



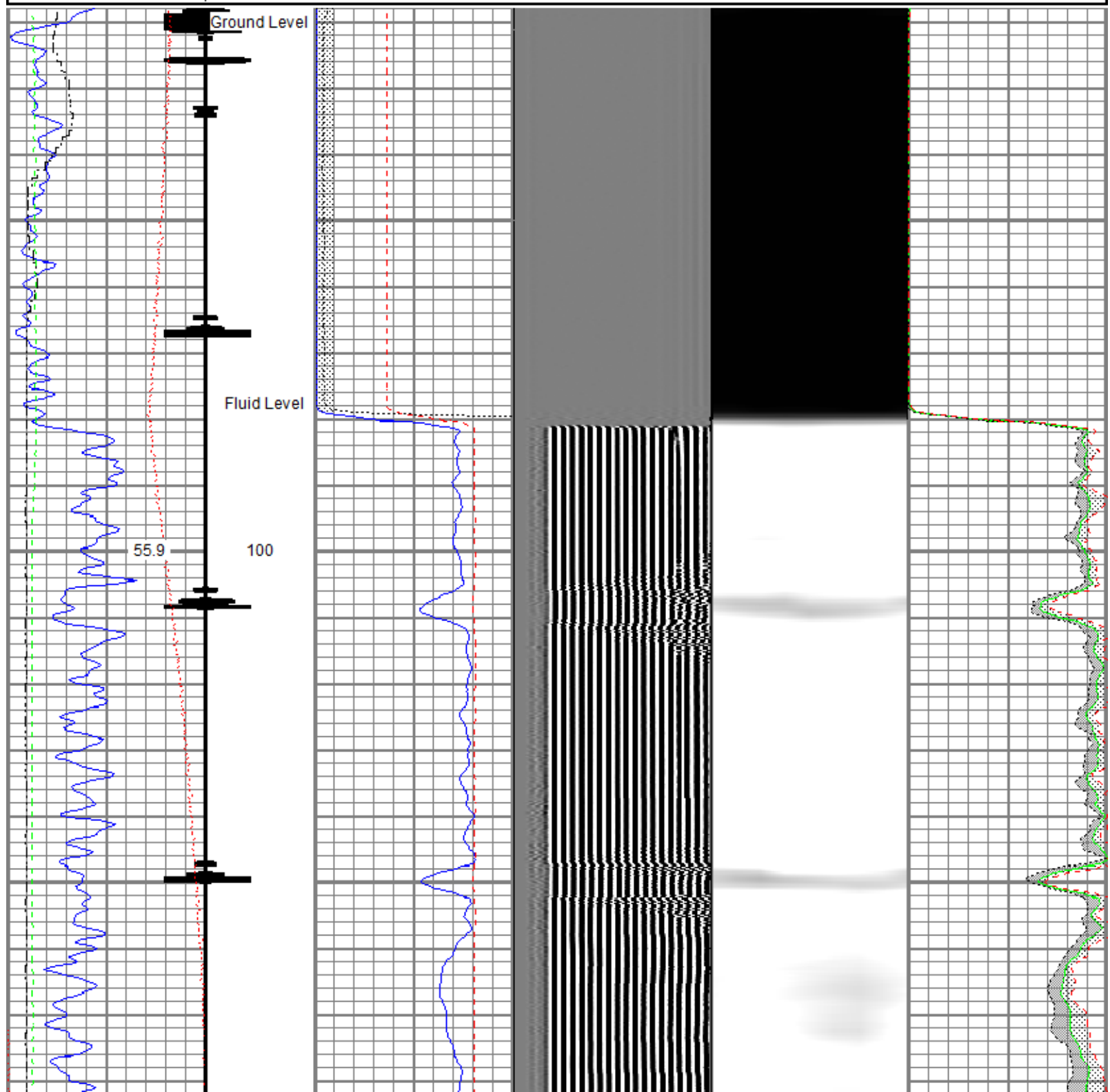
<<< Fold Here >>>
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible 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 Kelly Bushing at 21 FT Log ran from 10973 FT to Surface Recorded Marker Joint at 6070-6080 FT, 7645-7655 FT, and 9508-9519 FT Log ran with 0 PSI Surface Induced Pressure Thank you for choosing Reliance Oilfield Services, LLC!!

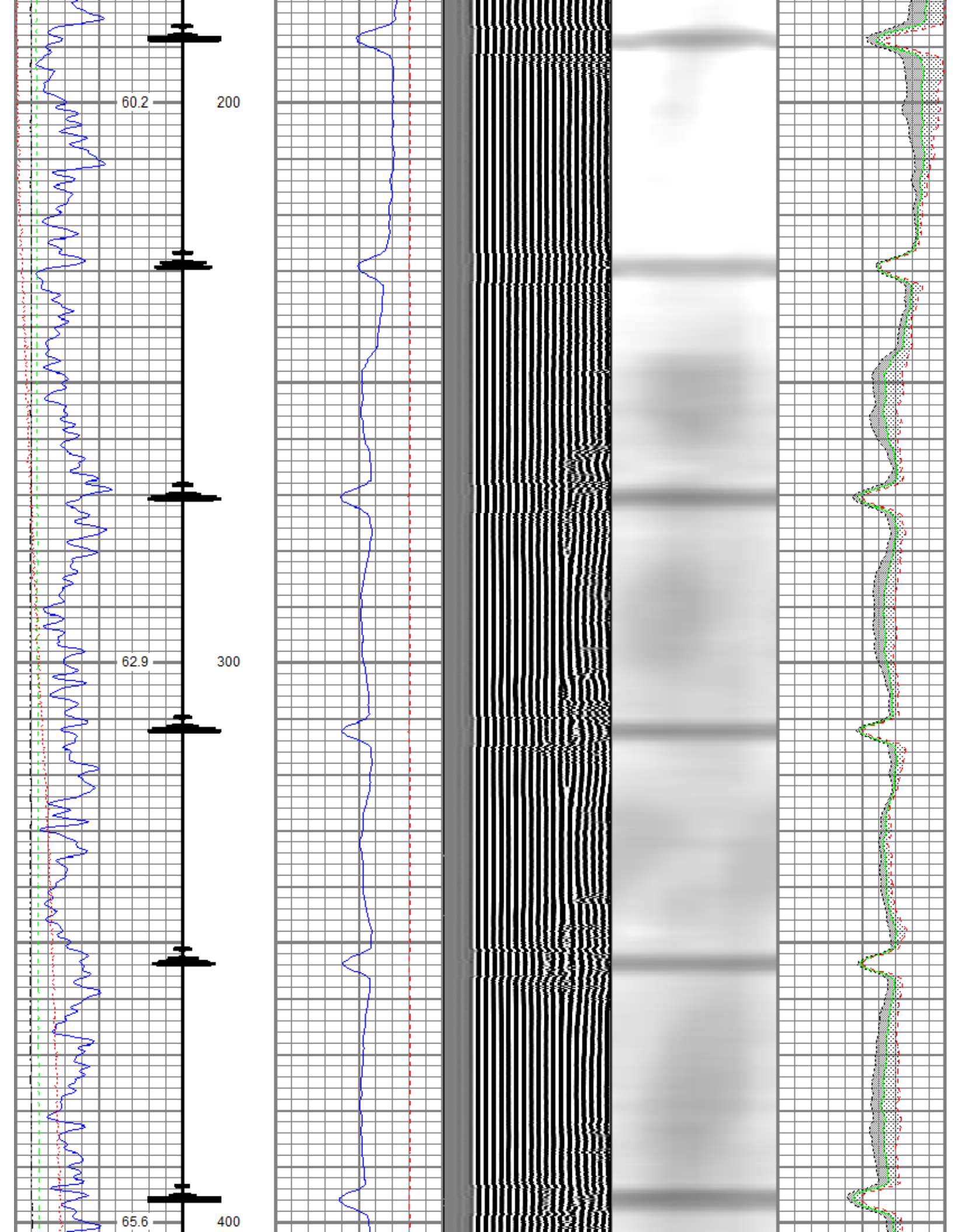


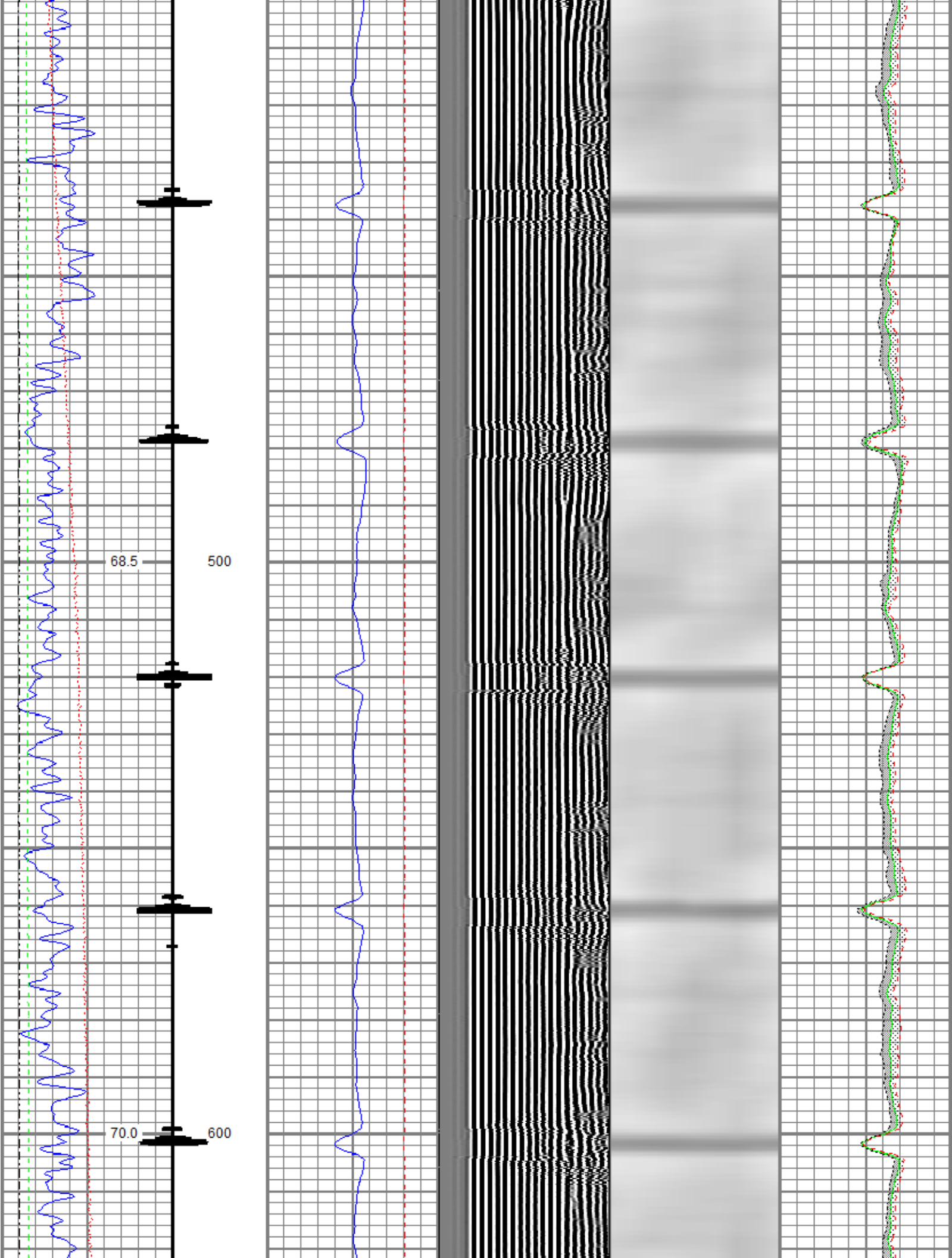
Recorded With 0 PSI Surface-Induced Pressure

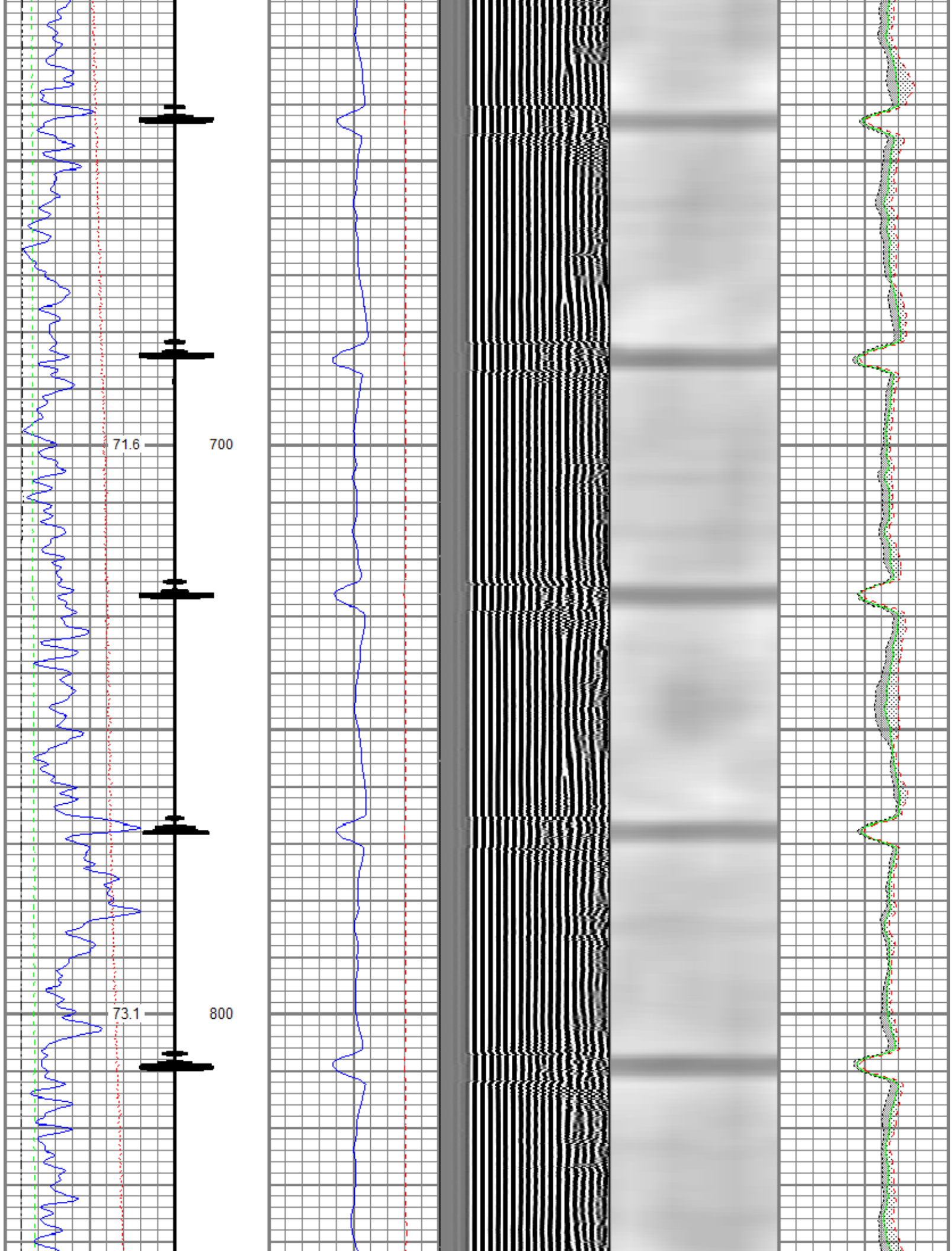
Database File	ursa\ursa_boies ranch c-240 fed 21c-25-2-98_rbl_02-23-19\processed_ursa_boies ranch c-240 fed 21c-25-2-98_rbl_02-23-19.
Dataset Pathname	main.1
Presentation Format	ros_radri
Dataset Creation	Tue Feb 26 13:22:20 2019
Charted by	Depth in Feet scaled 1:240

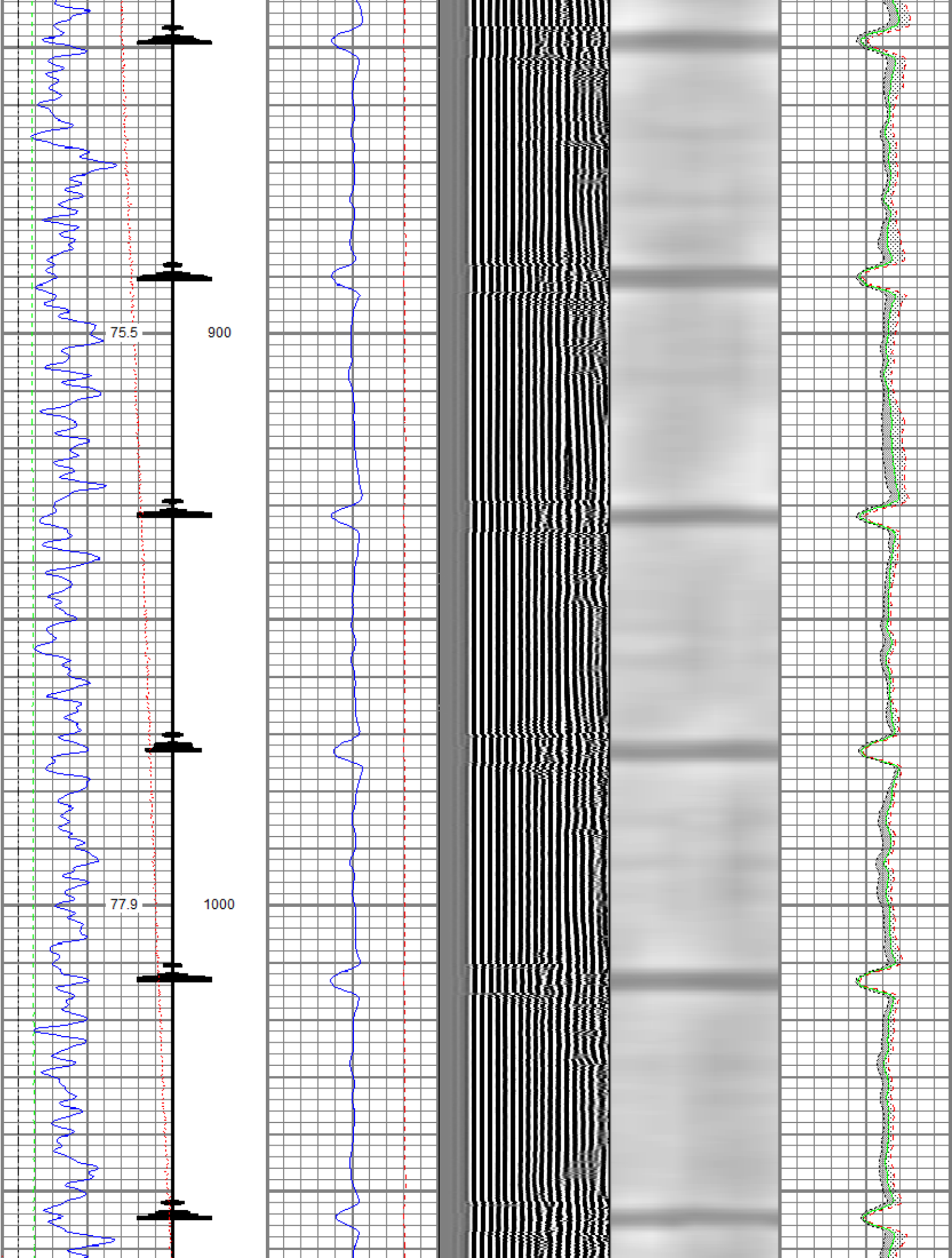
Gamma Ray	0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	0	Average Amplitude	100
(GAPI)	120	3' Amplitude x 5	200	1200			Minimum Amplitude	
Casing Collar Locator		0	(mV)	20			0	100
Temperature (degF)	20	3' Travel Time					Maximum Amplitude	
Line Speed		650	(usec)	150			0	100
(ft/min)	150	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

