



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH068183	Company Well Field County	WPX ENERGY HOEPPLI RWF 413-36 RULISON GARFIELD	State COLORADO
API No: 05045214740000			
56 GS 94W RWF 33-35 NABORS SSD 576	Location SHL: 2601' FNL & 2627' FWL BHL: 1907' FSL & 1079' FWL SEC 36 TWP 6S RGE 94W	Other Services N/A	
Permanent Datum Log Measured From Drill Measured From	G.L. _____ Elevation 6528 ft K.B. _____ 26 ft Above P. D. KELLY BUSHING	Elevations KB 6554 ft DF GL 6528 ft	

Date	24/FEB/13	
Run	ONE	
Service Order	B25550	
Depth Driller	9945 ft	
Depth Logger	9872 ft	
Bottom Logged Interval	9862 ft	
Top Logged Interval	26 ft	
Time Started	7:30	
Time Finished	14:30	
Operator Rig Time	7 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	N/A	
Salinity	N/A	
Fluid Level	83 ft	
Logged Cement Top	N/A	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	N/A	
Nominal Logging Speed	45 fpm	
Maximum Recorded Temperature	242 degF	
Reference Log	SCHLUMBERGER OPEN HOLE LOG	
Reference Log Date	N/A	
Equipment No.	4271	GRAND JUNCTION
Recorded By	W. KINSEL	9721
Witnessed By	MR. BOB CADY	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	1129.13 ft
8.75 In	0 ft	9923 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 In	N/A	N/A	0 ft	1100 ft
4.5 In	11.6 lbm/ft	N/A	0 ft	9945 ft

Remarks
ALL DATA IN THIS LOG WAS DEPTH SHIFTED TO MATCH A SCHLUMBERGER OPEN HOLE LOG AT THE CLIENT'S REQUEST. THE AMOUNT OF LINEAR SHIFT WAS 15 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: 6355' - 6378'
BHT: 242 degF

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10404539	CENTRALIZED
1	1	GAMMA RAY/CCL	2459XA	10417456	CENTRALIZED

MAIN LOG PRIMARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	306.127	usec	24.441	9873.000
RAL	Amp Gate Start Near	198.031	usec	24.441	9873.000
RAL	Amp Gate Start Radial	197.374	usec	24.441	9873.000
RAL	Amp Gate Width Far	25.000	usec	24.441	9873.000
RAL	Amp Gate Width Near	25.000	usec	24.441	9873.000
RAL	Amp Gate Width Radial	25.000	usec	24.441	9873.000
RAL	casing od	4.500	inches	24.441	9873.000
RAL	casing wt	11.600	lbm/ft	24.441	9873.000
RAL	FB Start Far	291.900	usec	24.441	9873.000
RAL	FB Start Near	175.391	usec	24.441	9873.000
RAL	FB Start Radial	175.391	usec	24.441	9873.000
RAL	FB Thresh Far	10.000	mv	24.441	9873.000
RAL	FB Thresh Near	4.000	mv	24.441	9873.000
RAL	FB Thresh Radial	4.000	mv	24.441	9873.000
RAL	Fluid Travel Time	200.000	usec/ft	24.441	9873.535

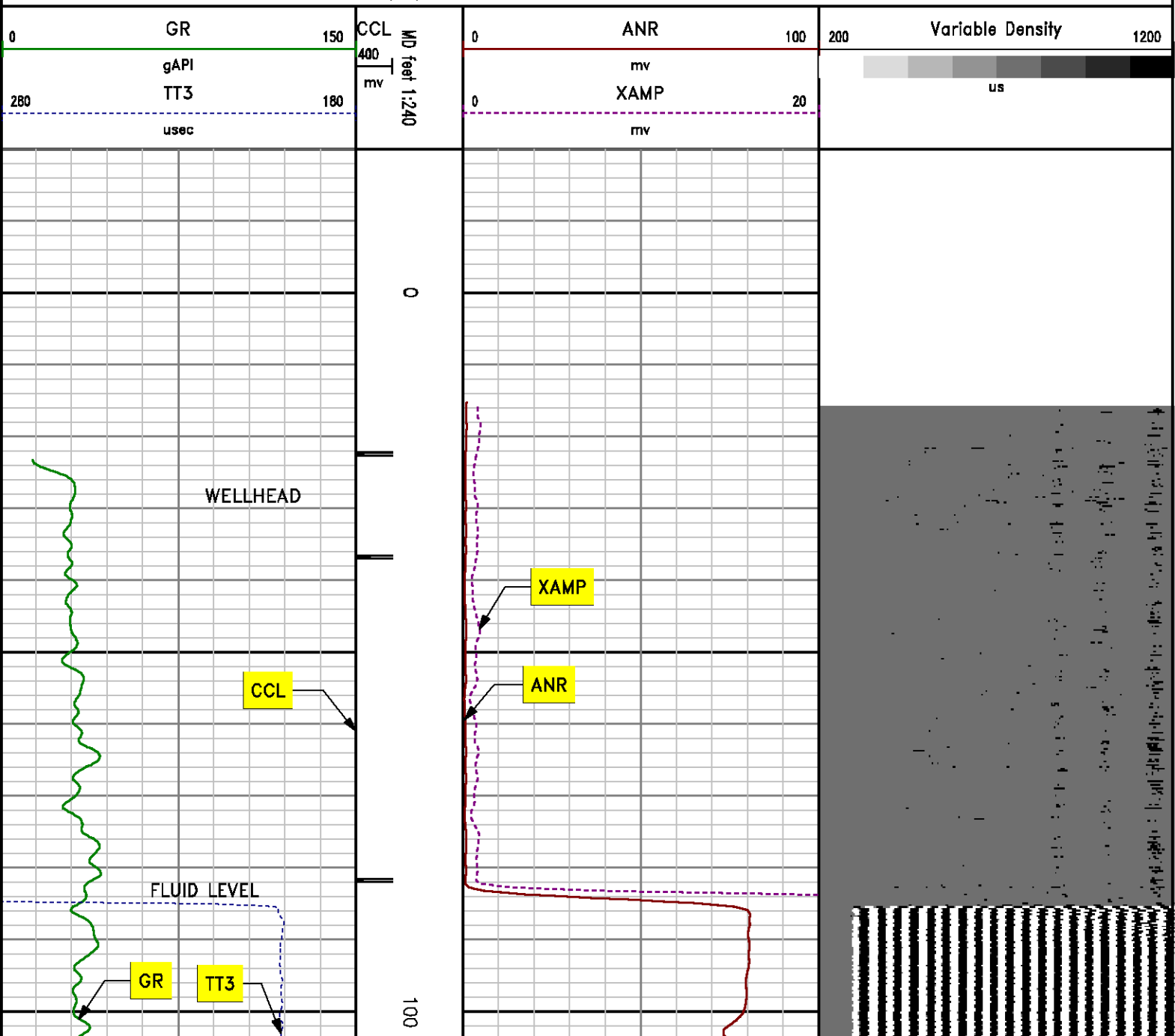
DEPTH OFFSETS
(for Acquired Curves)

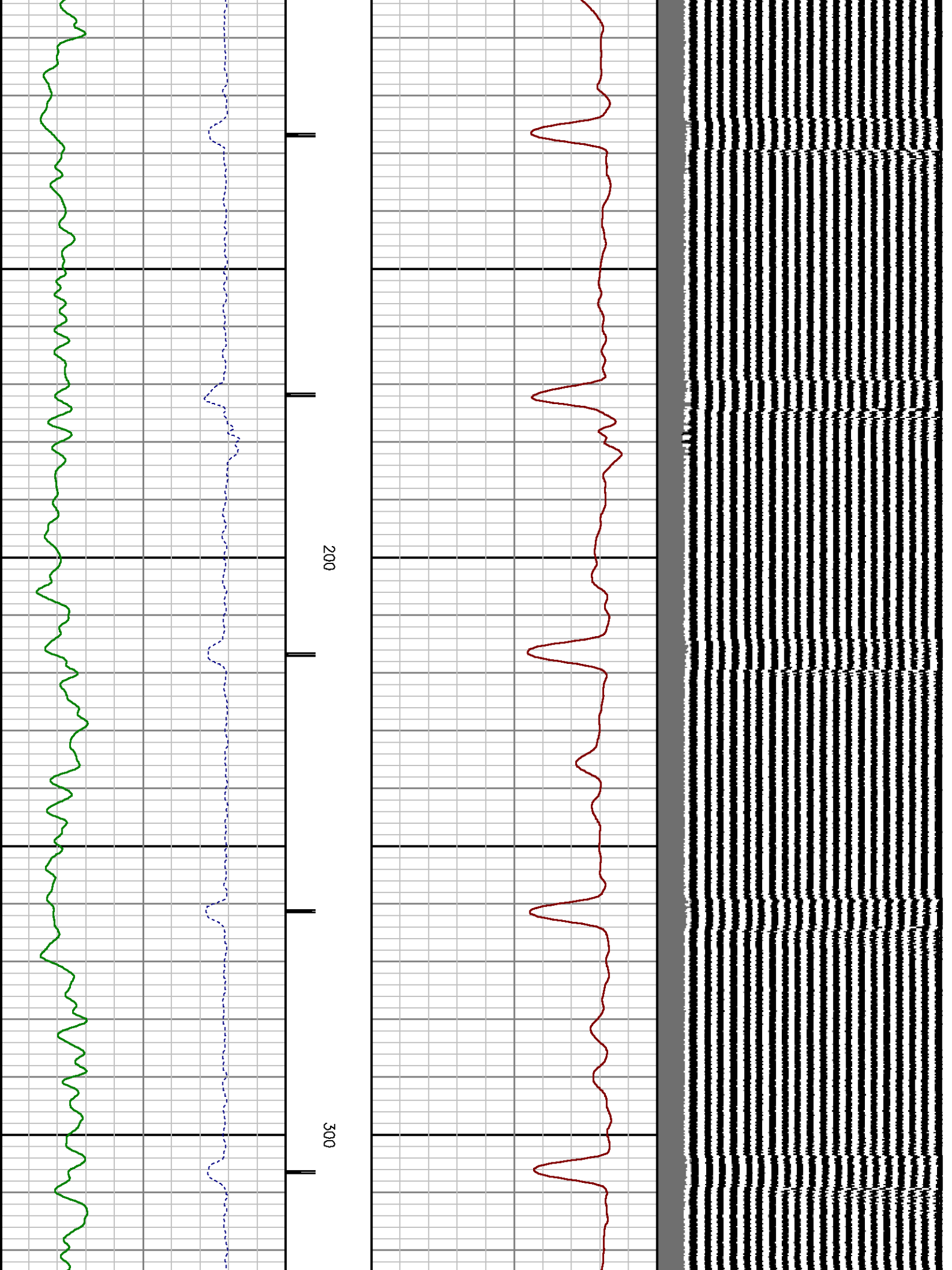
SERIES	DEPTH OFFSET	ACQUIRED CURVES
1426XA	42.575	10404539 10417456 10404539 10417456 10404539 10417456

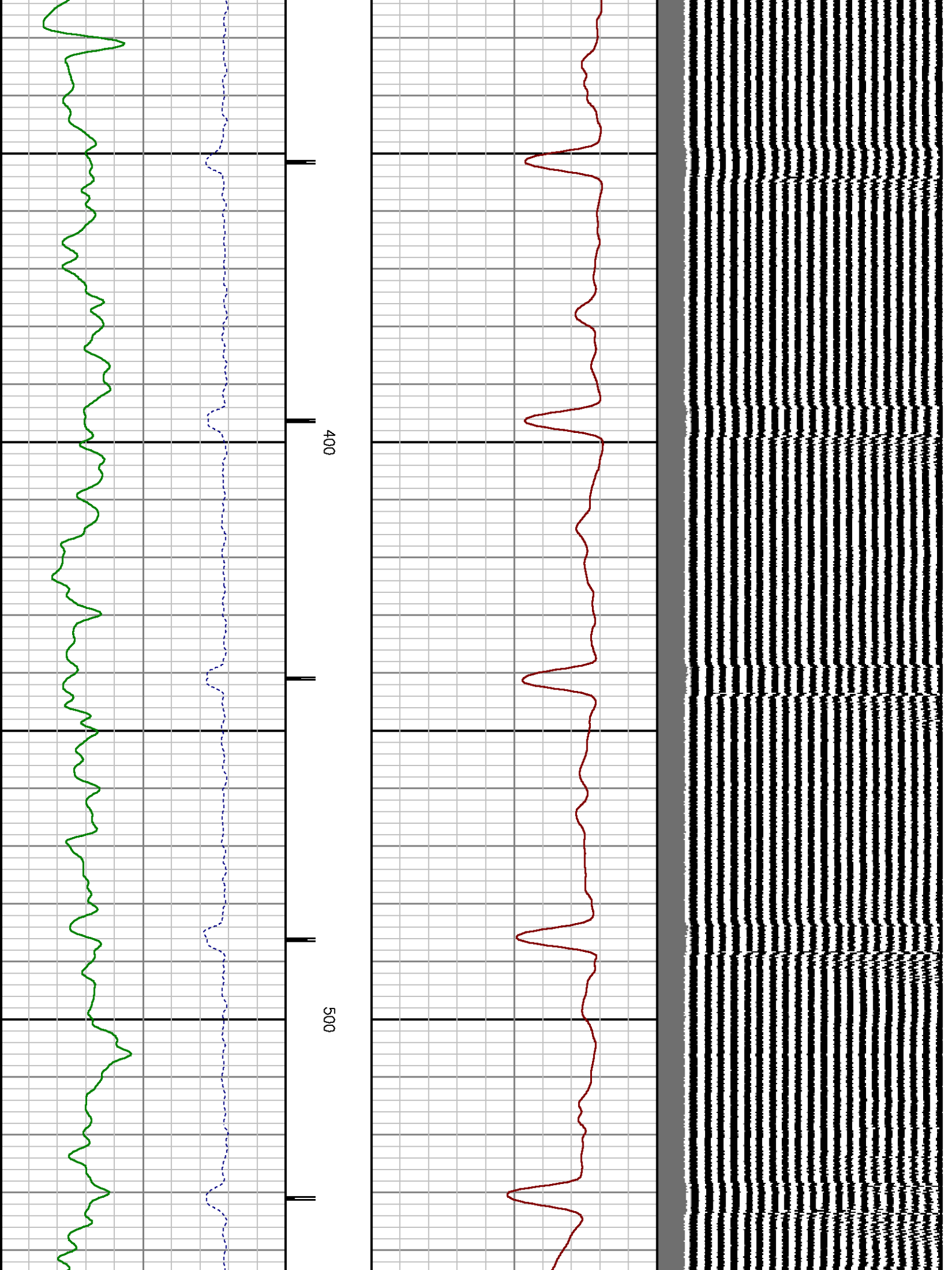
1426XA -16.750
 2459XA -11.340
 2459XA -9.490
 2459XA -4.090

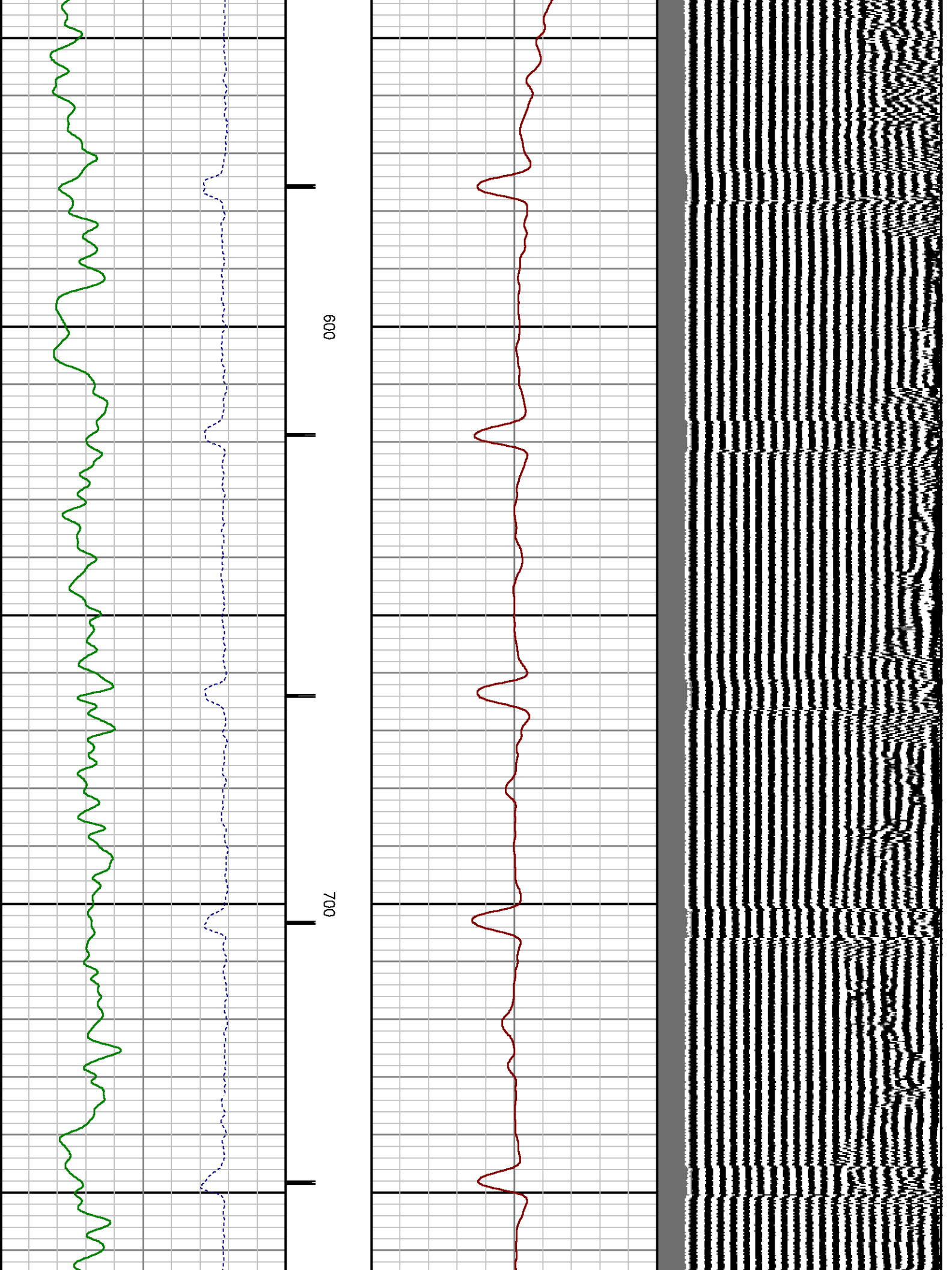
ACAL	ANR	AR1	AR2	AR3	AR4
AR5	AR6	AR7	AR8	CHV	FPR2
FPR3	FPR5	TT3	TTR1	TTR2	TTR3
TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
AFAR	SIG	TT5			
CCL					
GR					
NEU					

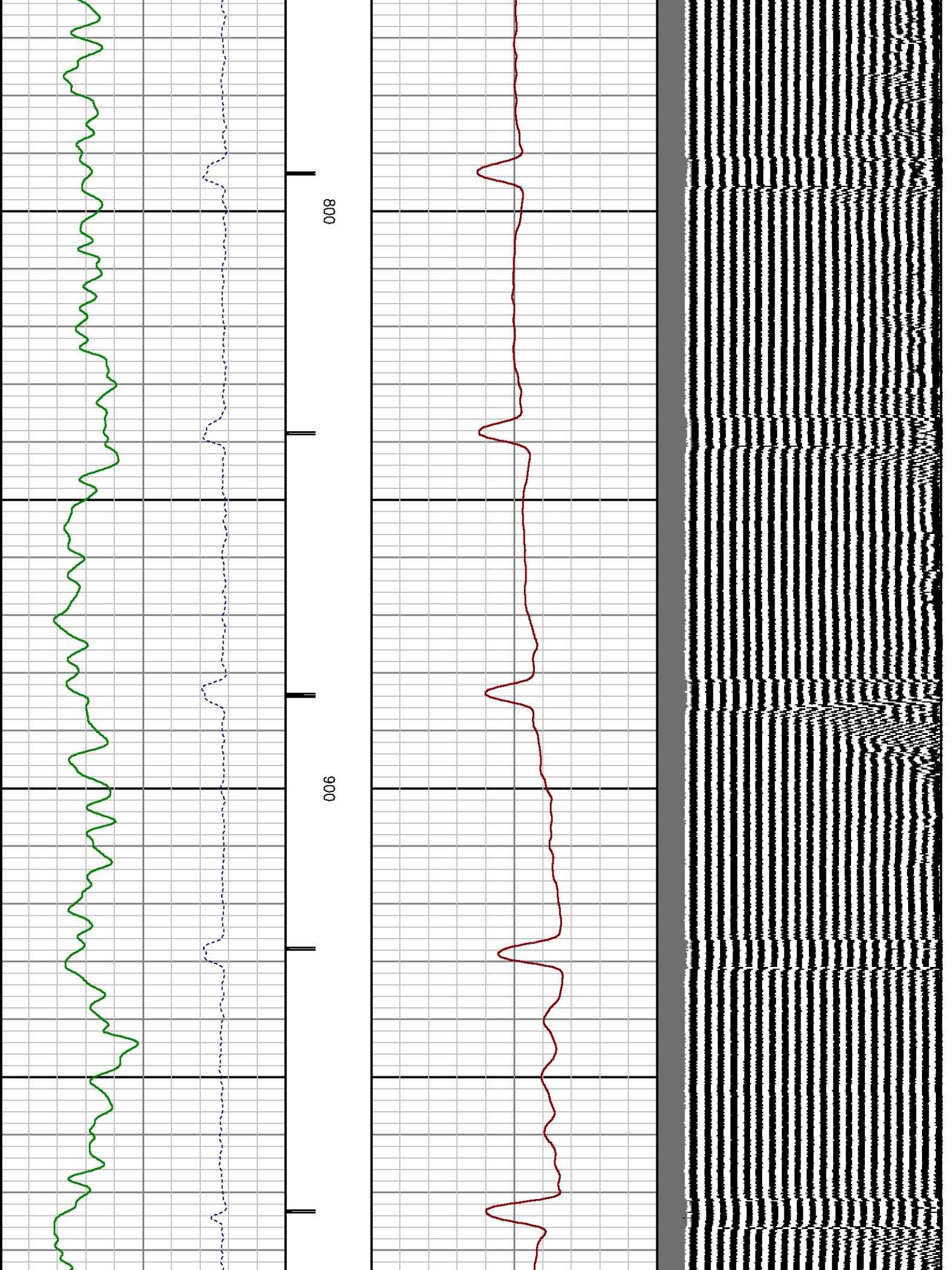
Created by : RAL, v4.8.008
 Plotted by : PlotMgr, v5.4.504
 Company : WPX ENERGY
 Well : HOEPPLI RWF 413-36
 File Name : d:\welldata\413cb\main_rdrd.xtf
 Mode : PlotMgr 5.4.504
 Interval : -20.00 - 9880.00 feet UP
 Created : 2/24/2013 2:09:17 PM

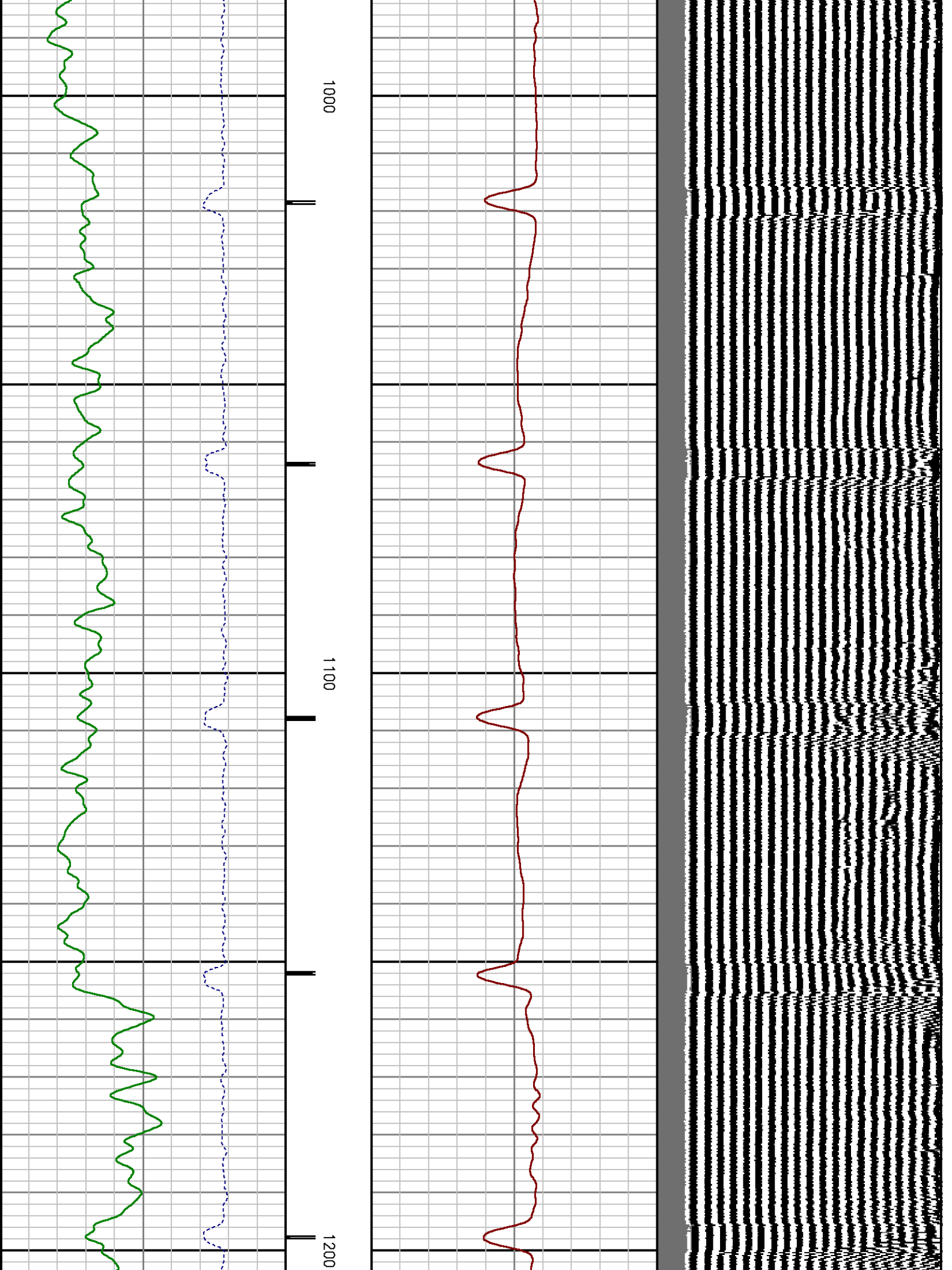


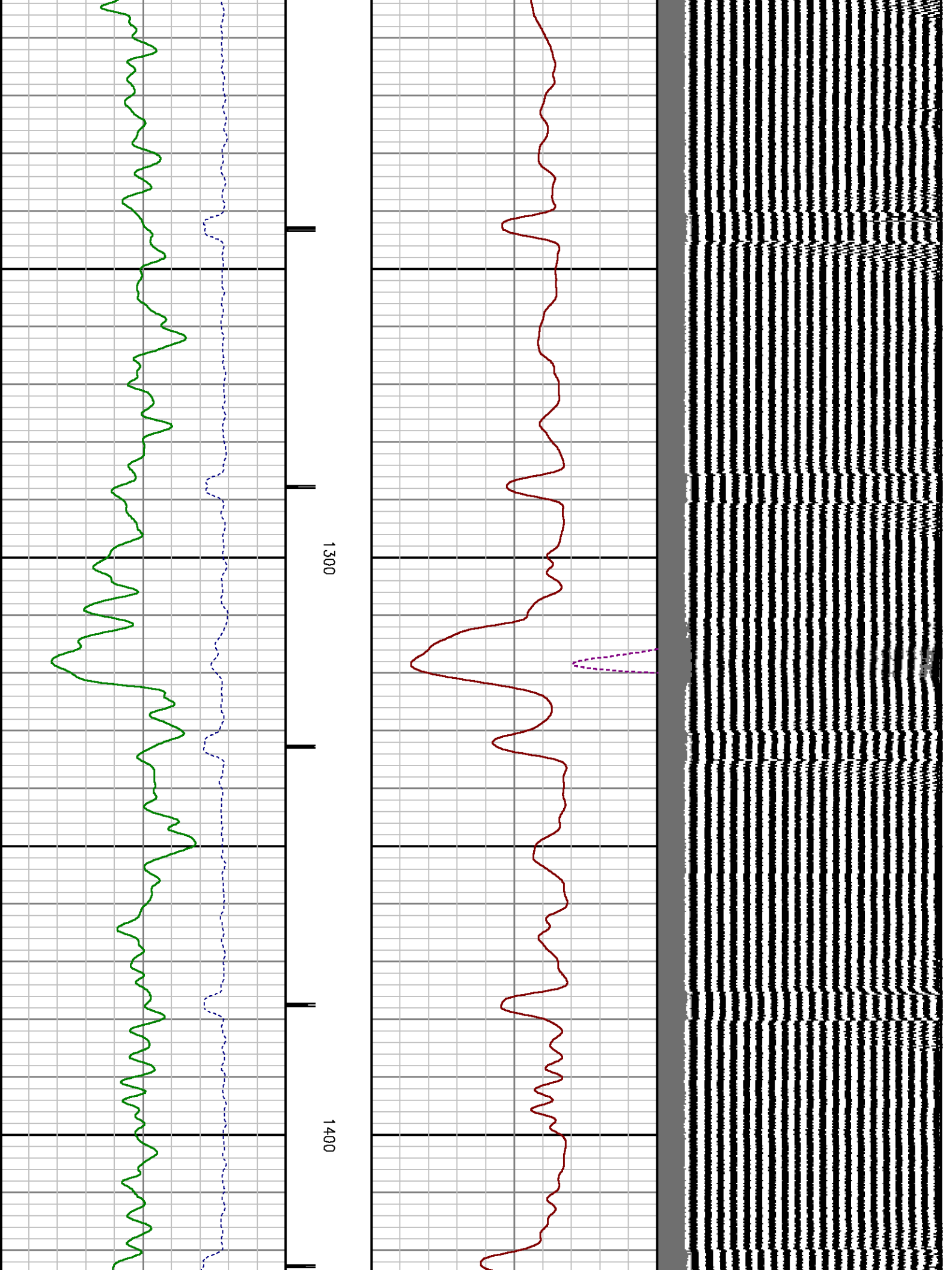


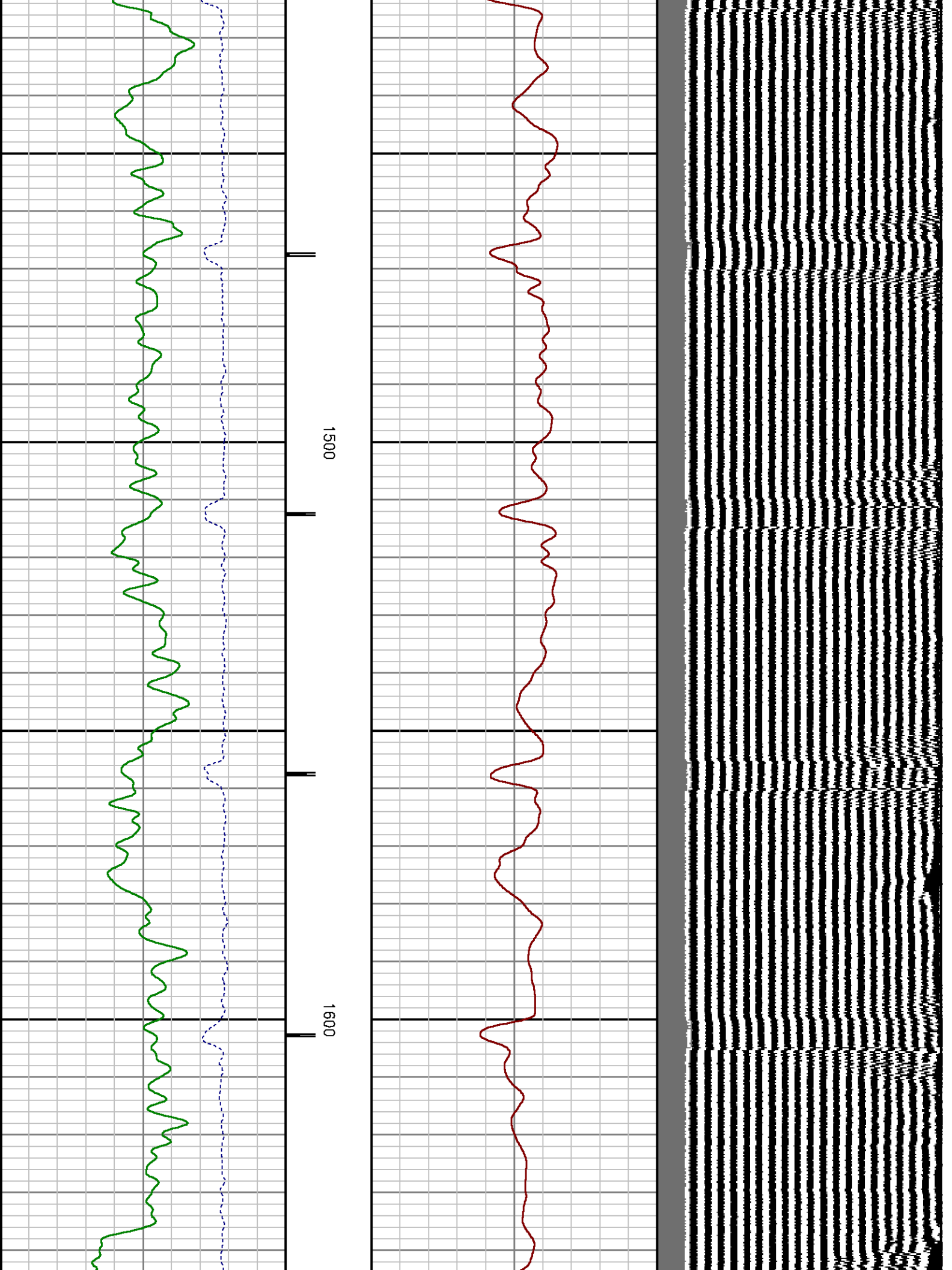


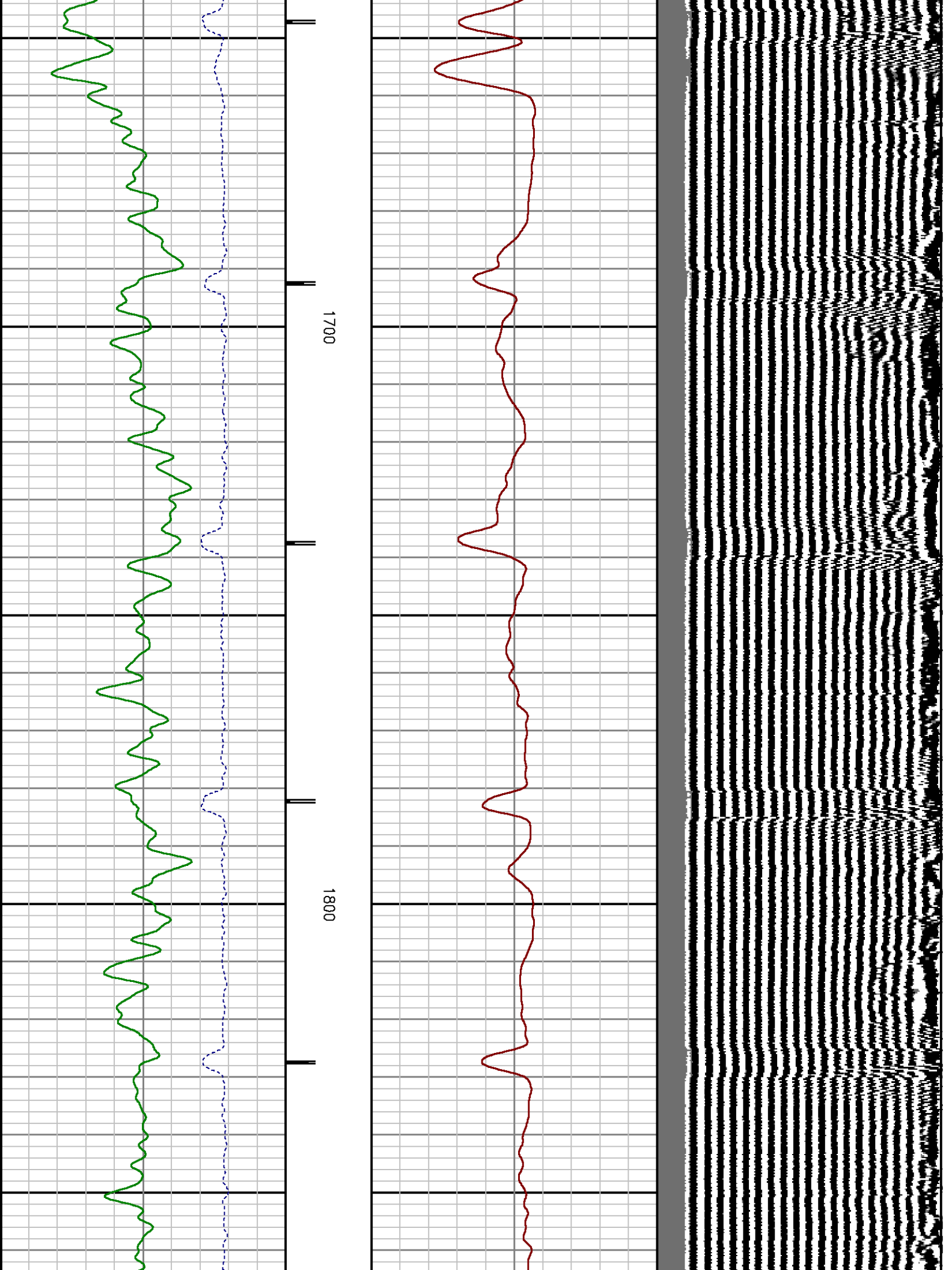


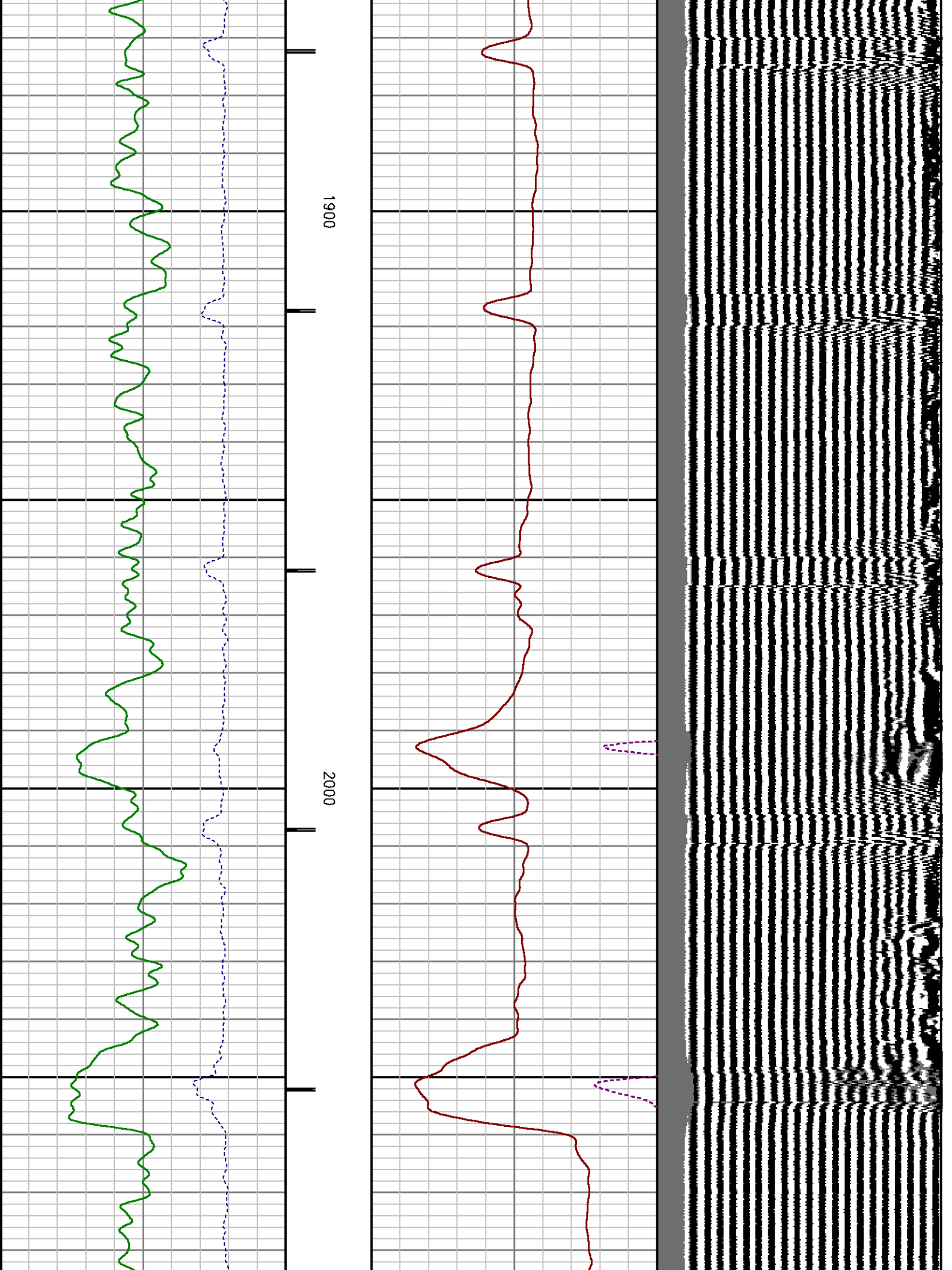


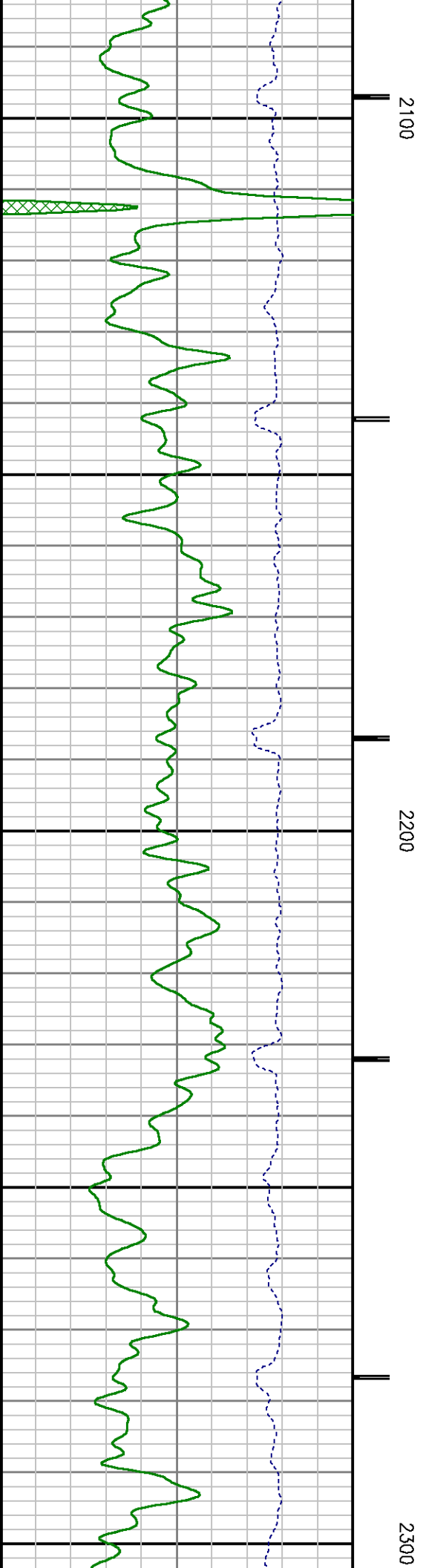
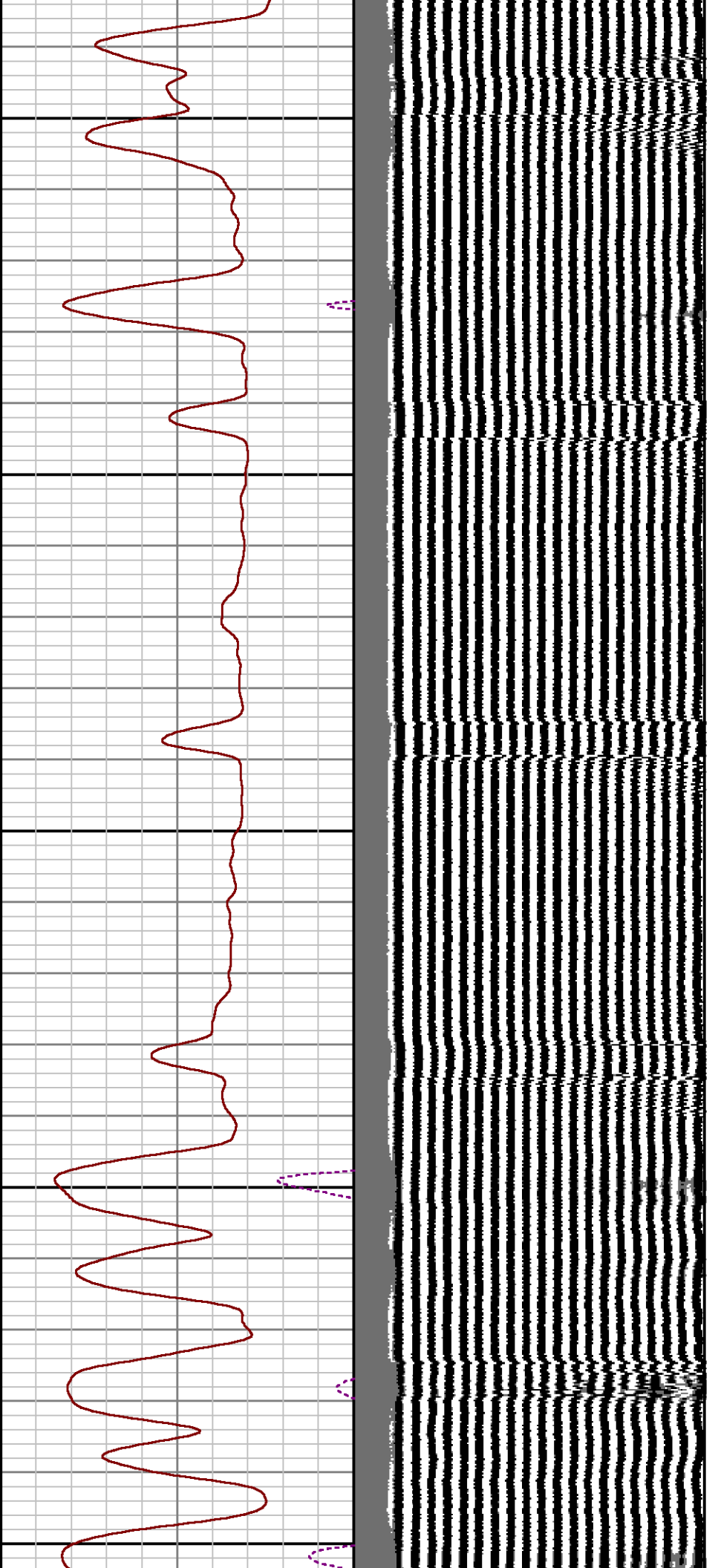


