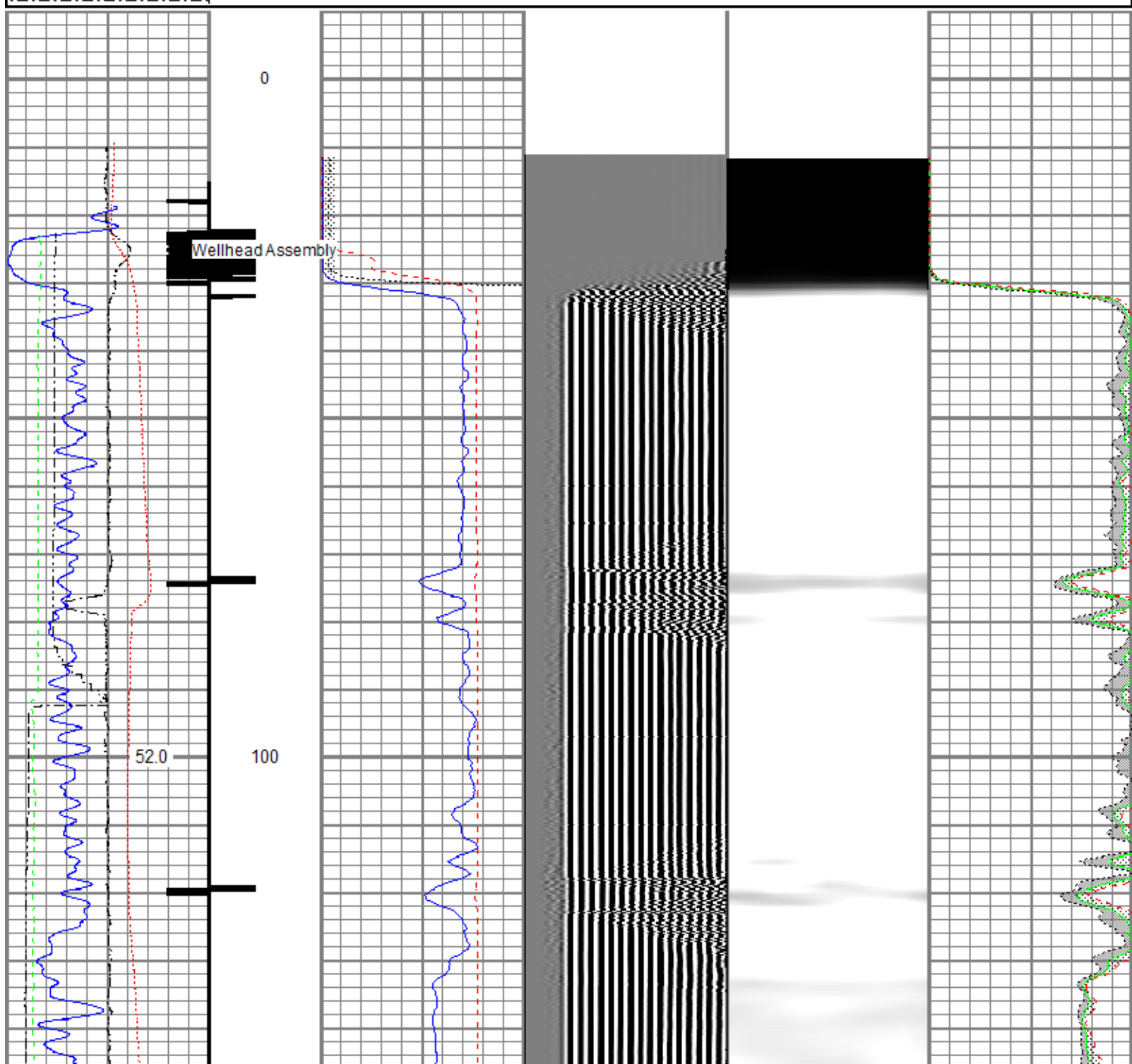


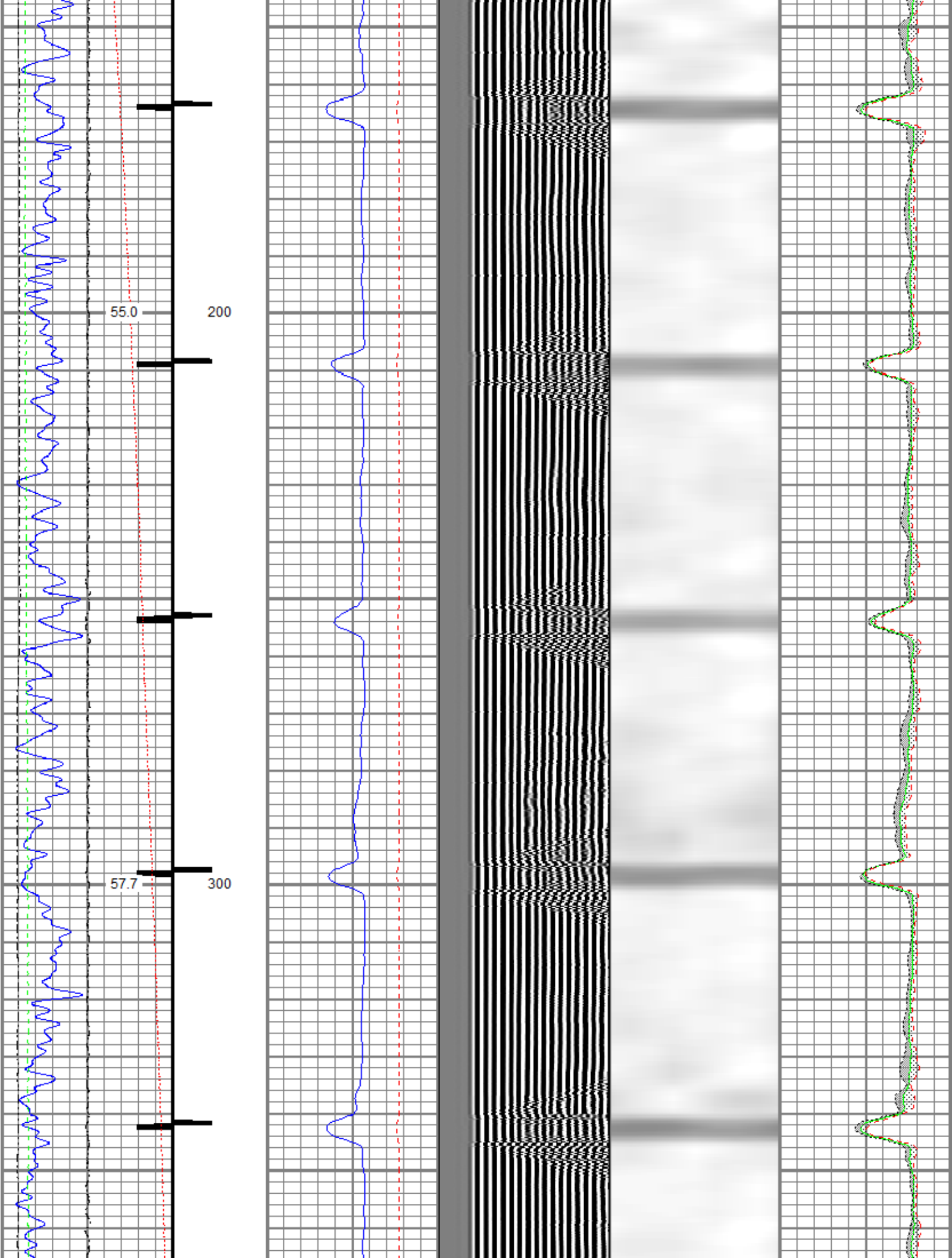


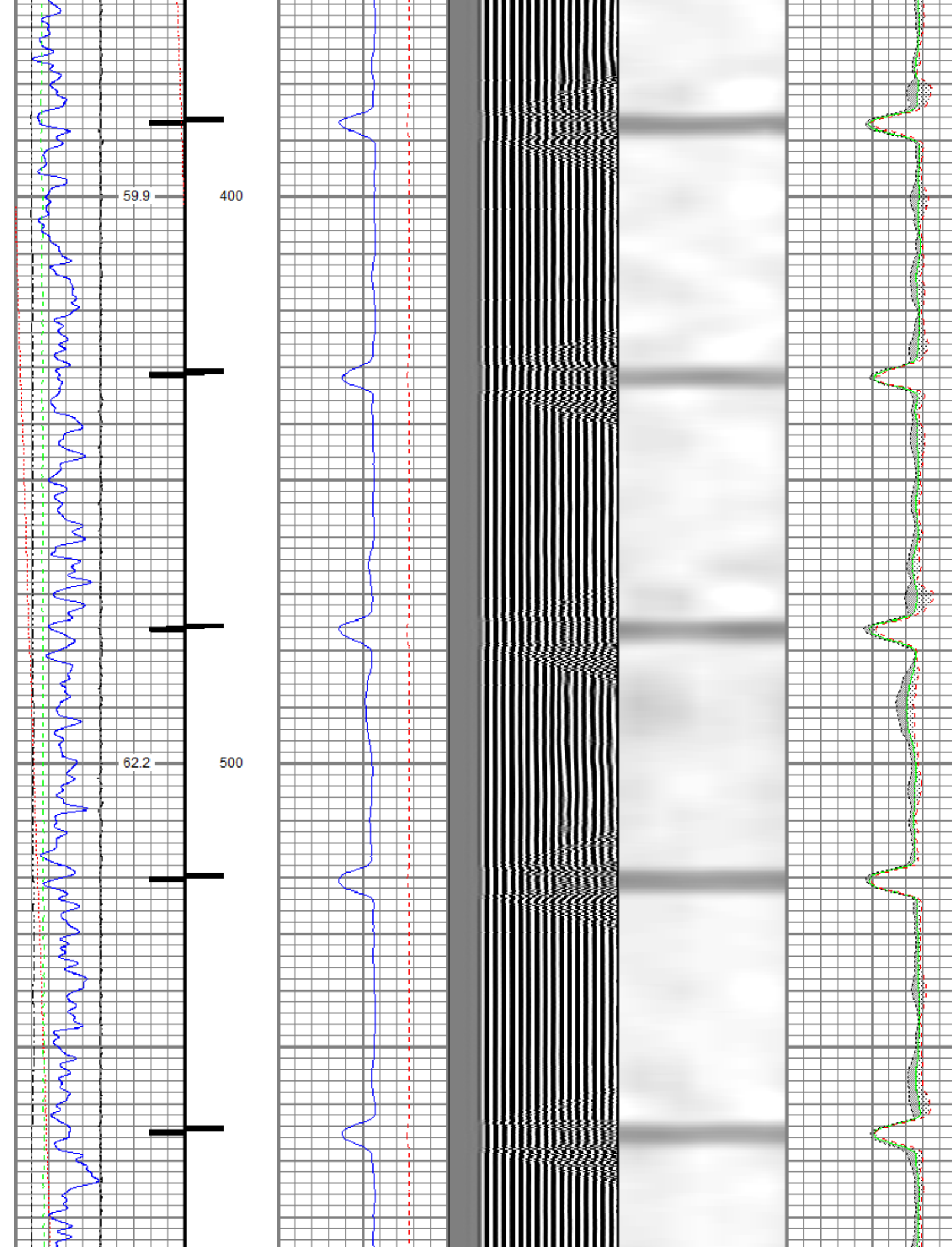
<<< Fold Here >>>
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible 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
<p>Log ran as per customer request Depth referenced to Casing Tally reported Marker Joint at 6459.9 FT Adjusted -4.4 FT to correlate with Marker Joint Log ran with 2500 PSI Surface Induced Pressure Logging tools were clean and free of debris upon completion of operations</p> <p>Thank you for choosing Reliance Oilfield Services, LLC!!</p>

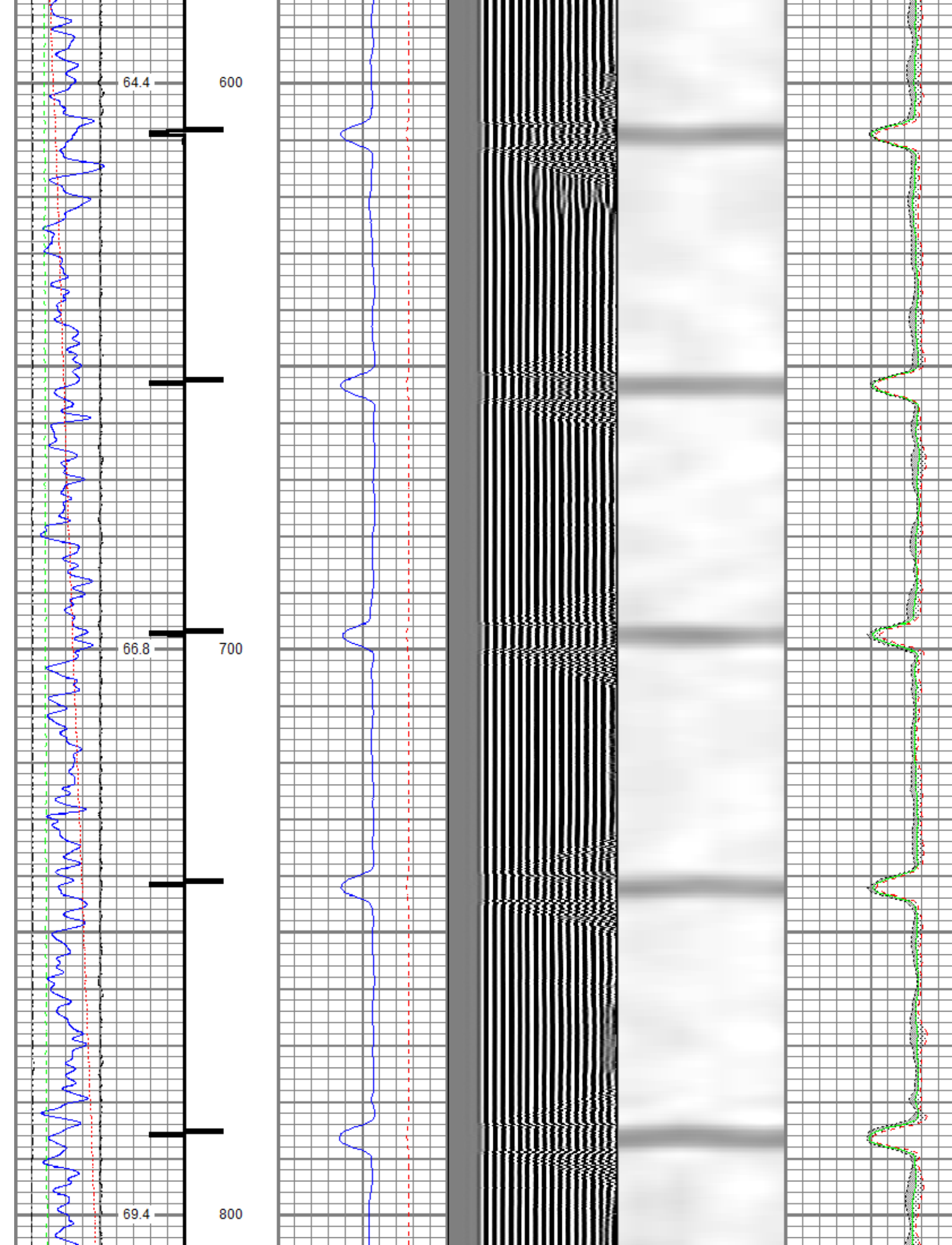
Database File	noble_guttersen d34-779_rbl_05-13-20\noble_guttersen d34-779_rbl_05-13-20.db
Dataset Pathname	pass5.1
Presentation Format	ros_radri_noble
Dataset Creation	Wed May 13 09:35:55 2020
Charted by	Depth in Feet scaled 1:240

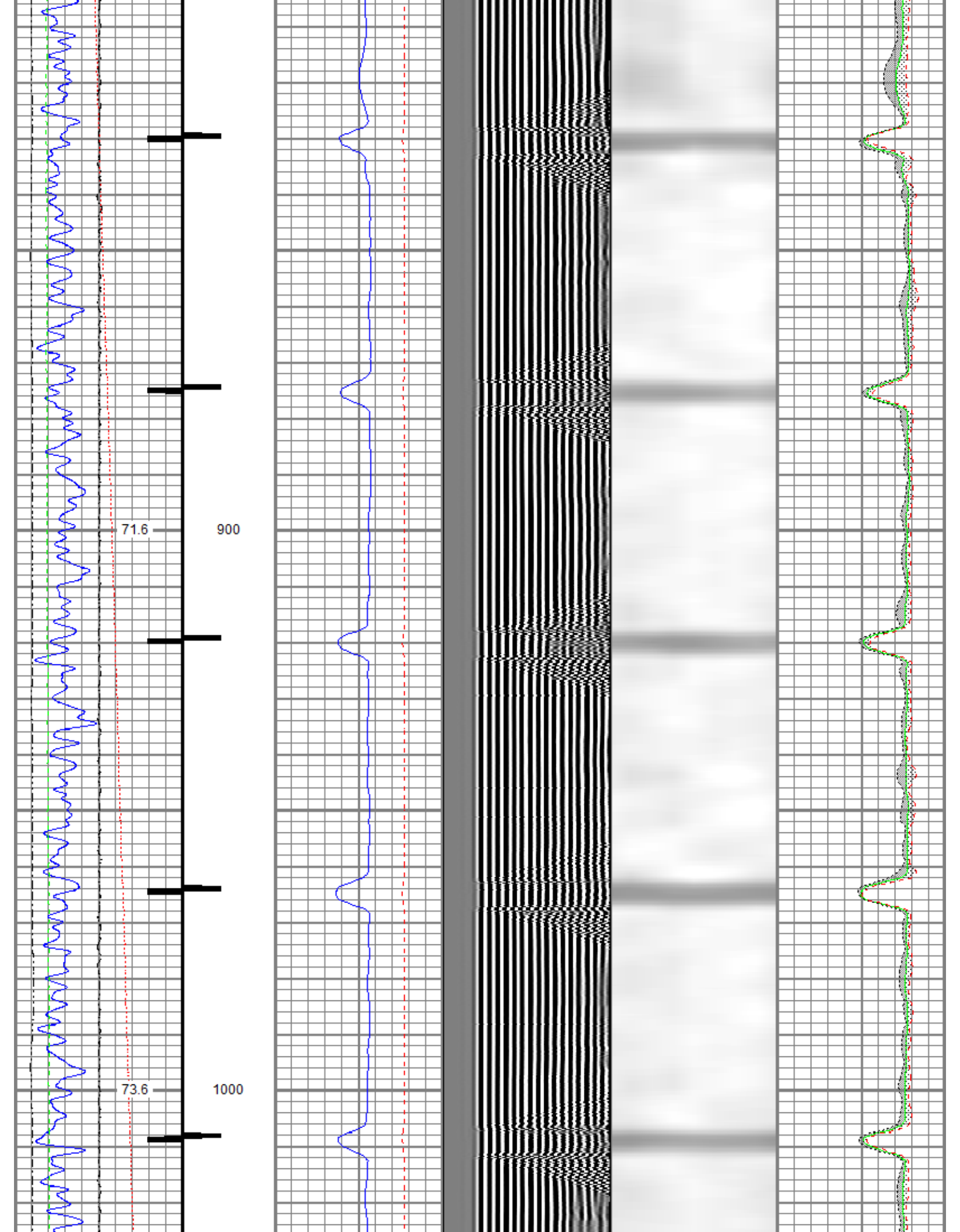
Gamma Ray	0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	0	Average Amplitude	100
(GAPI)	120	3' Amplitude x 5	200	(u sec)	1200		Minimum Amplitude	
Casing Collar Log		(mV)	20			0	100	
Temperature (degF)	20	3' Travel Time					Maximum Amplitude	
Line Speed		(u sec)	150			0	100	
(ft/min)	150	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

