



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company SRC Energy		Well Greeley-Rothe 34N-2B-L		Field Wattenberg		County Weld		State Colorado	
Location:		API # : 05-123-46448		Other Services					
SEC 01 TWP 5N RGE 67W		JB/GR							
Permanent Datum		Ground Level		Elevation		4873'			
Log Measured From		Ground Level		Elevation		K.B. 4893'			
Drilling Measured From		Kelly Bushing		Elevation		D.F. ---			
				G.L. 4873'					
Date	24-AUG-2018								
Run Number	Two								
Depth Driller	17250 FT (G.L.)								
Depth Logger	6521 FT								
Bottom Logged Interval	6506 FT								
Top Log Interval	Surface								
Open Hole Size	---								
Type Fluid	Water								
Density / Viscosity	8.34 lb/gal								
Max. Recorded Temp.	214°F								
Estimated Cement Top	See Log								
Time Well Ready	ROA								
Time Logger on Bottom	13:25								
Equipment Number	HD-361								
Location	Fort Lupton, CO								
Recorded By	D. Roberts								
Witnessed By	Bob Mills								
Borehole Record		Tubing Record							
Run Number	Bit	From	To	Size	Weight	From	To		
Casing Record	Size (in)	Wgt (lbs/ft)	Grade	Top	Bottom				
Surface Casing	9 5/8	36	---	Surface	---				
Intermediate #1	5 1/2	20	HCP-110	Surface	17236 FT				
Intermediate #2									
Inner									

<<< 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
Log measured from Ground Level at 0 FT
Depth referenced to Casing Tally reported Marker Joint at 6310 FT
Adjusted log -12 FT to correlate with Marker Joint
Gauge Ring/Junk Basket ran to 6619 FT with no debris
Log ran from 6506 FT to surface
Log ran with 2500 PSI surface induced pressure
Logging tools were clean and free of debris upon completion of operations

Thank you for choosing Reliance Oilfield Services, LLC!!

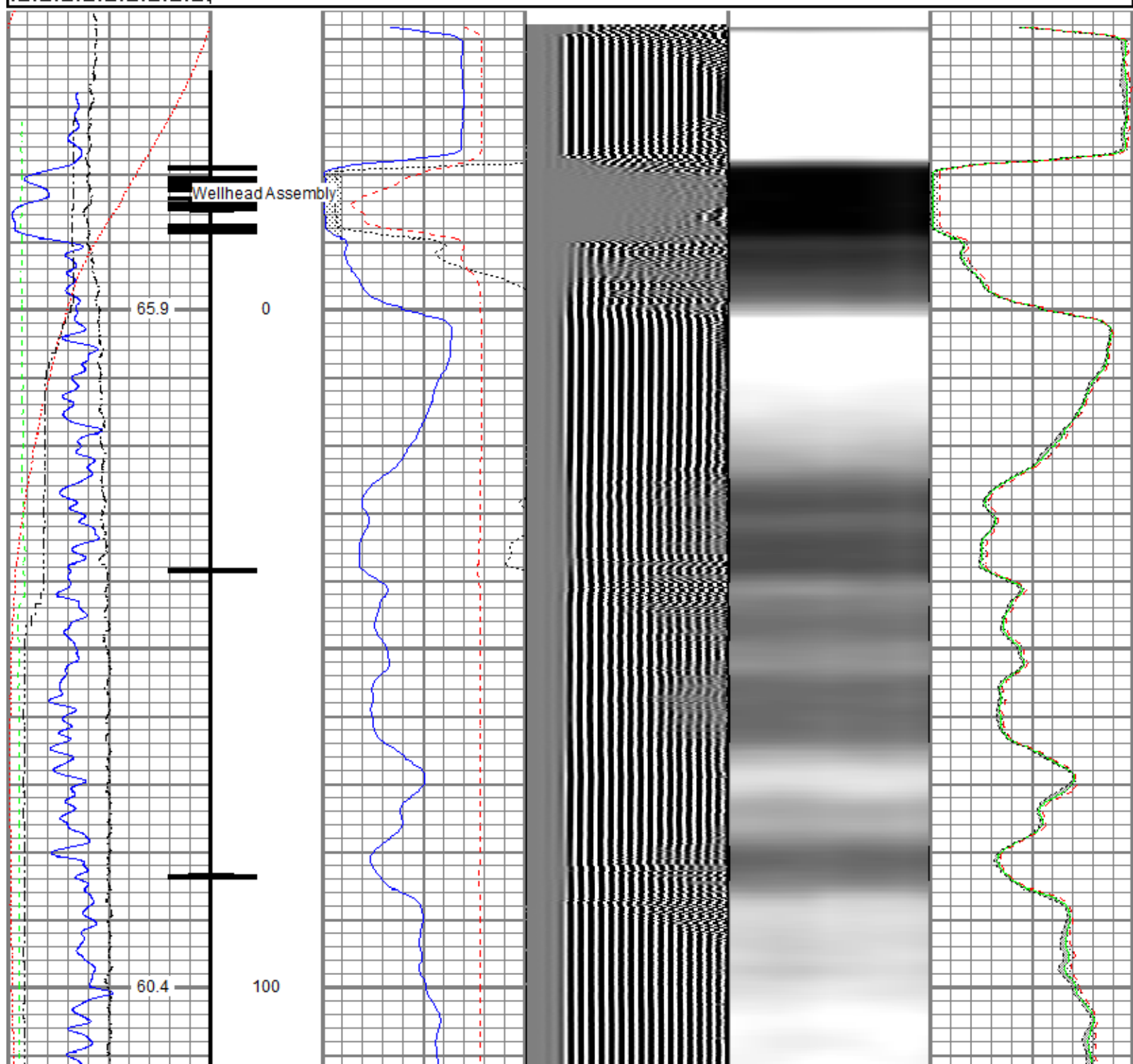


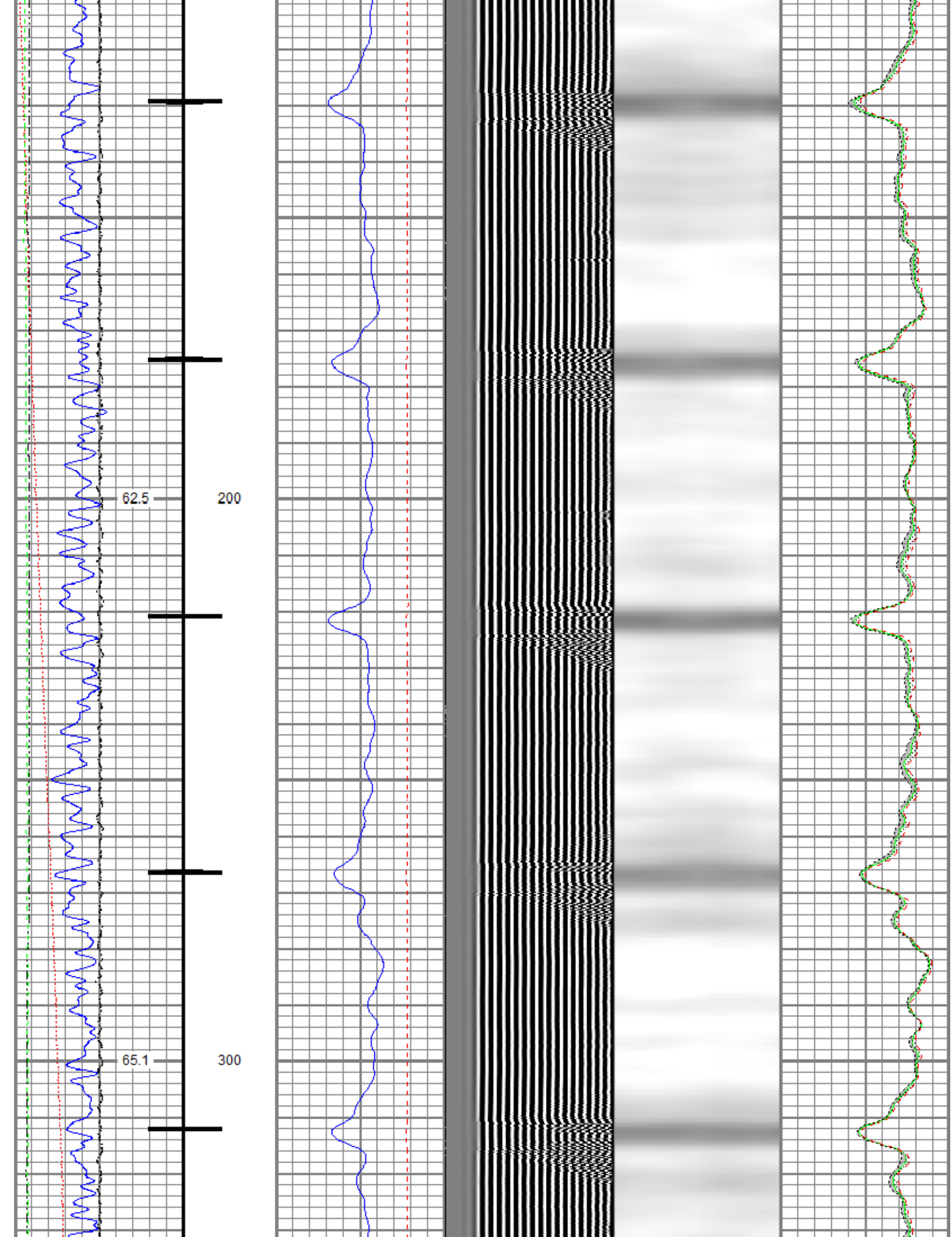
Main Pass

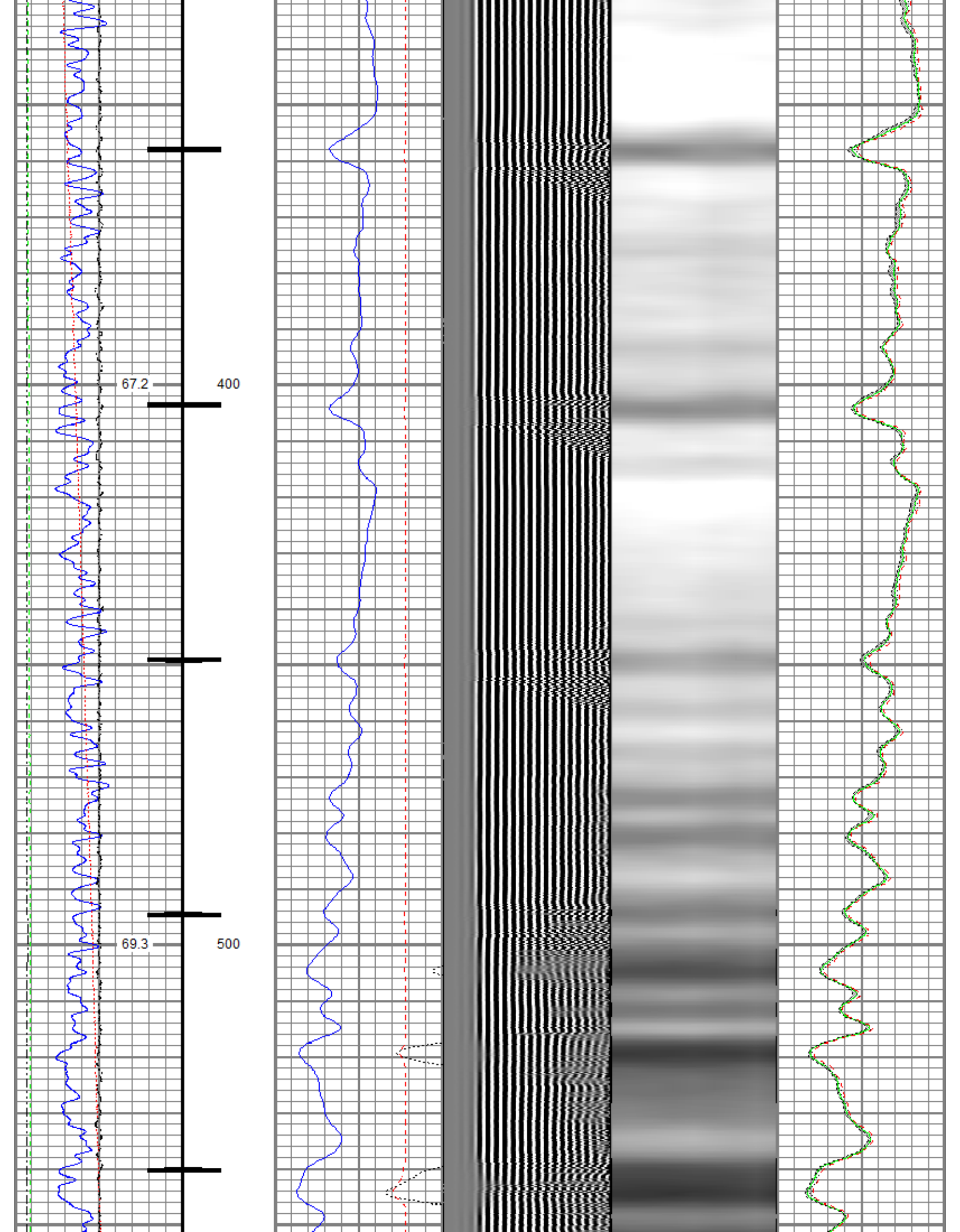
Recorded With 2500 PSI Surface Induced Pressure

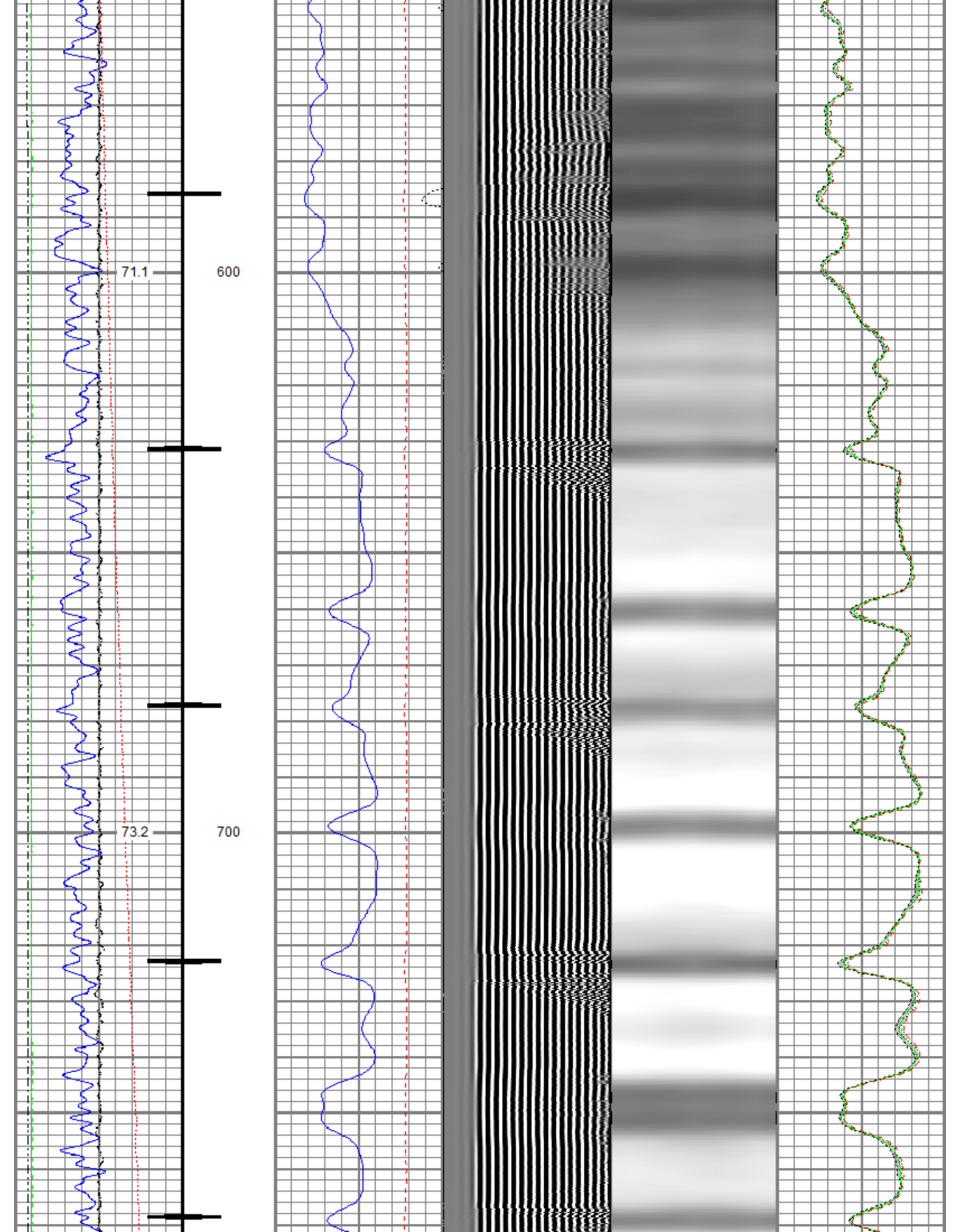
Database File src energy_greeley rothe 34n-2b-l_rbl_08-24-18\processed_src energy_greeley rothe 34n-2b-l_rbl_08-24-18.db
 Dataset Pathname rbl/pass_5
 Presentation Format ros_radrii
 Dataset Creation Fri Aug 24 13:34:17 2018
 Charted by Depth in Feet scaled 1:240

