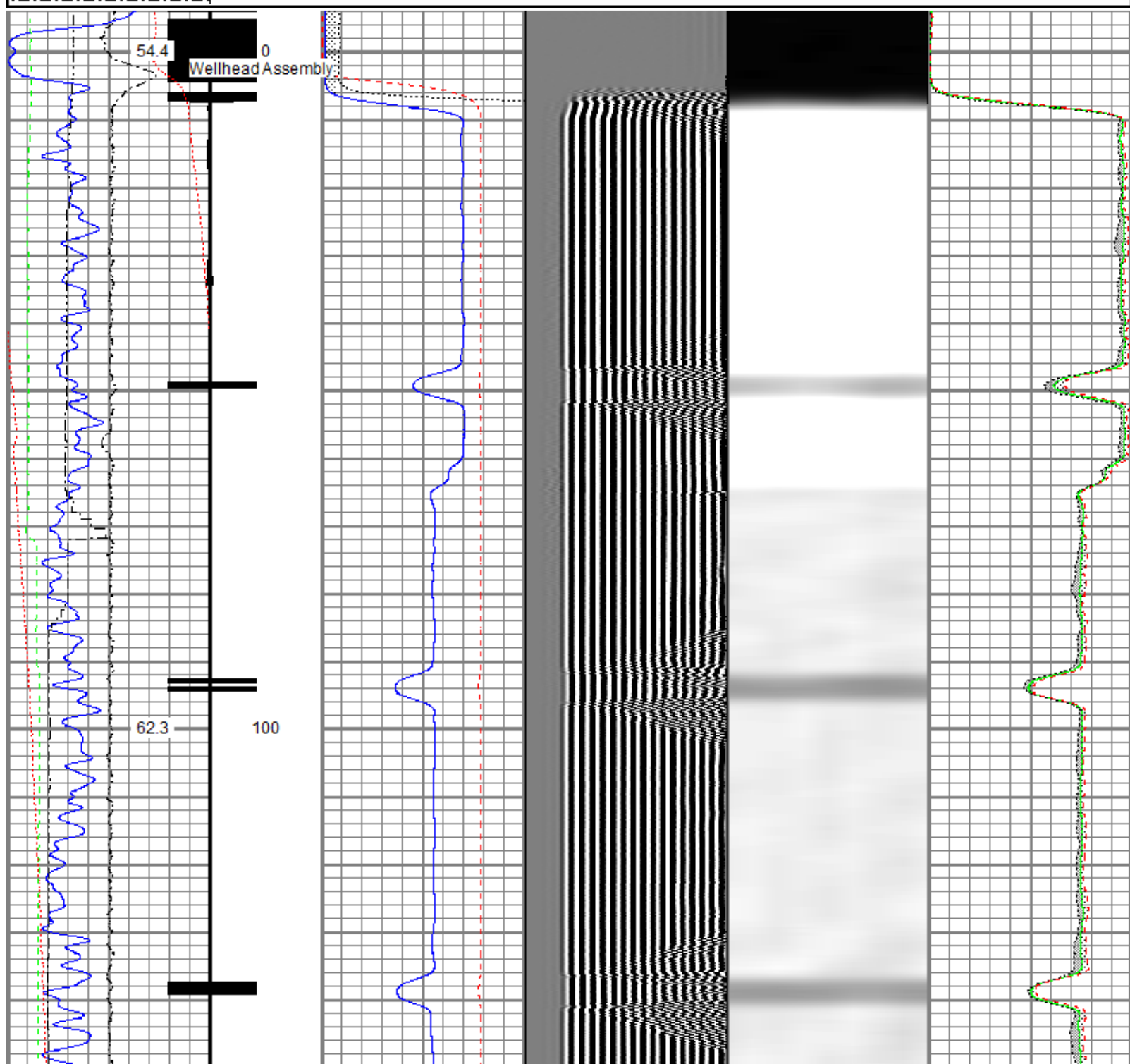
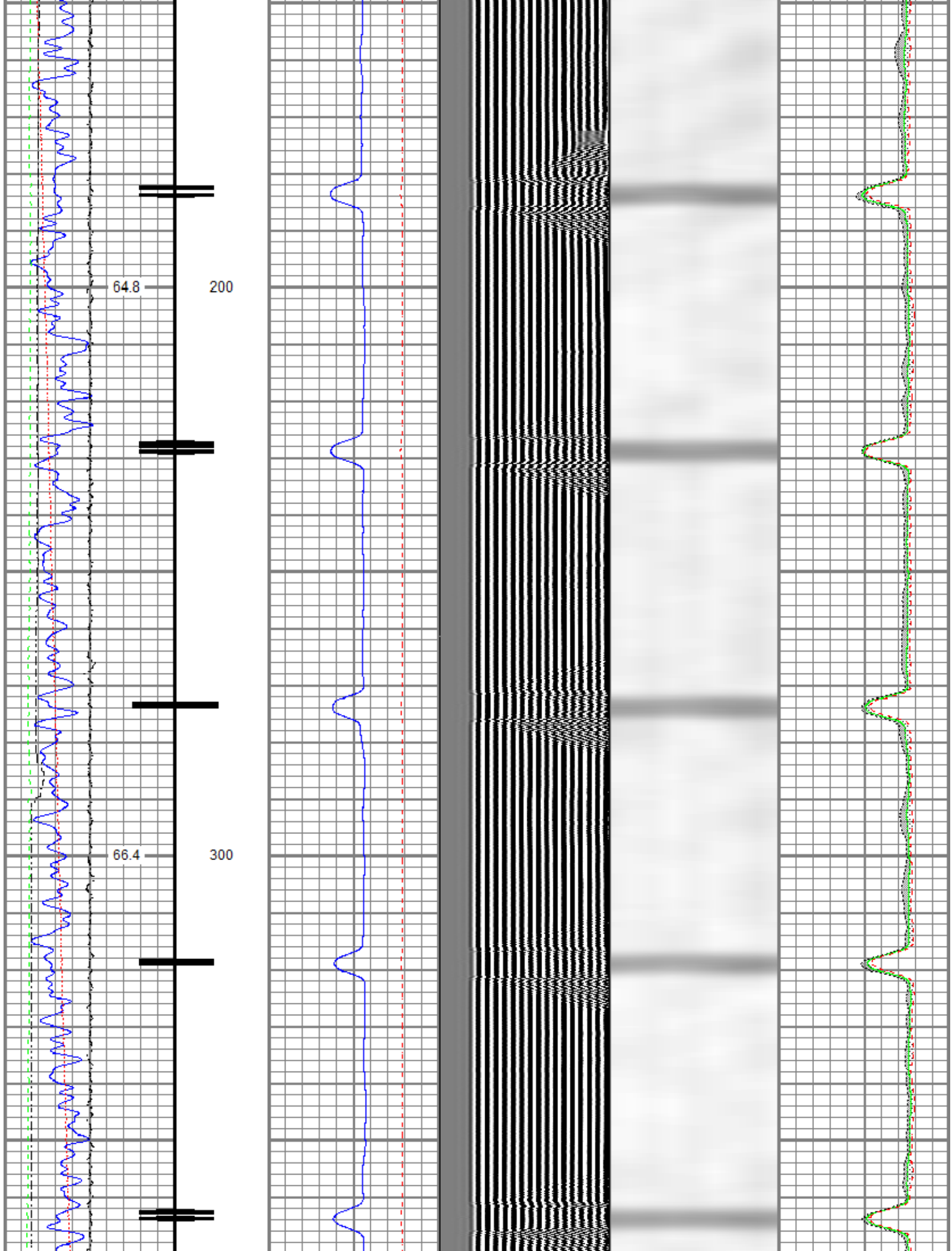


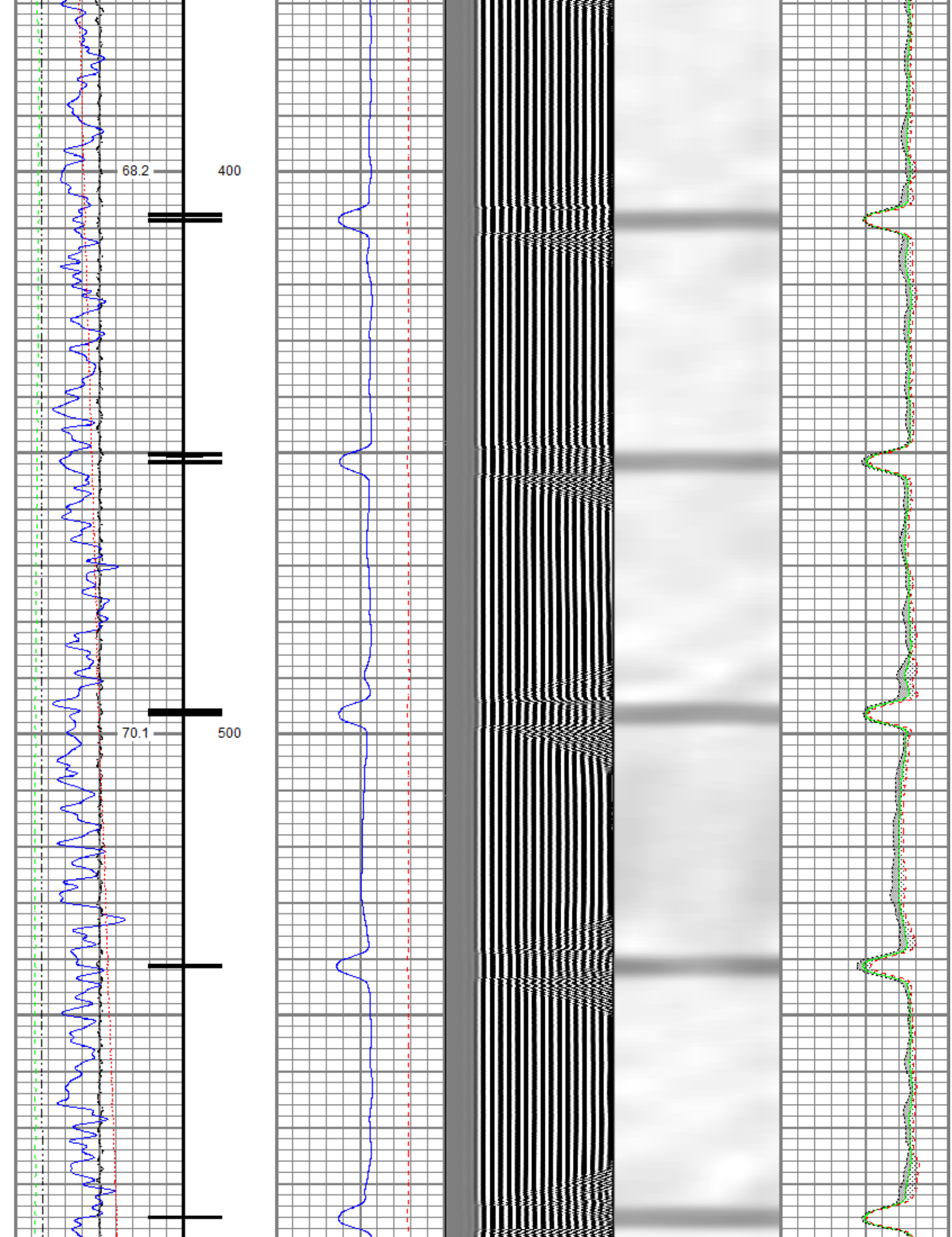
<<< Fold Here >>>
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible 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 6518.8 FT Adjusted -26 FT to correlate to Marker Joint Log ran with 2500 PSI Surface Induced Pressure Logging tools were clean and free of debris upon completion of operations Thank you for choosing Reliance Oilfield Services, LLC!!

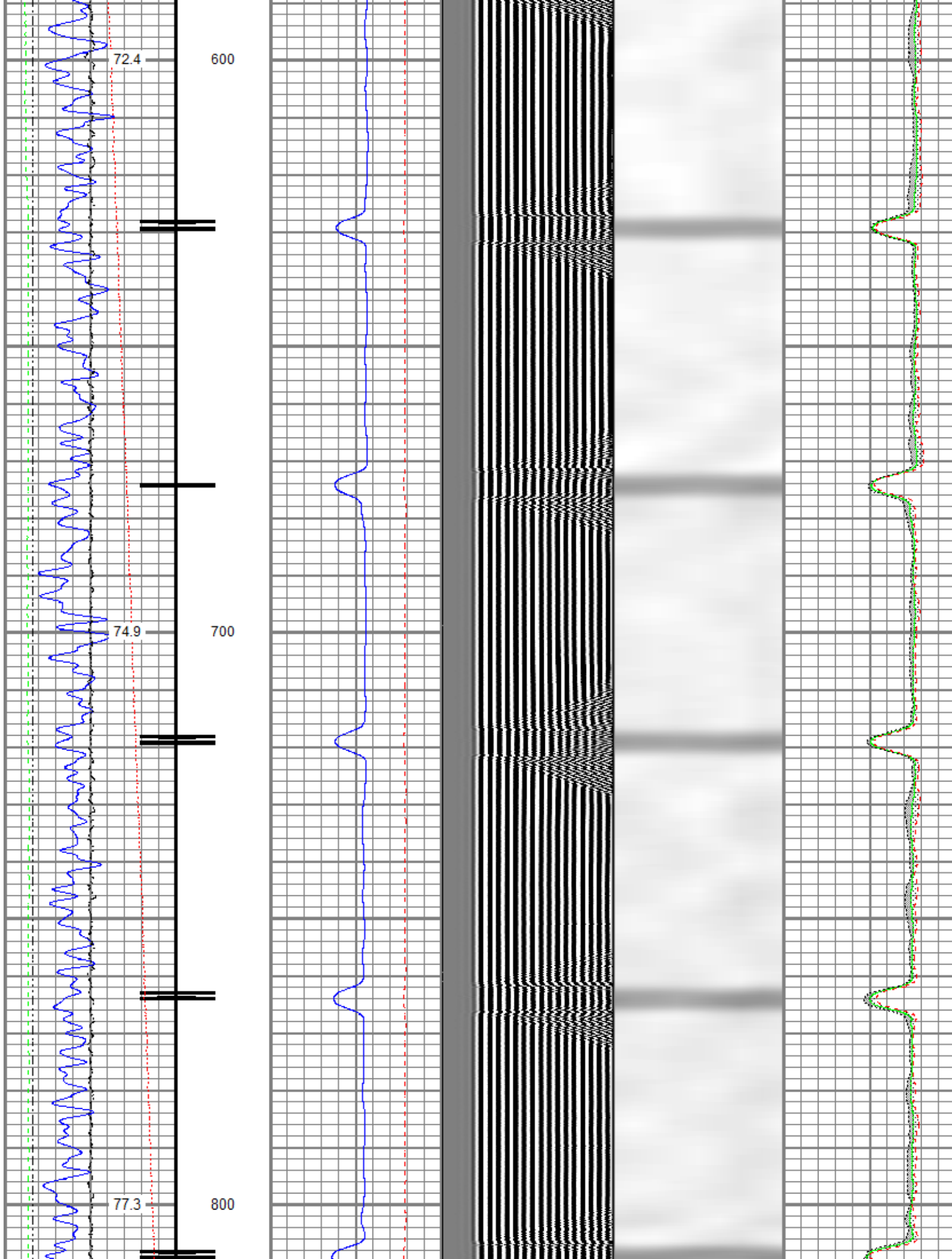
Database File	noble\noble_vogler state d33-759_rbl_04-13-20\processed_noble_vogler state d33-759_rbl_04-13-20.db
Dataset Pathname	main.4
Presentation Format	ros_radri_noble
Dataset Creation	Tue Apr 14 09:57:12 2020
Charted by	Depth in Feet scaled 1:240

