



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	Kerr-McGee Oil & Gas Onshore, L.P.		
Well	Carter 34C-33HZ		
Field	Wattenberg		
County	Weld		
State	Colorado		
Location:	Company	Kerr-McGee Oil & Gas Onshore, L.P.	
	Well	Carter 34C-33HZ	
	Field	Wattenberg	
SEC 33 TWP 2N RGE 66W	County	Weld	
	State	Colorado	
	Other Services	Gauge Ring	
Permanent Datum	Ground Level	Elevation	4961'
Log Measured From	Kelly Bushing	16 FT	
Drilling Measured From	Kelly Bushing		
Elevation		K.B. 4977' D.F. 4976' G.L. 4961'	

Date	03-NOV-2015		
Run Number	Two		
Depth Driller	13062 FT		
Depth Logger	7757 FT		
Bottom Logged Interval	7641 FT		
Top Log Interval	Surface		
Open Hole Size	7.875"		
Type Fluid	Water		
Density / Viscosity	8.34 lbm/gal		
Max. Recorded Temp.	237°F		
Estimated Cement Top	Surface		
Time Well Ready	ROA		
Time Logger on Bottom	9:30		
Equipment Number	HD-0119		
Location	Ft. Lupton, CO		
Recorded By	R. Fogarty		
Witnessed By	S. Vigil		

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	J-55	Surface	1861 FT		
Intermediate #1	5 1/2	17	HCP 110 LTC	Surface	13053 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 7031 FT
Adjusted log -22 FT to correlate with Marker Joint
Gauge Ring ran to 7757 FT
Log ran as deep as possible to surface
Log ran with 2800 PSI surface induced pressure
Logging tools were clean and free of debris upon completion of operations

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

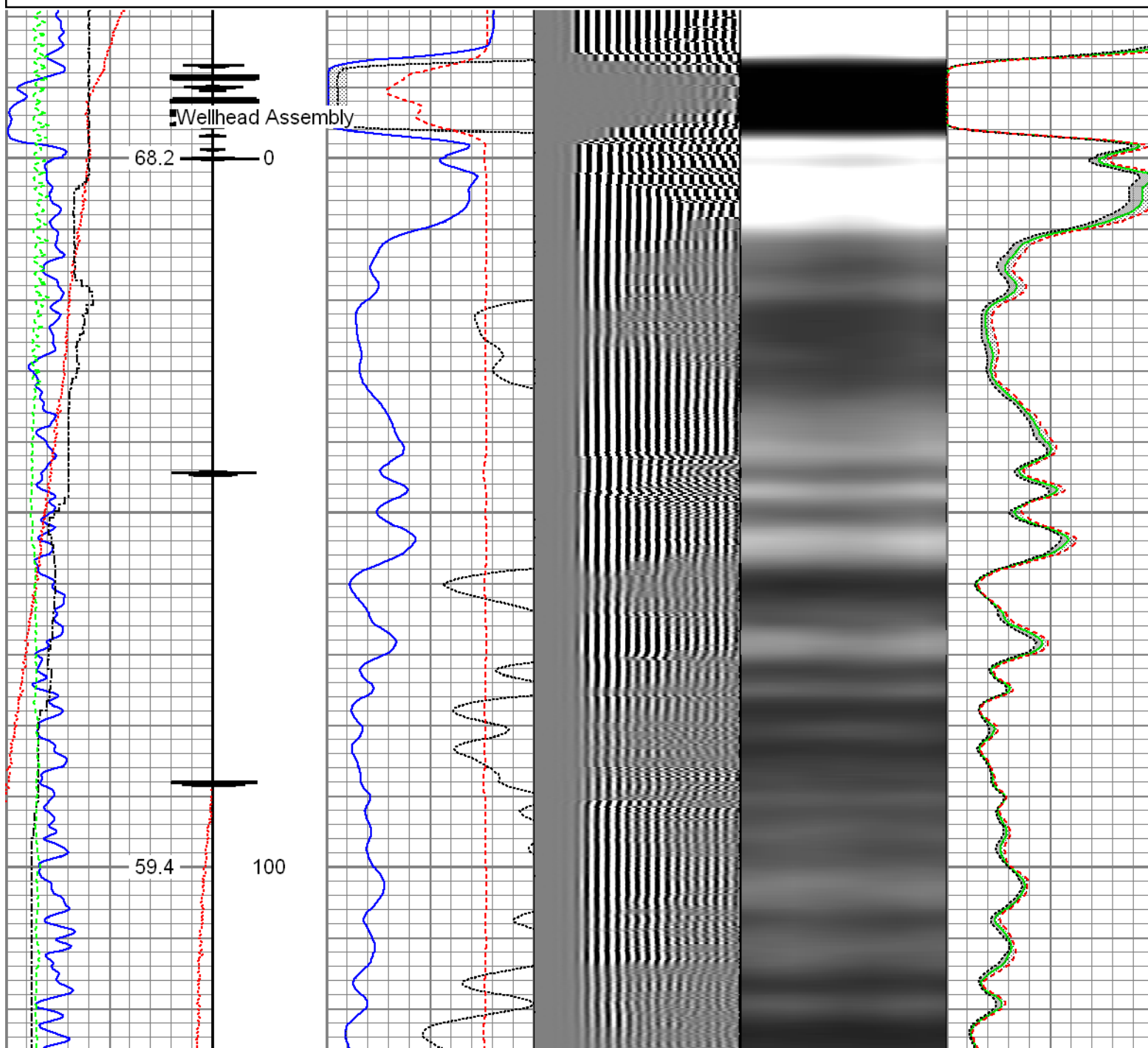


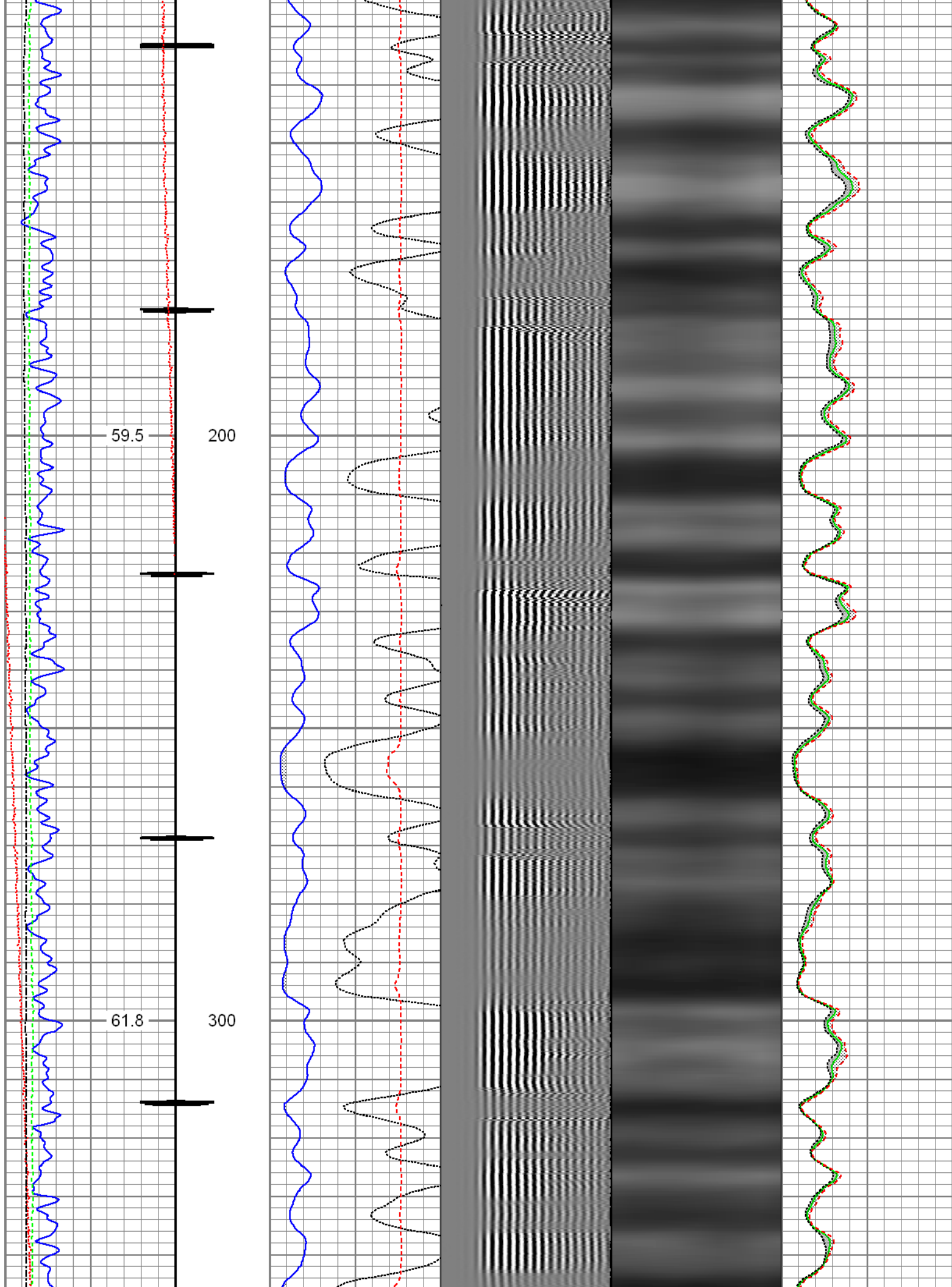
Main Pass

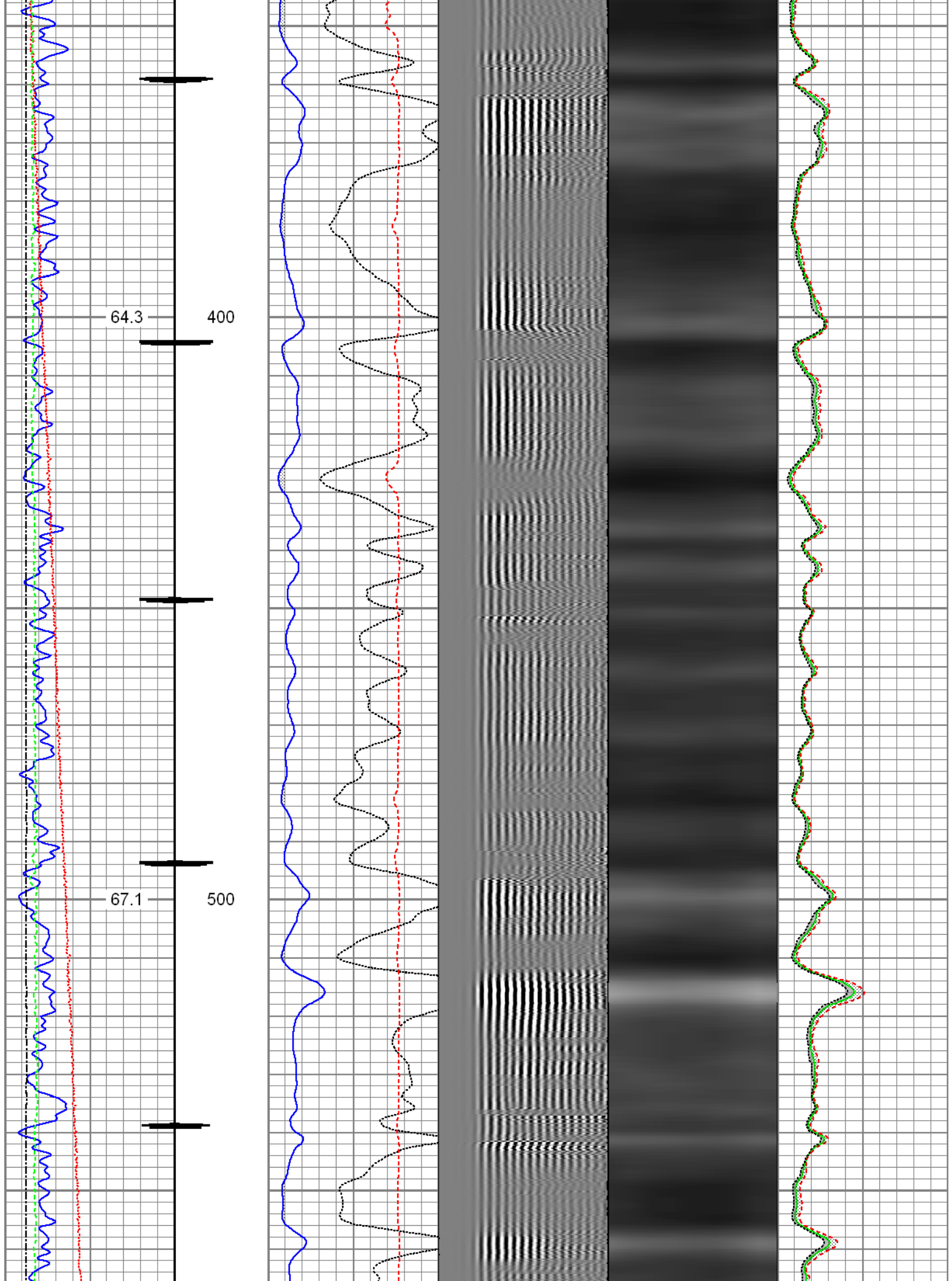
Recorded with 2800 PSI Surface Induced Pressure

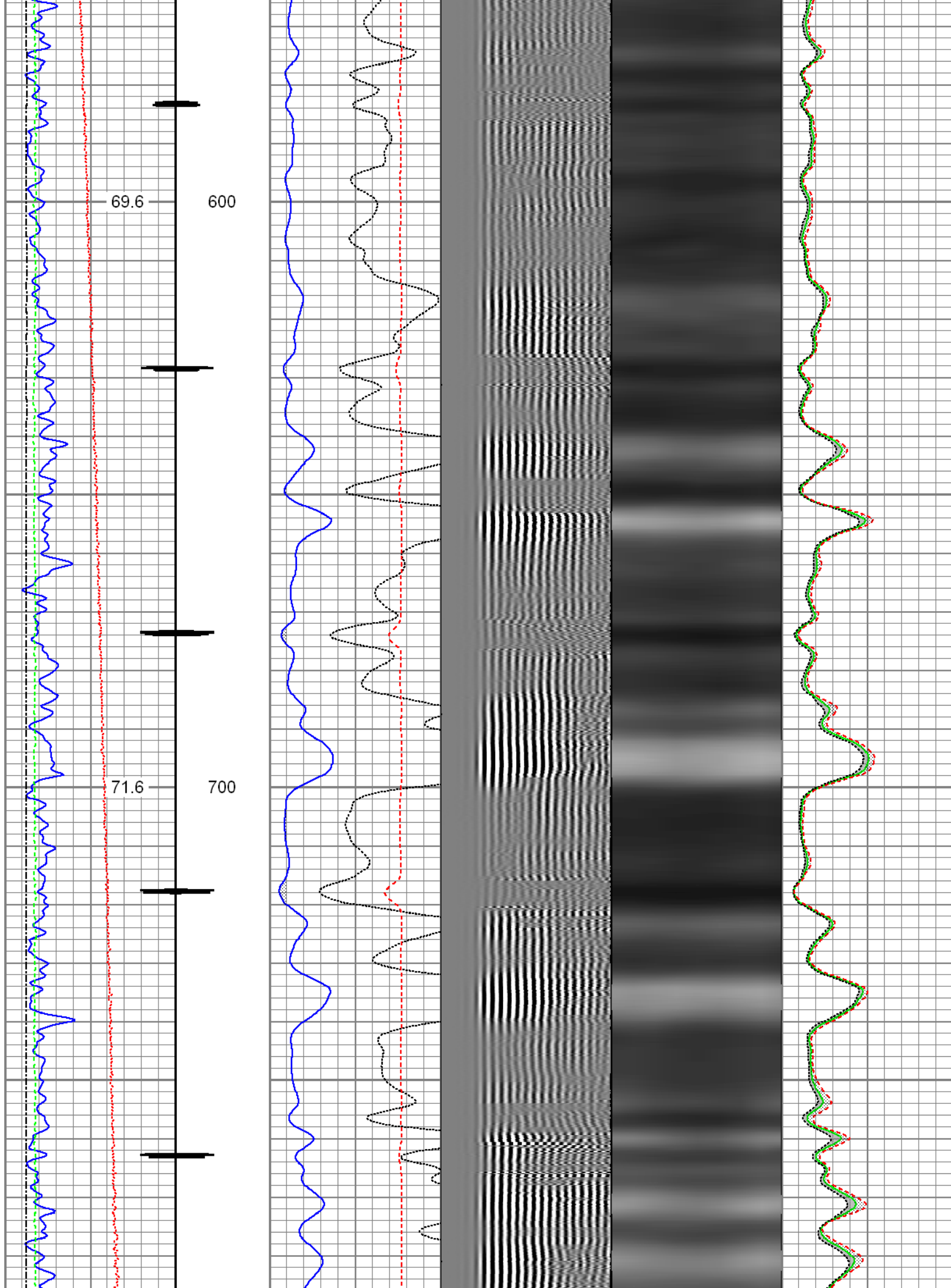
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Dataset Pathname: pass6
Presentation Format: radii
Dataset Creation: Tue Nov 03 09:29:28 2015 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240

