



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: GH081916	Company Well Field County	WPX ENERGY SAVAGE RWF 312-25 RULISON GARFIELD	State COLORADO
API No: 06046219760000	Location SHL: 2482' FNL & 1397' FWL RWF 22-25 PAD BHL: 1439' FNL & 762' FWL (SWNNW) CYCLONE 17 SEC 25 TWP 6S RGE 94W		
Permanent Datum Log Measured From Drill Measured From		Other Services RPM KB 6098 ft DF GL 6037 ft	
OL KB KELLY BUSHING		Elevation 21 ft Above P. D.	

Date	16/JAN/14	
Run	ONE	
Service Order	US626088	
Depth Driller	8702 ft	
Depth Logger	8674 ft	
Bottom Logged Interval	8664 ft	
Top Logged Interval	21 ft	
Time Started	0730	
Time Finished	1130	
Operator Rig Time	4 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	66 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	65 fpm	
Maximum Recorded Temperature	228 degF	
Reference Log	NONE	
Reference Log Date	NA	
Equipment No.	4271	GRANDUCT
Recorded By	FLOYD RENEAU	
Witnessed By	COLE APPLIGATE	

- 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	1119 ft
8.75 in	1119 ft	8702 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			0 ft	1119 ft
4.5 in	11.6 lbm/ft	I-80	0 ft	8702 ft

Remarks
All data on this log is shifted using the CCL curve to put the wellhead (top CCL mark) on depth with ground level elevation at the client's request.
The amount of linear shift is 4 feet.
Logged with zero PSI at wellhead.
BHT = 228°F
SJ = 5379'-5403'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10218496	CENT
1	1	GRICCL	2459XA	10124121	CENT

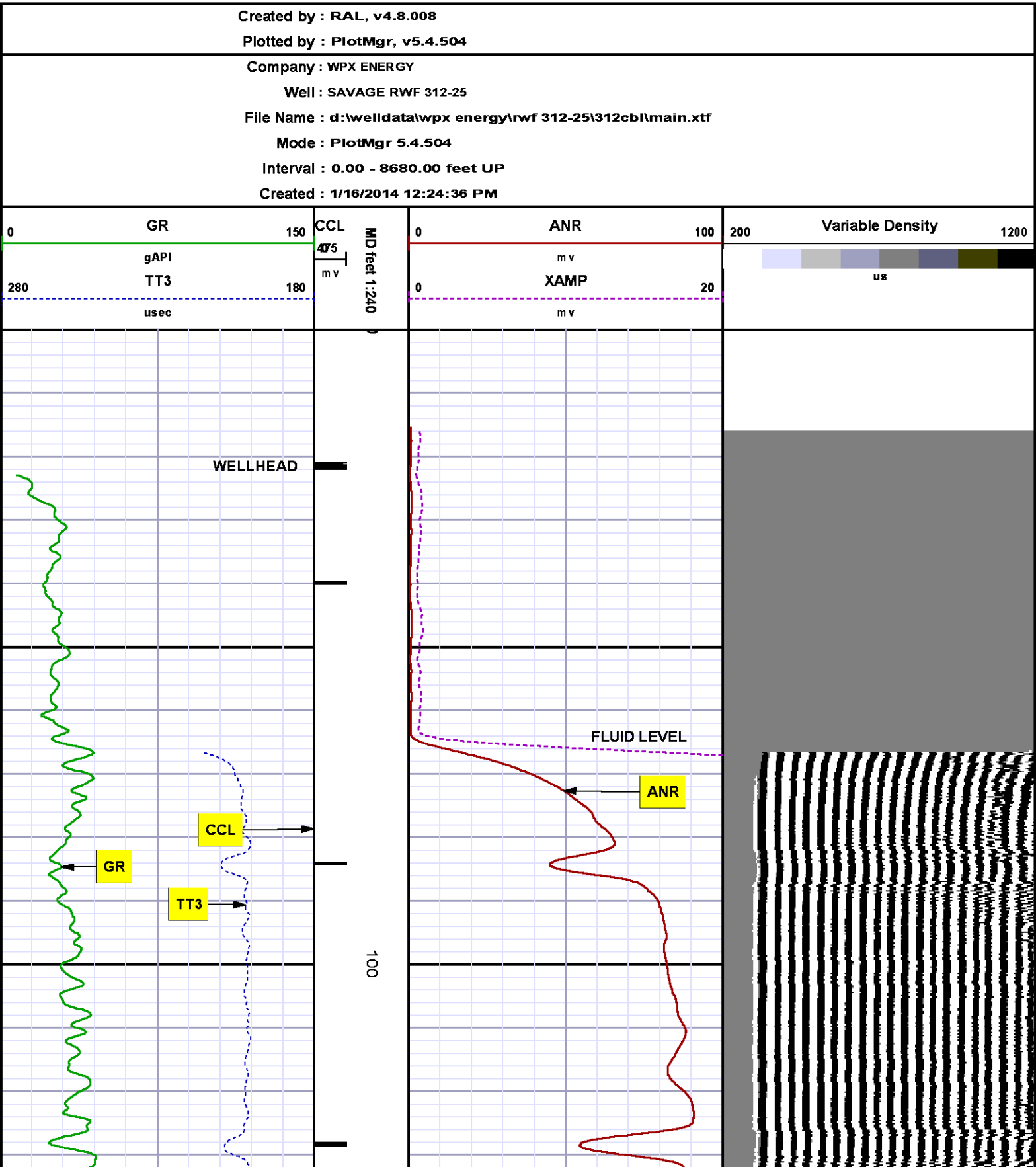
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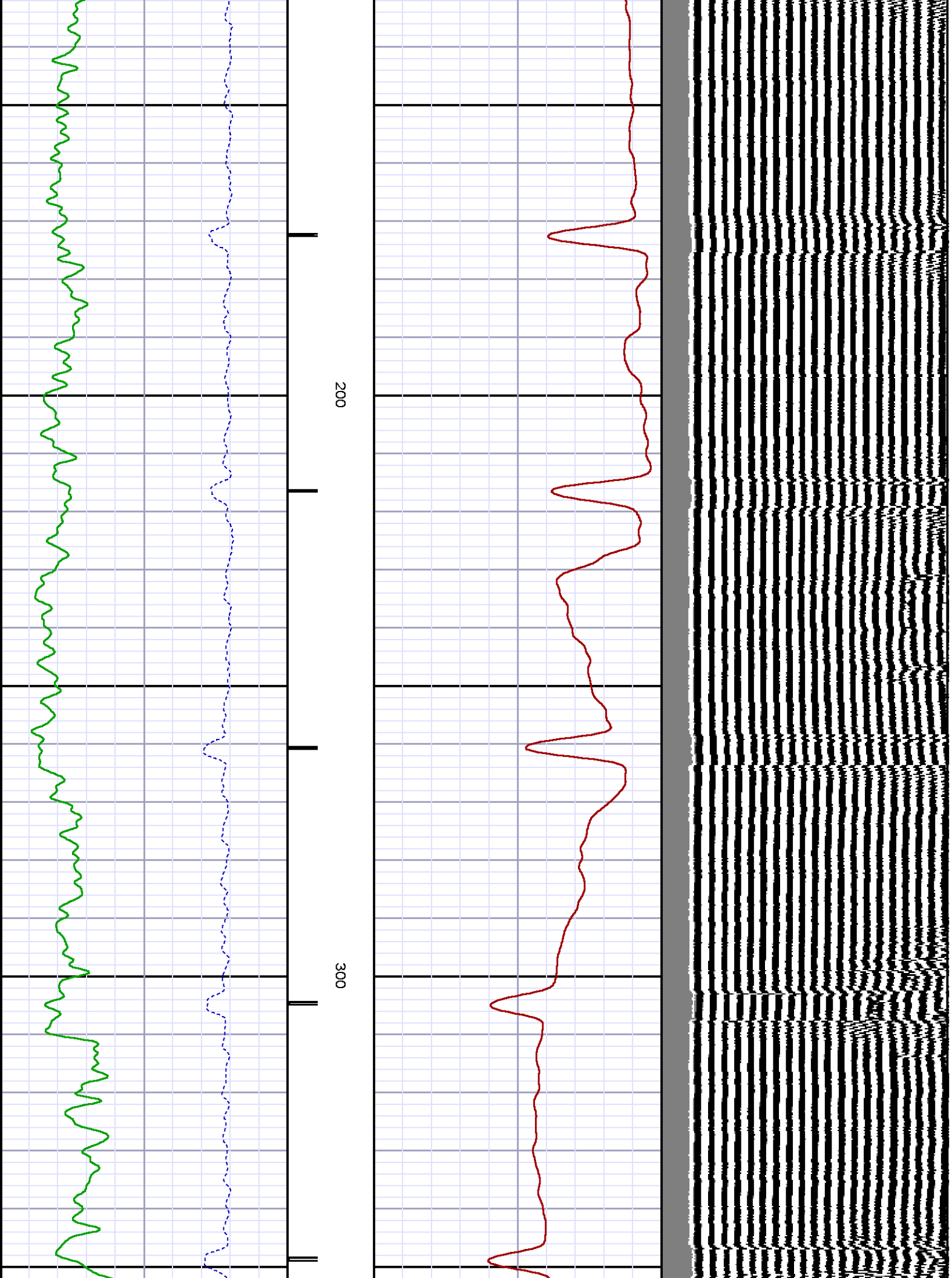
0 PSI

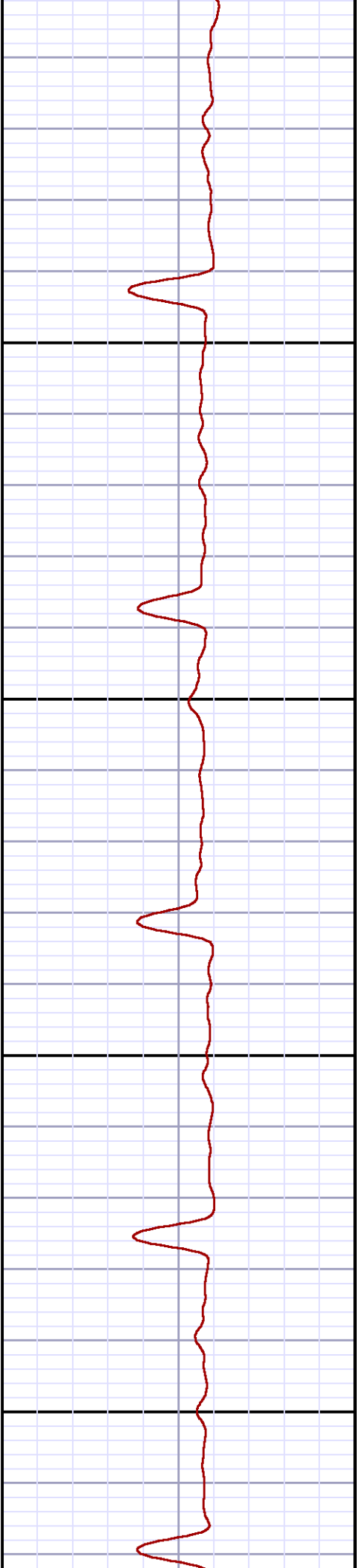
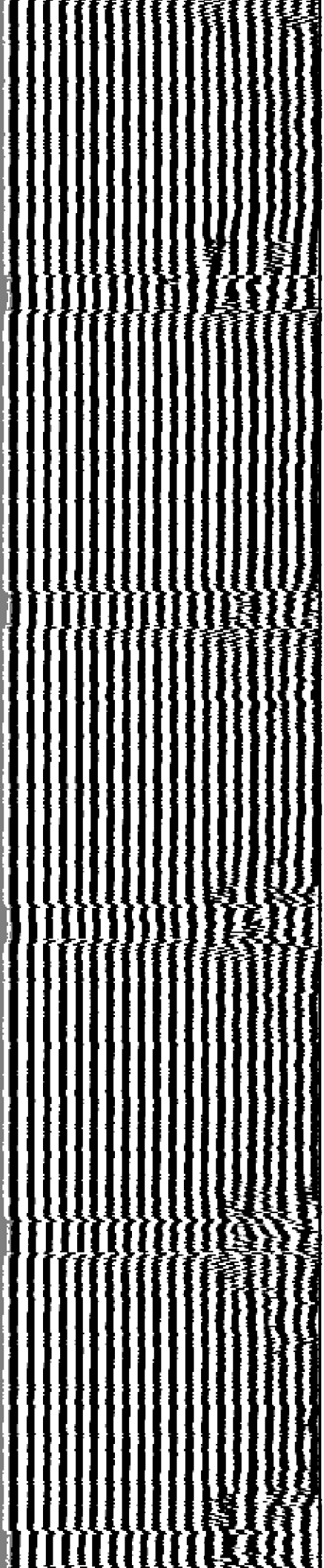
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	27.155	8695.000
RAL	Amp Gate Start Near	195.000	usec	27.155	8695.000
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RAL	Fluid Travel Time	200.000	usec/ft	27.155	8695.000

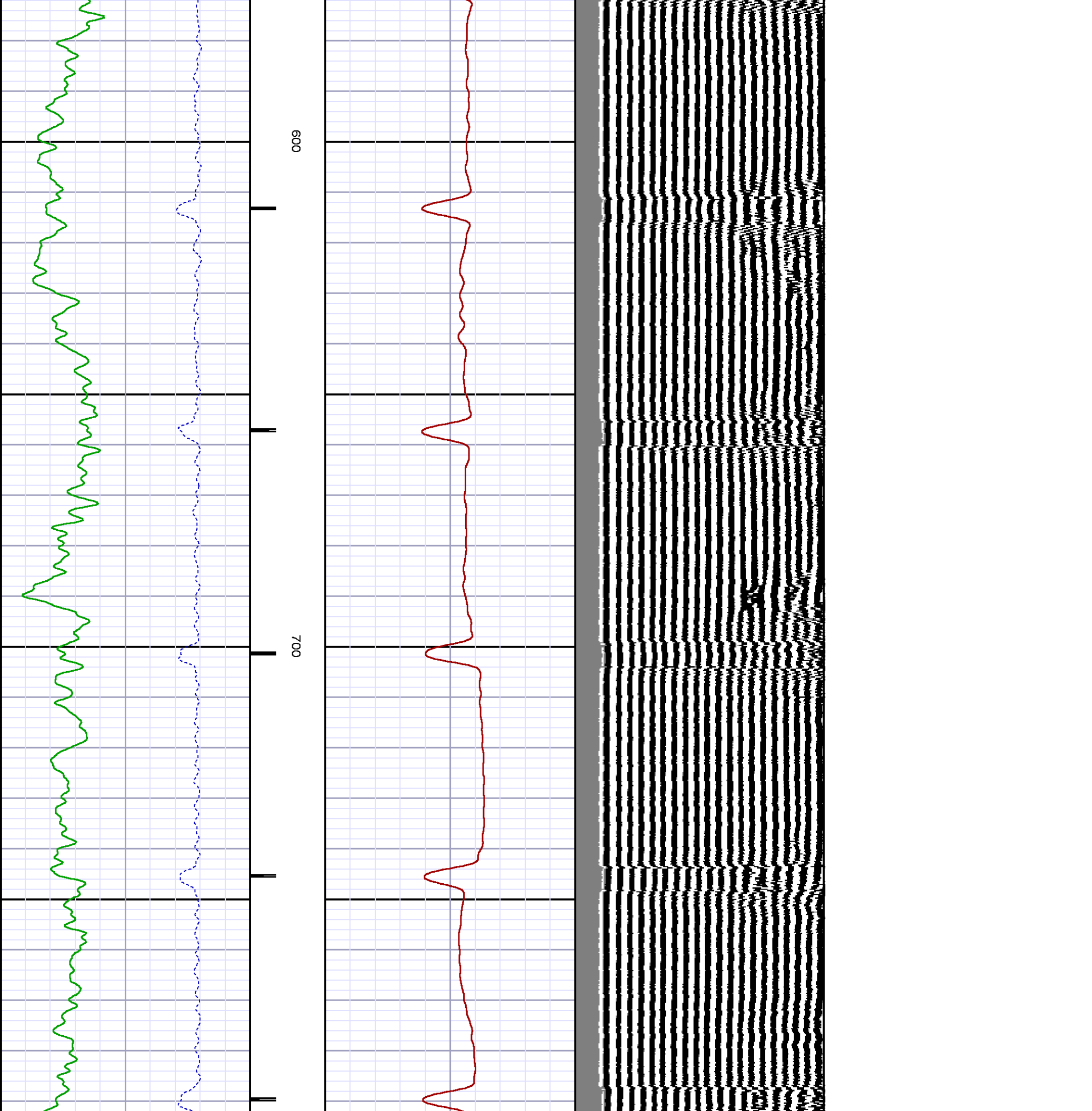
DEPTH OFFSETS							
(for Acquired Curves)							
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2

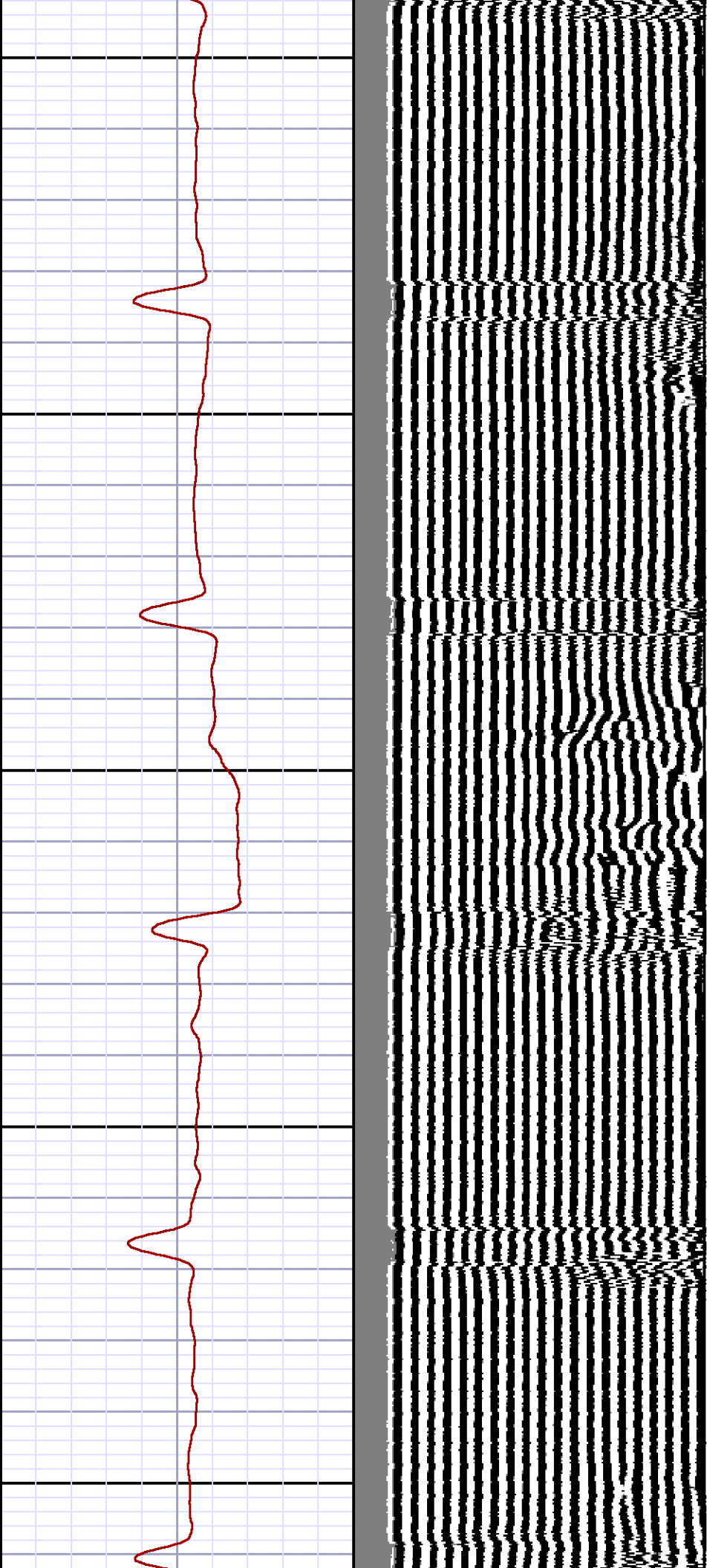
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		TTR4	TTR5	TTR6	TTTR7	TTR8	XAMP
1426XA	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					







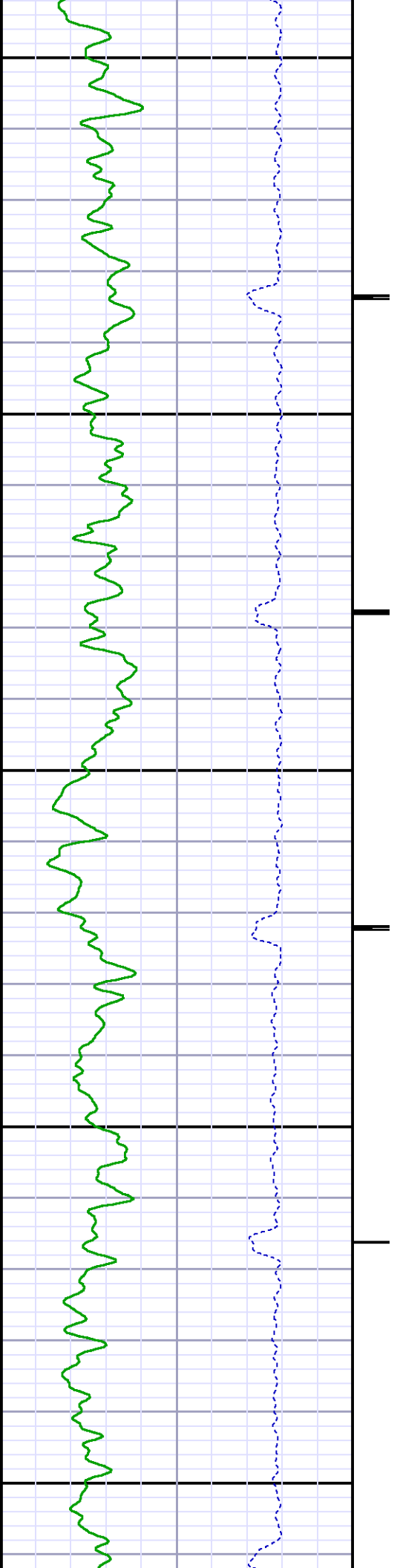


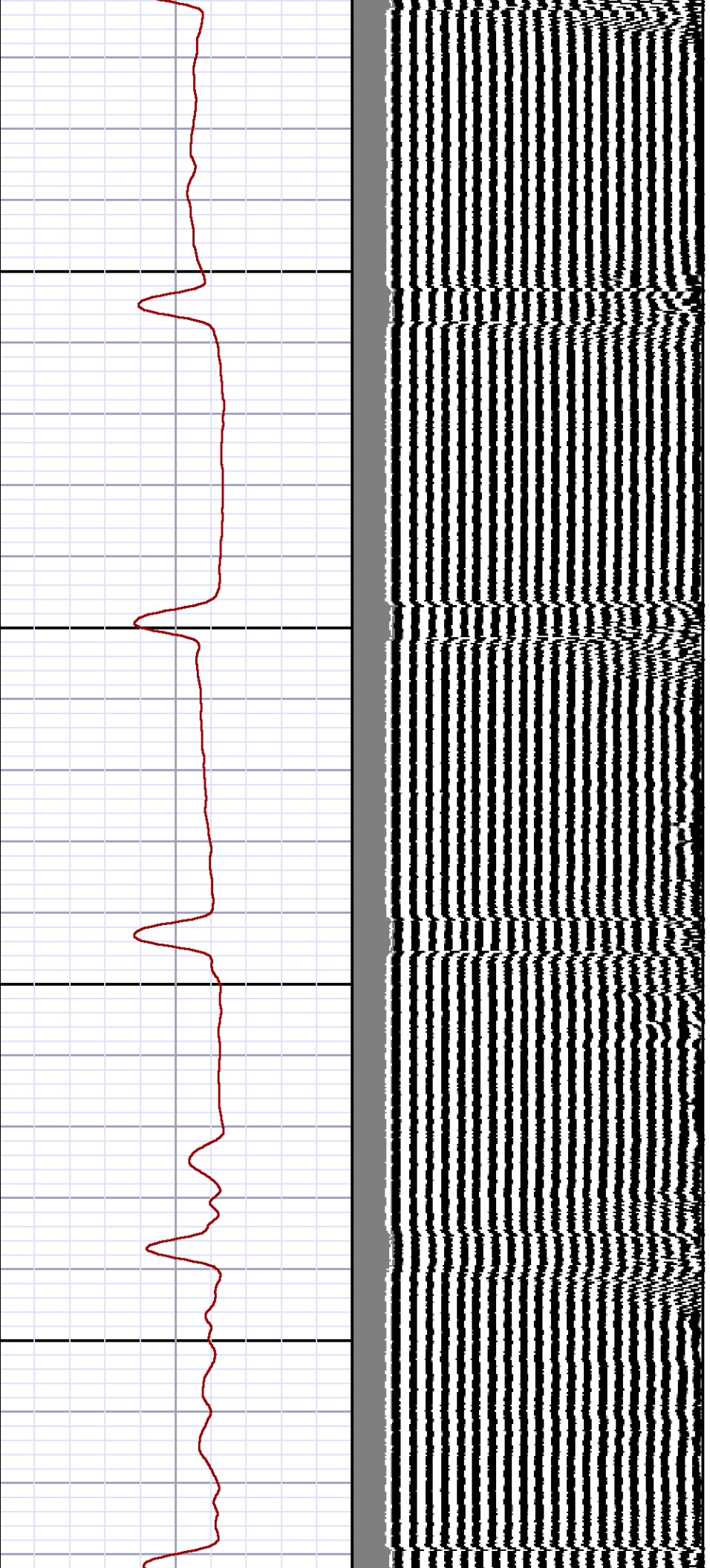


800

900

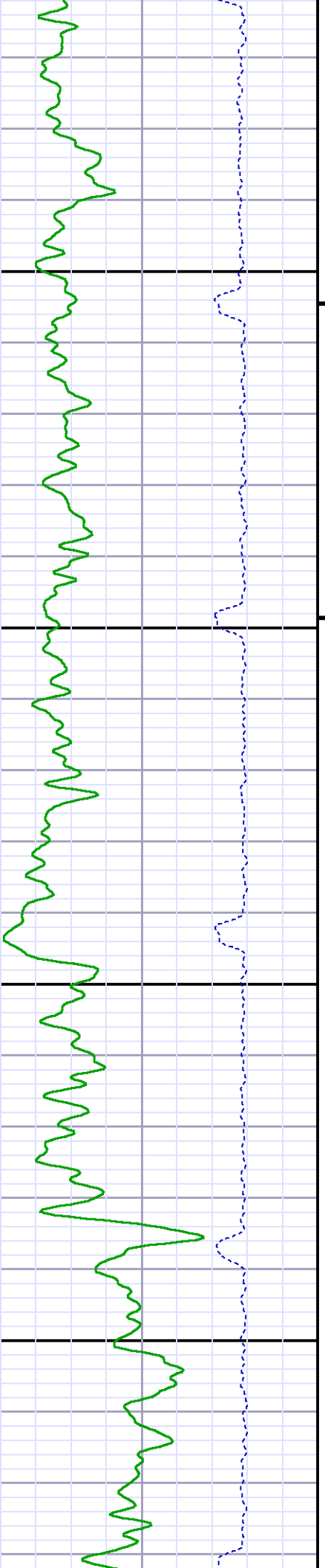
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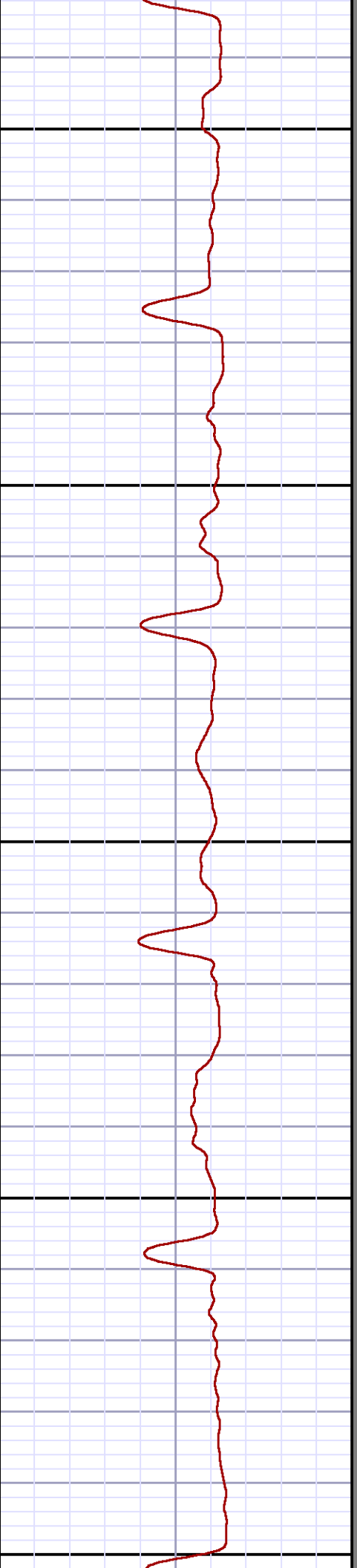
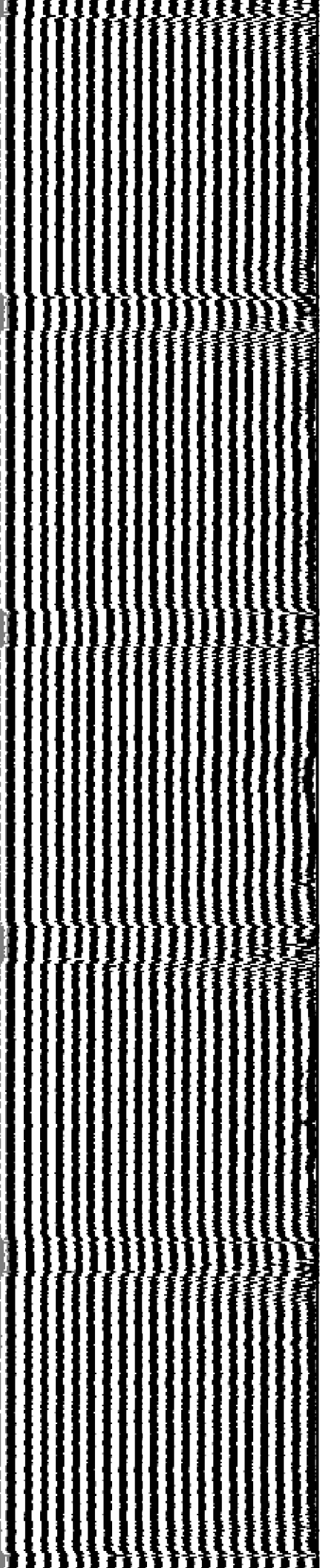




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1200

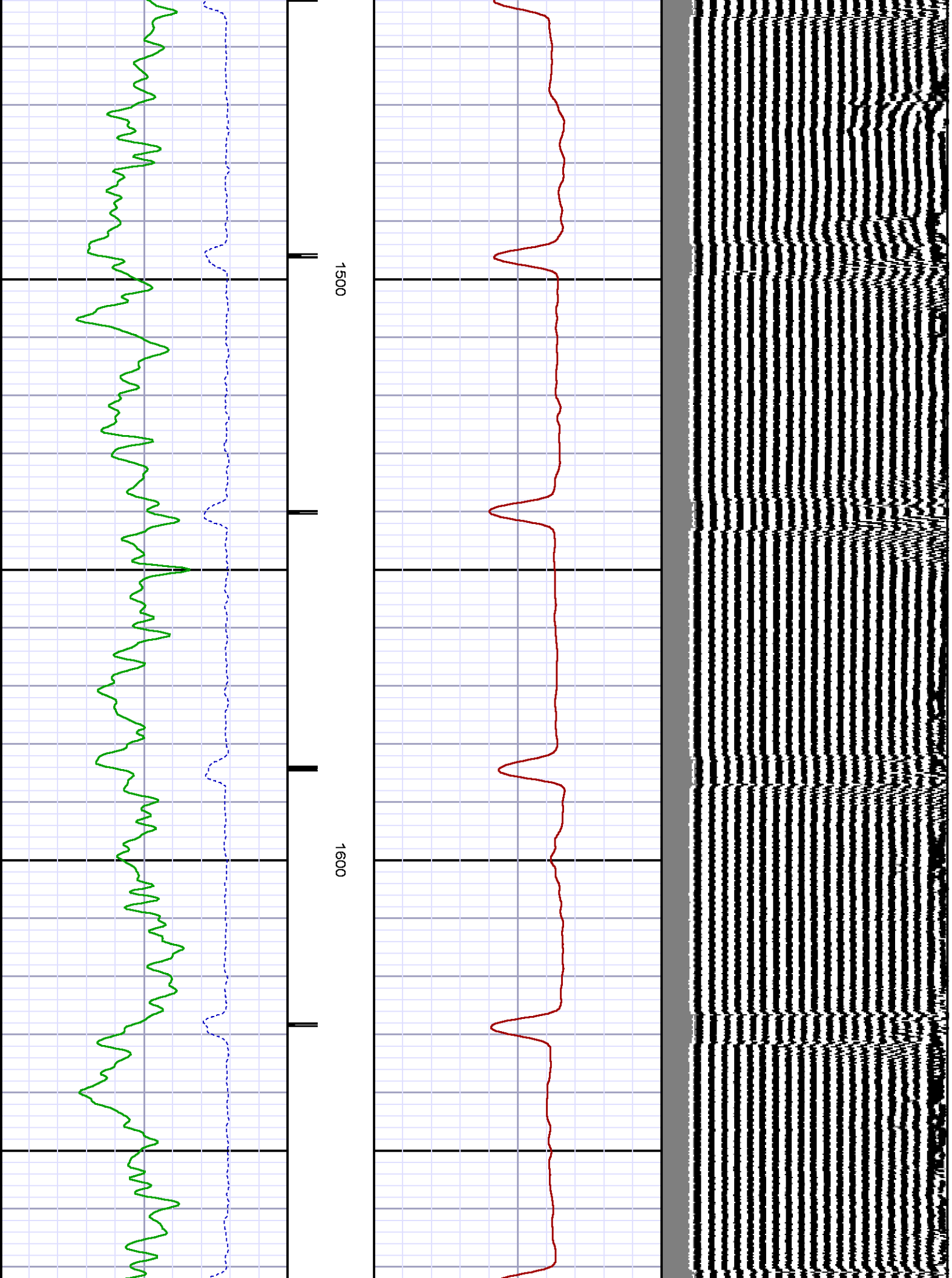


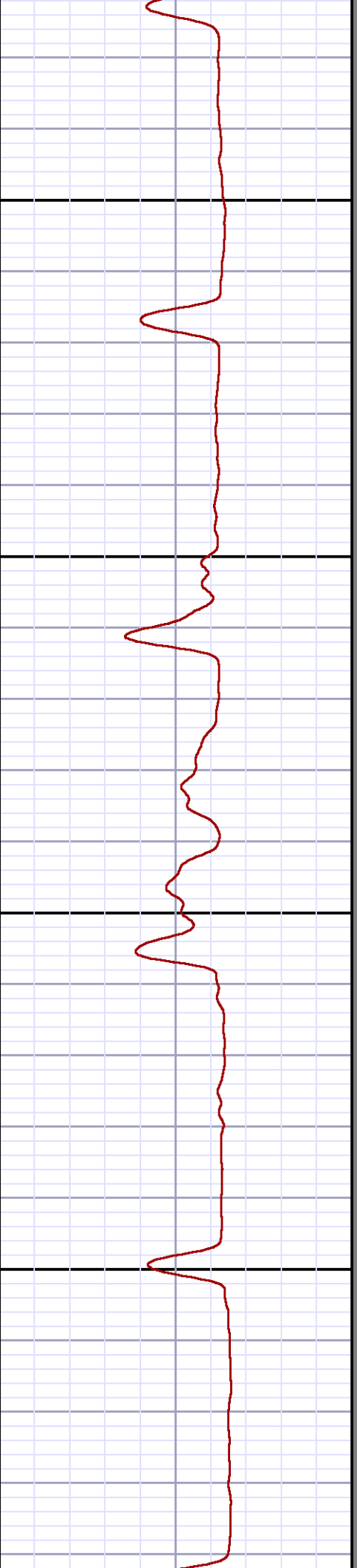
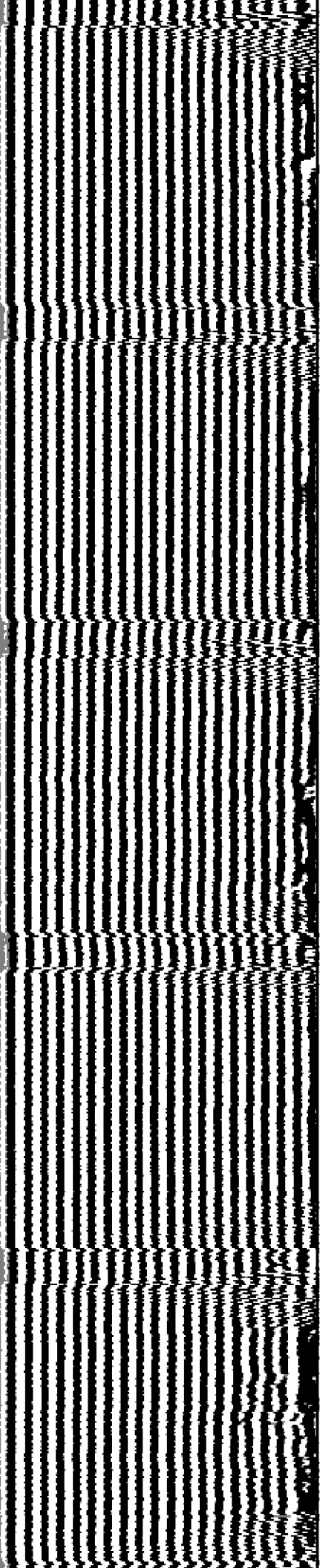


1300

1400

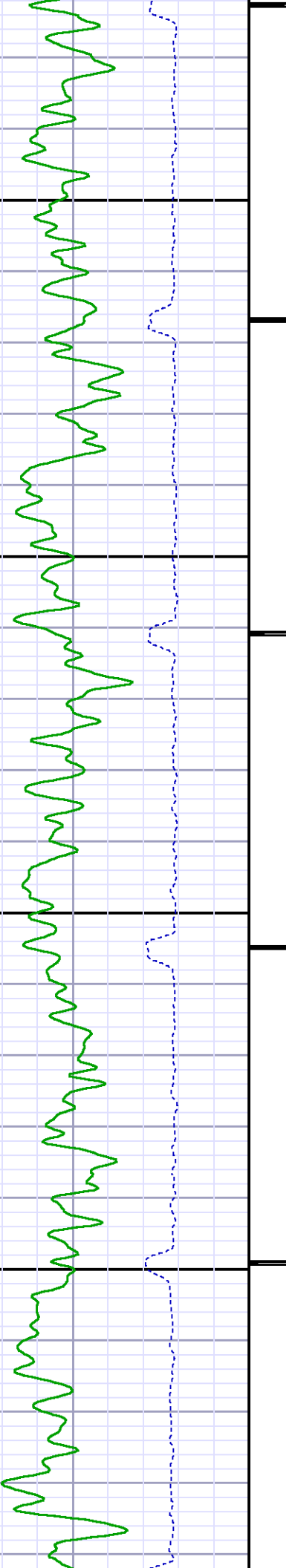


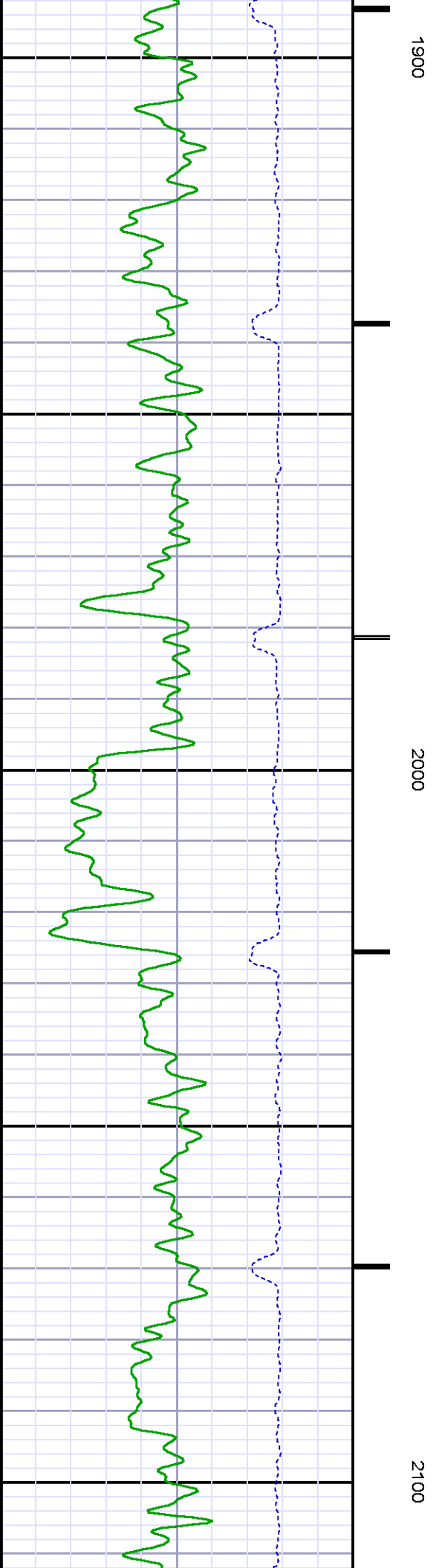
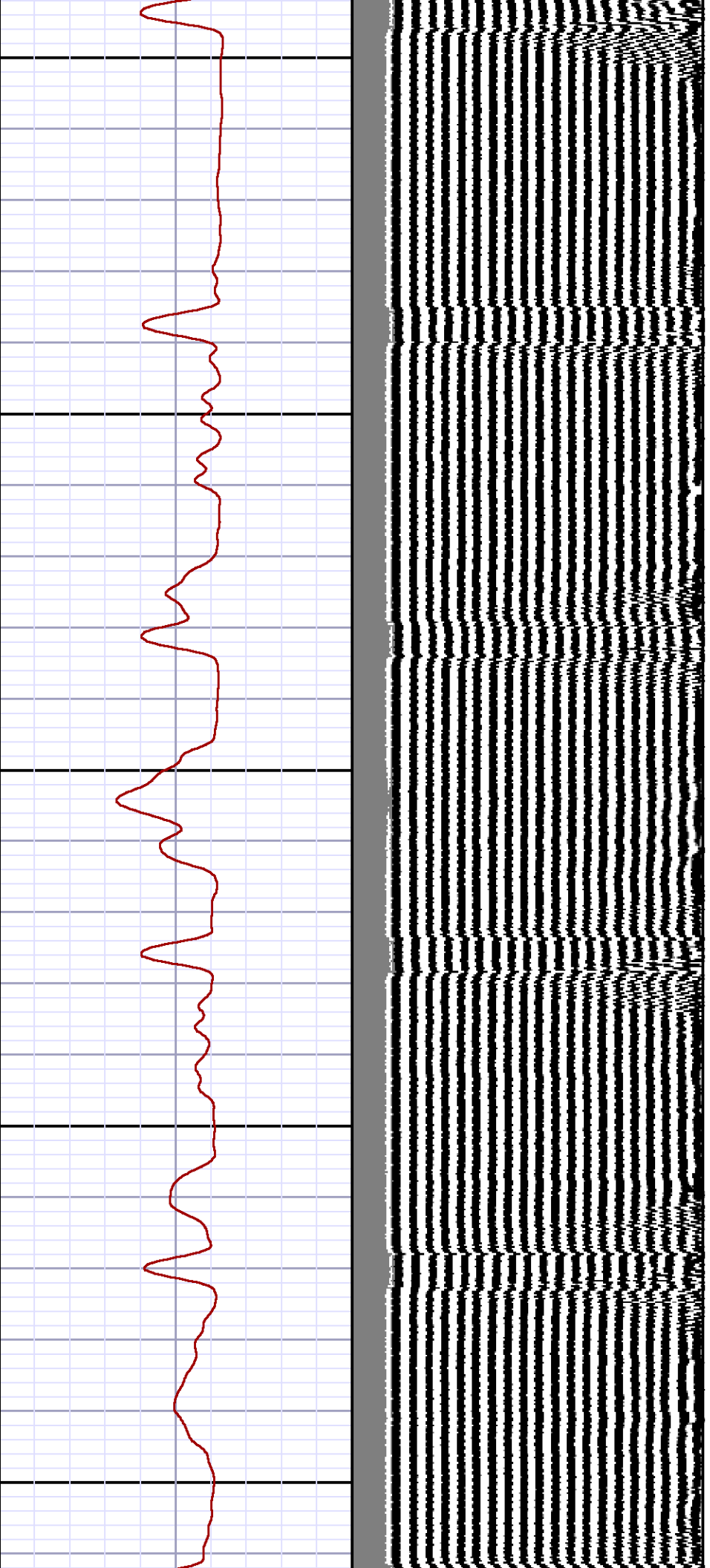


