



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company Kerr-McGee Oil & Gas Onshore, L.P.
Well FL Greens 35C-8HZ
Field Wattenberg
County Weld
State Colorado

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Location: API #: 05-123-42271
SEC 8 TWP 1N RGE 66W
Permanent Datum Ground Level Elevation 4925'
Log Measured From Kelly Bushing 20 FT
Drilling Measured From Kelly Bushing
Other Services
Gauge Ring
Elevation
K.B. 4945'
D.F. 4944'
G.L. 4925'

Run Number	Two				
Depth Driller	12753 FT				
Depth Logger	7790 FT				
Bottom Logged Interval	7785 FT				
Top Log Interval	Surface				
Open Hole Size	7.875"				
Type Fluid	Water				
Density / Viscosity	8.34 lb/gal				
Max. Recorded Temp.	242°F				
Estimated Cement Top	See Log				
Time Well Ready	ROA				
Time Logger on Bottom	13:37				
Equipment Number	HD-0343				
Location	Fort Lupton, CO				
Recorded By	D. Finn			S. Hopper	W.Wacker
Witnessed By	Roger Pevler				
Borehole Record				Tubing Record	
Run Number	Bit	From	To	Size (in)	Weight (lb/ft)
					From
					To

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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 6803 FT
Adjusted -11 FT to correlate with Marker Joint
Gauge Ring/Junk Basket ran to 7788 FT with no debris found
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 any debris upon completion of operations

Thank you for choosing Reliance Oilfield Services, LLC!!

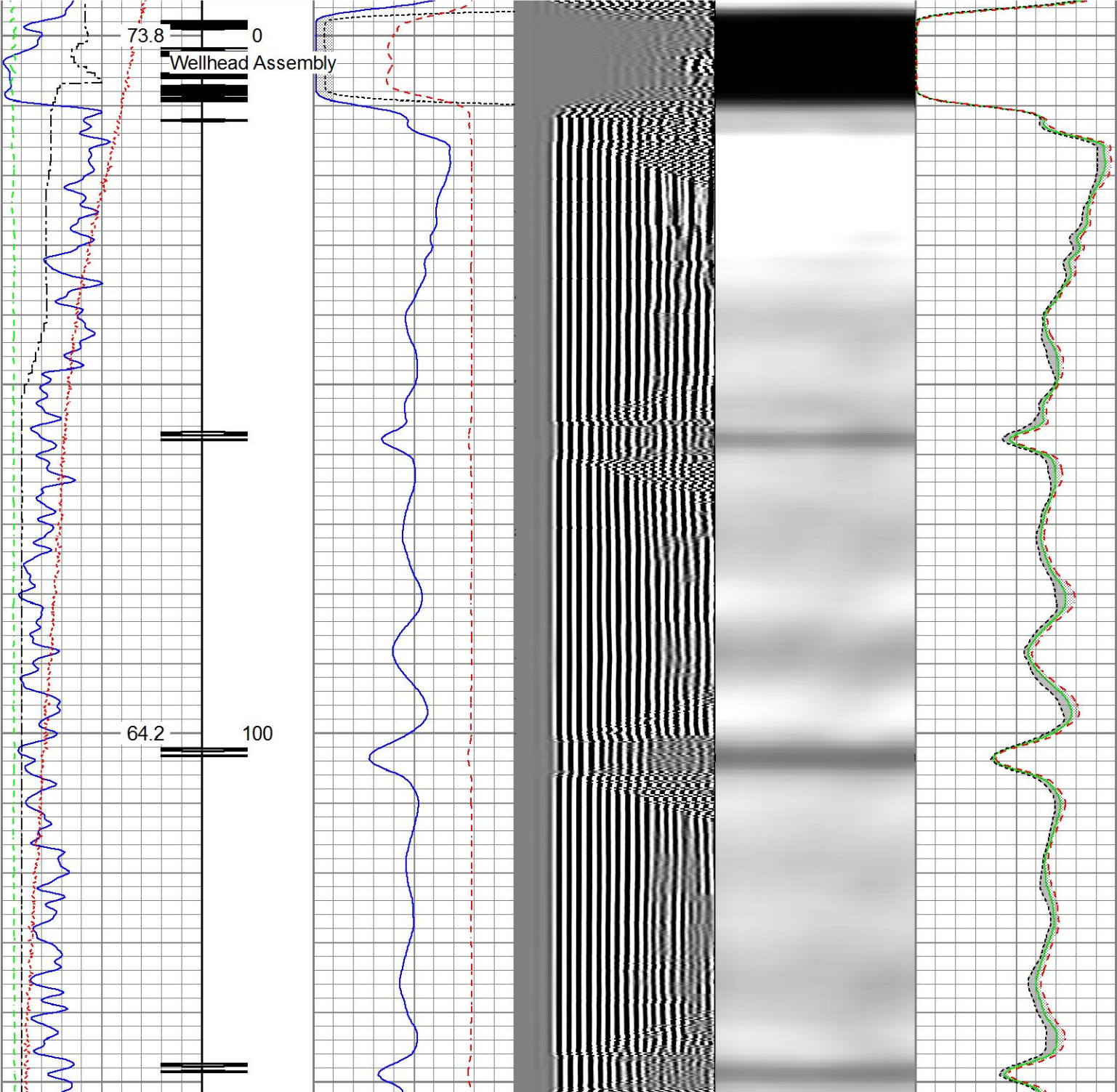


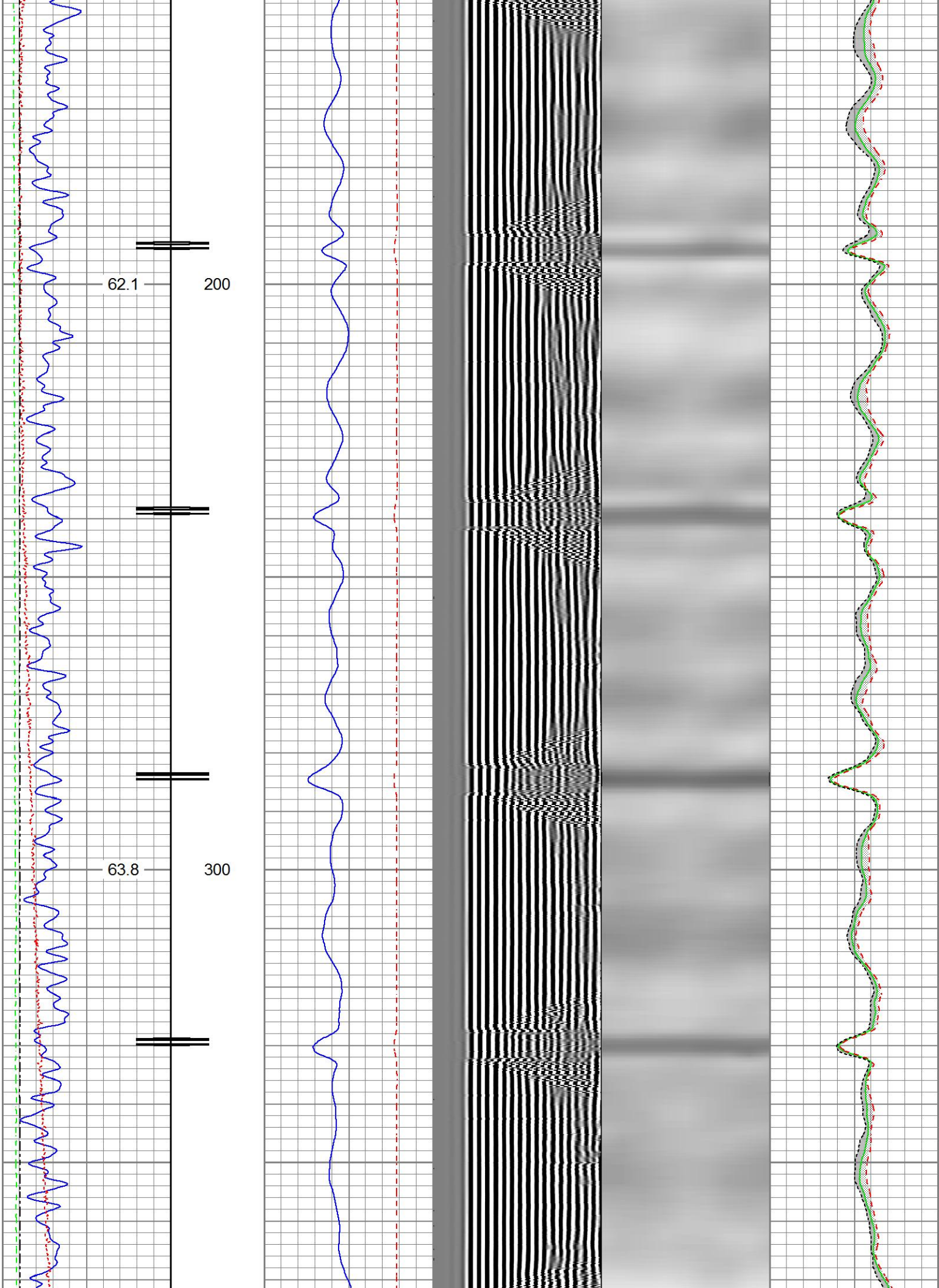
Main Pass

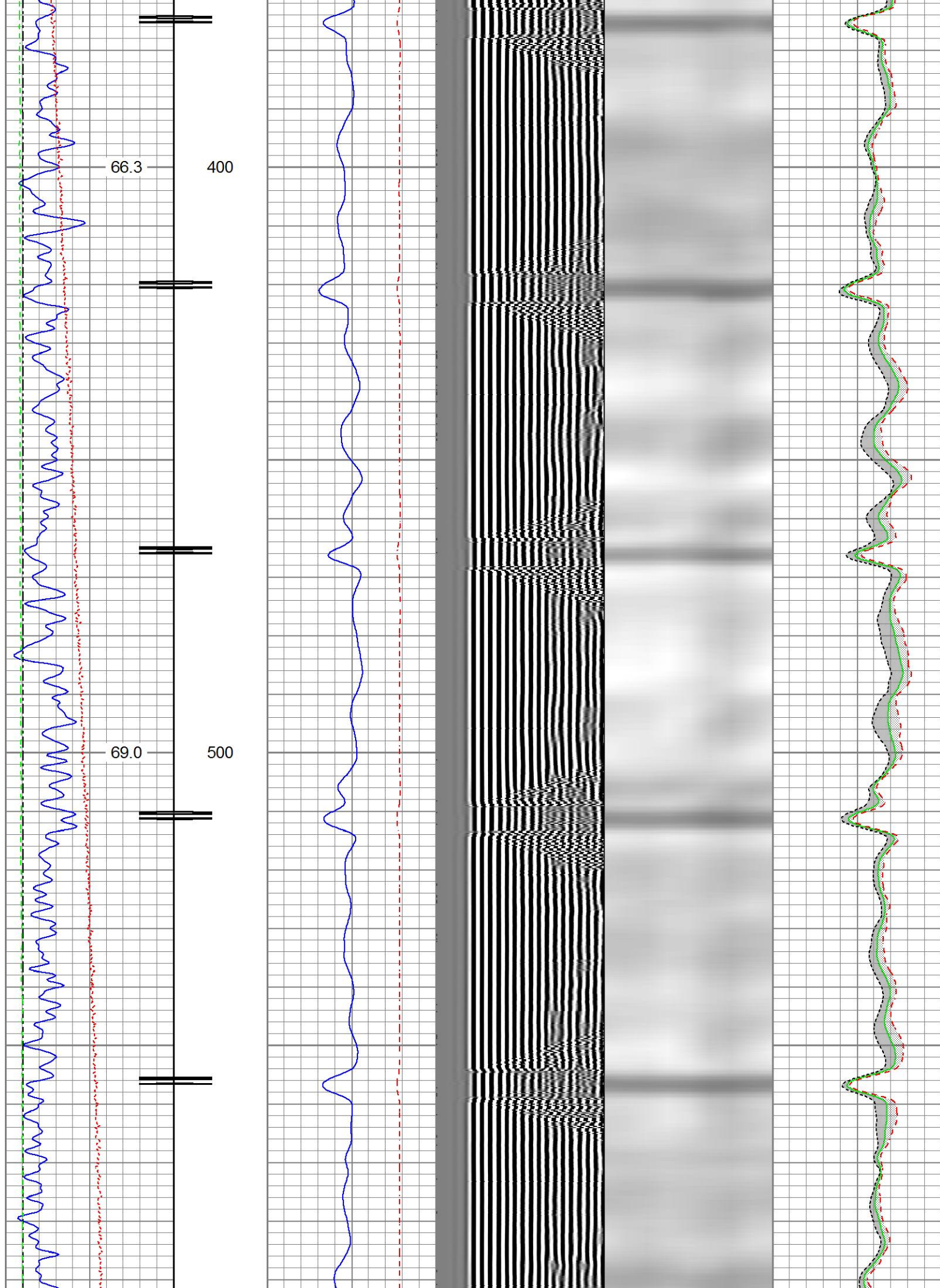
Recorded With 2800 PSI Surface Induced Pressure

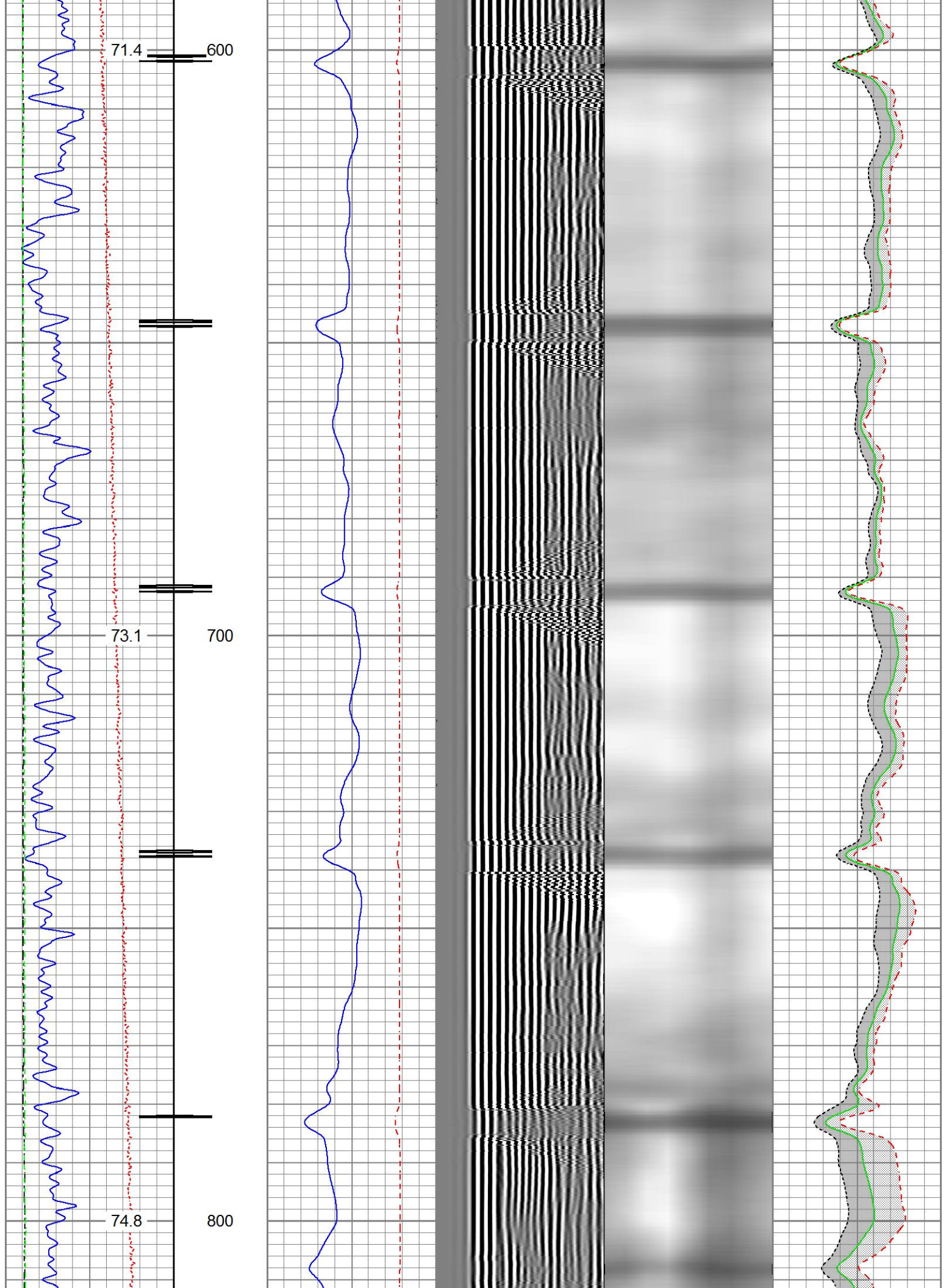
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Dataset Pathname	main
Presentation Format	ros_radri
Dataset Creation	Sun Sep 17 13:33:53 2017
Charted by	Depth in Feet scaled 1:240

