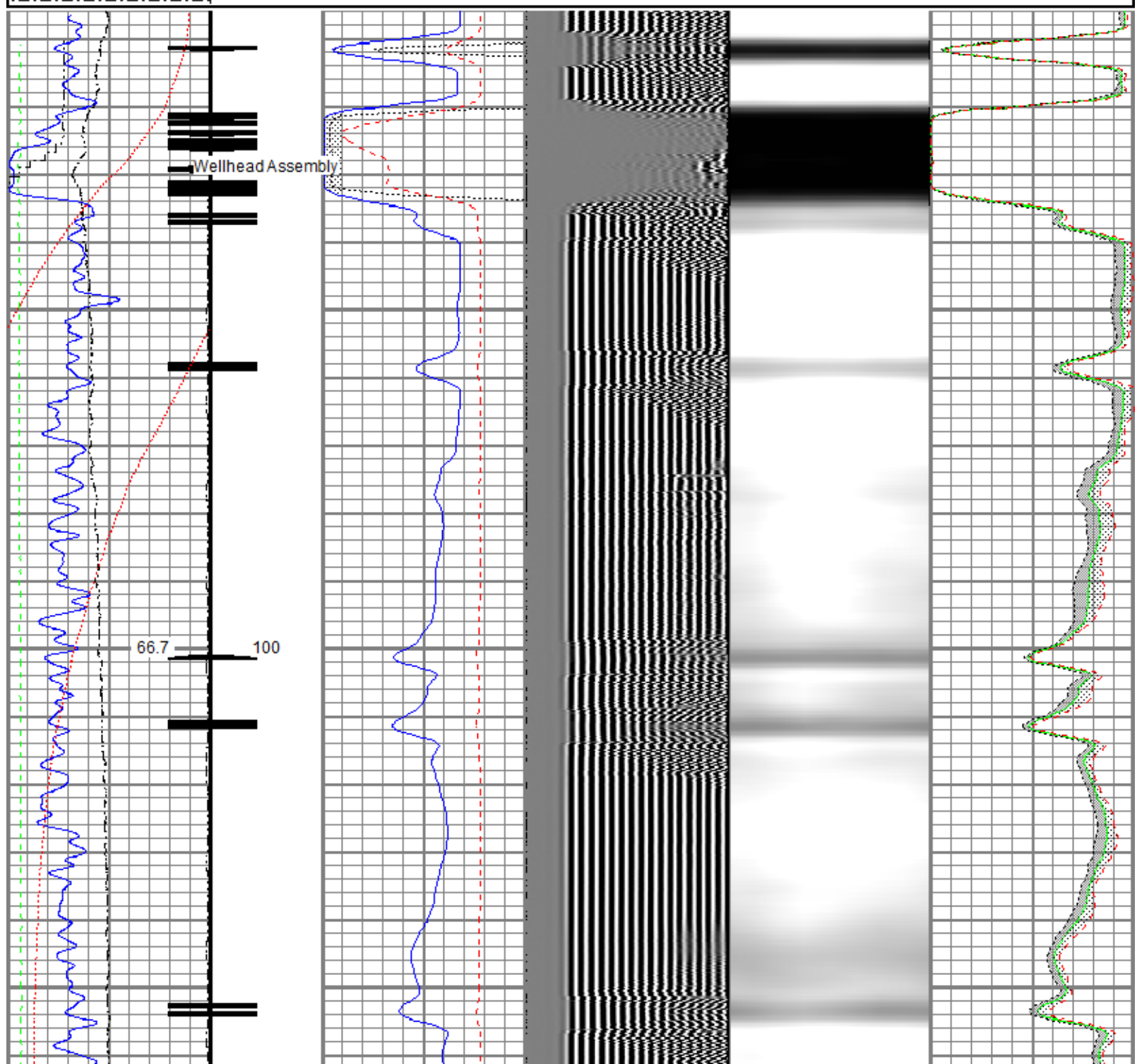


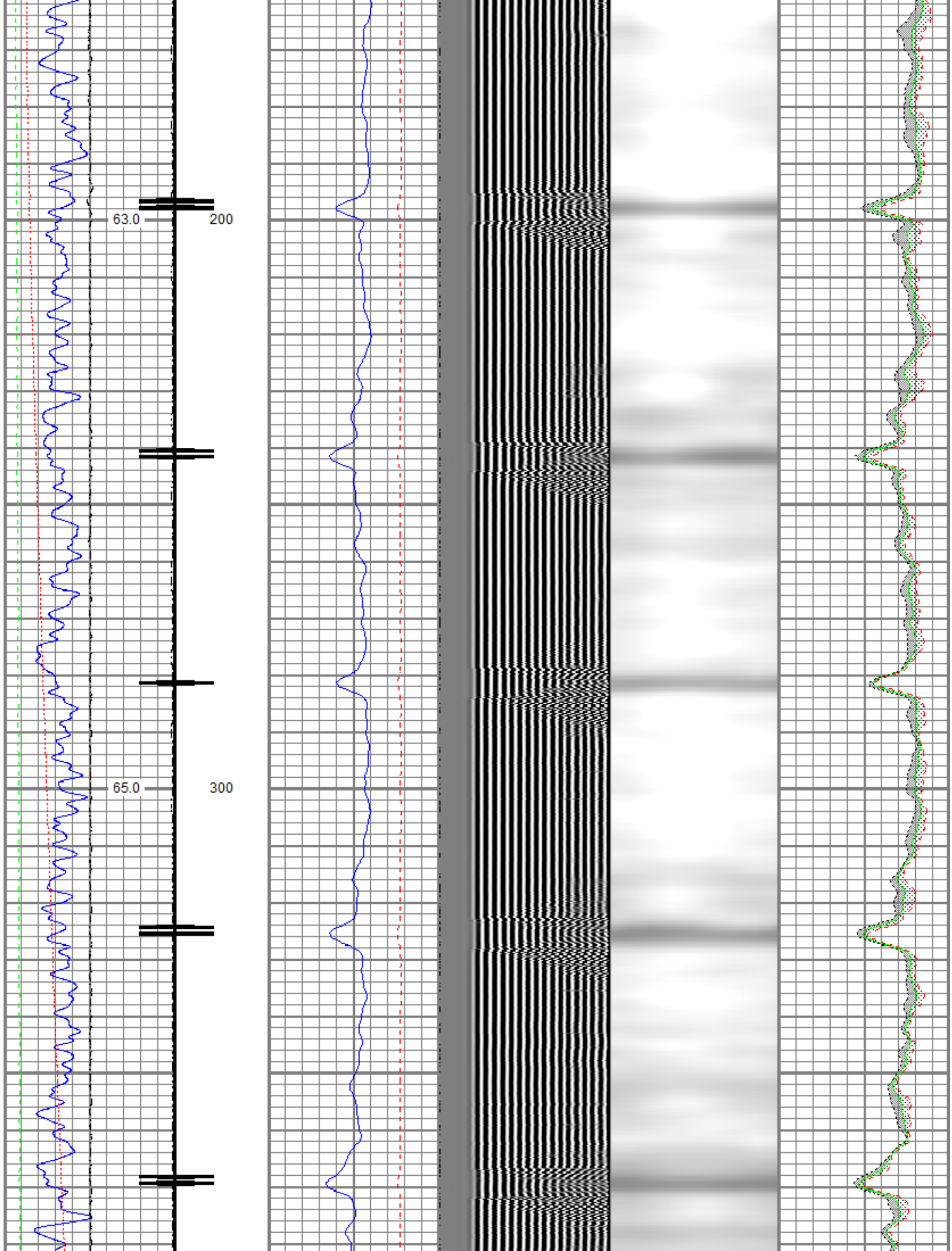


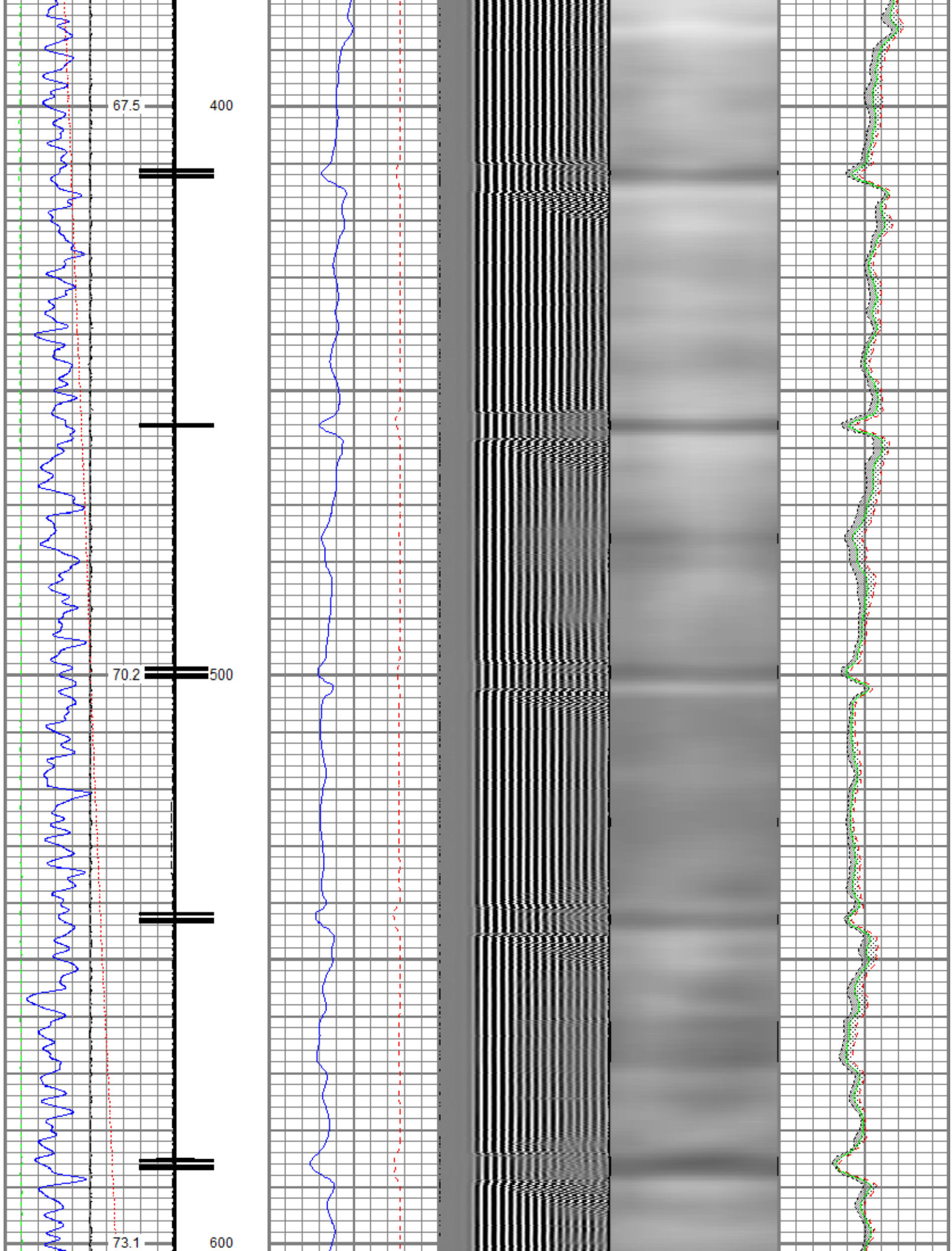
<<< Fold Here >>>
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible 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 6440 FT Adjusted log 0 FT To Correlate with Marker Joint Ran JB/GR down to 7478 FT Log ran from 6486 FT to Surface 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!!

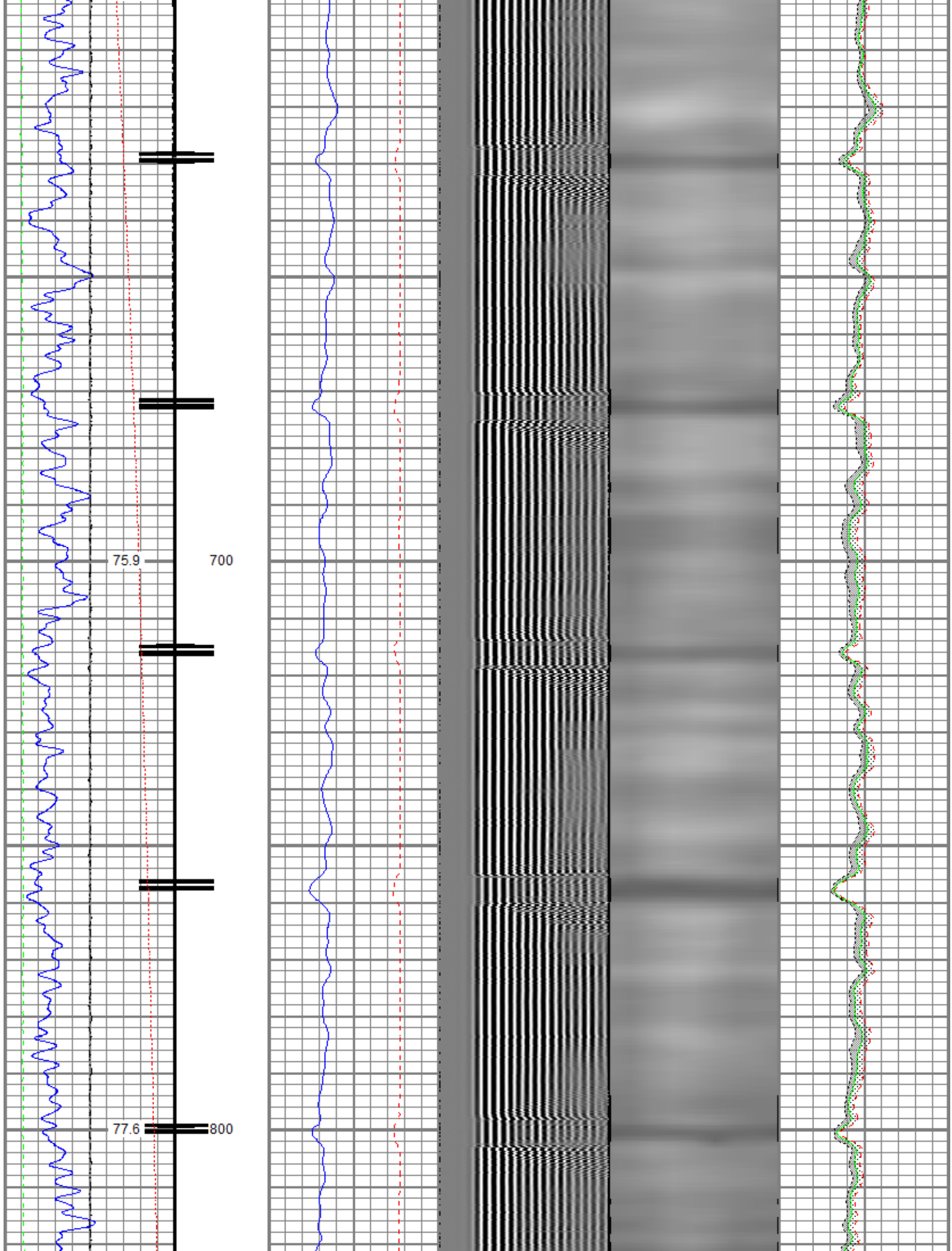
Database File	0512346590_anadarko_english farms 8-10hz_rbl_09-16-18\processed_0512346590_anadarko_english farms 8-10hz_rbl_09-
Dataset Pathname	pass6
Presentation Format	ros_radri
Dataset Creation	Sun Sep 16 14:07:16 2018
Charted by	Depth in Feet scaled 1:240