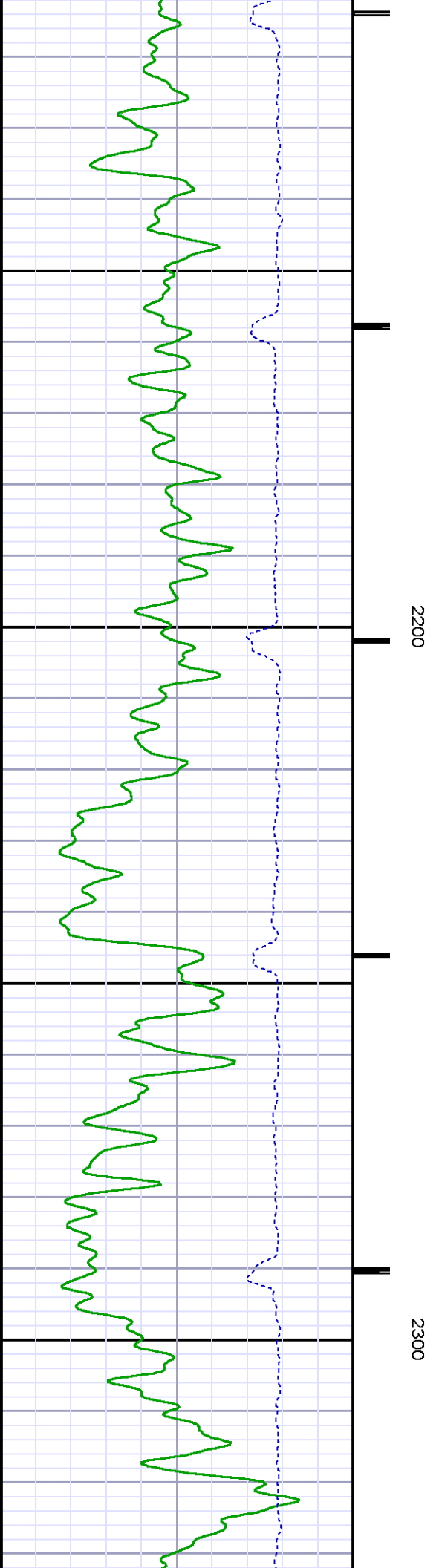
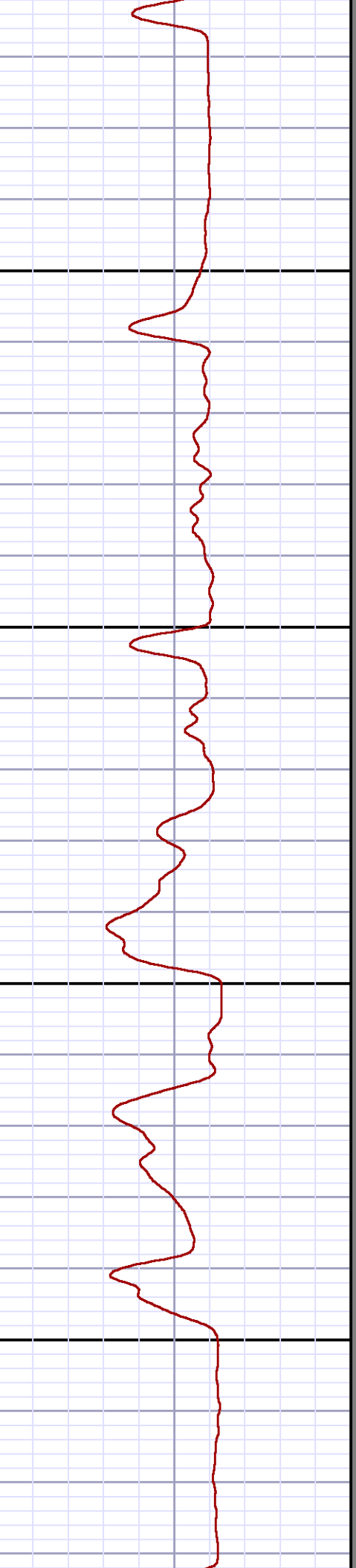
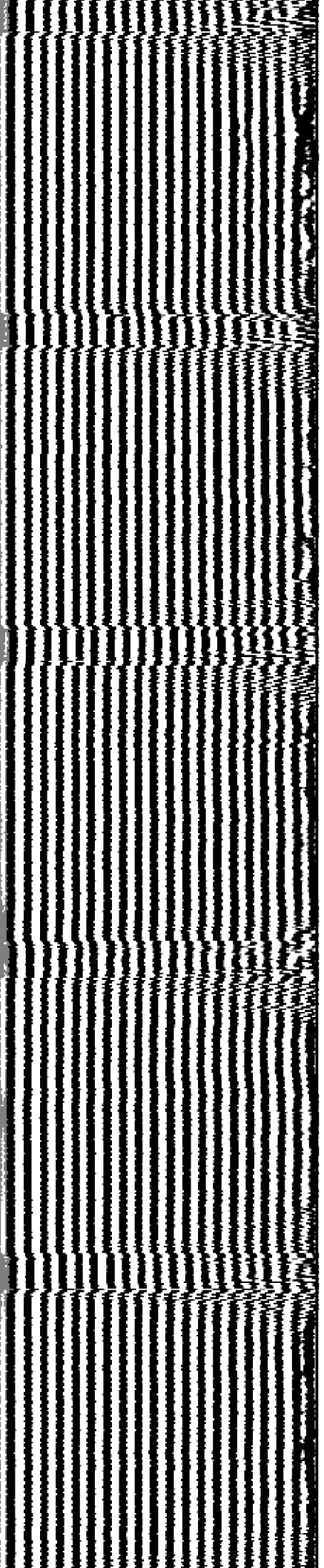


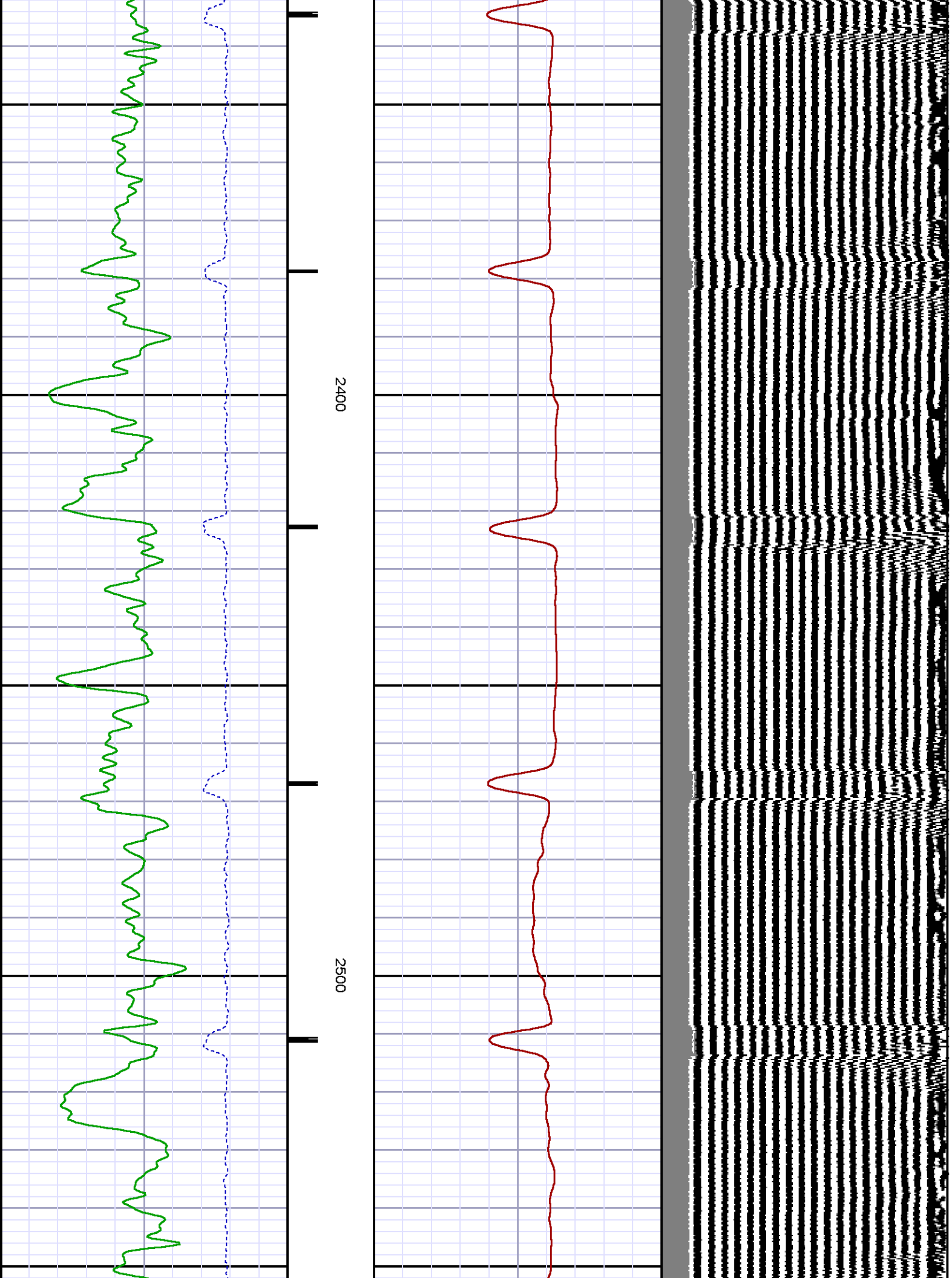
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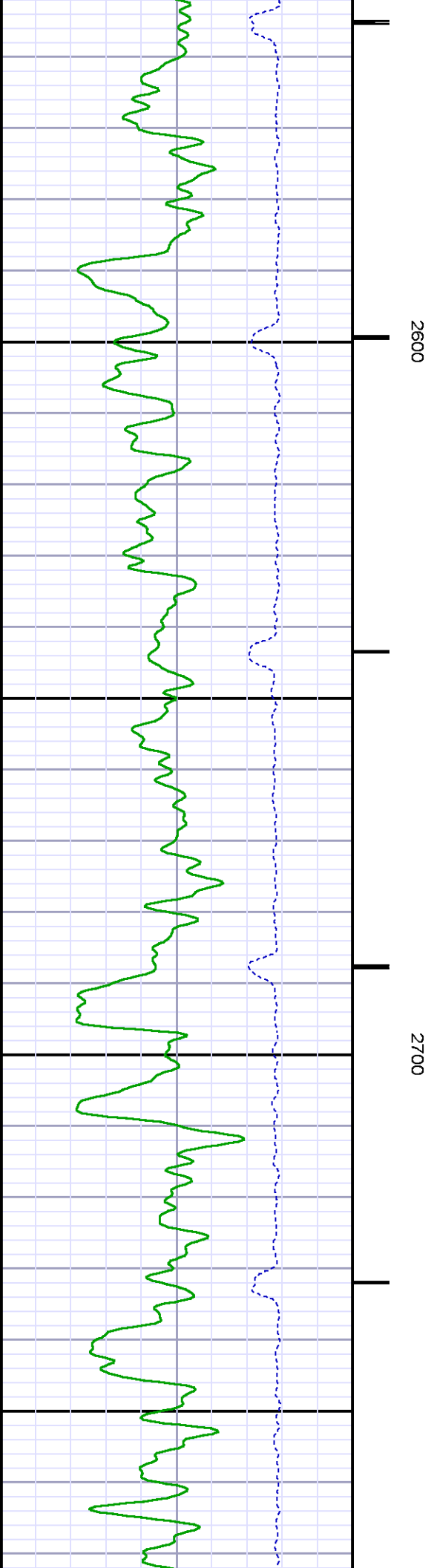
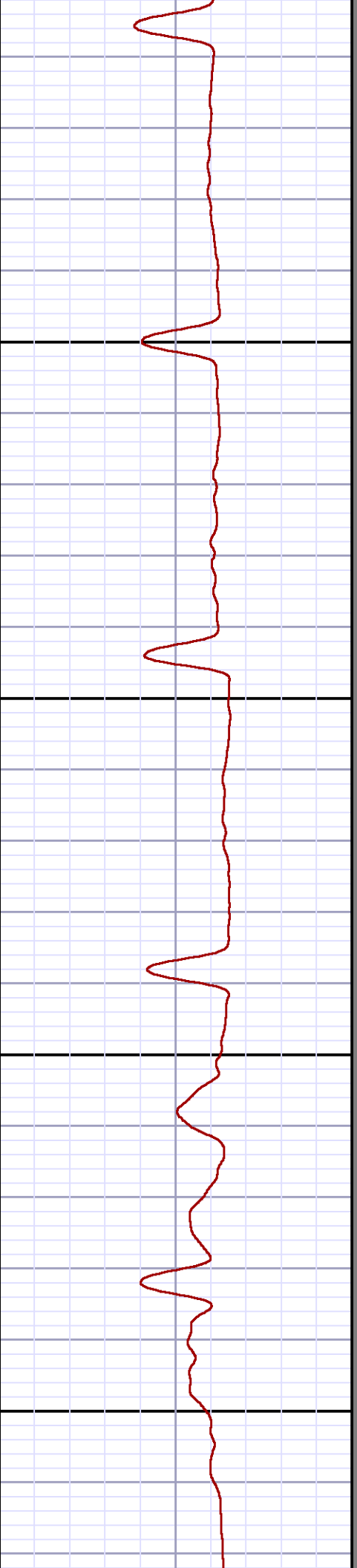
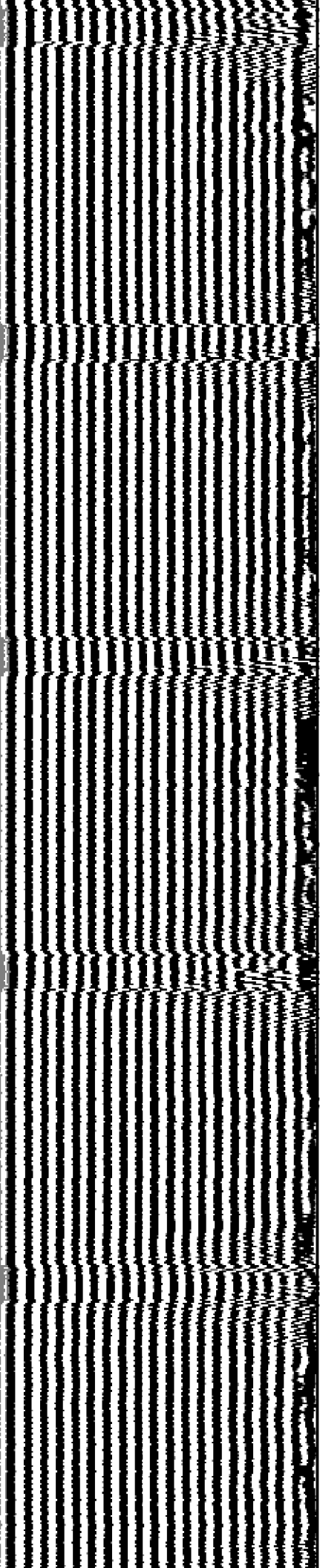
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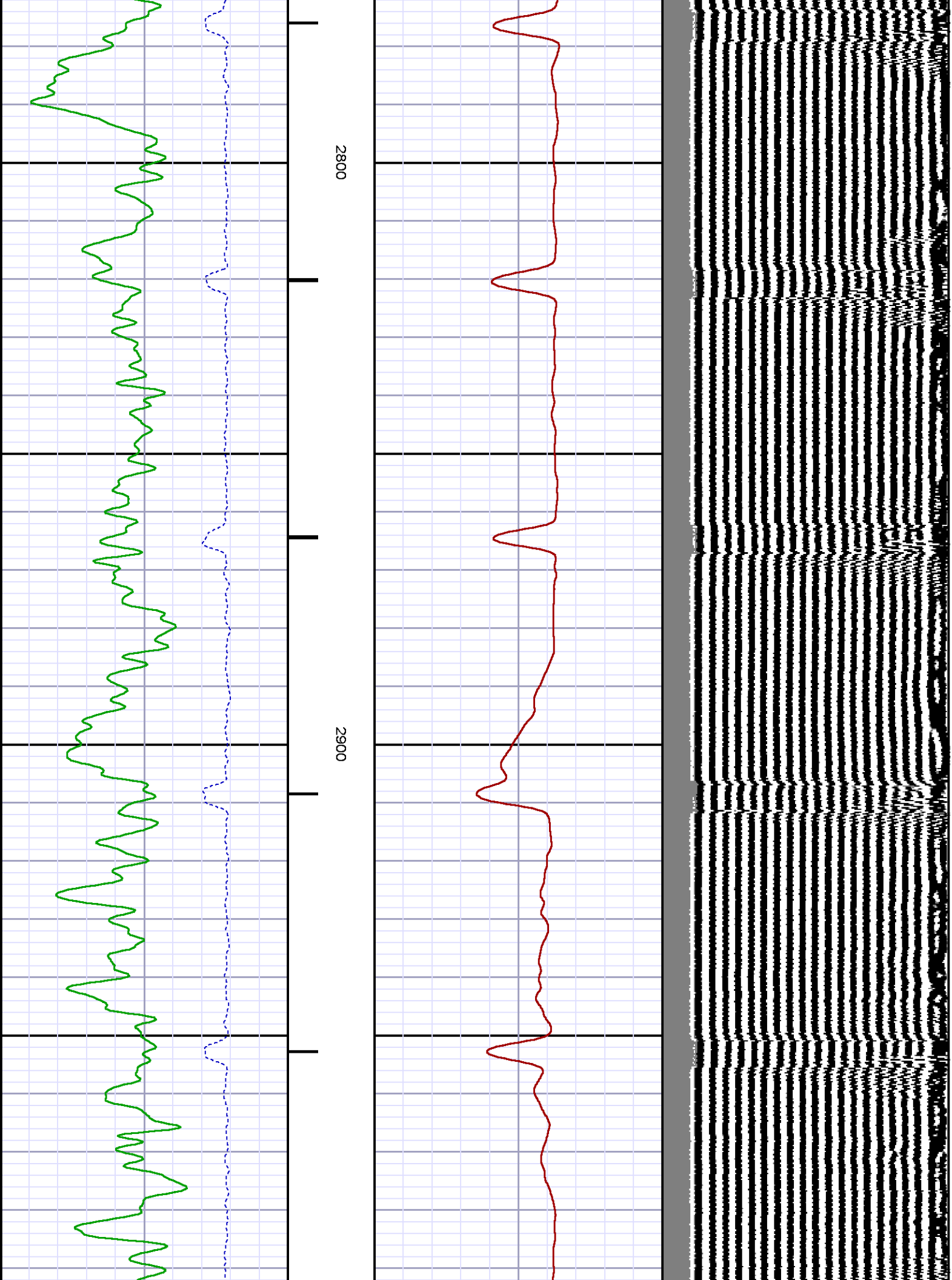


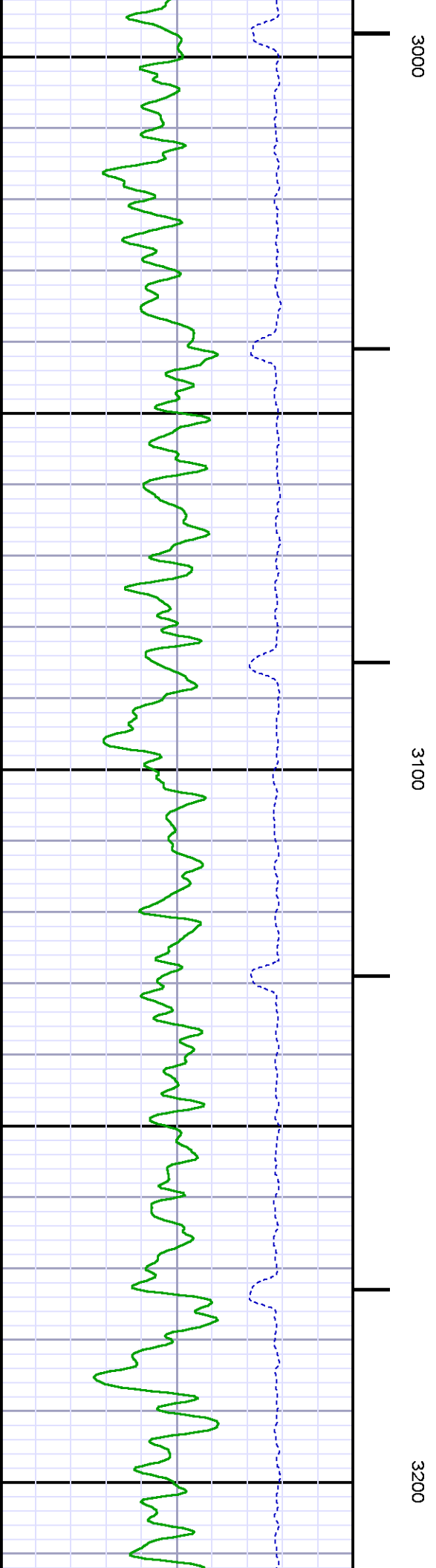
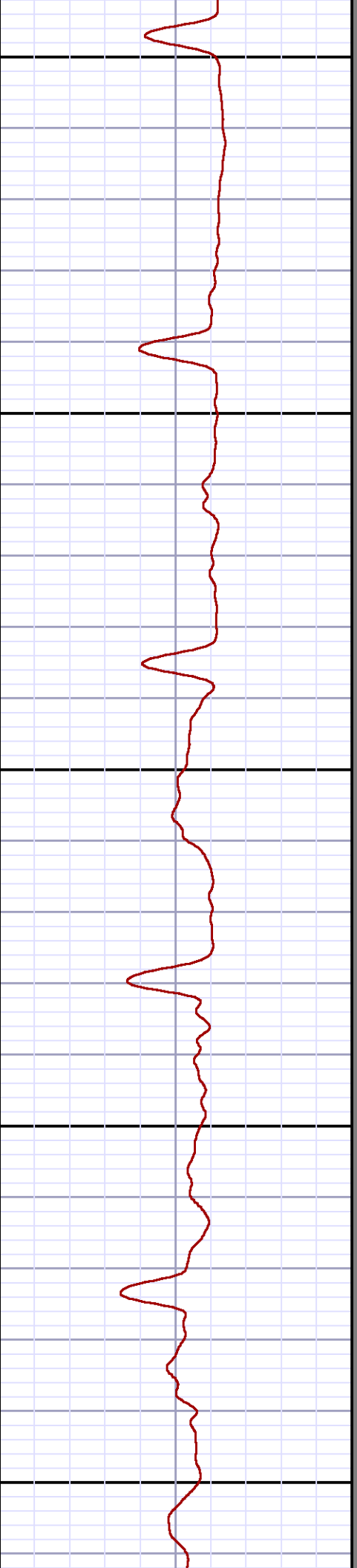
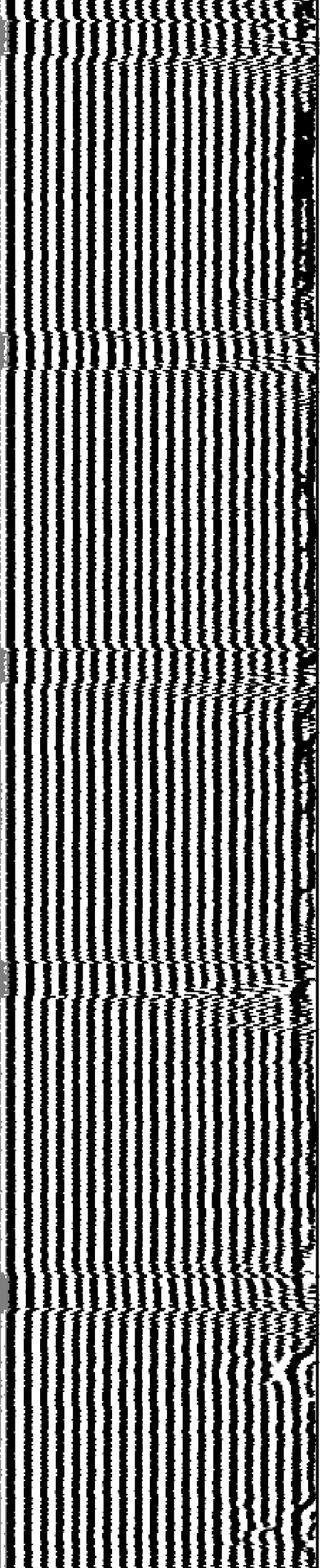


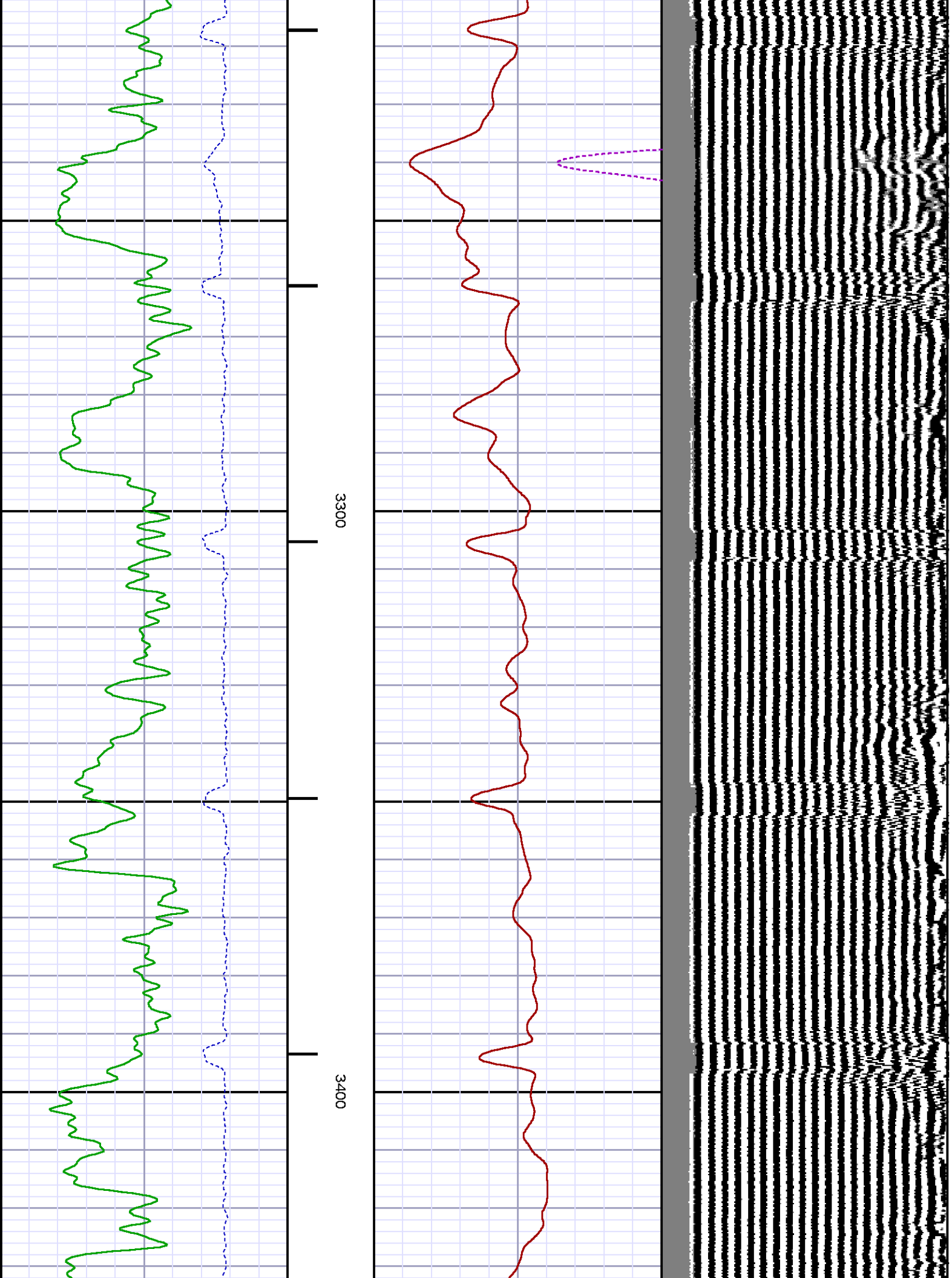


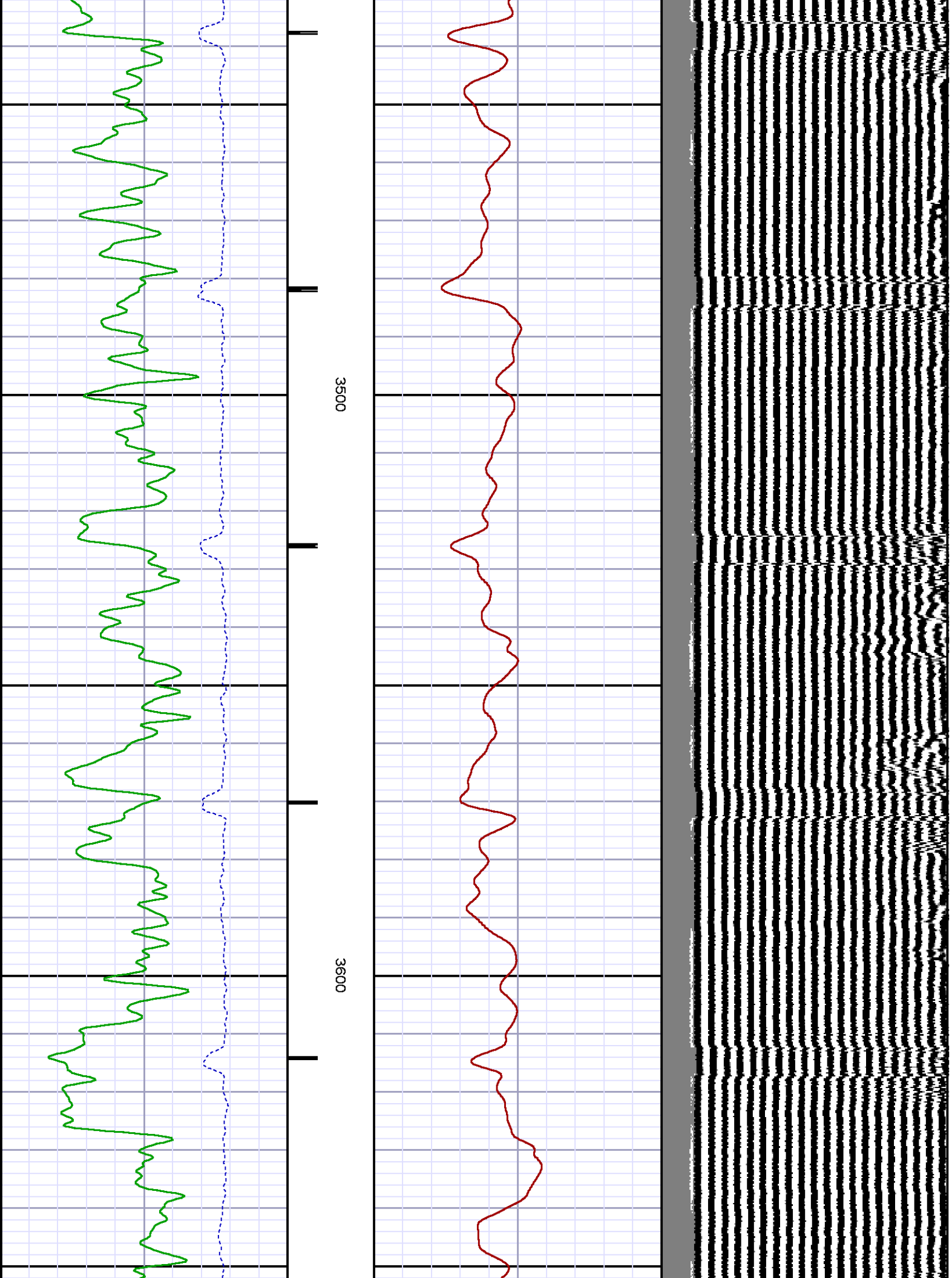


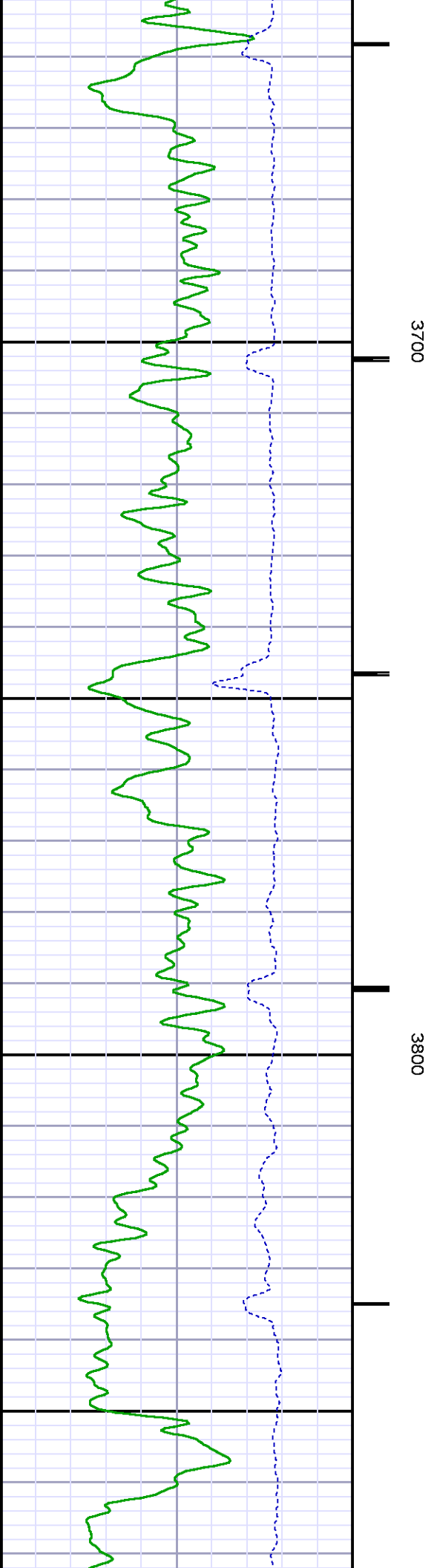
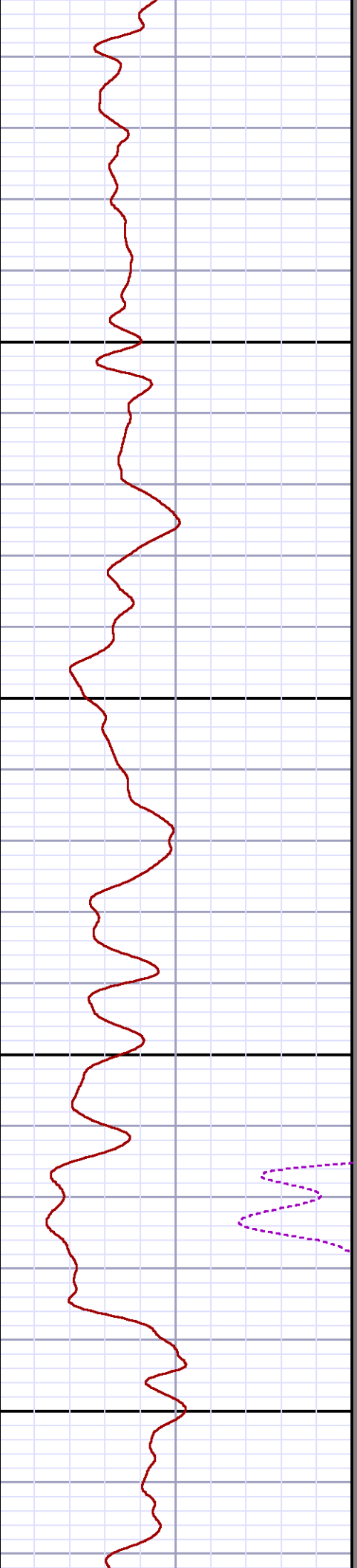
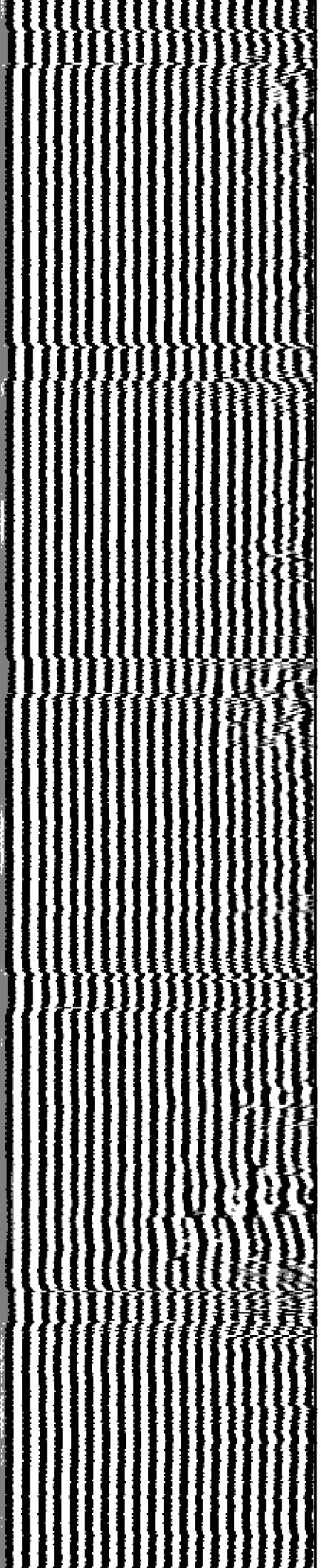


