



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	Kerr-McGee Oil and Gas Onshore LP			Company	Kerr-McGee Oil and Gas Onshore LP		
Well	Viper Pyro 39N-10HZ			Well	Viper Pyro 39N-10HZ		
Field	Wattenberg			Field	Wattenberg		
County	Weld			County	Weld		
State	Colorado			State	Colorado		
Location:				API # : 05-123-41426			
SEC 15 TWP 3N RGE 67W				Other Services			
				Gauge Ring Junk Basket			
Permanent Datum	Ground Level		Elevation	4793'	Elevation		
Log Measured From	Kelly Bushing		20 FT	K.B. 4813' D.F. 4812' G.L. 4793'			
Drilling Measured From	Kelly Bushing						

Date	13-OCT-2015					
Run Number	Two					
Depth Driller	12636 FT					
Depth Logger	7393 FT					
Bottom Logged Interval	7388 FT					
Top Log Interval	Surface					
Open Hole Size	7.875					
Type Fluid	Water					
Density / Viscosity	8.34 lbm/gal					
Max. Recorded Temp.	227°F					
Estimated Cement Top	Surface					
Time Well Ready	ROA					
Time Logger on Bottom	1340					
Equipment Number	HD-0255					
Location	Ft. Lupton, CO					
Recorded By	J. Amidei					
Witnessed By	J. Gustafson					
	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						
Intermediate #1	5 1/2	17	---	Surface	12626 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 Kelly Bushing at 20 FT
Adjusted log -6 FT to correlate with Kelly Bushing
Gauge Ring/Junk Basket ran to 7391 FT with no debris found
Log ran from 7393 FT to surface
Log ran with 2800 PSI surface induced pressure
Logging tools were clean and free of any debris upon completion of operations

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

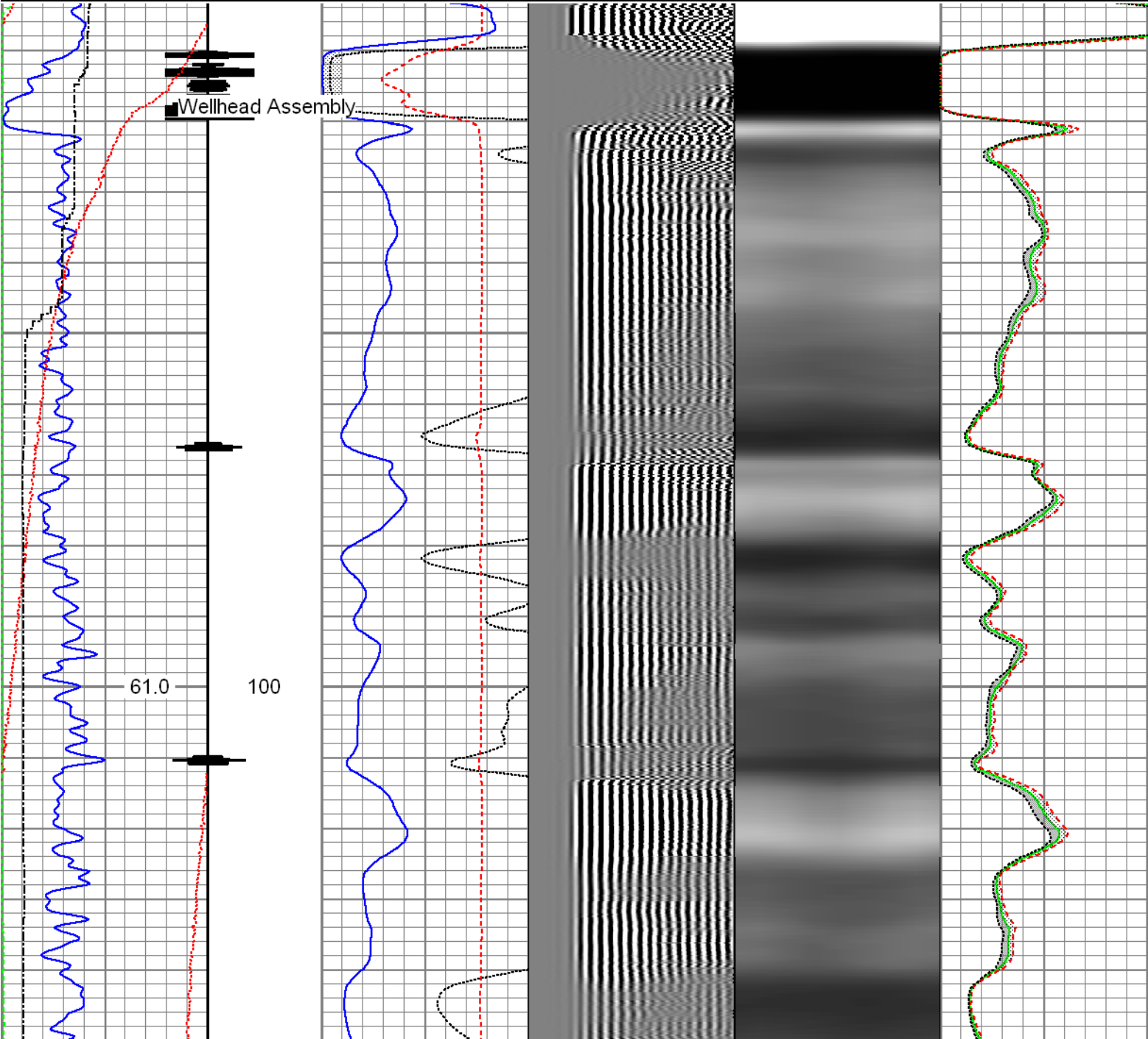


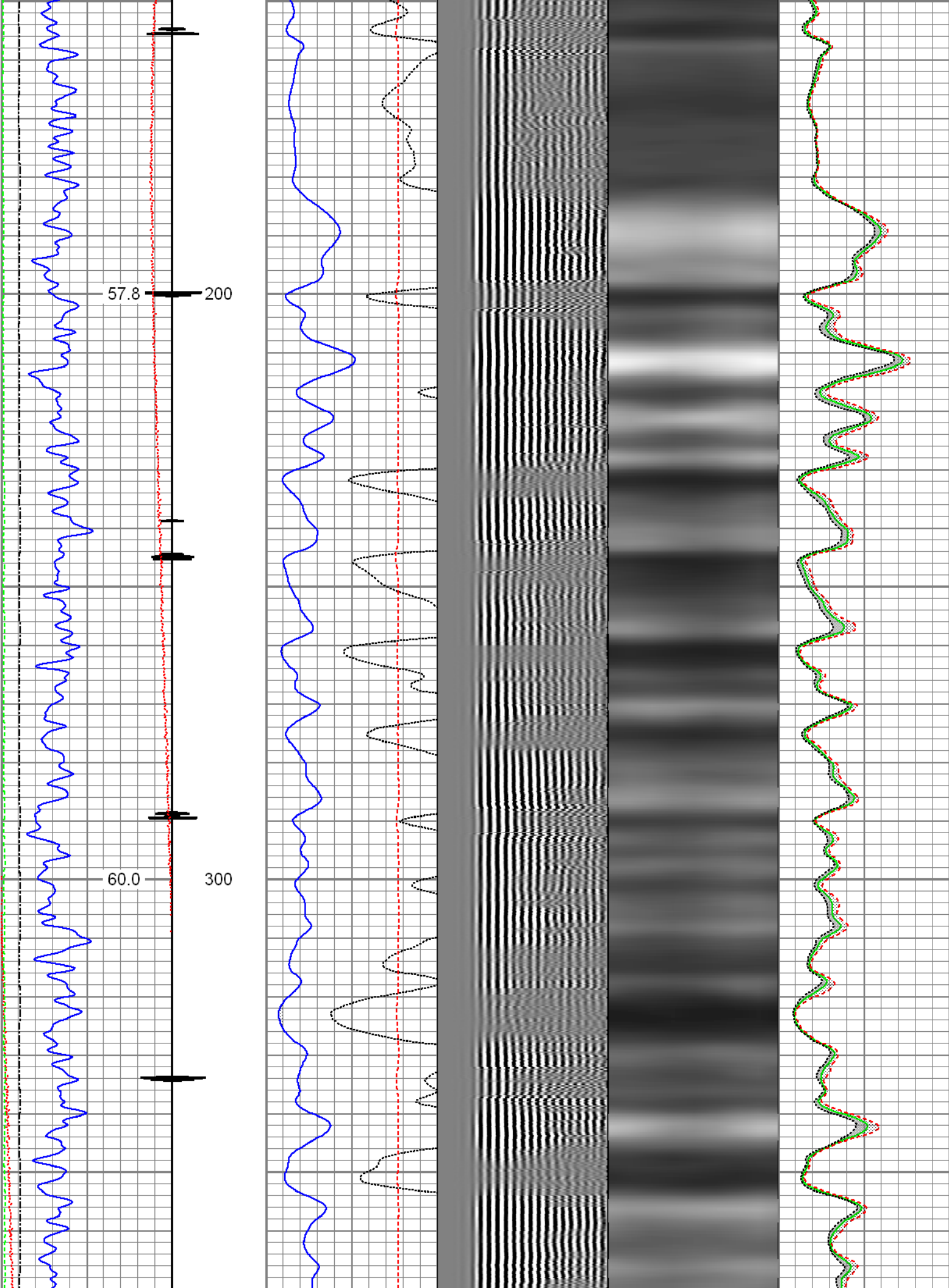
Main Pass

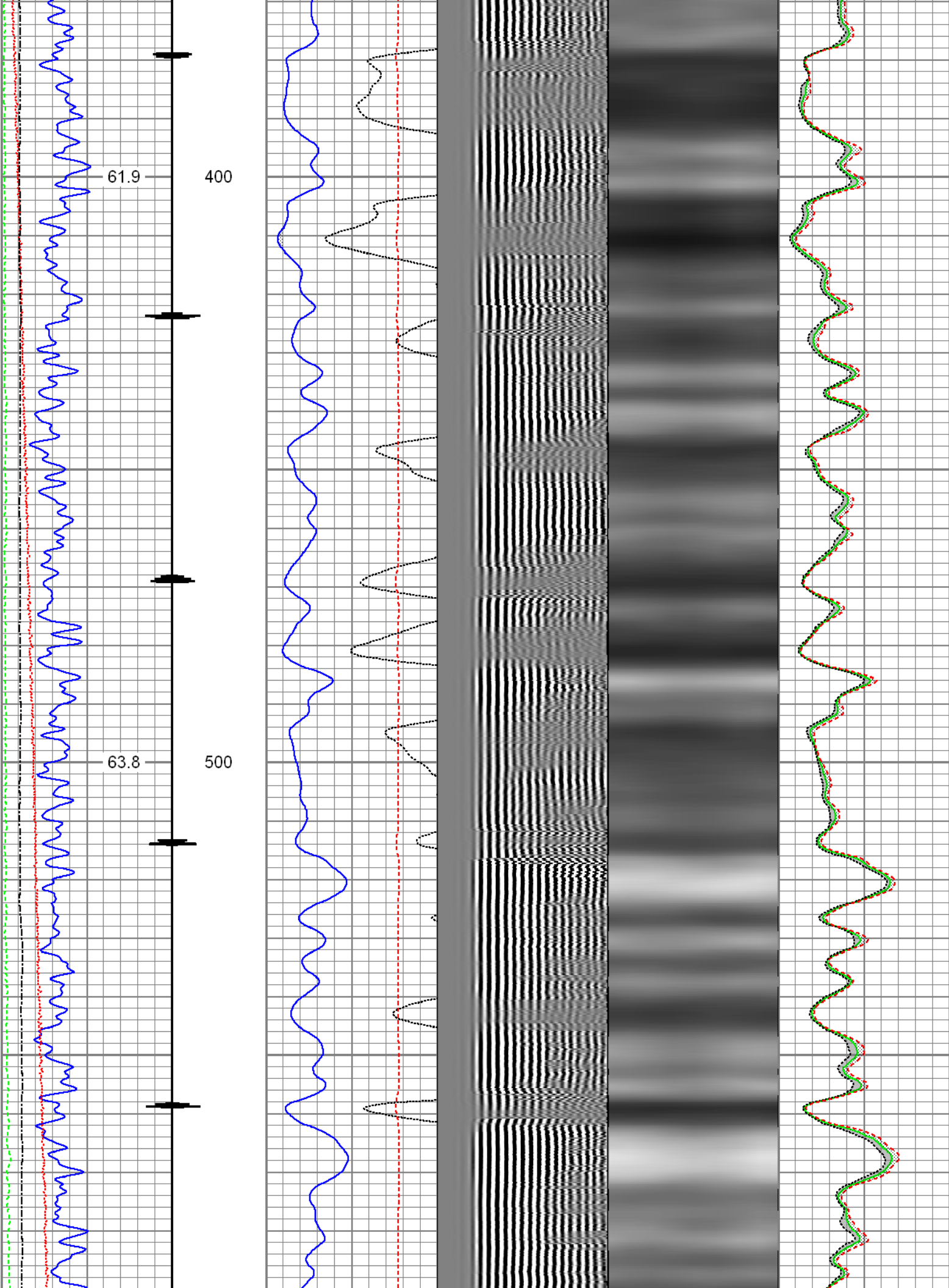
Recorded with 2800 PSI Surface Induced Pressure

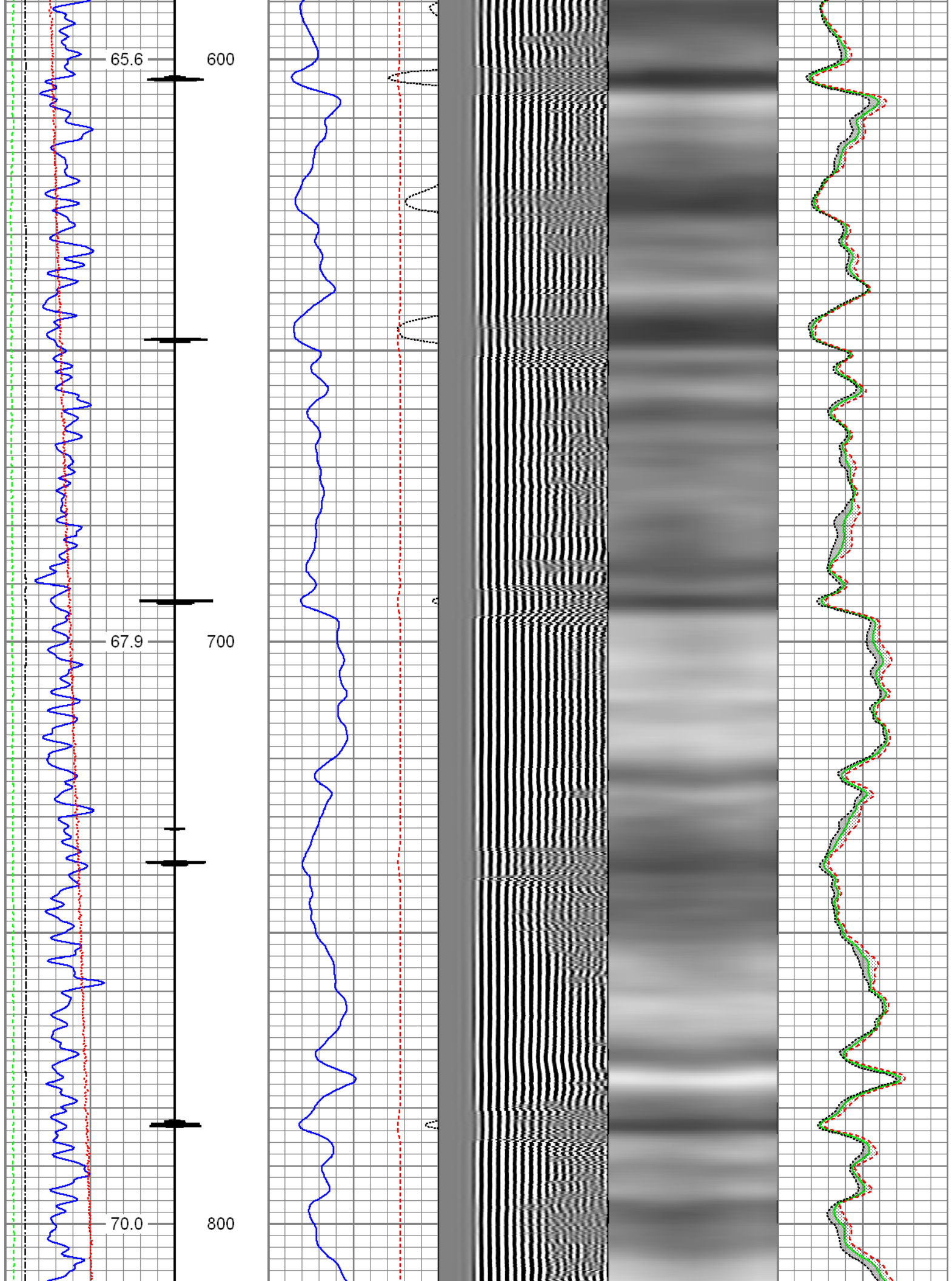
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Dataset Pathname: pass8.1
Presentation Format: radii
Dataset Creation: Tue Oct 13 15:31:50 2015 by Calc 7.0 B1
Charted by: Depth in Feet scaled 1:240