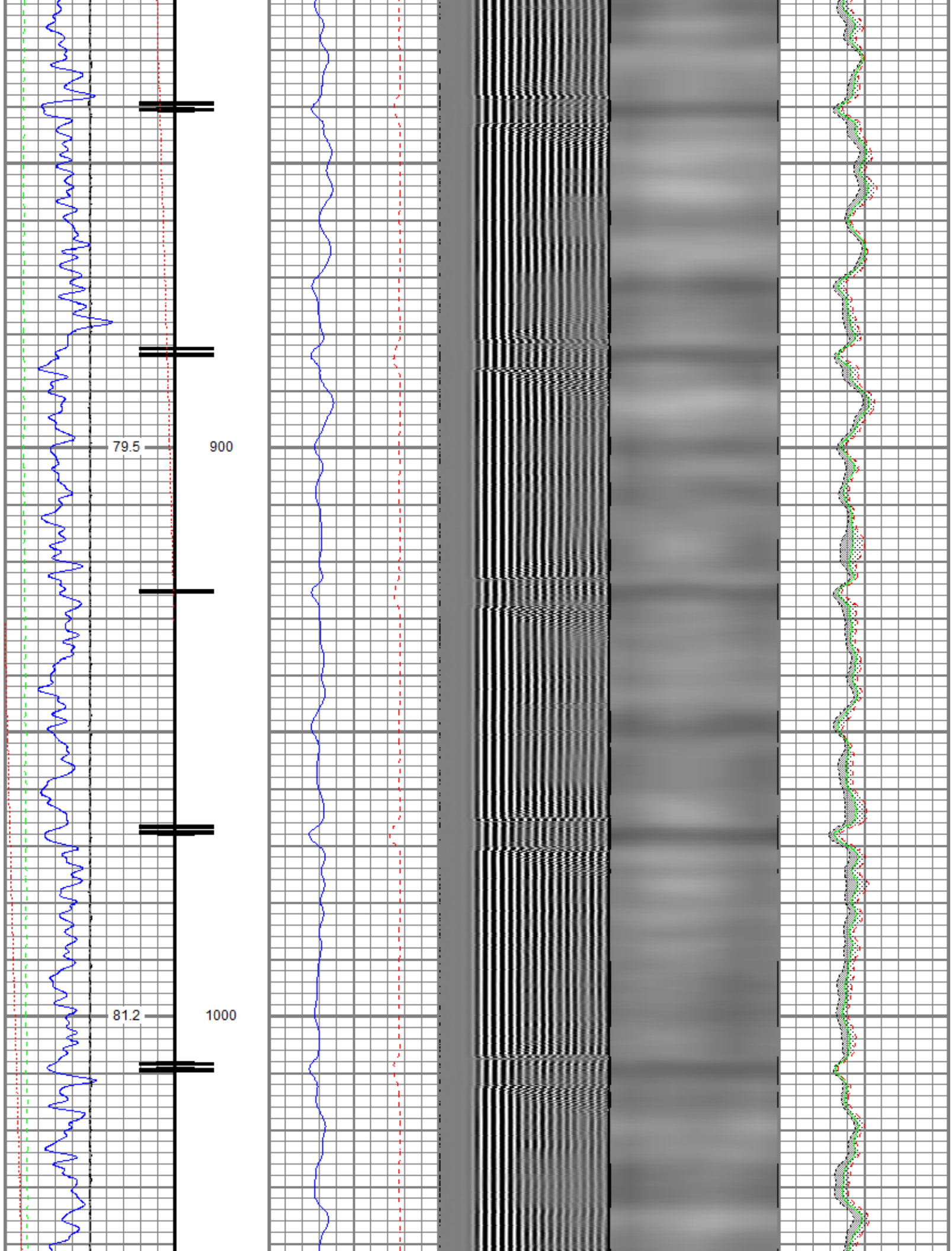
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200	1200		Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min) 150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

