



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	Kerr-McGee Oil & Gas Onshore, L.P.		
Well	Sarchet 37C-20HZ		
Field	Wattenberg		
County	Weld		
State	Colorado		
Location:	Company	Kerr-McGee Oil & Gas Onshore, L.P.	
	Well	Sarchet 37C-20HZ	
	Field	Wattenberg	
	County	Weld	
Other Services	State	Colorado	
	API # :	05-123-41921	
	SEC	20	TWP 2N RGE 65W
	Permanent Datum	Ground Level	Elevation 4915'
JB/GR	Log Measured From	Kelly Bushing	16 FT
	Drilling Measured From	Kelly Bushing	Elevation K.B. 4931' D.F. 4930' G.L. 4915'

Date	10-NOV-2015
Run Number	One
Depth Driller	12969 FT
Depth Logger	7713 FT
Bottom Logged Interval	7709 FT
Top Log Interval	Surface
Open Hole Size	7.875"
Type Fluid	Water
Density / Viscosity	8.34 lbm/gal
Max. Recorded Temp.	247°F
Estimated Cement Top	Surface
Time Well Ready	ROA
Time Logger on Bottom	12:00 P.M.
Equipment Number	HD-0325
Location	Fort Lupton, CO
Recorded By	J. Morrison
Witnessed By	Darrel Bothwell

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record	Size (in)	Wgt (lbs/Ft)	Grade	Top	Bottom		
Surface Casing	9 5/8	36	J55	Surface	1872 FT		
Intermediate #1	5 1/2	17	HCP-110	Surface	12958 FT		
Intermediate #2							
Liner							

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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

Log ran as per customer request
Depth referenced to Casing Tally reported Marker Joint at 6731 FT
Adjusted log -3 FT to correlate with Marker Joint
Log ran from as deep as possible in the heel to surface
Log ran with 2800 PSI Surface Induced Pressure

Thank you for choosing FMC Technologies Completion Services, Inc.!!



Main Pass

Recorded with 2800 PSI Surface Induced Pressure

Database File: c:\warrior\data\0512341921_anadarko_sarchet 37c-20hz_11-10-15_rb\0512341921_anadarko_sarch

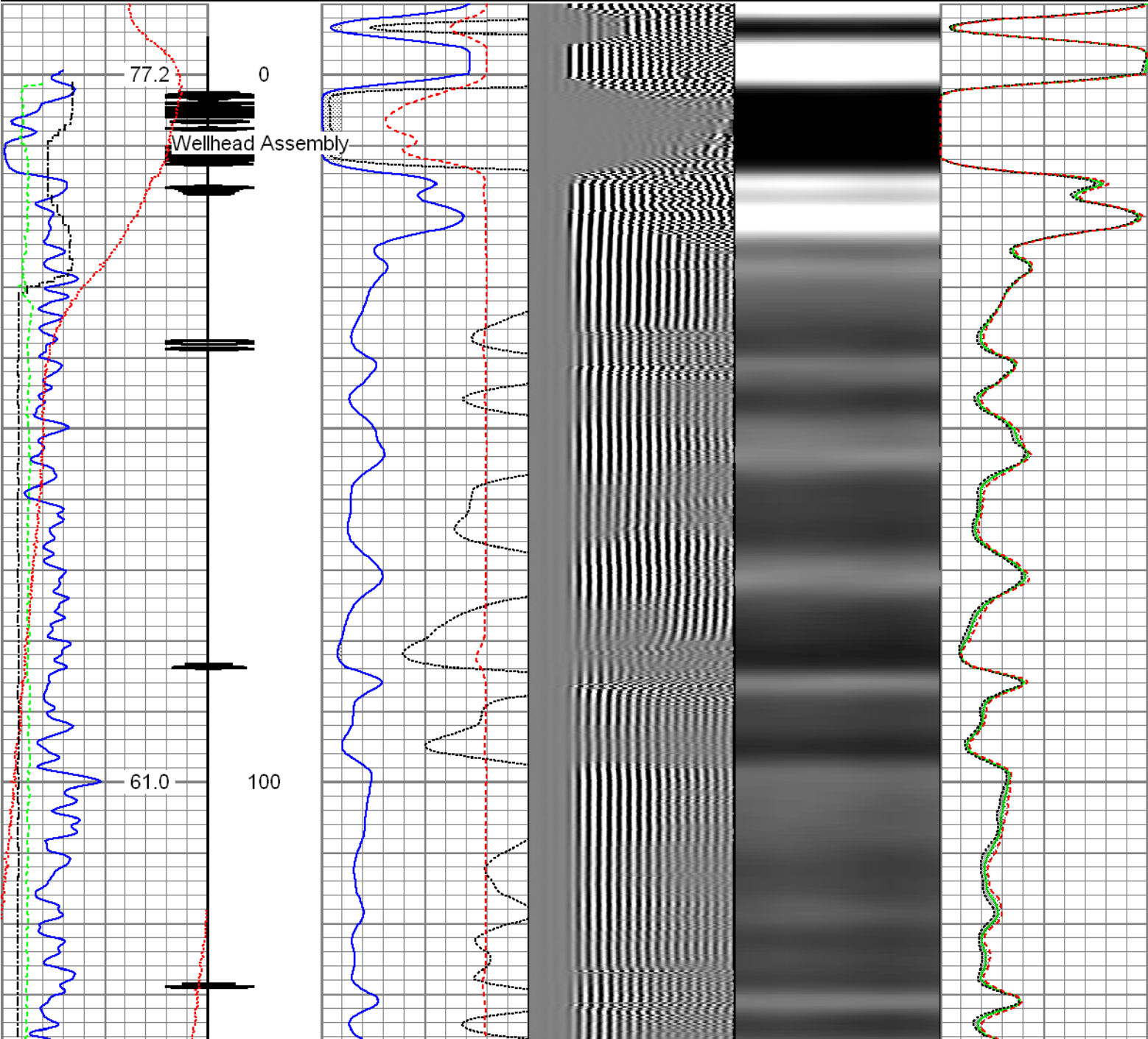
Dataset Pathname: Main.1

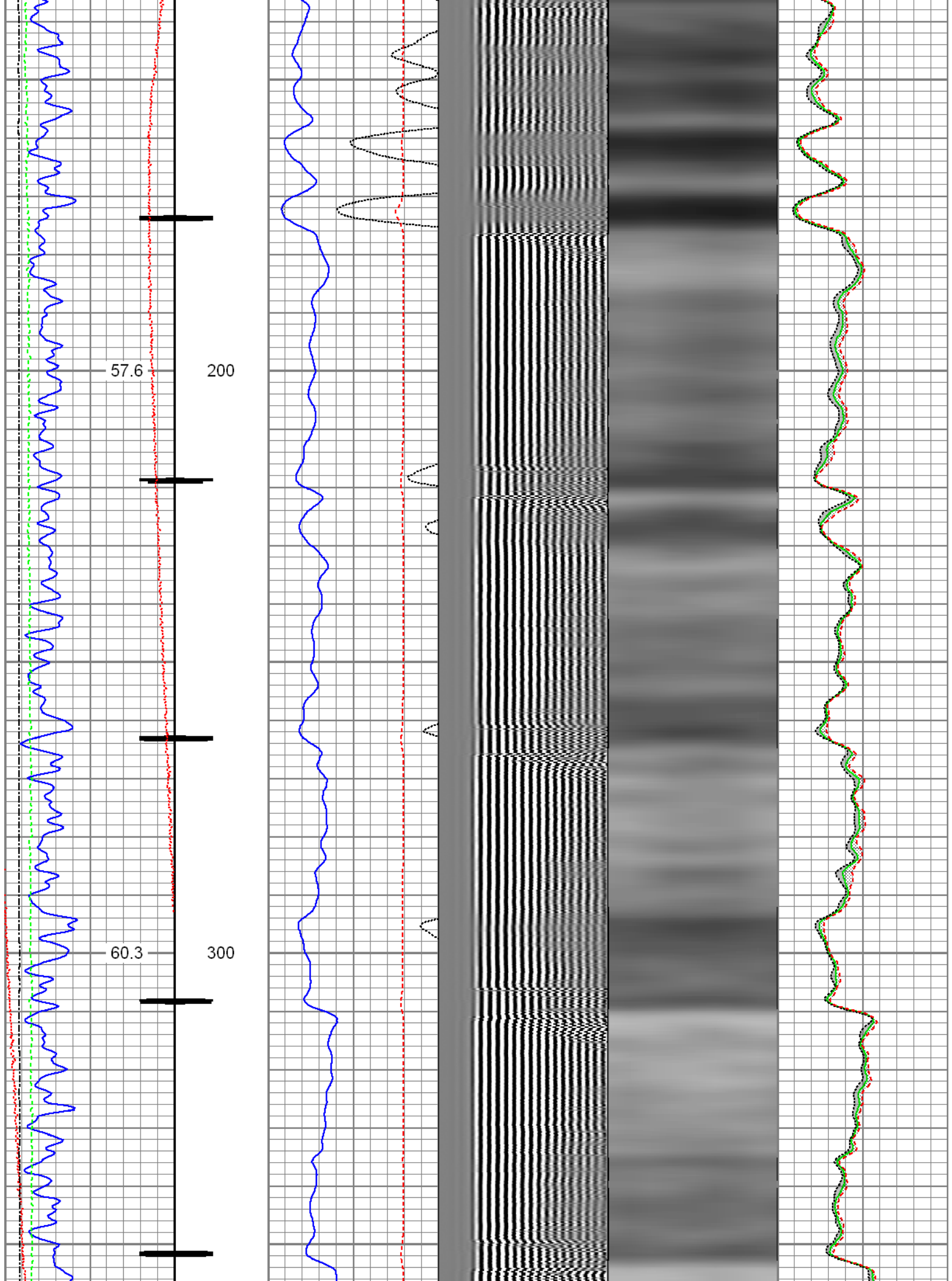
Presentation Format: radii

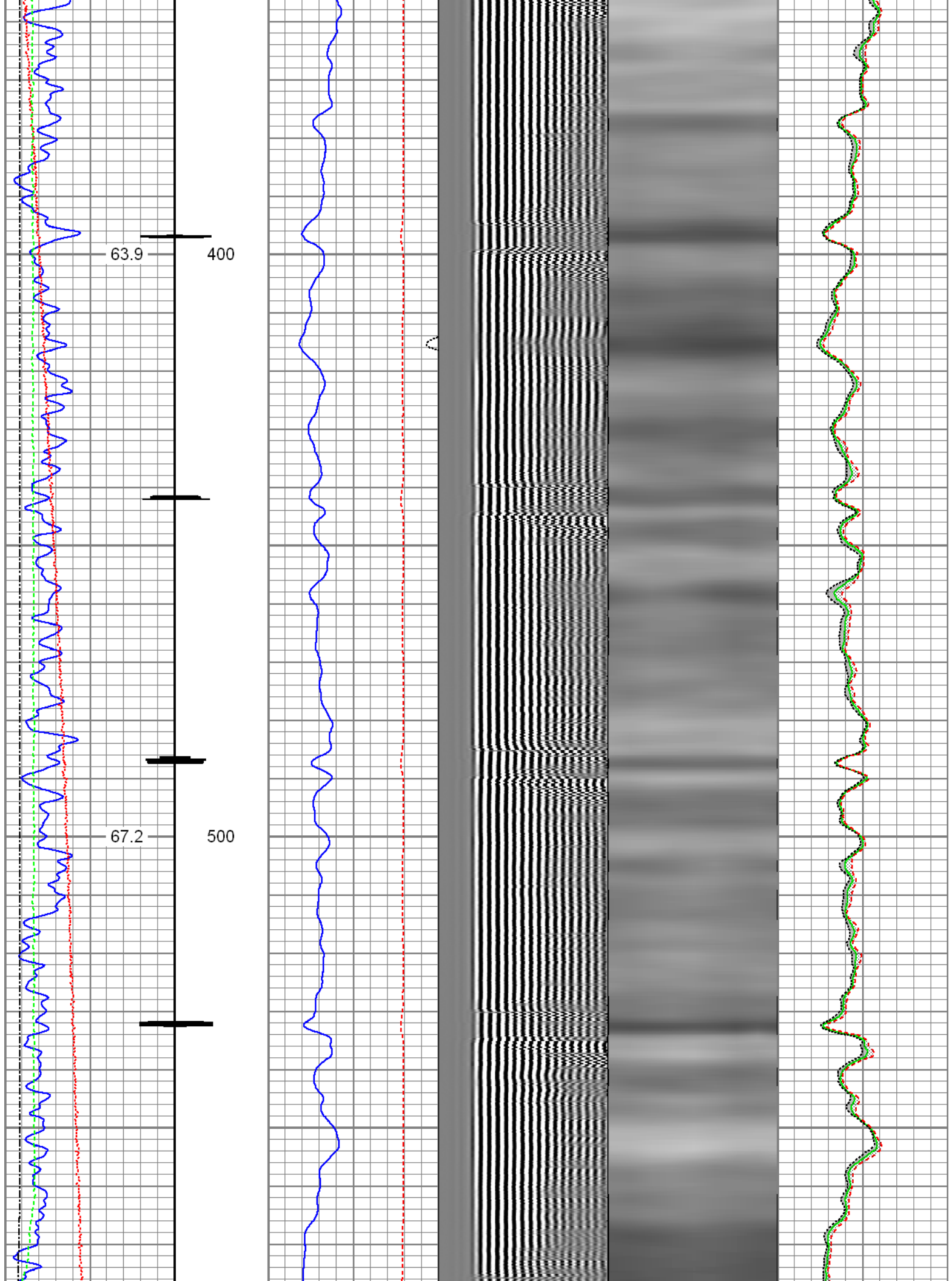
Dataset Creation: Wed Nov 11 10:37:21 2015 by Calc SCH 120430

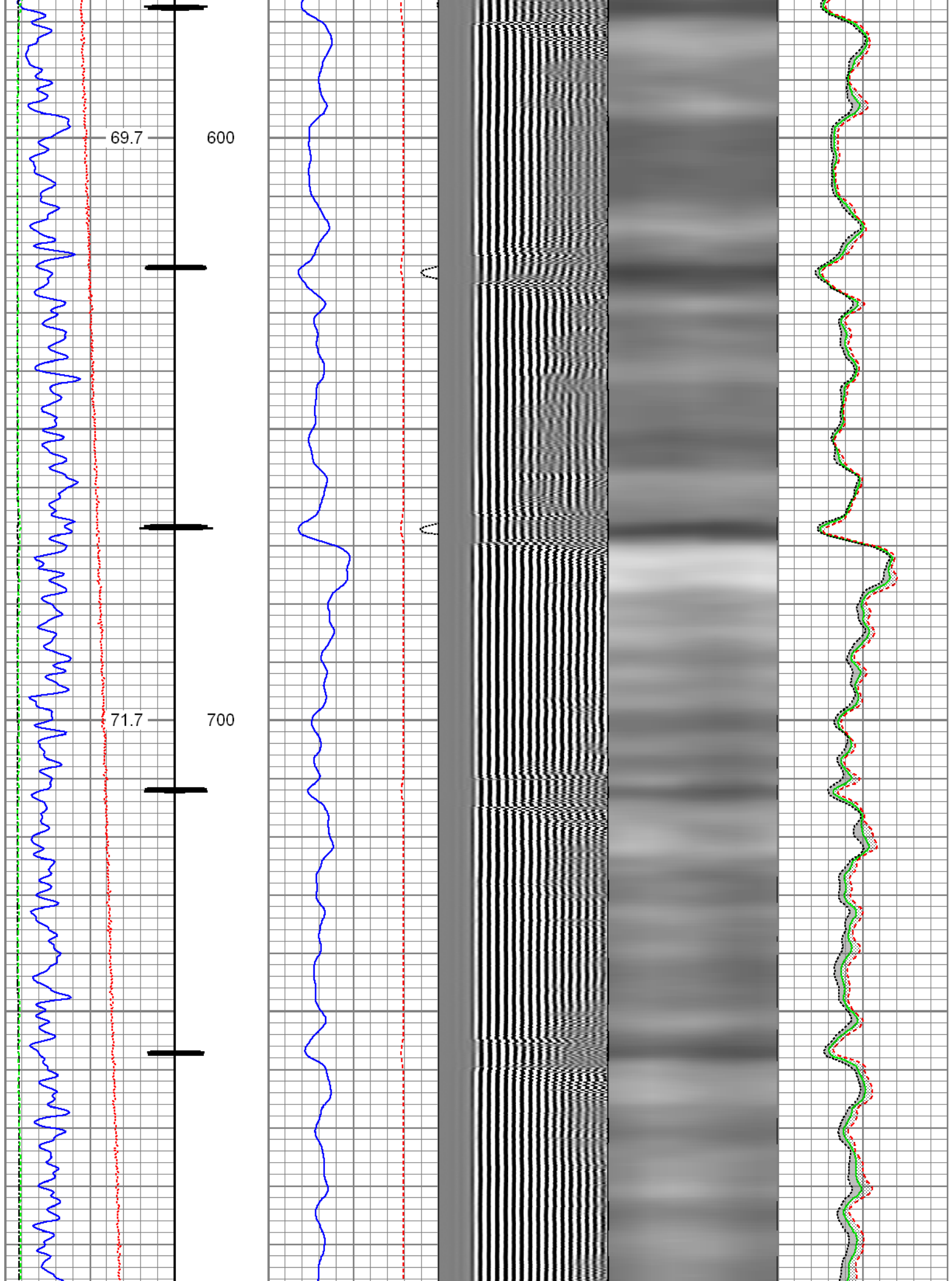
Charted by: Depth in Feet scaled 1:240

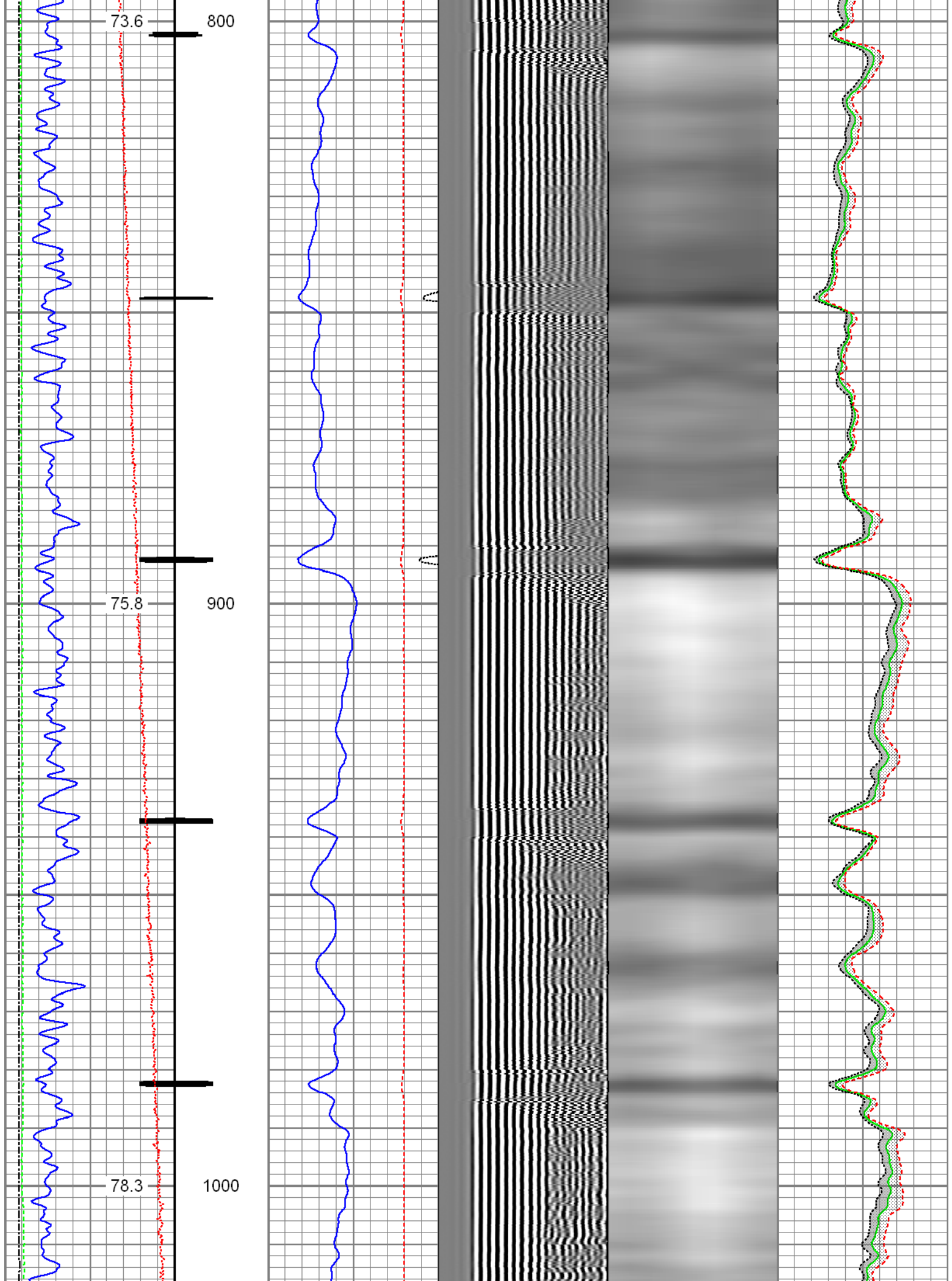
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 150	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Mimimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 20	3' Travel Time			Maximum Amplitude
Line Speed	650 (usec) 150			0 100
-150 (ft/min) 150				
Line Tension				
0 (lb) 2000				

