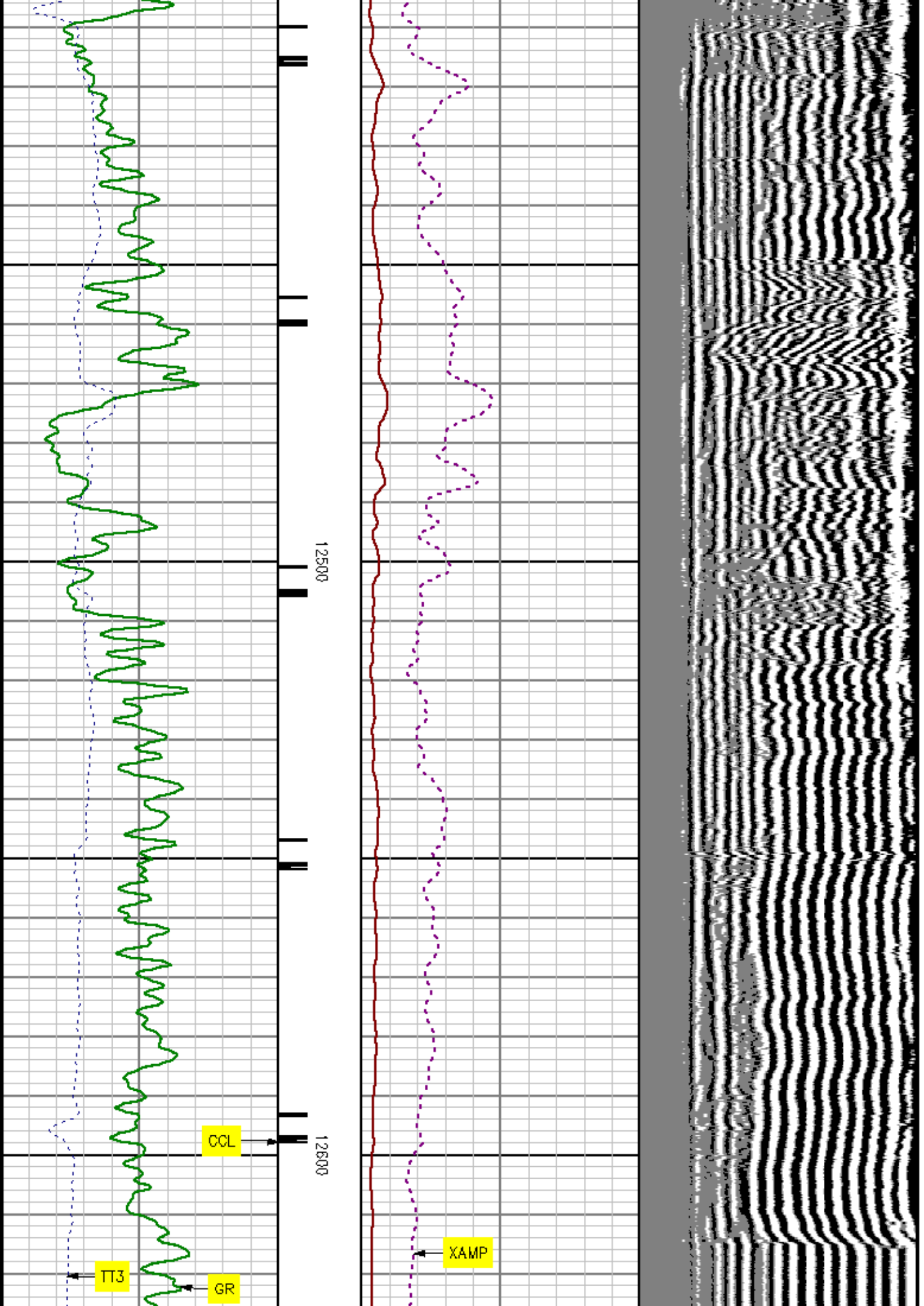


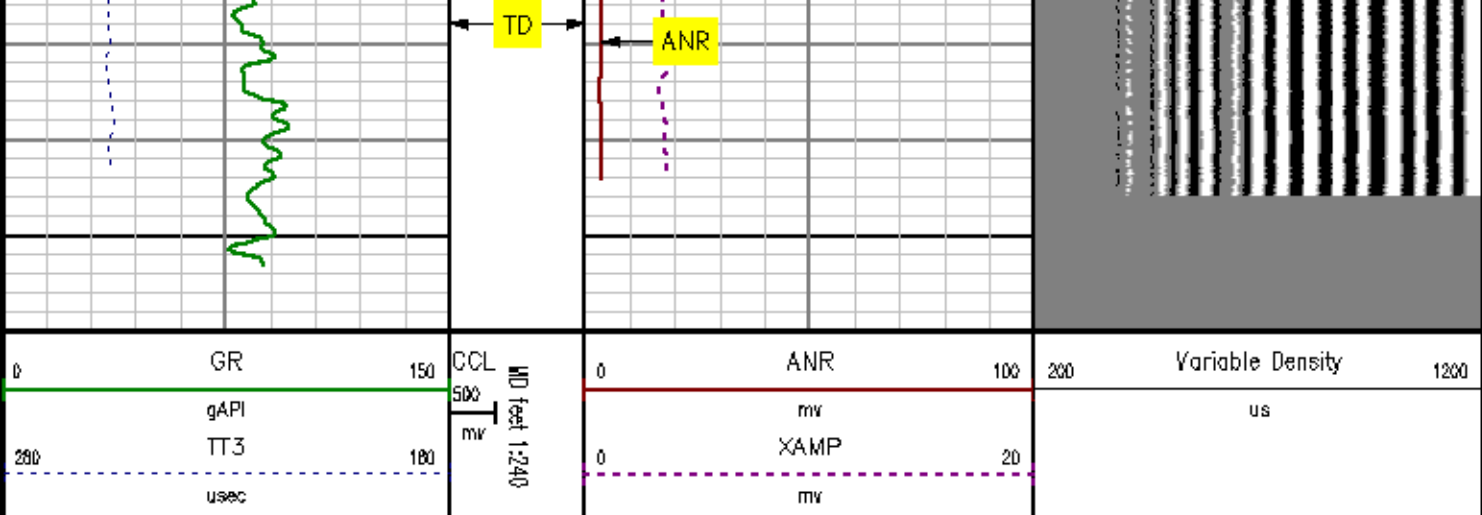












REPEAT SECTION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	u sec	12385.000	12658.000
RAL	Amp Gate Start Near	197.754	u sec	12385.000	12658.000
RAL	Amp Gate Start Radial	197.754	u sec	12385.000	12658.000
RAL	Amp Gate Width Far	25.000	u sec	12385.000	12658.000
RAL	Amp Gate Width Near	25.000	u sec	12385.000	12658.000
RAL	Amp Gate Width Radial	25.000	u sec	12385.000	12658.000
RAL	casing od	4.500	inches	12385.000	12658.000
RAL	casing wt	15.100	lbm/ft	12385.000	12658.000
RAL	FB Start Far	289.263	u sec	12385.000	12658.000
RAL	FB Start Near	172.754	u sec	12385.000	12658.000
RAL	FB Start Radial	172.754	u sec	12385.000	12658.000
RAL	FB Thresh Far	15.000	mv	12385.000	12658.000
RAL	FB Thresh Near	10.000	mv	12385.000	12658.000
RAL	FB Thresh Radial	10.000	mv	12385.000	12658.000
RAL	Fluid Travel Time	200.000	u sec/ft	12385.000	12657.812