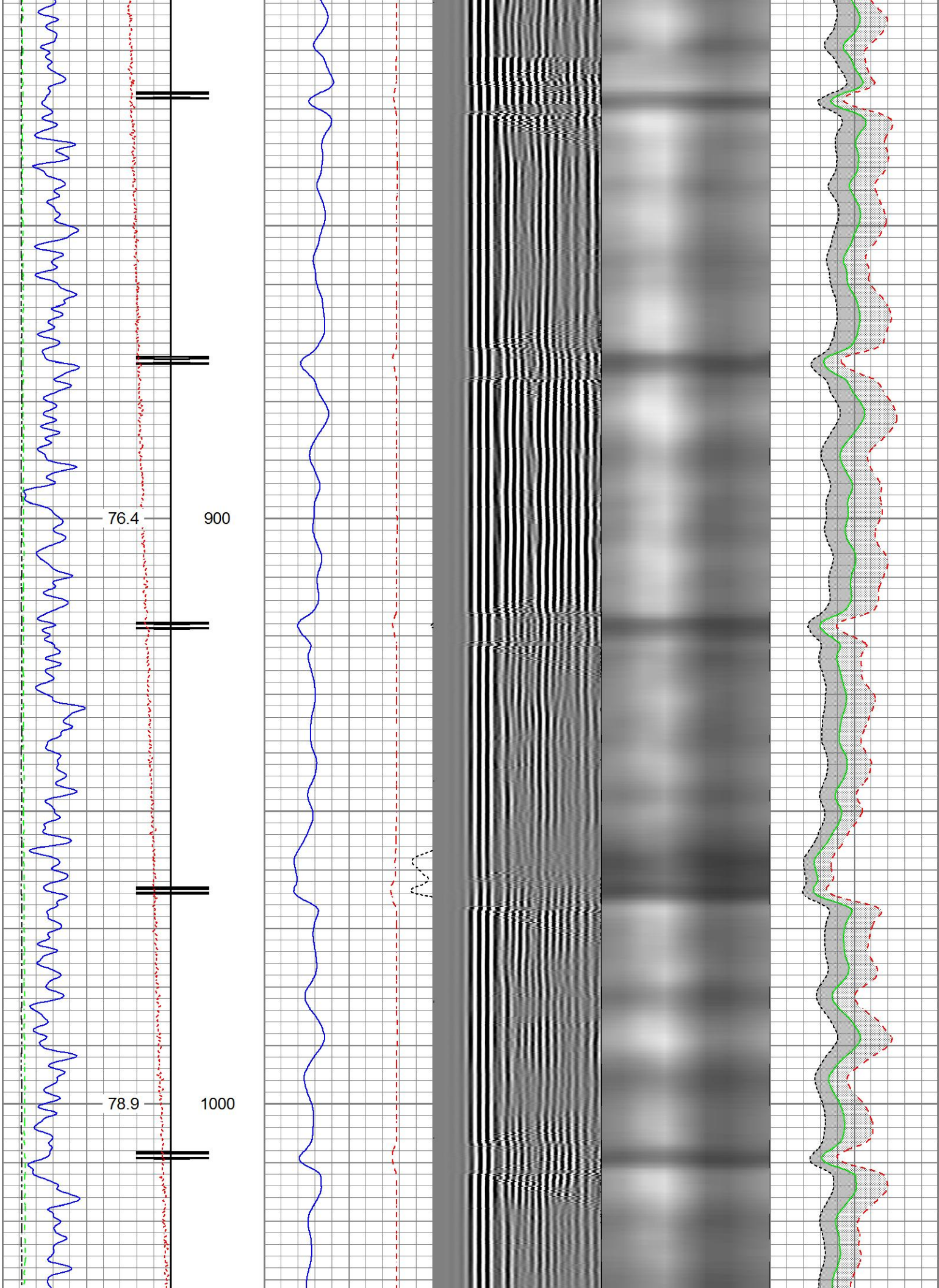
Gamma Ray		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120		0 (mV) 100	200 1200		0 100
Casing Collar Locator		3' Amplitude x 5			Minimum Amplitude
Temperature		0 (mV) 20			0 100
0 (degF) 20		3' Travel Time			Maximum Amplitude
Line Speed		650 (usec) 150			0 100
-150 (ft/min)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

