



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: GH076926	Company Well Field County	WPX ENERGY FEDERAL PA 321-27 PARACHUTE GARFIELD	State COLORADO
API No: 06046218610000	Location 27 6S 95W DOE 1 4N-27 PAD NABORS 674		Other Services NONE
Permanent Datum Log Measured From Drill Measured From	OL KB KELLY BUSHING		Elevations KB 5866 ft DF GL 5840 ft
SEC 27 TWP 6S RGE 95W			

Date	06/SEP/13	
Run	ONE	
Service Order	US624412	
Depth Driller	8676 ft	
Depth Logger	8656 ft	
Bottom Logged Interval	8650 ft	
Top Logged Interval	26 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	72 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	65 fpm	
Maximum Recorded Temperature	262 degF	
Reference Log	BAKER HUGHES HDIL	
Reference Log Date	12/AUG/13	
Equipment No.	4271	GRAND JCT
Recorded By	FLOYD RENEAU	
Witnessed By	ORAN JACOBS	

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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	2830 ft
8.75 in	2830 ft	8676 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			0 ft	2830 ft
4.5 in	11.6 lbm/ft	I-80	0 ft	8676 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes HDIL/ZDL/CN/GR open hole log dated 8/12/2013 at the clients request.
The amount of linear shift is 2 feet.
Logged with zero PSI at wellhead.
The depth matching process creates potential for collar lengths to vary from those recorded on other cased hole wireline units without a Gamma Ray reference.

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10218495	CENT
1	1	GRICCL	1355XA	10580209	CENT

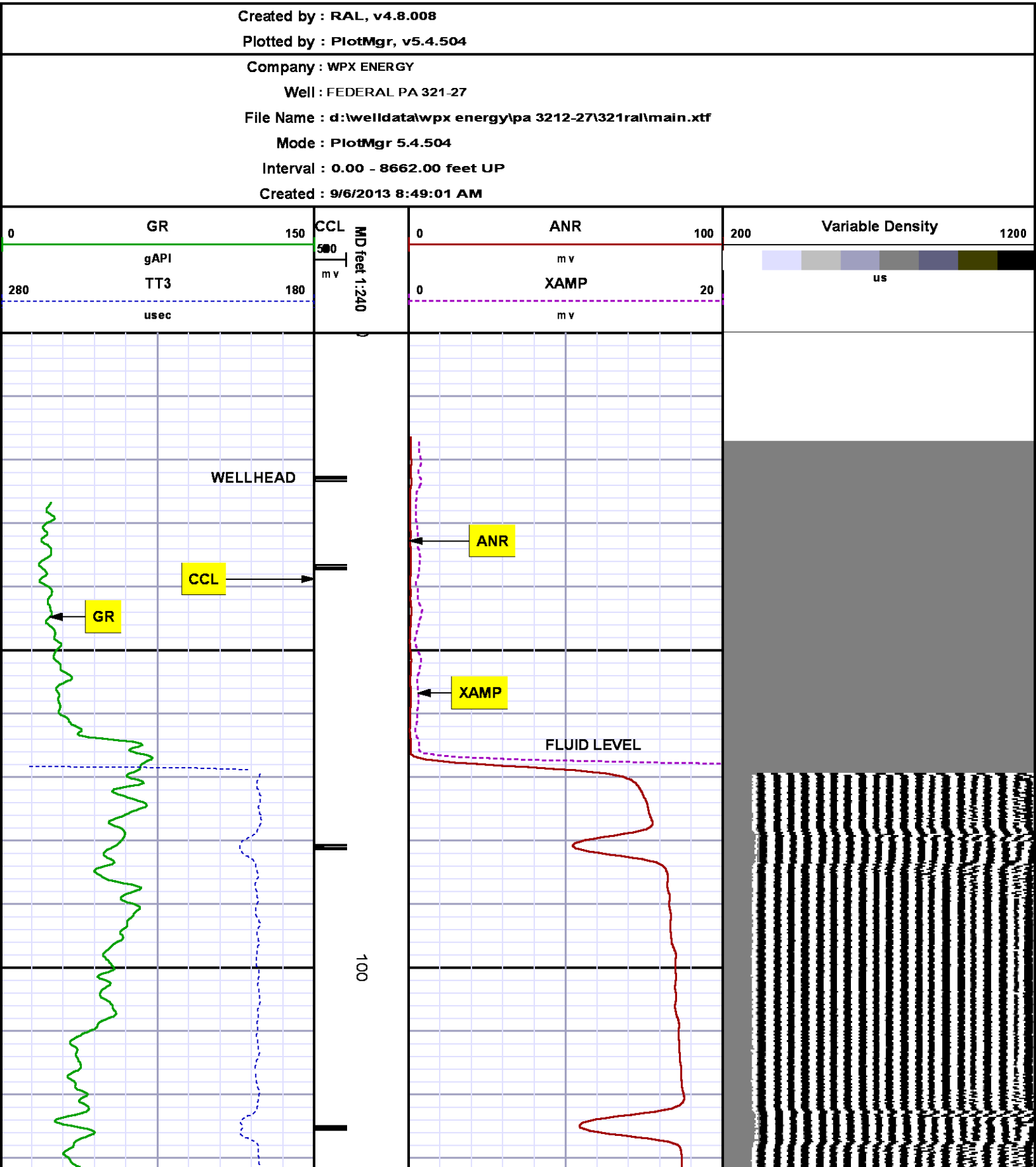
PRIMARY PRESENTATION
0 PSI

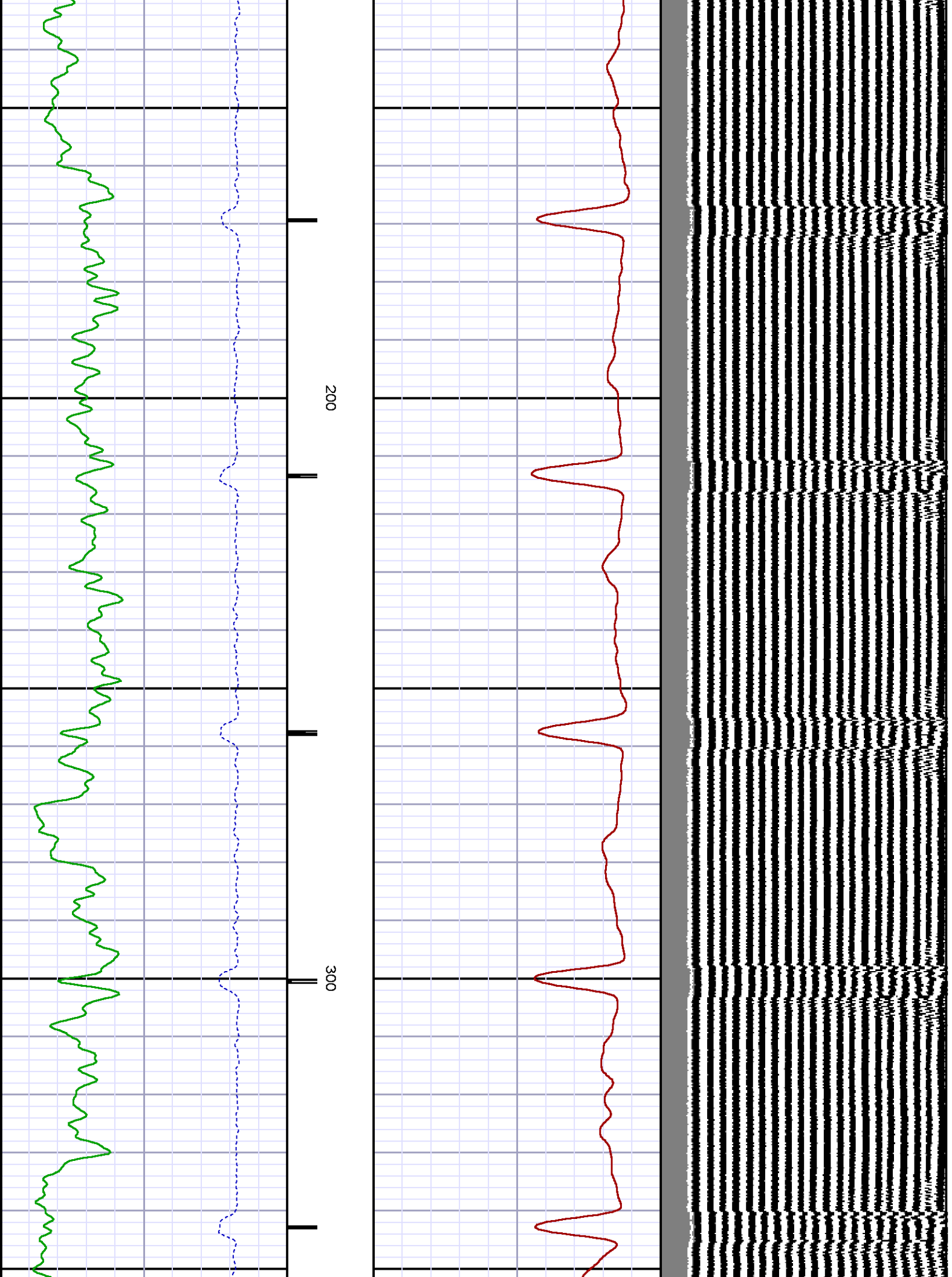
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	29.969	8674.500
RAL	Amp Gate Start Near	195.000	usec	29.969	8674.500
RAL	Amp Gate Start Radial	195.000	usec	29.969	8674.500
RAL	Amp Gate Width Far	25.000	usec	29.969	8674.500
RAL	Amp Gate Width Near	25.000	usec	29.969	8674.500
RAL	Amp Gate Width Radial	25.000	usec	29.969	8674.500
RAL	casing od	4.500	inches	29.969	8674.500
RAL	casing wt	11.600	lbm/ft	29.969	8674.500
RAL	FB Start Far	291.900	usec	29.969	8674.500
RAL	FB Start Near	180.000	usec	29.969	8674.500
RAL	FB Start Radial	180.000	usec	29.969	8674.500
RAL	FB Thresh Far	10.000	mv	29.969	8674.500
RAL	FB Thresh Near	4.000	mv	29.969	8674.500
RAL	FB Thresh Radial	4.000	mv	29.969	8674.500
RAL	Fluid Travel Time	200.000	usec/ft	29.969	8674.313

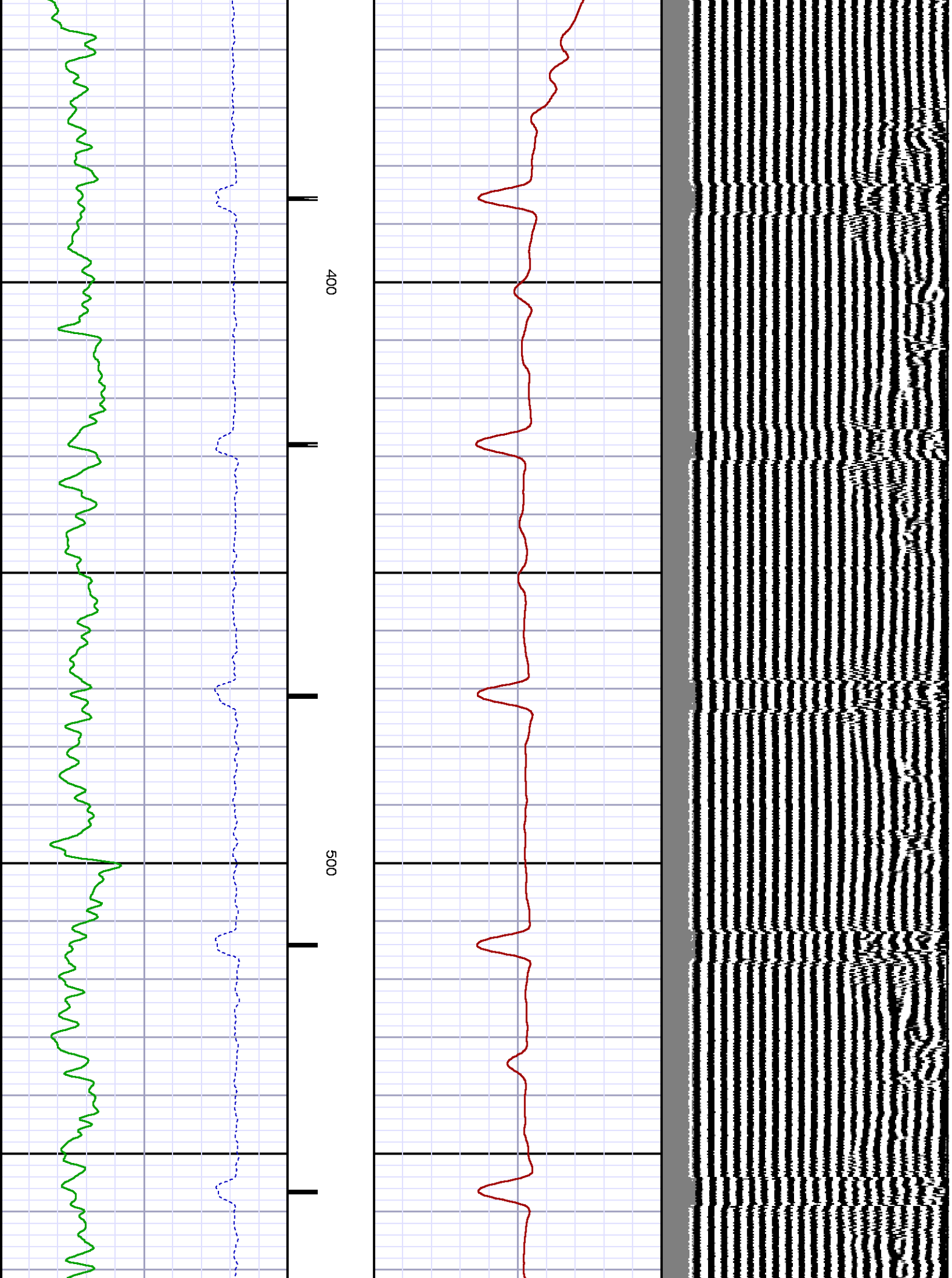
DEPTH OFFSETS
(for Acquired Curves)

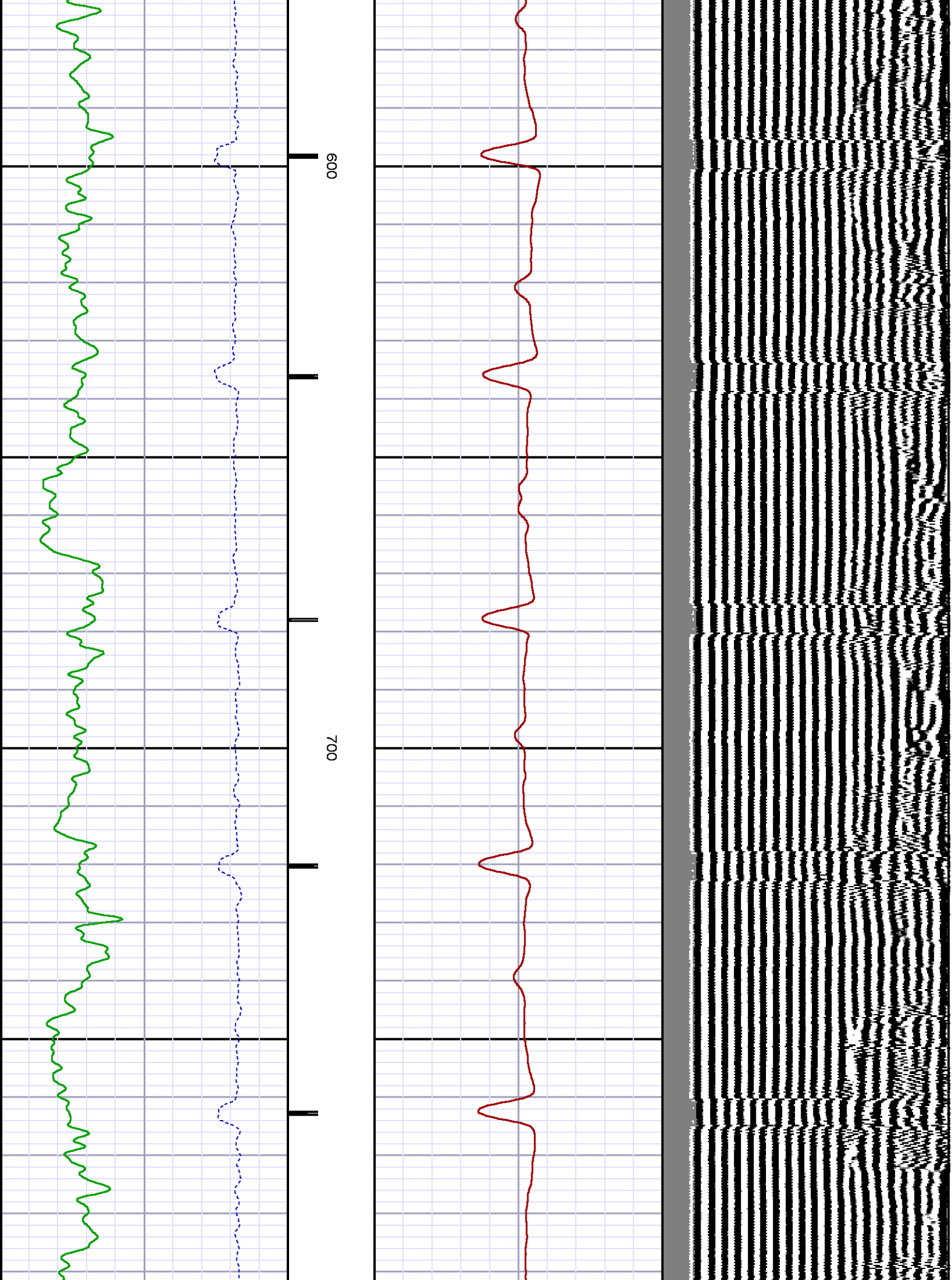
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
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		AR5	AR6	AR7	AR8	CHV	FPR2

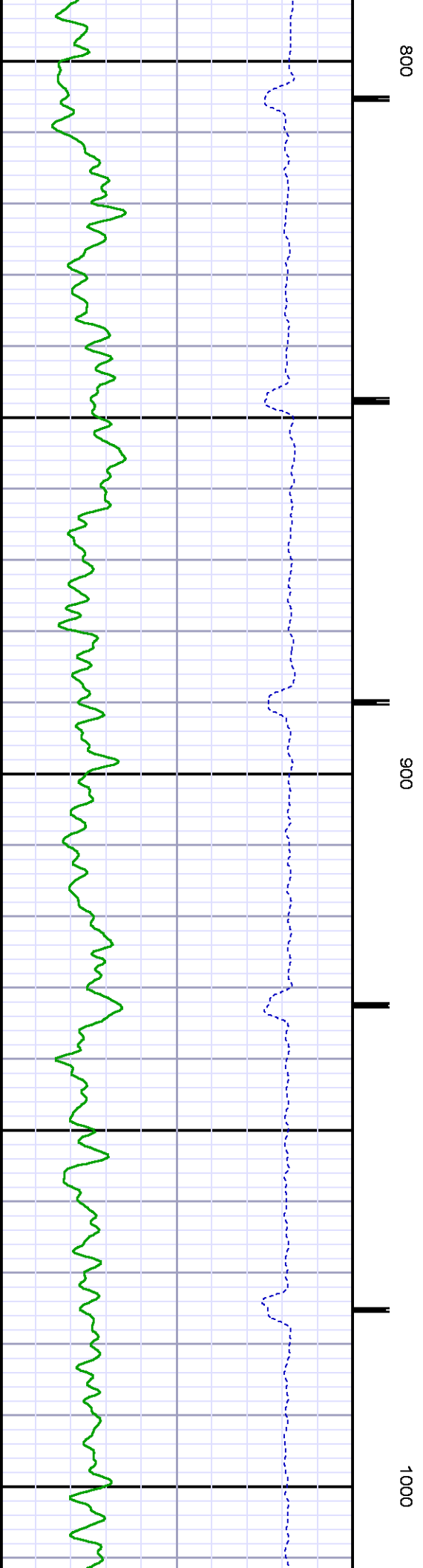
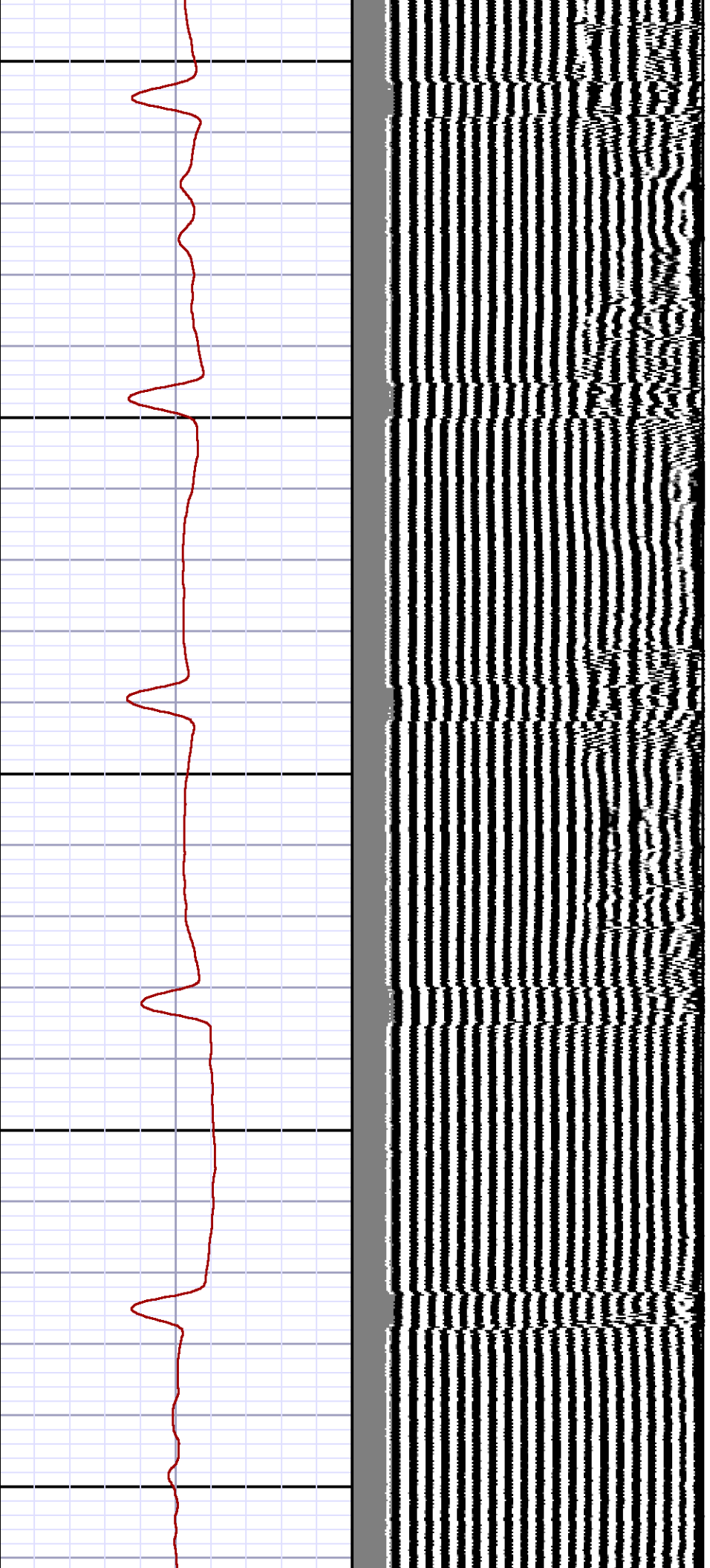
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		TTR4	TTR5	TTR6	TTTR7	TTR8	XAMP
1426XA	-10.040	AFAR	SIG	TT5			
1355XA	-5.620	CCL					
1355XA	-1.500	GR					
1355XA	0.000	TEMP					

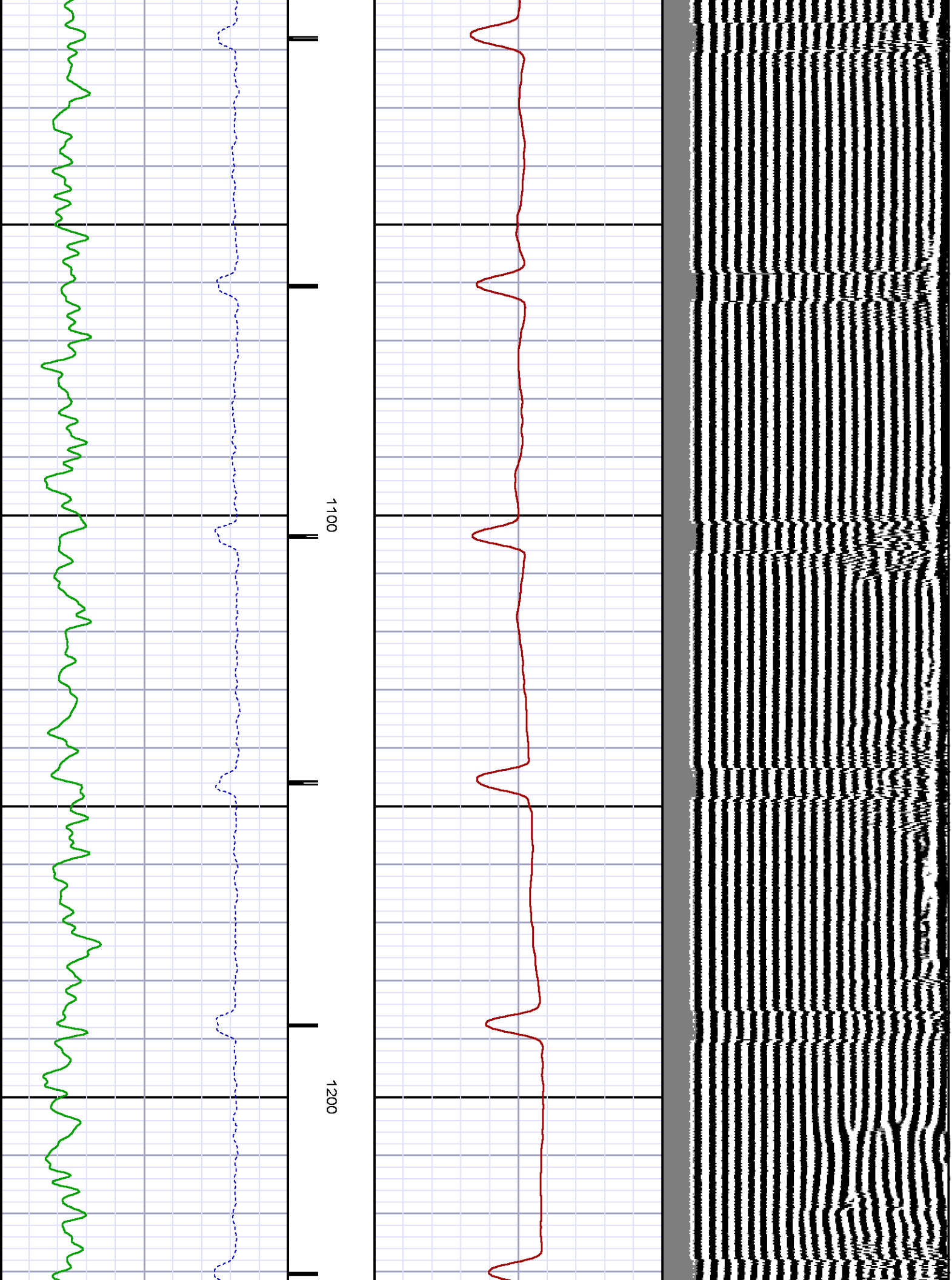


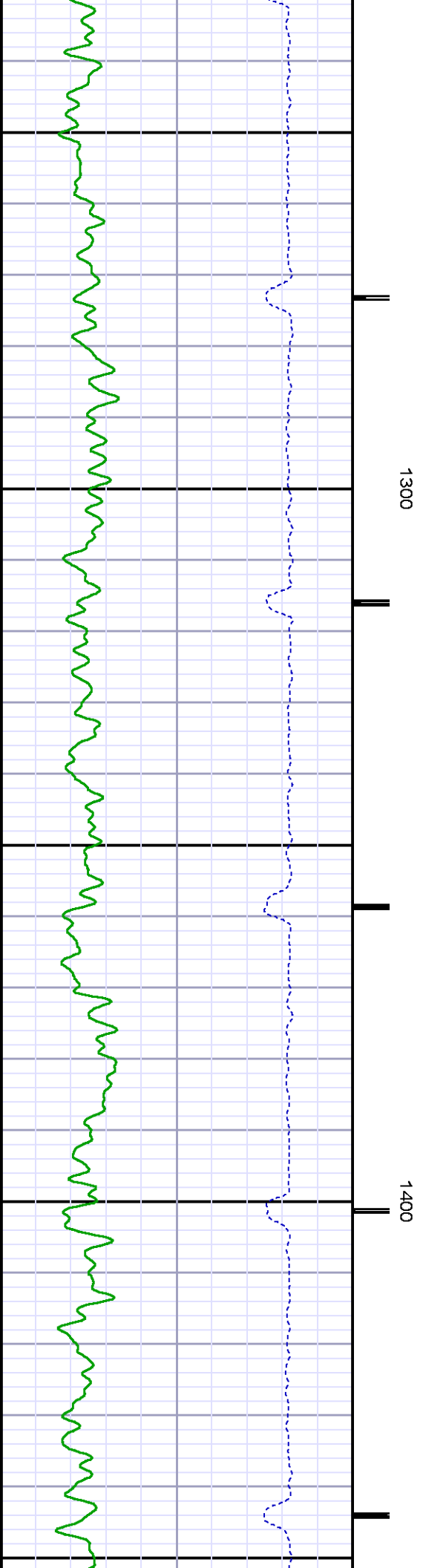
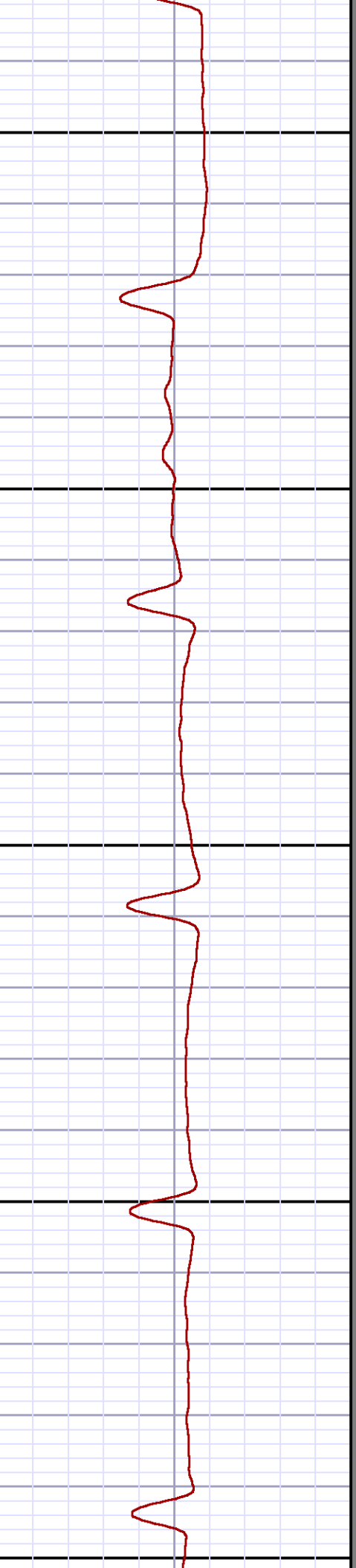
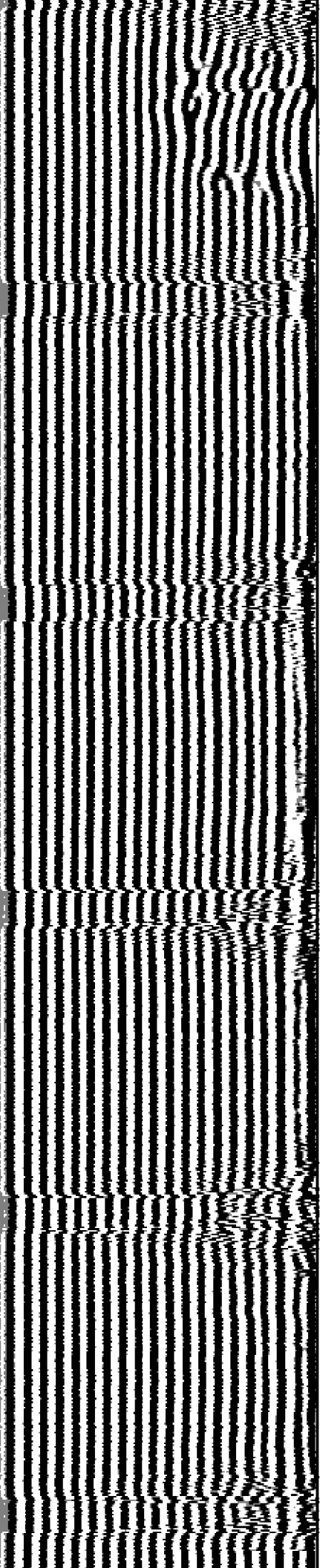


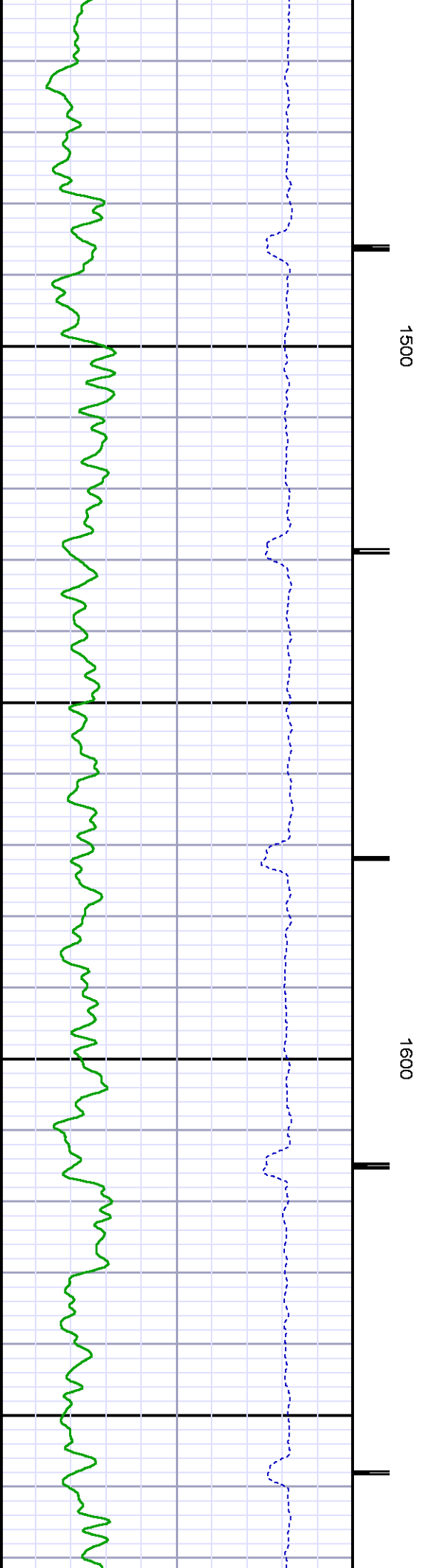
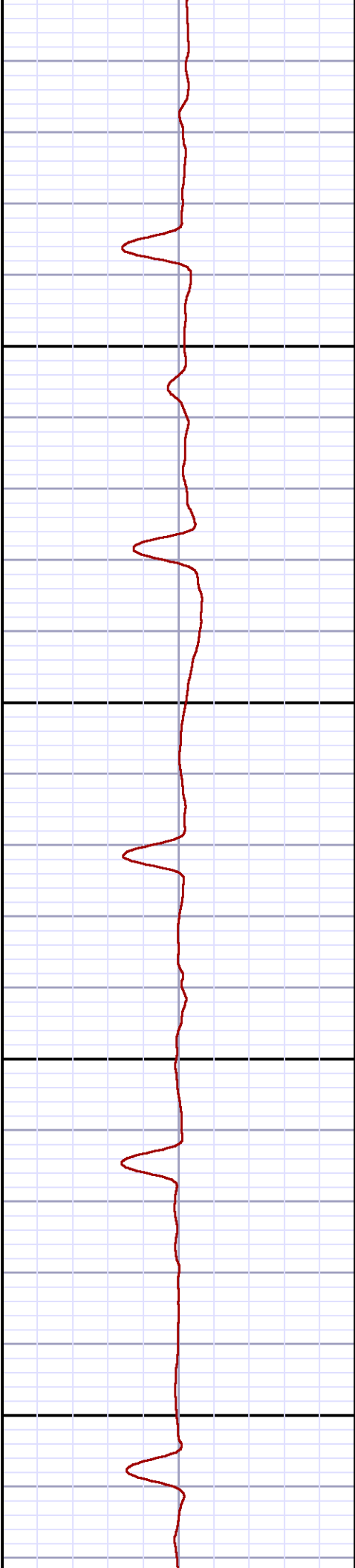
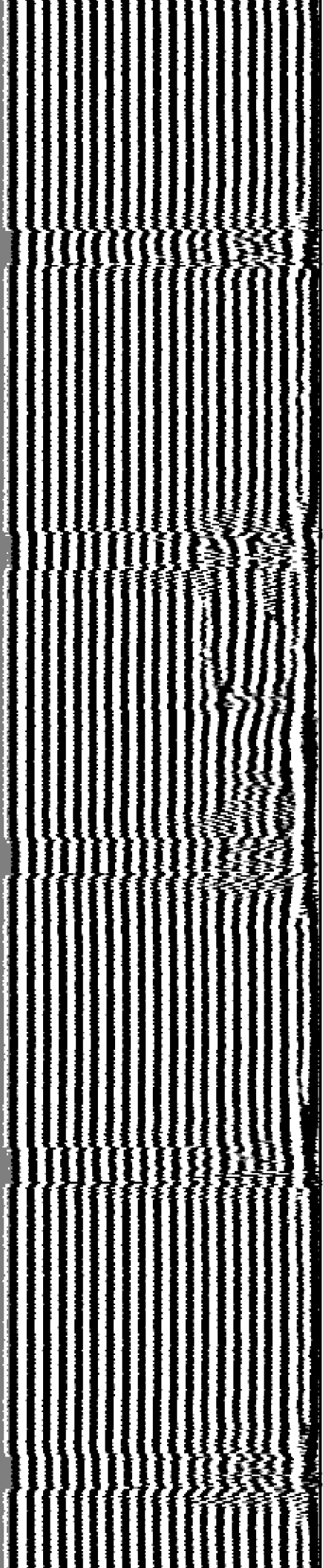