### 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	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

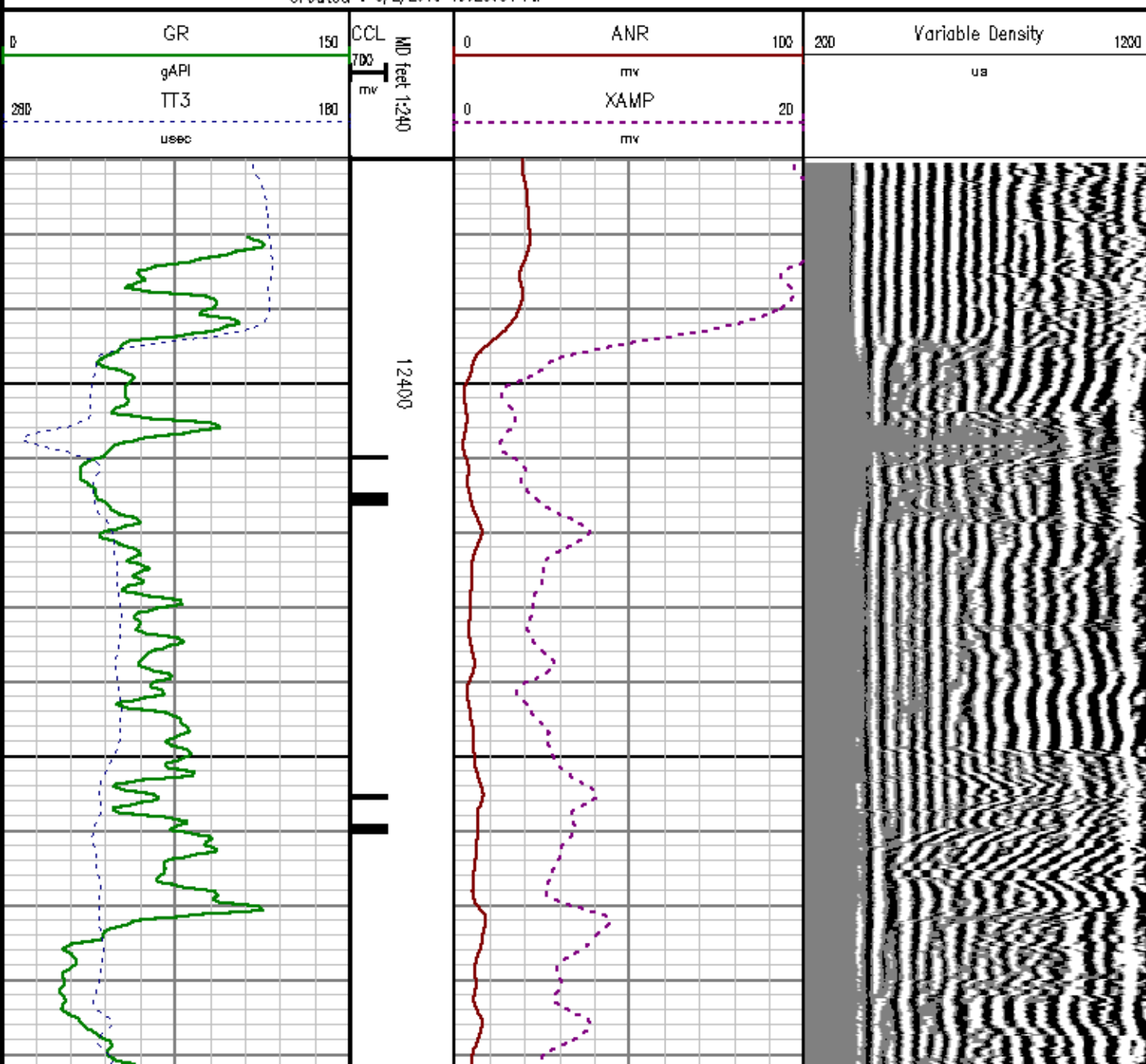