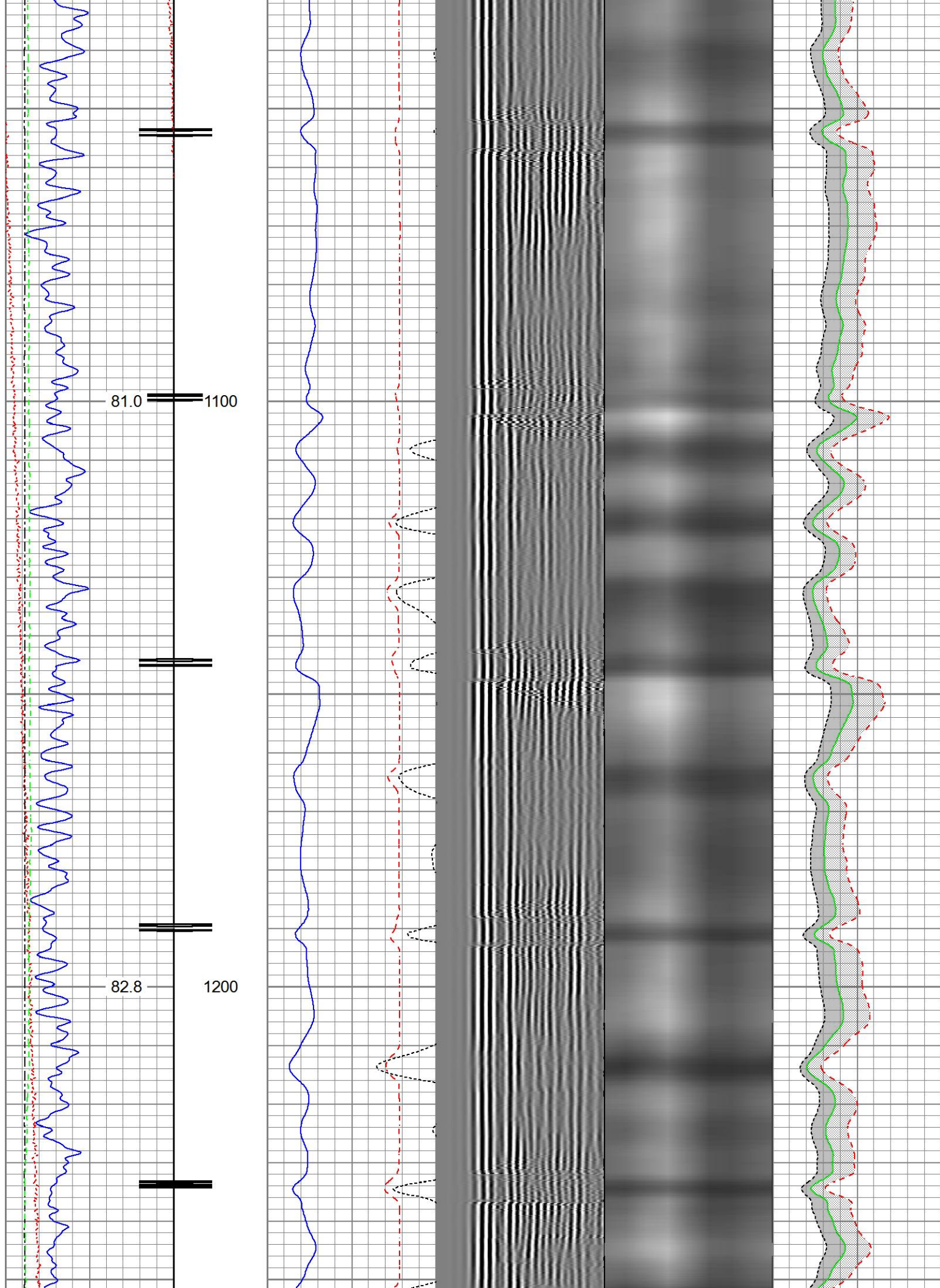


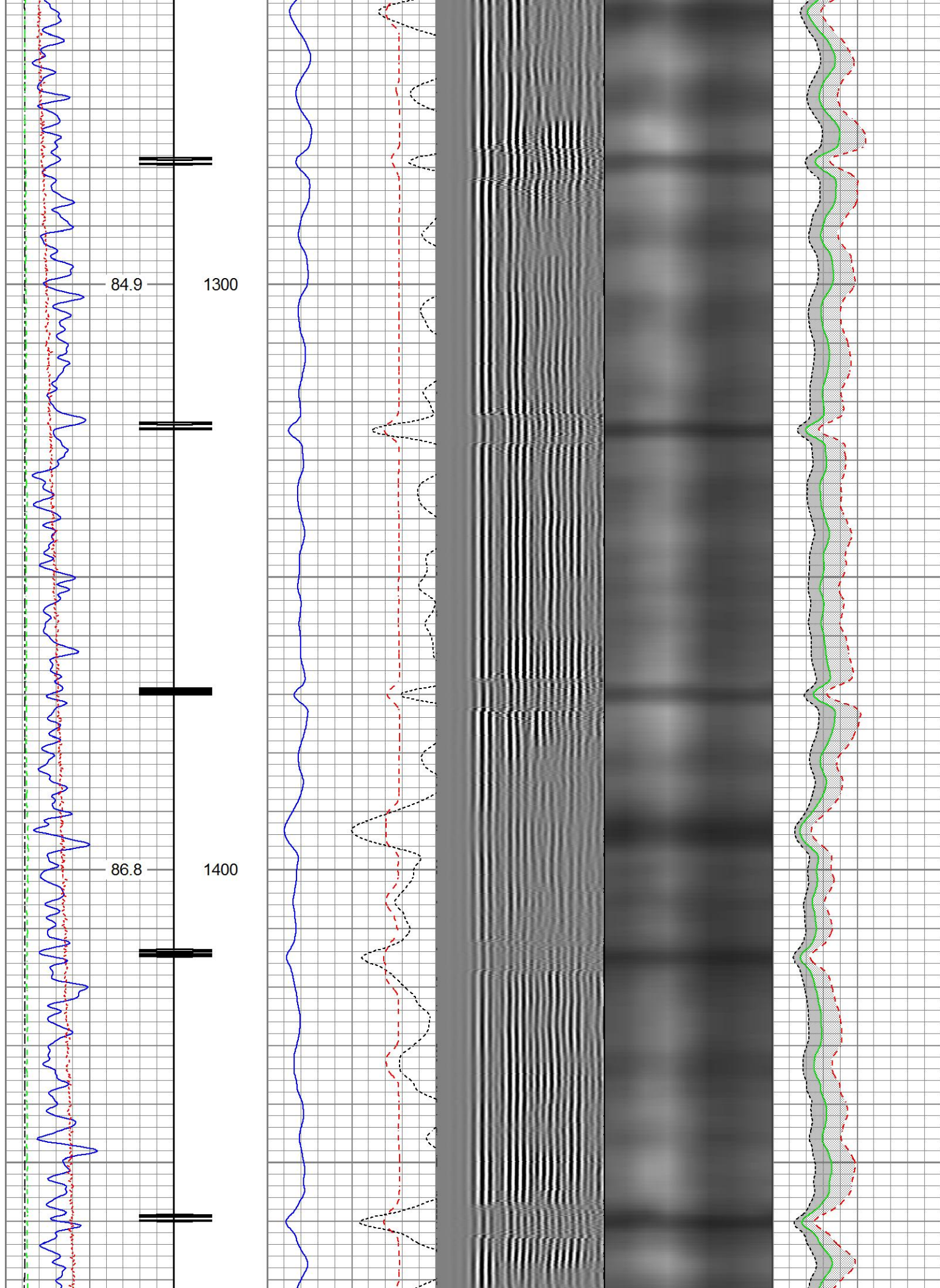


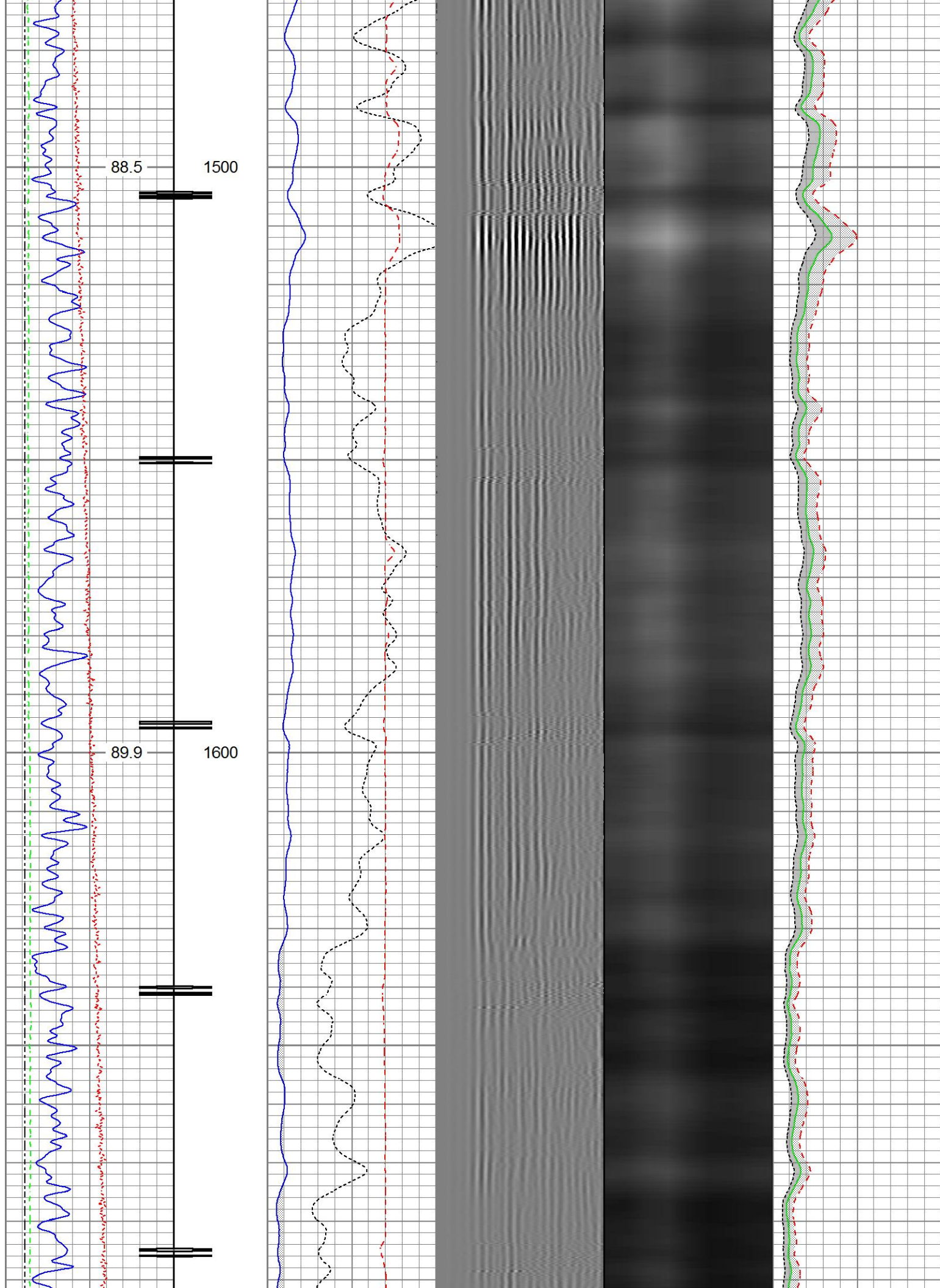


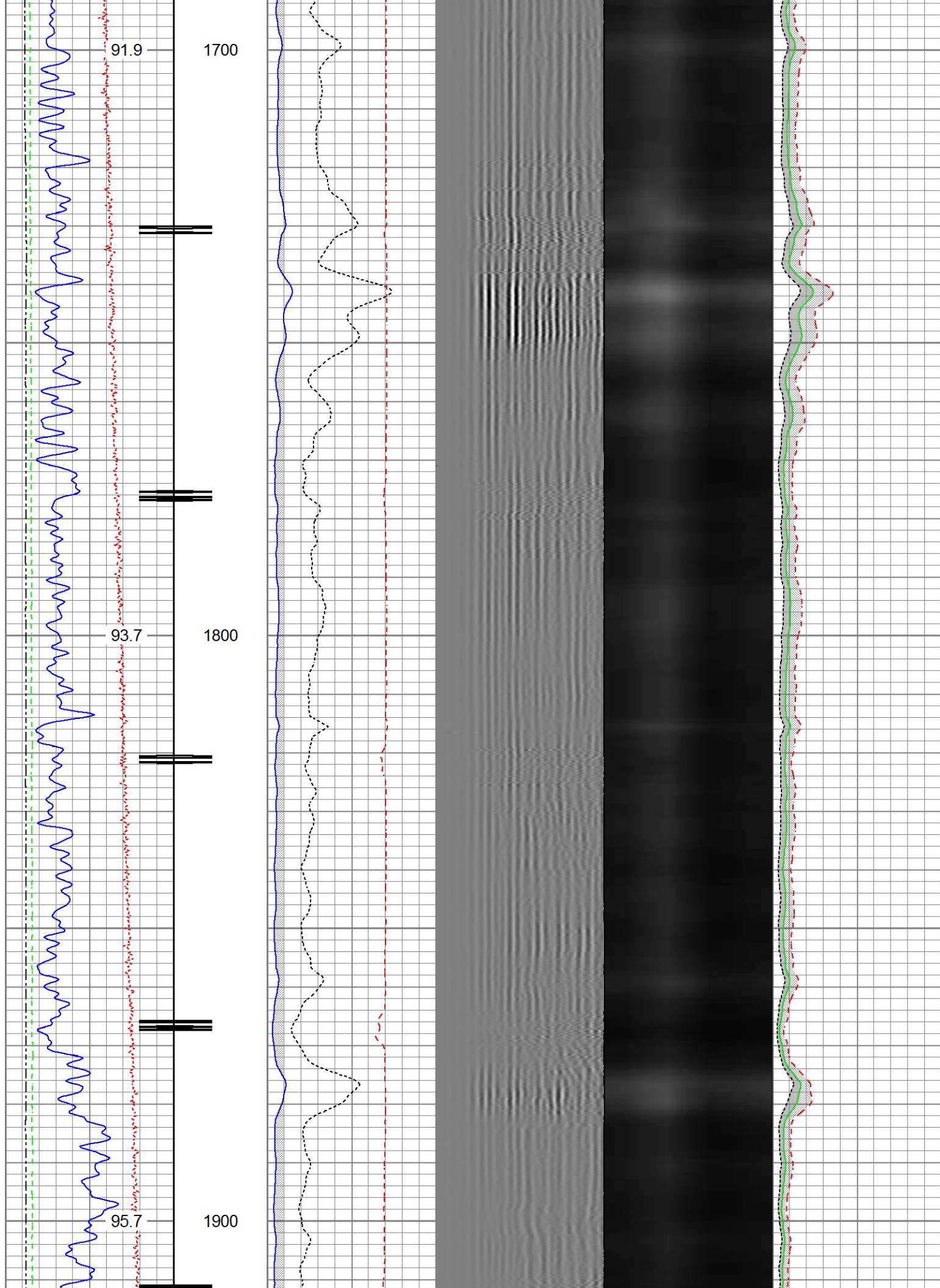


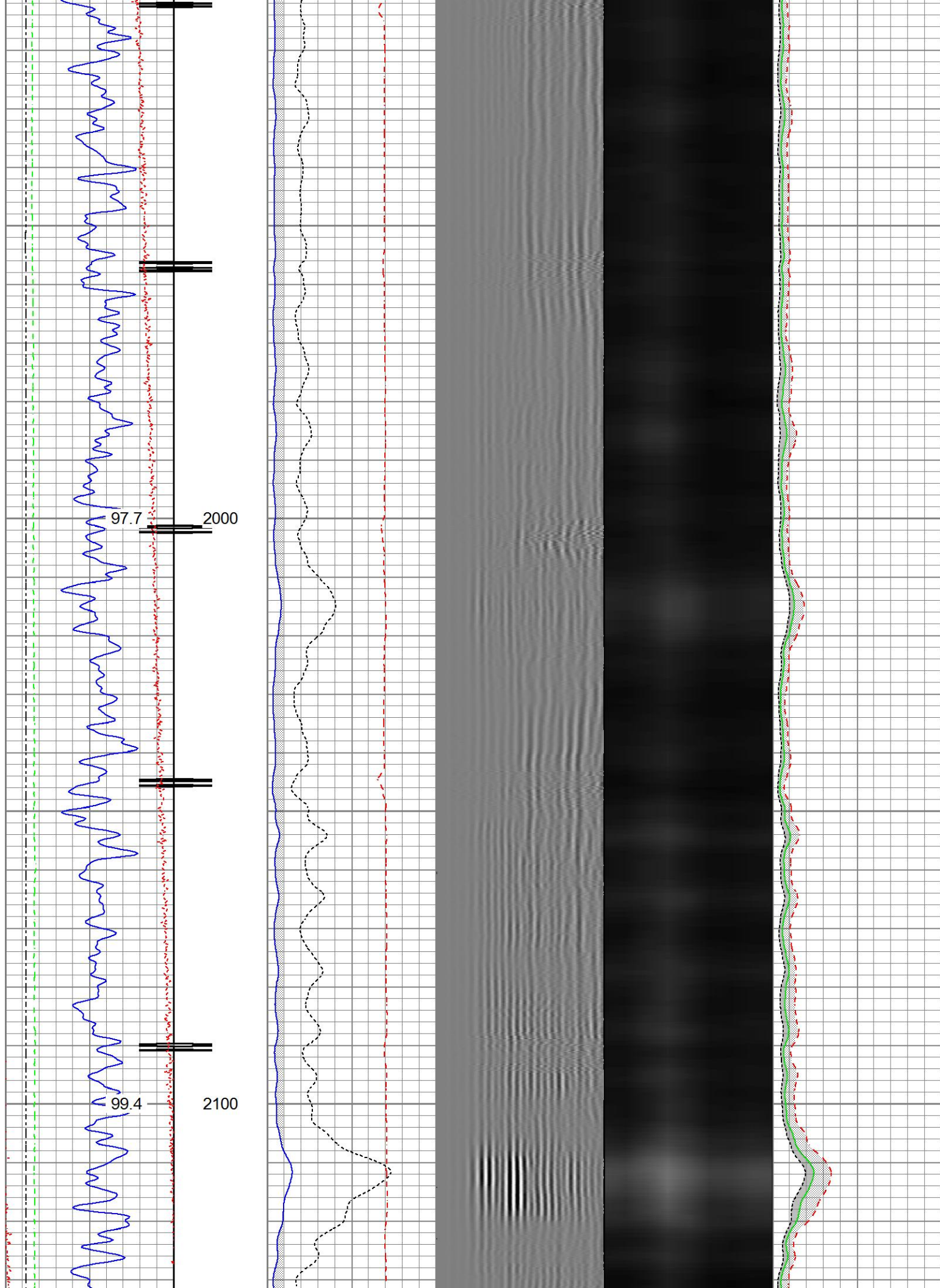


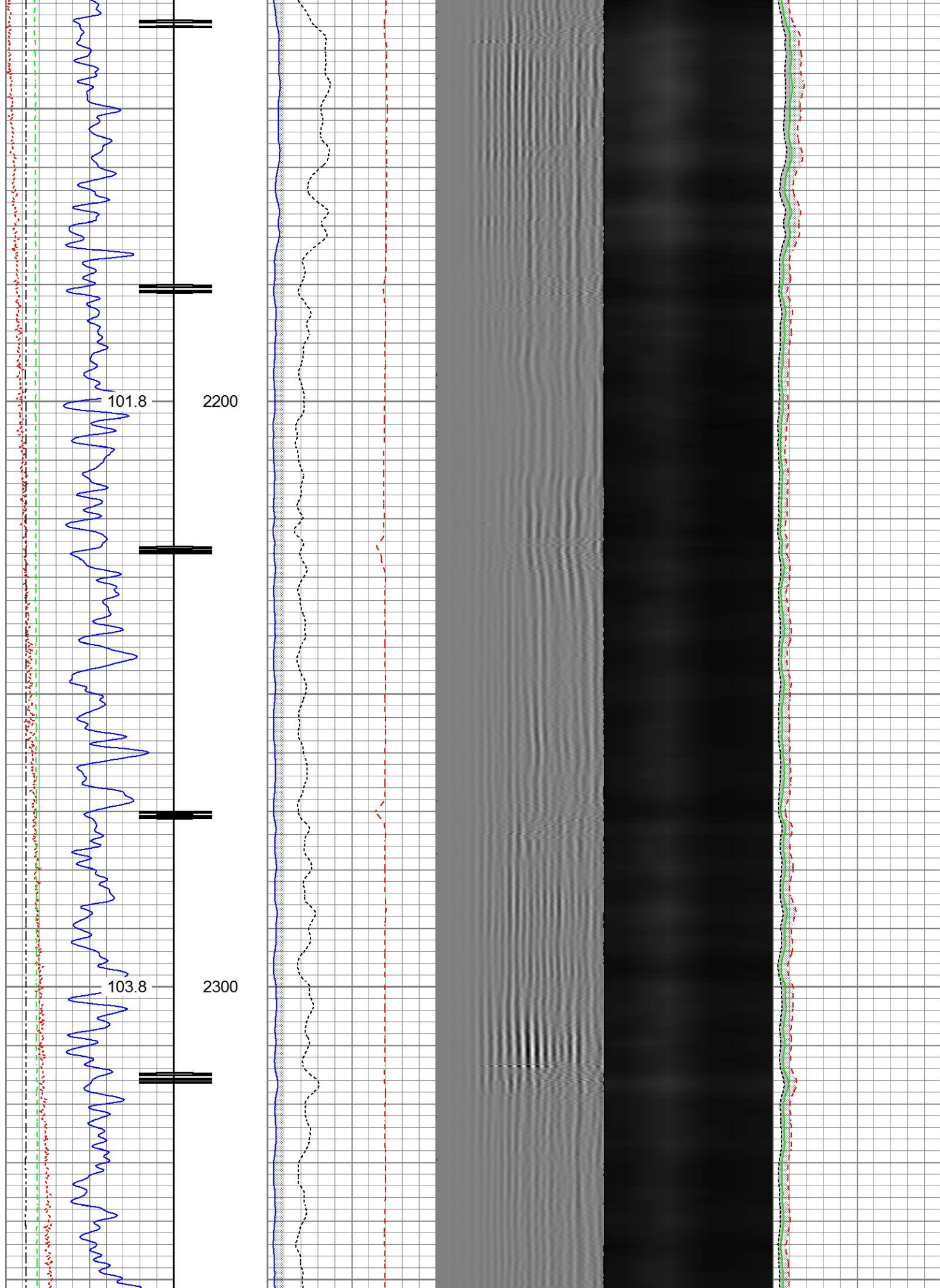


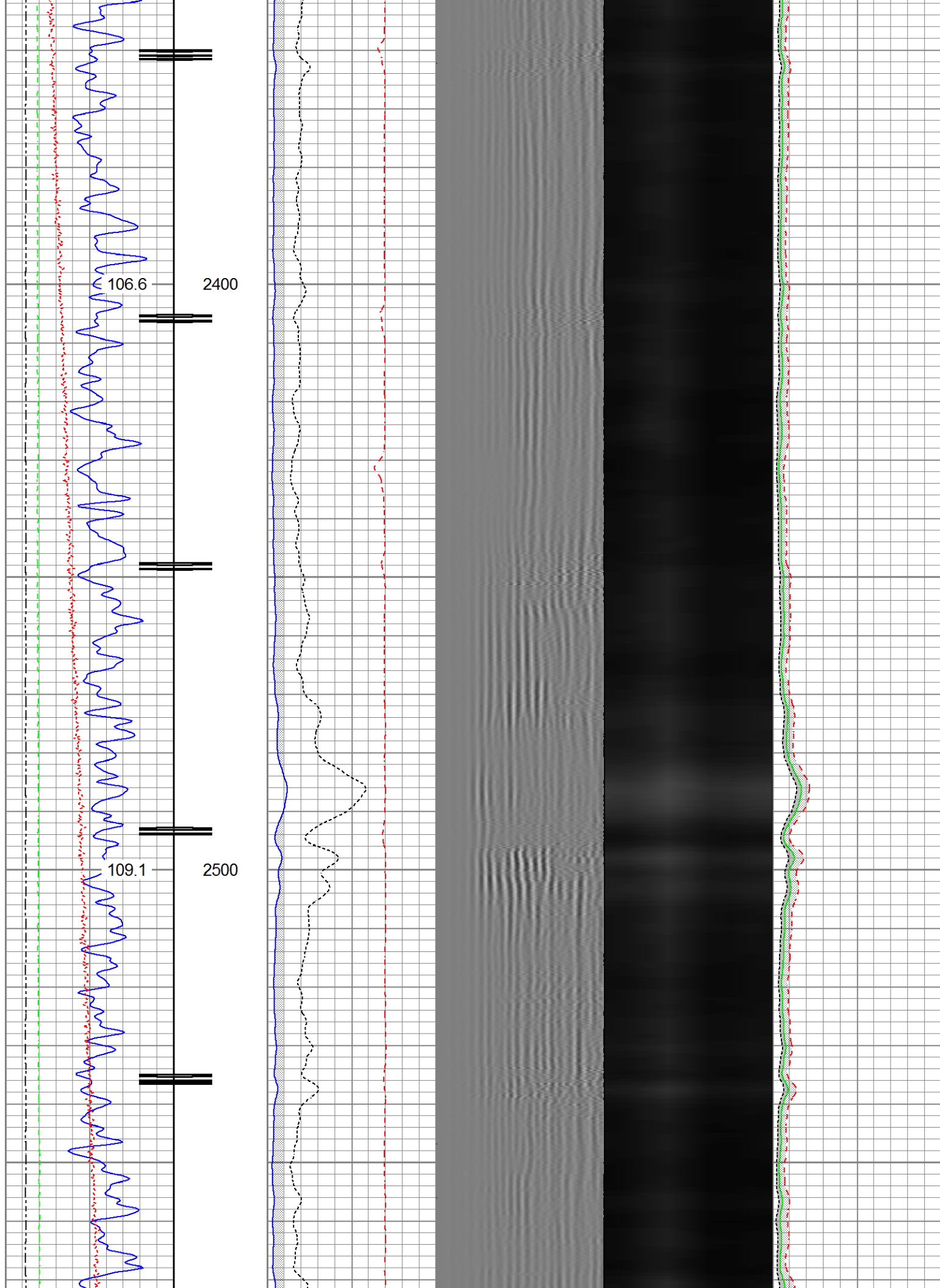


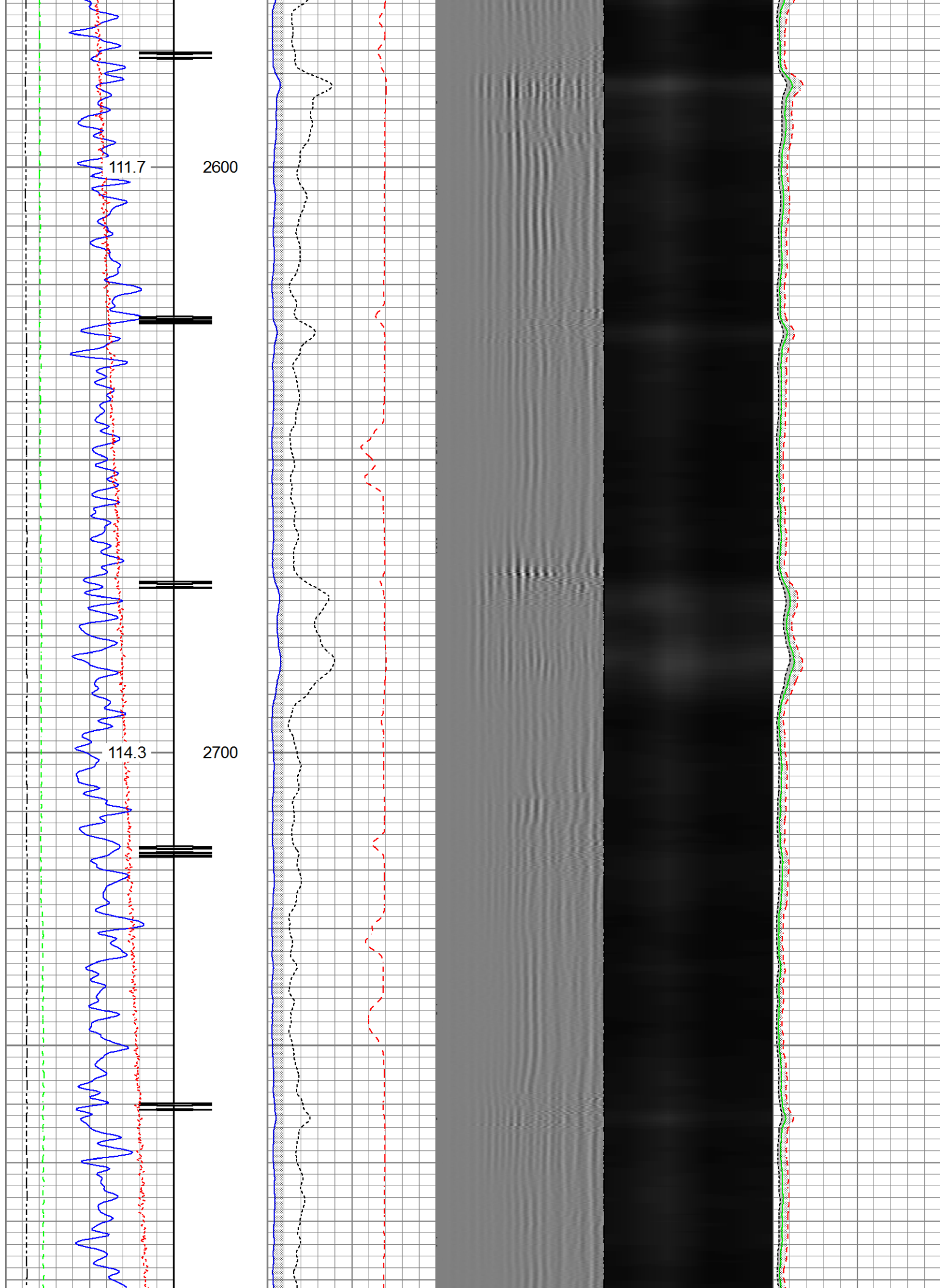


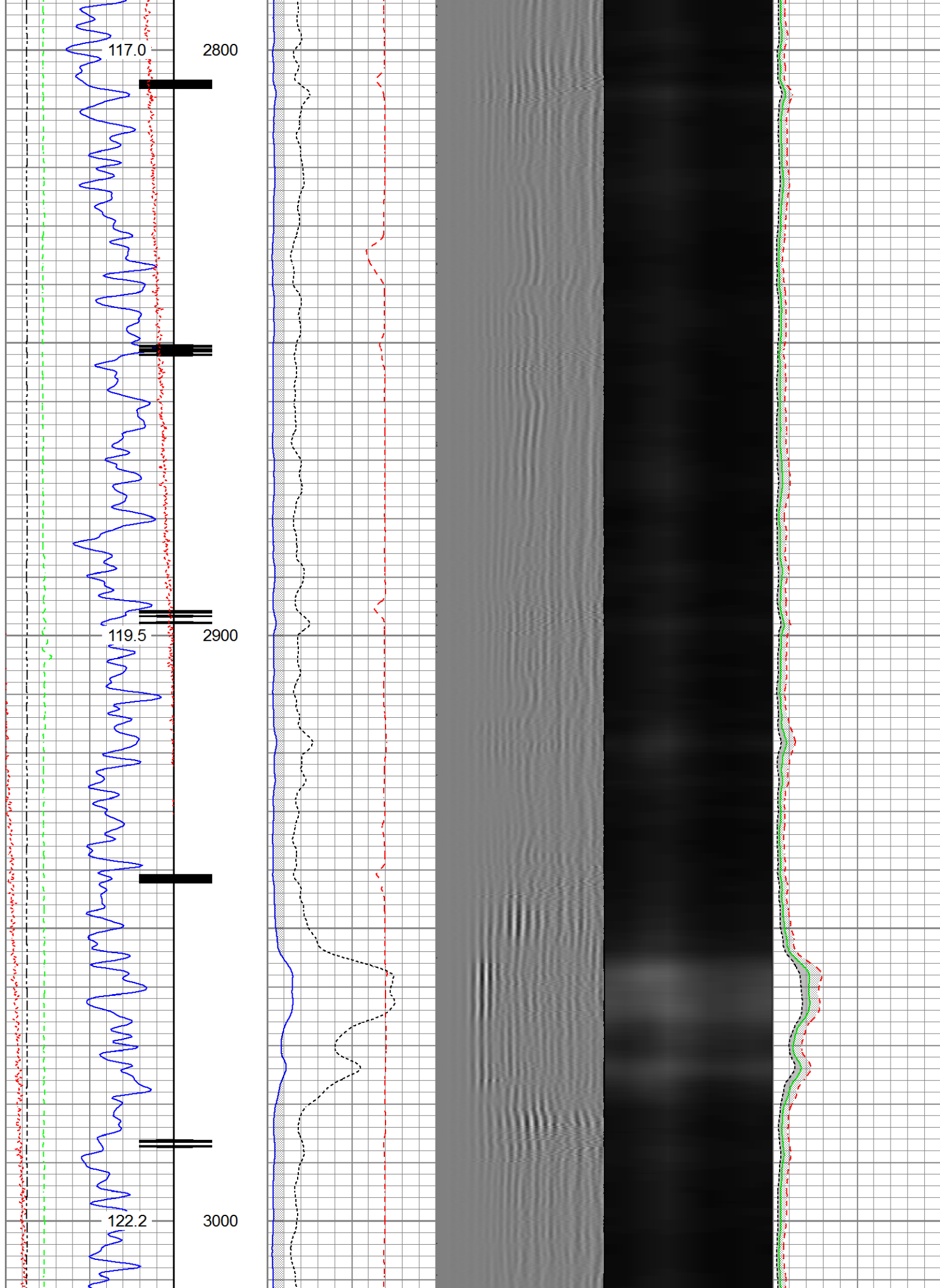


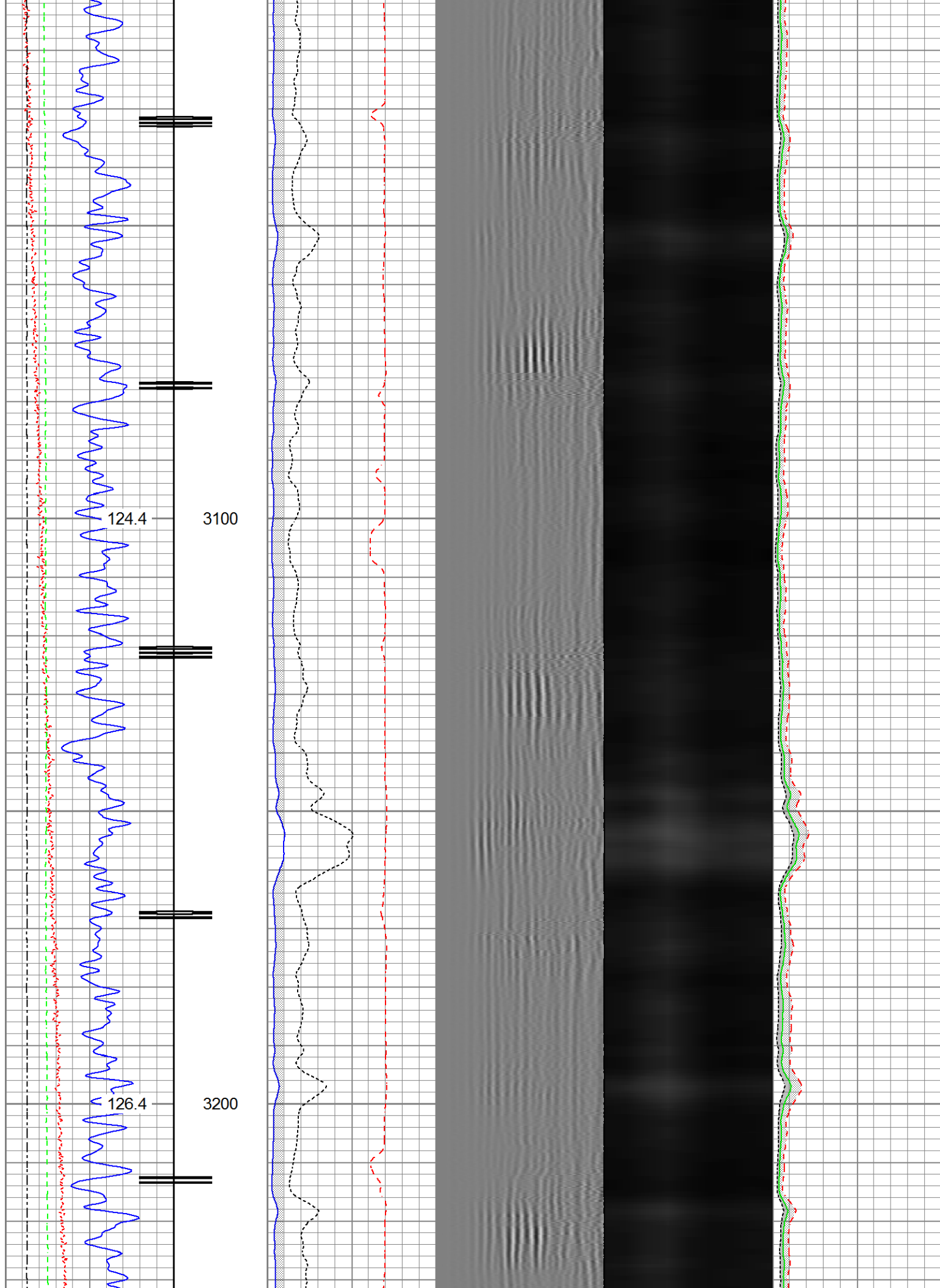


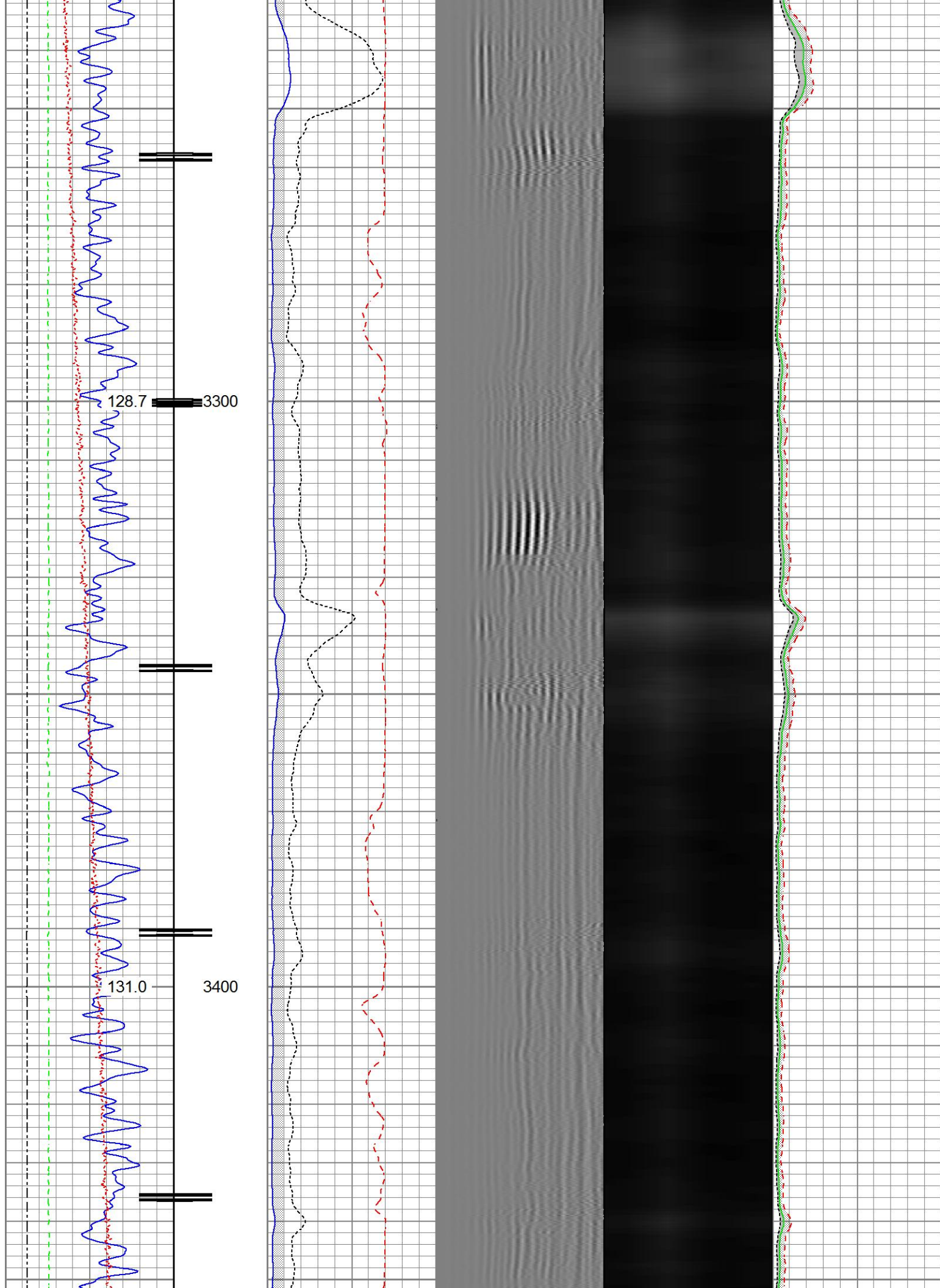


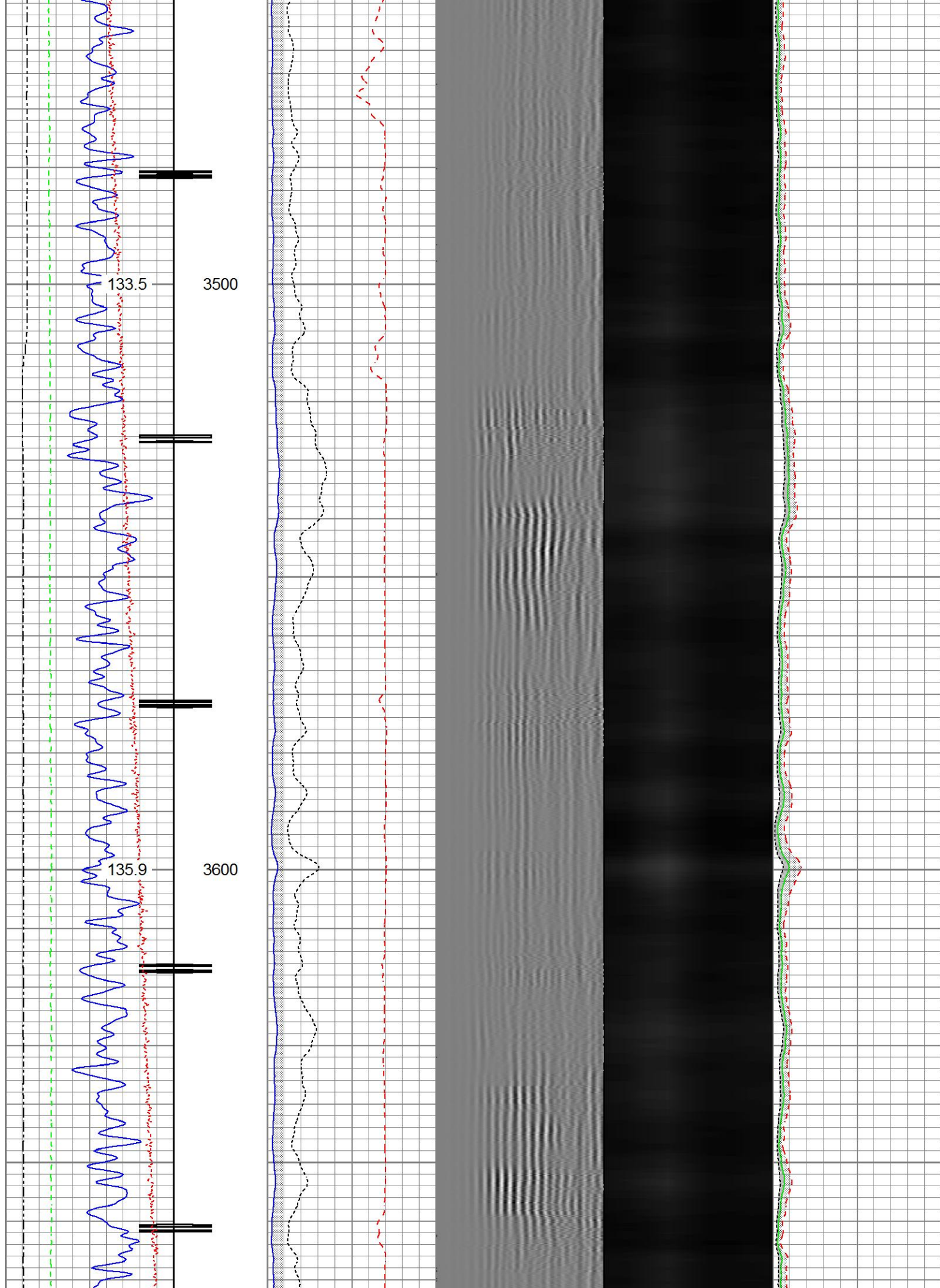


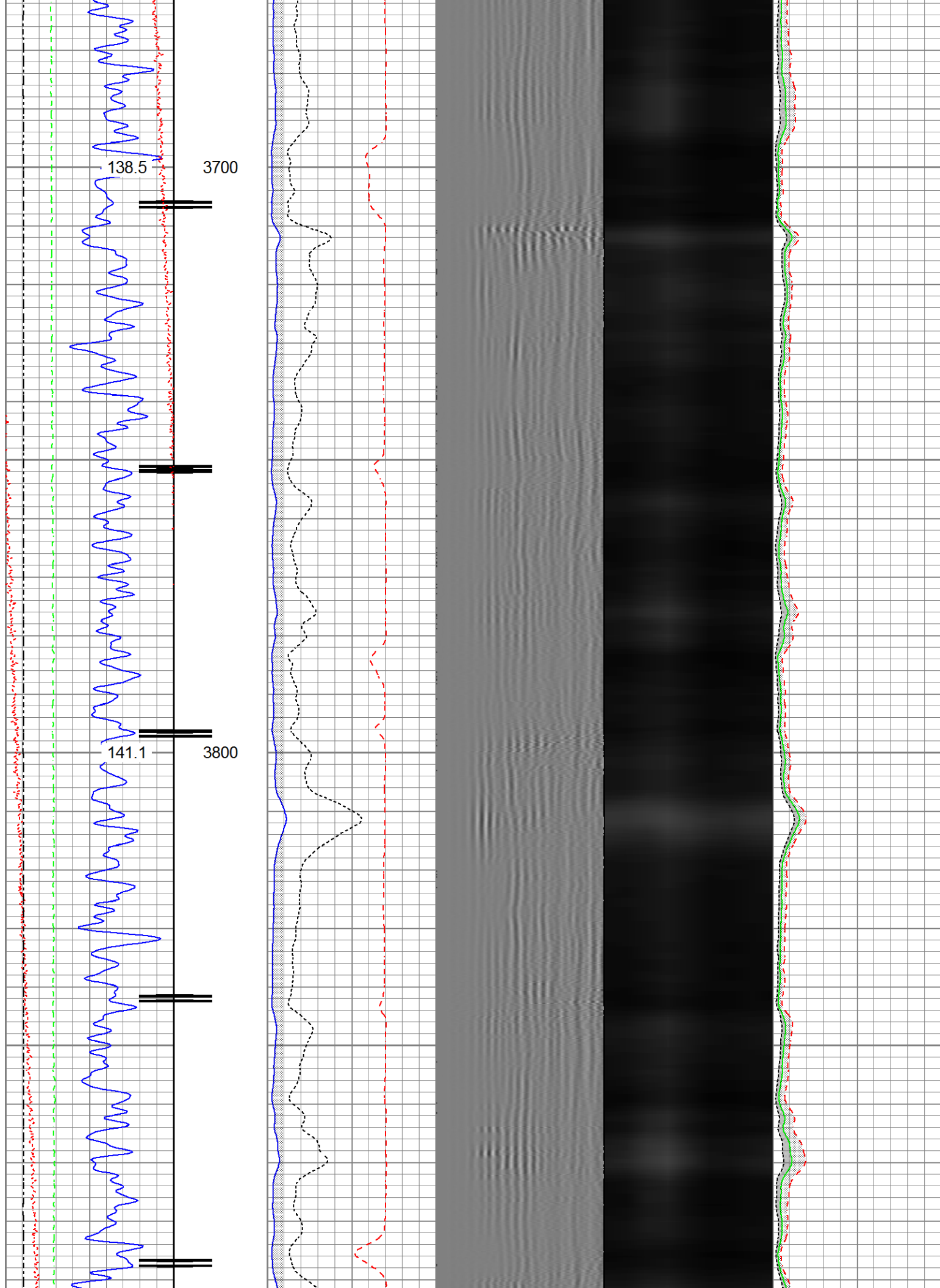


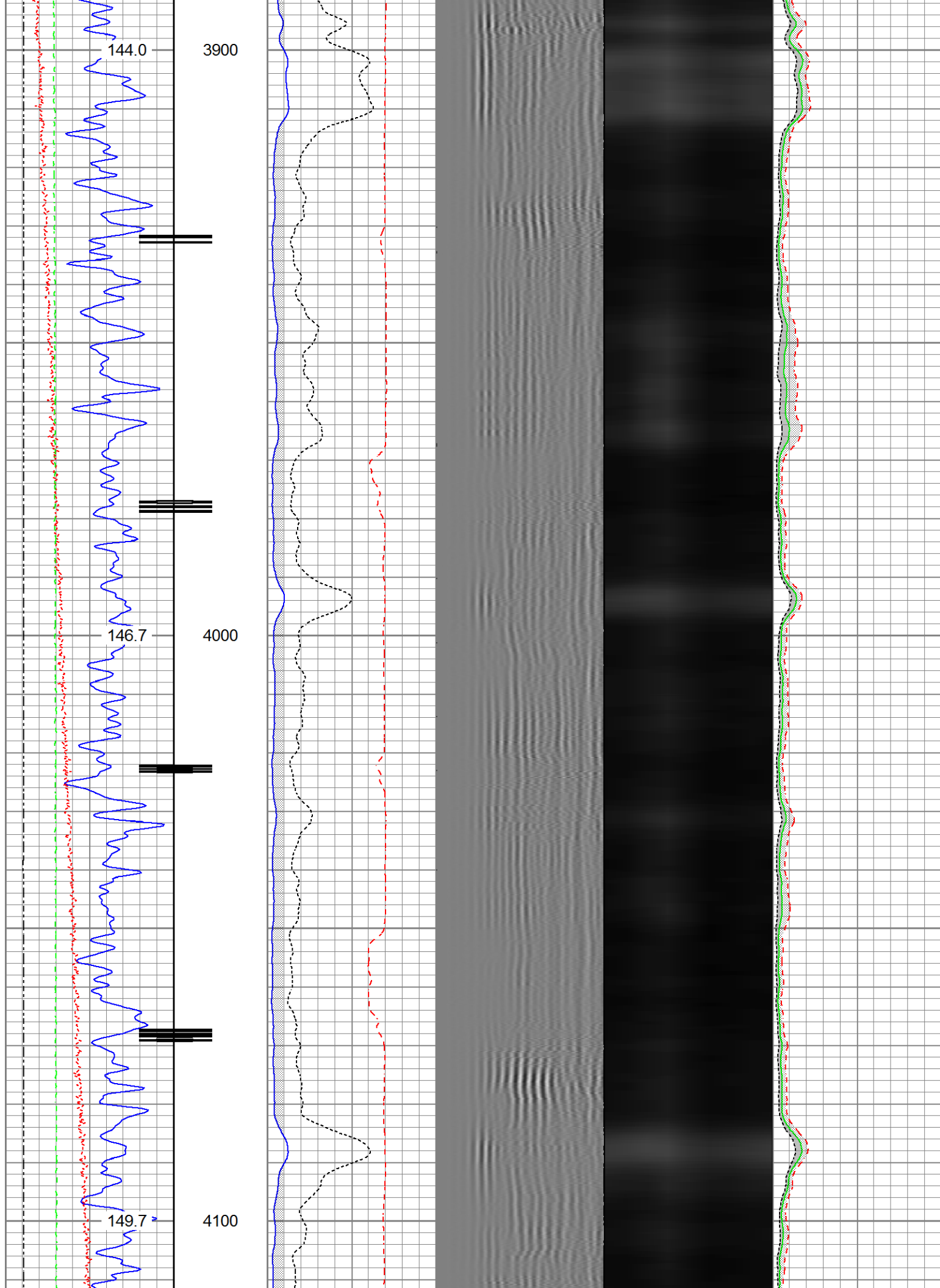