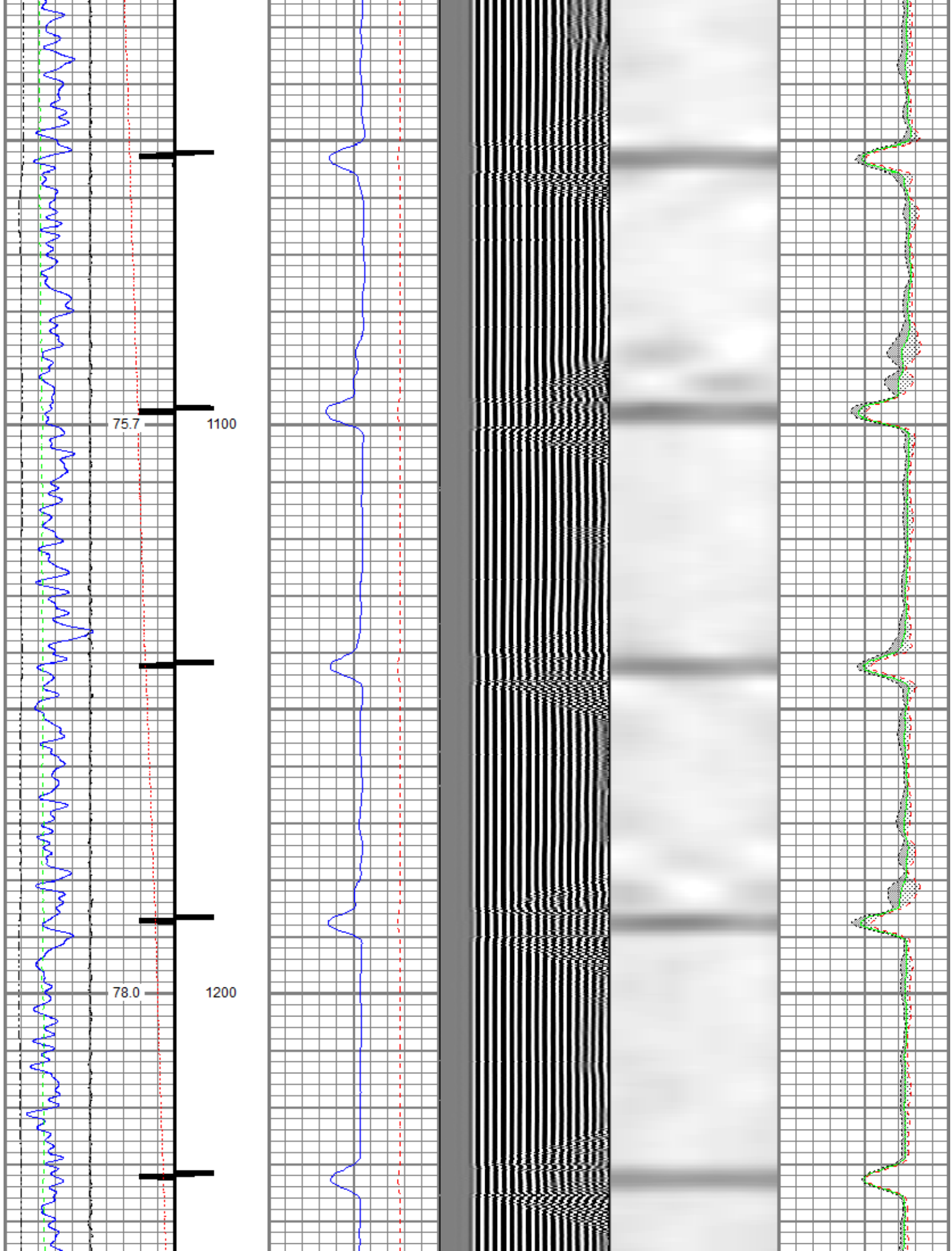


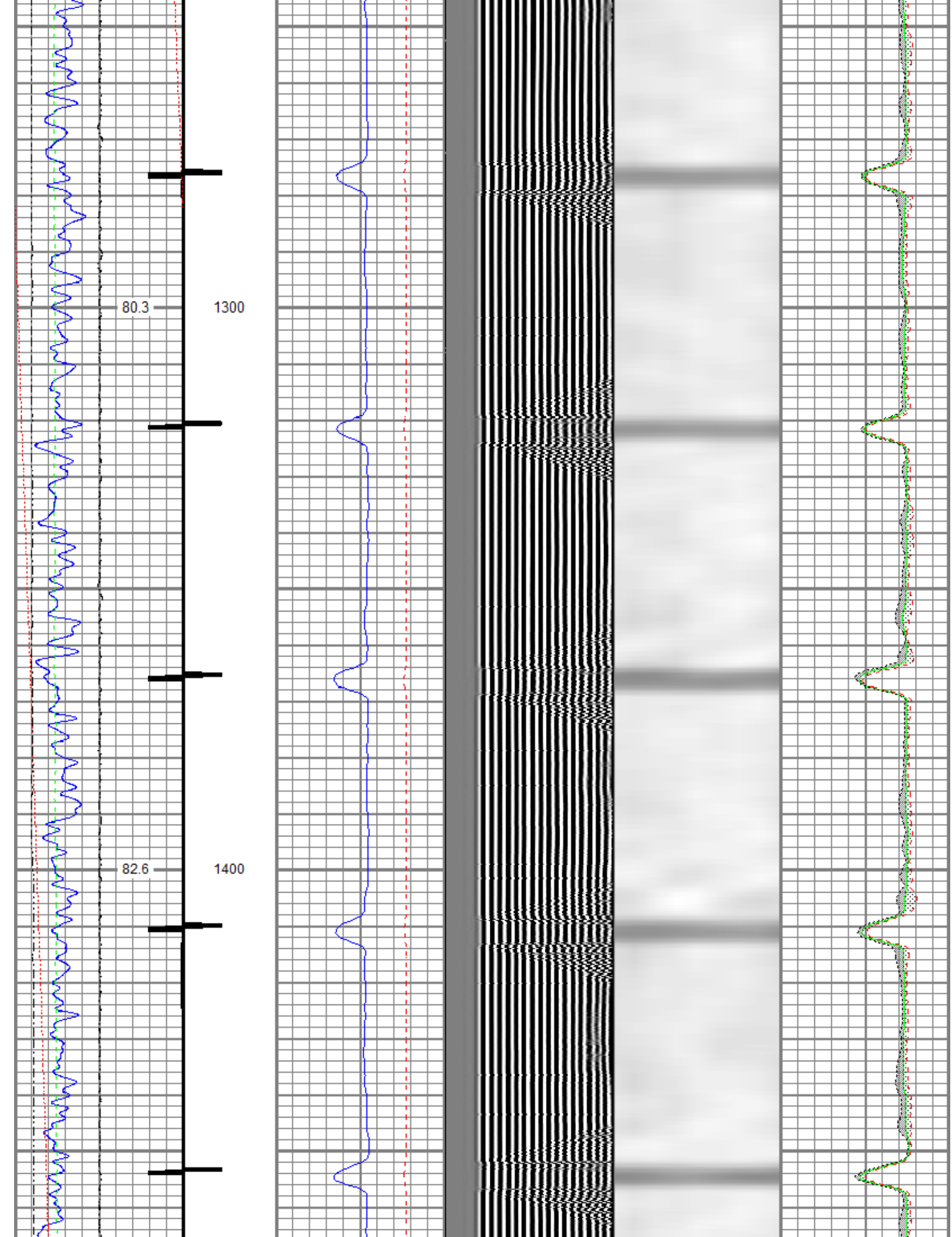


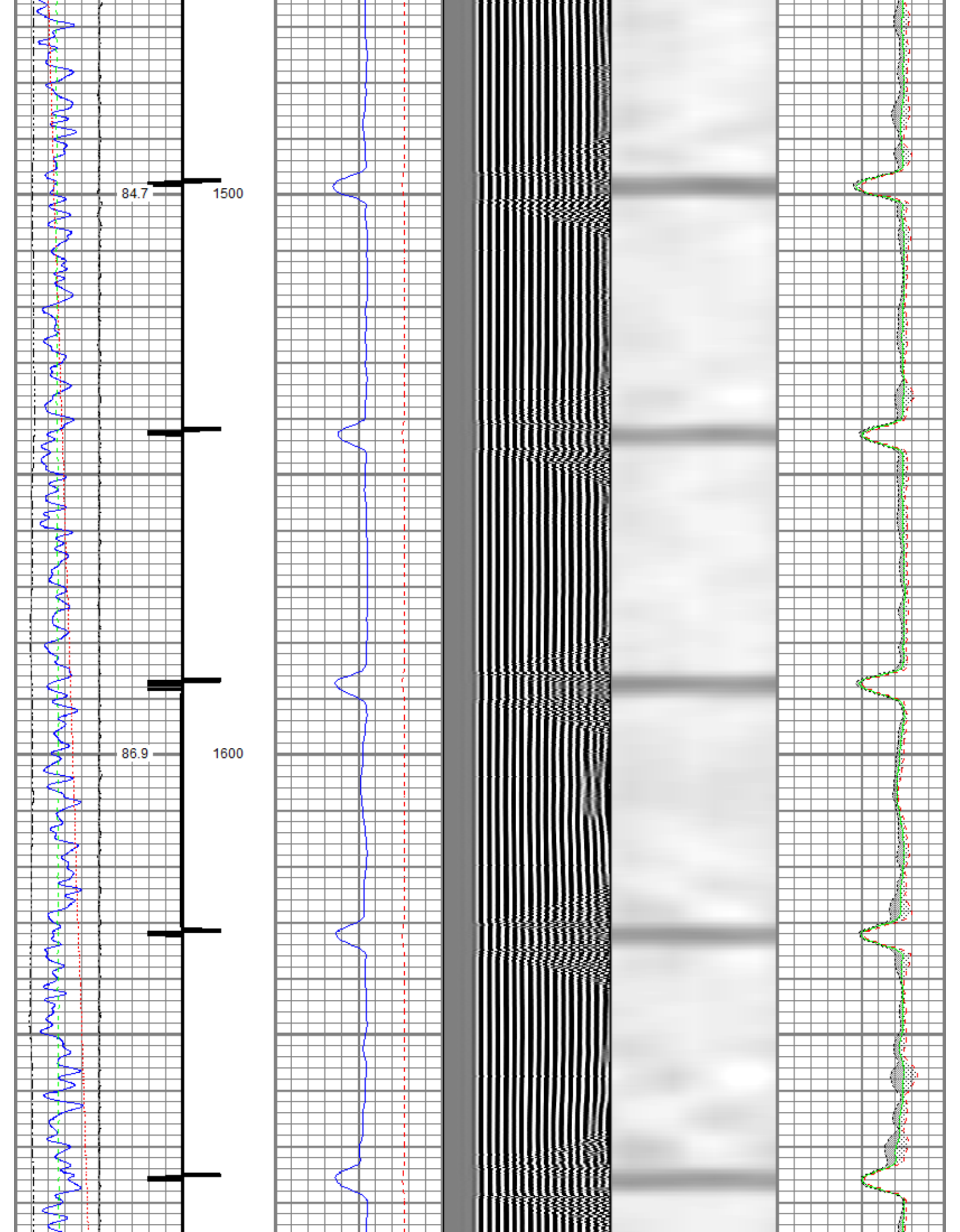


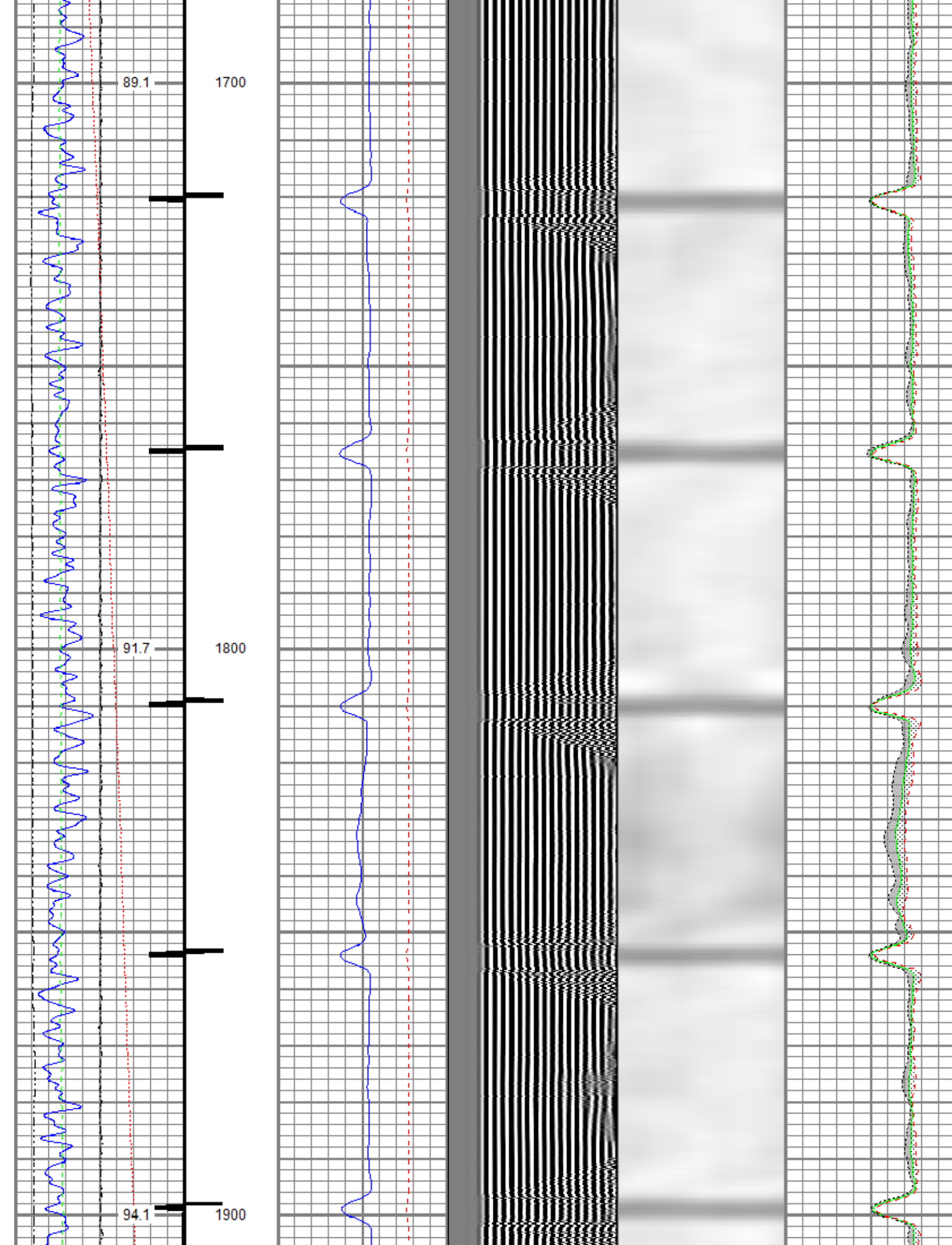


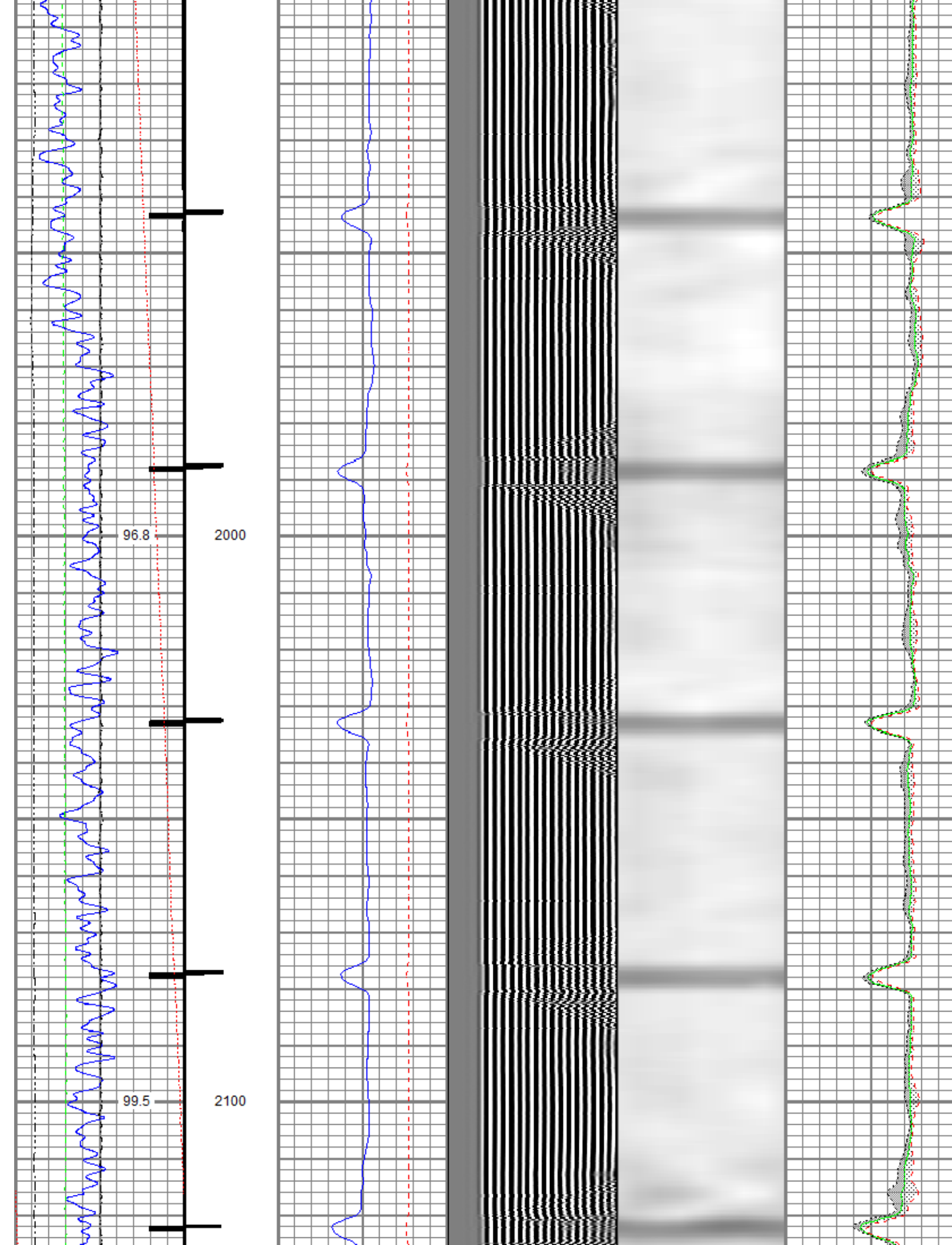


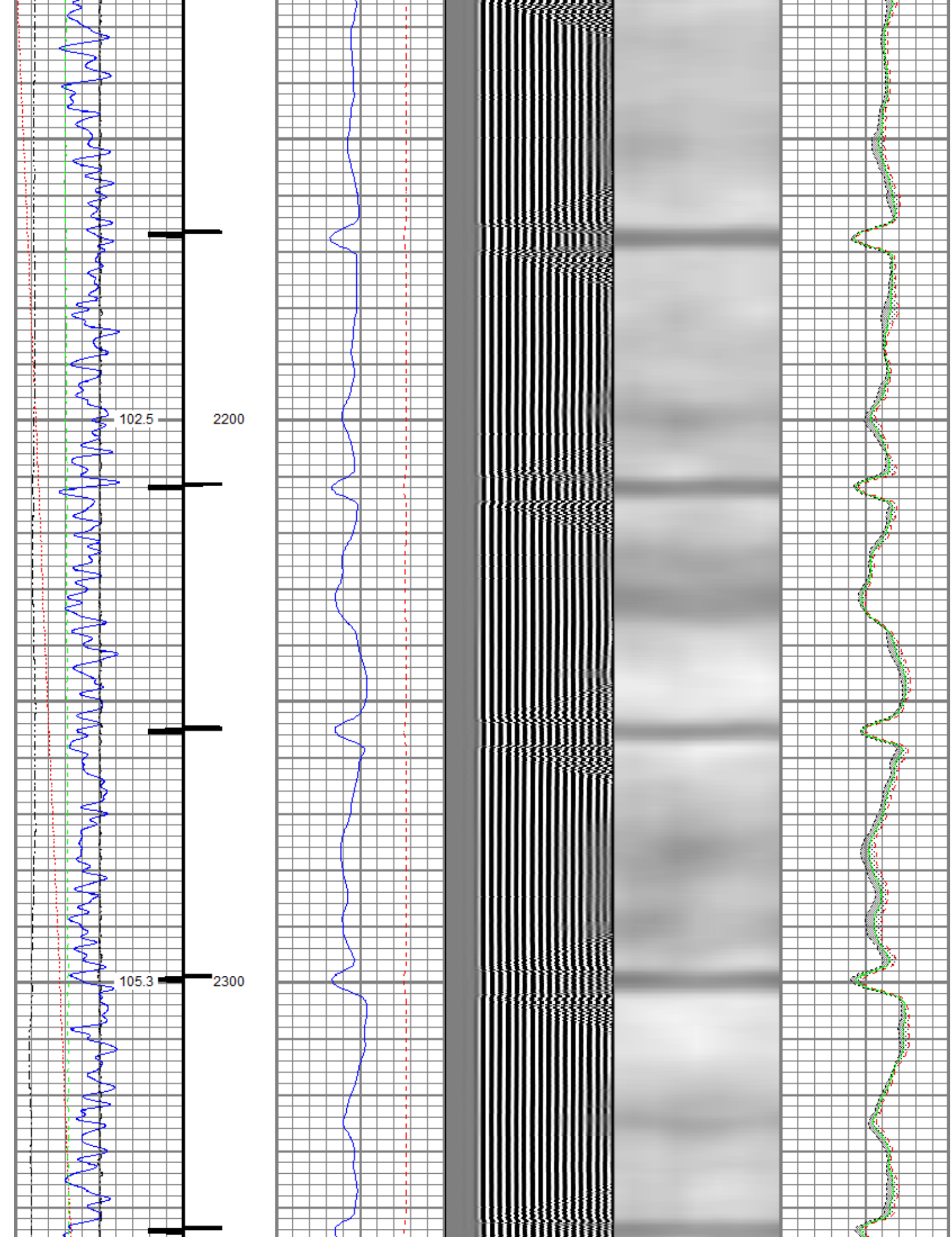


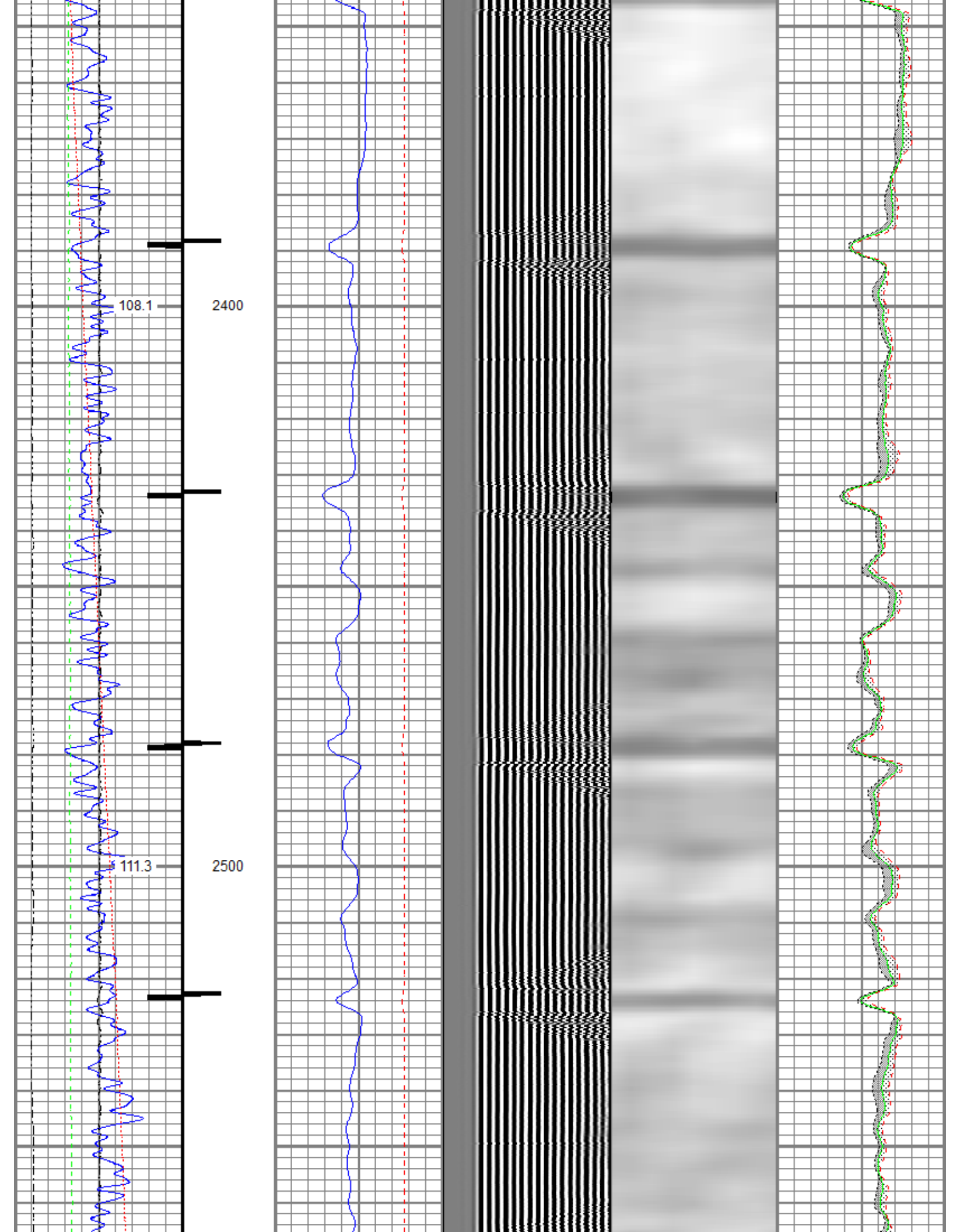


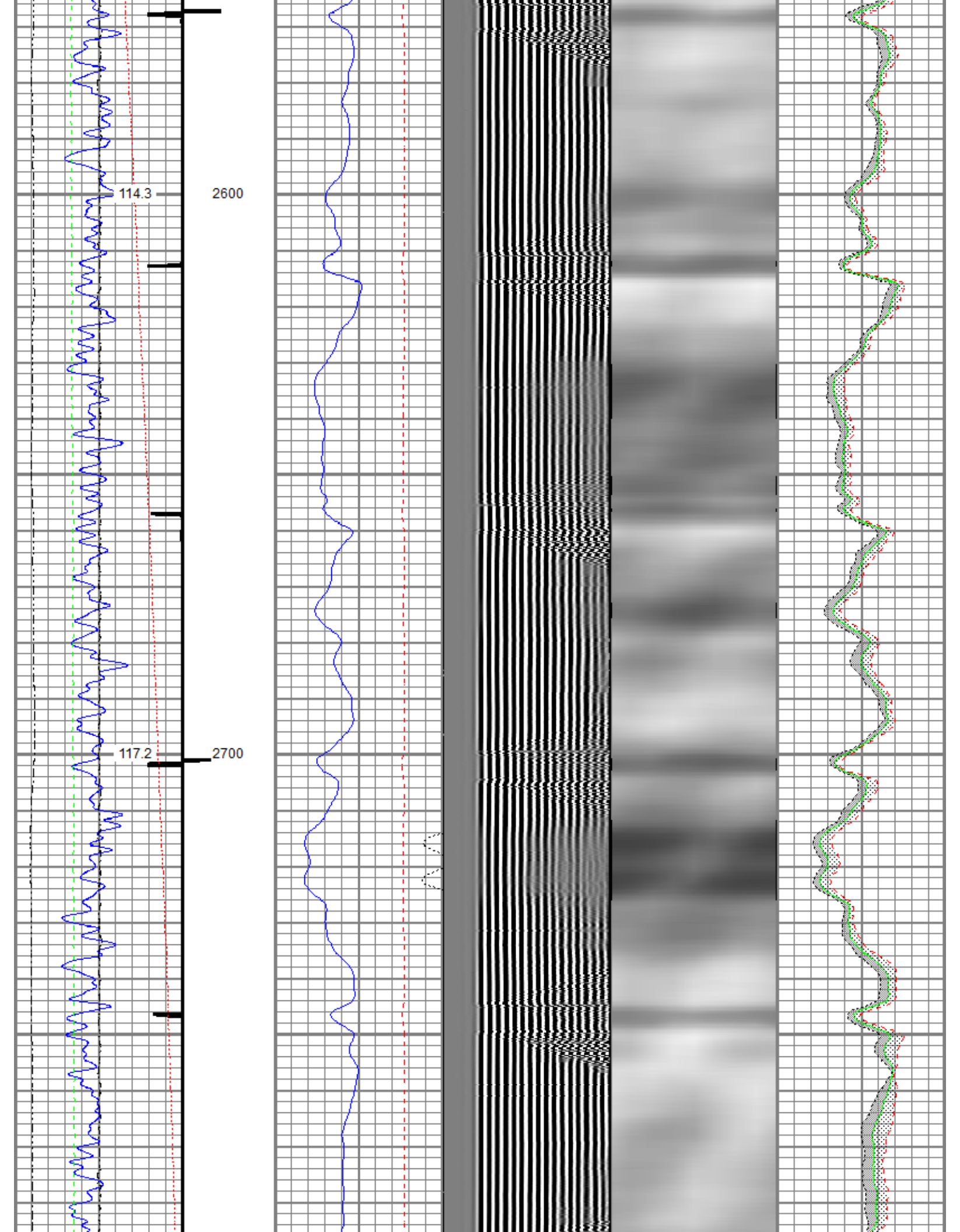


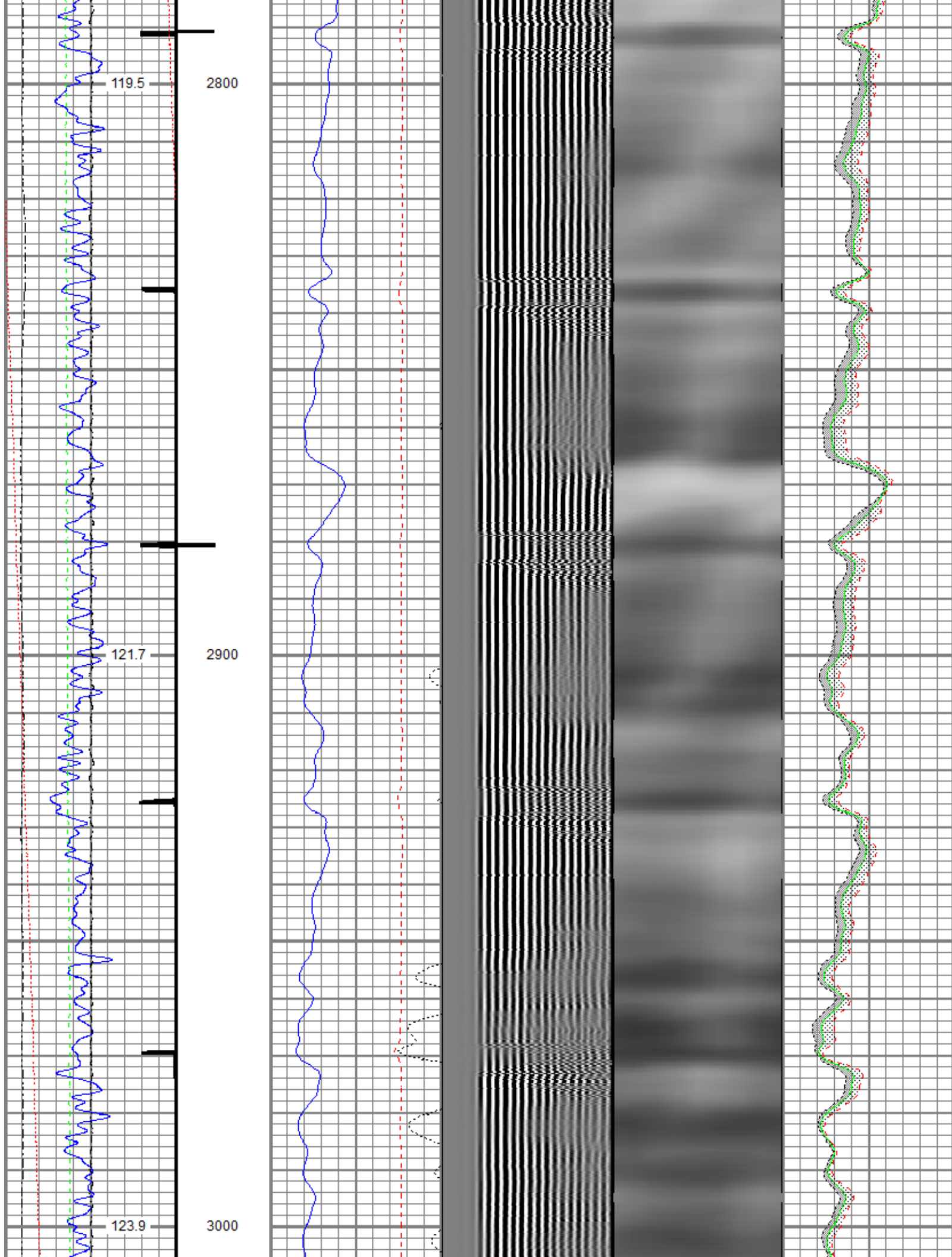


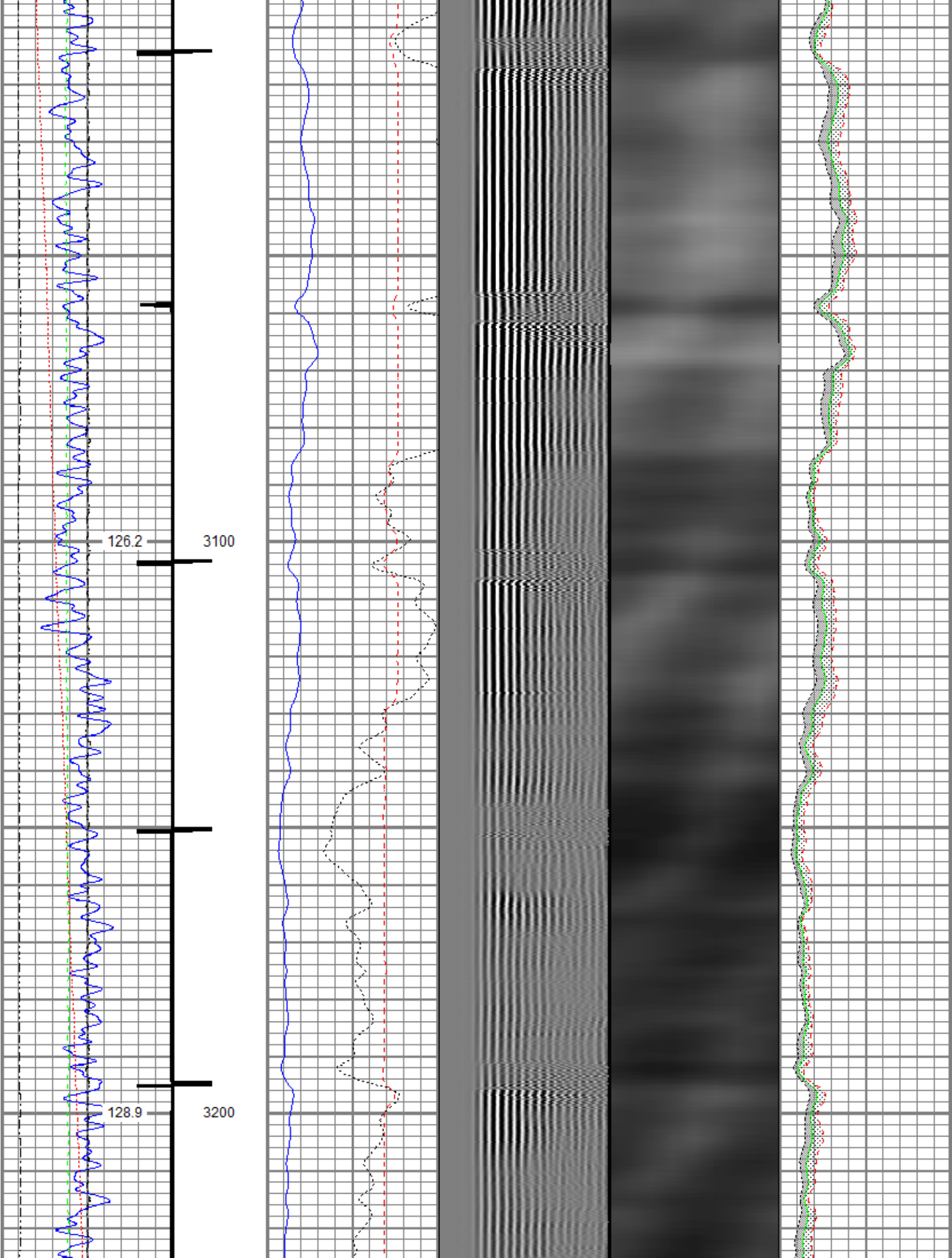


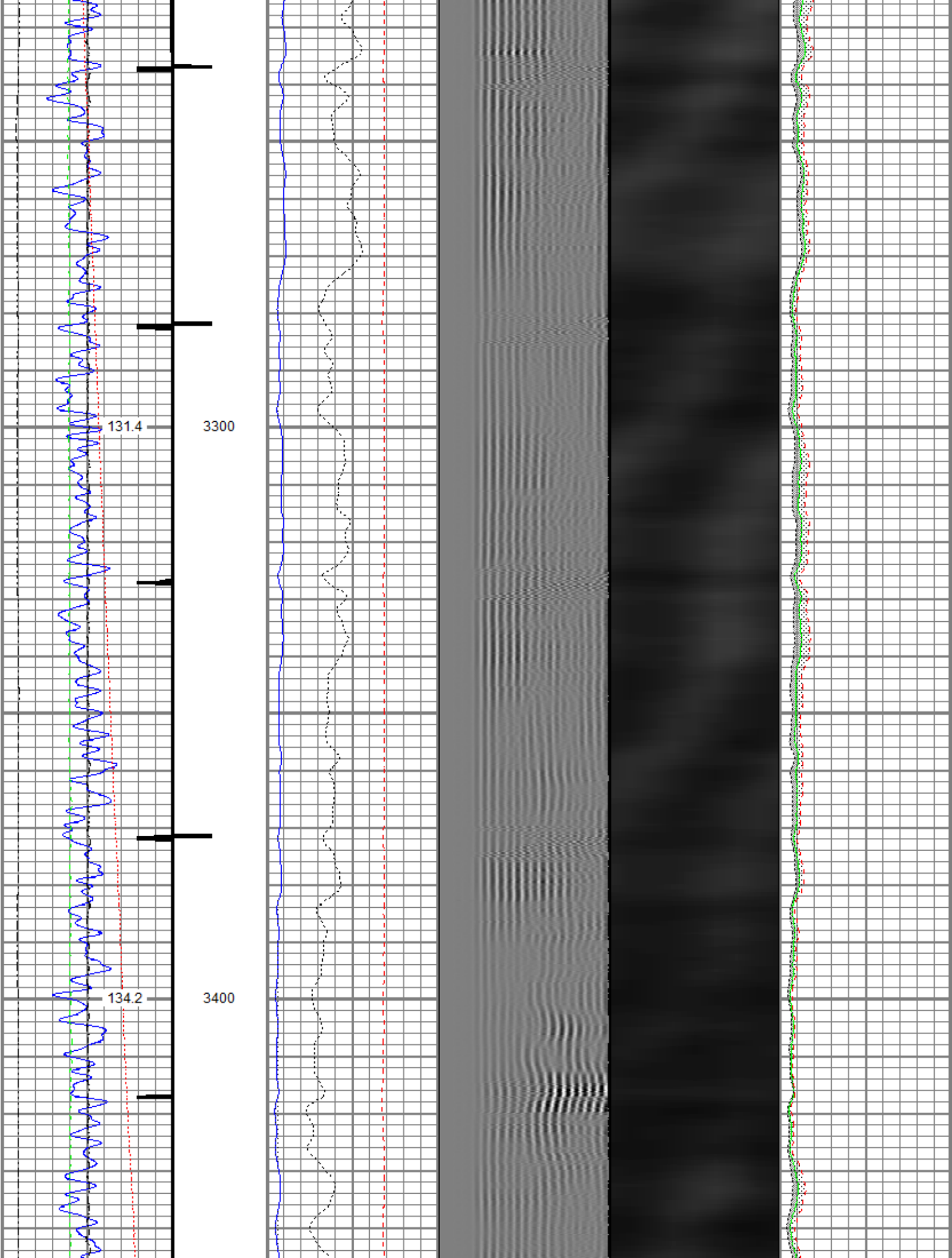


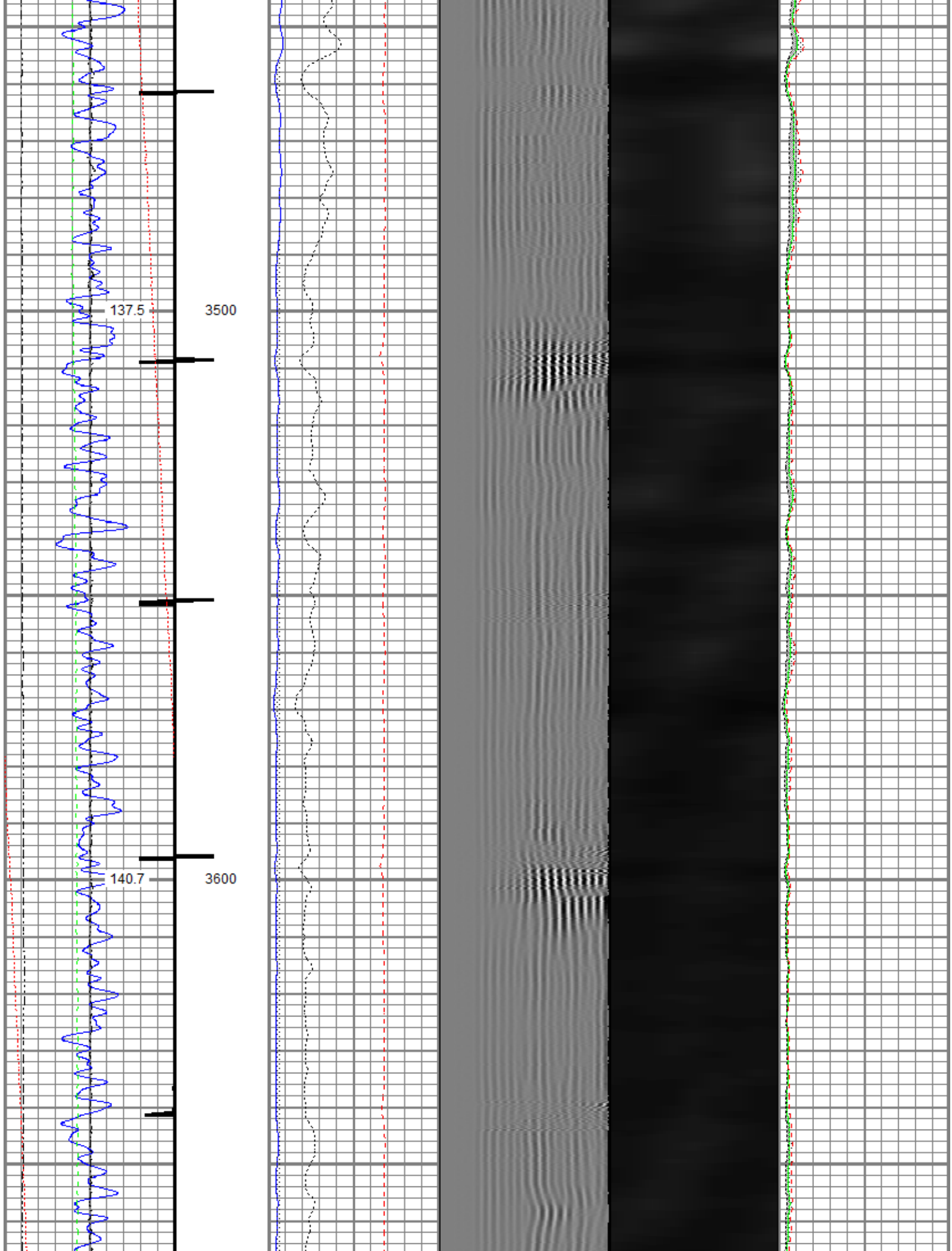


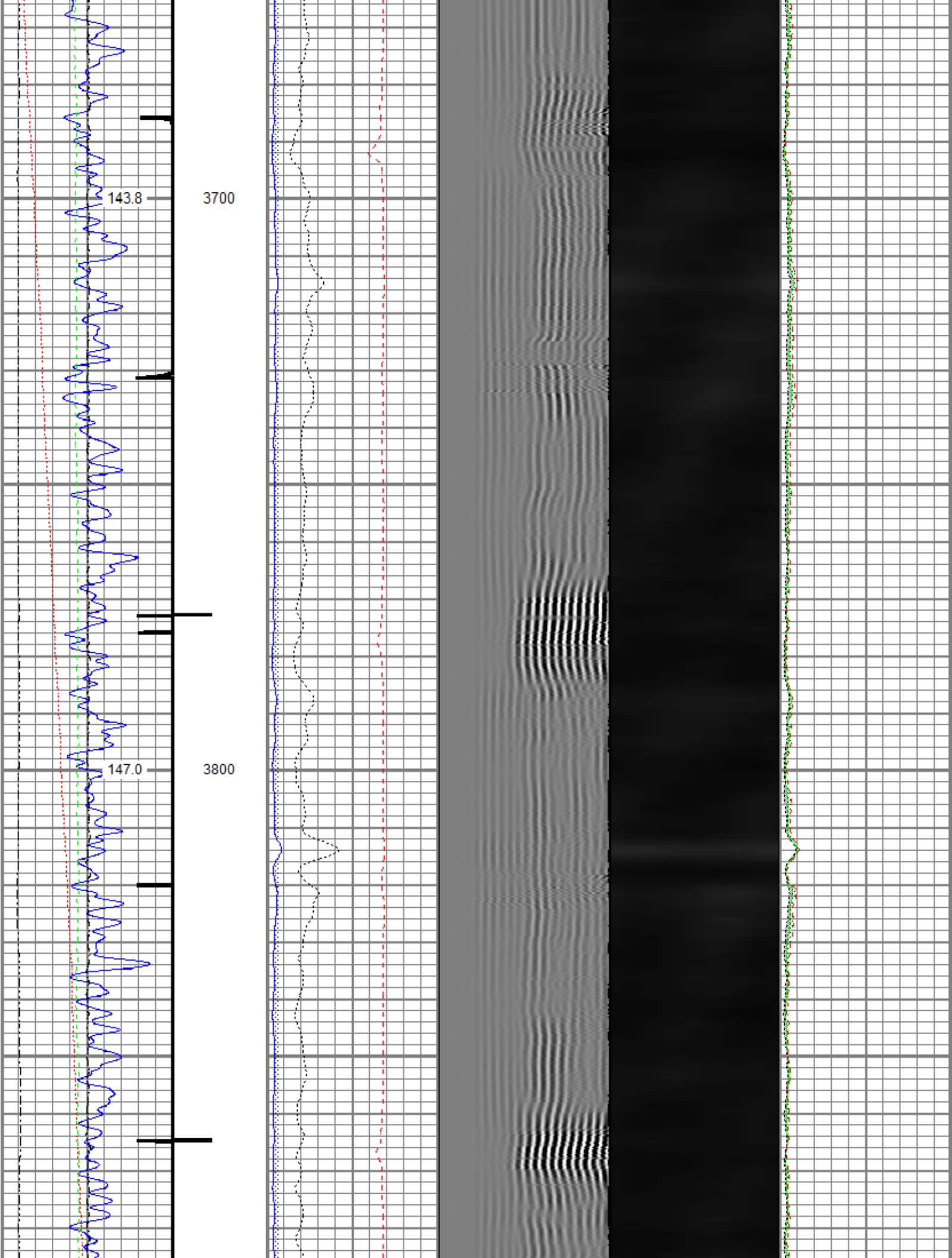


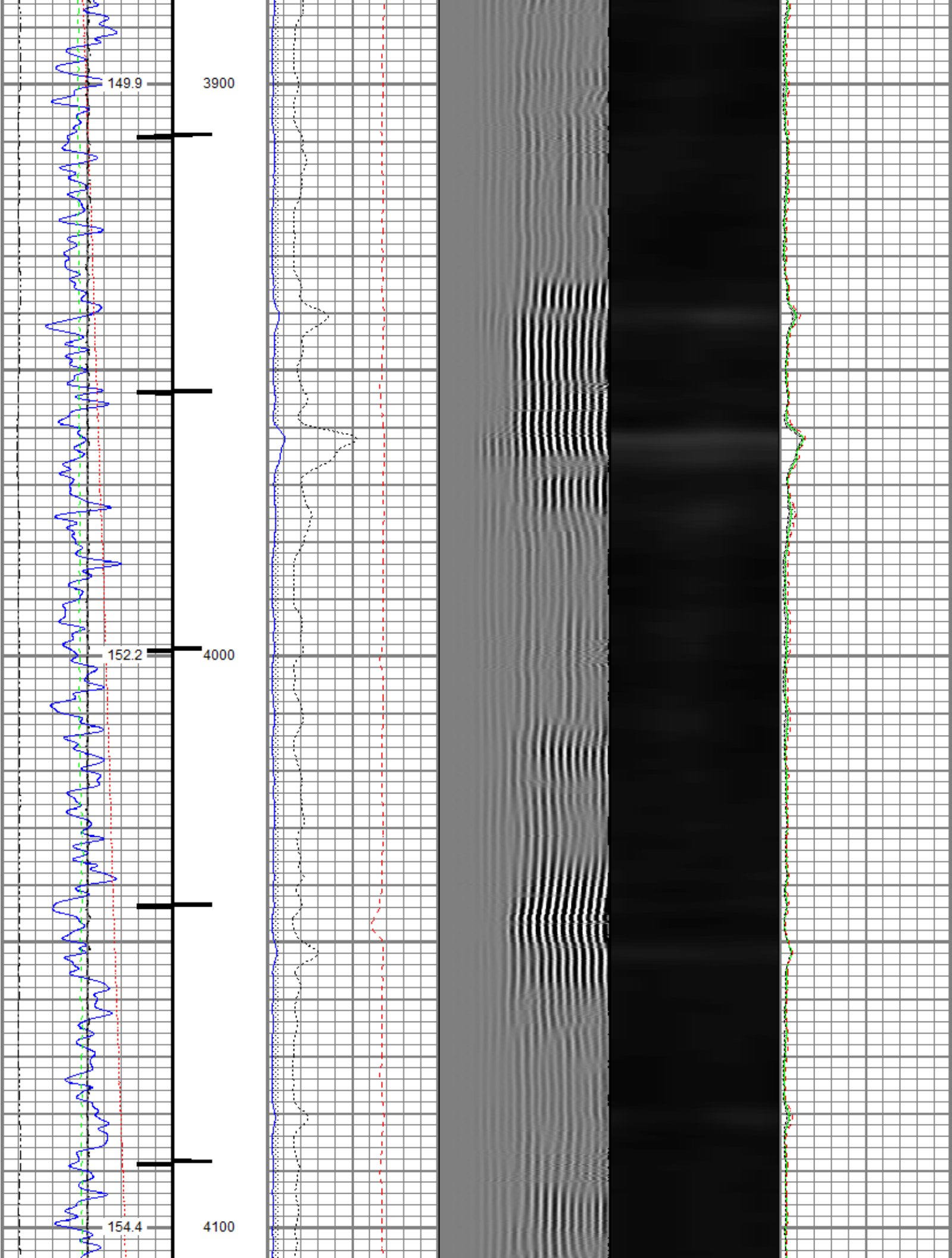


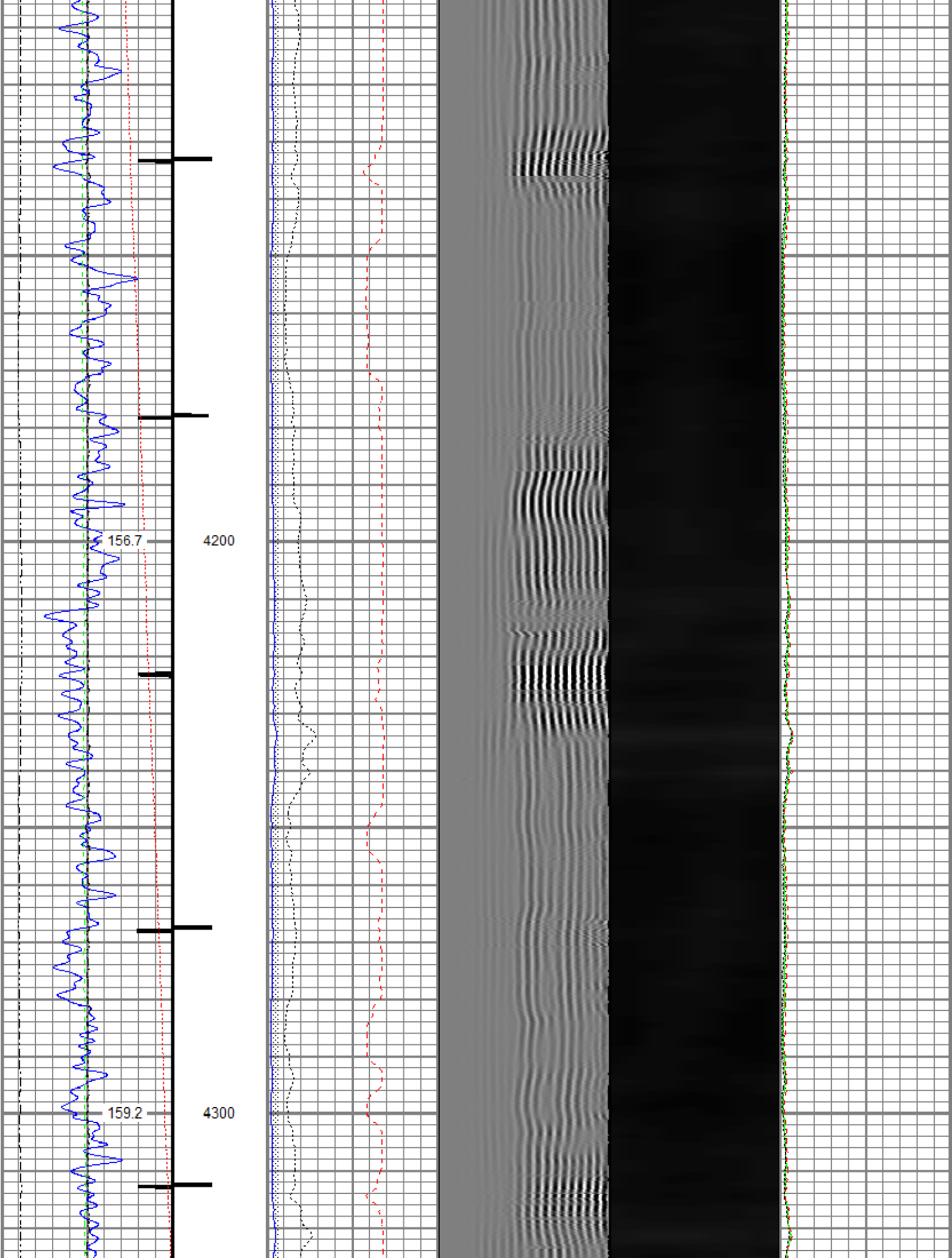


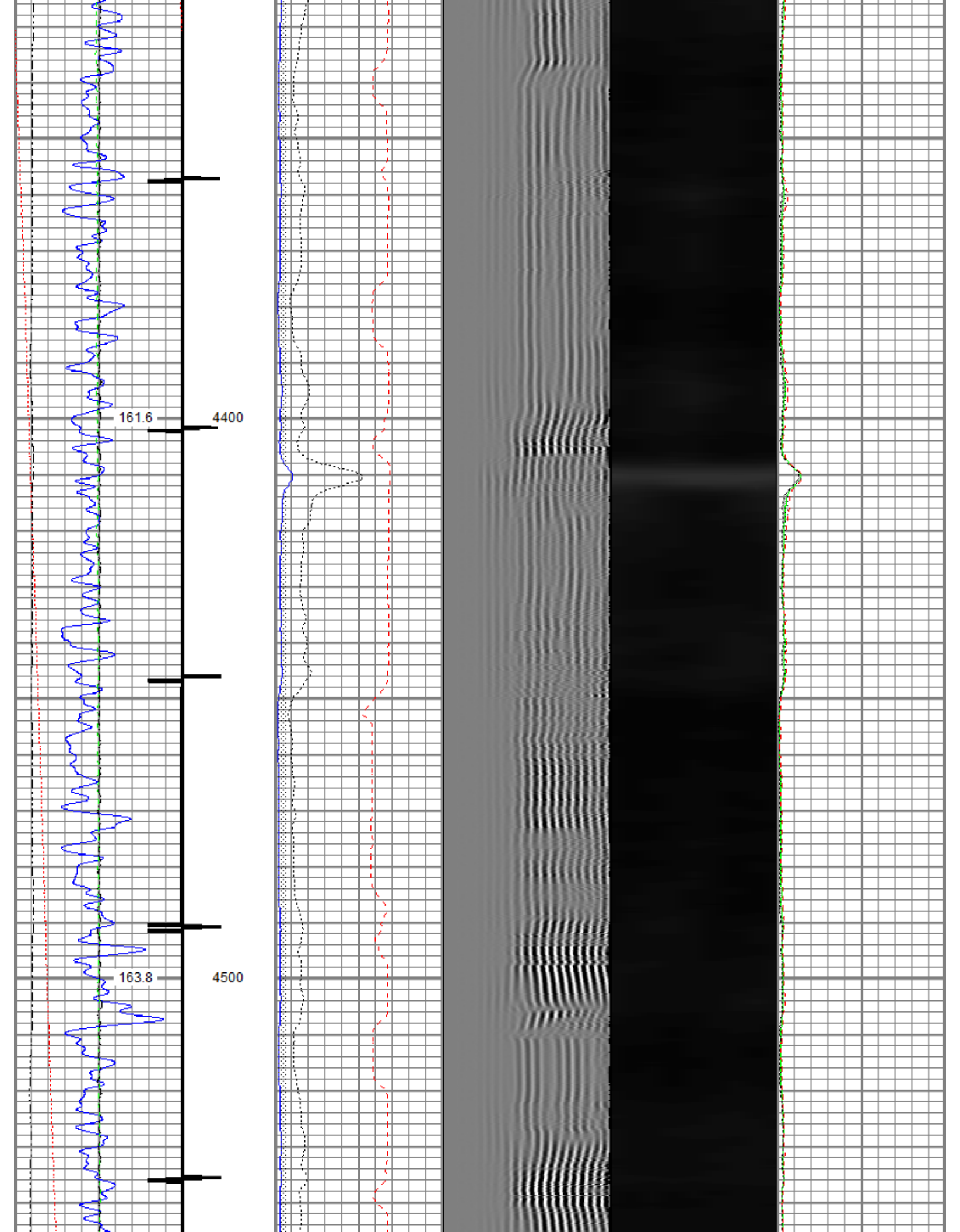