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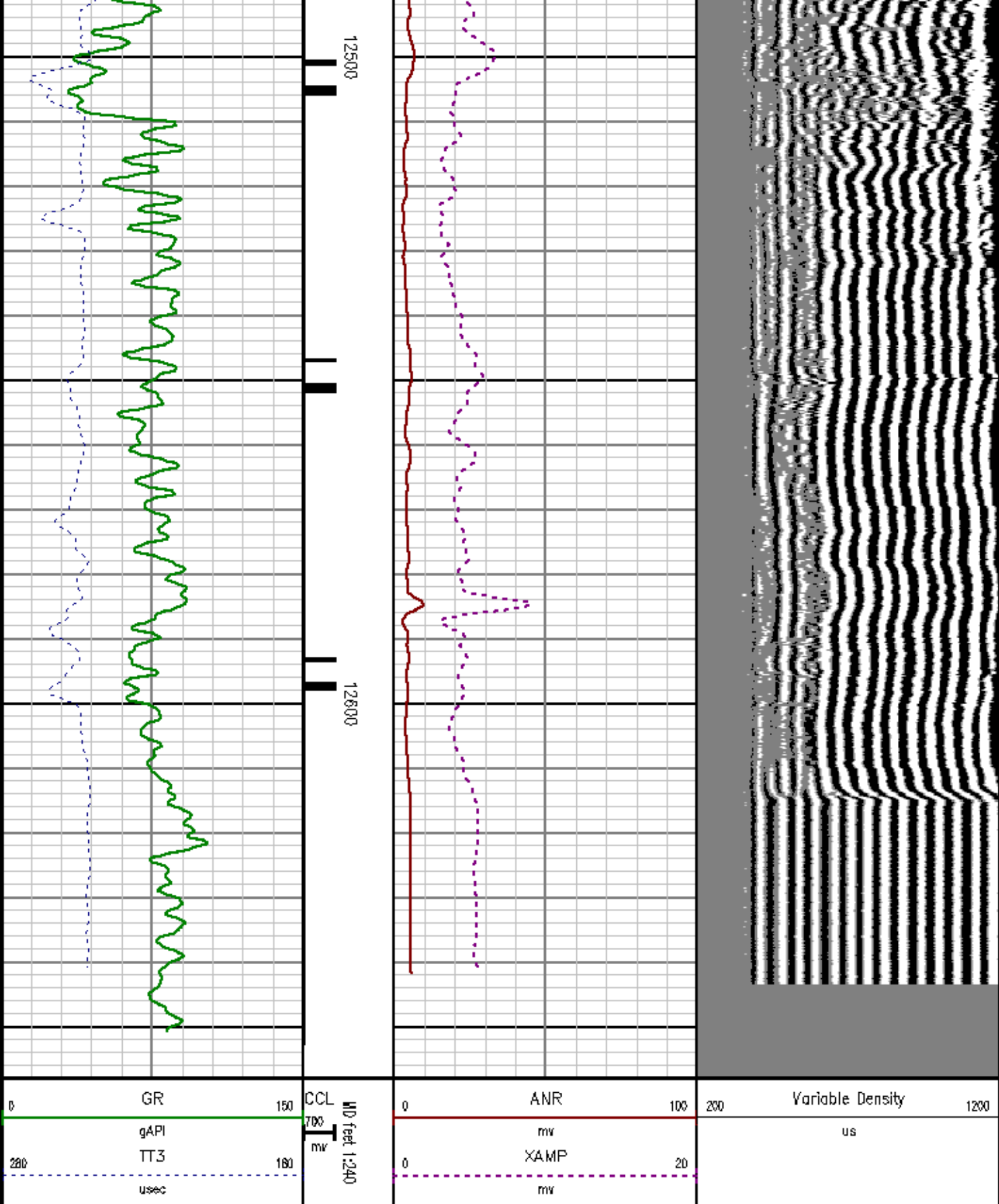
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Interval : 12370.00 - 12658.00 feet UP