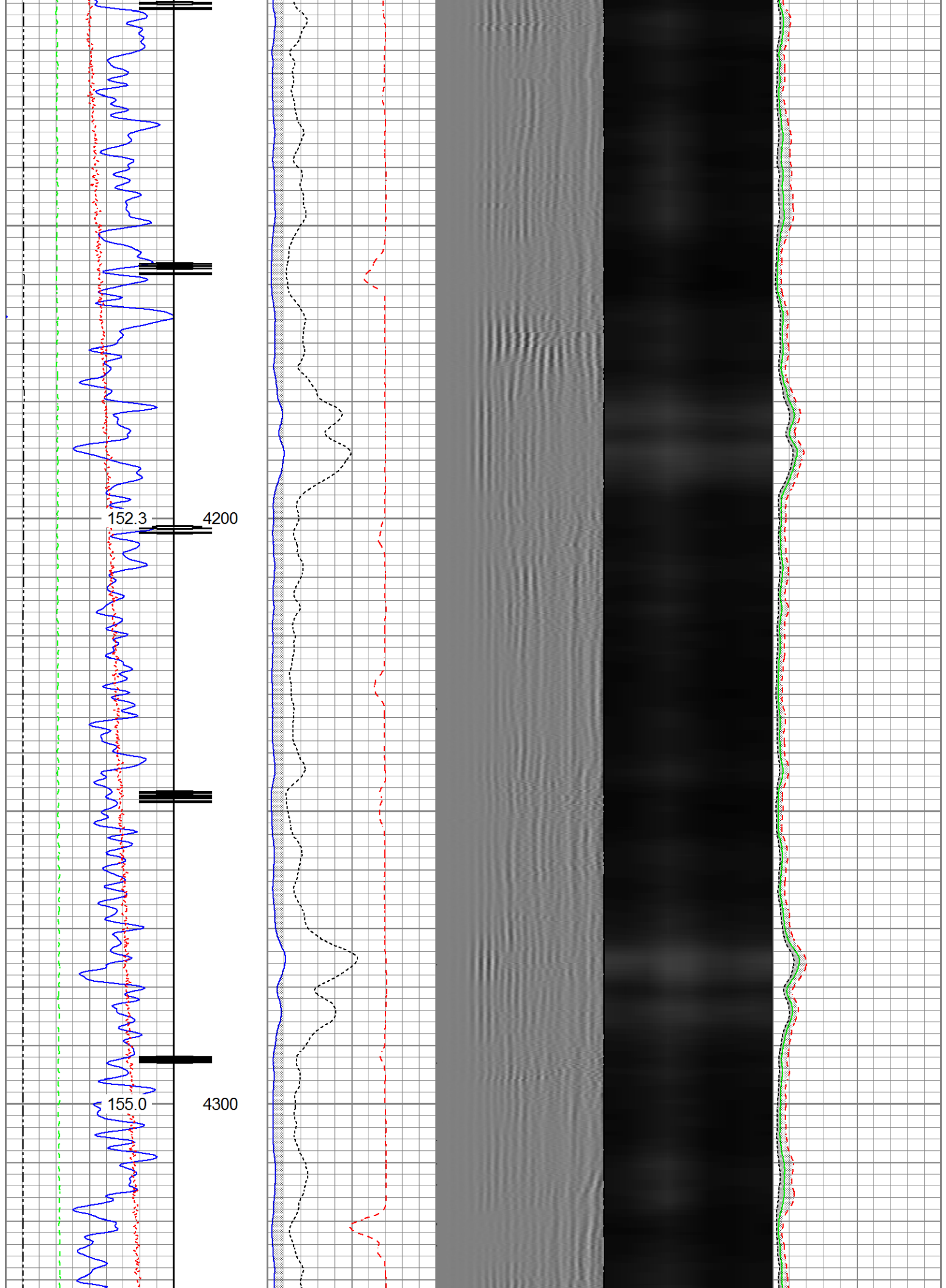


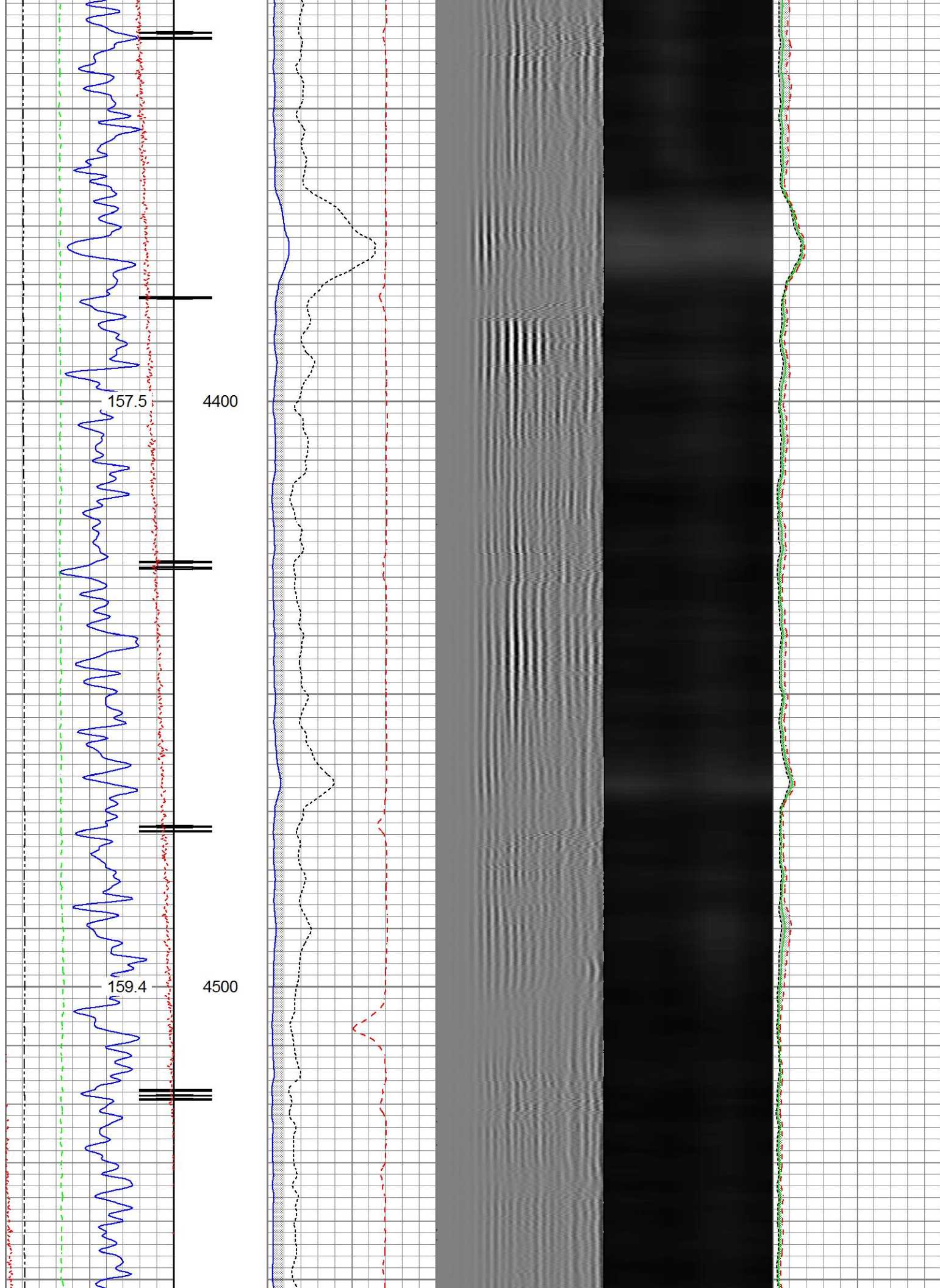


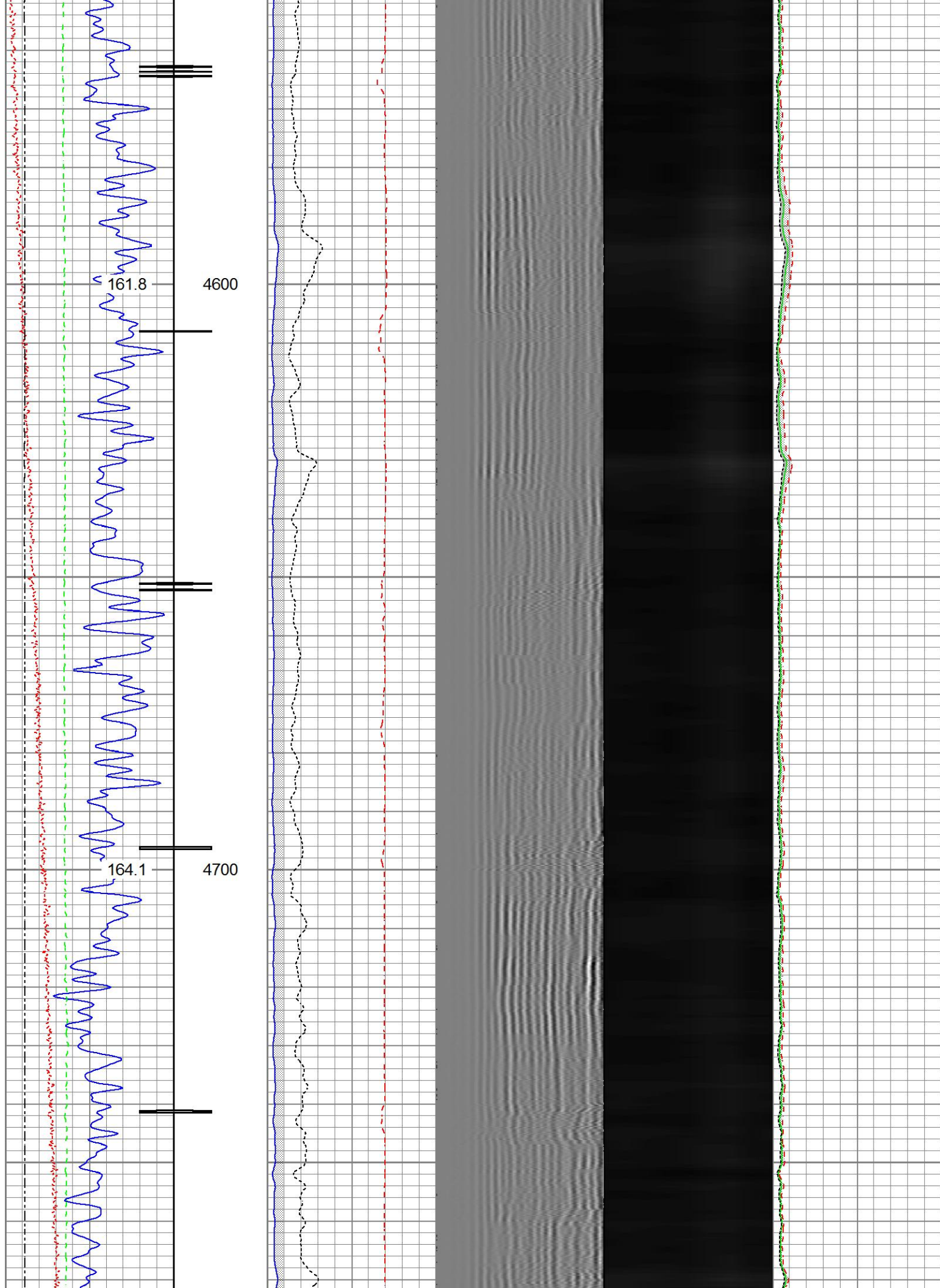


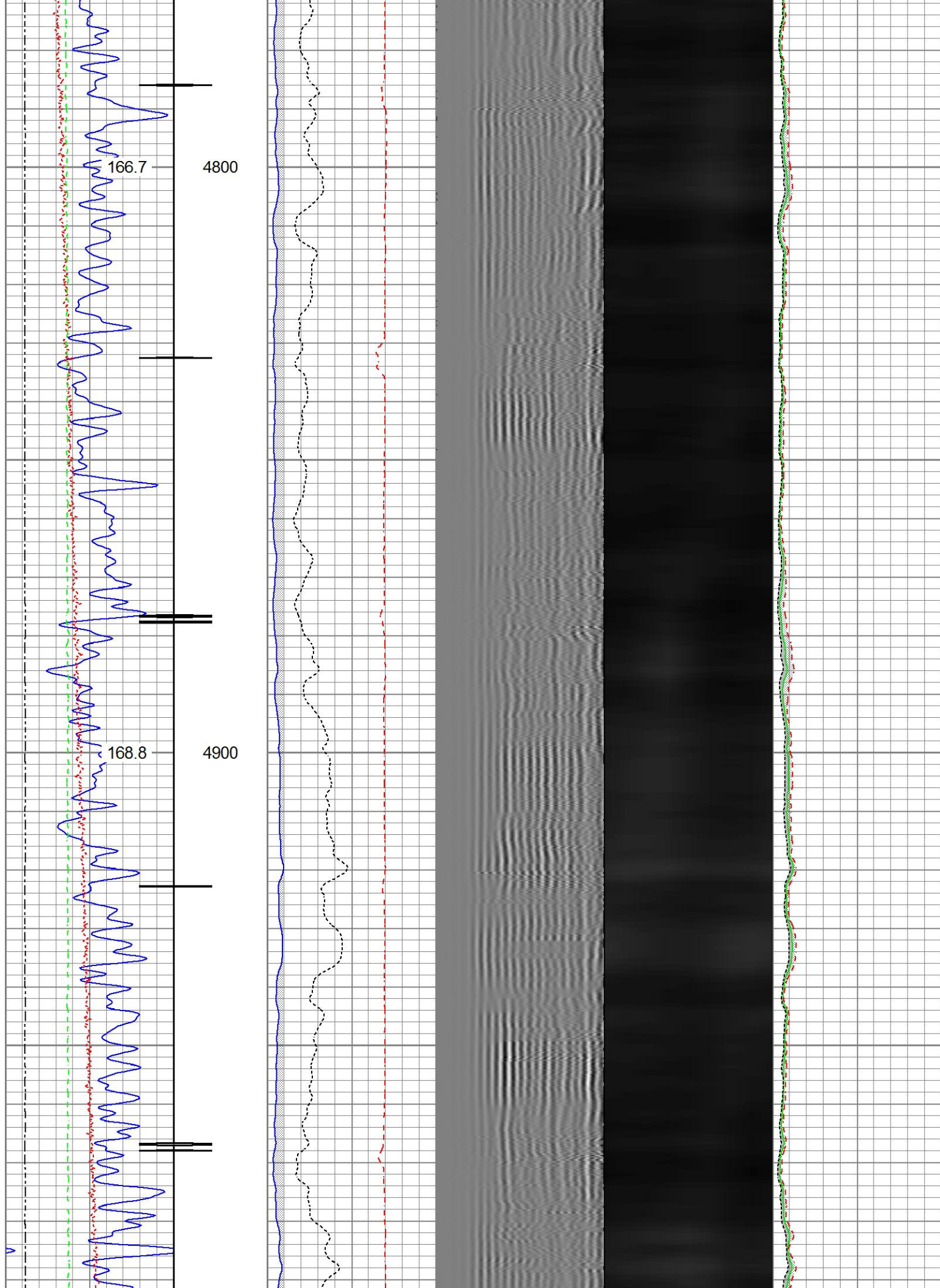


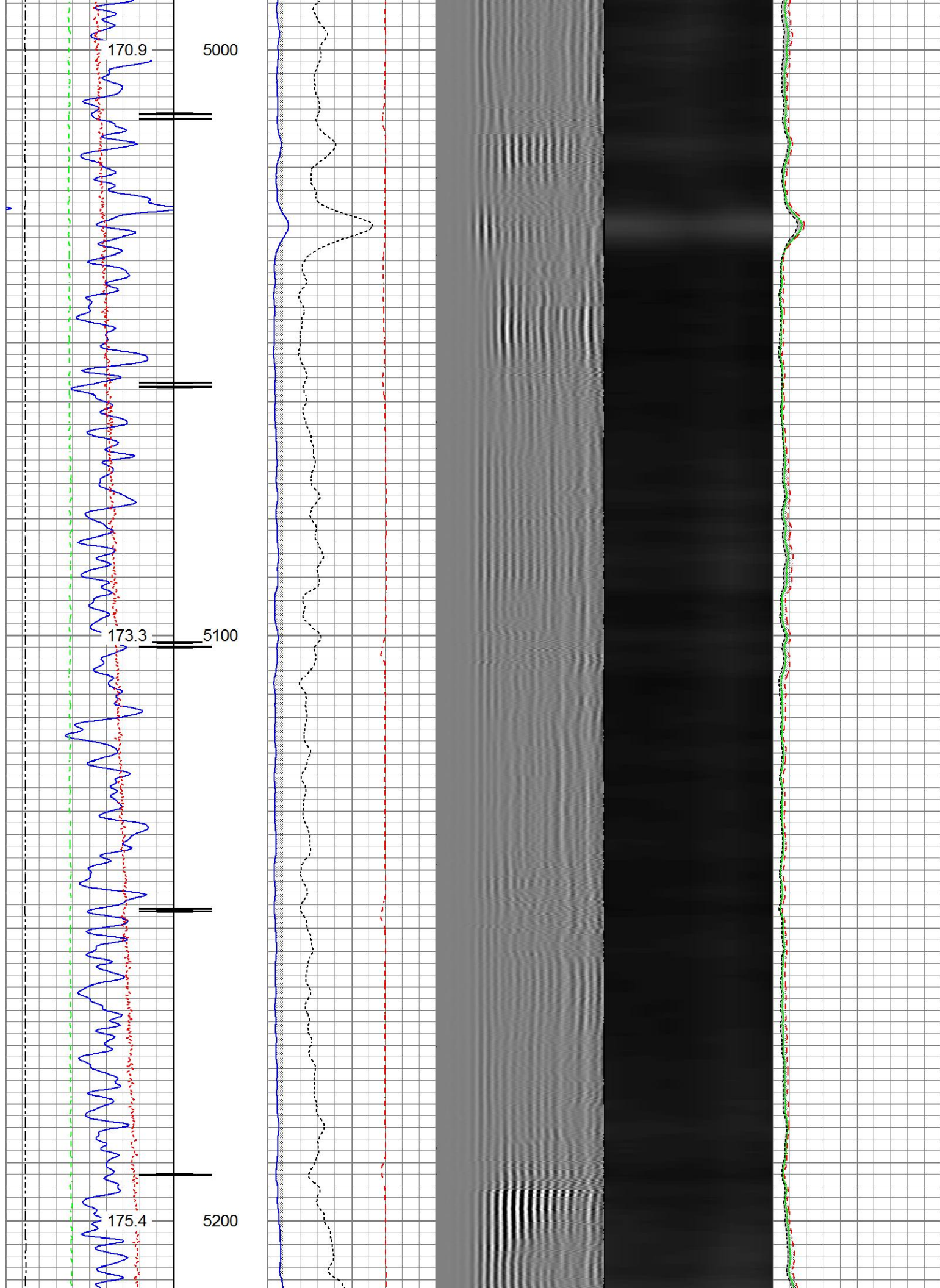


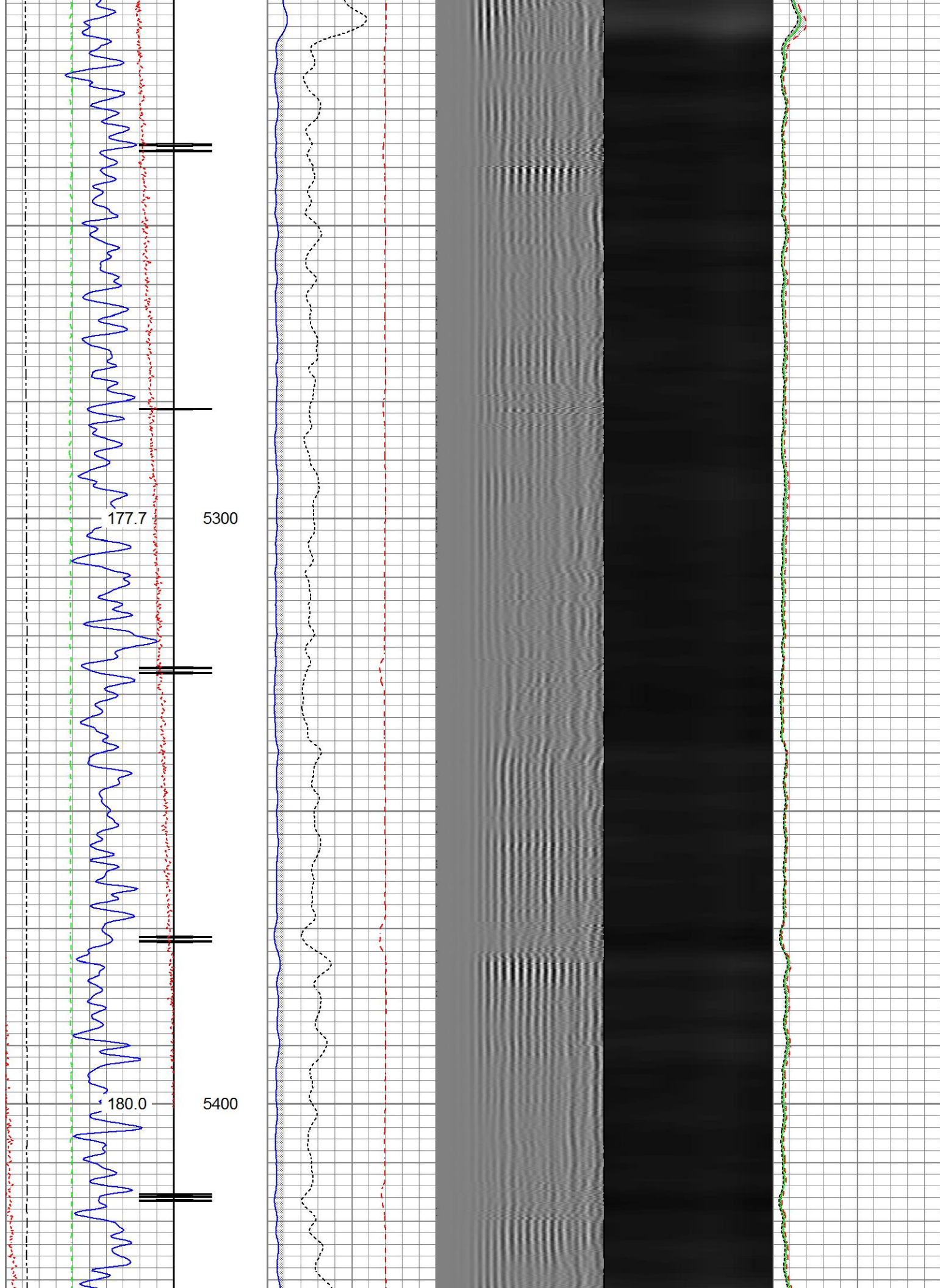


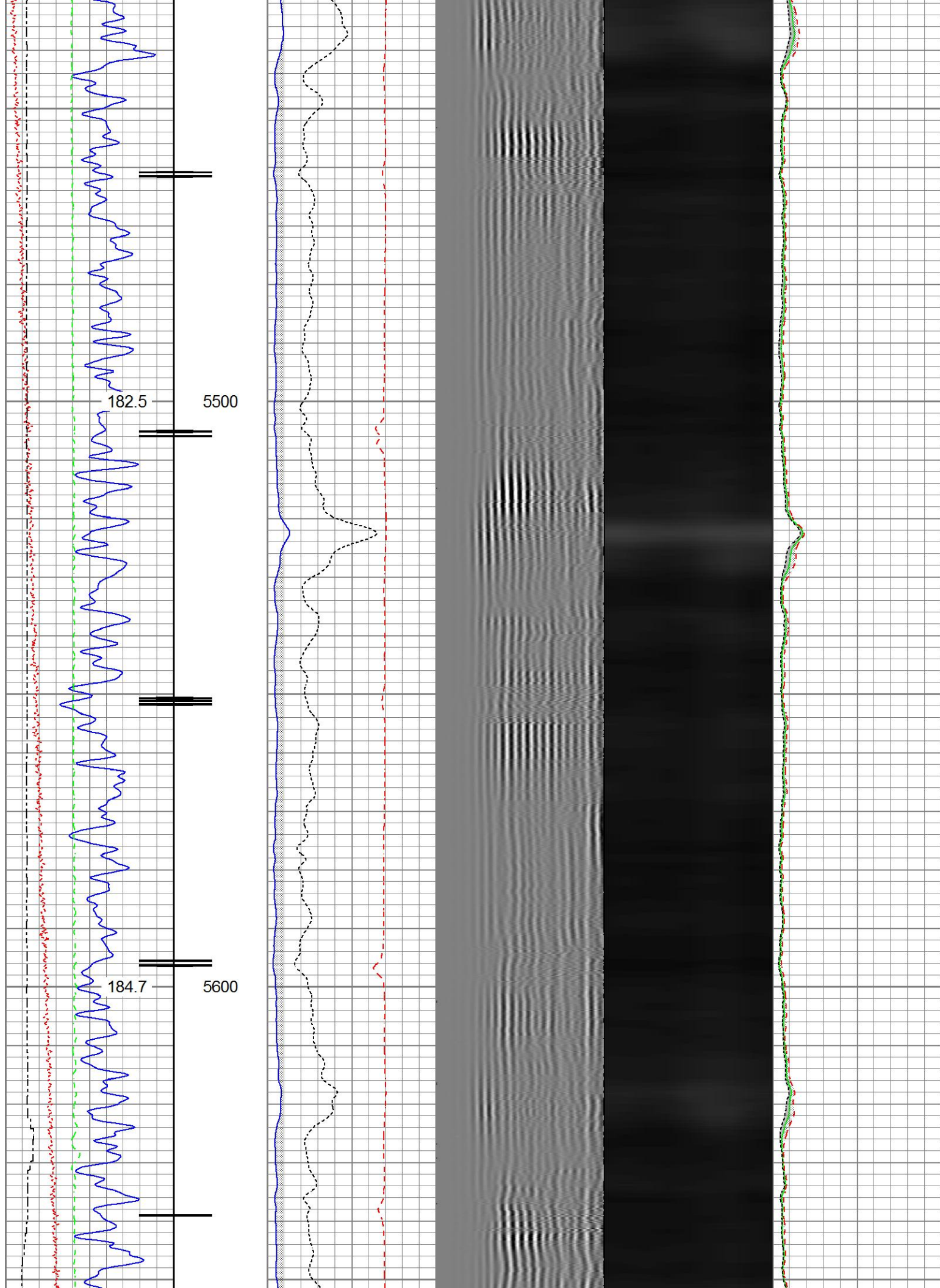


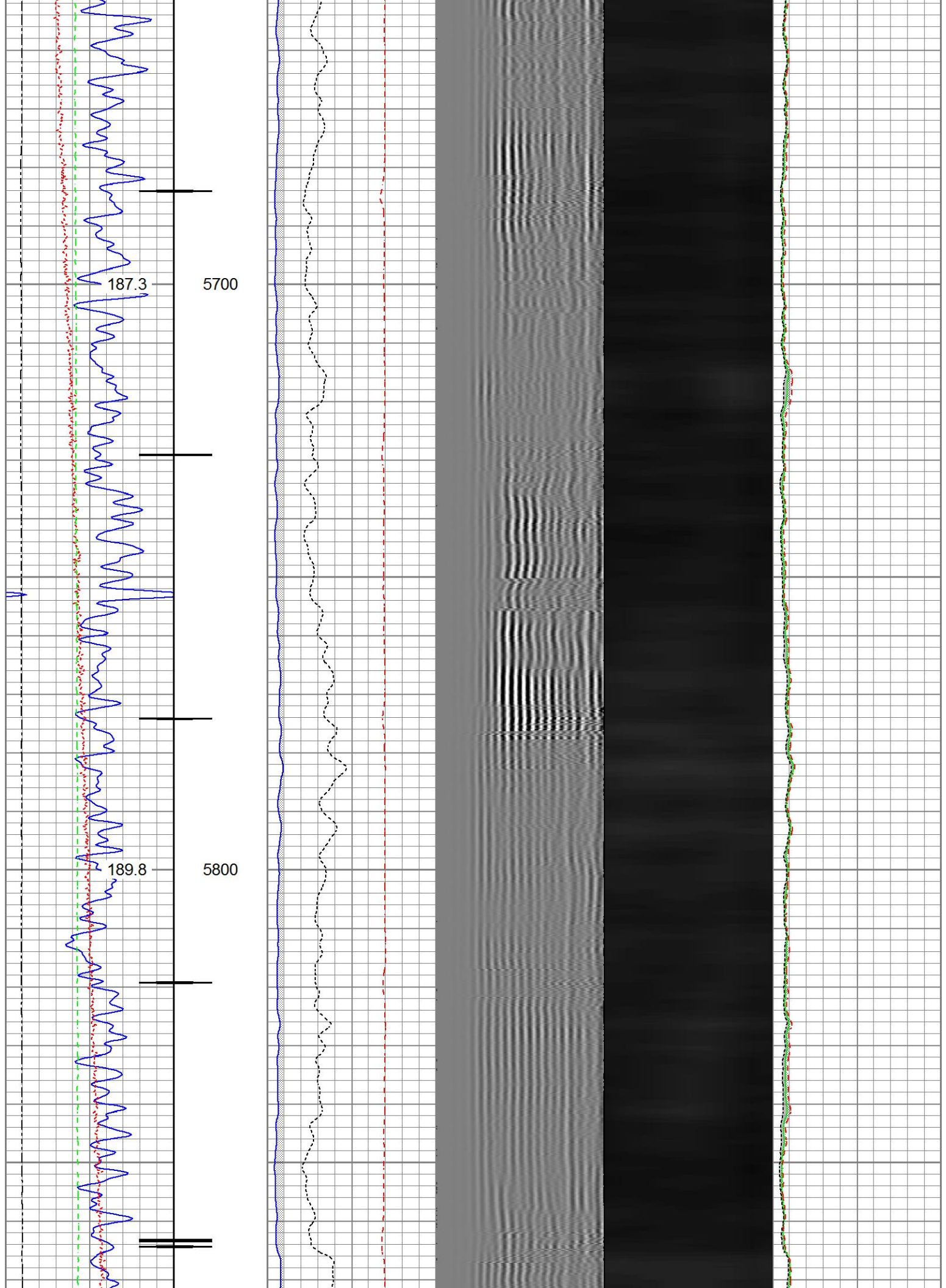


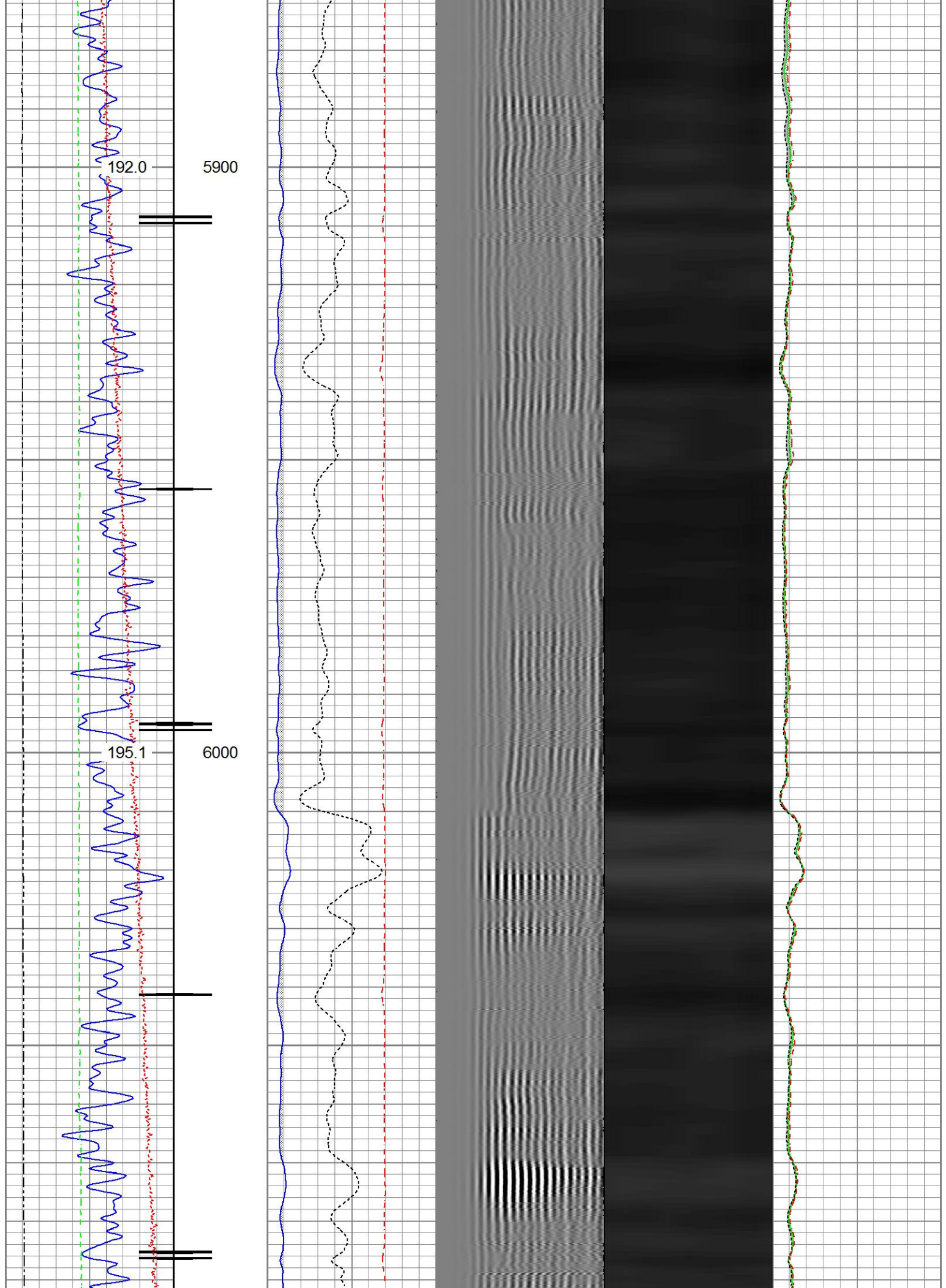


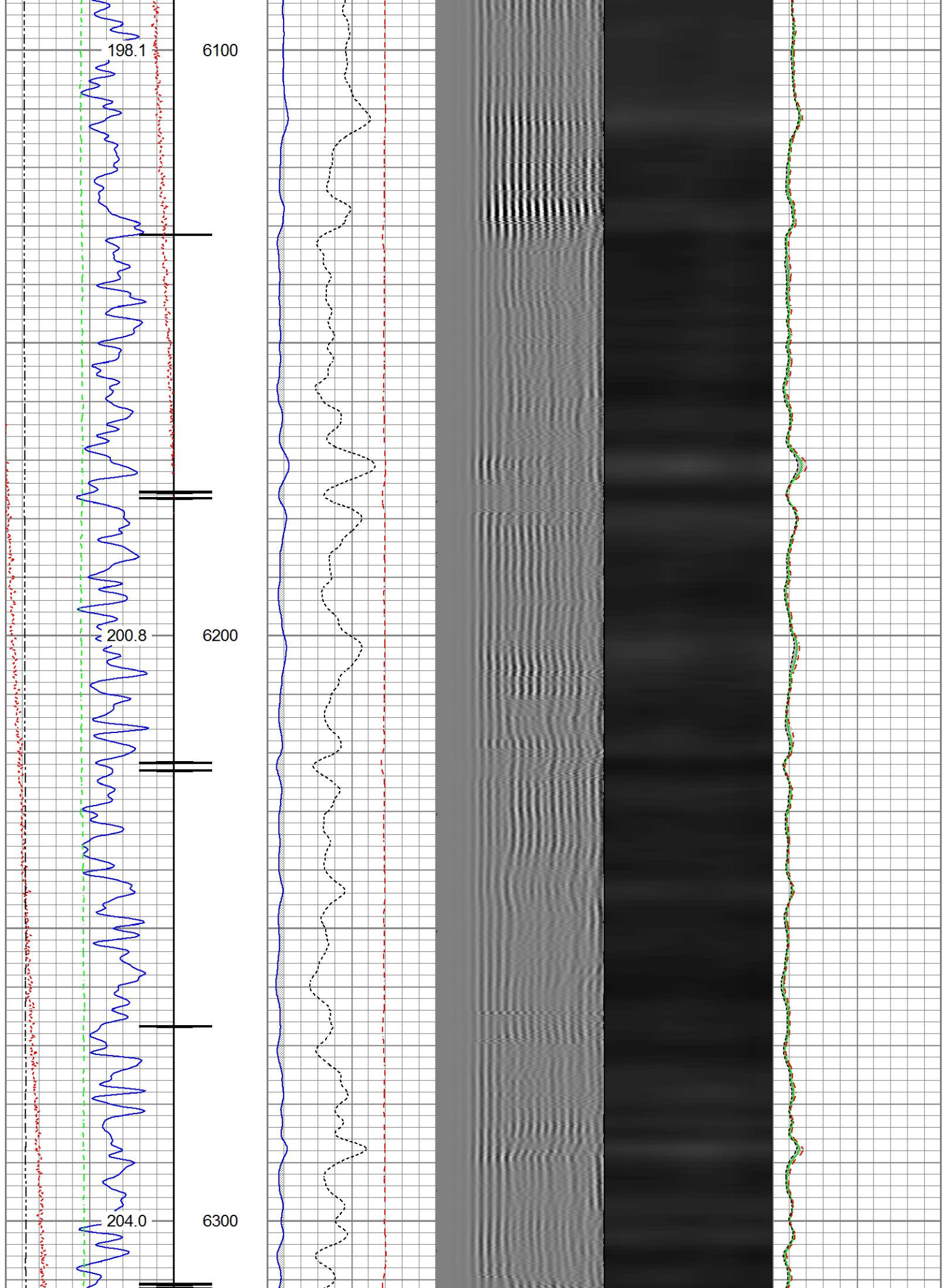


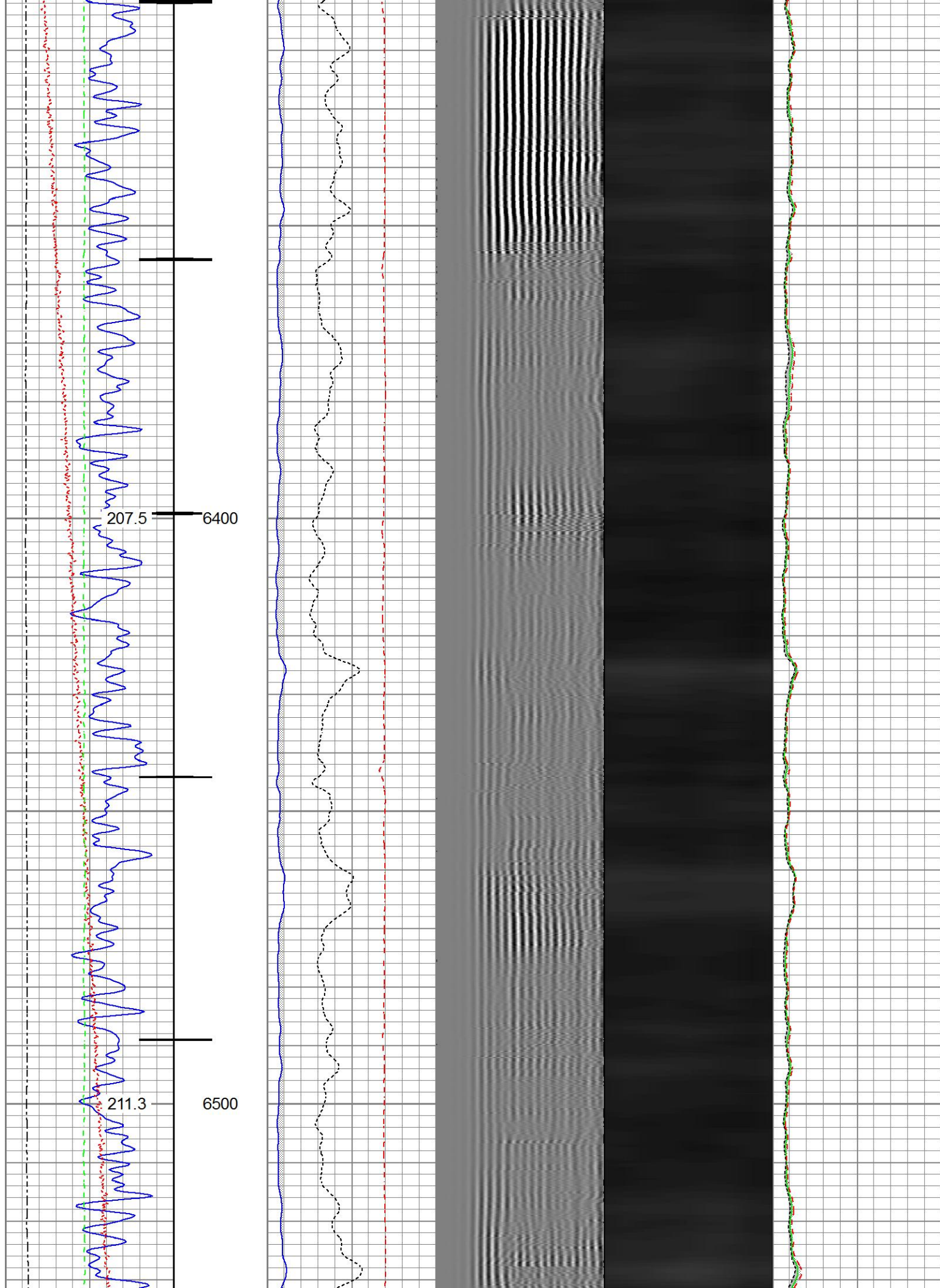


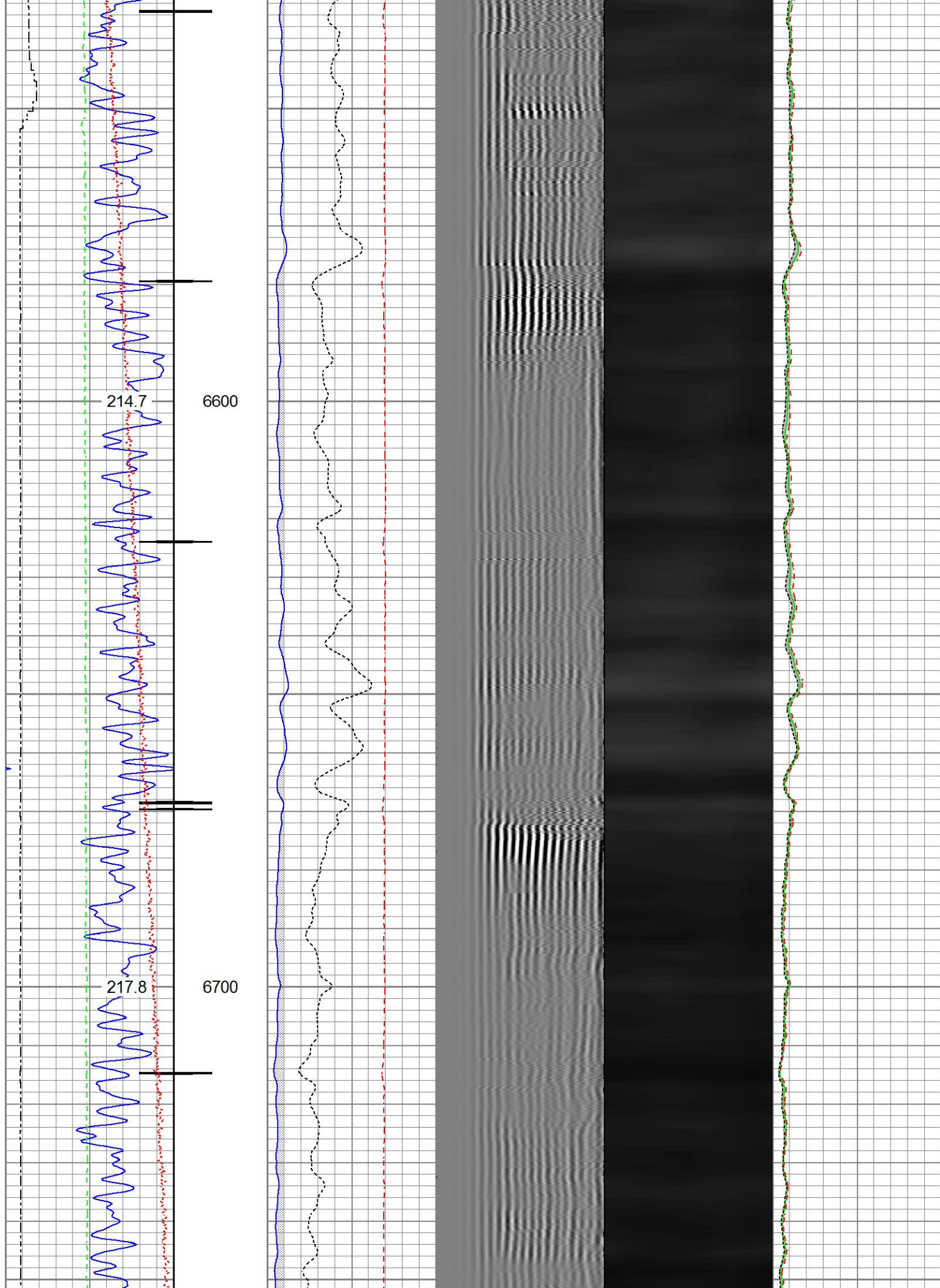


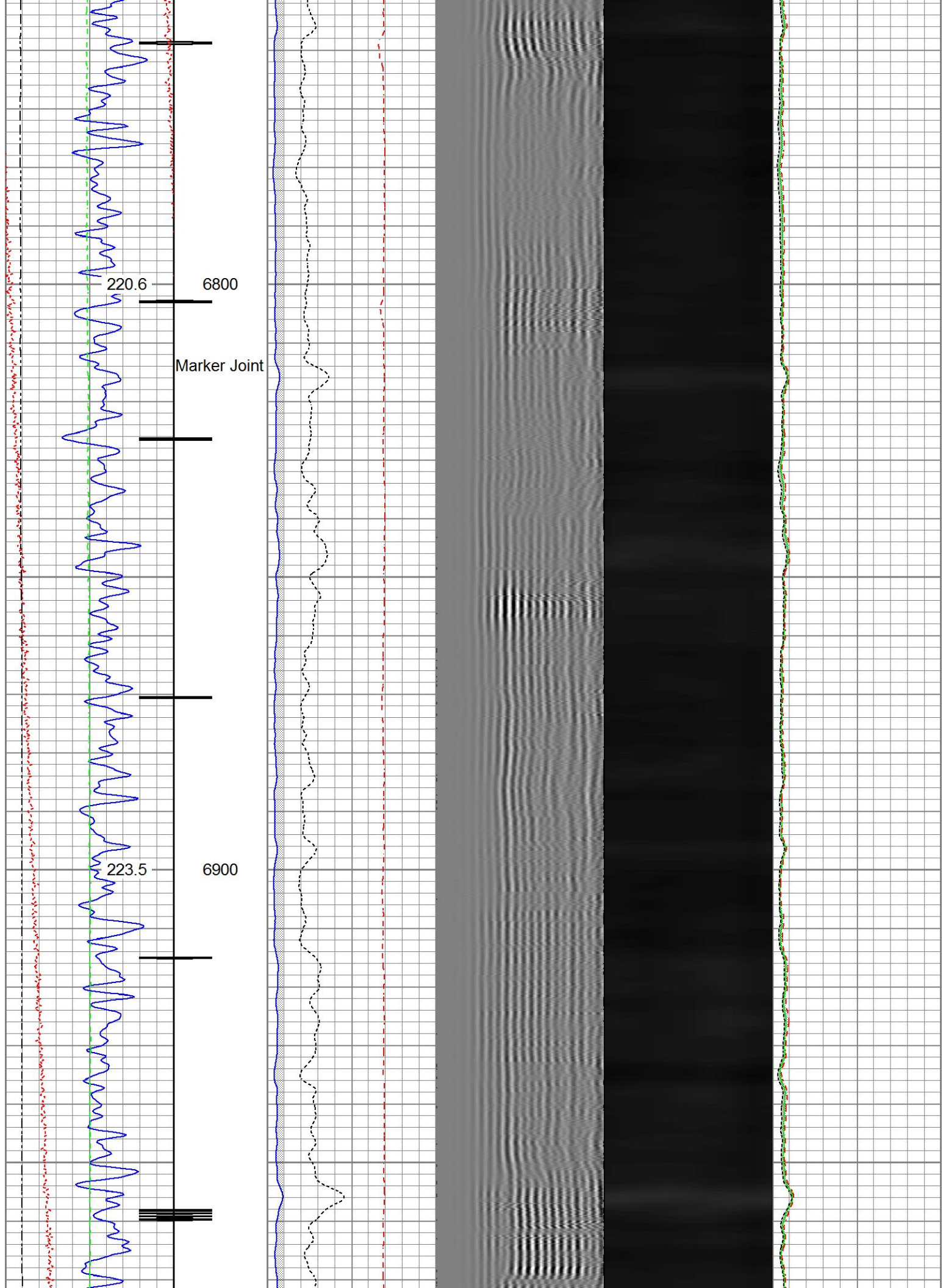


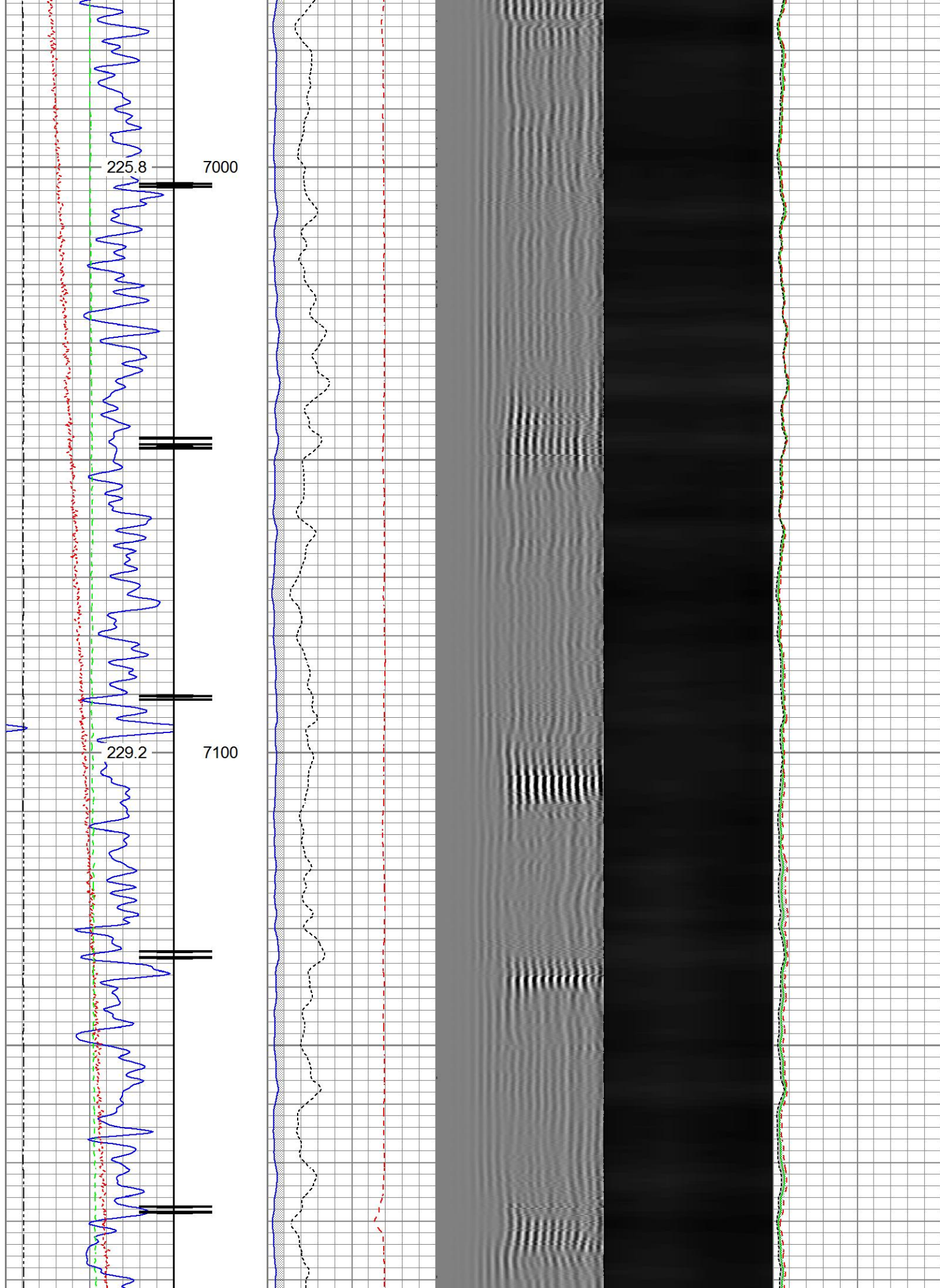


