



County Weld State Colorado

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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 6698 FT  
Adjusted +2 FT to correlate with Marker Joint  
Gauge Ring/Junk Basket ran to 7745 FT  
Retrievable Bridge Plug set at 6777 FT  
Log ran with 0 PSI Surface Induced Pressure  
Logging tools were clean and free of debris upon completion of operations

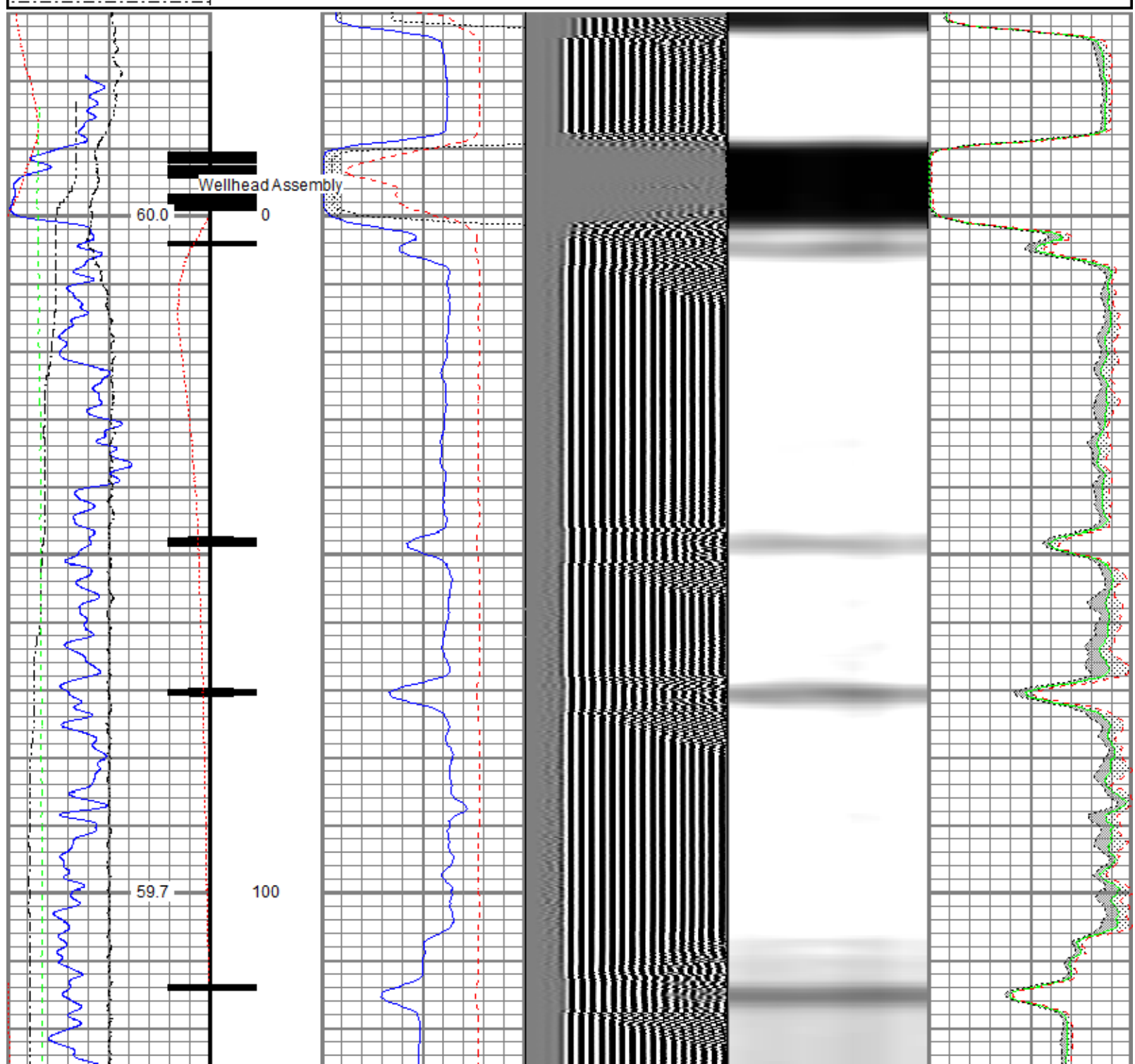
Thank you for choosing Reliance Oilfield Services, LLC!!

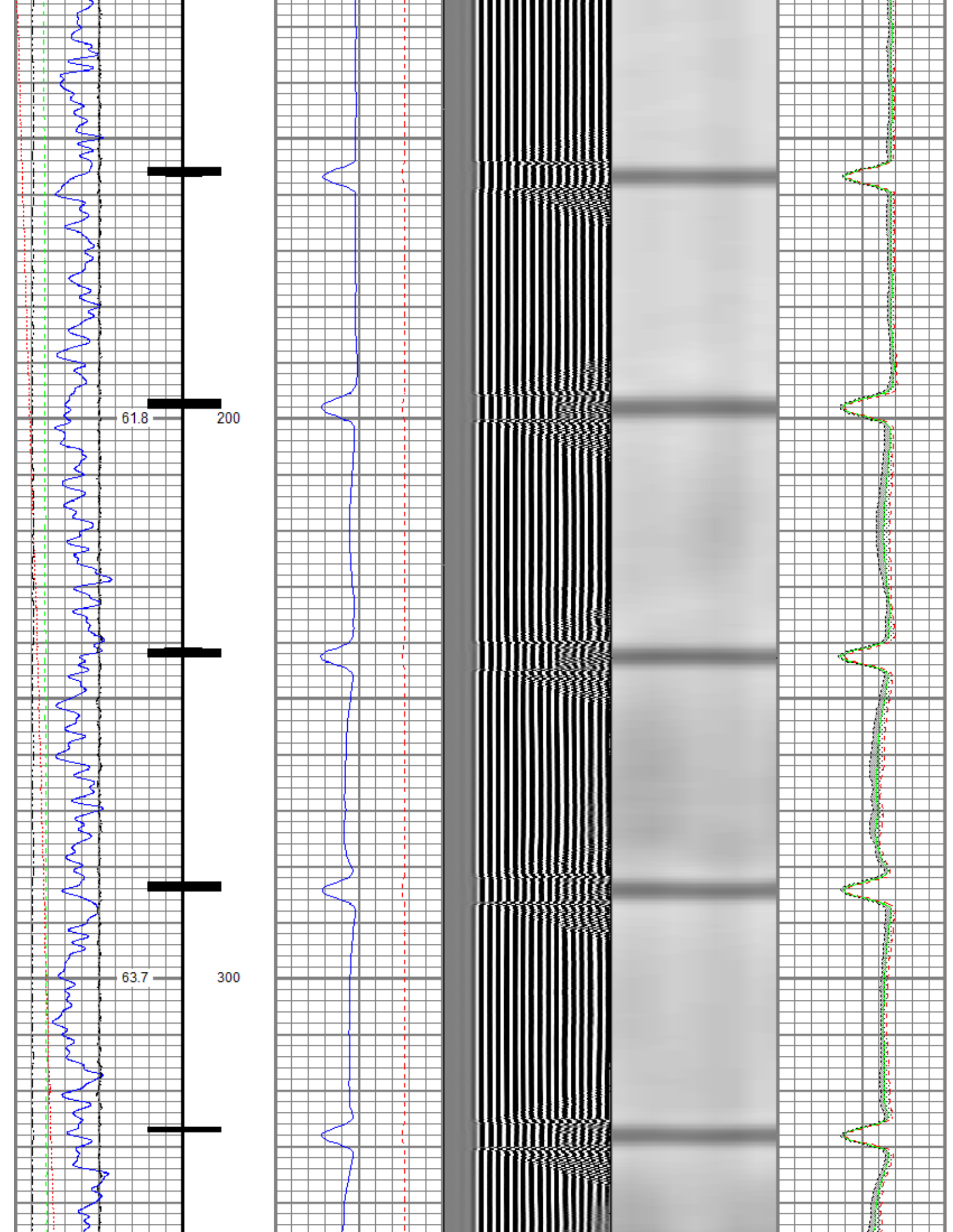
## Main Pass

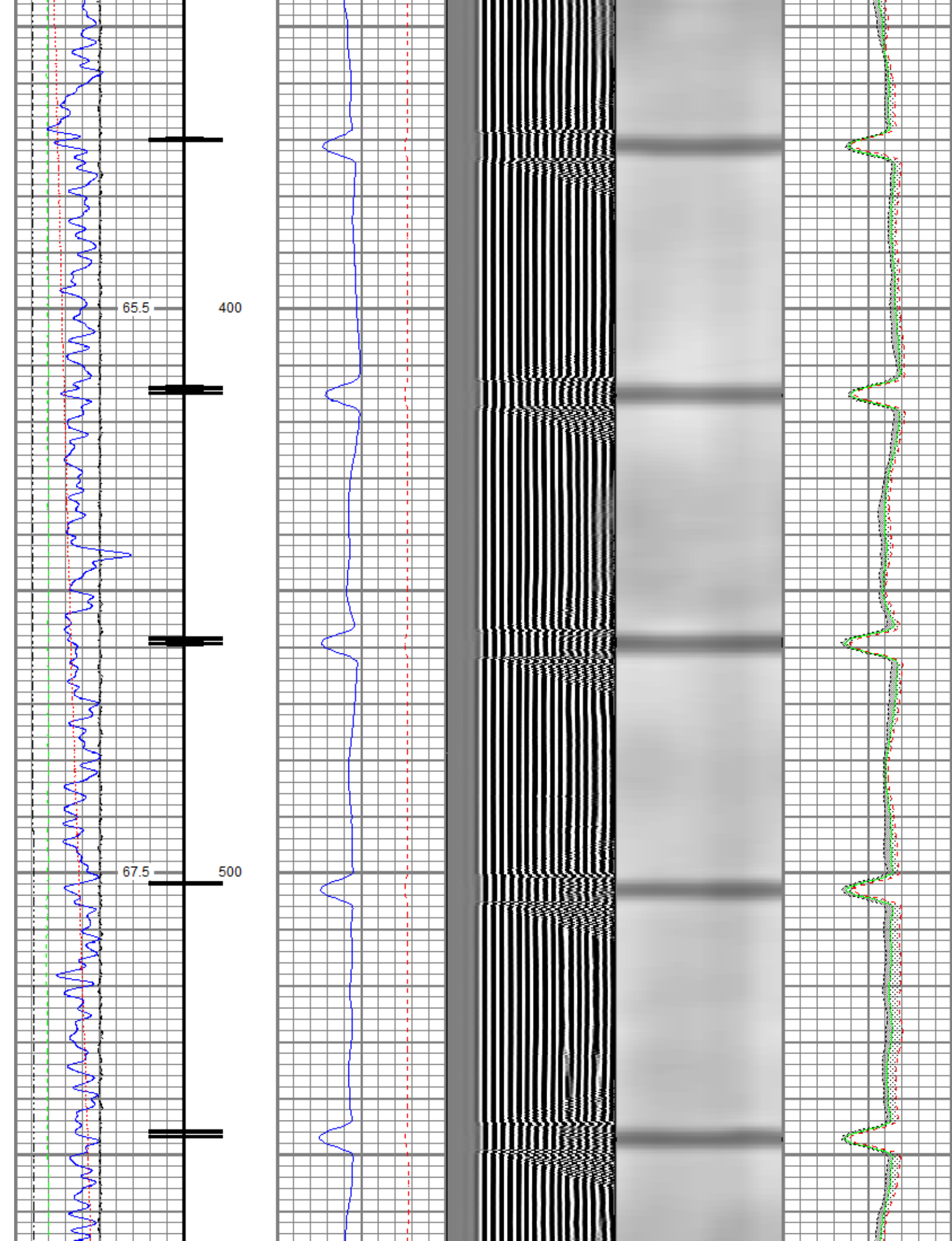


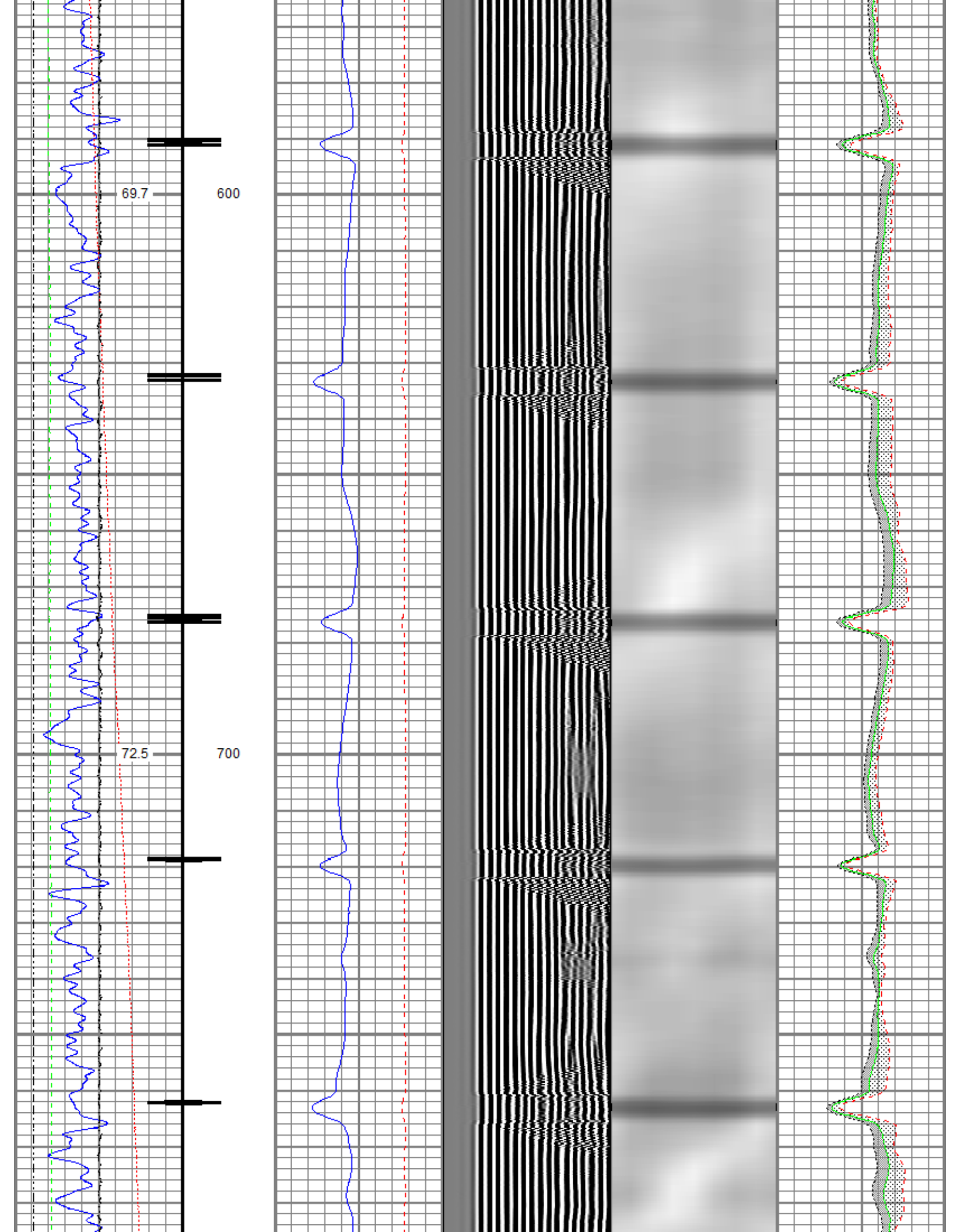
Database File	anadarko\0512349250_anadarko_mab 15-14hz_rbl_06-22-19\processed_0512349250_anadarko_mab 15-14hz_rbl_06-22-19
Dataset Pathname	rbl/pass4.1
Presentation Format	ros_radri
Dataset Creation	Sat Jun 22 10:00:12 2019
Charted by	Depth in Feet scaled 1:240