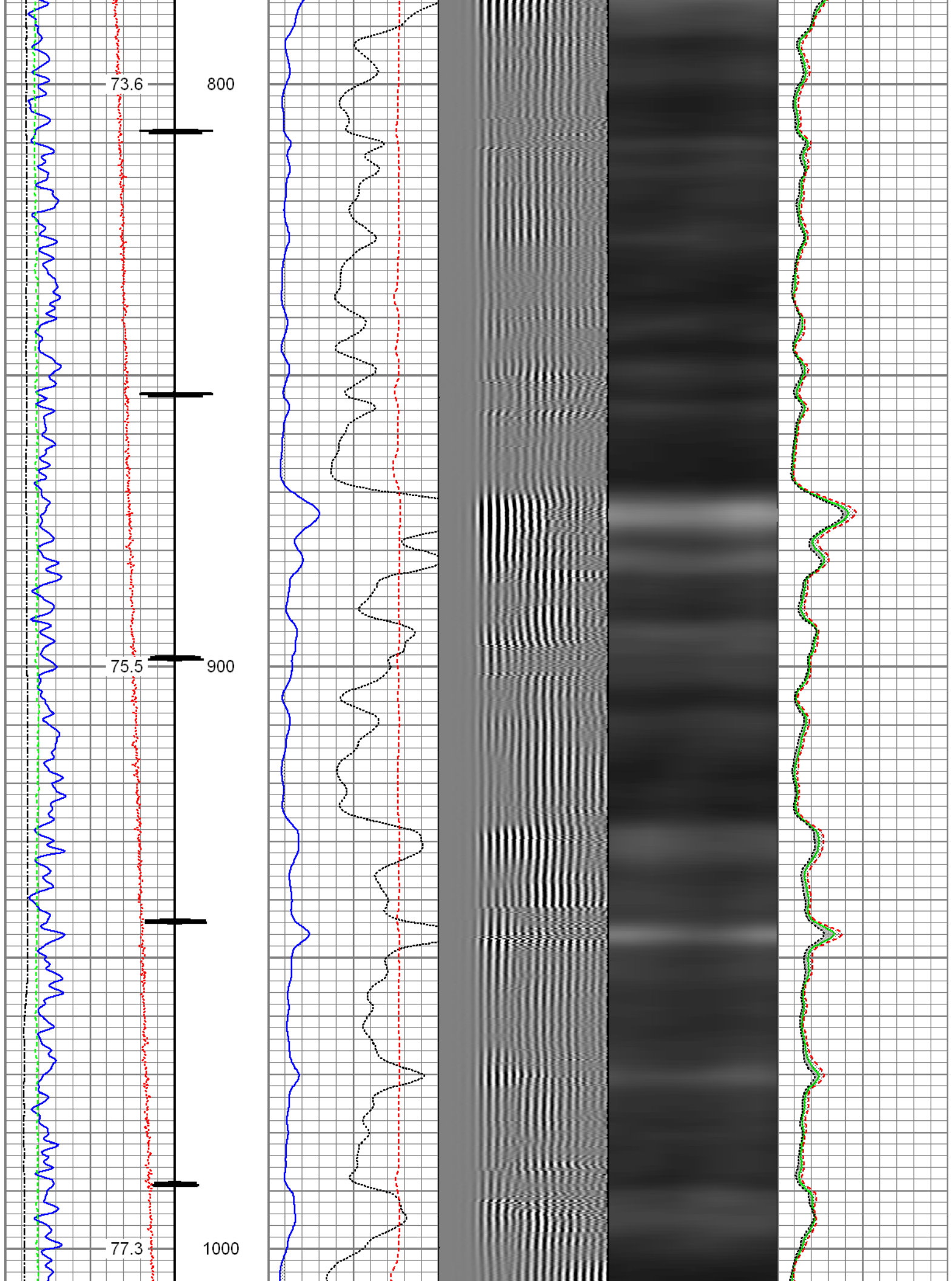
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 180	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Minimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 20	3' Travel Time			Maximum Amplitude
Line Speed	650 (usec) 150			0 100
-150 (ft/min) 150				
Line Tension				
0 (lb) 2000				