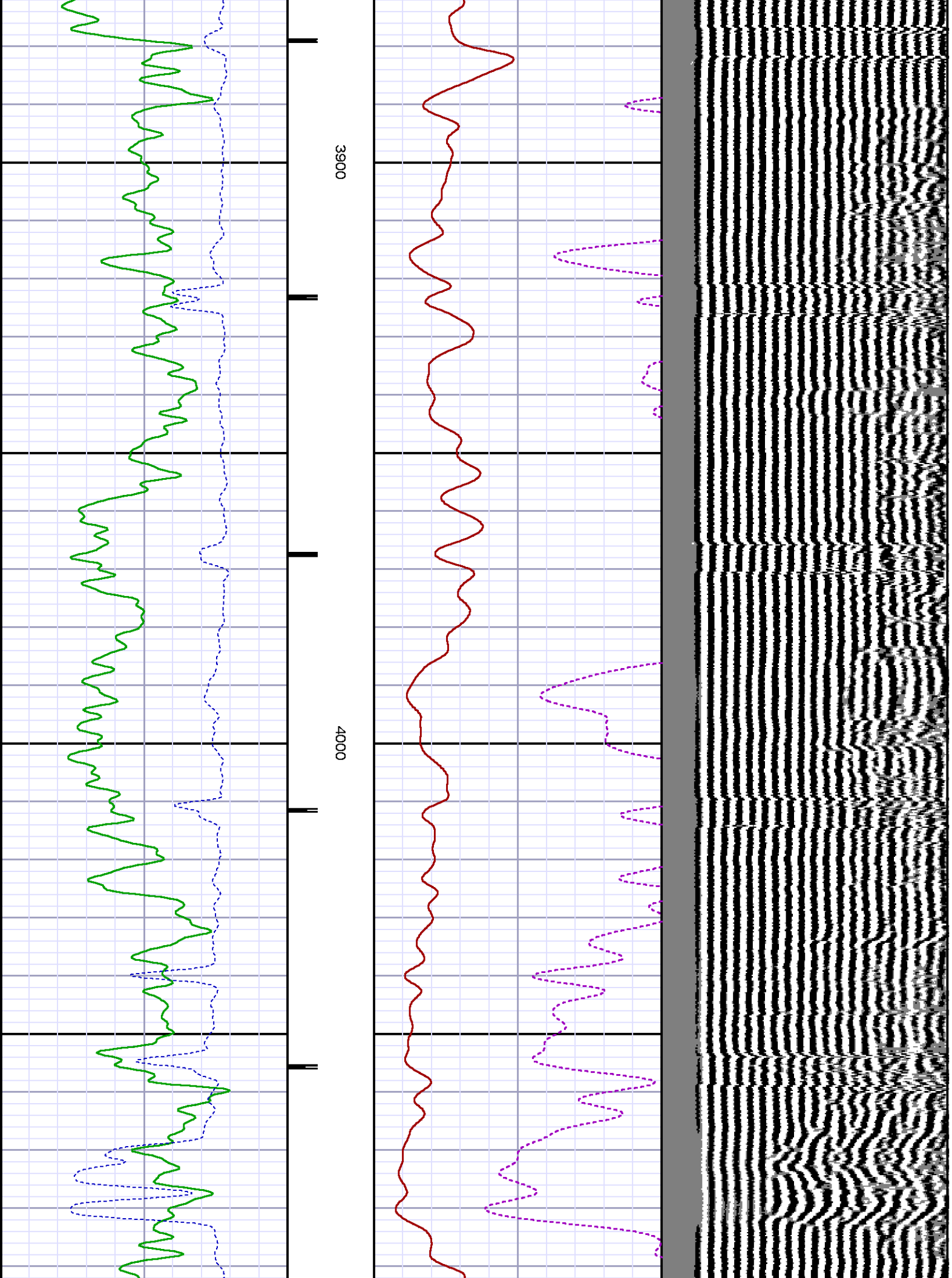


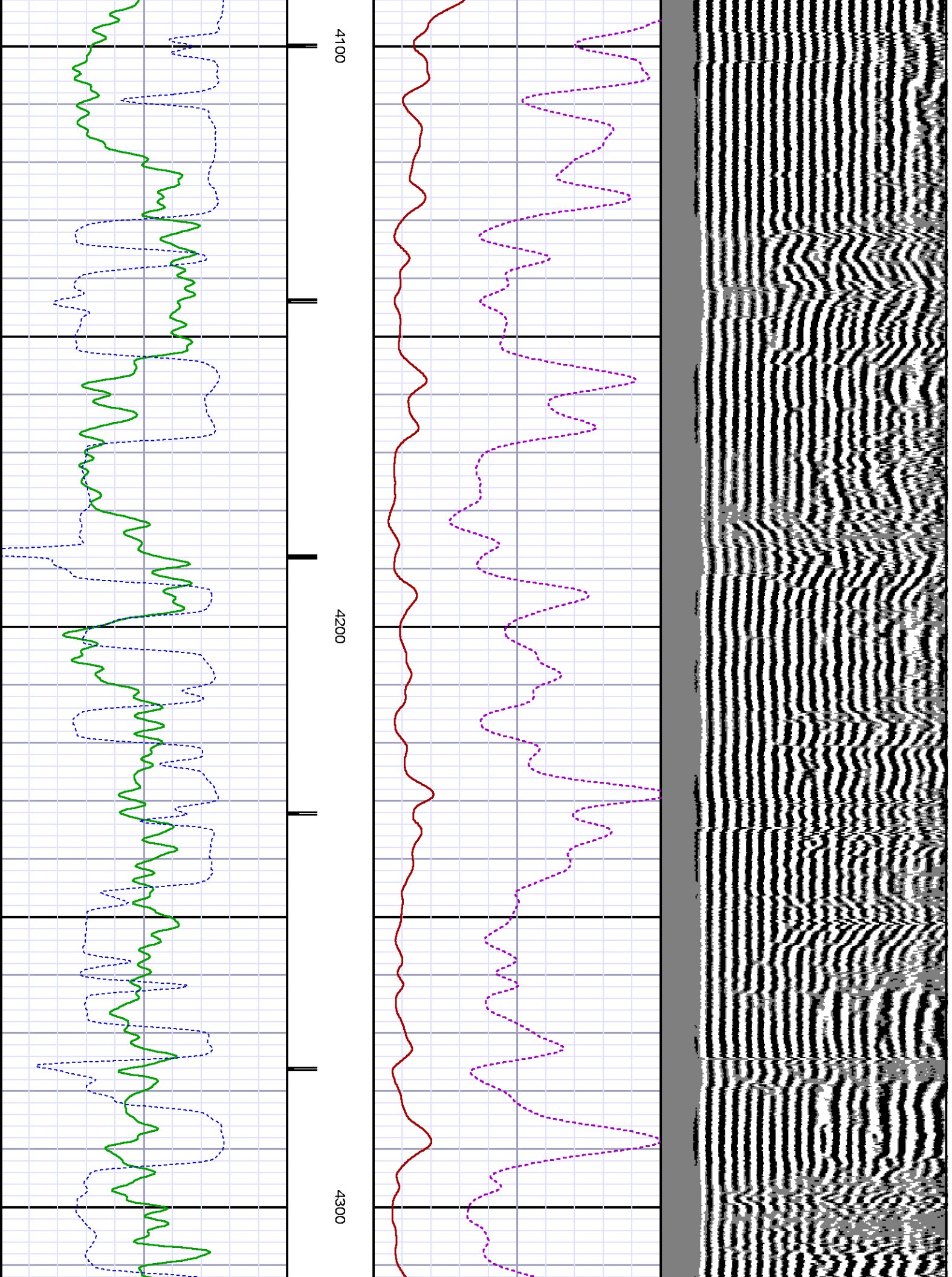


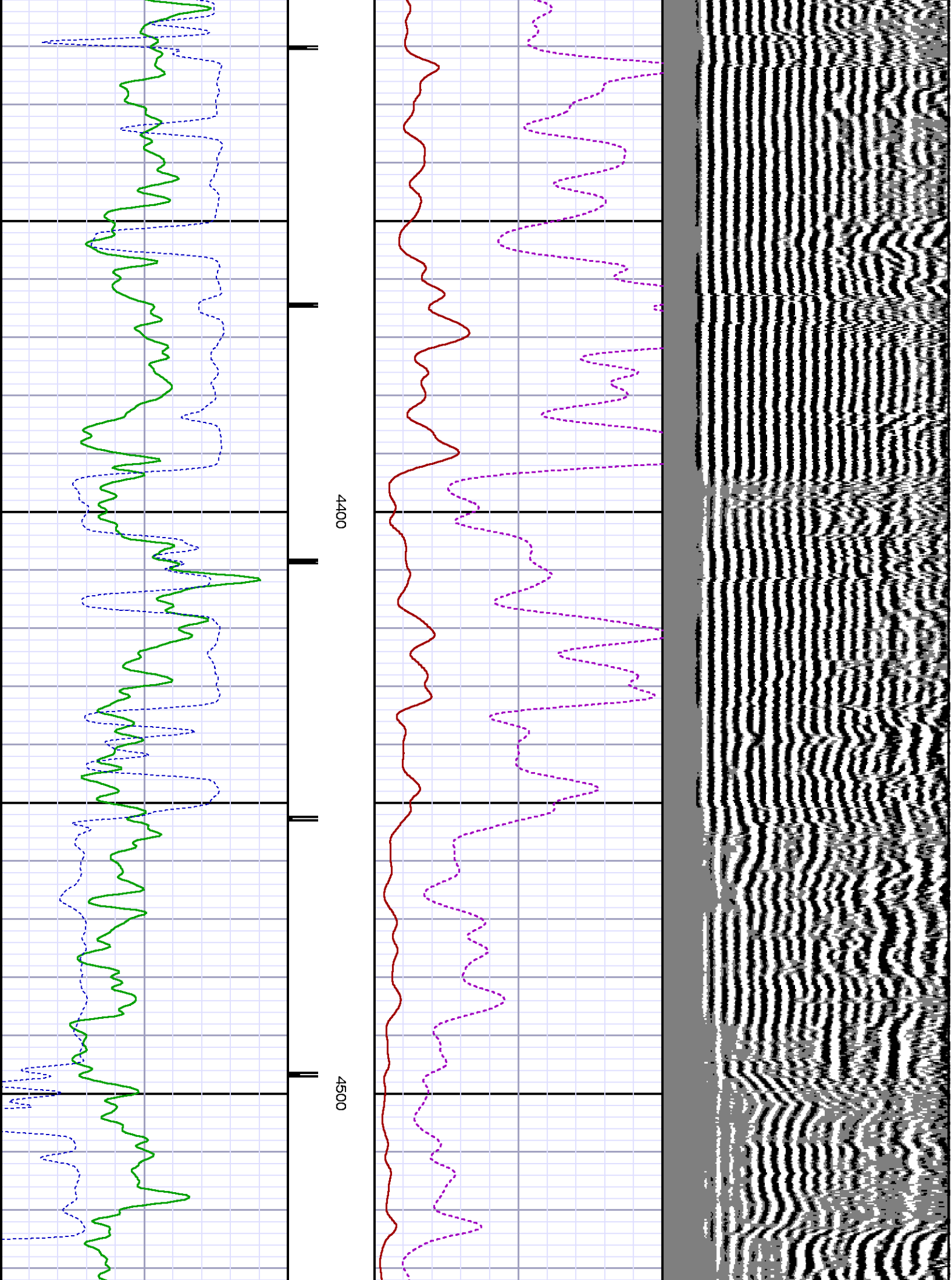


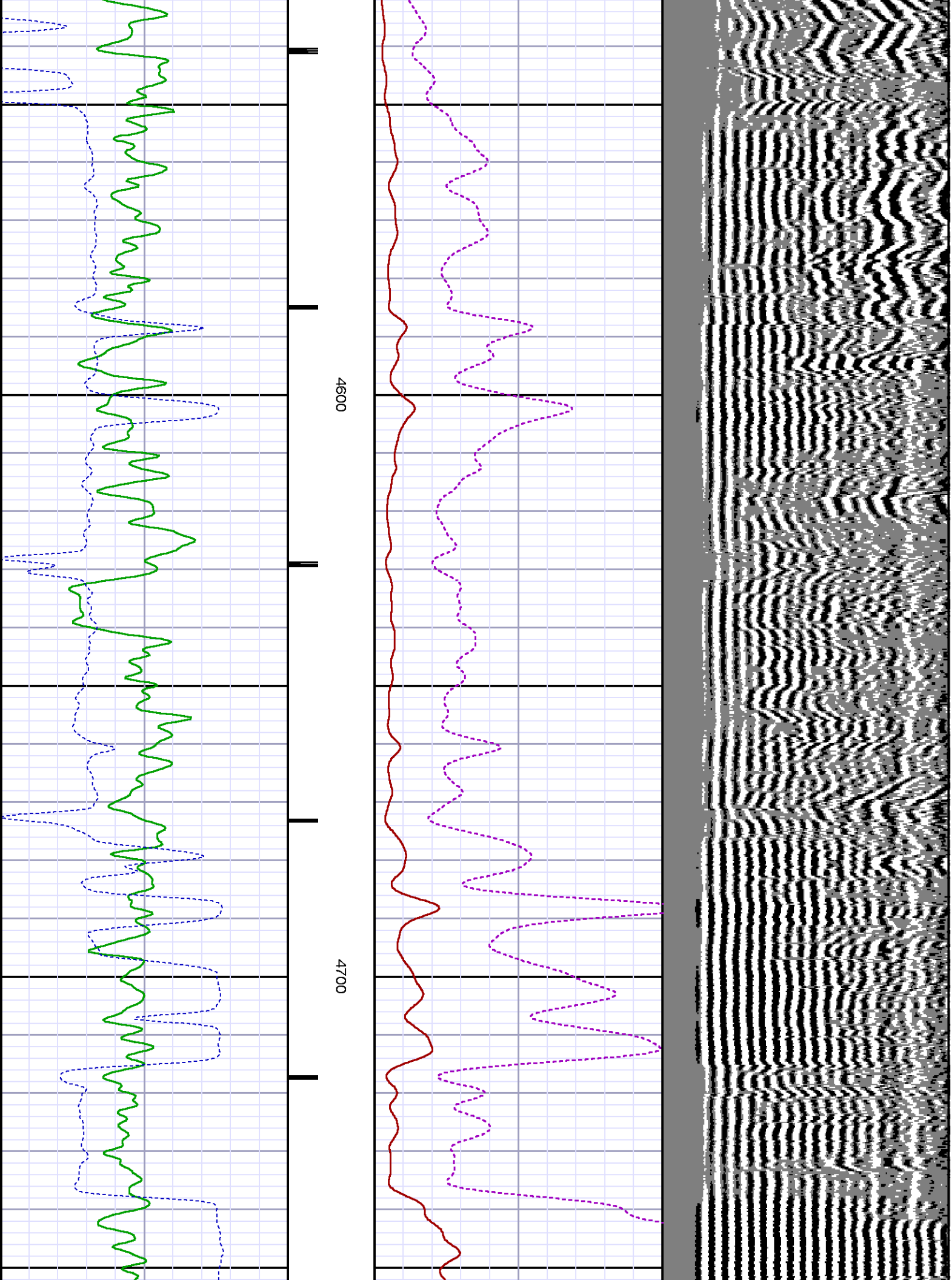


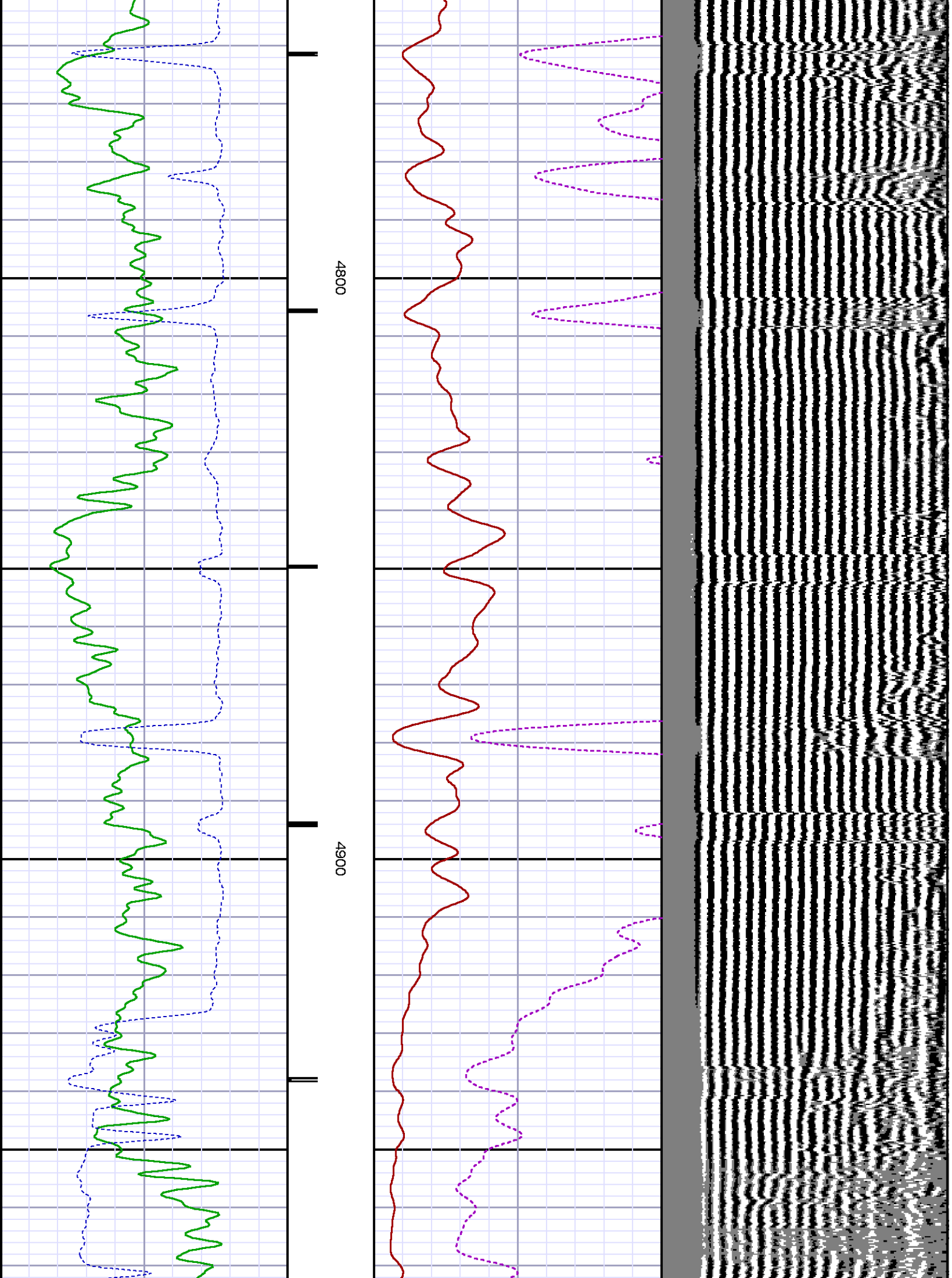


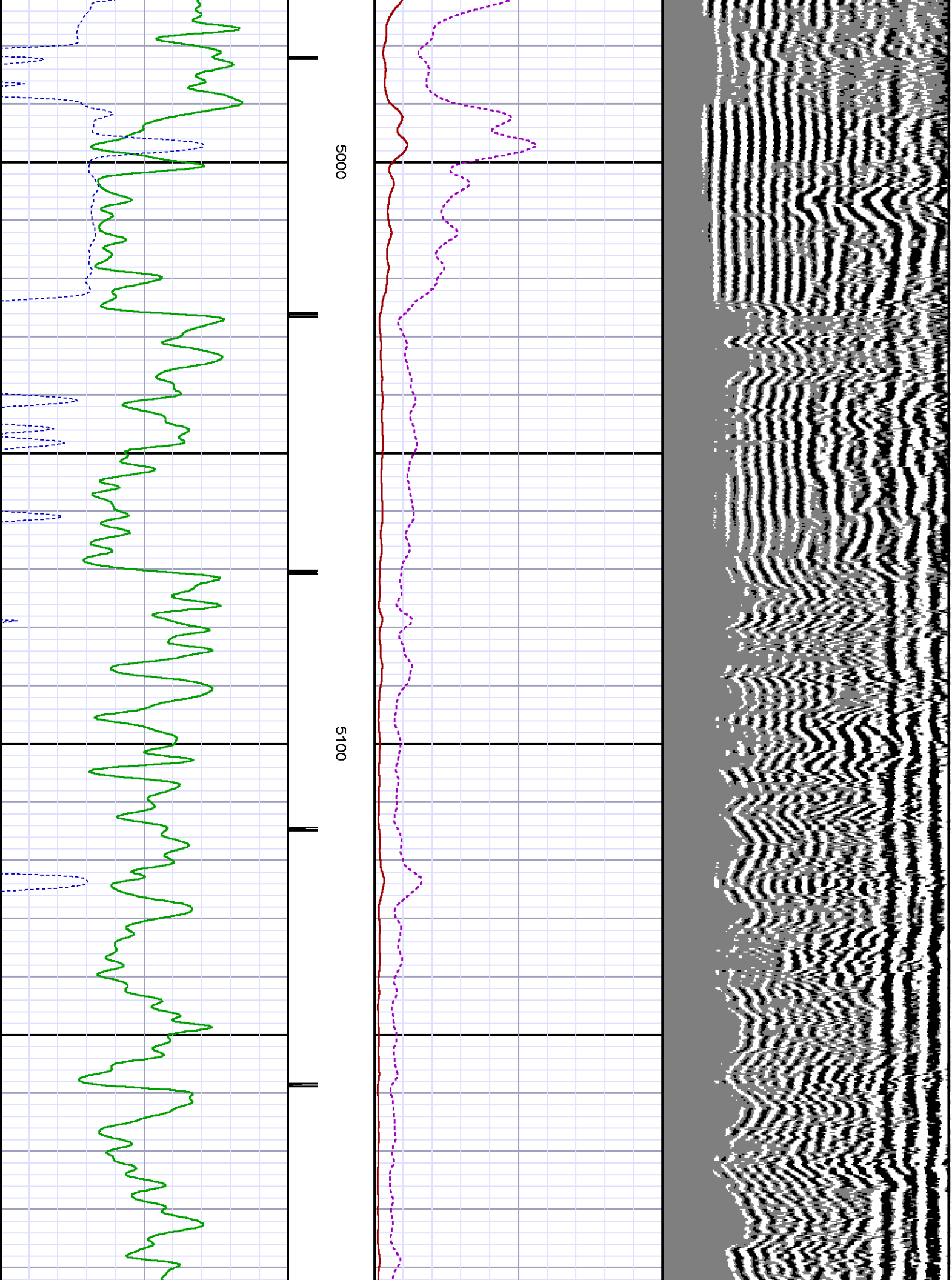


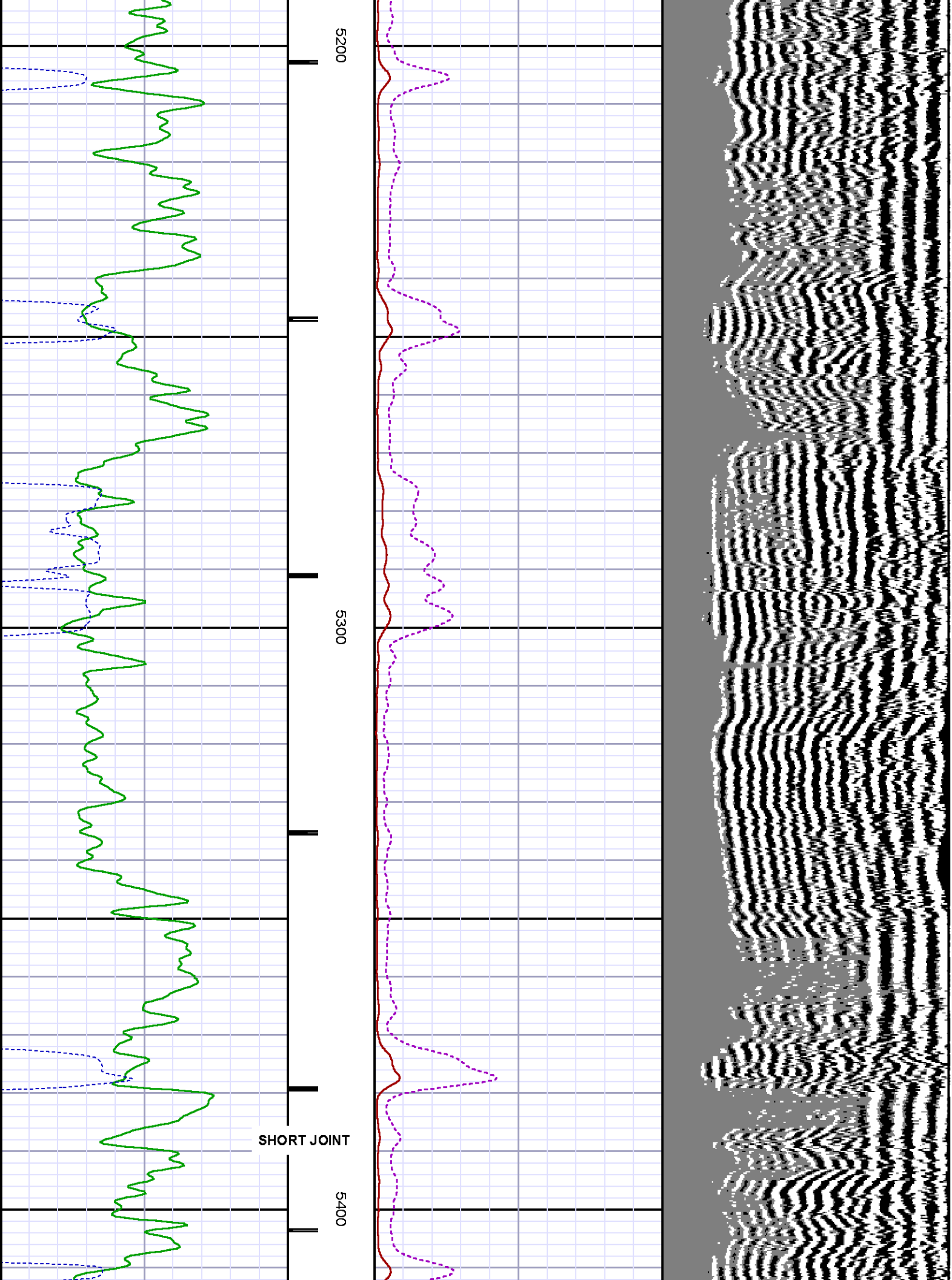


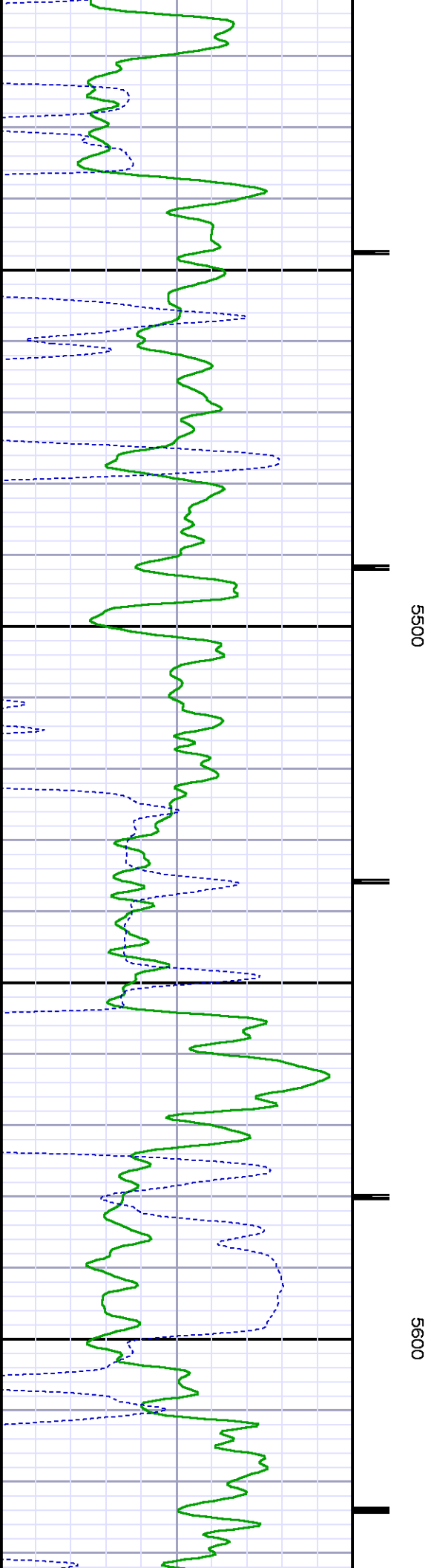
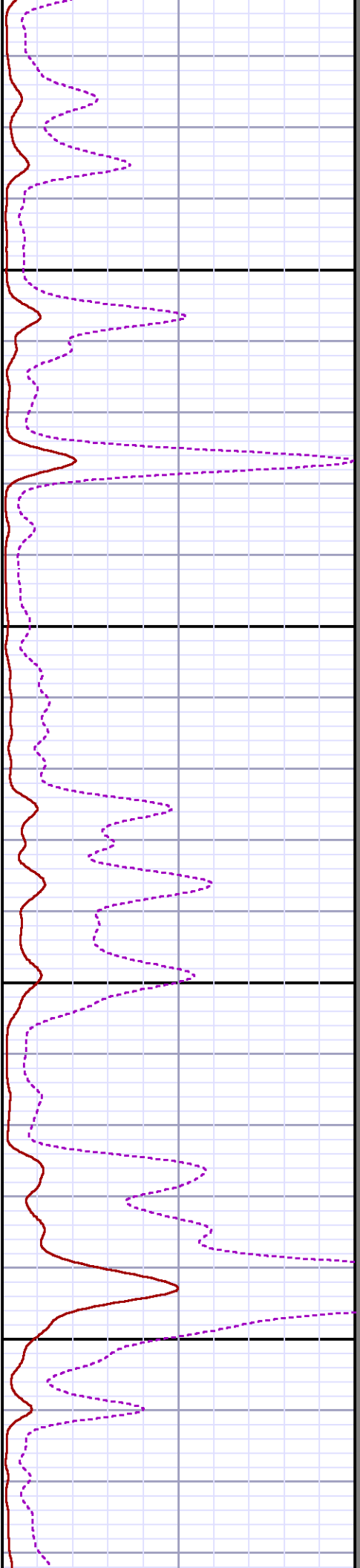
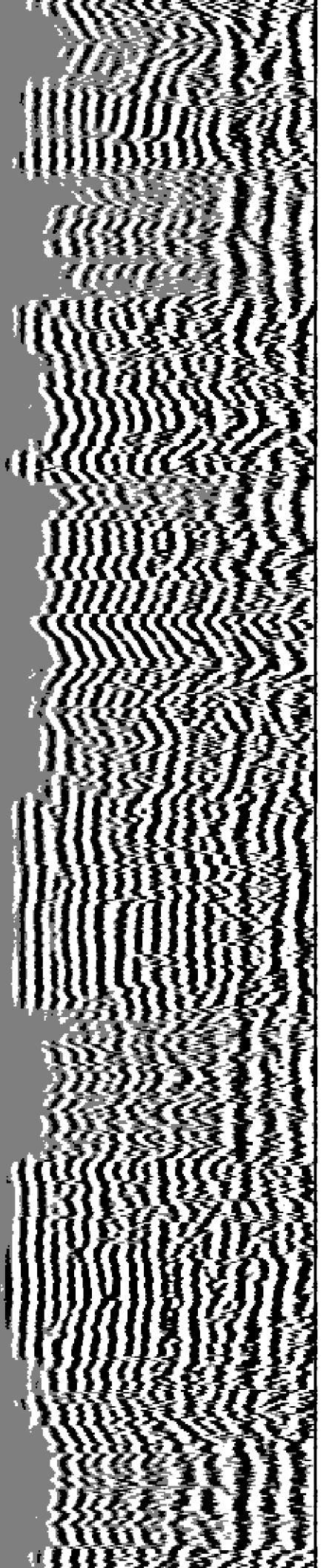


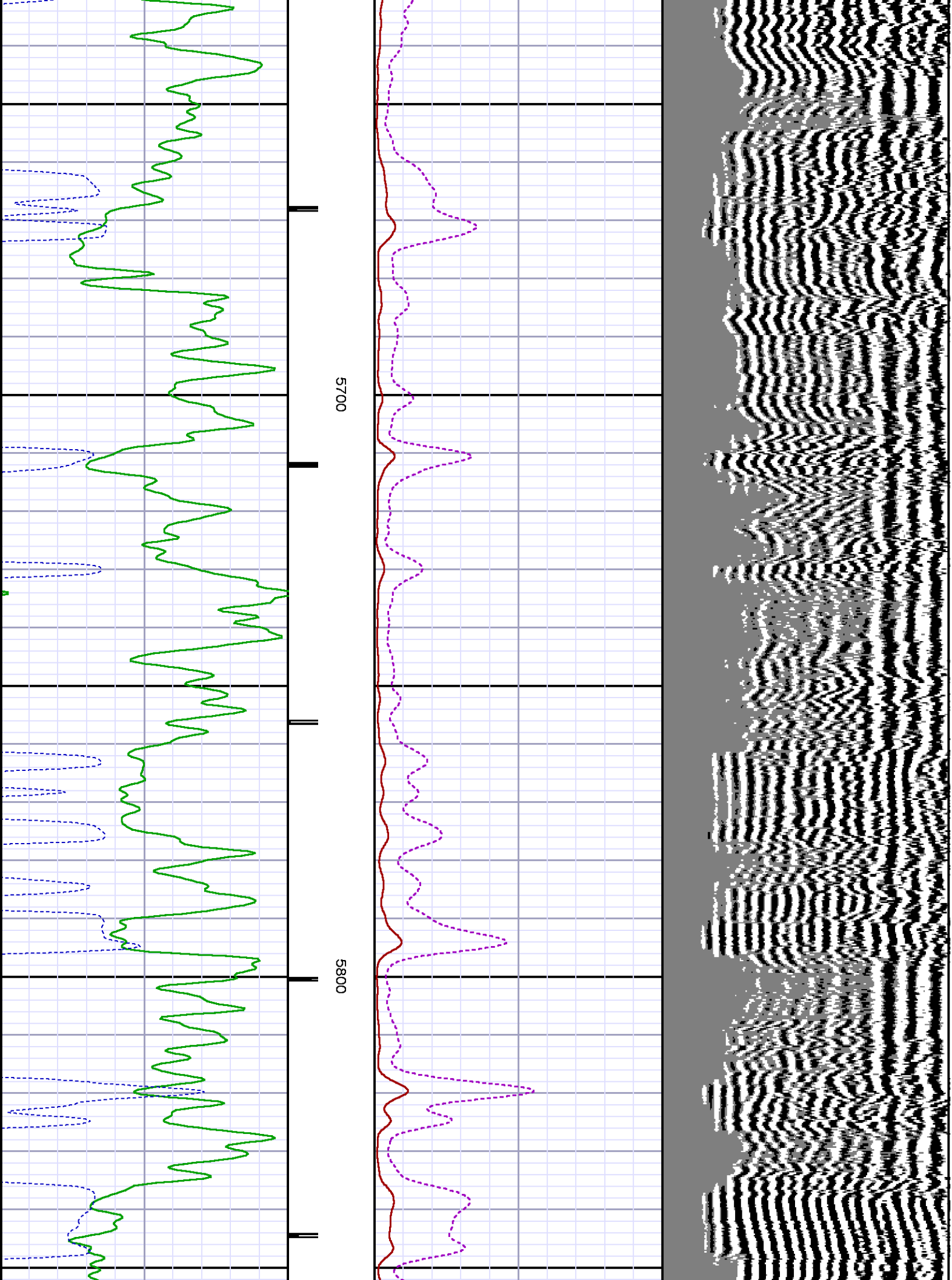


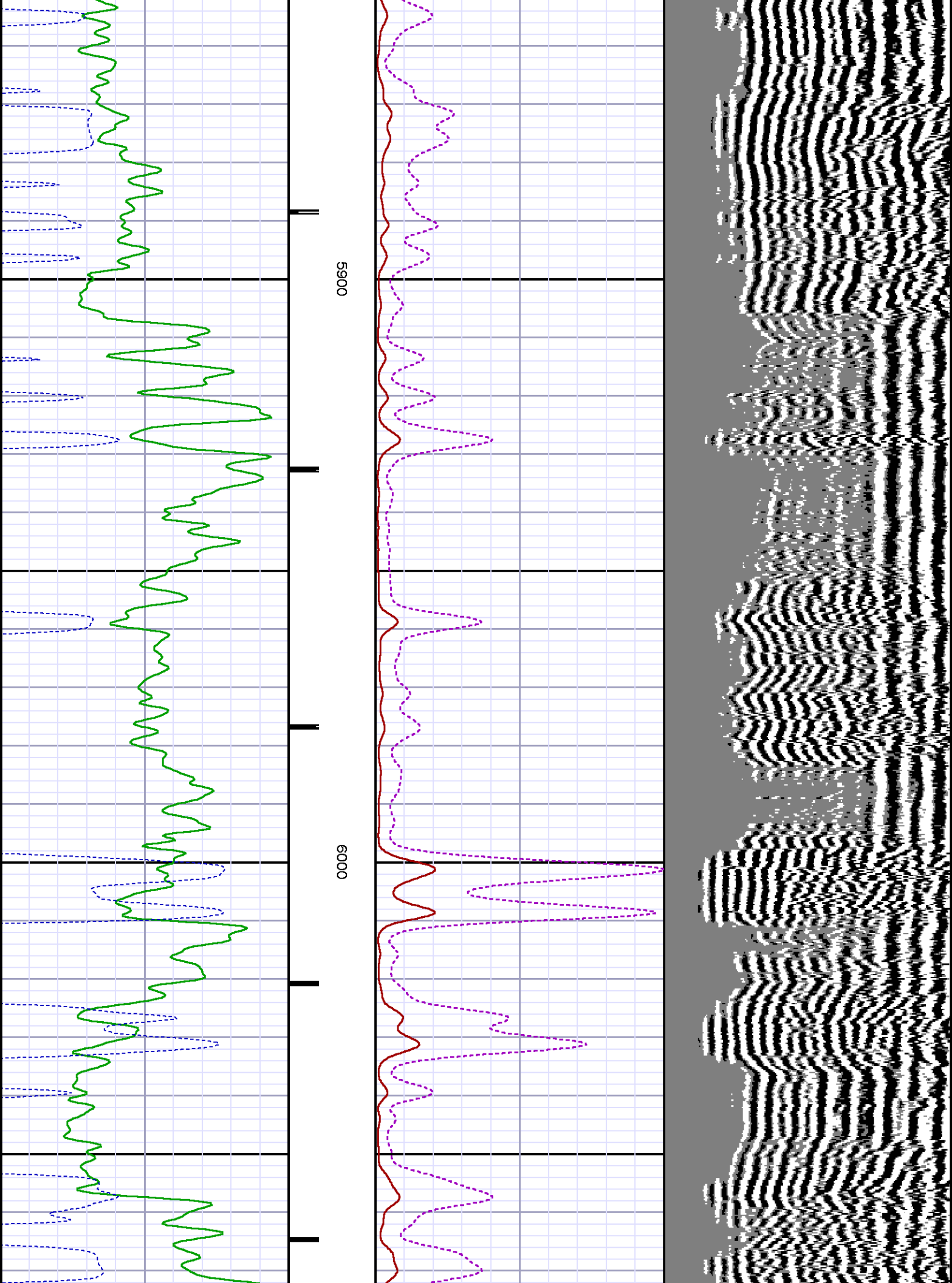


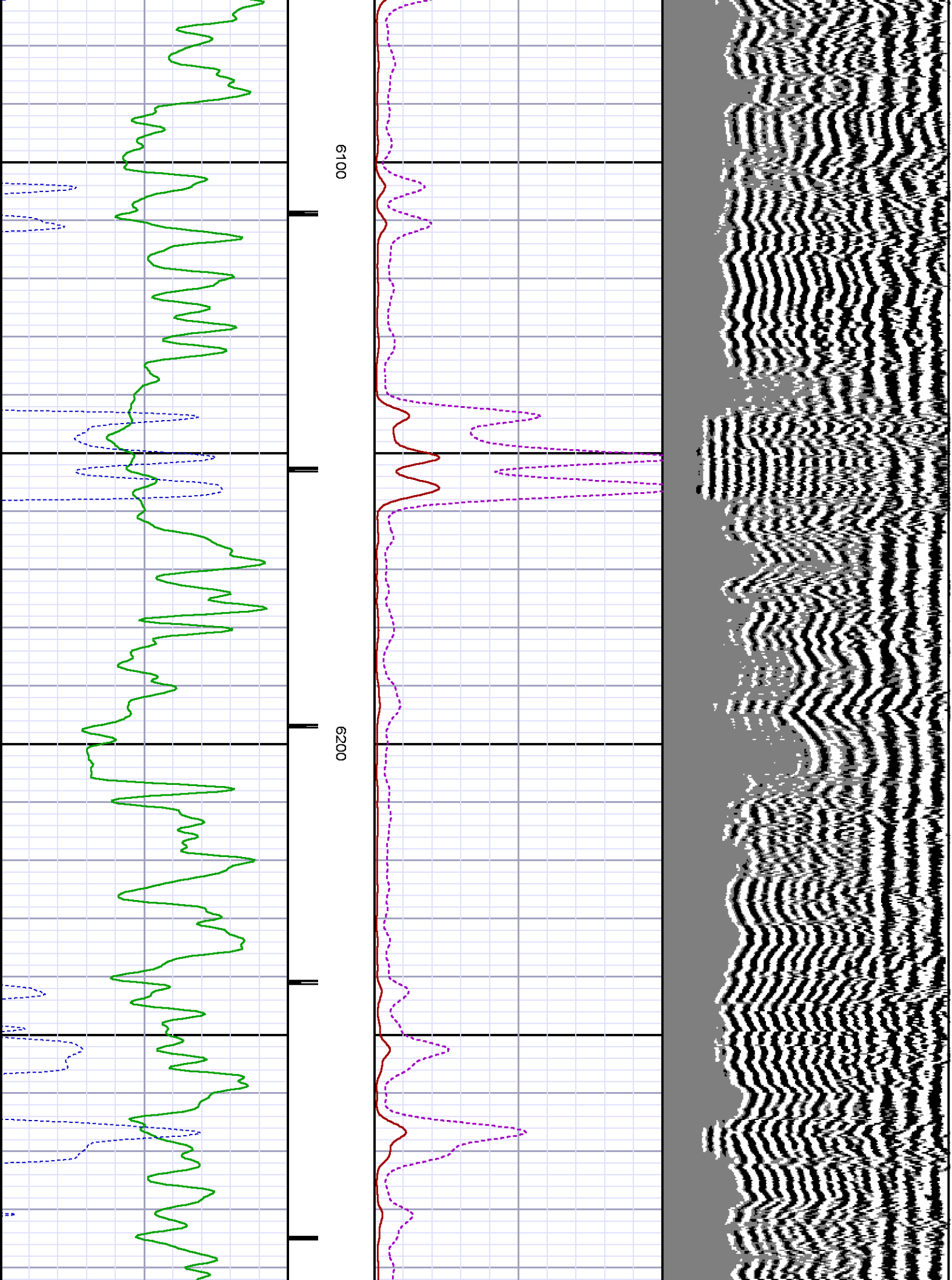


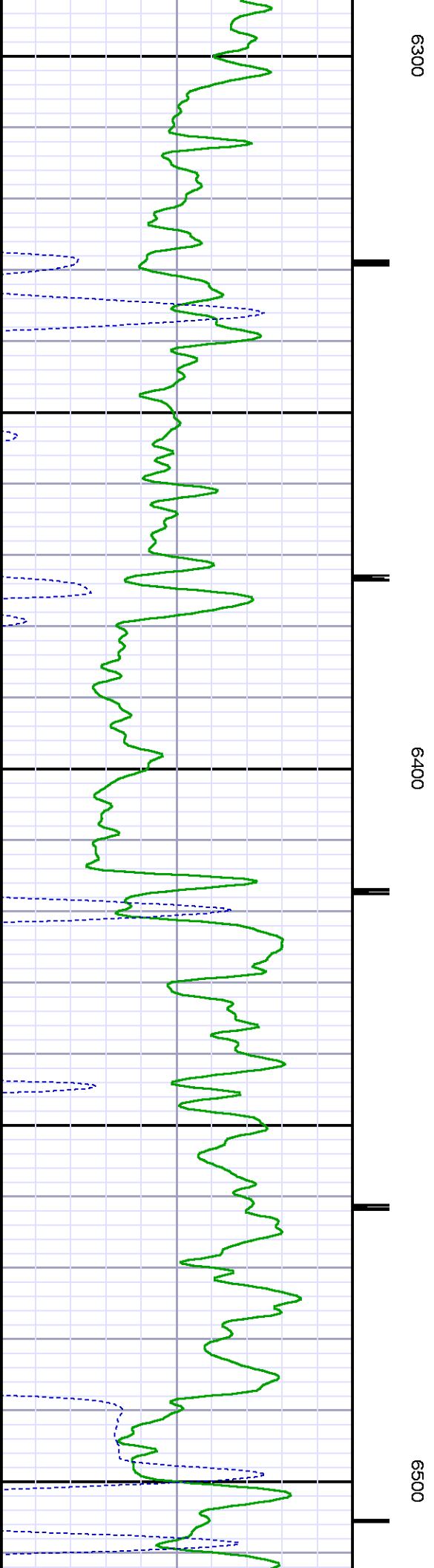
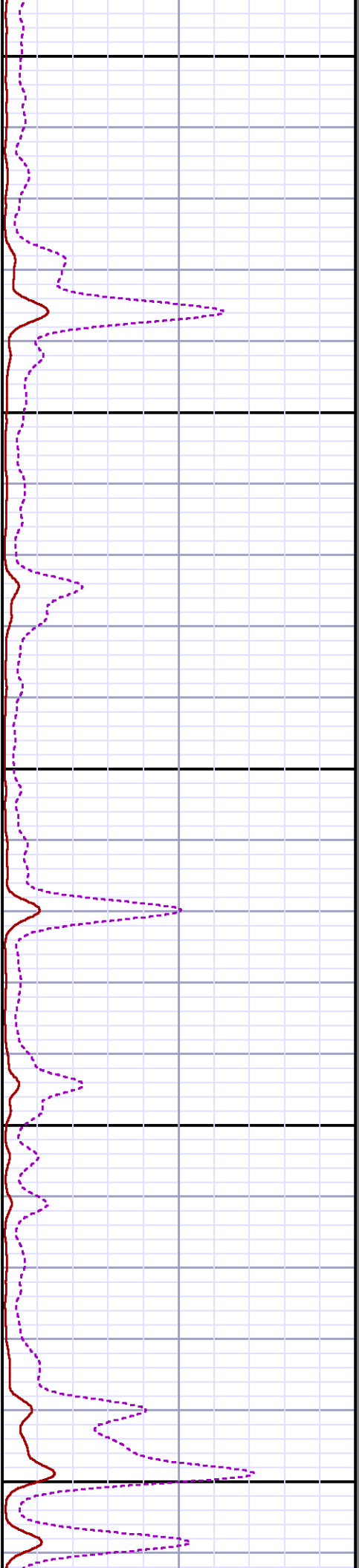
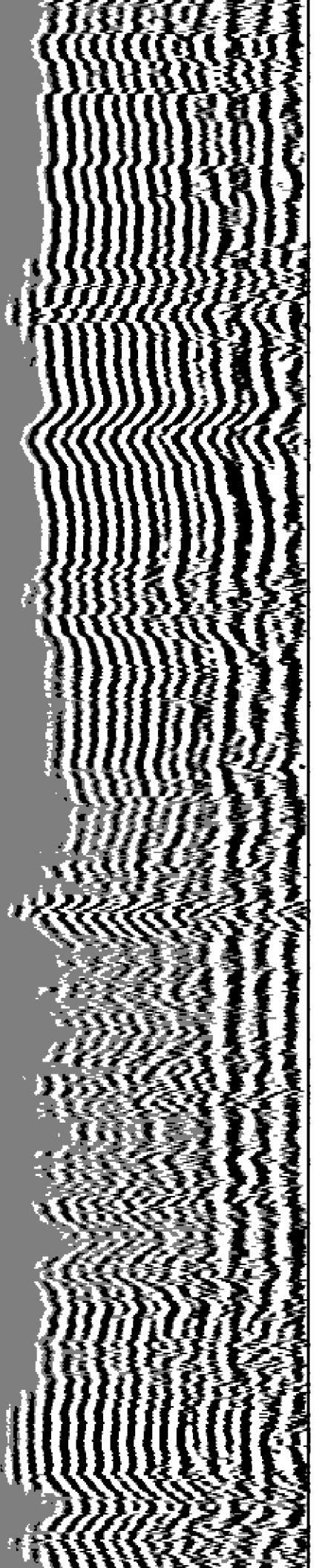