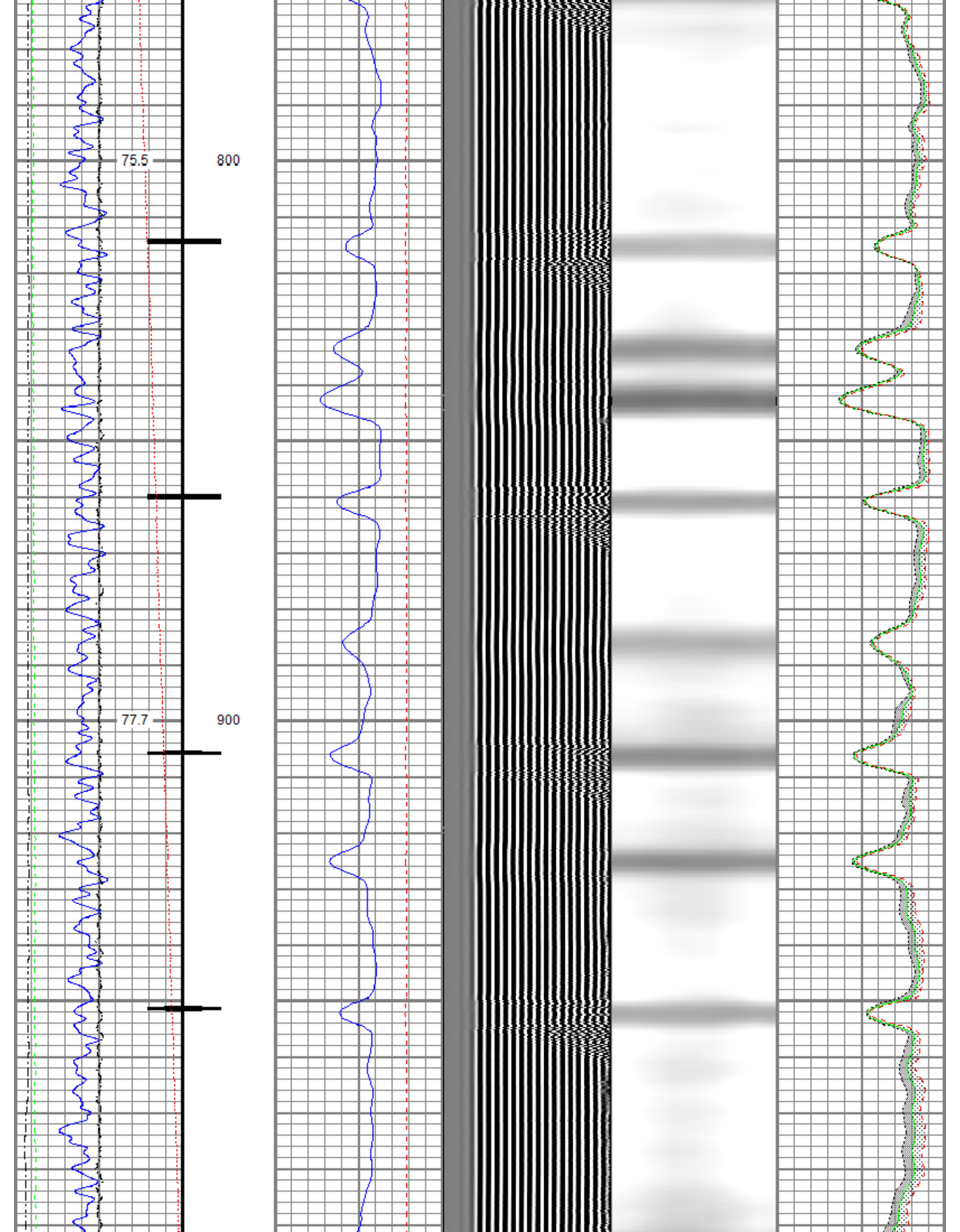
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min) 150				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