Created : 8/2/2010 10:23:34 PM







MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	54.000	189.187
RAL	Amp Gate Start Near	197.754	usec	54.000	189.187
RAL	Amp Gate Start Radial	197.754	usec	54.000	189.187
RAL	Amp Gate Width Far	25.000	usec	54.000	189.187
RAL	Amp Gate Width Near	25.000	usec	54.000	189.187
RAL	Amp Gate Width Radial	25.000	usec	54.000	189.187
RAL	casing od	4.500	inches	54.000	189.187
RAL	casing wt	15.100	lbm/ft	54.000	189.187
RAL	FB Start Far	289.263	usec	54.000	189.187
RAL	FB Start Near	172.754	usec	54.000	189.187
RAL	FB Start Radial	172.754	usec	54.000	189.187
RAL	FB Thresh Far	15.000	mv	54.000	189.187
RAL	FB Thresh Near	10.000	mv	54.000	189.187
RAL	FB Thresh Radial	10.000	mv	54.000	189.187
RAL	Fluid Travel Time	200.000	usec/ft	54.000	189.187

### 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	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

Well : PCU 297-11C9

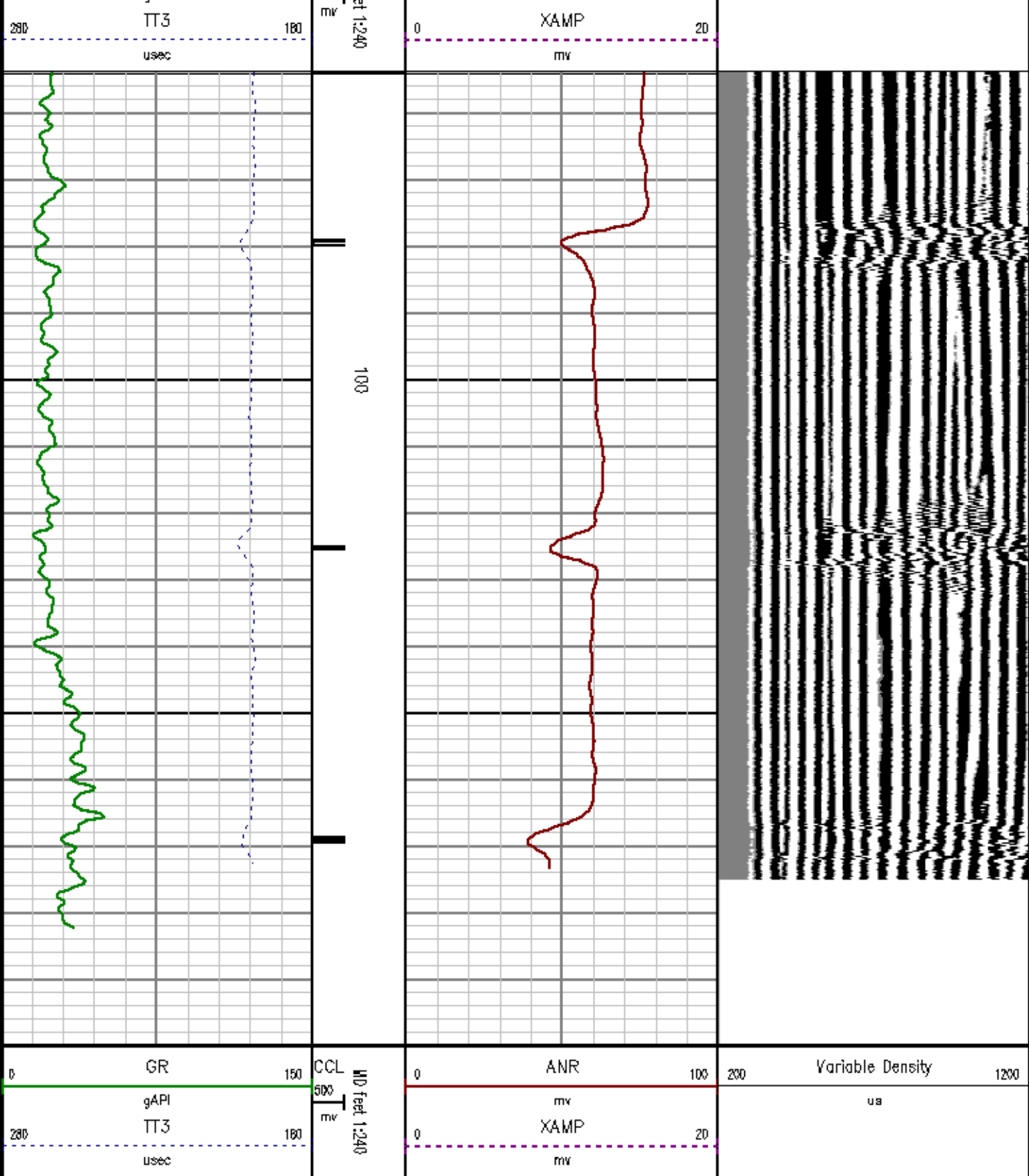
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Mode : PlotMgr 5.4.504