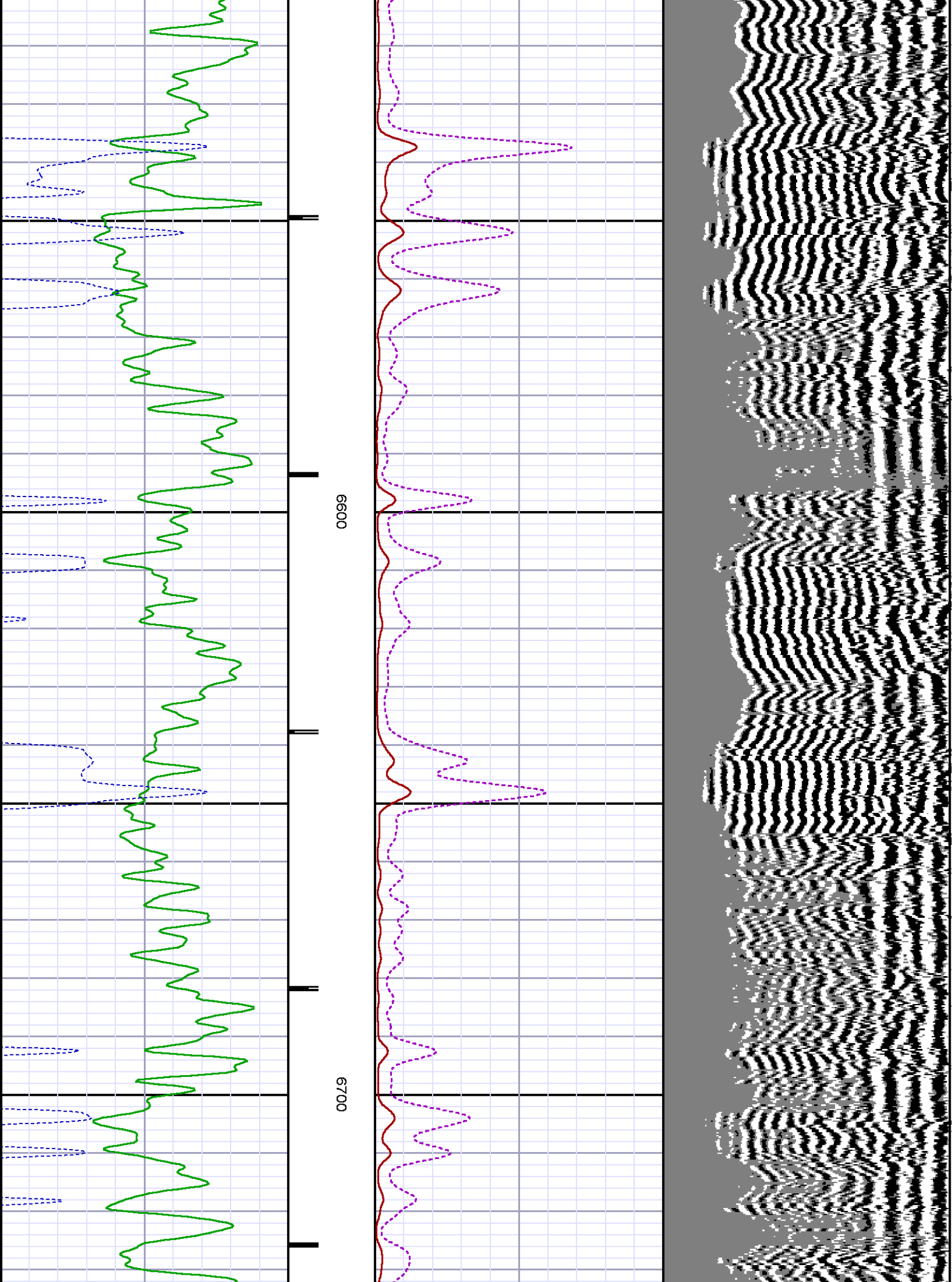


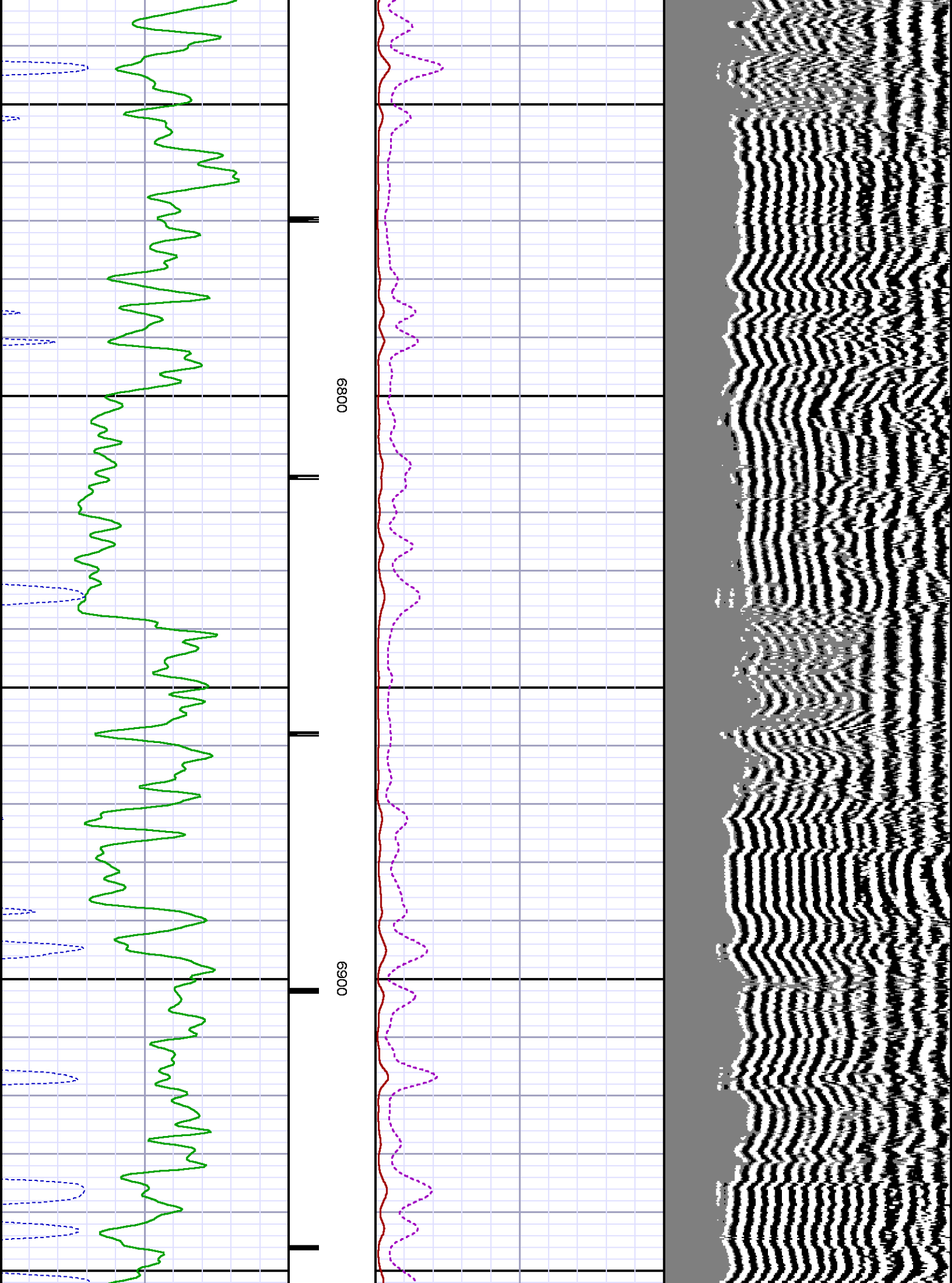


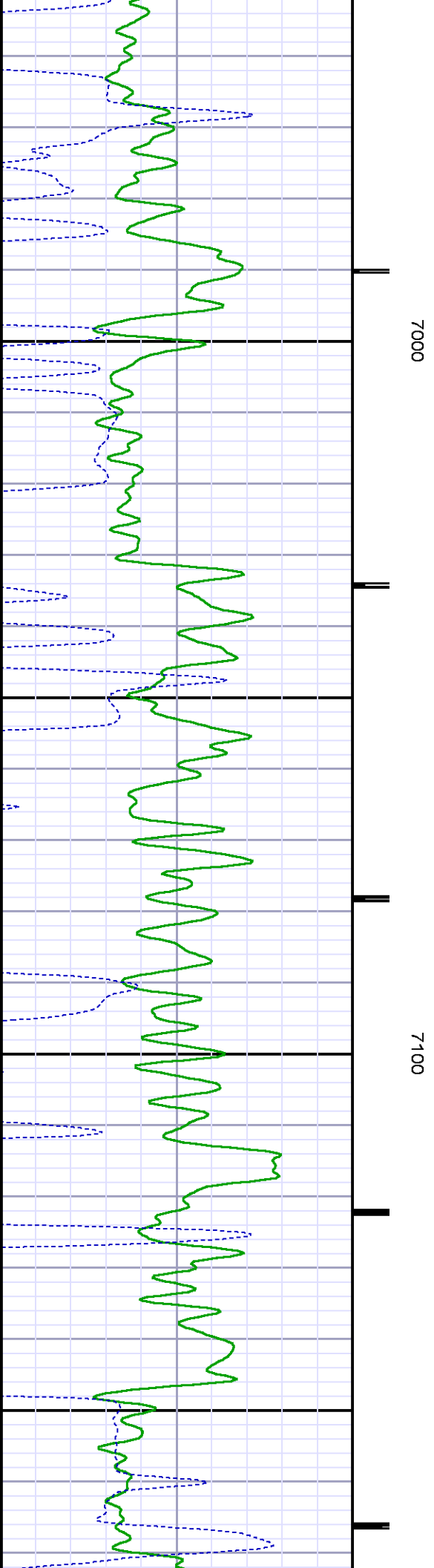
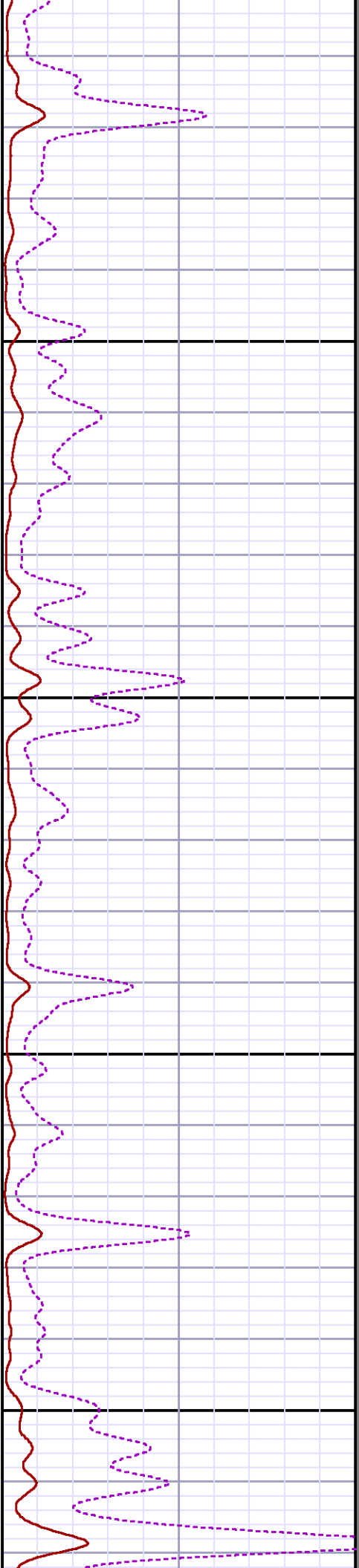
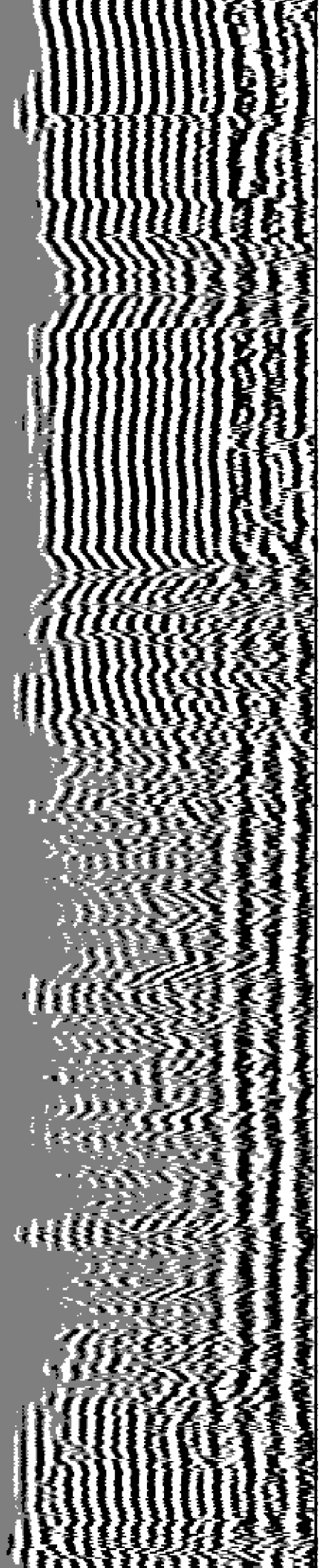


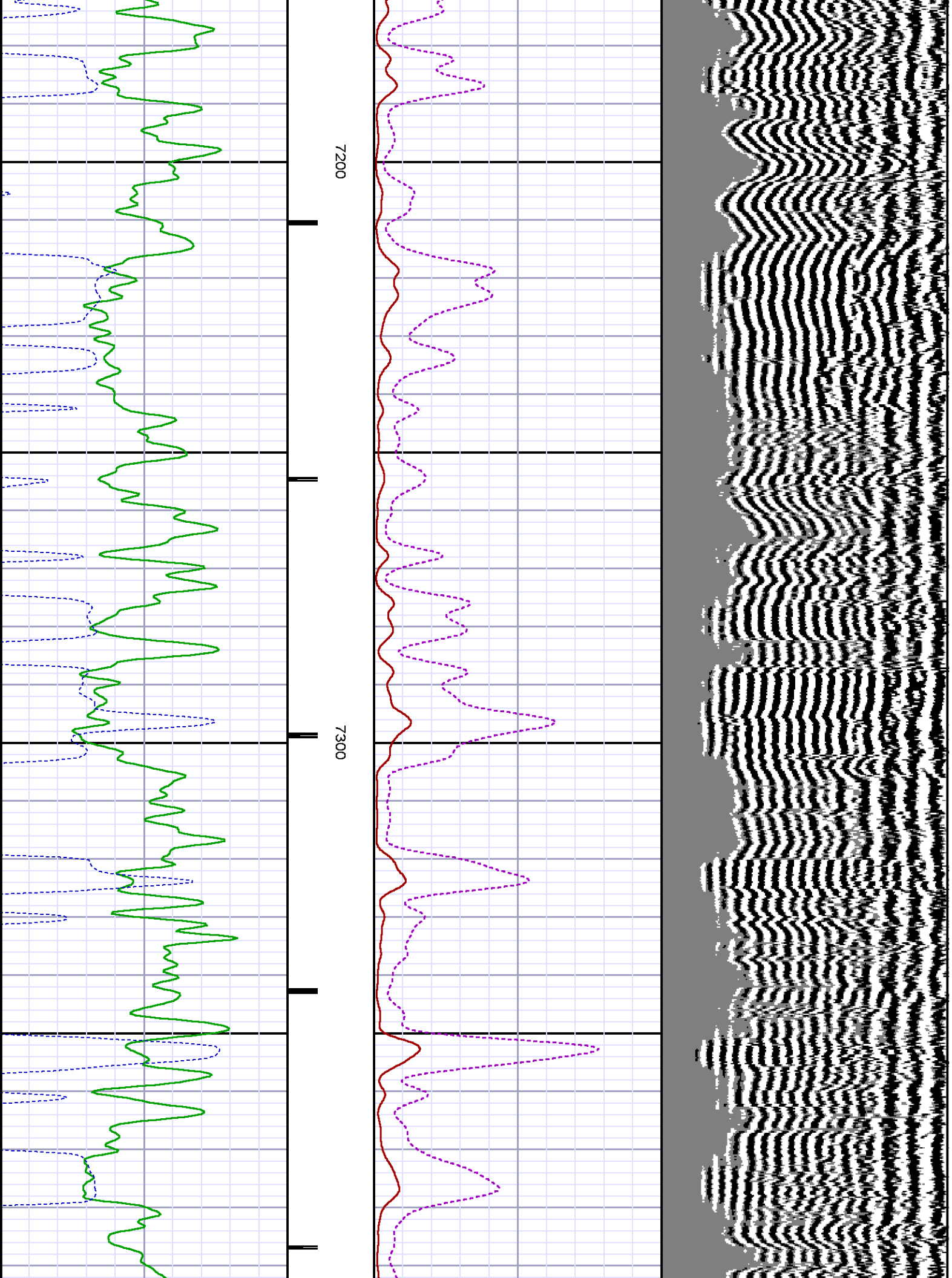


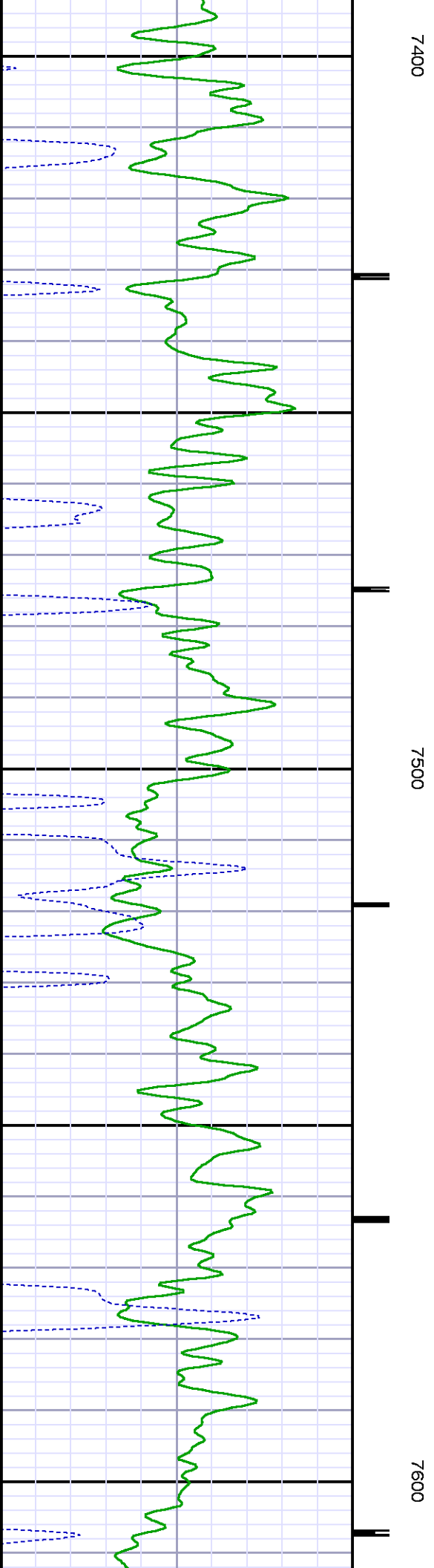
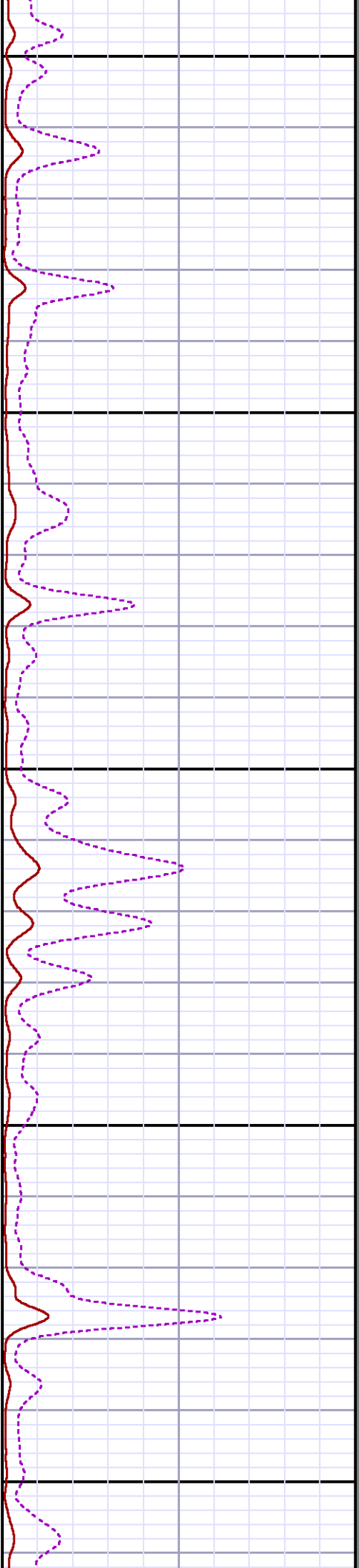
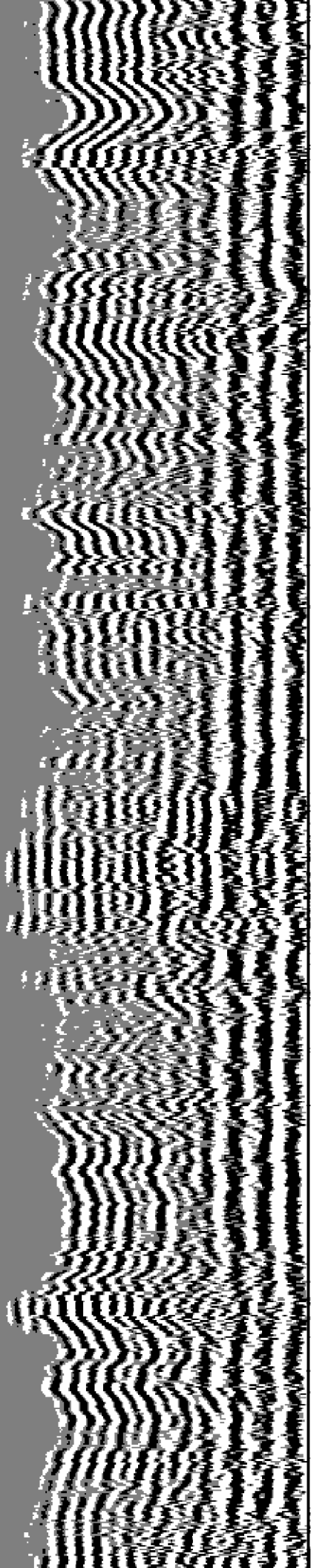


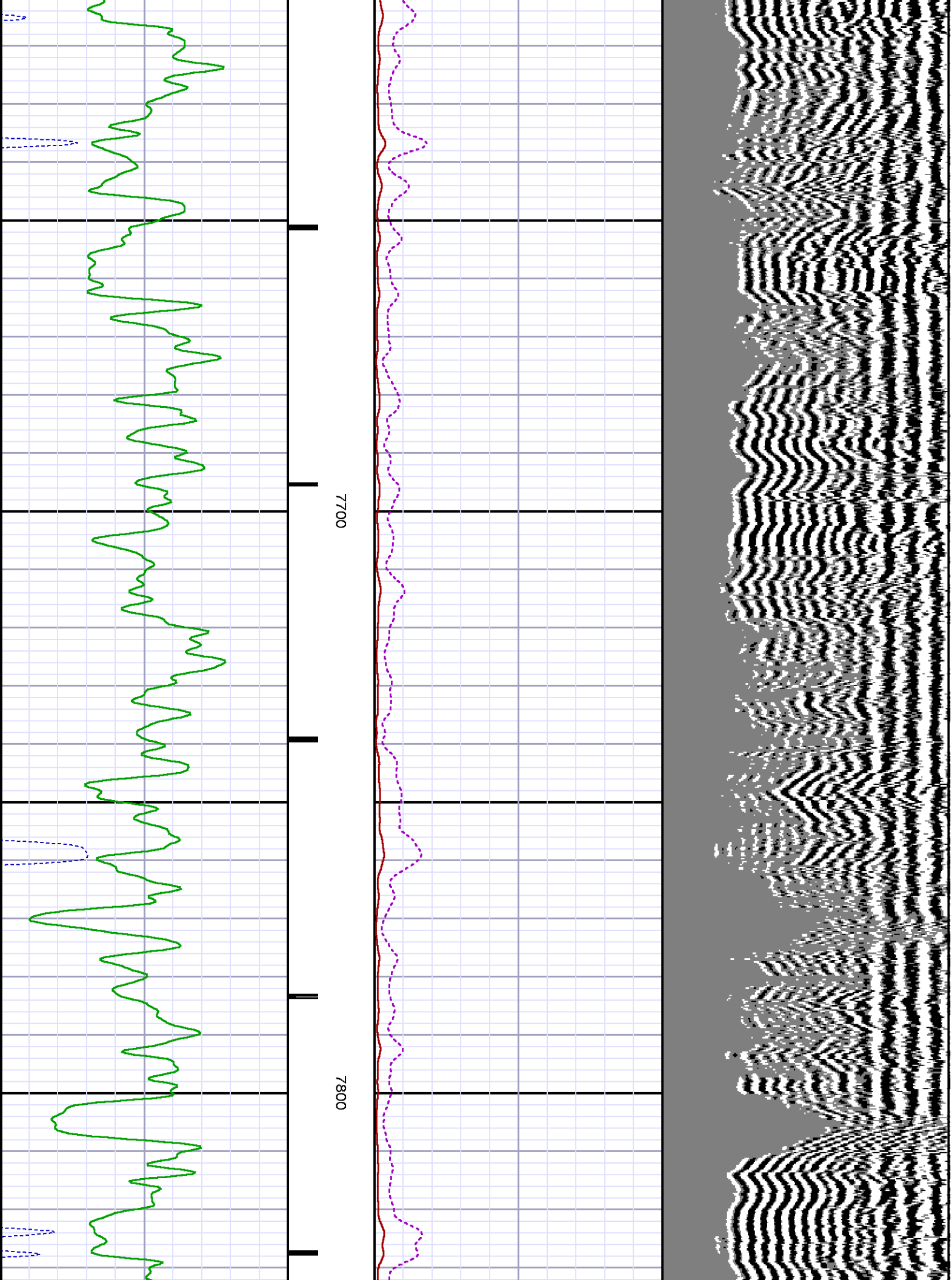


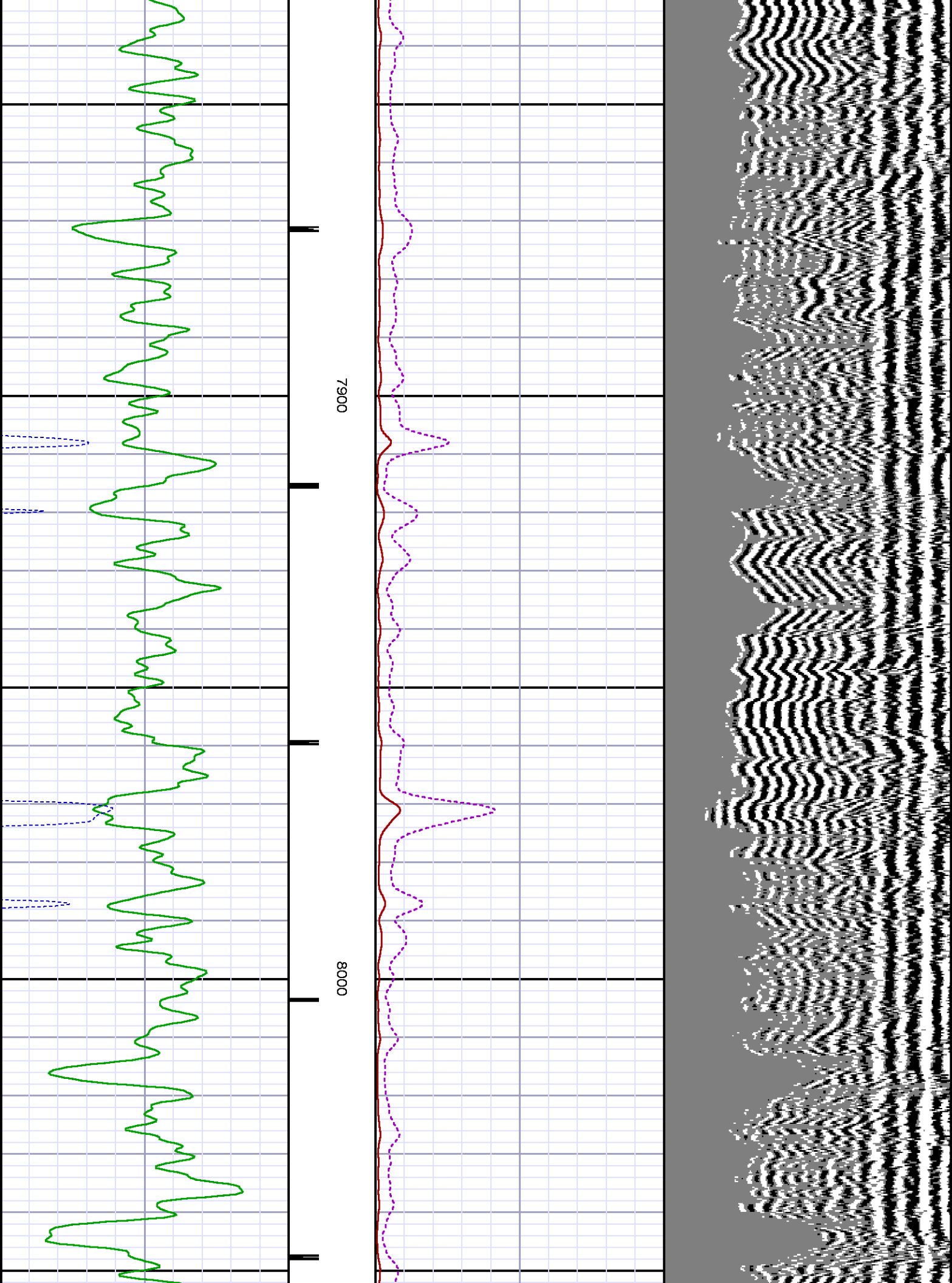


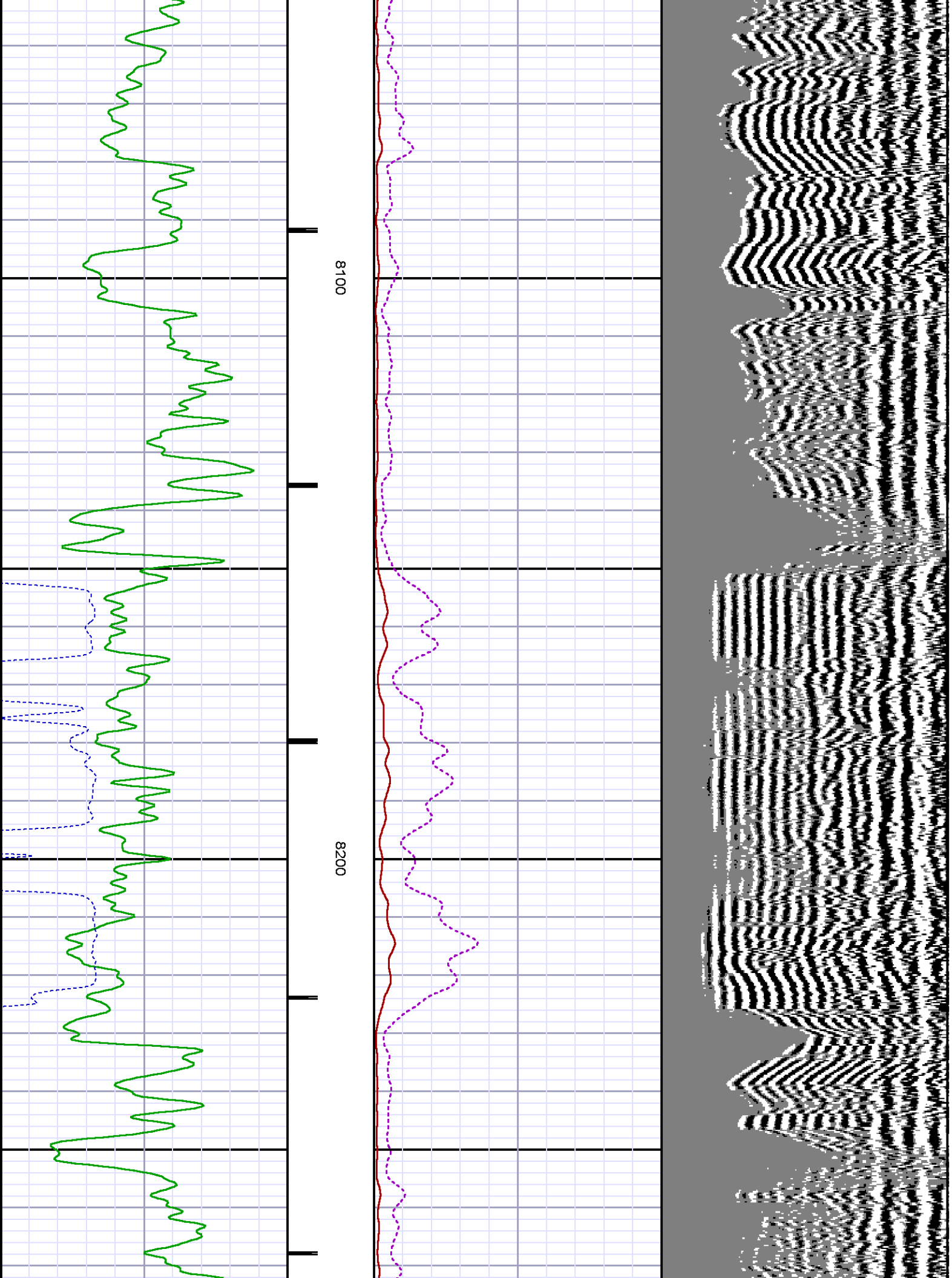


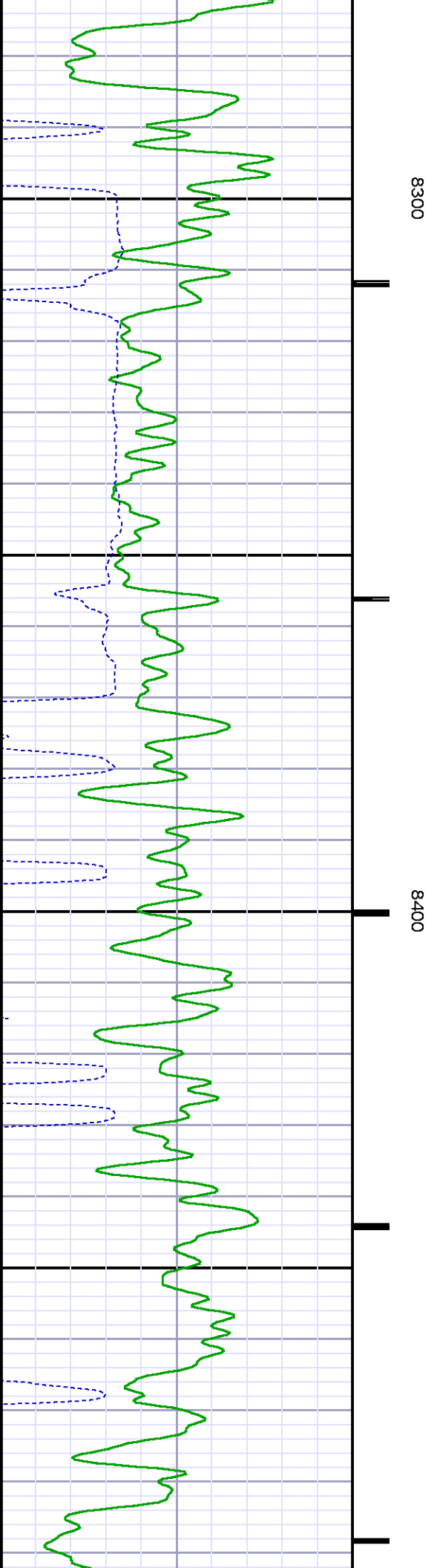
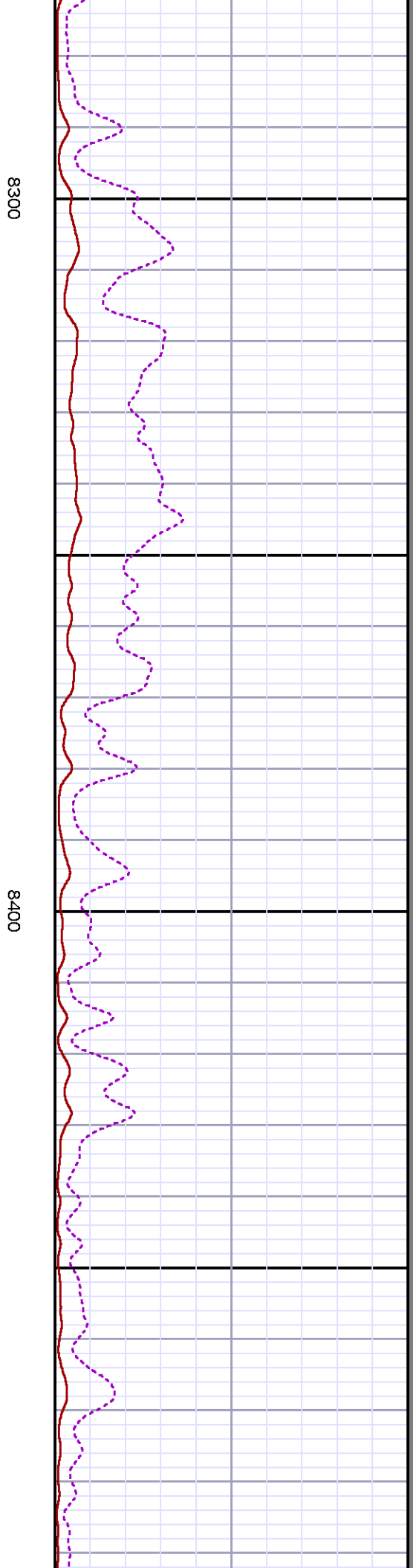
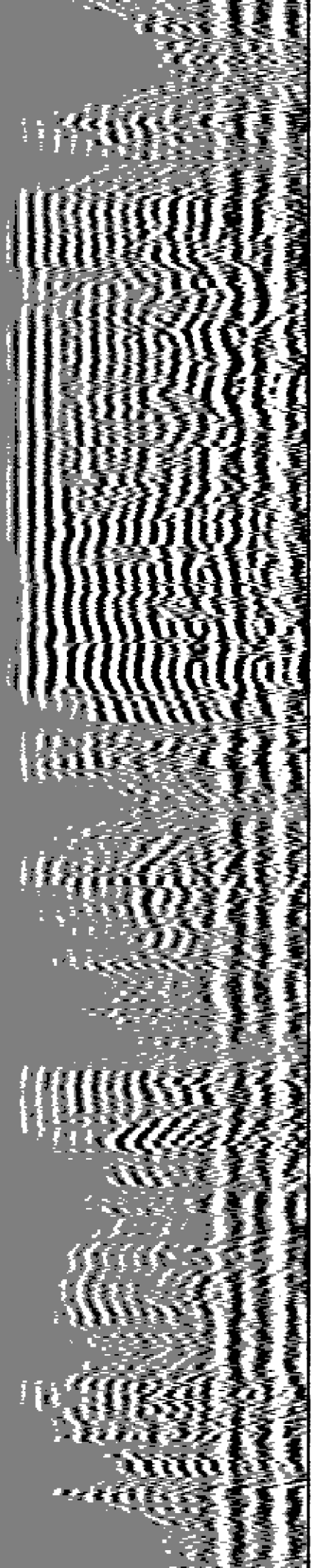


