

Well Borough 26N-17HZ

Field Wattenberg

County Weld State Colorado

Location: API #: 05-123-45228

SEC 17 TWP 1N RGE 66W

Kelly Bushing 26

ed From Kelly Bushing

05-FEB-2018

1 WD  
4:30:57 ET

6580 FT

6576 FT

Surface

1.8/5

value	8.34 lb/mol
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209°F

See Log

ROA

13.29  
HD 39E

Fort Union (

R. Cameron

Kyle Carver

5	
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[illegible]

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Wot (Ihs/Et)

36

17

[illegible]

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1

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.

Log ran as per customer request  
Depth referenced to Kelly Bushing at 26 FT  
Casing Tally reported Marker Joint at 6700 FT  
Gauge Ring/Junk Basket ran to 7780 FT with no debris  
Log ran from as deep as possible in heel to Surface  
Log ran with 2800 PSI Surface Induced Pressure  
Logging tools were clean and free of debris upon completion of operations

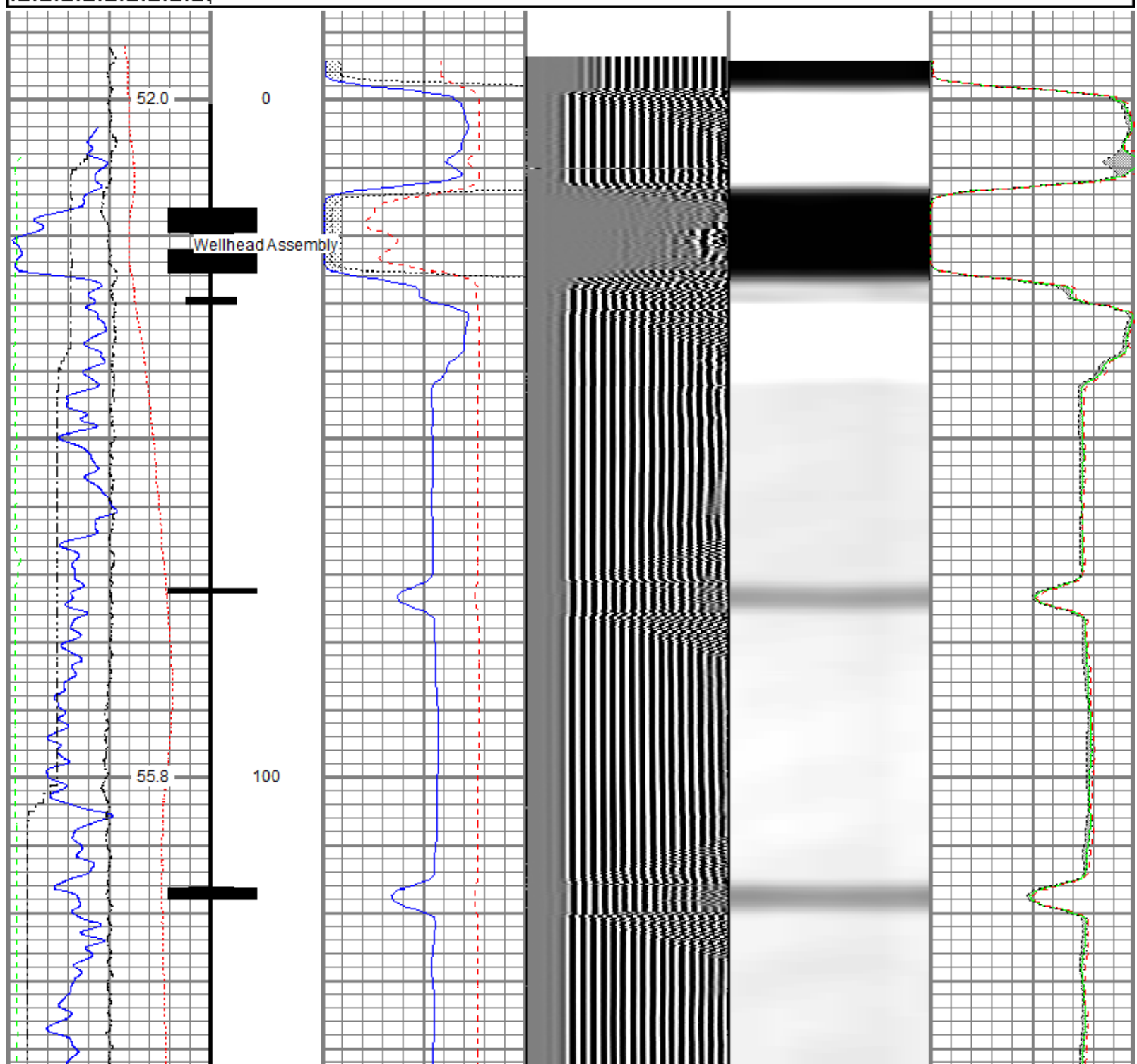
Thank you for choosing Reliance Oilfield Services, LLC!!

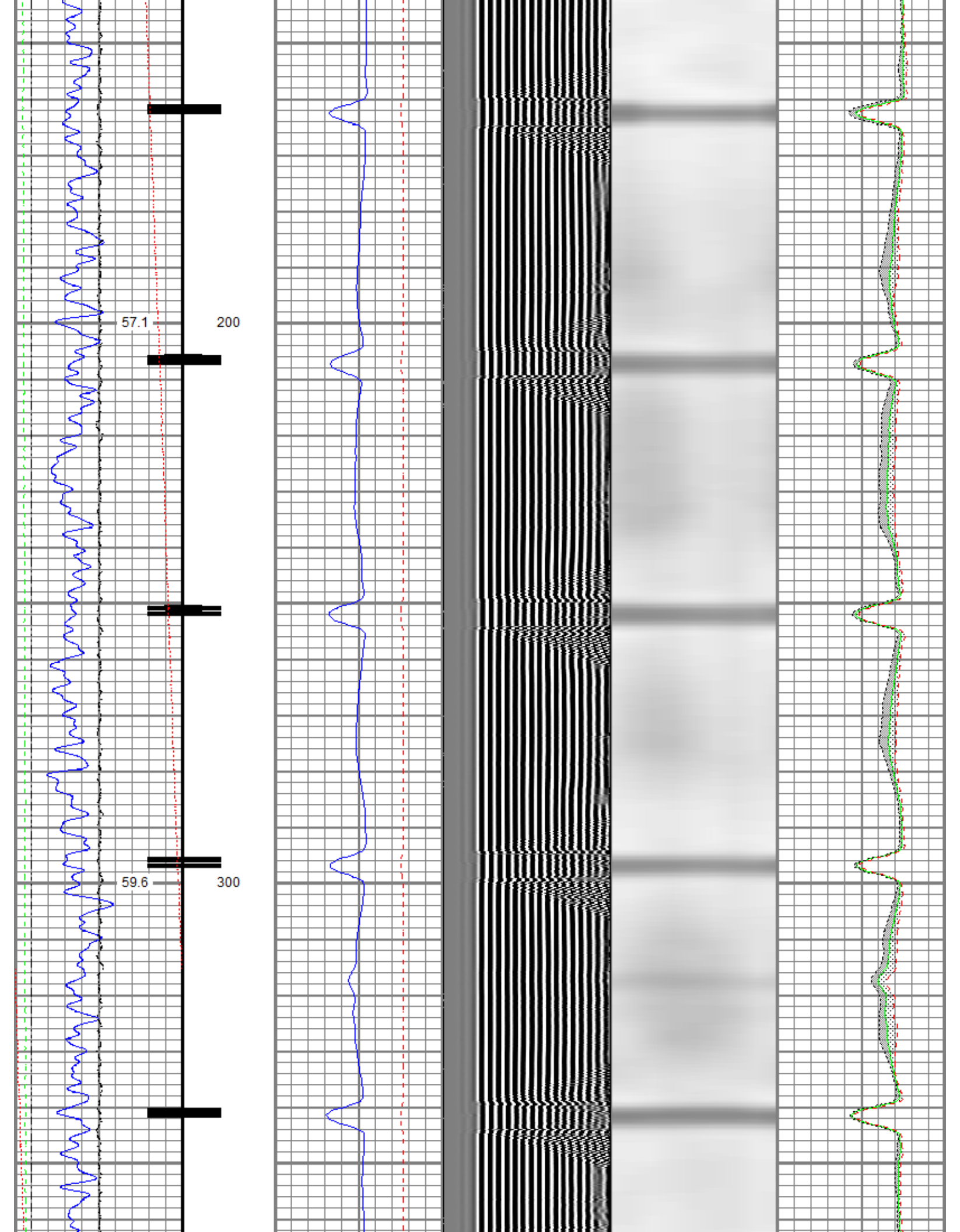
## Main Pass

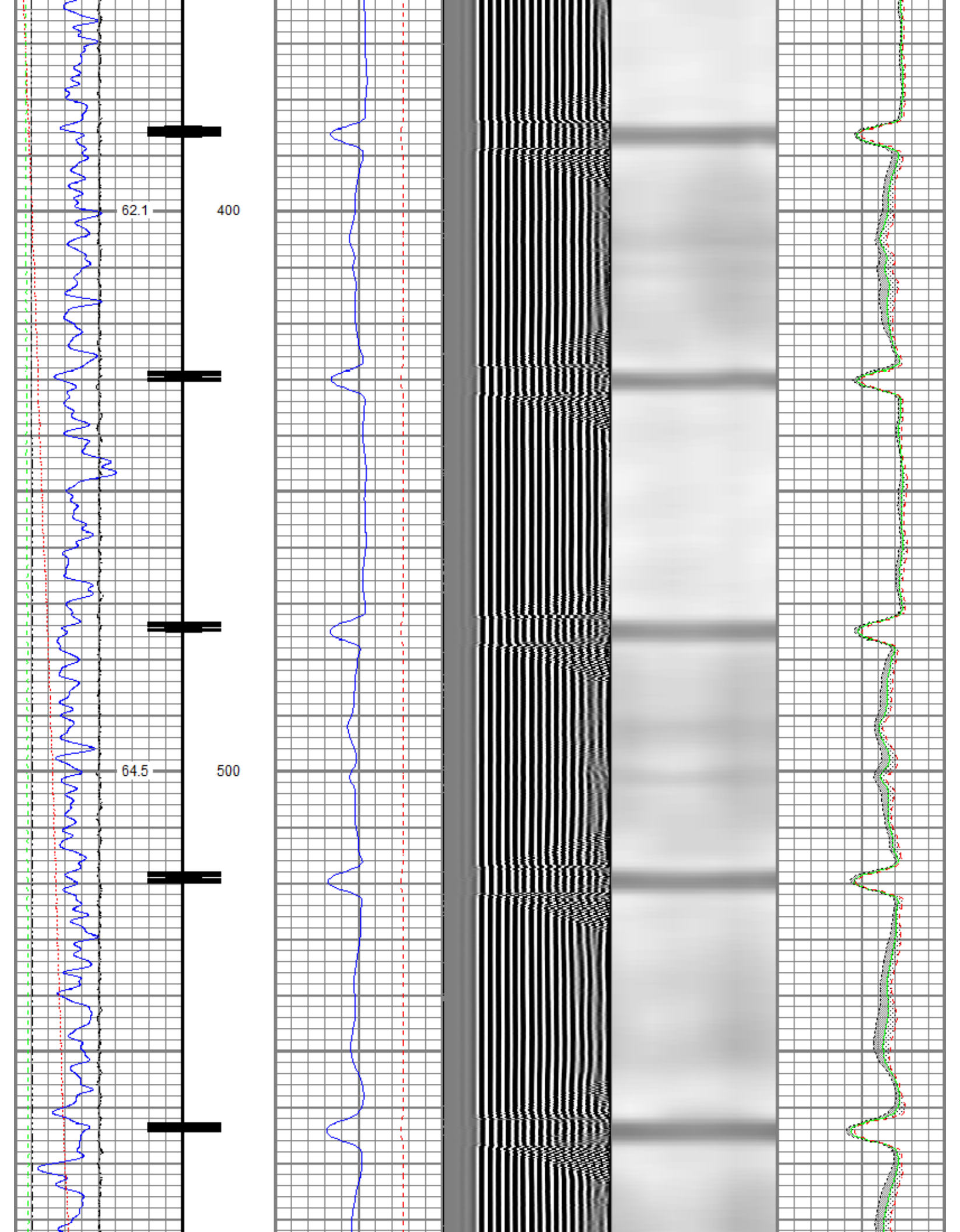


Database File	0512345228_anadarko_borough 26n-17hz_rbl_02-05-18\processed_0512345228_anadarko_borough 26n-17hz_rbl_02-05-1
Dataset Pathname	pass4
Presentation Format	ros_radri
Dataset Creation	Mon Feb 05 13:33:41 2018
Charted by	Depth in Feet scaled 1:240

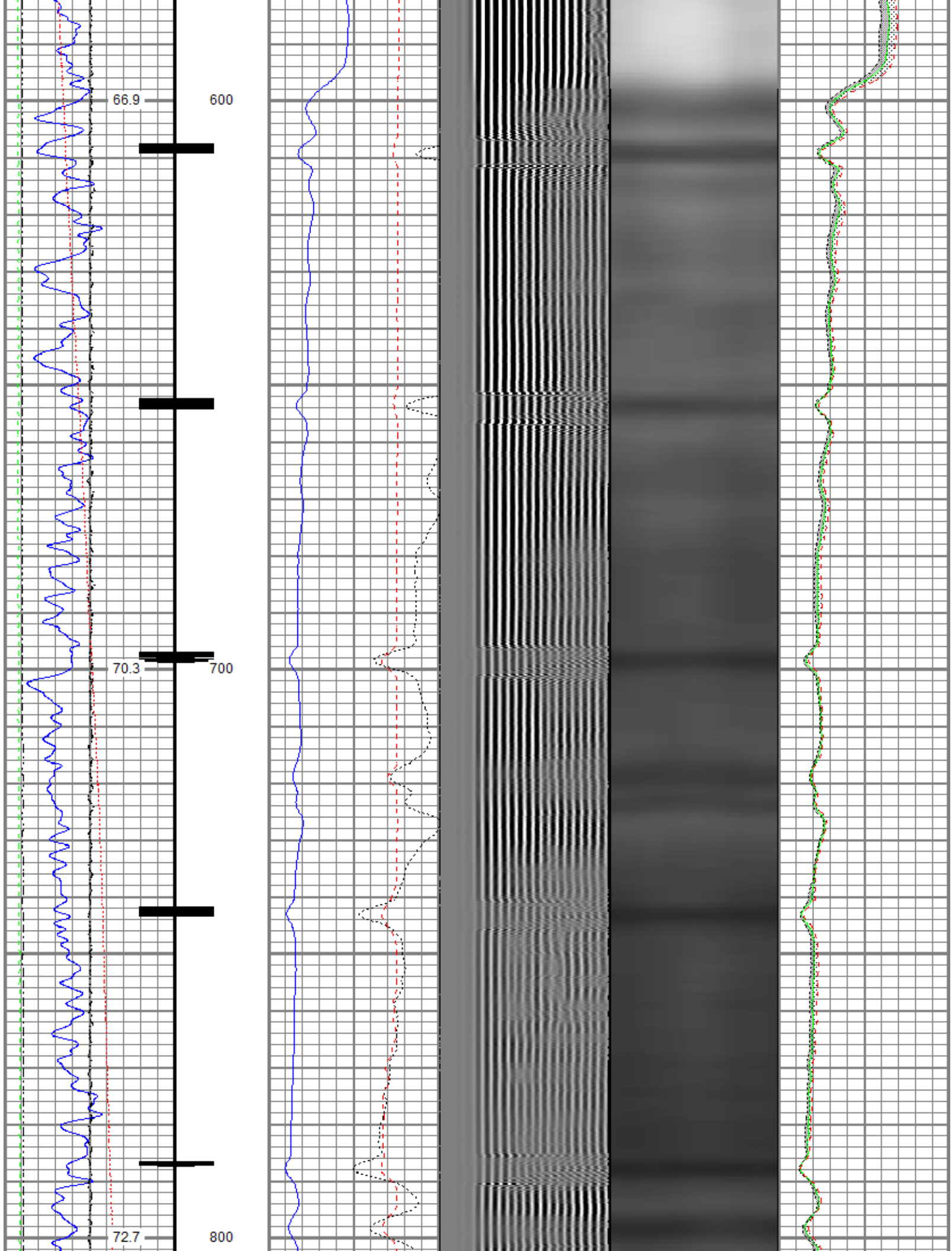
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
(ft/min) 150						
Line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

