

Radial Cement Bond Gamma Ray Casing Collar Log

Company Kerr-McGee Oil & Gas Onshore, L.P.		Company Kerr-McGee Oil & Gas Onshore, L.P.					
Well Nichols 37C-31HZ		Well Nichols 37C-31HZ					
Field Wattenberg		Field Wattenberg					
County Weld		County Weld					
State Colorado		State Colorado					
Location:		API # : 05-123-35739-00					
Permanent Datum SEC 6 TWP 2N RGE 65W		Other Services					
Log Measured From Kelly Bushing 16'		PLUG					
Drilling Measured From Kelly Bushing		Elevation					
Date 24-FEB-2013		K.B. 4941 D.F. NA G.L. 4925					
Run Number One							
Depth Driller 12.519							
Depth Logger 6783							
Bottom Logged Interval 6780							
Top Log Interval Zero							
Open Hole Size 9.625"							
Type Fluid Water							
Density / Viscosity 8.34 LB/GAL							
Max. Recorded Temp. 256 F							
Estimated Cement Top Ground Level							
Time Well Ready ROA							
Time Logger on Bottom ---							
Equipment Number HD 0255							
Location Fort Lupton, CO							
Recorded By Greg Jackson							
Witnessed By Keith Kallsen							
Borehole Record		Tubing Record					
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record	Size			Wgt/Ft		Top	Bottom
Surface String	9 5/8			36		Surface	943
Prot. String							
Production String	7			26		Surface	7707
Liner	4 1/2			11.6		6727	12,504

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

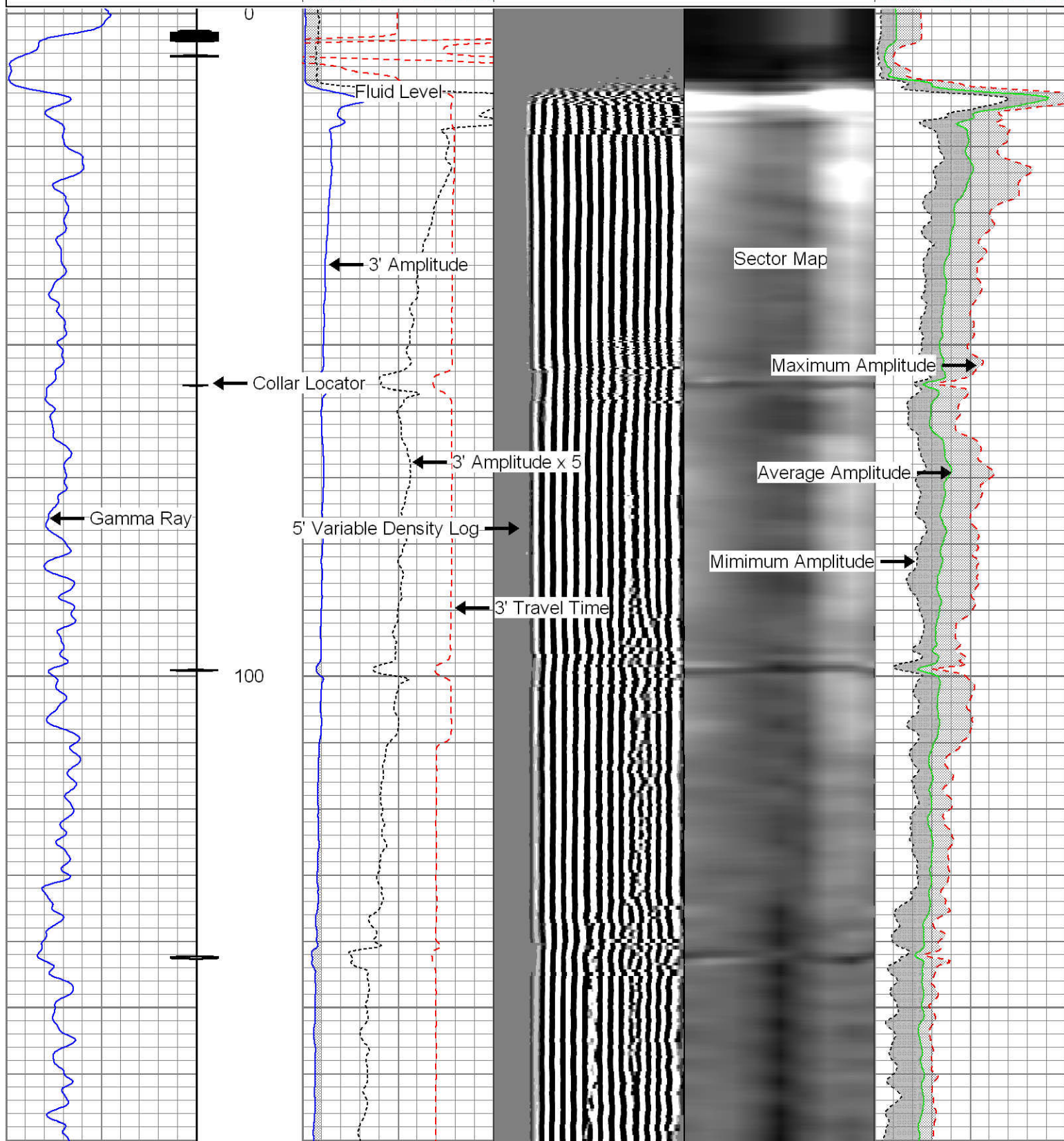
Radial Cement Bond is Primary Log
Correlated to Casing Tally Reported Liner Top @ 6727
Run RCBL from just below Liner Top to Surface
RCBL Logged with 2800 PSI Induced pressure @ surface
Estimated Top of Cement @ Ground Level
Corrected -4' @ Liner Top with zero @ KB

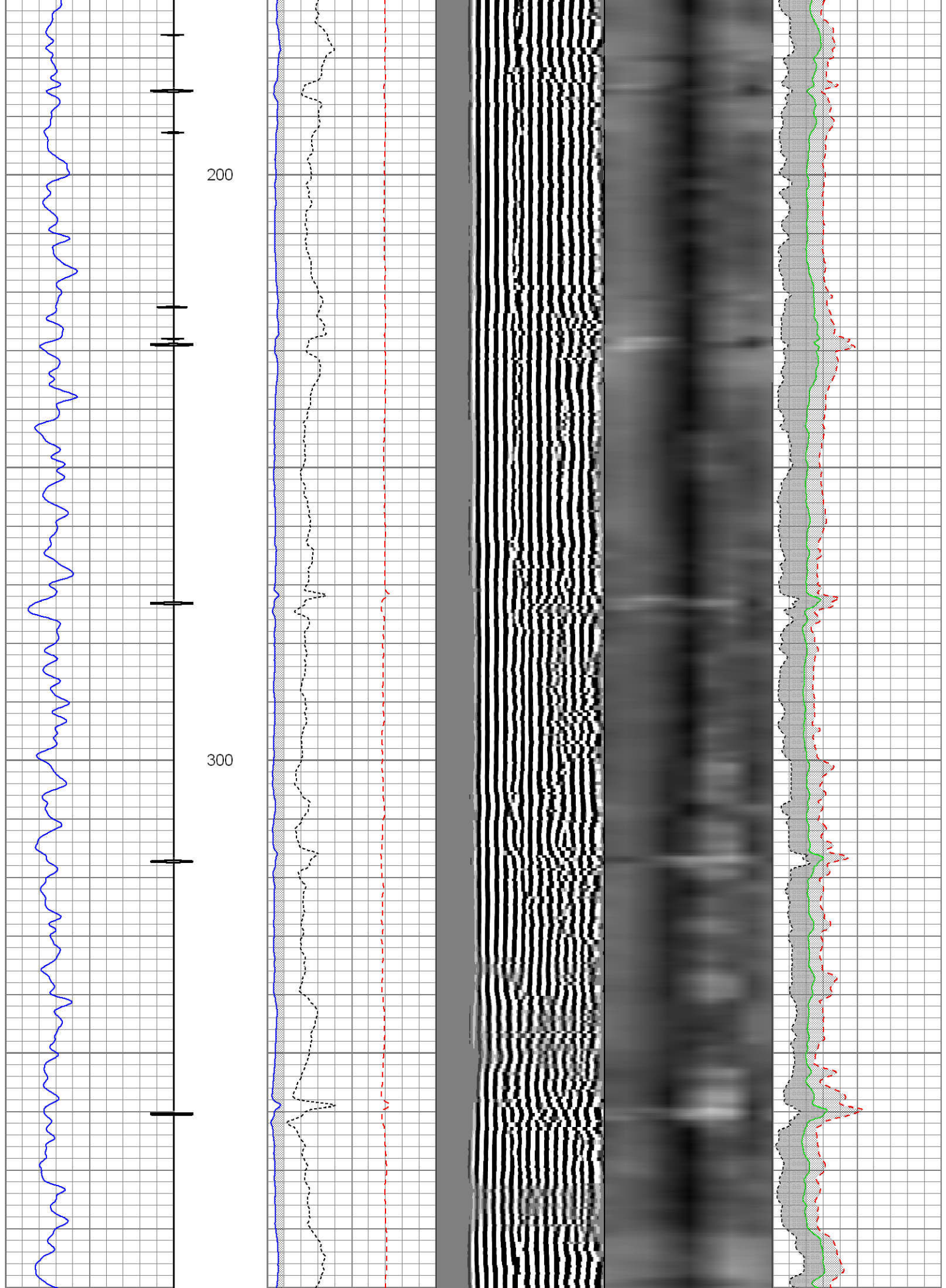
Thank you for choosing FMC Technologies Completion Services

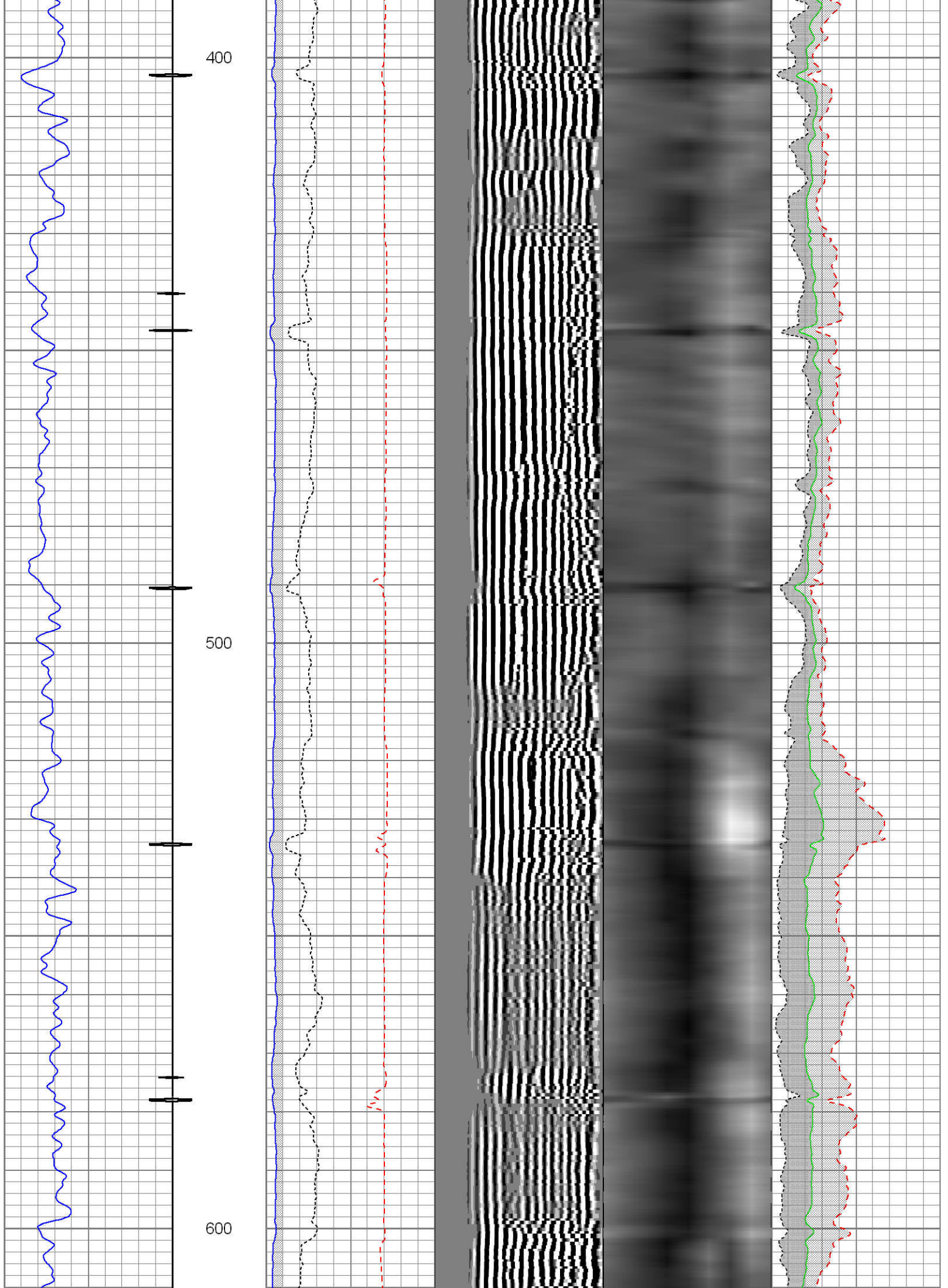
Main Pass @ 2800psi

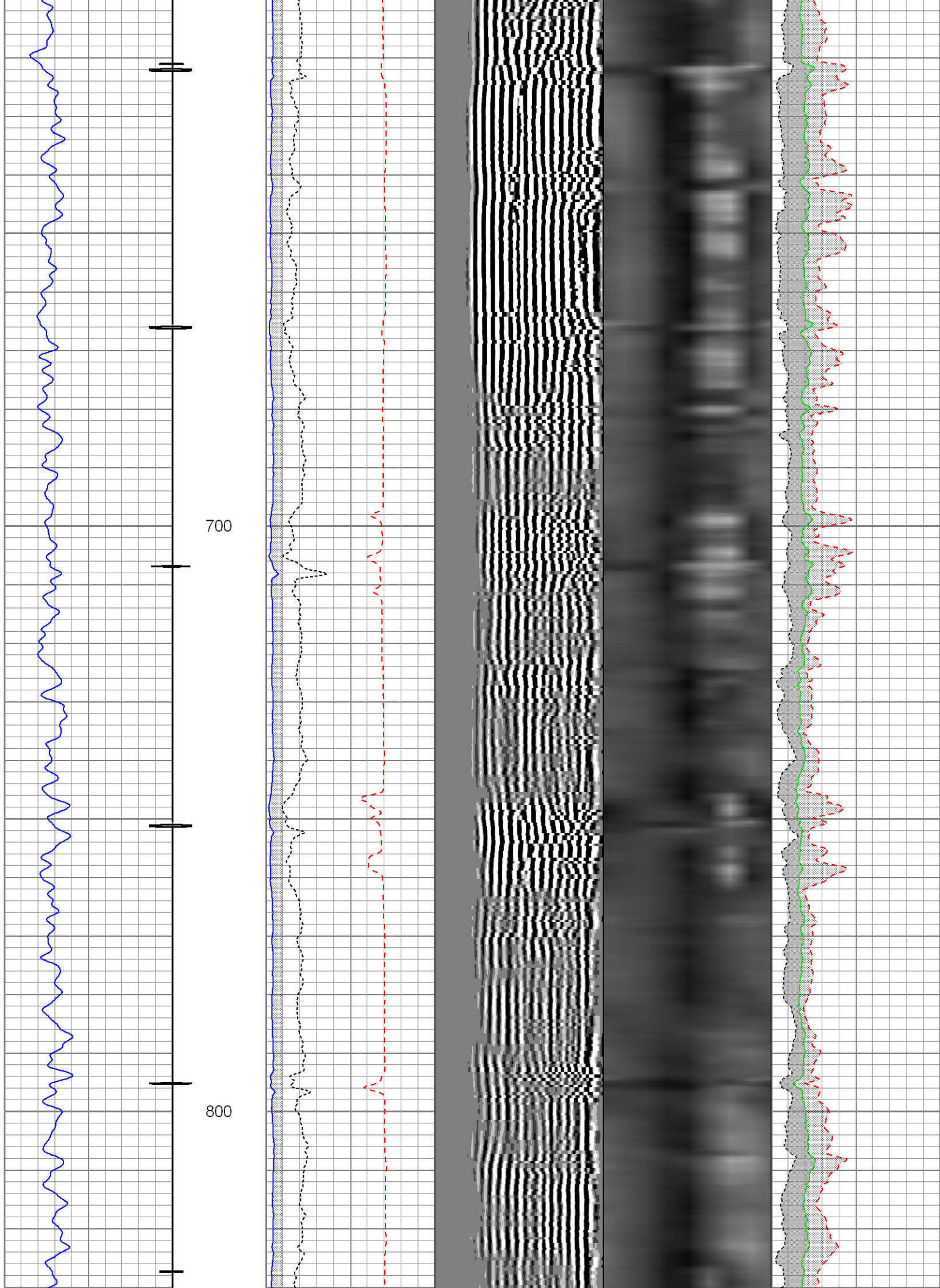
Database File: kmg_nichols 37c-31hz_cbl.db
Dataset Pathname: pass3
Presentation Format: rib
Dataset Creation: Sun Feb 24 11:15:53 2013 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240

