



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company Kerr-McGee Oil & Gas Onshore, L.P.

Well George 25-5HZ

Field Wattenberg

County Weld State Colorado

Location: API #: 05-123-46330

SEC 25 TWP 2N RGE 65W

Permanent Datum Ground Level Elevation 4900'
Log Measured From Kelly Bushing 17 FT
Drilling Measured From Kelly Bushing

Other Services
JB/GR
RBP
RBL 0 PSI
Elevation
K.B. 4917'
D.F. ---
G.L. 4900'

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Well George 25-5HZ
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Date	16-AUG-2018	One		
Run Number		15807 FT		
Depth Driller		6497 FT		
Depth Logger		6482 FT		
Bottom Logged Interval		Surface		
Top Log Interval		7.79'		
Open Hole Size		Water		
Type Fluid		8.34 lb/gal		
Density / Viscosity		216°F		
Max. Recorded Temp.		See Log		
Estimated Cement Top		ROA		
Time Well Ready		8:39		
Time Logger on Bottom		HD-363		
Equipment Number		Platteville, CO		
Location		J. Morrison		
Recorded By		Kyle Carver		
Witnessed By				
Borehole Record				
Run Number	Bit	From	To	Size
				Weight
				From
				To
Tubing Record				
Casing Record	Size (in)	Wgt (lbs/ft)	Grade	Top
Surface Casing	9 5/8	36	J-55	Surface
Intermediate #1	5 1/2	17	HCP 110	Surface
Intermediate #2				
Inner				

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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

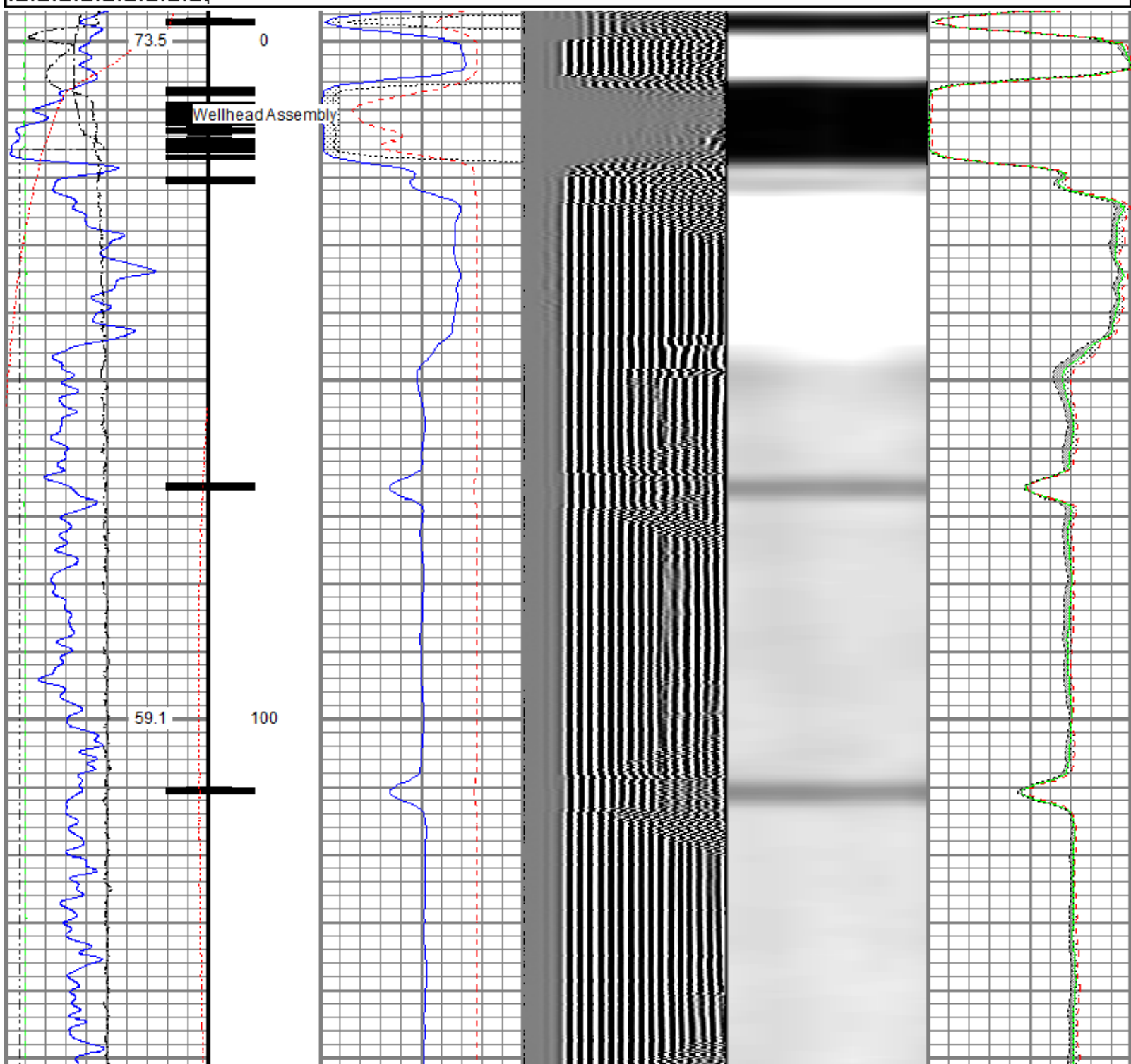
Log ran as per customer request
Depth referenced to Casing Tally reported Marker Joint at 6450 FT
Adjusted +2 FT to correlate with Marker Joint
Ran JB/GR down to 7508 FT
Set RBP at 6500 FT
Log ran from 6482 FT to Surface
Recorded with 2800 PSI Surface Induced Pressure
Logging tools were clean and free of any debris upon completion of operations
Thank you for choosing Reliance Oilfield Services, LLC!!

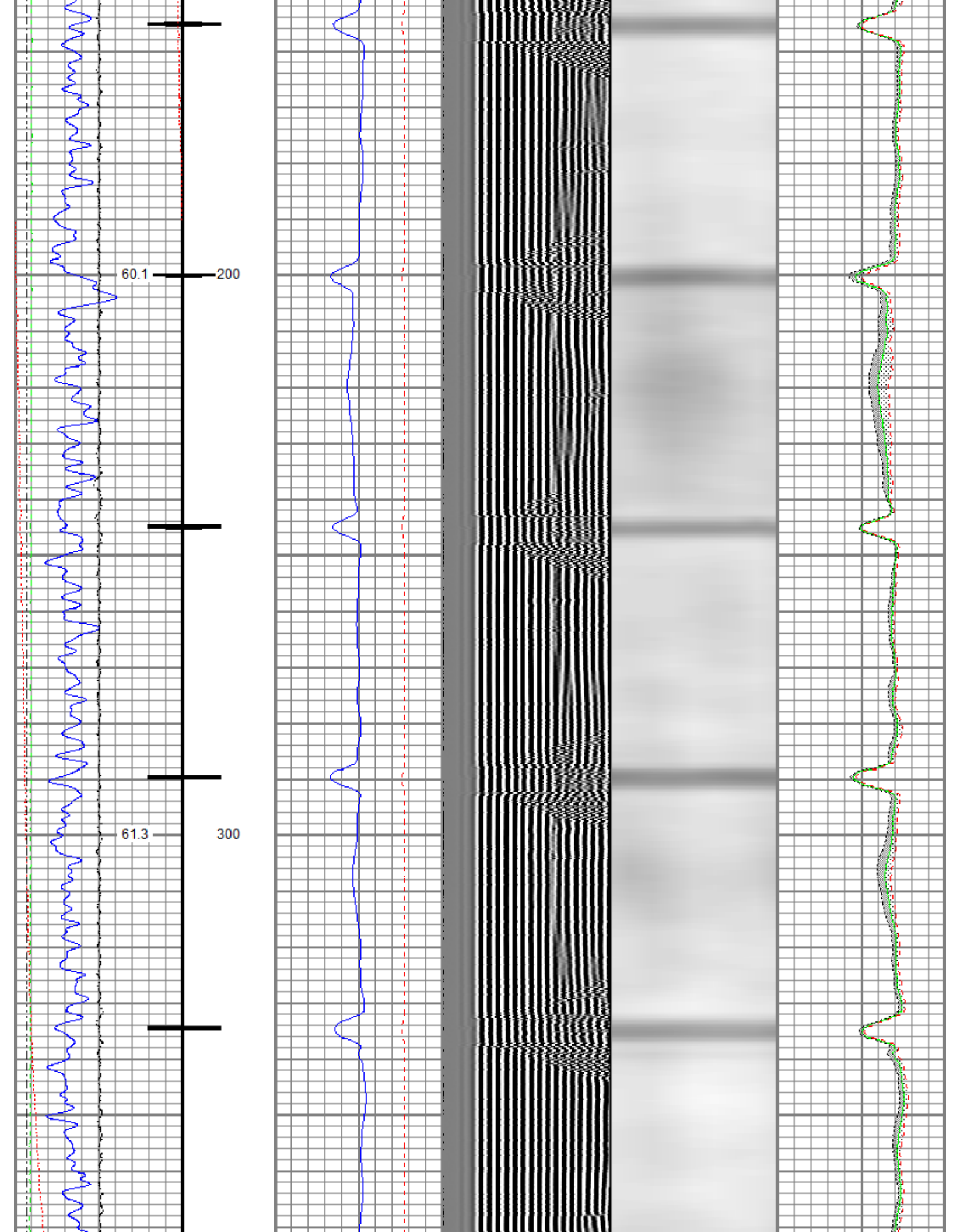
Main Pass

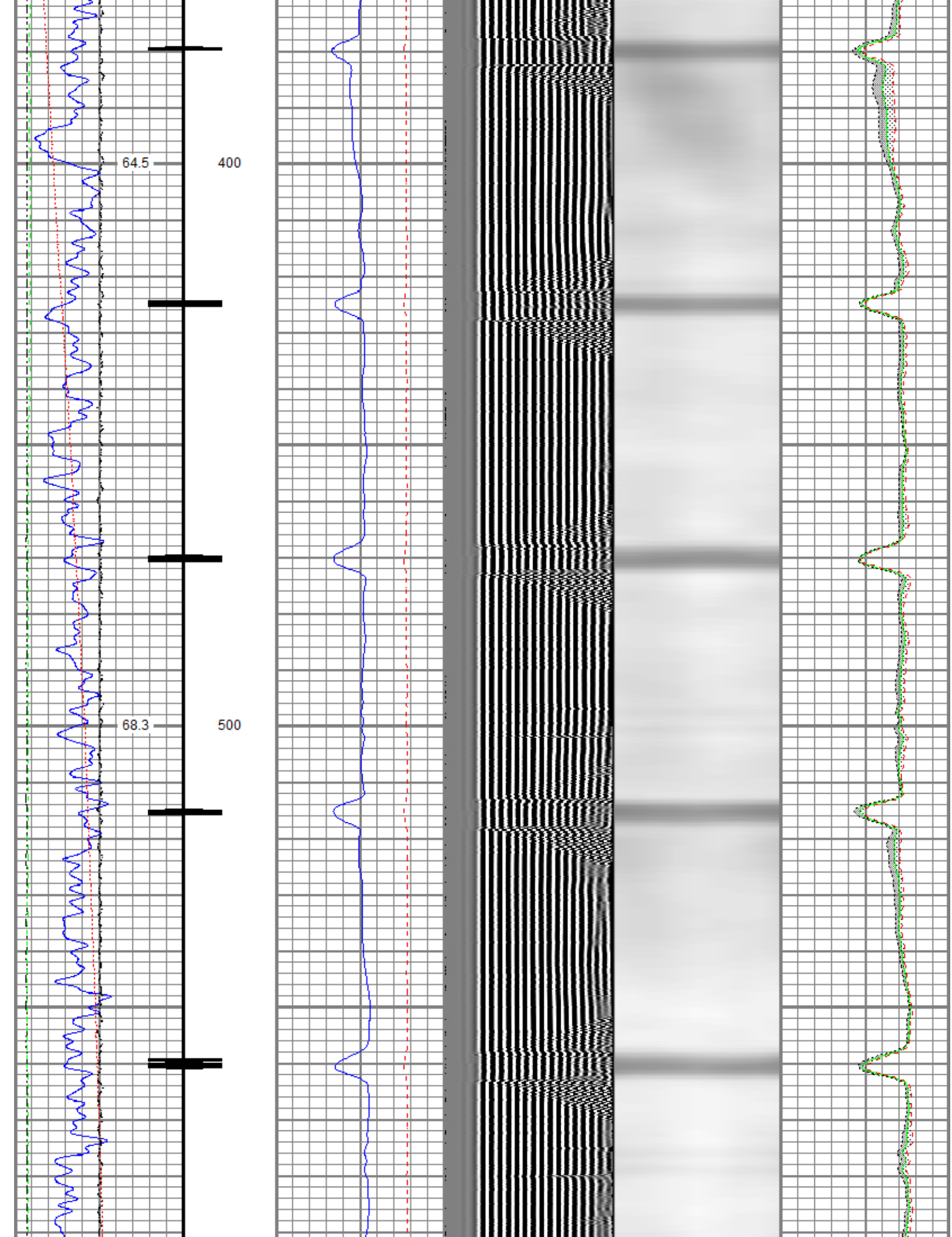


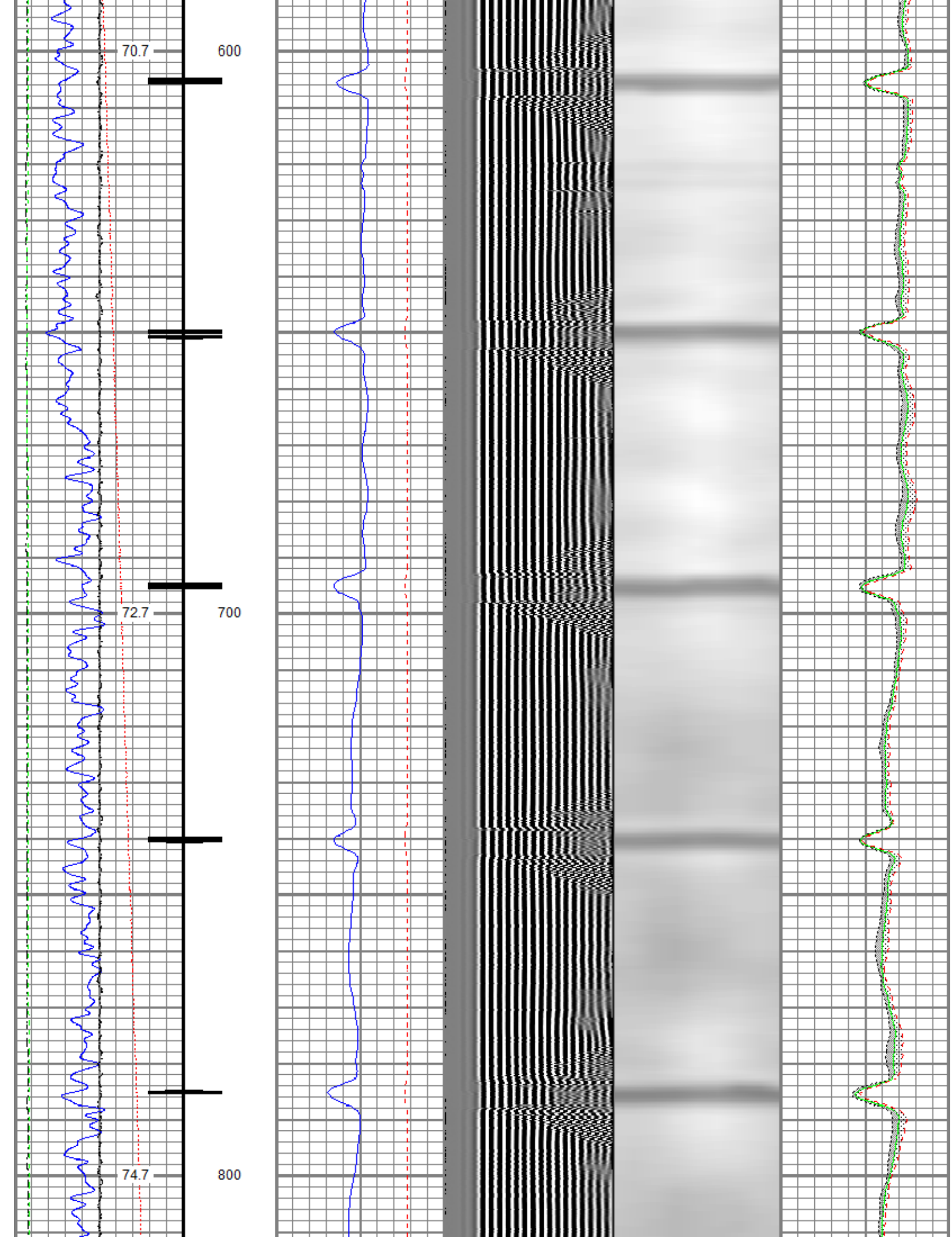
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Presentation Format	ros_radri
Dataset Creation	Fri Aug 17 08:36:16 2018
Charted by	Depth in Feet scaled 1:240