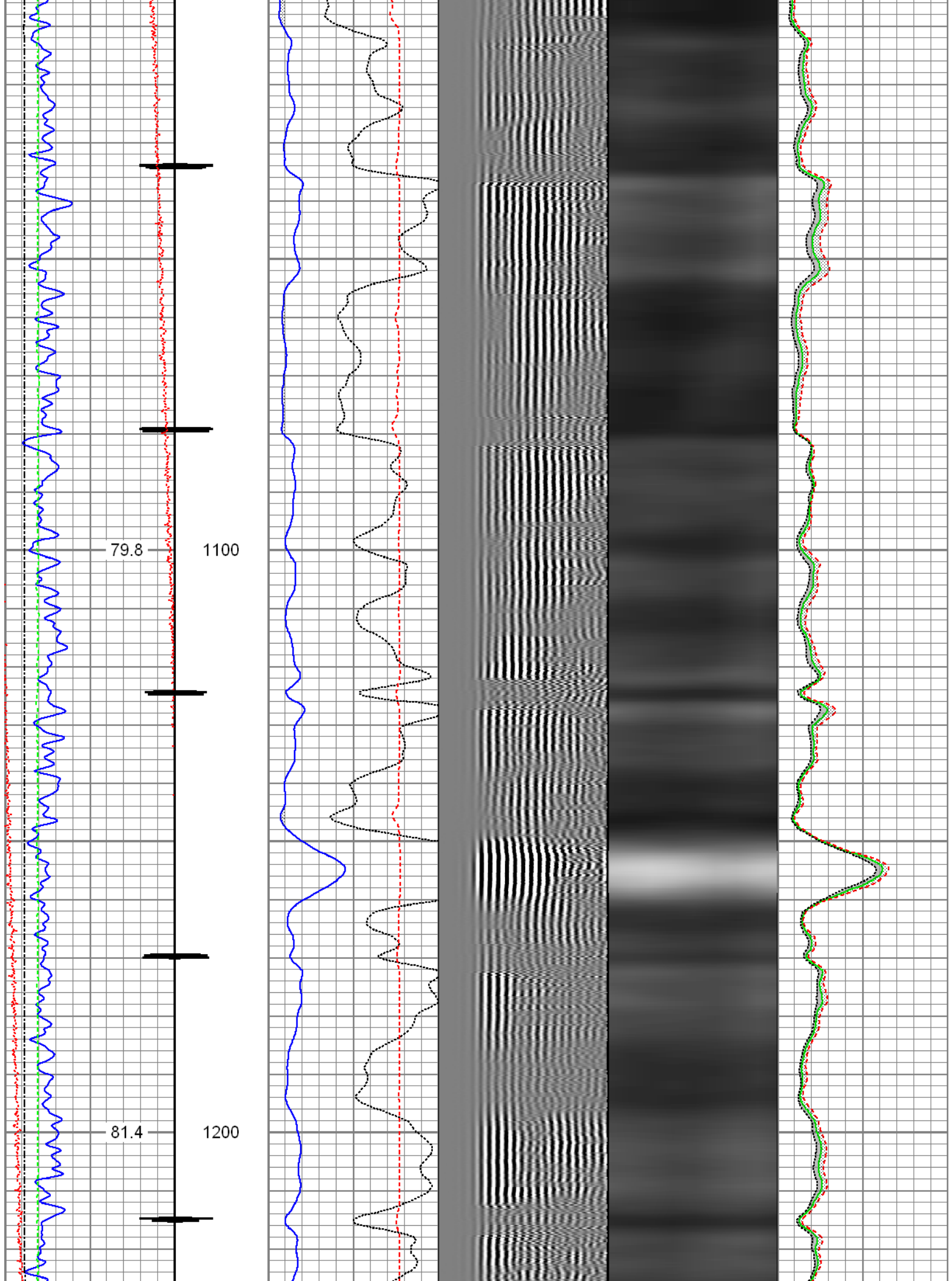


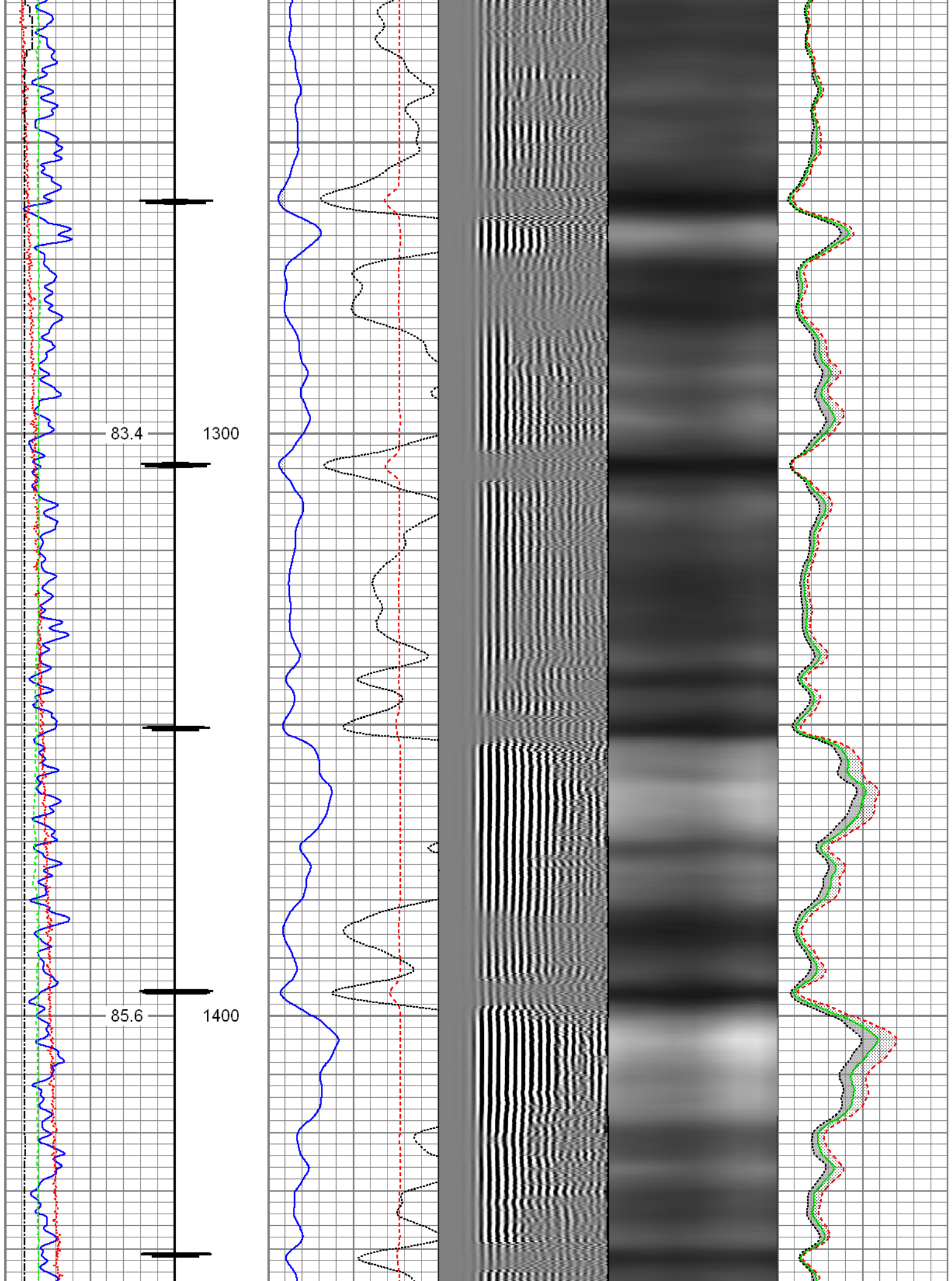


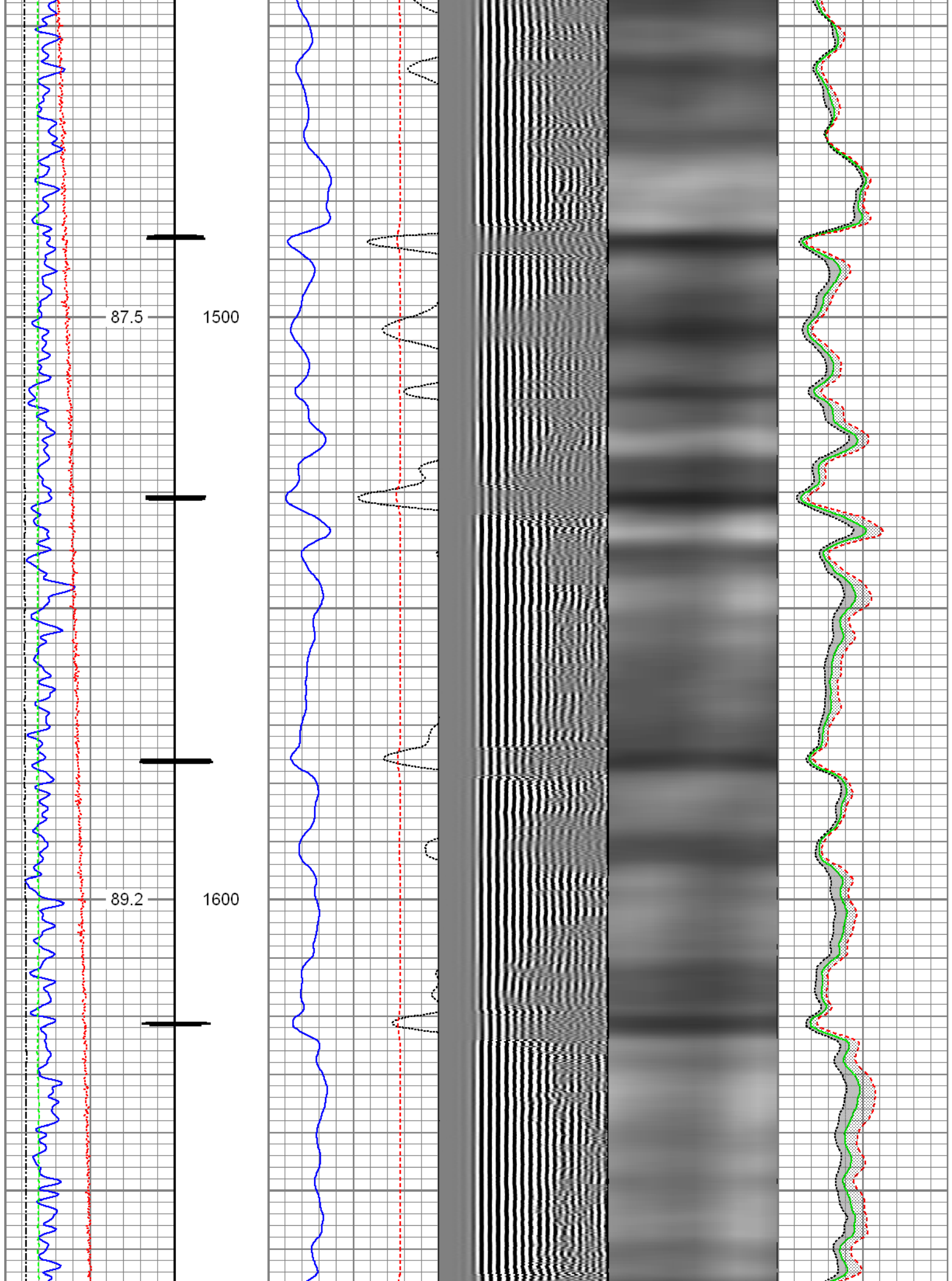


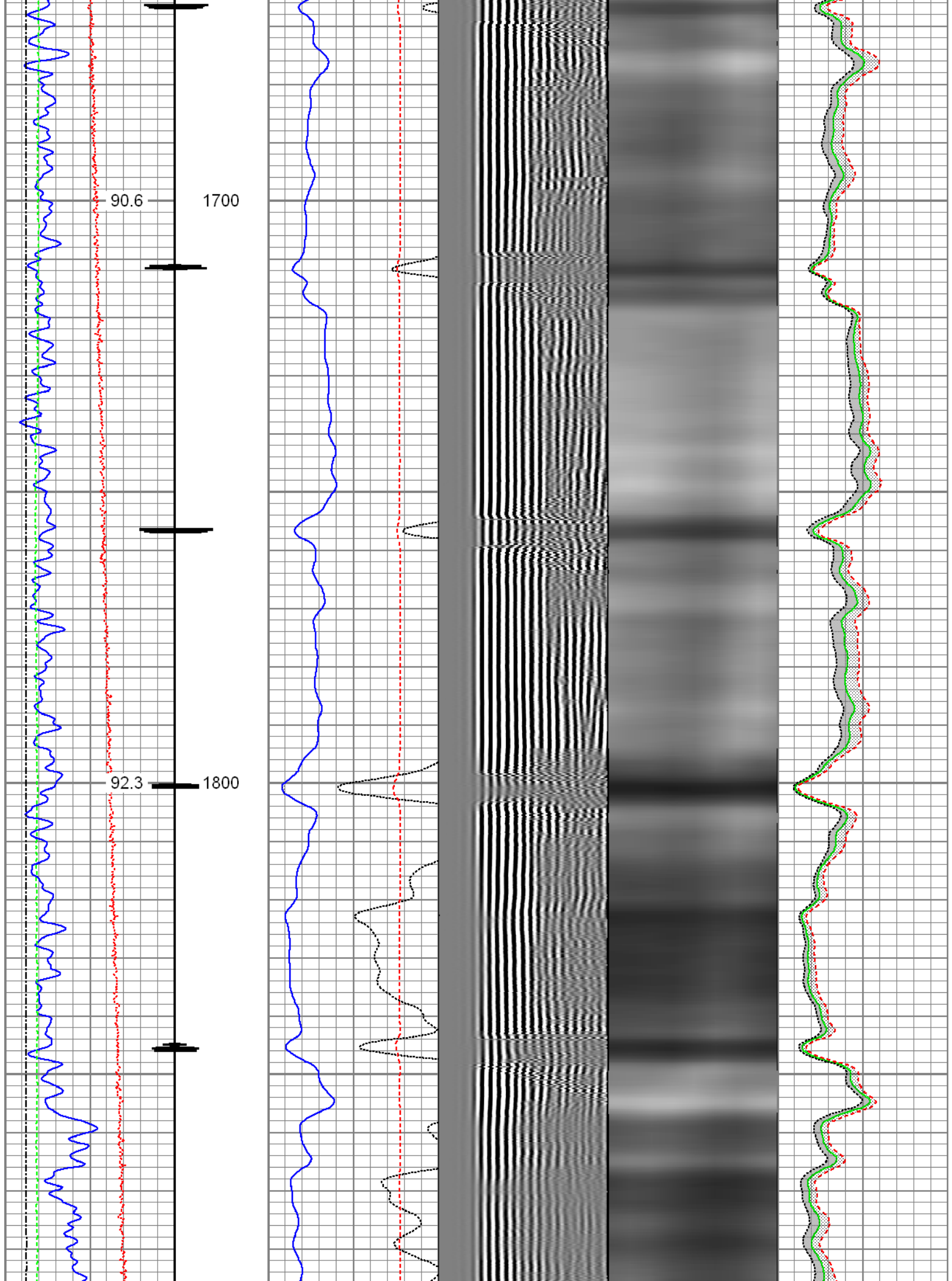


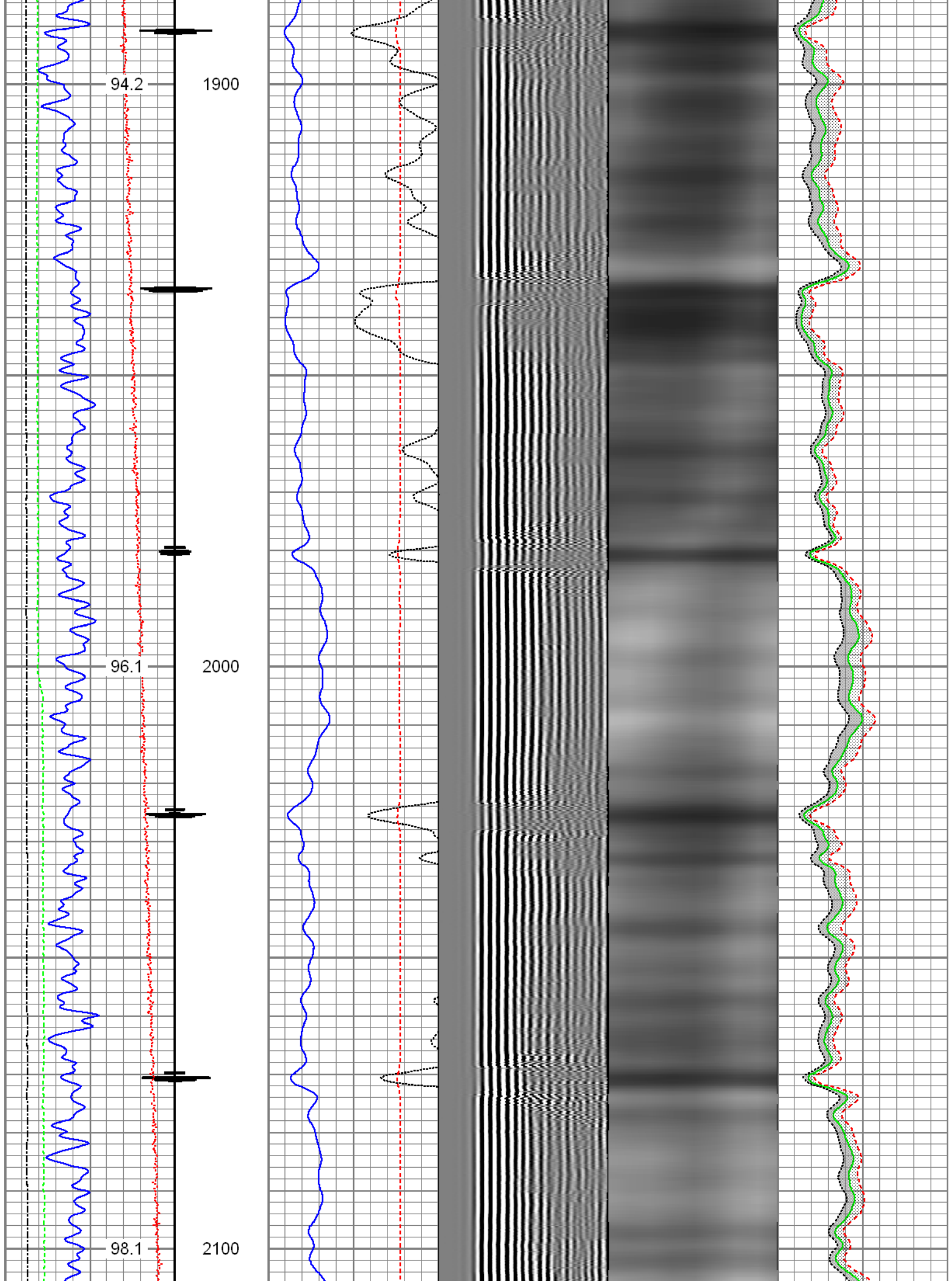


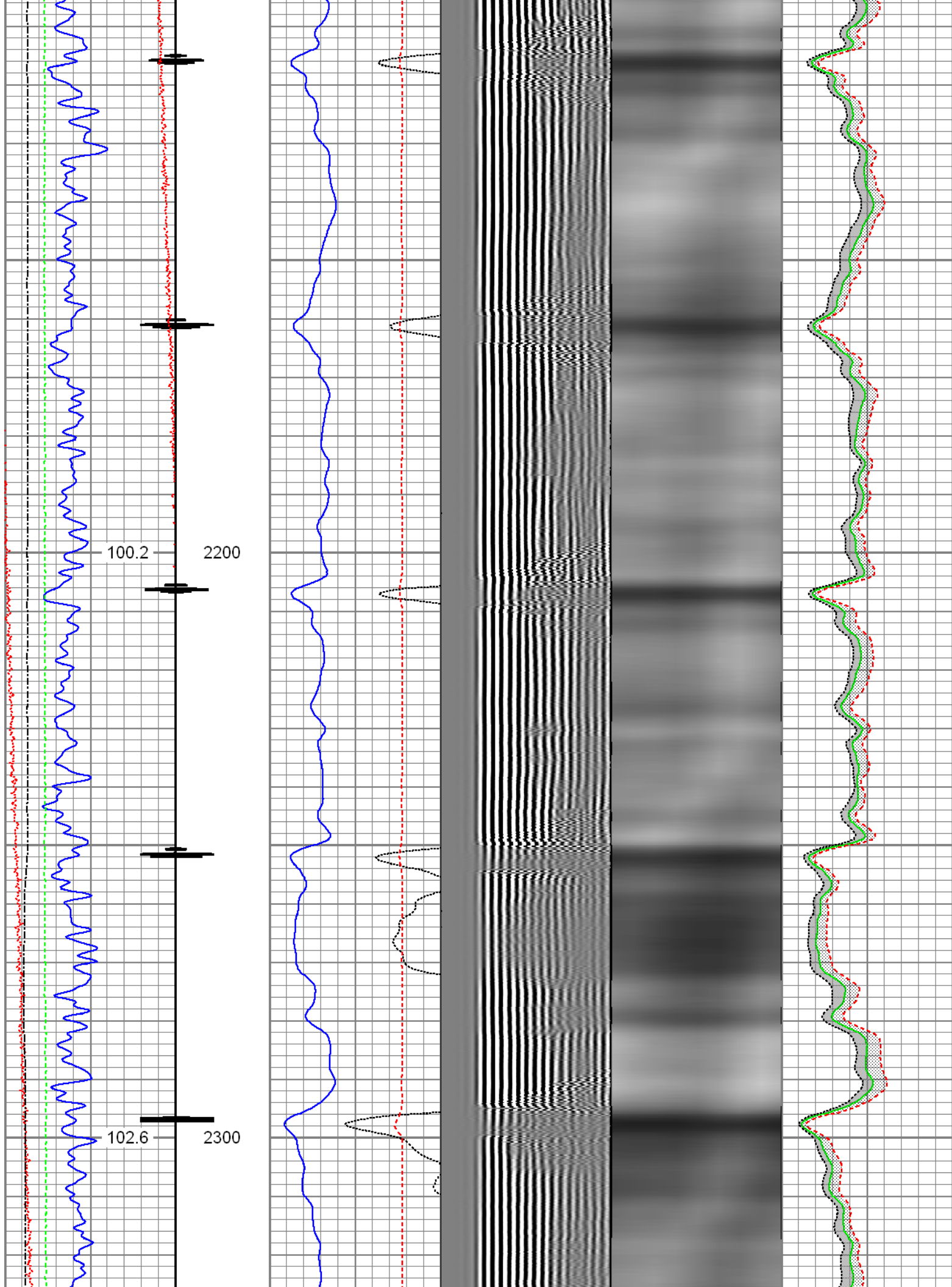


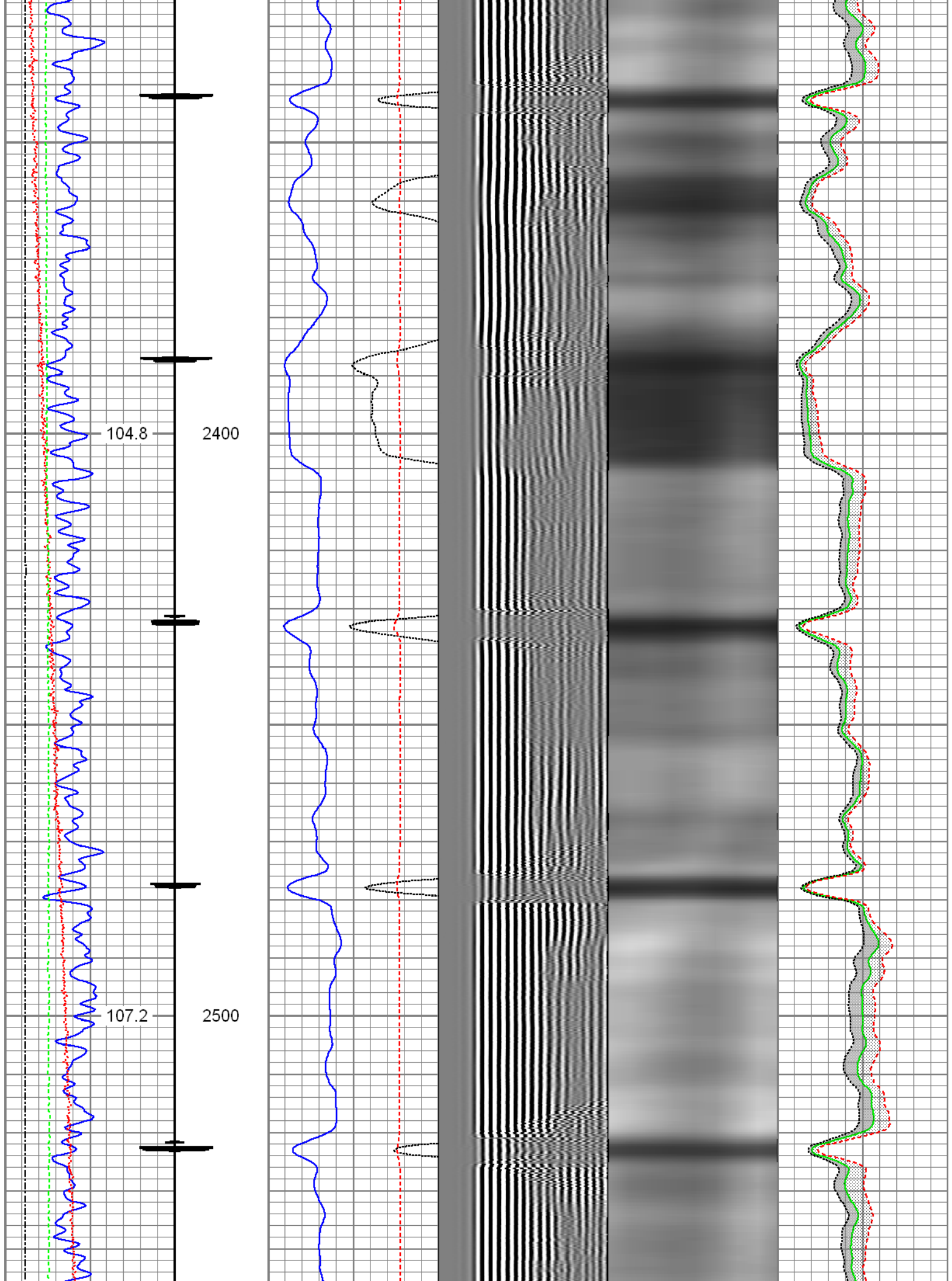


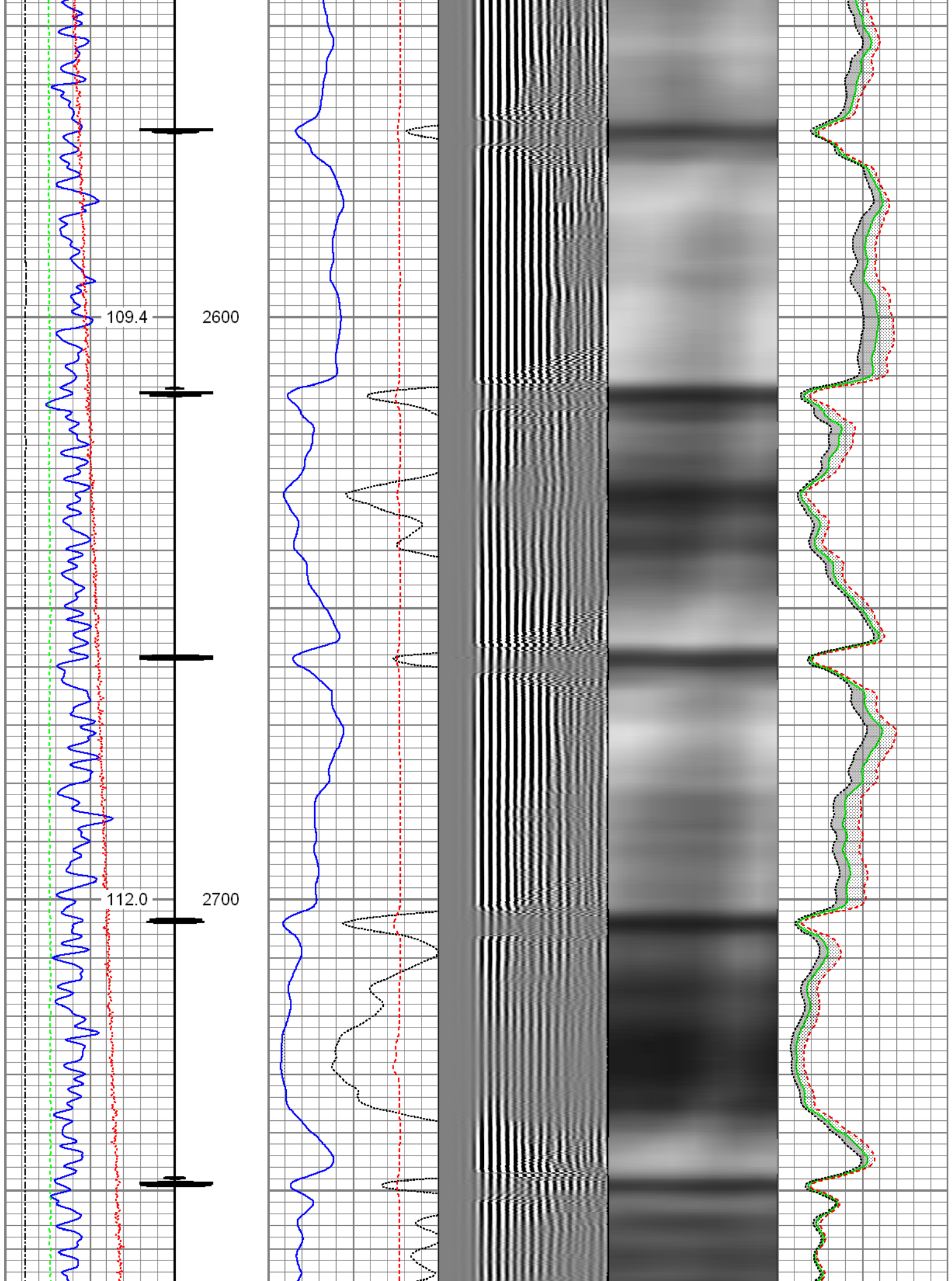


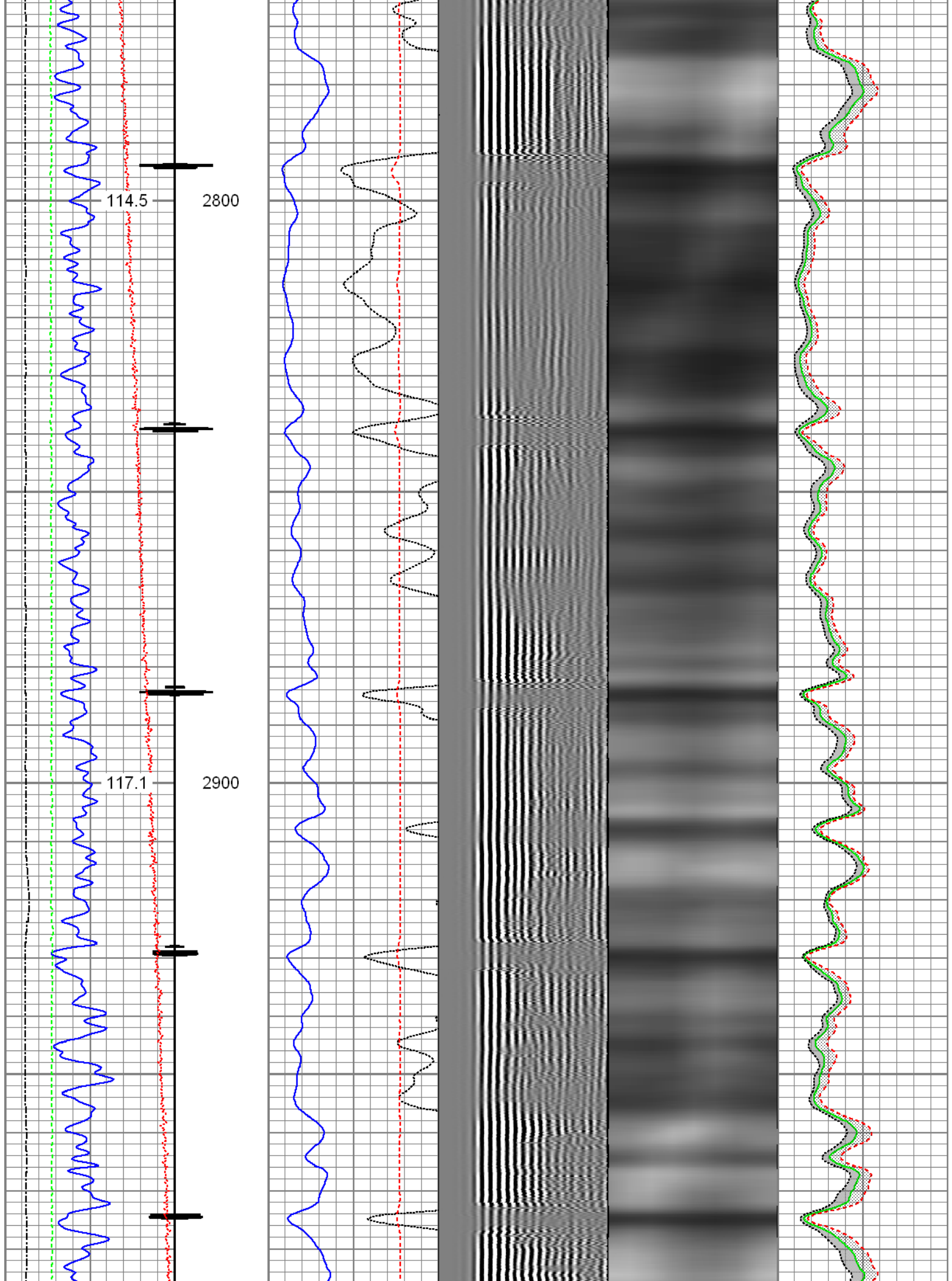


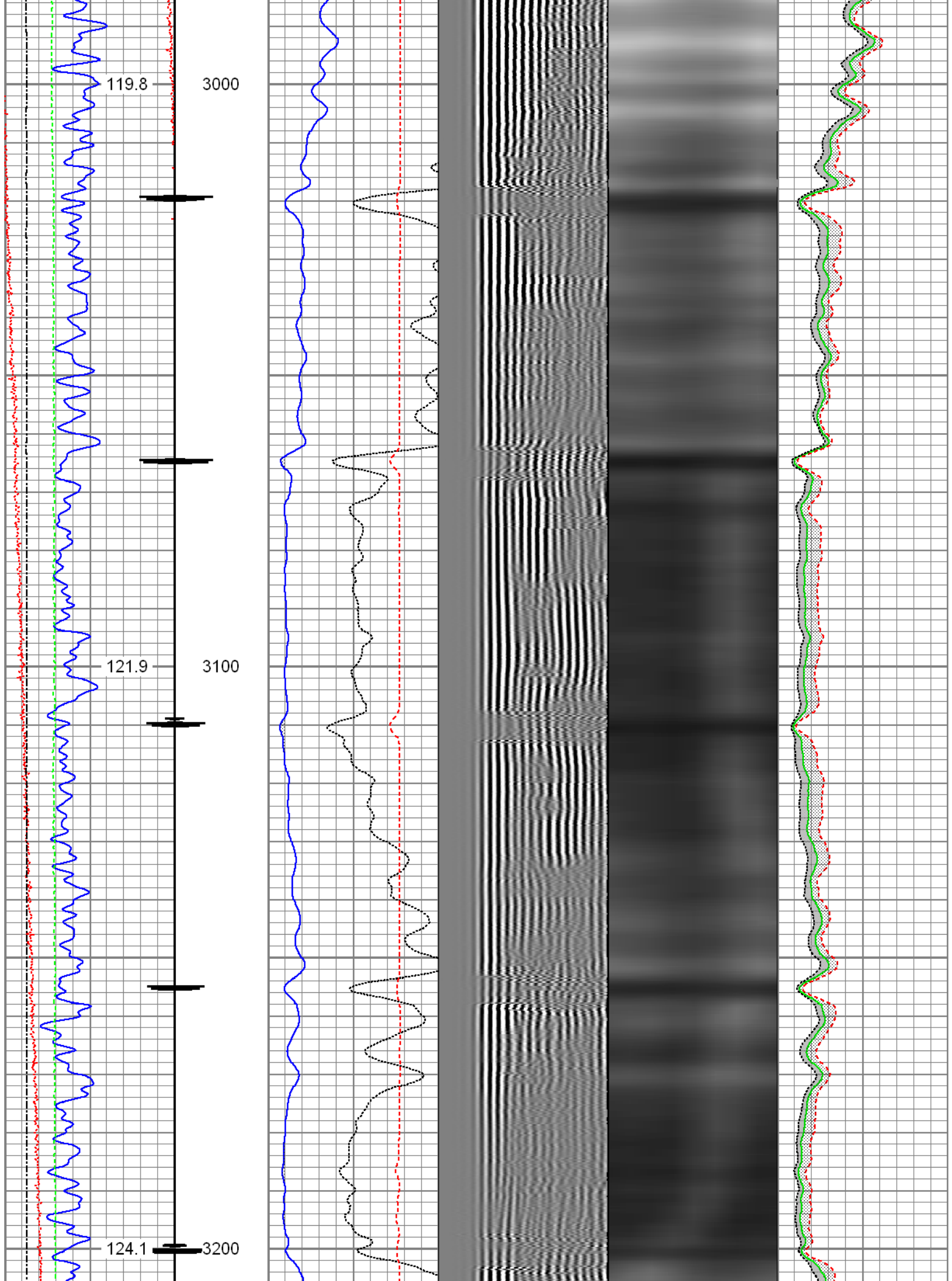


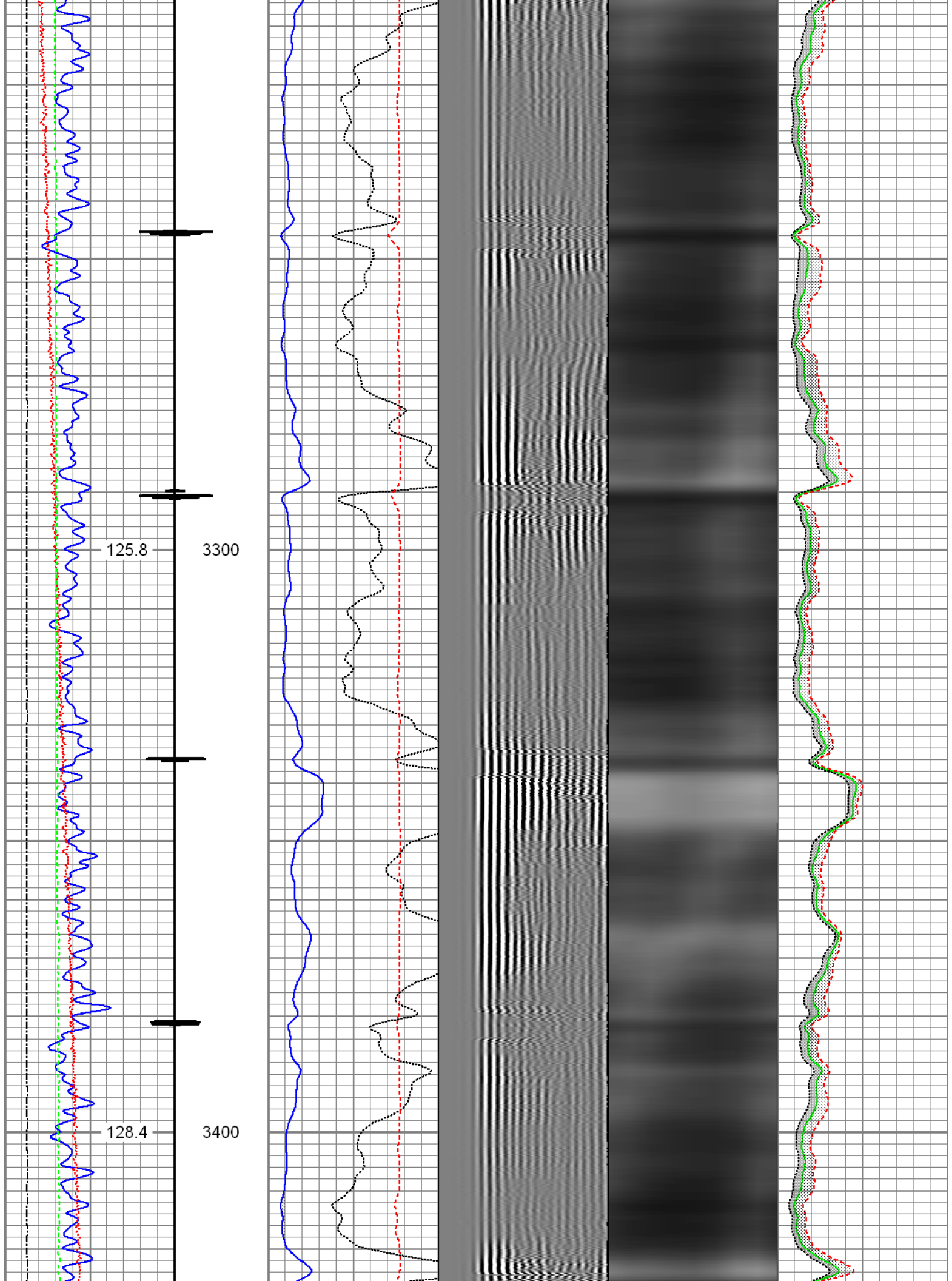


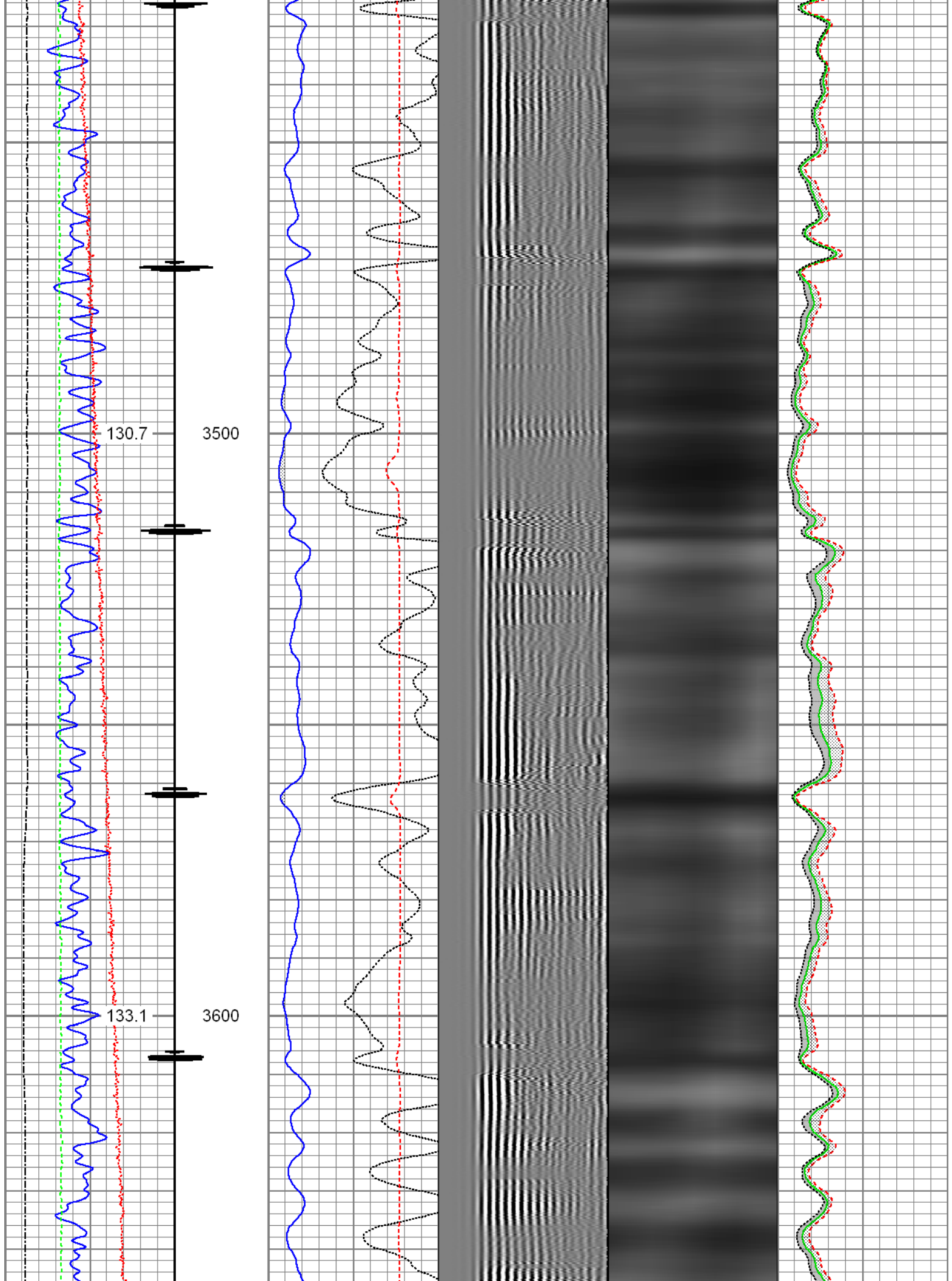


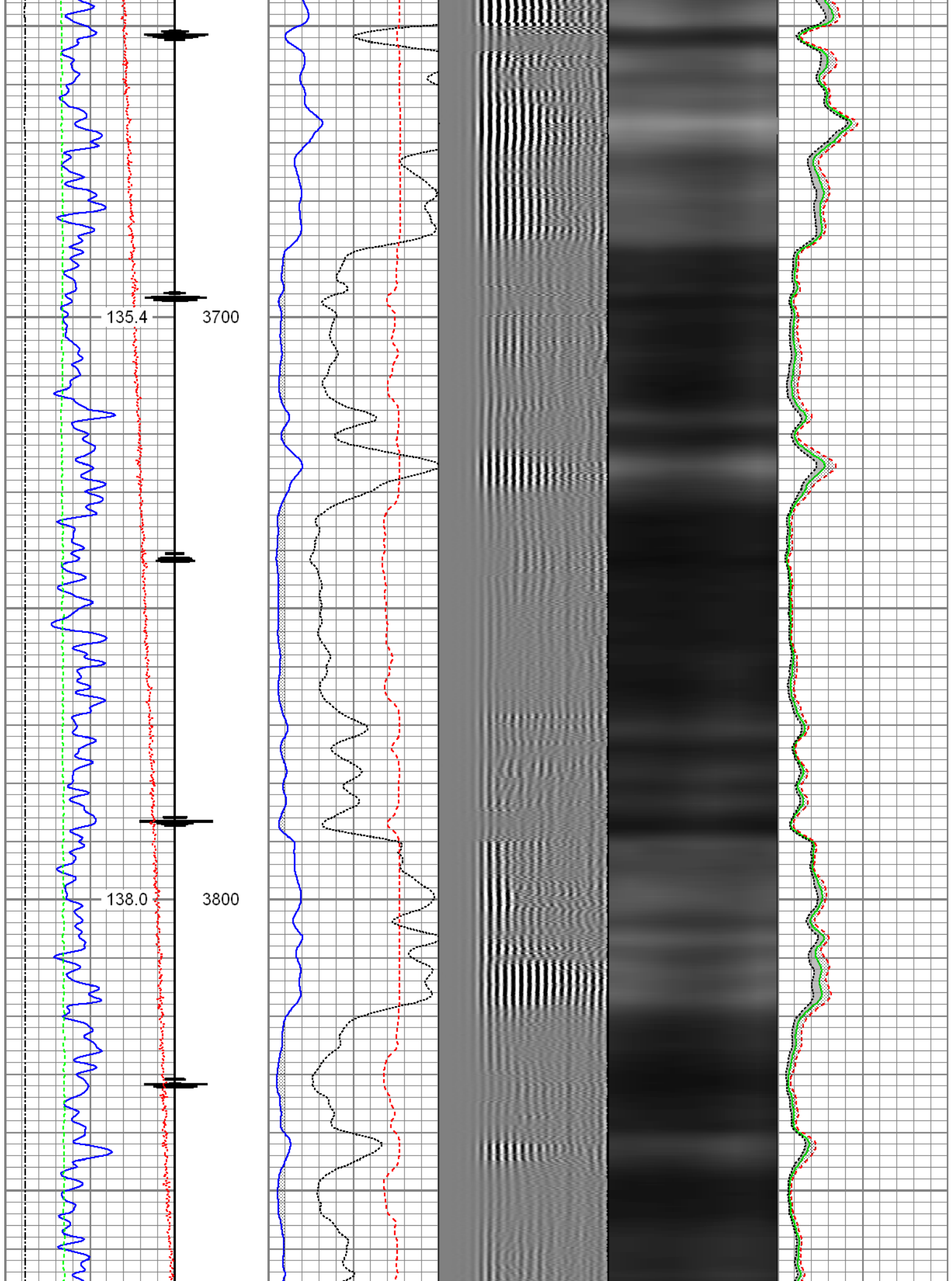


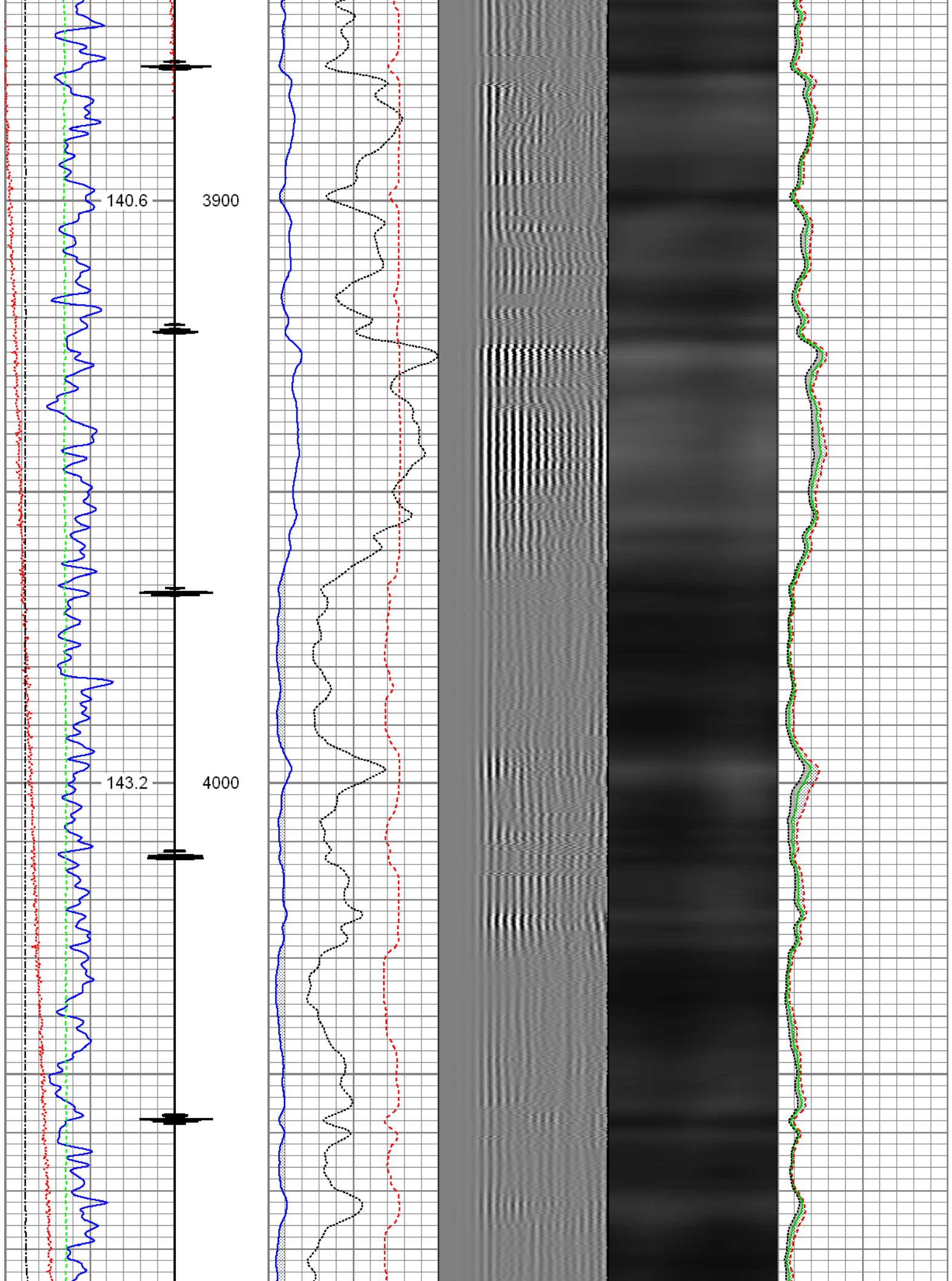


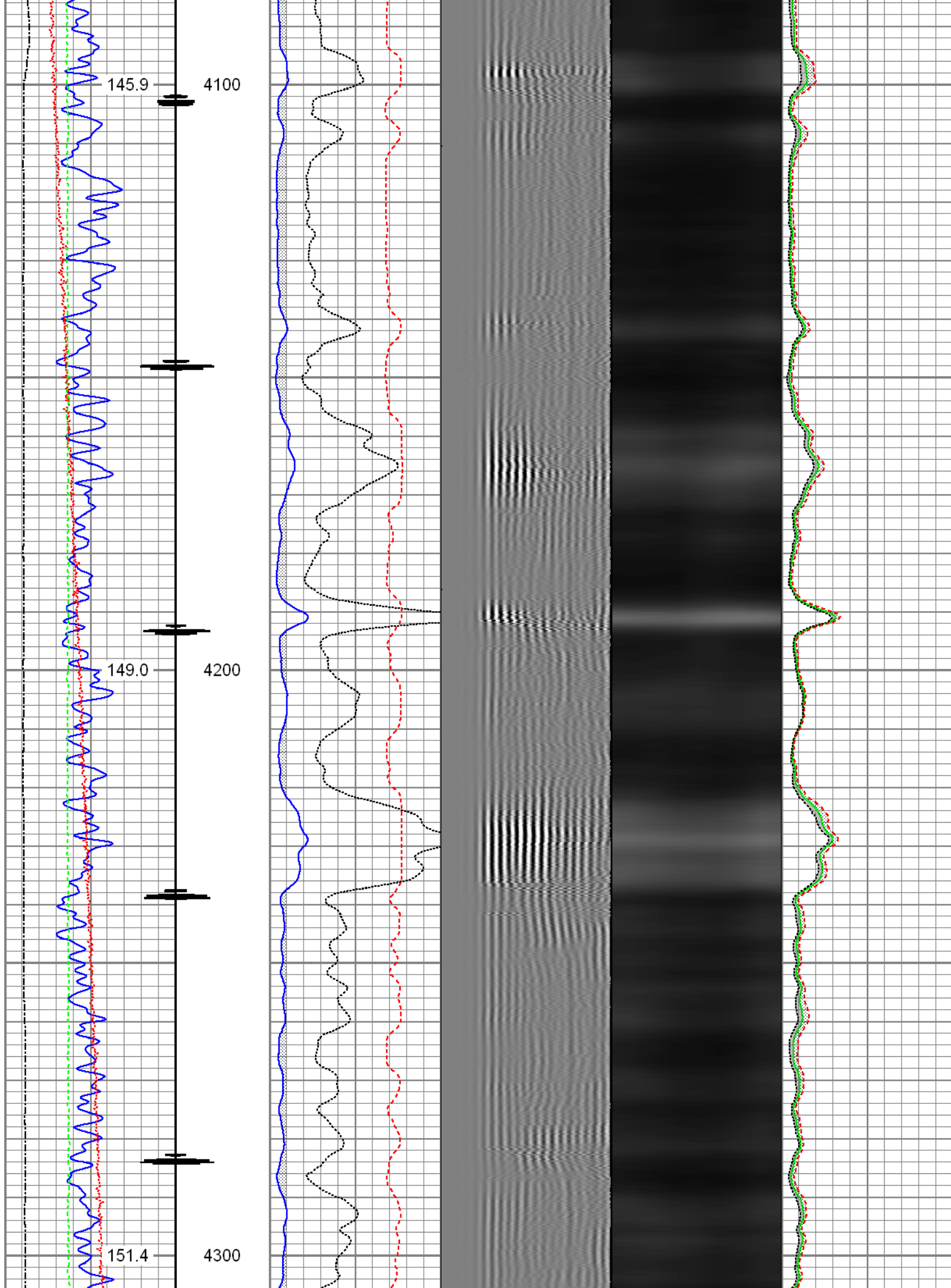


