



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company SRC Energy Inc  
Well Falken 4N-14C-S  
Field Wattenberg  
County Weld State Colorado

Location: API #: 05-123-45124  
SEC 11 TWP 6N RGE 66W  
Permanent Datum Ground Level Elevation 4810'  
Log Measured From Ground Level 0 FT  
Drilling Measured From Kelly Bushing  
Other Services  
JB/GR  
RBP  
Pull RBP  
Elevation  
K.B. 4835'  
D.F. ---  
G.L. 4810'

Company SRC Energy Inc  
Well Falken 4N-14C-S  
Field Wattenberg  
County Weld  
State Colorado

Date	13-MAR-2018	Four		
Run Number		13233 FT (GL)		
Depth Driller		6930 FT		
Depth Logger		6925 FT		
Bottom Logged Interval		Surface		
Top Log Interval		8.5"		
Open Hole Size		Water		
Type Fluid		8.34 lb/gal		
Density / Viscosity		214°F		
Max. Recorded Temp.		See Log		
Estimated Cement Top		ROA		
Time Well Ready		1616		
Time Logger on Bottom		HD-325		
Equipment Number		Fort Lupton, CO		
Location		C. Bryan		
Recorded By		Shane Hart		
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	20	P-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

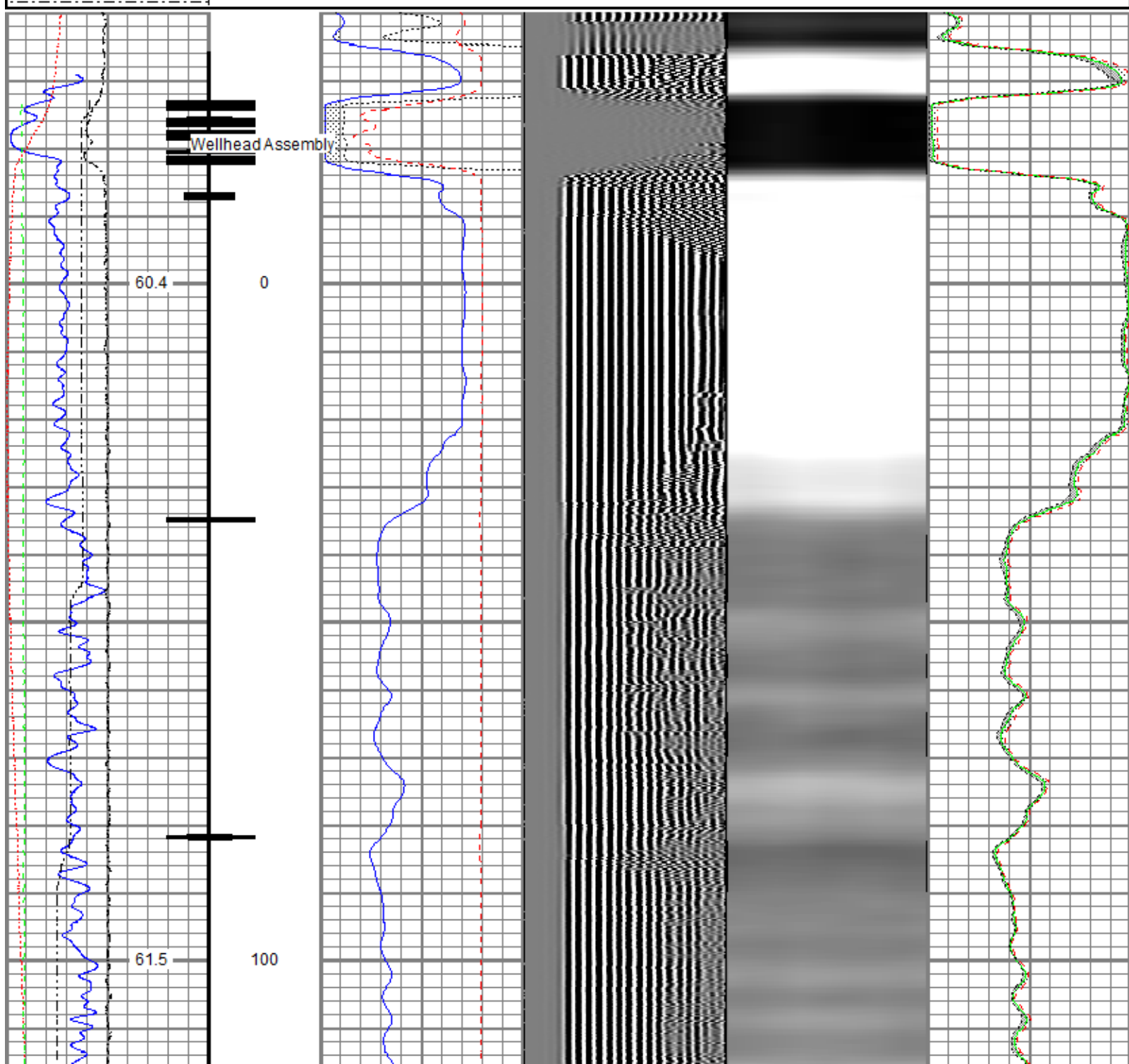
Log ran as per customer request  
Log measured from Ground Level at 0 FT  
Depth referenced to Casing Tally reported Marker Joint at 6730 FT  
Adjusted -19 FT to correlate with Marker Joint  
Log ran from deep as possible to Surface  
Log ran with 2500 PSI Surface Induced Pressure  
Logging tools were clean and free of debris upon completion of operations  
Thank you for choosing Reliance Oilfield Services, LLC!!

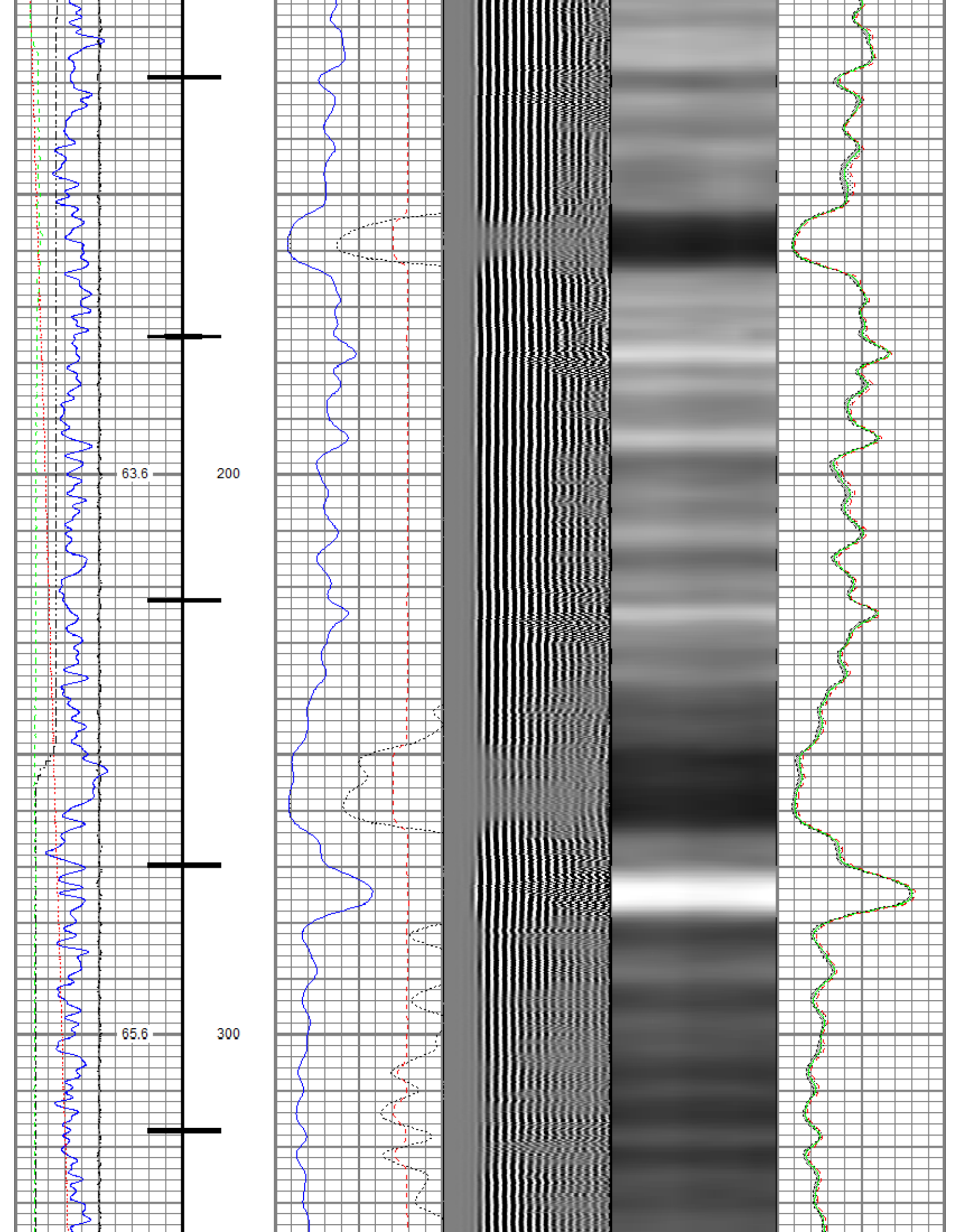
Main Pass



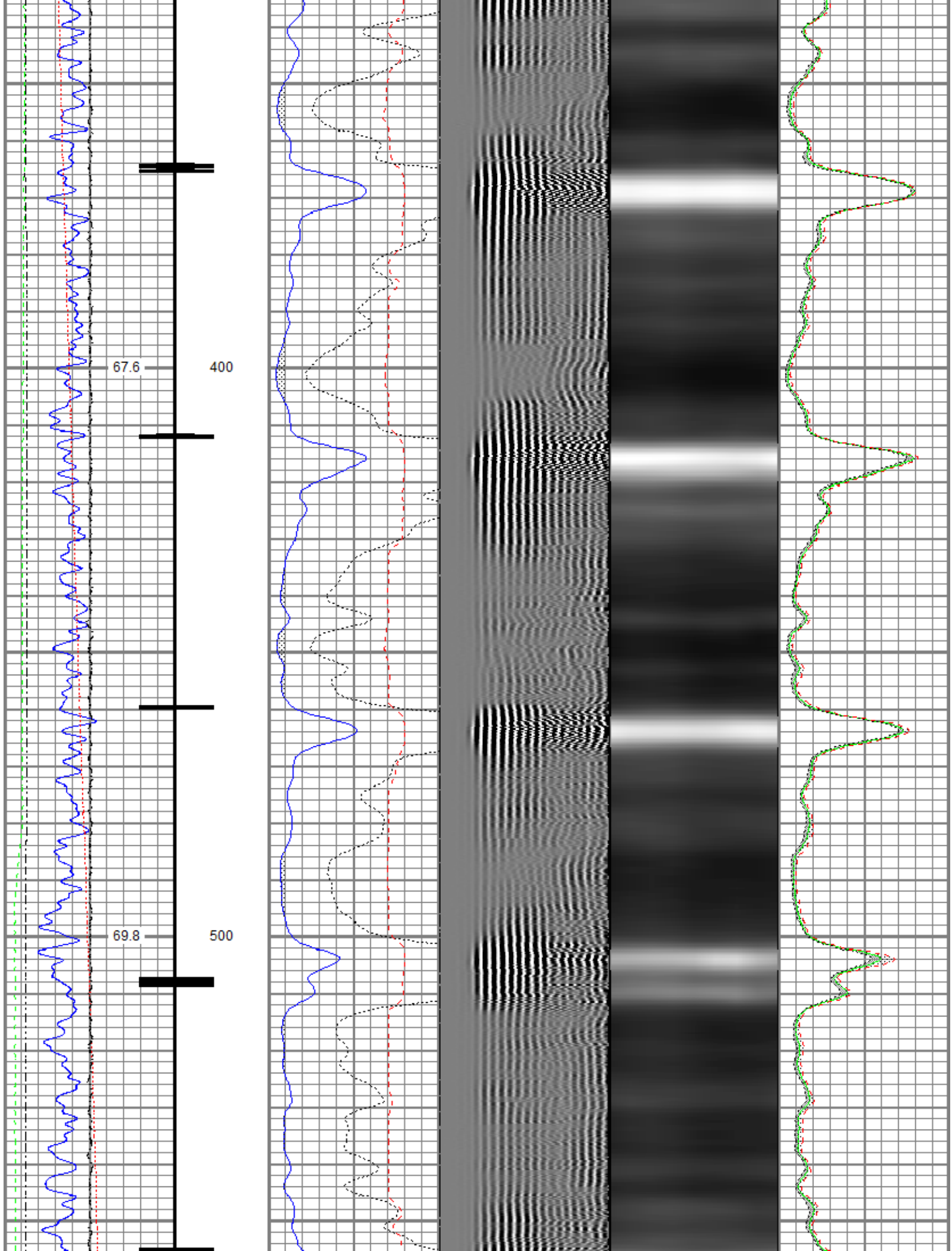
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Presentation Format	ros_radri
Dataset Creation	Tue Mar 13 18:01:49 2018
Charted by	Depth in Feet scaled 1:240

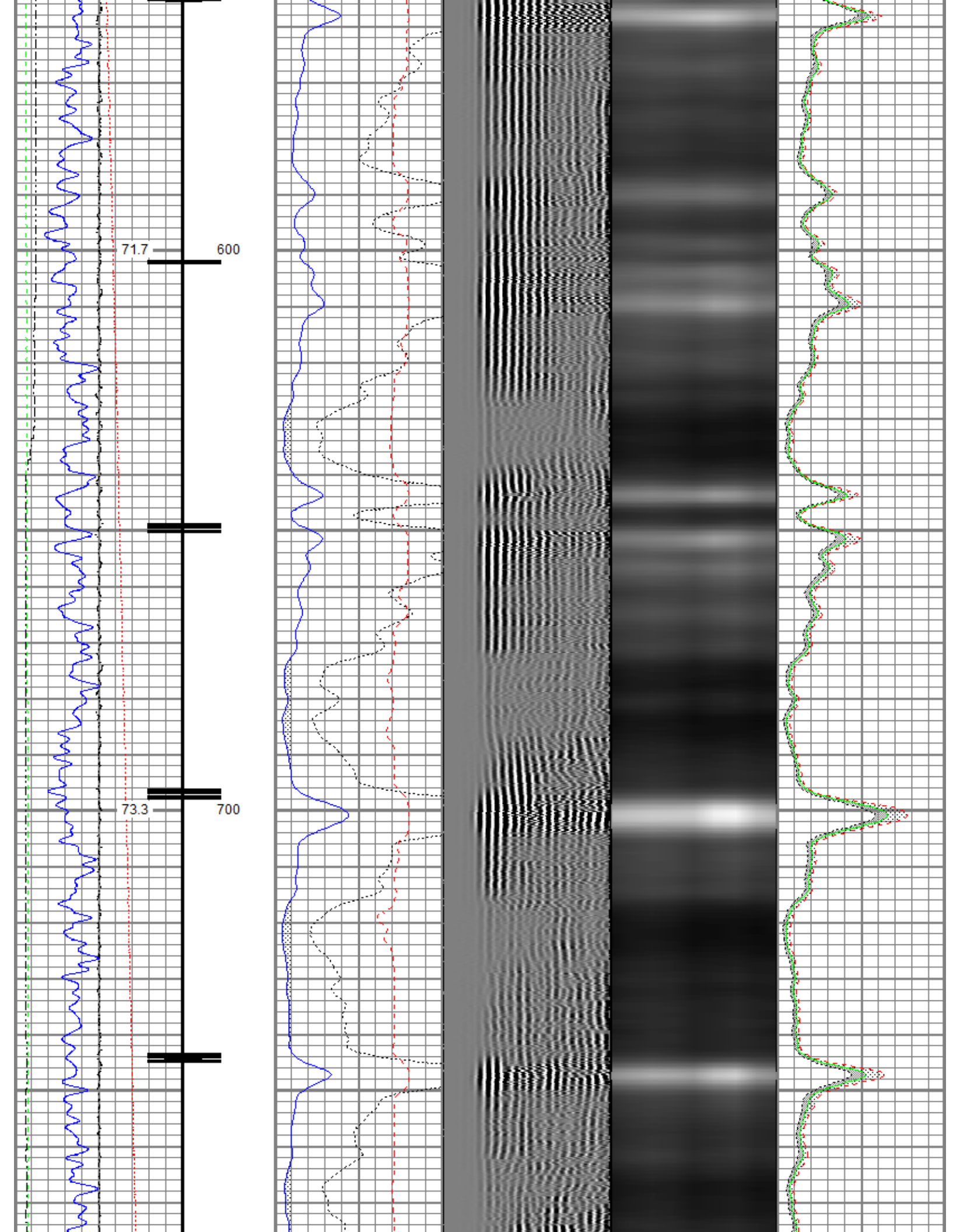
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200			Minimum Amplitude
Casing Collar Locator		0 (mV) 20			0	100
0 Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed		650 (usec) 150			0	100
-150 (ft/min) 150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