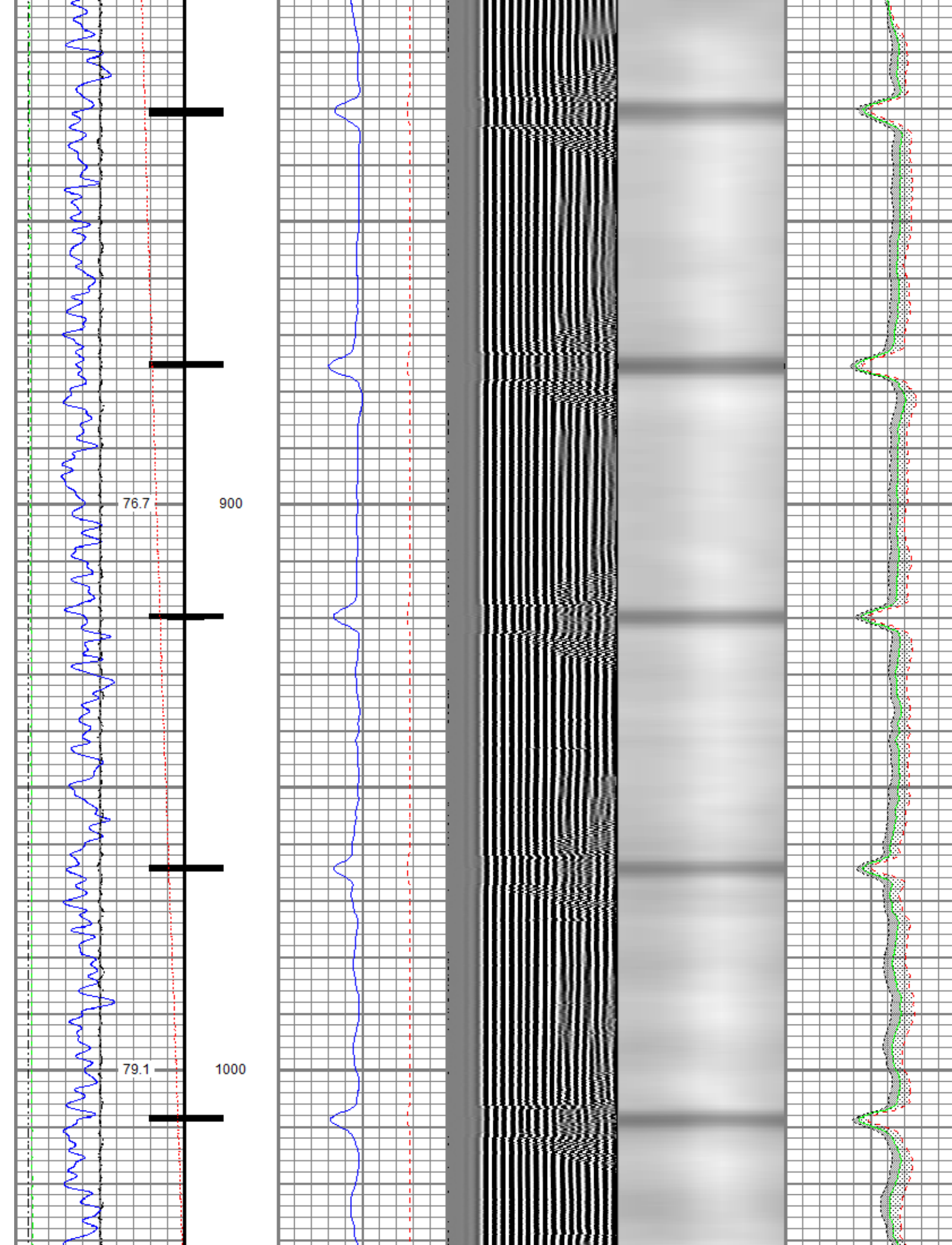
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200			Minimum Amplitude
Casing Collar Locator		0 (mV) 20			0	100
0 Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed		650 (usec) 150			0	100
-150 (ft/min) 150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

