



# RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH075922	Company Well Field County	WPX ENERGY STRAIT SG 441-22 GRAND VALLEY GARFIELD	State COLORADO
API No: 05045217540000			
22 75 96W SG 42-22 CYCLONE 17	Location SHL: 1488' FNL & 285' FEL SEC:22 BHL: 1078' FNL & 1328' FEL SEC:22 SEC 22 TWP 75 RGE 96W	Other Services N/A	
Permanent Datum Log Measured From Drill Measured From	G.L. _____ Elevation 5222 ft K.B. _____ 22 ft Above P. D. KELLY BUSHING	Elevations KB 5244 ft DF GL 5222 ft	

Date	14/AUG/13	
Run	ONE	
Service Order	B24A73	
Depth Driller	5702 ft	
Depth Logger	5665 ft	
Bottom Logged Interval	5655 ft	
Top Logged Interval	22 ft	
Time Started	14:30	
Time Finished	17:00	
Operator Rig Time	2.5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	N/A	
Salinity	N/A	
Fluid Level	45 ft	
Logged Cement Top	N/A	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	N/A	
Nominal Logging Speed	45 fpm	
Maximum Recorded Temperature	187 degF	
Reference Log	SLB OPEN HOLE LOG	
Reference Log Date	N/A	
Equipment No.	4271	GRAND JUNCTION
Recorded By	U. KINSEL	9712
Witnessed By	MR. DUSTIN WELSH	GRAND JUNCTION

- FOLD HERE

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

Borehole Record		
Bit Size	From	To
13.5 In	0 ft	1052 ft
8.75 In	0 ft	5702 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 In	N/A	N/A	0 ft	1017 ft
4.5 In	11.6 lbm/ft	1-80	0 ft	5702 ft

Remarks
ALL DATA IN THIS LOG WAS DEPTH SHIFTED TO MATCH AN OPEN HOLE LOG AT THE CLIENT'S REQUEST. THE AMOUNT OF LINEAR SHIFT WAS 7 FEET DOWN. DEPTH SHIFTING PROCESS CREATES THE POTENTIAL FOR COLLAR LENGTHS TO VARY FROM OTHER CASED HOLE LOGS WITHOUT A GAMMA RAY REFERENCE.
SHORT JOINT: 3128' - 3152'
BHT: 187 degF

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10124106	CENTRALIZED
1	1	GAMMA RAY/CCL	1355XA	10580209	CENTRALIZED

***MAIN LOG PRIMARY PRESENTATION***  
***0 PSI***

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	302.334	usec	29.000	5674.000
RAL	Amp Gate Start Near	197.228	usec	29.000	5674.000
RAL	Amp Gate Start Radial	196.389	usec	29.000	5674.000
RAL	Amp Gate Width Far	25.000	usec	29.000	5674.000
RAL	Amp Gate Width Near	25.000	usec	29.000	5674.000
RAL	Amp Gate Width Radial	25.000	usec	29.000	5674.000
RAL	casing od	4.500	inches	29.000	5674.000
RAL	casing wt	11.600	lbm/ft	29.000	5674.000
RAL	FB Start Far	291.900	usec	29.000	5674.000
RAL	FB Start Near	175.391	usec	29.000	5674.000
RAL	FB Start Radial	175.391	usec	29.000	5674.000
RAL	FB Thresh Far	10.000	mv	29.000	5674.000
RAL	FB Thresh Near	4.000	mv	29.000	5674.000
RAL	FB Thresh Radial	4.000	mv	29.000	5674.000
RAL	Fluid Travel Time	200.000	usec/ft	29.000	5674.000

## DEPTH OFFSETS

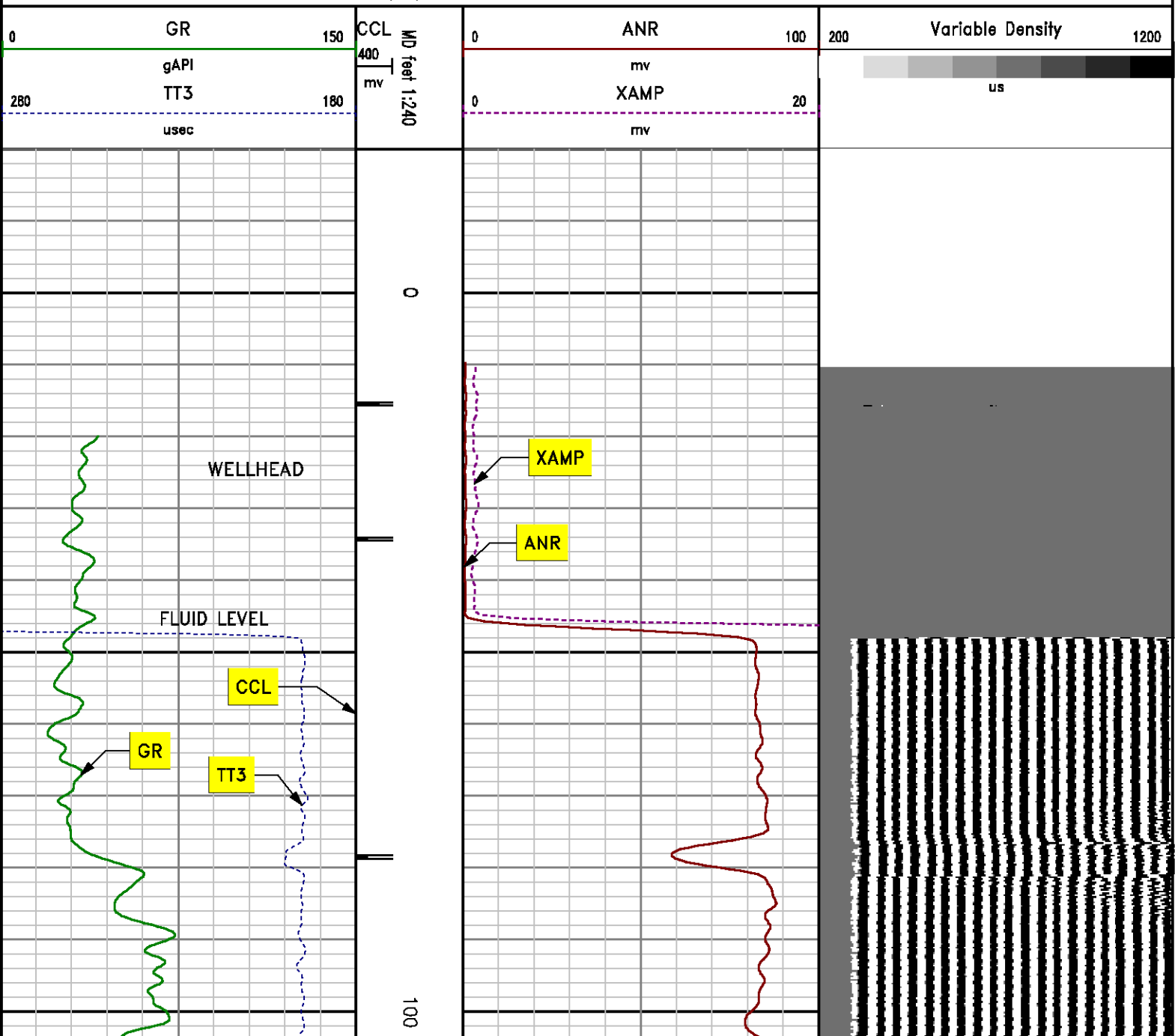
(for Acquired Curves)

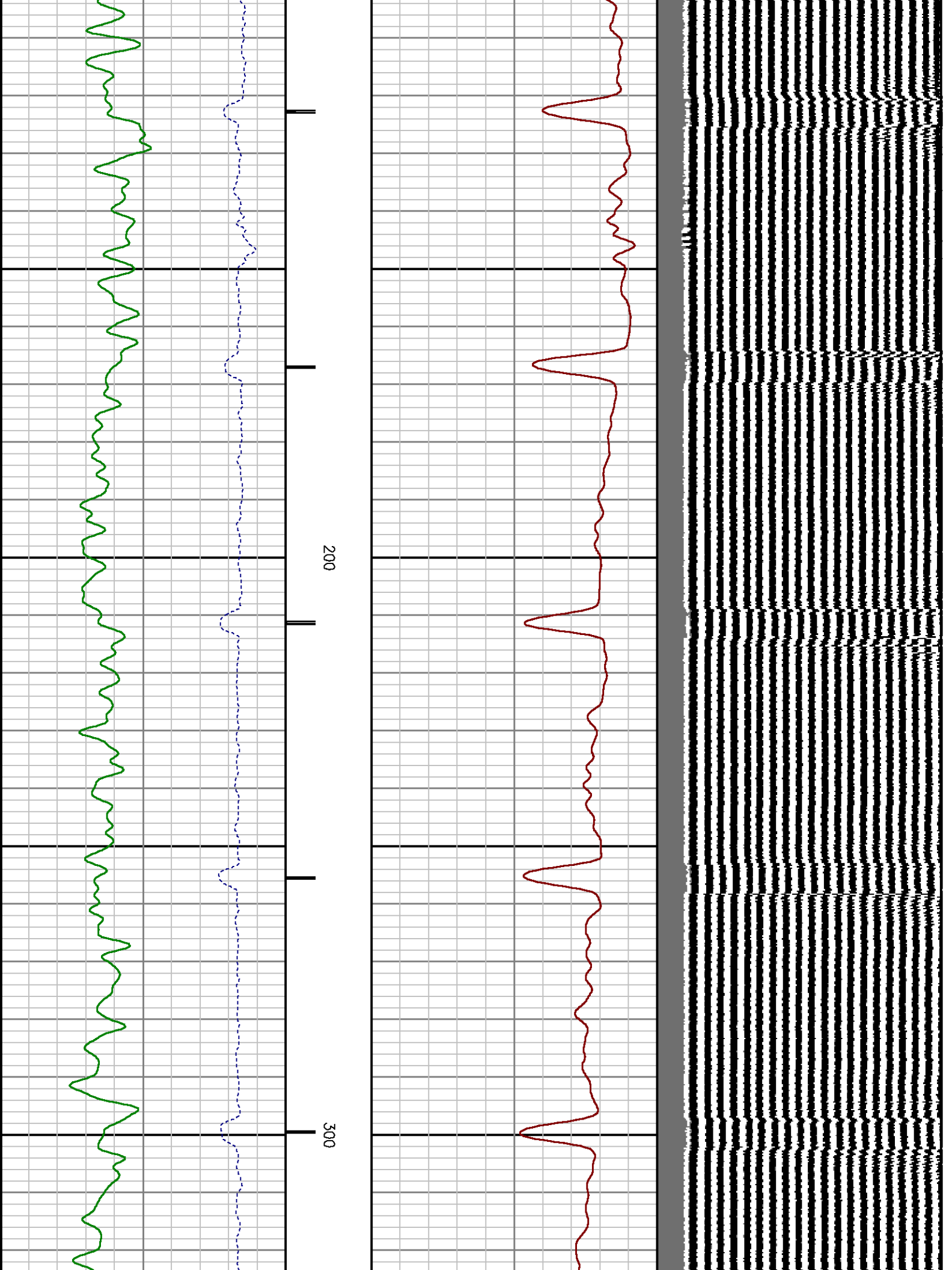
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
		124	140	156	172	188	204

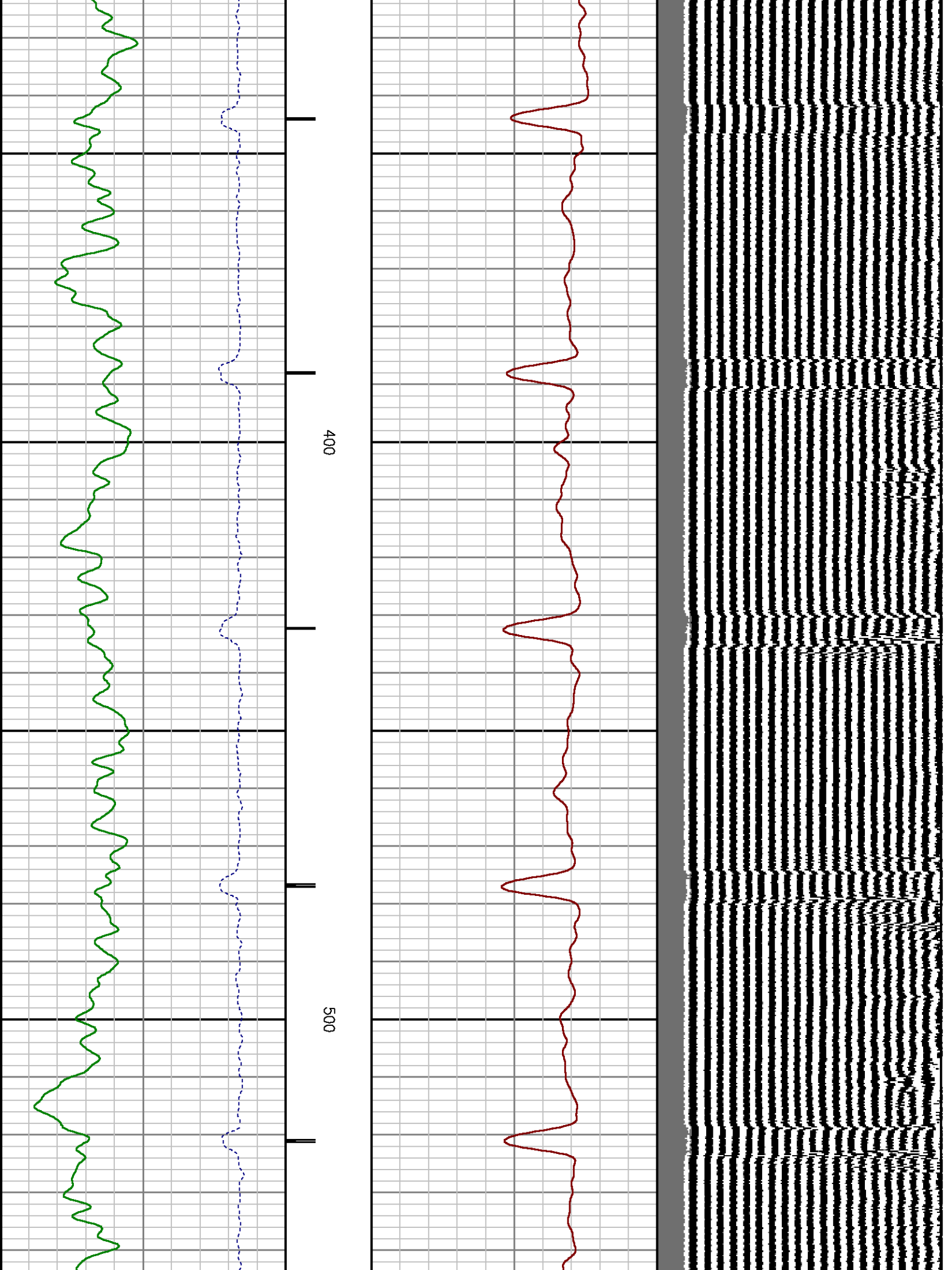
1426XA -11.000  
 1355XA -5.620  
 1355XA -1.500  
 1355XA 0.000

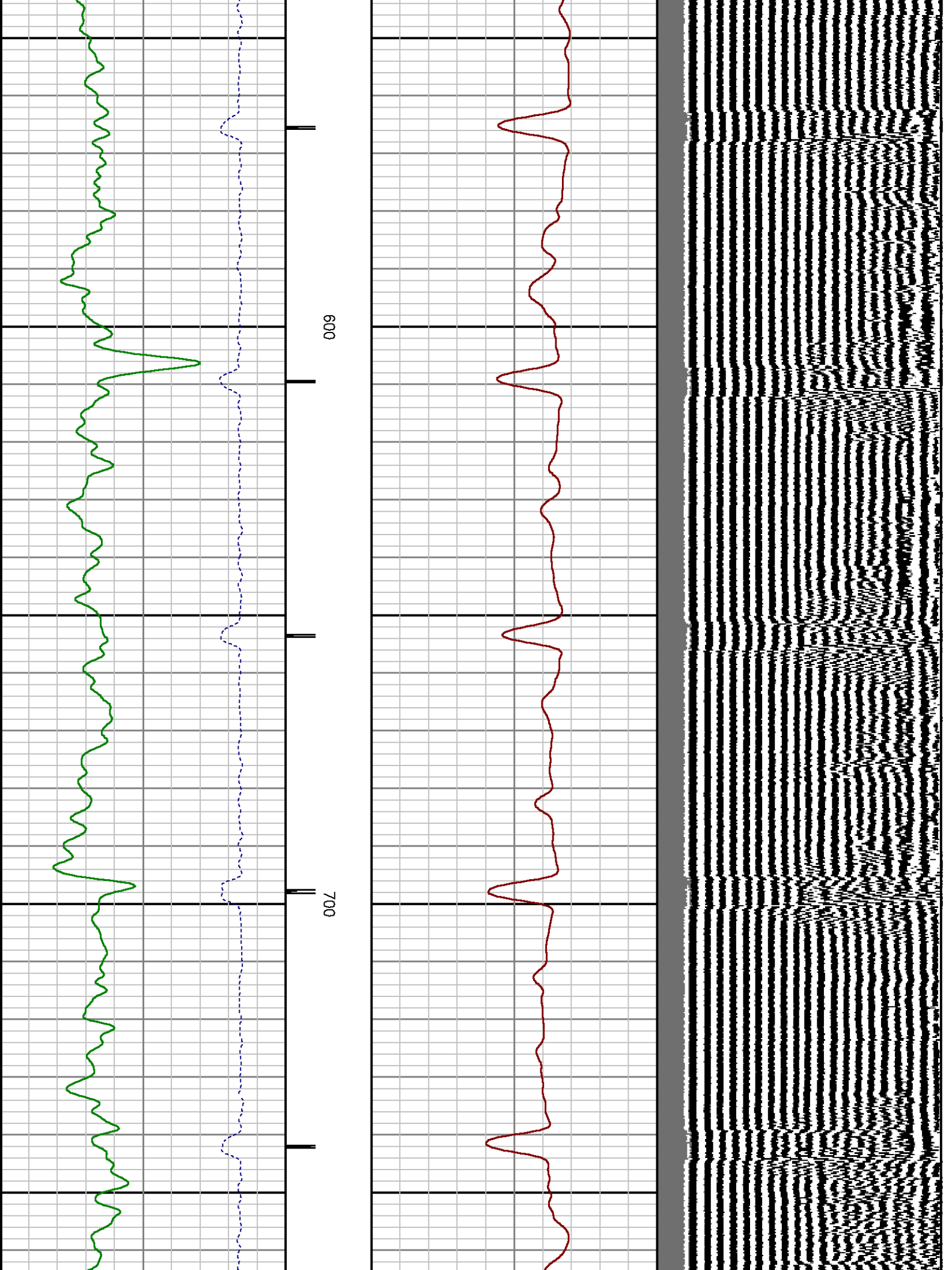
ACAL	ANR	AR1	AR2	AR3	AR4
AR5	AR6	AR7	AR8	CHV	FPR2
FPR3	FPR5	TT3	TTR1	TTR2	TTR3
TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
AFAR	SIG	TT5			
CCL					
GR					
TEMP					

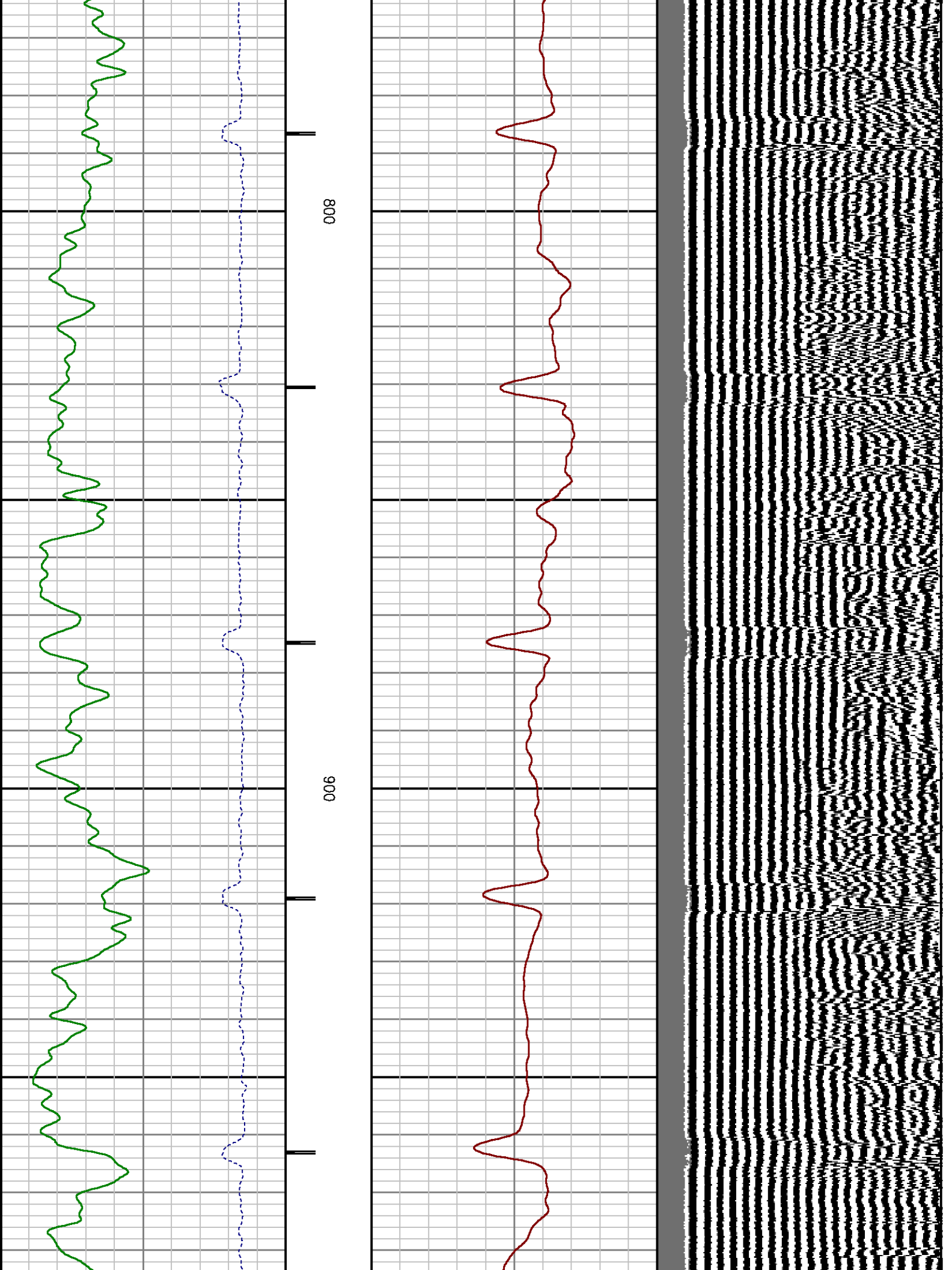
Created by : RAL, v4.8.008  
 Plotted by : PlotMgr, v5.4.504  
 Company : WPX ENERGY  
 Well : STRAIT SG 441-22  
 File Name : d:\welldata\441cbl\main.xtf  
 Mode : PlotMgr 5.4.504  
 Interval : -20.00 - 5670.00 feet UP  
 Created : 8/14/2013 3:33:59 PM

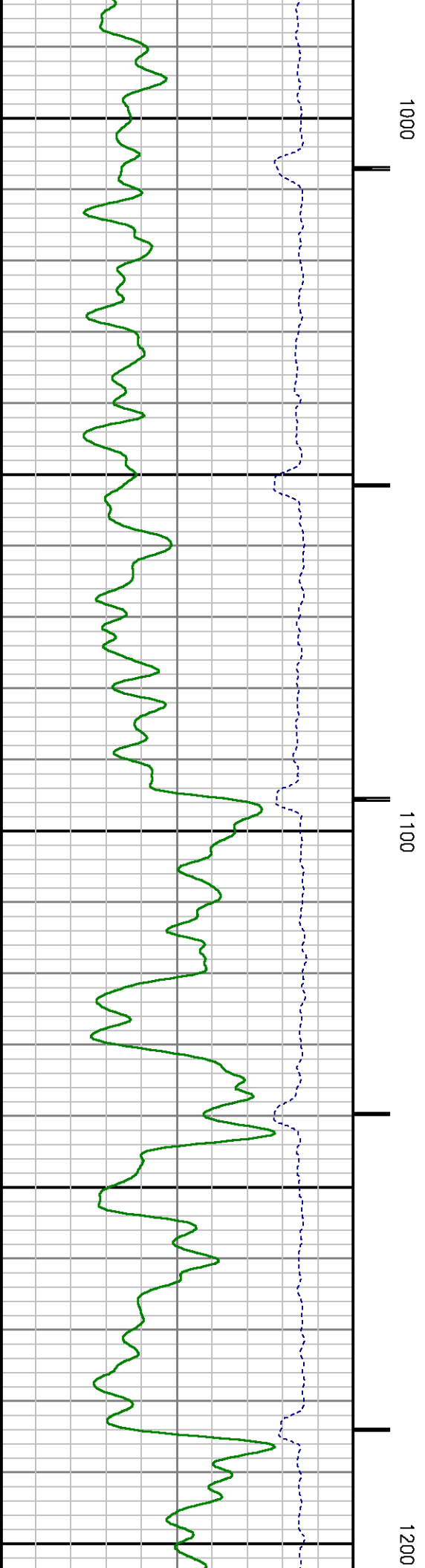
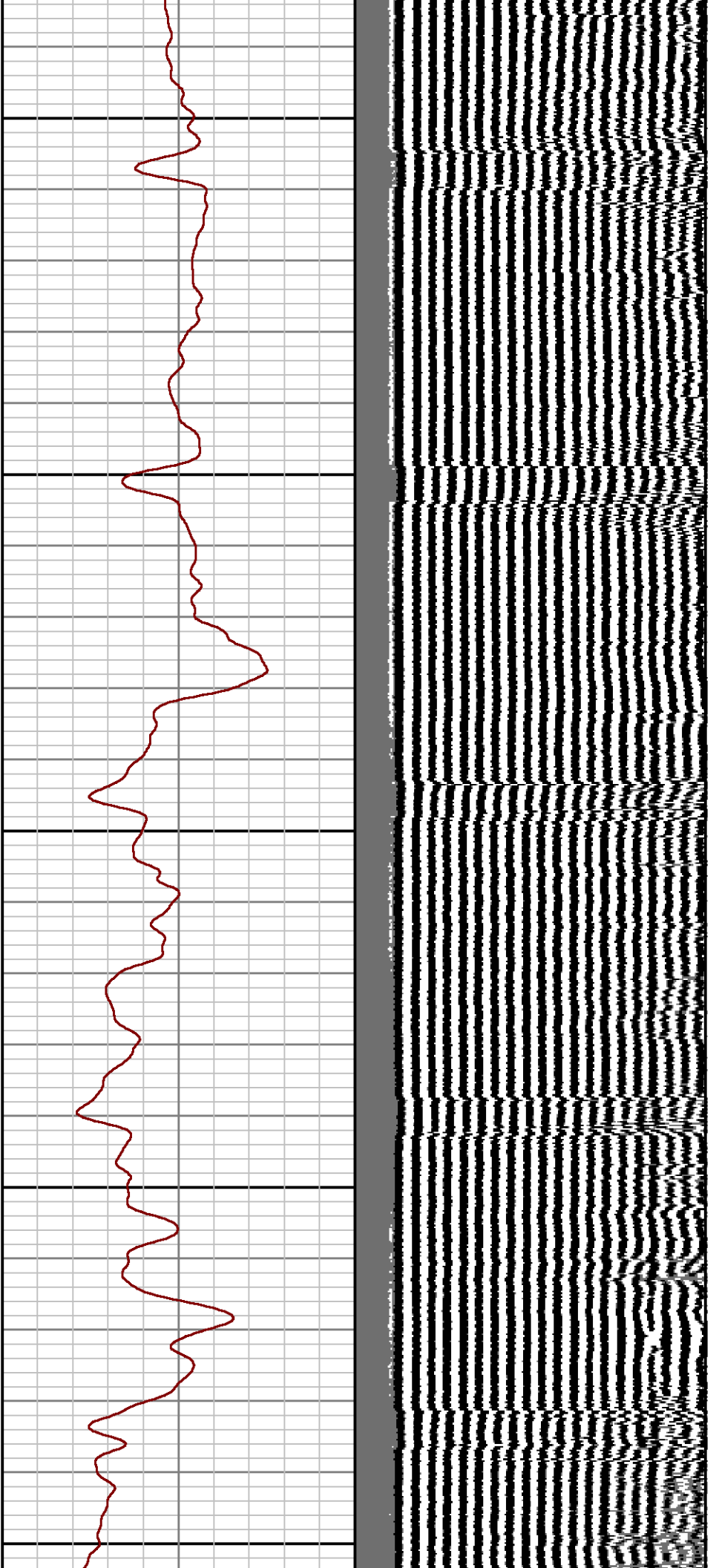