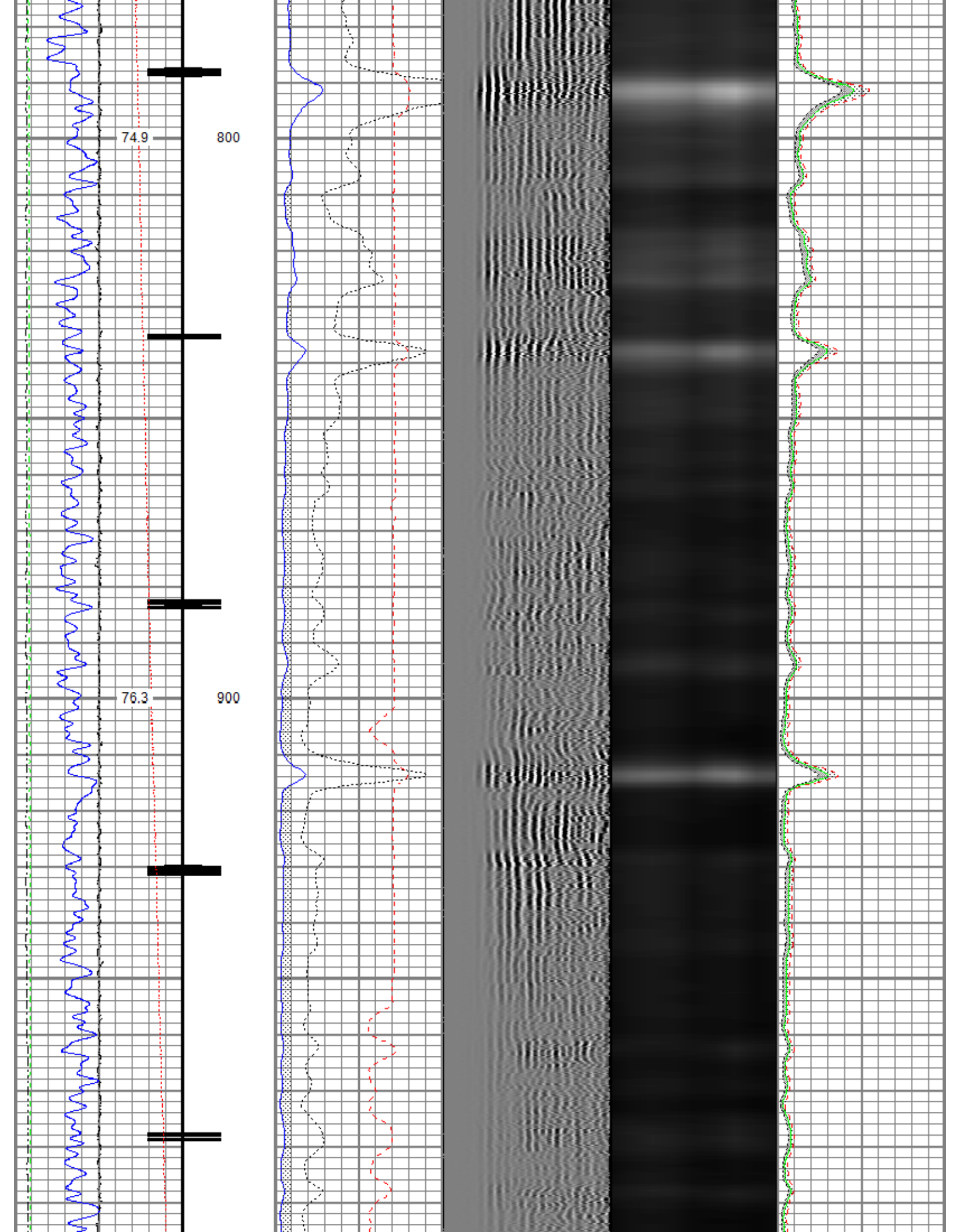




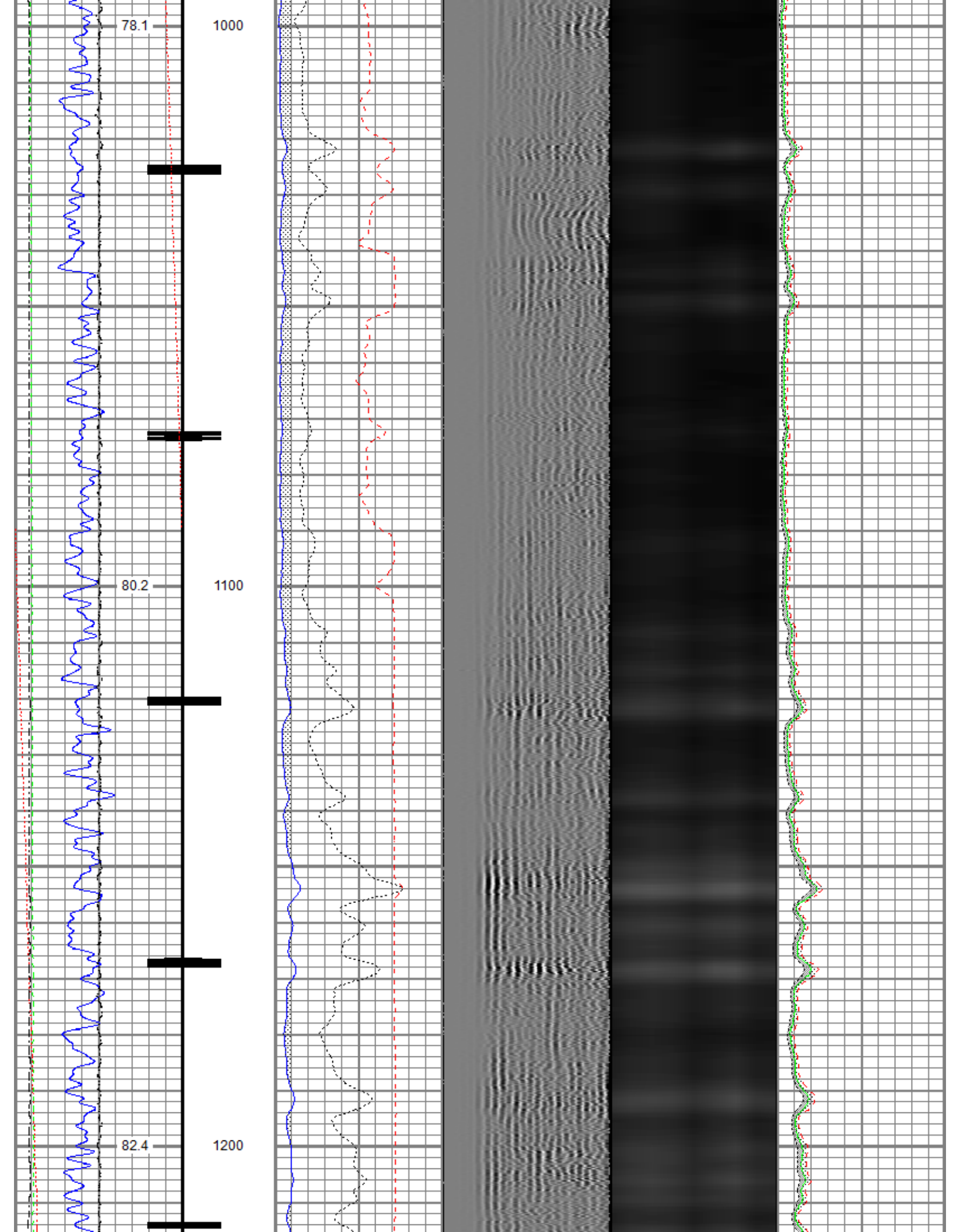


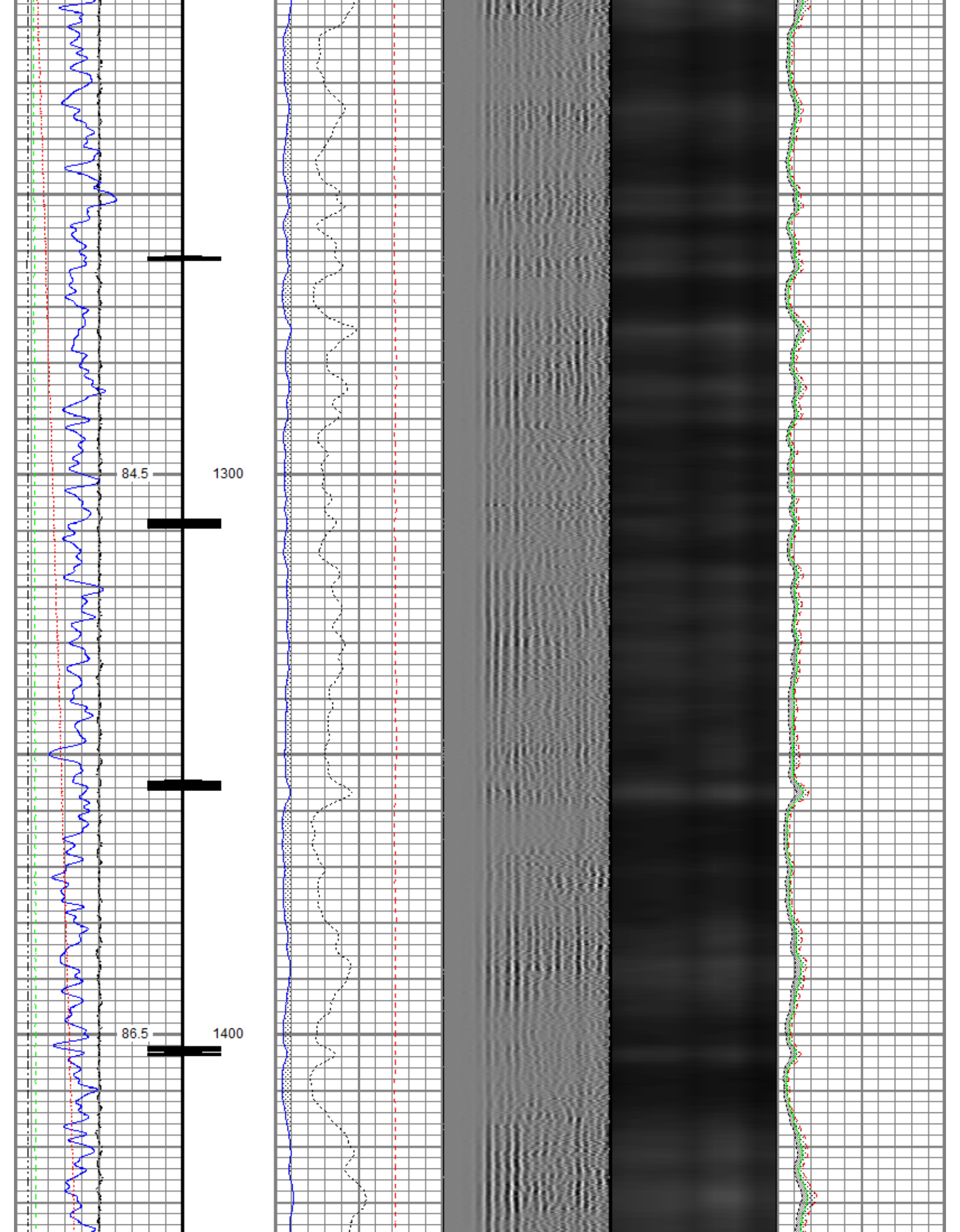




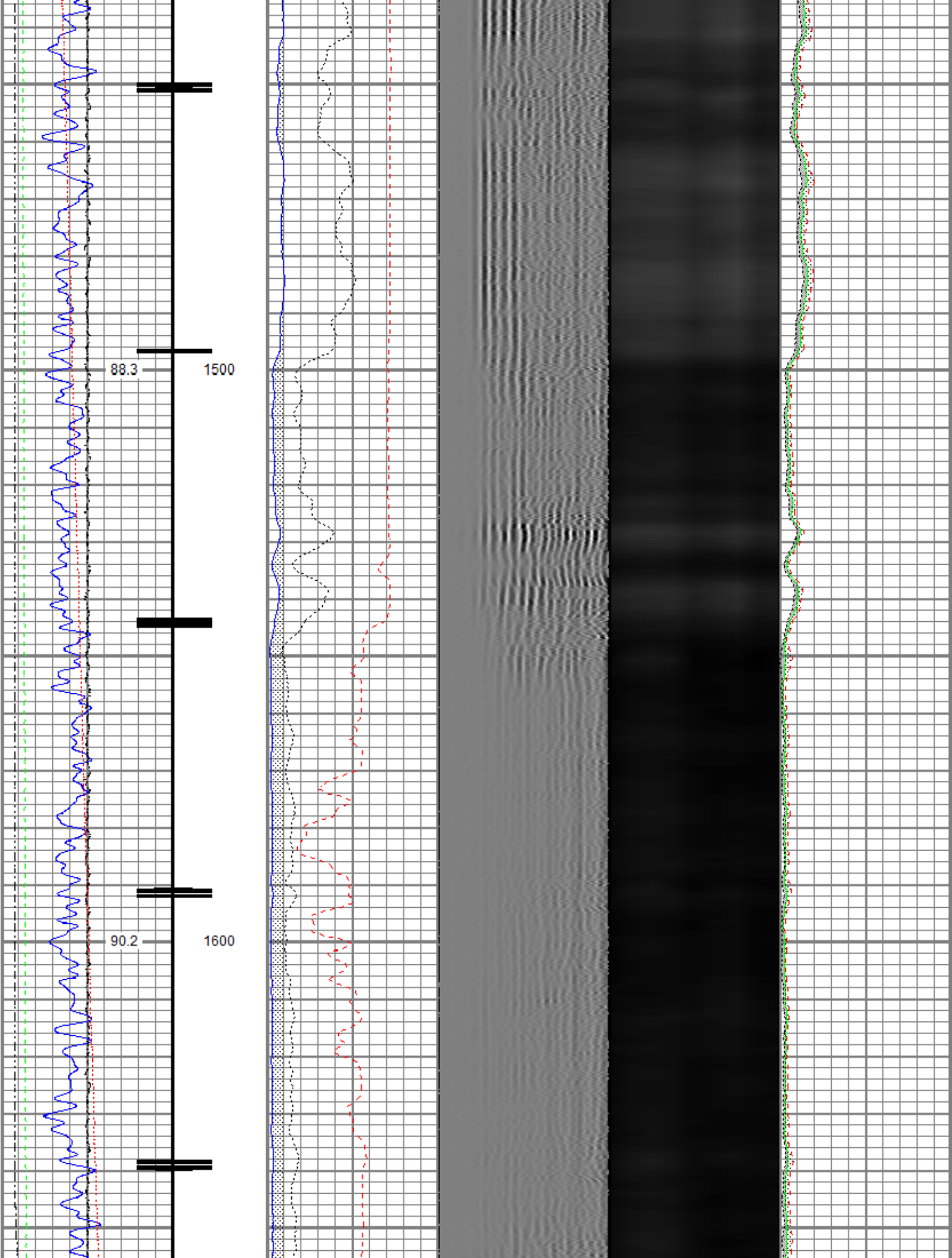


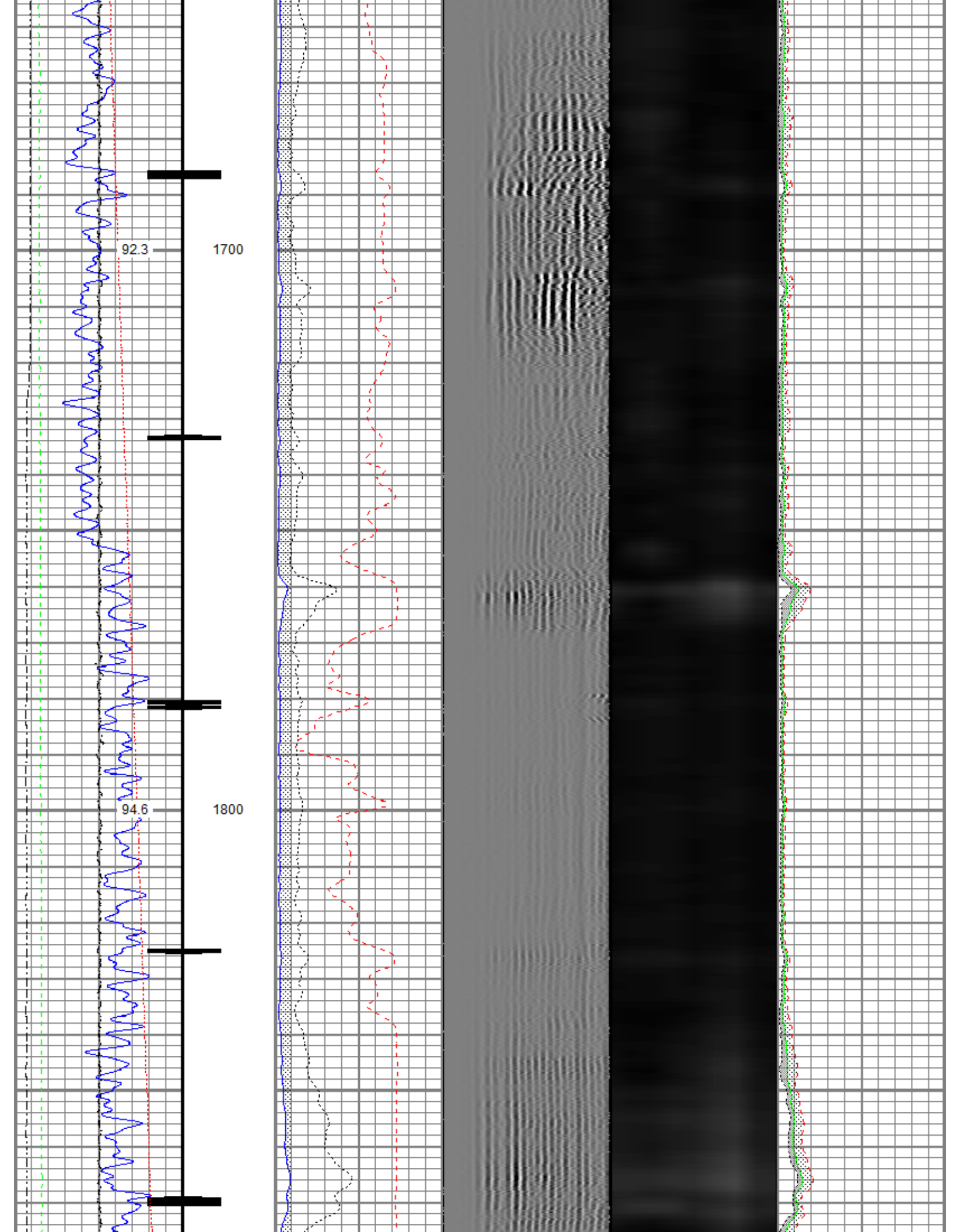


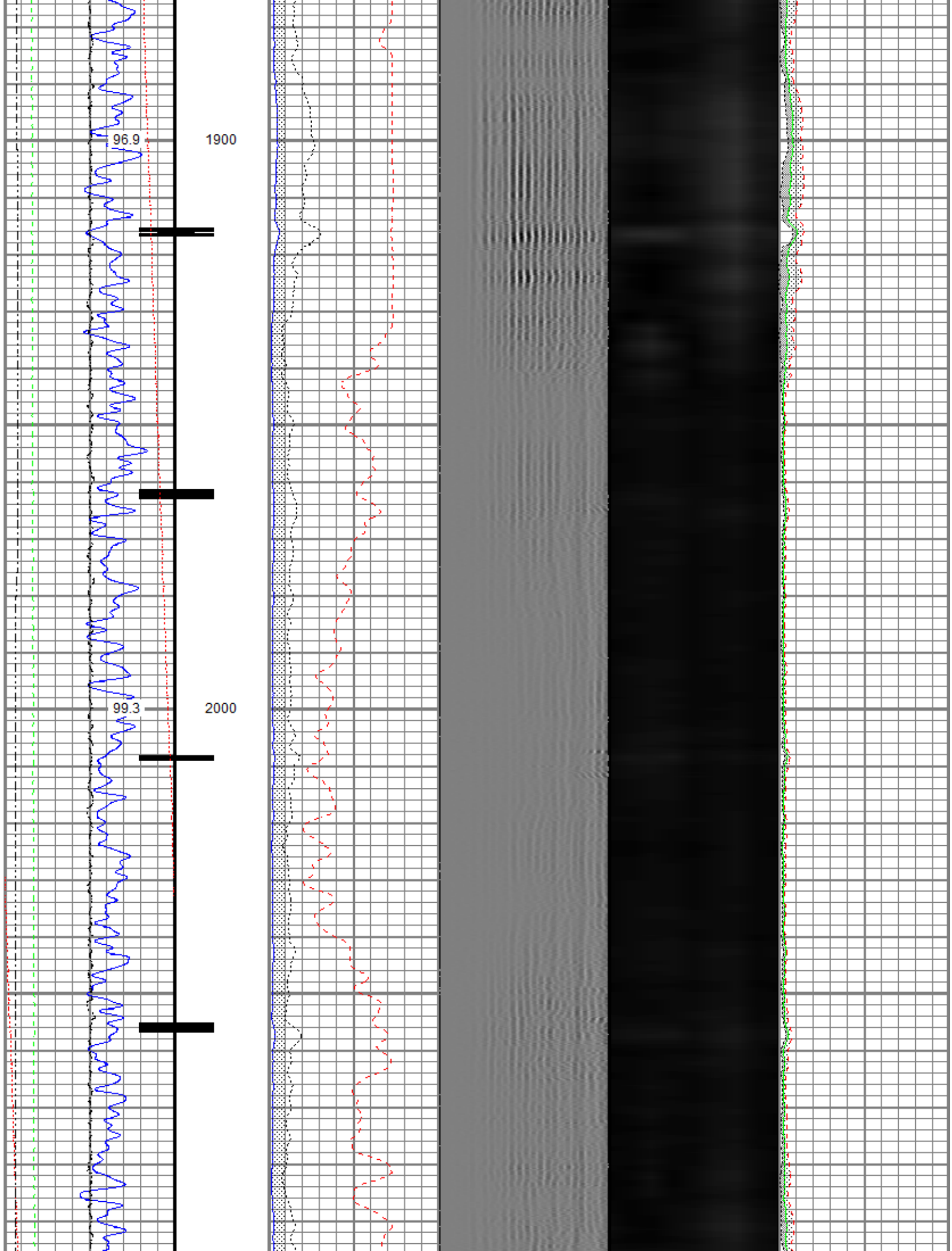




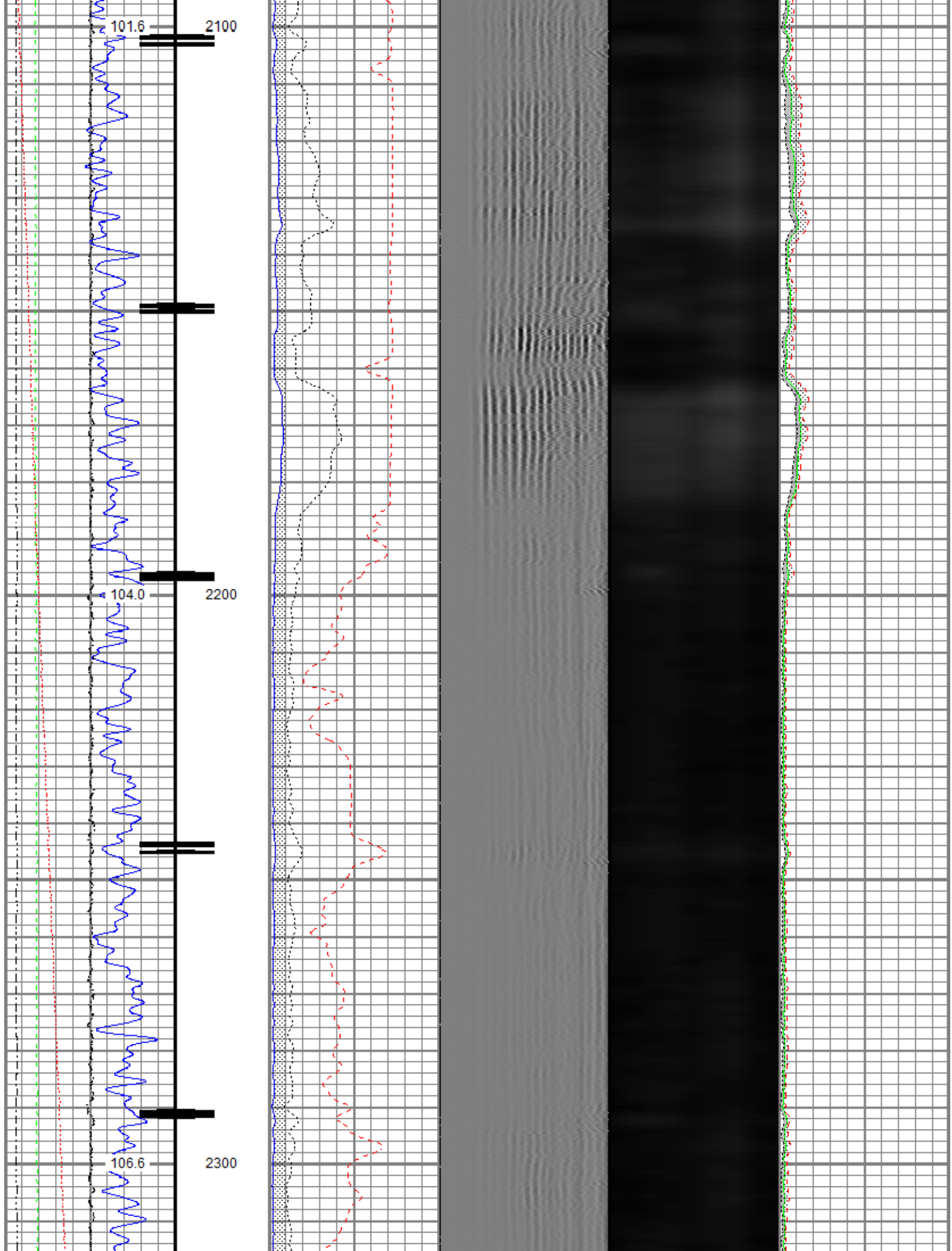


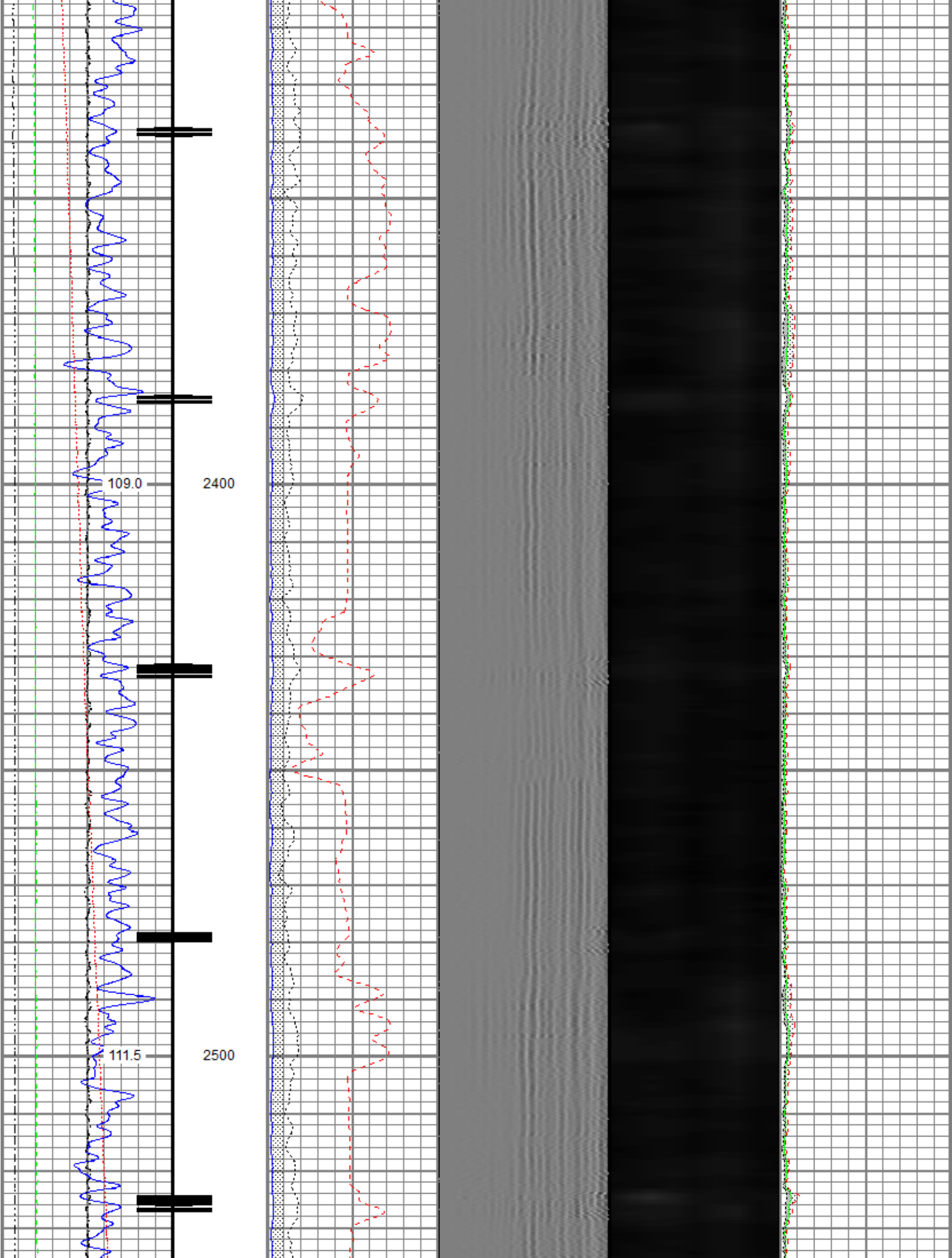


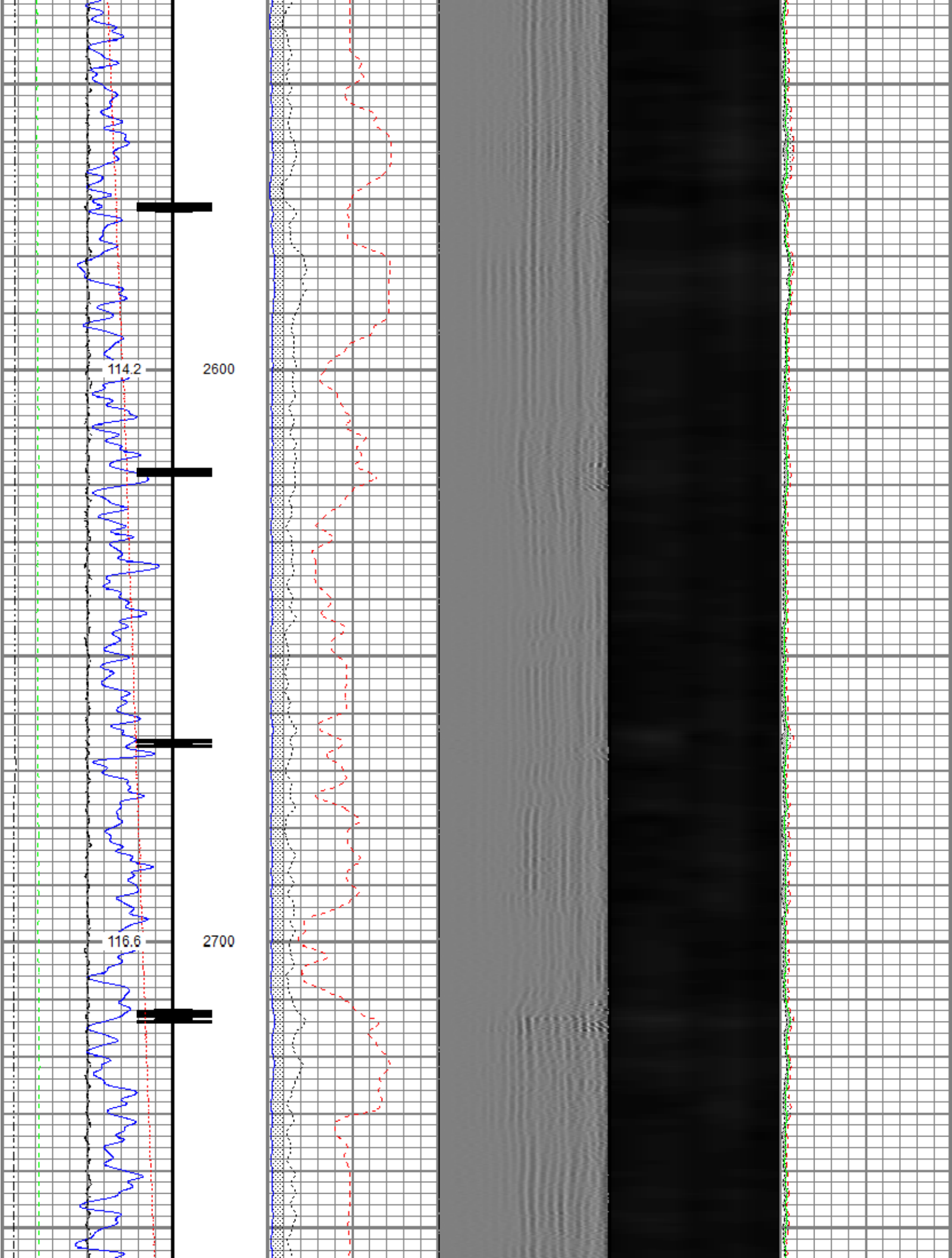




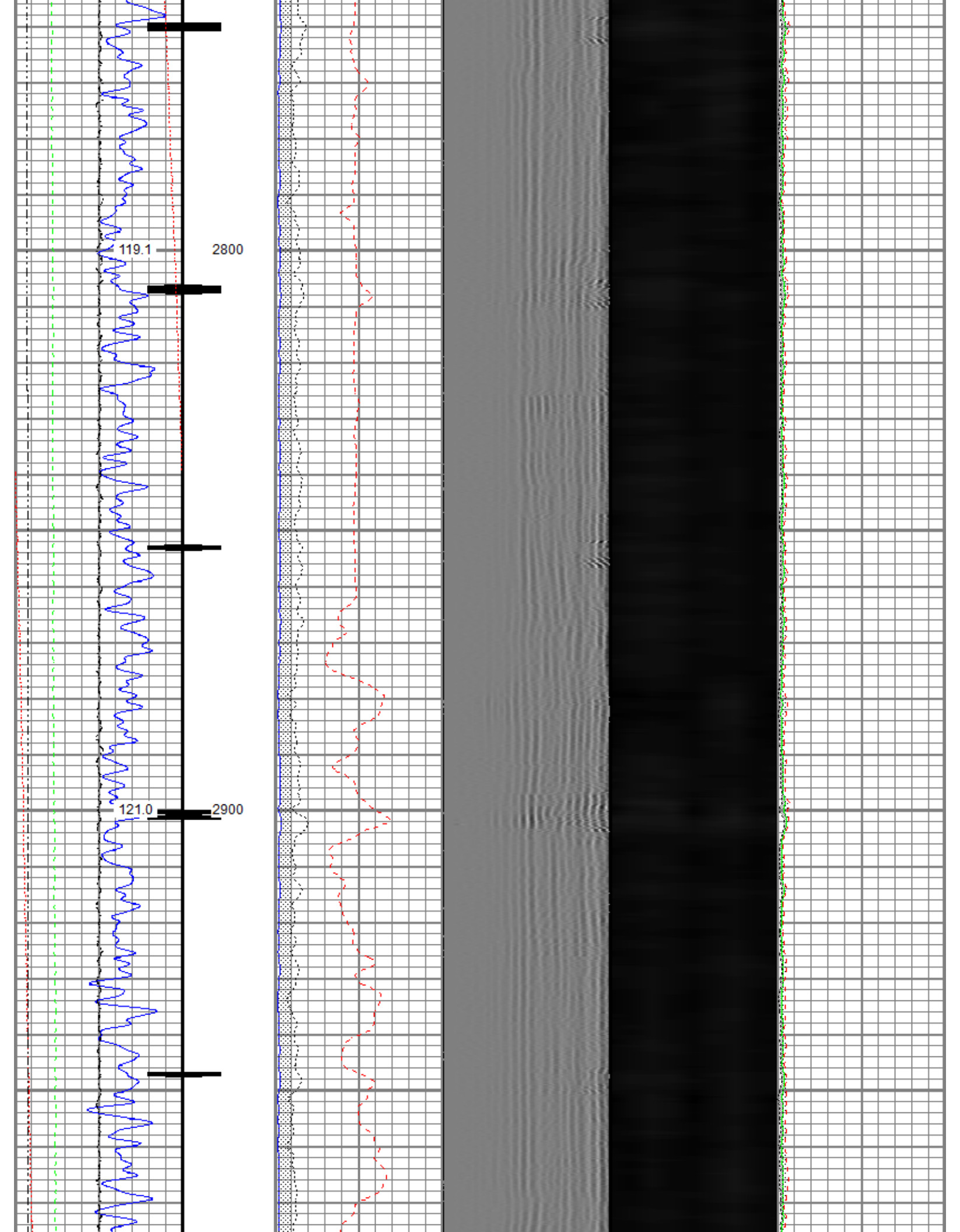


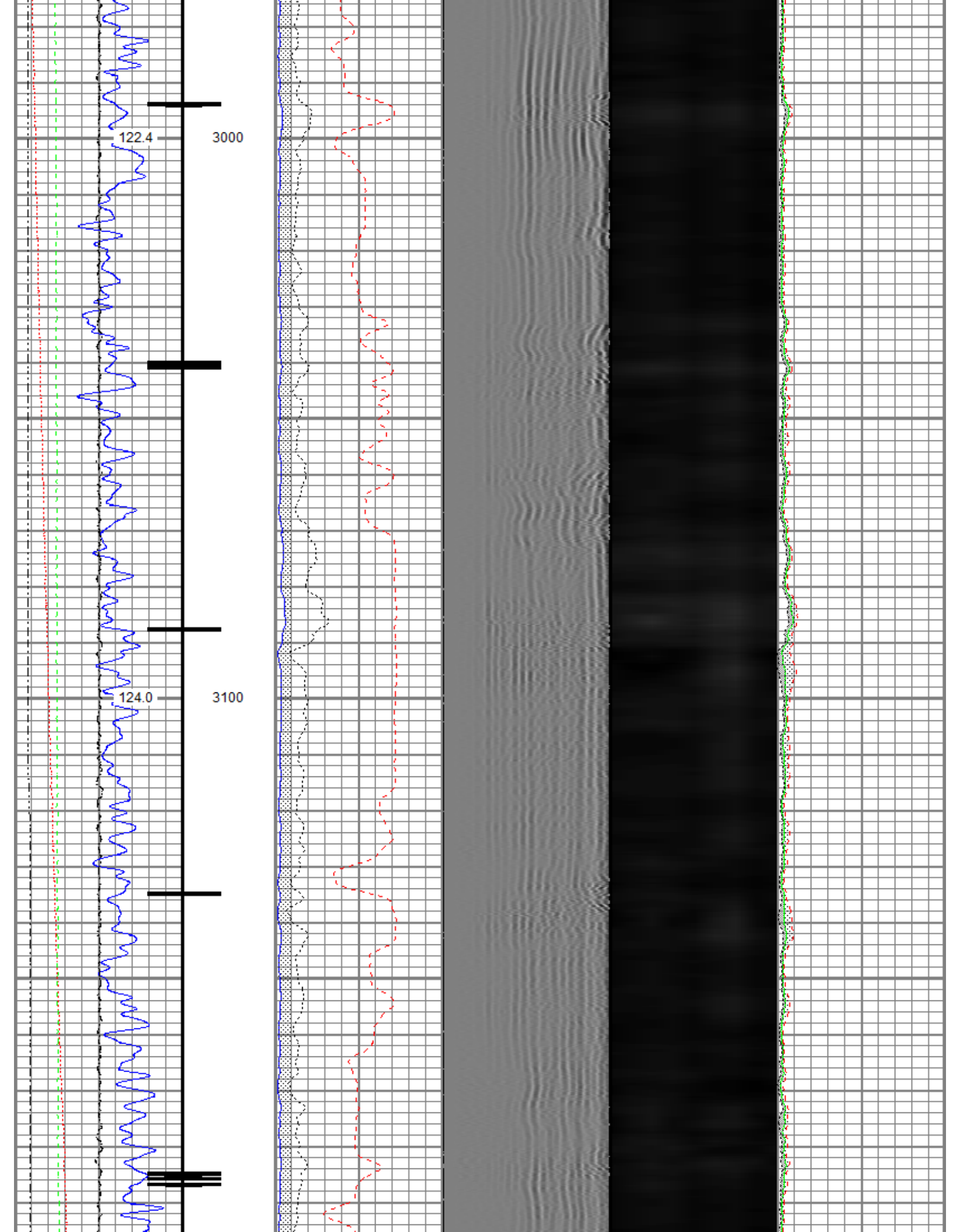


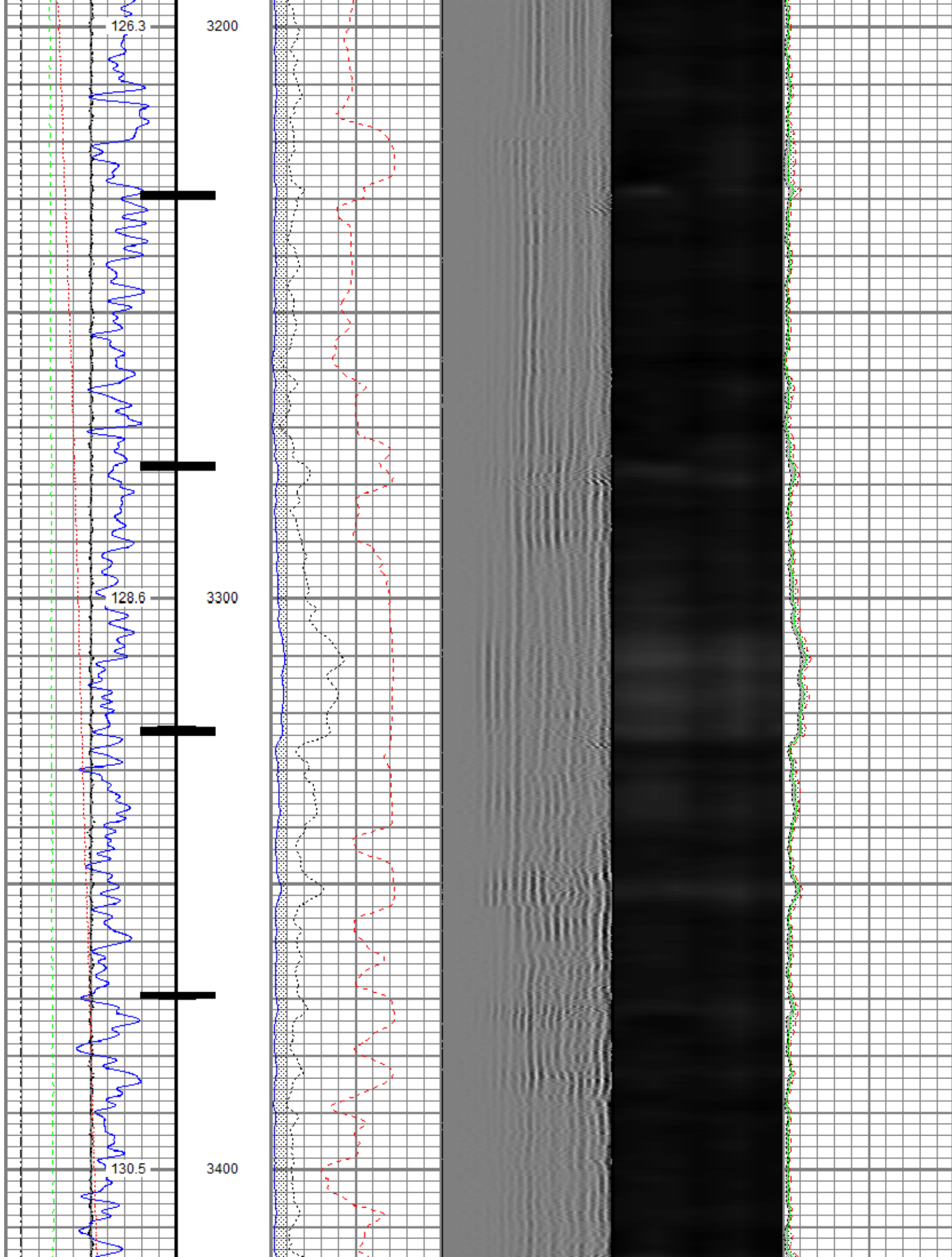