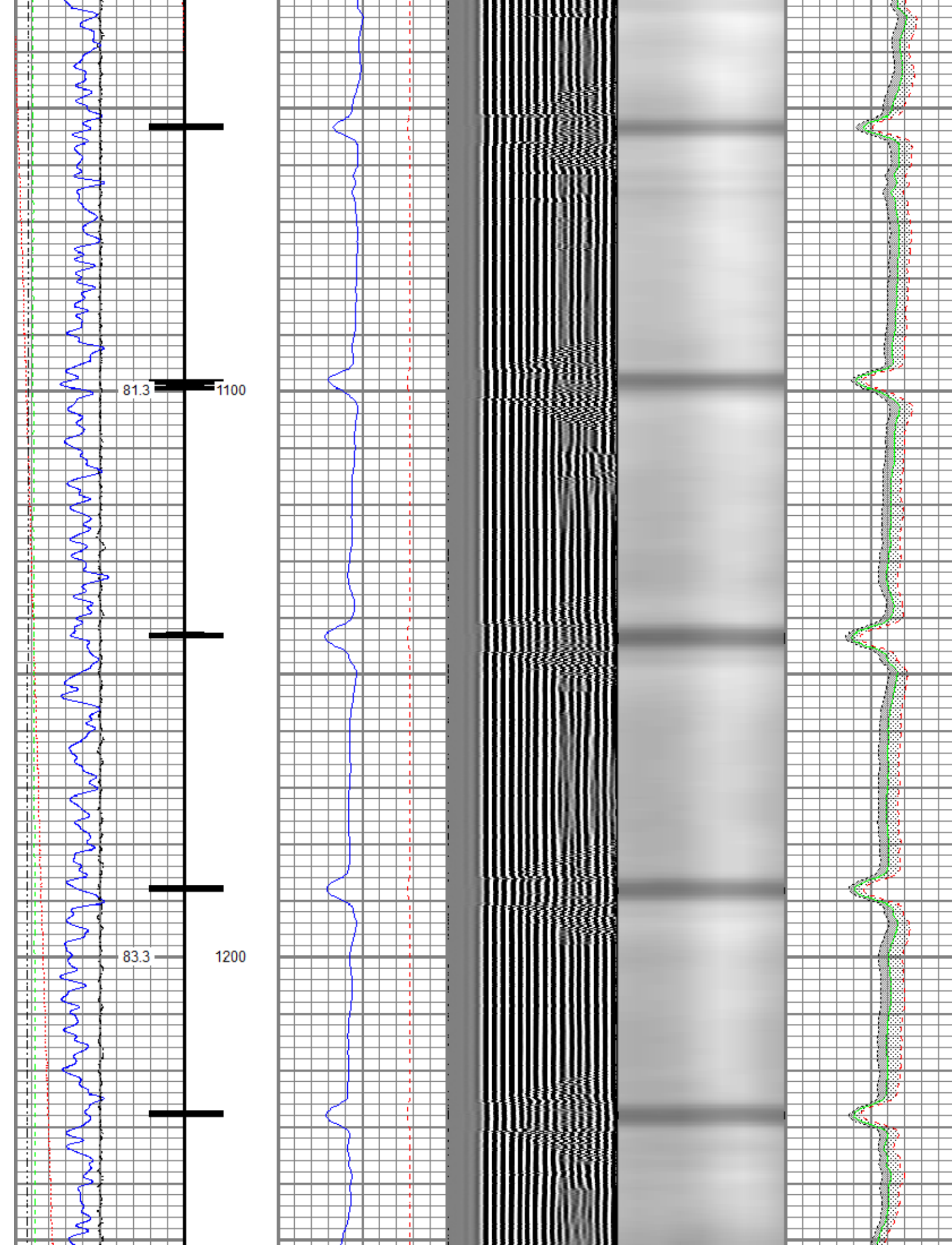


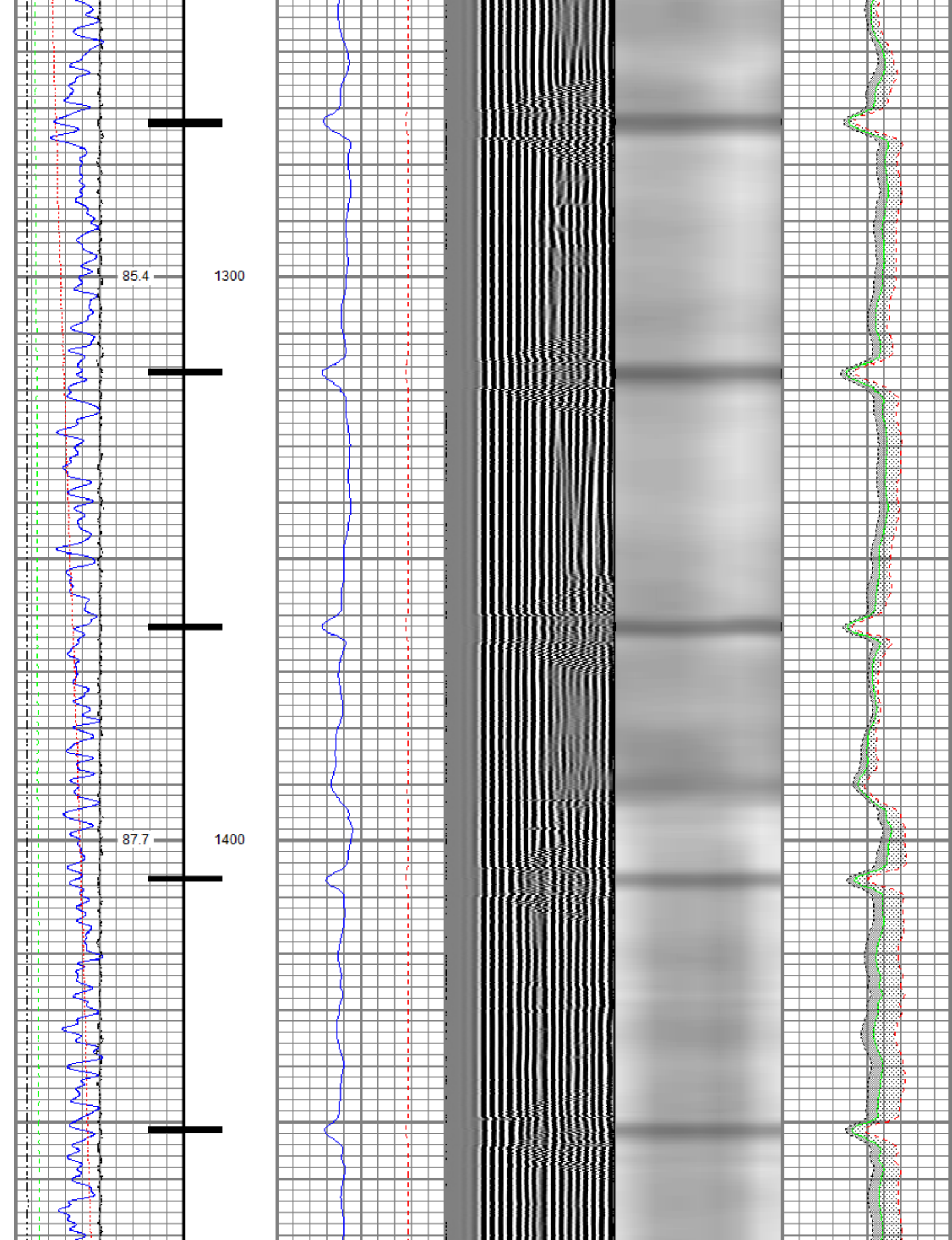


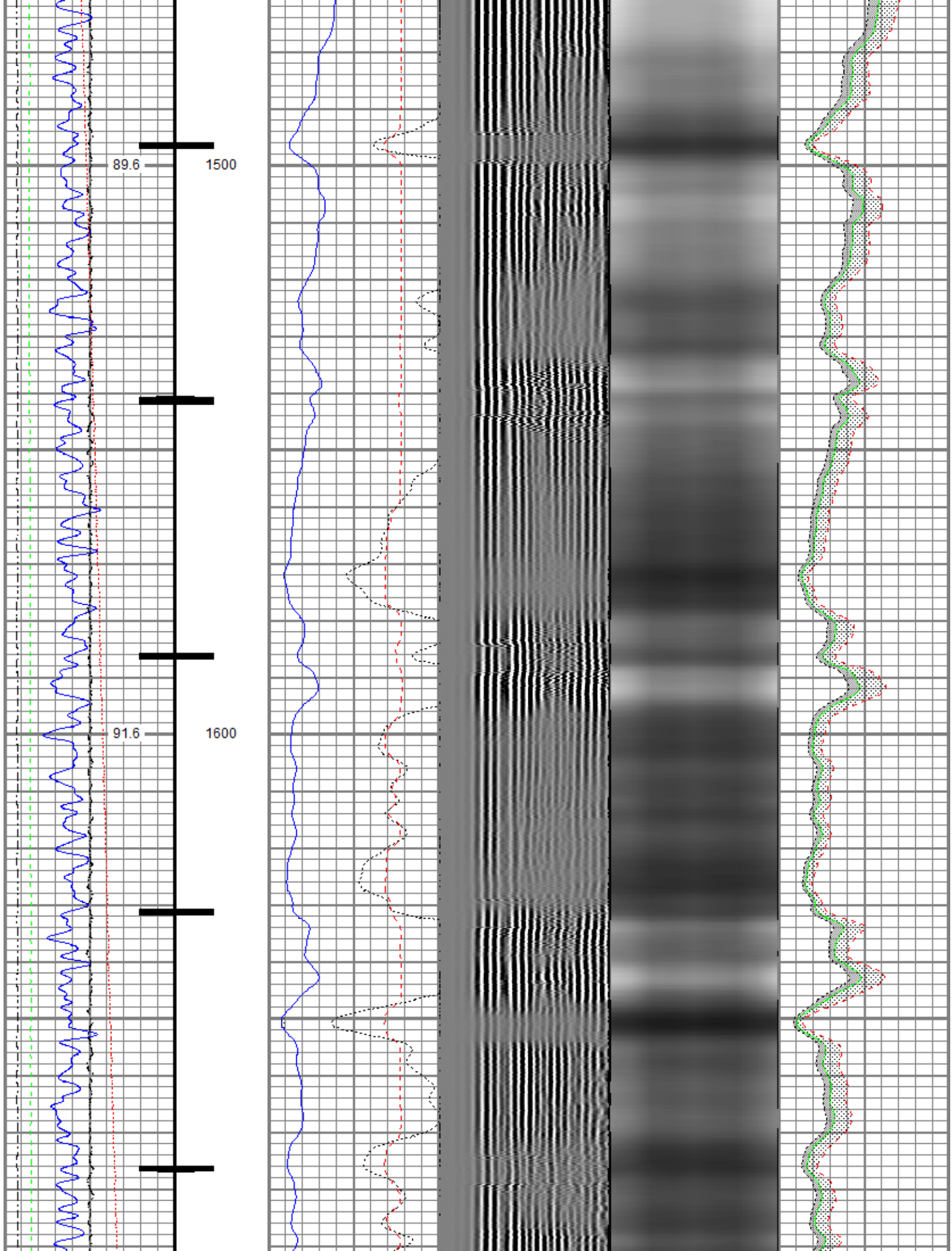


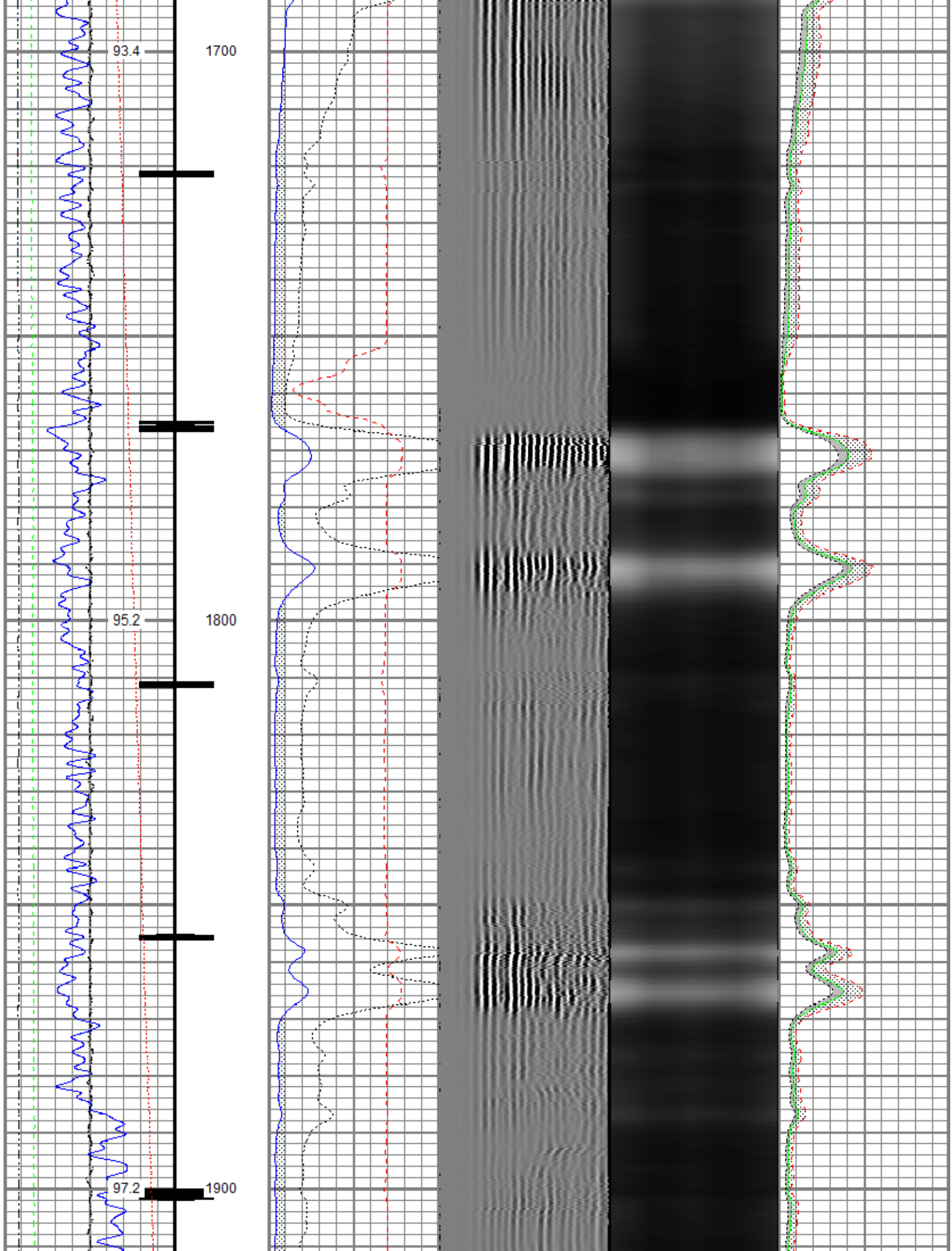


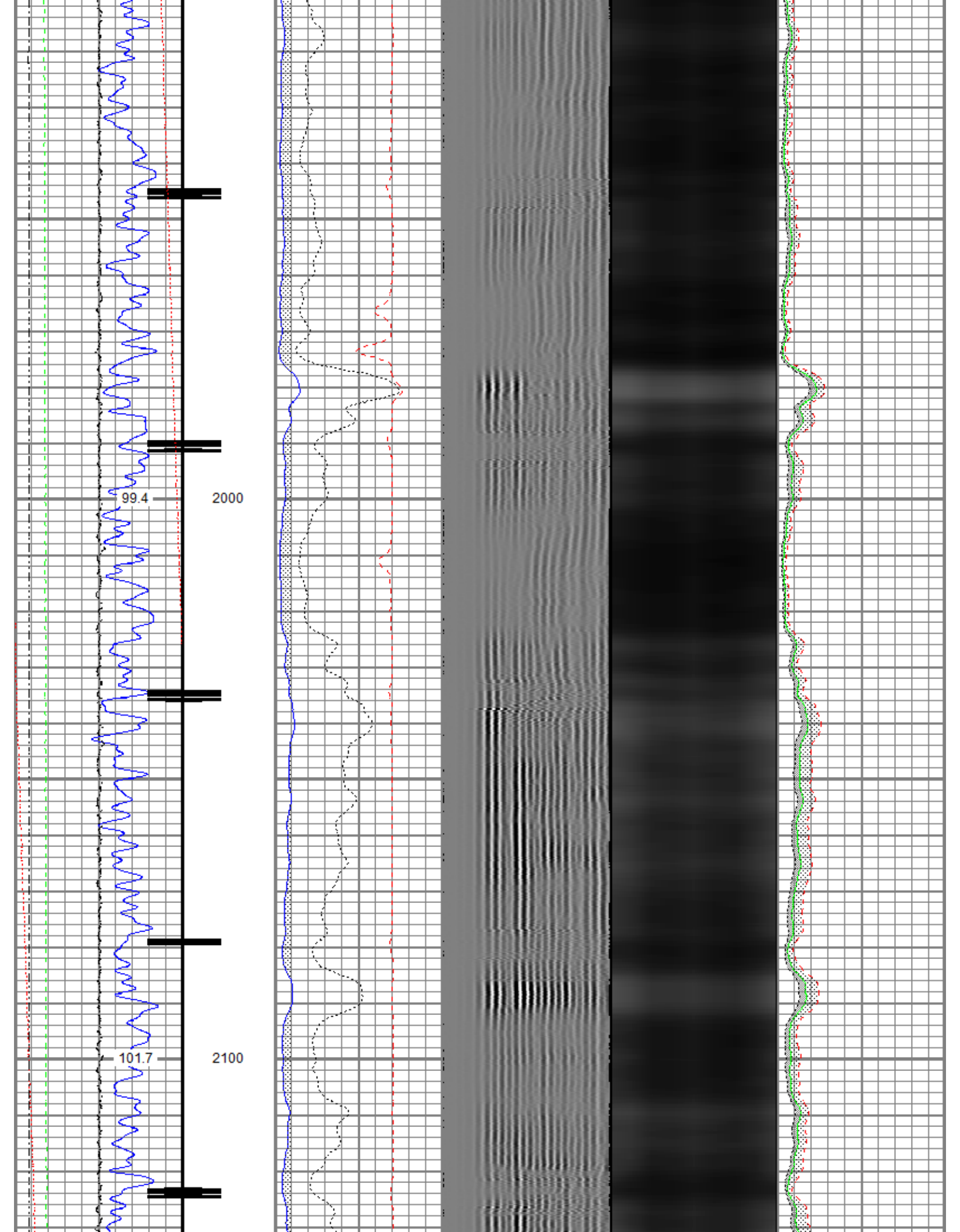


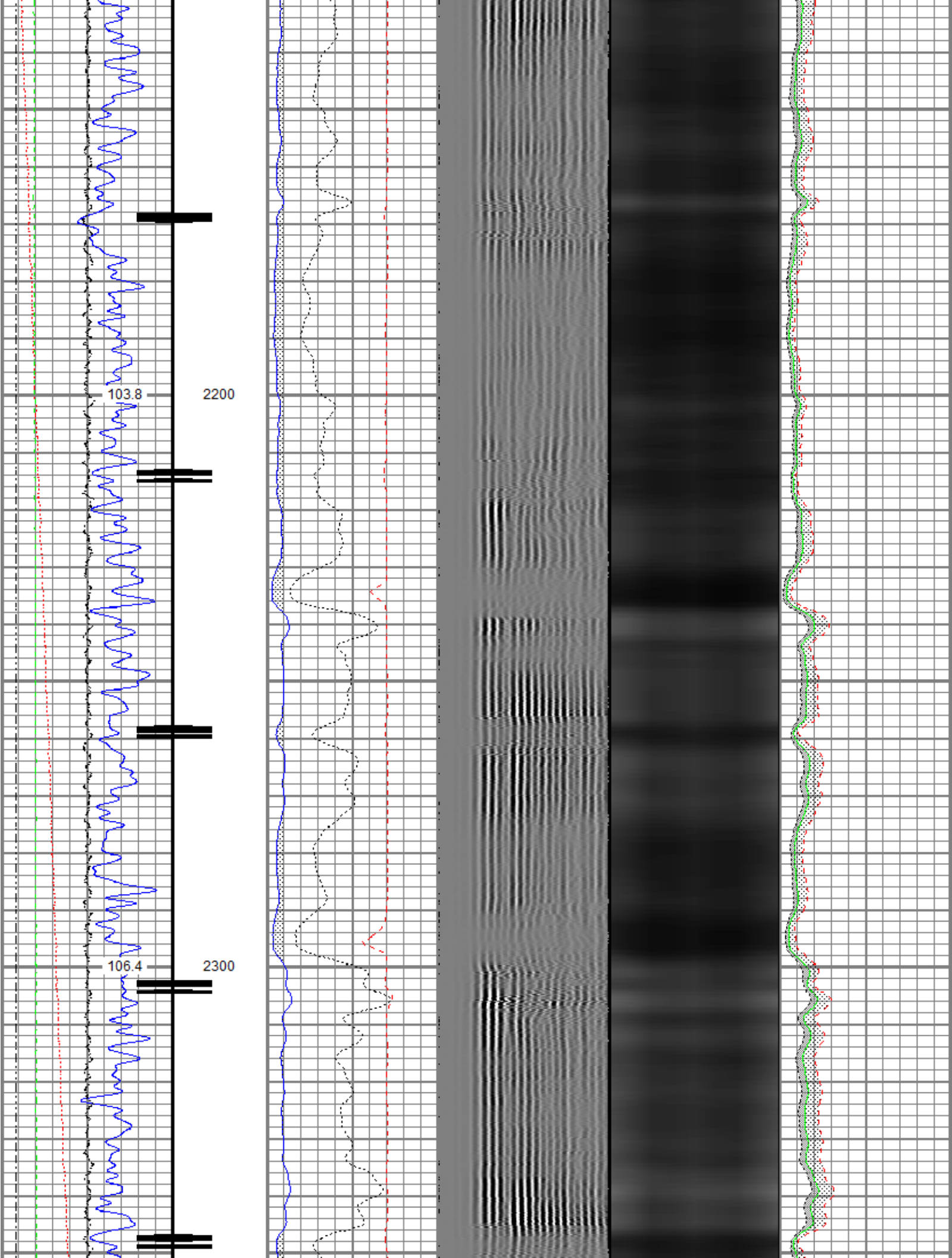