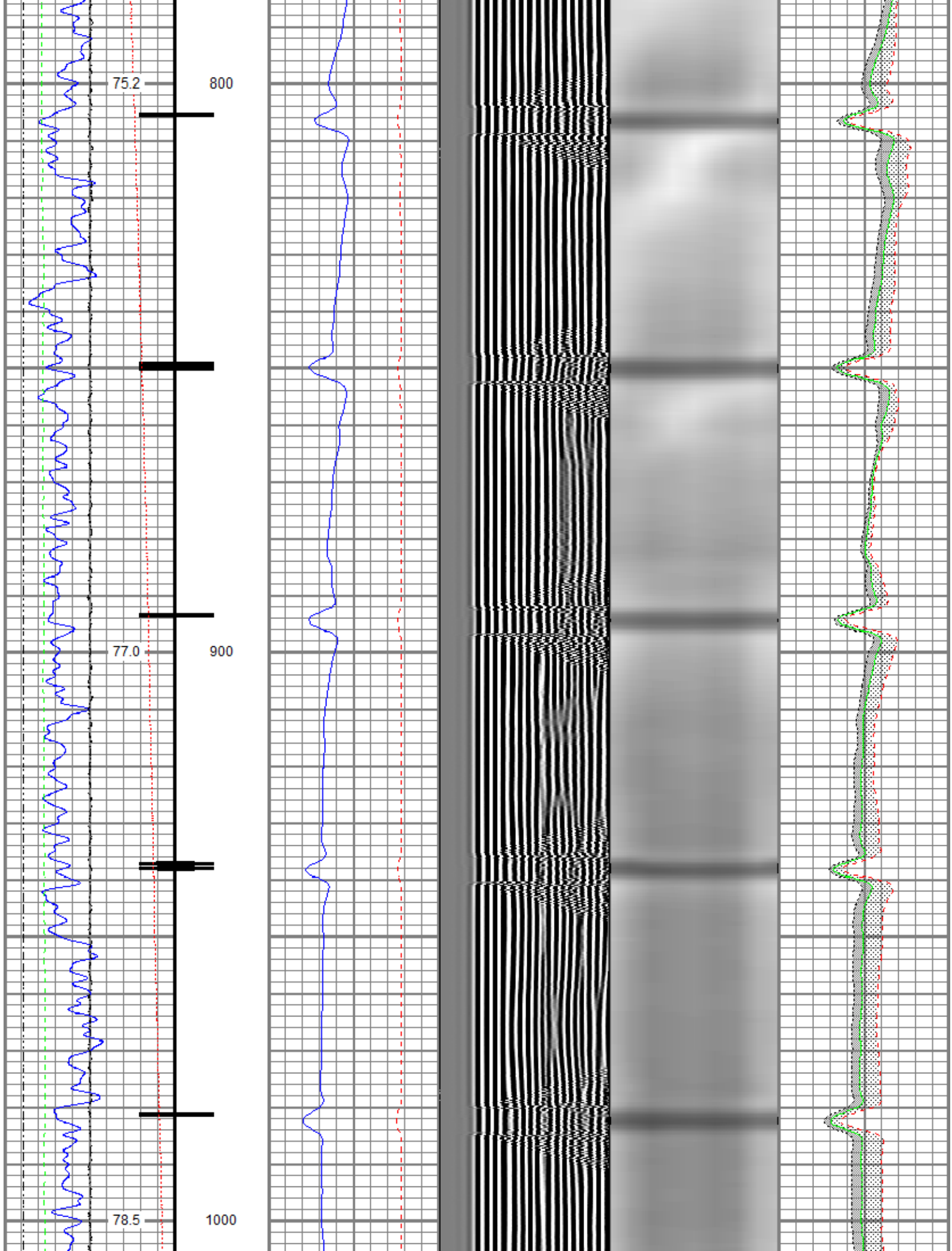
Gamma Ray	0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	0	Average Amplitude	100
(GAPI)	120	3' Amplitude x 5	200	(u sec)	1200		Minimum Amplitude	
Casing Collar Locator		0	(mV)	20		0		100
Temperature (degF)	20	3' Travel Time					Maximum Amplitude	
Line Speed		650	(u sec)	150		0		100
(ft/min)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