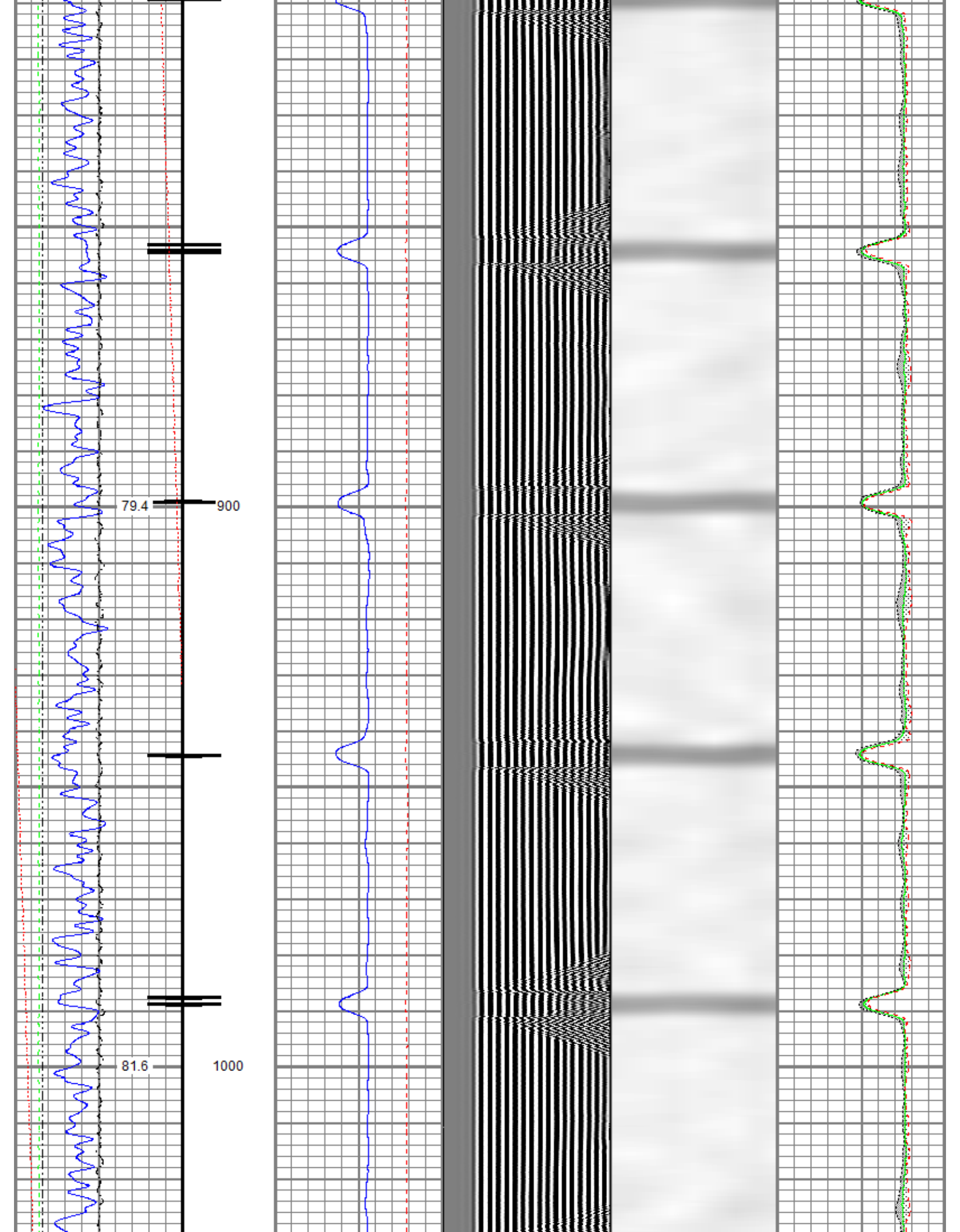
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min) 150						
Line Tension (lb) 2000						
Differential Temperature						
-2 (degF) 2						