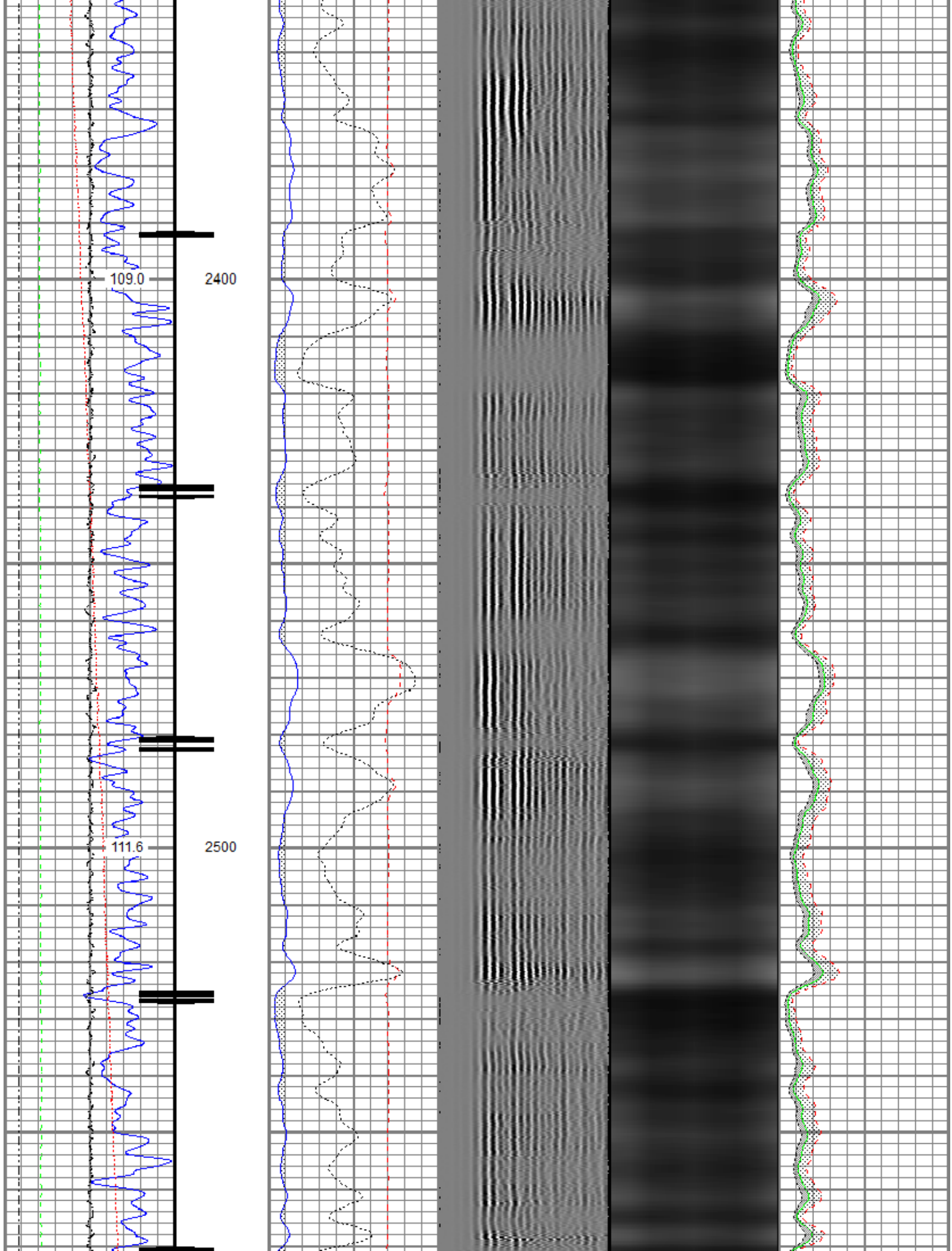


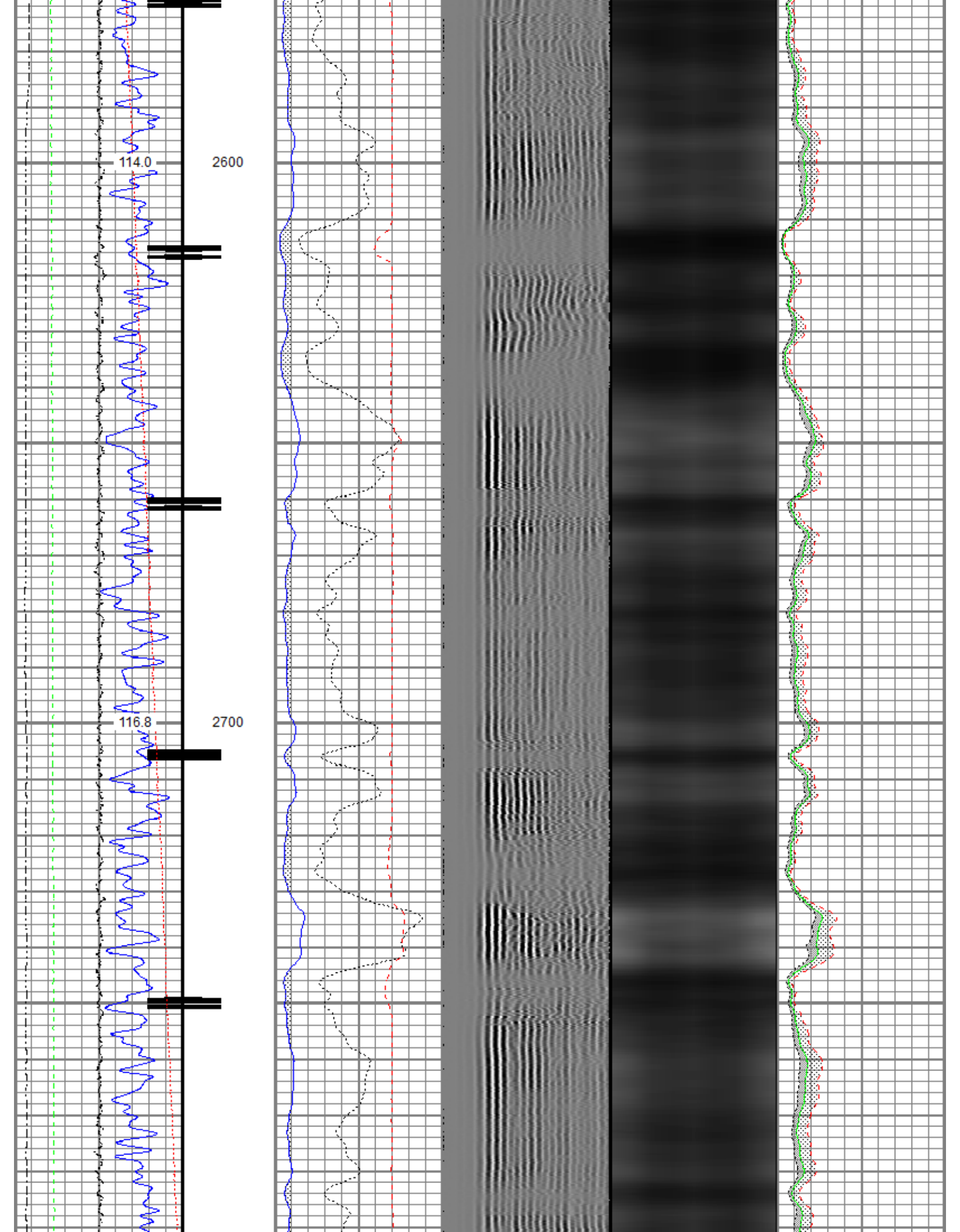


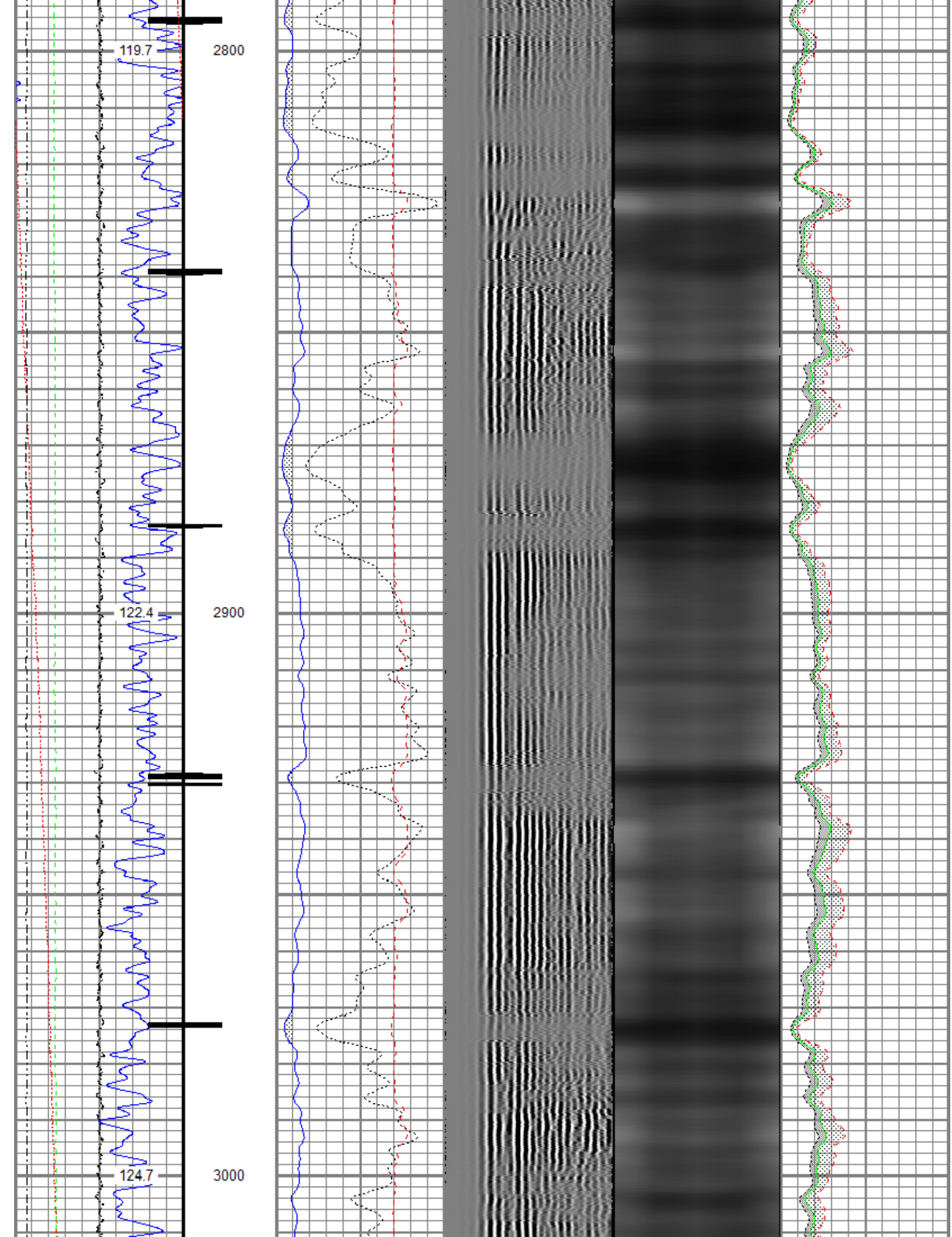


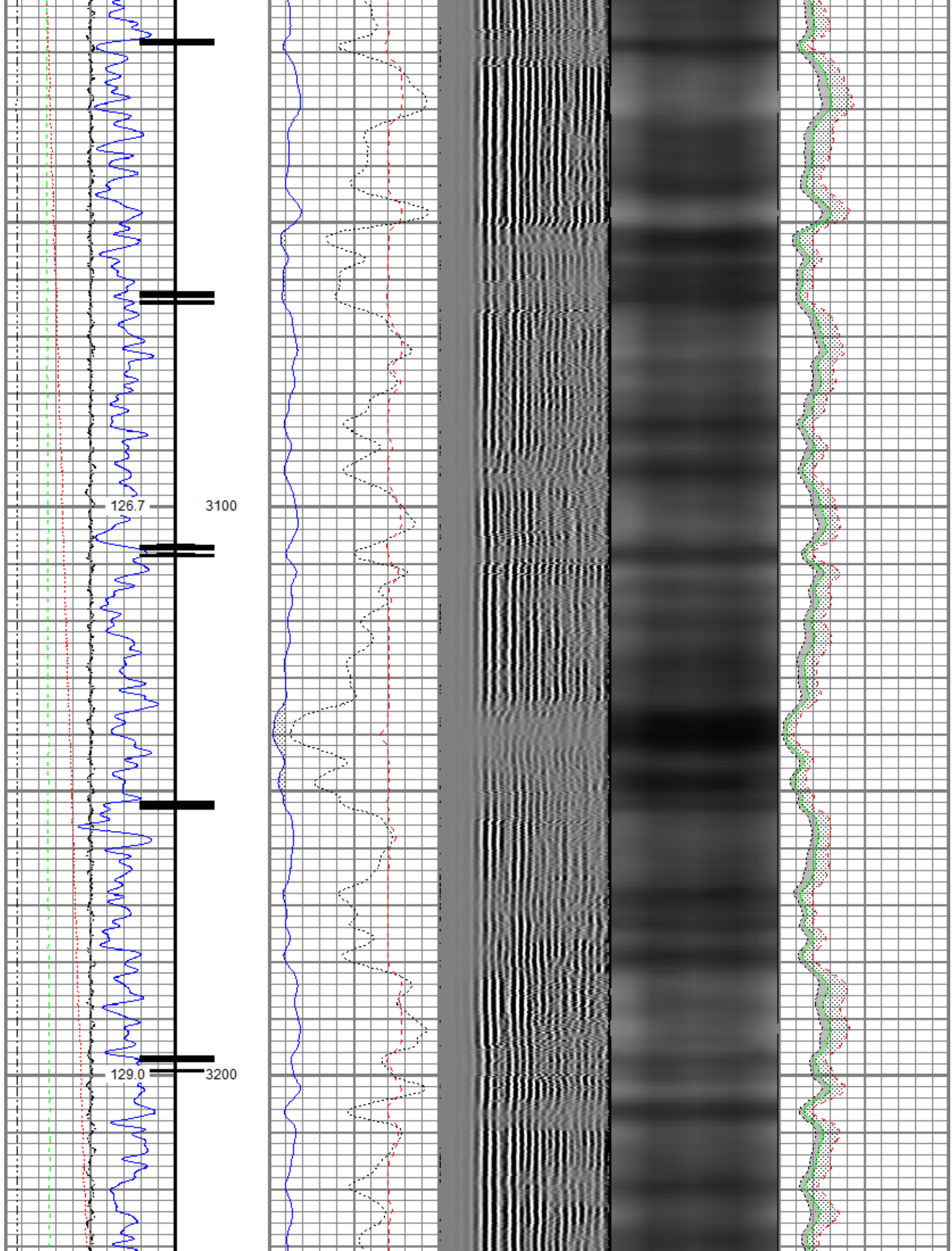


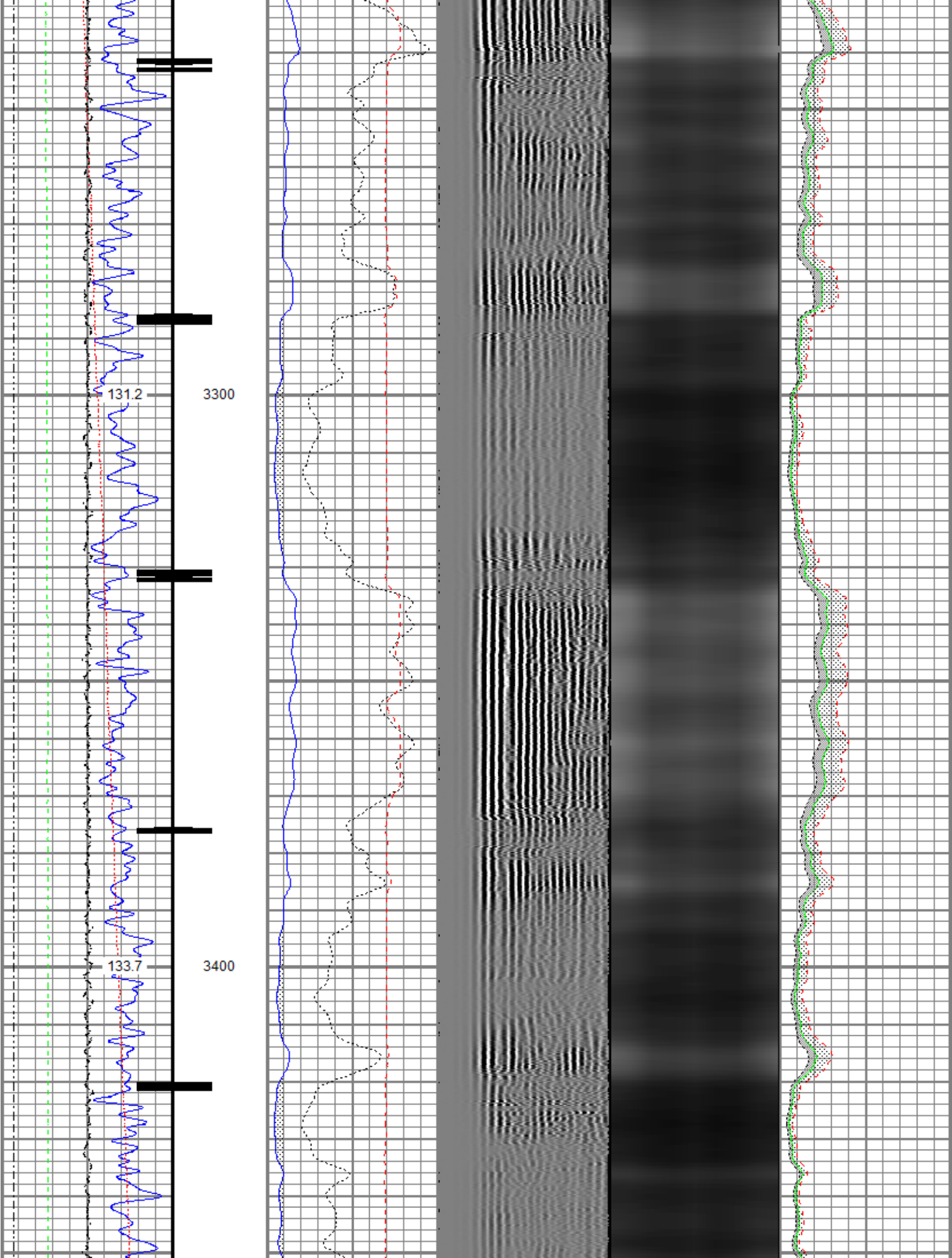


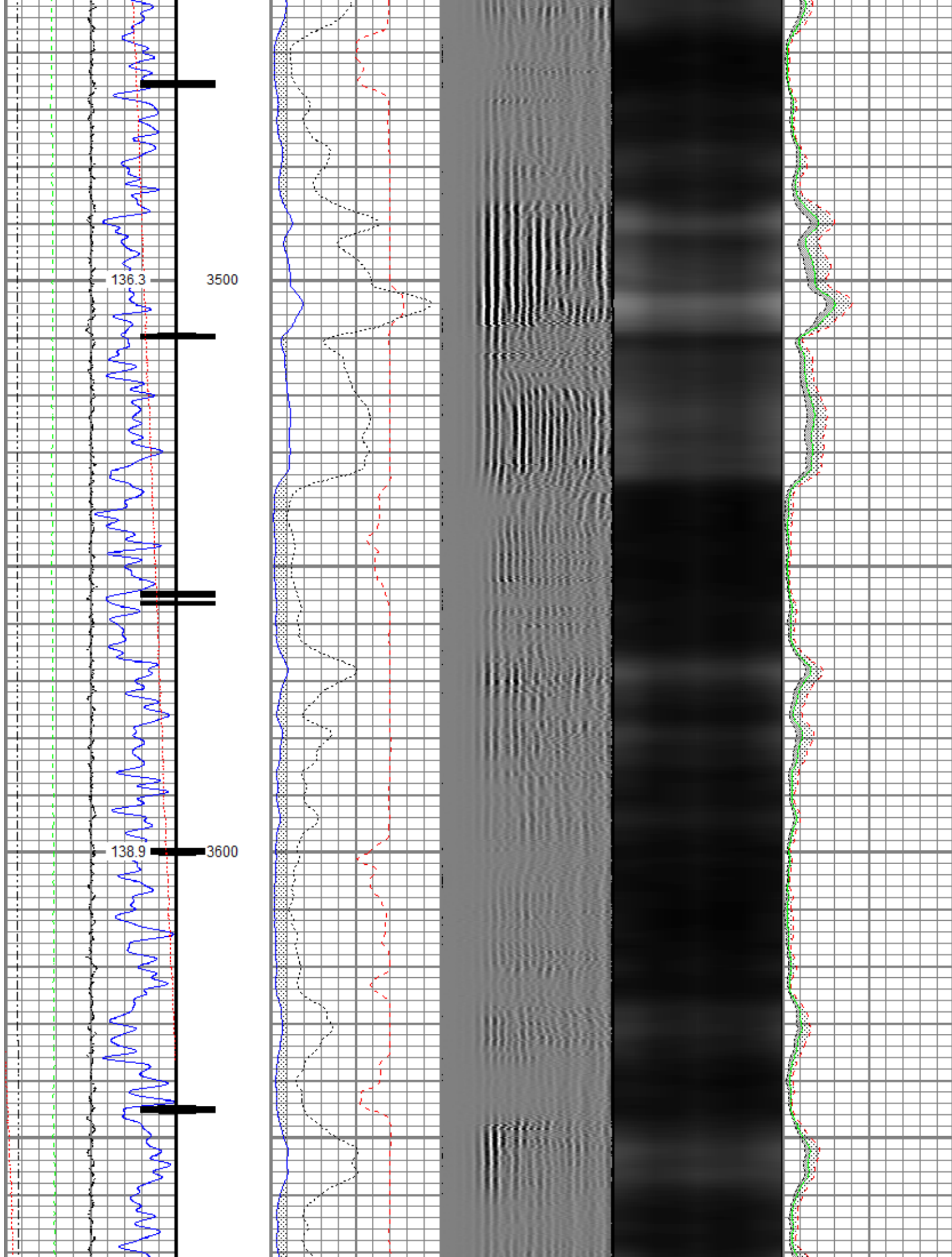