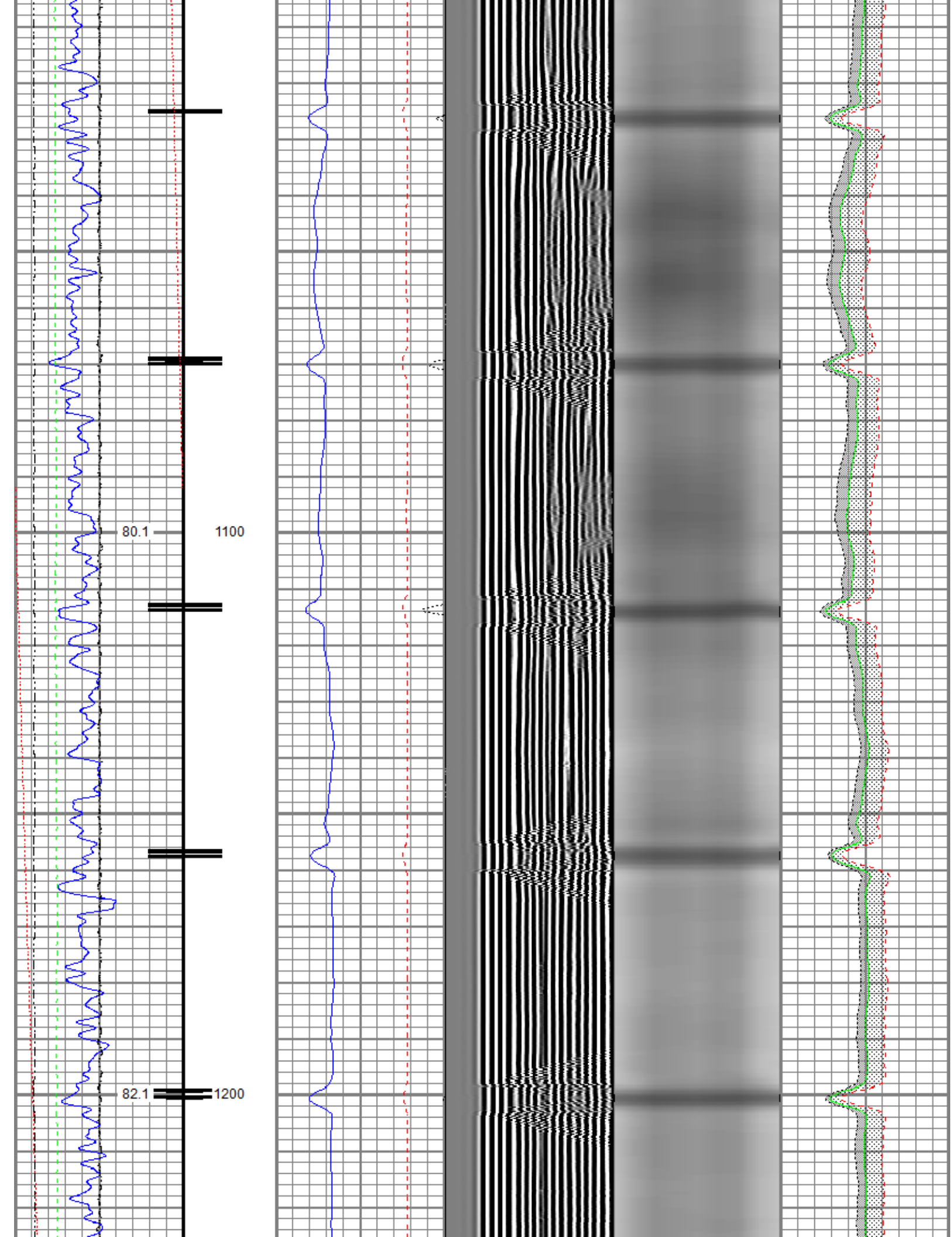


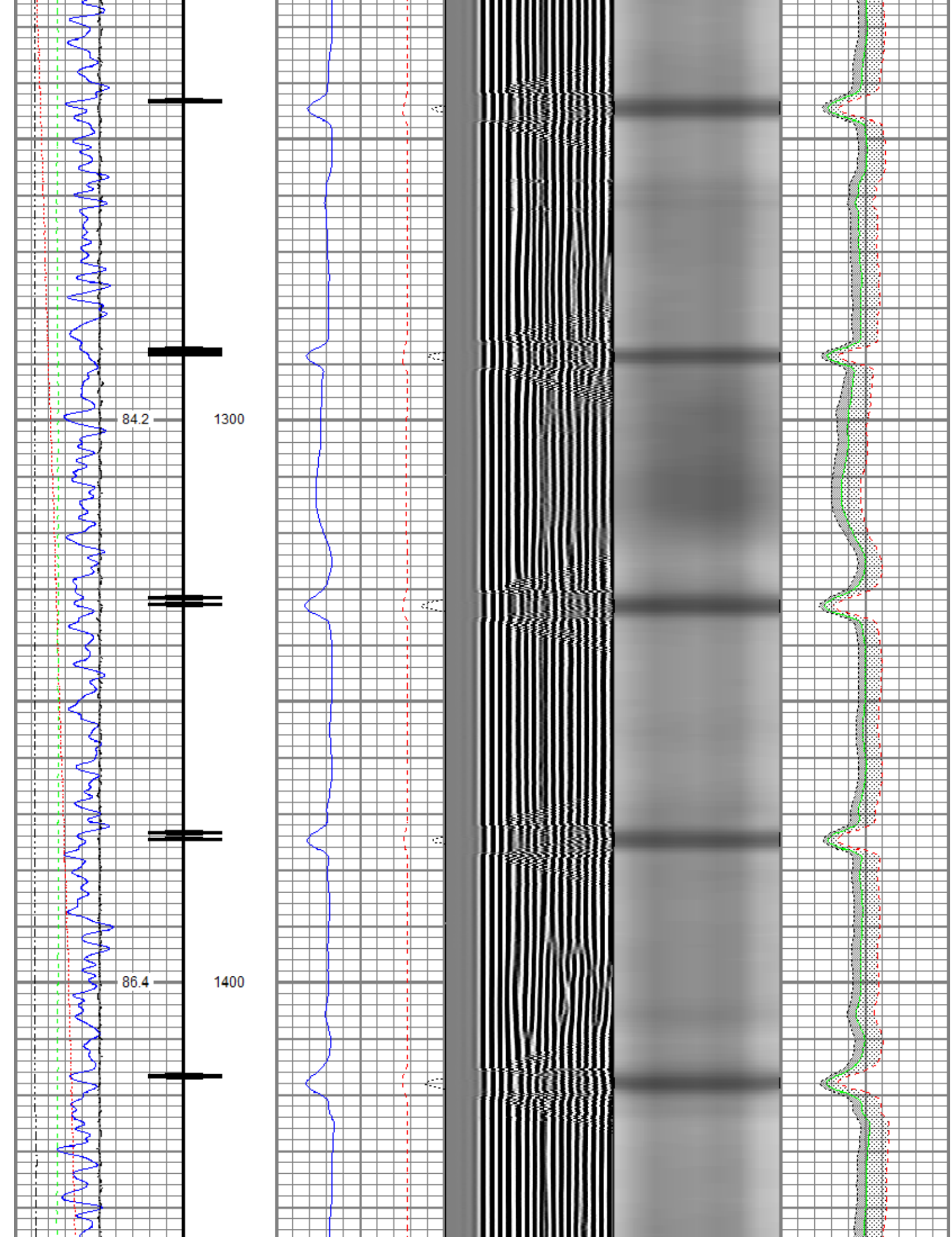


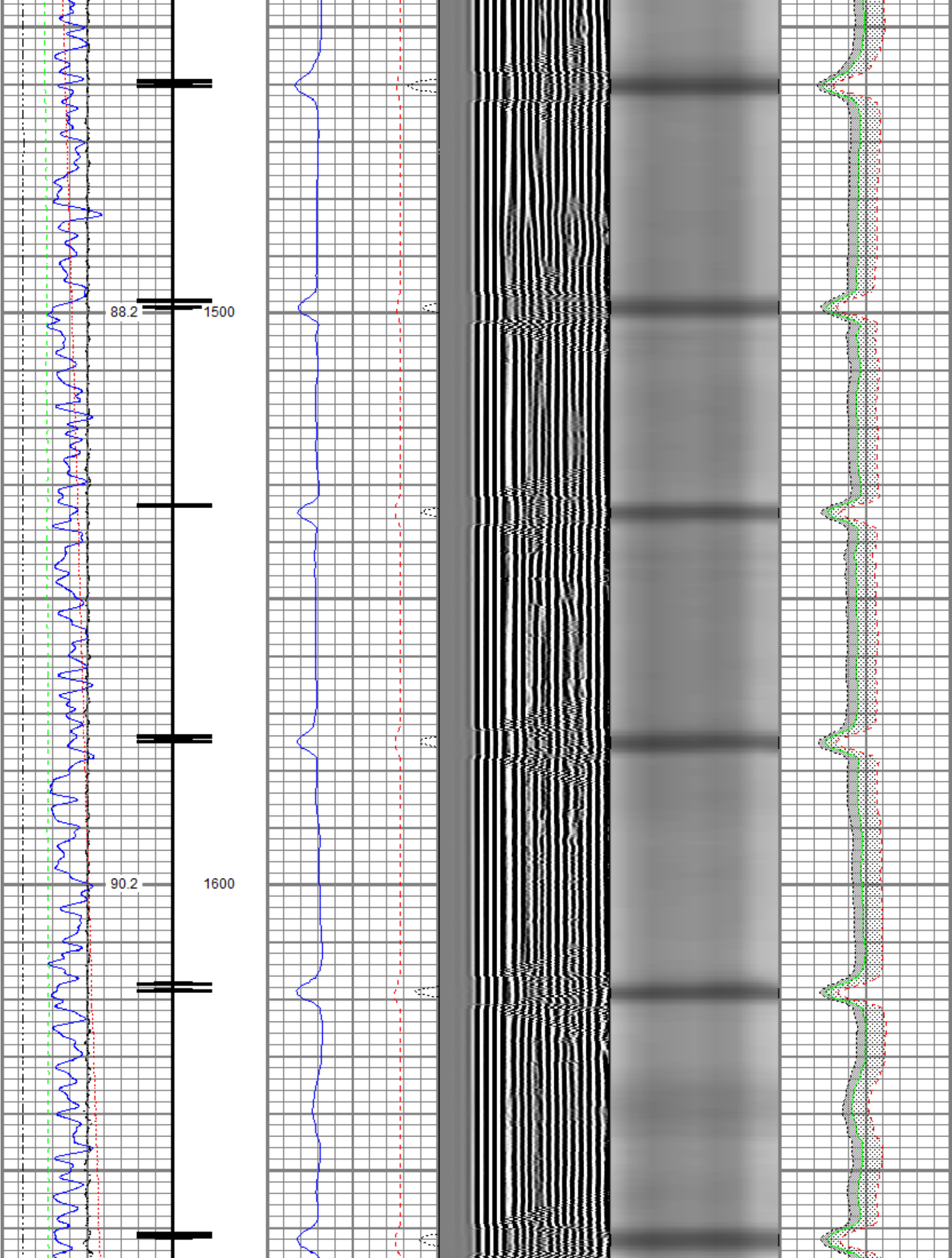


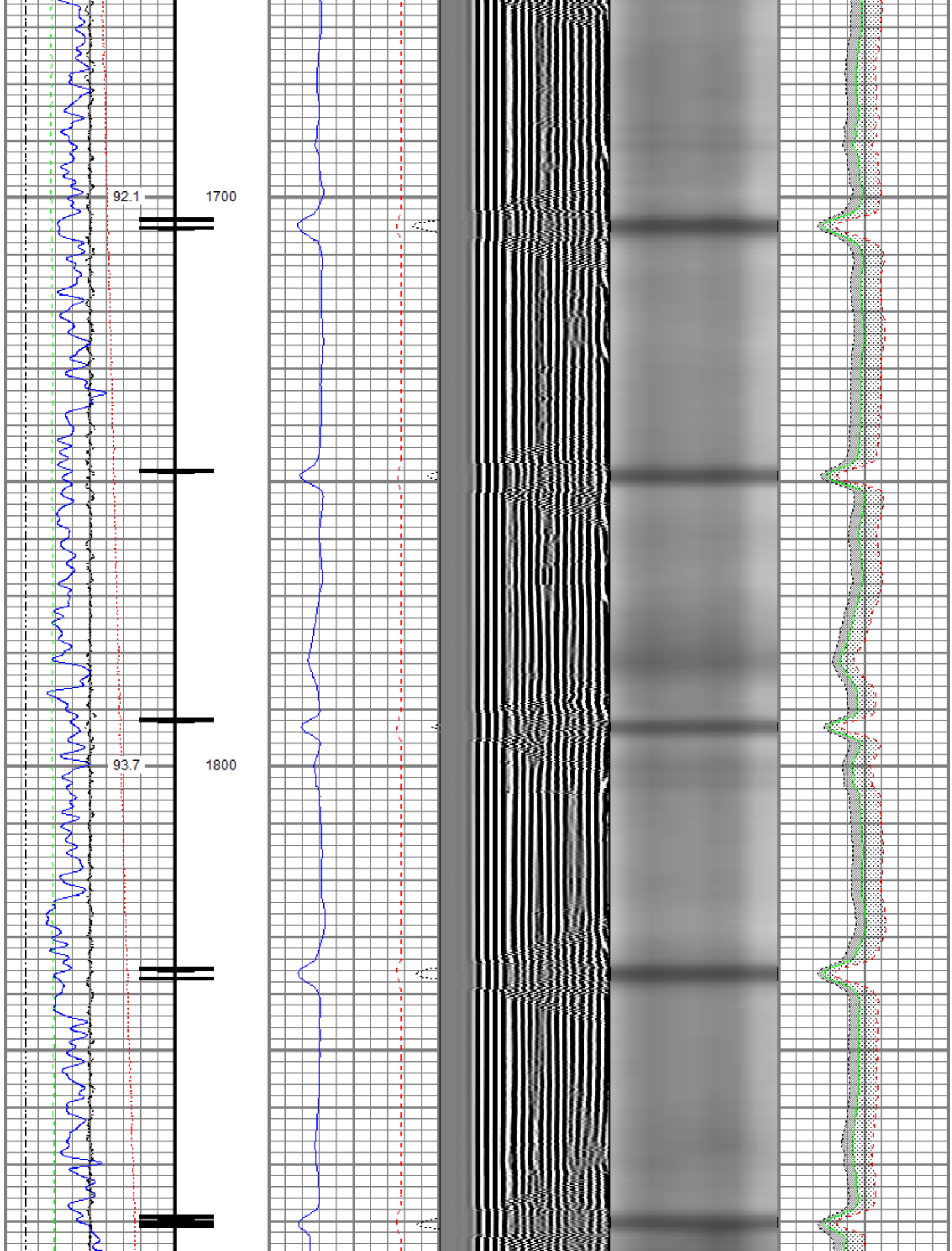


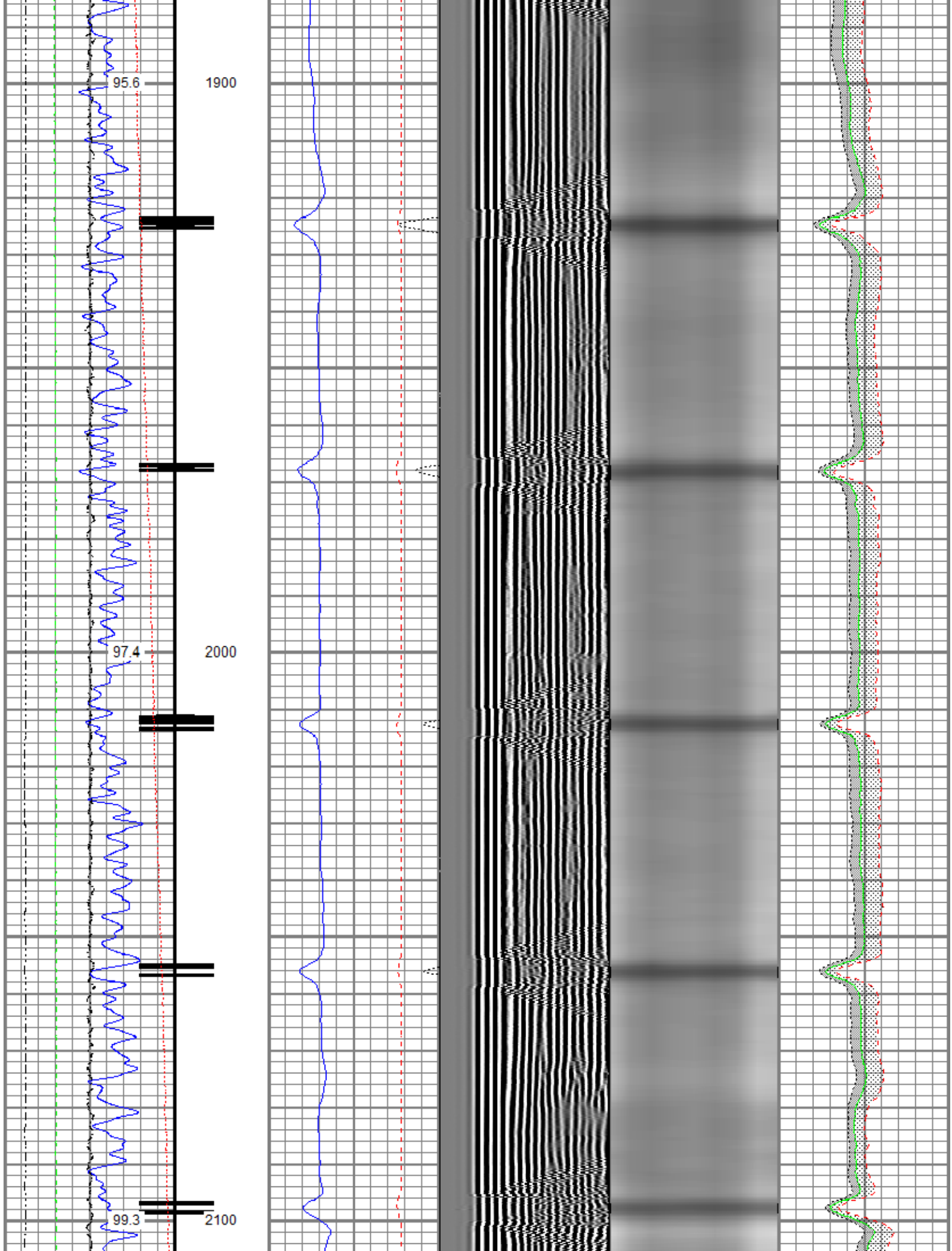


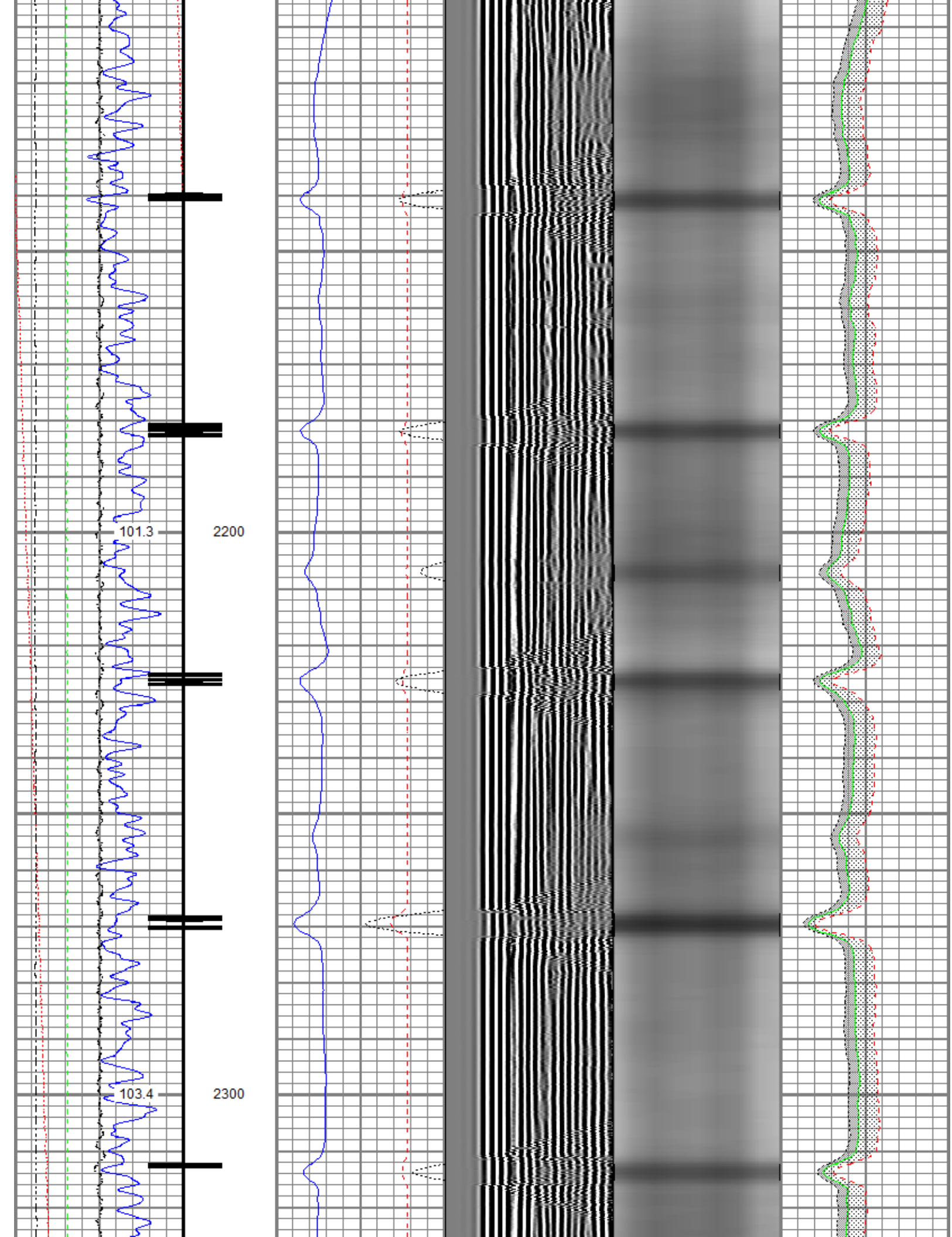


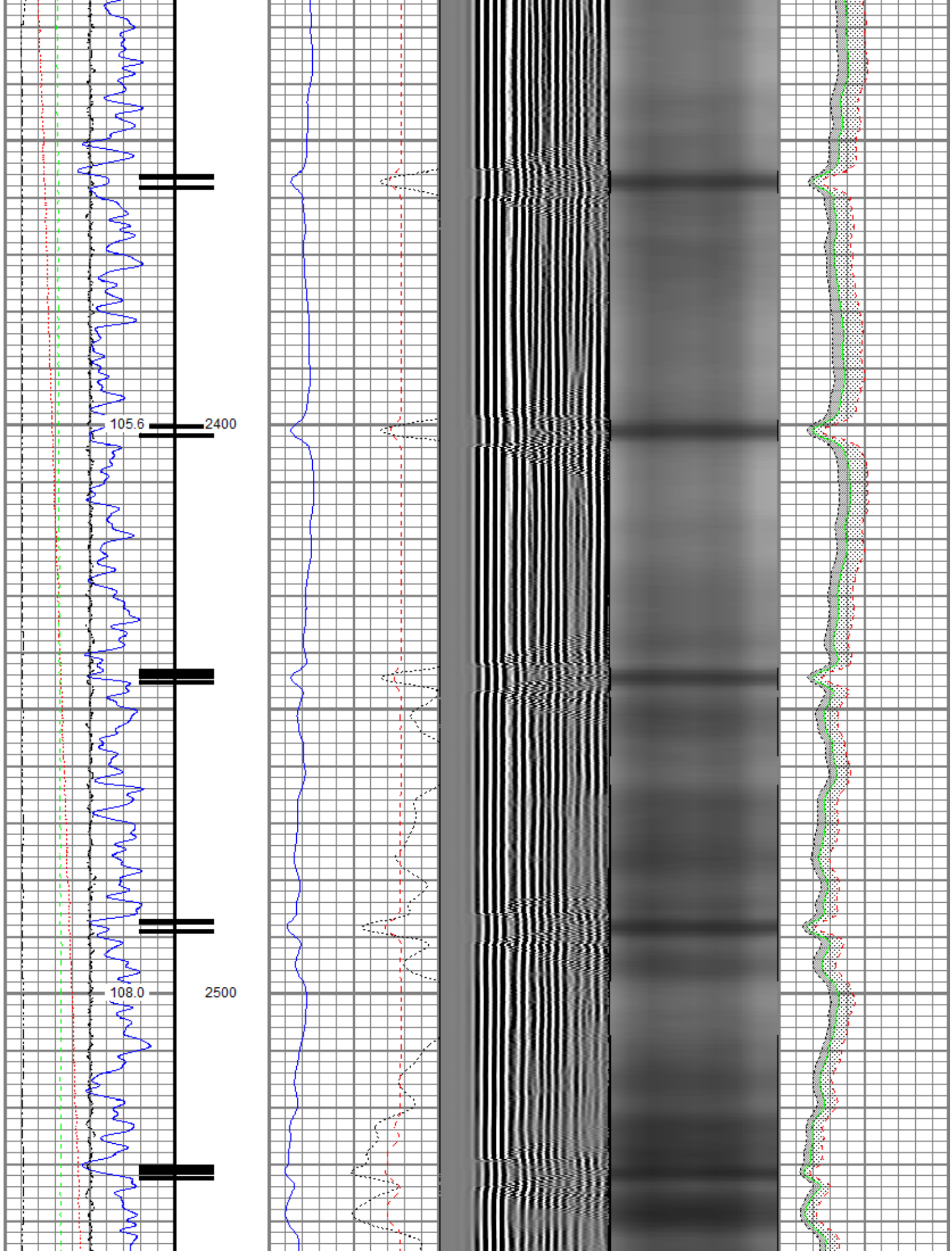


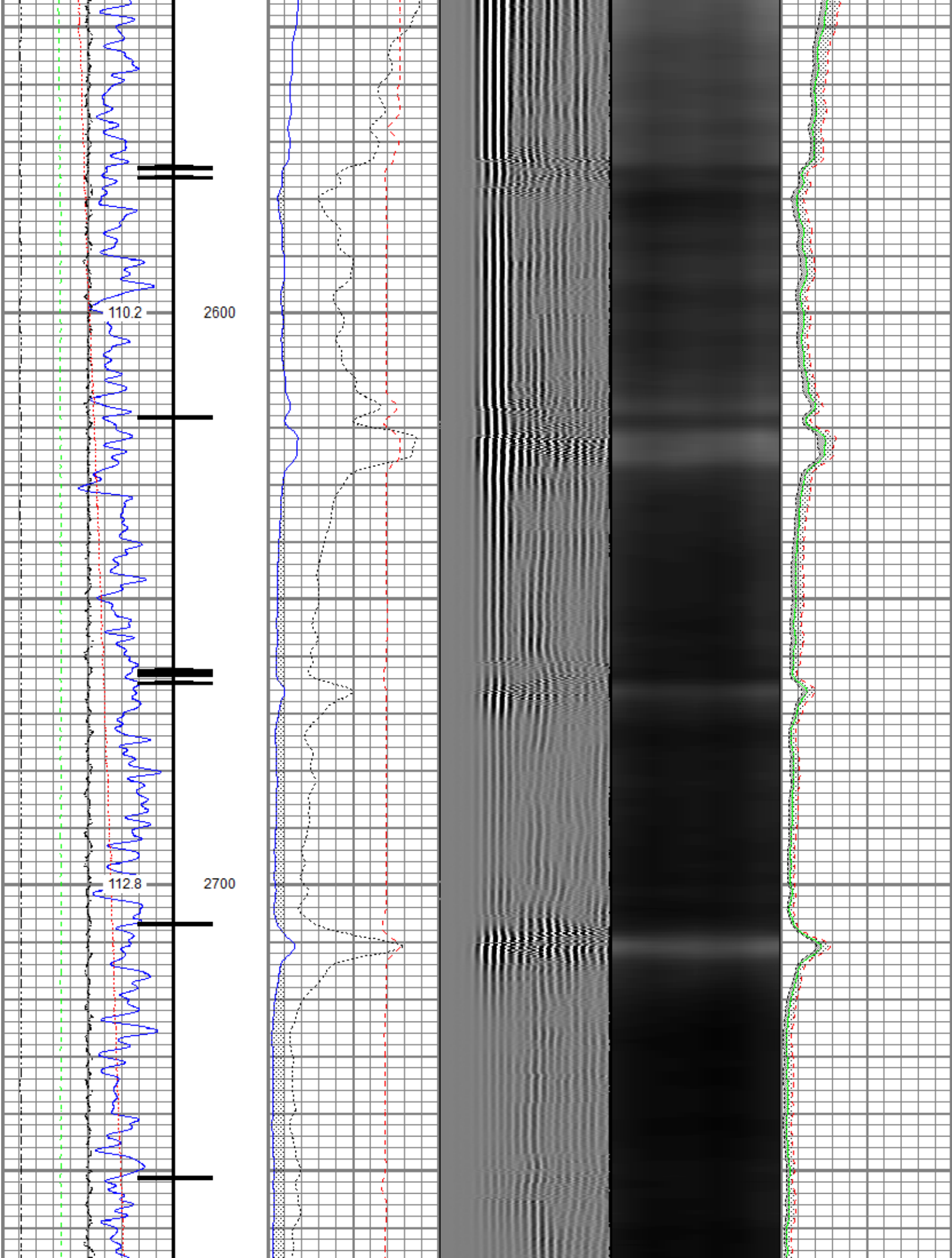


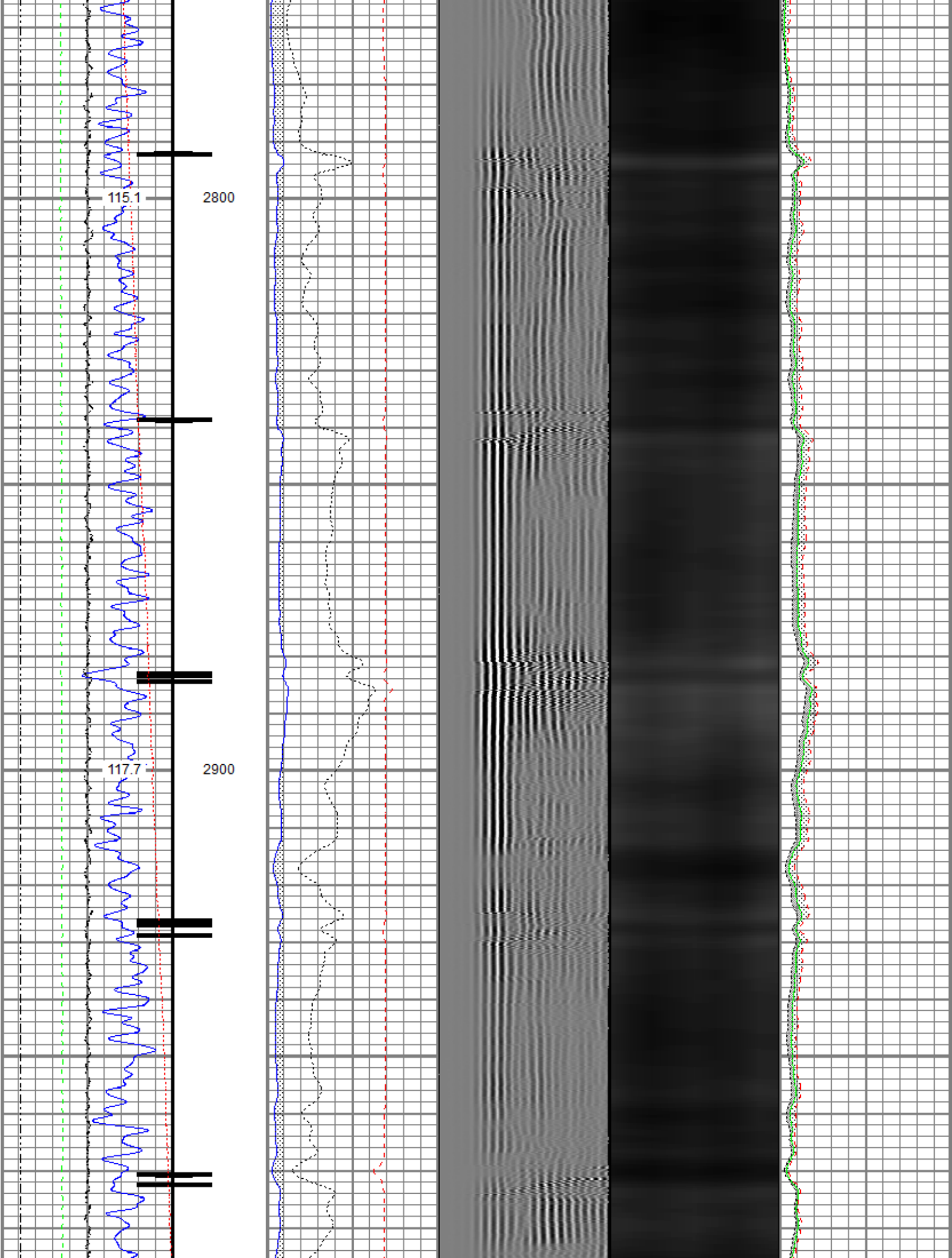


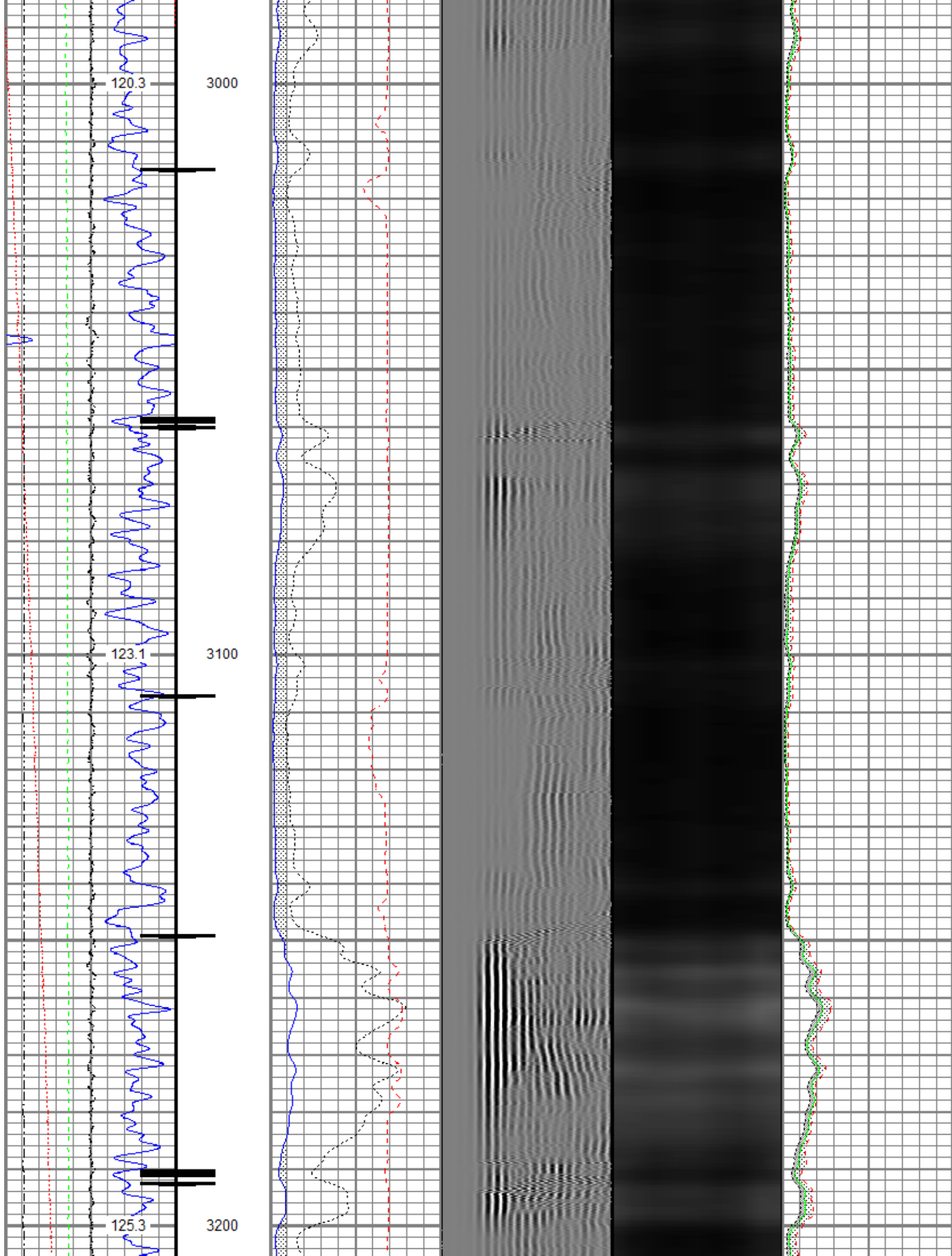


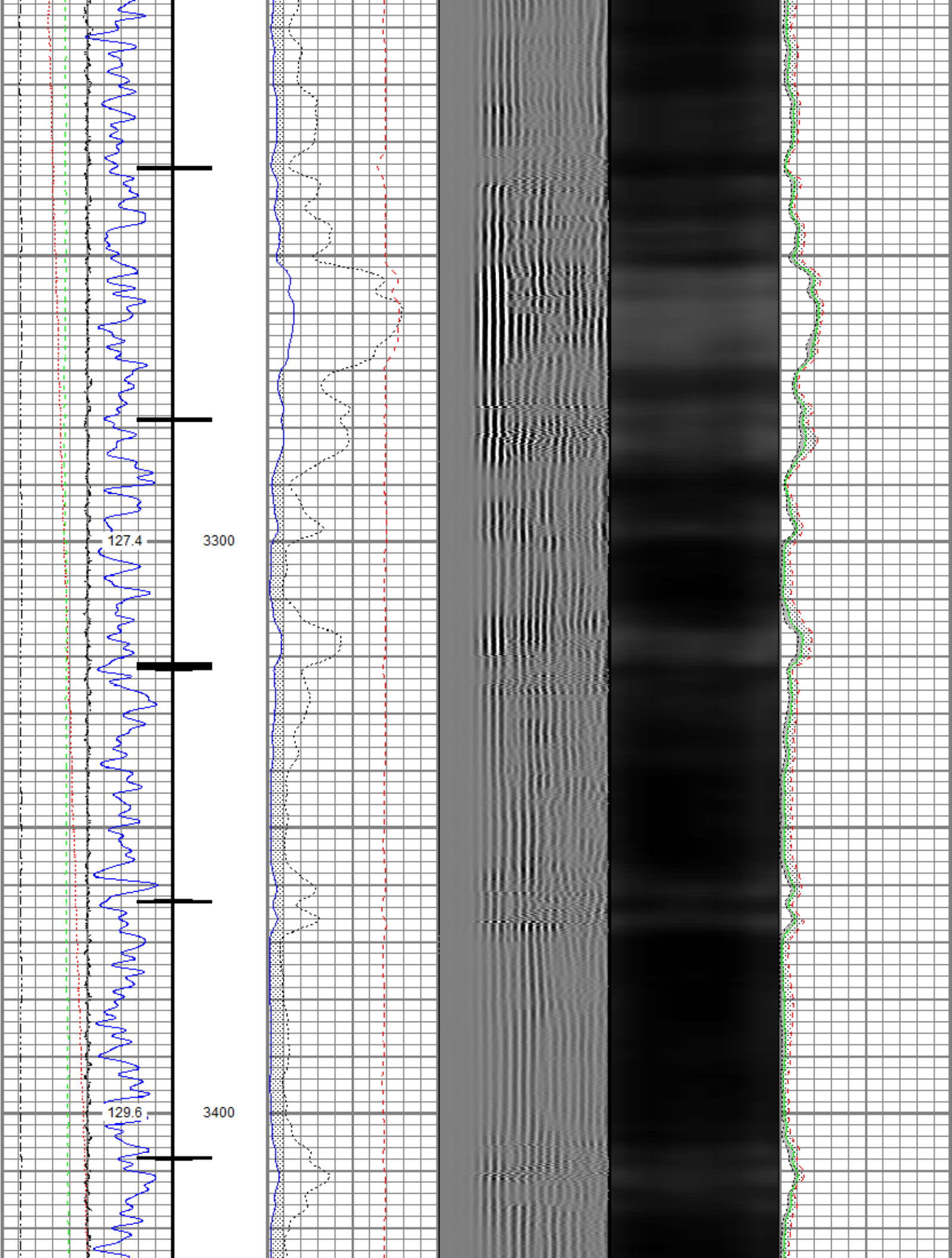


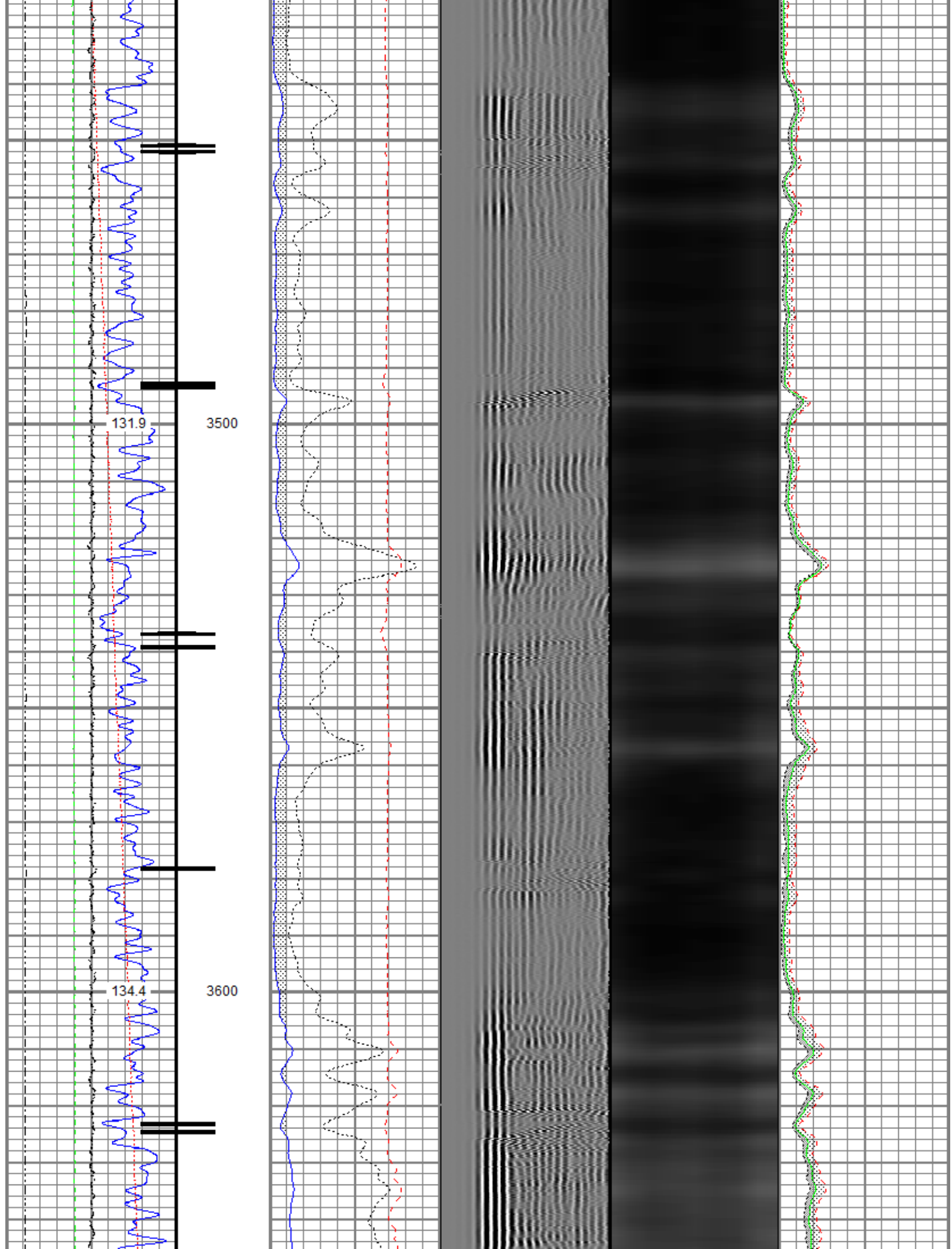


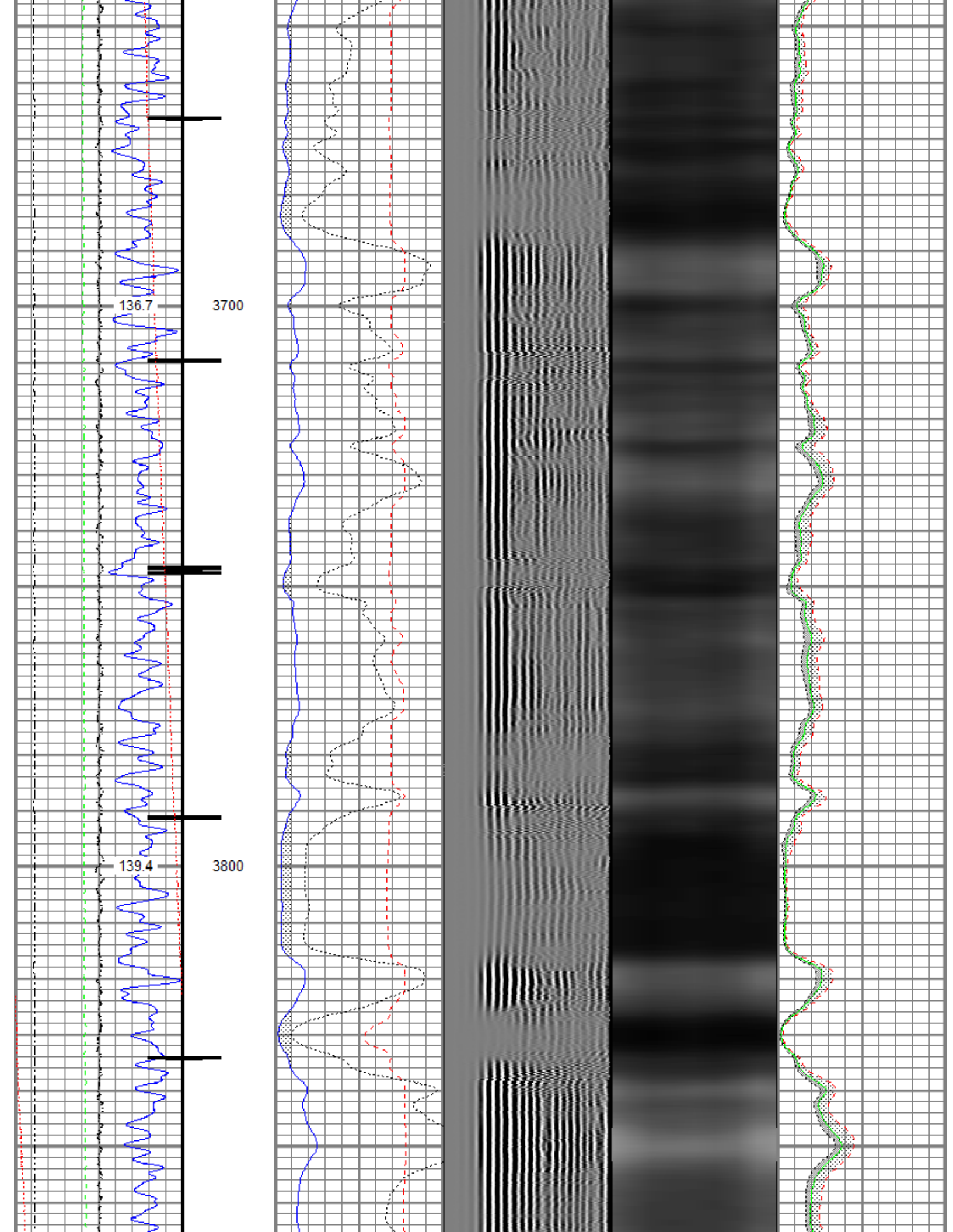


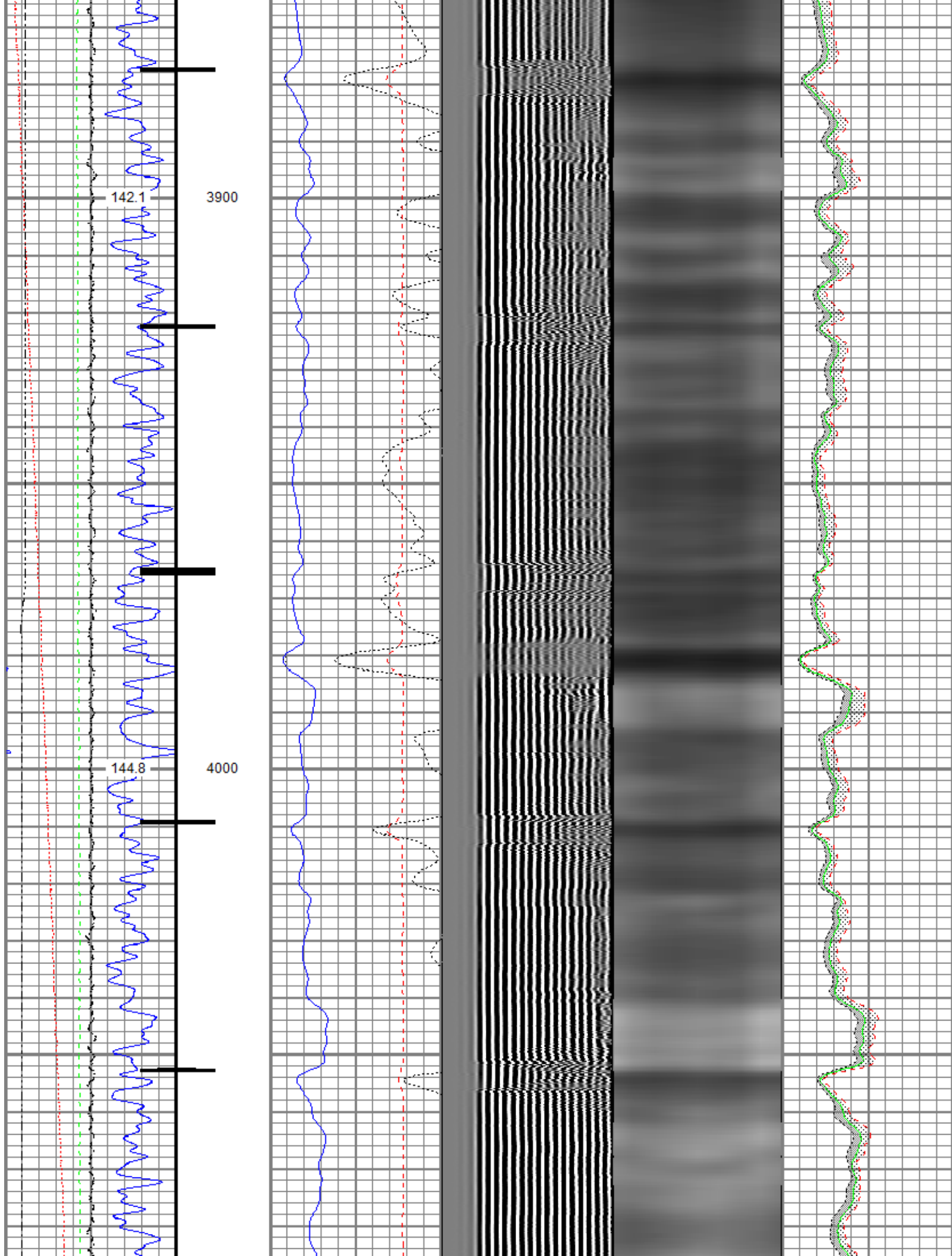


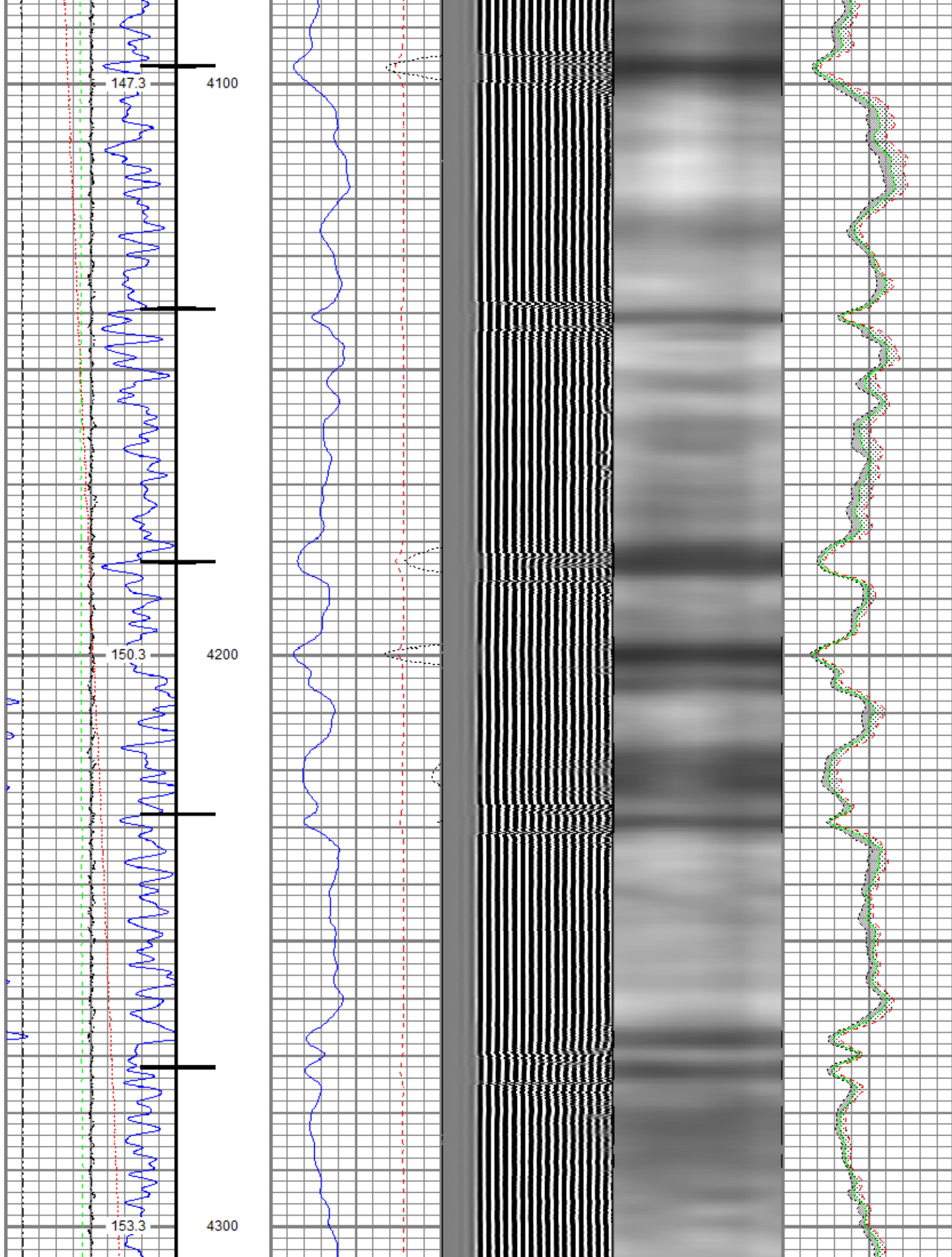