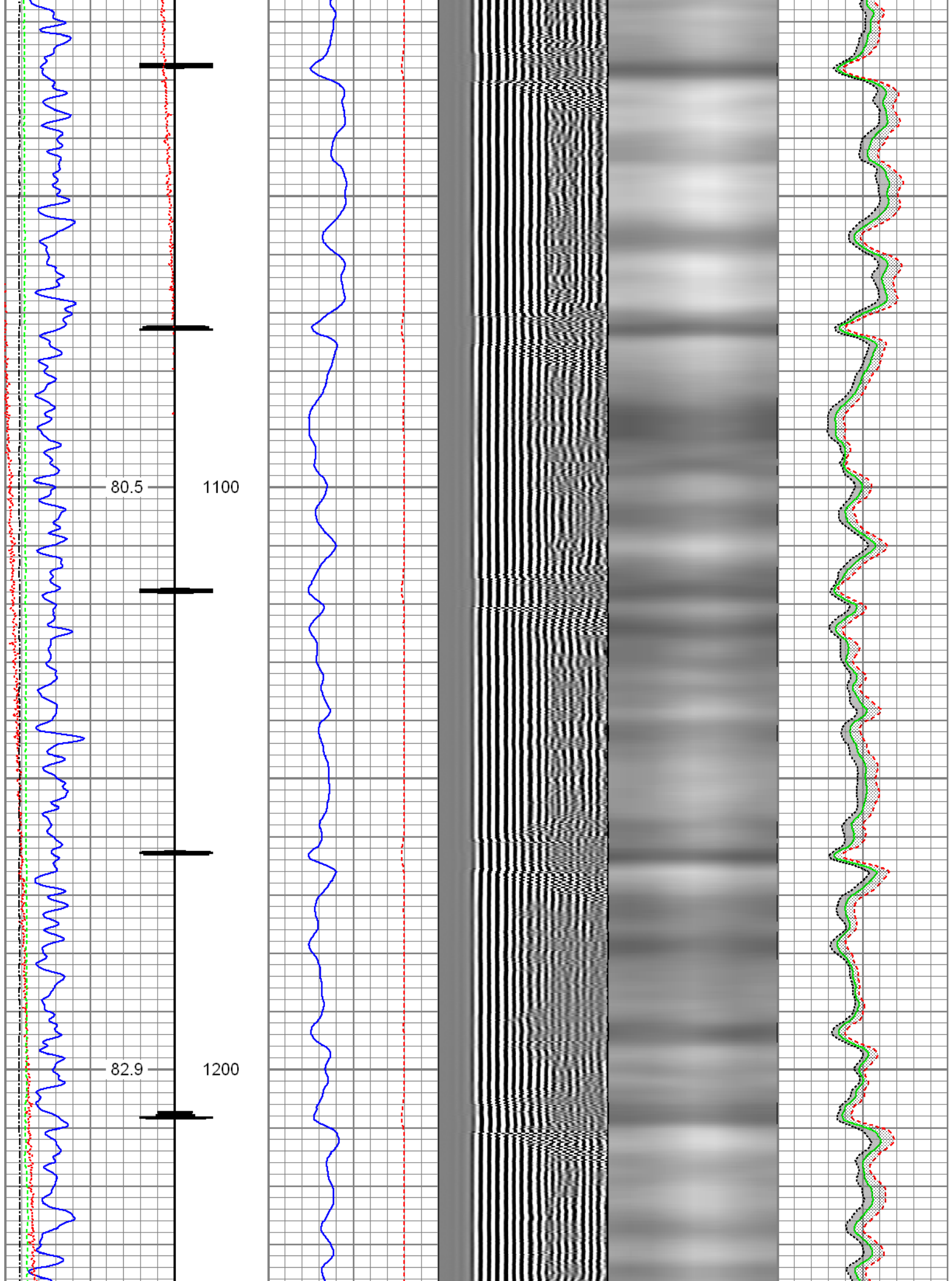


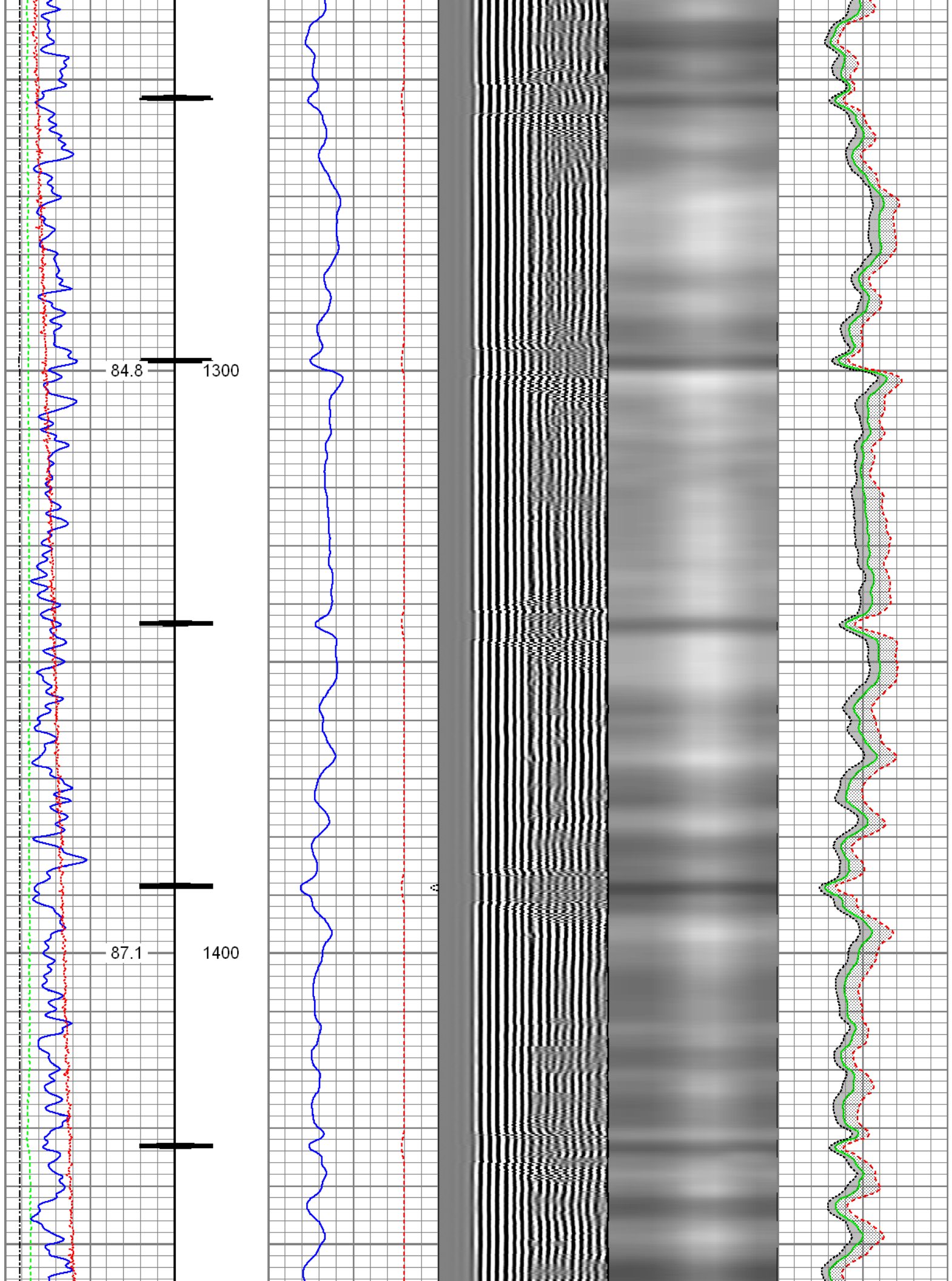


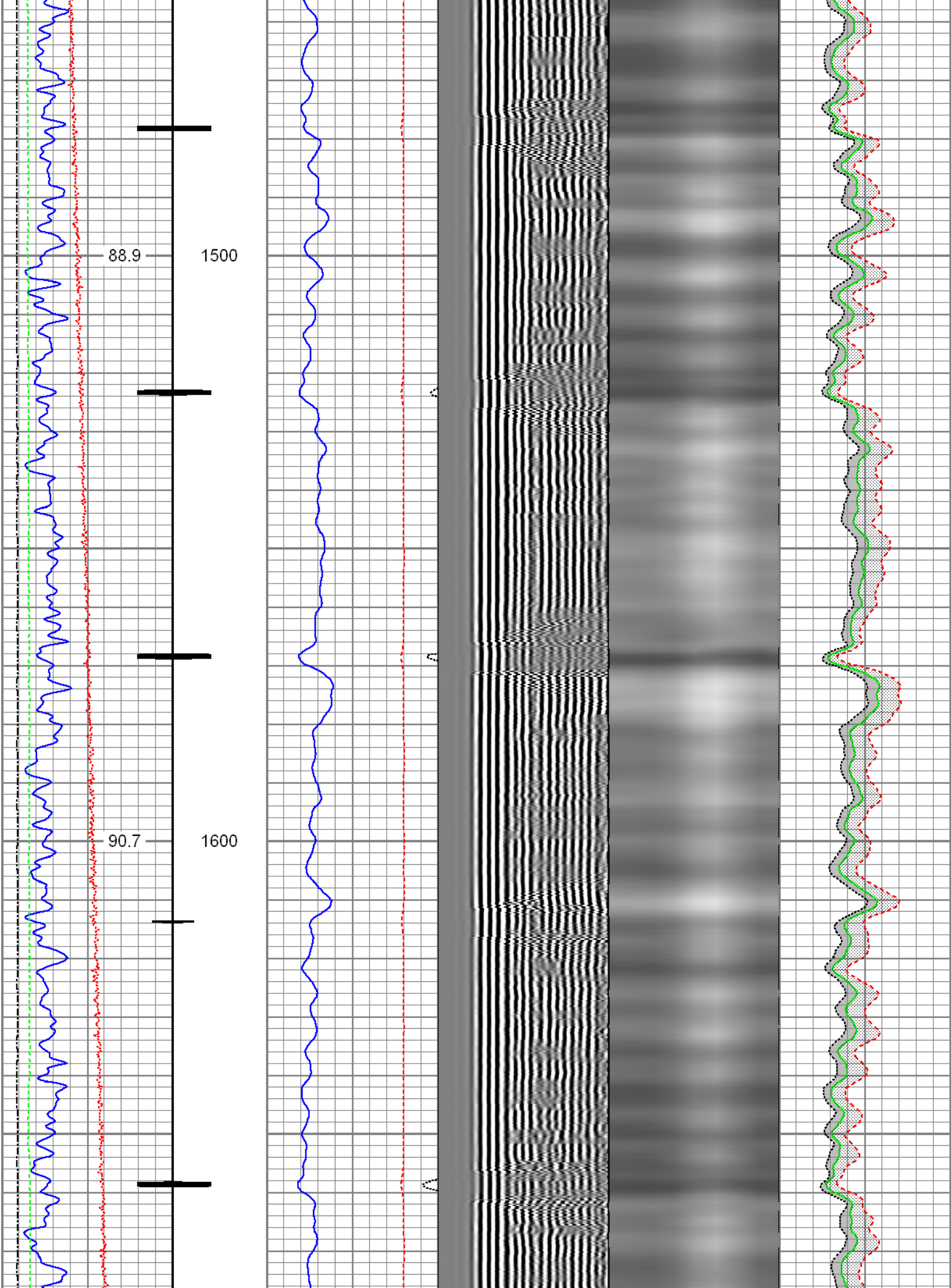


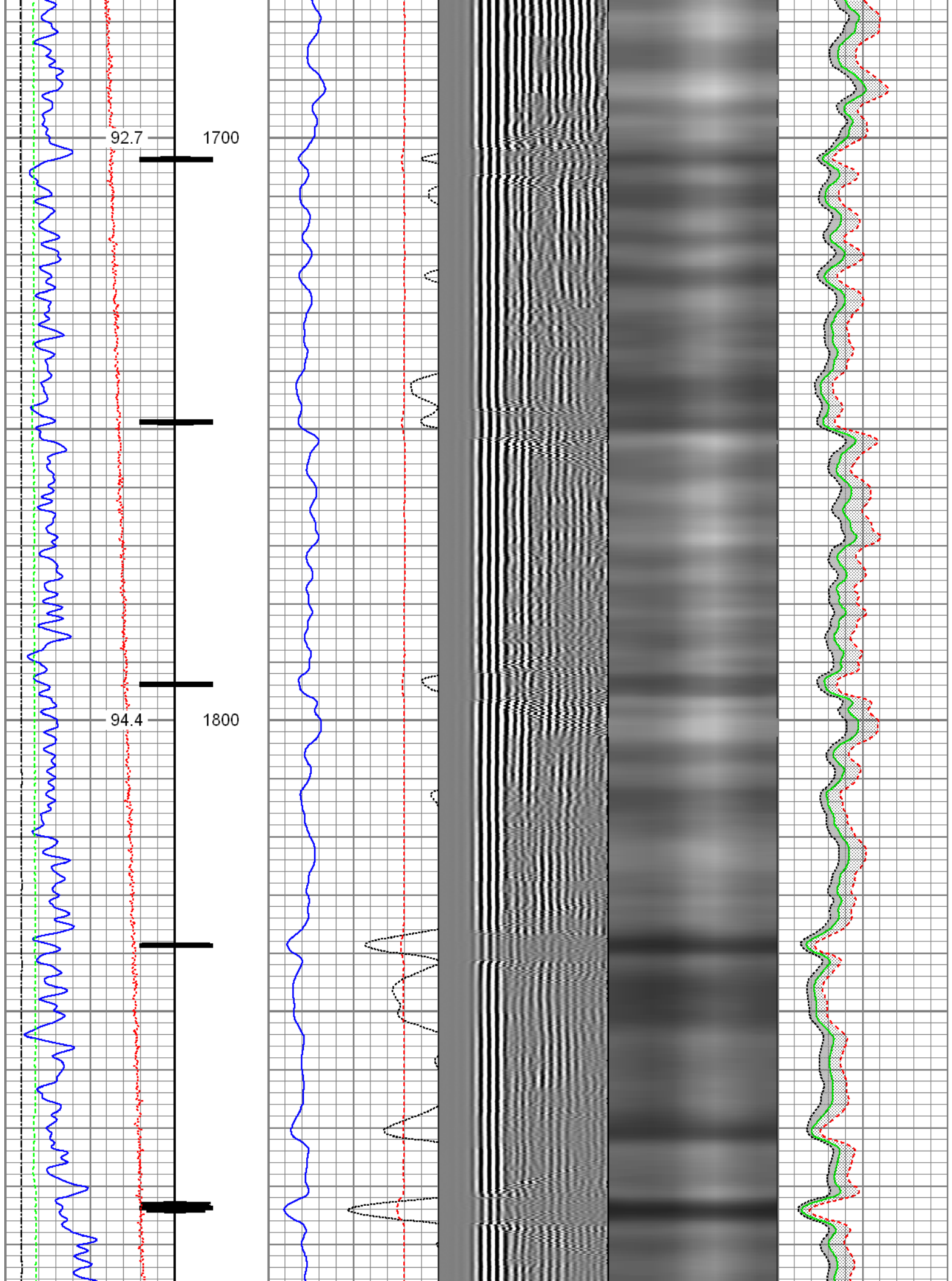


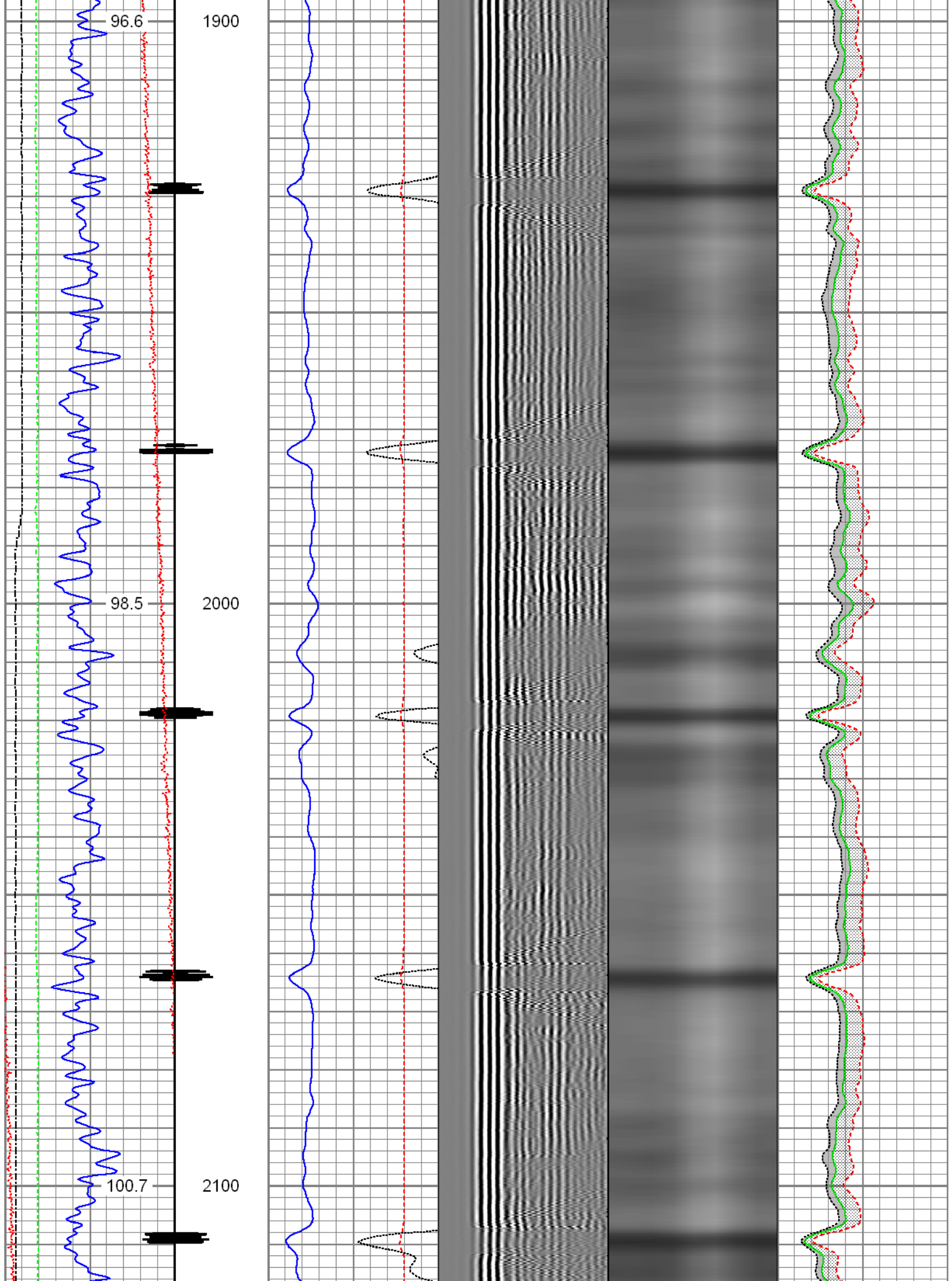


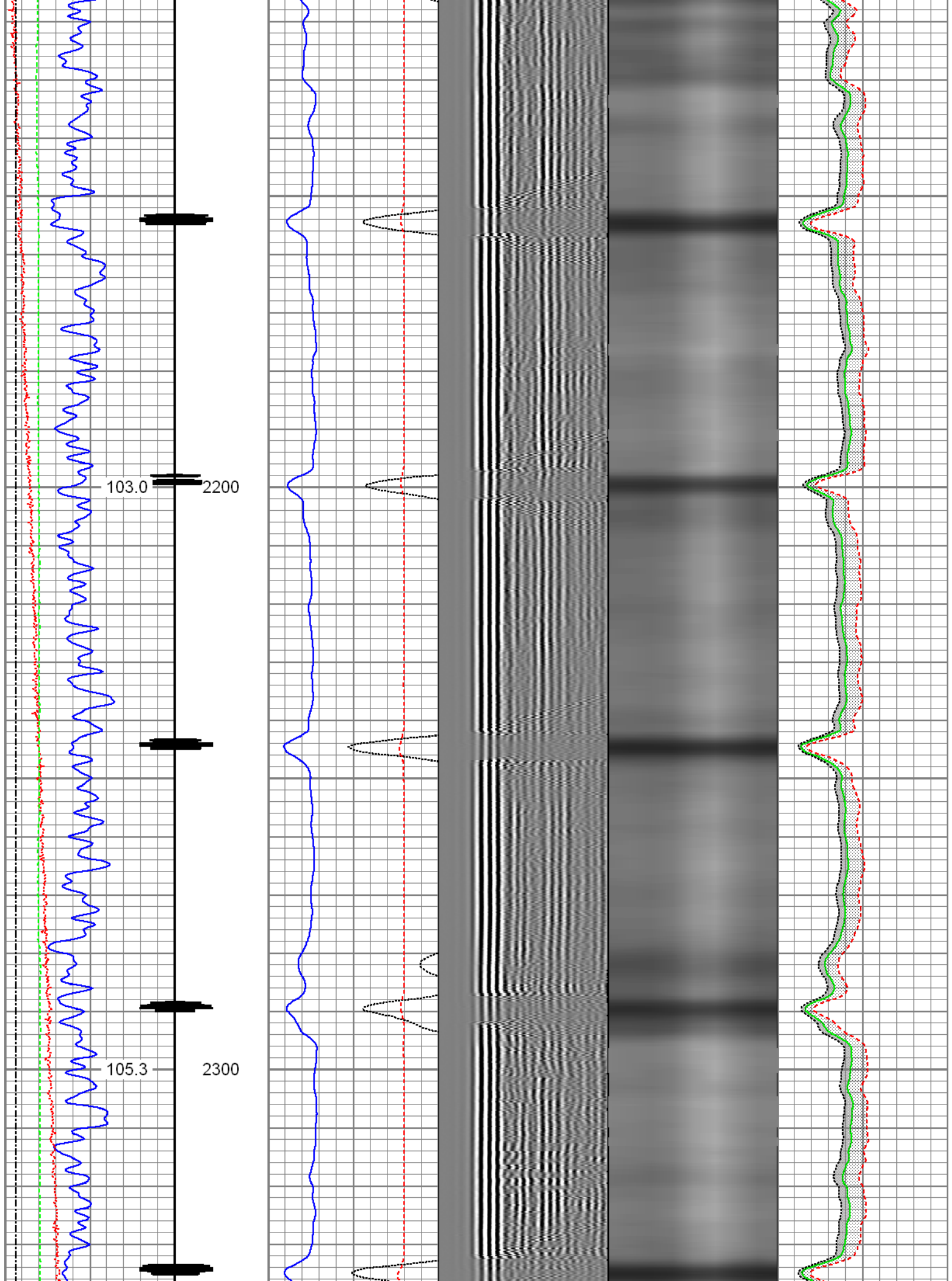


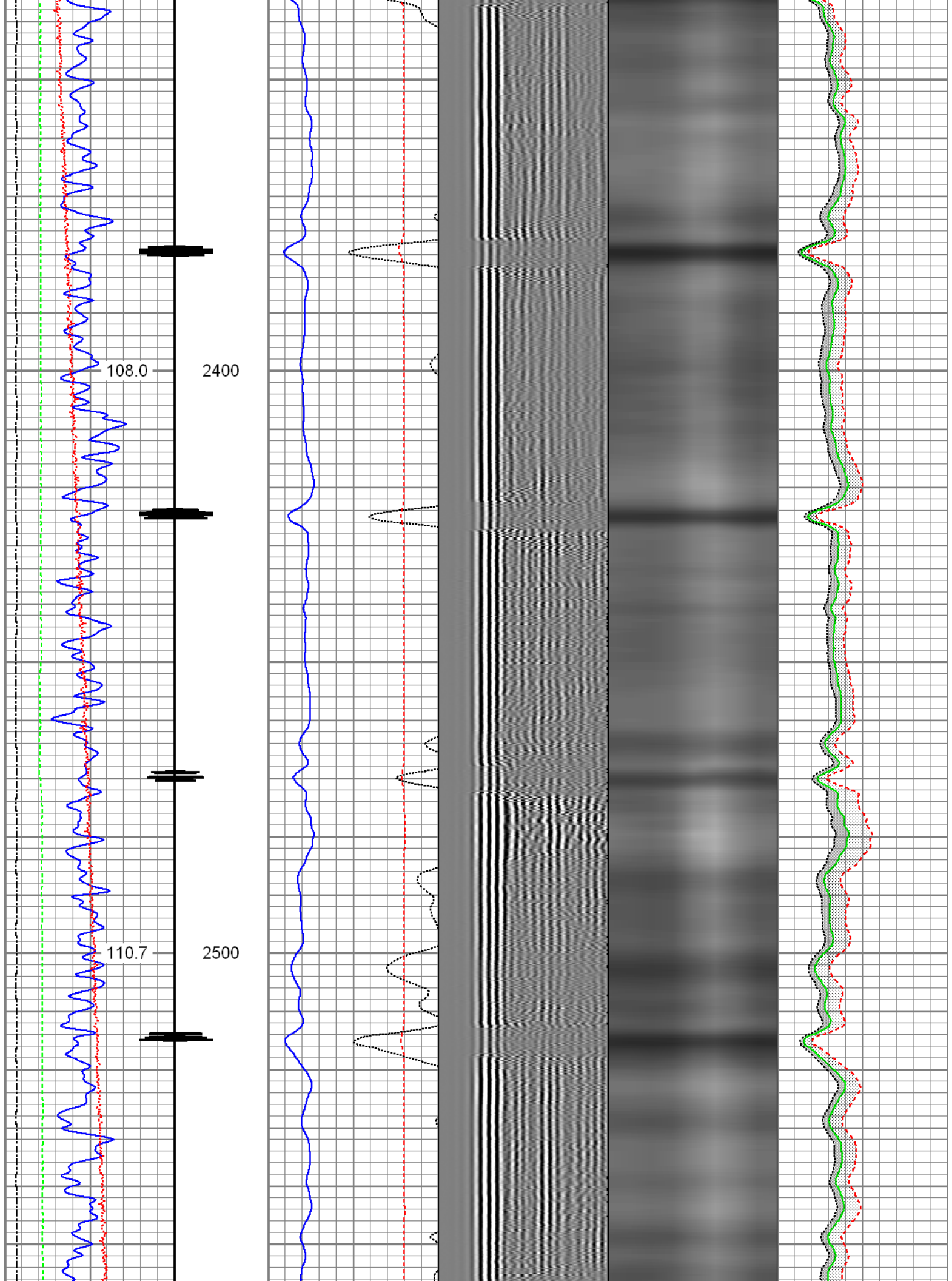


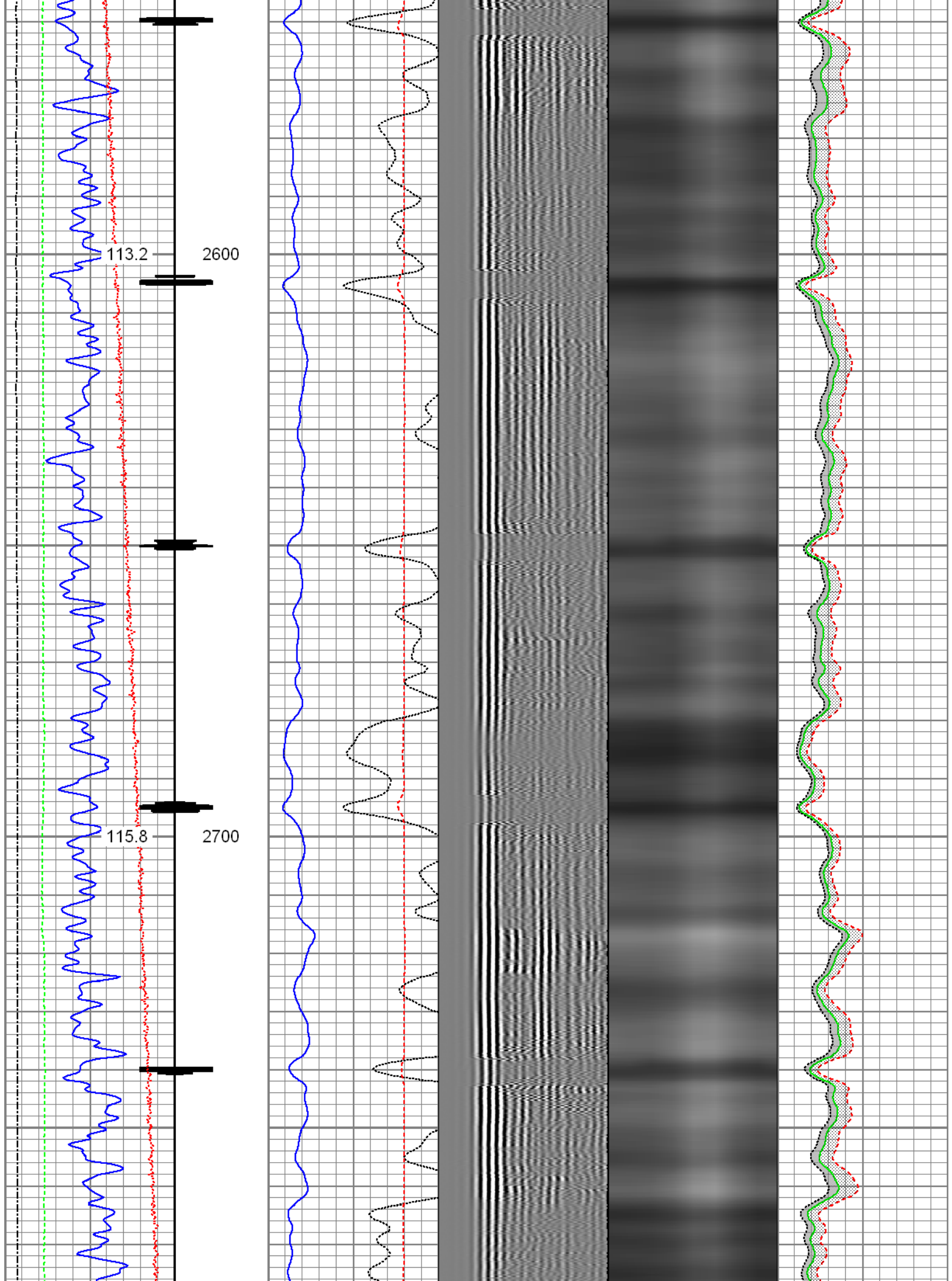


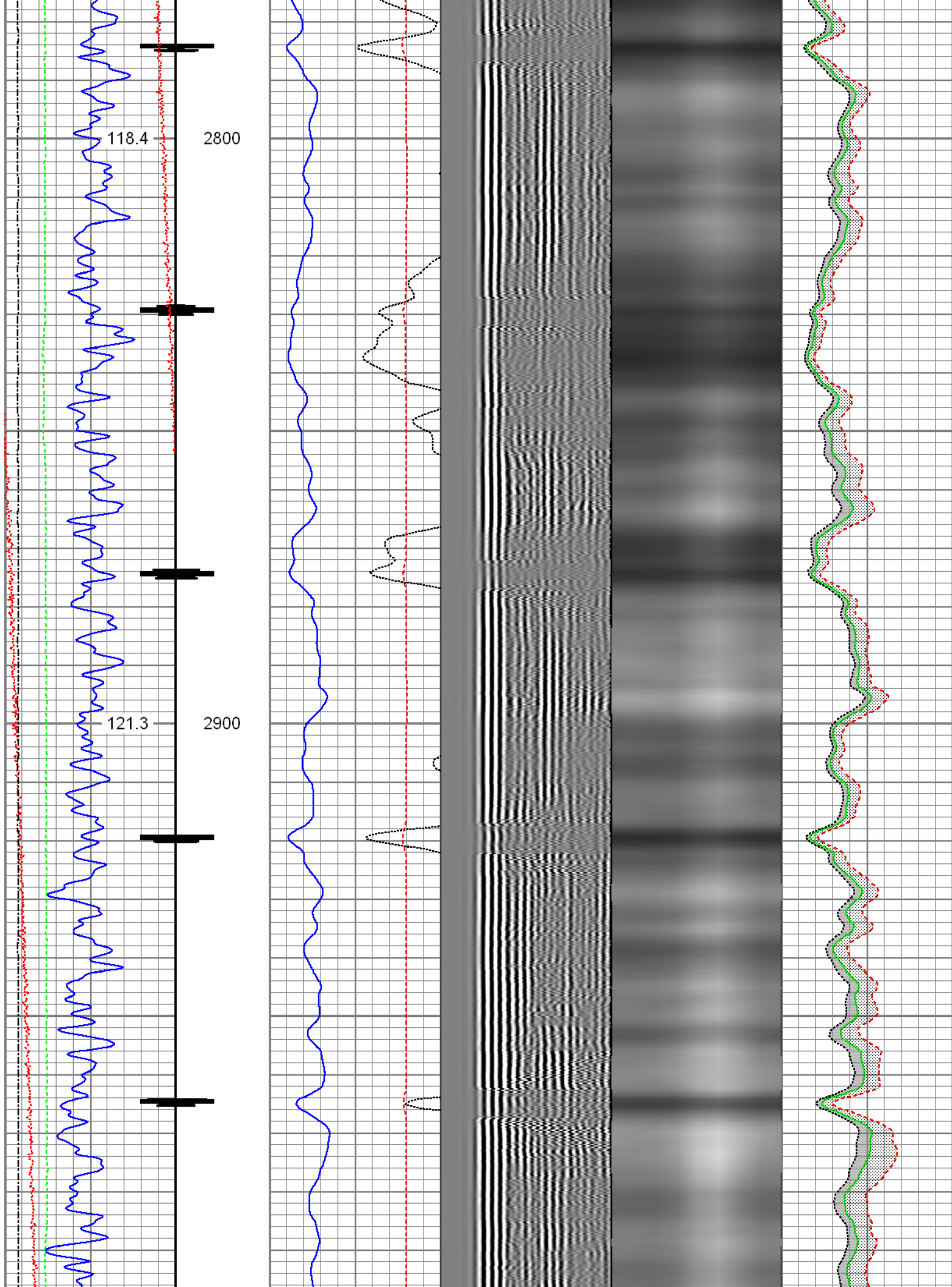


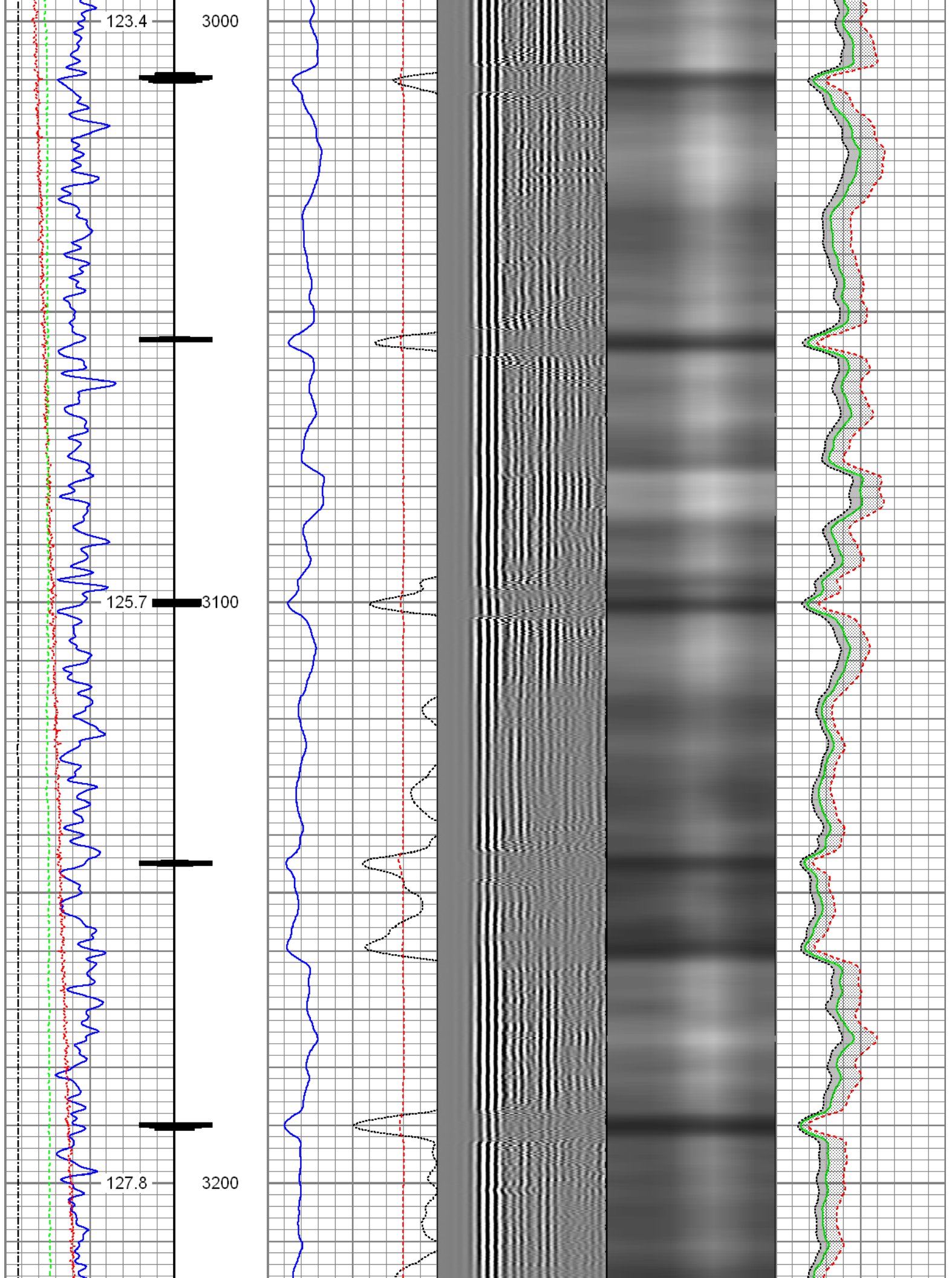


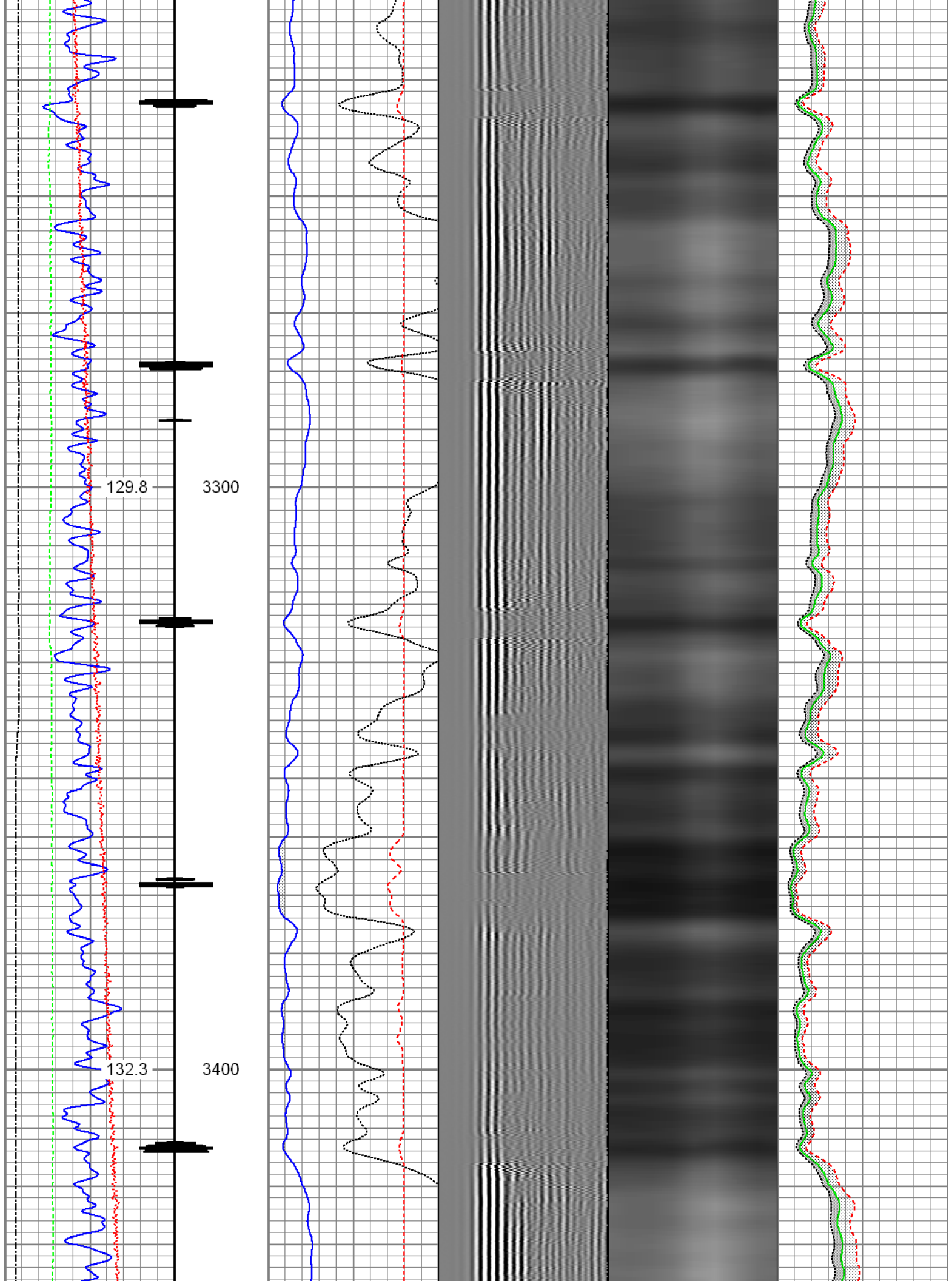


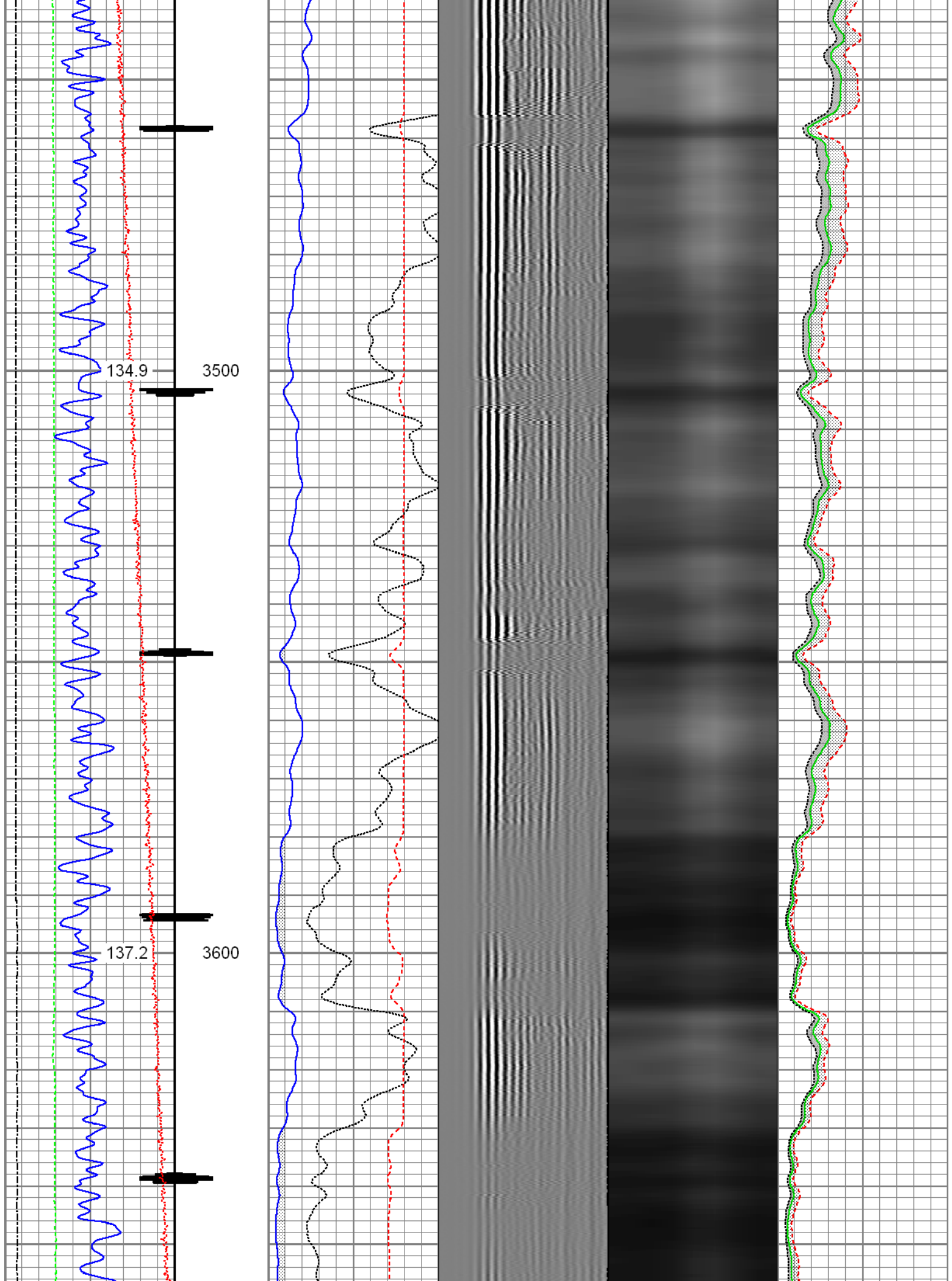


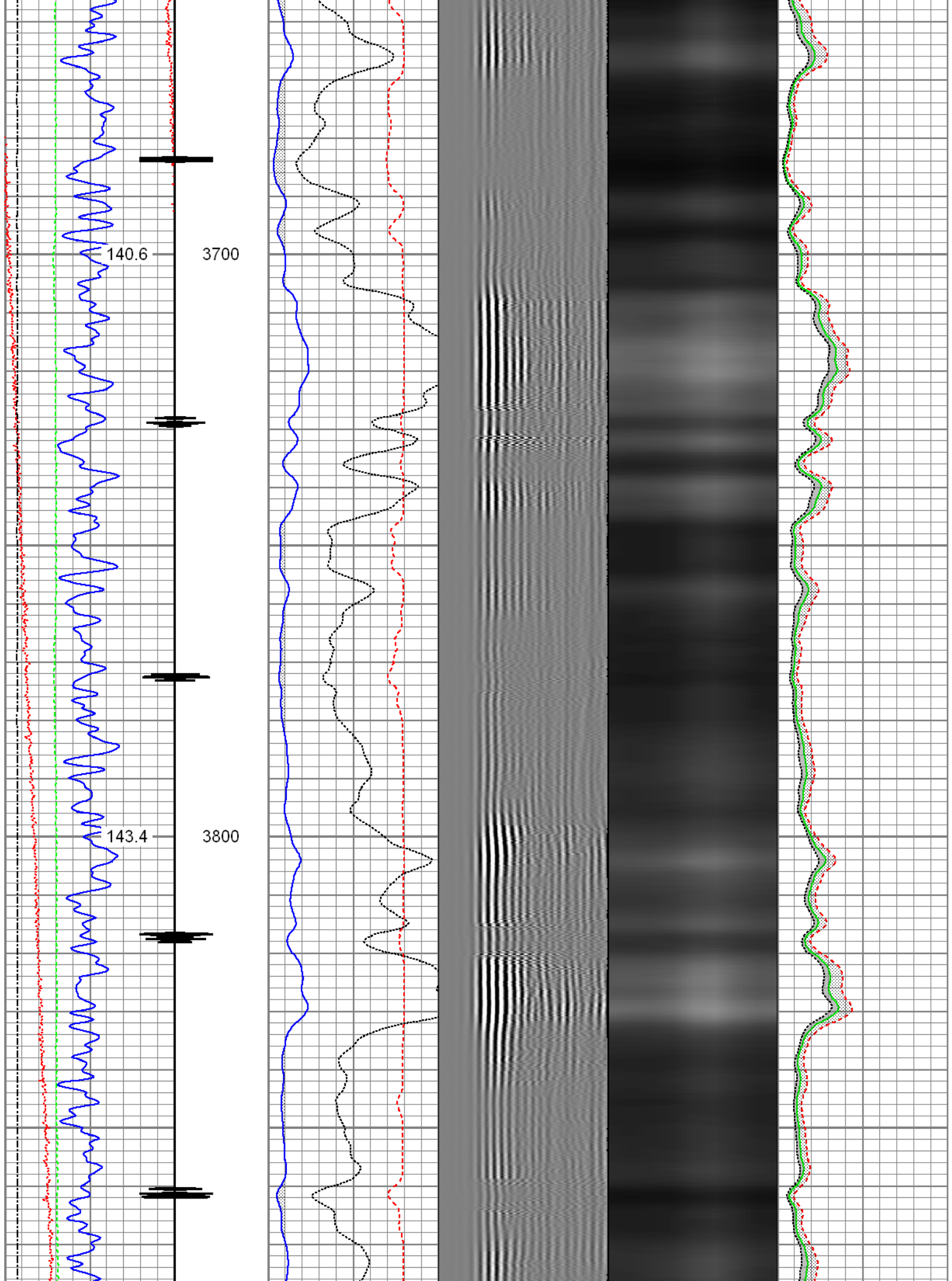


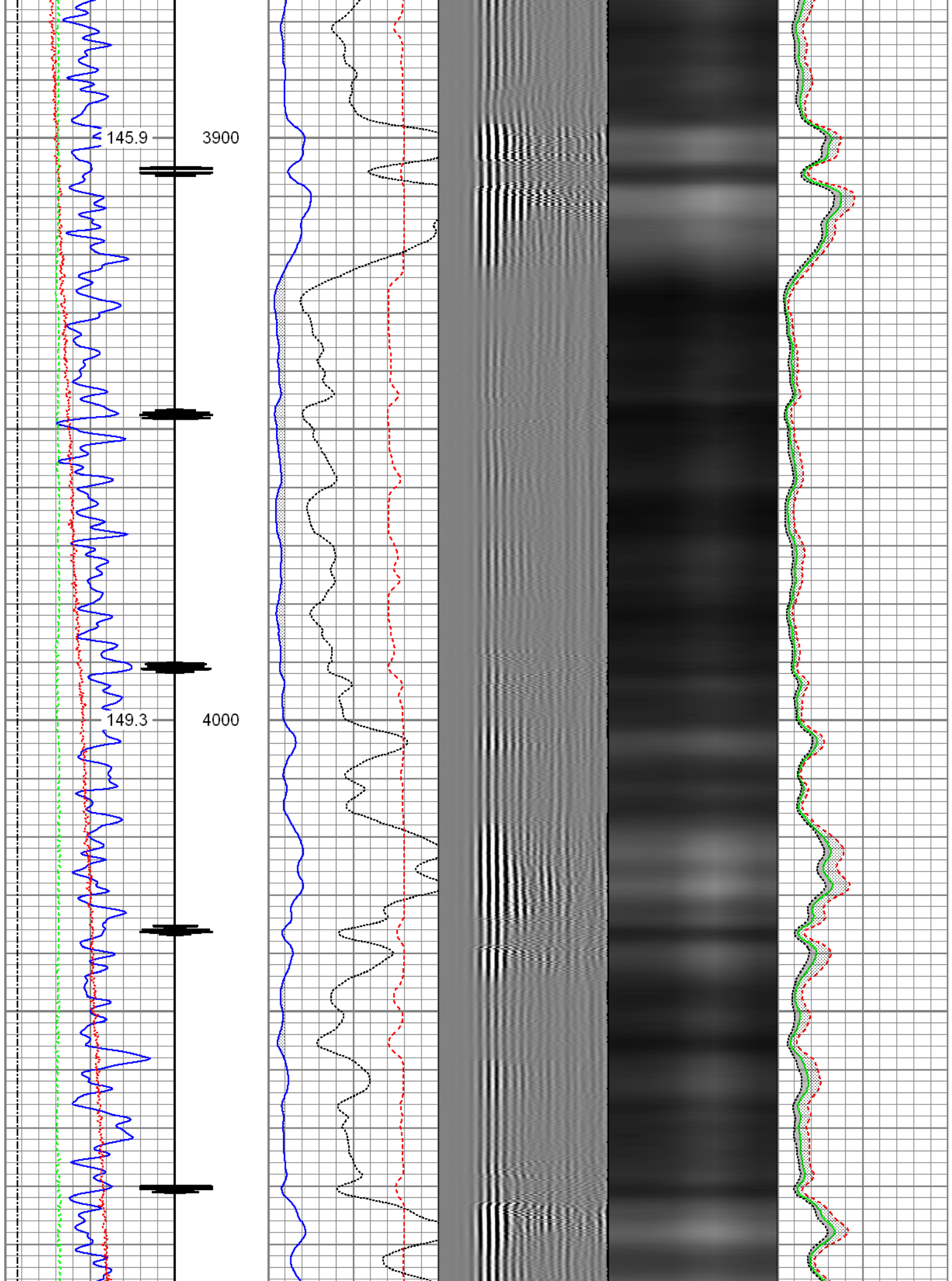


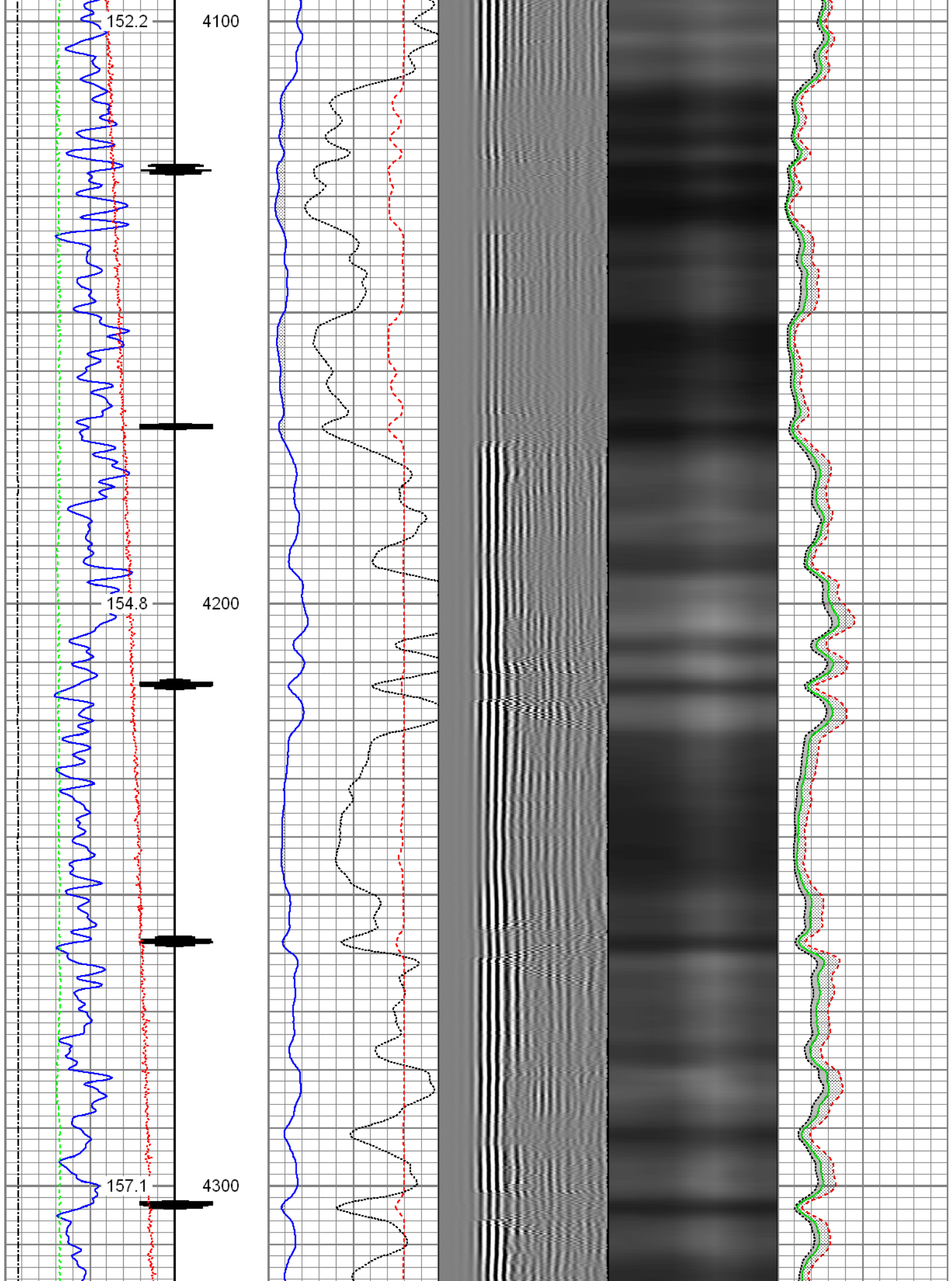