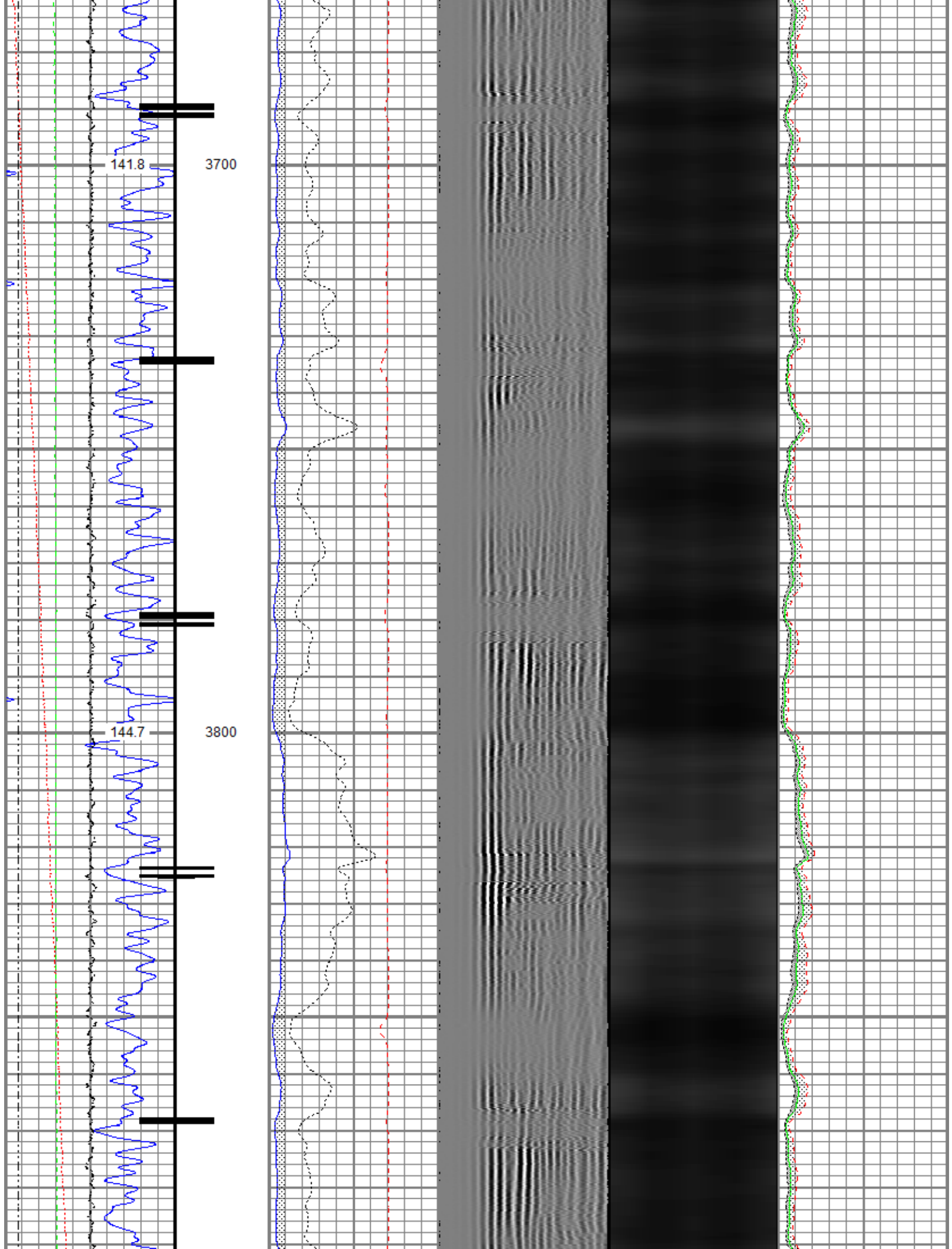


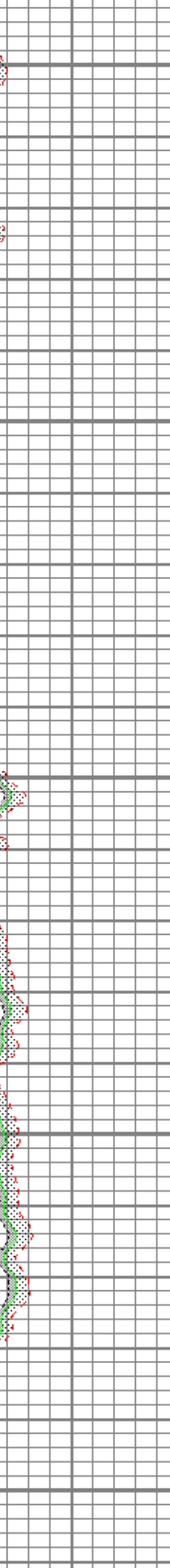
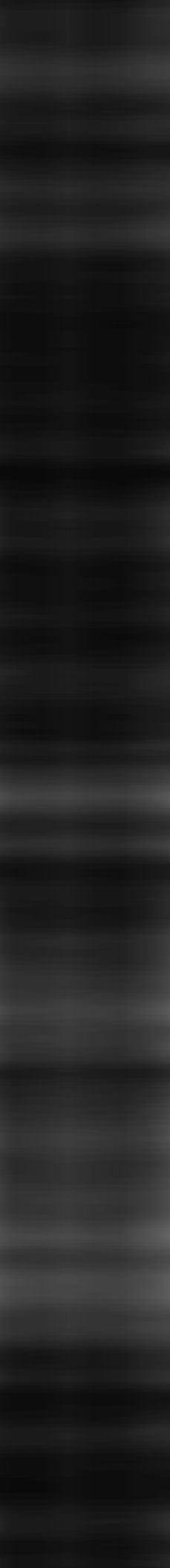
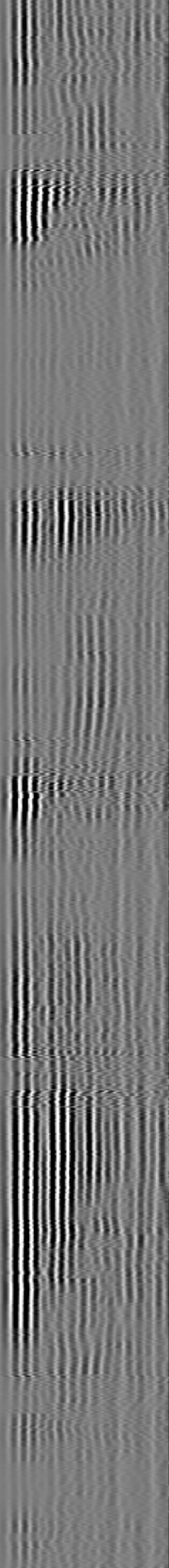
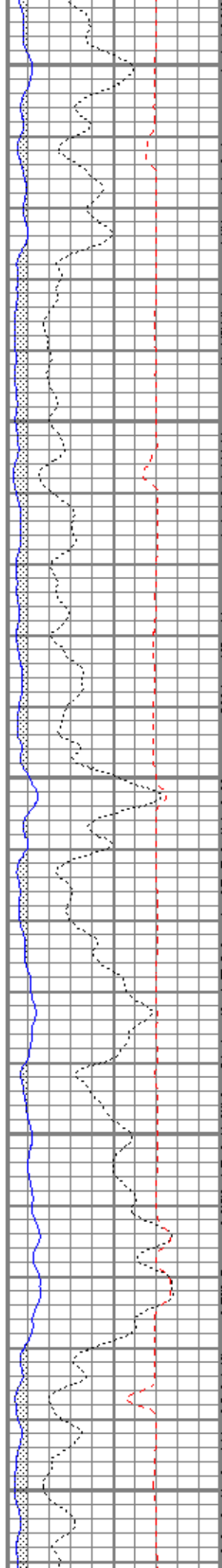
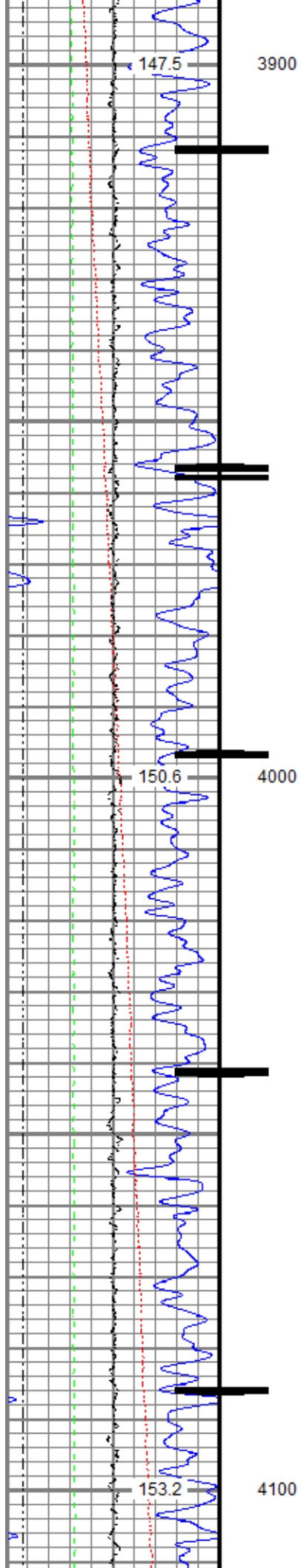