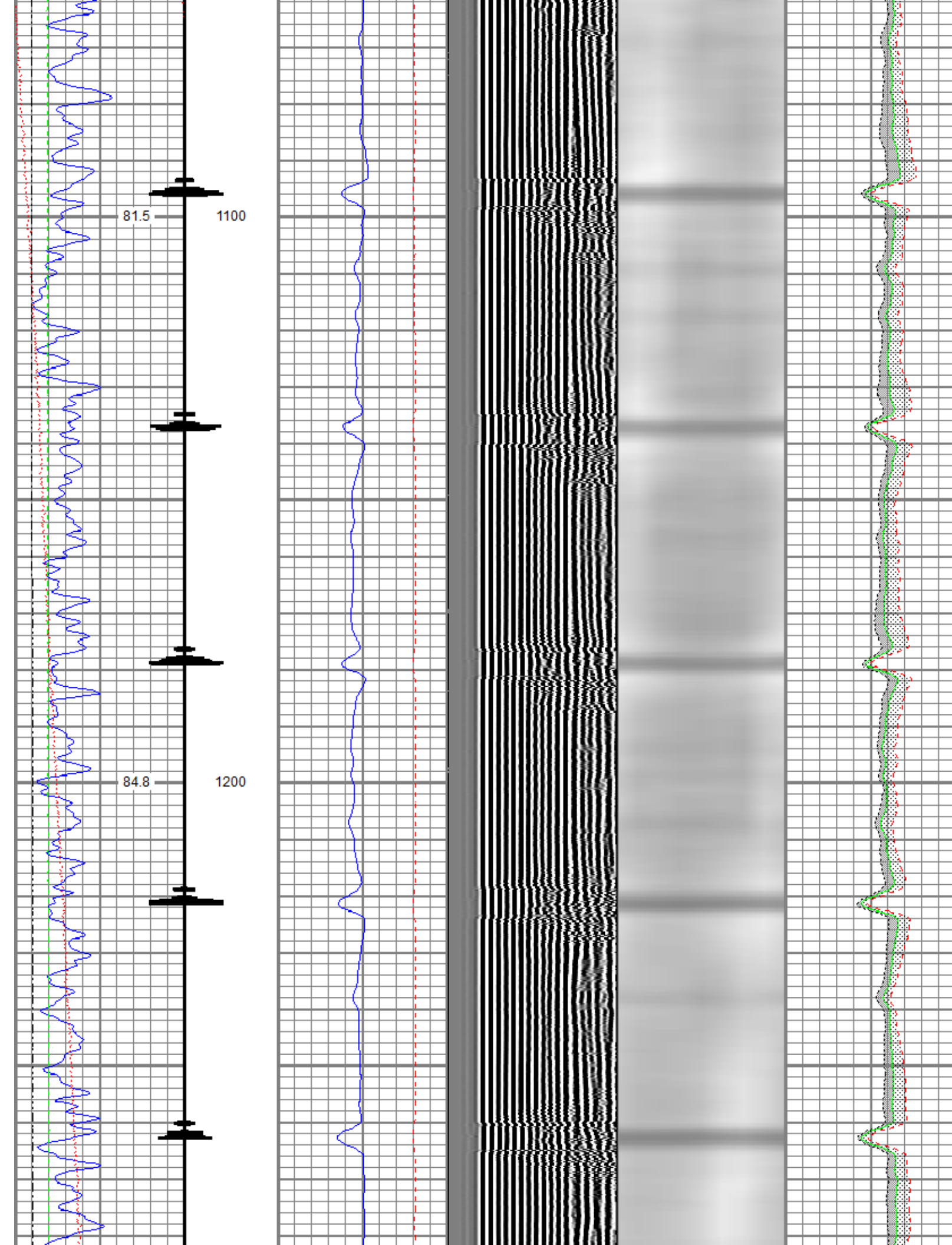


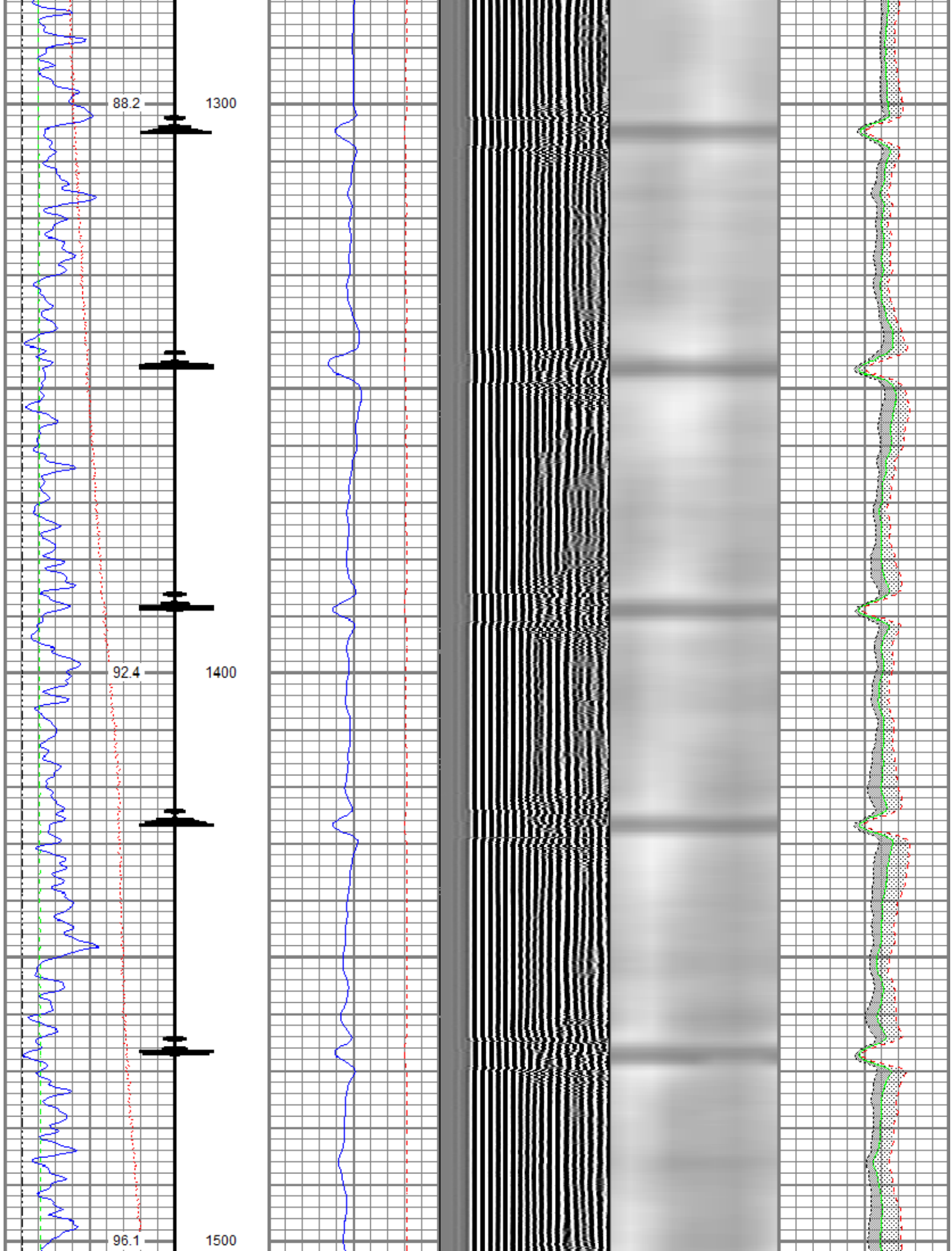


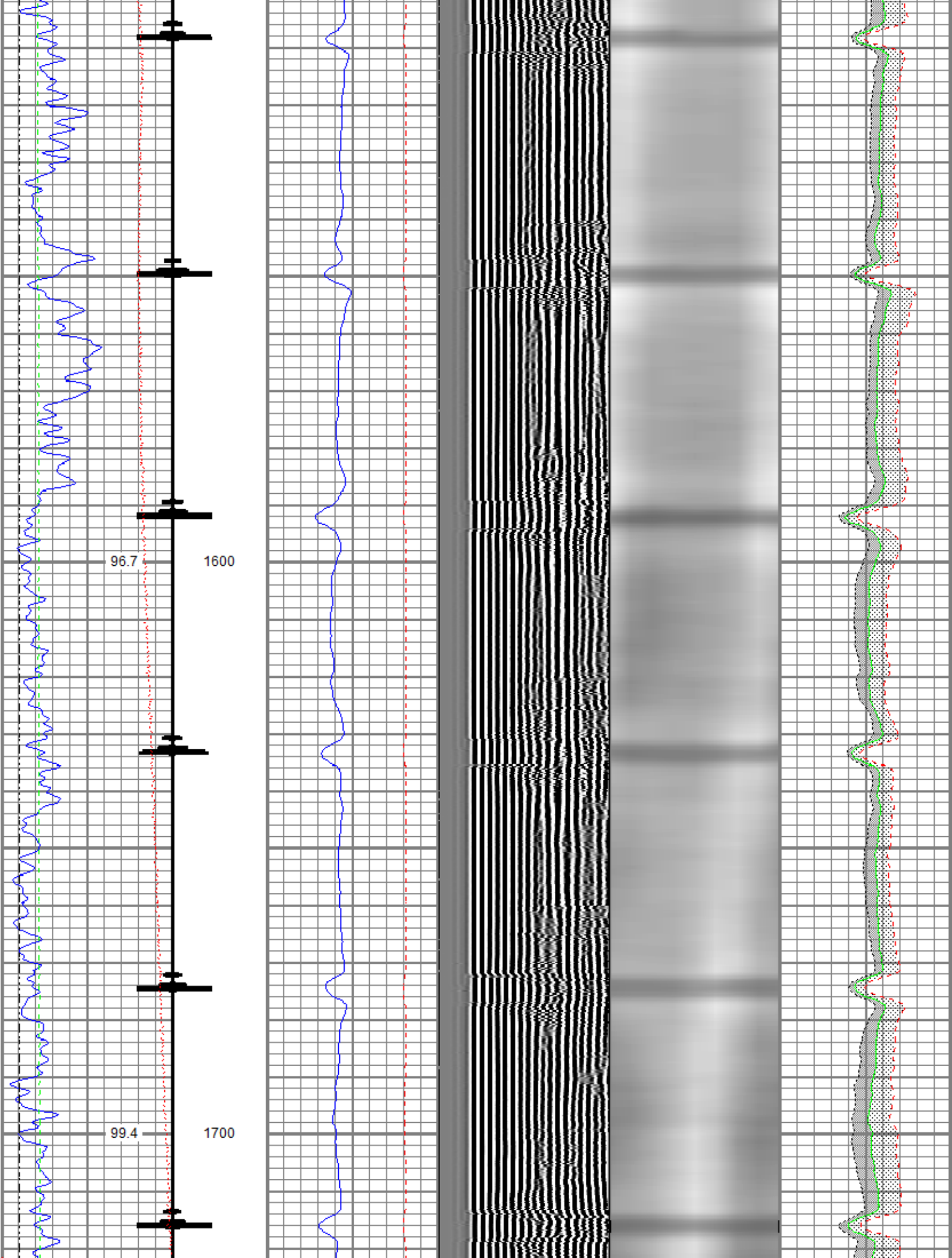


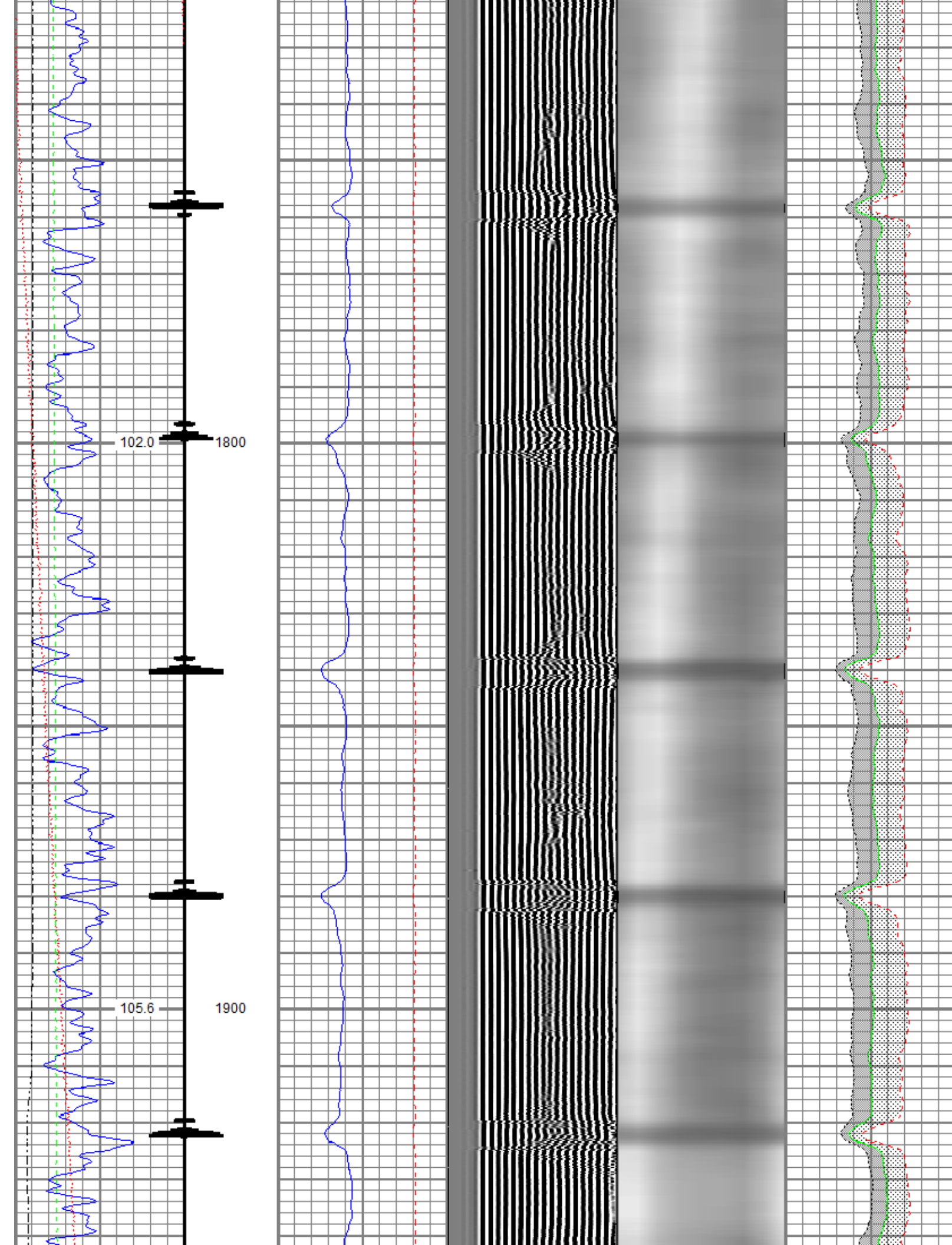


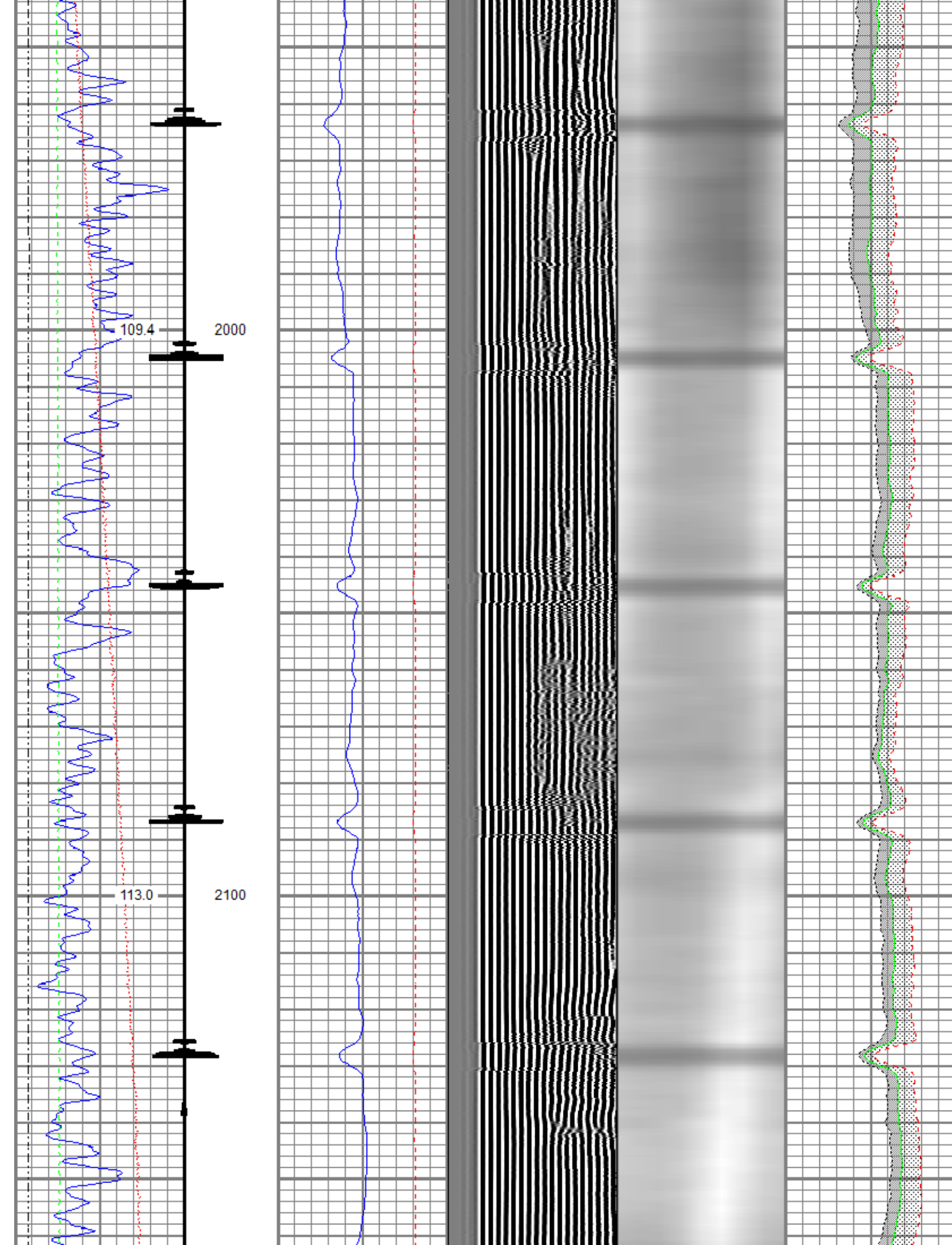


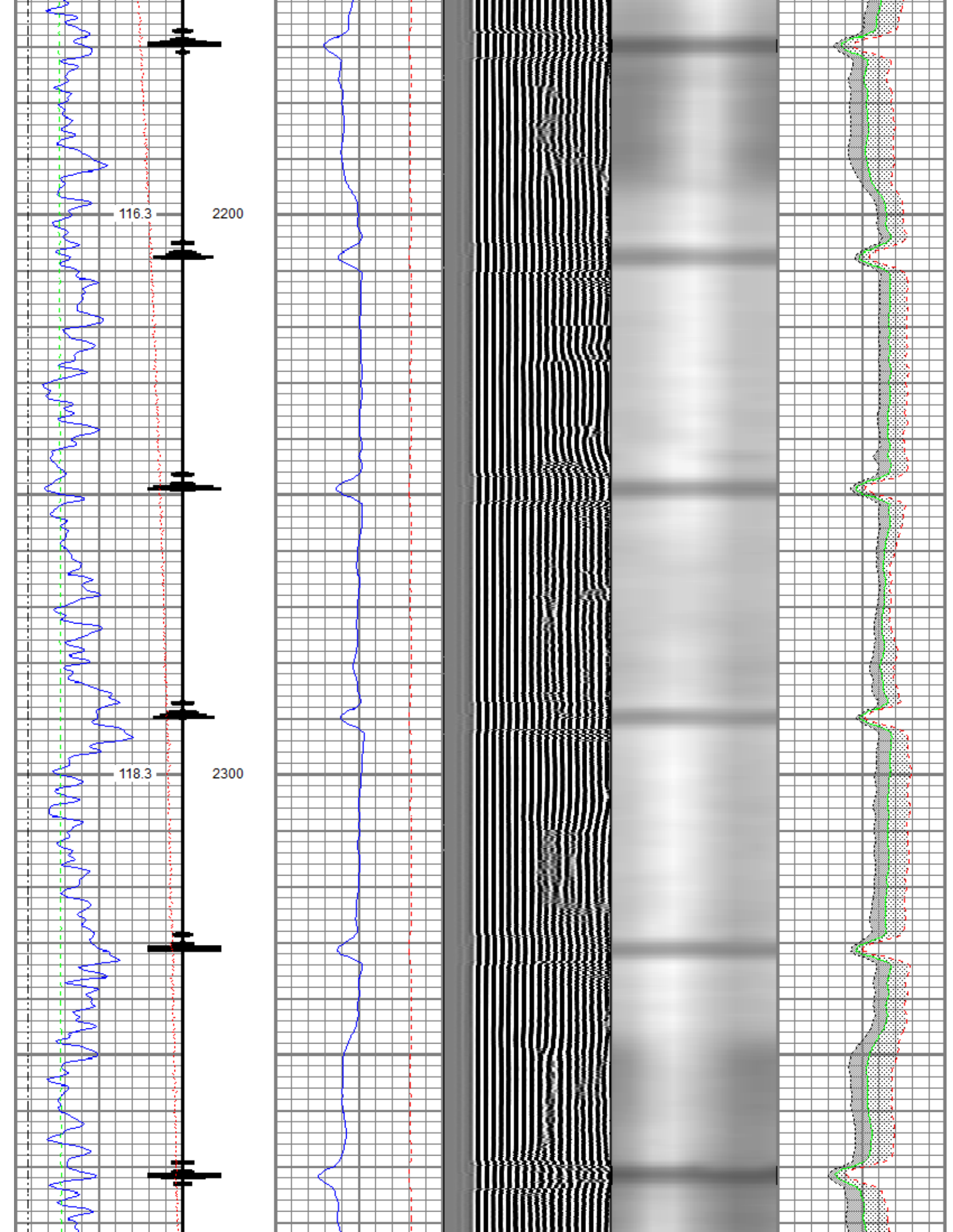


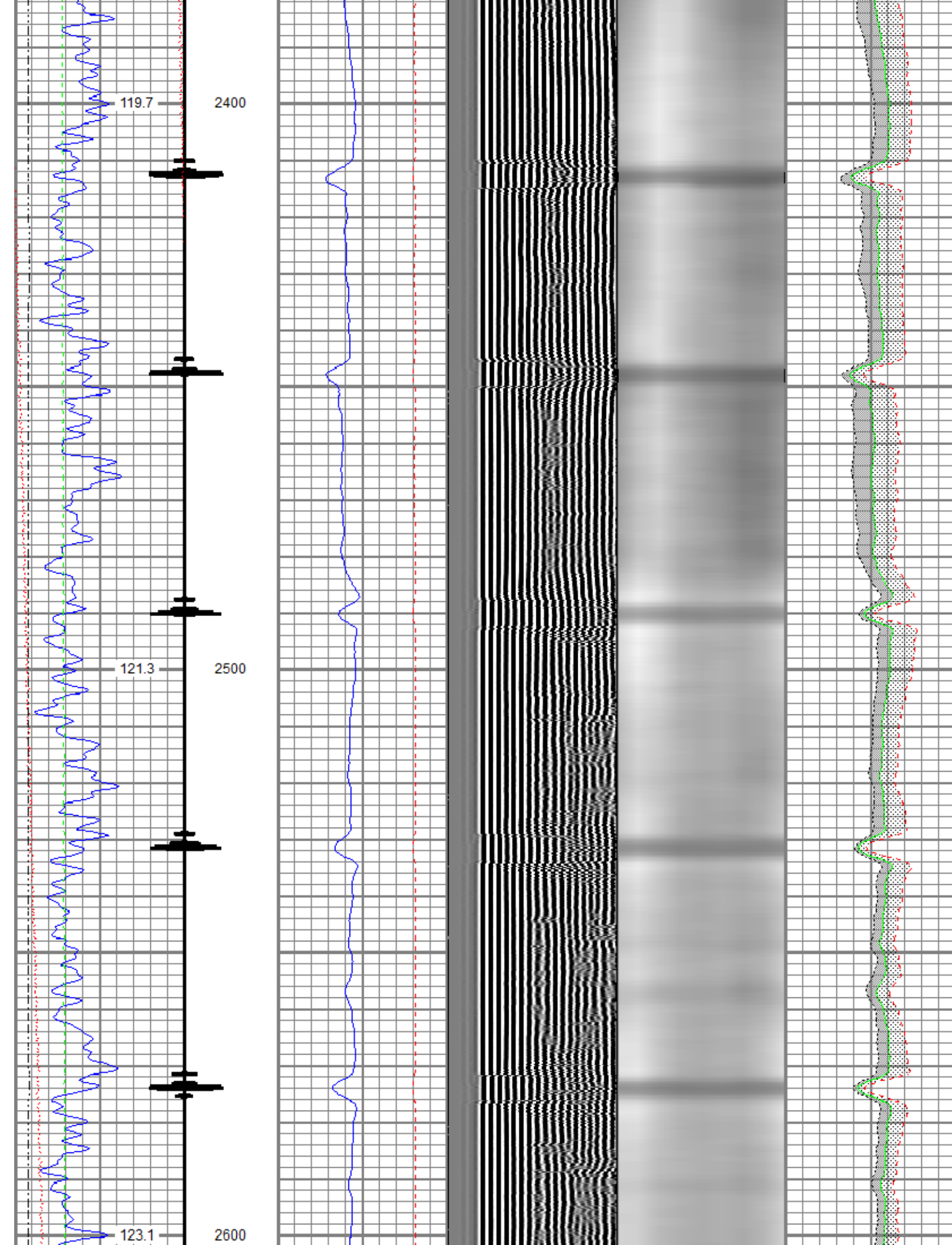


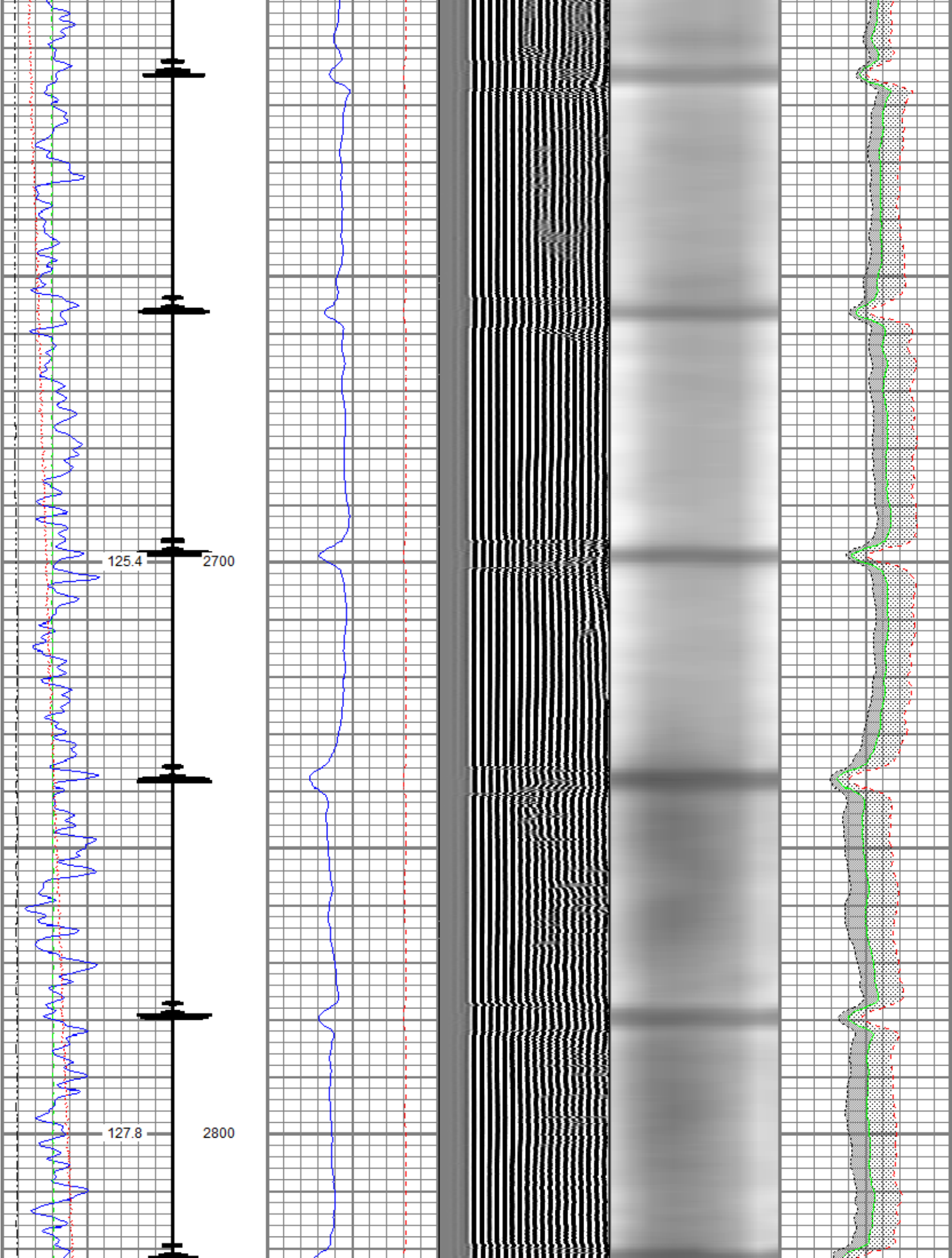


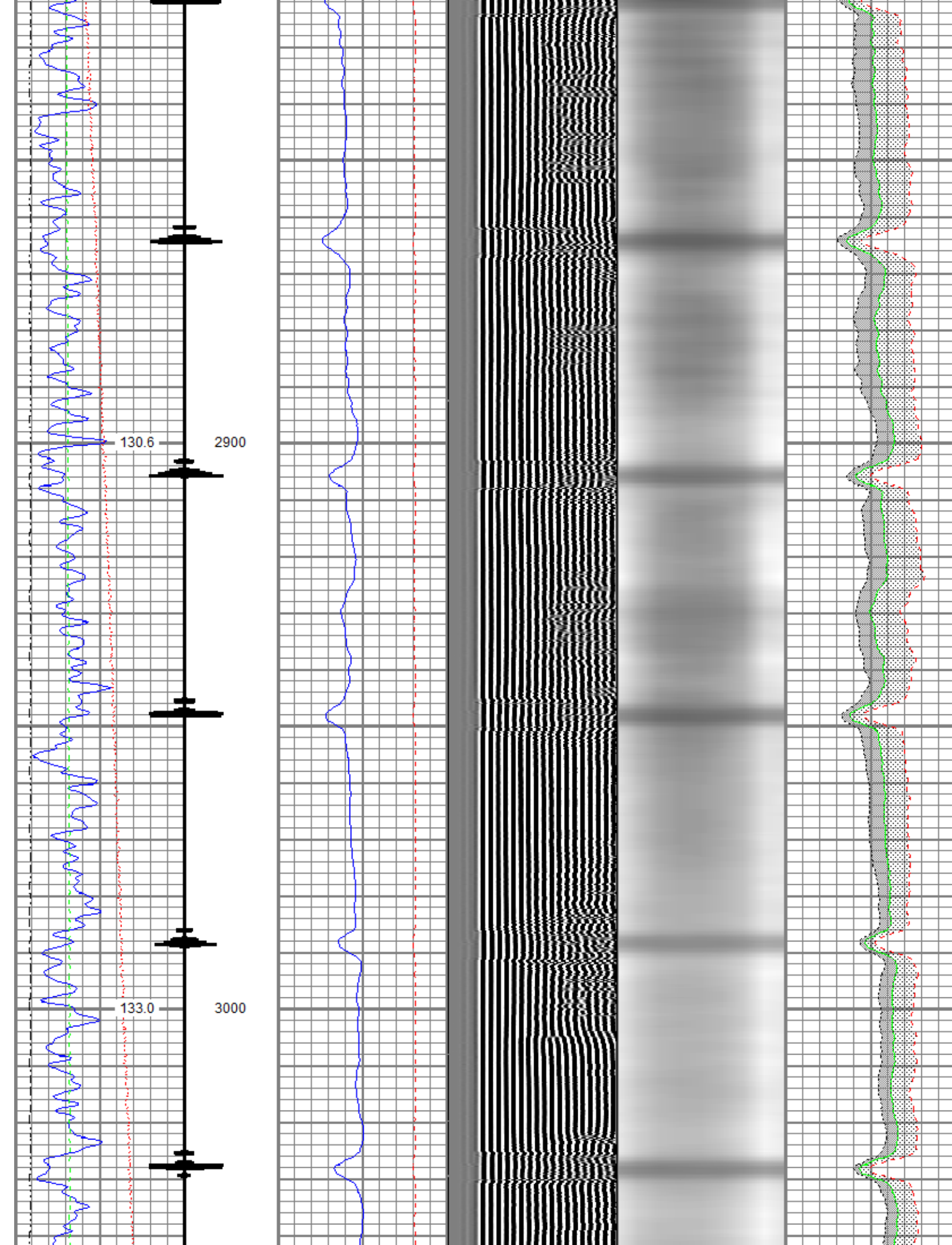


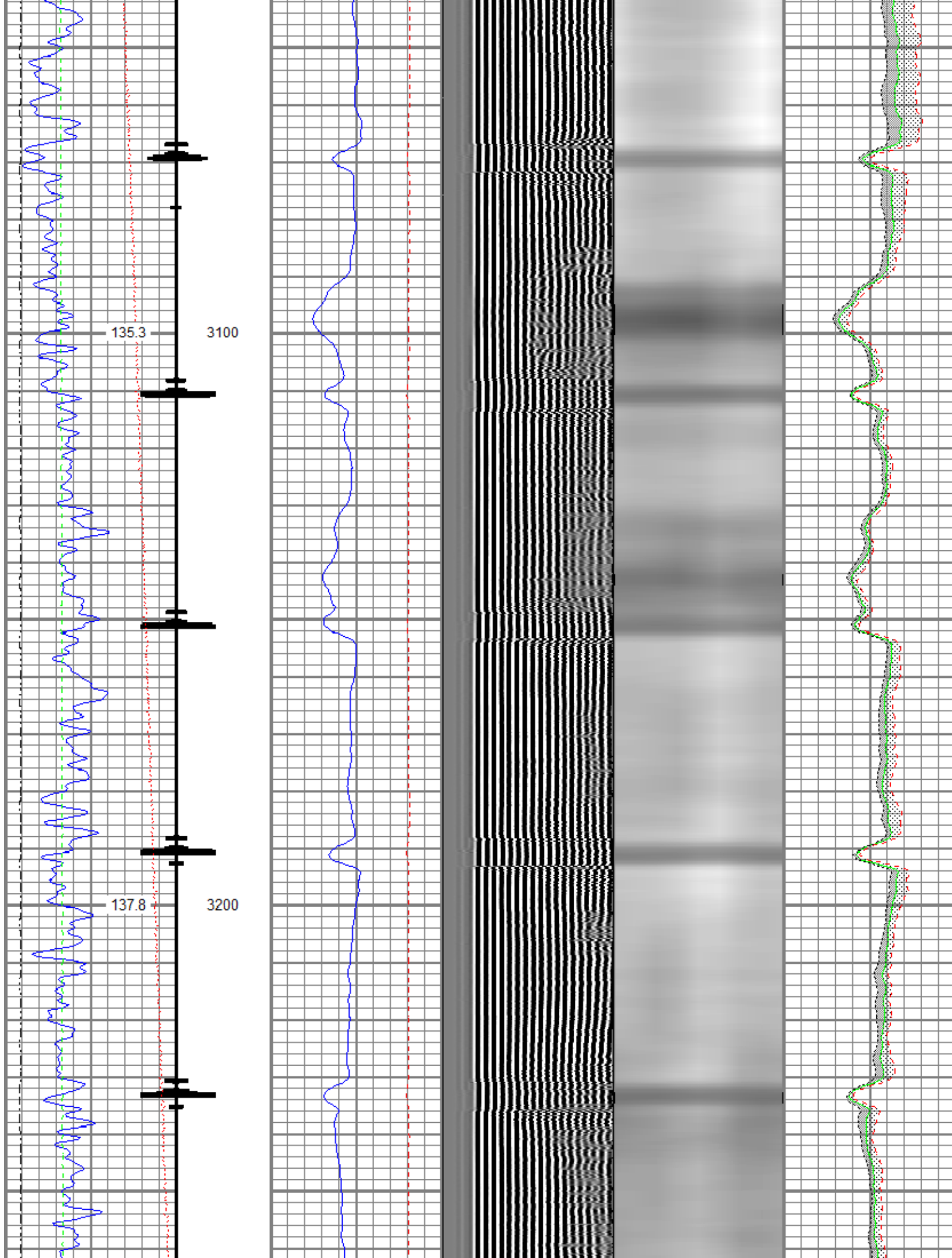


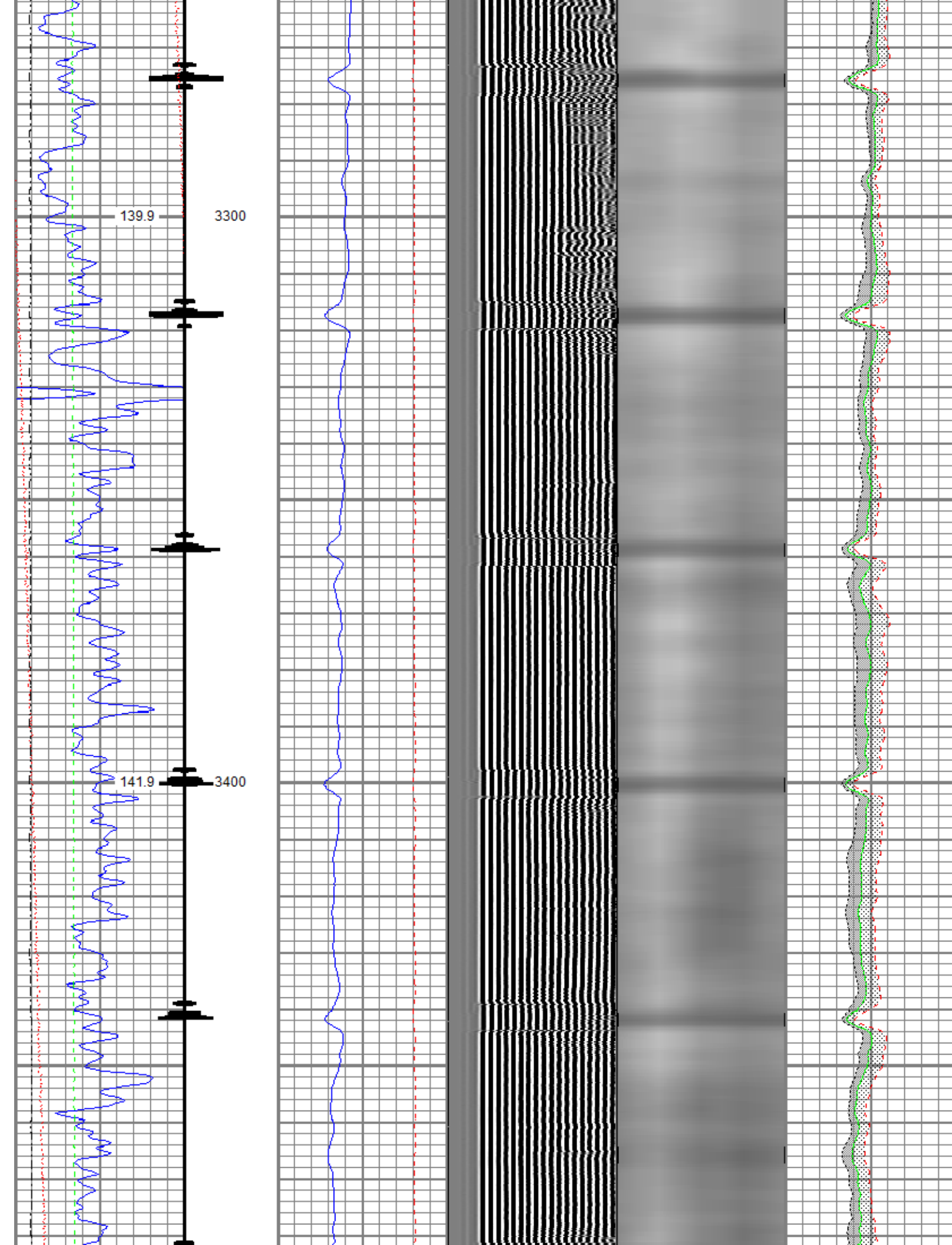


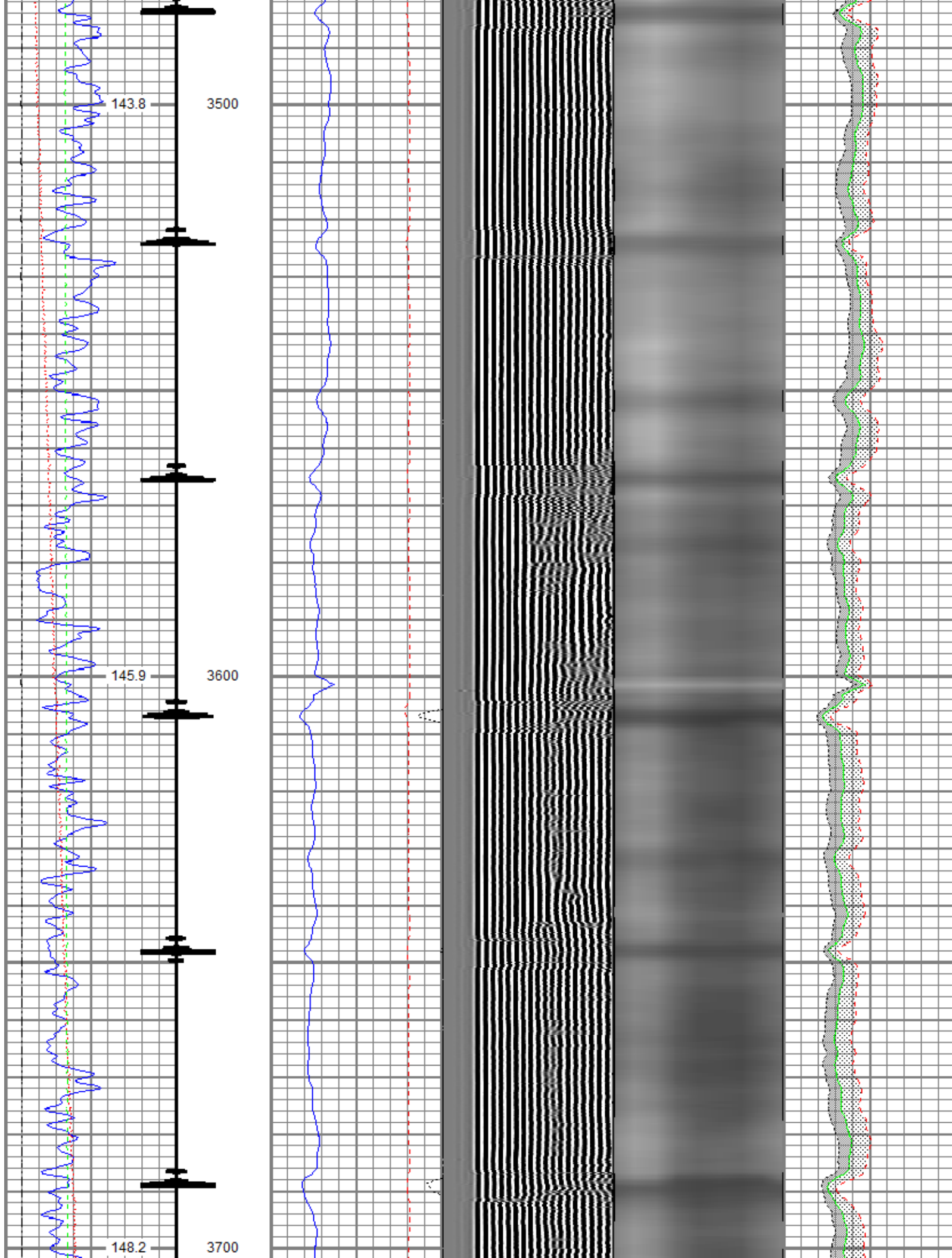


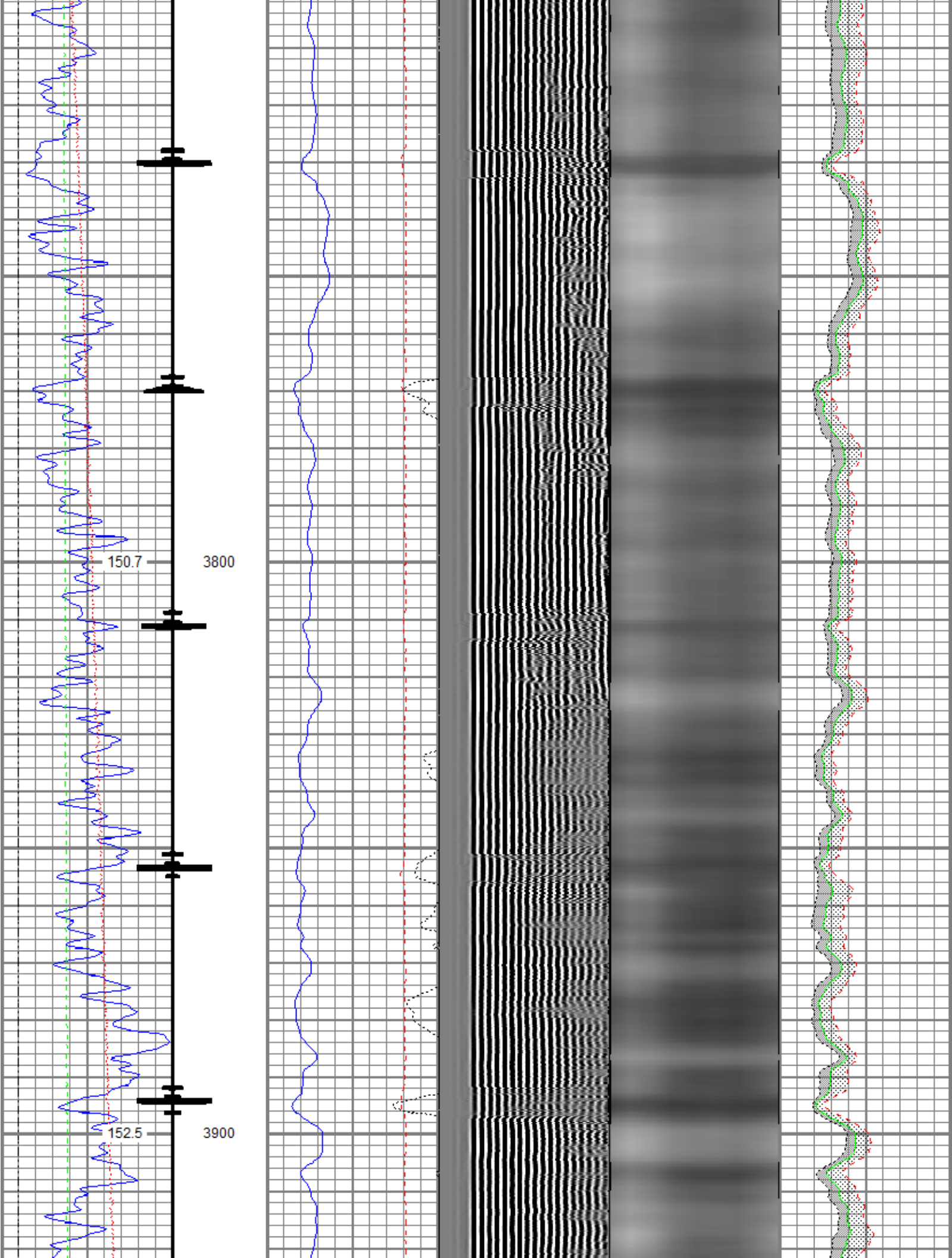


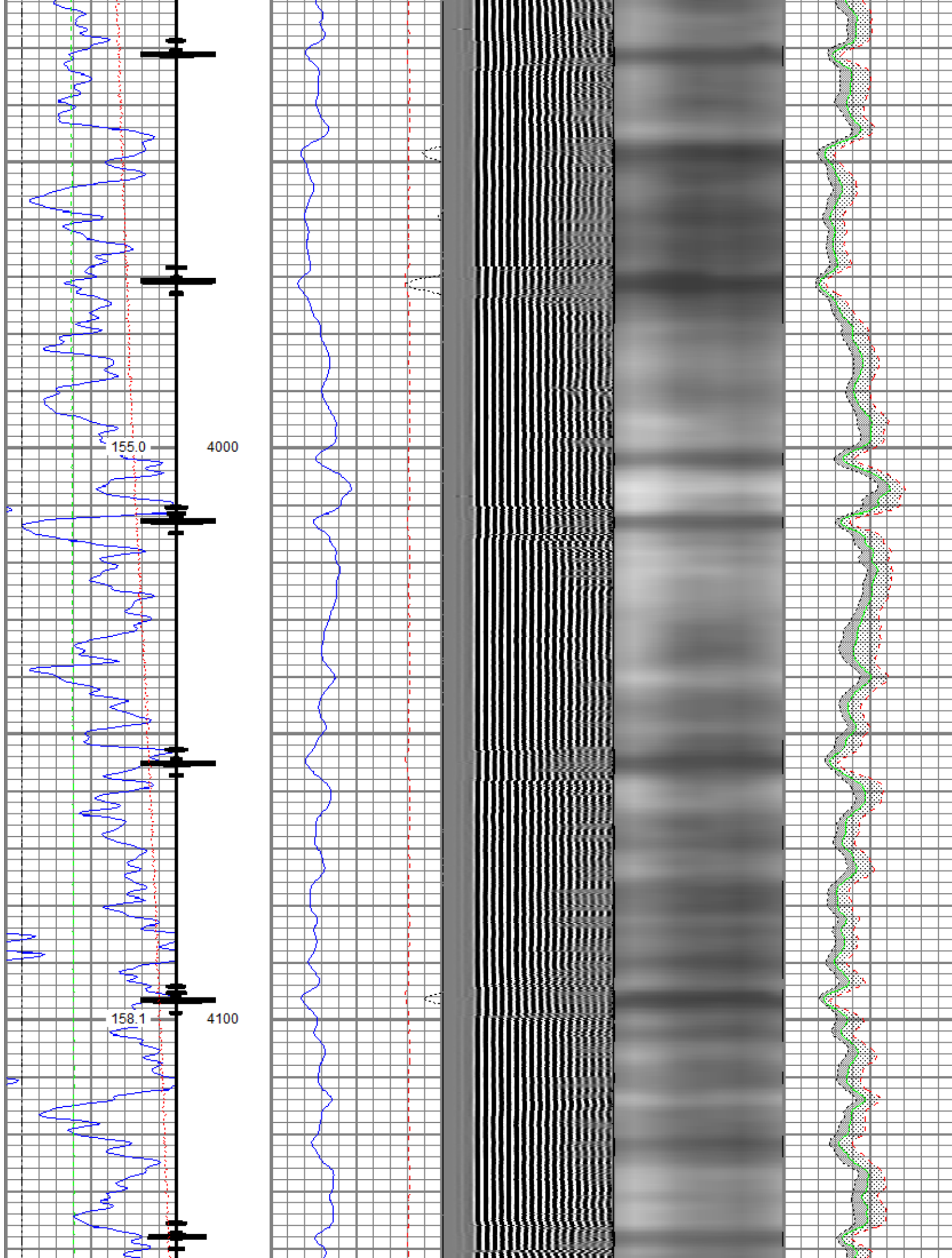


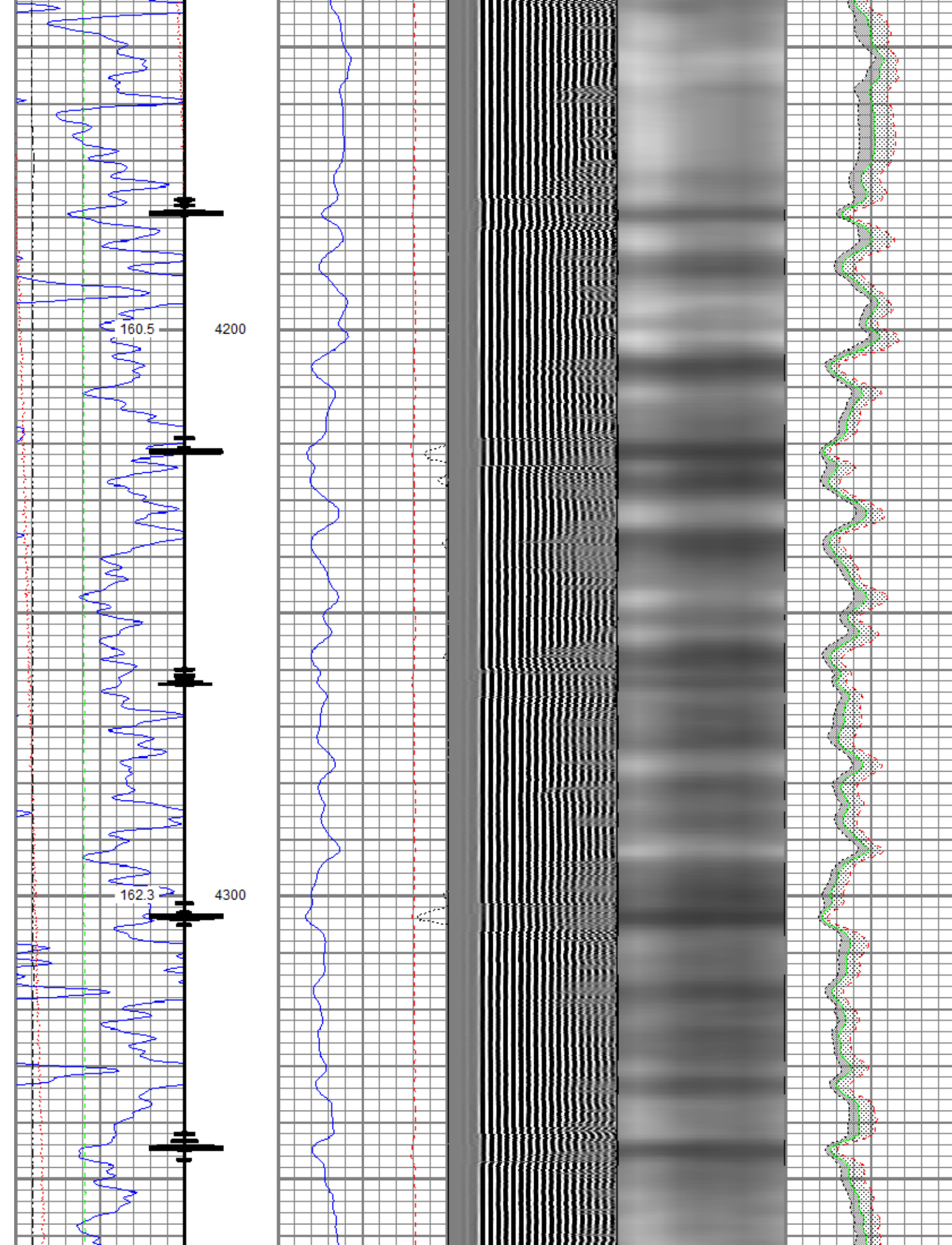


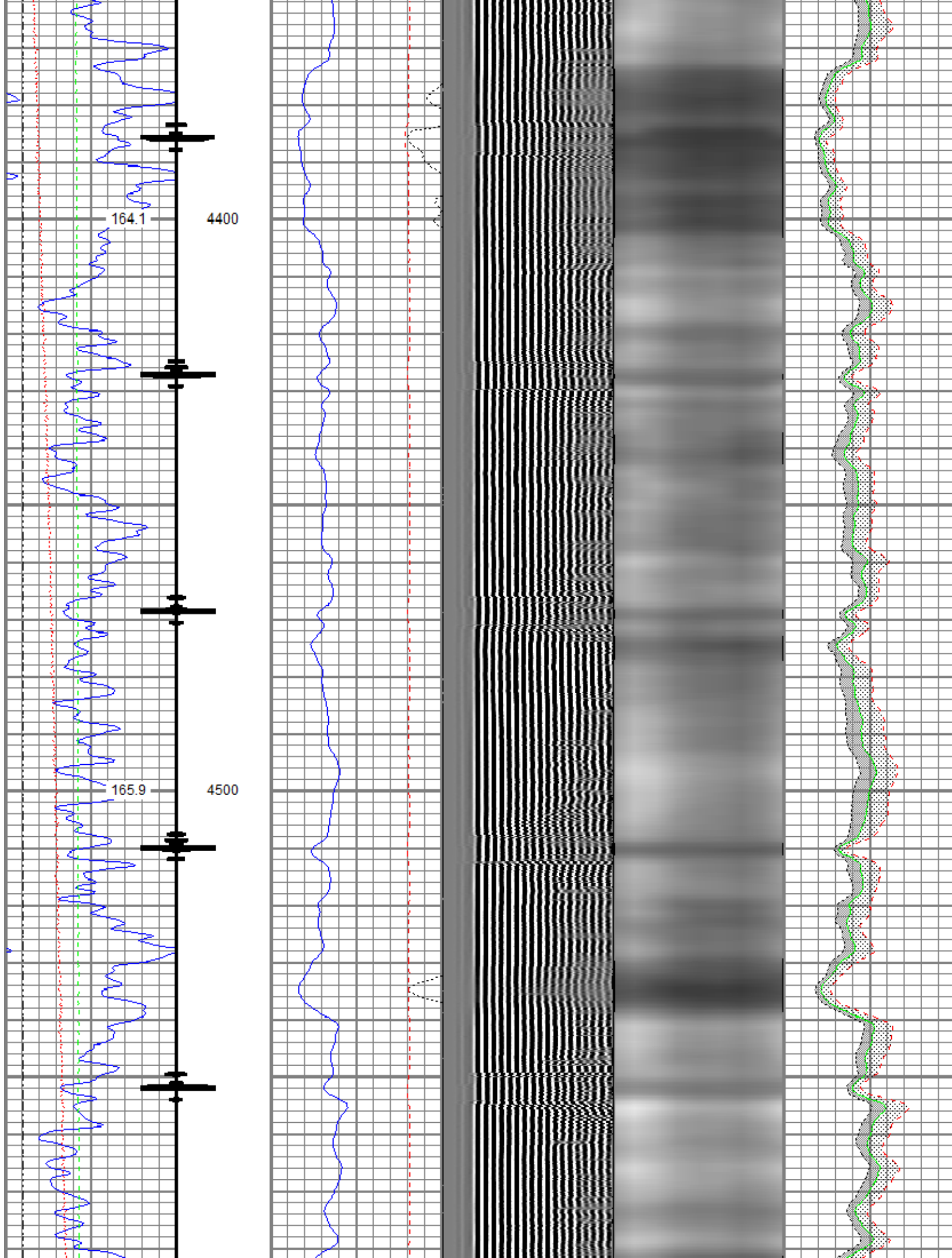


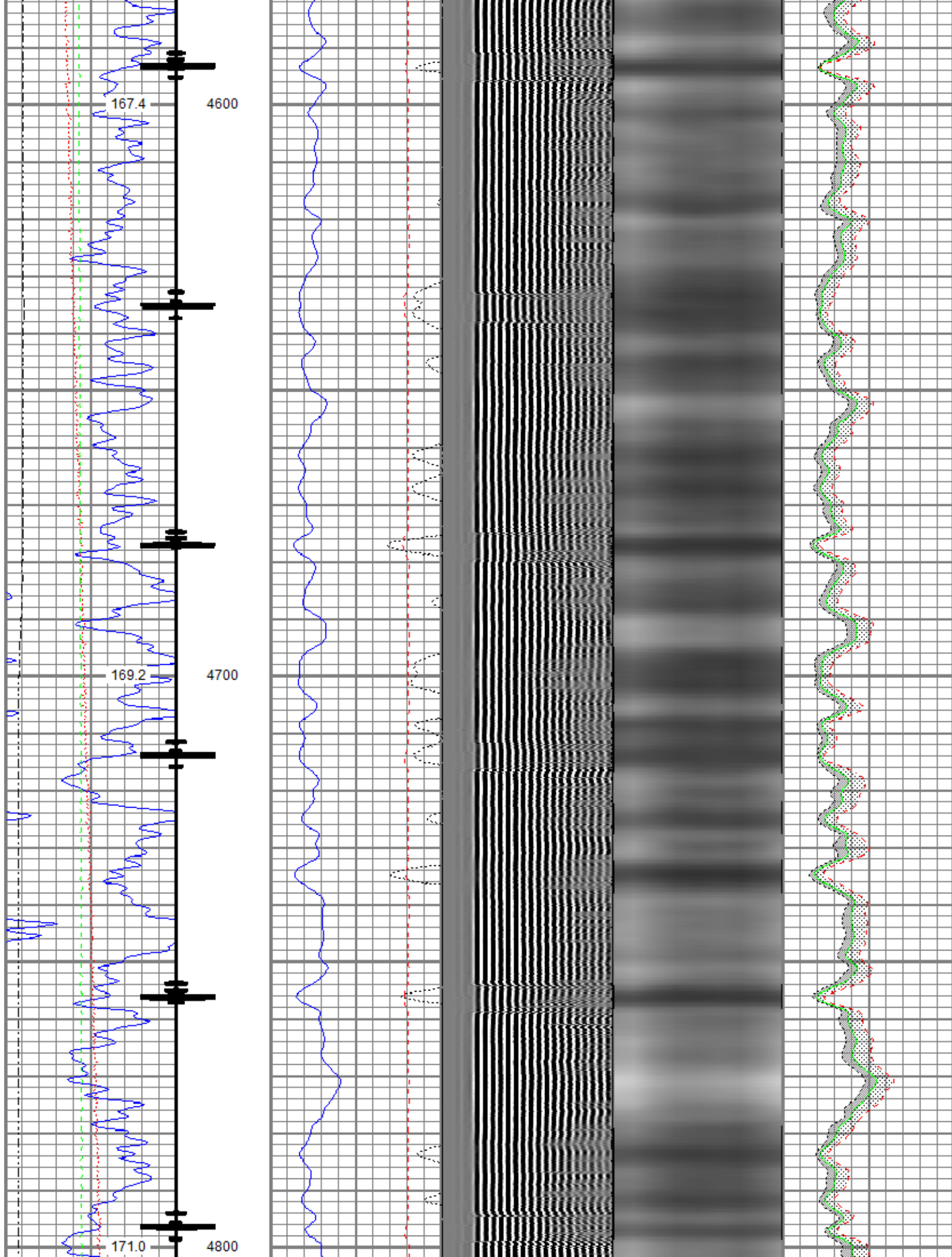


