



County Weld State Colorado

K.B.	5172'
D.F.	---
G.L.	5152'

linear			
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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.

Thank you for choosing Reliance Oilfield Services, LLC!!

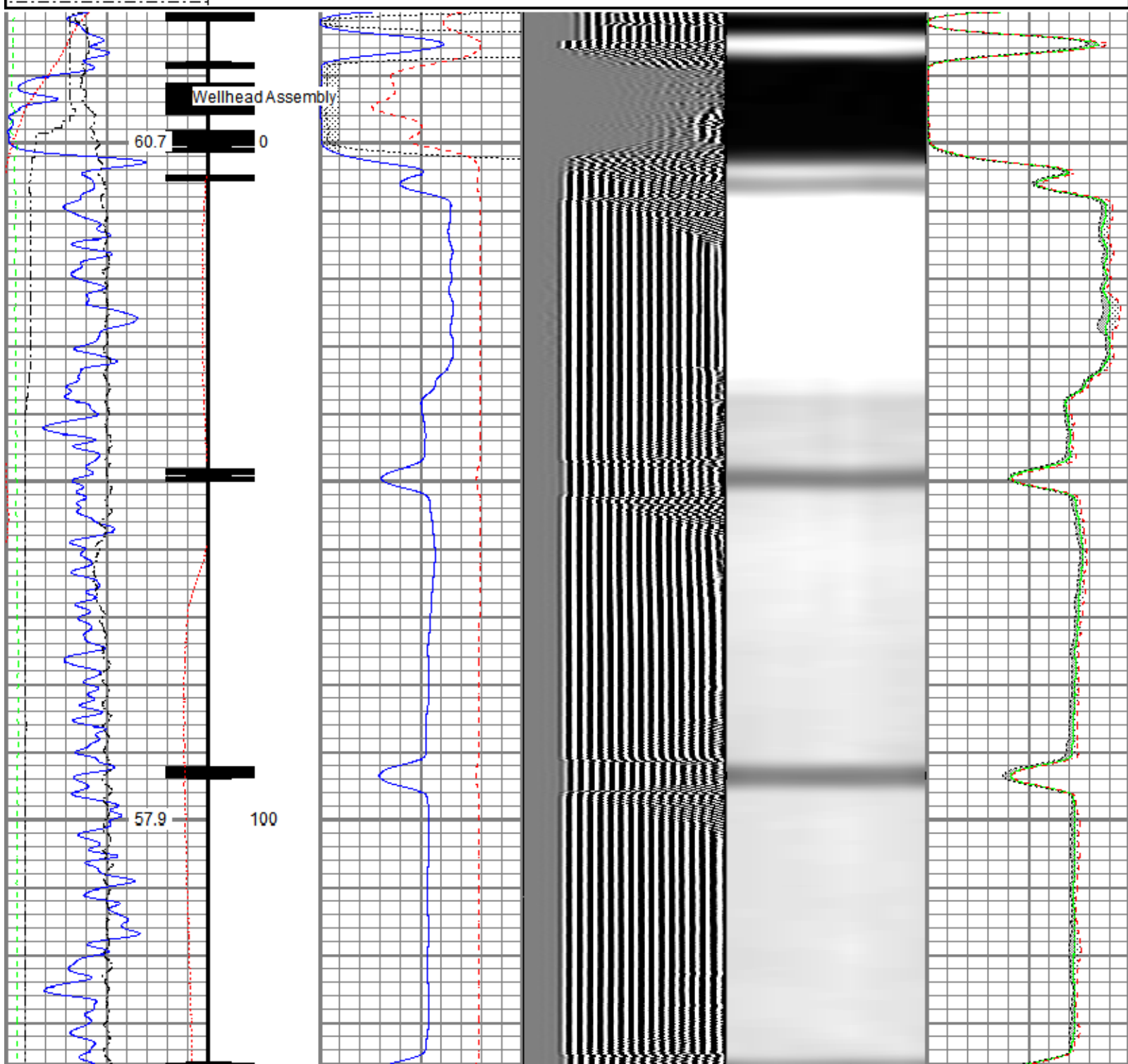
Main Pass

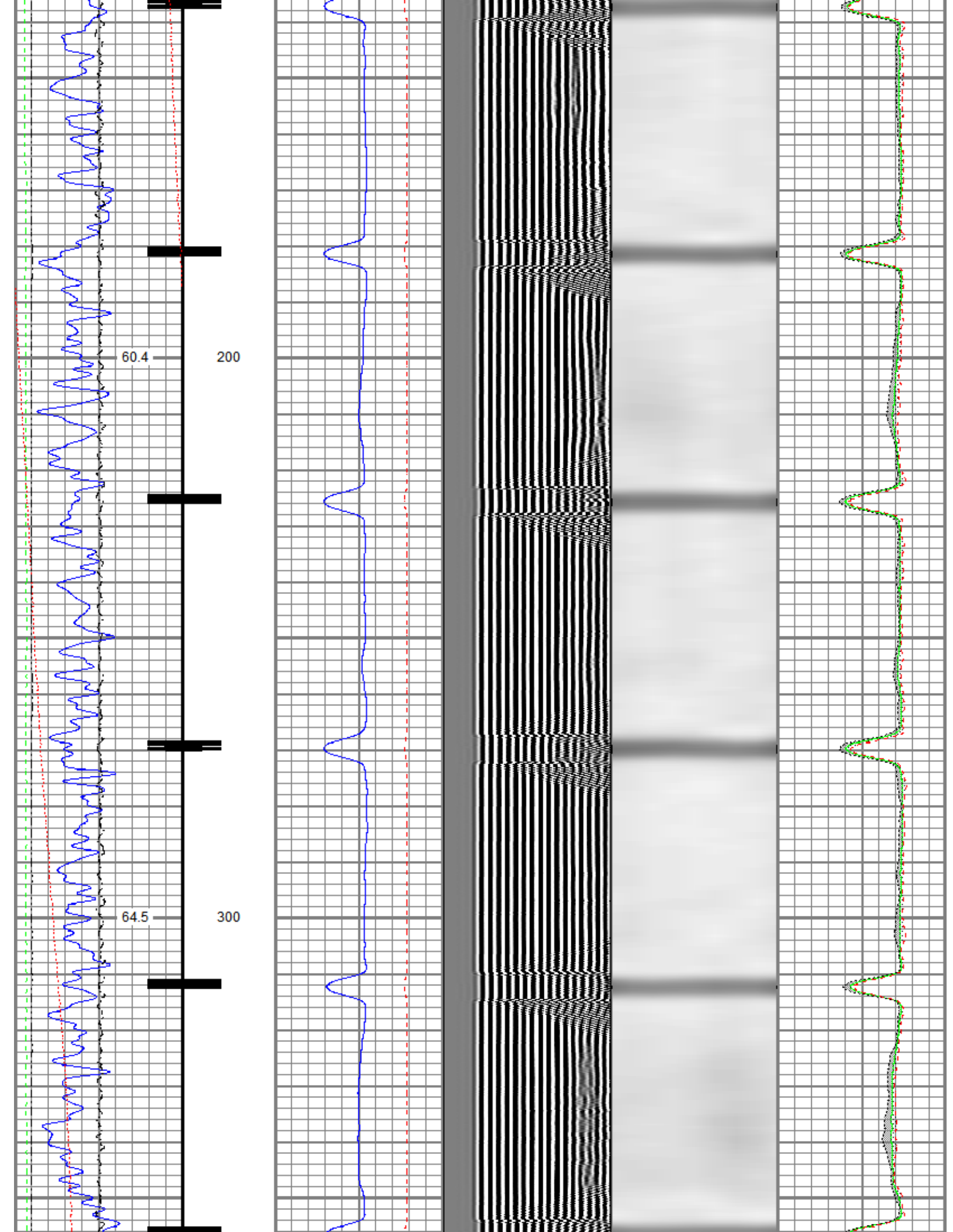


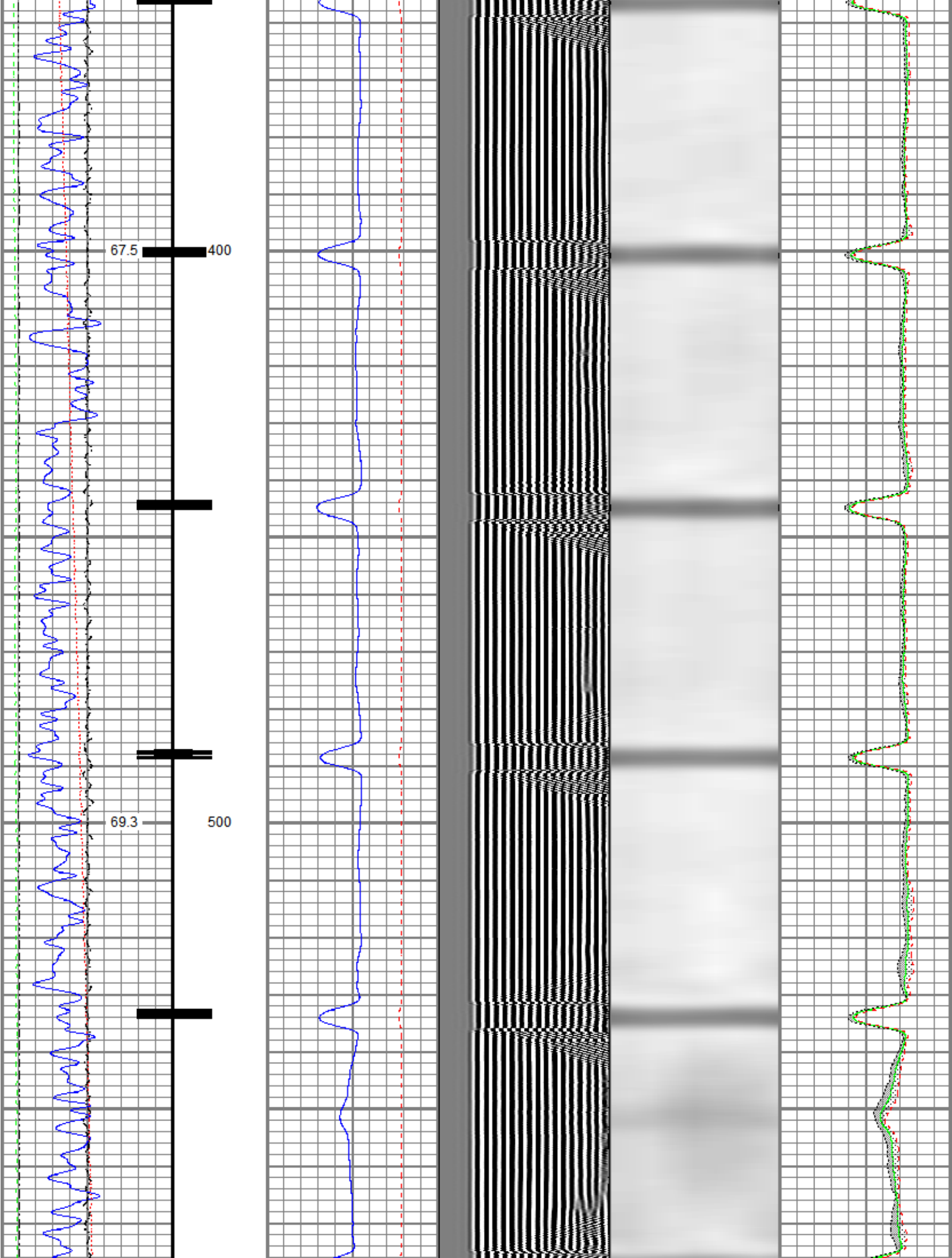
Recorded With 2000 PSI Surface-Induced Pressure

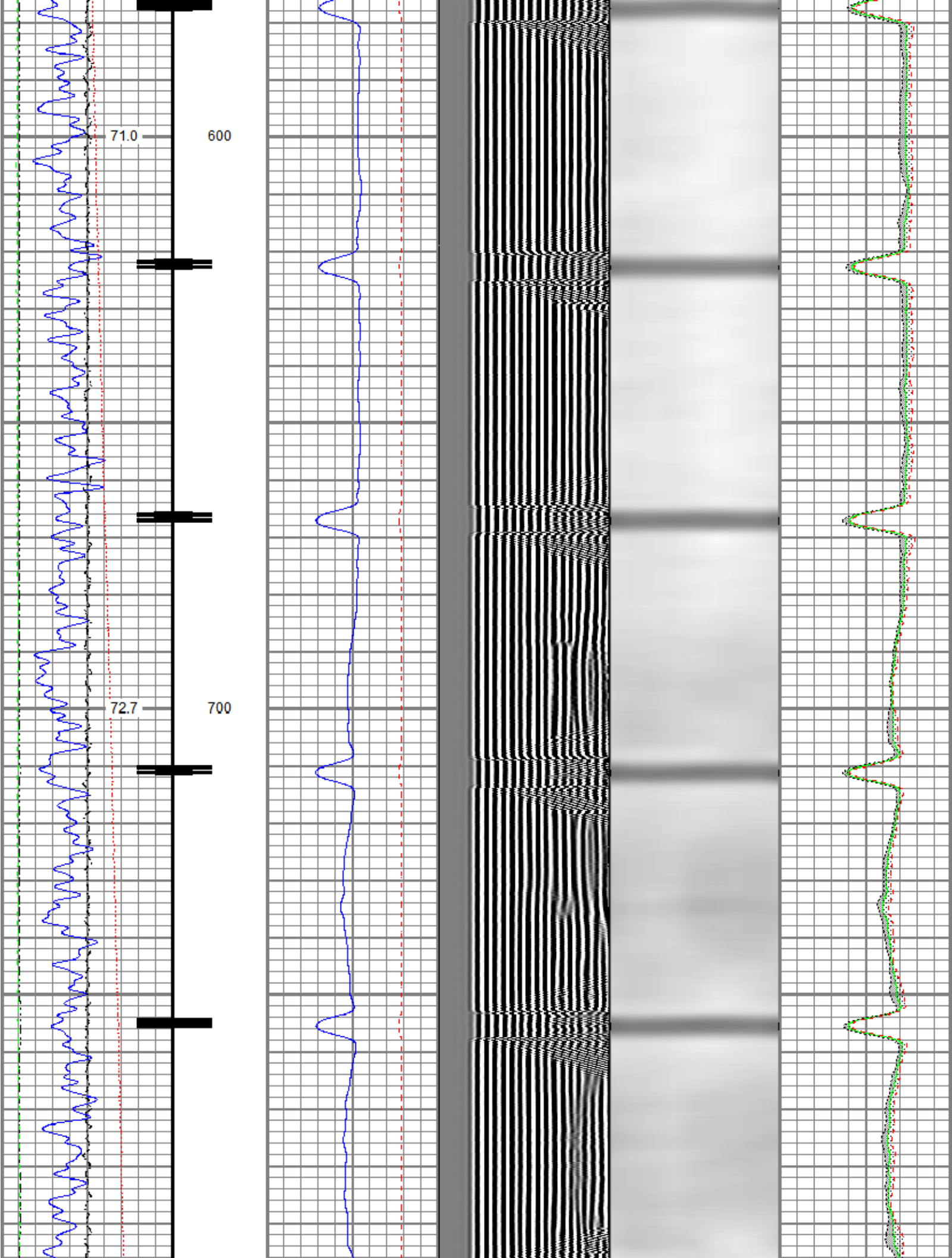
Database File oxy_cleland 15-2hz\0512350489_oxy_cleland 15-2hz_rbl_01-31-20.db
 Dataset Pathname rcb12800/pass4.1
 Presentation Format ros_radri
 Dataset Creation Tue Feb 04 07:50:52 2020
 Charted by Depth in Feet scaled 1:240