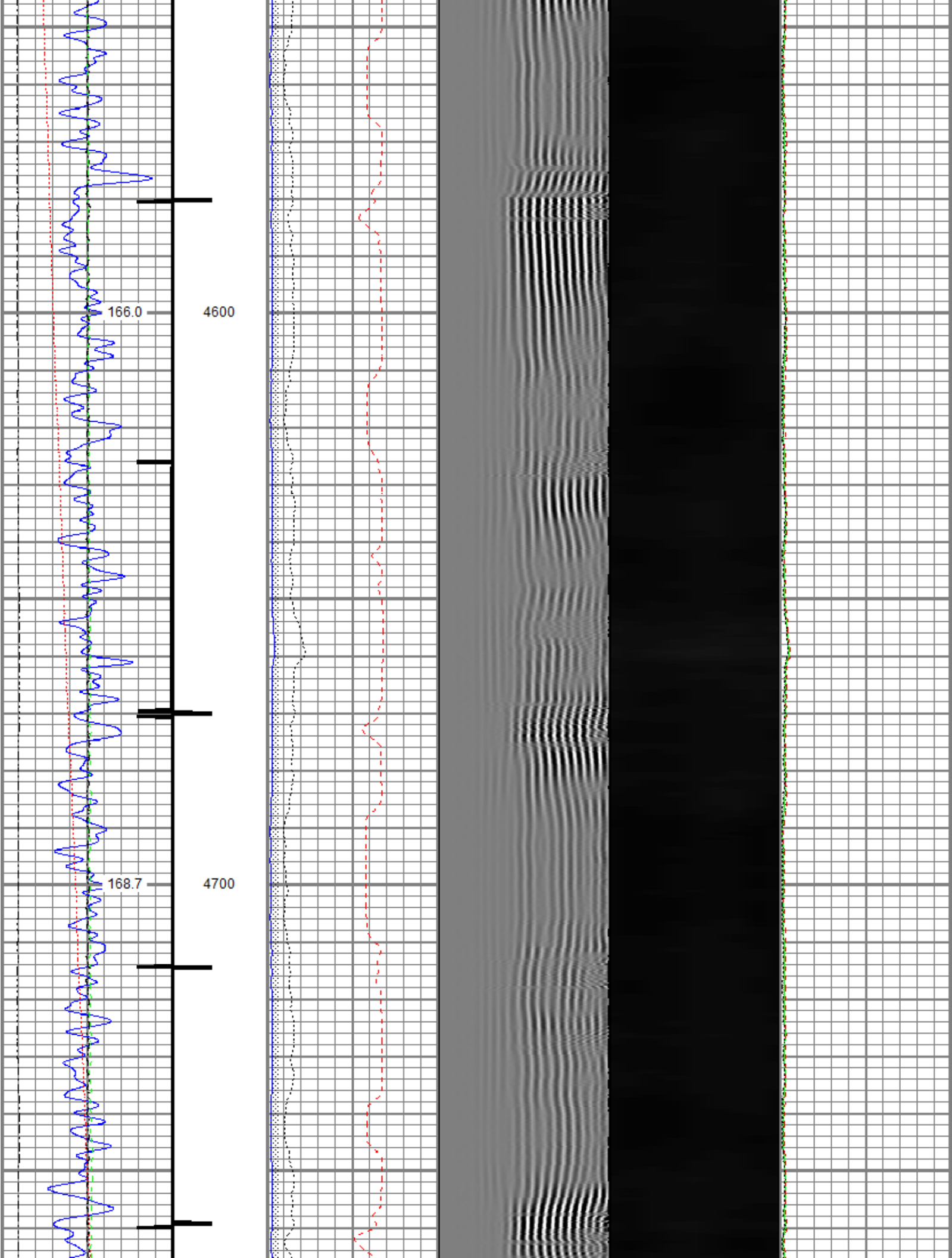


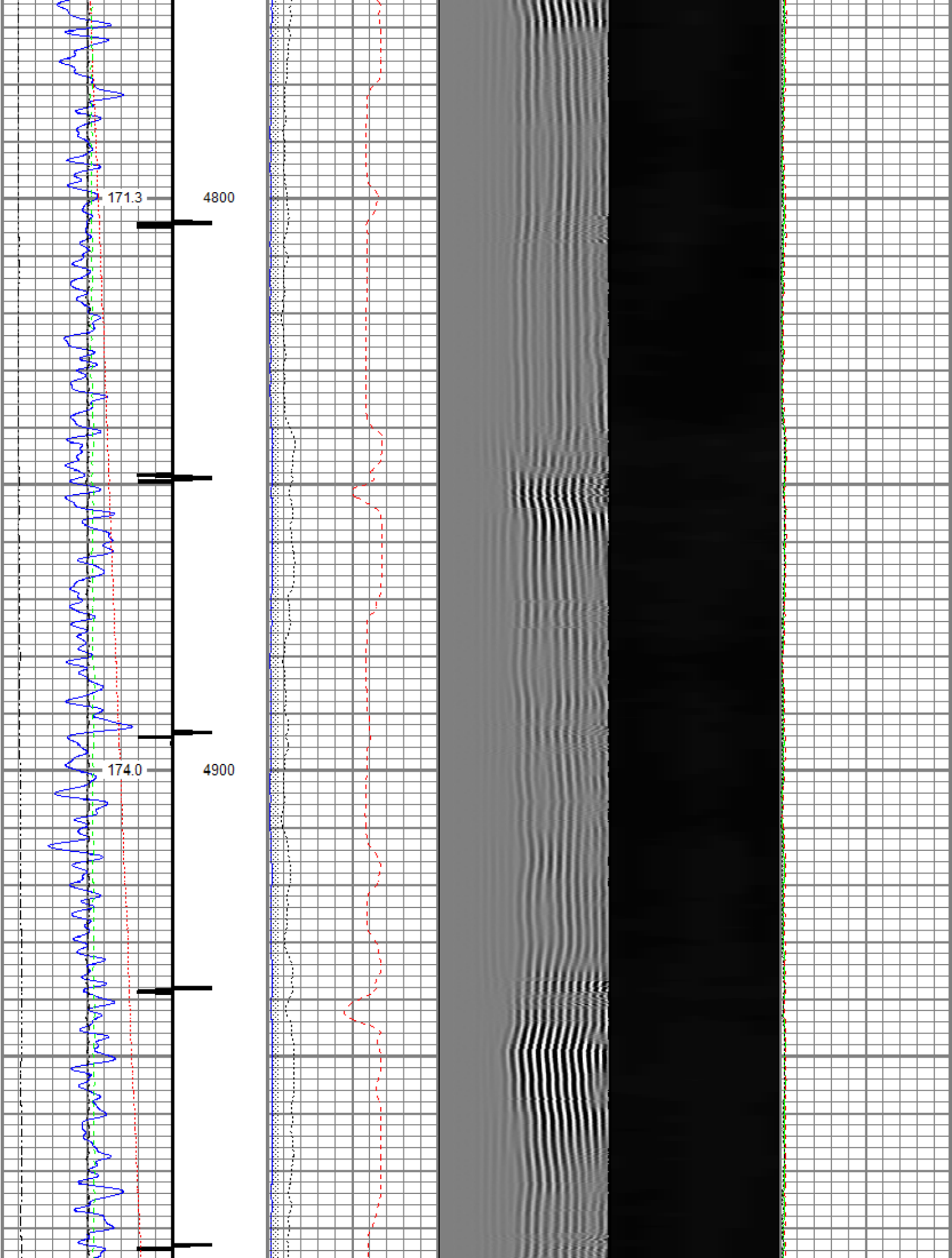


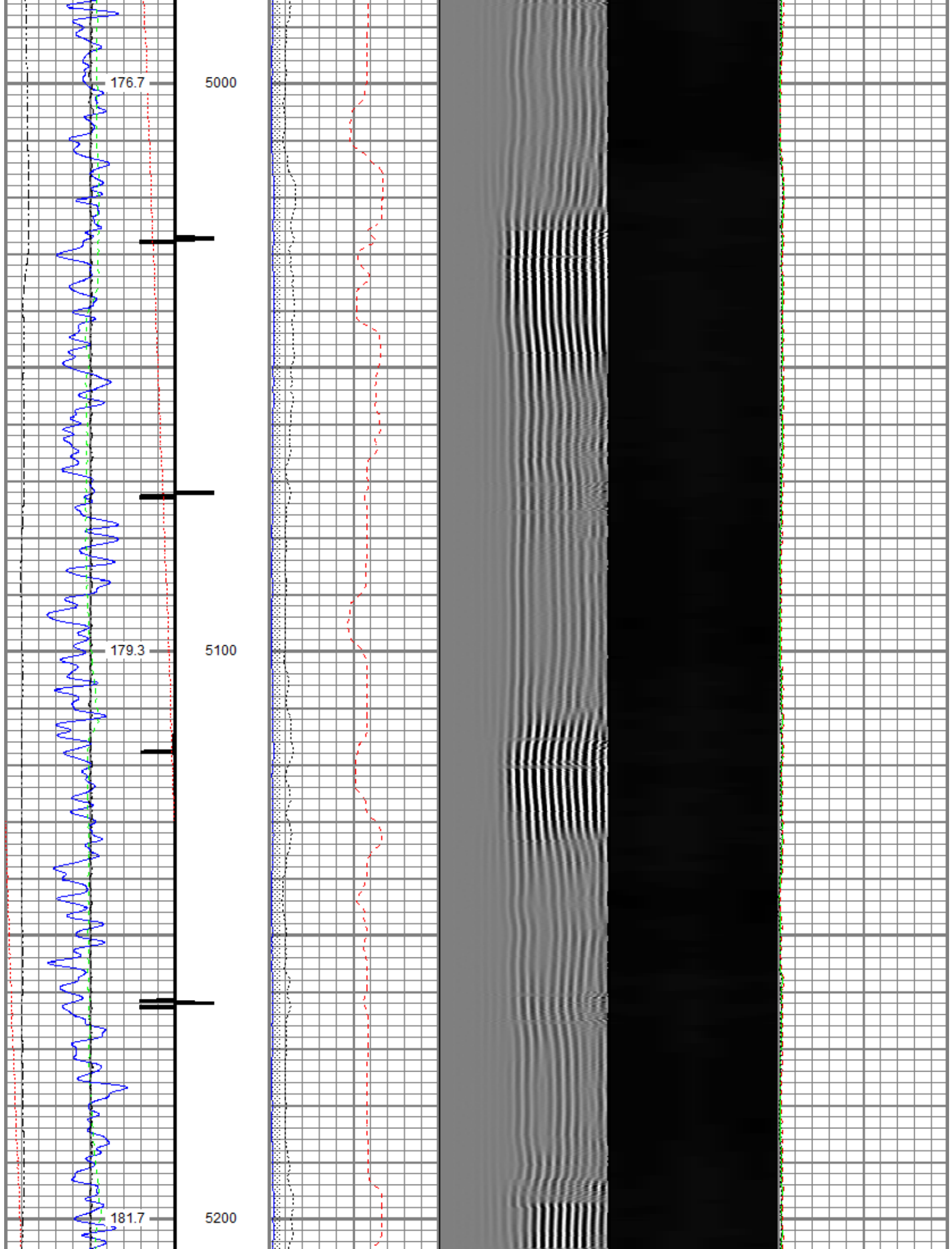


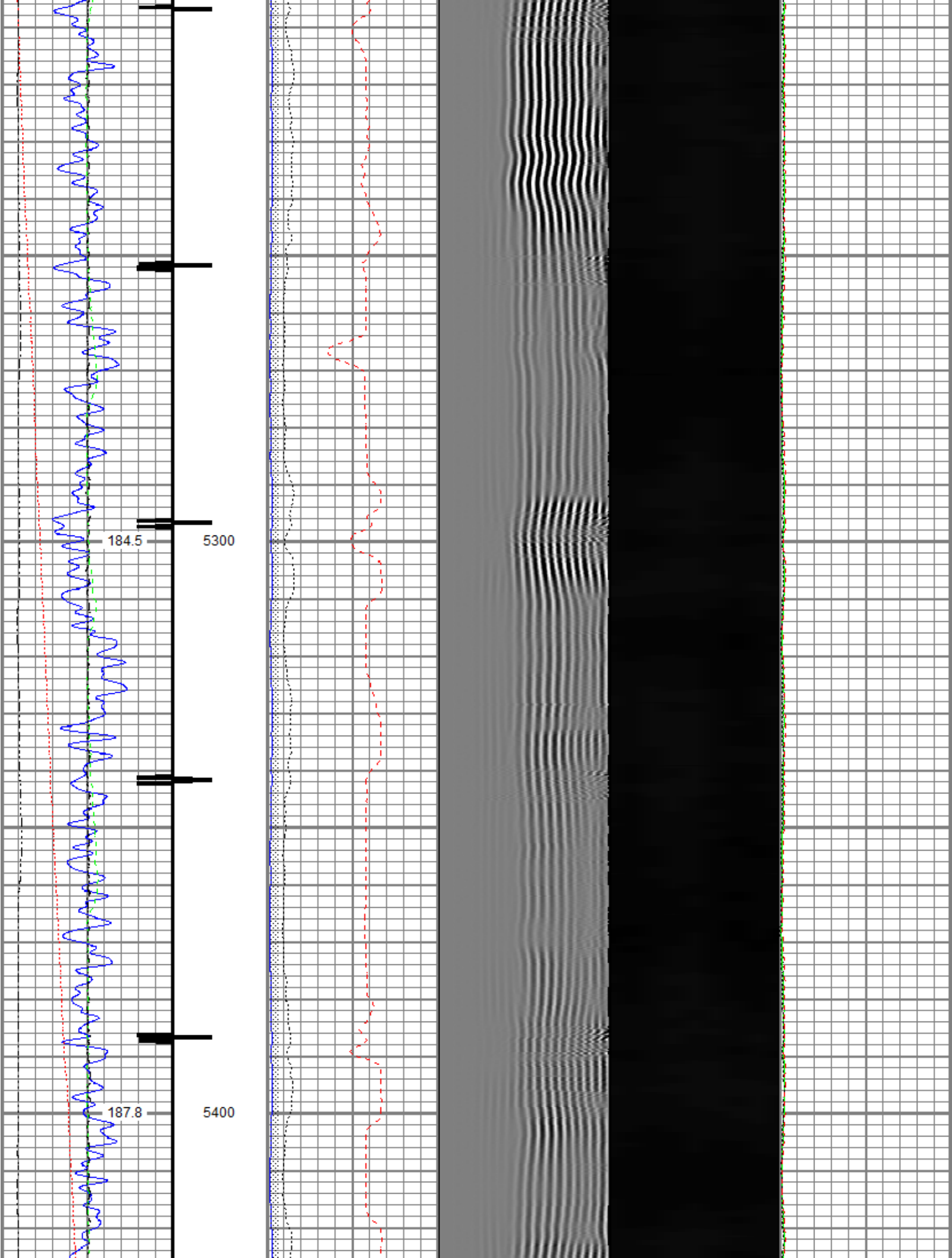


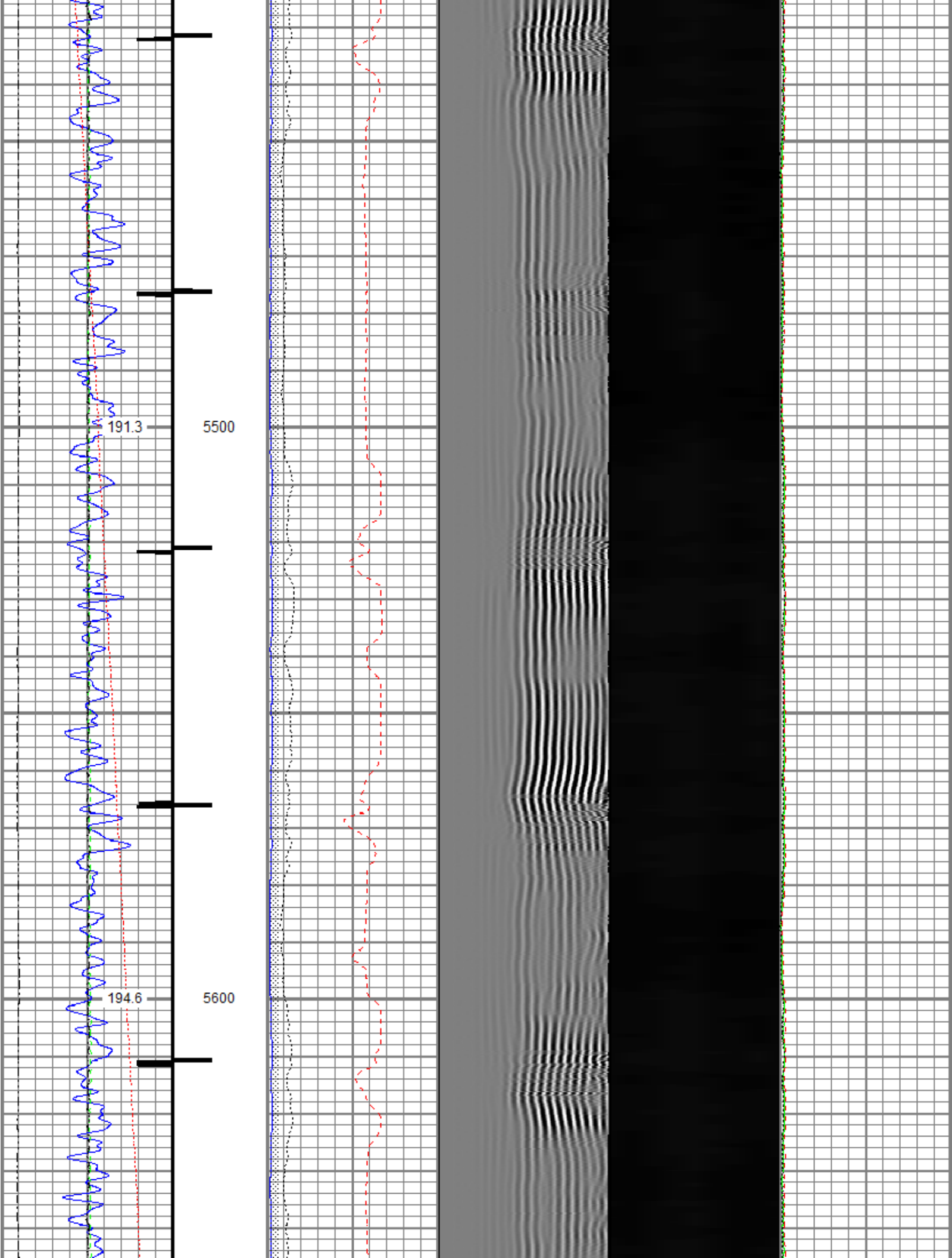


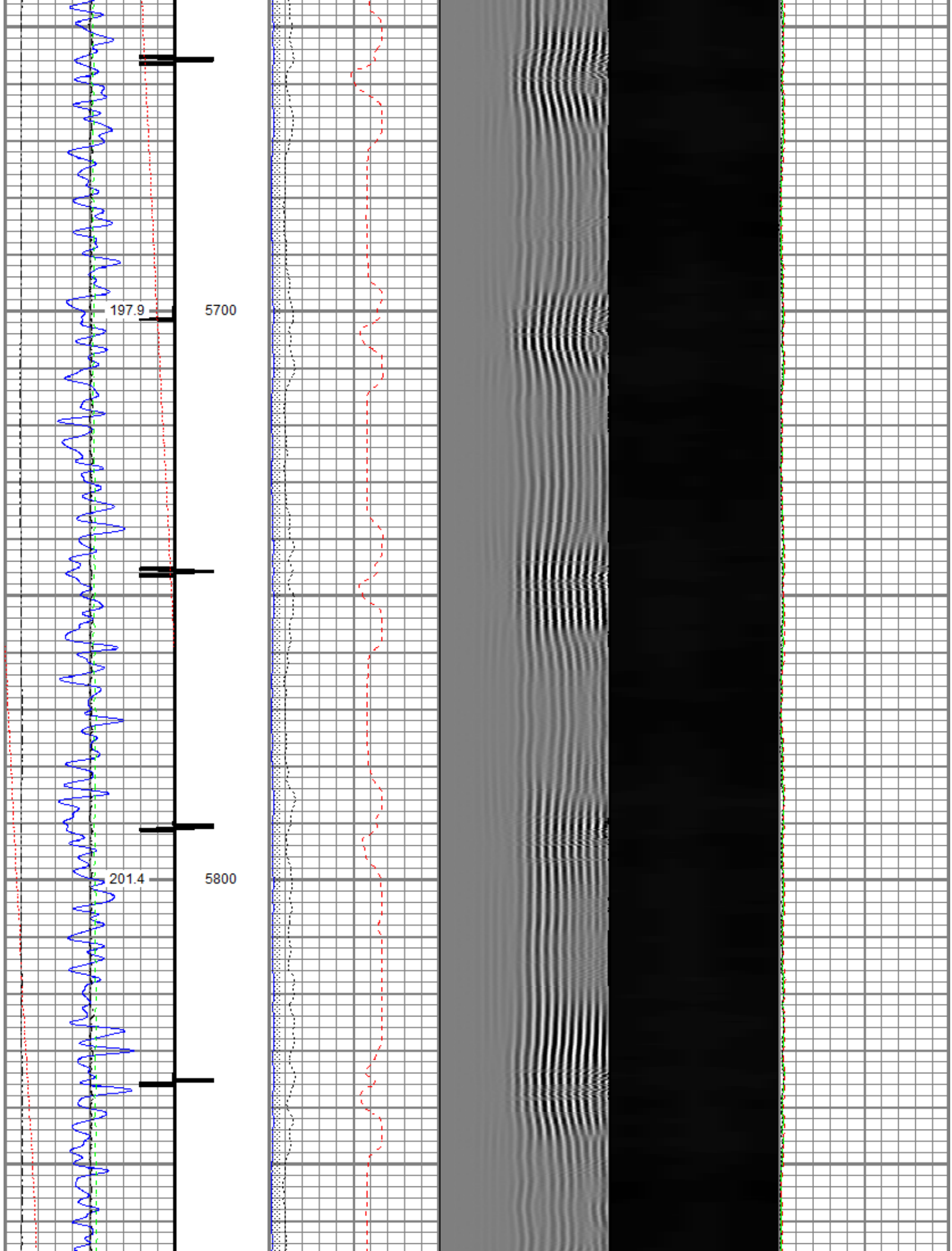


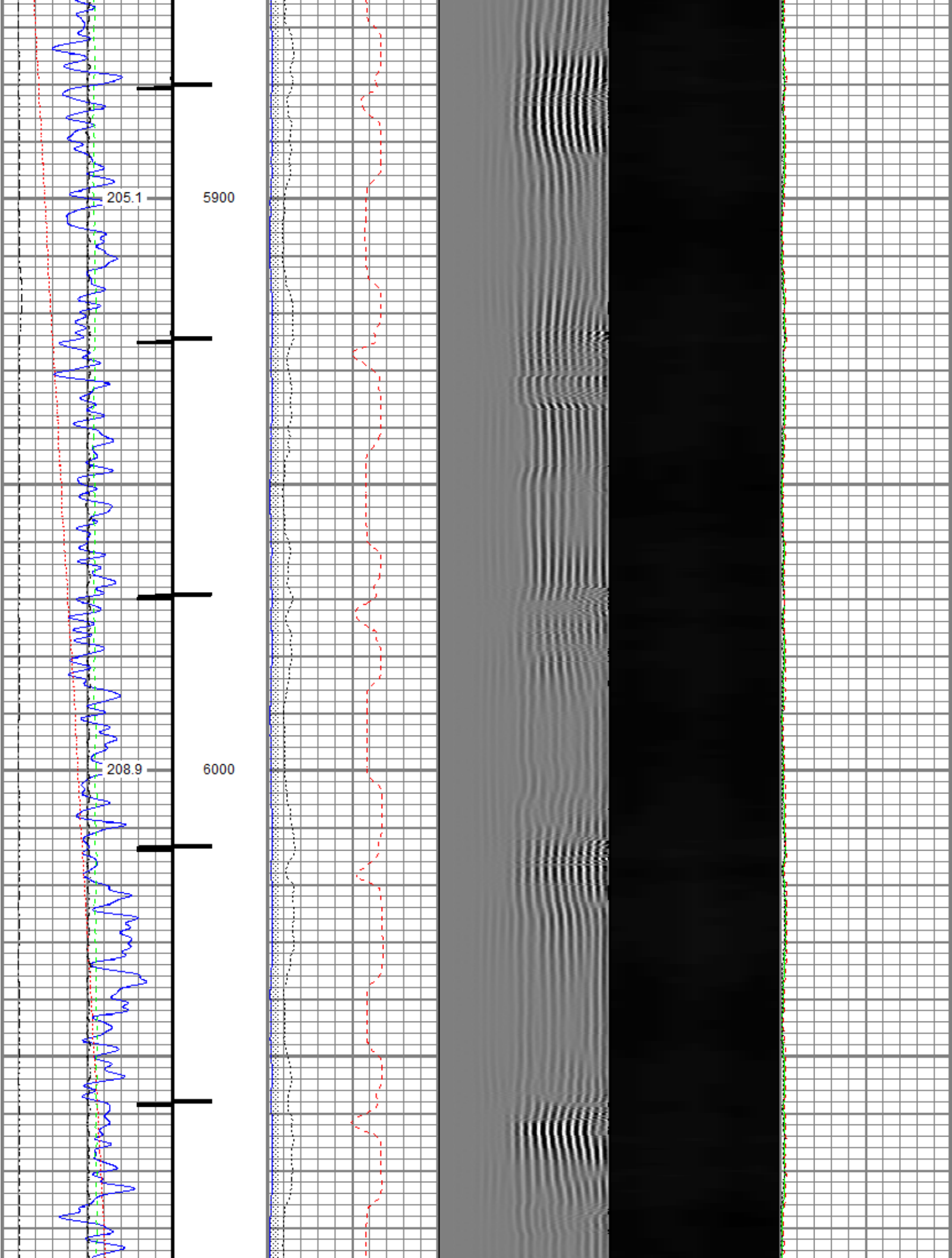


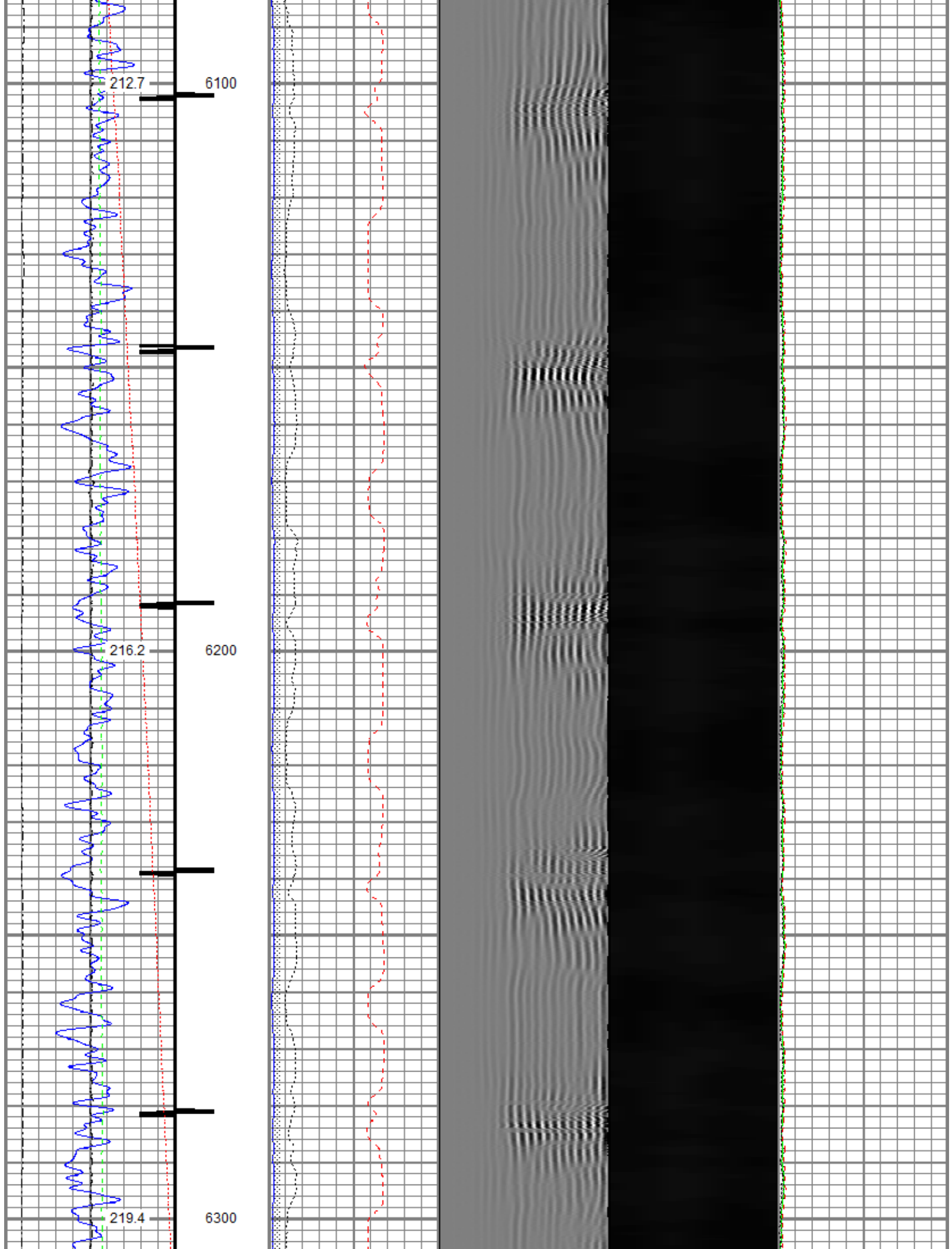


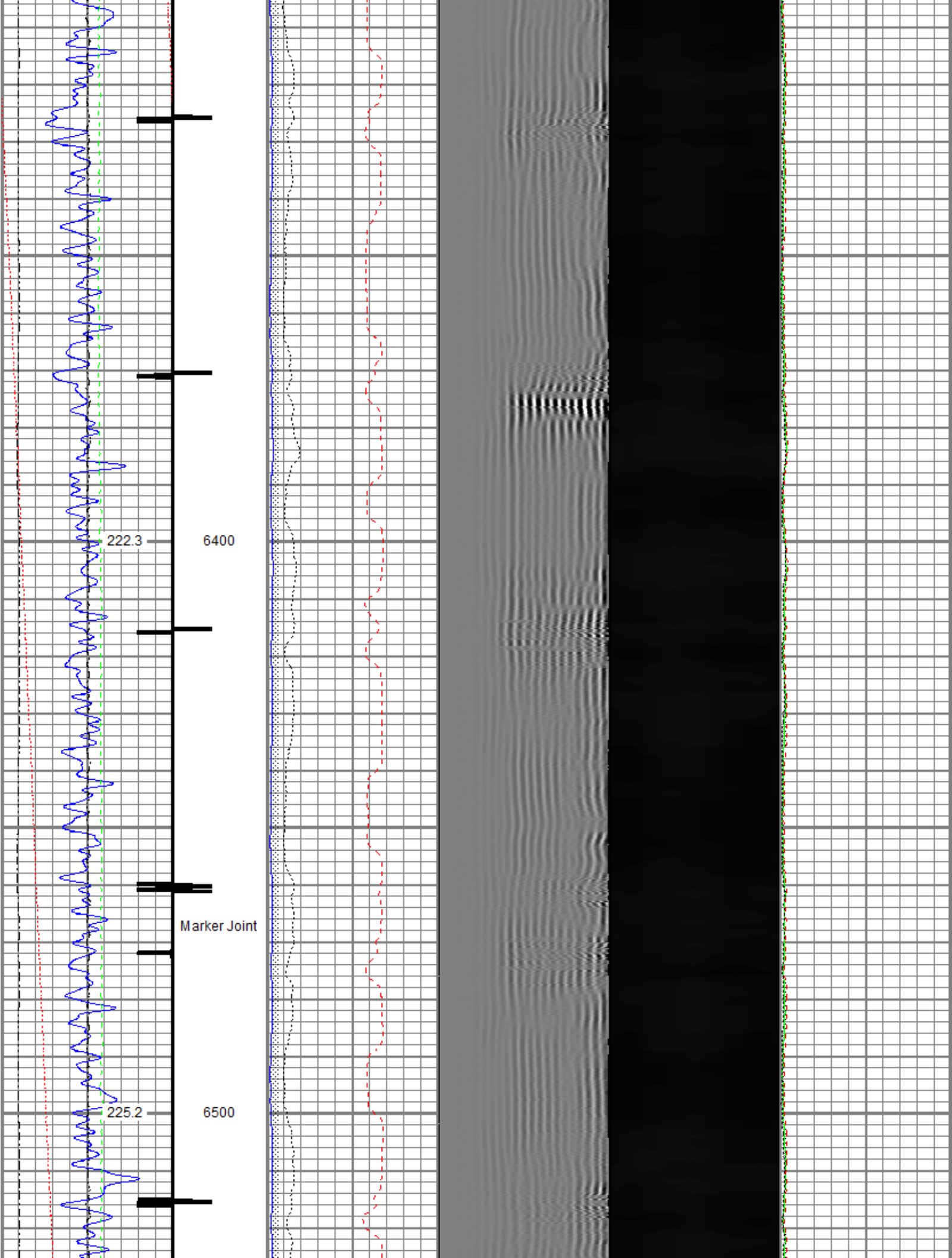


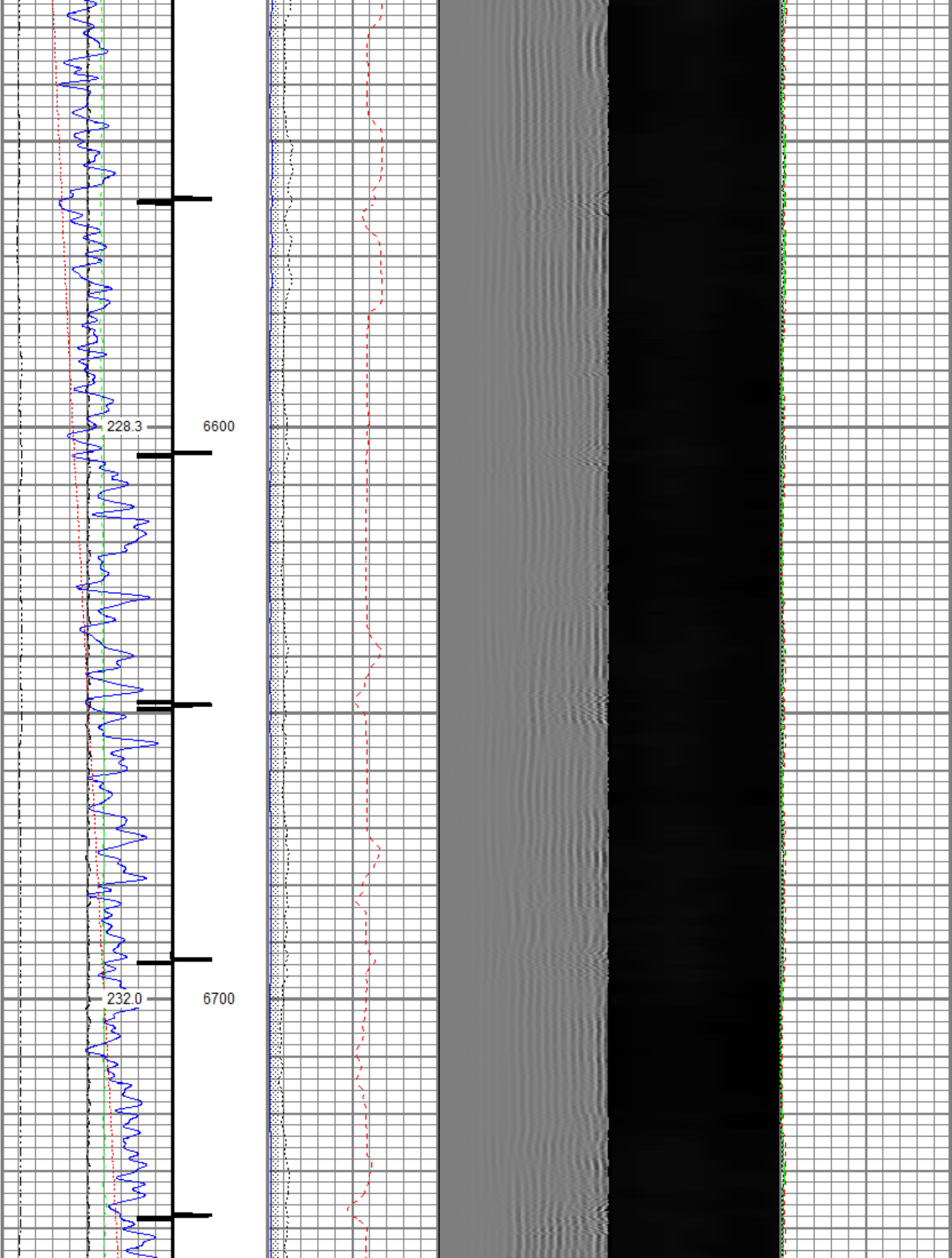


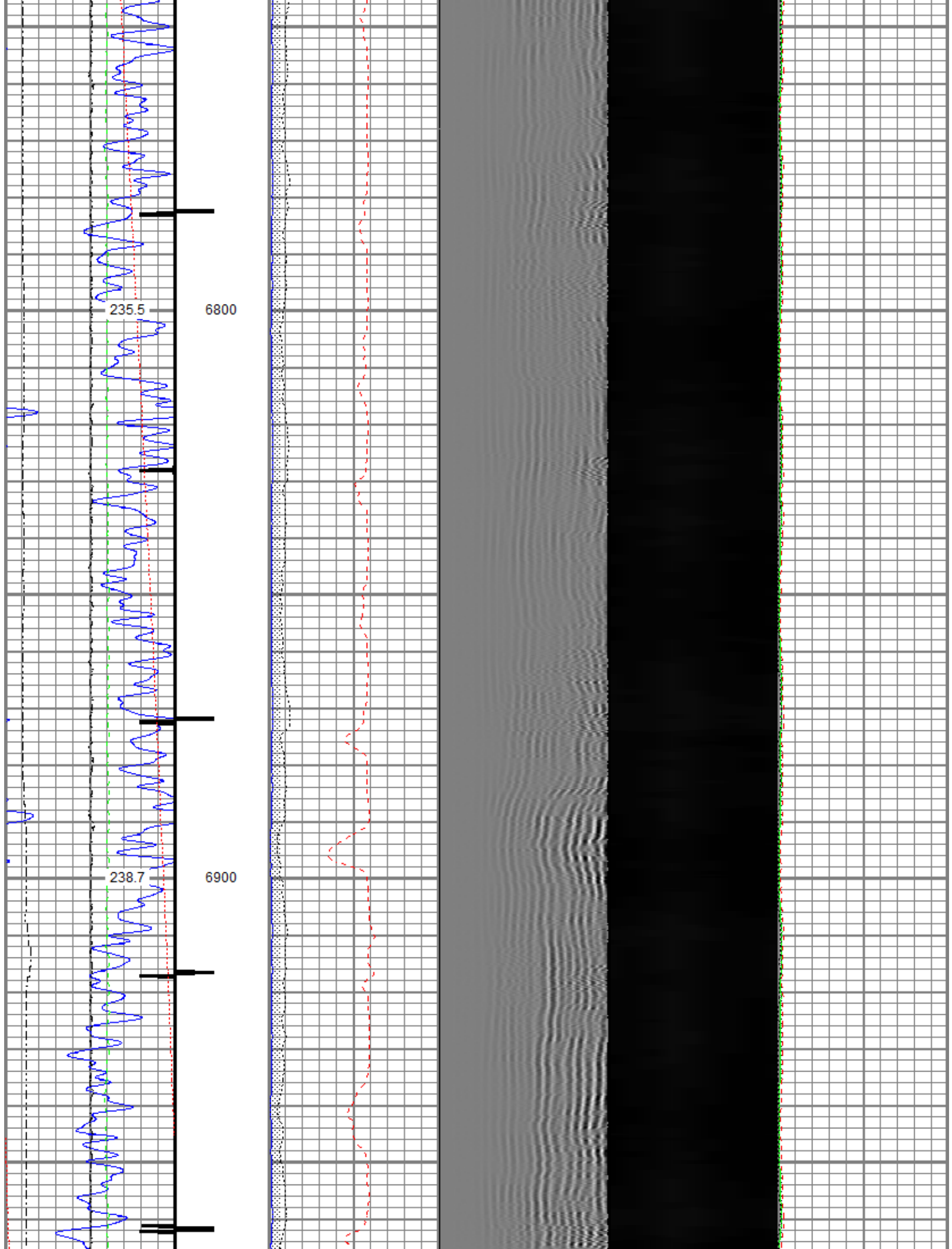


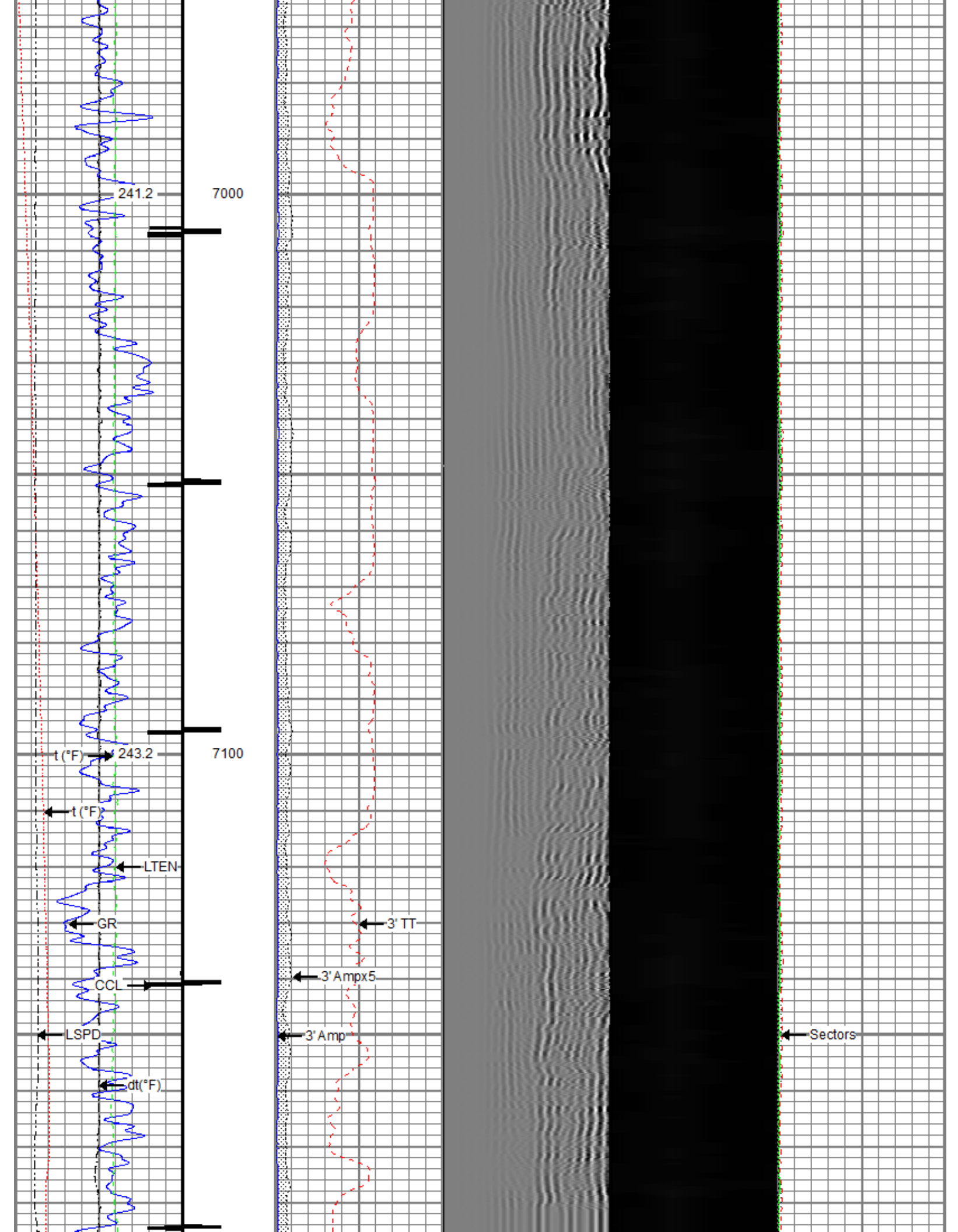


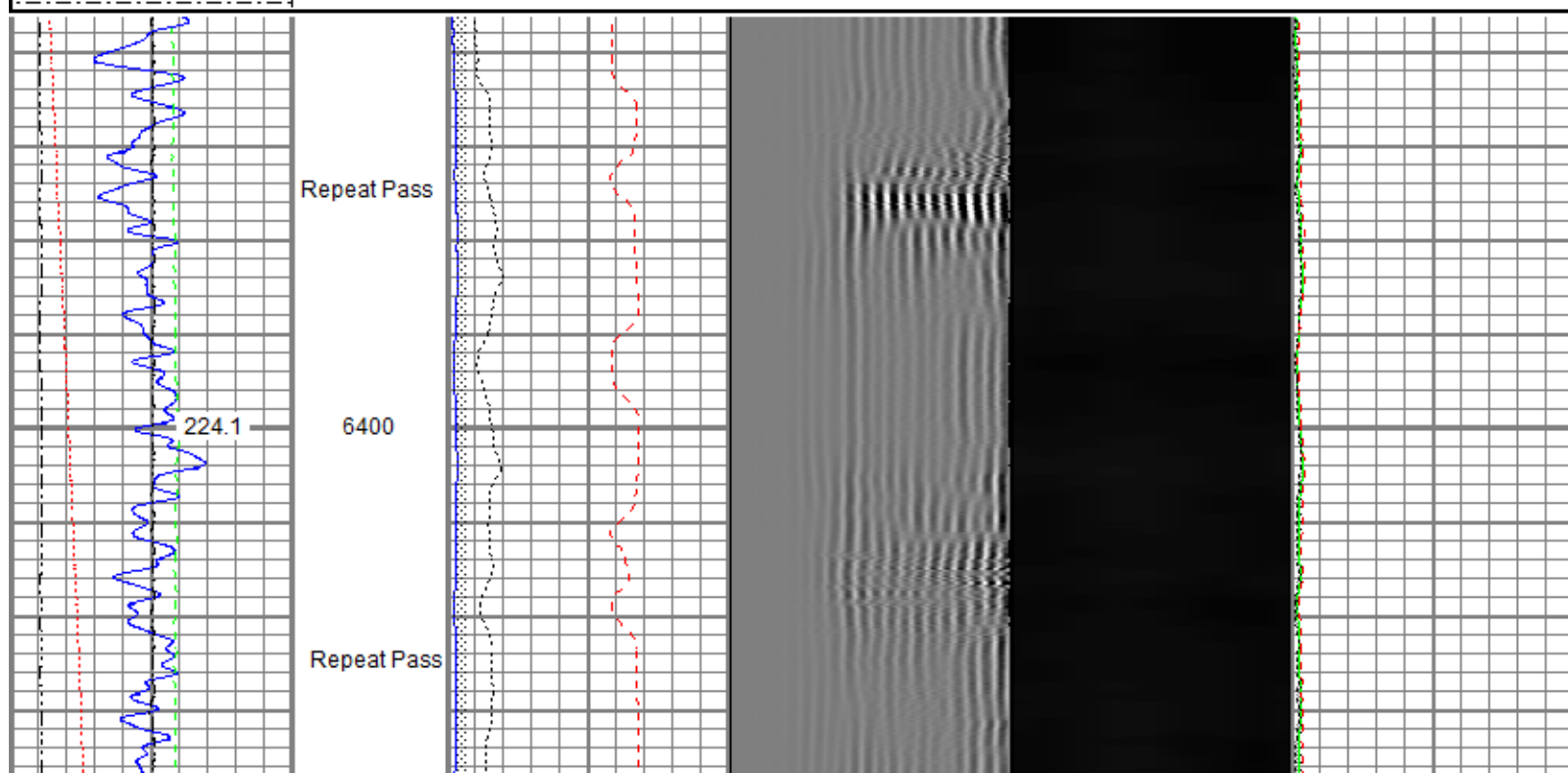
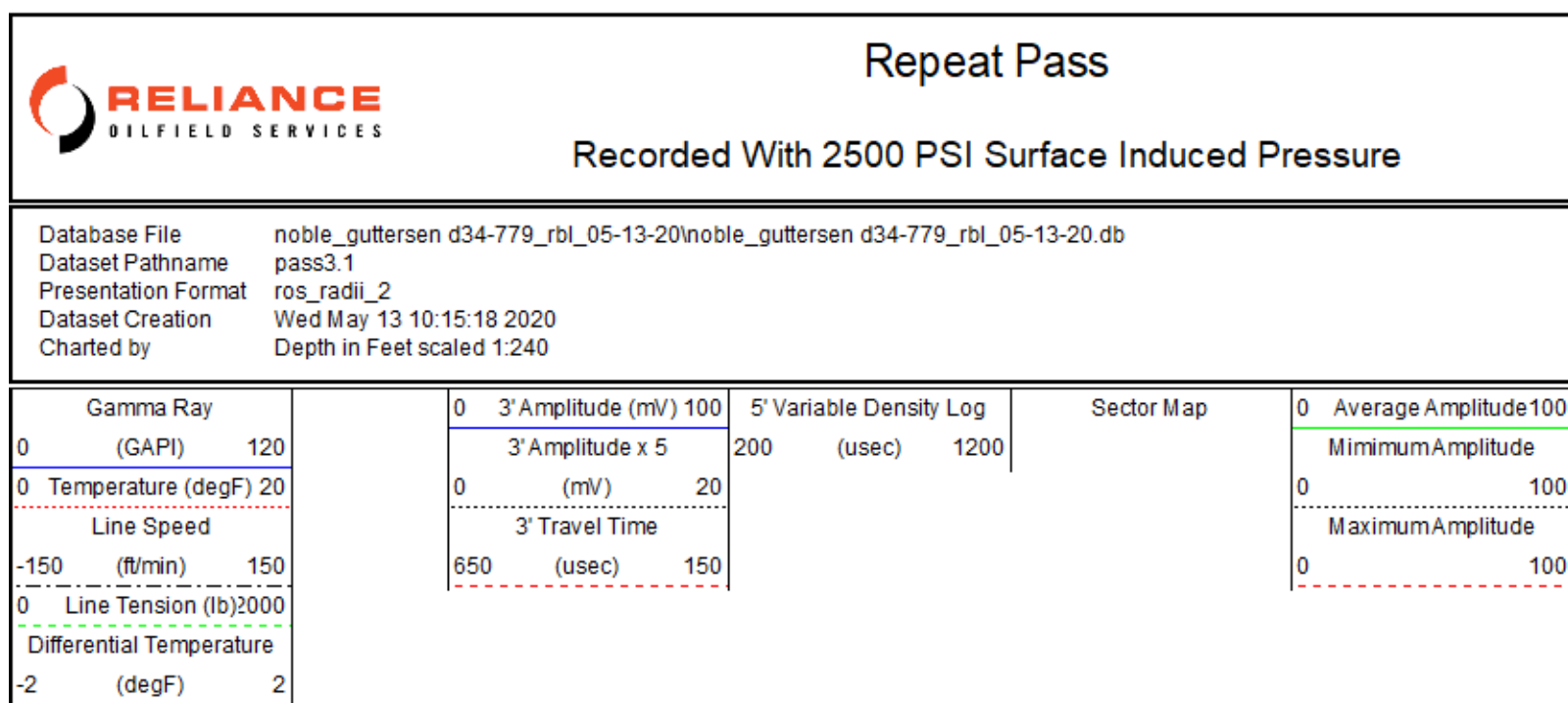
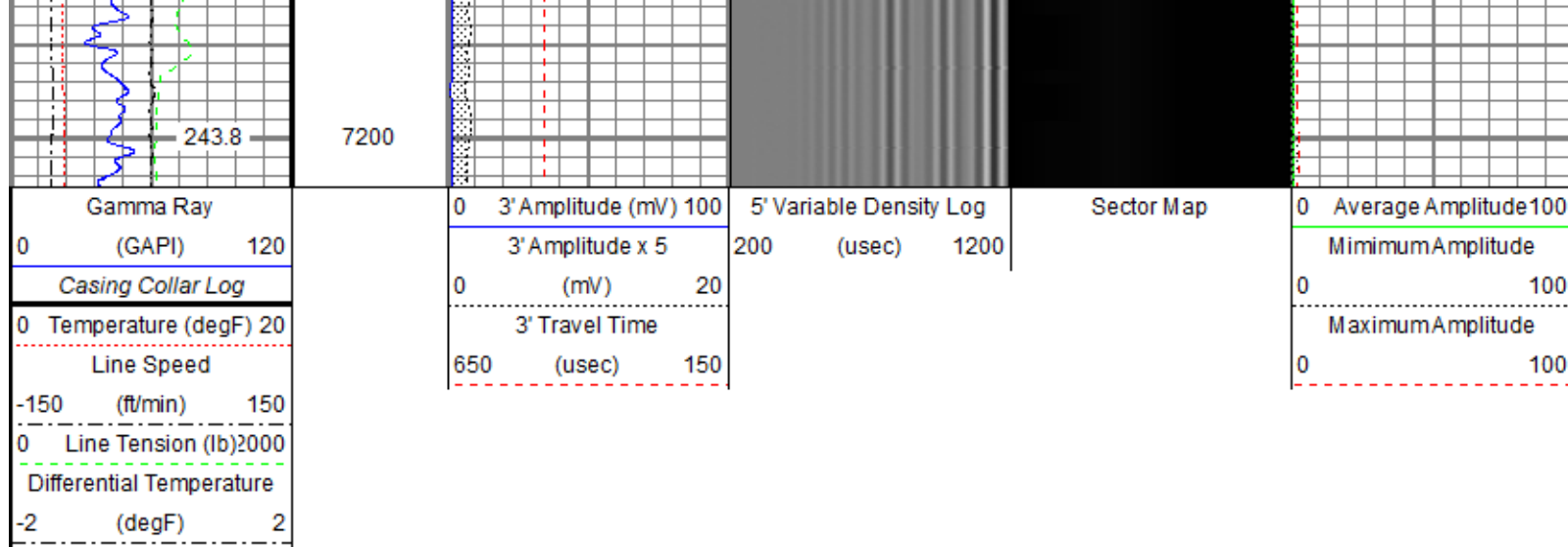


