



County Weld State Colorado

G.L. 4941'

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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.

Log ran as per customer request  
Depth referenced to Marker Joint at 6829 FT  
Adjusted +3 FT to correlate with Marker Joint  
Gauge Ring/Junk Basket ran to 8009 FT with no debris  
Log ran with 2800 PSI Surface Induced Pressure  
Logging tools were clean and free of debris upon completion of operations

Thank you for choosing Reliance Oilfield Services, LLC!!

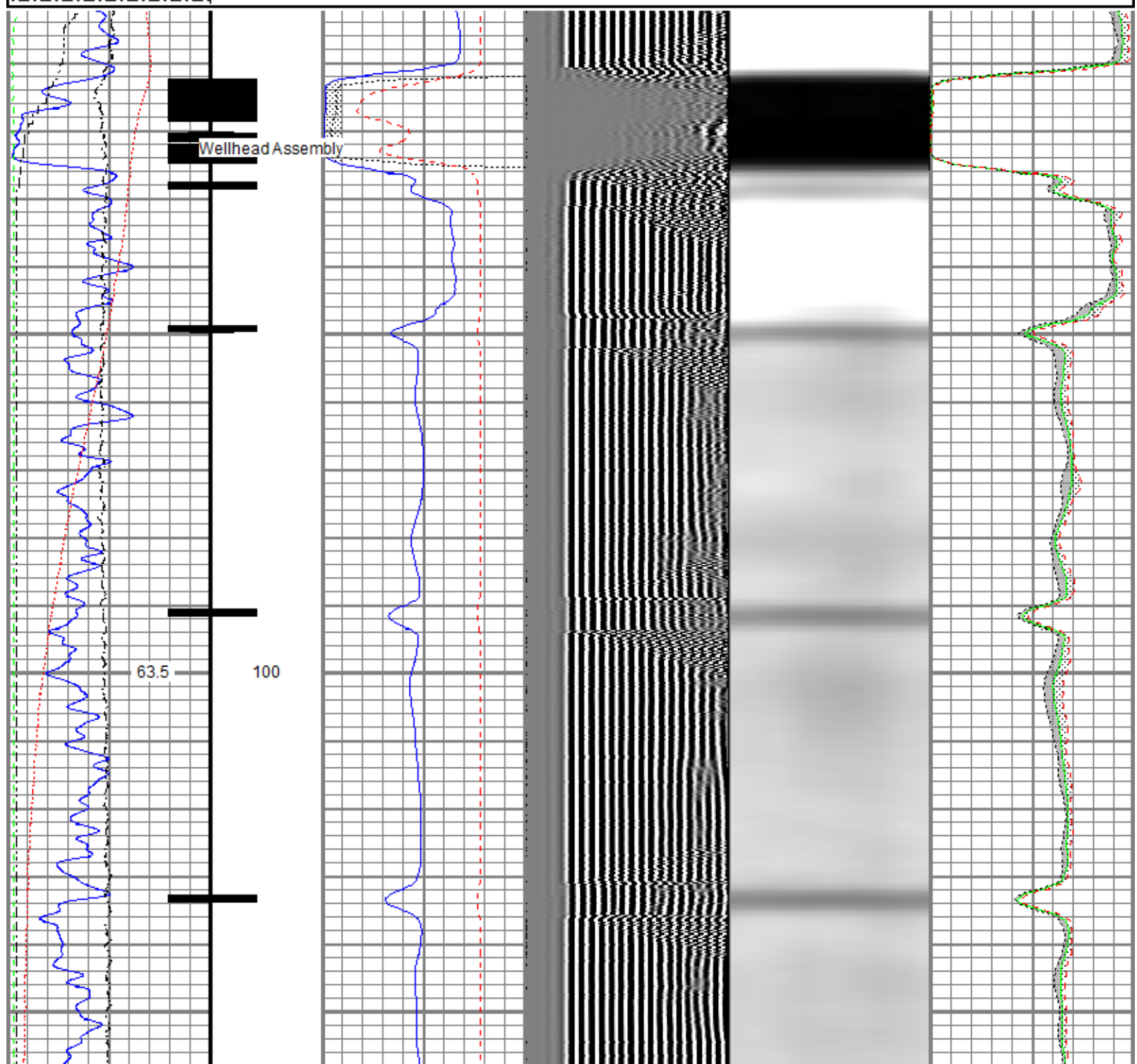
## Main Pass

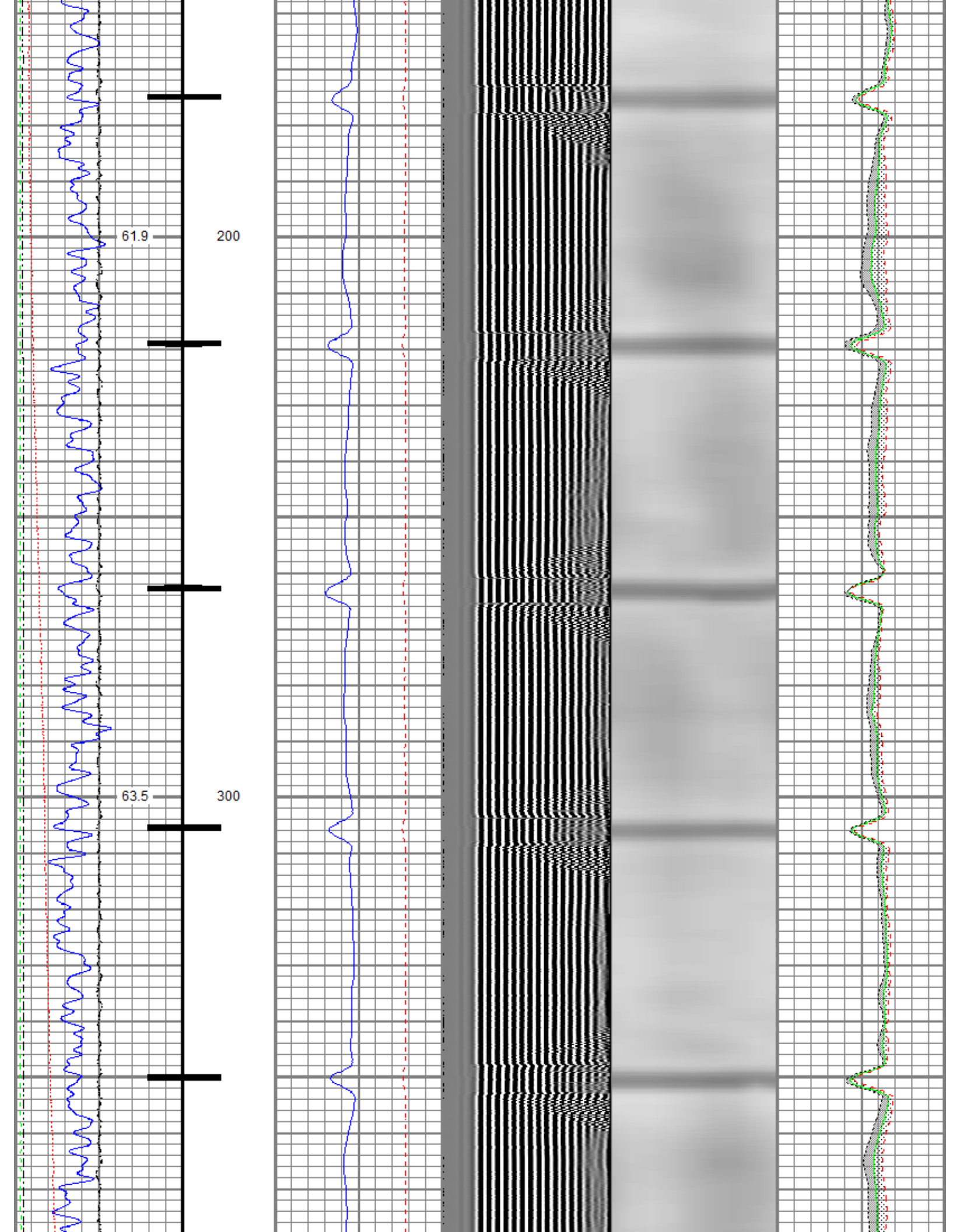


Recorded With 2000 PSI Surface-Induced Pressure

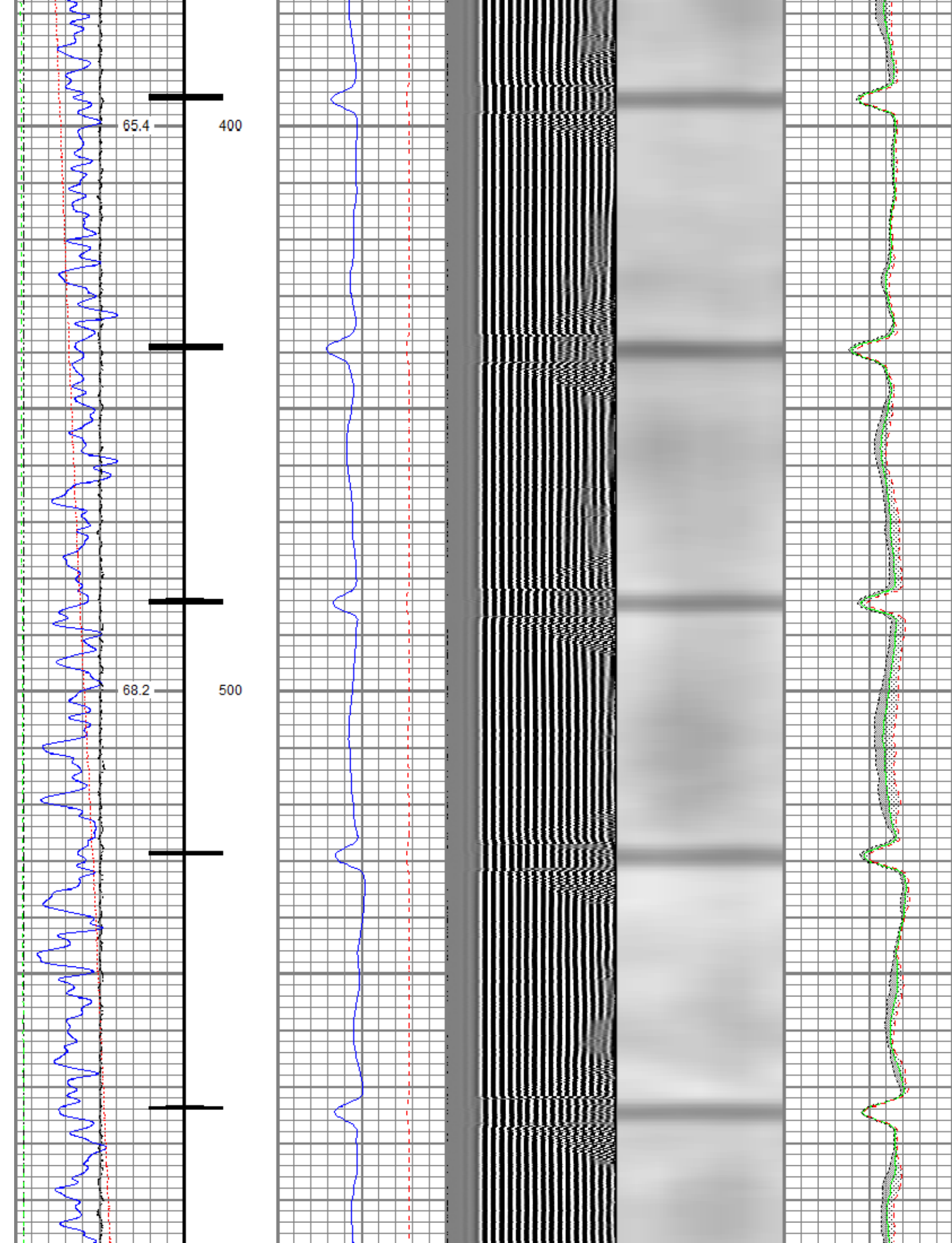
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Dataset Pathname	pass4
Presentation Format	ros_radri
Dataset Creation	Tue Jul 17 07:03:43 2018
Charted by	Depth in Feet scaled 1:240

Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200	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						