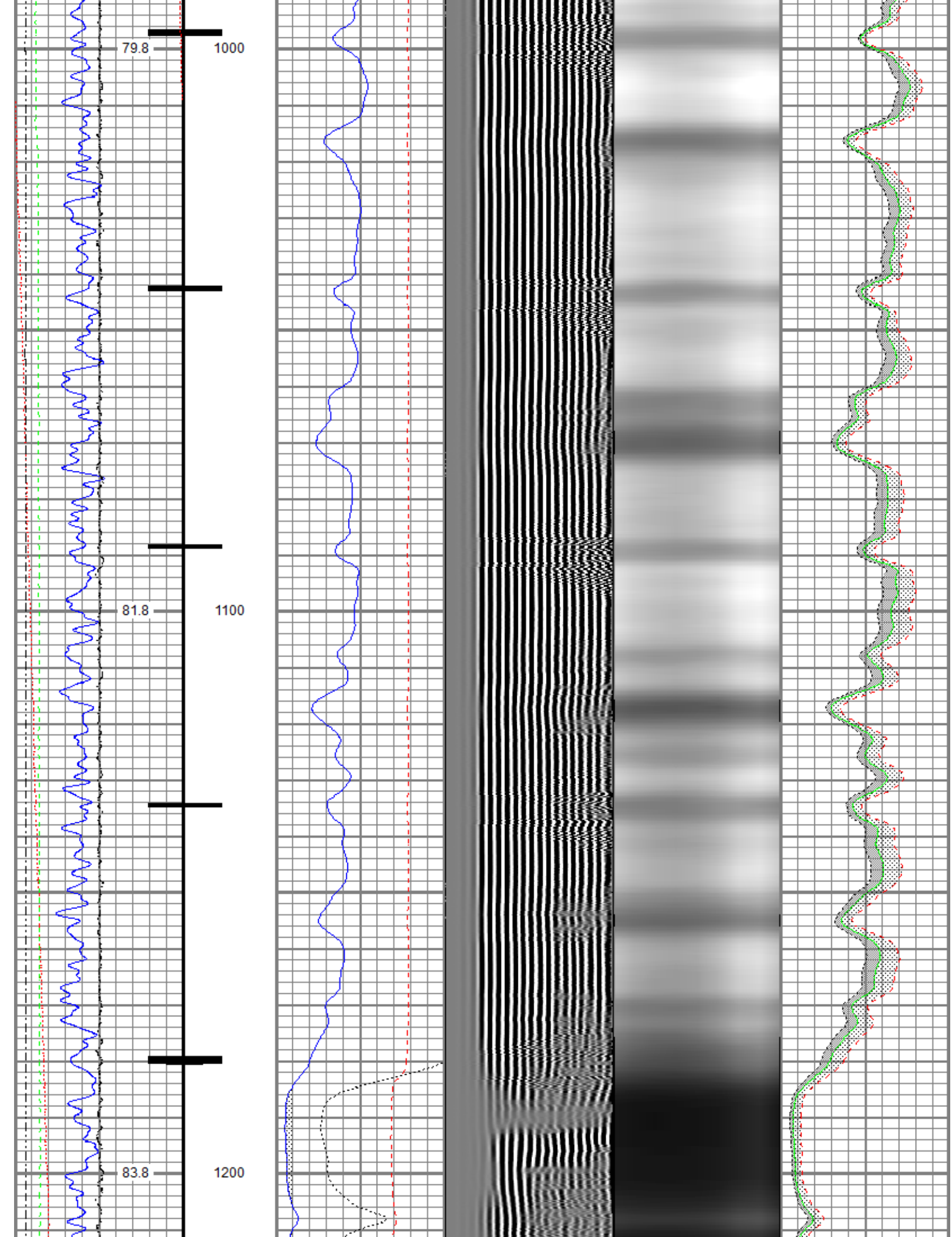


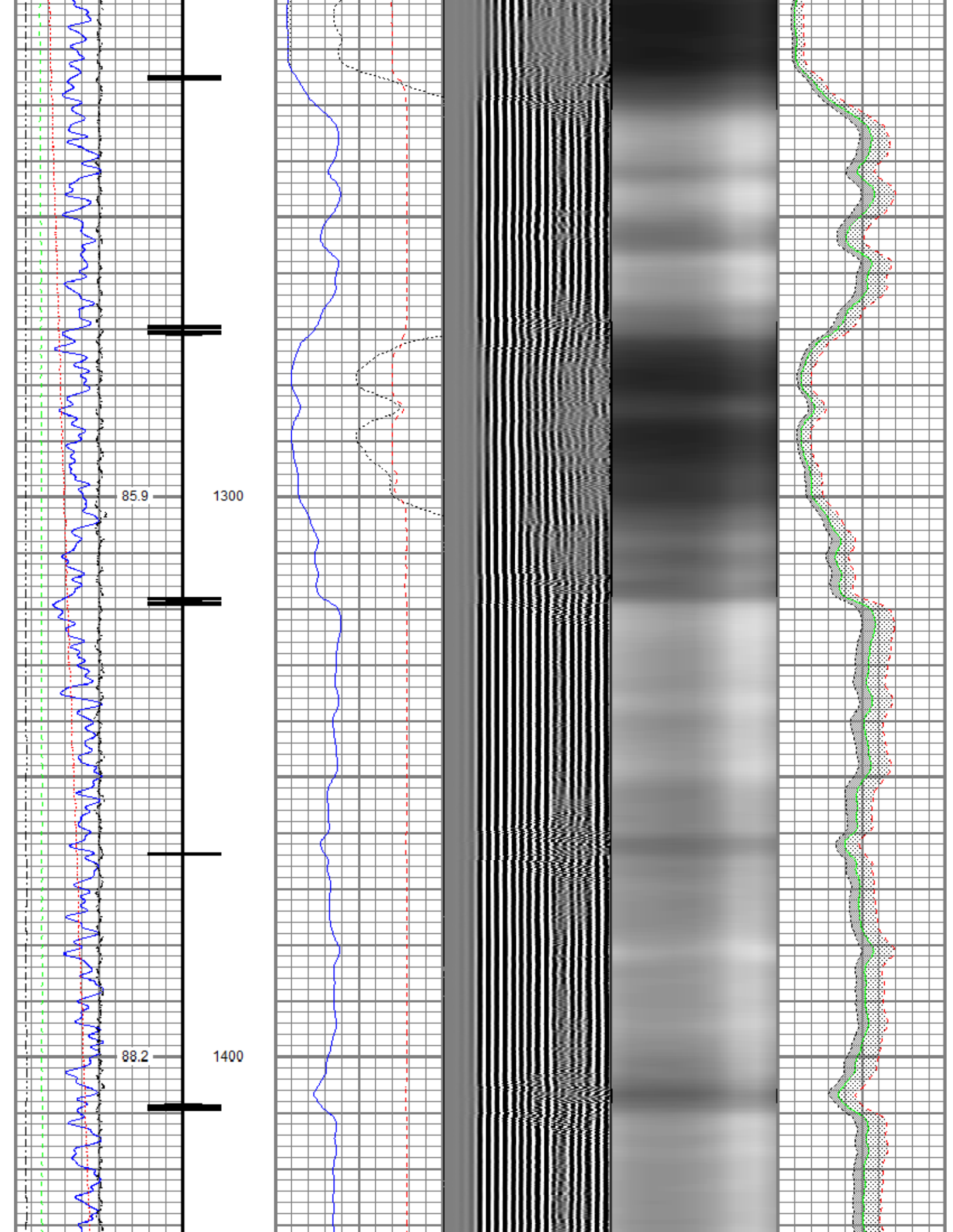


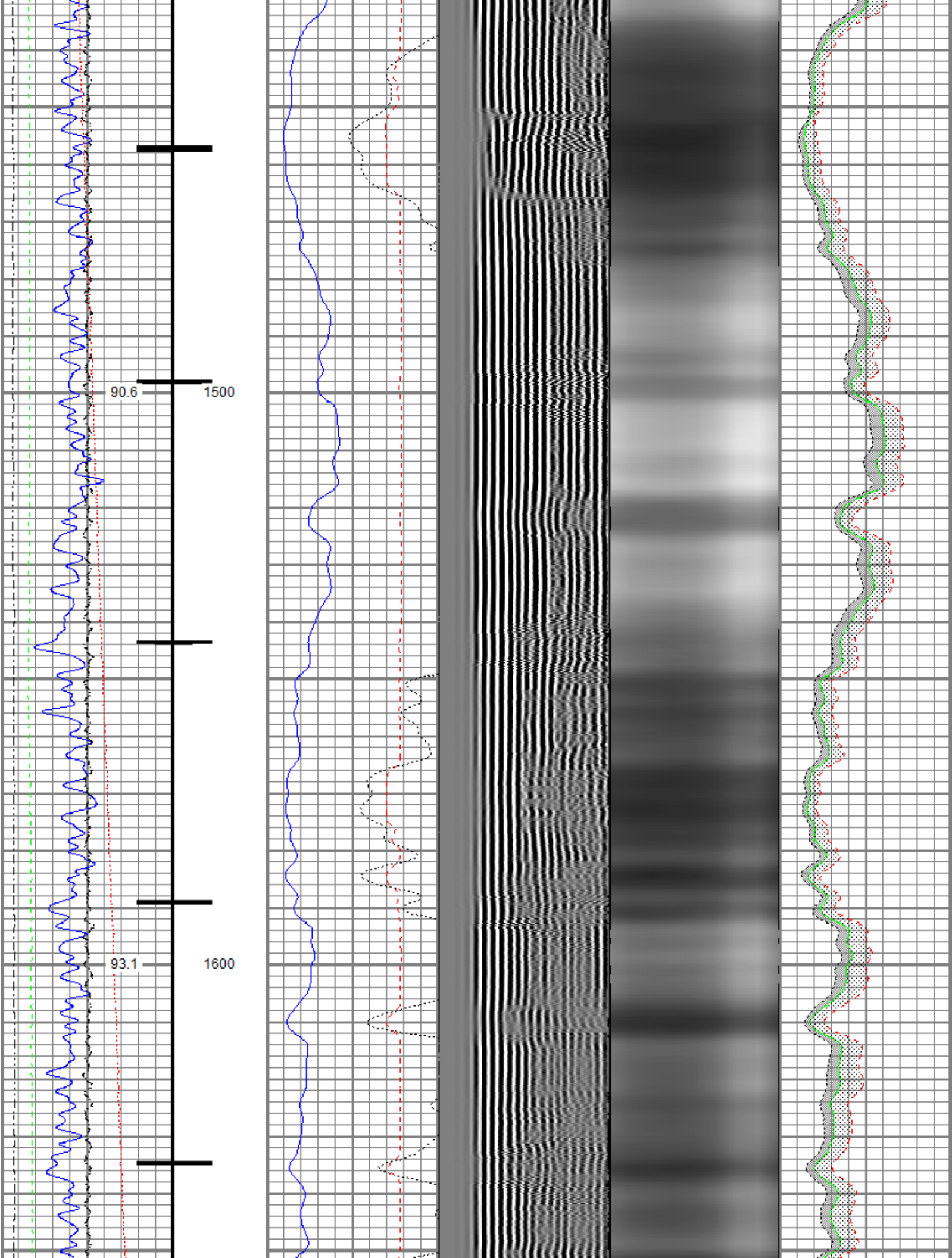


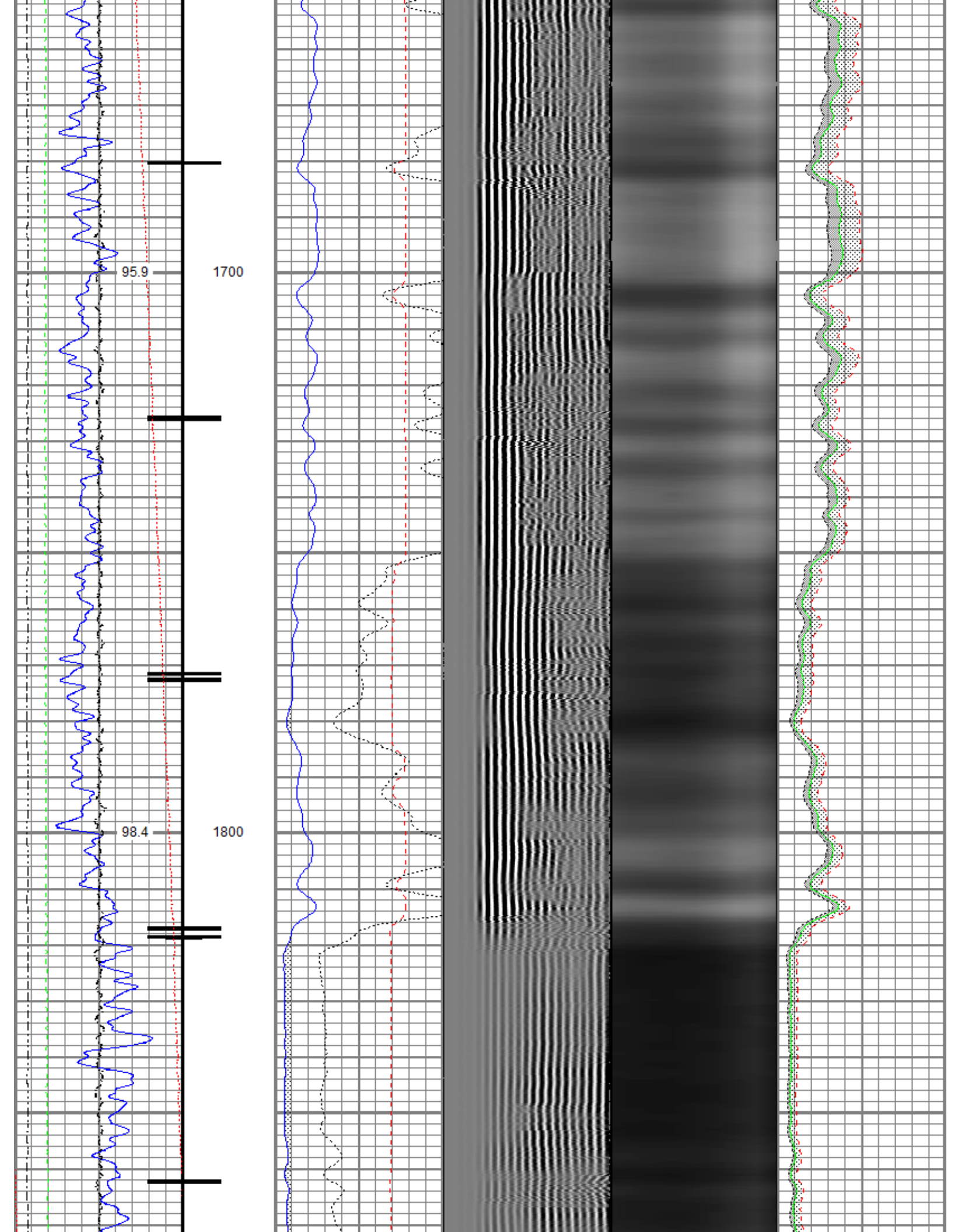


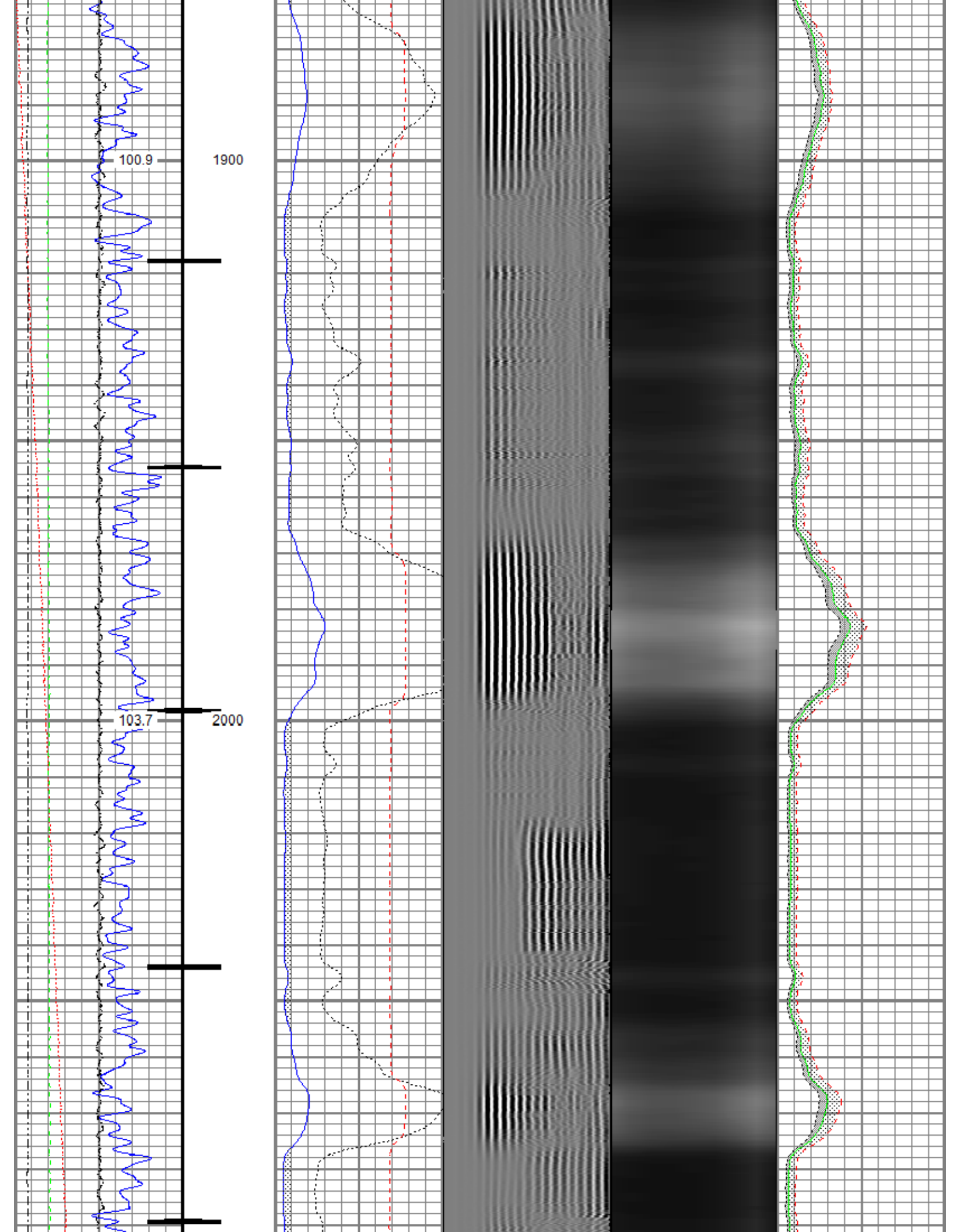


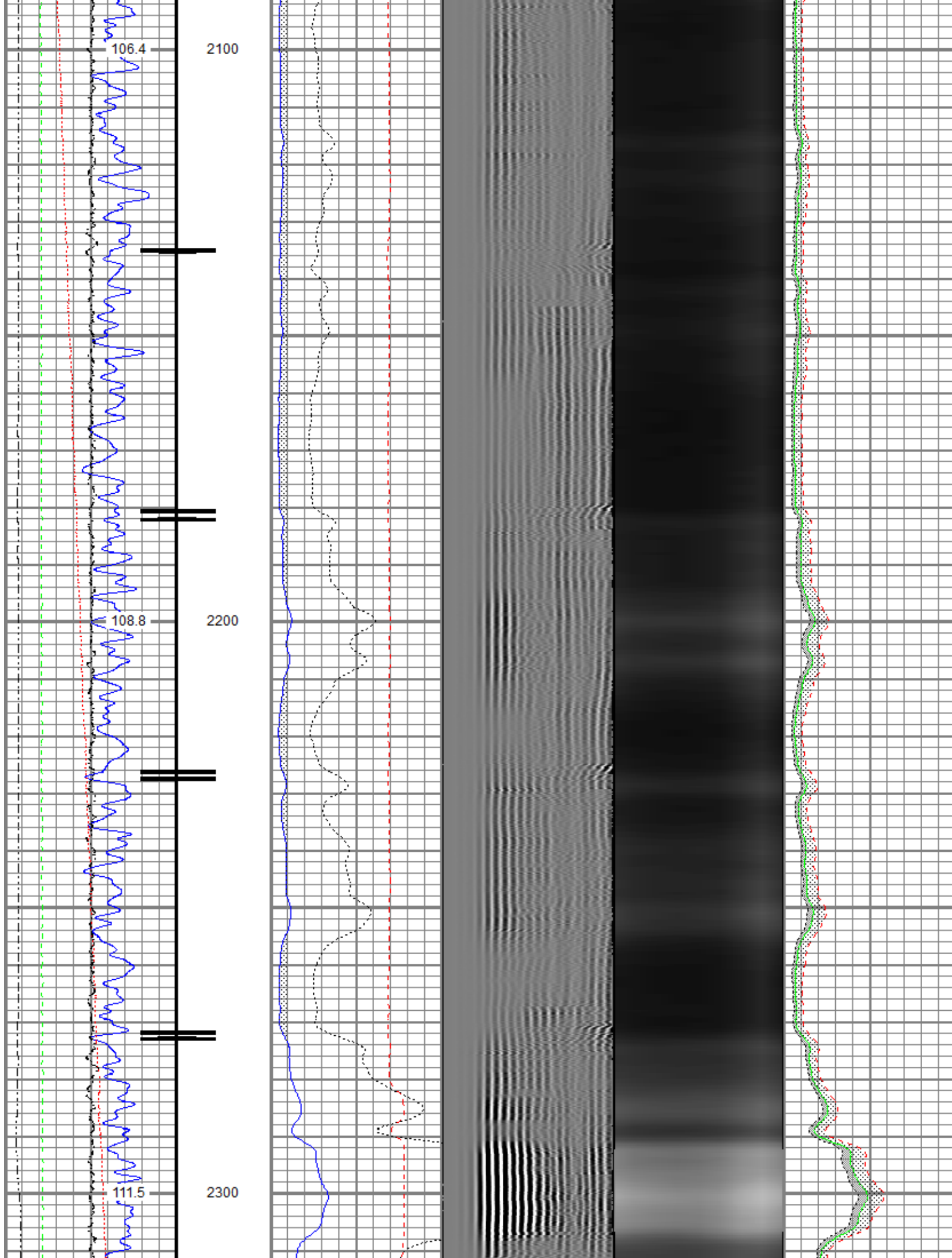


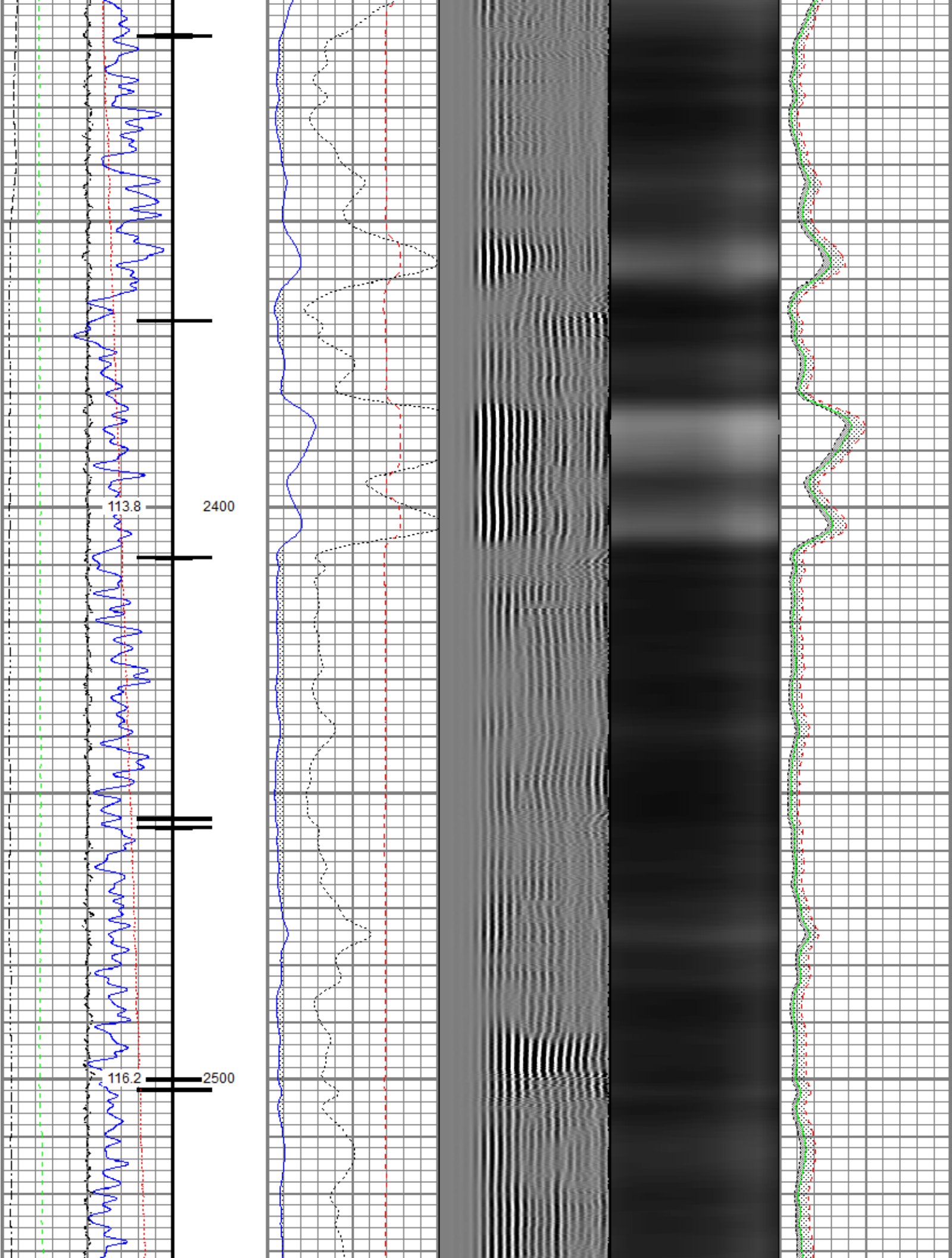


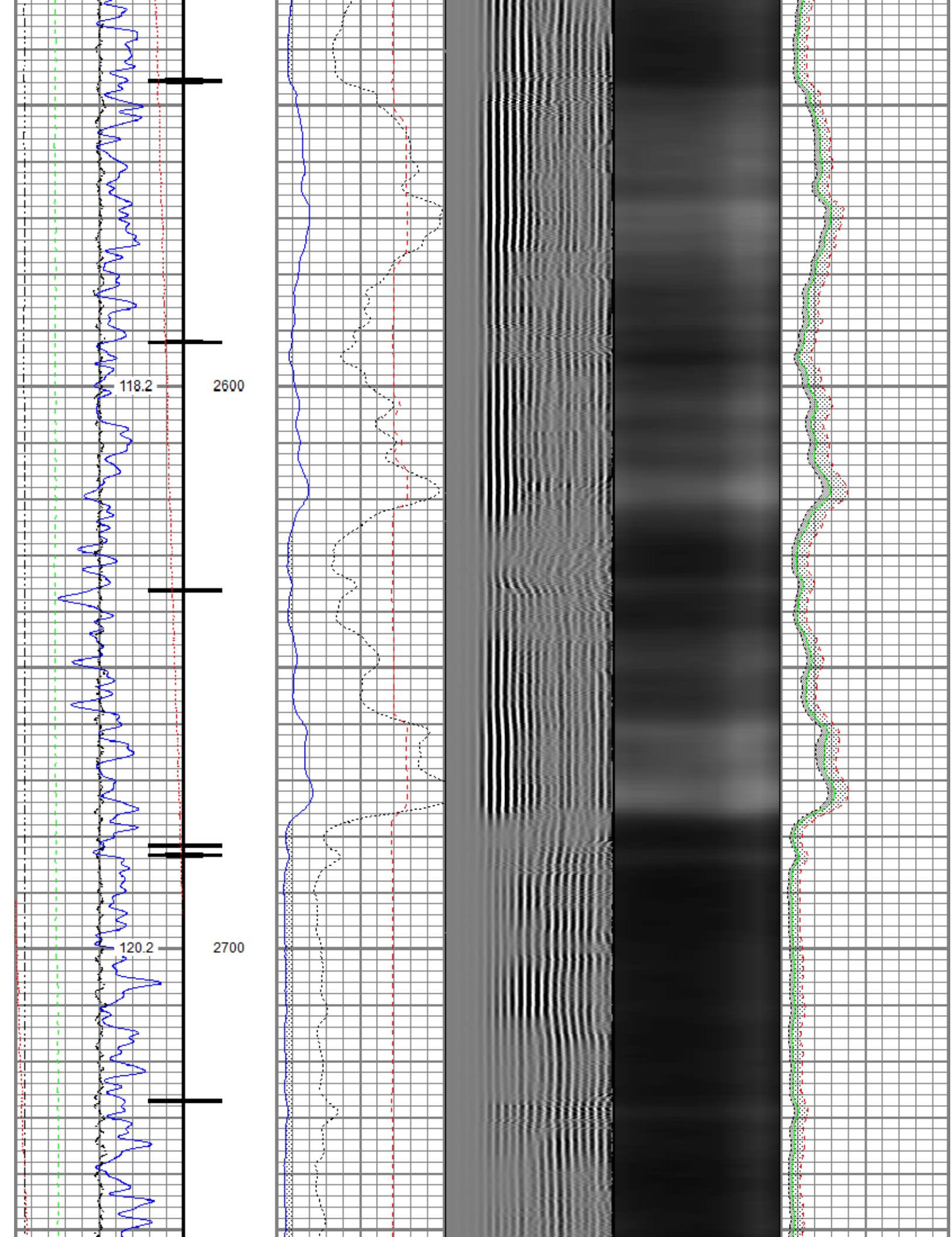


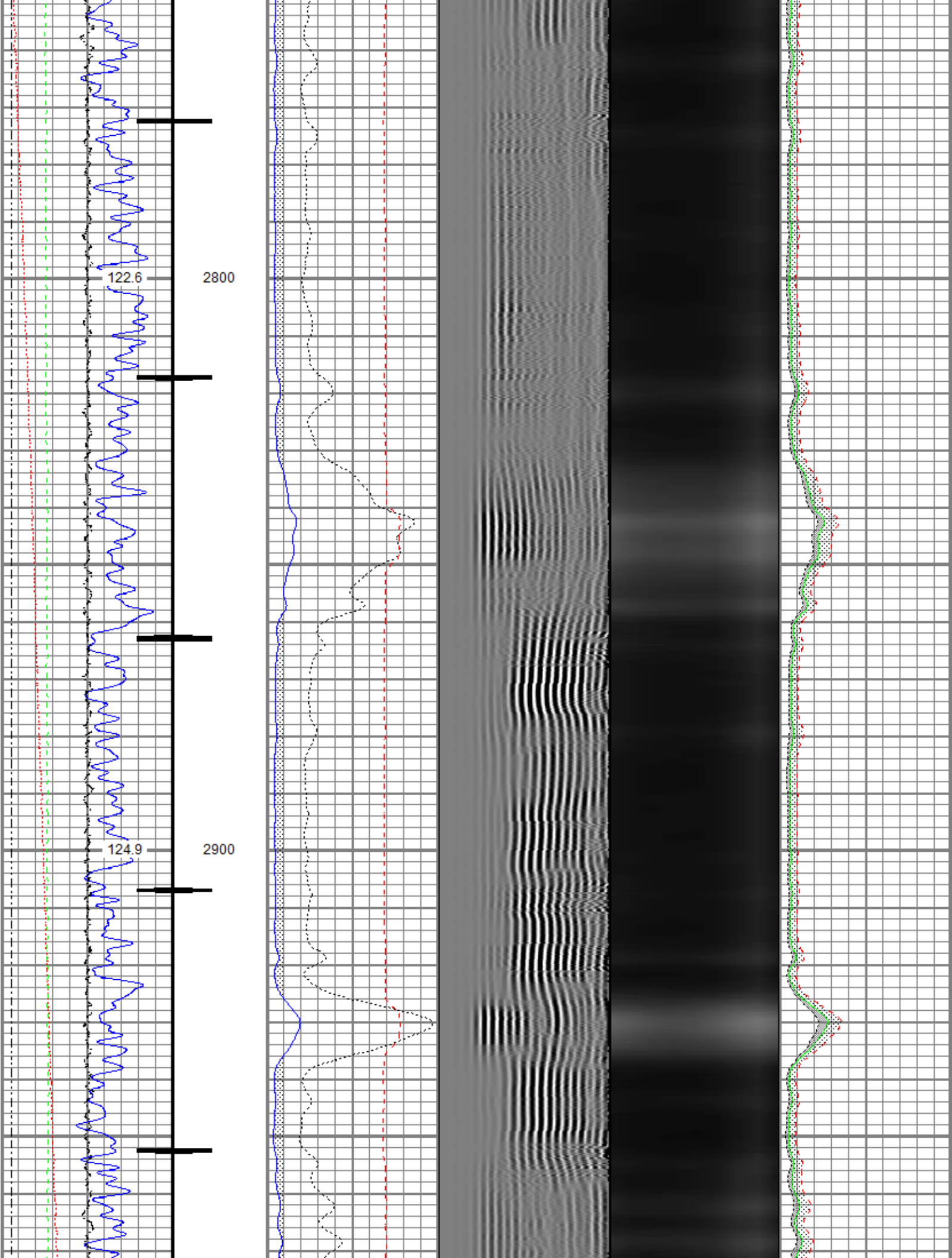


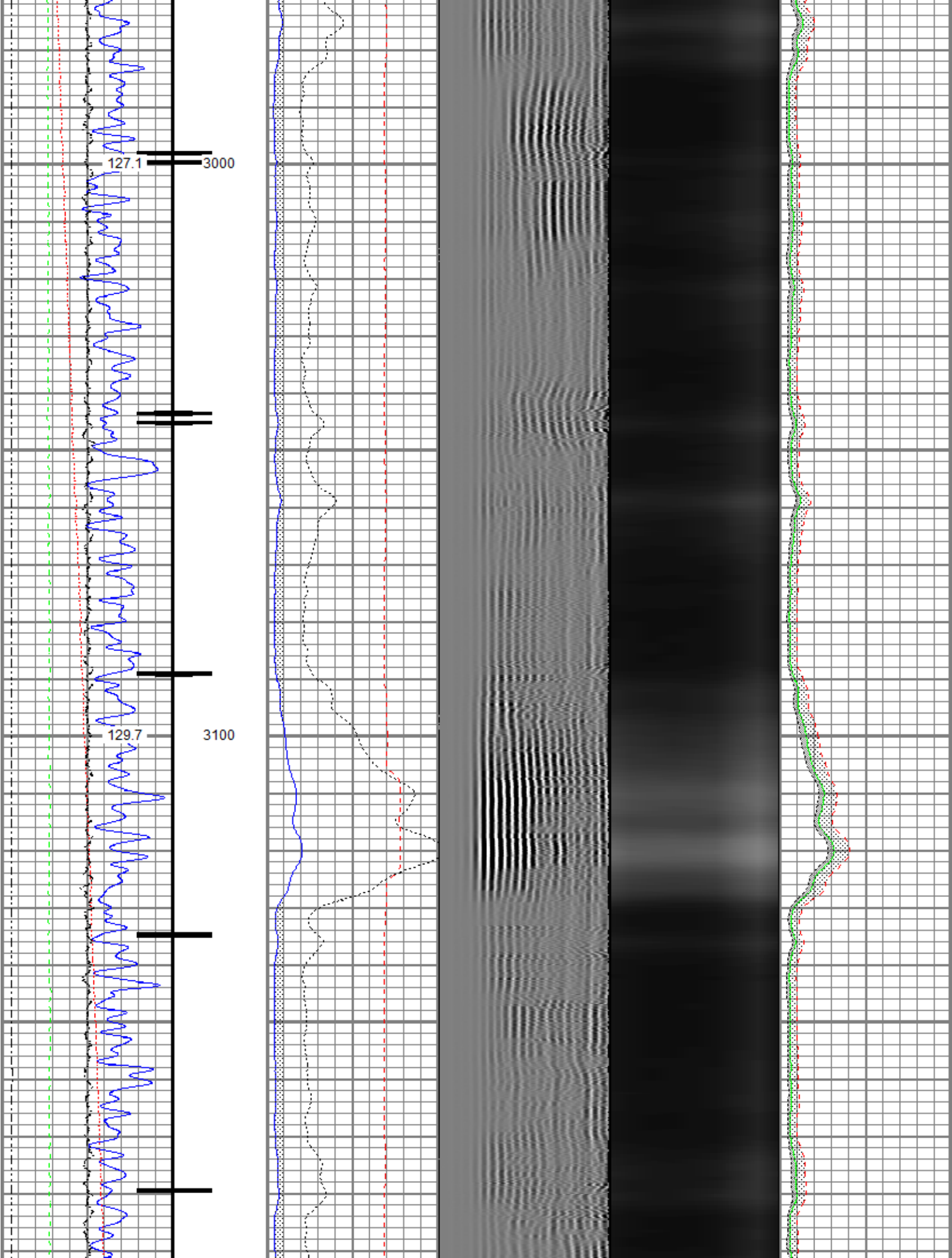


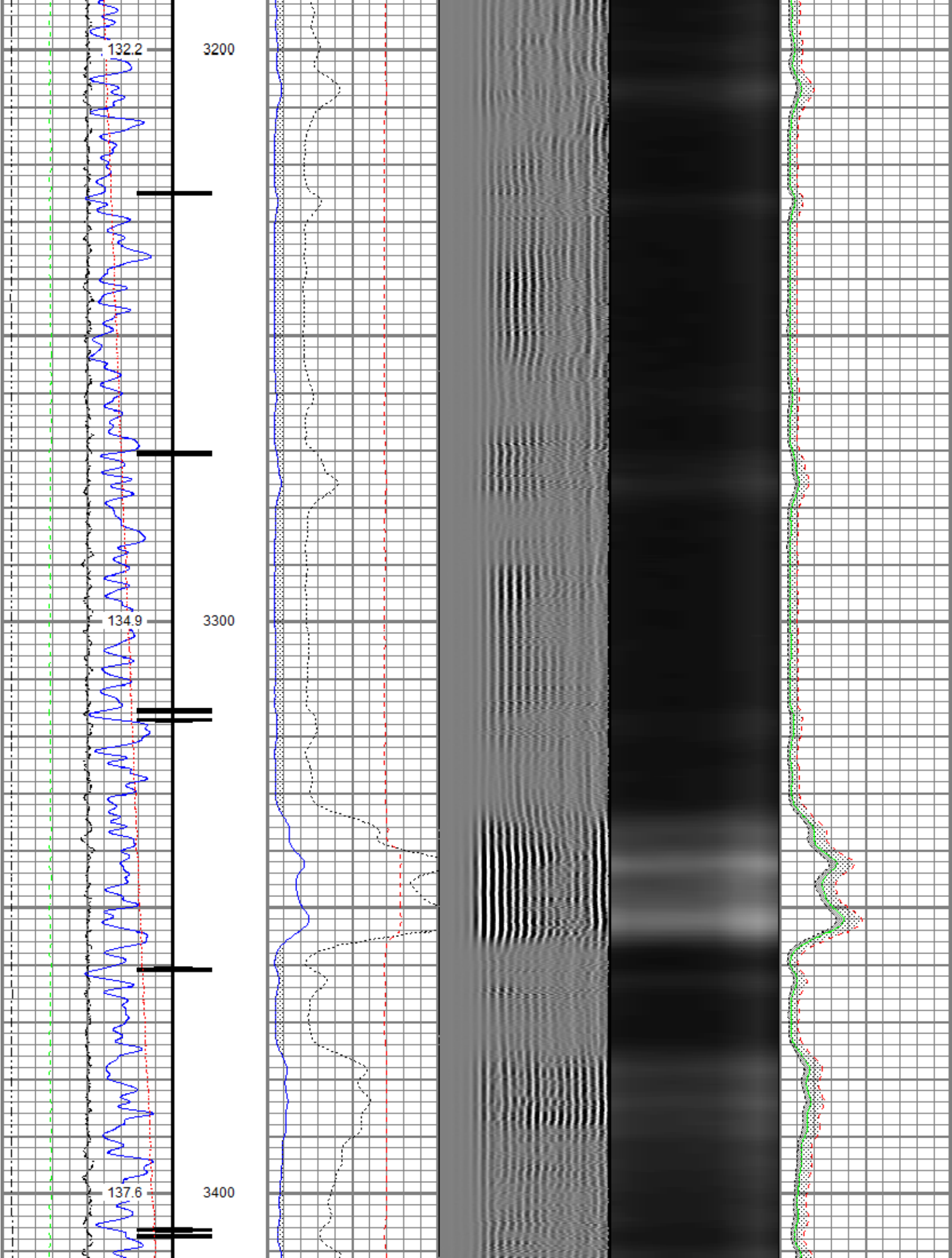


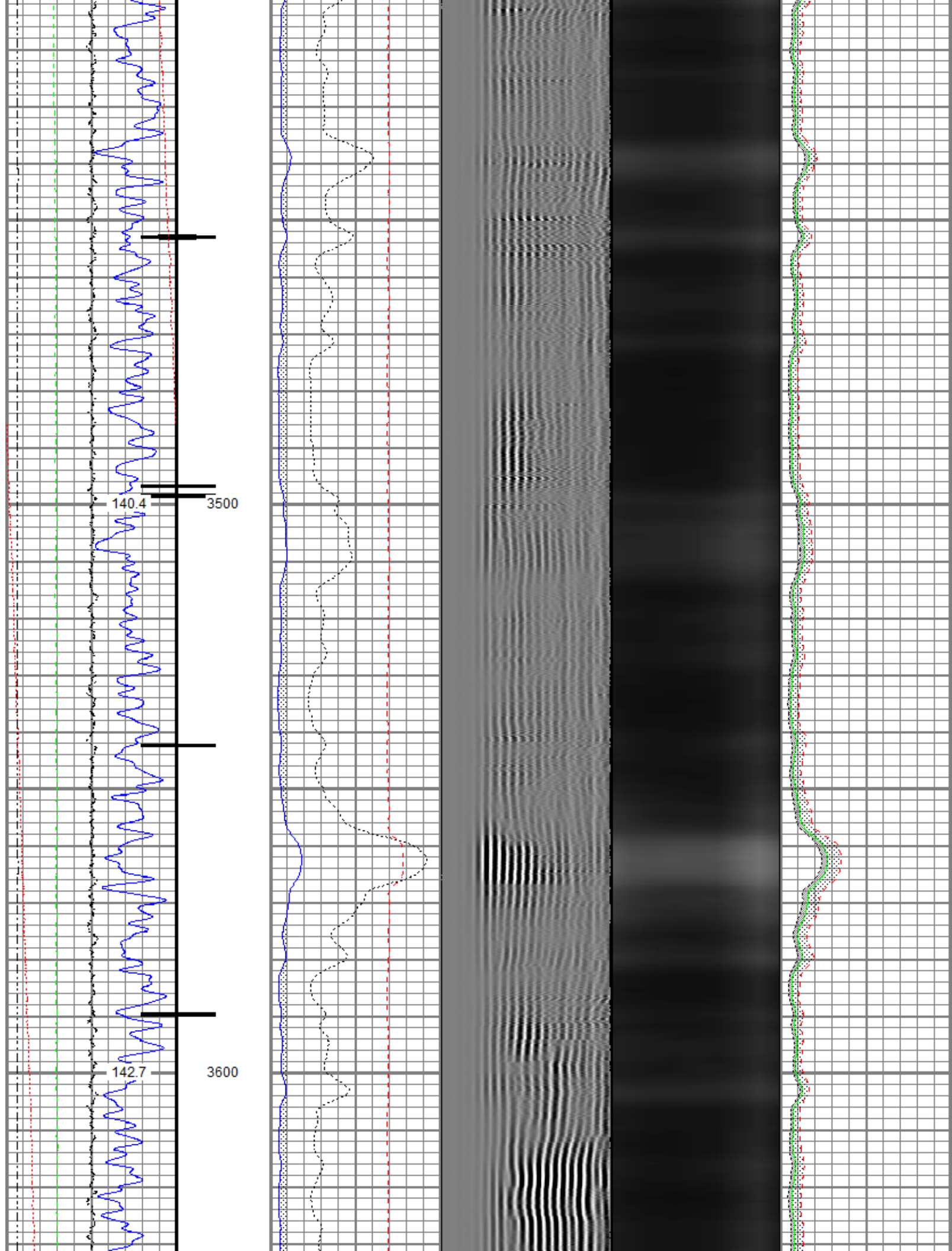


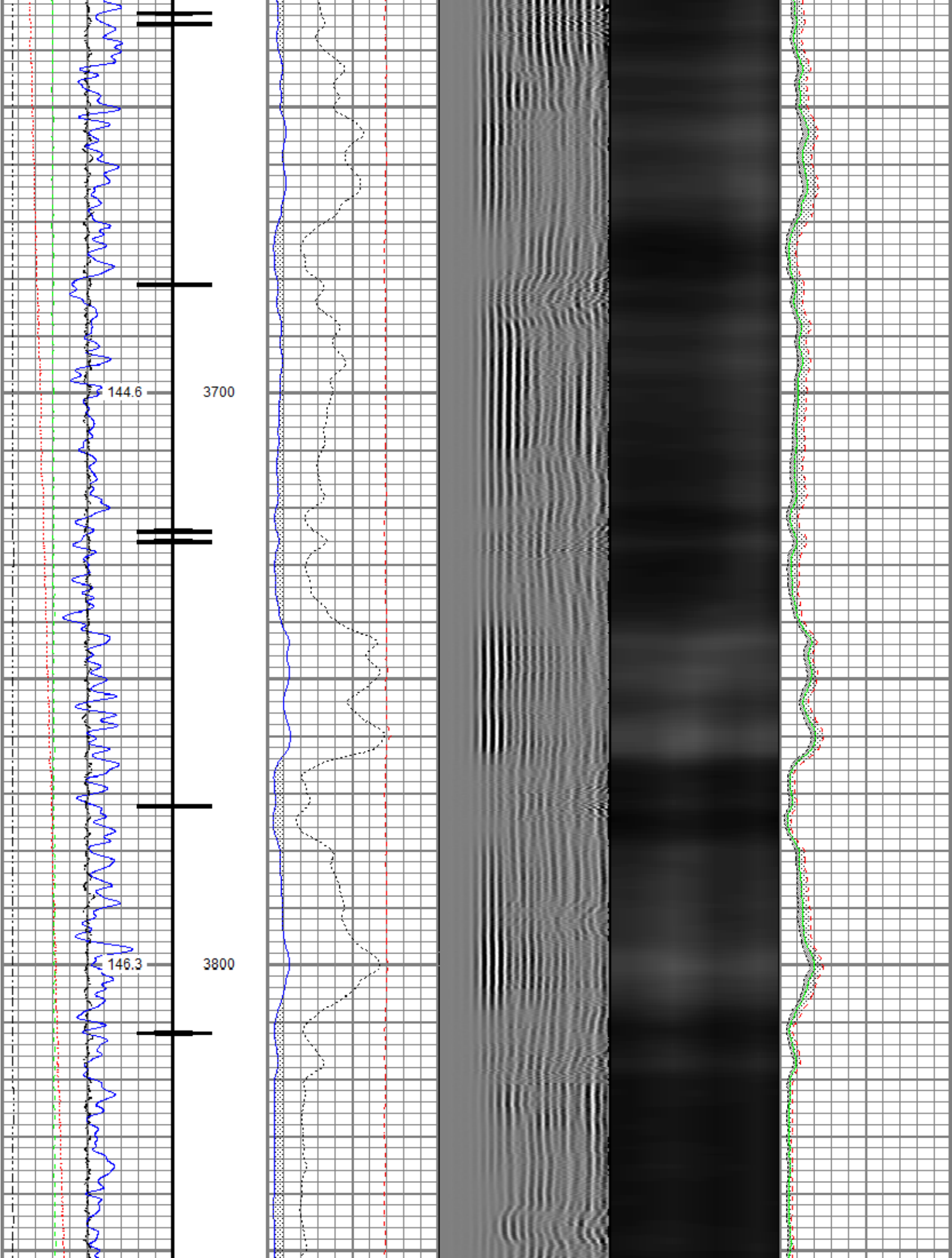


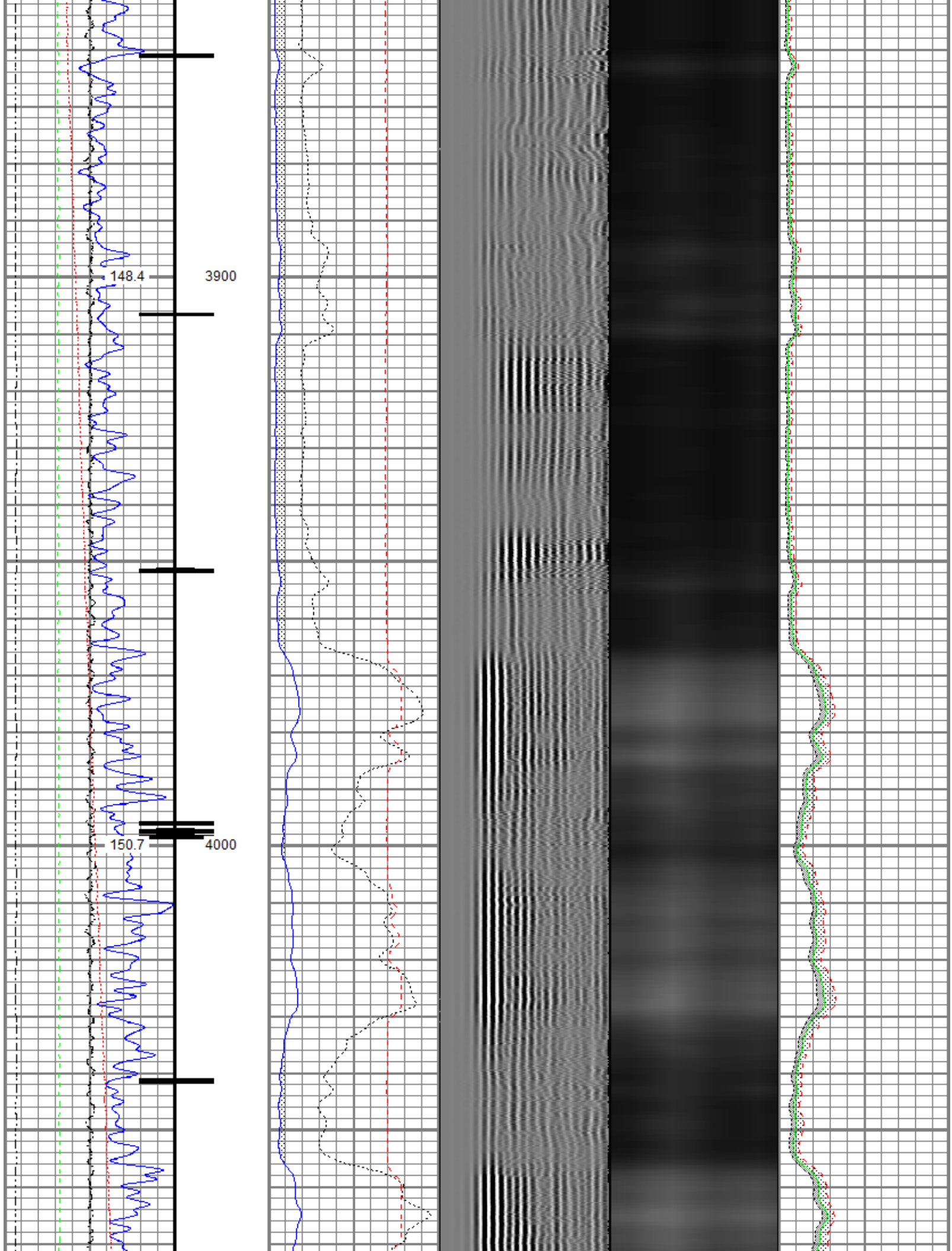


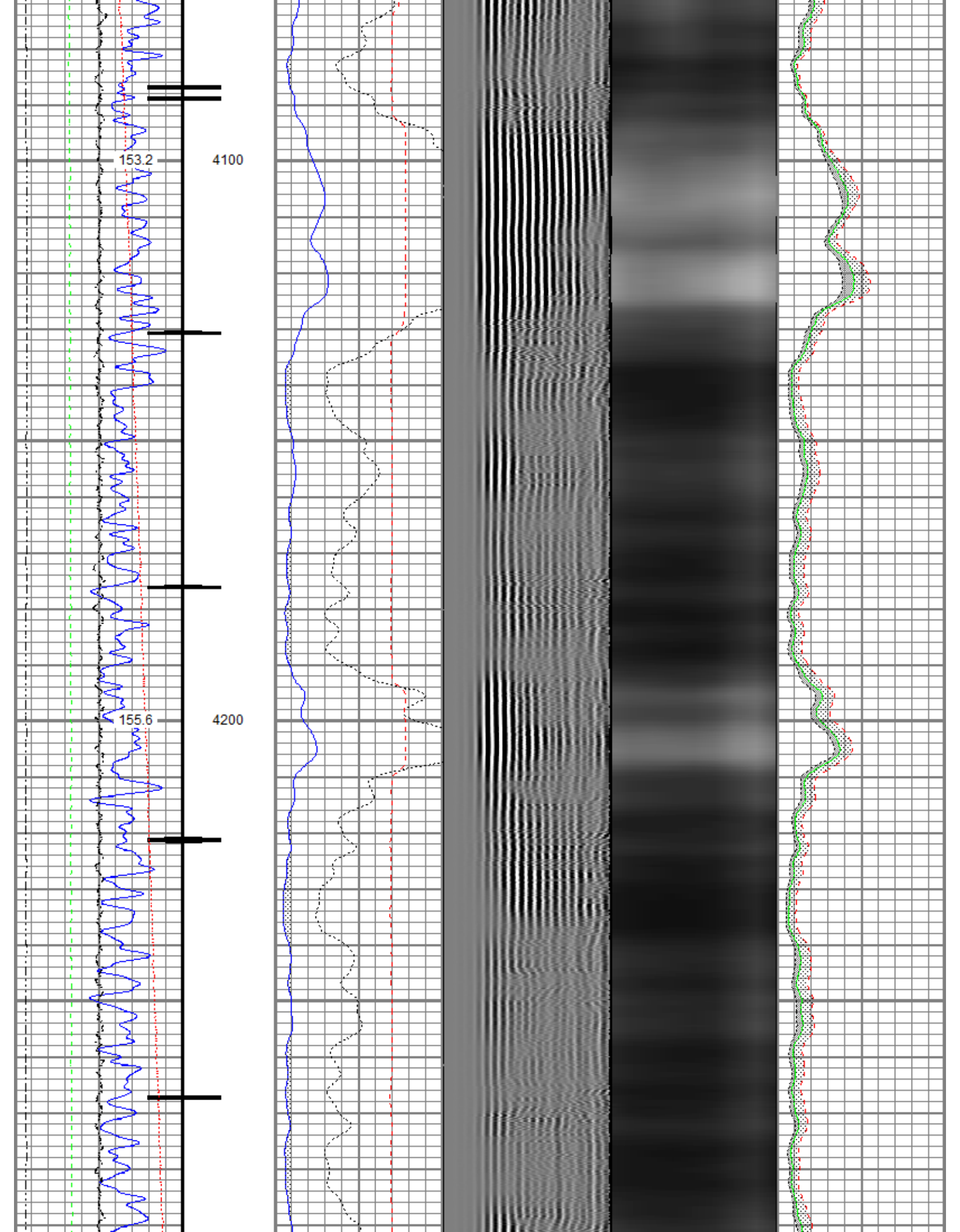


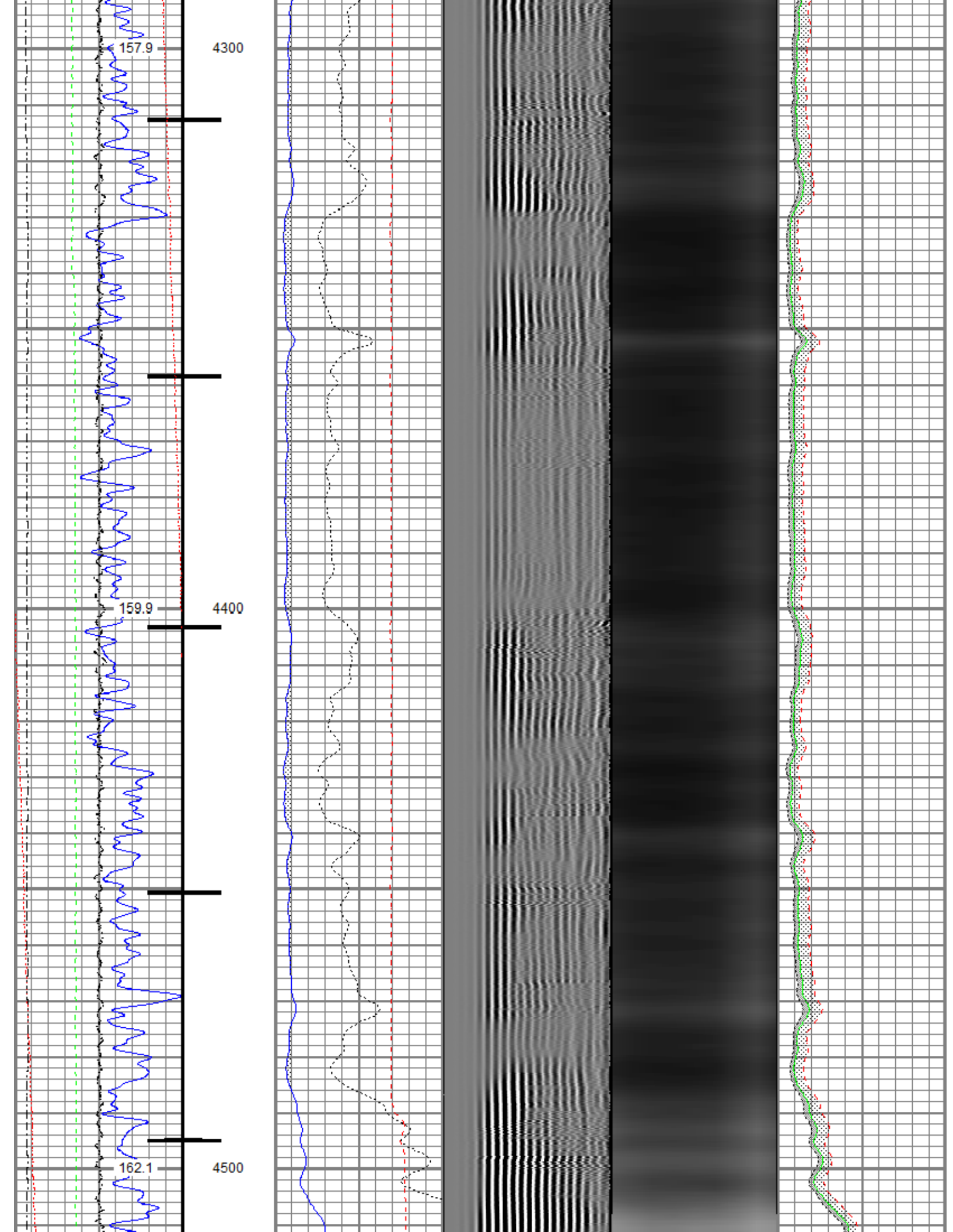