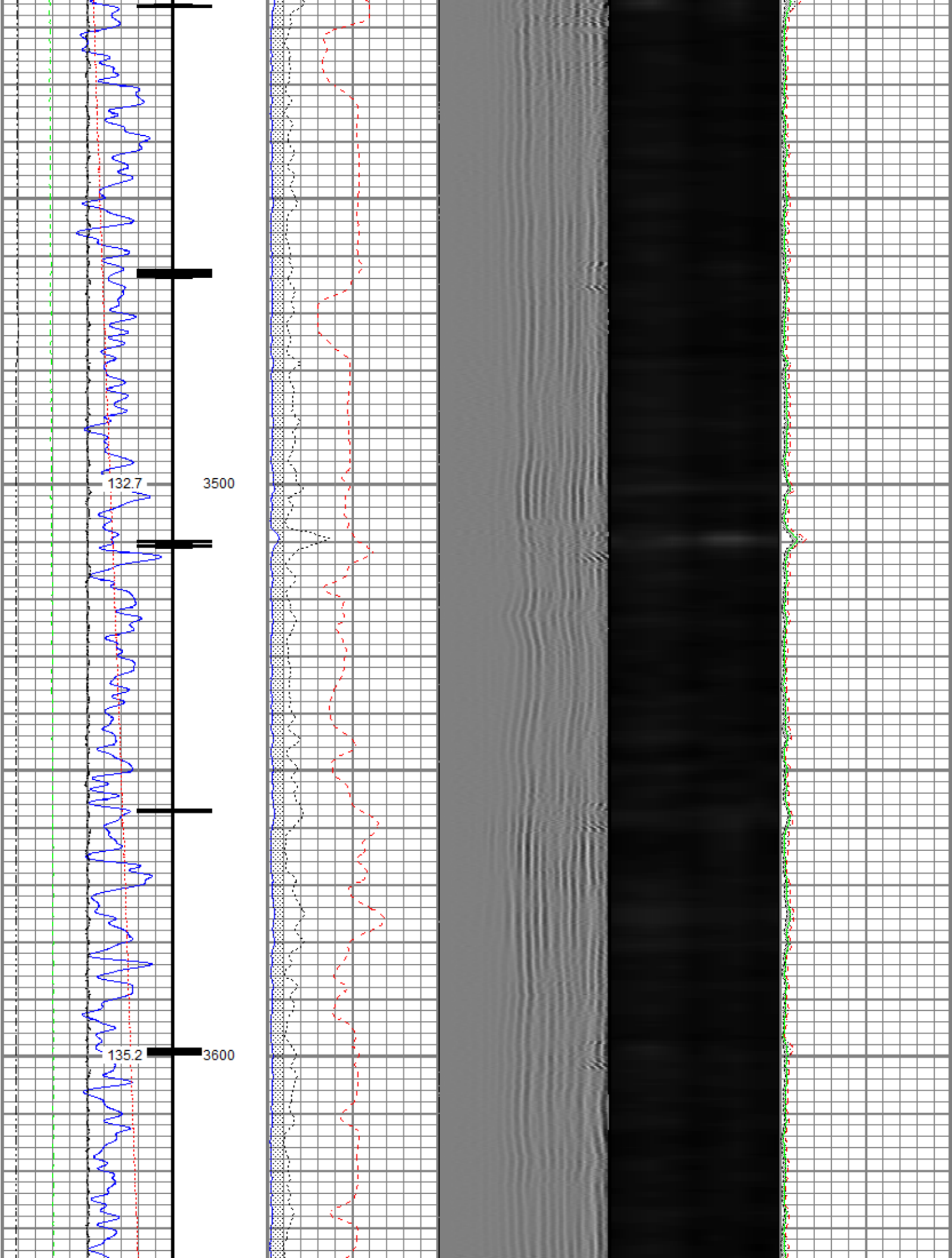


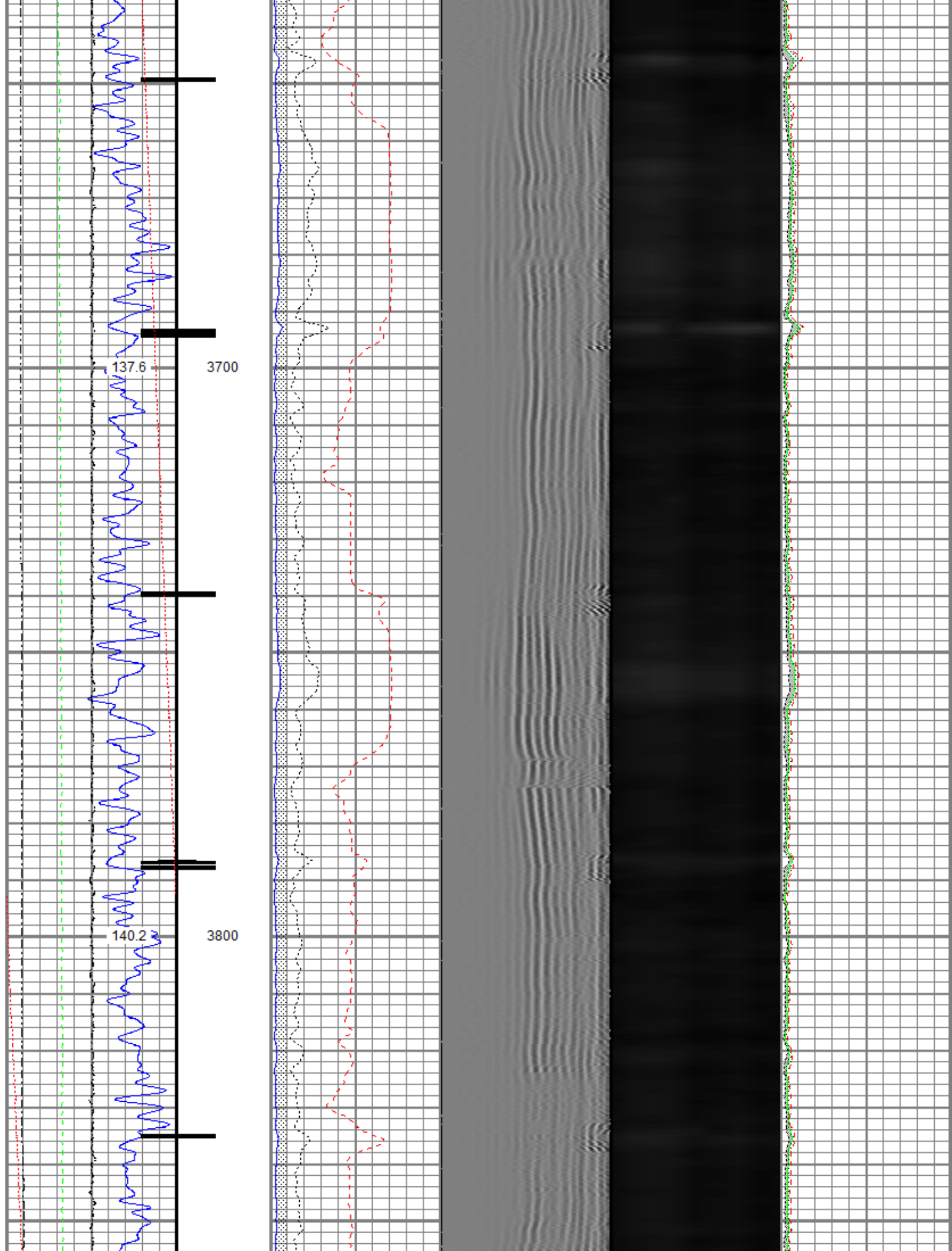


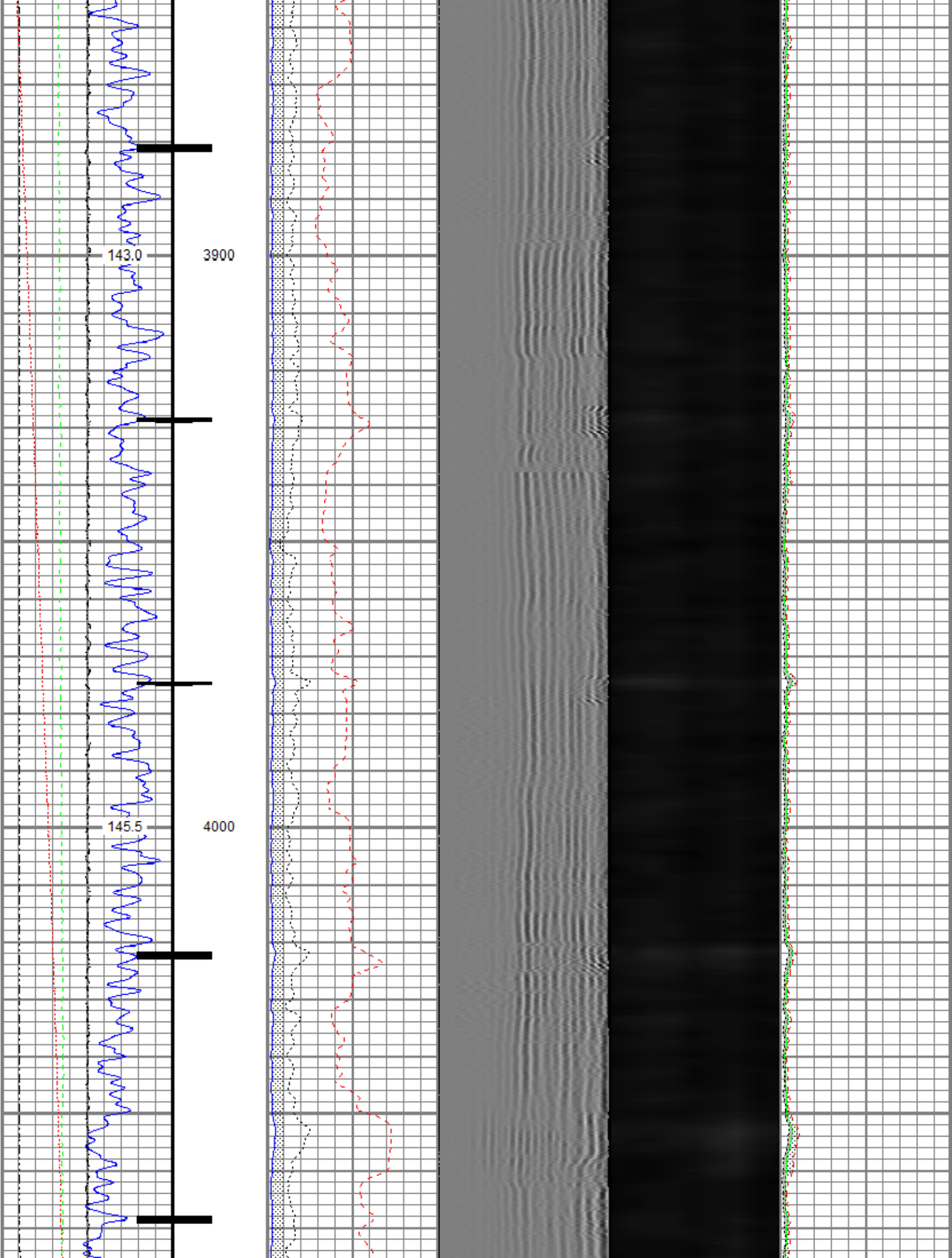


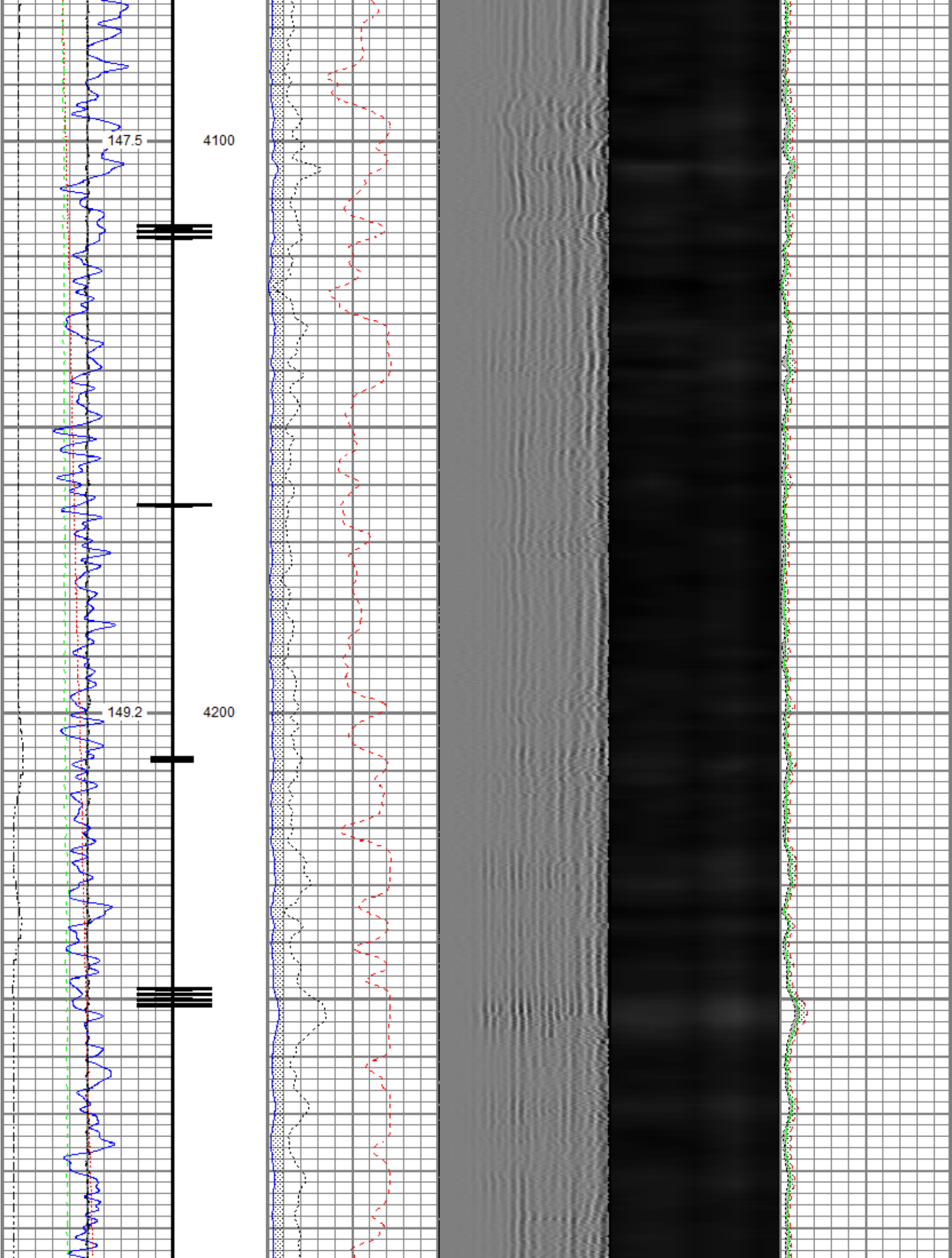




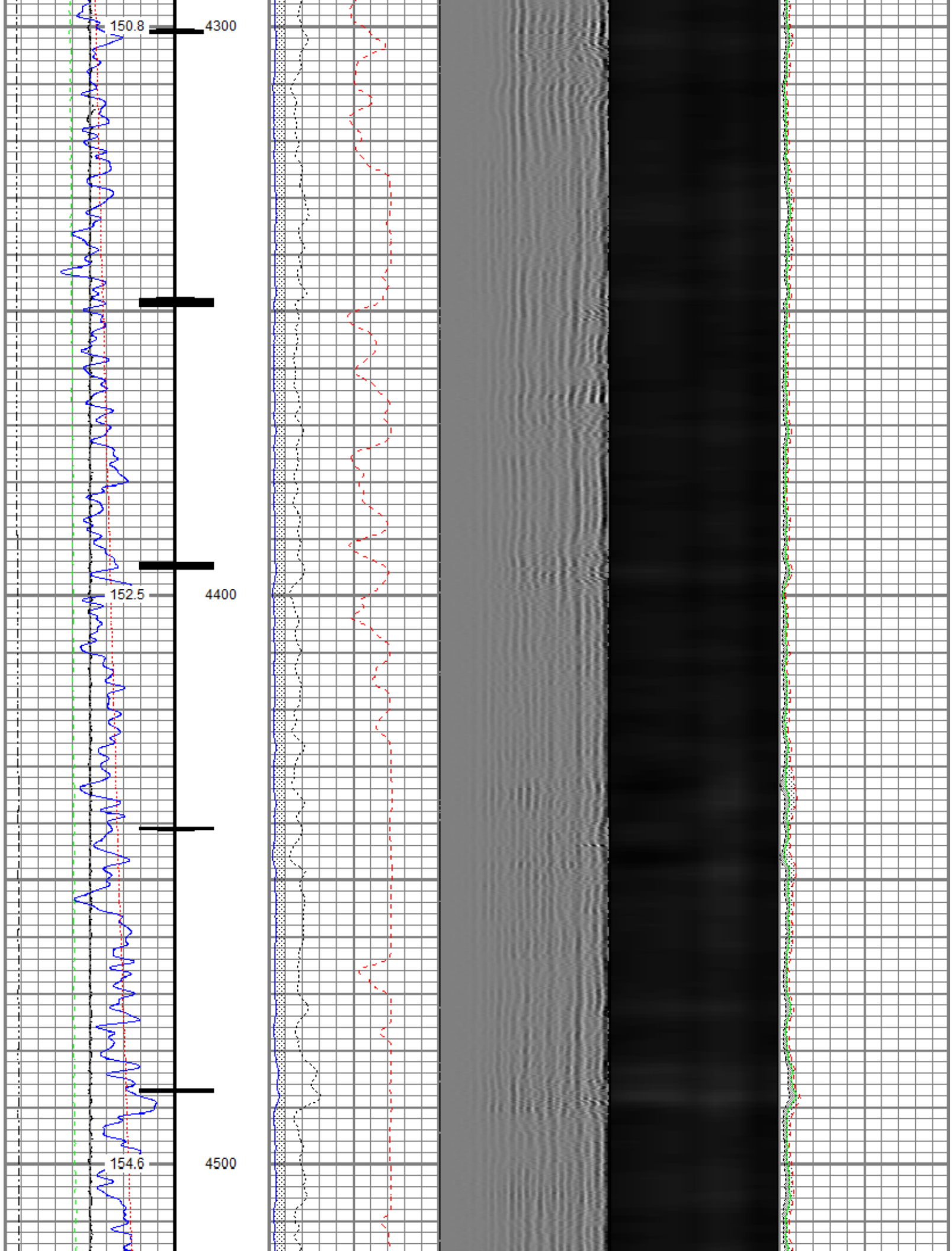


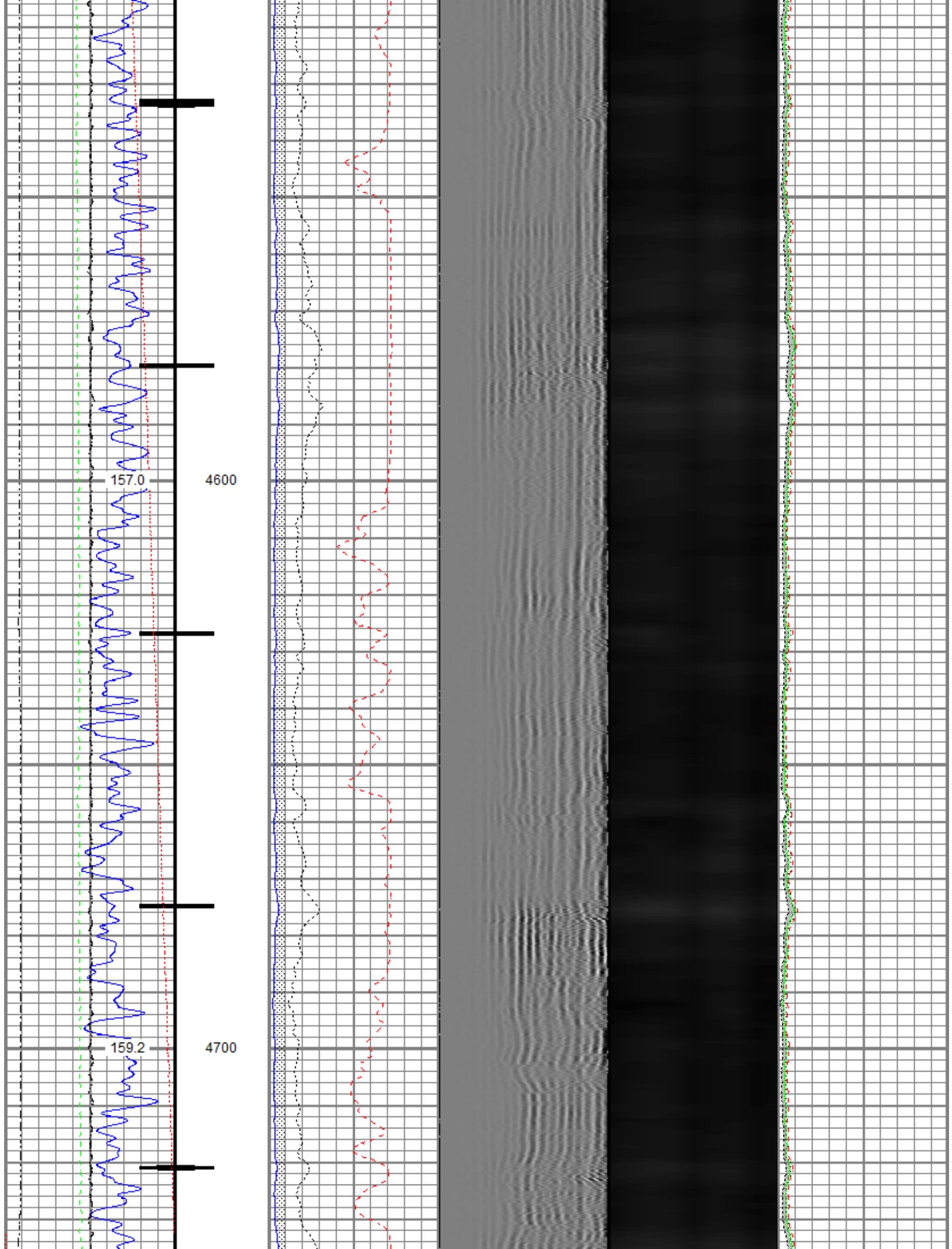


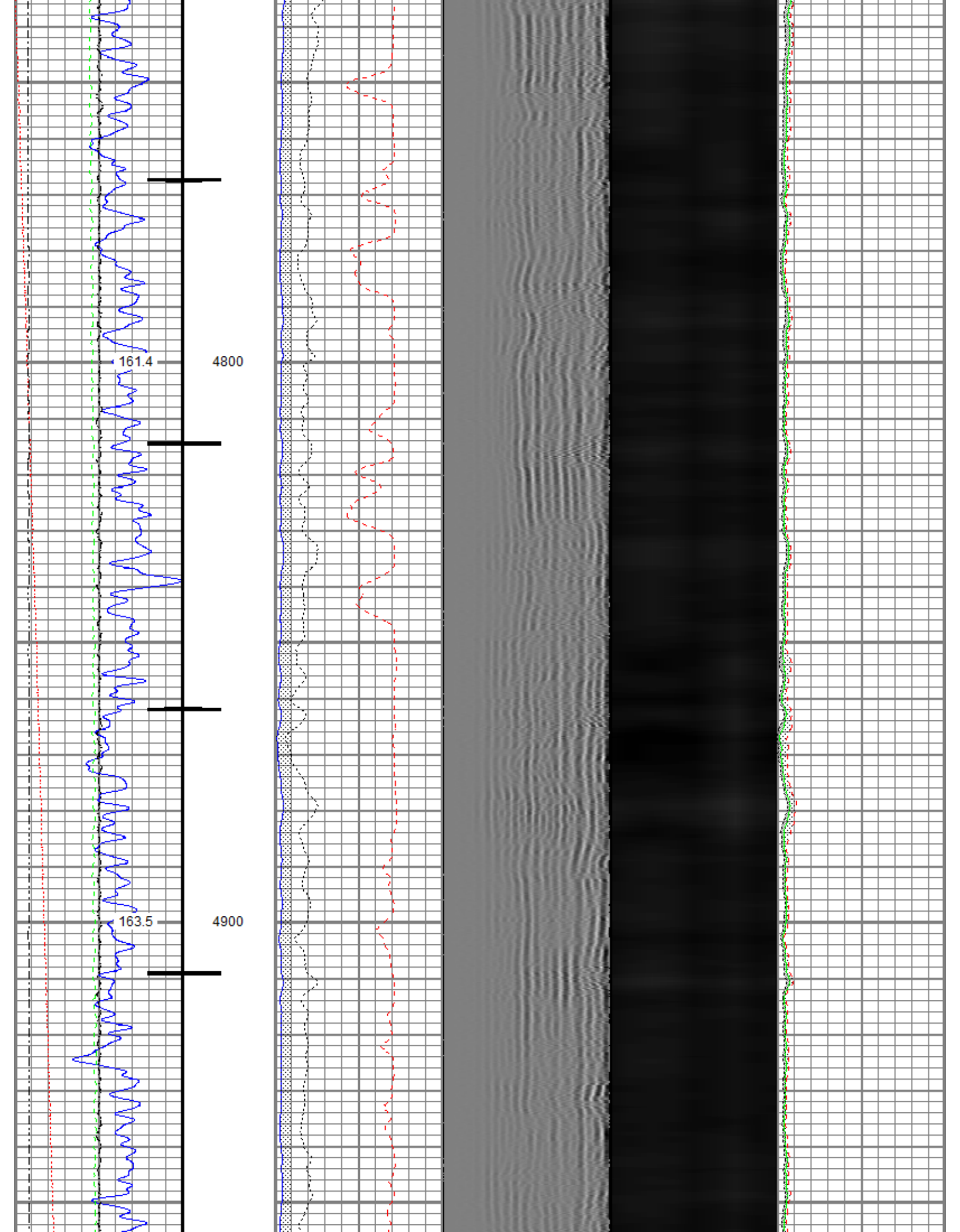


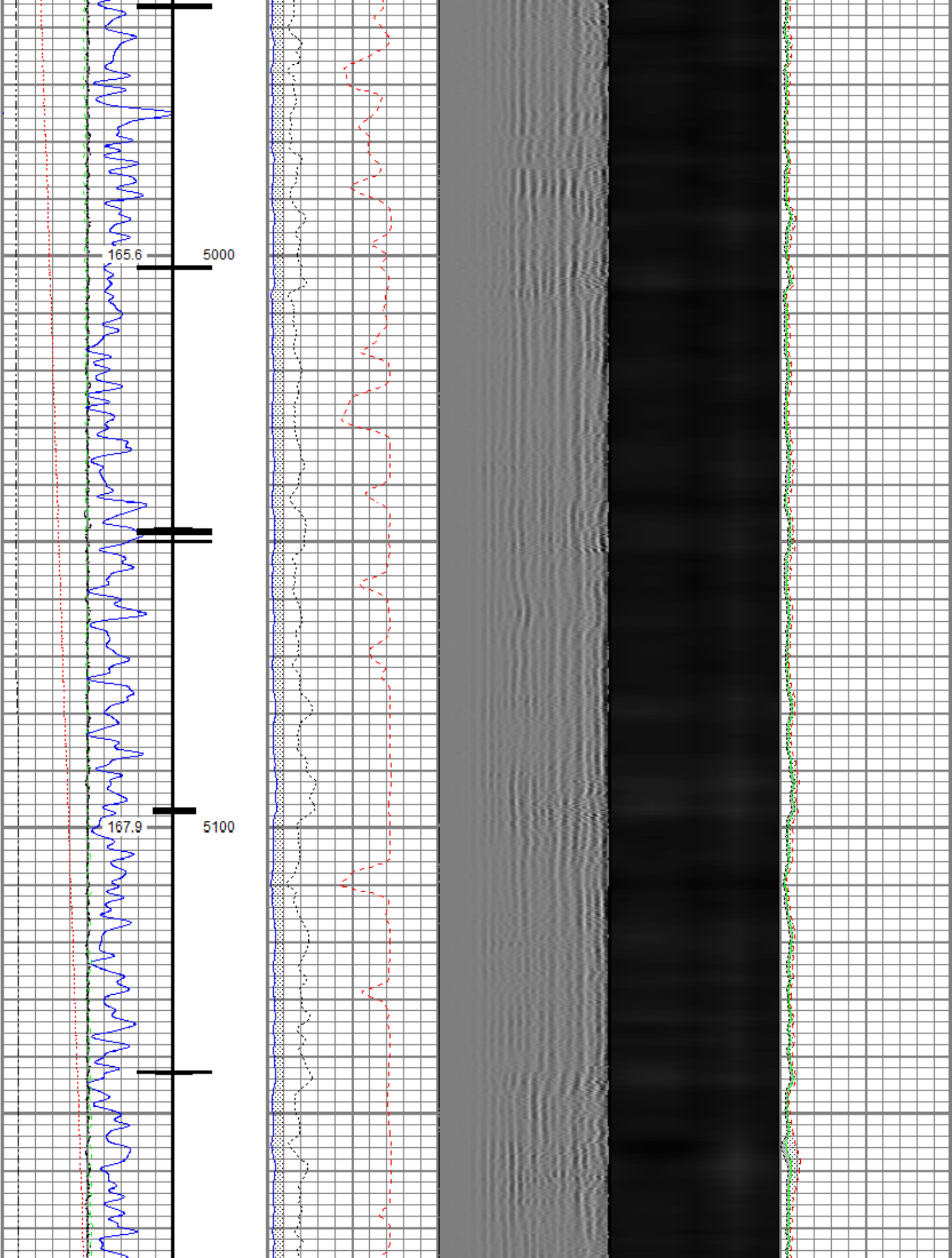




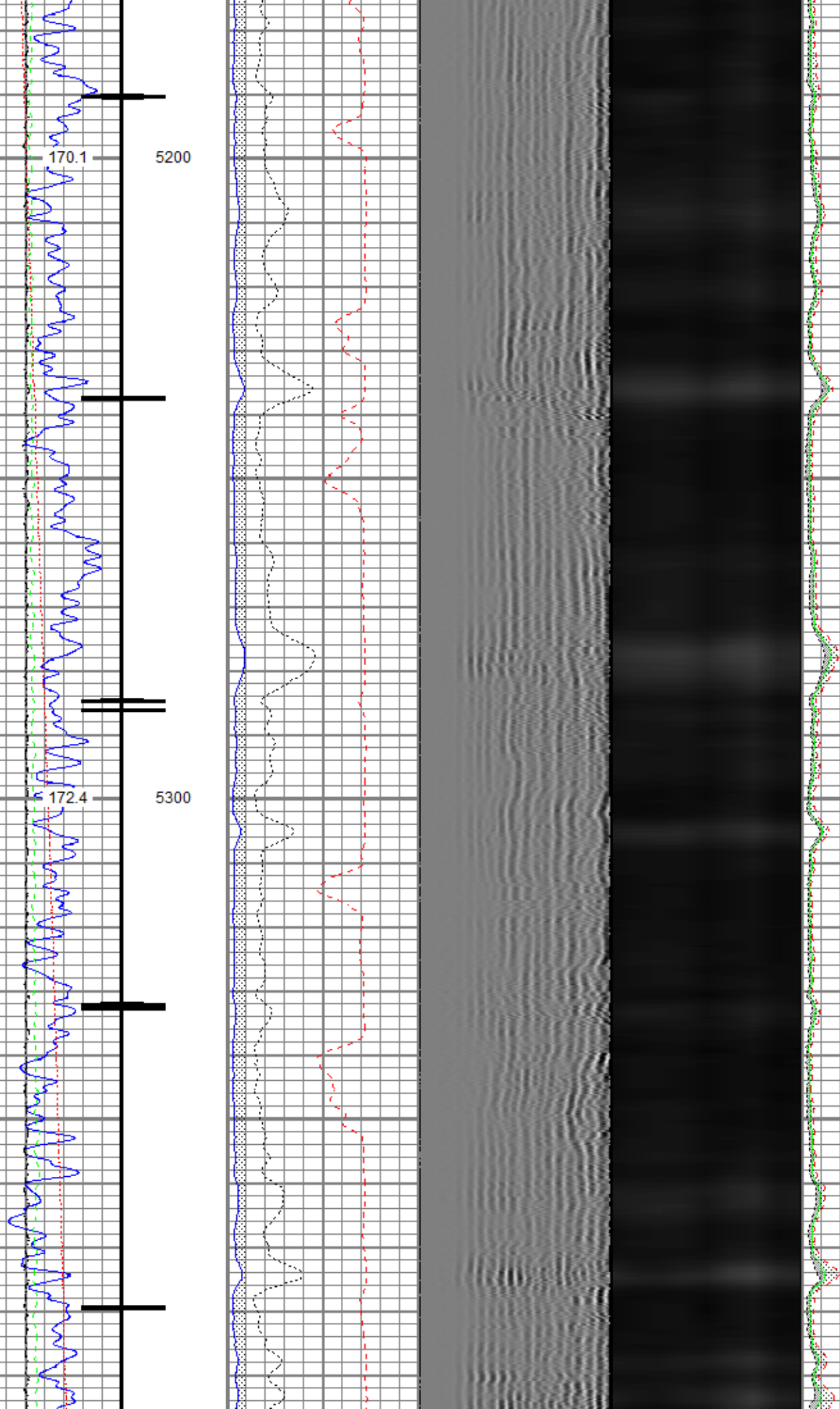


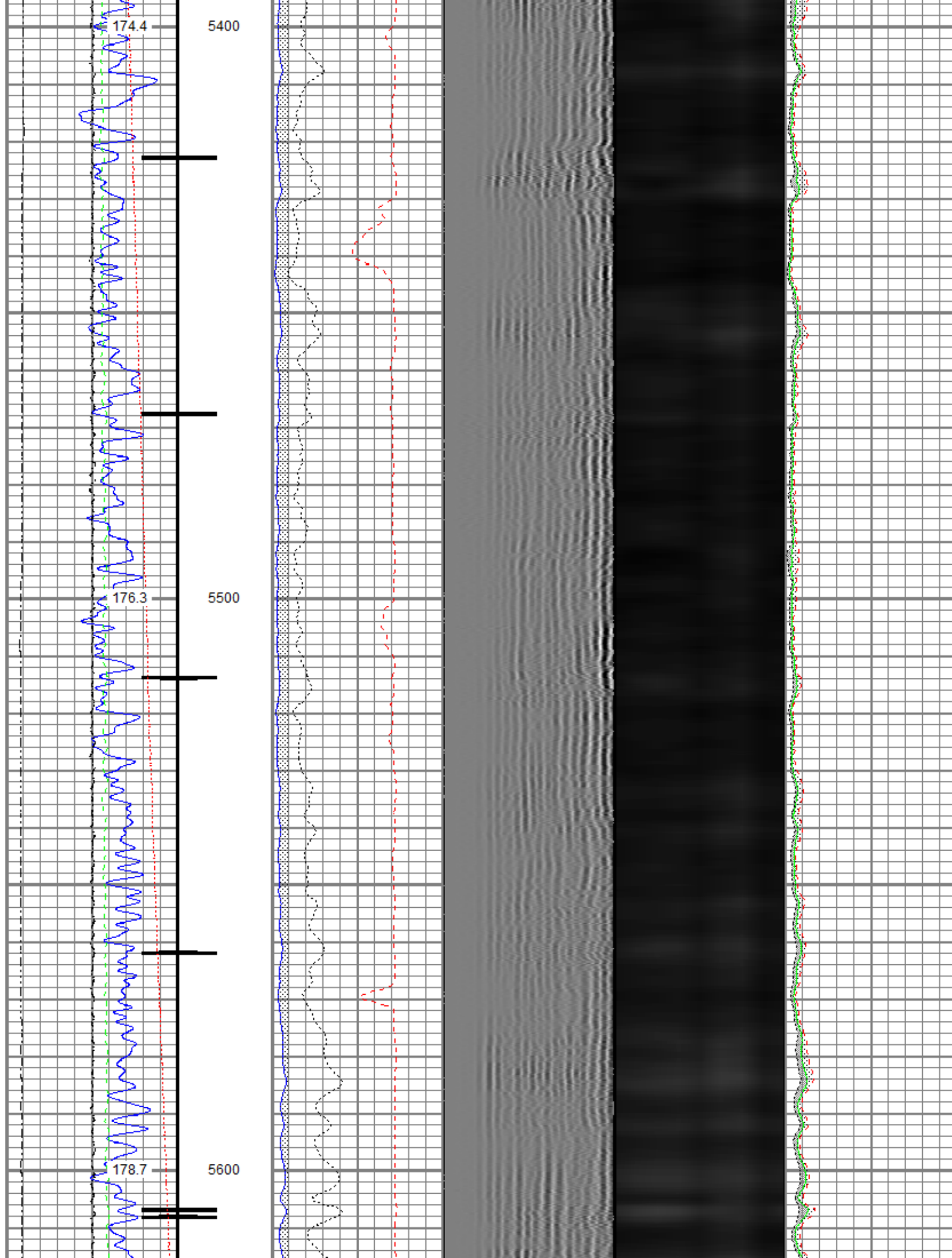


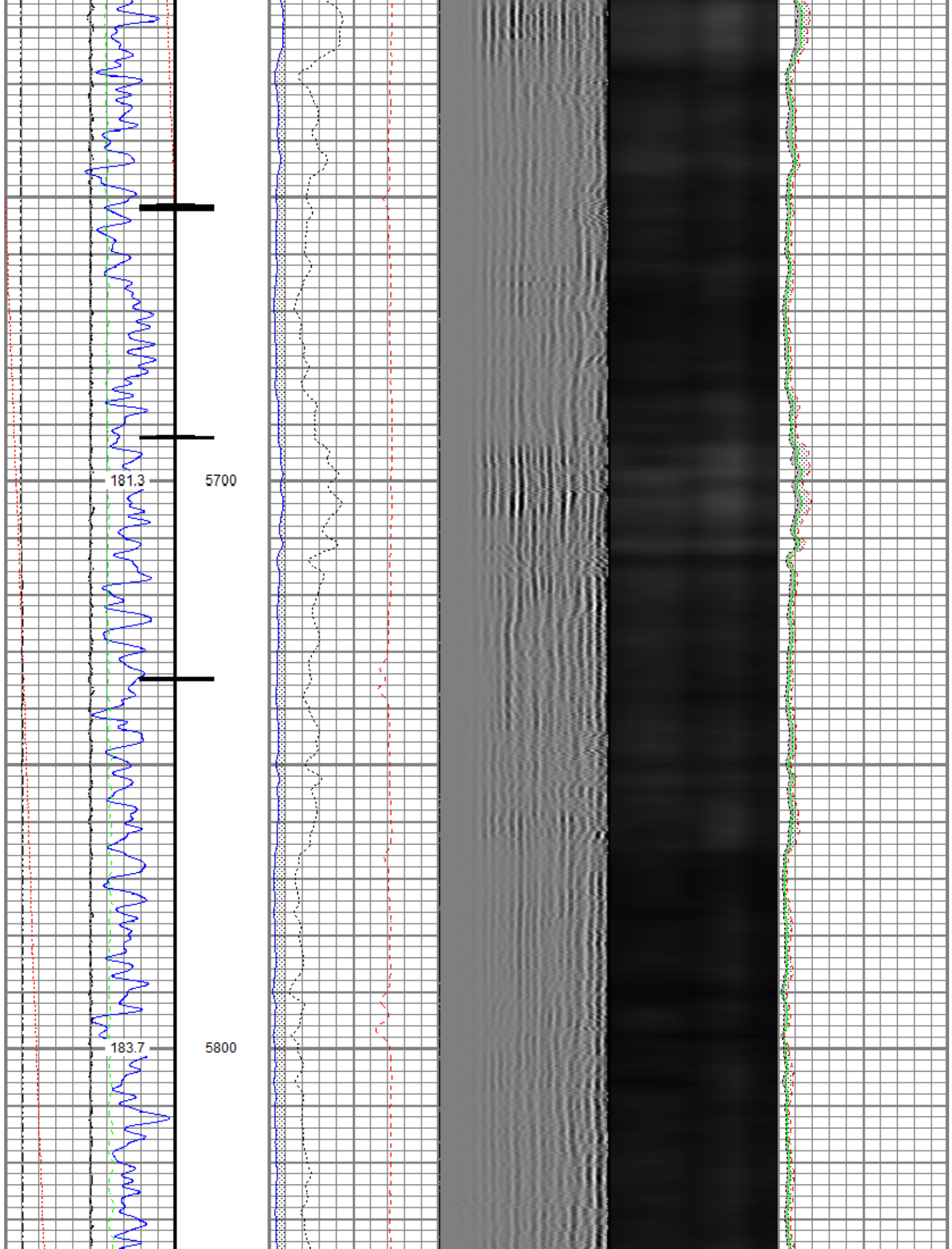


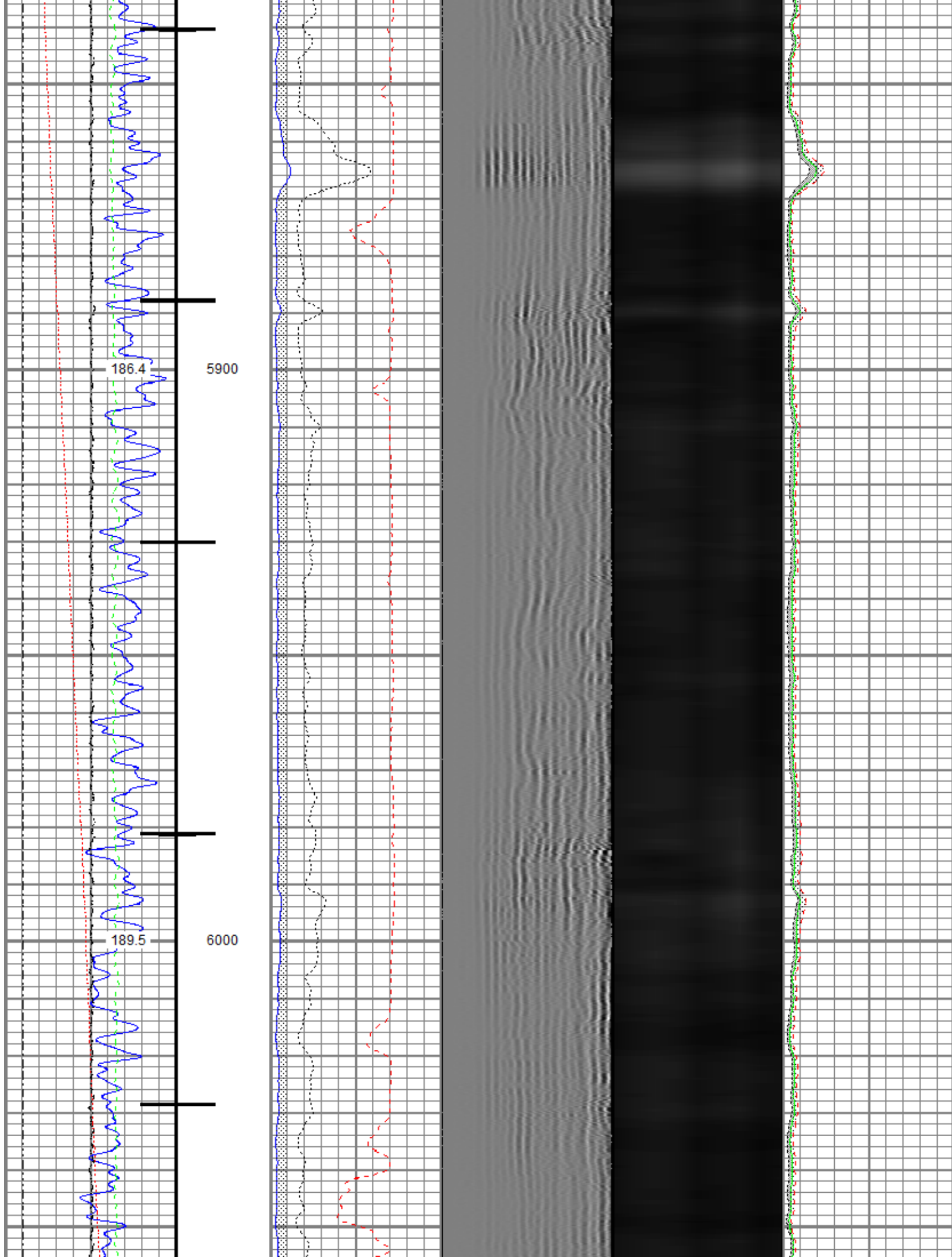