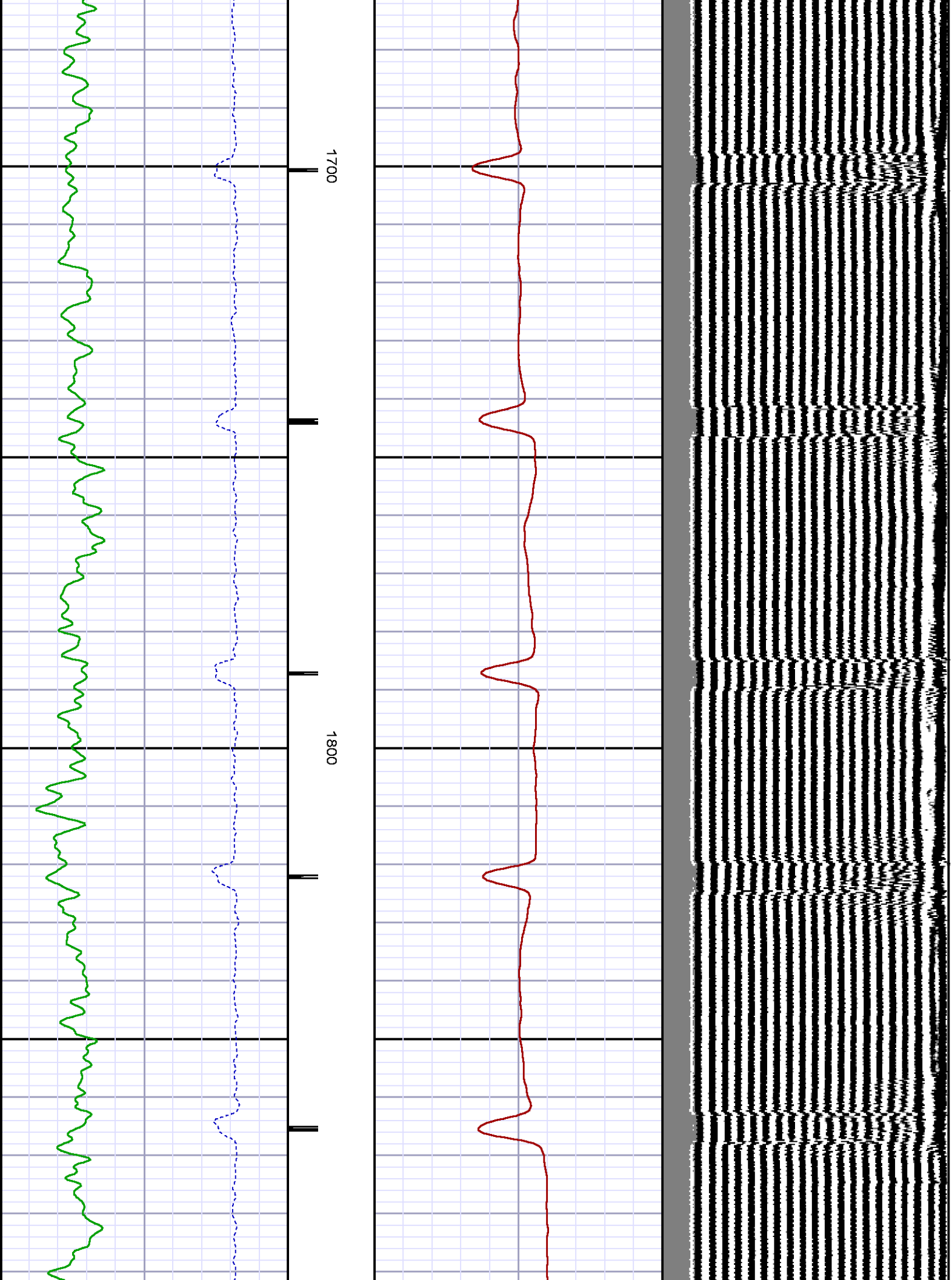


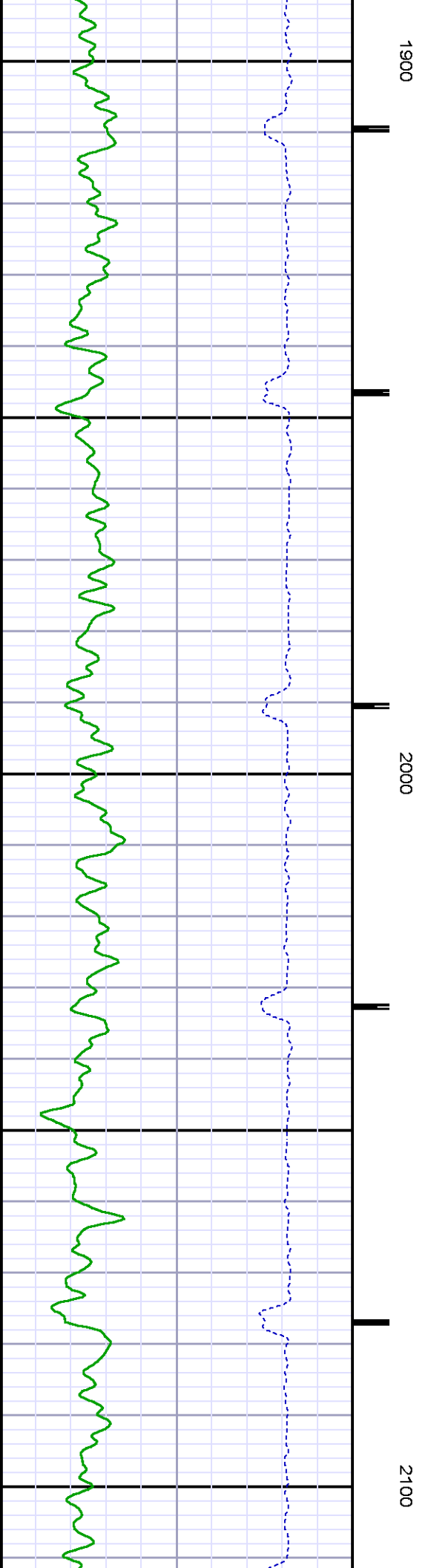
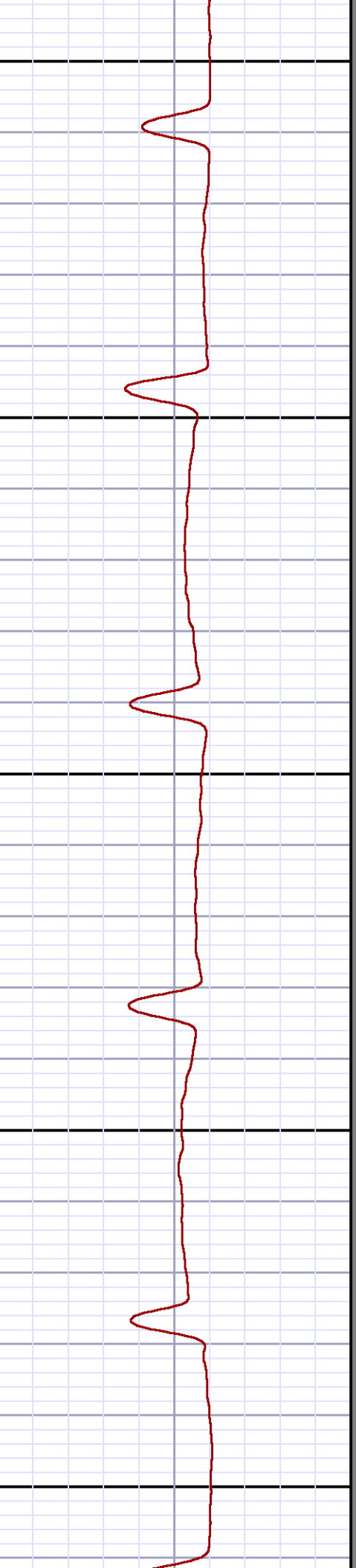
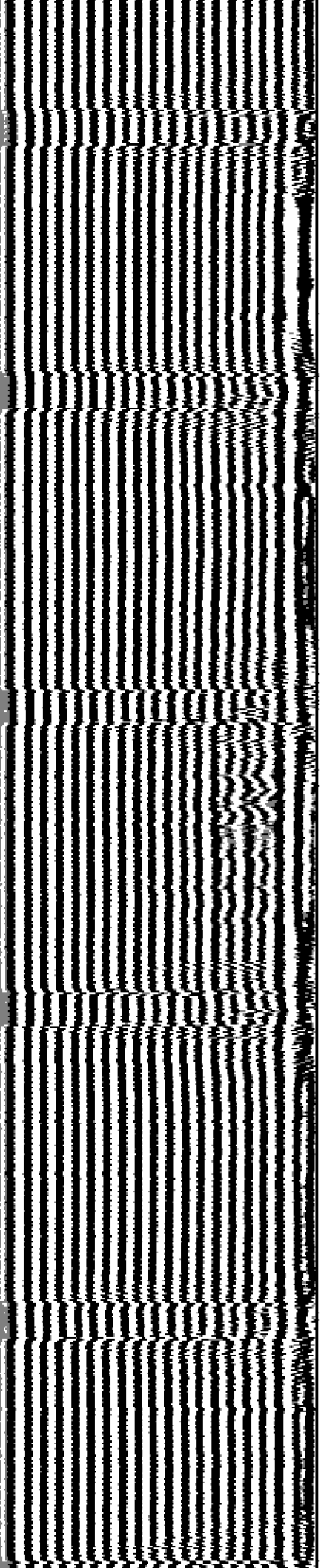


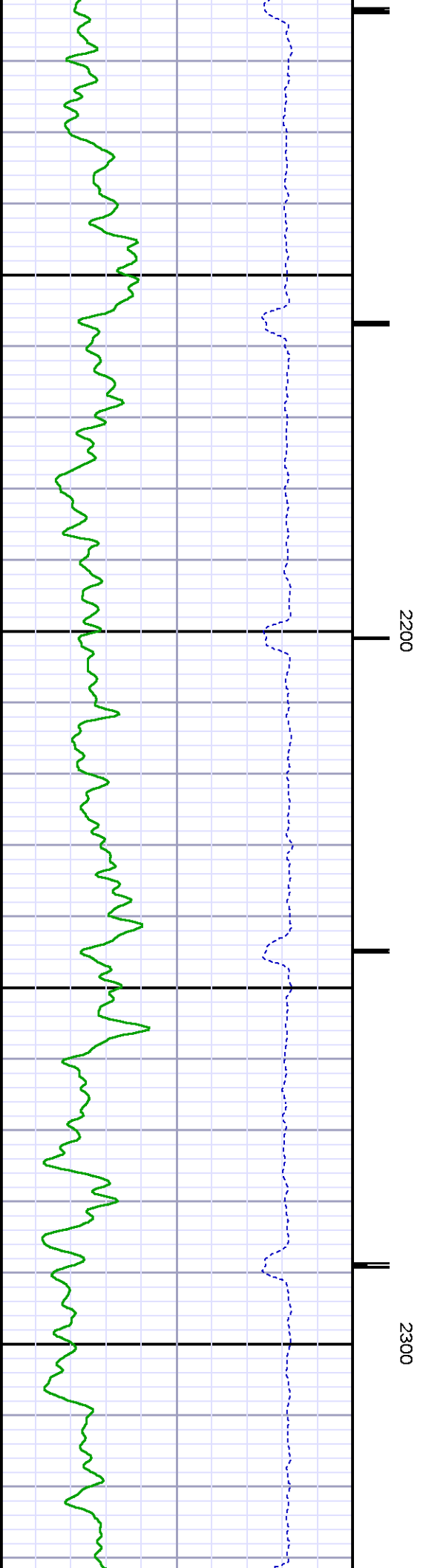
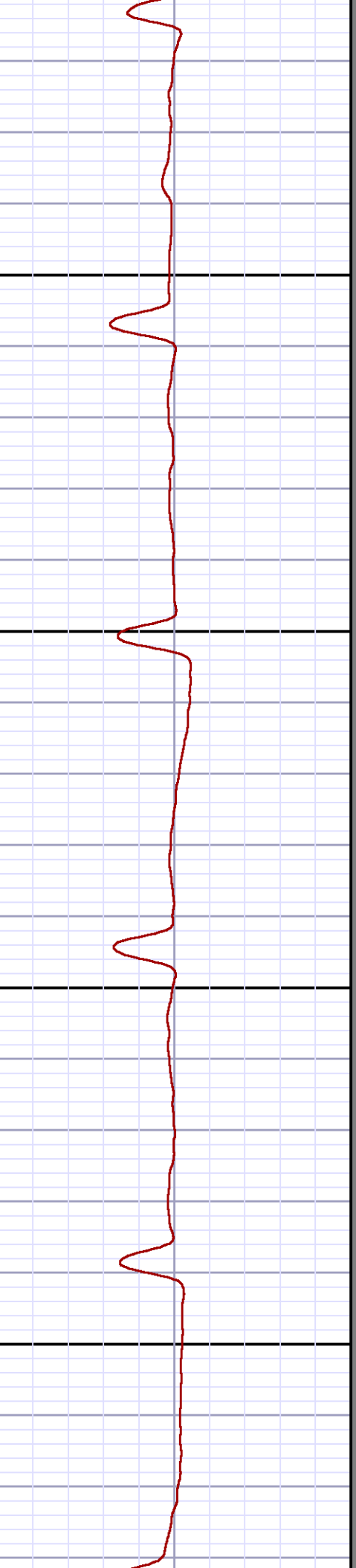
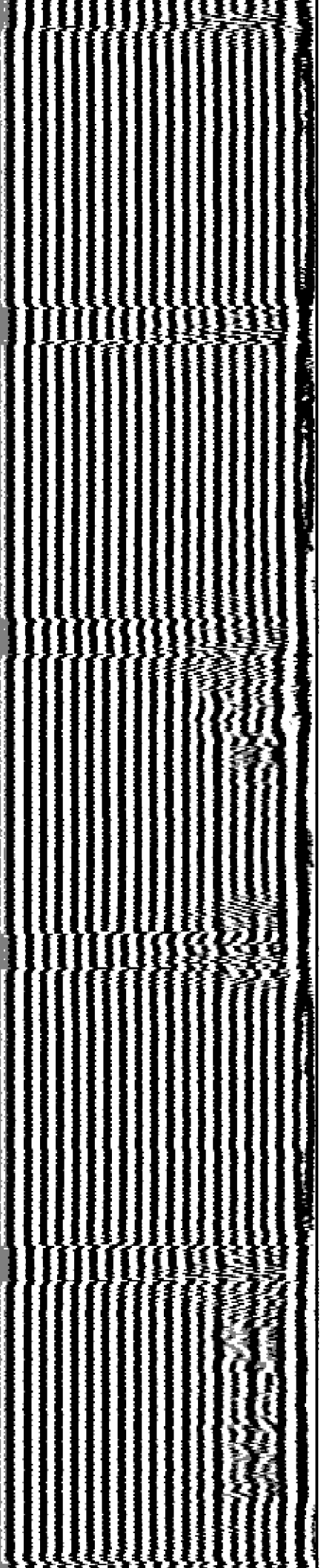


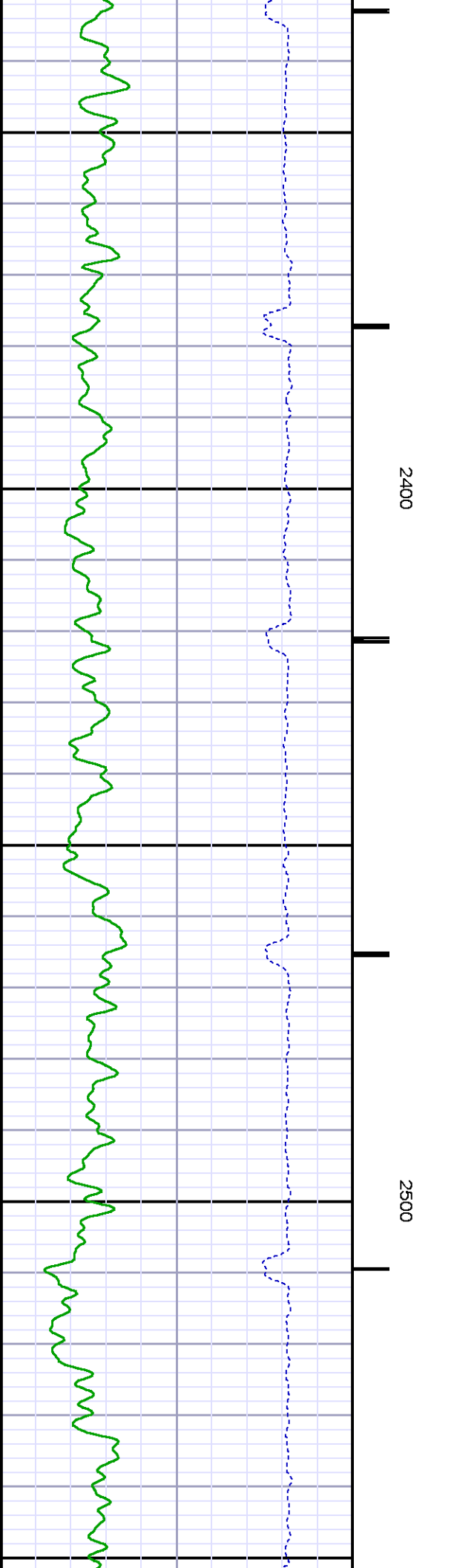
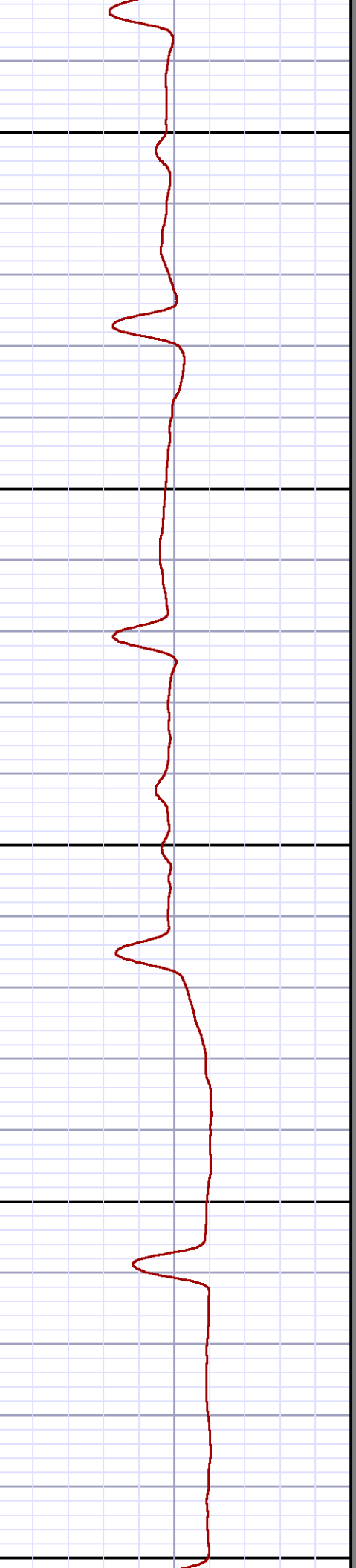
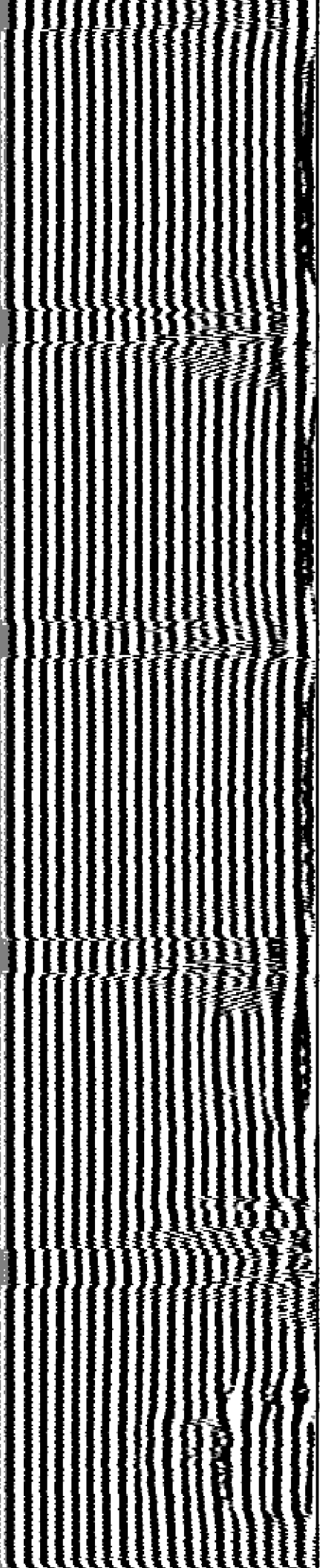


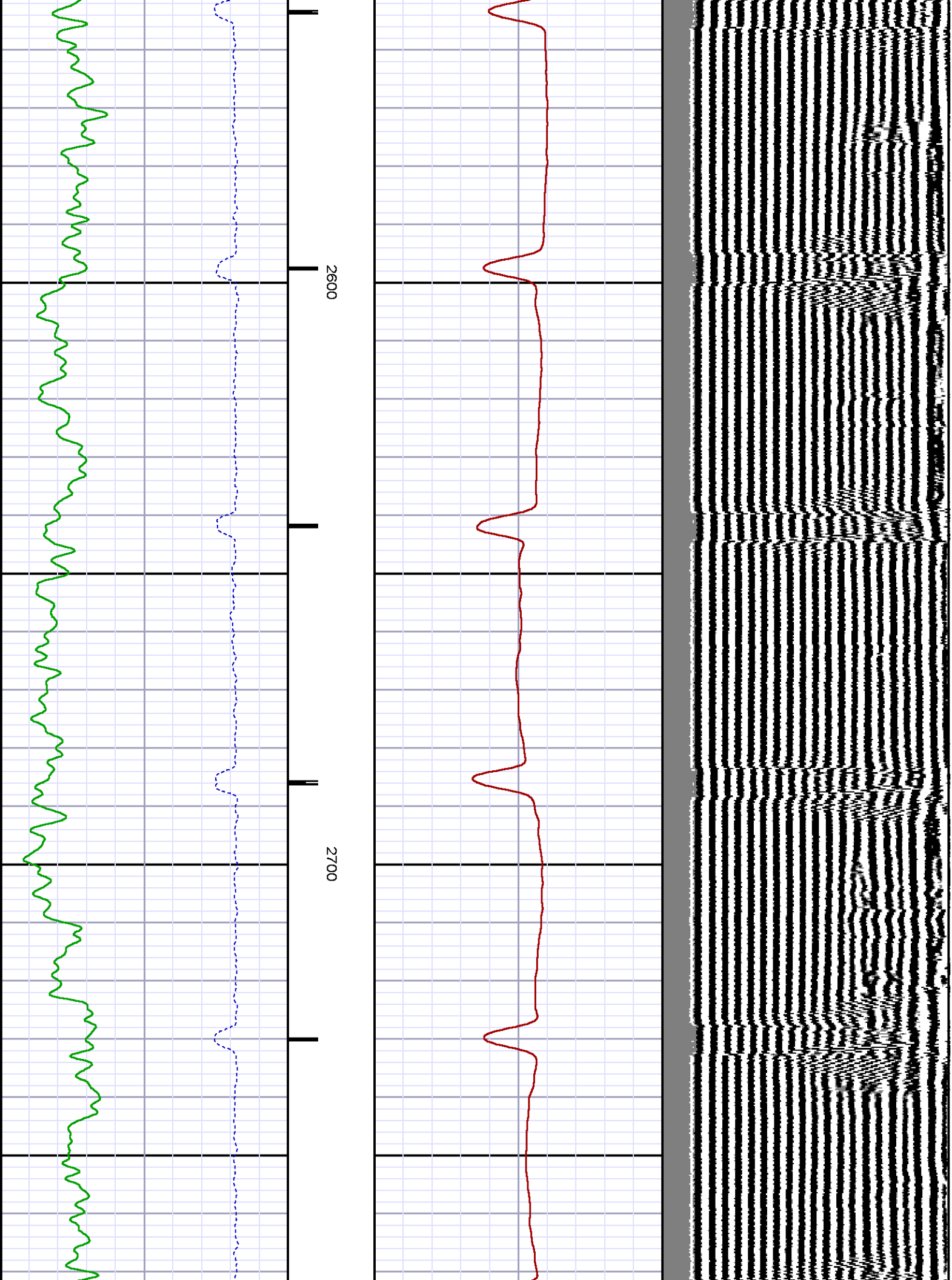


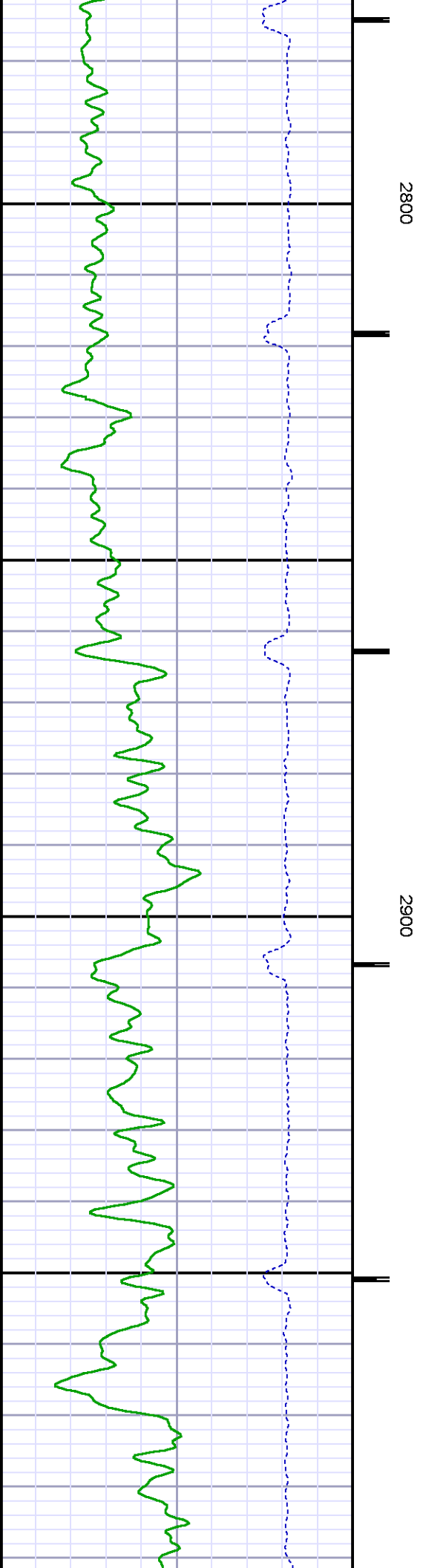
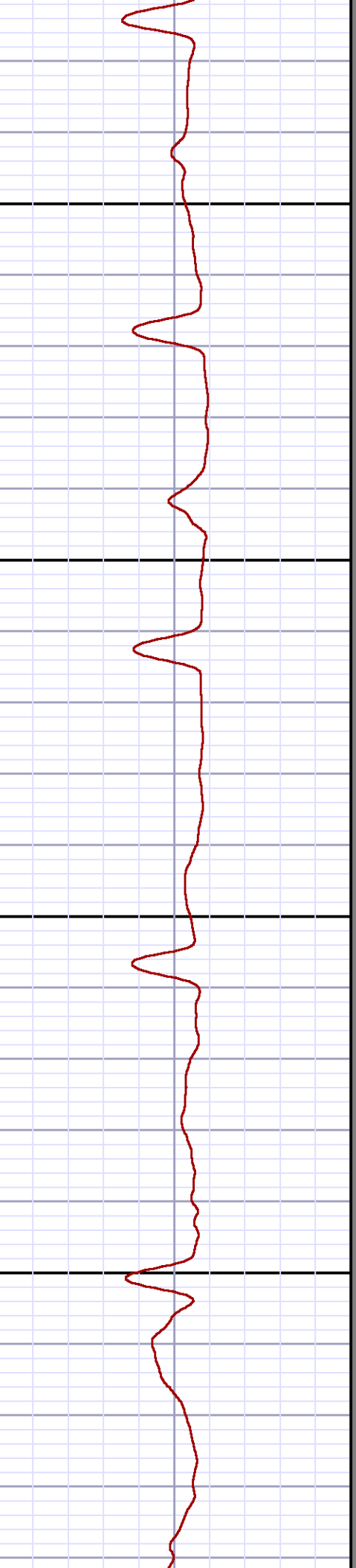
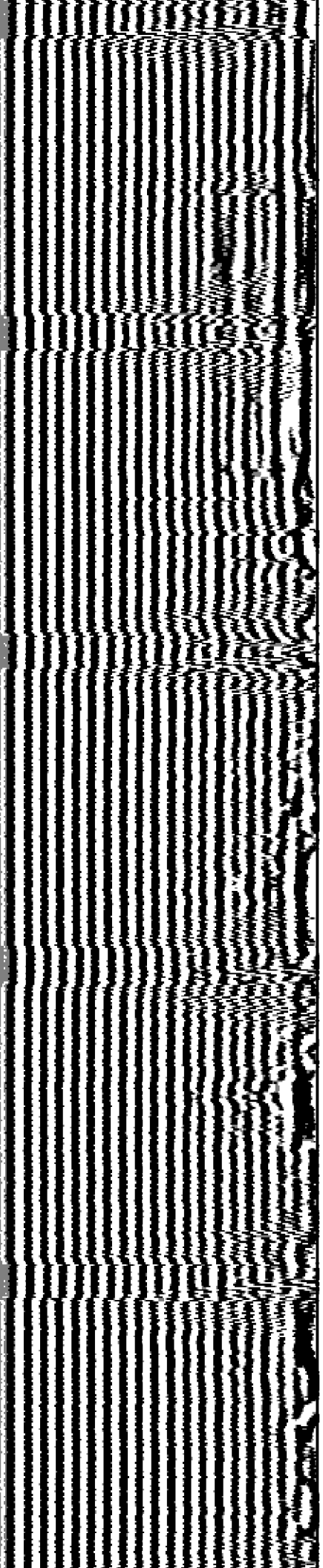


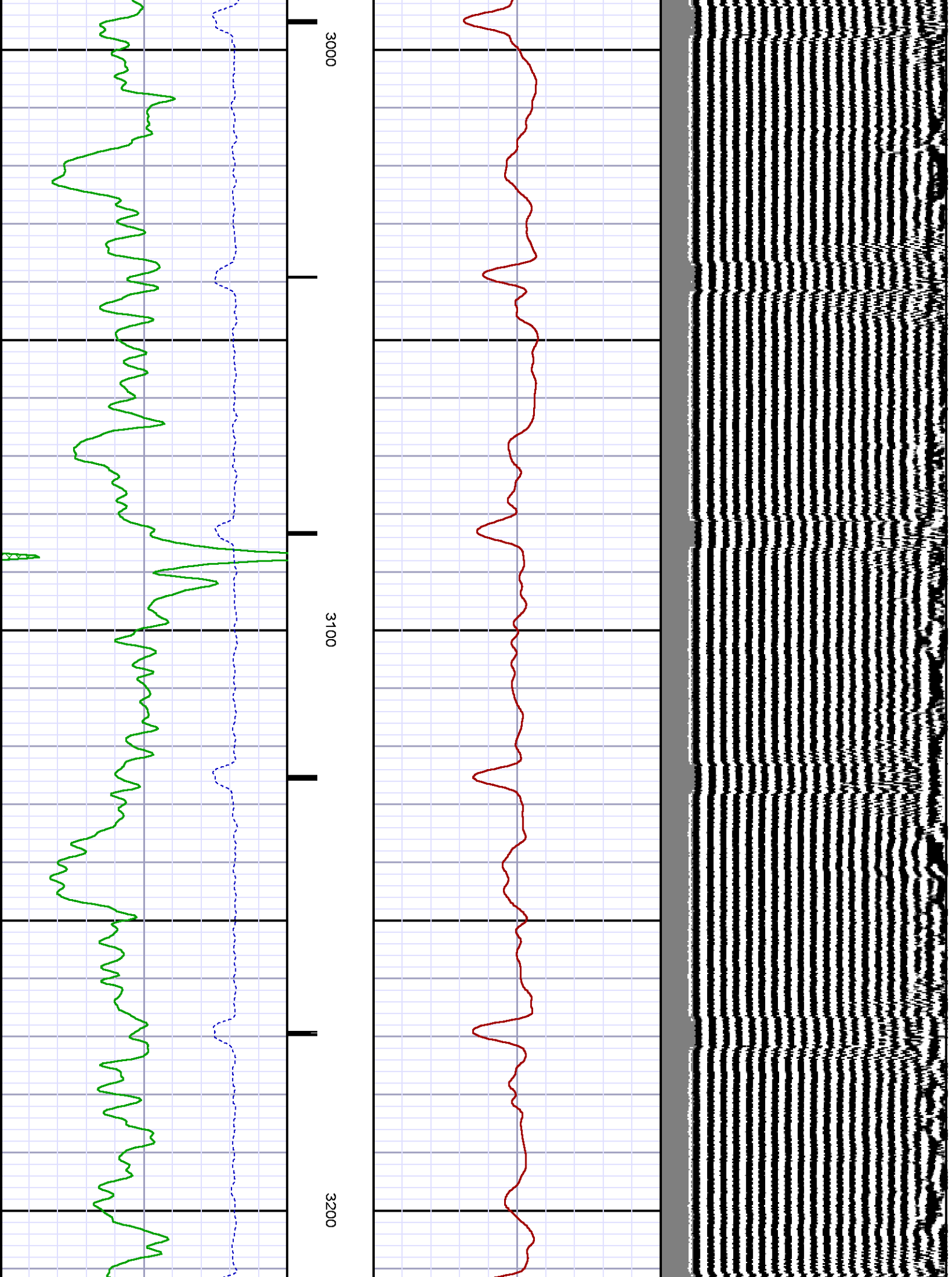


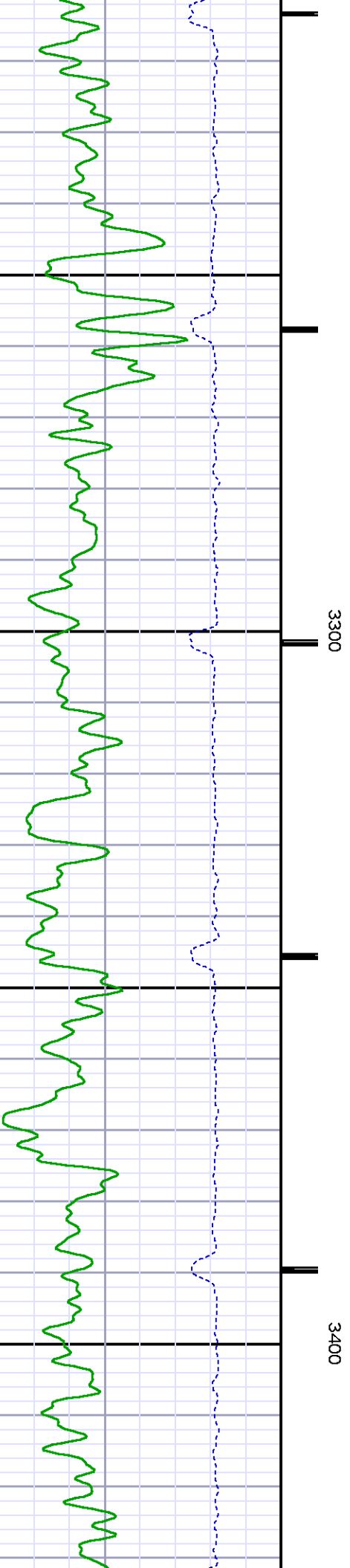
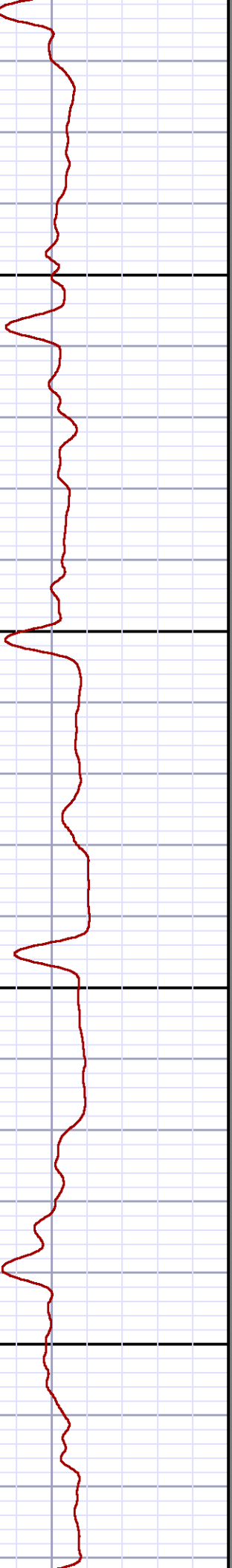
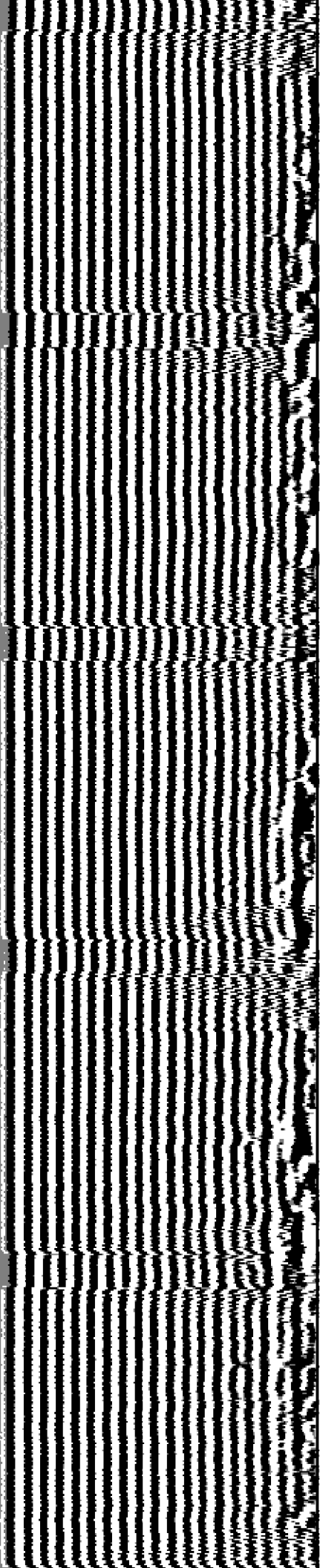