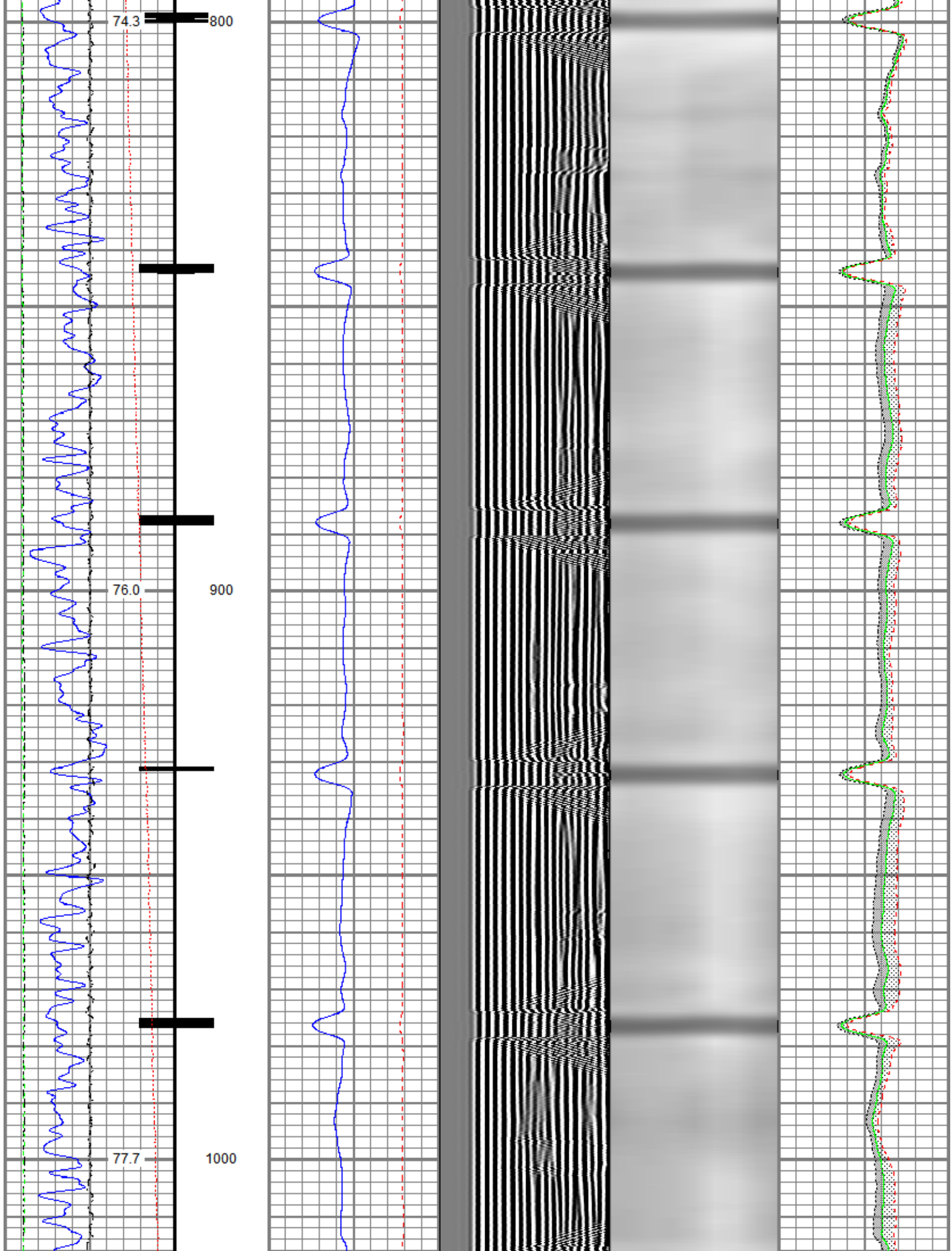
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min)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