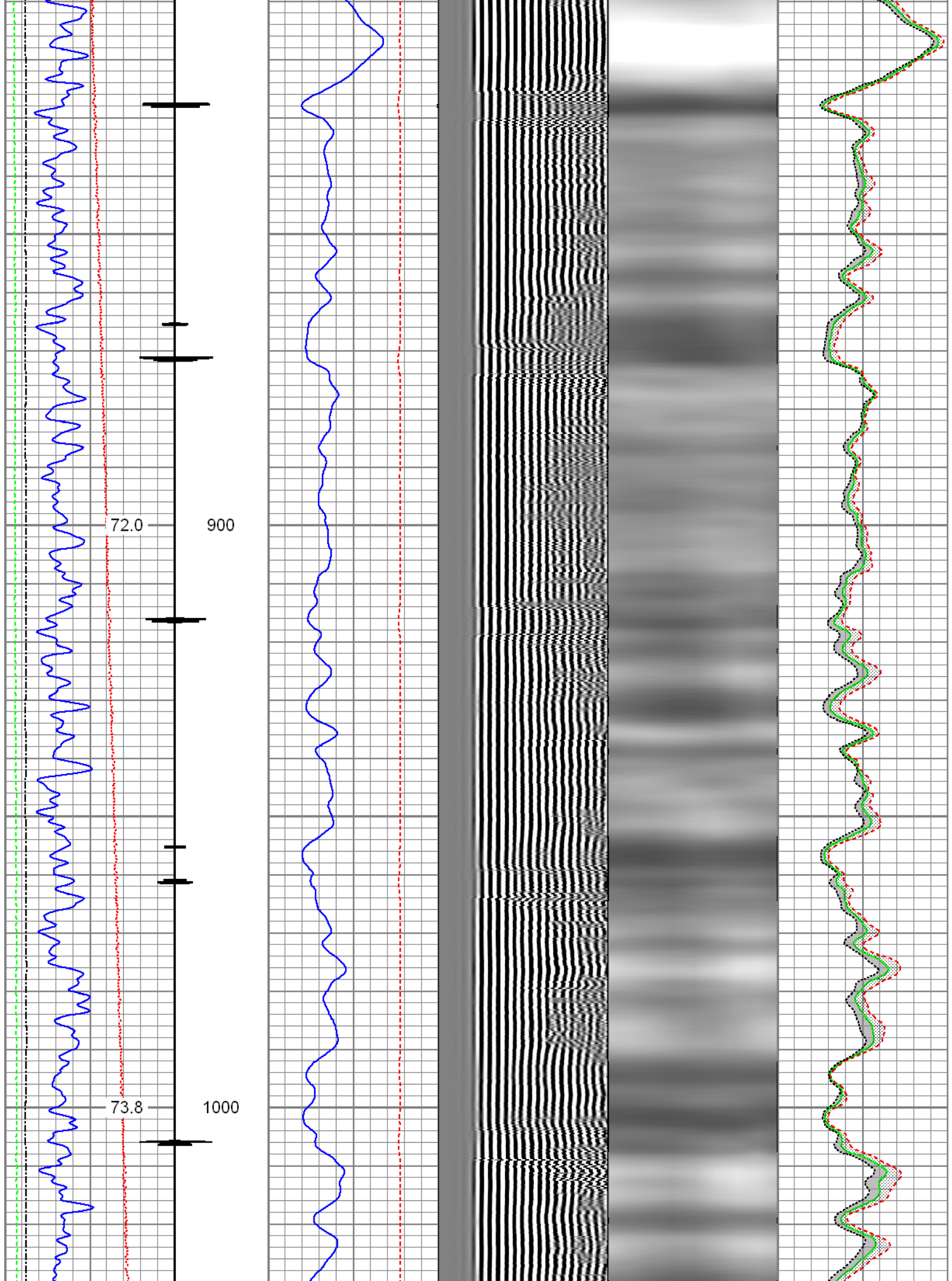
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Minimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 20	3' Travel Time			Maximum Amplitude
Line Speed	650 (usec) 150			0 100
-150 (ft/min) 150				
Line Tension				
0 (lb) 2000				