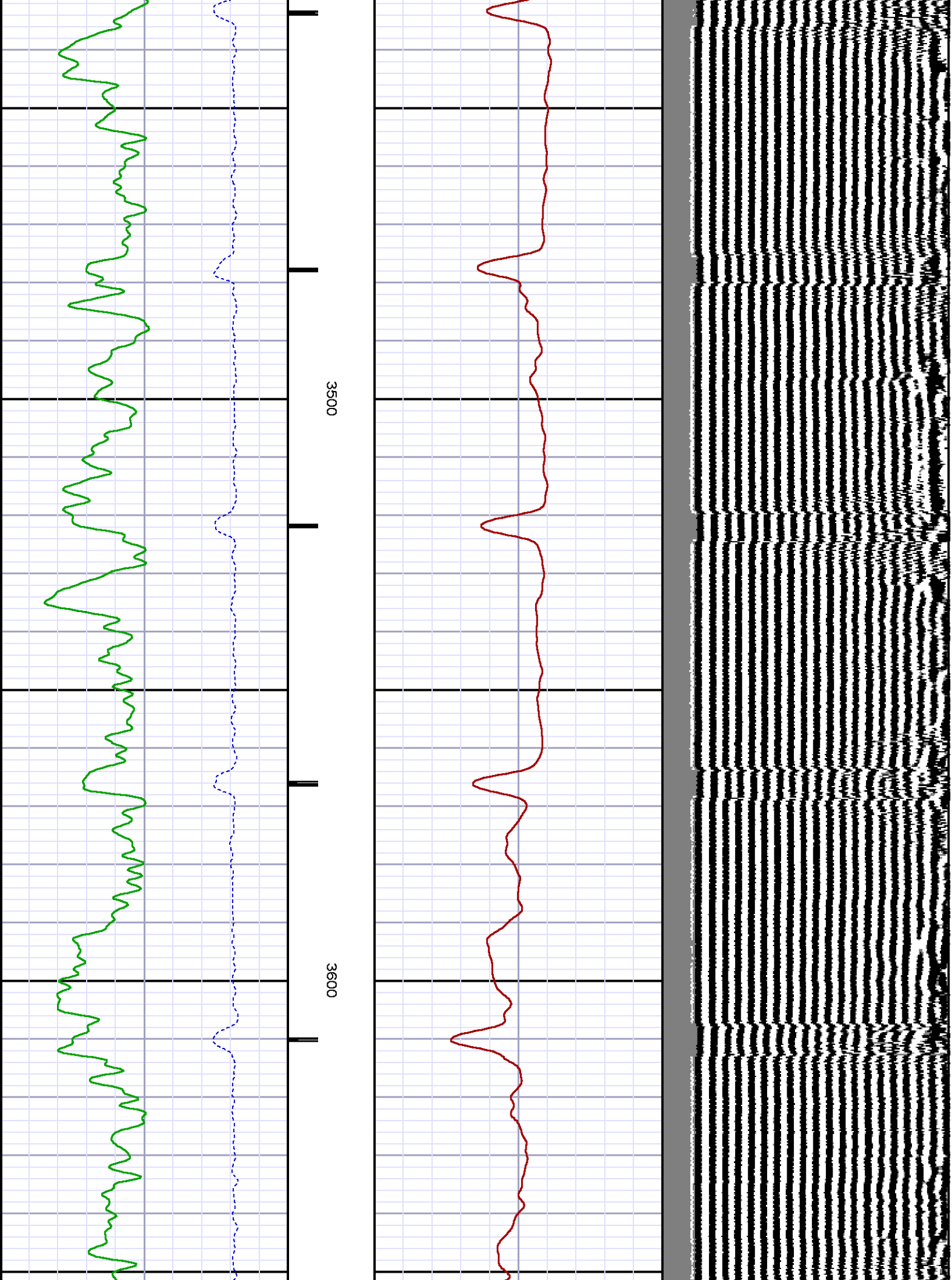


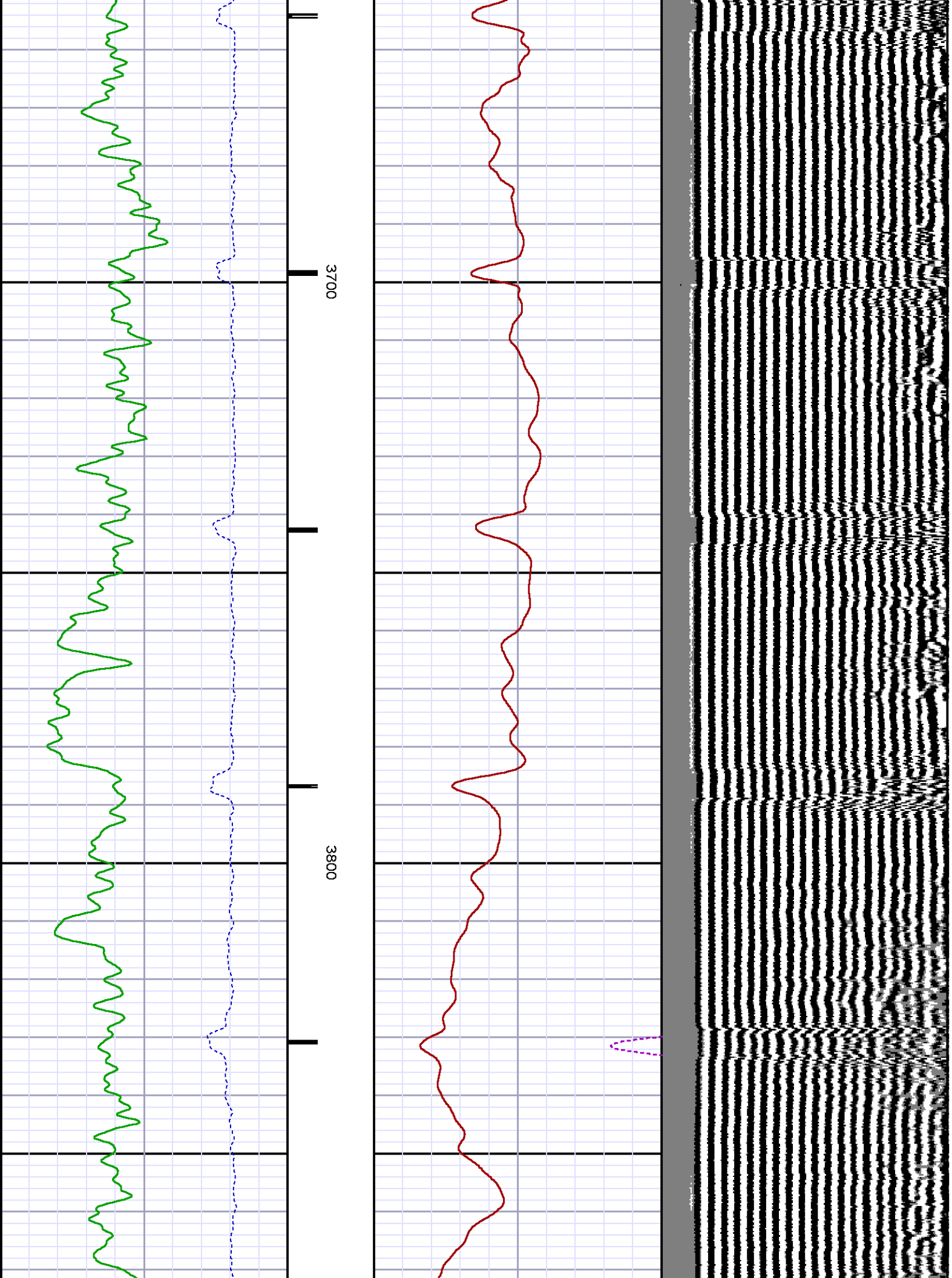


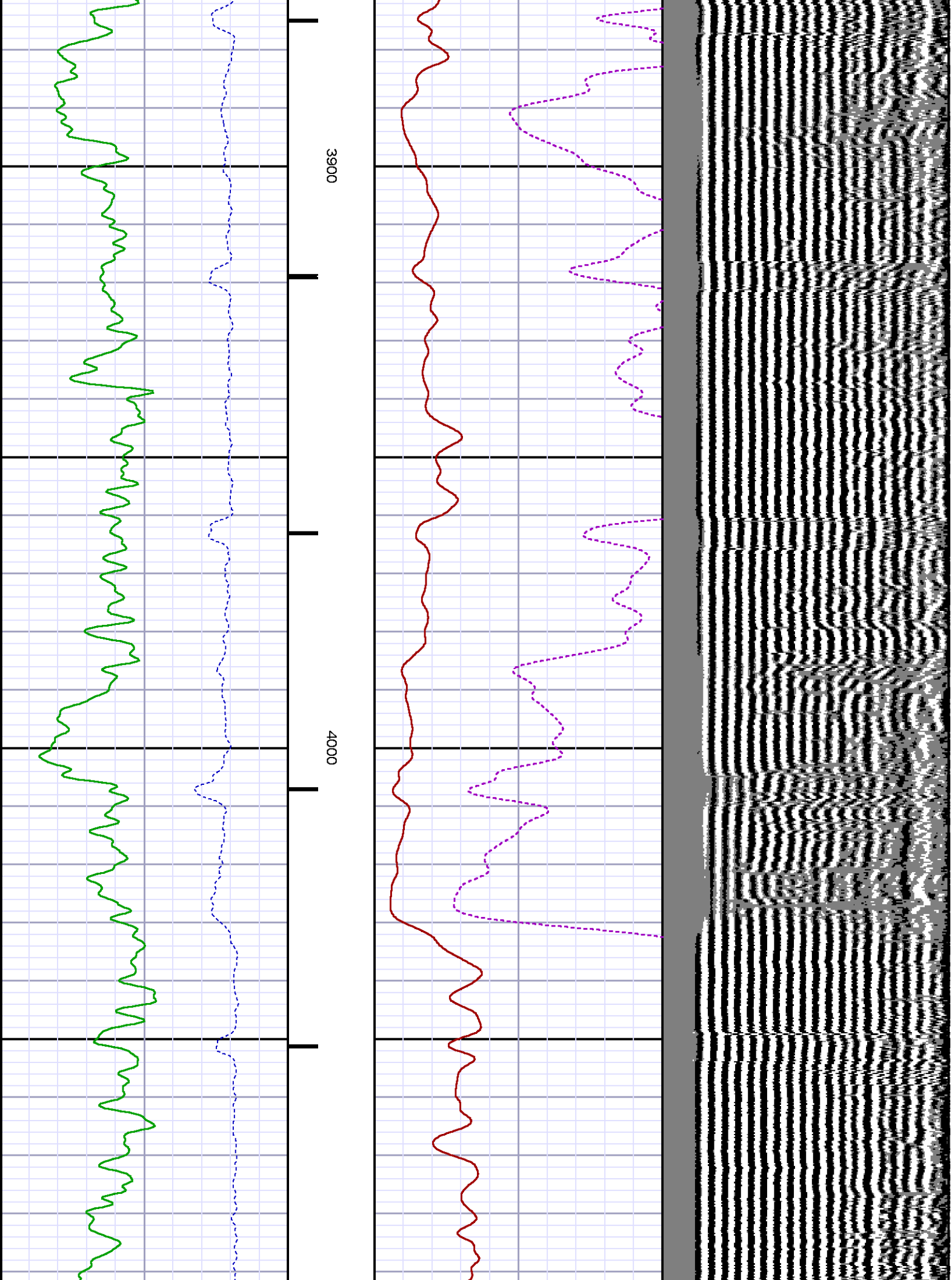


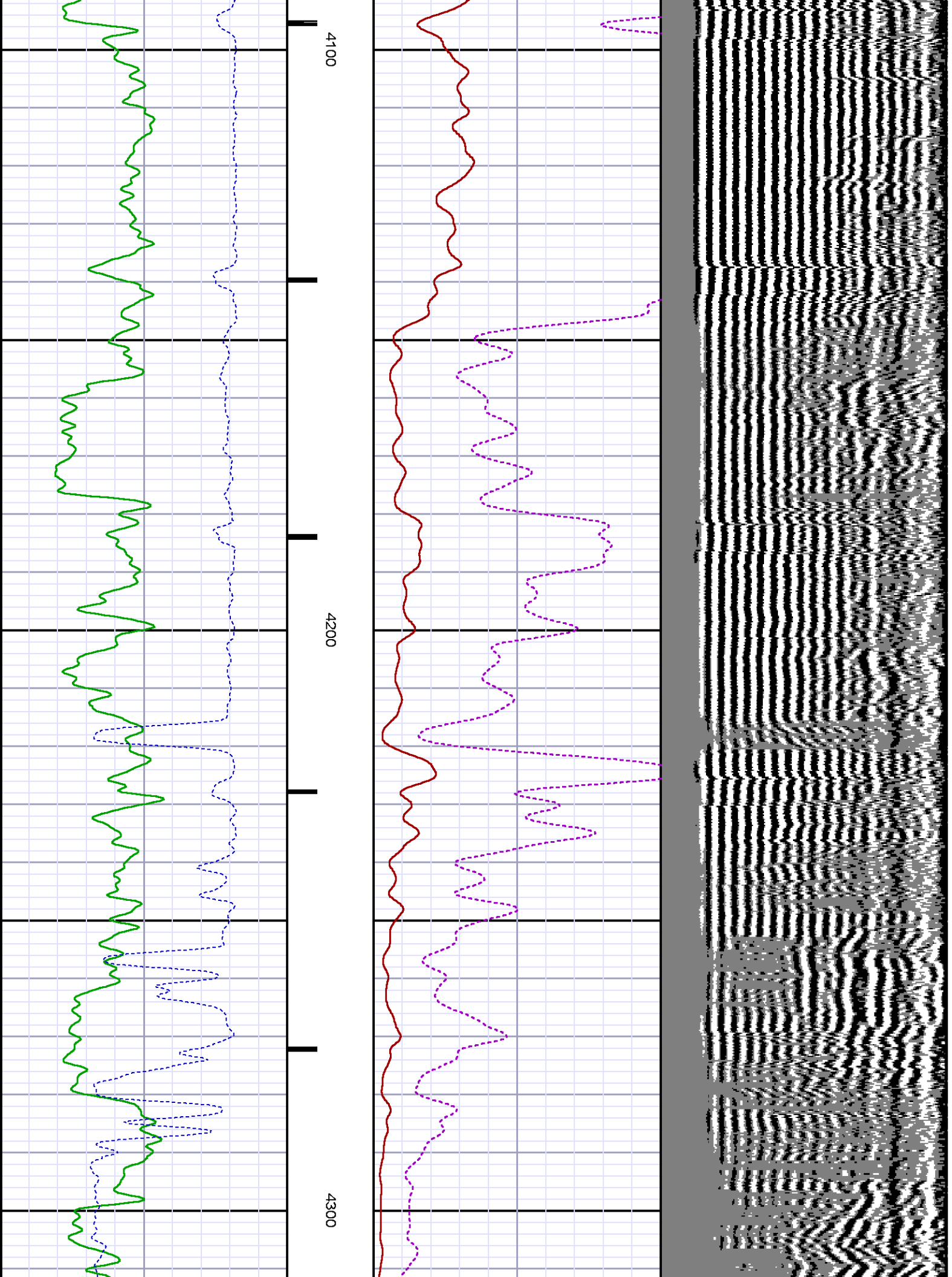


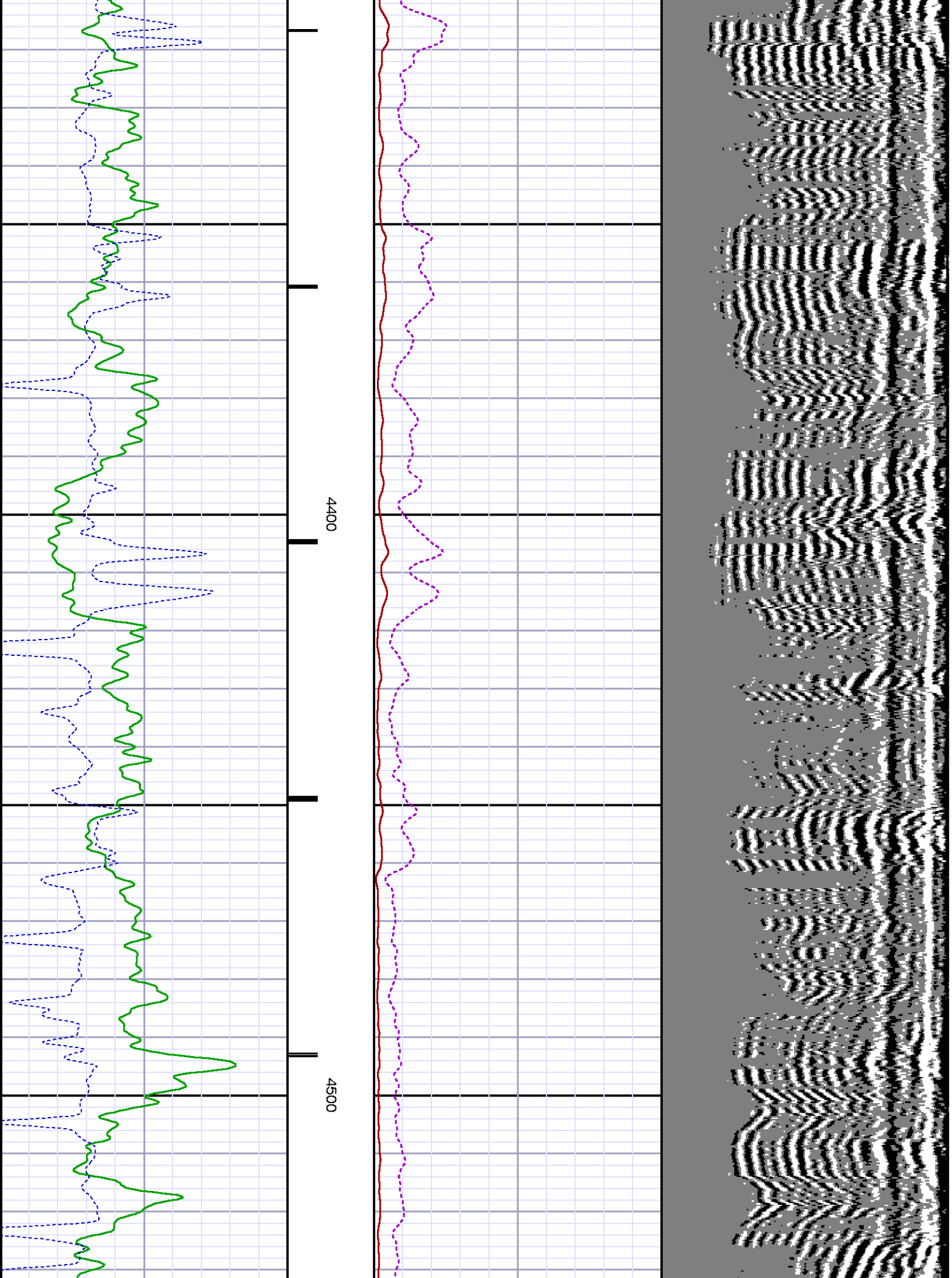


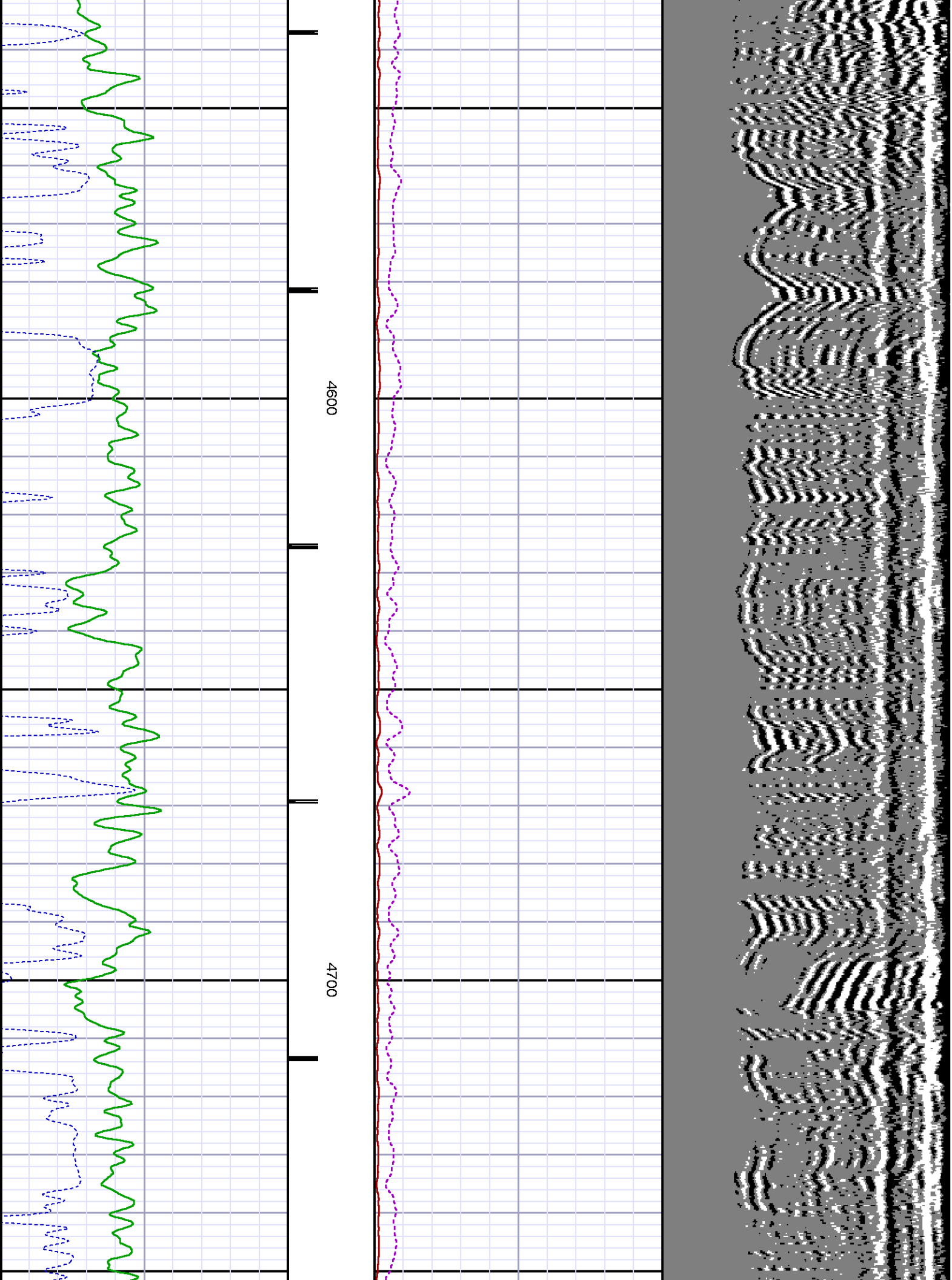


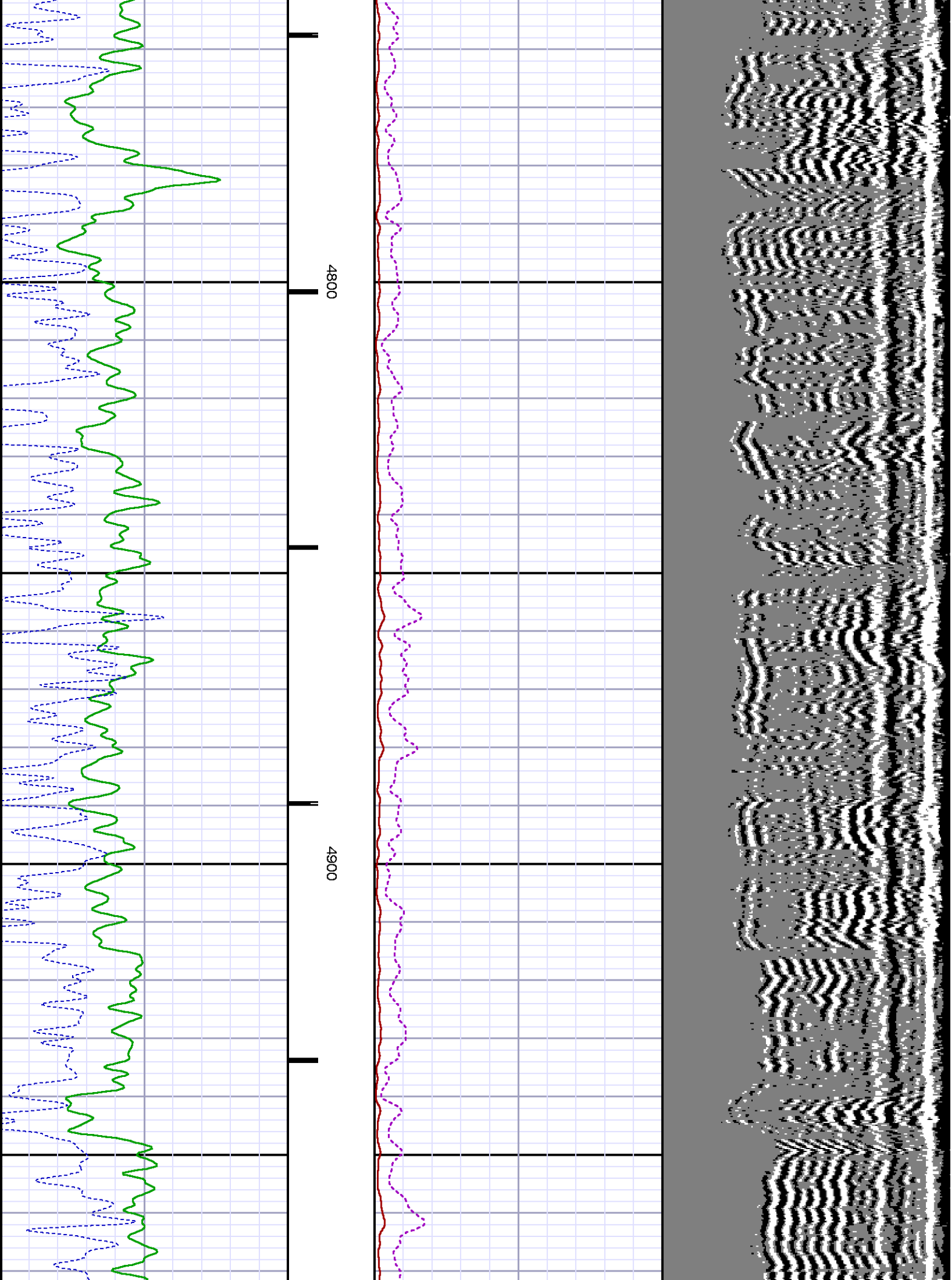


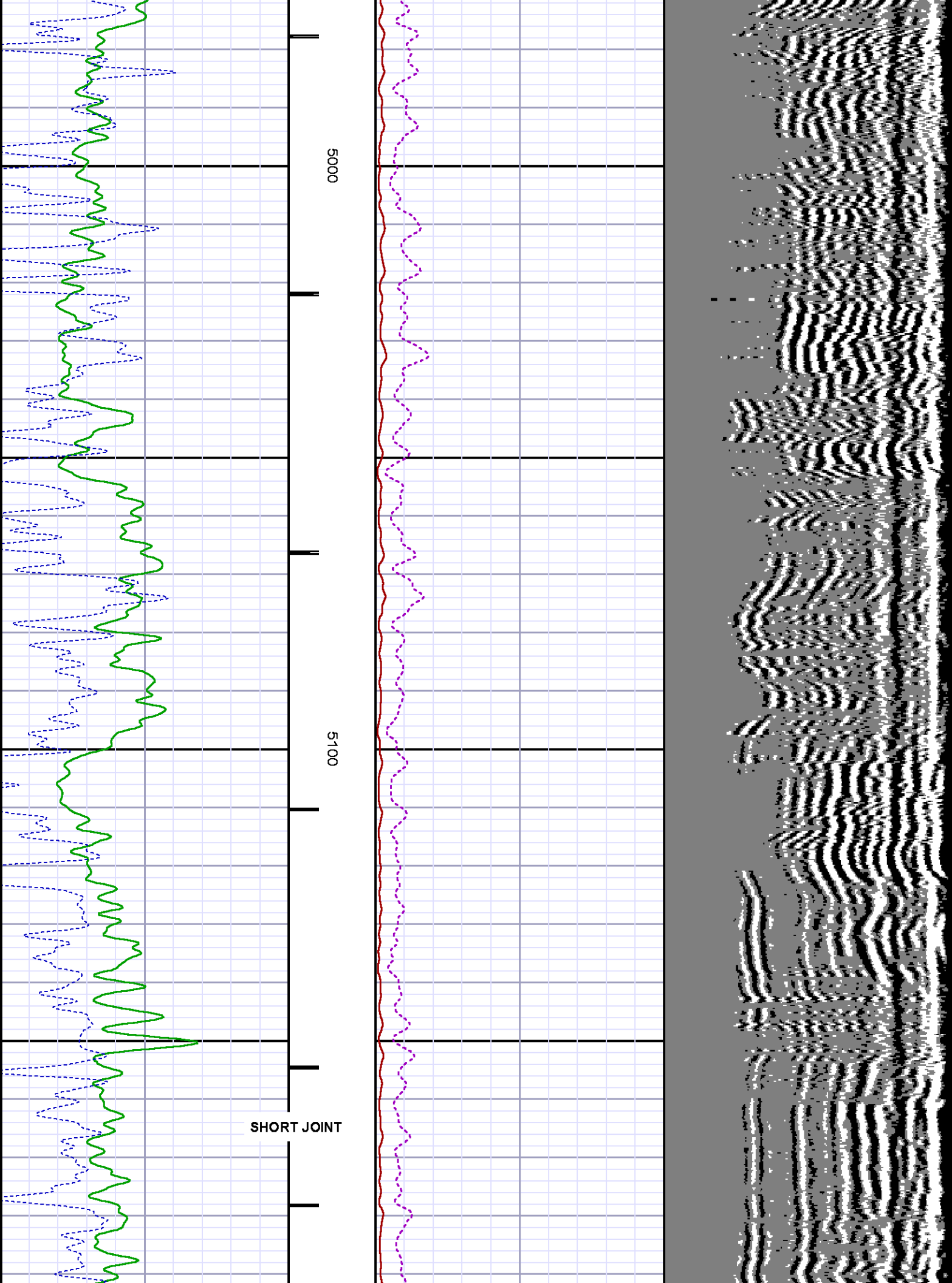


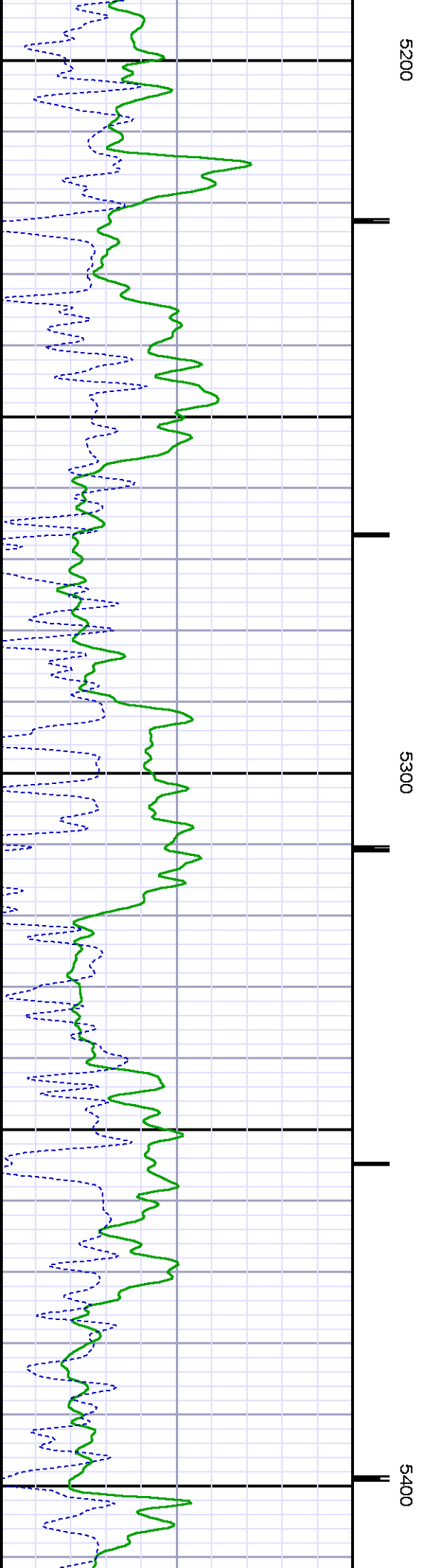
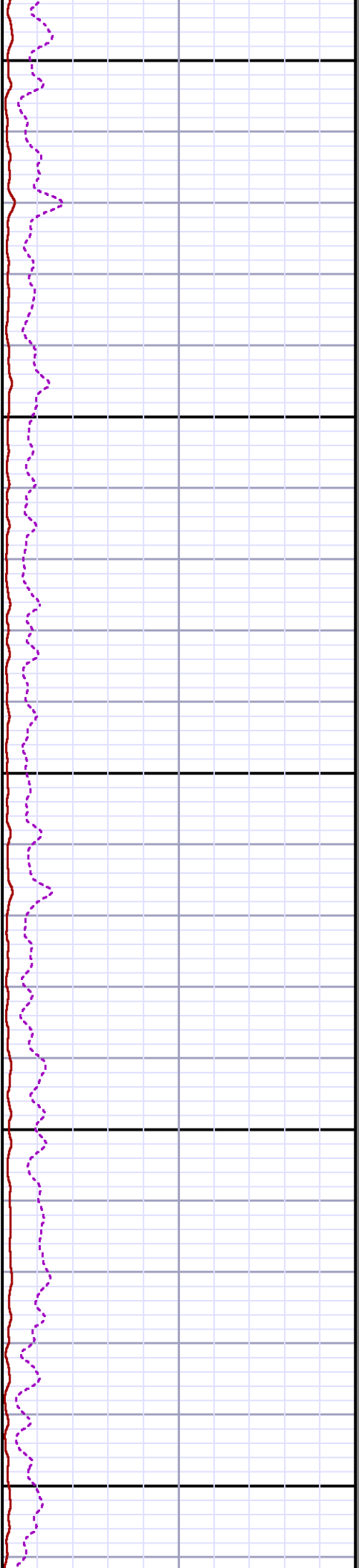
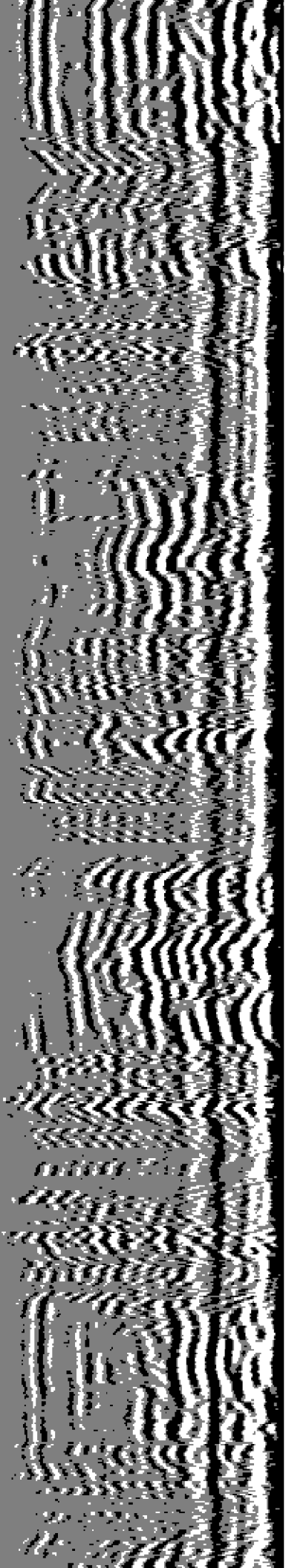