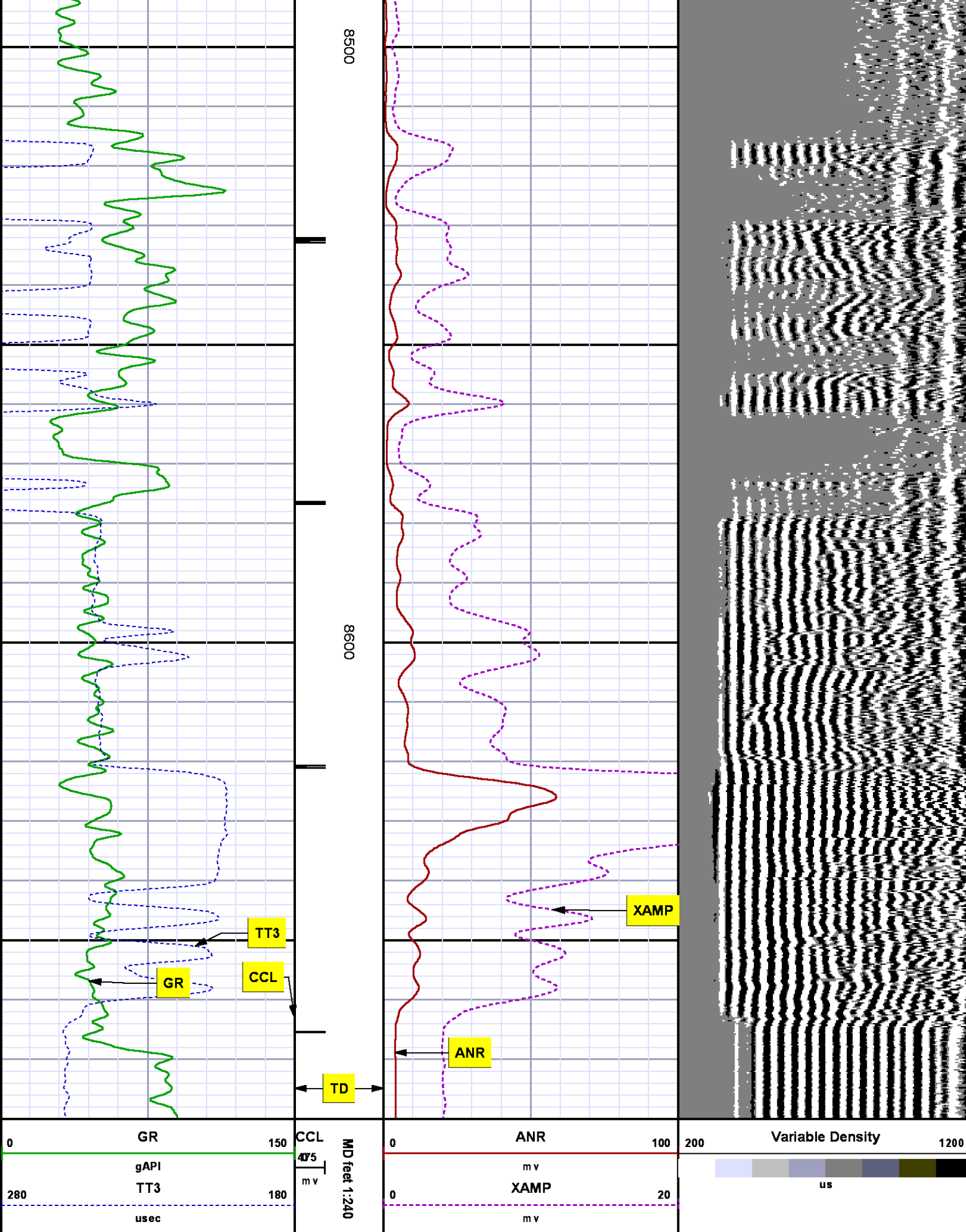












SECONDARY PRESENTATION

O PSI

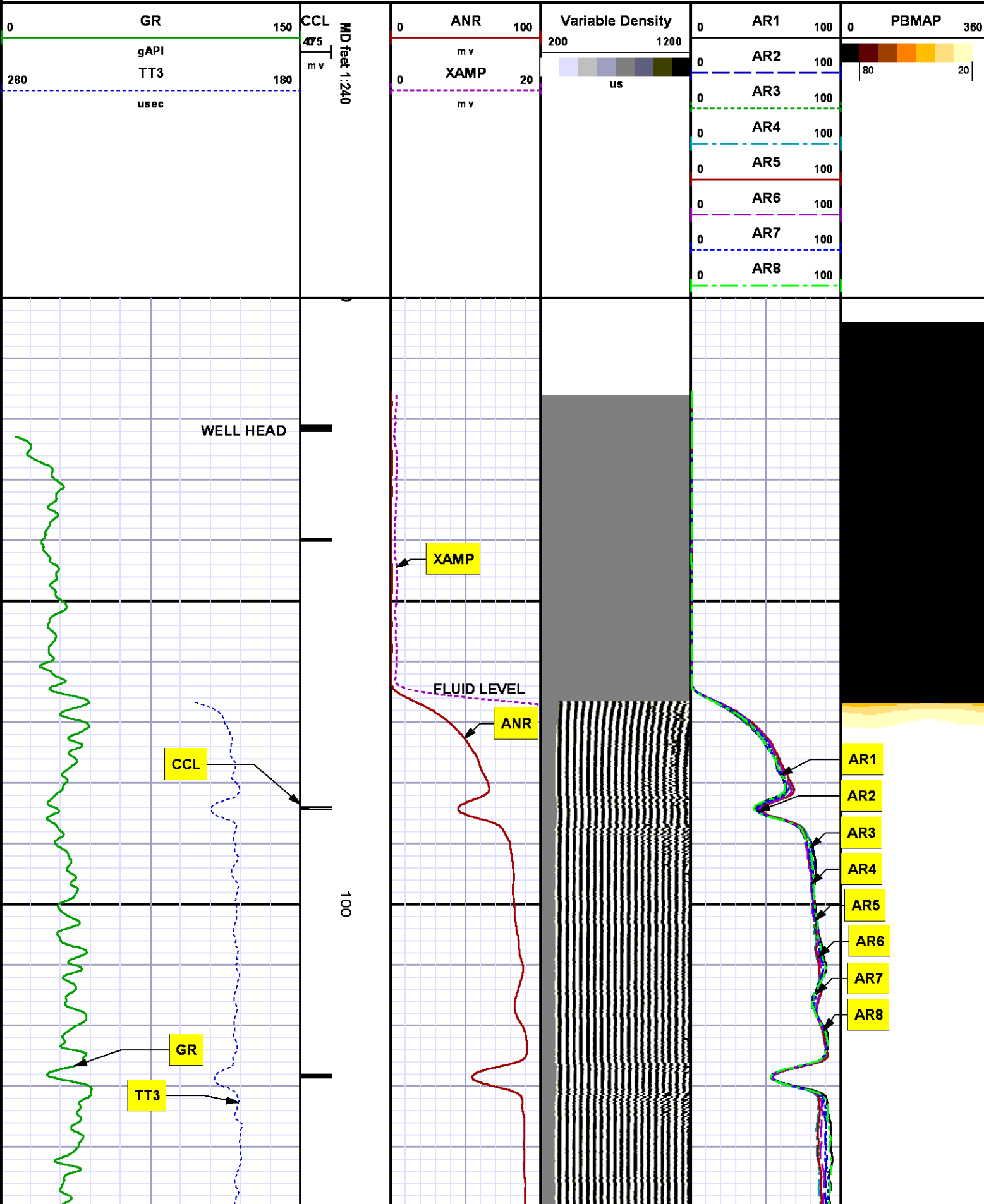
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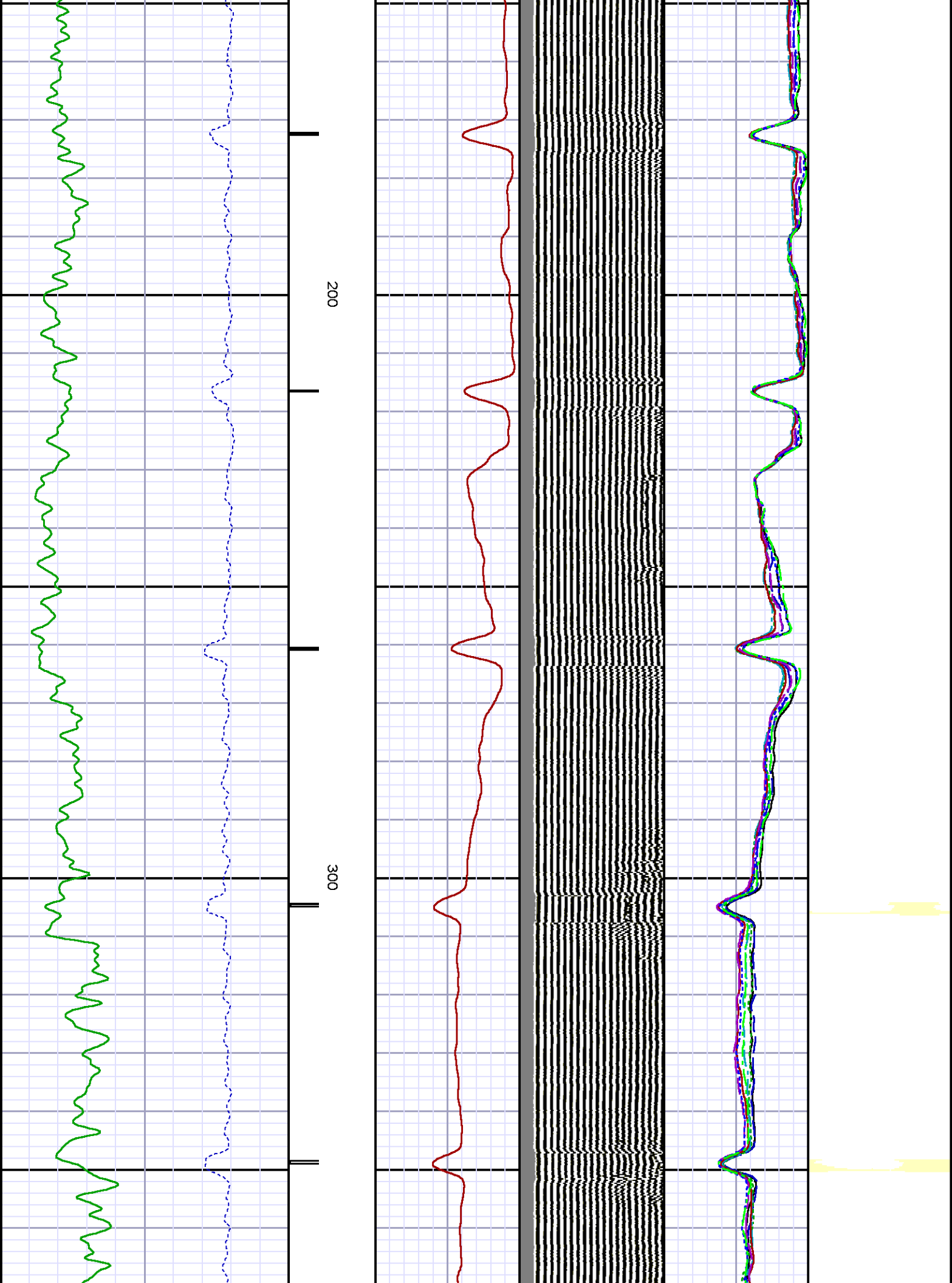
DEPTH OFFSETS

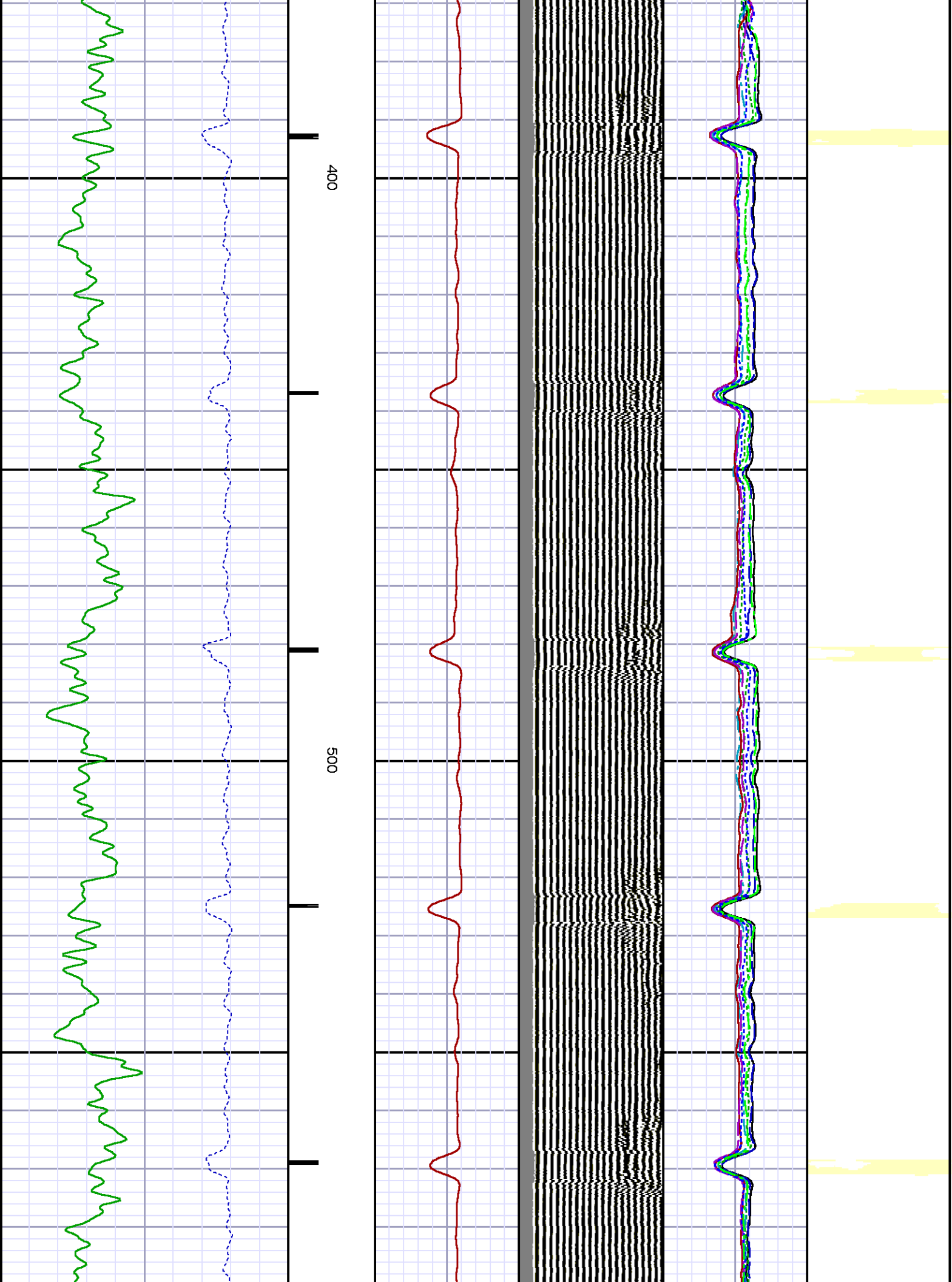
(for Acquired Curves)

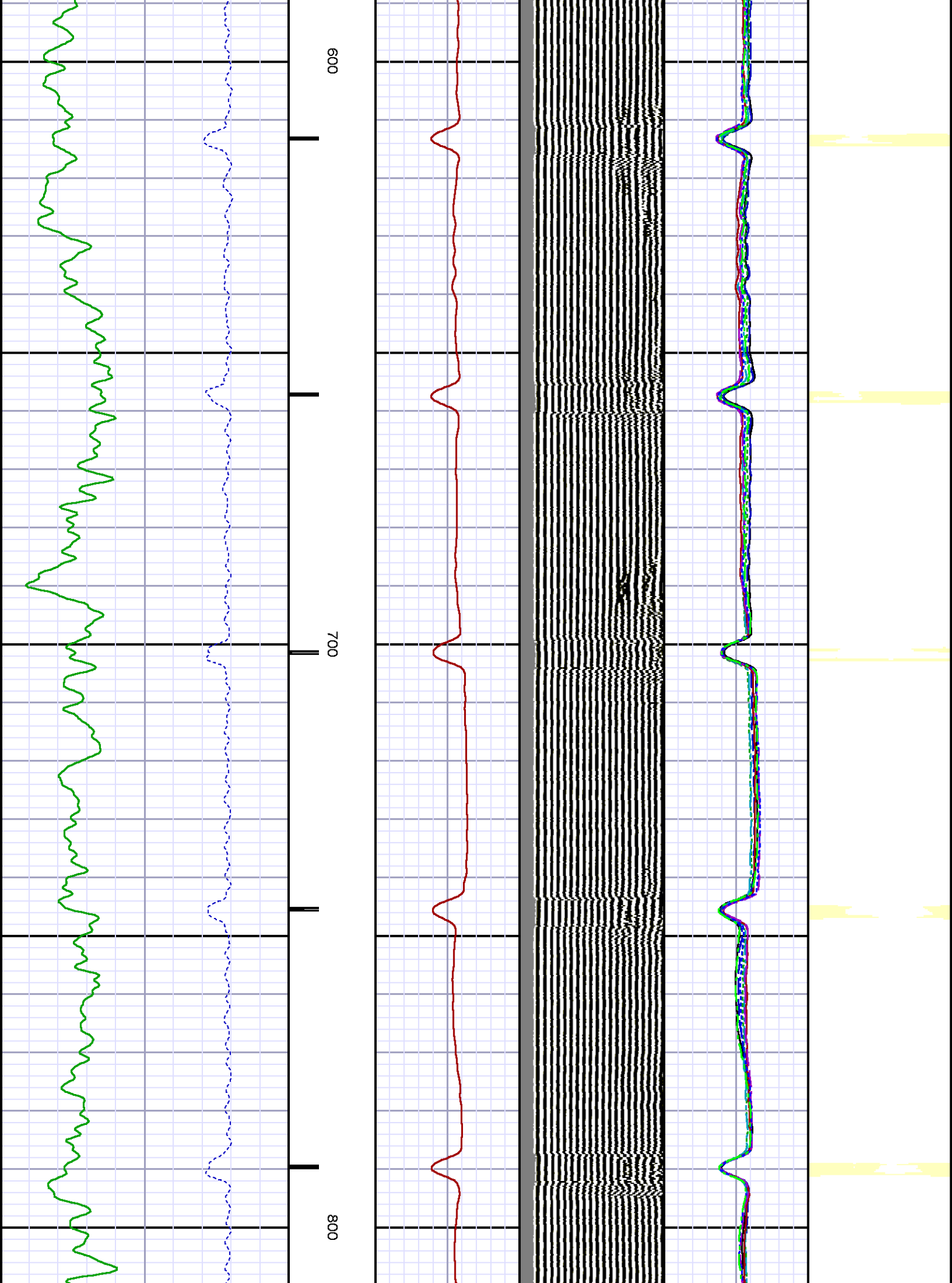
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		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					

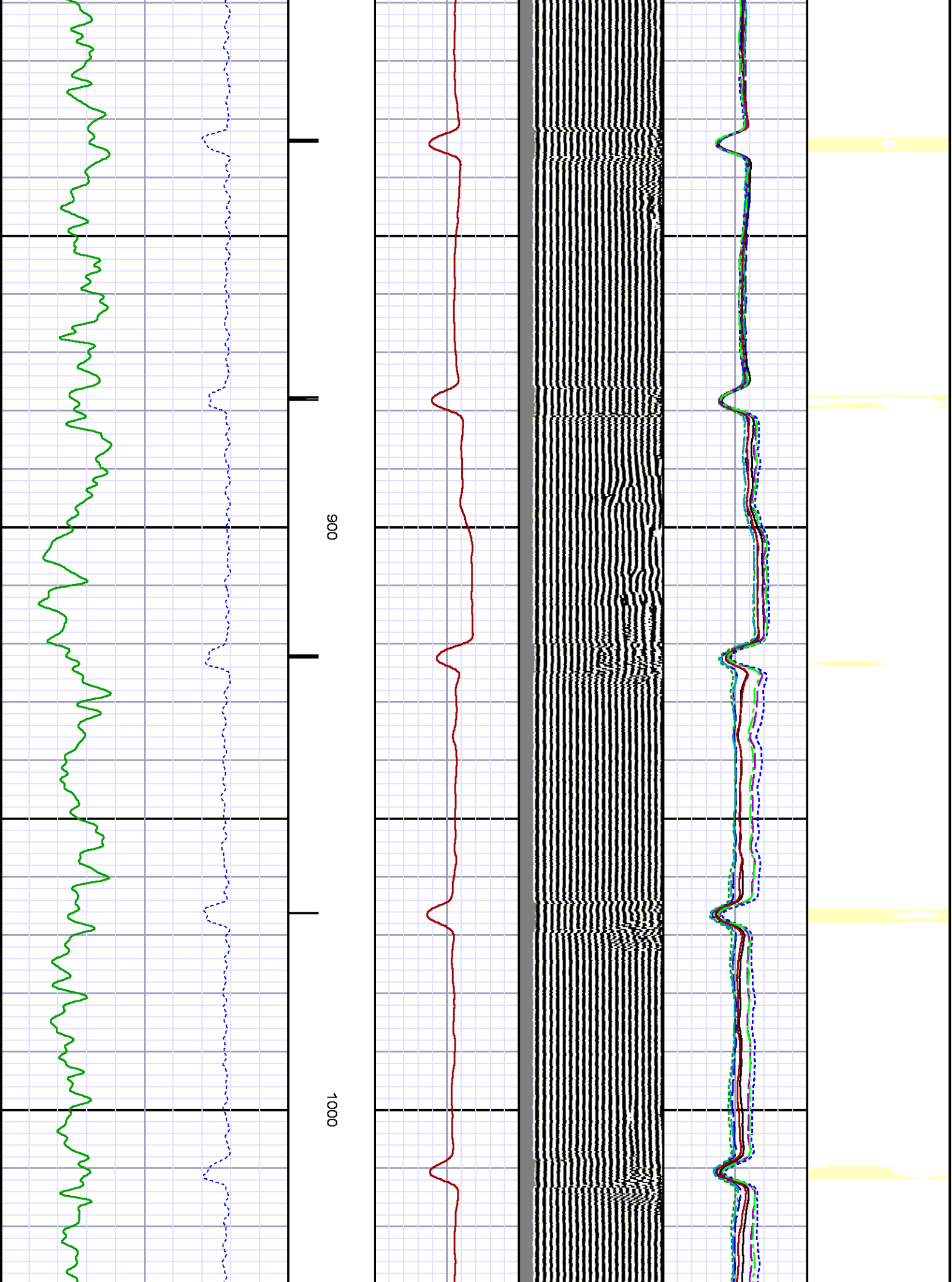
Company : WAX ENERGY
Well : SAVAGE RWF 312-25
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Created : 1/16/2014 12:24:36 PM