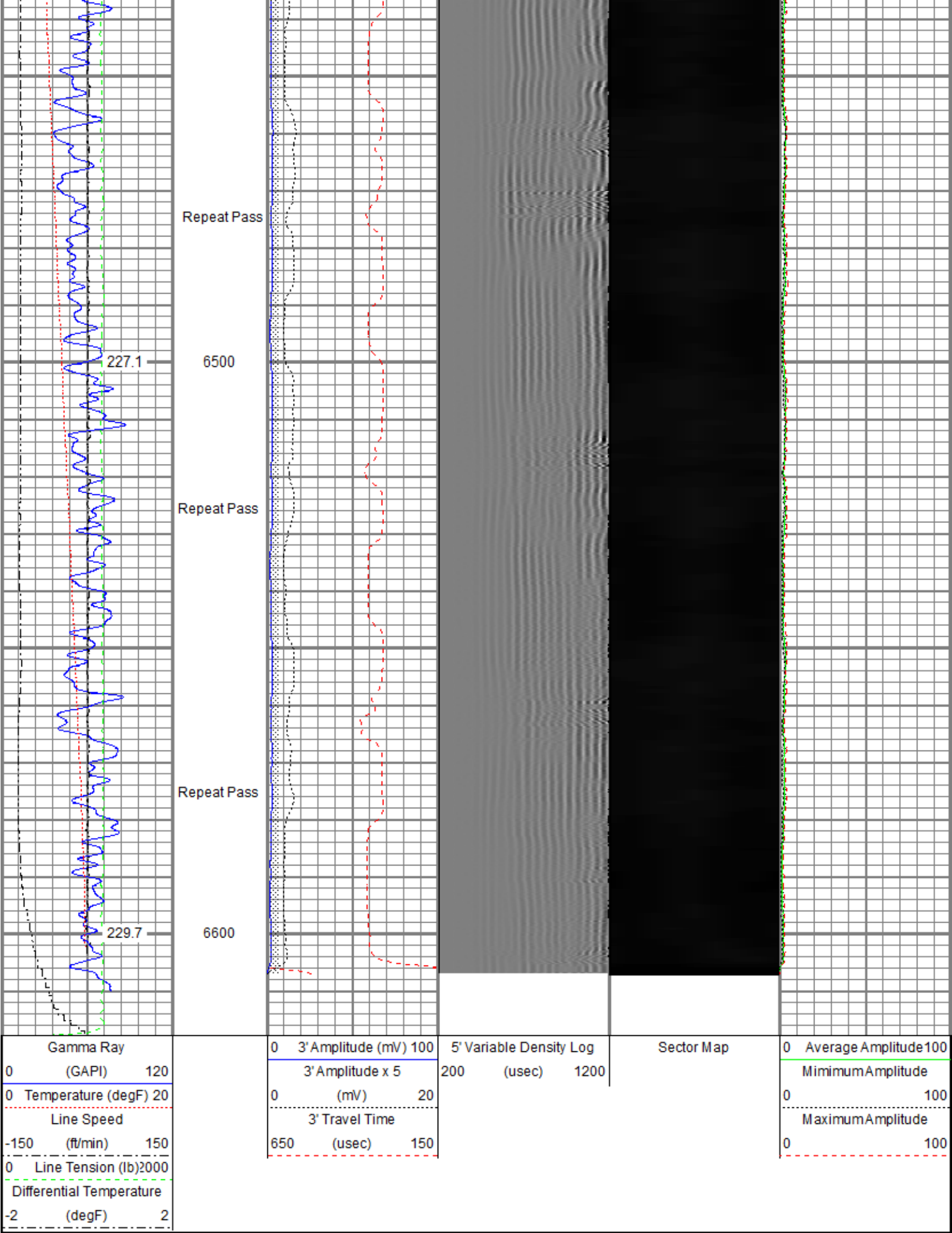












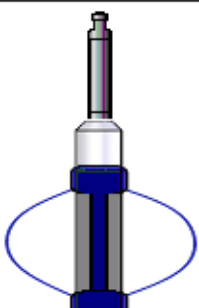

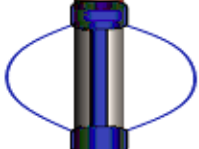


Gamma Ray		
0	(GAPI)	120
Temperature (degF)		
0		20
Line Speed		
-150	(ft/min)	150
Line Tension (lb)		
0		2000
Differential Temperature		
-2	(degF)	2

0	3' Amplitude (mV)	100
3' Amplitude x 5		
0	(mV)	20
3' Travel Time		
650	(usec)	150

5' Variable Density Log		
200	(usec)	1200

Sector Map

0	Average Amplitude	100
Minimum Amplitude		
0		100
Maximum Amplitude		
0		100

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
TEMP	14.16		Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	3.60
			SO BS CENT-2750-5500 Slip Over 2-3/4" I.D. for 5-1/2" O.D. Casing Bow Spring Centralizer	1.50	3.25	11.00