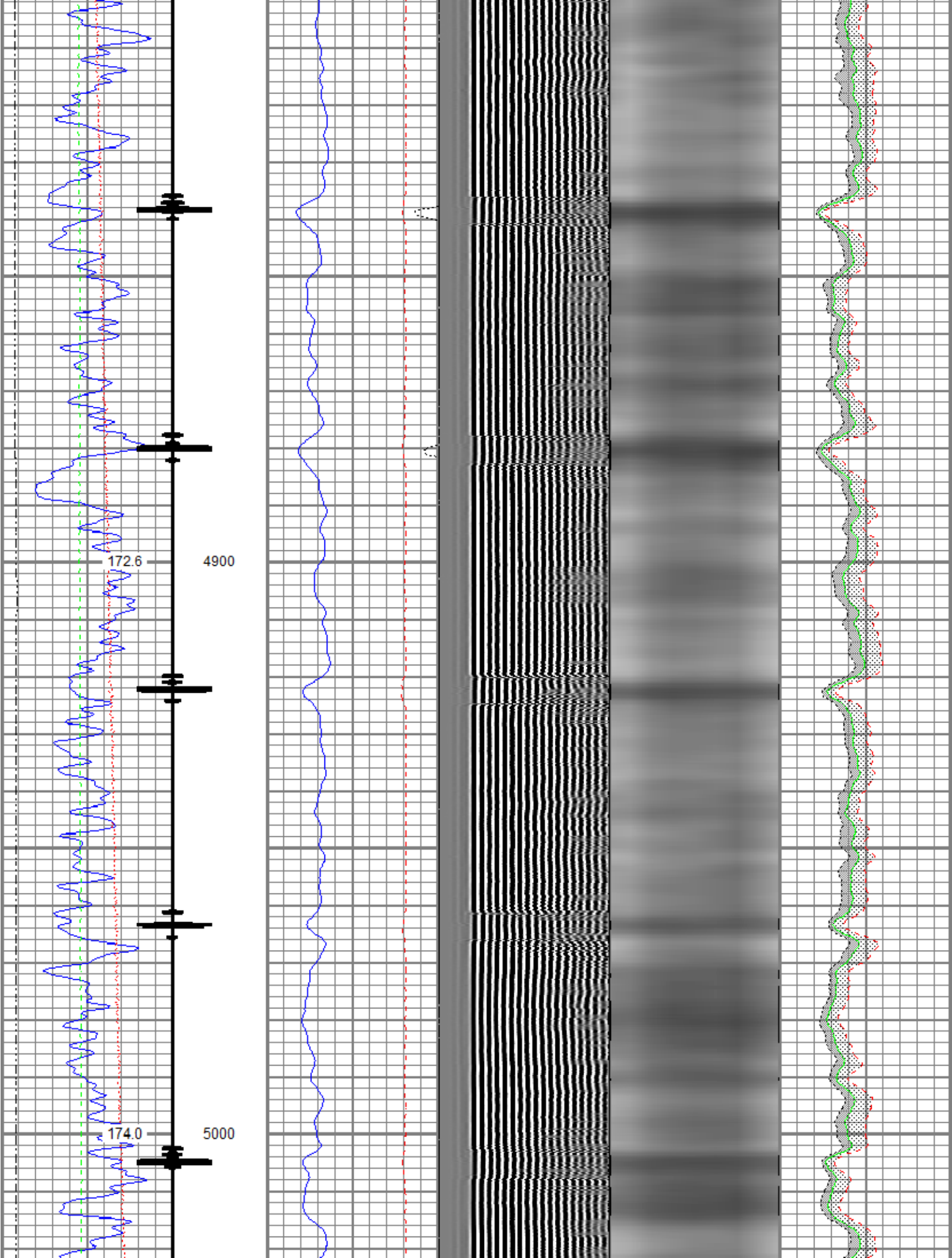


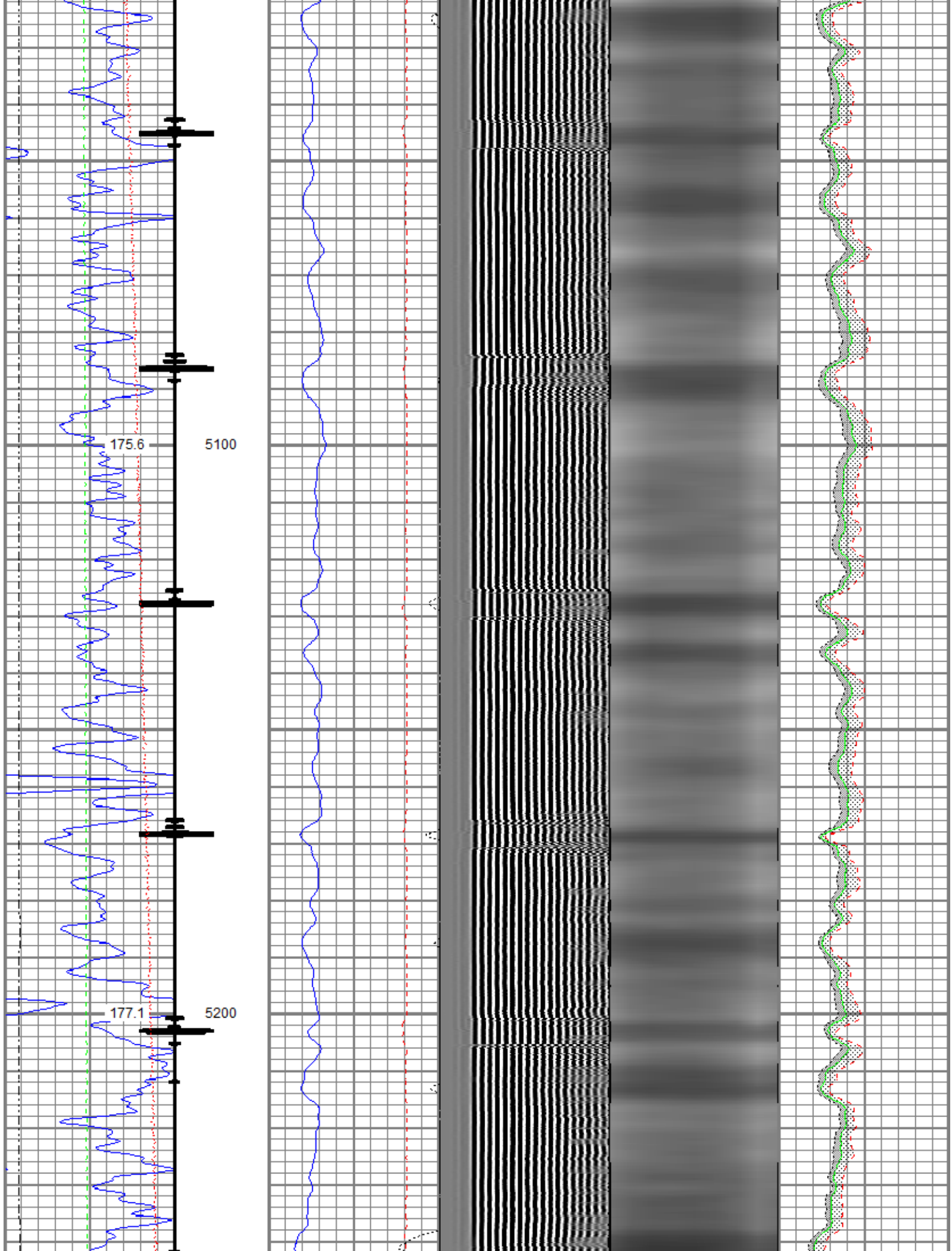


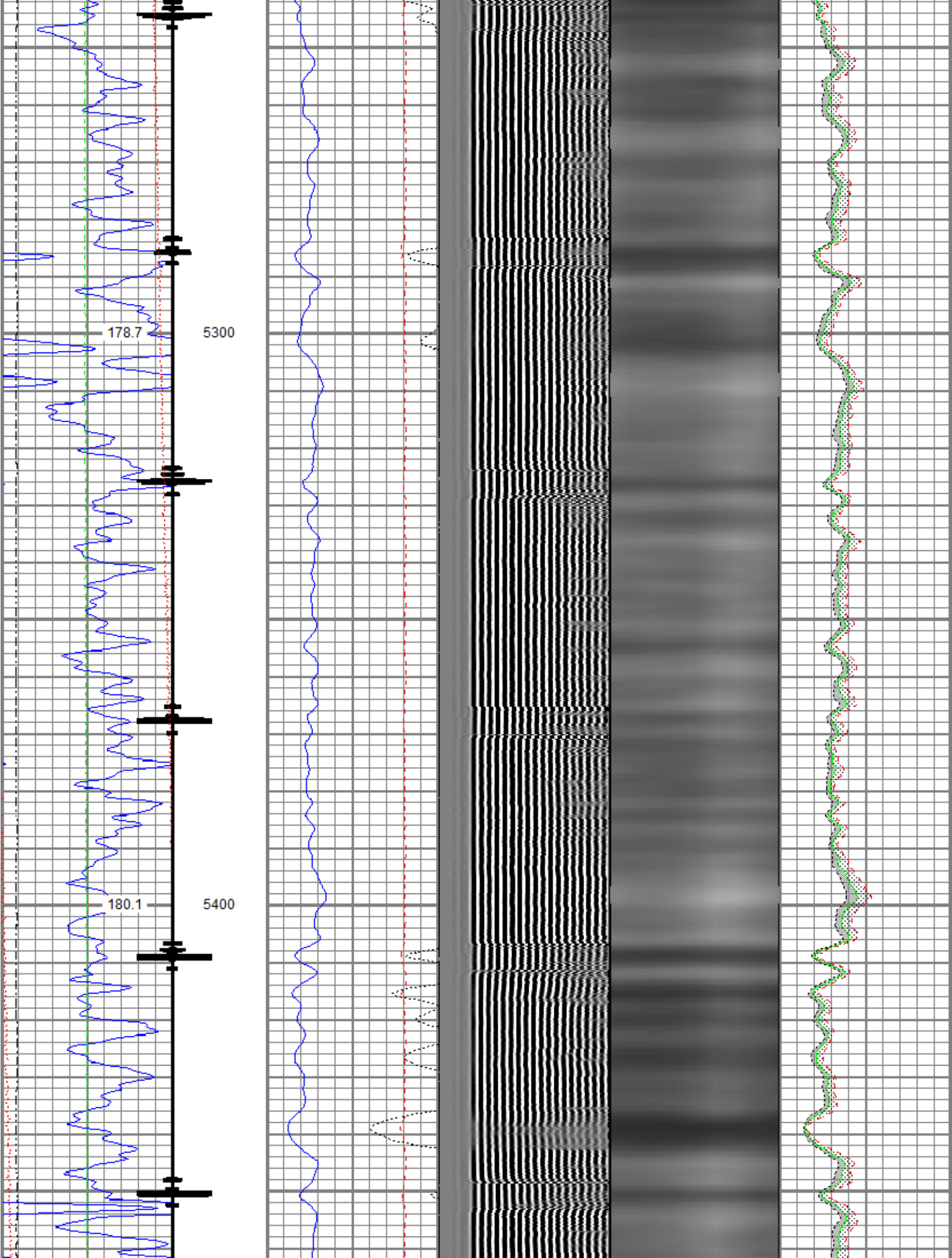


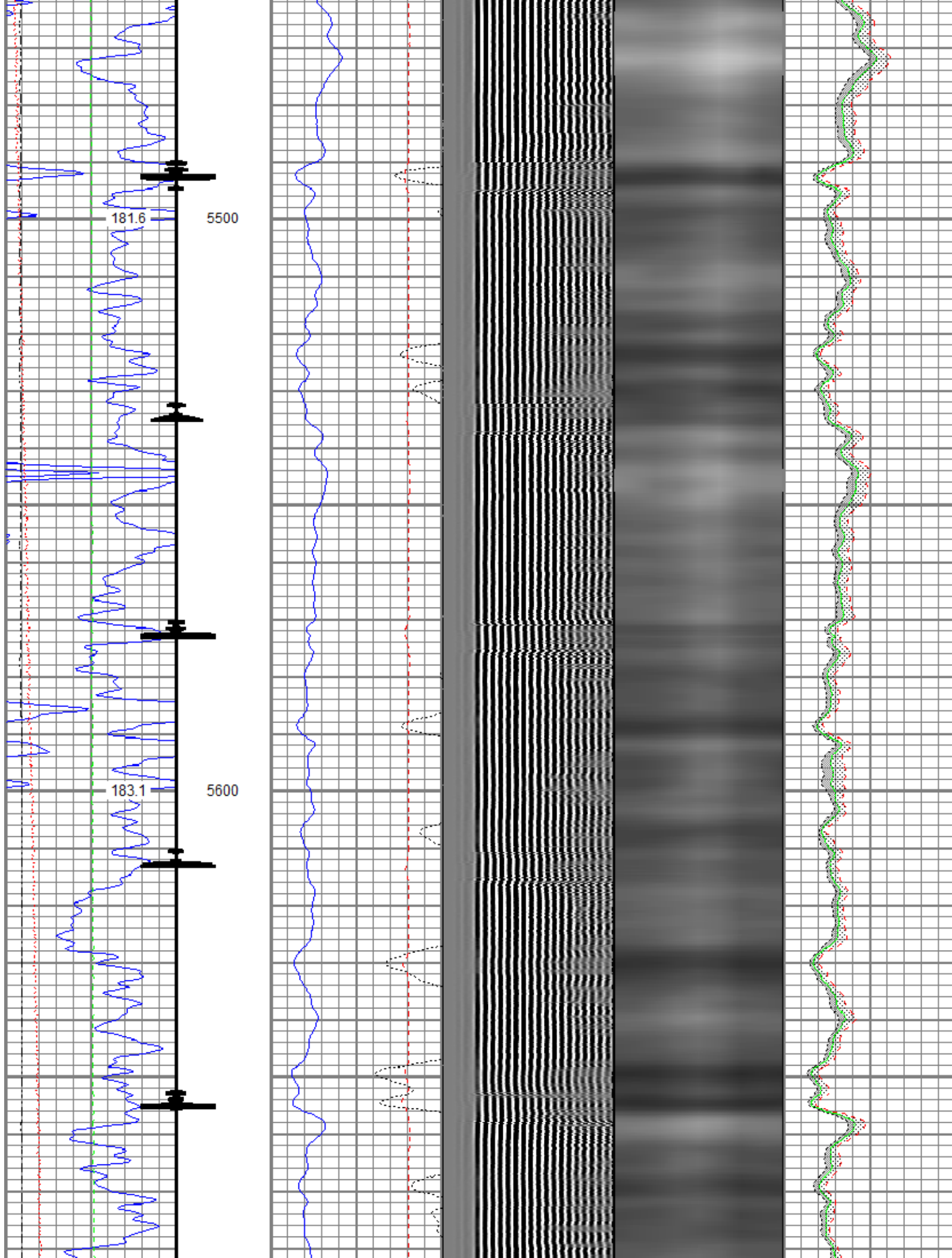


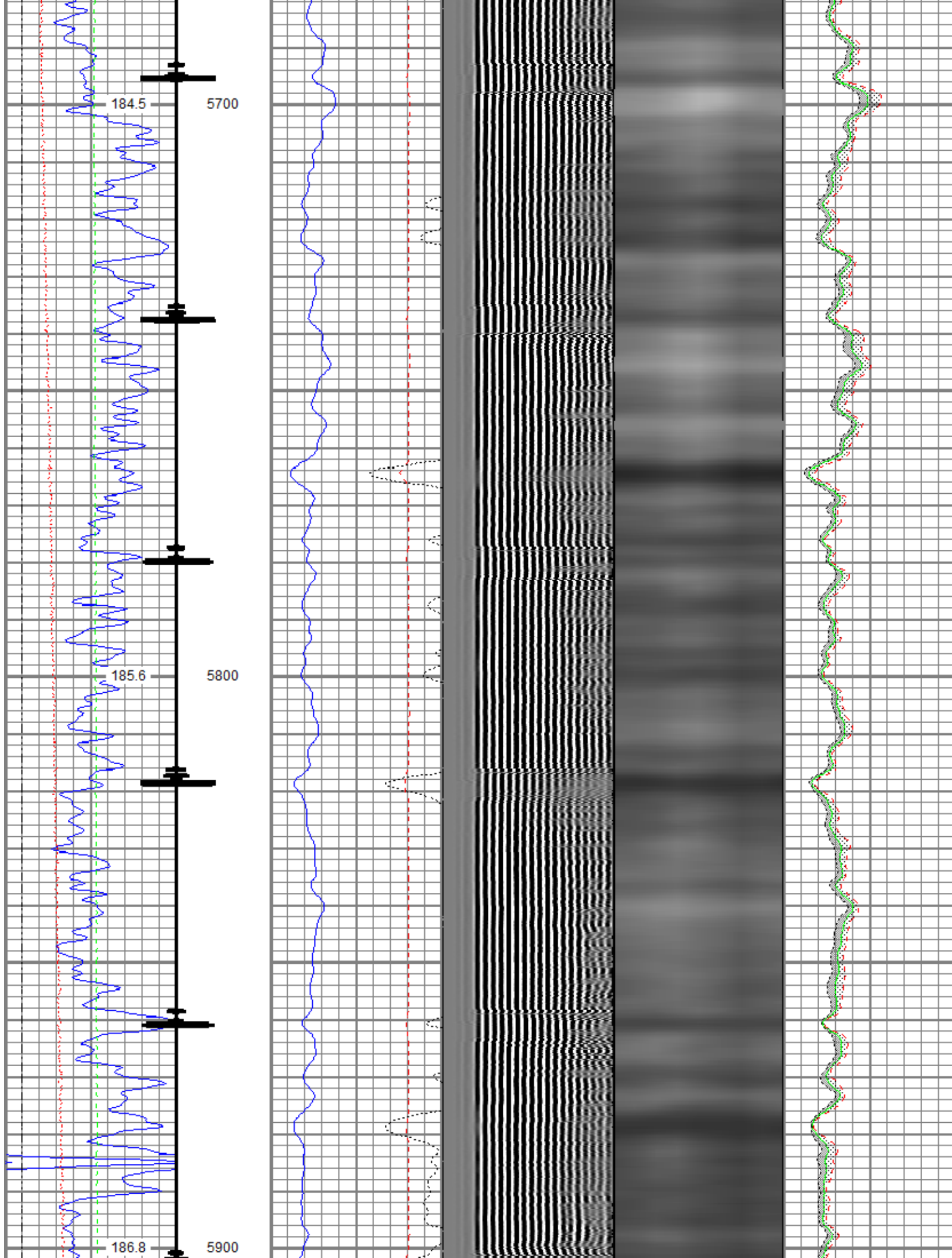


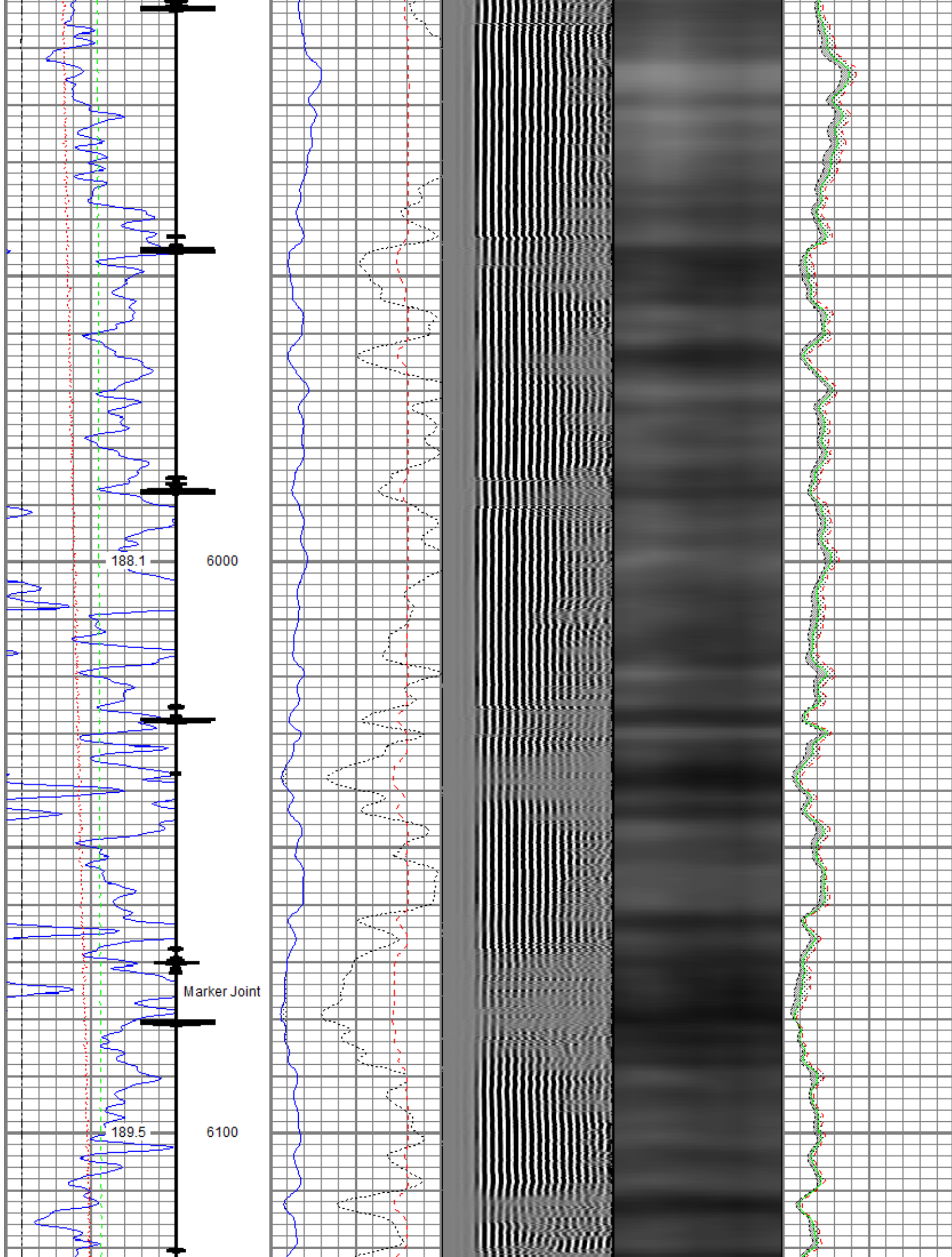


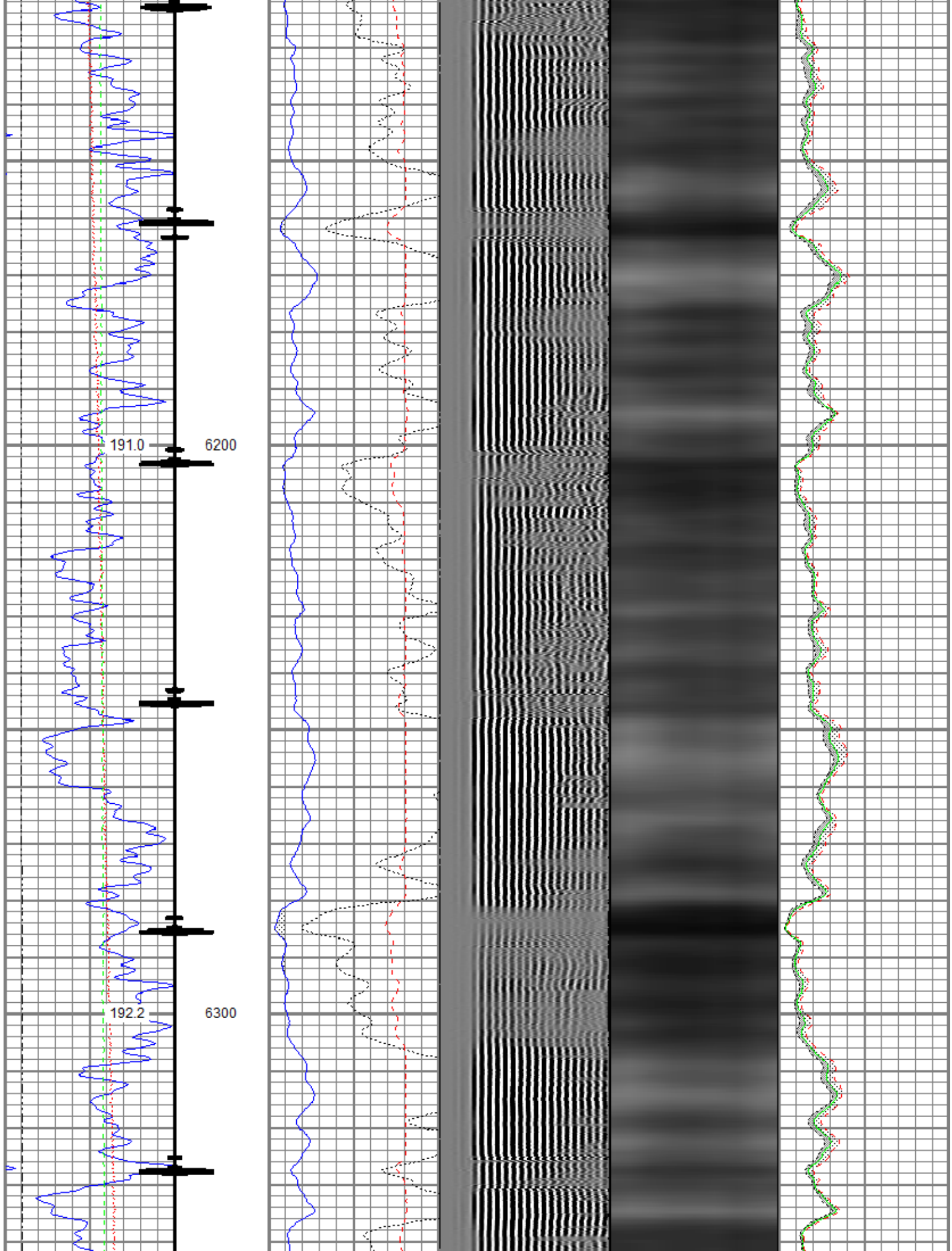


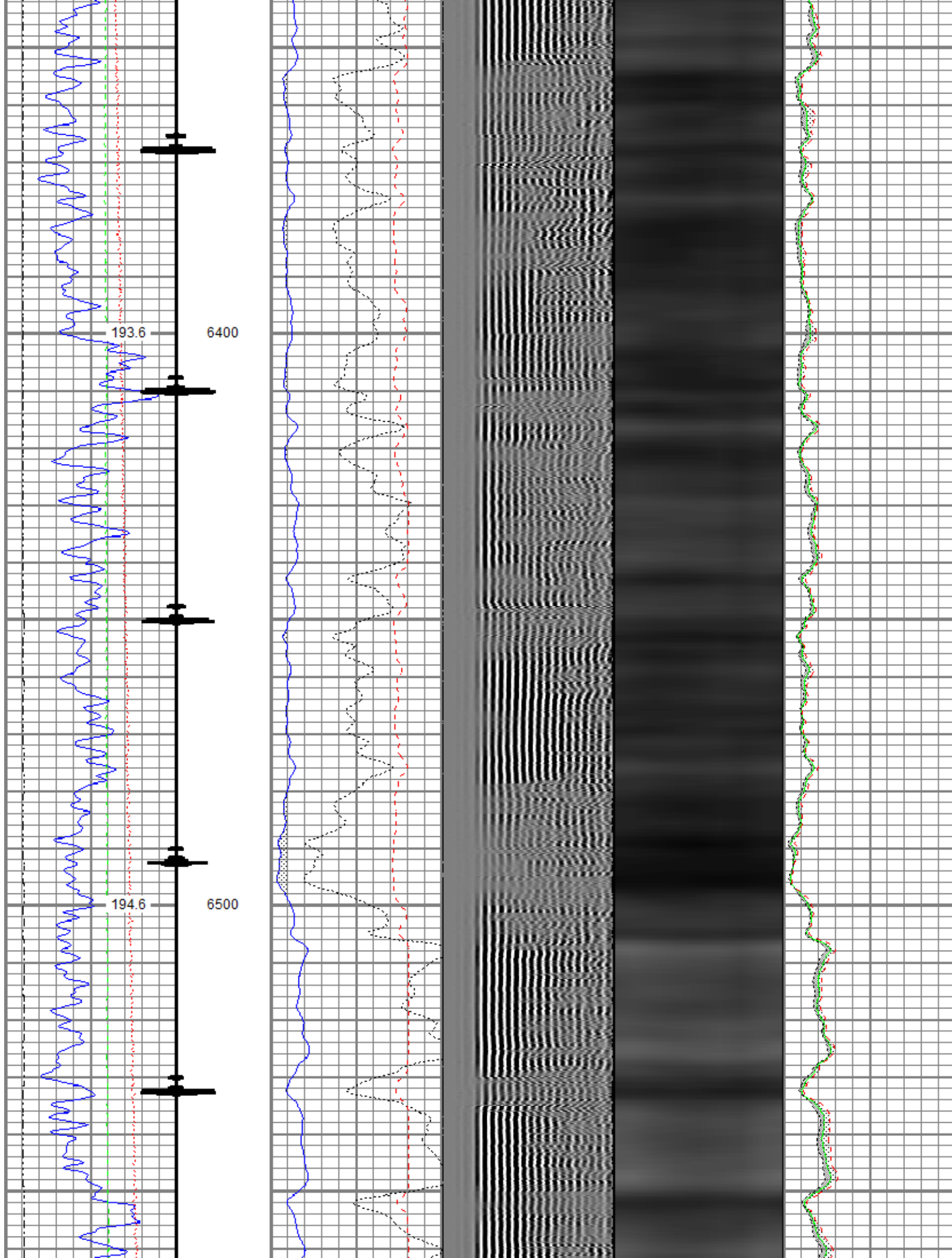


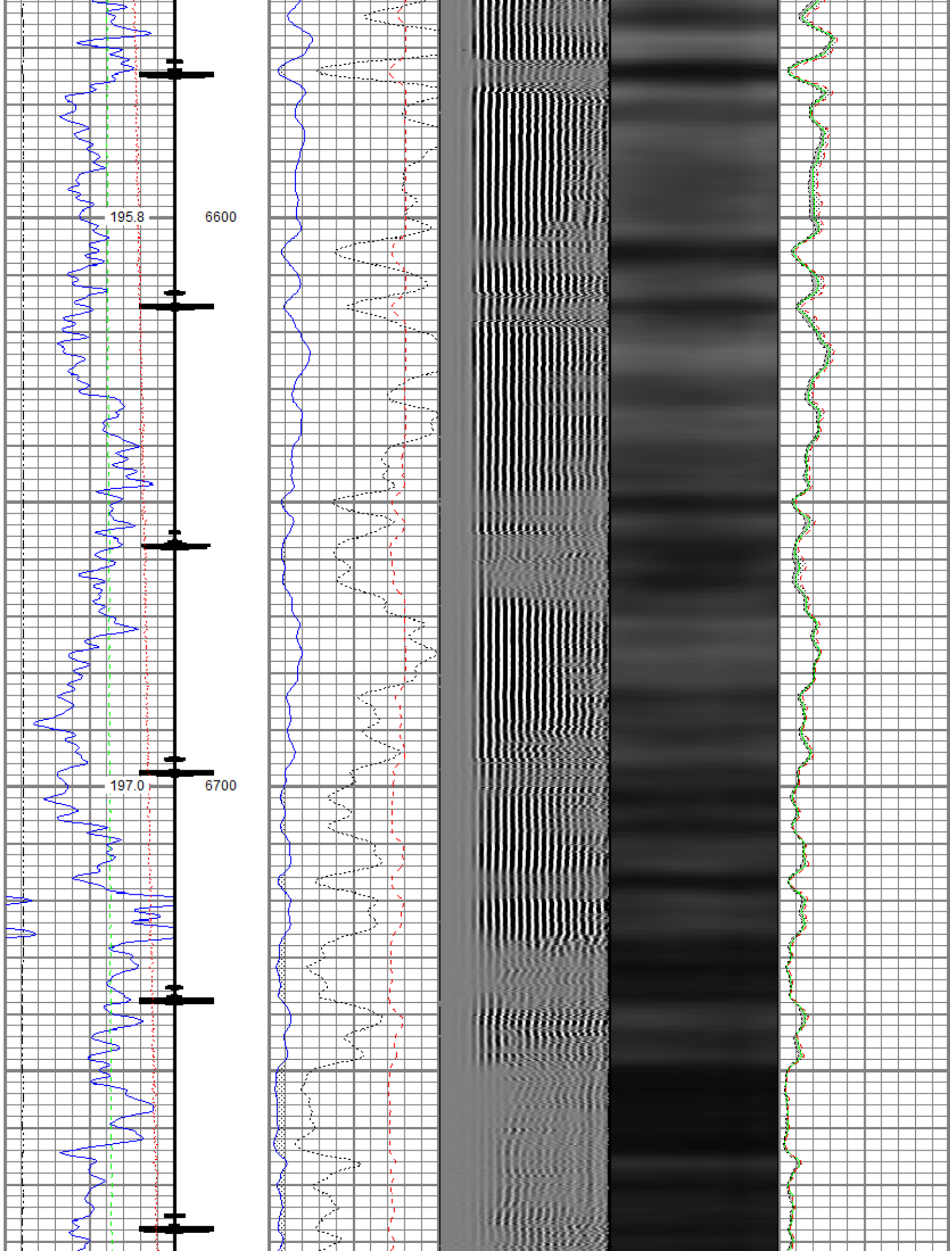


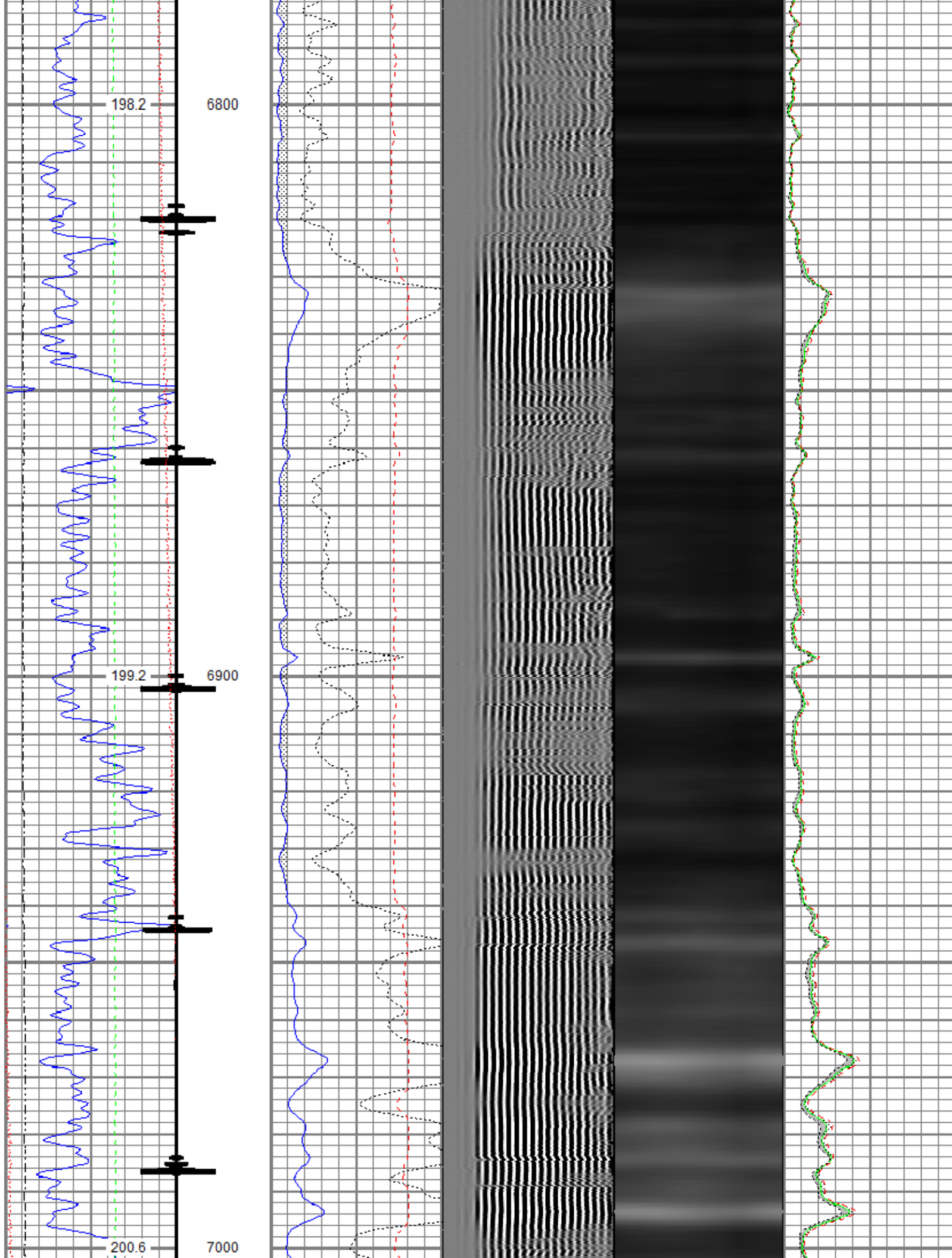


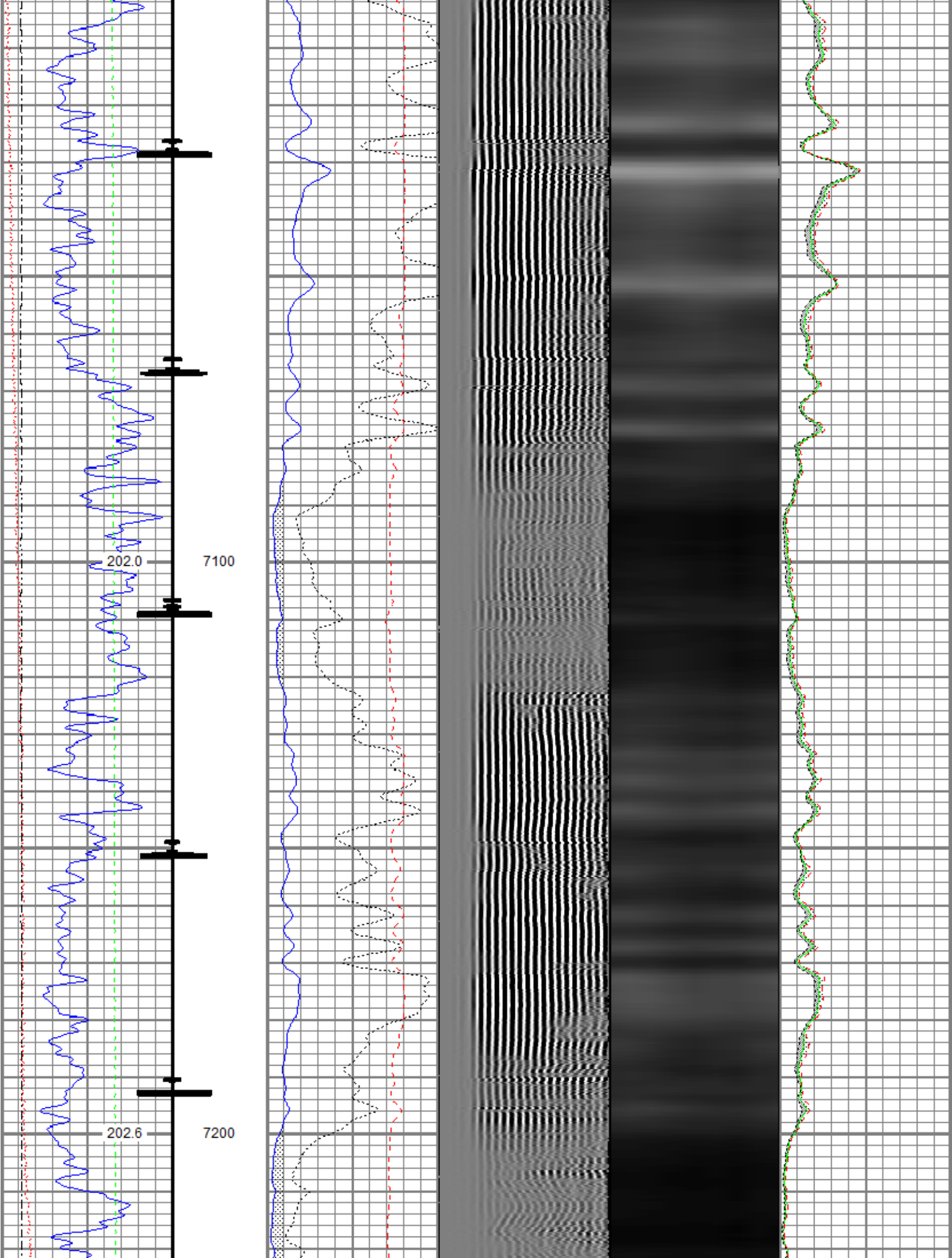


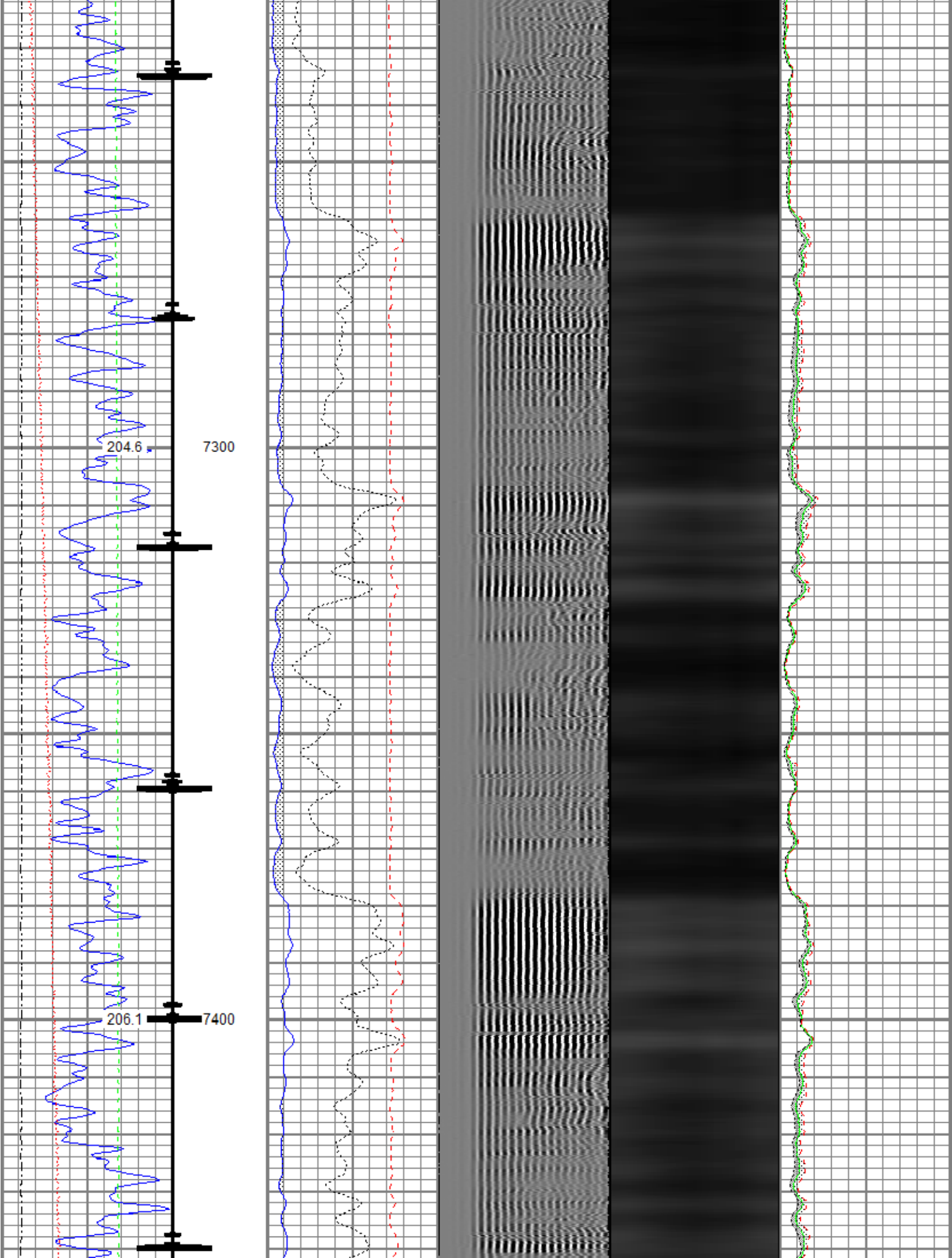


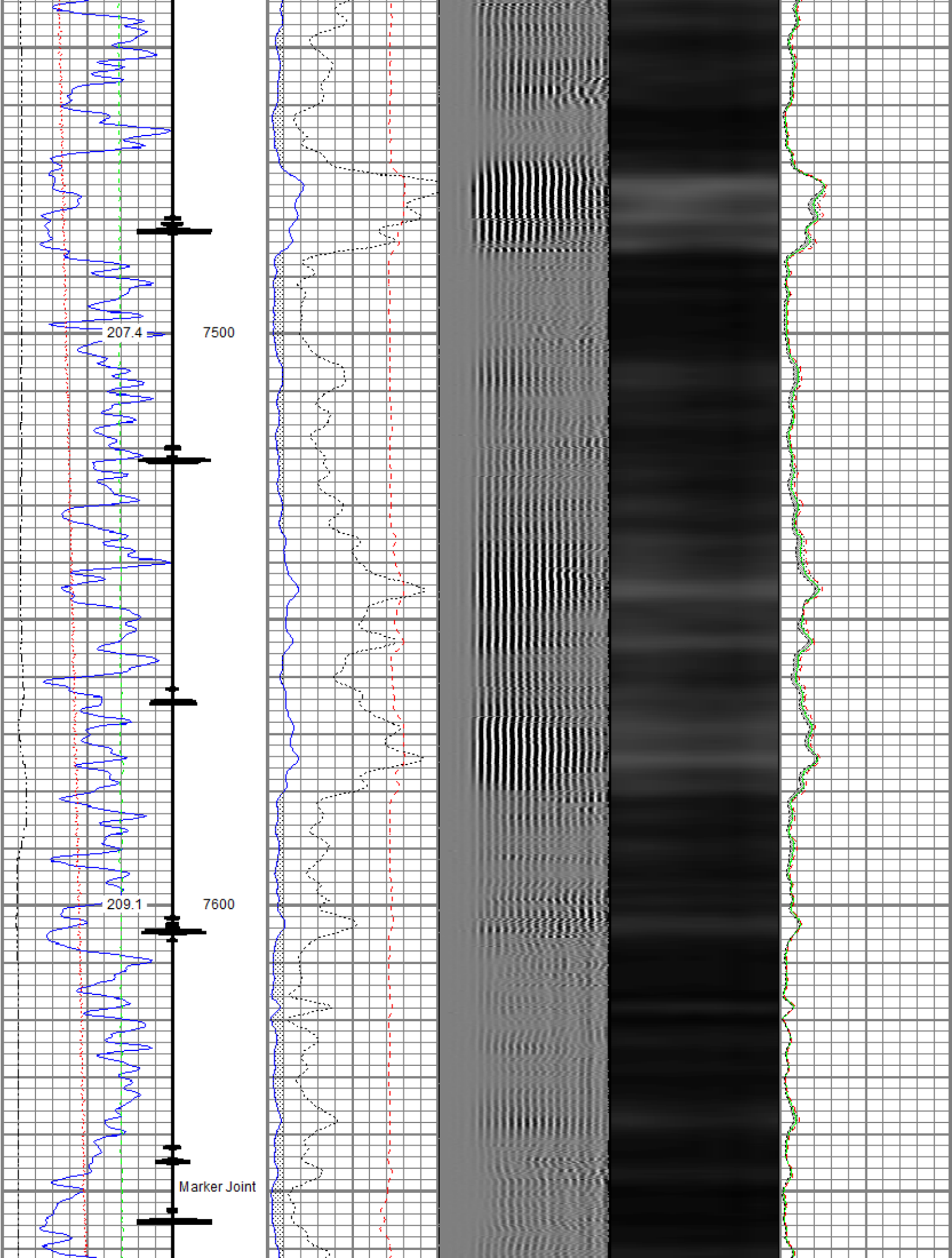


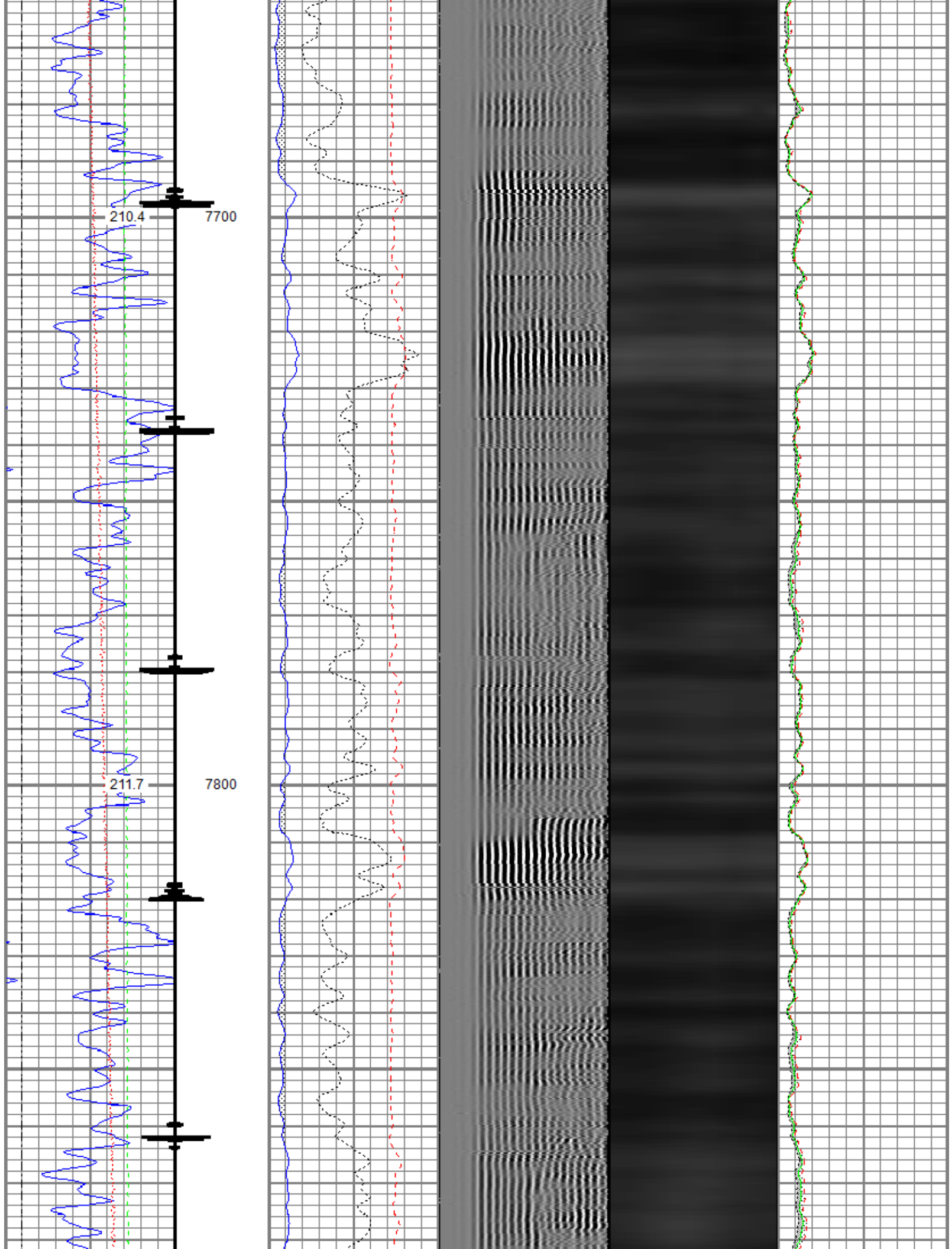


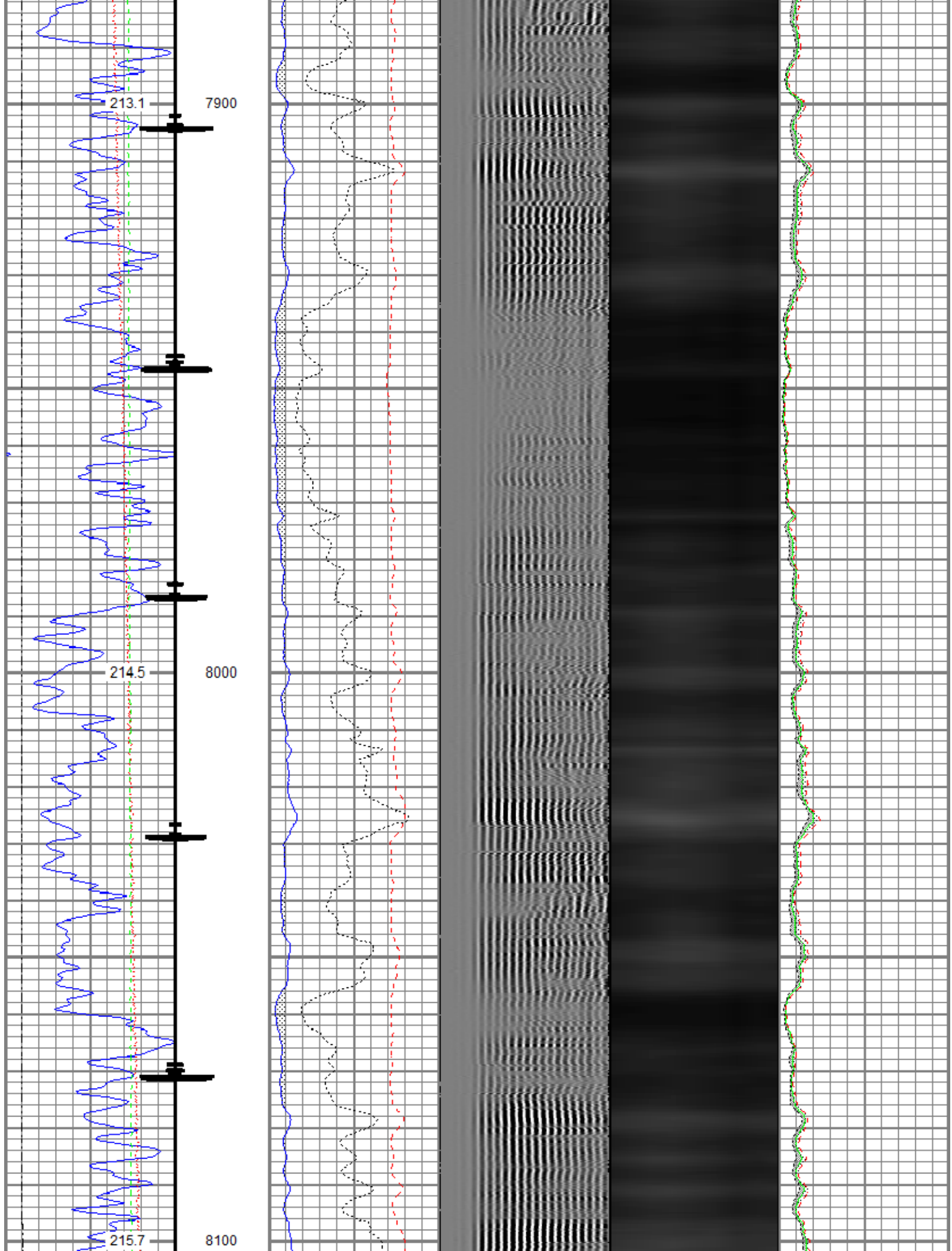


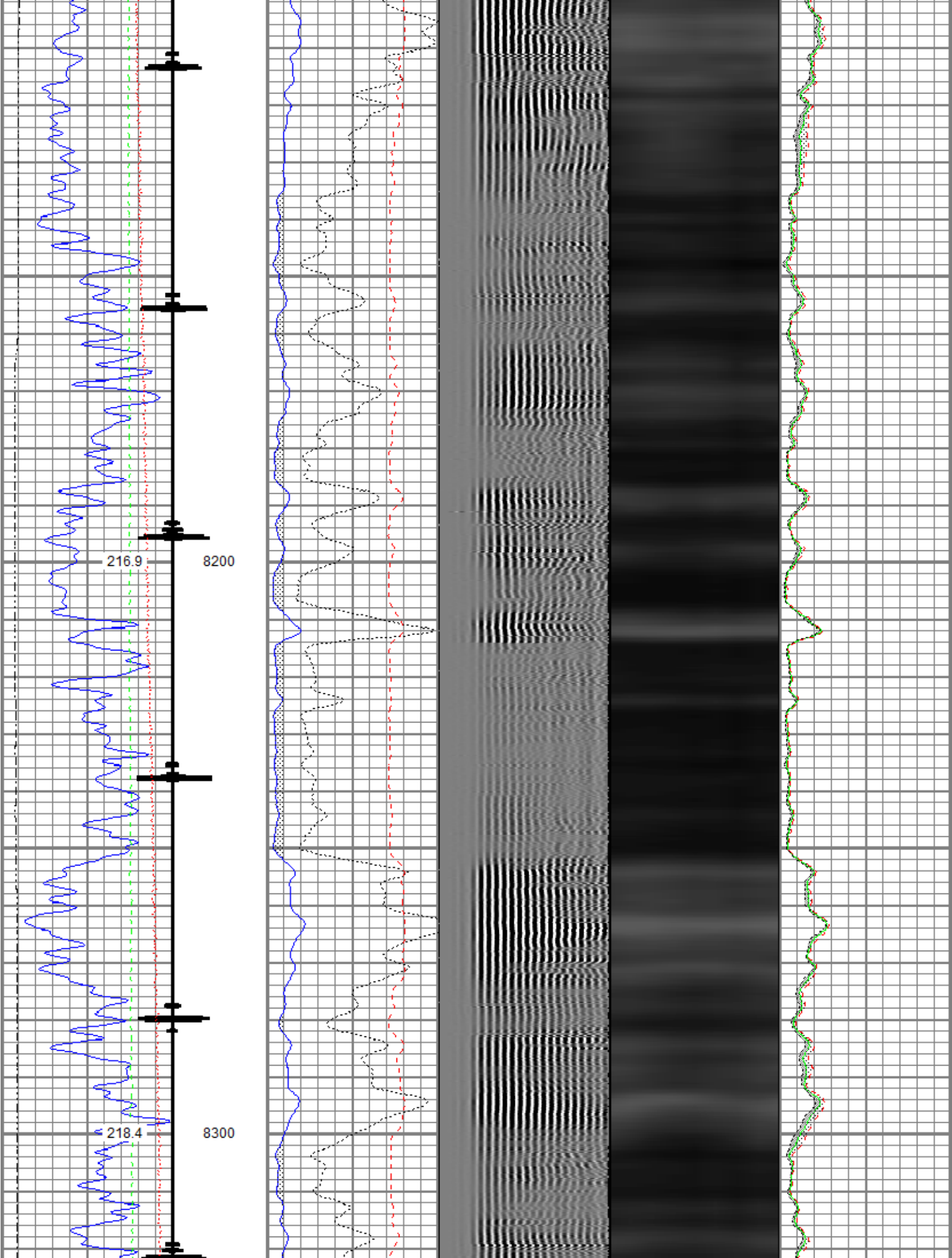


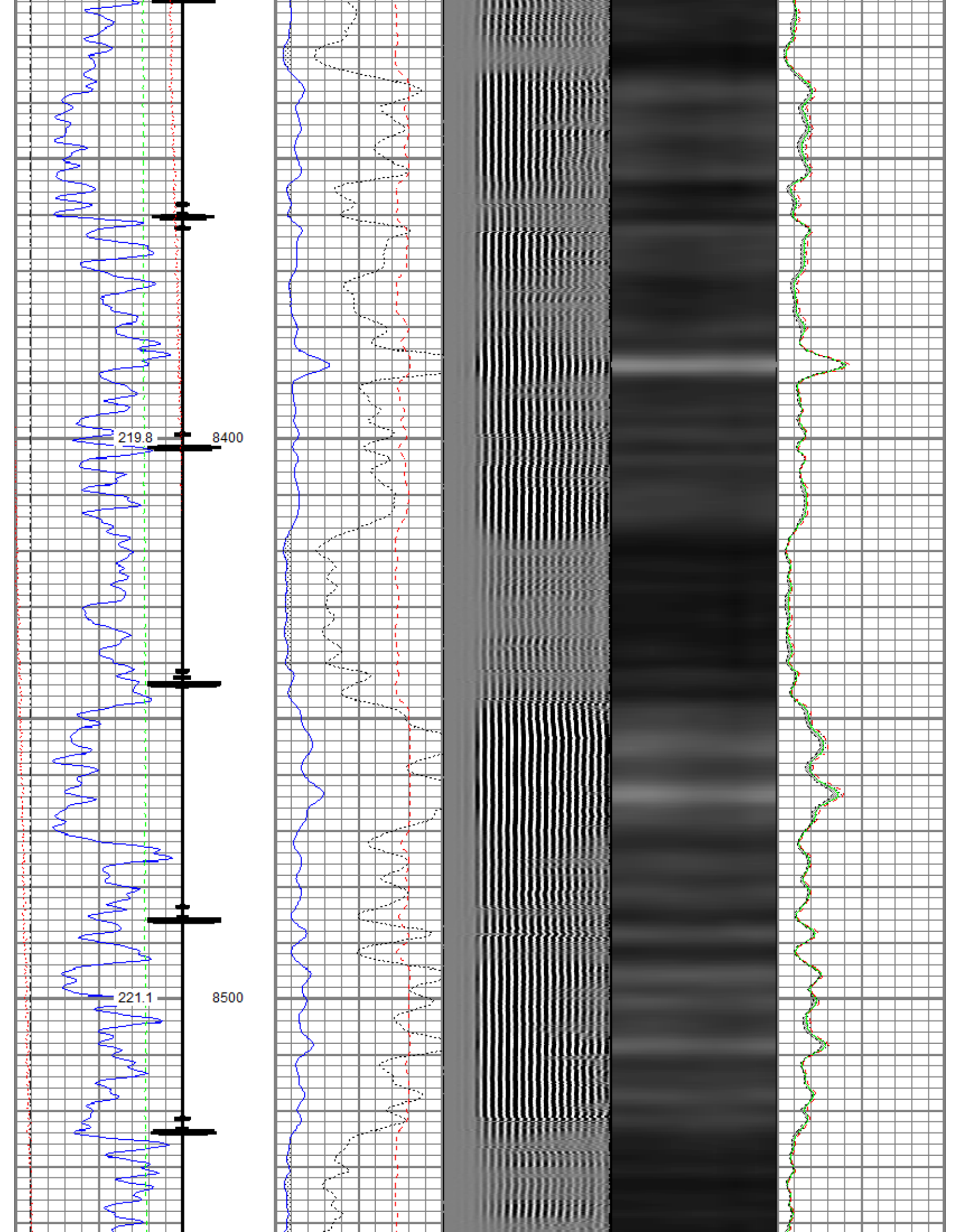