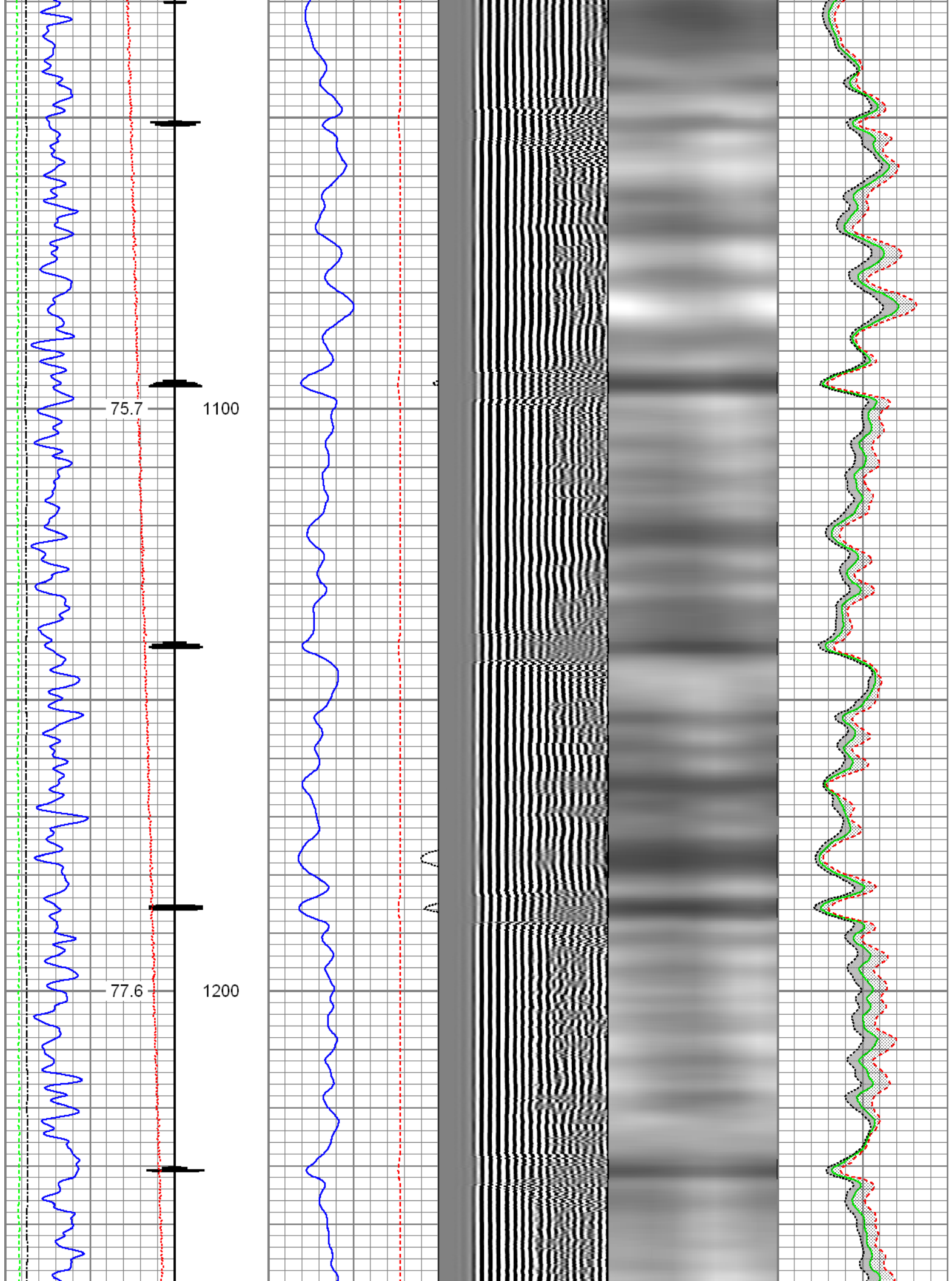


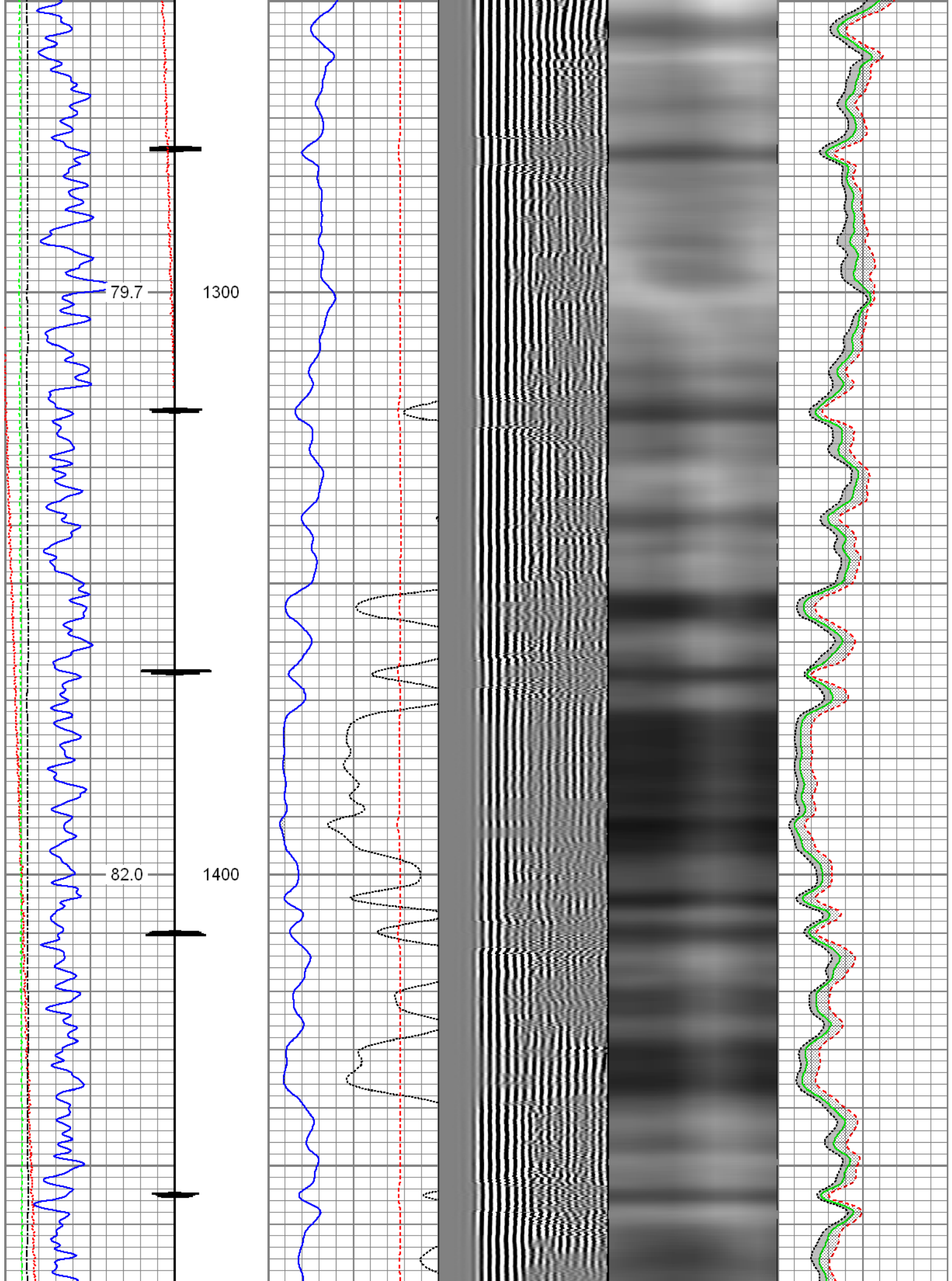


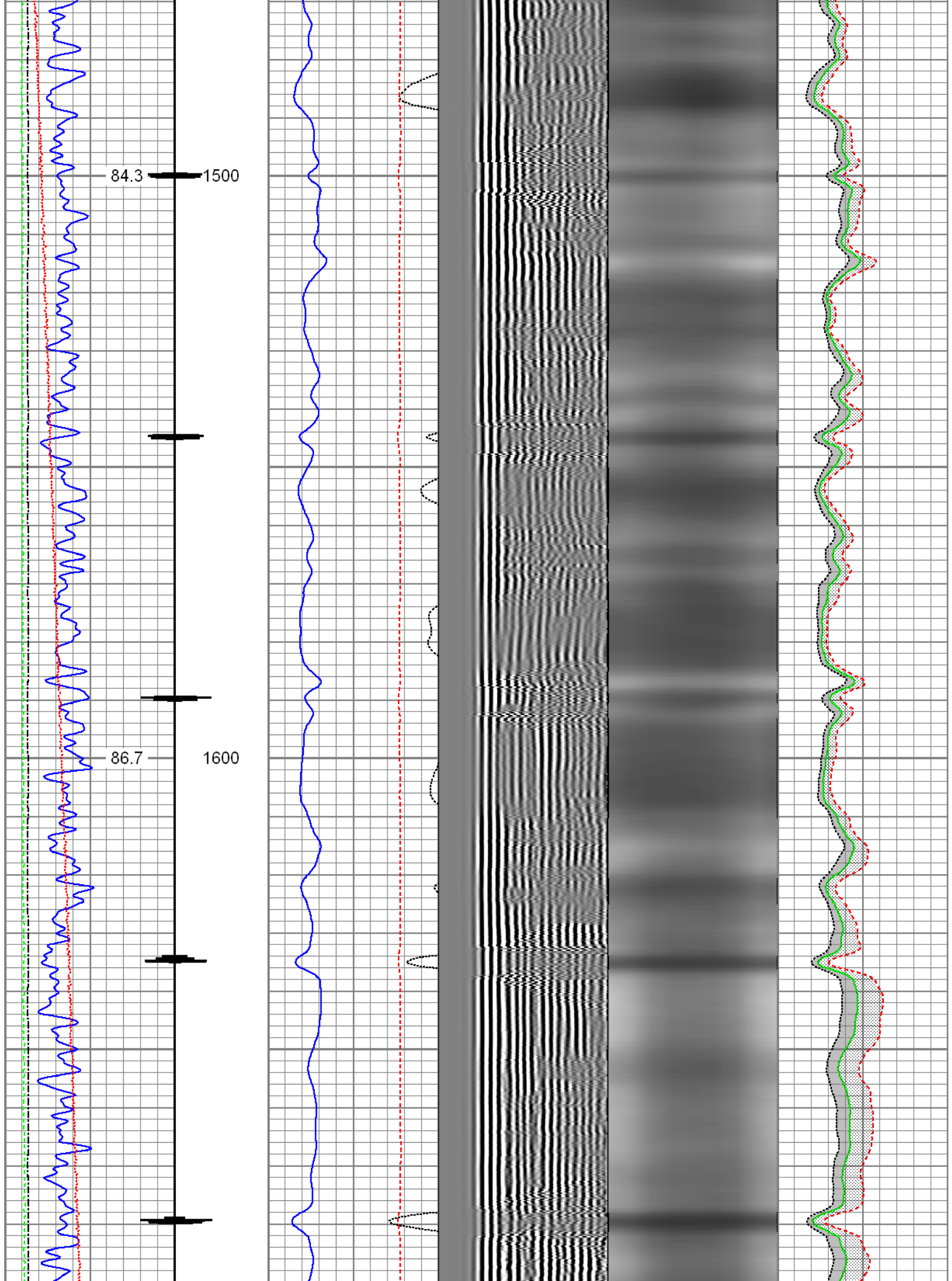


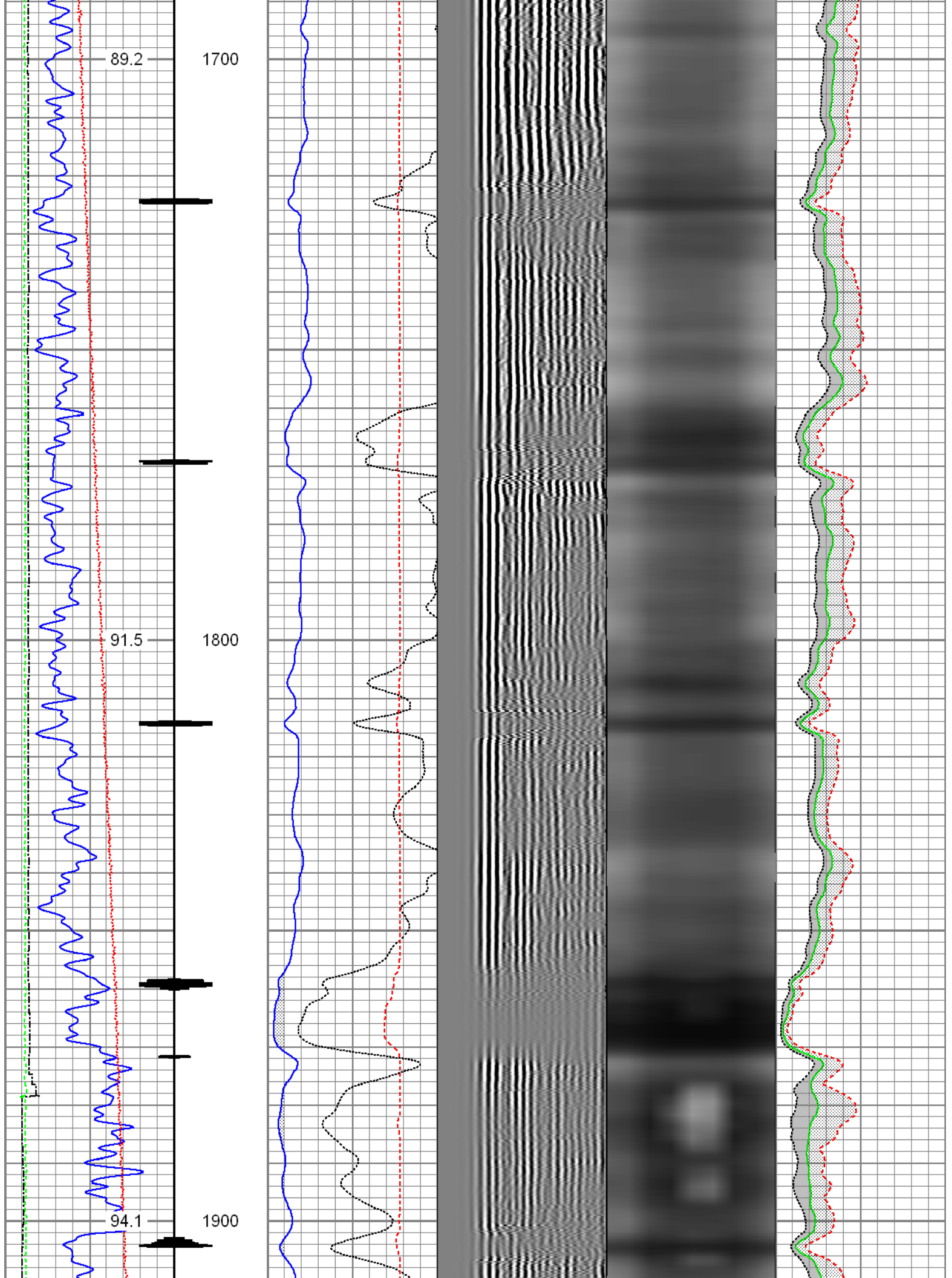


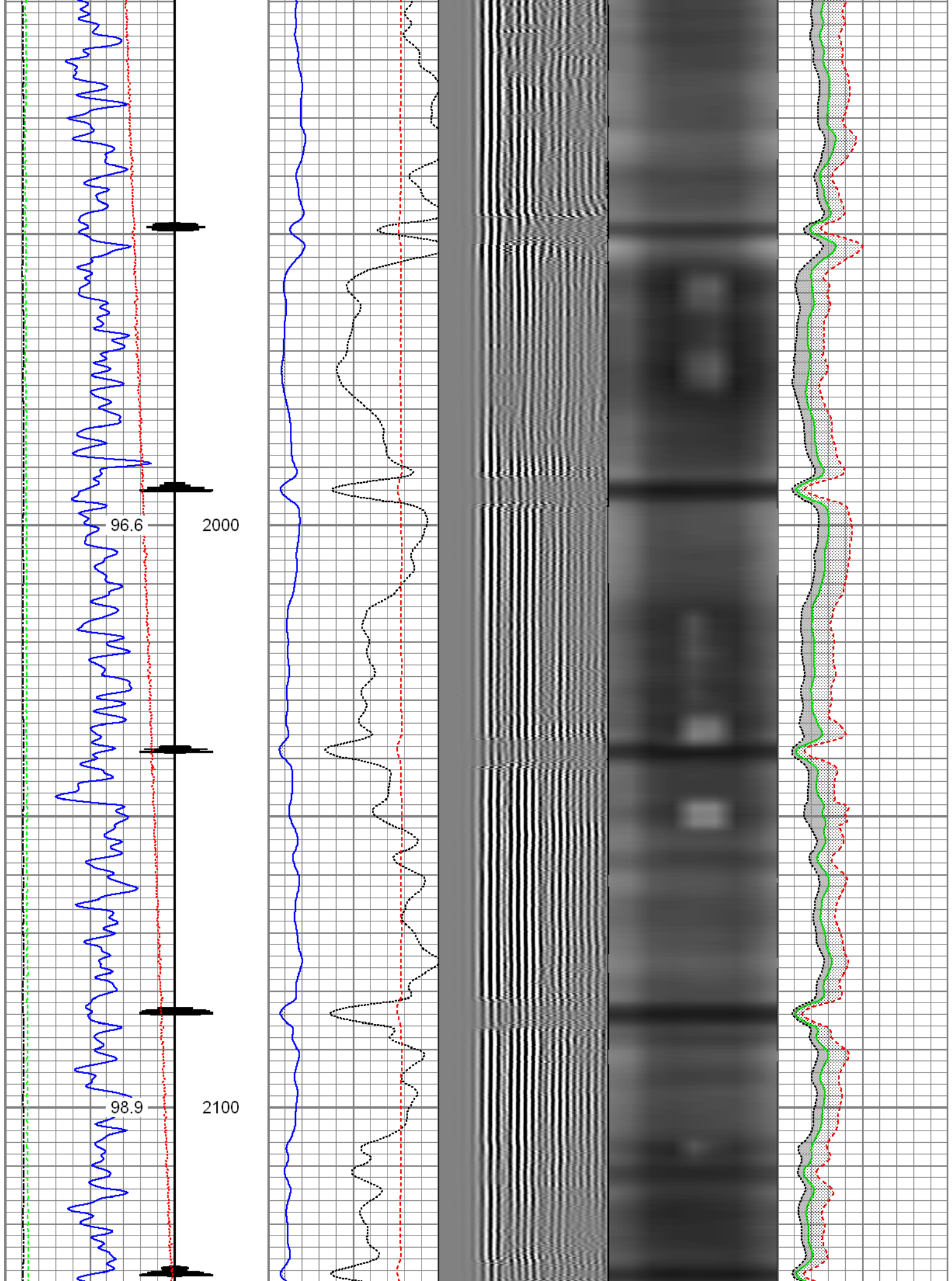


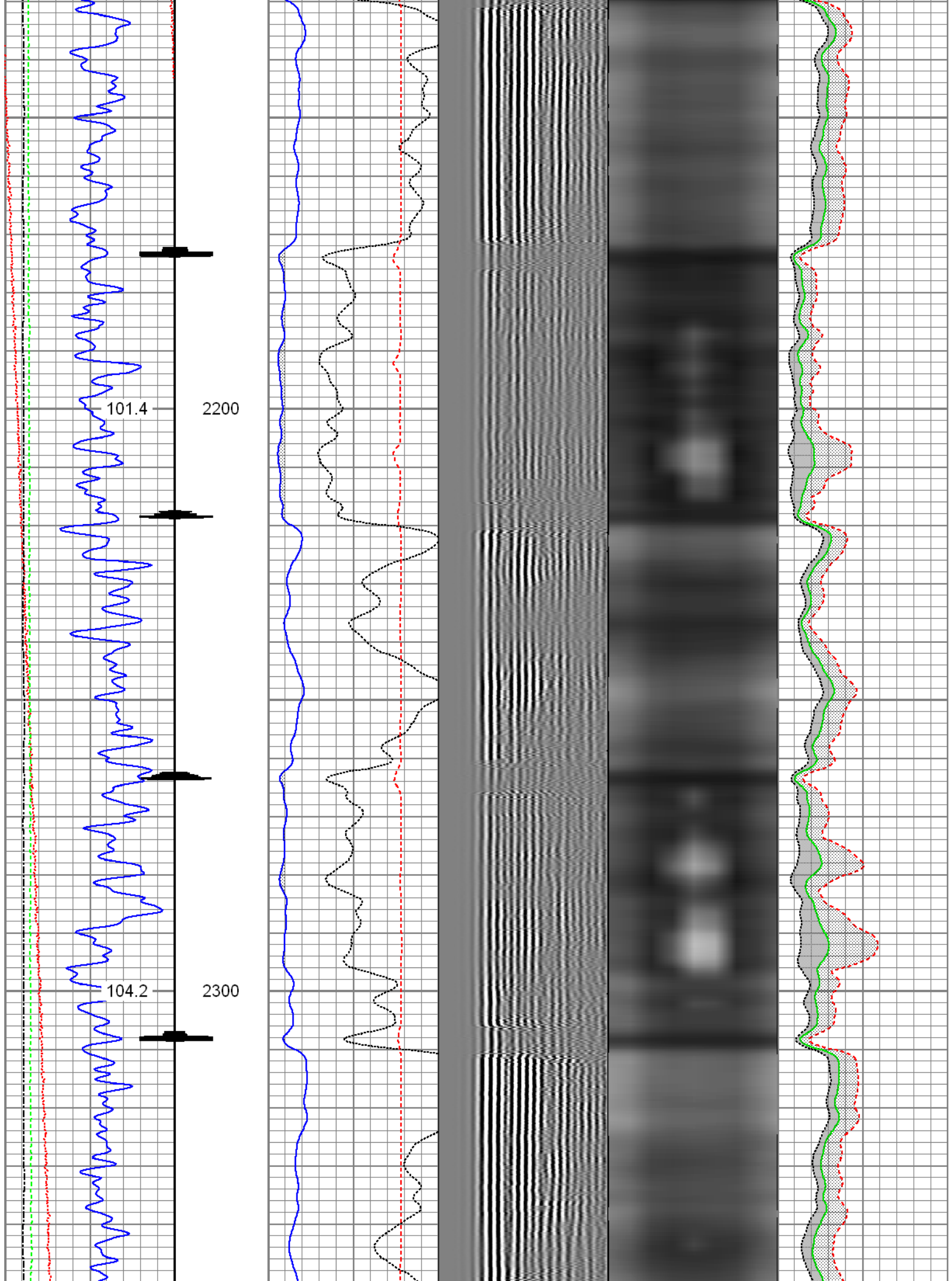


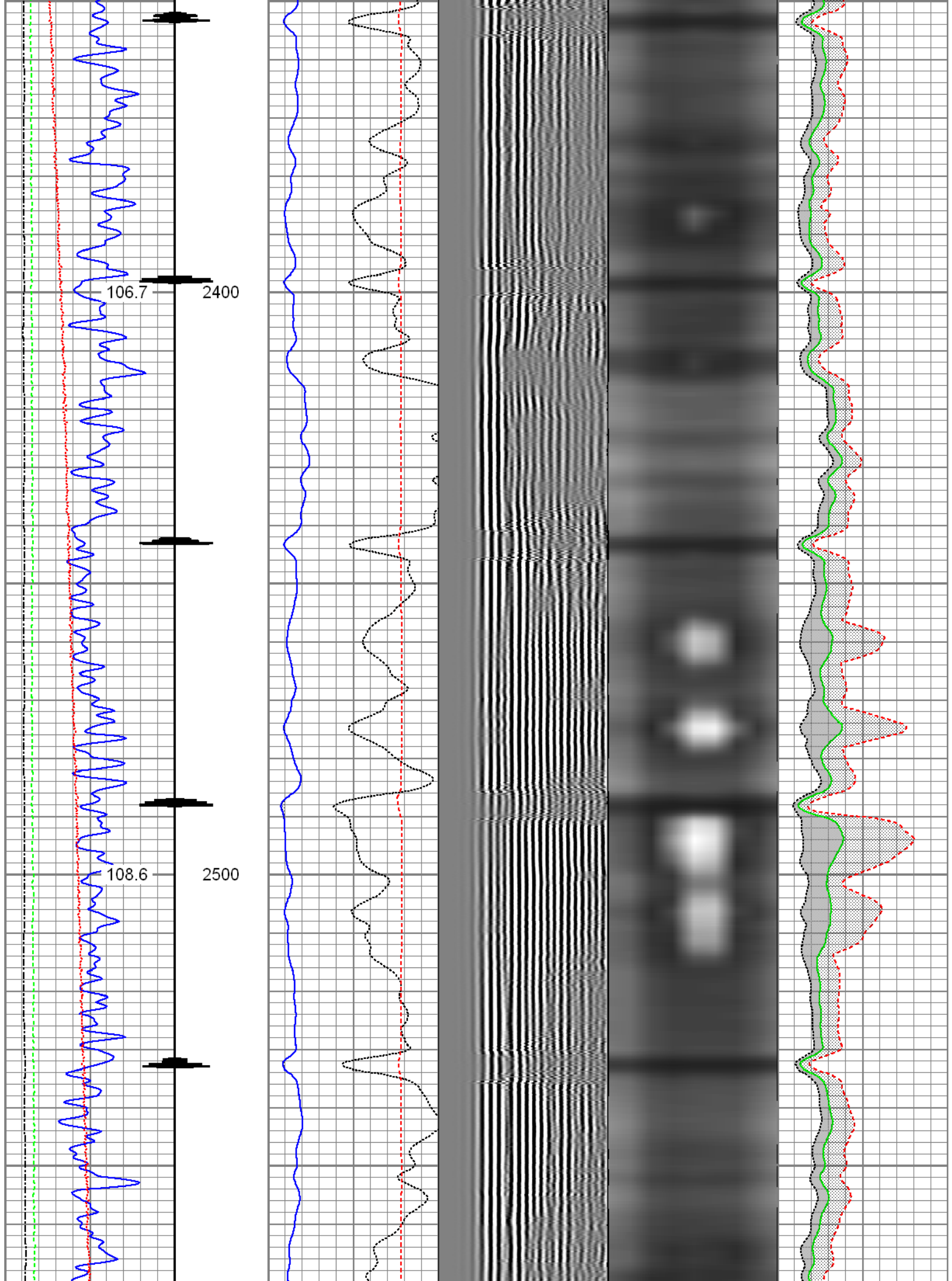


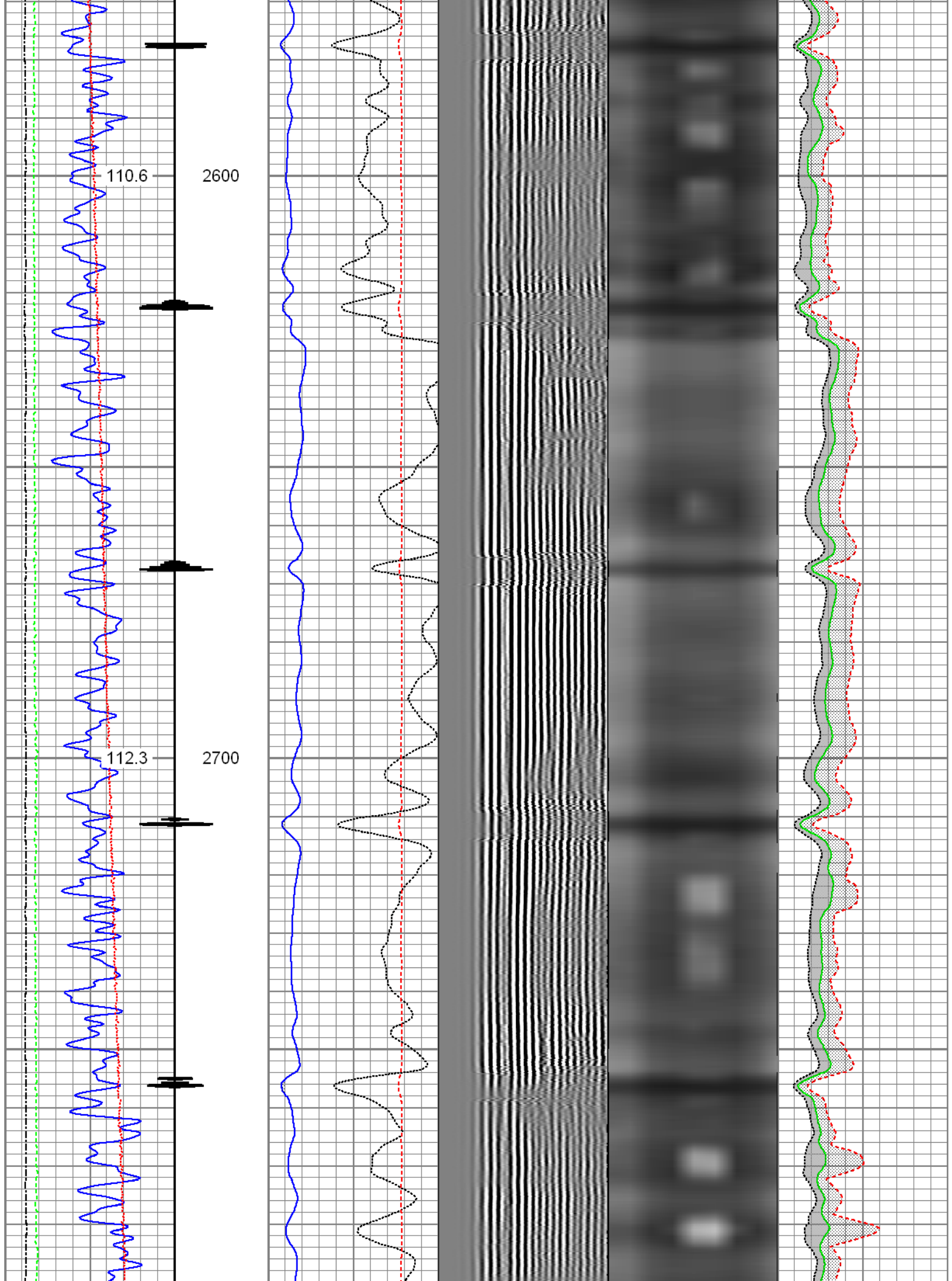


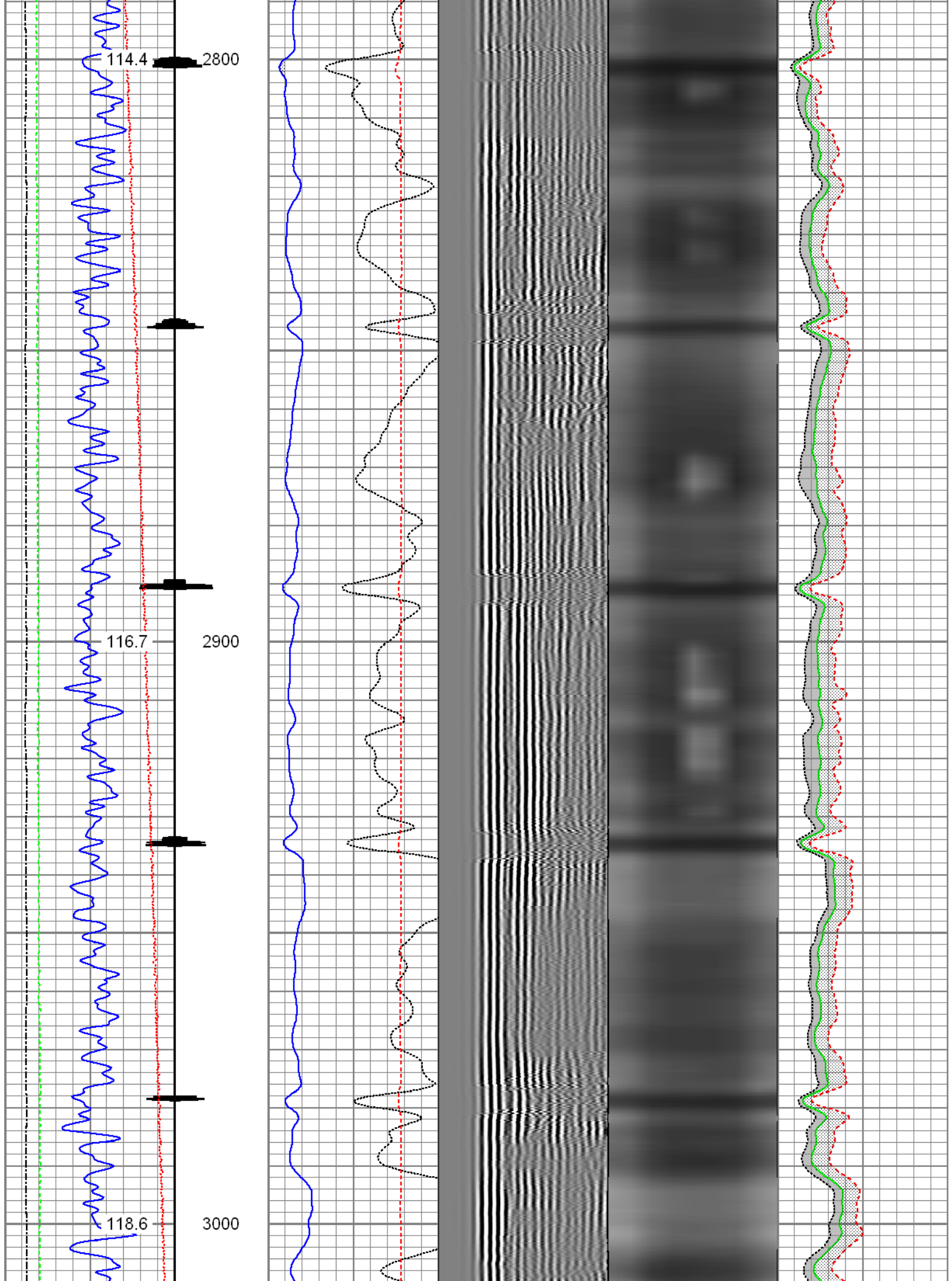


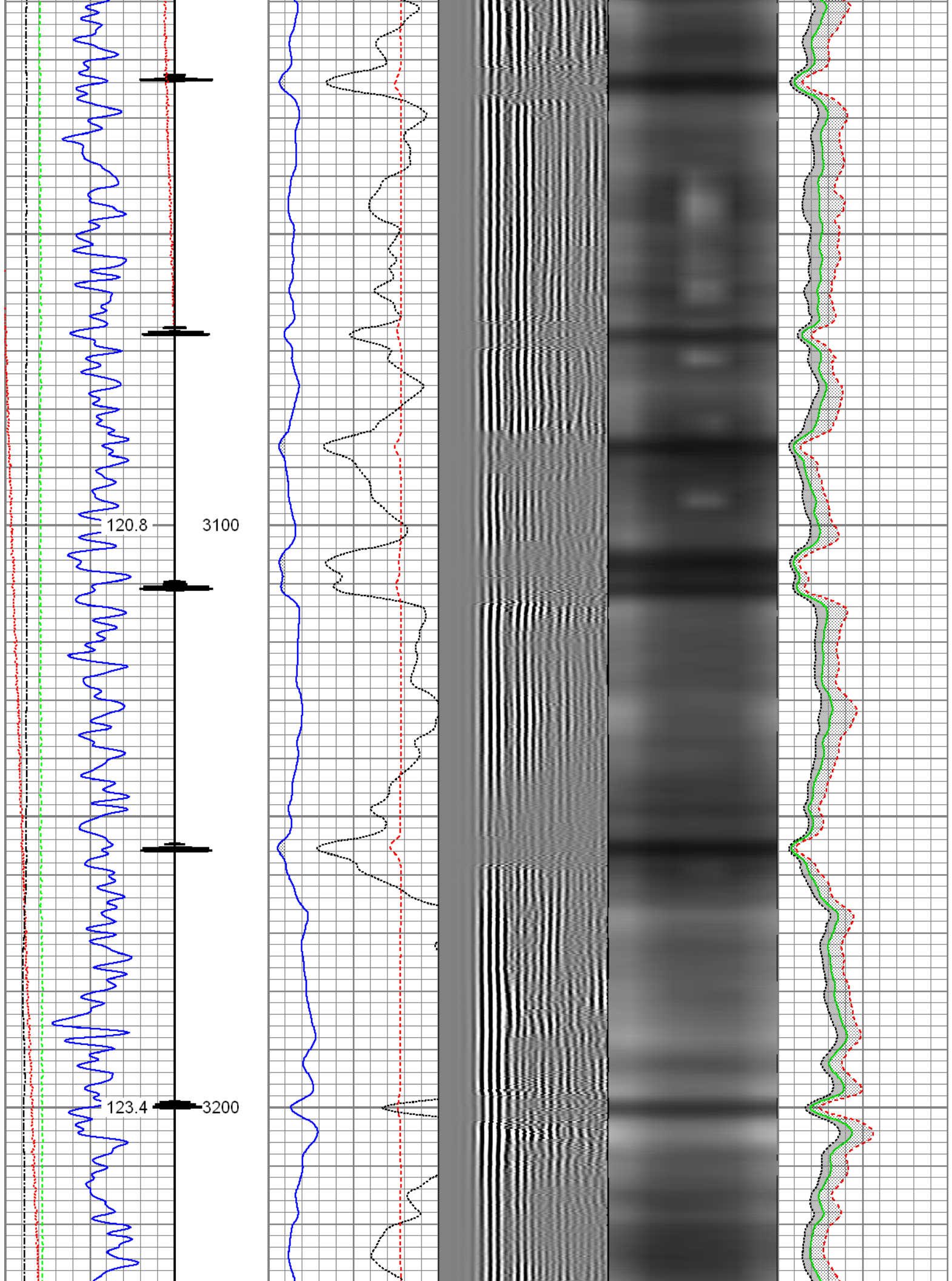


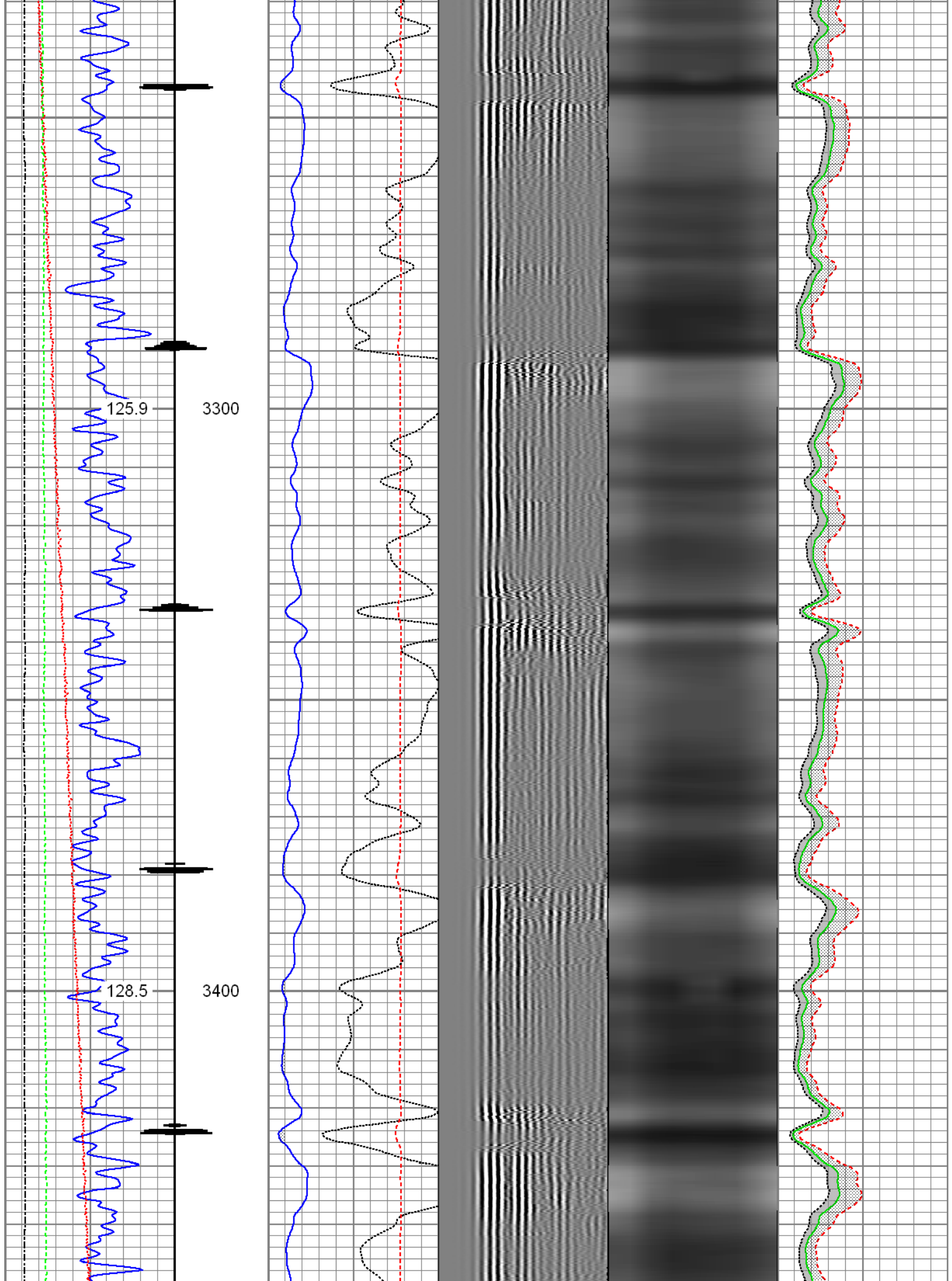


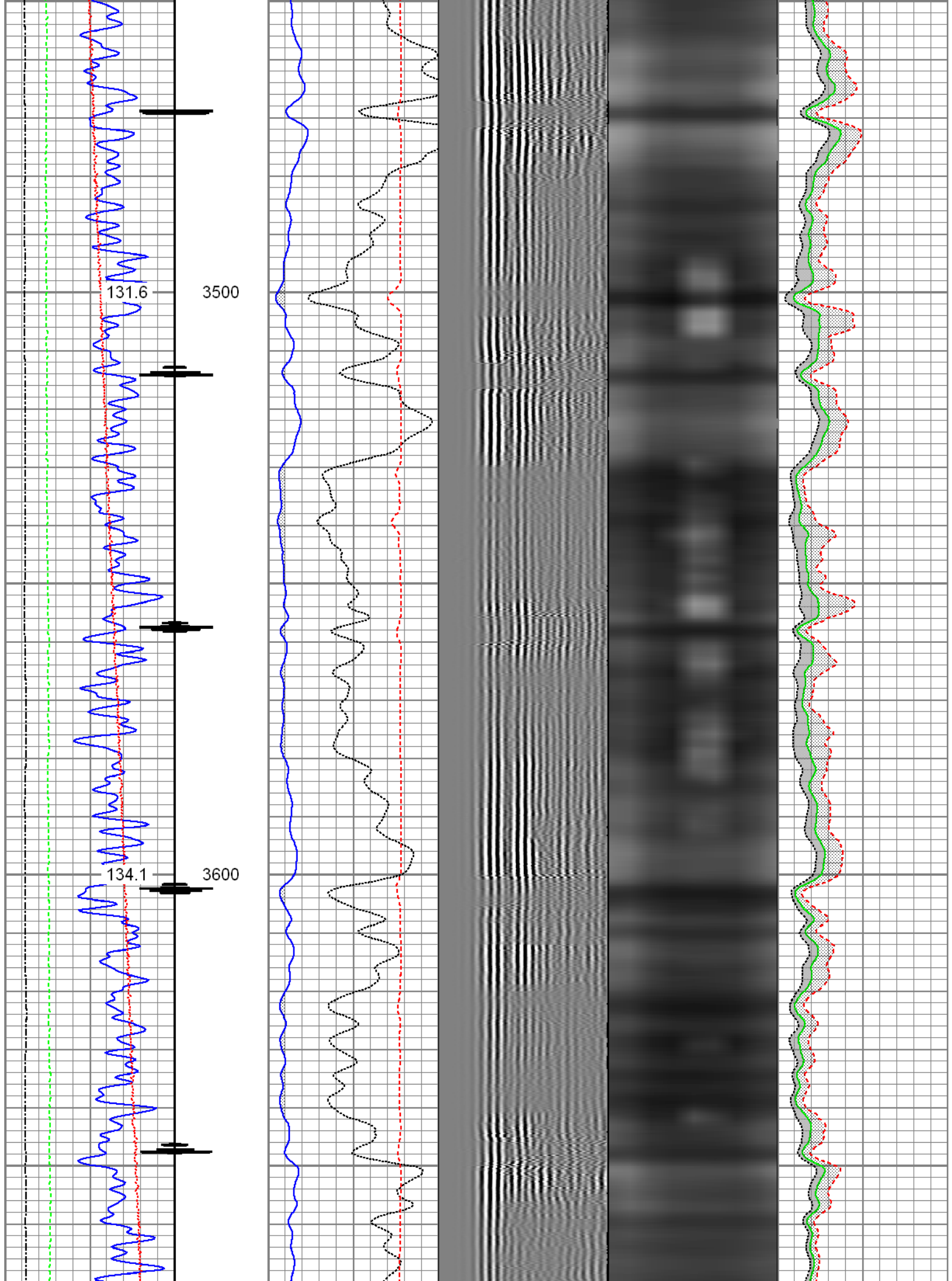


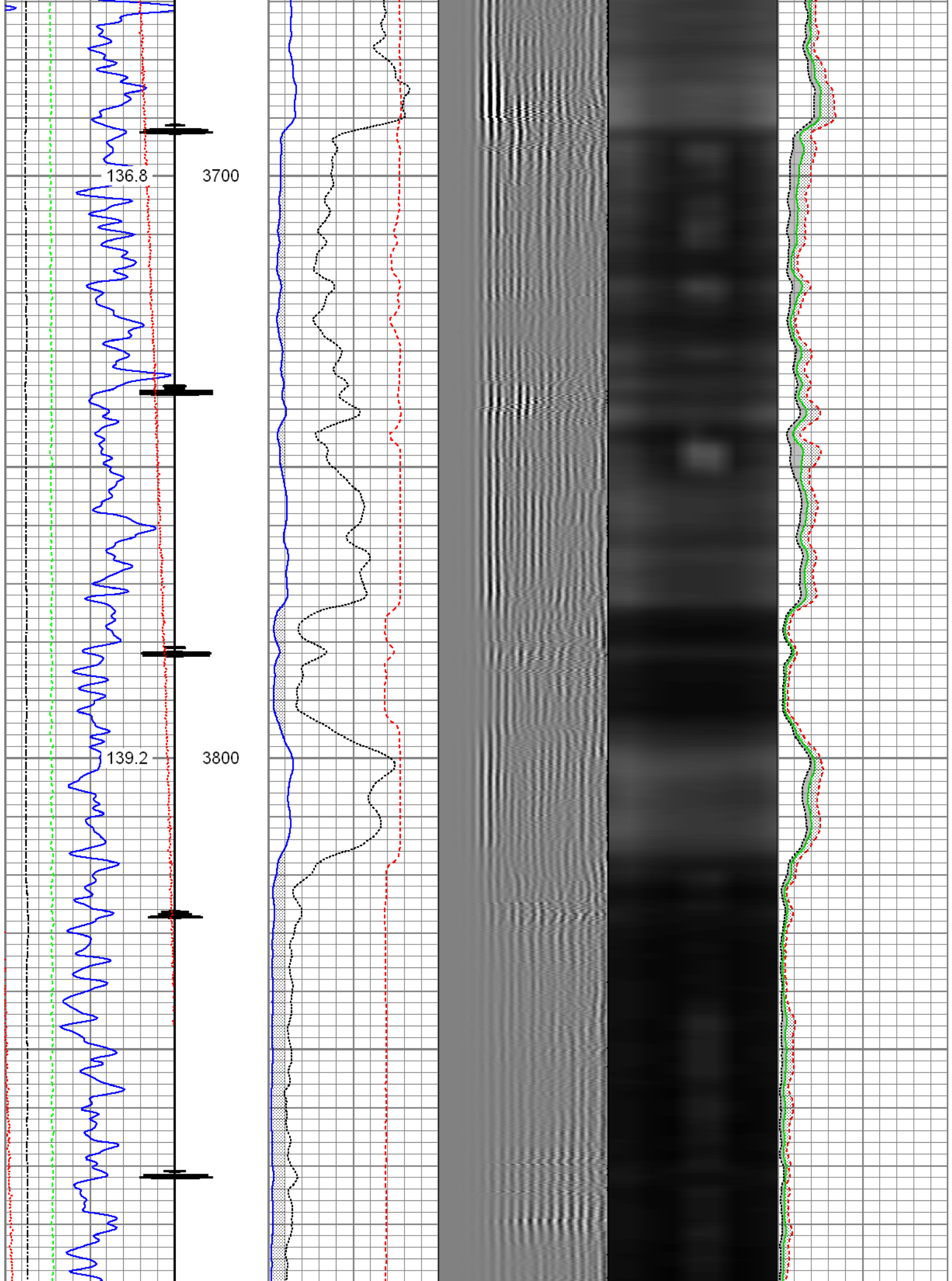


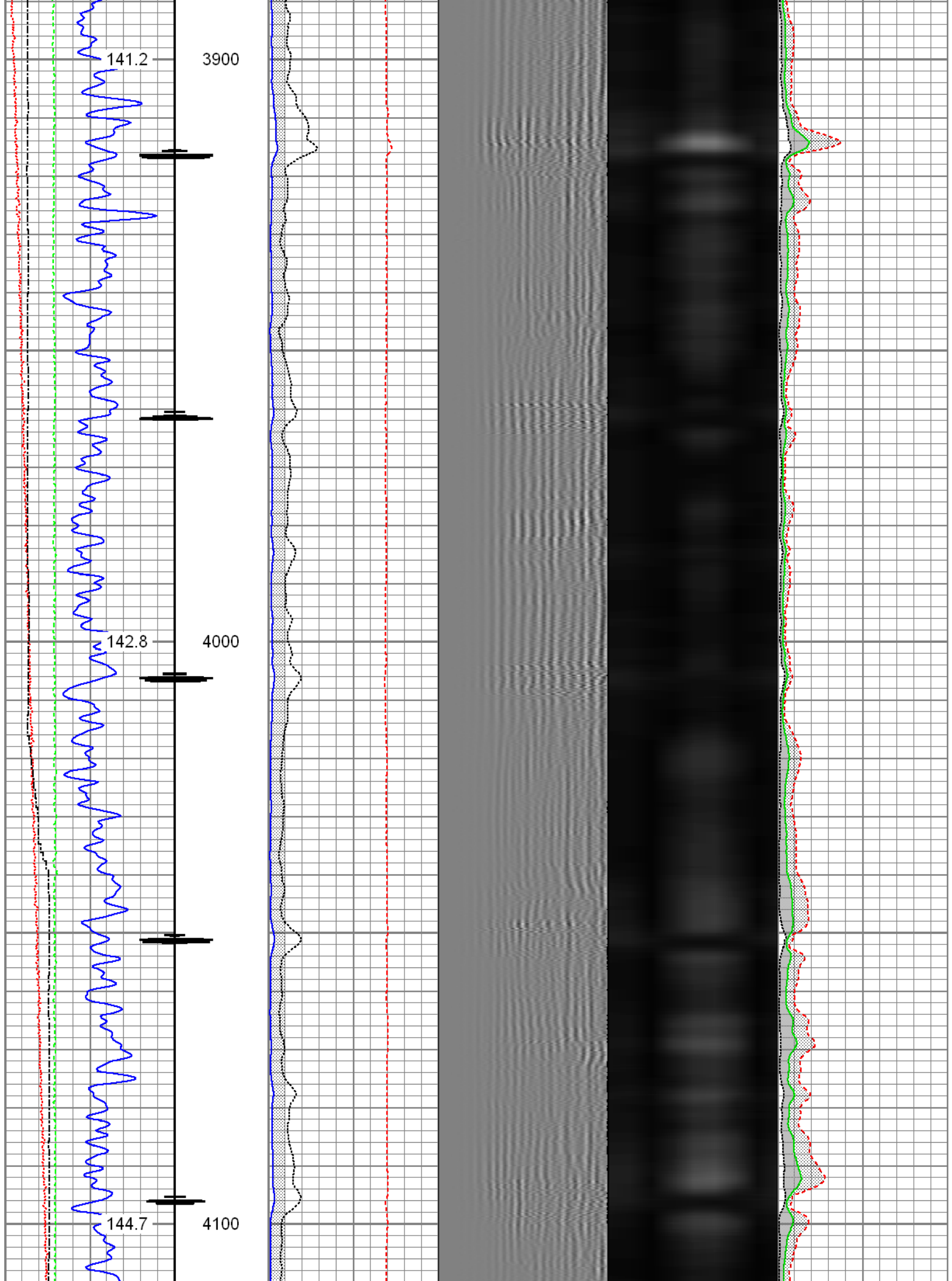


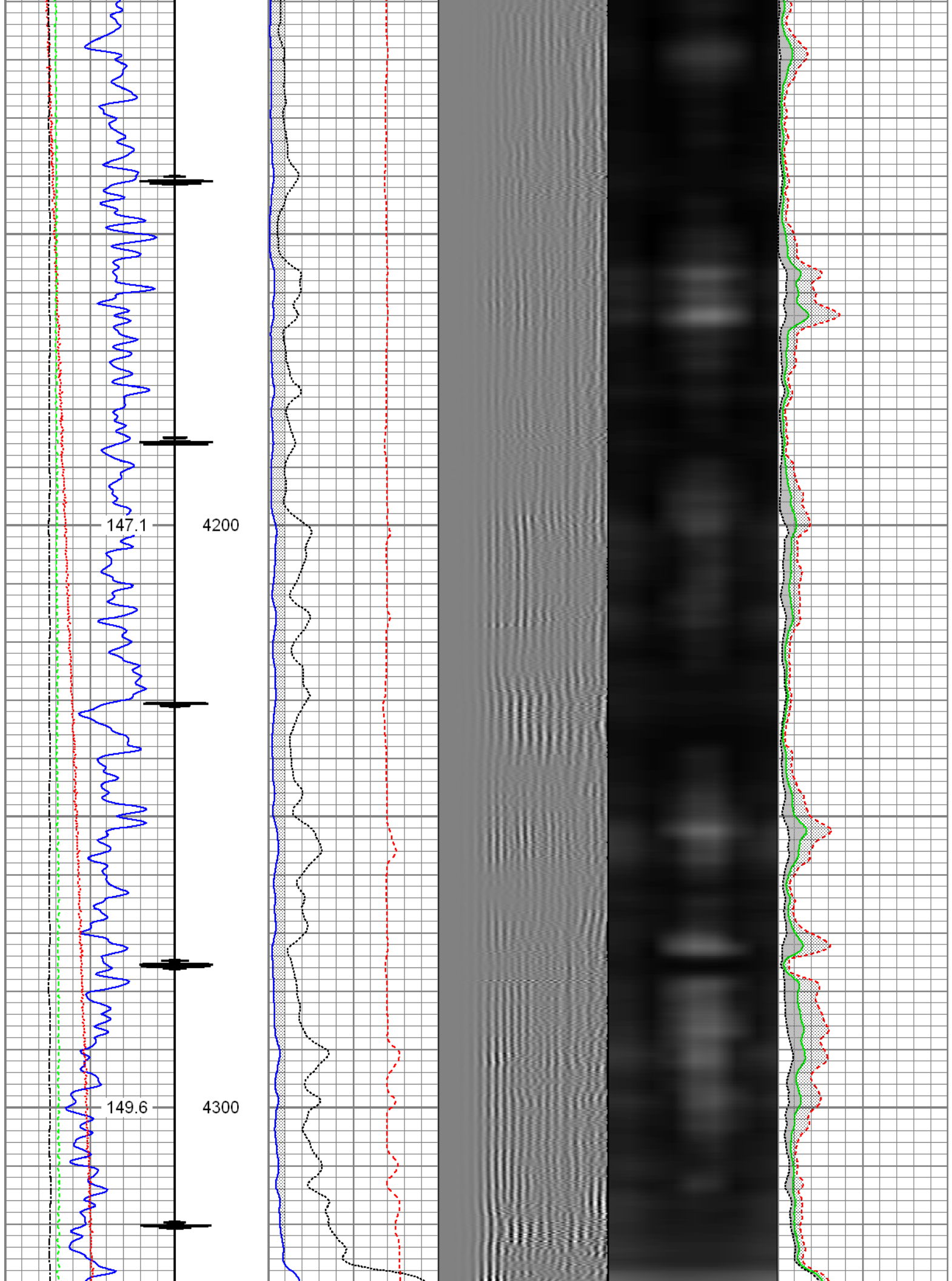