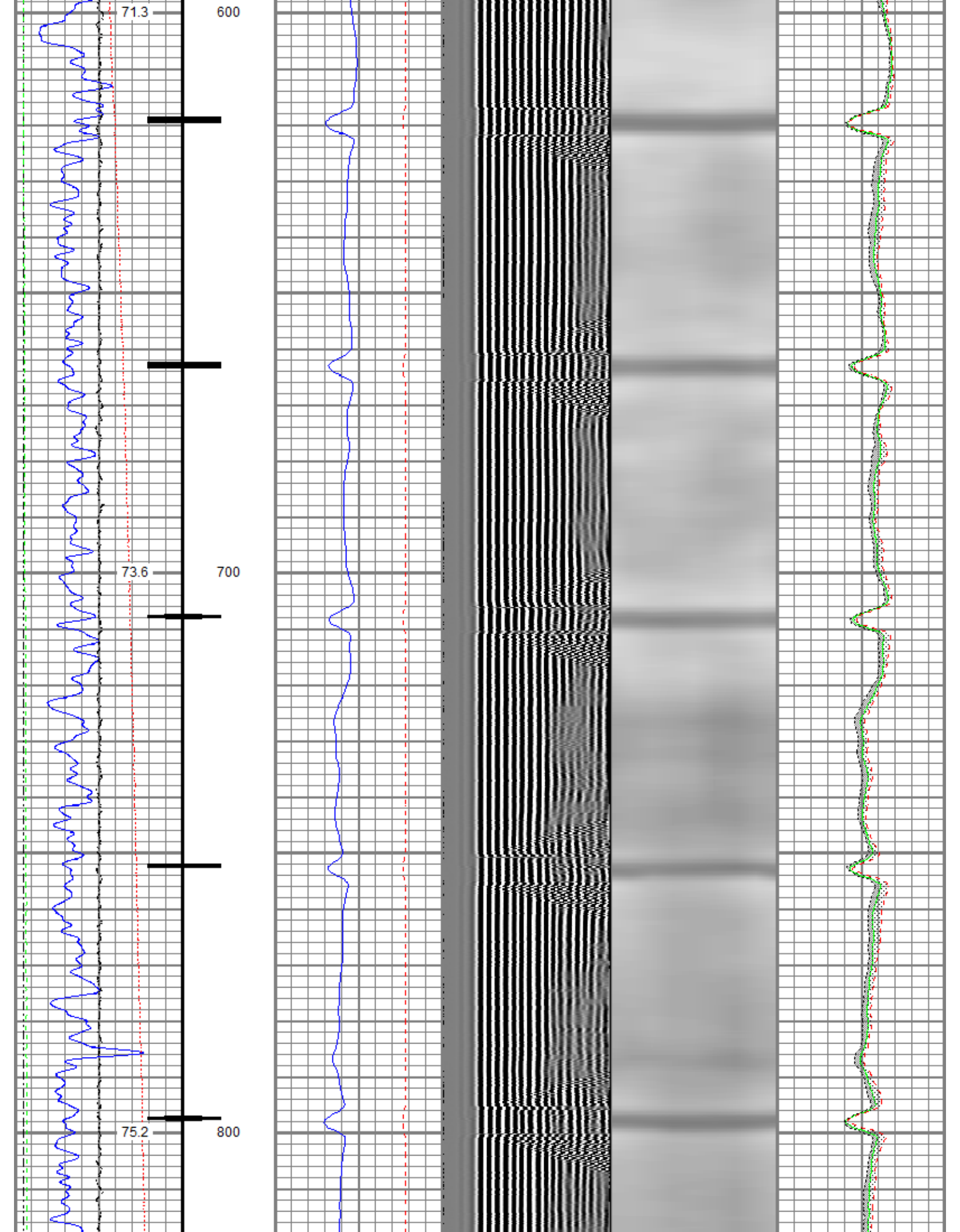


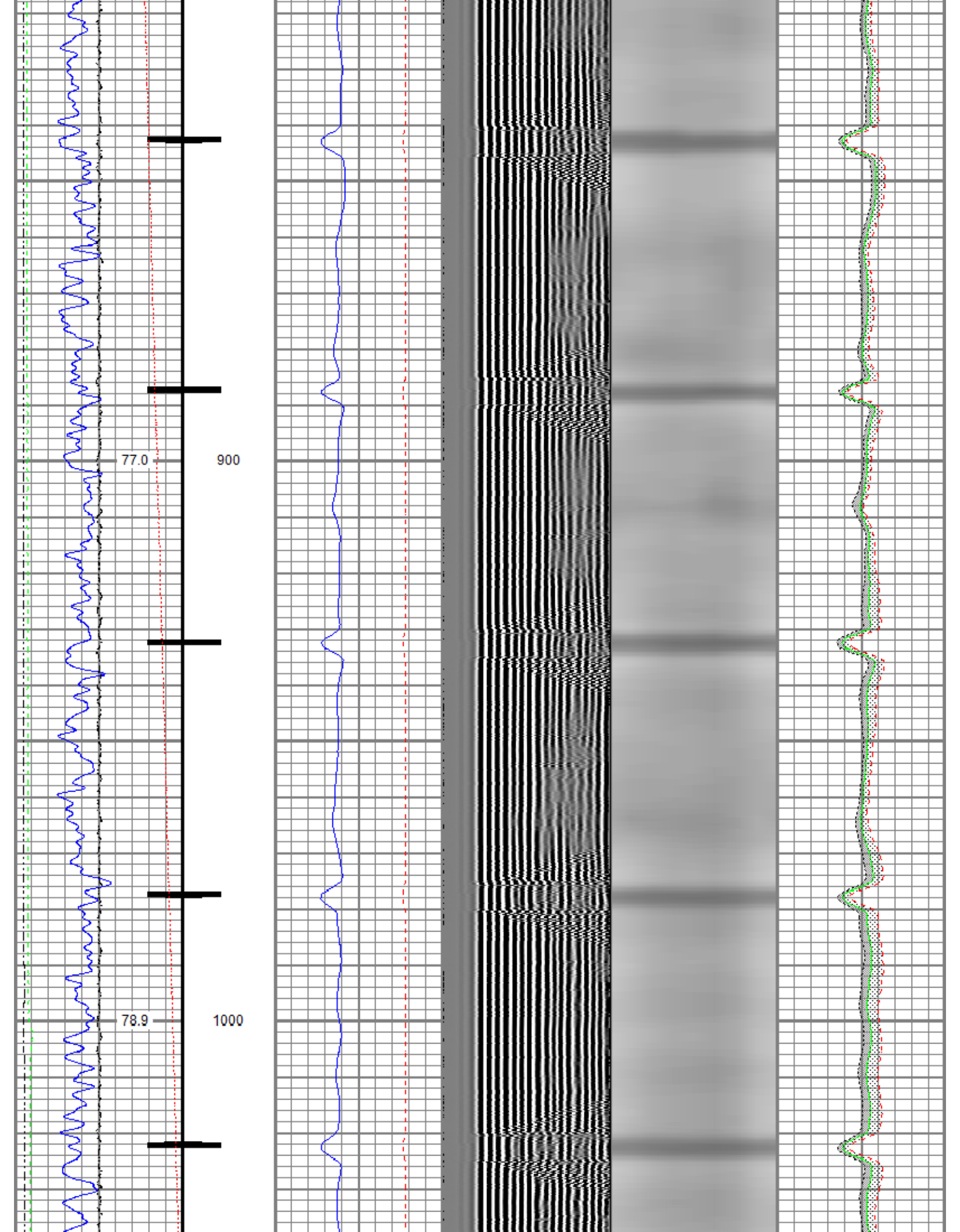


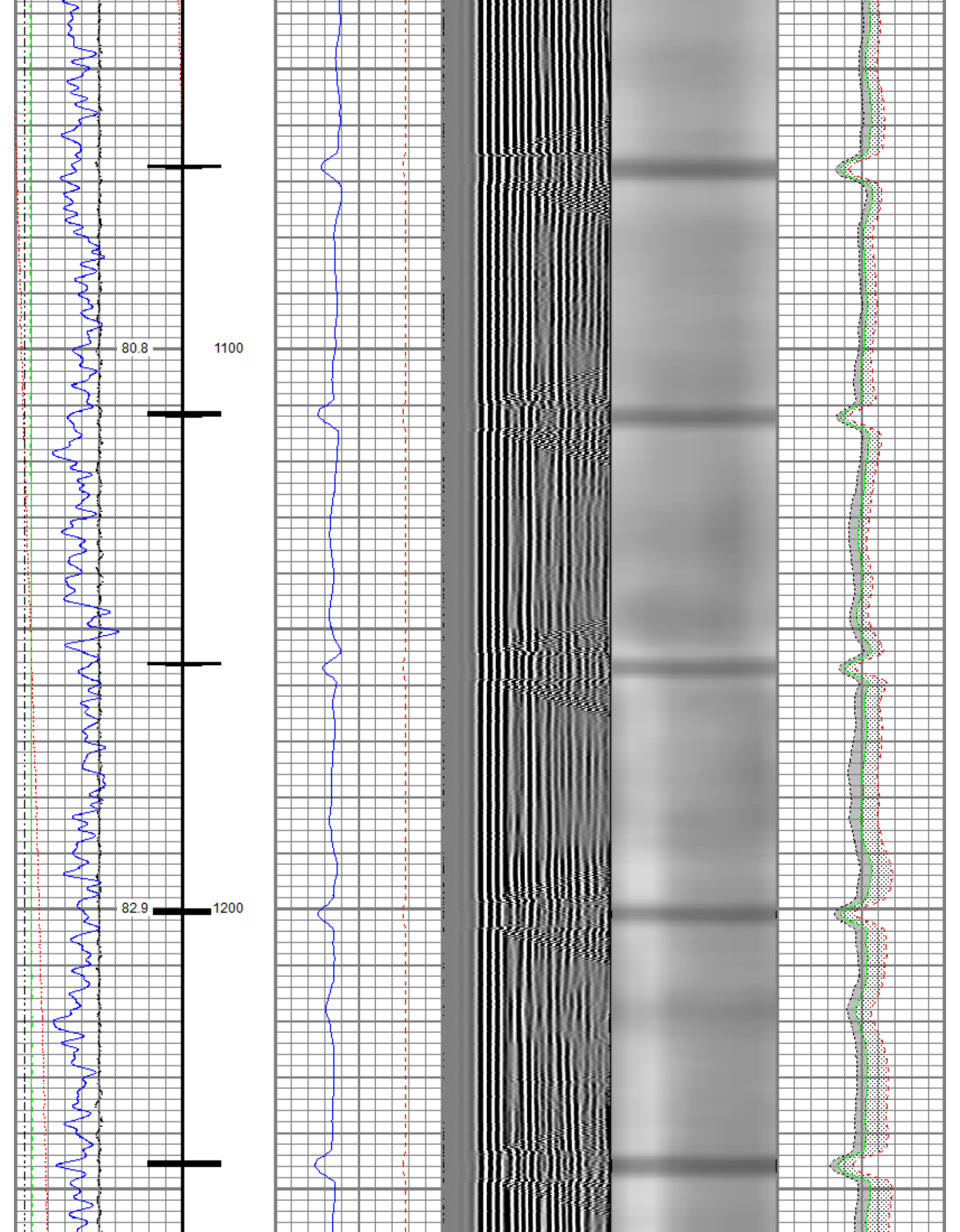




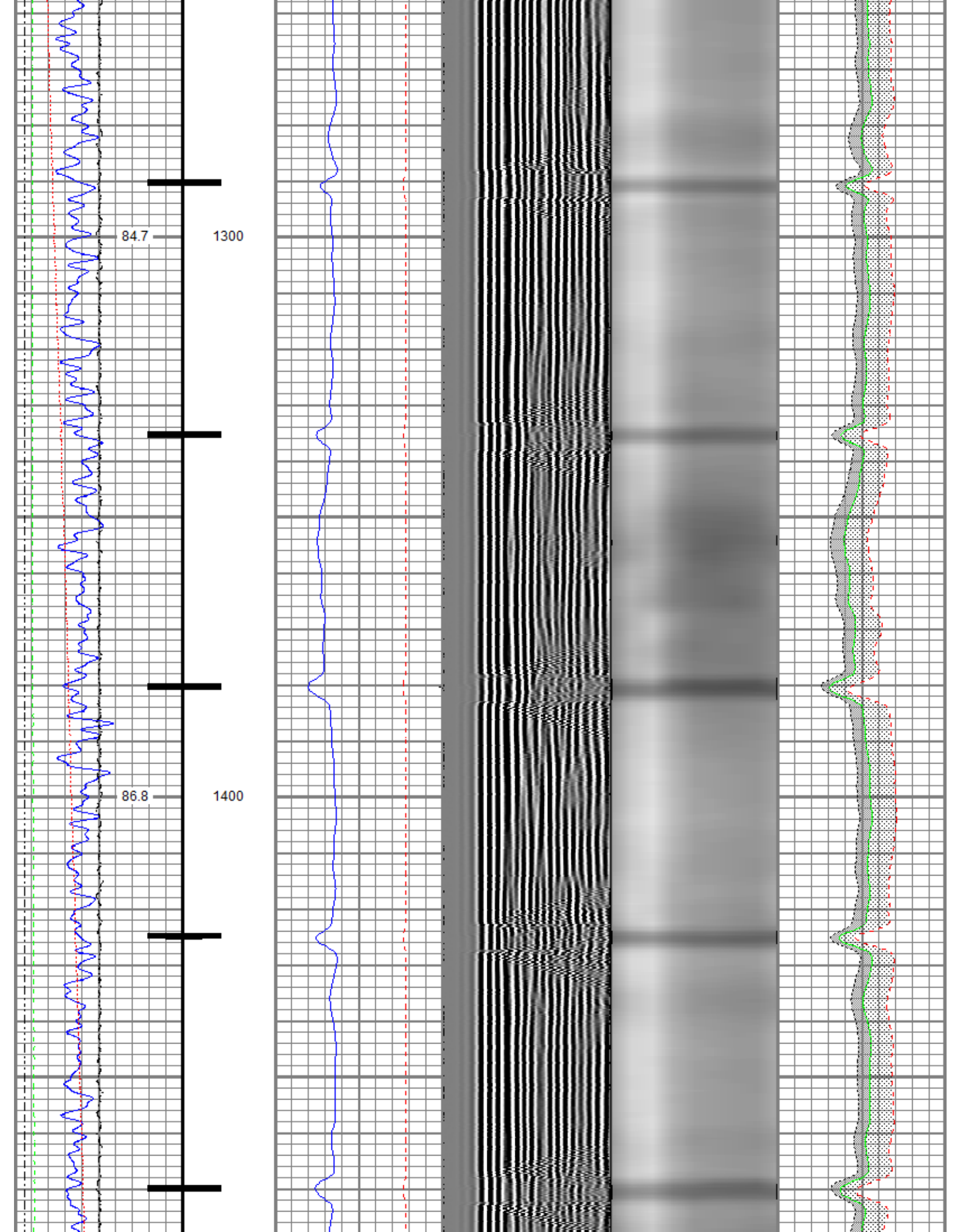


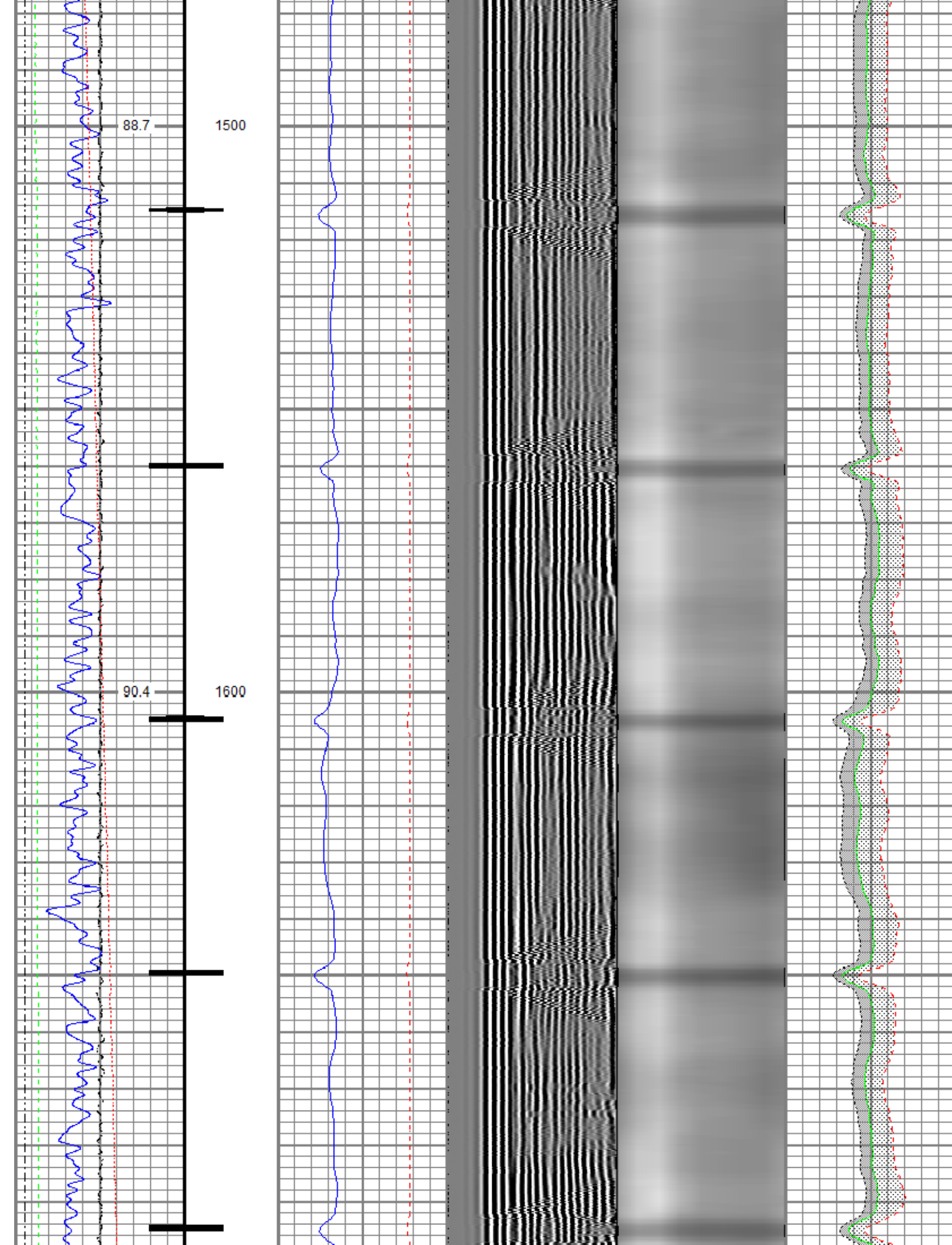


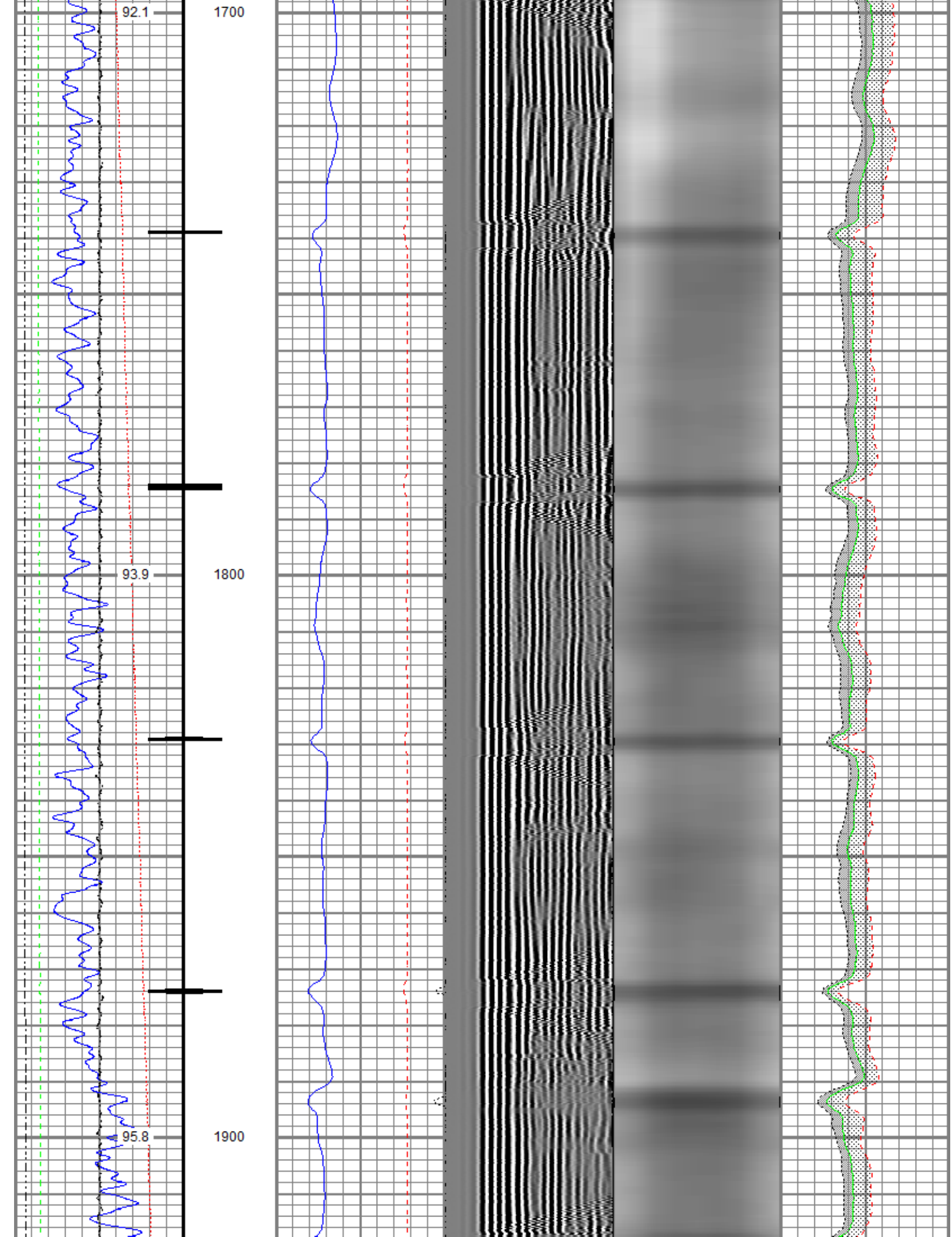




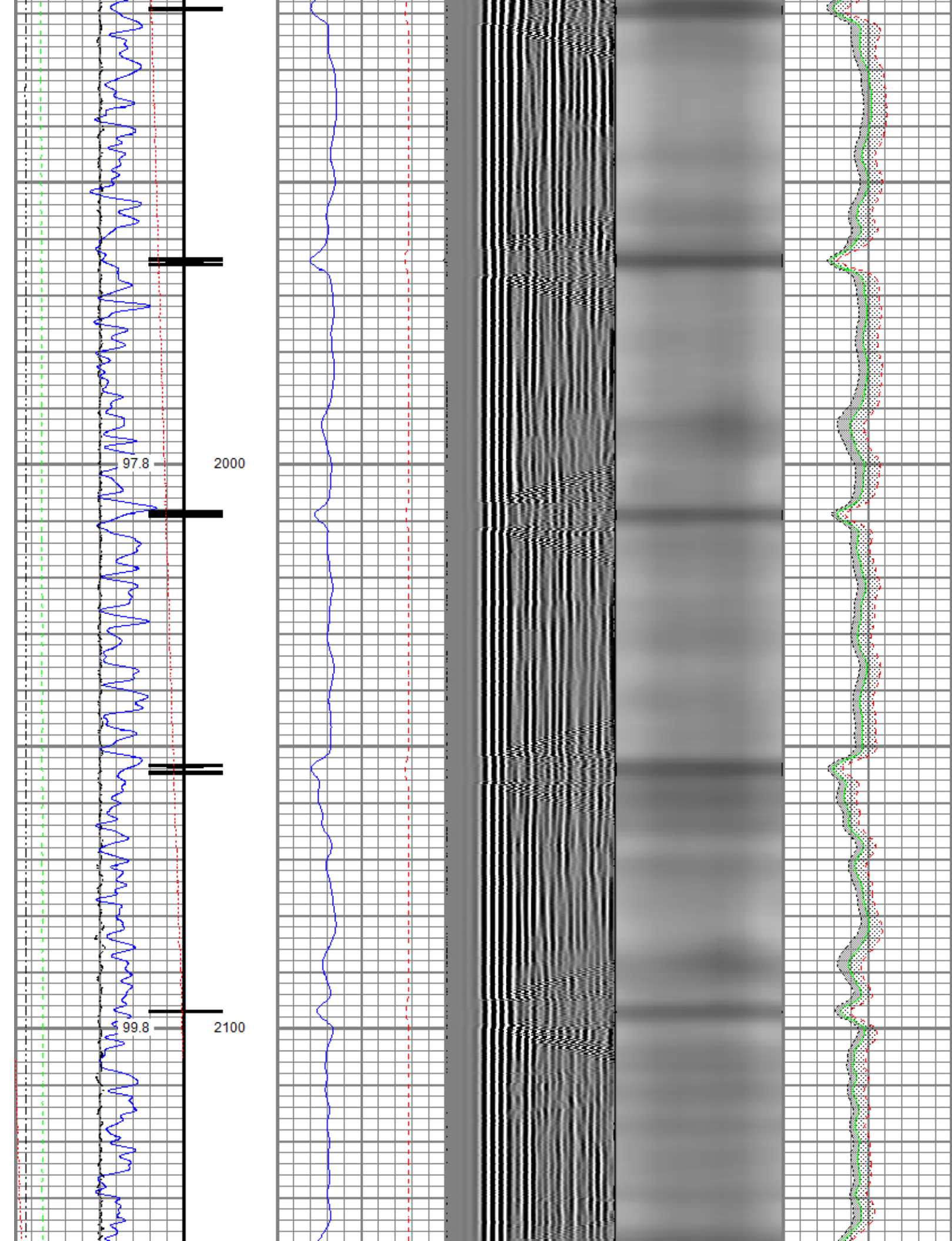


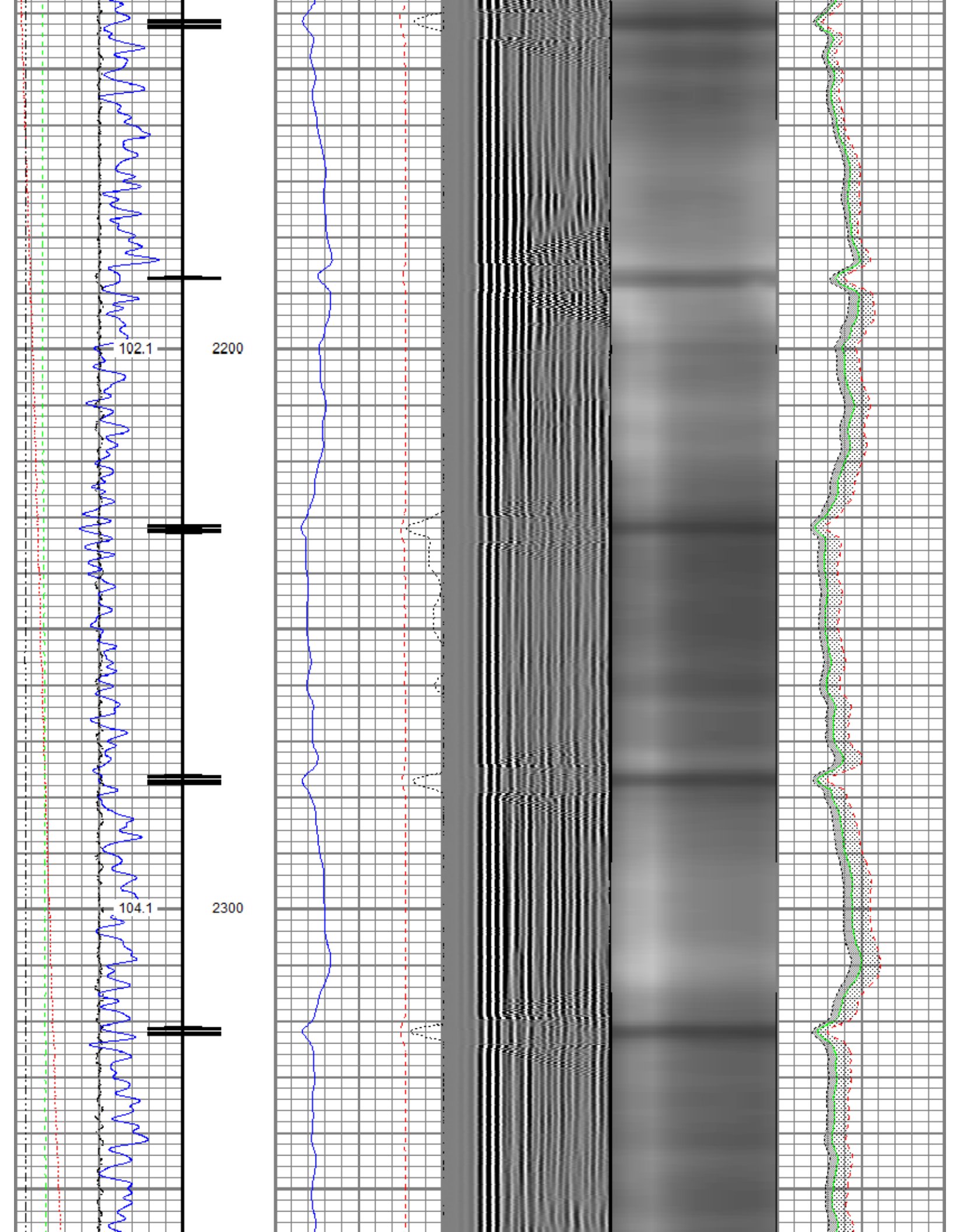


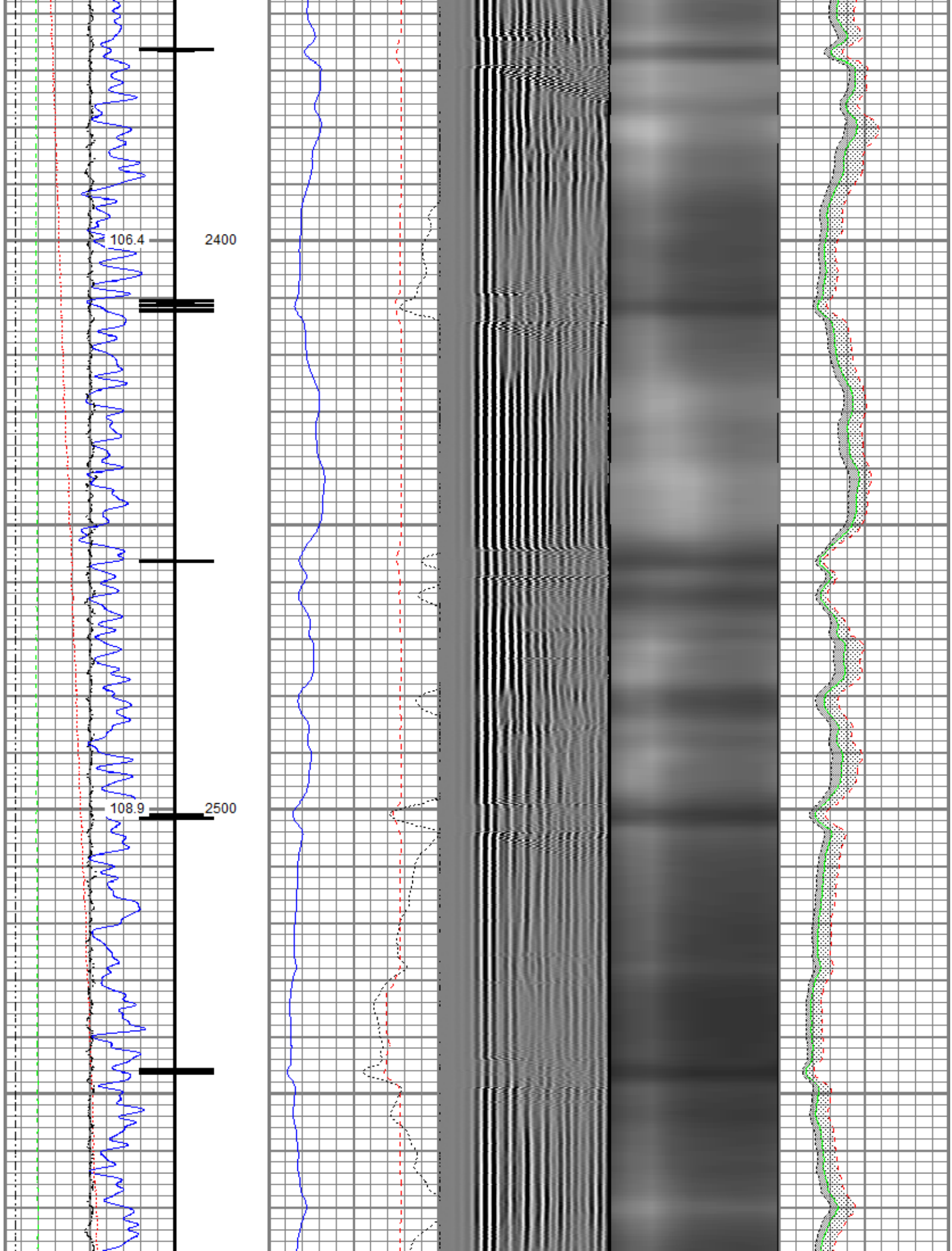




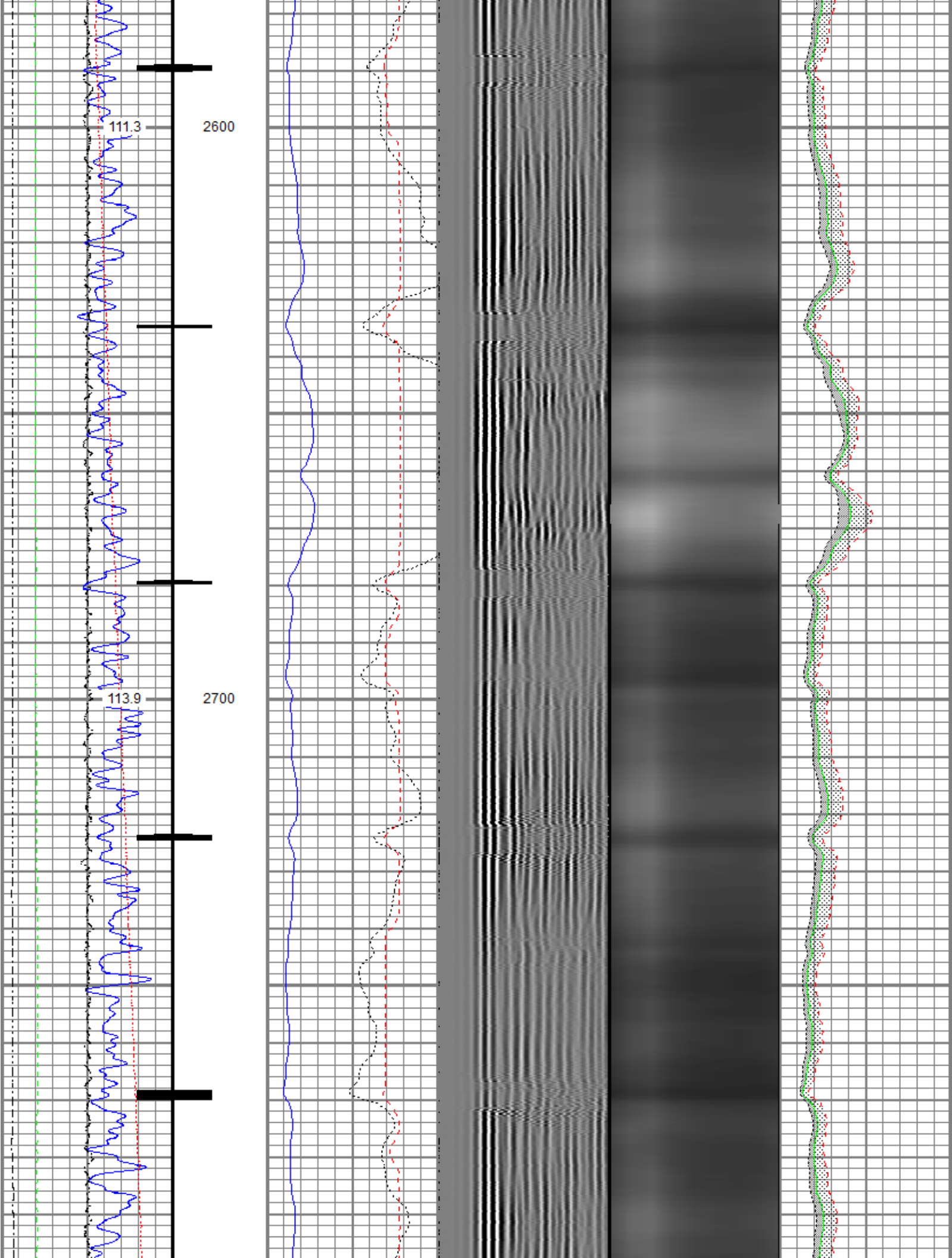


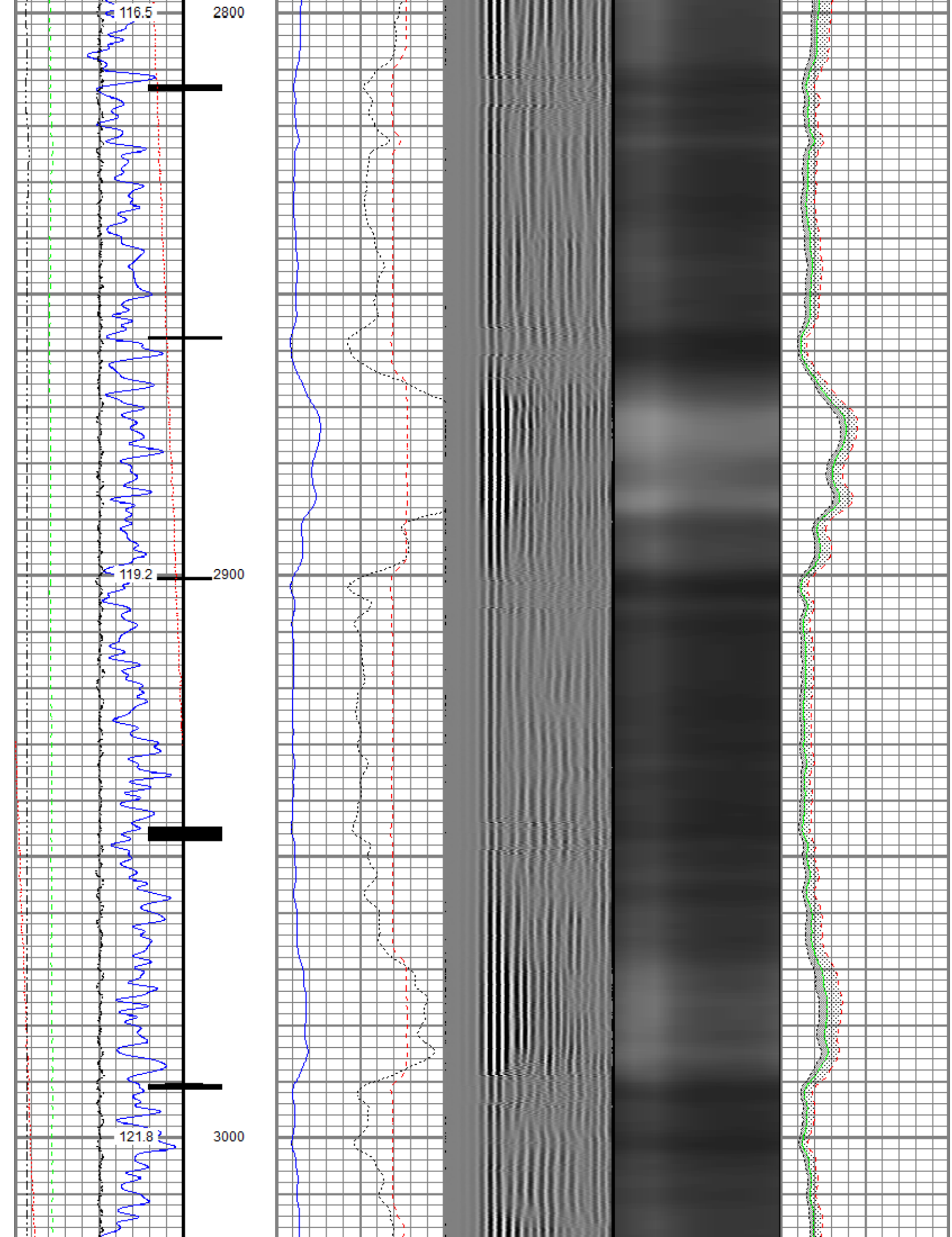


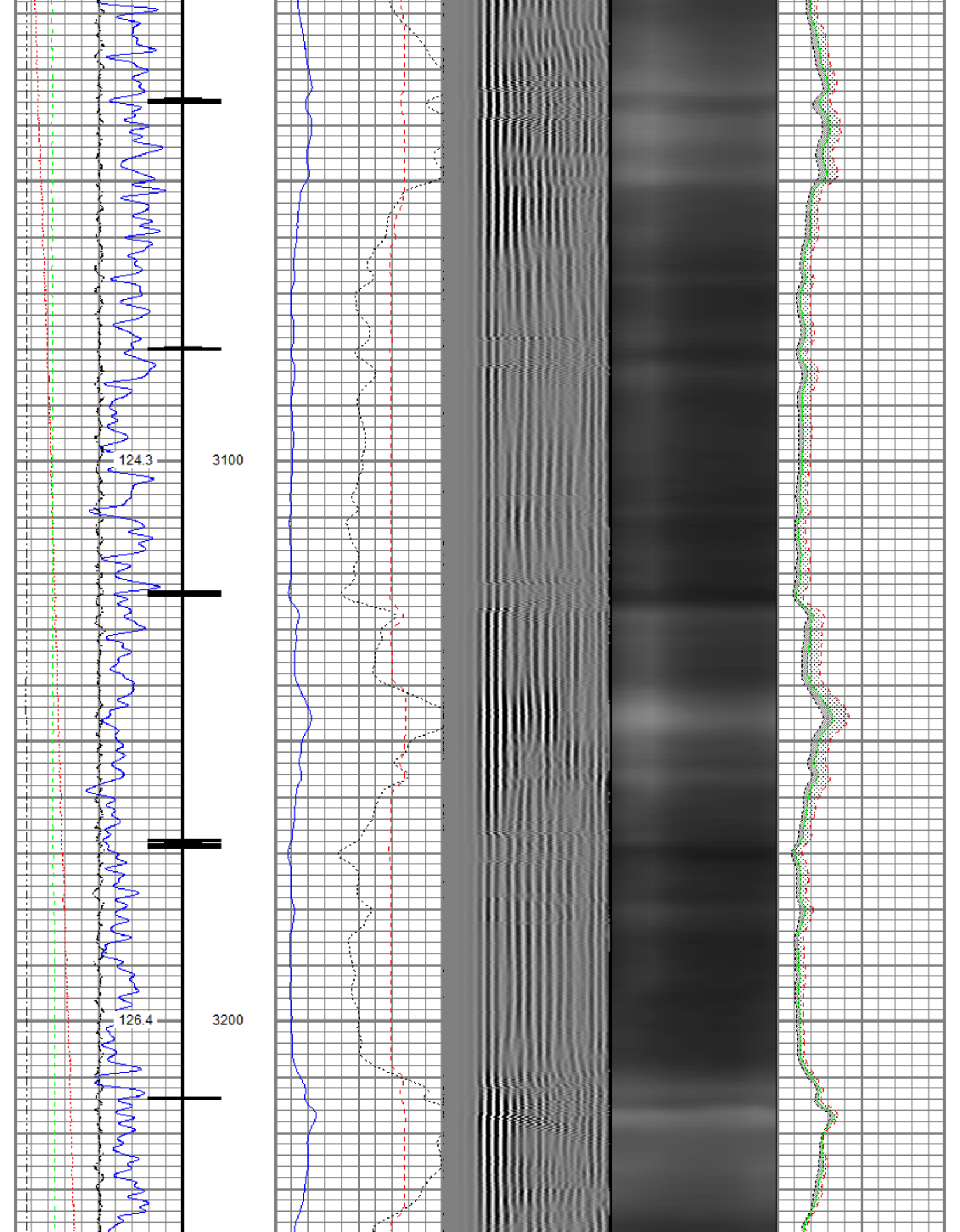




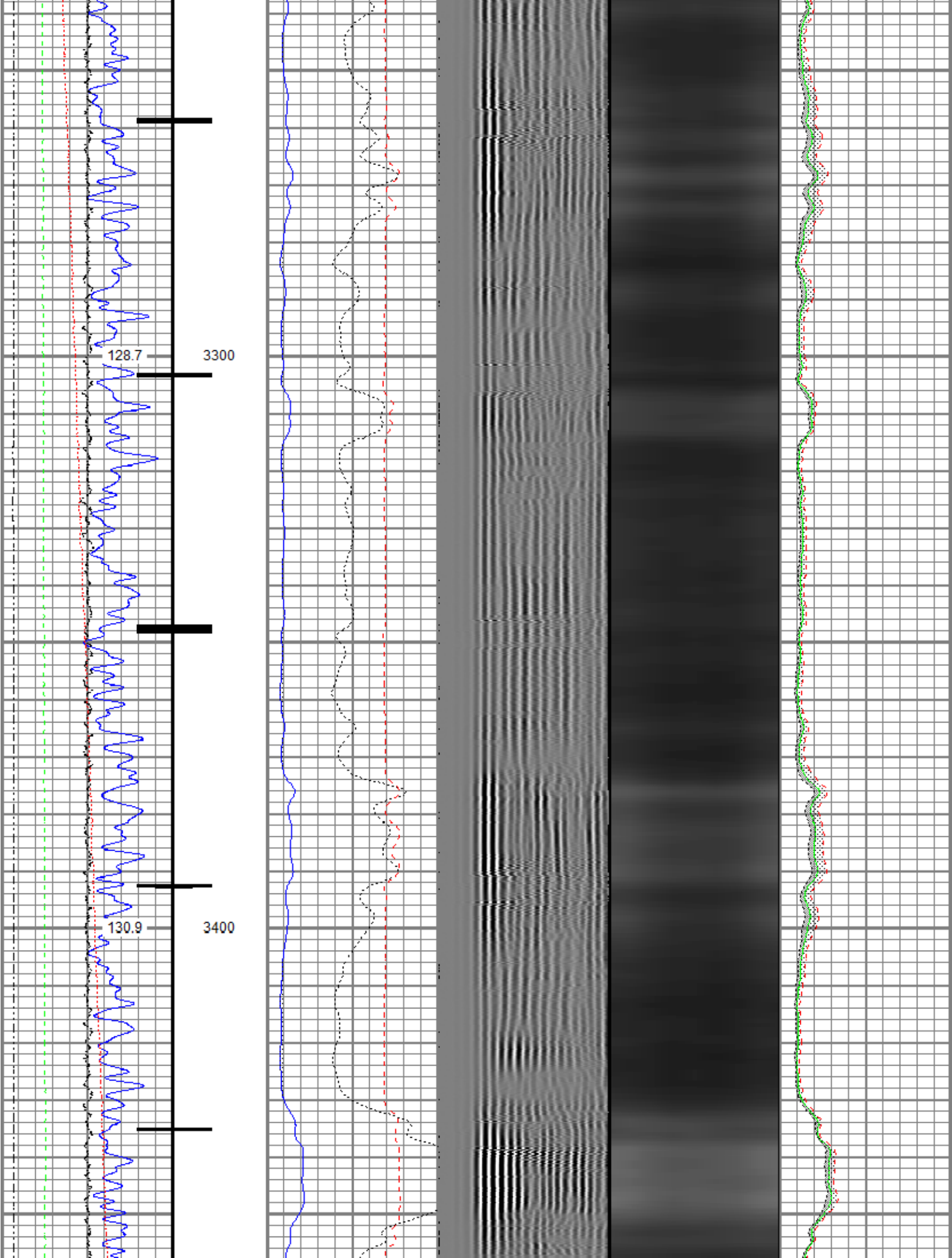


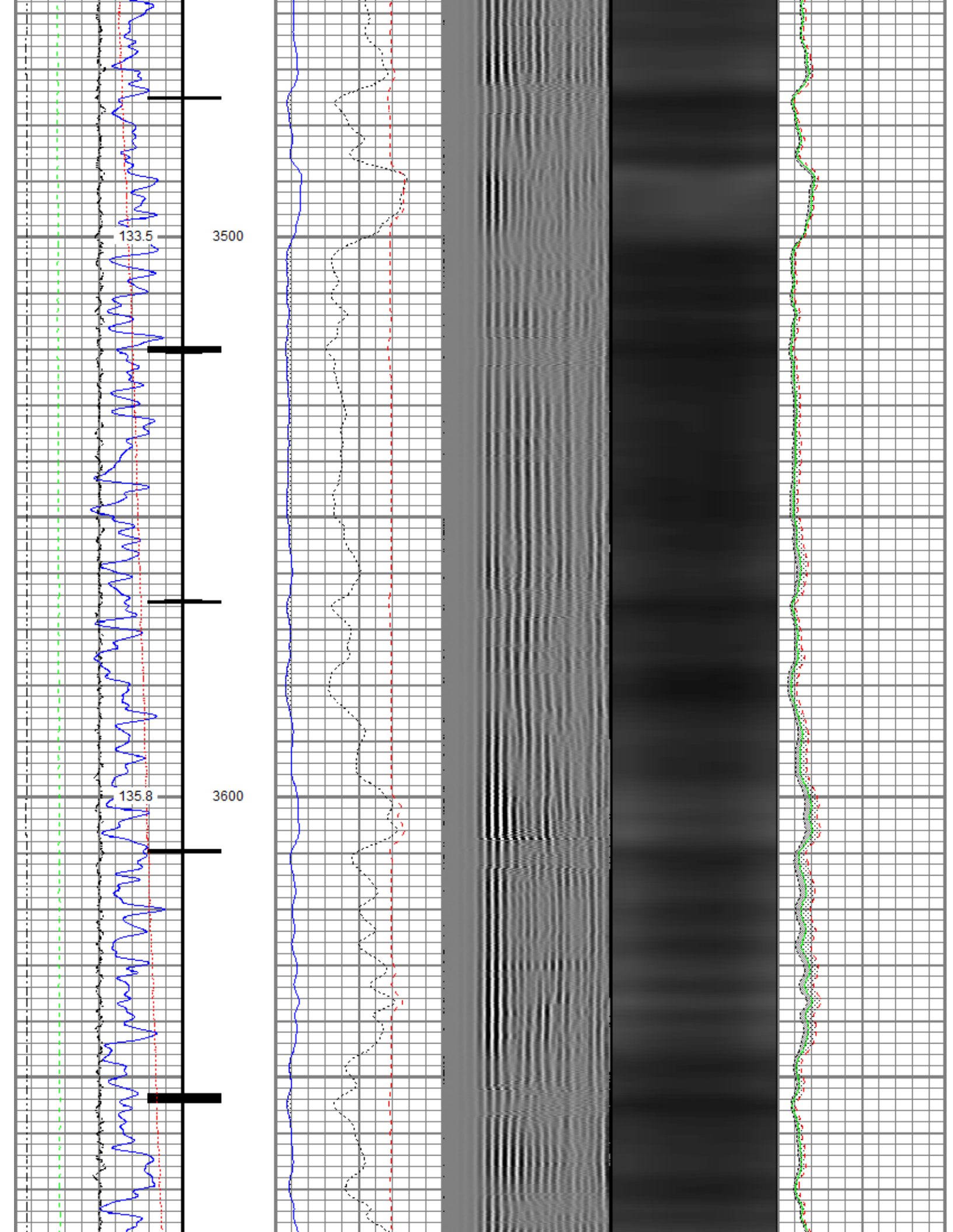


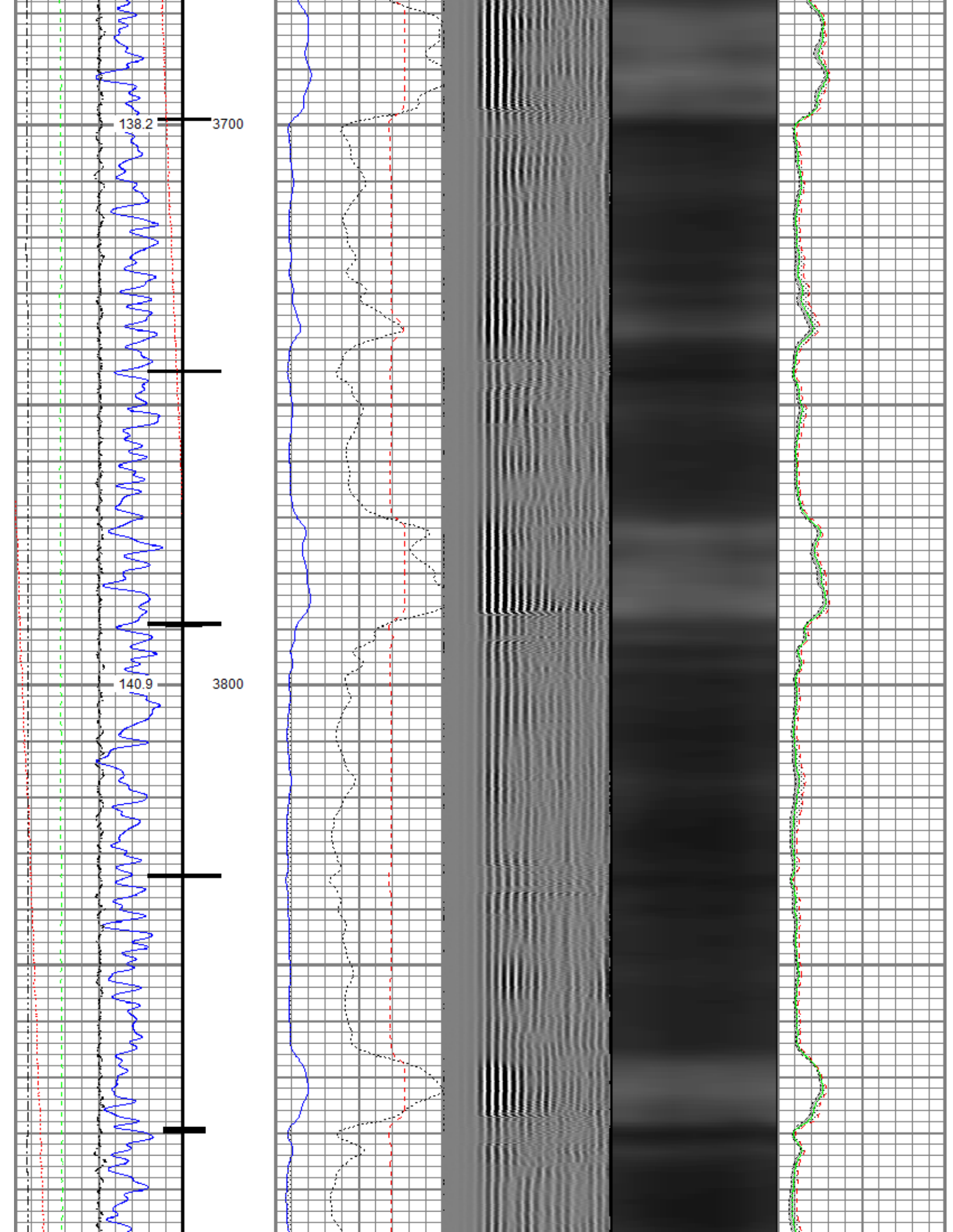




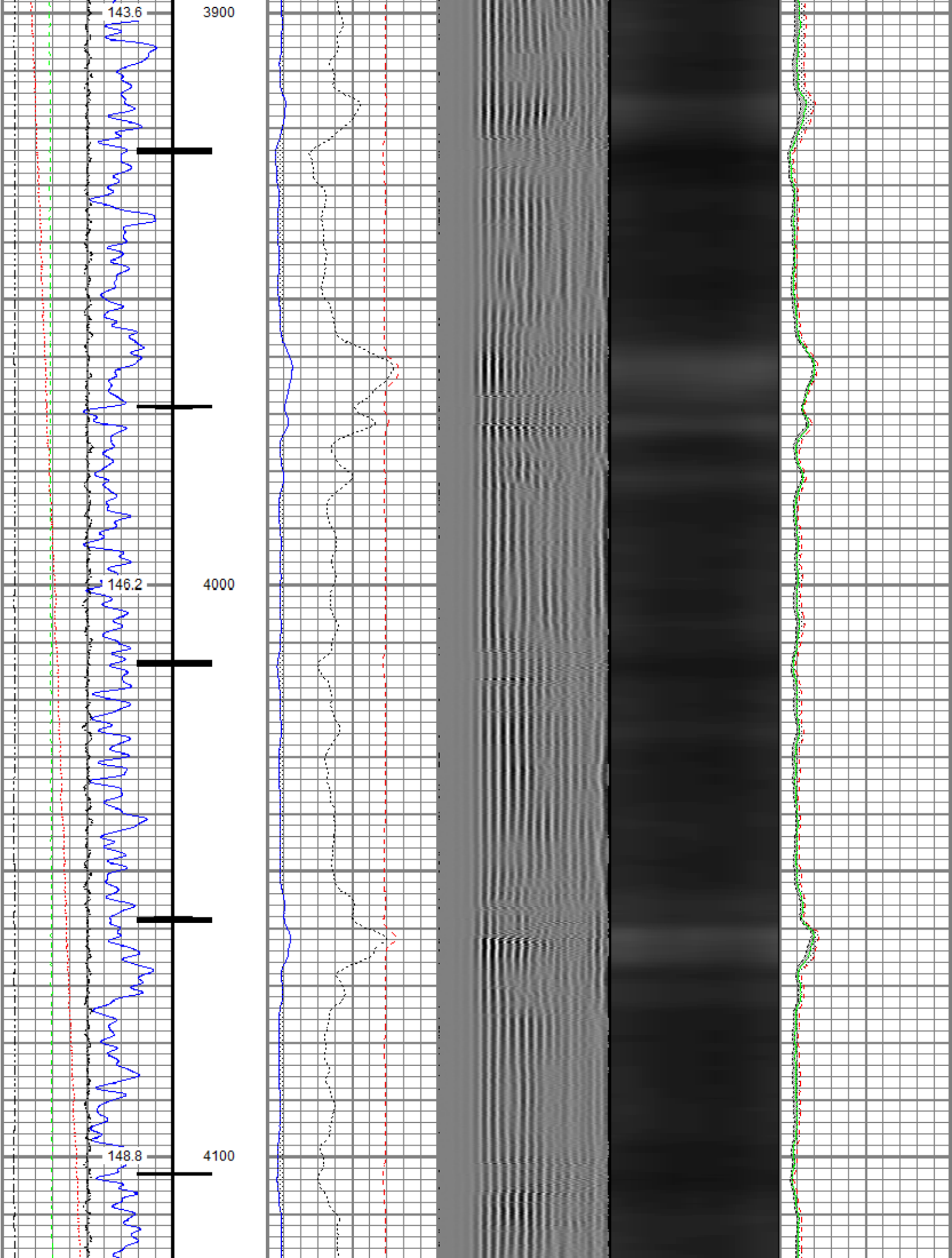


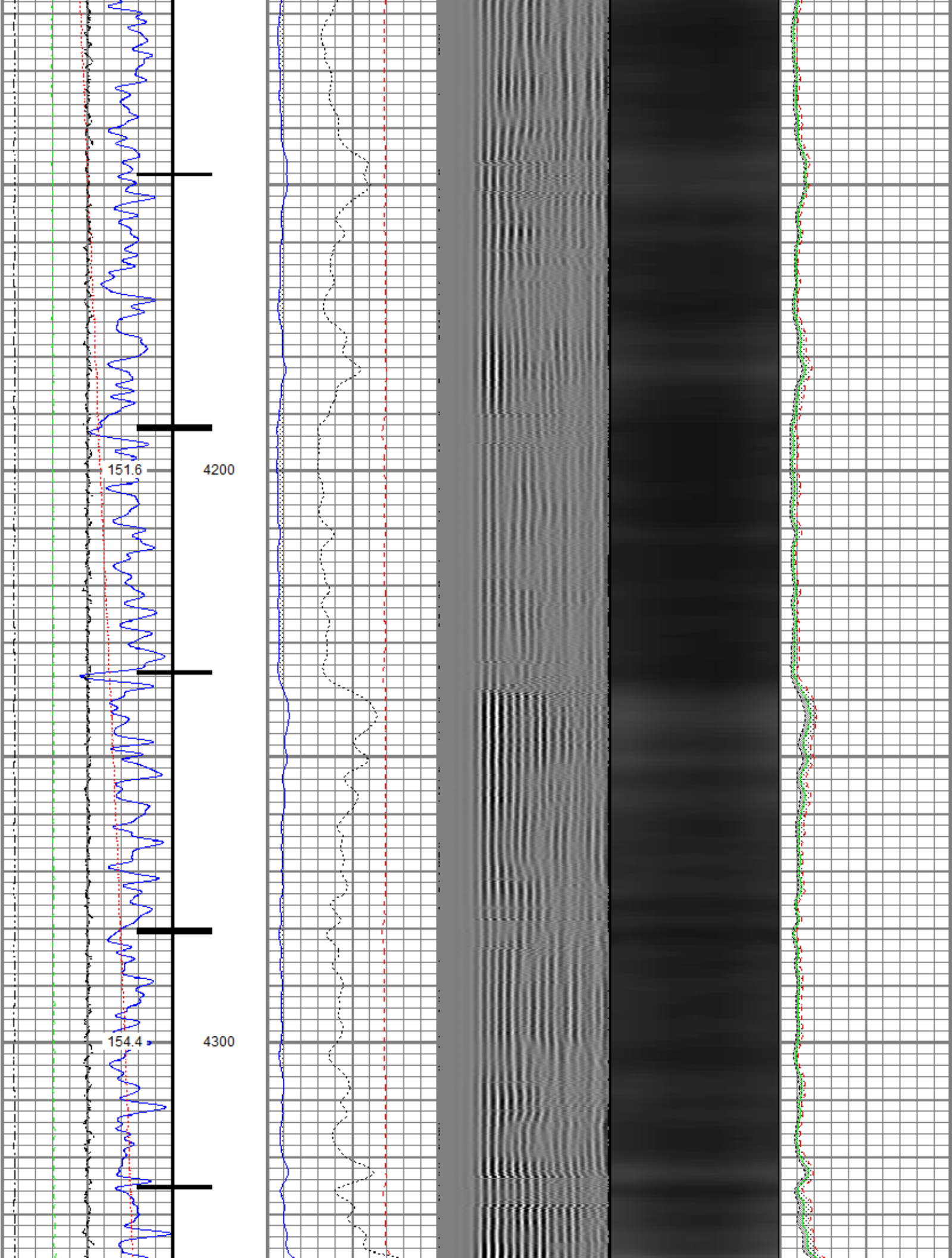