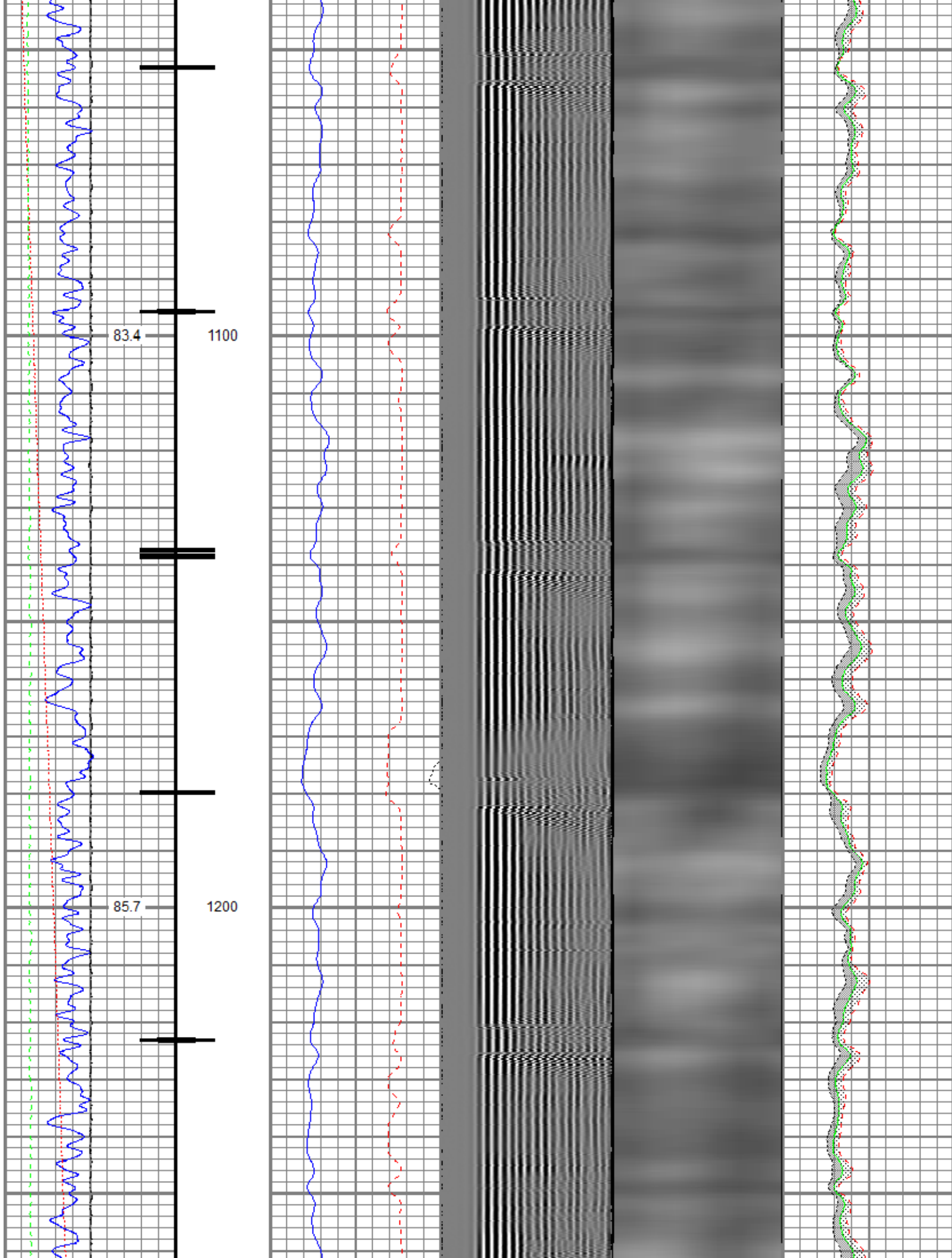


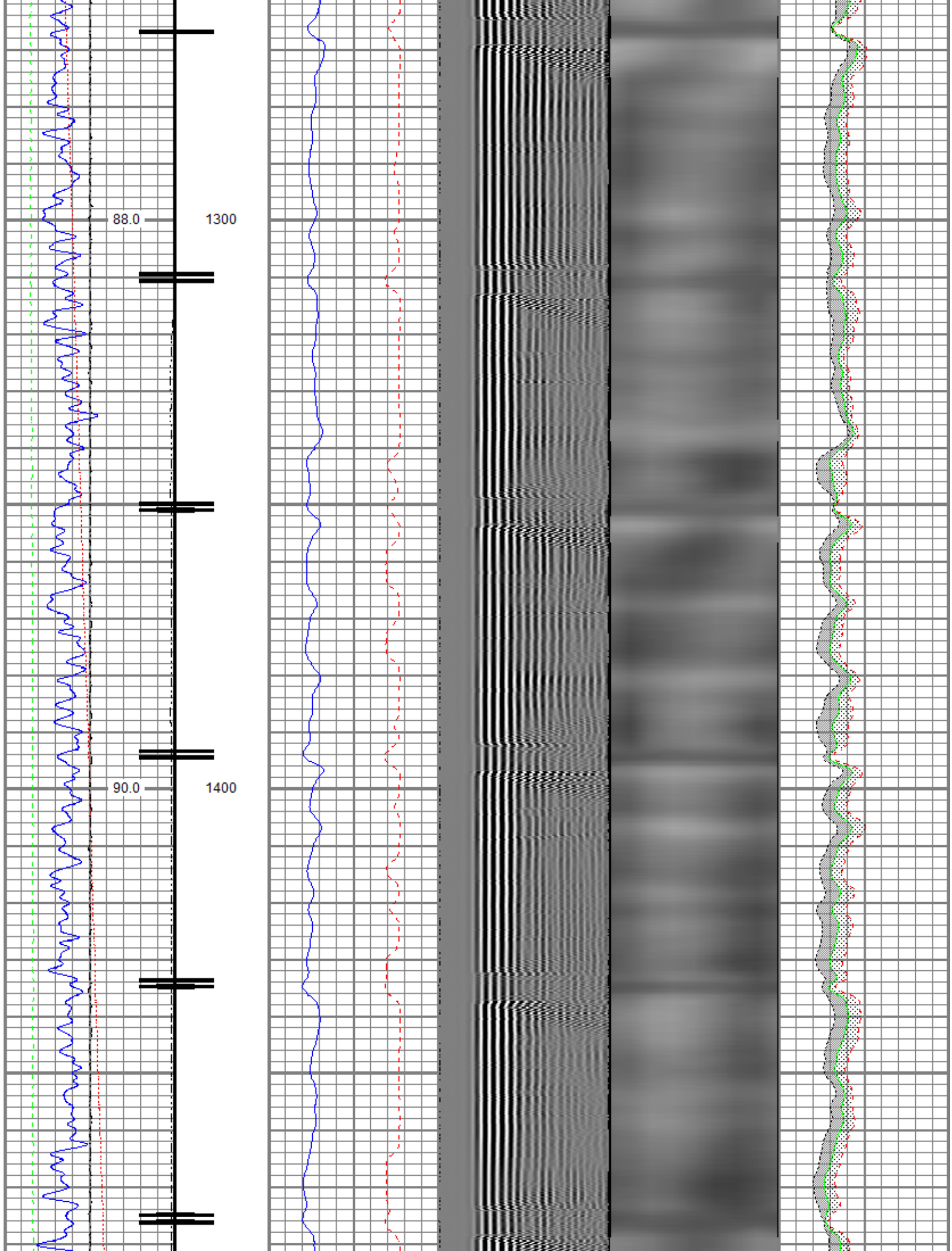


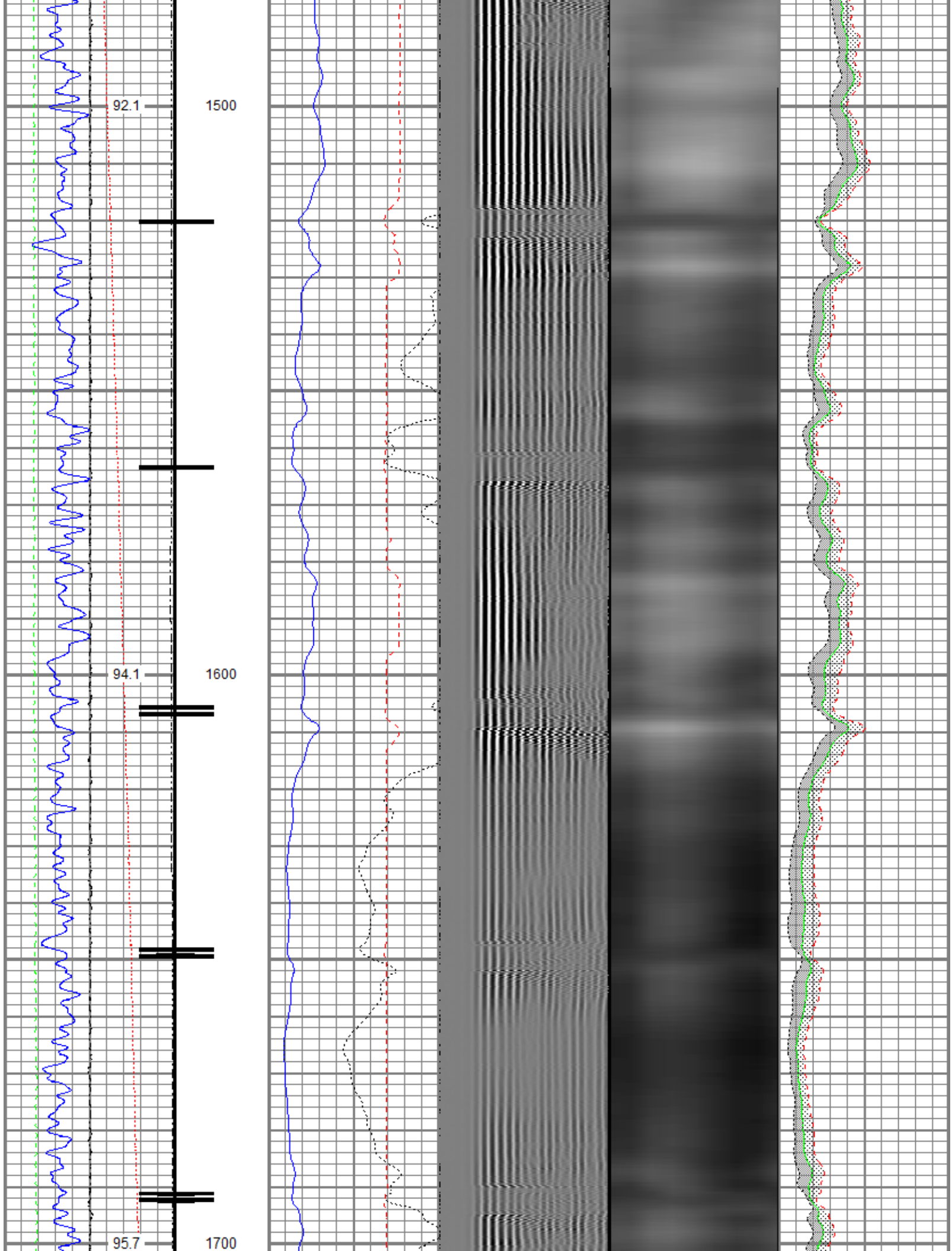


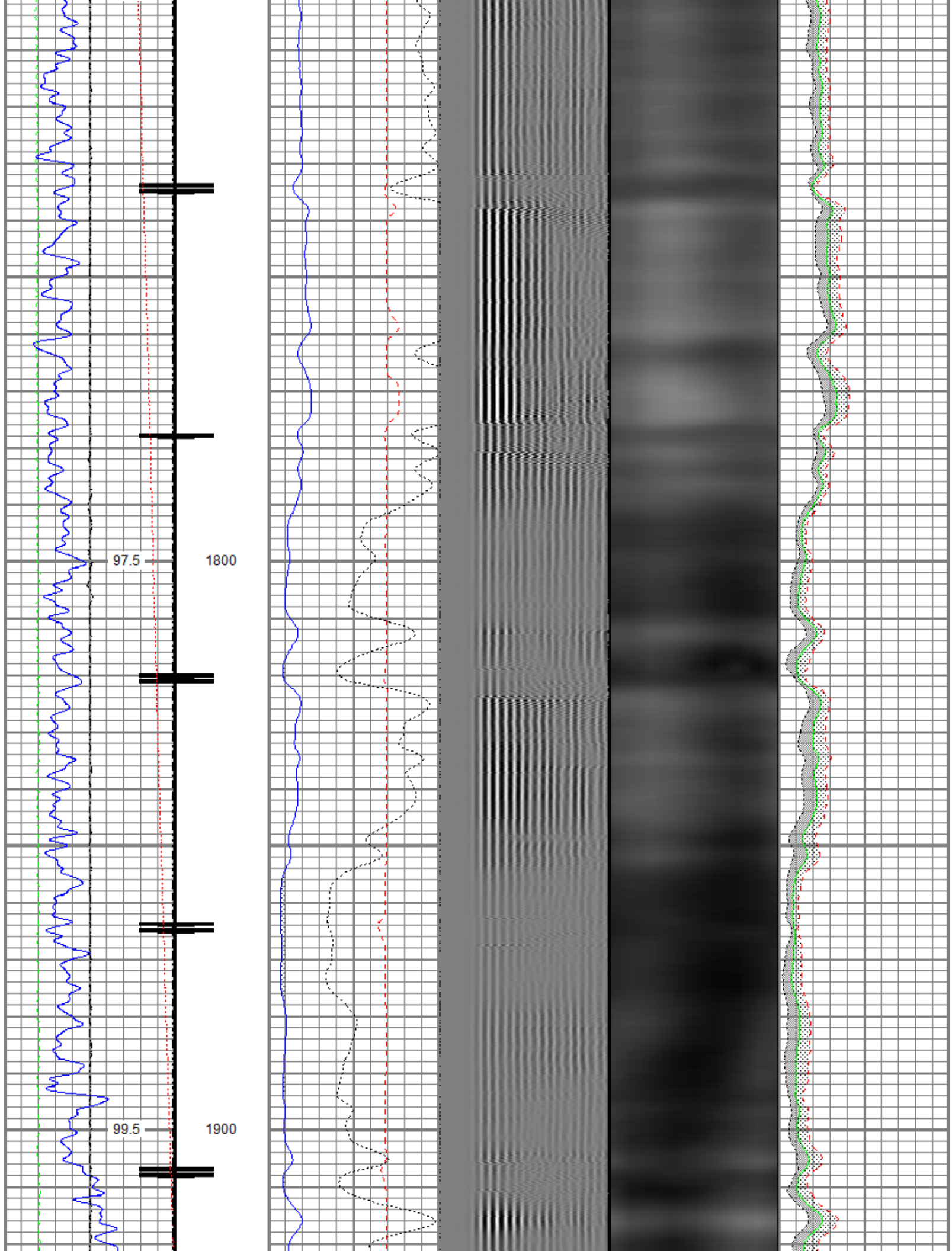


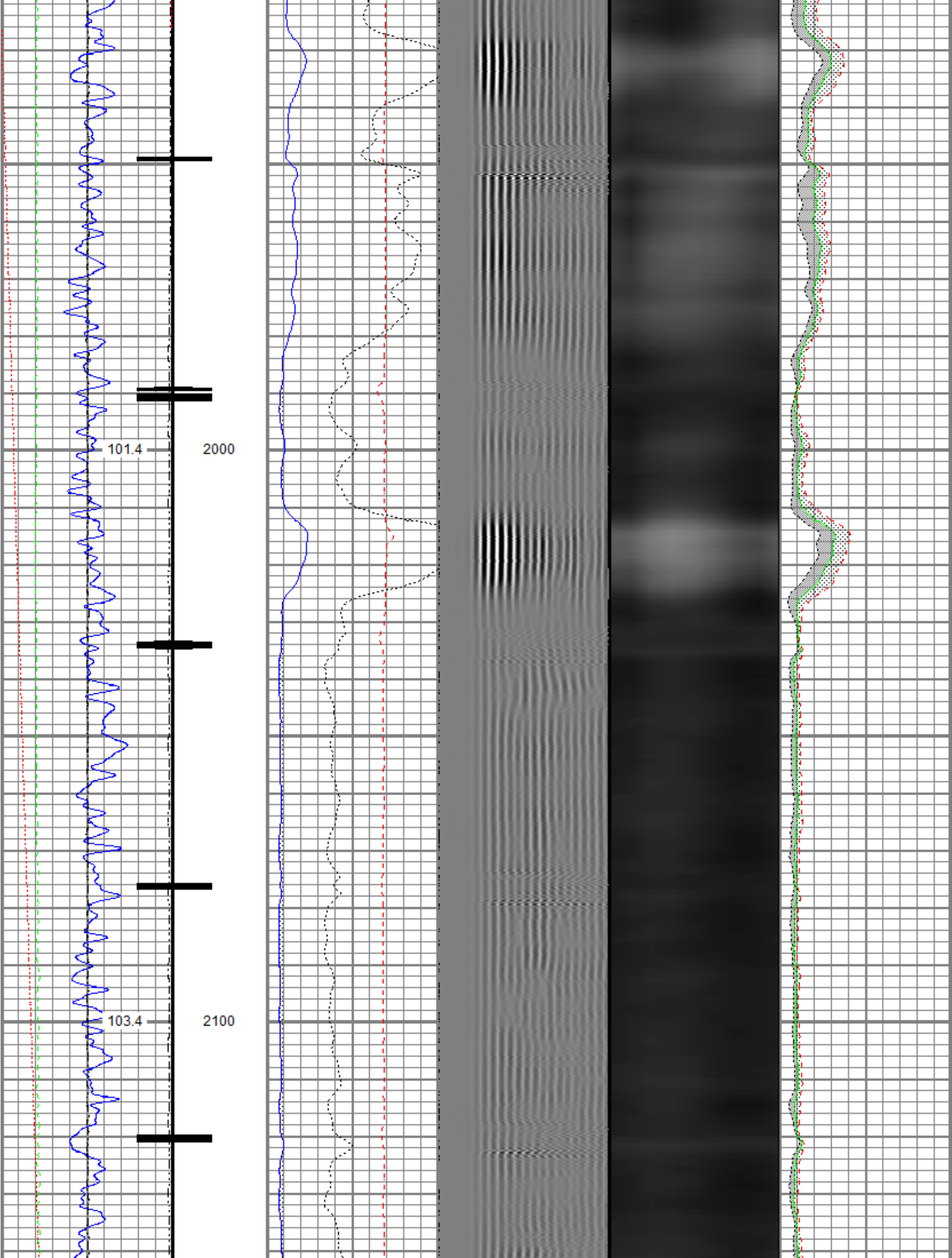


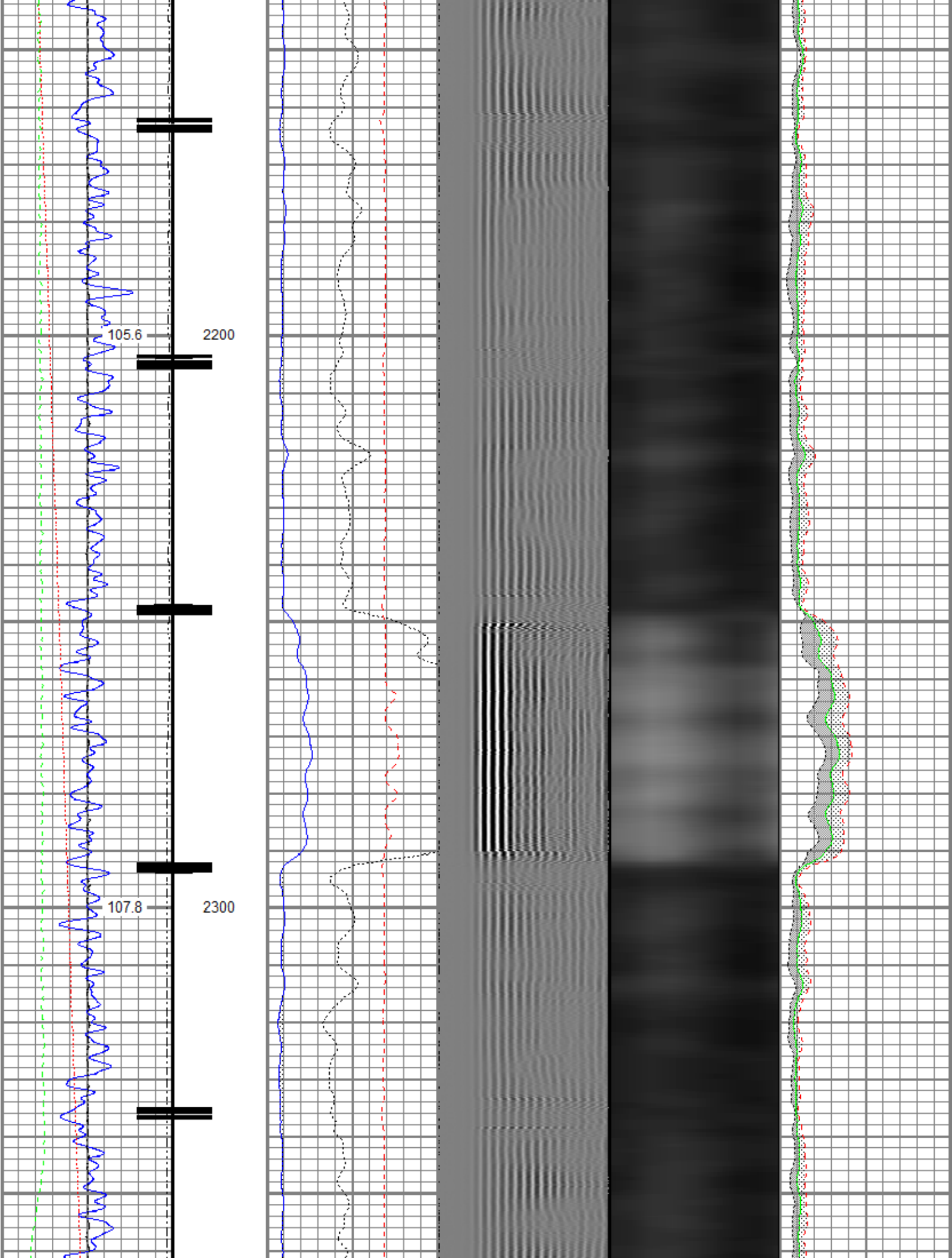


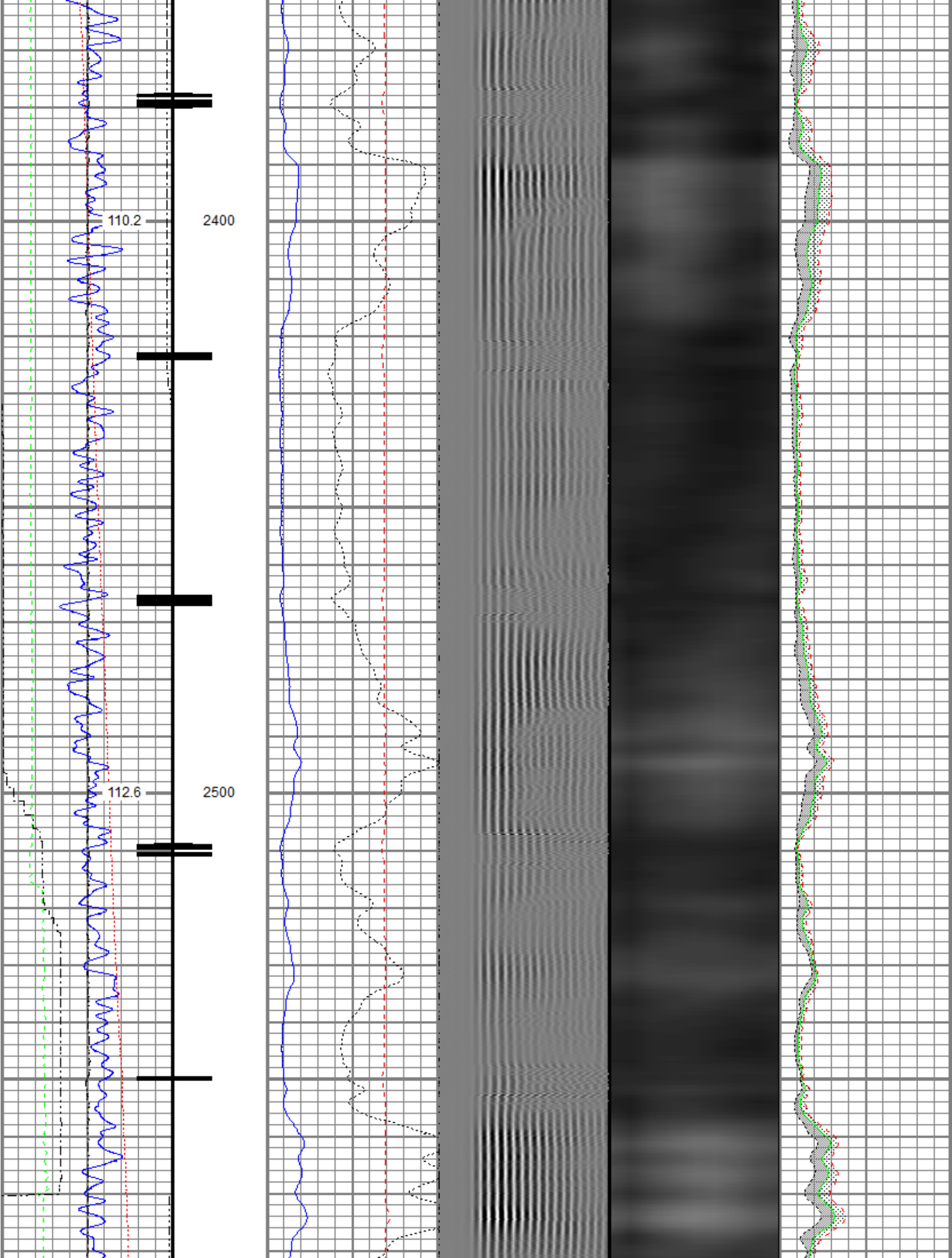


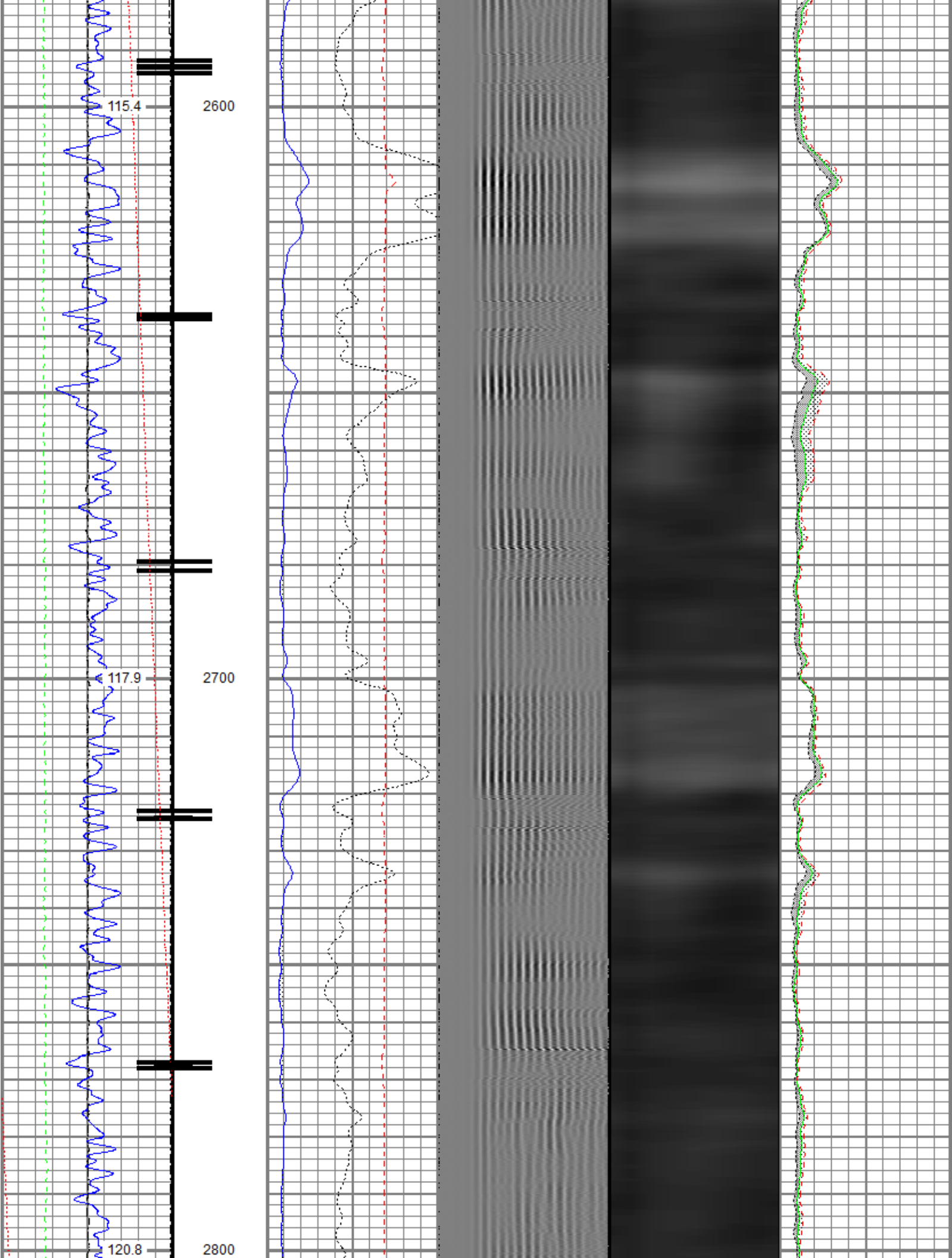


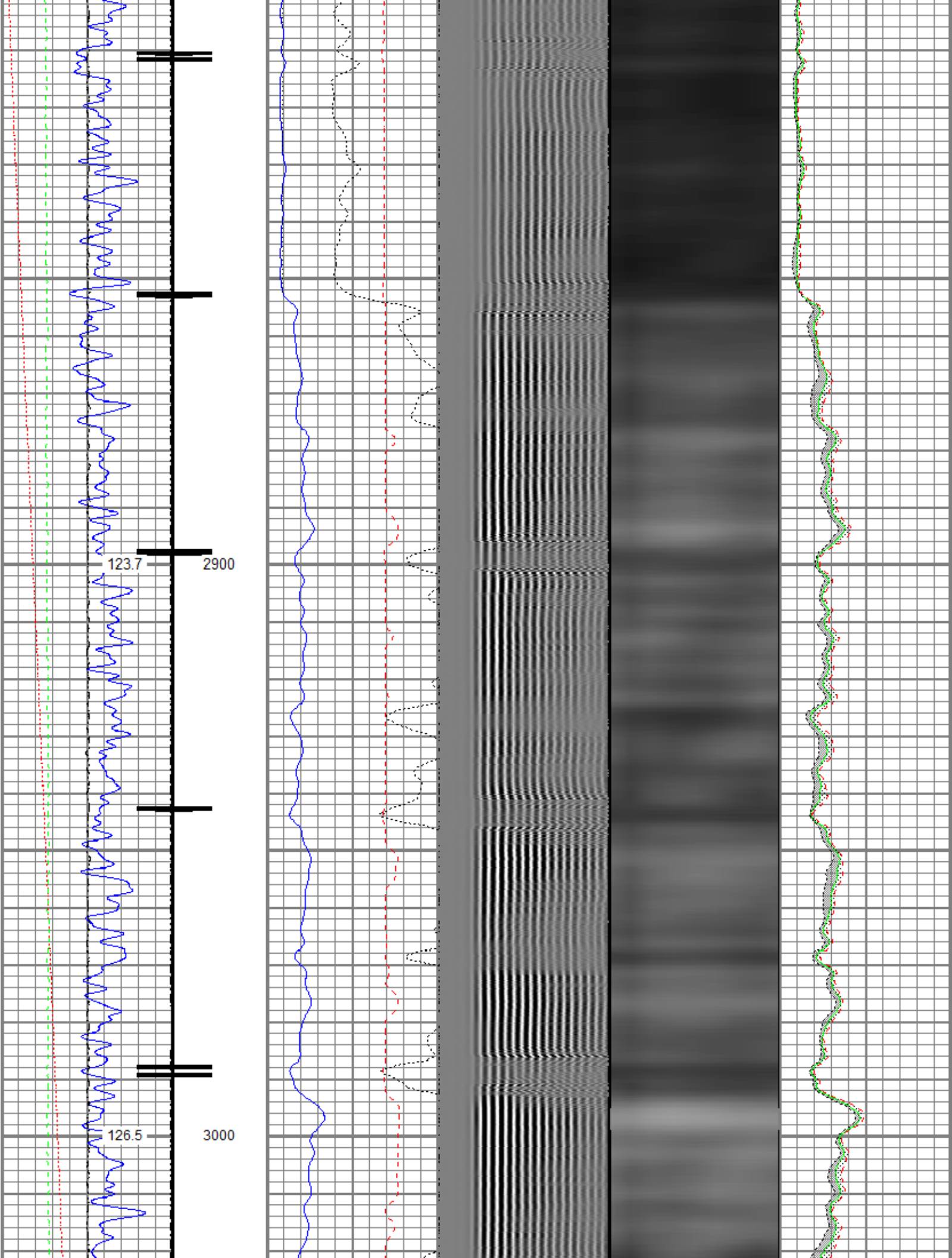


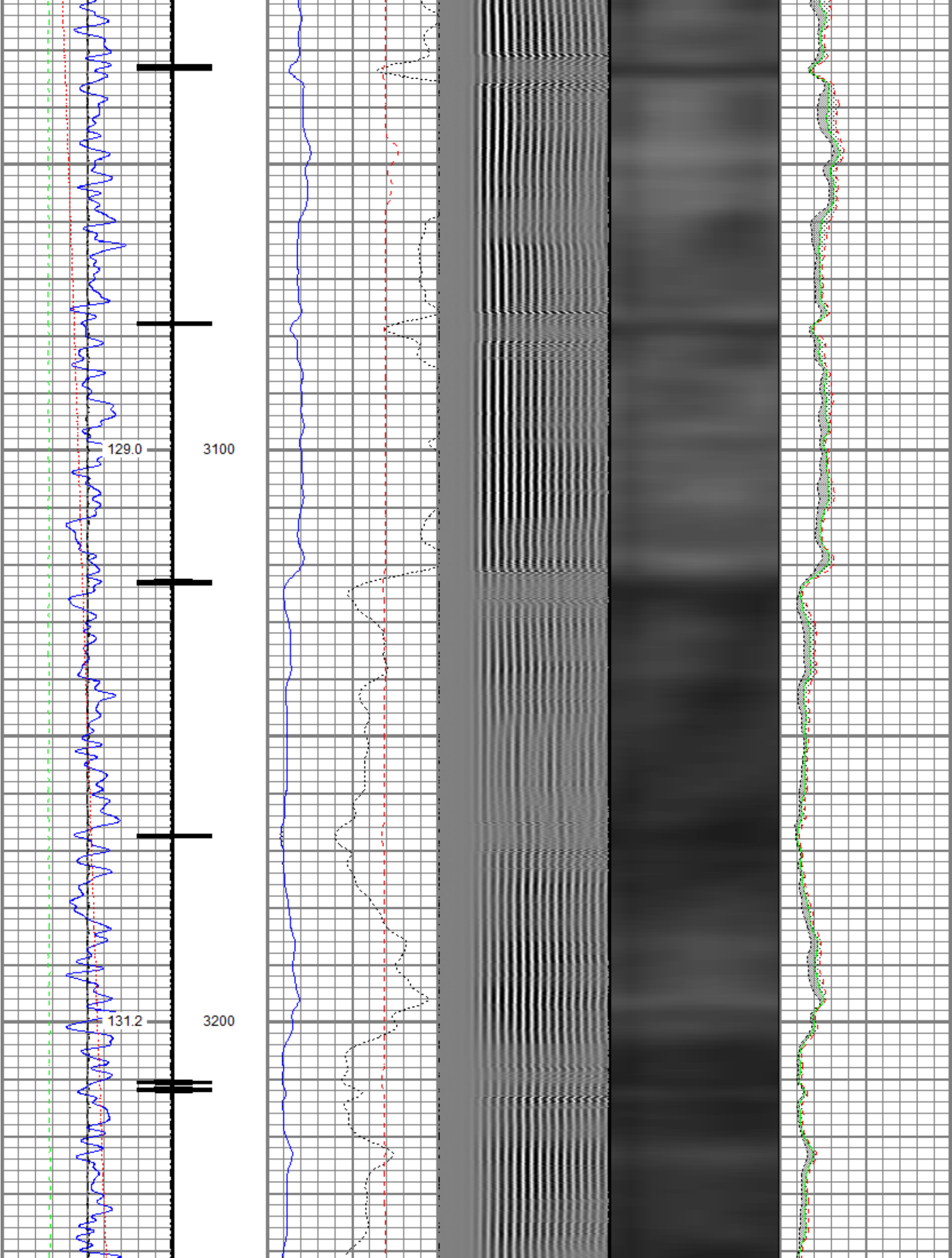


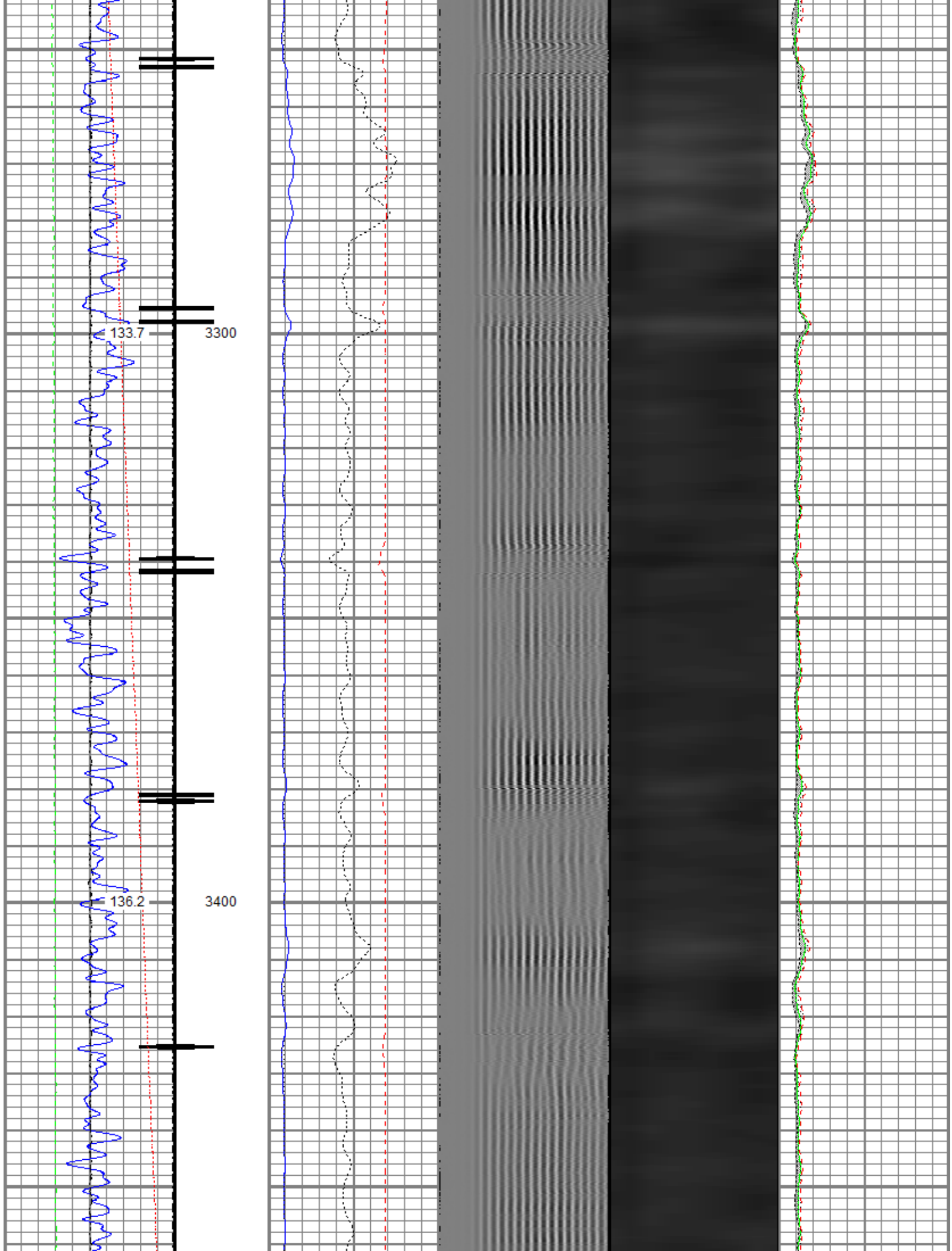


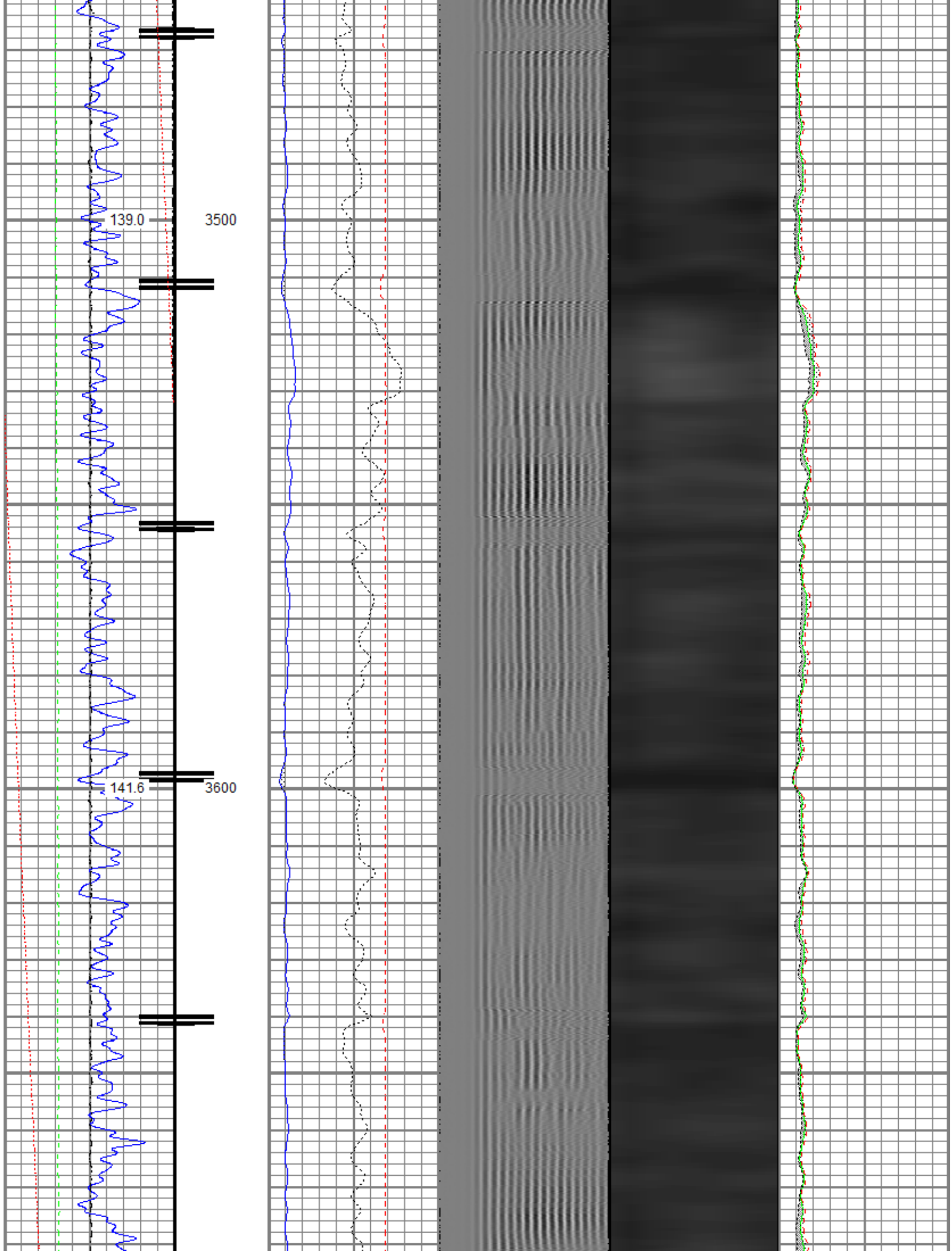


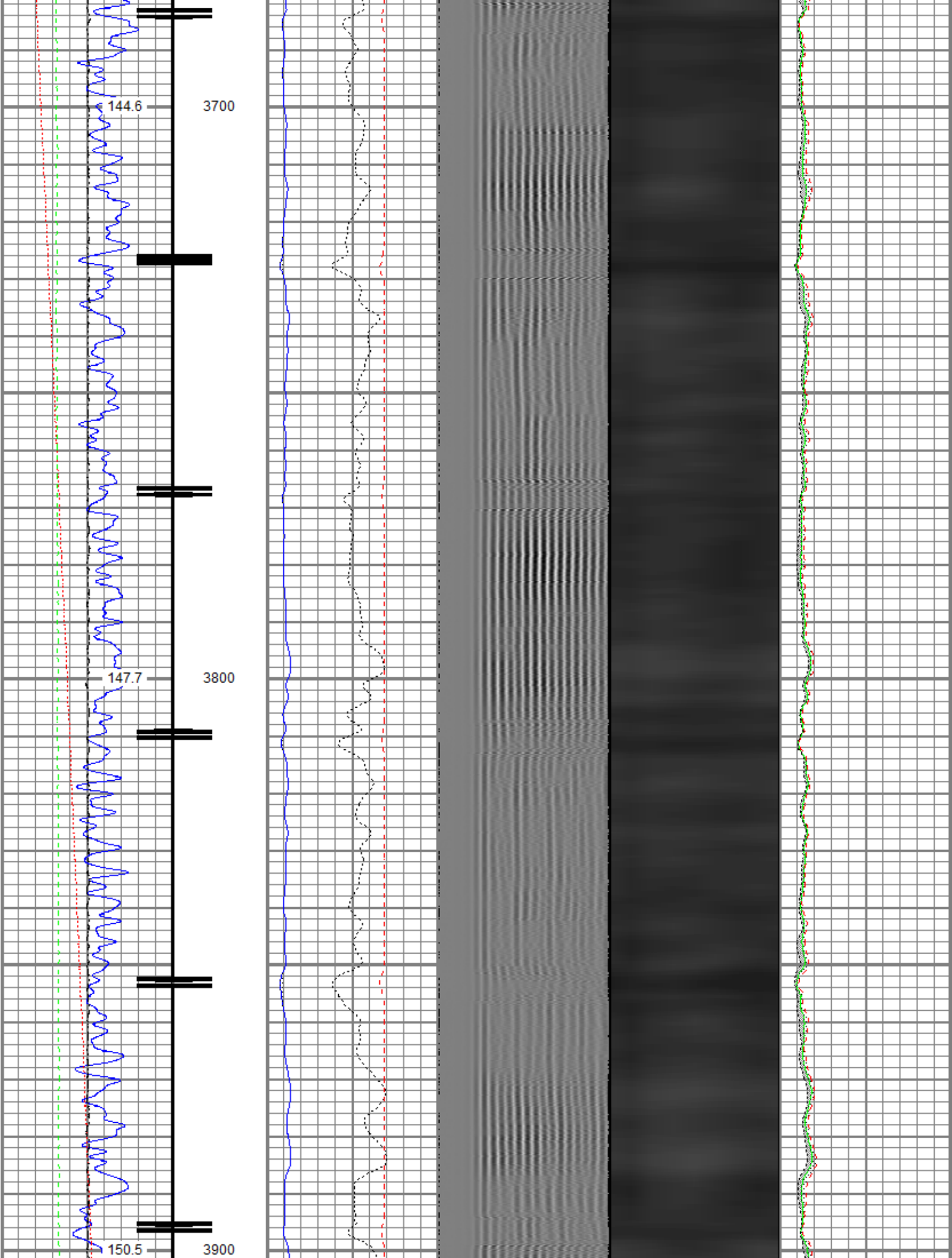


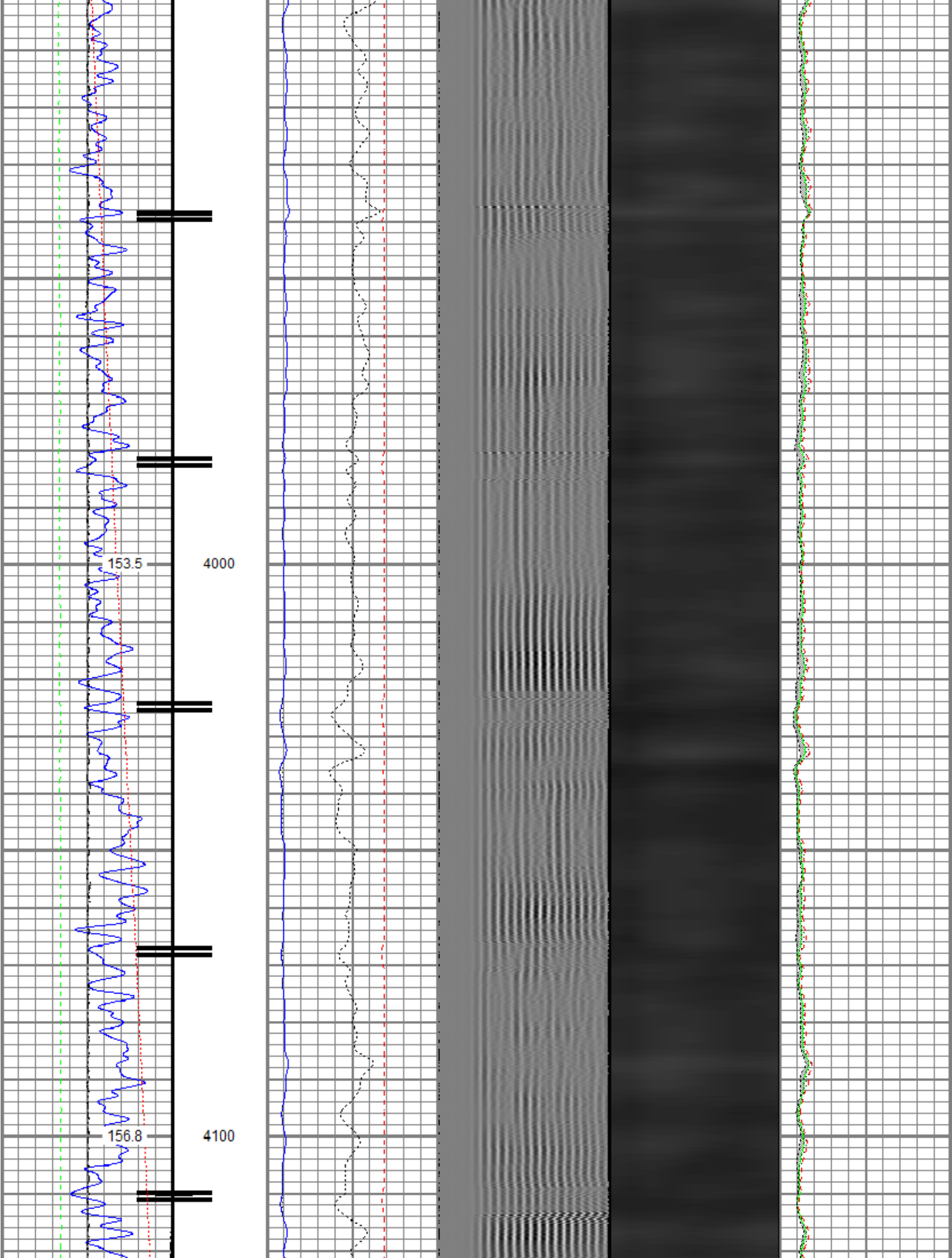


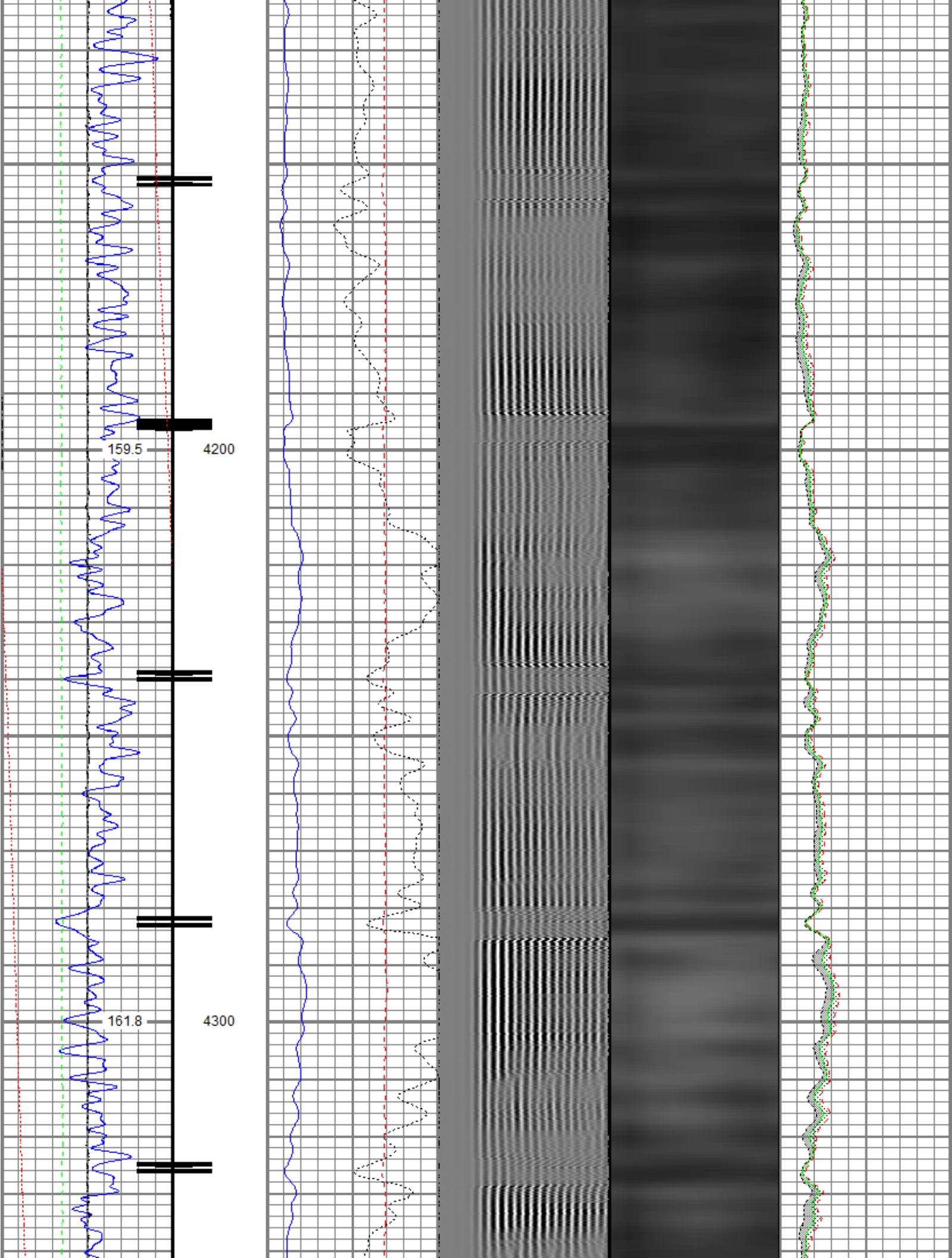


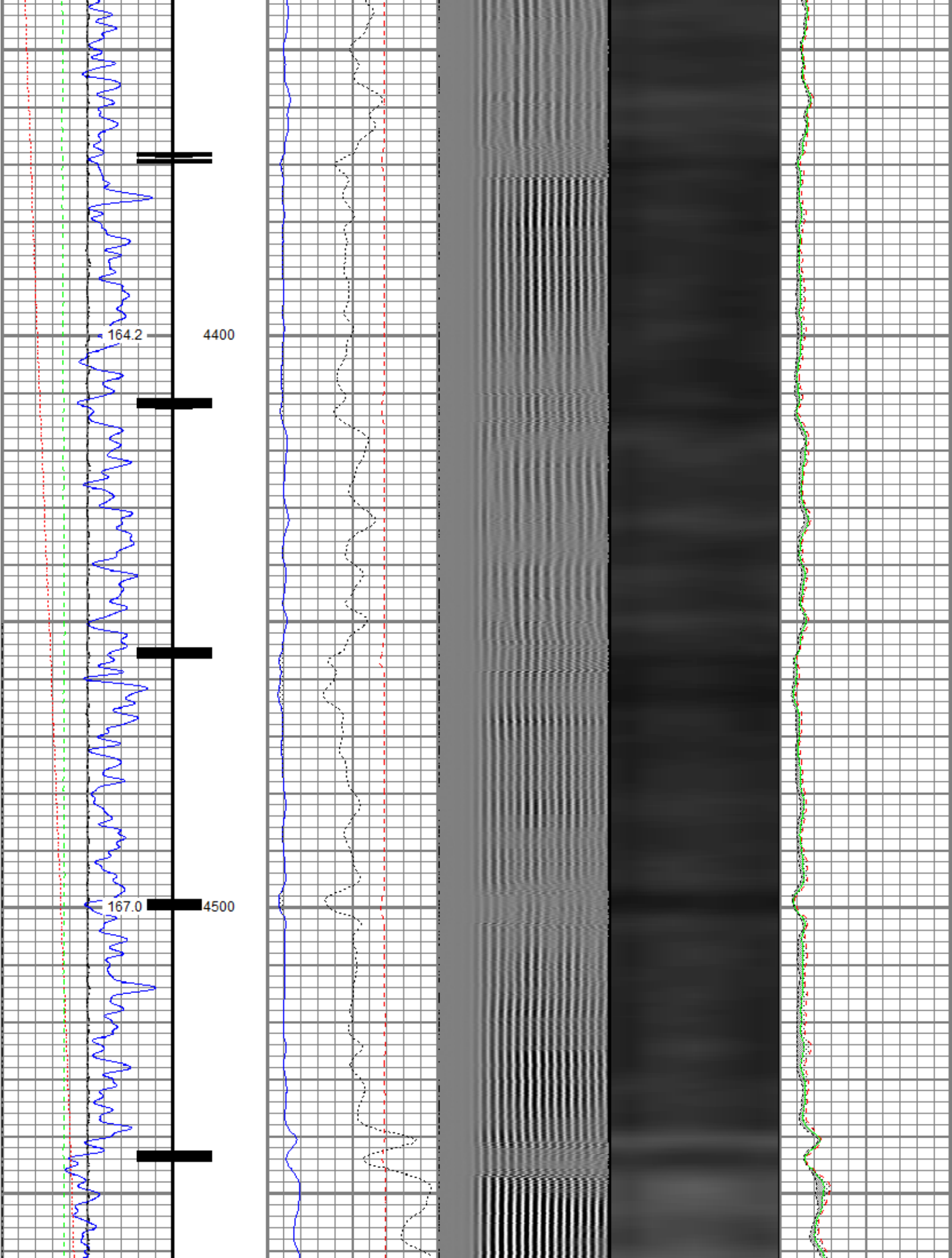