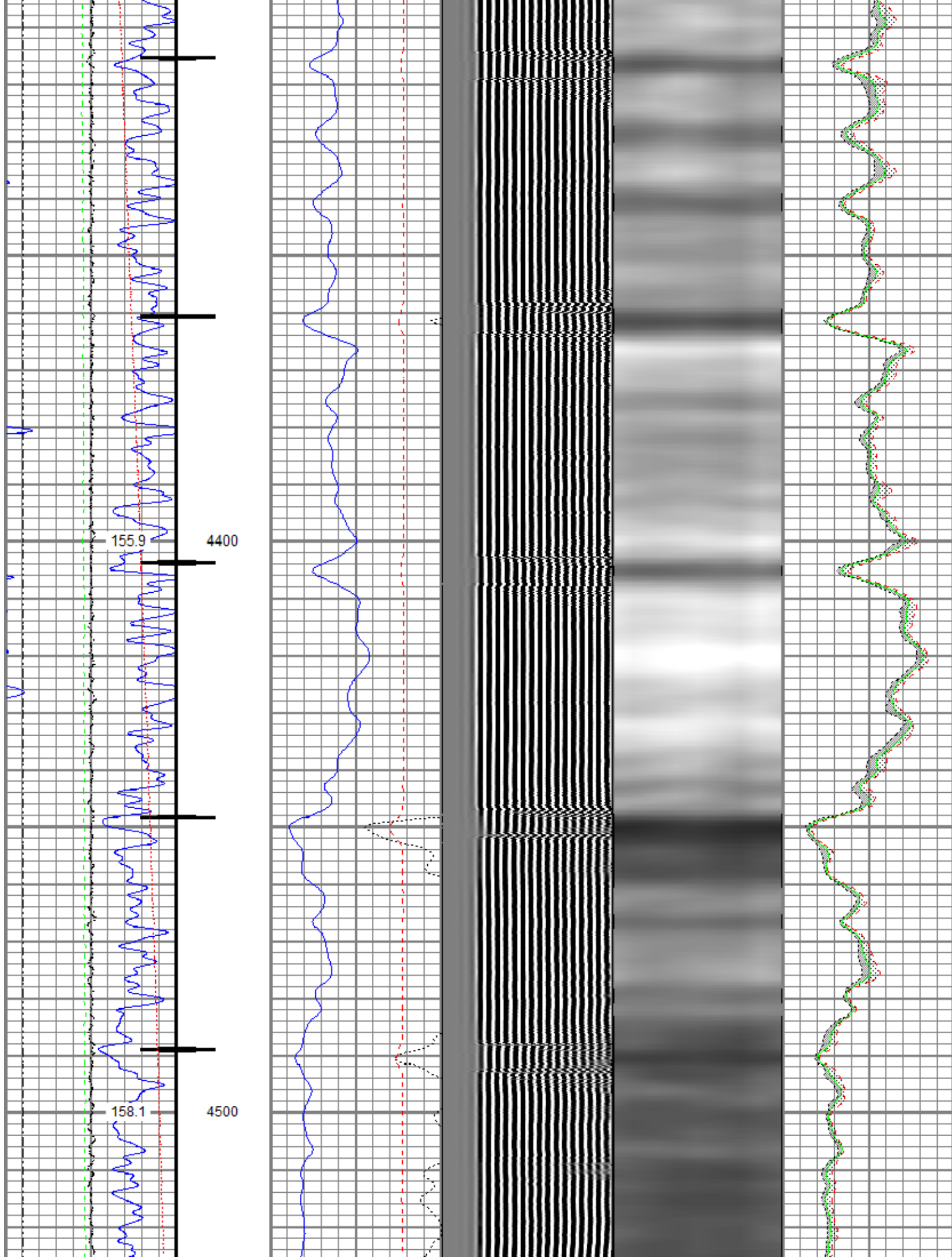


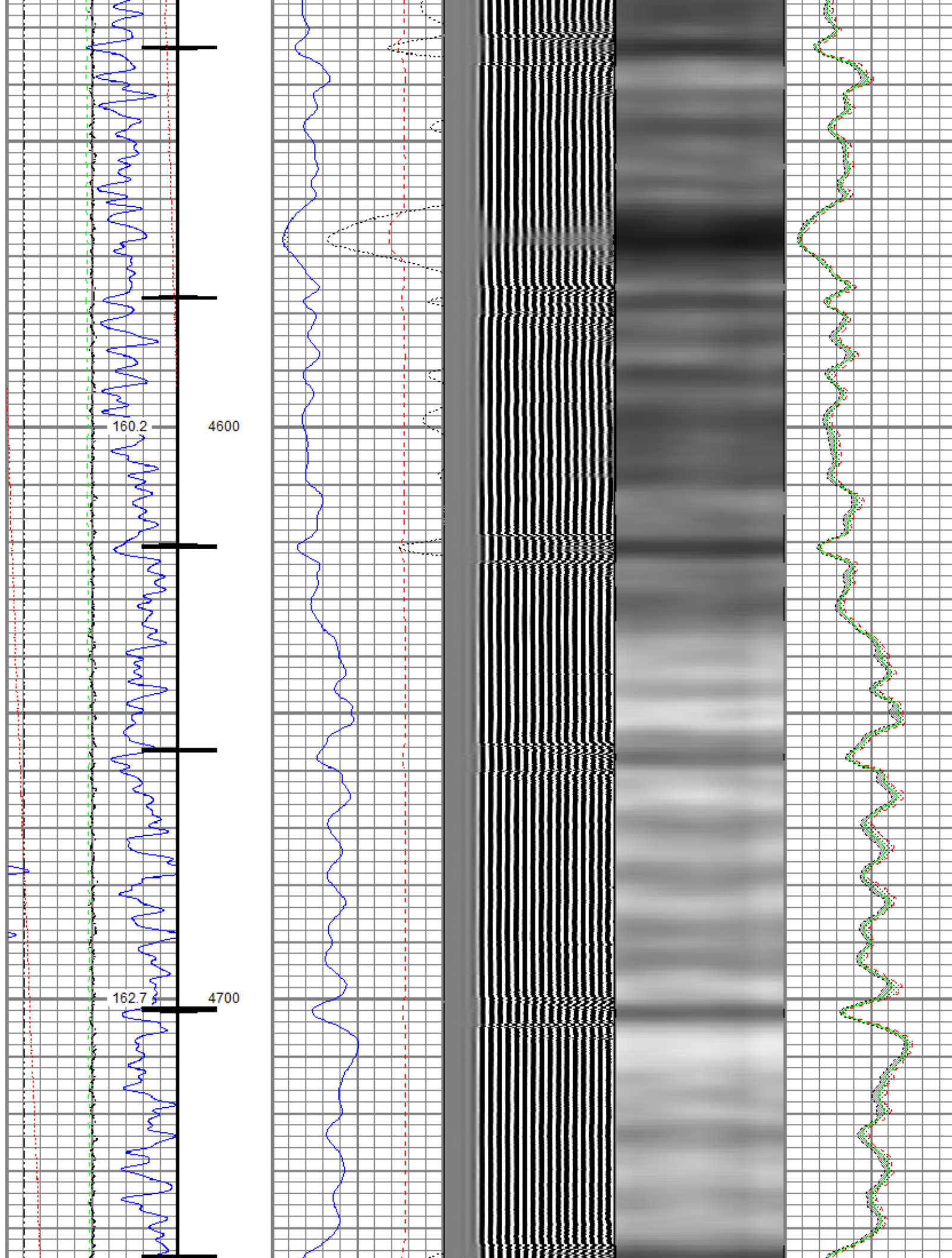


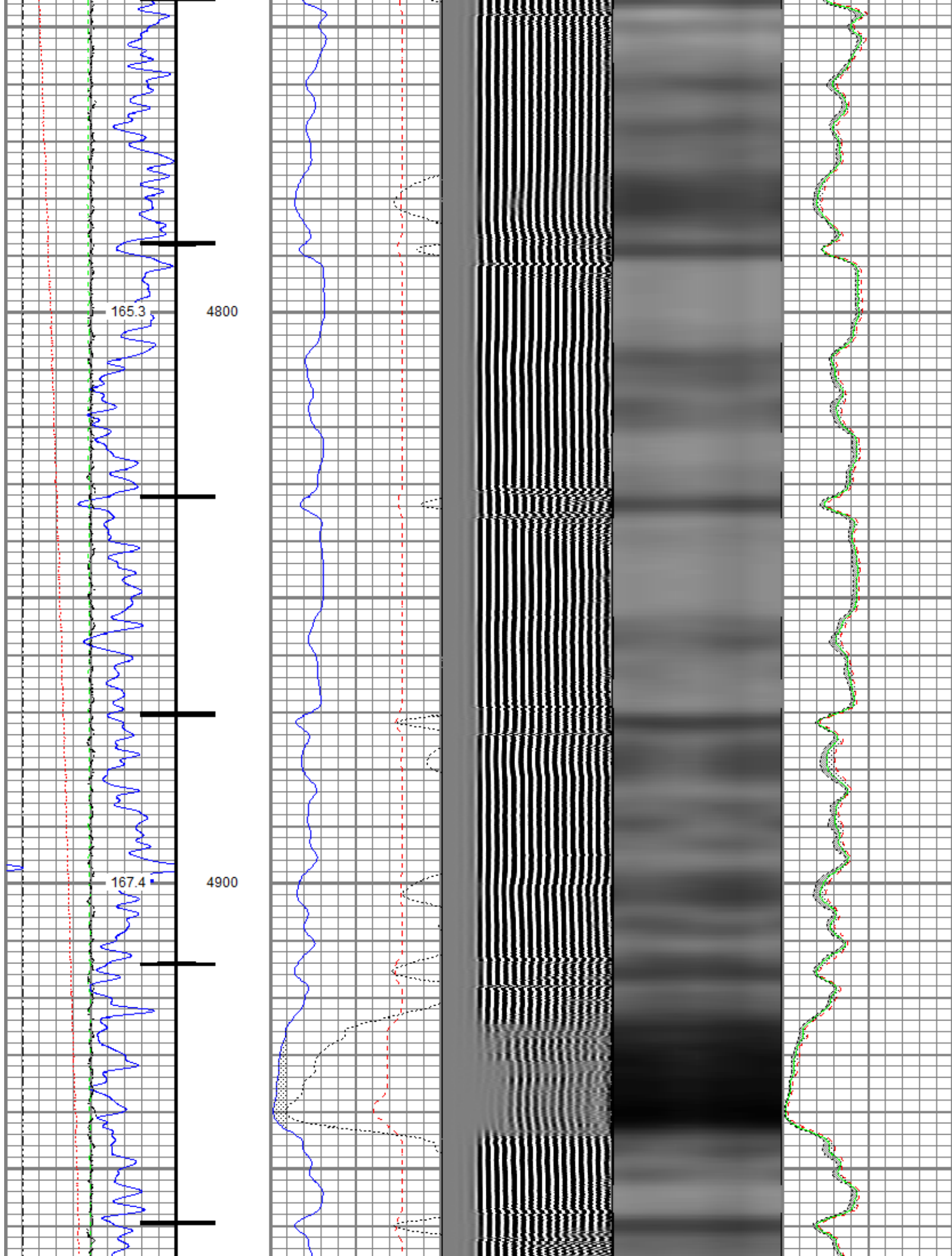


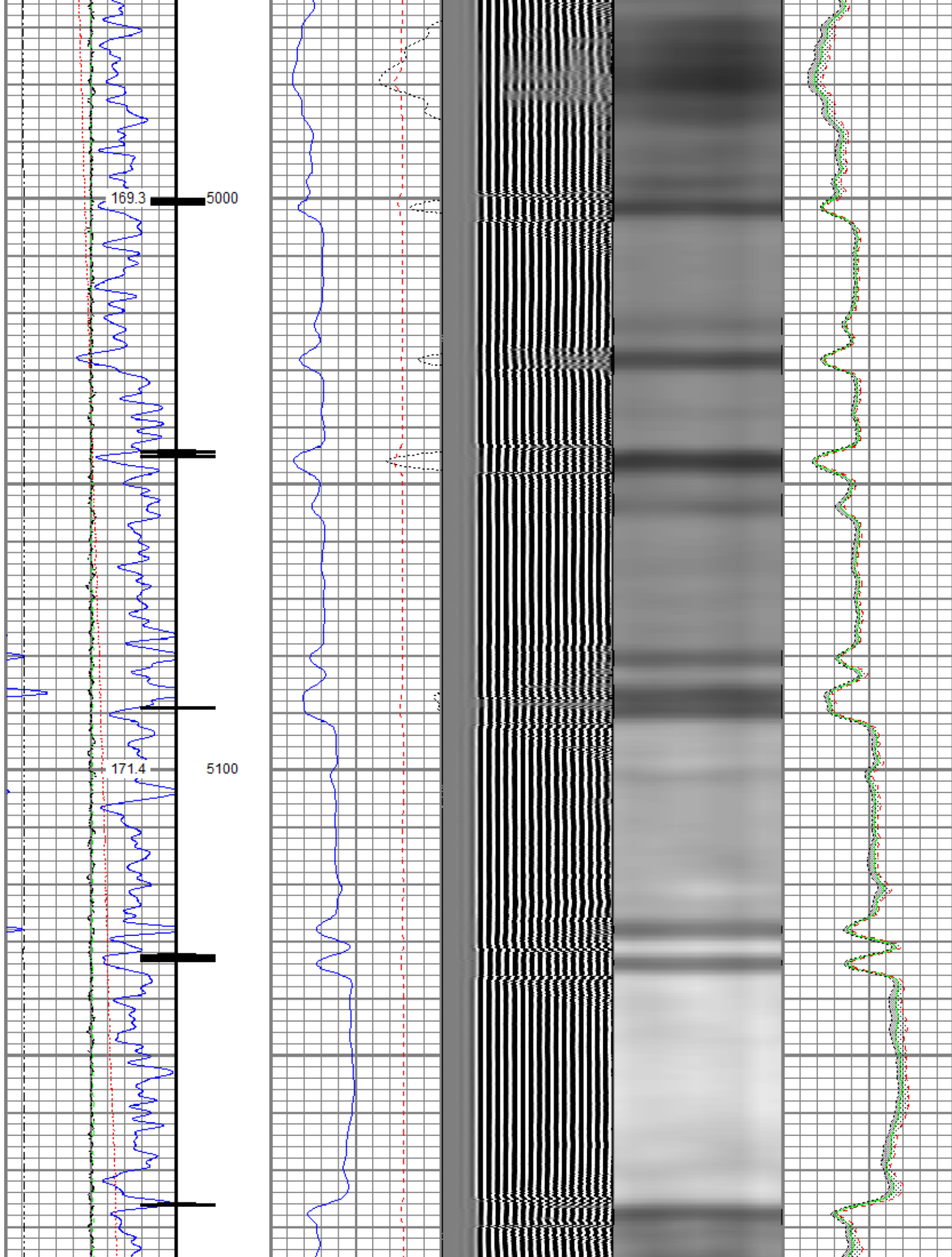


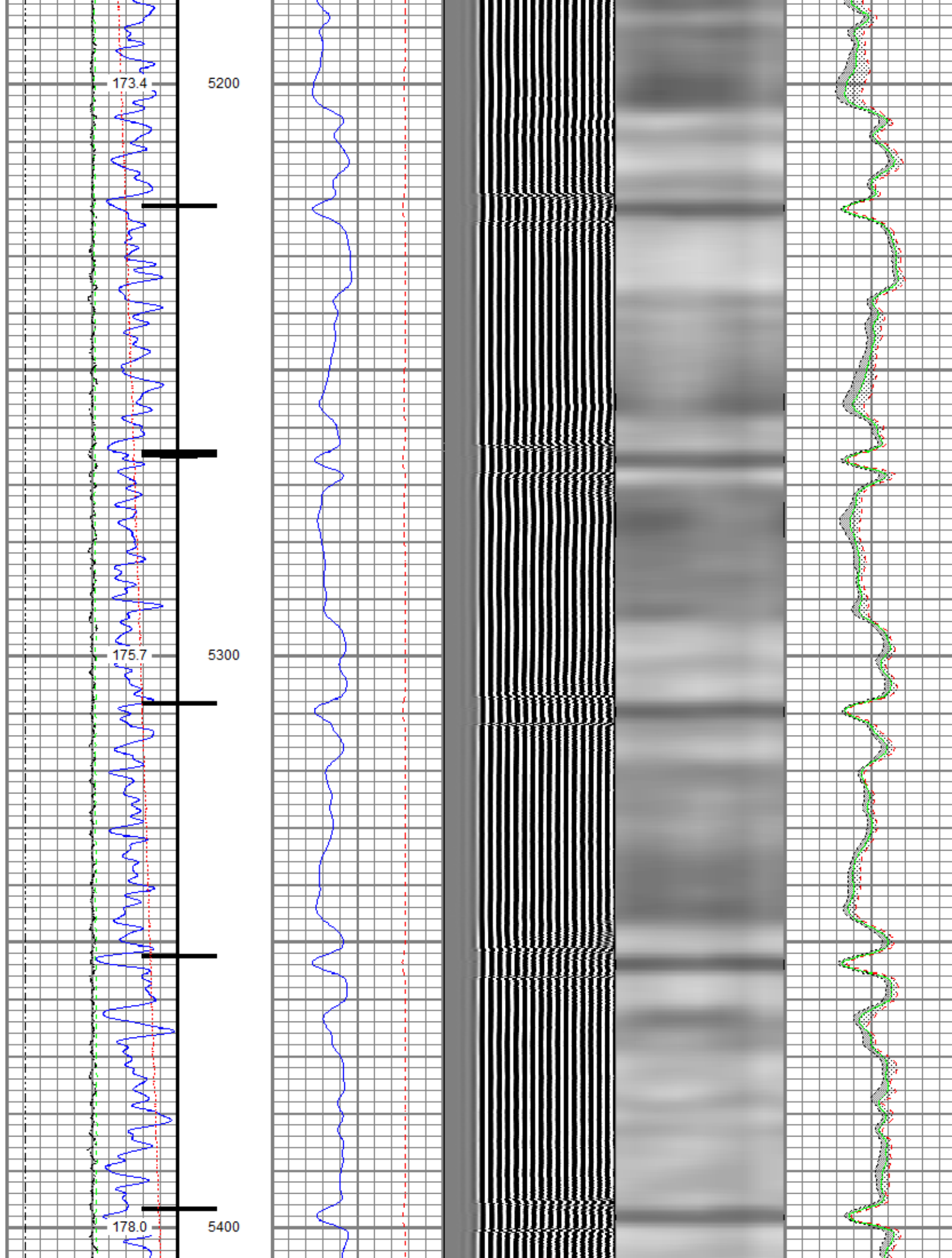


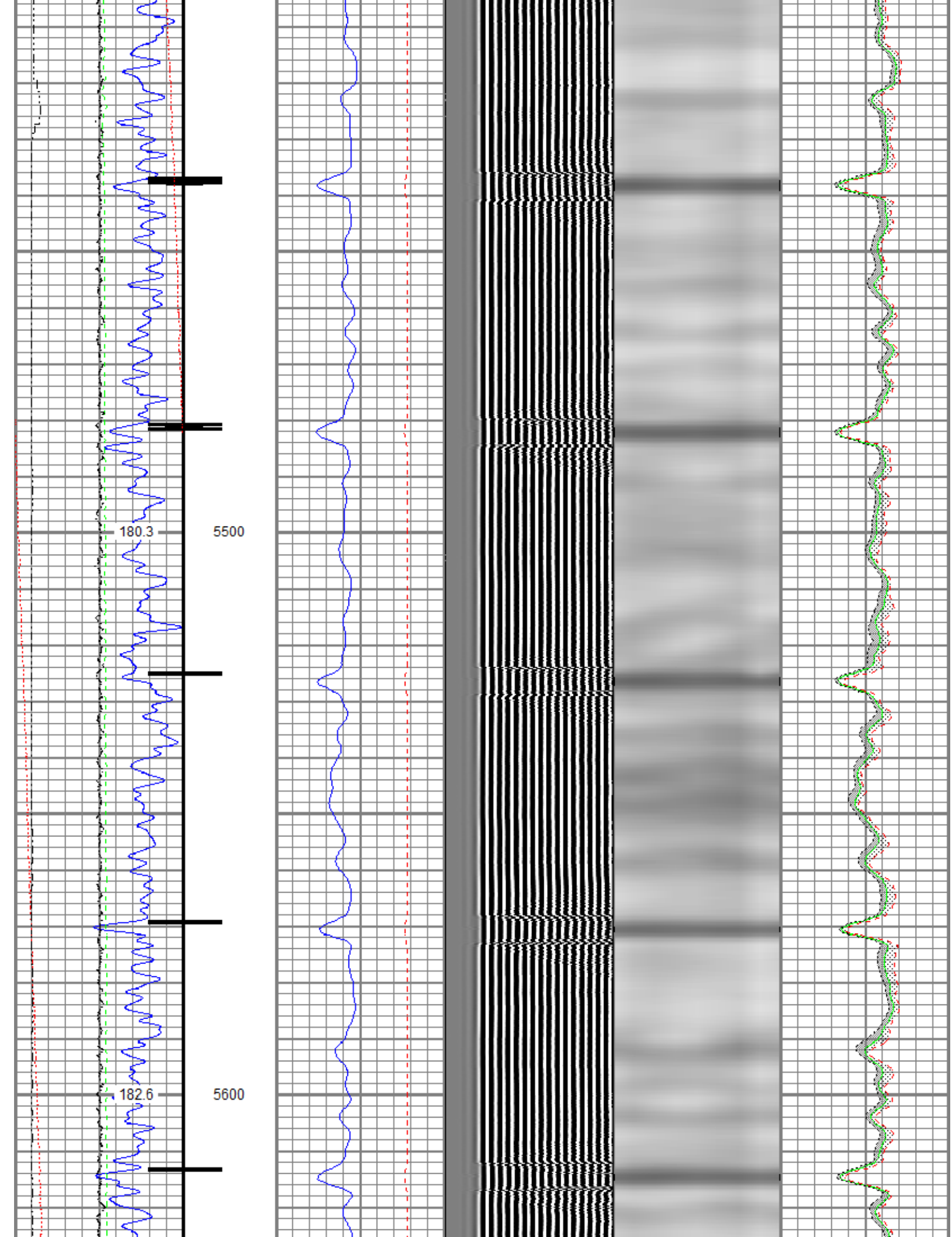


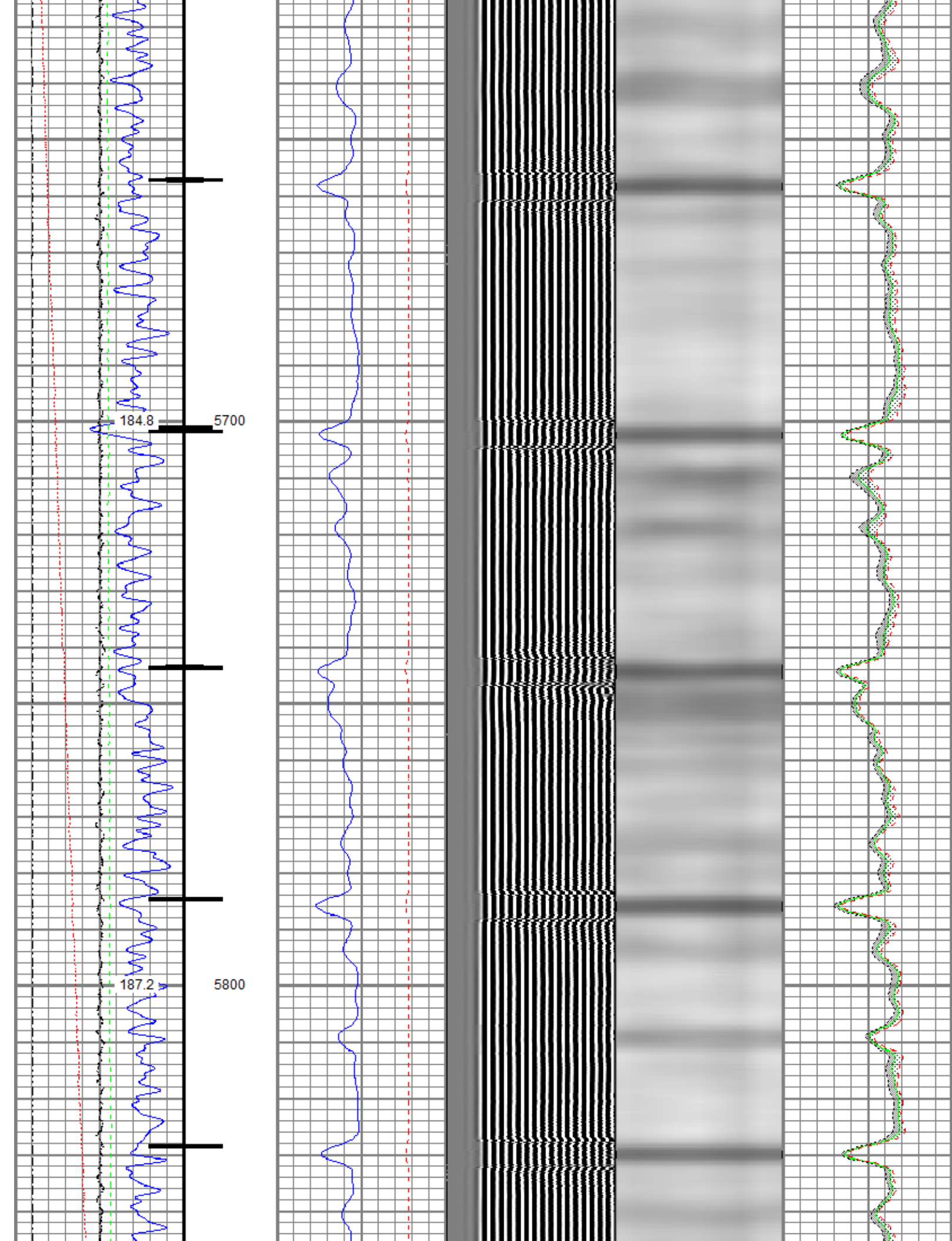


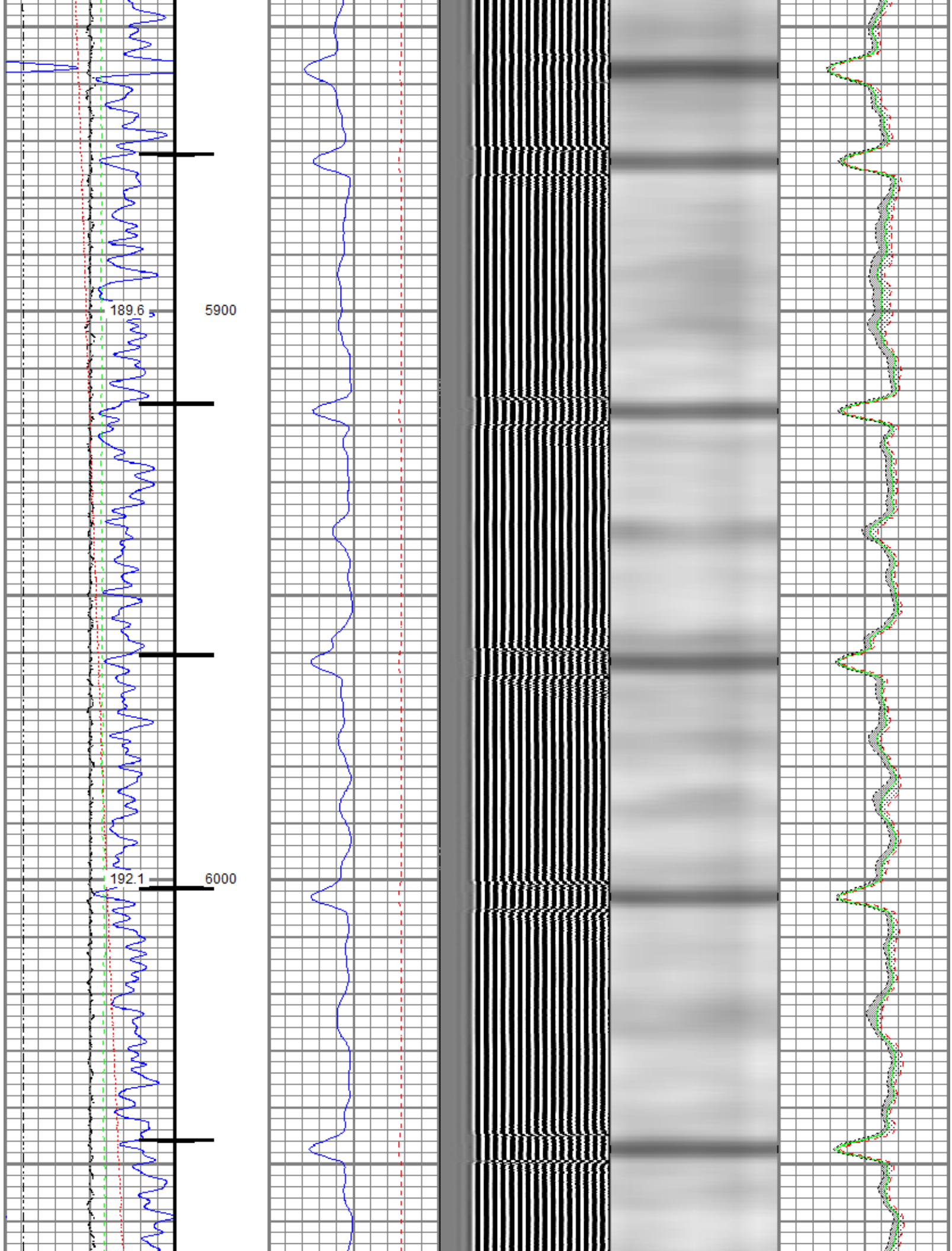


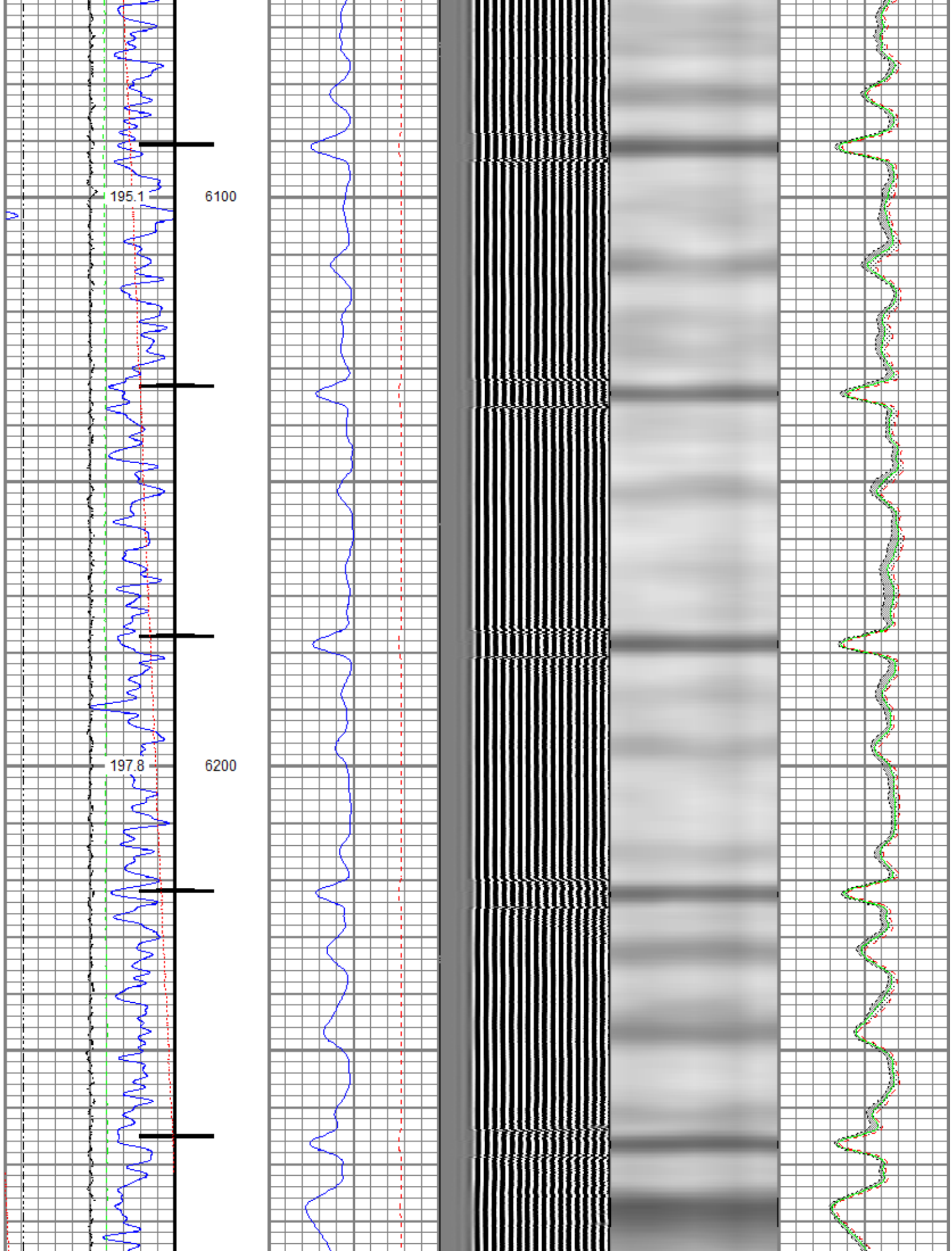


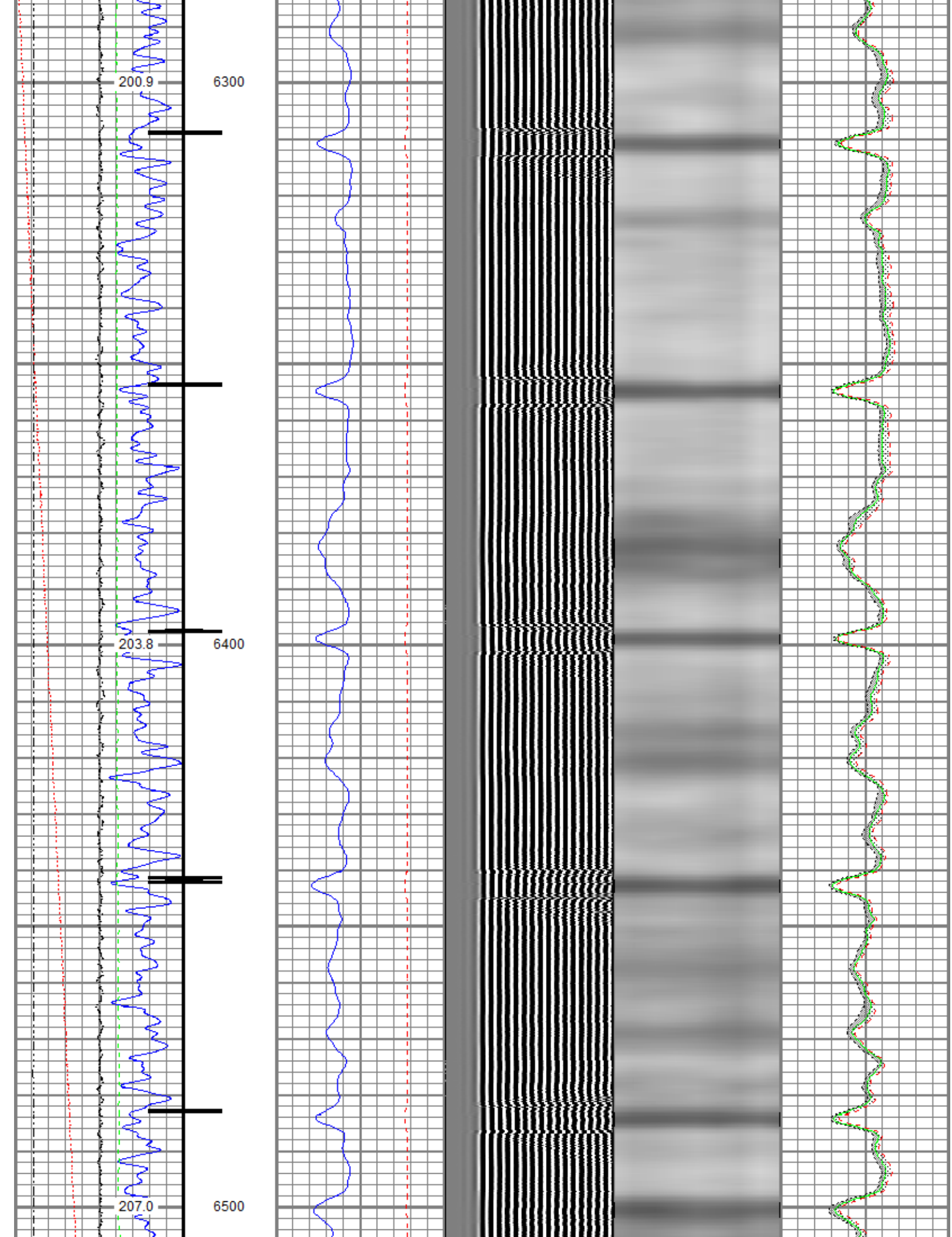


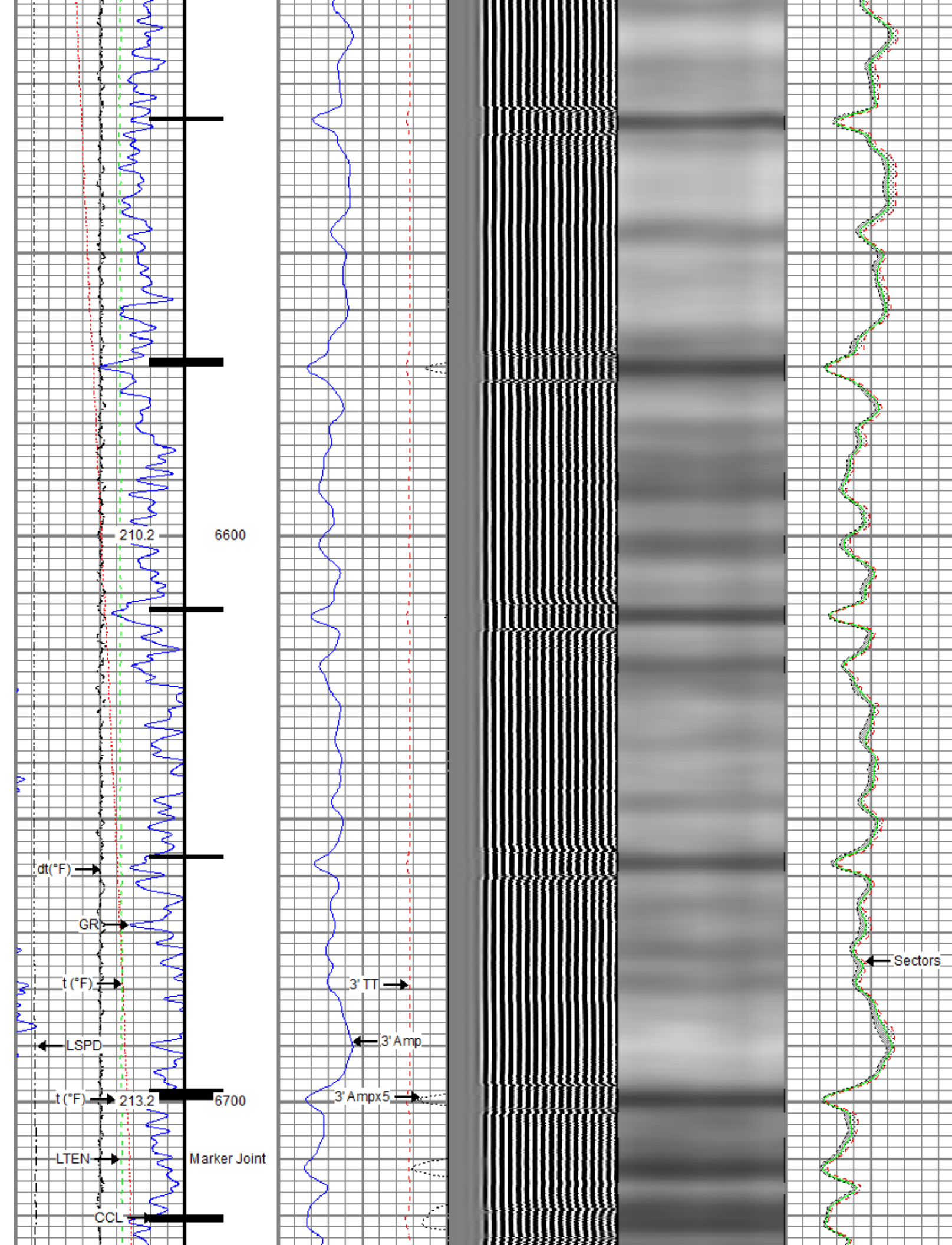


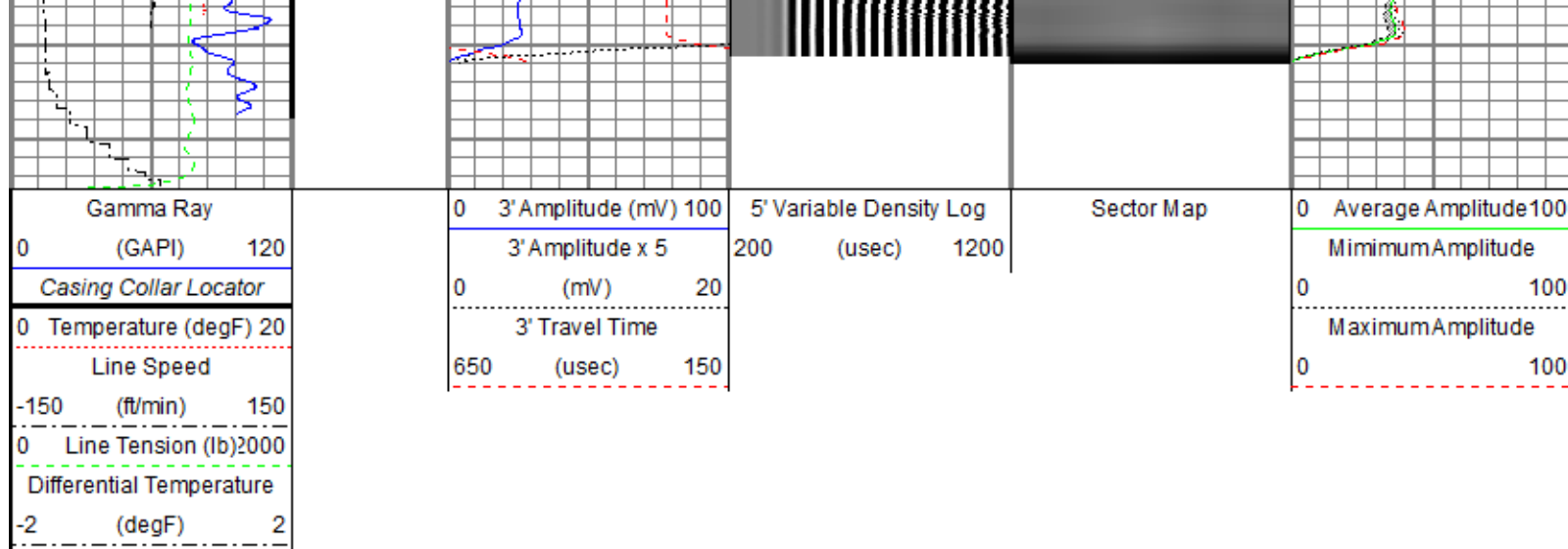








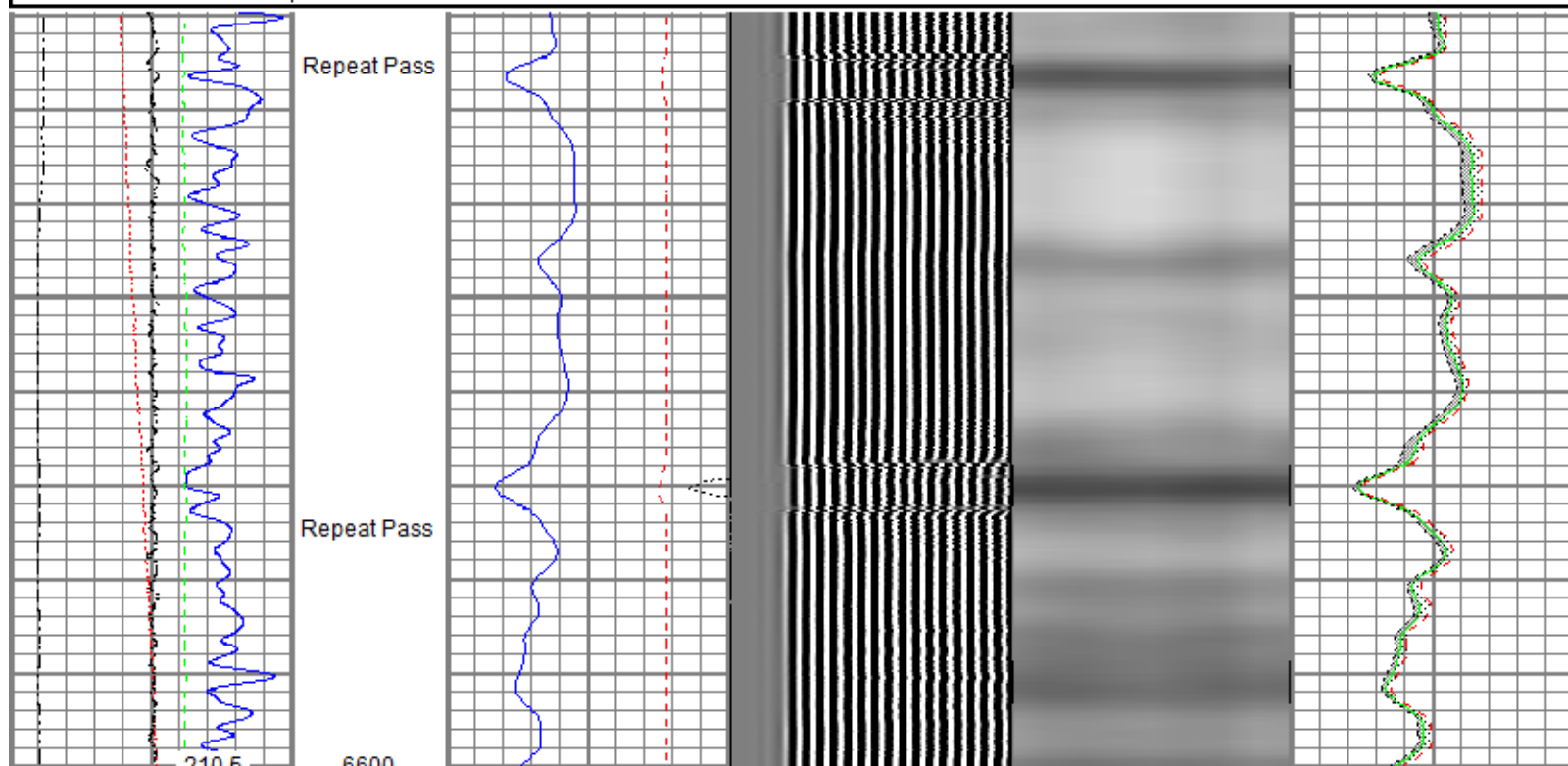
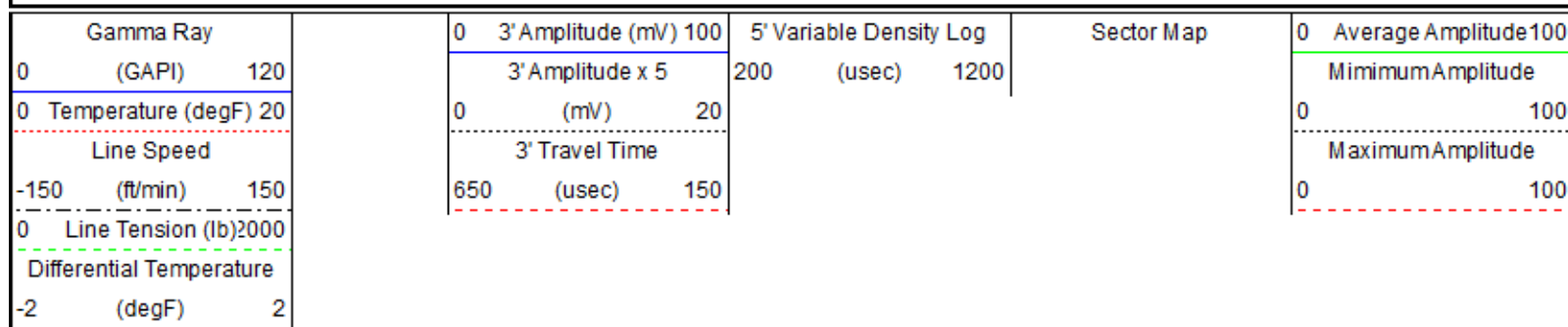


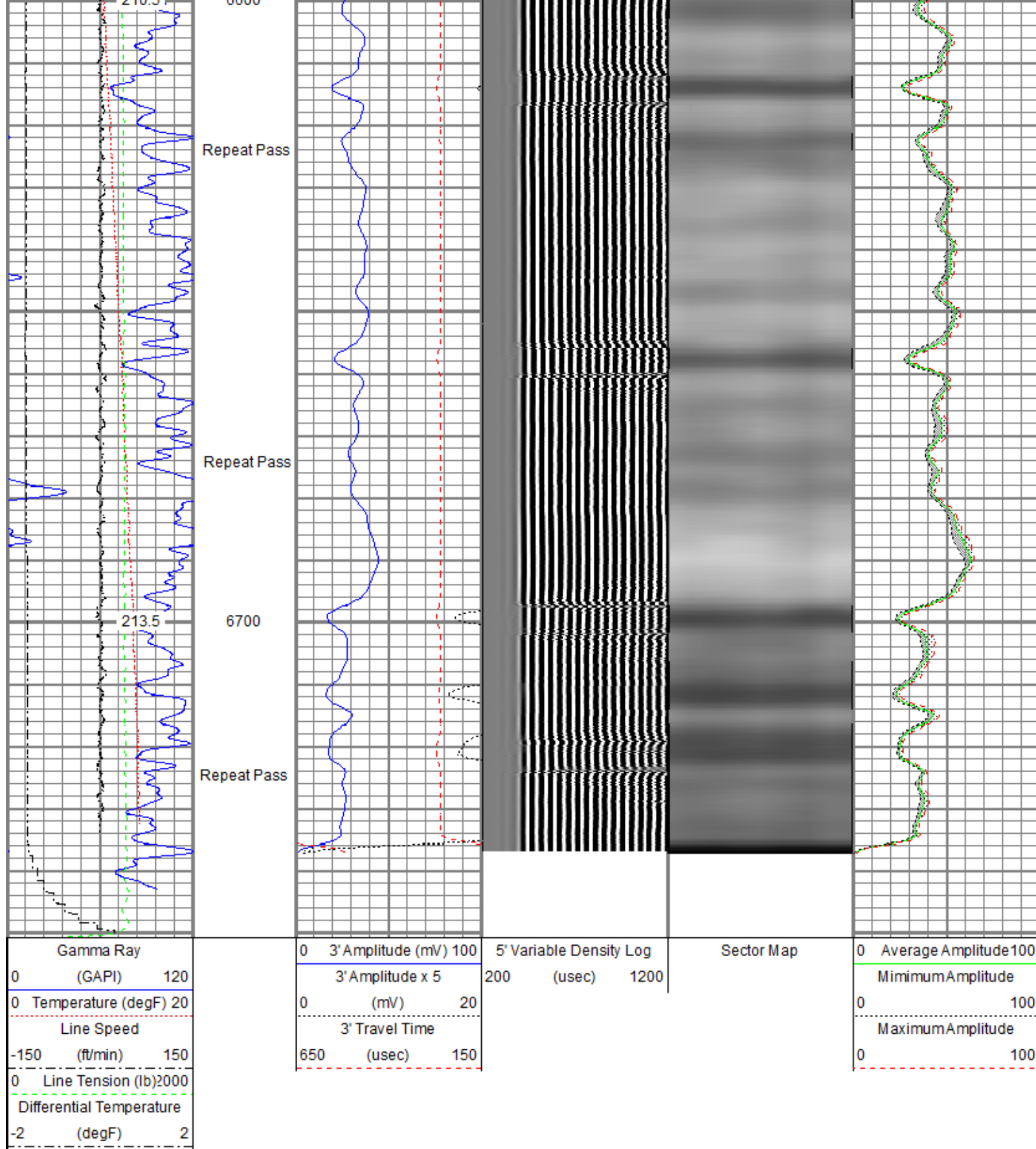


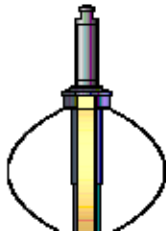