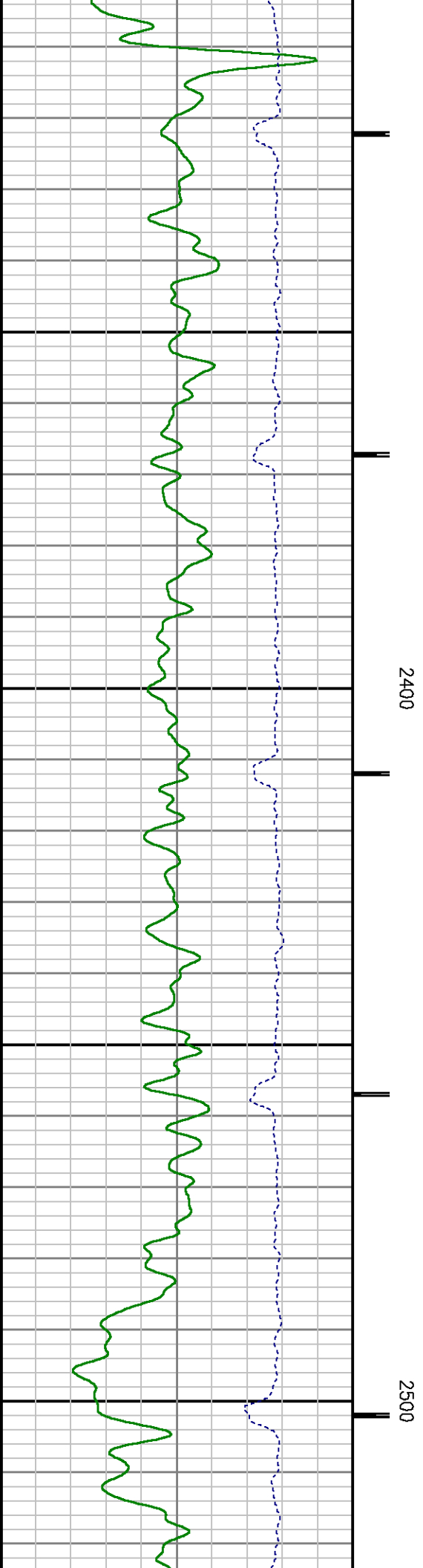
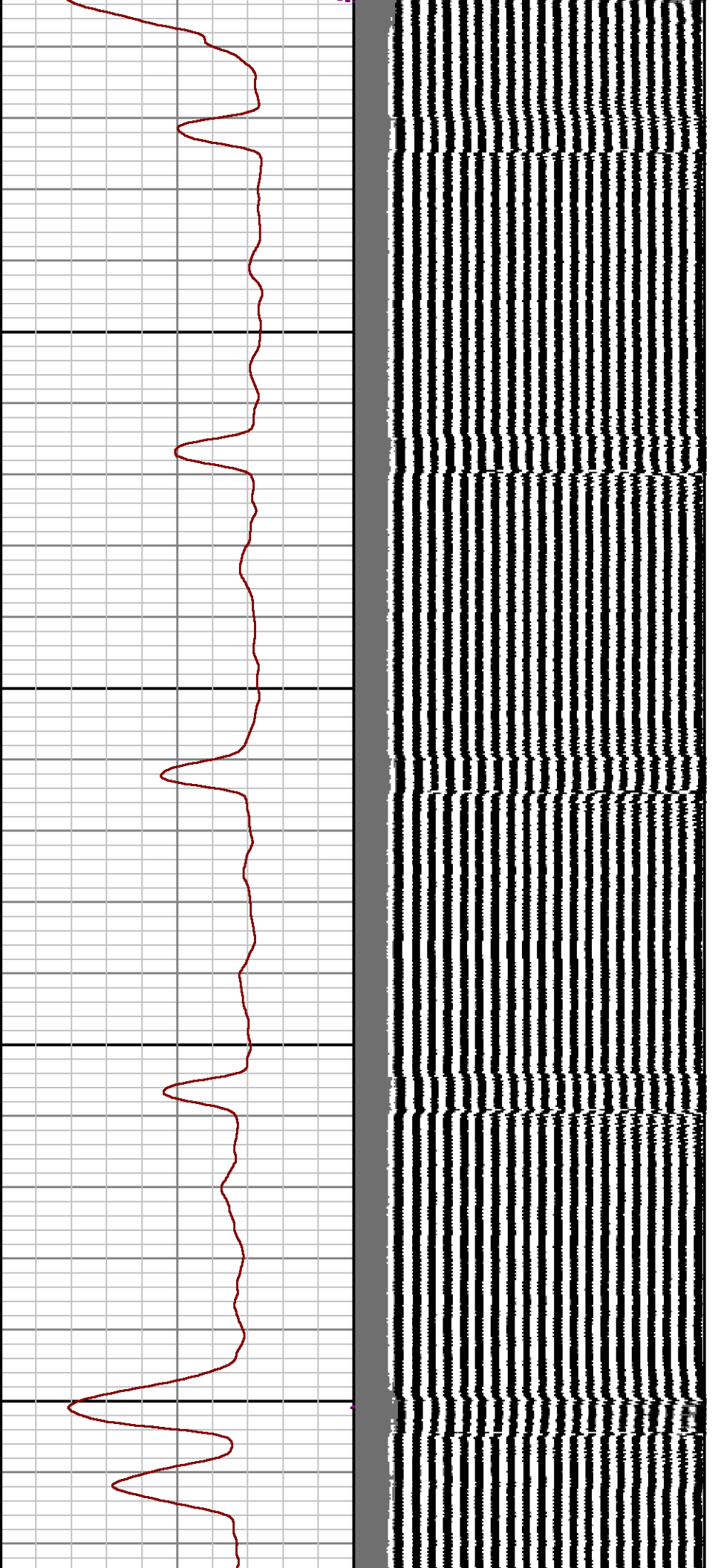