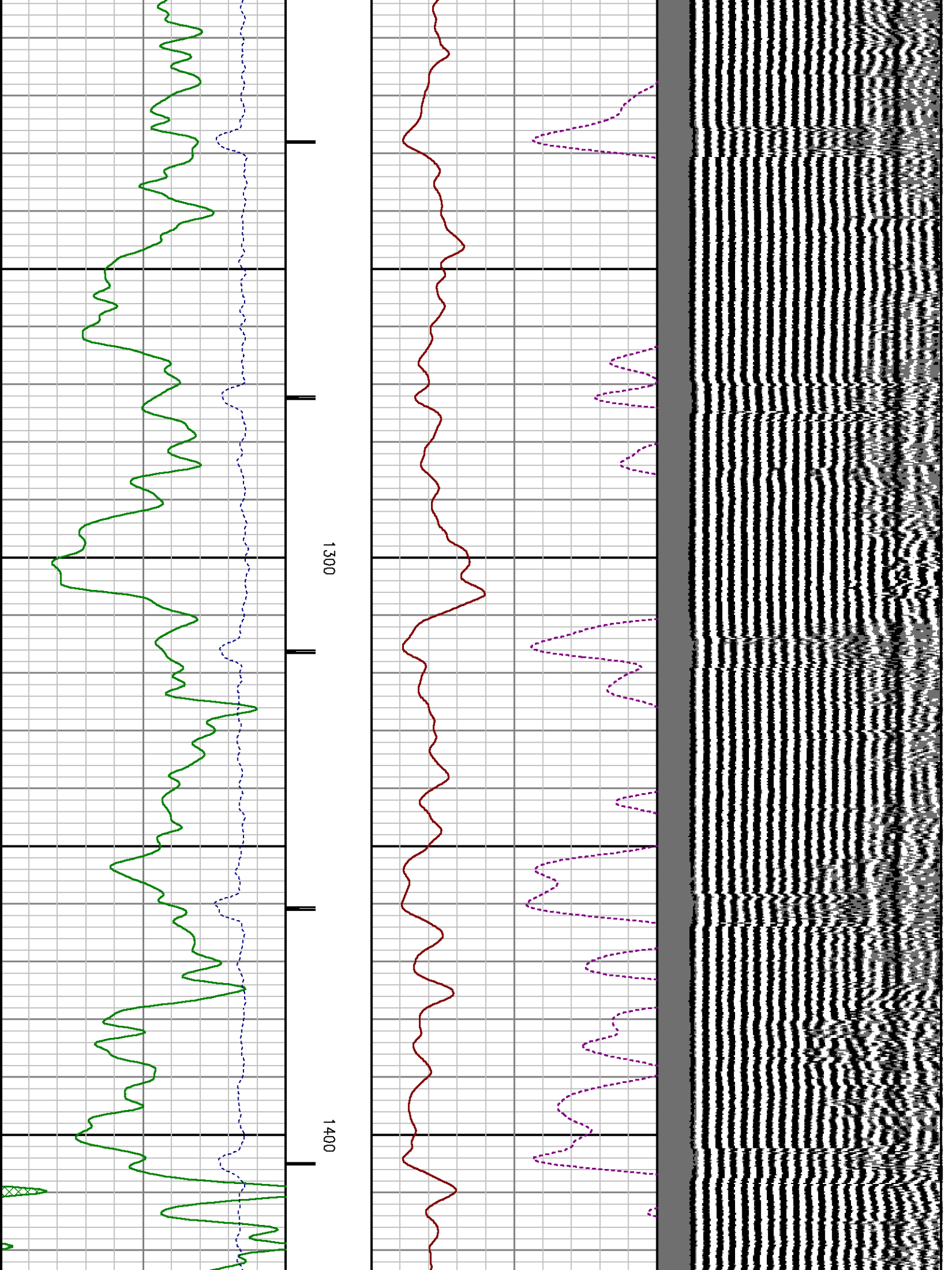


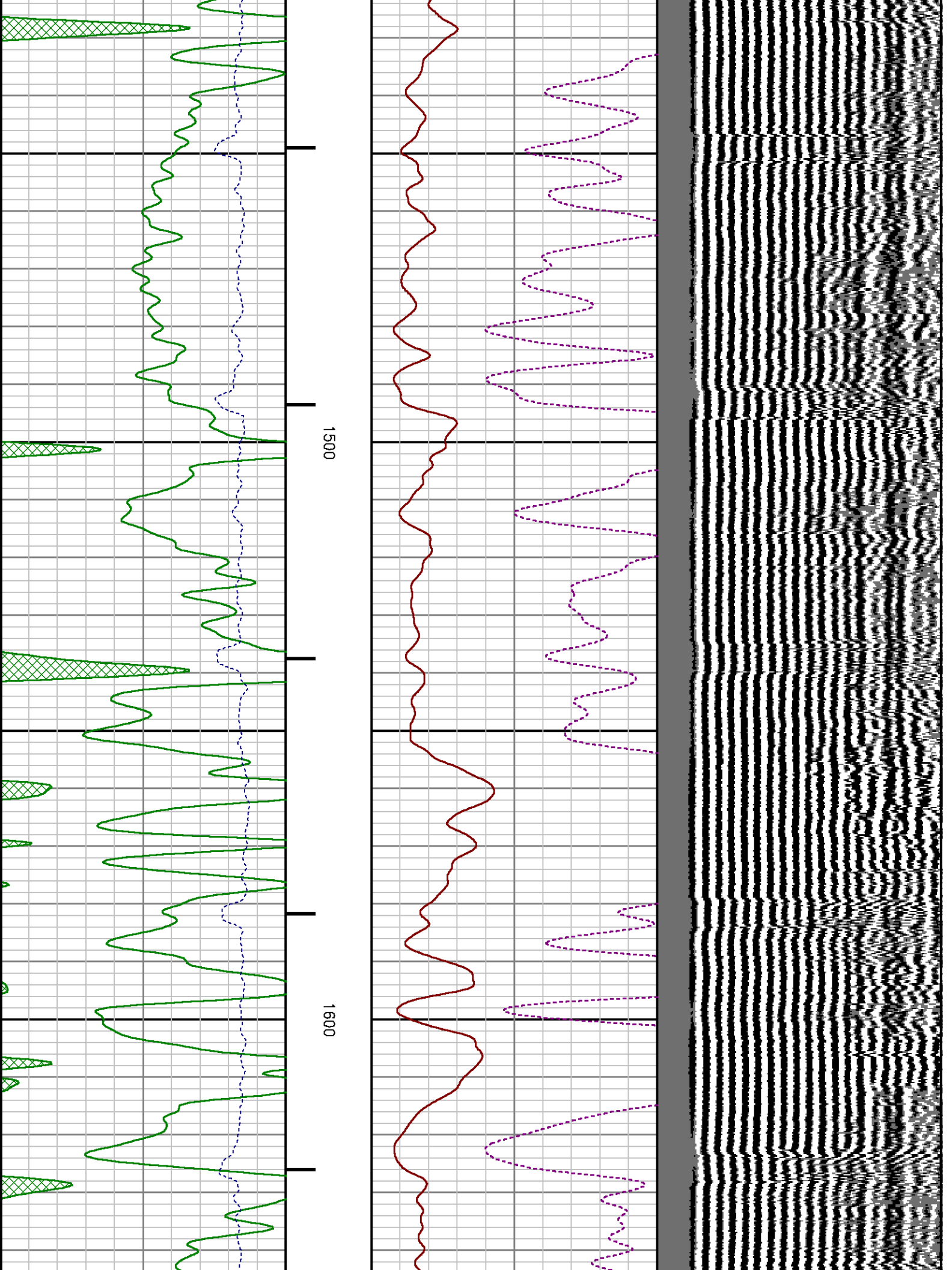


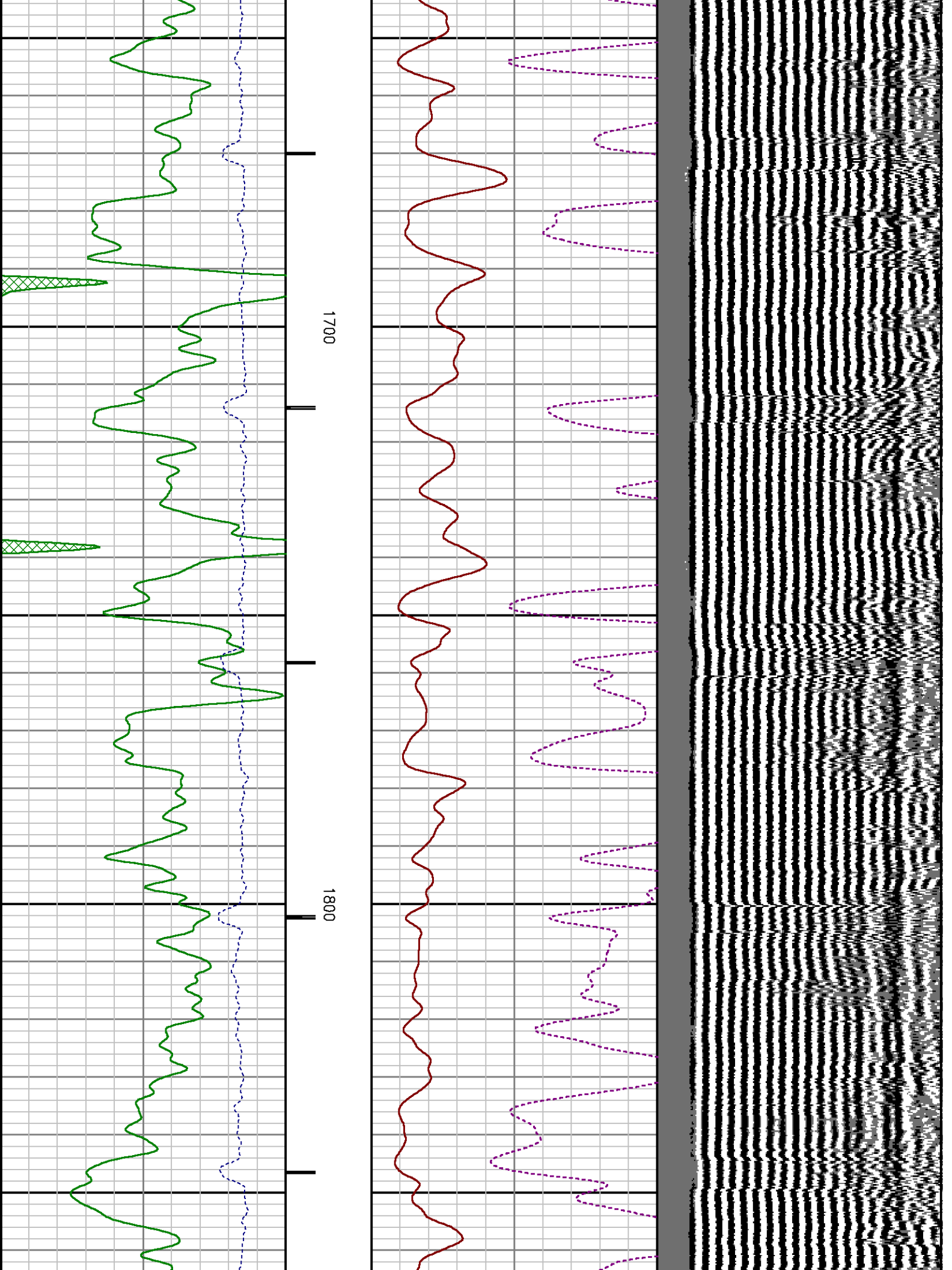


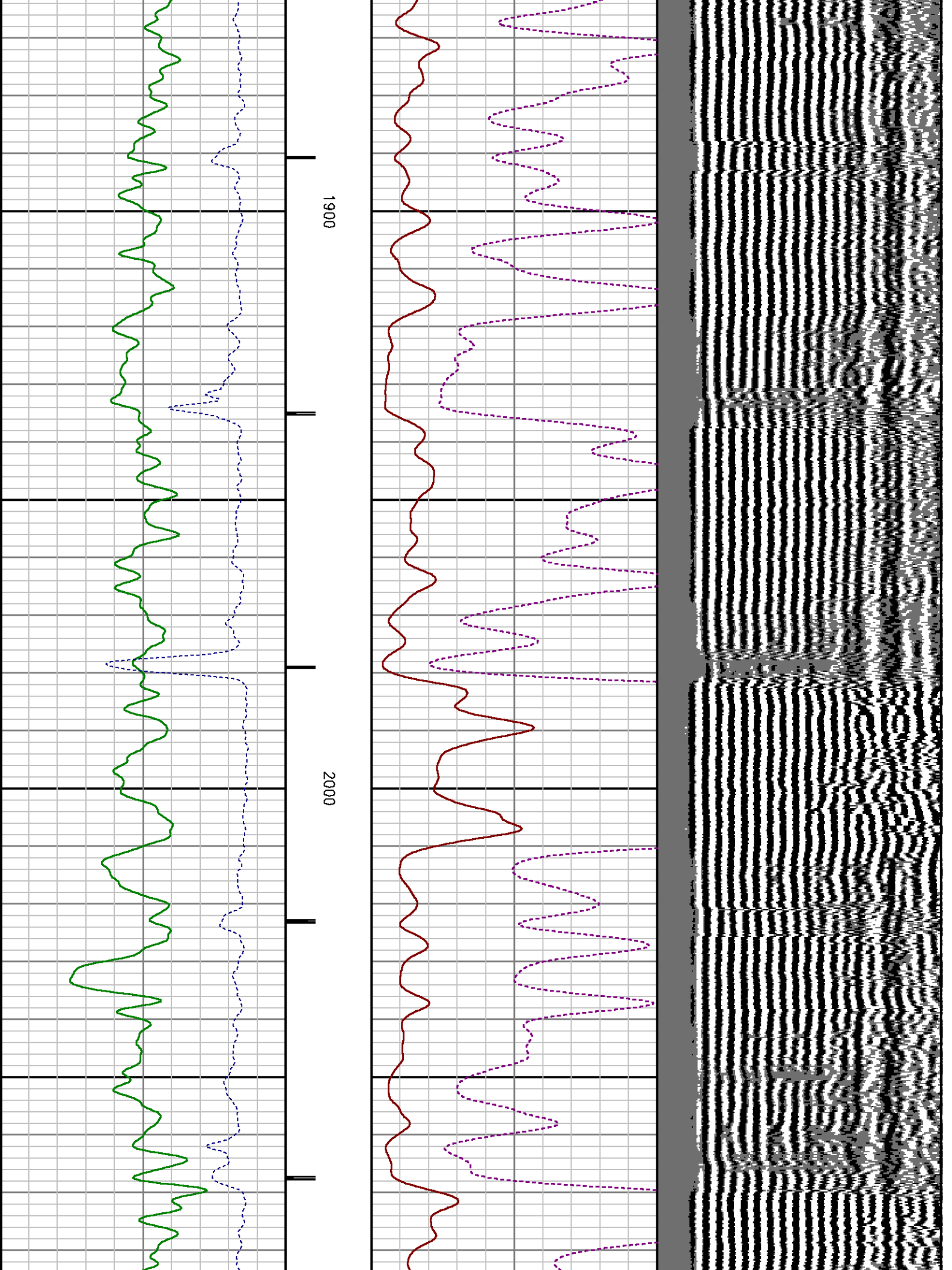


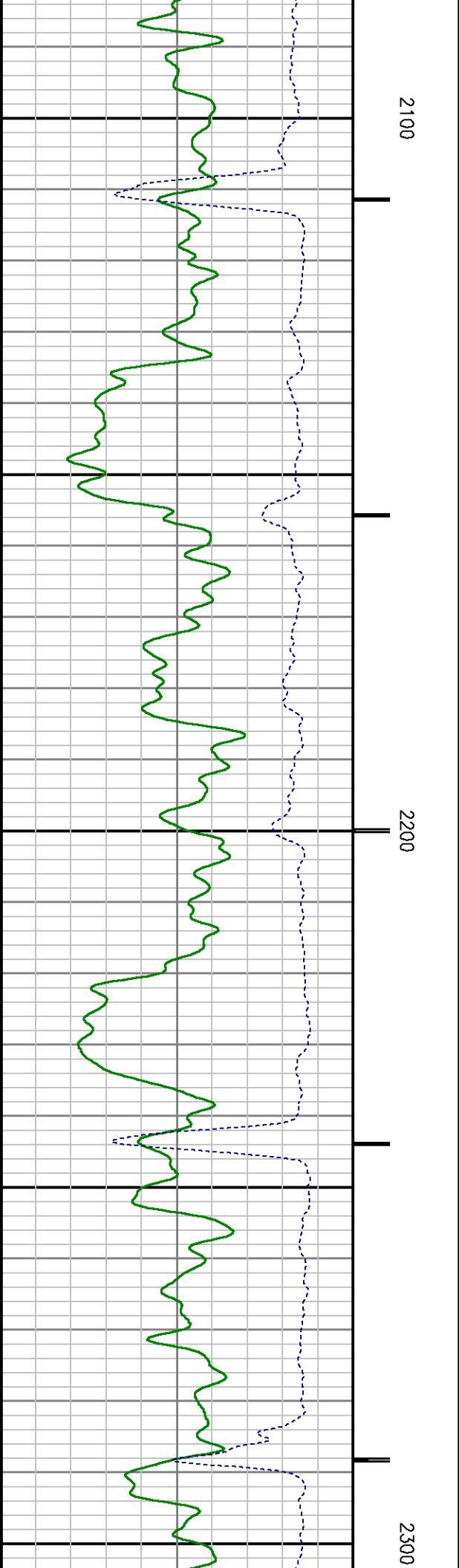
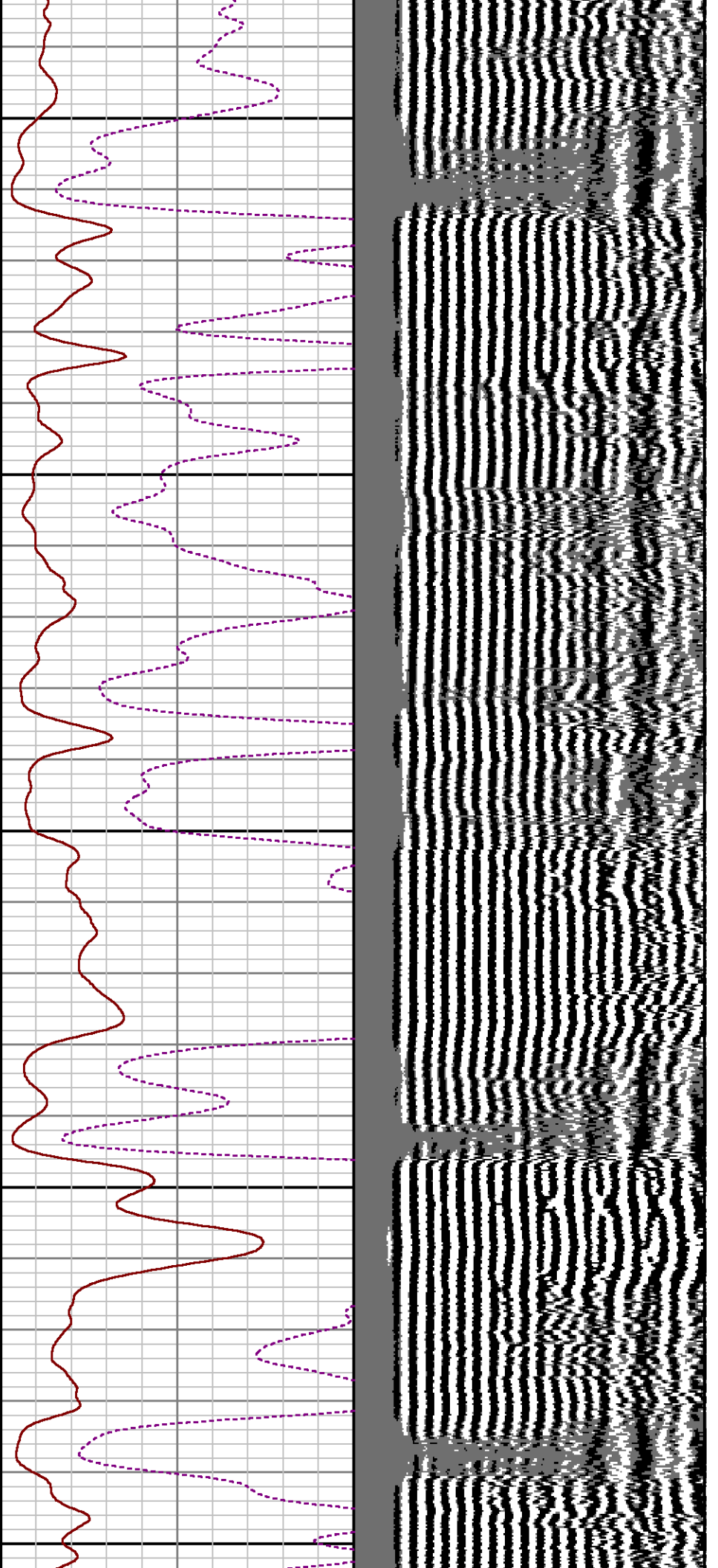