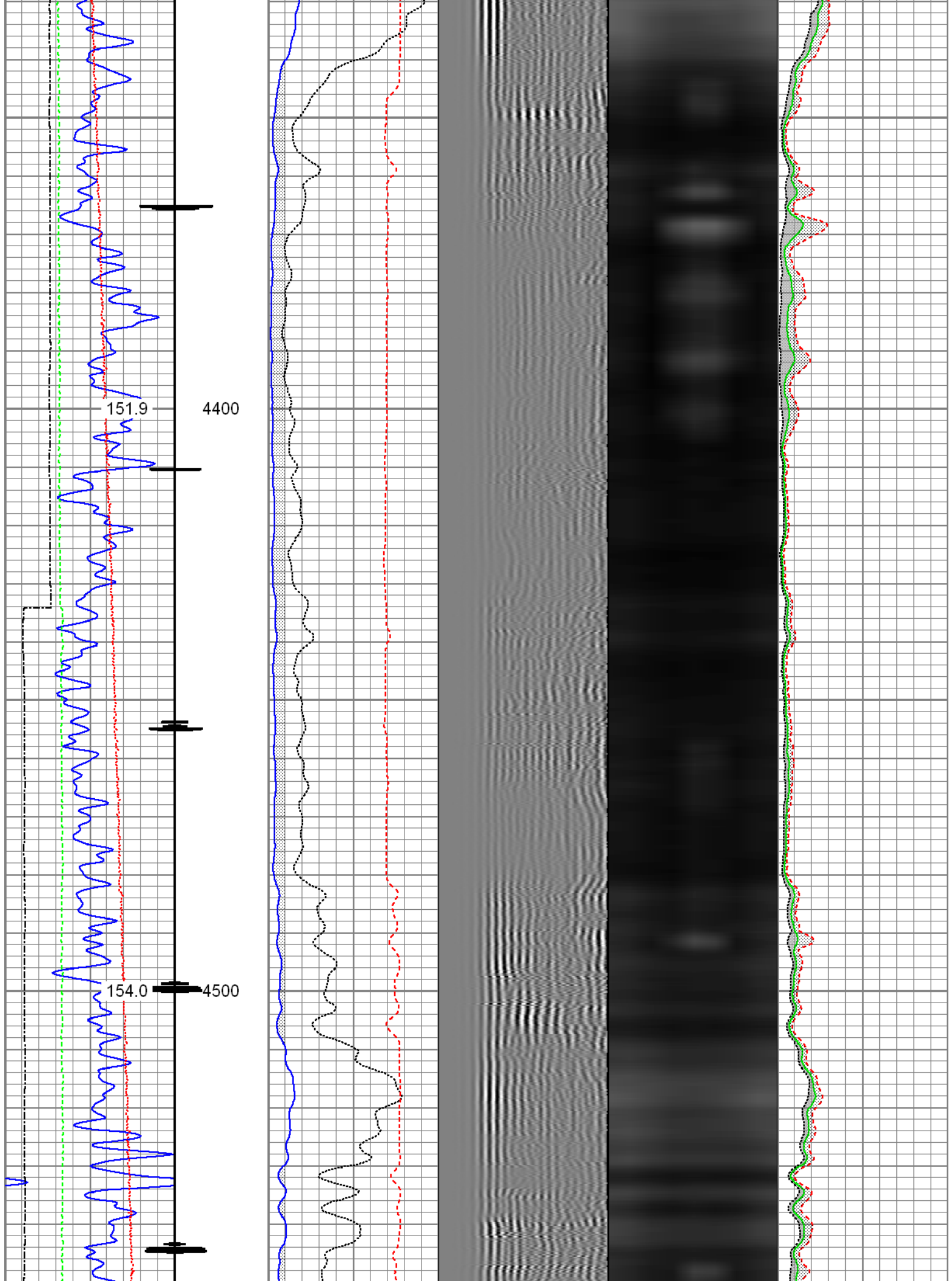


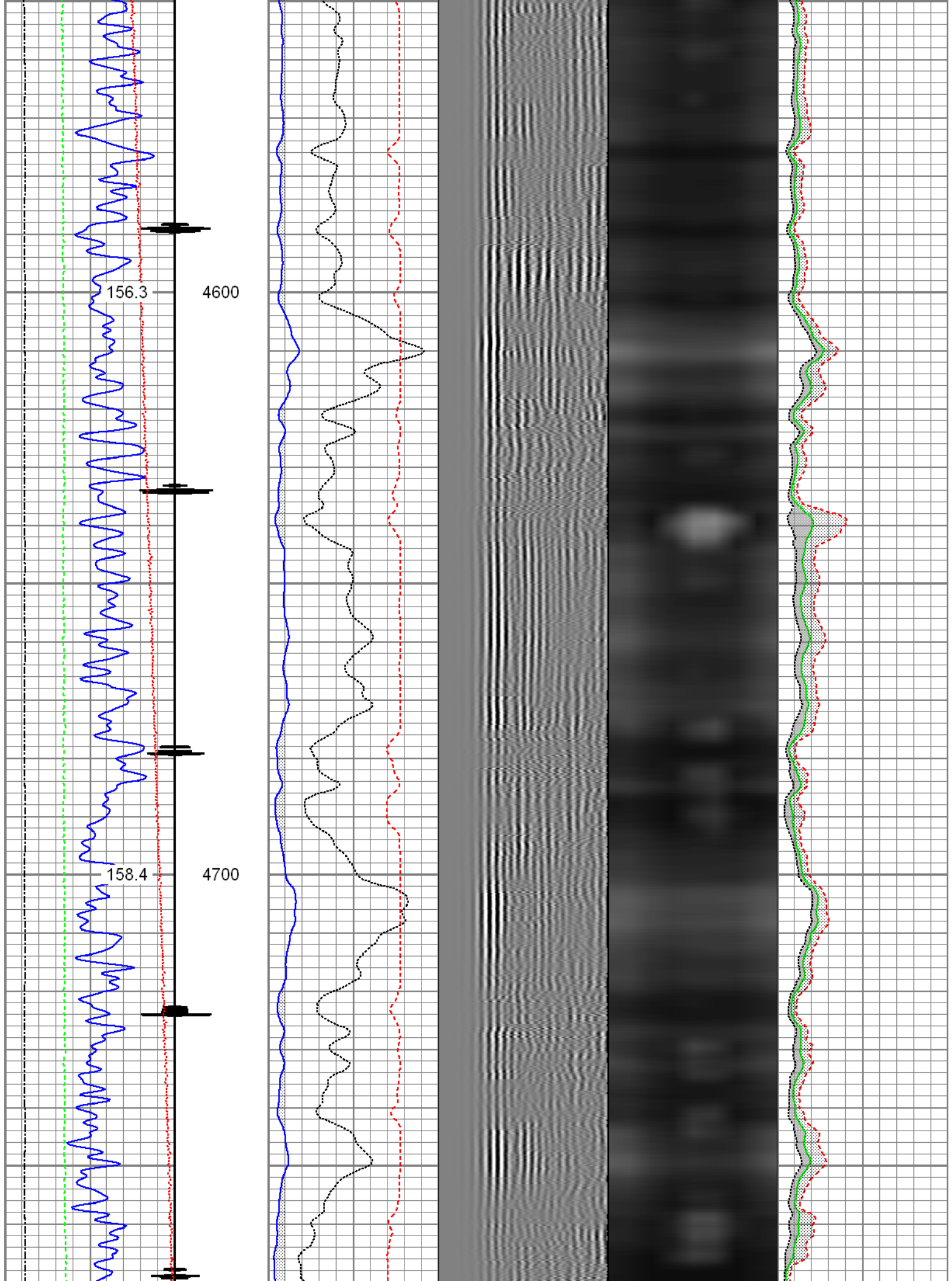


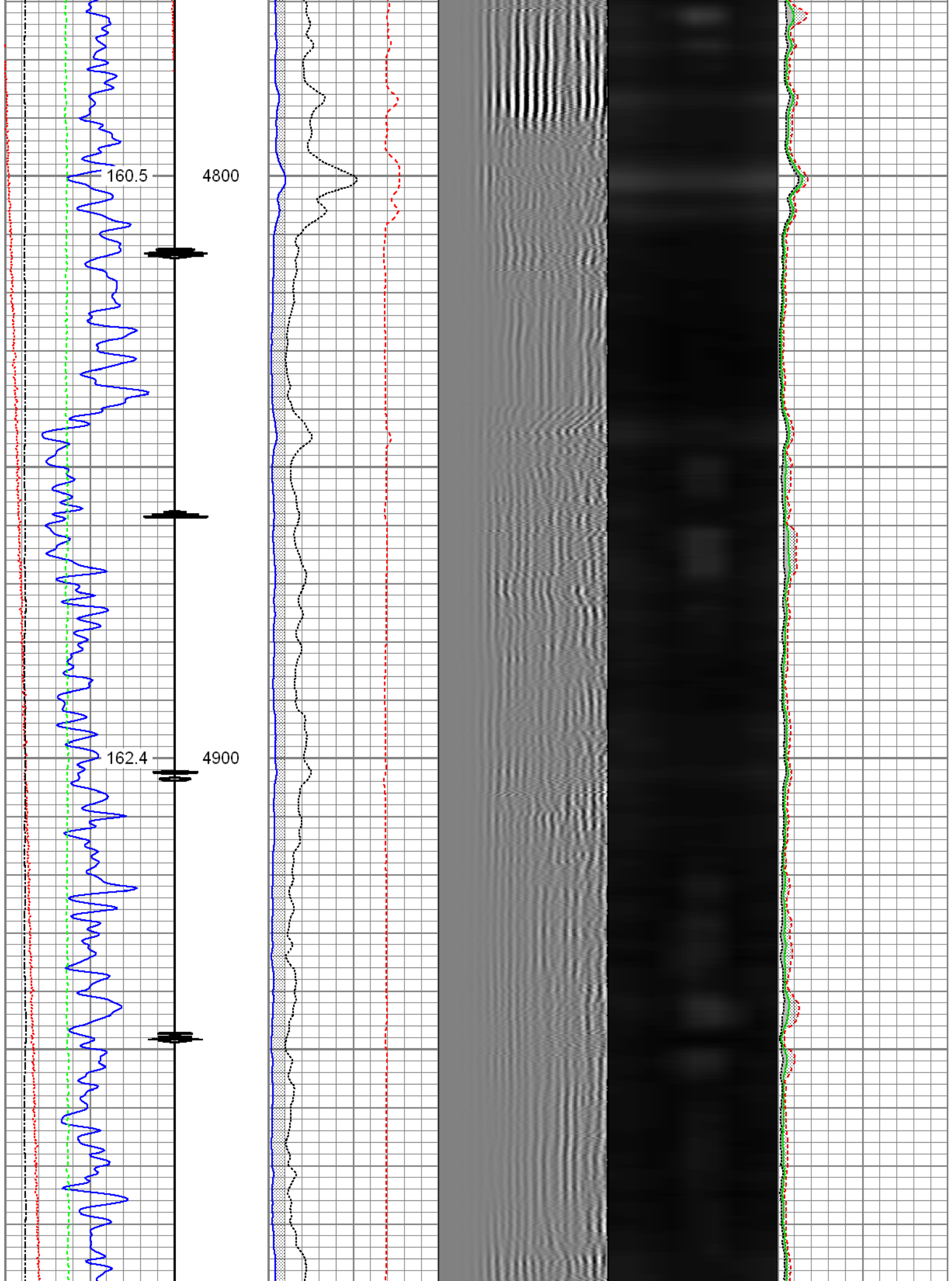


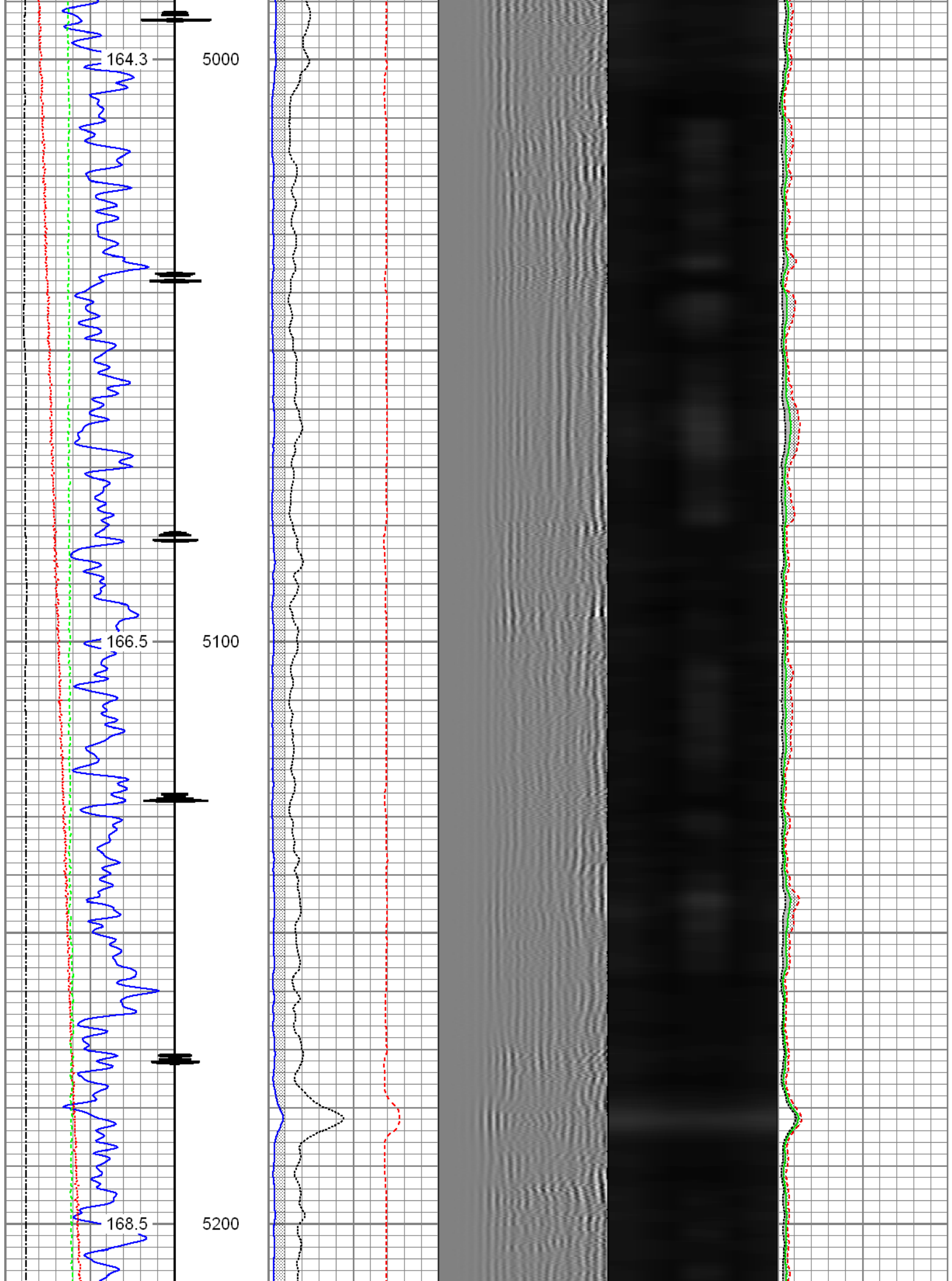


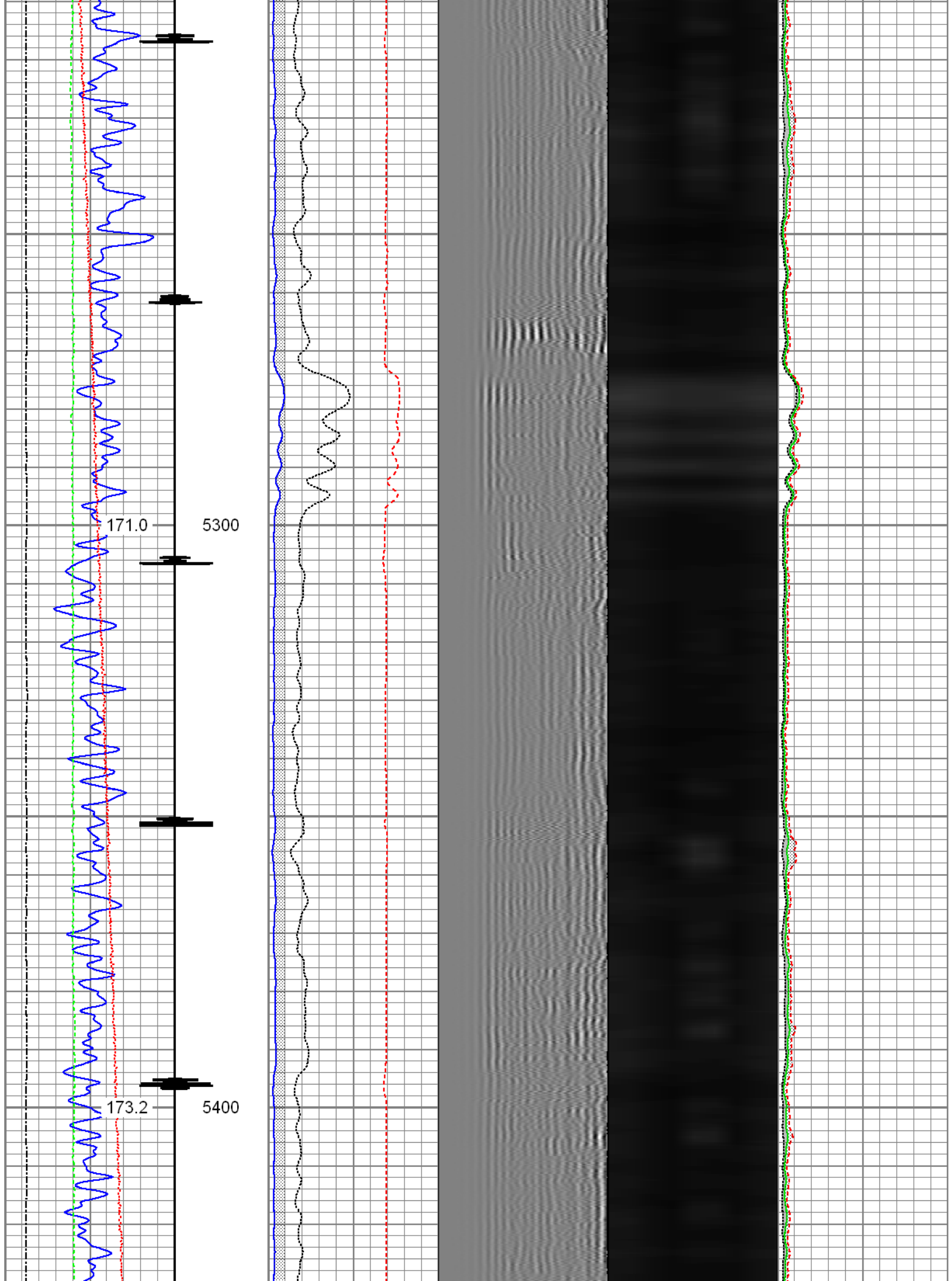


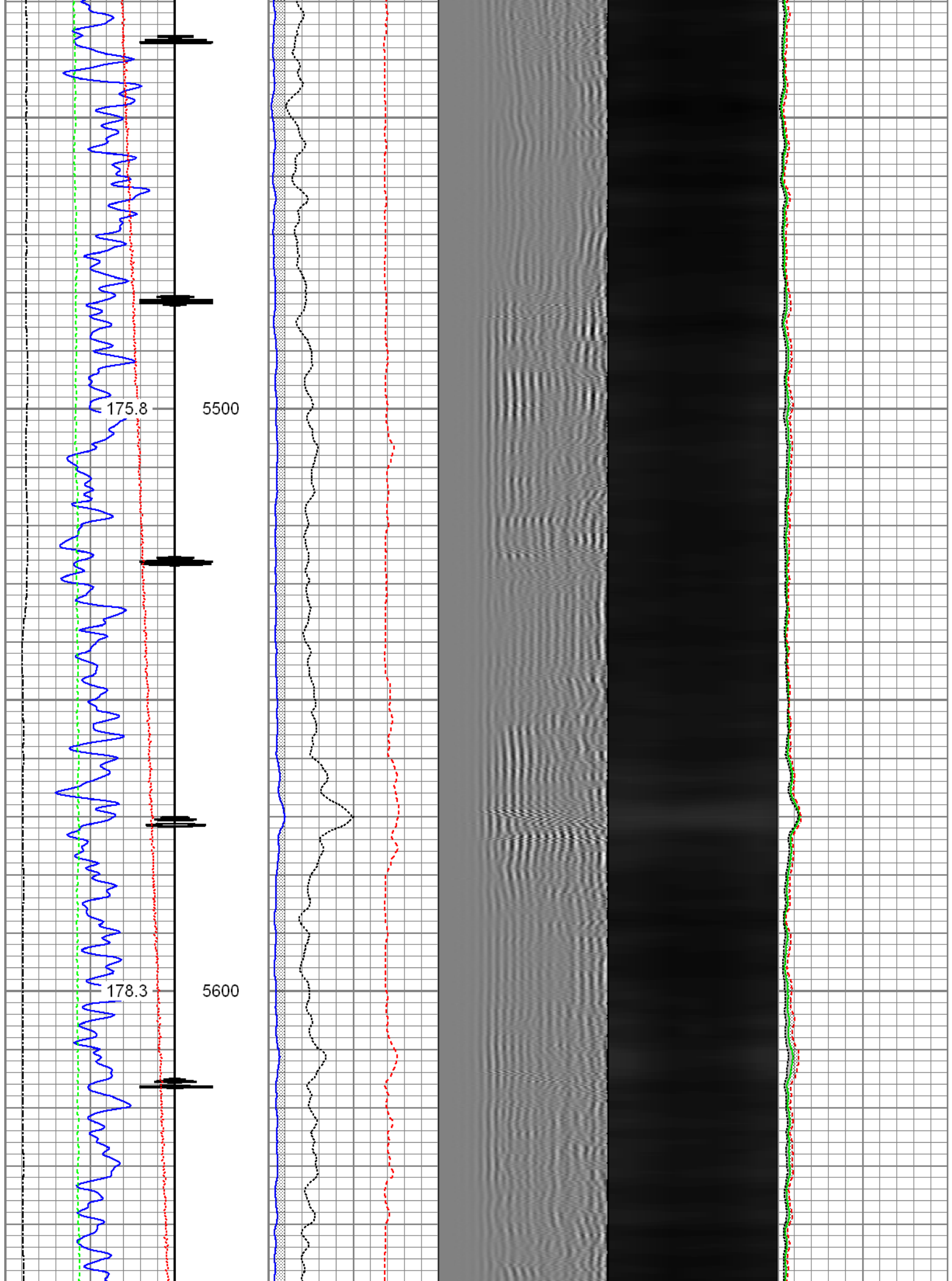


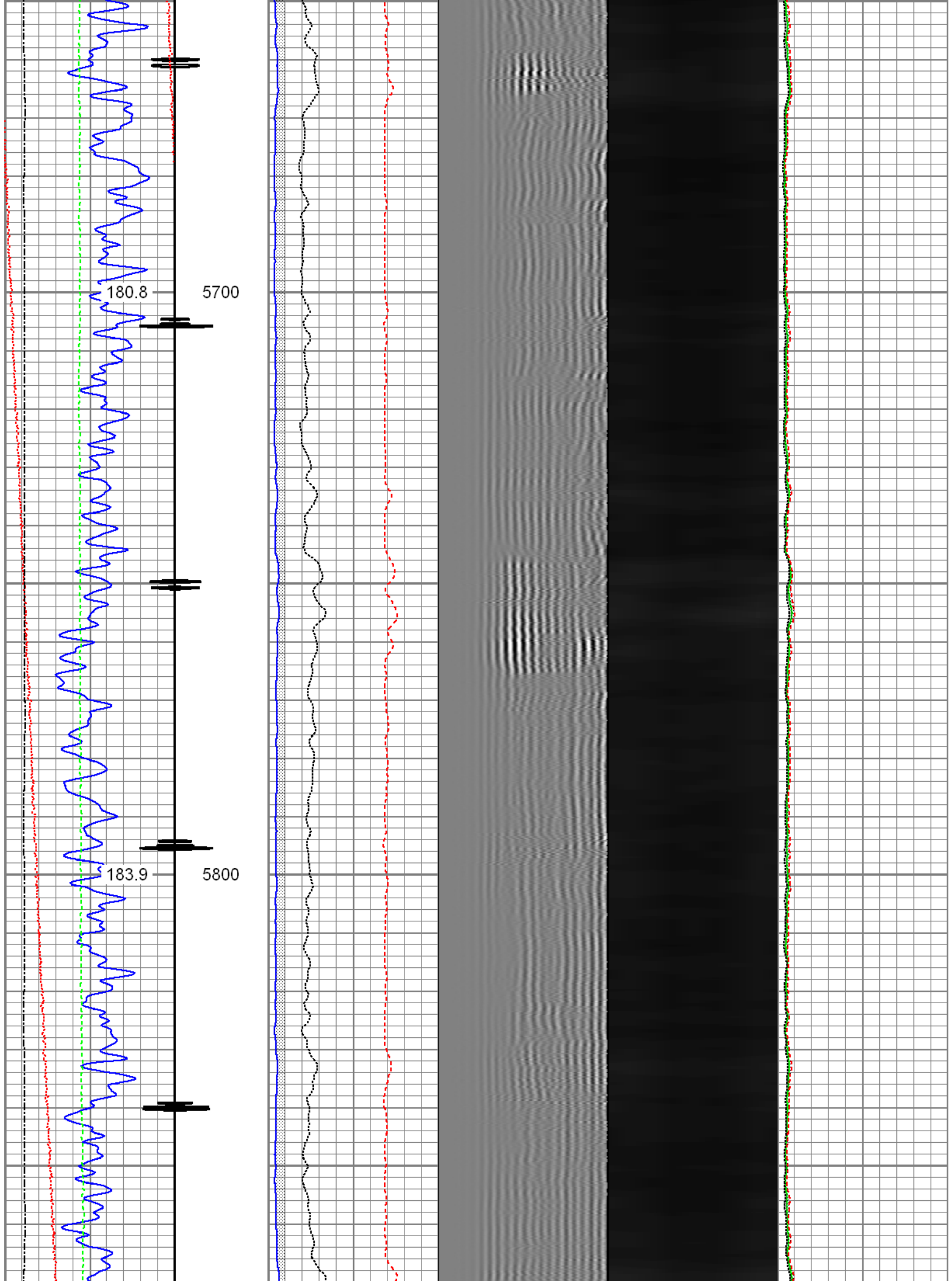


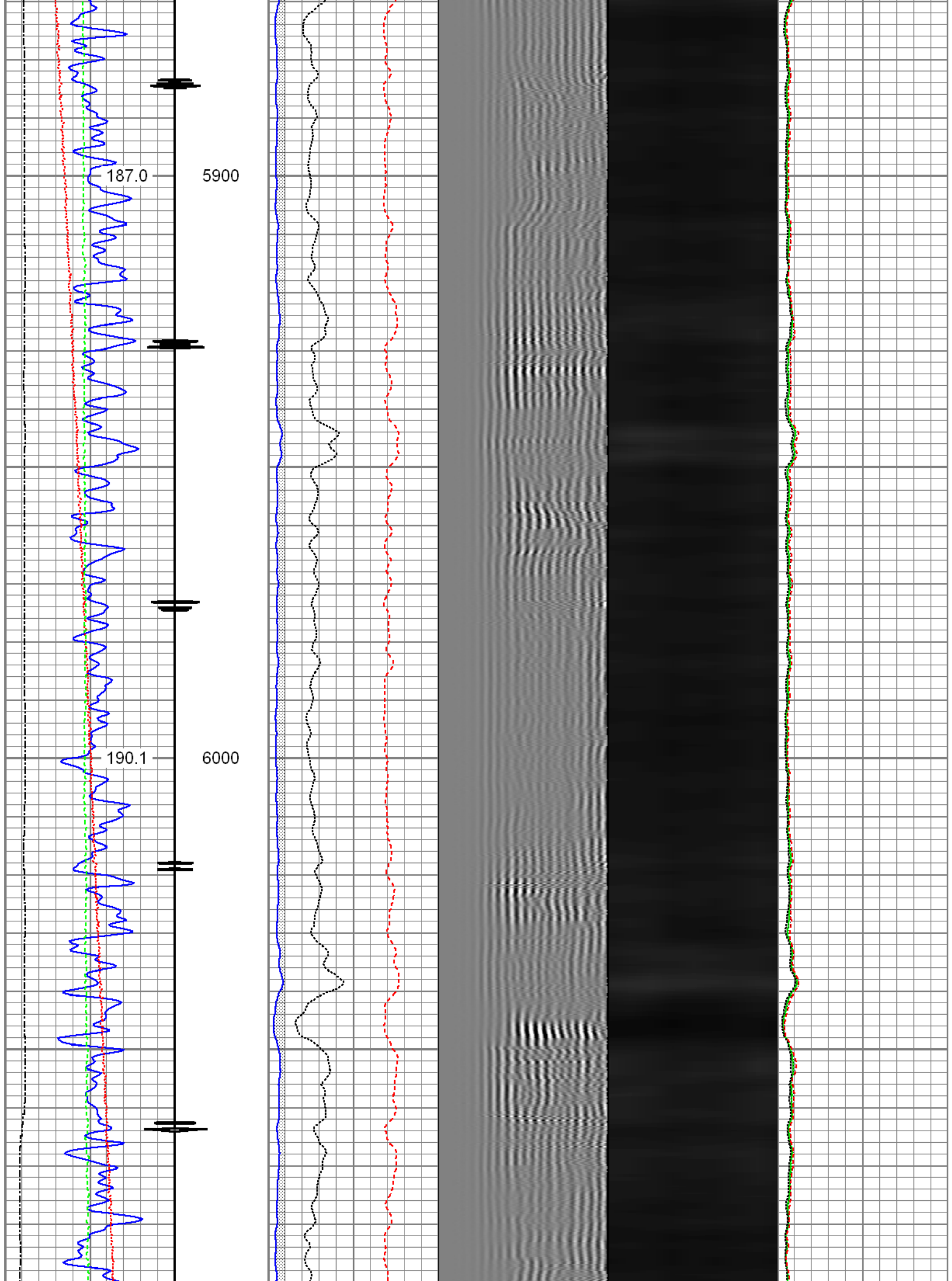


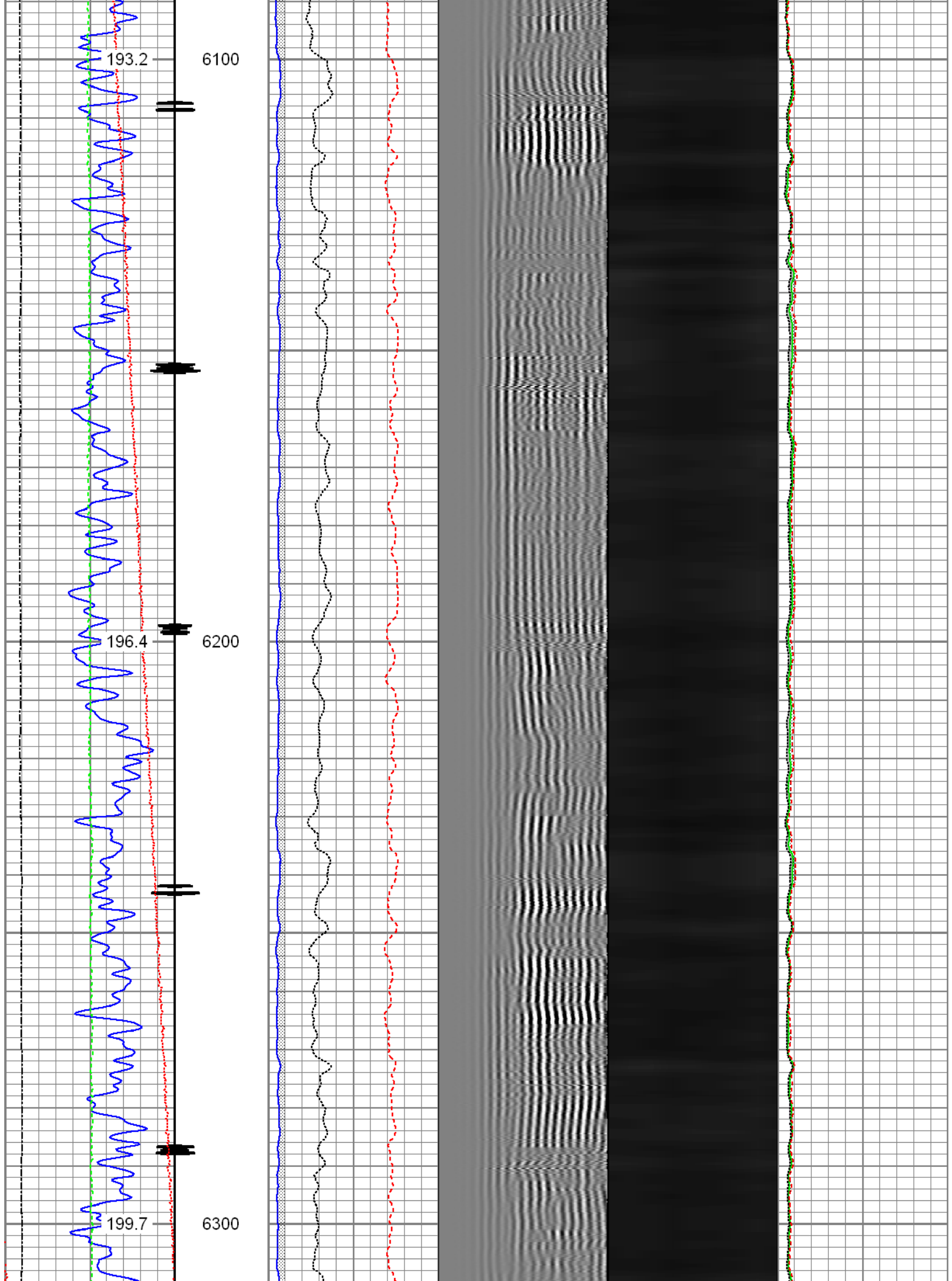


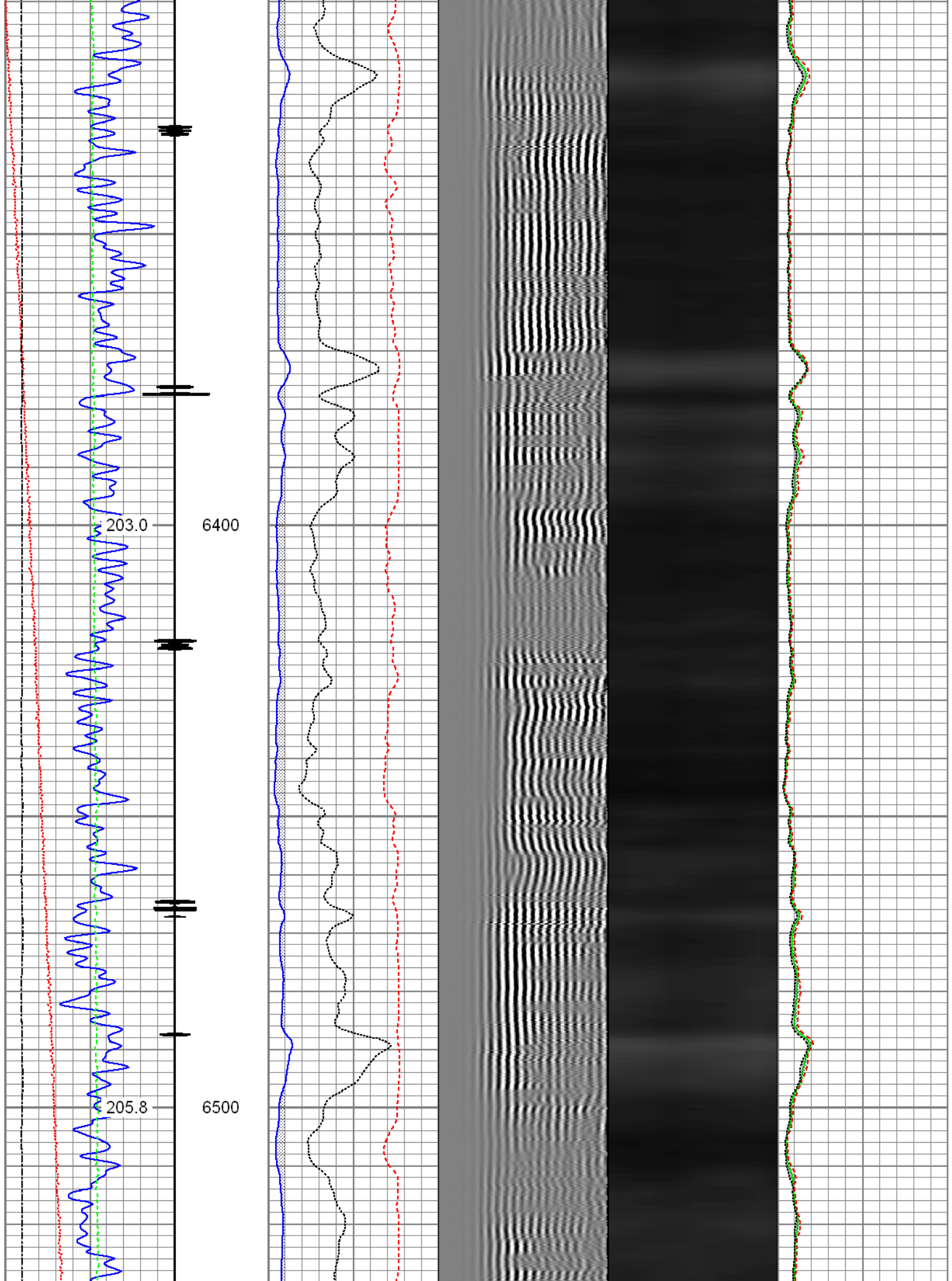


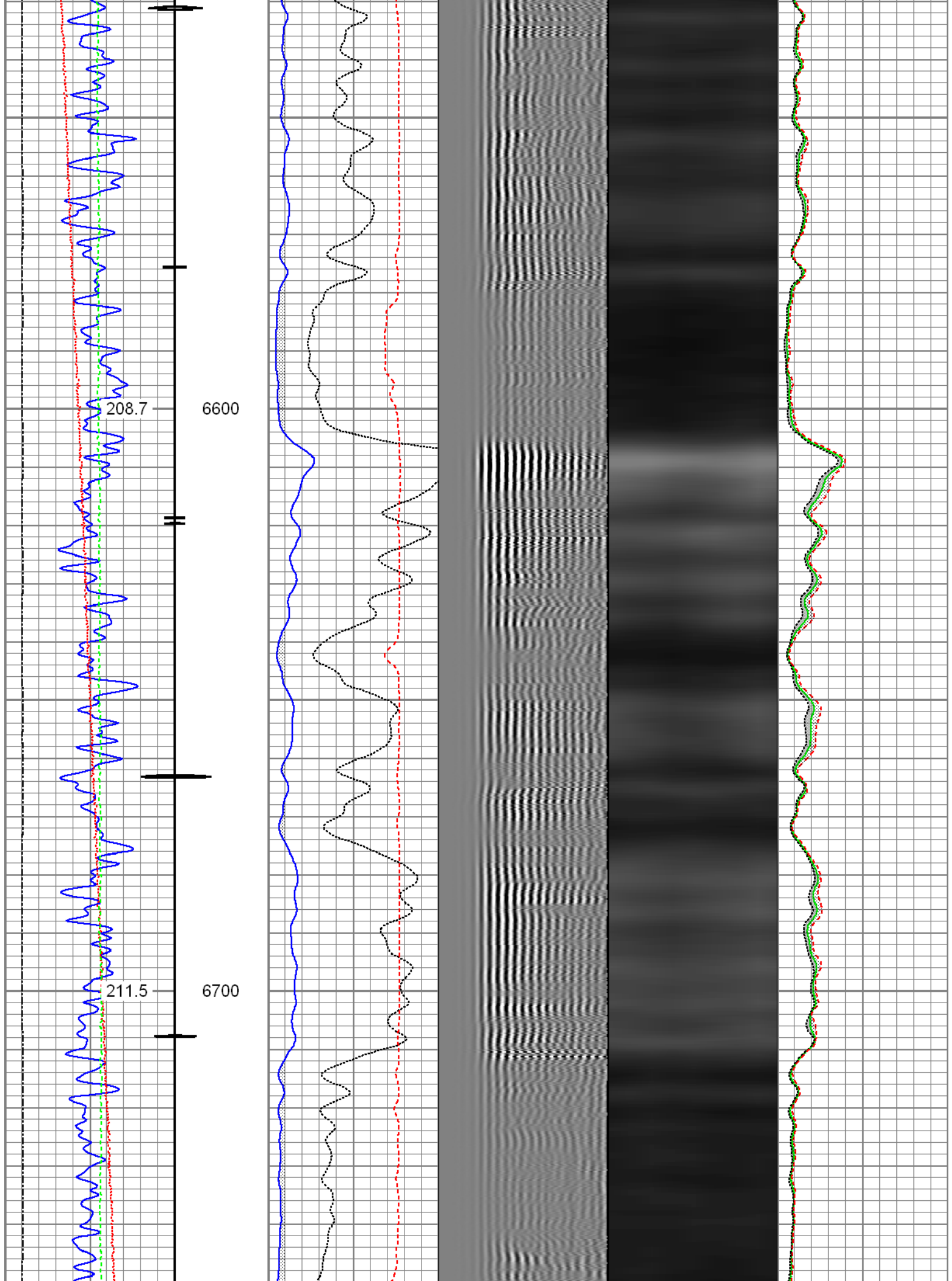


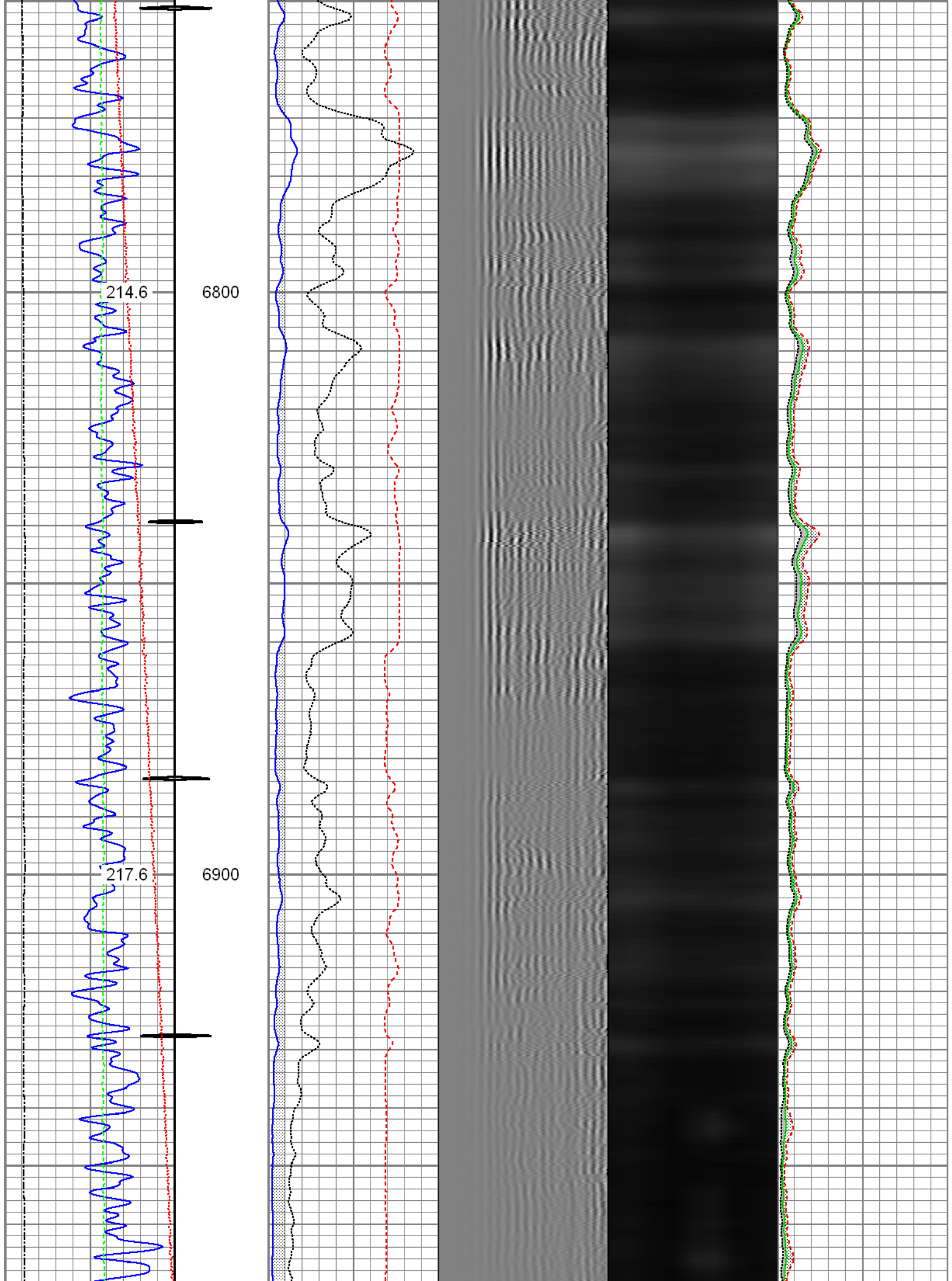


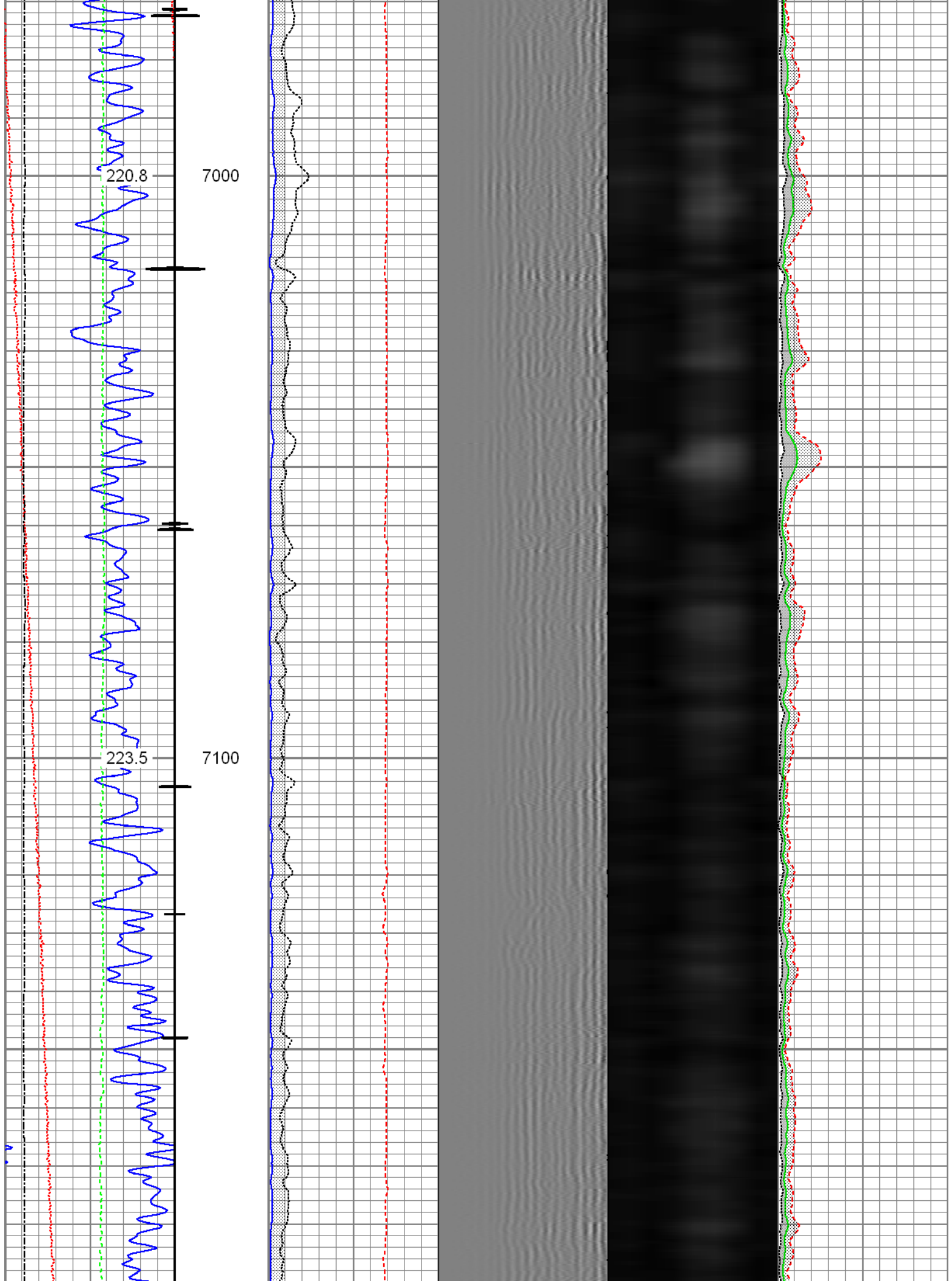


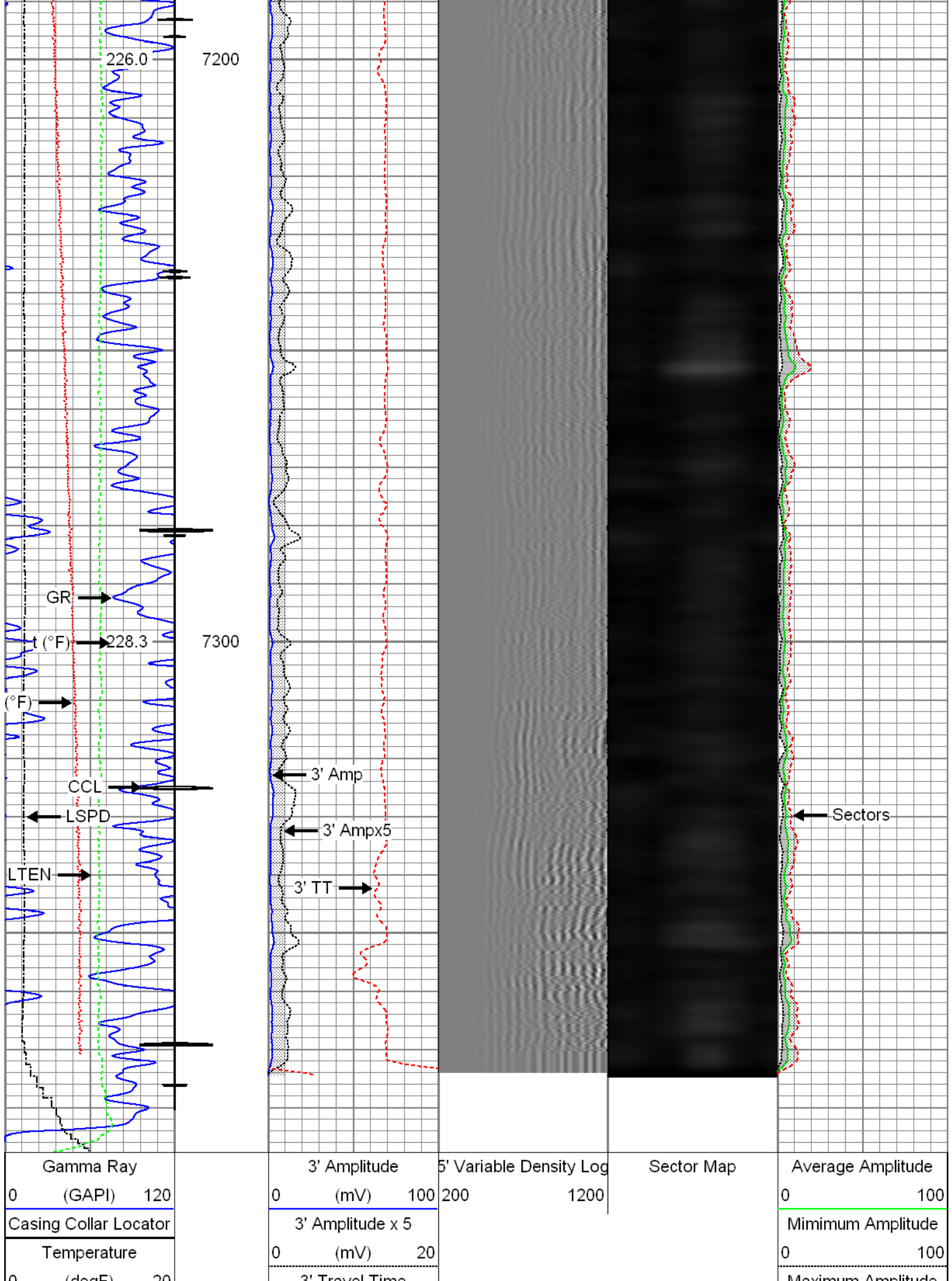













0 (degF) 20	3' Travel Time	Maximum Amplitude