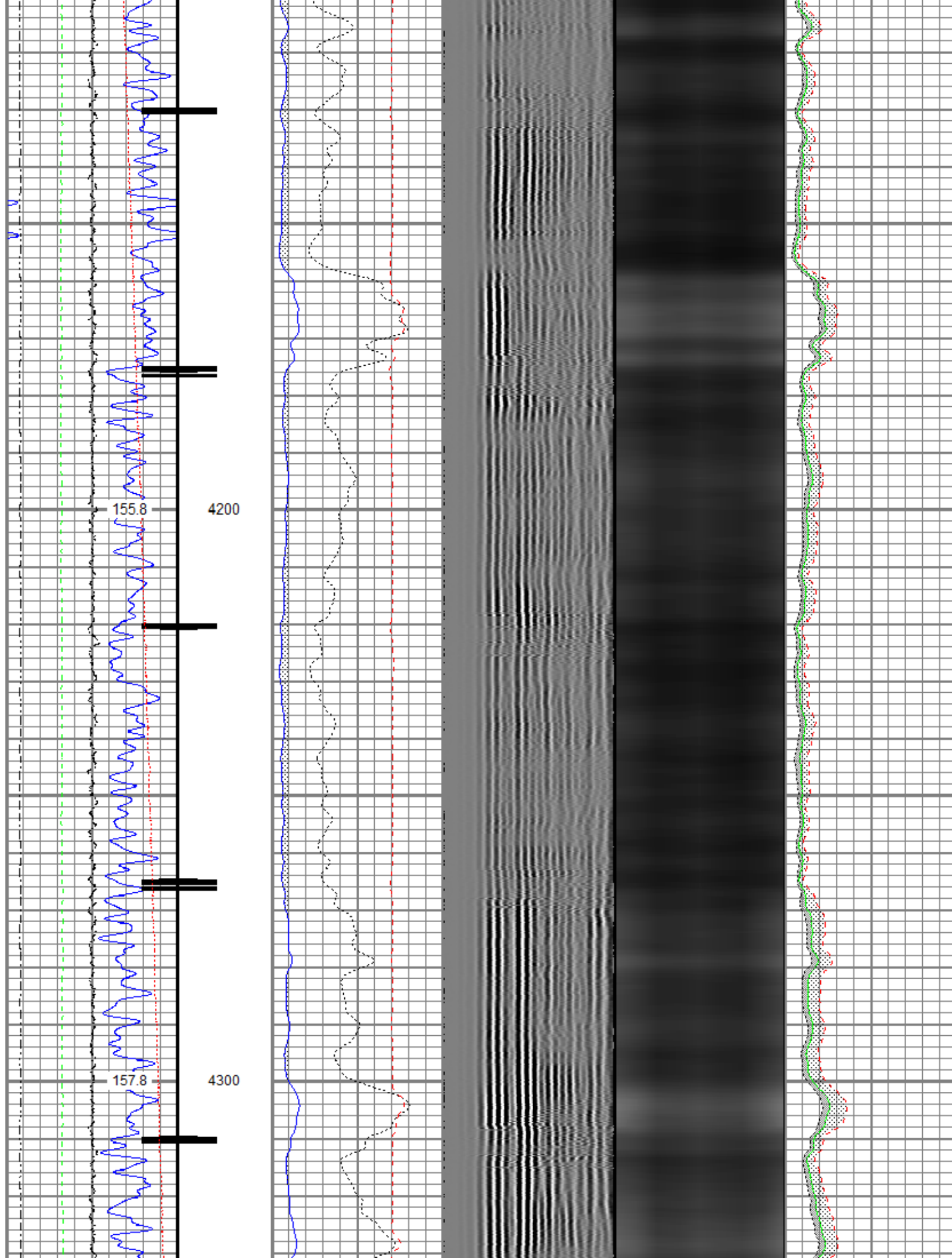


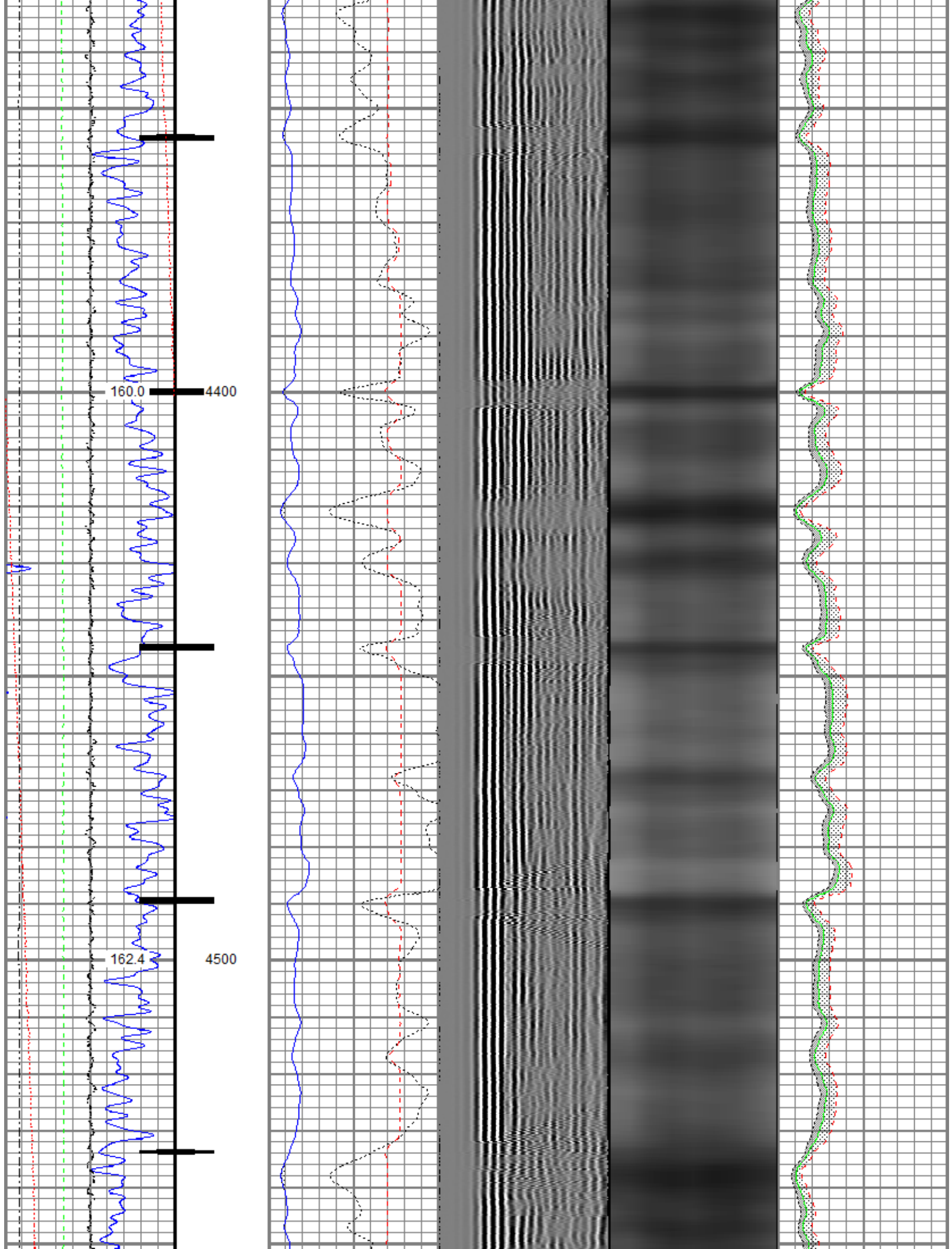


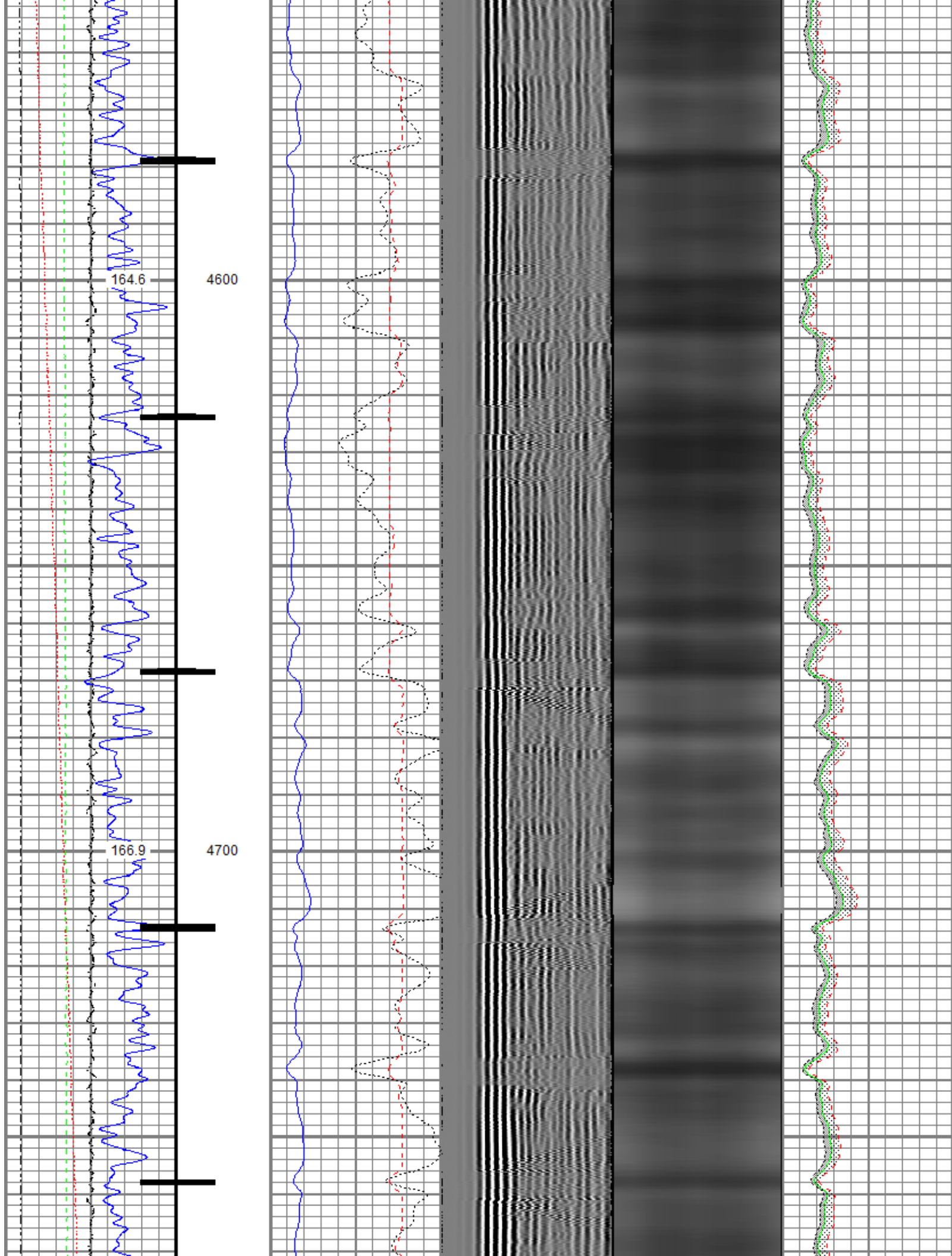


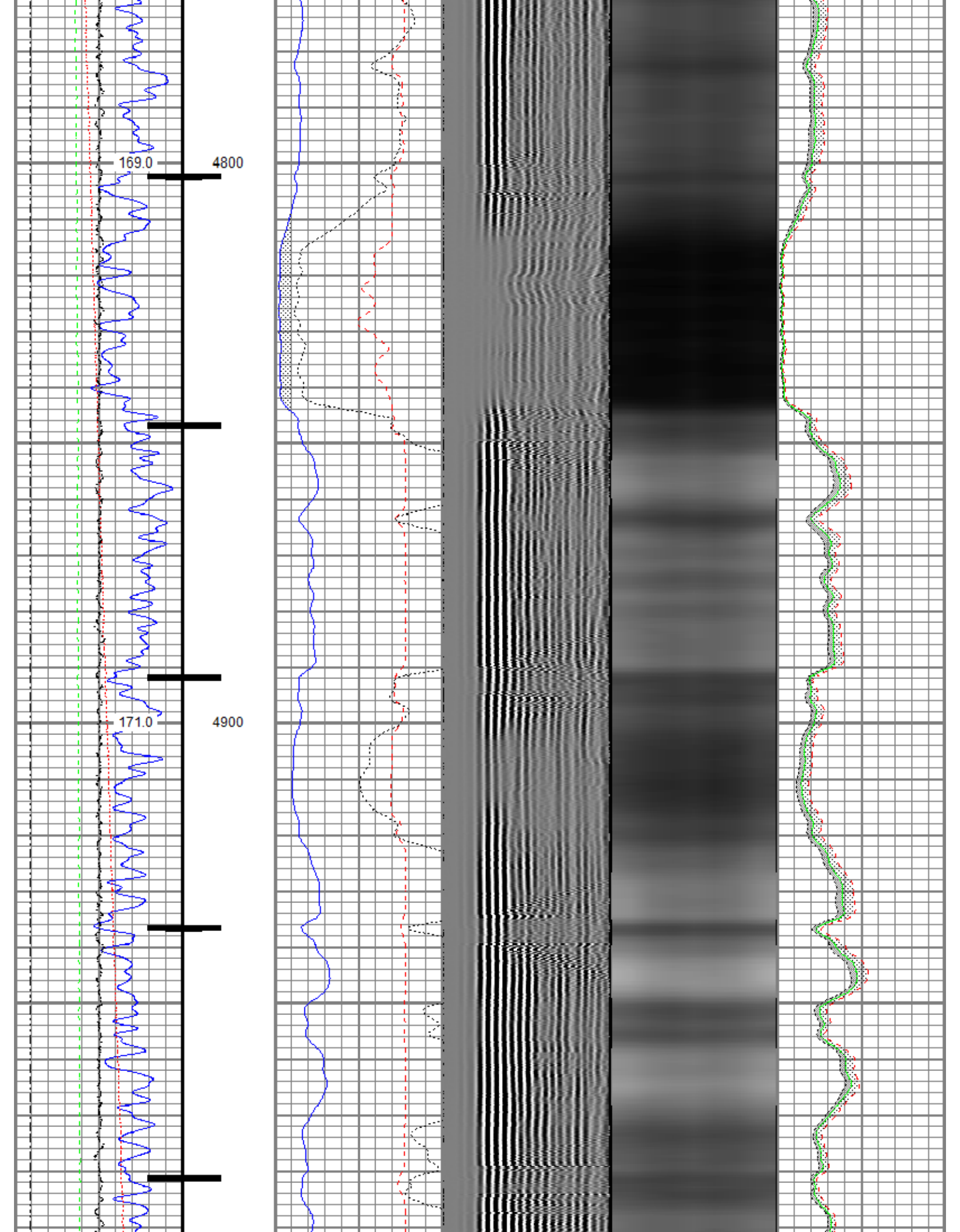


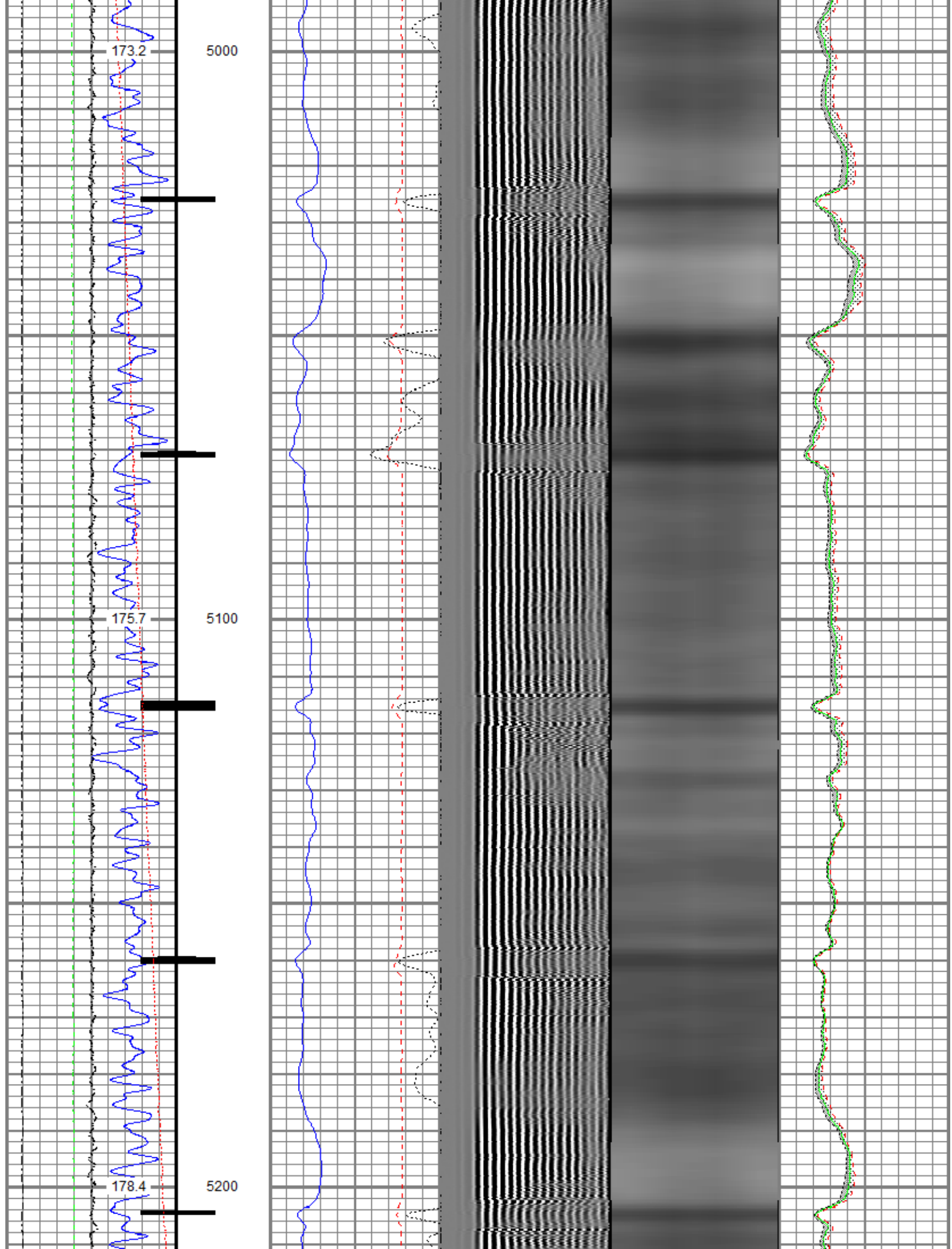


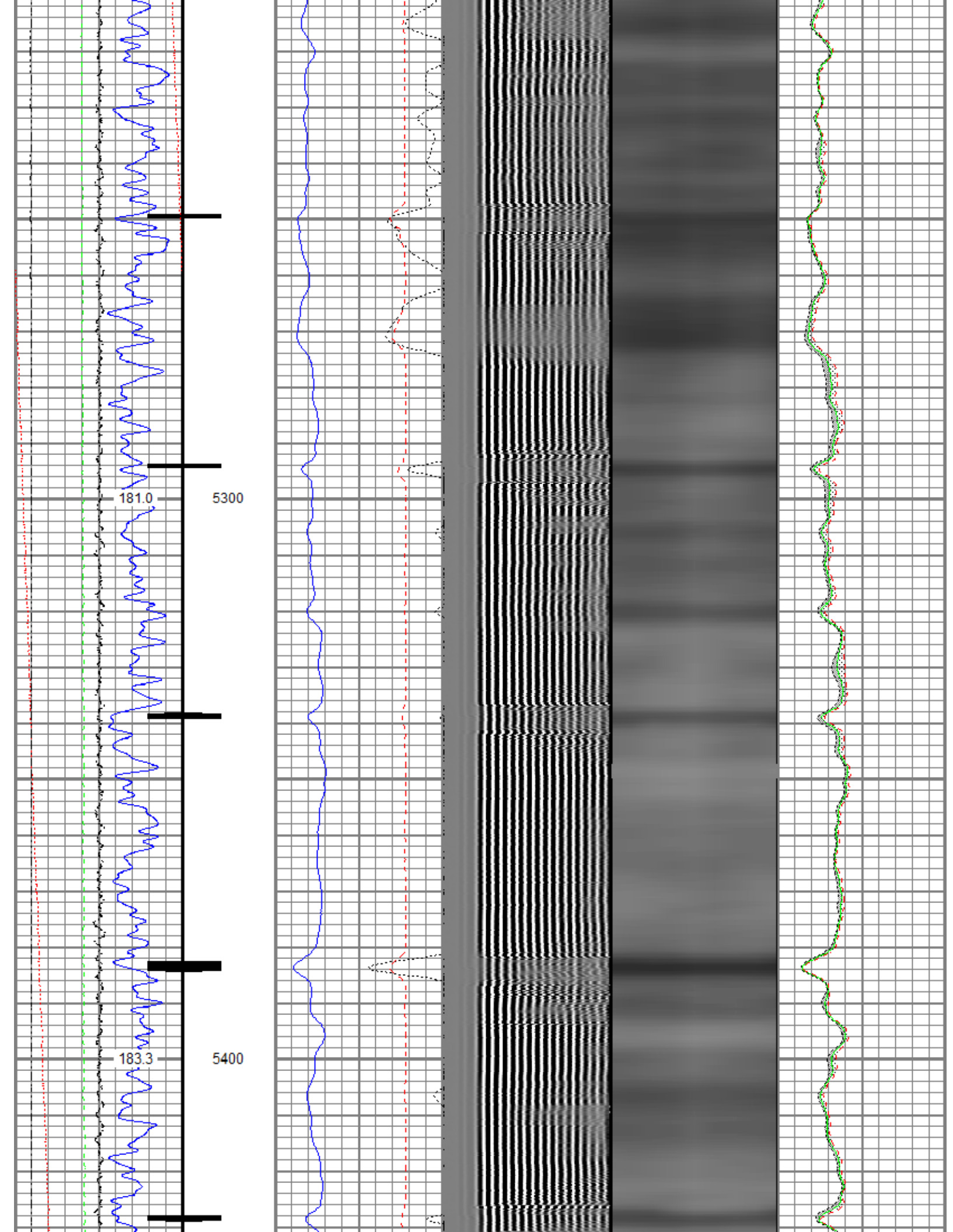


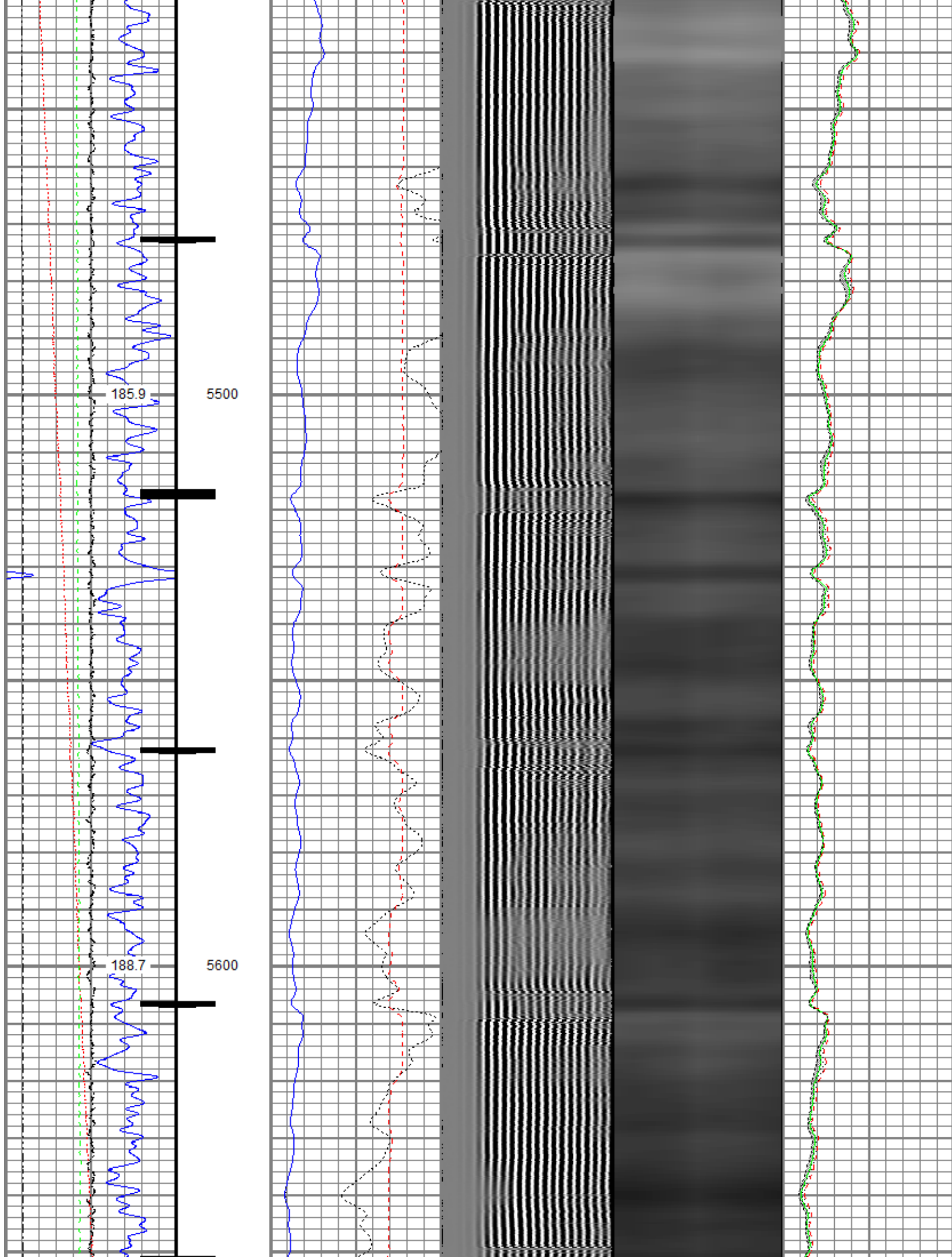


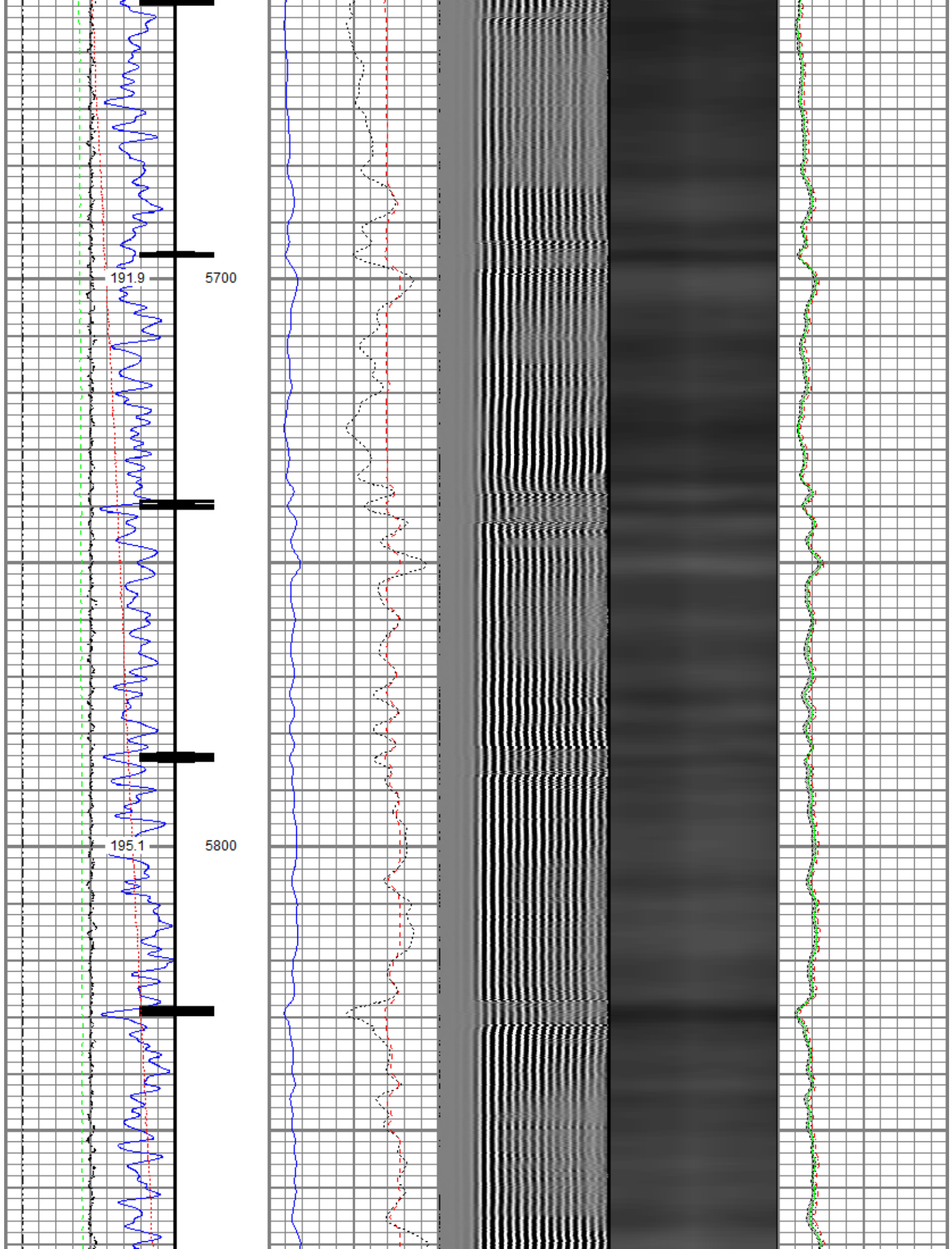


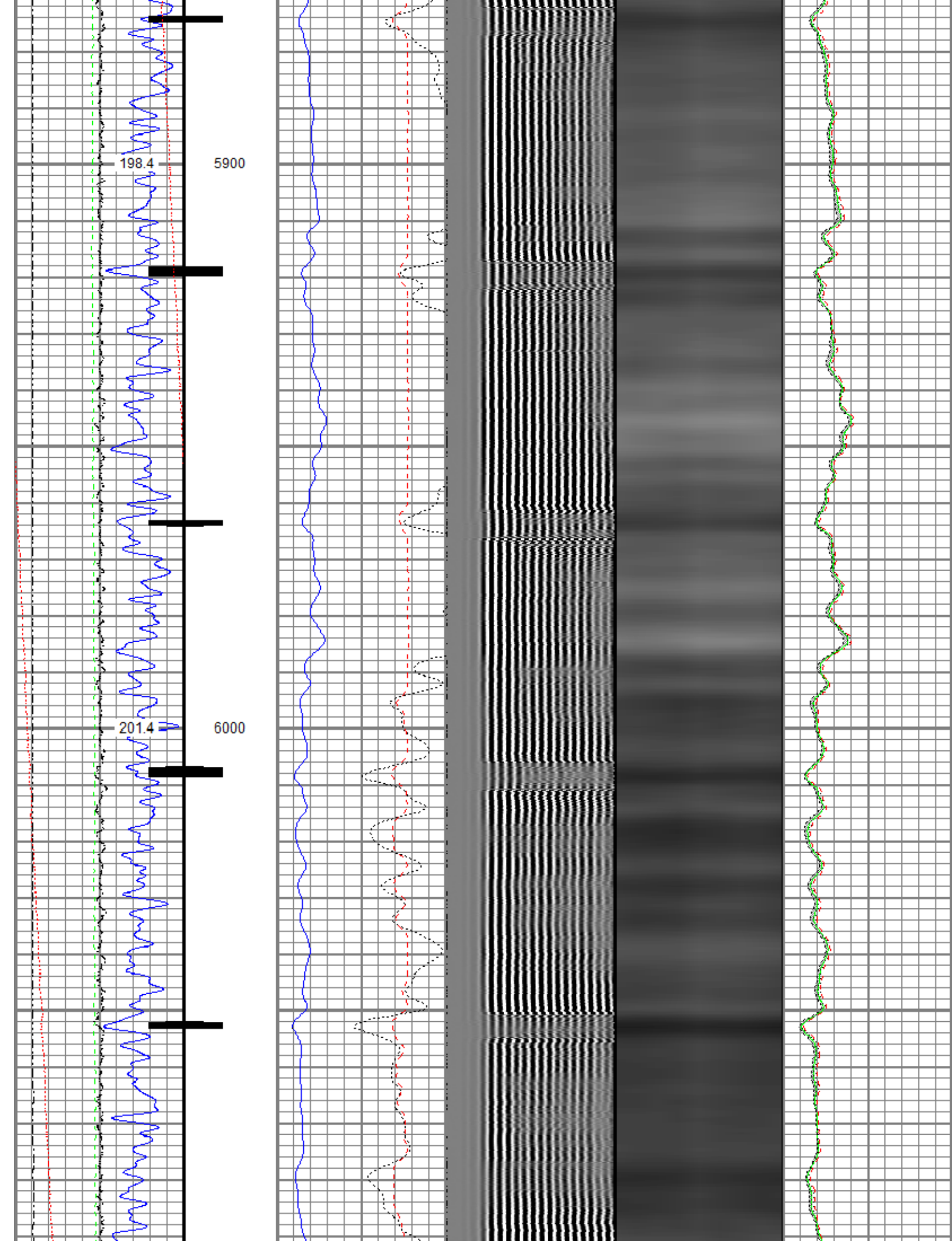


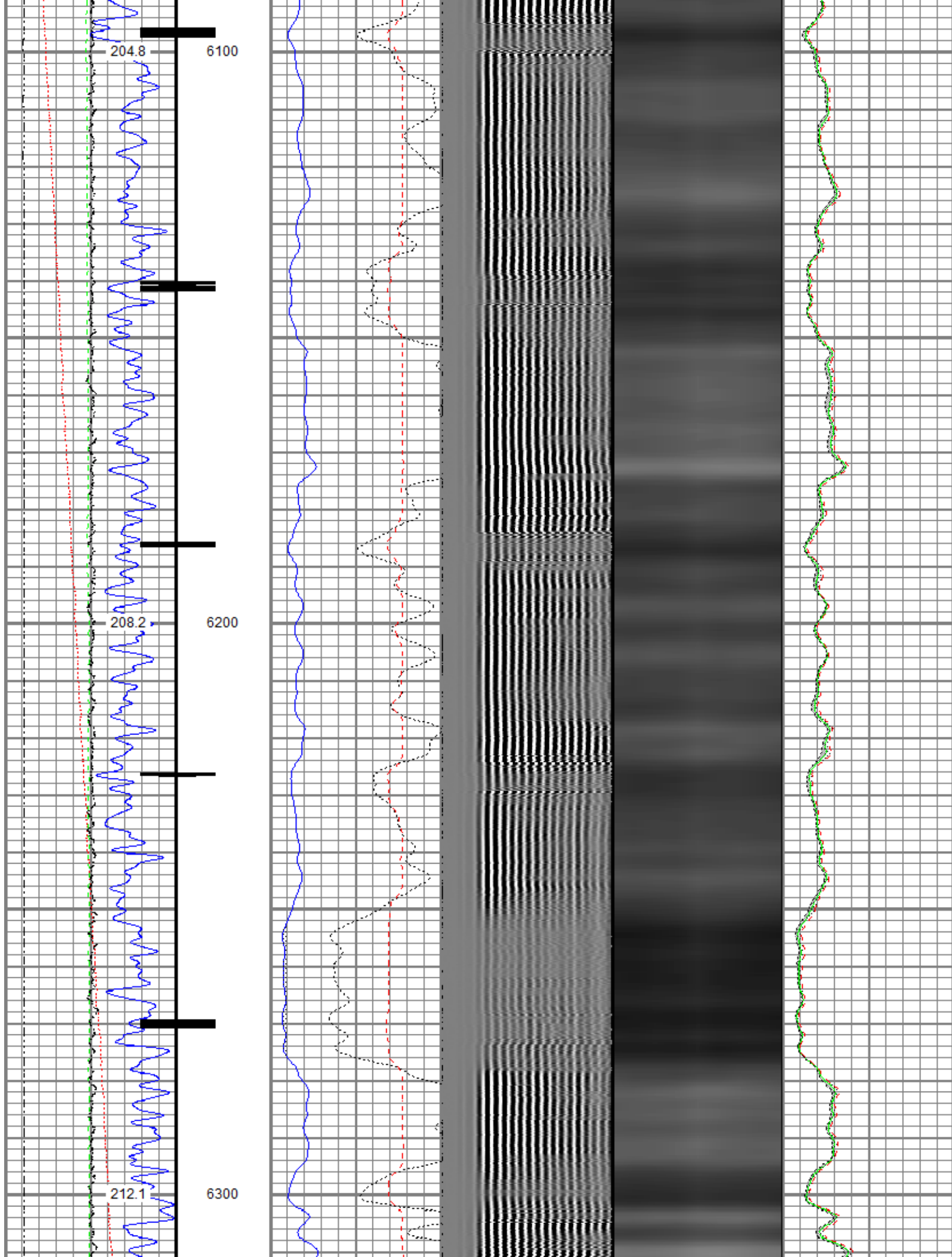


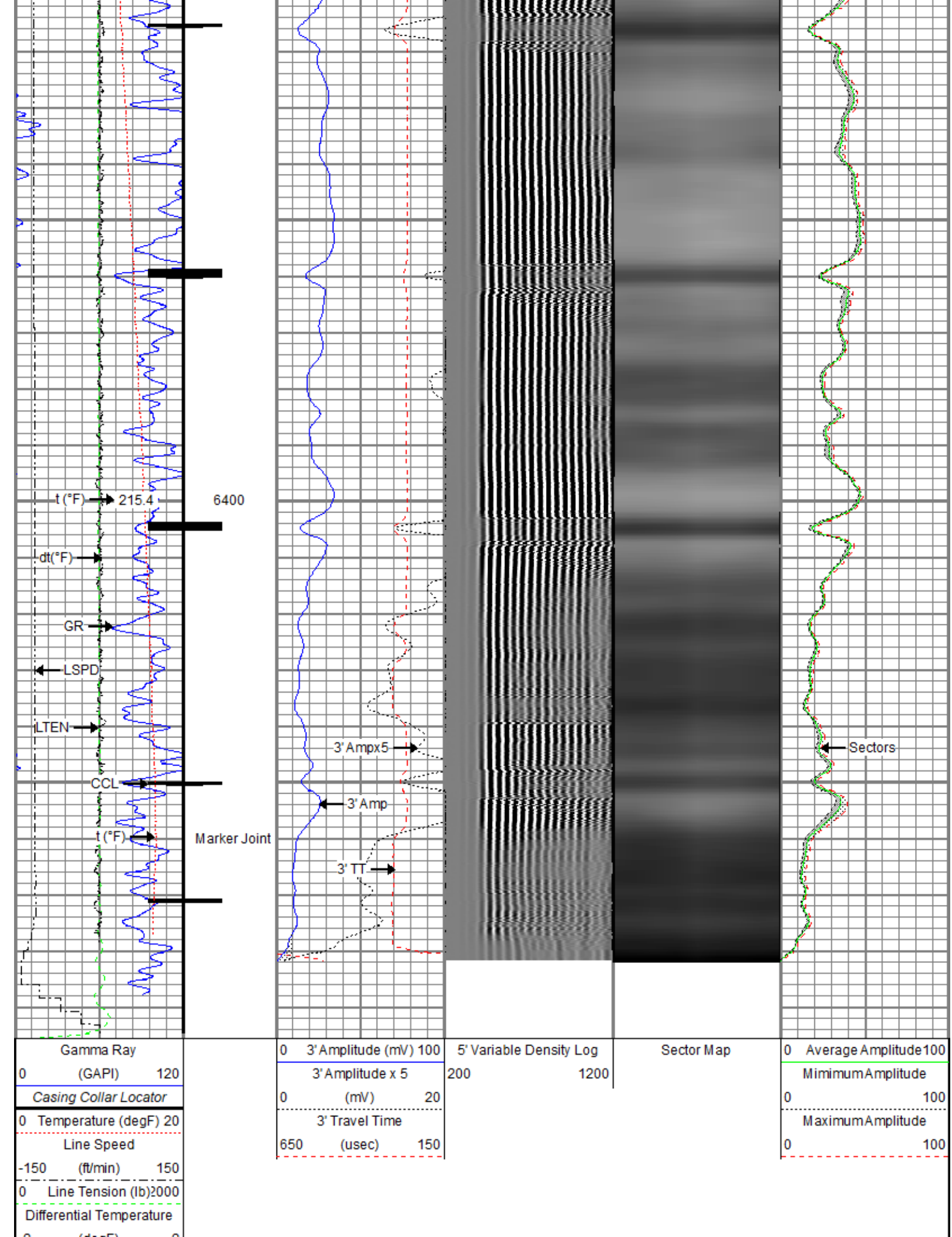












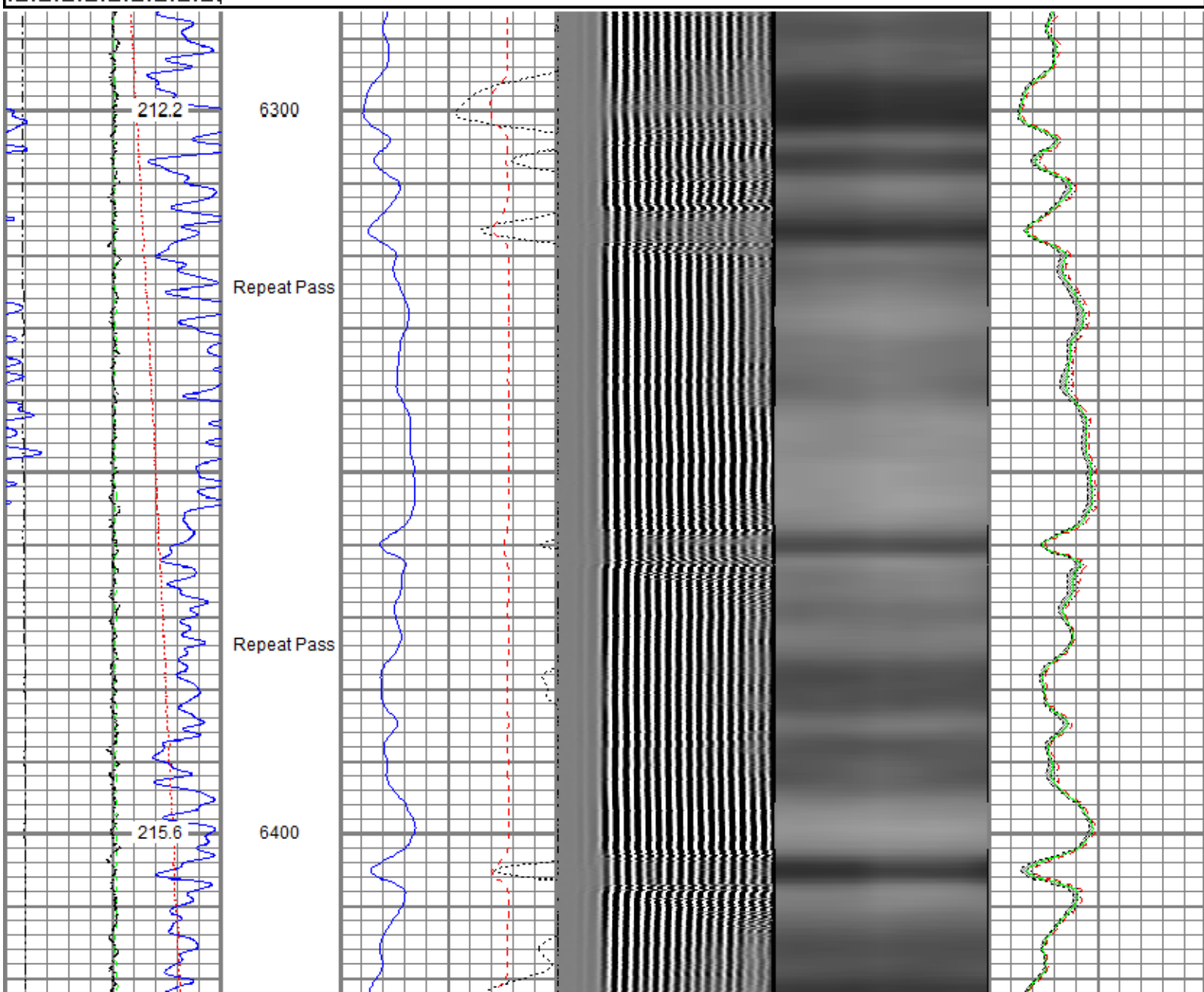


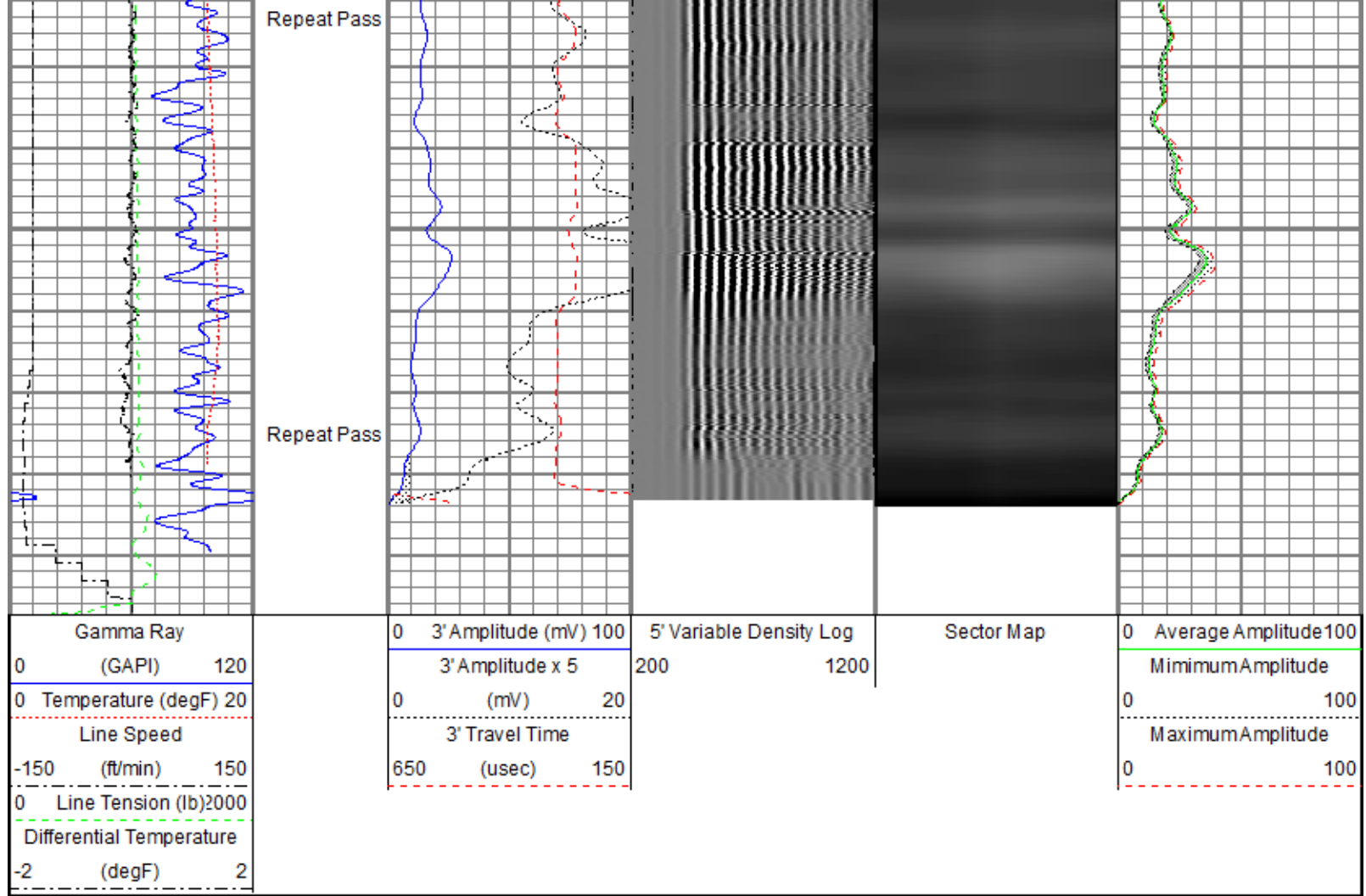
Repeat Pass

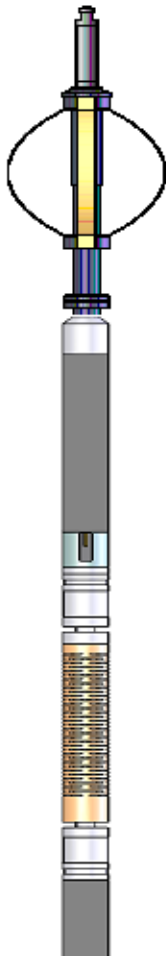

Recorded with 2800 PSI Surface Induced Pressure

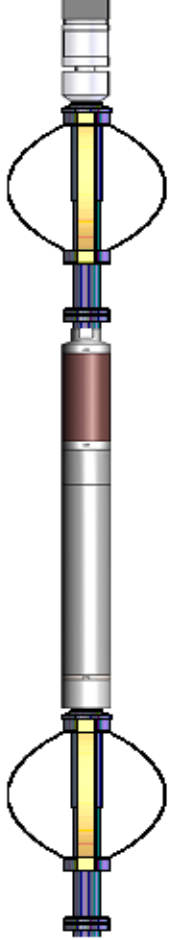
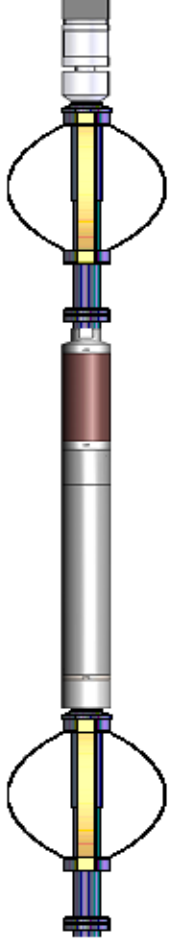
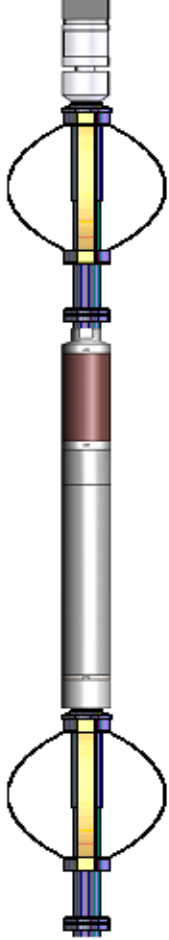
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 Dataset Pathname Repeat.2
 Presentation Format ros_radrii
 Dataset Creation Fri Aug 17 08:54:25 2018
 Charted by Depth in Feet scaled 1:240

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		0 (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)
TEMP	17.04		Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head w/ 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