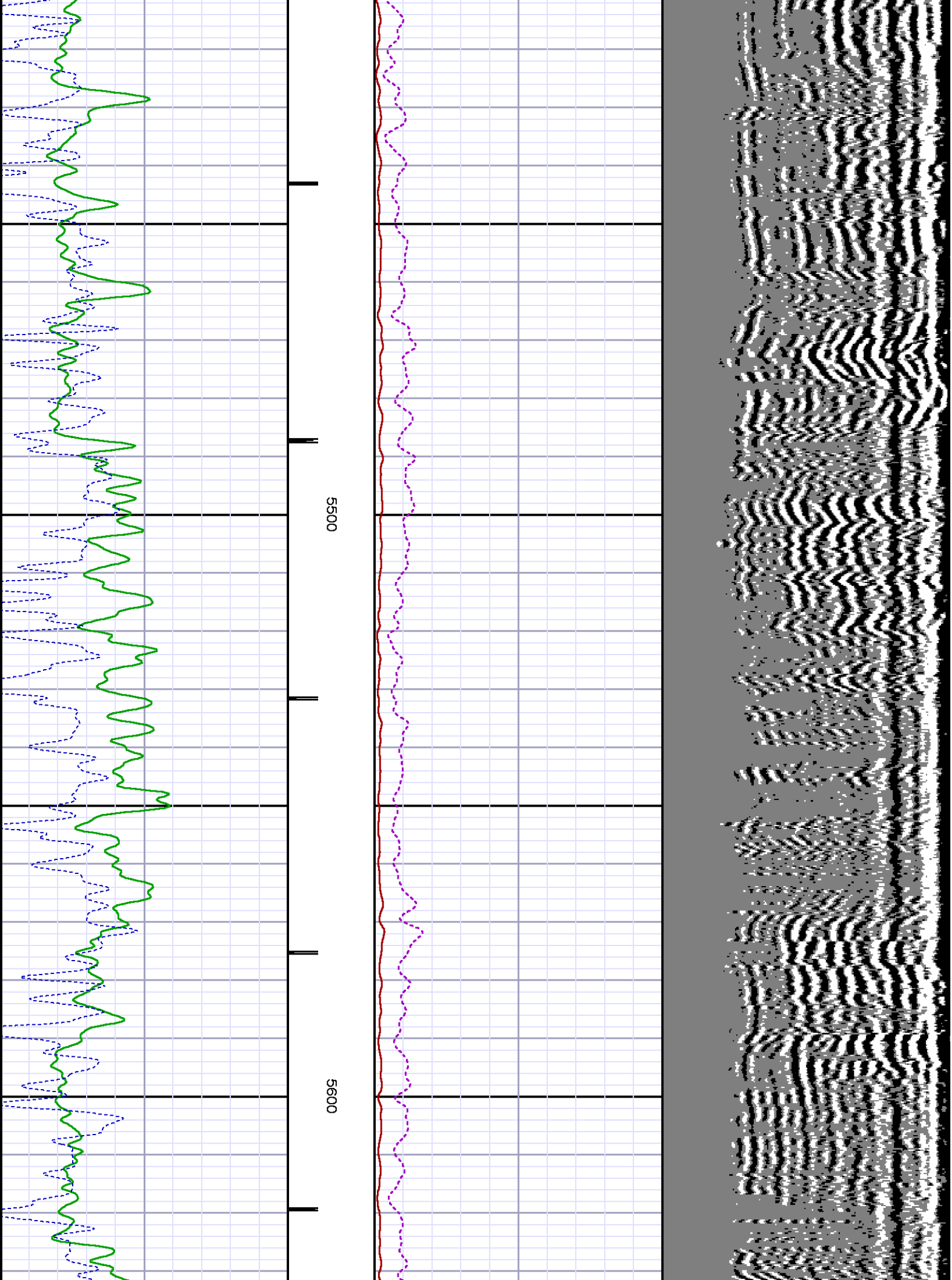


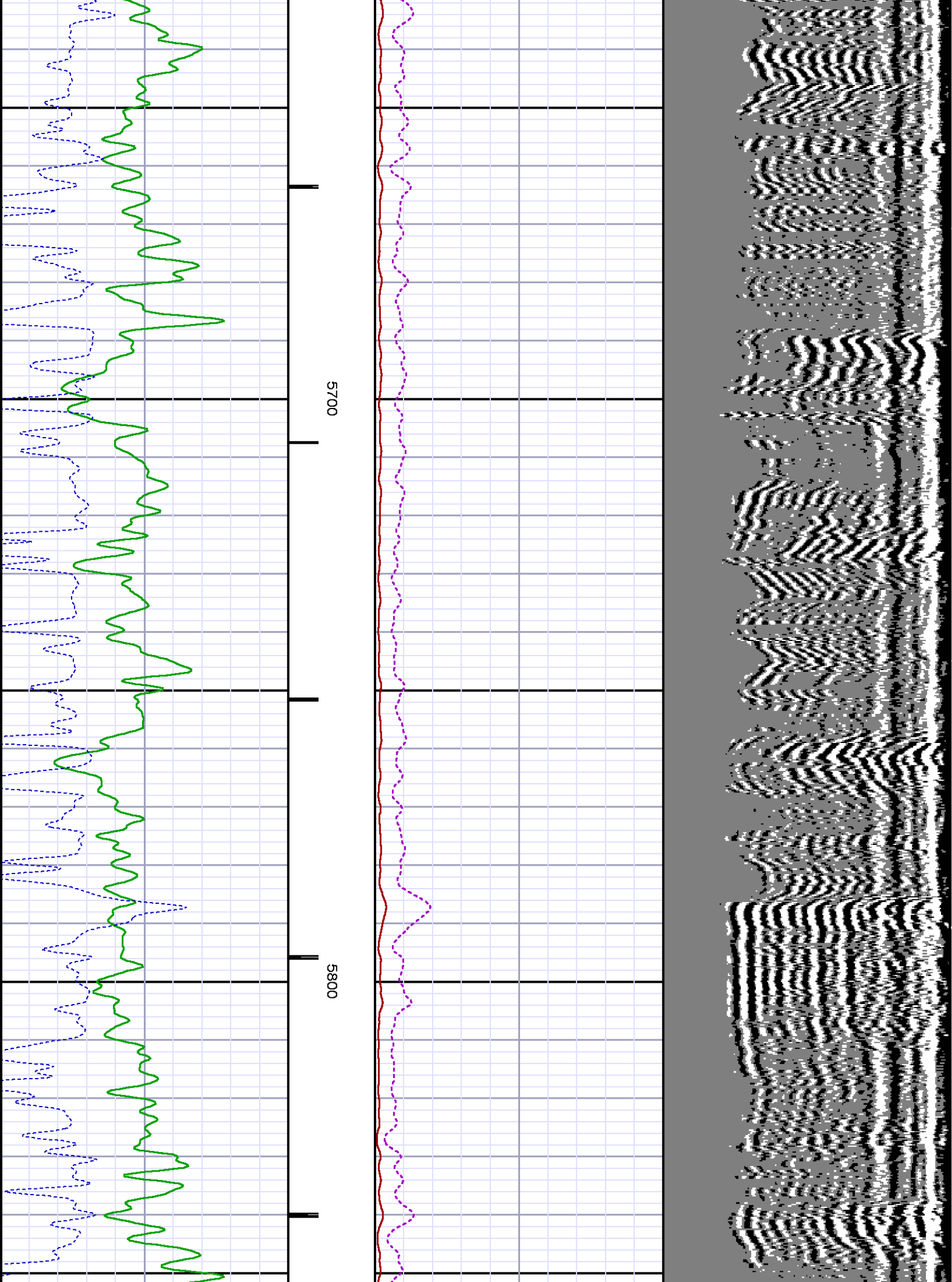


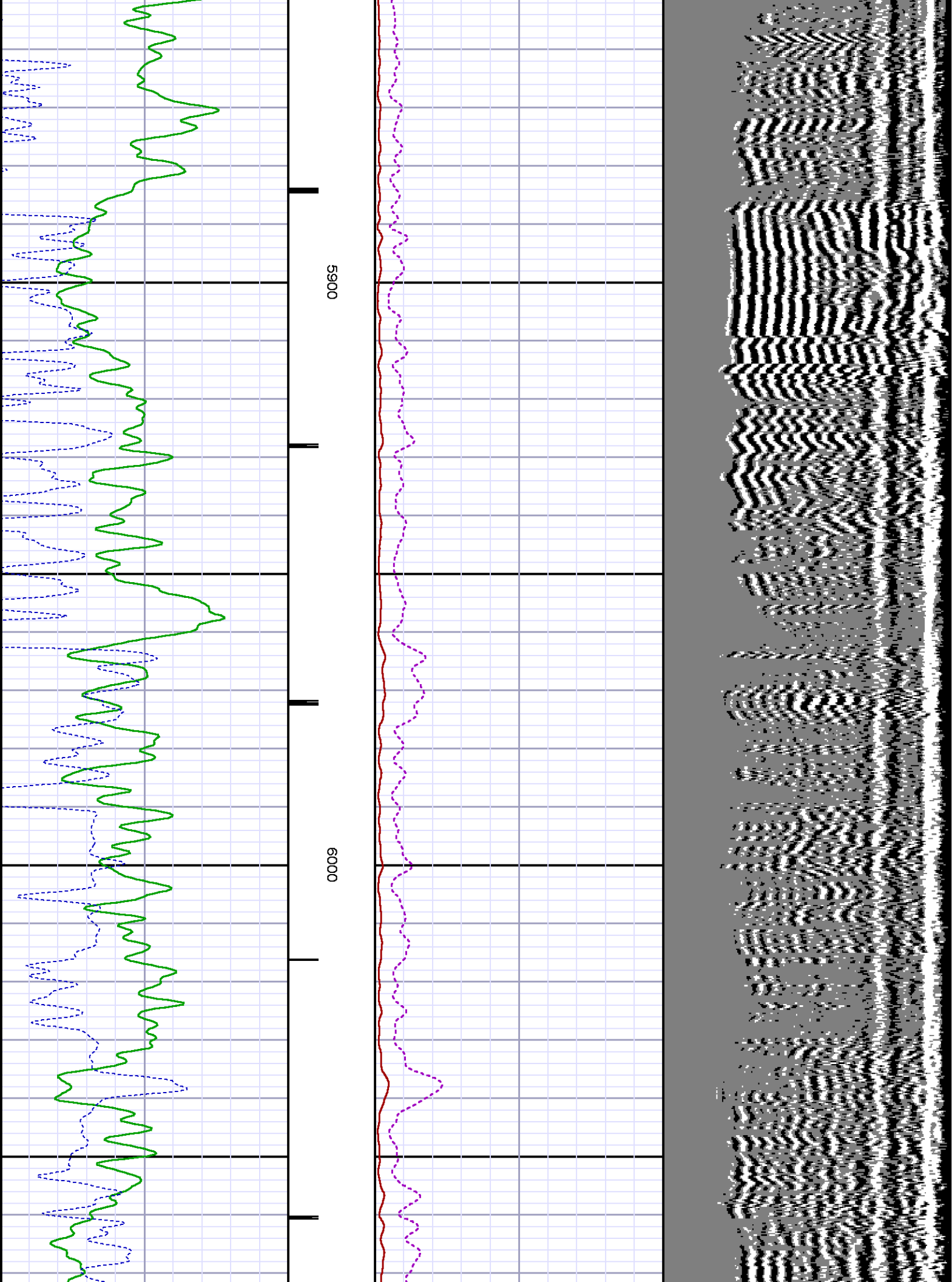


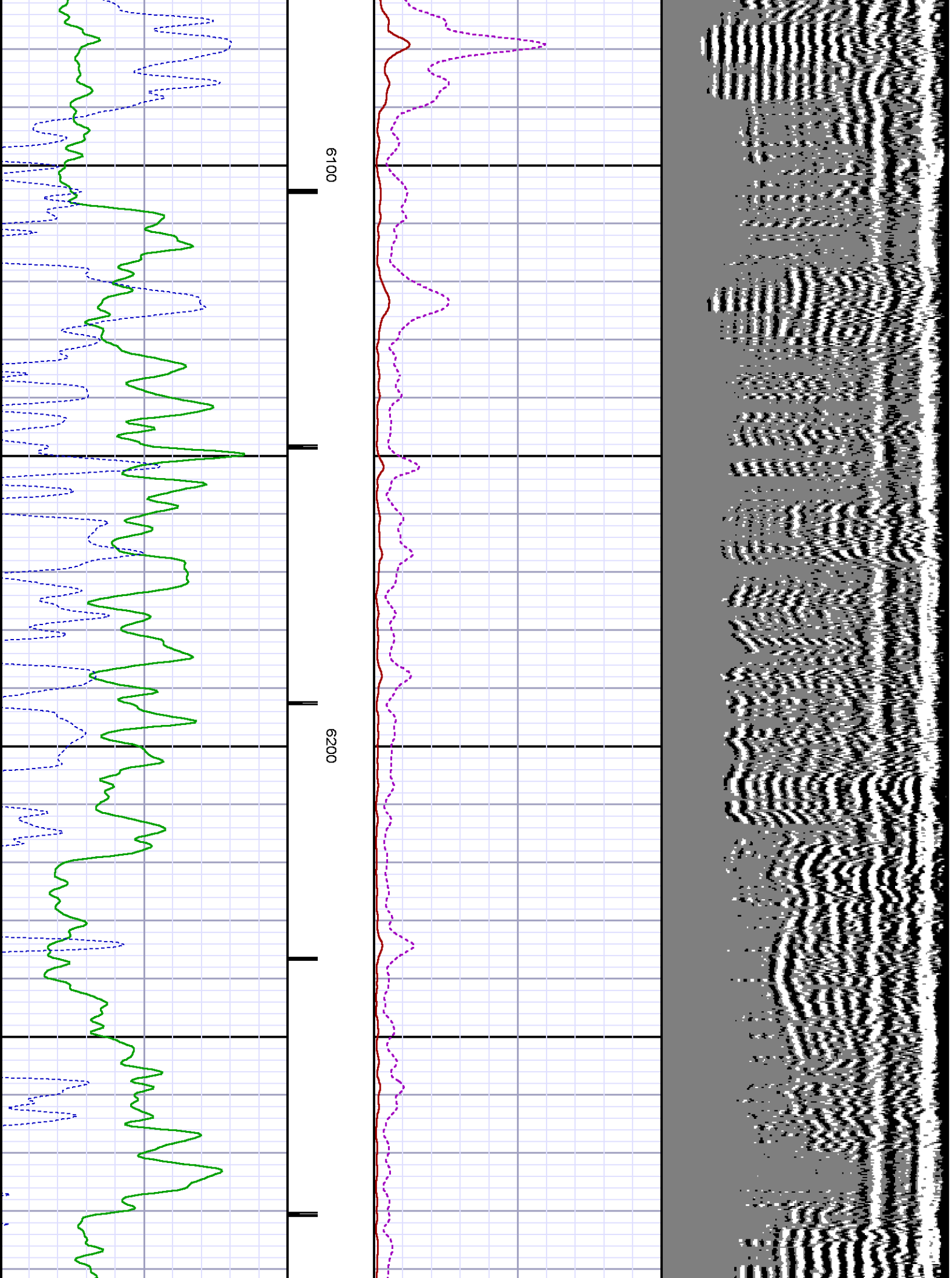


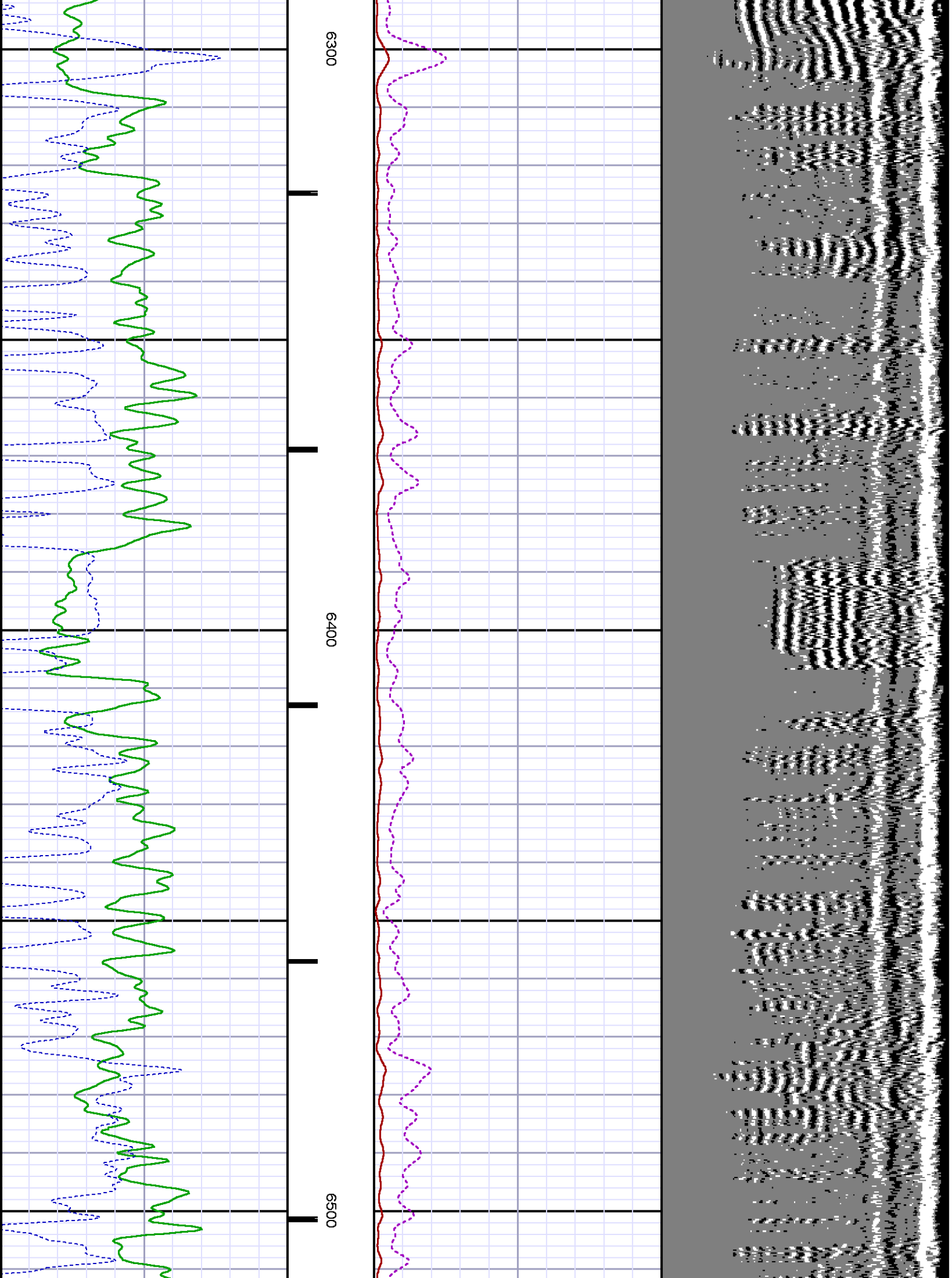


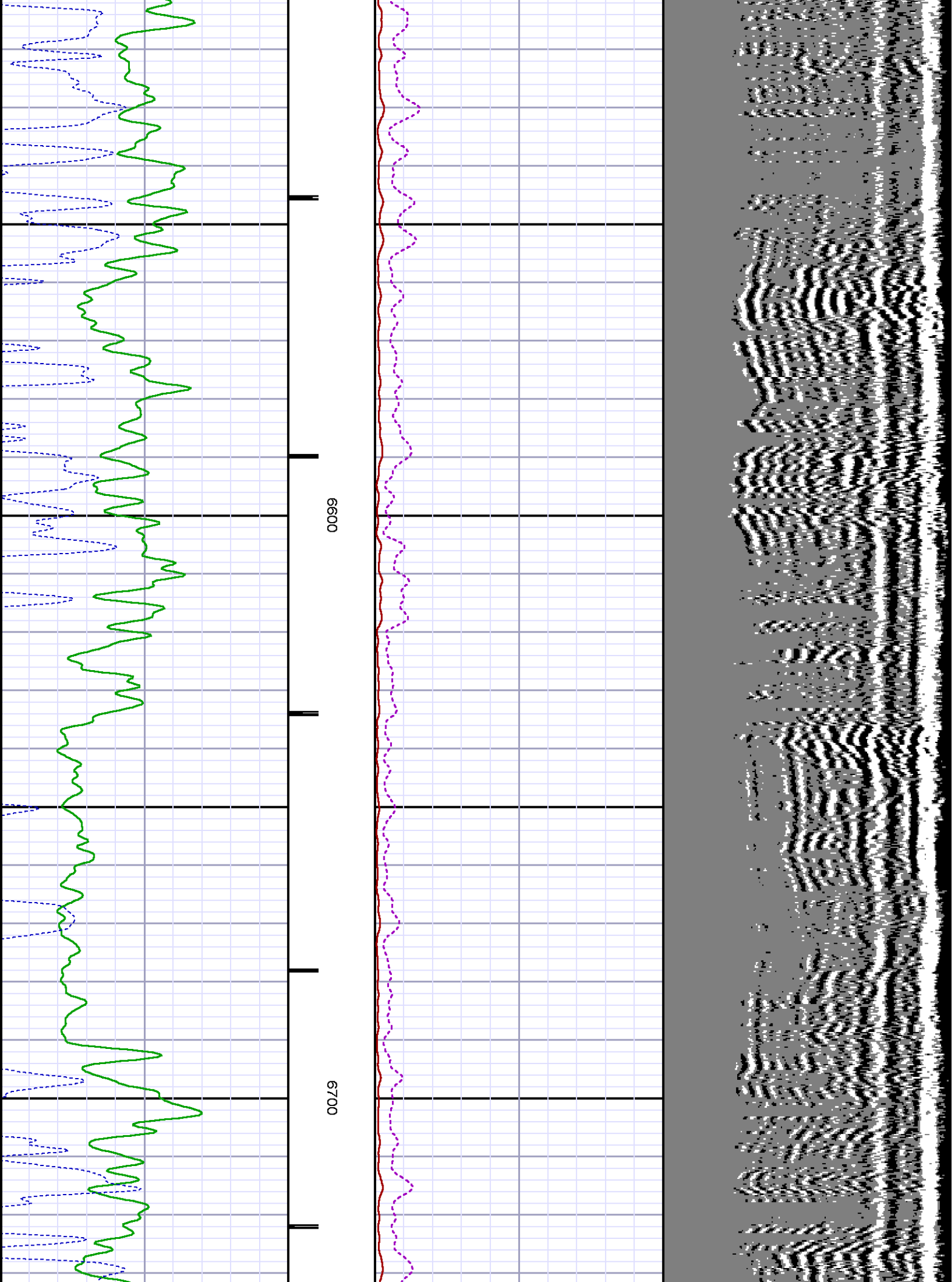


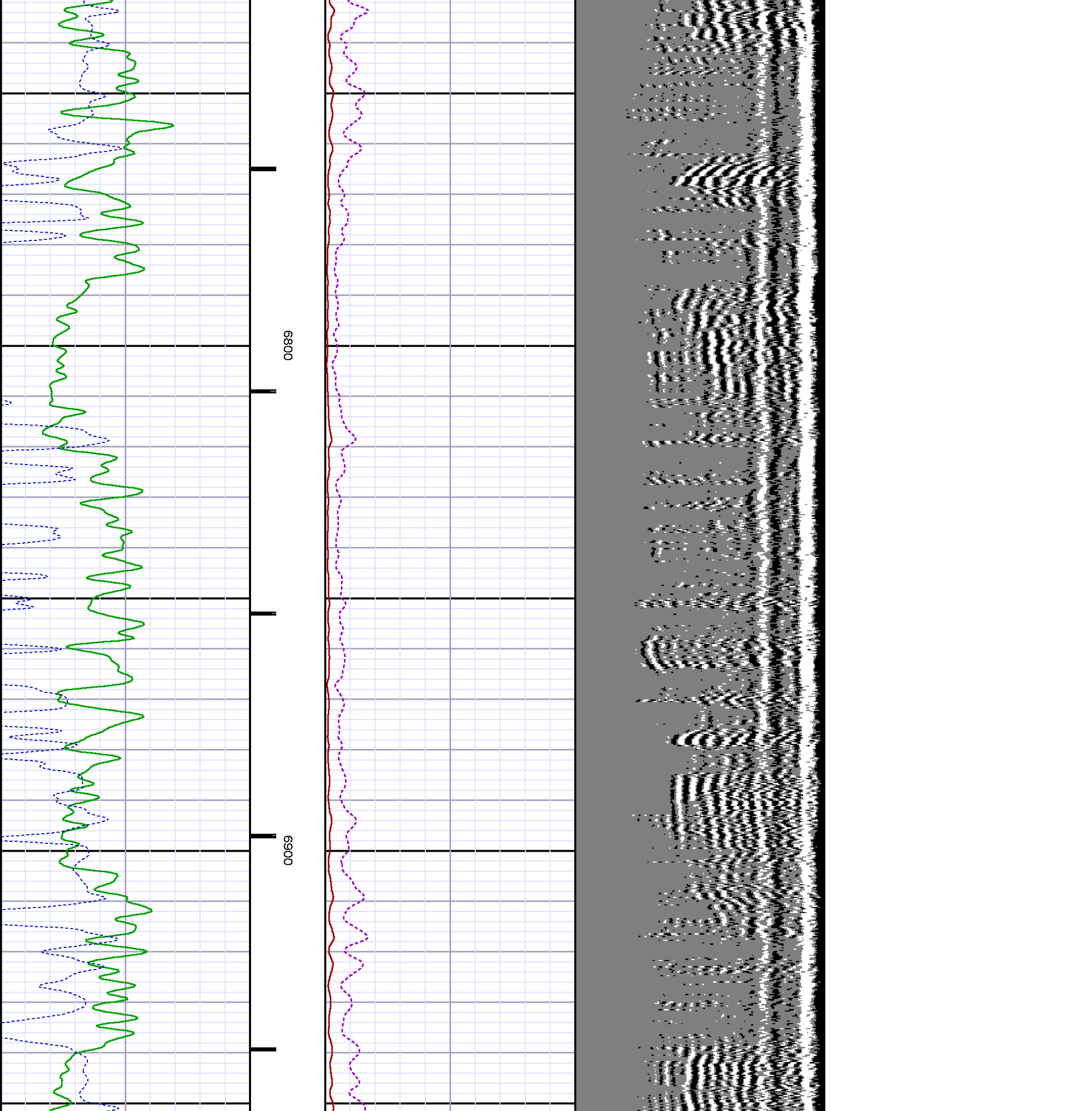


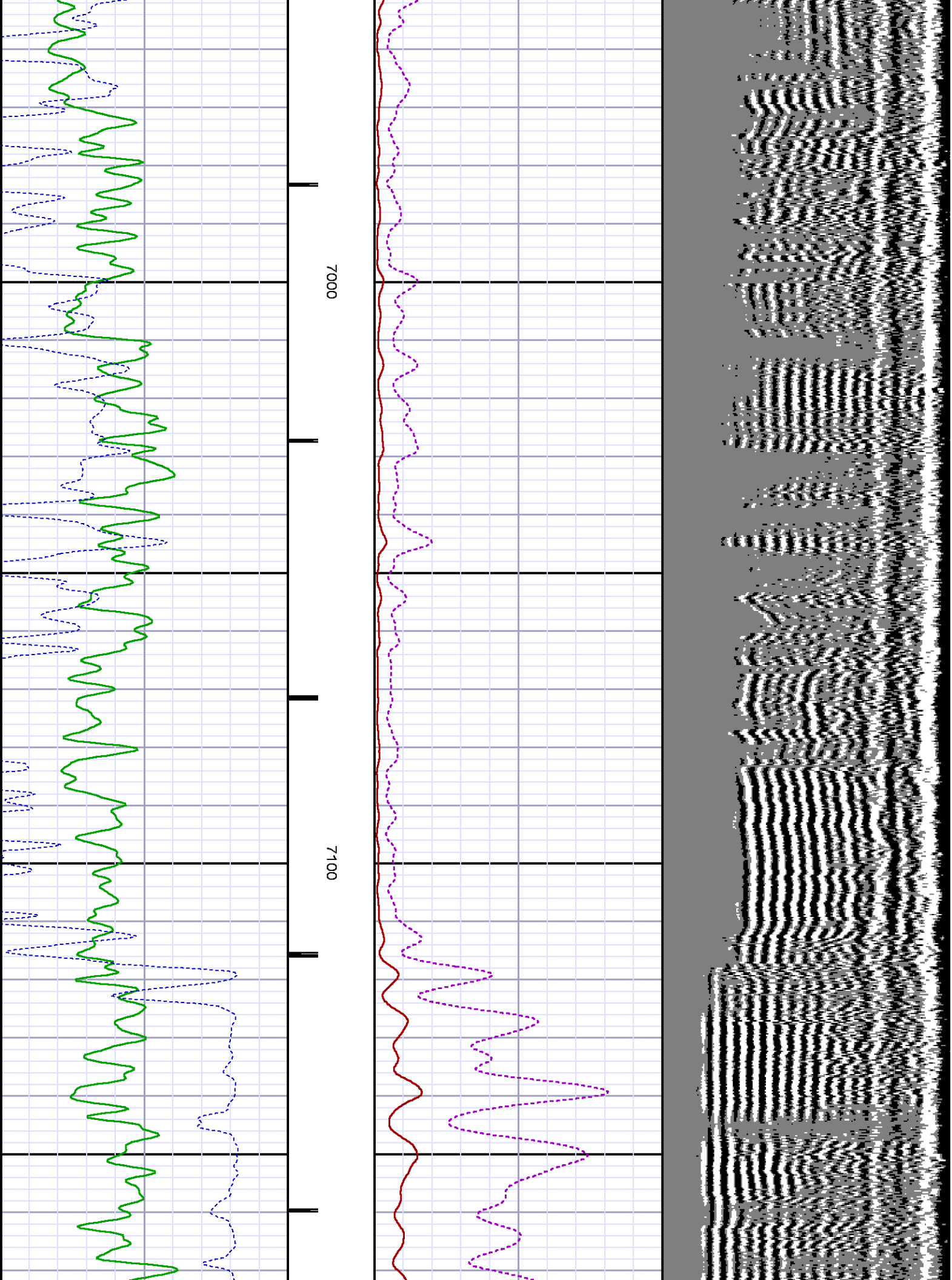


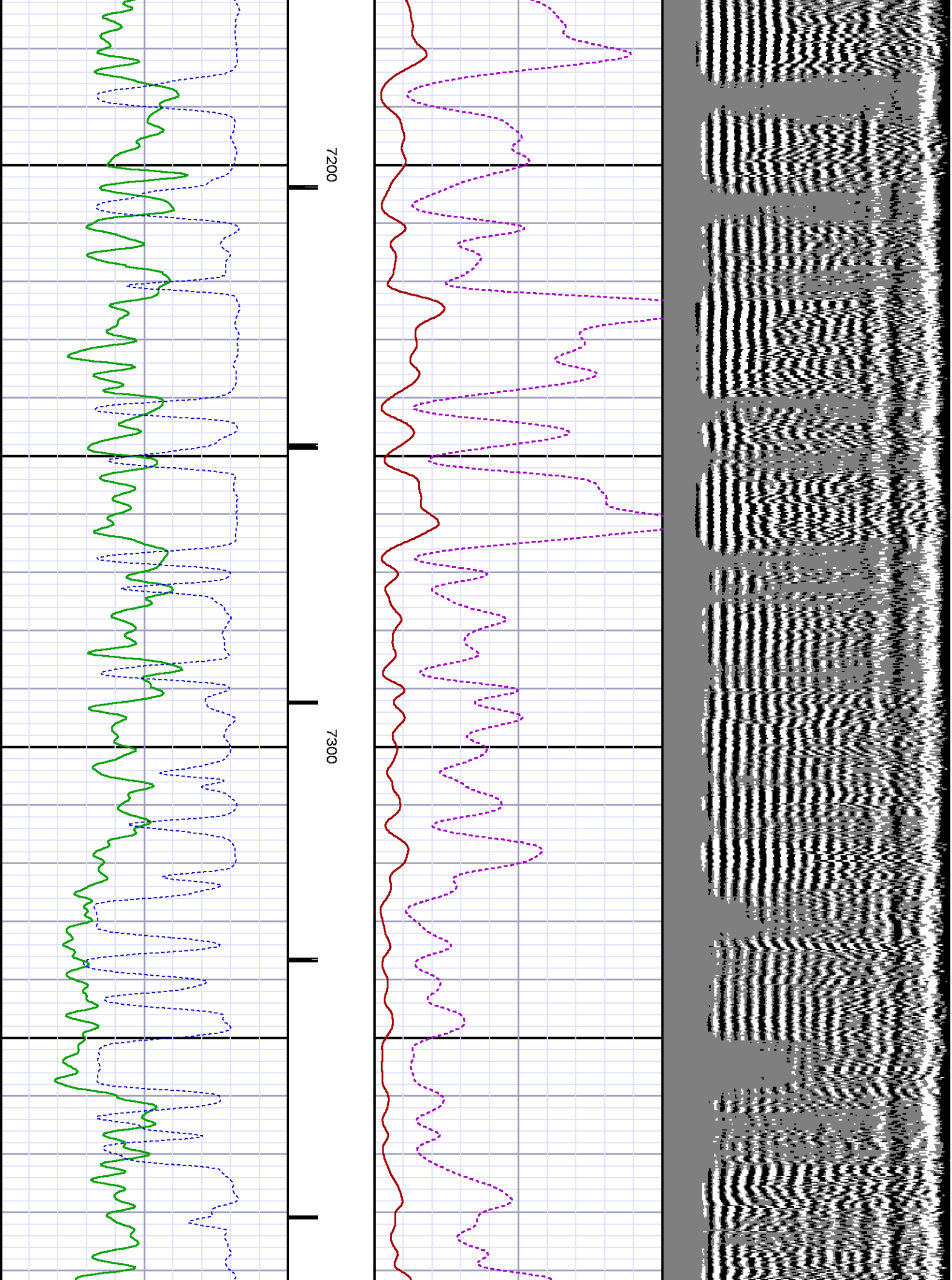


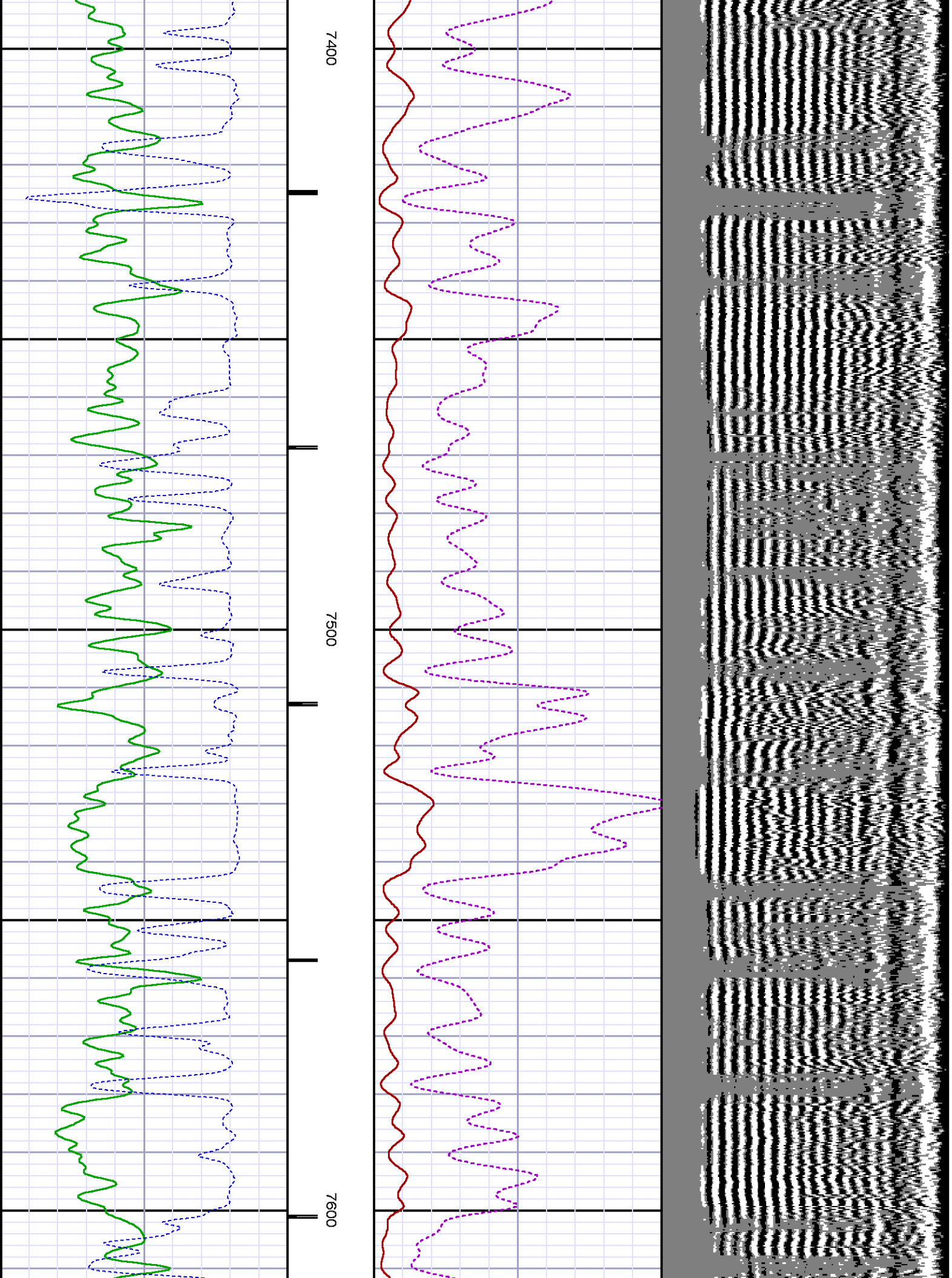


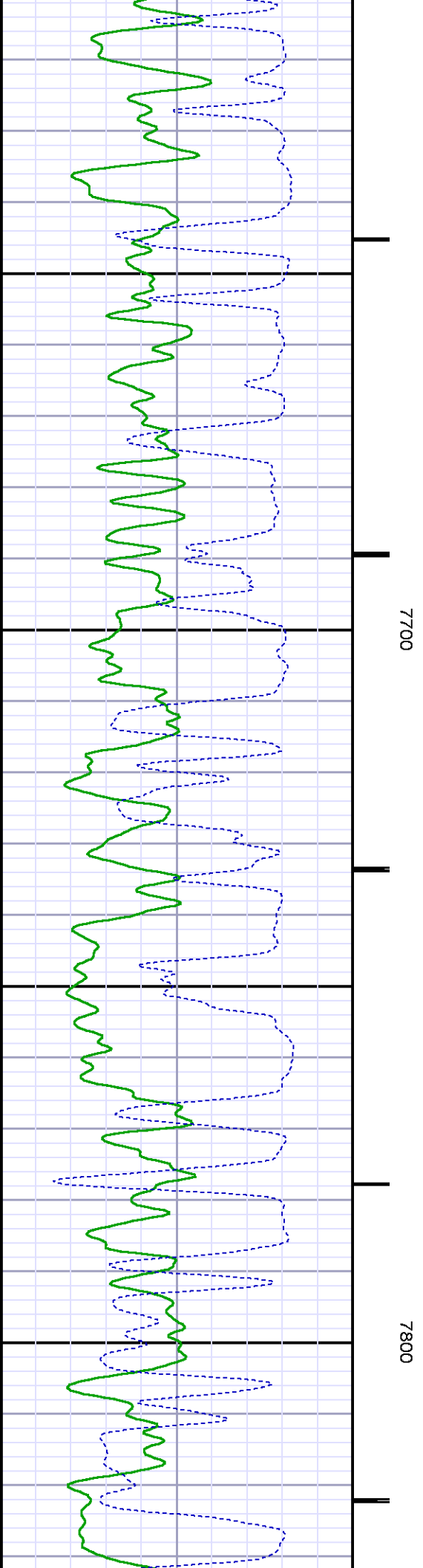
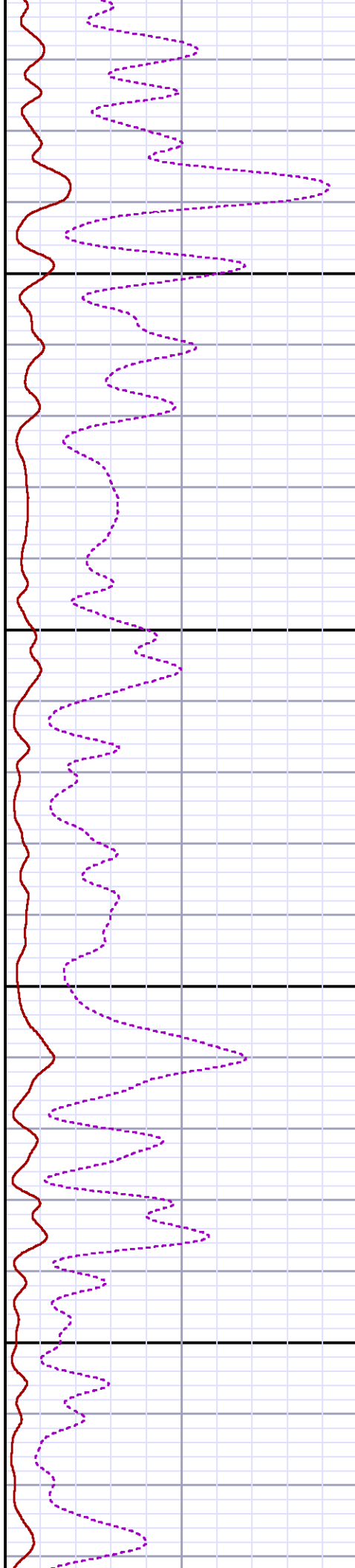
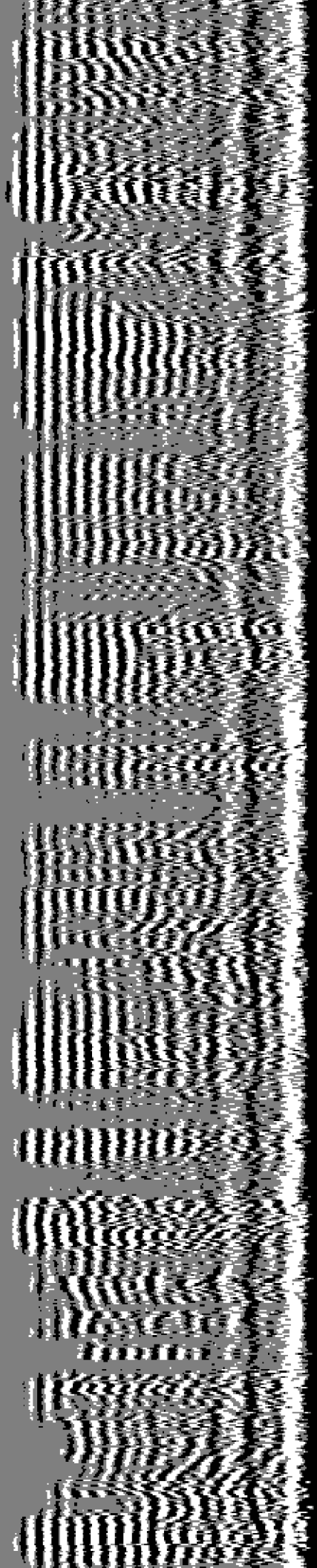


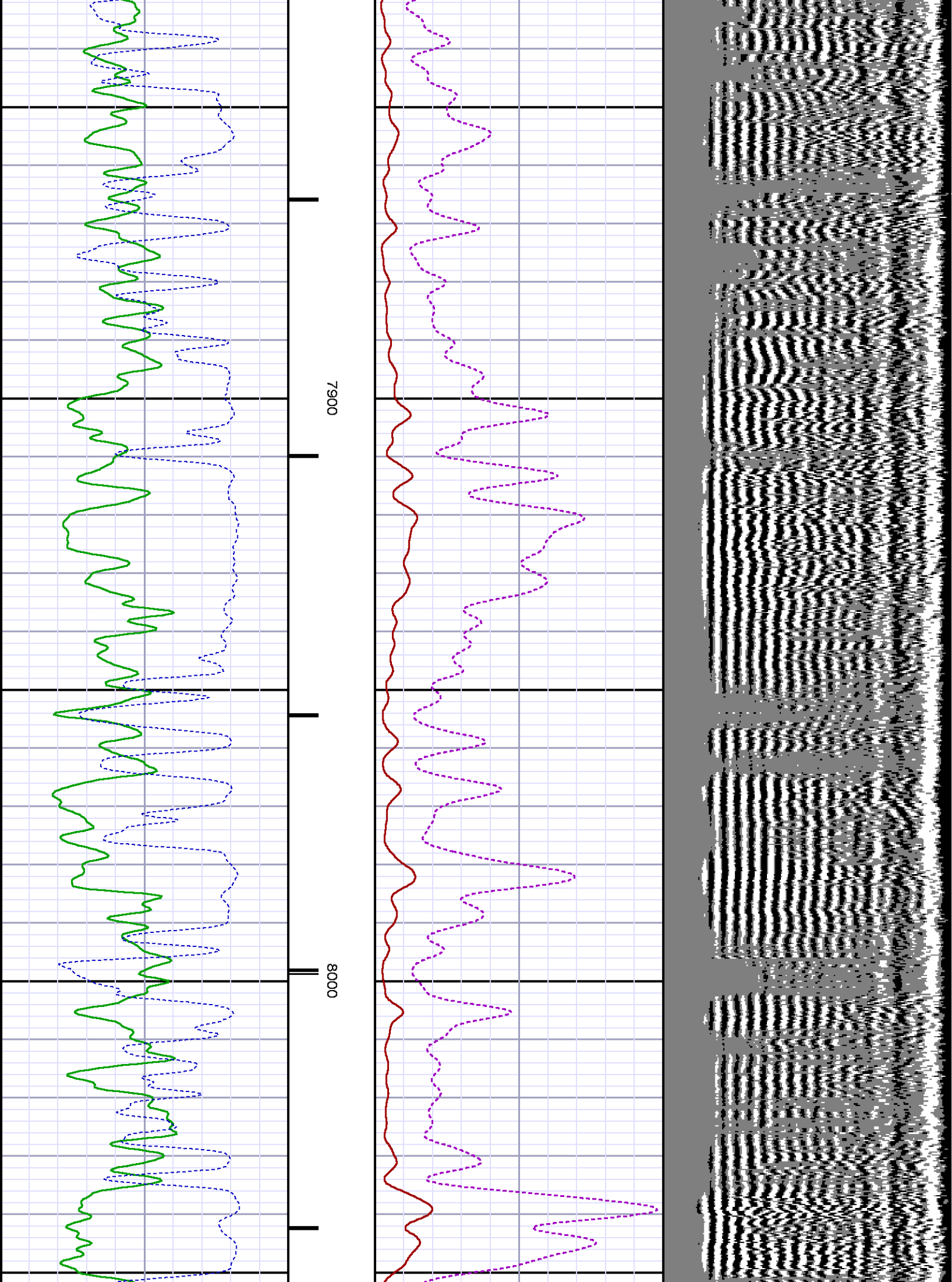


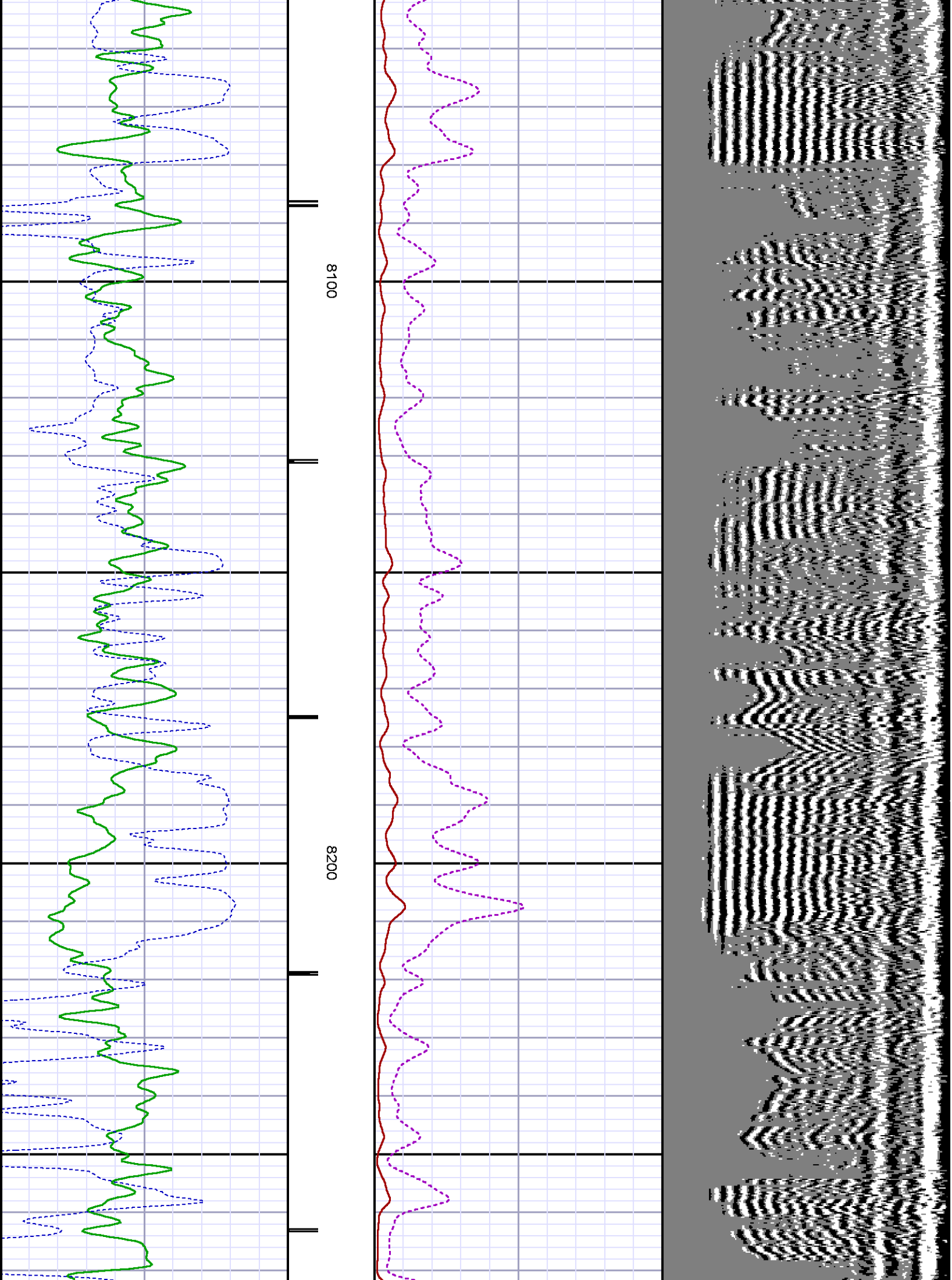


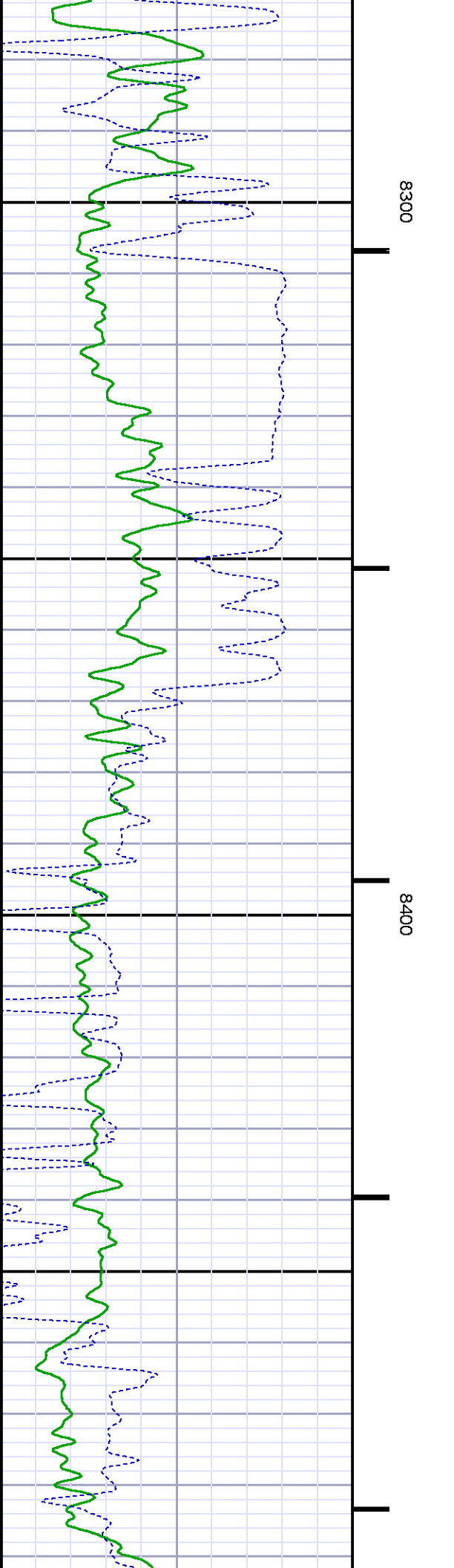
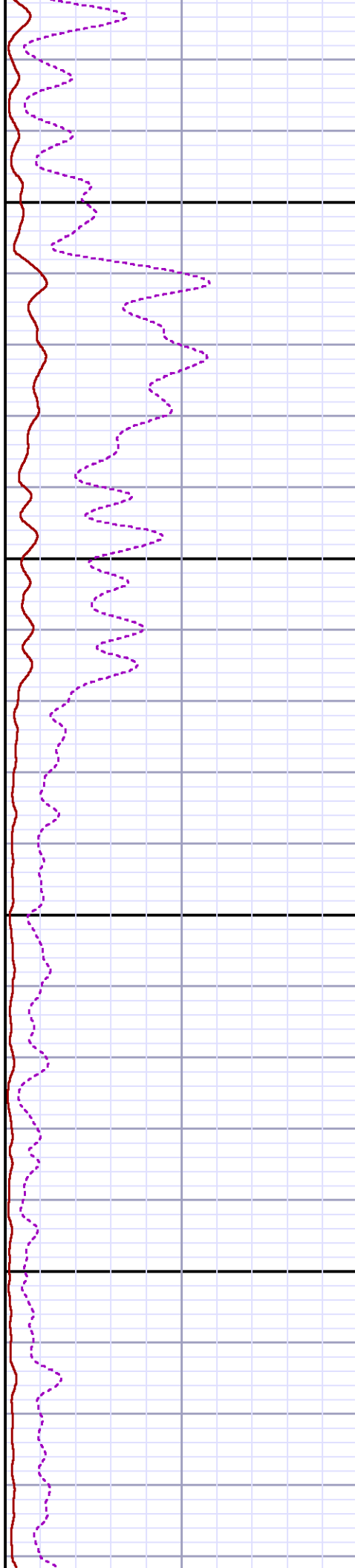
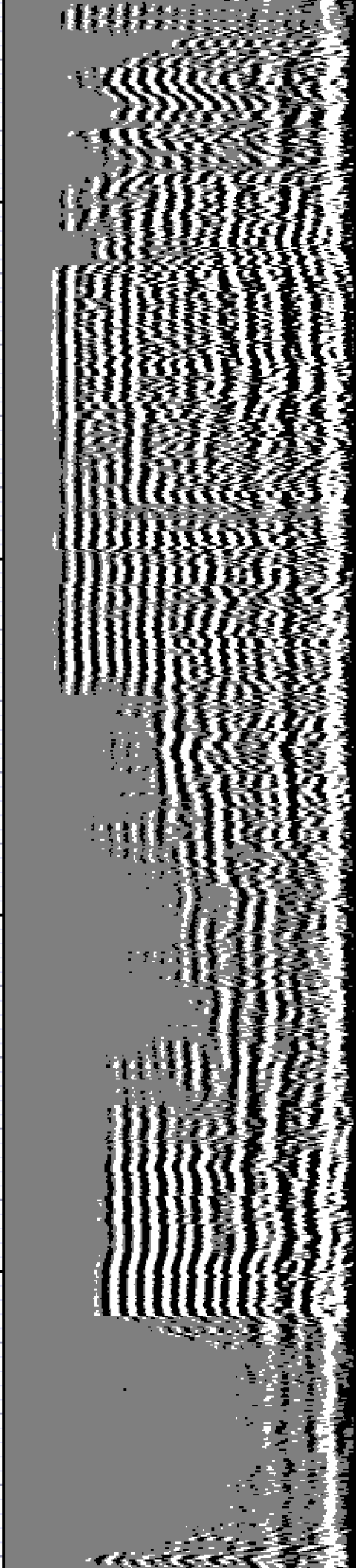