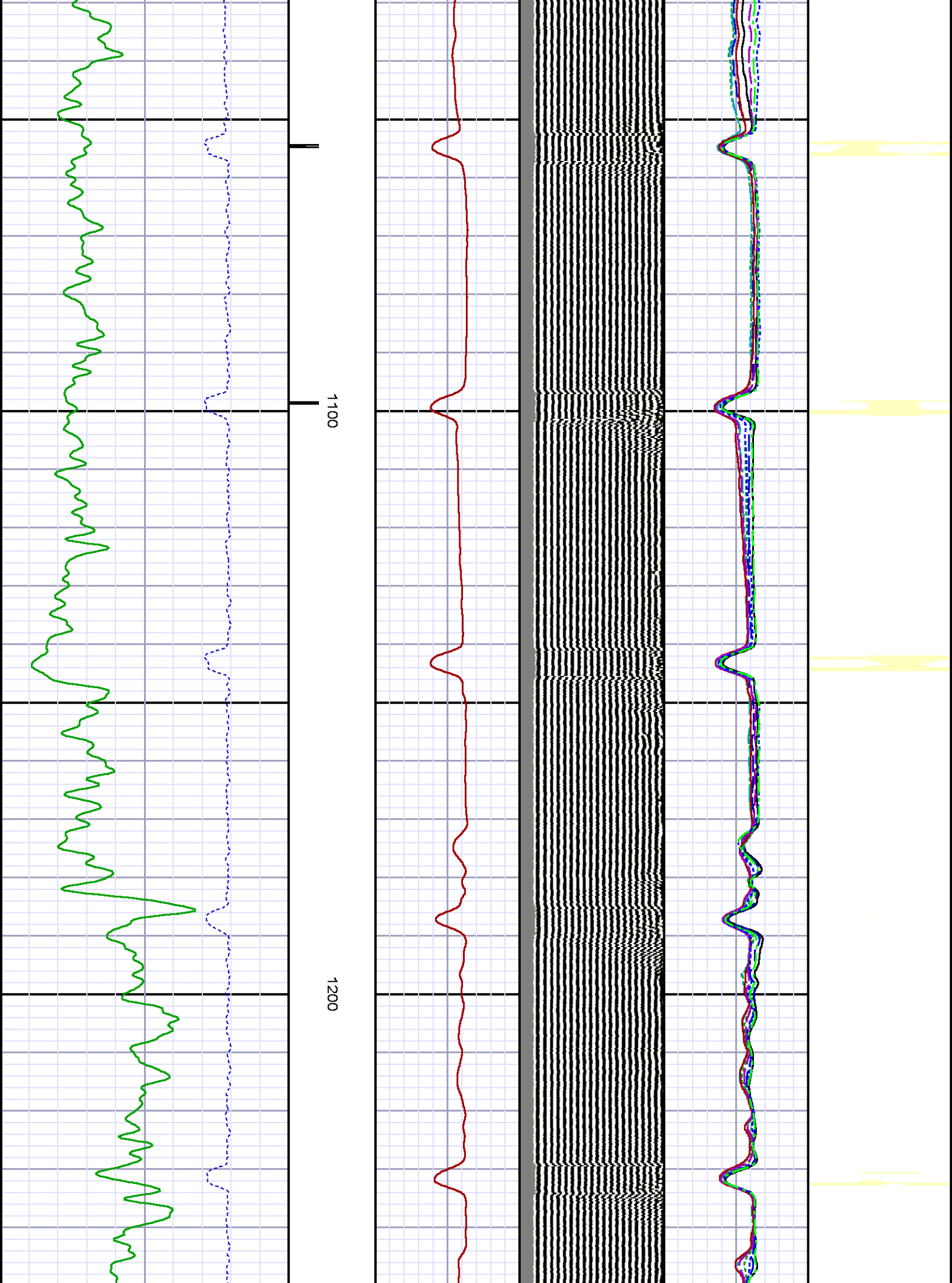


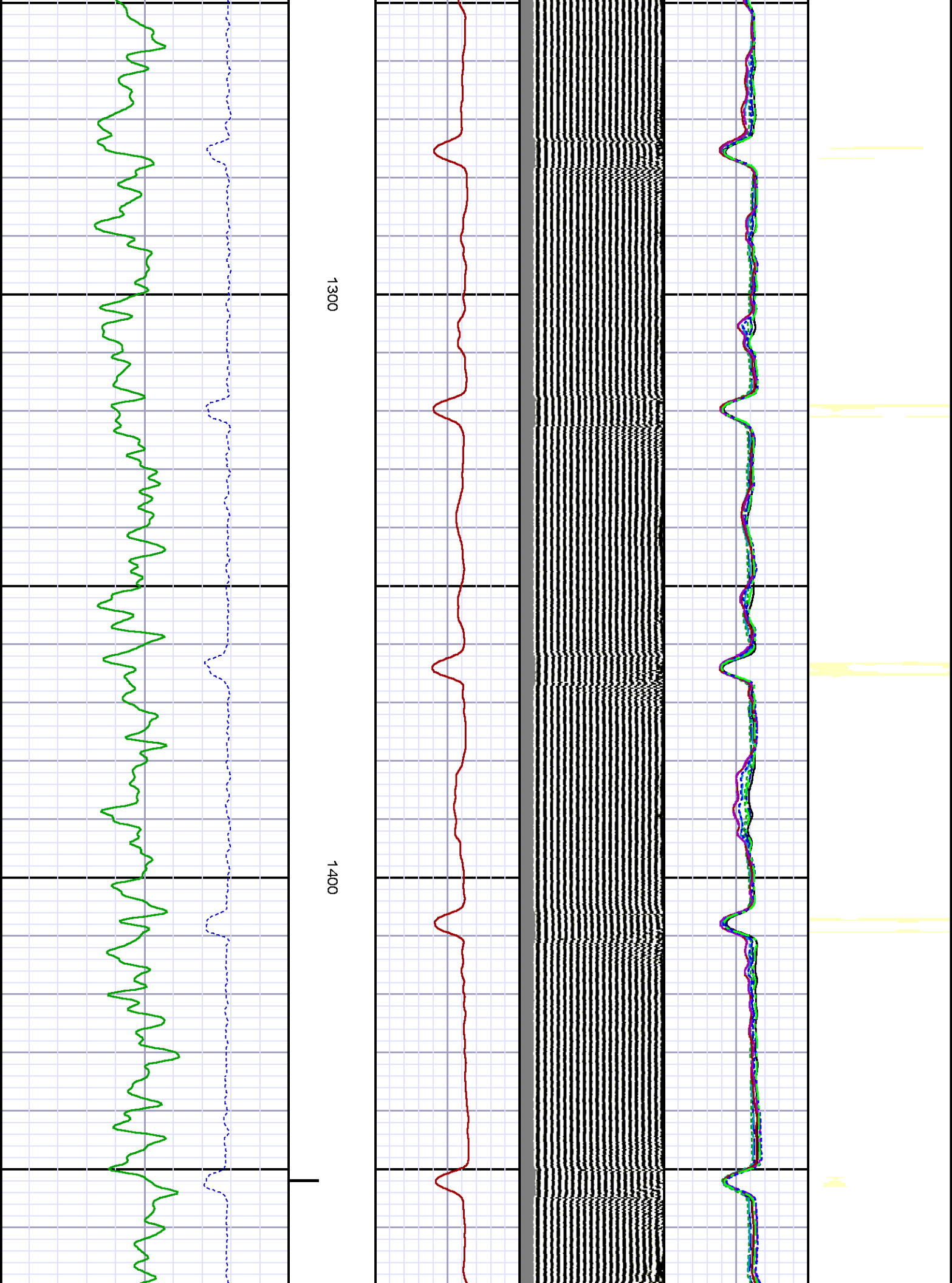


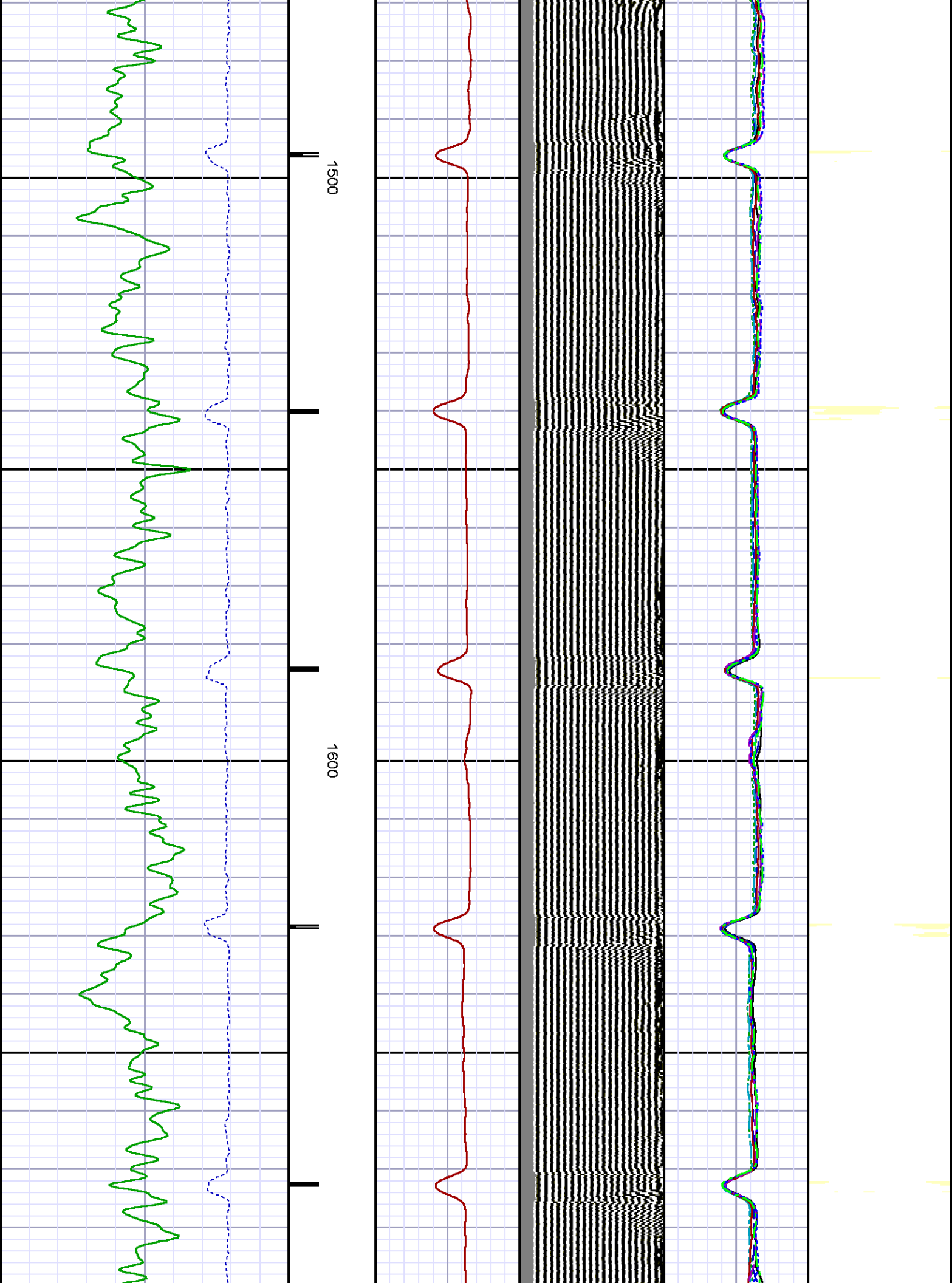


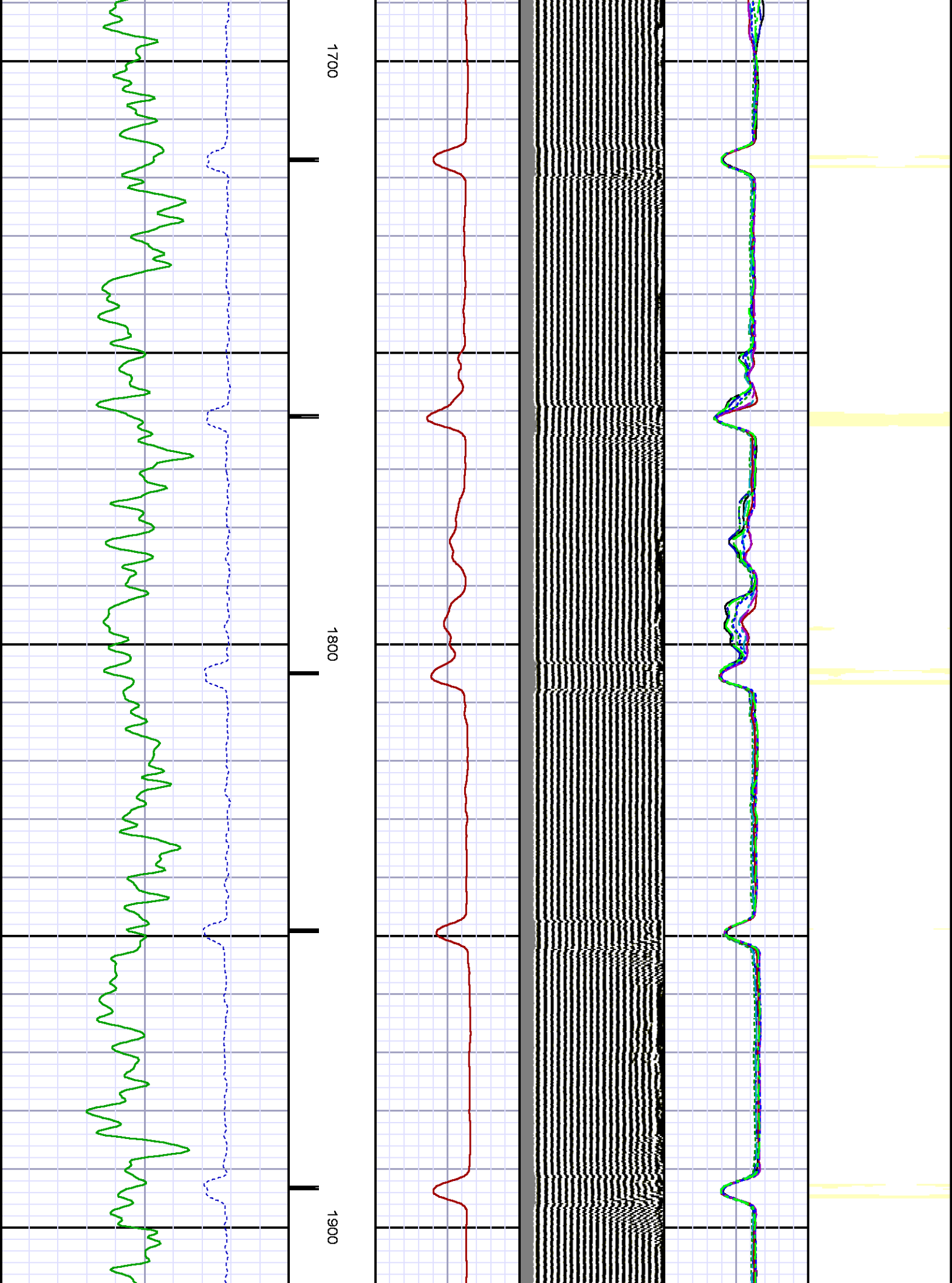


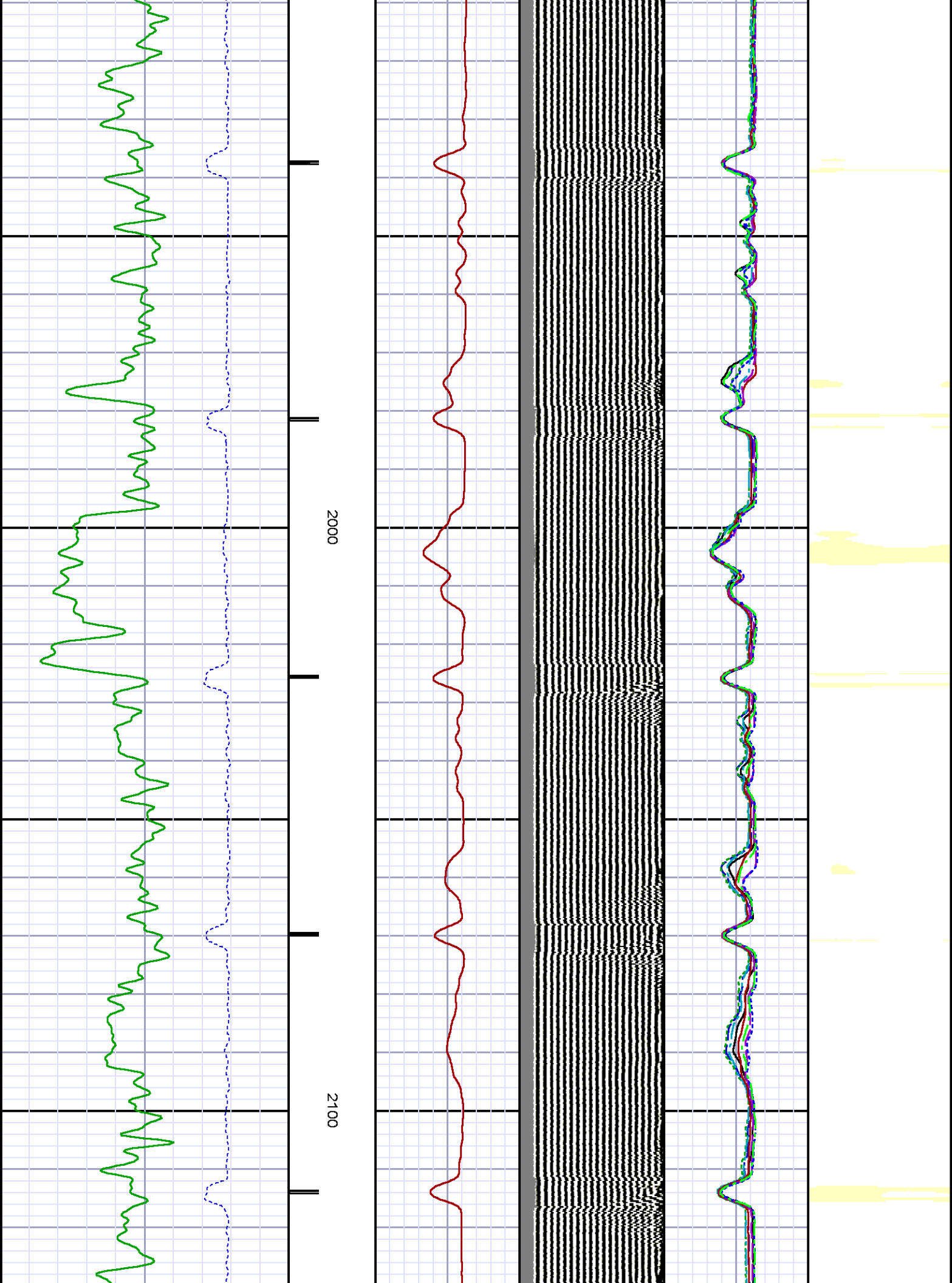


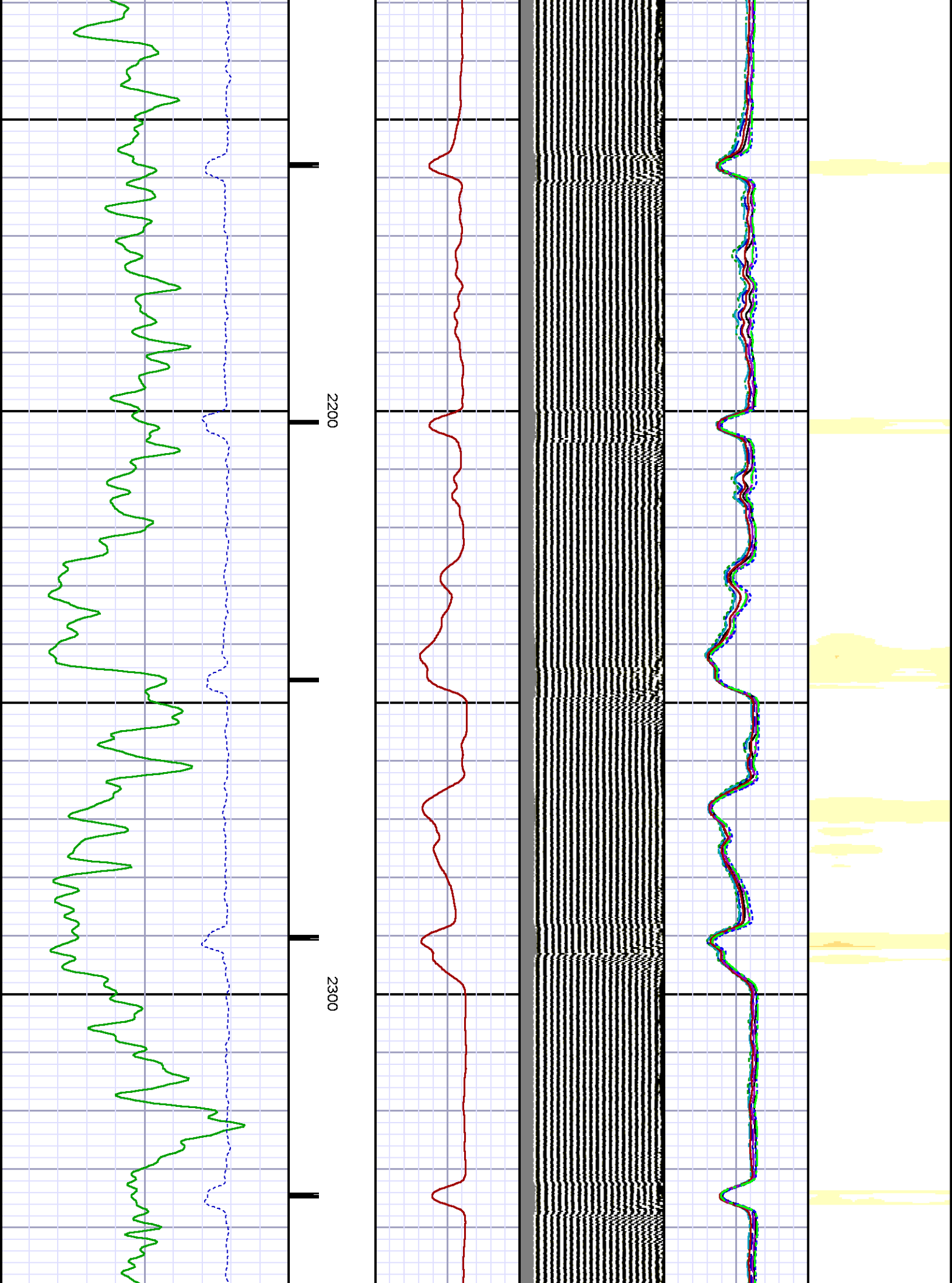


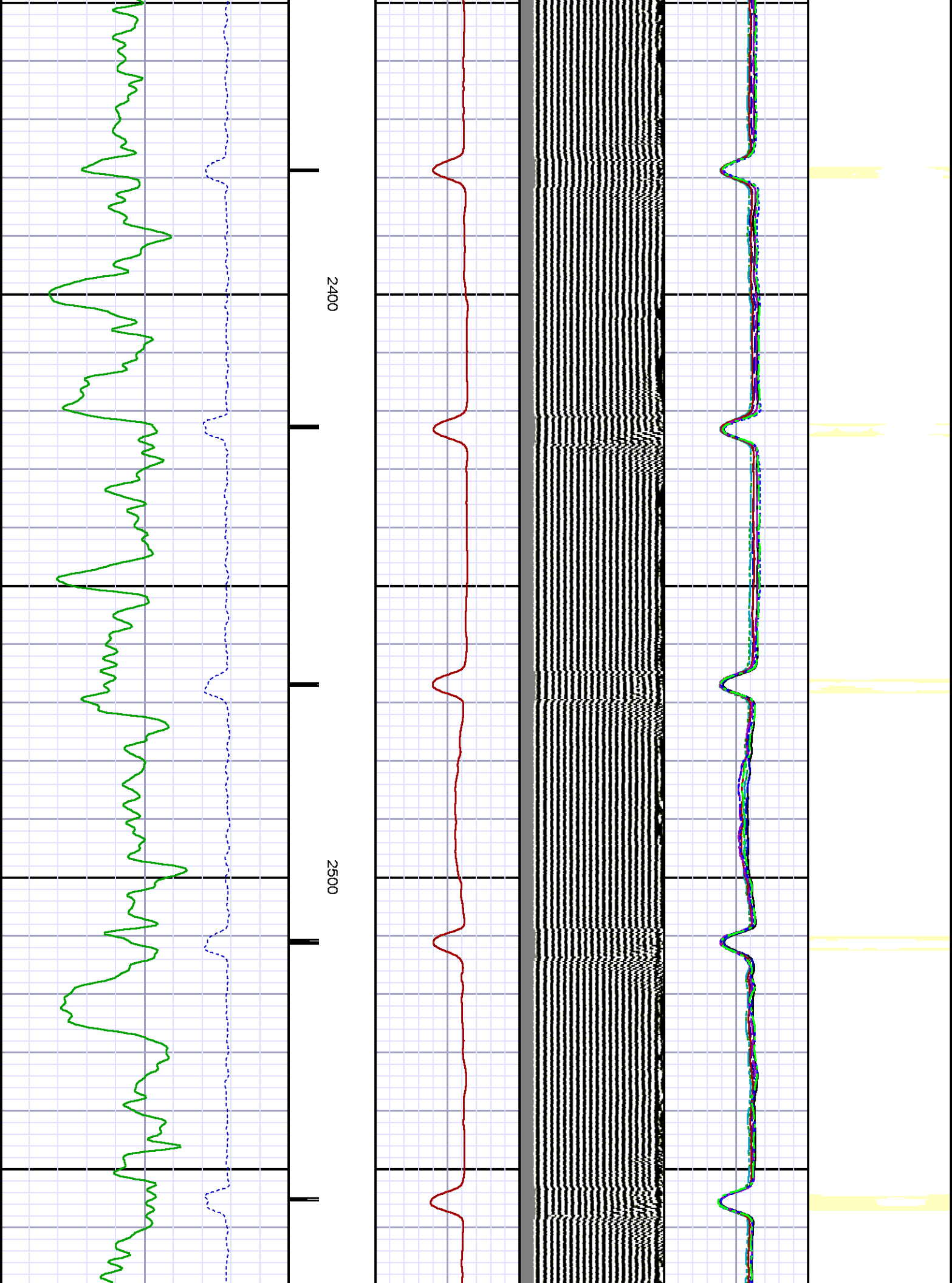


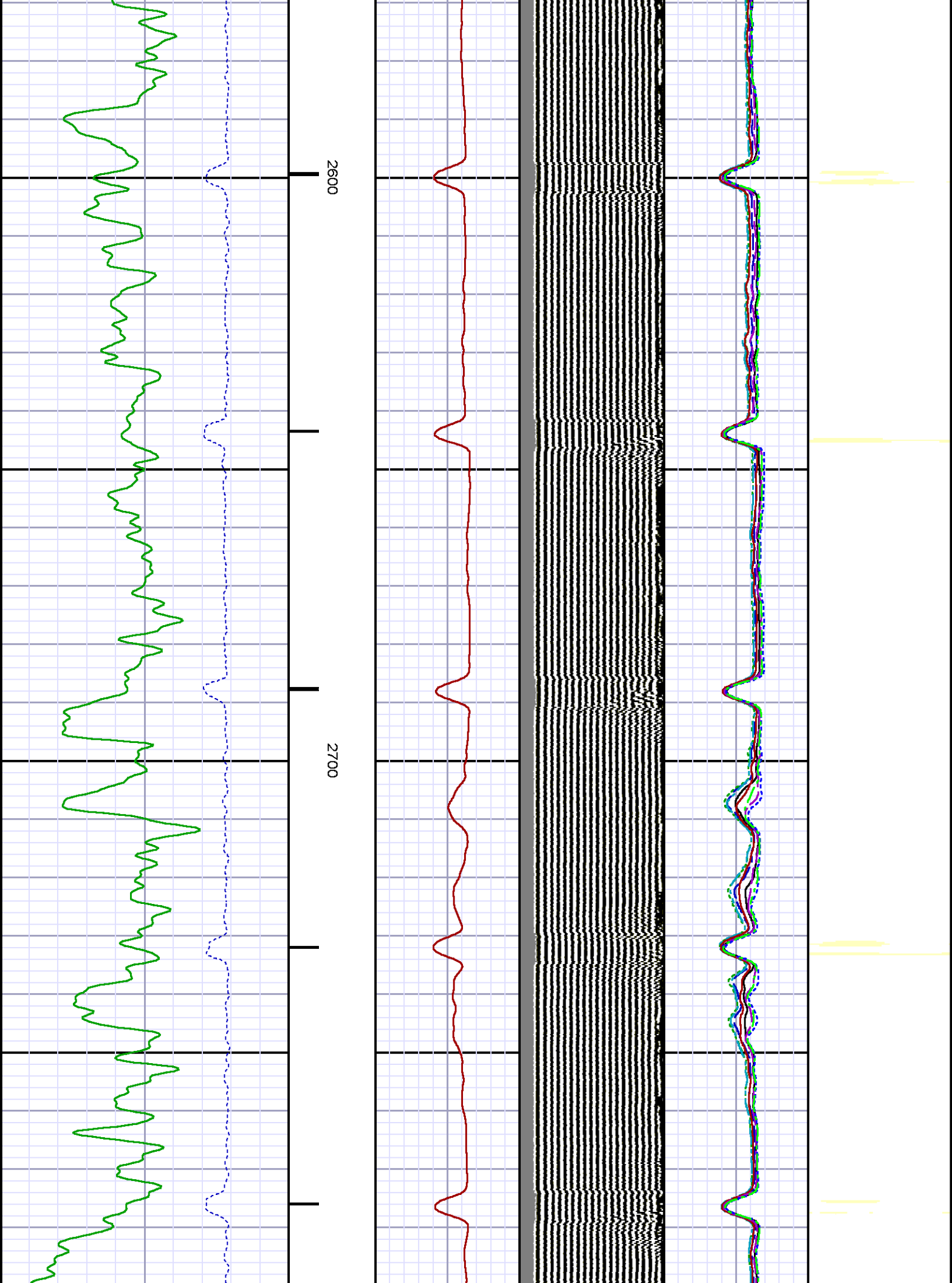


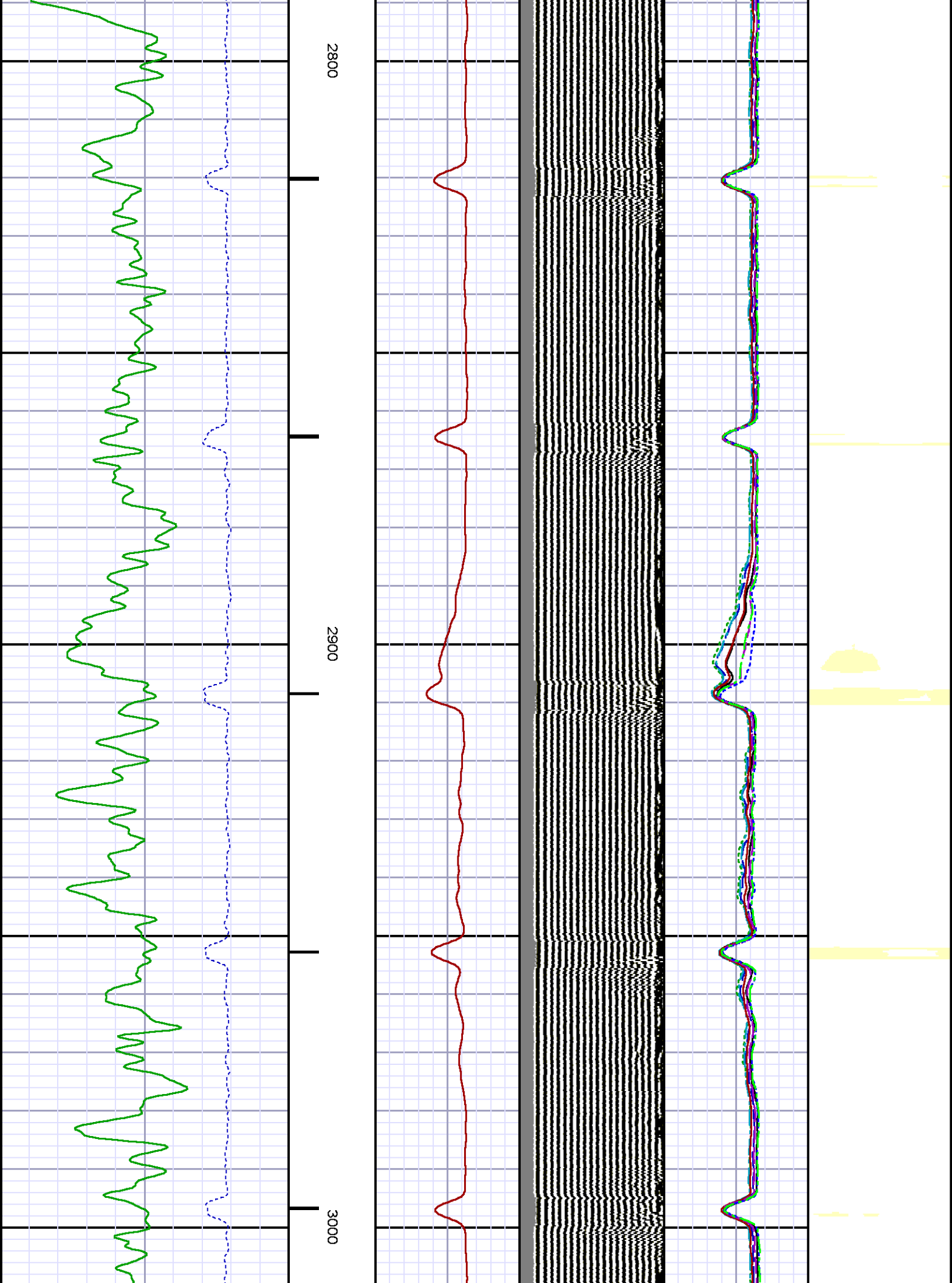


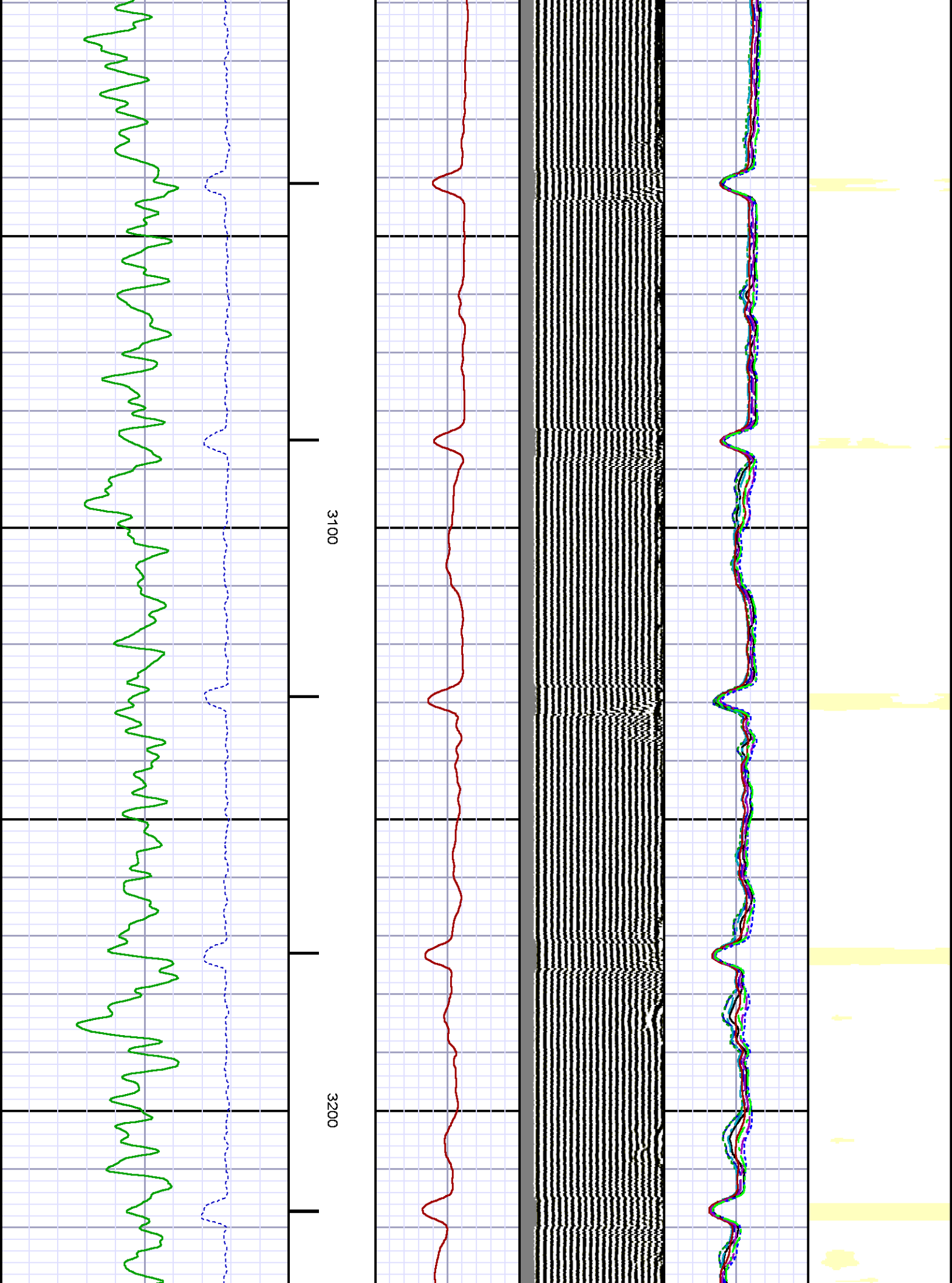


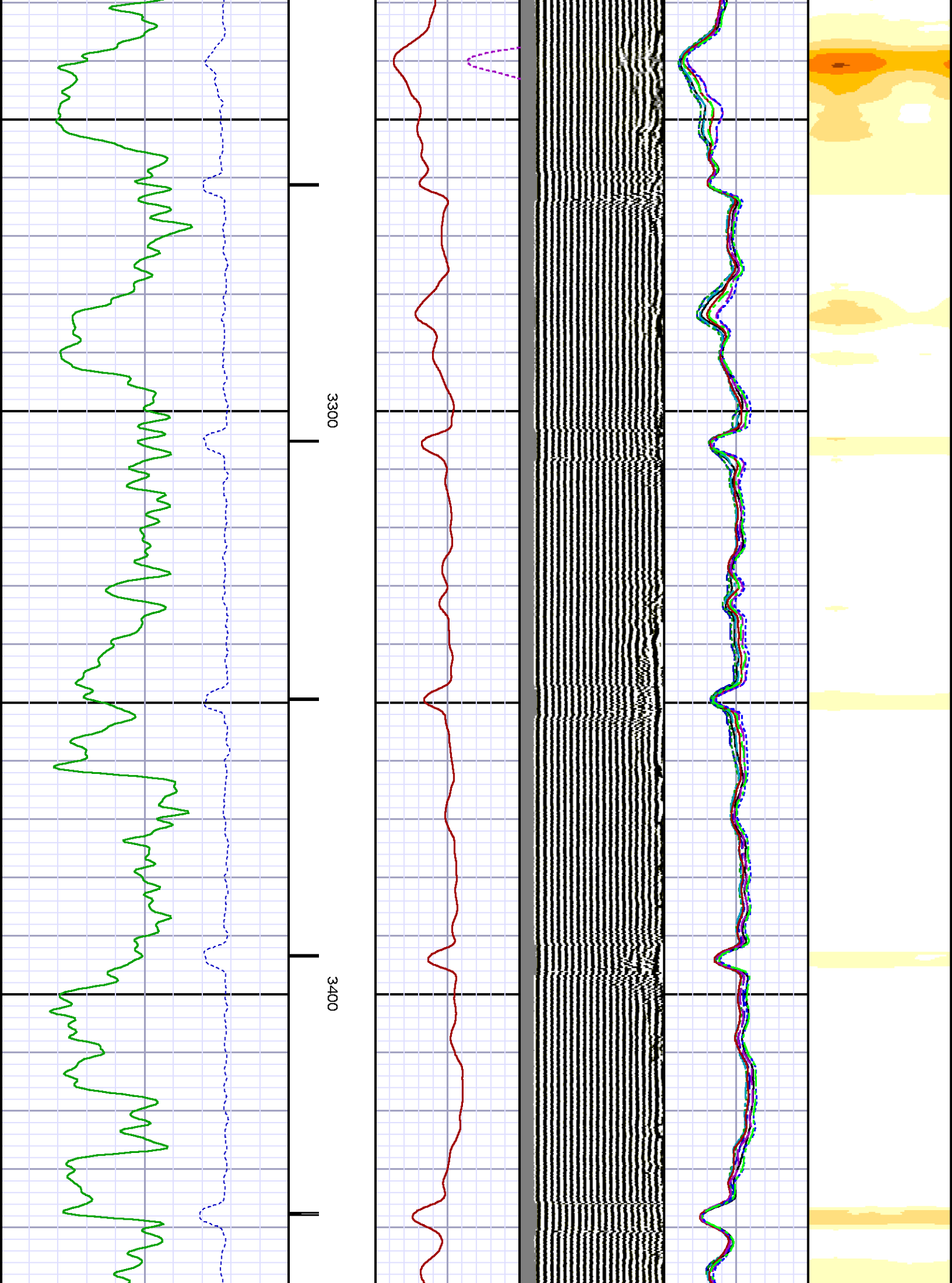


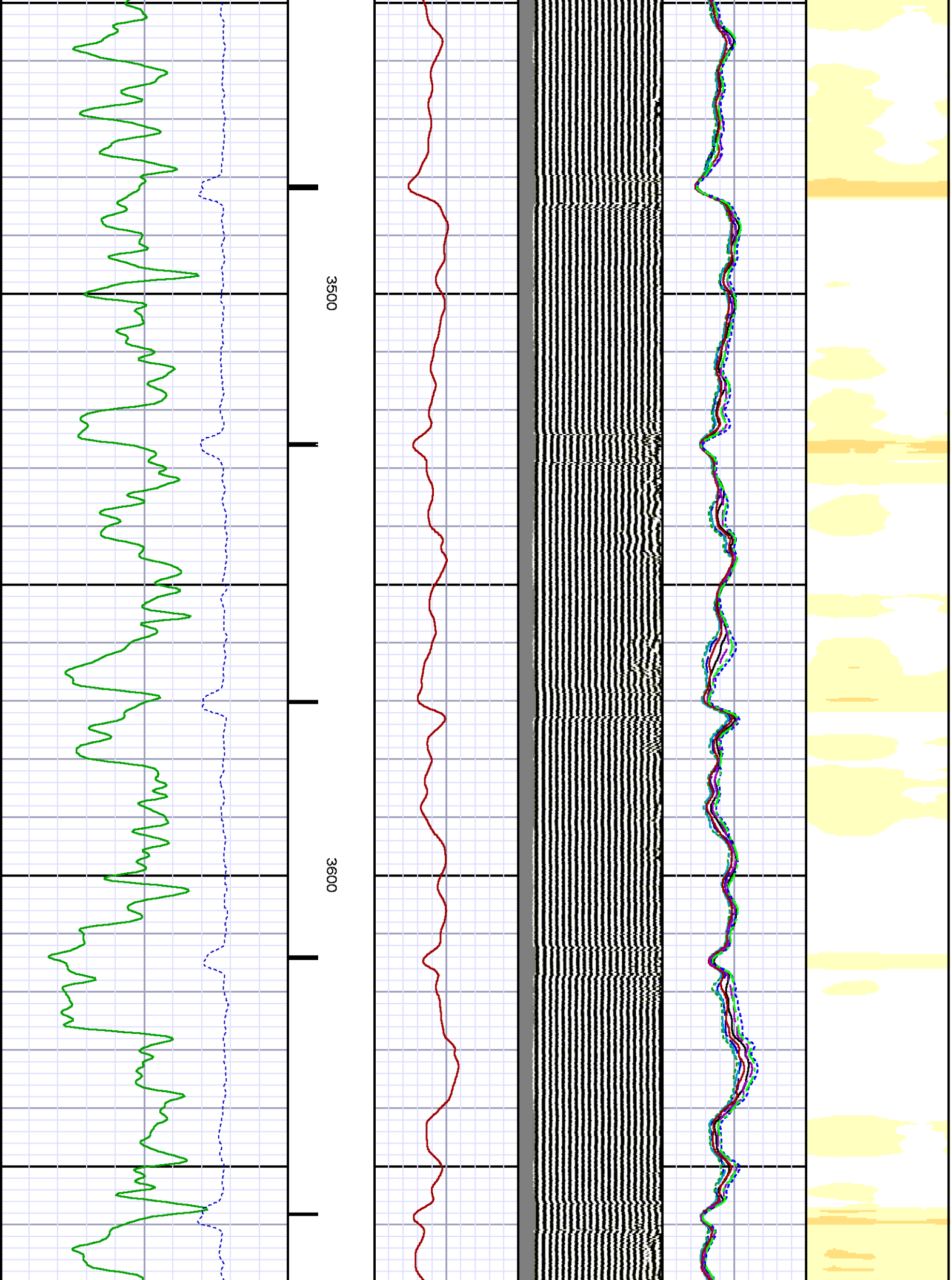


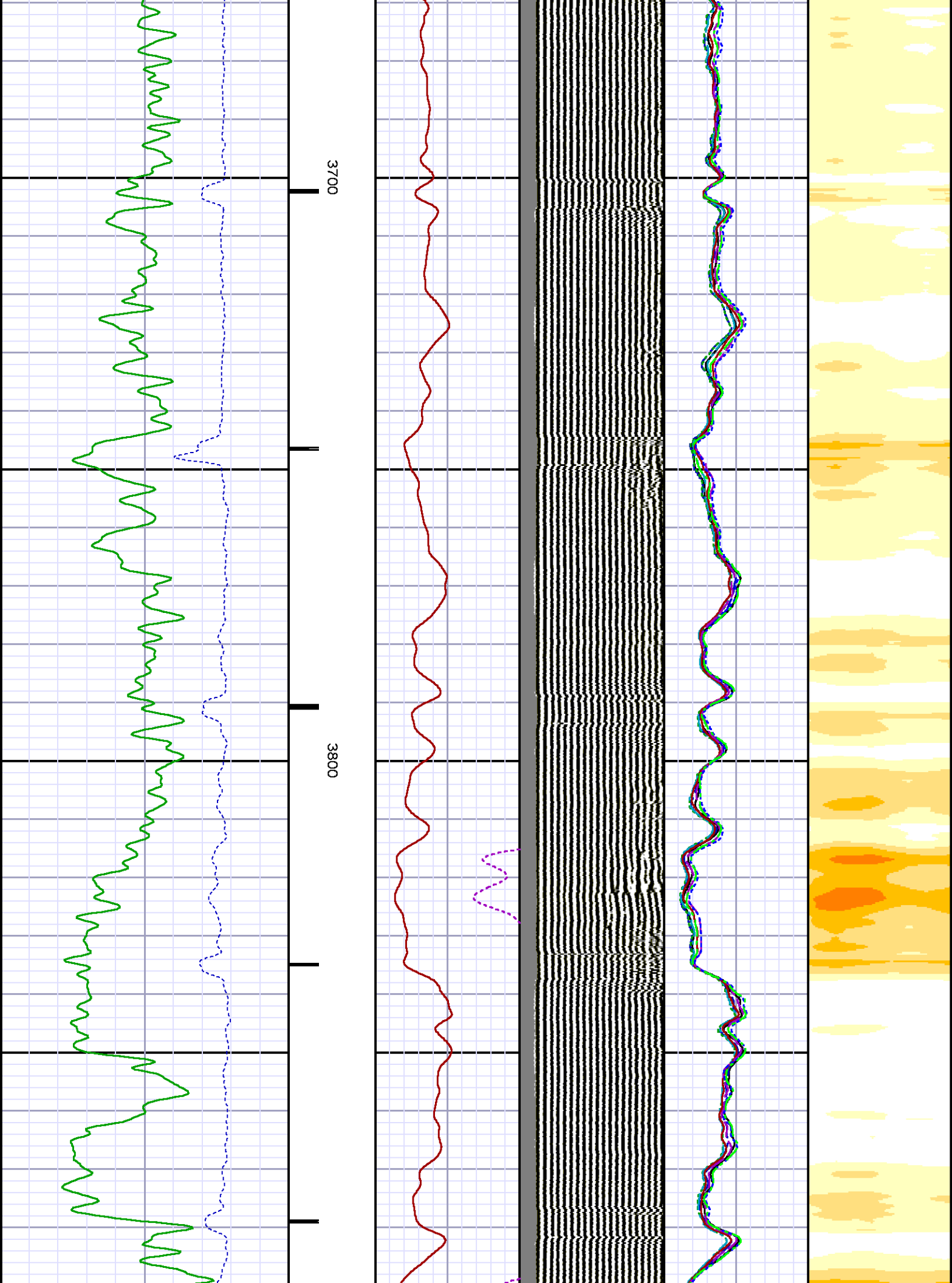


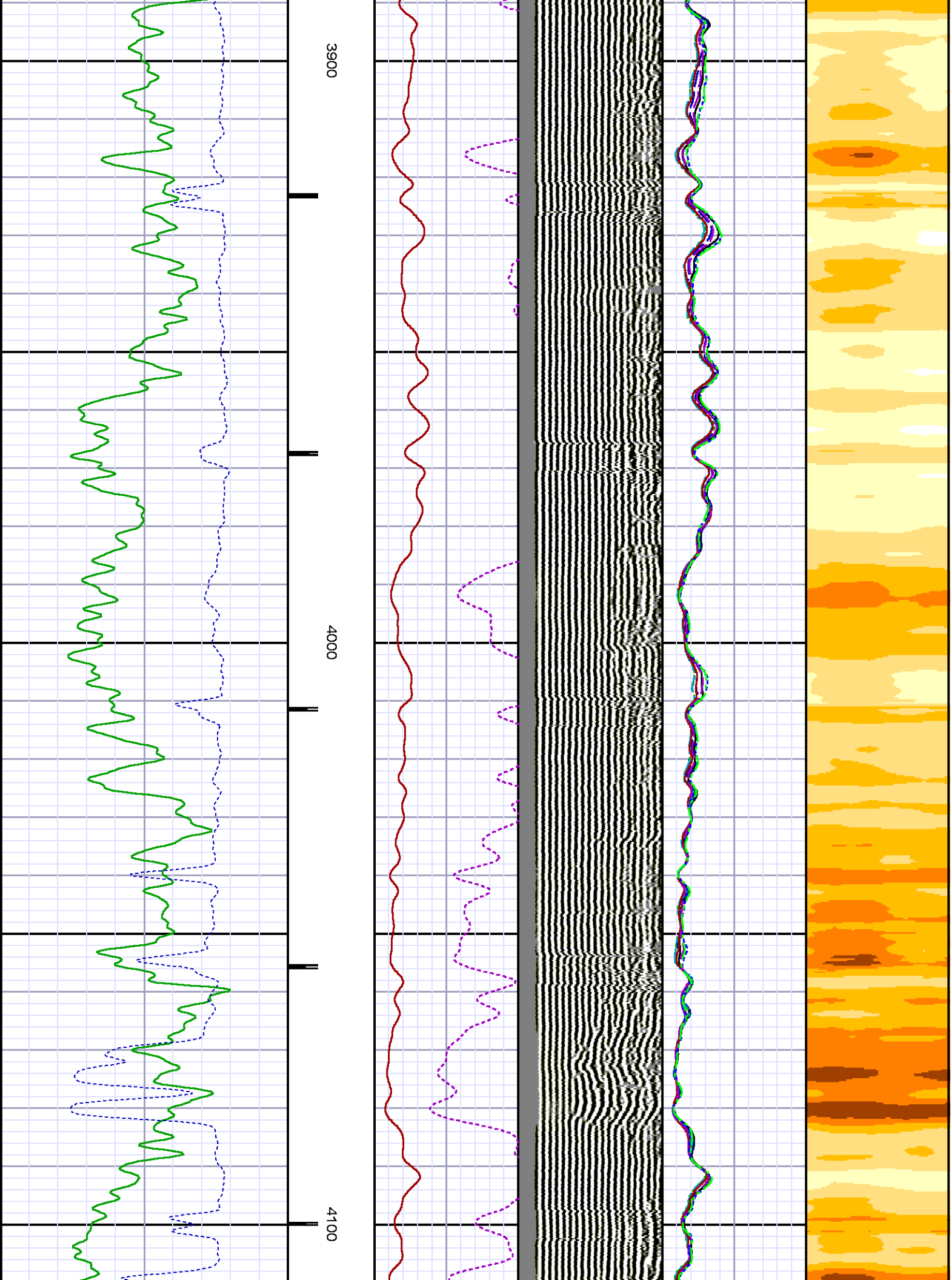


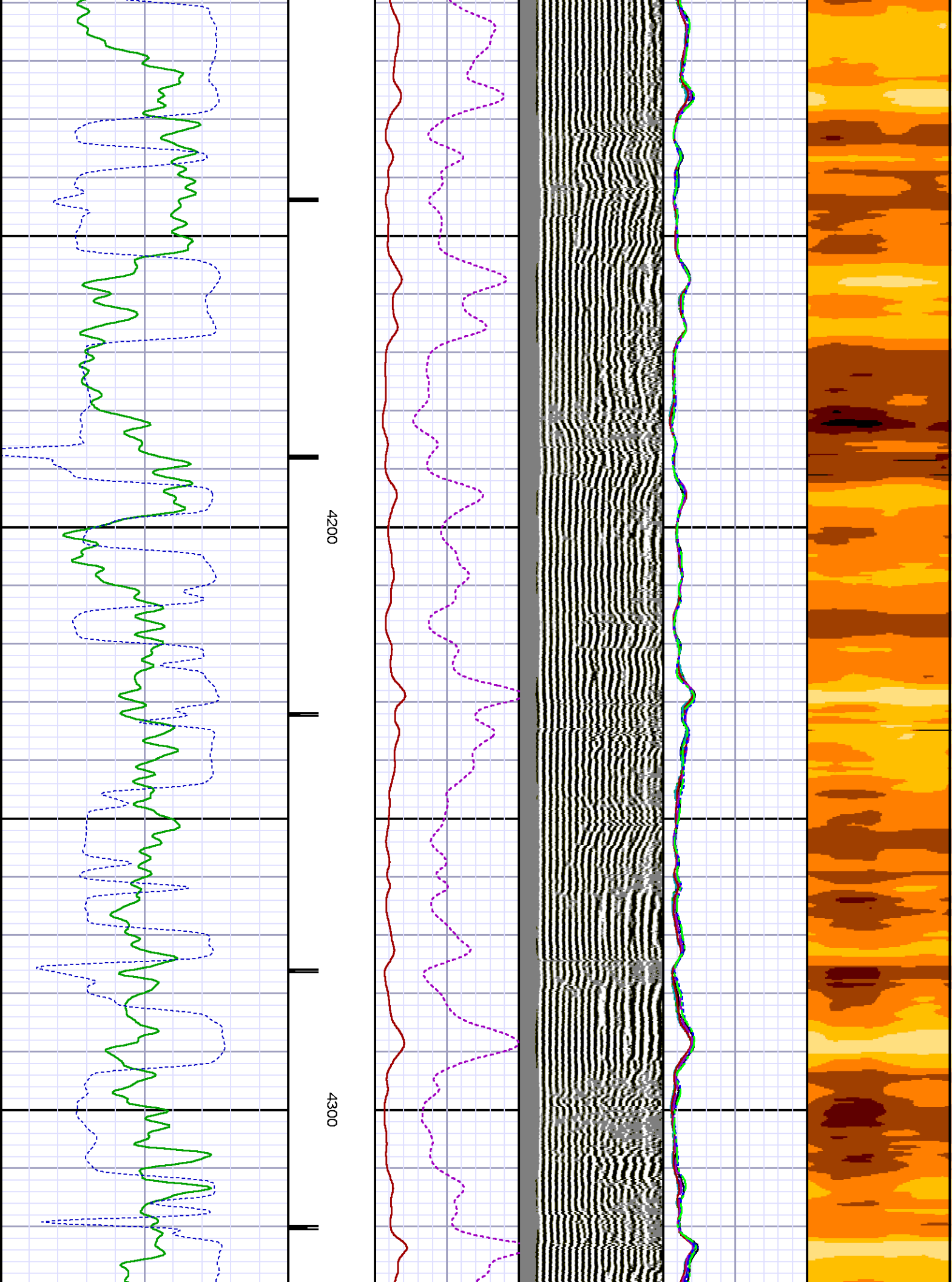


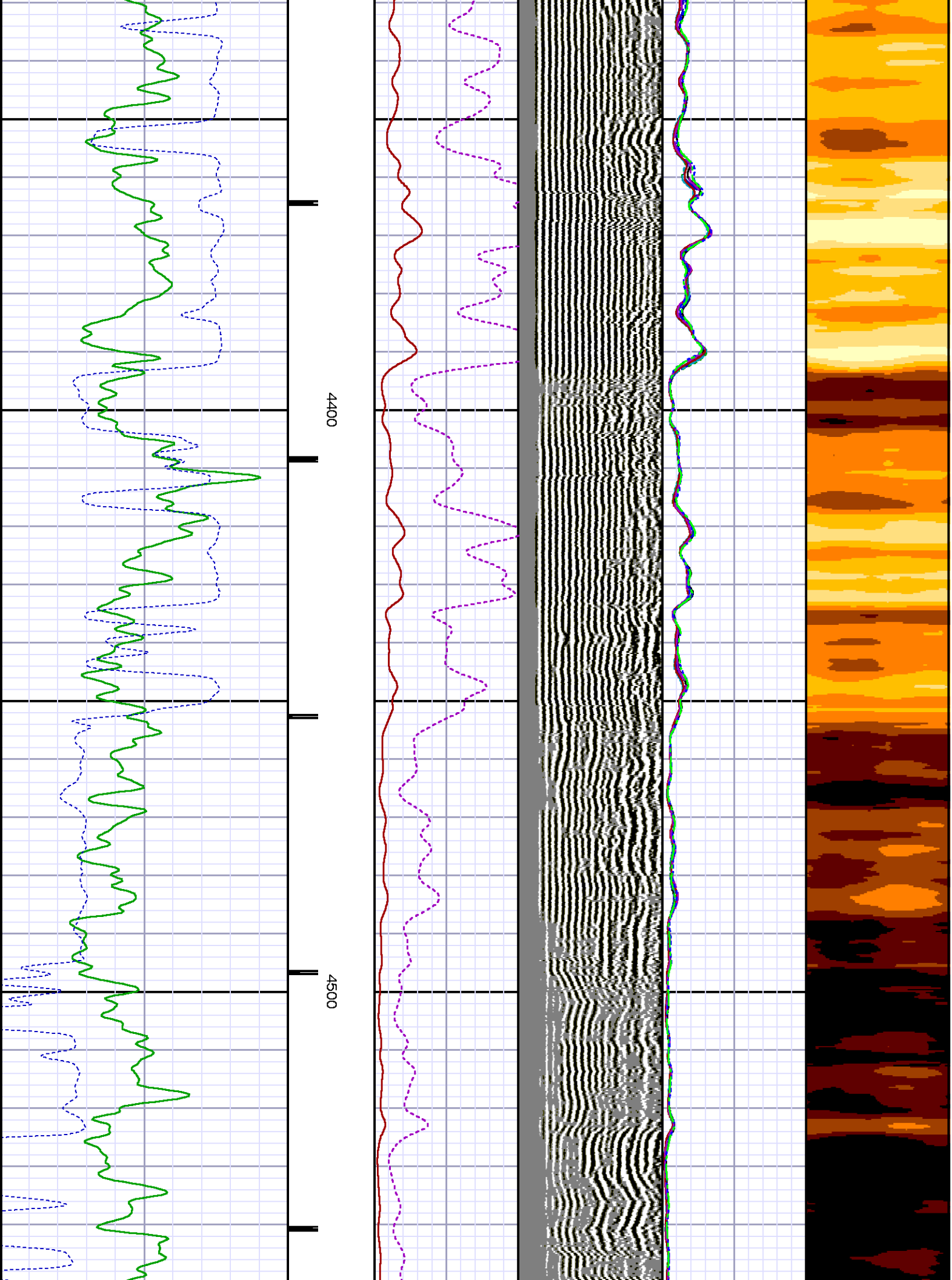


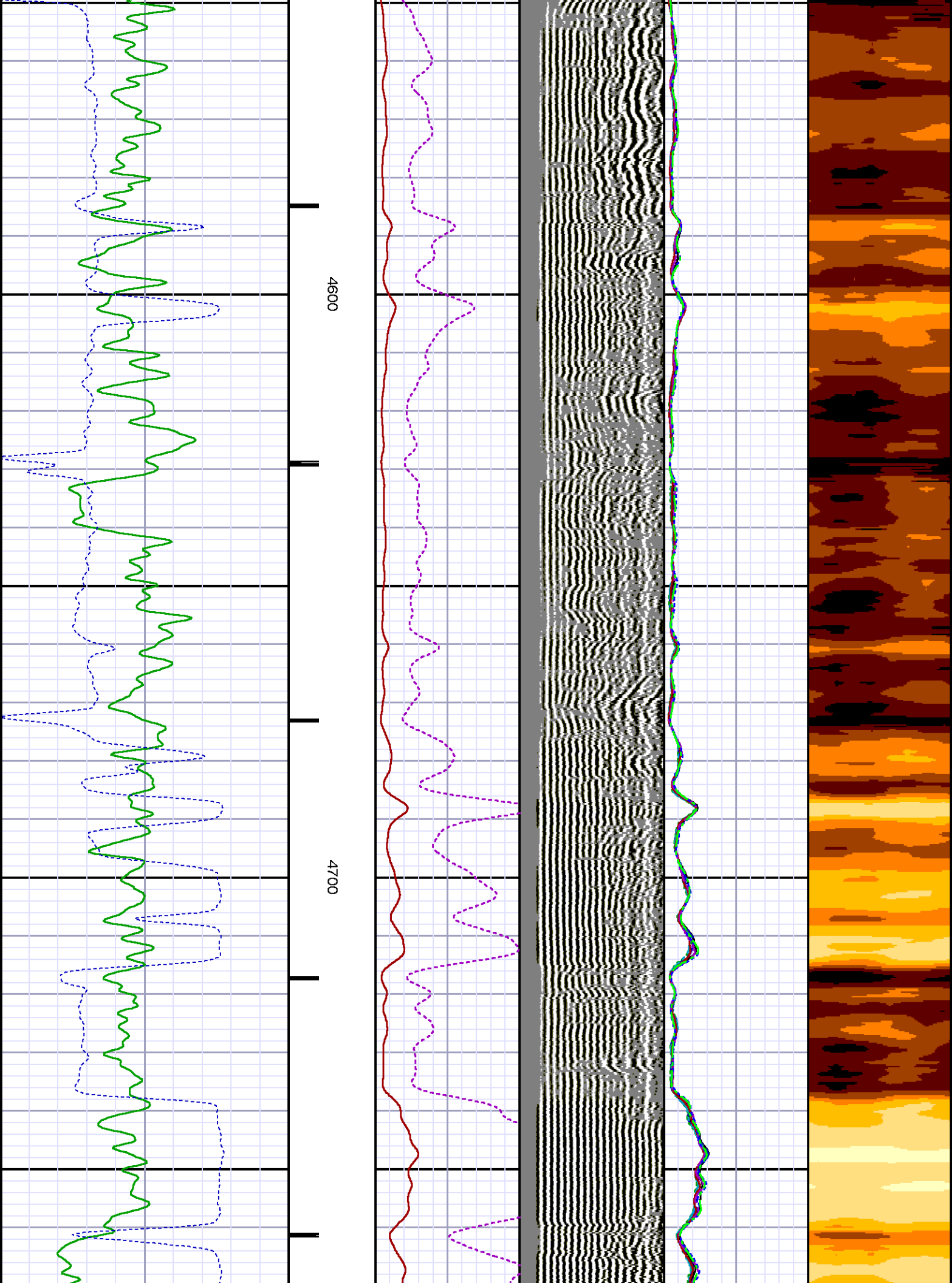


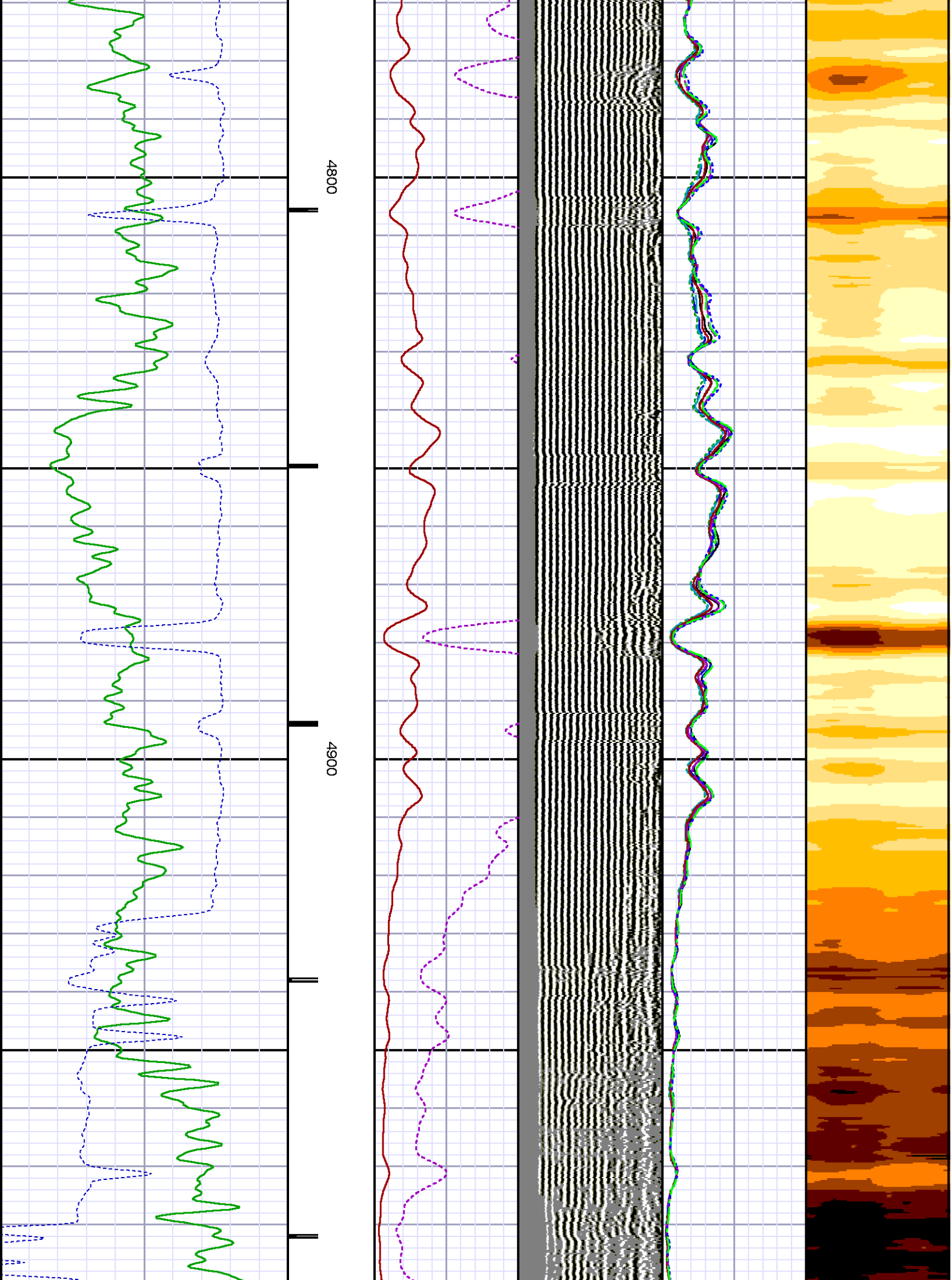


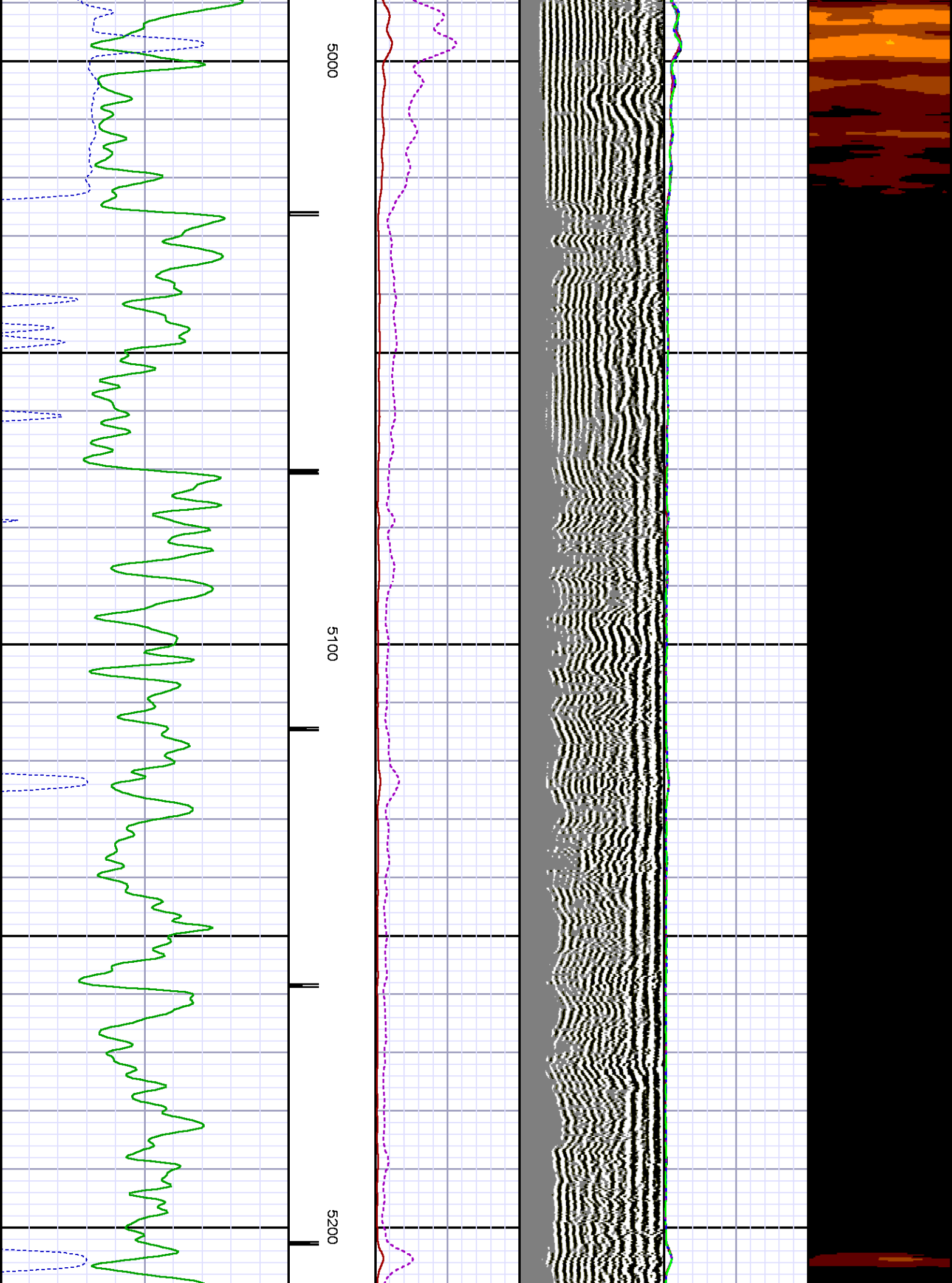


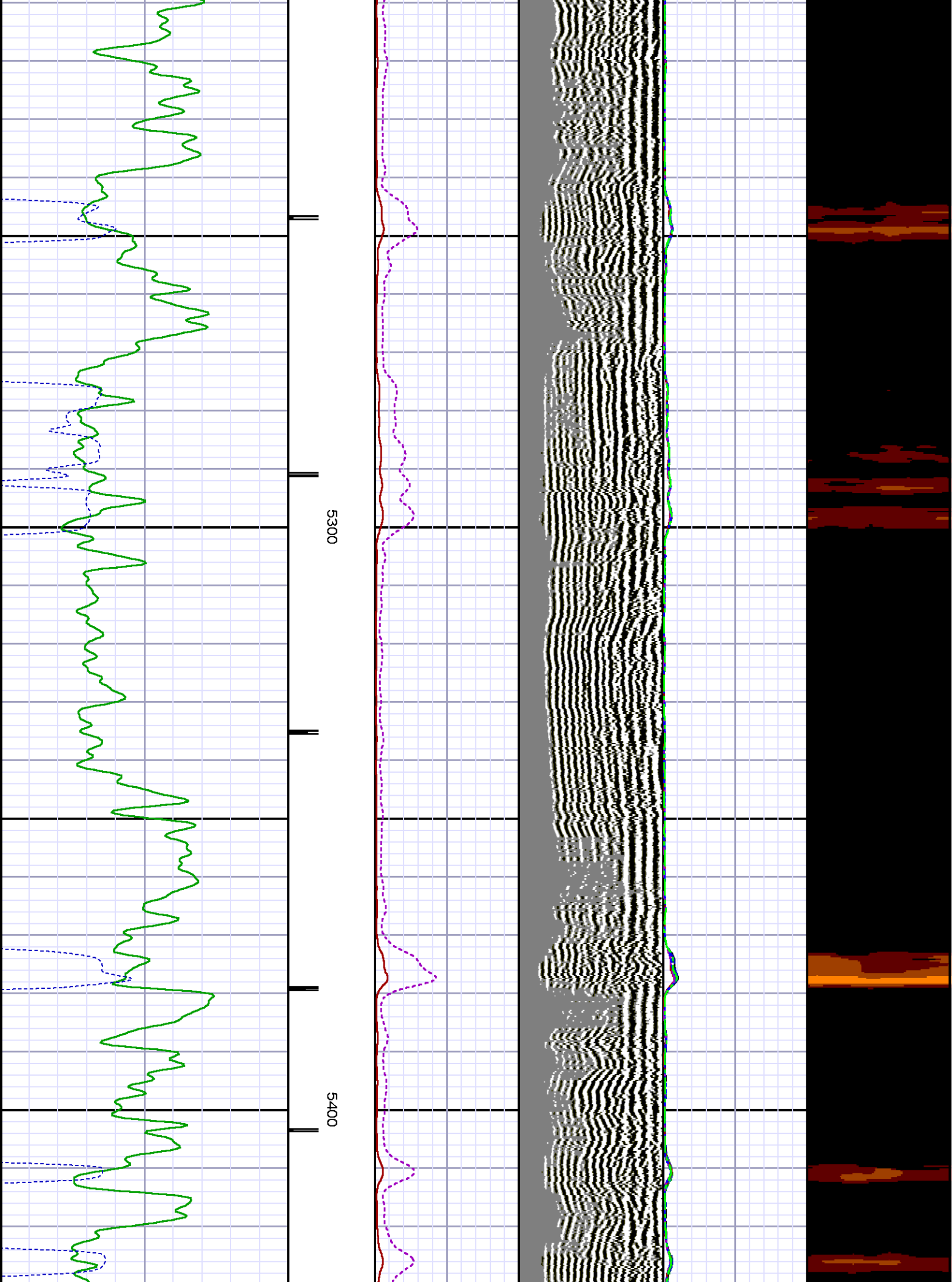


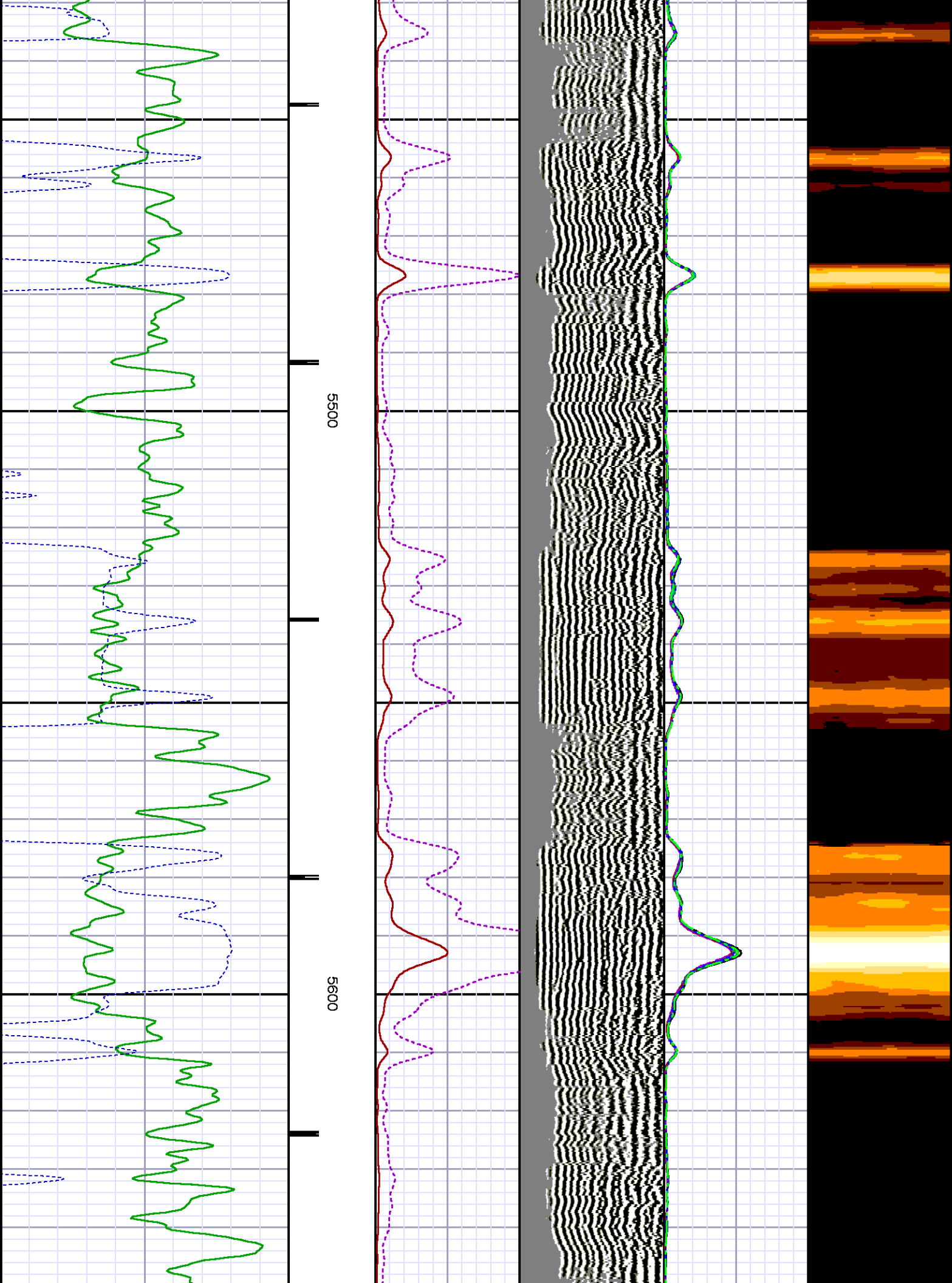


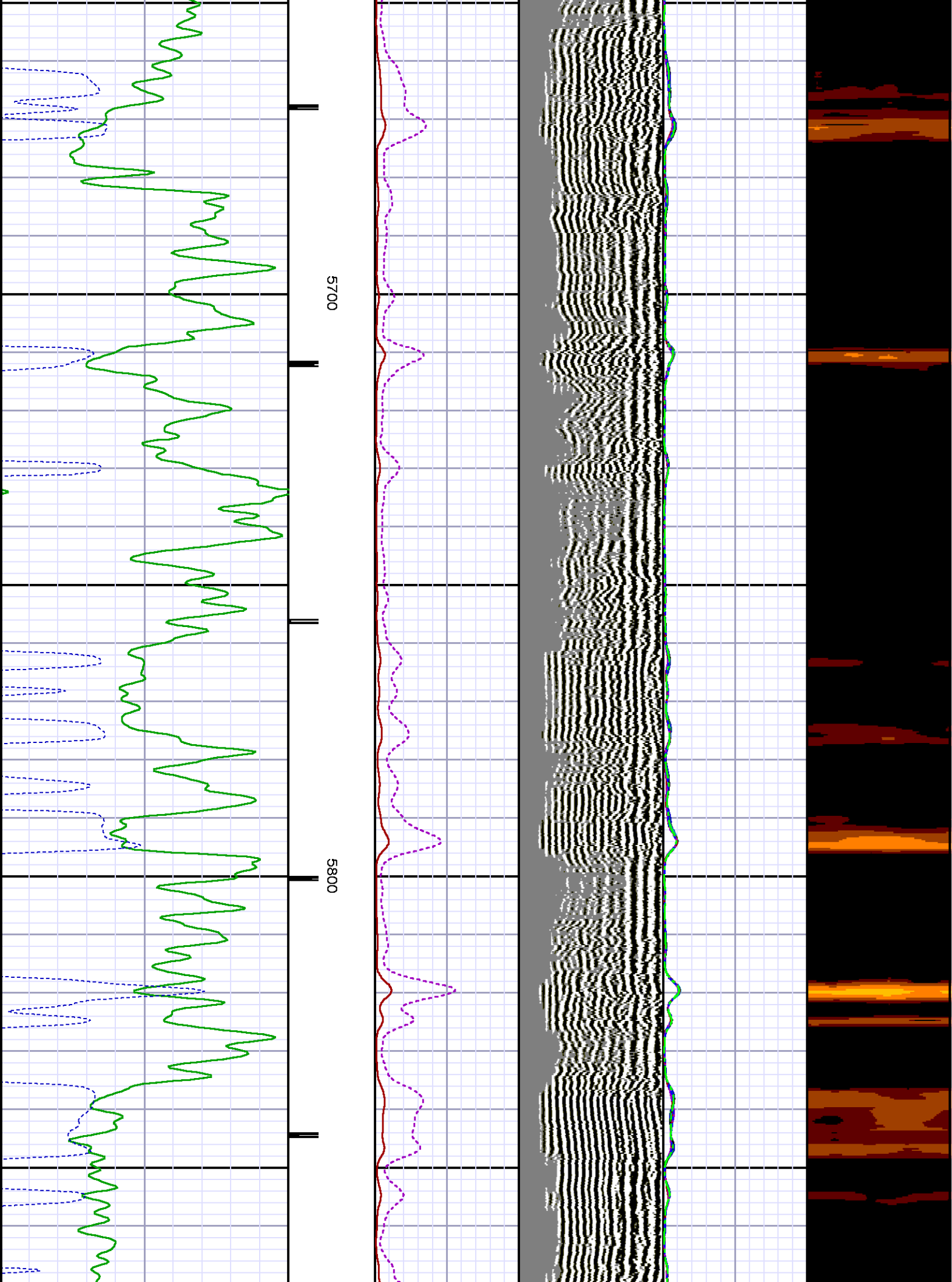


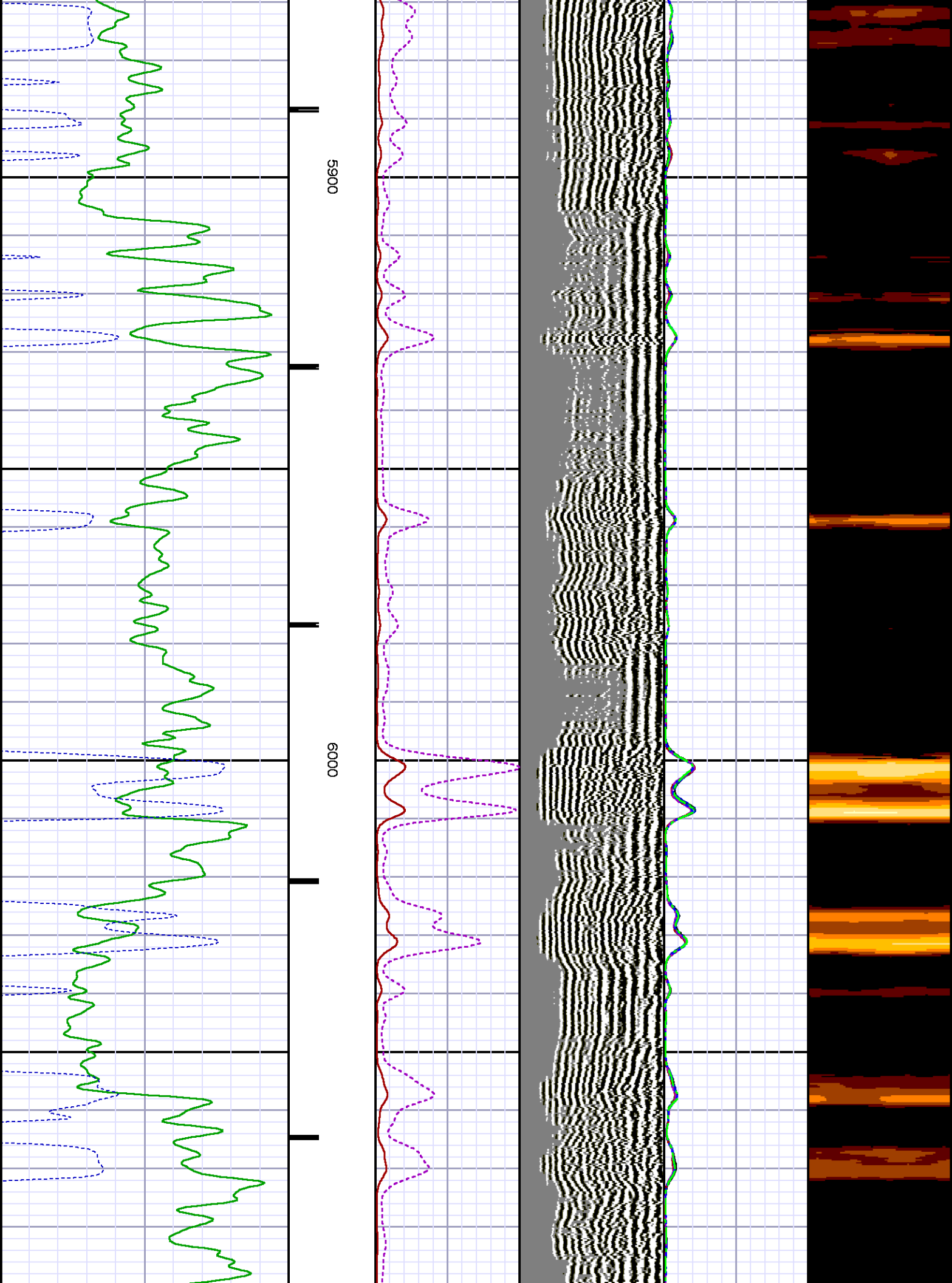


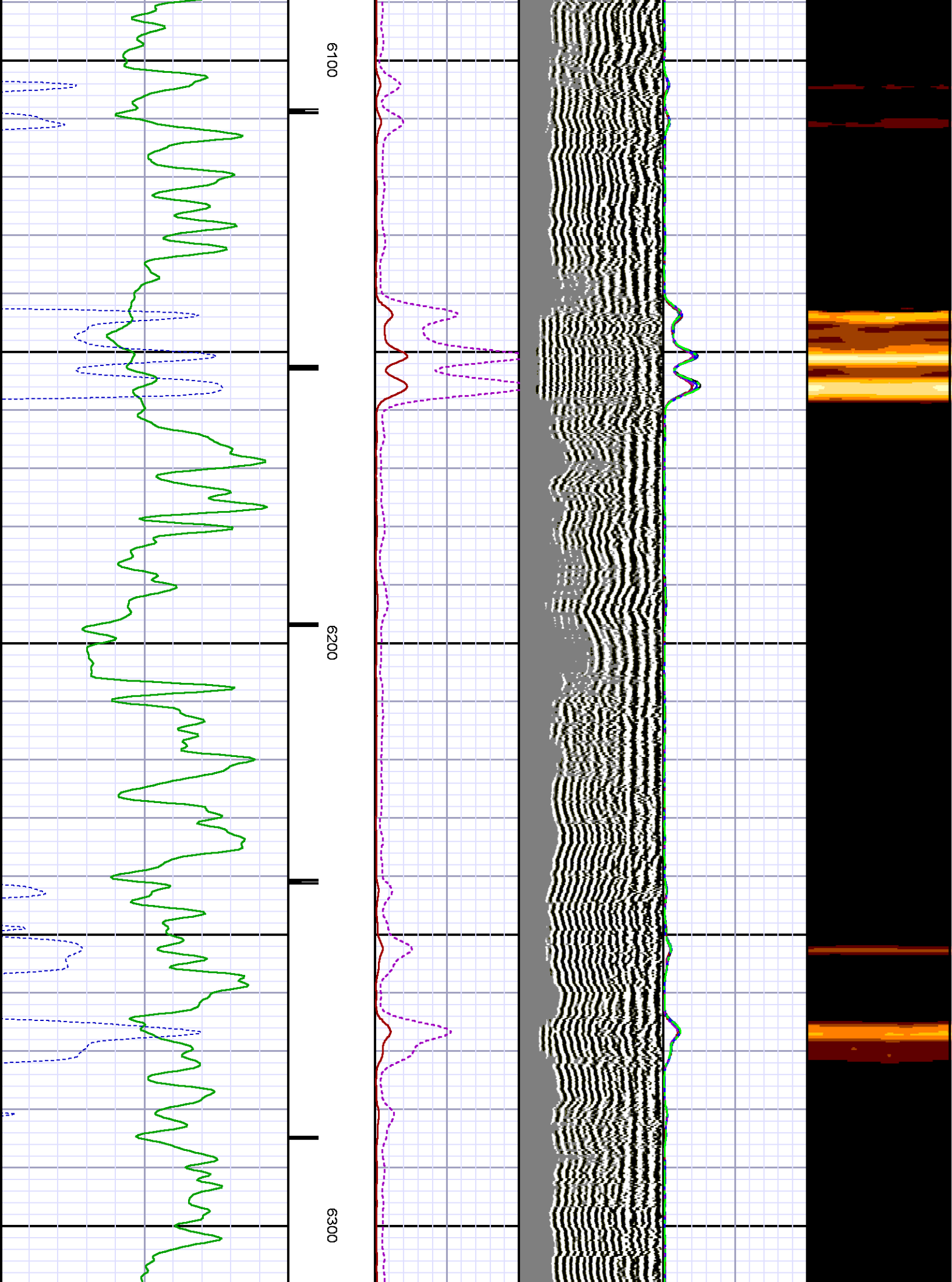


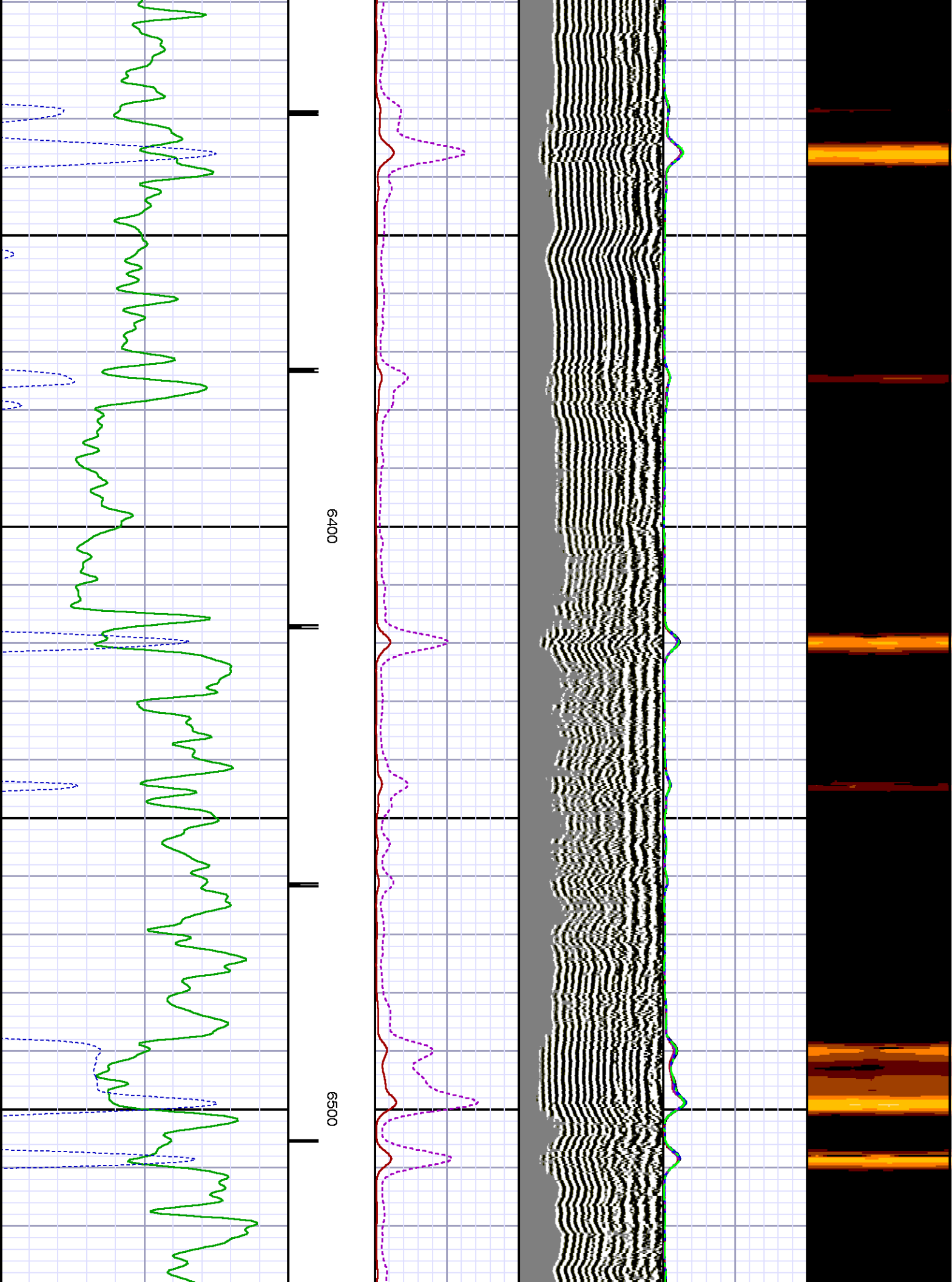


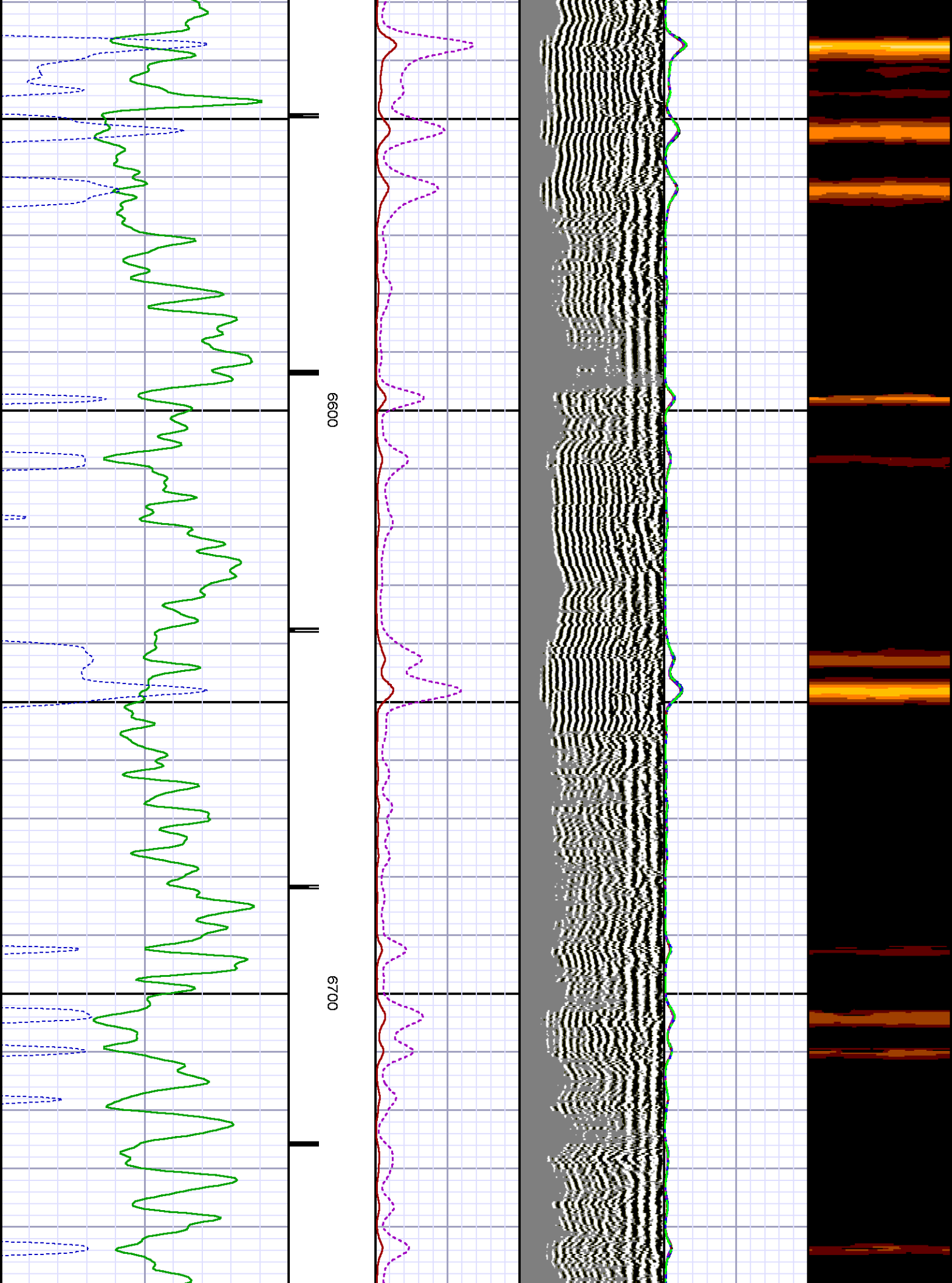


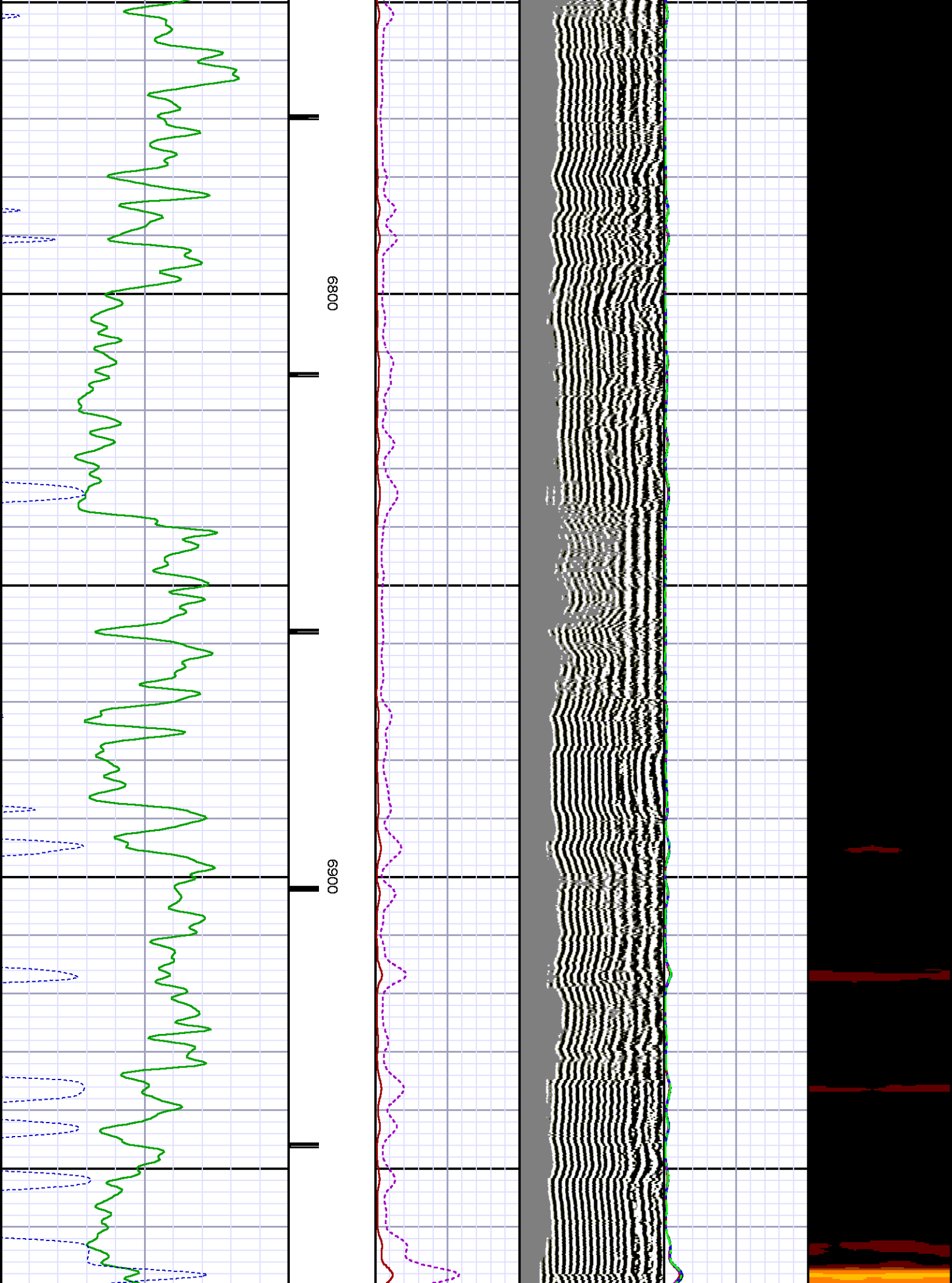


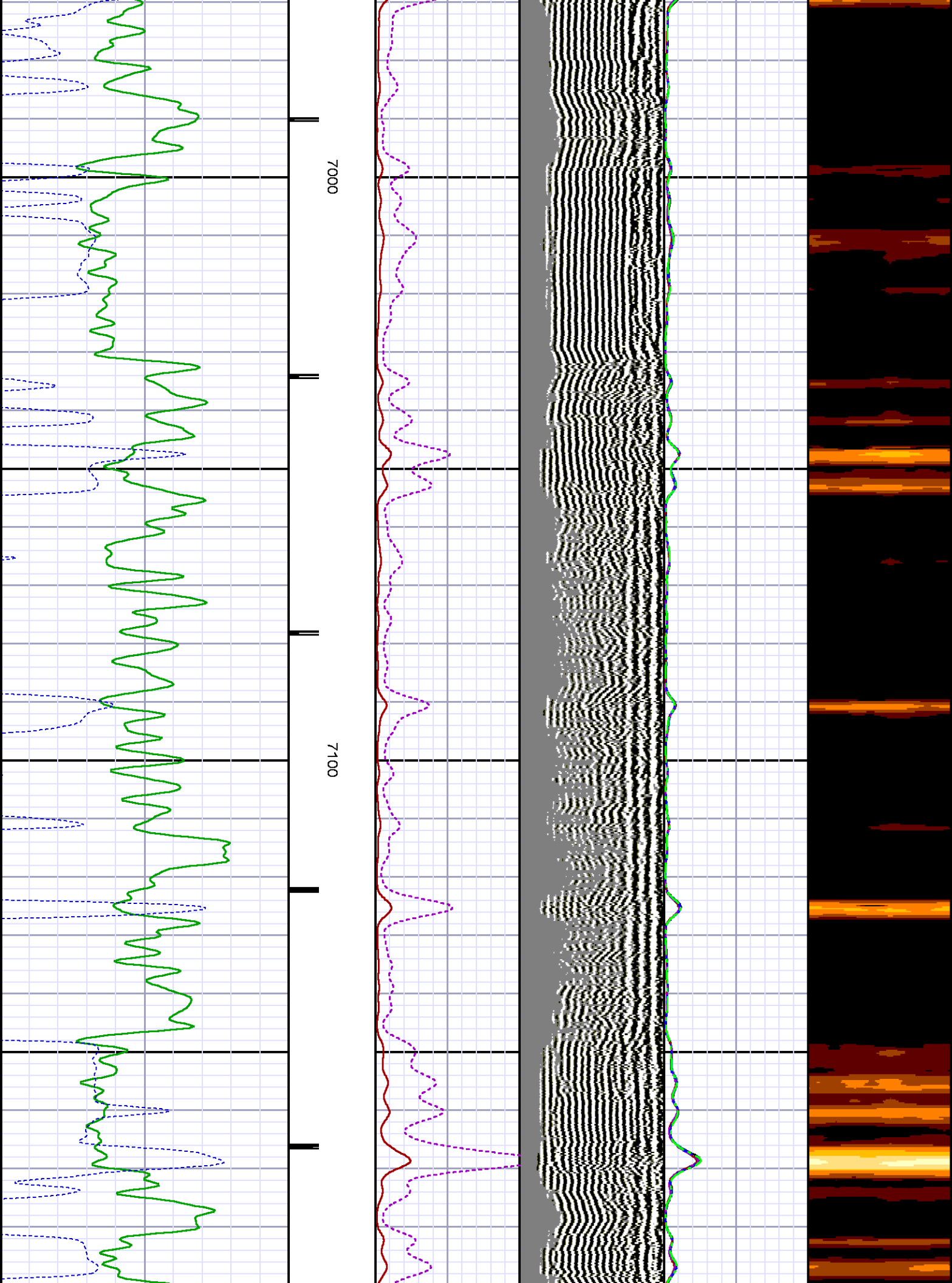


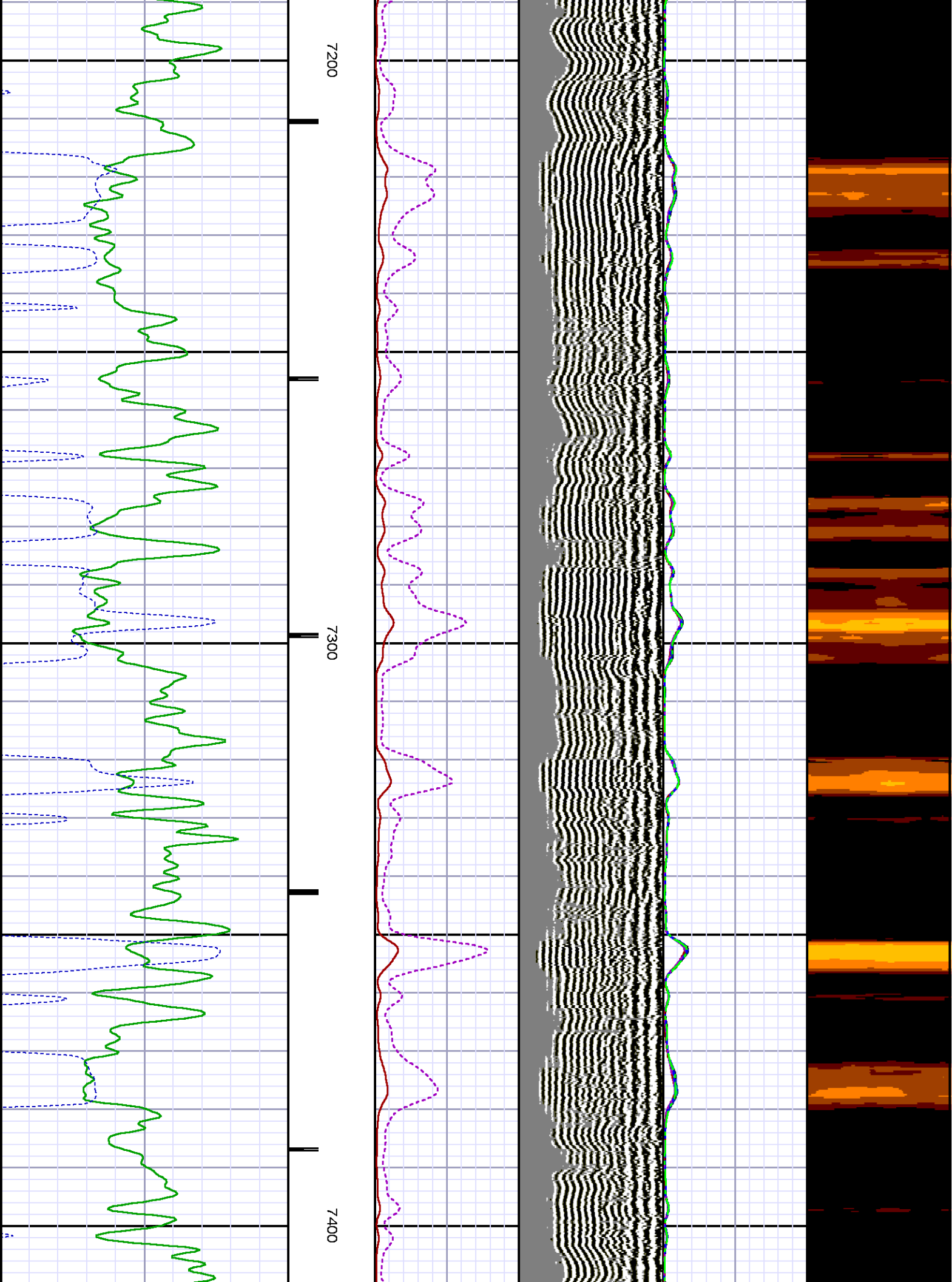


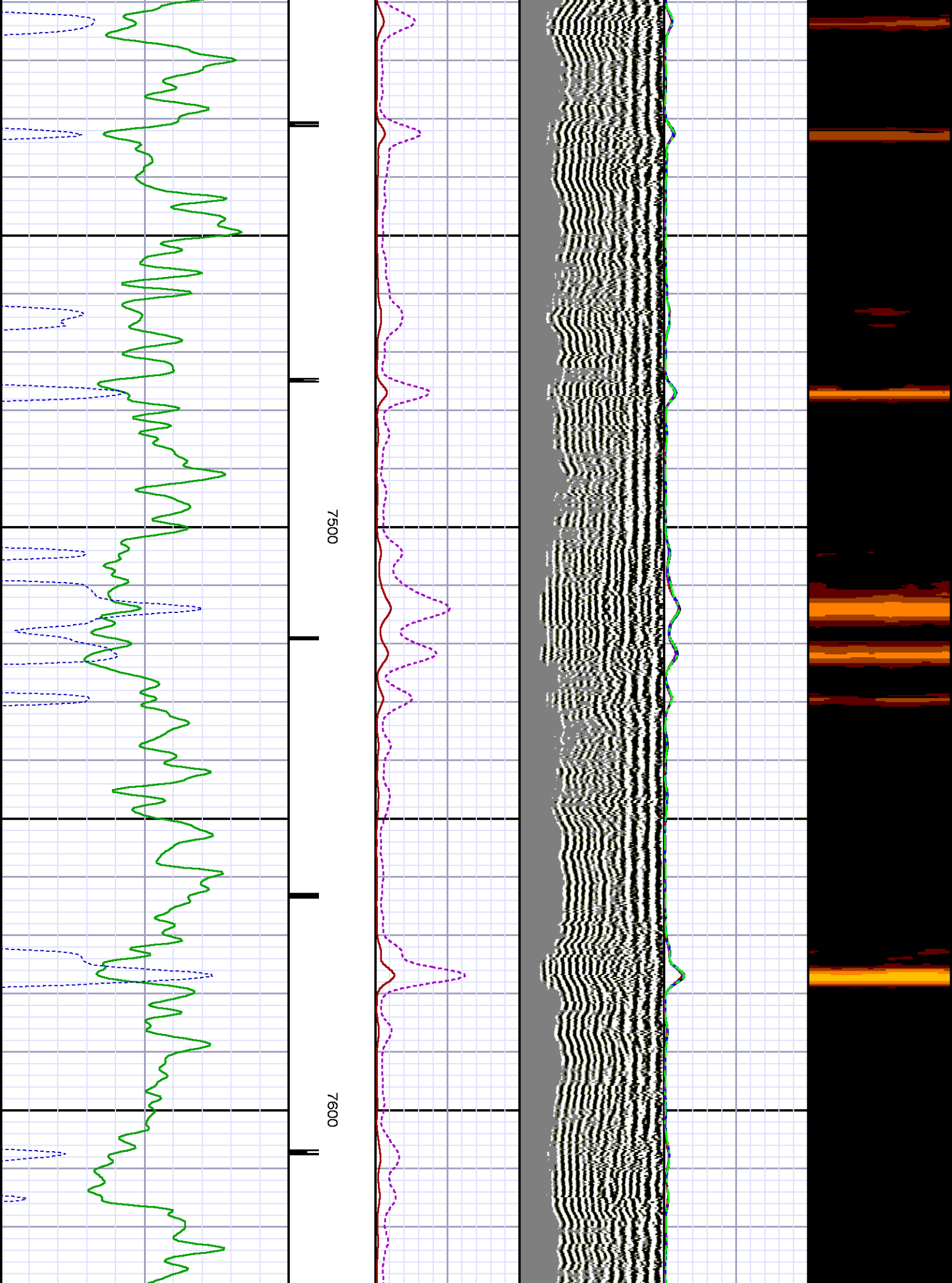


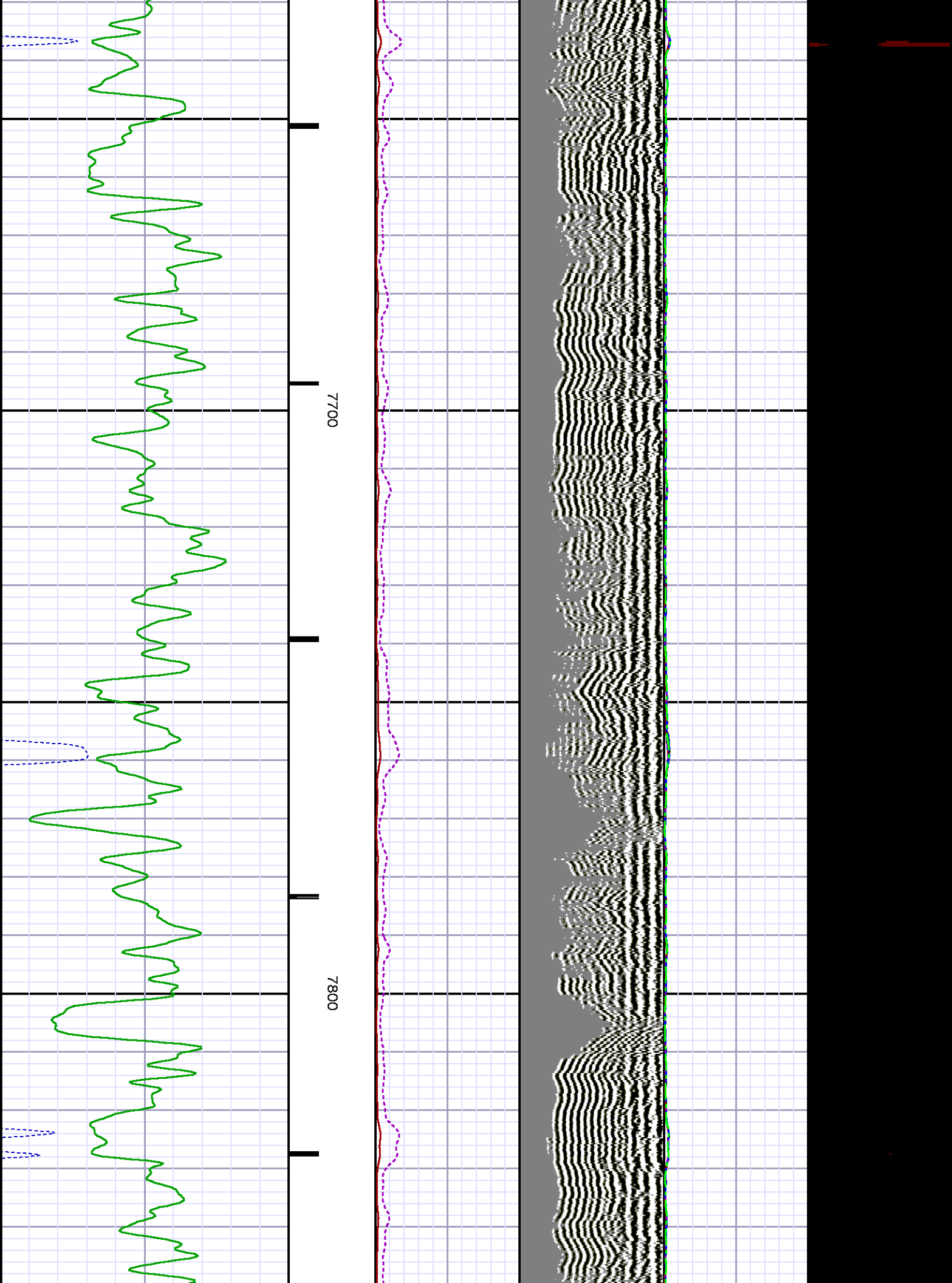


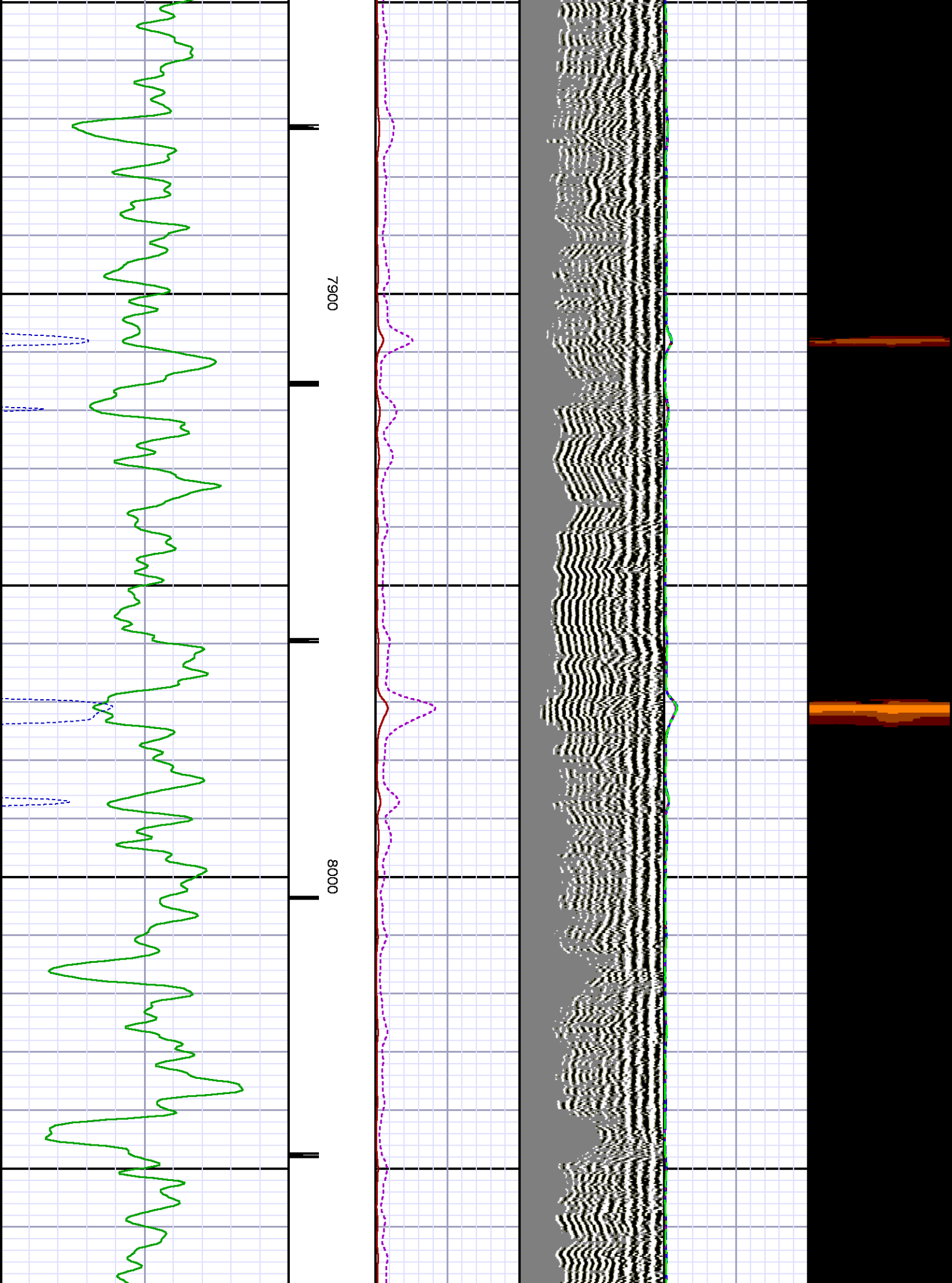


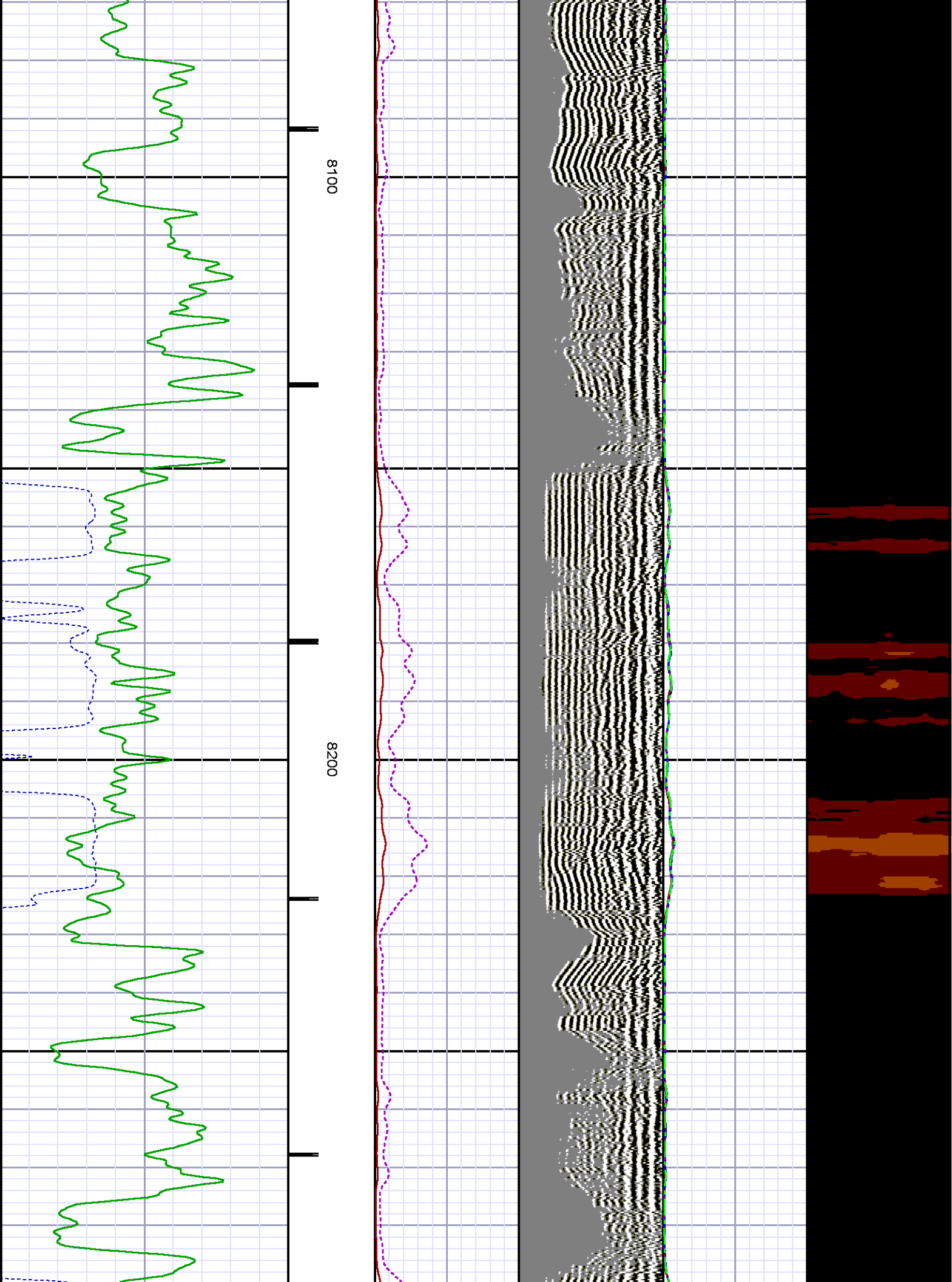


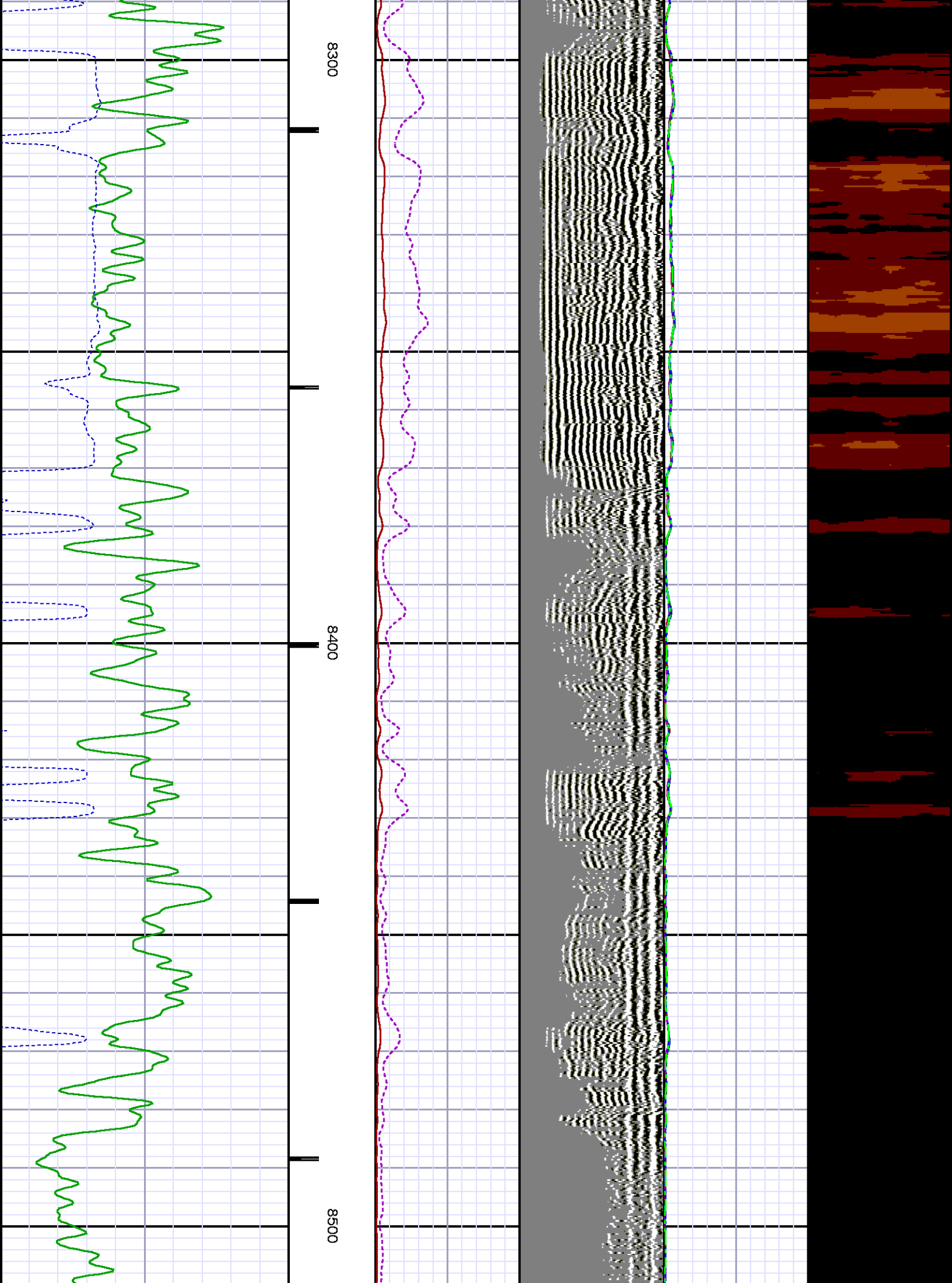


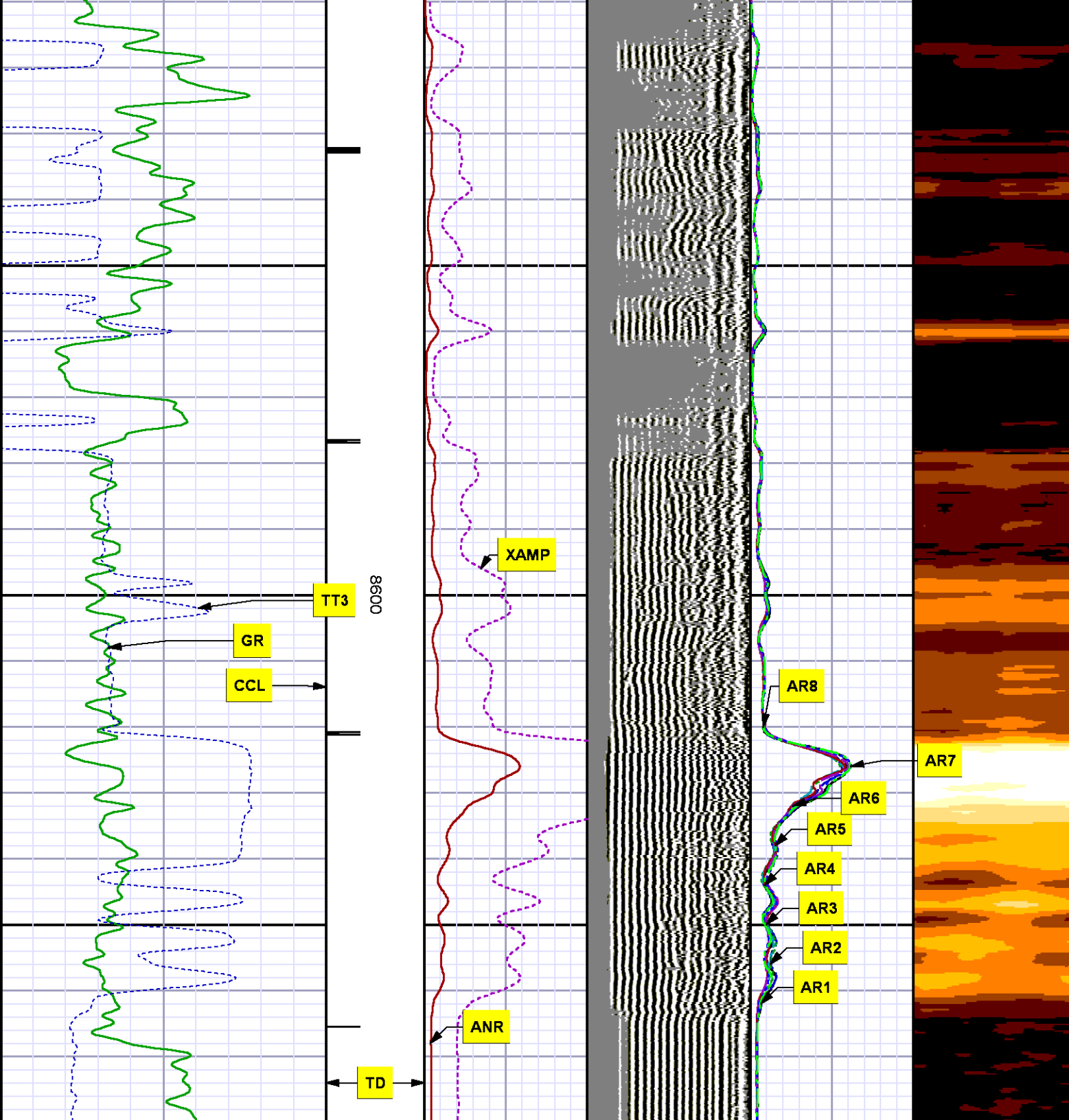












0	GR	150	CCL	MD feet 1:240	0	ANR	100	Variable Density	0	AR1	100	0	PBMAP	360
	gAPI		475			m v		200		AR2	100		80	
280	TT3	180	m v			XAMP	20	us		AR3	100		20	
	u sec					m v				AR4	100			
										AR5	100			
										AR6	100			
										AR7	100			
										AR8	100			

REPEAT SECTION
0 PSI

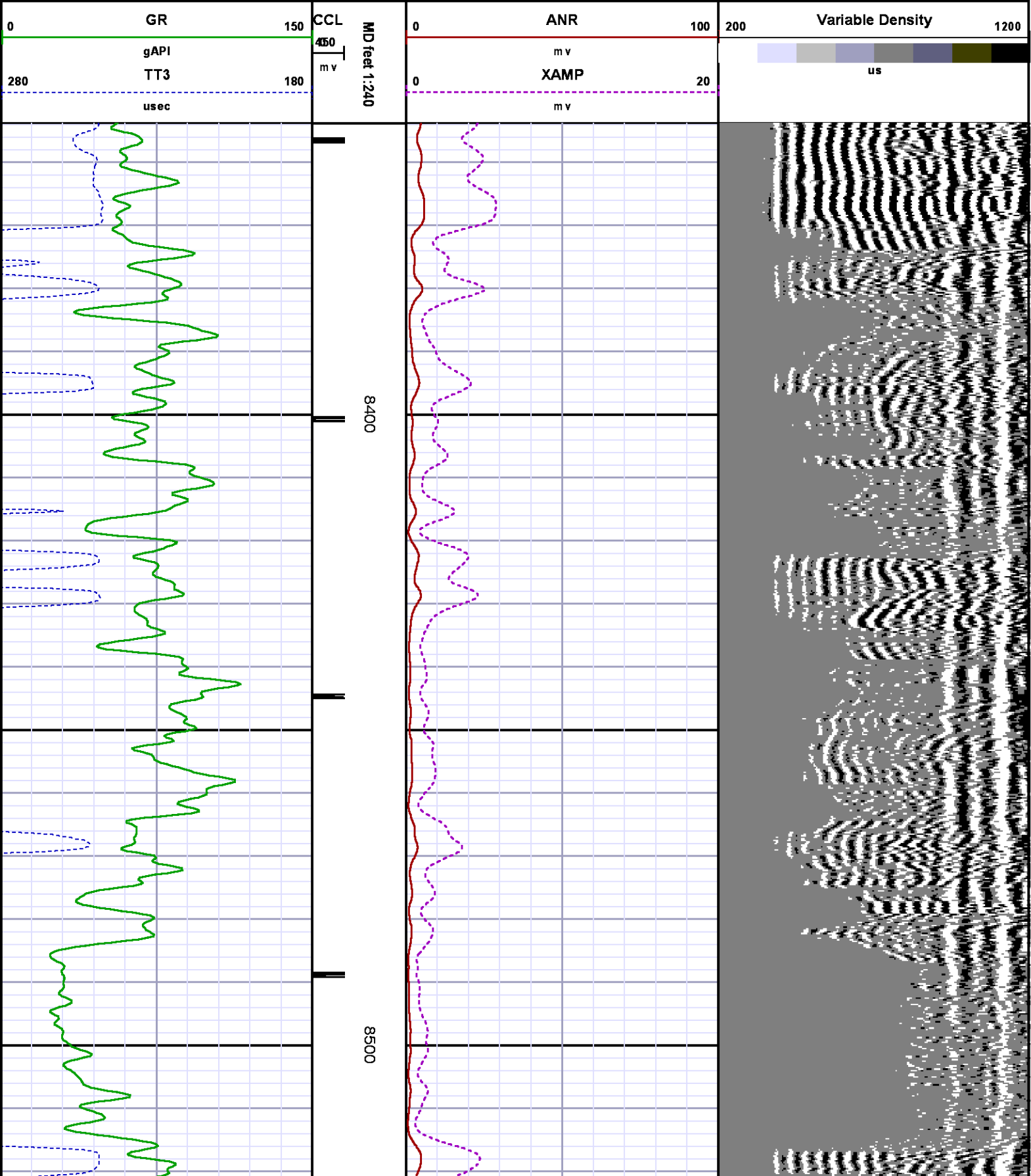
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	8353.970	8695.970
RAL	Amp Gate Start Near	195.000	usec	8353.970	8695.970
RAL	Amp Gate Start Radial	195.000	usec	8353.970	8695.970