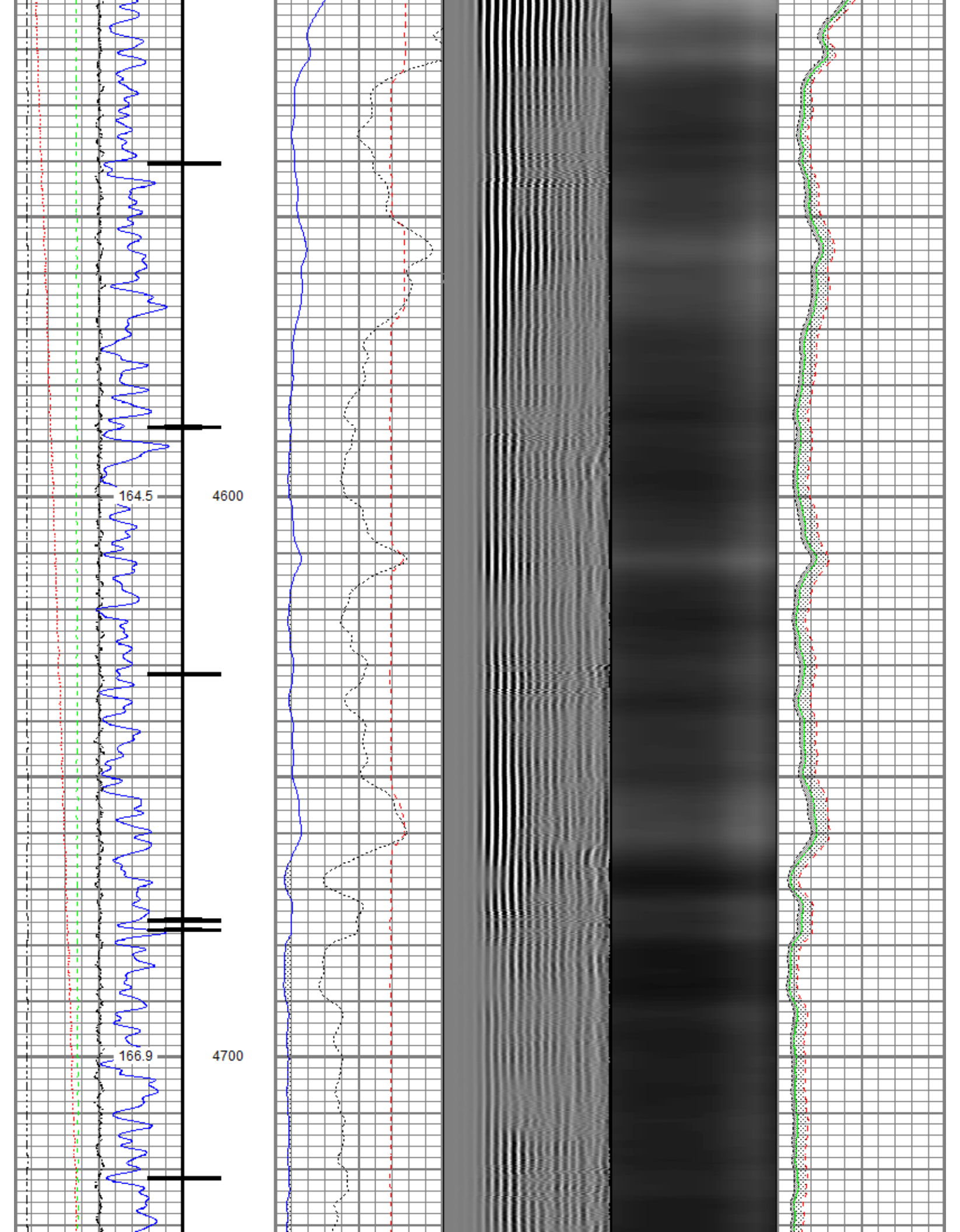


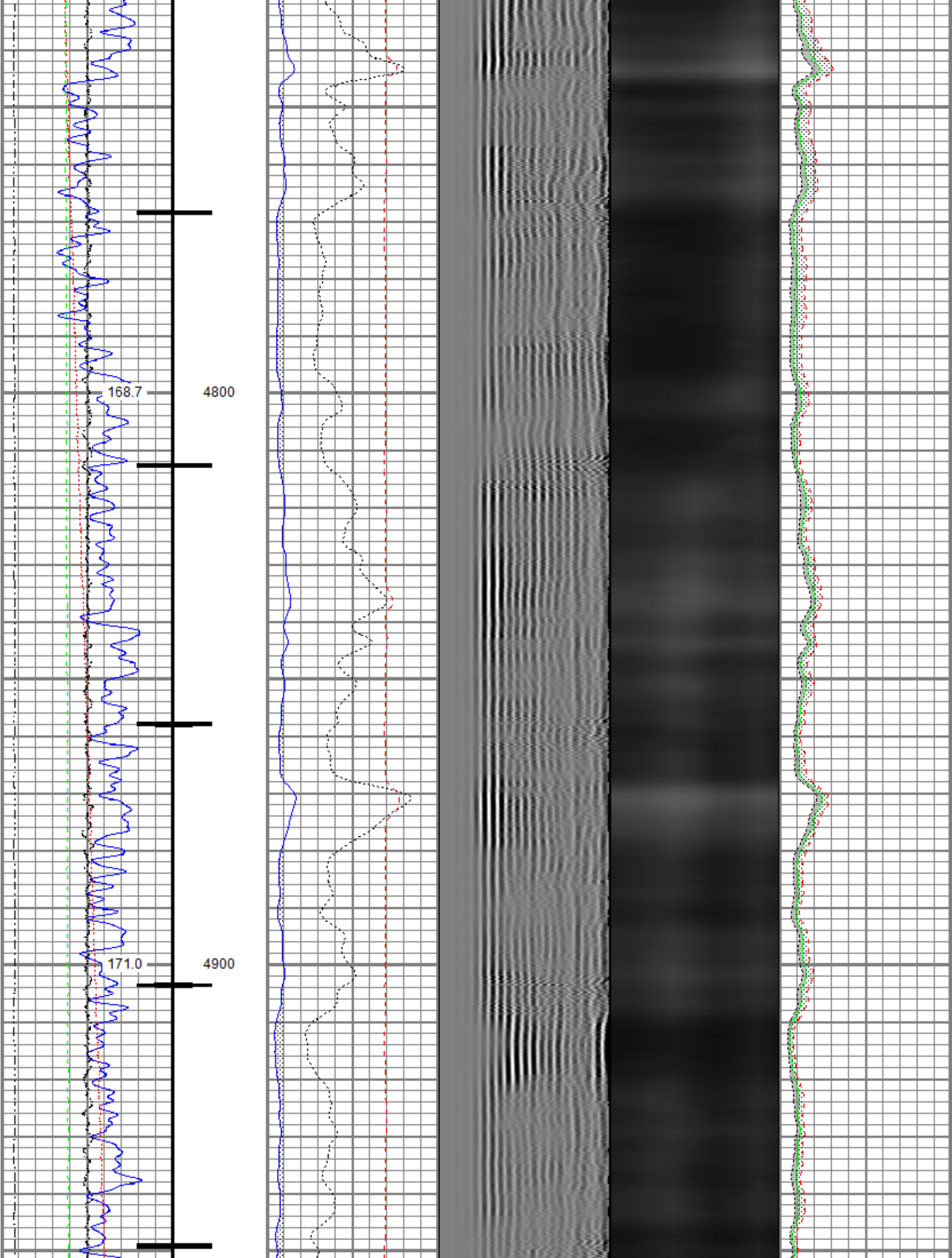


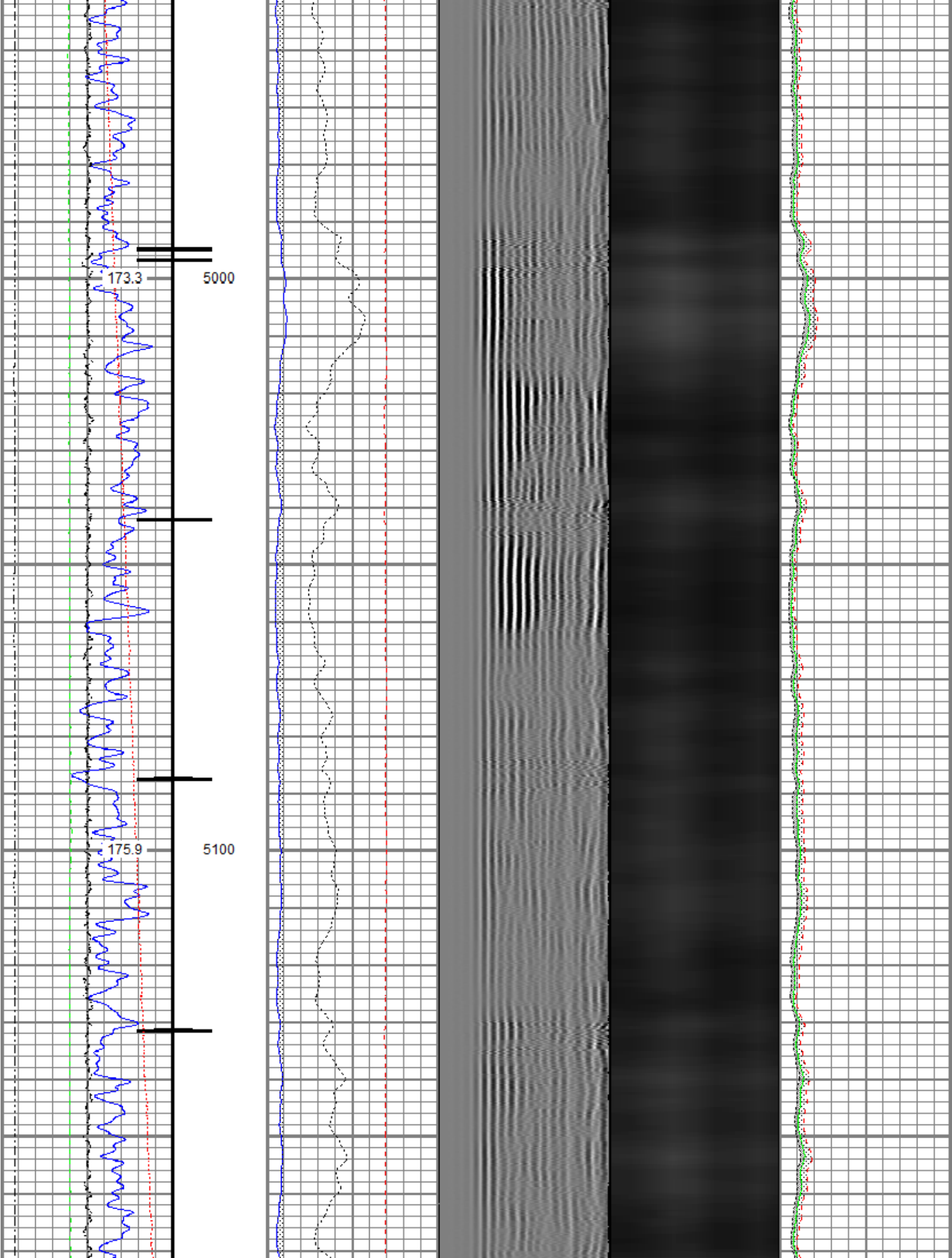


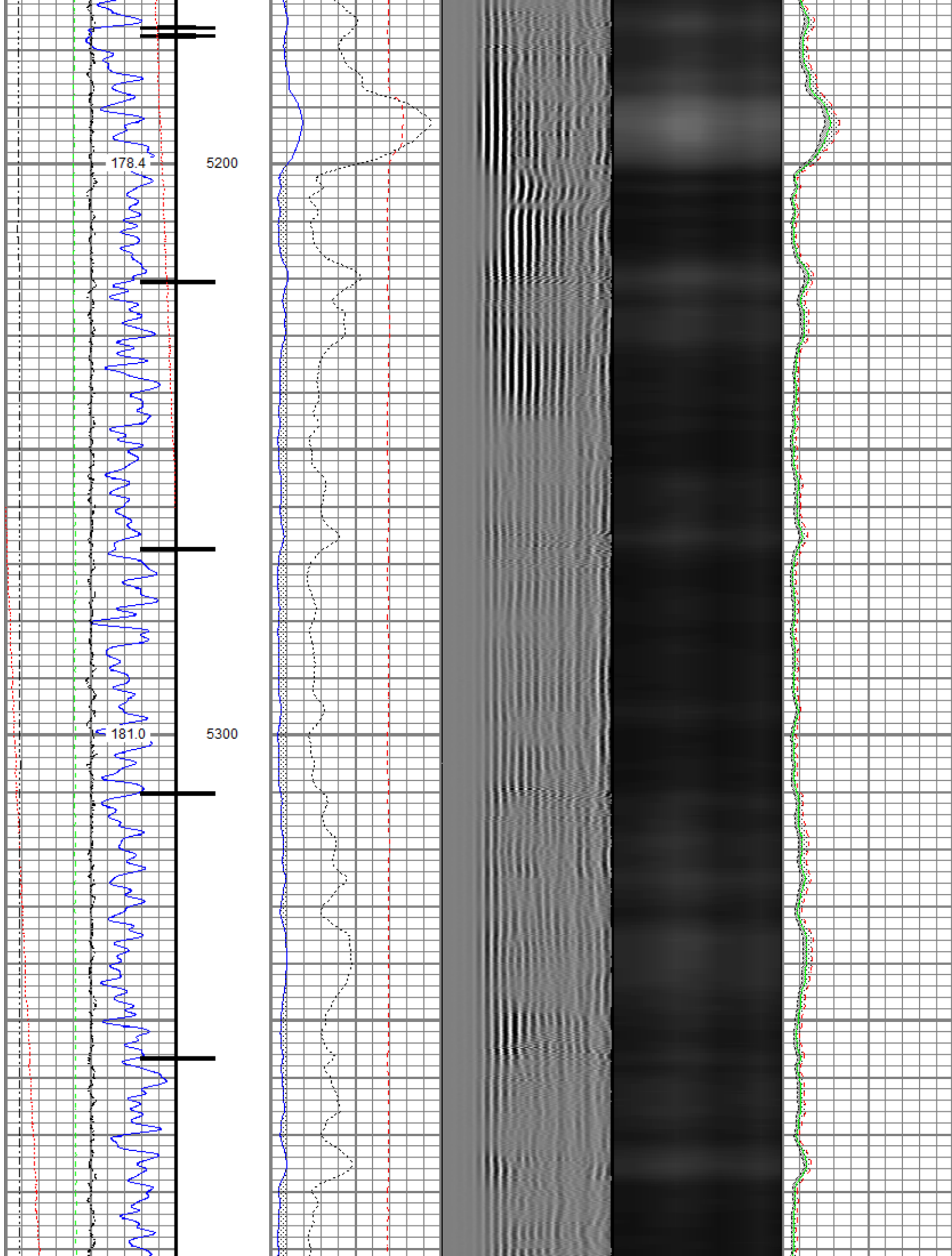


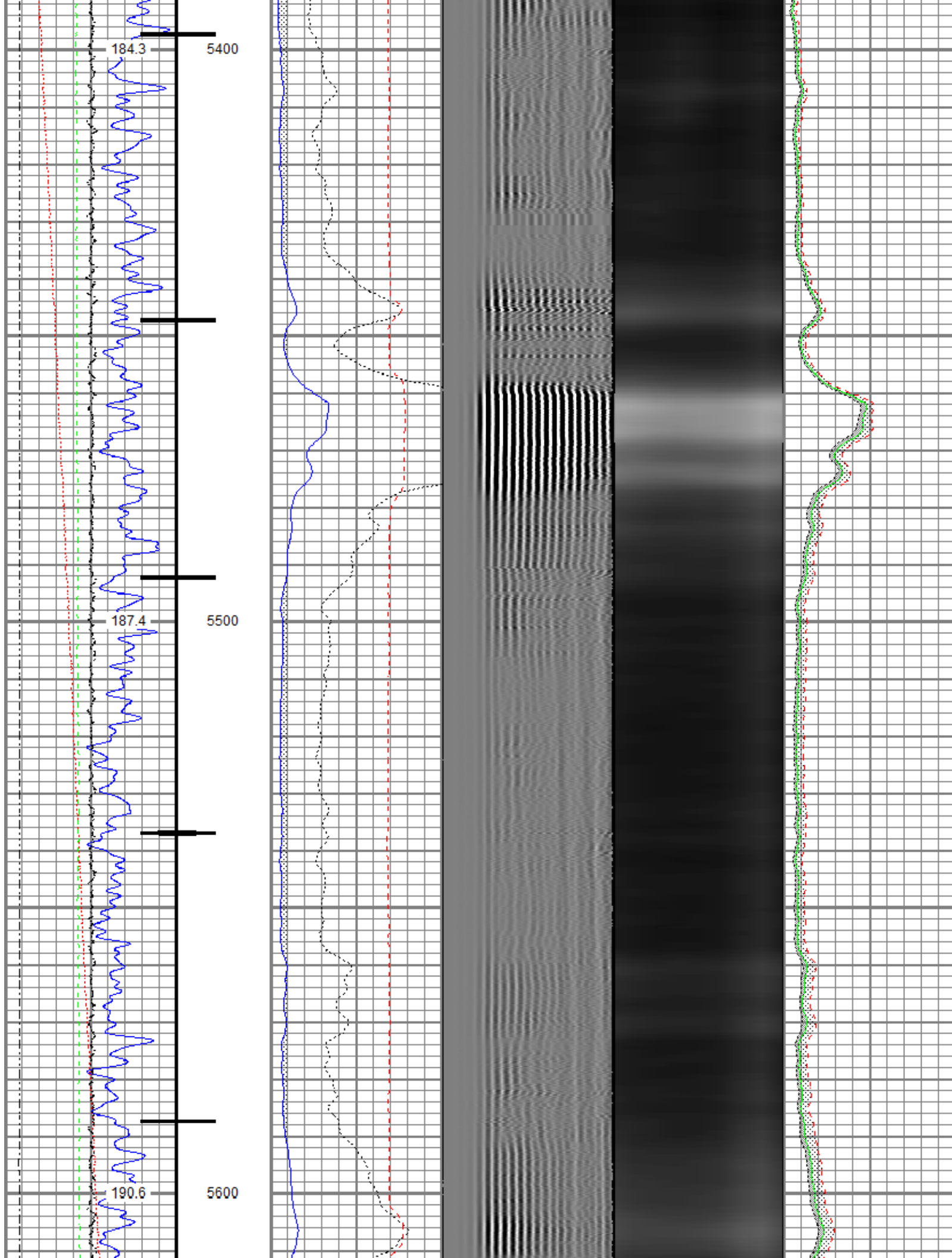


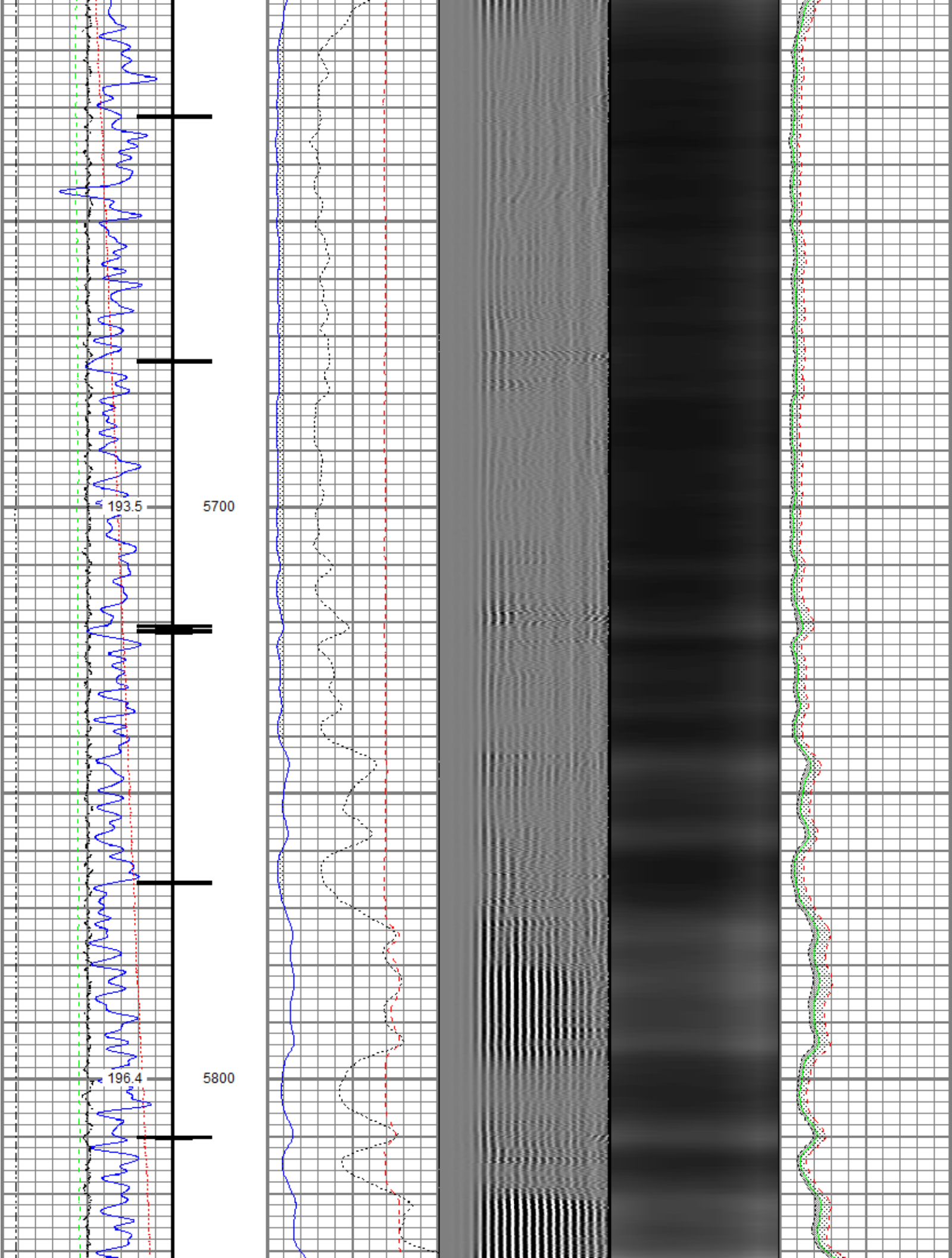


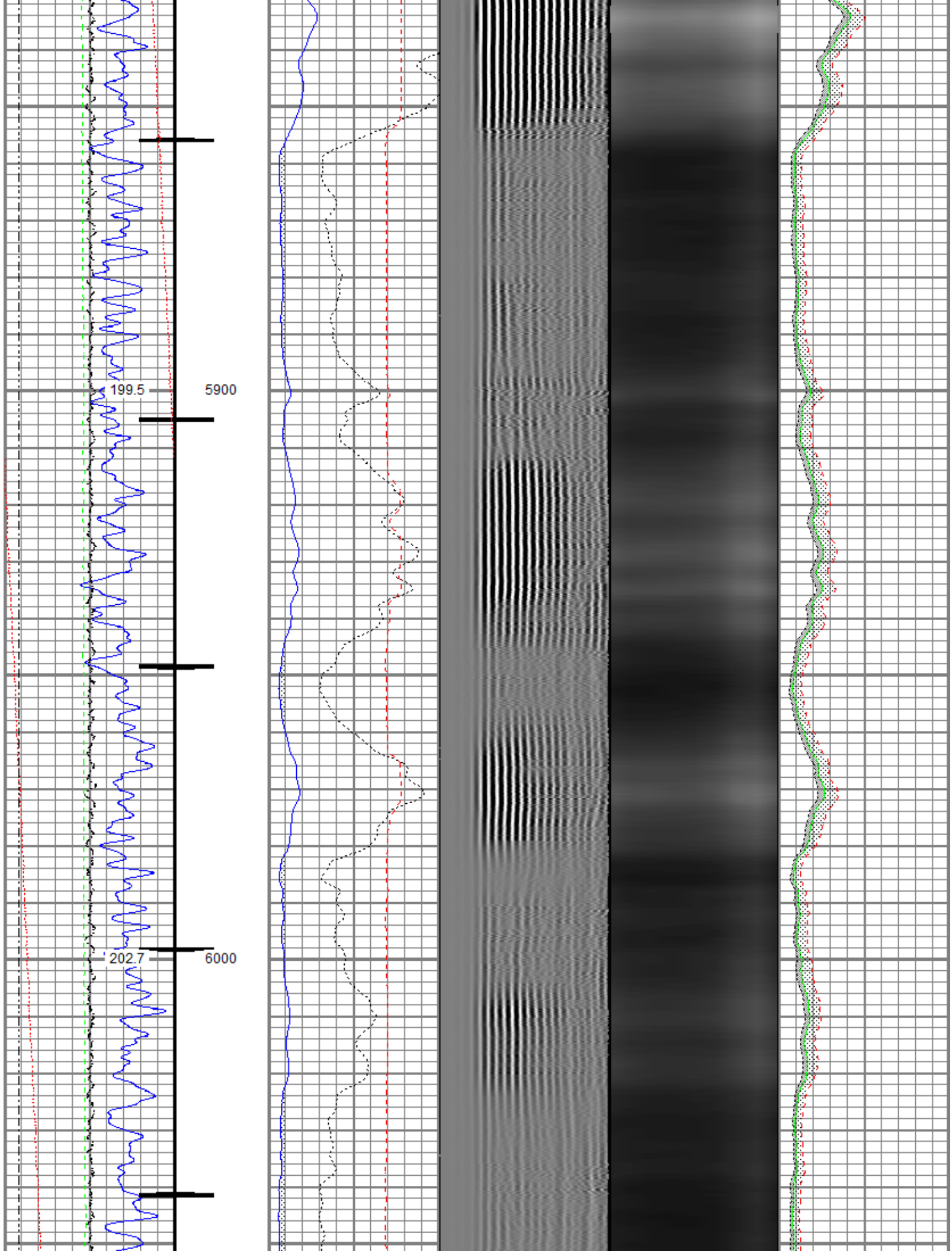


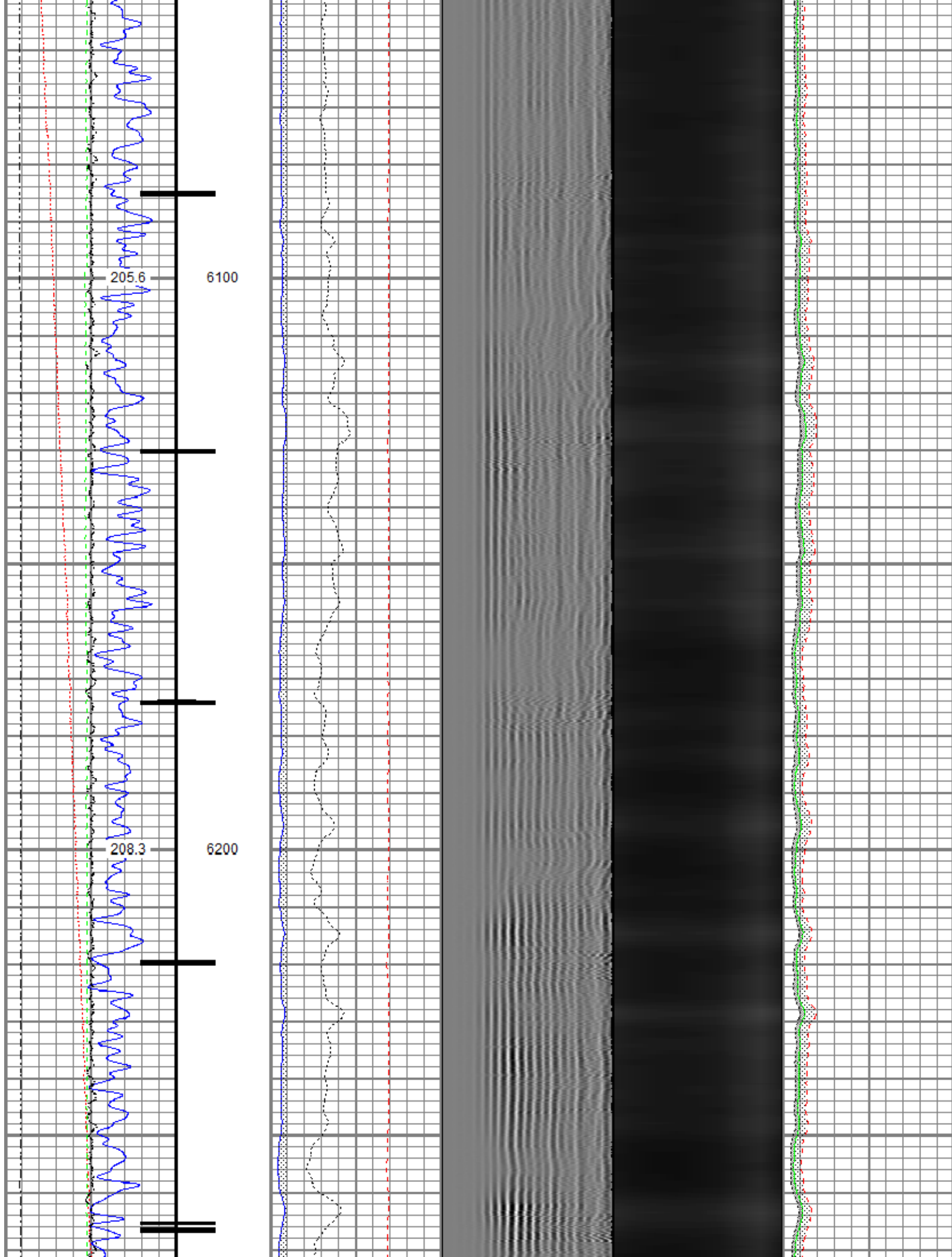


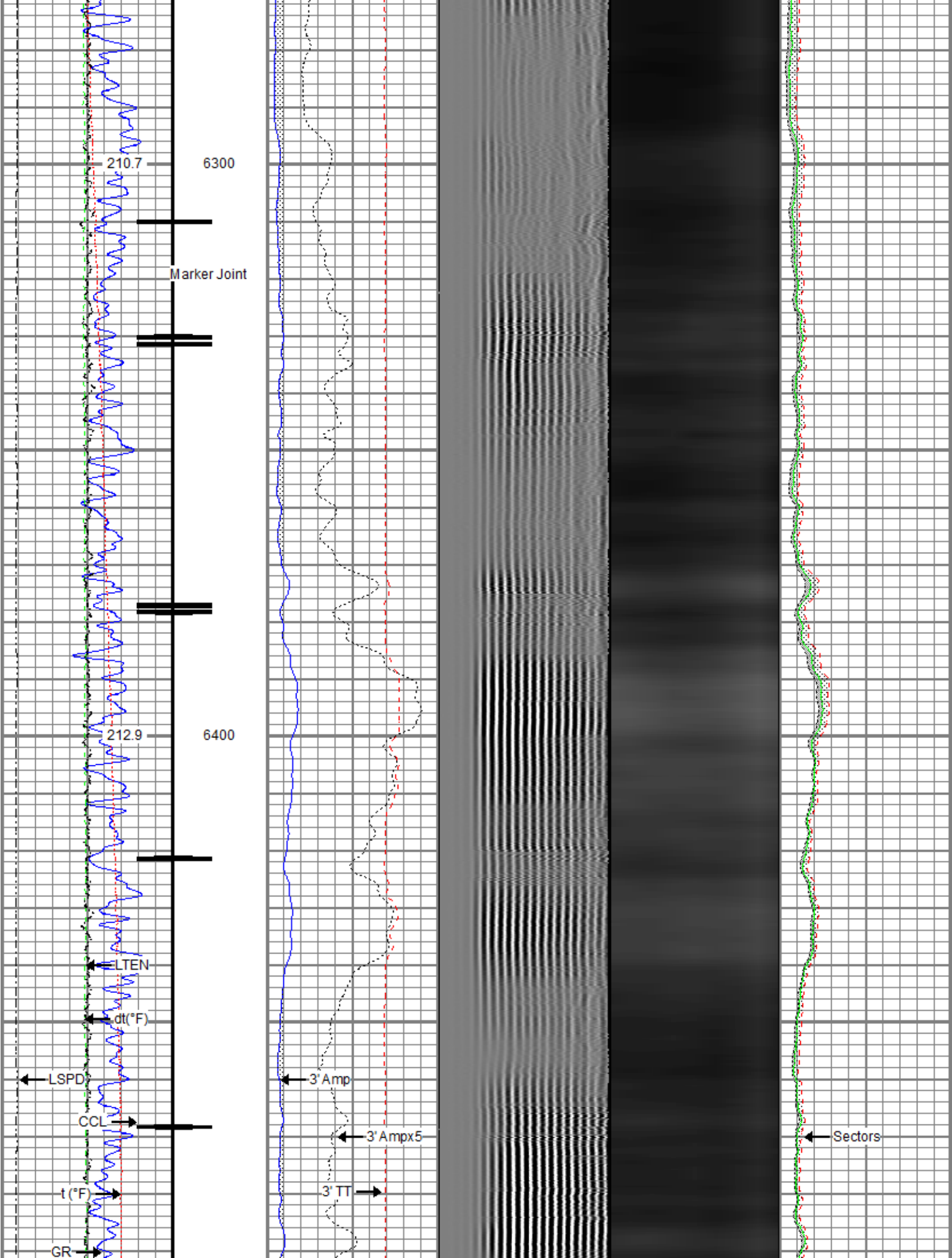


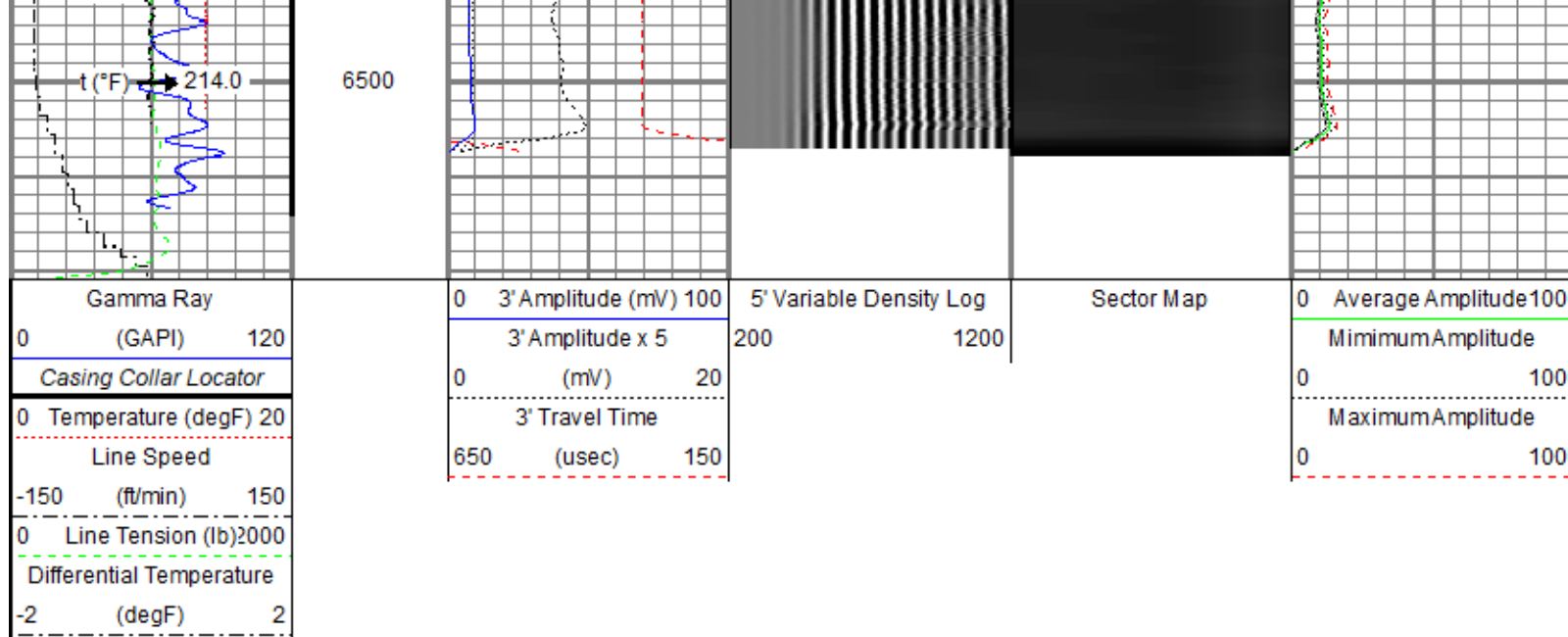








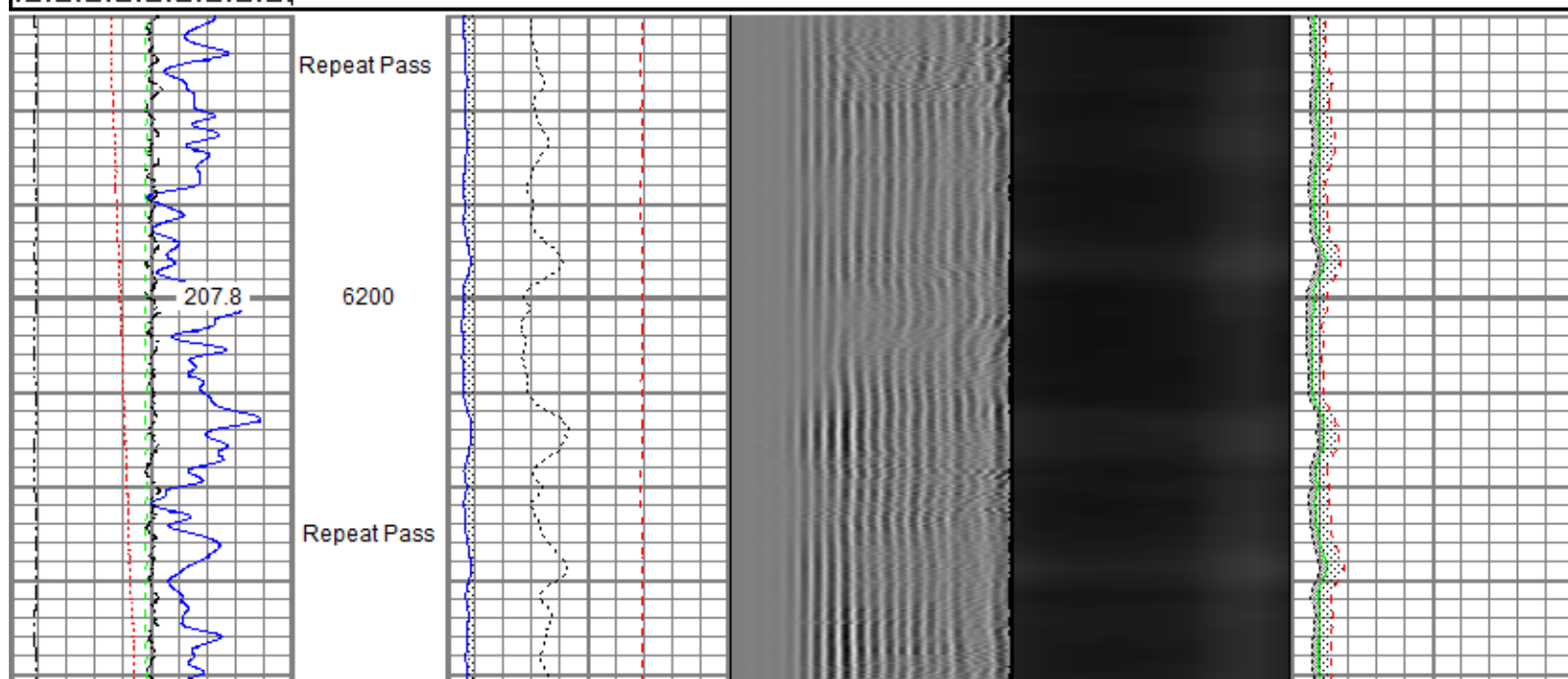
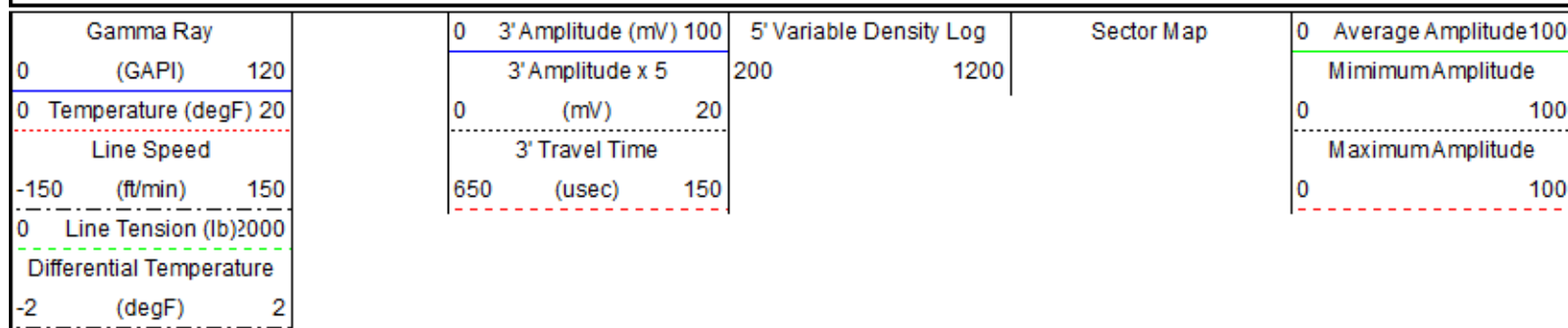


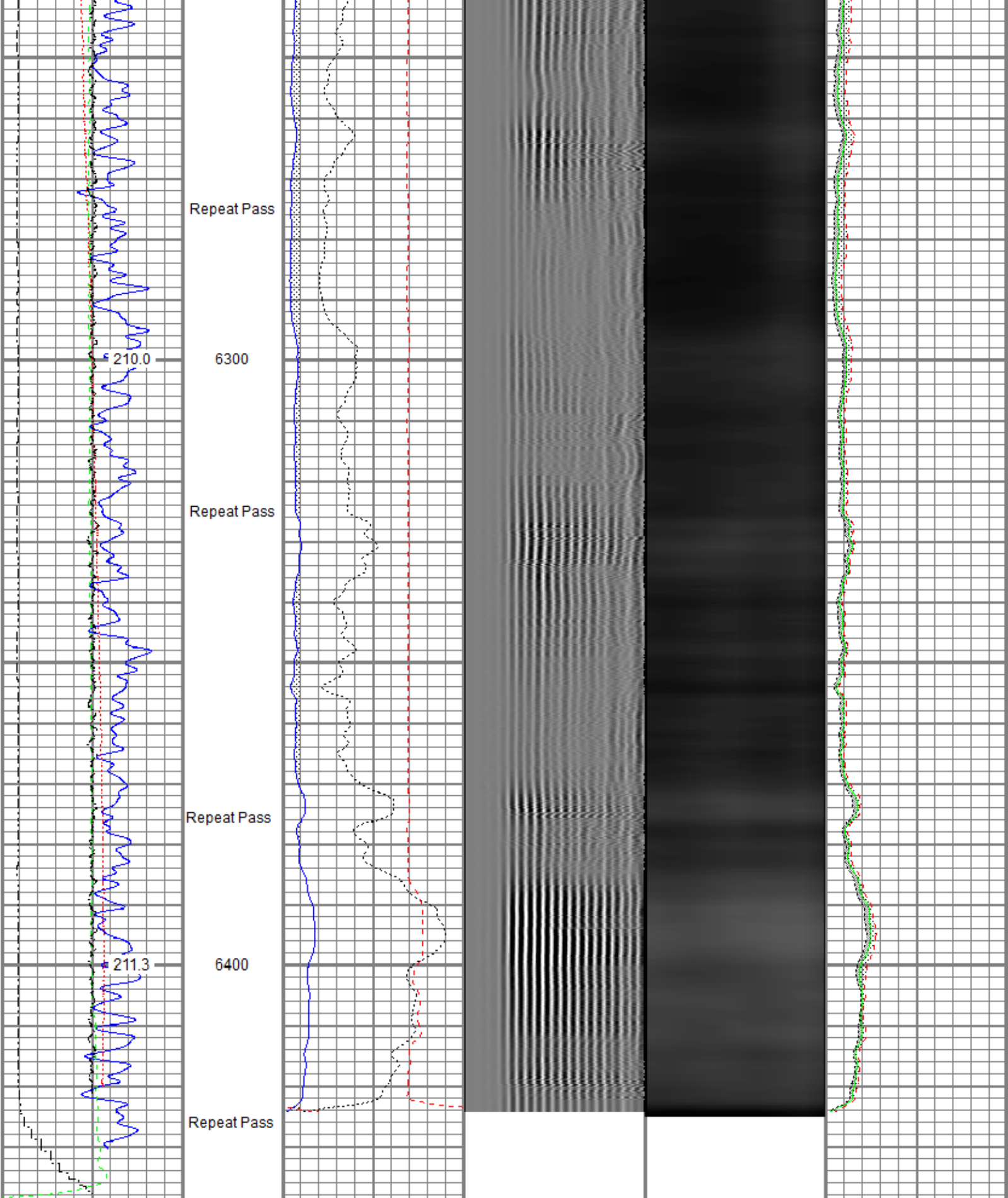


Repeat Pass

Recorded With 2500 PSI Surface Induced Pressure

Database File src energy_greeley rothe 34n-2b-l_rbl_08-24-18\processed_src energy_greeley rothe 34n-2b-l_rbl_08-24-18.db