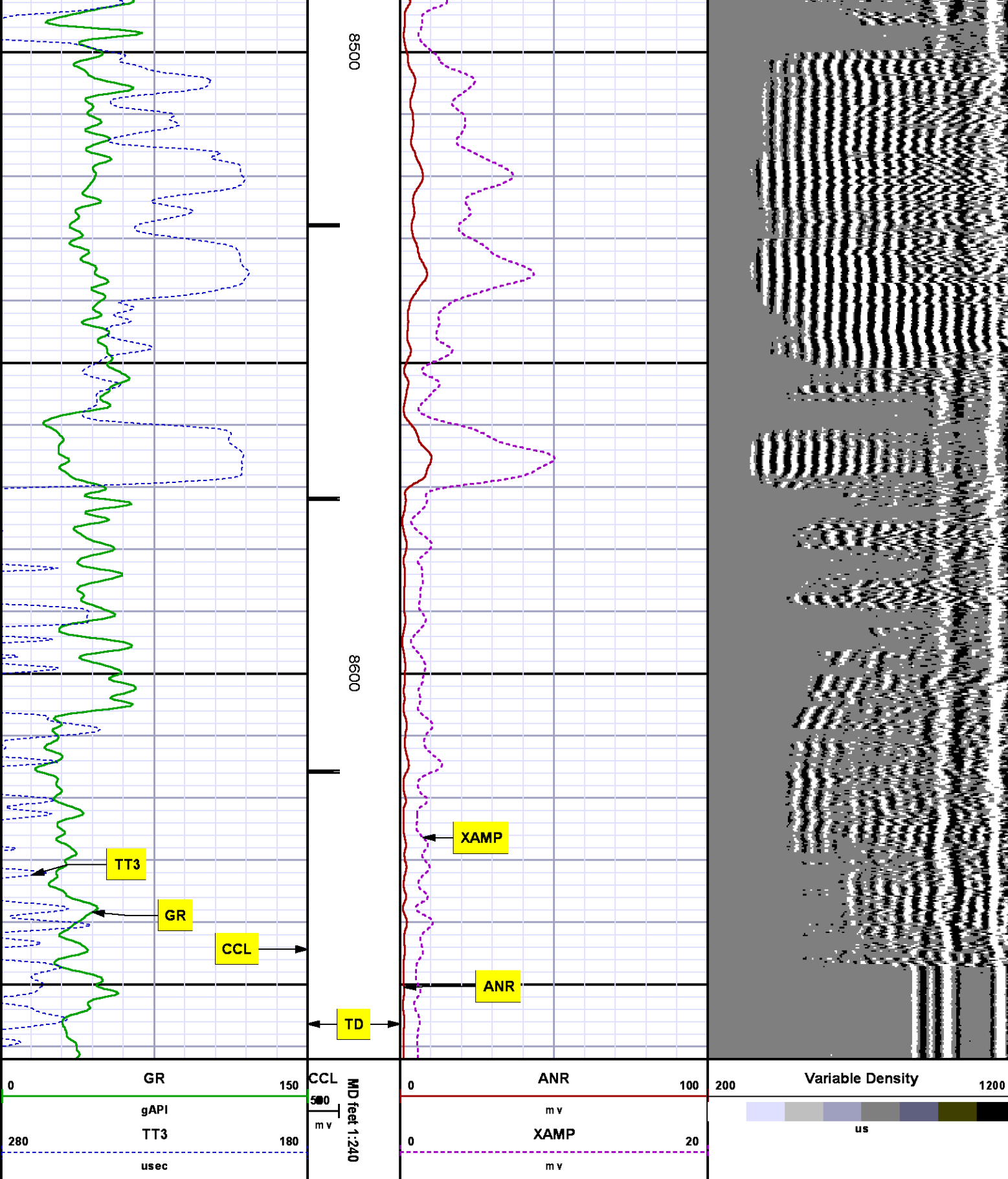












SECONDARY PRESENTATION

G RSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	29.969	8674.500
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RAL	FB Start Far	291.900	usec	29.969	8674.500
RAL	FB Start Near	180.000	usec	29.969	8674.500
RAL	FB Start Radial	180.000	usec	29.969	8674.500
RAL	FB Thresh Far	10.000	mv	29.969	8674.500
RAL	FB Thresh Near	4.000	mv	29.969	8674.500
RAL	FB Thresh Radial	4.000	mv	29.969	8674.500
RAL	Fluid Travel Time	200.000	usec/ft	29.969	8674.313

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

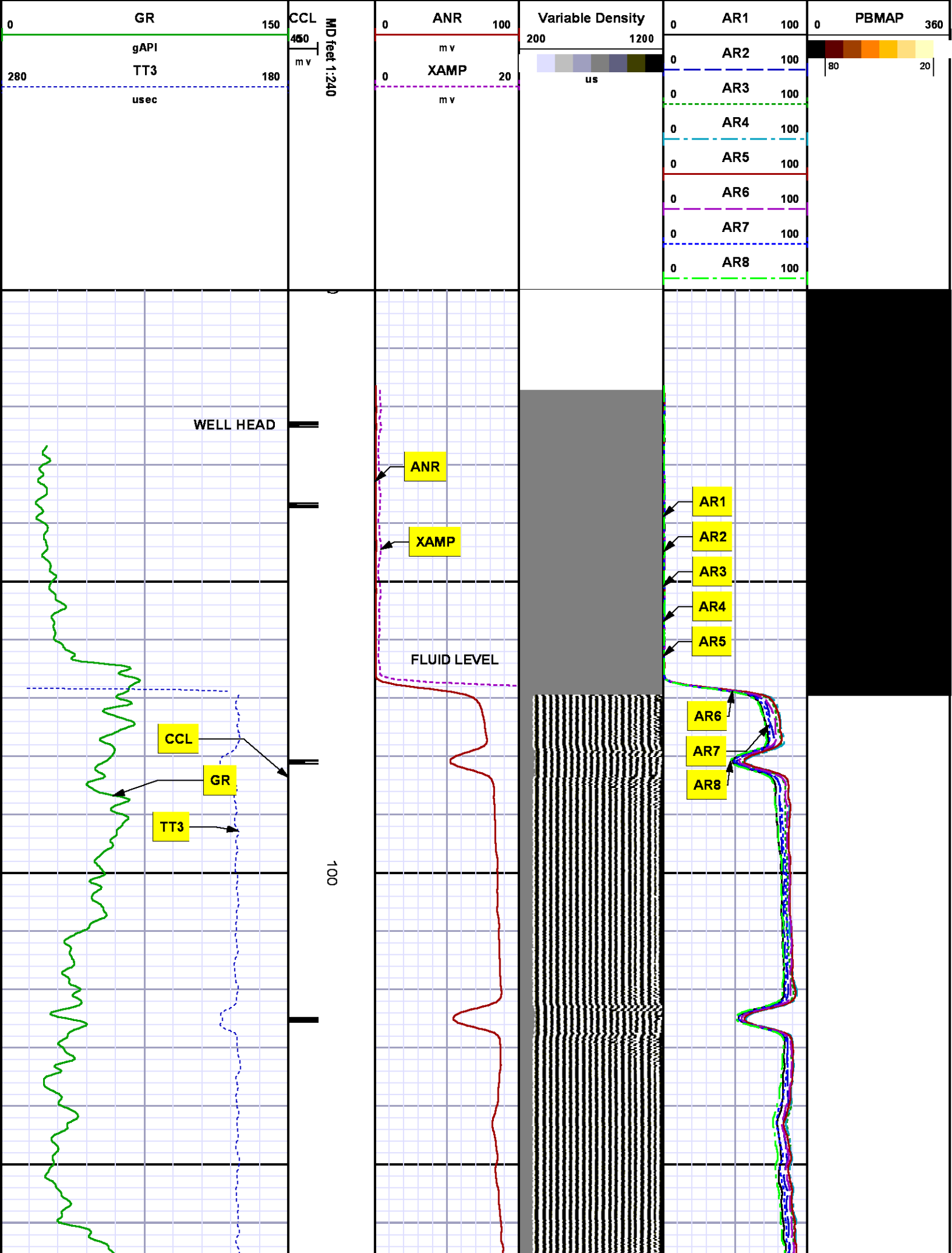
Company : WPX ENERGY

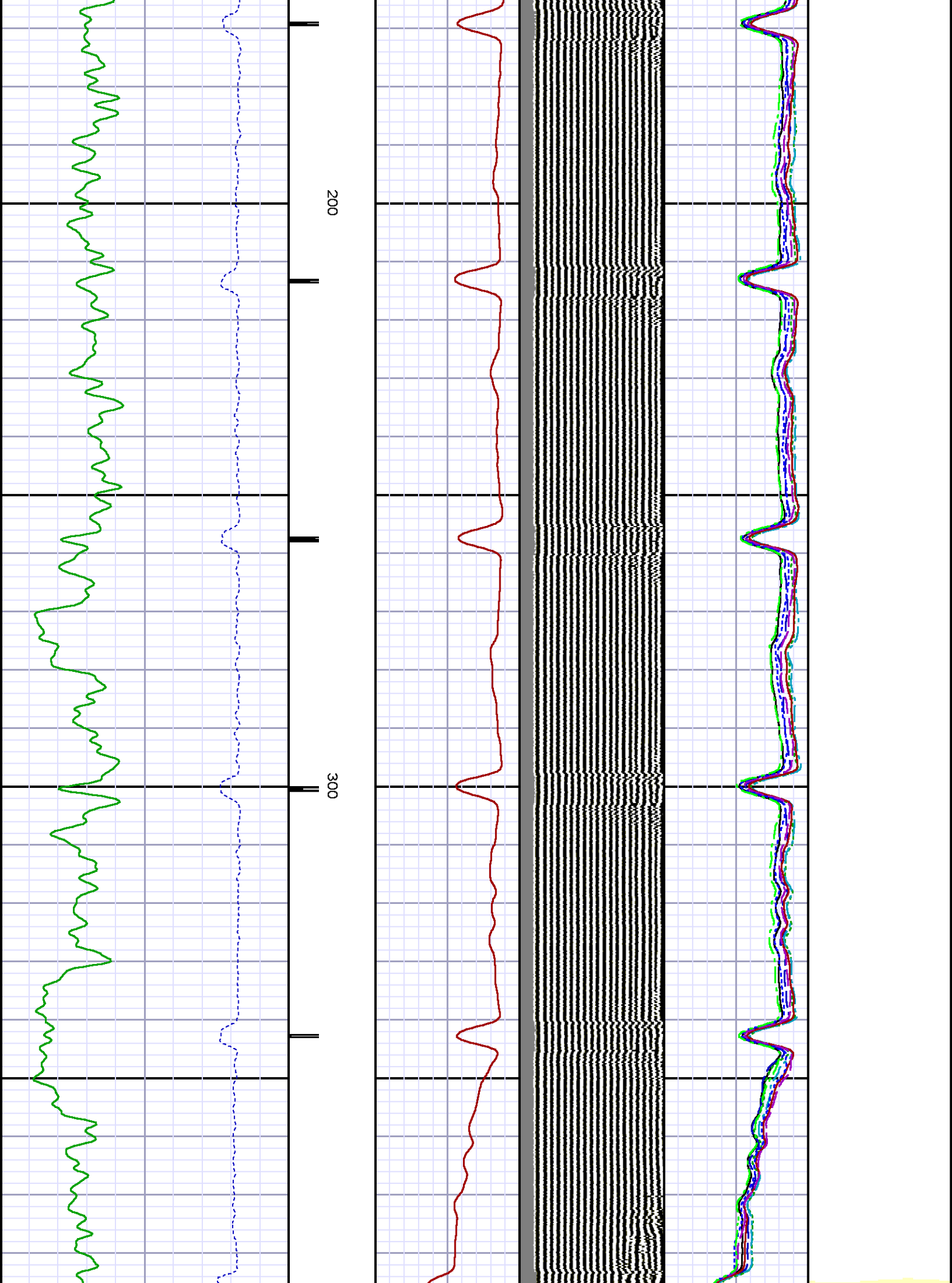
Well : FEDERAL PA 321-27

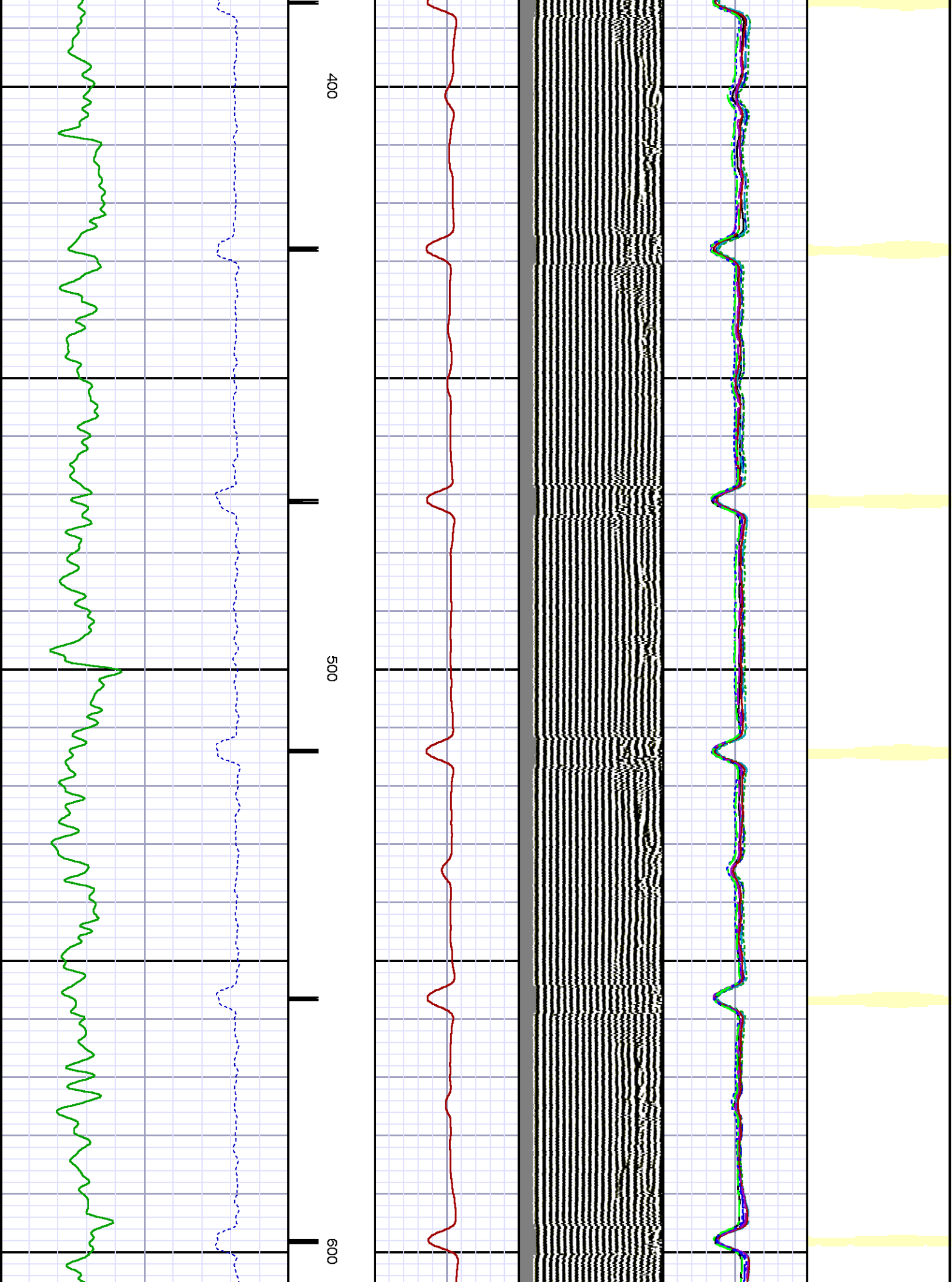
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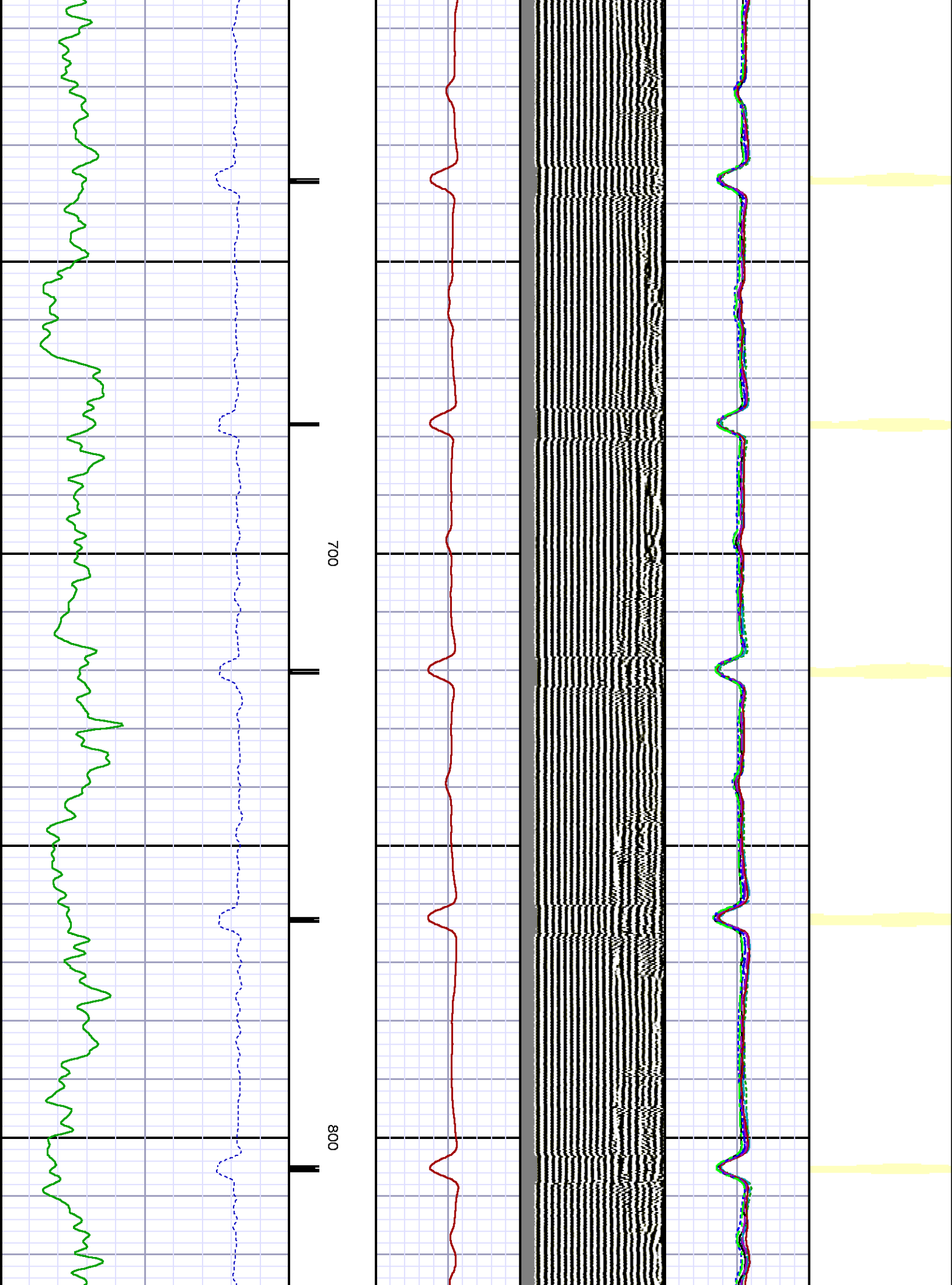
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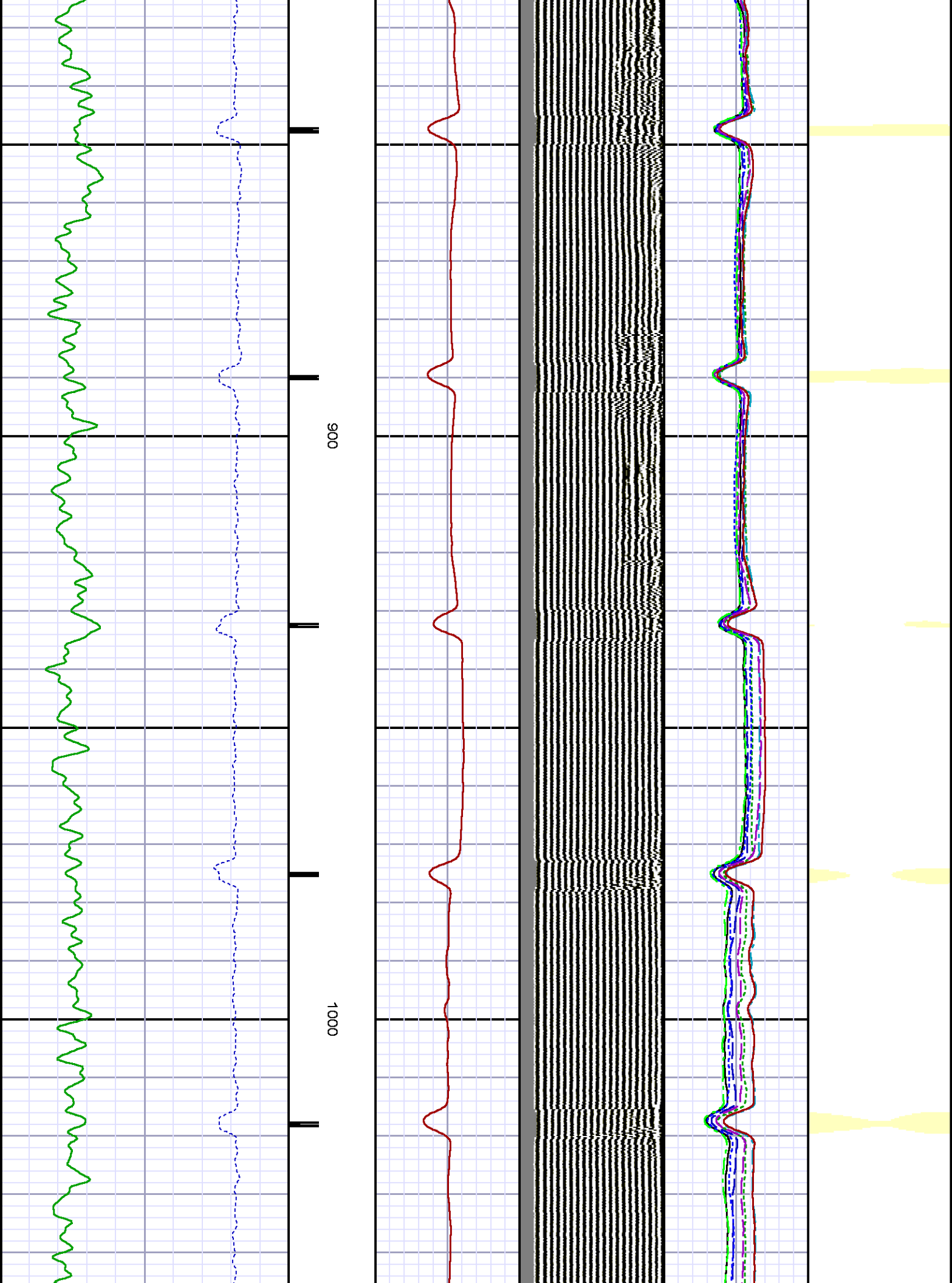
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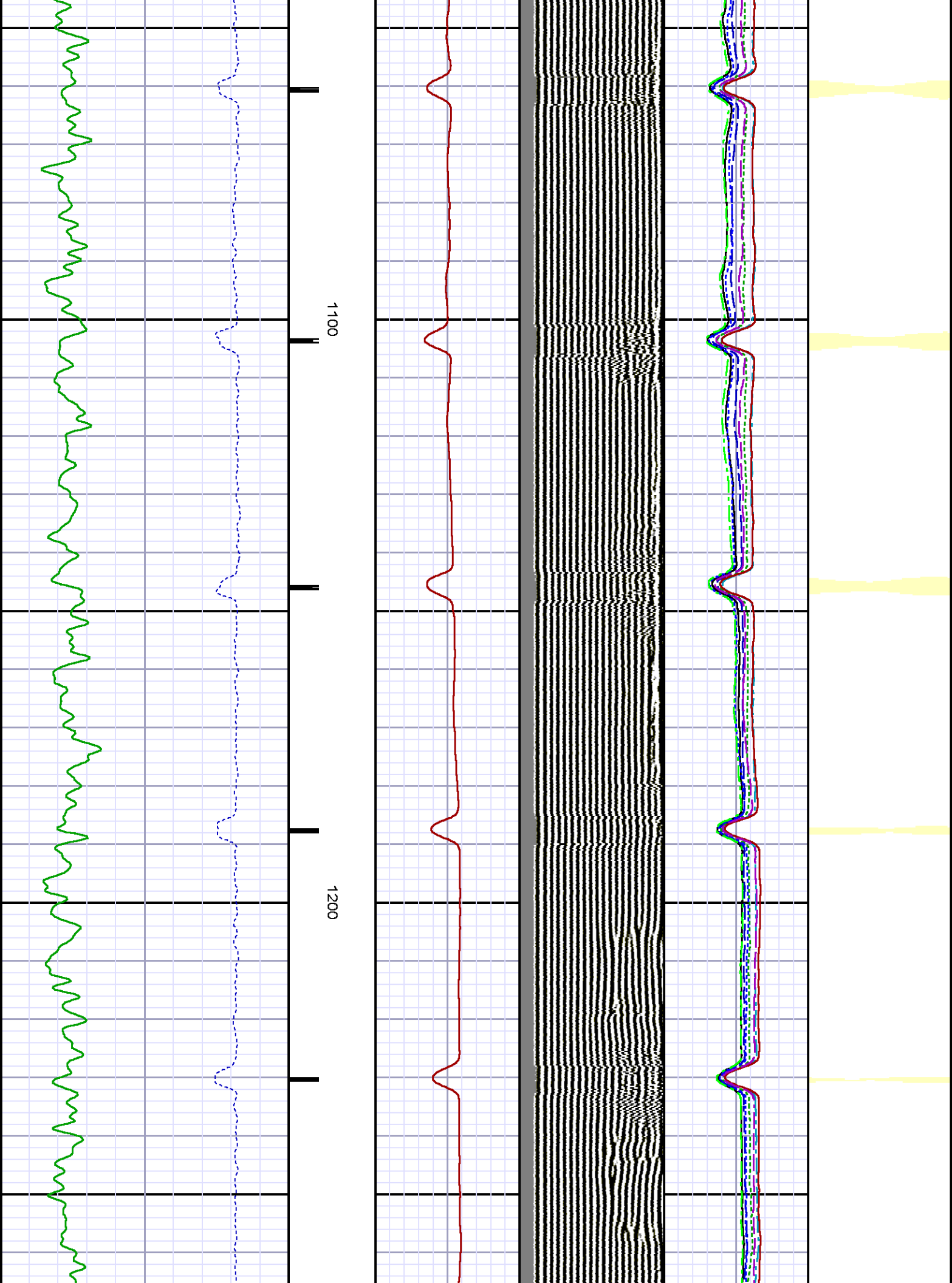