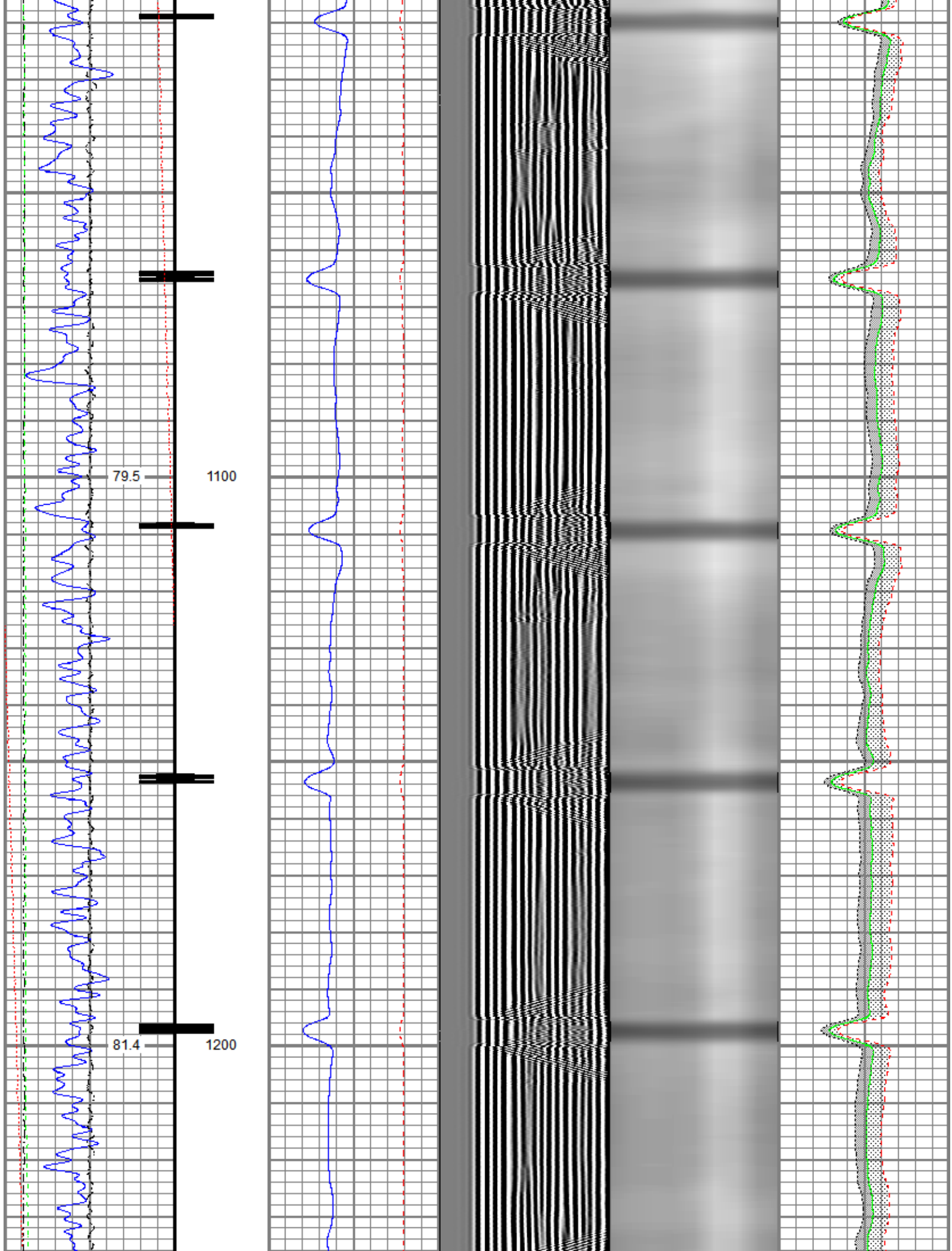


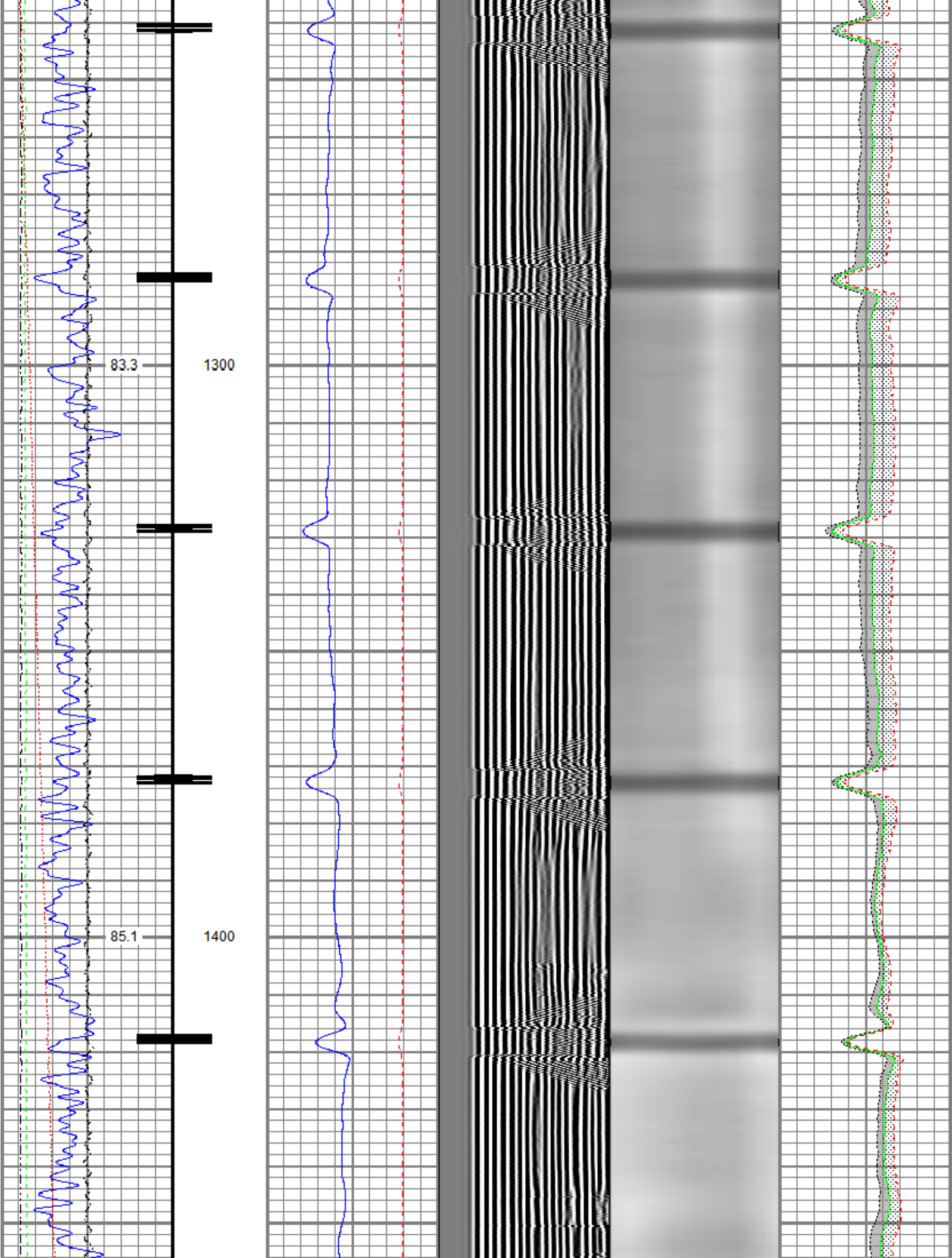


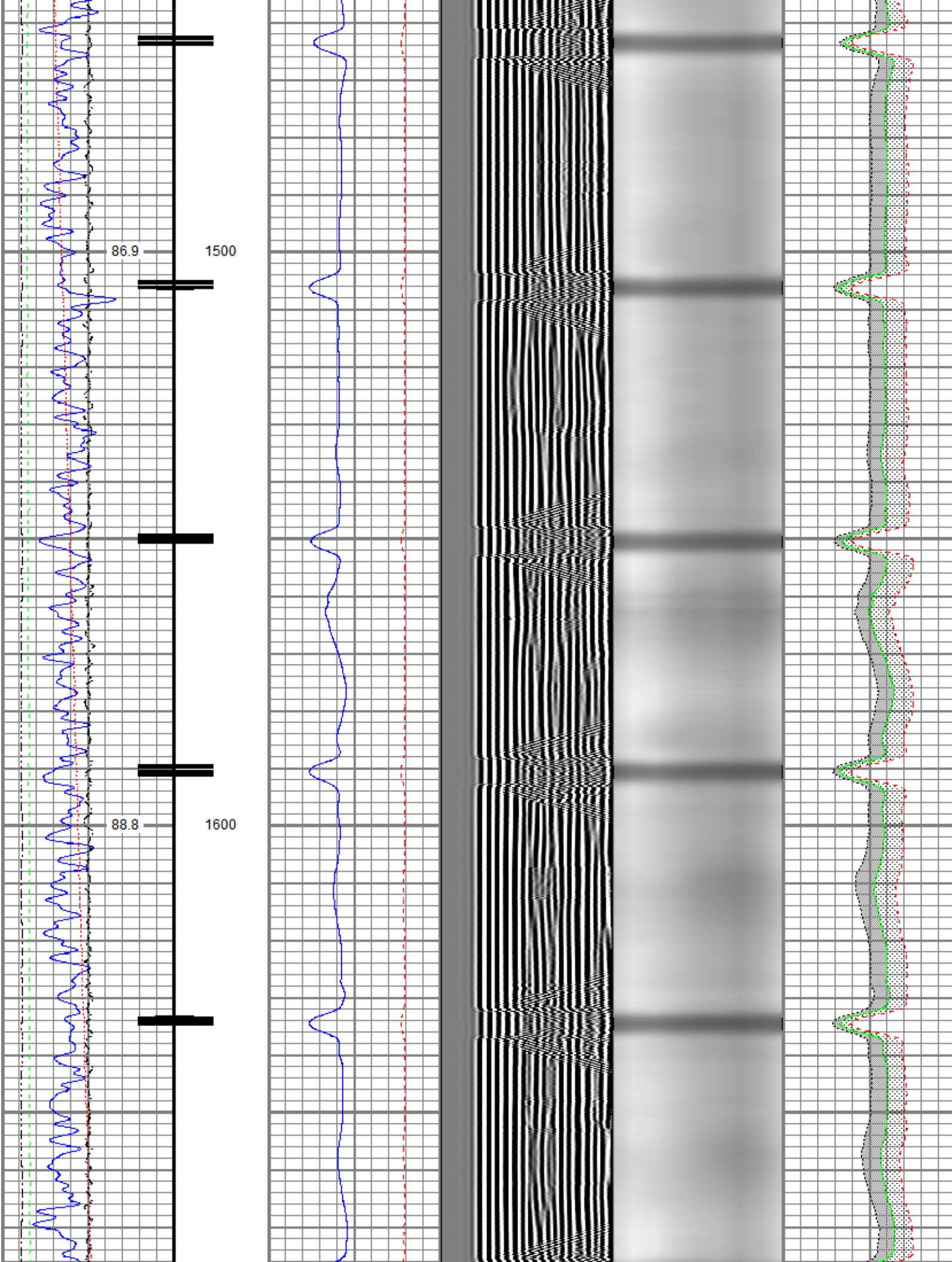


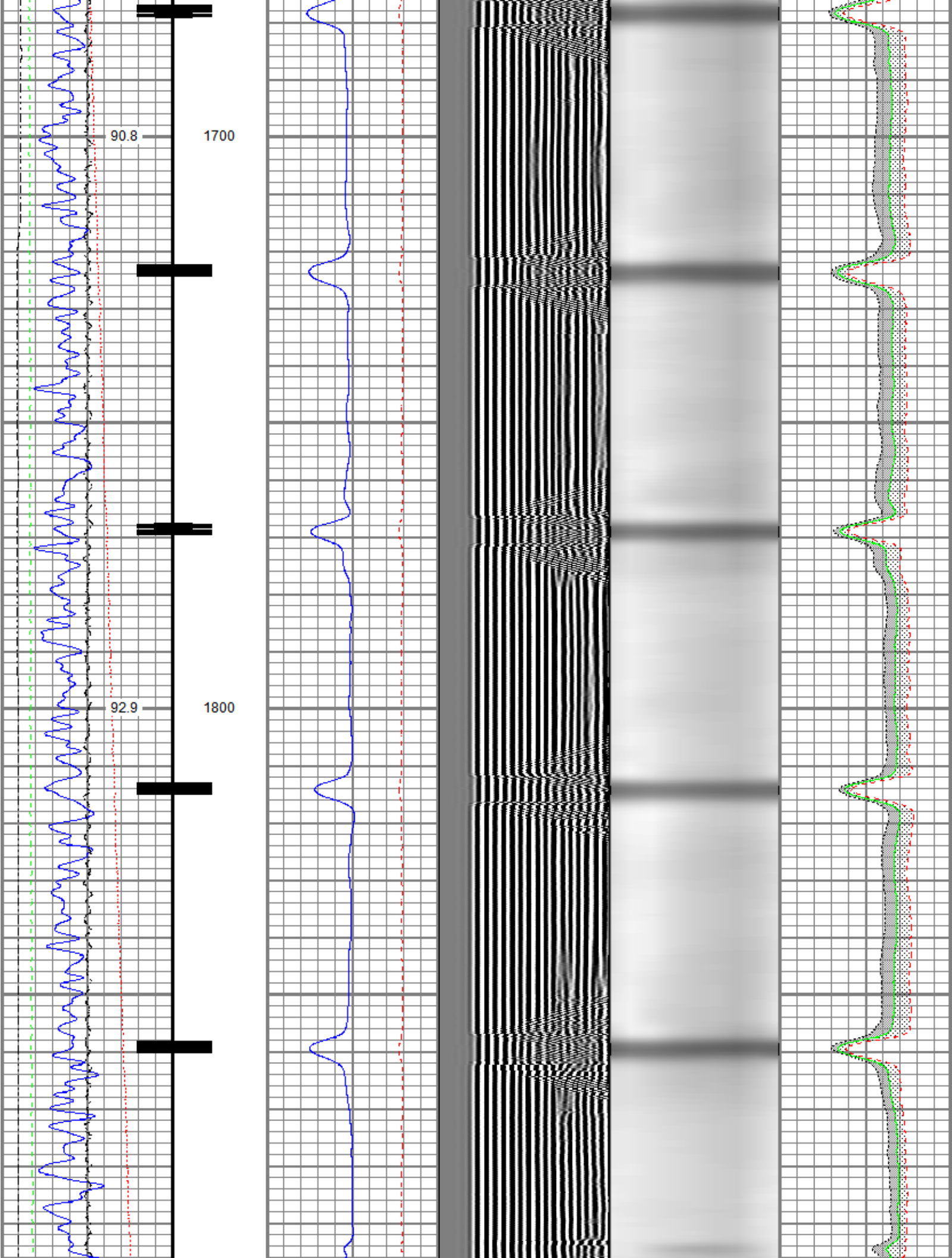


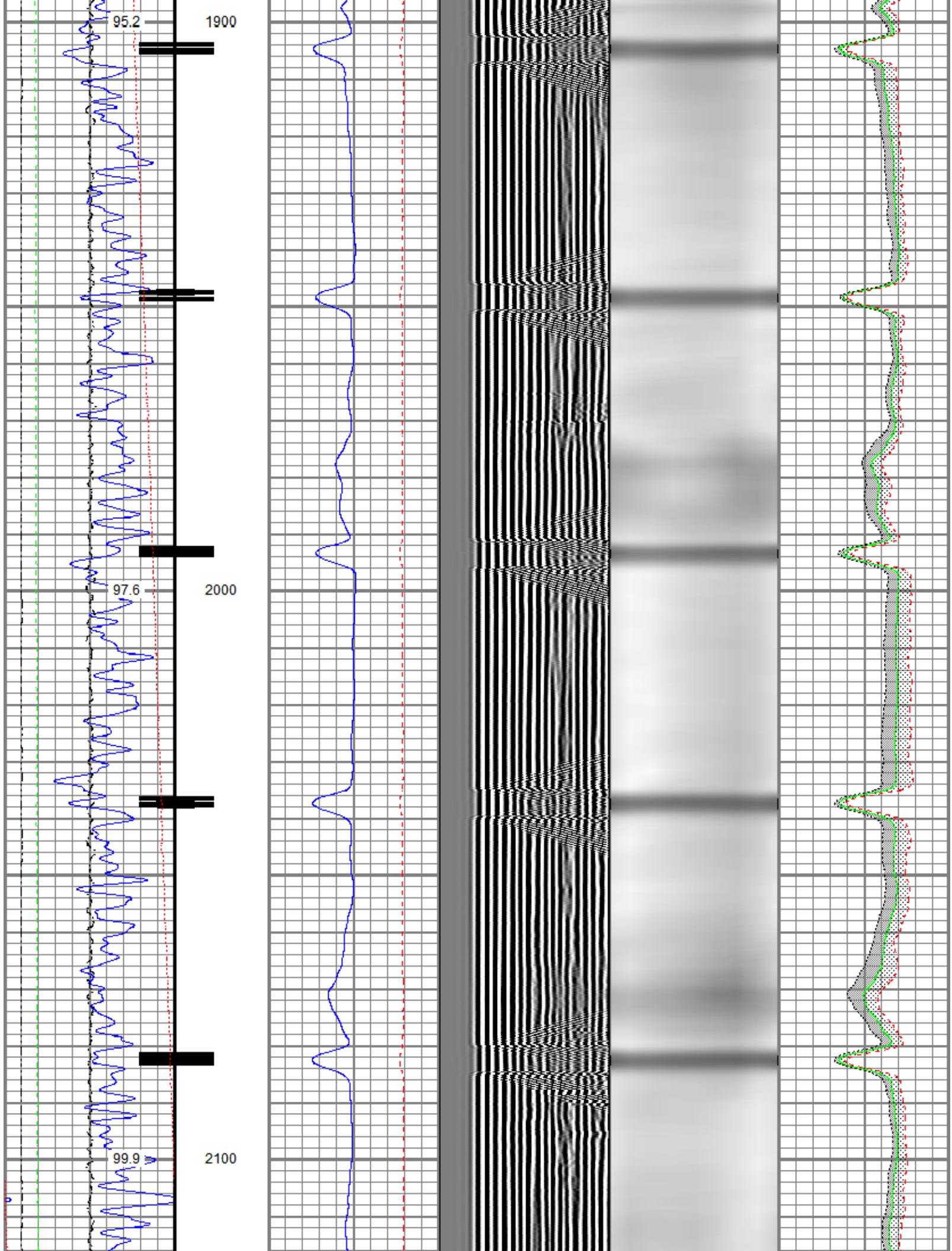


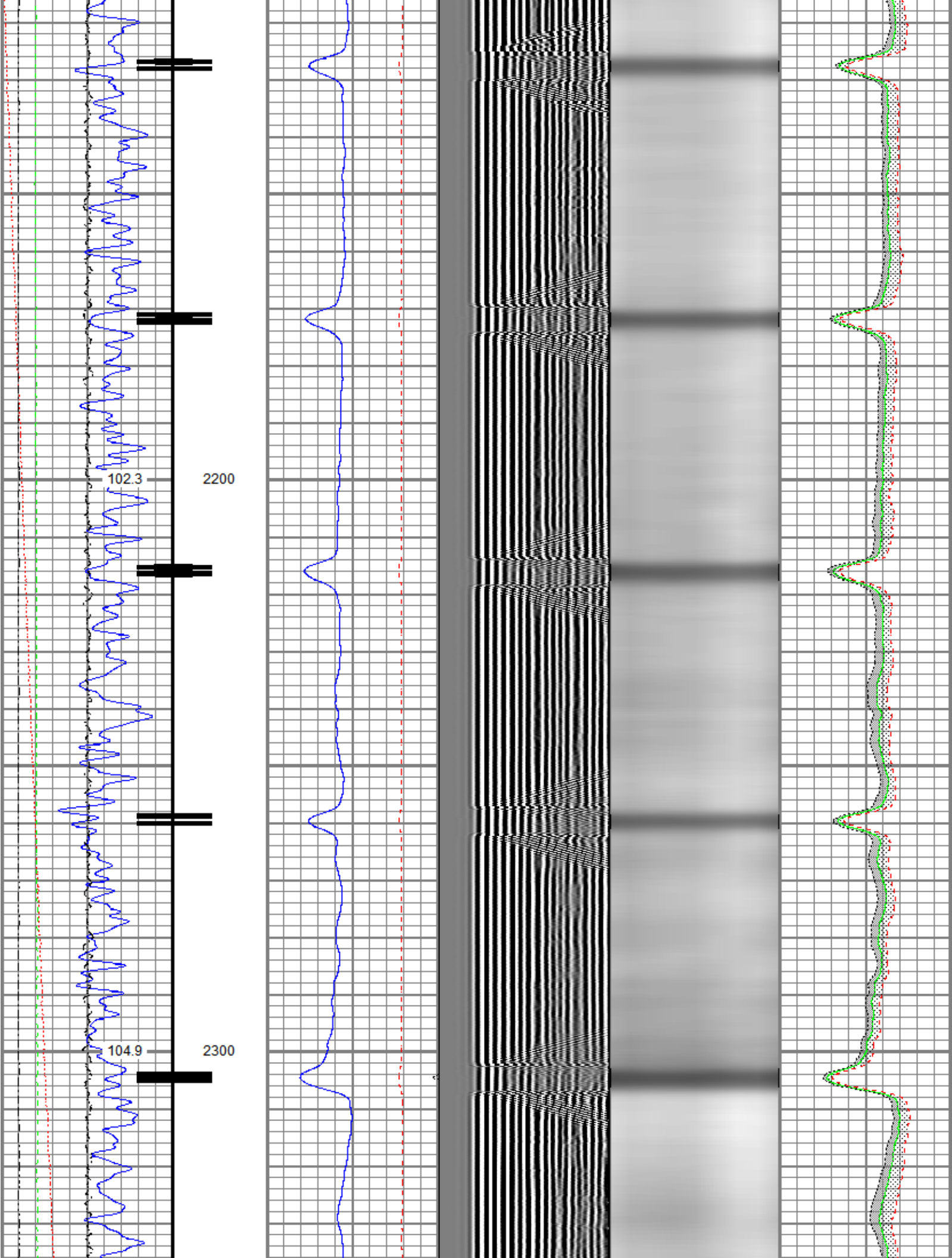


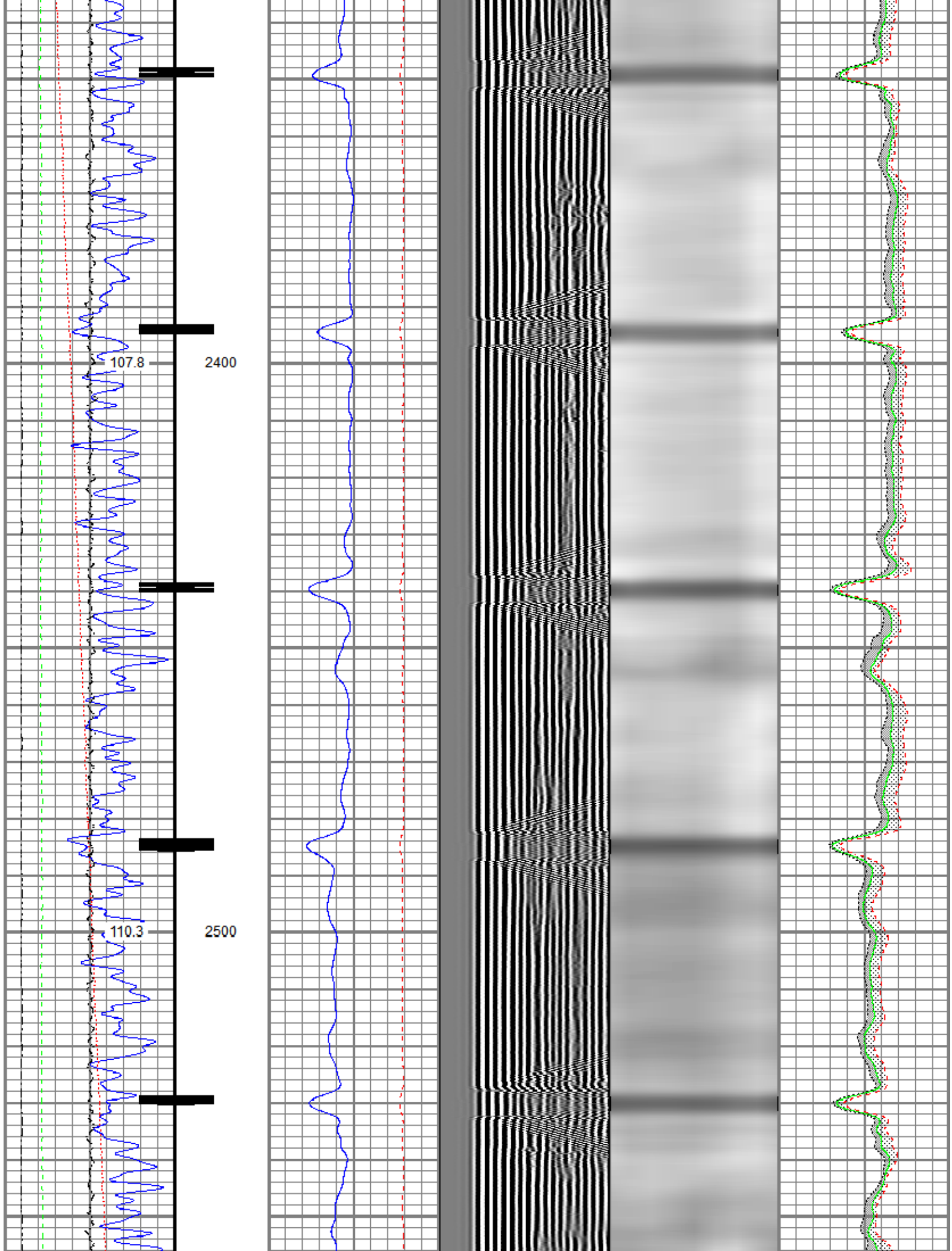


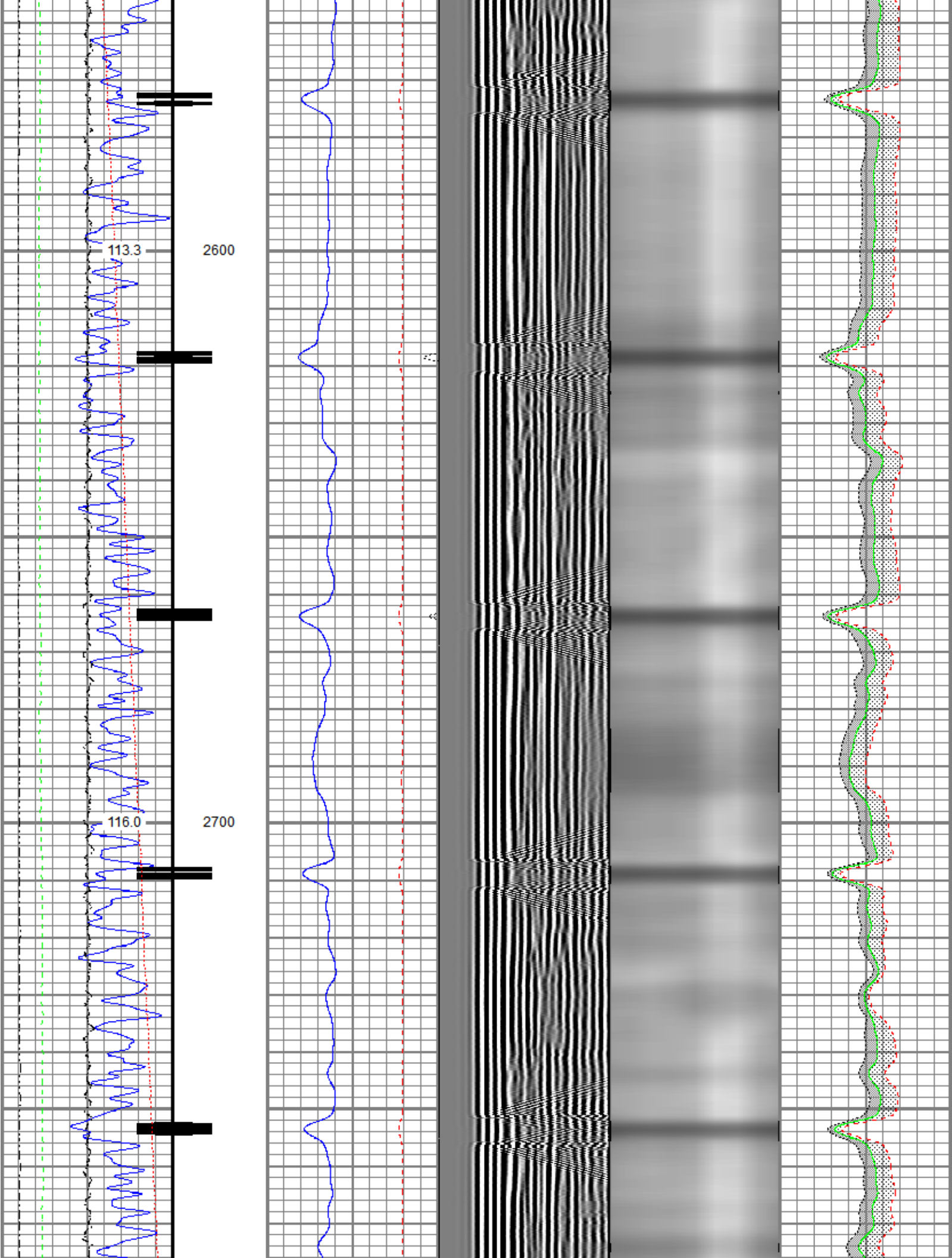


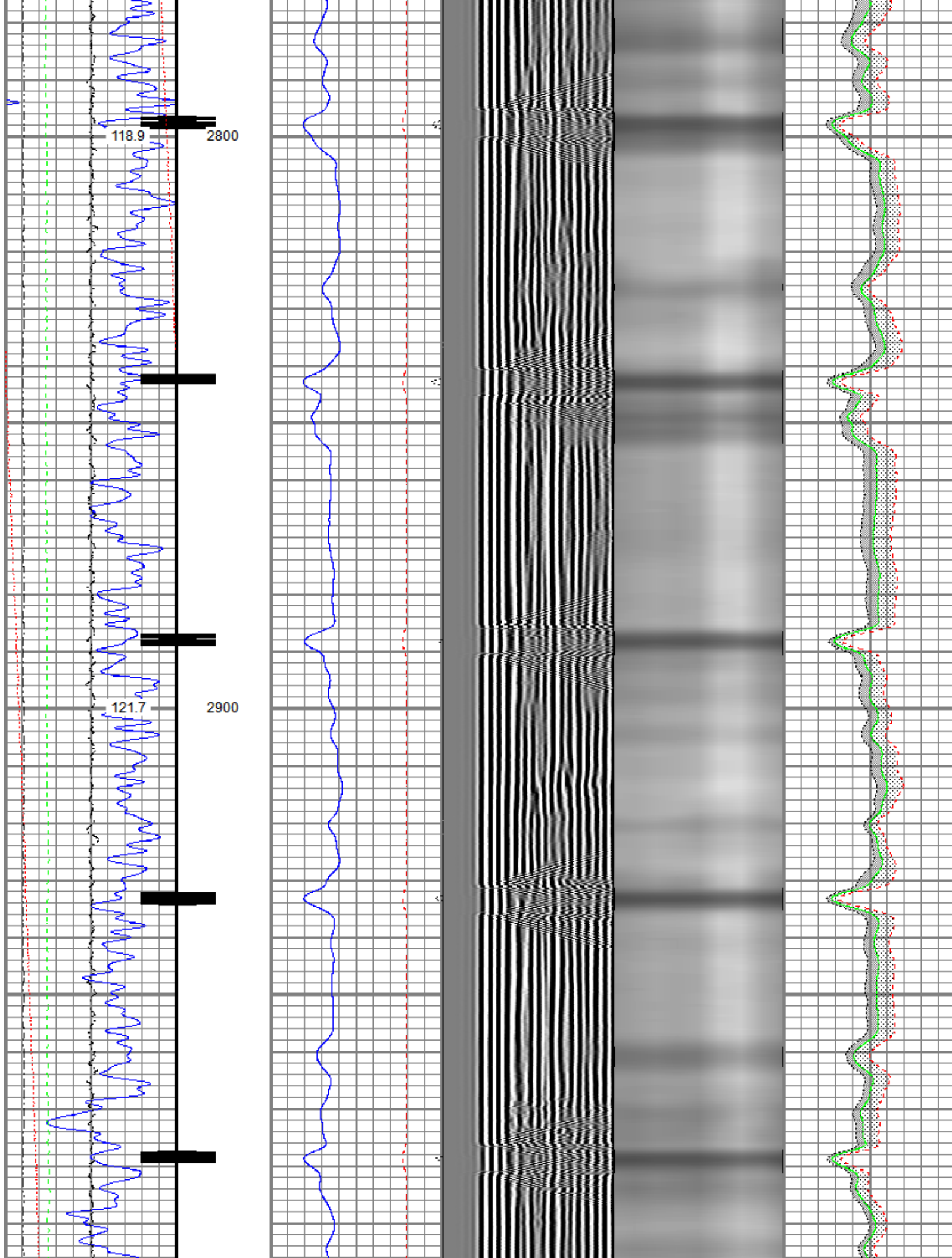


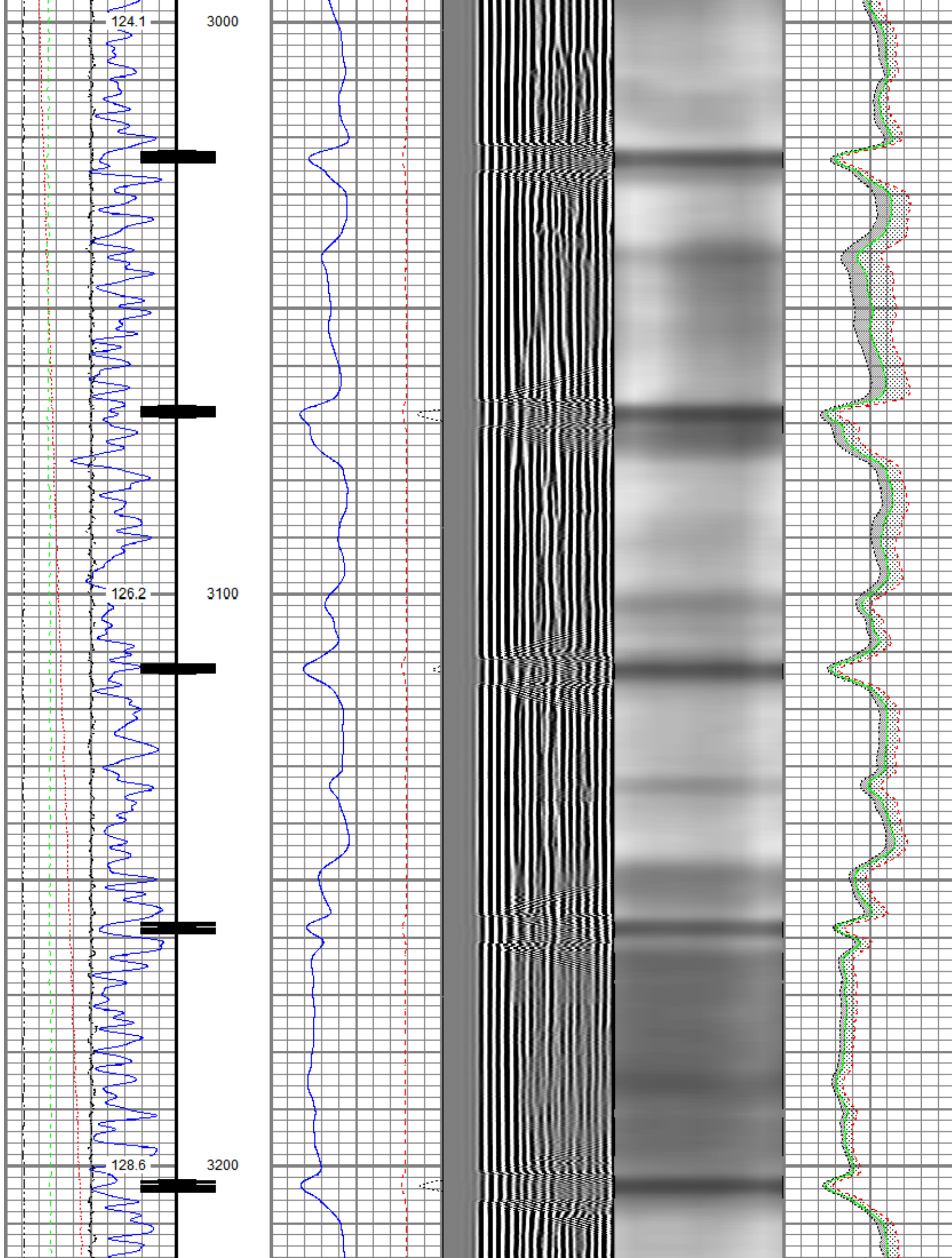


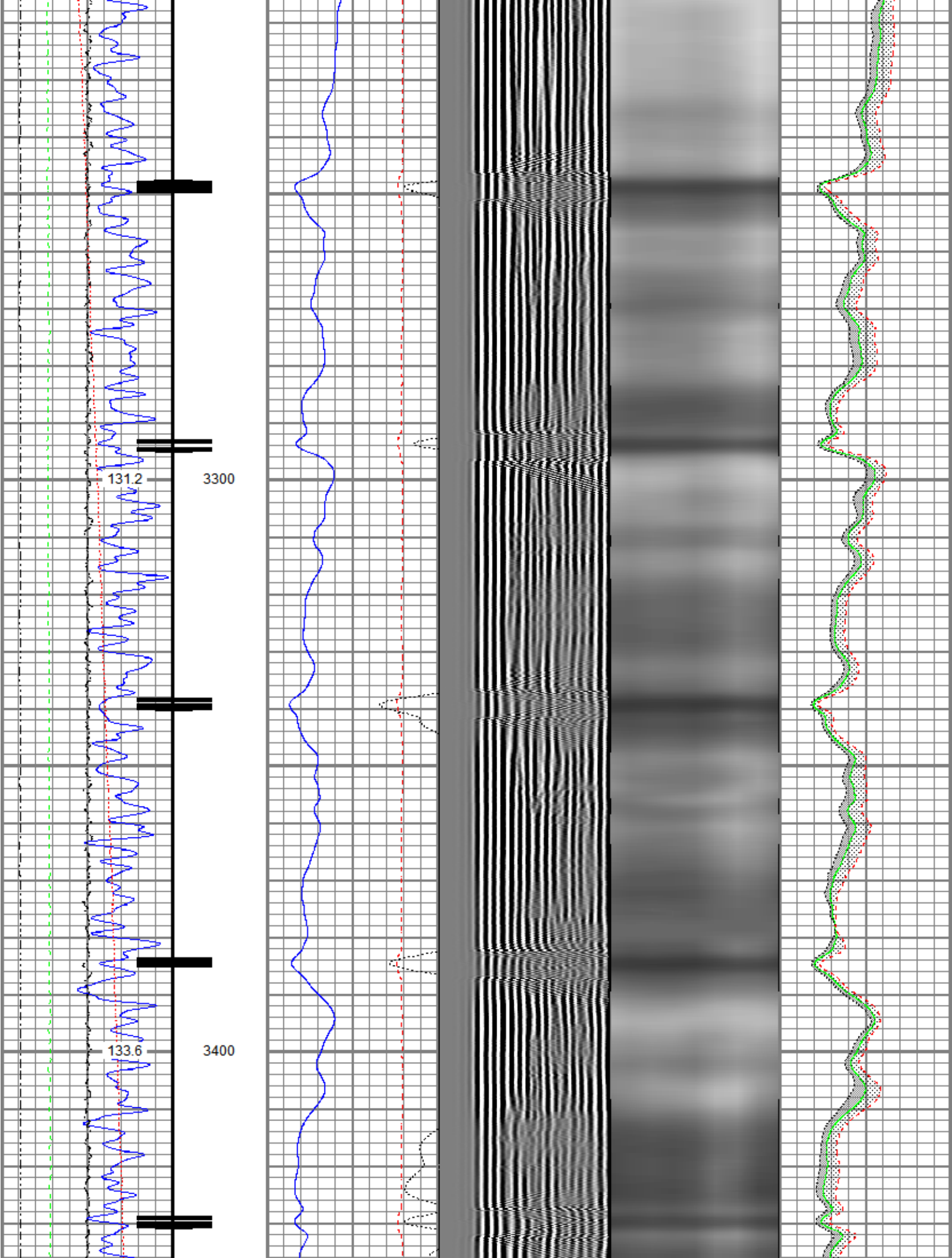


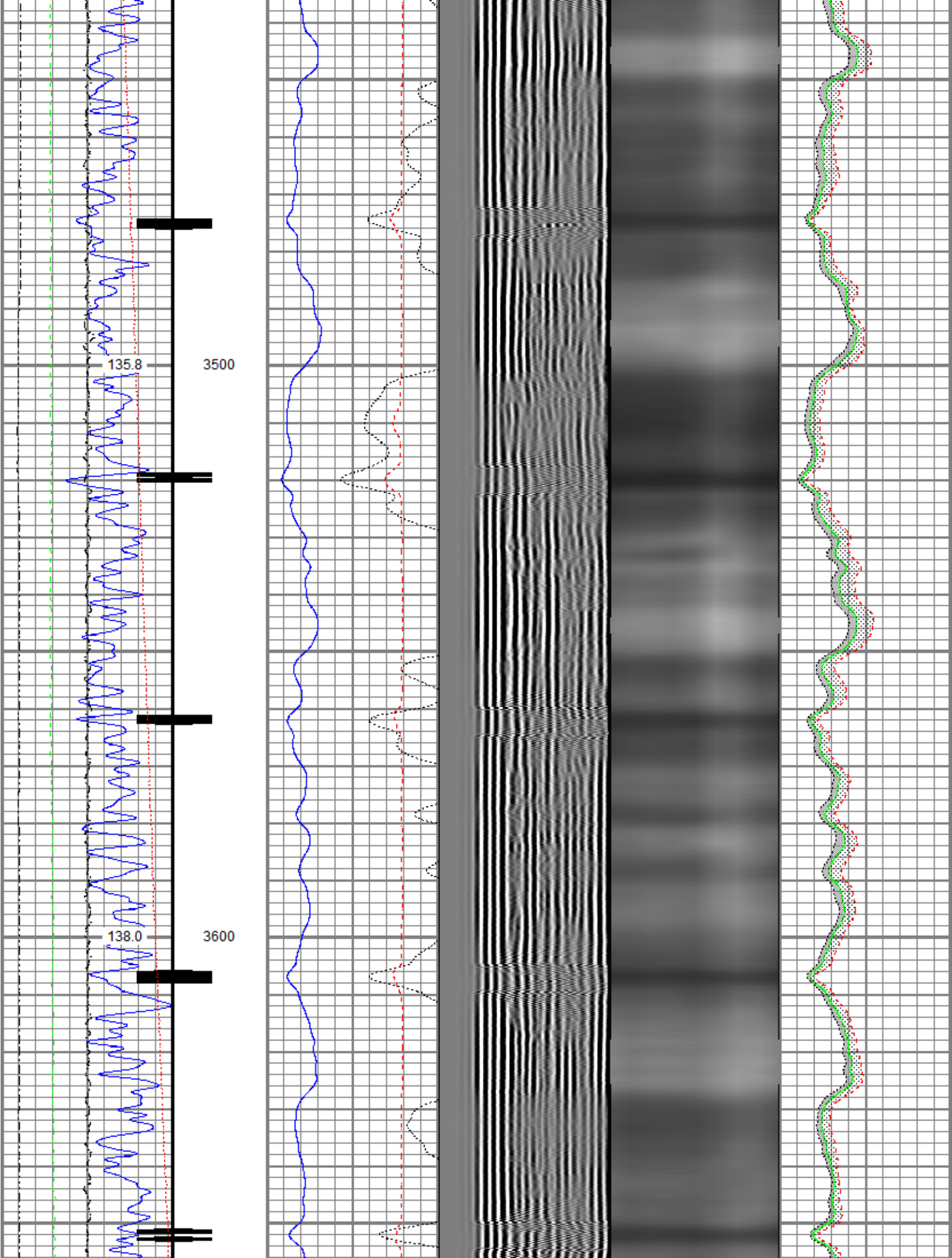


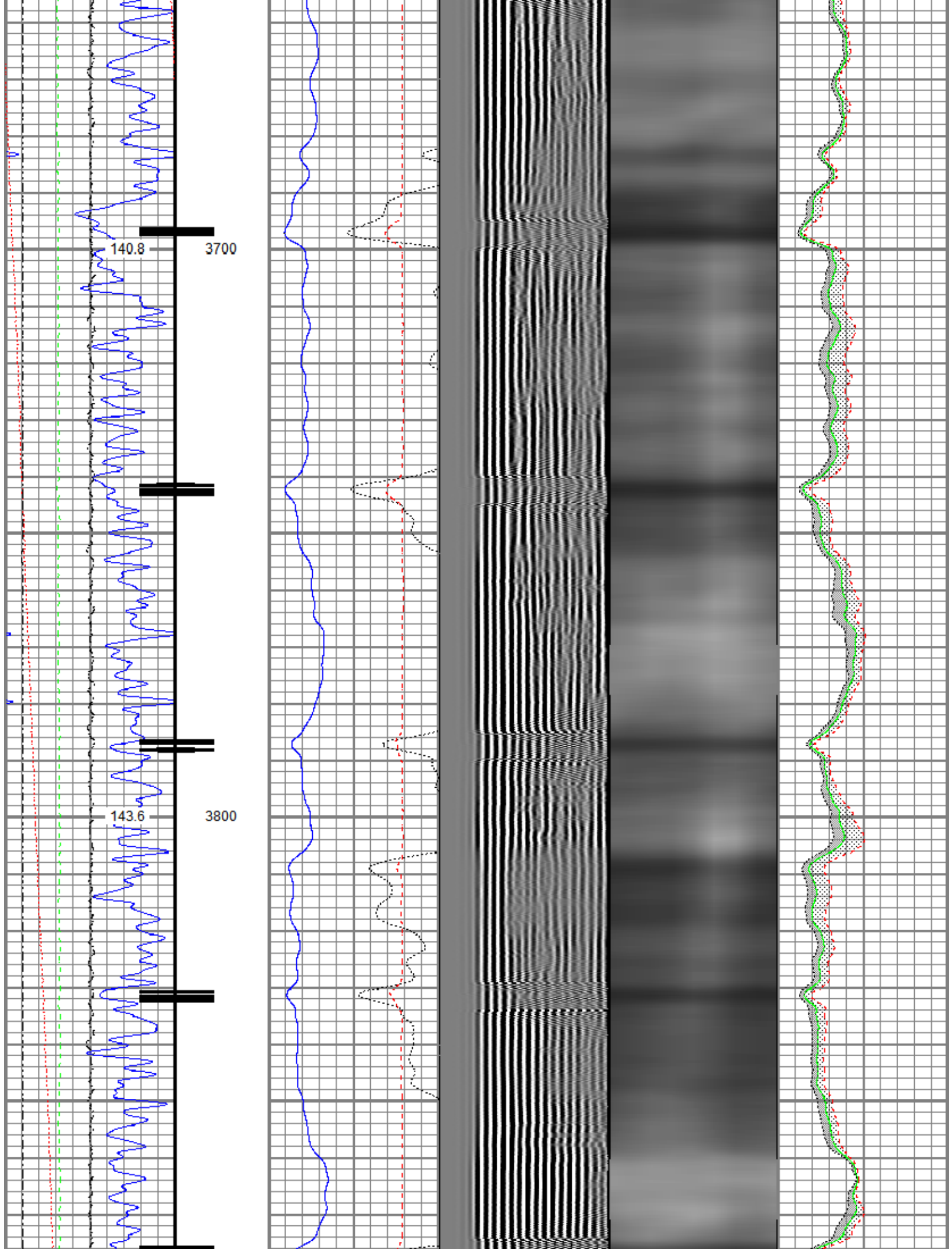