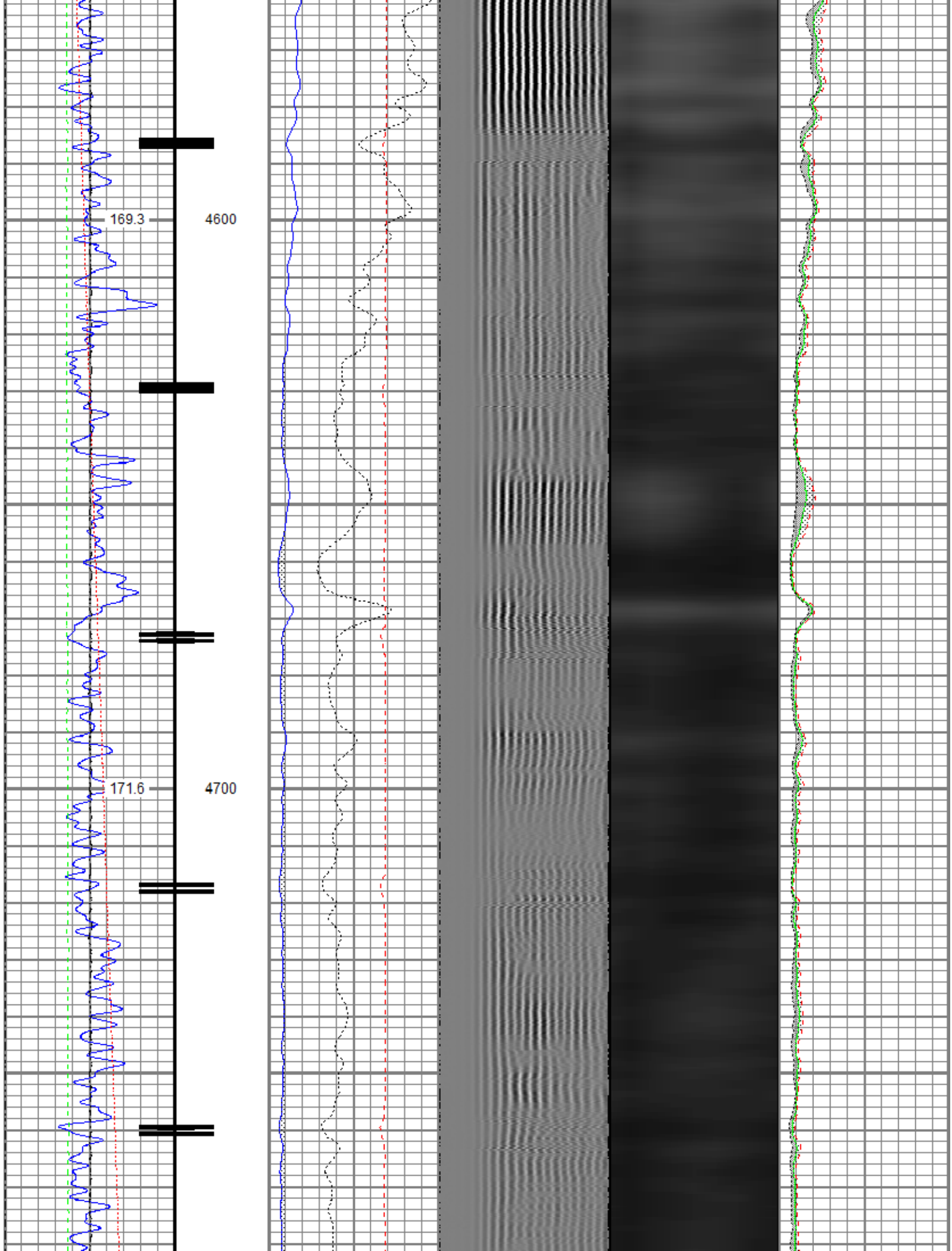


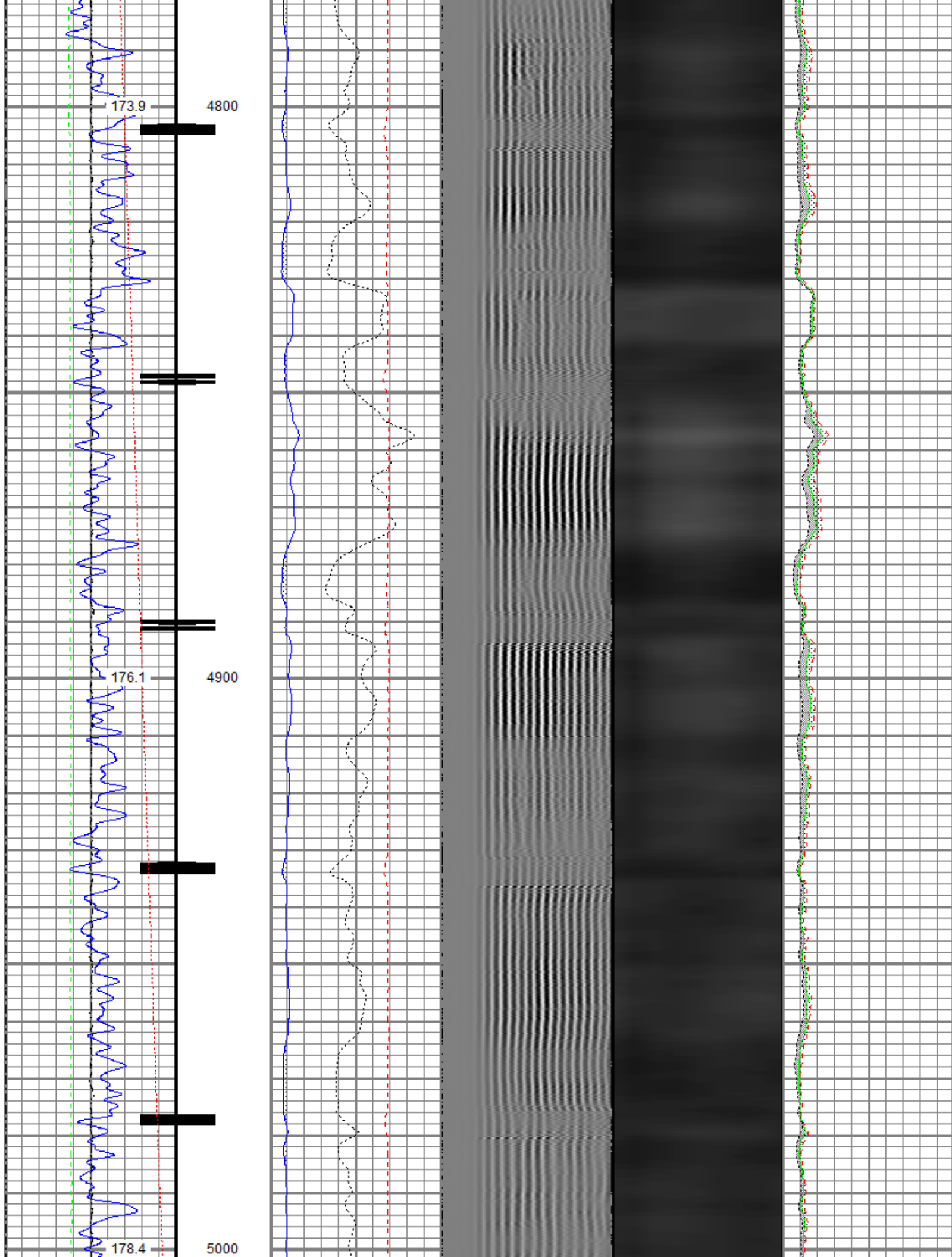


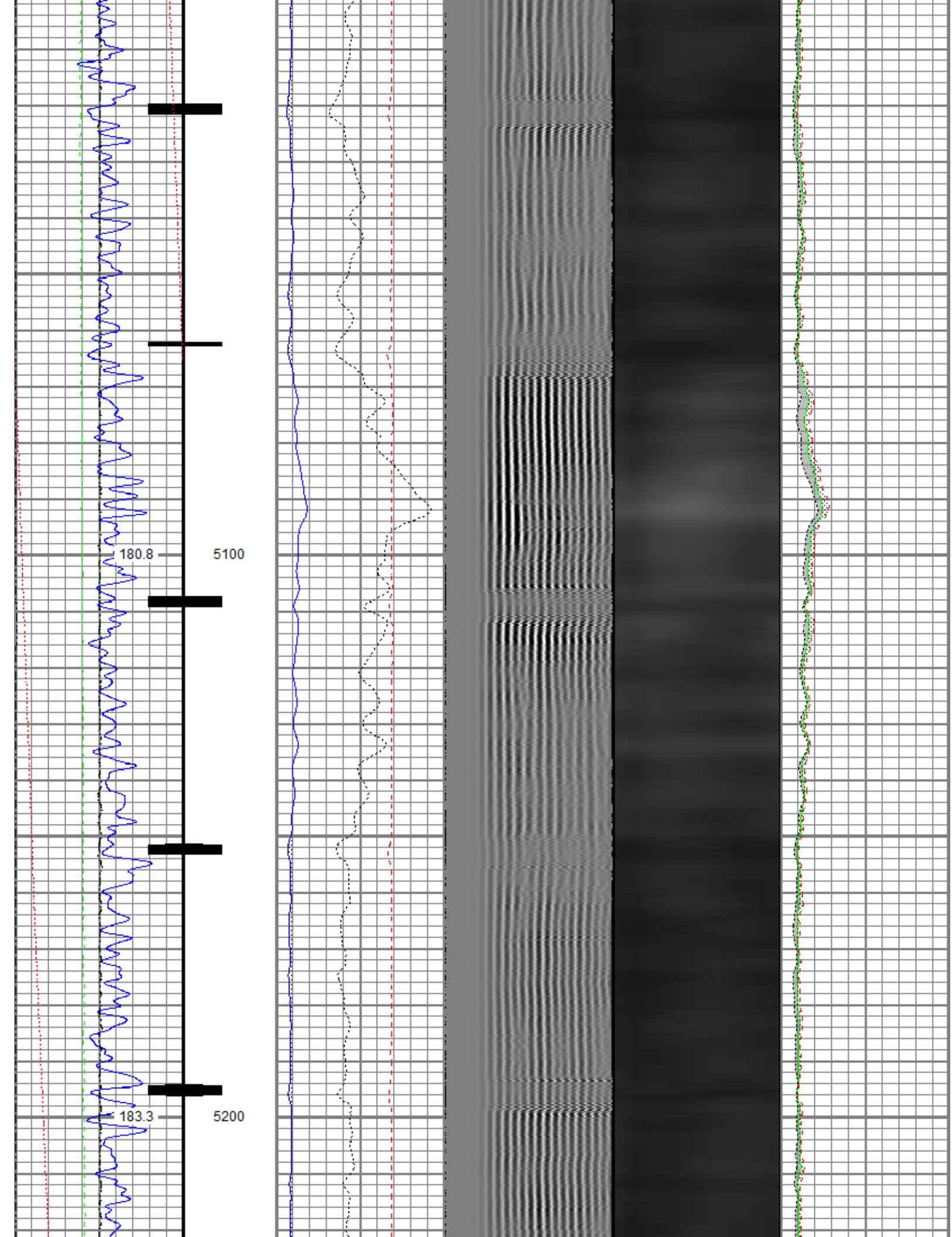


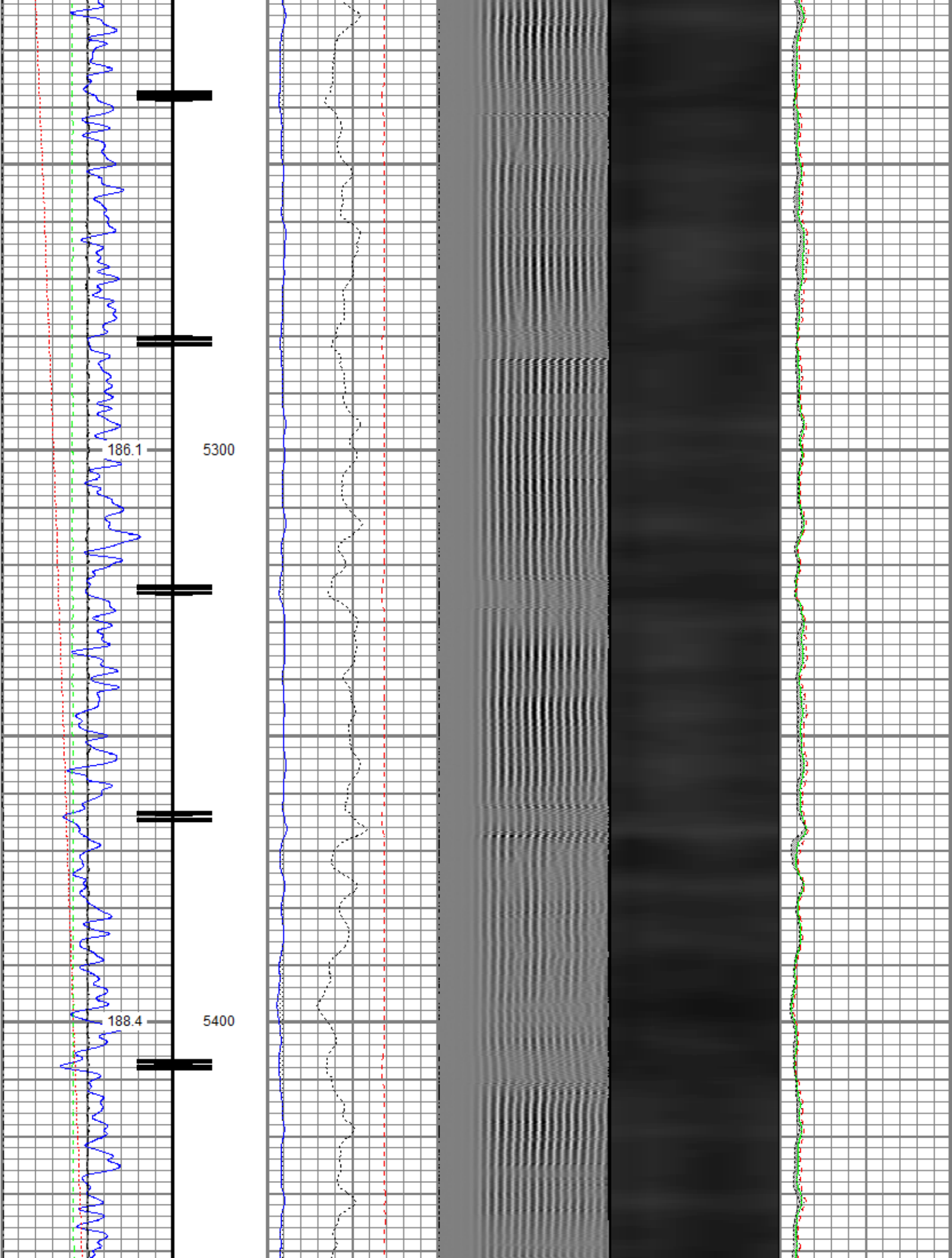


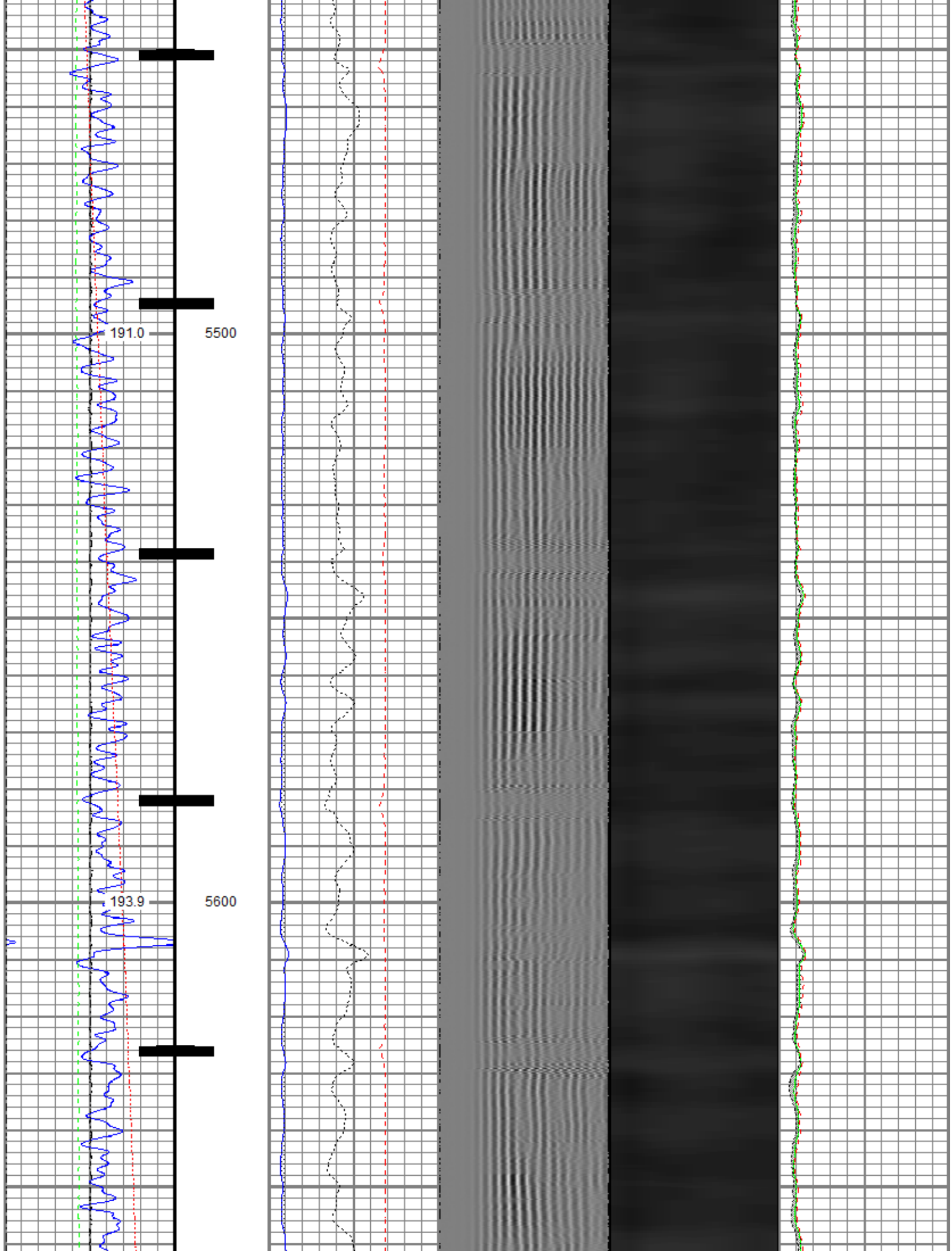


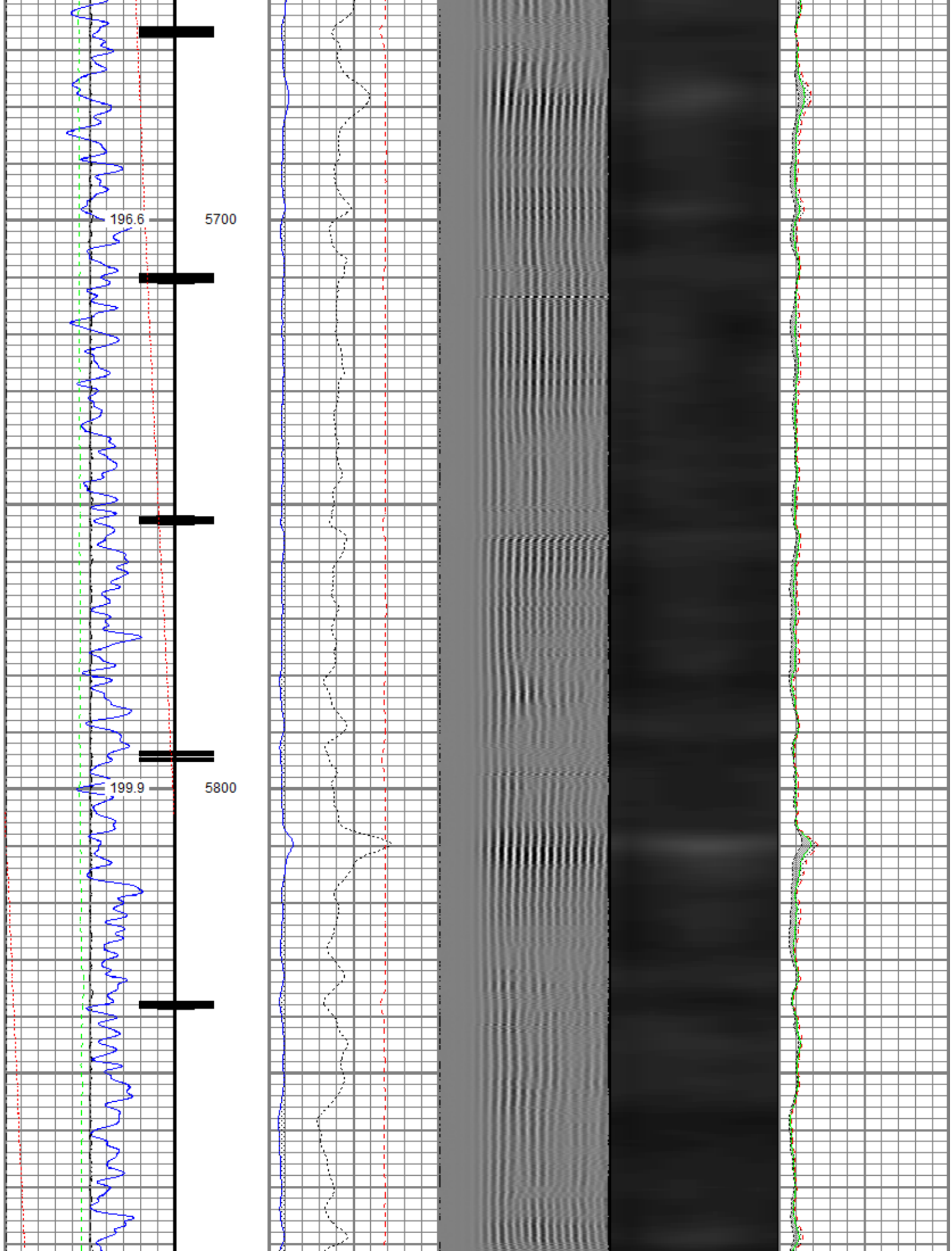


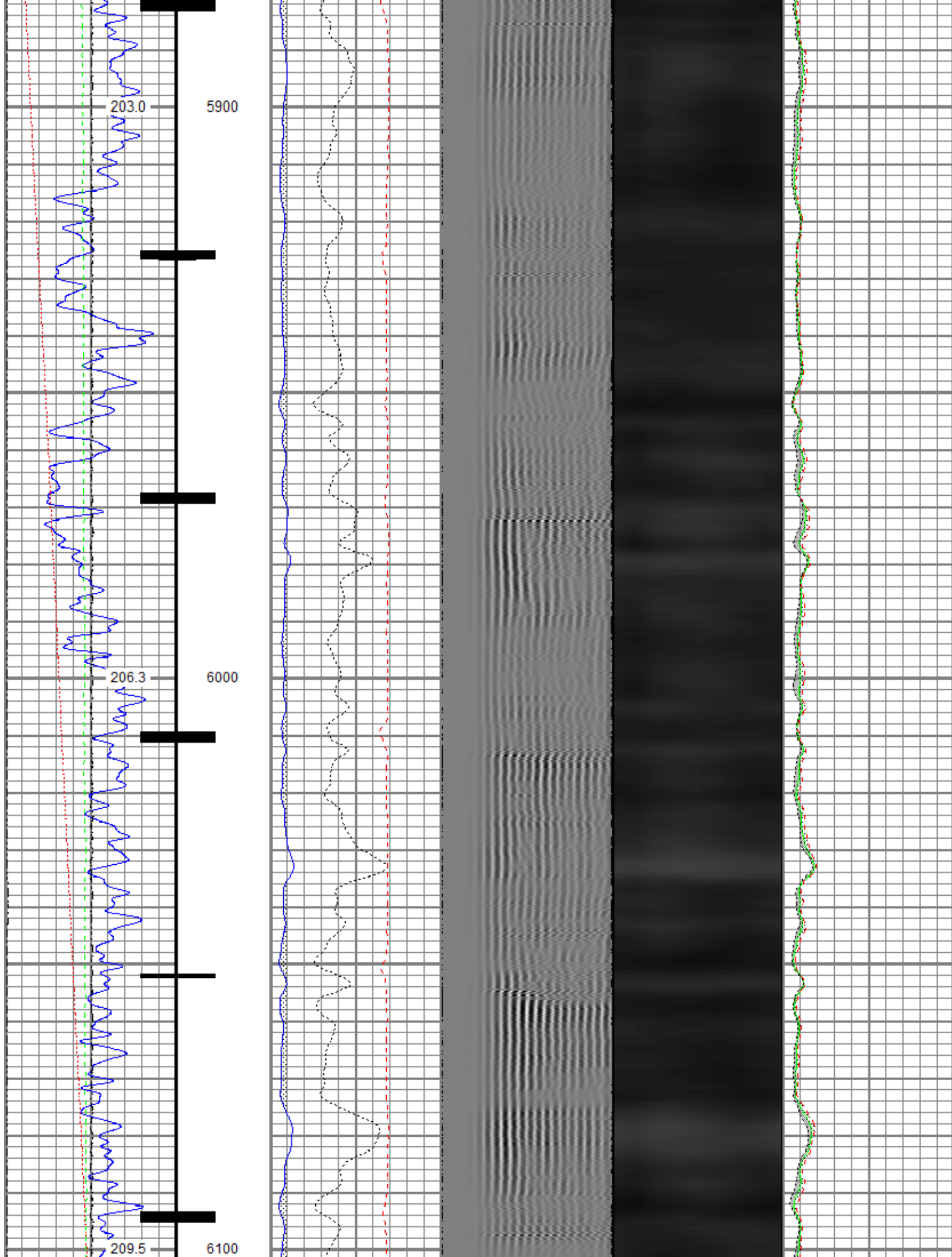


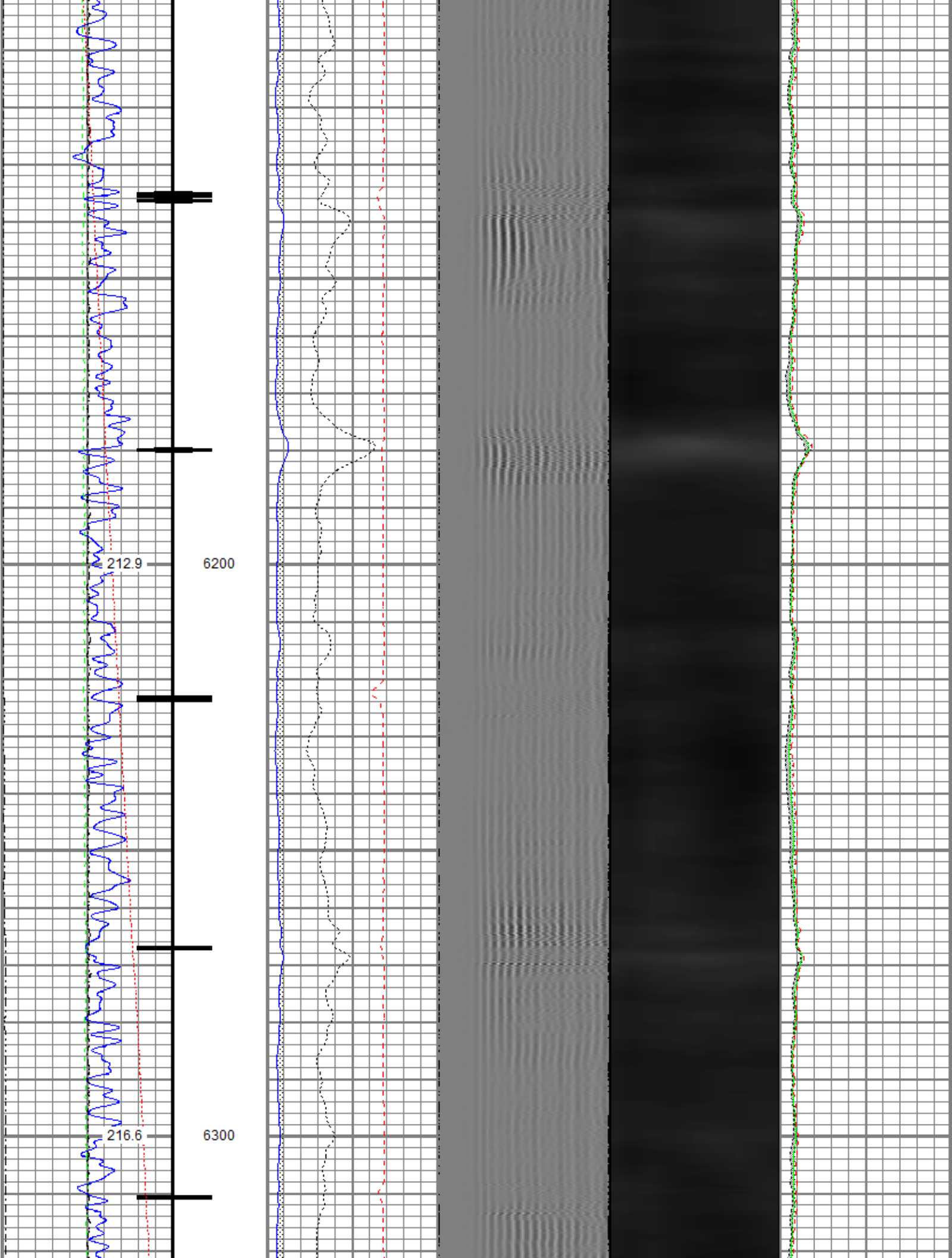


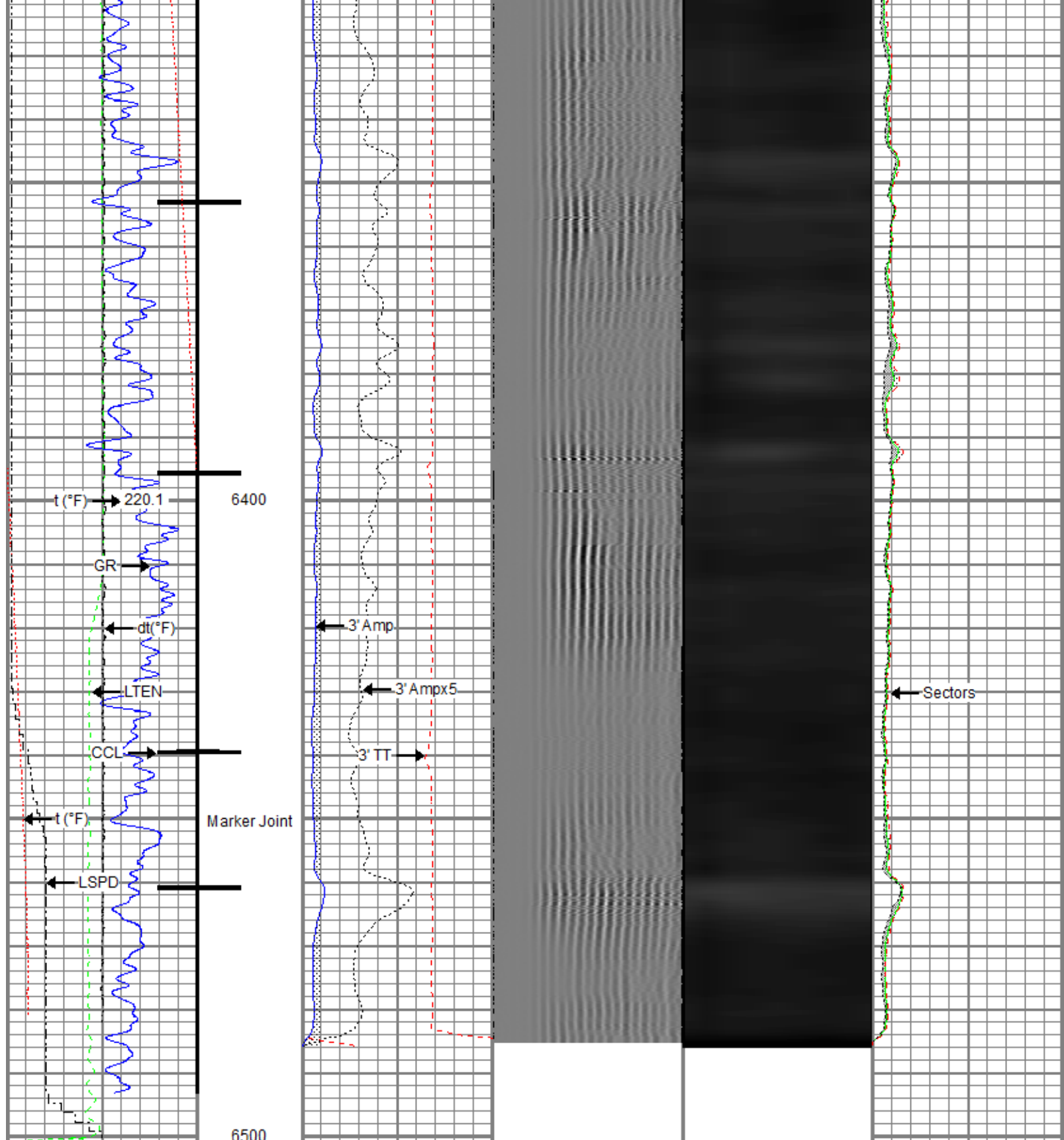












Gamma Ray (GAPI)		0	120
Casing Collar Locator		0	20
Temperature (degF)		0	20
Line Speed		-150	150
Line Tension (lb)		0	2000
Differential Temperature		-2	2
		0	100
		0	100
		0	100

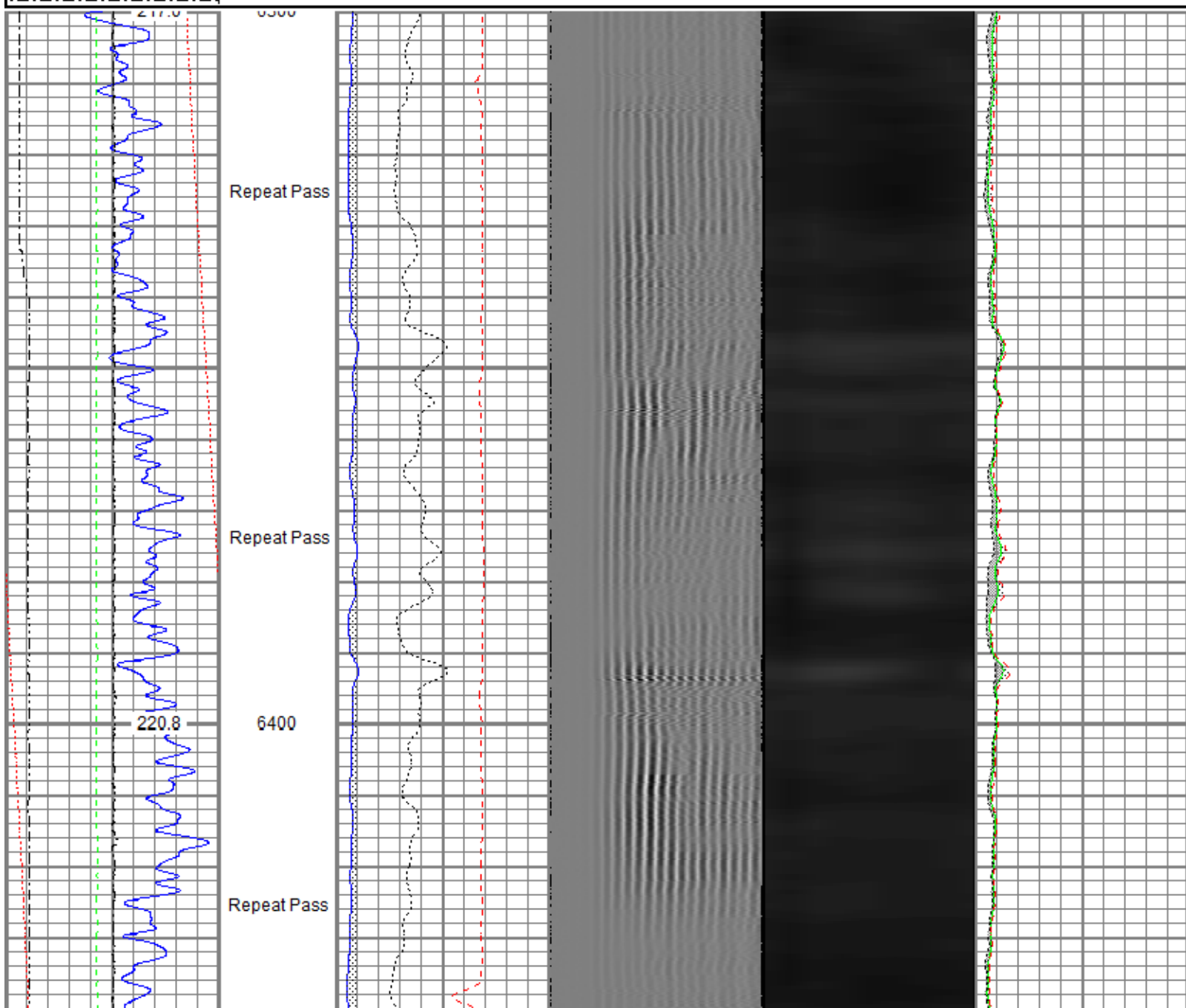


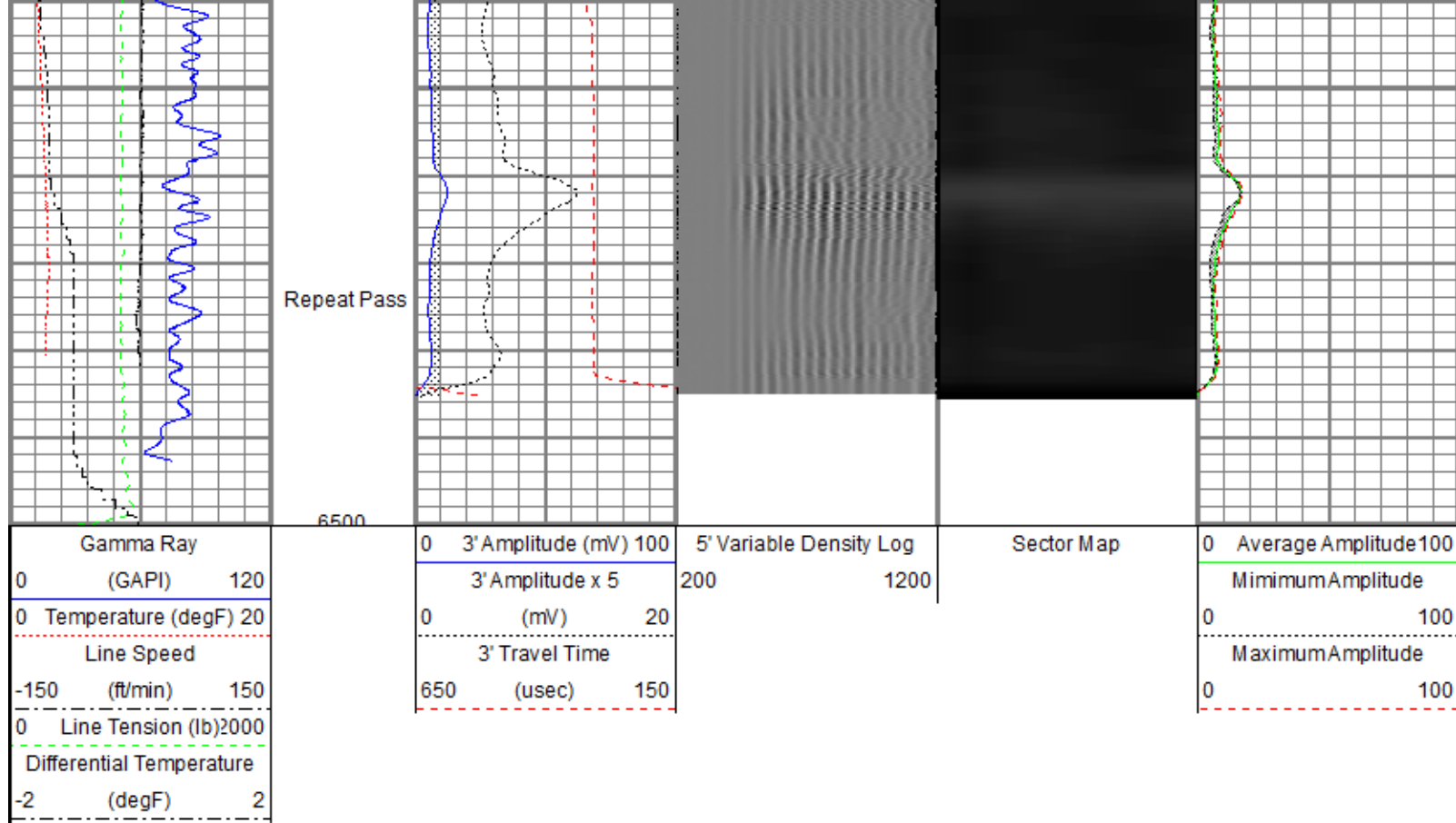
Repeat Pass

Recorded With 2800 PSI Surface Induced Pressure