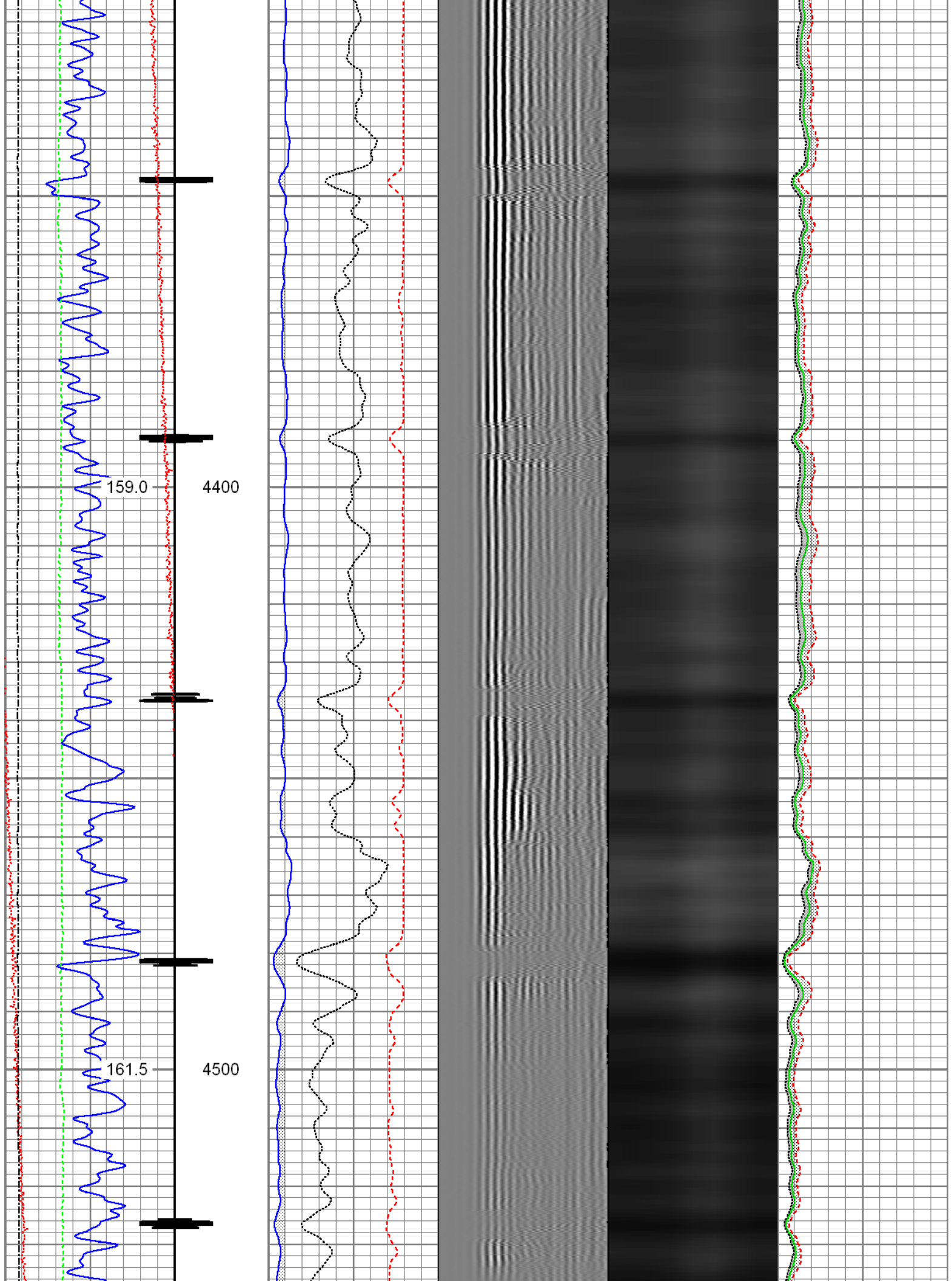


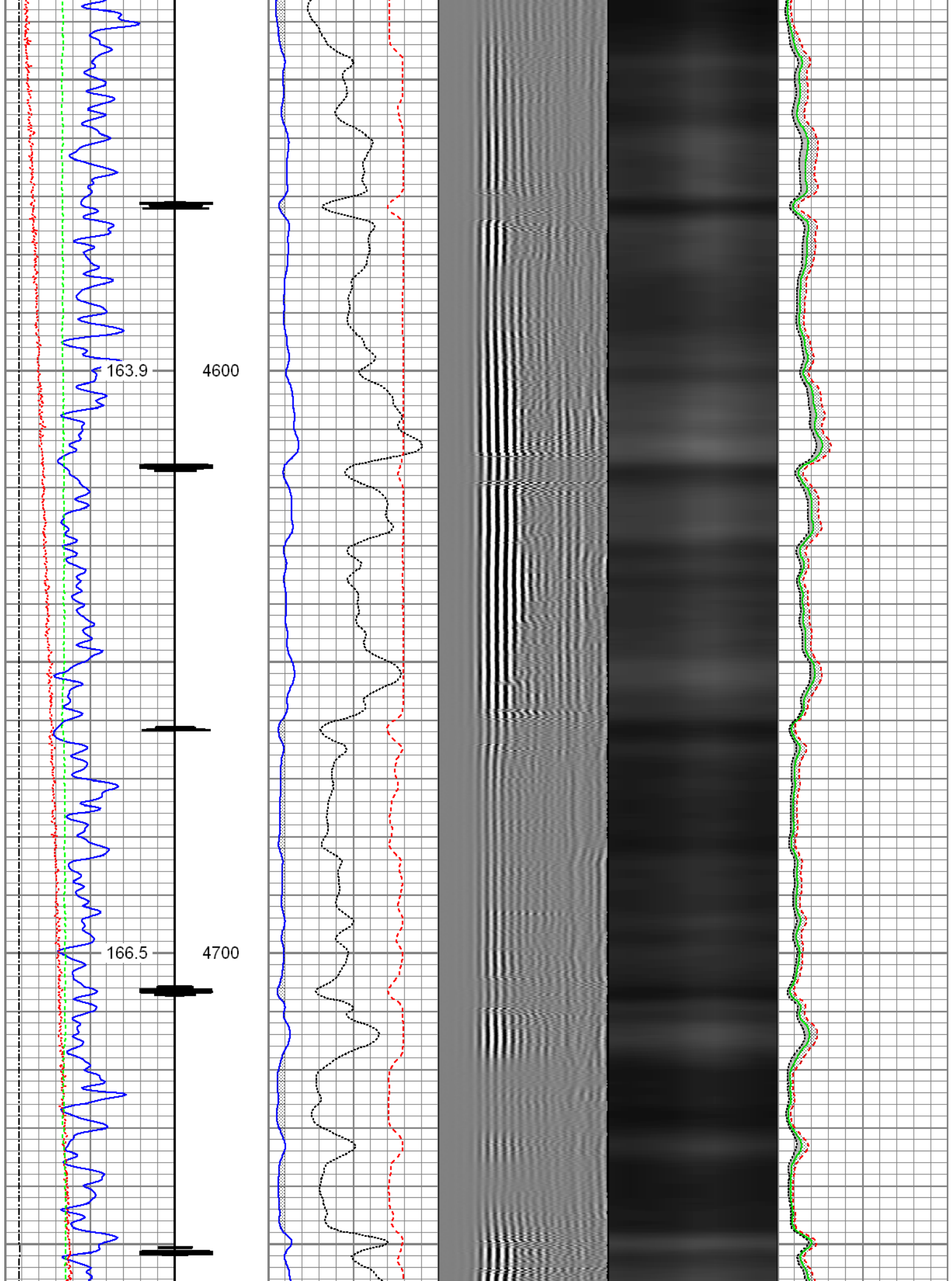


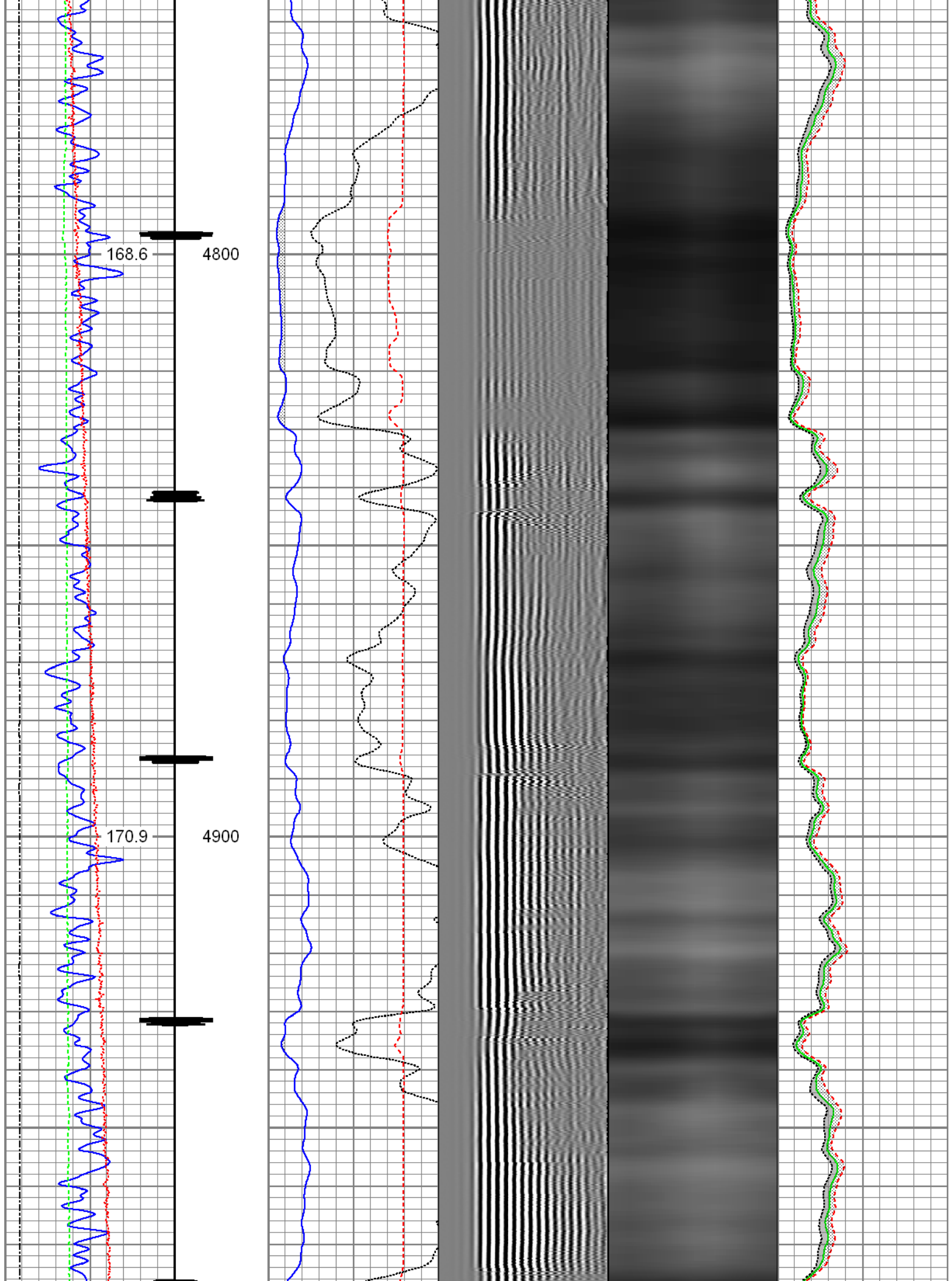


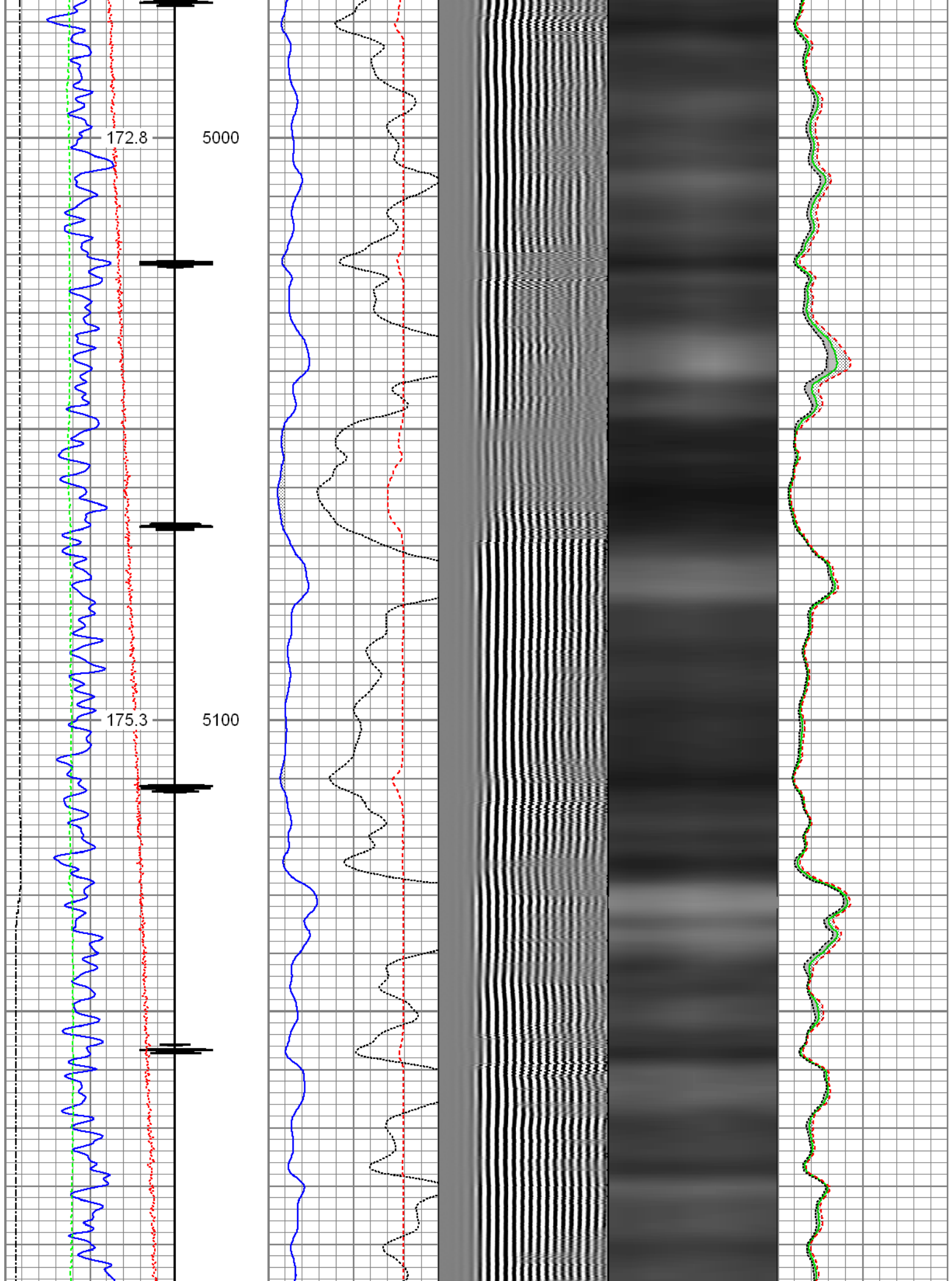


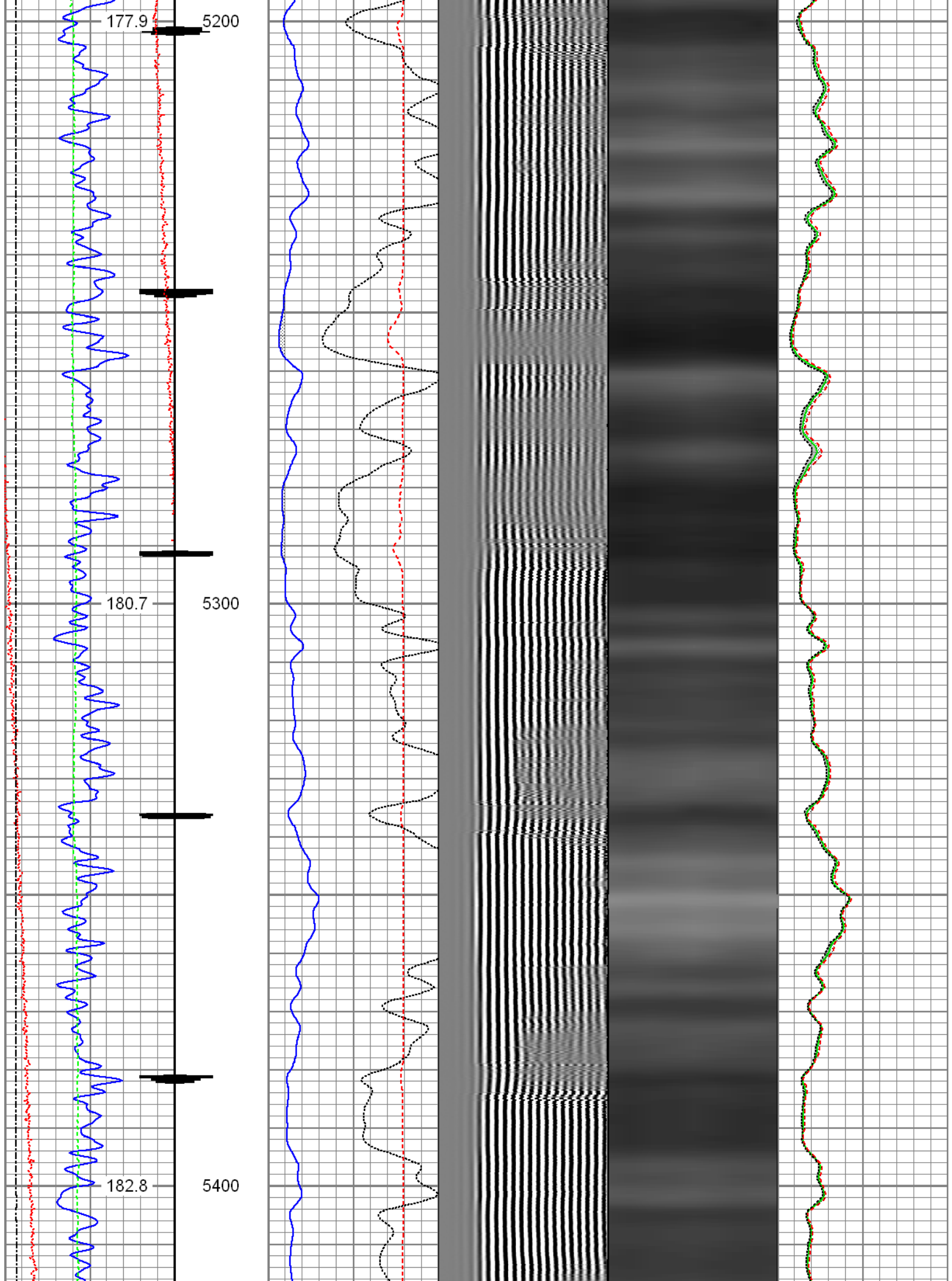


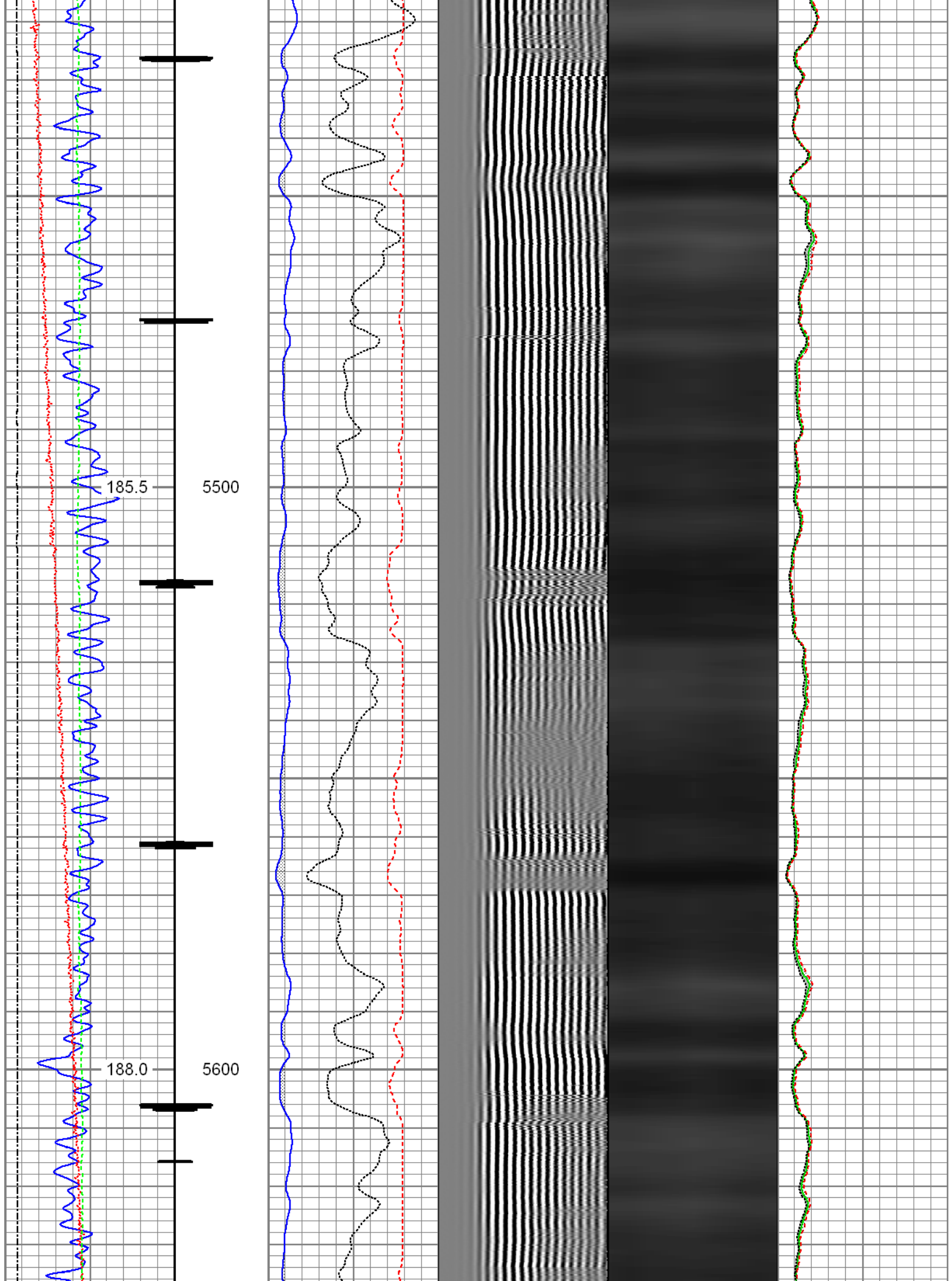


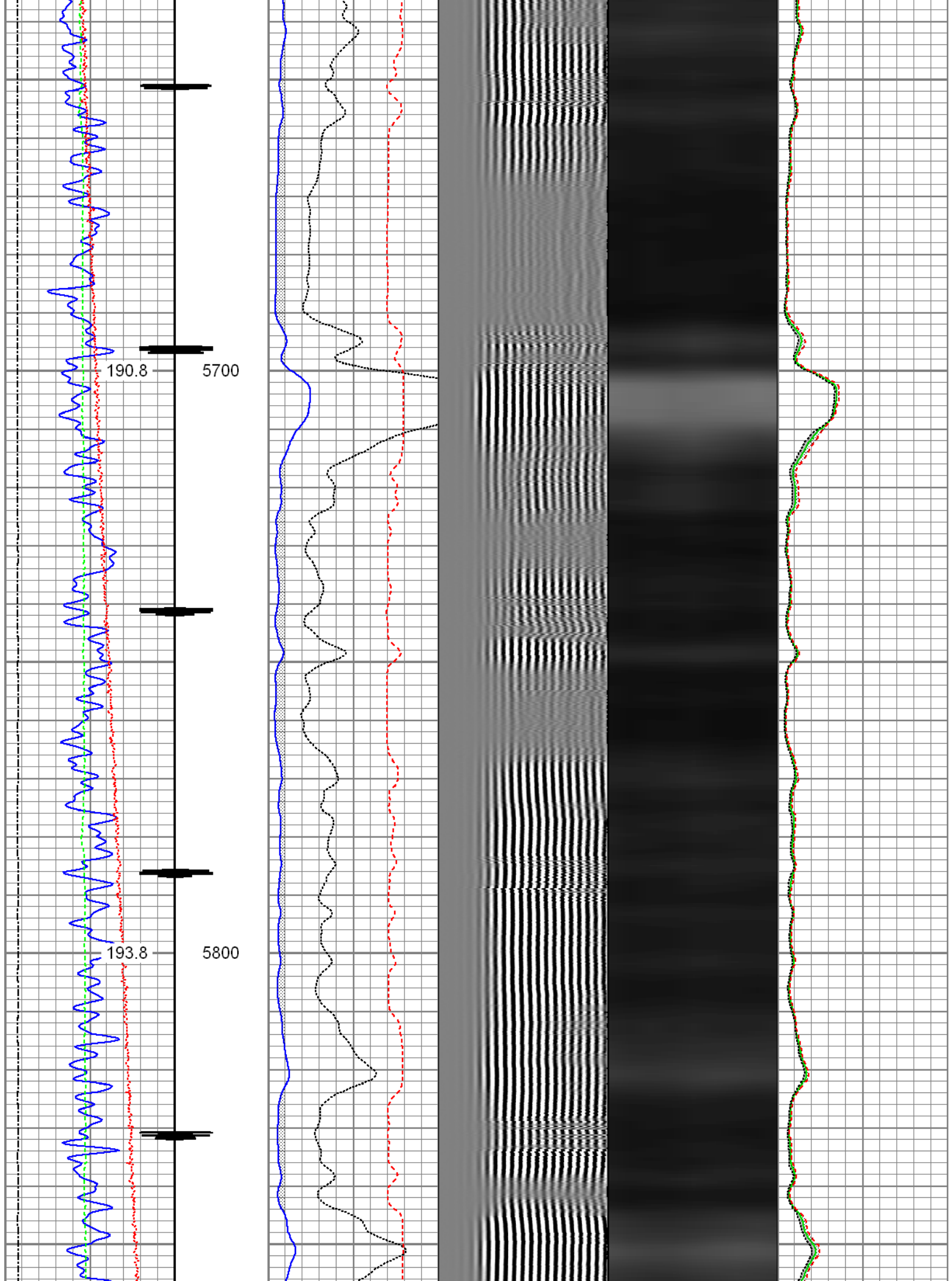


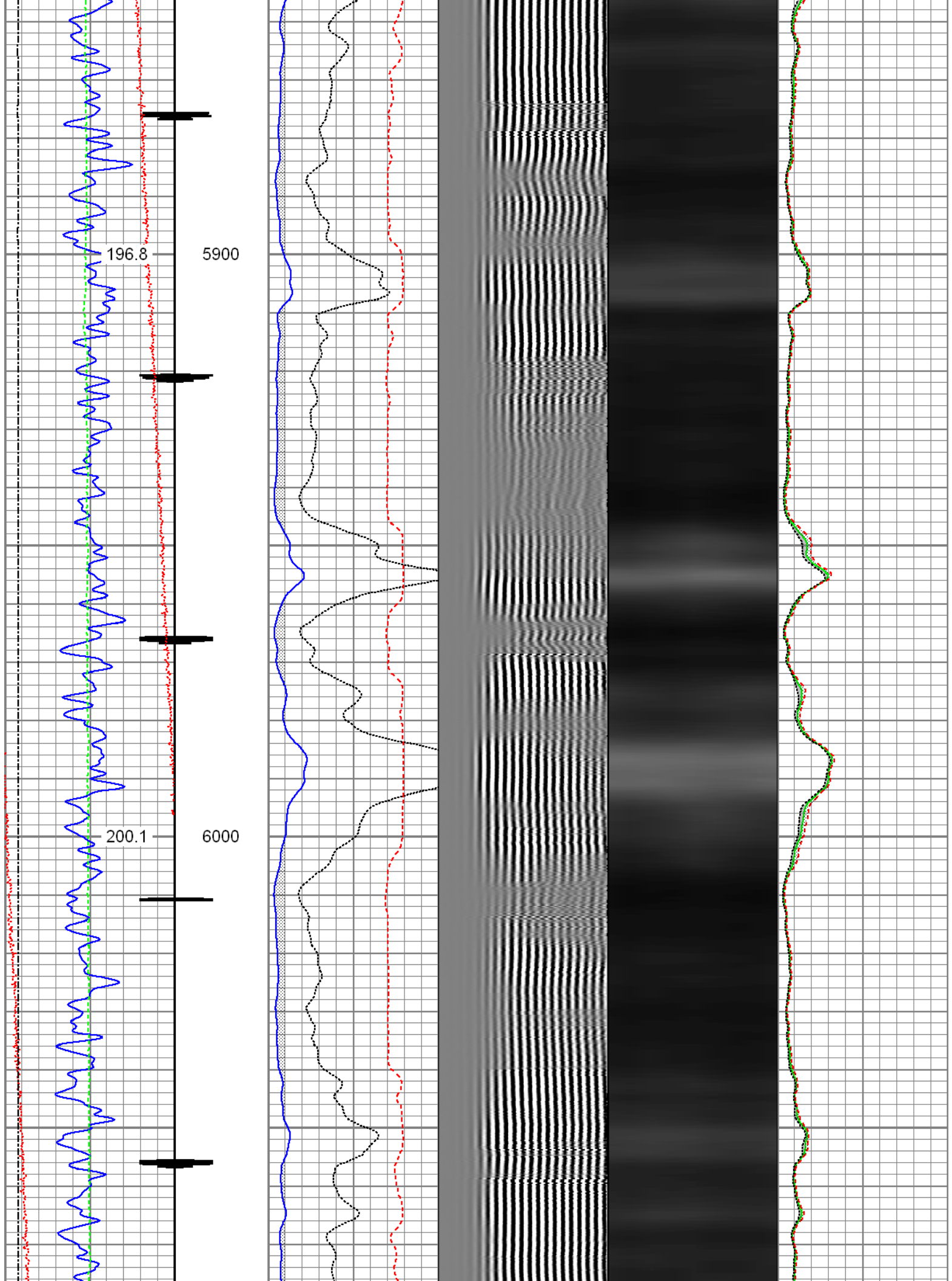


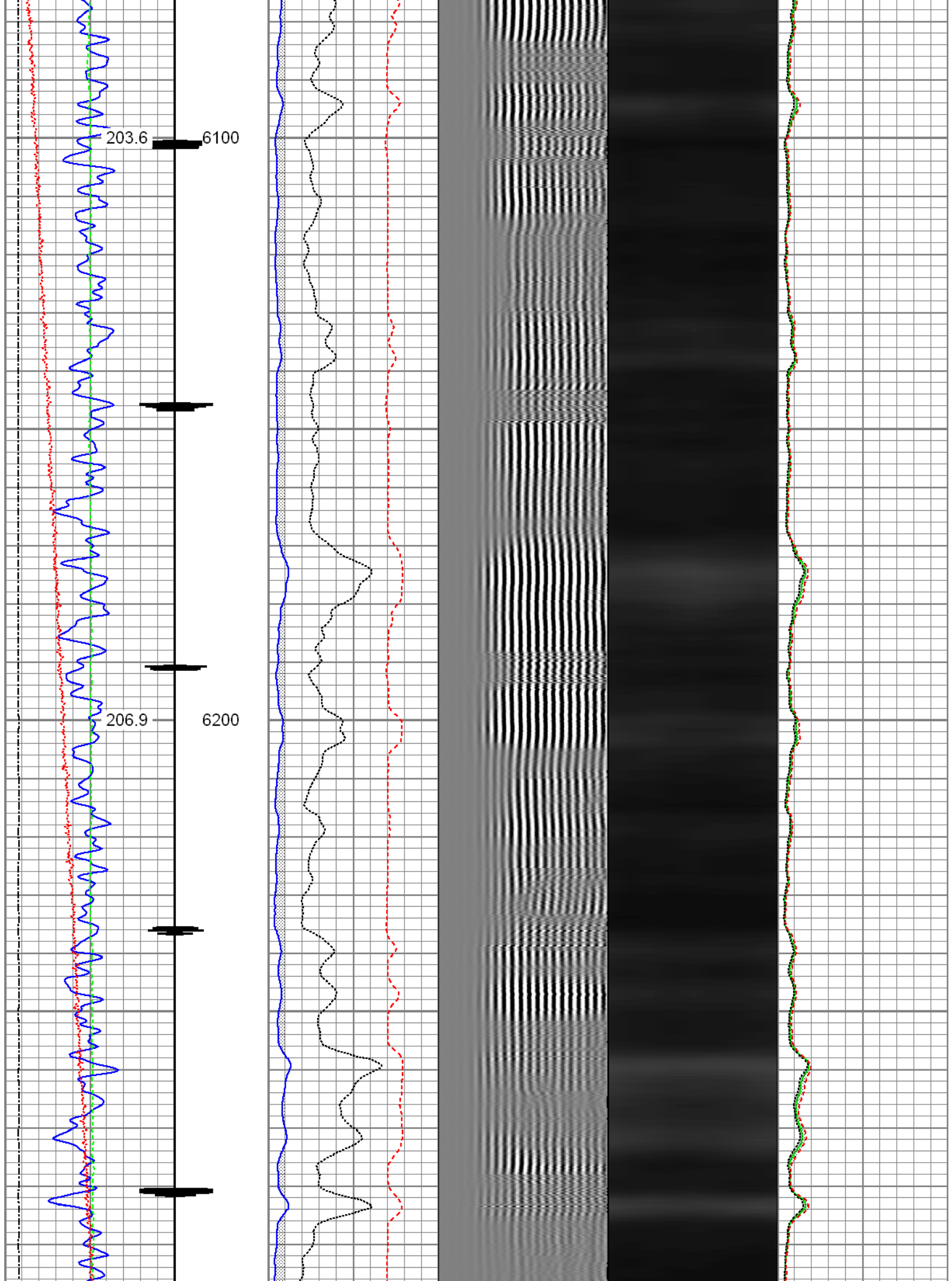


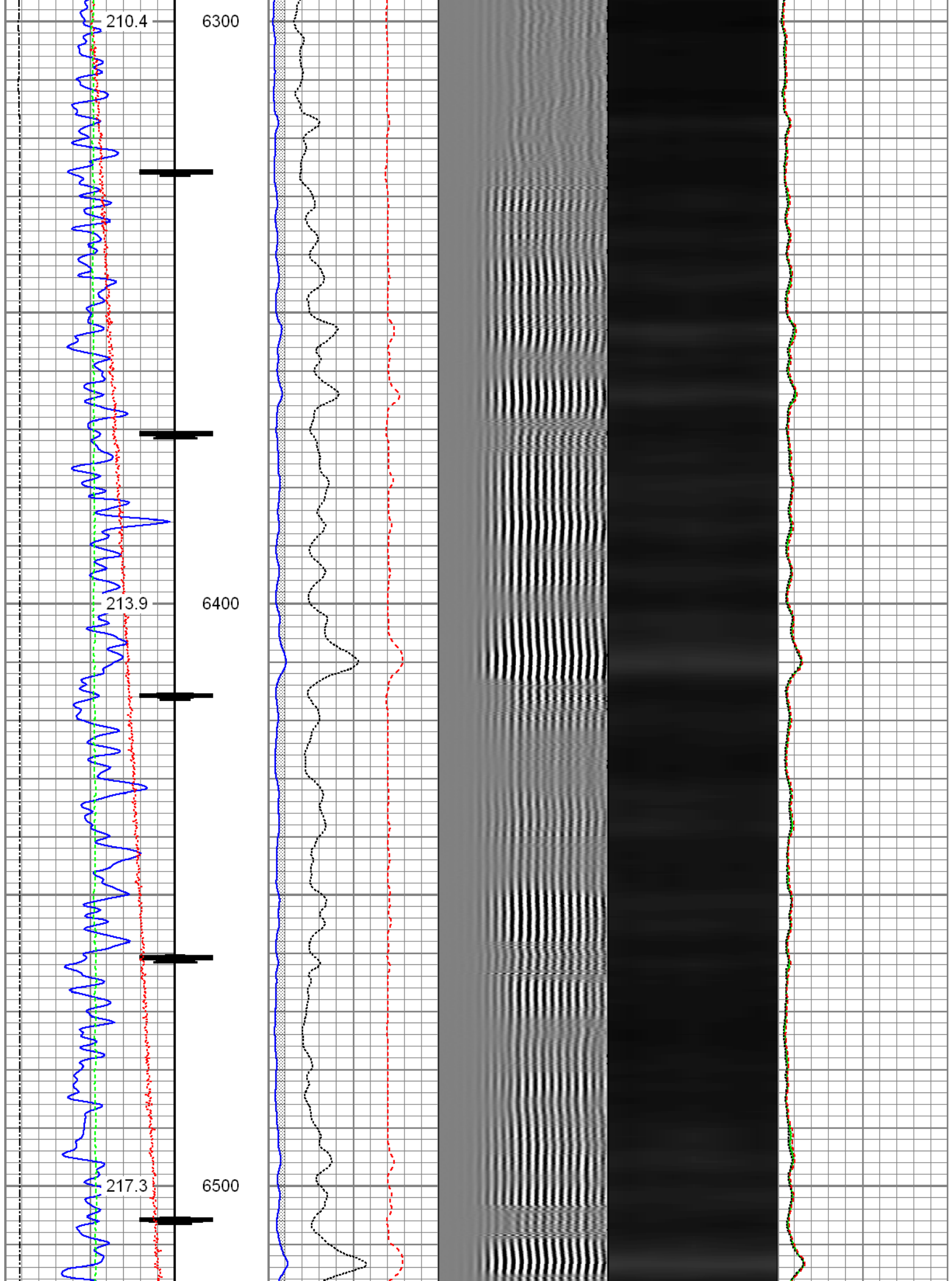


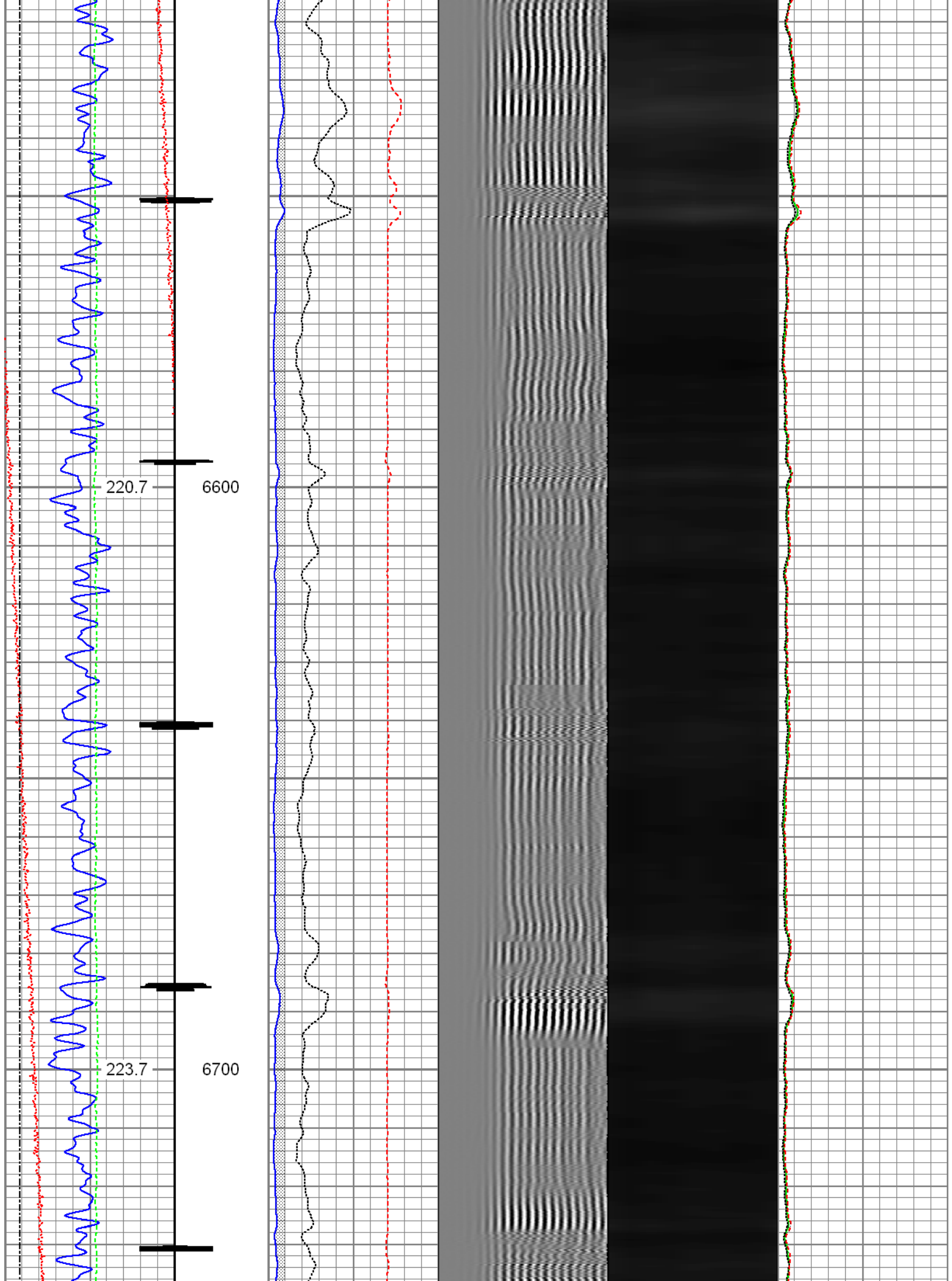












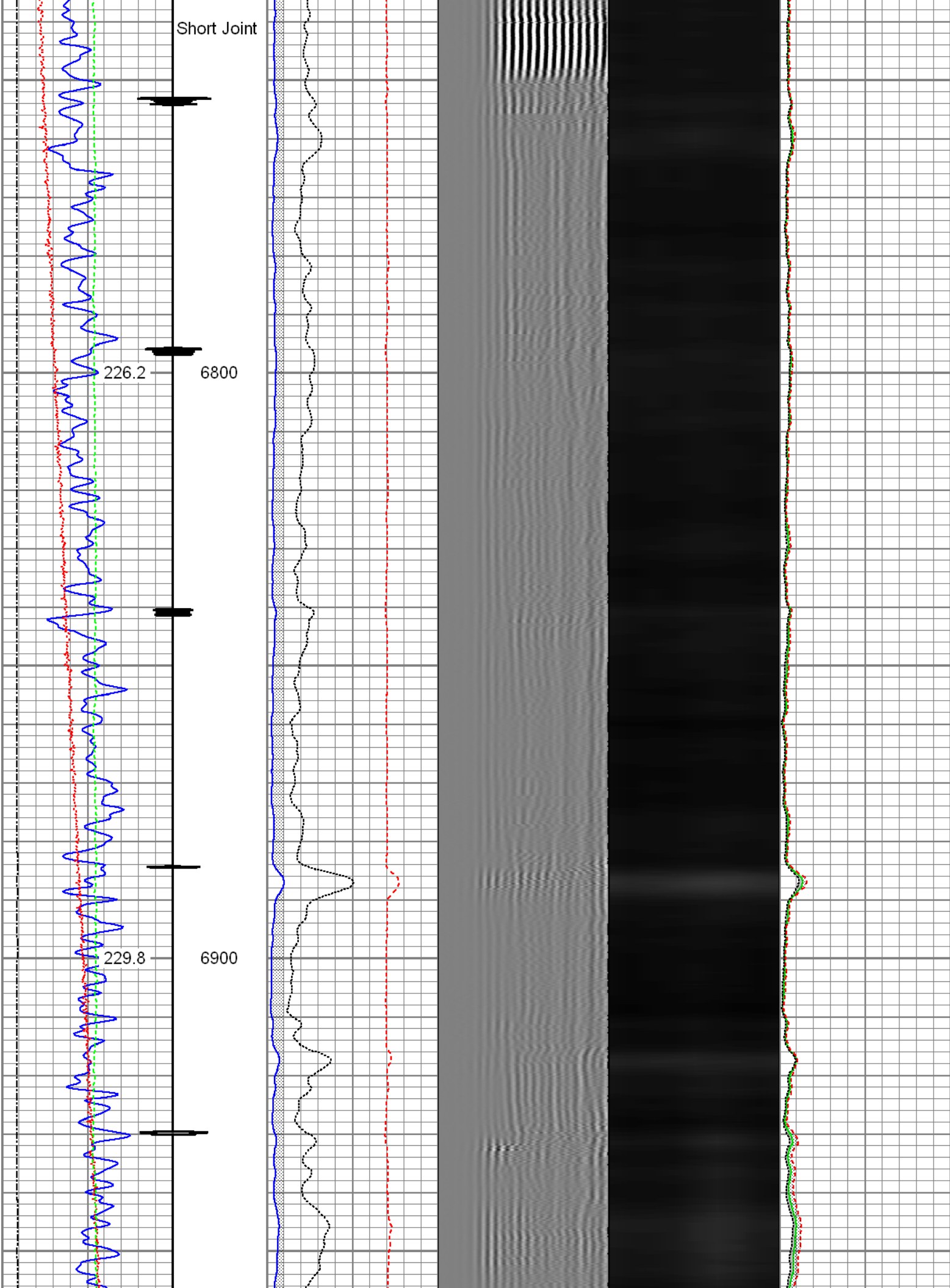
Short Joint

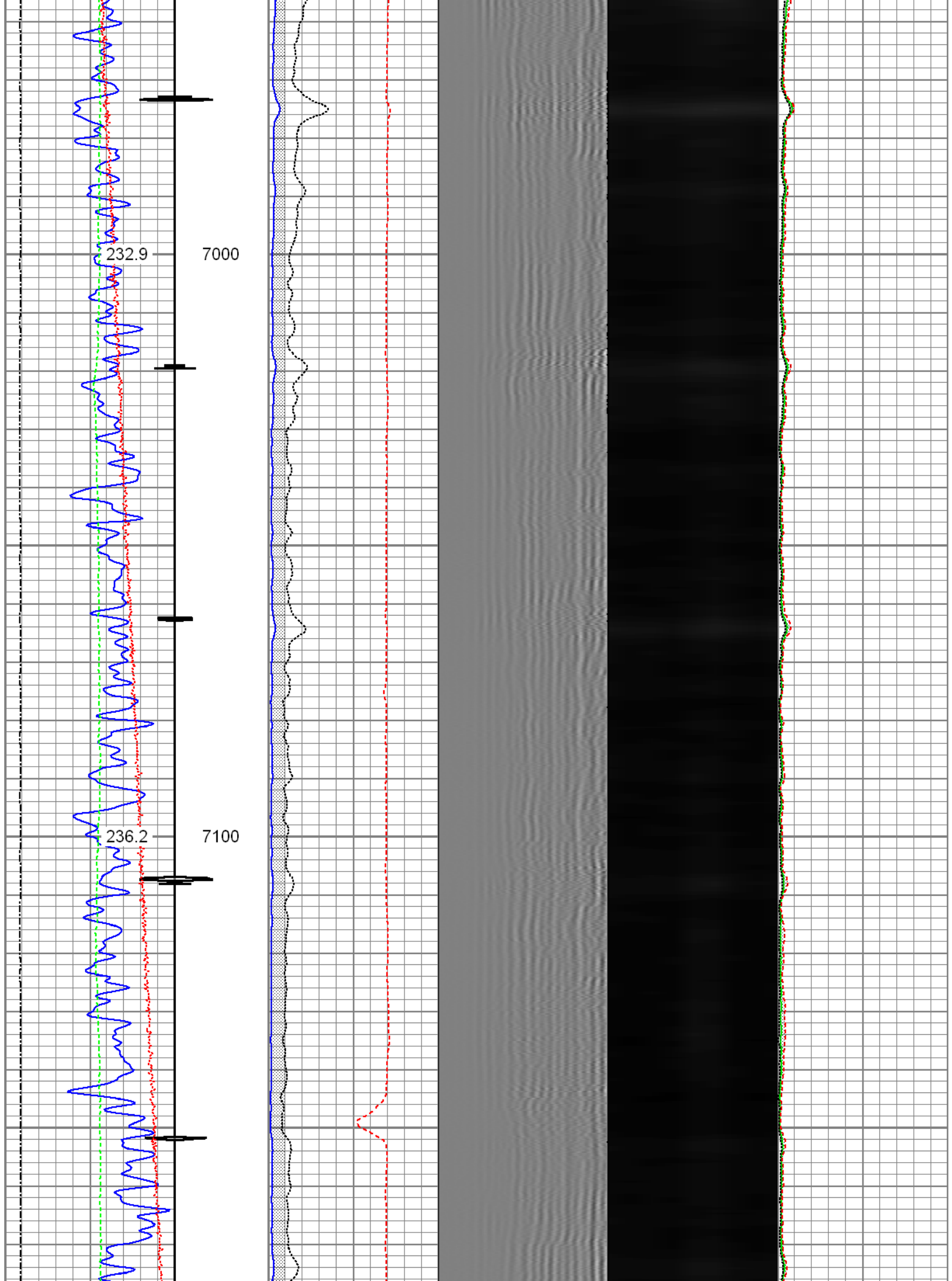
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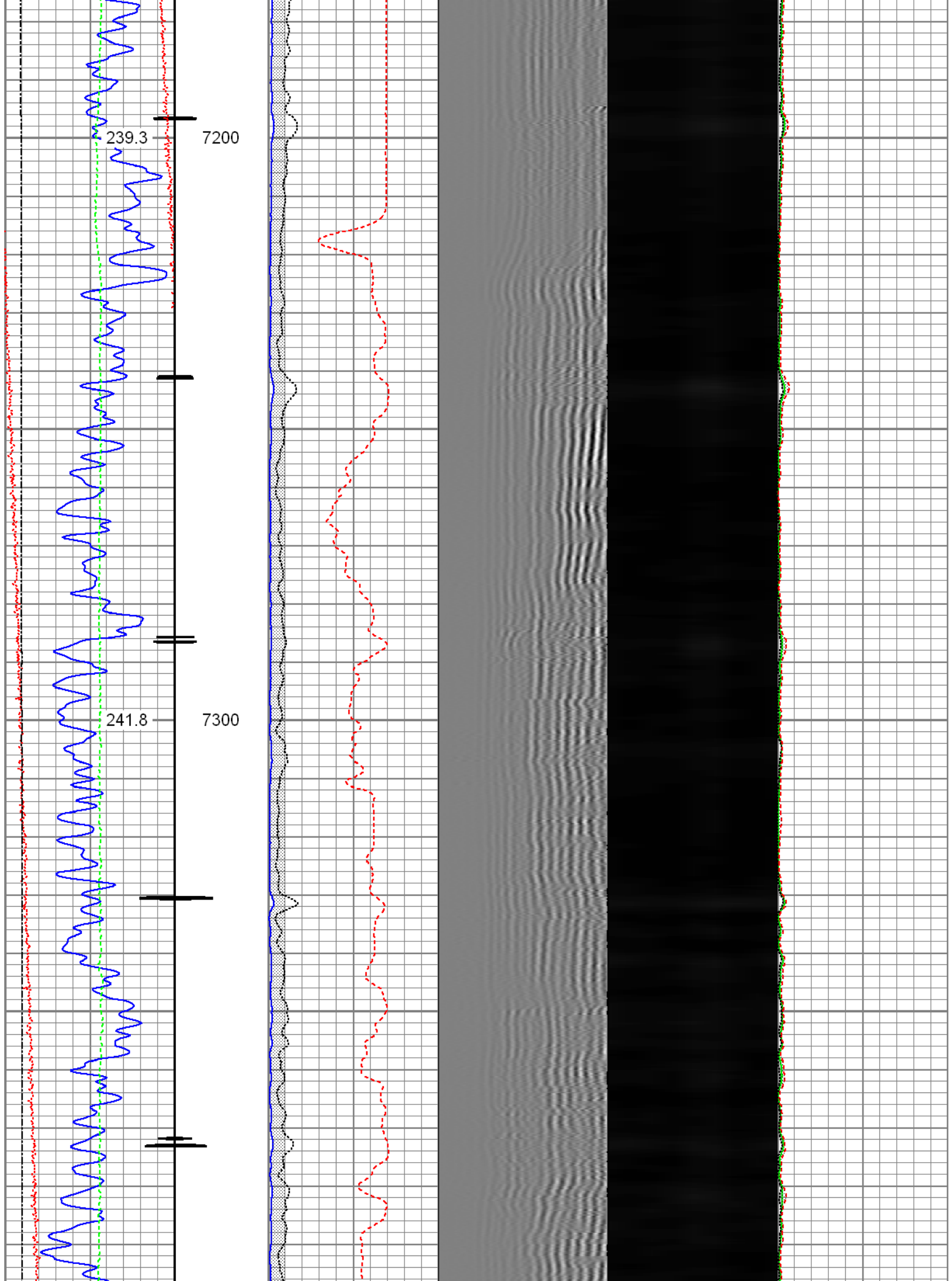