Line Speed	650 (usec) 150	0 100
-150 (ft/min) 150		
Line Tension		
0 (lb) 2000		

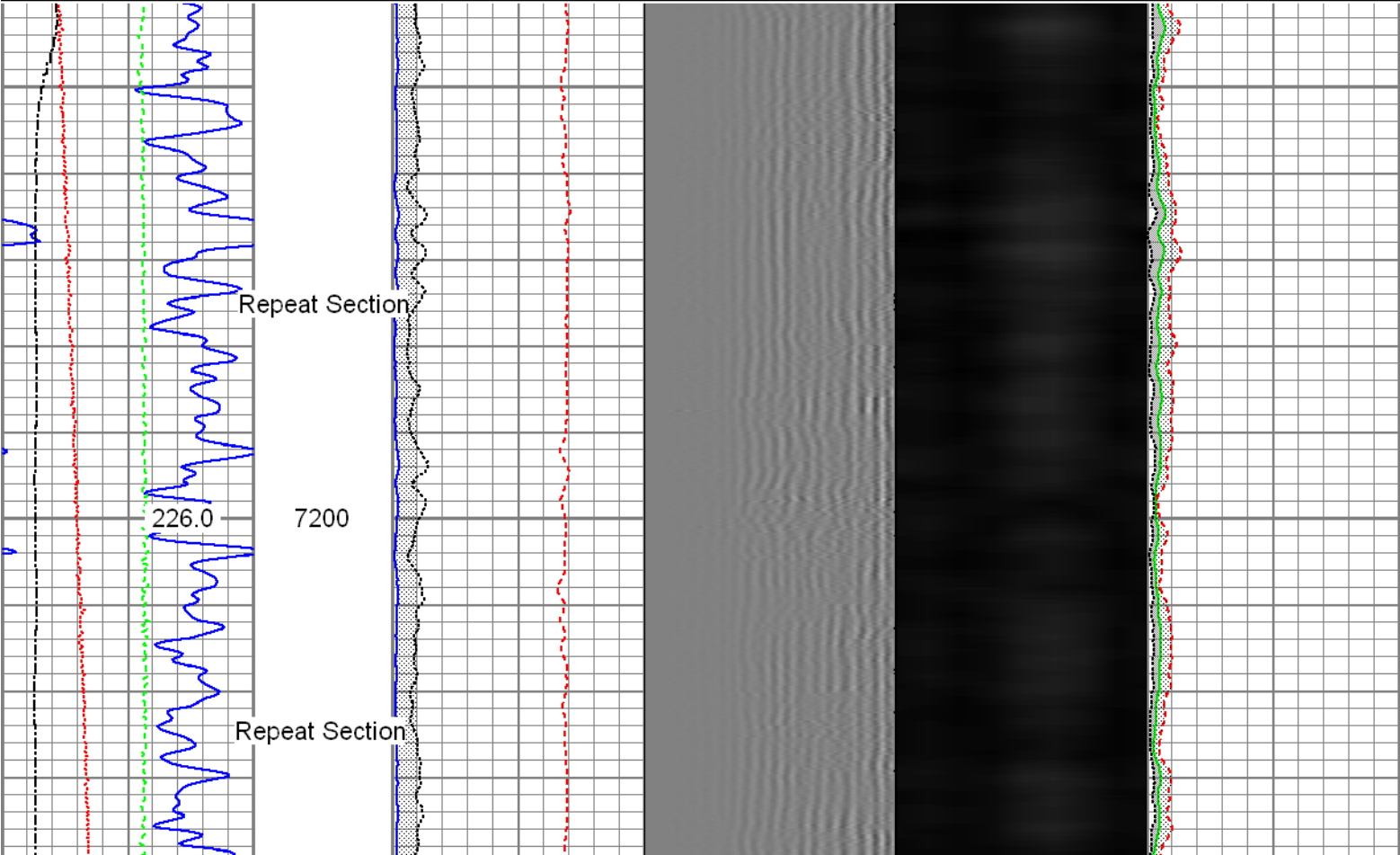


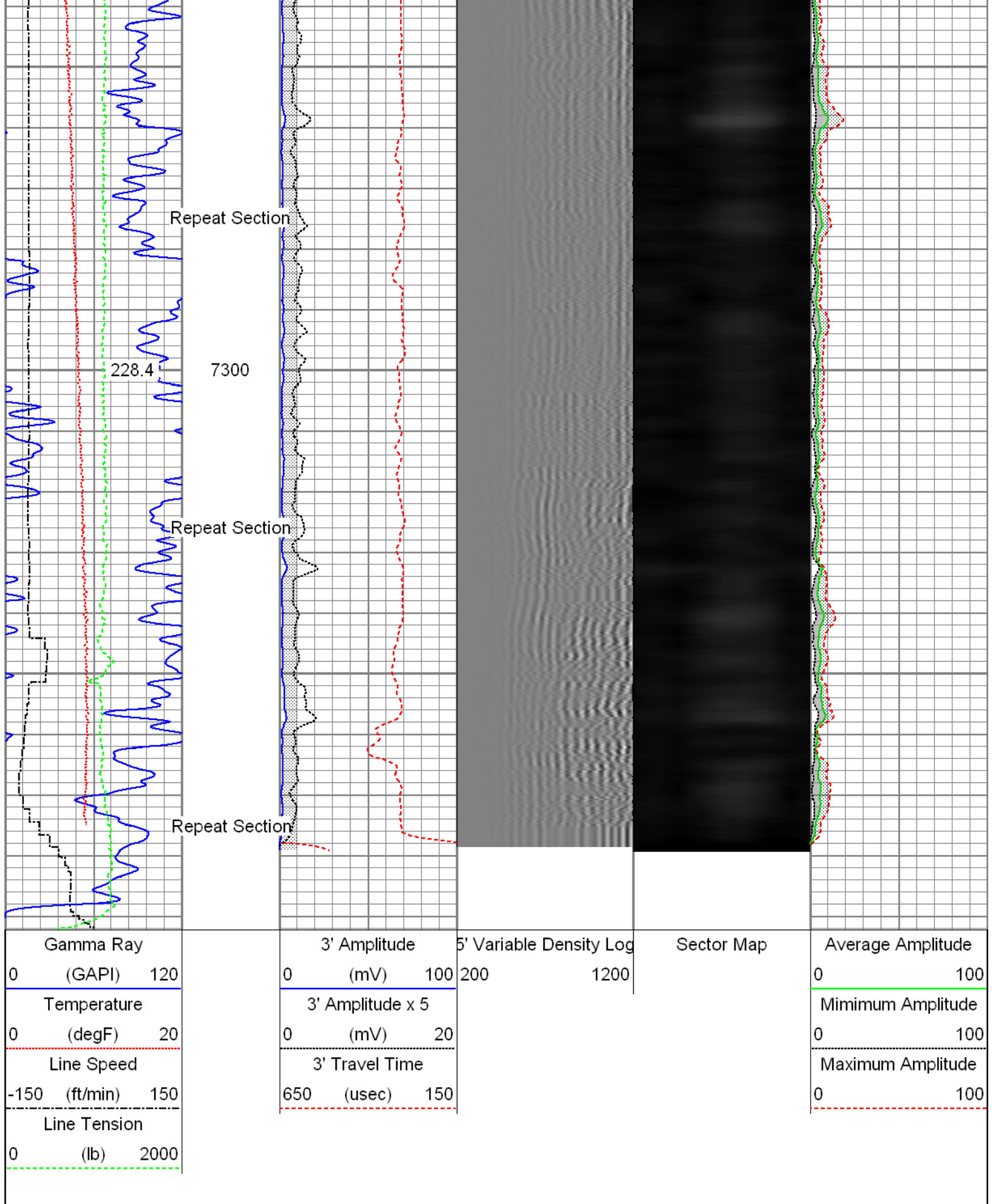
Repeat Pass


Recorded with 2800 PSI Surface Induced Pressure

Database File: 0512341426_anadarko_viper pyro 39n-10hz_10-13-15_rbl.db
Dataset Pathname: pass6.1
Presentation Format: radii
Dataset Creation: Tue Oct 13 15:34:45 2015 by Calc 7.0 B1
Charted by: Depth in Feet scaled 1:240

<div>Gamma Ray</div> <div>0 (GAPI) 120</div> <div>Temperature</div> <div>0 (degF) 20</div> <div>Line Speed</div> <div>-150 (ft/min) 150</div> <div>Line Tension</div> <div>0 (lb) 2000</div>	