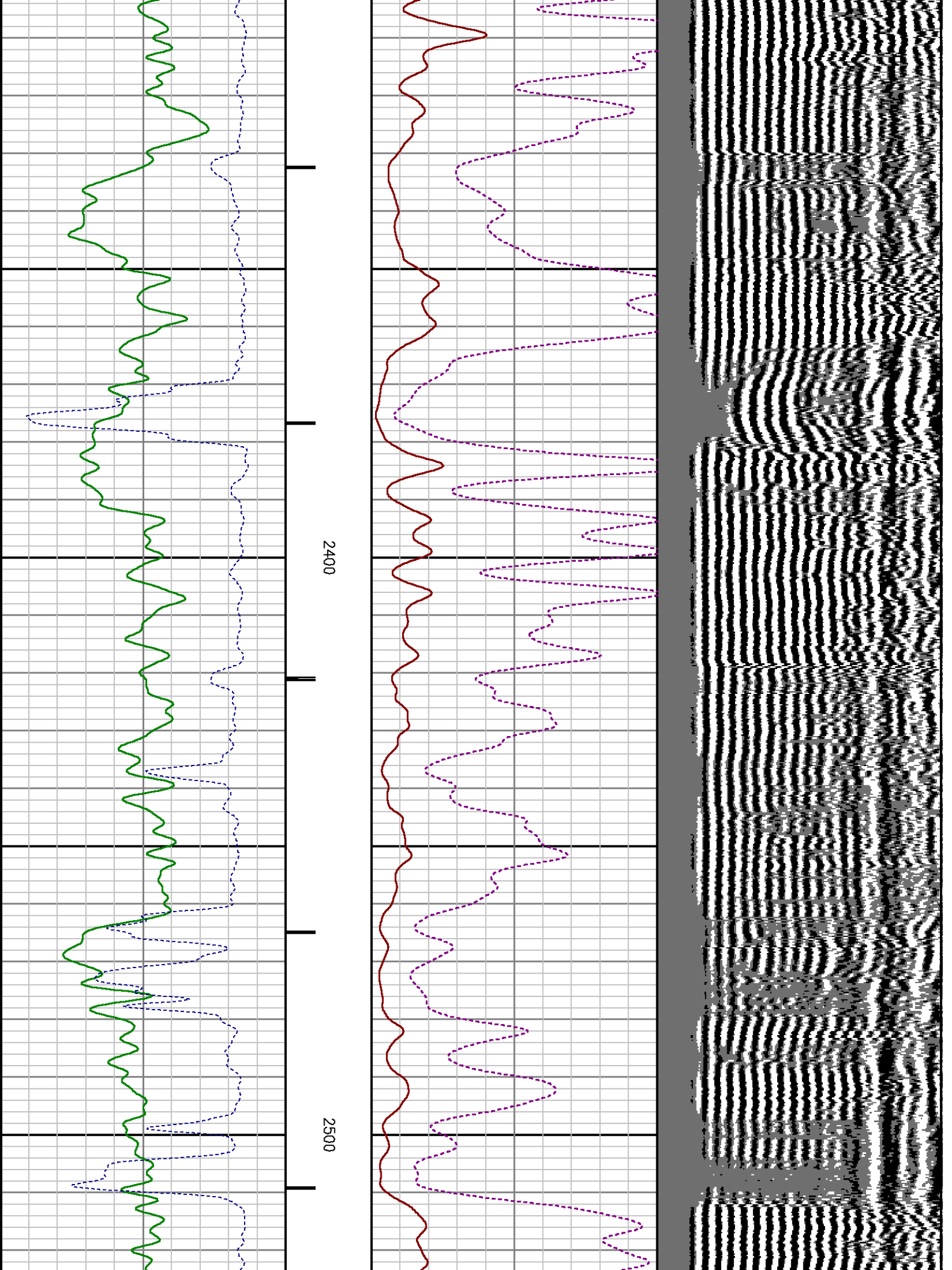


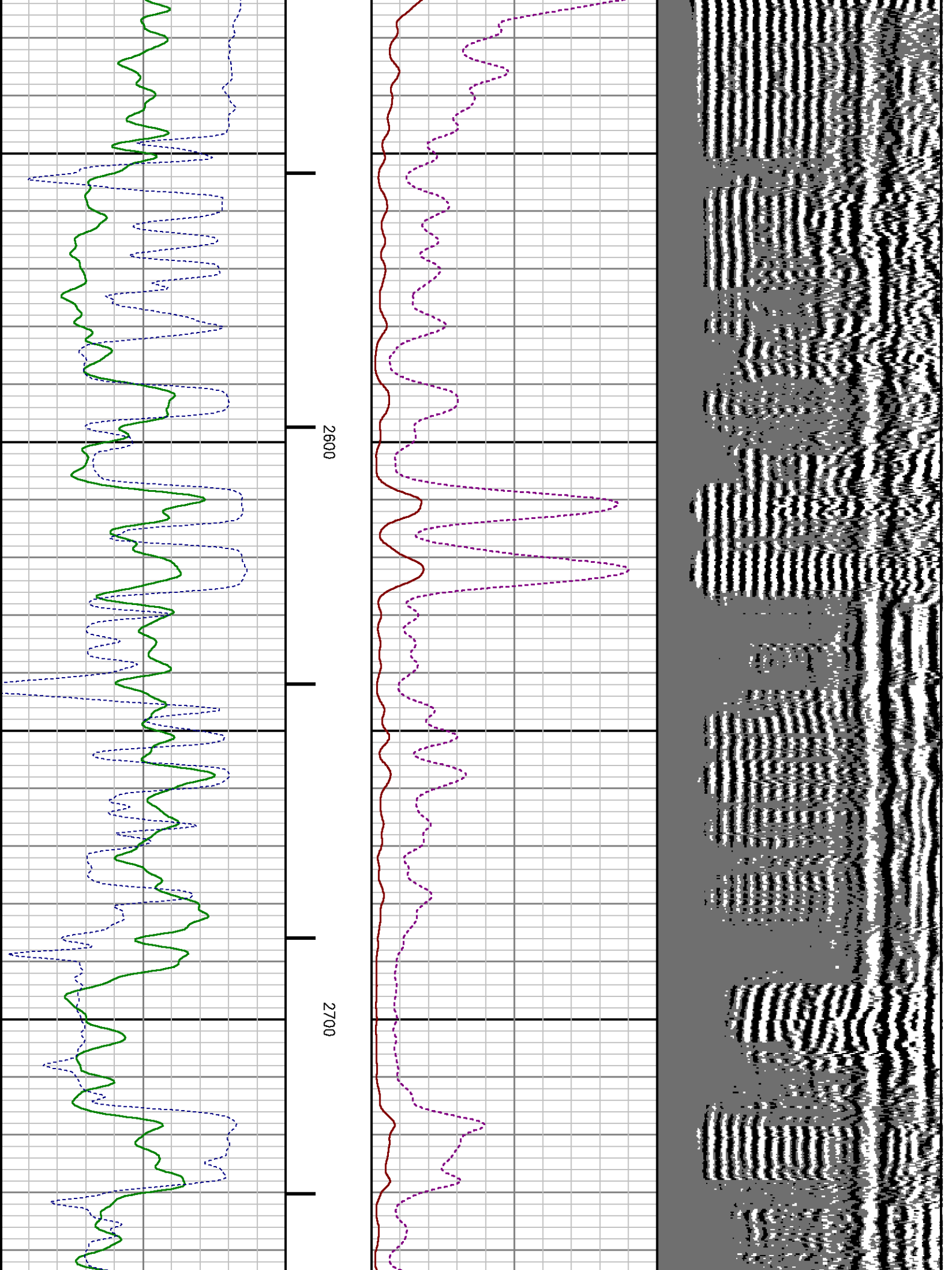


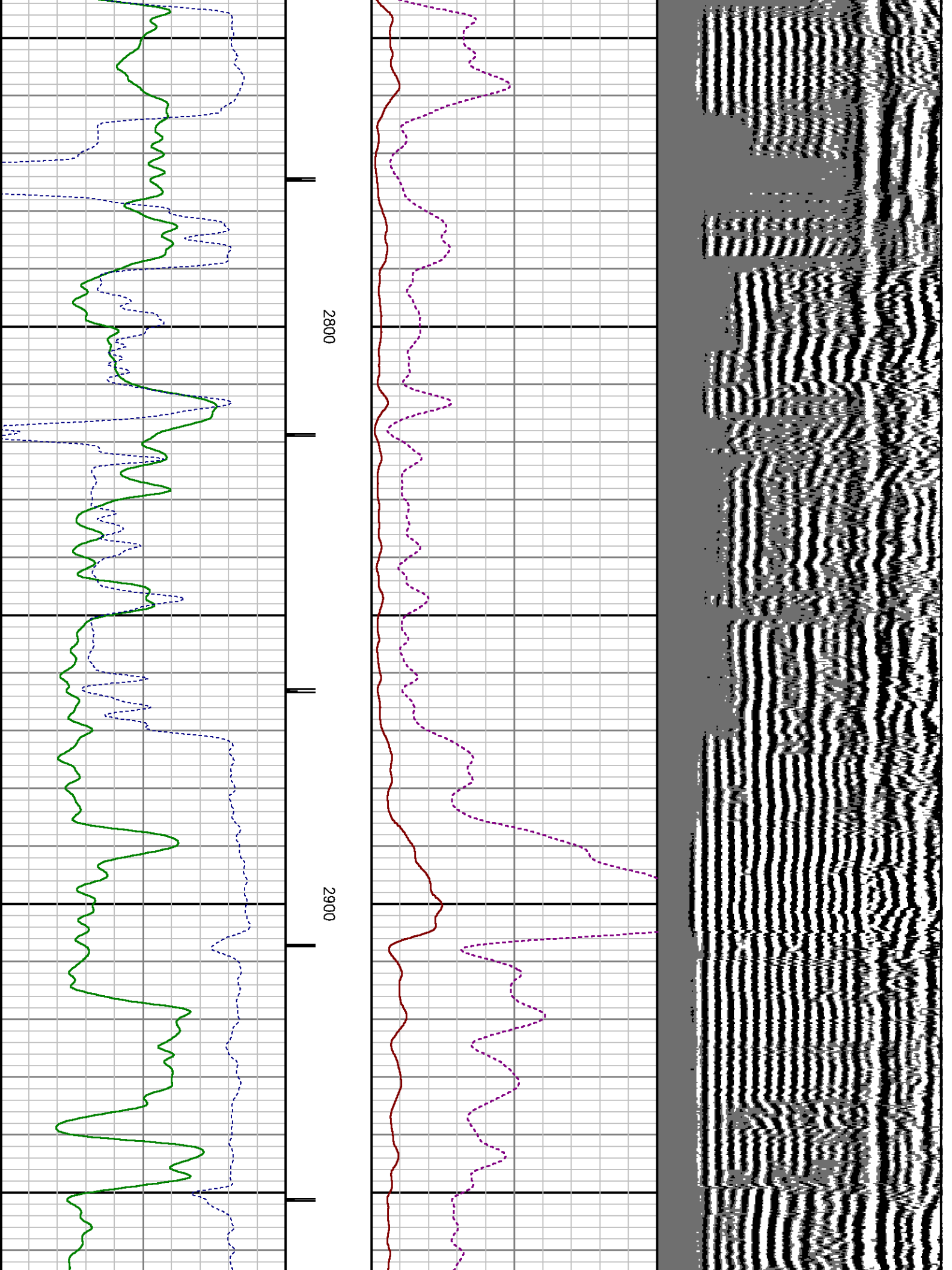


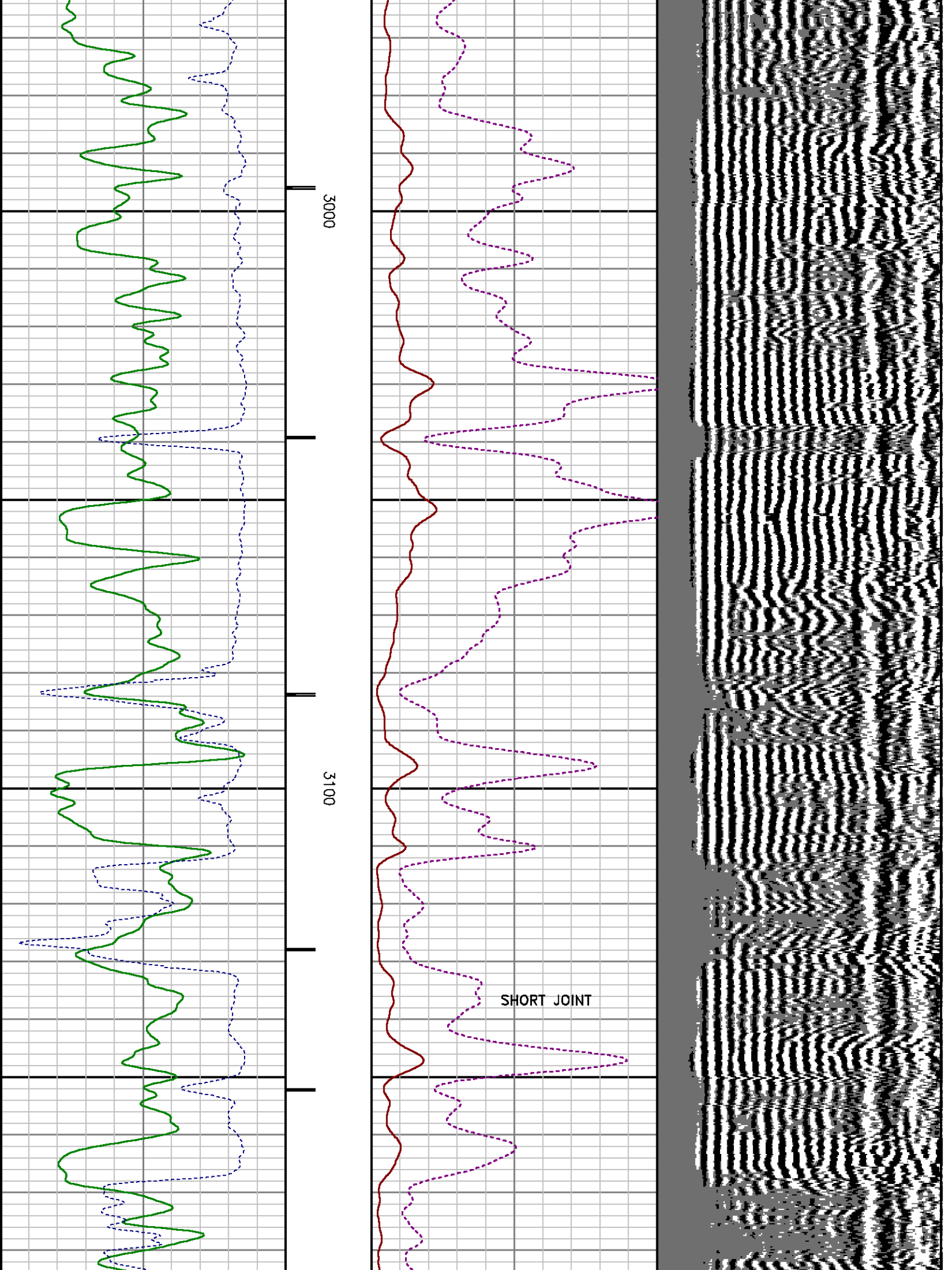


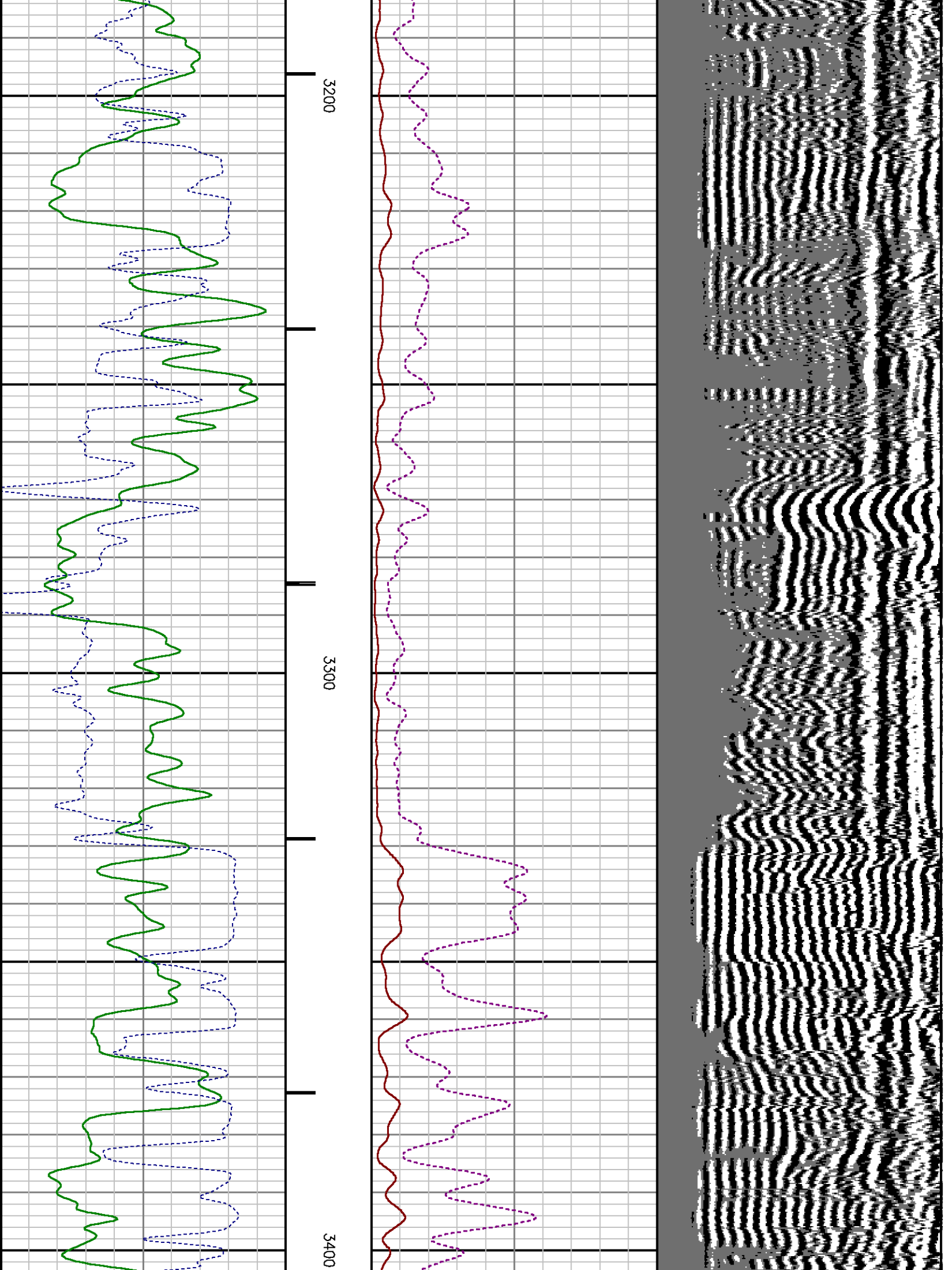


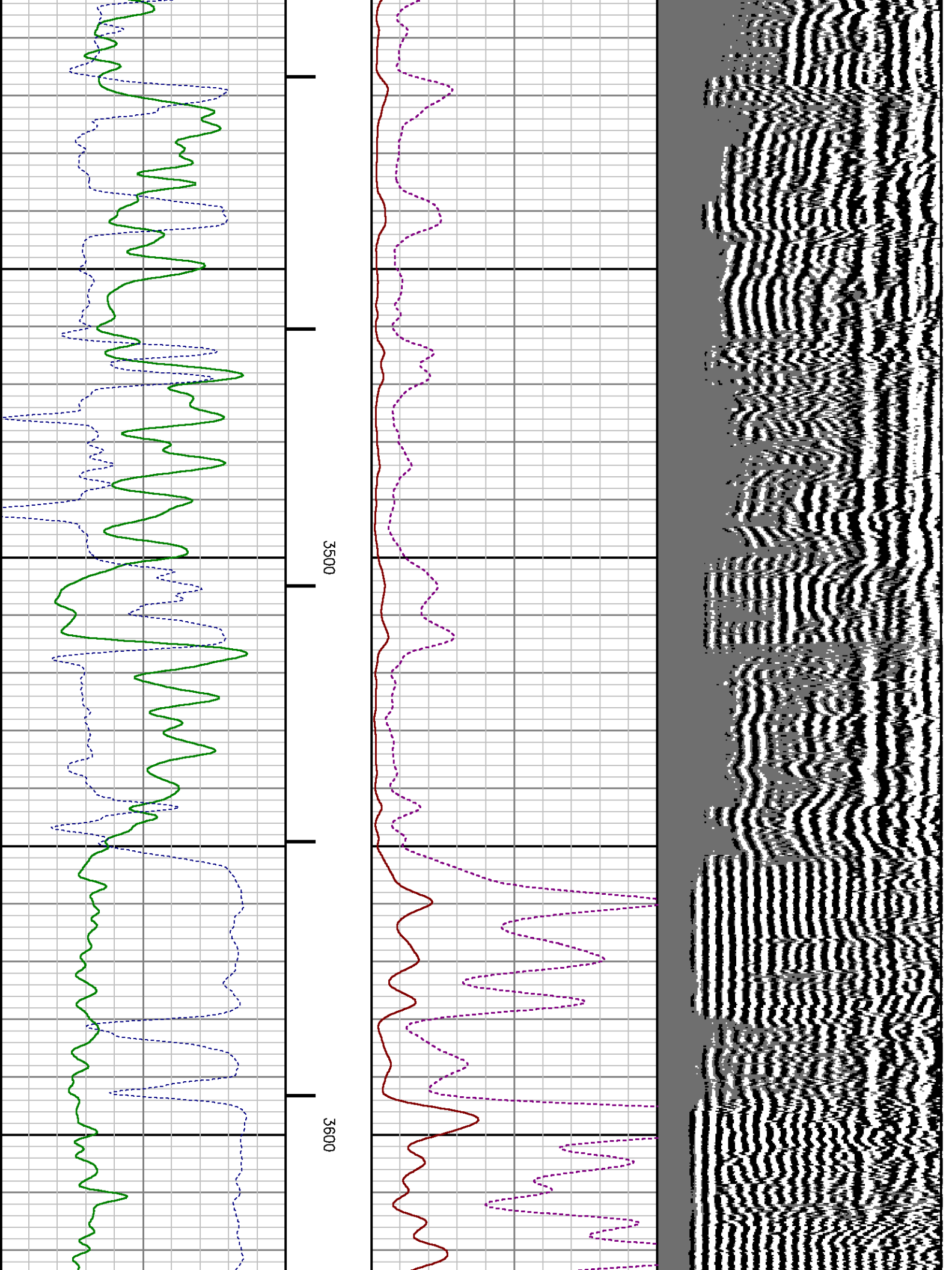


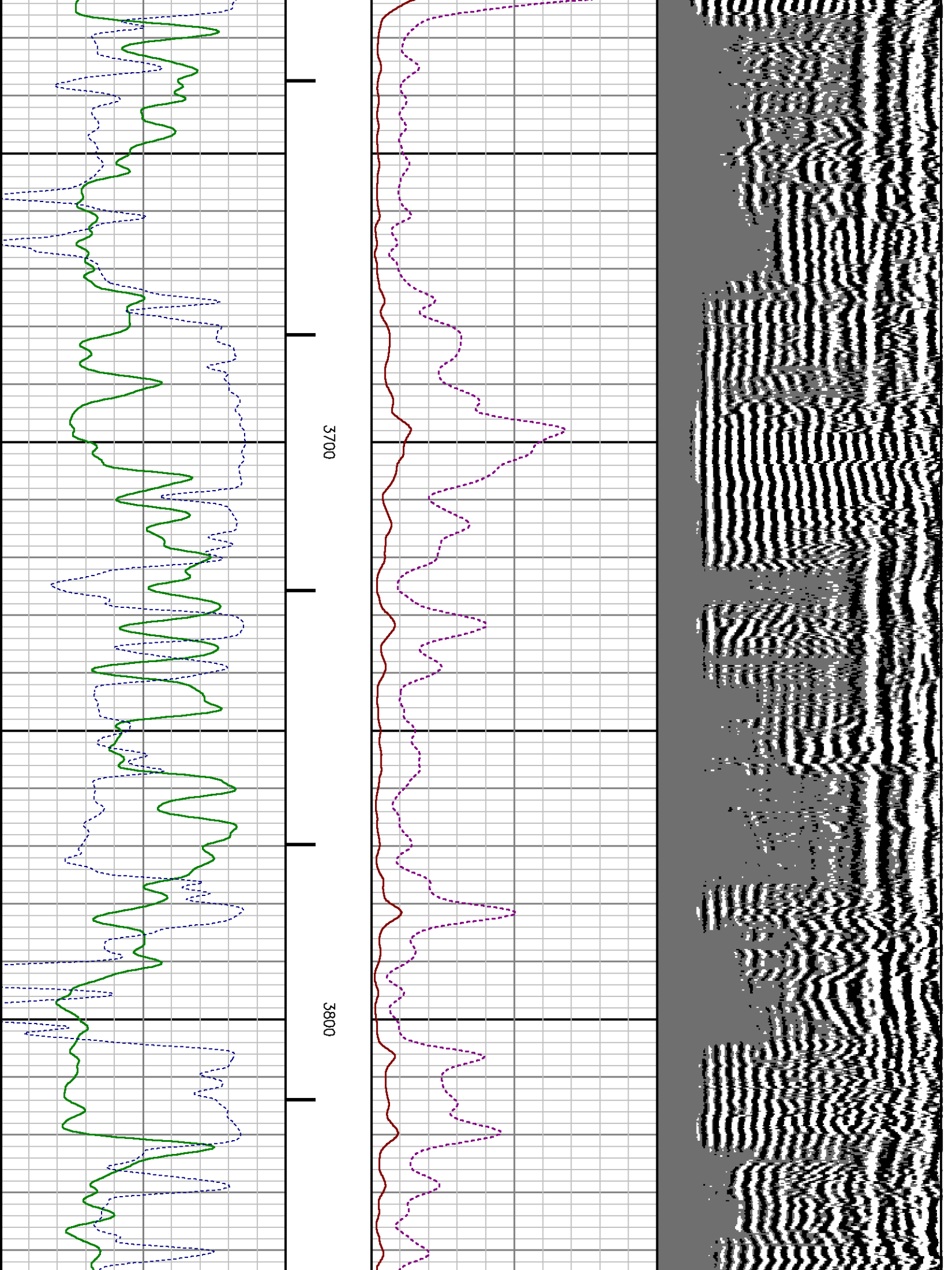


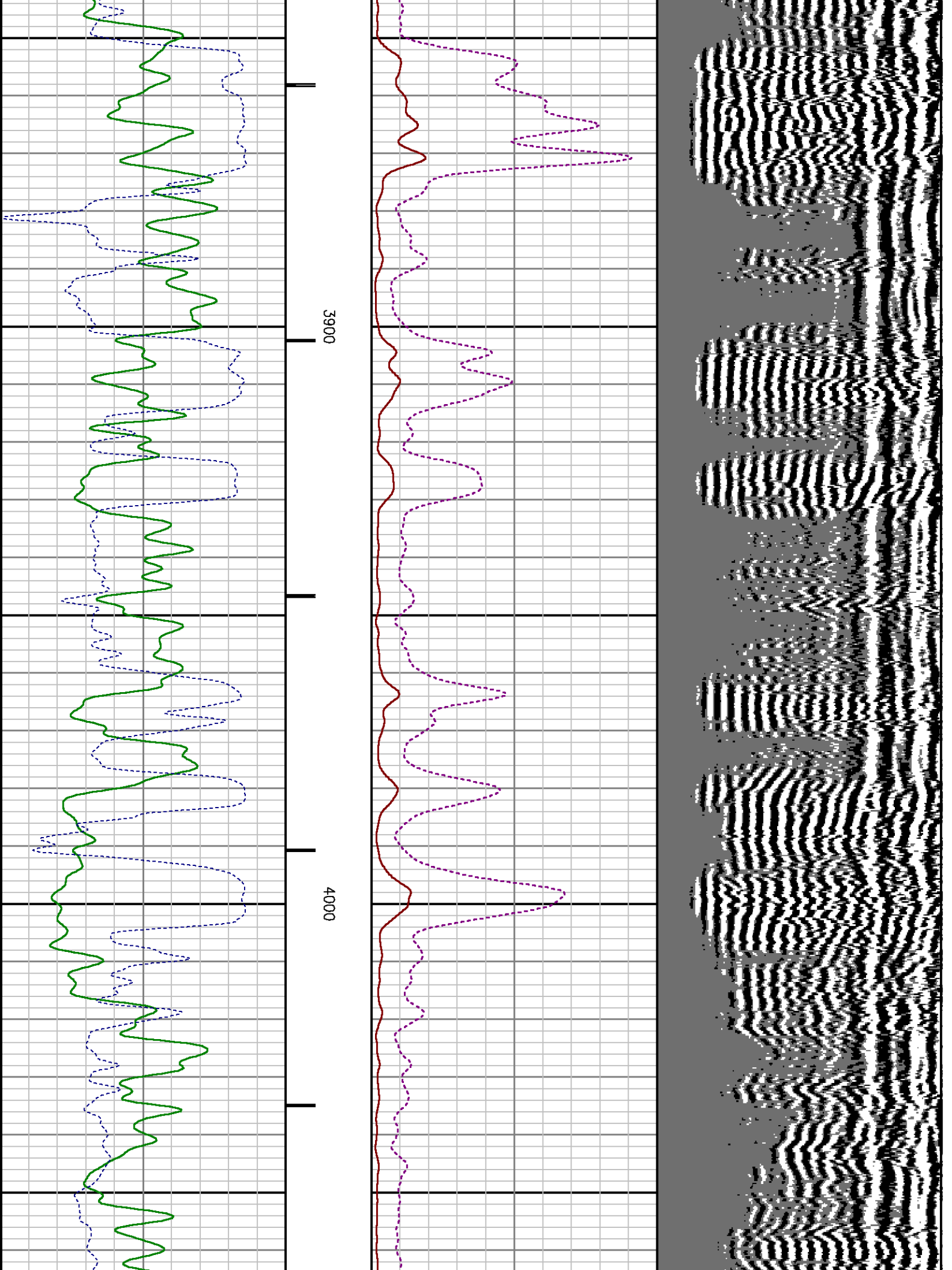


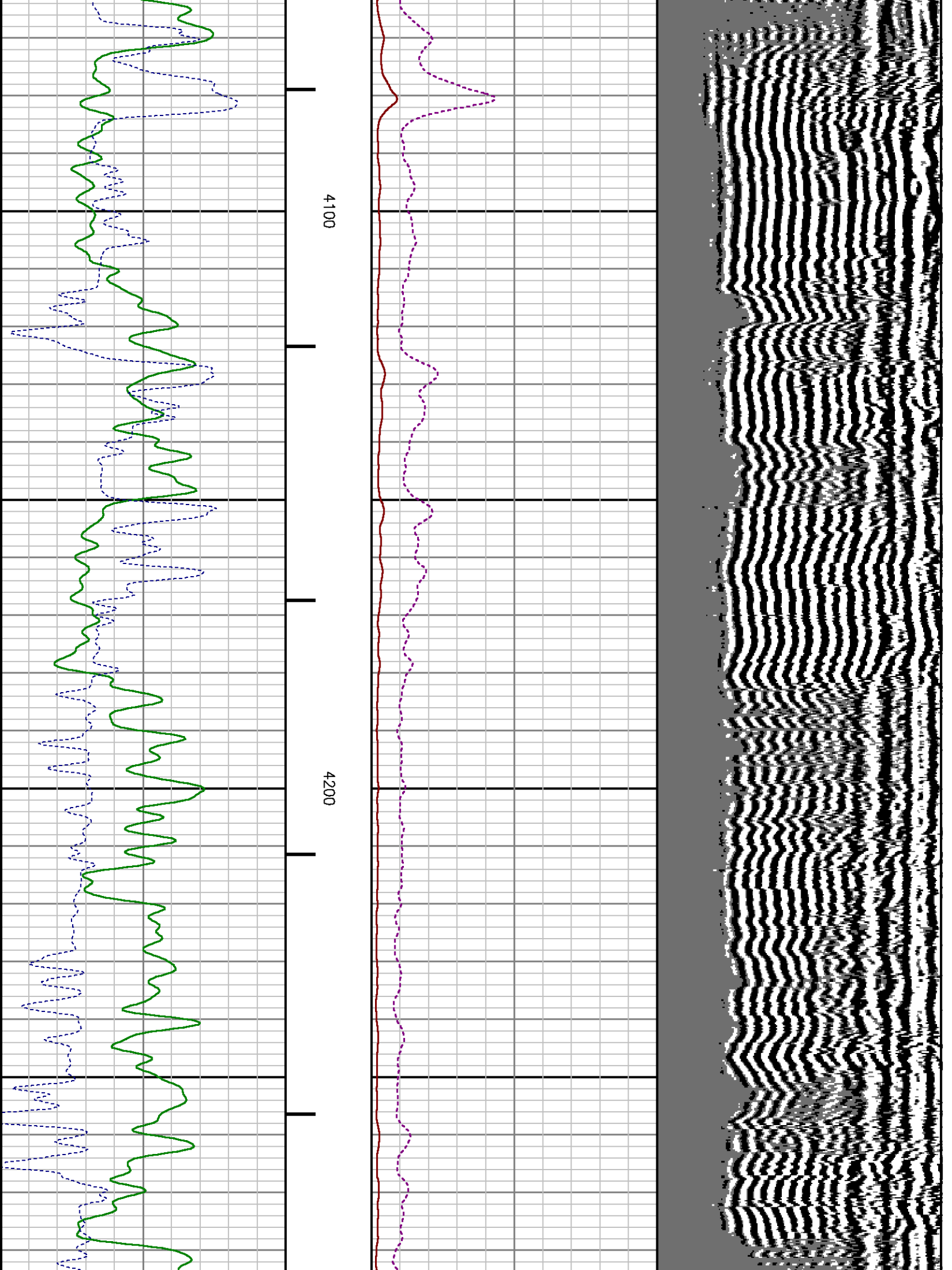


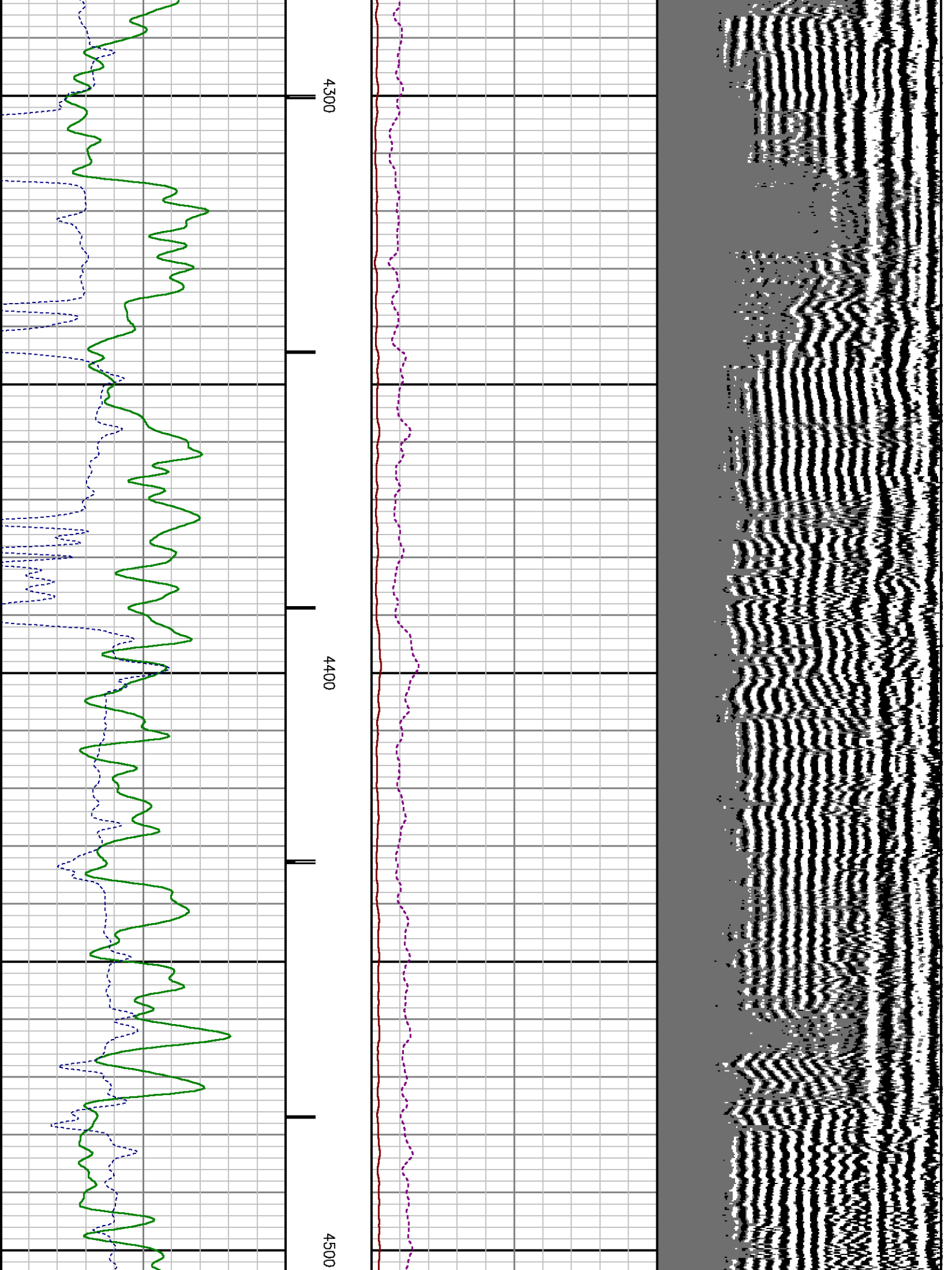


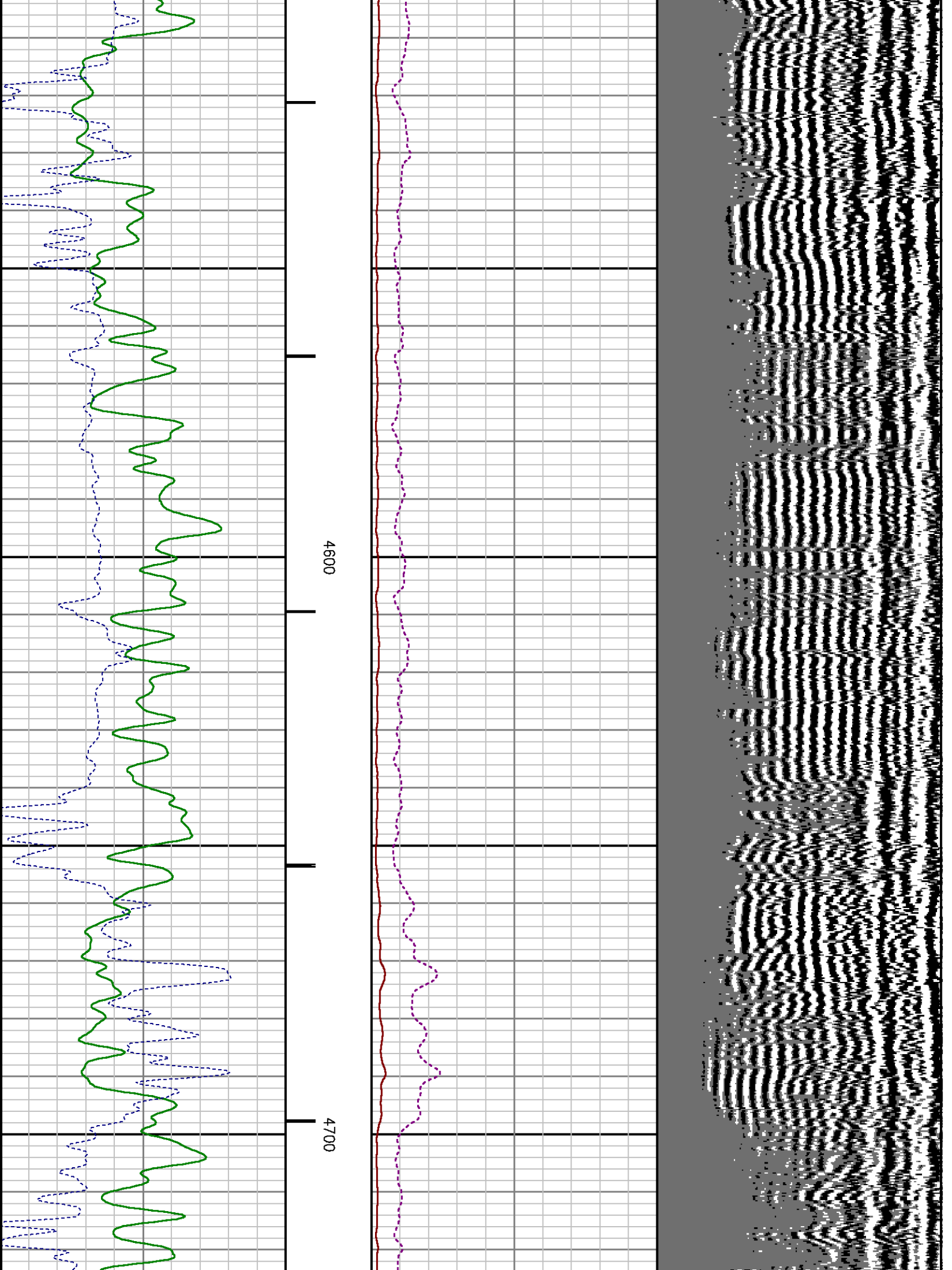


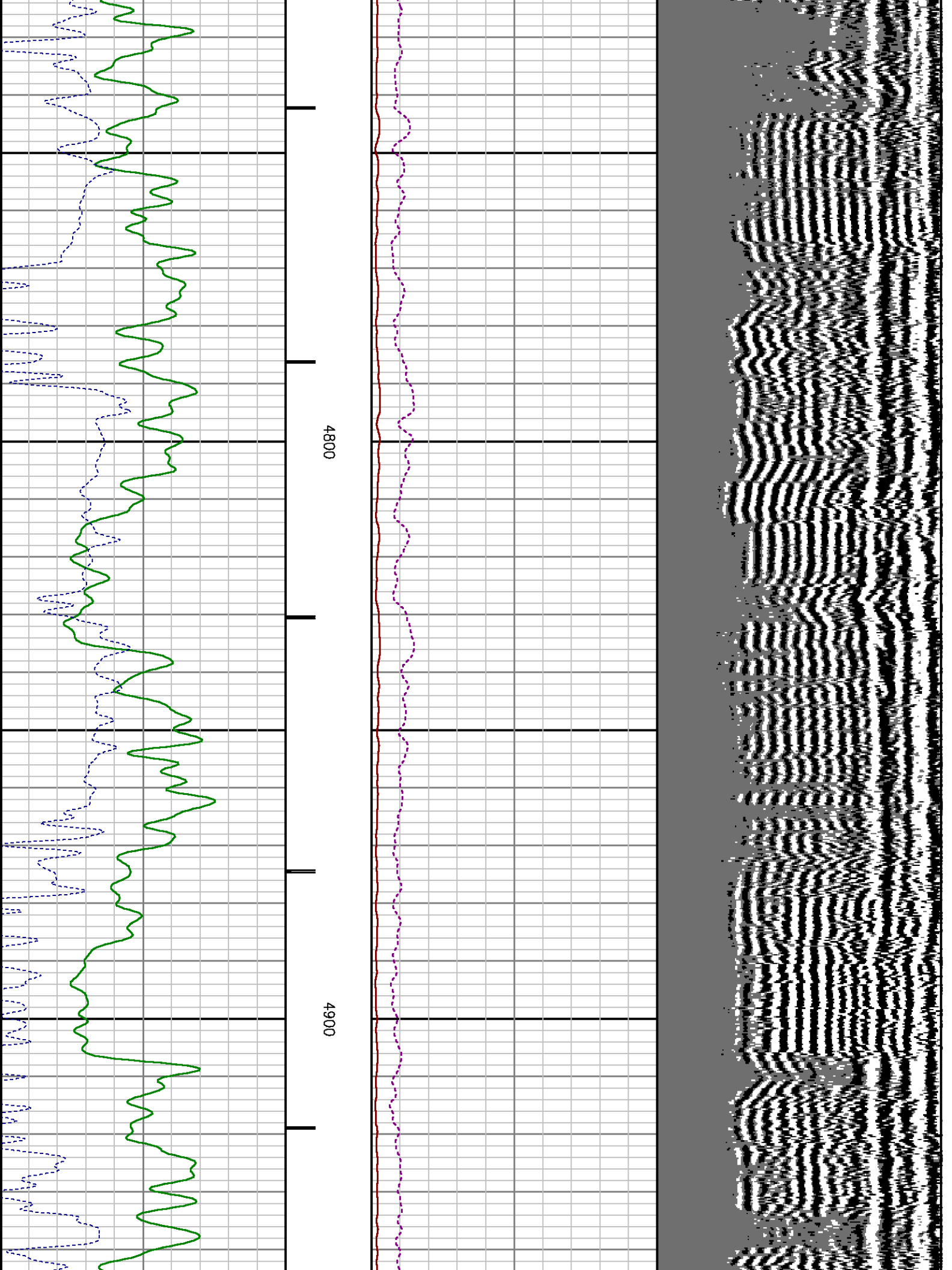


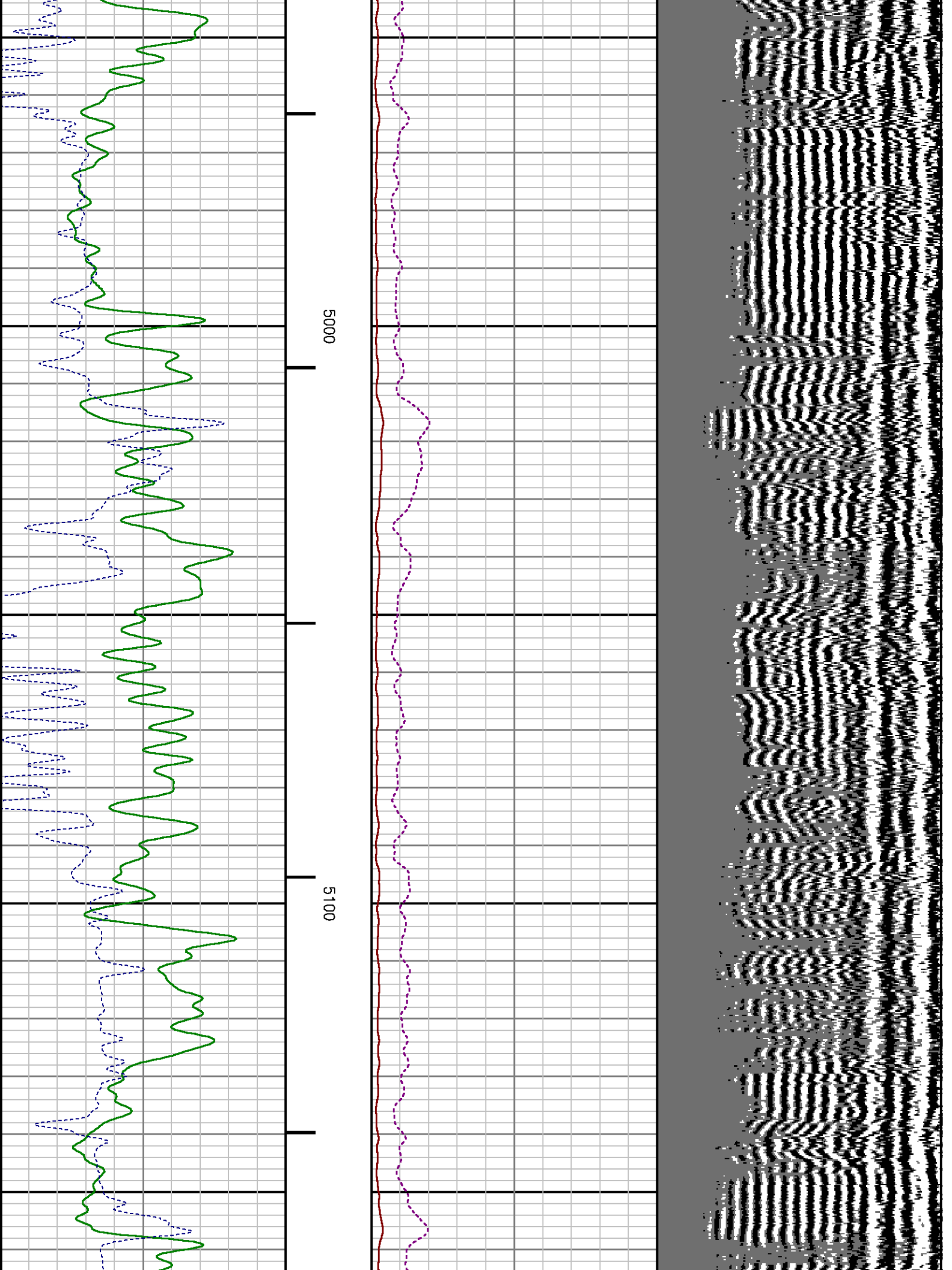


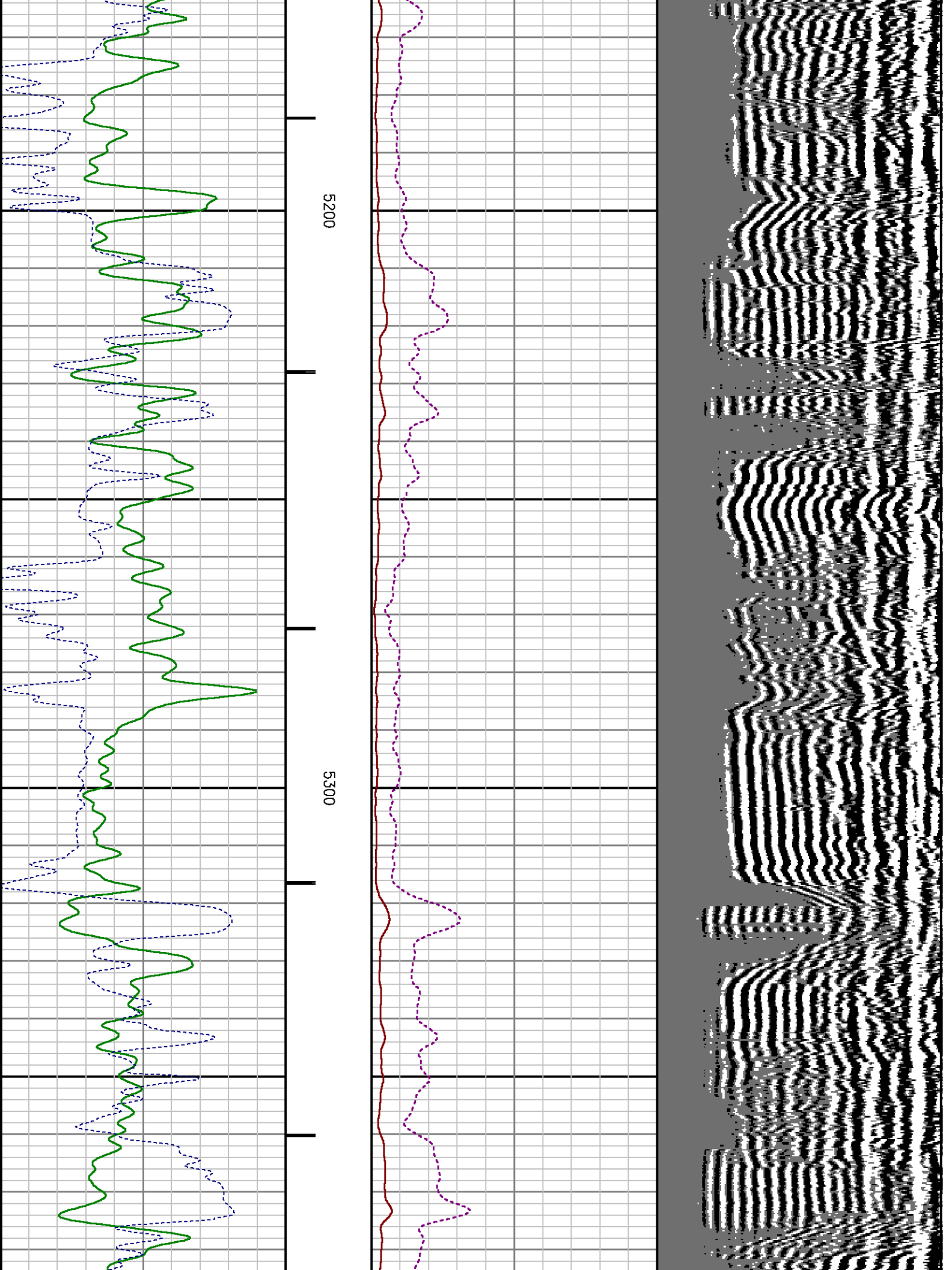


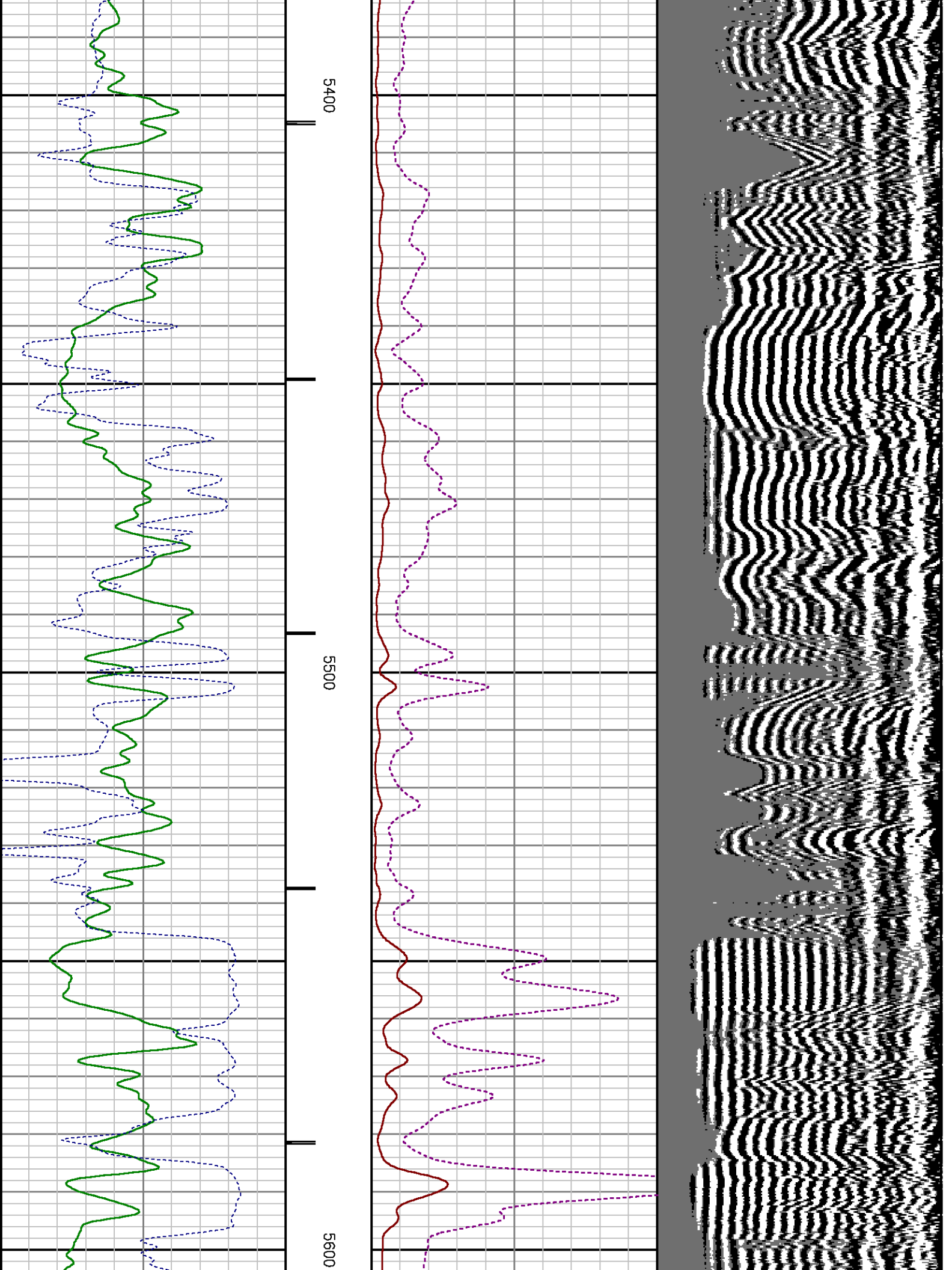


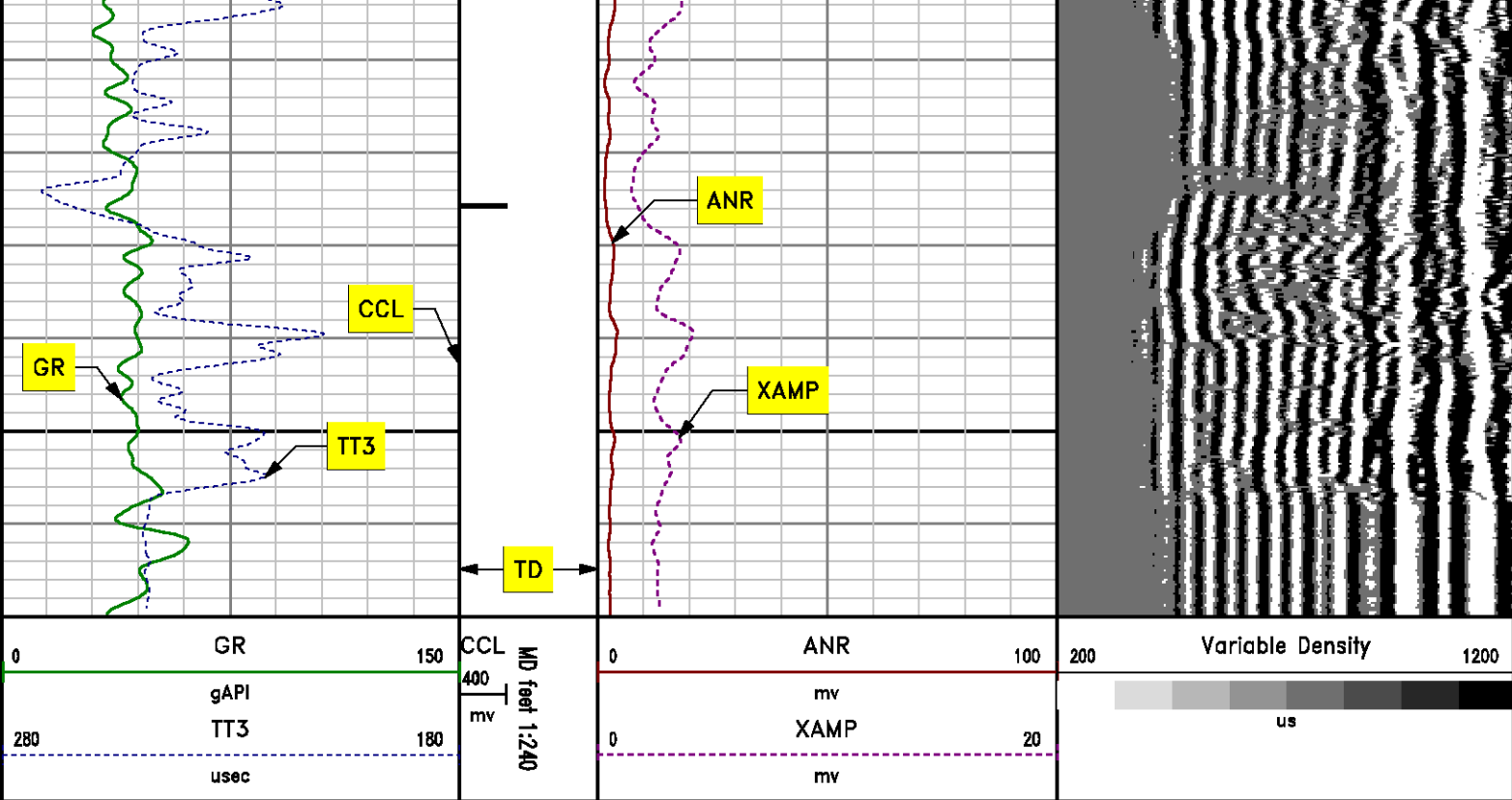












# **MAIN LOG SECONDARY PRESENTATION** **0 PSI**

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	302.334	usec	29.000	5674.000
RAL	Amp Gate Start Near	197.228	usec	29.000	5674.000
RAL	Amp Gate Start Radial	196.389	usec	29.000	5674.000
RAL	Amp Gate Width Far	25.000	usec	29.000	5674.000
RAL	Amp Gate Width Near	25.000	usec	29.000	5674.000
RAL	Amp Gate Width Radial	25.000	usec	29.000	5674.000
RAL	casing od	4.500	inches	29.000	5674.000
RAL	casing wt	11.600	lbm/ft	29.000	5674.000
RAL	FB Start Far	291.900	usec	29.000	5674.000
RAL	FB Start Near	175.391	usec	29.000	5674.000
RAL	FB Start Radial	175.391	usec	29.000	5674.000
RAL	FB Thresh Far	10.000	mv	29.000	5674.000
RAL	FB Thresh Near	4.000	mv	29.000	5674.000
RAL	FB Thresh Radial	4.000	mv	29.000	5674.000

## DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-11.000	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	-10.040	AFAR	SIG	TT5			
1355XA	-5.620	CCL					
1355XA	-1.500	GR					
1355XA	0.000	TEMP					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