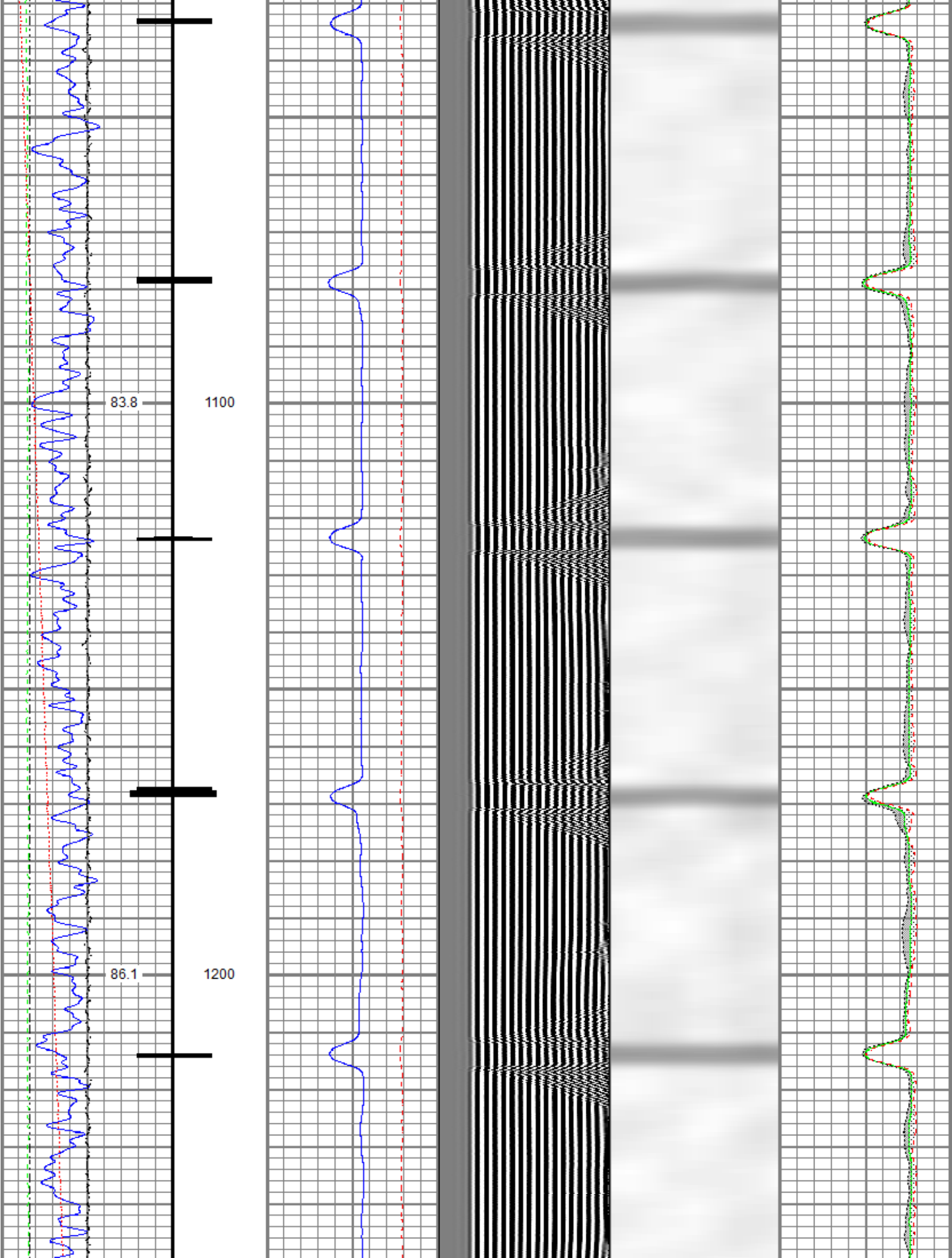


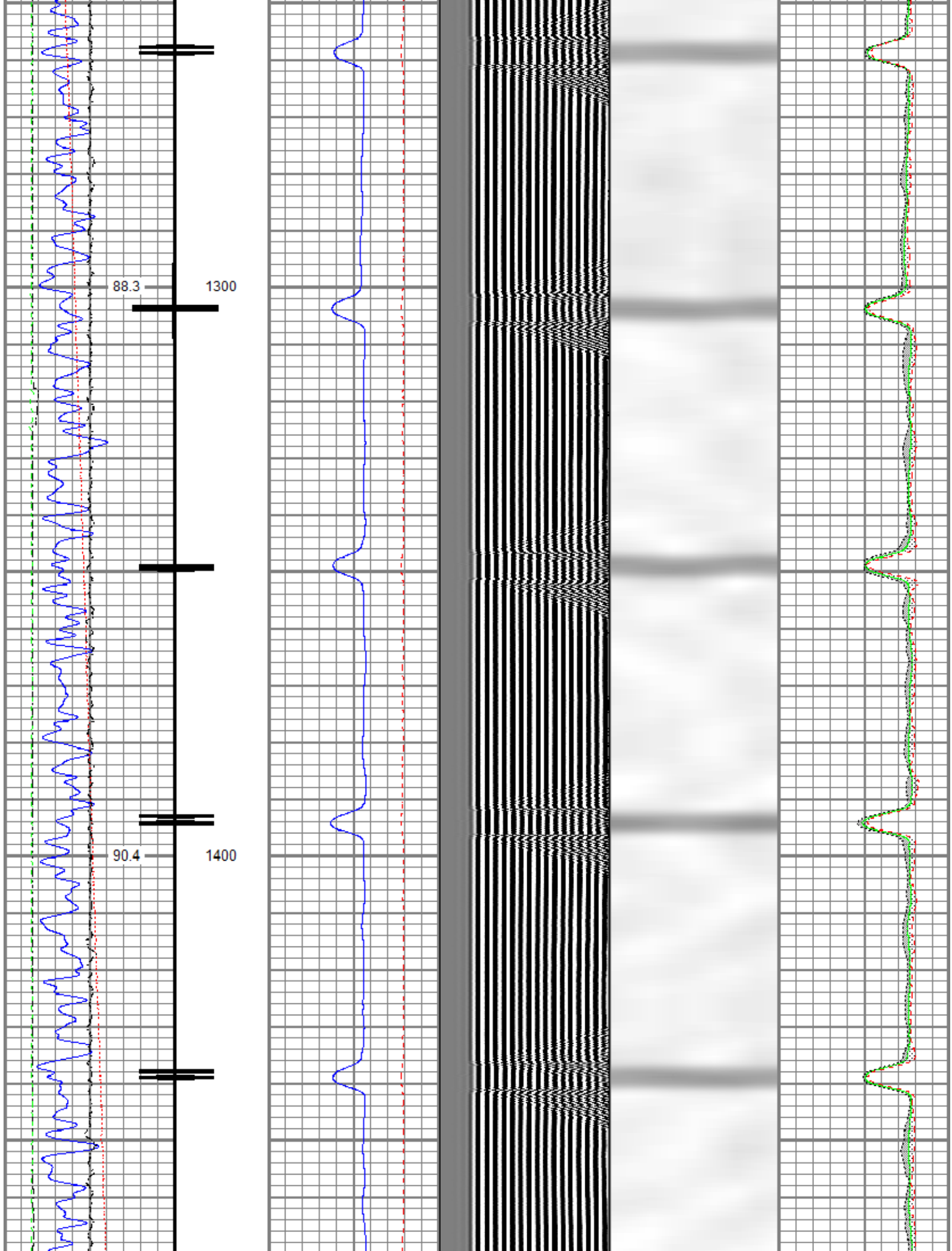


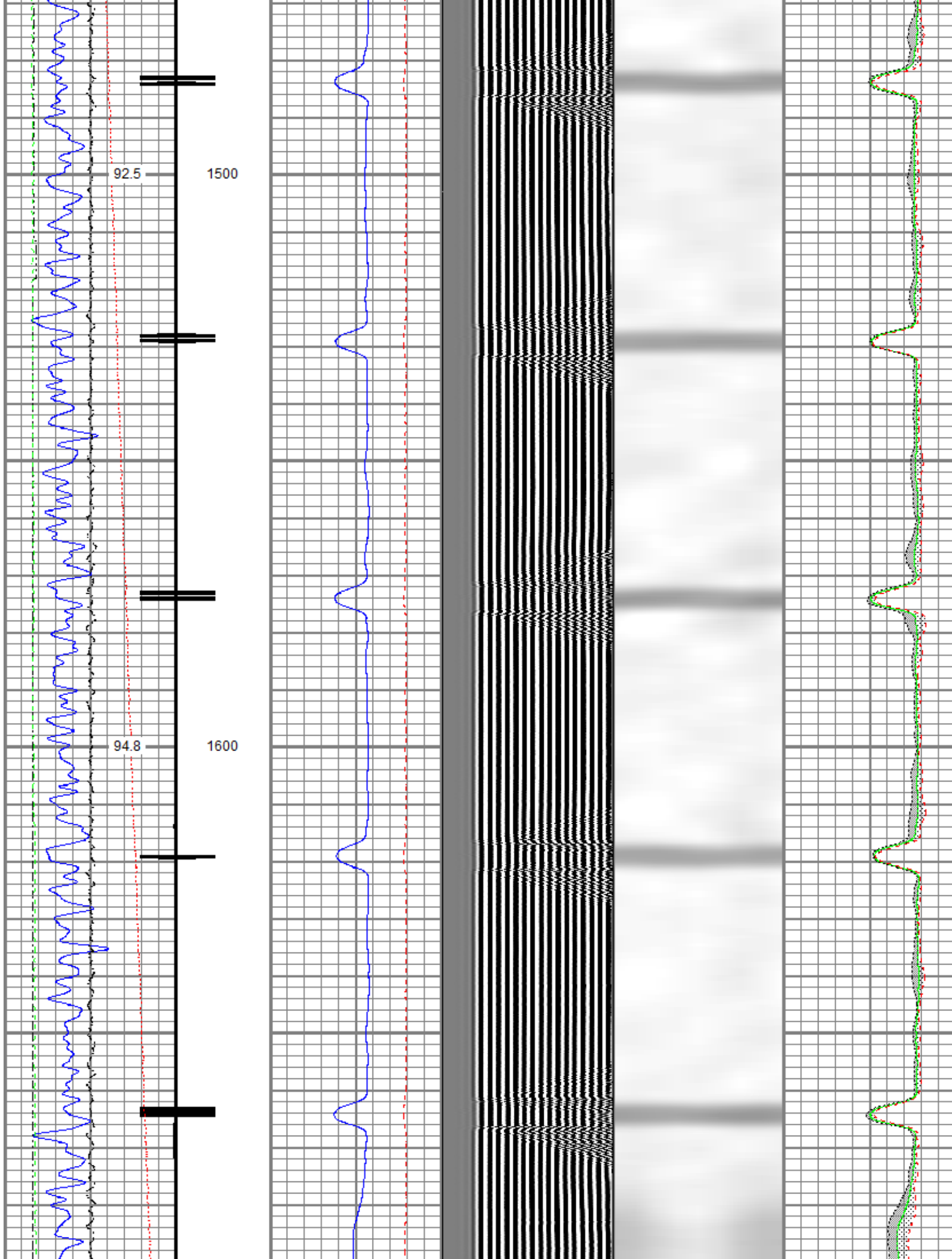


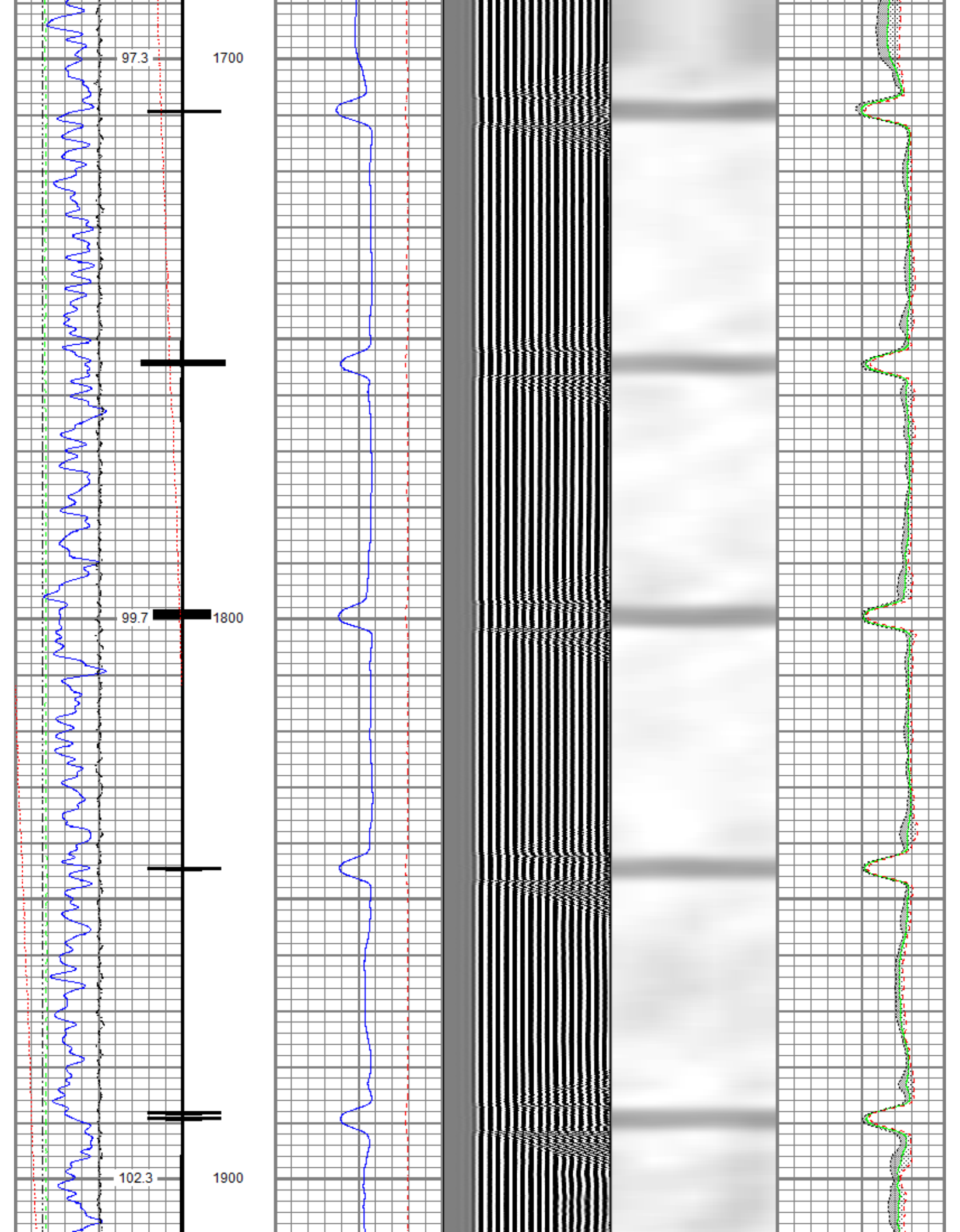


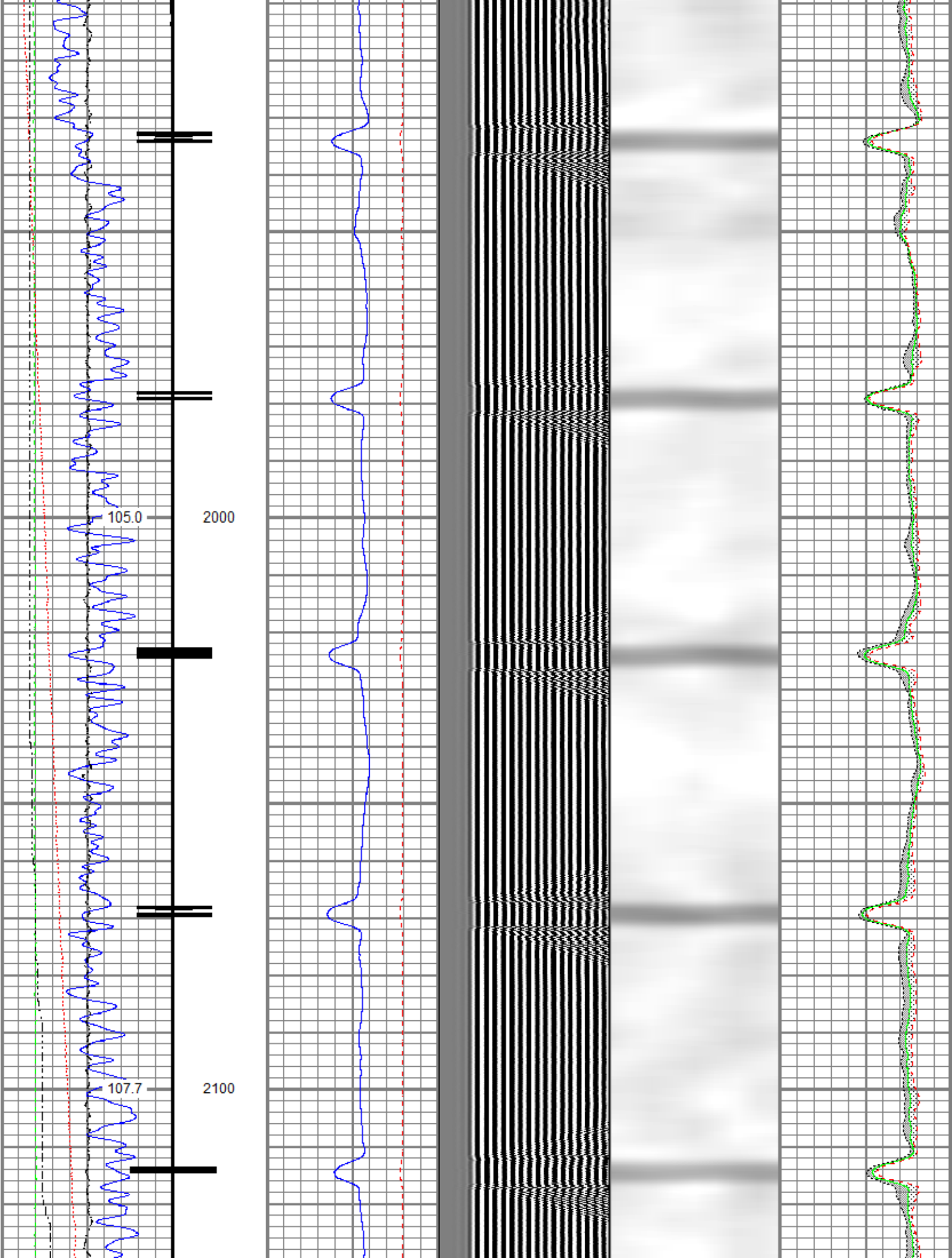


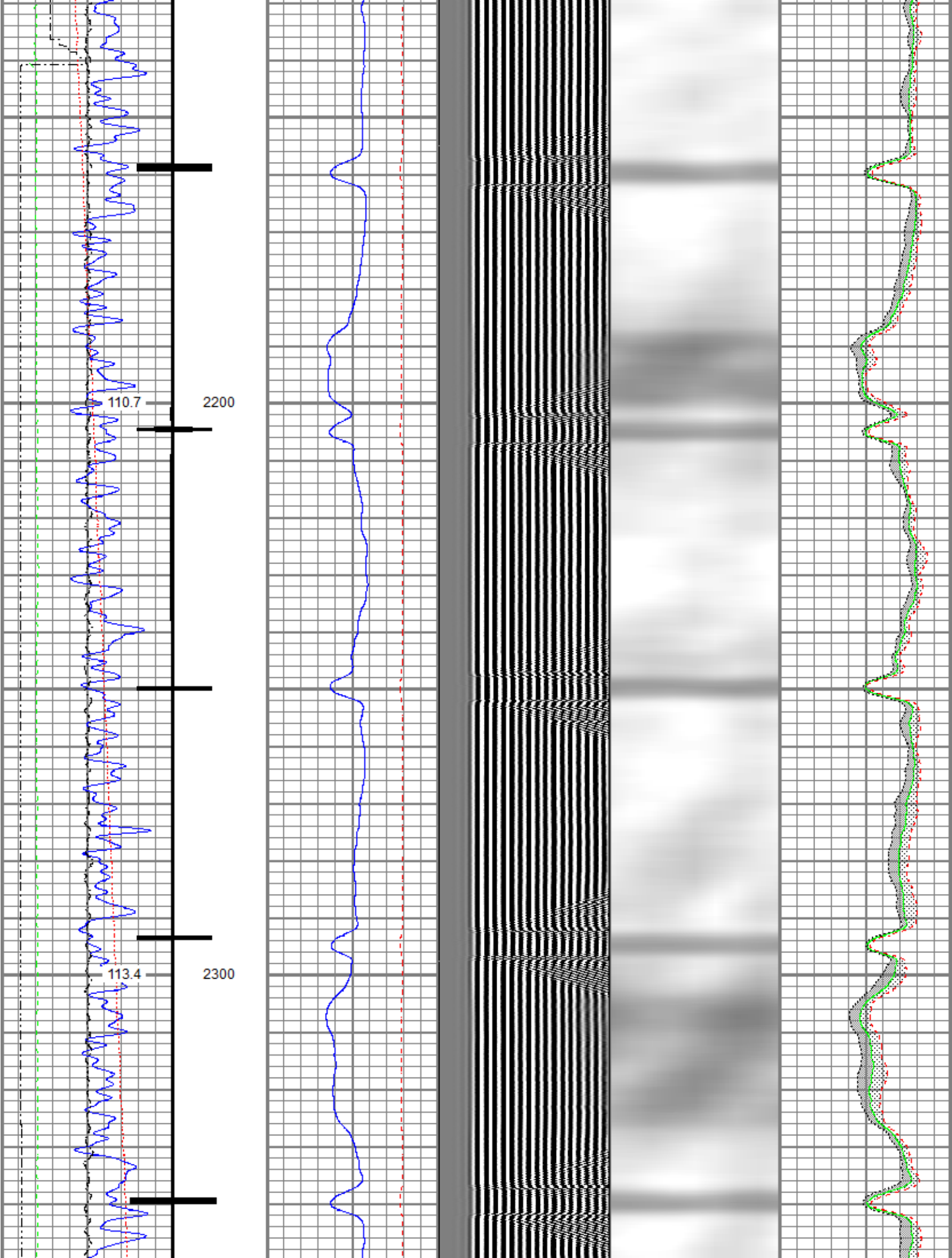


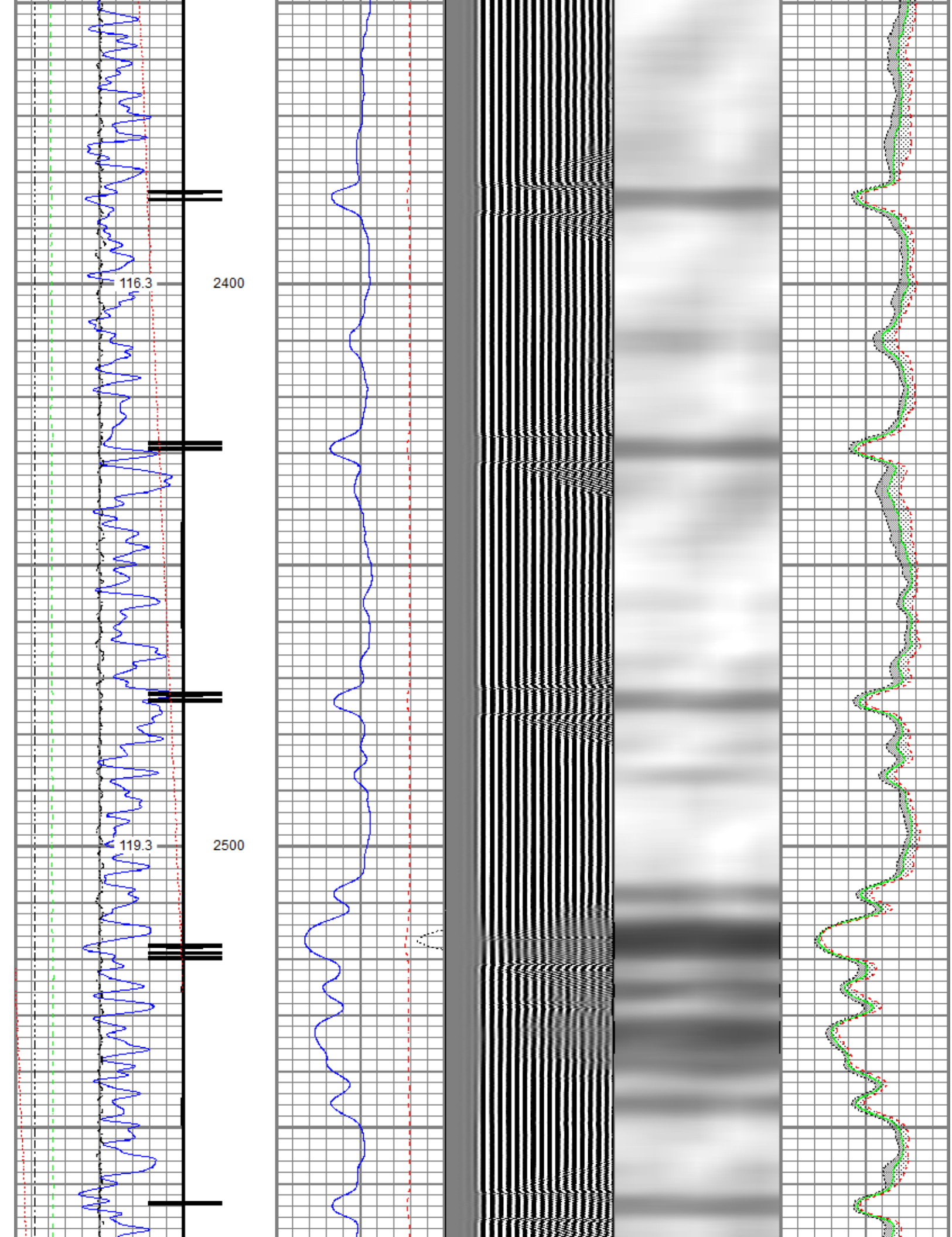


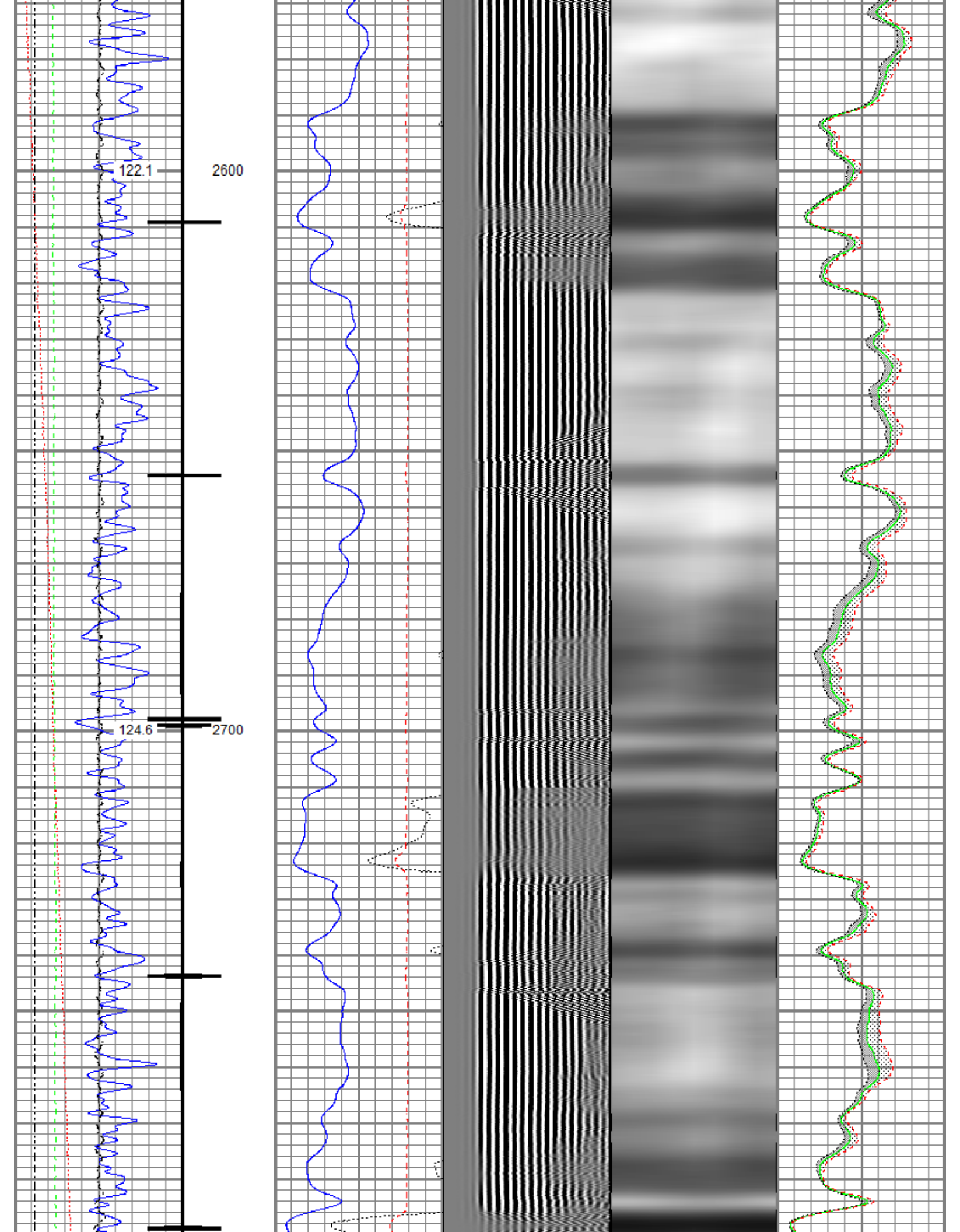


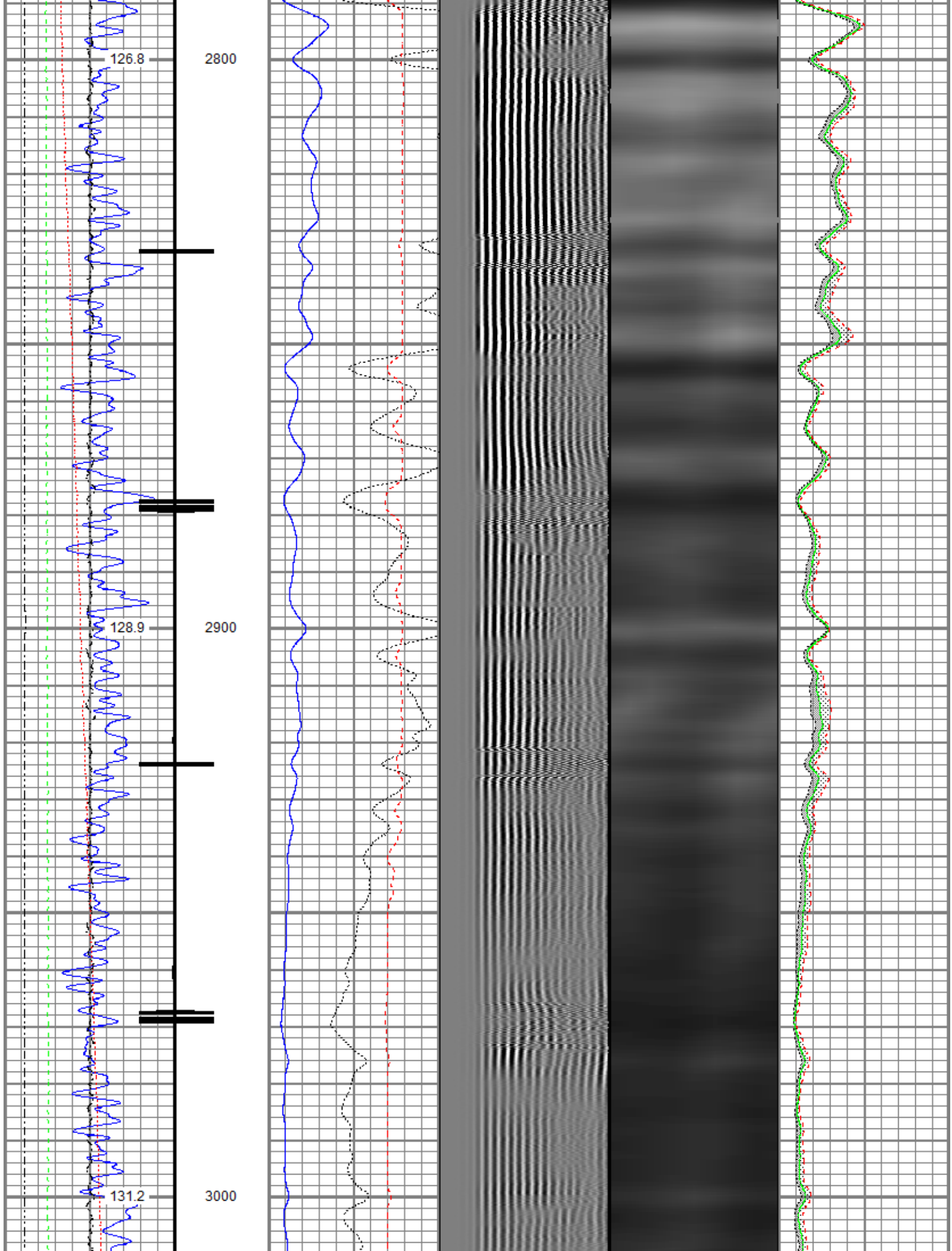


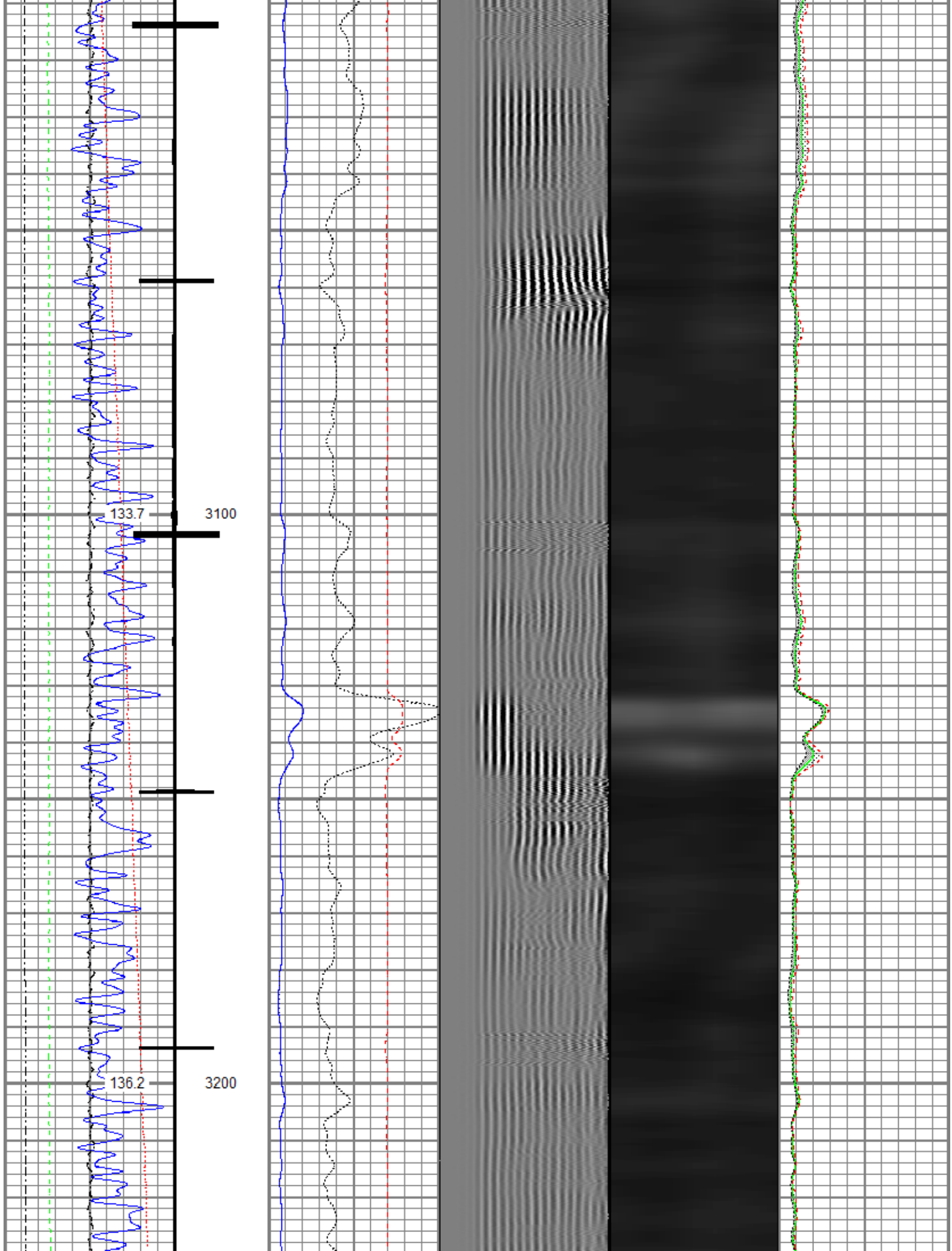


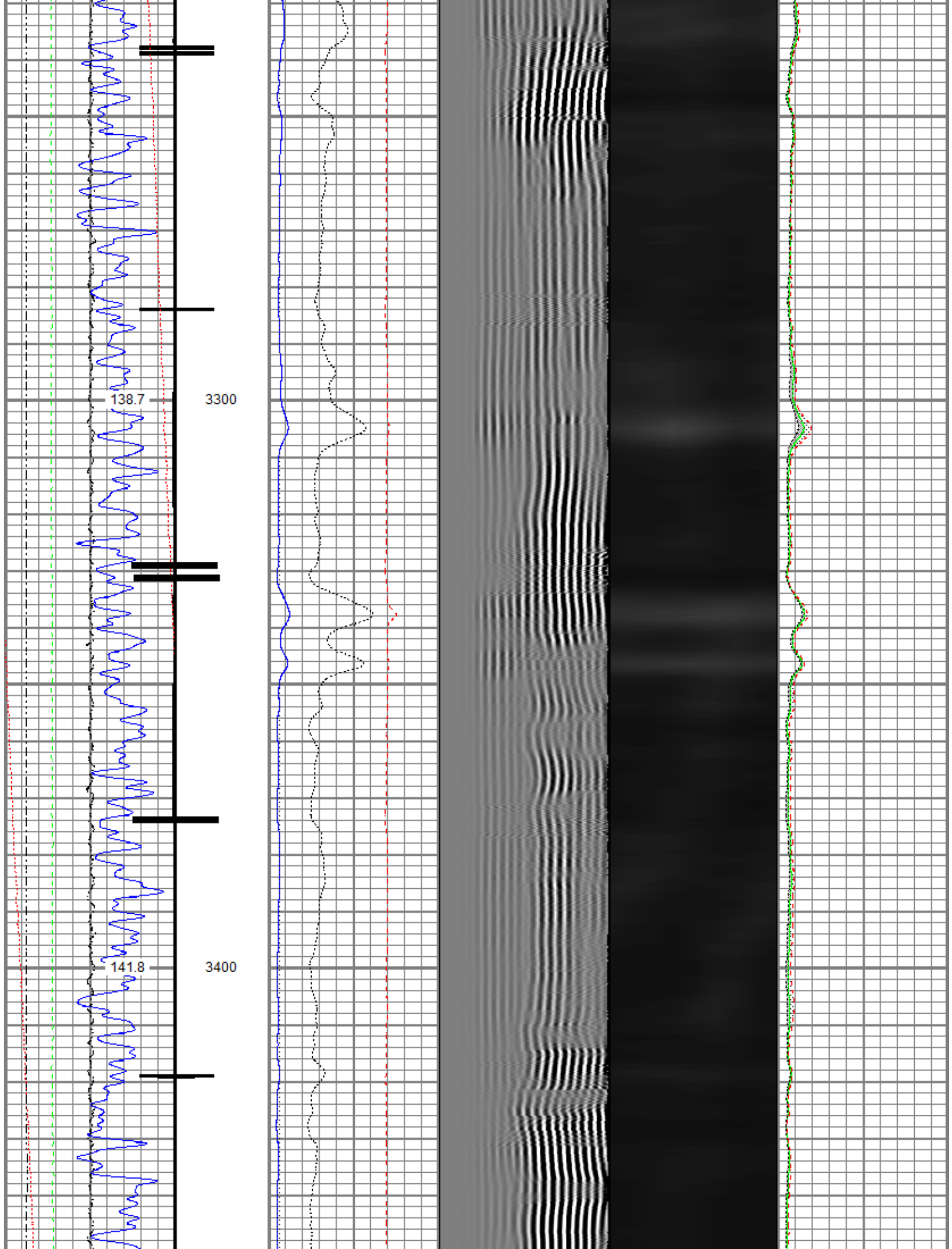


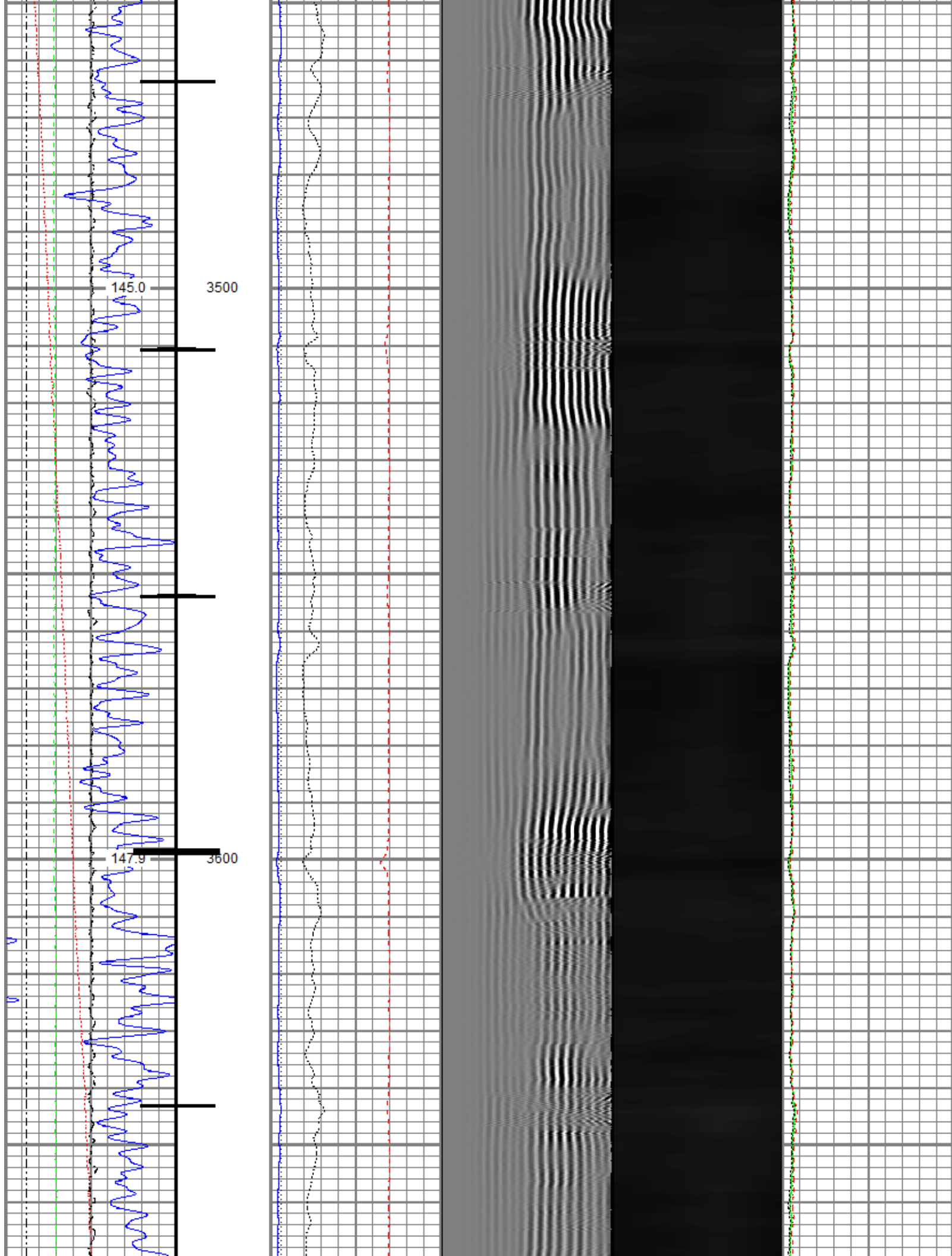


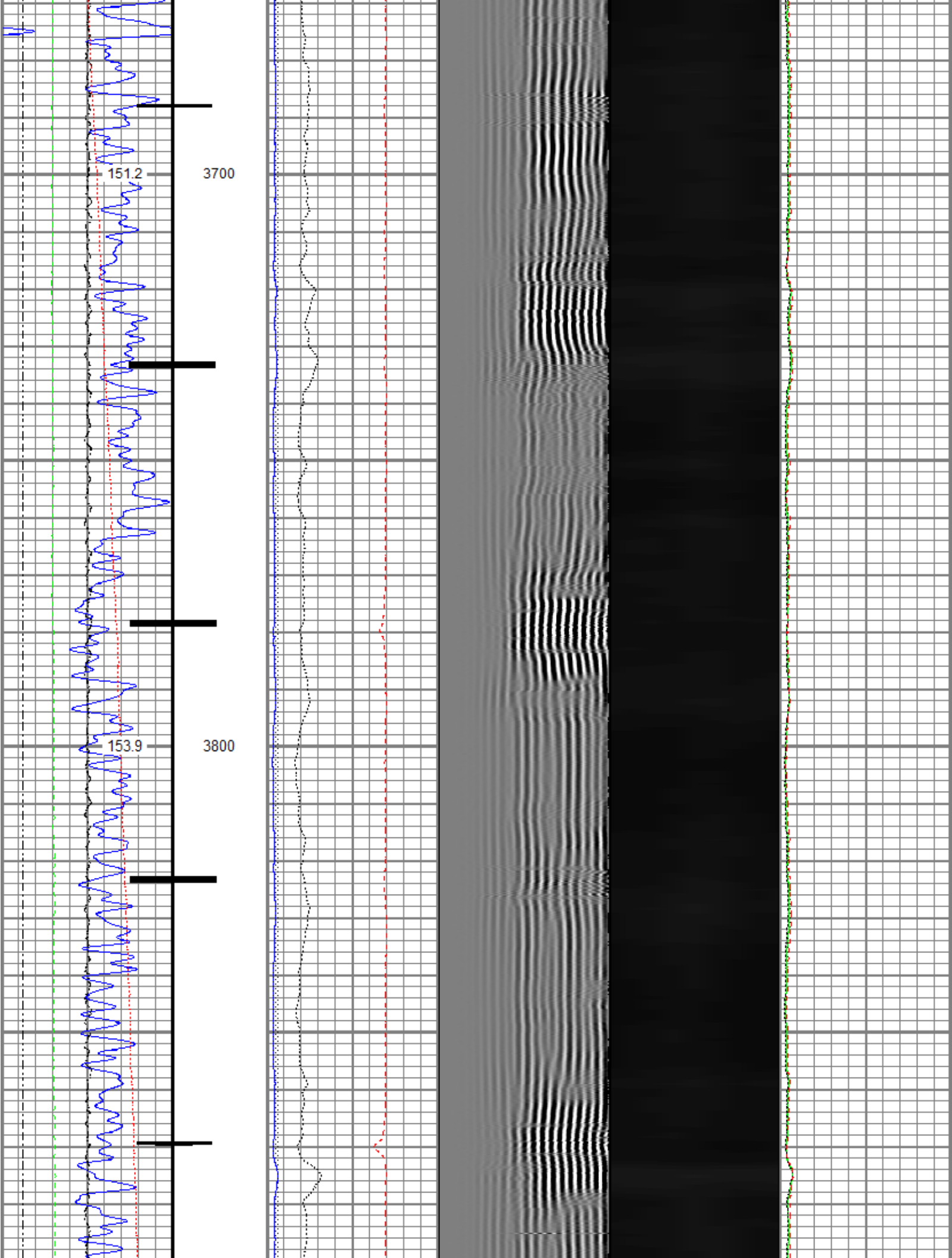


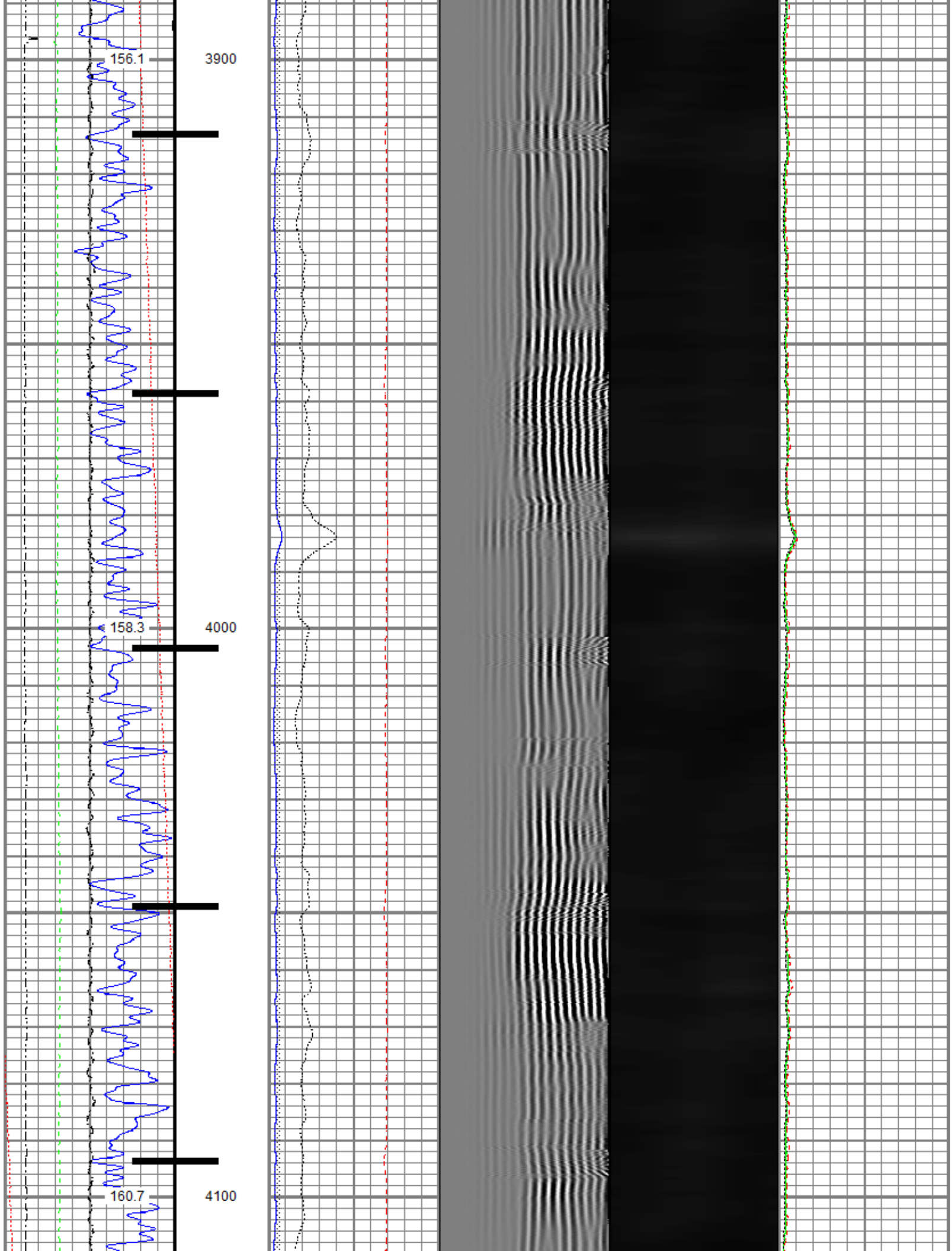


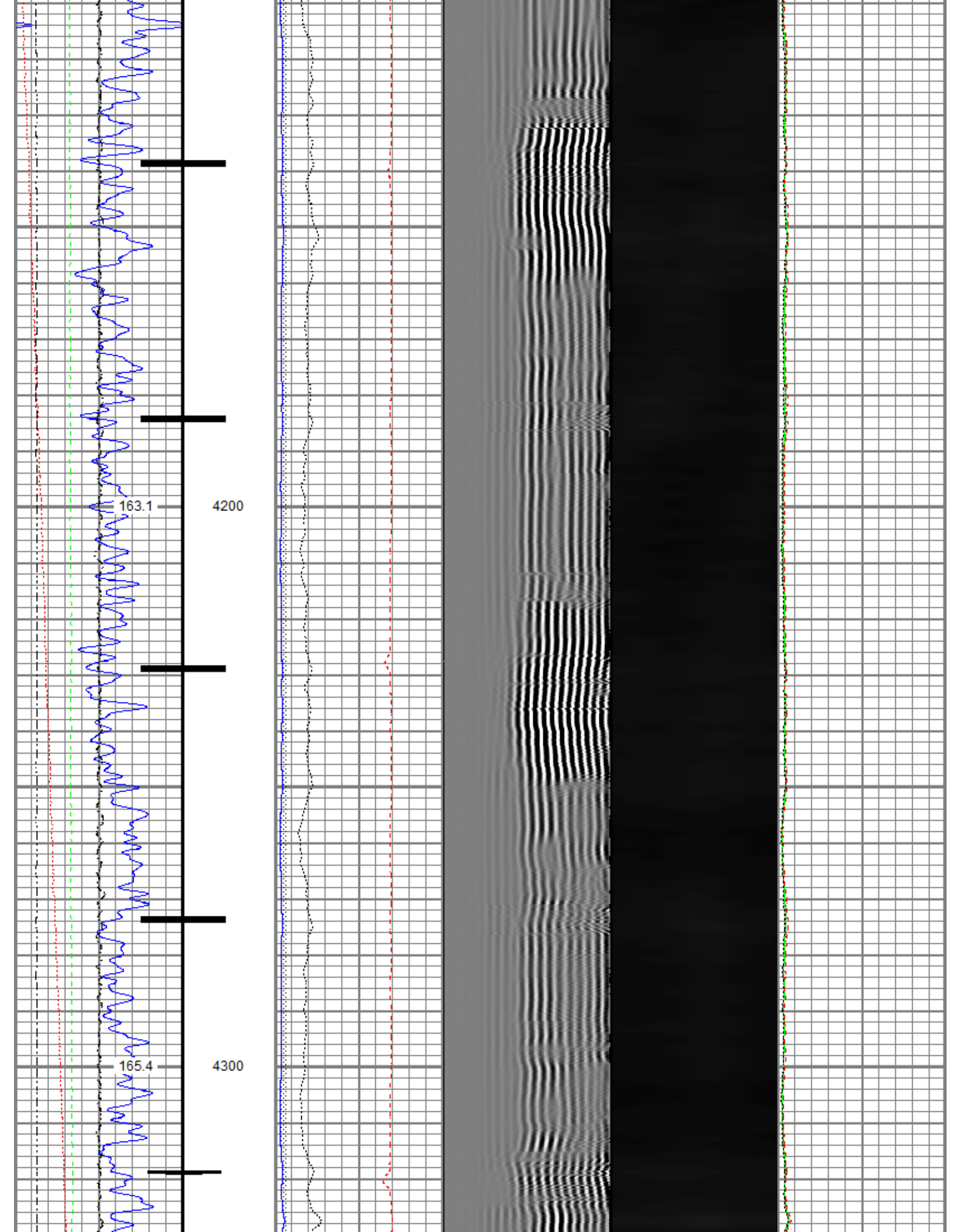


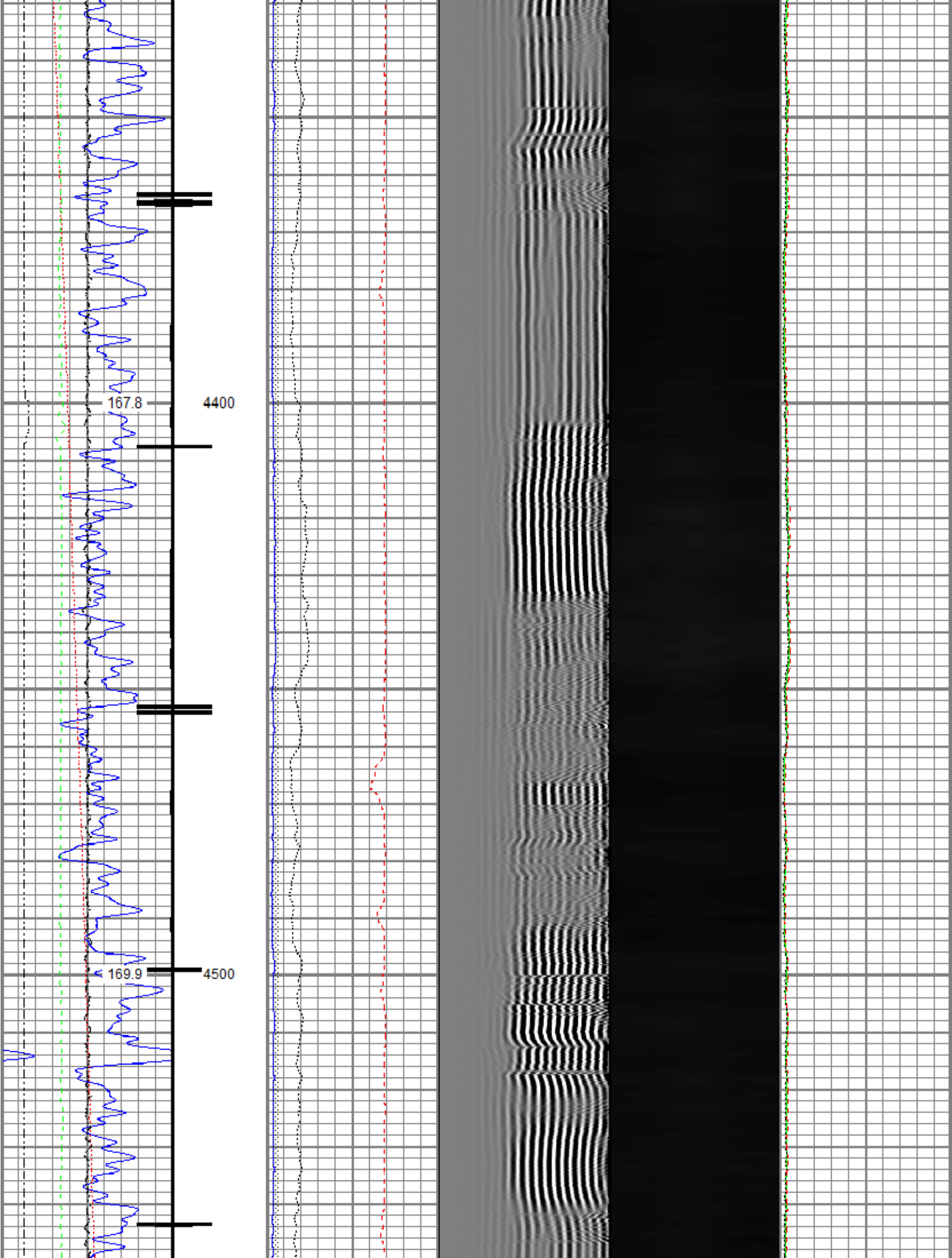