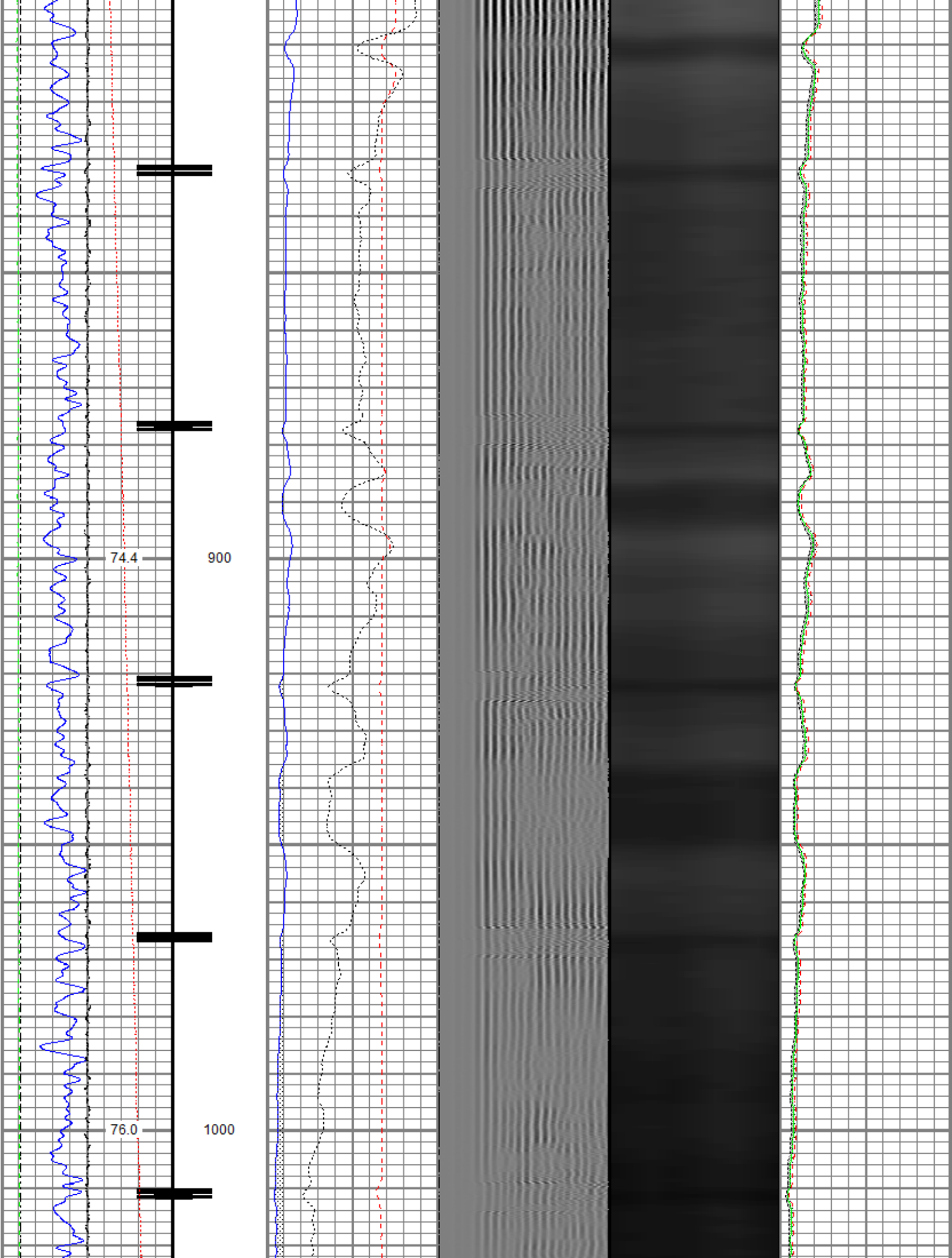


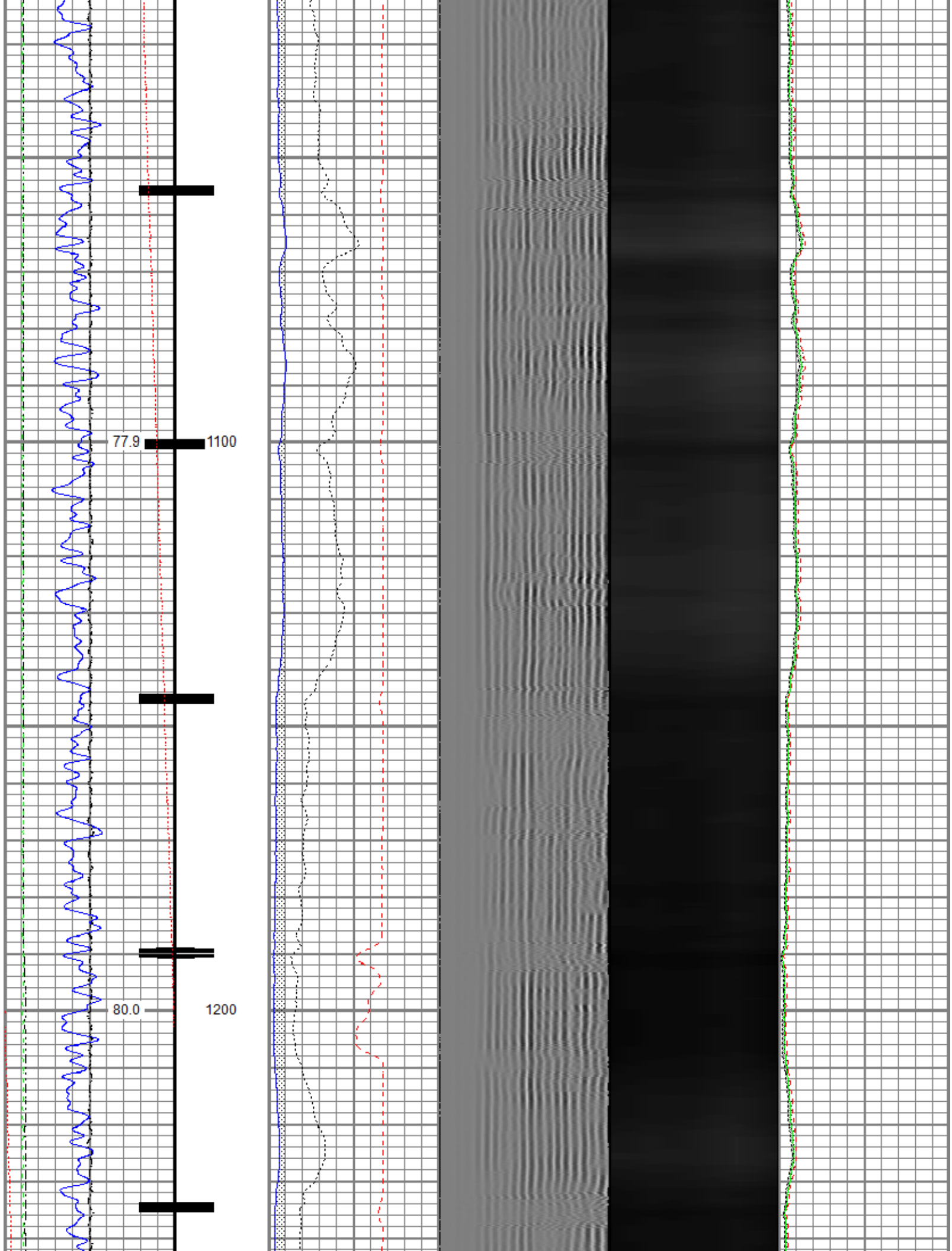


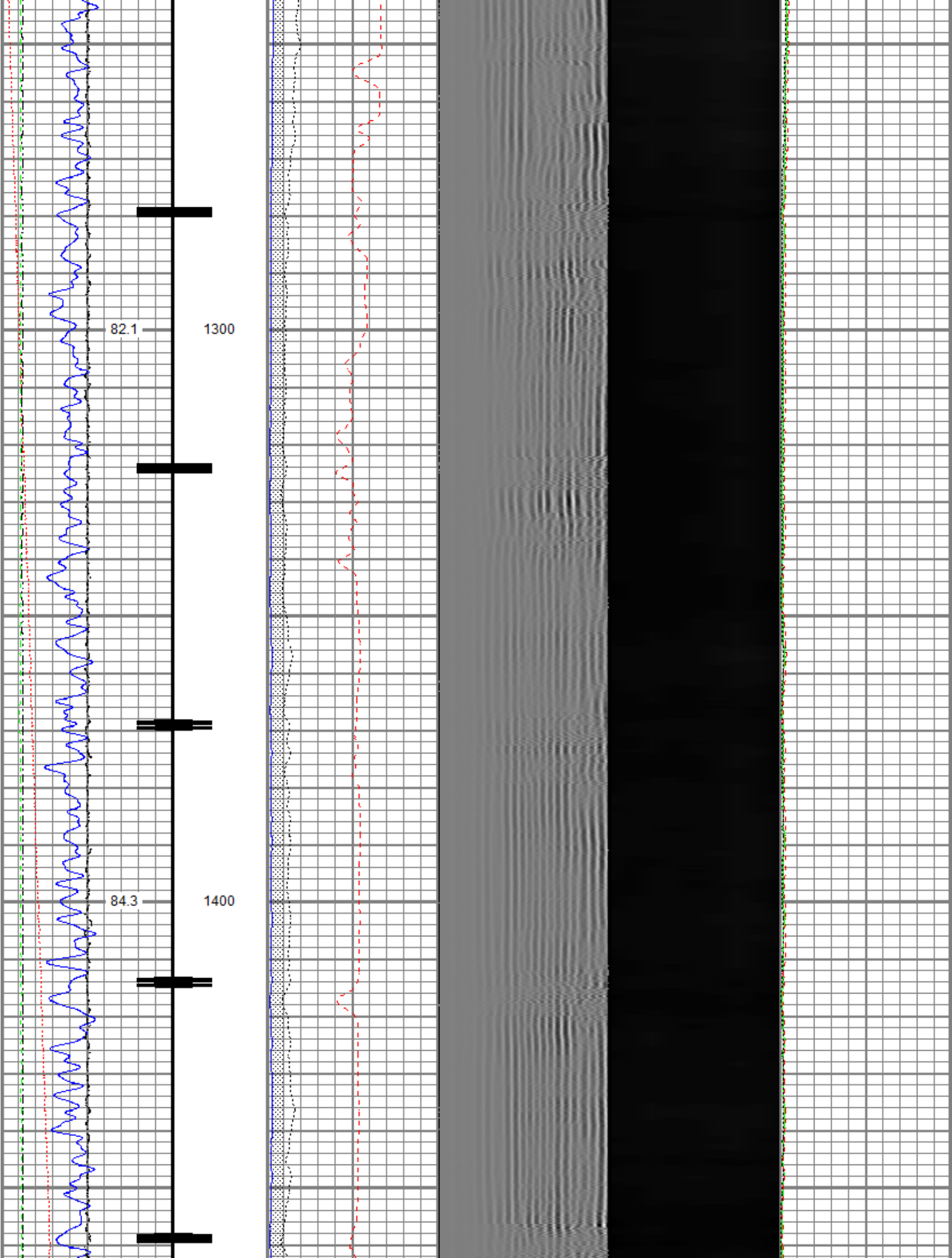




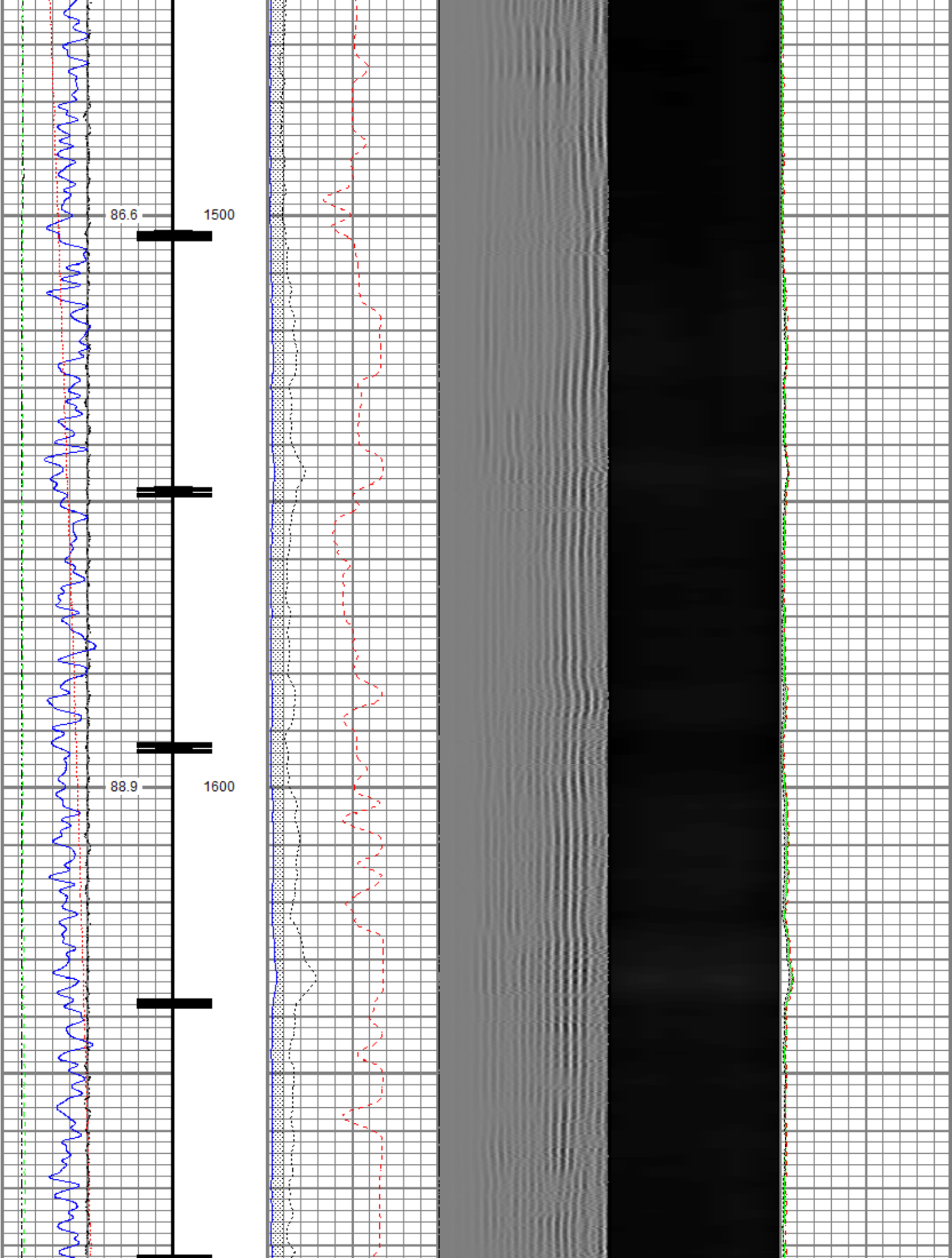


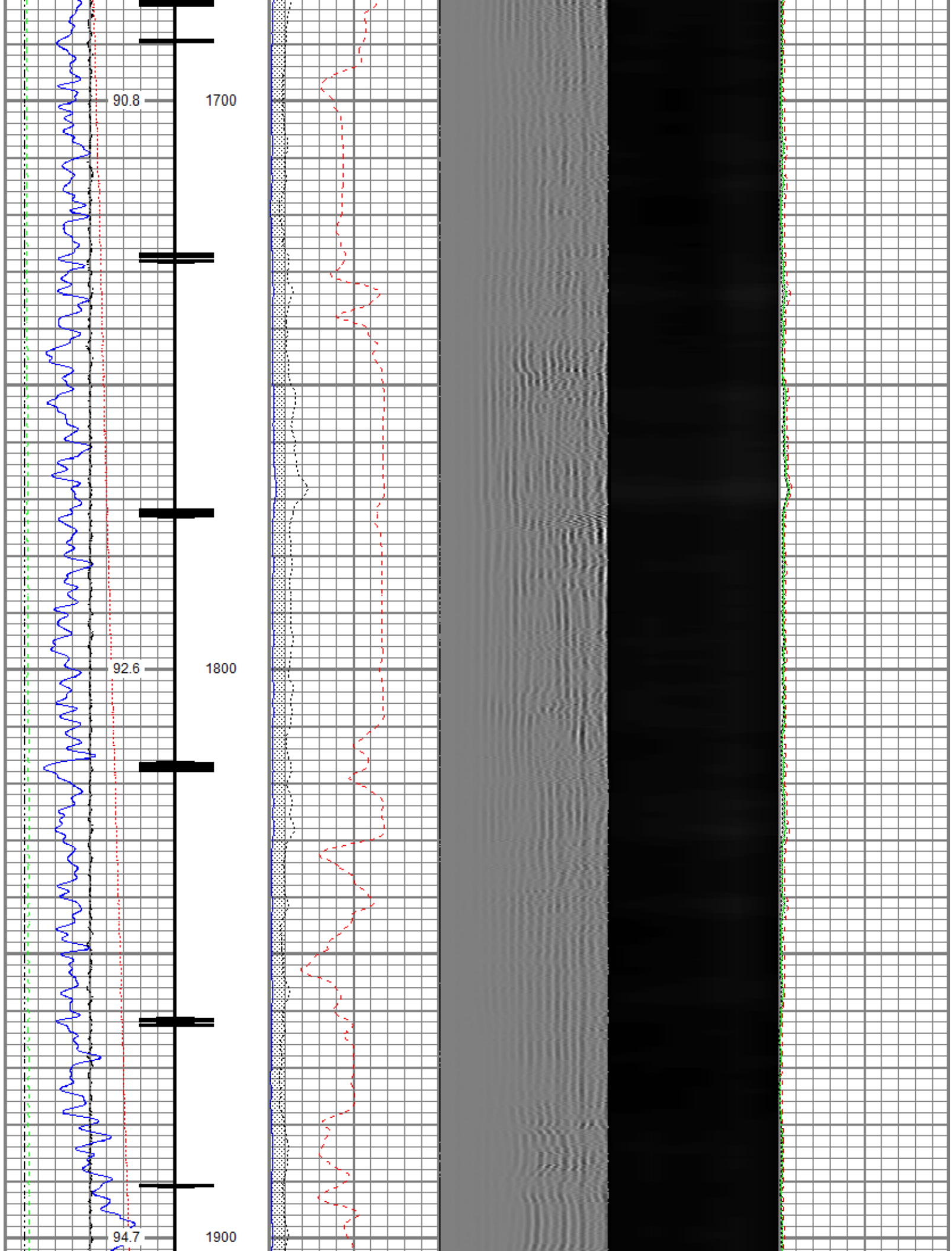


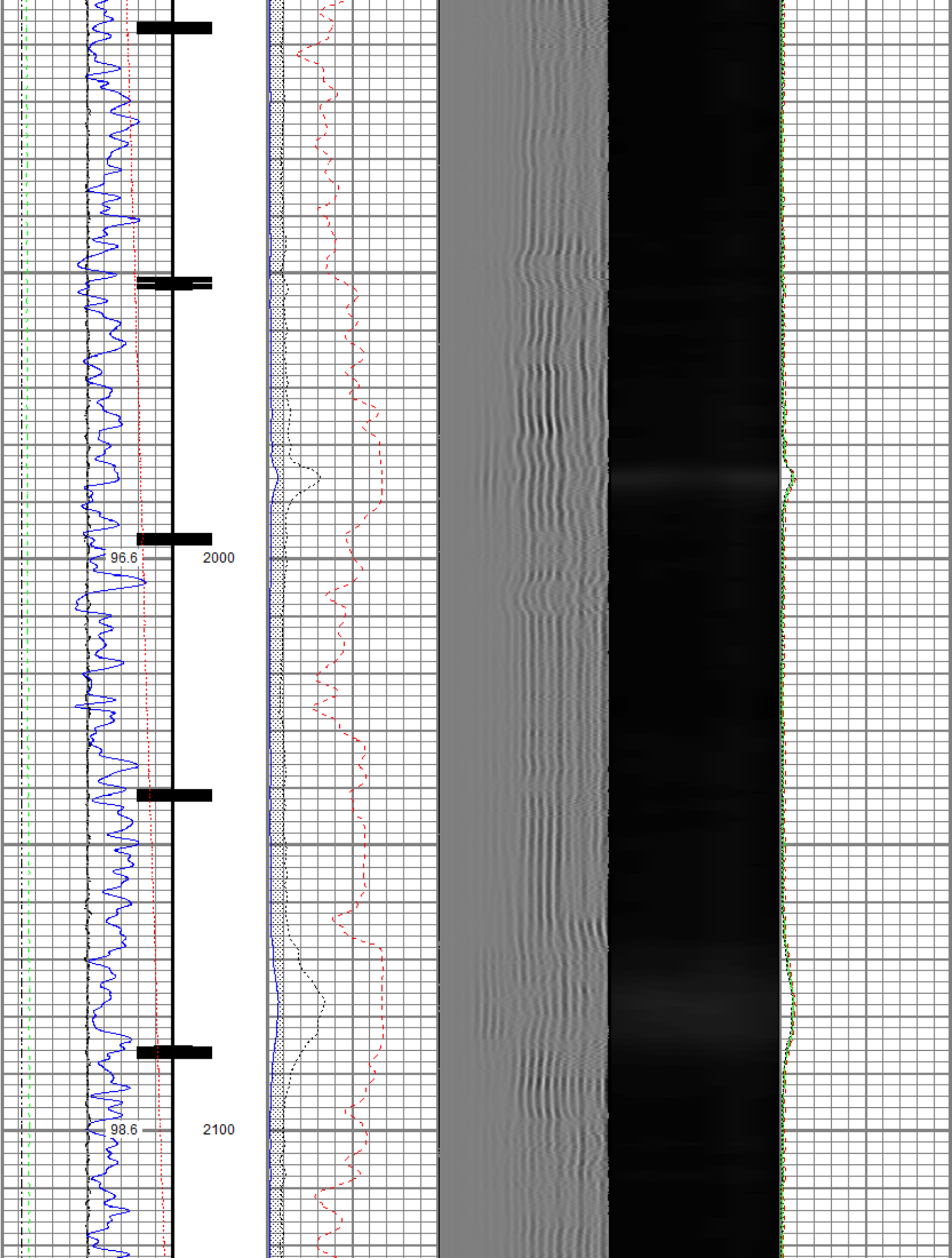


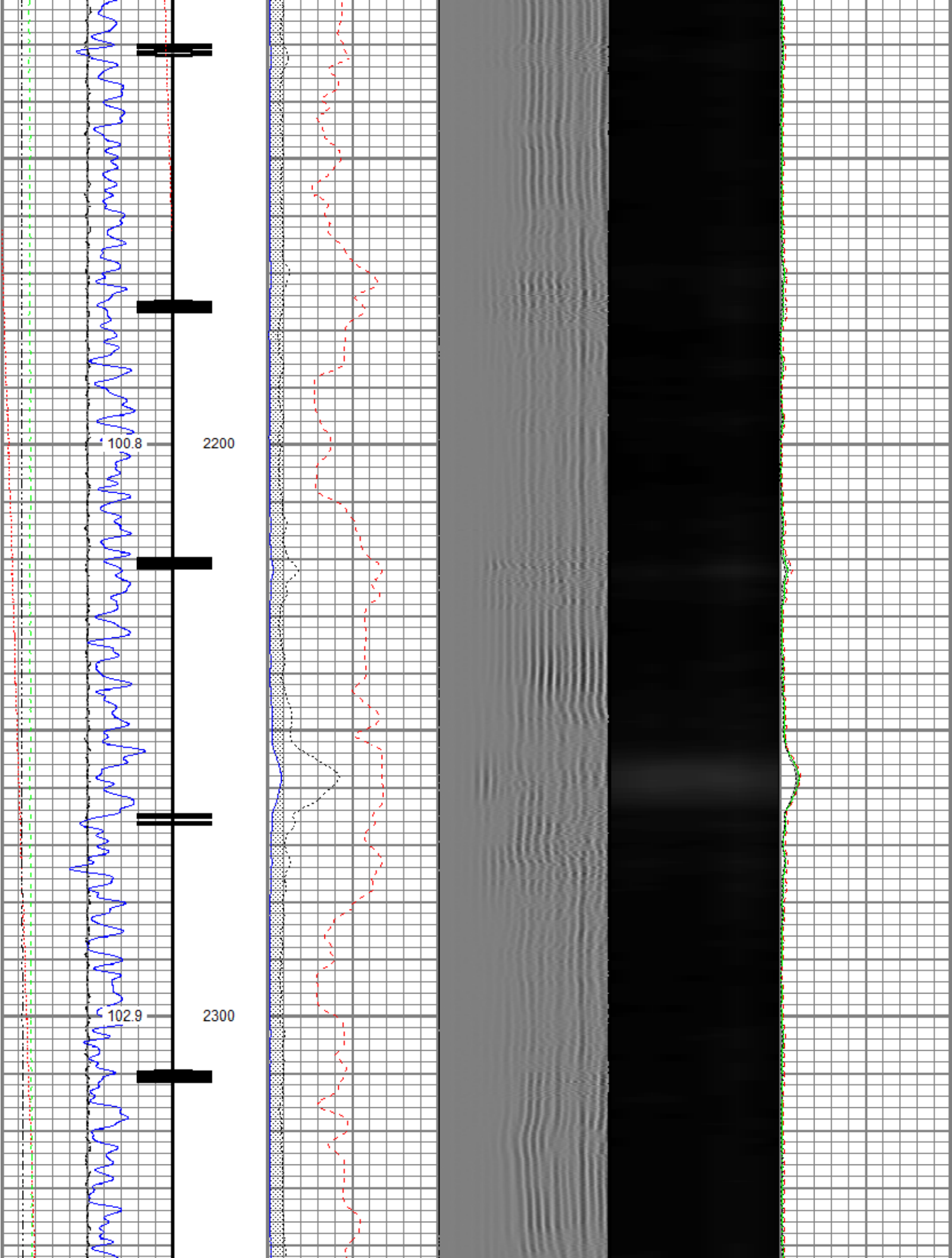




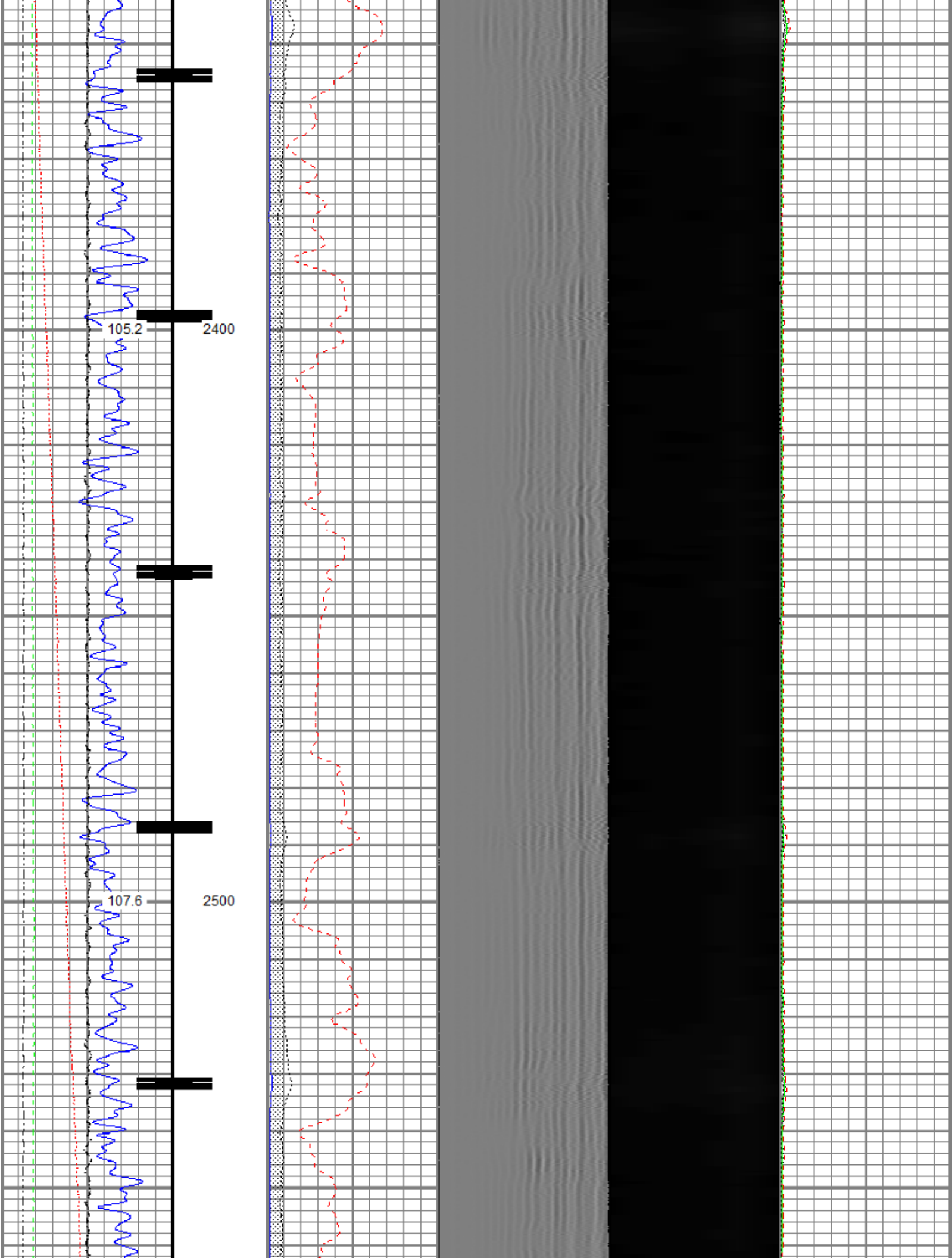


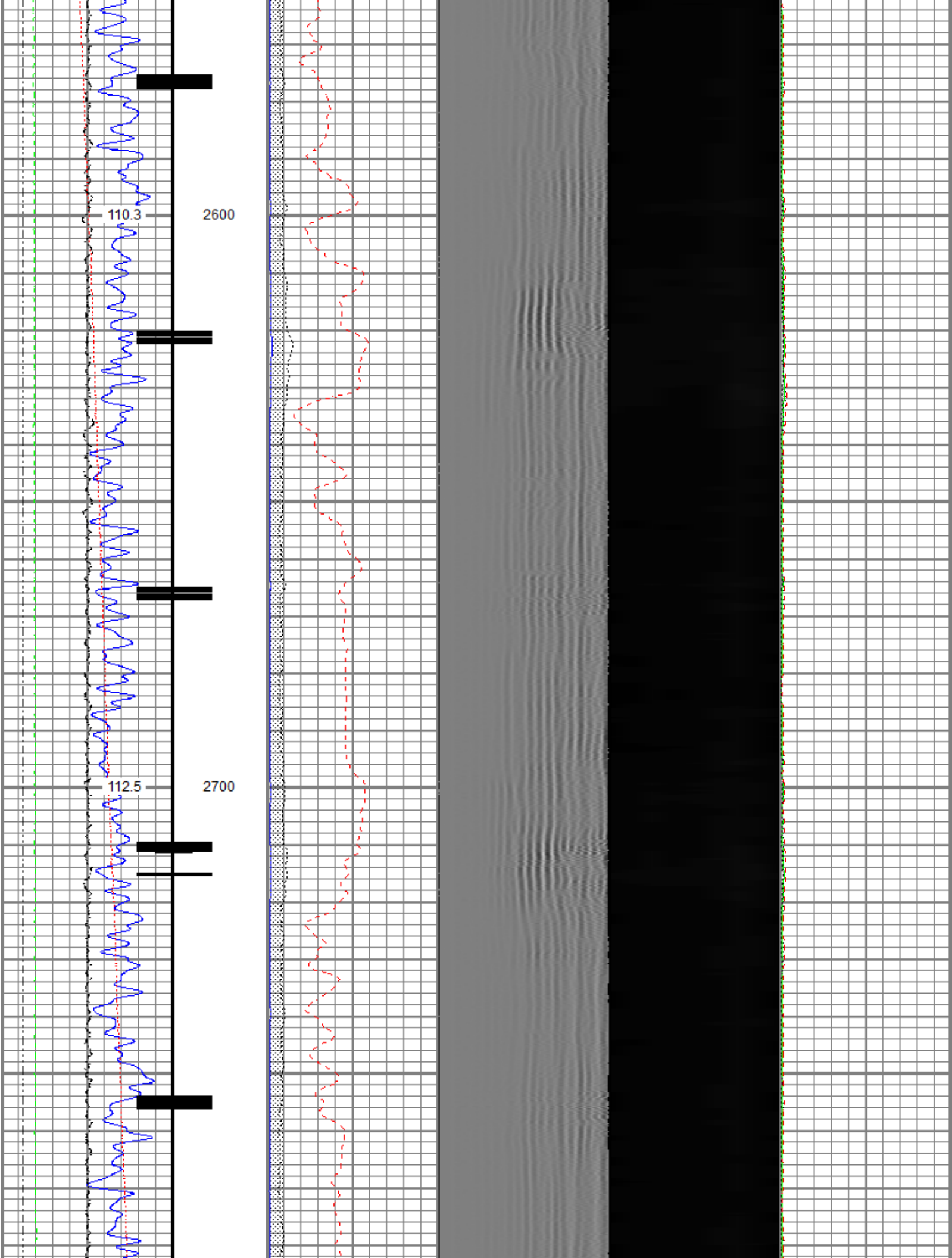


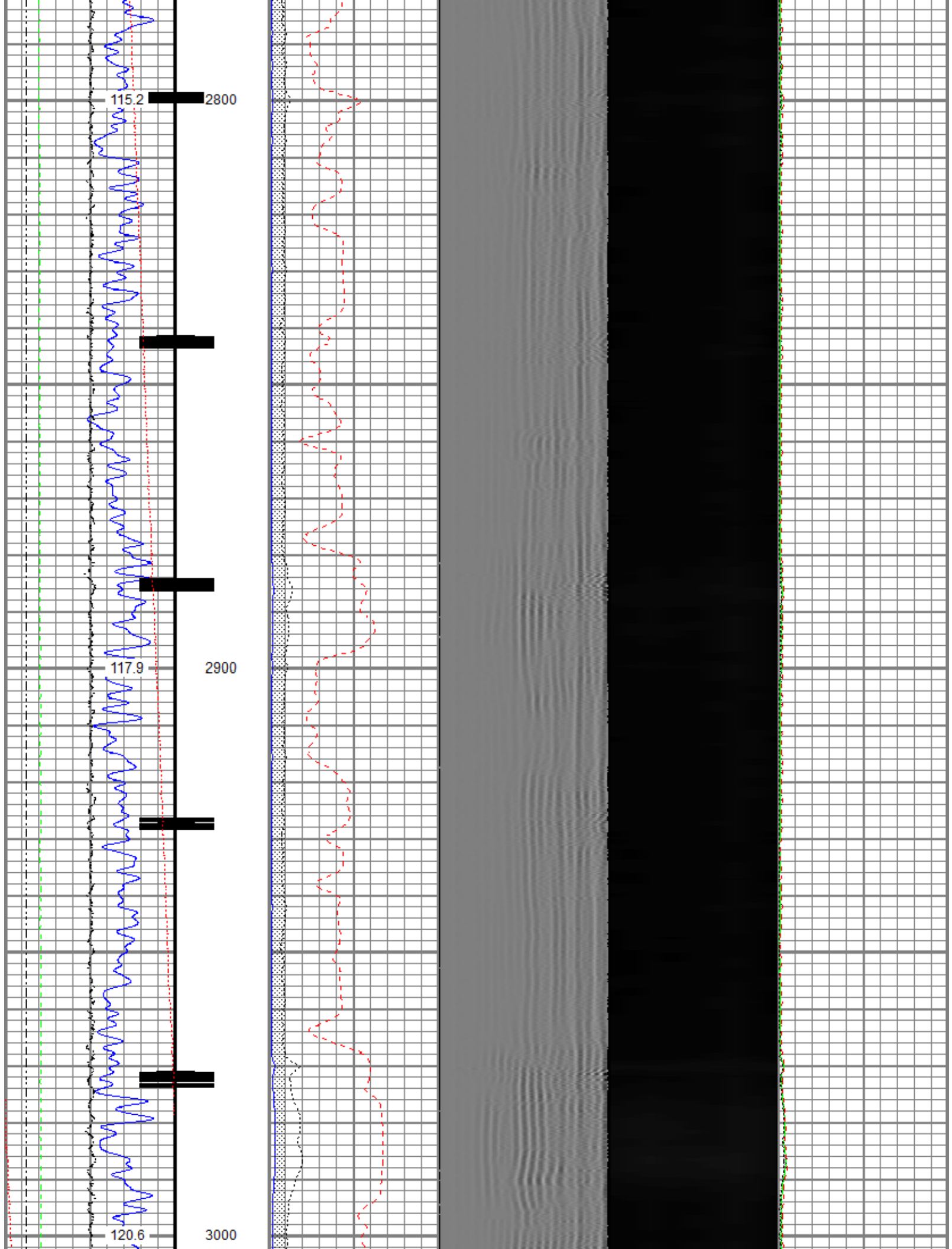


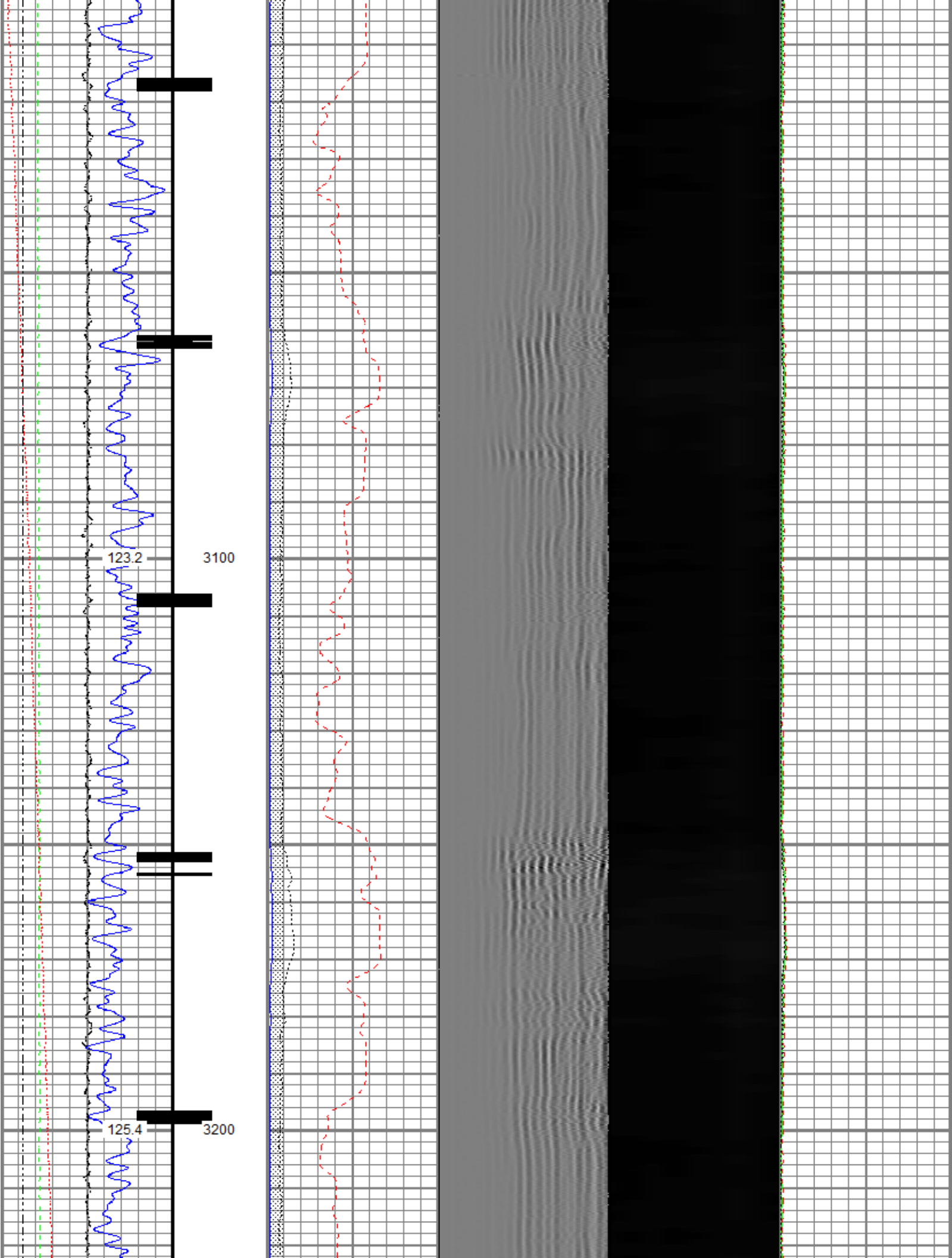




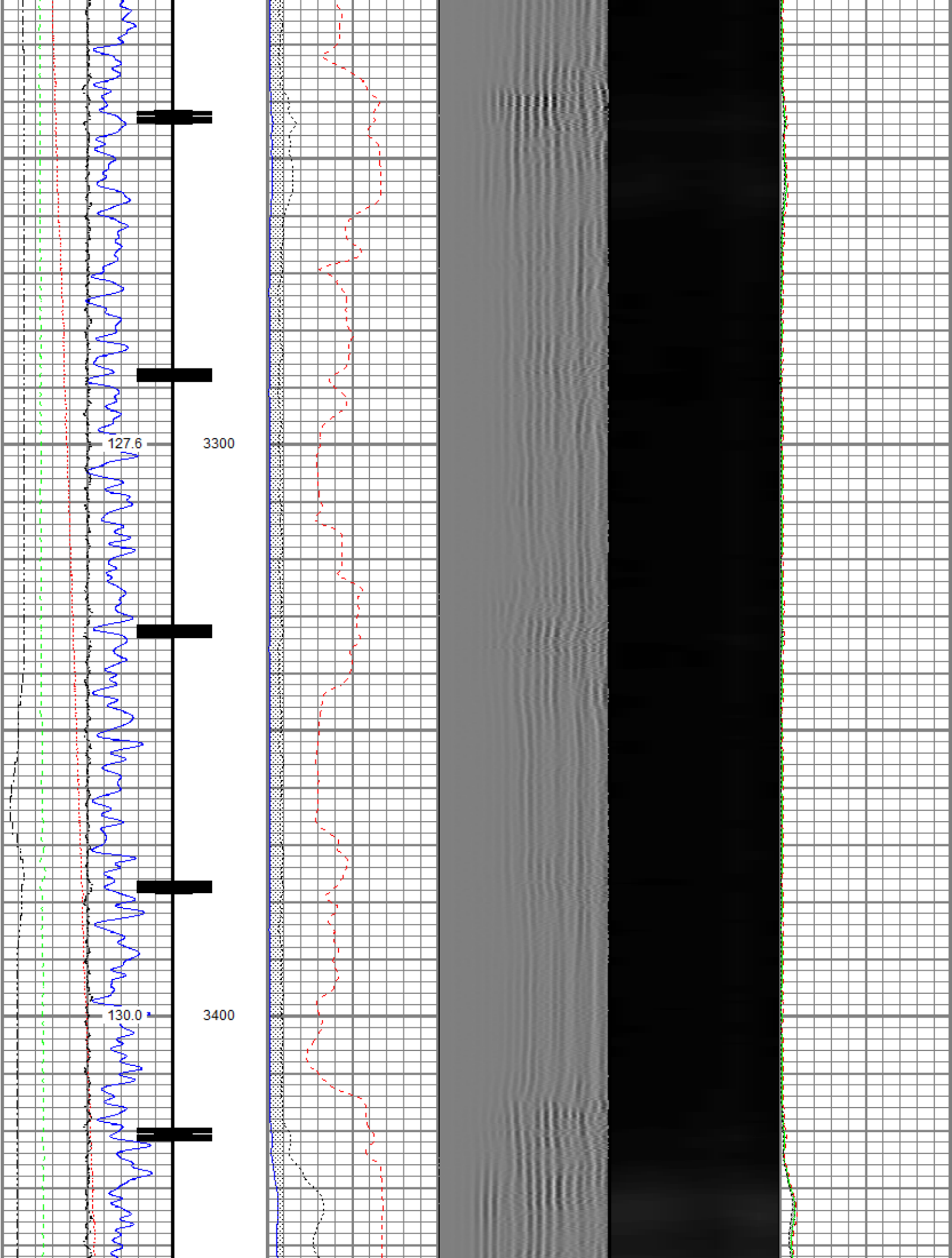


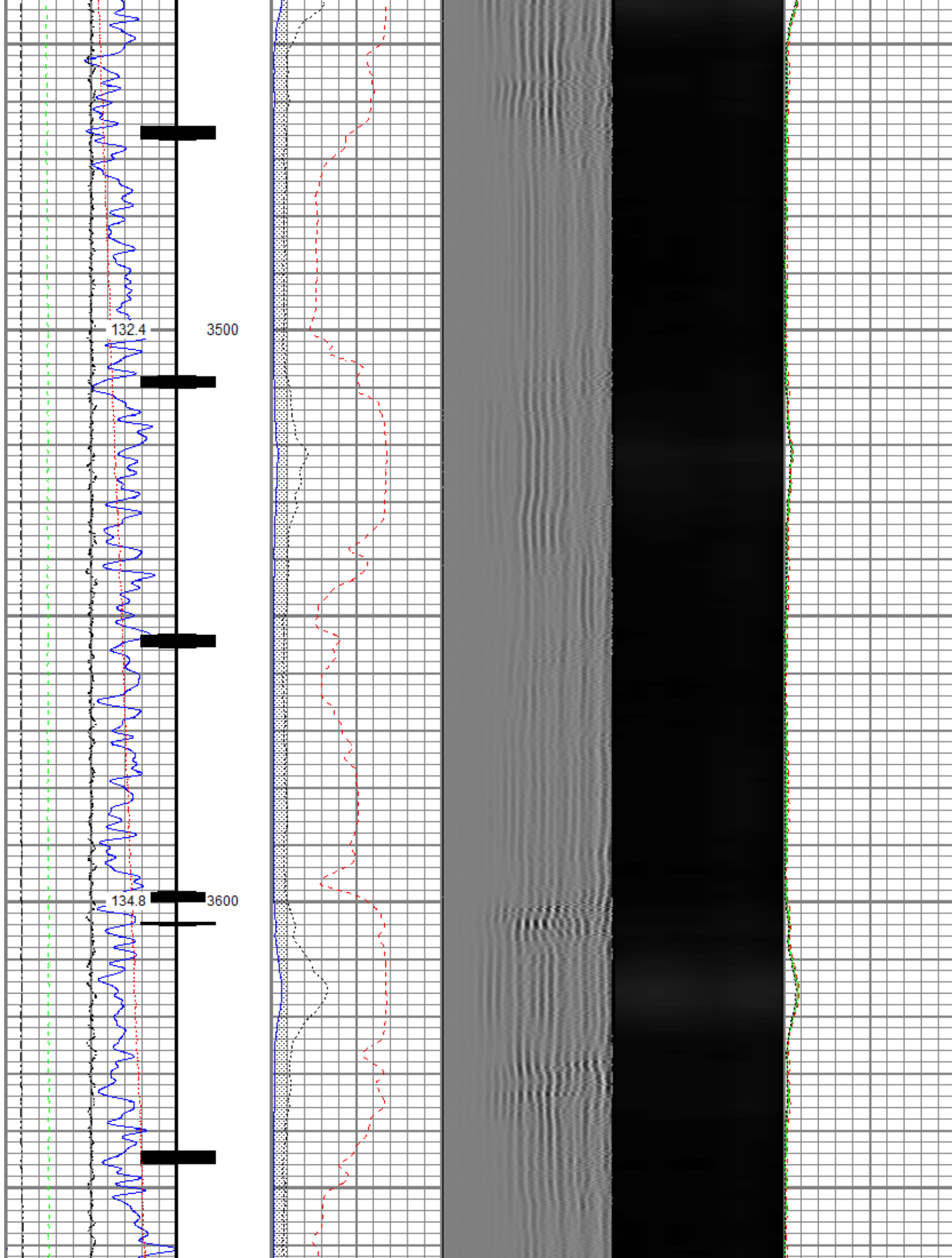


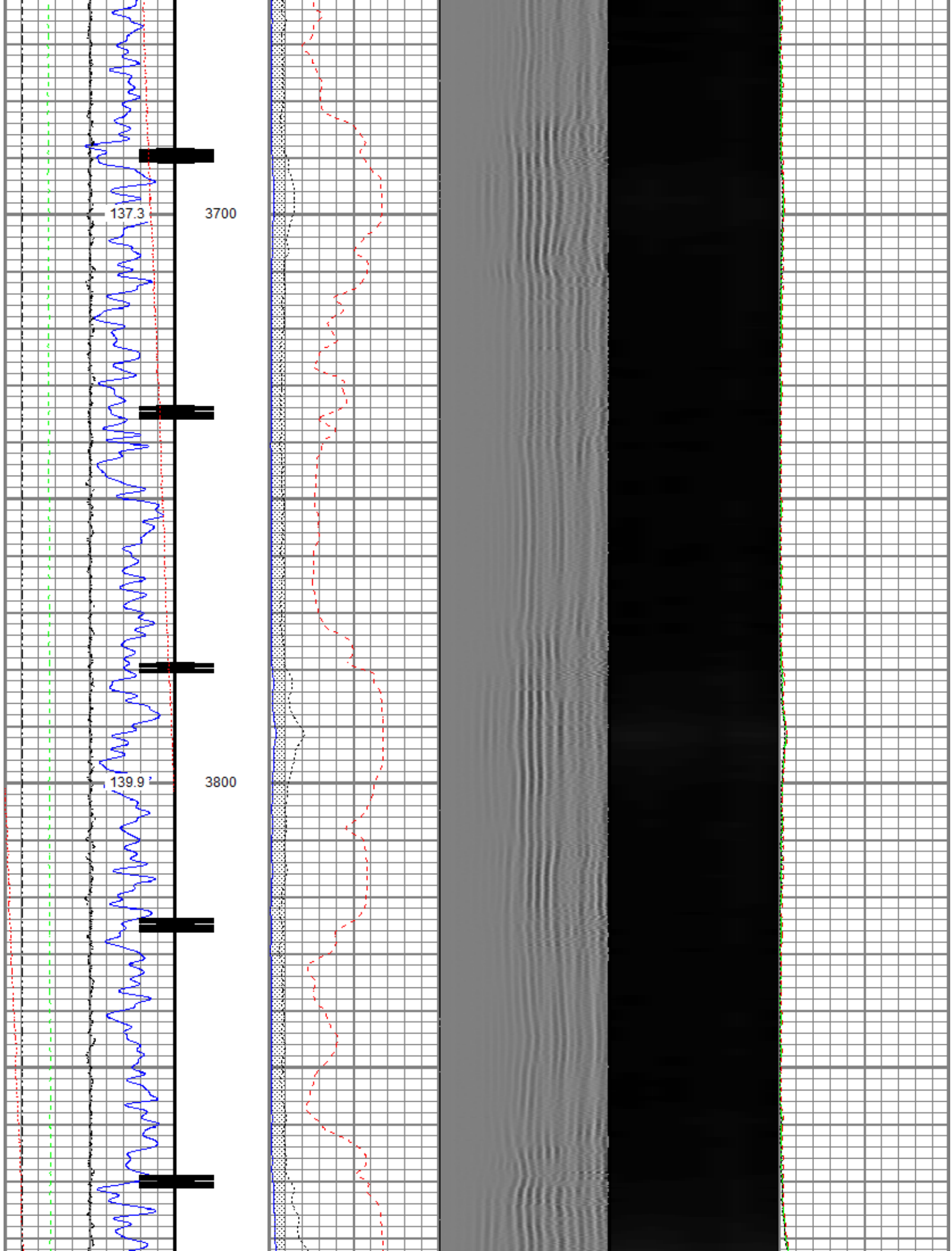