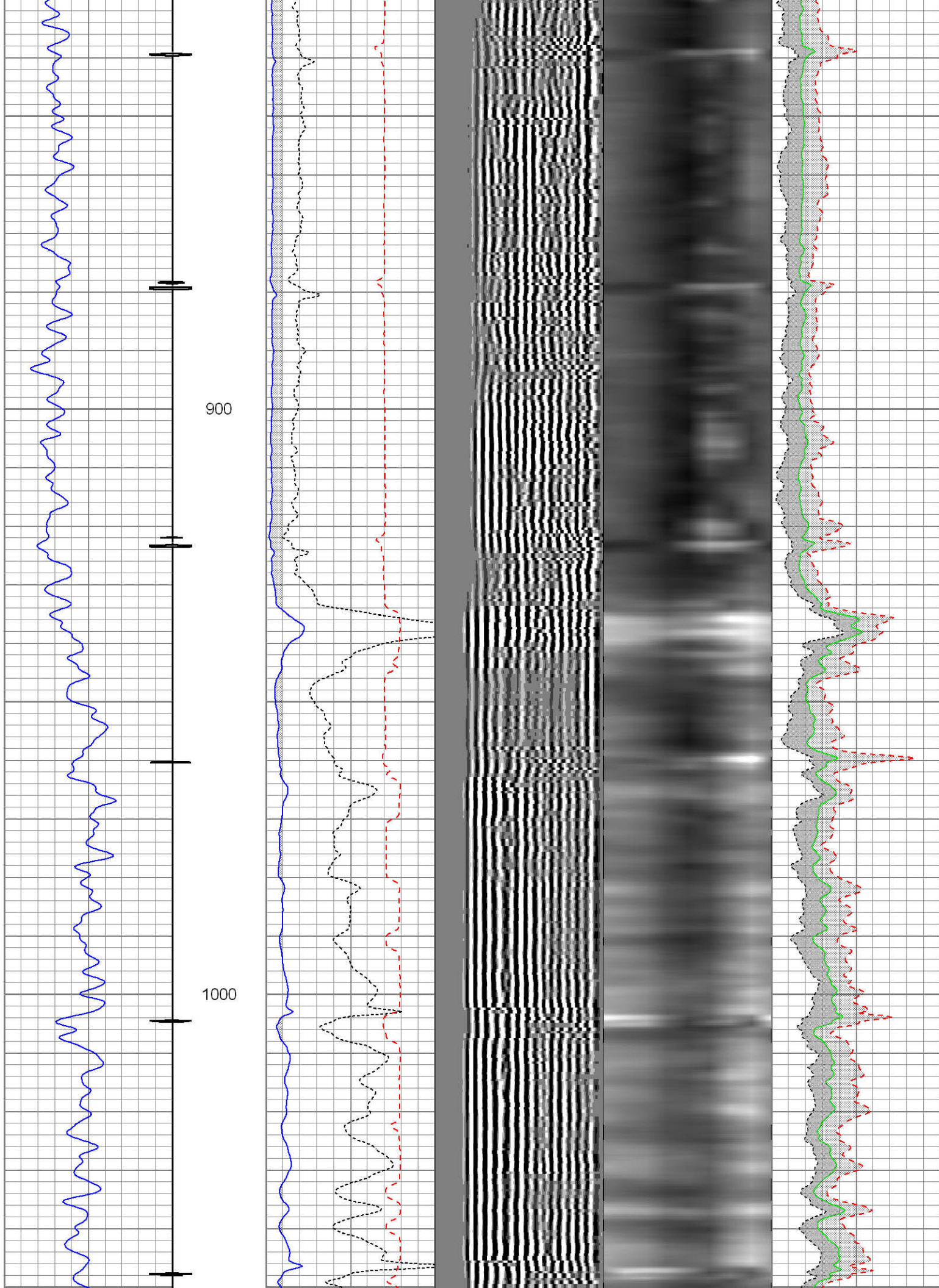
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	Collar Locator	0 (mV) 100	200 1200		0 100
		3' Amplitude x 5			Minimum Amplitude
		0 (mV) 20			0 100
		3' Travel Time			Maximum Amplitude
		650 (usec) 150			0 100