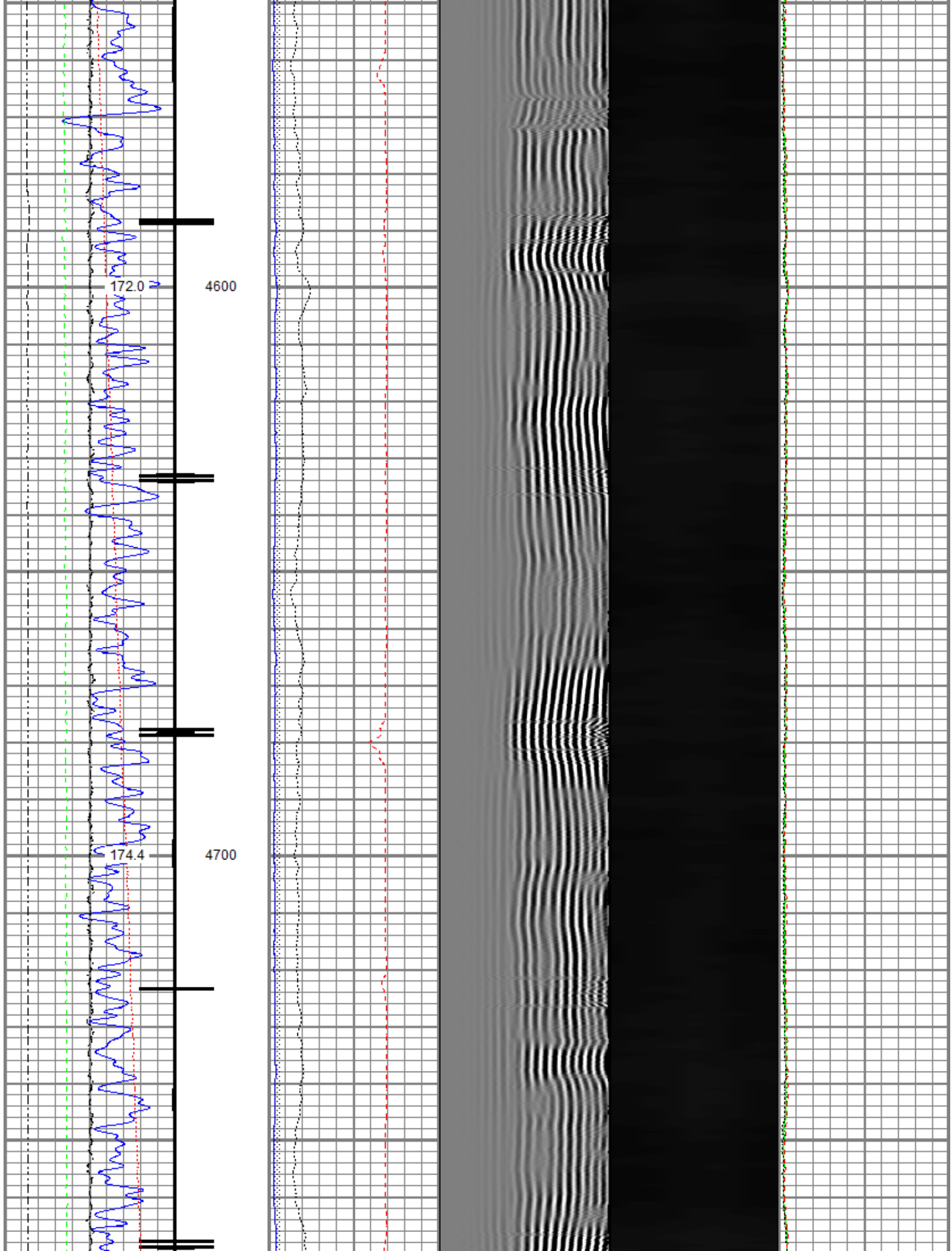


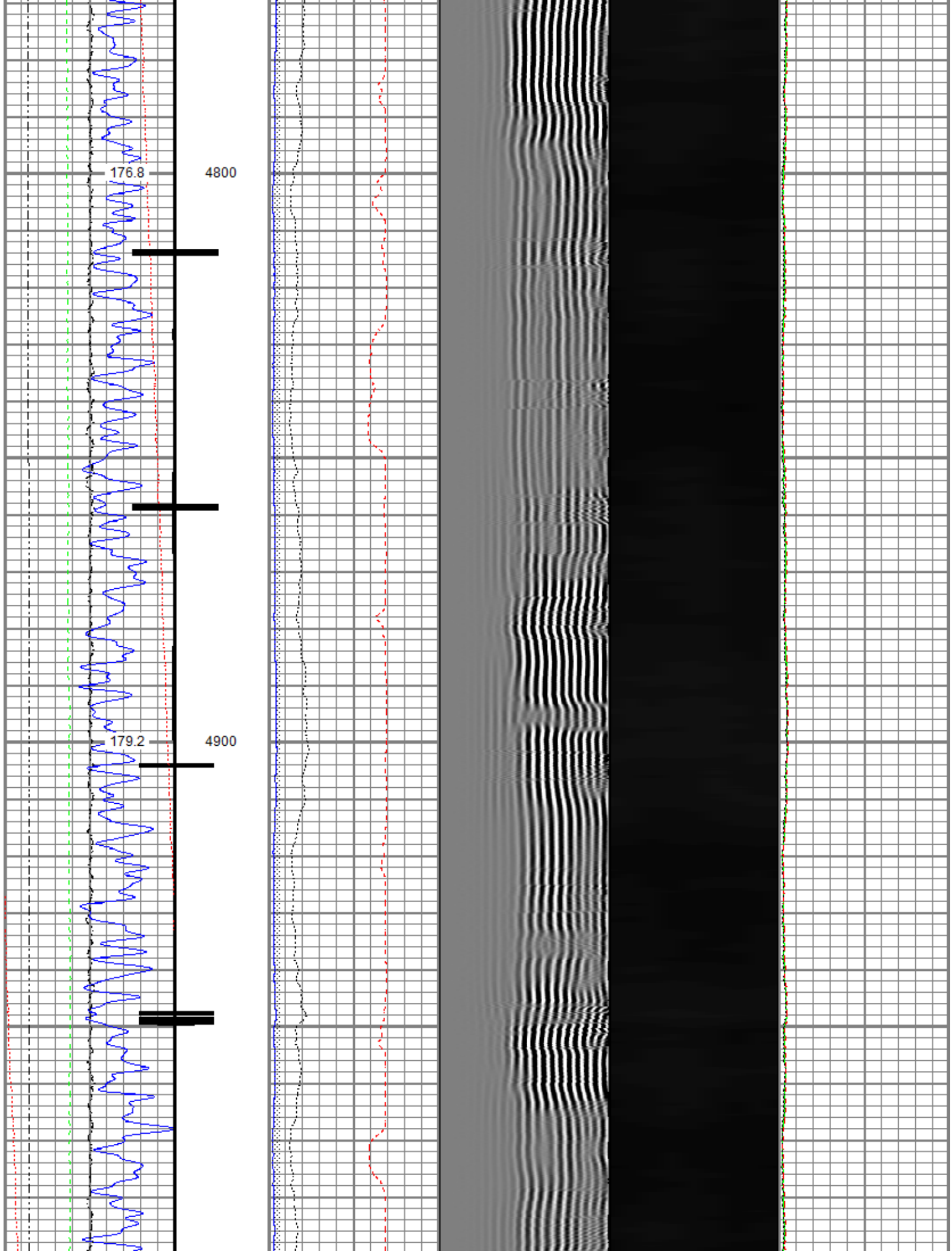


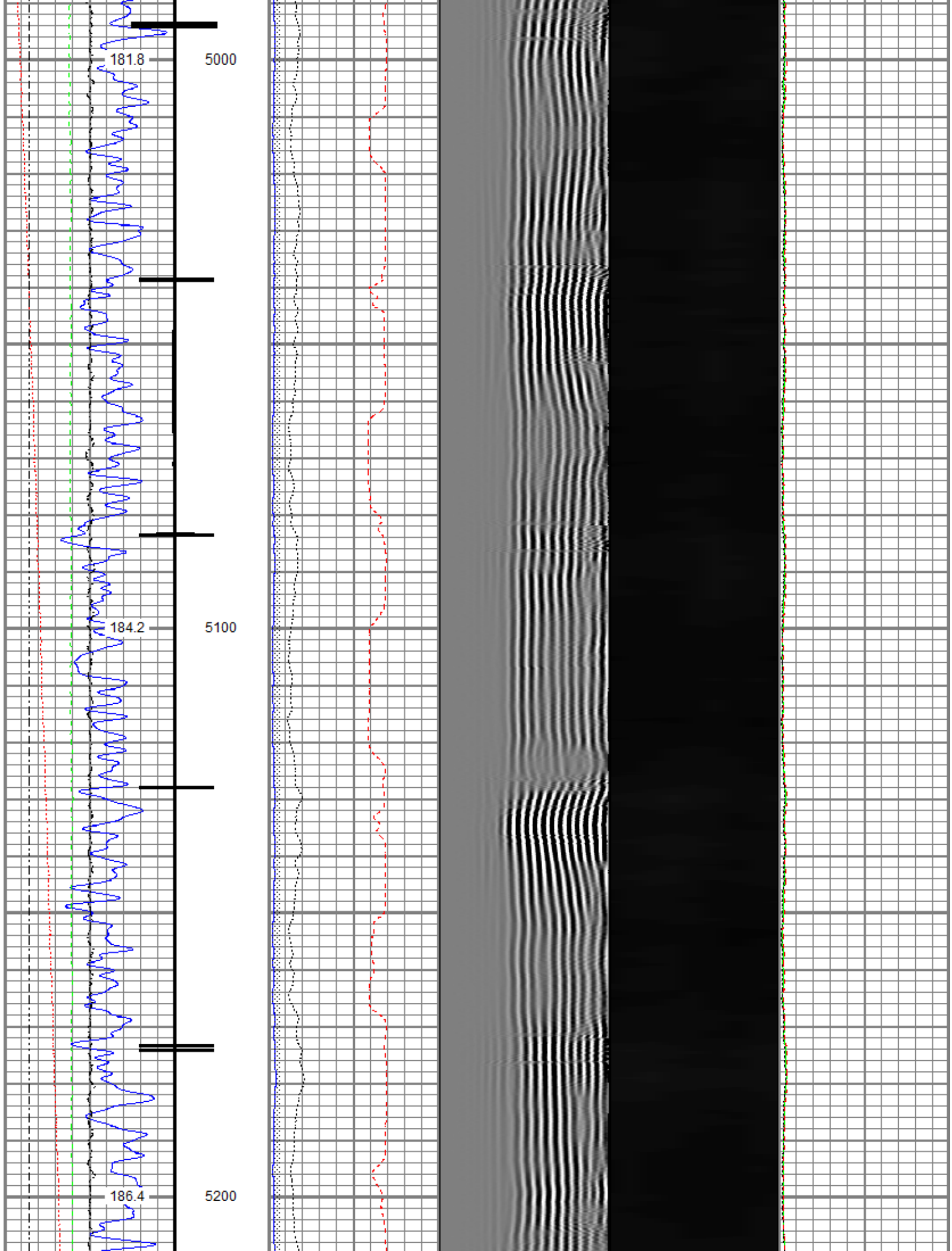


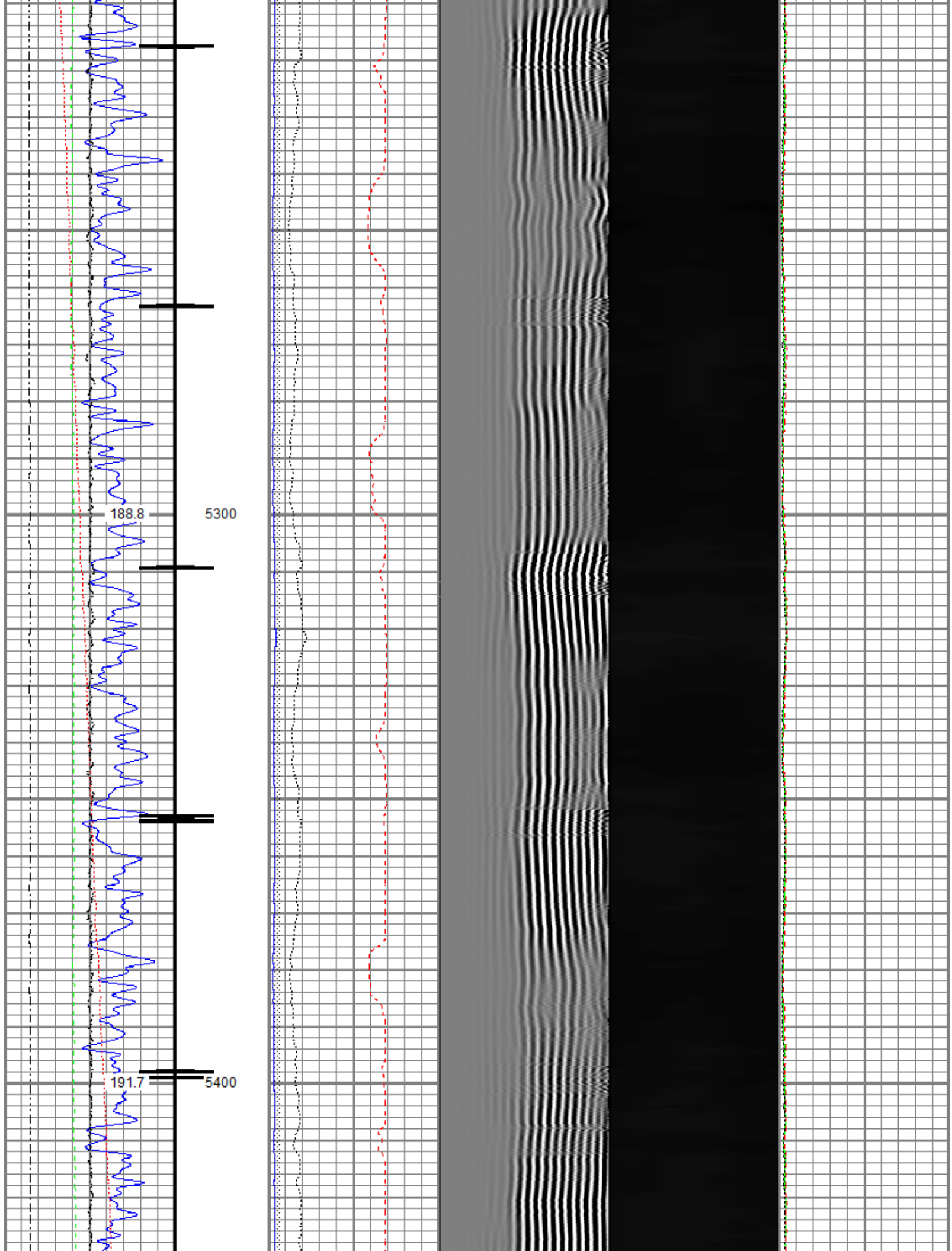


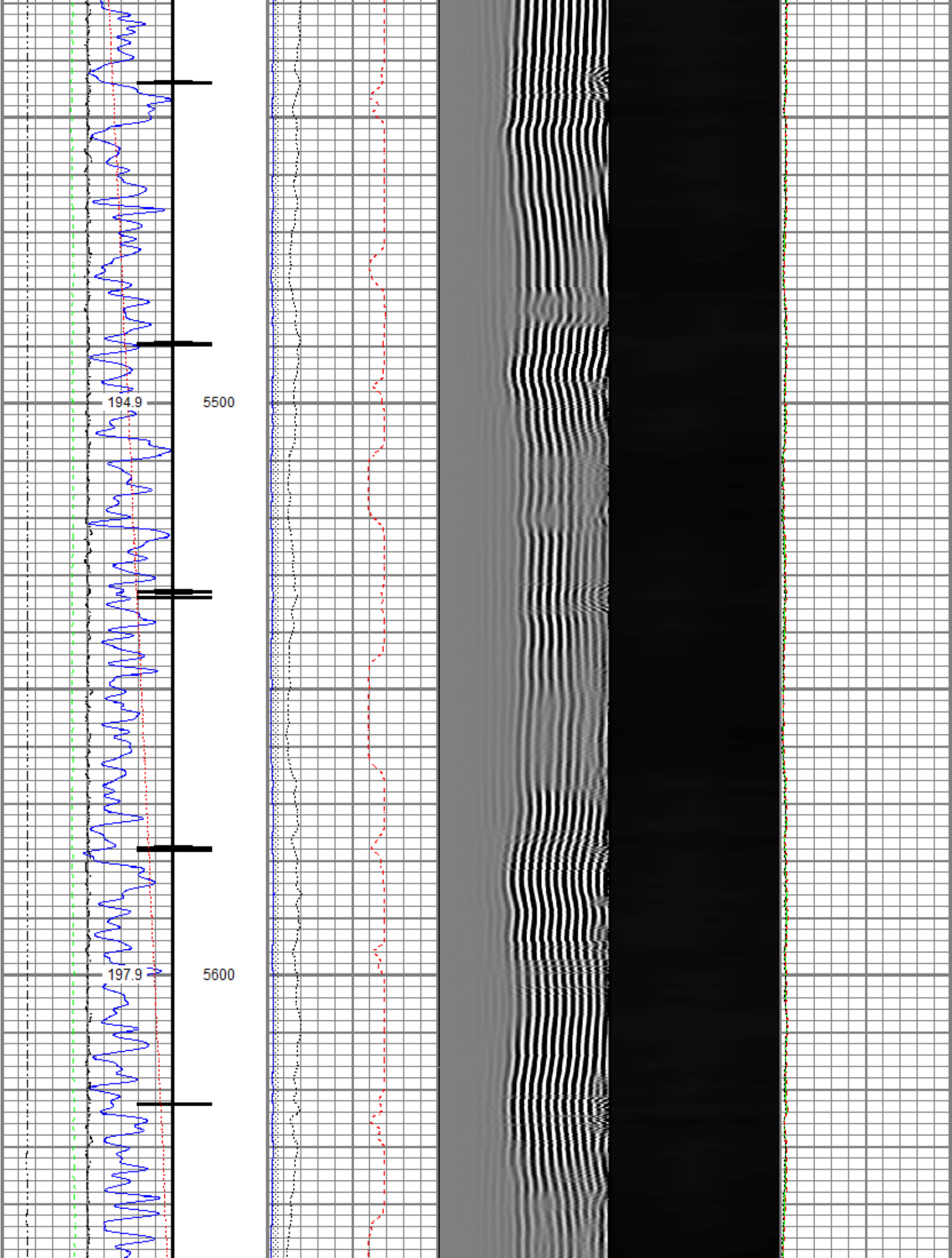


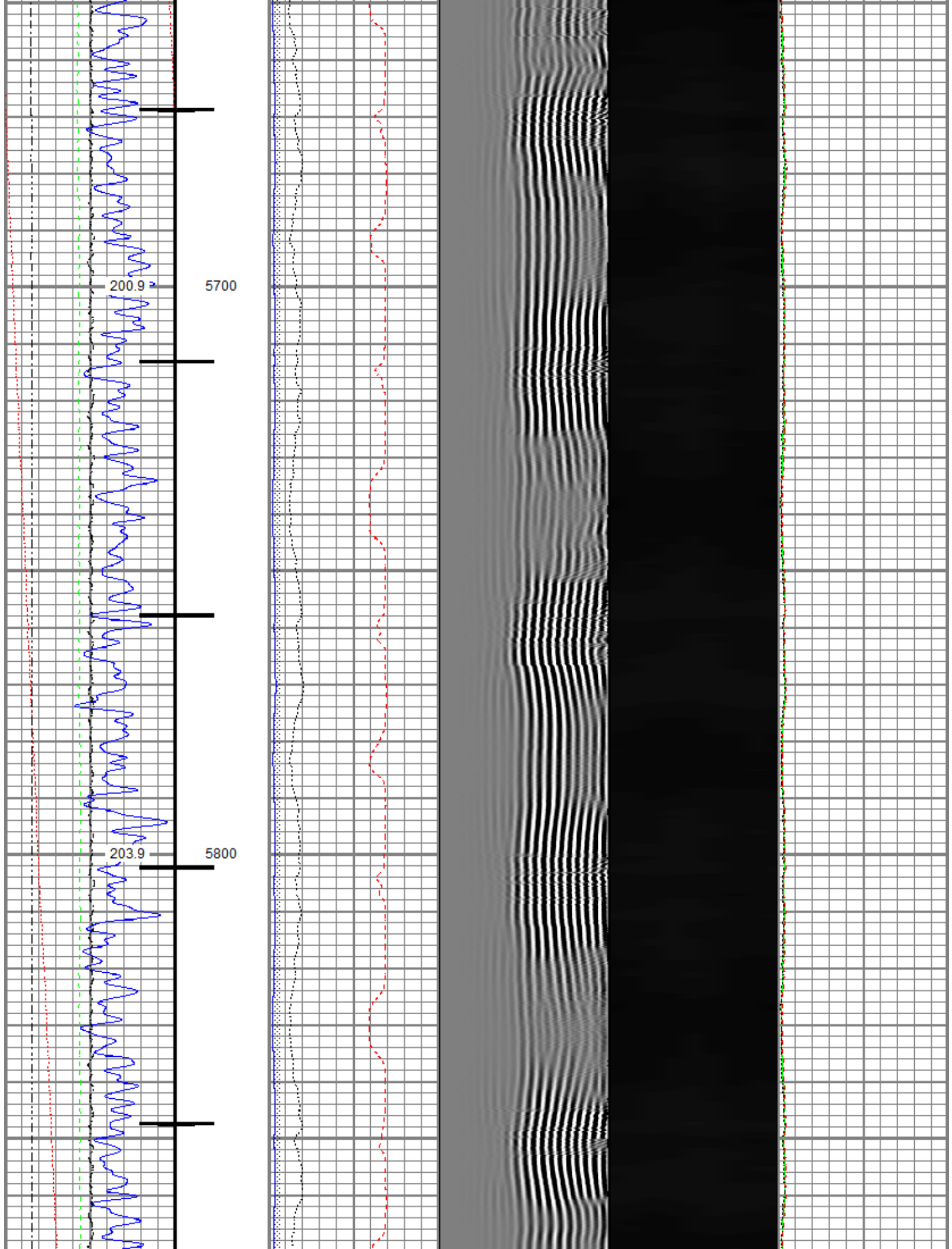


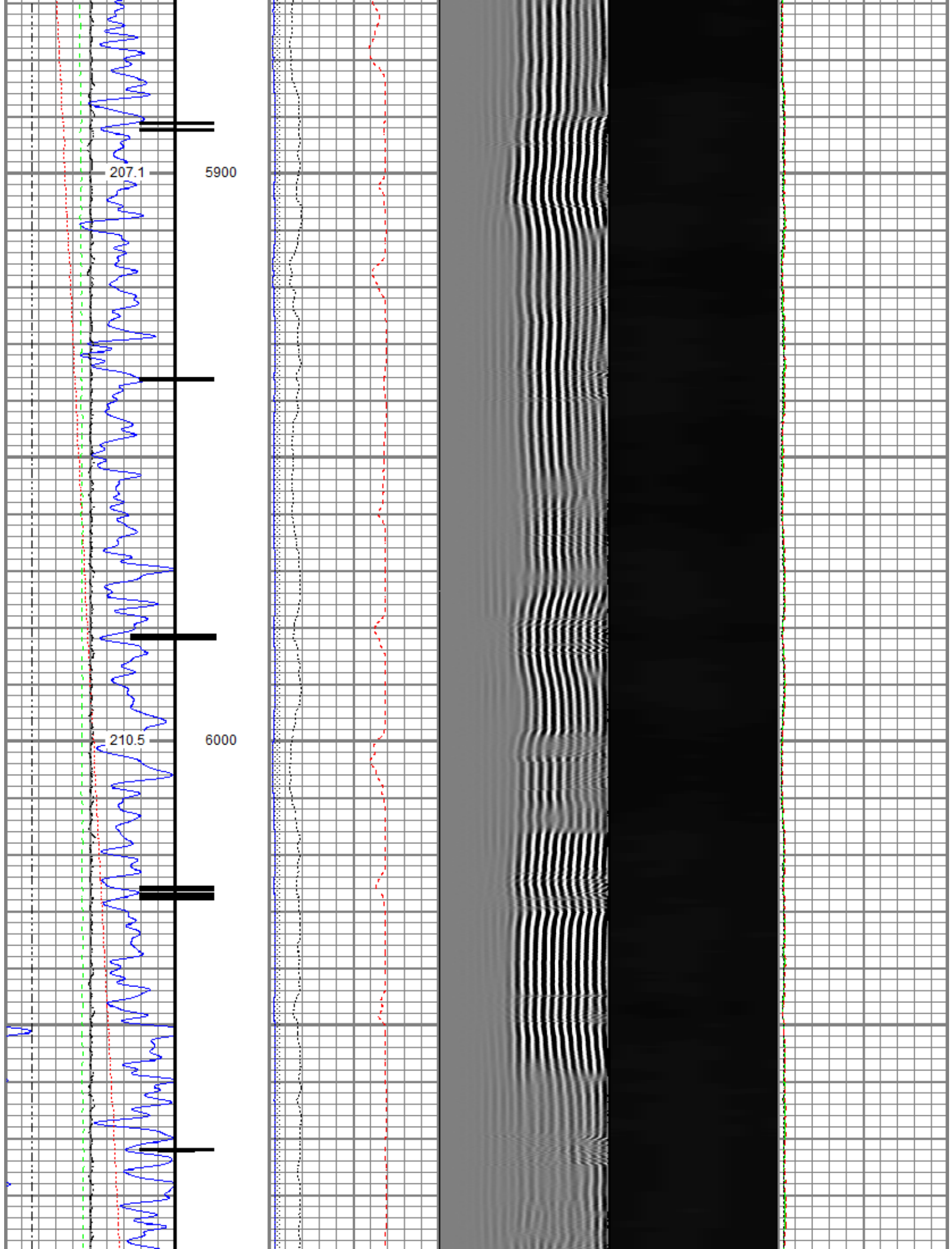


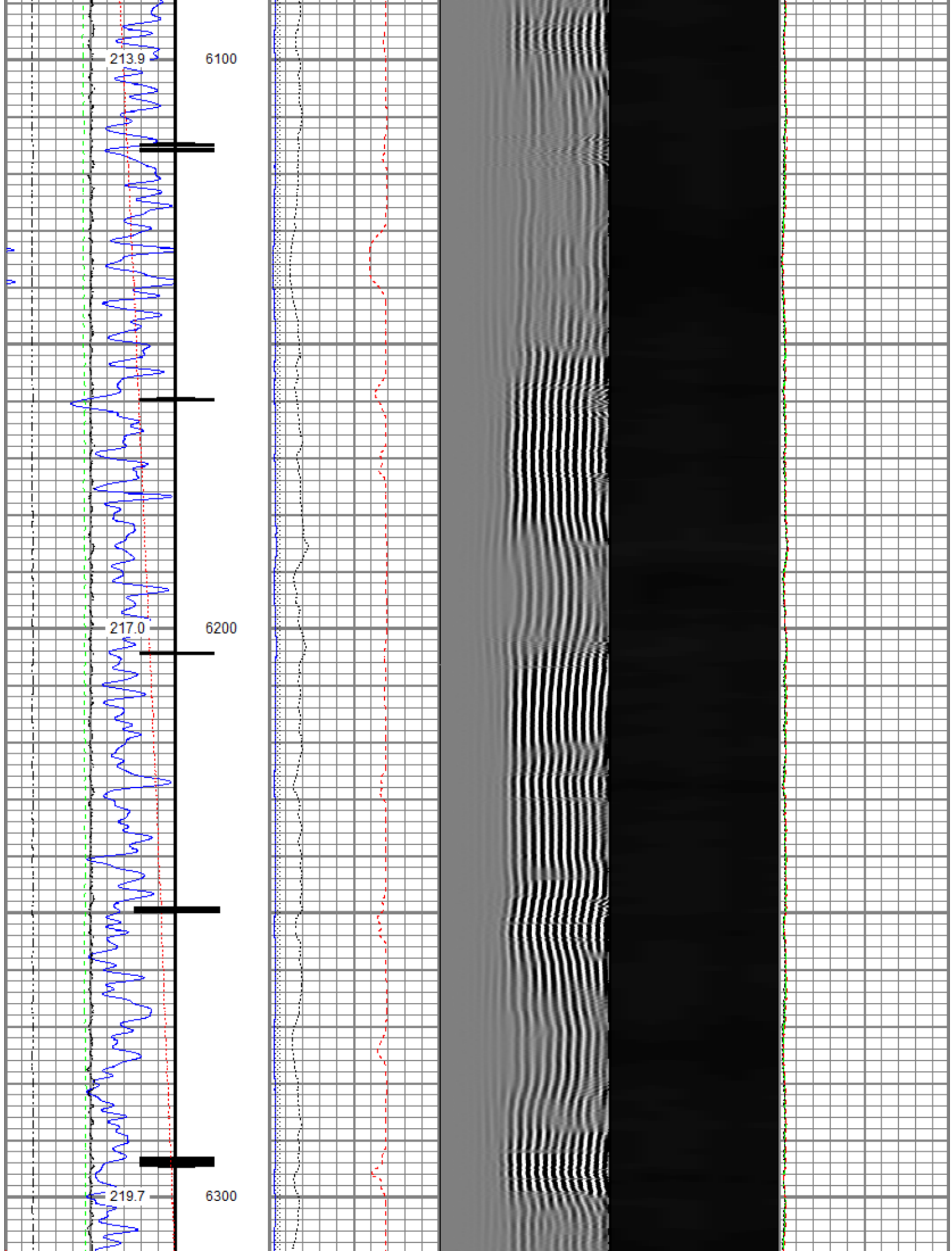


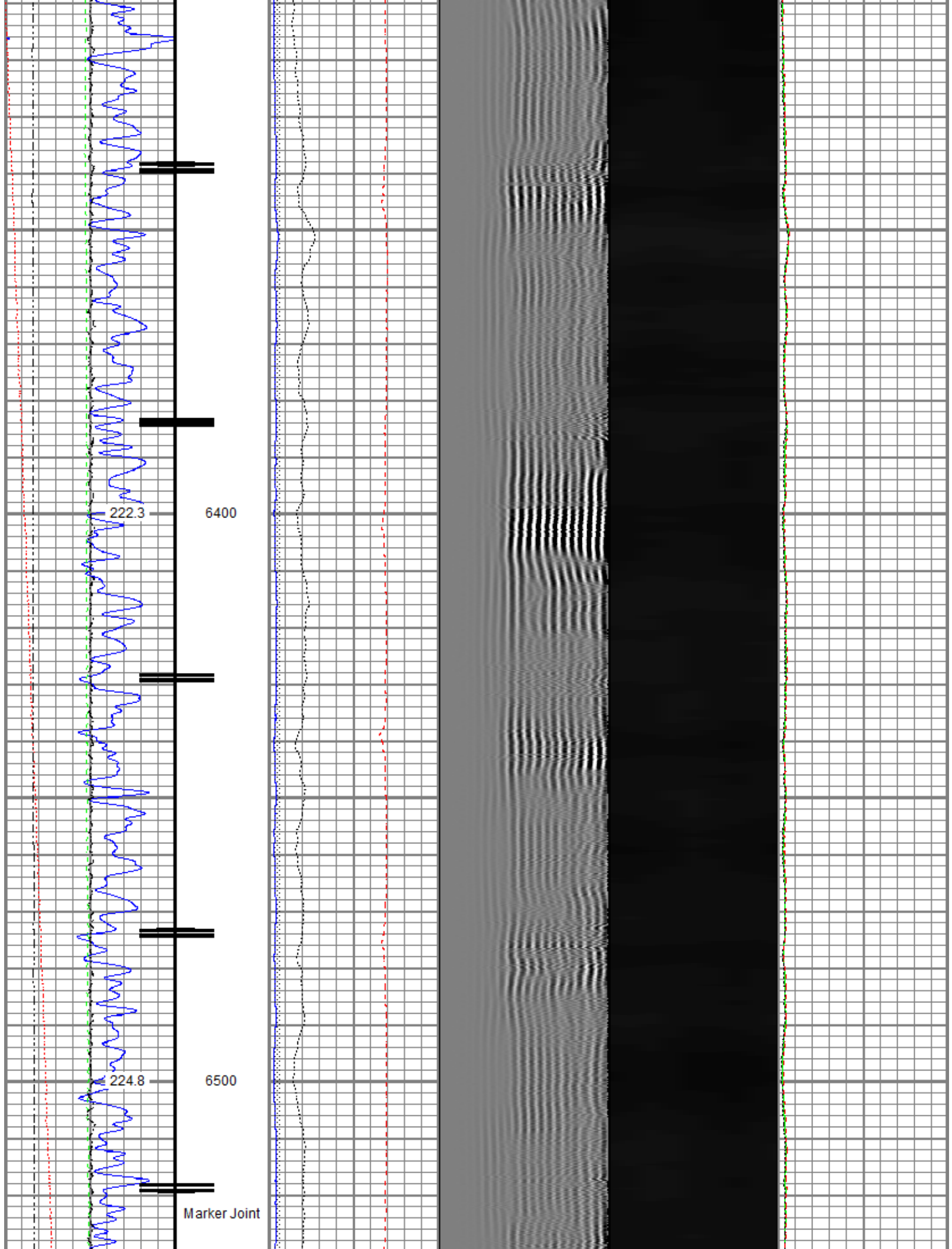


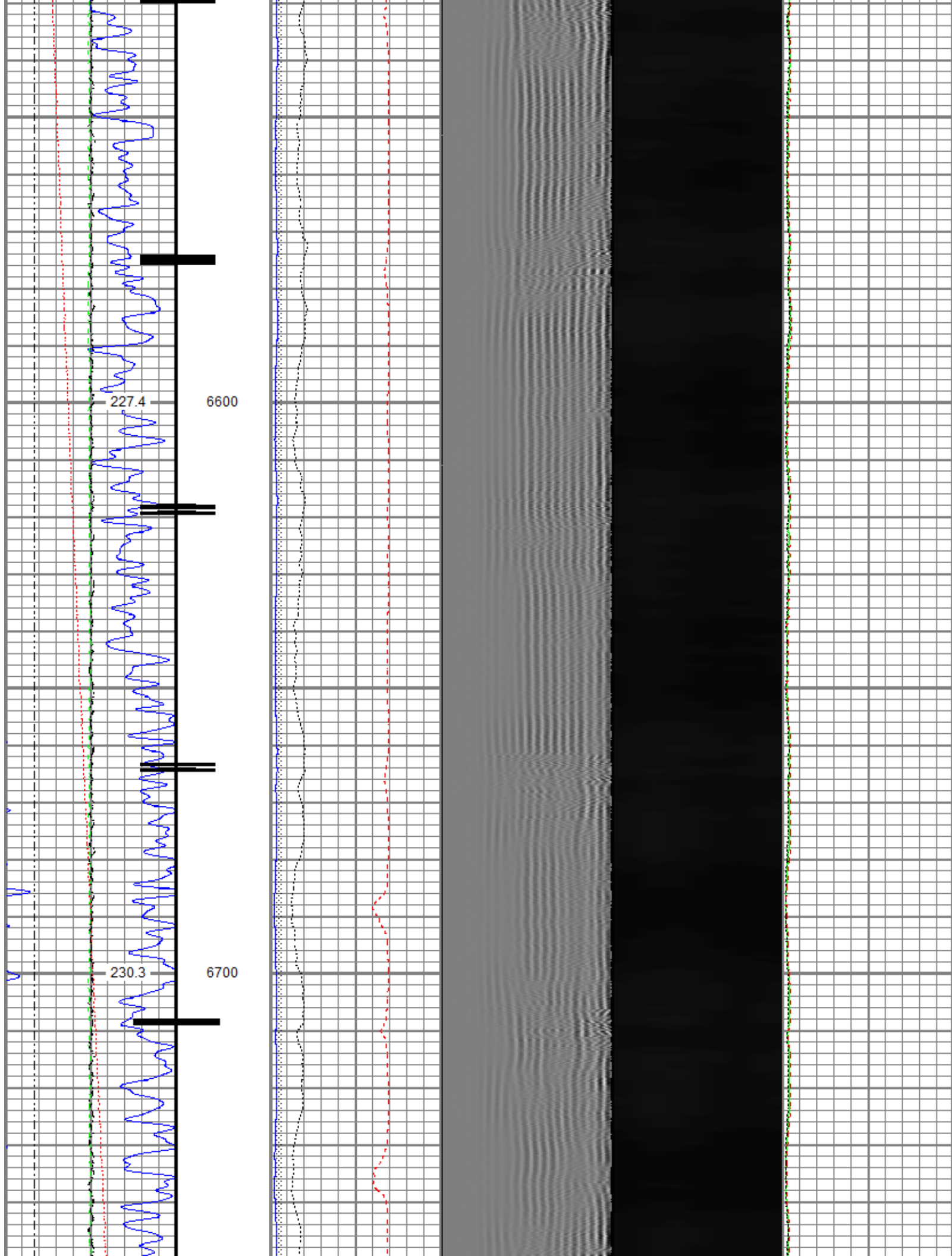


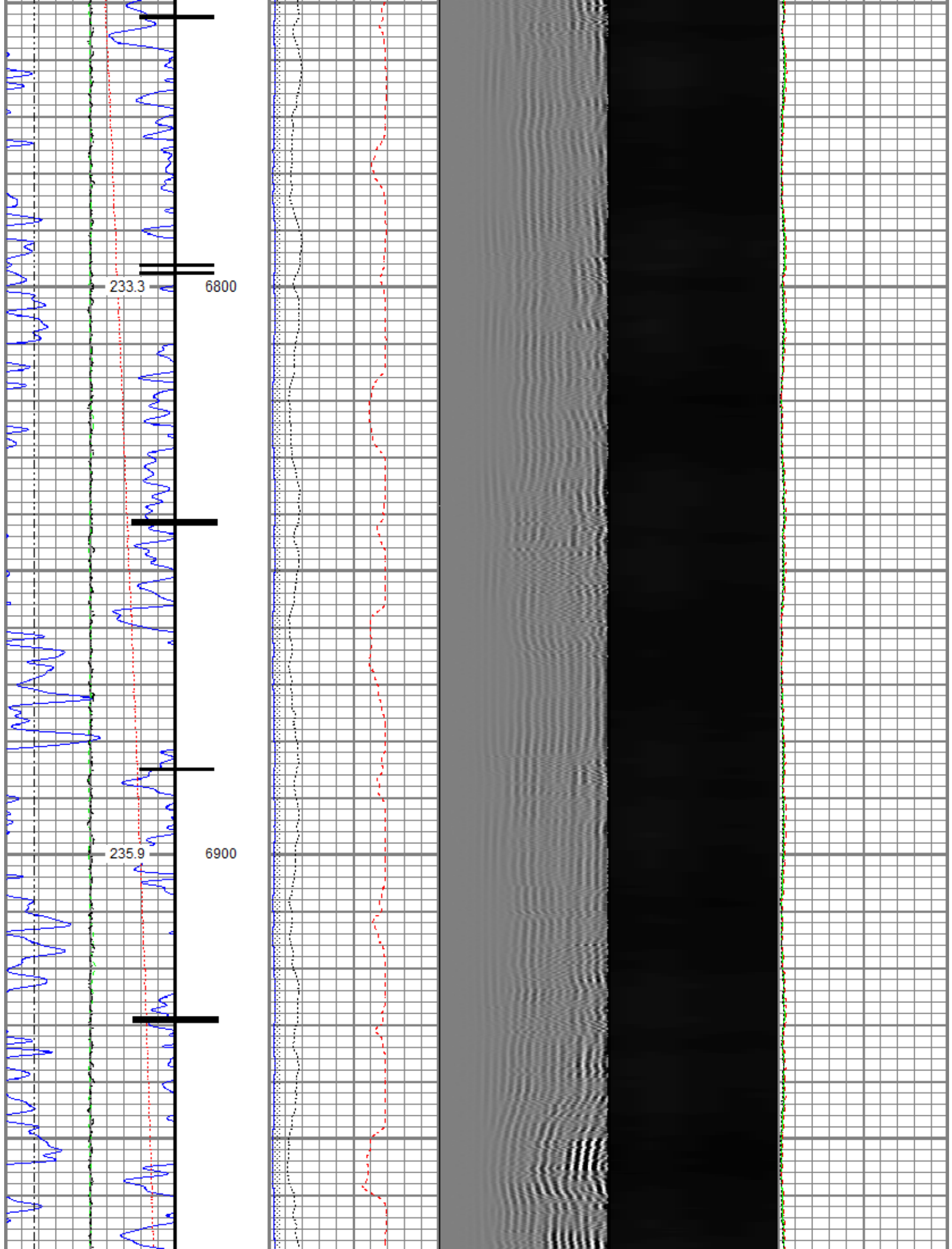


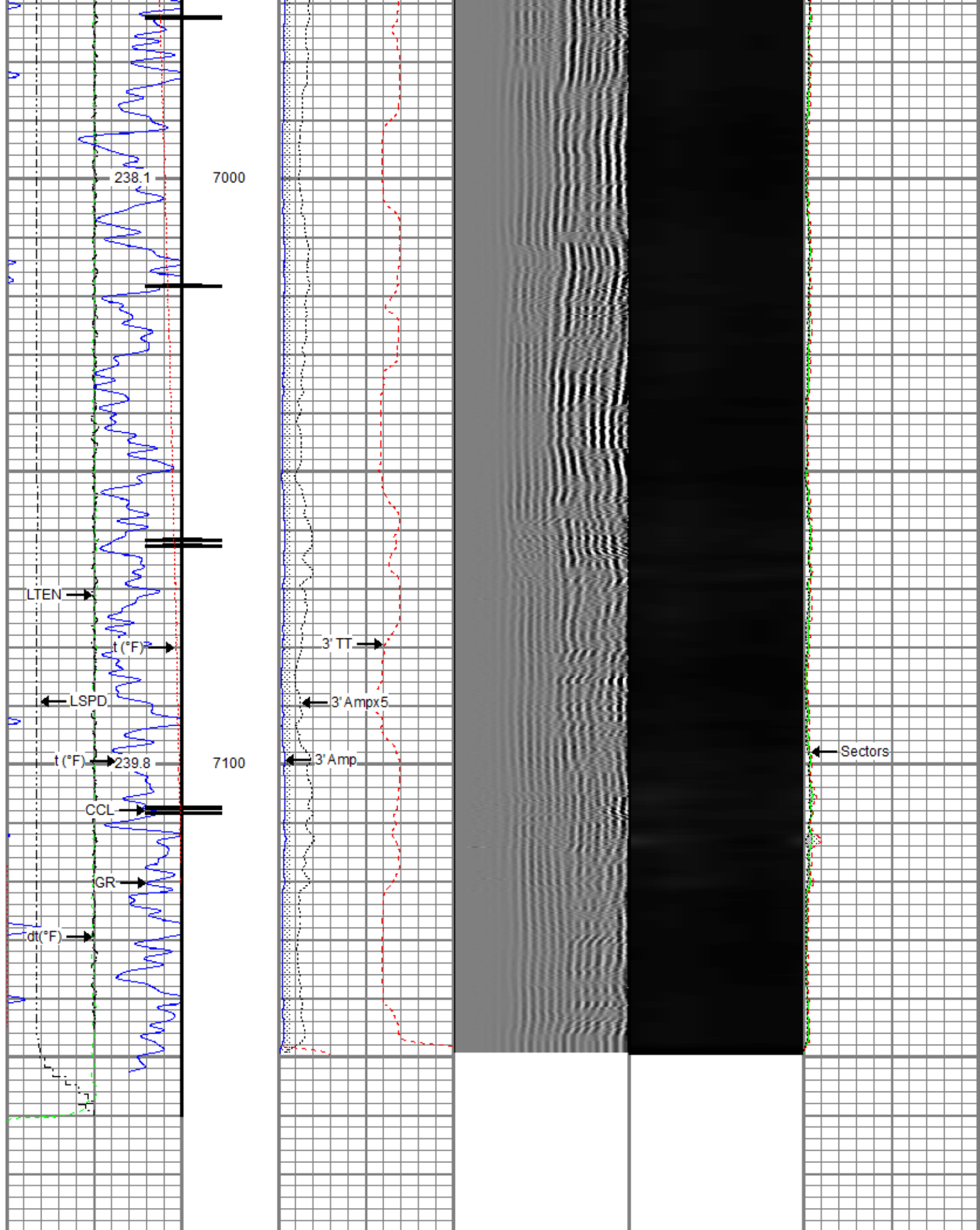












Gamma Ray (GAPI)	0	120	0	3' Amplitude (mV) 100 3' Amplitude x 5	200	1200	5' Variable Density Log (usec)	Sector Map	0	Average Amplitude 100 Minimum Amplitude