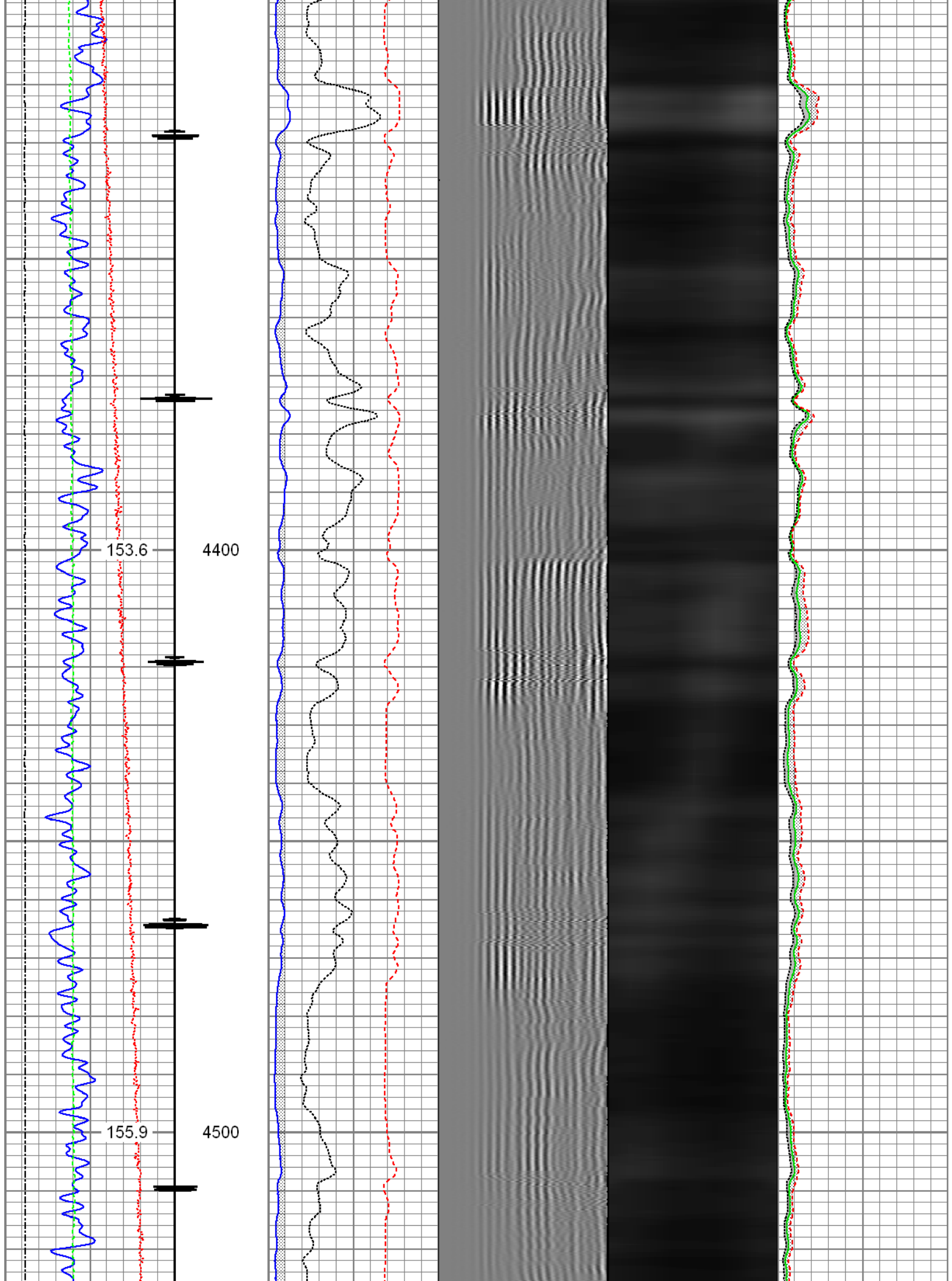


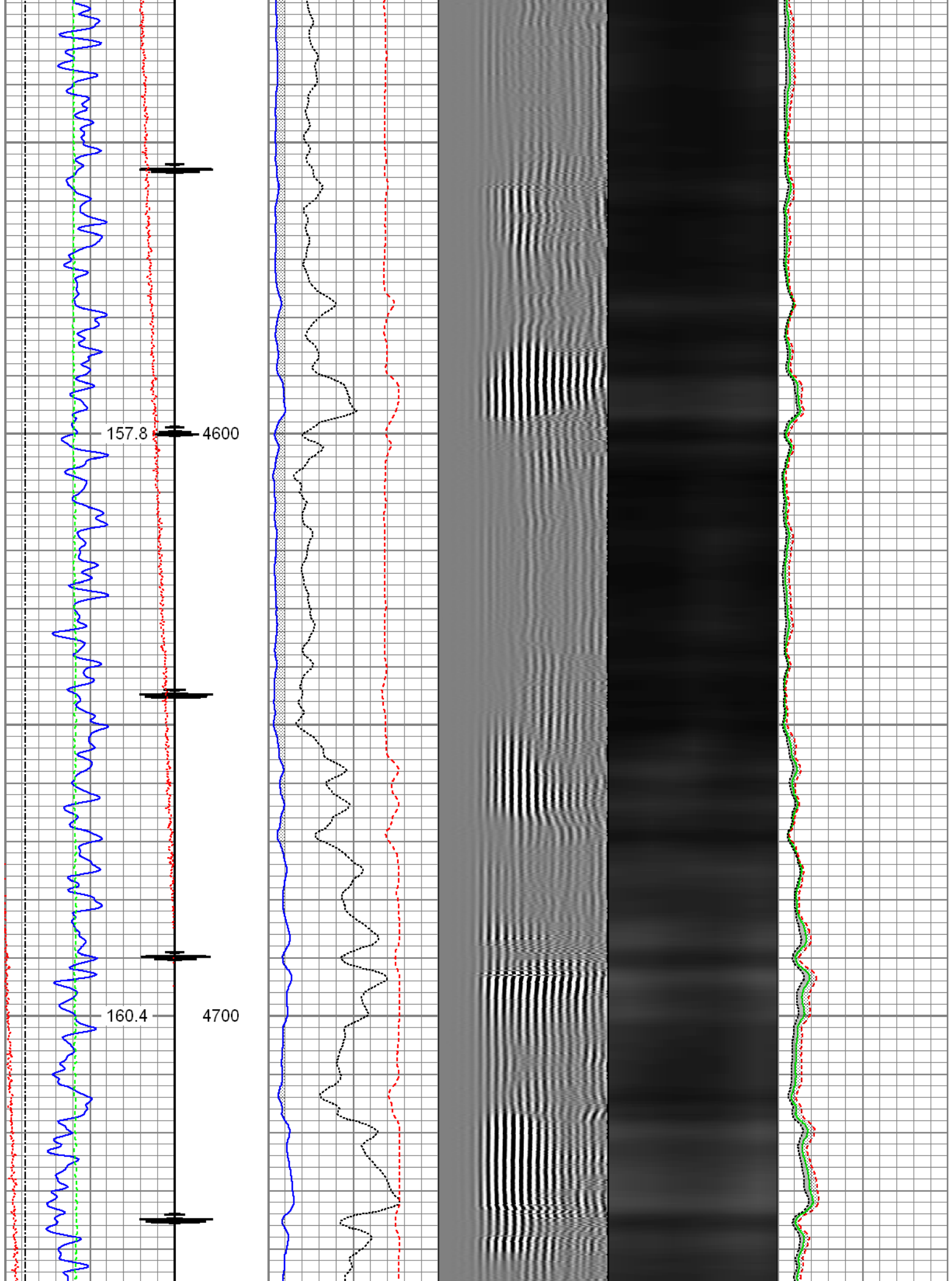


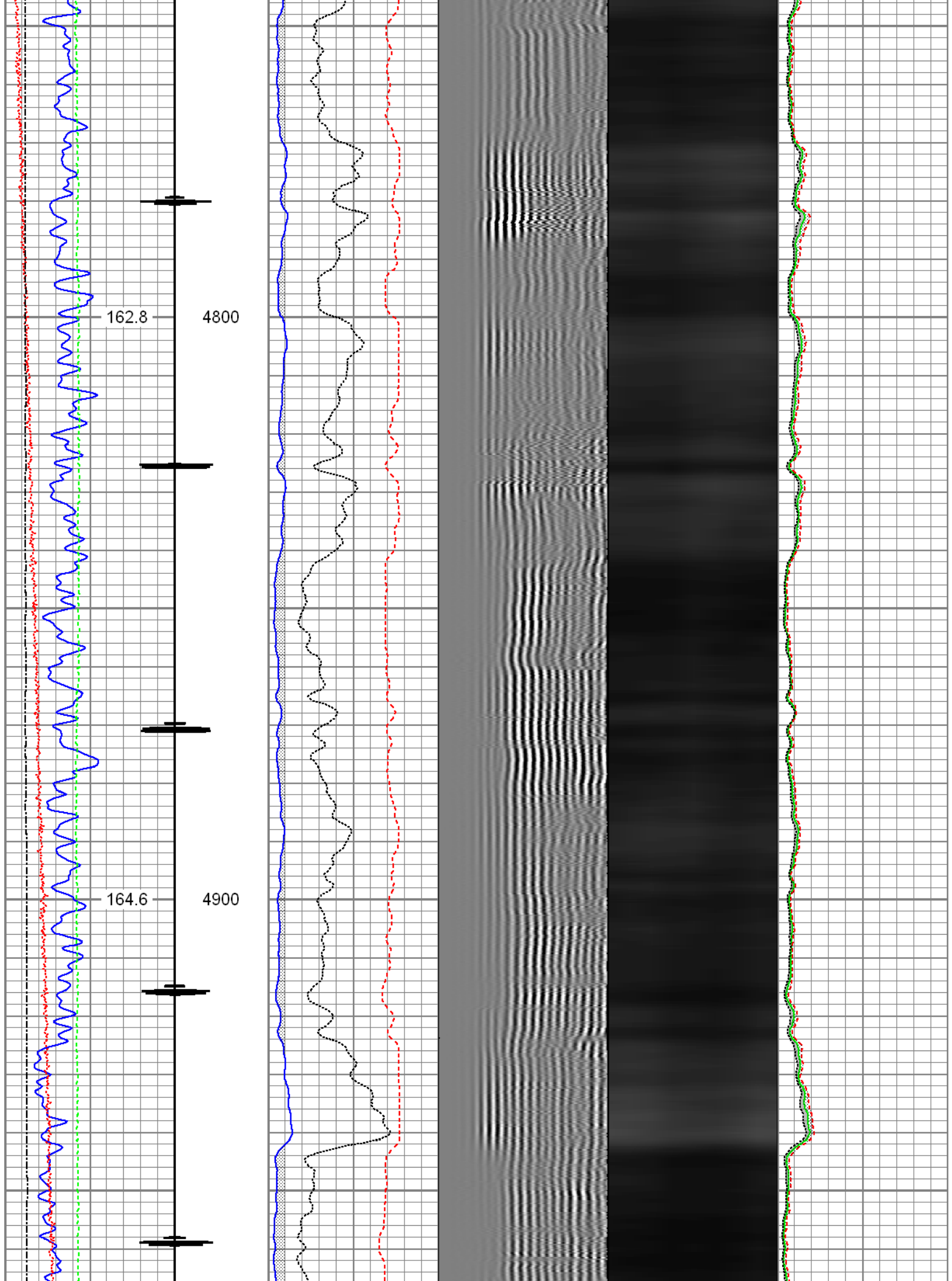


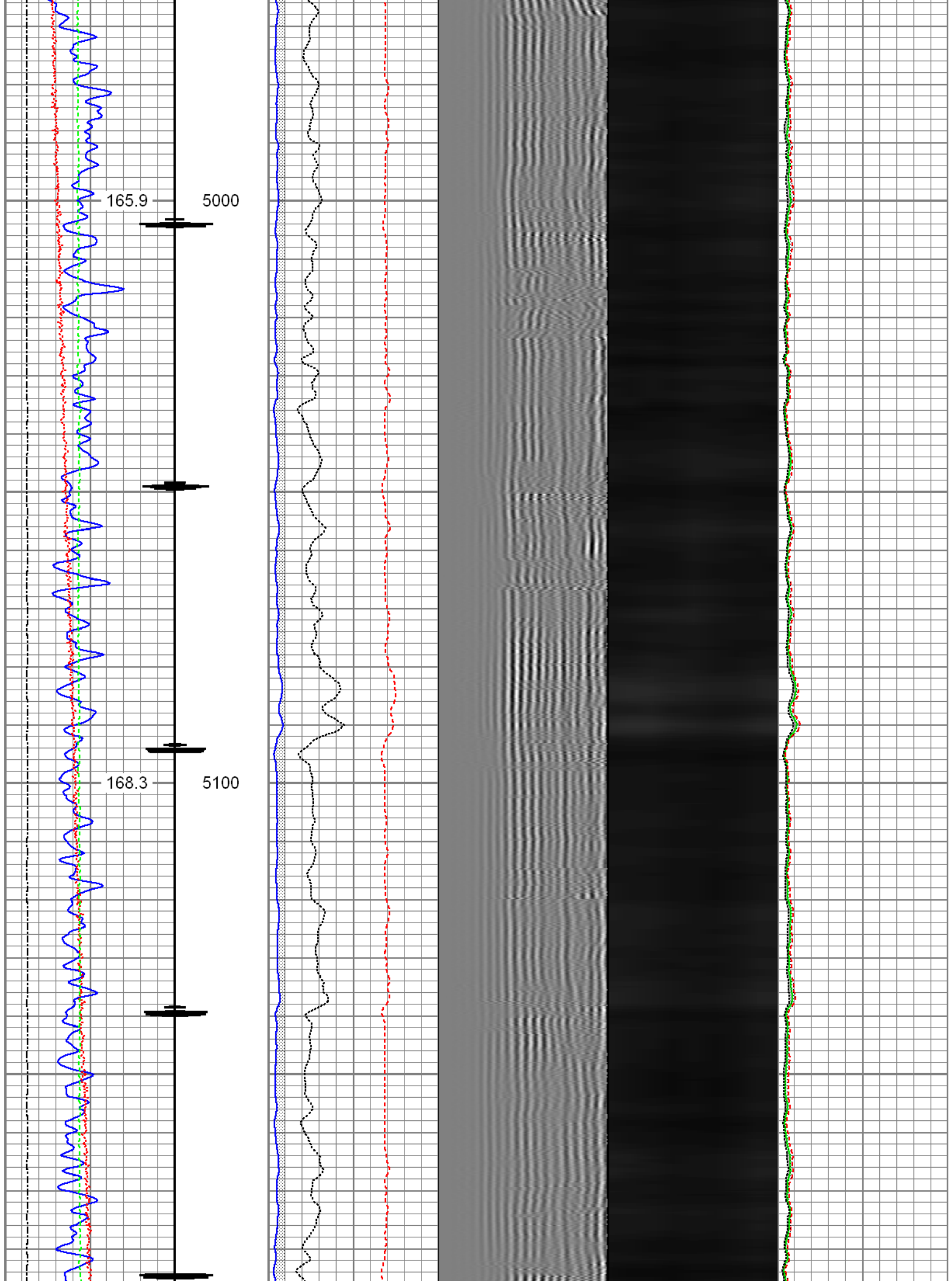


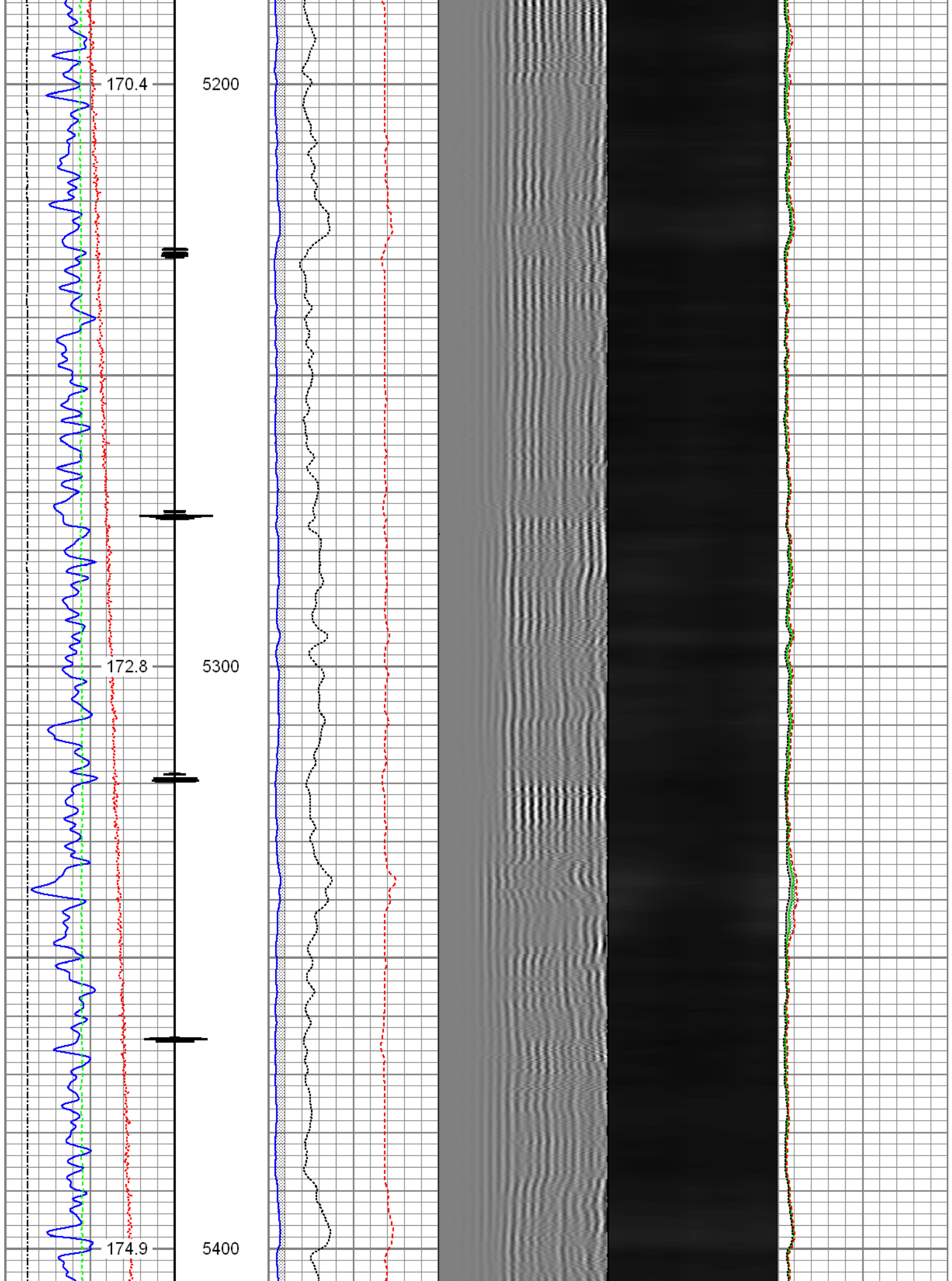


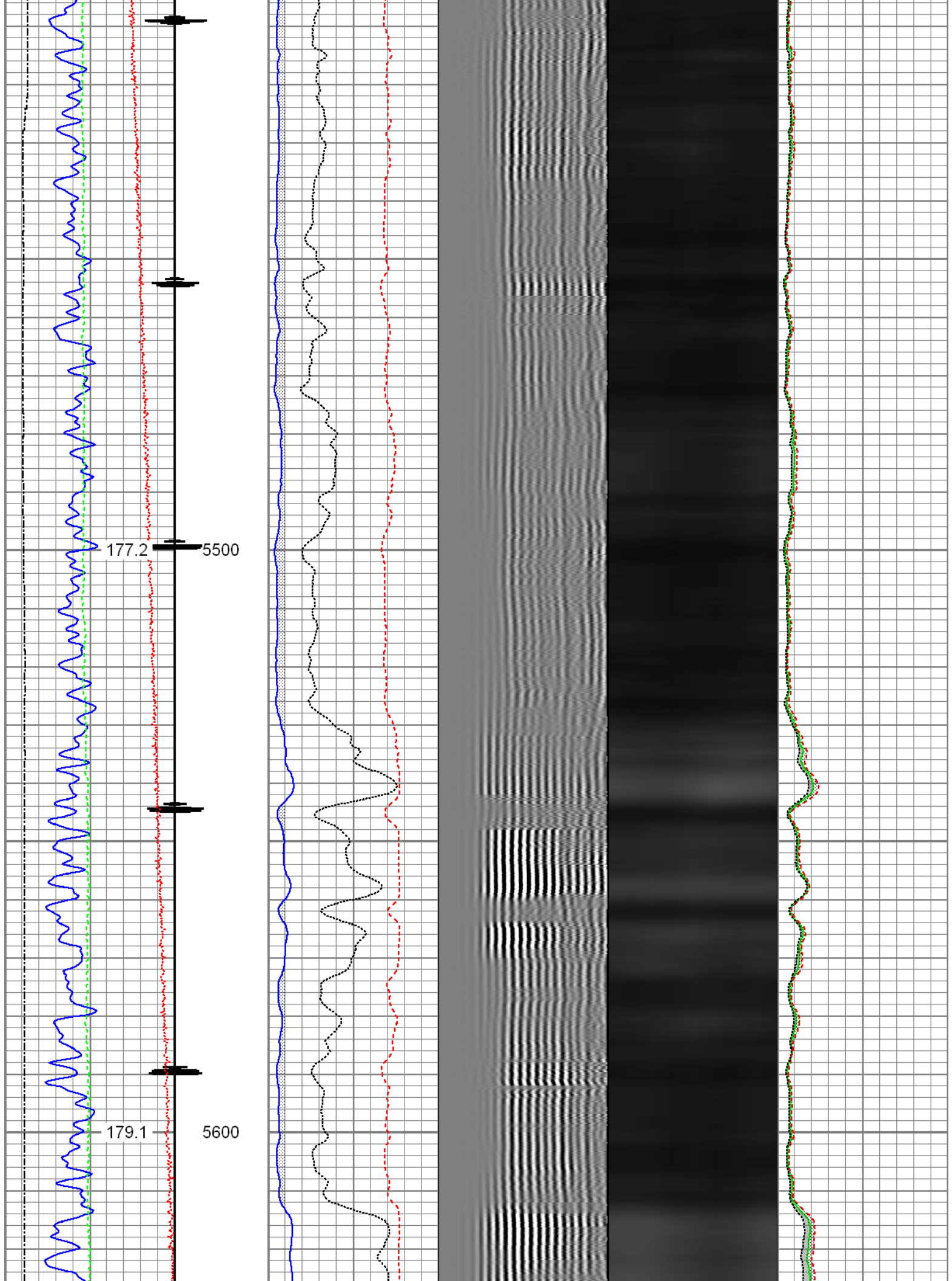


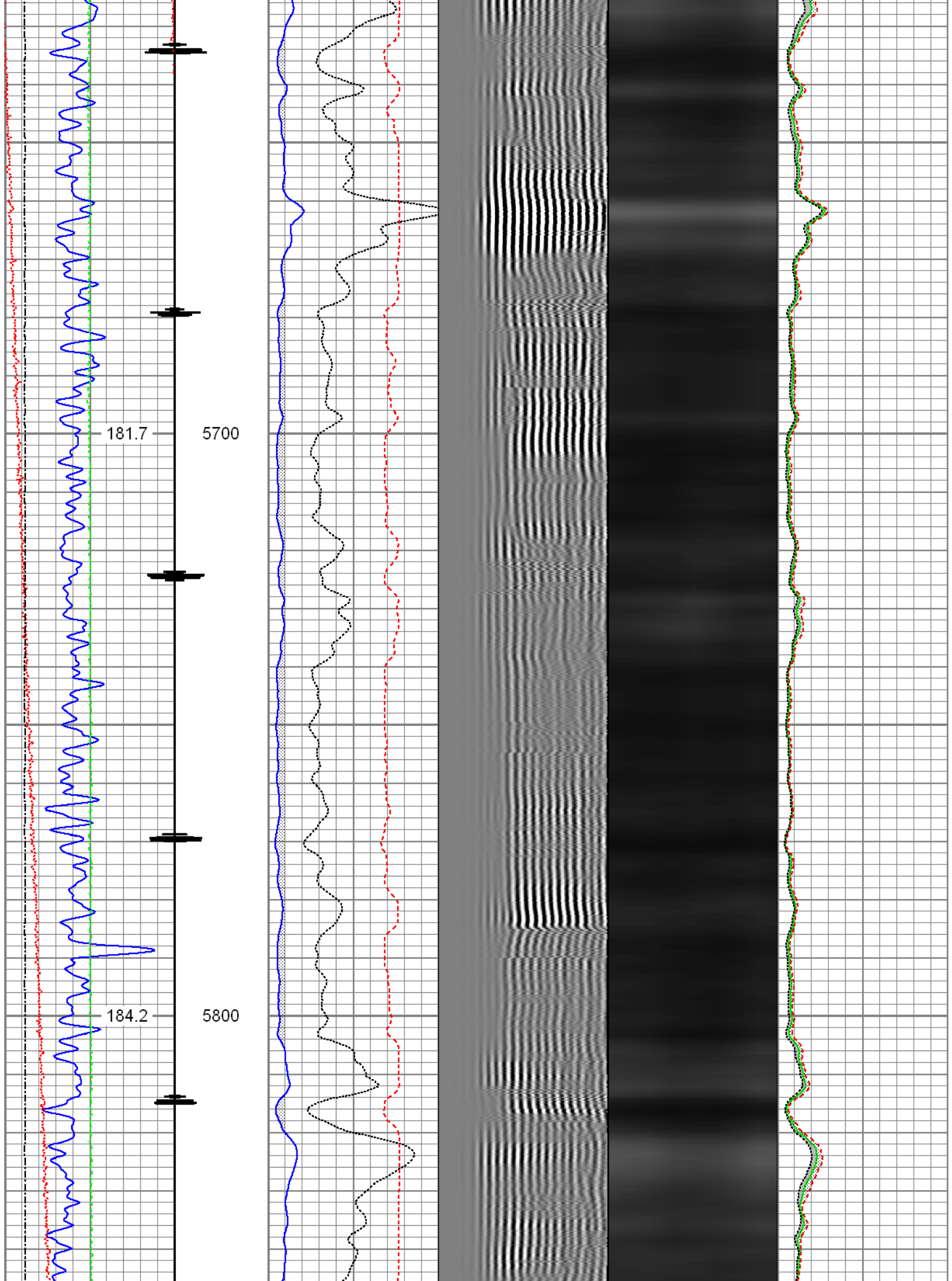


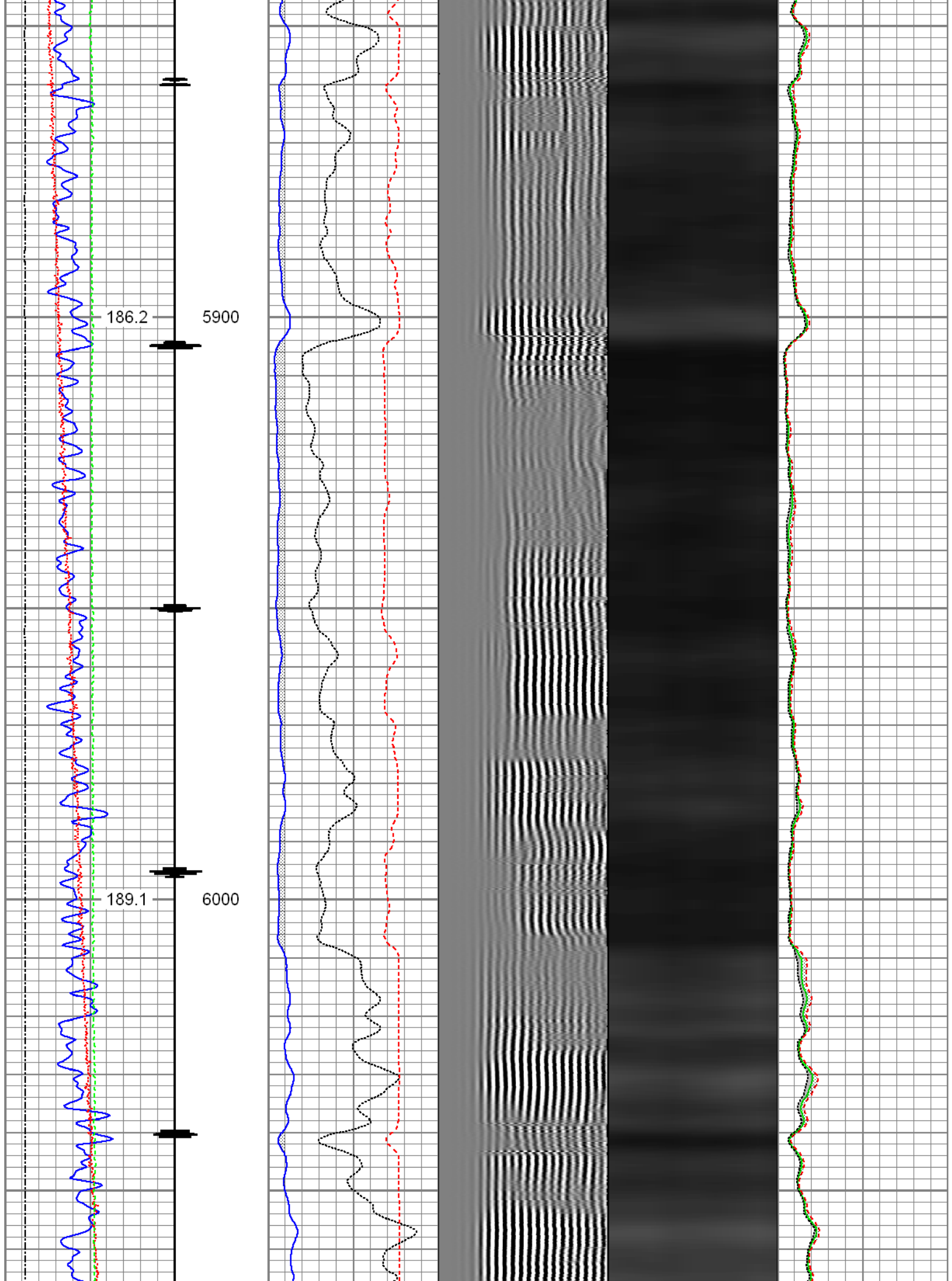


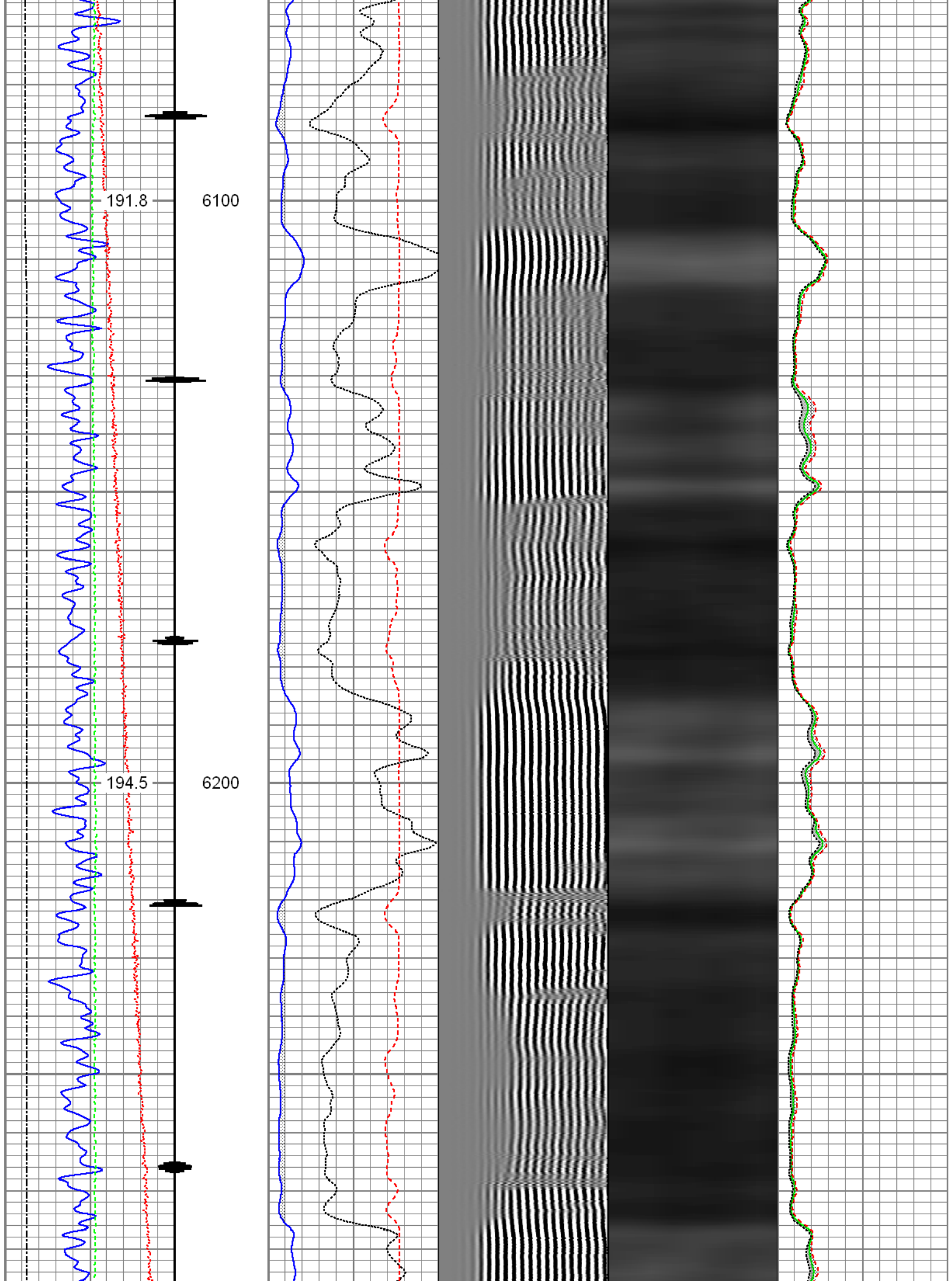


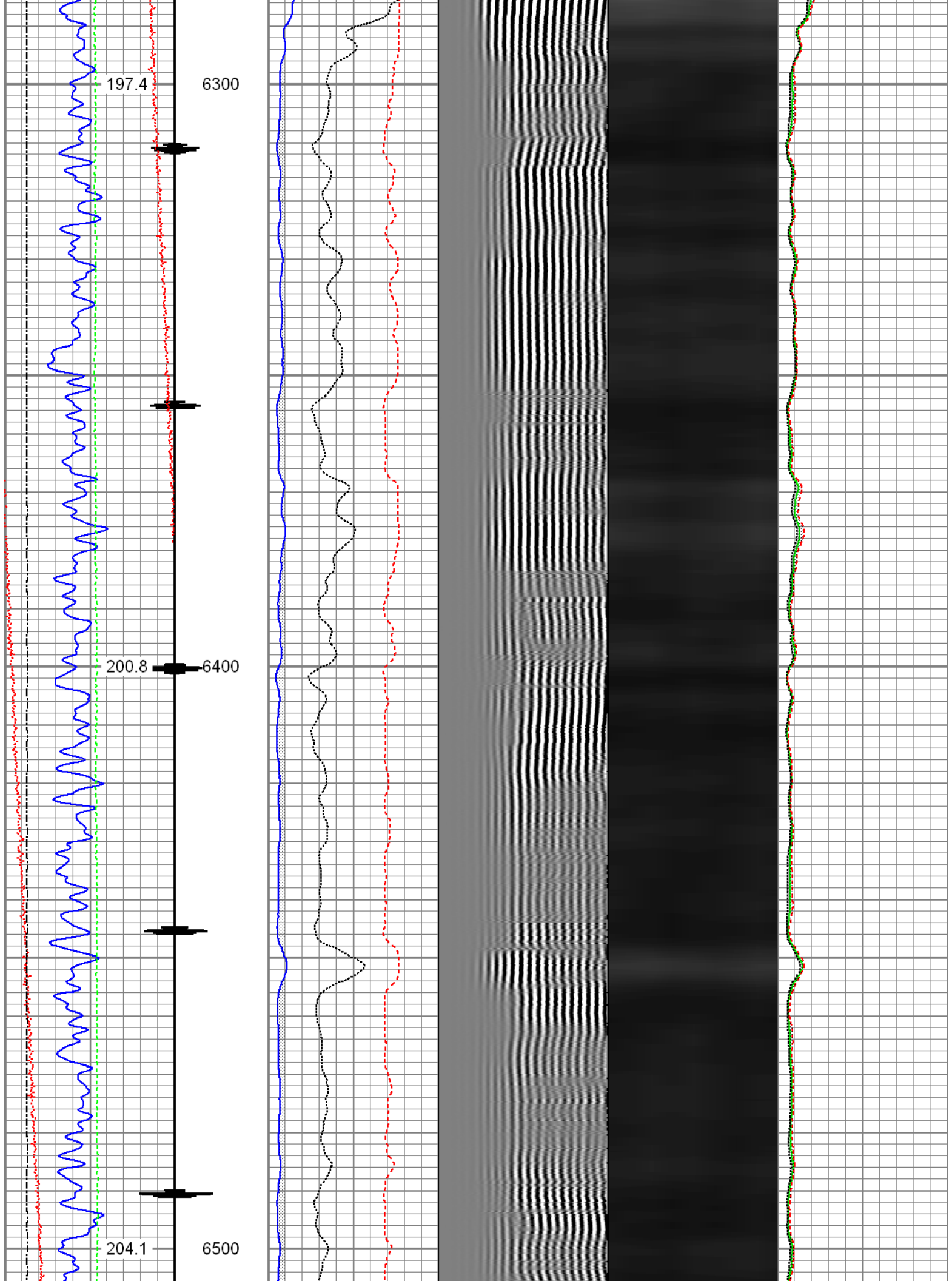


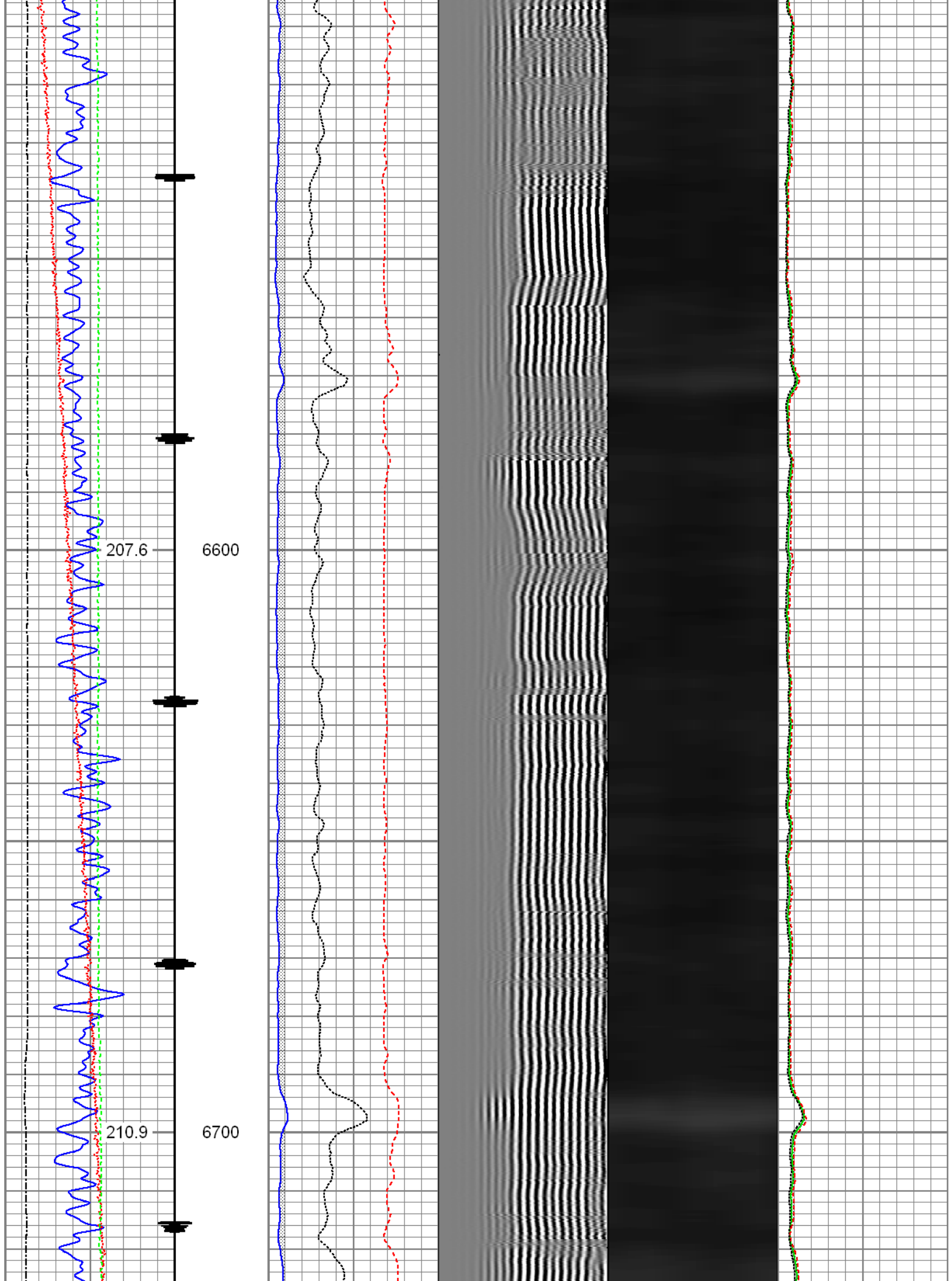


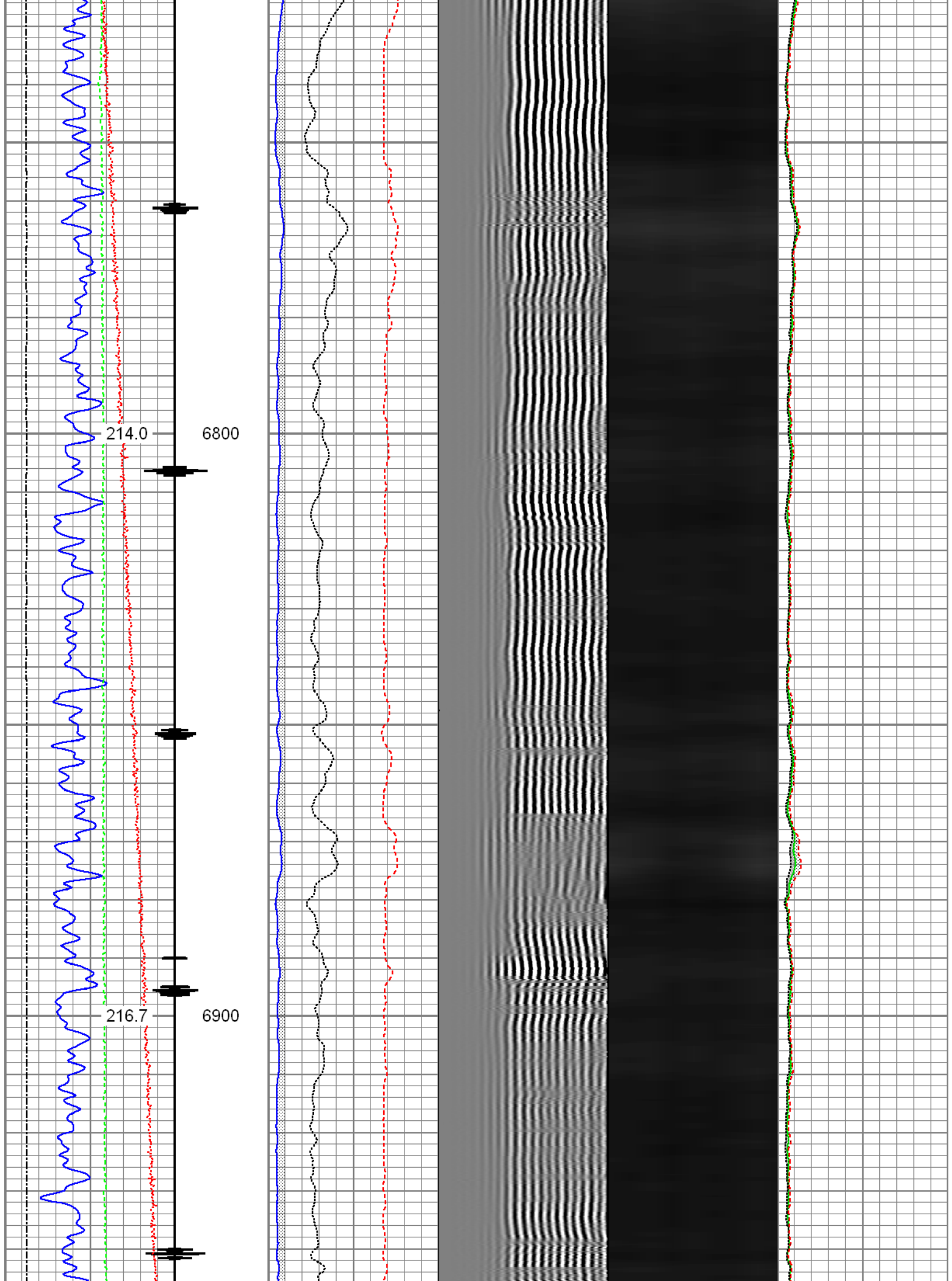


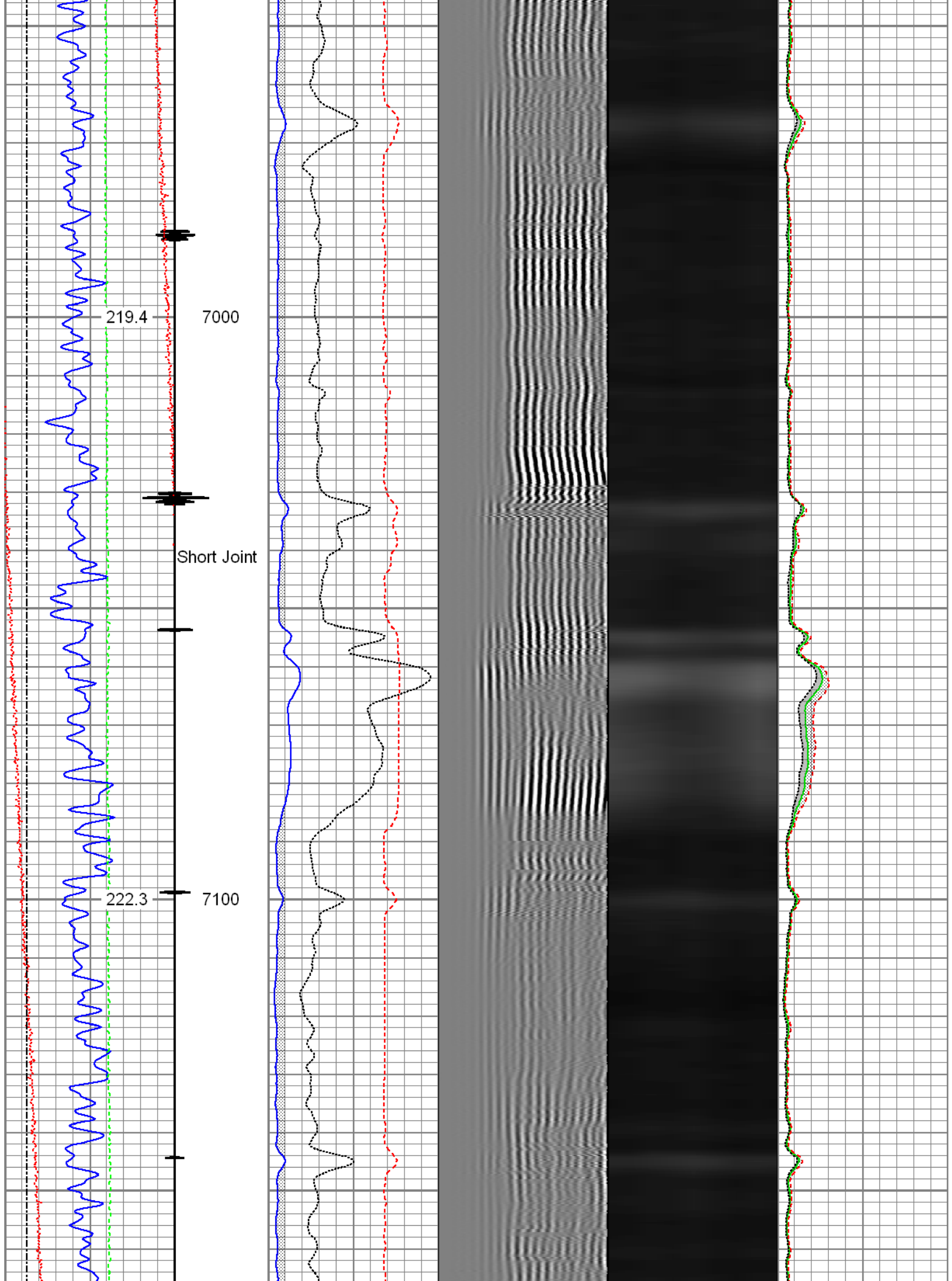


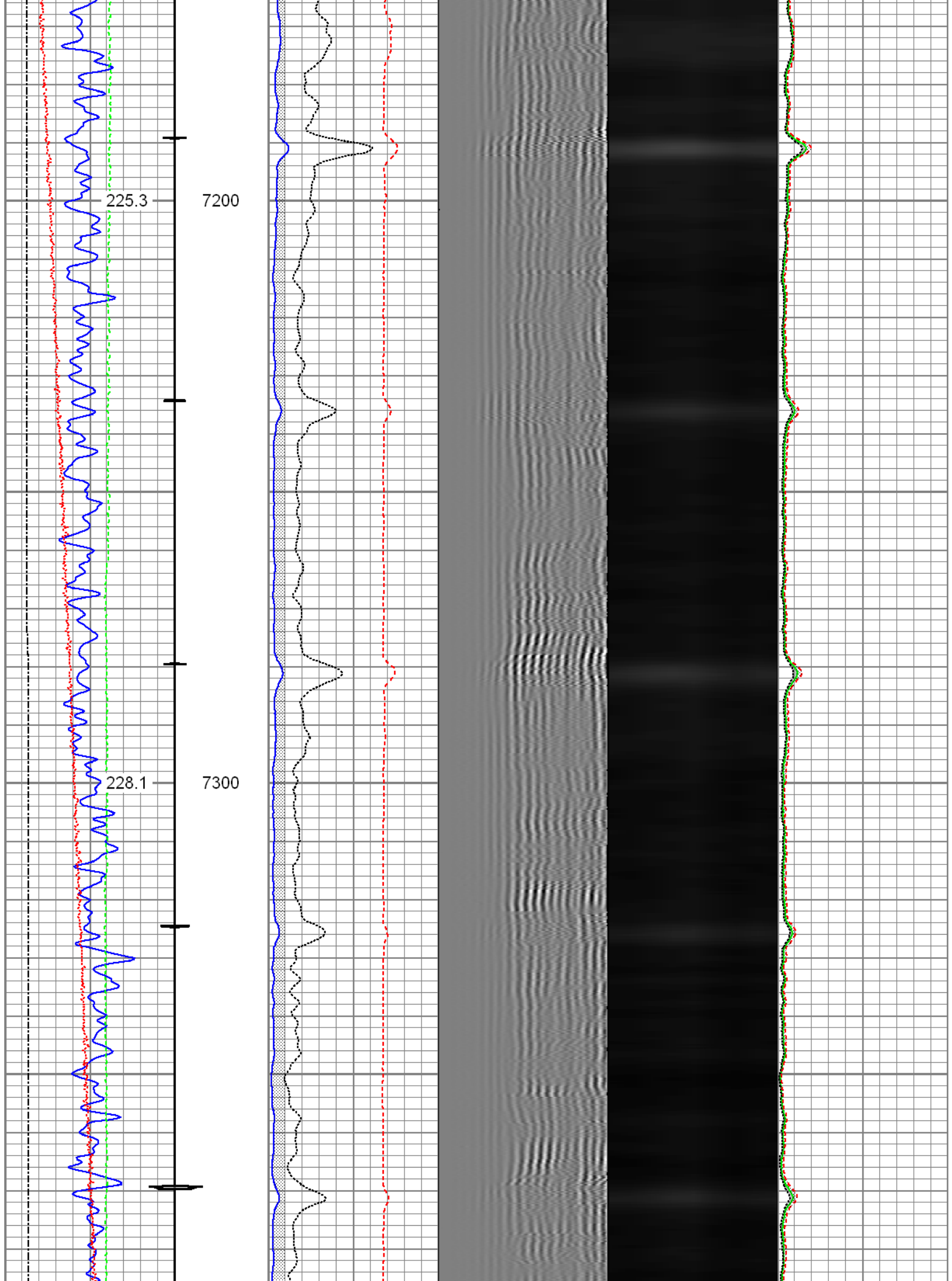


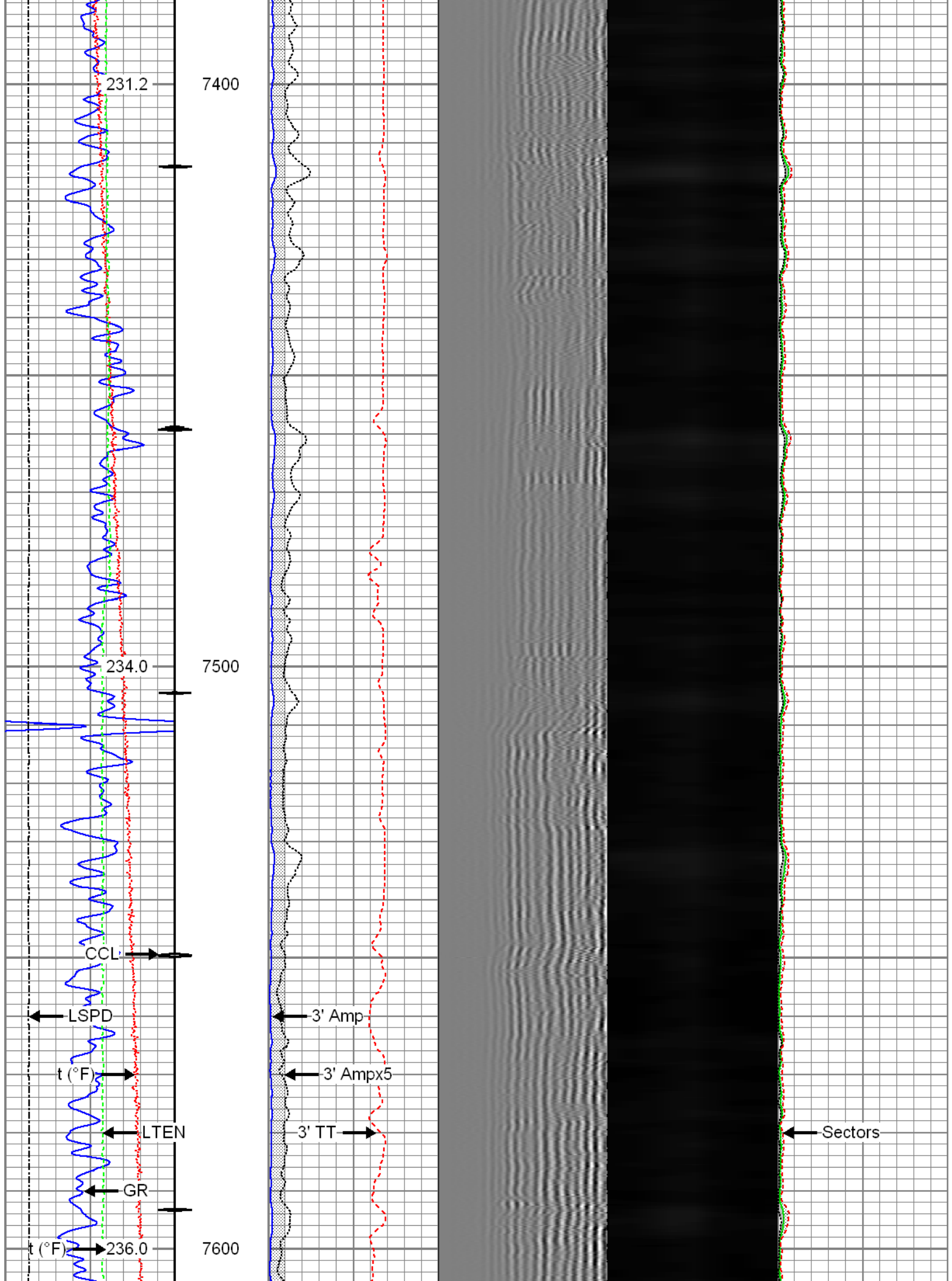