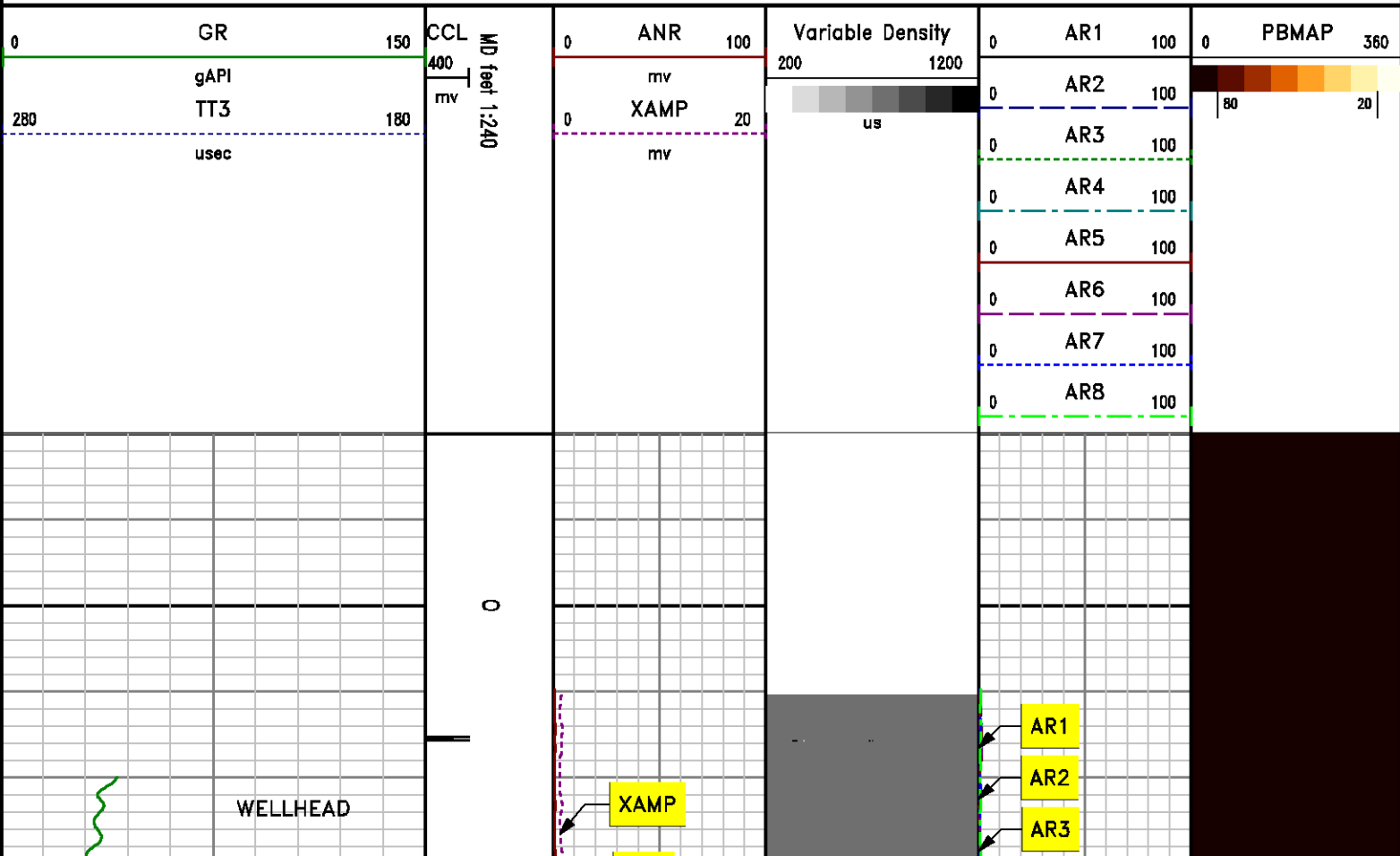
Well : STRAIT SG 441-22

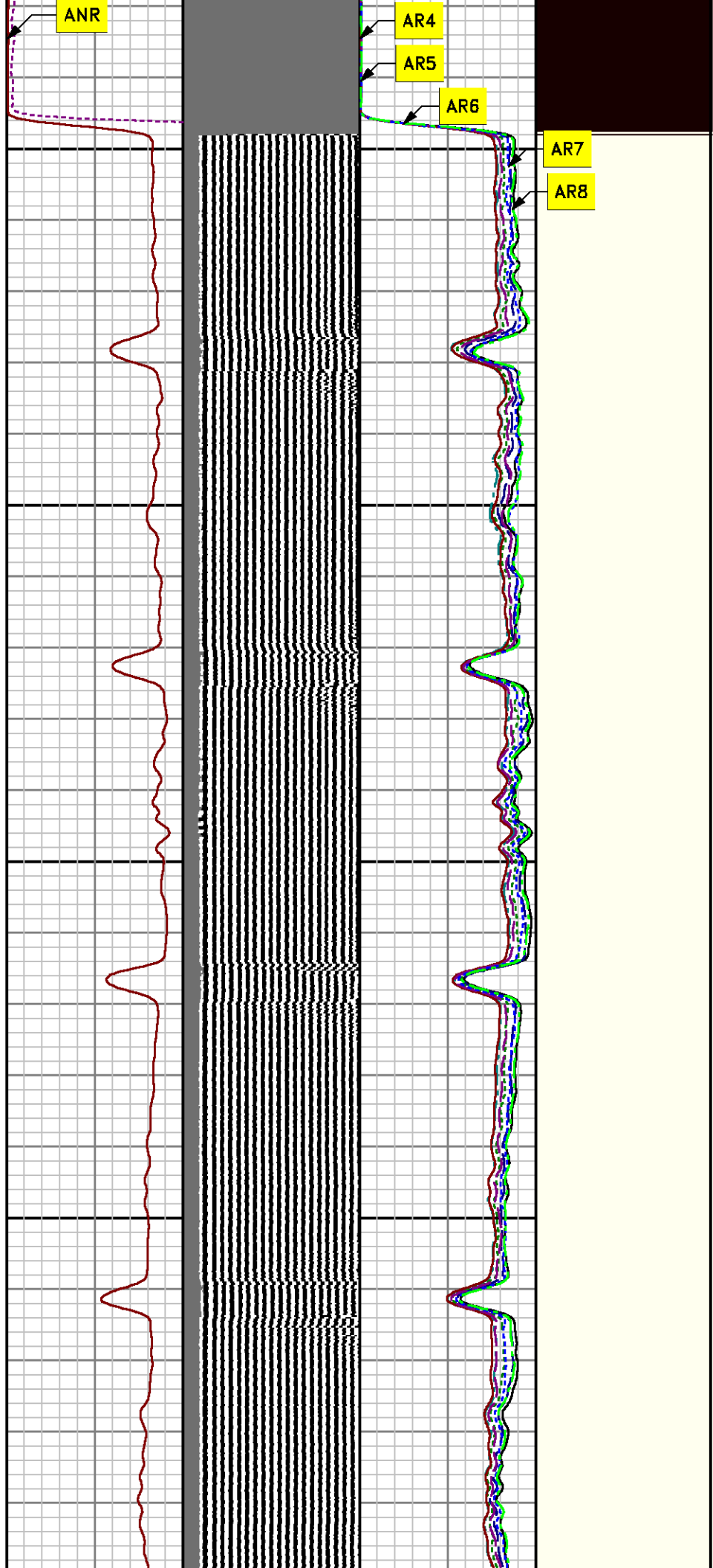
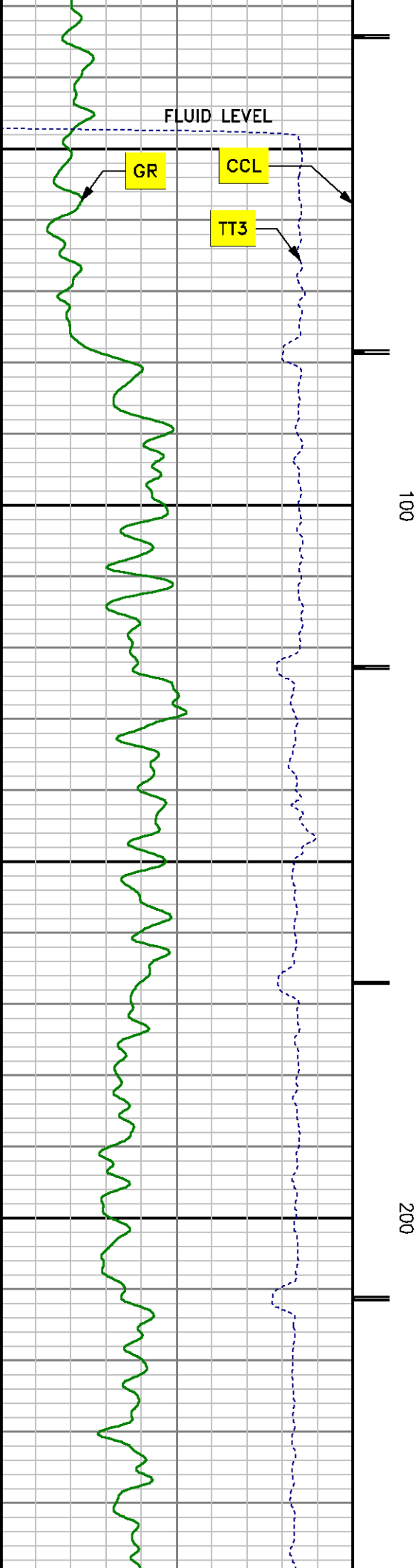
File Name : d:\well\data\441cb1\main.xtf