 Dataset Pathname rbl/pass_2
 Presentation Format ros_radrii
 Dataset Creation Fri Aug 24 13:25:59 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
0	(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
-2	Differential Temperature (degF)	2

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			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
TEMP	16.75					
WVFS8	14.52		Probe Radii-2750 RBT (FW1302-001) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	14.52					
WVFS6	14.52					
WVFS5	14.52					
WVFS4	14.52					
WVFS3	14.52					
WVFS2	14.52					
WVFS1	14.52					
WVFCAL	14.52					
WVF3FT	14.52					
WVF5FT	13.52					
HEADVOLT	10.27					
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$2	6.51					
CCL\$1	6.51					
GR	5.26		Probe GR-CCL-2750 GOB (FW1212-026) Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined	4.51	2.75	55.00
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00

Dataset:	PROCESSED_SRC Energy_Greeley Rothe 34N-2B-L_RBL_08-24-18.db: field/well/rbl/pass_5
Total length:	23.57 ft
Total weight:	223.60 lb
O.D.:	2.75 in

Calibration Report

Database File	C:\ProgramData\Warrior\Data\SRC Energy_Greeley Rothe 34N-2B-L_RBL_08-24-18\PROCESSED_SRC Energy_Greeley Rothe
Dataset Pathname	rbl/pass_5
Dataset Creation	Fri Aug 24 13:34:17 2018

Gamma Ray Calibration Report