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Casing Collar Locator	0	(mV)	20	0	100
0 Temperature (degF) 20	3' Travel Time			Maximum Amplitude	
Line Speed	650	(usec)	150	0	100
-150 (ft/min) 150					
0 Line Tension (lb) 2000					
Differential Temperature					
-2 (degF) 2					

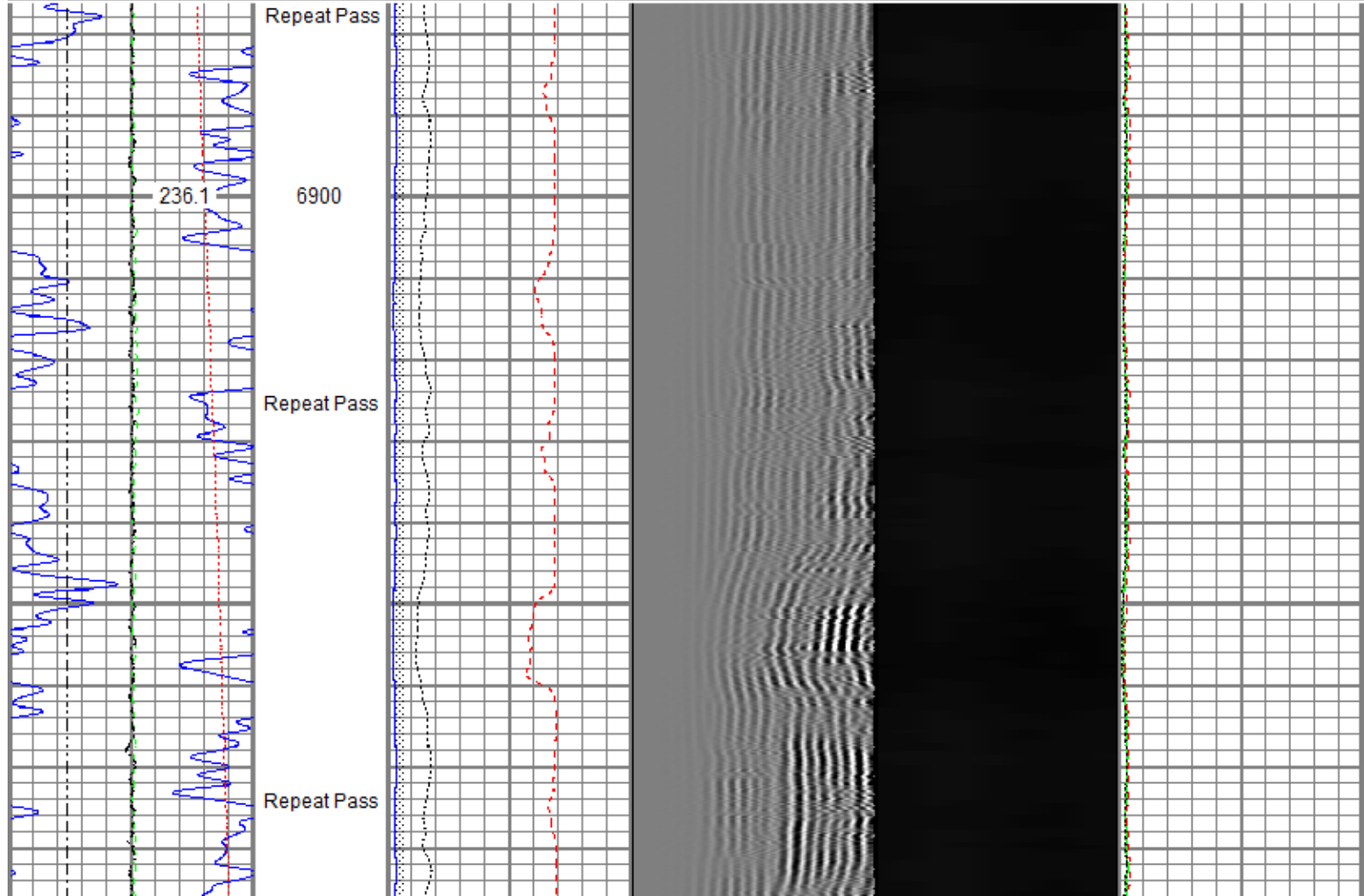


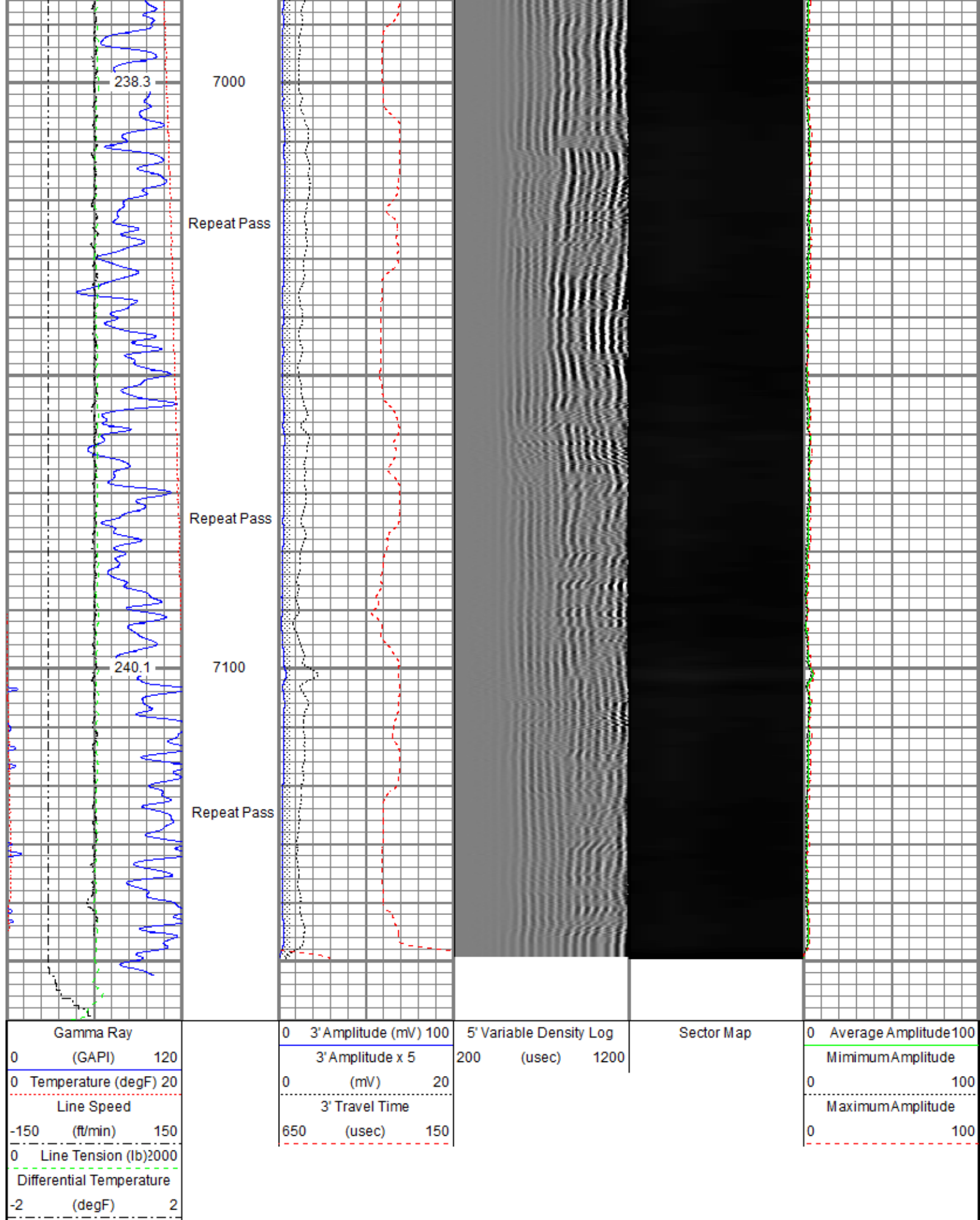
Repeat Pass

Recorded With 2500 PSI Surface Induced Pressure

Database File noble\noble_vogler state d33-759_rbl_04-13-20\processed_noble_vogler state d33-759_rbl_04-13-20.db
Dataset Pathname repeat
Presentation Format ros_radri_noble
Dataset Creation Mon Apr 13 14:12:40 2020