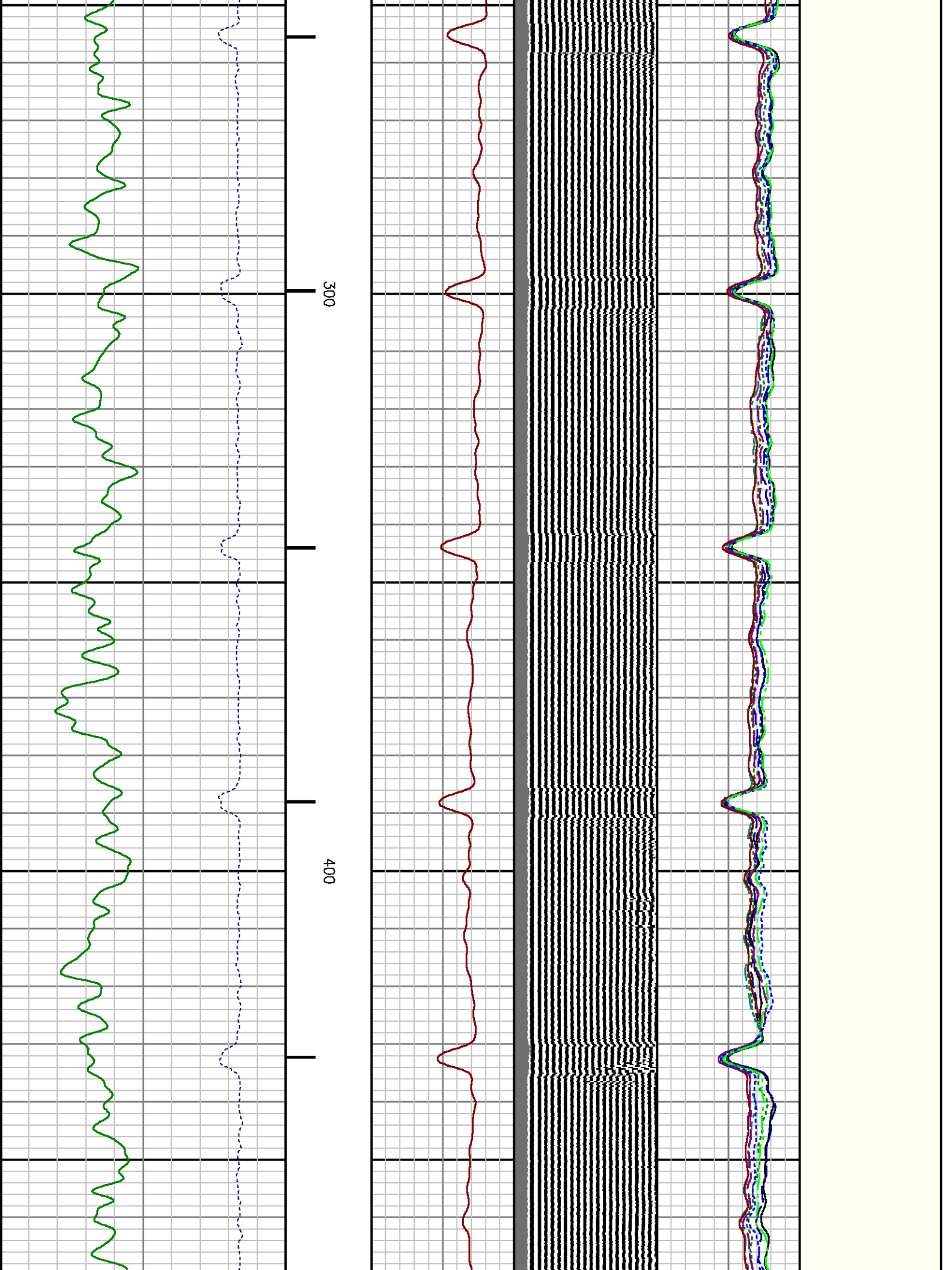
Mode : PlotMgr 5.4.504

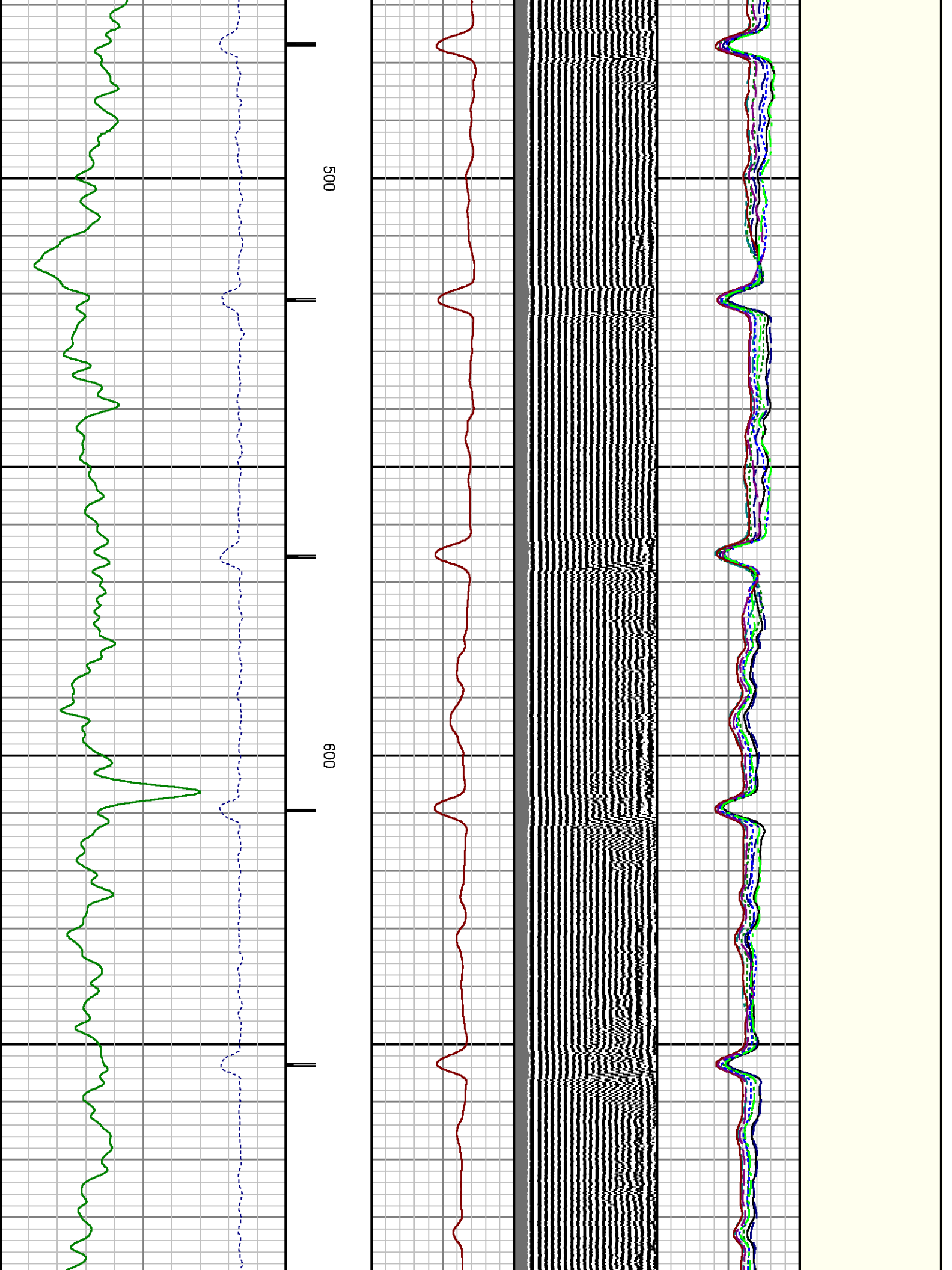
Interval : -20.00 - 5670.00 feet UP

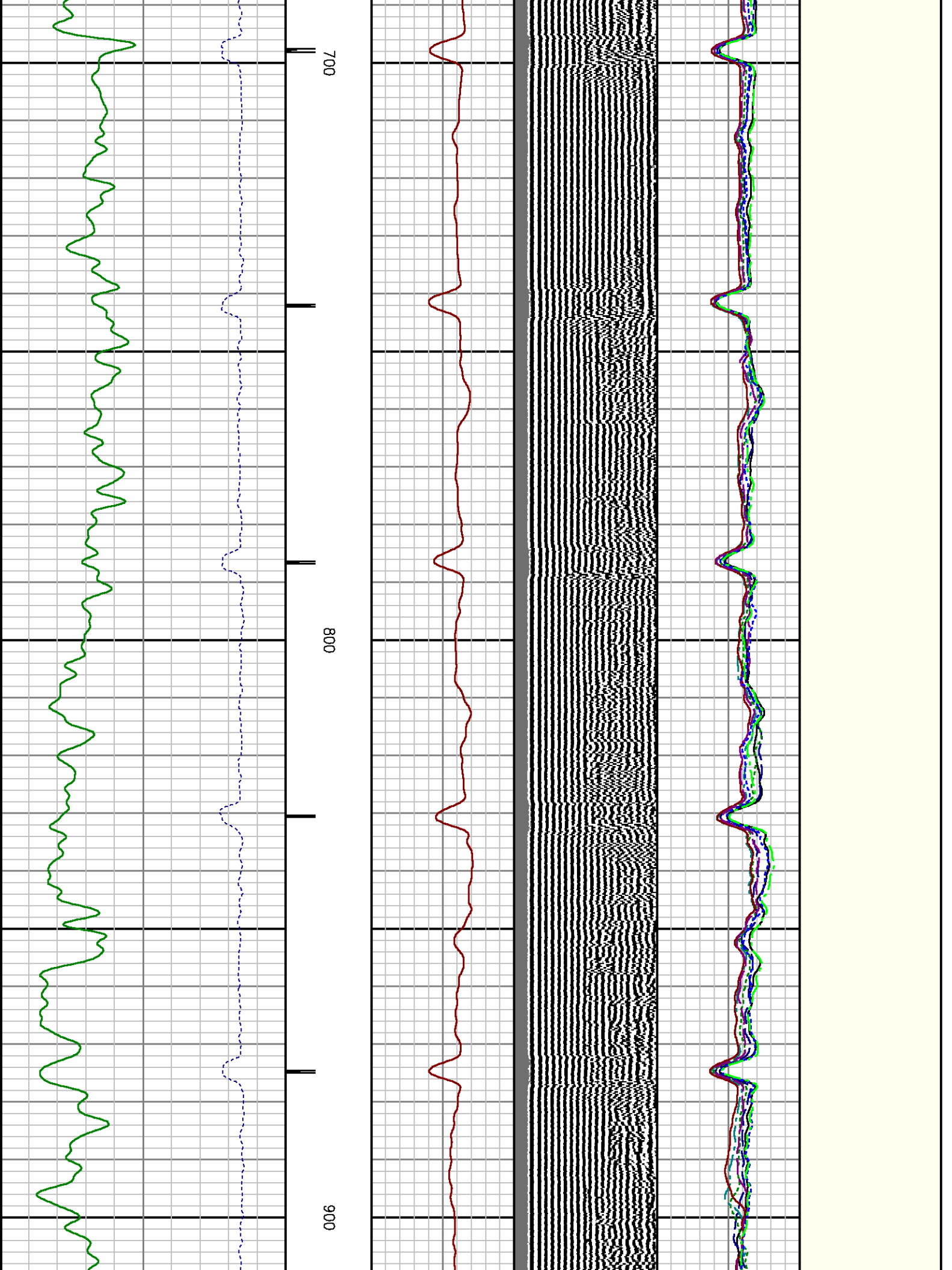
Created : 8/14/2013 3:33:59 PM

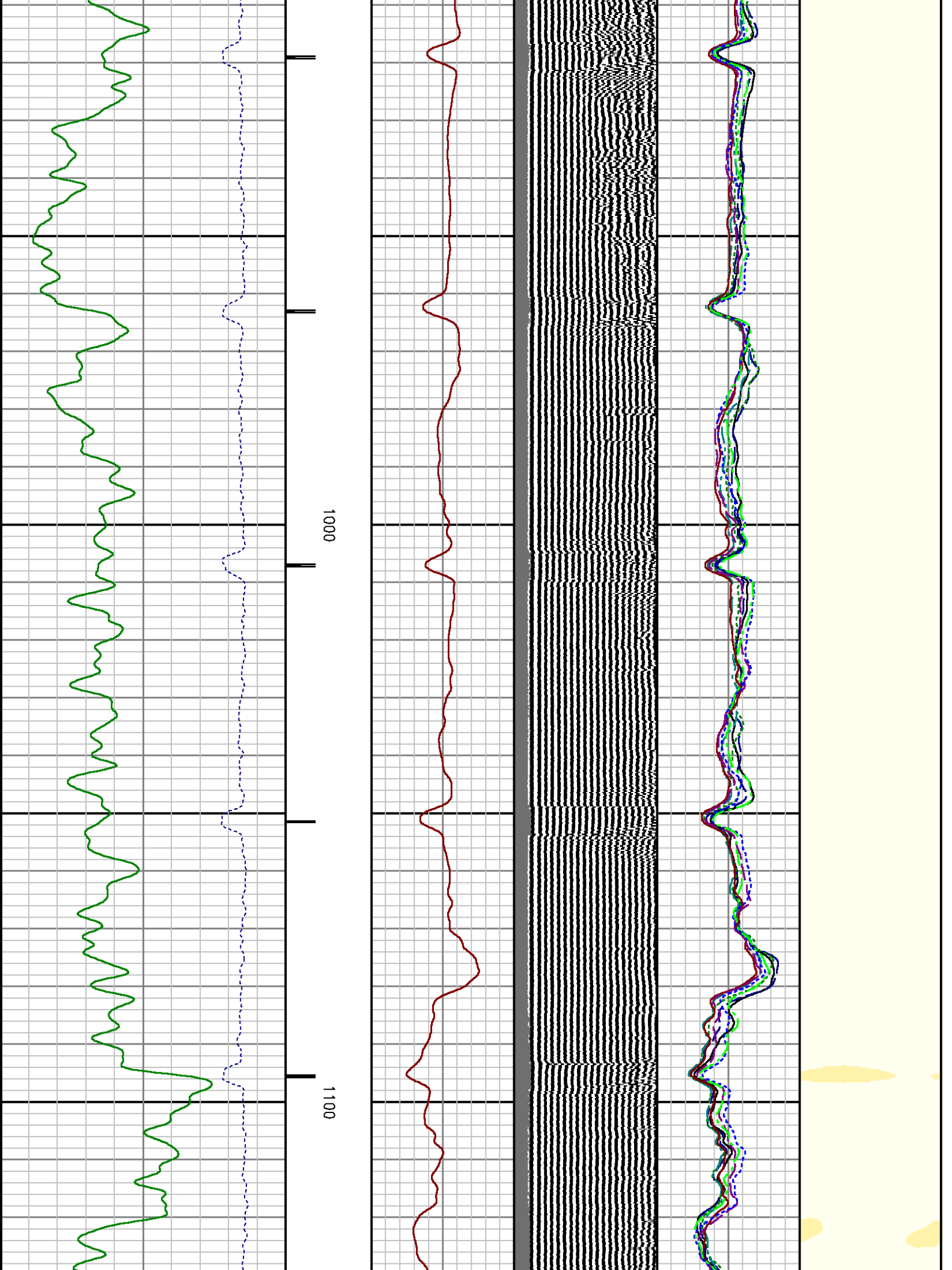


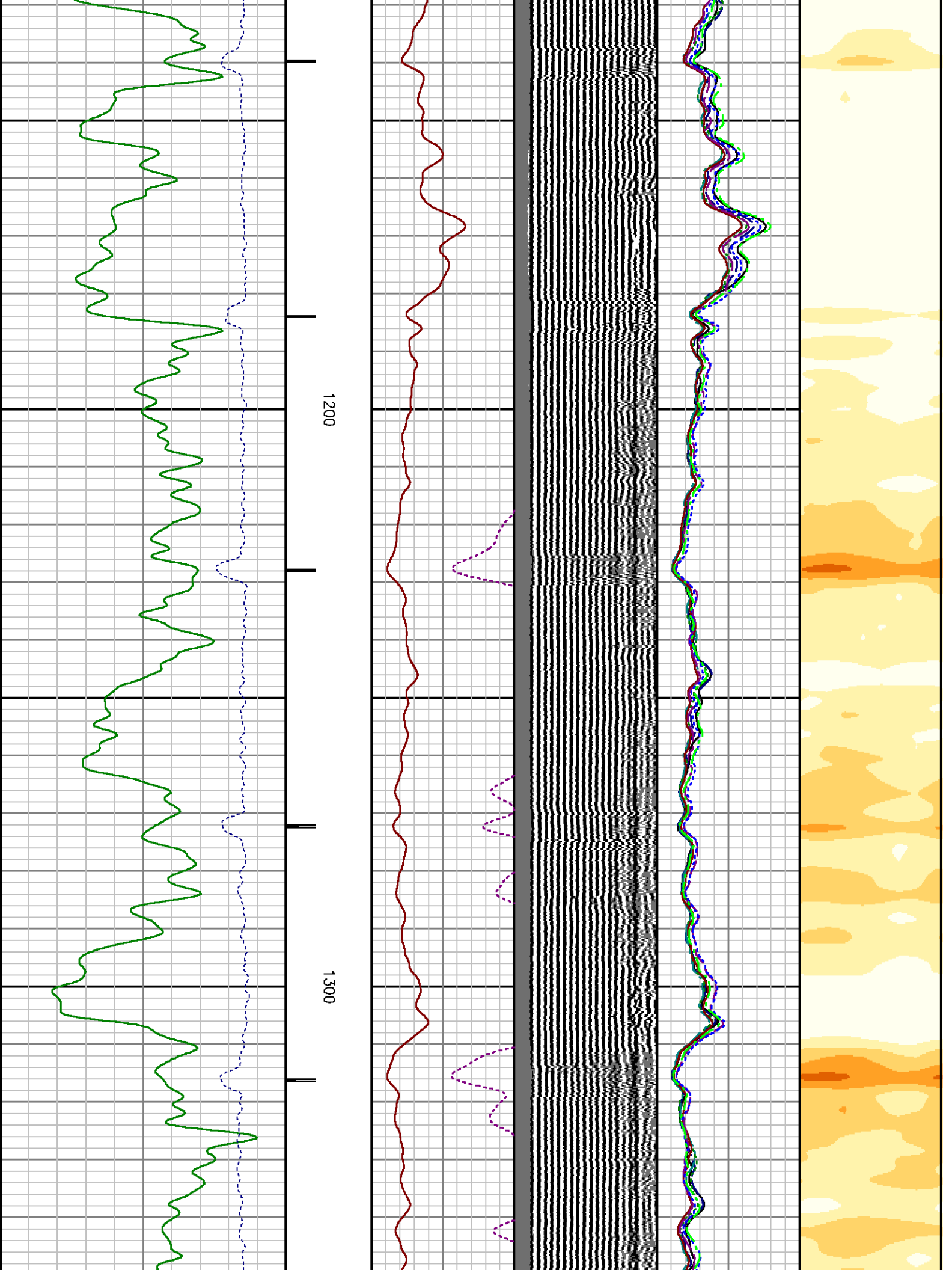


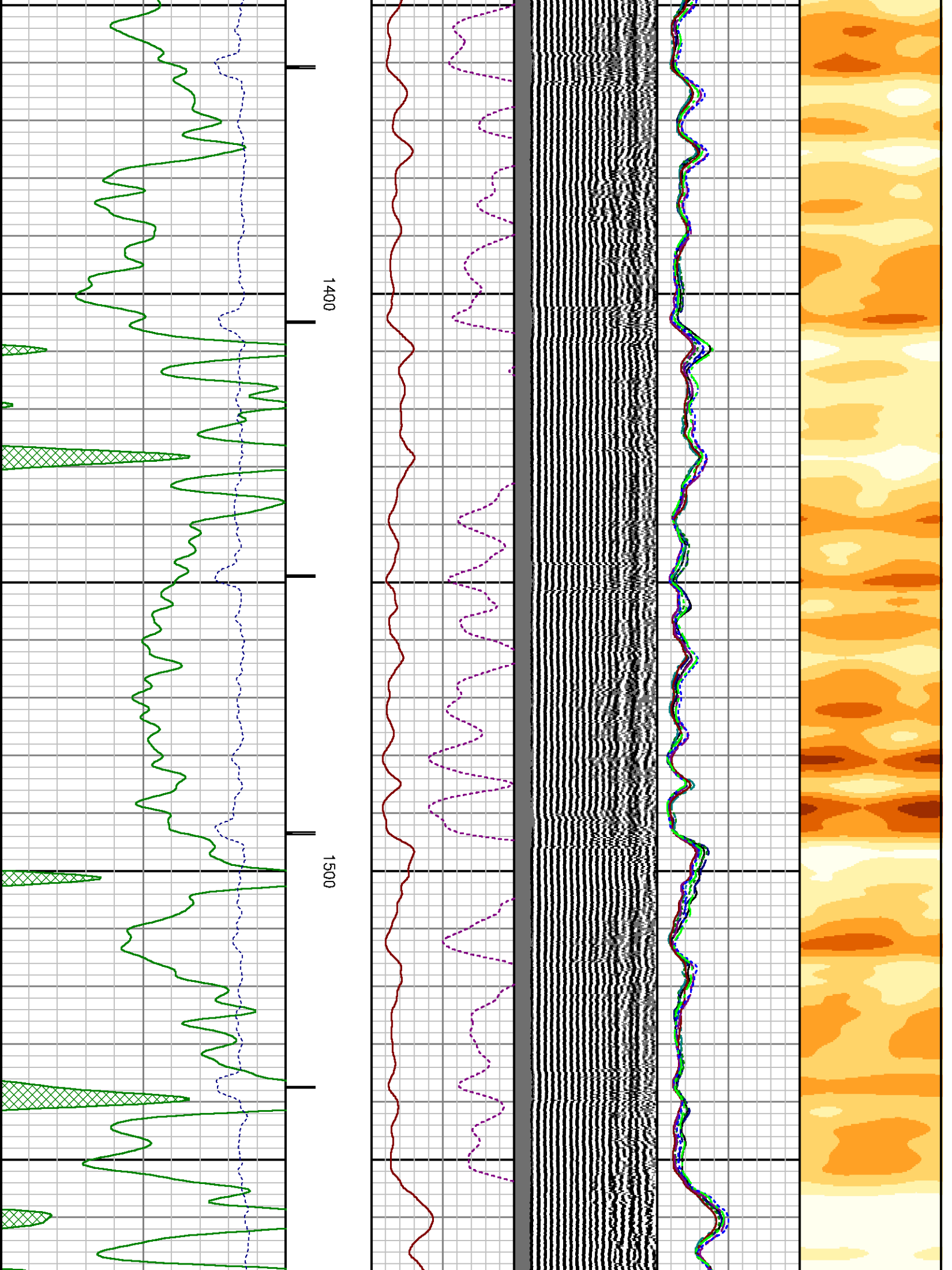


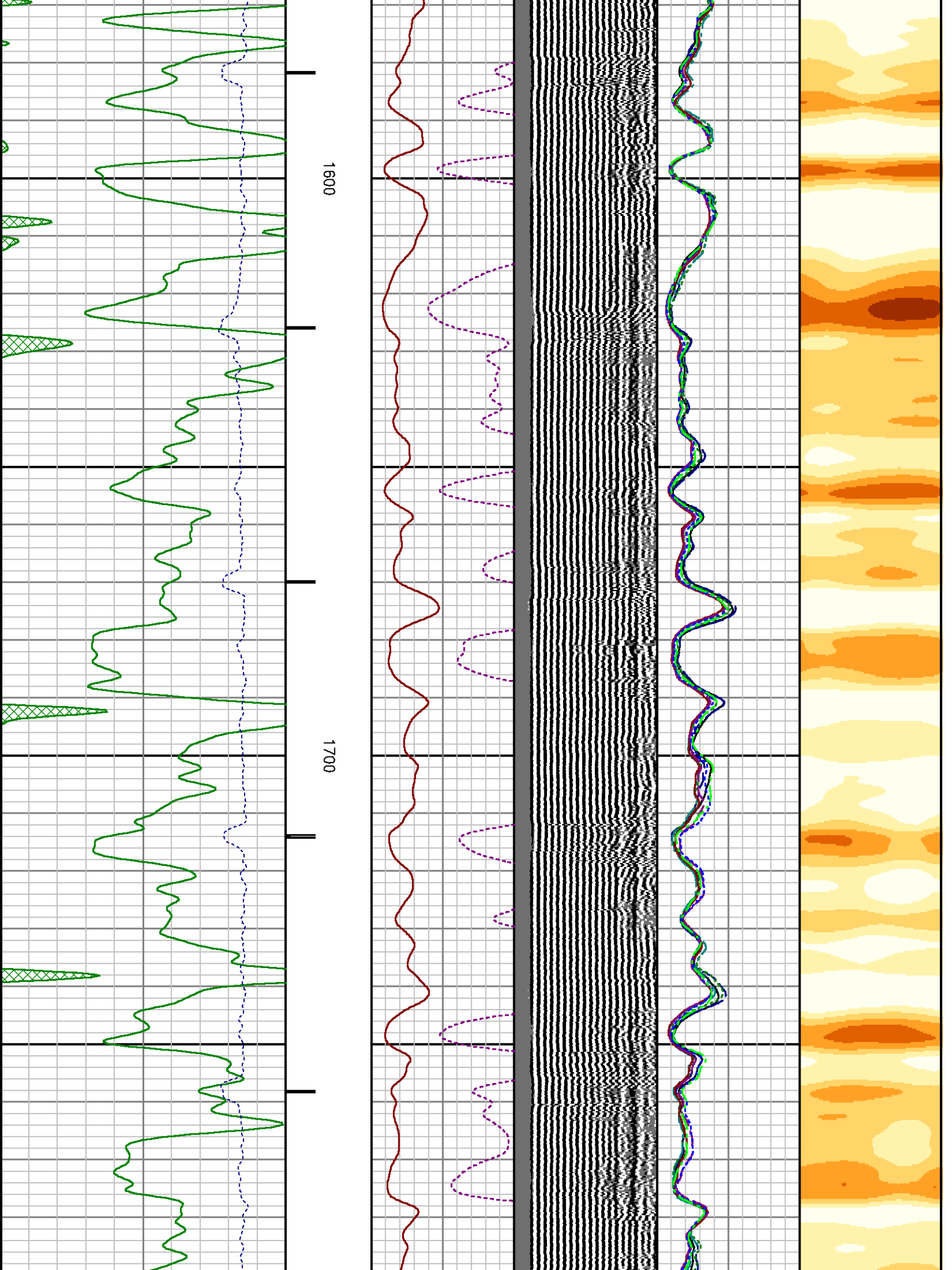


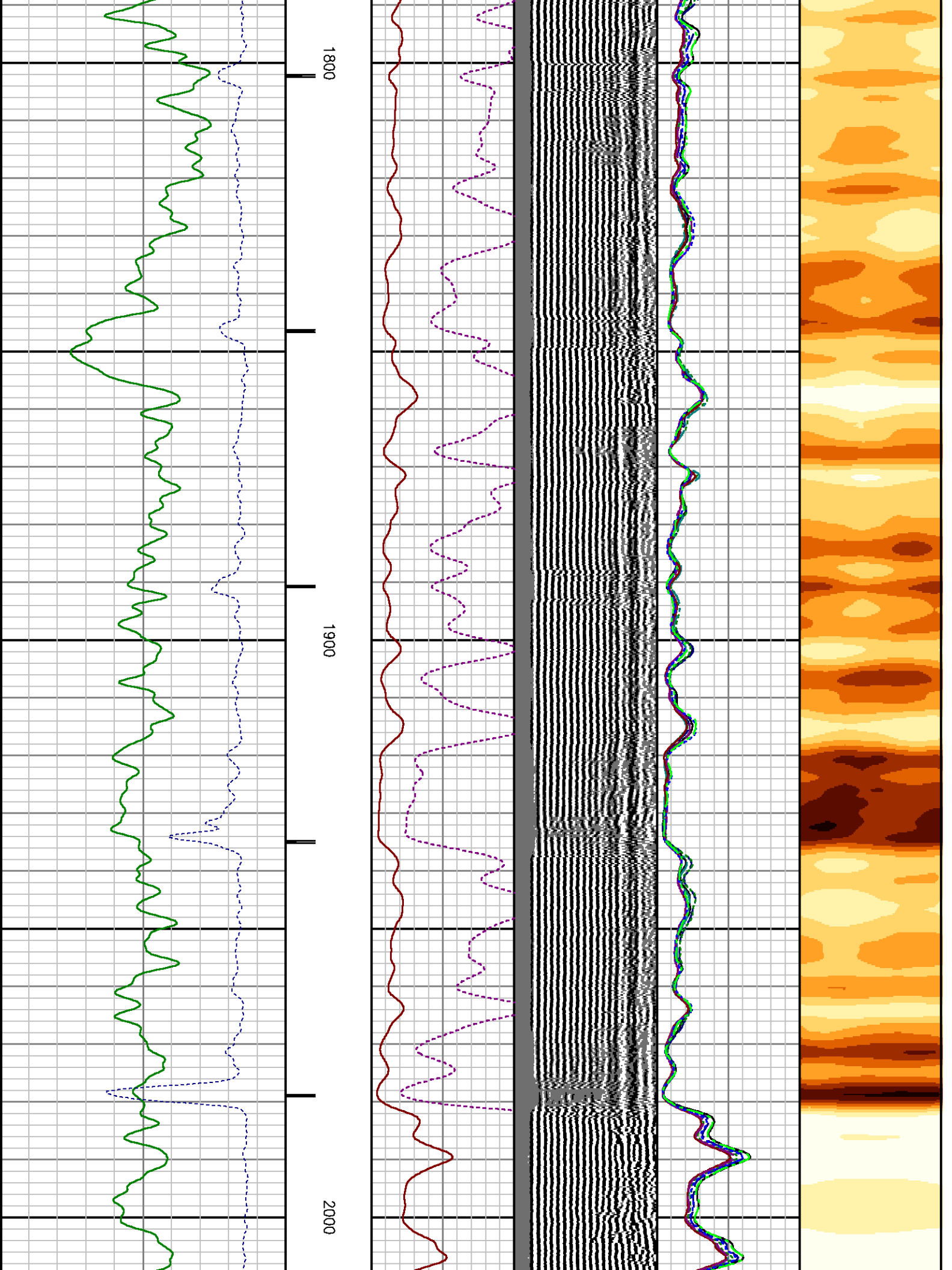


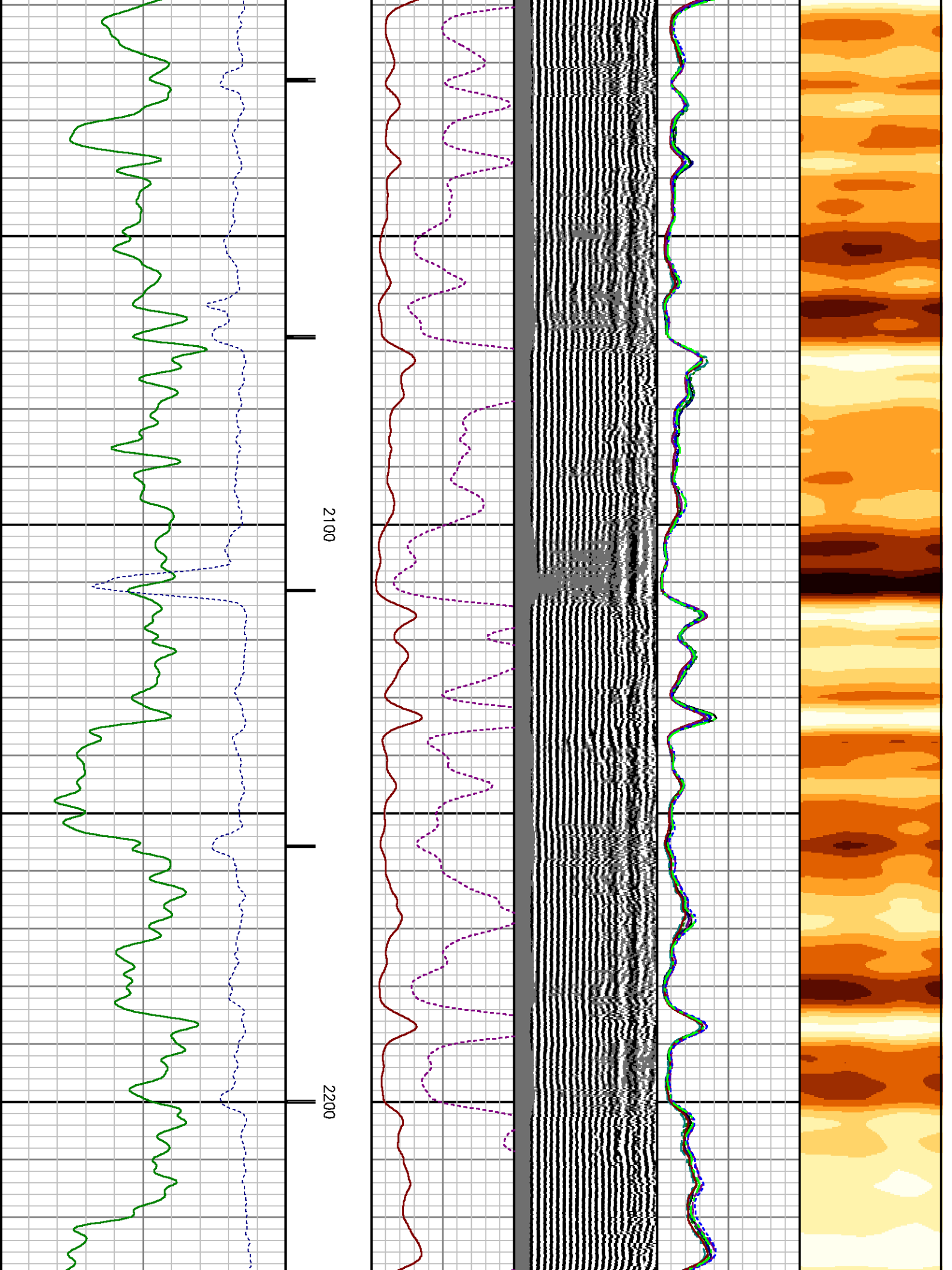


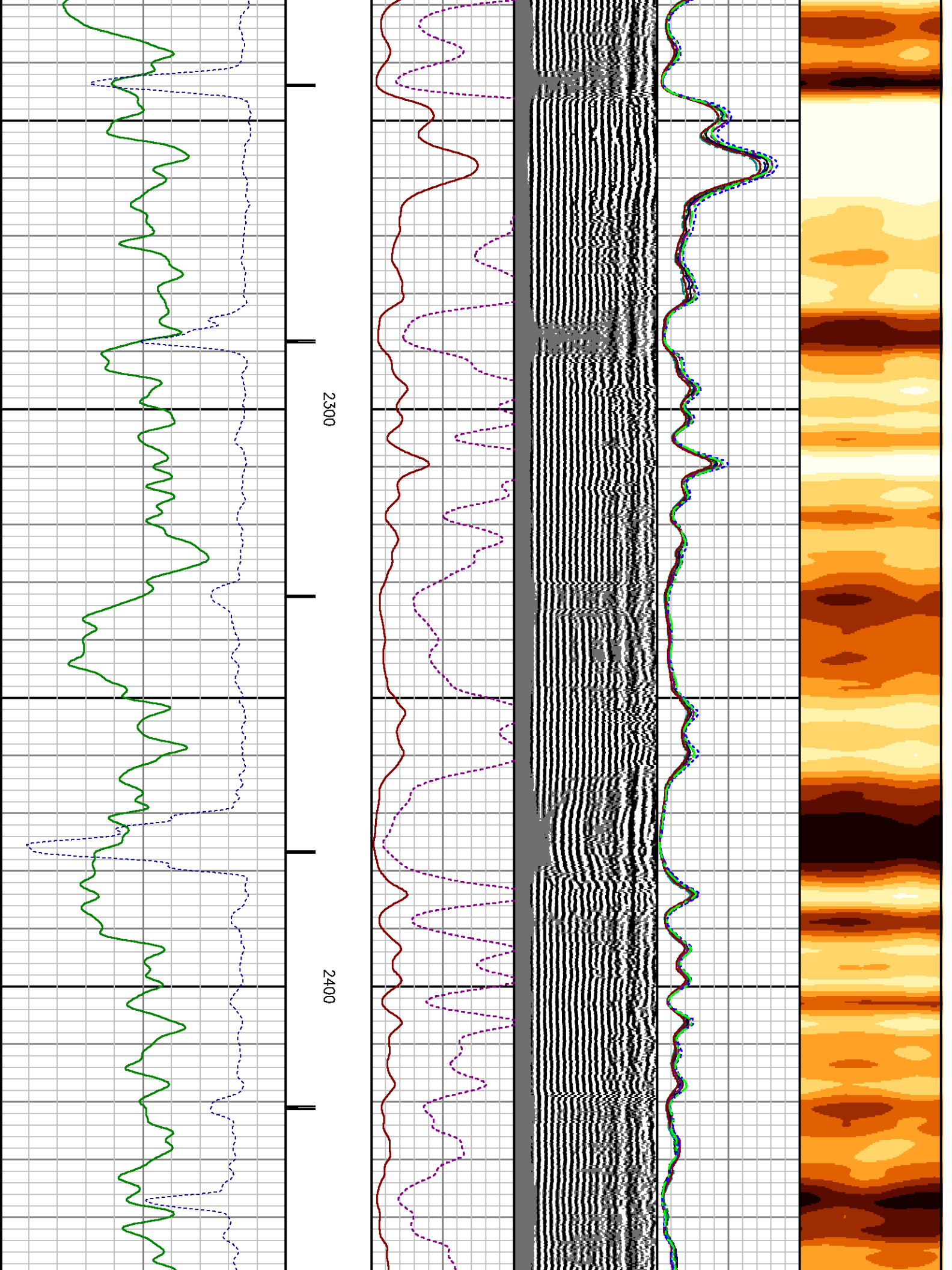


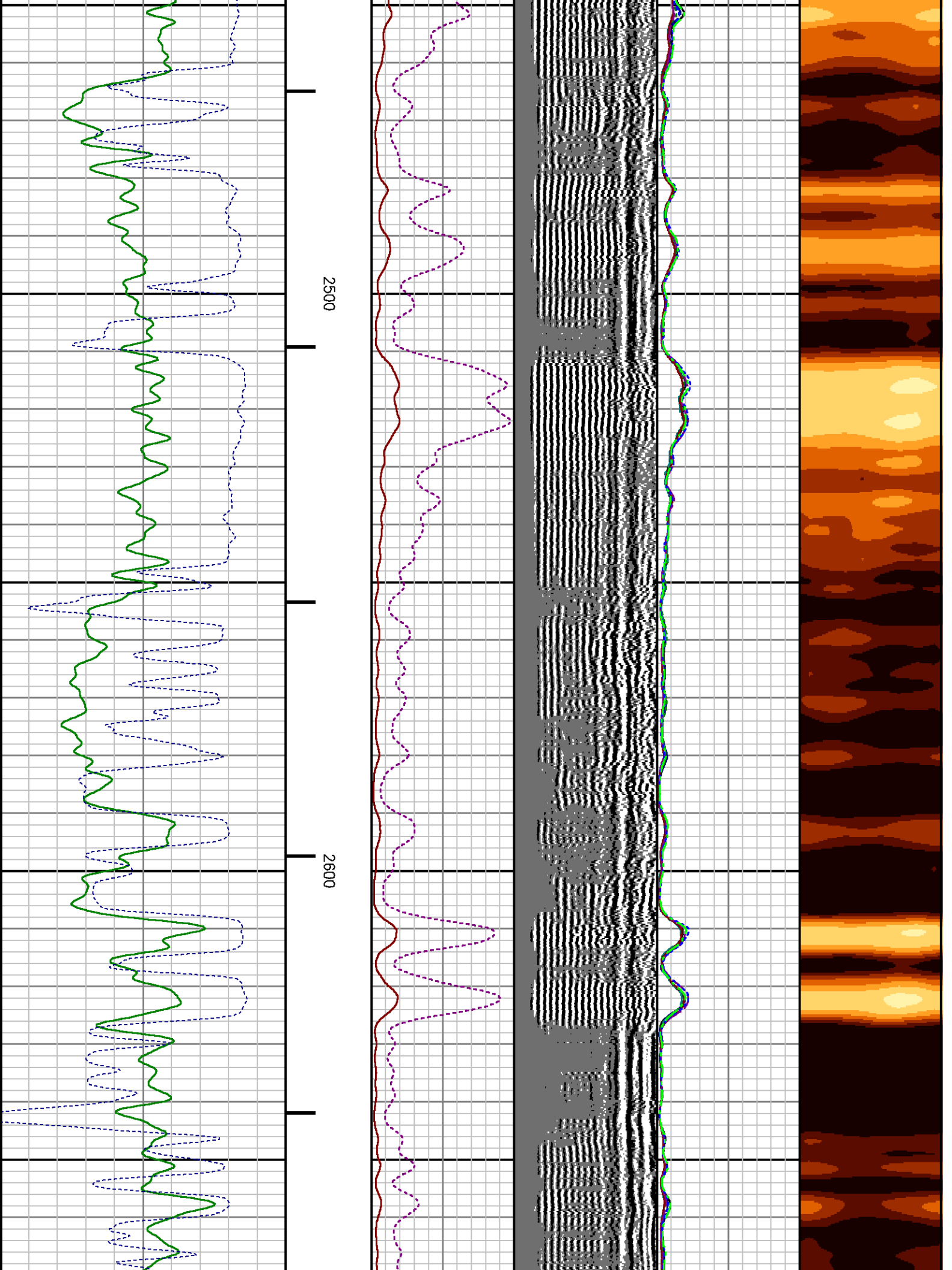


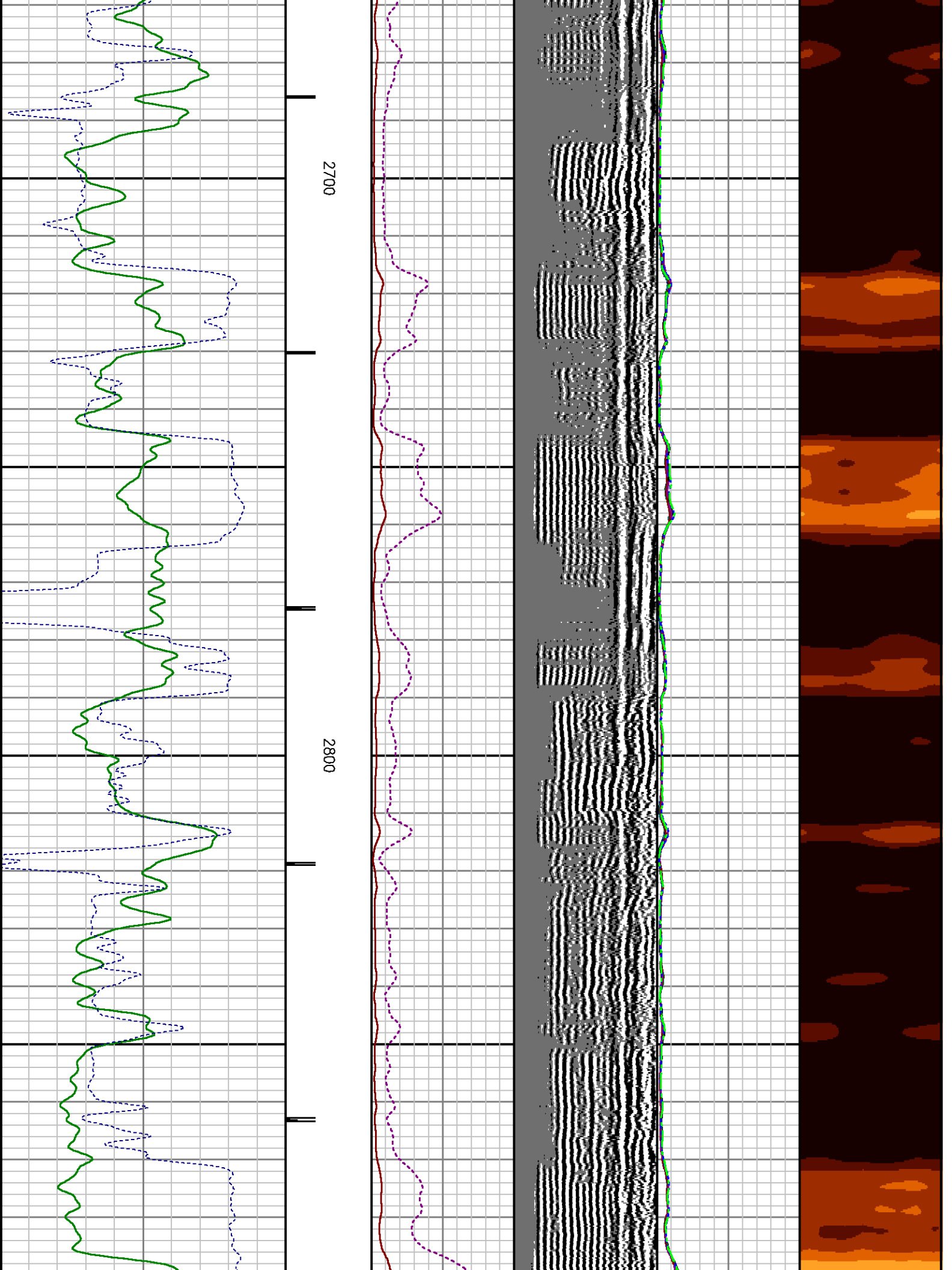


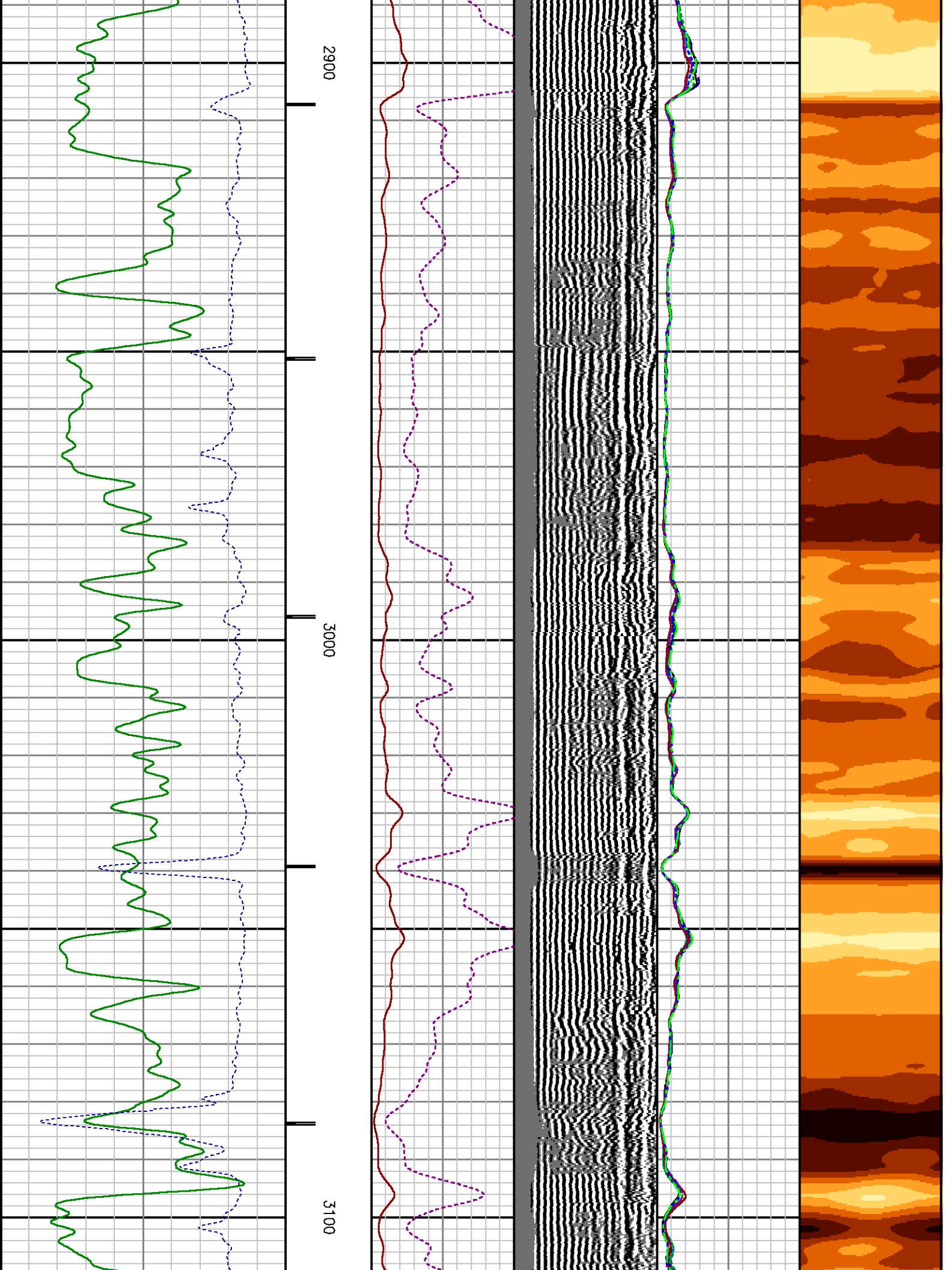


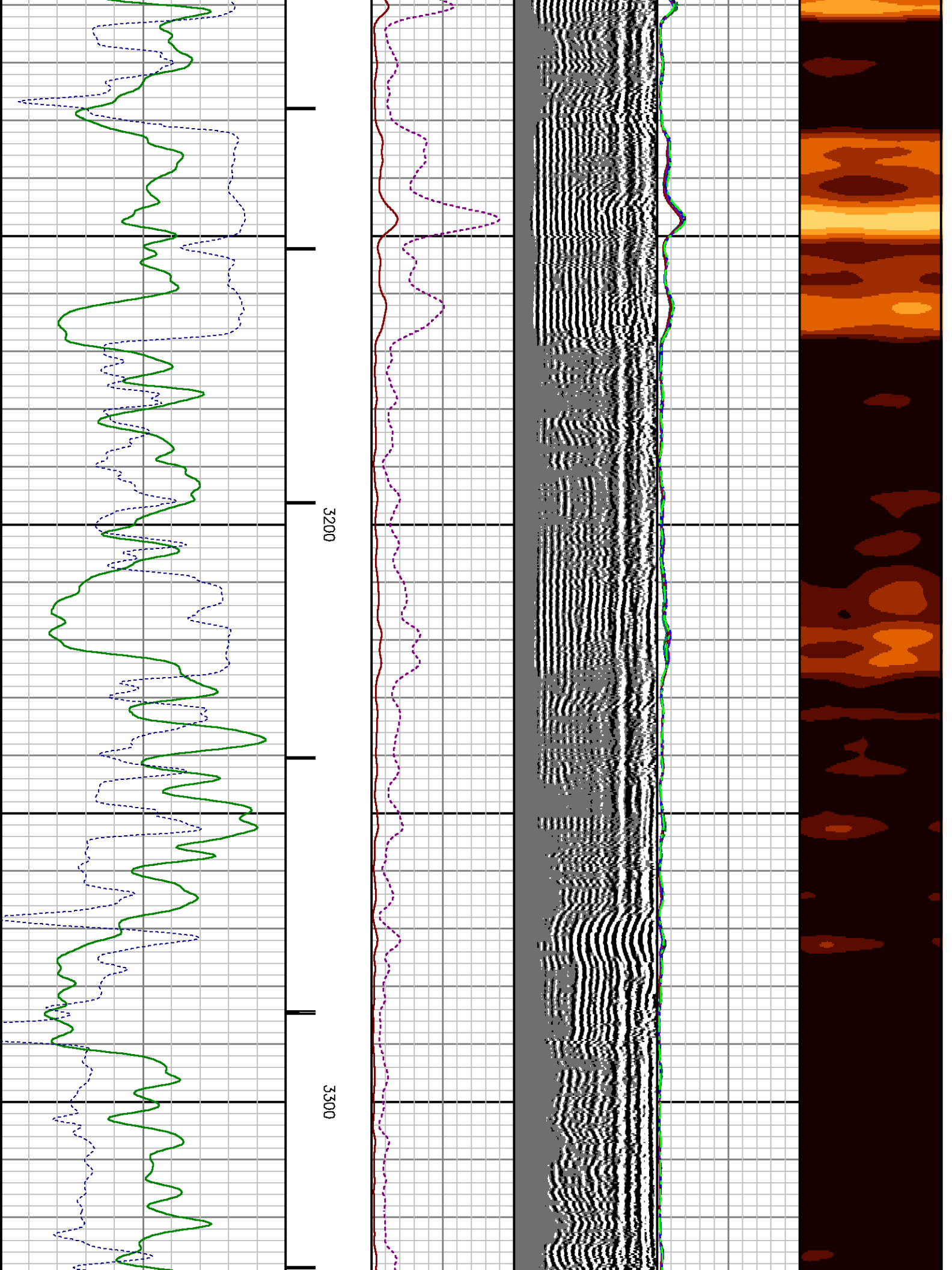


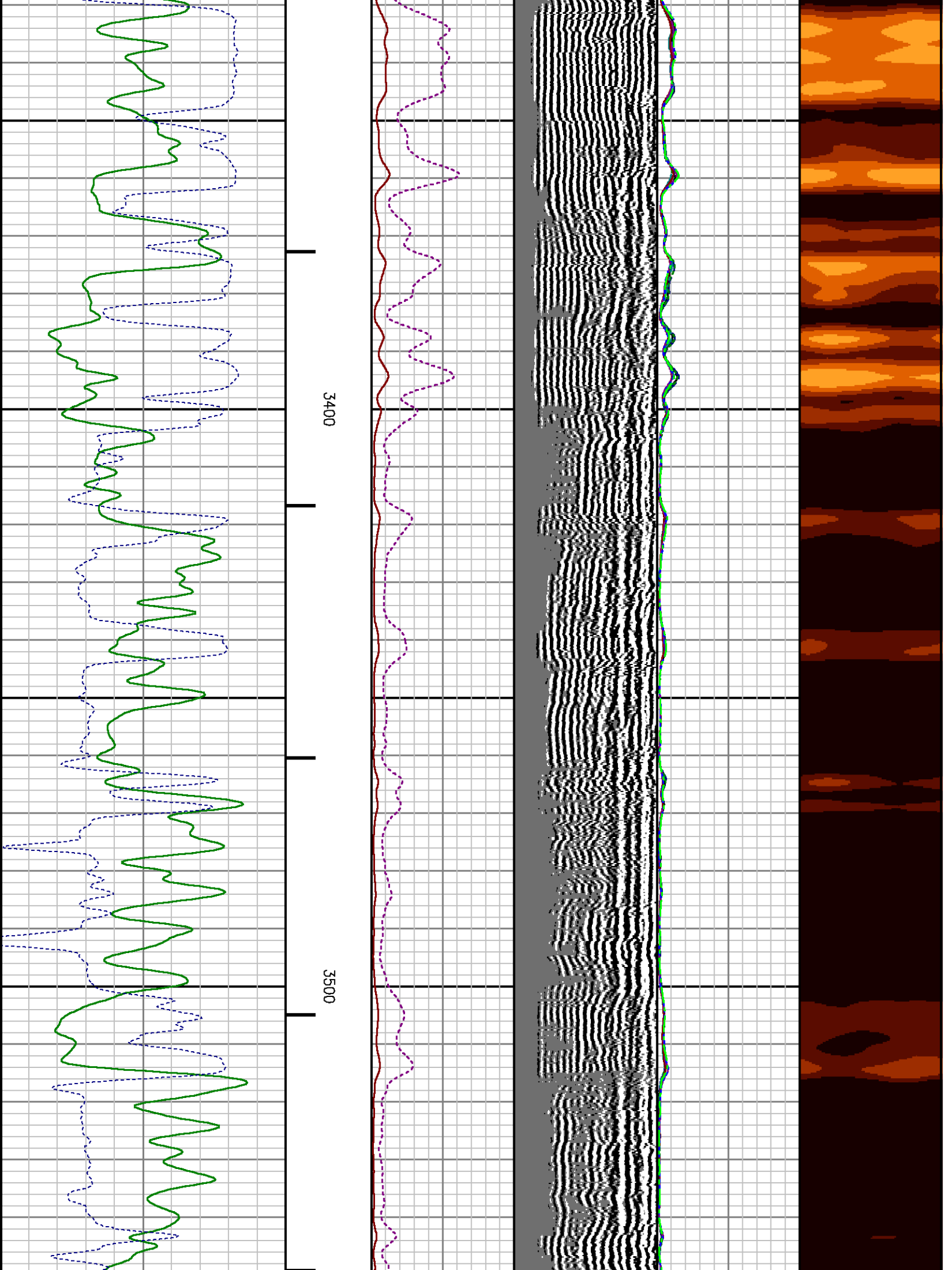


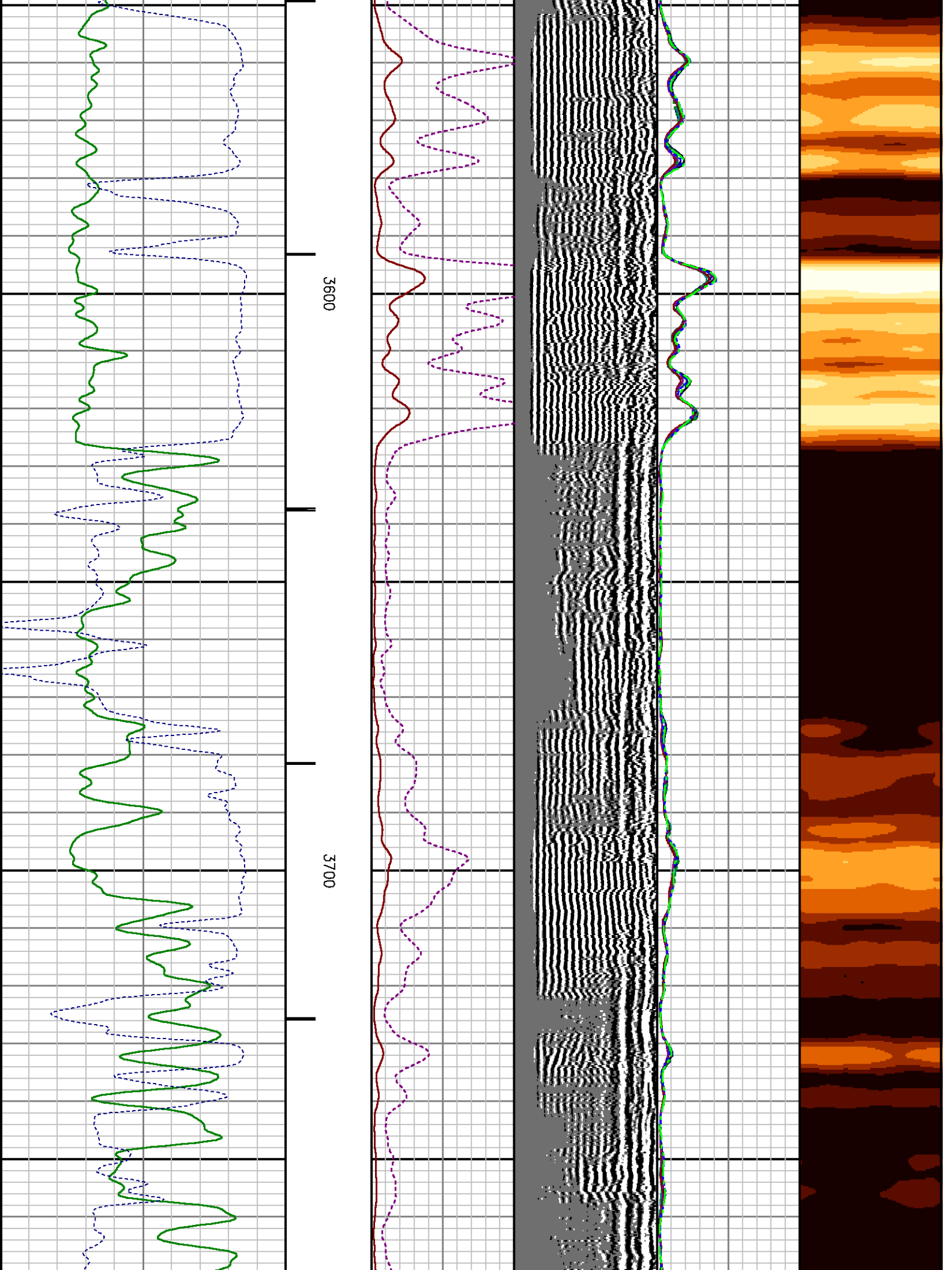


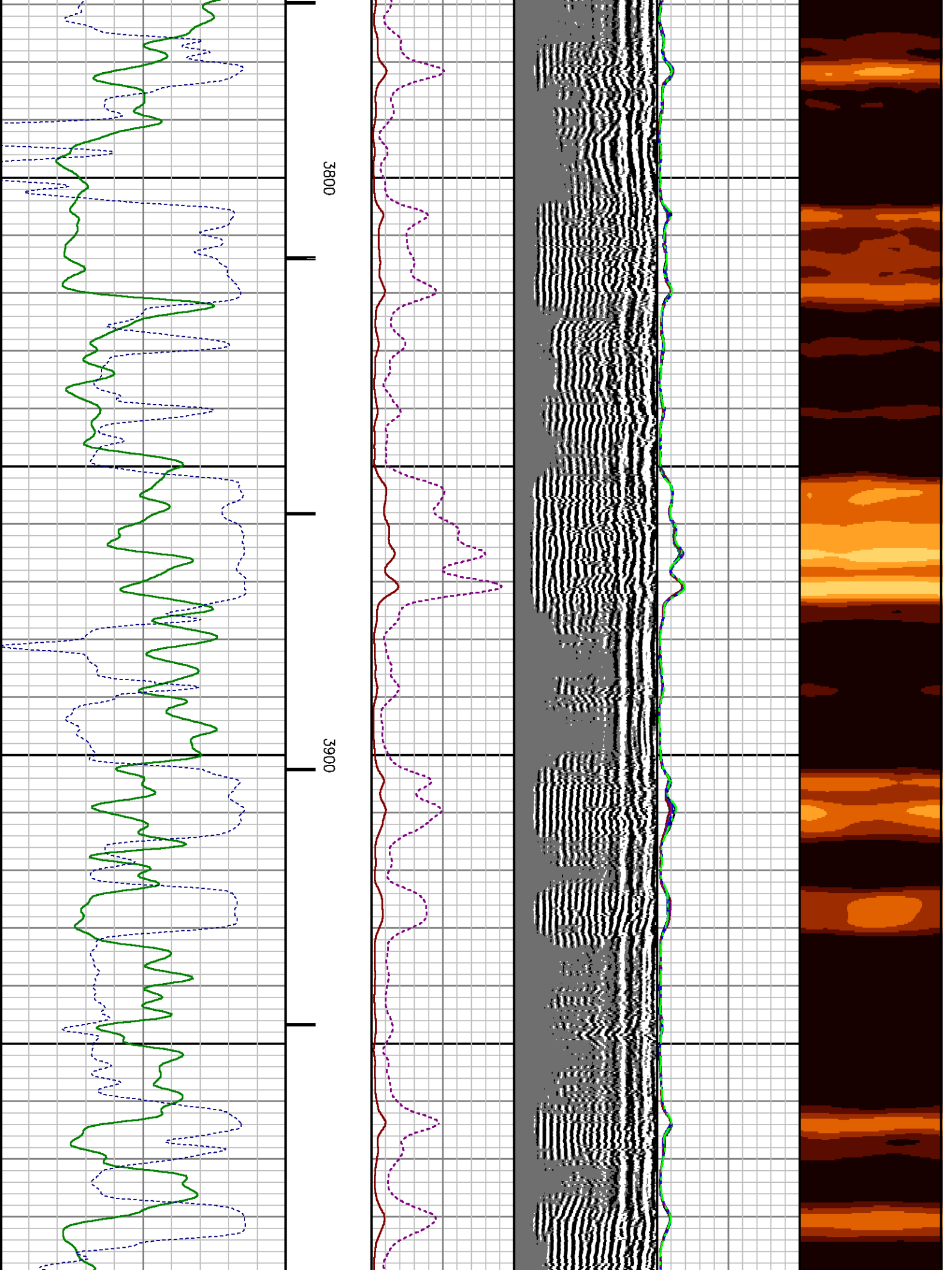


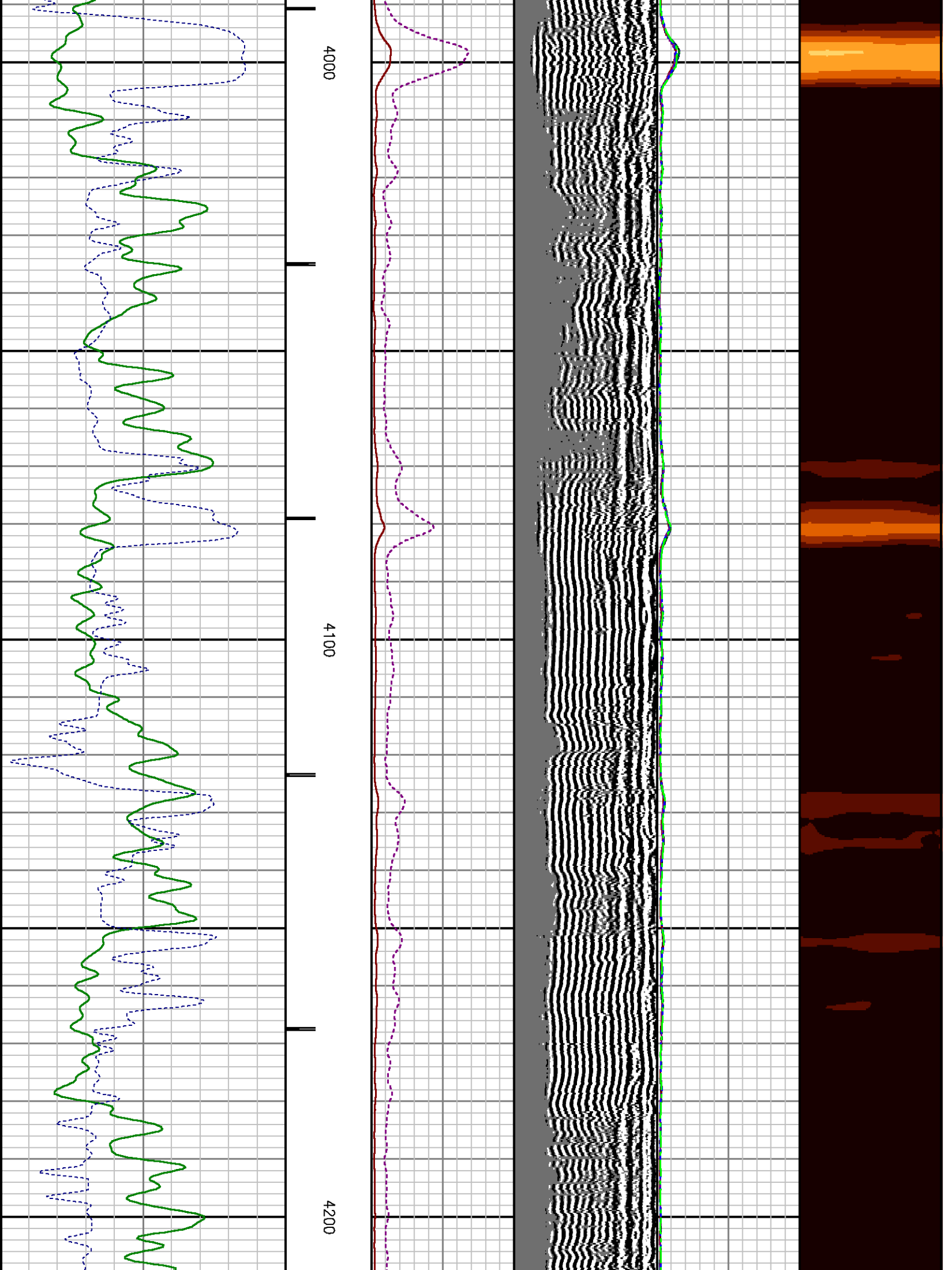


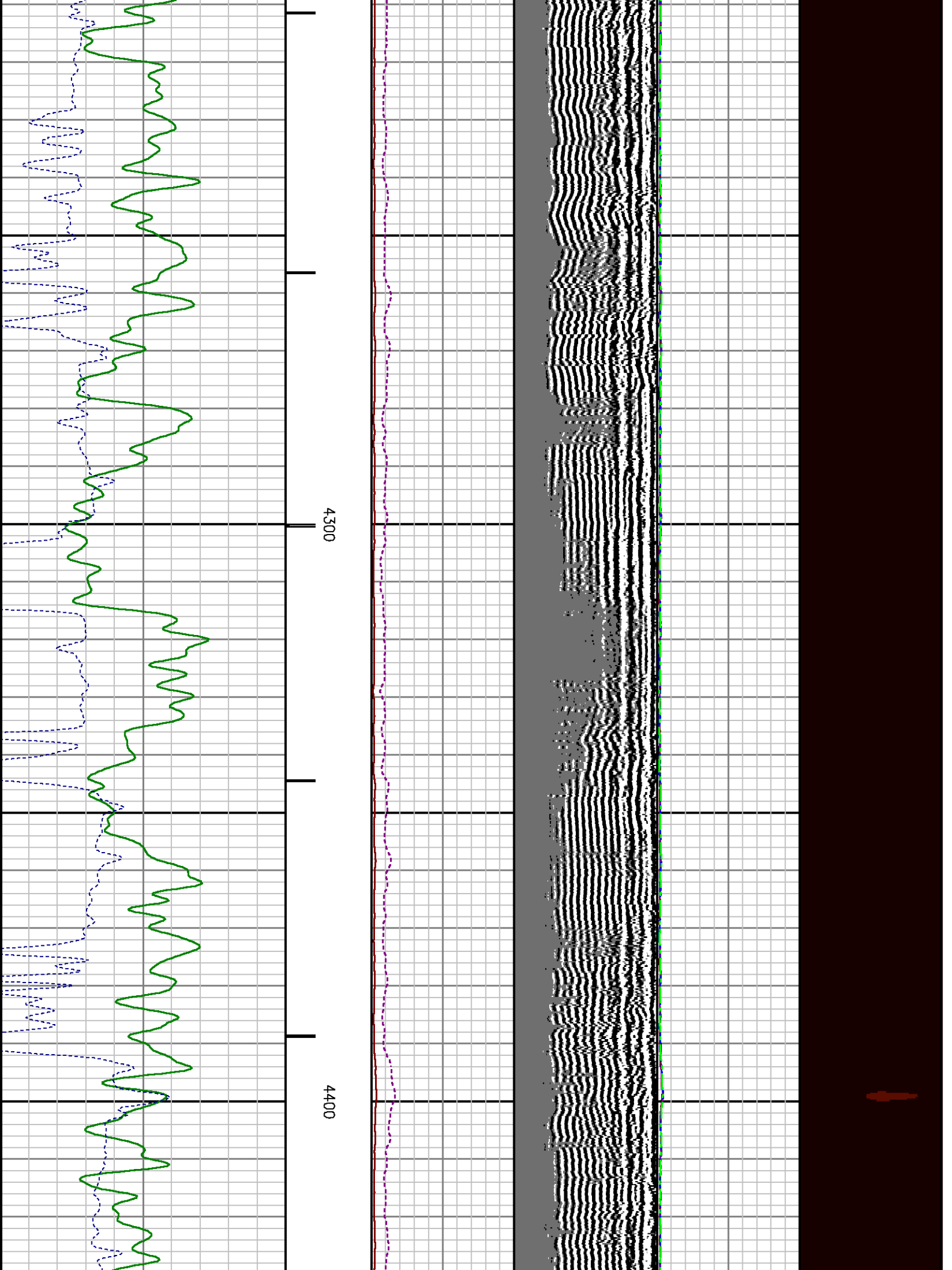


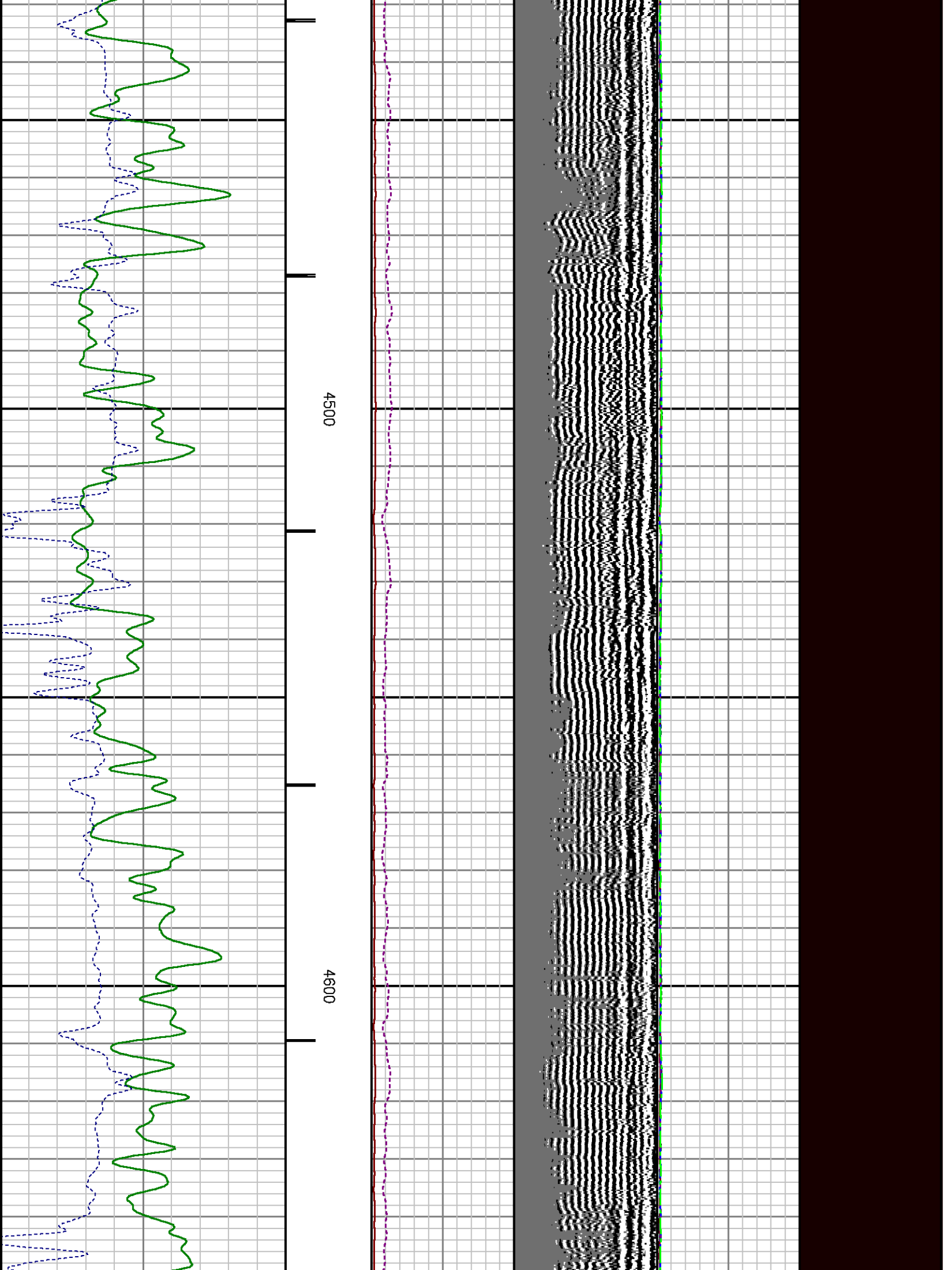


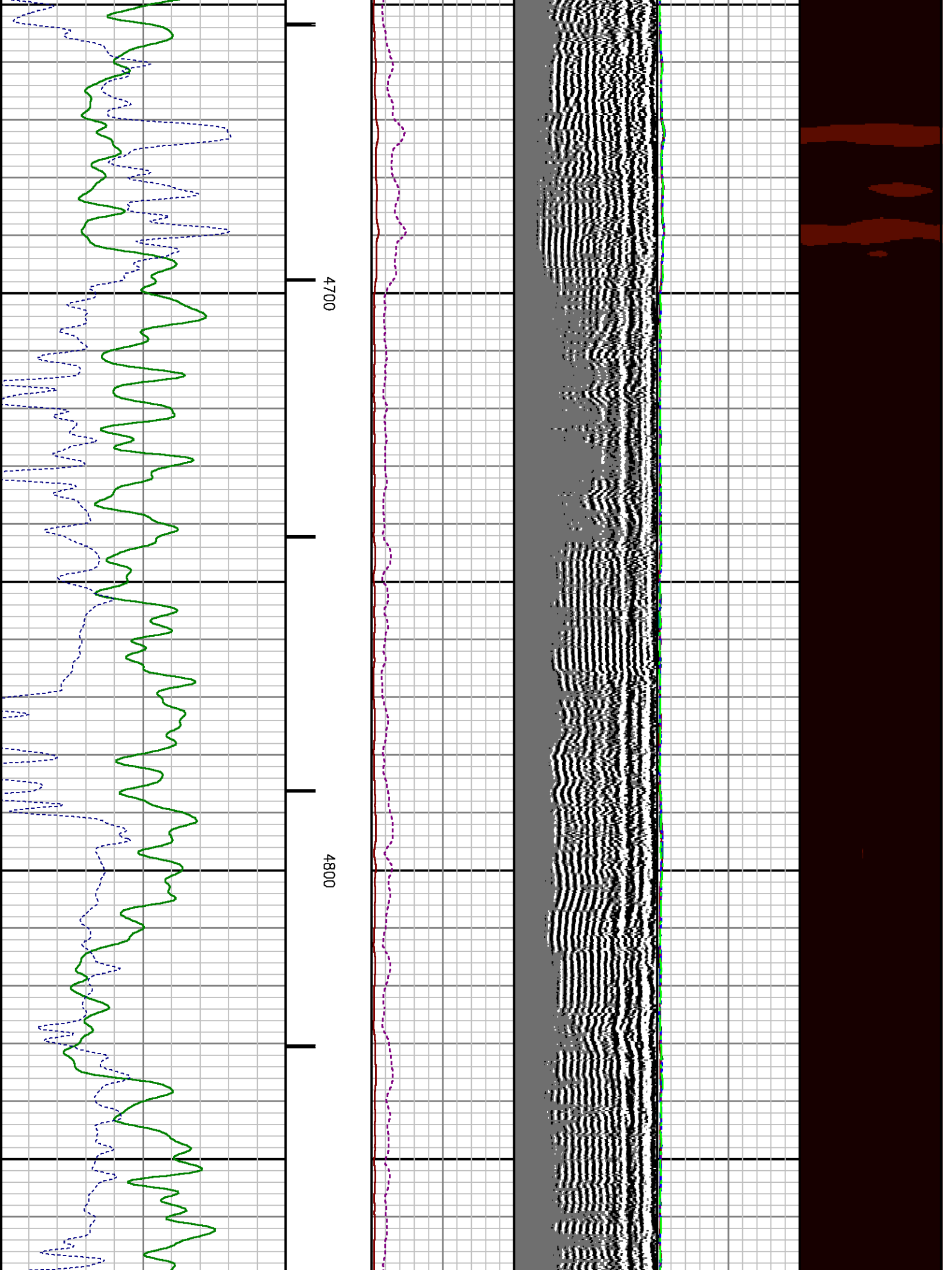


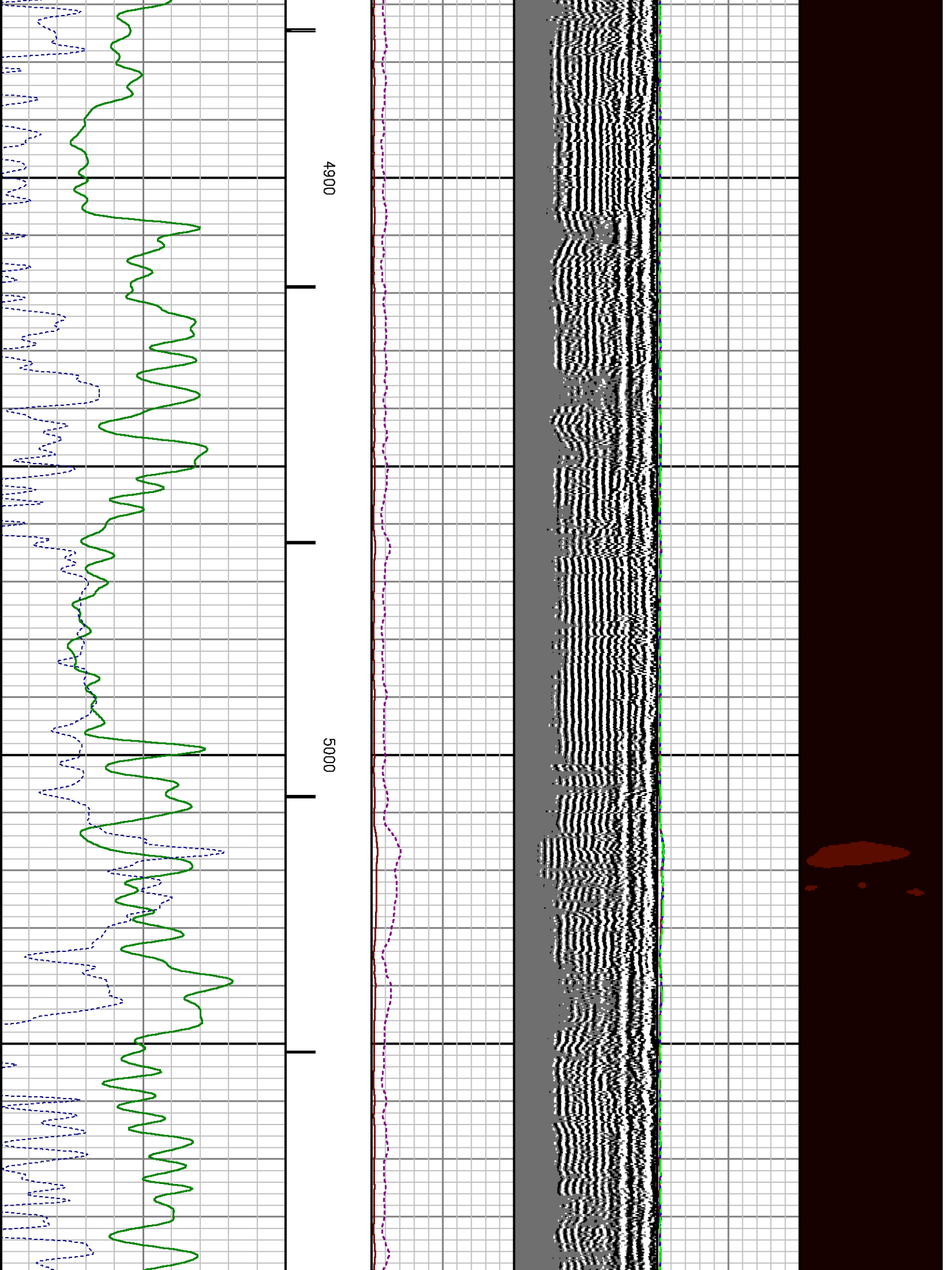


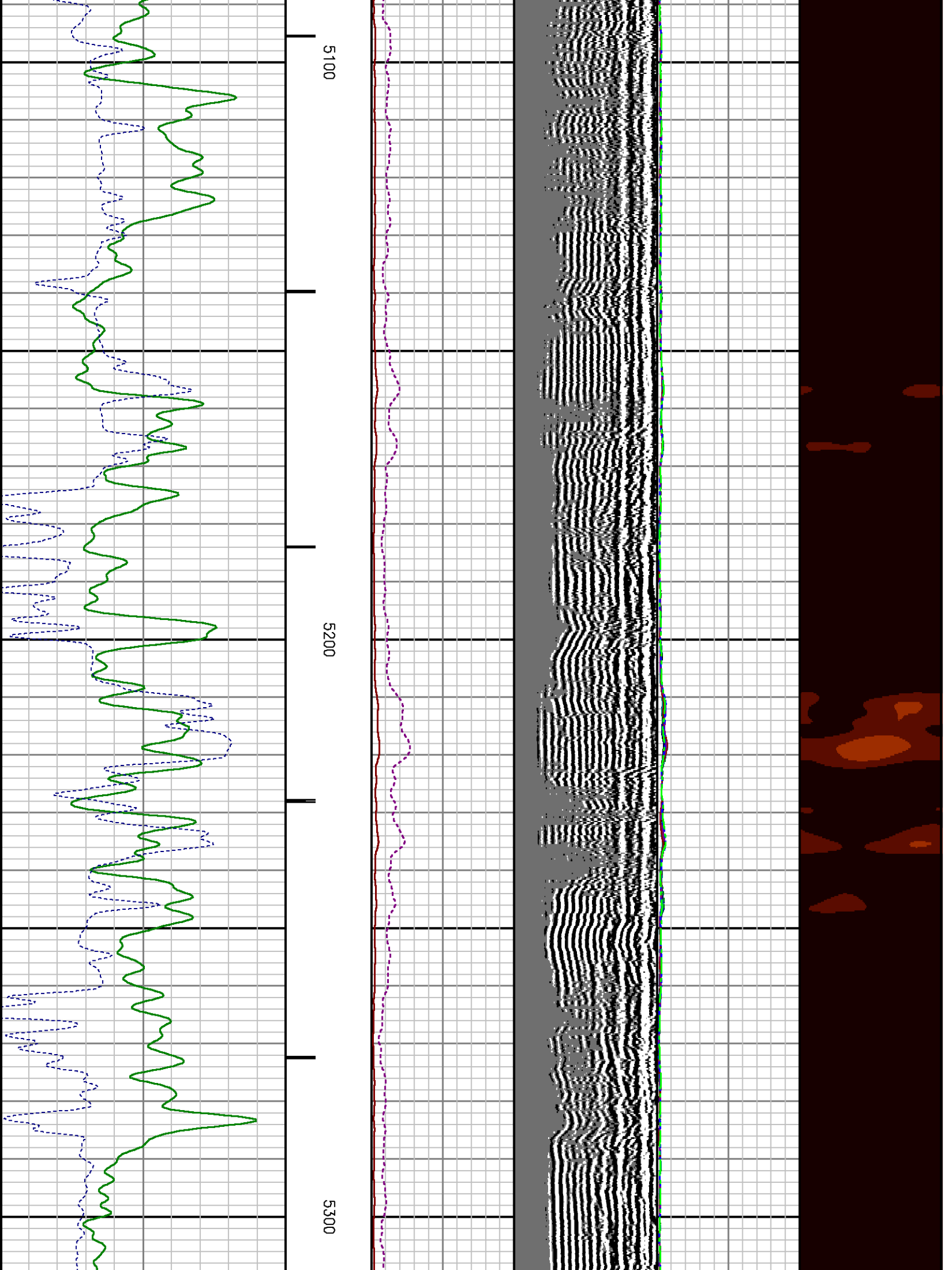


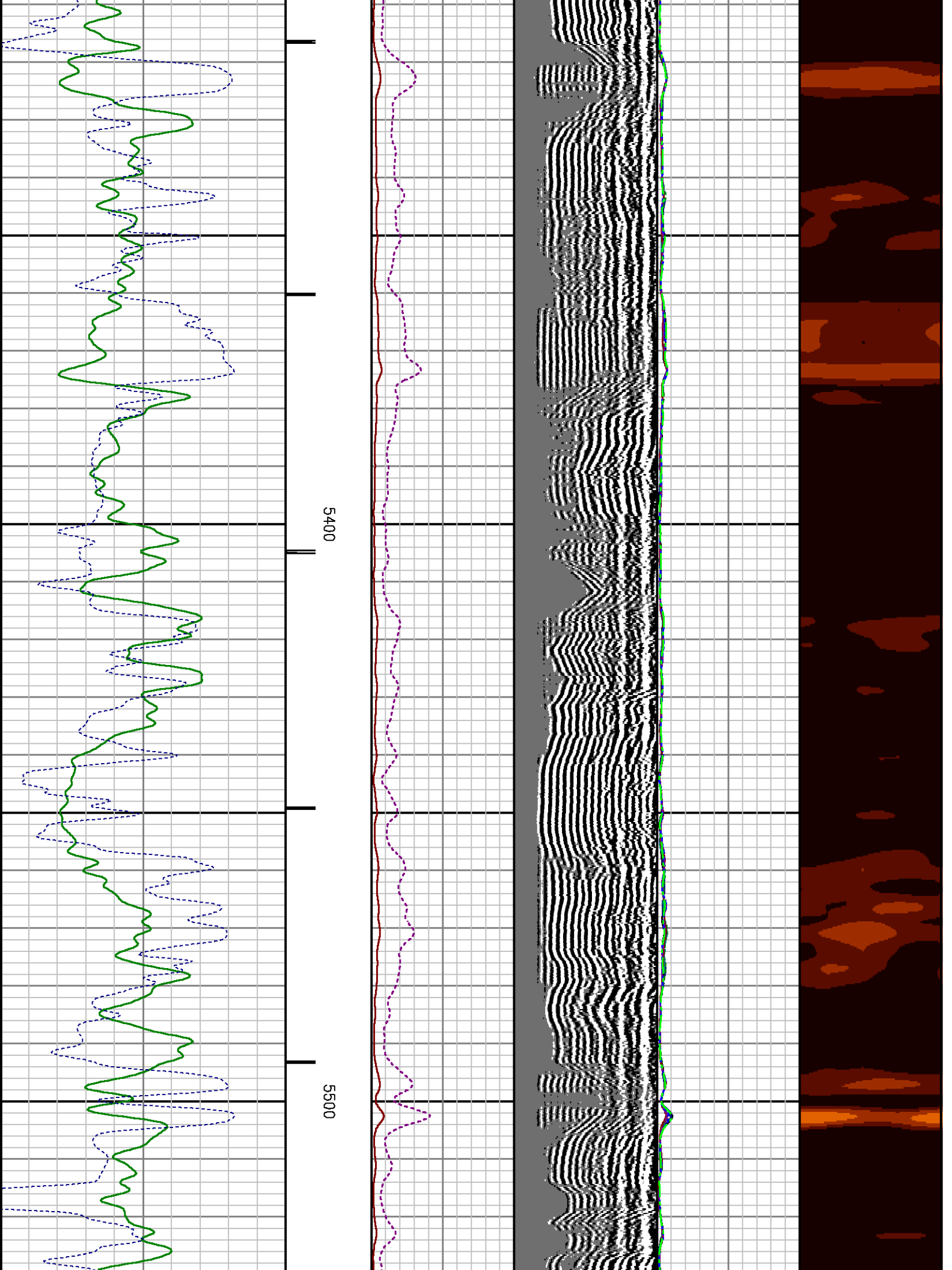


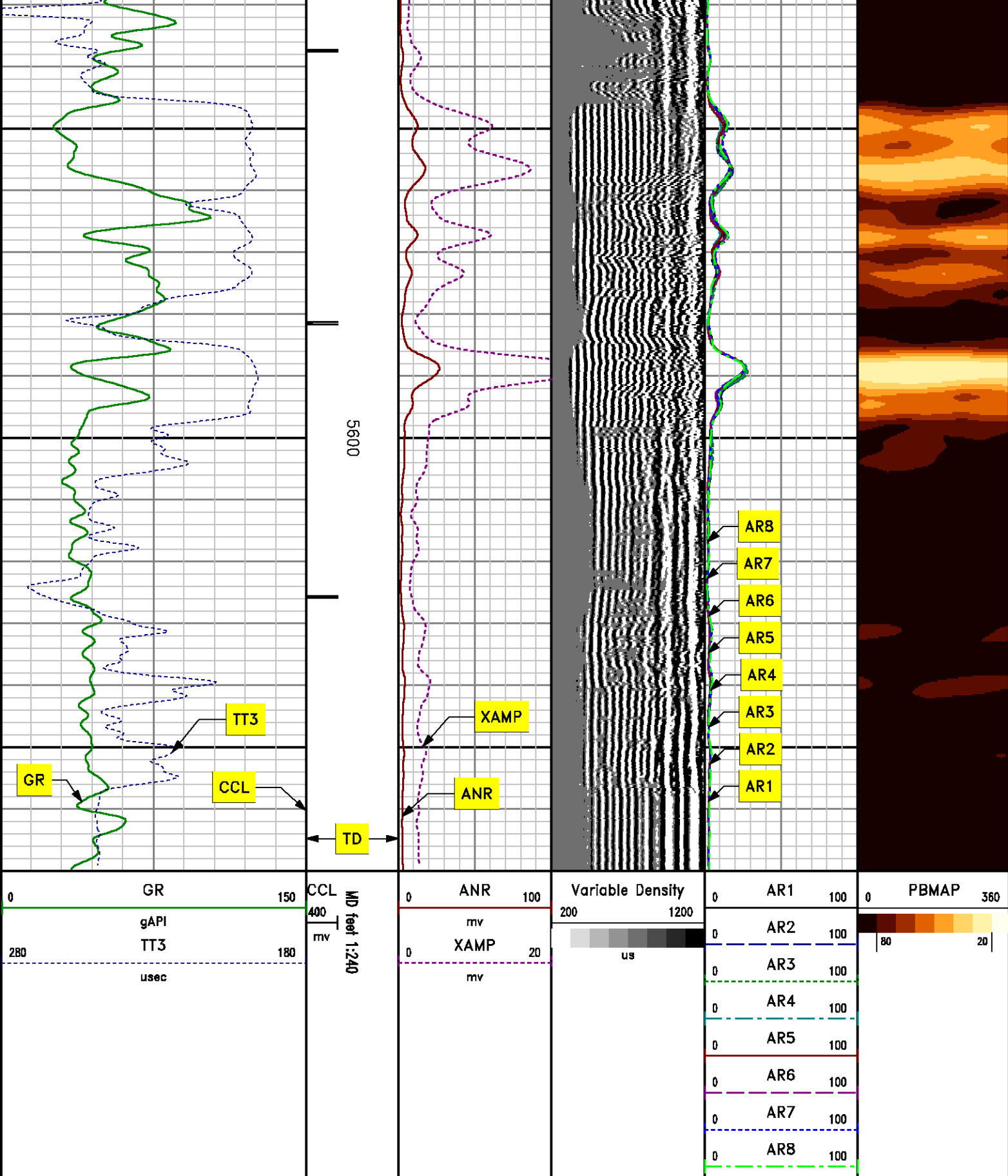












*REPEAT PASS*

0. PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	302.334	usec	5349.750	5674.000
RAL	Amp Gate Start Near	197.228	usec	5349.750	5674.000
RAL	Amp Gate Start Radial	196.389	usec	5349.750	5674.000
RAL	Amp Gate Width Far	25.000	usec	5349.750	5674.000
RAL	Amp Gate Width Near	25.000	usec	5349.750	5674.000
RAL	Amp Gate Width Radial	25.000	usec	5349.750	5674.000
RAL	casing od	4.500	inches	5349.750	5674.000
RAL	casing wt	11.600	lbm/ft	5349.750	5674.000
RAL	FB Start Far	291.900	usec	5349.750	5674.000
RAL	FB Start Near	175.391	usec	5349.750	5674.000
RAL	FB Start Radial	175.391	usec	5349.750	5674.000
RAL	FB Thresh Far	10.000	mv	5349.750	5674.000