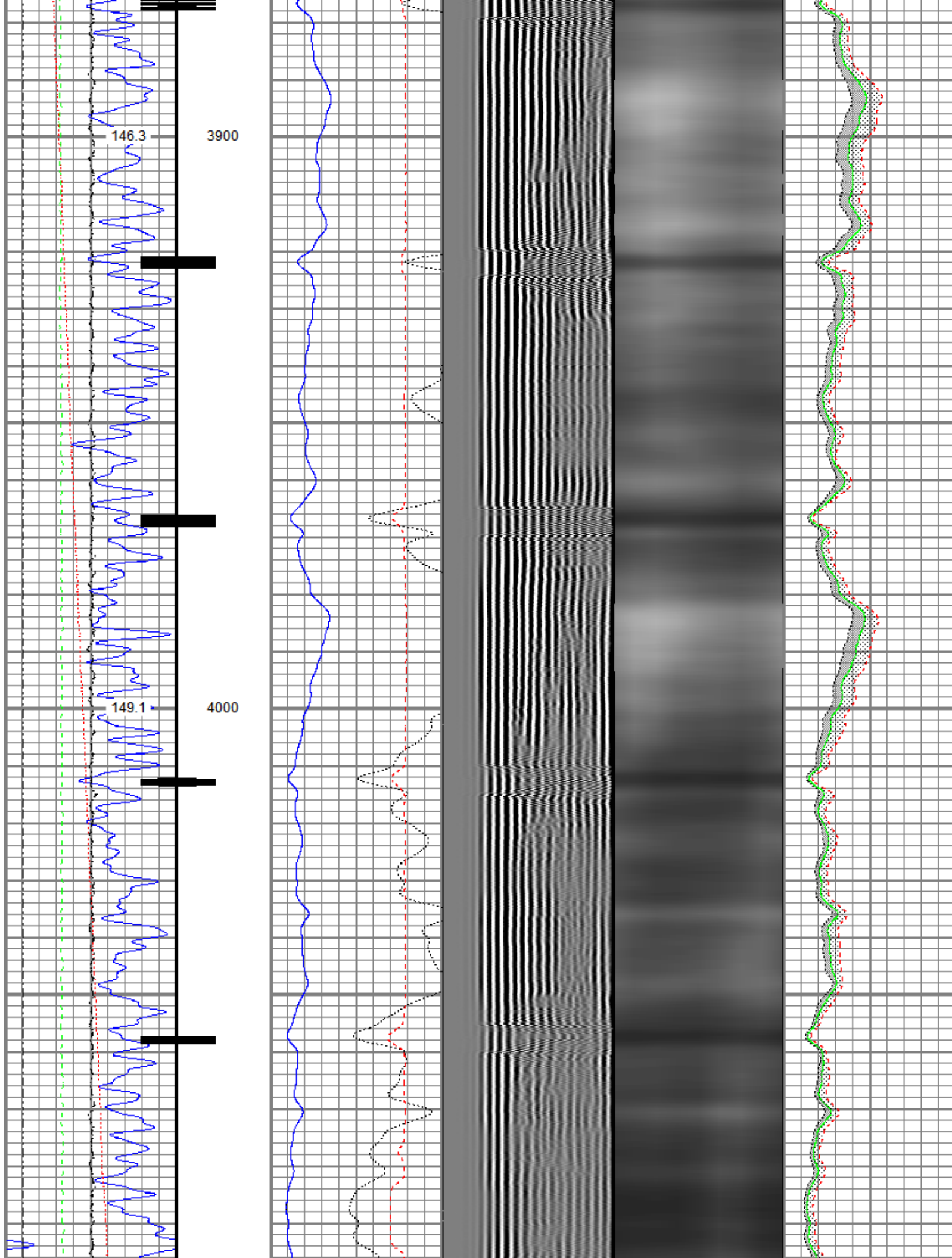


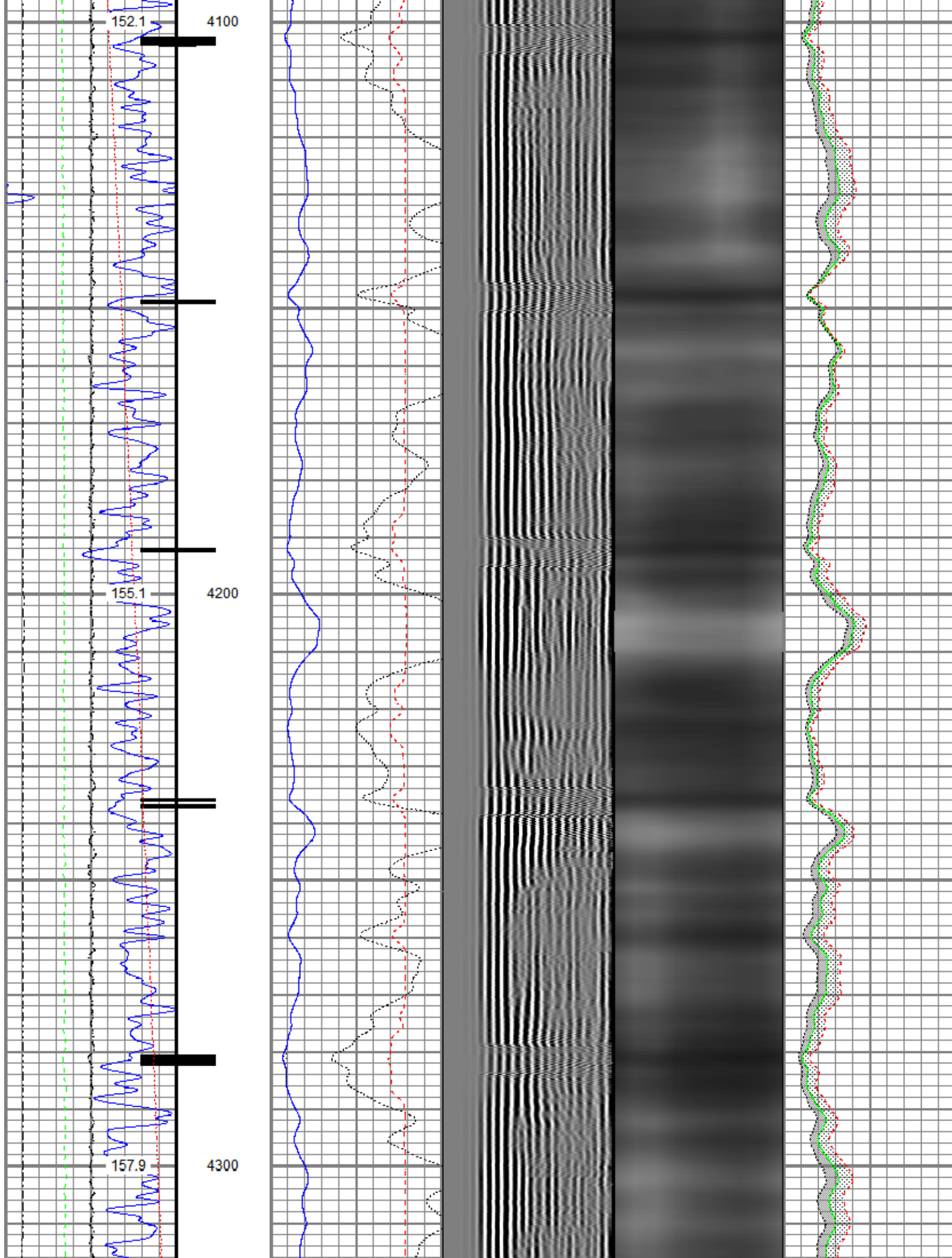


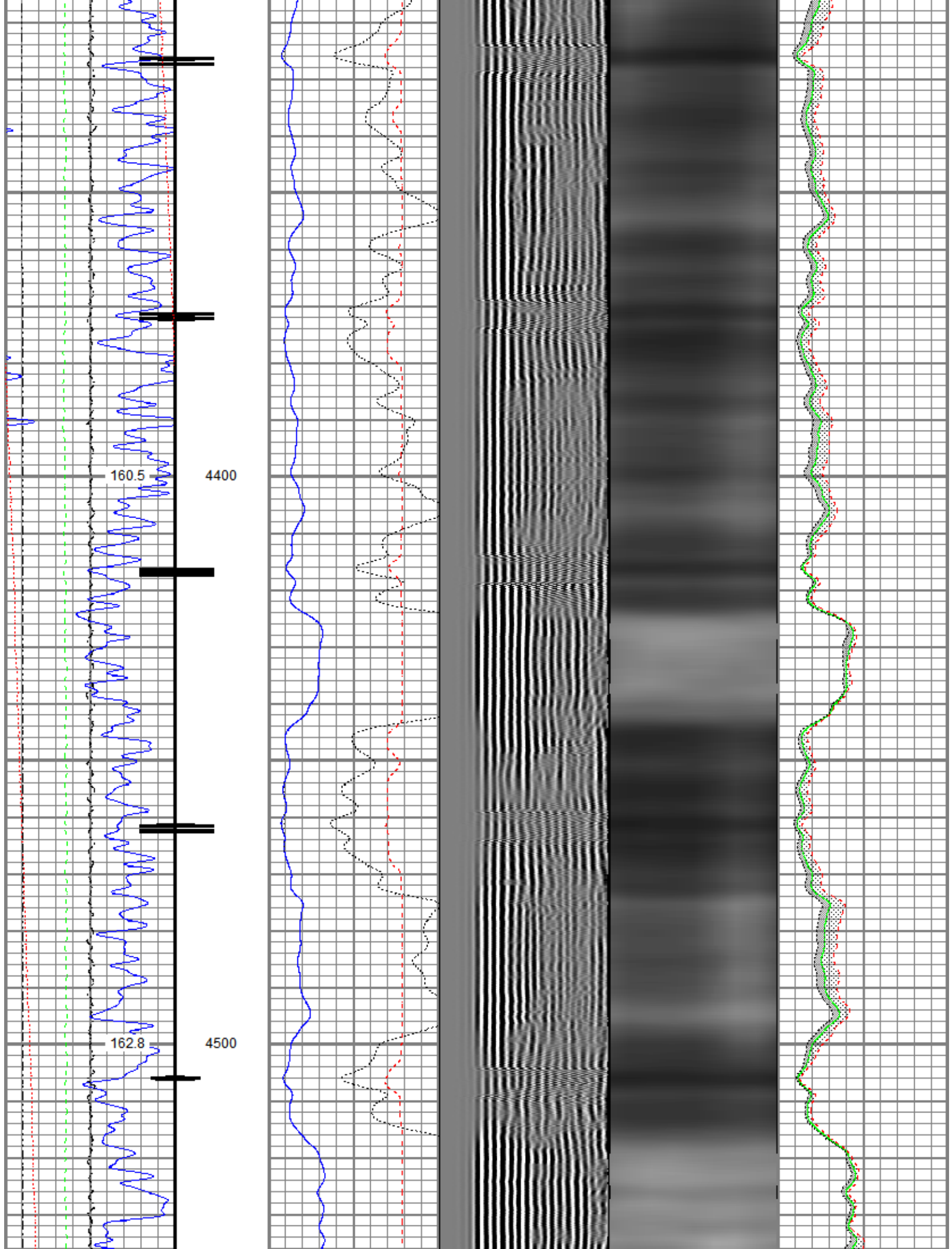


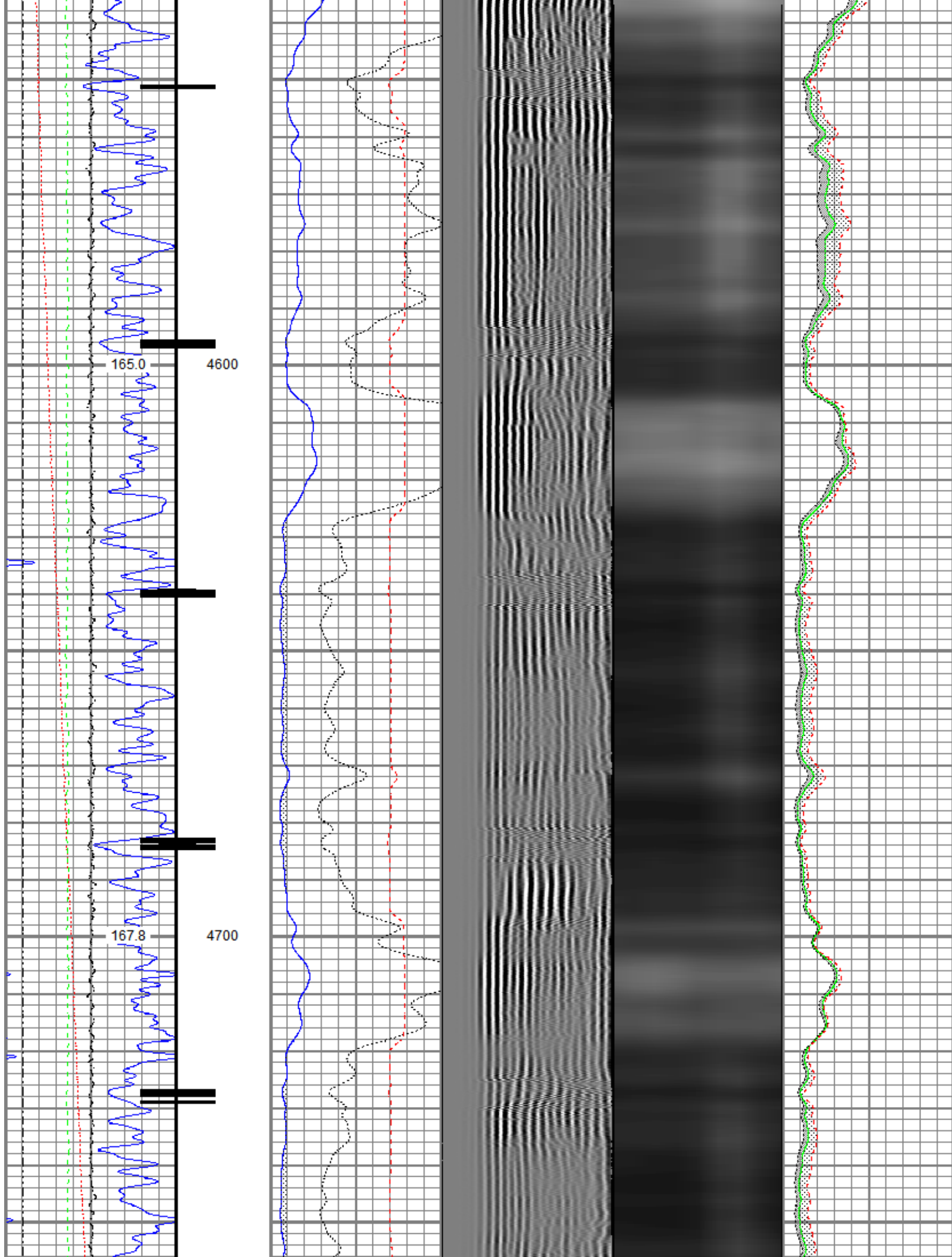


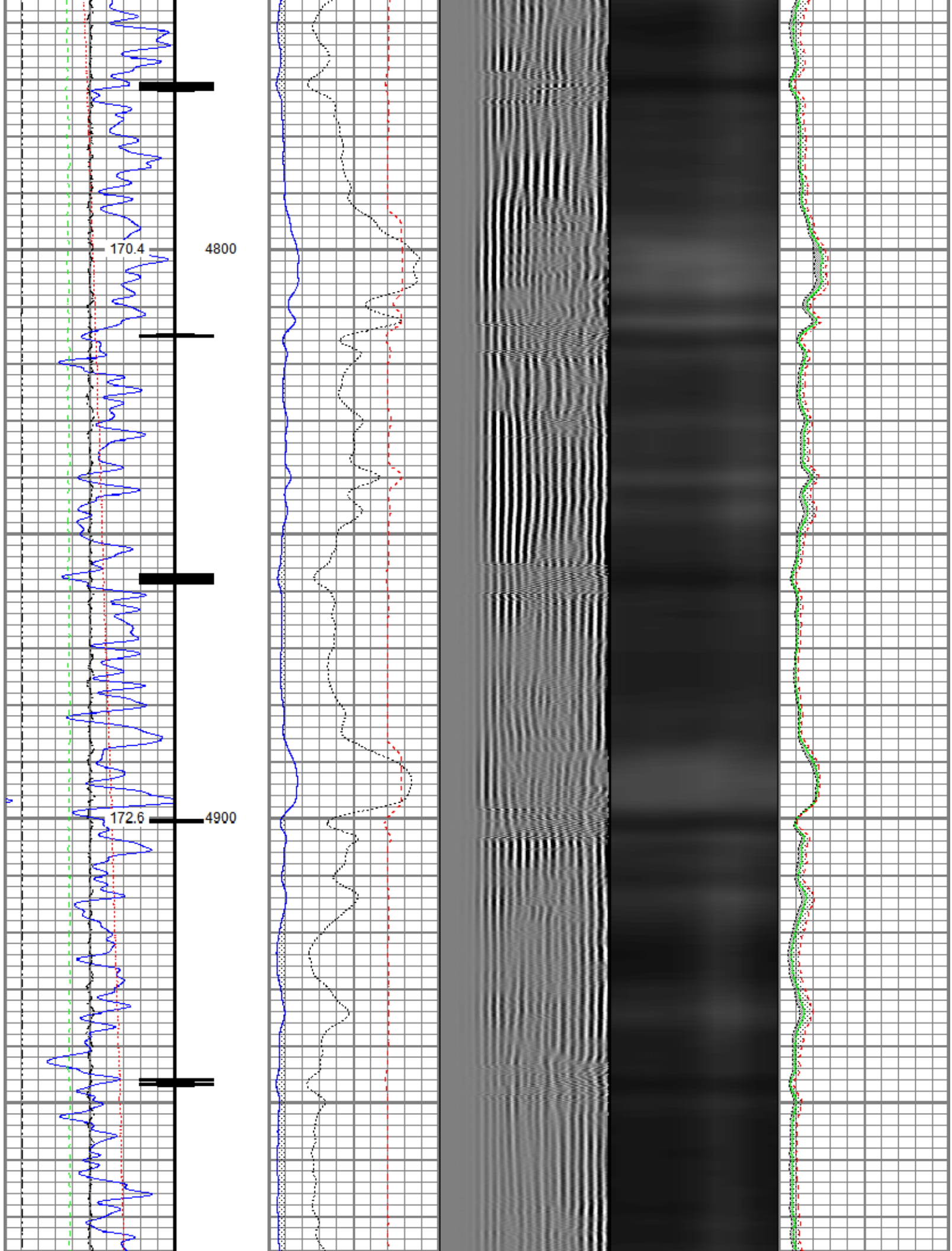


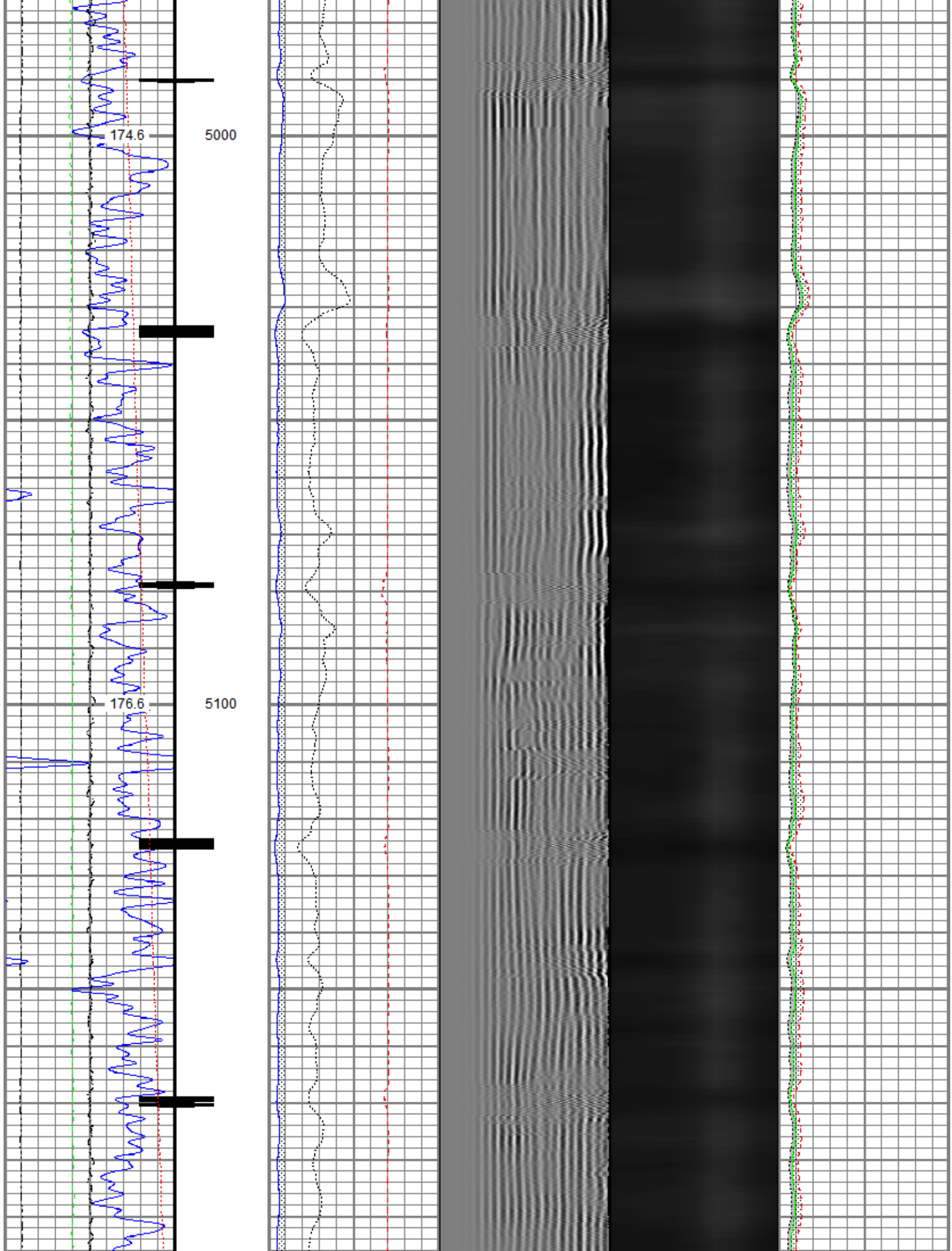


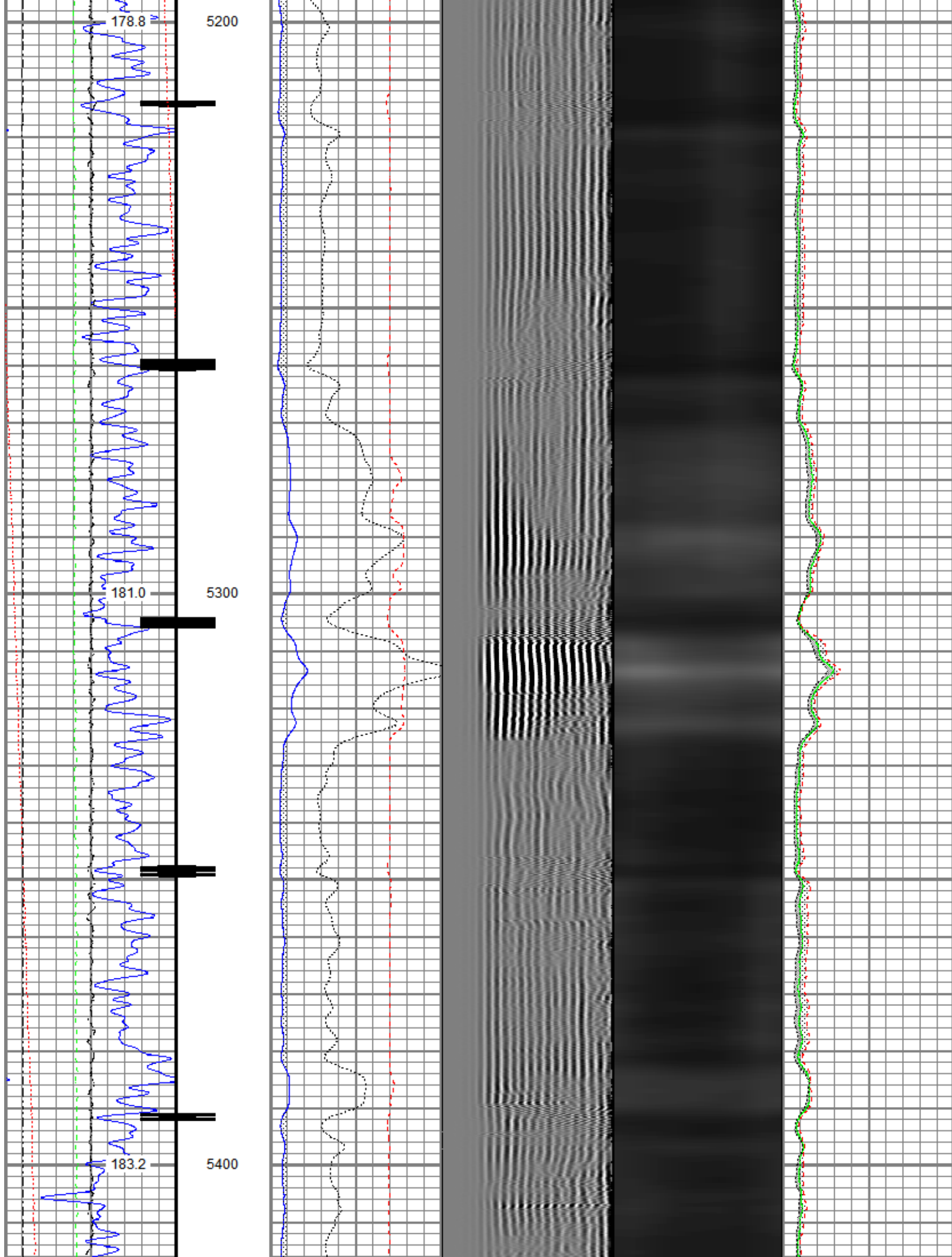


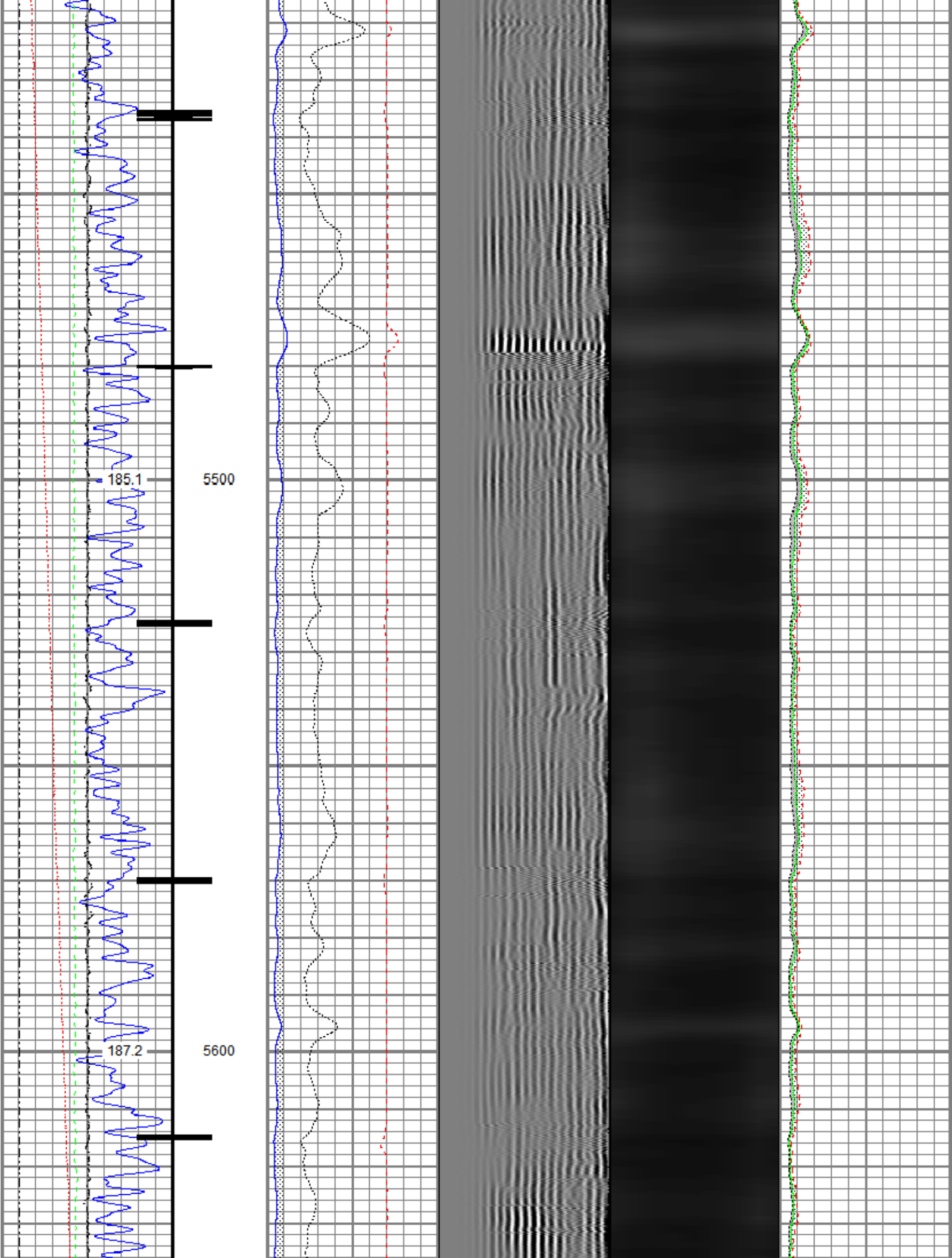


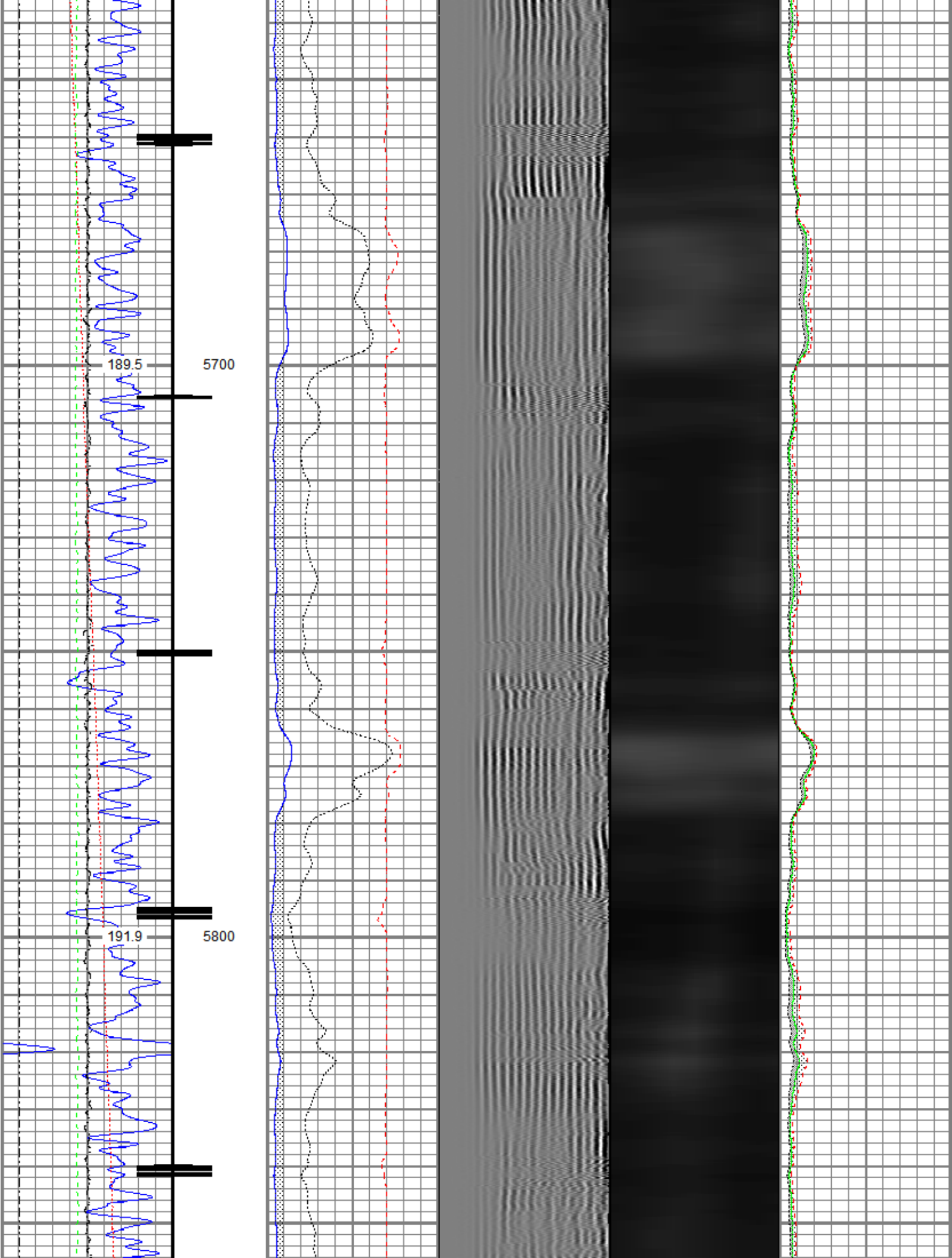


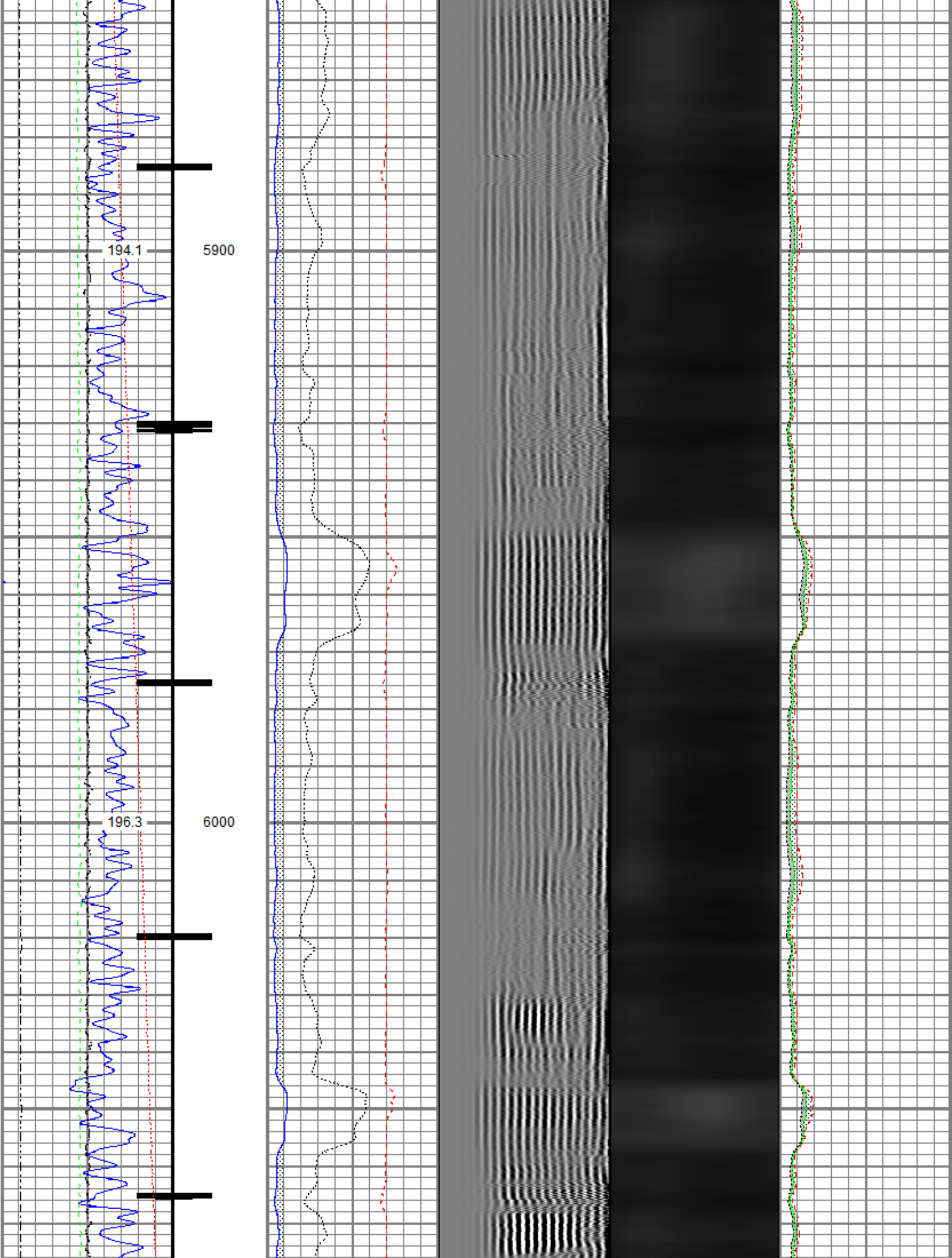


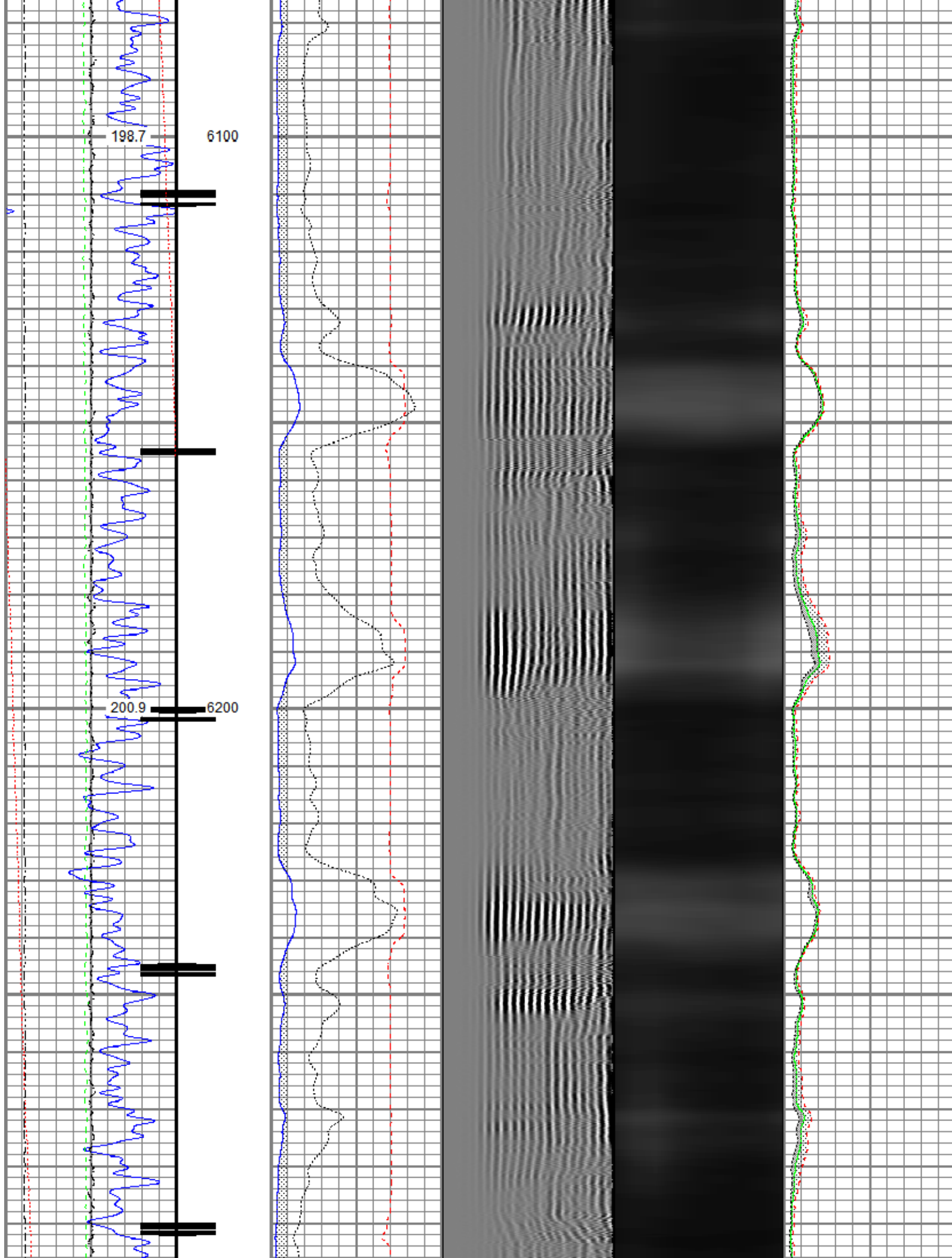


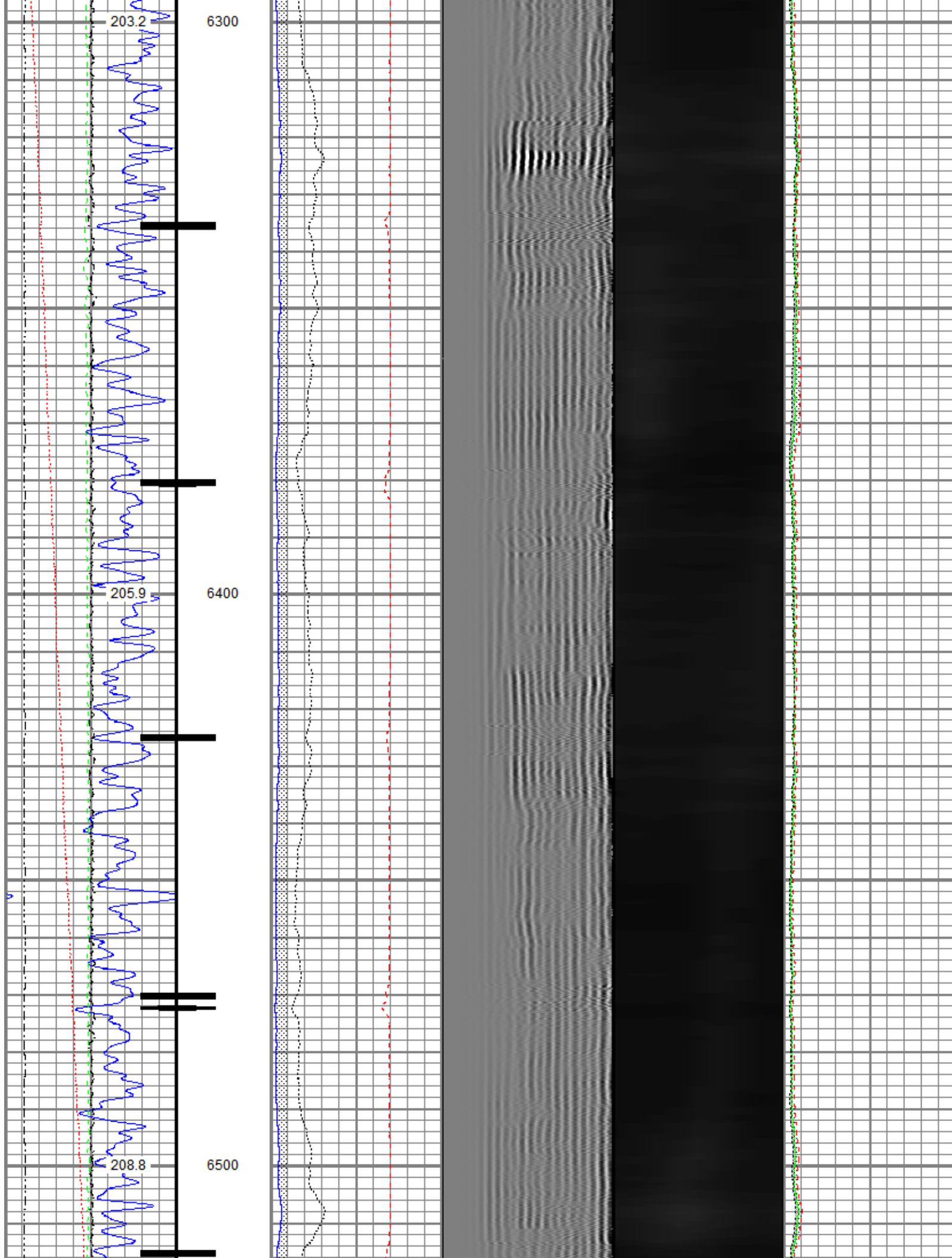


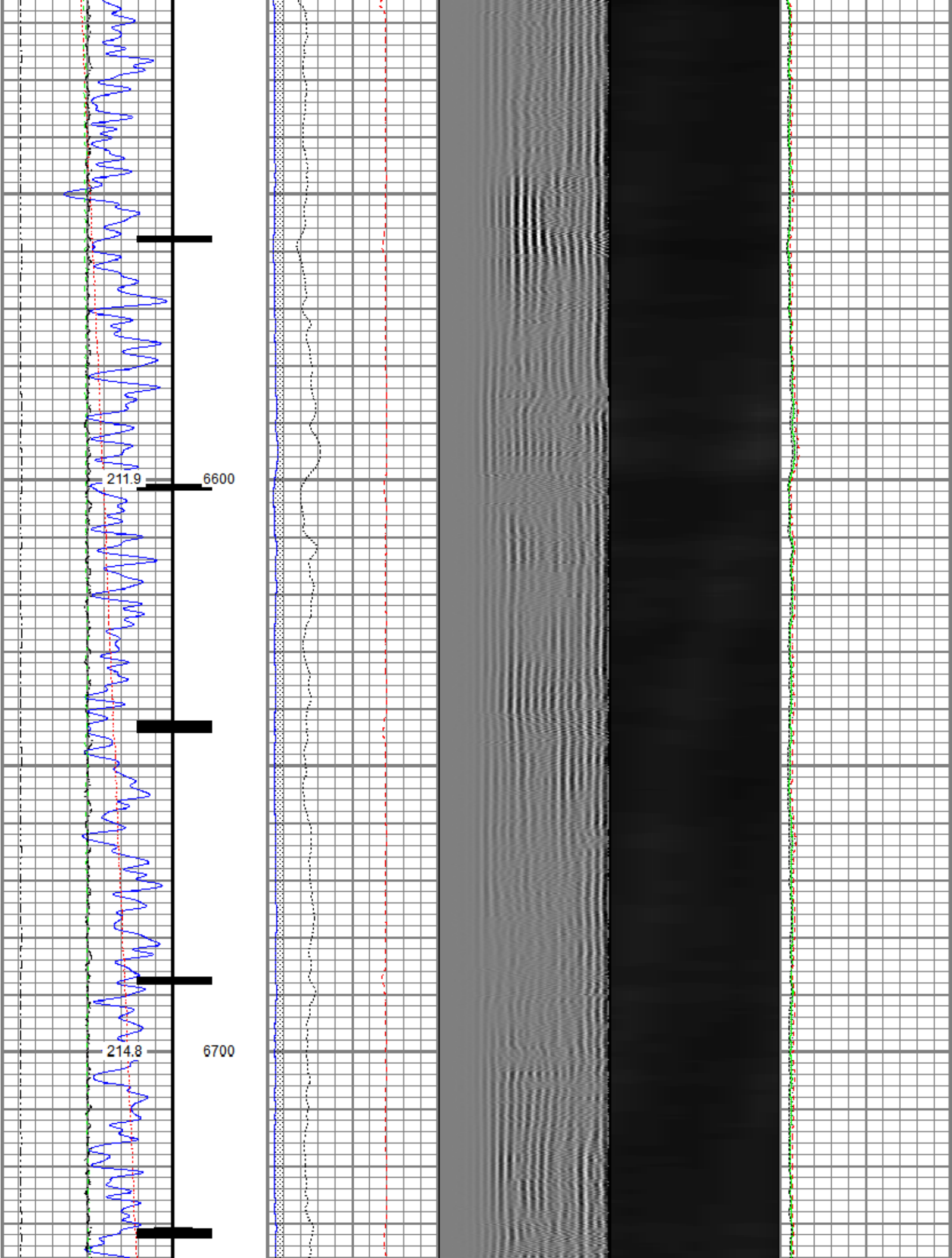