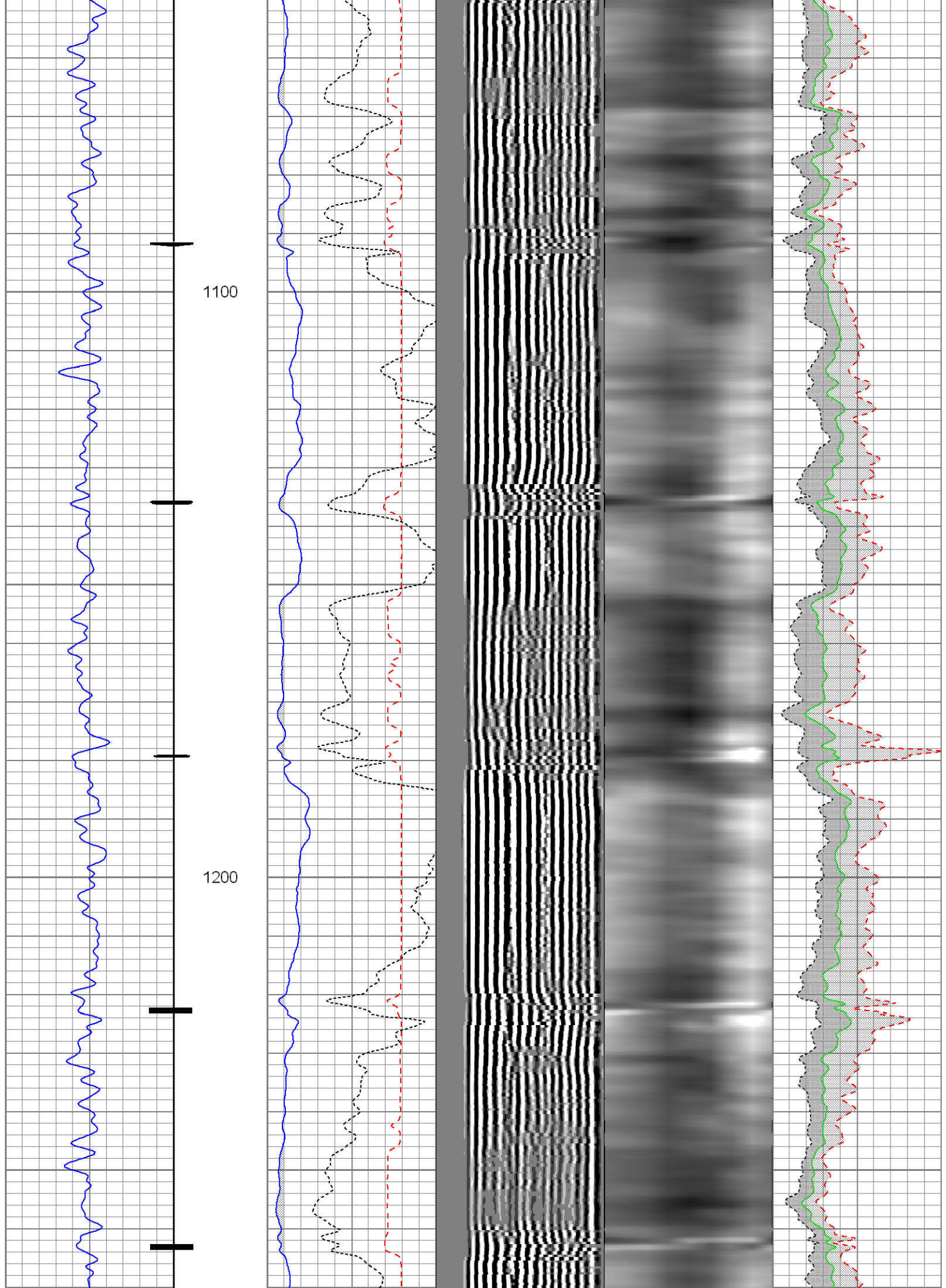


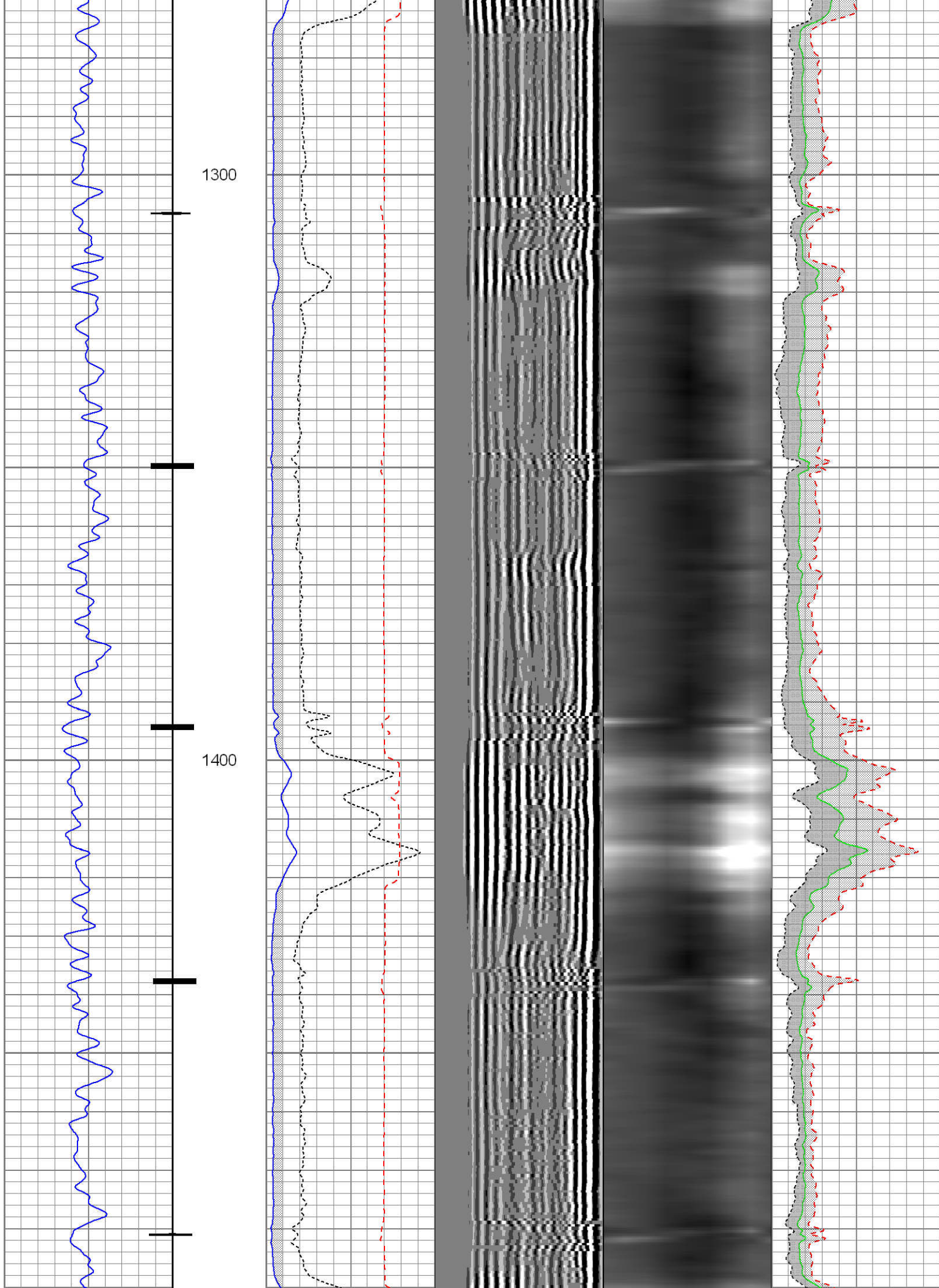


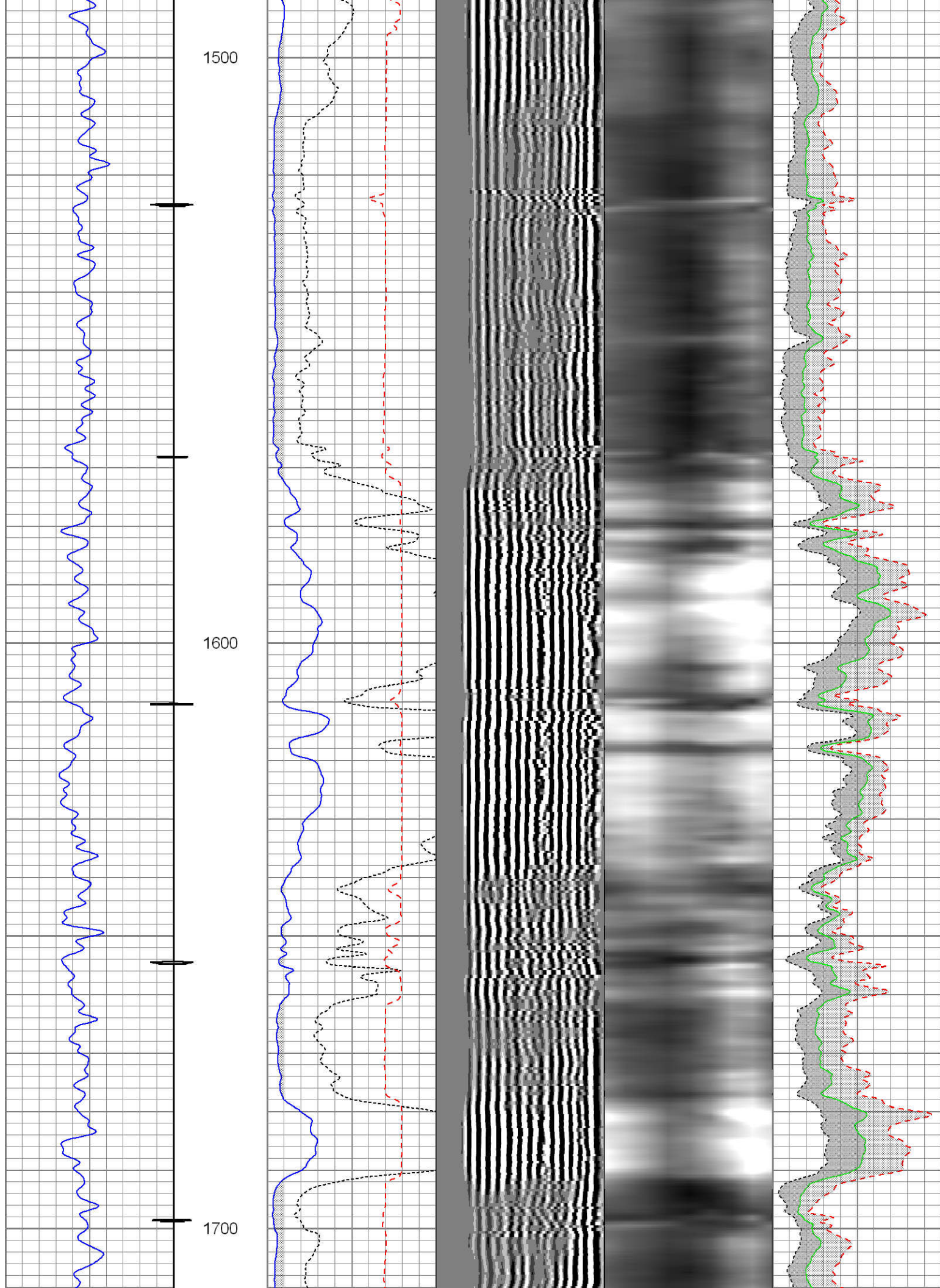


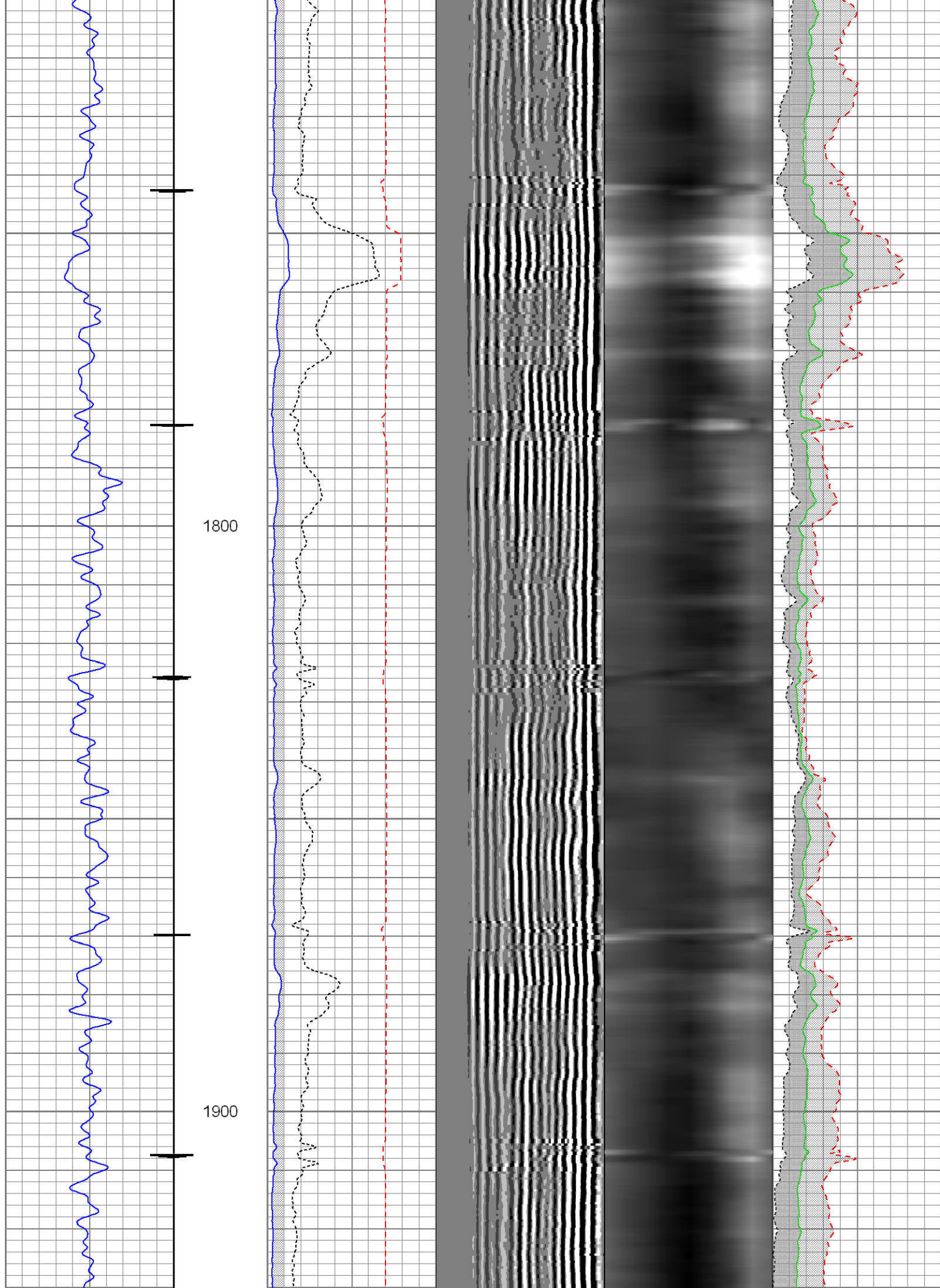


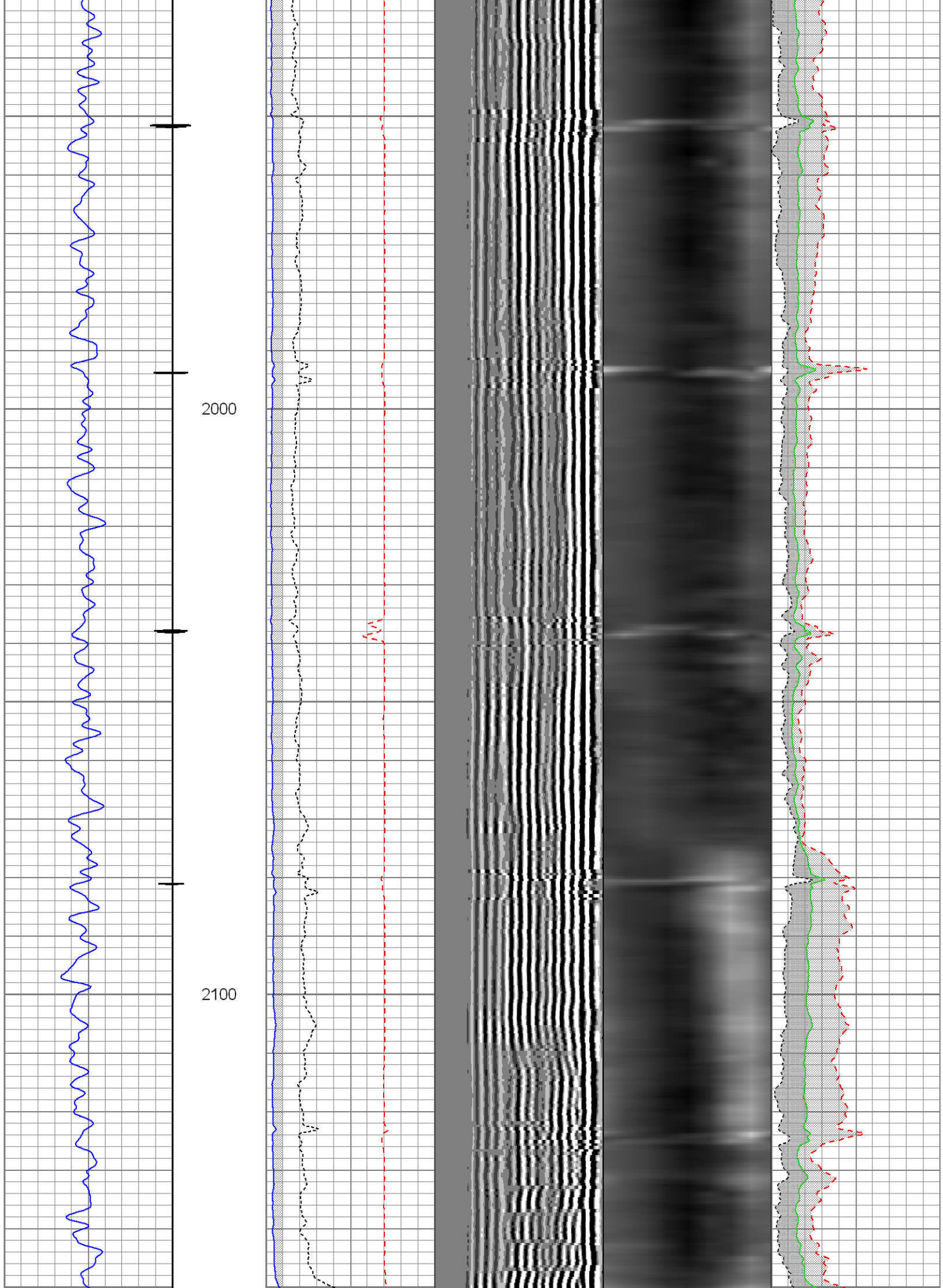


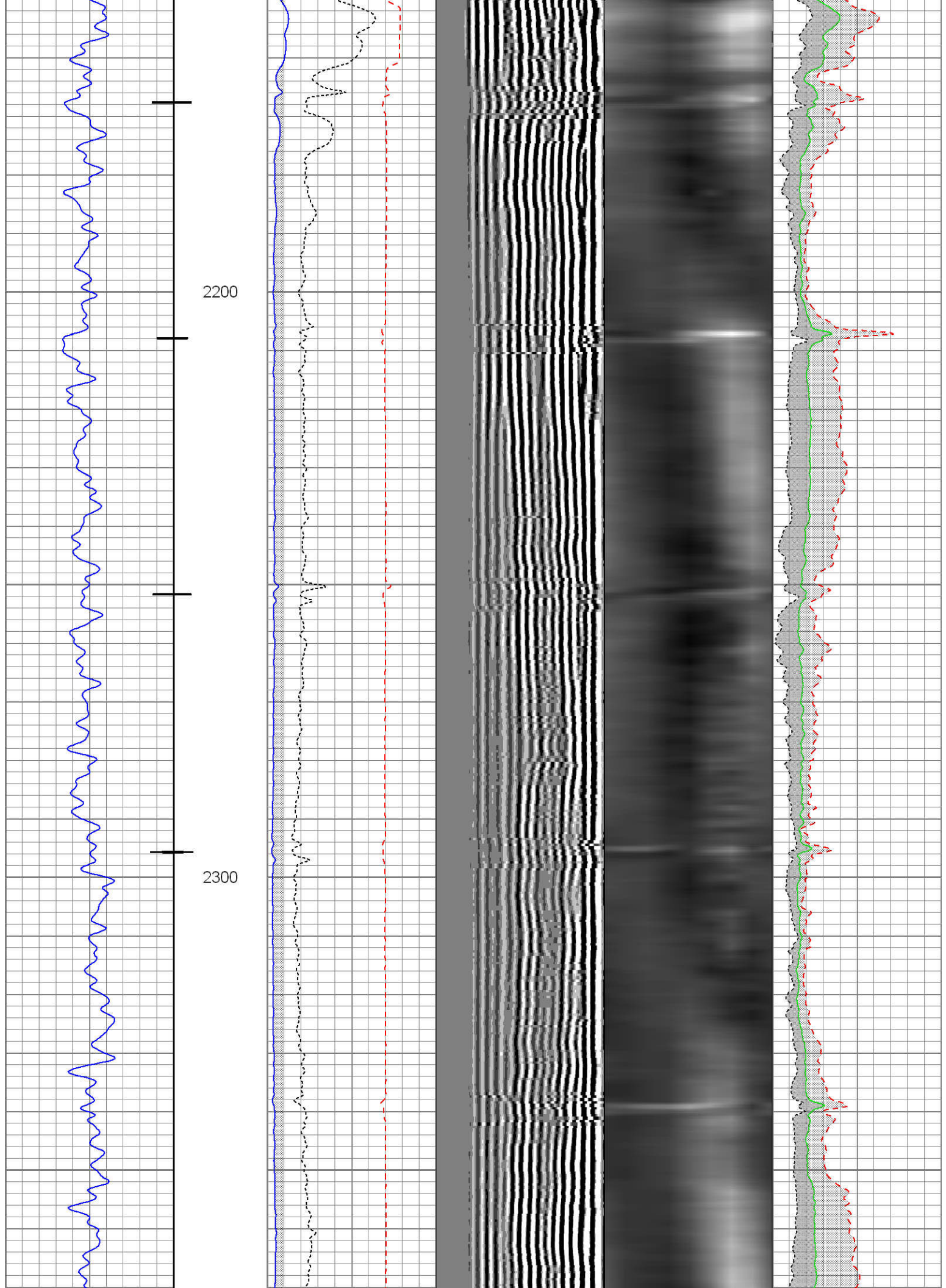


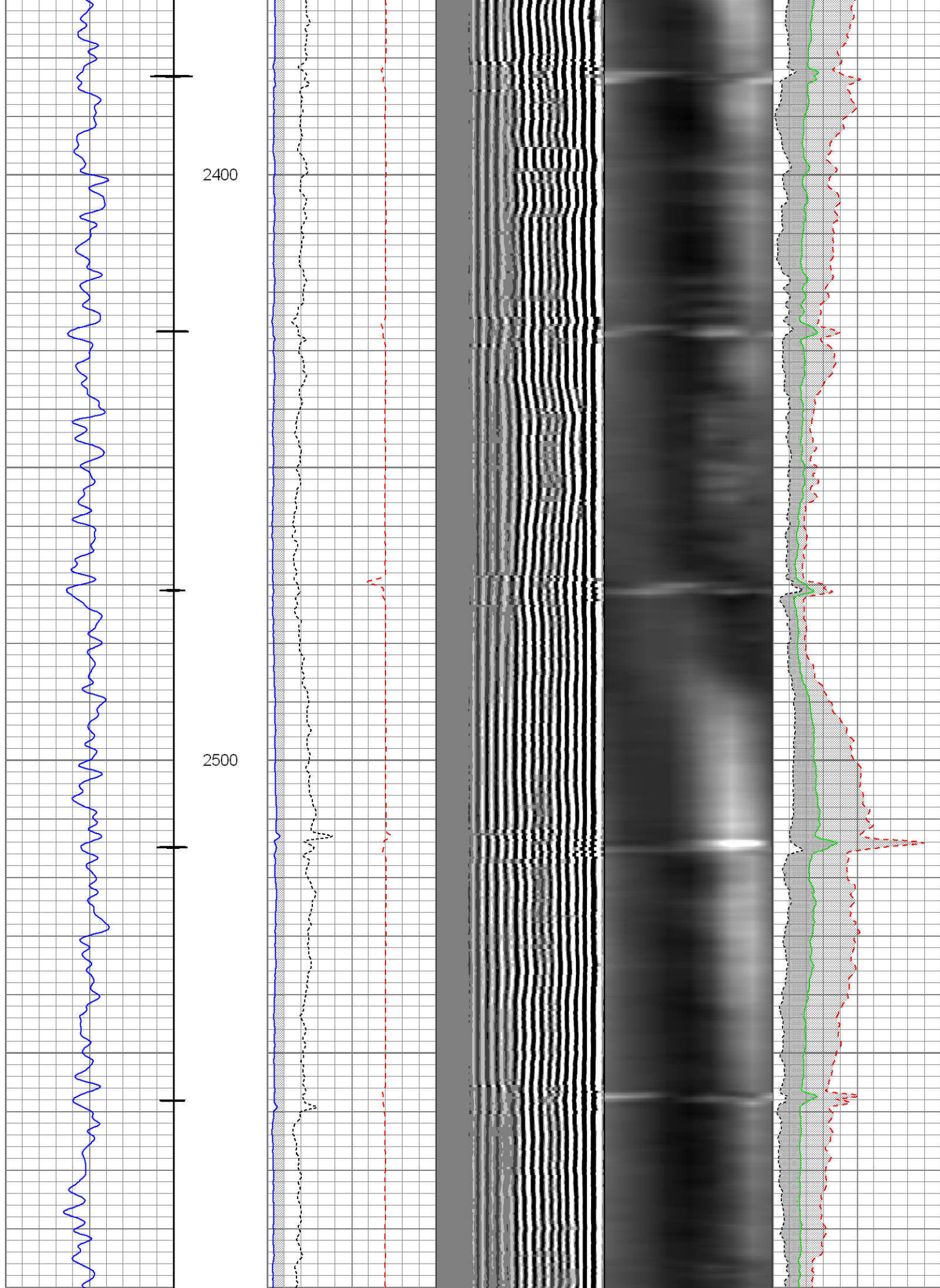


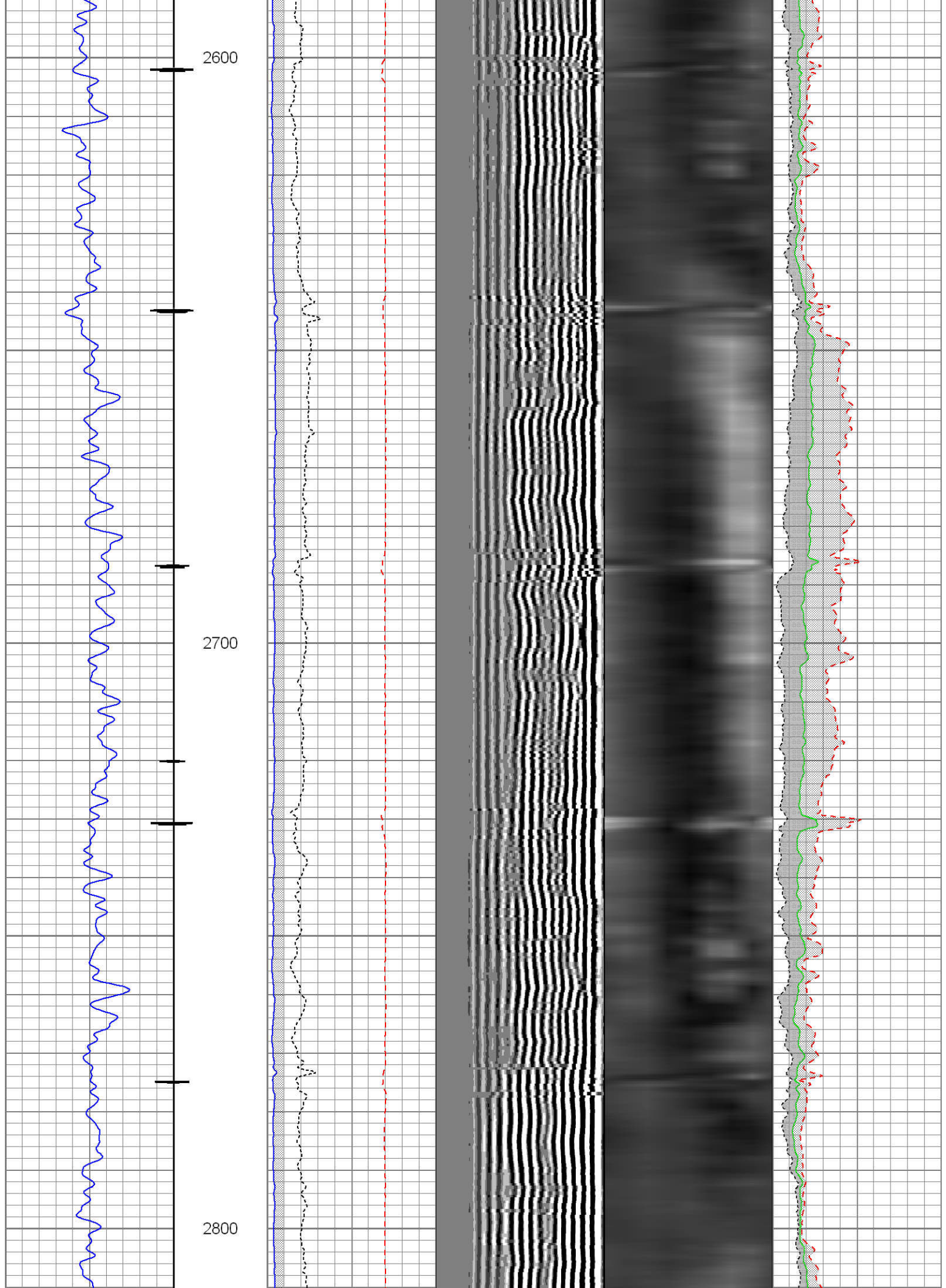


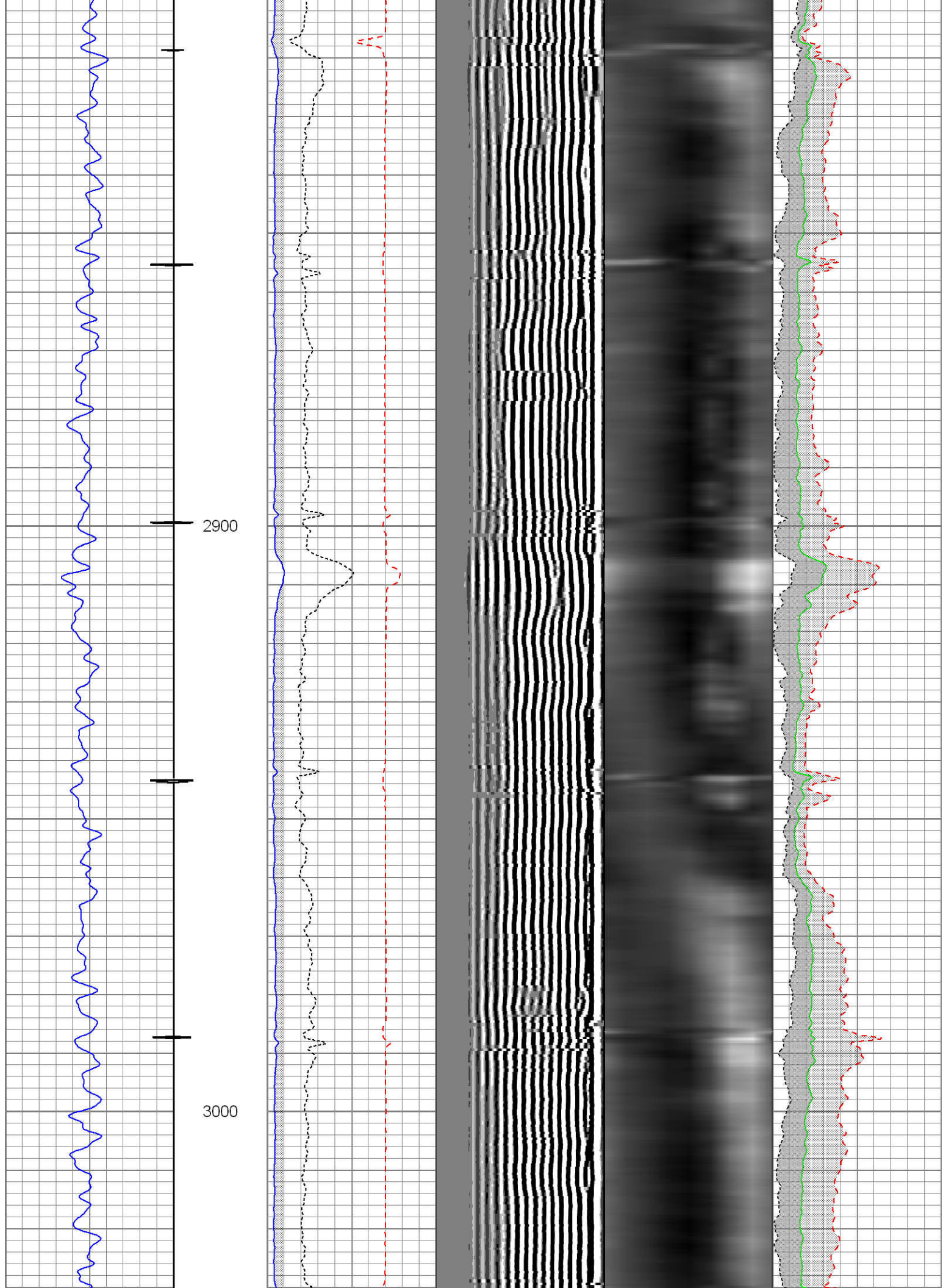


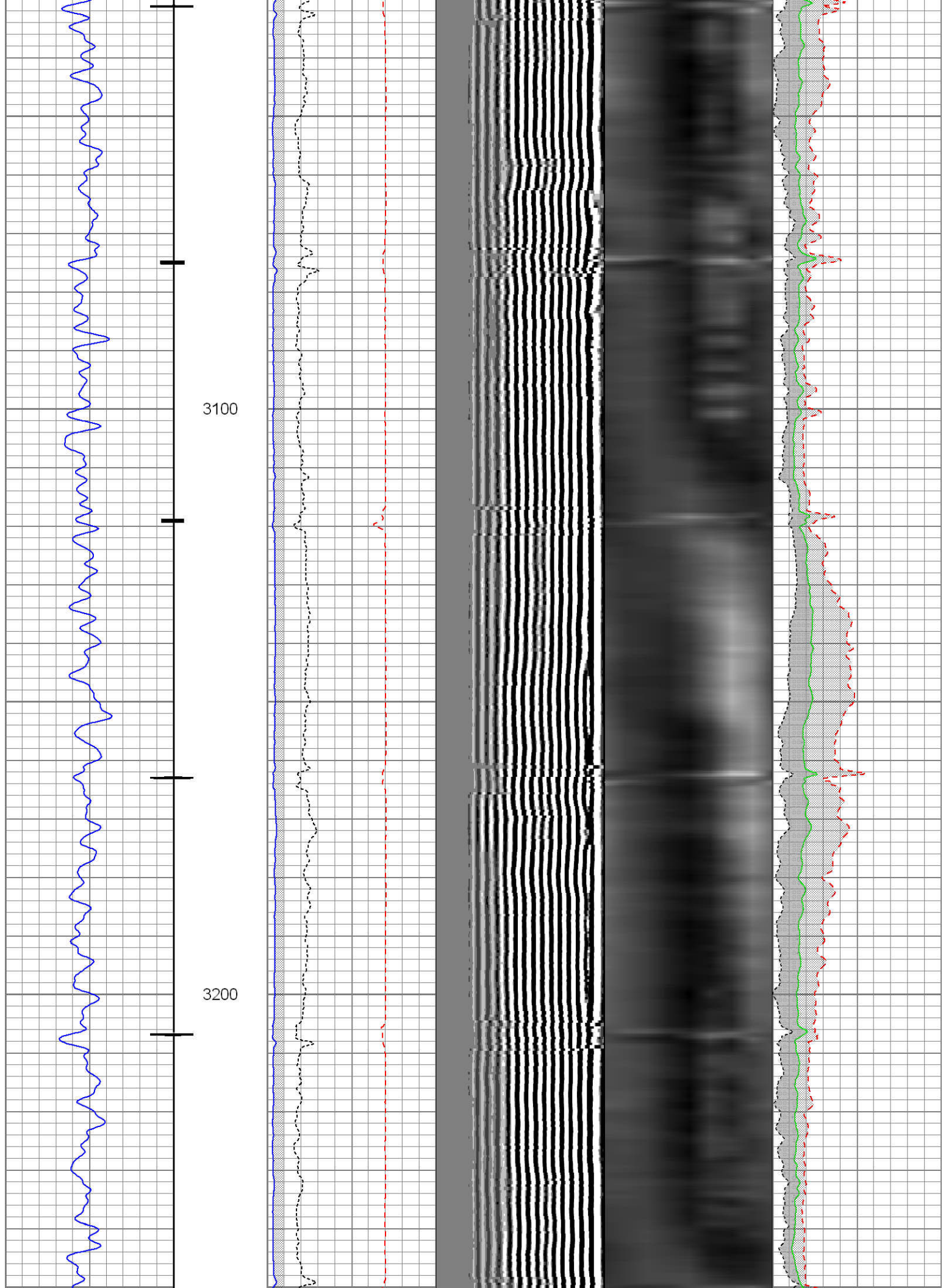


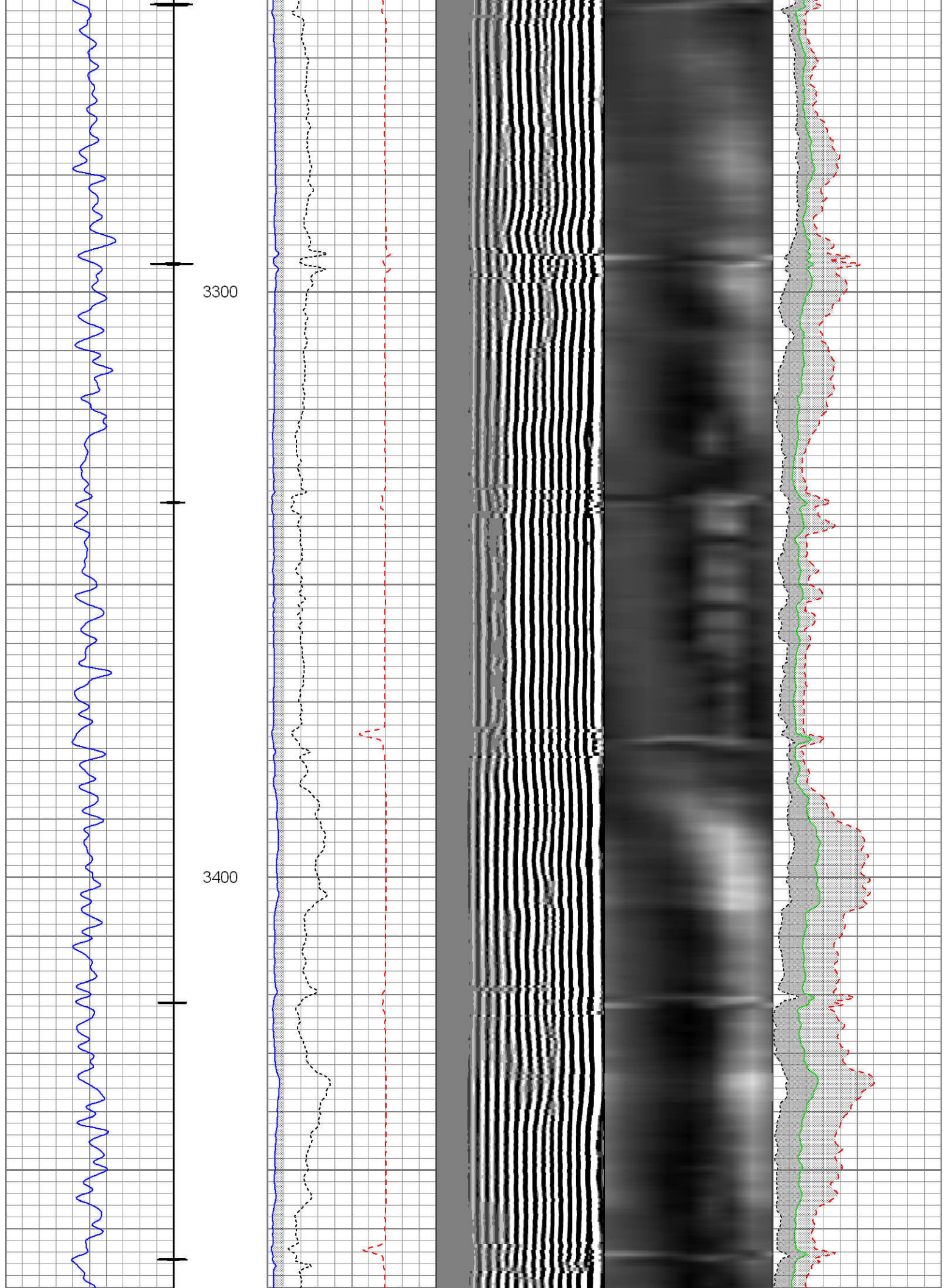


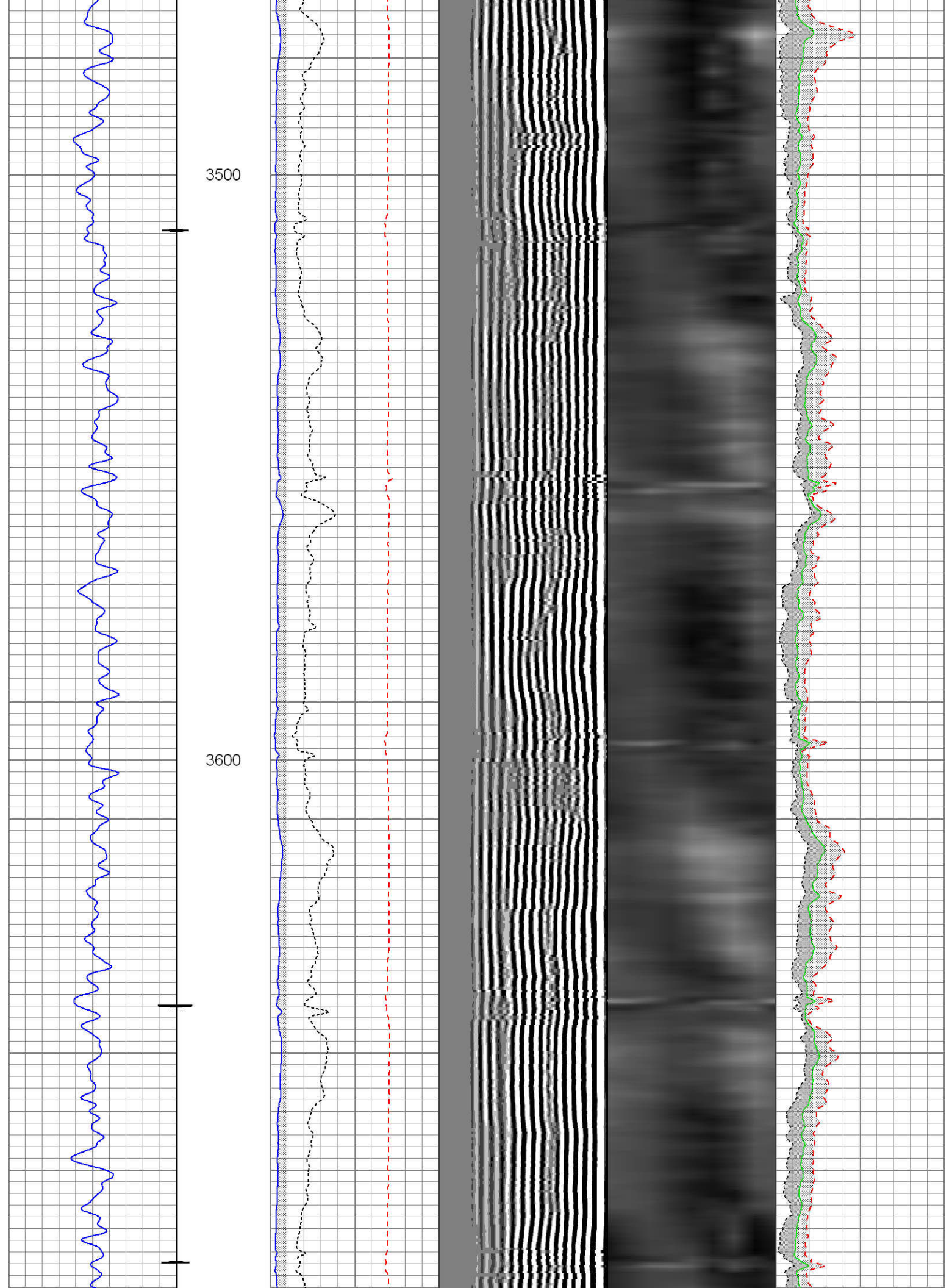