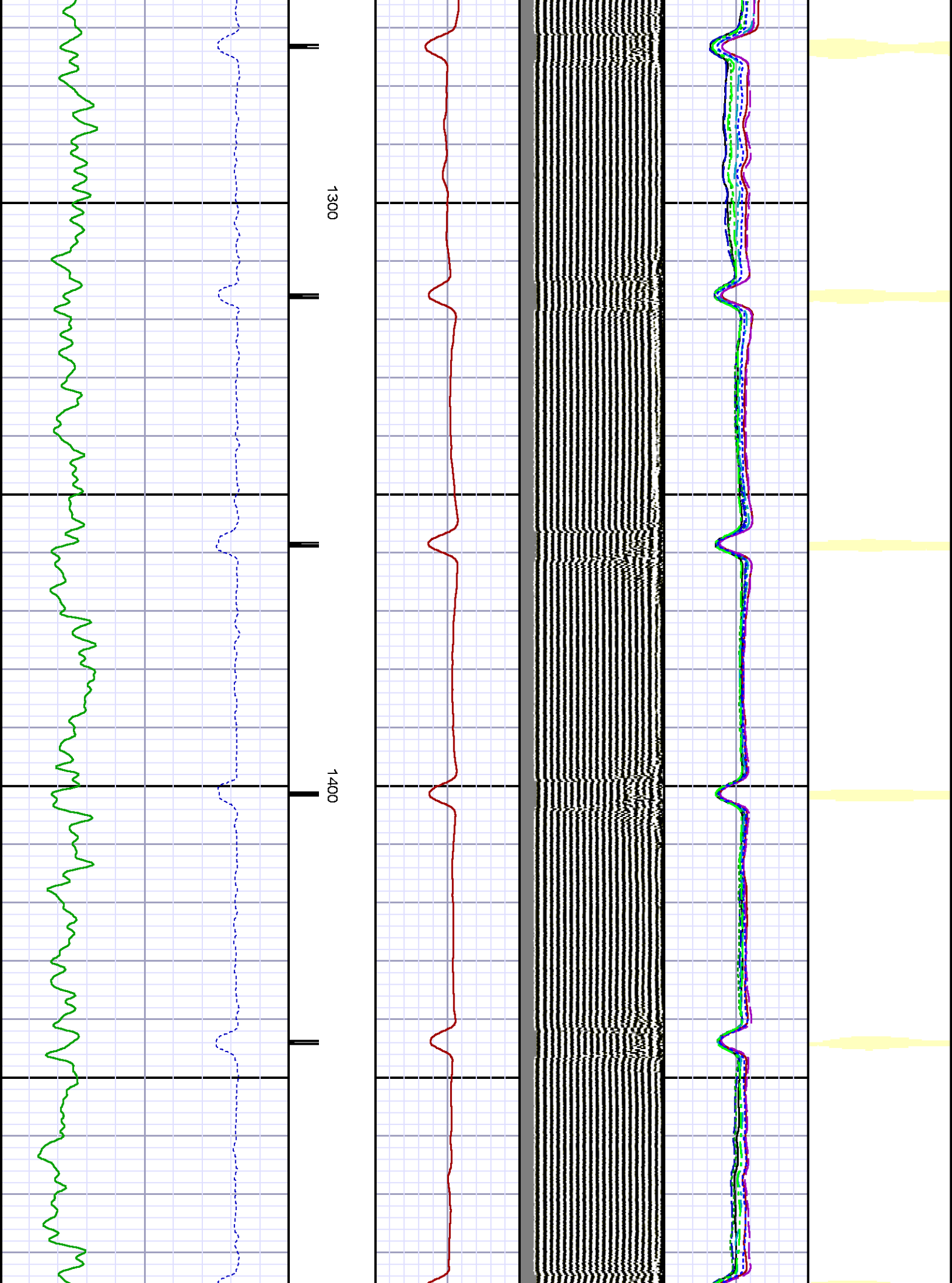


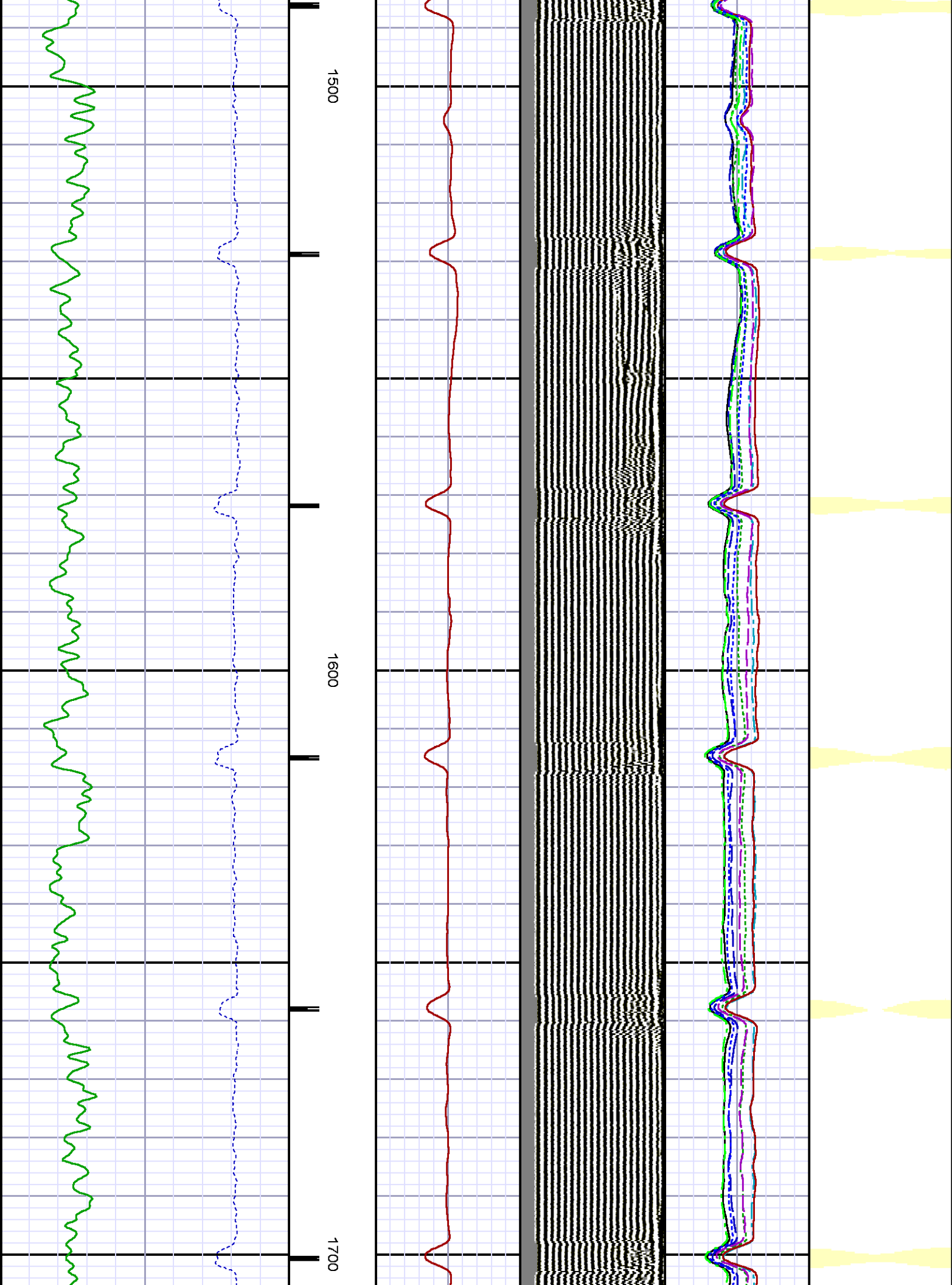


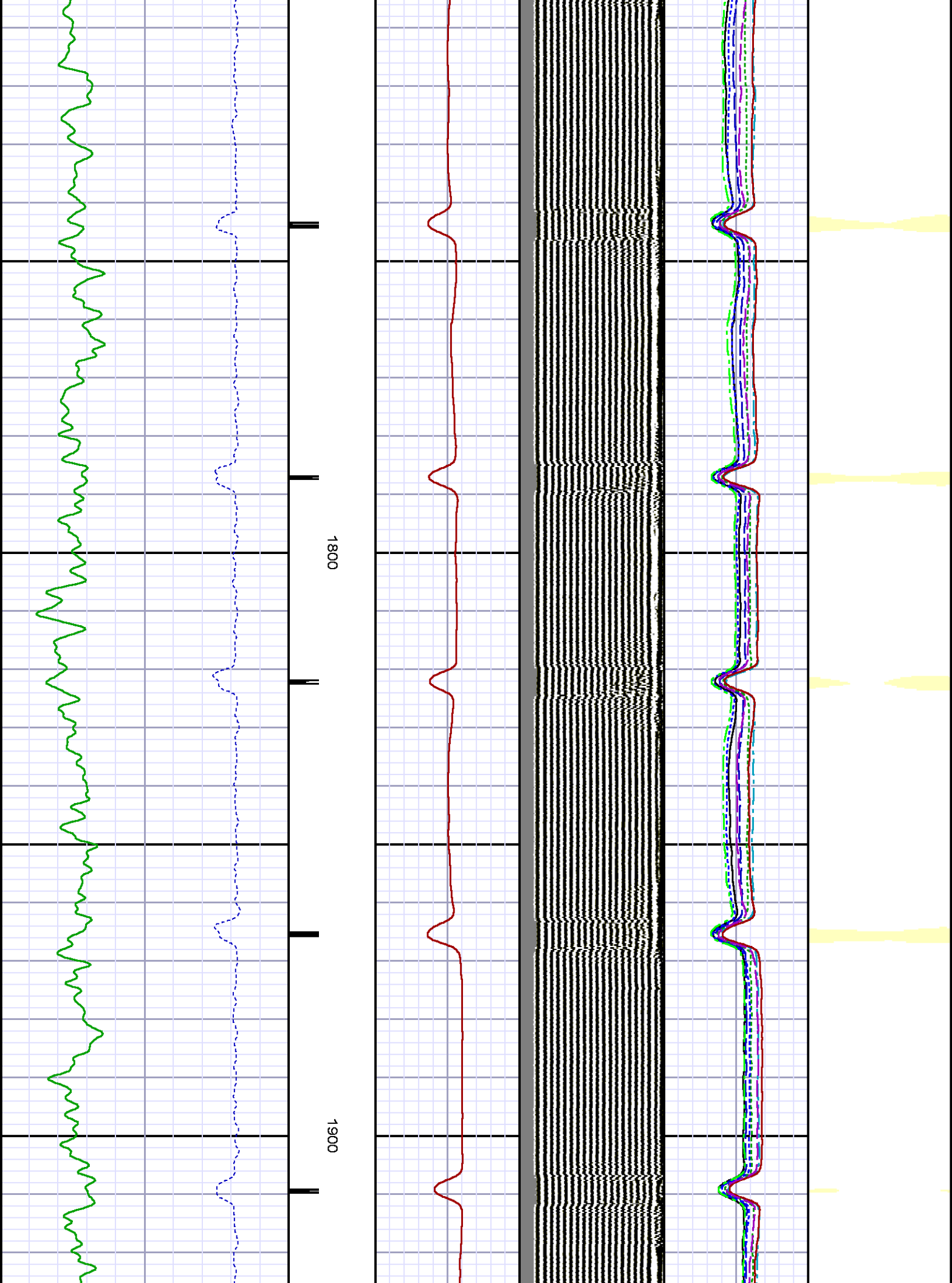


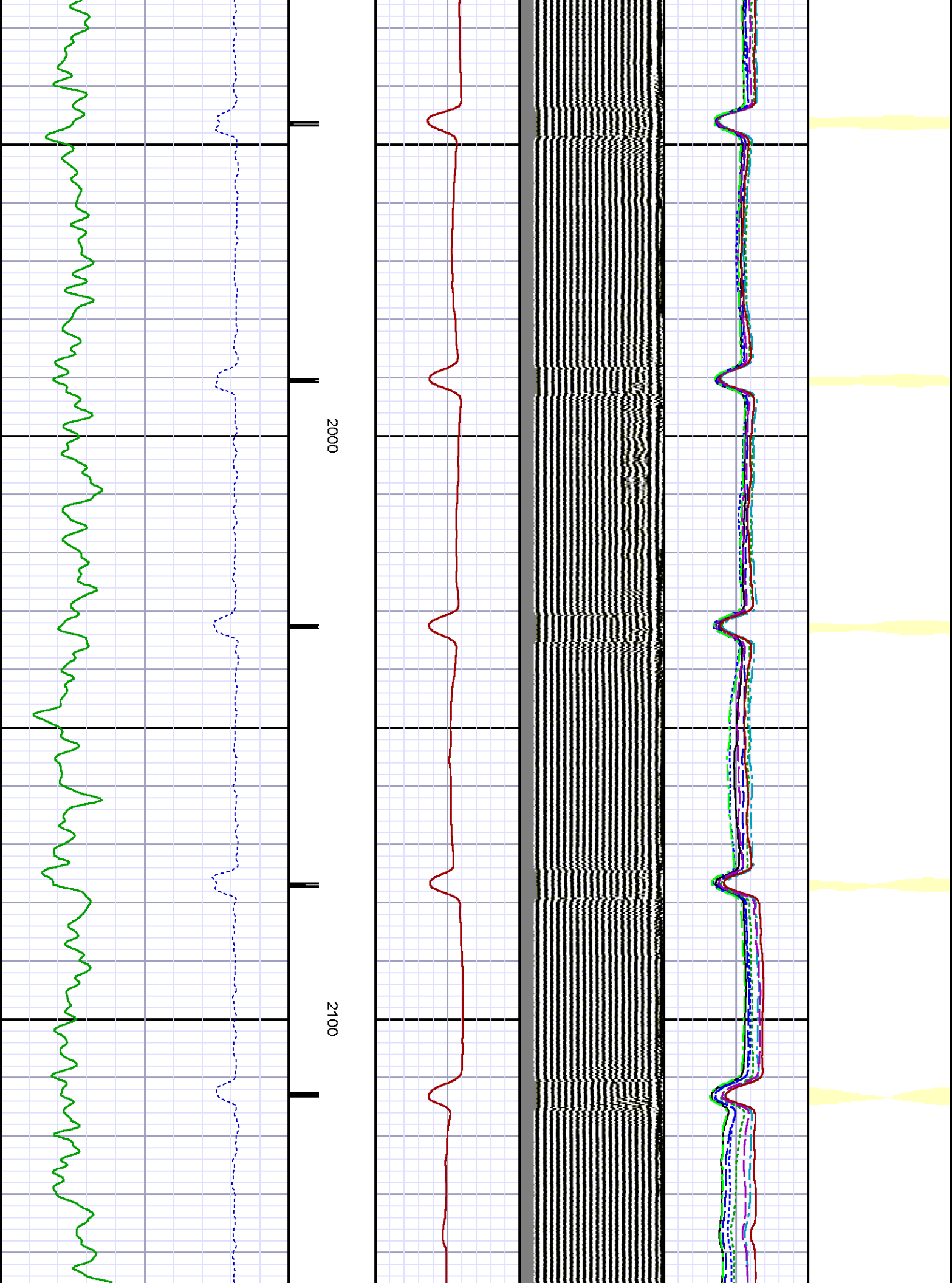


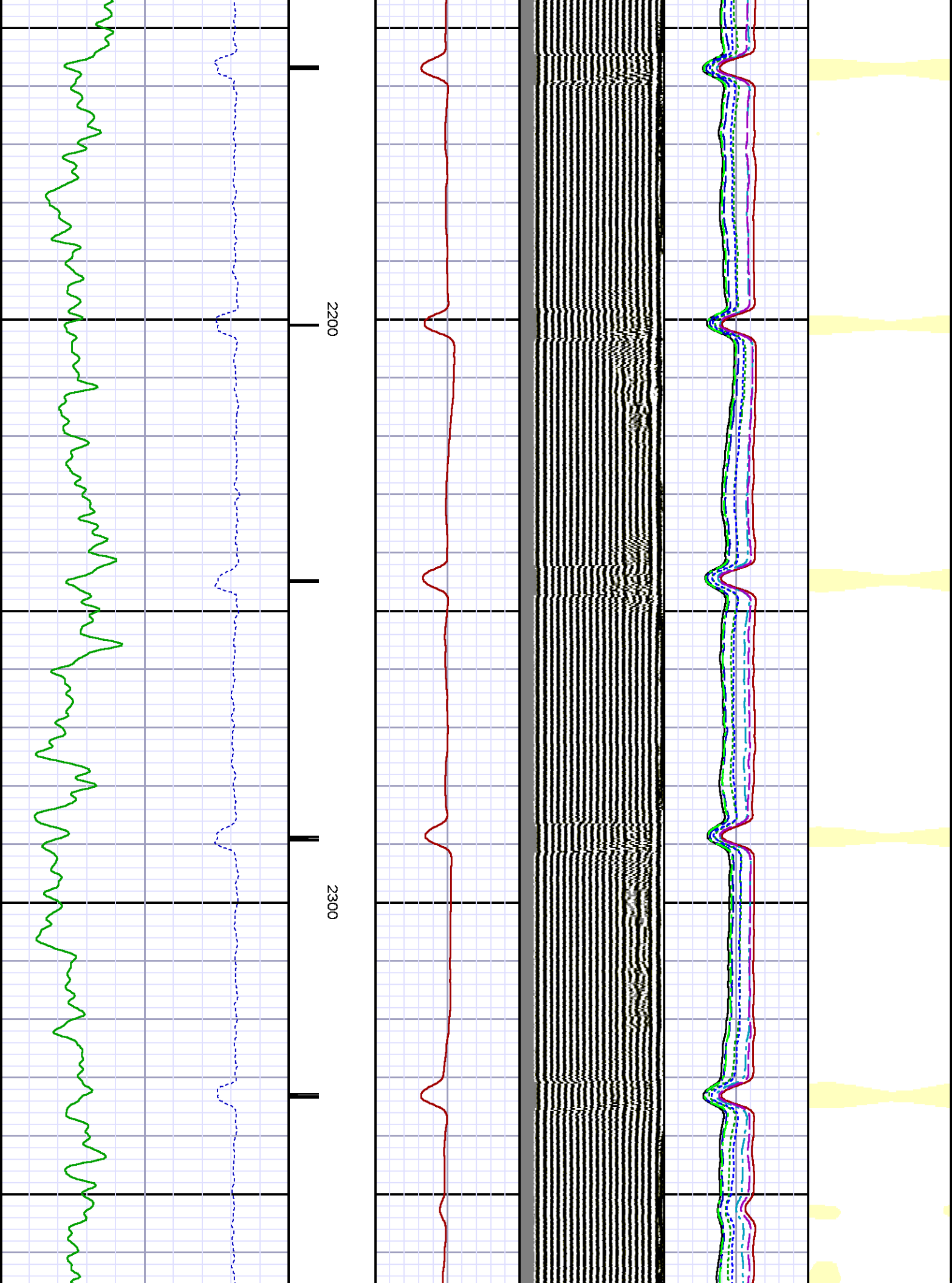


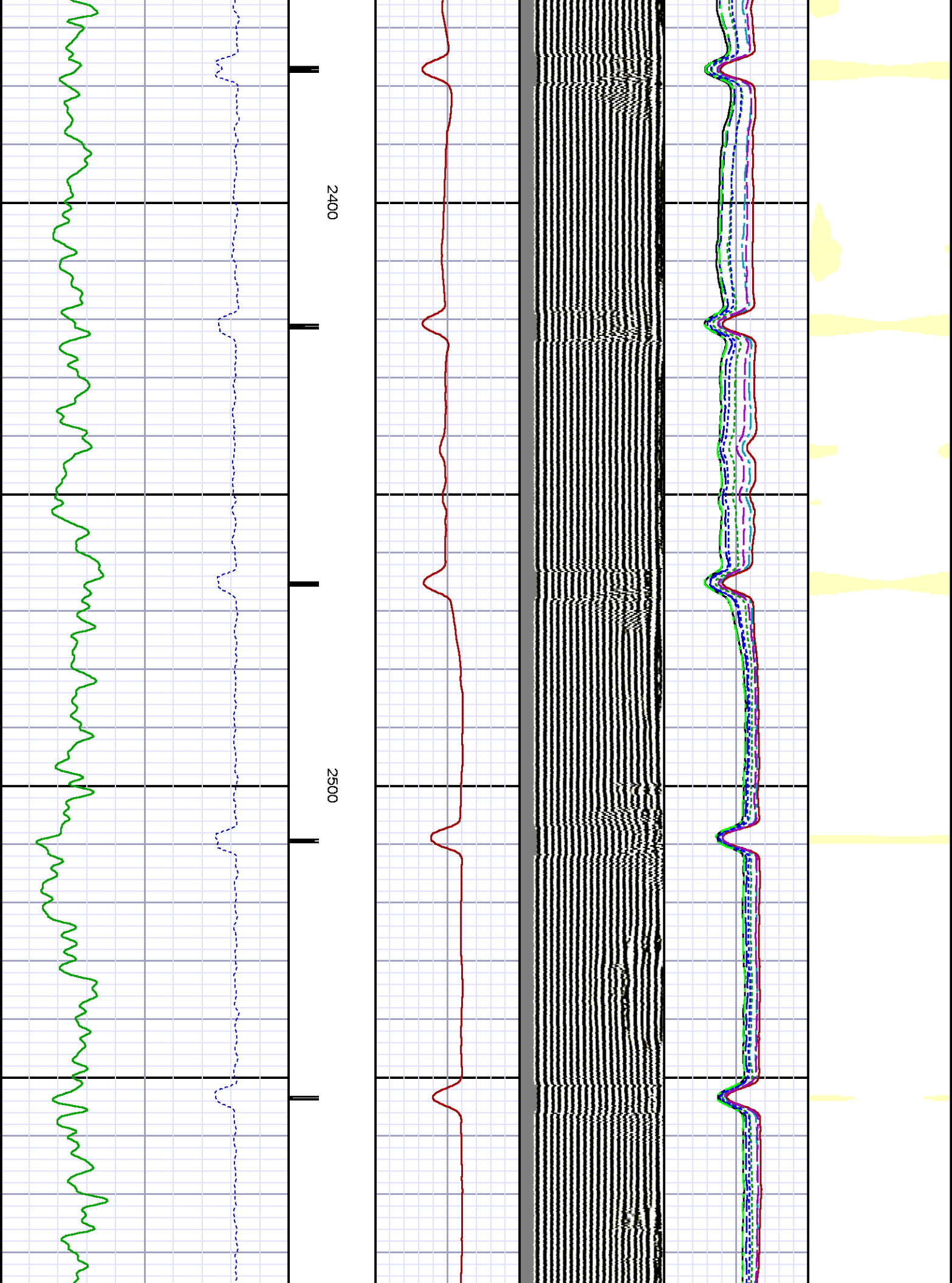


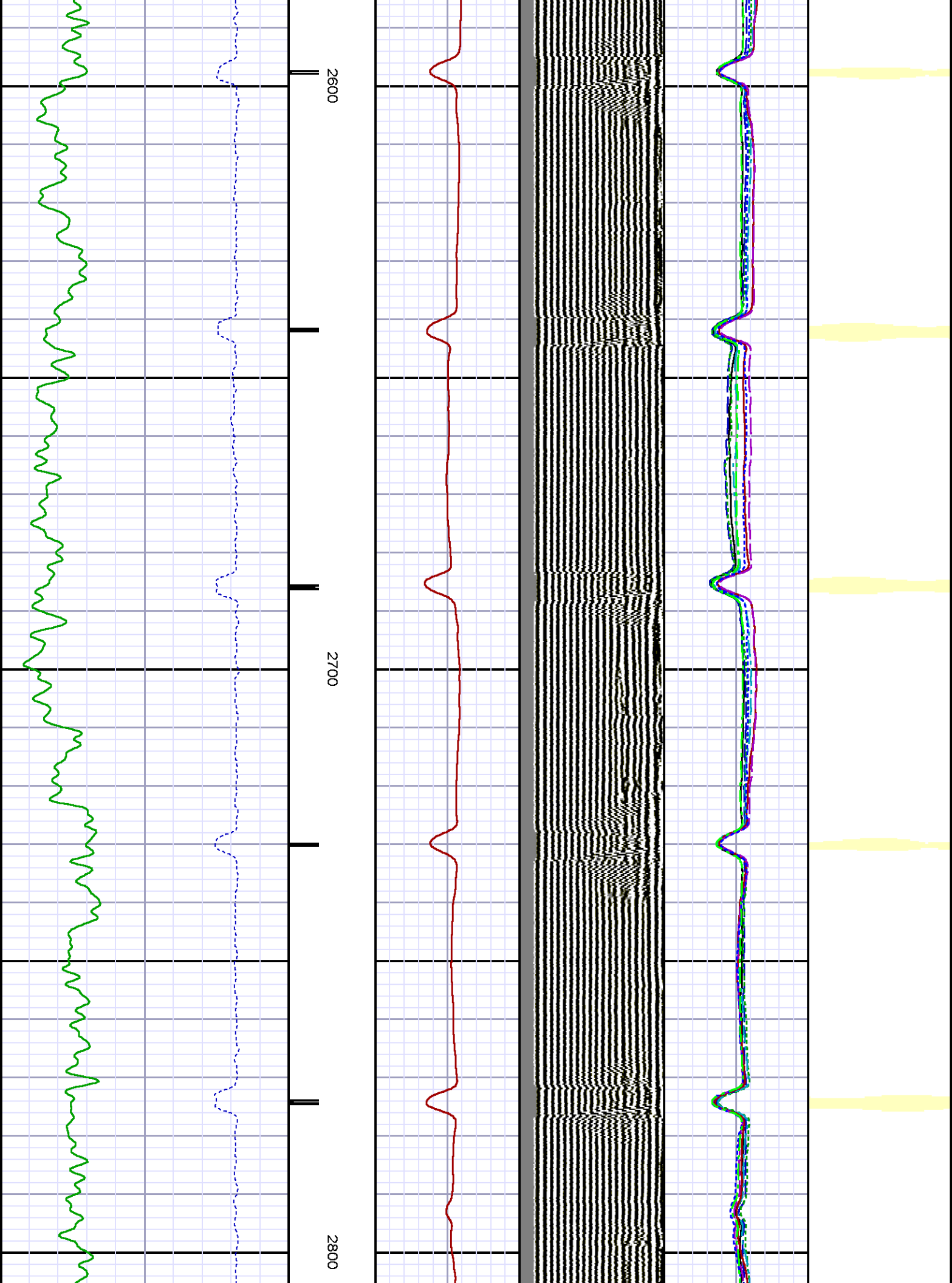


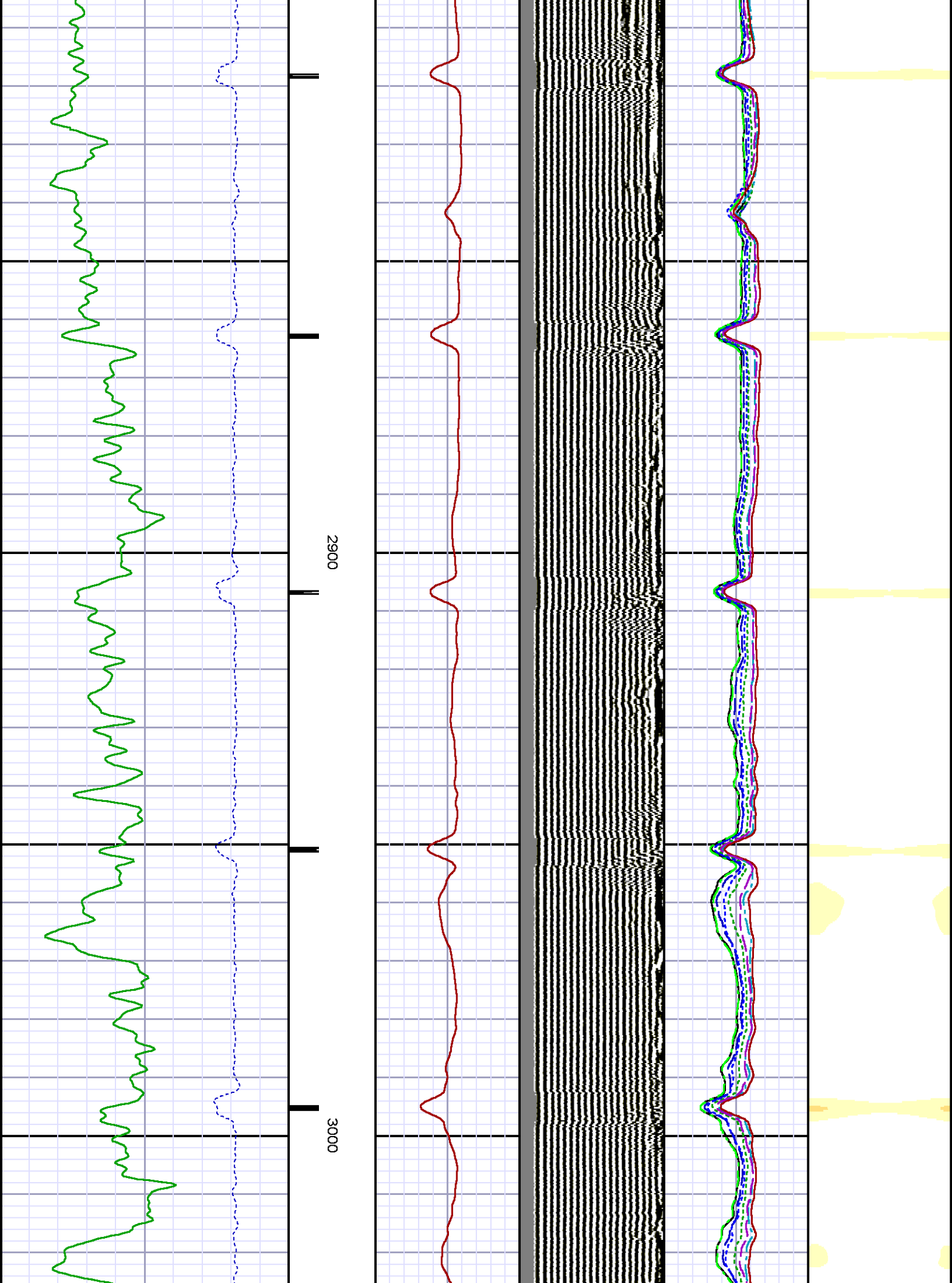


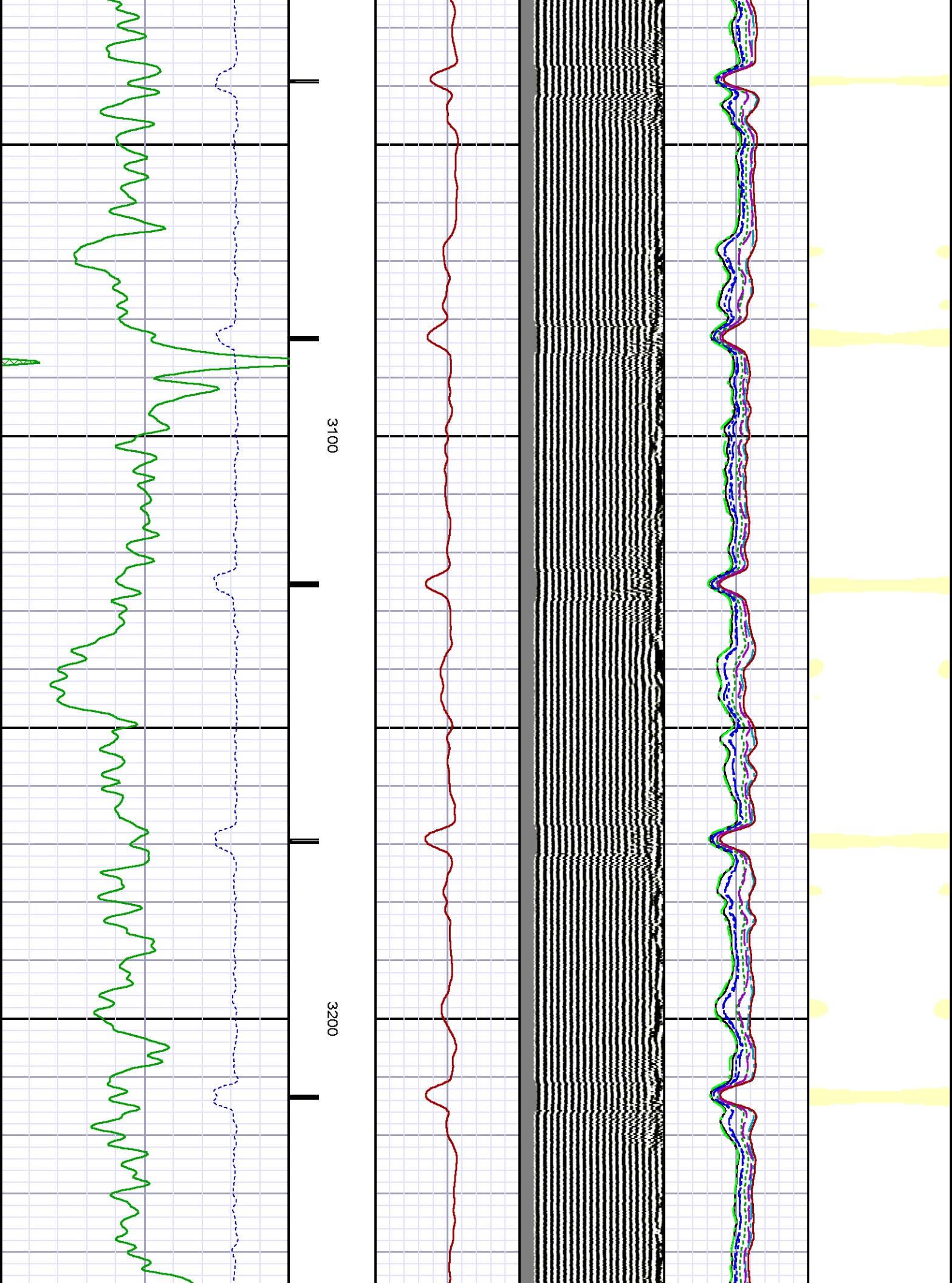


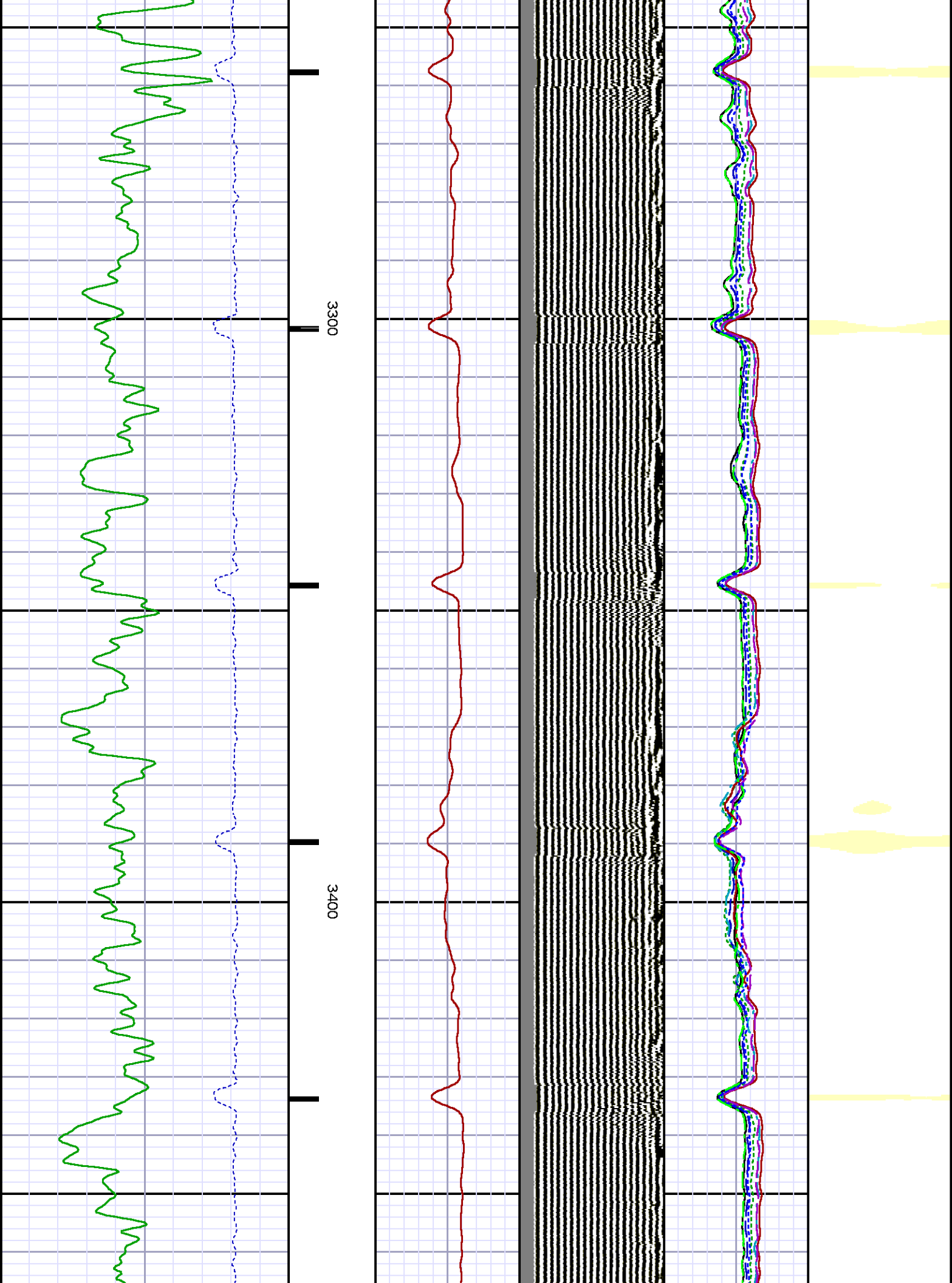


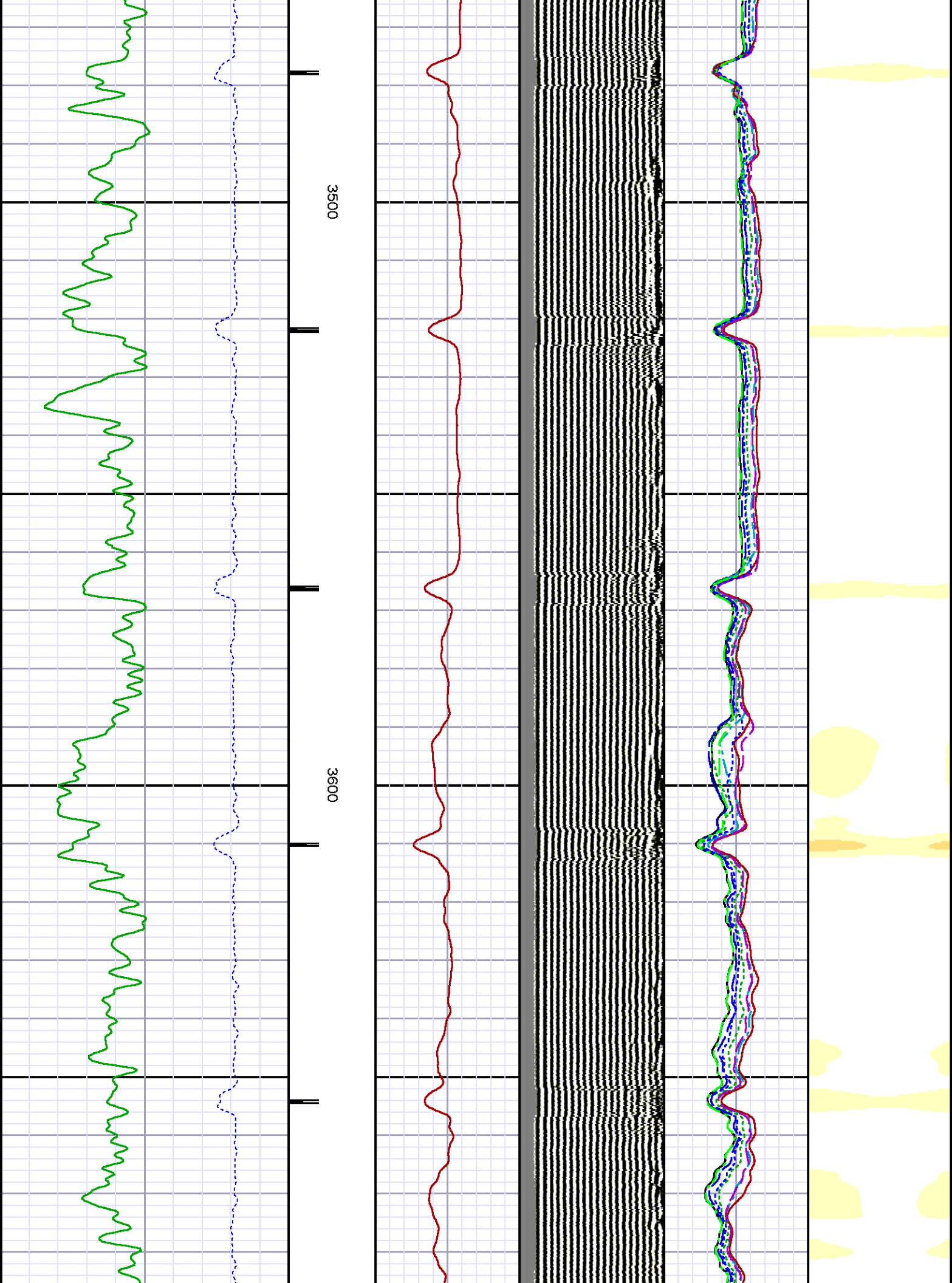


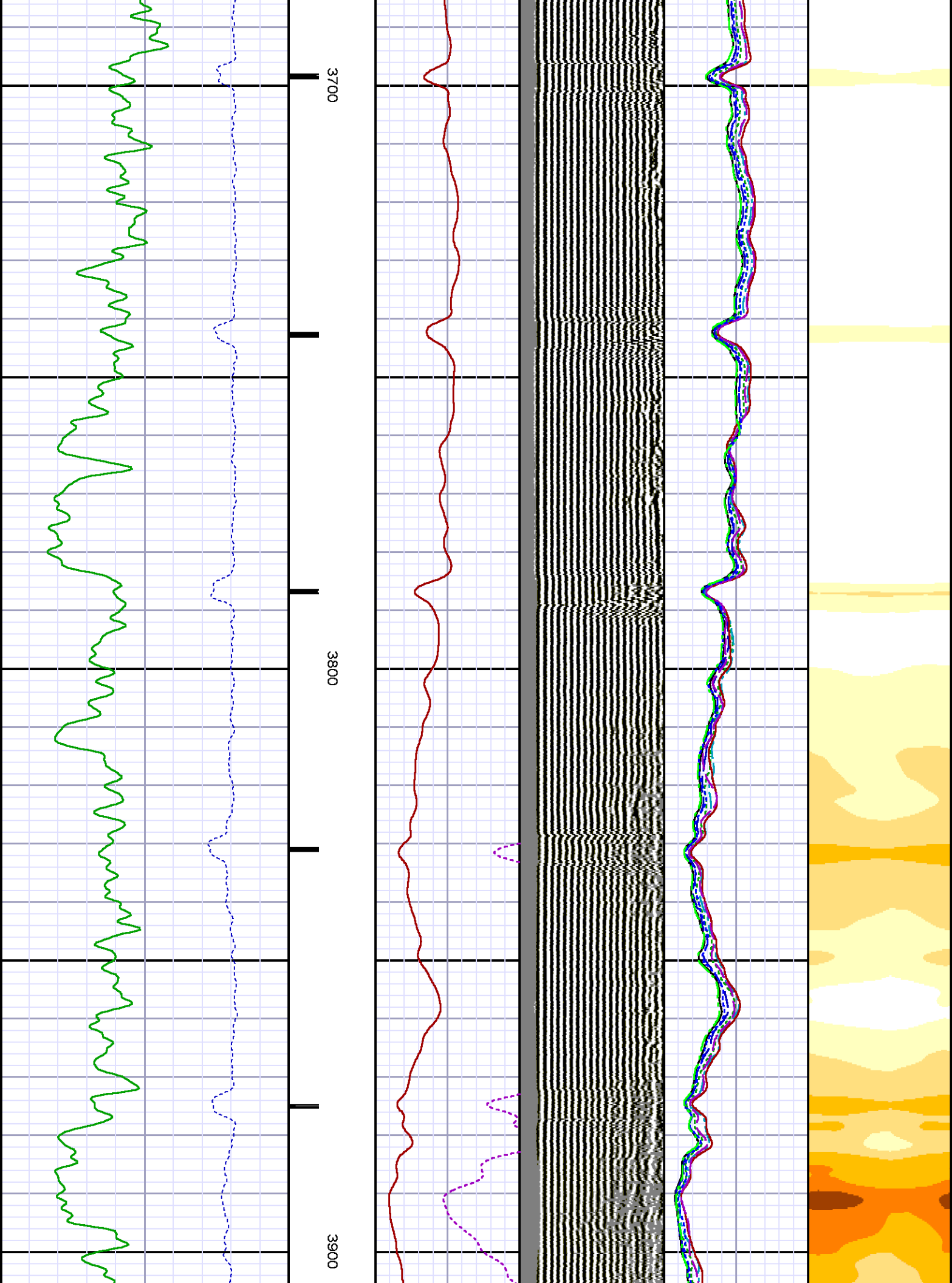


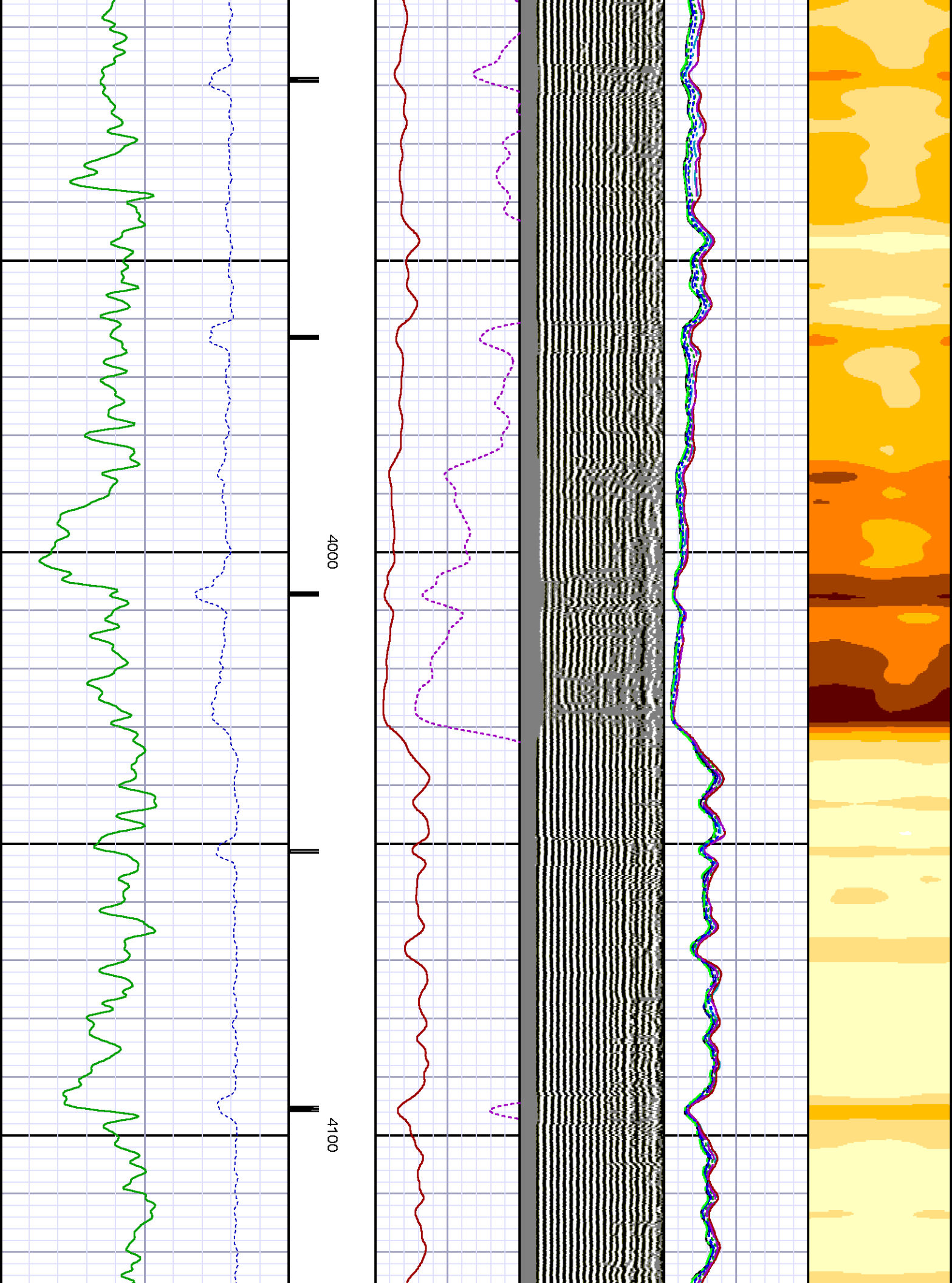


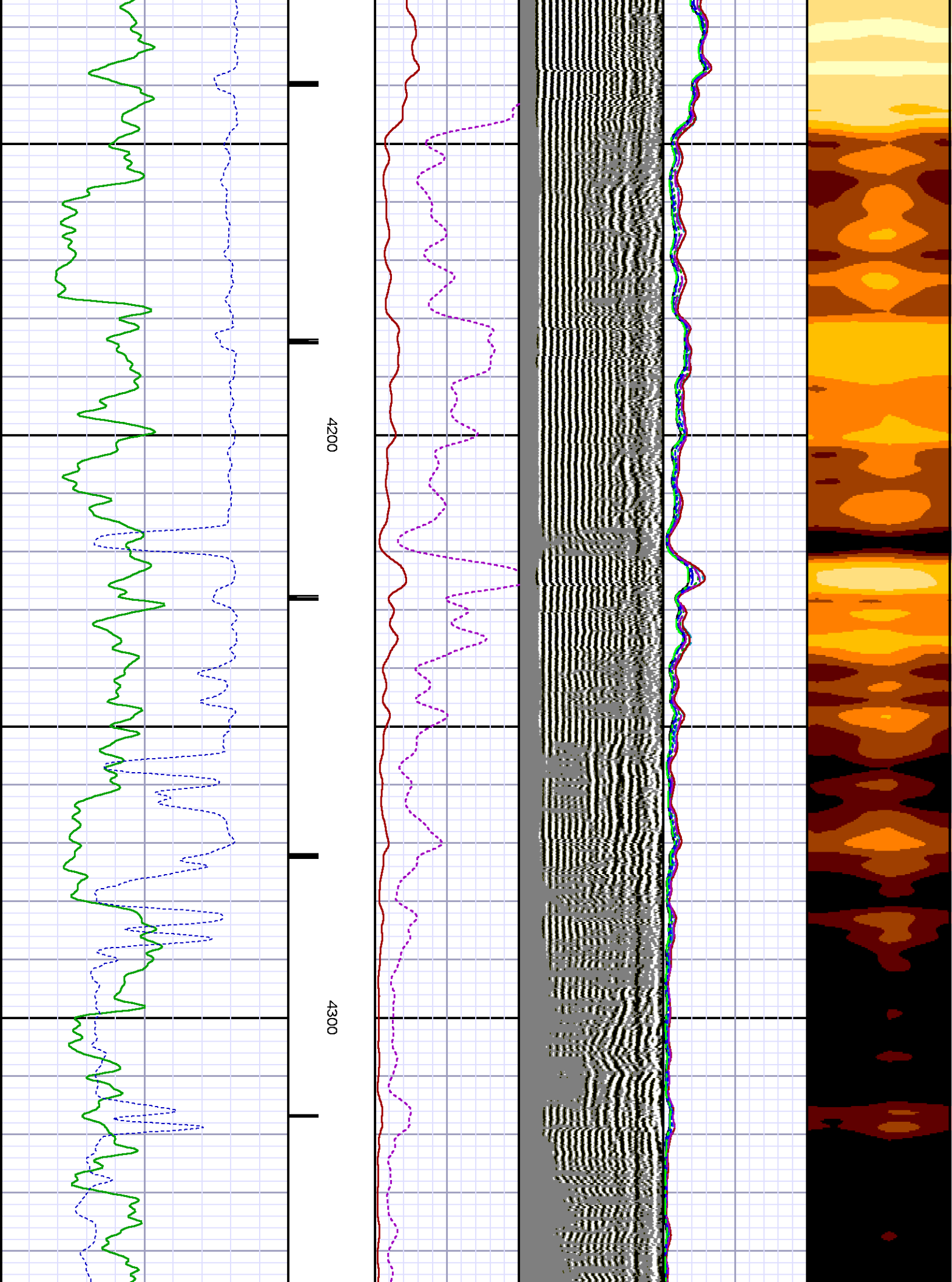


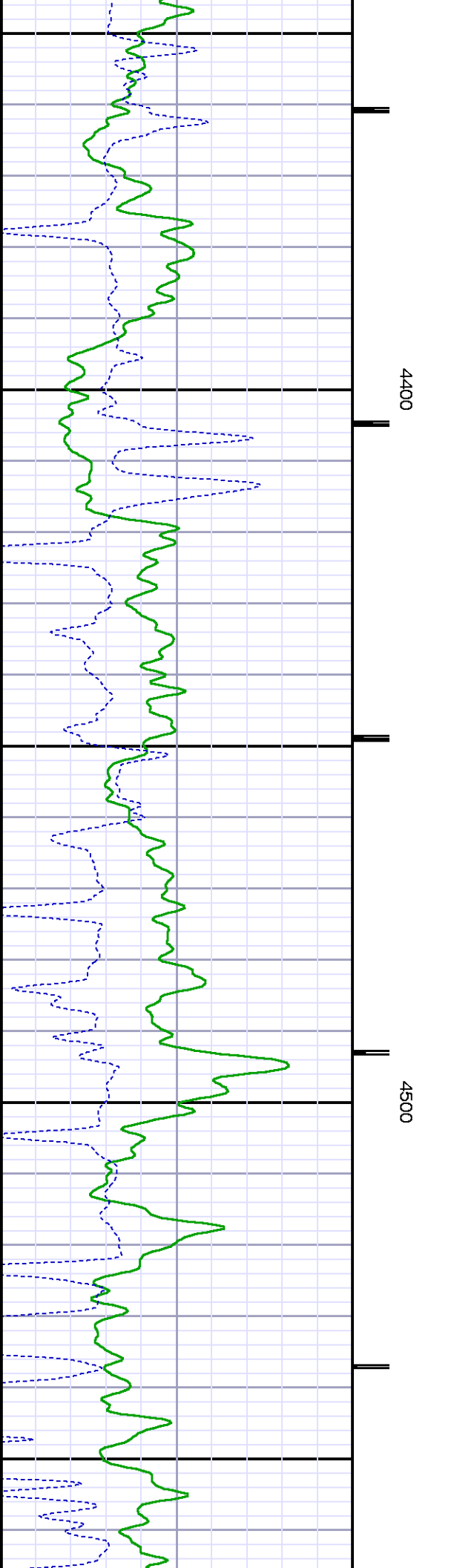
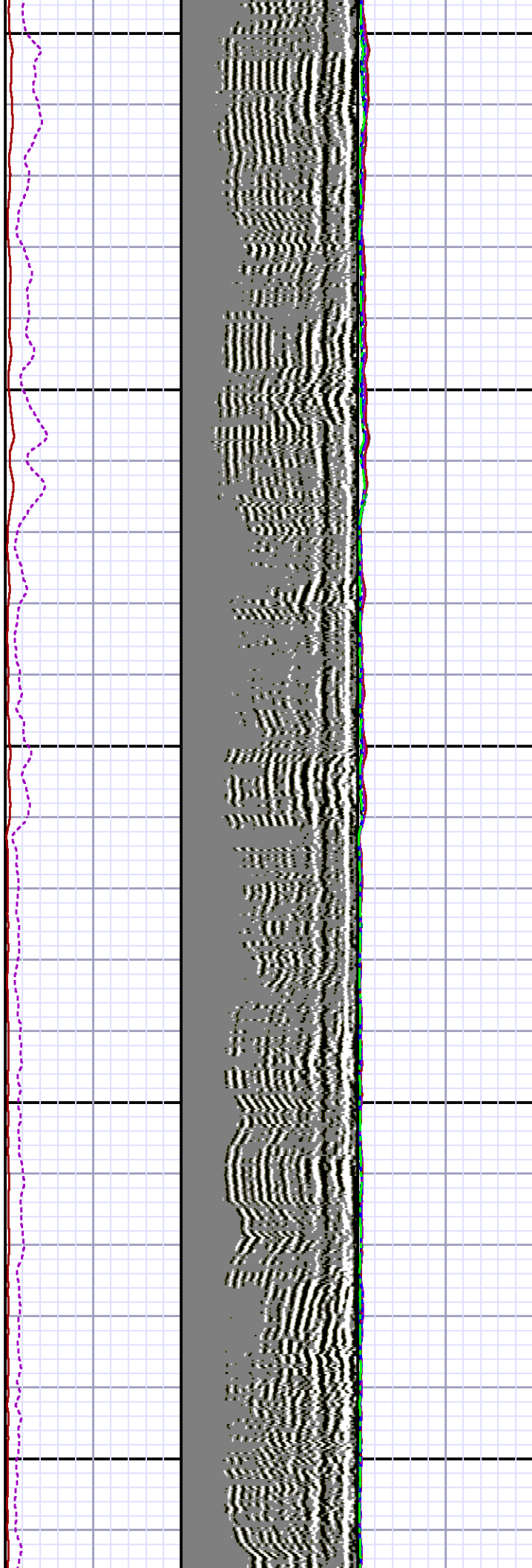
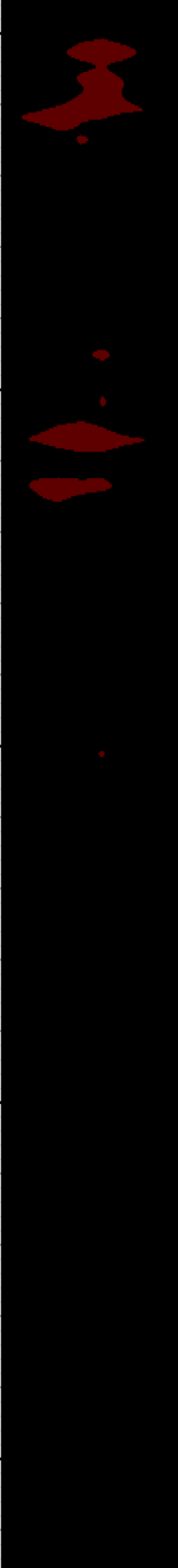