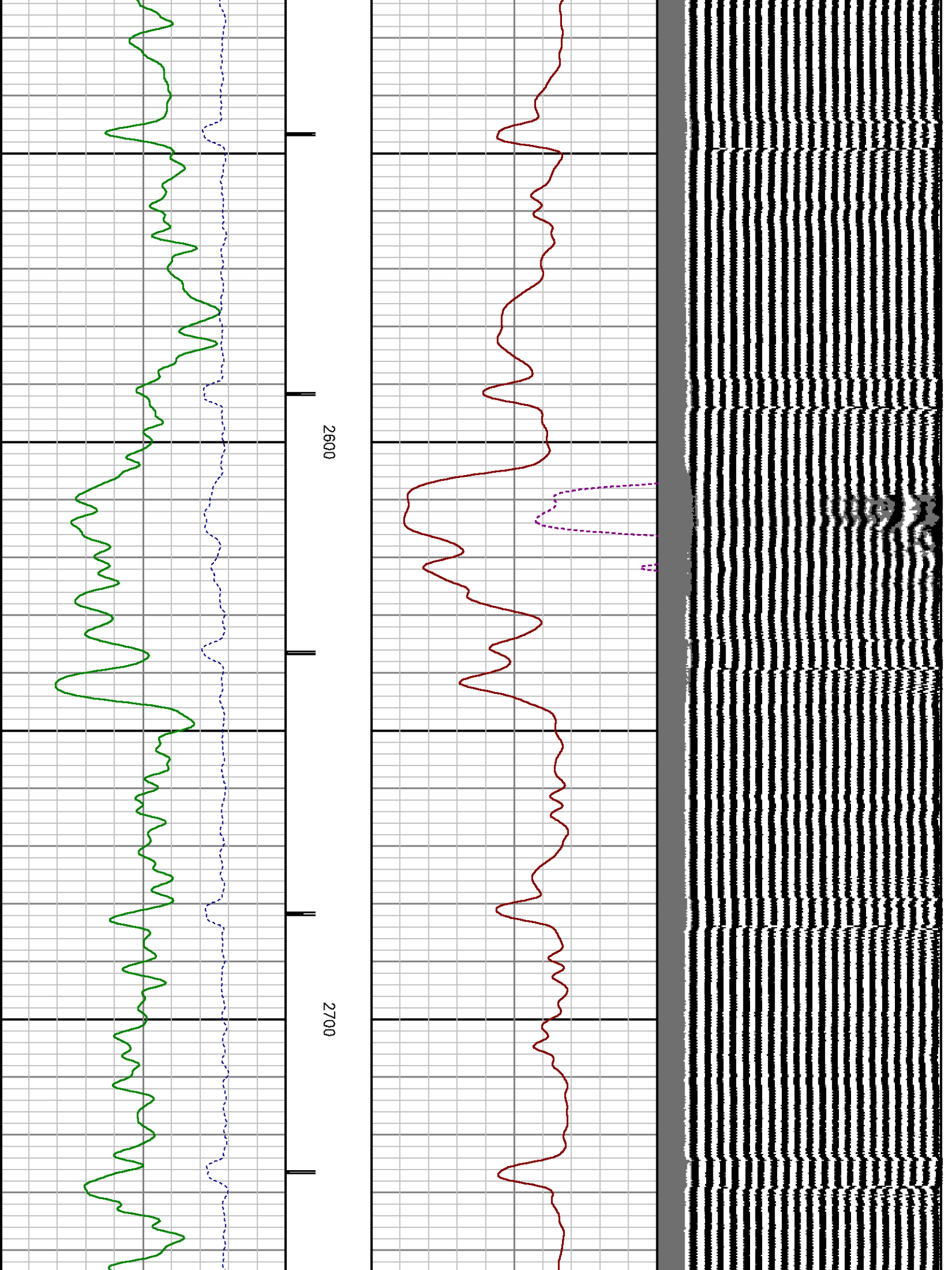


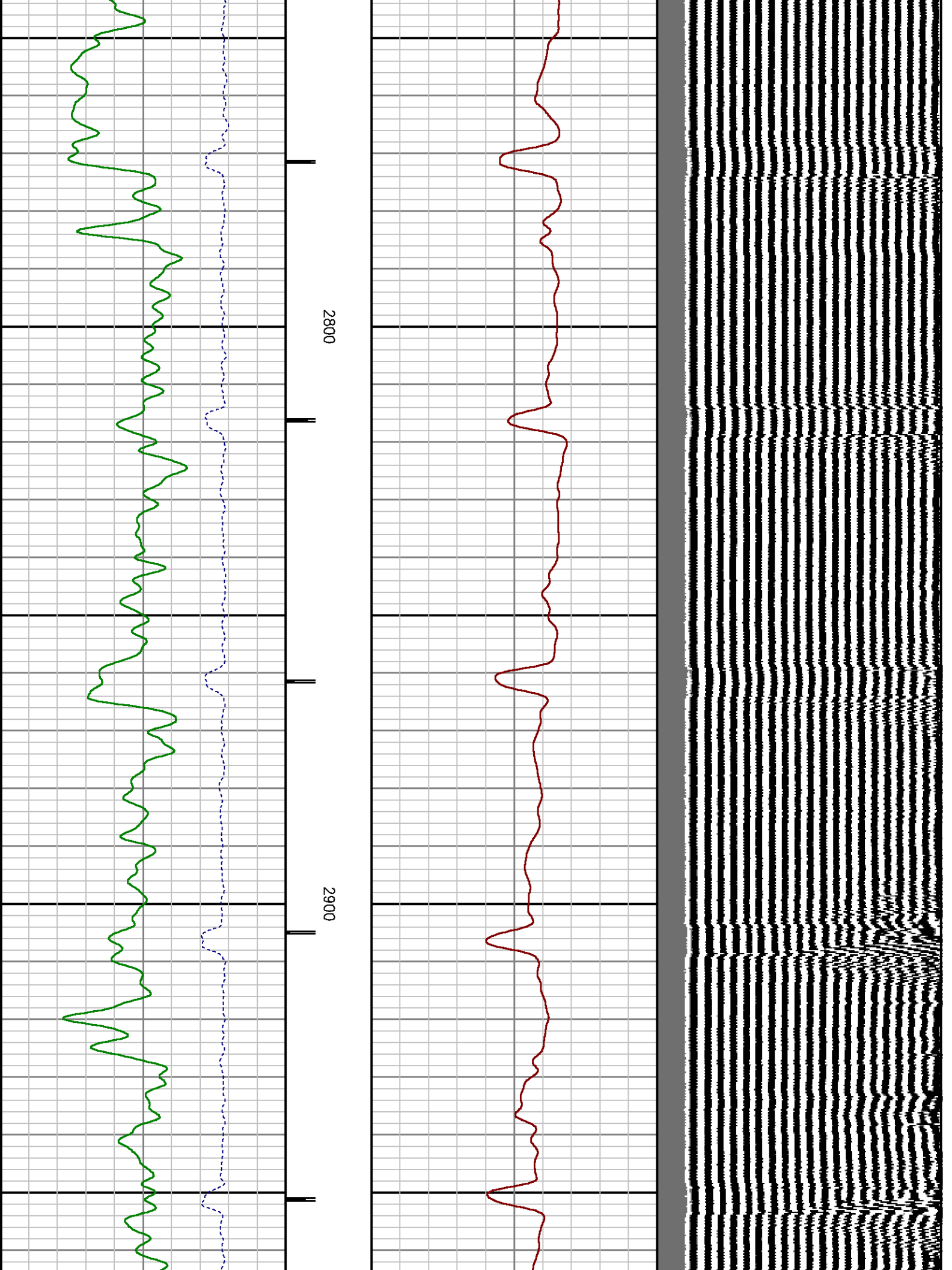


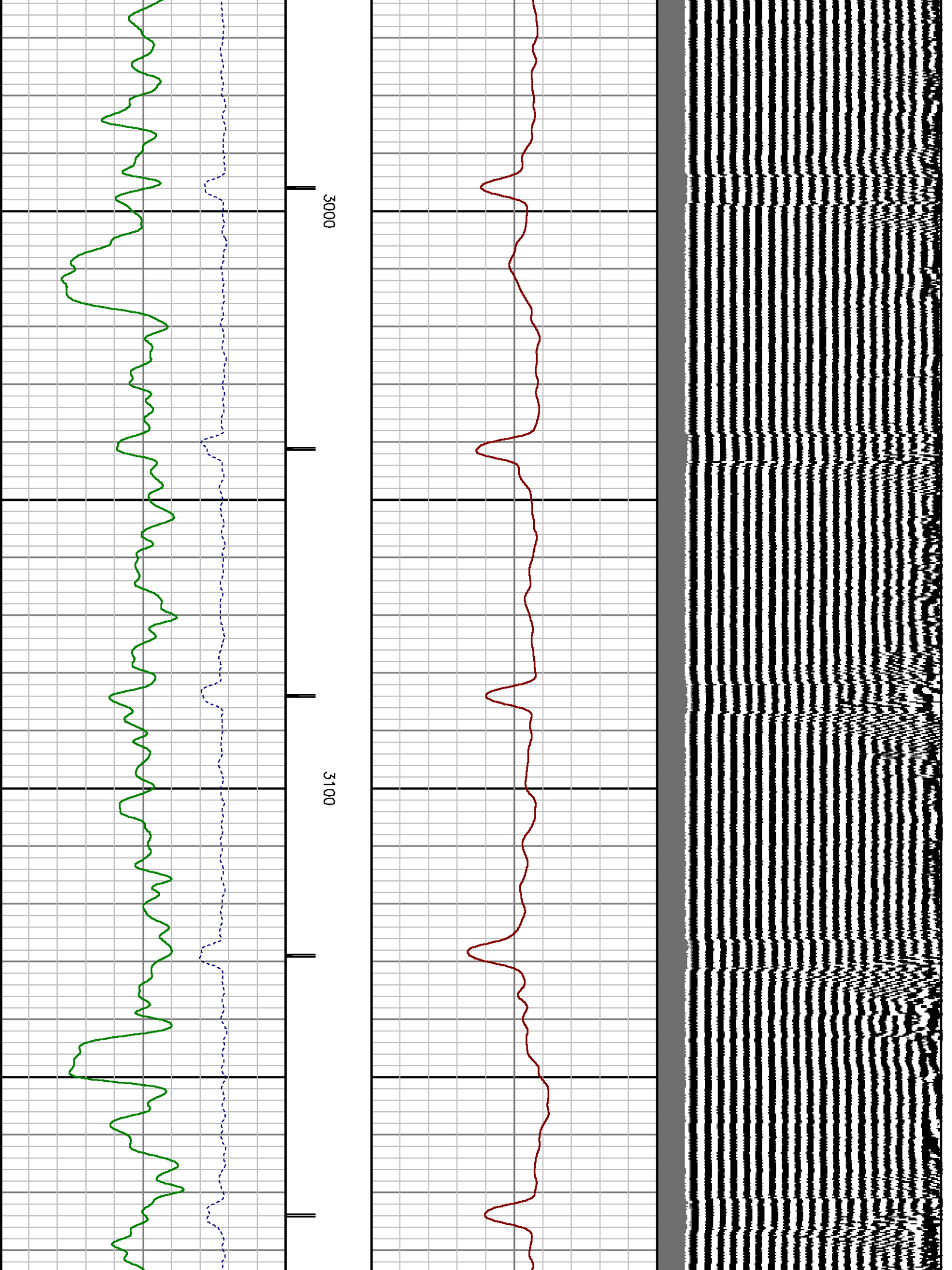


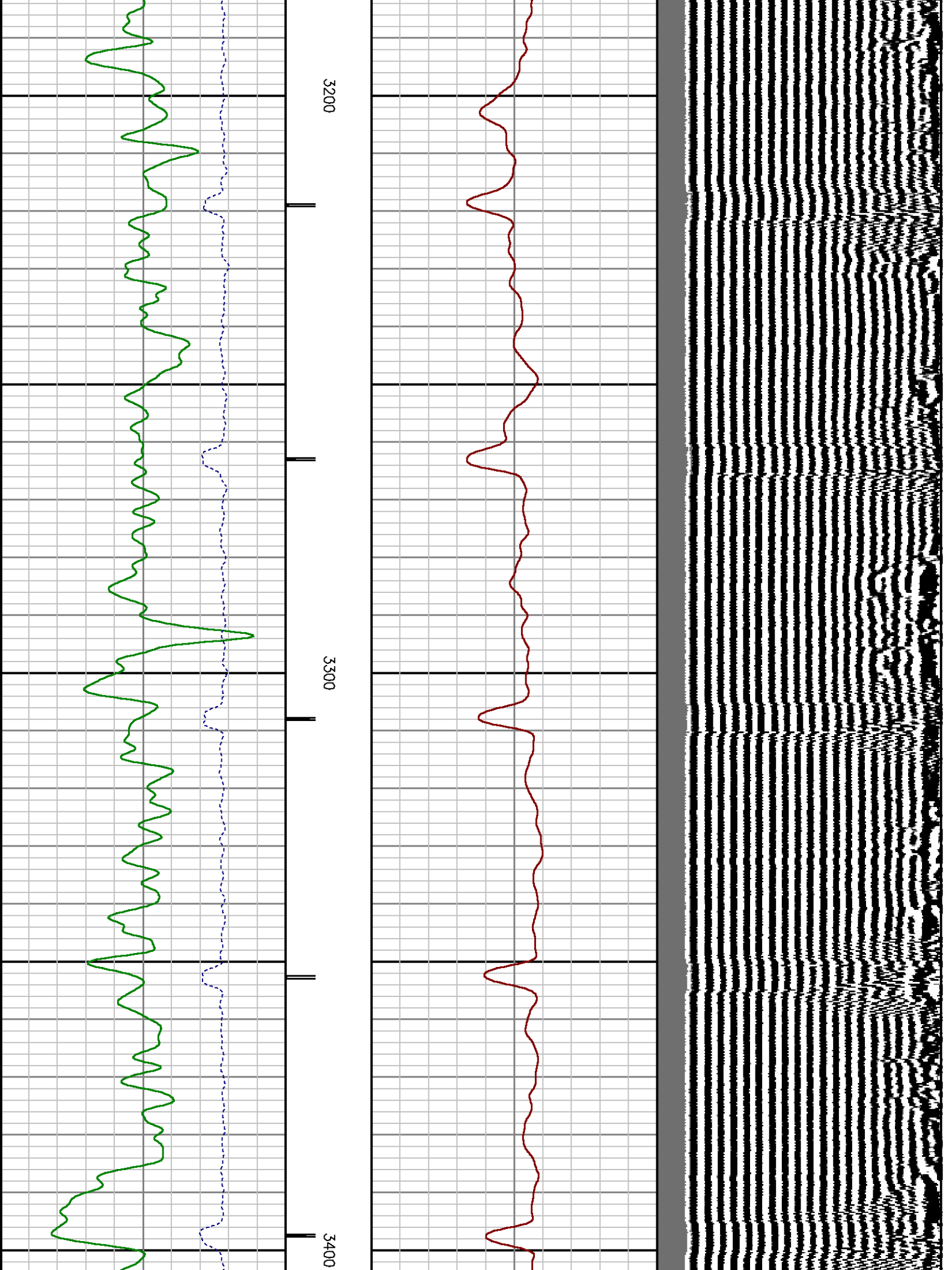


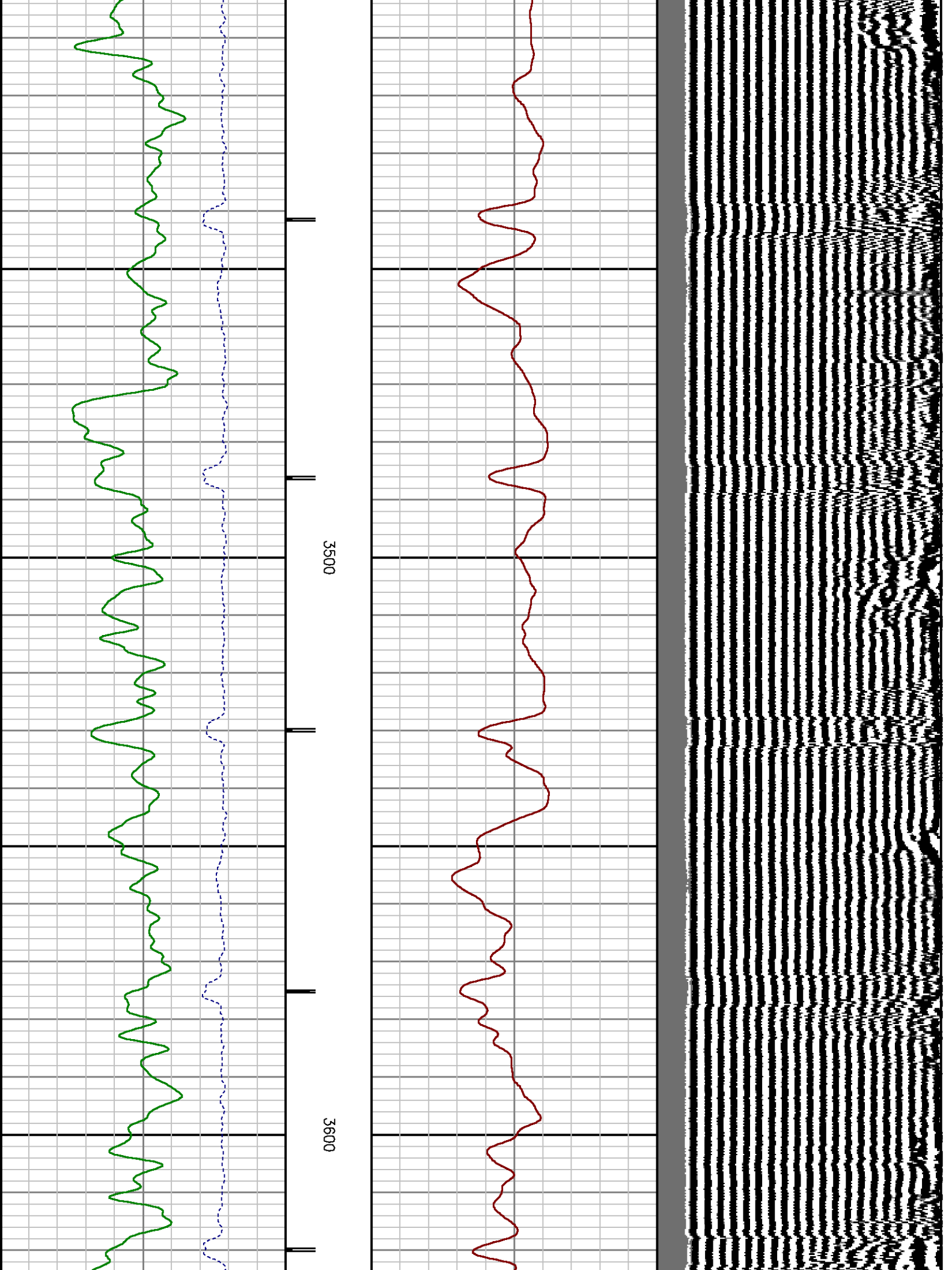


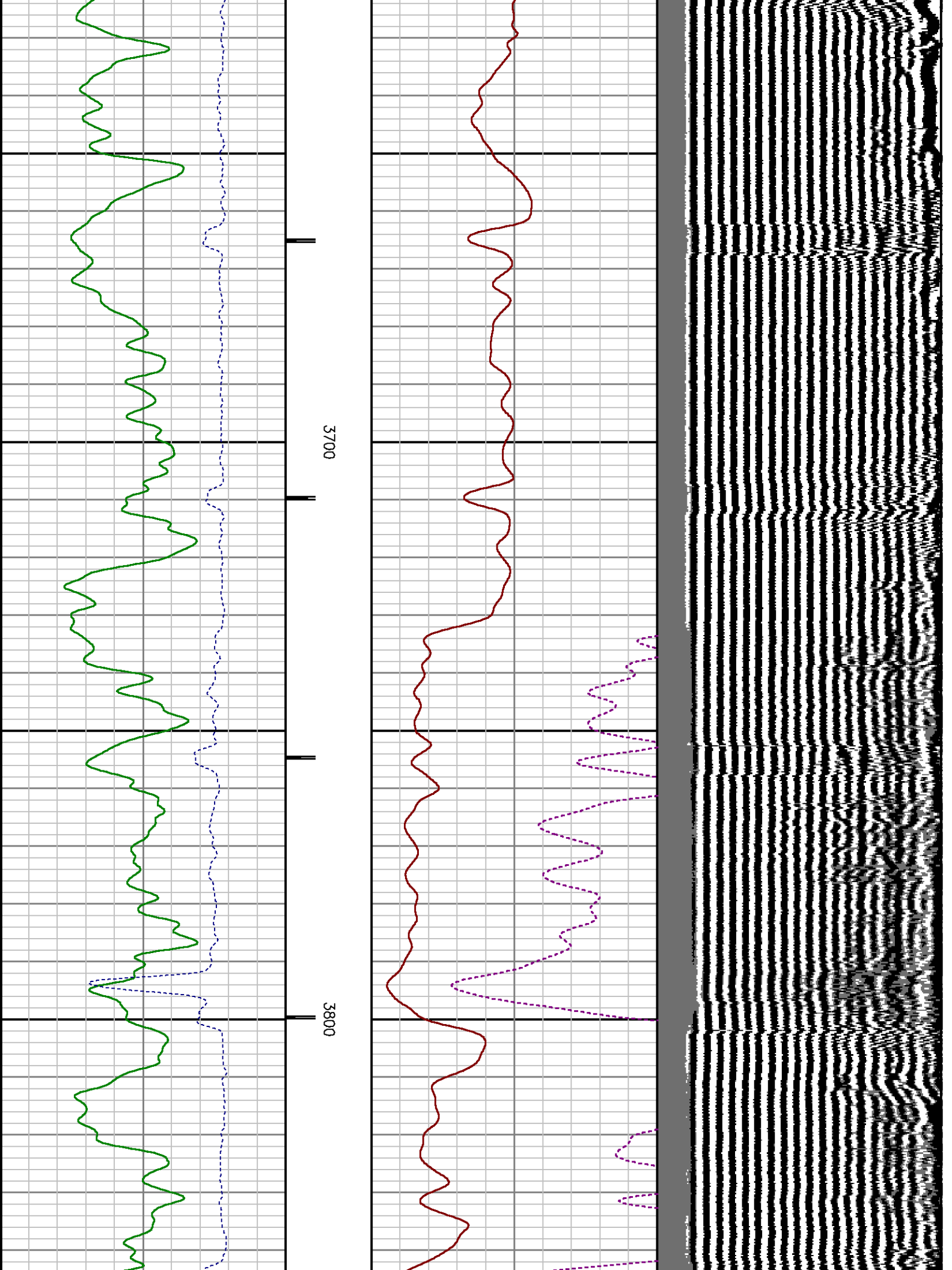


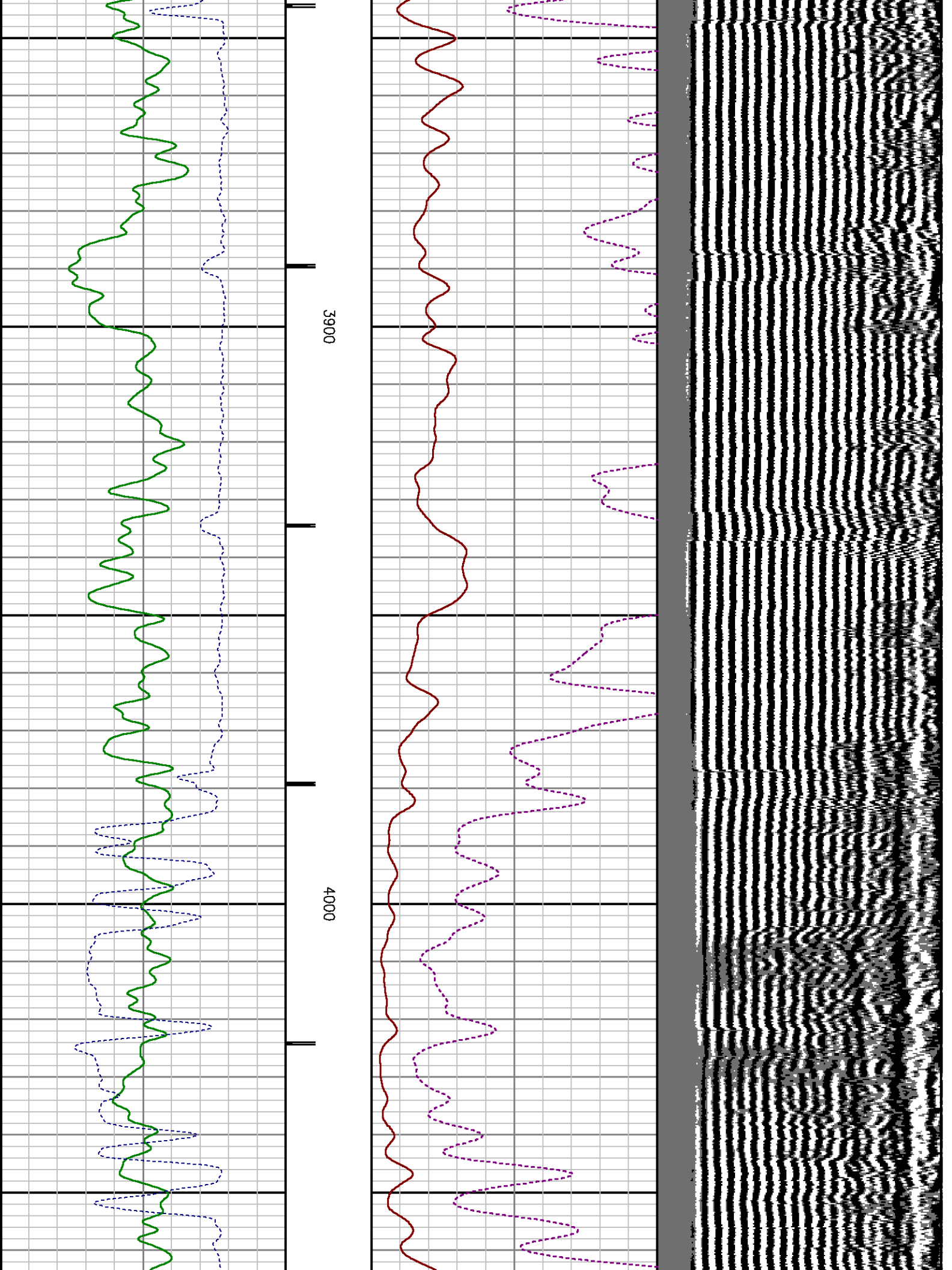


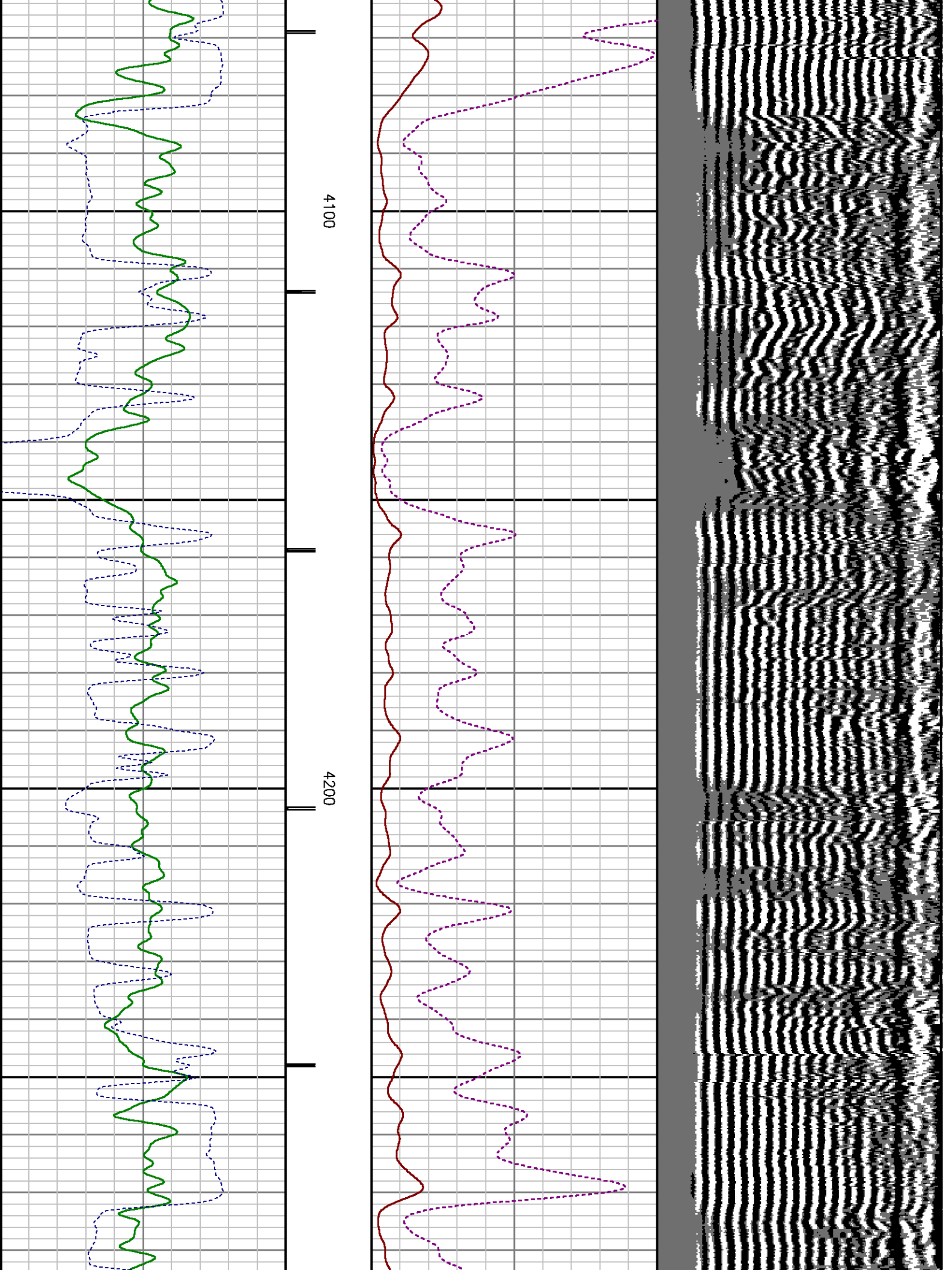


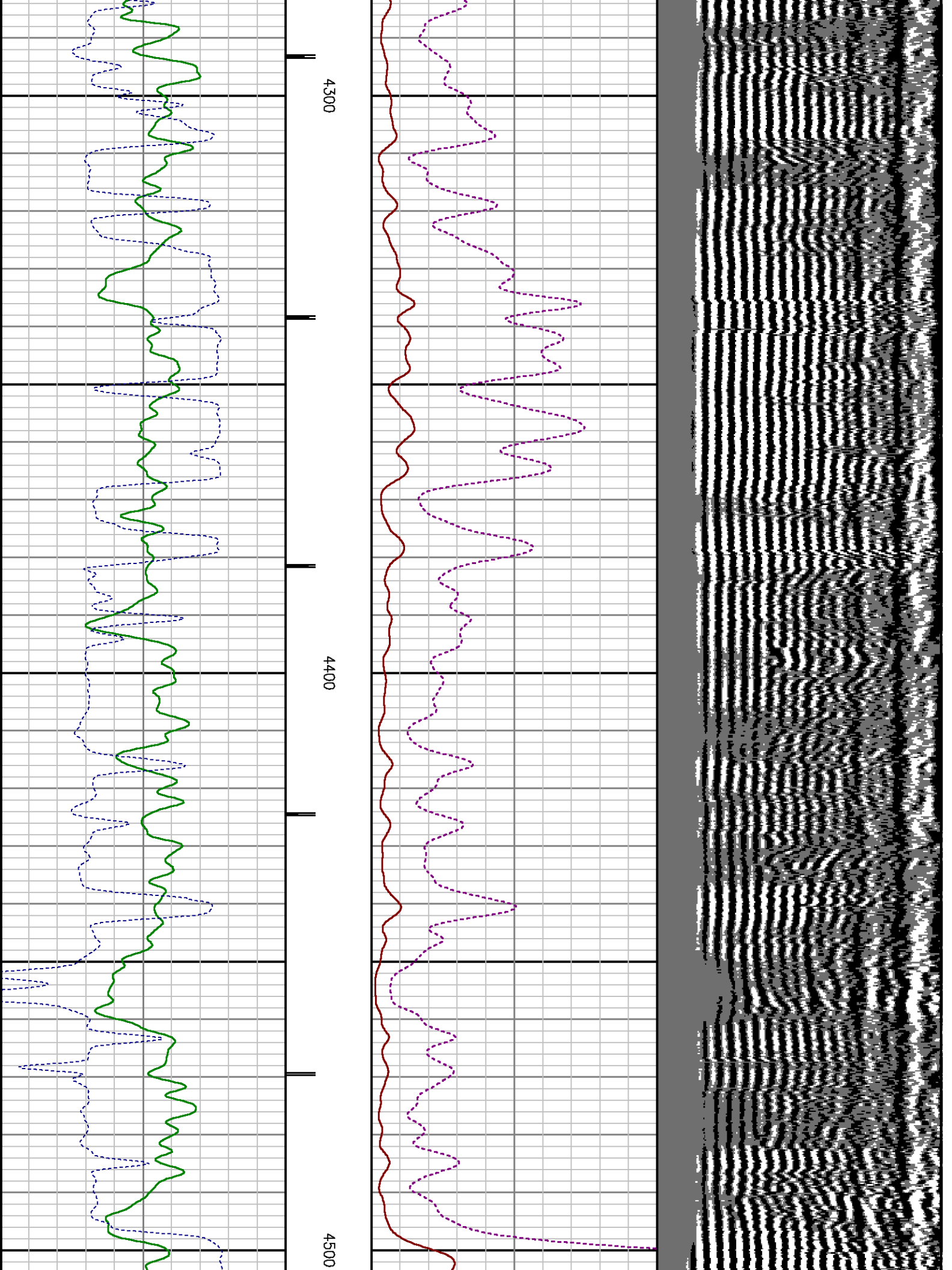


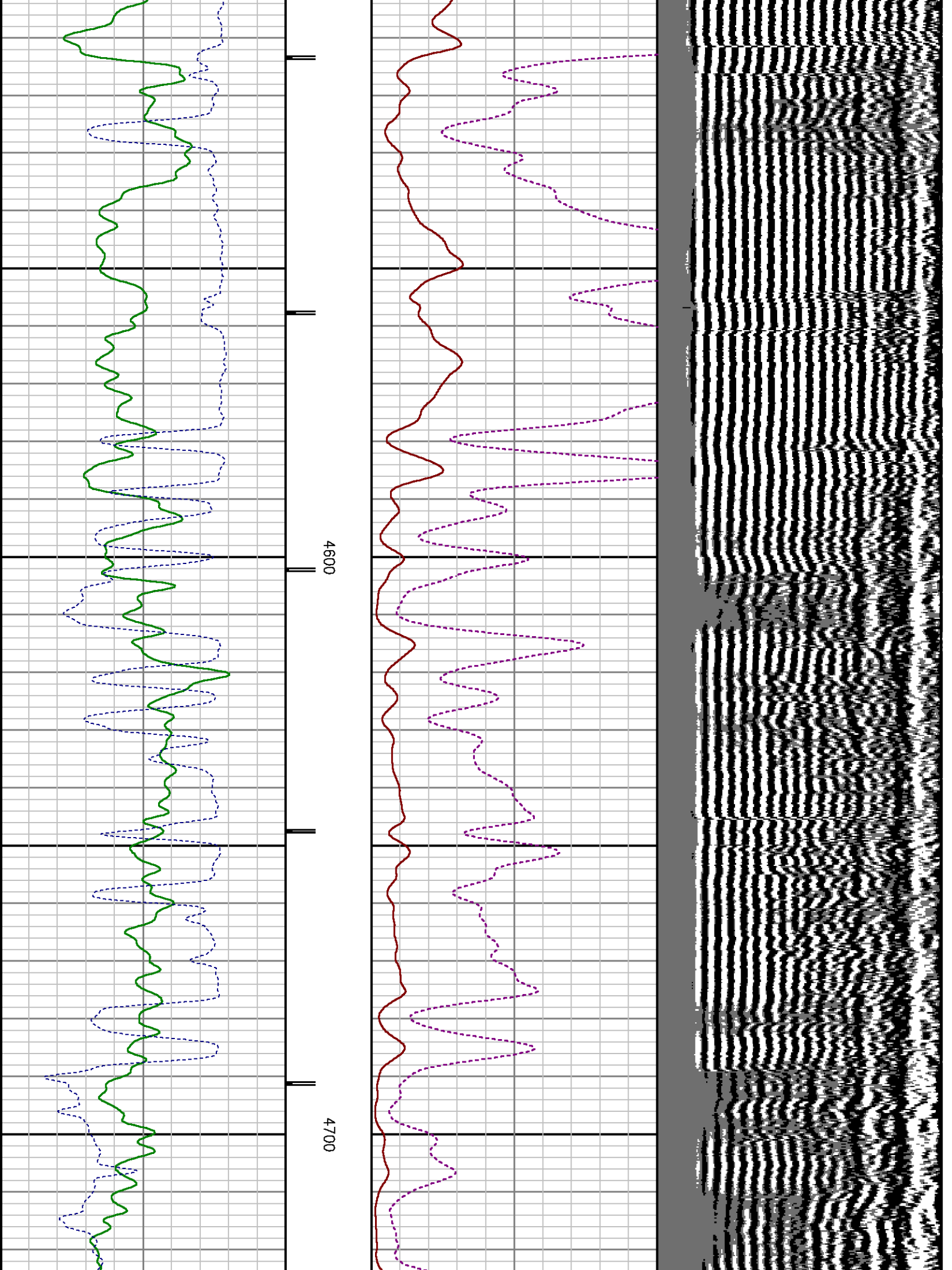


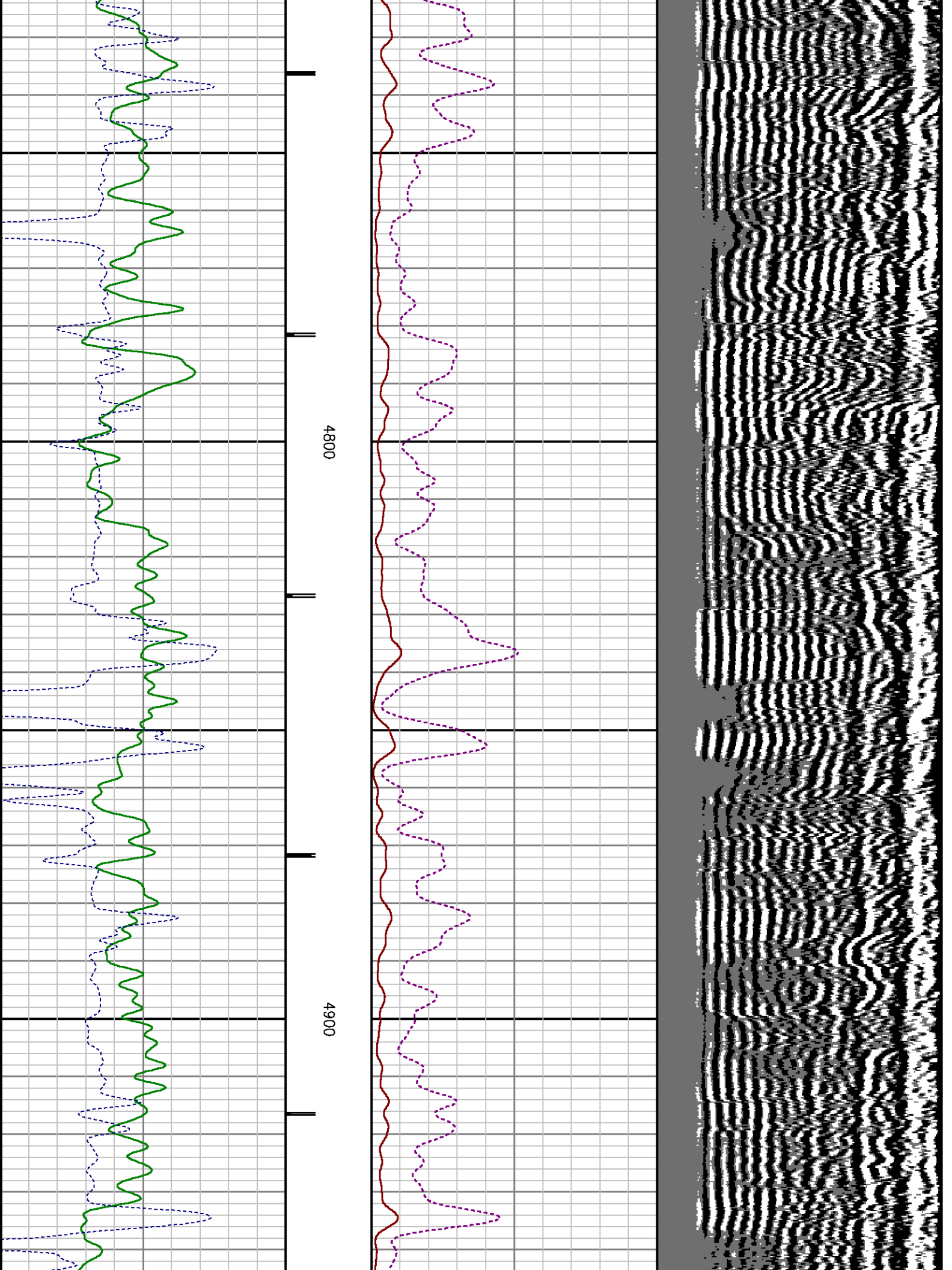


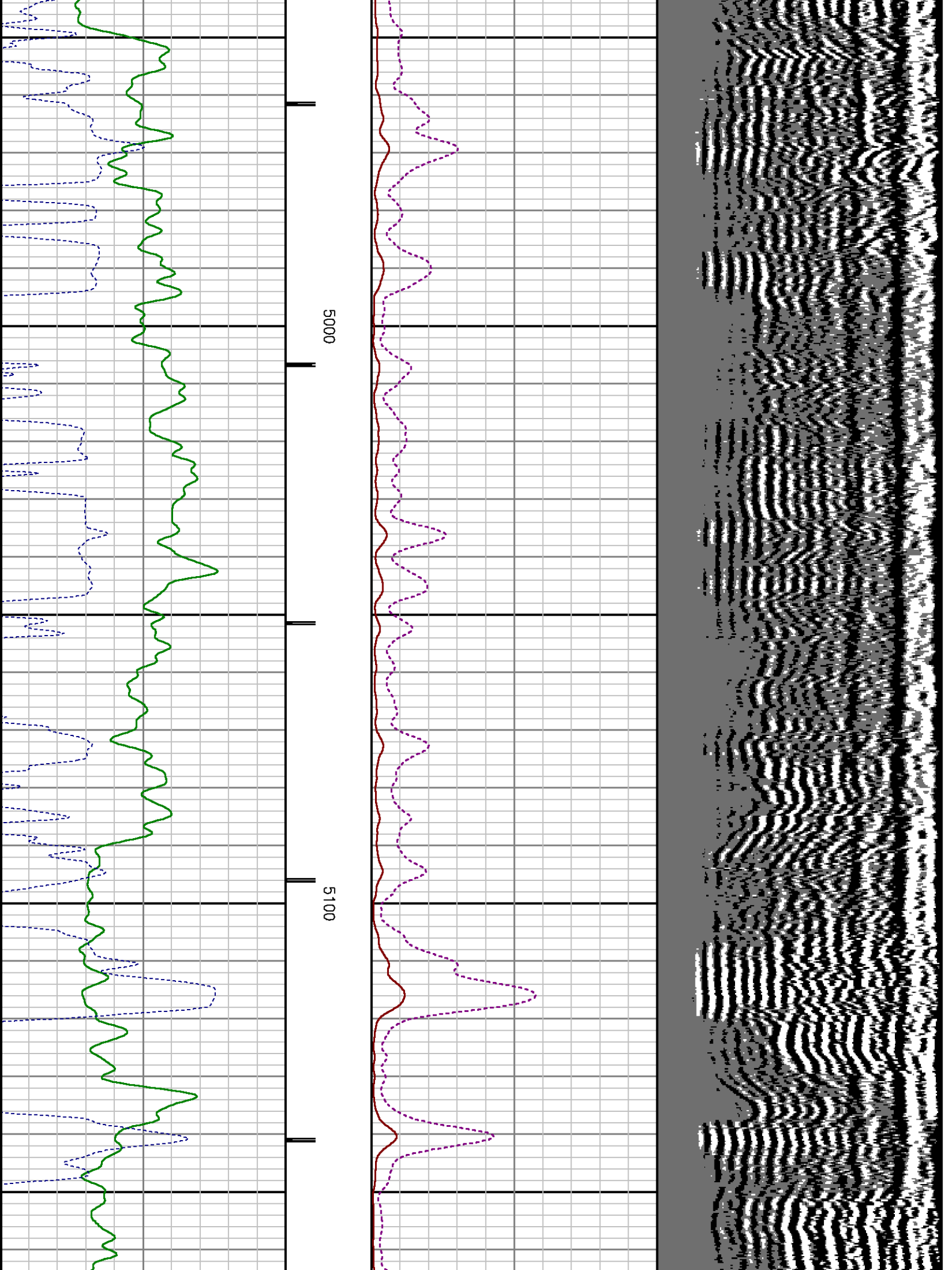


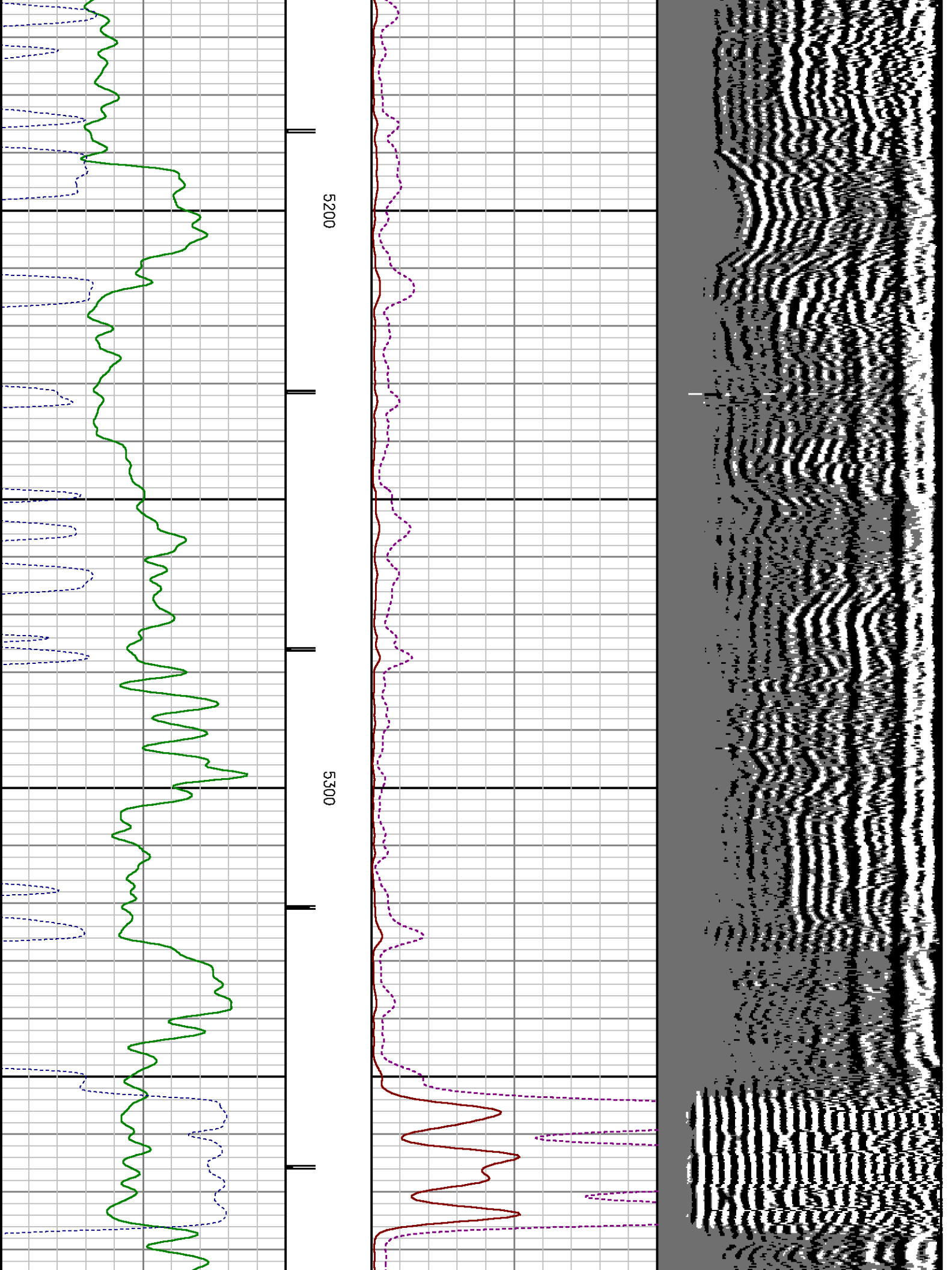


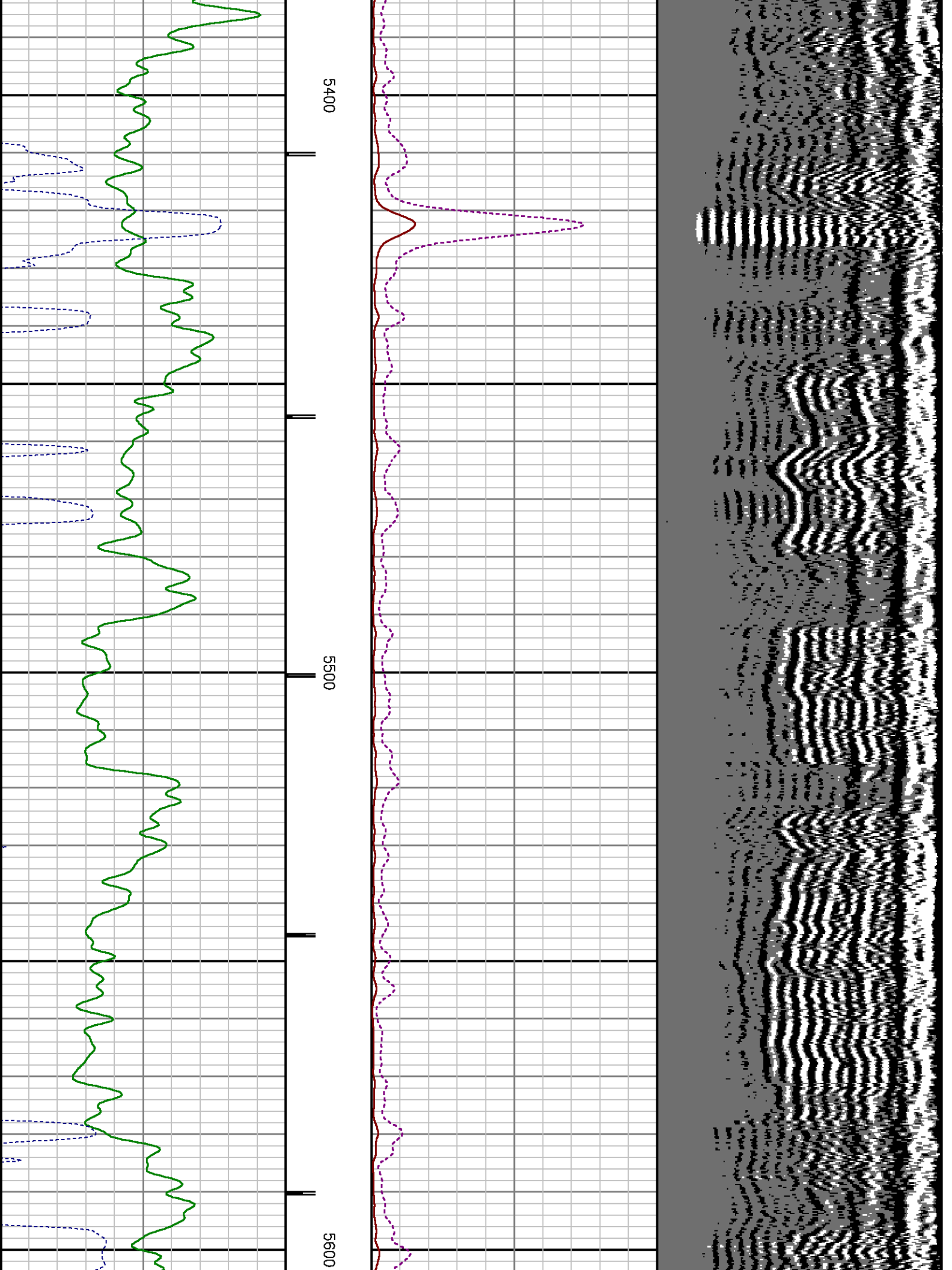


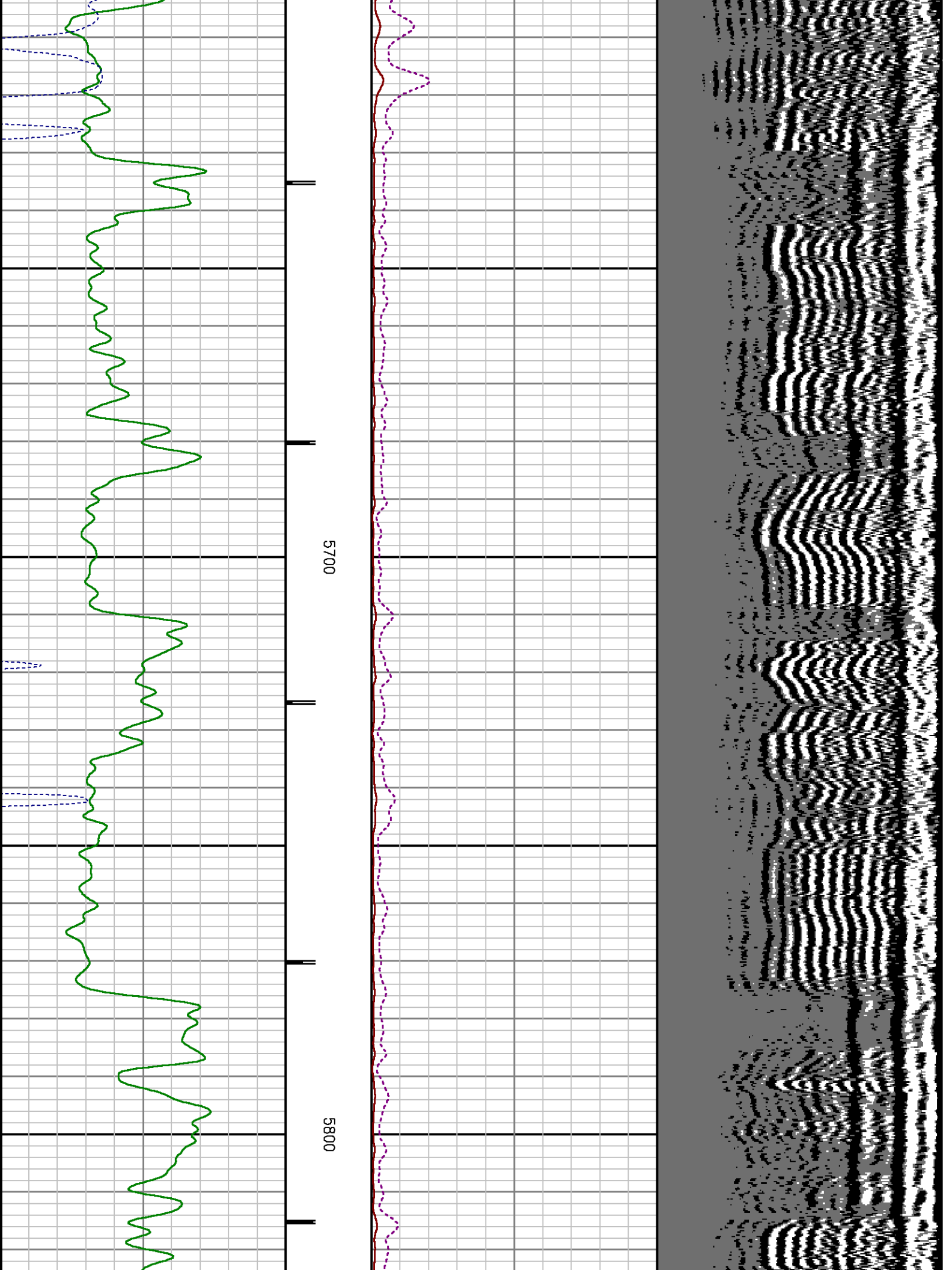


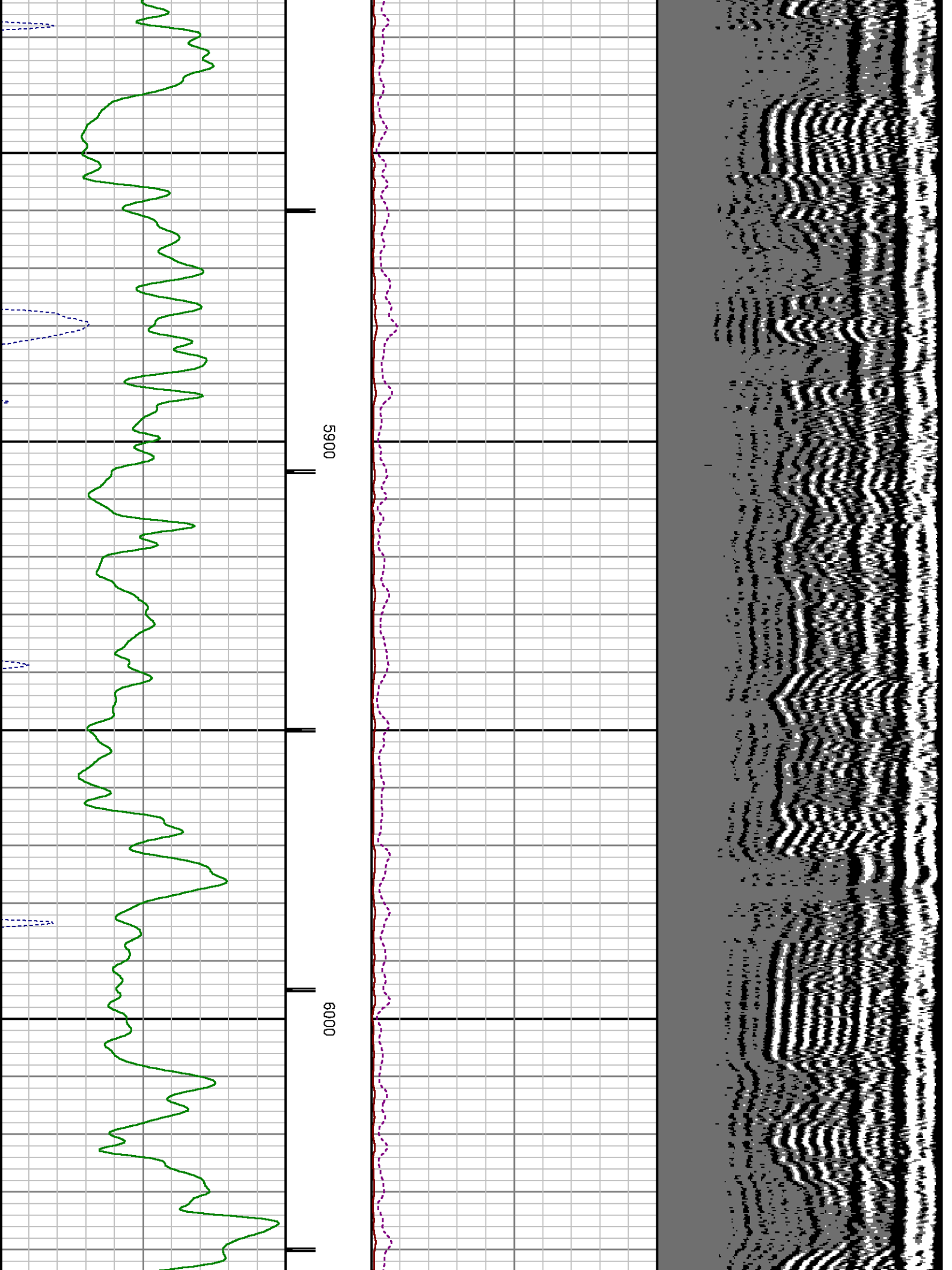


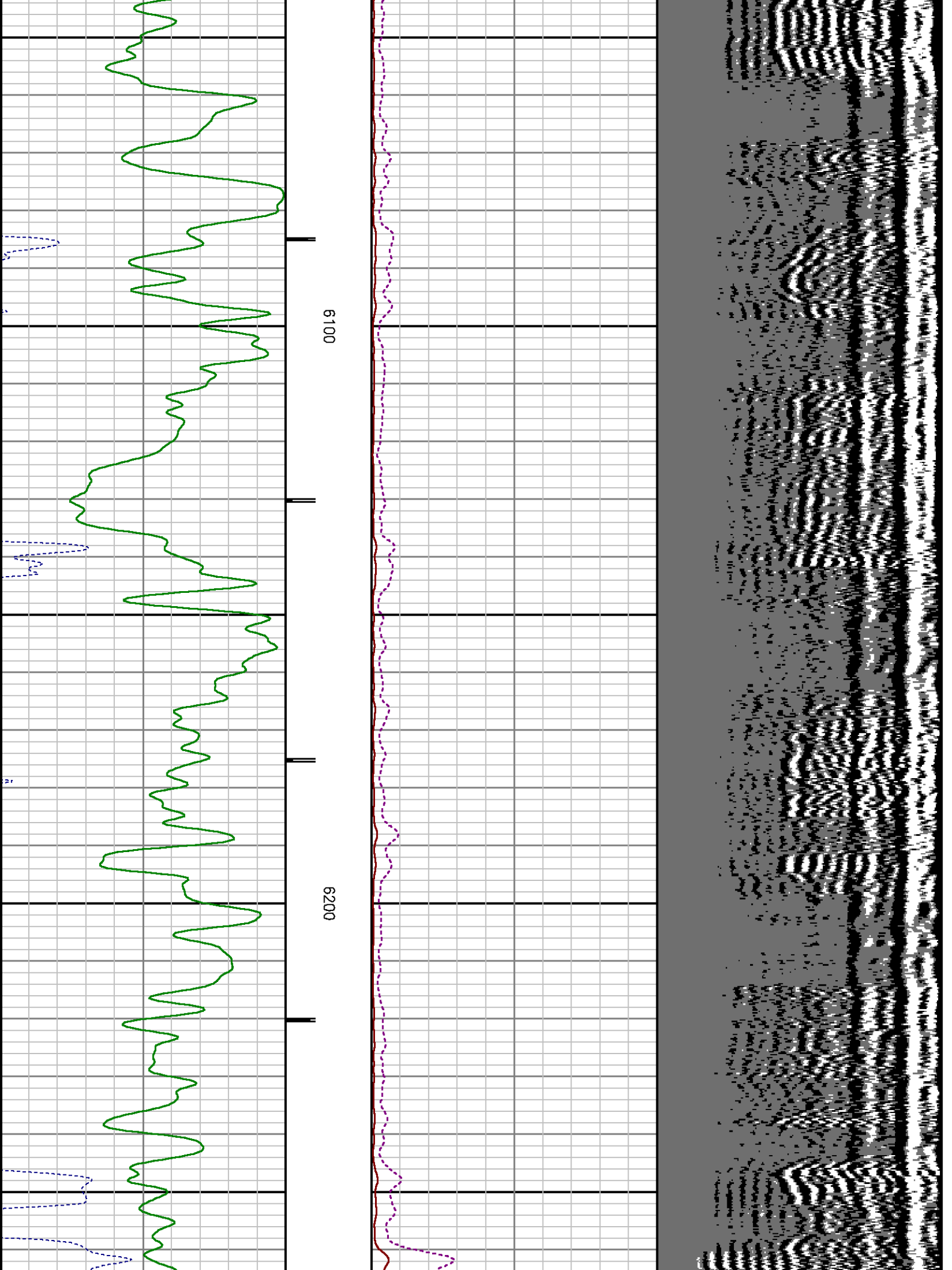


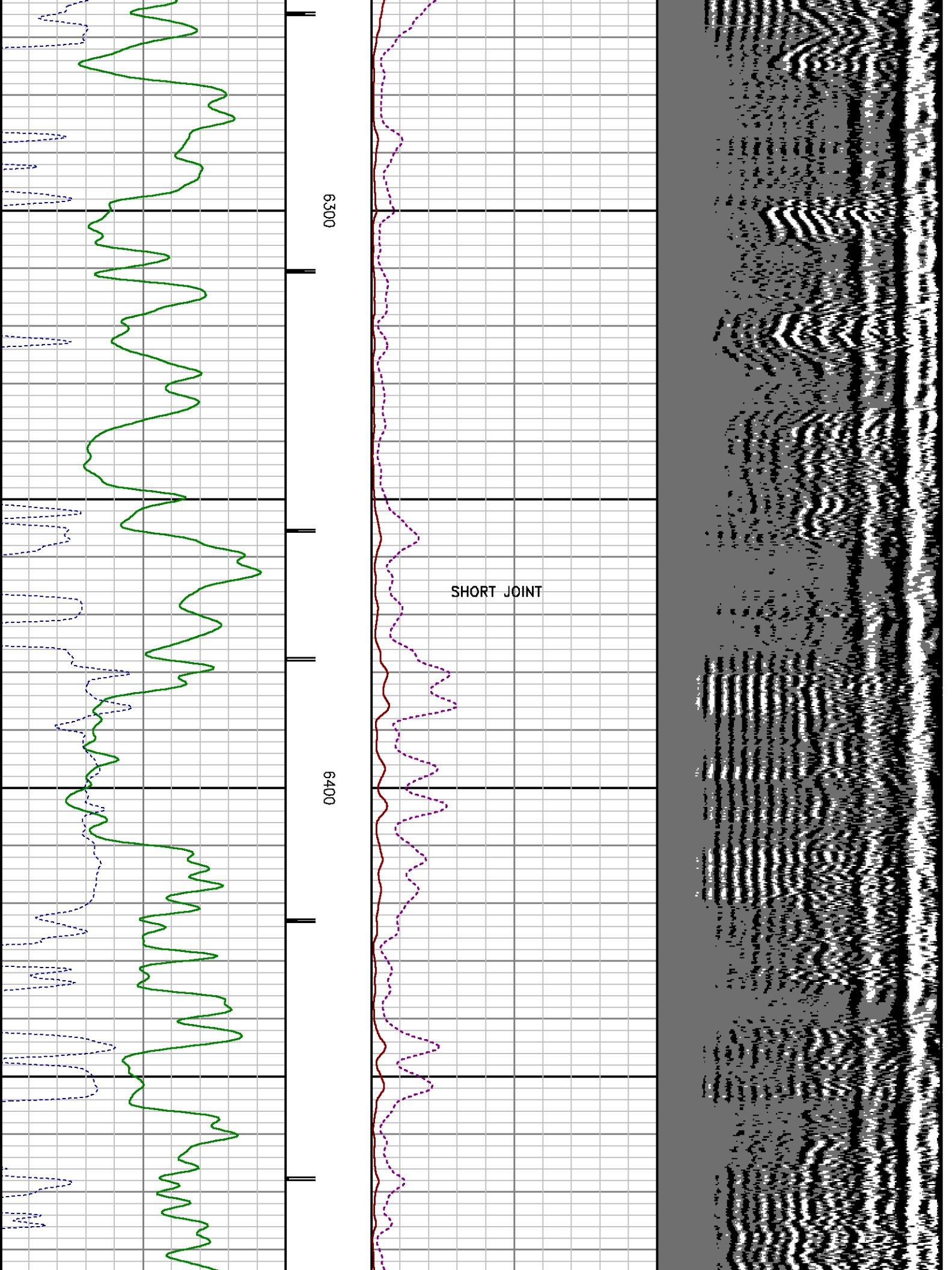


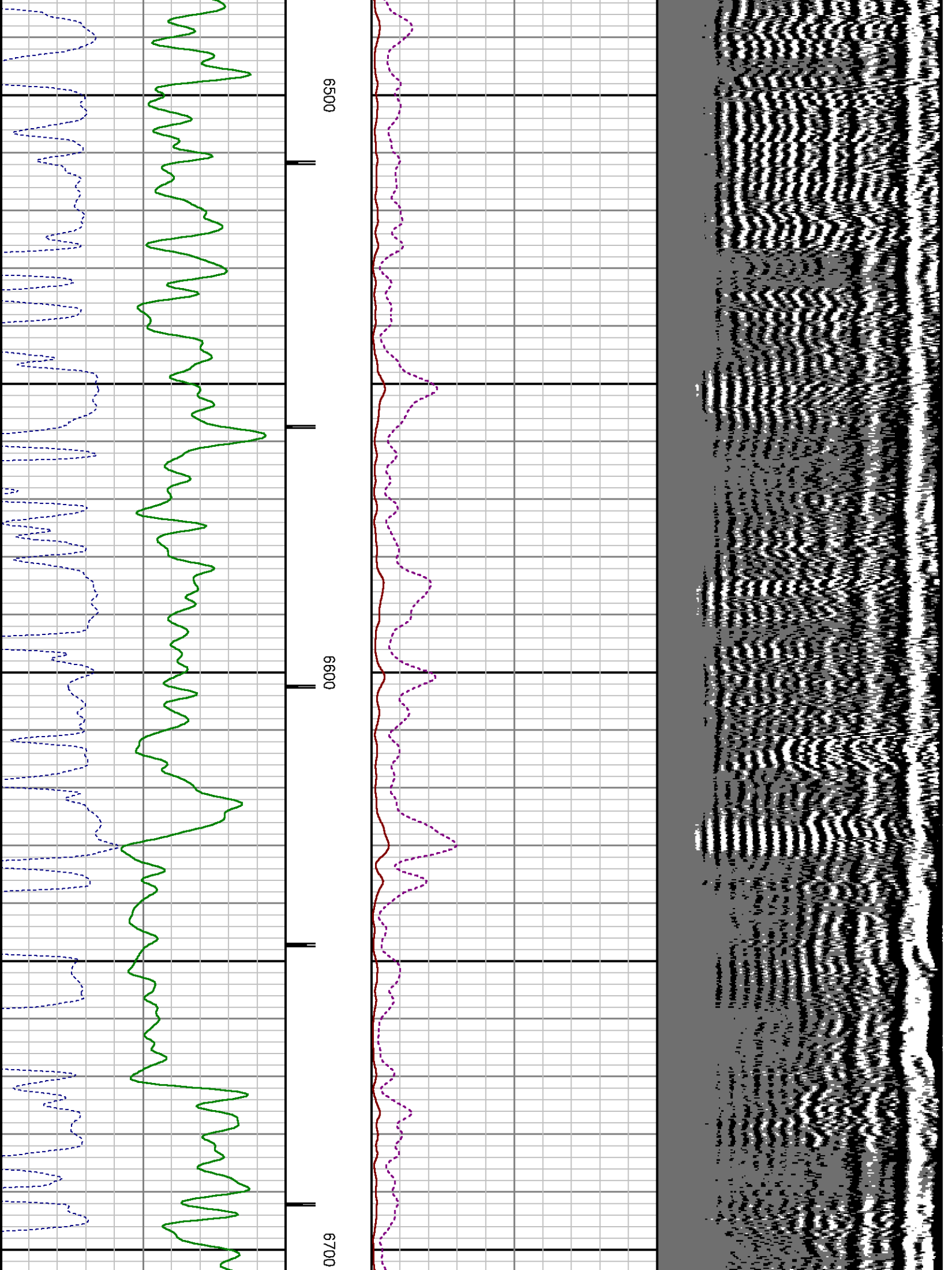


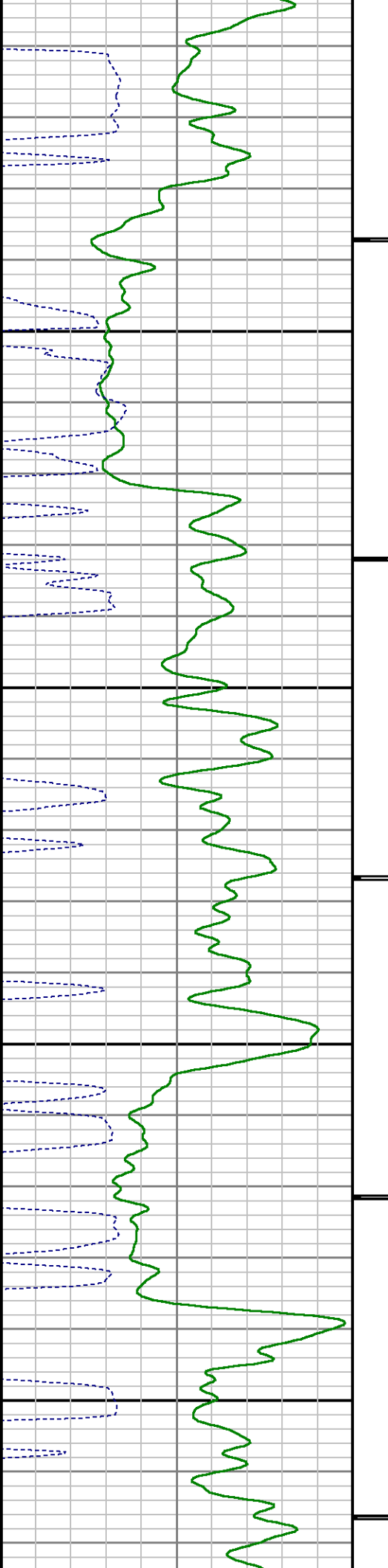






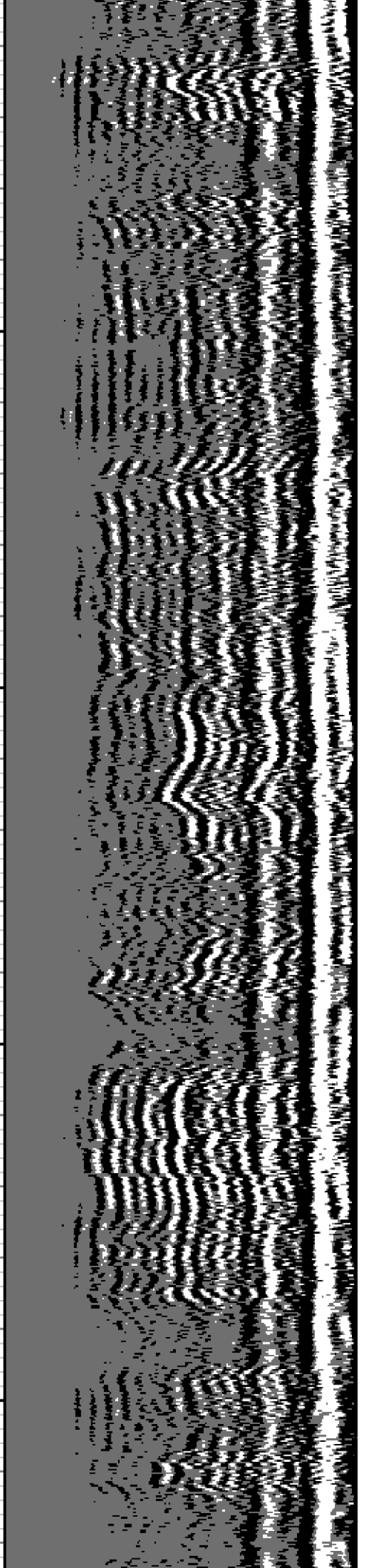
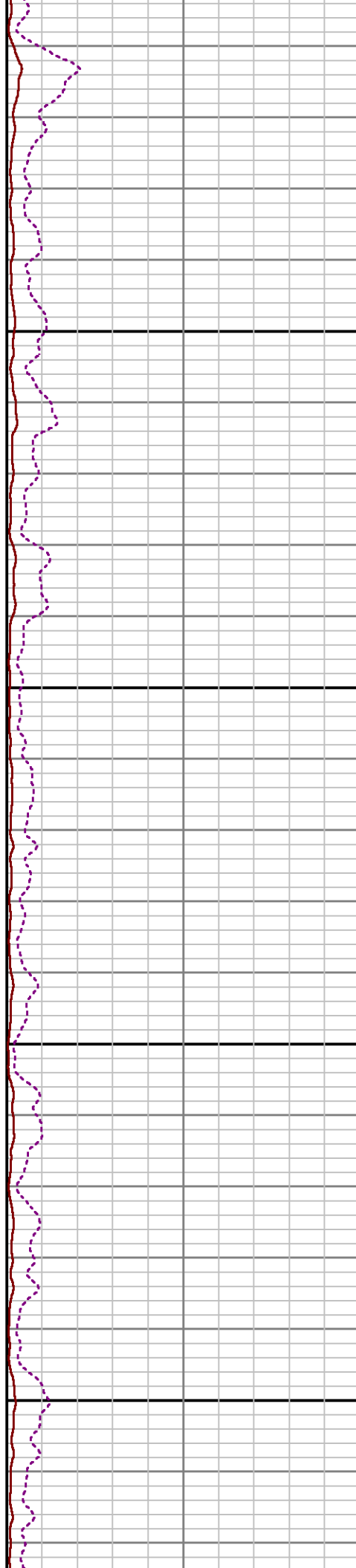