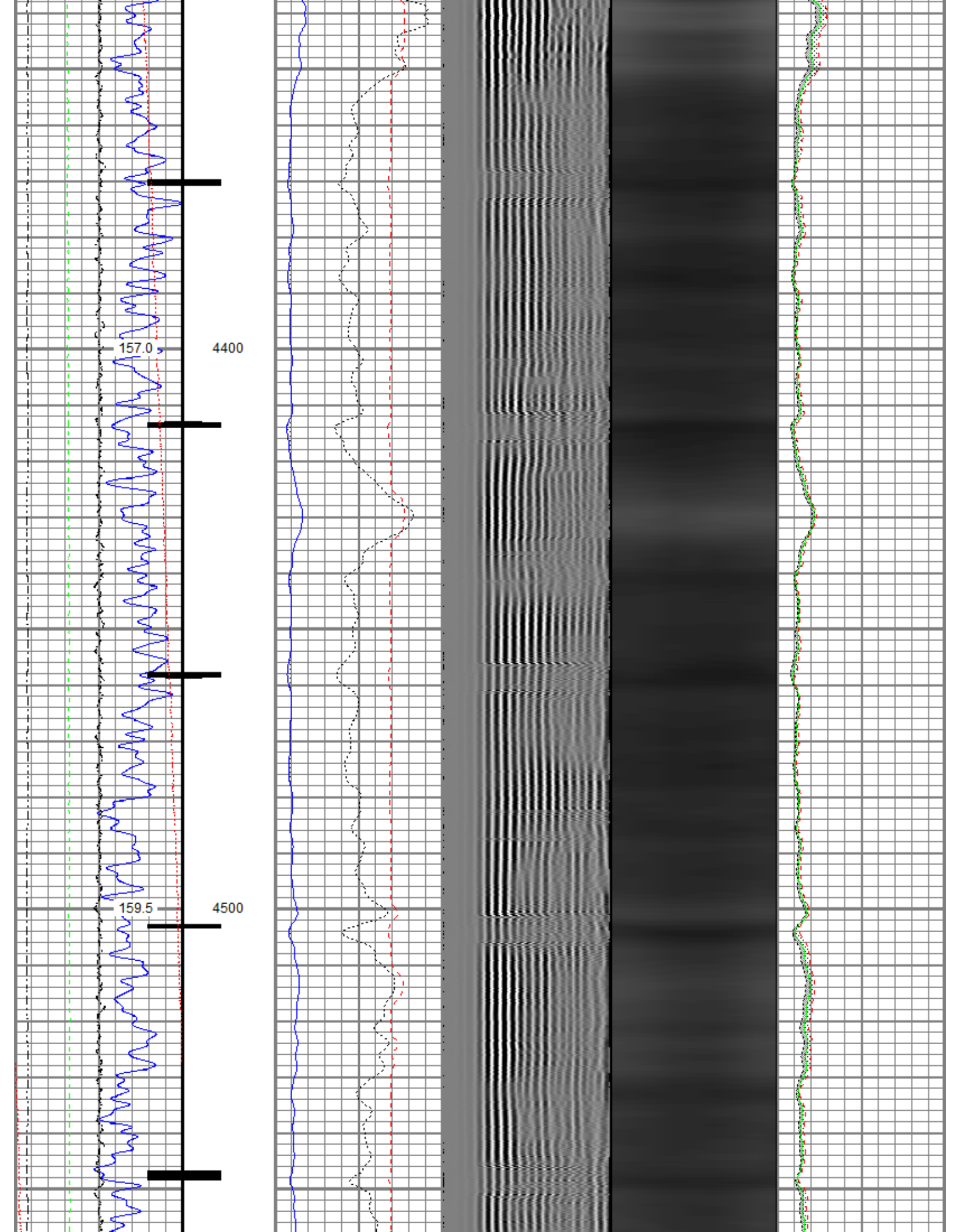




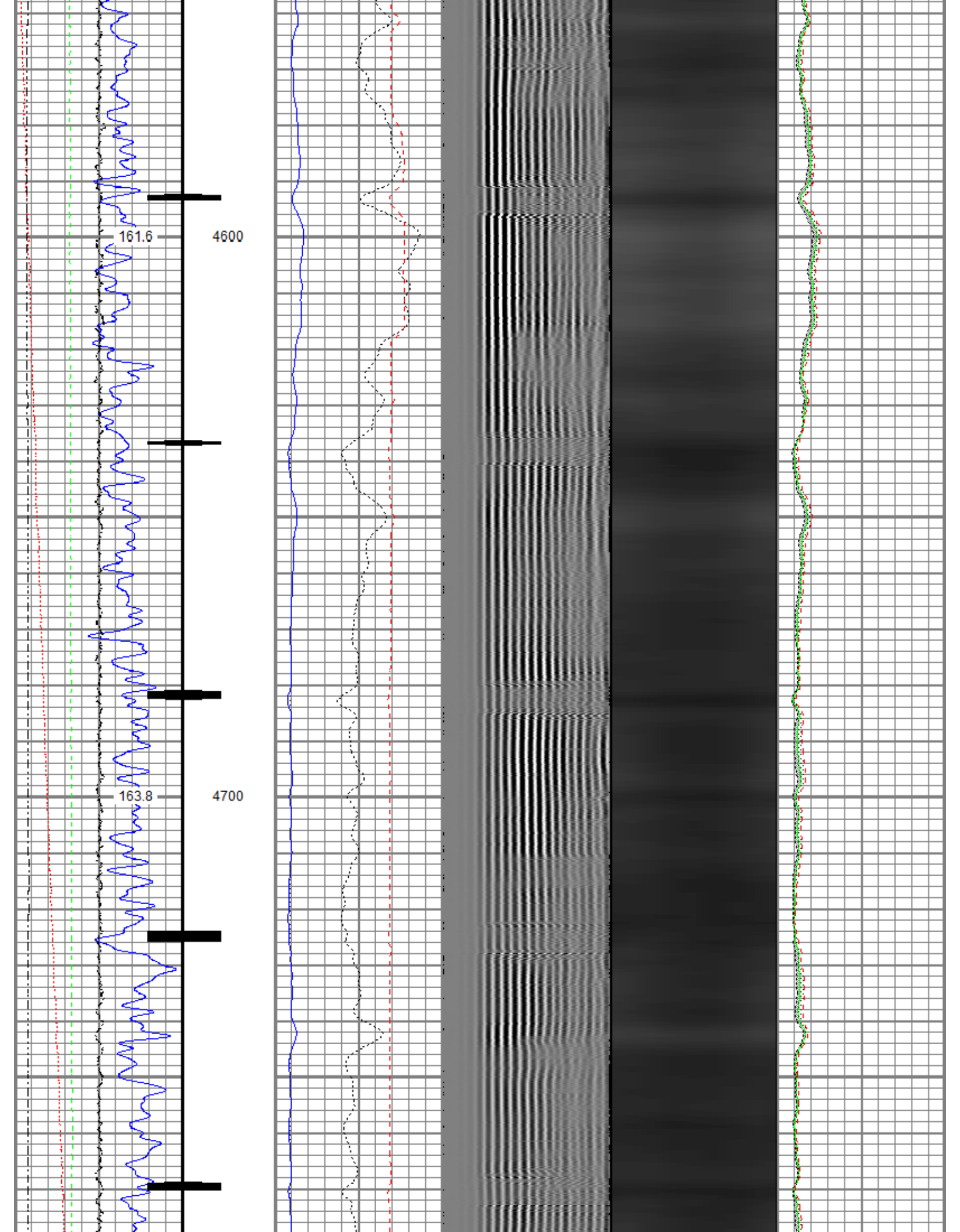


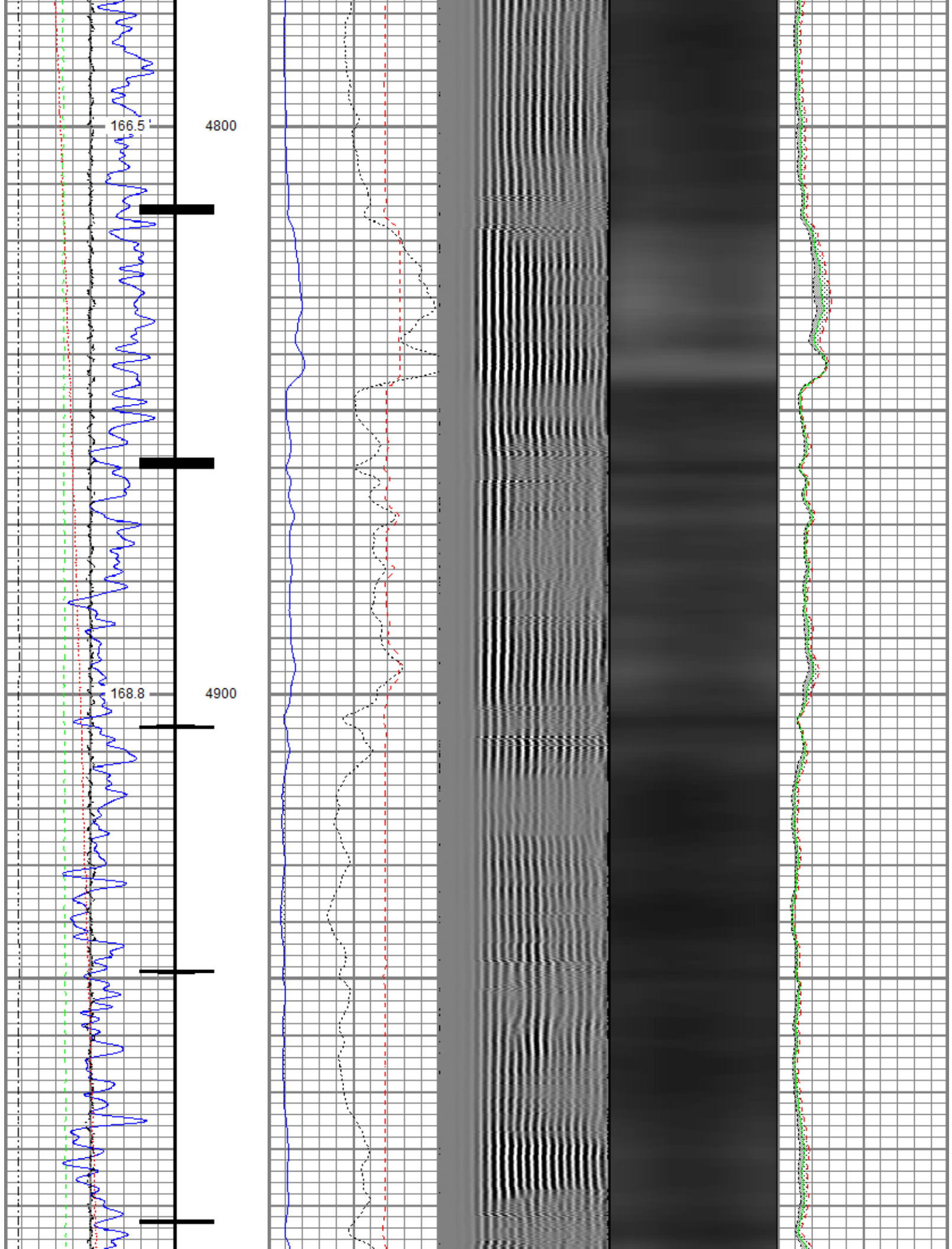


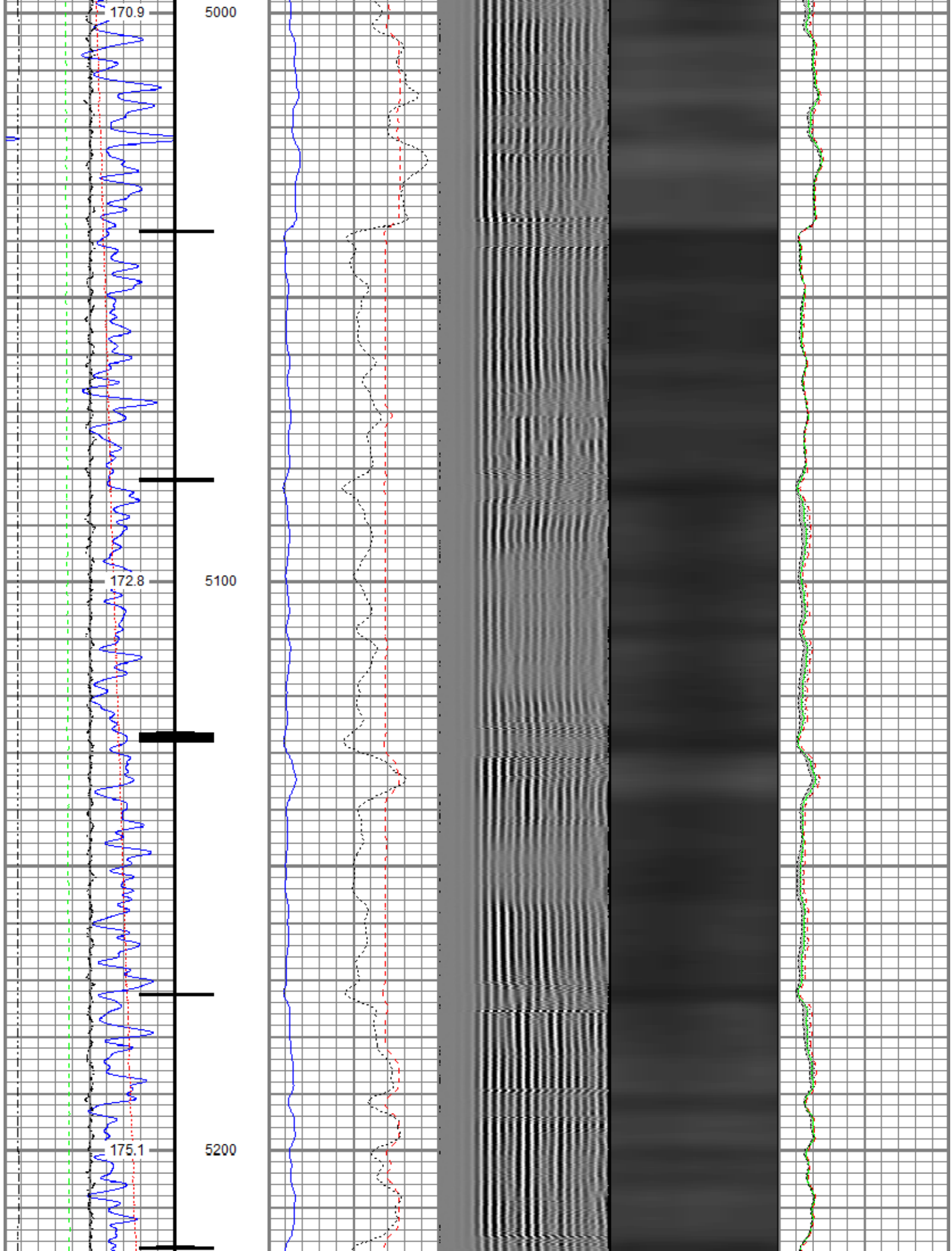




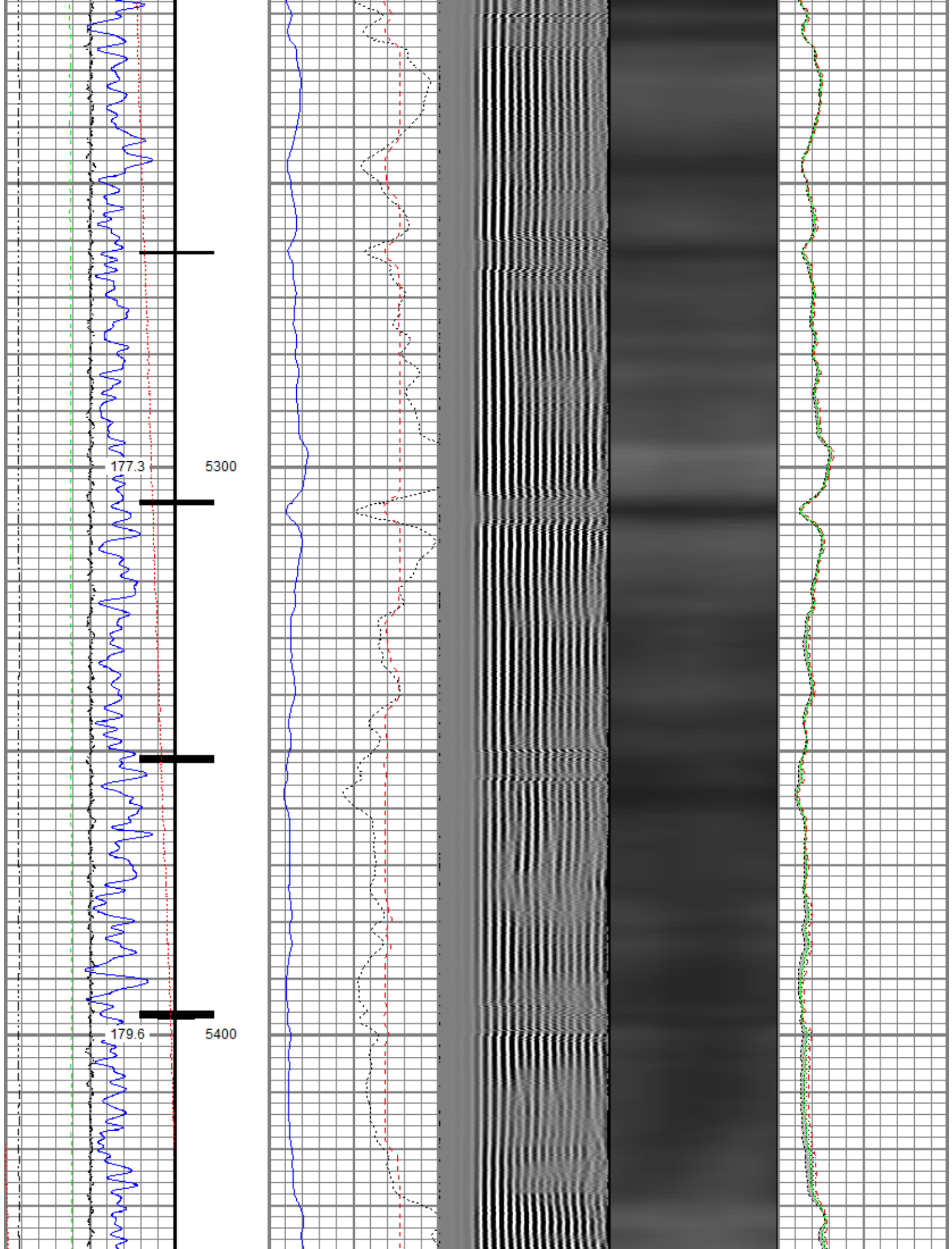


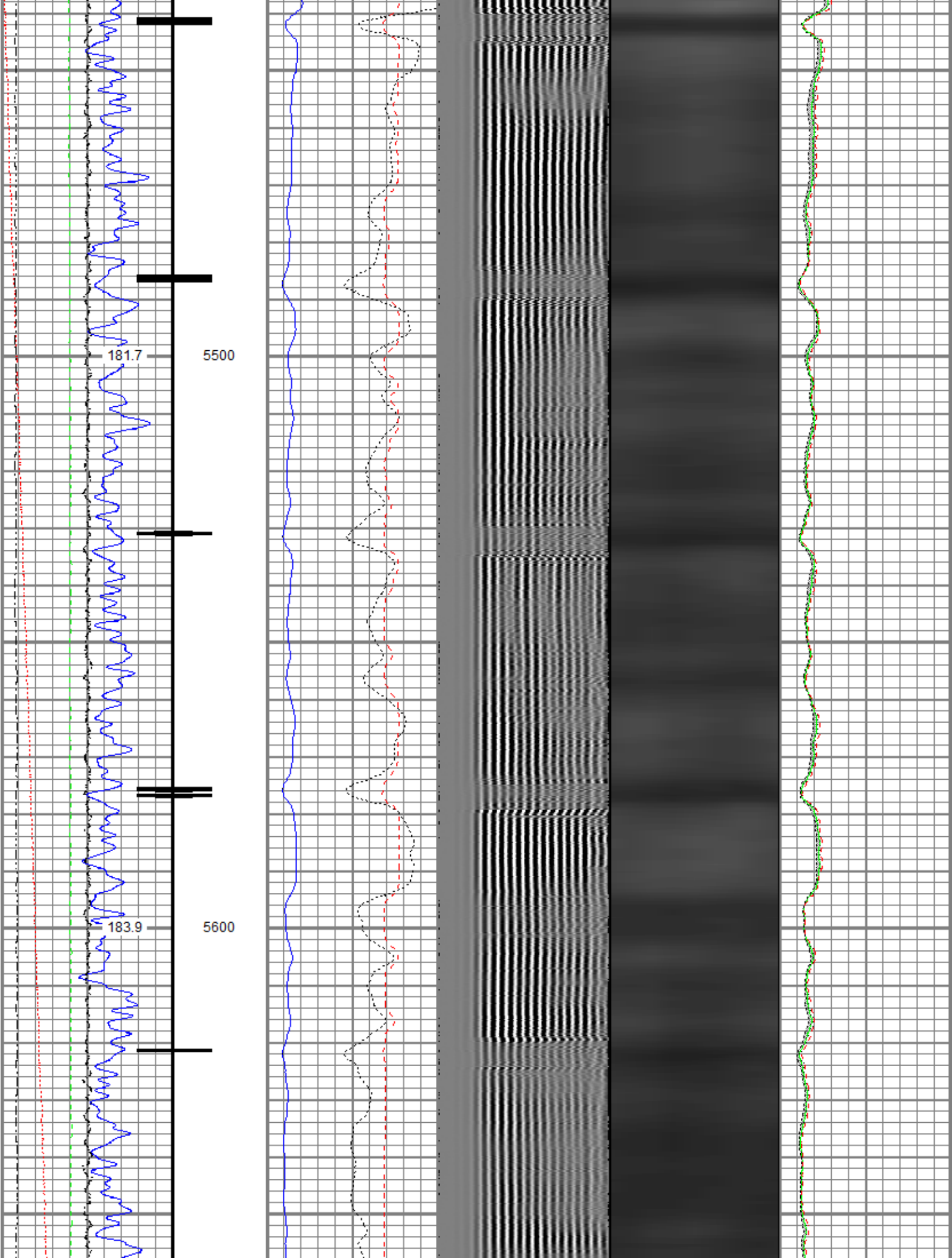


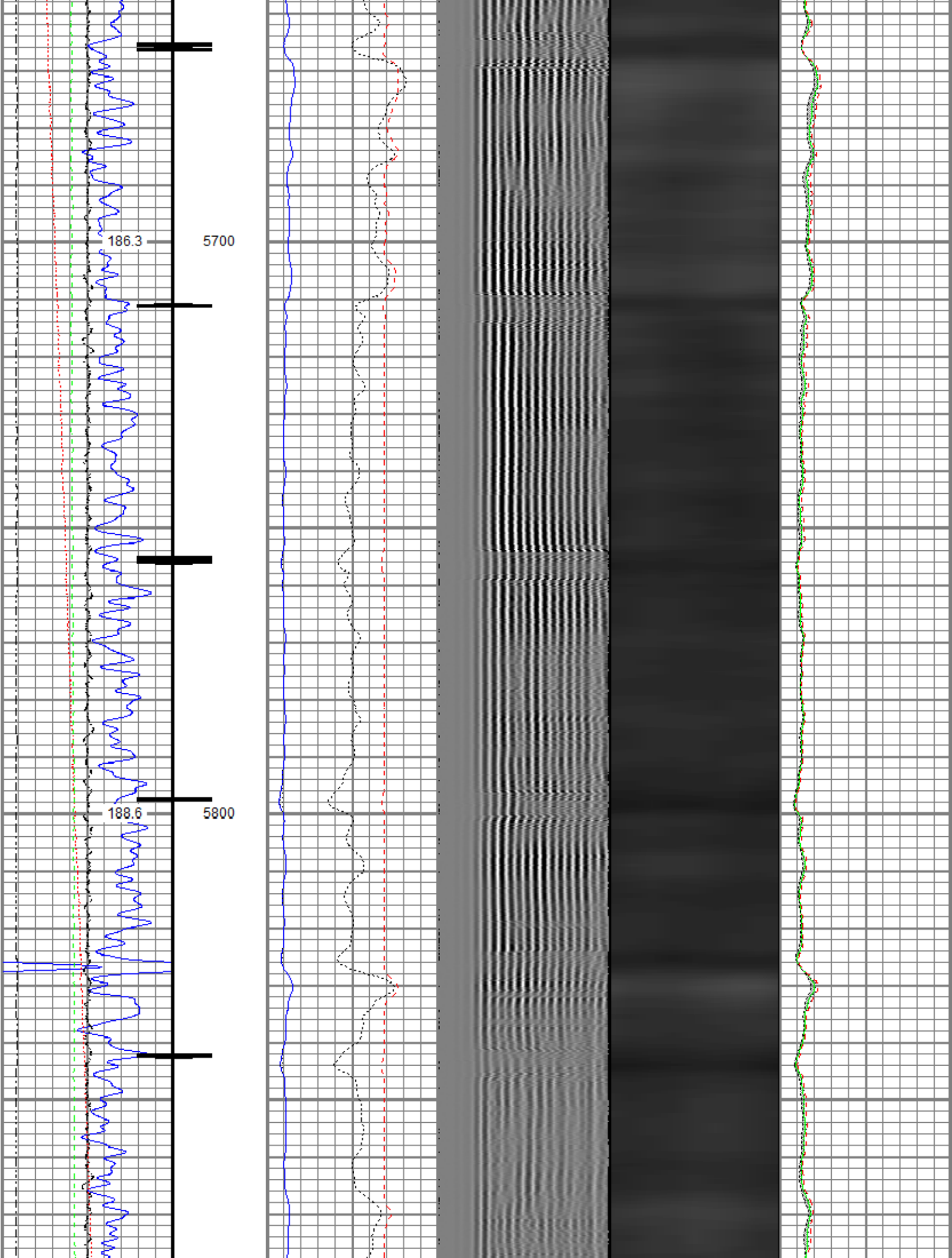




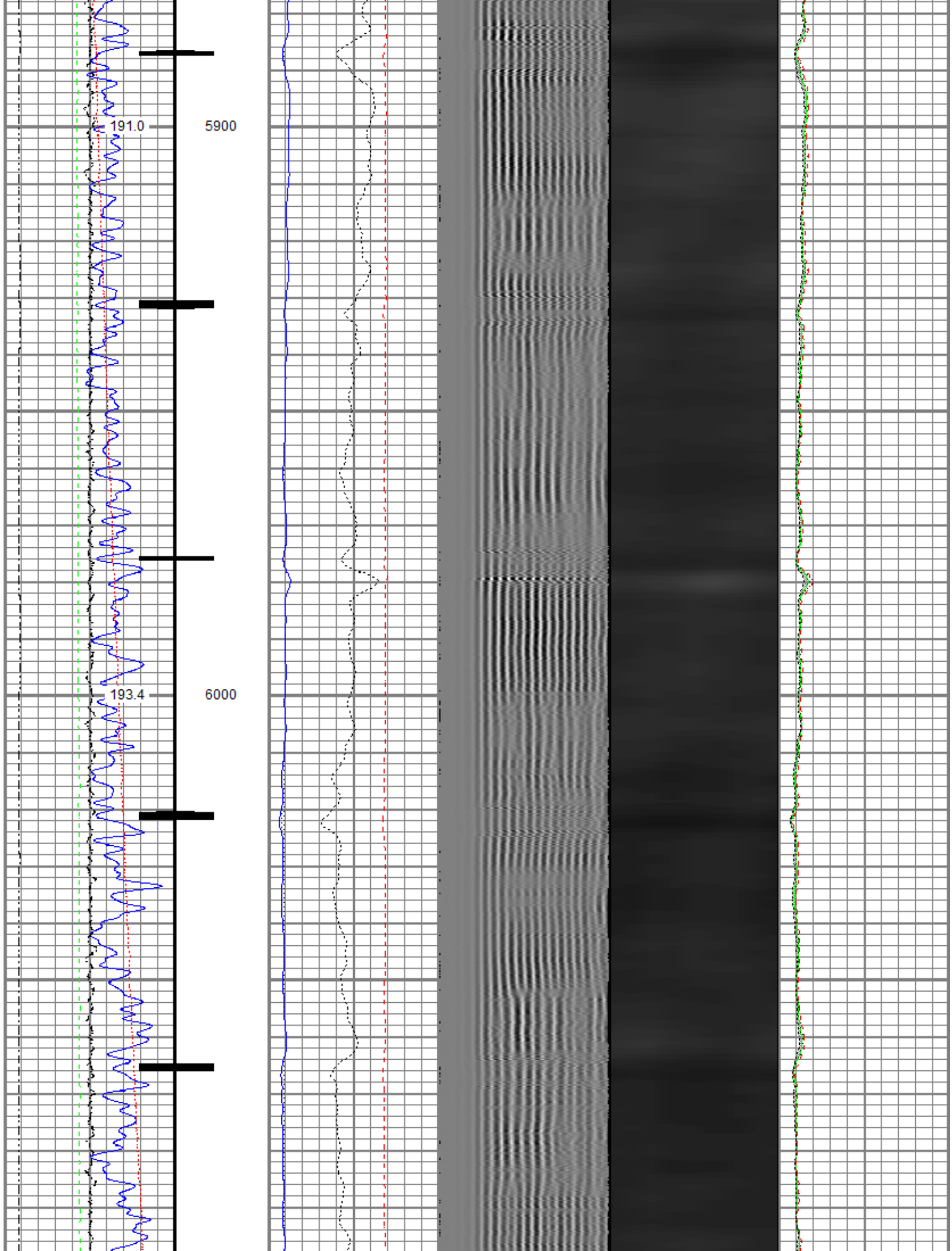


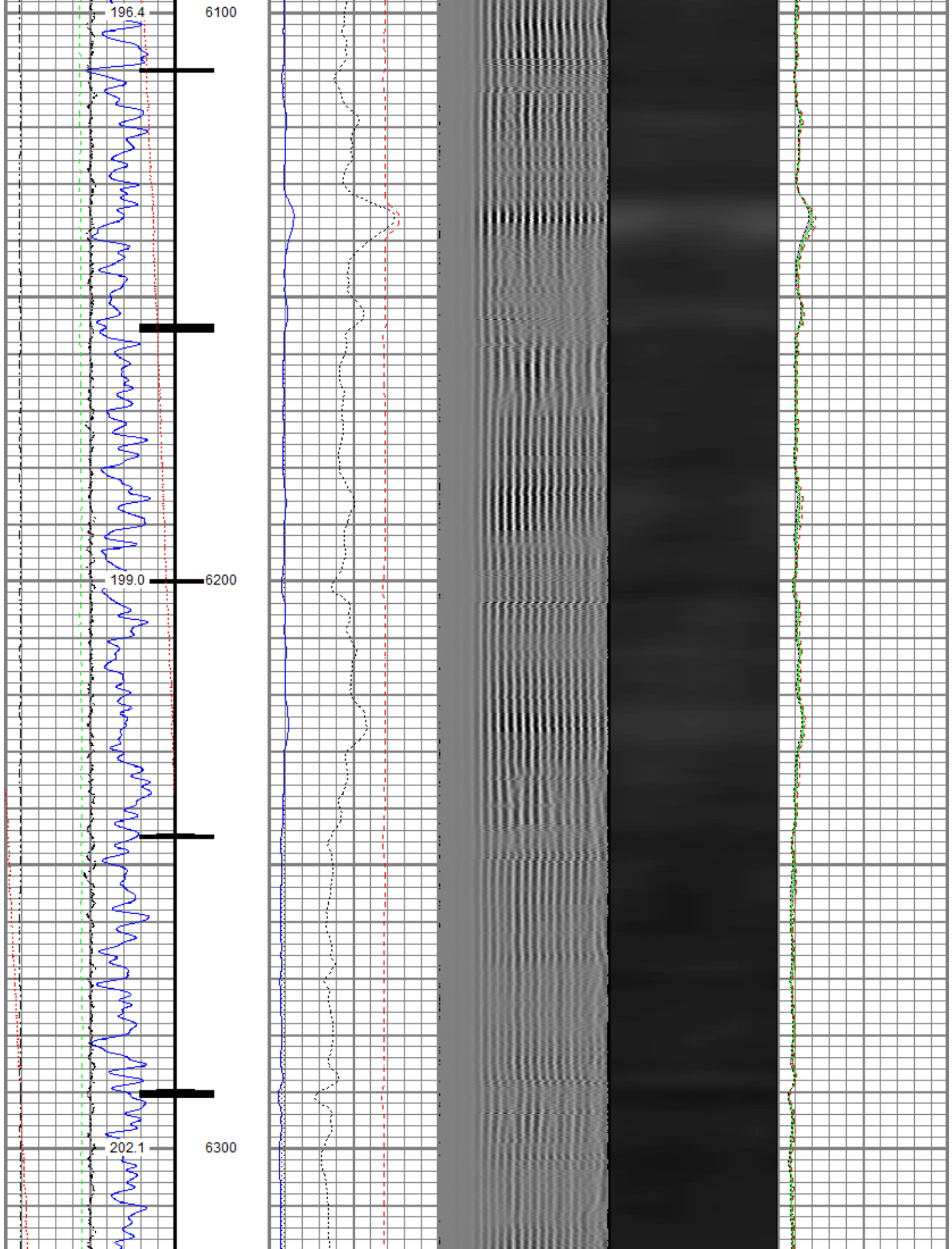


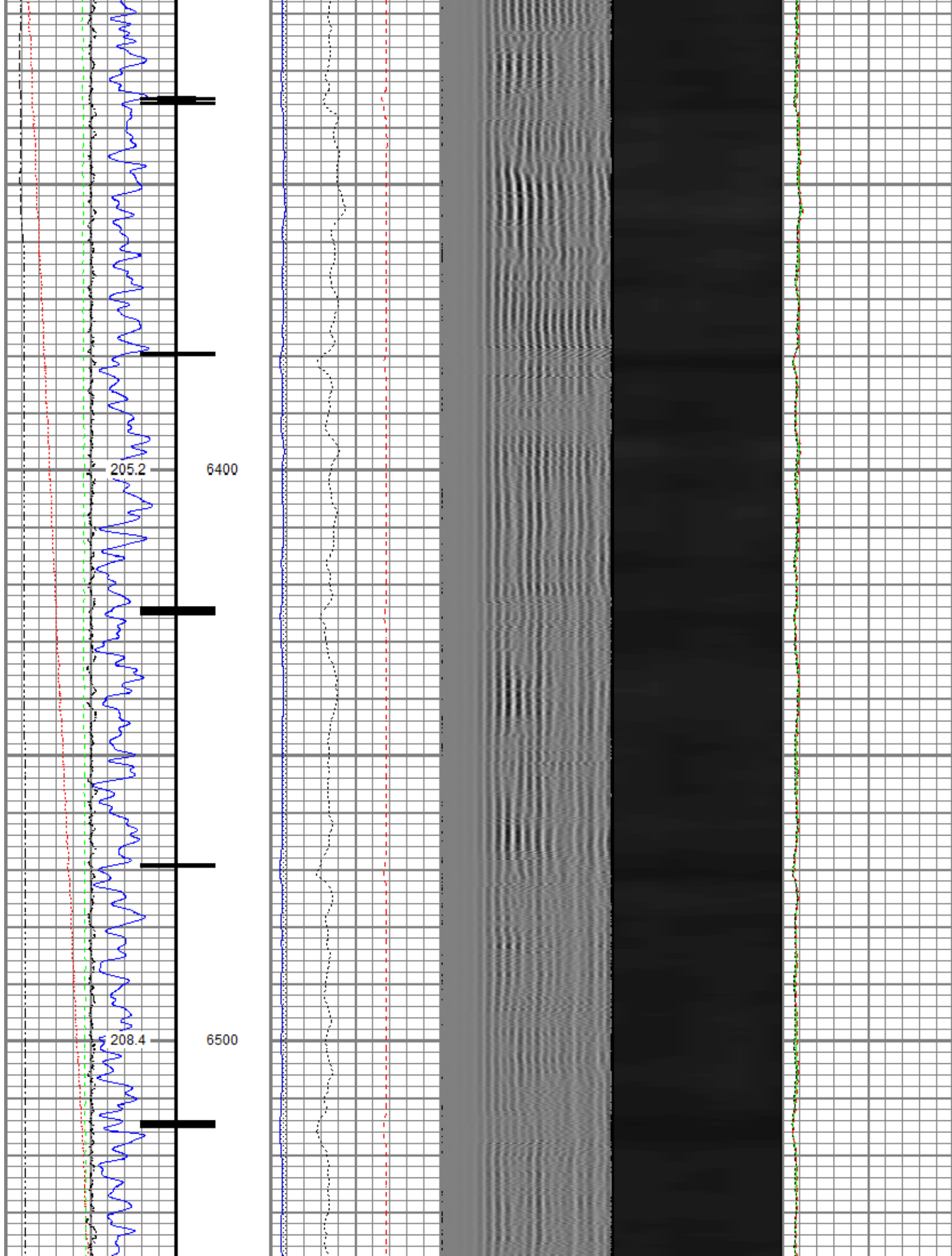




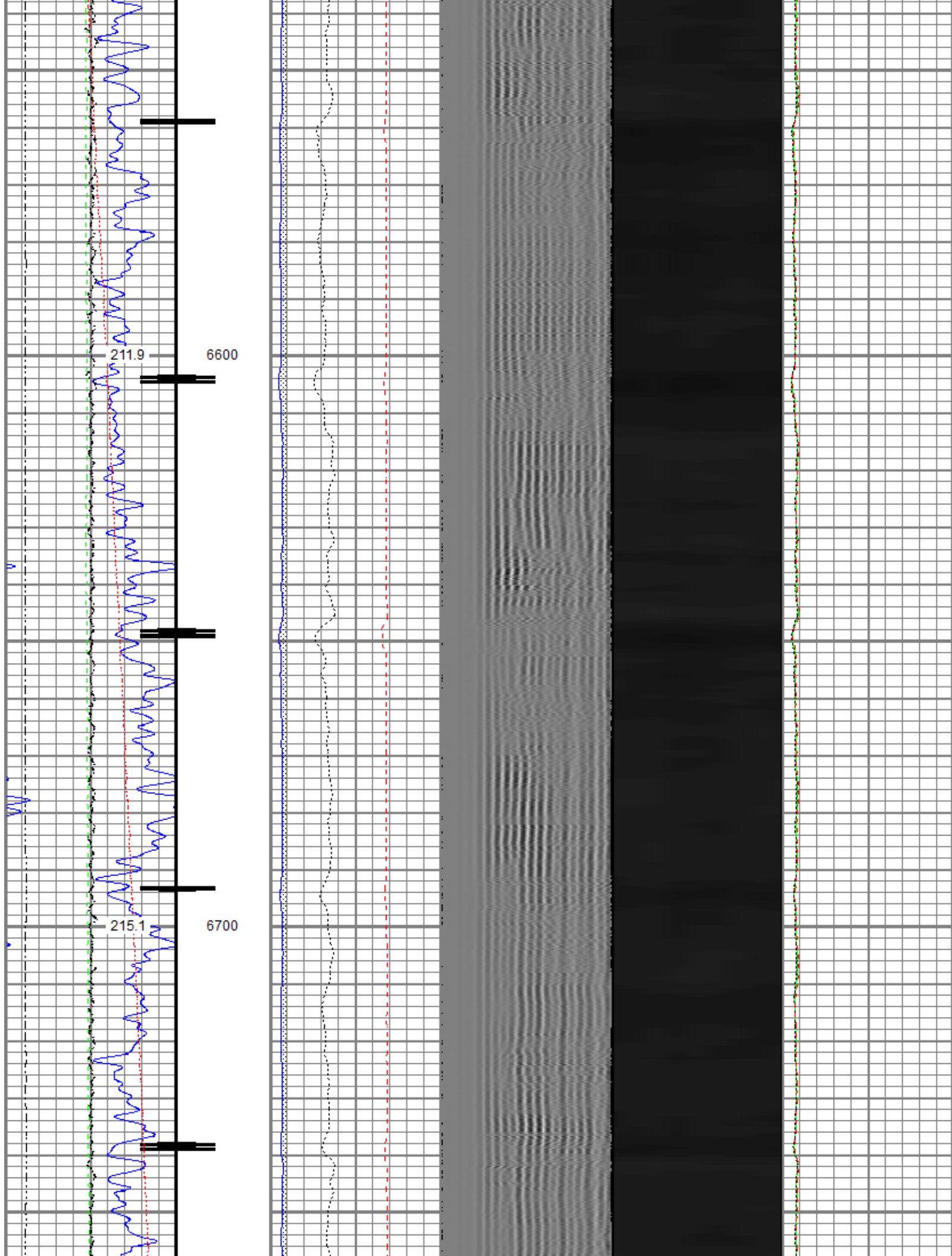


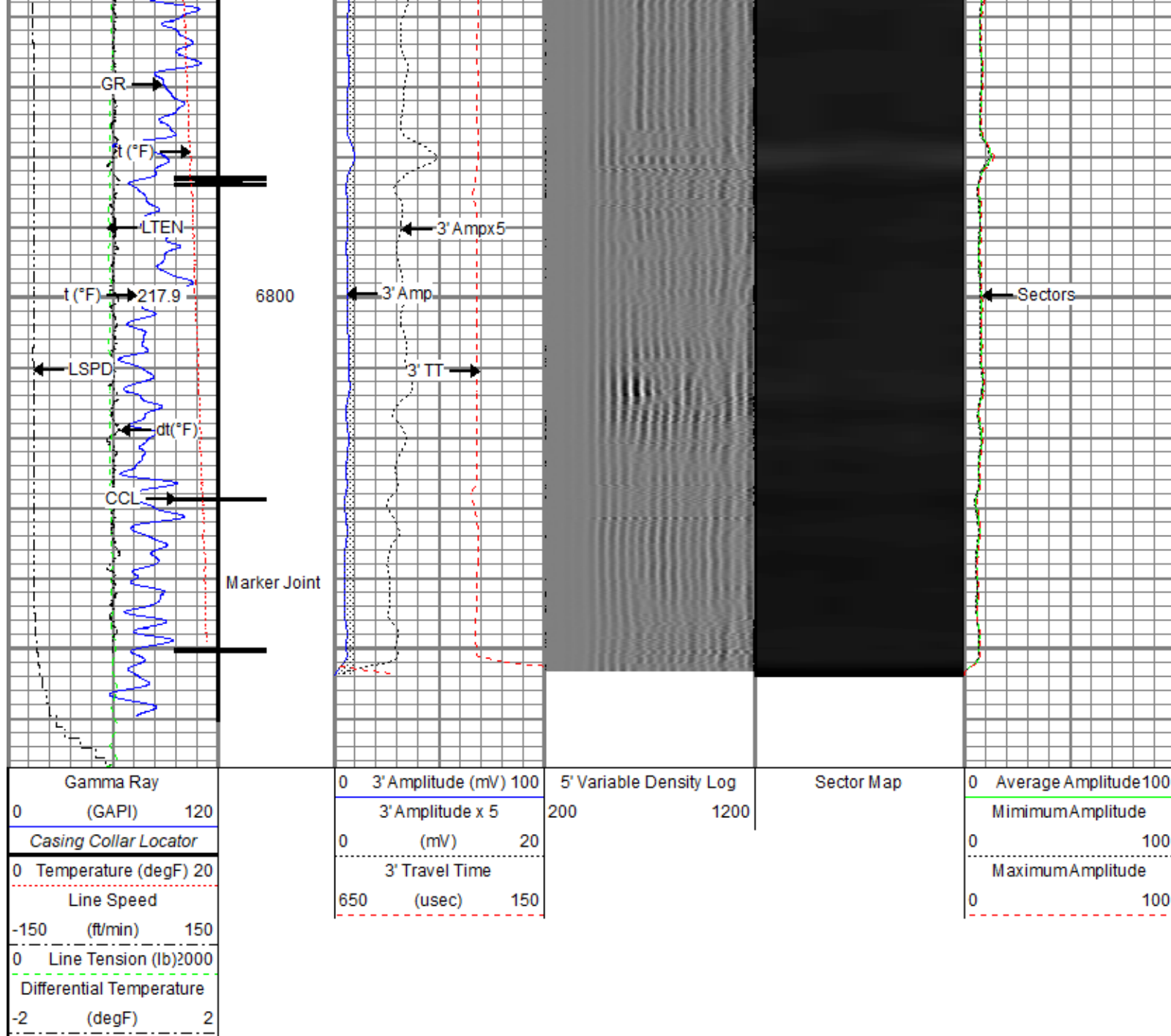








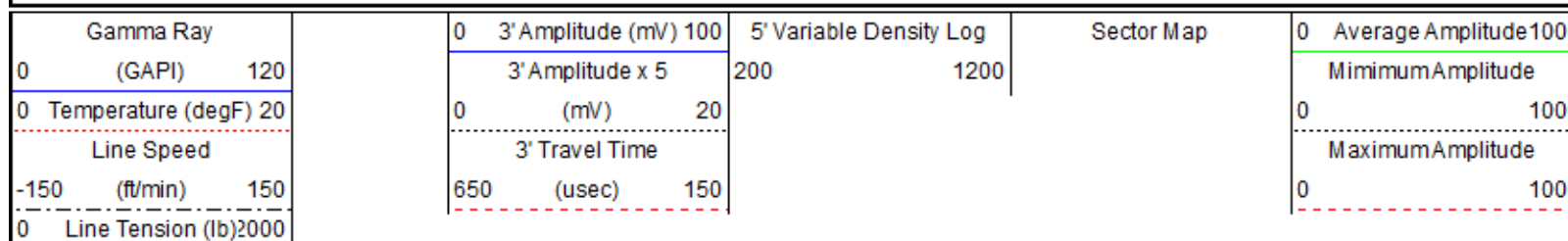


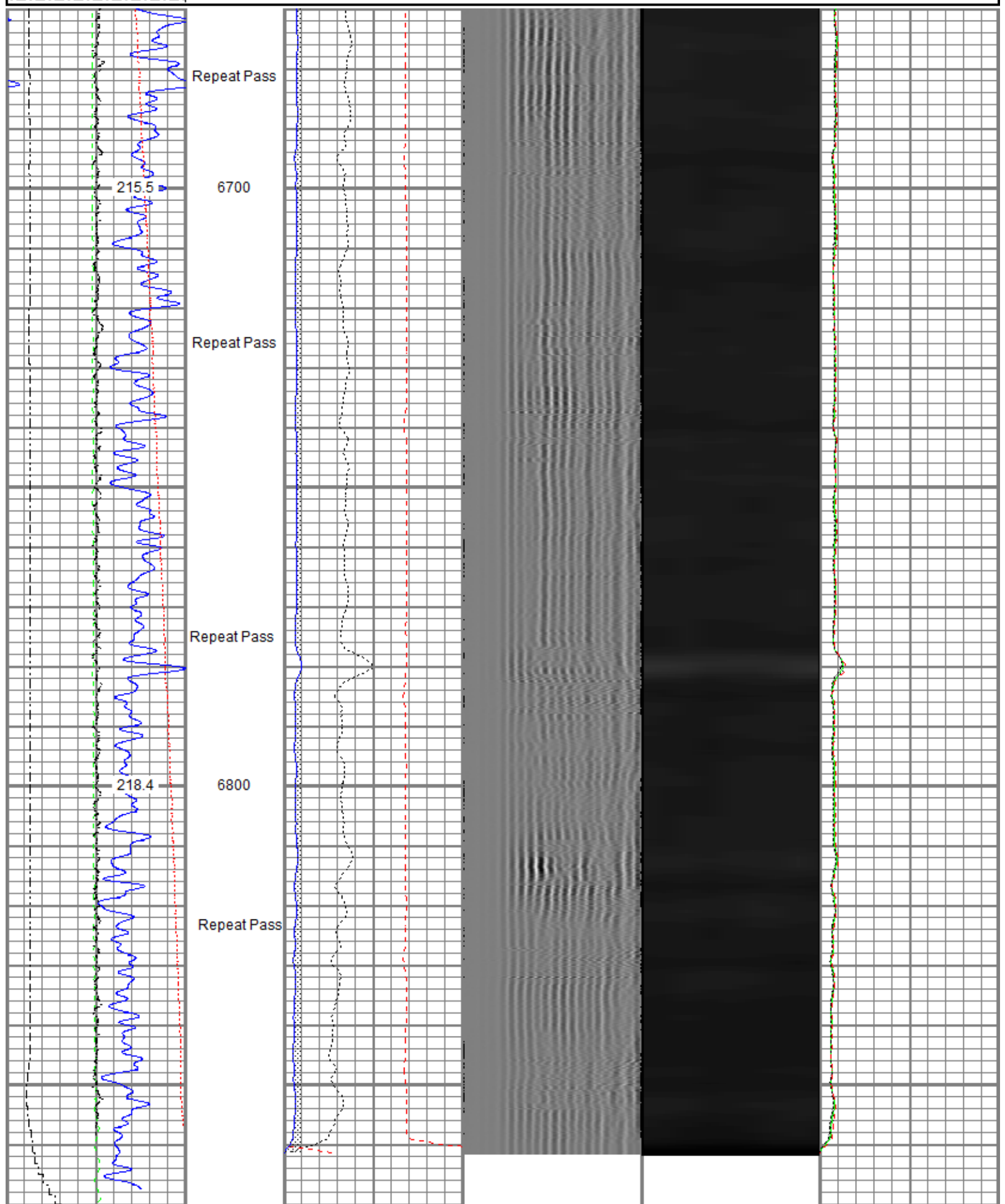


## Repeat Pass

Recorded With 2800 PSI Surface Induced Pressure