WVFS8	11.93		Probe Radii-2750 RBT (120855) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	11.93					
WVFS6	11.93					
WVFS5	11.93					
WVFS4	11.93					
WVFS3	11.93					
WVFS2	11.93					
WVFS1	11.93					
WVFCAL	11.93					
WVF3FT	11.93					
WVF5FT	10.93					
CCL\$2	6.80		SO BS CENT-2750-5500 Slip Over 2-3/4" I.D. for 5-1/2" O.D. Casing Bow Spring Centralizer	1.50	3.25	11.00
CCL\$1	6.80					
GR	5.46		Probe GR-CCL-2750 6PB (FW1810-001) Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT	4.80	2.75	55.00
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
LOCTIM	0.00					
UTCTIM	0.00					

Dataset: Noble_Guttersen D34-779_RBL_05-13-20.db: field/well/run1/pass5.1
 Total length: 18.10 ft
 Total weight: 205.60 lb
 O.D.: 3.25 in

Calibration Report

Database File C:\ProgramData\Warrior\Data\Noble_Guttersen D34-779_RBL_05-13-20\Noble_Guttersen D34-779_RBL_05-13-20.db
 Dataset Pathname pass5.1
 Dataset Creation Wed May 13 09:35:55 2020

Gamma Ray Calibration Report

Serial Number: FW1810-001
 Tool Model: 2750 6PB
 Performed: Tue Dec 03 09:24:53 2019

Calibrator Value: 637.0 GAPI

Background Reading: 100.1 cps
 Calibrator Reading: 1264.5 cps

Sensitivity: 0.5471 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 120855
 Tool Model: 2750 RBT

Calibration Casing Diameter: 5.500 in