Interval : 54.00 - 200.00 feet DOWN

Created : 8/2/2010 9:24:57 PM





*CALIBRATION SUMMARY*

# RALSHP

Shop Calibration: C:\case\calver\RALSHP\452JUL\_shp.cal

## SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Jul 31 09:37:58 2010 TOOL SERIES: 1426XA ASSET: 452 SEQ: JUL

Tool Delay [usec]	-54.00	Tank OD in	5.50	Tank Wt lbm/ft	15.50	Tank ID in	4.95	
RECEIVER	Travel Time [usec]	Amp. Gate Start [usec]	Amp. Gate Width [usec]	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor
CAL Pulse	218	216	30	166	25	-0.110	100.00	0.21
3 Ft. Receiver	219	216	30	166	25	-0.008	100.00	0.20
5 Ft. Receiver	327	332	30	240	25	0.320	150.00	0.22
Radial #1	219	216	29	127	25	0.718	100.00	0.20
Radial #2	219	216	29	127	25	0.328	100.00	0.20
Radial #3	219	216	29	127	25	0.233	100.00	0.20
Radial #4	220	216	29	127	25	0.216	100.00	0.20
Radial #5	220	216	29	127	25	0.088	100.00	0.20
Radial #6	220	216	29	127	25	-0.201	100.00	0.20
Radial #7	219	216	29	127	25	-0.372	100.00	0.20
Radial #8	219	216	29	127	25	-0.252	100.00	0.20

# RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\452JUL fld.cal

## WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Jul 31 09:38:53 2010 TOOL SERIES: 1426XA ASSET: 452 SEQ: JUL

Tool Delay [usec]	-54.00	Casing OD in	4.50	Casing Wt lbm/ft	15.10	Casing ID in	3.83
RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]	
CAL Pulse	166	25	-0.005	0.000	1.00	100.000	
3 Ft. Receiver	198	25	0.318				
5 Ft. Receiver	258	25	0.122				
Radial #1	198	25	0.041				
Radial #2	198	25	0.212				
Radial #3	198	25	0.299				
Radial #4	198	25	0.130				
Radial #5	198	25	-0.202				
Radial #6	198	25	0.088				
Radial #7	198	25	-0.092				
Radial #8	198	25	0.009				



# GAMMA RAY

Calibration File: C:\case\calver\GR\457JU.cal

## CALIBRATION SUMMARY

DATE/TIME PERFORMED:	Tue Jul 27 10:28:11 2010	TOOL SERIES:	1426XA	ASSET:	457	SEQ:	JU
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
S2K DA857	95.38	369.64	0.675	64.33	249.33	185.00	

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

## PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED:	Tue Jul 27 10:29:56 2010	TOOL SERIES:	1426XA	ASSET:	457	SEQ:	JU
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
S2K DA857	90.09	364.04	0.675	60.77	245.56	184.79	

# TOOL DIAGRAM

### OTA SHORT CABLE HEAD

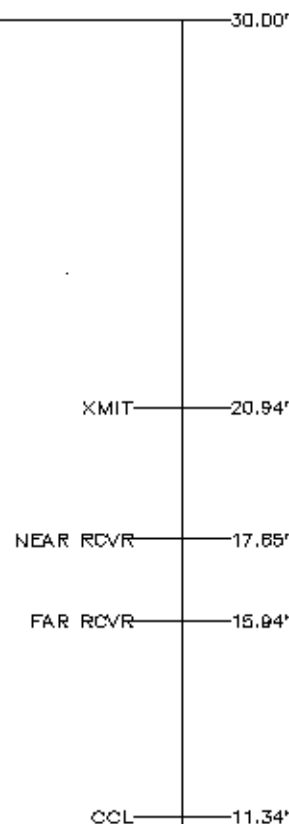
#### CENTRALIZER

Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb

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

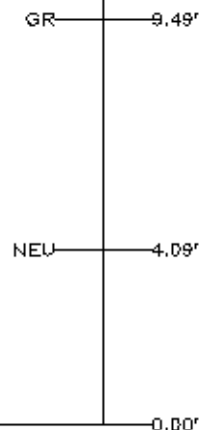
#### CENTRALIZER

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	6.80' GR
Measure Point	8.48' 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"

 <b>Baker Atlas</b> 	Company	EXXONMOBIL PRODUCTION COMPANY		File No:
	Well	PGU 297-11C9		
	Field	PICEANCE CREEK		API No:
	County	RIO BLANCO	State	COLORADO
	Location			Elevations
	1021' FNL & 894' FNL			KB 6983.2 ft
				DF 6982.2 ft
				GL 6963 ft
SEC 11		TWP 25	RGE 87W	