Database File 0512346590_anadarko_english farms 8-10hz_rbl_09-16-18\processed_0512346590_anadarko_english farms 8-10hz_rbl_09-
Dataset Pathname pass4
Presentation Format ros_radri
Dataset Creation Sun Sep 16 14:04:07 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			Minimum Amplitude
0 Temperature (degF) 20		(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)
			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			
TEMP	18.23					
WVFS8	16.00		Probe Radii-2750 RBT (FW1308-091)	9.39	2.75	105.00
WVFS7	16.00		Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub			
WVFS6	16.00					
WVFS5	16.00					
WVFS4	16.00					
WVFS3	16.00					
WVFS2	16.00					
WVFS1	16.00					
WVFCAL	16.00					
WVF3FT	16.00					
WVF5FT	15.00					

HEADVOL1	11.75			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$2	7.38			Probe CCL-2750 SA (FW1307-076)	2.66	2.75	35.00
CCL\$1	7.38			Probe 2-3/4" Digital Six Magnet Logging CCL			
GR	5.24			Probe GR-2750 SA (FW1307-078) Probe 2-3/4" Digital Stand Alone Gamma Ray	3.33	2.75	55.00
				Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Dataset: PROCESSED_0512346590_Anadarko_English Farms 8-10HZ_RBL_09-16-18_2800 PSI.db: field/well/run1/pass6 Total length: 25.06 ft Total weight: 258.60 lb O.D.: 2.75 in							

Calibration Report	
Database File	C:\ProgramData\Warrior\Data\0512346590_Anadarko_English Farms 8-10HZ_RBL_09-16-18\PROCESSED_0512346590_Anad