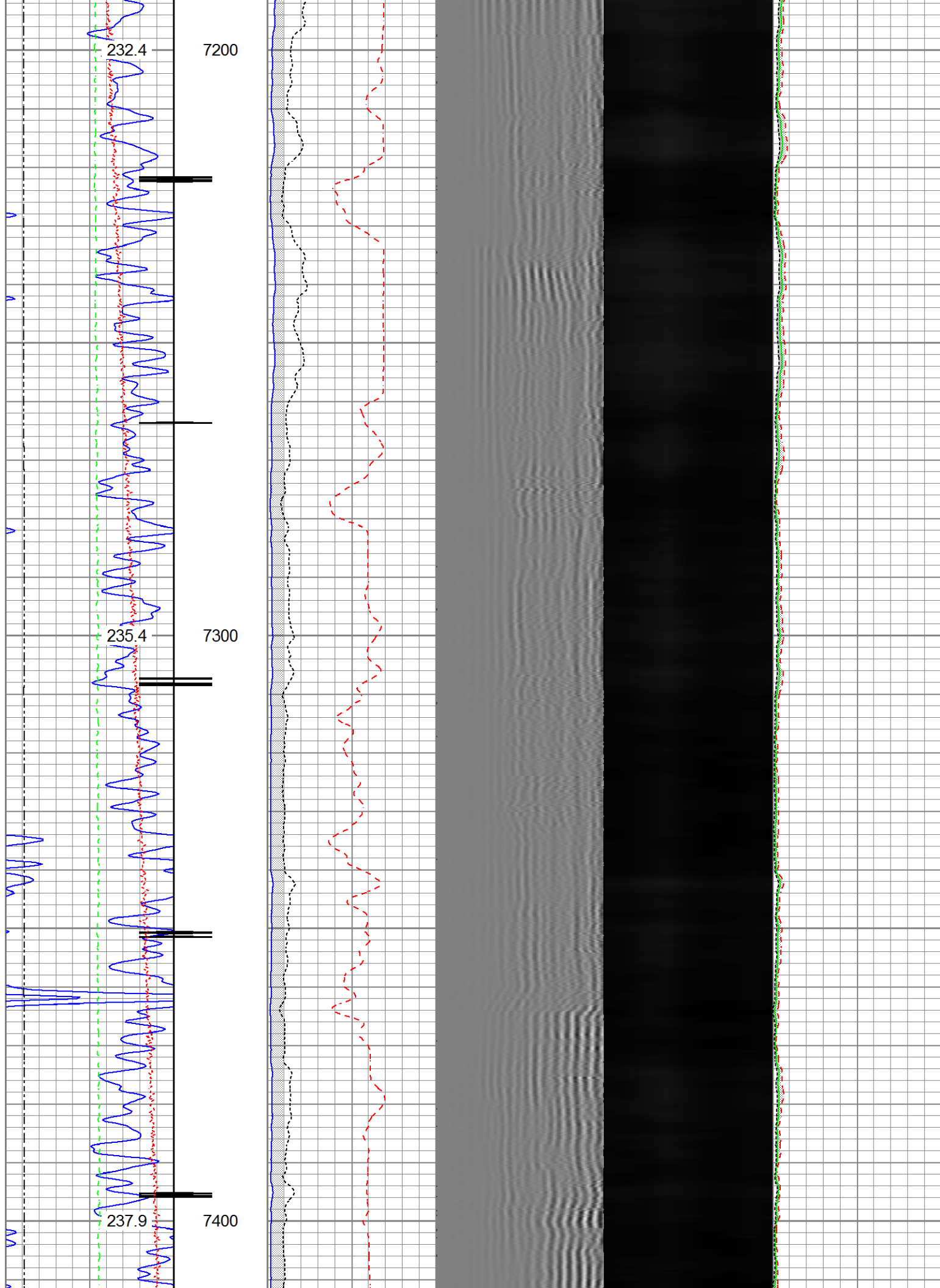


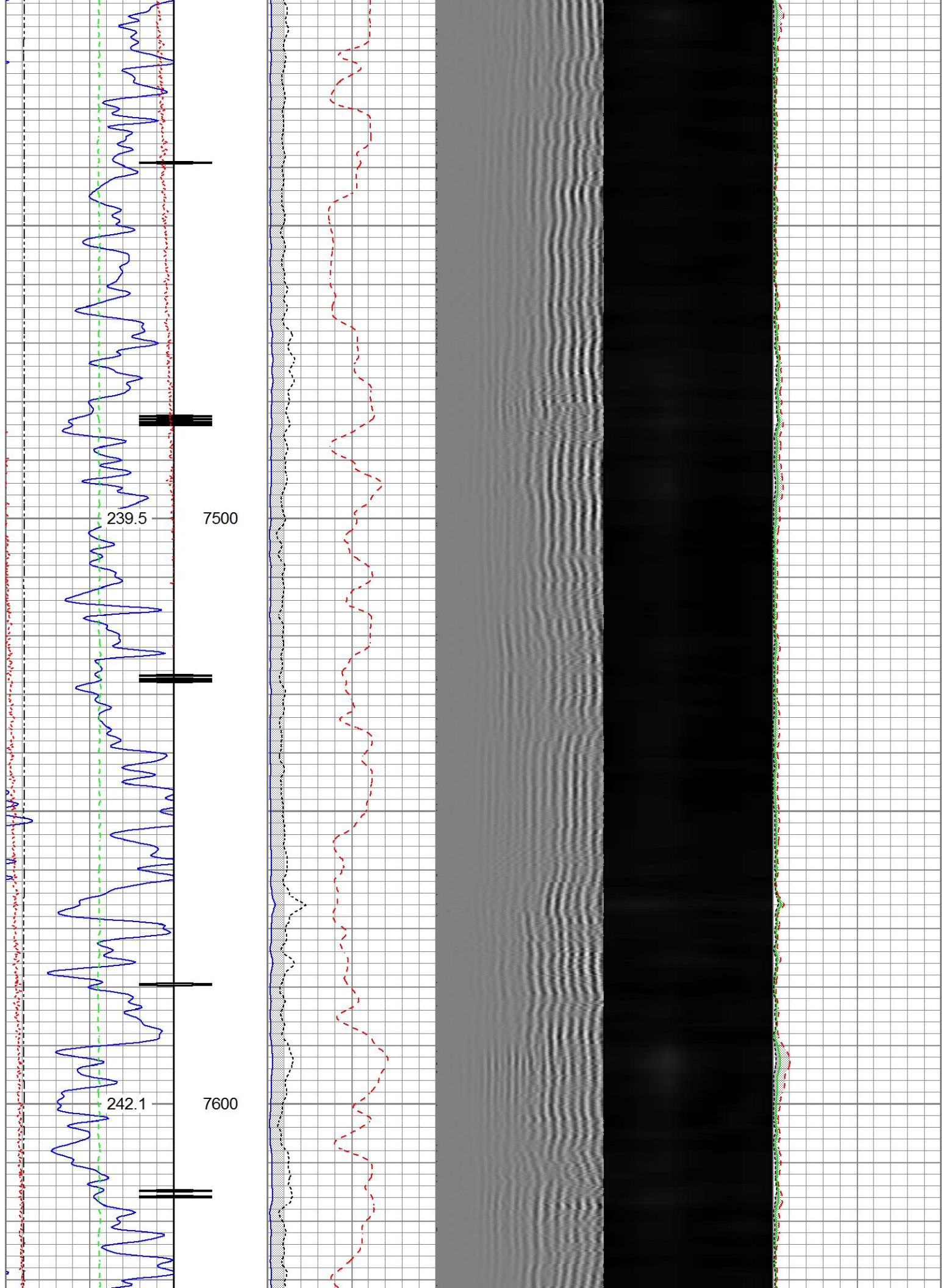


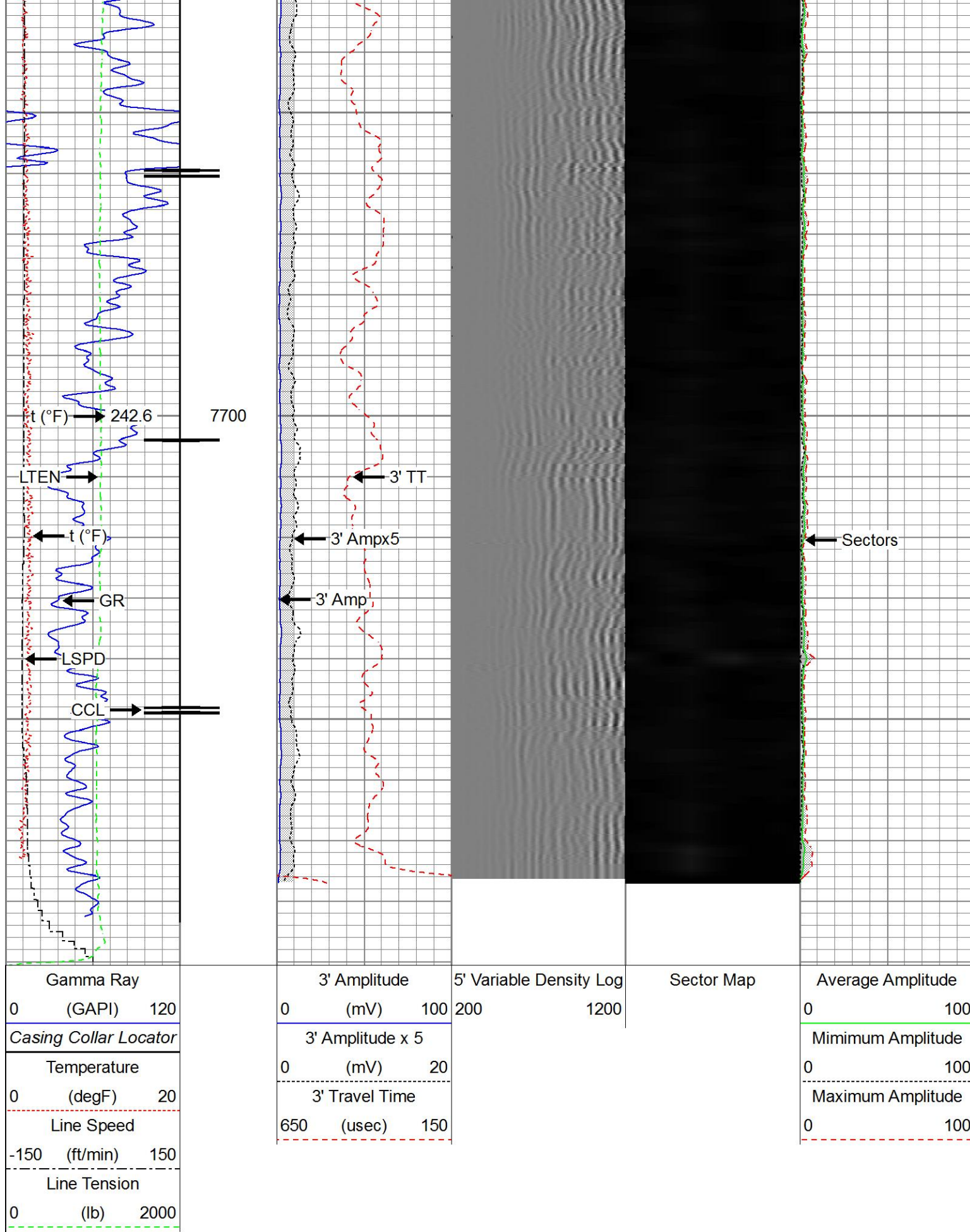






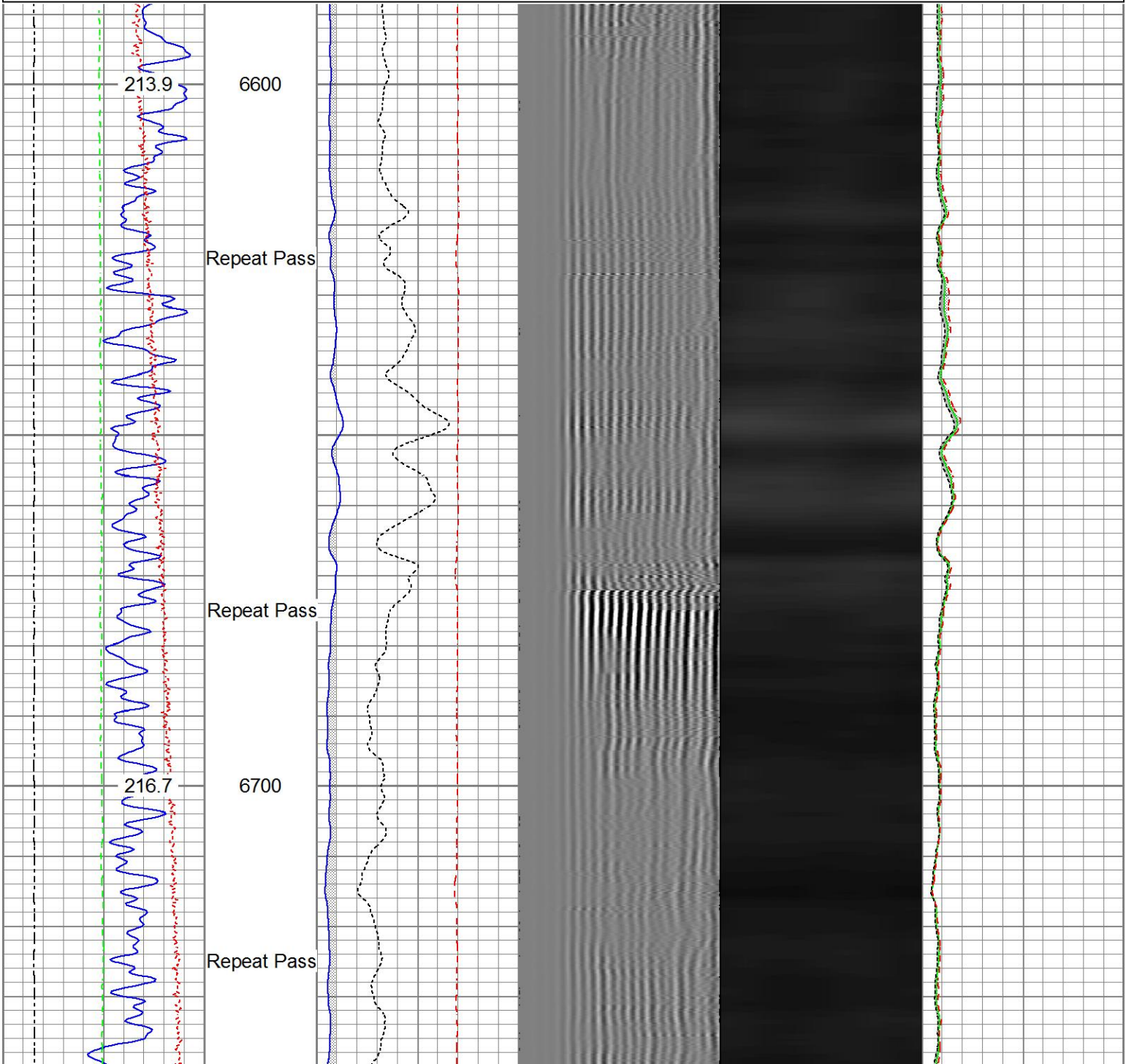


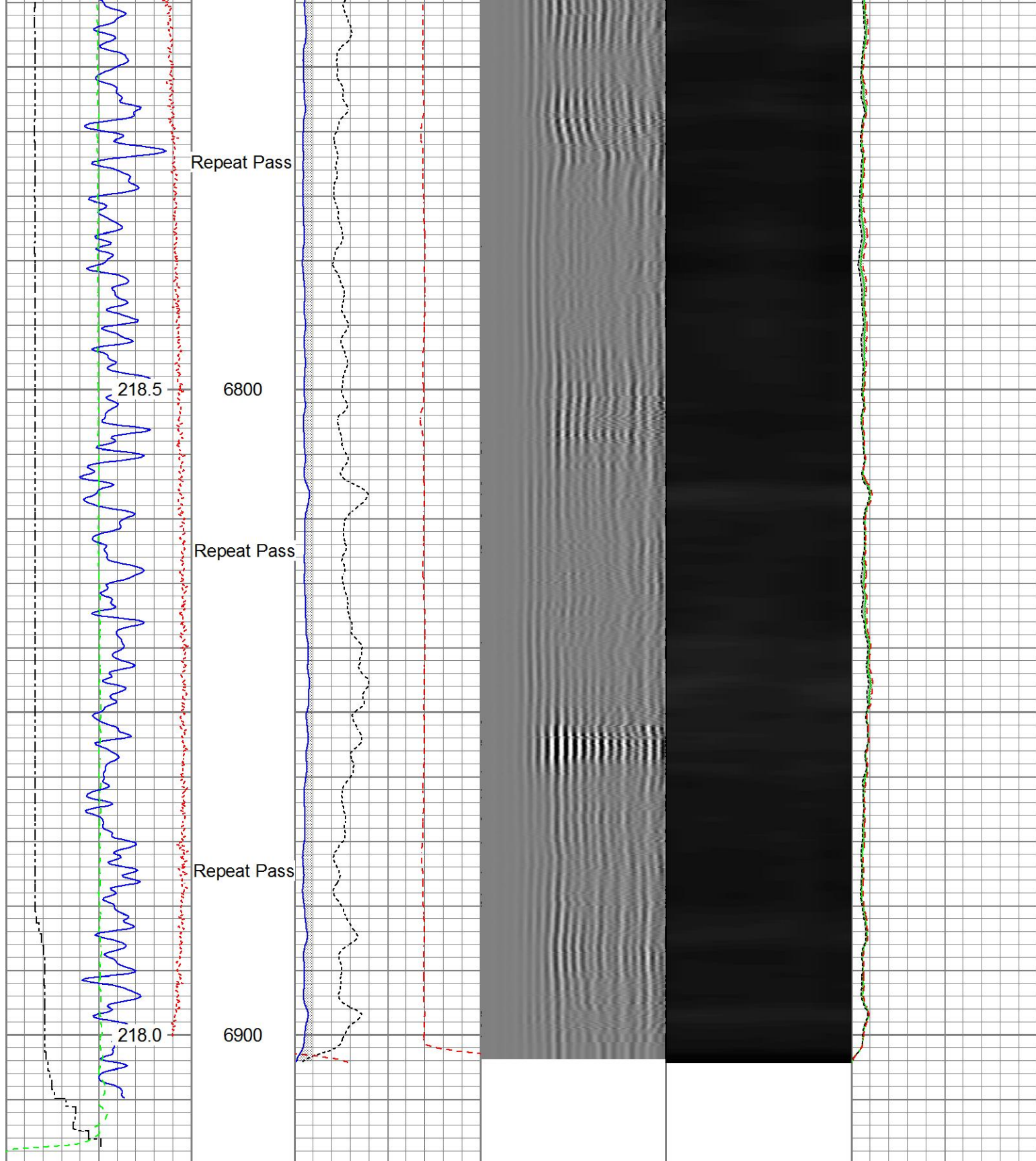




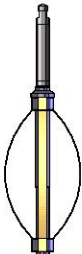

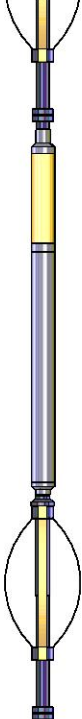
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 Dataset Pathname repeat
 Presentation Format ros_radri
 Dataset Creation Sun Sep 17 13:26:35 2017
 Charted by Depth in Feet scaled 1:240

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





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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