RAL	Amp Gate Width Far	25.000	usec	8353.970	8695.970
RAL	Amp Gate Width Near	25.000	usec	8353.970	8695.970
RAL	Amp Gate Width Radial	25.000	usec	8353.970	8695.970
RAL	casing od	4.500	inches	8353.970	8695.970
RAL	casing wt	11.600	lbm/ft	8353.970	8695.970
RAL	FB Start Far	291.900	usec	8353.970	8695.970
RAL	FB Start Near	180.000	usec	8353.970	8695.970
RAL	FB Start Radial	180.000	usec	8353.970	8695.970
RAL	FB Thresh Far	15.000	mv	8353.970	8695.970
RAL	FB Thresh Near	10.000	mv	8353.970	8695.970
RAL	FB Thresh Radial	10.000	mv	8353.970	8695.970
RAL	Fluid Travel Time	200.000	usec/ft	8353.970	8695.970

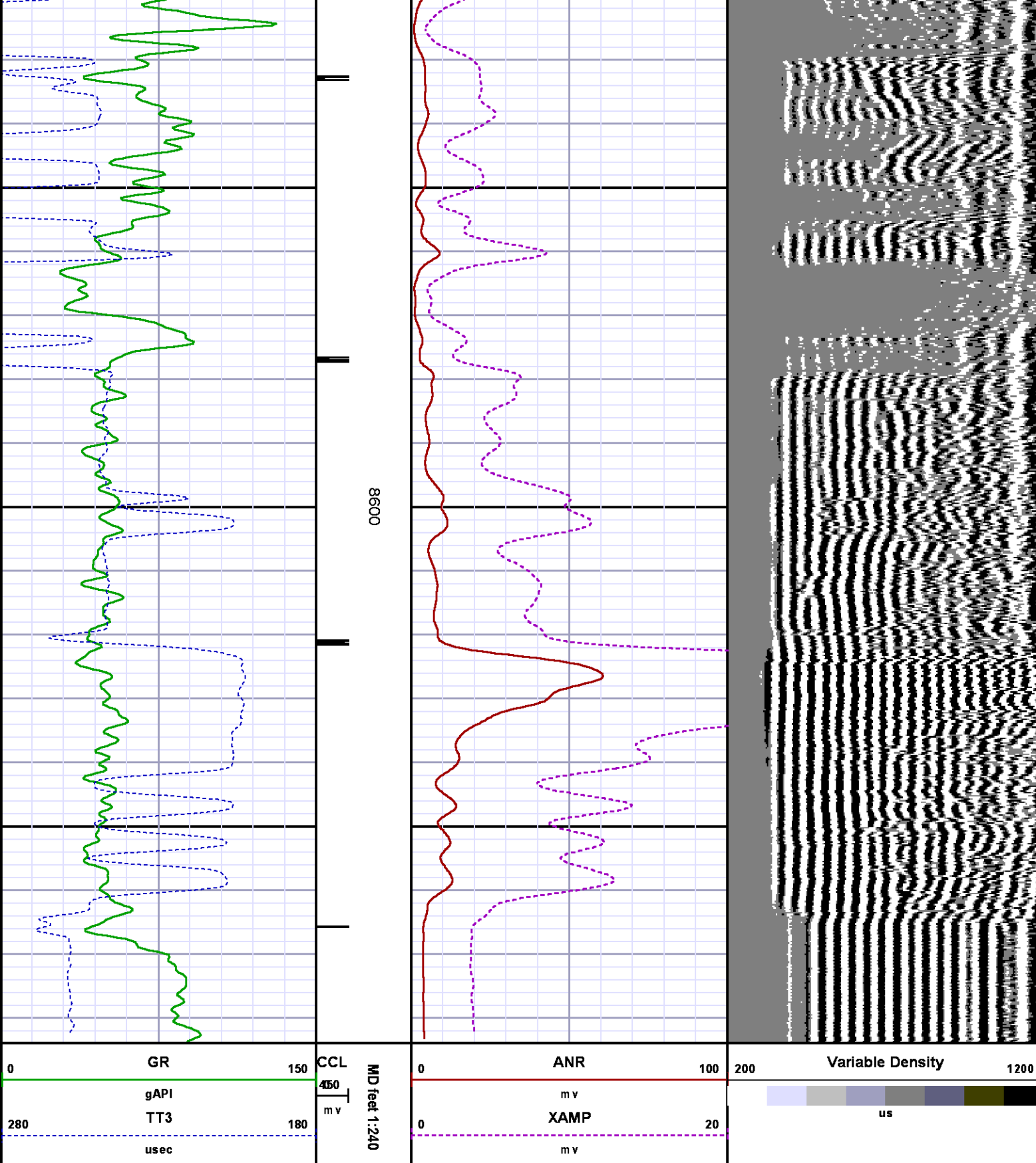
DEPTH OFFSETS
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	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	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					

Created by : RAL, v4.8.008
Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY
Well : SAVAGE RWF 312-25
File Name : d:\well\data\wpx energy\rwf 312-25\312cbl\repeat.xtf
Mode : PlotMgr 5.4.504
Interval : 8353.72 - 8683.97 feet UP
Created : 1/16/2014 12:31:11 PM





CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\496J16_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Jan 16 11:32:28 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: J16

Tool Delay [usec] -55.00 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	219	216	30	166	25	0.117	100.00	0.16
3 Ft. Receiver	218	216	30	152	25	0.142	100.00	0.16
5 Ft. Receiver	327	324	30	219	25	0.249	150.00	0.18
Radial #1	218	216	30	149	25	0.165	100.00	0.16
Radial #2	218	216	30	149	25	-0.167	100.00	0.16
Radial #3	218	216	30	149	25	-0.543	100.00	0.16
Radial #4	218	216	30	149	25	-0.426	100.00	0.16
Radial #5	218	216	30	149	25	0.046	100.00	0.16
Radial #6	217	216	30	149	25	-0.151	100.00	0.16
Radial #7	217	216	30	149	25	-0.374	100.00	0.16
Radial #8	218	216	30	149	25	-0.164	100.00	0.16

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496J16 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Jan 16 11:44:27 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: J16