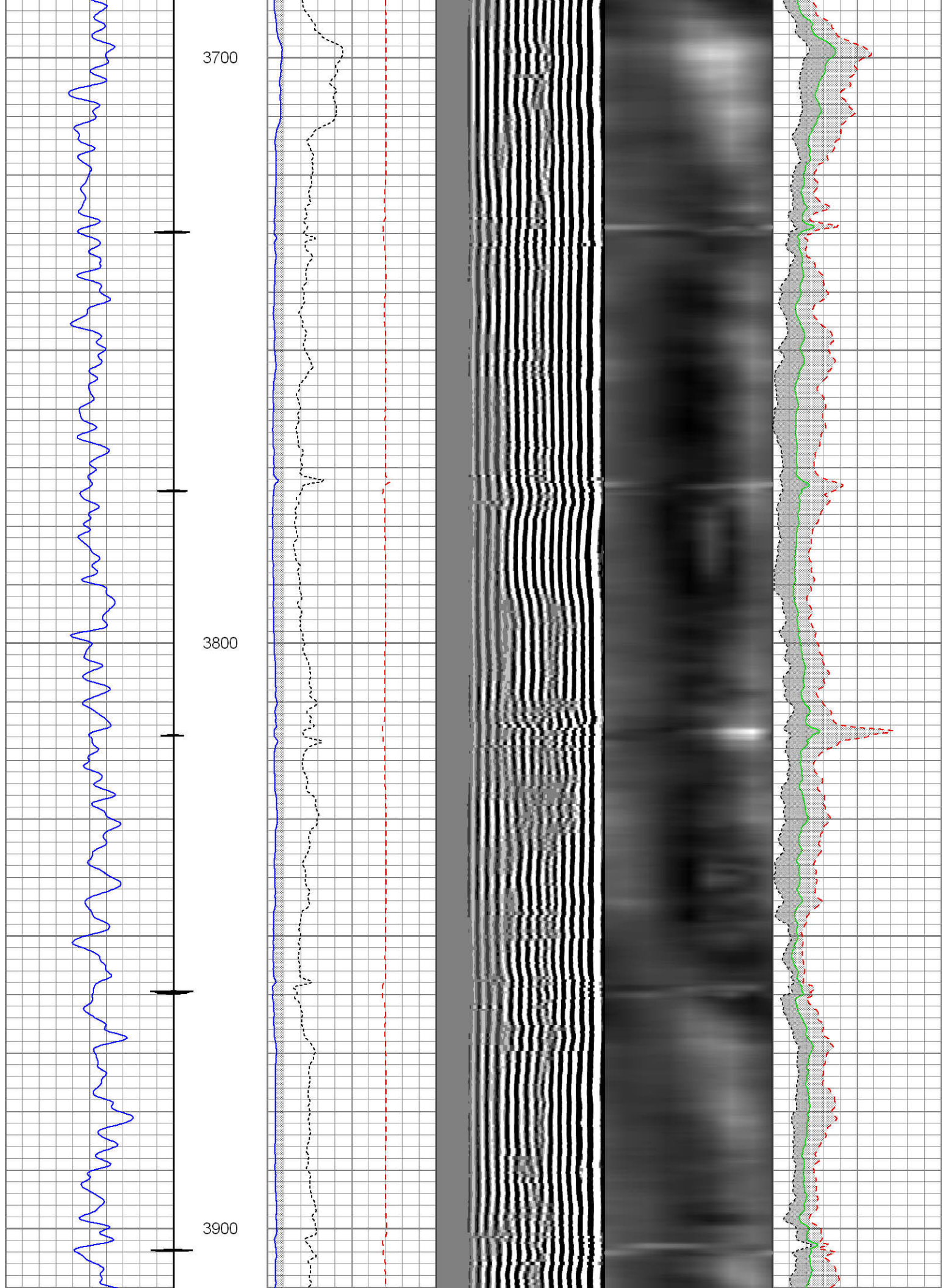


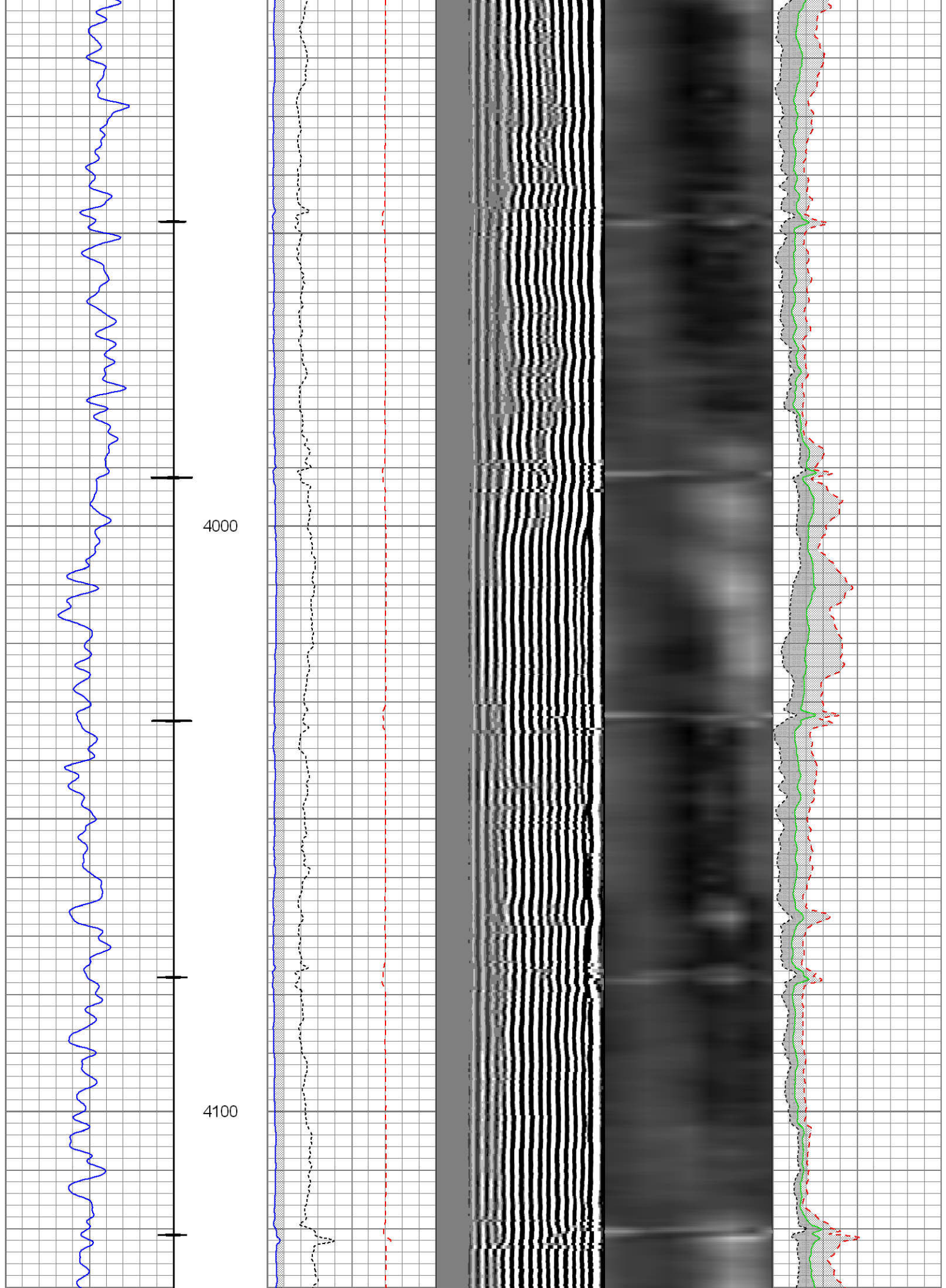


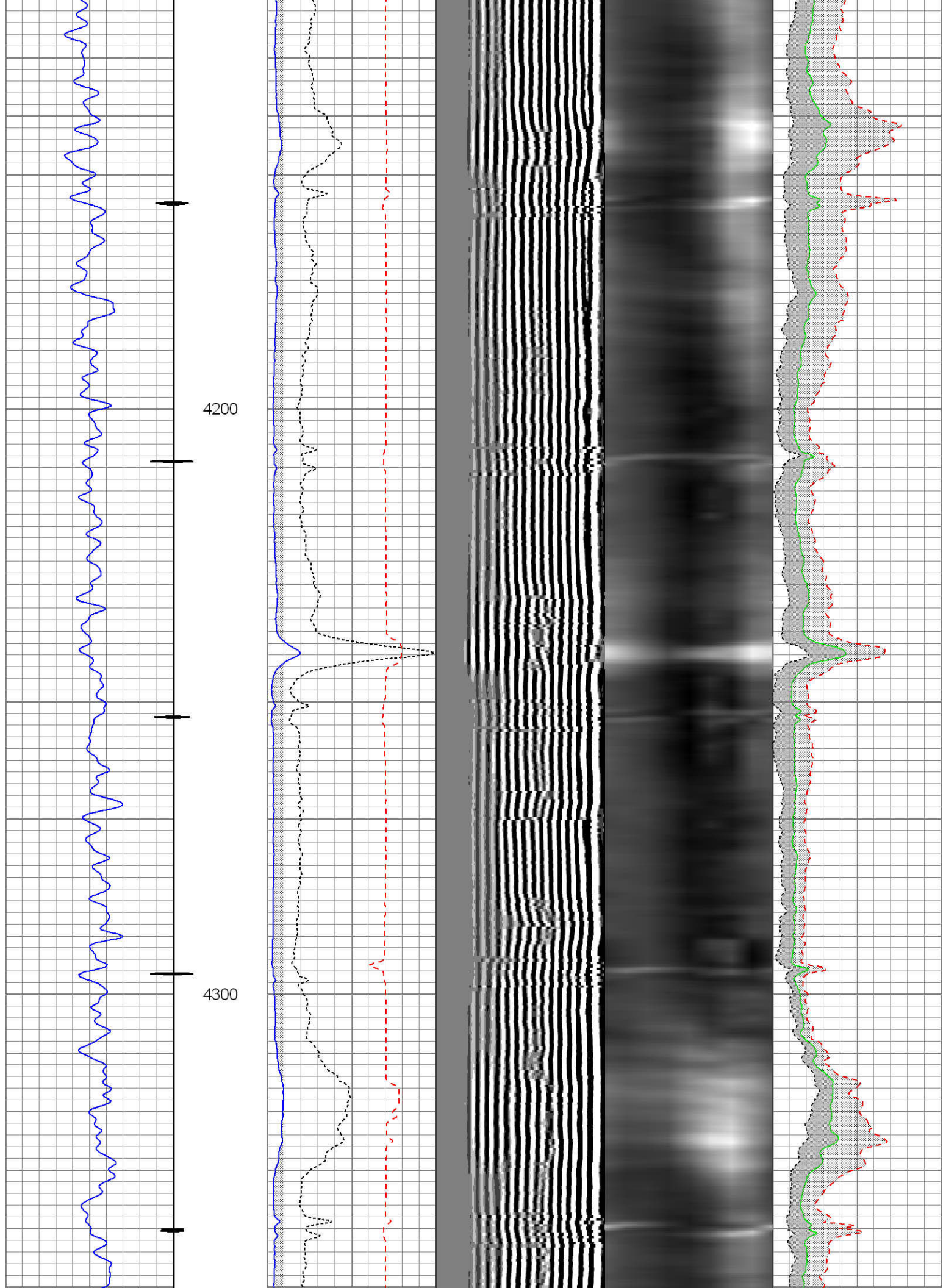


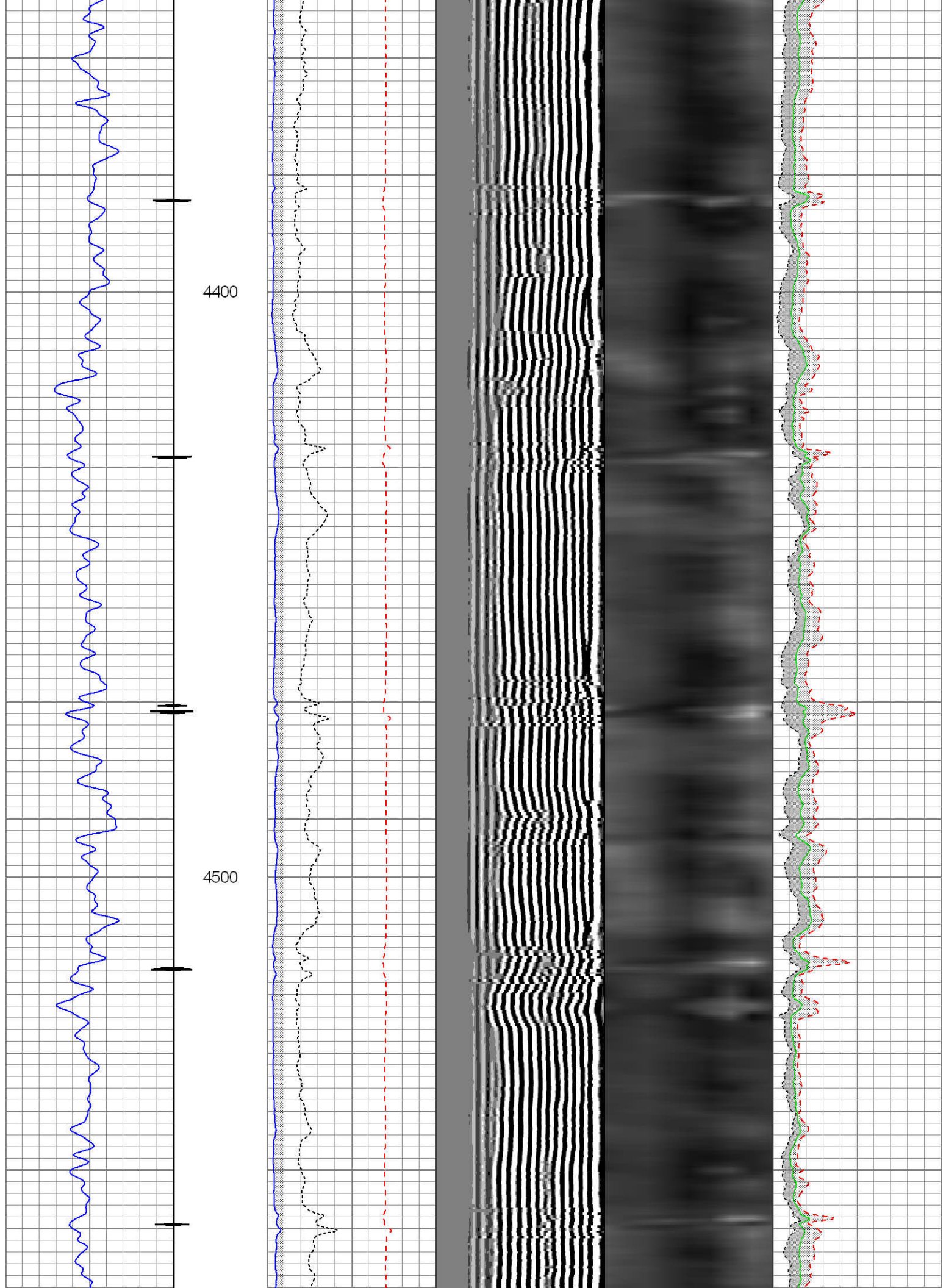


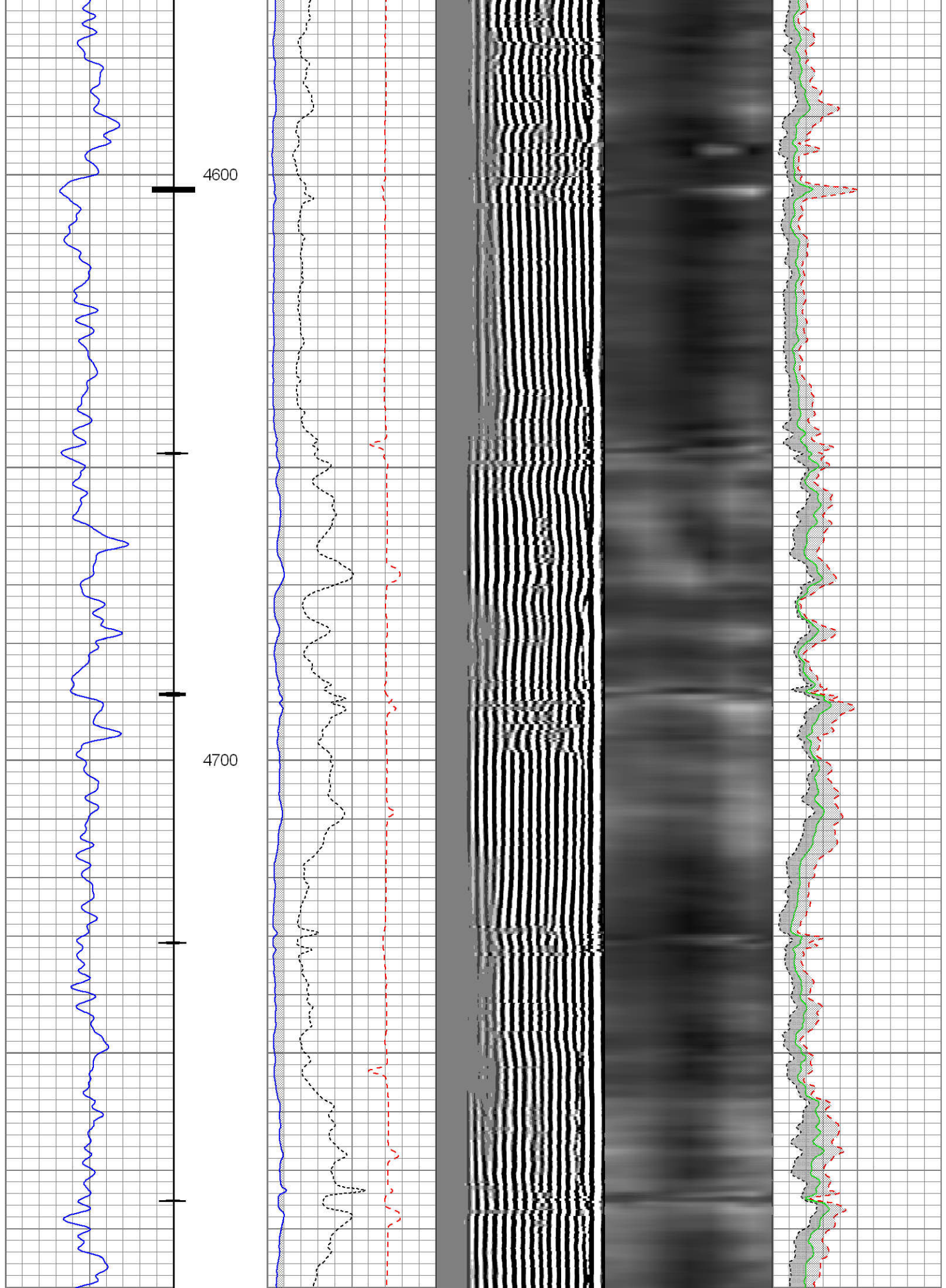


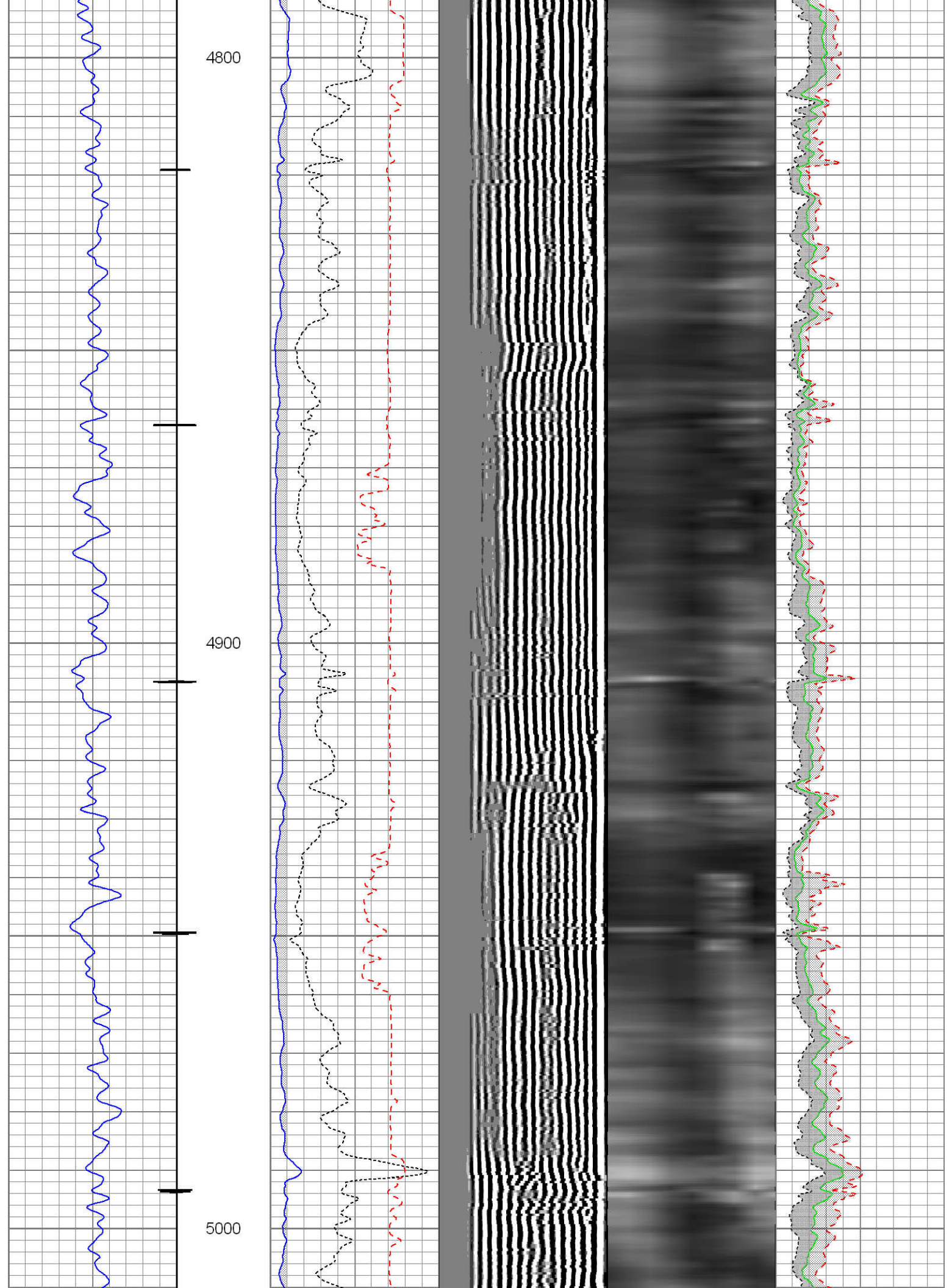


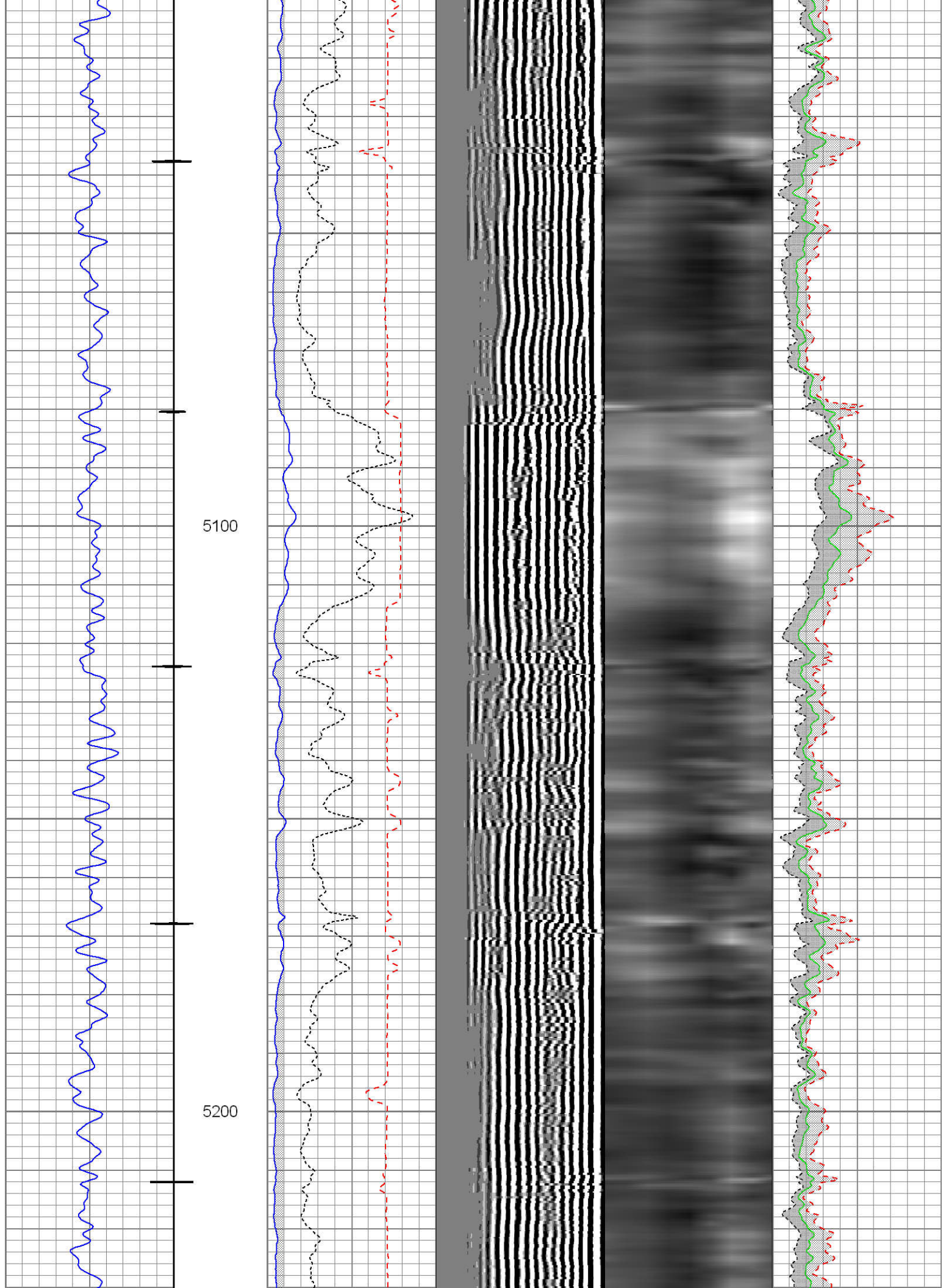


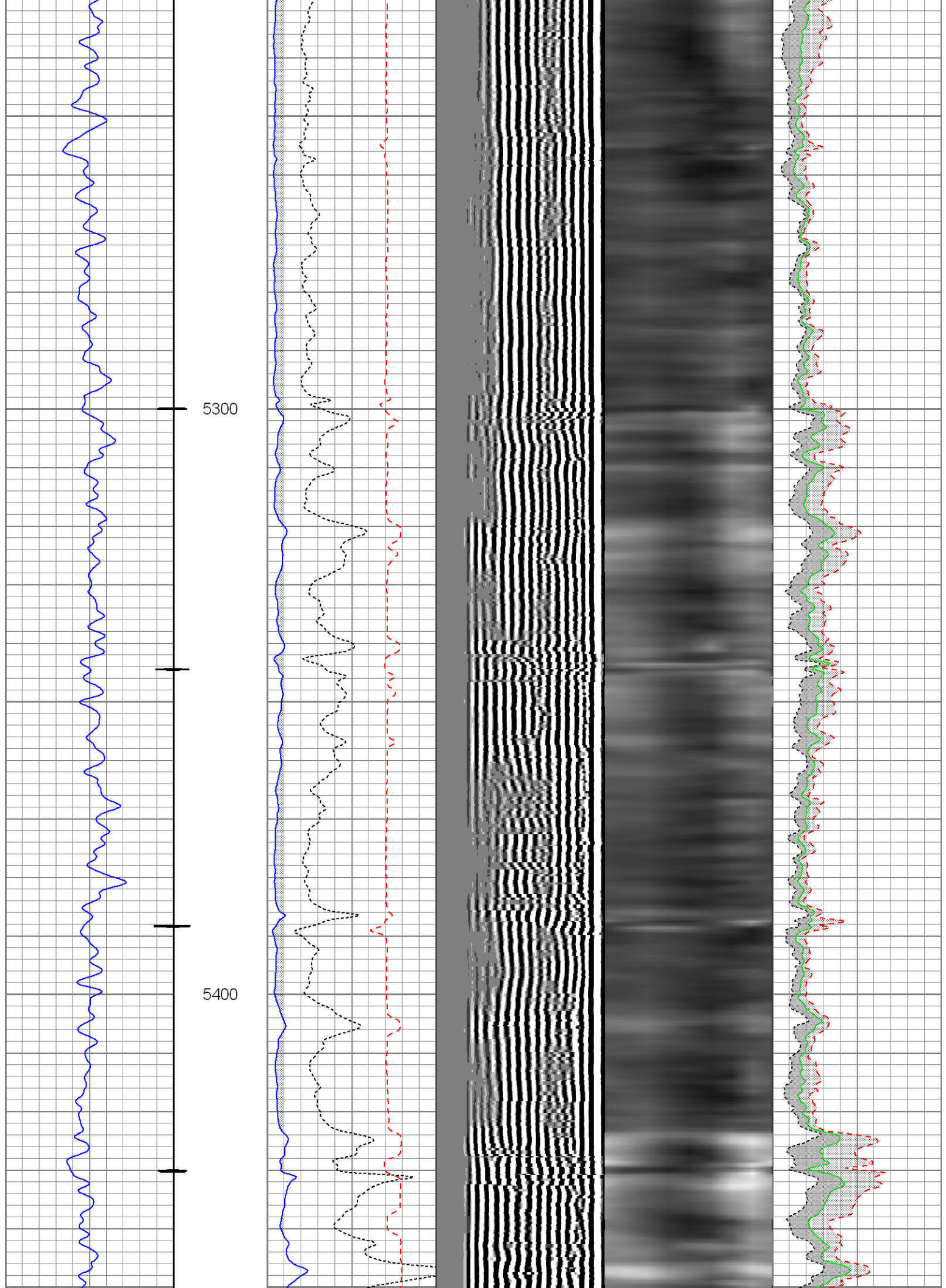


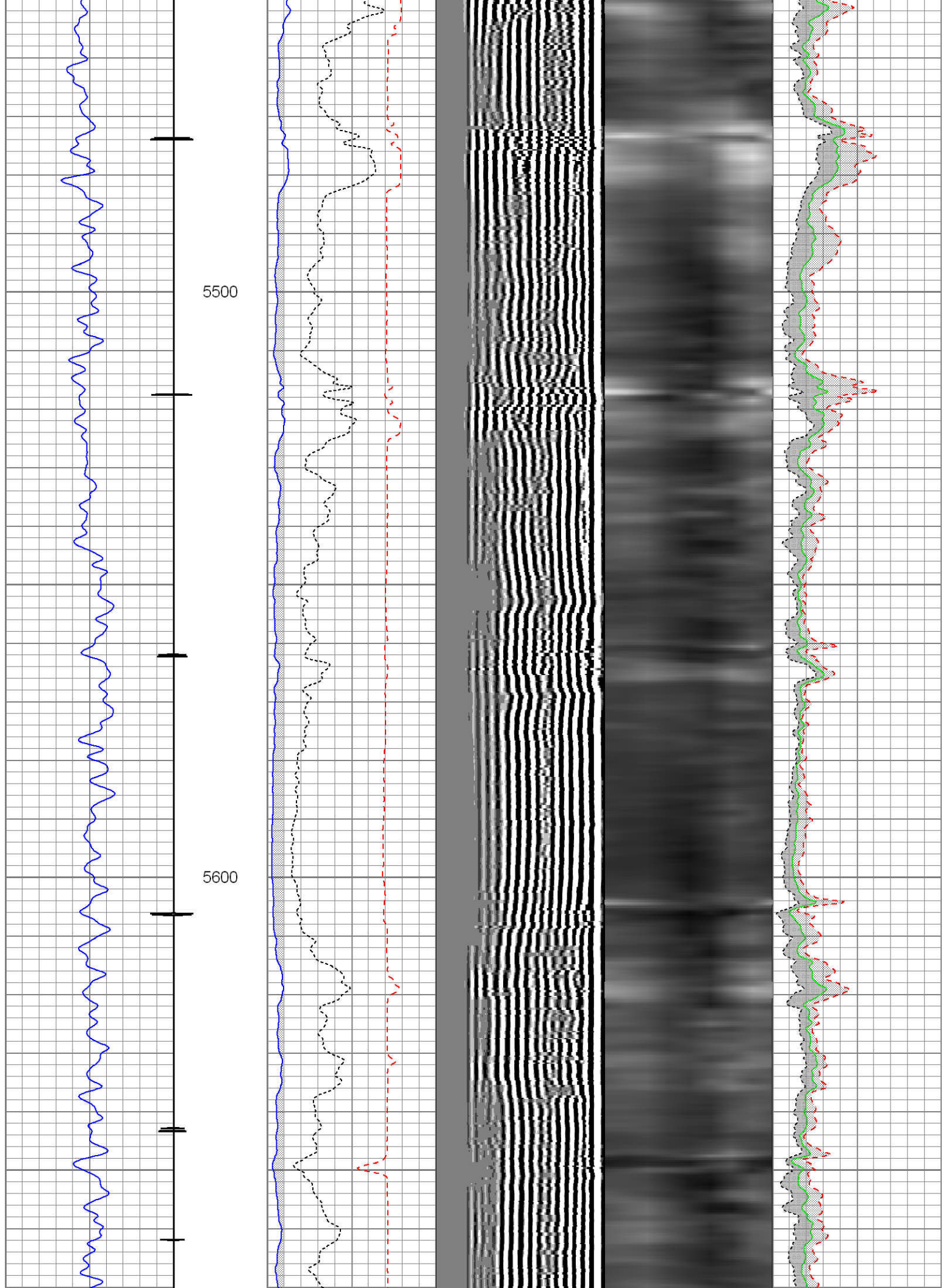


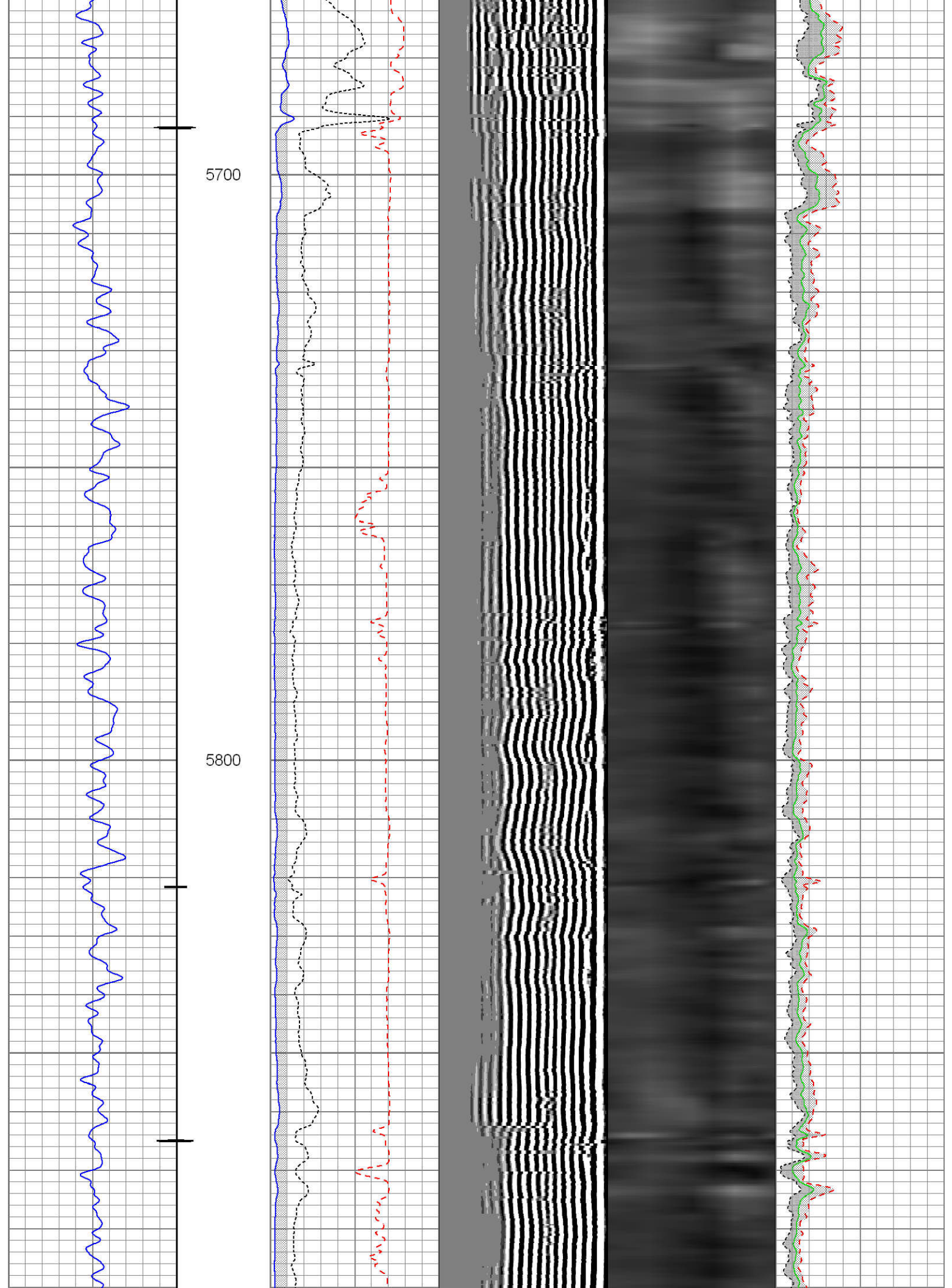


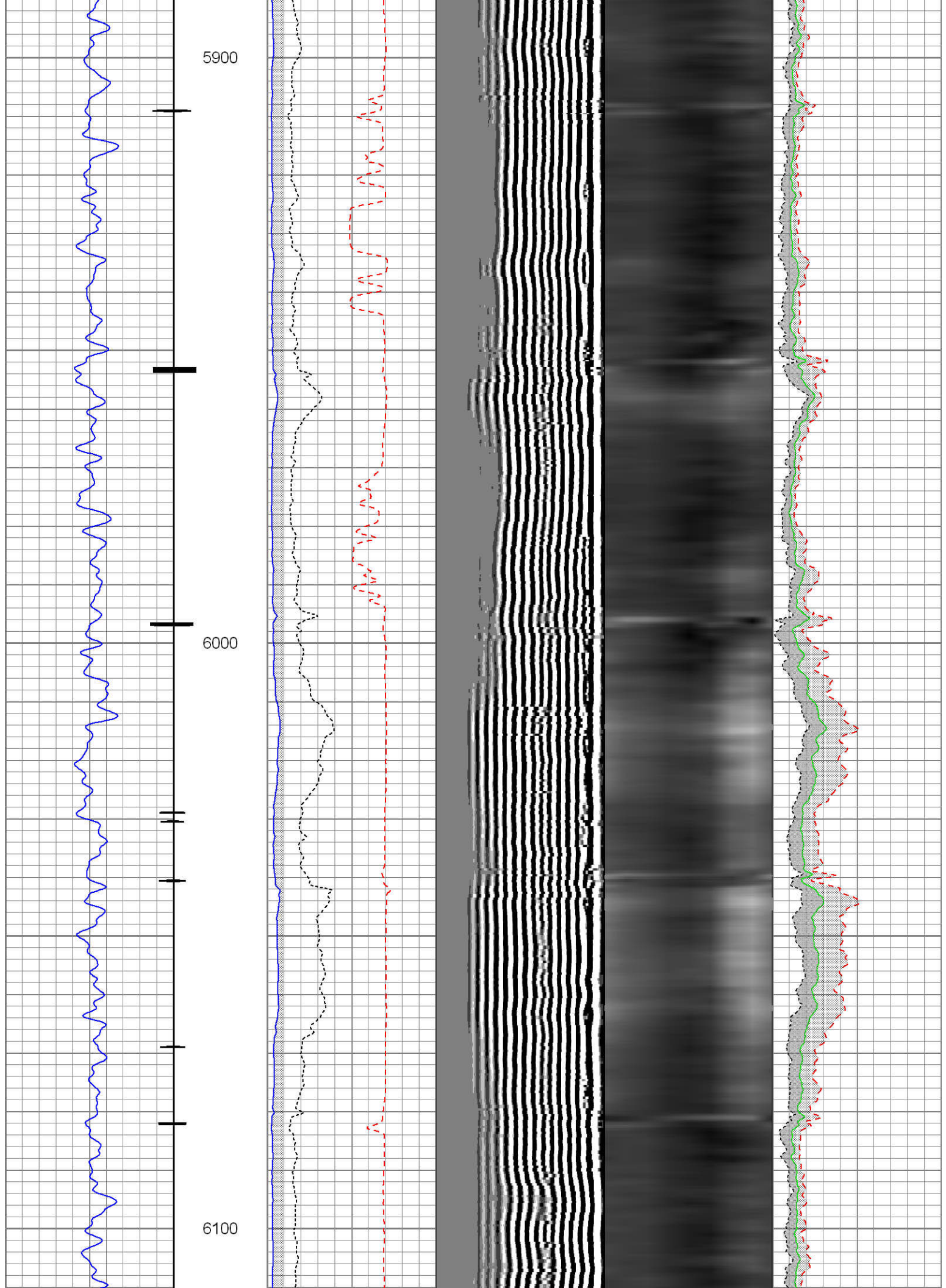


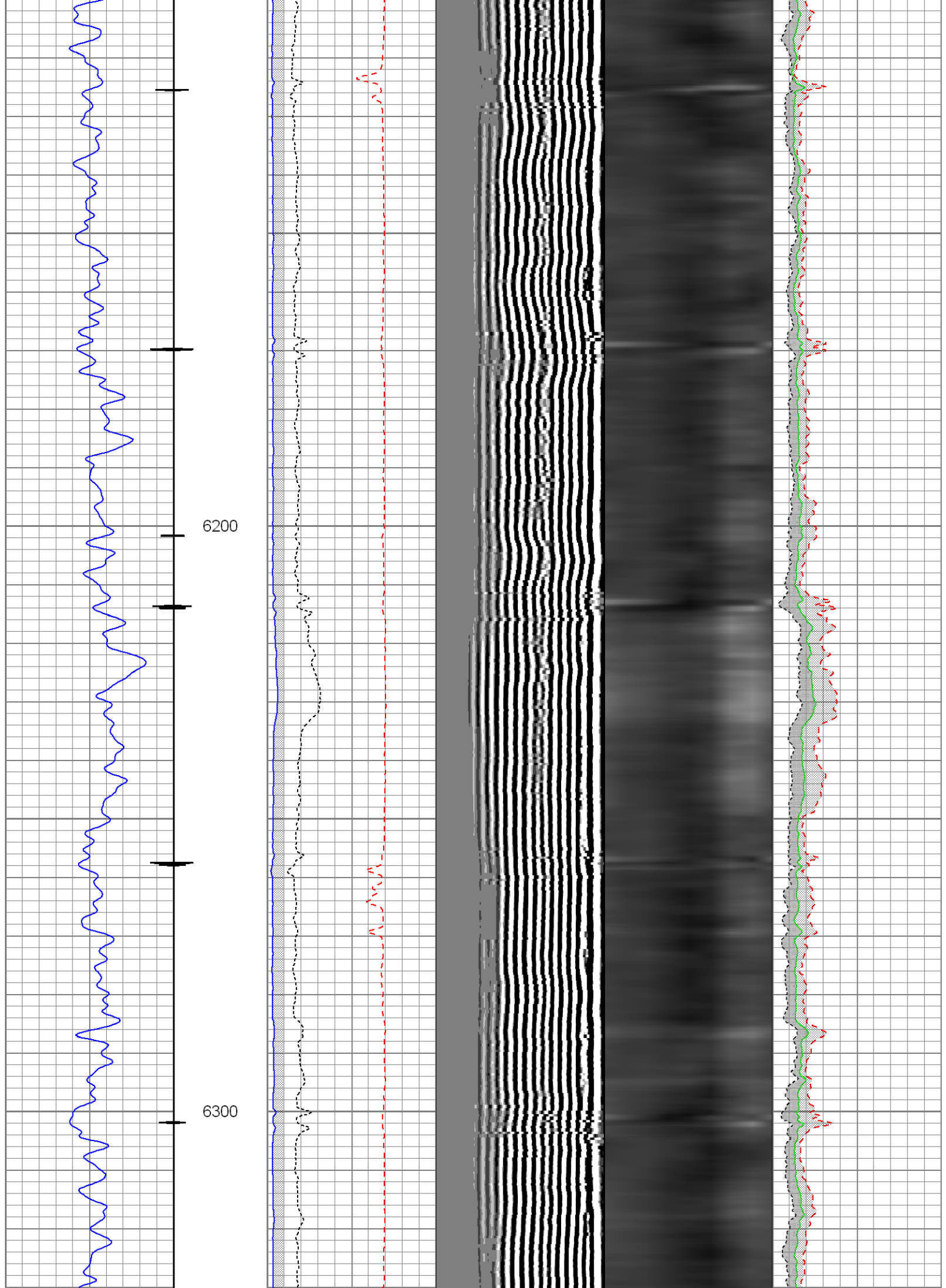