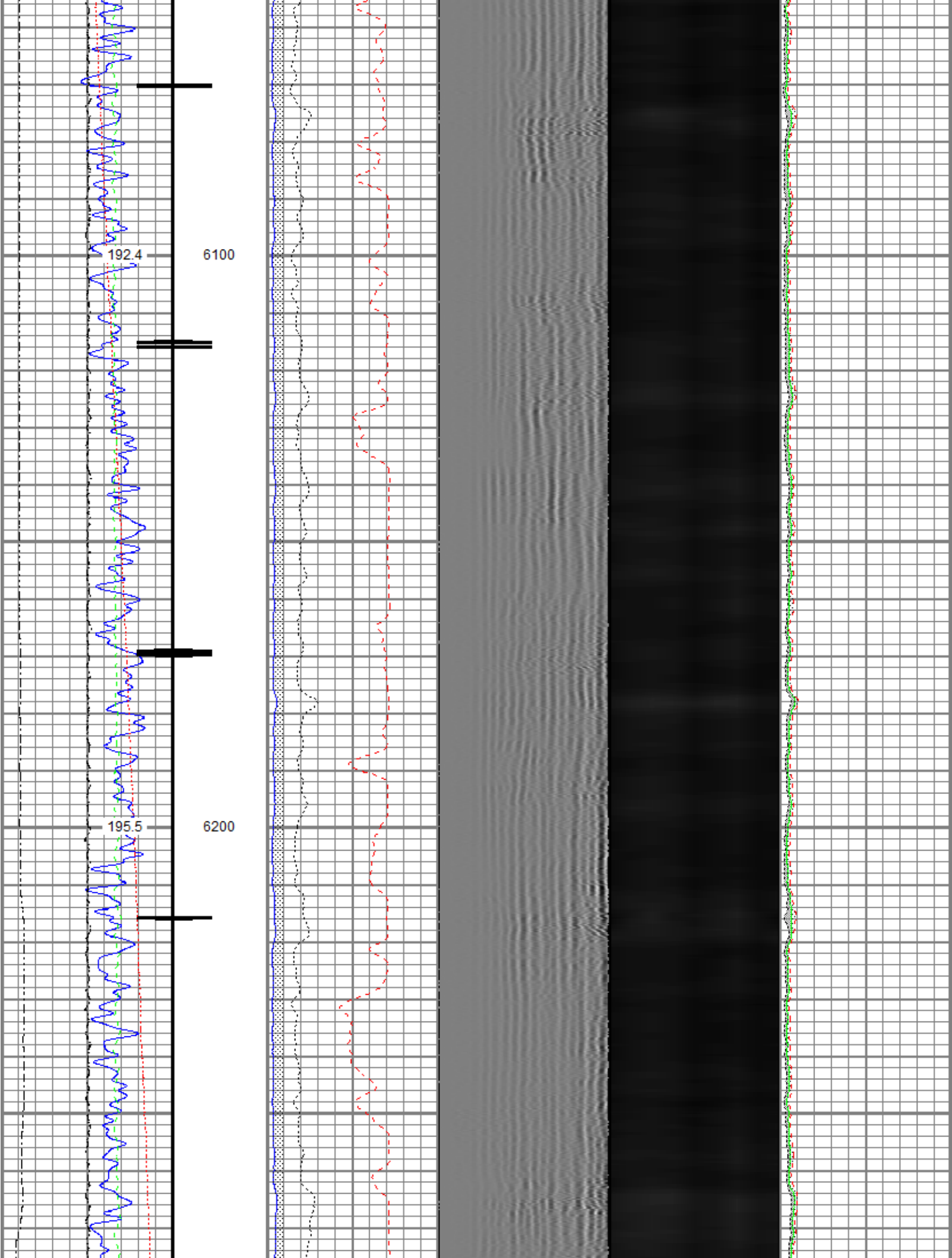


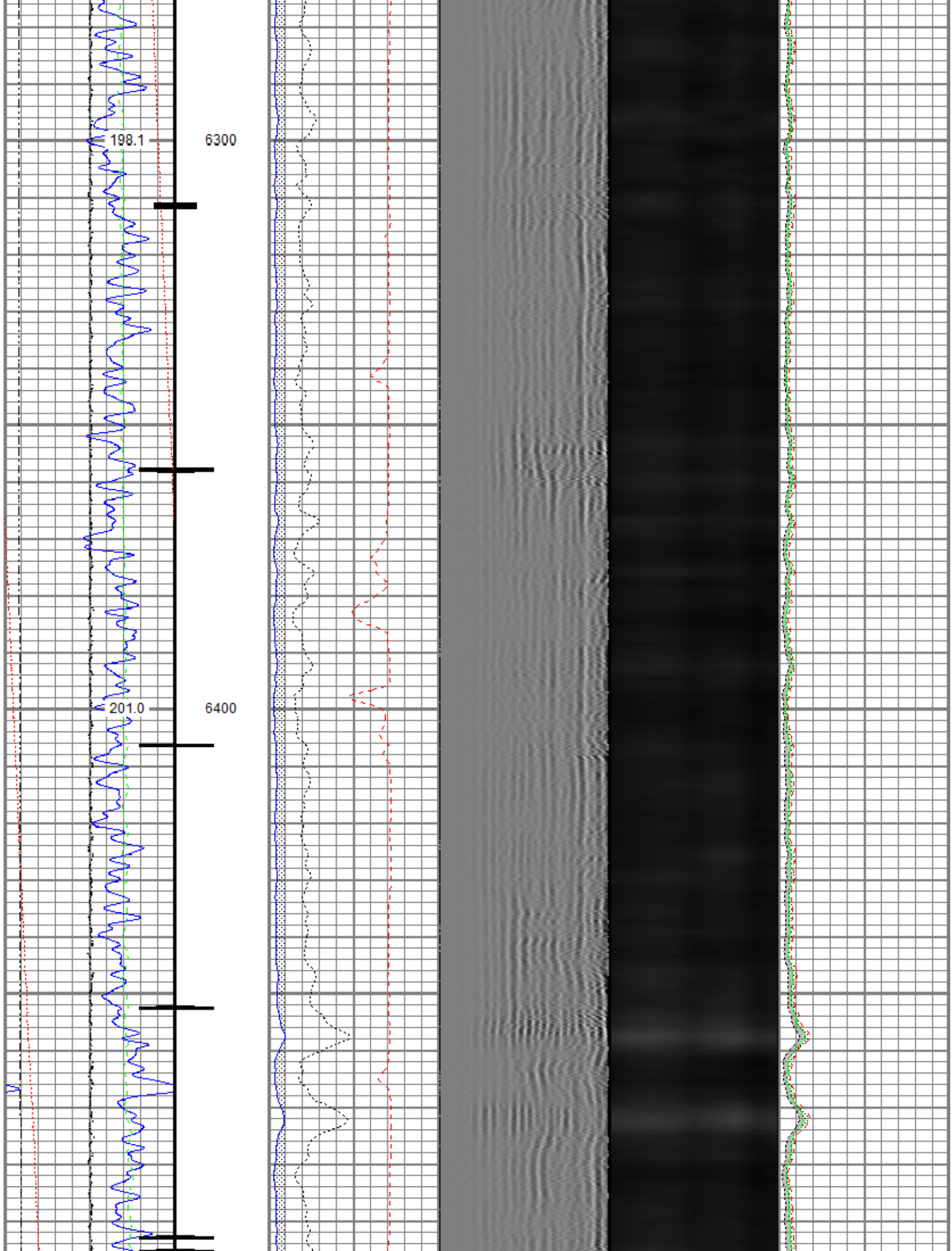


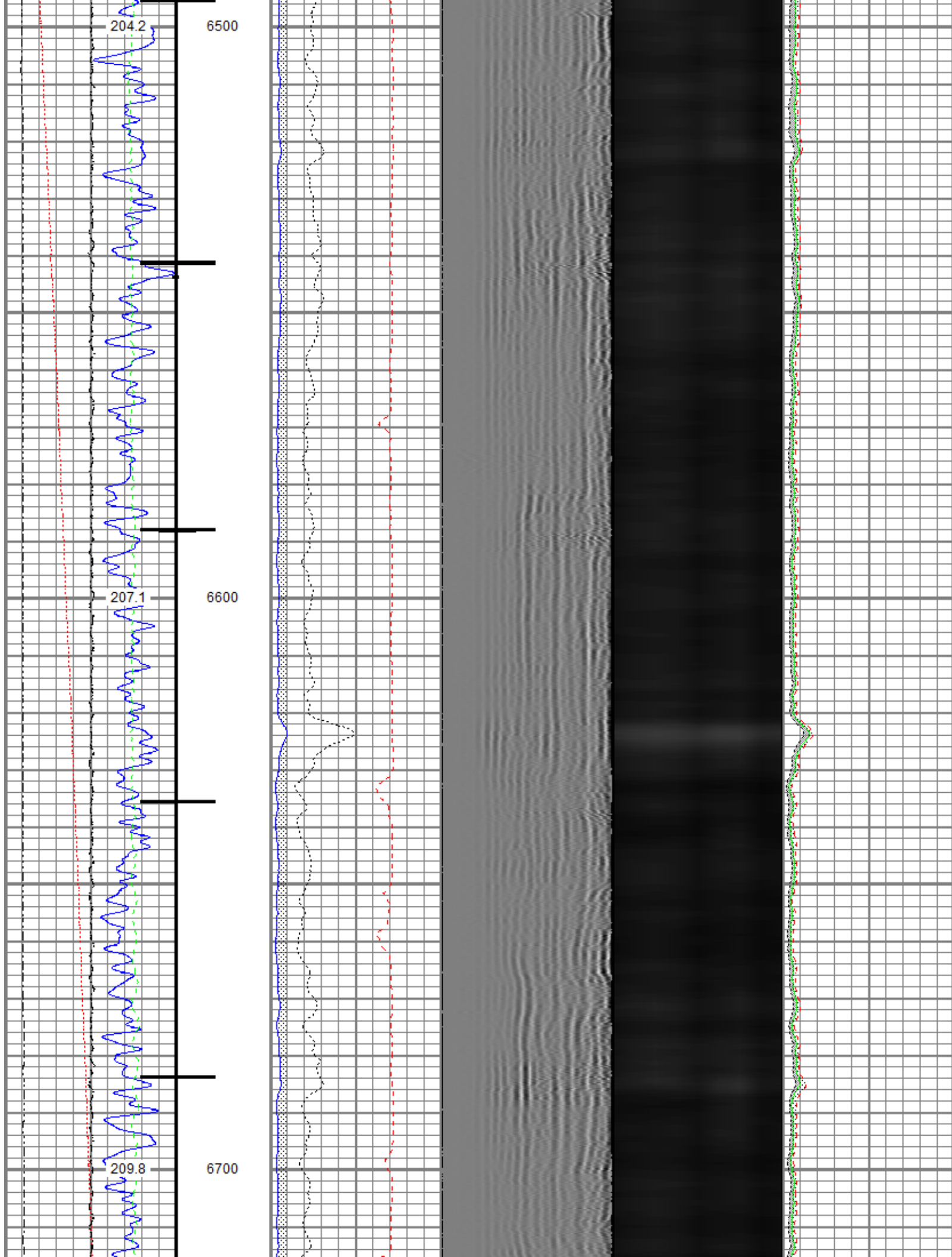


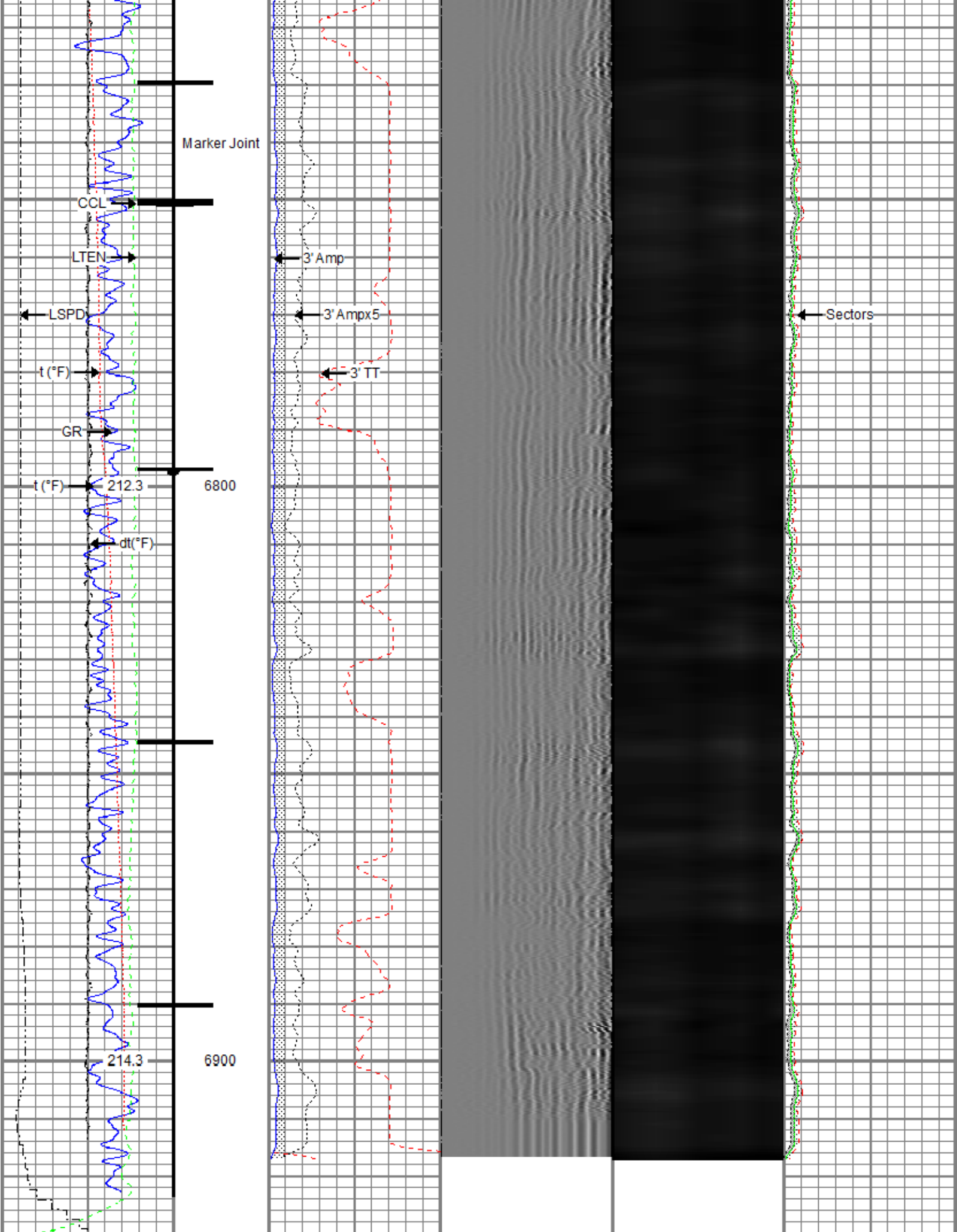












Gamma Ray

0 3' Amplitude (mV) 100

5' Variable Density Log

Sector Map

0 Average Amplitude 100



0 (GAPI) 120	3' Amplitude (mV) 5	200	1200	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				

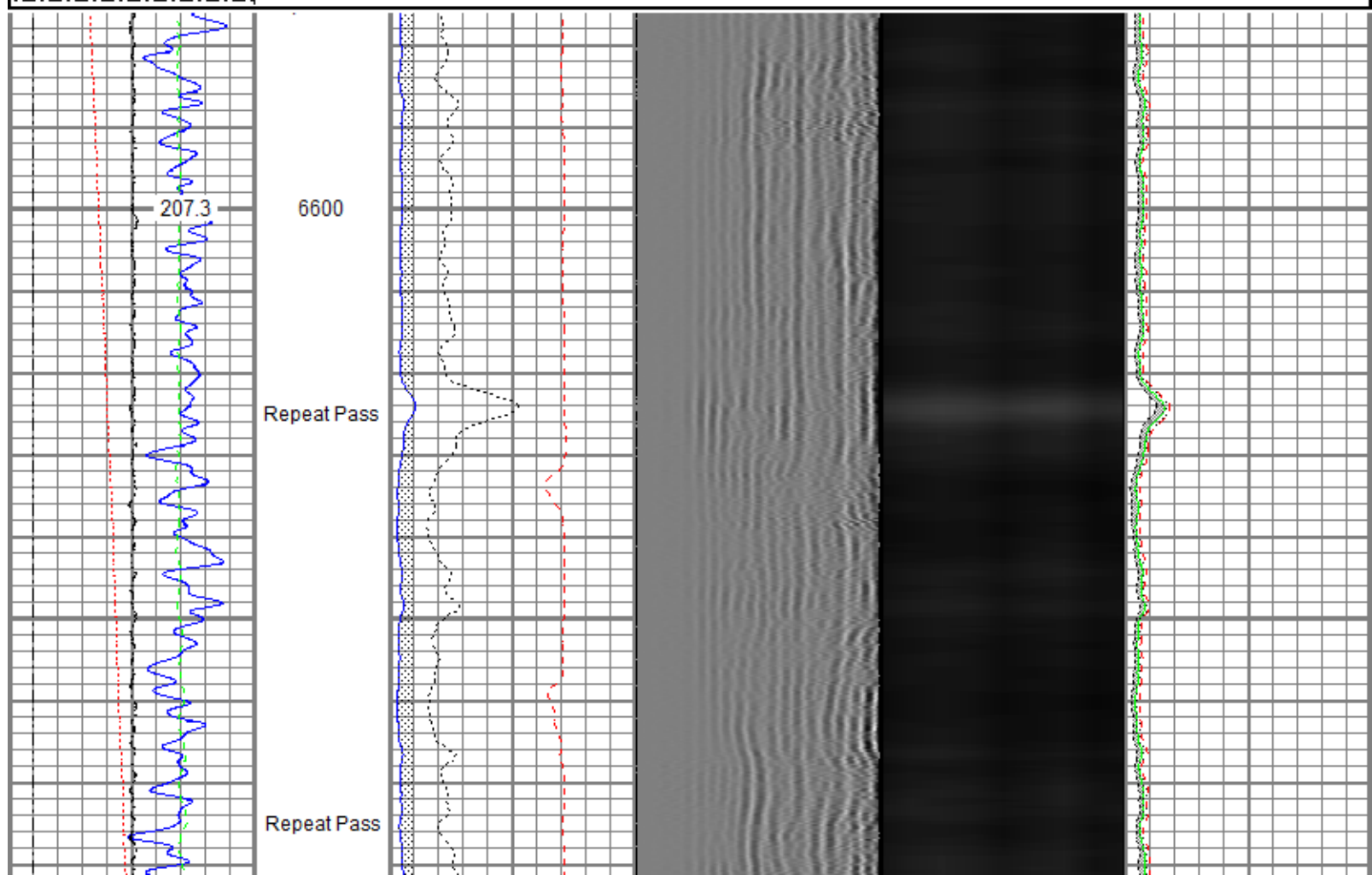


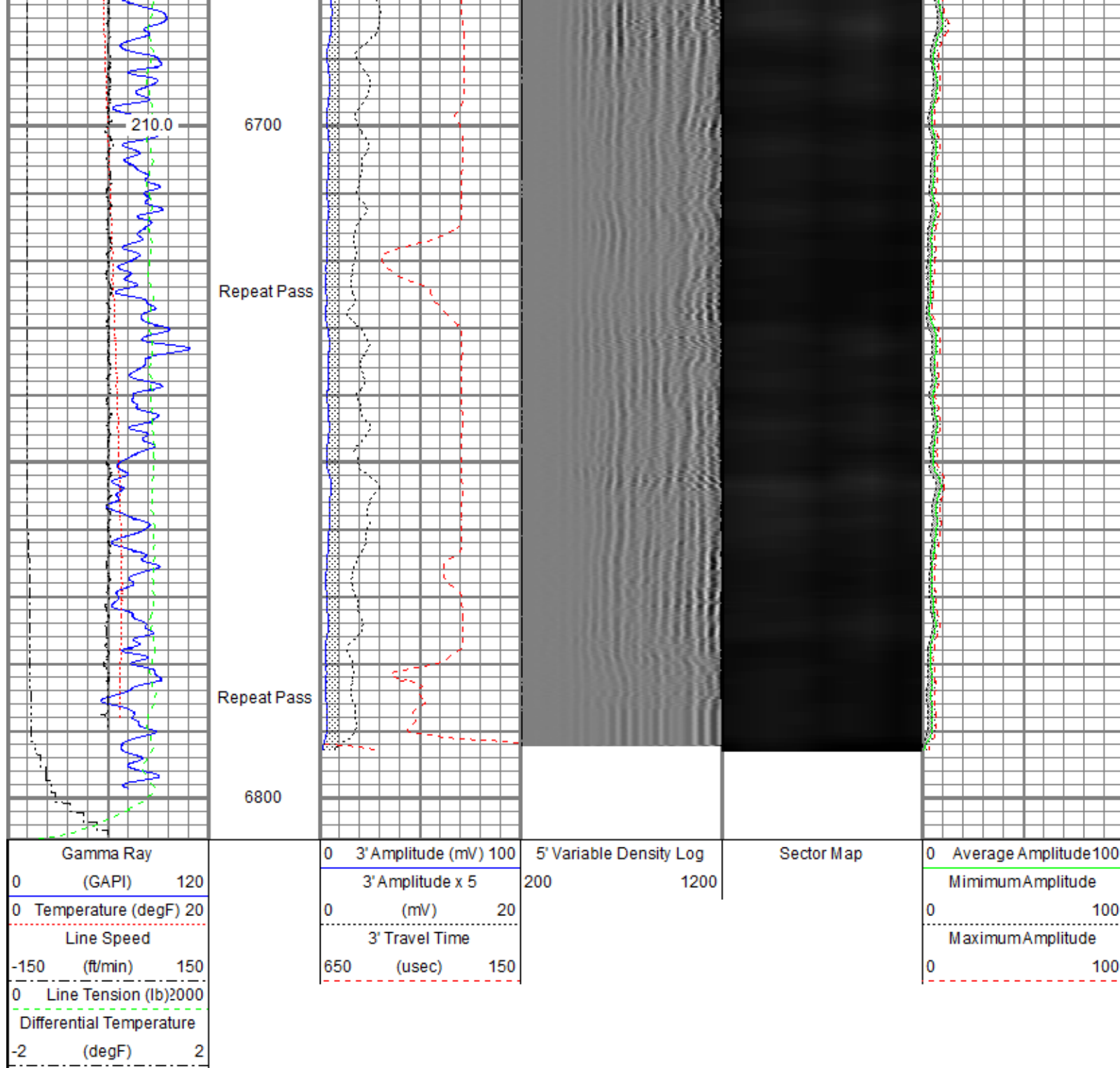