Tool Delay [usec] -55.00 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	-0.008	0.000	1.00	100.000
3 Ft. Receiver	200	25	1.662			
5 Ft. Receiver	309	25	1.967			
Radial #1	200	25	1.144			
Radial #2	200	25	1.202			
Radial #3	200	25	1.435			
Radial #4	200	25	1.441			
Radial #5	200	25	1.573			
Radial #6	200	25	1.642			
Radial #7	200	25	1.357			
Radial #8	200	25	1.351			

GAMMA RAY

Calibration File: C:\case\calver\GR\121D7.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED:		Thu Dec 19 13:07:05 2013		TOOL SERIES:	2459XA	ASSET:	121	SEQ:	D7
Calibrator #	Background	Calibrator On		Multiplicative	Background	Calibrator On	Differential		
	[cps]	[cps]			[api]	[api]	[api]		
S2K WA612	72.18	324.27		0.734	52.97	237.97	185.00		

Verification File: C:\case\calver\GR\121D7.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED:		Thu Dec 19 13:08:40 2013		TOOL SERIES:	2459XA	ASSET:	121	SEQ:	D7
Calibrator #	Background	Calibrator On		Multiplicative	Background	Calibrator On	Differential		
	[cps]	[cps]			[api]	[api]	[api]		
S2K WA612	78.40	322.22		0.734	57.54	236.47	178.93		

TOOL DIAGRAM

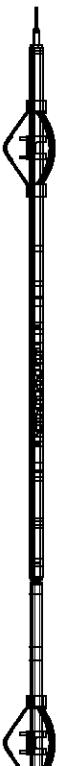
OTA SHORT CABLE HEAD

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

Probe GR/CCL/NEU

Series	2459XA
Mnemonic	PROB



	24.23'
XMIT	18.05'
NEAR RCVR	14.97'
FAR RCVR	13.05'
CCL	11.34'
GR	9.49'

Diameter	2.75"
Length	9.42'
Measure Point	1.21' NEU
Measure Point	6.60' GR
Measure Point	8.46' CCL



CENTRALIZER	
Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb



NEU 4.09'

0.00'

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

<div> BAKER HUGHES</div> <div>Baker Atlas</div> <div></div>	Company		WPX ENERGY		File No:		CH081916				
	Well		SAVAGE RWF 312-25				API No:		05045219750000		
	Field		RULISON								
	County		GARFIELD		State		COLORADO				
		Location				Elevations					
		SHL: 2482' FNL & 1397' FWL				KB 6058 ft				25 6S 94W	
		BHL: 1439' FNL & 762' FWL (SWNW)				DF				RWF 22-25 PAD	
						GL 6037 ft				CYCLONE 17	
		SEC 25		TWP 6S		RGE 94W					