			Probe Radii-2750 RBT (FW1308-089) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS8	14.81					
WVFS7	14.81					
WVFS6	14.81					
WVFS5	14.81					
WVFS4	14.81					
WVFS3	14.81					
WVFS2	14.81					

WVFS1	14.81		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
WVFCAL	14.81					
WVF3FT	14.81					
WVF5FT	13.81					
CCL\$2	6.80		Probe GR-CCL-2750 6PB (101001) Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT	4.80	2.75	55.00
CCL\$1	6.80					
GR	5.46					
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Dataset: processed_0512346330_anadarko_george 25-5hz_rbl_08-16-18_2800 psi.db: field/well/run1/Main.2 Total length: 23.86 ft Total weight: 223.60 lb O.D.: 2.75 in						

Calibration Report						
Database File	c:\programdata\warrior\data\anadarko\0512346330_anadarko_george 25-5hz_rbl_08-16-18\processed_0512346330_anadarko					
Dataset Pathname	Main.2					
Dataset Creation	Fri Aug 17 08:36:16 2018					
Gamma Ray Calibration Report						
Serial Number:	101001					
Tool Model:	2750 6PB					
Performed:	Sun Nov 12 11:25:32 2017					
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:	FW1308-089					
Tool Model:	2750 RBT					
Calibration Casing Diameter:	5.500		in			
Calibration Depth:	0.000		ft			
Master Calibration, performed (Derived):						
Raw (v)		Calibrated (mv)		Results		