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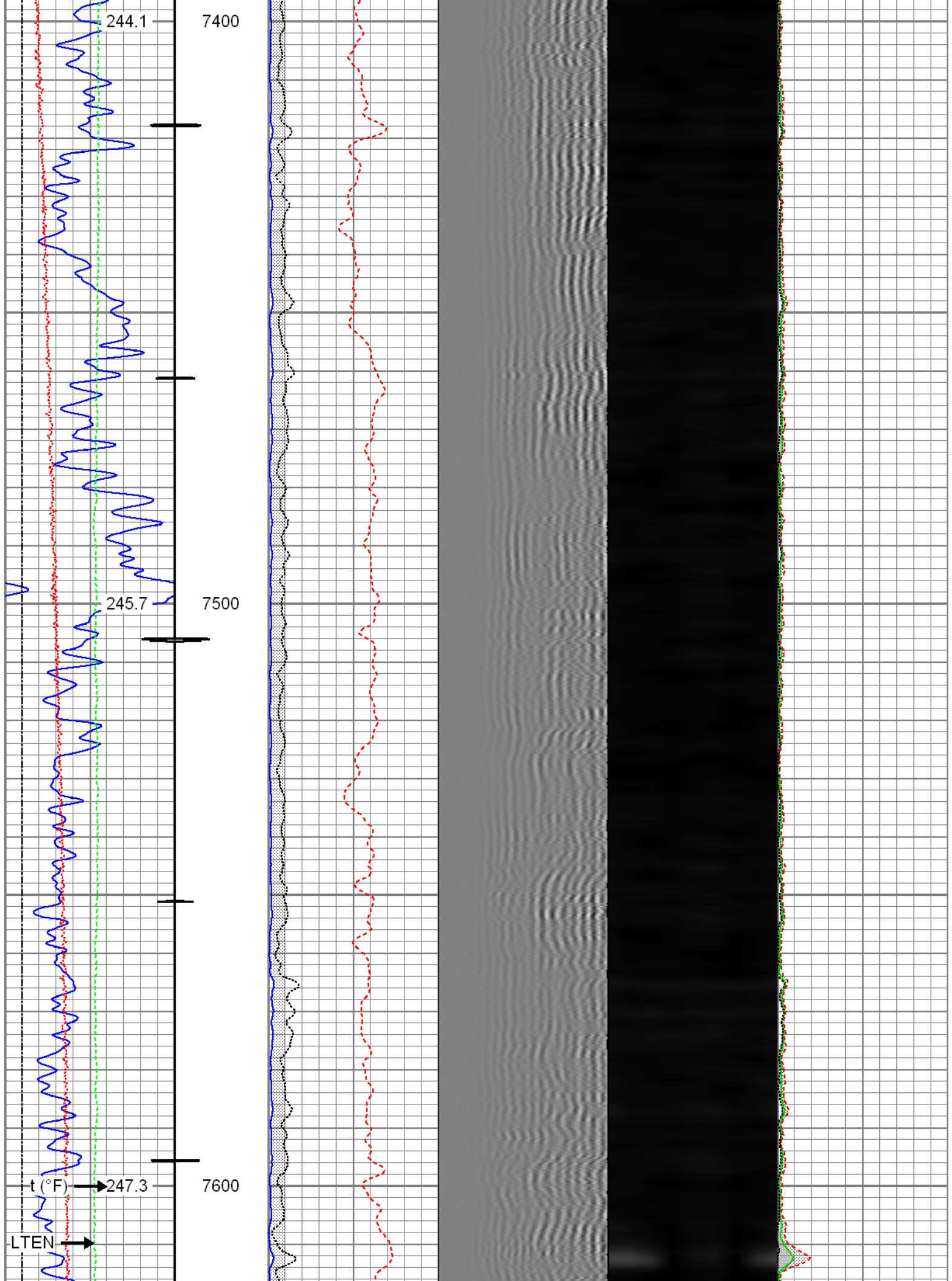
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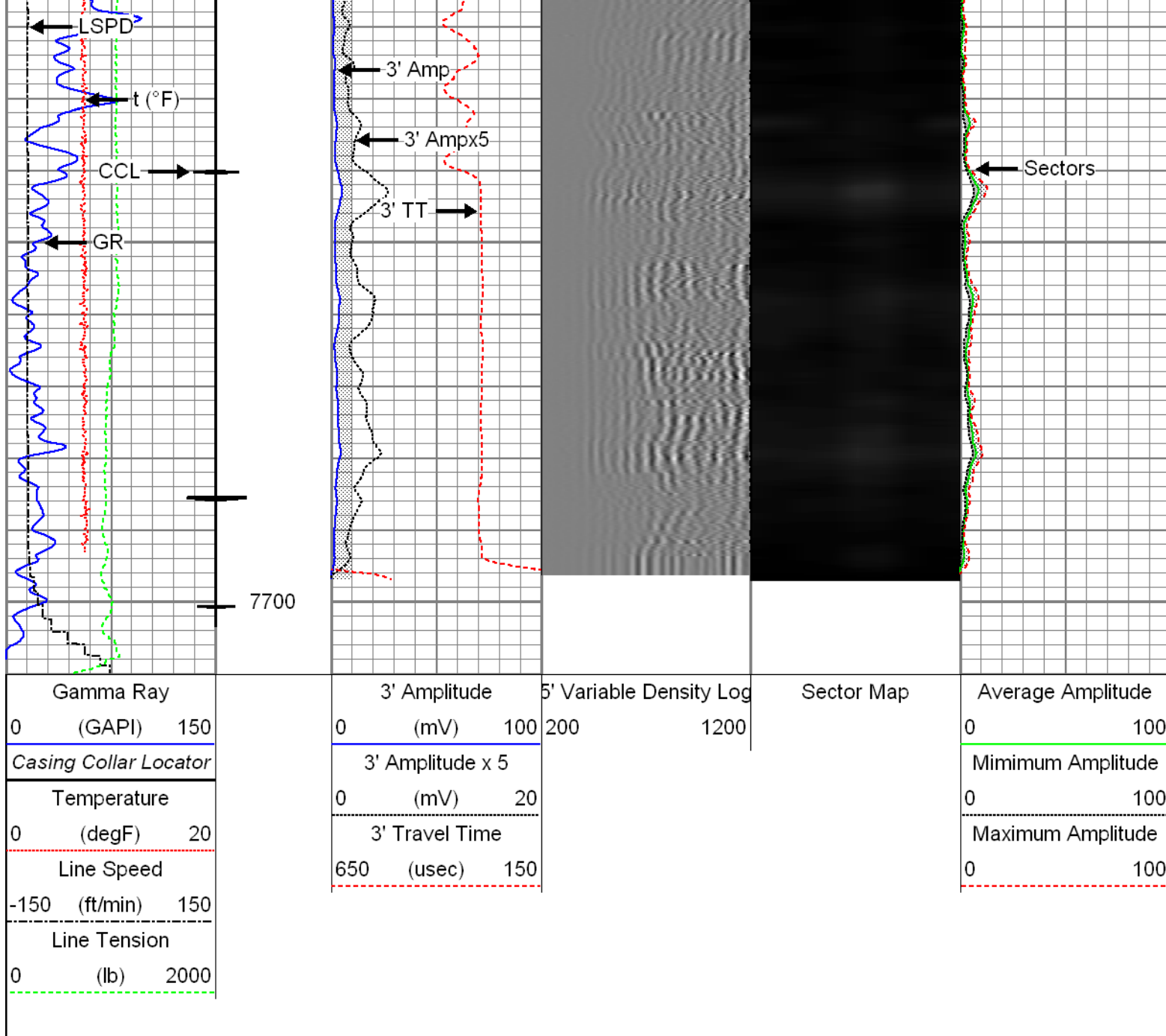
6900











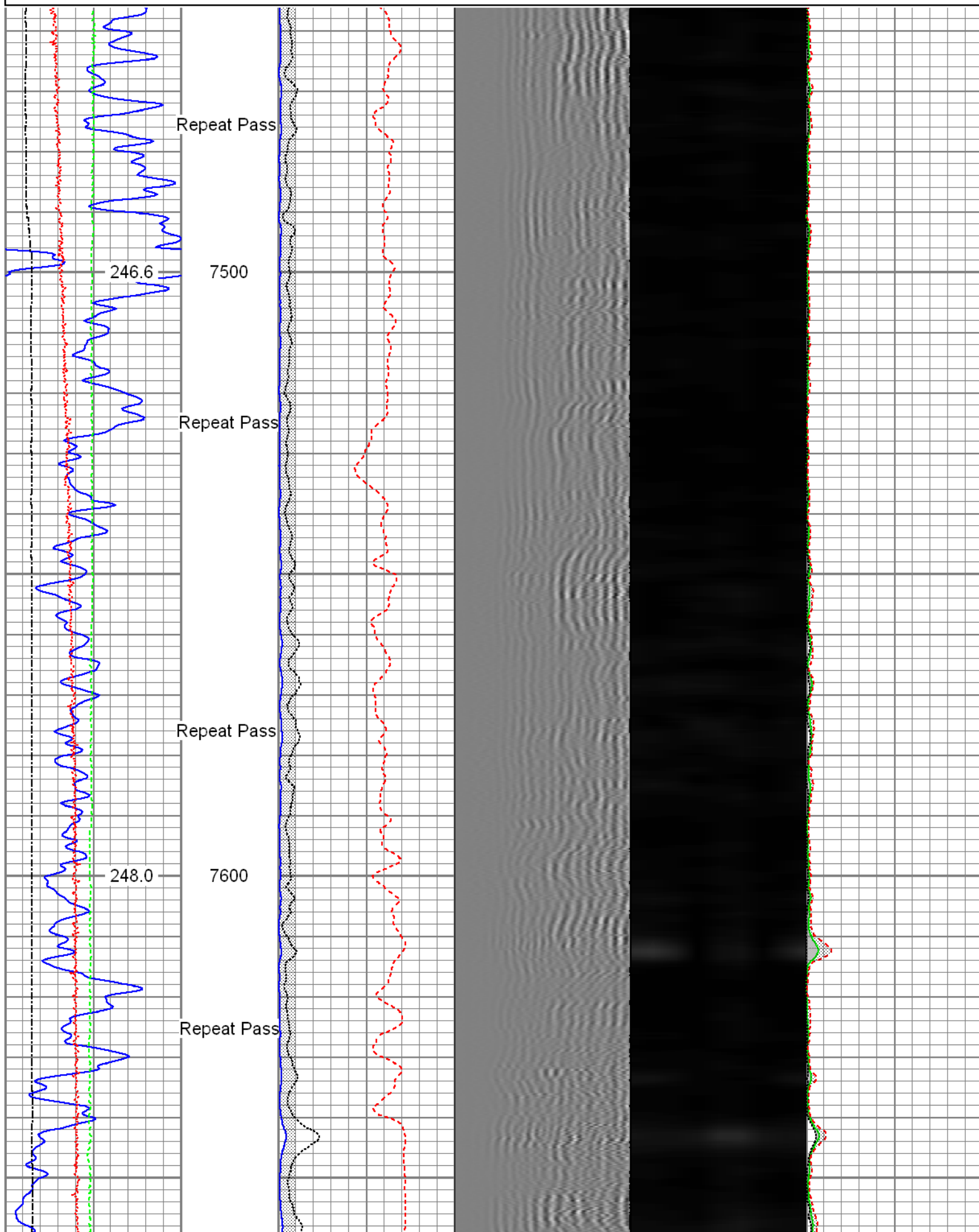
FMC Technologies		Repeat Pass			
		Recorded with 2800 PSI Surface Induced Pressure			
Database File: c:\warrior\data\0512341921_anadarko_sarchet 37c-20hz_11-10-15_rb\0512341921_anadarko_sarchet Dataset Pathname: Repeat Presentation Format: radii Dataset Creation: Tue Nov 10 12:03:16 2015 by Log 7.0 B1 Charted by: Depth in Feet scaled 1:240					