<div>3' Amplitude</div> <div>0 (mV) 100</div> <div>3' Amplitude x 5</div> <div>0 (mV) 20</div> <div>3' Travel Time</div> <div>650 (usec) 150</div>	<div>5' Variable Density Log</div> <div>200 1200</div>	<div>Sector Map</div>	<div>Average Amplitude</div> <div>0 100</div> <div>Minimum Amplitude</div> <div>0 100</div> <div>Maximum Amplitude</div> <div>0 100</div>
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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

Calibration Report	
Database File:	0512341426_anadarko_viper pyro 39n-10hz_10-13-15_rbl.db
Dataset Pathname:	pass8 1

Gamma Ray Calibration Report

Serial Number: FW1212-026
 Tool Model: 2.75"Digital
 Performed: Sun Jun 13 13:33:21 1993

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

Calibration Casing Diameter: 5.500 in
 Calibration Depth: 7392.274 ft

Master Calibration, performed Tue Oct 13 13:40:11 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.010	0.639	0.800	71.921	113.133	-0.317
CAL	0.010	0.780				
5'	0.010	0.477	0.800	71.921	152.256	-0.722
SUM						
S1	0.010	0.597	0.000	100.000	170.425	-1.673
S2	0.010	0.589	0.000	100.000	172.761	-1.696
S3	0.010	0.606	0.000	100.000	167.728	-1.644
S4	0.010	0.646	0.000	100.000	157.200	-1.556
S5	0.010	0.689	0.000	100.000	147.161	-1.453
S6	0.010	0.692	0.000	100.000	146.561	-1.481
S7	0.010	0.665	0.000	100.000	152.782	-1.526
S8	0.010	0.627	0.000	100.000	162.067	-1.610


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	0.010	0.780	1.000	0.000

Air Zero Calibration, performed Tue Oct 13 13:40:27 2015:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.010		0.000		0.000	
5'	0.010		0.000		0.000	
SUM						
S1	0.010		0.000		0.000	
S2	0.010		0.000		0.000	
S3	0.010		0.000		0.000	
S4	0.010		0.000		0.000	

S4	0.010	0.000	0.000
S5	0.010	0.000	0.000
S6	0.010	0.000	0.000
S7	0.010	0.000	0.000
S8	0.010	0.000	0.000

	Company	Kerr-McGee Oil and Gas Onshore LP
	Well	Viper Pyro 39N-10HZ
	Field	Wattenberg
	County	Weld
	State	Colorado