Zero	Cal	Zero	Cal	Gain	Offset	

3'	0.002	0.647	0.800	71.921	110.294	0.599
CAL	0.707	0.709				
5'	-0.007	0.621	0.800	71.921	113.175	1.601
SUM						
S1	0.001	0.641	0.000	100.000	156.427	-0.204
S2	0.001	0.658	0.000	100.000	152.239	-0.106
S3	0.001	0.668	0.000	100.000	149.964	-0.151
S4	0.001	0.657	0.000	100.000	152.459	-0.177
S5	-0.008	0.658	0.000	100.000	150.290	1.172
S6	0.001	0.652	0.000	100.000	153.555	-0.086
S7	0.001	0.638	0.000	100.000	157.076	-0.200
S8	0.001	0.641	0.000	100.000	156.415	-0.212

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.707	0.709	1.000	0.000

Air Zero Calibration, performed Thu Aug 16 06:26:10 2018:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.005		0.000		0.001	
5'	0.008		0.000		-0.001	
SUM						
S1	0.004		0.000		0.000	
S2	0.006		0.000		-0.001	
S3	0.005		0.000		-0.000	
S4	0.005		0.000		-0.000	
S5	0.006		0.000		-0.001	
S6	0.005		0.000		-0.000	
S7	0.005		0.000		-0.000	
S8	0.005		0.000		0.000	

Temperature Calibration Report

Serial Number: FW1308-089
Tool Model: 2750 RBT
Performed: Sun Nov 12 13:49:09 2017

	Reference	Reading
Low Reference:	100.00 degF	106.47 degF
High Reference:	350.00 degF	395.10 degF
Gain:	0.87	
Offset:	7.78	
Delta Spacing	1	



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State Colorado