Gamma Ray 0 (GAPI) 120 Temperature 0 (degF) 20 Line Speed -150 (ft/min) 150		3' Amplitude 0 (mV) 100 3' Amplitude x 5 0 (mV) 20 3' Travel Time 650 (uSec) 150	5' Variable Density Log 200 1200	Sector Map	Average Amplitude 0 100 Minimum Amplitude 0 100 Maximum Amplitude 0 100

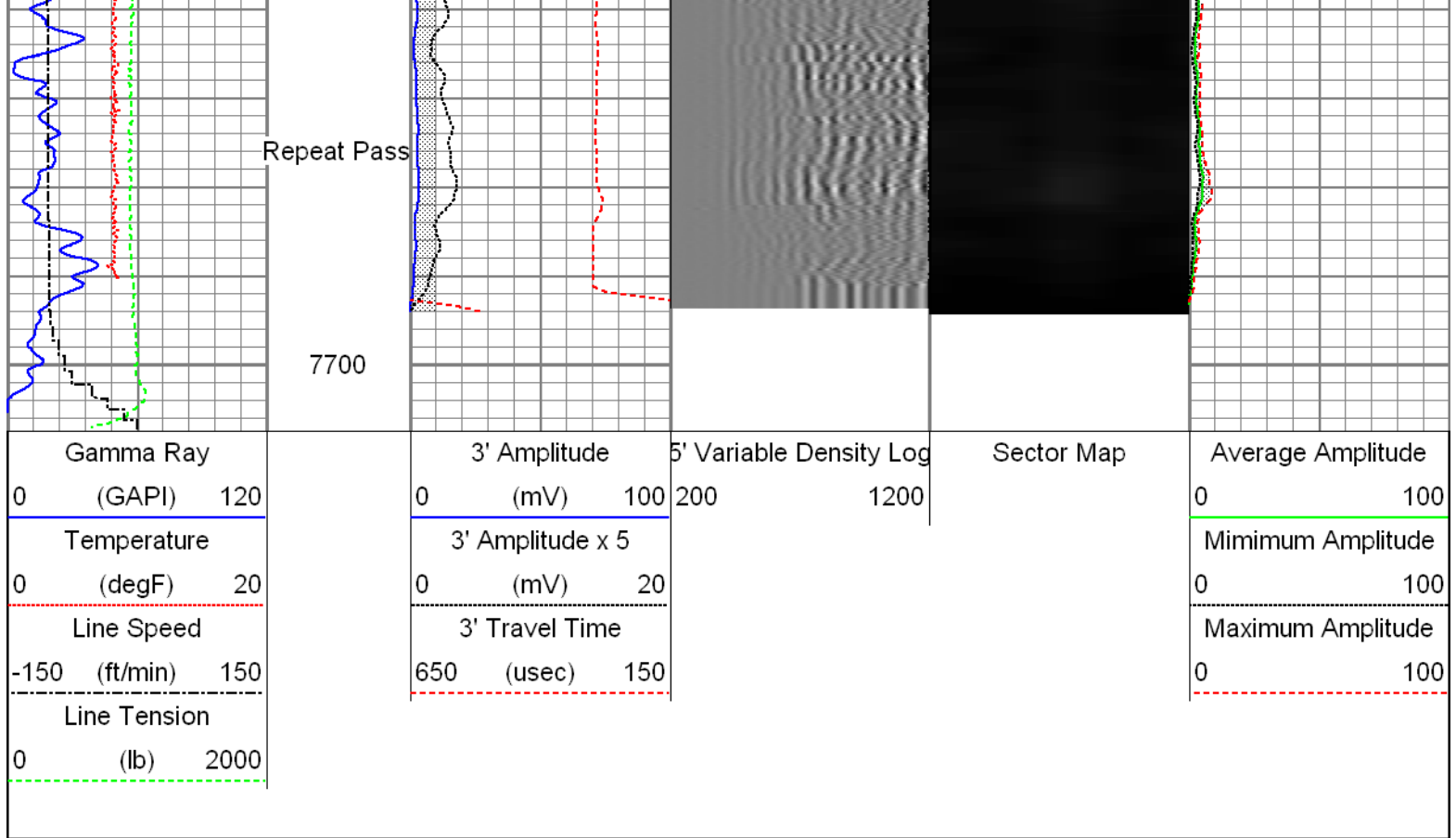
Line Tension

0

(lb)

2000





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			T_CH14375_1_GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	4.00
			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
HeadVolt	19.49					
Temp	16.72					
WVF3FT	14.55		Probe_RADII-C-2-3/4" (FW1305-098) Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe	9.19	2.75	105.00
WVFCAL	14.55					