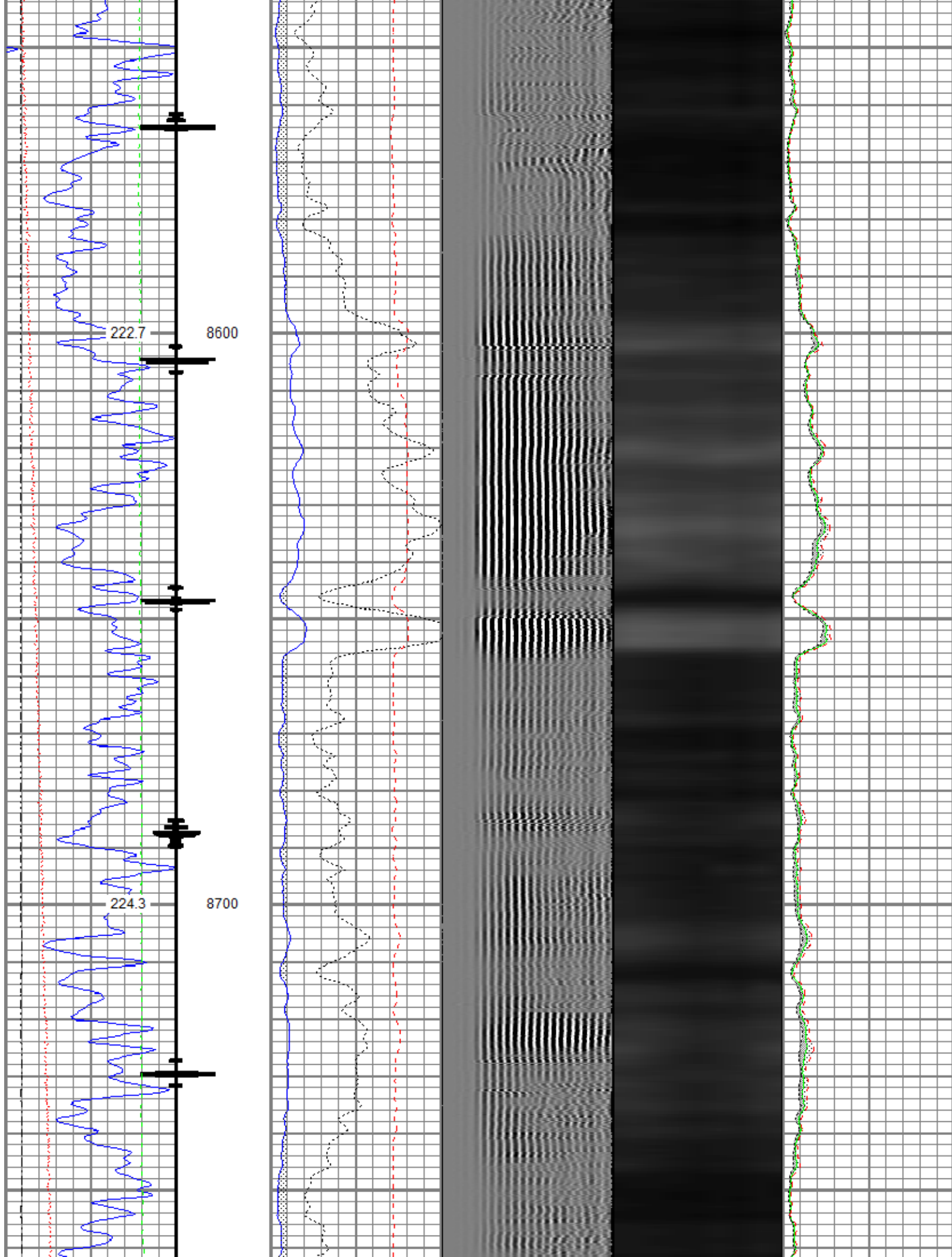


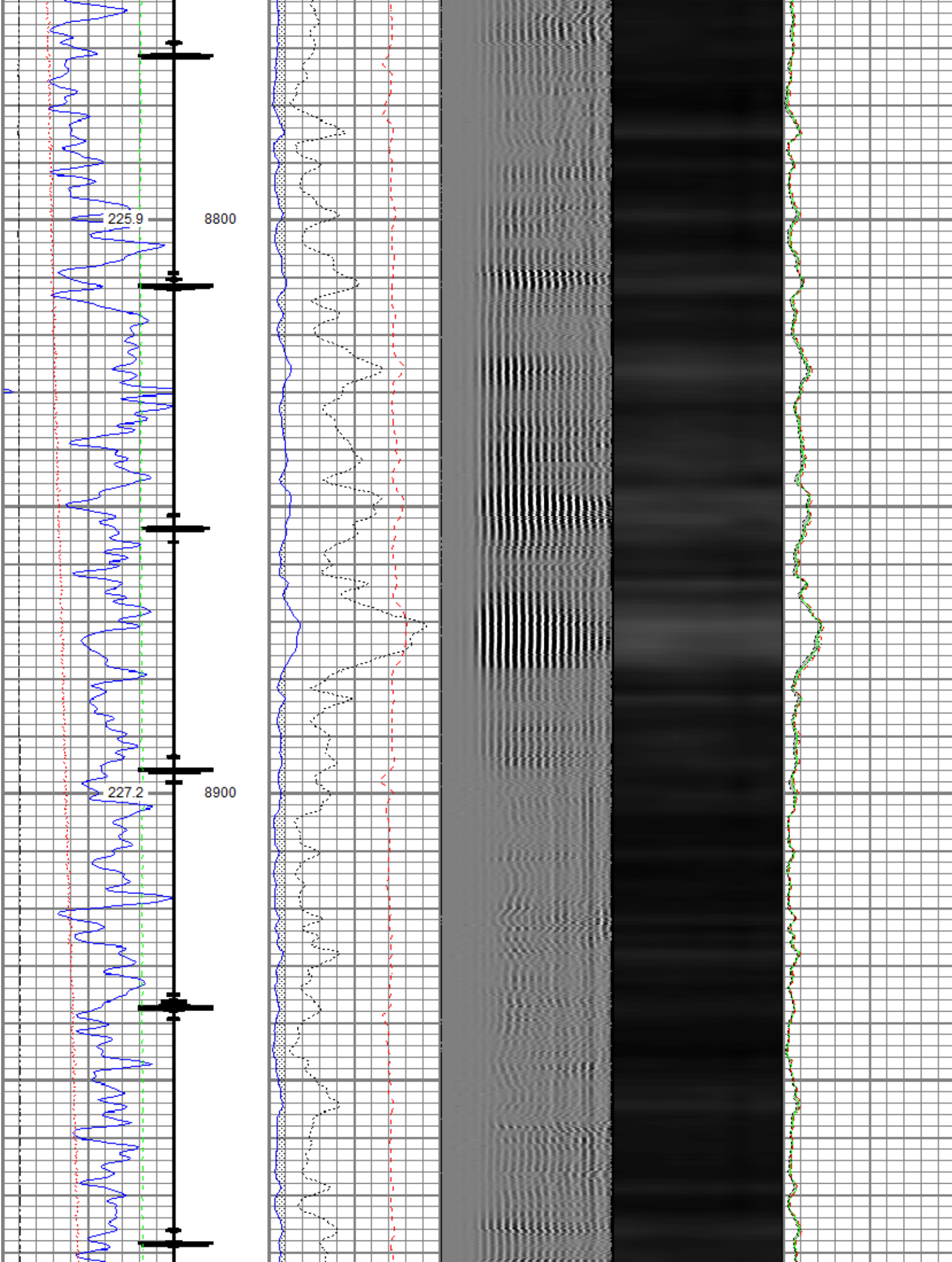


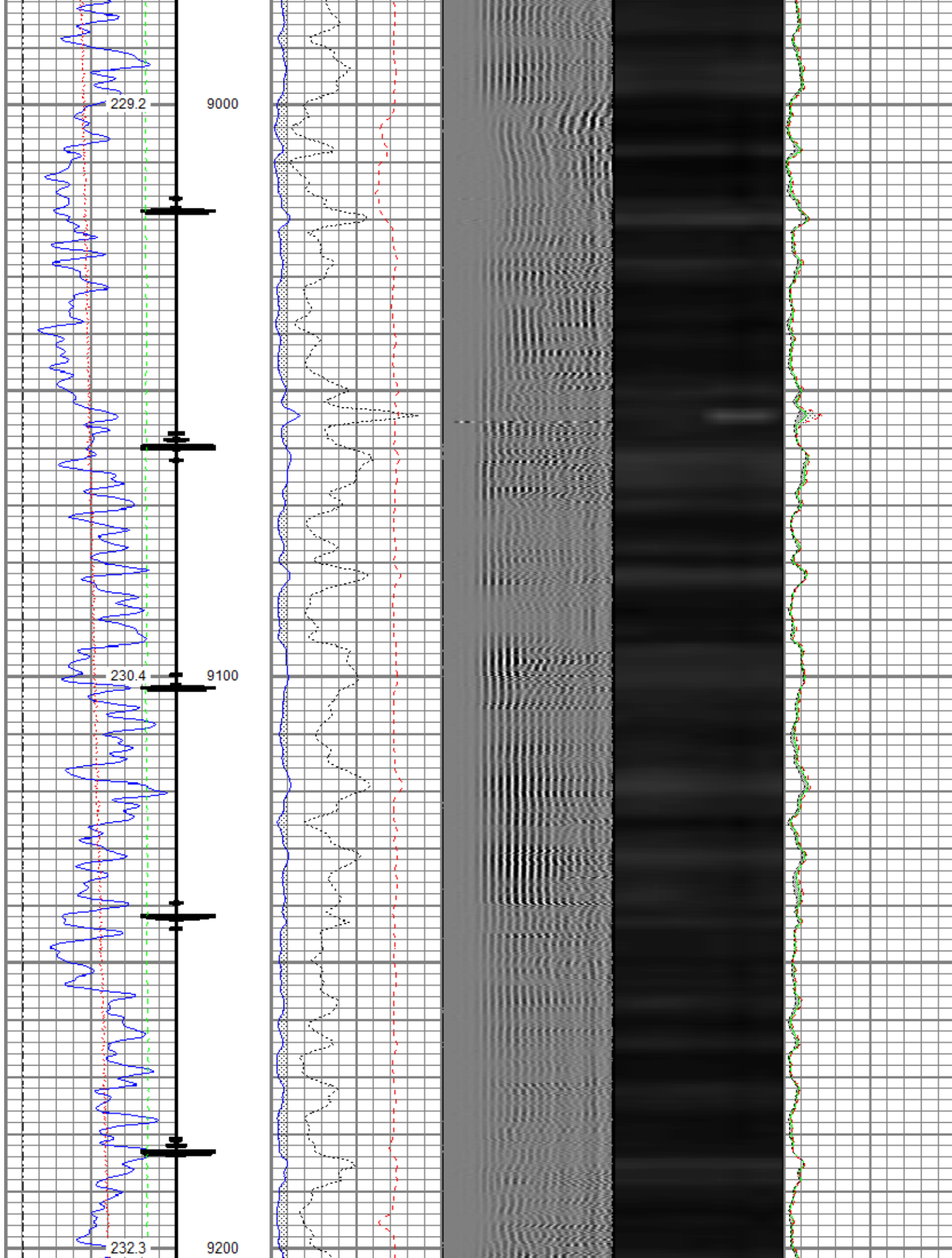


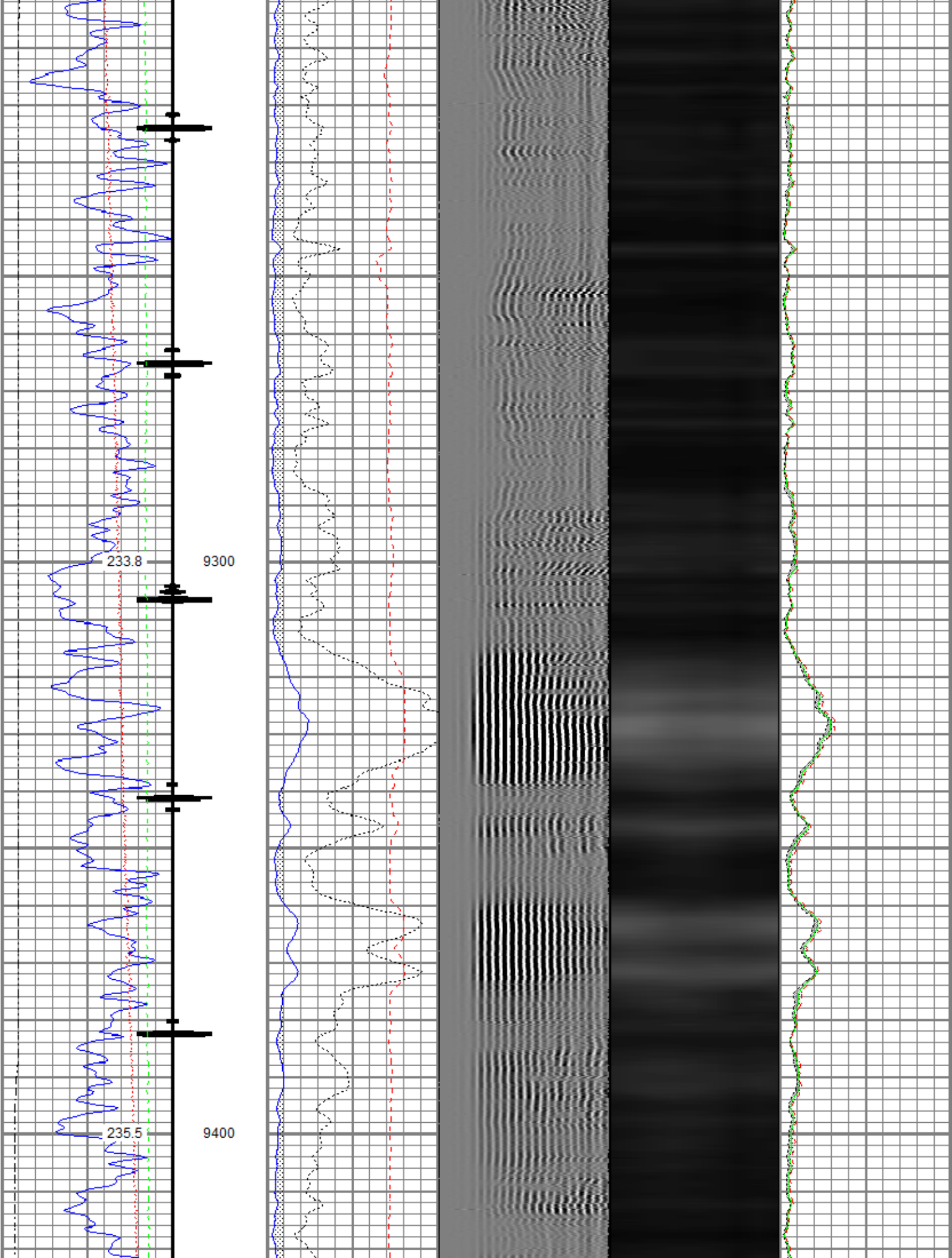


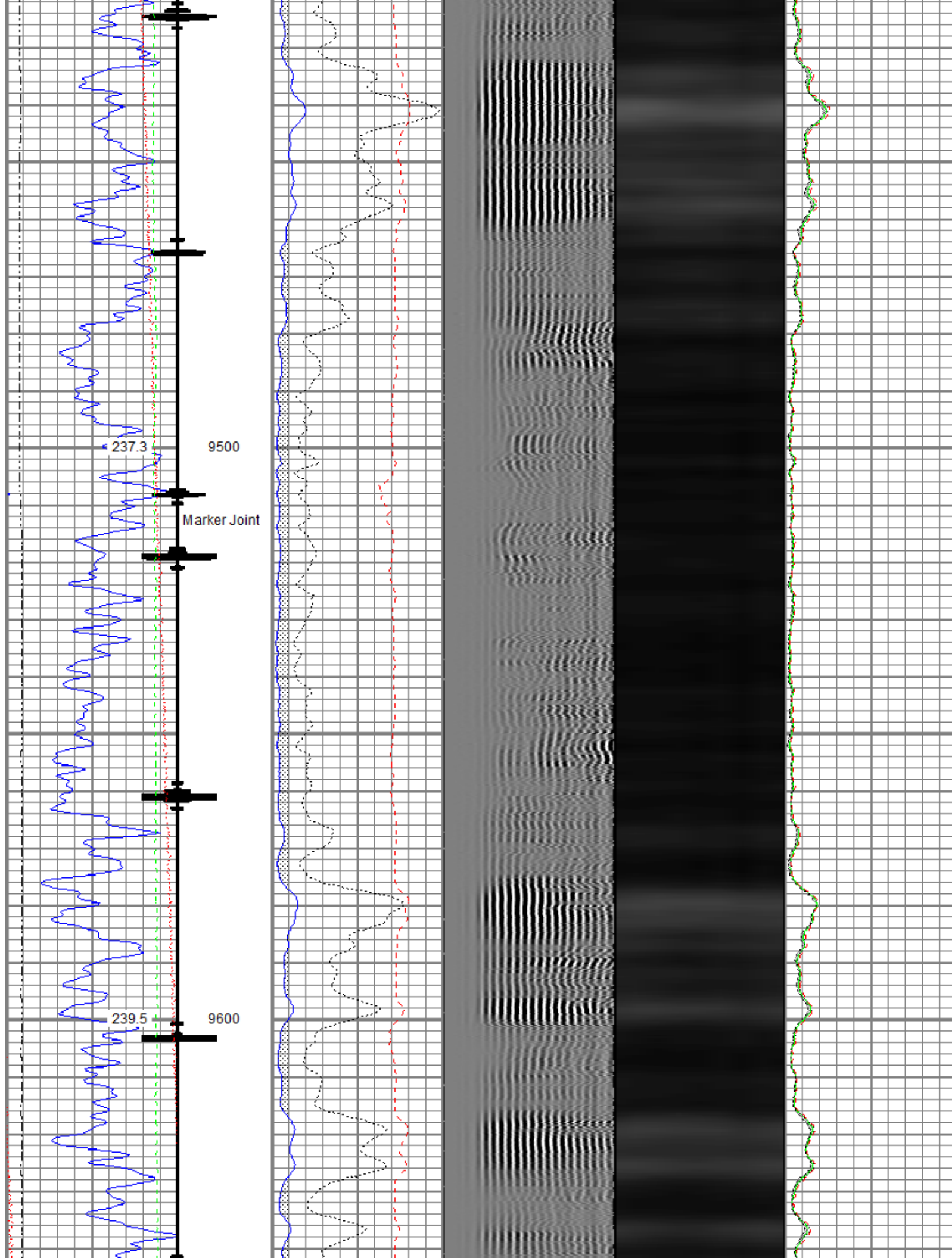


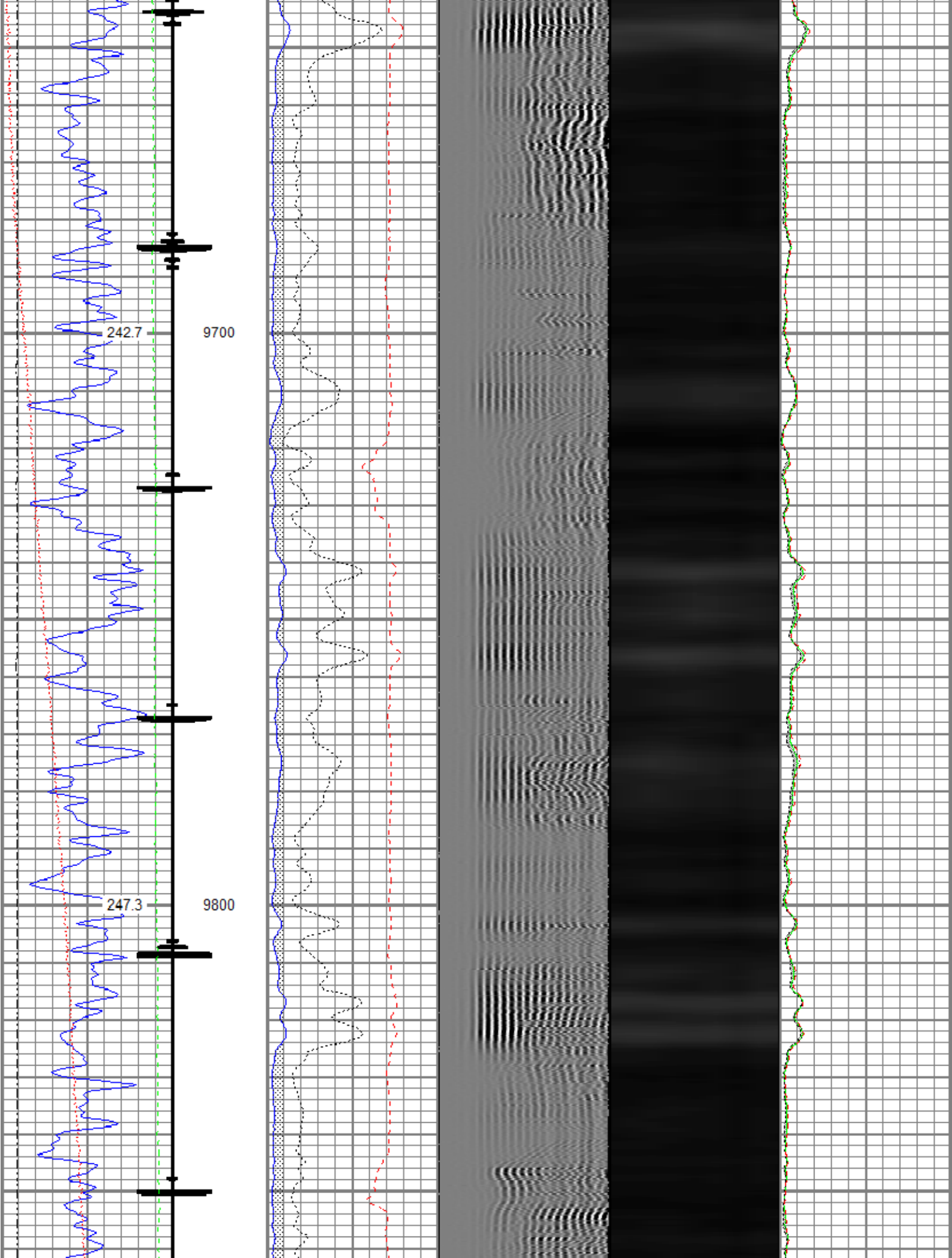


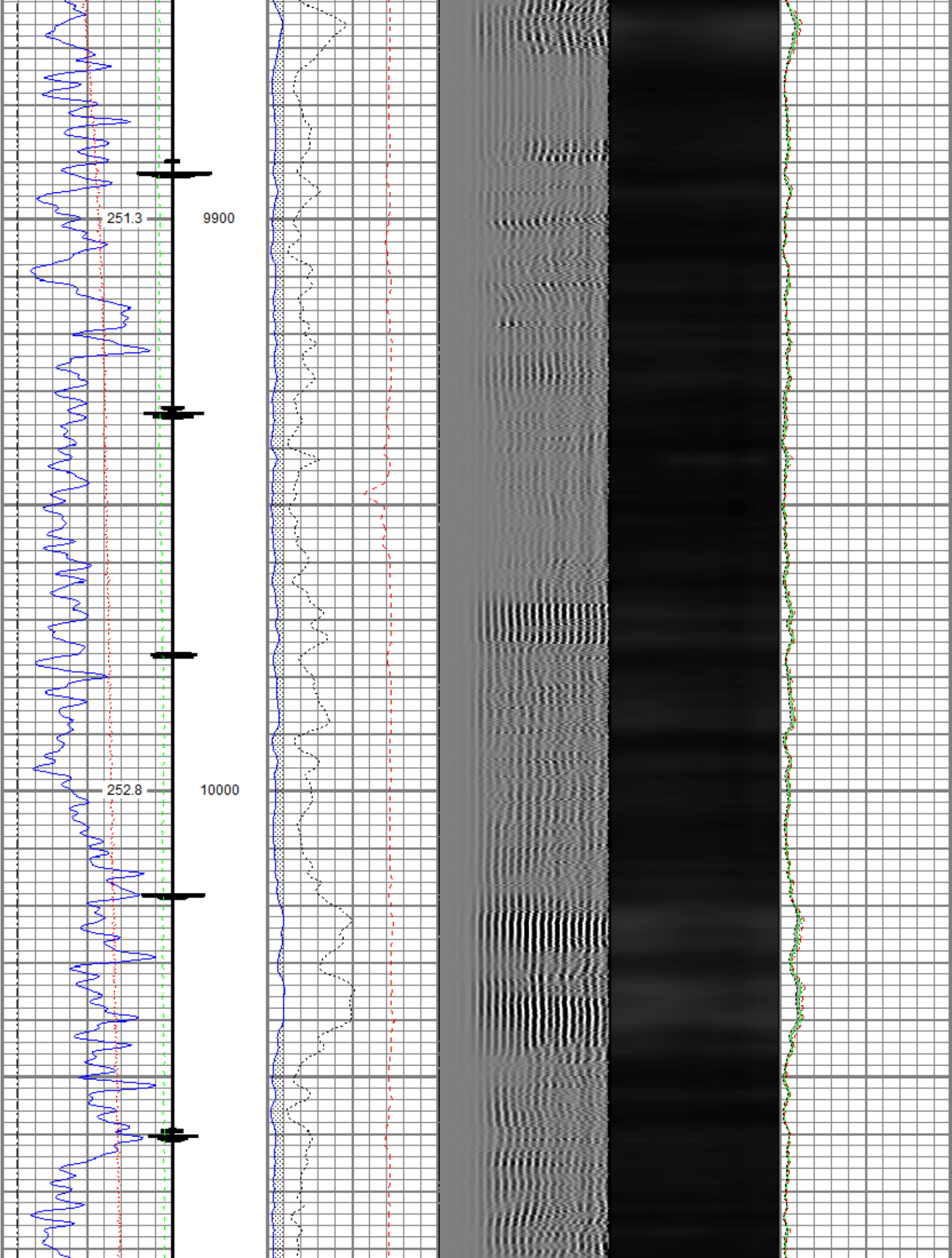


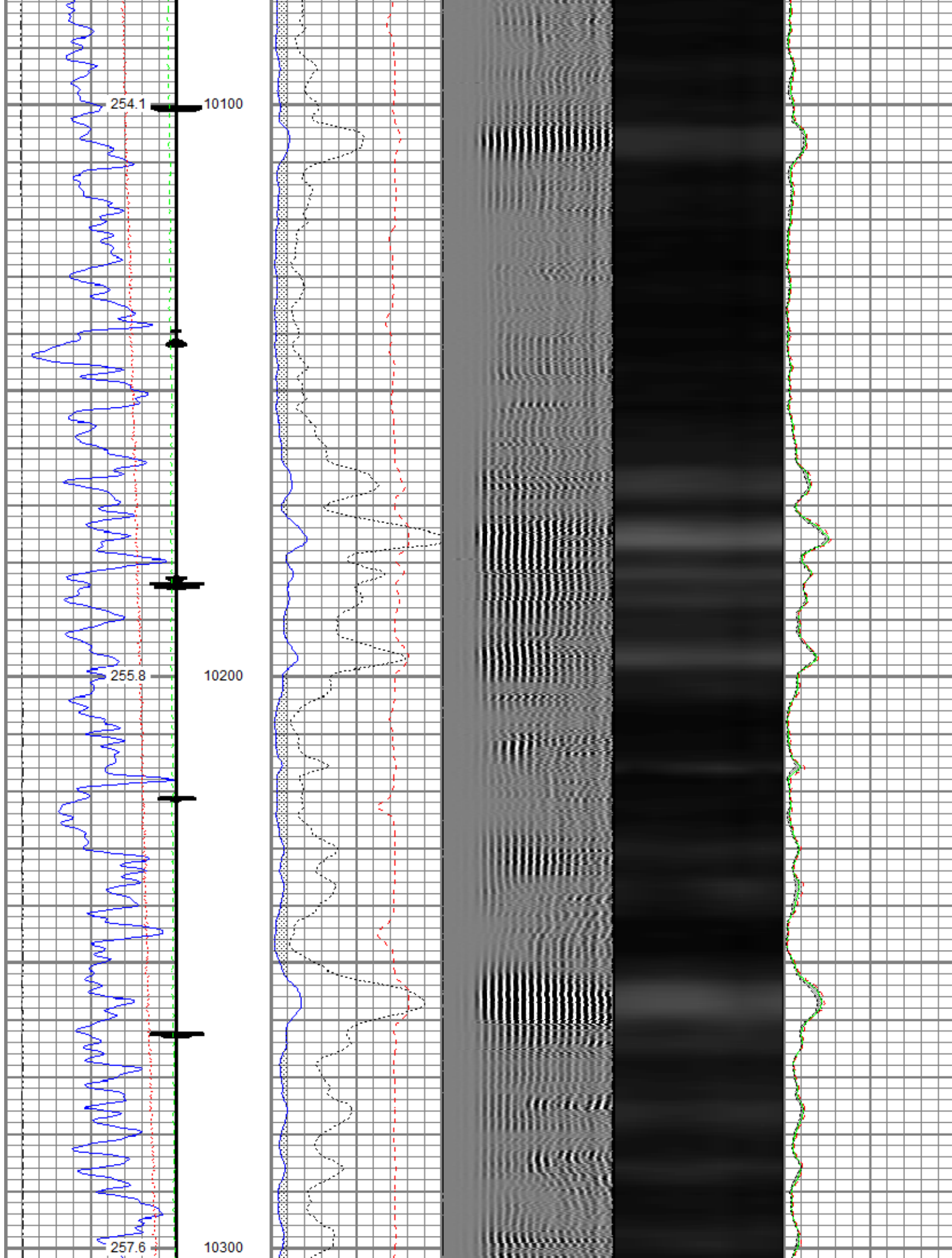


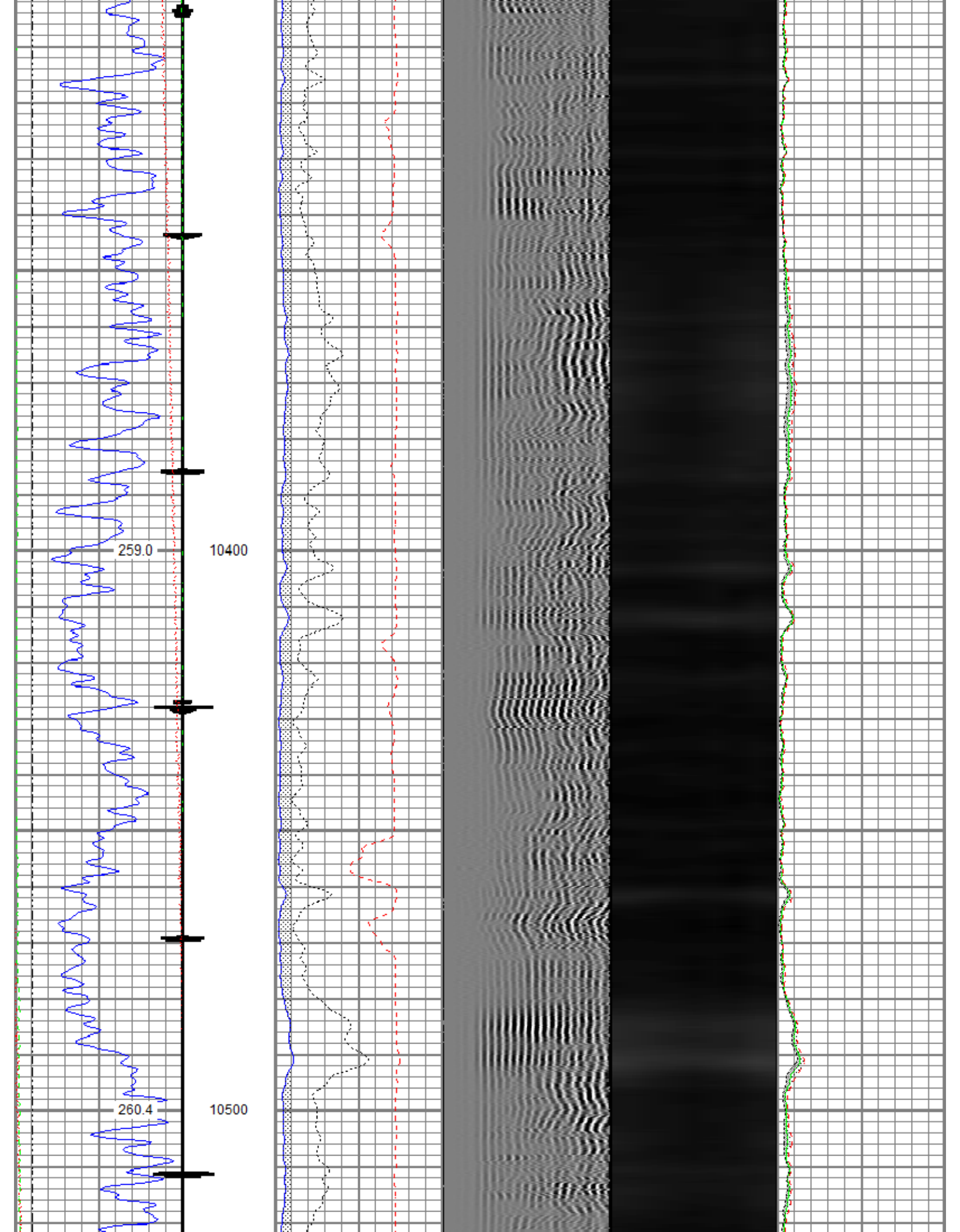


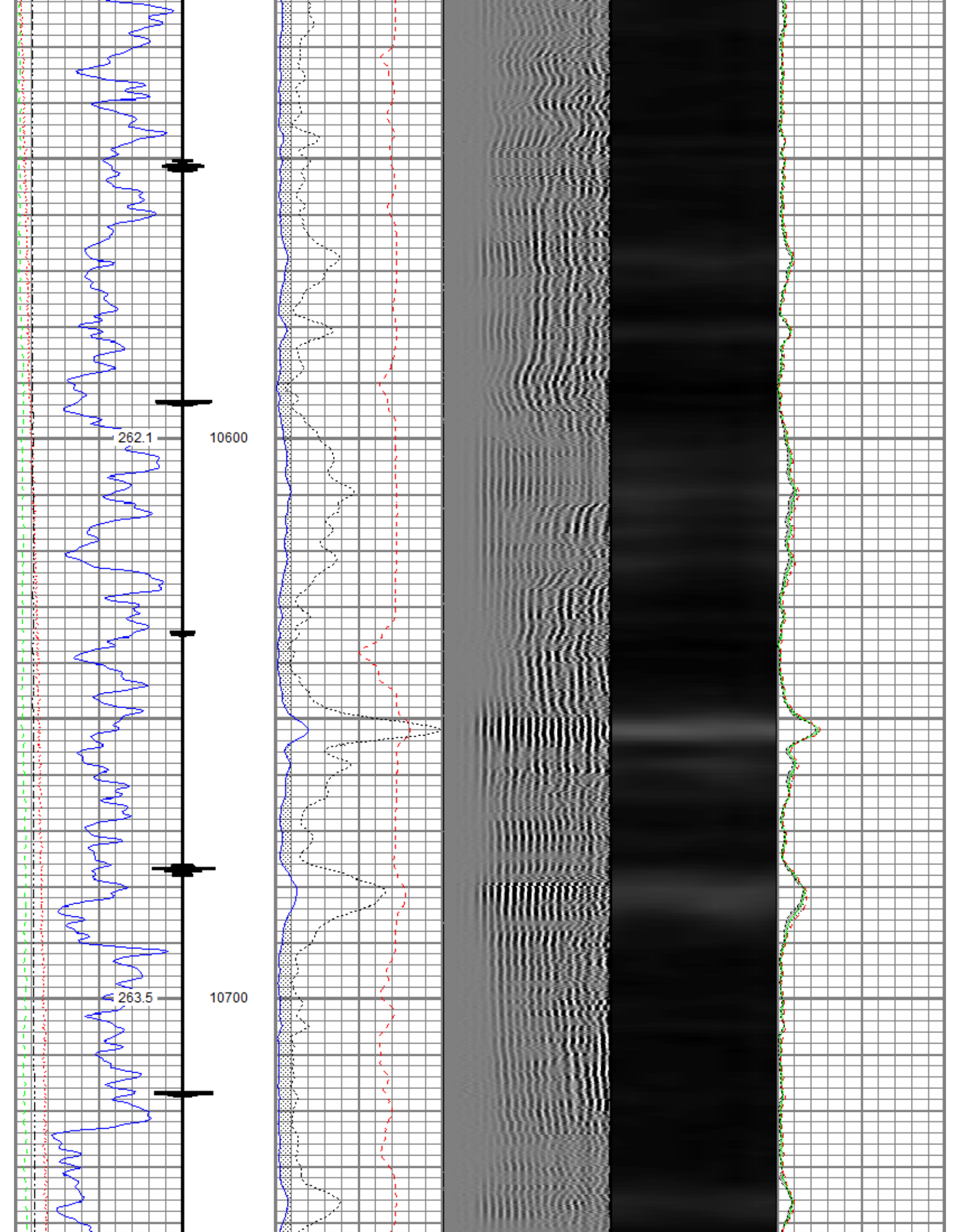


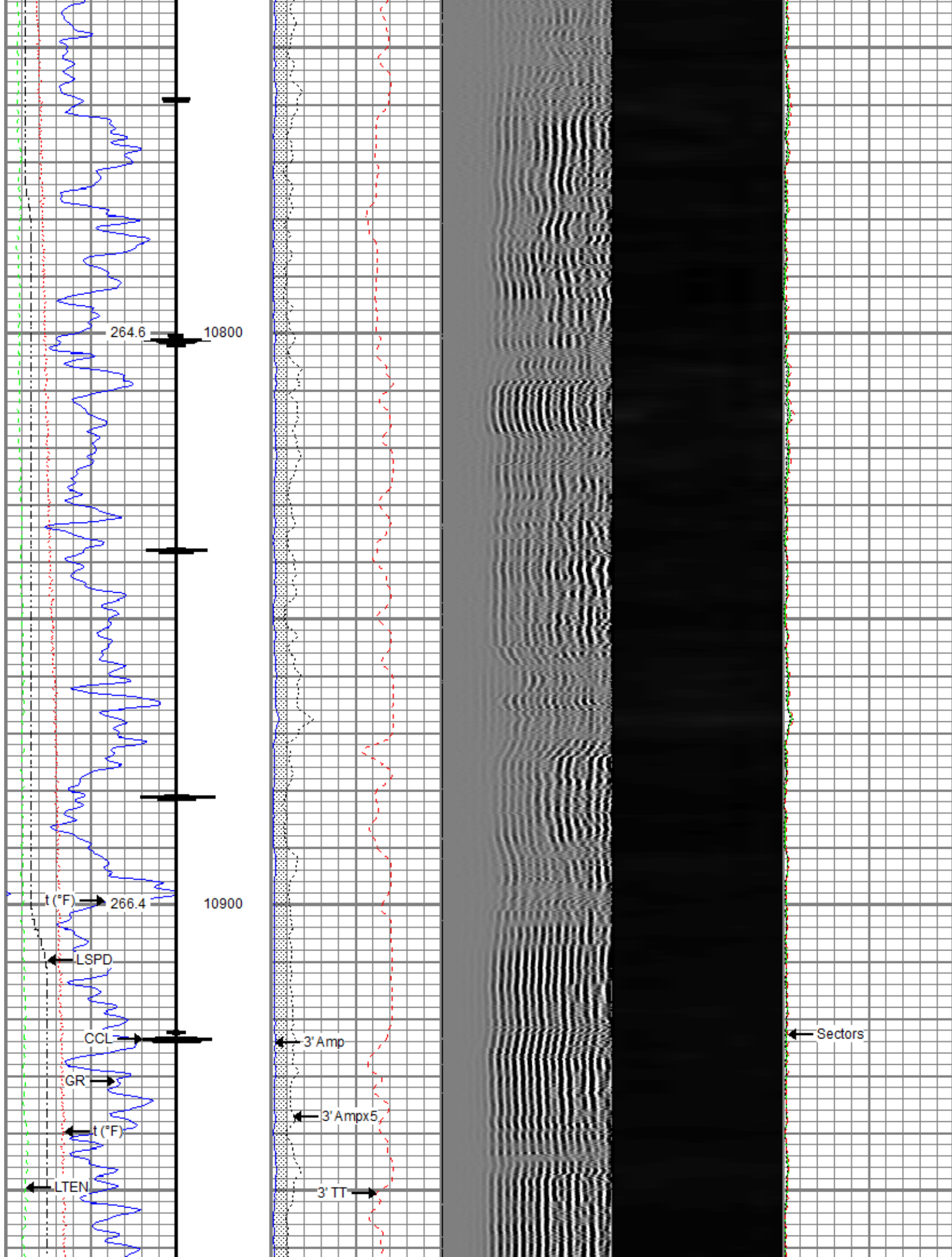


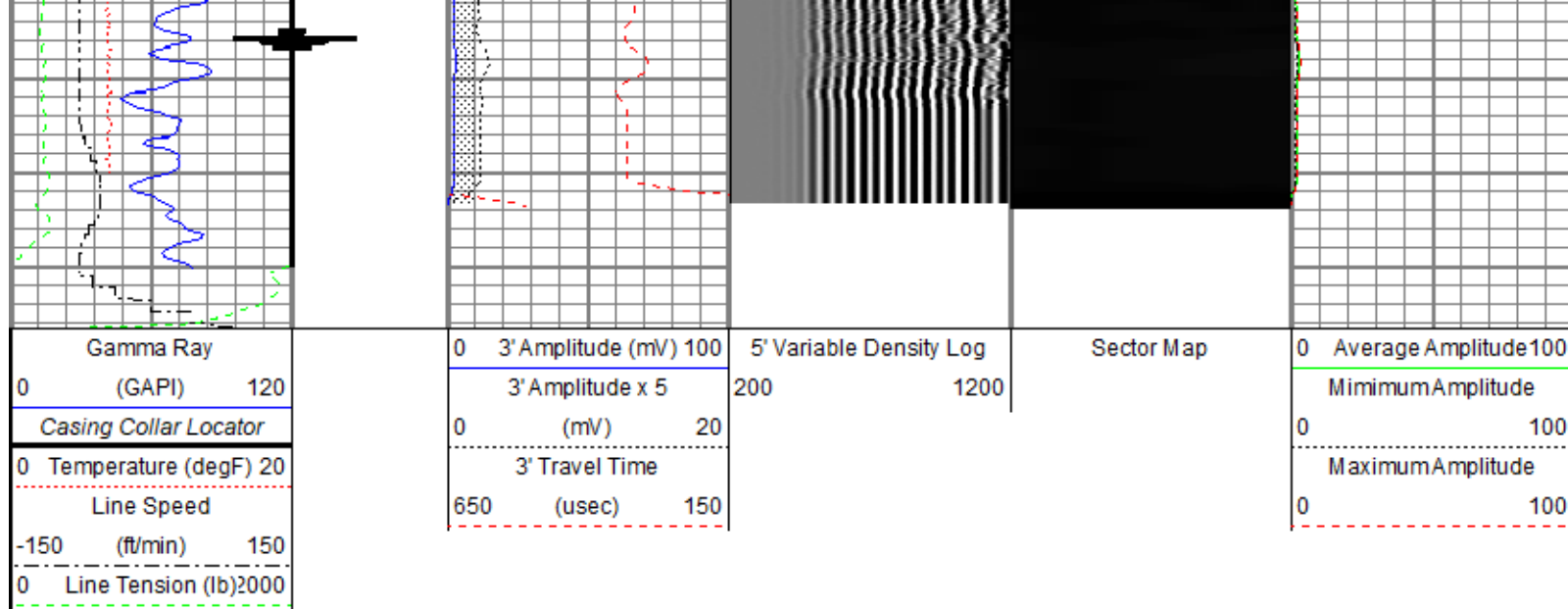








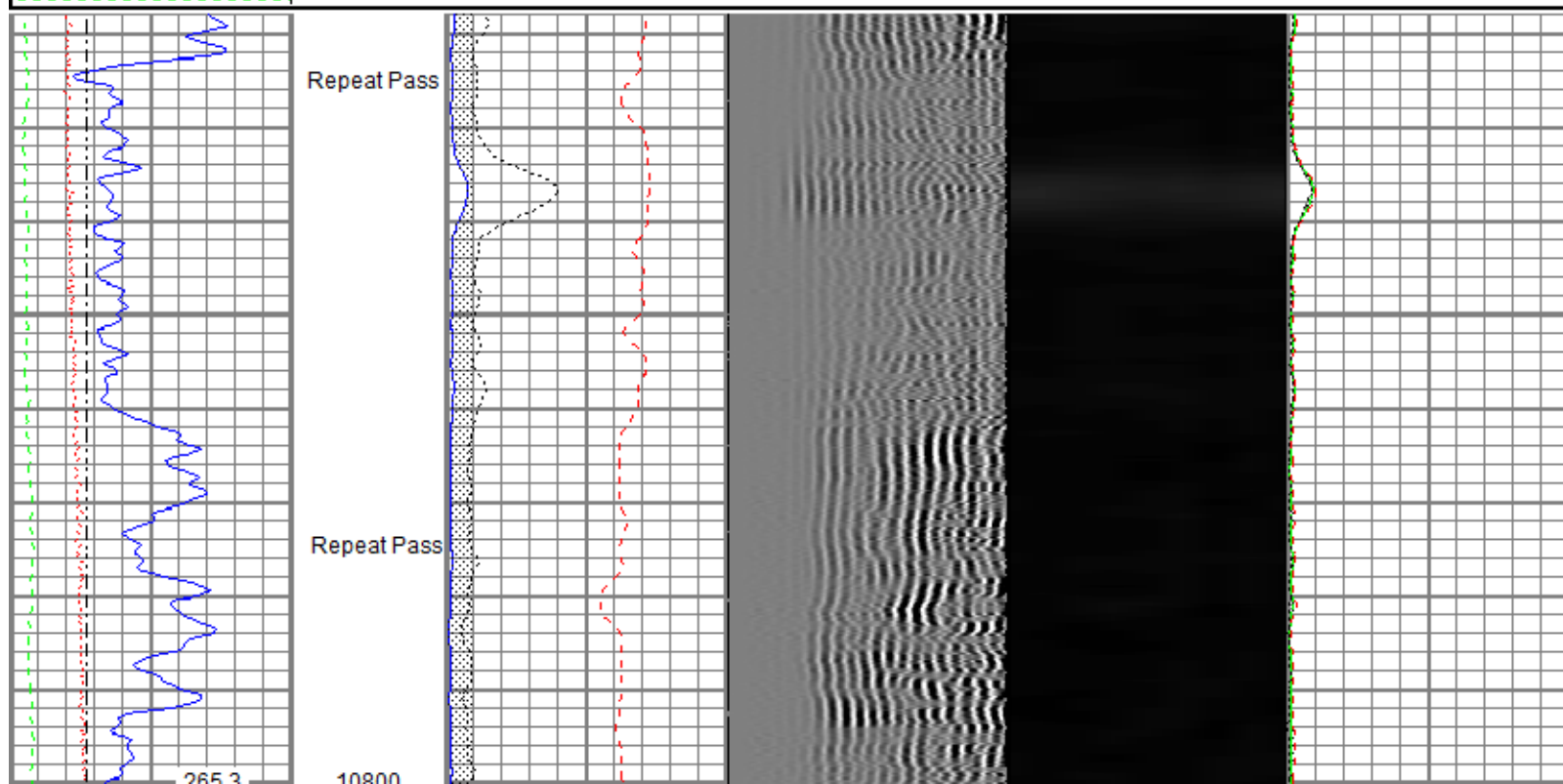
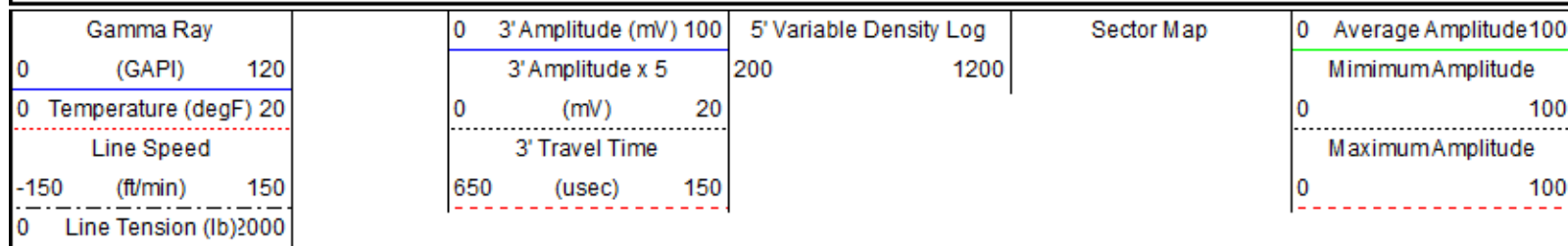


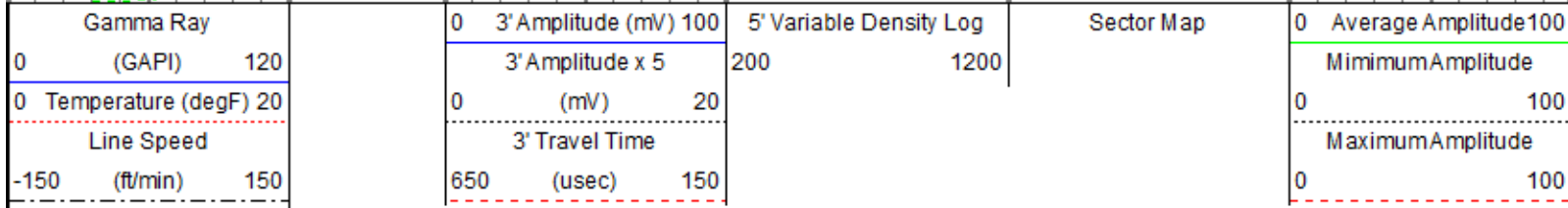


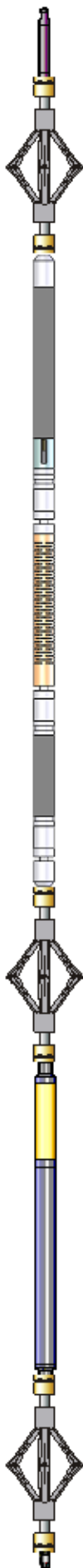
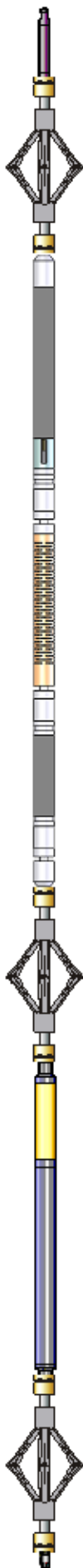