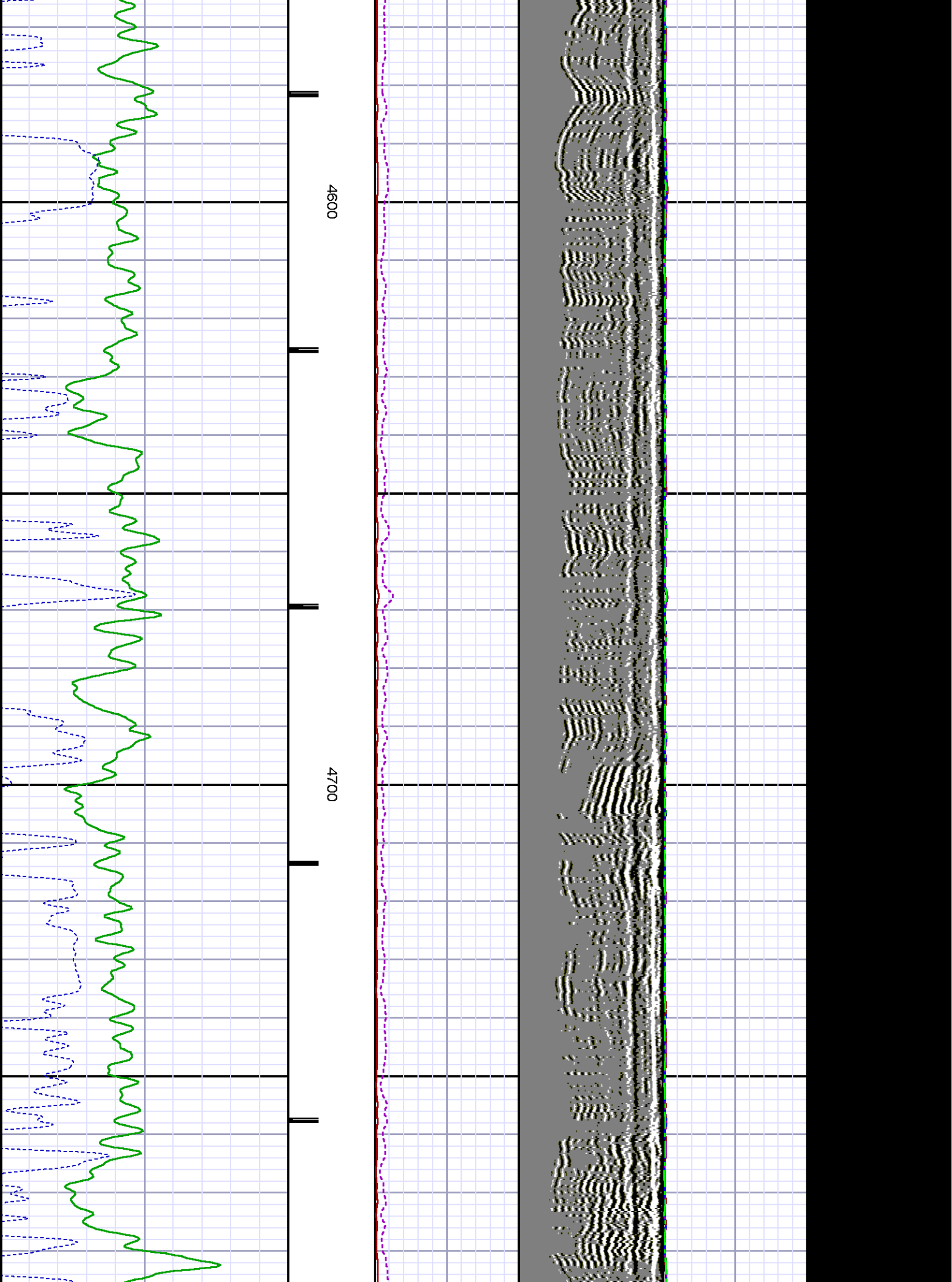


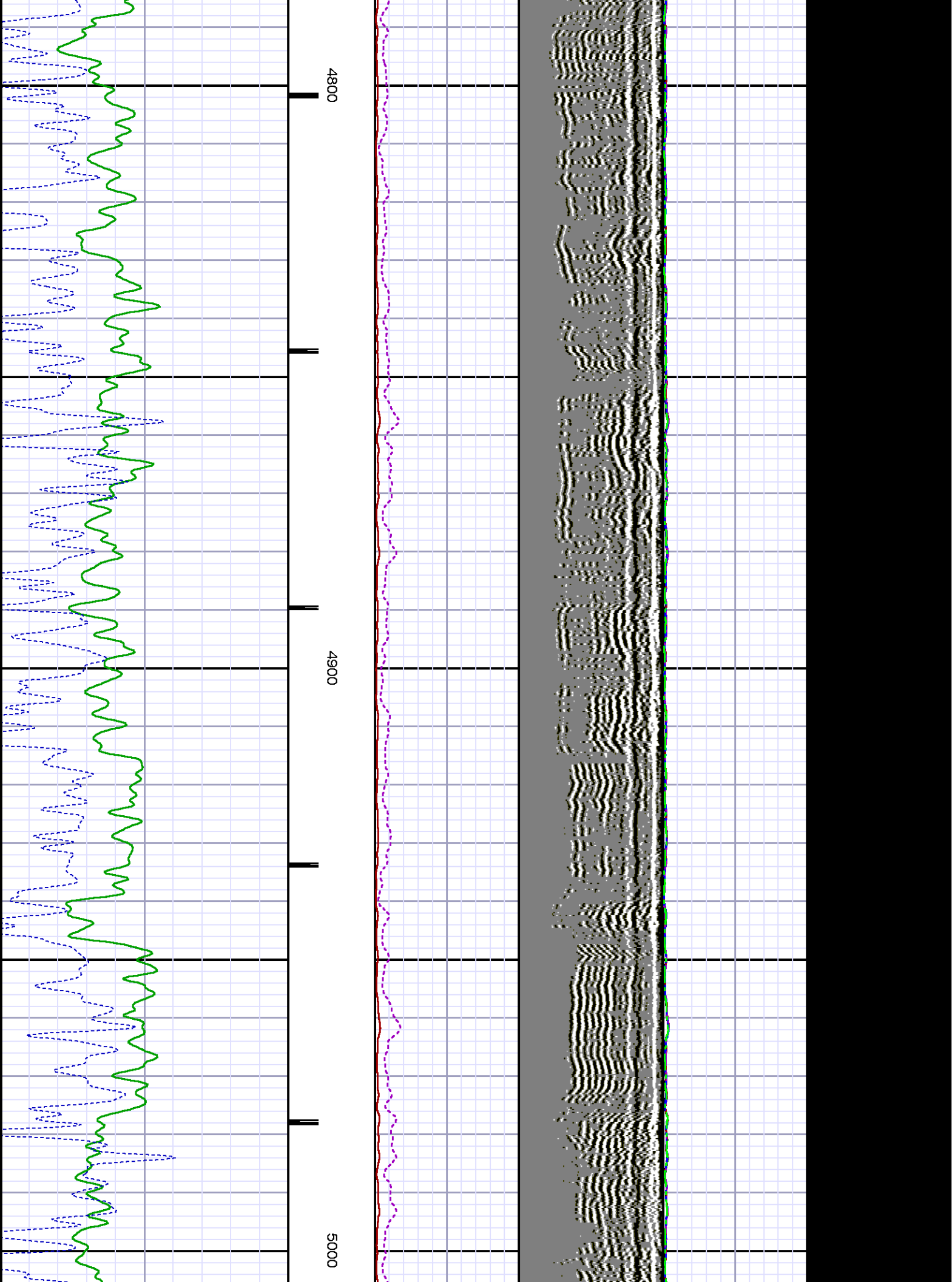


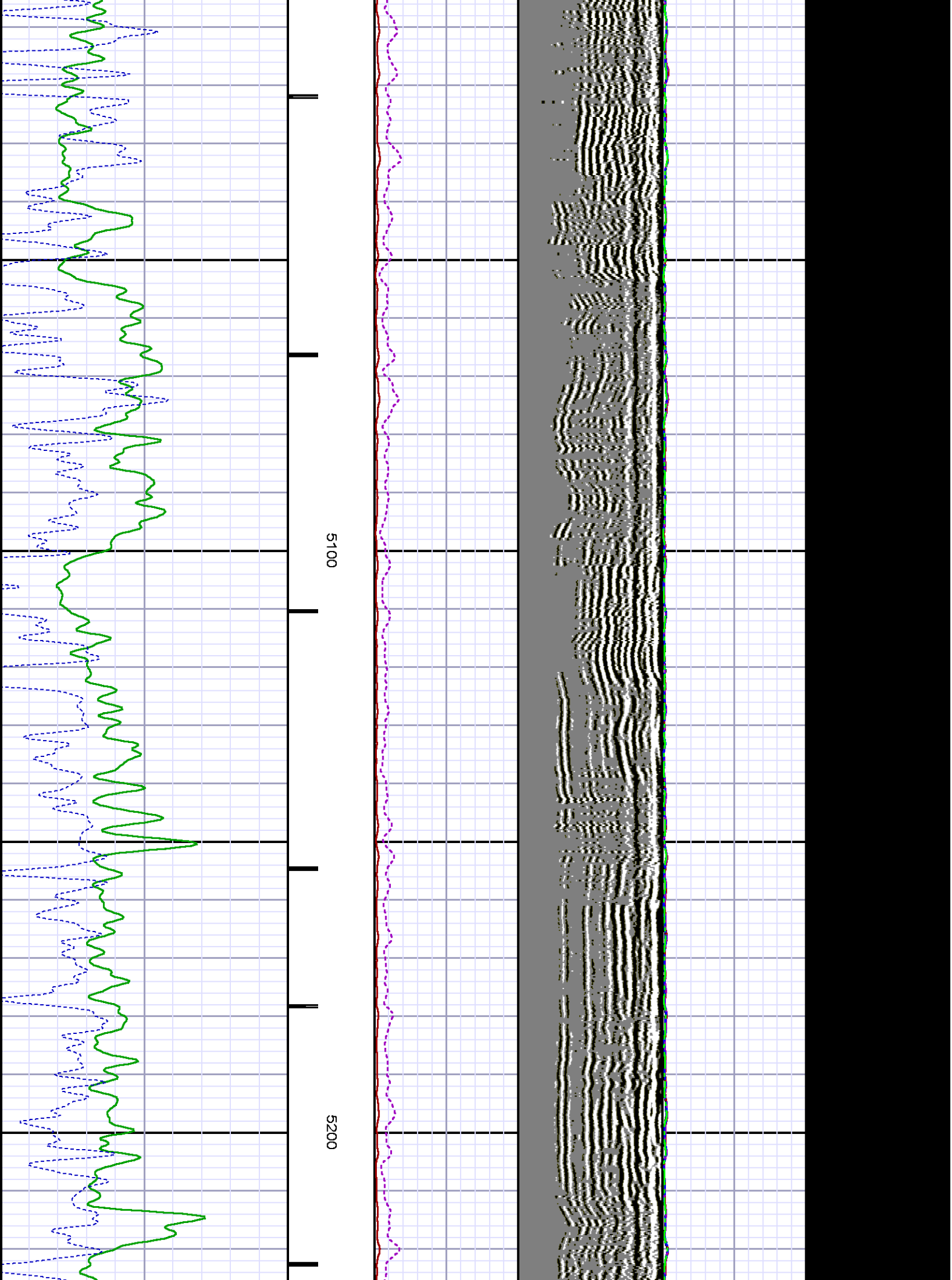


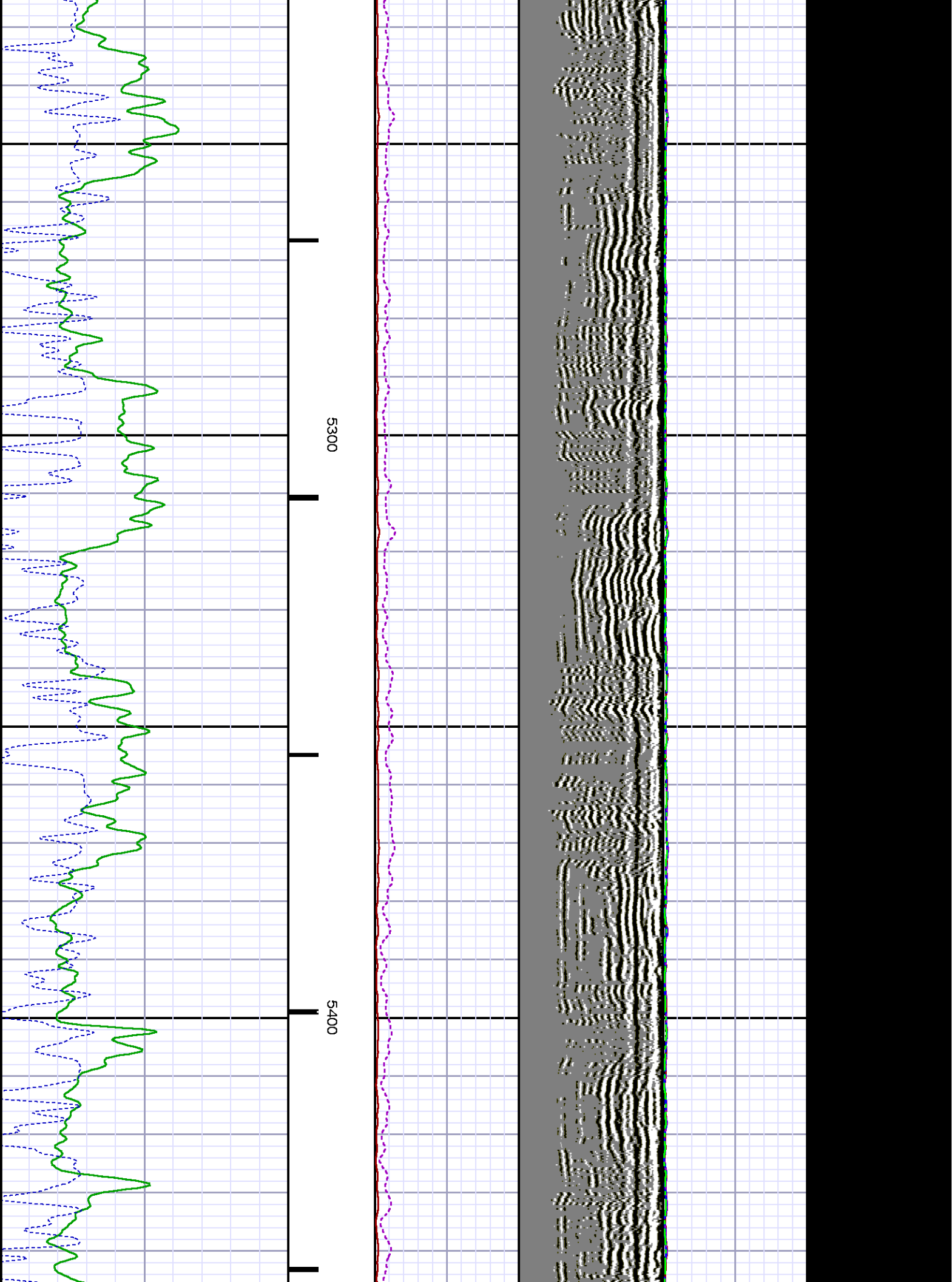


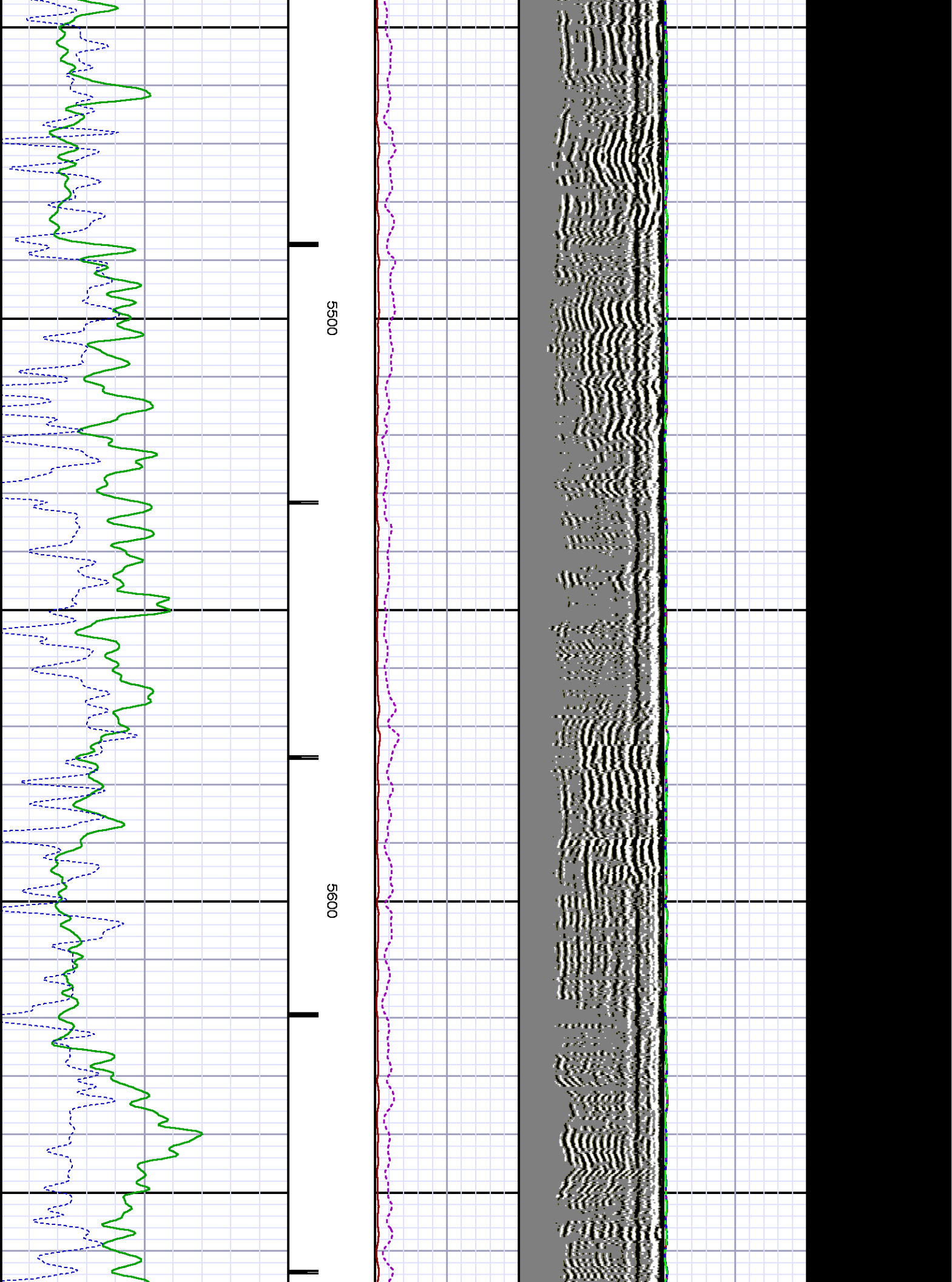


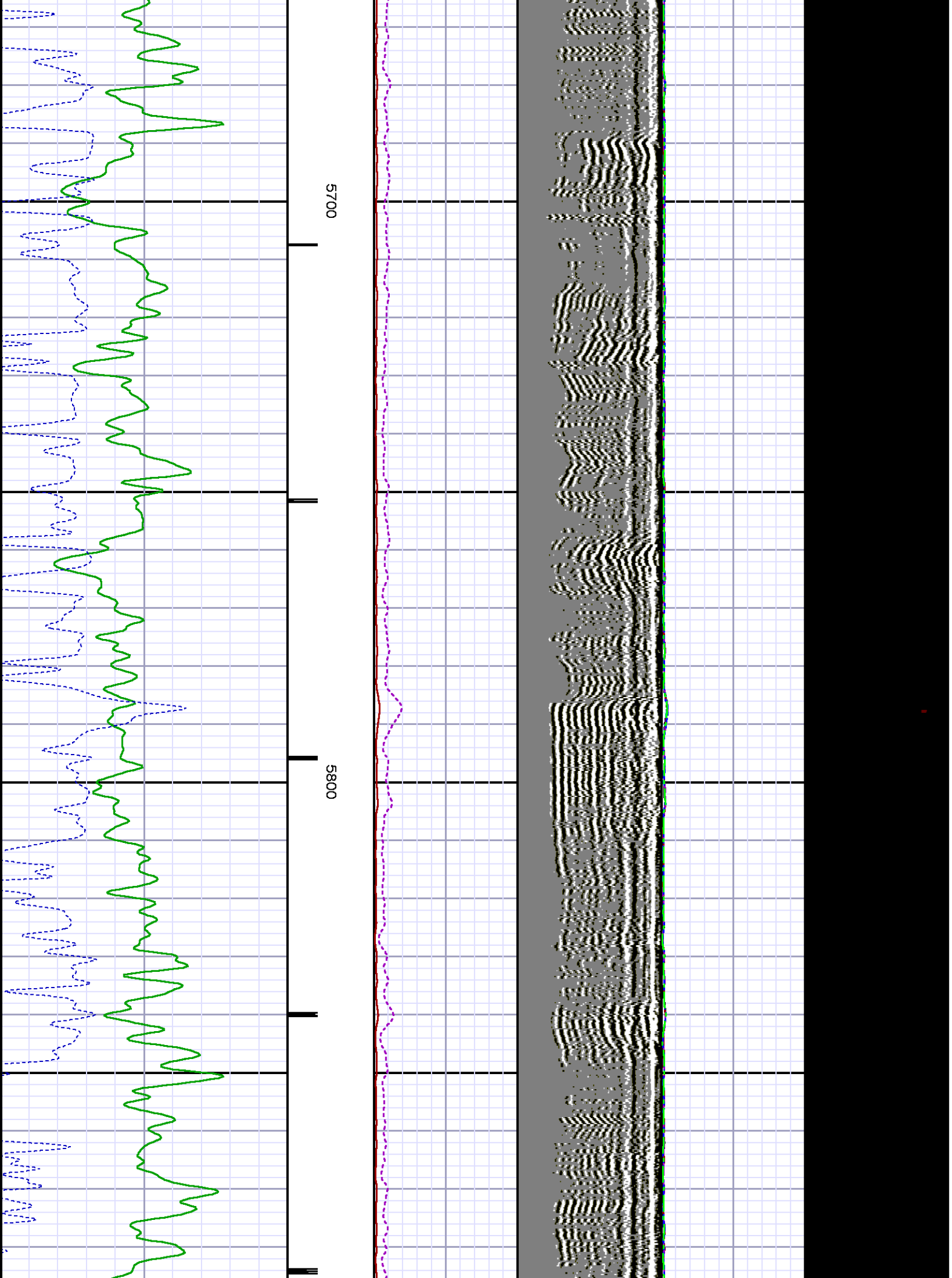


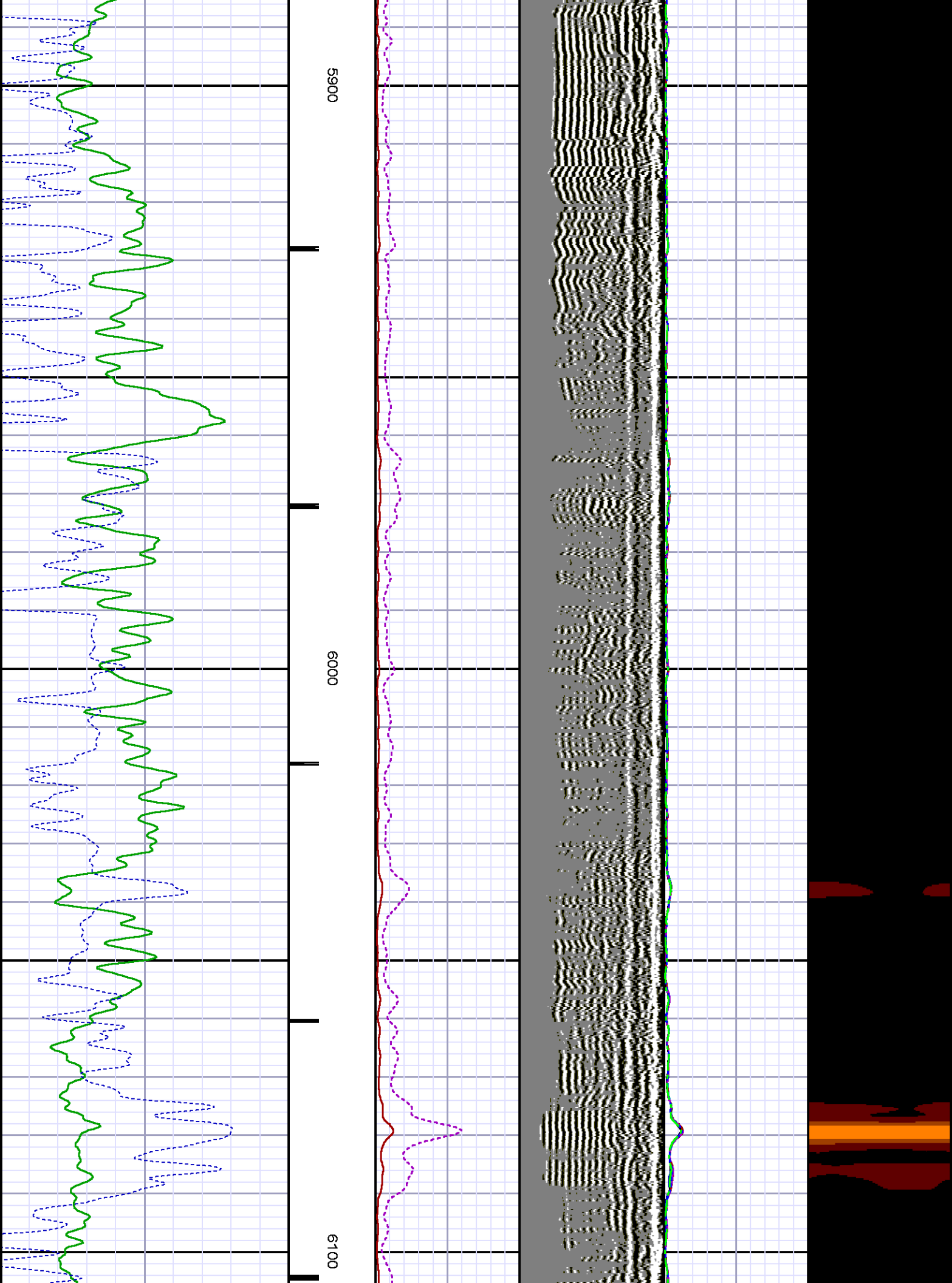


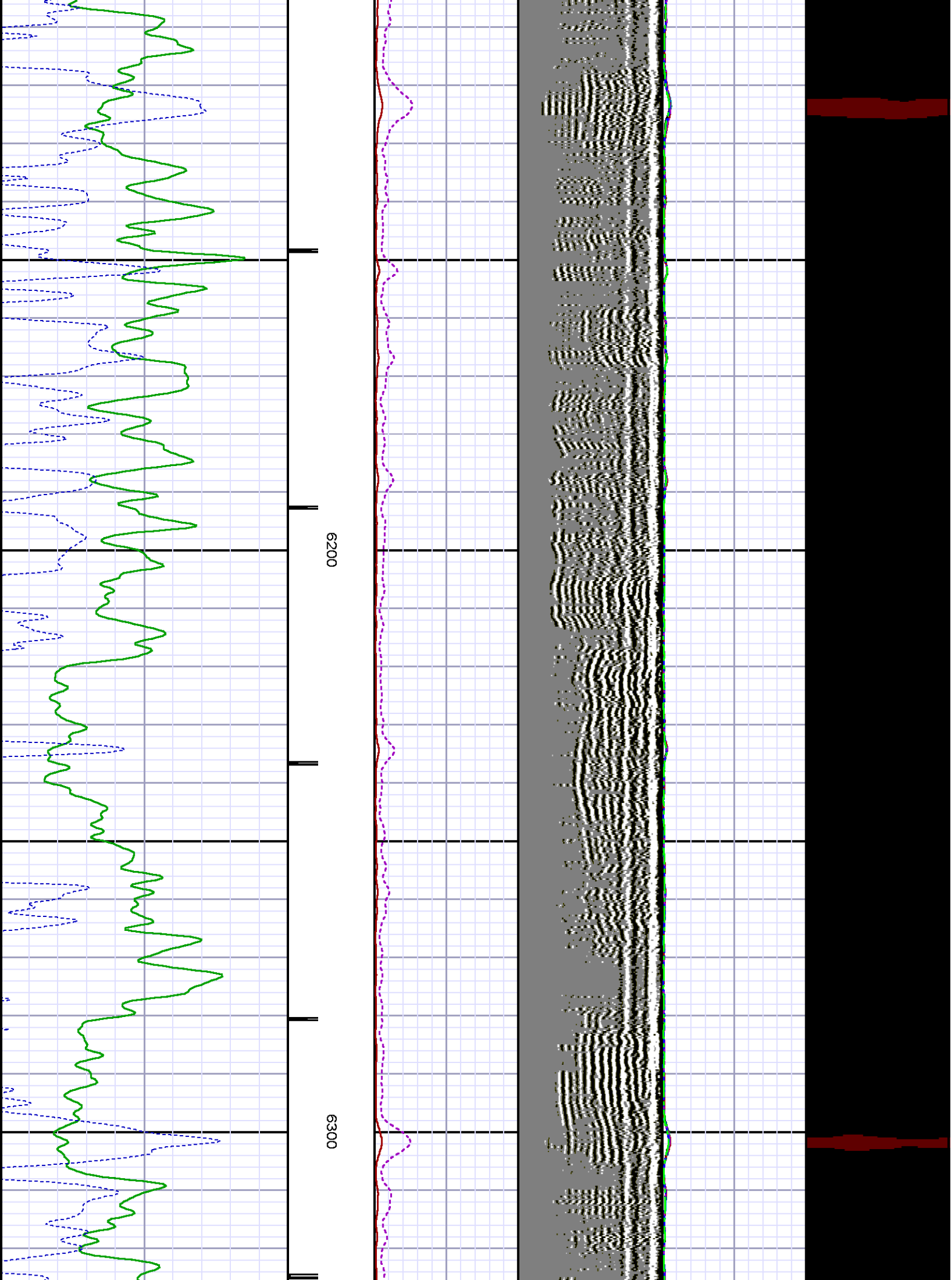


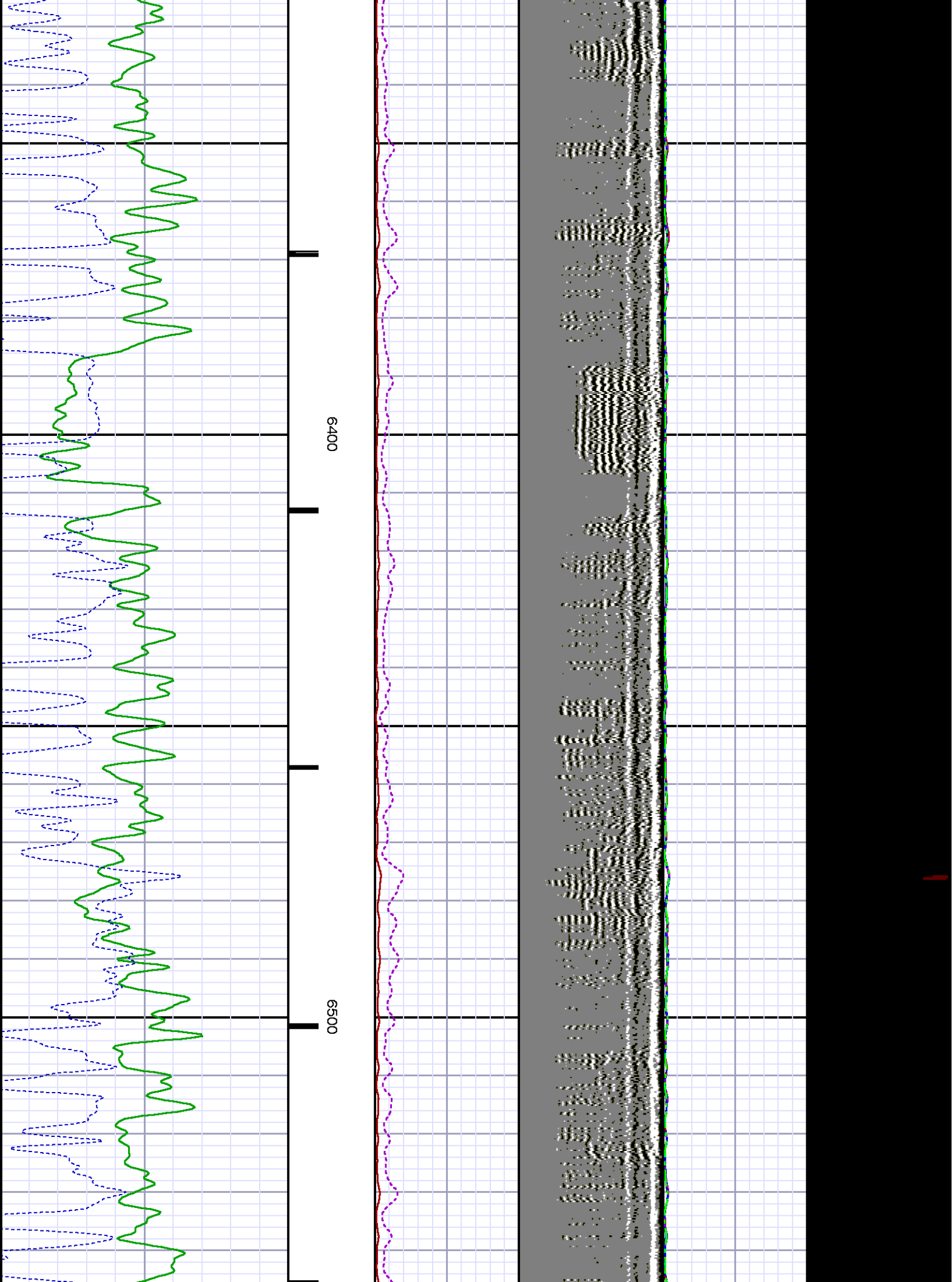


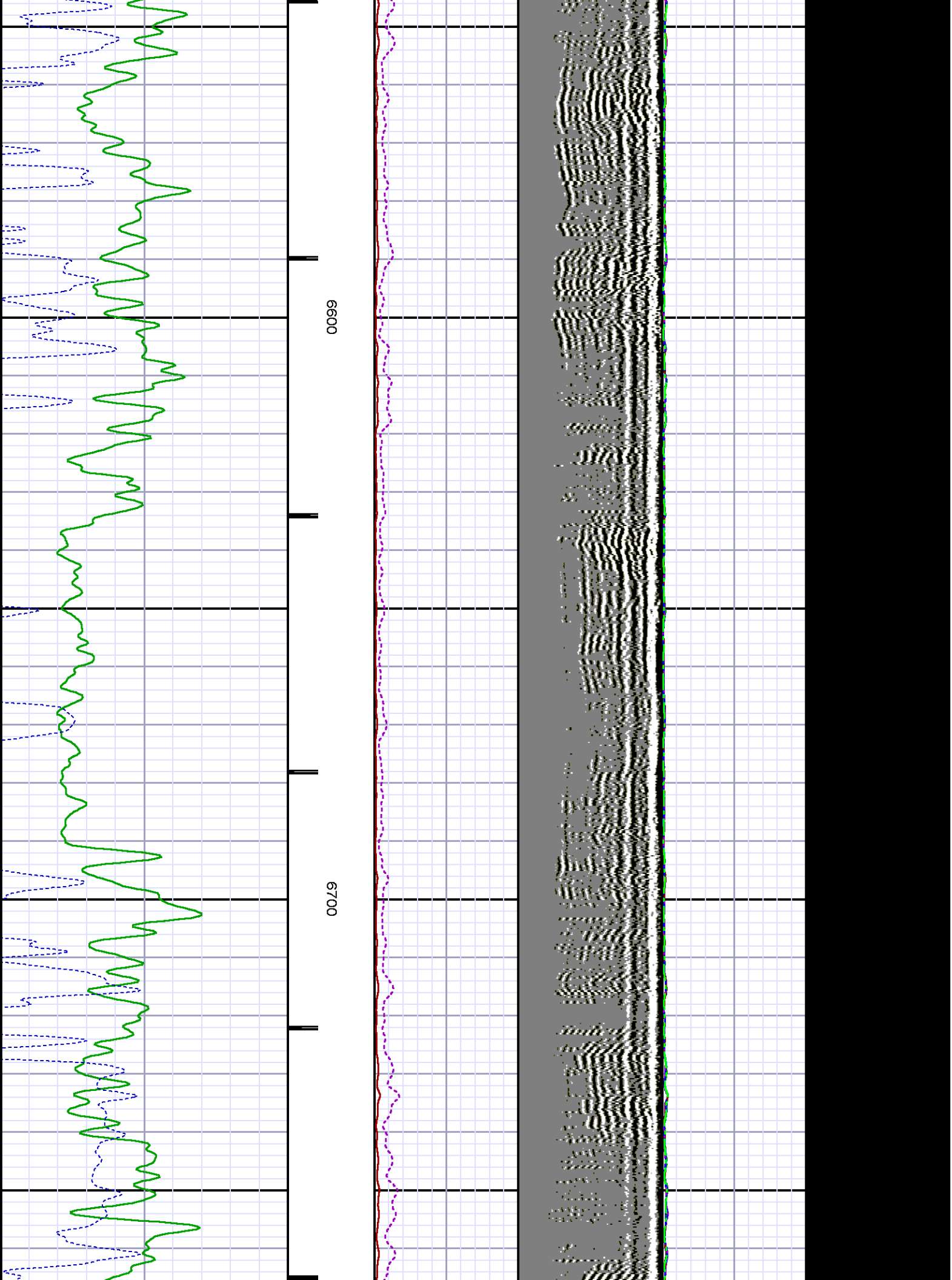


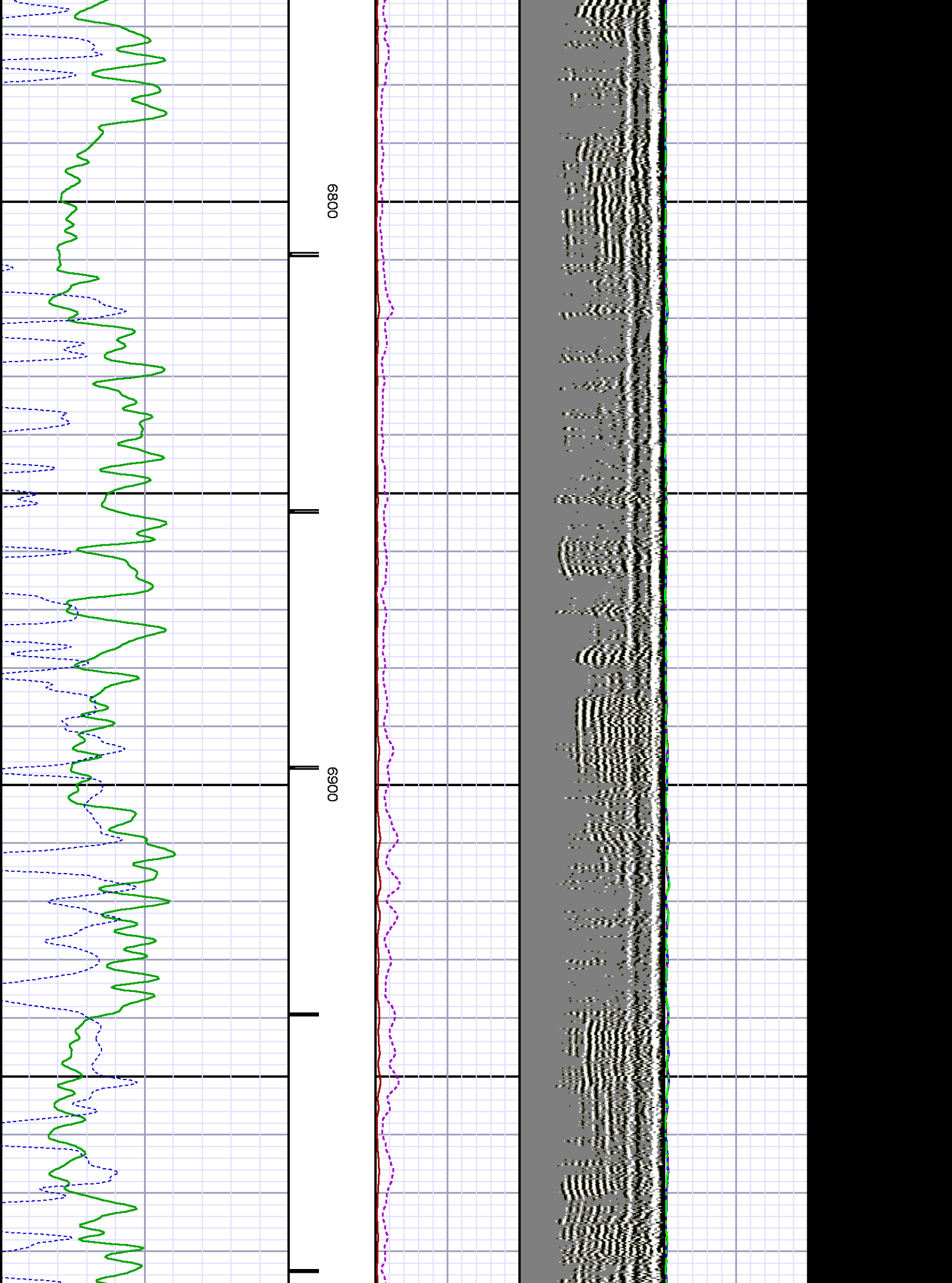


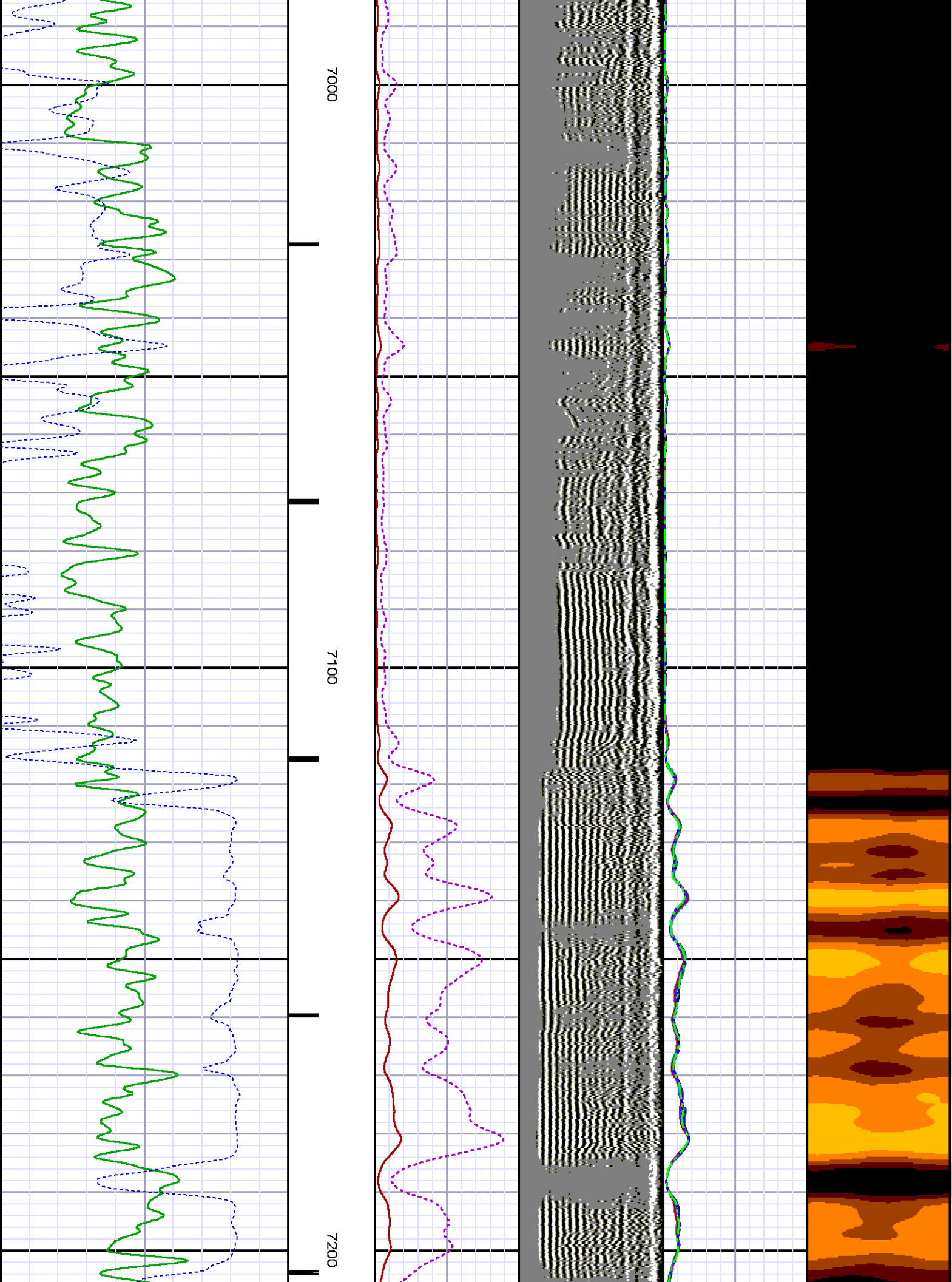


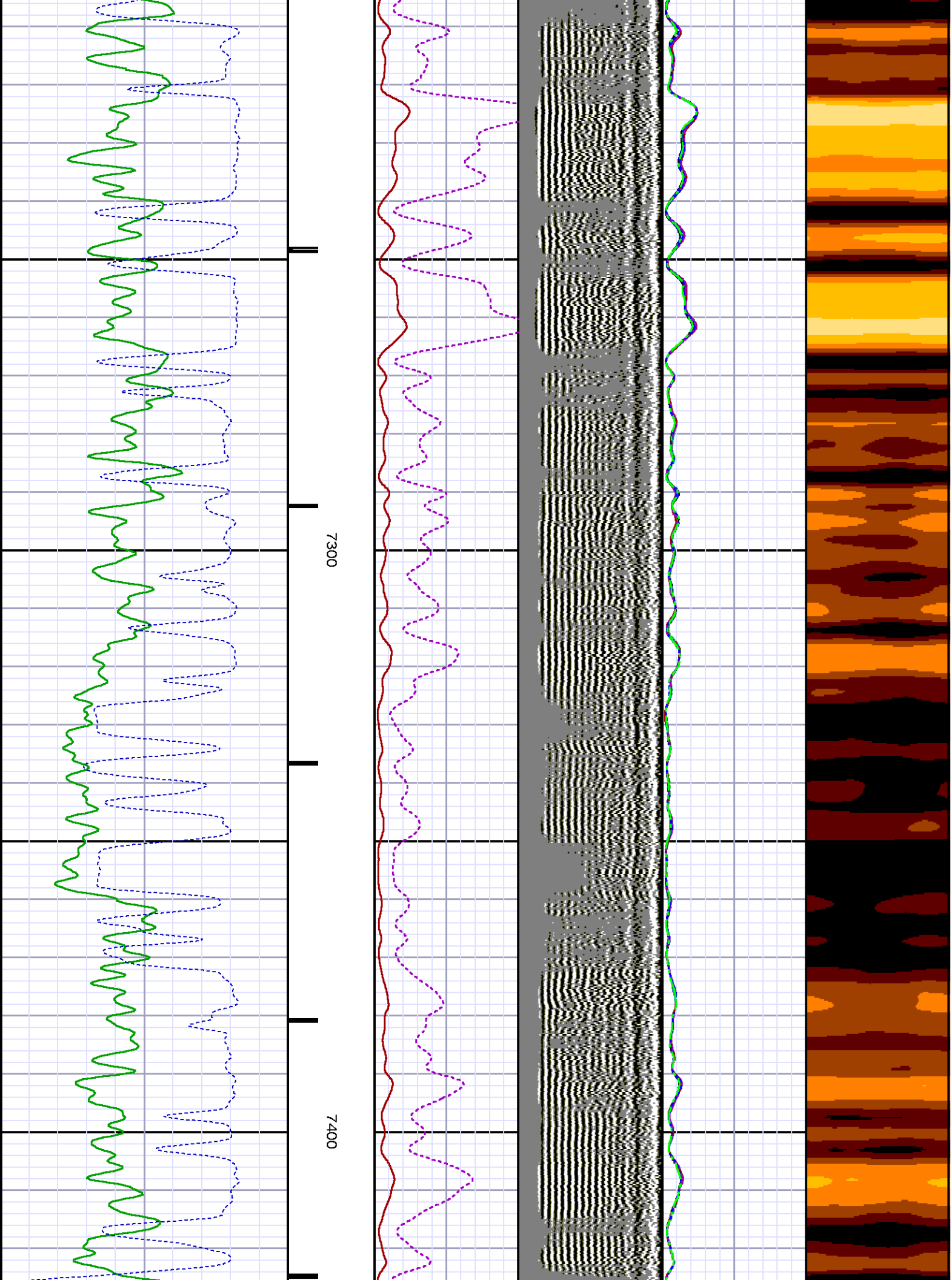


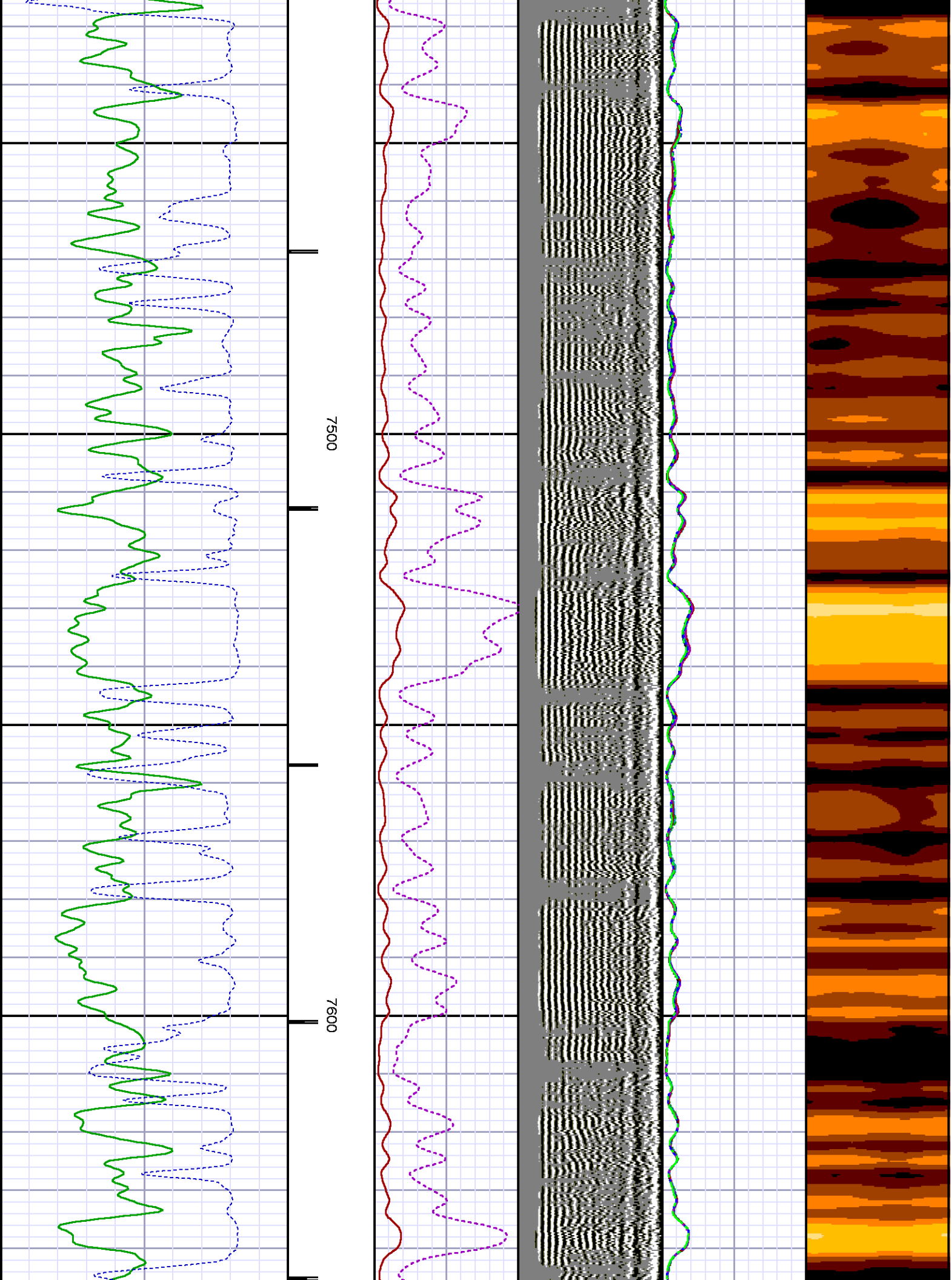


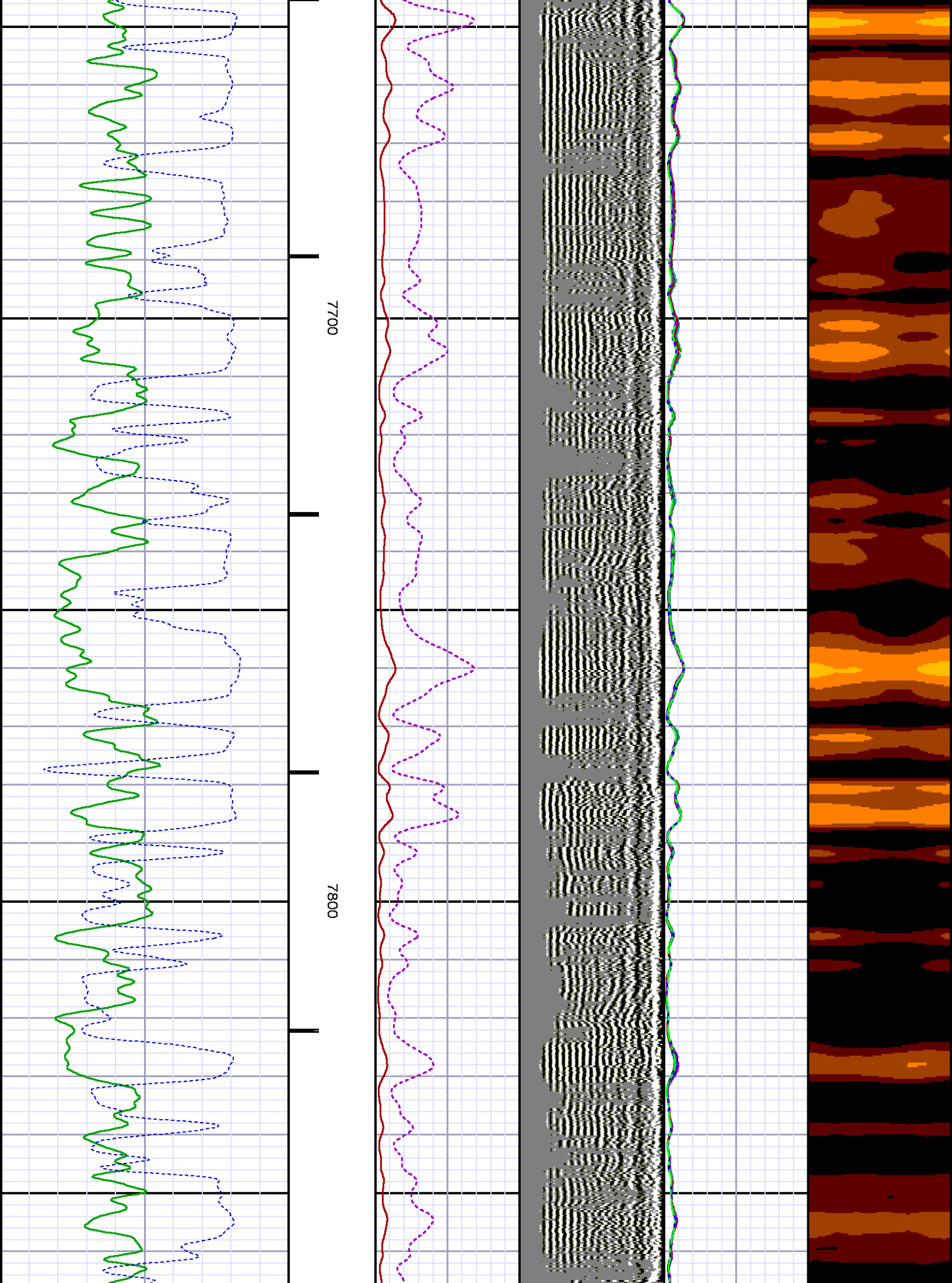


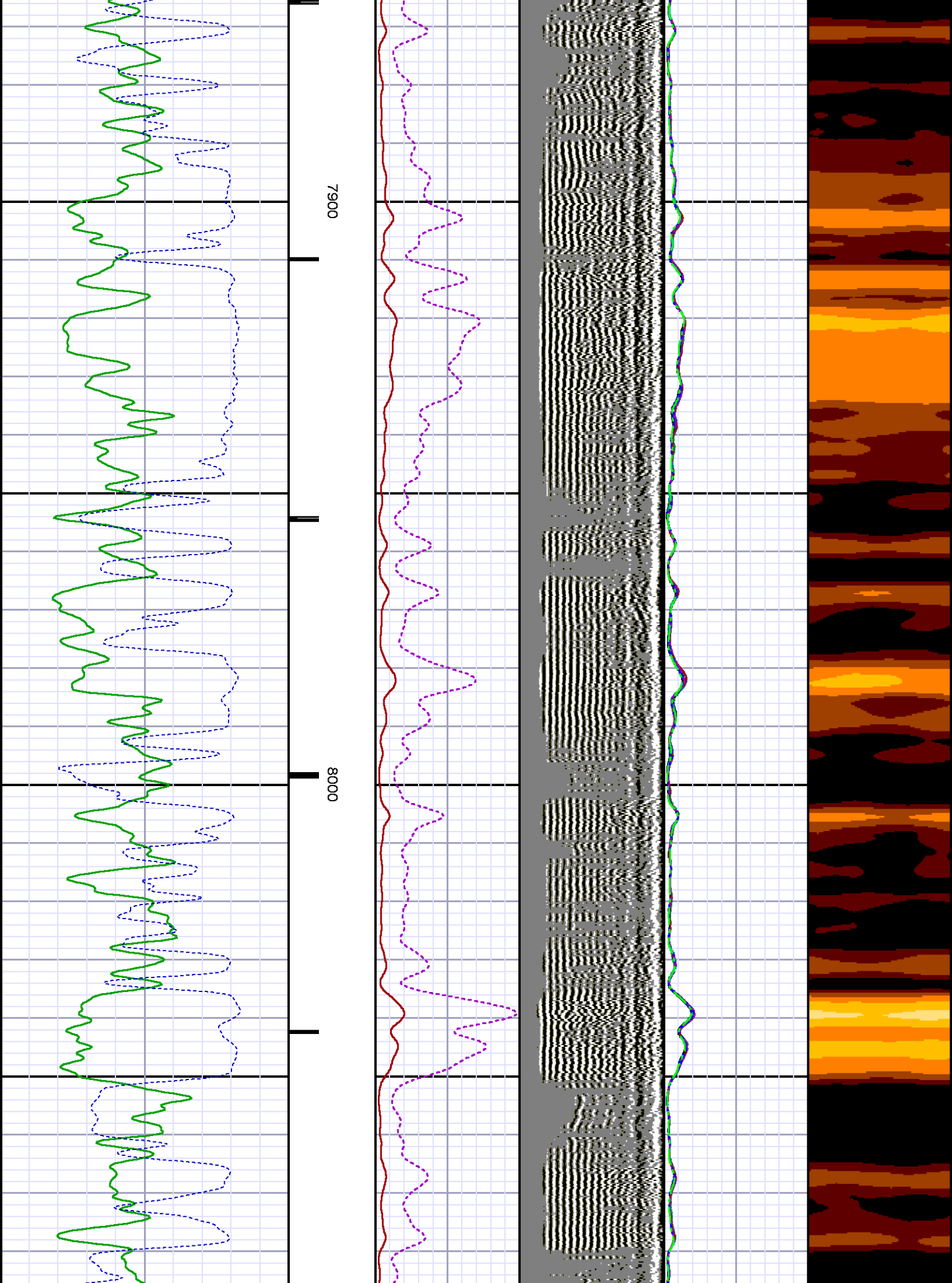


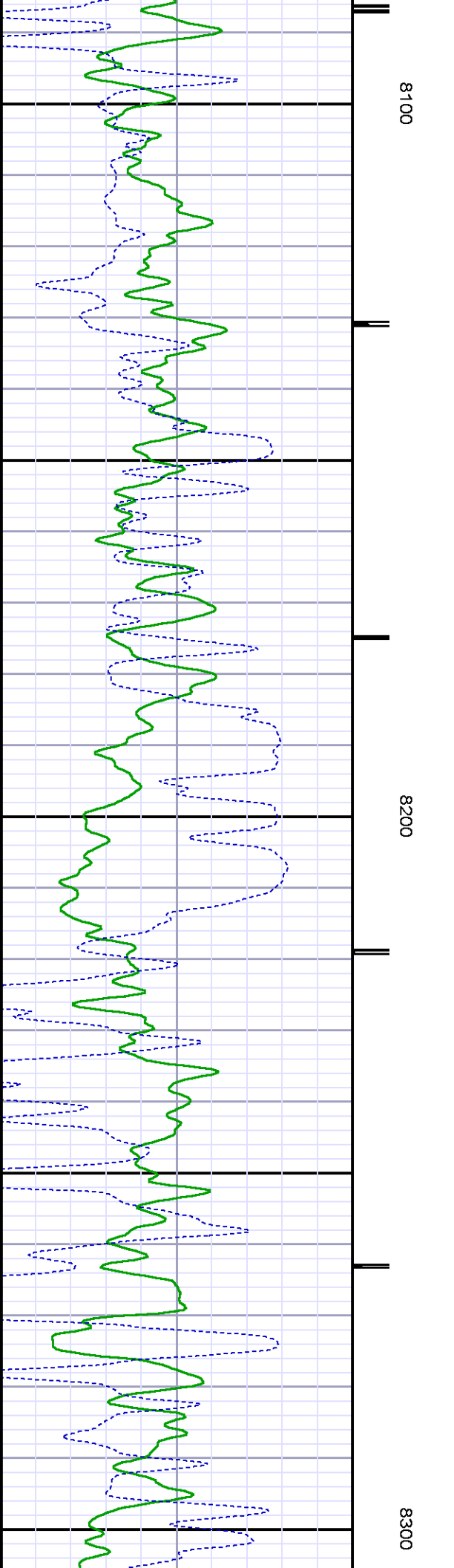
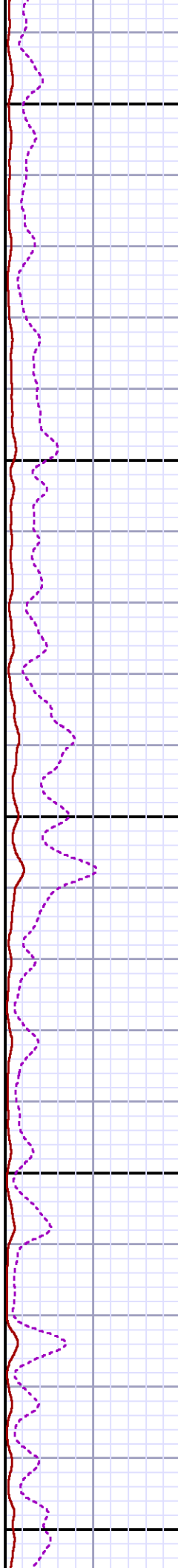
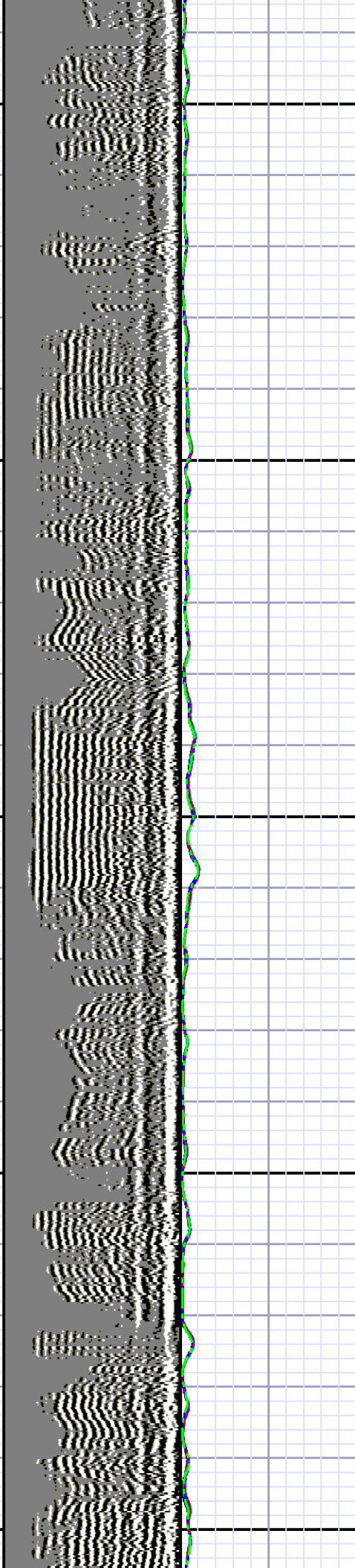


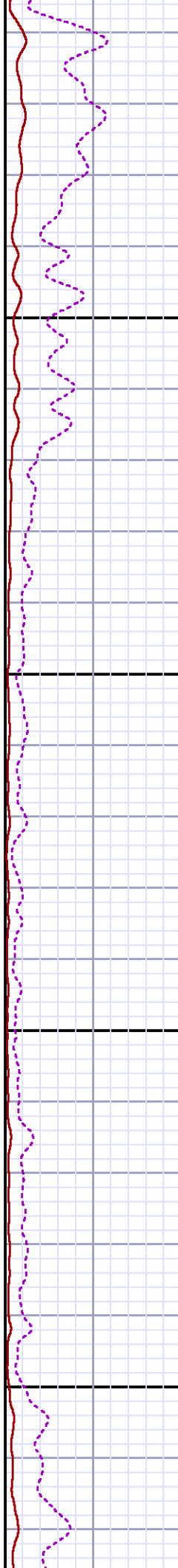
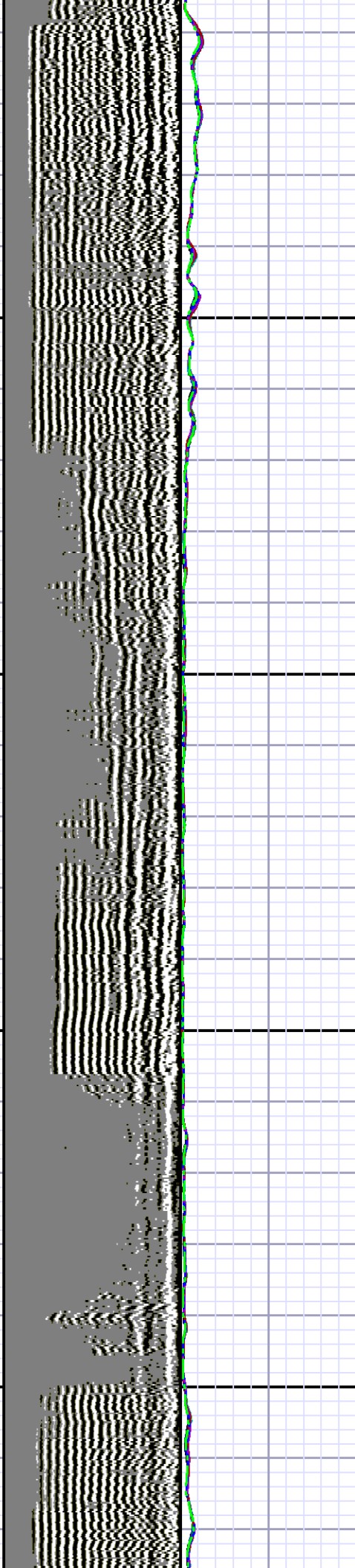






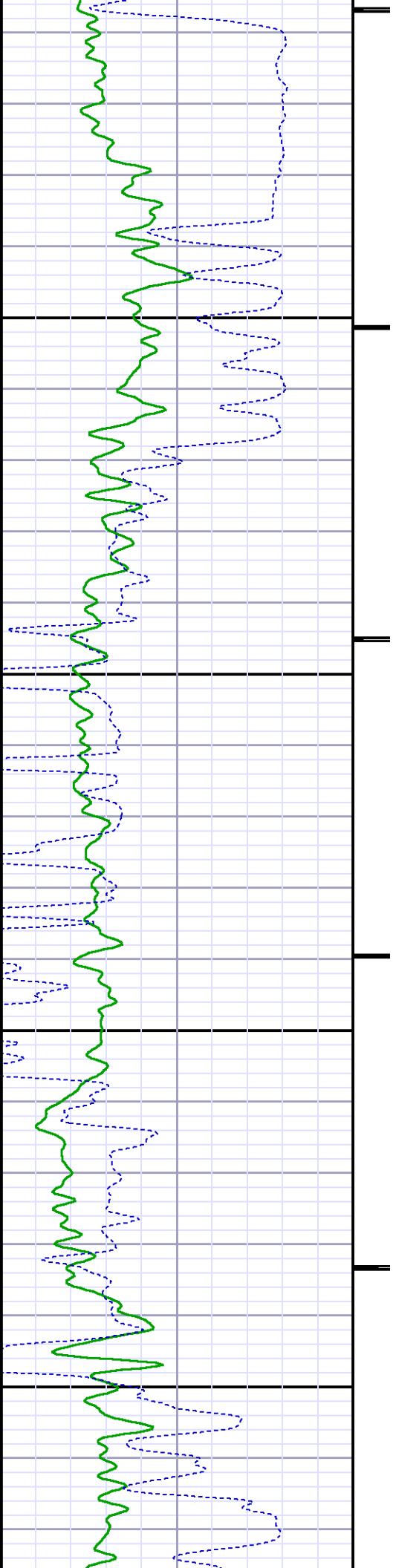


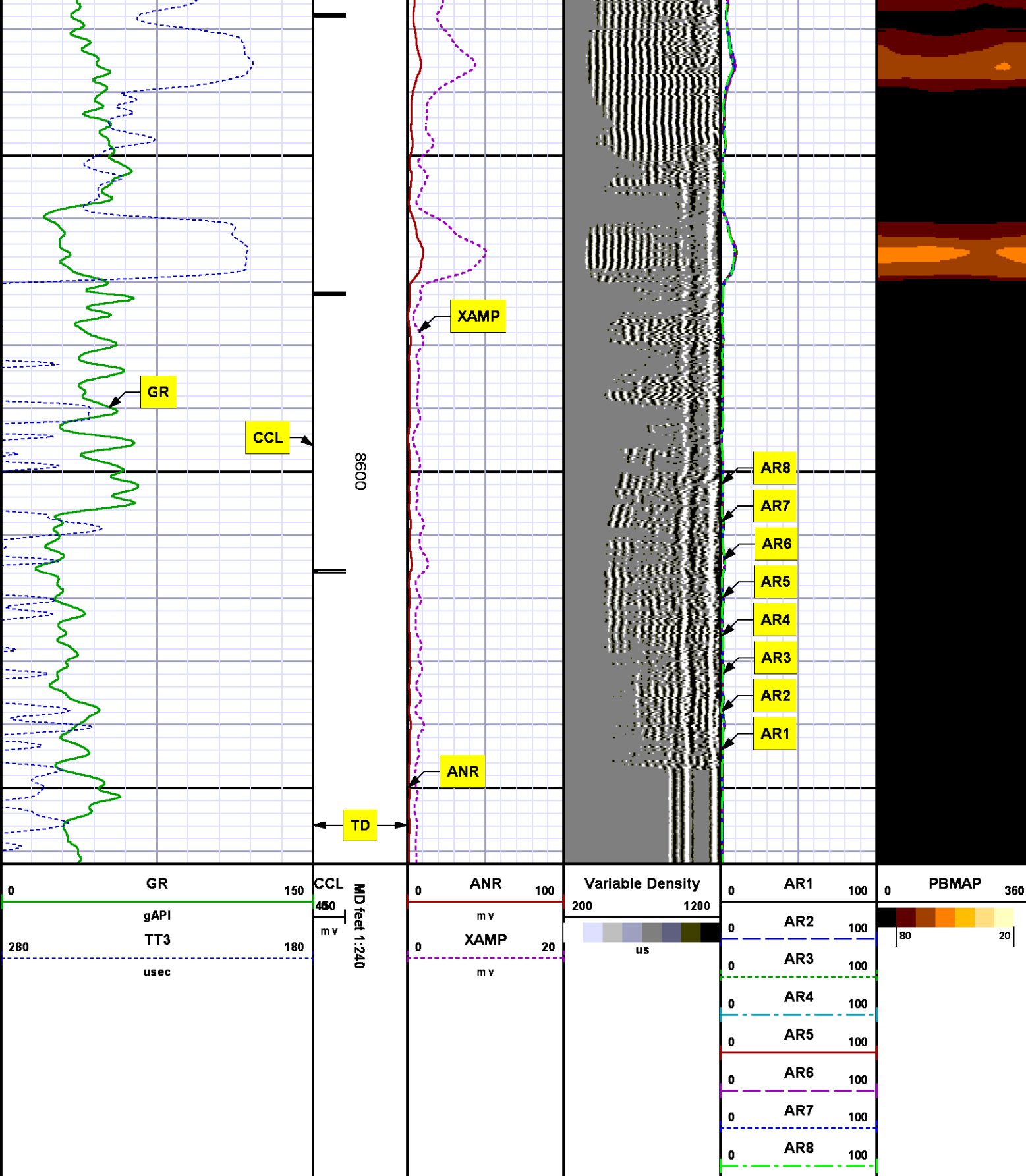




8400

8500





MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	8313.306	8678.399
RAL	Amp Gate Start Near	195.000	usec	8313.306	8678.399
RAL	Amp Gate Start Radial	195.000	usec	8313.306	8678.399
RAL	Amp Gate Width Far	25.000	usec	8313.306	8678.399
RAL	Amp Gate Width Near	25.000	usec	8313.306	8678.399
RAL	Amp Gate Width Radial	25.000	usec	8313.306	8678.399
RAL	casing od	4.500	inches	8313.306	8678.399
RAL	casing wt	11.600	lbm/ft	8313.306	8678.399
RAL	FB Start Far	291.900	usec	8313.306	8678.399
RAL	FB Start Near	180.000	usec	8313.306	8678.399
RAL	FB Start Radial	180.000	usec	8313.306	8678.399
RAL	FB Thresh Far	10.000	mv	8313.306	8678.399
RAL	FB Thresh Near	4.000	mv	8313.306	8678.399
RAL	FB Thresh Radial	4.000	mv	8313.306	8678.399
RAL	Fluid Travel Time	200.000	usec/ft	8313.306	8677.931

DEPTH OFFSETS
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
		ACAL	ANR	AR1	AR2	AR3	AR4
1426XA	-11.000	AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
		AFAR	SIG	TT5			
1426XA	-10.040						
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

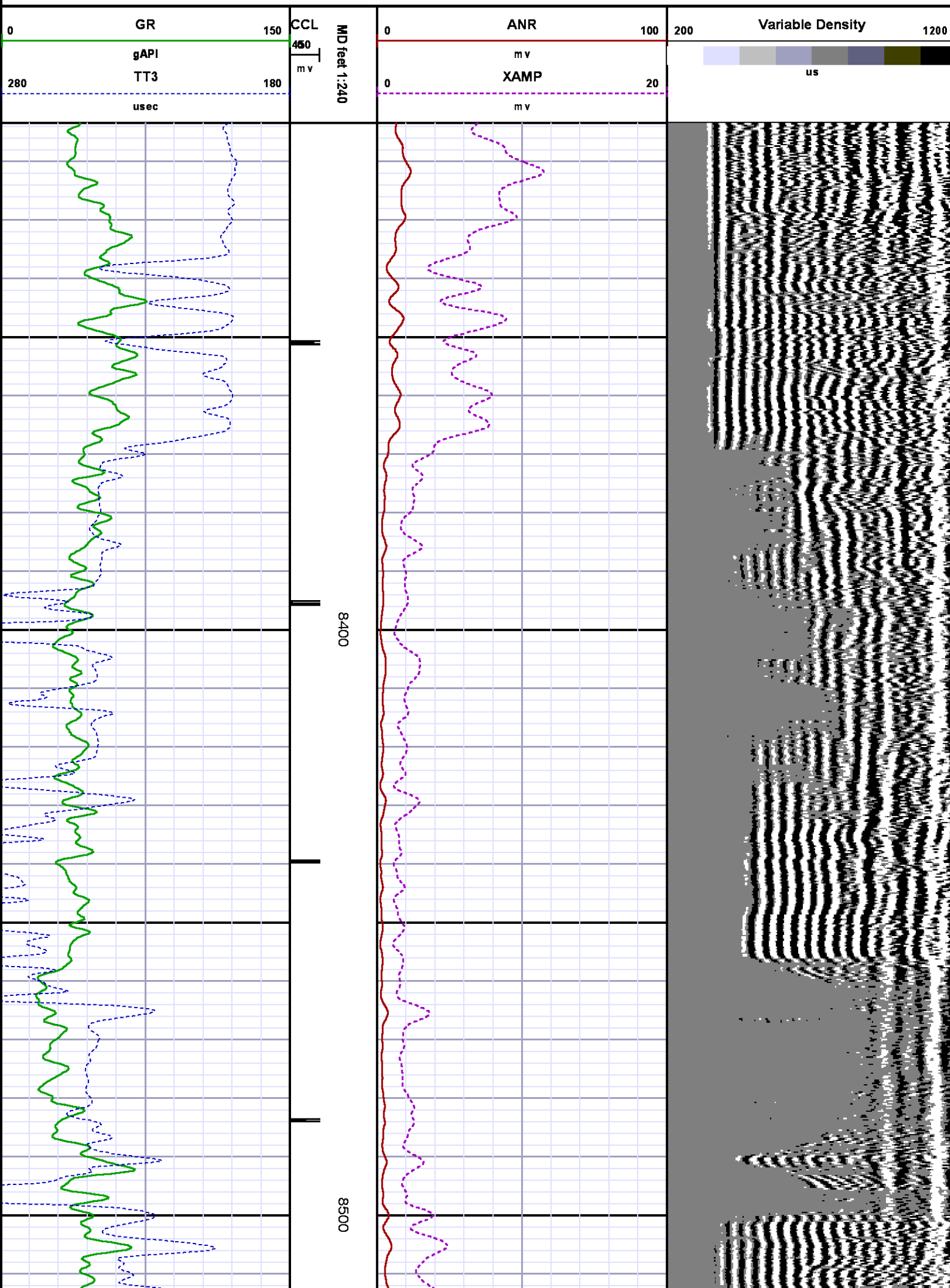
Well : FEDERAL PA 321-27

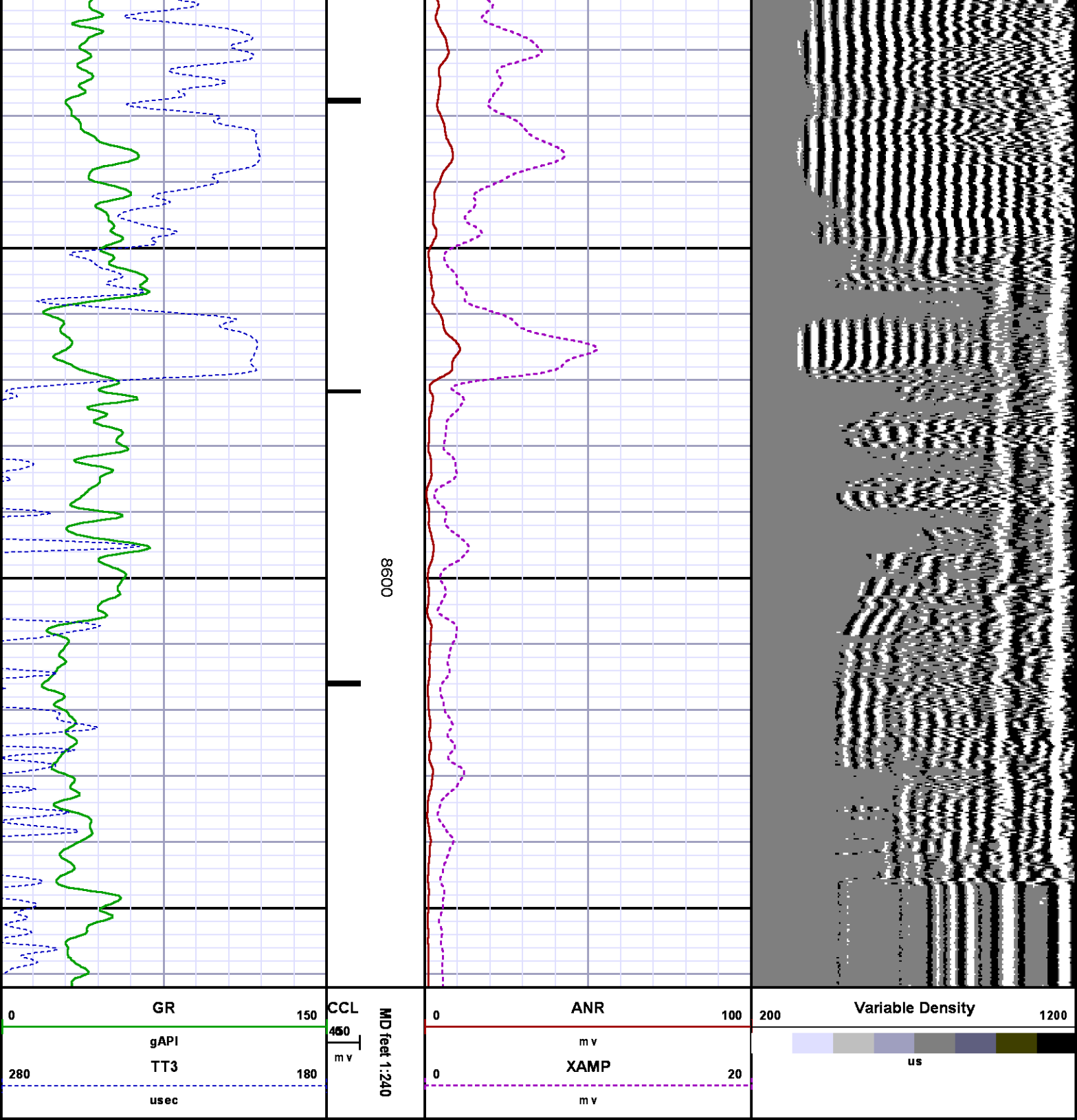
File Name : d:\welldata\wpx energy\pa 3212-27\321ral\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 8313.40 - 8662.00 feet UP

Created : 9/6/2013 8:40:35 AM





CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP495S6_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Sep 06 08:00:21 2013 TOOL SERIES: 1426XA ASSET: 495 SEQ: S6