Database File: anadarko\0512346259\_anadarko\_quarter circle 24-11hz\_rbl\_07-16-18\0512346259\_anadarko\_quarter circle 24-11hz\_rbl\_07-  
 Dataset Pathname: pass2  
 Presentation Format: ros\_radrii  
 Dataset Creation: Tue Jul 17 06:57:53 2018  
 Charted by: Depth in Feet scaled 1:240

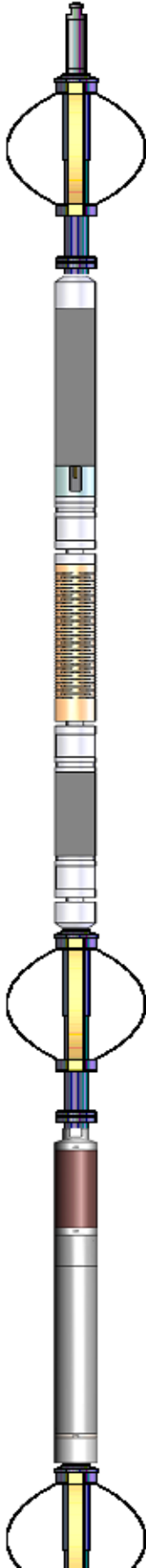
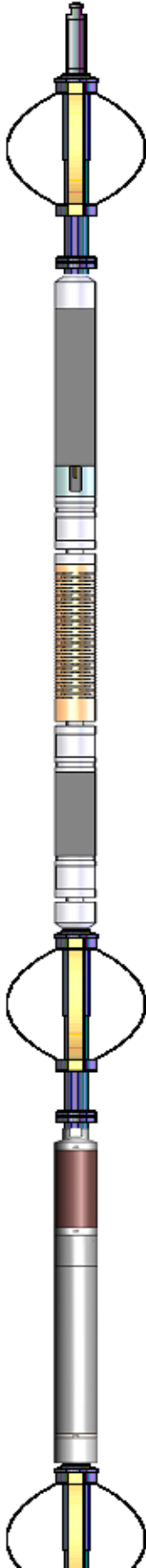
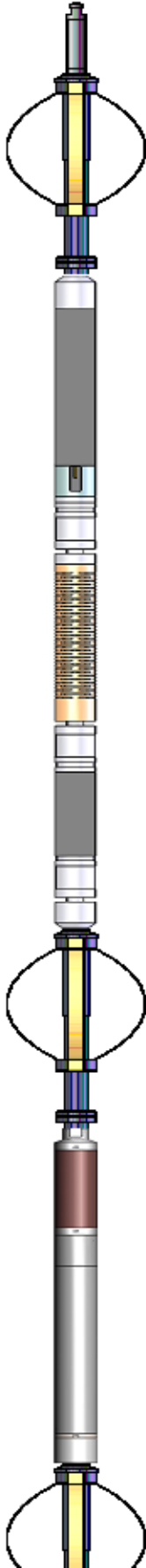
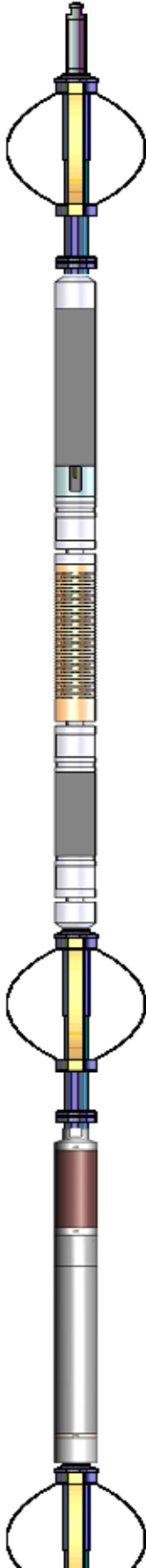





Gamma Ray (GAPI)	0 3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0 Average Amplitude 100
0 120	3' Amplitude x 5	200 1200		Minimum Amplitude
0 Temperature (degF) 20	0 (mV) 20			0 100



Temperature (degF)	20	0	(mV)	20	0	Maximum Amplitude	100
Line Speed			3" Travel Time				