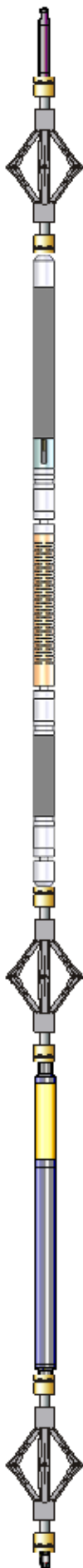
Repeat Pass

Recorded With 0 PSI Surface Induced Pressure

Database File: ursalursa_boies ranch c-240 fed 21c-25-2-98_rbl_02-23-19\processed_ursa_boies ranch c-240 fed 21c-25-2-98_rbl_02-23-19.
 Dataset Pathname: repeat.2
 Presentation Format: ros_radli
 Dataset Creation: Tue Feb 26 13:42:43 2019
 Charted by: Depth in Feet scaled 1:240





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
Temp	16.30		Titan_Electric_Cable_Heads-Titan_1-11/16" Electric Cable Head with 1" Fishing Neck	1.03	1.69	5.40
			DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
			Probe_RADII-C-P_RBT_2750 (FW1305-098) Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe	9.19	2.75	105.00
WVFS8	14.13					
WVFS7	14.13					
WVFS6	14.13					
WVFS5	14.13					
WVFS4	14.13					
WVFS3	14.13					
WVFS2	14.13					
WVFS1	14.13					
WVFCAL	14.13					
WVF3FT	14.13					
WVF5FT	13.13					
HeadVolt	9.88					
DCCL CCL	6.43		DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
	6.43		Probe_GR_CCL-P_CGR_2750_S (FW1307-038) Probe 2-3/4" Digital CCL / Gamma Ray Combined	4.54	2.75	55.00
GR	3.69		DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
			GO_Noses-G_BN_14375 Generic 1-7/16" Bull Nose with Go Box Top	0.25	1.44	1.00

Total length: 22.65 ft
Total weight: 262.40 lb
O.D.: 2.75 in

Calibration Report

Database File c:\programdata\warrior\data\ursa\ursa_boies ranch c-240 fed 21c-25-2-98_rbl_02-23-19\processed_ursa_boies ranch c-240 fed 2