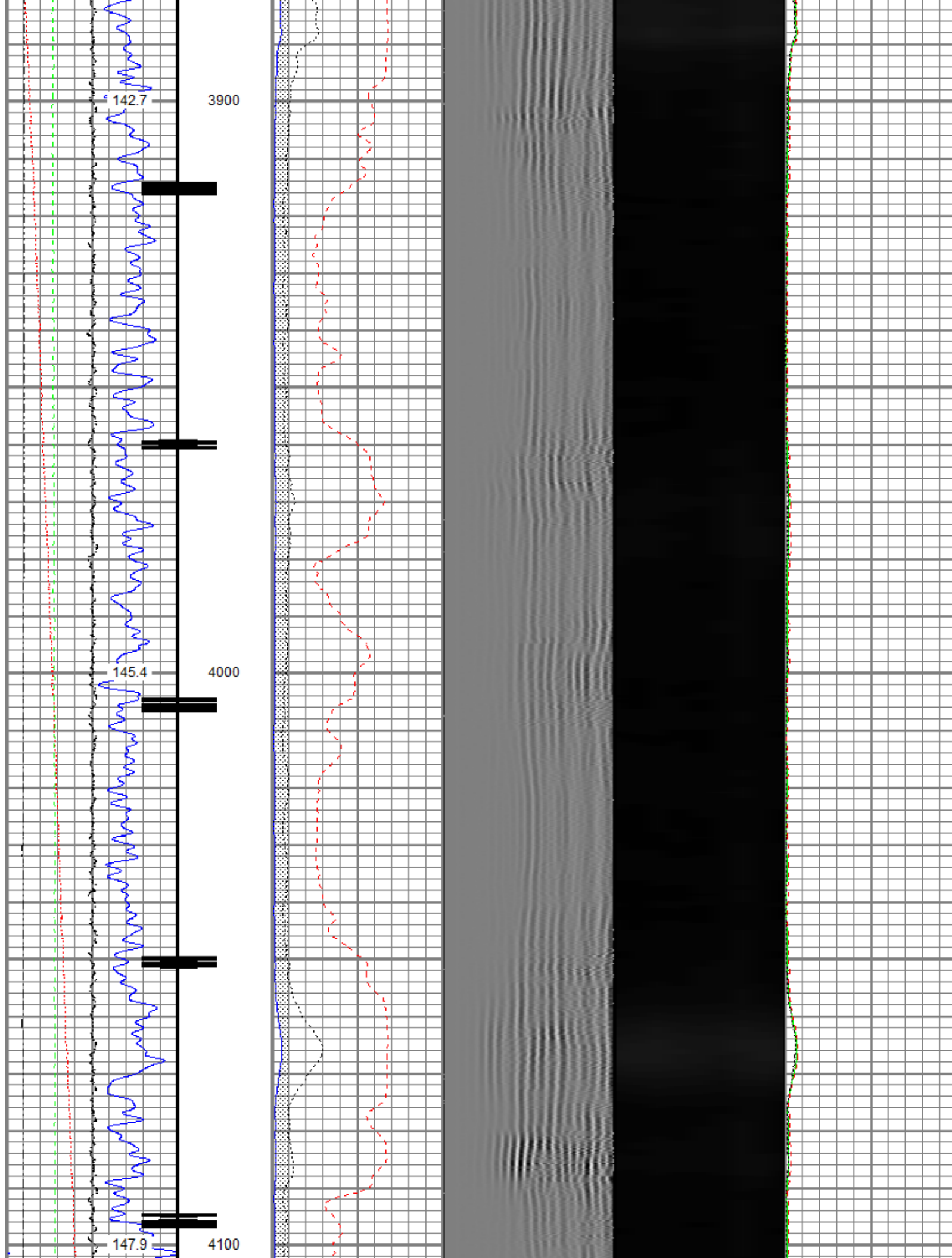




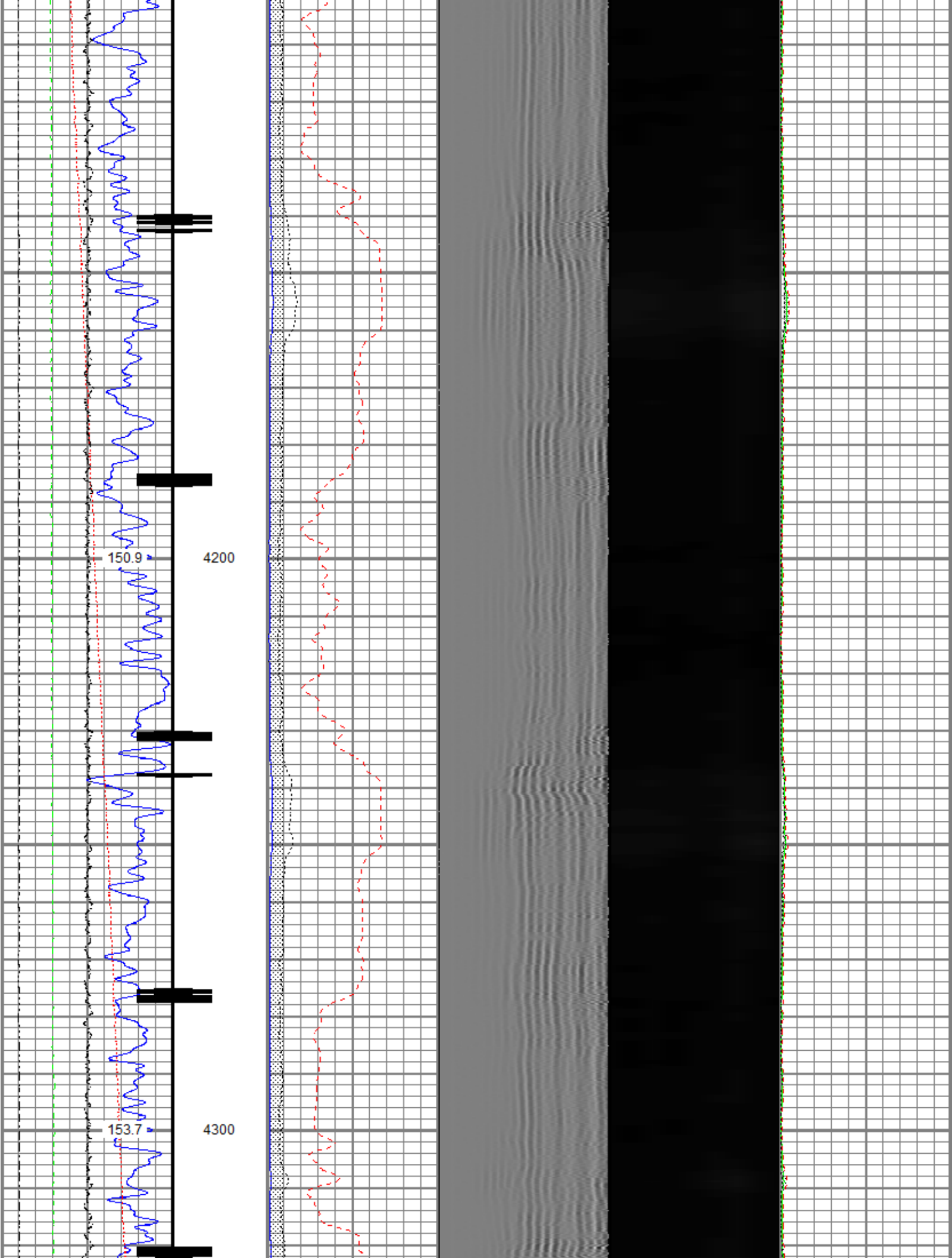


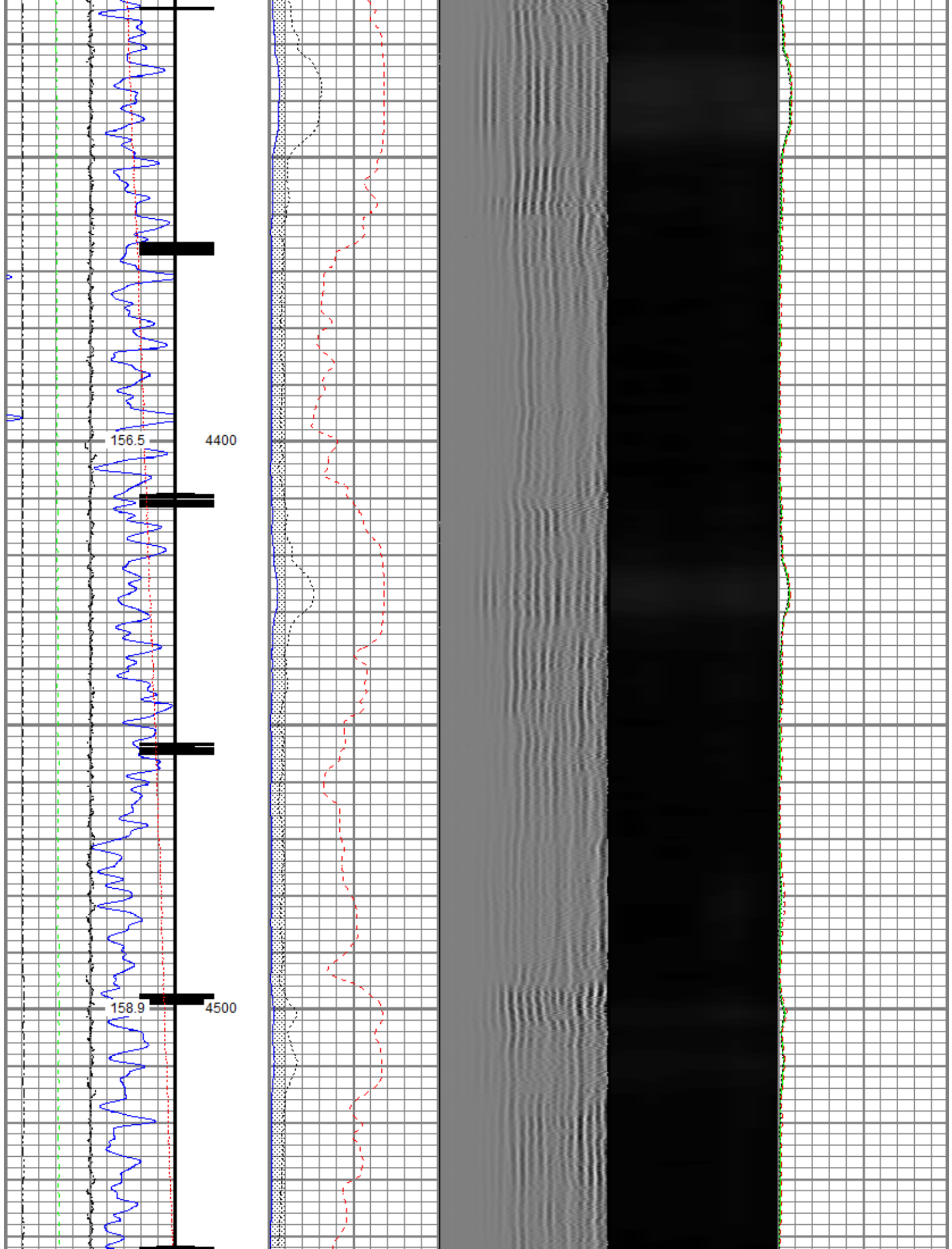


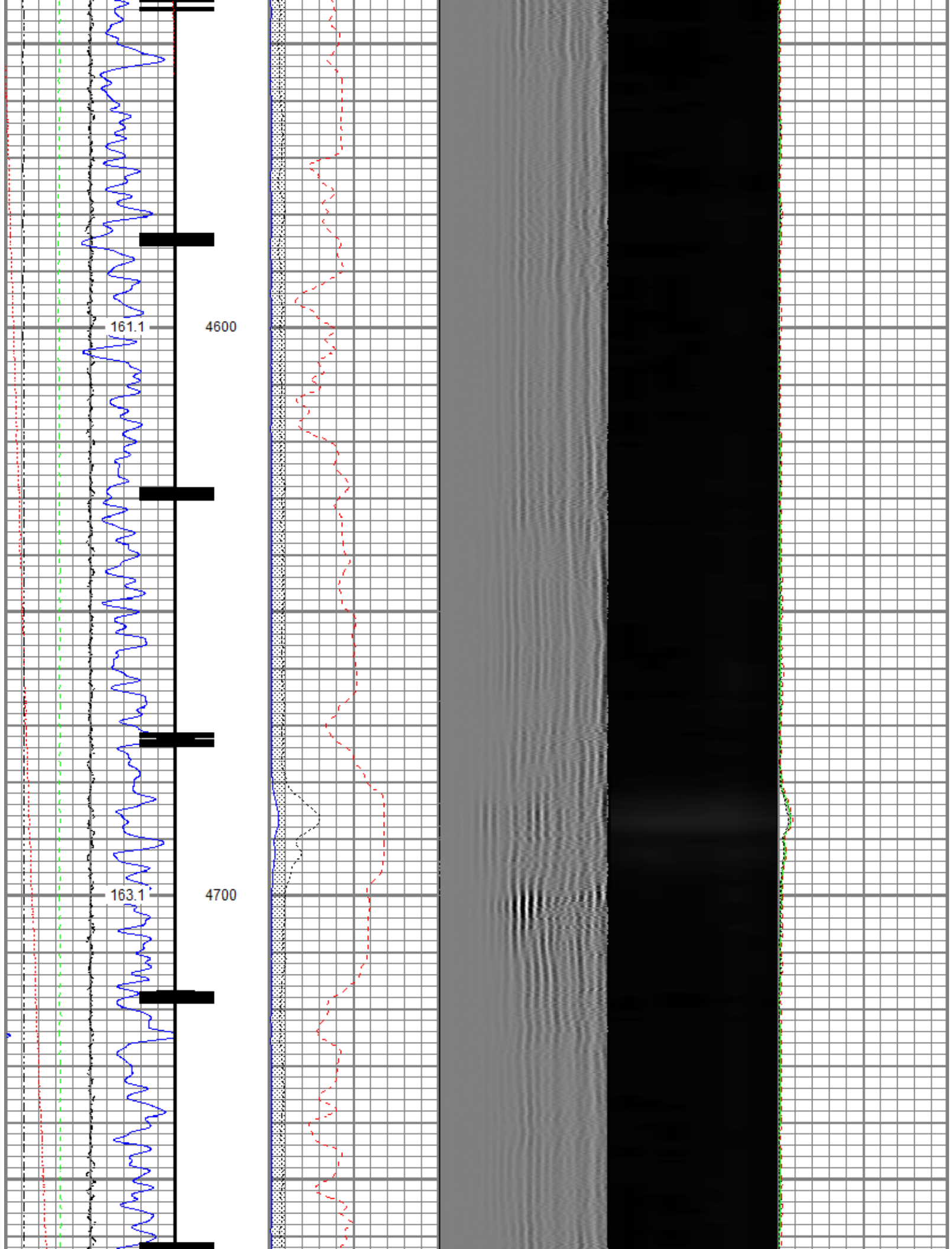


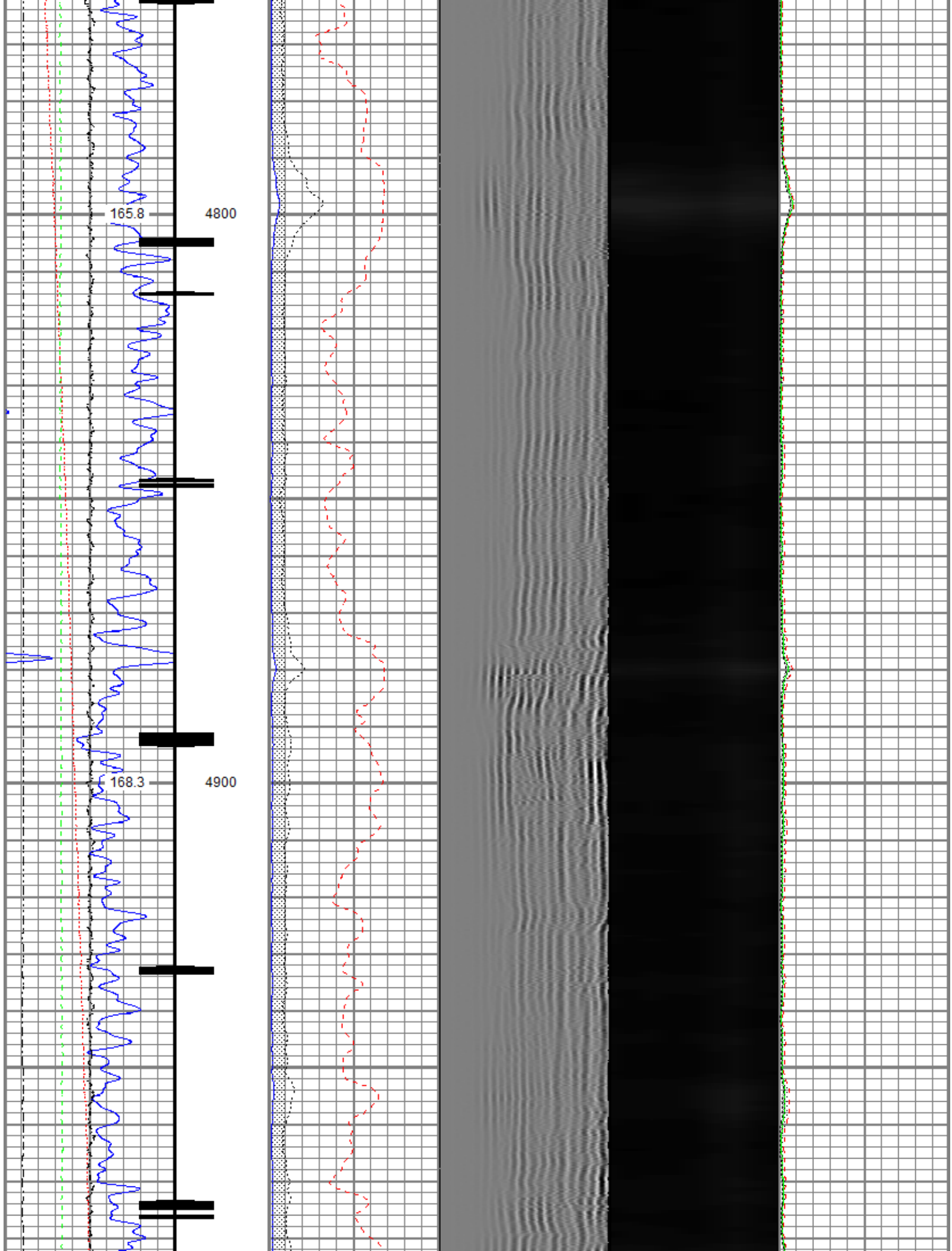




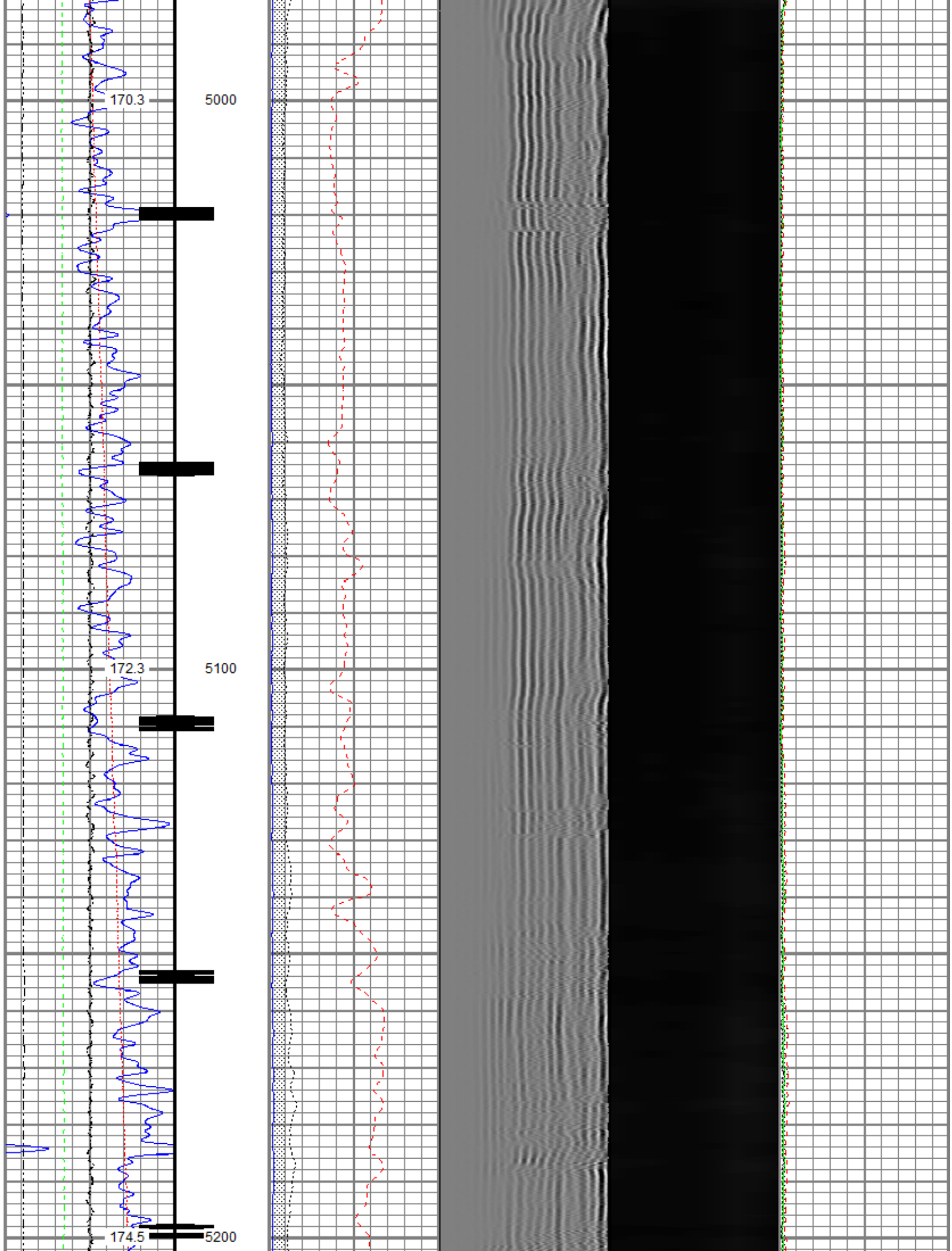




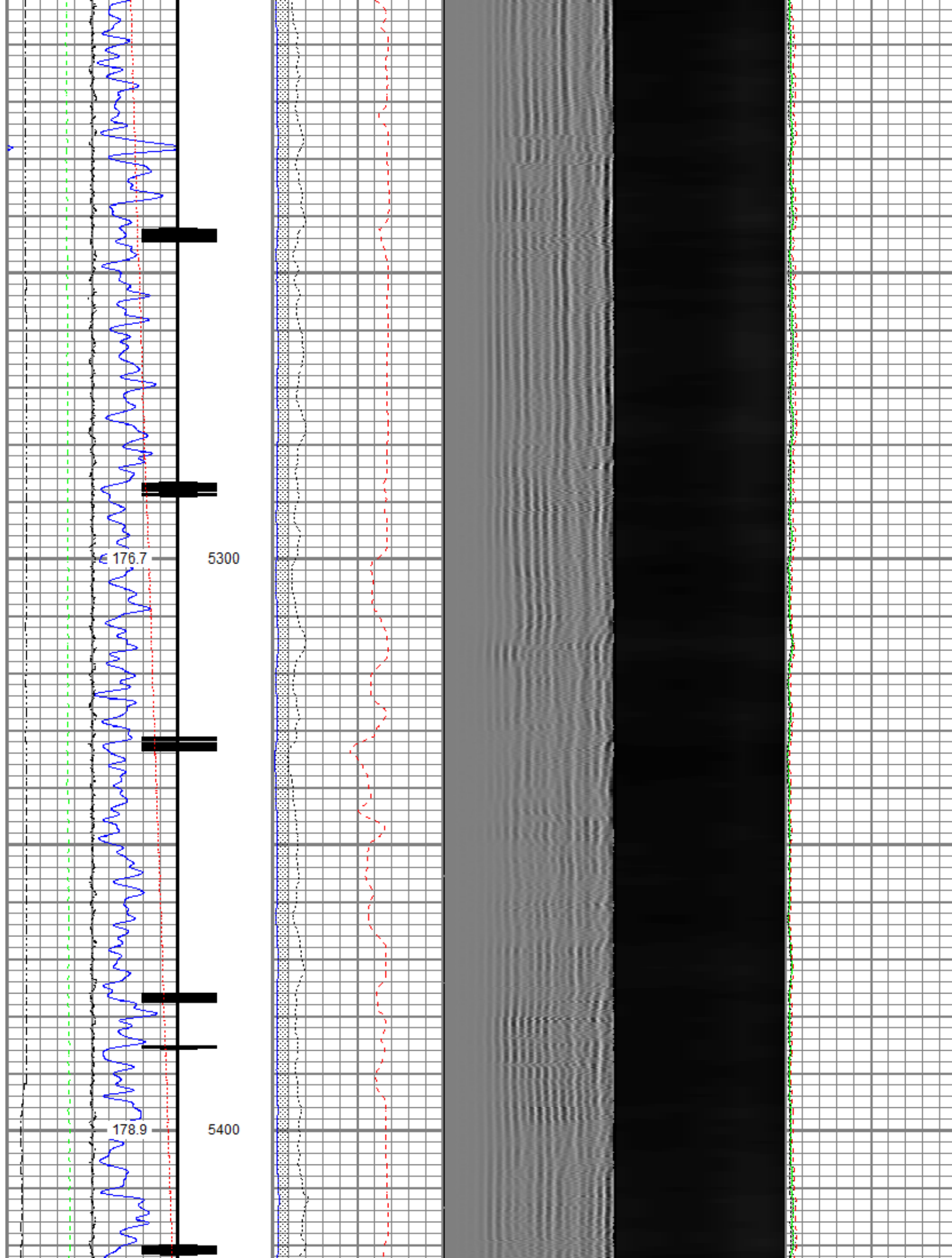


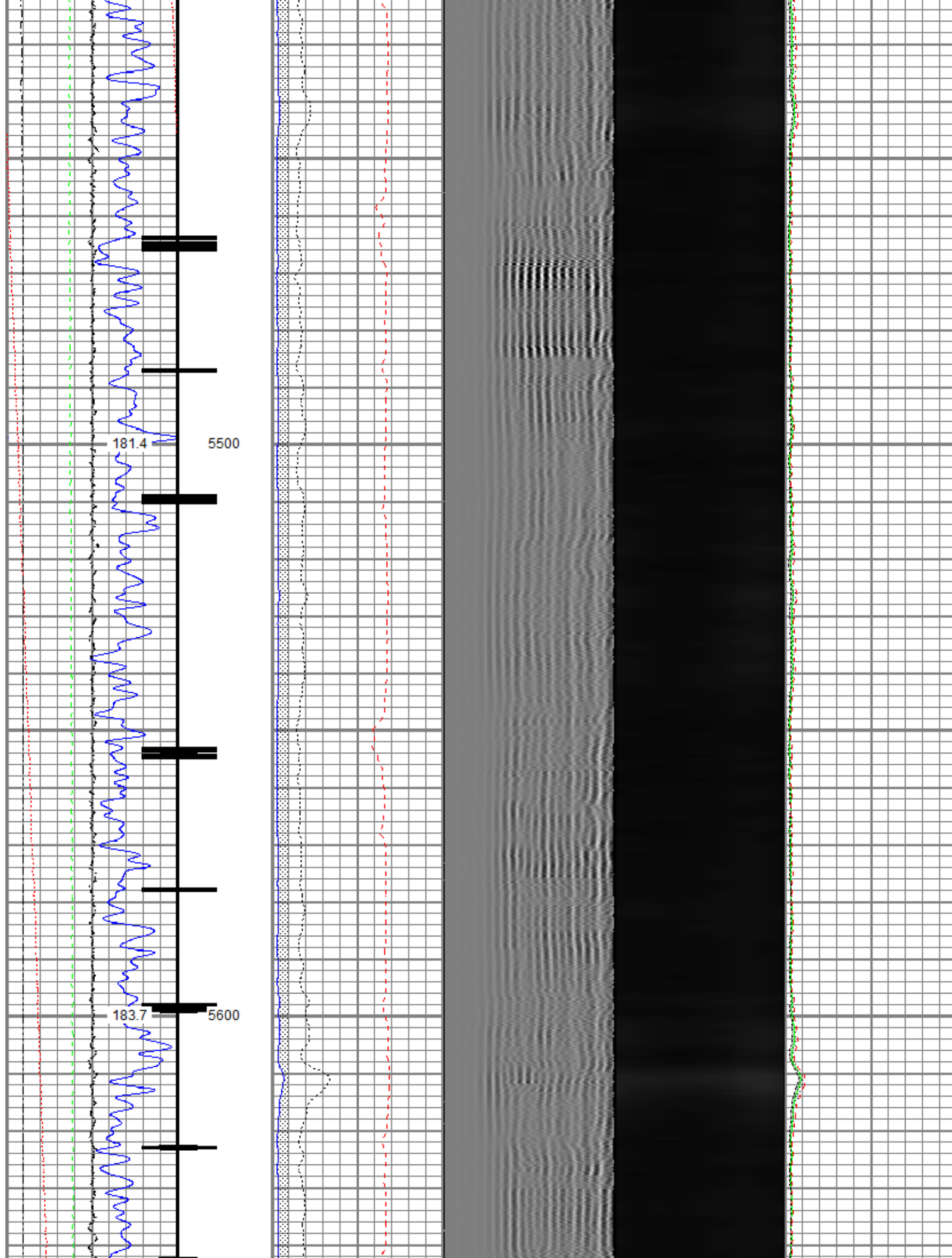


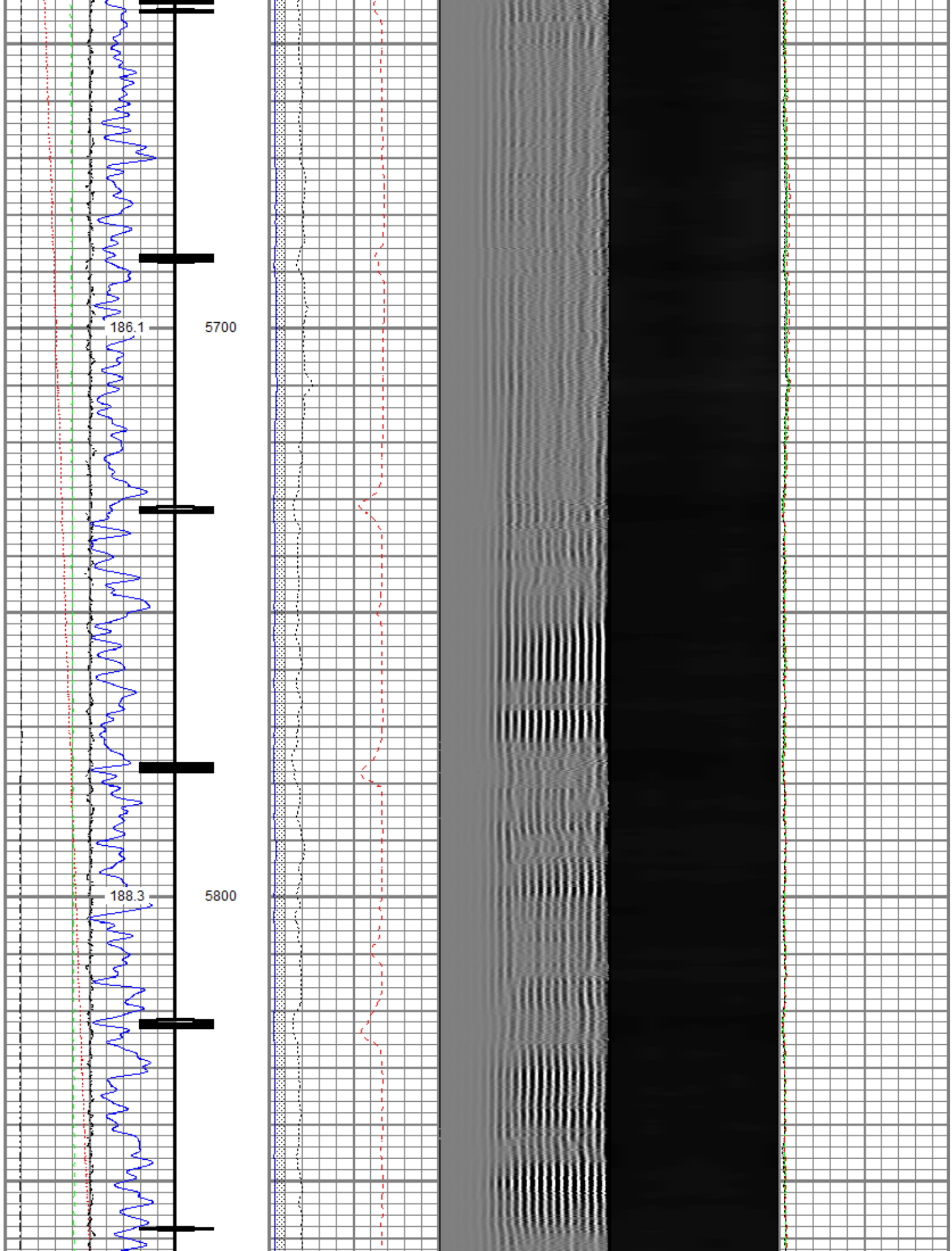


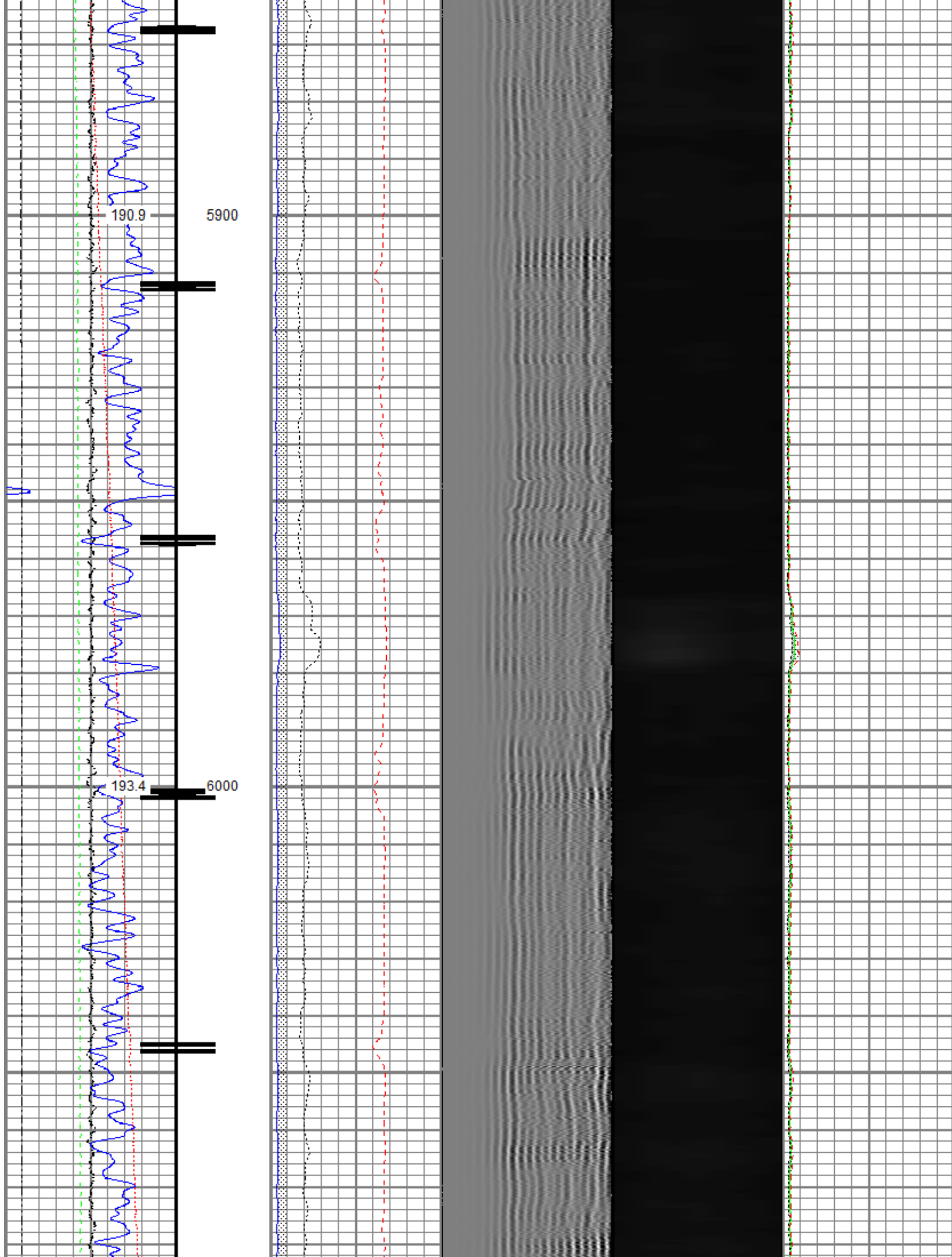




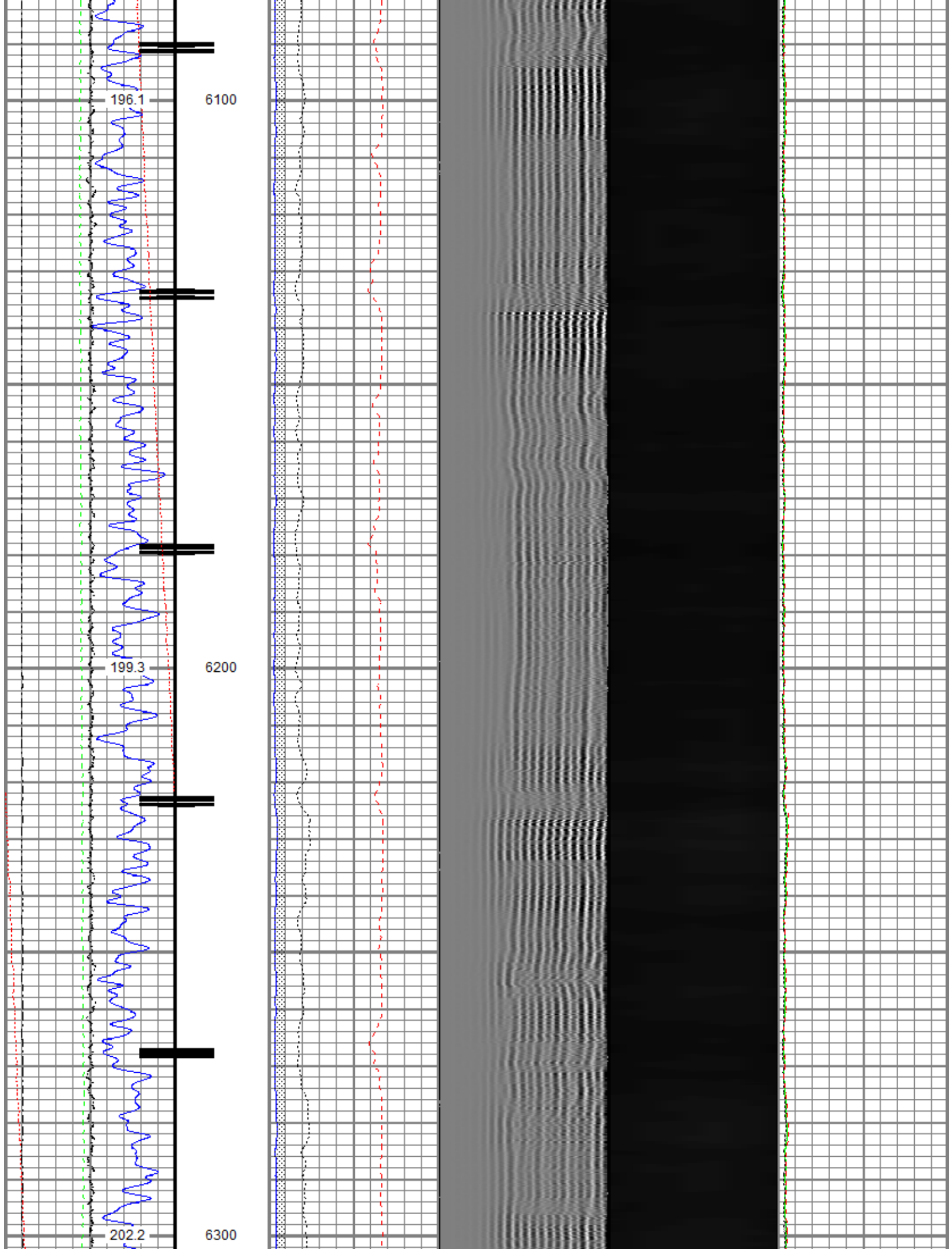




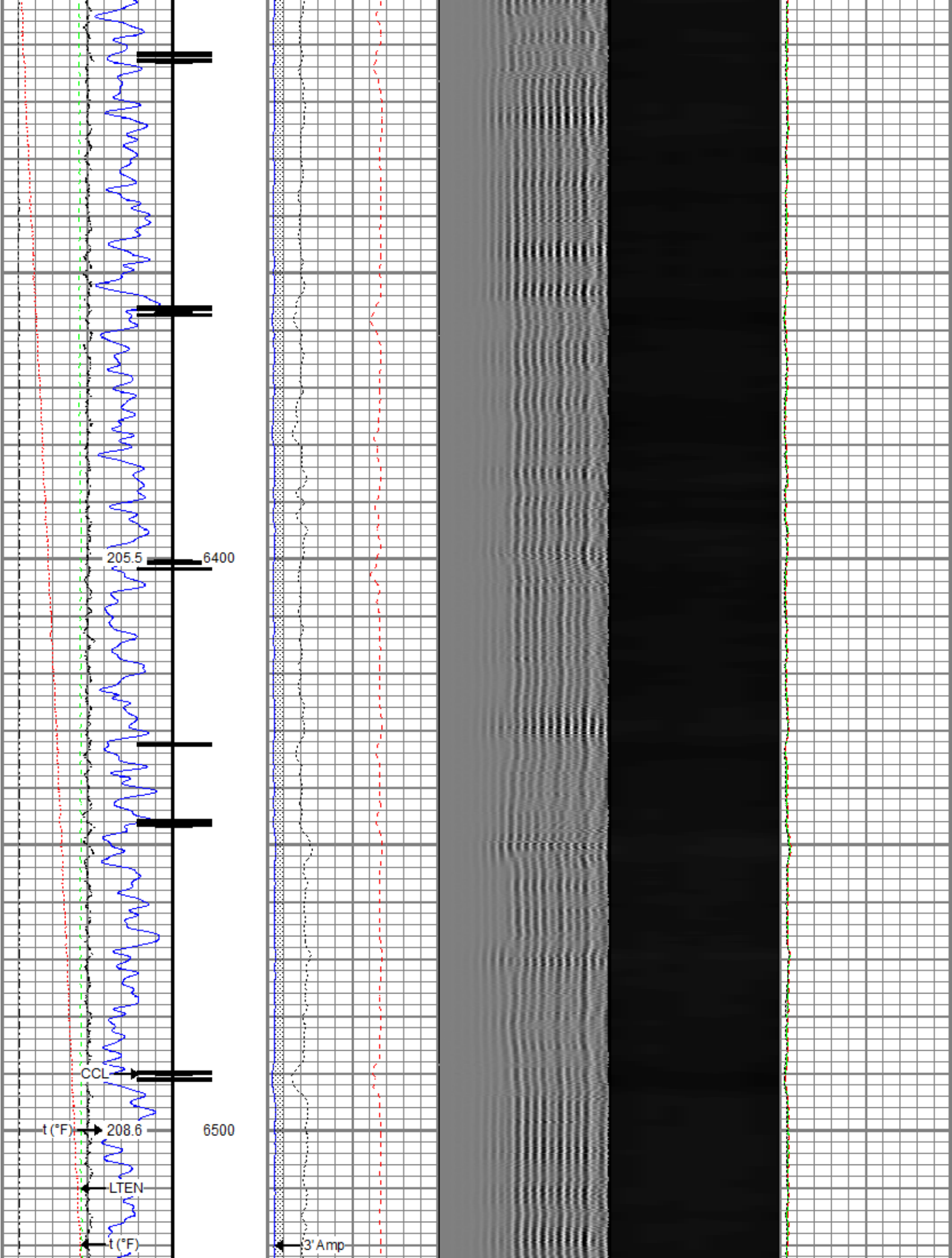


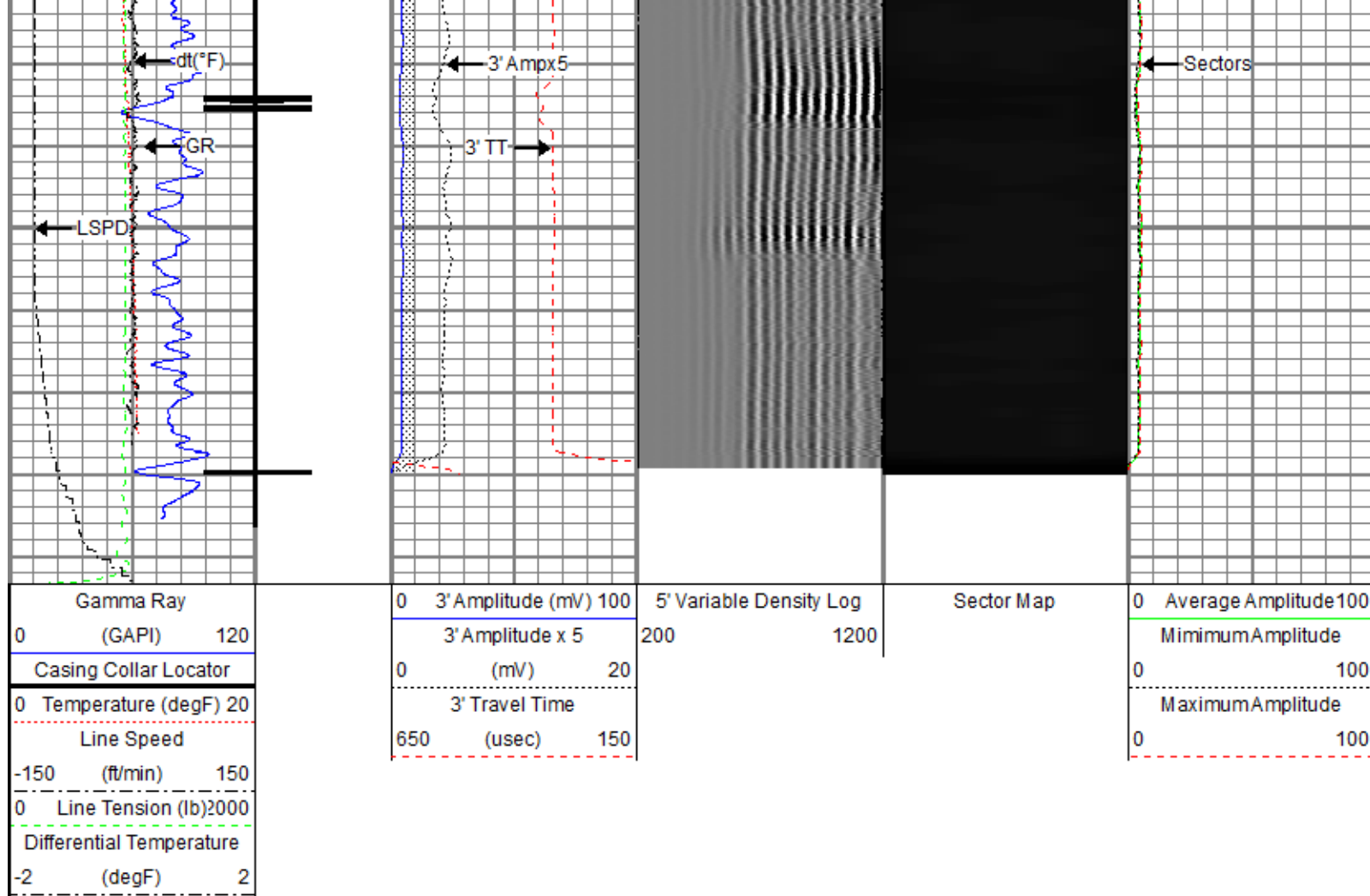








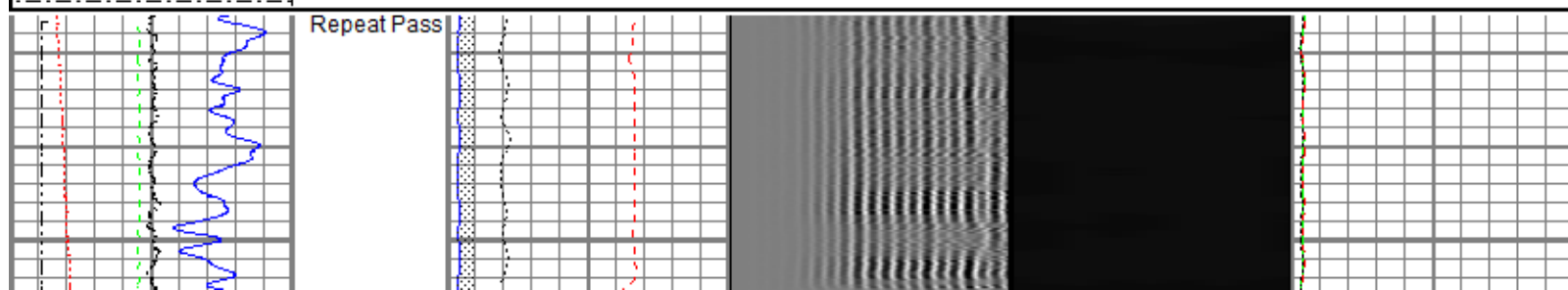