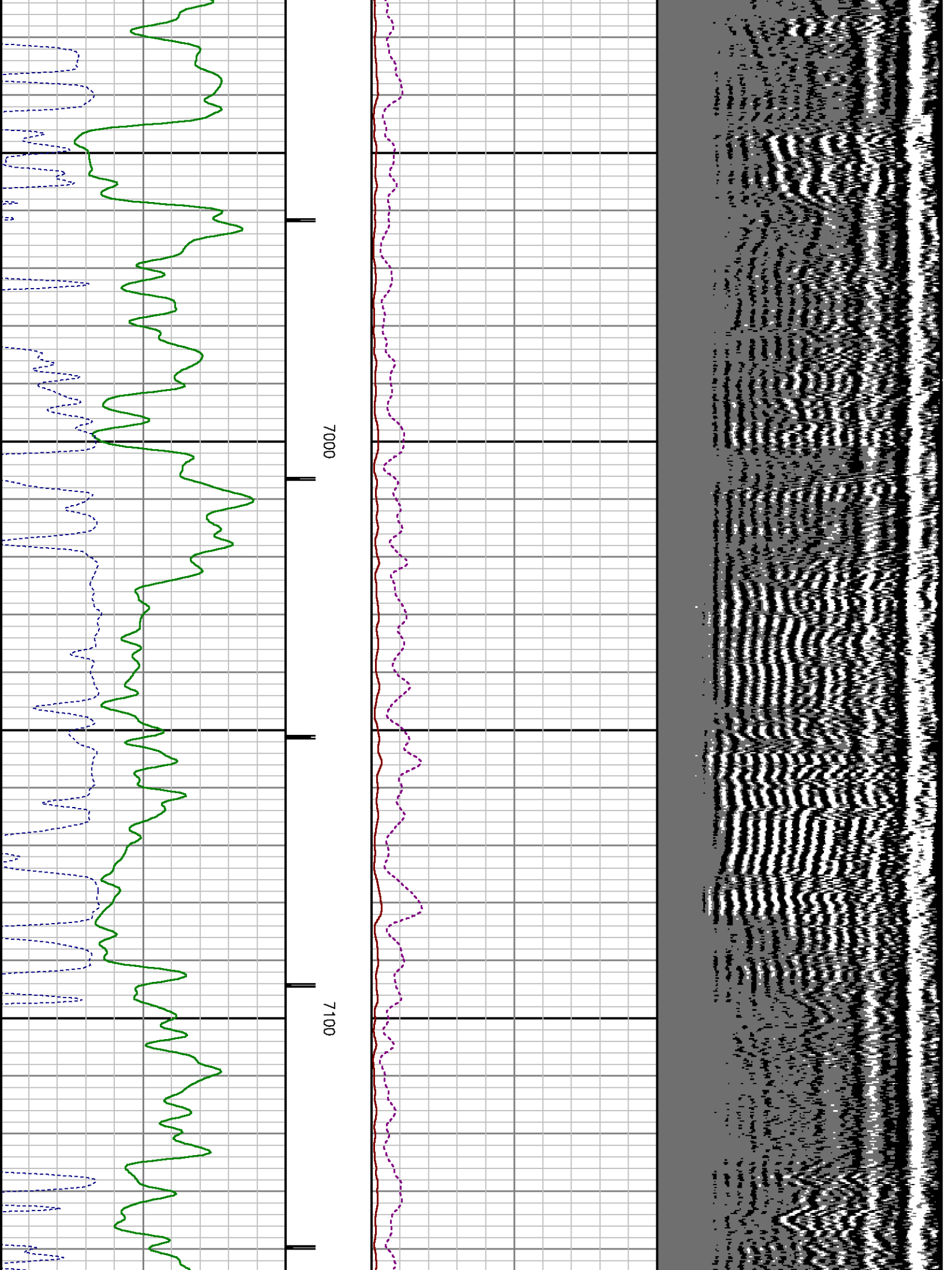


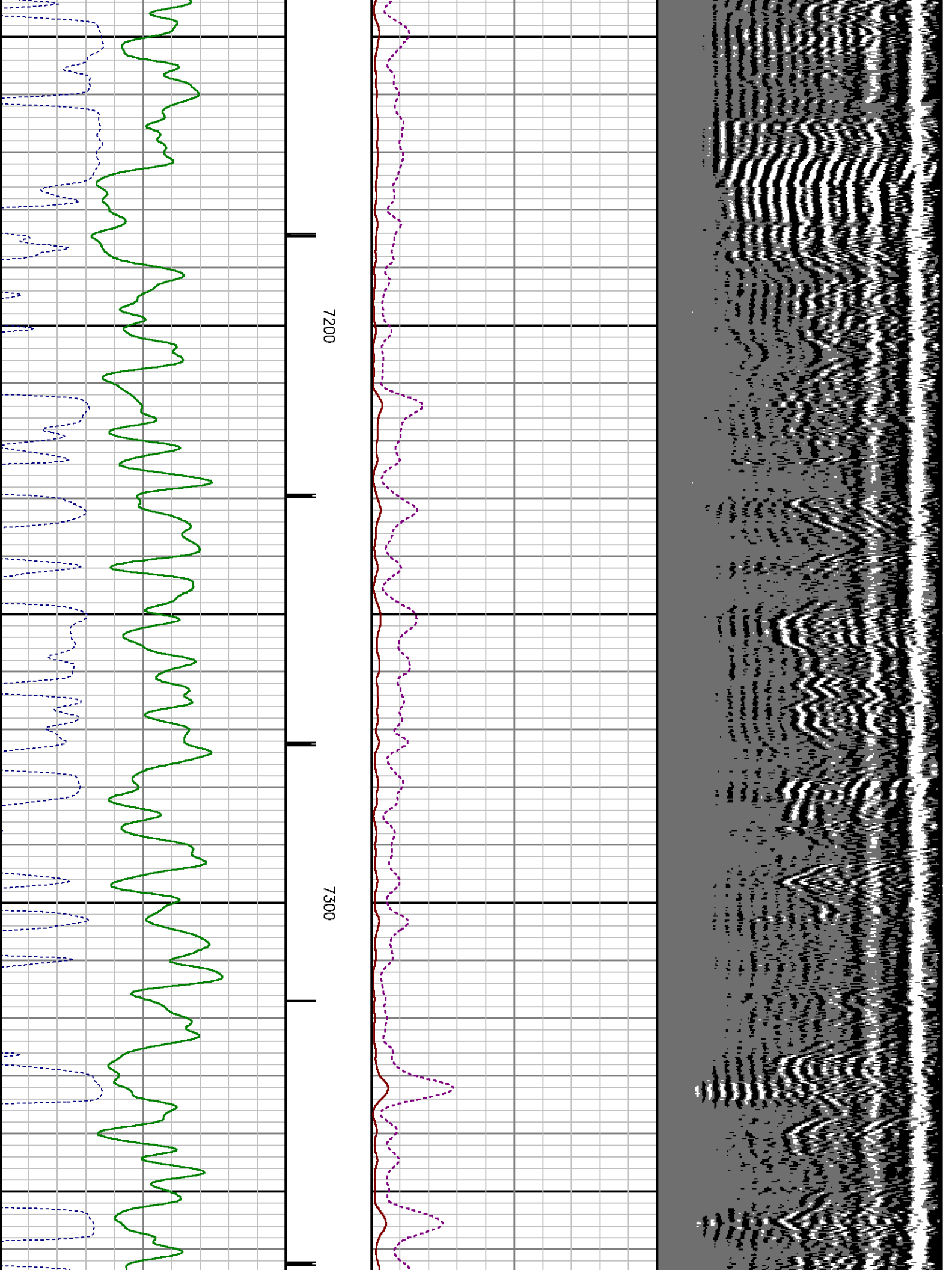


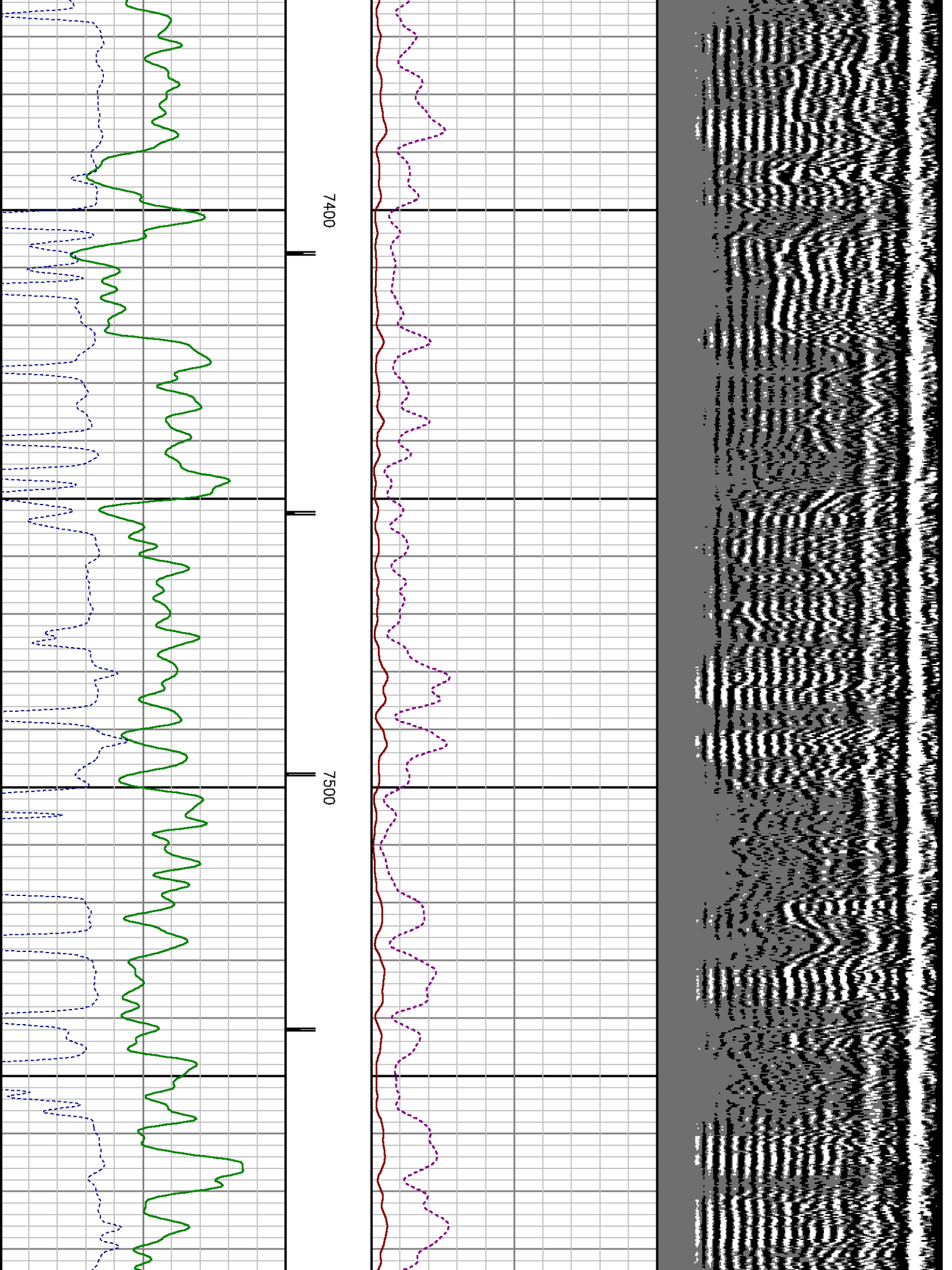
0089

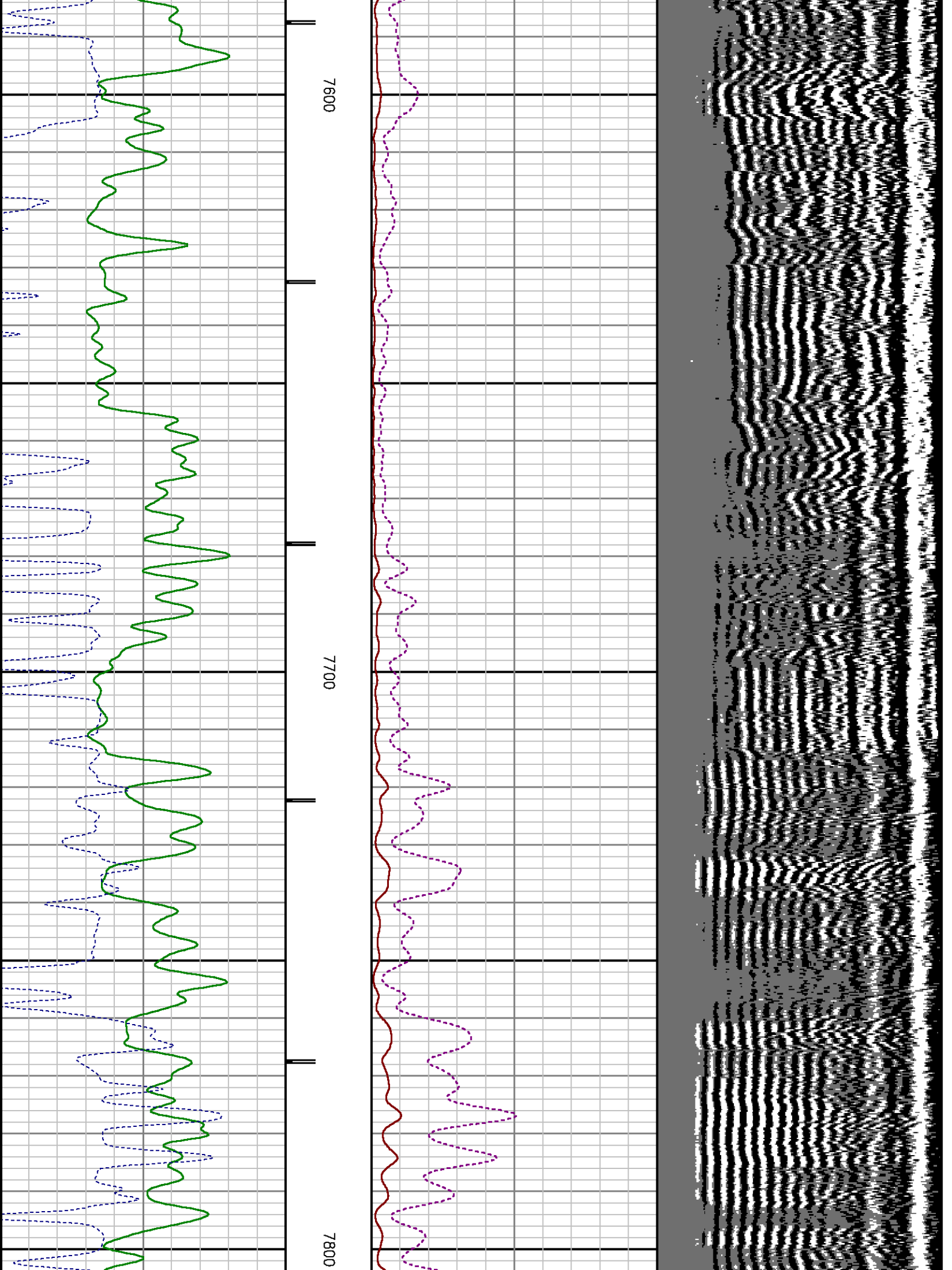
0069

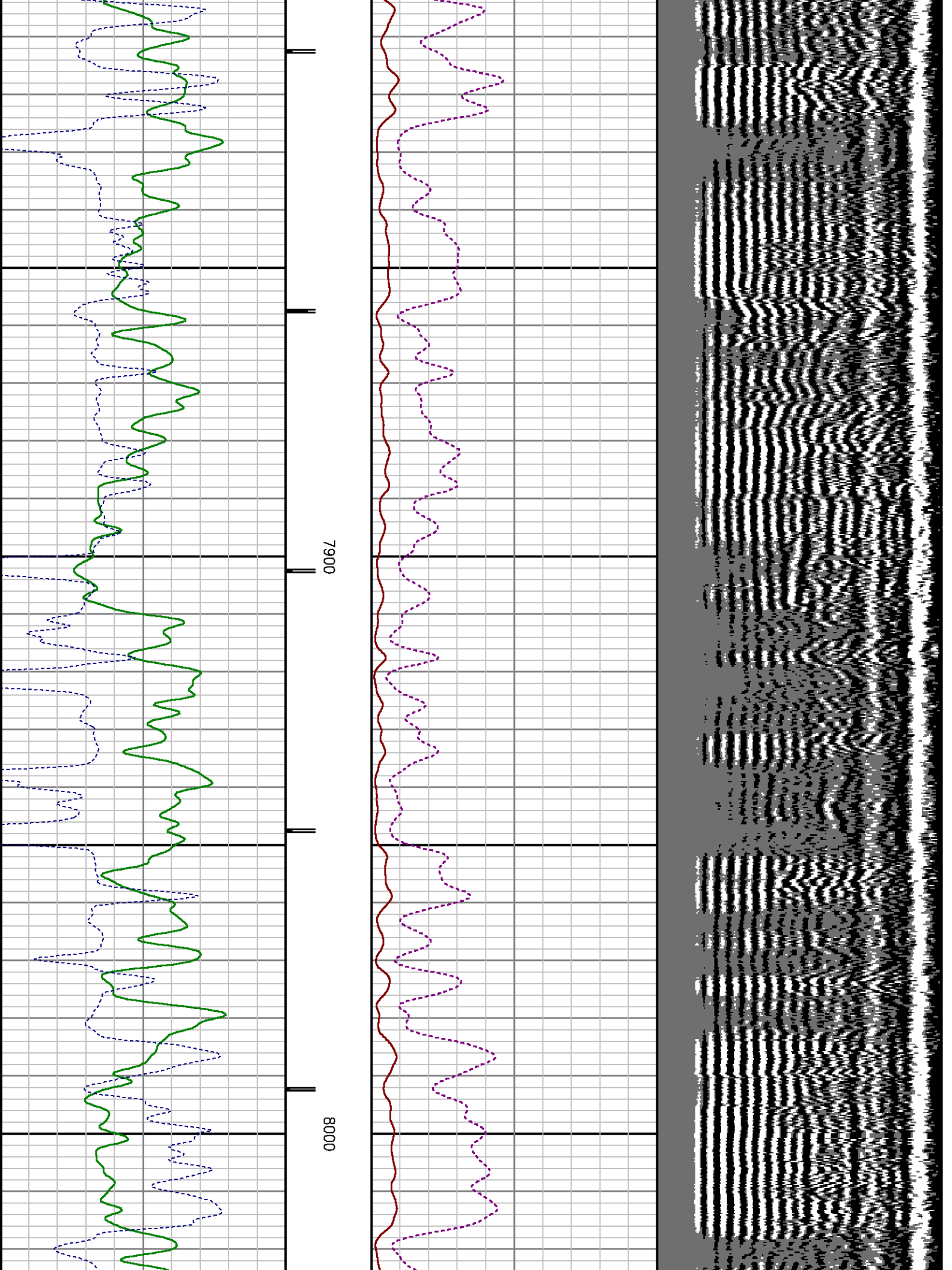


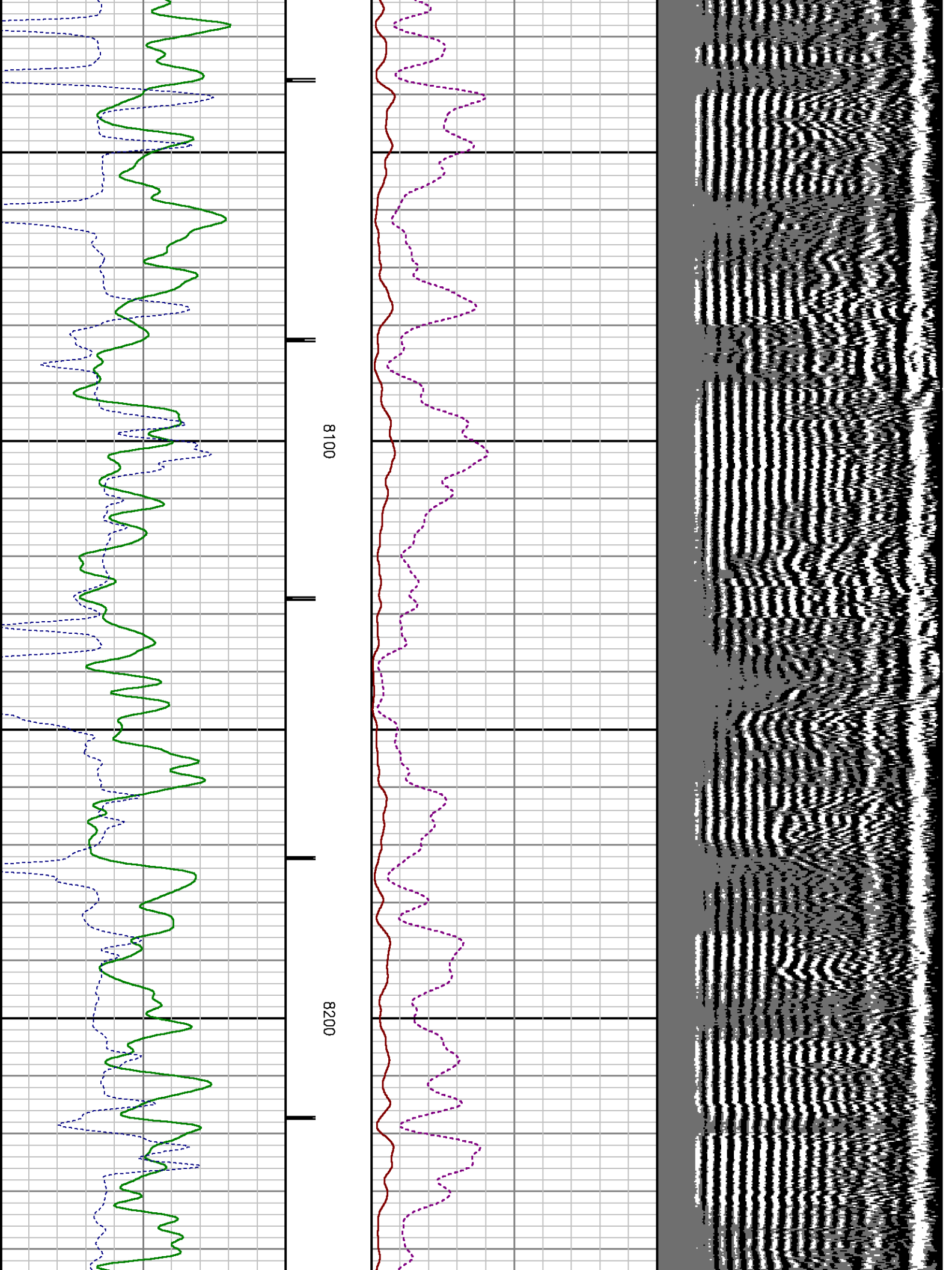


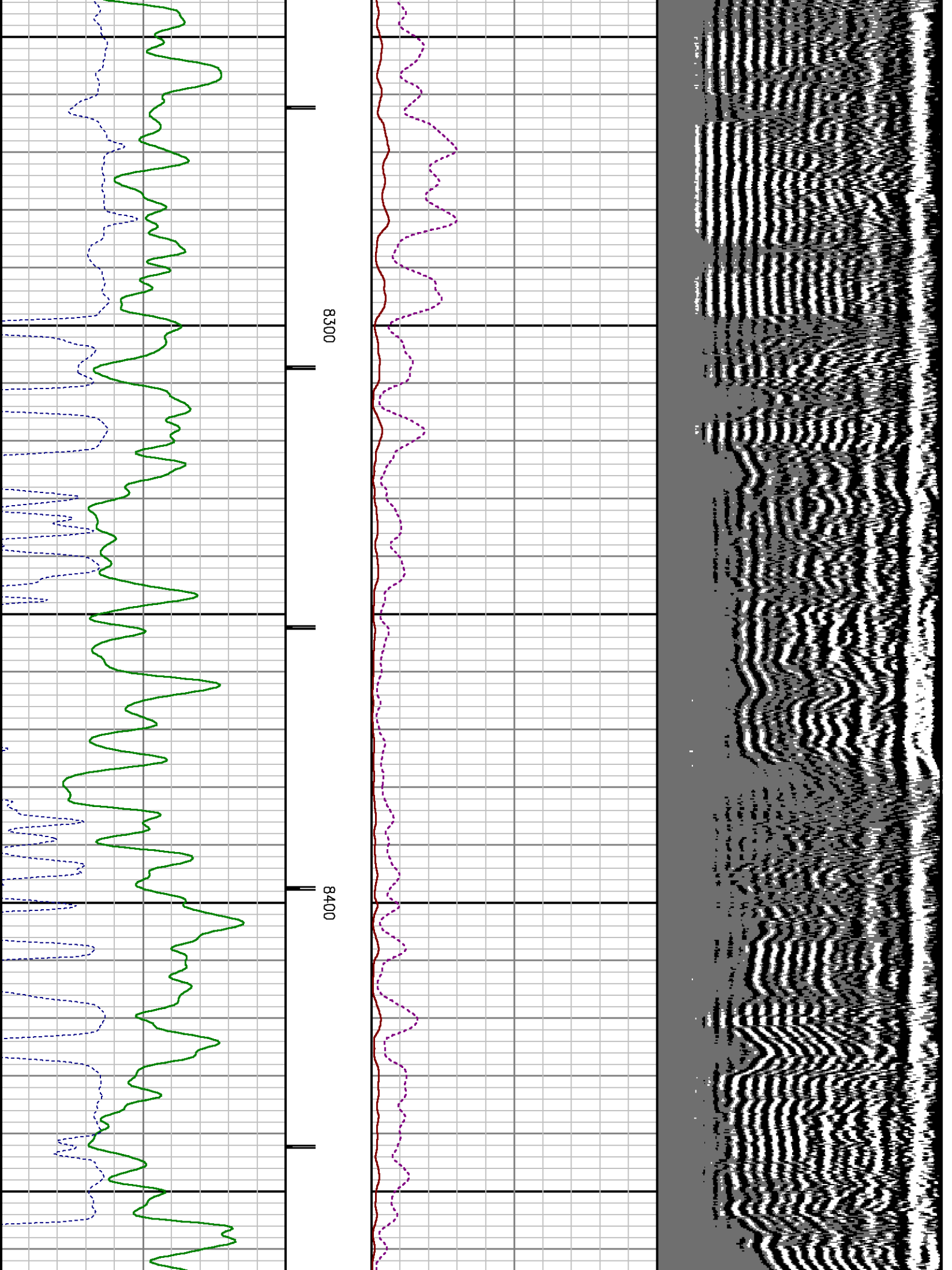


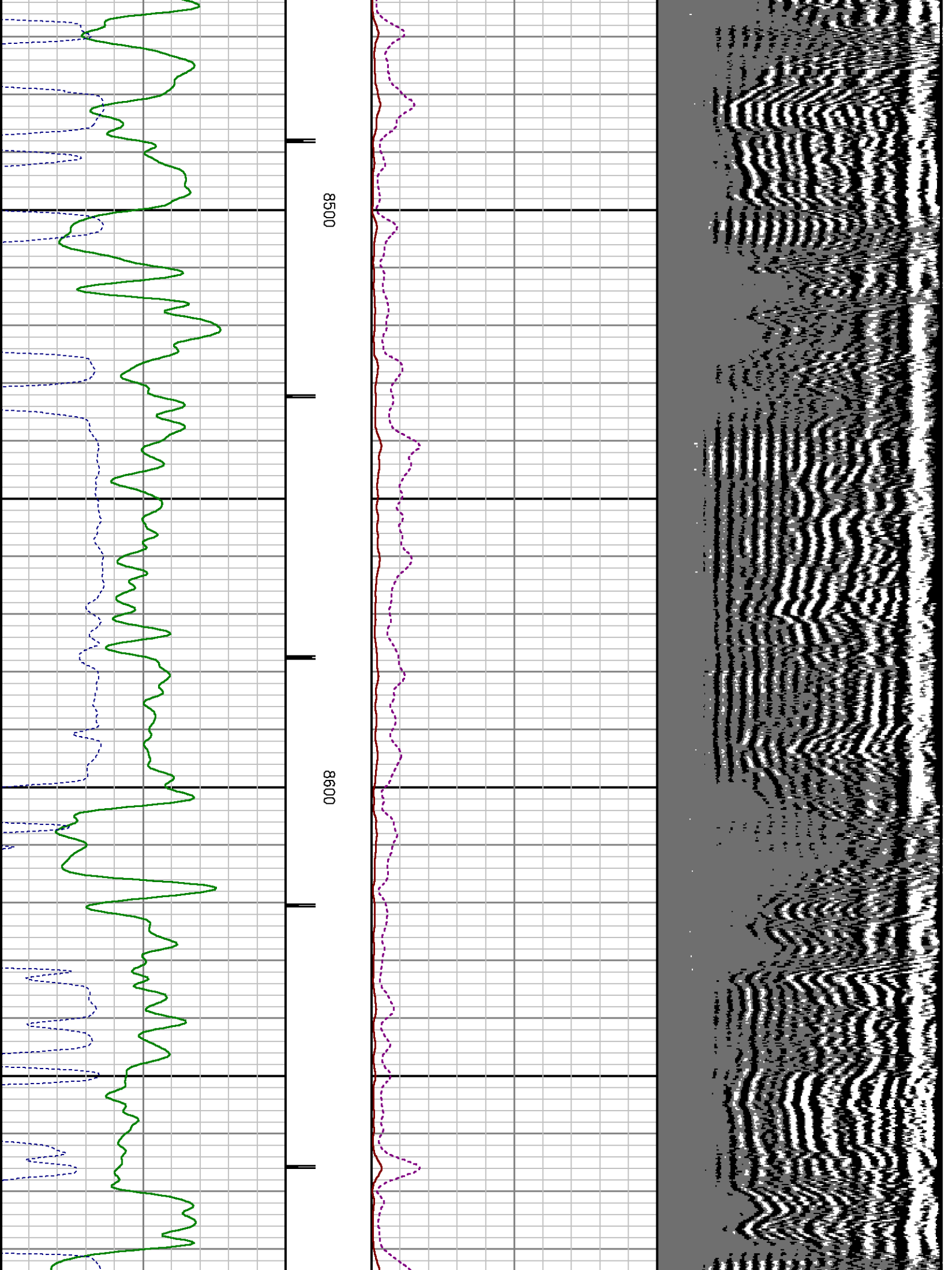


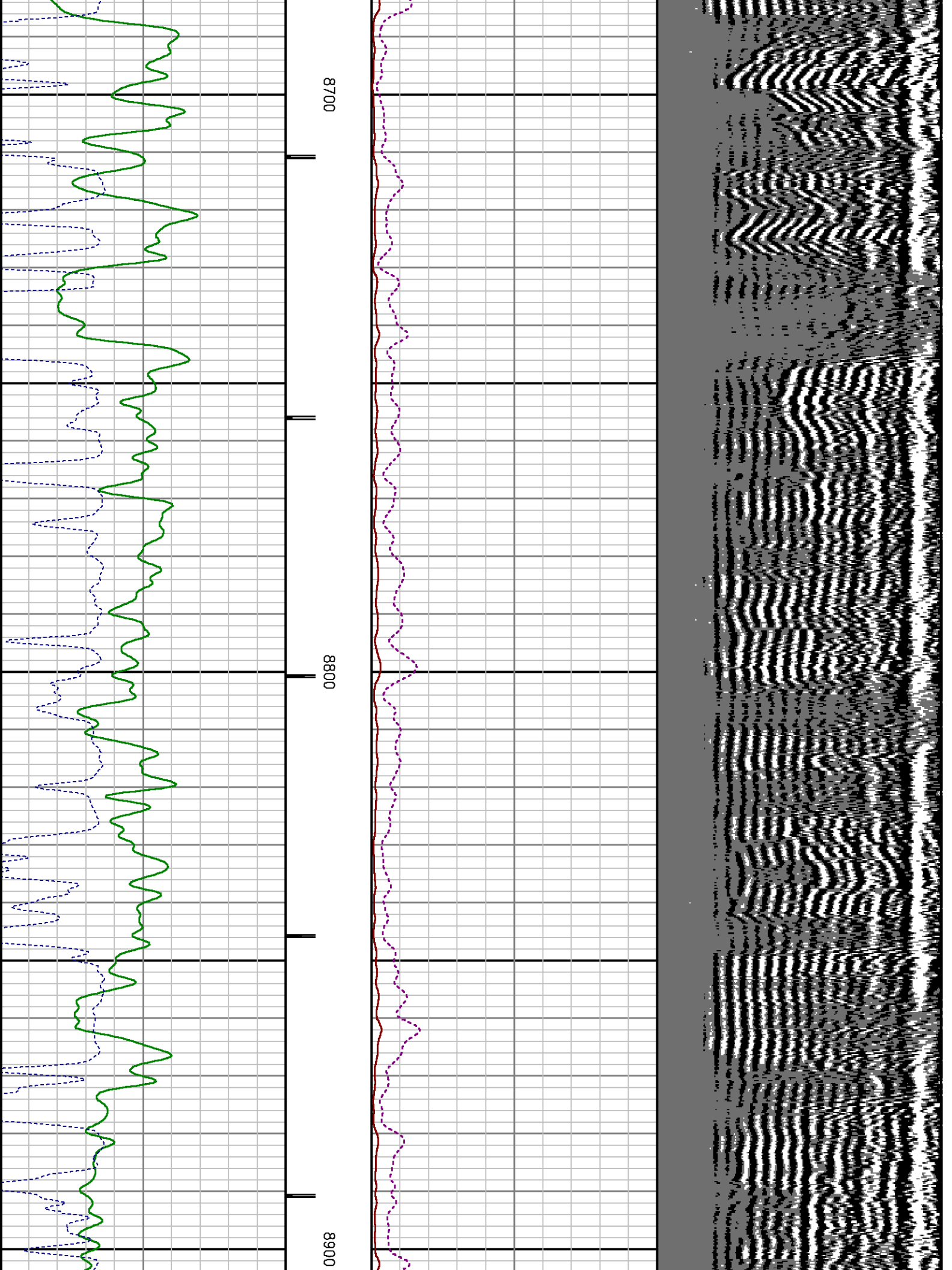


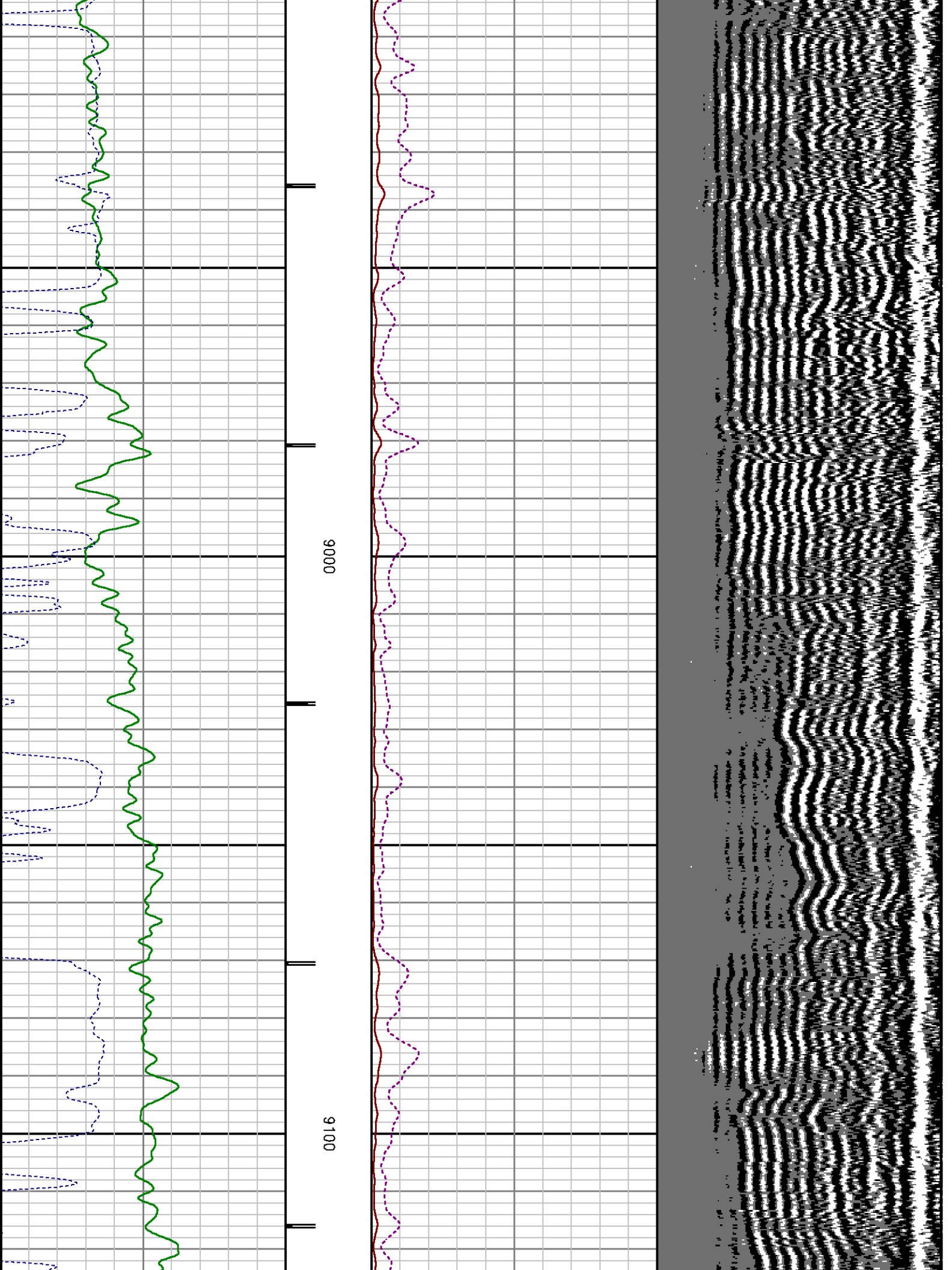


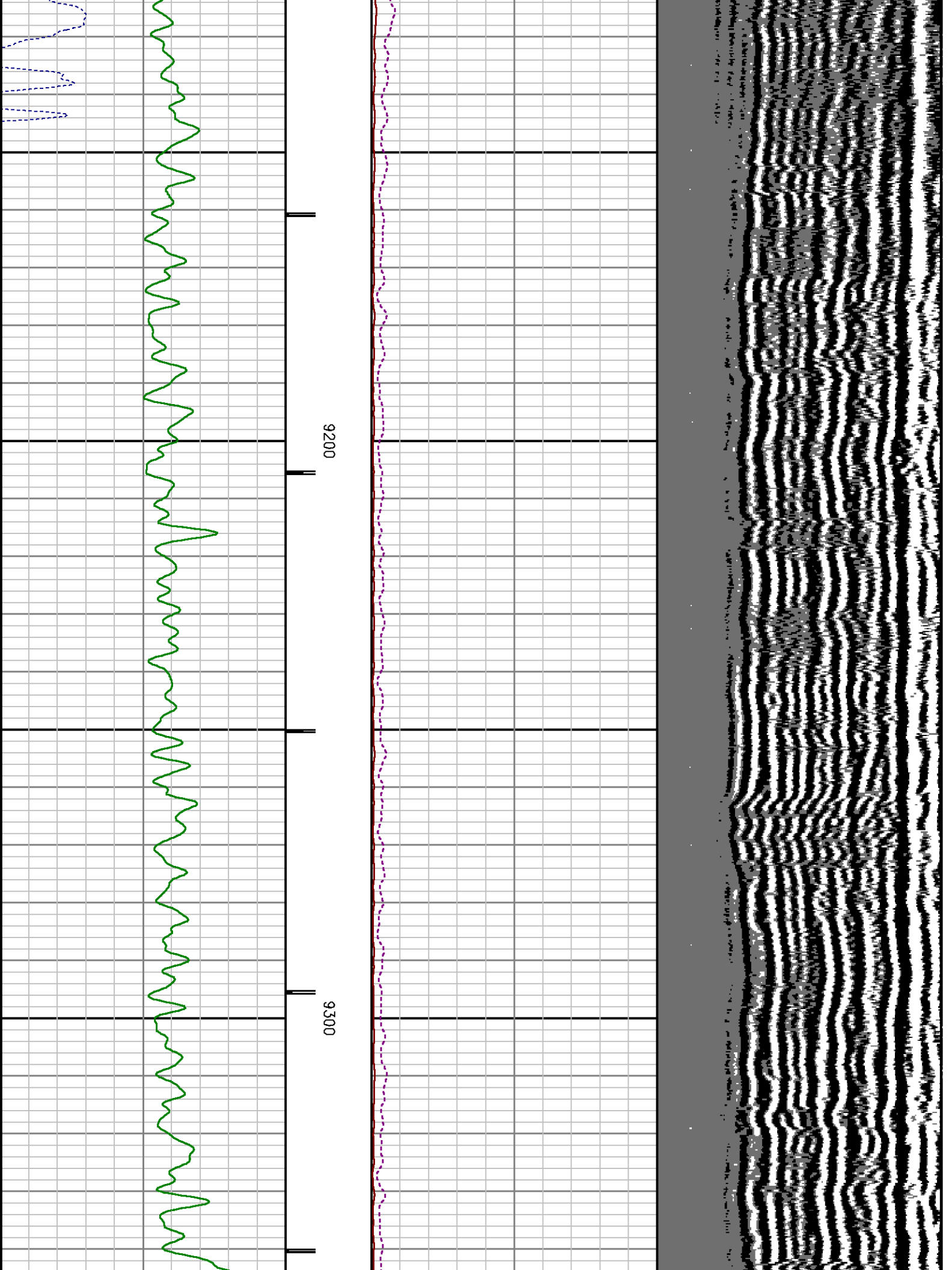


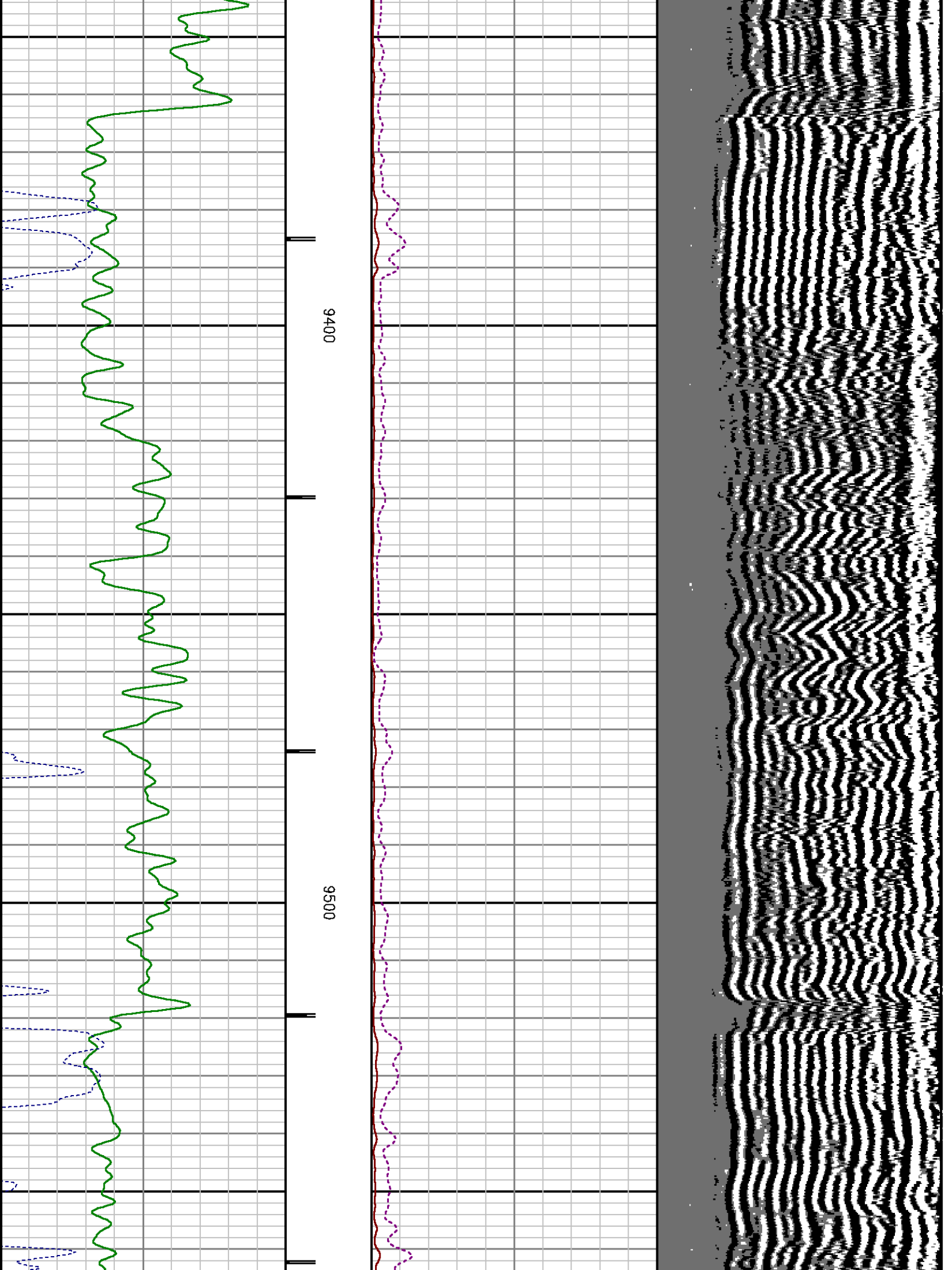


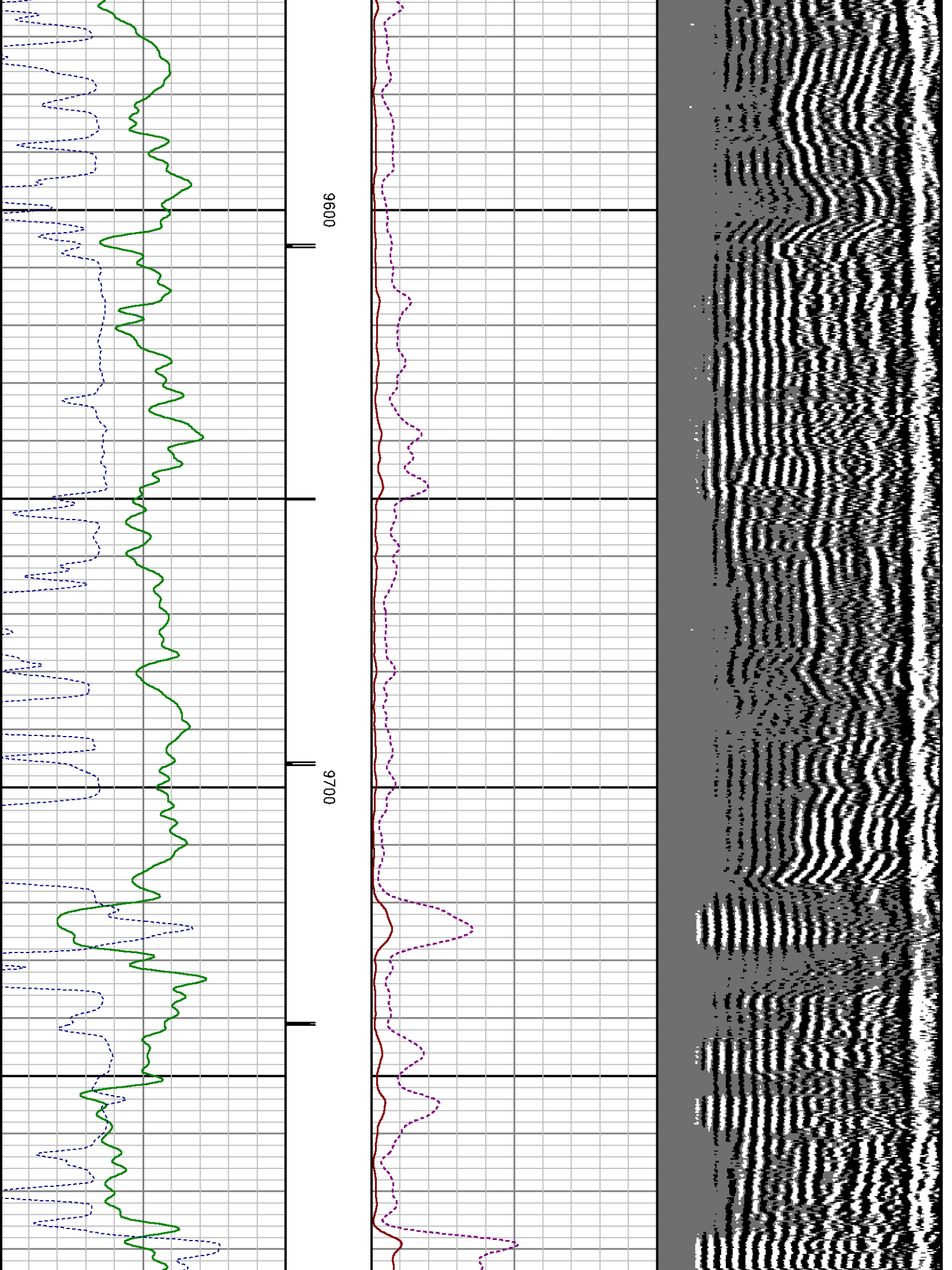


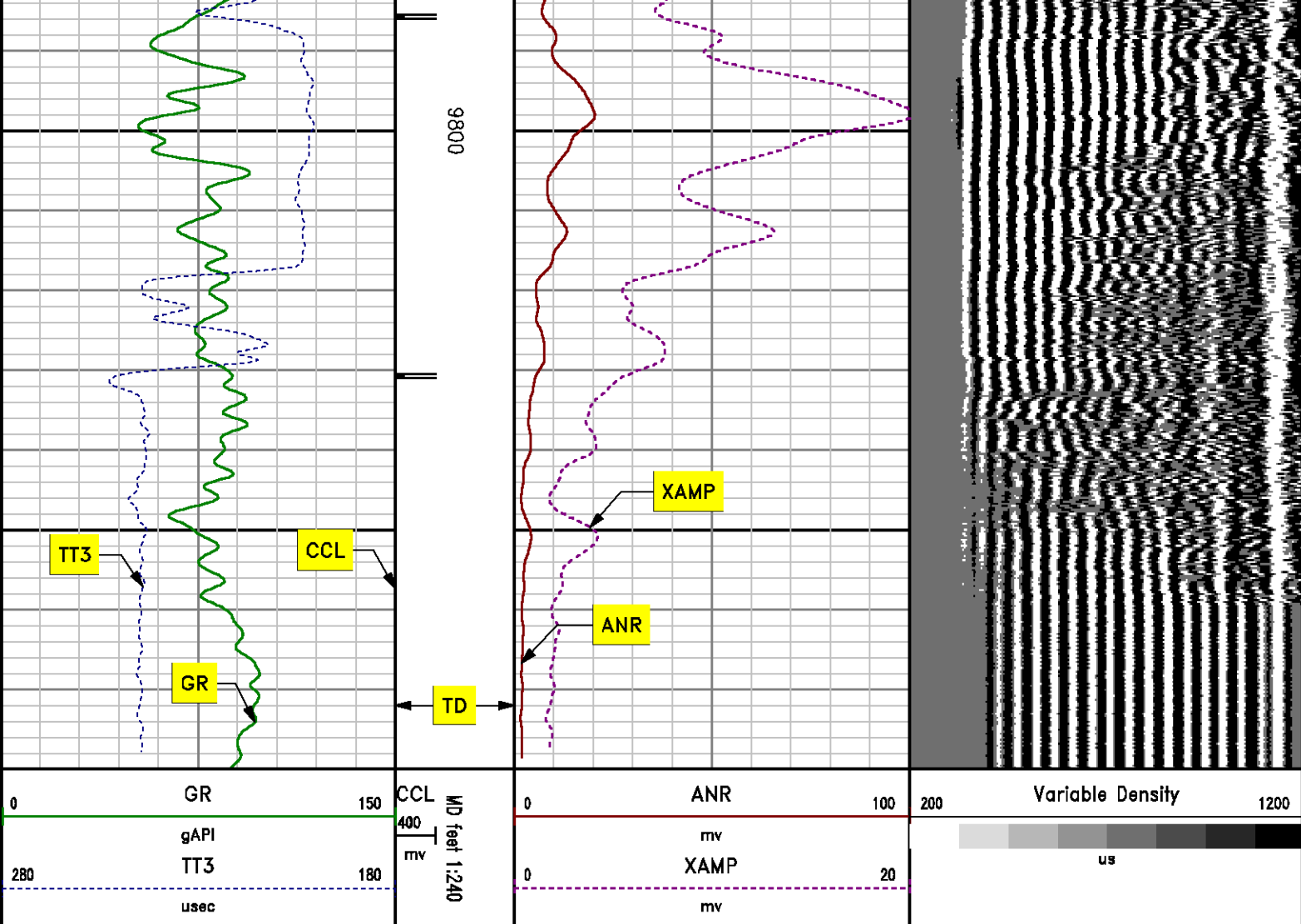












MAIN LOG SECONDARY PRESENTATION

0 PSI

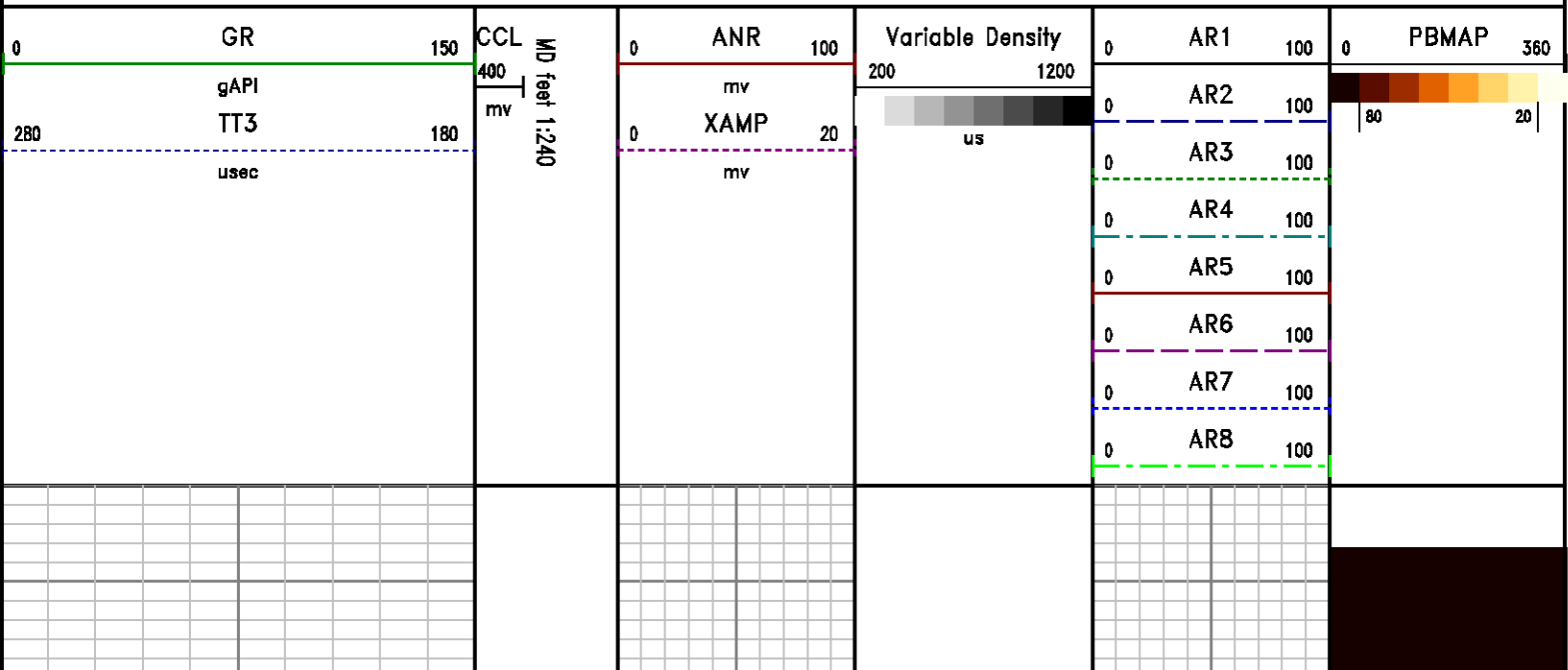
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	306.127	usec	24.441	9873.000
RAL	Amp Gate Start Near	198.031	usec	24.441	9873.000
RAL	Amp Gate Start Radial	197.374	usec	24.441	9873.000
RAL	Amp Gate Width Far	25.000	usec	24.441	9873.000
RAL	Amp Gate Width Near	25.000	usec	24.441	9873.000
RAL	Amp Gate Width Radial	25.000	usec	24.441	9873.000
RAL	casing od	4.500	inches	24.441	9873.000