RAL	FB Thresh Near	4.000	mv	5349.750	5674.000
RAL	FB Thresh Radial	4.000	mv	5349.750	5674.000
RAL	Fluid Travel Time	200.000	usec/ft	5349.750	5673.562

## DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-11.000	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	-10.040	AFAR	SIG	TT5			
1355XA	-5.620	CCL					
1355XA	-1.500	GR					
1355XA	0.000	TEMP					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

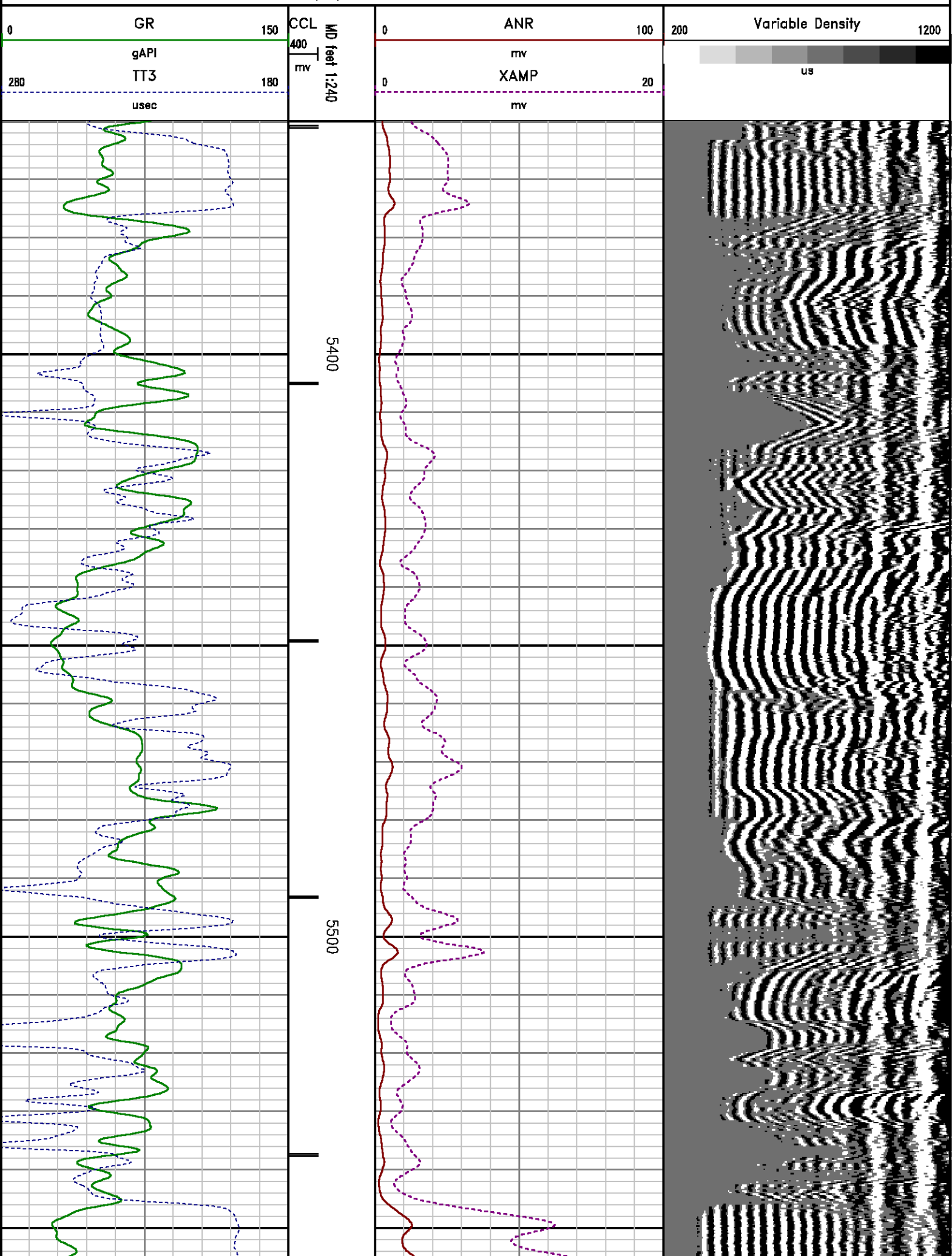
Company : WPX ENERGY

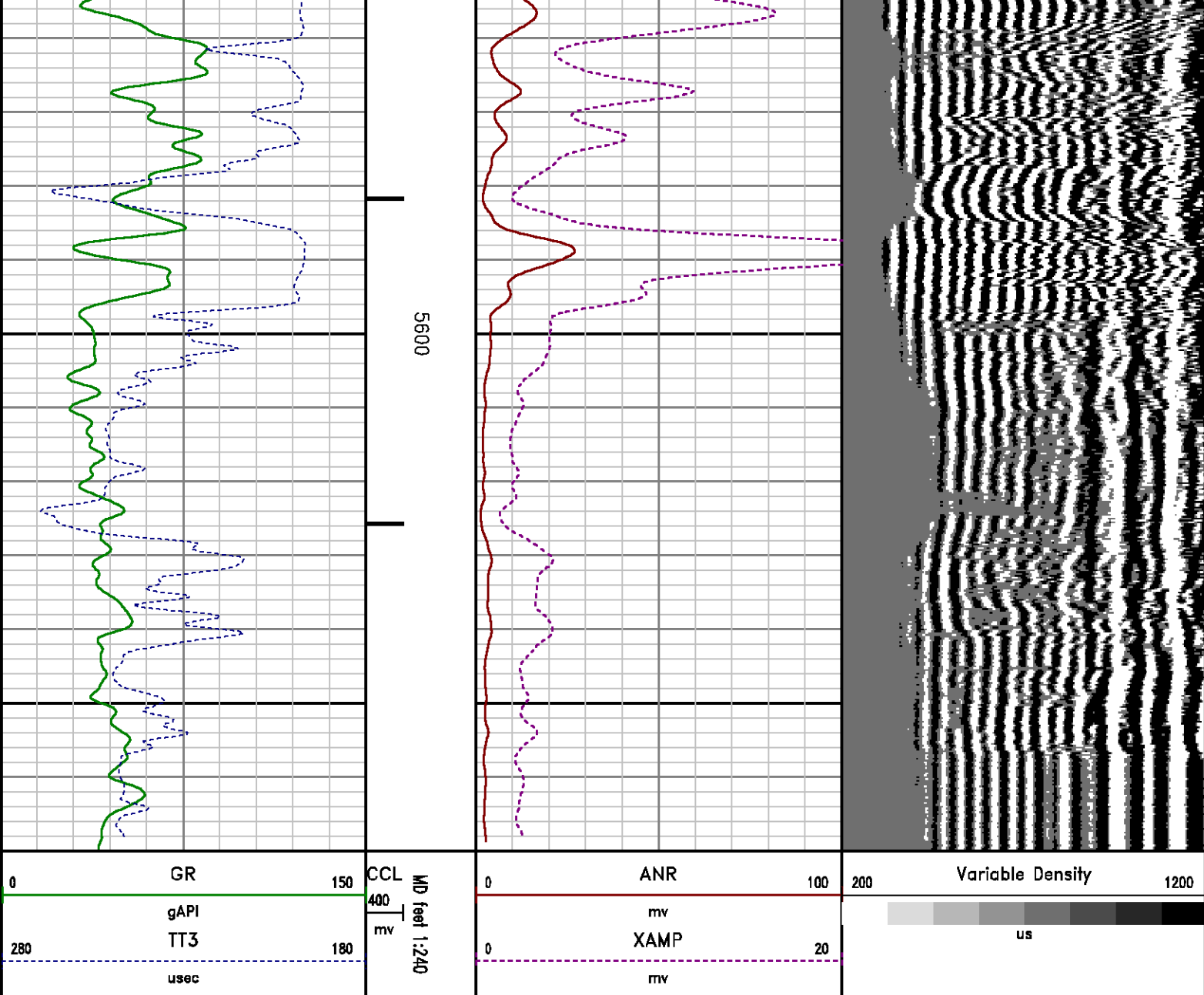
Well : STRAIT SG 441-22

File Name : d:\welldata\441cbl\repeat.txt

Mode : PlotMgr 5.4.504

Interval : 5360.00 - 5670.00 feet UP





## CALIBRATION SUMMARY

## GAMMA RAY

Calibration File: C:\case\calver\GR\209J3.cal

### CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Jul 30 08:43:58 2013 TOOL SERIES: 1355XA ASSET: 209 SEQ: J3

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]

SHOP	JIG	113.02	548.53	0.425	48.01	233.01	185.00
------	-----	--------	--------	-------	-------	--------	--------

Verification File: C:\case\calver\GR\209J3.VP

PRIMARY LOG VERIFICATION													
DATE/TIME PERFORMED:			Tue Jul 30 08:46:06 2013		TOOL SERIES:		1355XA	ASSET:		209	SEQ:		J3
Calibrator #		Background [cps]		Calibrator On [cps]		Multiplicative		Background [api]		Calibrator On [api]		Differential [api]	
SHOP JIG		112.22		543.20		0.425		47.67		230.74		183.07	

# RALSHP

Shop Calibration: C:\case\calver\RALSHP\106A14\_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Aug 14 15:01:01 2013

TOOL SERIES: 1426XA

ASSET: 106

SEQ: A14

Tool Delay [usec]	-58.00	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	-0.325	100.00	0.20
3 Ft. Receiver	218	216	30	166	25	-0.372	100.00	0.19
5 Ft. Receiver	326	322	30	271	25	-0.735	150.00	0.21
Radial #1	218	216	30	166	25	-0.414	100.00	0.19