Charted by Depth in Feet scaled 1:240

Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
0 (GAPI) 120	3' Amplitude x 5		200 (usec) 1200		Minimum Amplitude	
0 Temperature (degF) 20	0	(mV) 20			0	100
Line Speed	3' Travel Time				Maximum Amplitude	
-150 (ft/min) 150	650	(usec) 150			0	100
0 Line Tension (lb) 2000						
Differential Temperature						
-2 (degF) 2						





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)

Calibration Report

Database File c:\programdata\warrior\data\noble\noble_vogler state d33-759_rbl_04-13-20\processed_noble_vogler state d33-759_rbl_04-13-20
 Dataset Pathname main.4
 Dataset Creation Tue Apr 14 09:57:12 2020

Gamma Ray Calibration Report

Serial Number: 101001
 Tool Model: 2750 6PB
 Performed: Tue Dec 03 09:24:53 2019

Calibrator Value: 637.0 GAPI

Background Reading: 100.6 cps
 Calibrator Reading: 981.1 cps

Sensitivity: 0.7235 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW0712-020
 Tool Model: 2750 RBT

Calibration Casing Diameter: 5.500 in
 Calibration Depth: -3408.067 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.776	0.800	71.921	91.602	0.798
CAL	0.006	0.667				
5'	0.000	0.764	0.800	71.921	93.147	0.799
SUM						
S1	0.000	0.726	0.000	100.000	137.784	-0.004
S2	0.000	0.727	0.000	100.000	137.617	-0.003
S3	0.000	0.762	0.000	100.000	131.212	-0.002
S4	0.000	0.813	0.000	100.000	123.017	-0.003
S5	0.000	0.856	0.000	100.000	116.833	-0.003
S6	0.000	0.844	0.000	100.000	118.510	-0.003
S7	0.000	0.815	0.000	100.000	122.758	-0.003
S8	0.000	0.764	0.000	100.000	130.872	-0.003

Air Zero Calibration, performed Mon Apr 13 09:48:18 2020:

	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

Temperature Calibration Report

Serial Number: FW0712-020
 Tool Model: 2750 RBT
 Performed: Tue Dec 03 09:24:53 2019

Reference Reading

Low Reference:	100.00	degF	109.43	degF
High Reference:	350.00	degF	405.87	degF

Gain:	0.84
Offset:	7.72
Delta Spacing	1



Company	Noble Energy Inc
Well	Vogler State D33-759
Field	Wattenberg
County	Weld
State	Colorado