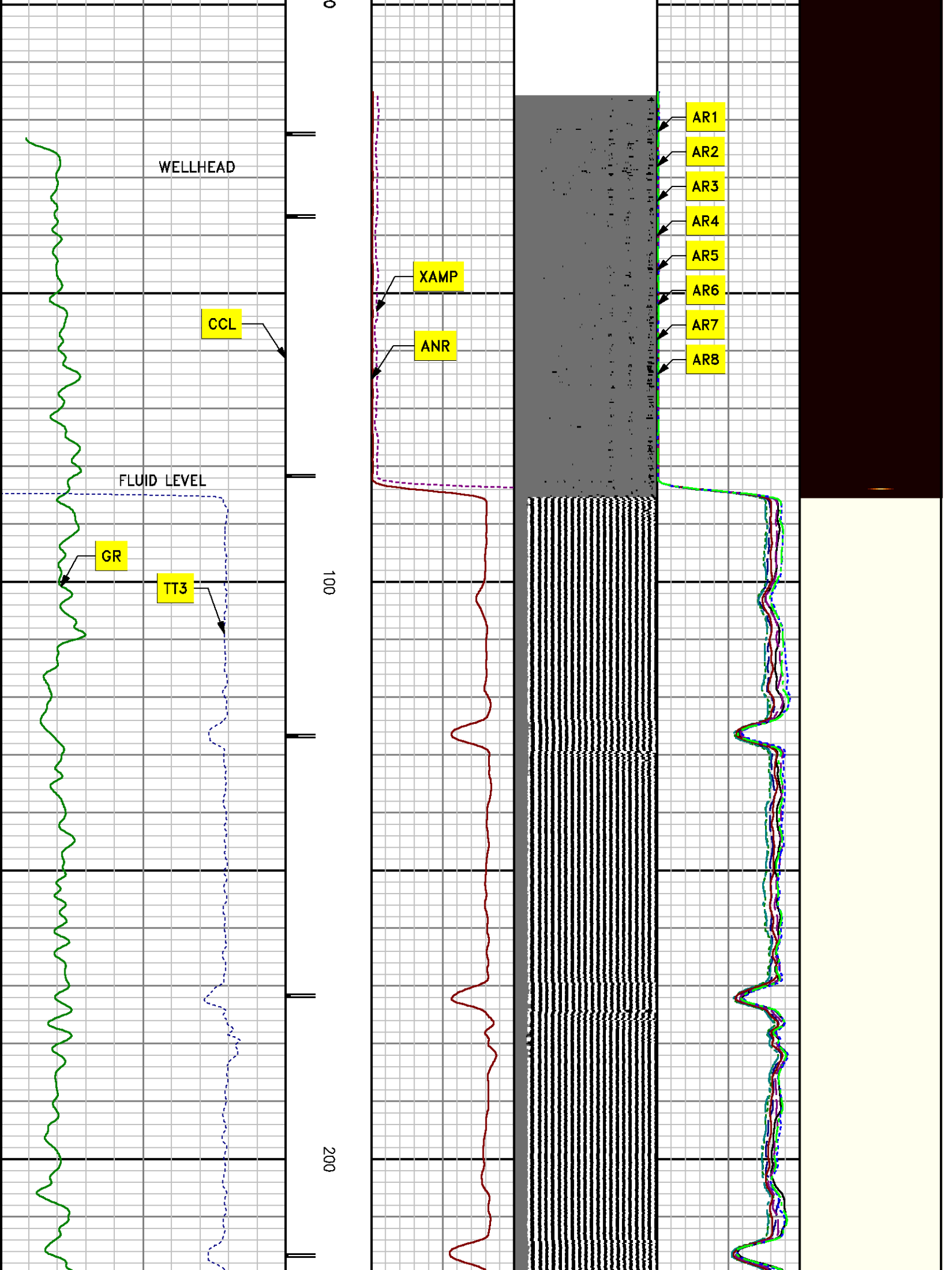
RAL	casing wt	11.600	lbm/ft	24.441	9873.000
RAL	FB Start Far	291.900	usec	24.441	9873.000
RAL	FB Start Near	175.391	usec	24.441	9873.000
RAL	FB Start Radial	175.391	usec	24.441	9873.000
RAL	FB Thresh Far	10.000	mv	24.441	9873.000
RAL	FB Thresh Near	4.000	mv	24.441	9873.000
RAL	FB Thresh Radial	4.000	mv	24.441	9873.000
RAL	Fluid Travel Time	200.000	usec/ft	24.441	9873.535

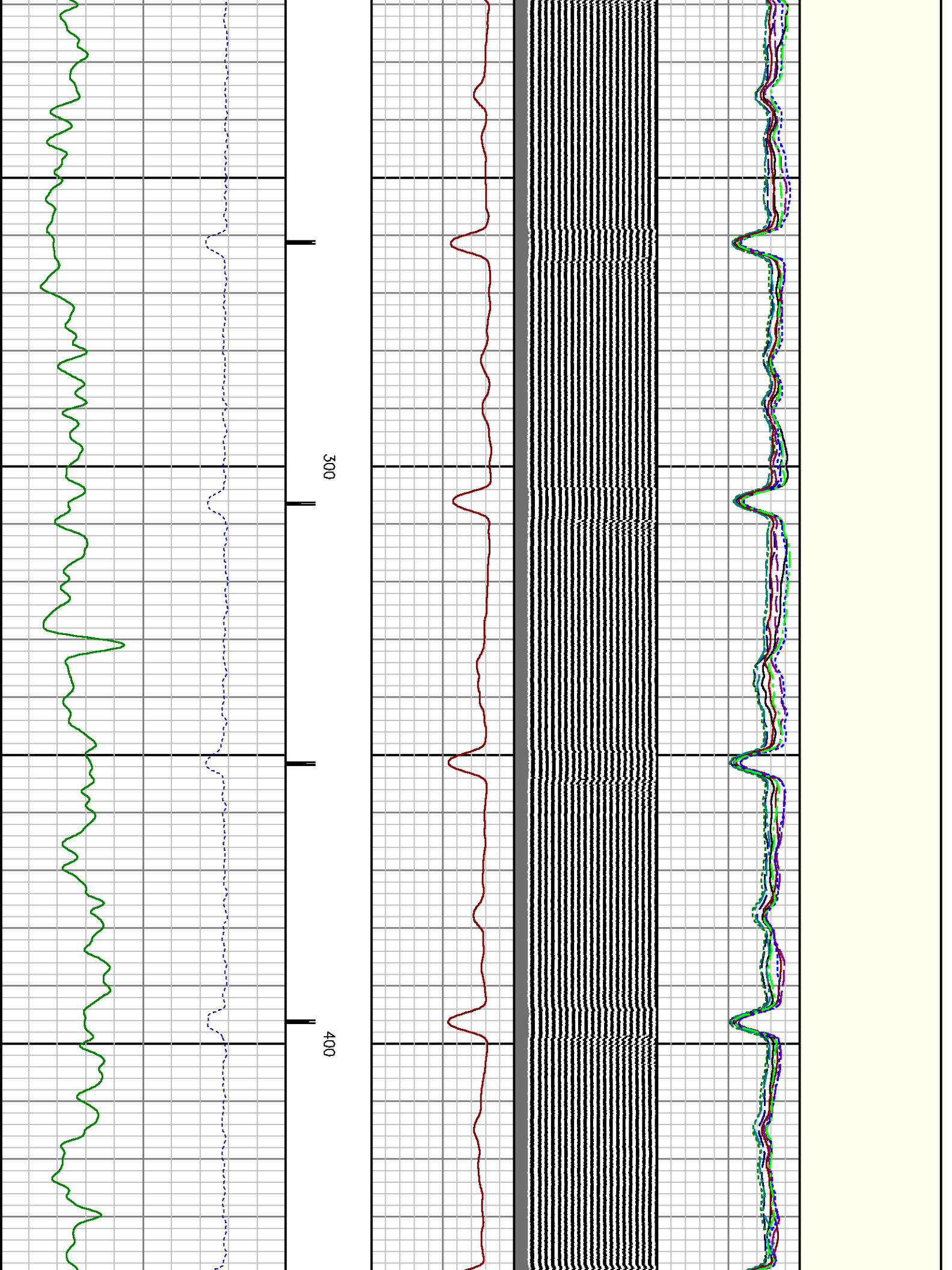
DEPTH OFFSETS
(for Acquired Curves)

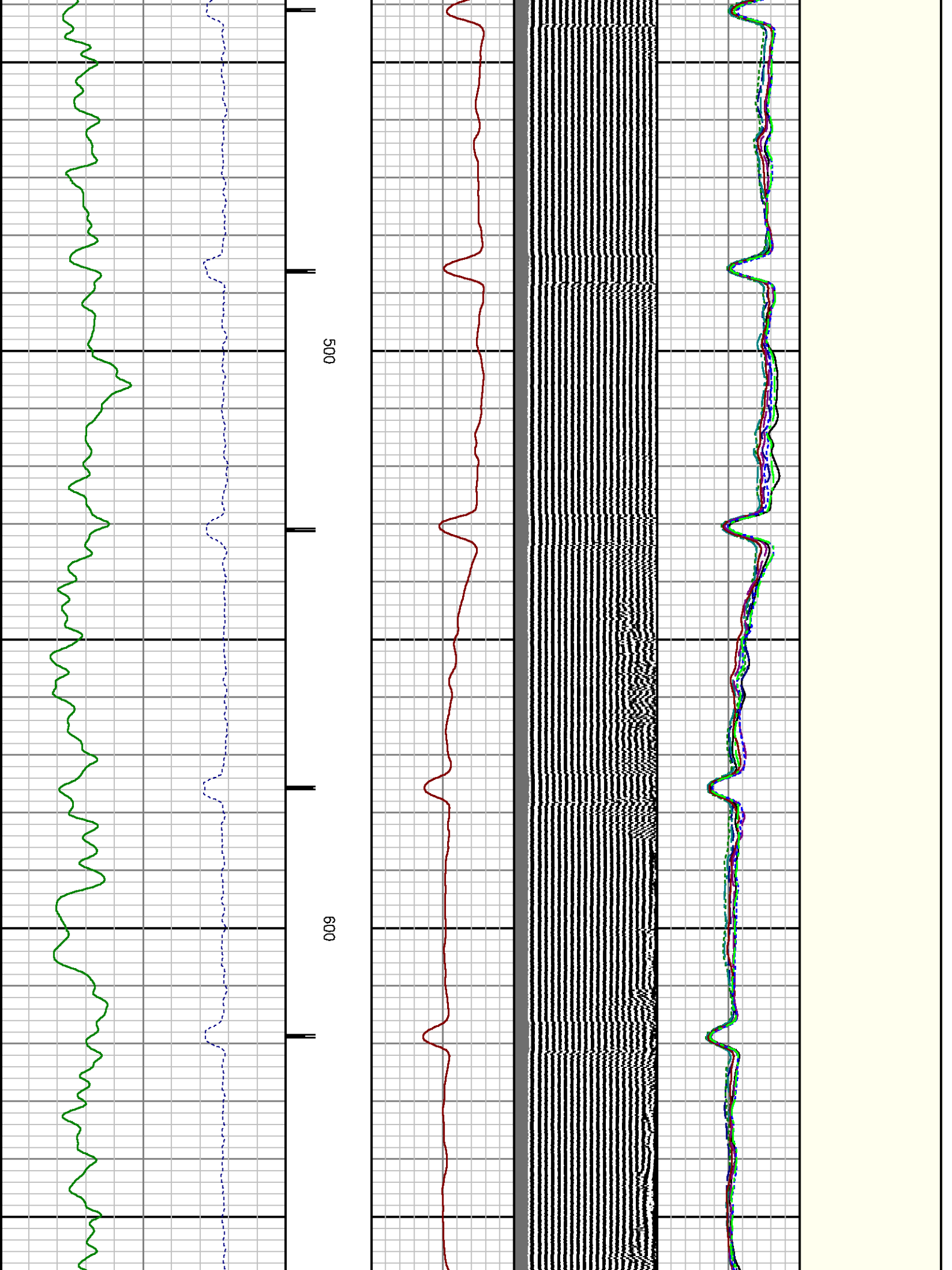
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

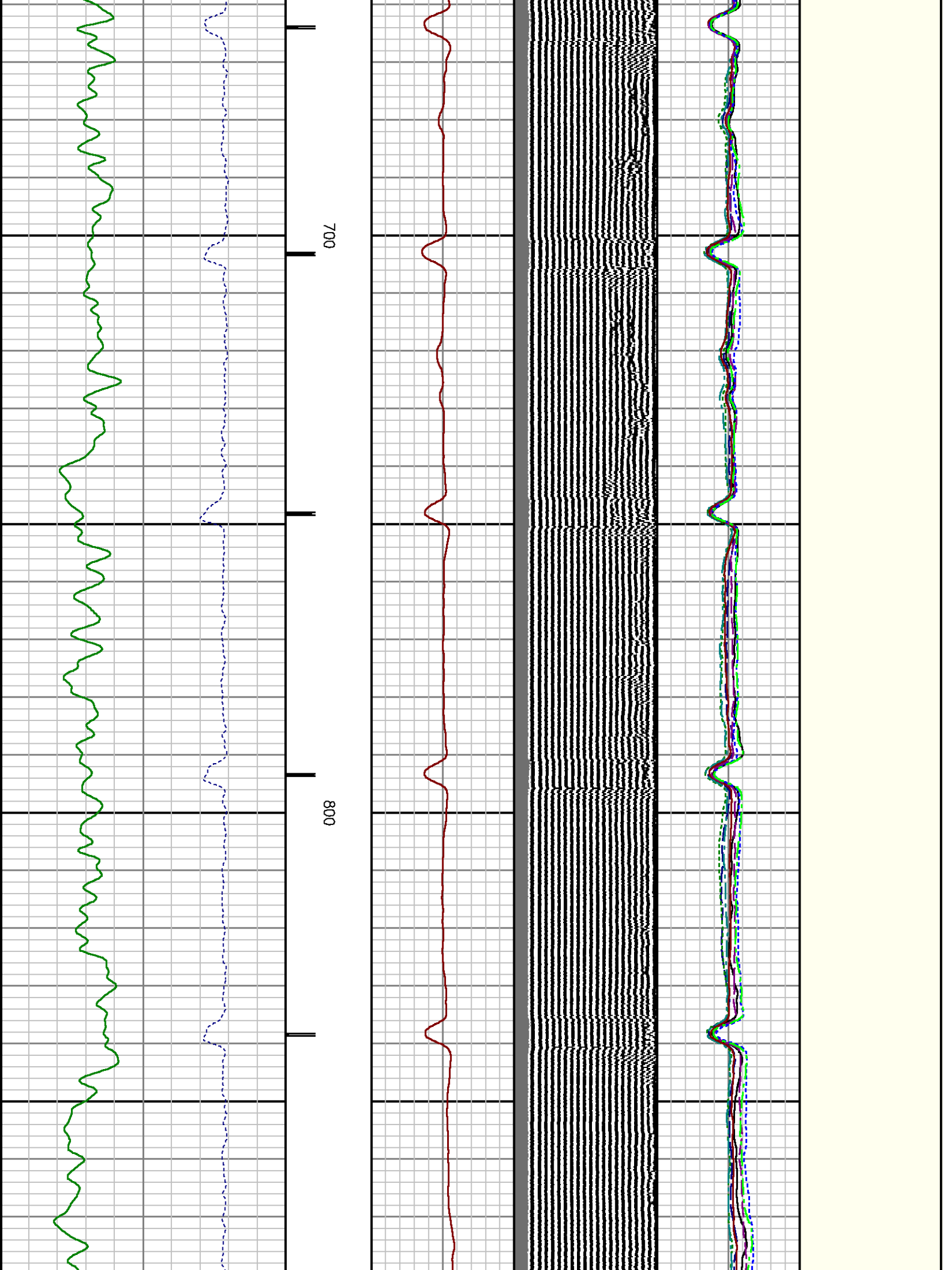
Created by : RAL, v4.8.008
Plotted by : PlotMgr, v5.4.504
Company : WPX ENERGY
Well : HOEPPLI RWF 413-36
File Name : d:\welldata\413cbl\main_rdr.xtf
Mode : PlotMgr 5.4.504
Interval : -20.00 - 9880.00 feet UP
Created : 2/24/2013 2:09:17 PM