Tool Delay [usec] -62.00 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	0.379	100.00	0.15
3 Ft. Receiver	217	216	30	160	25	-1.849	100.00	0.15
5 Ft. Receiver	327	325	30	267	25	-2.373	150.00	0.17
Radial #1	217	216	30	158	25	3.332	100.00	0.15
Radial #2	217	216	30	158	25	2.200	100.00	0.15
Radial #3	217	216	30	158	25	0.349	100.00	0.15
Radial #4	215	216	30	158	25	-0.254	100.00	0.15
Radial #5	215	216	30	158	25	-0.814	100.00	0.15
Radial #6	215	216	30	158	25	-0.382	100.00	0.15
Radial #7	216	216	30	158	25	-0.483	100.00	0.15
Radial #8	218	216	30	158	25	0.135	100.00	0.15

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD495S6 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Sep 06 08:03:27 2013 TOOL SERIES: 1426XA ASSET: 495 SEQ: S6

Tool Delay [usec] -62.00 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	0.030	0.000	1.00	100.000
3 Ft. Receiver	195	25	-0.288			
5 Ft. Receiver	305	25	-0.358			
Radial #1	195	25	-0.346			
Radial #2	195	25	-0.342			
Radial #3	195	25	-0.384			
Radial #4	195	25	-0.310			
Radial #5	195	25	-0.323			
Radial #6	195	25	-0.387			
Radial #7	195	25	-0.300			
Radial #8	195	25	-0.280			

GAMMA RAY

GAMMA RAY

Calibration File: C:\case\calver\GR\209A9.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED:		Thu Aug 29 09:42:38 2013		TOOL SERIES:	1355XA	ASSET:	209	SEQ:	A9
Calibrator #	Background	Calibrator On		Multiplicative	Background	Calibrator On	Differential		
	[cps]	[cps]			[api]	[api]	[api]		
SHOP	JIG	149.16	633.51	0.382	56.97	241.97	185.00		

Verification File: C:\case\calver\GR\209A9.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED:		Thu Aug 29 09:44:11 2013		TOOL SERIES:	1355XA	ASSET:	209	SEQ:	A9
Calibrator #	Background	Calibrator On		Multiplicative	Background	Calibrator On	Differential		
	[cps]	[cps]			[api]	[api]	[api]		
SHOP	JIG	153.60	637.78	0.382	58.67	243.60	184.93		

TOOL DIAGRAM

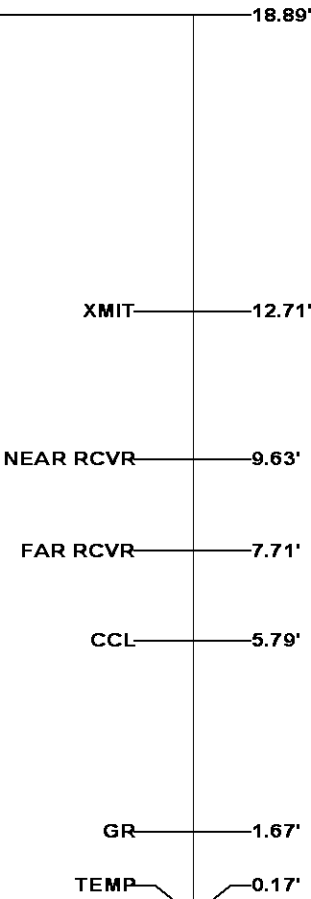
OTA SHORT CABLE HEAD

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

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



-0.00'

<div> BAKER HUGHES</div> <div>Baker Atlas</div> <div></div>	Company	WPX ENERGY				File No:	CH076926
	Well	FEDERAL PA 321-27					
	Field	PARACHUTE				API No:	05045218610000
	County	GARFIELD	State	COLORADO			
	Location	SHL: 2098' FNL X 1306' FWL BHL: 499' FNL X 2050' FWL (NENW)				Elevations	27 GS 95W
					KB 5866 ft	DOE 1-W-27 PAD	
					DF		
					GL 5840 ft	NABORS 574	
	SEC 27	TWP 6S	RGE 95W				