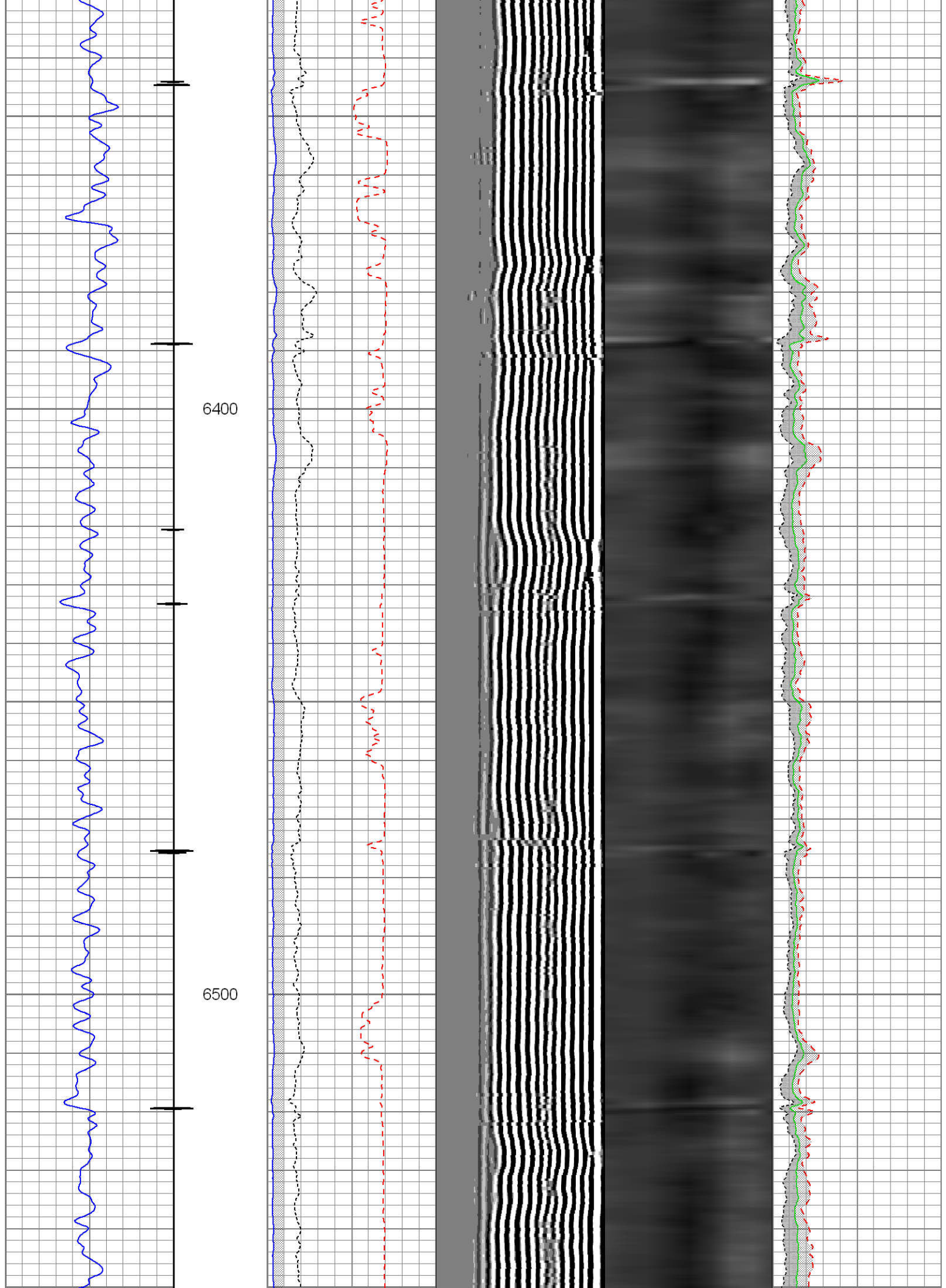


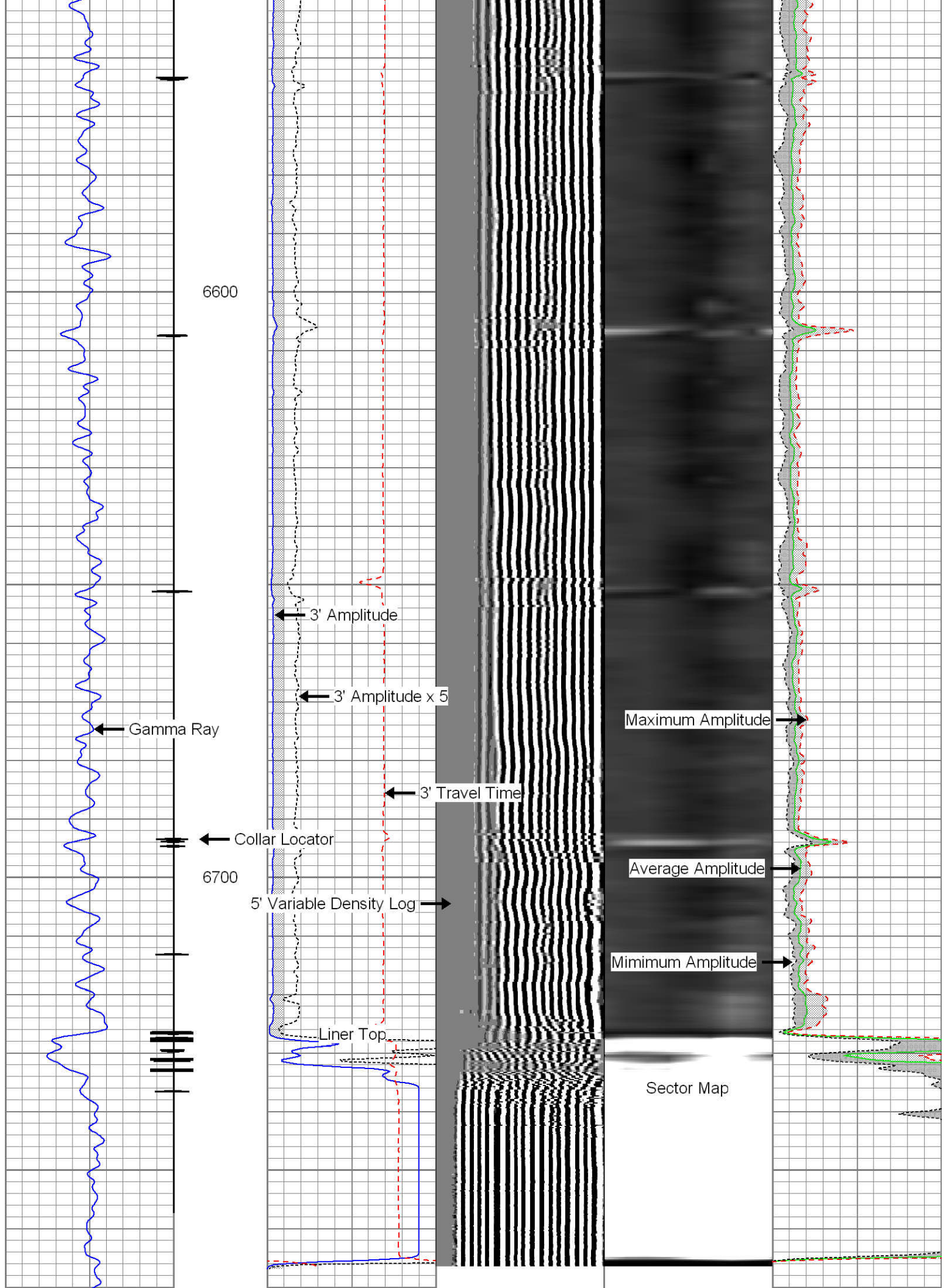


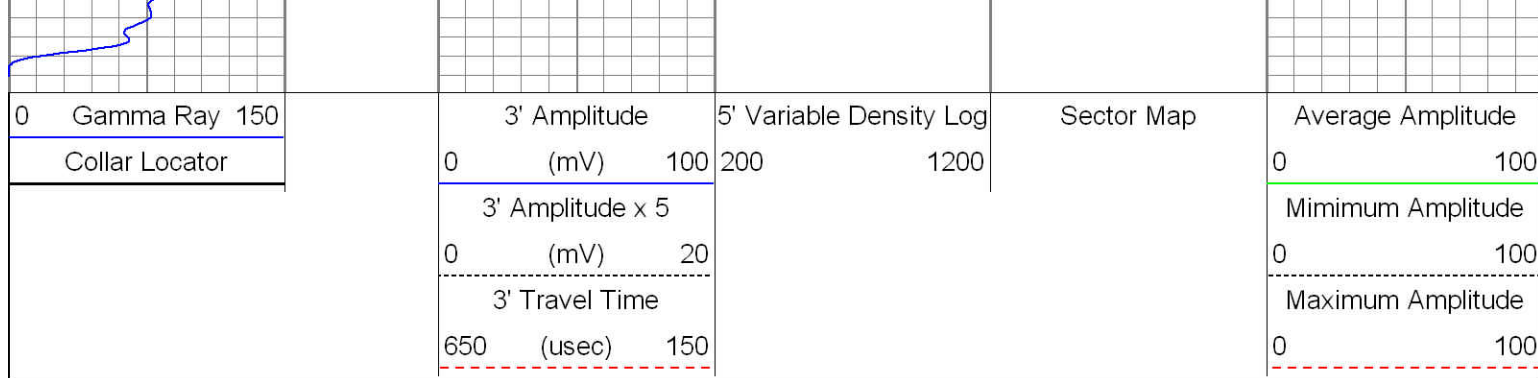






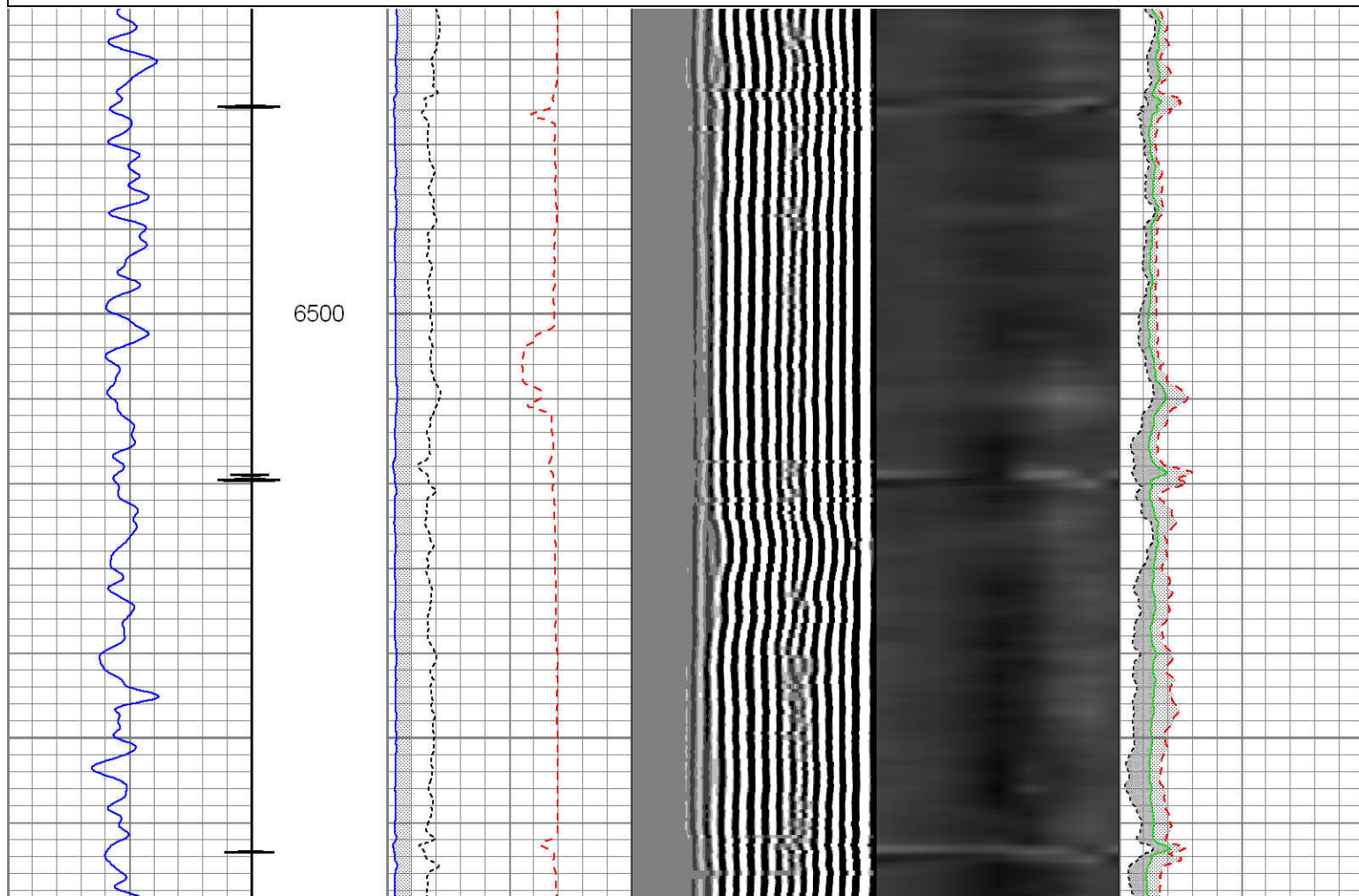
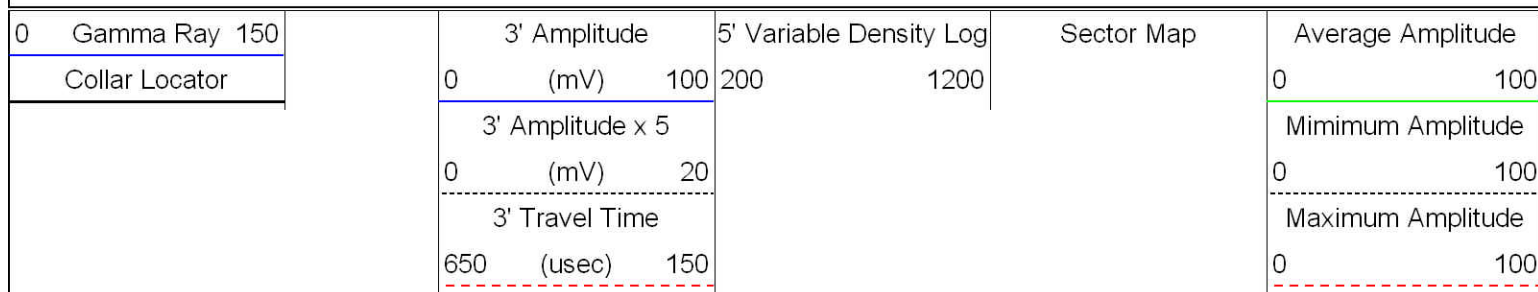


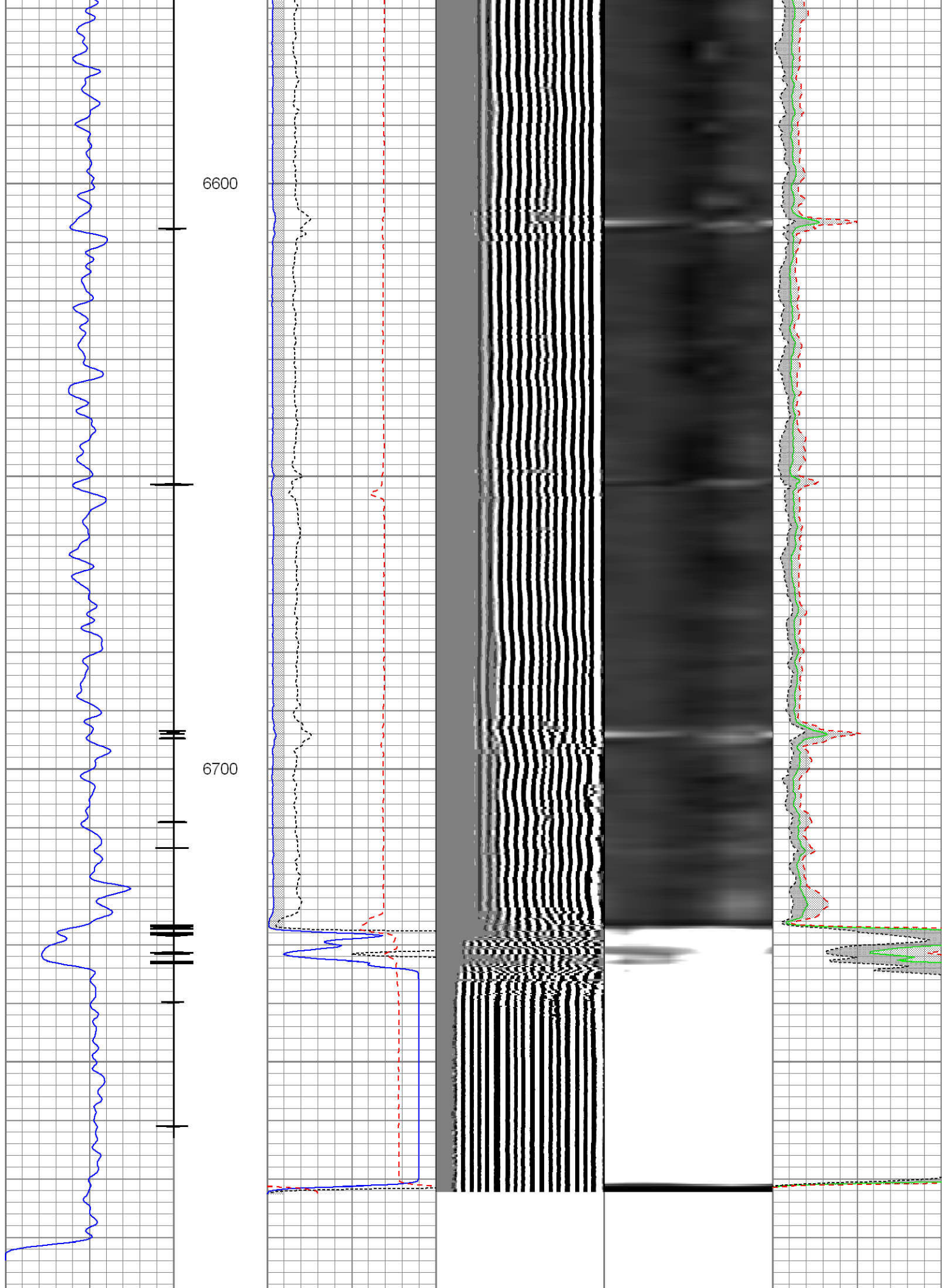




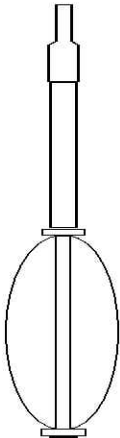
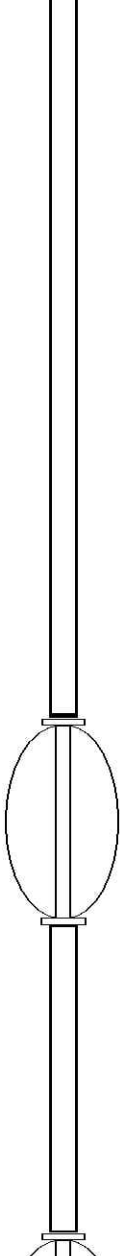
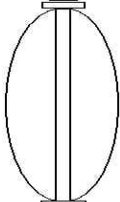
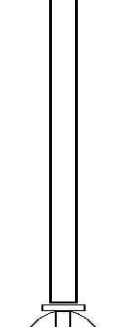
Repeat Pass @ 2800psi

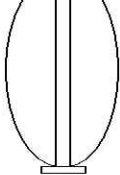