Dataset Pathname	pass6
Dataset Creation	Sun Sep 16 14:07:16 2018

Gamma Ray Calibration Report		
Serial Number:	FW1307-078	
Tool Model:	2750 SA	
Performed:	Sun Nov 12 06:08:32 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	108.2	cps
Calibrator Reading:	1134.5	cps
Sensitivity:	0.6207	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1308-091	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	-7.007	ft

Master Calibration, performed Sun Sep 16 06:49:37 2018:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	0.381	0.800	71.921	188.582	-0.003
CAL	0.004	0.387				
5'	0.004	0.363	0.800	71.921	198.104	-0.037
SUM						
01	0.004	0.386	0.800	100.000	250.004	1.050

S1	0.004	0.386	0.000	100.000	262.001	-1.052
S2	0.004	0.386	0.000	100.000	261.675	-1.102
S3	0.004	0.381	0.000	100.000	265.552	-1.102
S4	0.004	0.377	0.000	100.000	268.045	-1.142
S5	0.004	0.380	0.000	100.000	266.078	-1.140
S6	0.004	0.381	0.000	100.000	265.388	-1.072
S7	0.004	0.382	0.000	100.000	264.976	-1.106
S8	0.004	0.380	0.000	100.000	266.060	-1.117

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.004	0.387	1.000	0.000

Air Zero Calibration, performed Sun Sep 16 06:50:04 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	0.004		0.000		-0.000
S7	0.004		0.000		-0.000
S8	0.004		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 English Farms 8-10HZ
Field Wattenberg
County Weld
State Colorado