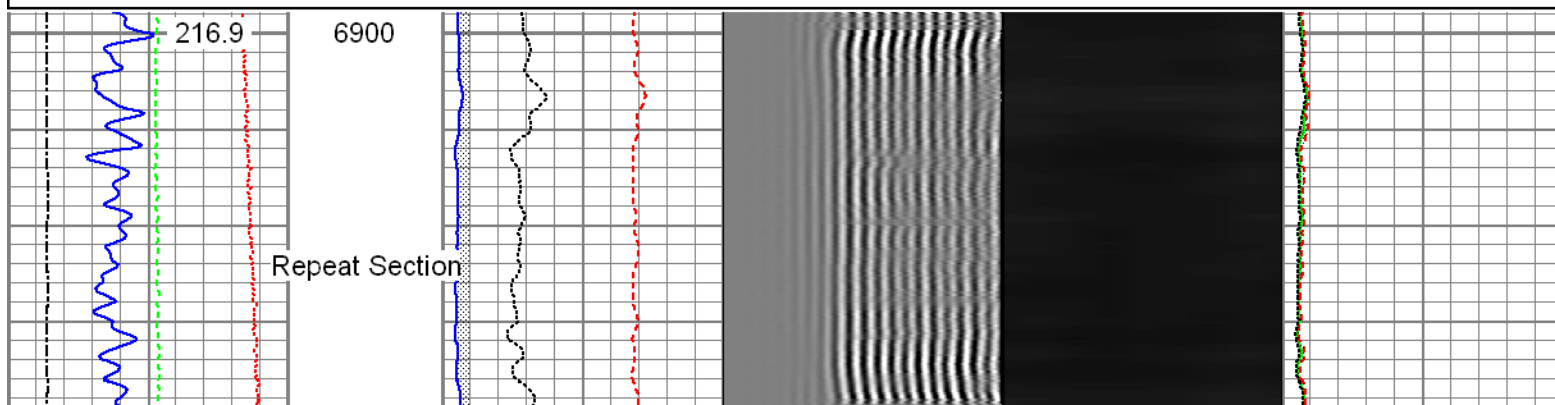
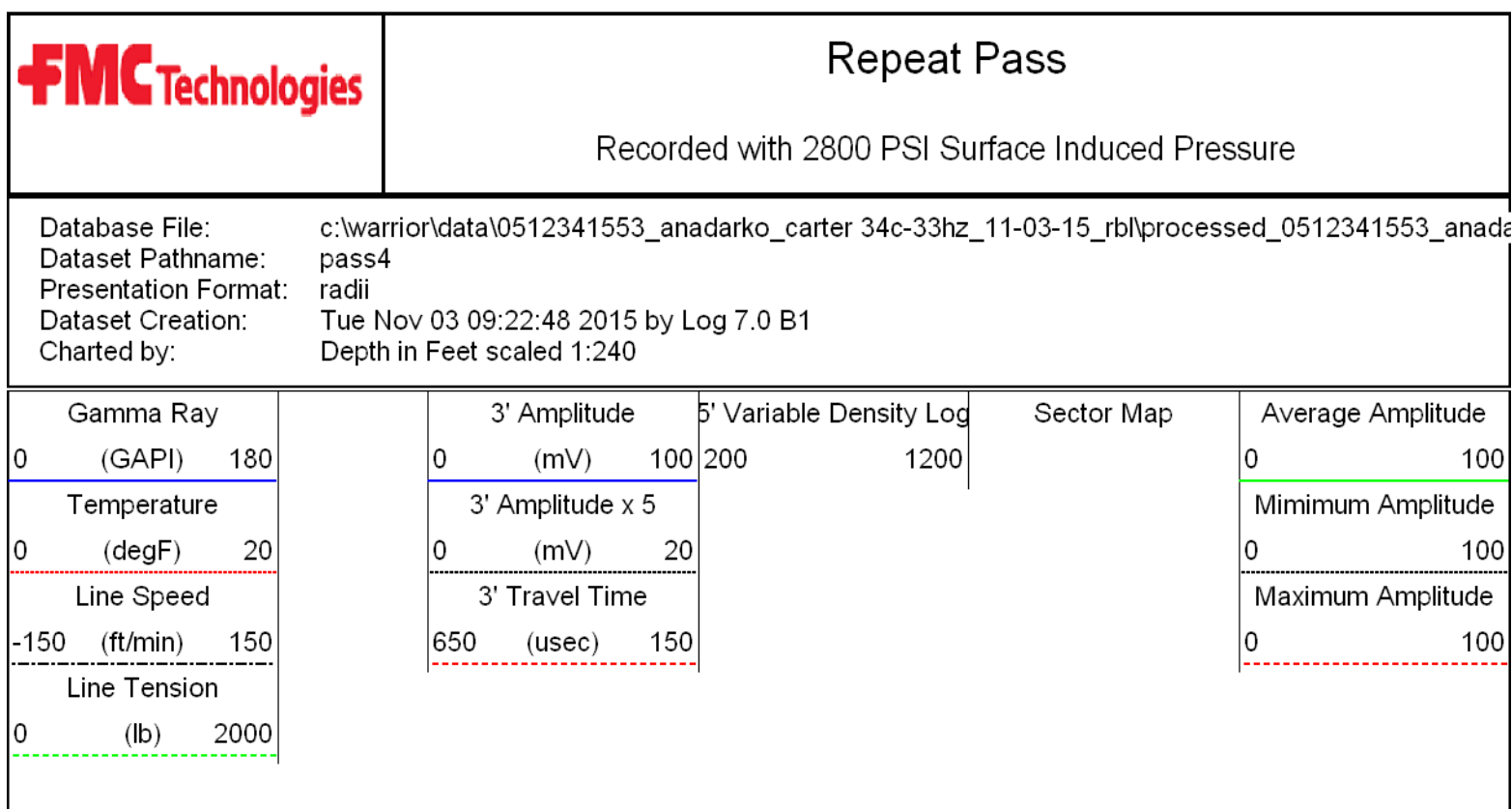
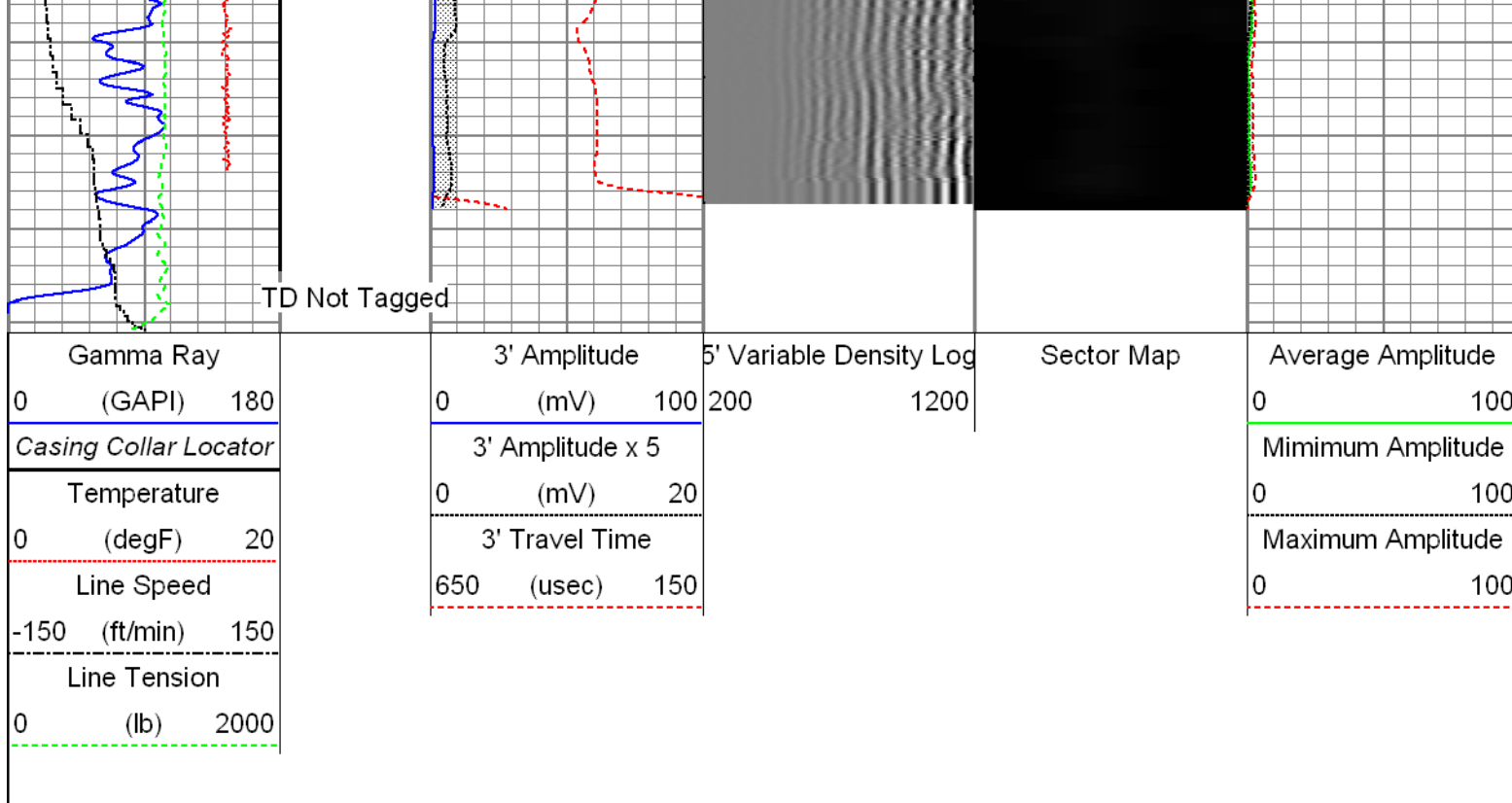


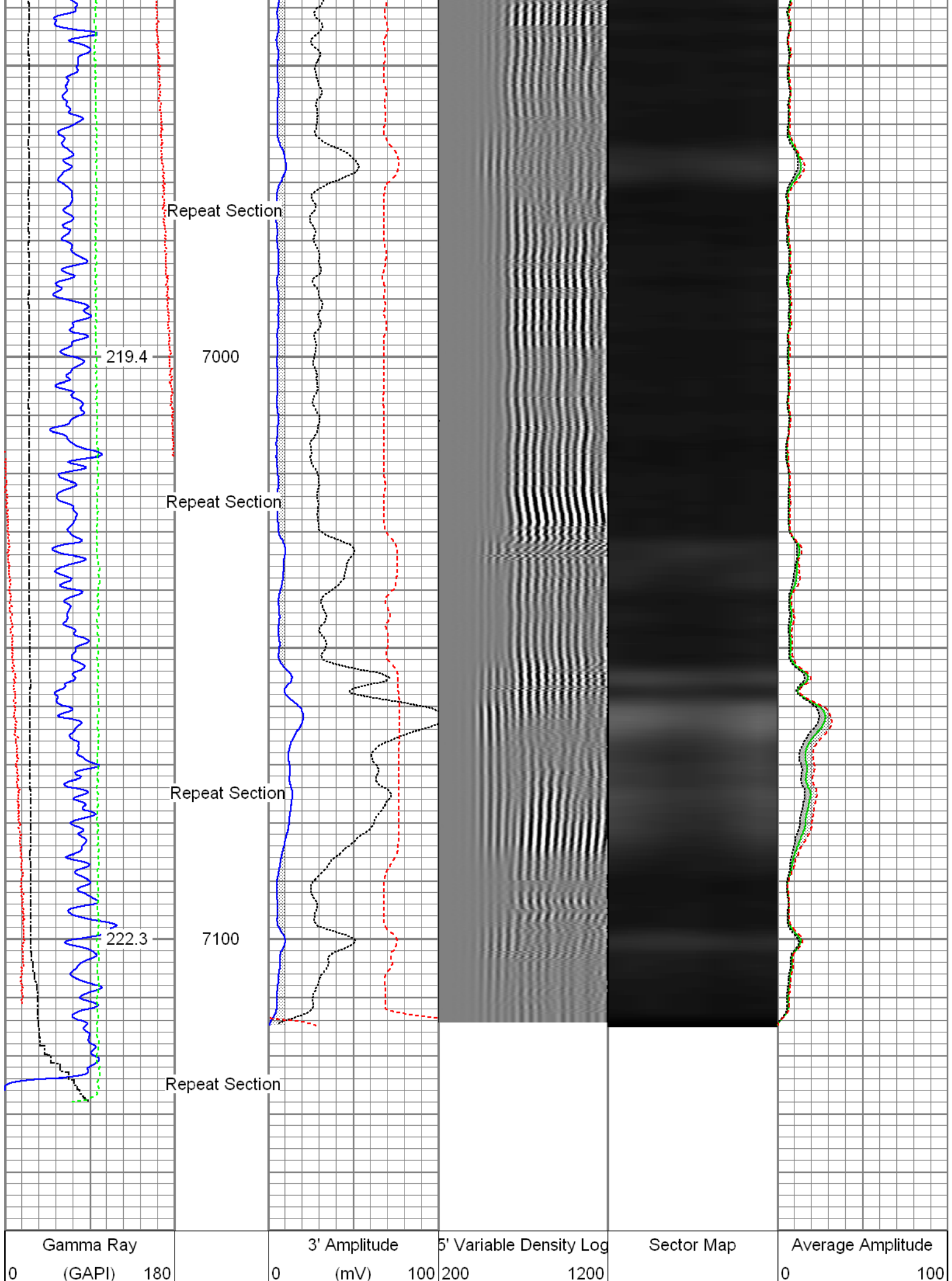




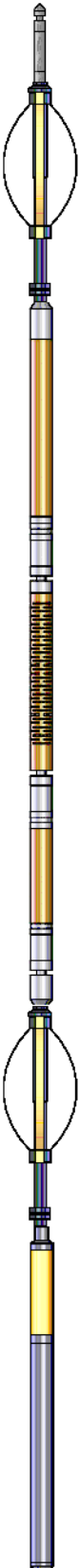
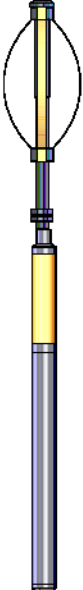
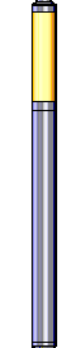


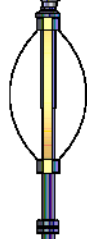






Temperature	3' Amplitude x 5	Mimimum Amplitude
0 (degF) 20	0 (mV) 20	0 100
Line Speed	3' Travel Time	Maximum Amplitude
-150 (ft/min) 150	650 (usec) 150	0 100
Line Tension		
0 (lb) 2000		

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
HeadVolt	19.49		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