Radial #2	218	216	30	166	25	-0.118	100.00	0.19
Radial #3	218	216	30	166	25	-0.614	100.00	0.19
Radial #4	218	216	30	166	25	-1.044	100.00	0.19
Radial #5	218	216	30	166	25	-0.633	100.00	0.19
Radial #6	218	216	30	166	25	-0.428	100.00	0.19
Radial #7	217	216	30	166	25	-0.180	100.00	0.19
Radial #8	218	216	30	166	25	-0.019	100.00	0.19

# RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\106A14 fld.cal

WELLSITE CALIBRATION SUMMARY							
DATE/TIME PERFORMED:		Wed Aug 14 15:02:31 2013		TOOL SERIES:		1426XA	
				ASSET:		106	
				SEQ:		A14	
Tool Delay [usec]		Casing OD In		Casing Wt lbm/ft		Casing ID In	
-62.00		4.50		11.60		4.00	
RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]	
CAL Pulse	166	25	-0.279	0.000	0.99	100.000	
3 Ft. Receiver	200	30	-0.600				
5 Ft. Receiver	317	30	-0.000				

5 Ft. Receiver	200	30	-0.299
Radial #1	200	30	-1.636
Radial #2	200	30	-0.906
Radial #3	200	30	-0.708
Radial #4	200	30	-0.930
Radial #5	200	30	-0.755
Radial #6	200	30	-0.768
Radial #7	200	30	-0.723
Radial #8	200	30	-0.654

## TOOL DIAGRAM

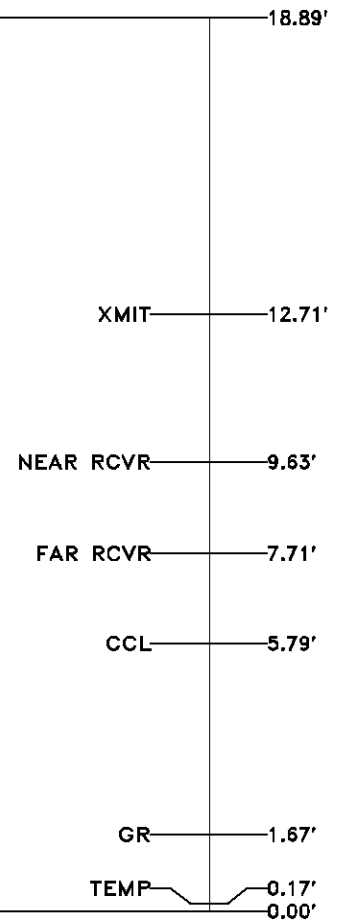
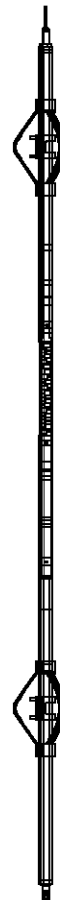
### OTA SHORT CABLE HEAD

#### PROBE 2 3/4 DUAL RECEIVER RADII

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

#### RAL GR/TEMP/CCL/CHV DETECTOR

Series	1355XA
Mnemonic	RAL
Diameter	2.75"
Weight	85.00 lb
Length	6.96'
Measure Point	0.17' TEMP
Measure Point	1.67' GR
Measure Point	5.79' CCL
Temp Rating	400.00 °F
Press Rating	20000.00 PSI



Total Length: 18.89'  
Total Weight: Not Available  
Max Diameter: 0' 2.75"



Baker Atlas



Company	WPX ENERGY		File No:
Well	STRAIT SG 441-22		CH075922
Field	GRAND VALLEY		API No:
County	GARFIELD	State	COLORADO
Location		Elevations	
SHL: 1488' FNL & 283' FEL SEC:22		KB 5244 ft	22 7S 96W
BHL: 1078' FNL & 1328' FEL SEC:22		DF	SG 42-22
		GL 5222 ft	CYCLONE 17
SEC	22	TWP	7S
		RGE	96W