## Repeat Pass

Recorded With 0 PSI Surface Induced Pressure

Database File: anadarko\0512349250\_anadarko\_mab 15-14hz\_rbl\_06-22-19\processed\_0512349250\_anadarko\_mab 15-14hz\_rbl\_06-22-19  
 Dataset Pathname: rbl/pass2.3  
 Presentation Format: ros\_radrii  
 Dataset Creation: Sun Jun 23 10:03:47 2019  
 Charted by: Depth in Feet scaled 1:240





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

			Probe 2-3/4" Electric Inline Bowspring Centralizer			
TEMP	17.04					
WVFS8	14.81		Probe Radii-2750 RBT (FW1305-098)	9.39	2.75	105.00
WVFS7	14.81		Probe 2-3/4" Radial Cement Bond Tool with Integral			
WVFS6	14.81		Temperature Sub			
WVFS5	14.81					
WVFS4	14.81					
WVFS3	14.81					
WVFS2	14.81					
WVFS1	14.81					
WVFCAL	14.81					
WVF3FT	14.81					
WVF5FT	13.81					
			Probe CENT-2750	2.88	2.75	20.00
			Probe 2-3/4" Electric Inline Bowspring Centralizer			
CCL\$2	6.80					
CCL\$1	6.80					
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
			Probe 2-3/4" Electric Inline Bowspring Centralizer			
Dataset: PROCESSED_0512349250_Anadarko_MAB 15-14HZ_RBL_06-22-19.db: field/well/rbl/pass4.1 Total length: 23.86 ft Total weight: 223.60 lb O.D.: 2.75 in						

Calibration Report	
Database File	C:\ProgramData\Warrior\Data\Anadarko\0512349250_Anadarko_MAB 15-14HZ_RBL_06-22-19\PROCESSED_0512349250_An