Temp	16.72					
WVF3FT	14.55		Probe_RADII-C-2-3/4" (FW1302-002) 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	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
GR	3.77					



Probe_IL_BS_Cent
Probe 2-3/4" Inline Electrical Inline Bowspring
Centralizer

2.88

2.75

10.00

Dataset: PROCESSED_0512341553_Anadarko_Carter 34C-33HZ_11-03-15_RBL.db: field/well/run1/pass6
Total Length: 23.40 ft
Total Weight: 194.00 lb
O.D. 2.75 in

Calibration Report

Database File: C:\Warrior\Data\0512341553_Anadarko_Carter 34C-33HZ_11-03-15_RBL\PROCESSED_0512341553
Dataset Pathname: pass6
Dataset Creation: Tue Nov 03 09:29:28 2015 by Log 7.0 B1

Gamma Ray Calibration Report

Serial Number: FW1211-081
Tool Model: 2.75"Digital
Performed: Tue Oct 27 08:03:11 2015

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6300 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1302-002
Tool Model: 2-3/4"

Calibration Casing Diameter: 5.500 in
Calibration Depth: 21.361 ft


Master Calibration, performed Tue Nov 03 08:58:22 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.001	0.620	0.800	71.921	114.363	0.959
CAL	0.802	0.737				
5'	-0.001	0.555	0.800	71.921	127.973	0.875
SUM						
S1	-0.003	0.577	0.000	100.000	172.528	0.505
S2	-0.001	0.562	0.000	100.000	177.589	0.141
S3	-0.001	0.578	0.000	100.000	172.769	0.114
S4	-0.001	0.633	0.000	100.000	157.891	0.112
S5	-0.001	0.711	0.000	100.000	140.474	0.089
S6	-0.001	0.737	0.000	100.000	135.398	0.160
S7	-0.001	0.687	0.000	100.000	145.258	0.138
S8	-0.001	0.619	0.000	100.000	161.288	0.148

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

Raw (v)	Calibrated (v)	Results
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	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.802	0.737	1.000	0.000
Air Zero Calibration, performed Tue Nov 03 08:57:48 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	Carter 34C-33HZ
	Field	Wattenberg
	County	Weld
	State	Colorado