Dataset Pathname main.1
Dataset Creation Tue Feb 26 13:22:20 2019

Gamma Ray Calibration Report

Serial Number: FW1307-038
Tool Model: P_CGR_2750_S
Performed: Sat Feb 06 11:43:09 2016

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.6 cps

Sensitivity: 0.6061 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1305-098
Tool Model: P_RBT_2750

Calibration Casing Diameter: 4.500 in
Calibration Depth: 29.591 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.009	0.919	0.800	81.196	88.323	0.021
CAL	0.027	0.740				
5'	0.009	0.687	0.800	81.196	118.563	-0.287
SUM						
S1	0.005	0.882	0.000	100.000	114.043	-0.613
S2	0.009	0.878	0.000	100.000	115.053	-1.009
S3	0.008	0.926	0.000	100.000	108.987	-0.878
S4	0.006	1.007	0.000	100.000	99.934	-0.649
S5	0.008	1.040	0.000	100.000	96.895	-0.760
S6	0.007	1.008	0.000	100.000	99.840	-0.653
S7	0.010	0.972	0.000	100.000	103.924	-1.048
S8	0.008	0.921	0.000	100.000	109.549	-0.874

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.027	0.740	1.000	0.000

Air Zero Calibration, performed Sat Feb 23 15:25:14 2019:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.008		0.000		-0.000	
5'	0.009		0.000		0.001	
SUM						
S1	0.004		0.000		0.000	
S2	0.006		0.000		0.000	
S3	0.006		0.000		0.000	

S4	0.007	0.000	-0.000
S5	0.007	0.000	-0.000
S6	0.006	0.000	-0.000
S7	0.007	0.000	0.000
S8	0.007	0.000	-0.000



Company	Ursa Operating Company LLC
Well	Boies Ranch C-240 FED 21C-25-2-98
Field	Sulphur Creek
County	Rio Blanco
State	Colorado