## Repeat Pass

Recorded with 2500 PSI Surface Induced Pressure

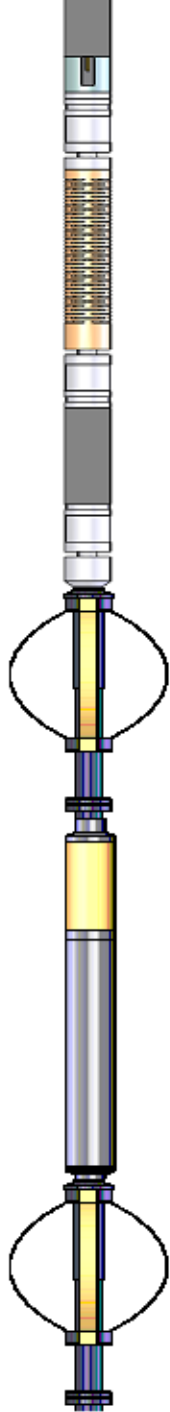
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 Dataset Pathname repeat.1  
 Presentation Format ros\_radil  
 Dataset Creation Fri Mar 16 10:14:21 2018  
 Charted by Depth in Feet scaled 1:240

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	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)
			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 (FW0712-020) 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						
			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_Falken 4N-14C-S_RBL_03-13-18.db: field/well/run1/main.2							
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_Falken 4N-14C-S_RBL_03-13-18\PROCESSED_SRC Energy_Falken 4N-14C-S_RBL_03-13-18		
Dataset Pathname	main.2		
Dataset Creation	Tue Mar 13 18:01:49 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: FW0712-020  
Tool Model: 2750 RBT

Calibration Casing Diameter: 5.500 in  
Calibration Depth: -7.668 ft

## Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.006	0.672	0.800	71.921	104.831	1.453
CAL	0.006	0.621				
5'	-0.008	0.674	0.800	71.921	104.314	1.663
SUM						
S1	-0.001	0.685	0.000	100.000	145.575	0.212
S2	-0.018	0.667	0.000	100.000	145.855	2.676
S3	-0.024	0.658	0.000	100.000	146.553	3.569
S4	-0.020	0.659	0.000	100.000	147.284	2.888
S5	-0.005	0.671	0.000	100.000	147.826	0.737
S6	0.001	0.686	0.000	100.000	145.945	-0.165
S7	0.001	0.714	0.000	100.000	140.342	-0.171
S8	0.001	0.711	0.000	100.000	140.736	-0.107

## Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.006	0.621	1.000	0.000

## Air Zero Calibration, performed Tue Mar 13 15:35:18 2018:

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

## Temperature Calibration Report

Serial Number: FW0712-020  
Tool Model: 2750 RBT  
Performed: Thu Dec 21 07:48:40 2017

	Reference	Reading
Low Reference:	100.00 degF	109.43 degF
High Reference:	350.00 degF	405.87 degF
Gain:	0.84	
Offset:	7.72	
Delta Spacing	1	





Company	SRC Energy Inc
Well	Falken 4N-14C-S
Field	Wattenberg
County	Weld
State	Colorado