Serial Number:	FW1212-026		
Tool Model:	2750 GOB		
Performed:	Sun Nov 12 12:27:51 2017		
Calibrator Value:	637.0	GAPI	
Background Reading:	113.7	cps	
Calibrator Reading:	1029.1	cps	
Sensitivity:	0.6959	GAPI/cps	

Segmented Cement Bond Log Calibration Report

Serial Number:	FW1302-001		
Tool Model:	2750 RBT		
Calibration Casing Diameter:	5.500	in	
Calibration Depth:	1.072	ft	

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	0.655	0.800	71.921	108.939	0.531
CAL	0.006	0.637				
5'	0.002	0.650	0.800	71.921	109.650	0.617
SUM						
S1	-0.000	0.640	0.000	100.000	156.147	0.031
S2	0.003	0.605	0.000	100.000	166.049	-0.472
S3	0.003	0.597	0.000	100.000	168.249	-0.528
S4	0.003	0.620	0.000	100.000	162.126	-0.460
S5	0.003	0.675	0.000	100.000	148.631	-0.385
S6	0.003	0.731	0.000	100.000	137.304	-0.345
S7	-0.008	0.729	0.000	100.000	135.675	1.129
S8	-0.023	0.705	0.000	100.000	137.487	3.131

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.006	0.637	1.000	0.000

Air Zero Calibration, performed Fri Aug 24 10:54:43 2018:

	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: FW1302-001
Tool Model: 2750 RBT
Performed: Sun Nov 12 13:24:58 2017

	Reference	Reading
Low Reference:	100.00 degF	107.47 degF
High Reference:	350.00 degF	404.08 degF

Gain: 0.84
Offset: 9.42
Delta Spacing: 1



Company: SRC Energy
Well: Greeley-Rothe 34N-2B-L
Field: Wattenberg
County: Weld
State: Colorado