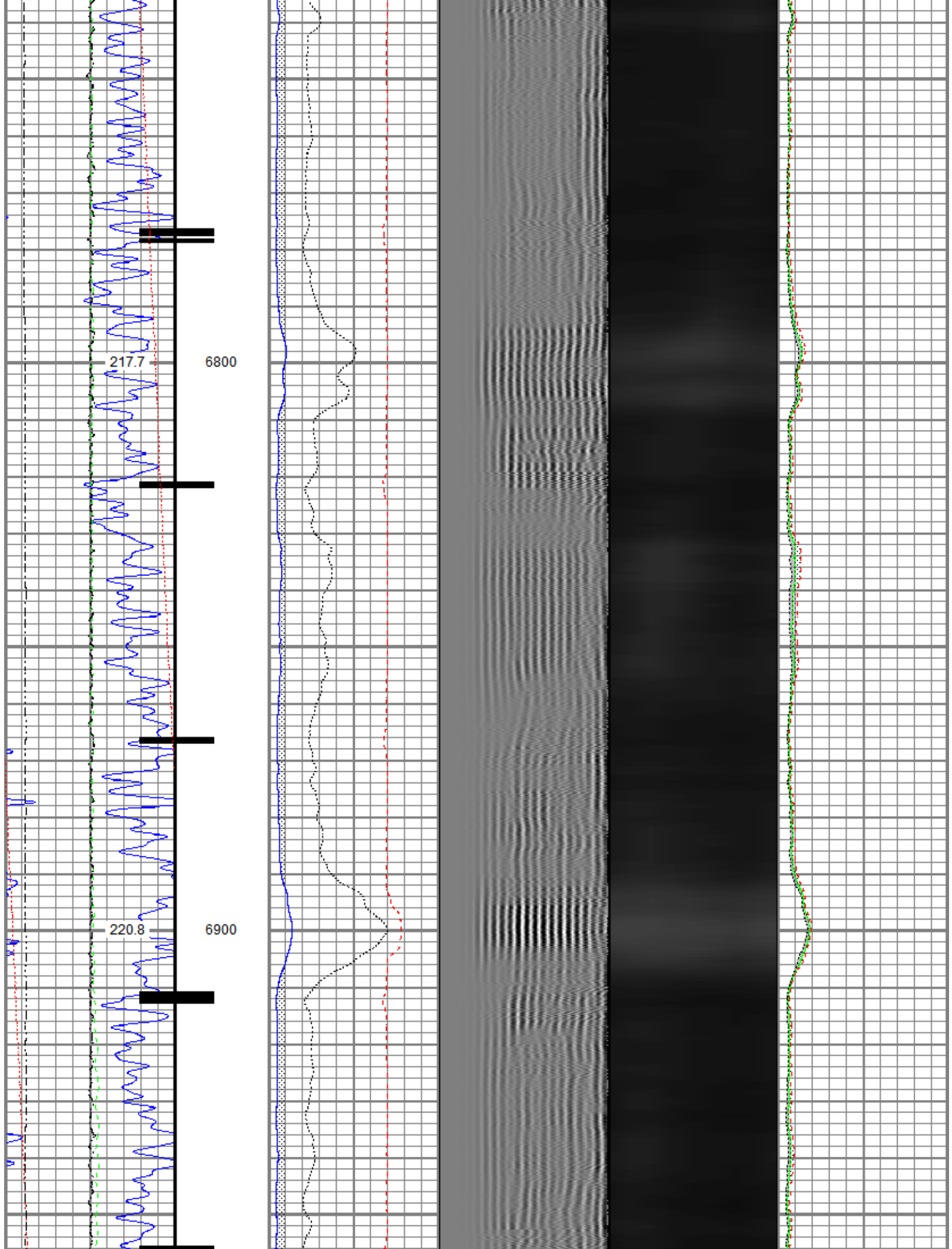


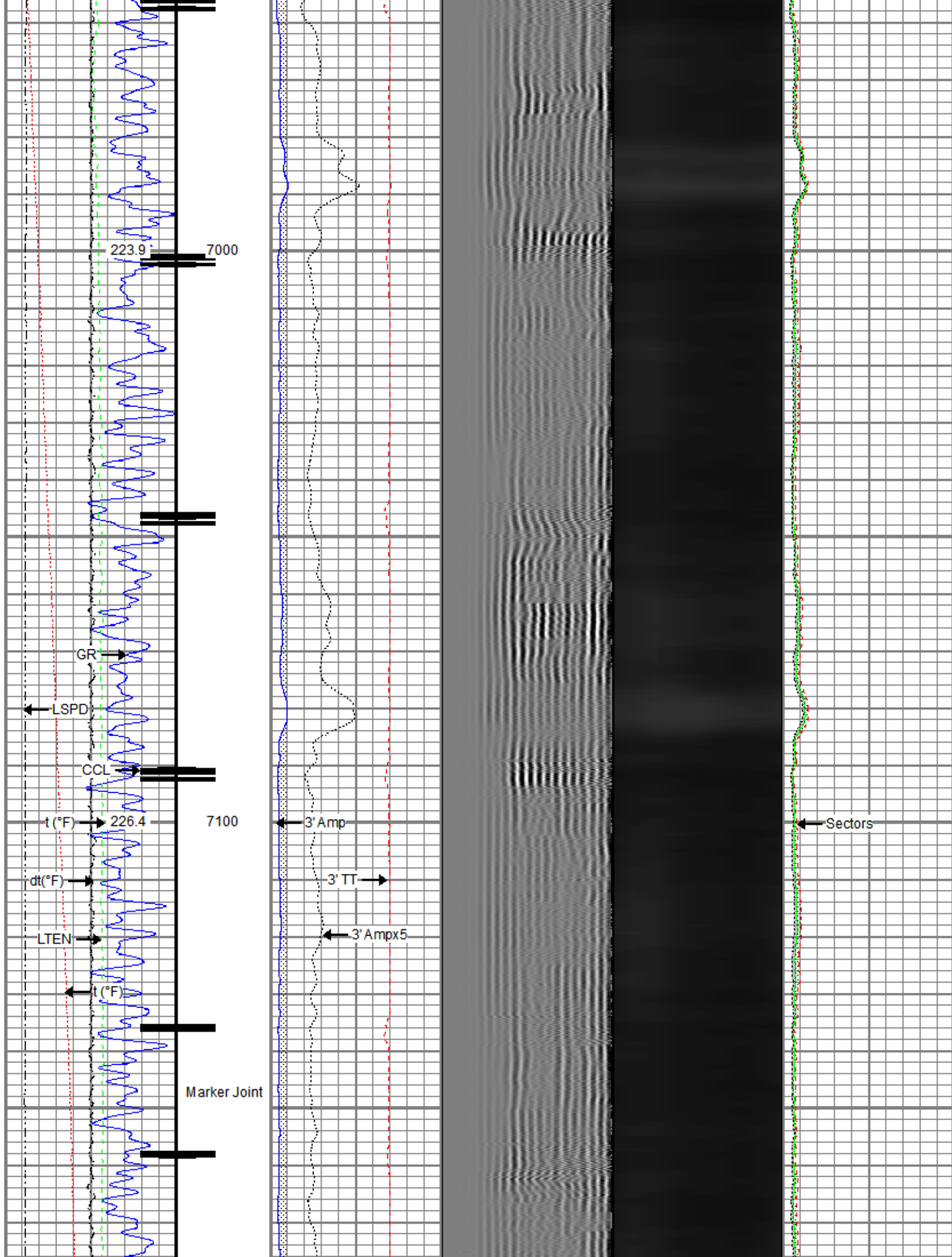


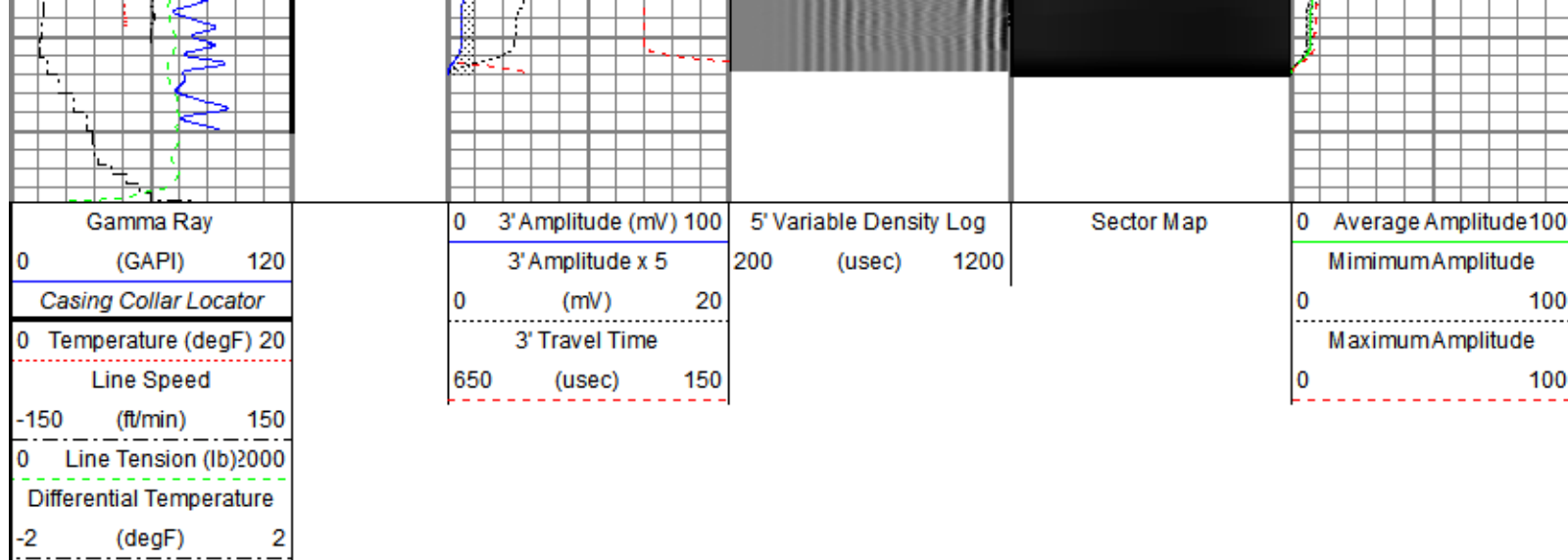








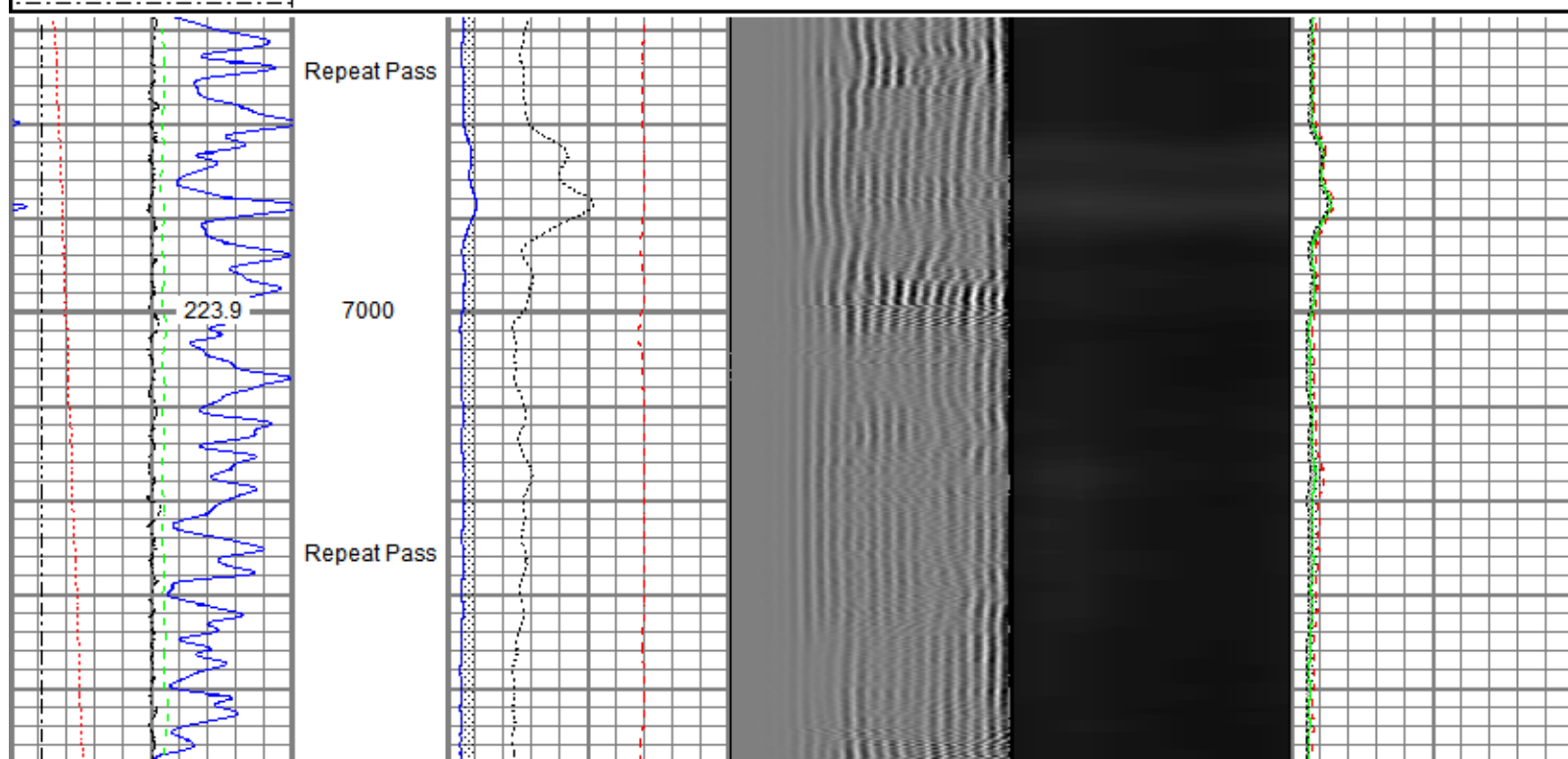
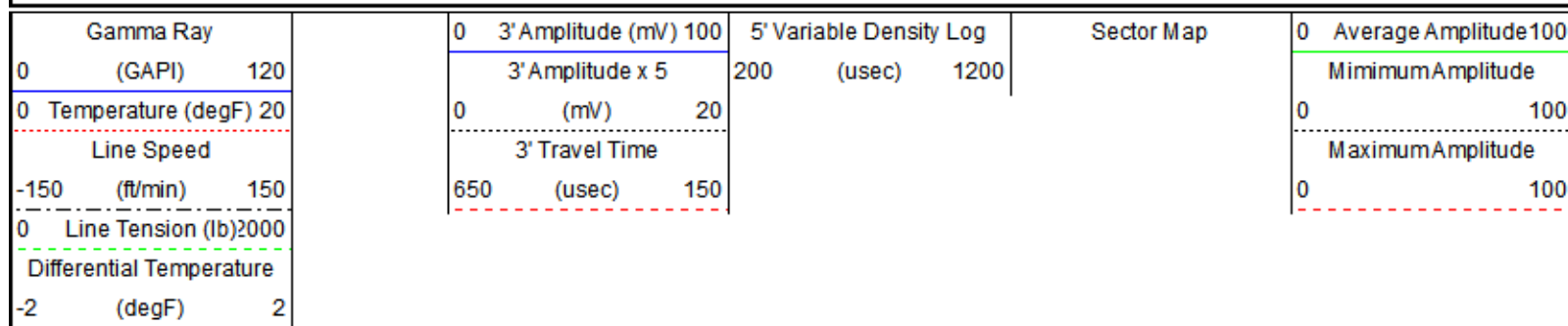


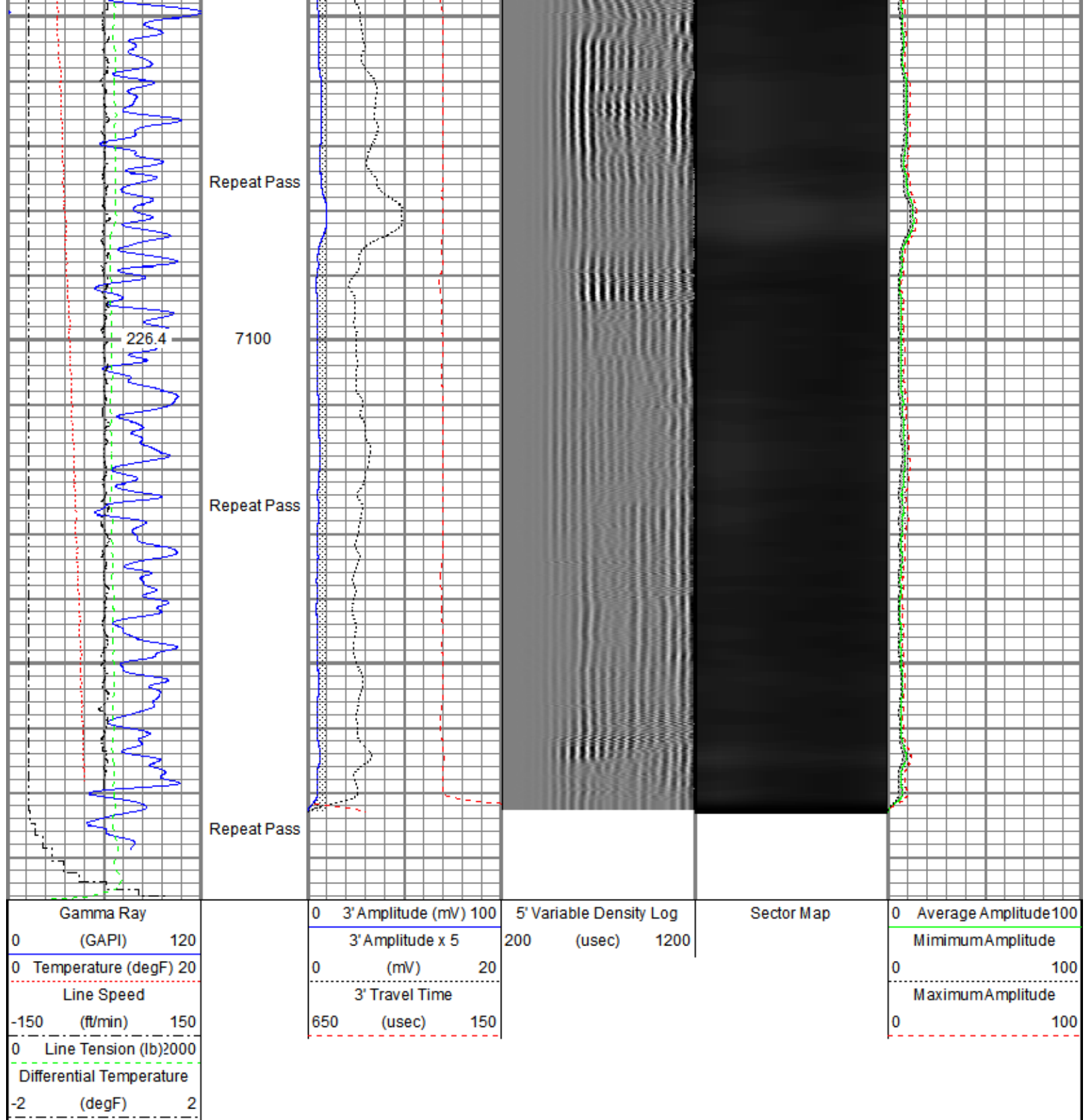


Repeat Pass


Recorded With 2800 PSI Surface Induced Pressure

Database File oxy_cleland 15-2hz\0512350489_oxy_cleland 15-2hz_rbl_01-31-20.db
 Dataset Pathname rbl2800/pass2.1
 Presentation Format ros_radil
 Dataset Creation Tue Feb 04 08:01:53 2020
 Charted by Depth in Feet scaled 1:240