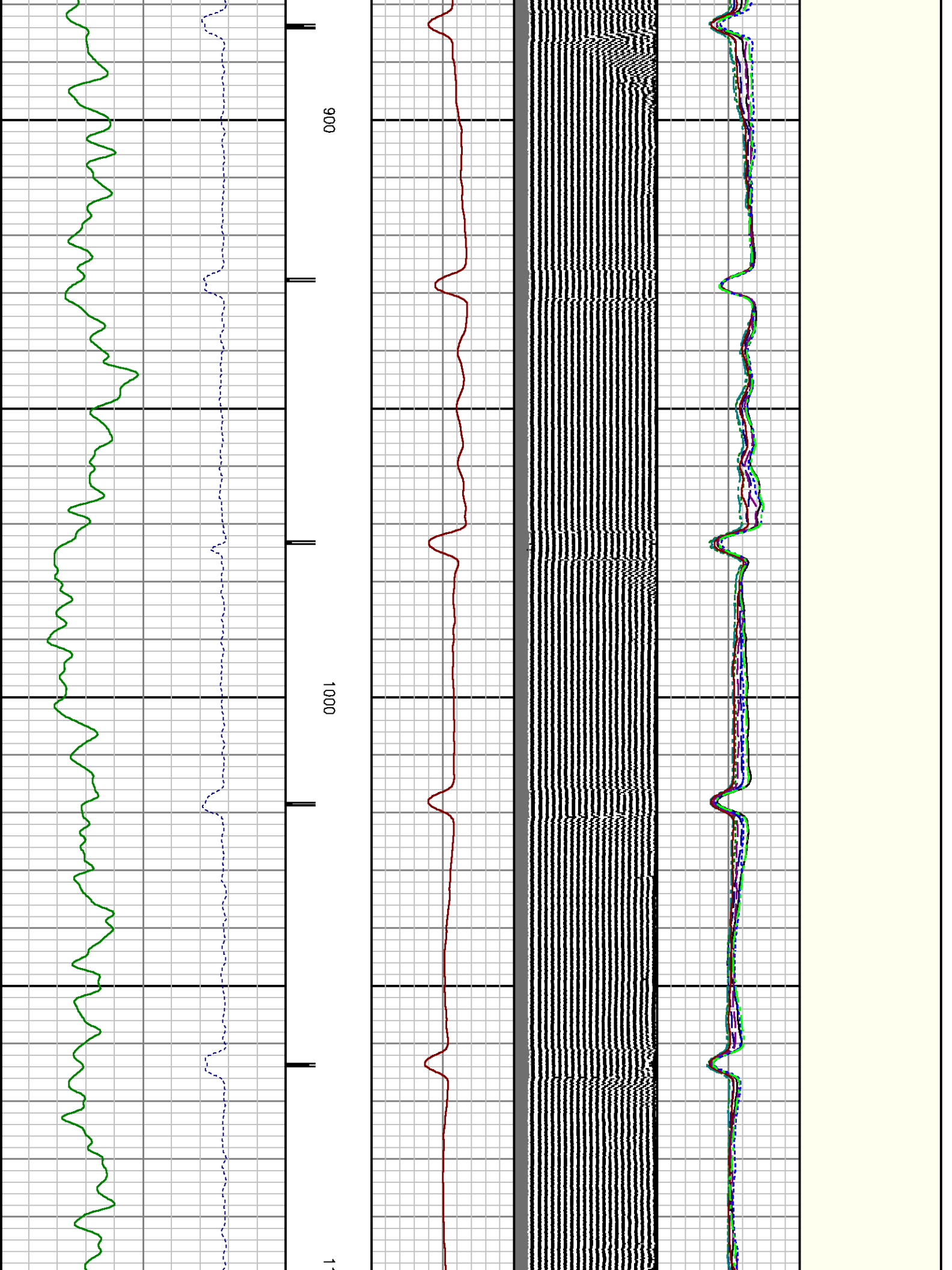


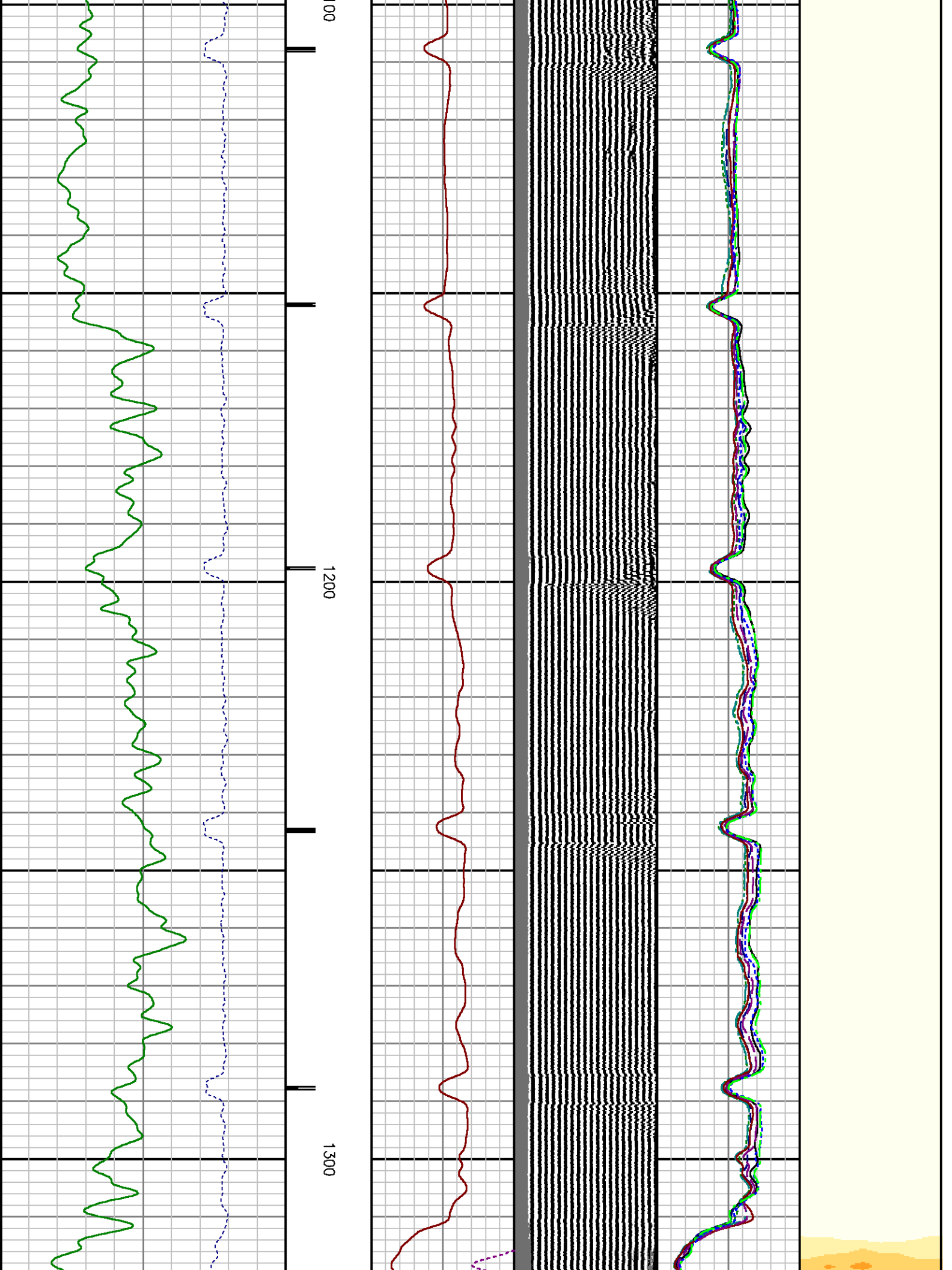


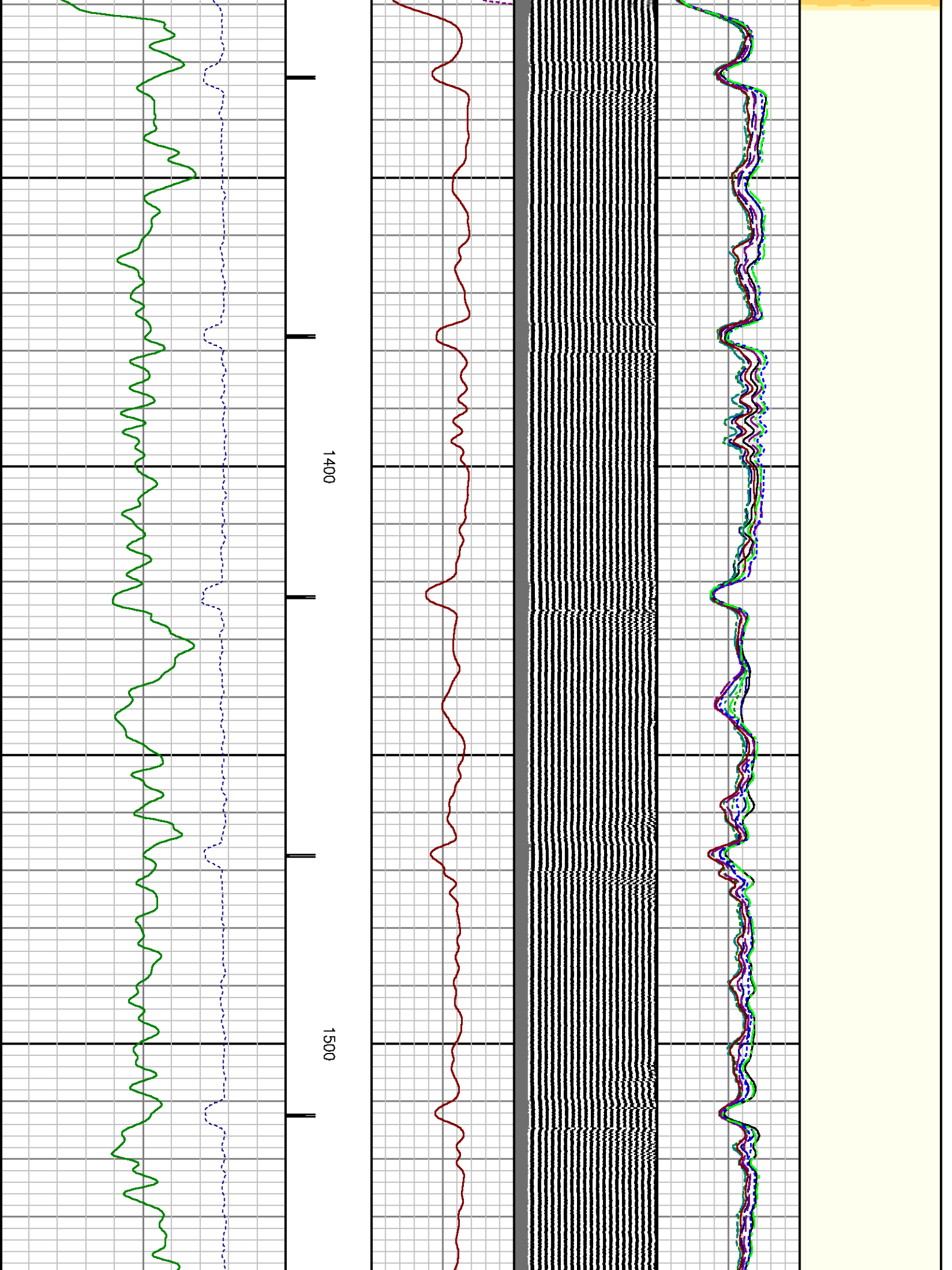


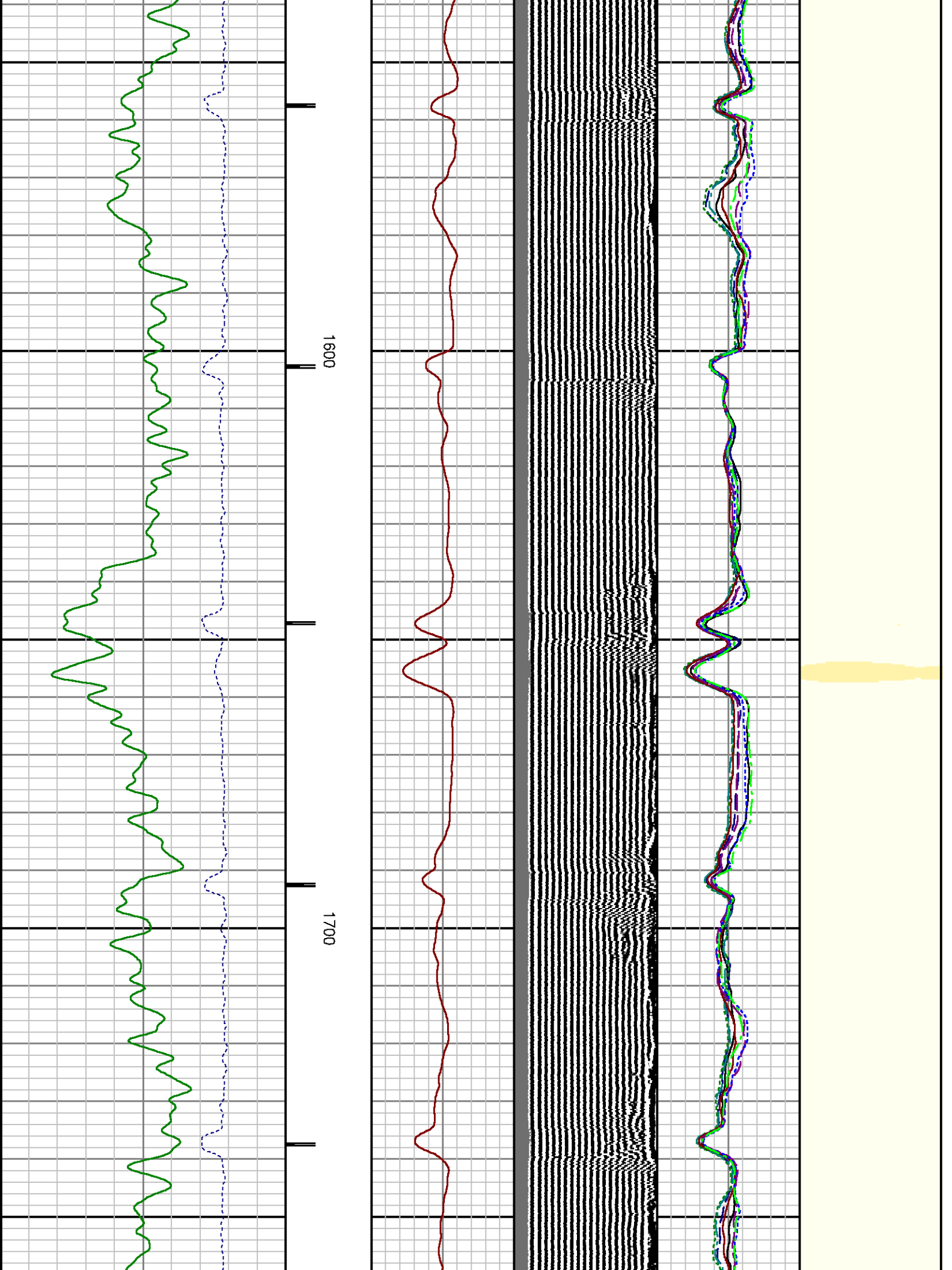


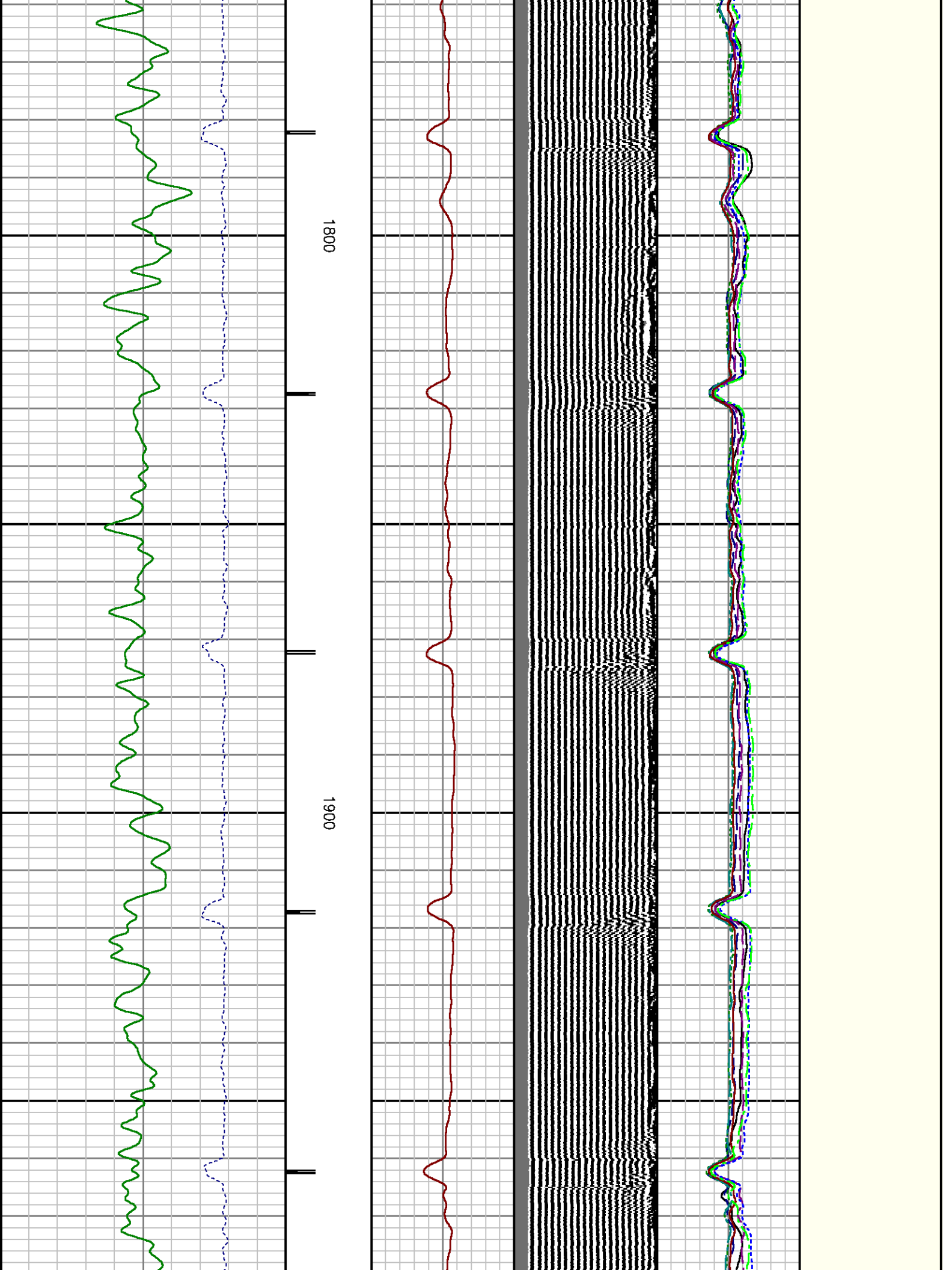


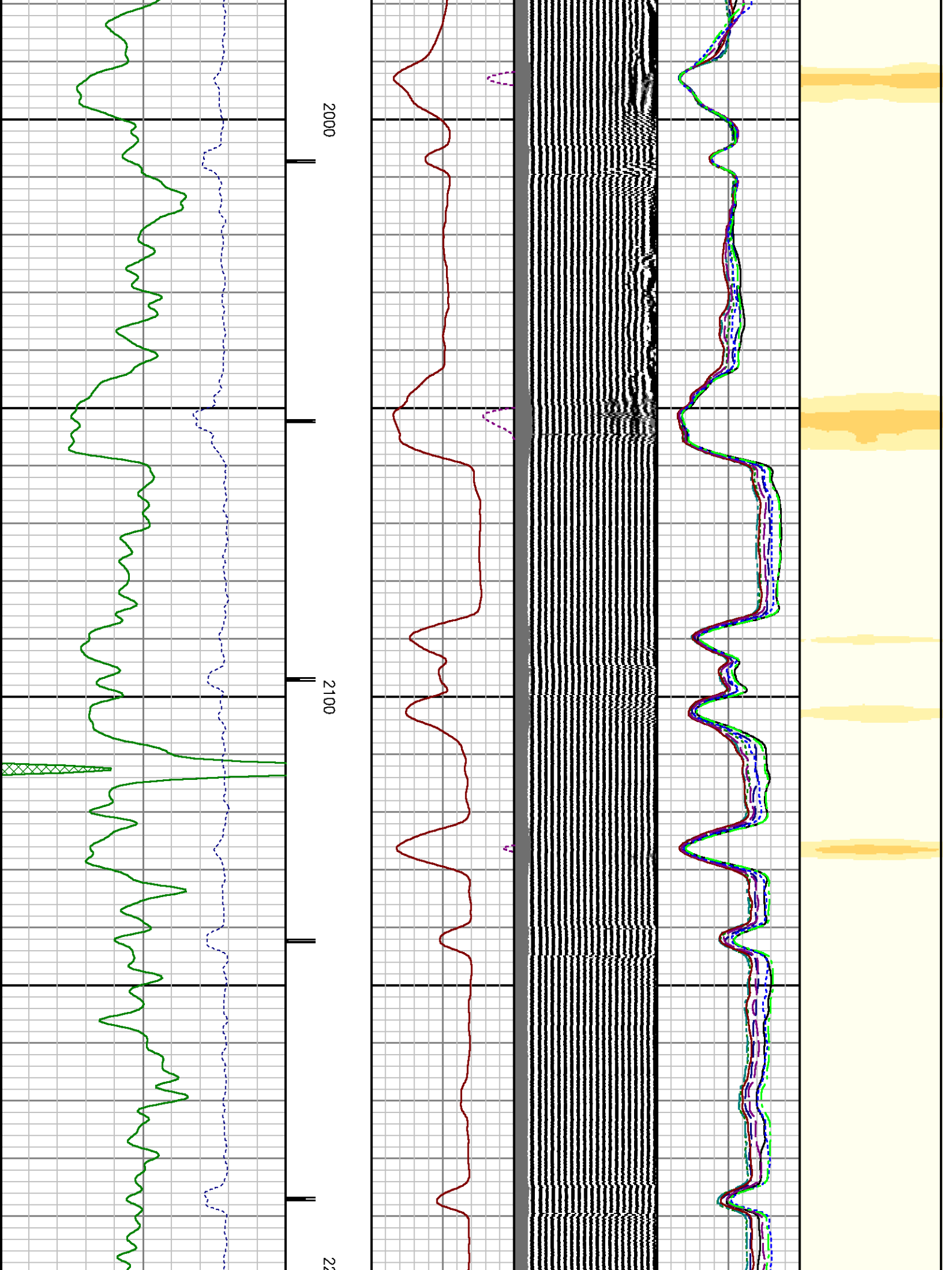


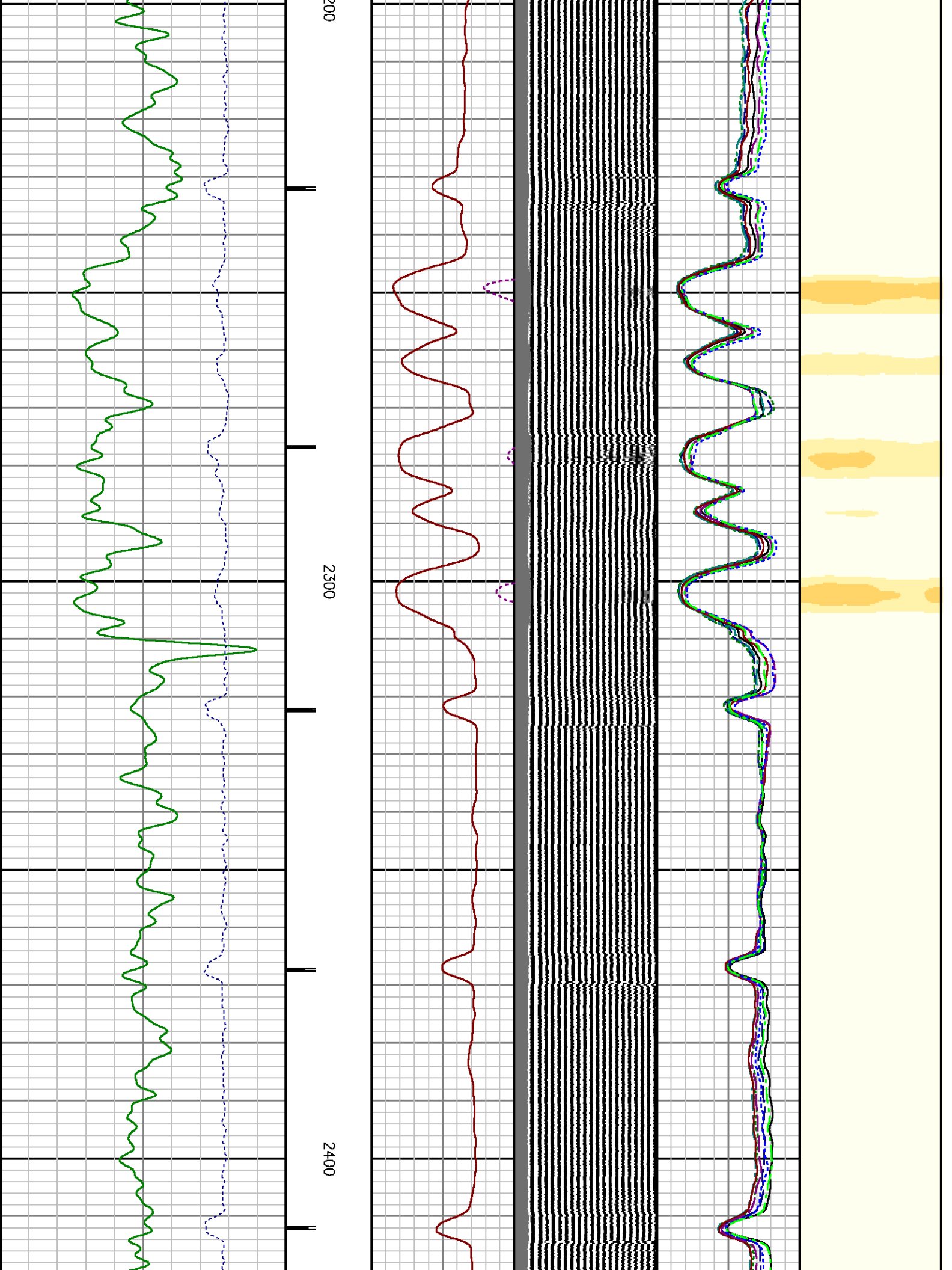


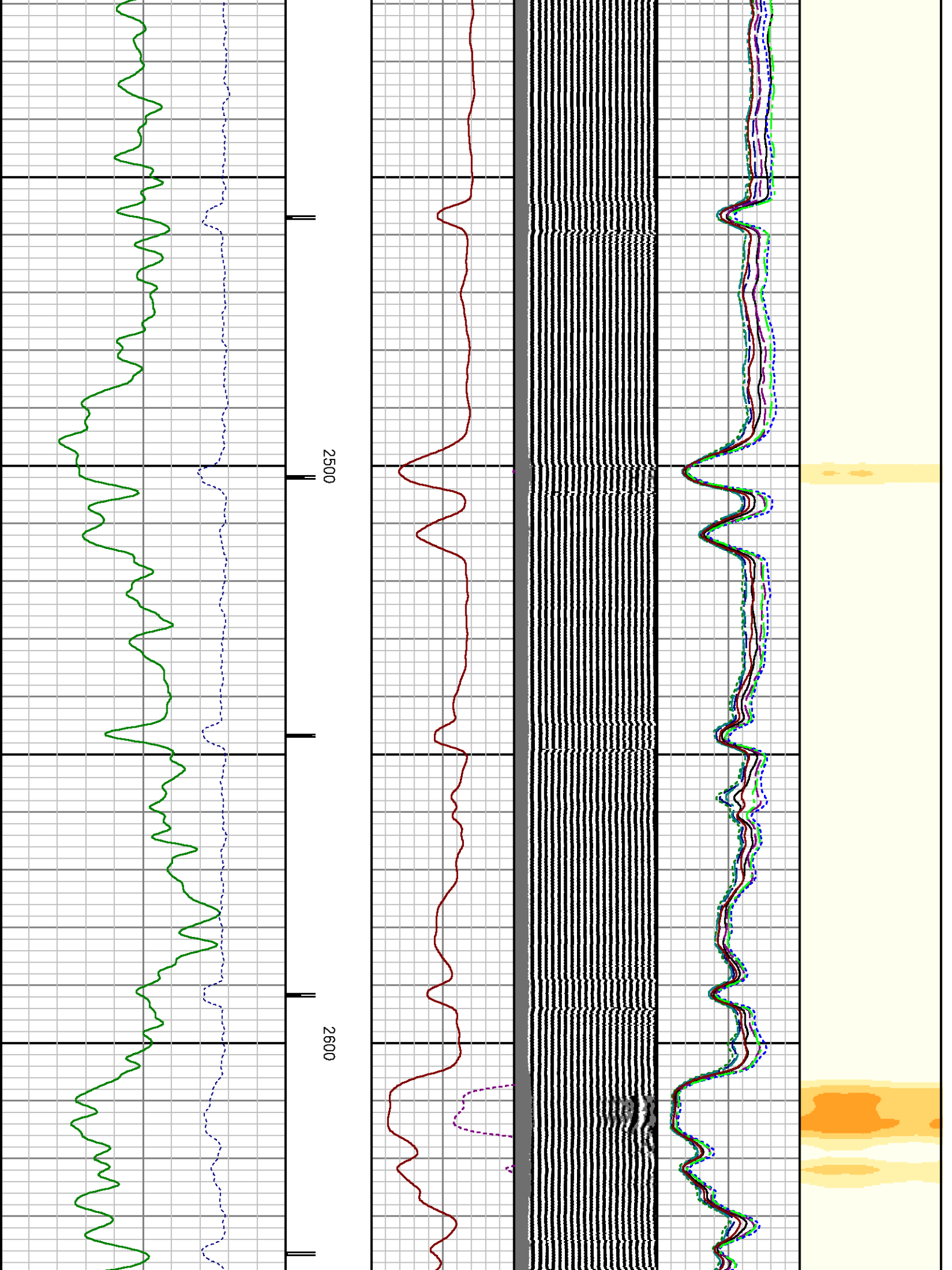


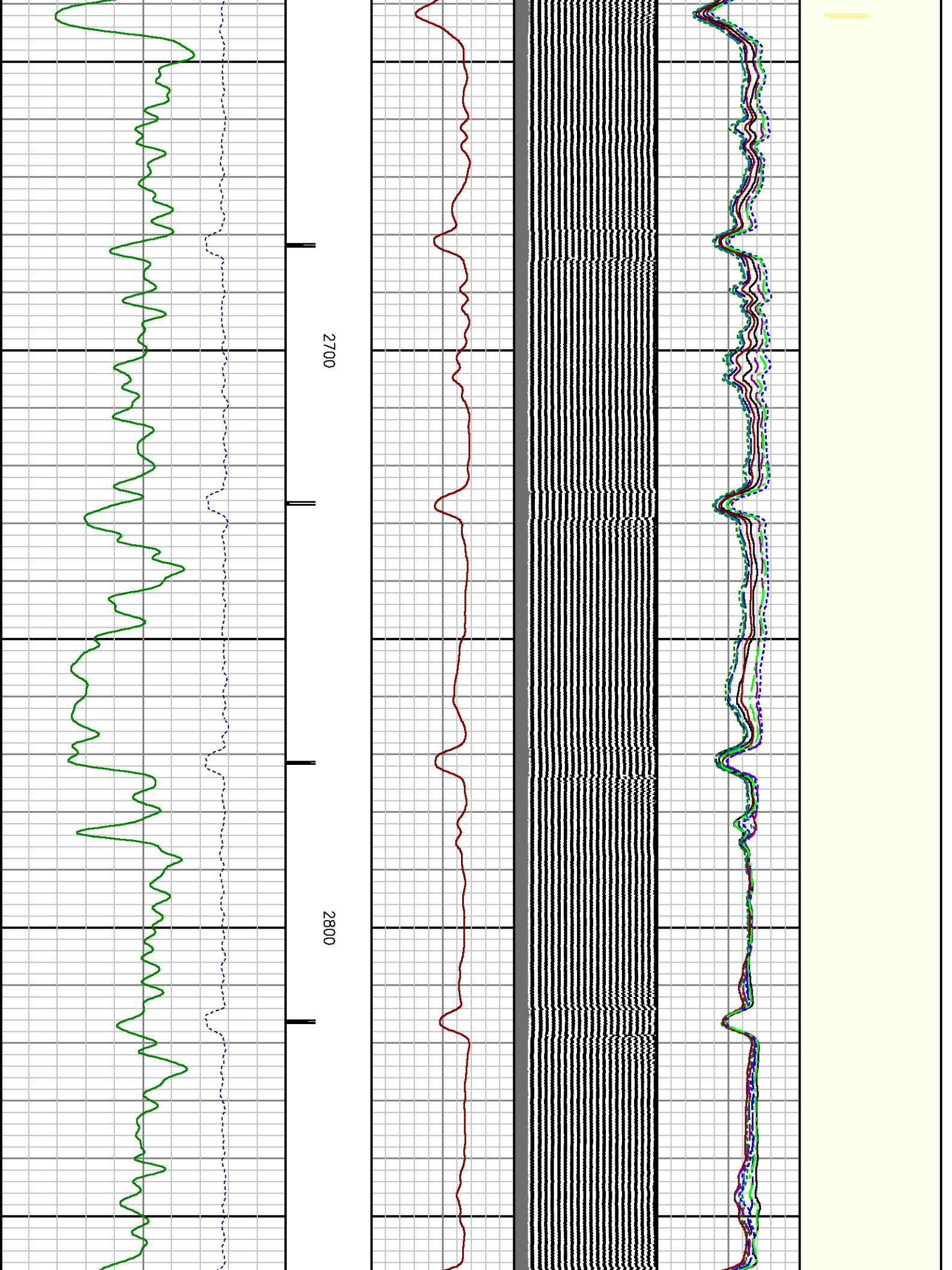


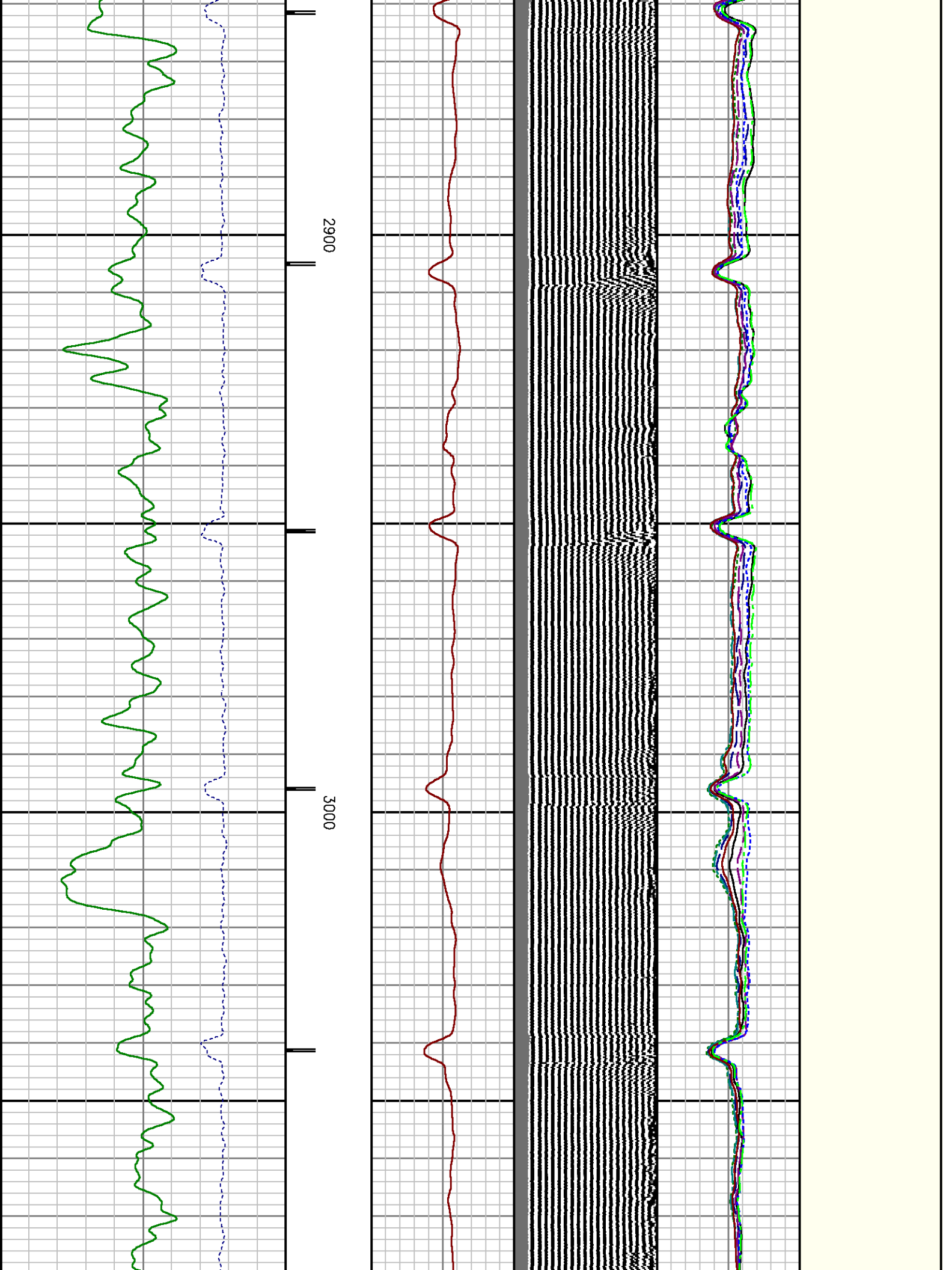


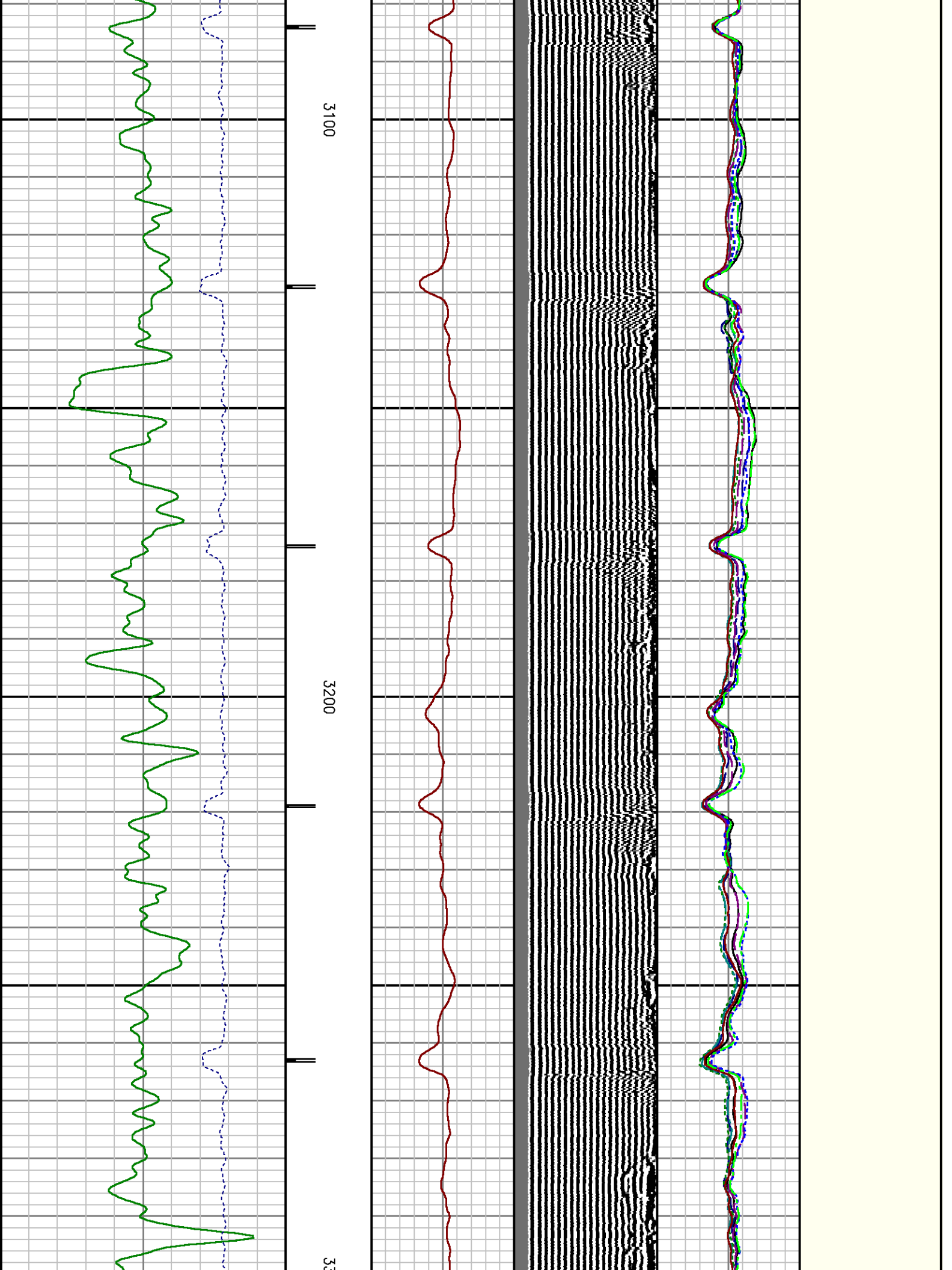


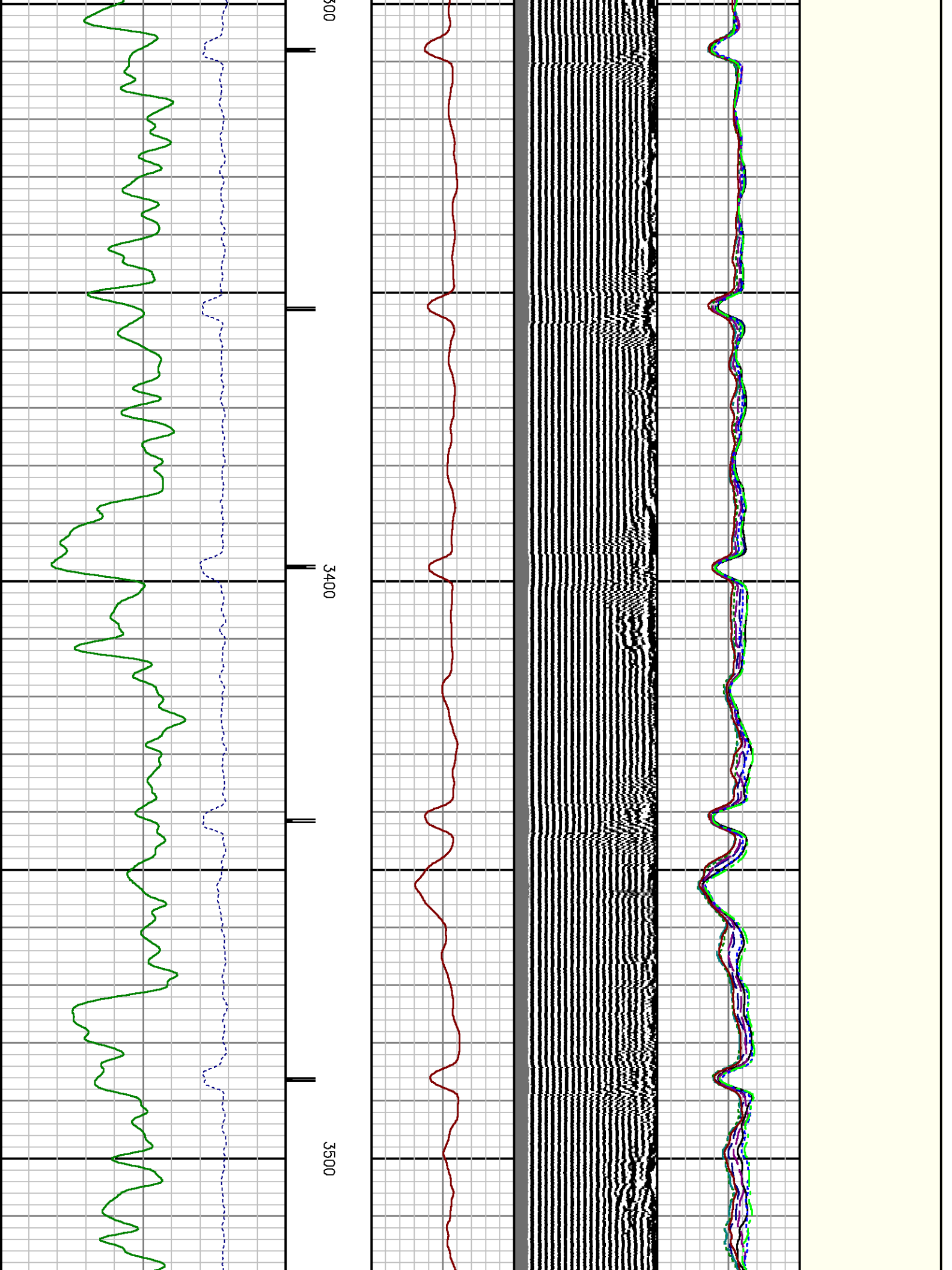


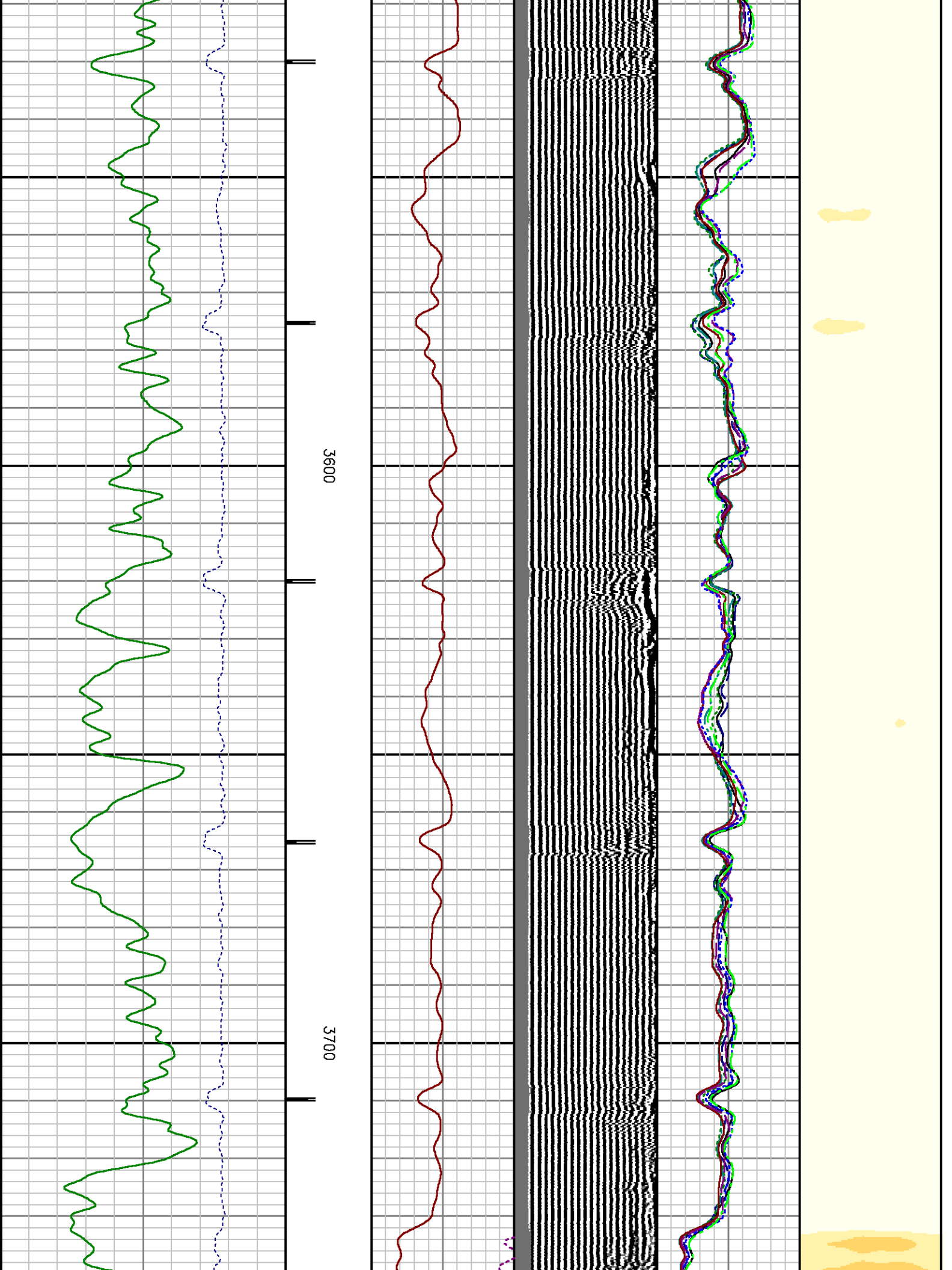


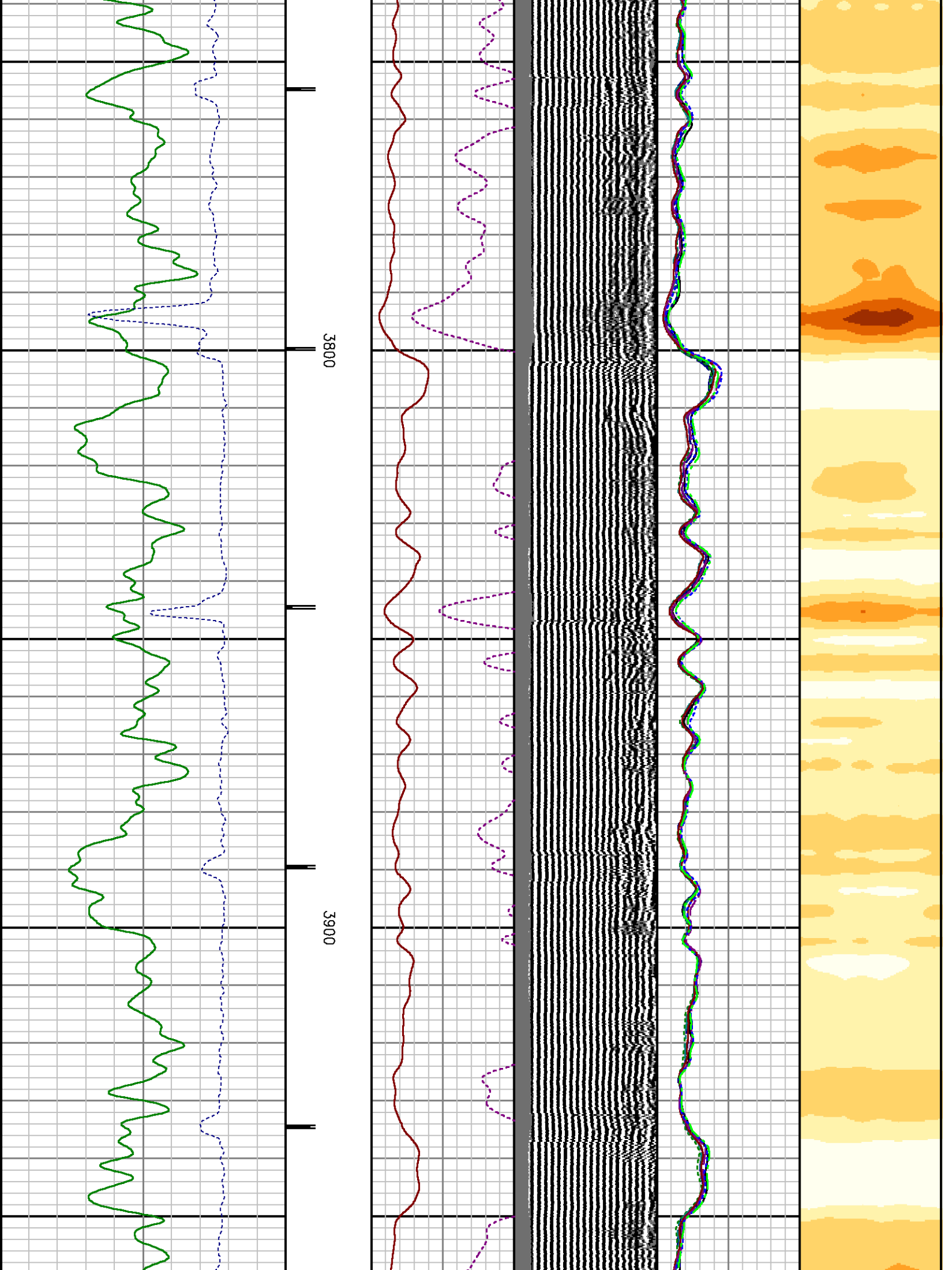


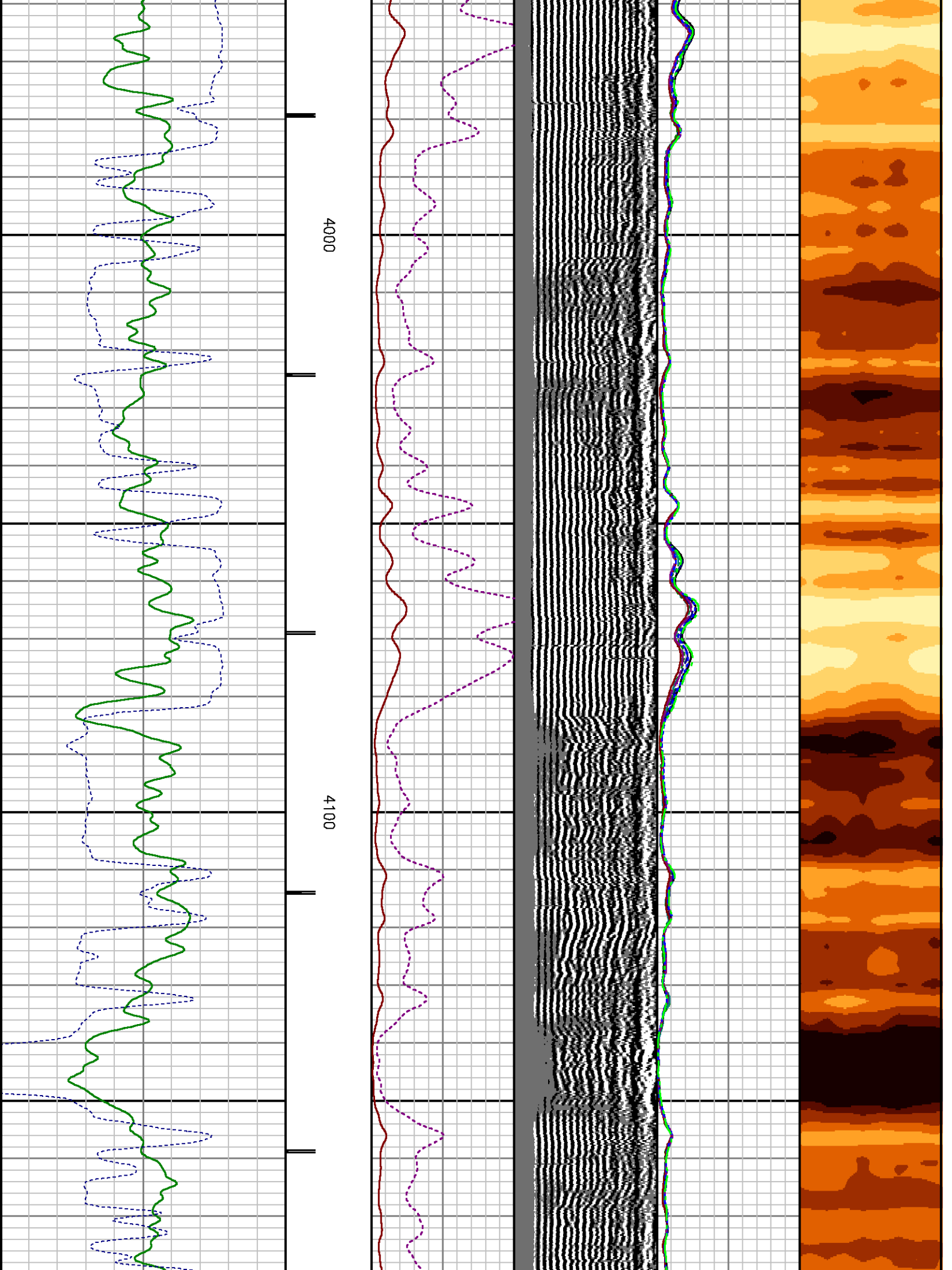


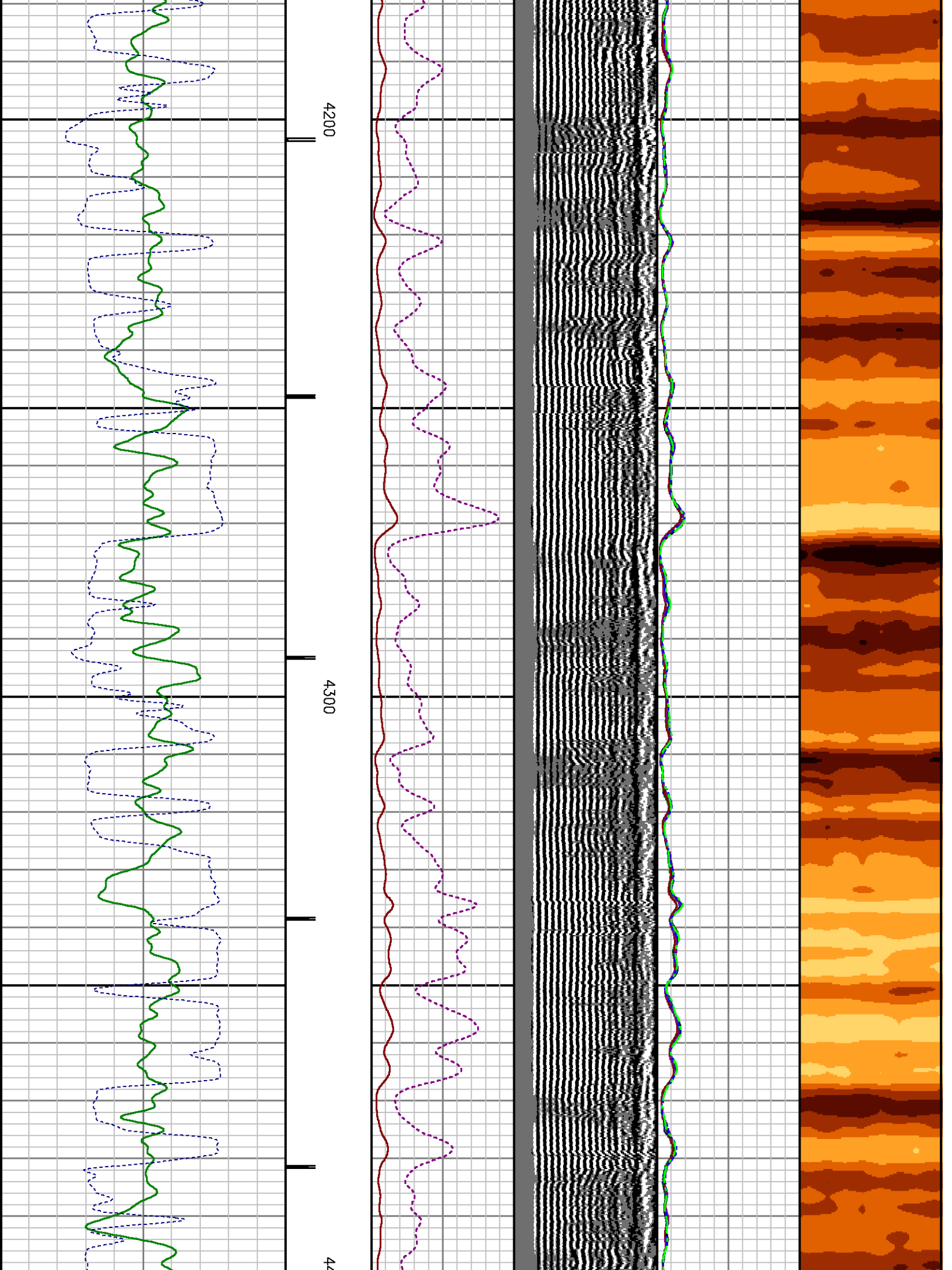


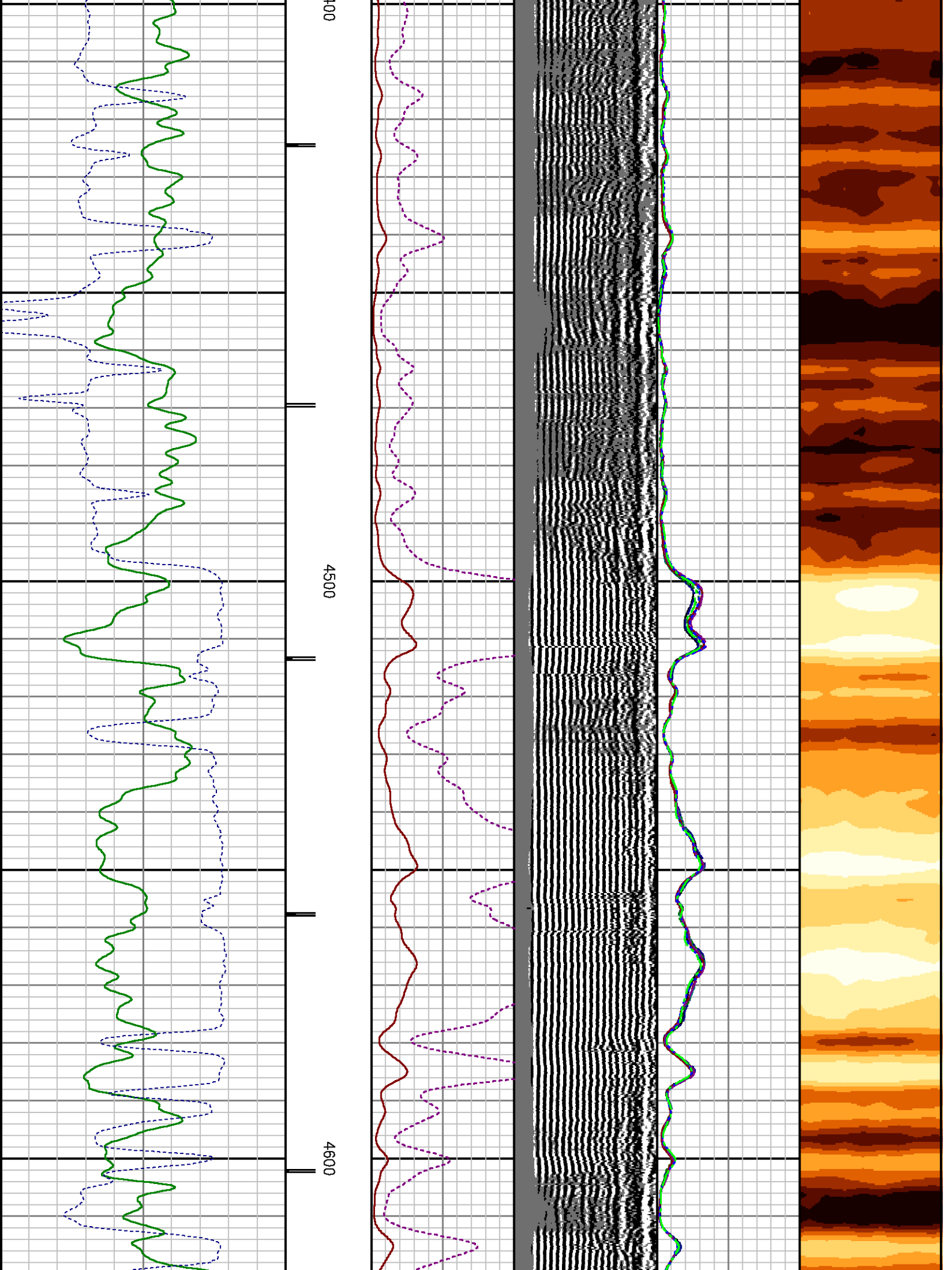


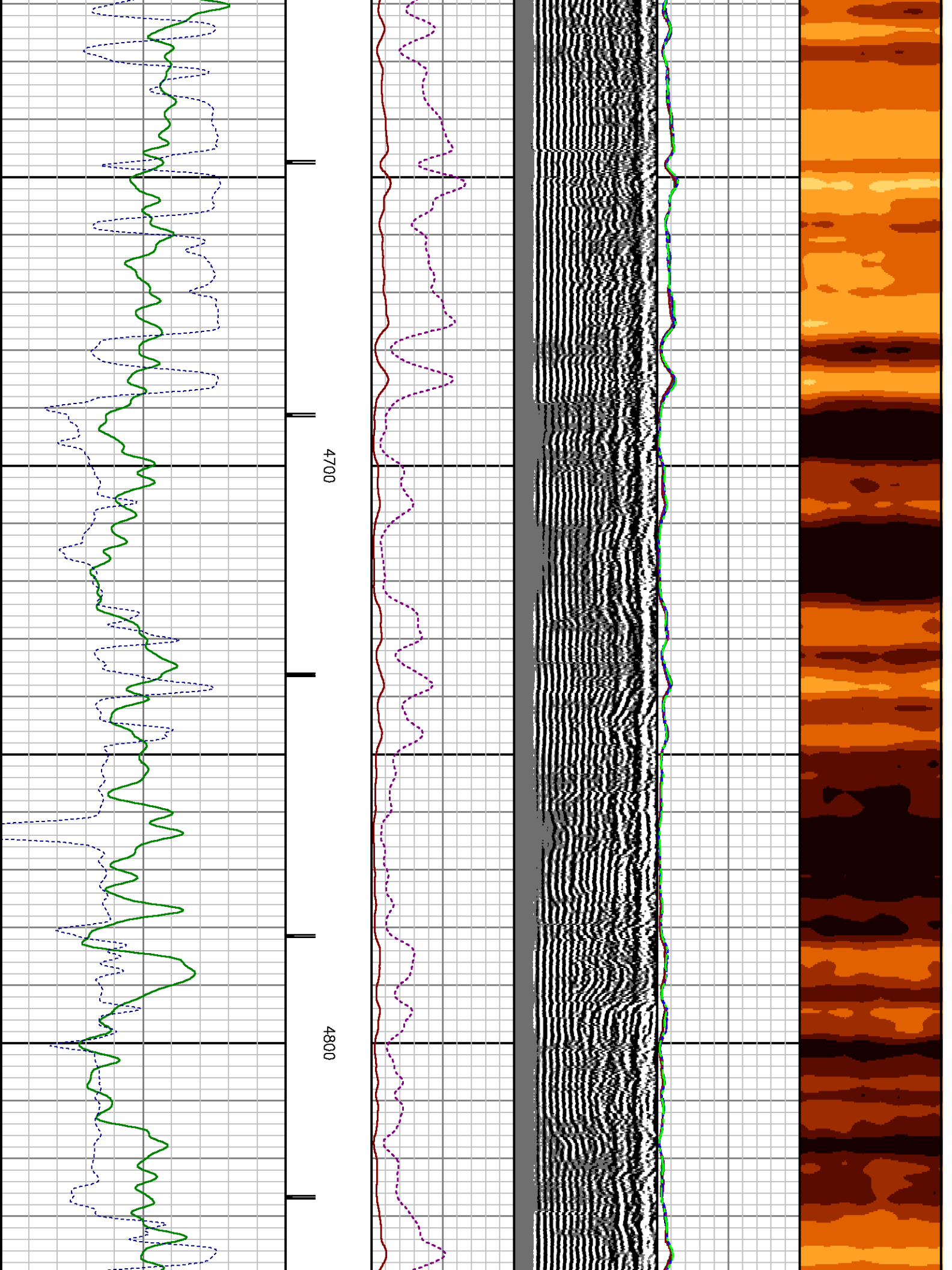


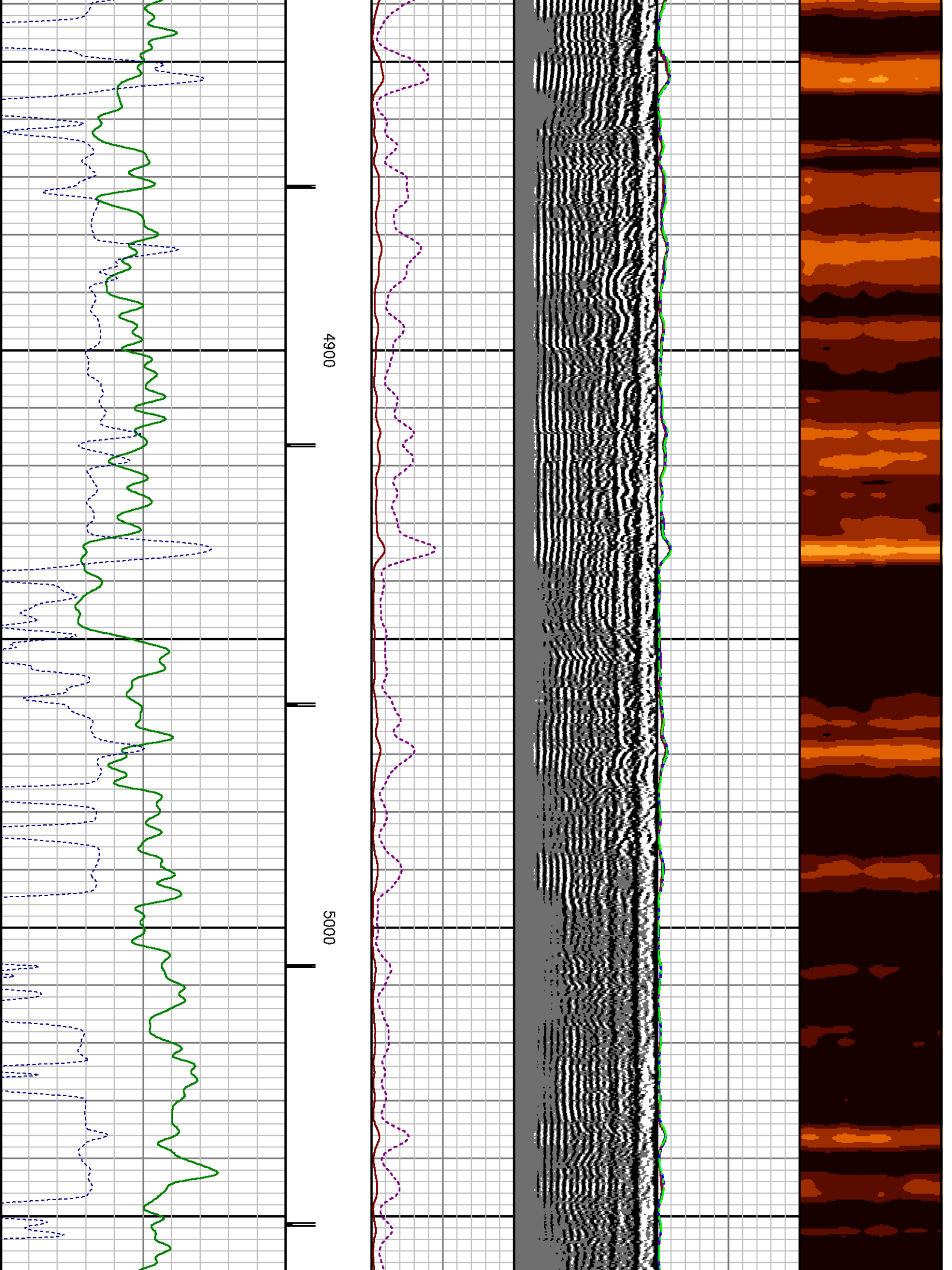


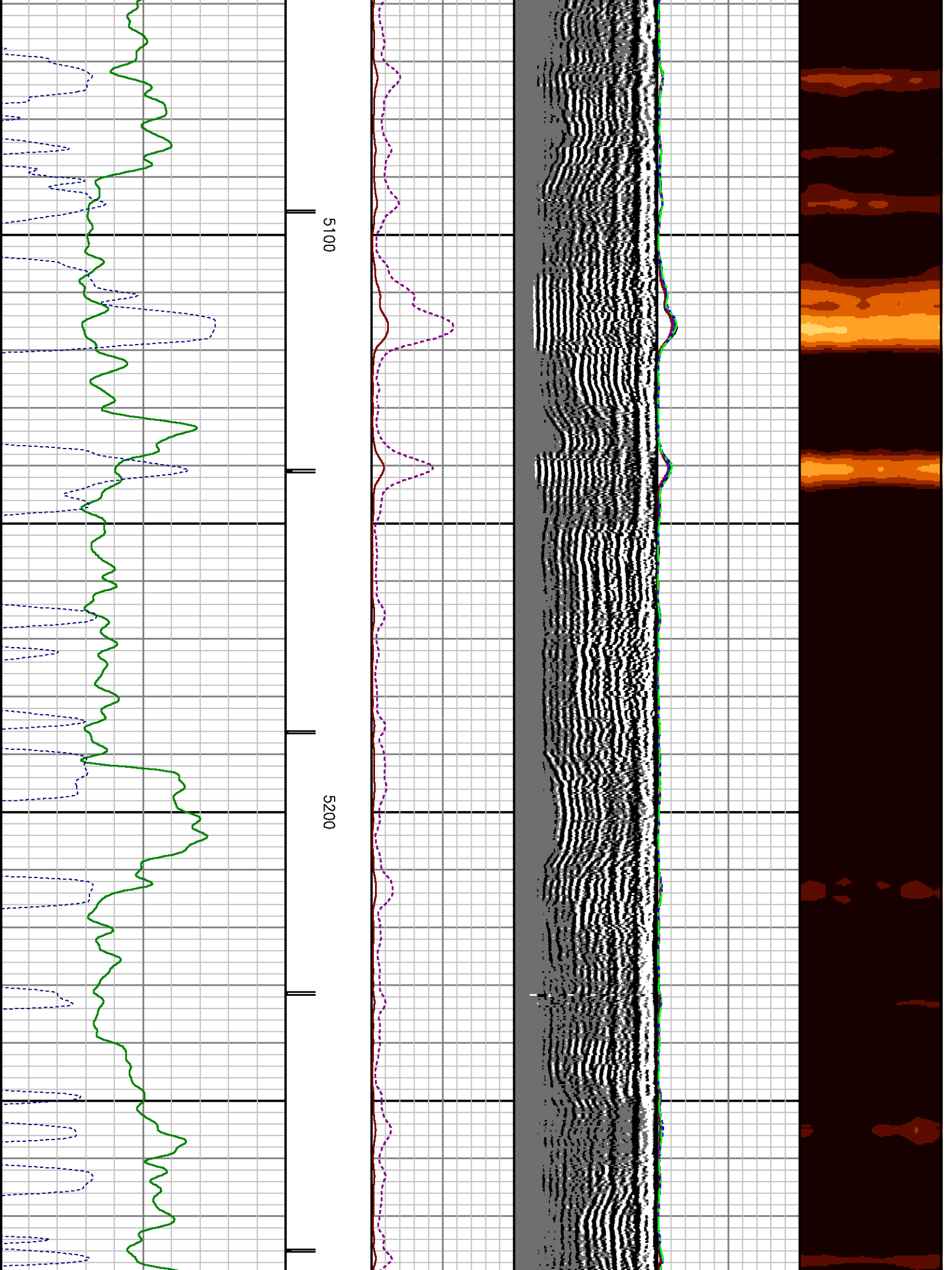


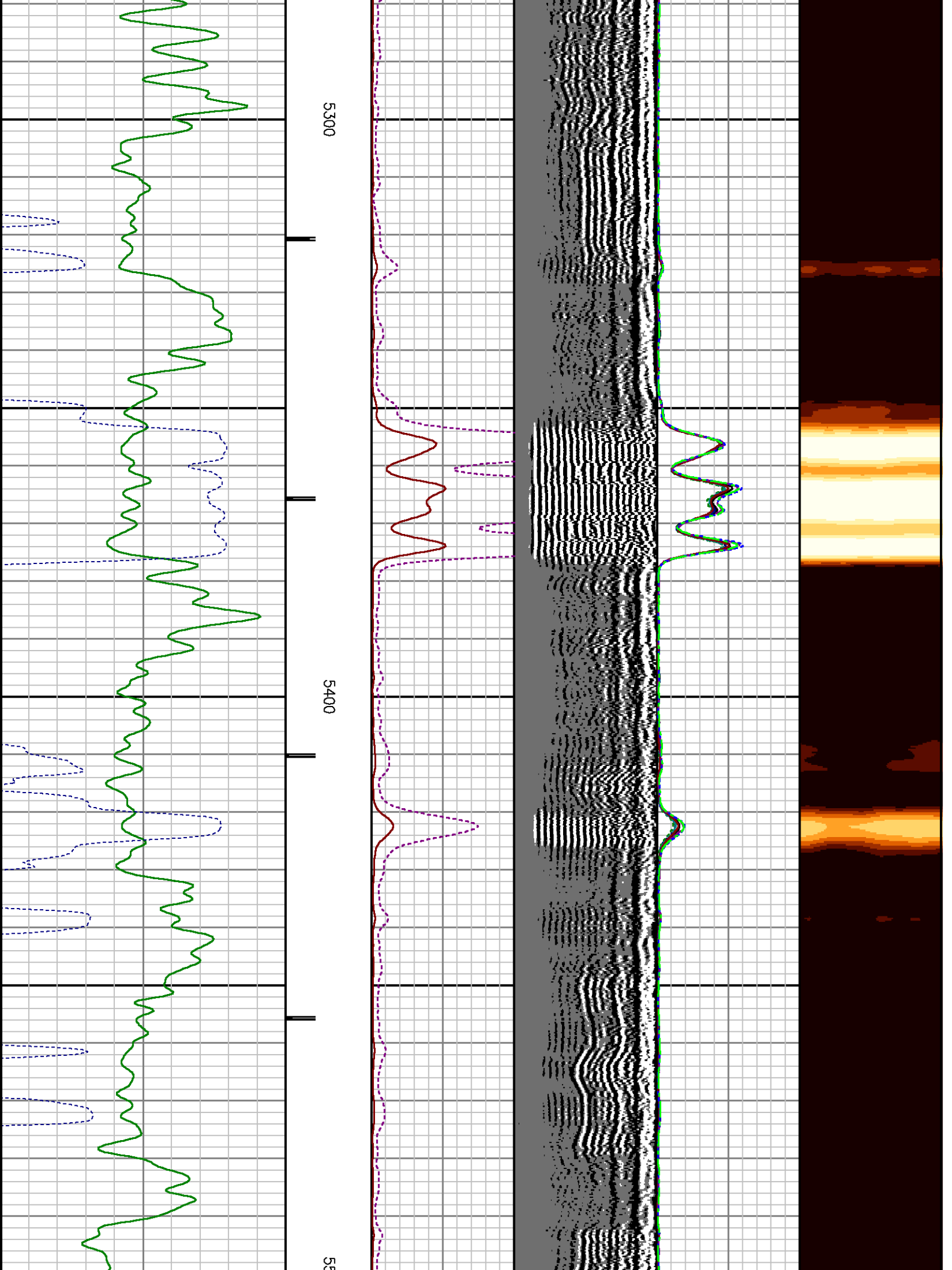


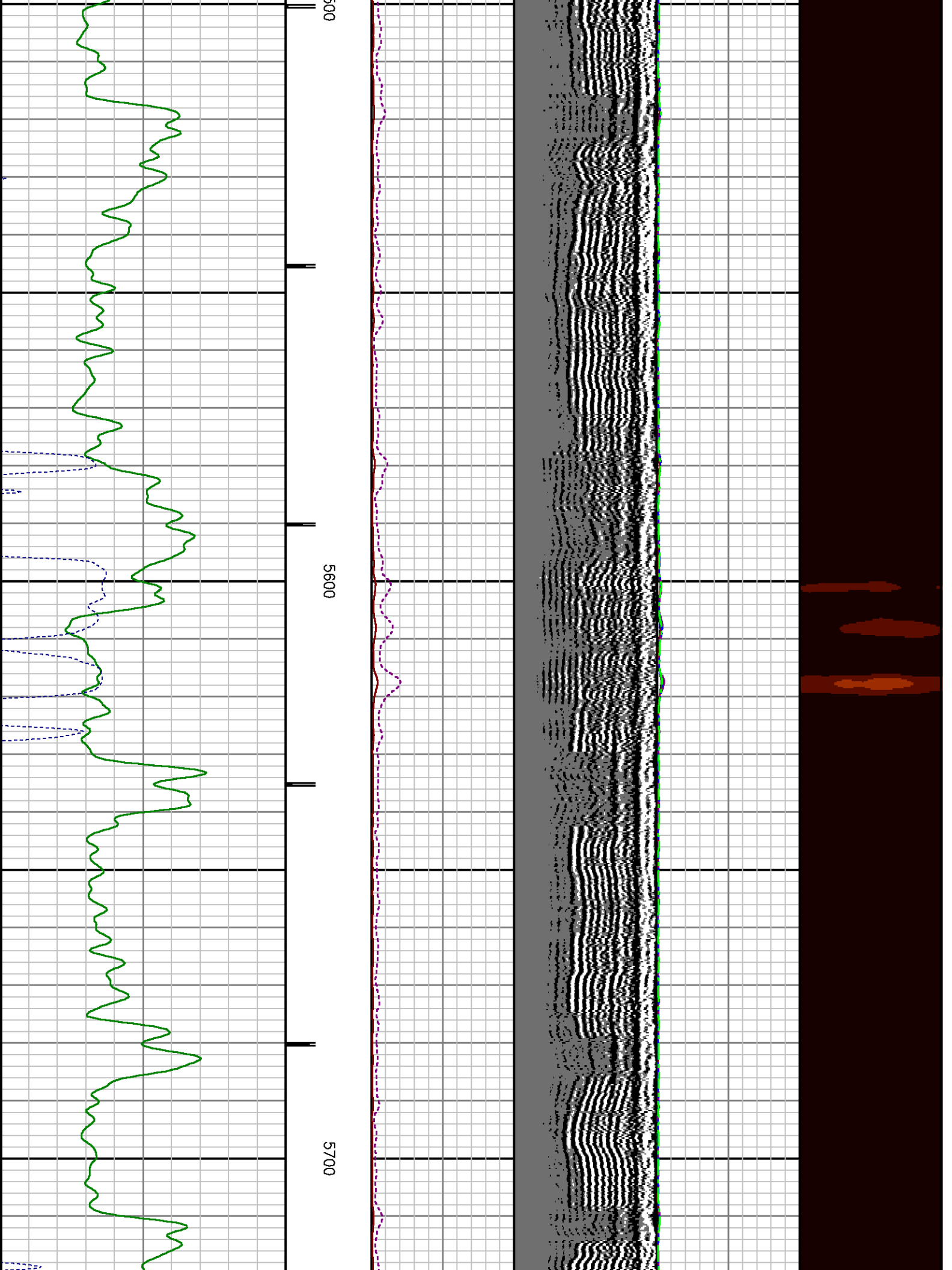


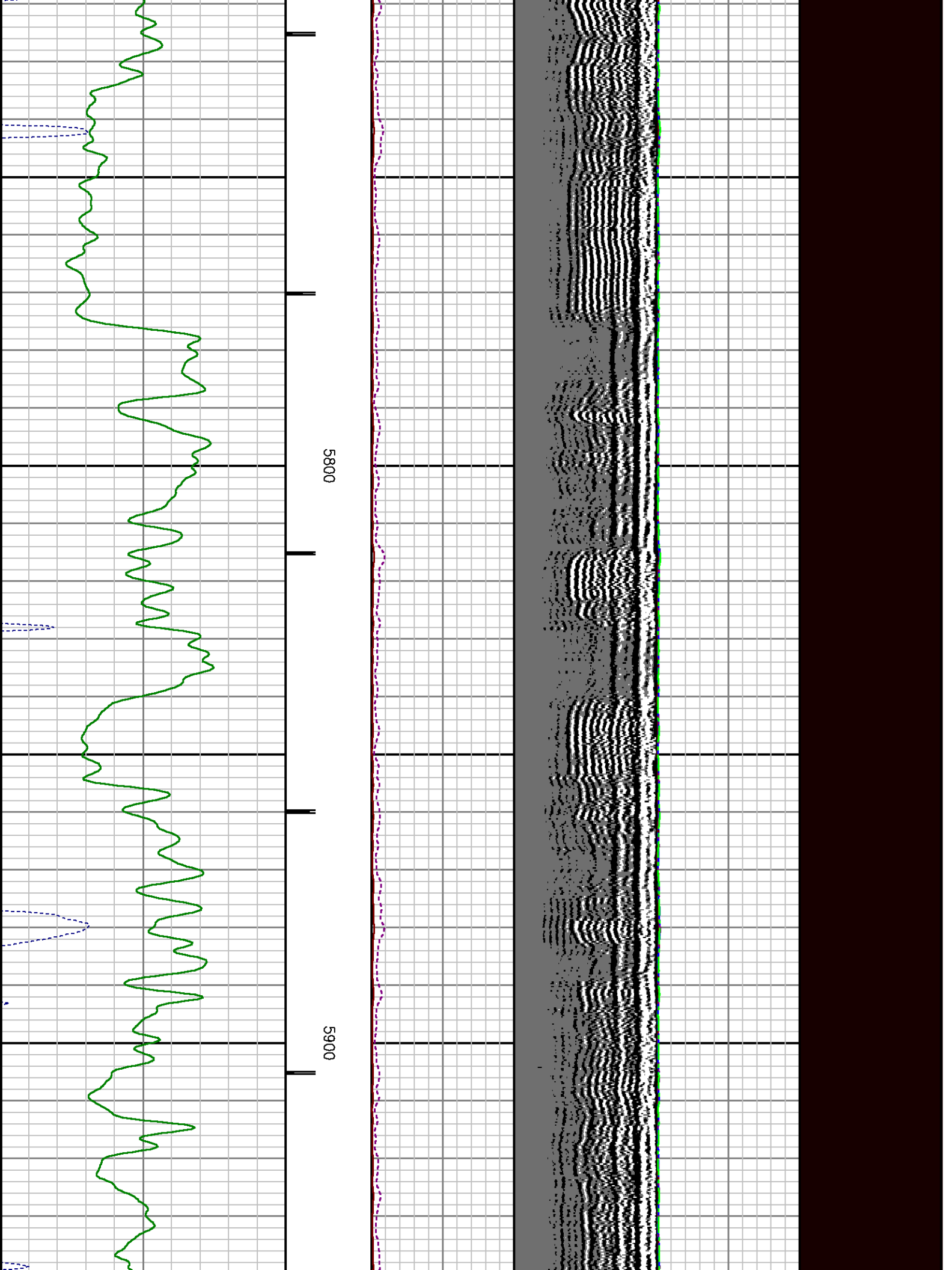


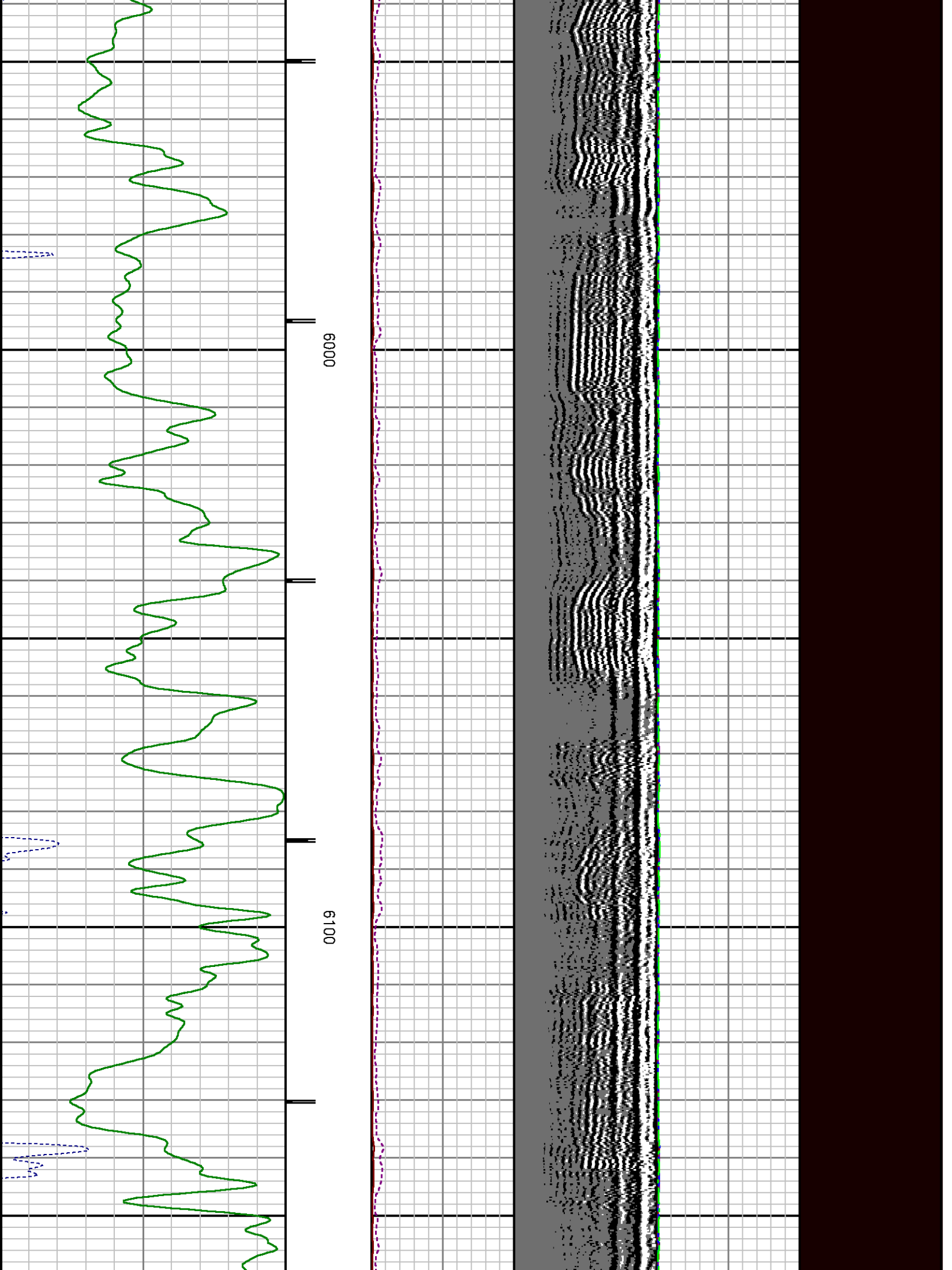


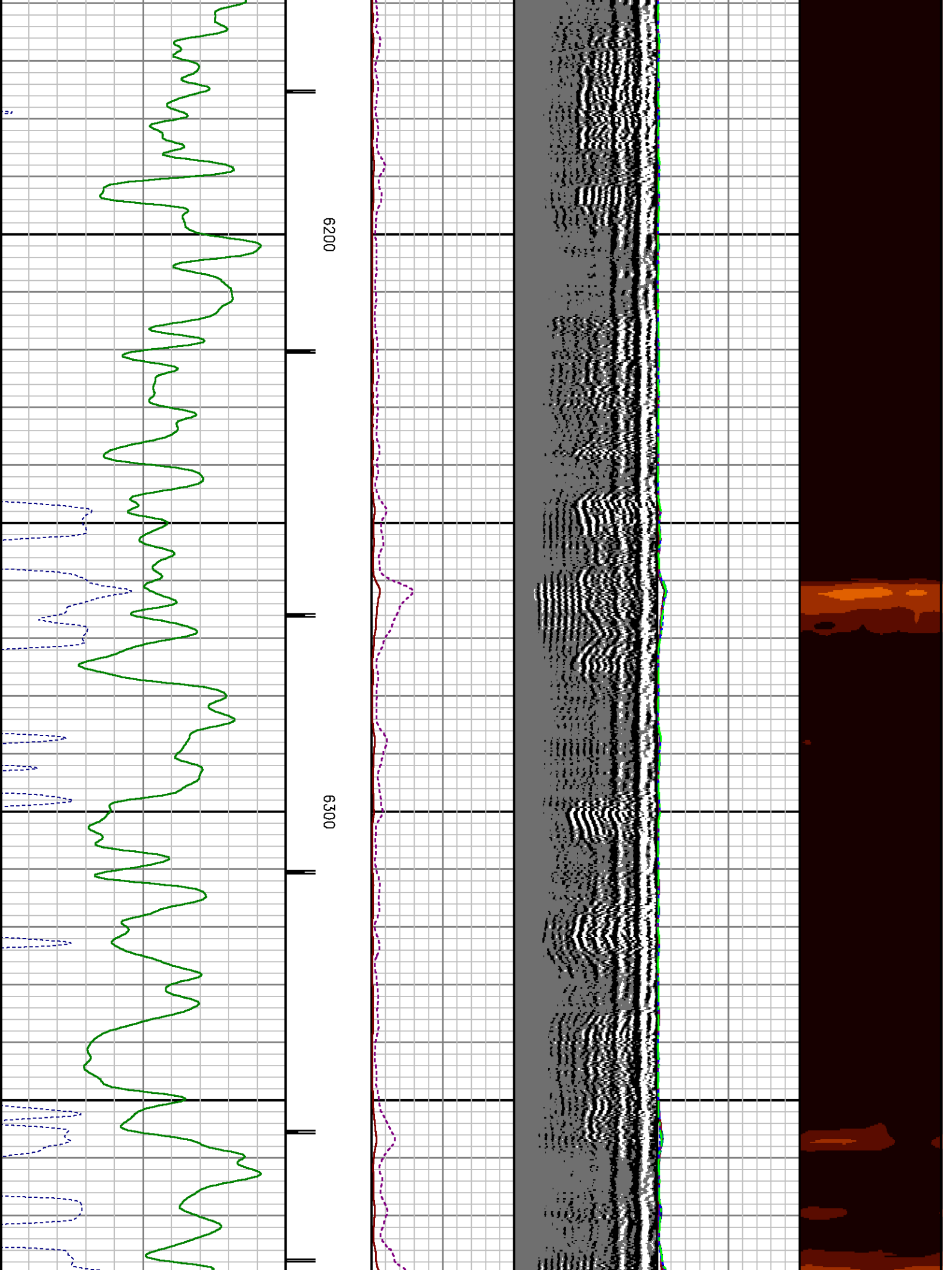


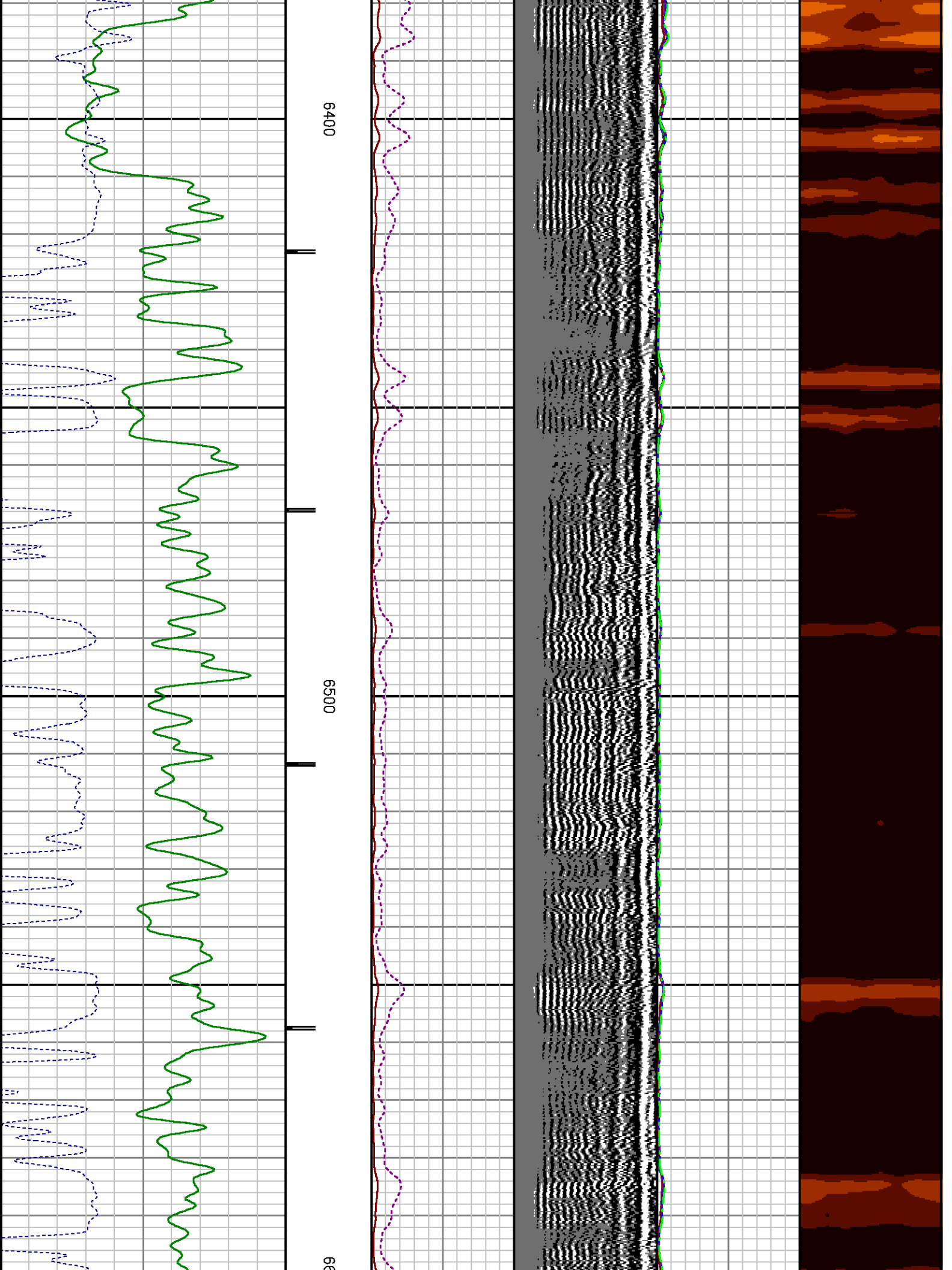


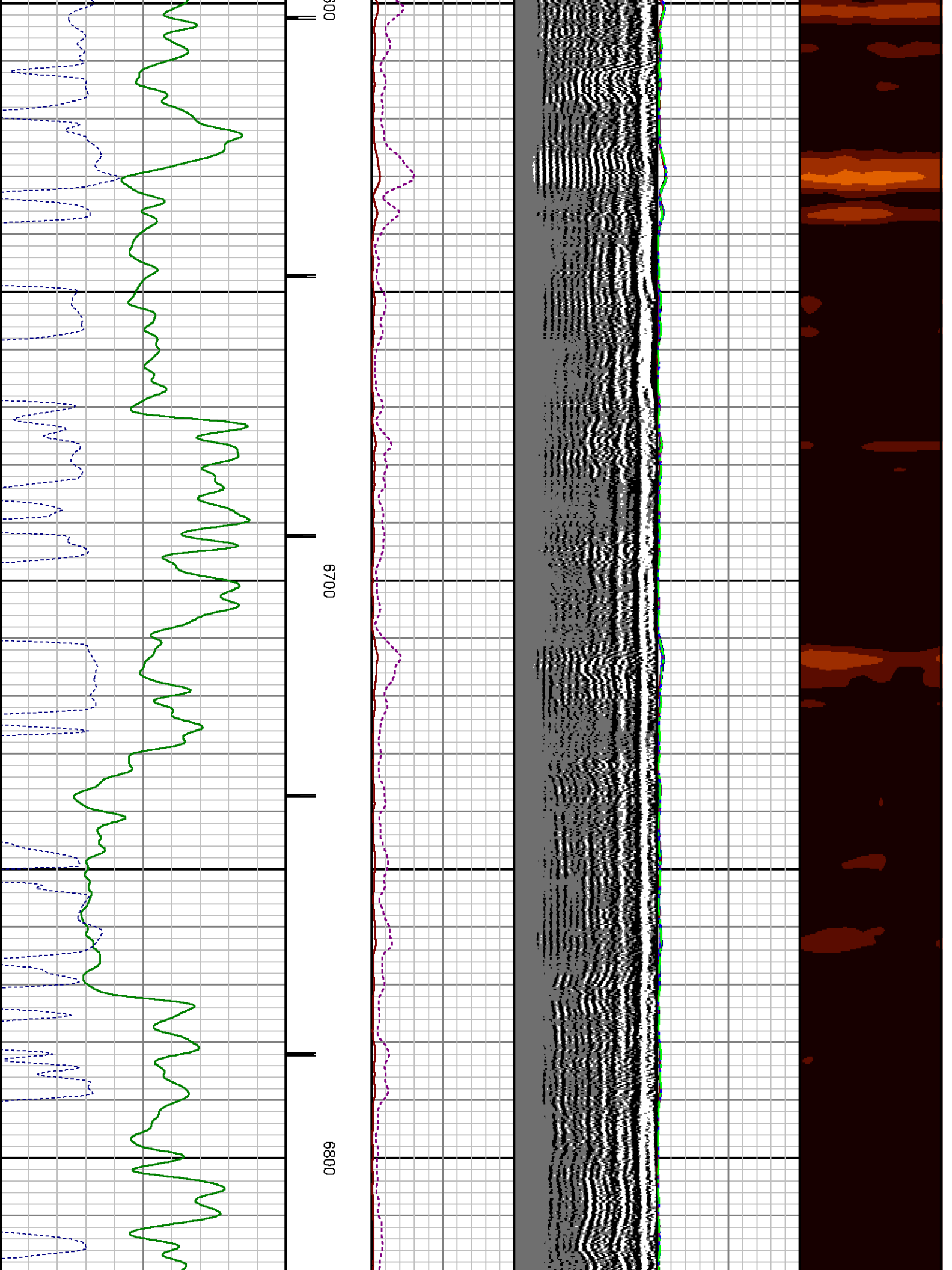


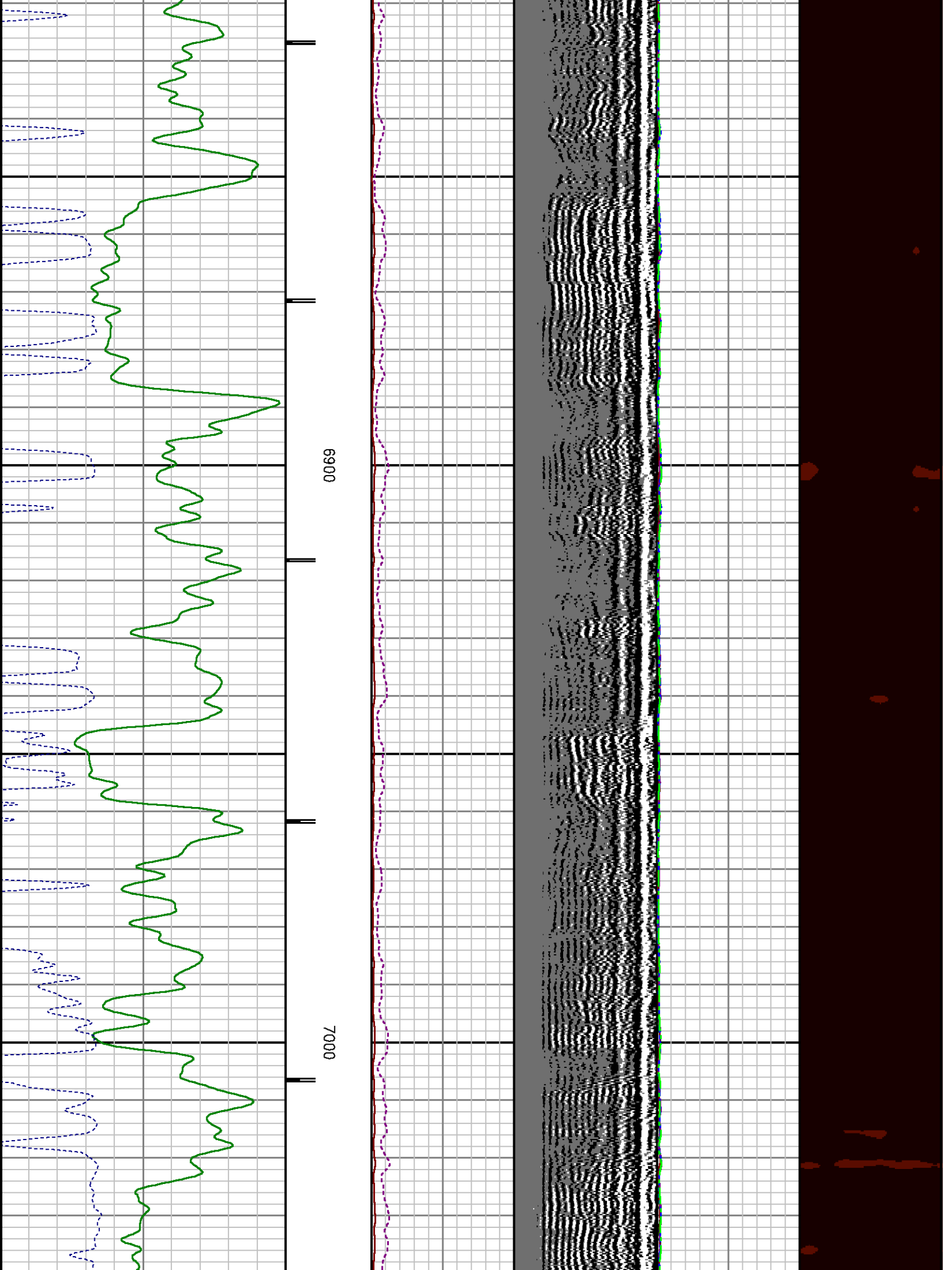


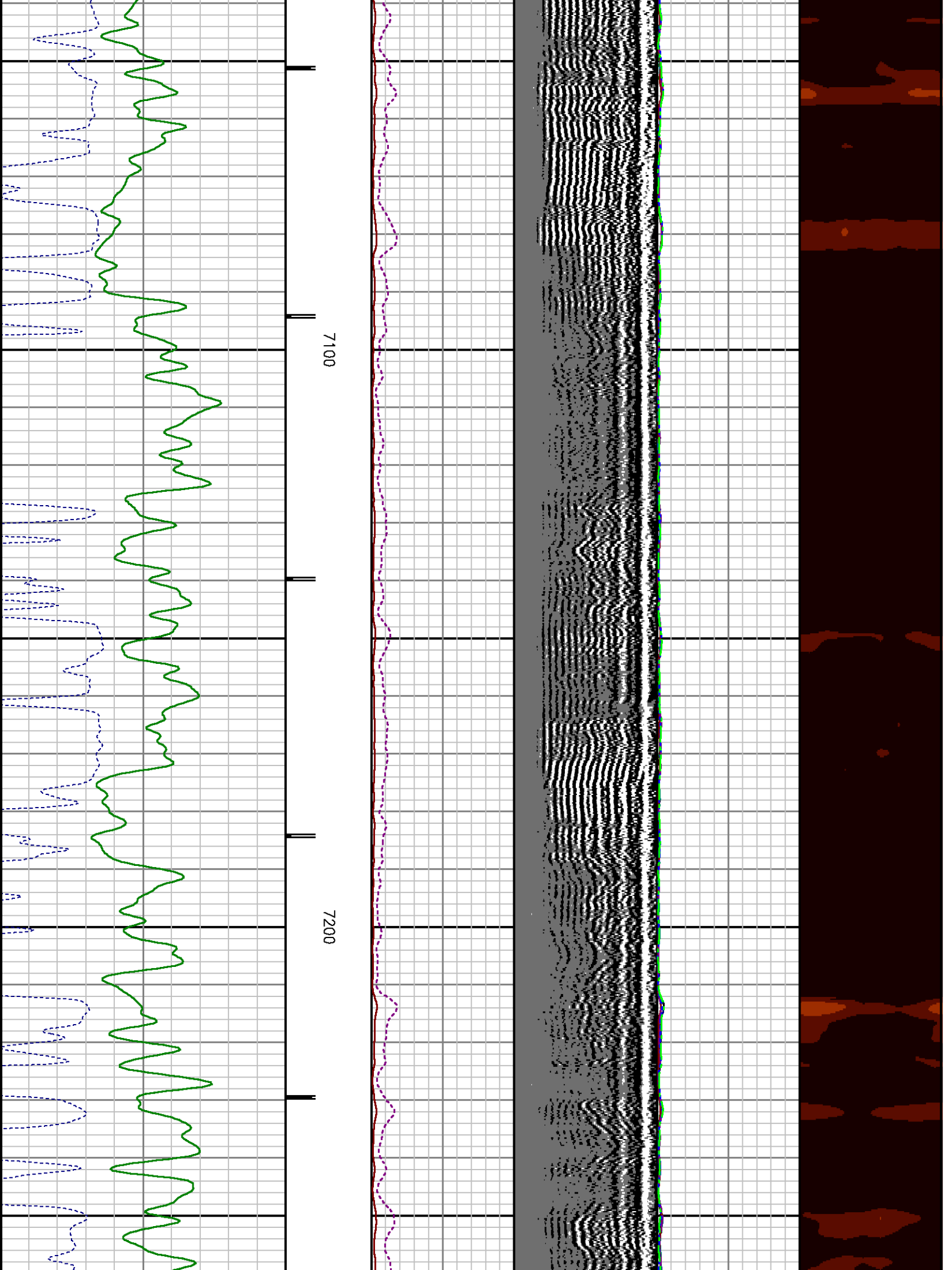


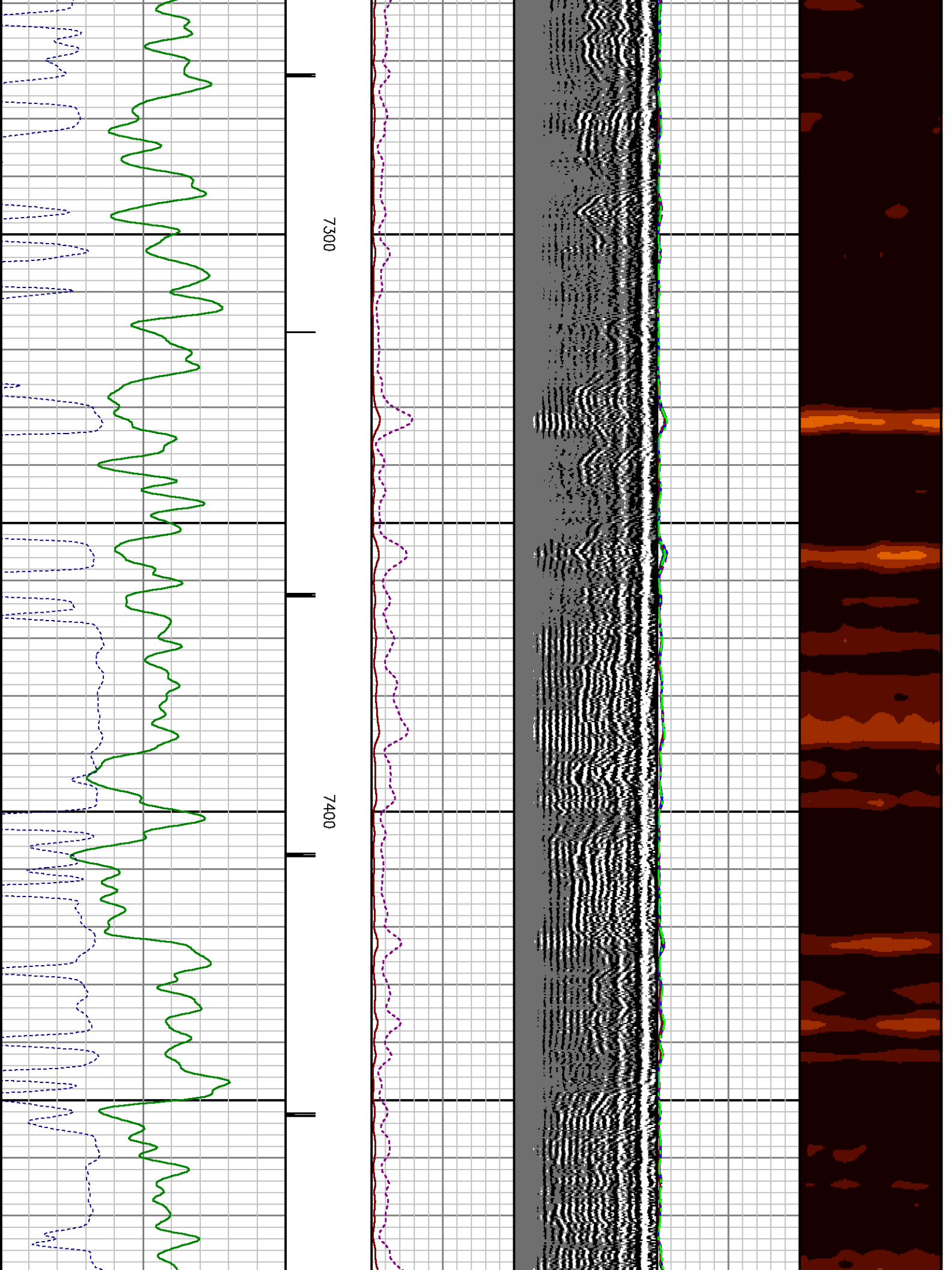


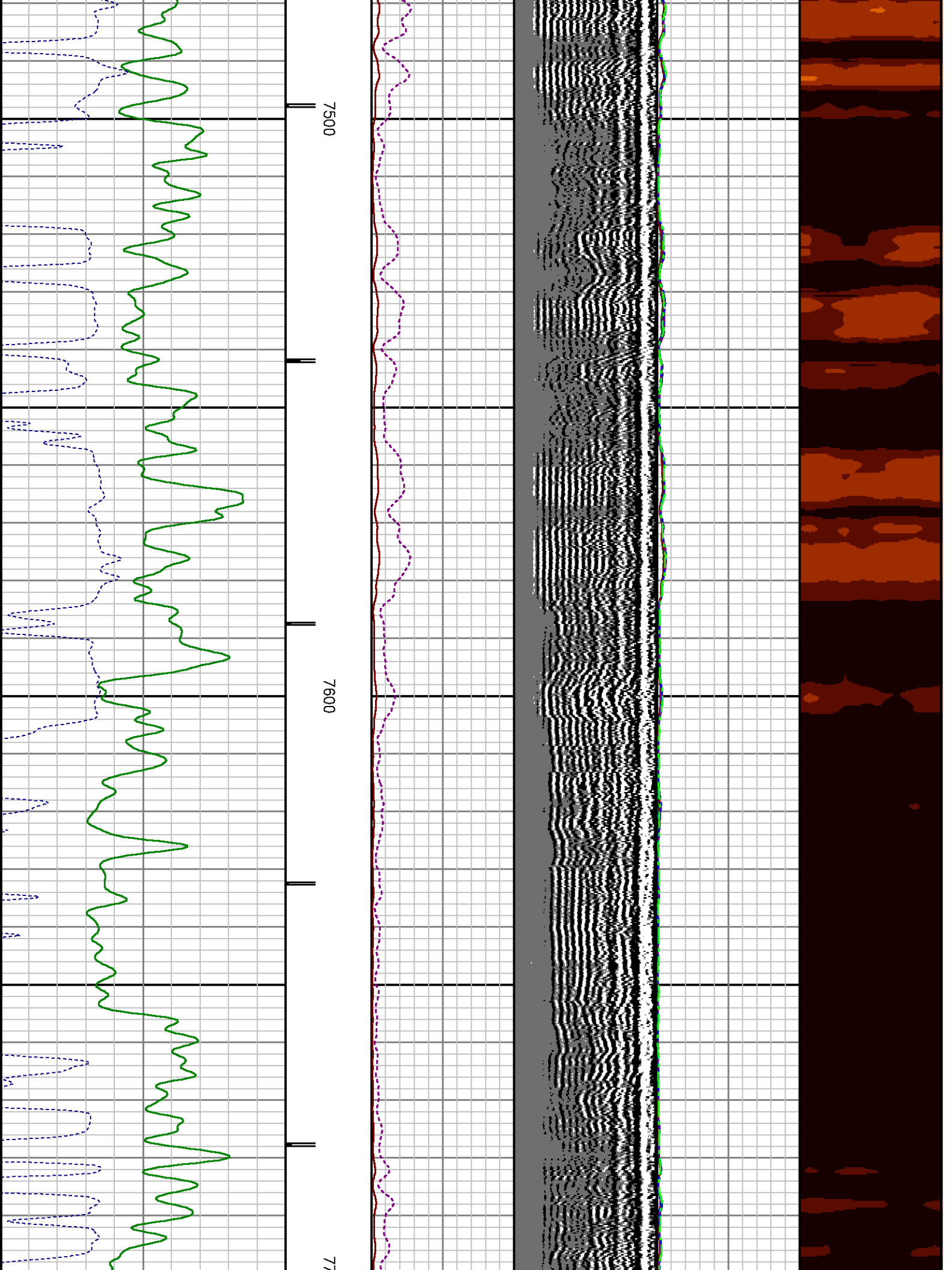


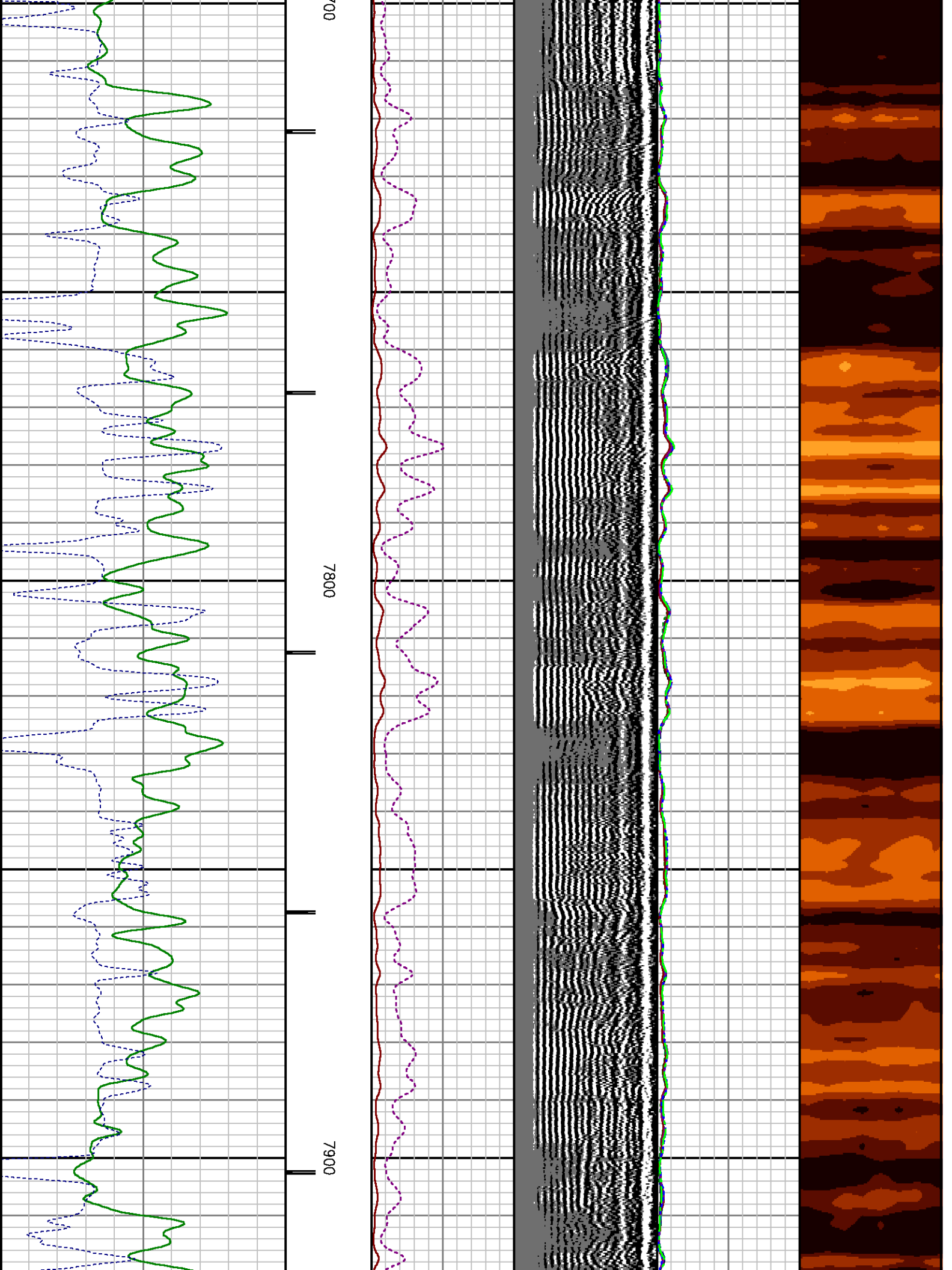


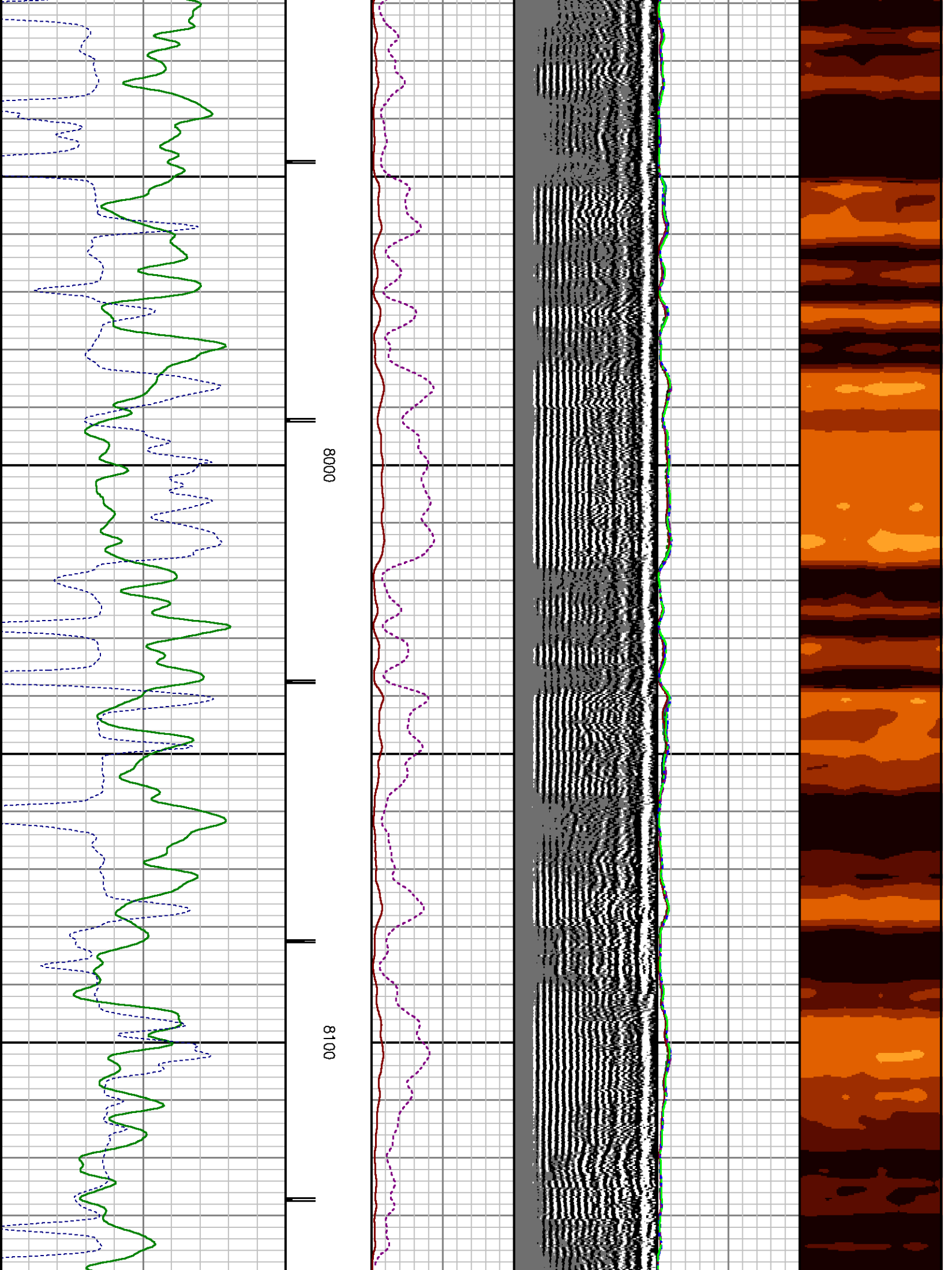


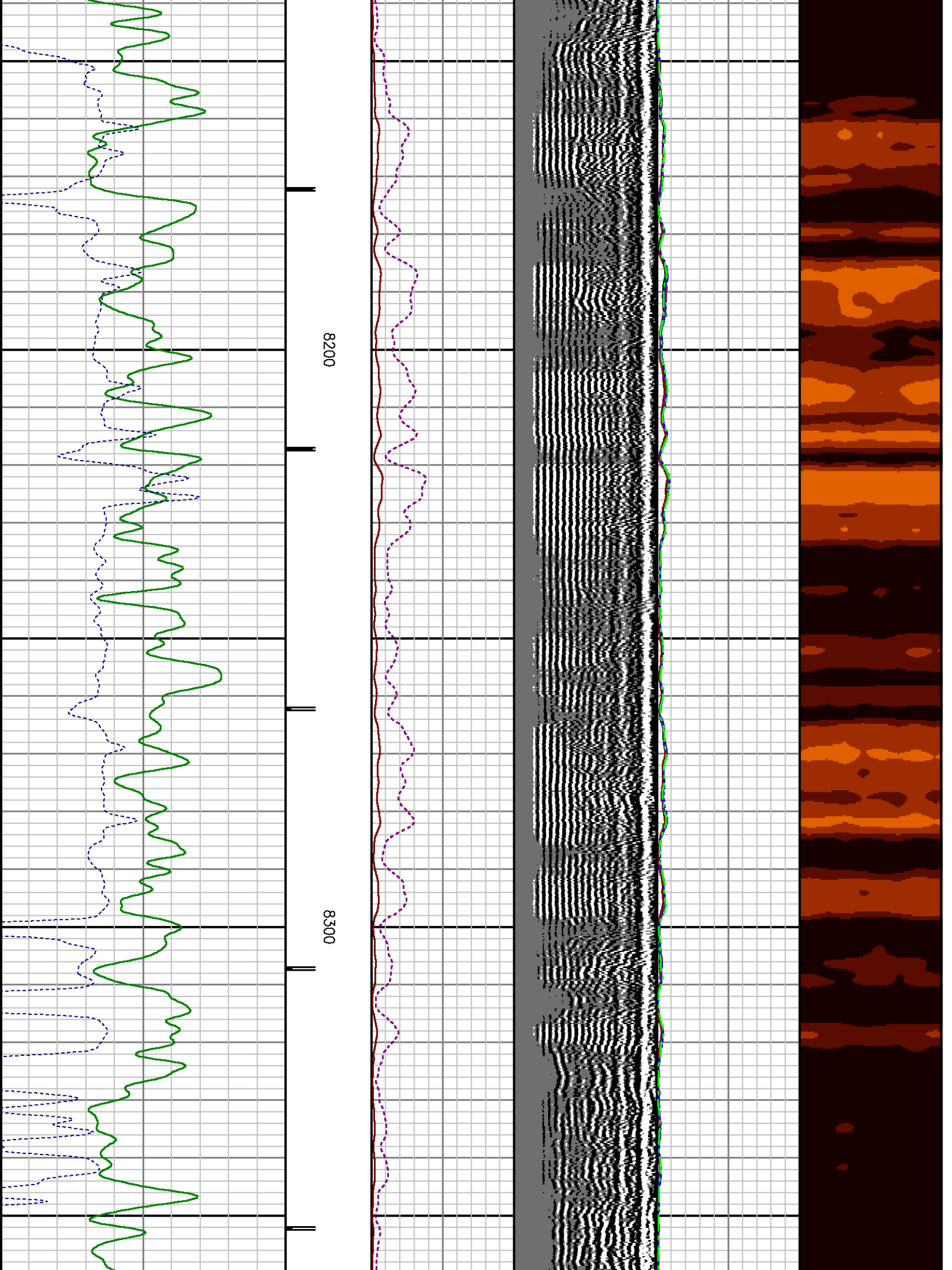


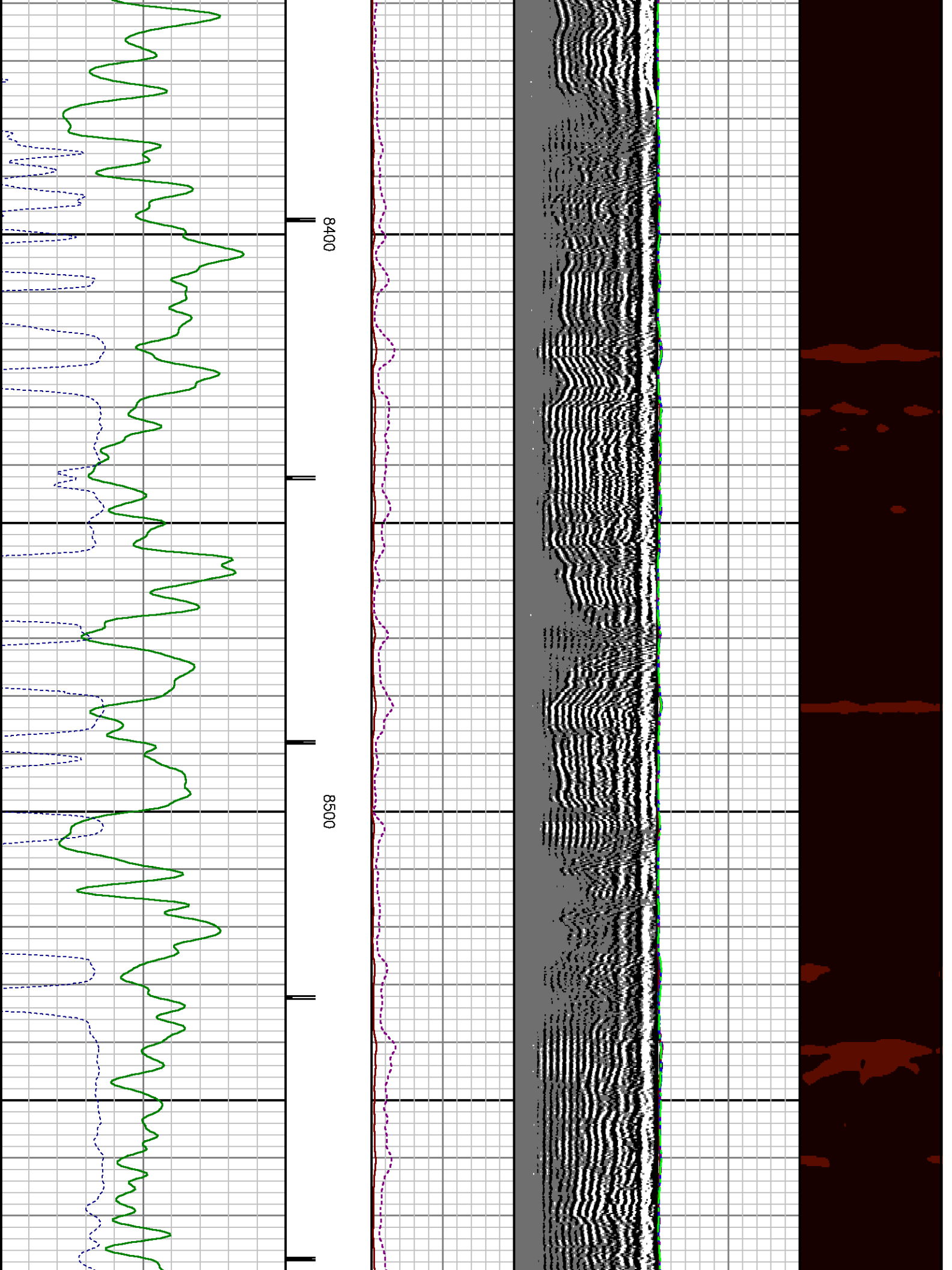


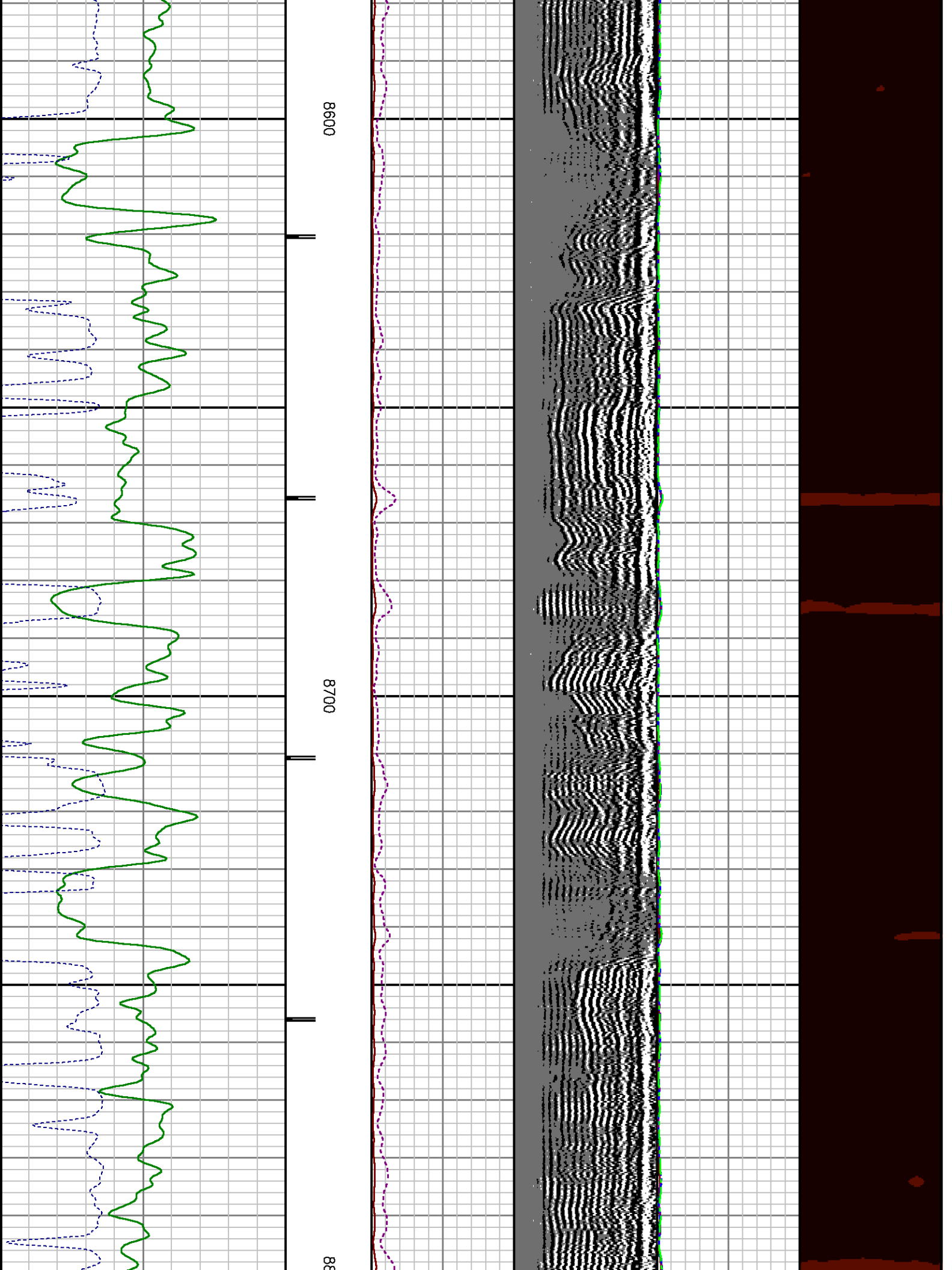


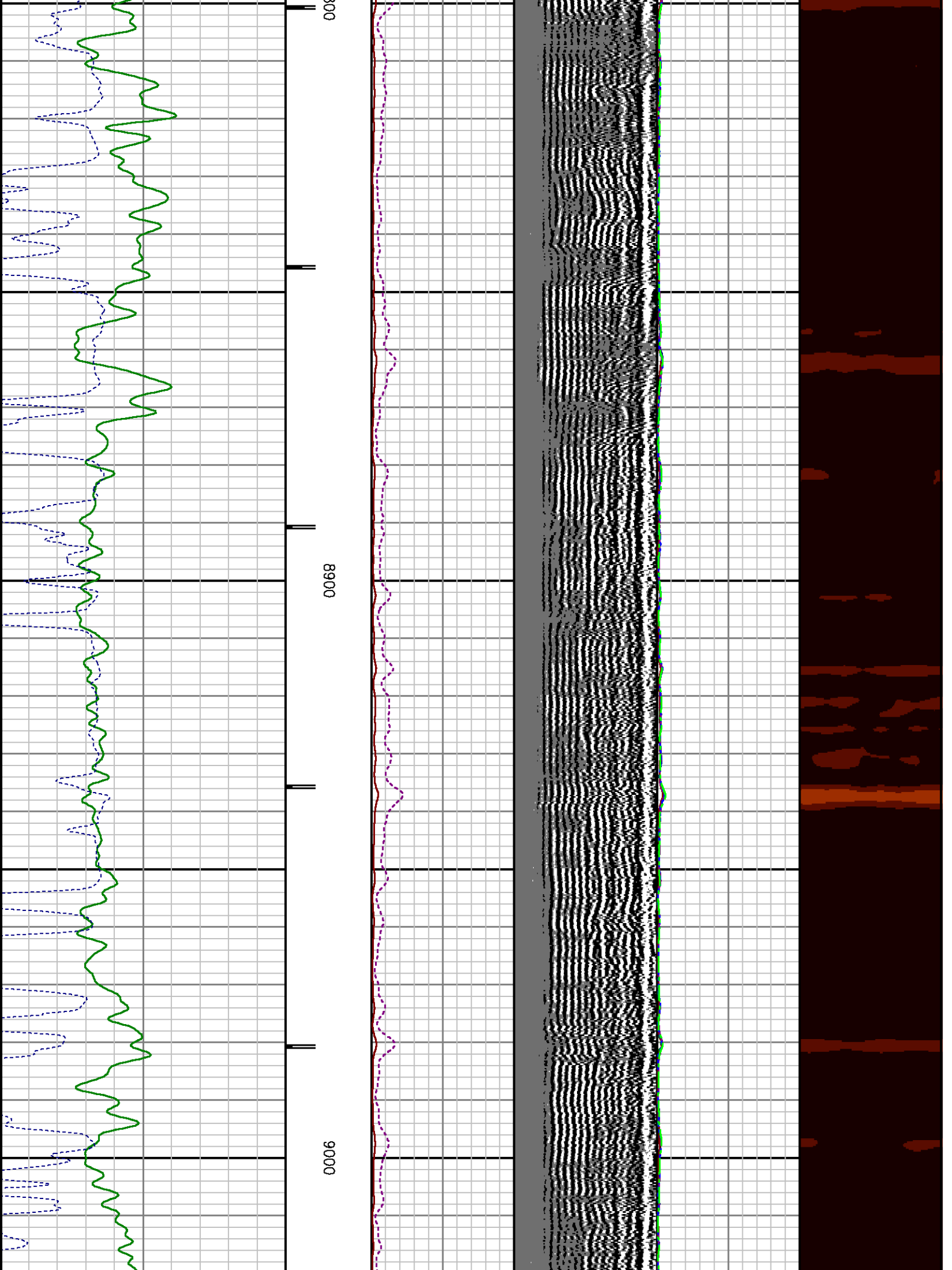


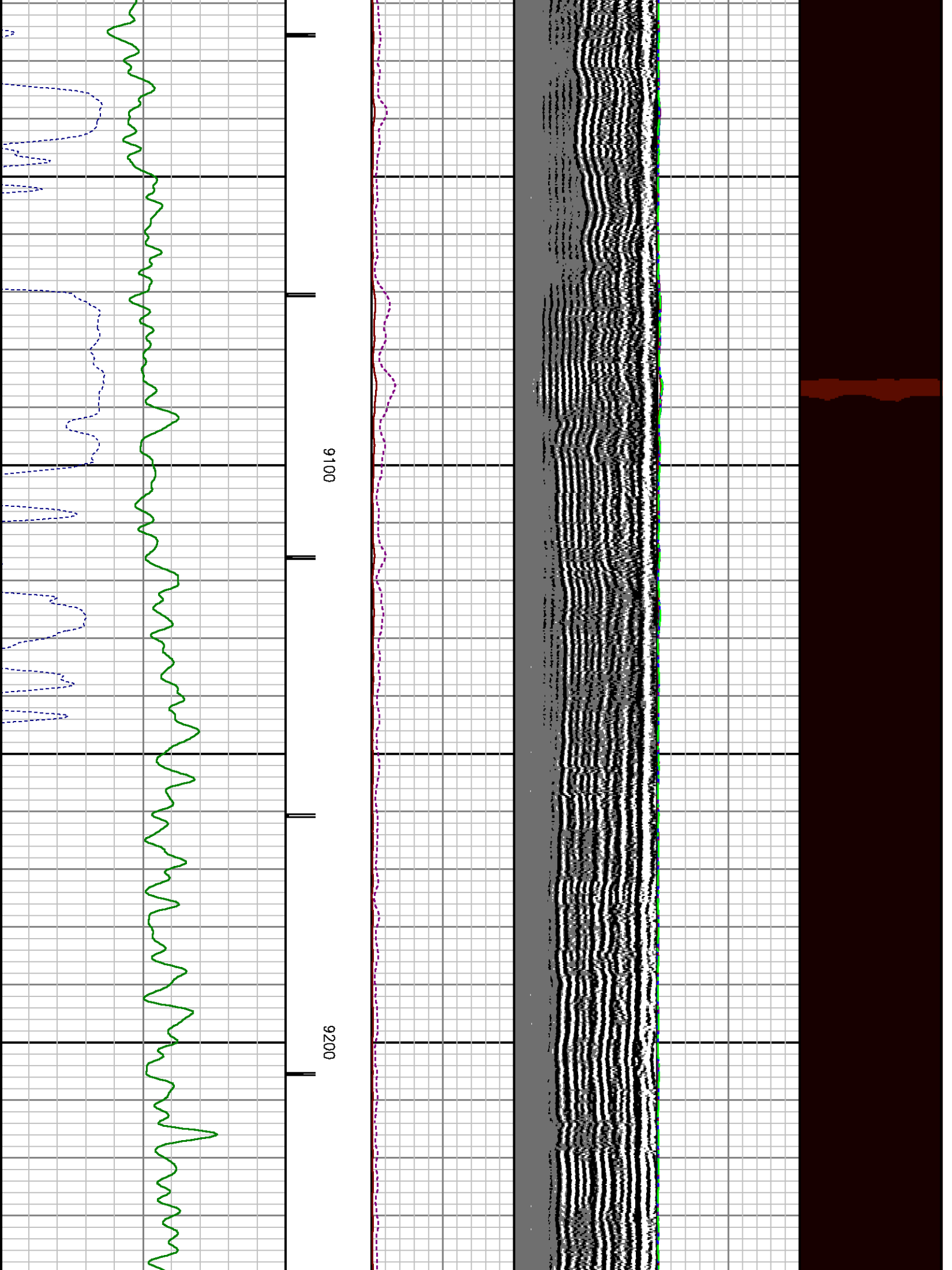


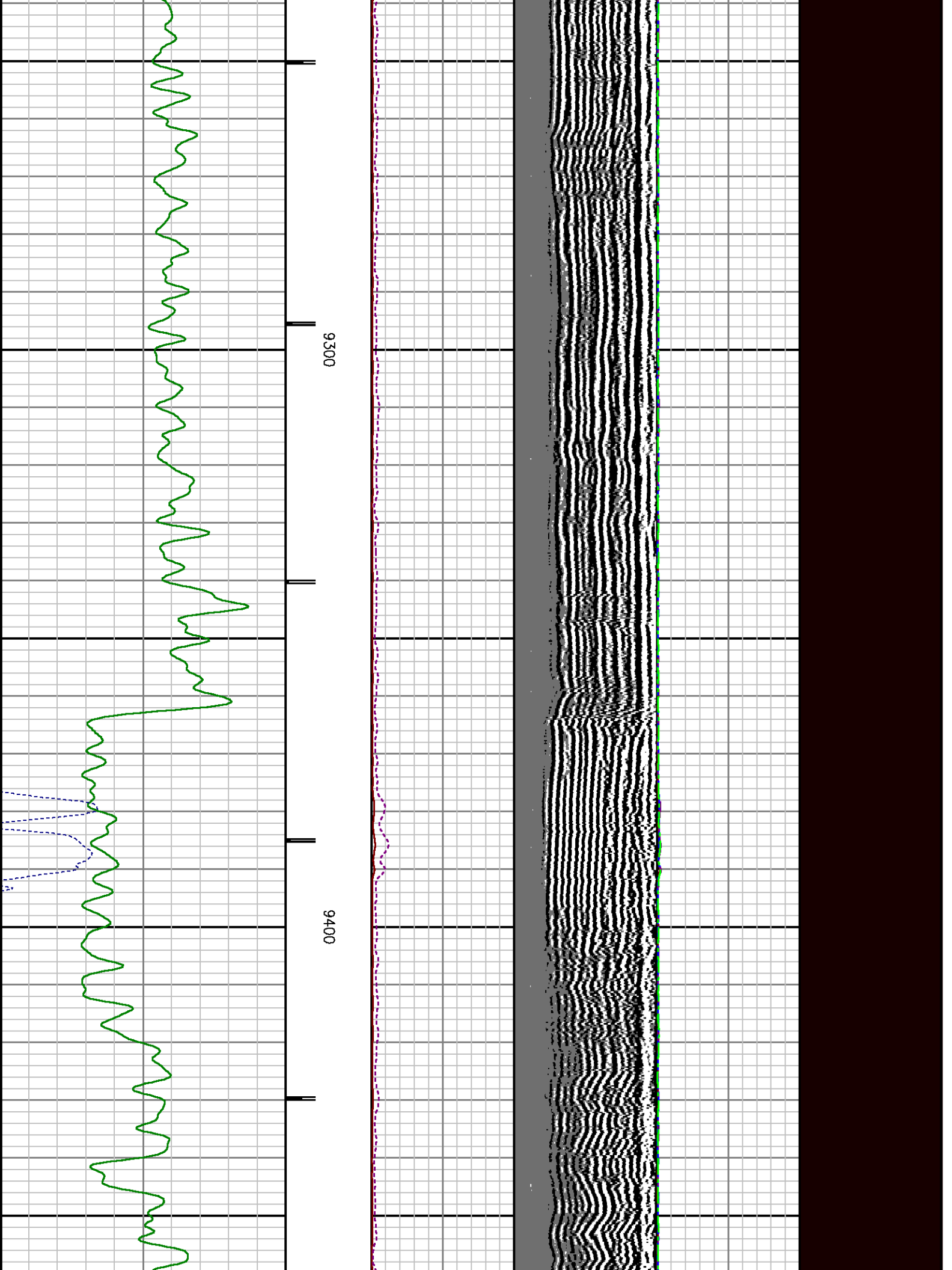


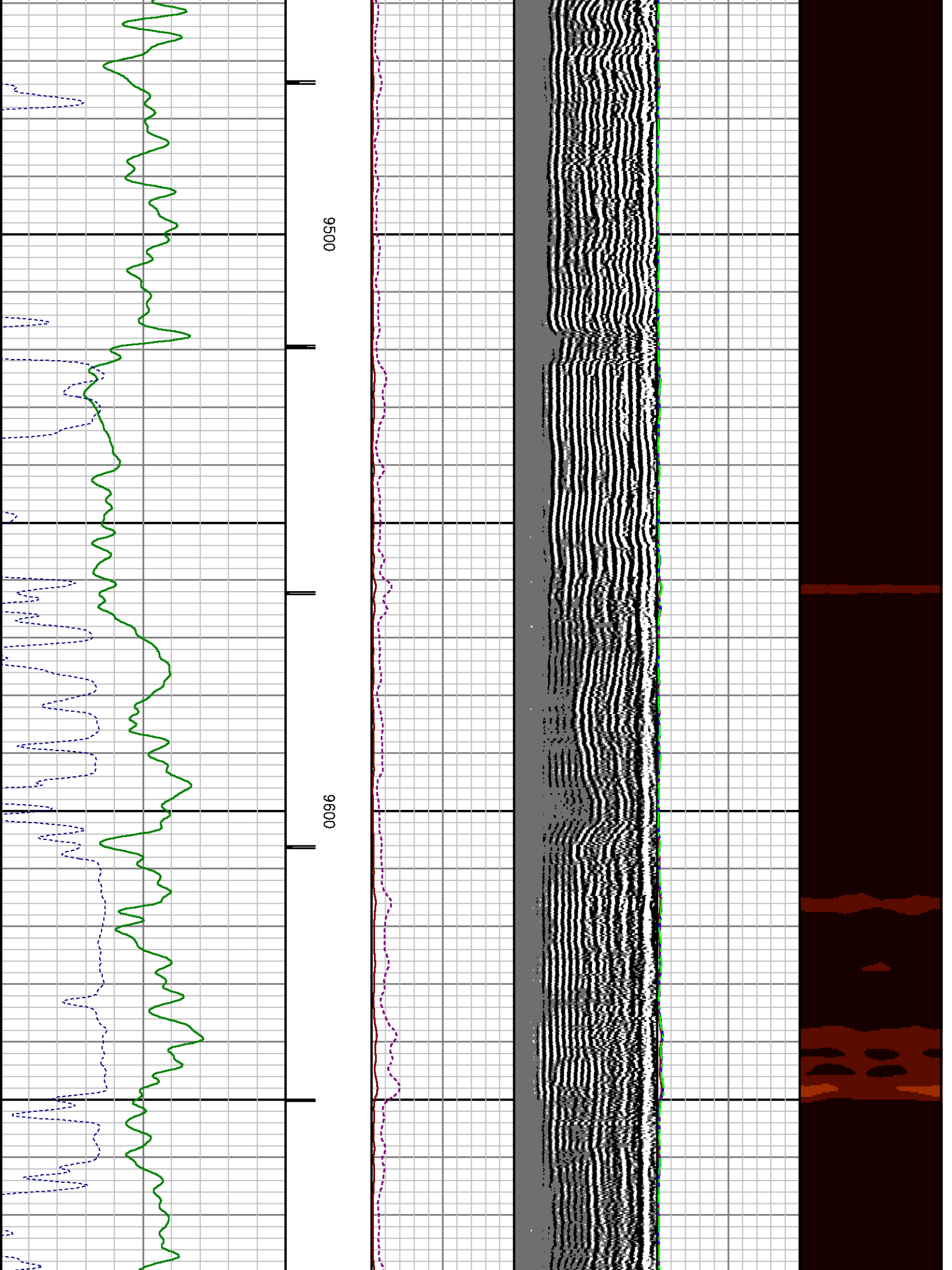


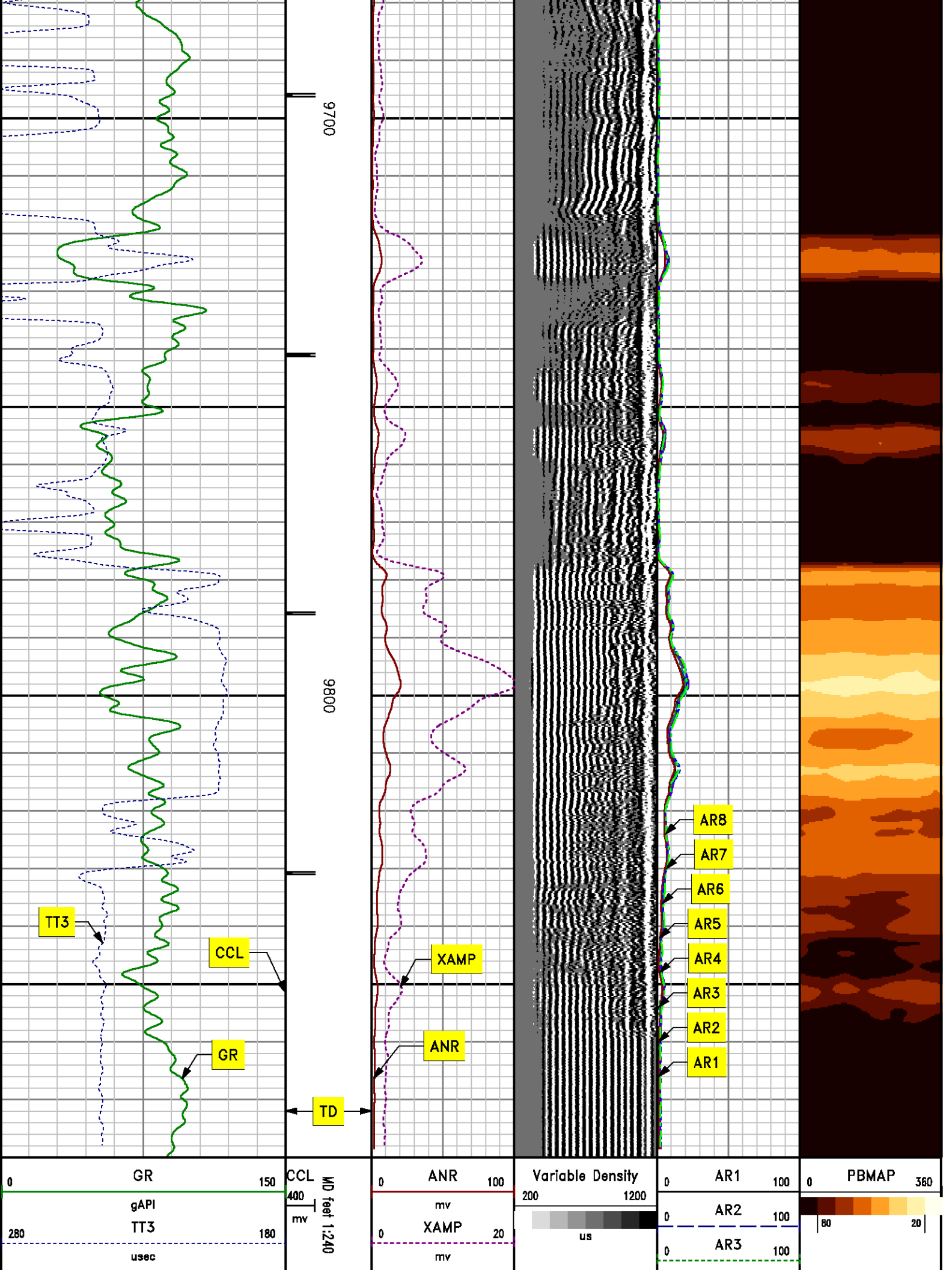












0	AR4	100
0	AR5	100
0	AR6	100
0	AR7	100
0	AR8	100

REPEAT PASS
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	306.127	usec	9500.000	9871.000