Dataset Pathname	rbl/pass4.1
Dataset Creation	Sat Jun 22 10:00:12 2019
Gamma Ray Calibration Report	

Serial Number:	101001	
Tool Model:	2750 6PB	
Performed:	Mon Oct 01 11:32:32 2018	
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:	FW1305-098	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	-51.101	ft

#### Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.005	0.734	0.800	71.921	97.619	0.282
CAL	0.006	0.700				
5'	0.003	0.784	0.800	71.921	91.105	0.534
SUM						
S1	0.002	0.701	0.000	100.000	143.115	-0.349
S2	0.005	0.740	0.000	100.000	136.112	-0.702
S3	0.006	0.742	0.000	100.000	135.767	-0.754
S4	-0.005	0.720	0.000	100.000	137.941	0.691
S5	-0.005	0.723	0.000	100.000	137.370	0.726
S6	0.003	0.738	0.000	100.000	136.094	-0.454
S7	0.005	0.724	0.000	100.000	139.112	-0.724
S8	0.005	0.699	0.000	100.000	144.070	-0.700

#### Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.006	0.700	1.000	0.000

#### Air Zero Calibration, performed Thu Jun 20 06:09:36 2019:

	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:	FW1305-098
Tool Model:	2750 RBT
Performed:	Mon Oct 01 11:32:17 2018

Reference	Reading
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	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	Kerr-McGee Oil & Gas Onshore, L.P.
Well	MAB 15-14HZ
Field	Wattenberg
County	Weld
State	Colorado