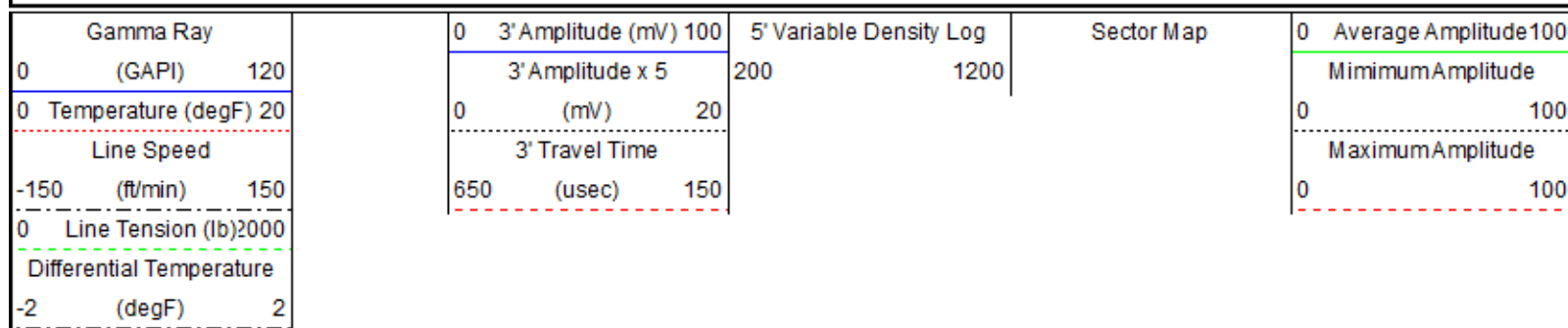




## Repeat Pass

Recorded With 2800 PSI Surface Induced Pressure

Database File 0512345228\_anadarko\_borough 26n-17hz\_rbl\_02-05-18\processed\_0512345228\_anadarko\_borough 26n-17hz\_rbl\_02-05-18  
 Dataset Pathname pass2  
 Presentation Format ros\_radri  
 Dataset Creation Mon Feb 05 13:28:50 2018  
 Charted by Depth in Feet scaled 1:240



Repeat Pass

205.8

6400

Repeat Pass

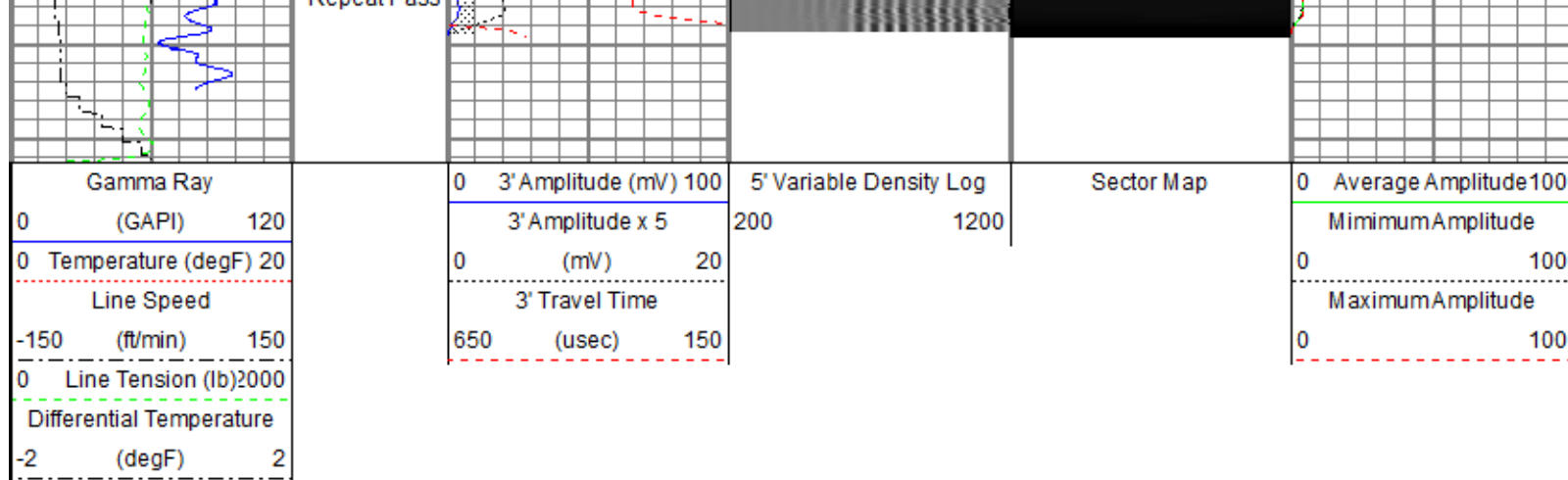
Repeat Pass

209.0

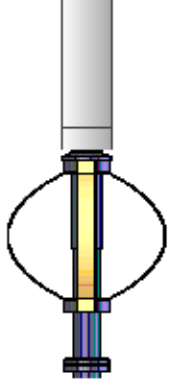
6500

Repeat Pass

Repeat Pass



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	17.03					