 Calibration Depth: 91.098 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	0.594	0.800	71.921	121.403	-0.145
CAL	0.007	0.593				
5'	0.007	0.524	0.800	71.921	137.767	-0.226
SUM						
S1	0.004	0.562	0.000	100.000	179.047	-0.654
S2	0.008	0.592	0.000	100.000	171.037	-1.332
S3	0.007	0.617	0.000	100.000	163.970	-1.196
S4	0.007	0.644	0.000	100.000	157.056	-1.132
S5	0.008	0.641	0.000	100.000	157.959	-1.262
S6	0.008	0.606	0.000	100.000	167.059	-1.264
S7	0.008	0.563	0.000	100.000	180.291	-1.456
S8	0.008	0.545	0.000	100.000	186.378	-1.550

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.007	0.593	1.000	0.000

Air Zero Calibration, performed Wed May 13 07:41:45 2020:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.007		0.000		0.000	
5'	0.007		0.000		0.000	
SUM						
S1	0.007		0.000		-0.000	
S2	0.007		0.000		0.000	
S3	0.007		0.000		0.000	
S4	0.007		0.000		0.000	
S5	0.007		0.000		0.000	
S6	0.007		0.000		0.000	

S6	0.007	0.000	-0.000
S7	0.006	0.000	-0.000
S8	0.007	0.000	0.000

Temperature Calibration Report

Serial Number: 120855
Tool Model: 2750 RBT
Performed: Wed Dec 18 13:34:18 2019

	Reference	Reading
Low Reference:	100.00 degF	112.30 degF
High Reference:	350.00 degF	394.75 degF
Gain:	0.89	
Offset:	0.60	
Delta Spacing	1	



Company Noble Energy Inc
Well Guttersen D34-779
Field Wattenberg
County Weld
State Colorado