Database File: kmg_nichols 37c-31hz_cbl.db
 Dataset Pathname: pass2
 Presentation Format: rib
 Dataset Creation: Sun Feb 24 11:08:53 2013 by Log SCH 111116
 Charted by: Depth in Feet scaled 1:240





0	Gamma Ray	150	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
	Collar Locator		0 (mV) 100	200 1200		0 100
			3' Amplitude x 5			Minimum Amplitude
			0 (mV) 20			0 100
			3' Travel Time			Maximum Amplitude
			650 (usec) 150			0 100

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	22.48		AES1563 Applied Science 1-7/16" cablehead with 1" fishing neck	1.04	1.56	2.00
			CCL_LOG-TypeC (CCCC) Titan 2-3/4" Logging CCL w/ short body	1.92	2.75	30.00
			AES_4arm_IL AES bowspring inline electrical centralizer - 32.75"	2.73	2.75	20.00
TEMP	16.40					
WVFS1	15.02					
WVFS2	15.02					
WVFS3	15.02					
WVFS4	15.02					
WVFS5	15.02					
WVFS6	15.02					
WVFS7	15.02					
WVFS8	15.02					
WVF3FT	14.27					
WVF5FT	13.27					
WVFCAL	9.48					
WVFTEMP	9.48					
WVFSYNC	9.48					
GR	4.01		AES_4arm_IL AES bowspring inline electrical centralizer - 32.75"	2.73	2.75	20.00
			GR-TypeC (CCCC) Titan 2-3/4" Scintillating Gamma Ray	4.02	2.75	46.00

			AES_4arm_IL AES bowspring inline electrical centralizer - 32.75"	2.73	2.75	20.00
Dataset: kmg_nichols 37c-31hz_cbl.db: field/well/run1/pass3 Total Length: 24.73 ft Total Weight: 261.00 lb O.D. 2.75 in						

		CompanyKerr-McGee Oil & Gas Onshore, L.P. Well Nichols 37C-31HZ Field Wattenberg County Weld State Colorado
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