-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)
TEMP	17.04		Titan CHD-14375 GO	1.03	1.44	3.60
			Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck			
			Probe CENT-2750	2.88	2.75	20.00
			Probe 2-3/4" Electric Inline Bowspring Centralizer			
WVFS8	14.81		Probe Radii-2750 RBT (FW1308-091)	9.39	2.75	105.00
WVFS7	14.81		Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub			
WVFS6	14.81					
WVFS5	14.81					
WVFS4	14.81					
WVFS3	14.81					
WVFS2	14.81					
WVFS1	14.81					
WVFCAL	14.81					
WVF3FT	14.81					
WVF5FT	13.81					
HEADVOLT	10.56					
CCL\$2	6.80		Probe CENT-2750	2.88	2.75	20.00
CCL\$1	6.80		Probe 2-3/4" Electric Inline Bowspring Centralizer			
GR	5.46					
			Probe GR-CCL-2750 6PB (101001)	4.80	2.75	55.00
			Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT			
			Probe CENT-2750	2.88	2.75	20.00

			FW1308-091 Electric Inline Bowspring Centralizer	2.75	2.75	2.75
Dataset:	0512346259_Anadarko_Quarter Circle 24-11HZ_RBL_07-17-18_2800 PSI.db: field/well/run1/pass4					
Total length:	23.86 ft					
Total weight:	223.60 lb					
O.D.:	2.75 in					

Calibration Report	
Database File	C:\ProgramData\Warrior\Data\Anadarko\0512346259_Anadarko_Quarter Circle 24-11HZ_RBL_07-16-18\0512346259_Anadarko
Dataset Pathname	pass4
Dataset Creation	Tue Jul 17 07:03:43 2018

Gamma Ray Calibration Report		
Serial Number:	101001	
Tool Model:	2750 6PB	
Performed:	Sun Nov 12 11:25:32 2017	
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:	FW1308-091	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	31.528	ft