RAL	Amp Gate Start Near	198.031	usec	9500.000	9871.000
RAL	Amp Gate Start Radial	197.374	usec	9500.000	9871.000
RAL	Amp Gate Width Far	25.000	usec	9500.000	9871.000
RAL	Amp Gate Width Near	25.000	usec	9500.000	9871.000
RAL	Amp Gate Width Radial	25.000	usec	9500.000	9871.000
RAL	casing od	4.500	inches	9500.000	9871.000
RAL	casing wt	11.600	lbm/ft	9500.000	9871.000
RAL	FB Start Far	291.900	usec	9500.000	9871.000
RAL	FB Start Near	175.391	usec	9500.000	9871.000
RAL	FB Start Radial	175.391	usec	9500.000	9871.000
RAL	FB Thresh Far	10.000	mv	9500.000	9871.000
RAL	FB Thresh Near	4.000	mv	9500.000	9871.000
RAL	FB Thresh Radial	4.000	mv	9500.000	9871.000
RAL	Fluid Travel Time	200.000	usec/ft	9500.000	9871.973

DEPTH OFFSETS
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3

1426XA -15.750
2459XA -11.340
2459XA -9.490
2459XA -4.090

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

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

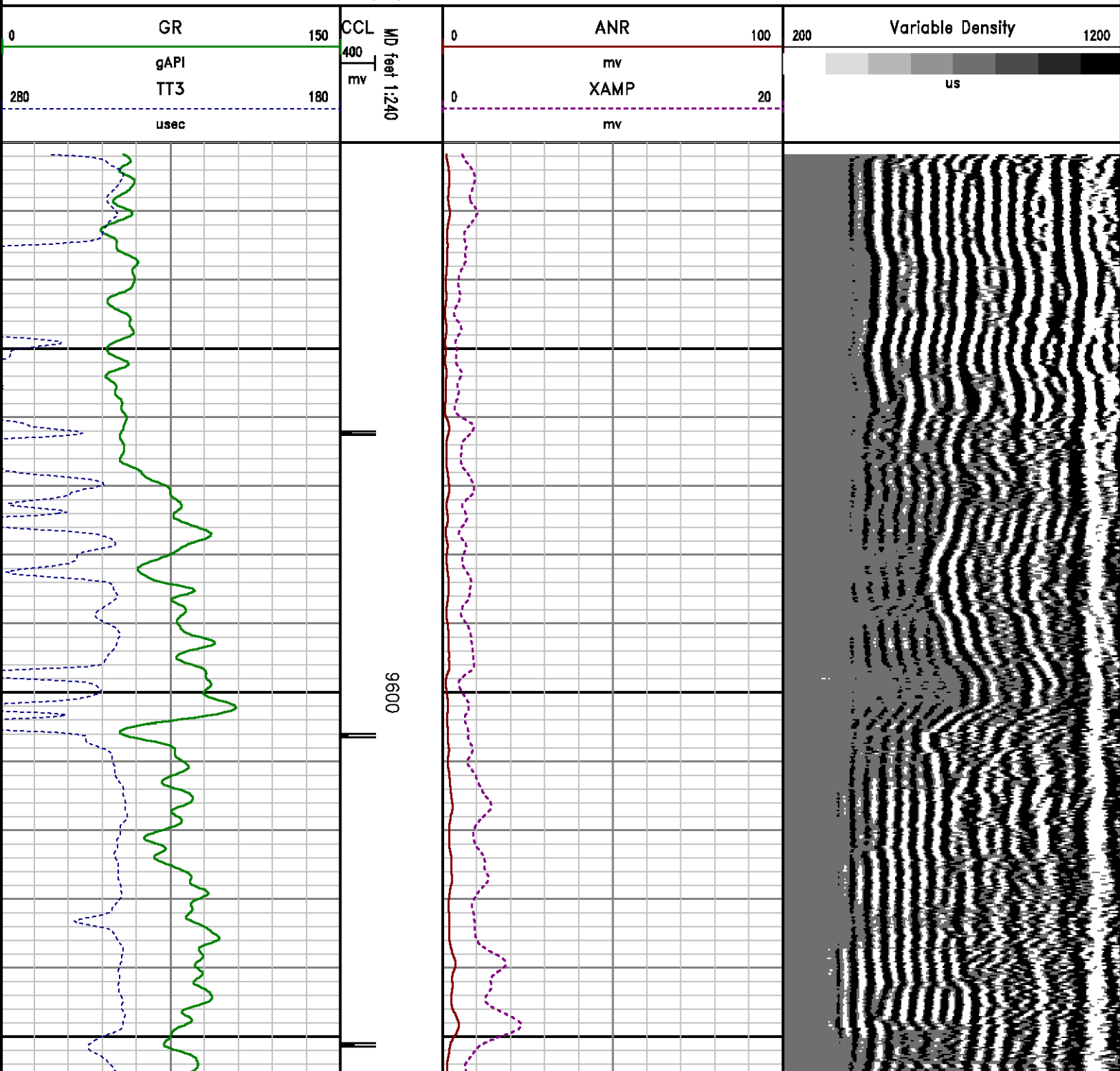
Well : HOEPPLI RWF 413-36

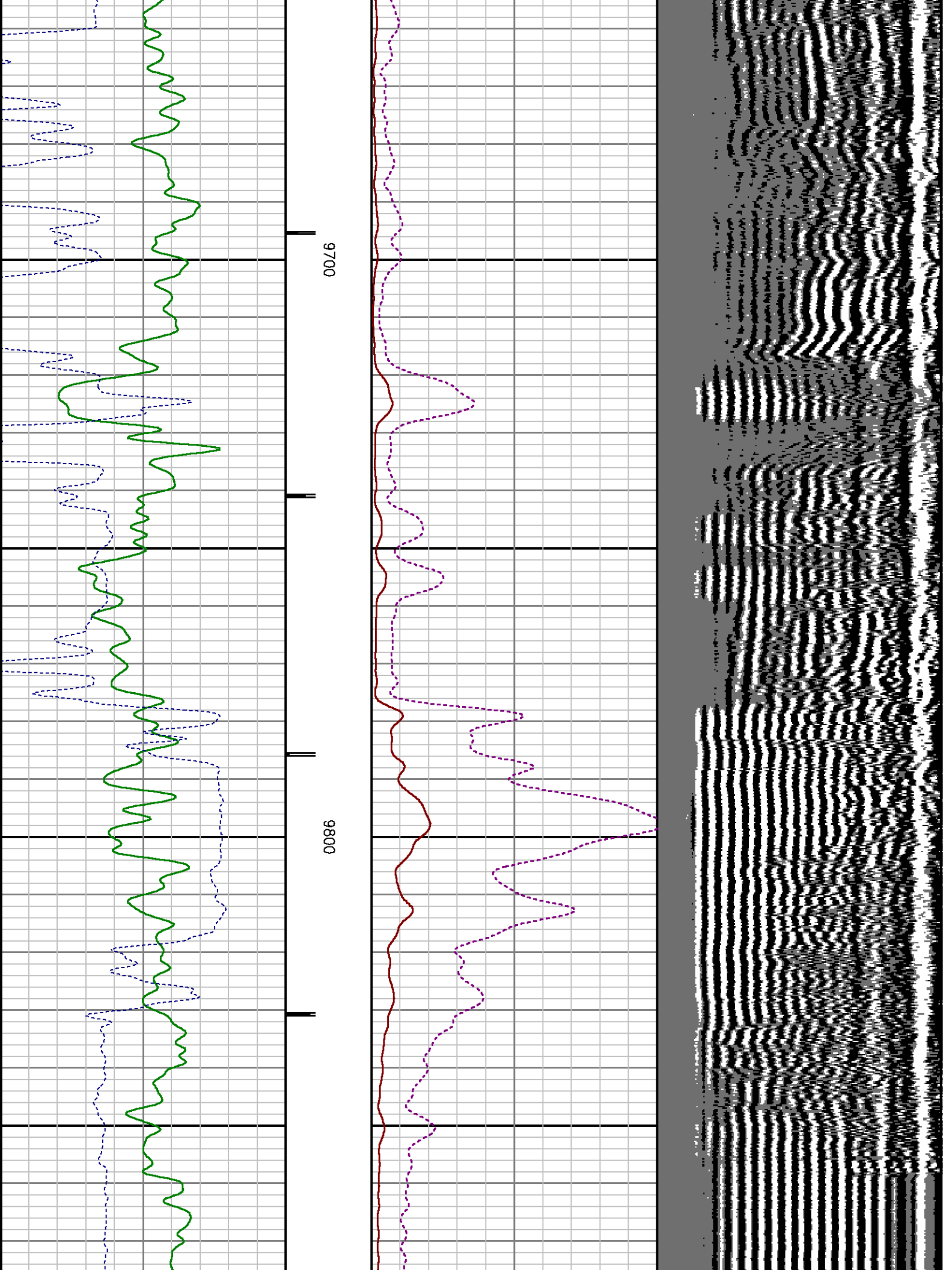
File Name : d:\welldata\413cbl\repeat_rdrd.xtf

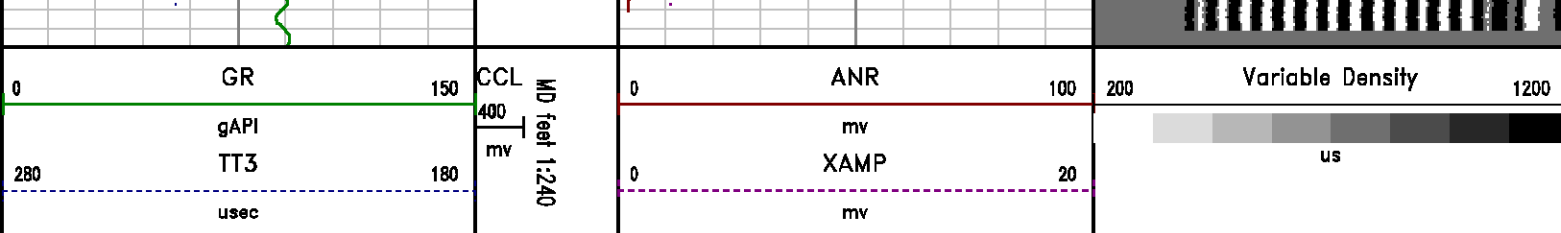
Mode : PlotMgr 5.4.504

Interval : 9520.00 - 9880.00 feet UP

Created : 2/24/2013 2:15:42 PM







CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\539FEB24_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Feb 24 14:01:48 2013 TOOL SERIES: 1426XA ASSET: 539 SEQ: FEB24

Tool Delay [usec] -60.00 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	221	216	30	166	25	0.706	100.00	0.19
3 Ft. Receiver	220	216	30	166	25	-2.378	100.00	0.19
5 Ft. Receiver	327	326	30	250	25	0.022	150.00	0.20
Radial #1	220	216	30	166	25	-4.064	100.00	0.19
Radial #2	220	216	30	166	25	-2.216	100.00	0.19
Radial #3	220	216	30	166	25	-2.094	100.00	0.19
Radial #4	220	216	30	166	25	-3.514	100.00	0.19
Radial #5	220	216	30	166	25	-4.561	100.00	0.19