WVFS8	14.80		Probe Radii-2750 RBT (FW1308-091) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	14.80					
WVFS6	14.80					
WVFS5	14.80					
WVFS4	14.80					
WVFS3	14.80					
WVFS2	14.80					
WVFS1	14.80					
WVFCAL	14.80					
WVF3FT	14.80					
WVF5FT	13.80					
HEADVOLT	10.55		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$2	6.79					
CCL\$1	6.79					
GR	5.55		Probe GR-CCL-2750 GOB (FW1212-026) Probe 2-3/4" rev.2 Digital Scintillation Gamma	4.51	2.75	55.00

			Ray/CCL Combined  Probe ADPT-6P-GO Probe 2-3/4" 6-Pin Top to GO Bottom Adaptor Sub  Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	0.28	2.75	2.00
				2.88	2.75	20.00
Dataset: processed_0512345228_anadarko_borough 26n-17hz_rbl_02-05-18.db: field/well/run1/pass4 Total length: 23.86 ft Total weight: 225.60 lb O.D.: 2.75 in						

Calibration Report						
Database File	c:\programdata\warrior\data\0512345228_anadarko_borough 26n-17hz_rbl_02-05-18\processed_0512345228_anadarko_borough					
Dataset Pathname	pass4					
Dataset Creation	Mon Feb 05 13:33:41 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:	FW1308-091					
Tool Model:	2750 RBT					
Calibration Casing Diameter:	5.500	in				
Calibration Depth:	27.291	ft				