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	3.60
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00

TEMP	17.04					
WVFS8	14.81		9.39	2.75	105.00	
WVFS7	14.81					
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					
CCL\$2	6.80					
CCL\$1	6.80					
GR	5.46					
LOCTIM	0.00					
UTCTIM	0.00					
Dataset: 0512350489_oxy_cleland 15-2hz_rbl_01-31-20.db: field/well/rcbl2800/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\oxy_cleland 15-2hz\0512350489_oxy_cleland 15-2hz_rbl_01-31-20.db
Dataset Pathname	rcbl2800/pass4.1
Dataset Creation	Tue Feb 04 07:50:52 2020

Gamma Ray Calibration Report

Serial Number:	101001
Tool Model:	2750 6PB
Performed:	Tue Dec 03 09:24:53 2019

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:	120855
Tool Model:	2750 RBT
Calibration Casing Diameter:	5.500 in
Calibration Depth:	89.798 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.773	0.000	71.921	93.107	-0.012
CAL	0.007	0.638				
5'	0.000	0.734	0.000	71.921	98.028	-0.008
SUM						
S1	0.000	0.774	0.000	100.000	129.196	-0.018
S2	0.000	0.761	0.000	100.000	131.388	-0.017
S3	0.000	0.765	0.000	100.000	130.800	-0.017
S4	0.000	0.789	0.000	100.000	126.705	-0.016
S5	0.000	0.808	0.000	100.000	123.762	-0.016
S6	0.000	0.799	0.000	100.000	125.161	-0.017
S7	0.000	0.817	0.000	100.000	122.430	-0.019
S8	0.000	0.792	0.000	100.000	126.347	-0.020

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.007	0.638	1.000	0.000

Air Zero Calibration, performed Fri Jan 31 10:39:43 2020:

	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:	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	Kerr-McGee Oil & Gas Onshore, L.P.
Well	Cleland 15-2HZ
Field	Wattenberg
County	Weld
State	Colorado