Master Calibration, performed Mon Jul 16 11:27:45 2018:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	0.683	0.800	71.921	104.858	0.344
CAL	0.005	0.733				
5'	0.004	0.613	0.800	71.921	116.730	0.310
SUM						
S1	0.004	0.678	0.000	100.000	148.221	-0.548
S2	0.004	0.687	0.000	100.000	146.492	-0.628
S3	0.004	0.691	0.000	100.000	145.542	-0.560
S4	0.004	0.687	0.000	100.000	146.566	-0.641
S5	0.004	0.688	0.000	100.000	146.140	-0.614
S6	0.004	0.692	0.000	100.000	145.408	-0.651
S7	0.004	0.688	0.000	100.000	146.254	-0.628
S8	0.004	0.689	0.000	100.000	145.986	-0.645

Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.005	0.733	1.000	0.000

Air Zero Calibration, performed Mon Jul 16 11:28:12 2018:						
	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	

3'	0.004	0.000	0.000
5'	0.004	0.000	-0.000
SUM			
S1	0.004	0.000	-0.000
S2	0.004	0.000	0.000
S3	0.004	0.000	0.000
S4	0.004	0.000	-0.000
S5	0.004	0.000	-0.000
S6	0.005	0.000	-0.000
S7	0.004	0.000	0.000
S8	0.005	0.000	-0.000

#### Temperature Calibration Report

Serial Number: FW1308-091  
Tool Model: 2750 RBT  
Performed: Sun Nov 12 13:50:54 2017

	Reference	Reading
Low Reference:	100.00 degF	104.72 degF
High Reference:	350.00 degF	392.24 degF

Gain: 0.87  
Offset: 8.94  
Delta Spacing: 1



**Company** Kerr-McGee Oil & Gas Onshore, L.P.  
**Well** Quarter Circle 24-11HZ  
**Field** Wattenberg  
**County** Weld  
**State** Colorado