Radial #6	219	216	30	166	25	-3.077	100.00	0.19
Radial #7	219	216	30	166	25	-4.174	100.00	0.18
Radial #8	220	216	30	166	25	-5.244	100.00	0.18

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\539FEB24 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Feb 24 14:03:31 2013 TOOL SERIES: 1426XA ASSET: 539 SEQ: FEB24

Tool Delay [usec] -60.00 Casing OD In 4.50 Casing Wt lbm/ft 11.60 Casing ID In 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	-0.102	0.000	1.00	100.000
3 Ft. Receiver	200	30	-3.039			
5 Ft. Receiver	317	30	-3.952			
Radial #1	200	30	-4.387			
Radial #2	200	30	-3.907			
Radial #3	200	30	-3.733			
Radial #4	200	30	-3.962			
Radial #5	200	30	-5.242			
Radial #6	200	30	-4.171			
Radial #7	200	30	-4.178			
Radial #8	200	30	-4.125			

GAMMA RAY

Calibration File: C:\case\calver\GR\456F2.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED:	Thu Feb 21 11:00:52 2013	TOOL SERIES:	2459XA	ASSET:	456	SEQ:	F2
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
SHOP JIG	87.33	352.09	0.699	61.02	246.02	185.00	

Verification File: C:\case\calver\GR\456F2.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED:	Thu Feb 21 11:03:46 2013	TOOL SERIES:	2459XA	ASSET:	456	SEQ:	F2
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
SHOP JIG	86.44	350.89	0.699	60.40	245.19	184.78	

TOOL DIAGRAM

OTA SHORT CABLE HEAD

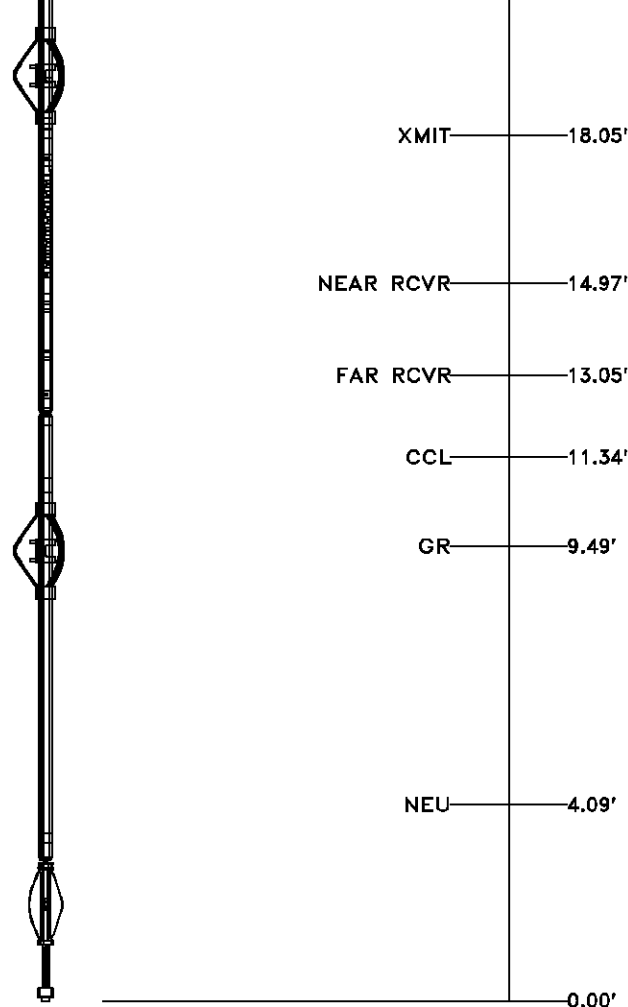
24.23'

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

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: 24.23'
Total Weight: Not Available
Max Diameter: 0' 3.12"



Baker Atlas



Company Well Field County	WPX ENERGY				File No:
	HOEPPLI RWF 413-36				CH088183
	RULISON				API No:
	GARFIELD		State	COLORADO	
Location					Elevations
SHL: 2601' FNL & 2627' FWL					KB 6554 ft 36 6S 94W
BHL: 1907' FSL & 1079' FWL					DF RWF 33-36
					GL 6528 ft NABORS SSD 576
SEC 36 TWP 6S RGE 94W					

36 6S 94W
RWF 33-36
NABORS SSD 576