WVFS1	14.55					
WVFS2	14.55					
WVFS3	14.55					
WVFS4	14.55					
WVFS5	14.55					
WVFS6	14.55					
WVFS7	14.55					
WVFS8	14.55					
WVF5FT	13.55					

CCL DCCL GR	6.51		Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
	6.51		Probe_CCL_GR-2.75"Digital (FW1211-081) Probe 2-3/4" Digital CCL / Gamma Ray Combined	4.54	2.75	55.00
	3.77		Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
Dataset: 0512341921_Anadarko_Sarchet 37C-20HZ_11-10-15_RBL.db: field/well/run1/Main Total Length: 23.40 ft Total Weight: 194.00 lb O.D. 2.75 in						

Calibration Report	
Database File:	c:\warrior\data\0512341921_anadarko_sarchet 37c-20hz_11-10-15_rb\0512341921_anadarko_sarchet
Dataset Pathname:	Main.1
Dataset Creation:	Wed Nov 11 10:37:21 2015 by Calc SCH 120430

Gamma Ray Calibration Report		
Serial Number:	FW1211-081	
Tool Model:	2.75"Digital	
Performed:	Mon Nov 09 09:53:43 2015	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1305-098	
Tool Model:	2-3/4"	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	8.183	ft

Master Calibration, performed Wed Nov 11 10:37:18 2015:						
3'	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
	0.006	0.506	0.800	71.921	142.322	-0.122

CAL	0.557	0.783				
5'	0.011	0.394	0.800	71.921	185.573	-1.169
SUM						
S1	0.005	0.489	0.000	100.000	206.847	-1.098
S2	0.008	0.493	0.000	100.000	206.125	-1.556
S3	0.007	0.501	0.000	100.000	202.088	-1.319
S4	0.008	0.511	0.000	100.000	198.865	-1.521
S5	0.007	0.520	0.000	100.000	195.010	-1.433
S6	0.007	0.517	0.000	100.000	195.952	-1.367
S7	0.008	0.502	0.000	100.000	202.609	-1.681
S8	0.008	0.495	0.000	100.000	205.345	-1.550

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.557	0.783	1.000	0.000

Air Zero Calibration, performed Tue Nov 10 09:34:38 2015:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	
S7	0.000		0.000		0.000	
S8	0.000		0.000		0.000	



Company Kerr-McGee Oil & Gas Onshore, L.P.
Well Sarchet 37C-20HZ
Field Wattenberg
County Weld
State Colorado