Master Calibration, performed Mon Feb 05 12:35:38 2018:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.006	0.615	0.800	71.921	116.894	0.058
CAL	0.006	0.667				
5'	0.006	0.557	0.800	71.921	129.248	-0.031
SUM						
S1	0.007	0.607	0.000	100.000	166.403	-1.089
S2	0.006	0.623	0.000	100.000	162.179	-1.039
S3	0.006	0.623	0.000	100.000	162.199	-0.992
S4	0.007	0.618	0.000	100.000	163.559	-1.082
S5	0.006	0.621	0.000	100.000	162.669	-0.987
S6	0.006	0.626	0.000	100.000	161.495	-1.037
S7	0.006	0.625	0.000	100.000	161.616	-1.026
S8	0.006	0.621	0.000	100.000	162.737	-1.033
Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset



CAL	0.000	0.000	0.006	0.667	1.000	0.000
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Air Zero Calibration, performed Mon Feb 05 12:35:58 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	0.007	0.000	0.000
S2	0.007	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: FW1308-091  
Tool Model: 2750 RBT  
Performed: Sun Nov 12 13:50:54 2017

	Reference	Reading
Low Reference:	100.00 degF	104.72 degF
High Reference:	350.00 degF	392.24 degF
Gain:	0.87	
Offset:	8.94	
Delta Spacing	1	



**Company** Kerr-McGee Oil & Gas Onshore, L.P.  
**Well** Burough 26N-17HZ  
**Field** Wattenberg  
**County** Weld  
**State** Colorado