HeadVolt	19.51		Titan_Electric_Cable_Heads-Titan_1-11/161.03 Electric Cable Head with 1" Fishing Neck	1.69	1.69	5.40
			Probe_ELine_BowSpring_Centralizer-P-EE2.88.275 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.75	2.75	20.00
Temp	16.72					
WVFS8	14.55		Probe_RADII-C-P_RBT_2750 (FW1302-009.19 Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe	2.75	2.75	105.00
WVFS7	14.55					
WVFS6	14.55					
WVFS5	14.55					
WVFS4	14.55					
WVFS3	14.55					
WVFS2	14.55					
WVFS1	14.55					
WVFCAL	14.55					
WVF3FT	14.55					
WVF5FT	13.55					
HEADVOLT	10.30					
DCCL CCL	6.51		Probe_ELine_BowSpring_Centralizer-P-EE2.88.275 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.75	2.75	20.00
	6.51					
GR	5.30		Probe_GR_CCL-P_CGR_2750_S (FW1214.543) Probe 2-3/4" Digital CCL / Gamma Ray Combined	2.75	2.75	55.00
			Probe_ELine_BowSpring_Centralizer-P-EE2.88.275 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.75	2.75	20.00

Total Weight: 2.75 in
O.D.:

Calibration Report

Database File C:\ProgramData\Warrior\Data\Anadarko_FL Greens 35C-8HZ\0512342271_Anadarko_FL Greens 35C-8HZ
Dataset Pathname pass4
Dataset Creation Sun Sep 17 13:30:09 2017

Gamma Ray Calibration Report

Serial Number: FW1212-026
Tool Model: P_CGR_2750_S
Performed: Sat Feb 06 11:32:54 2016

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.6 cps

Sensitivity: 0.6061 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1302-001
Tool Model: P_RBT_2750

Calibration Casing Diameter: 5.500 in
Calibration Depth: 3473.195 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.603	0.800	71.921	117.950	0.744
CAL	0.002	0.712				
5'	0.000	0.569	0.800	71.921	125.010	0.769
SUM						
S1	-0.001	0.588	0.000	100.000	169.800	0.106
S2	0.000	0.567	0.000	100.000	176.365	-0.062
S3	0.001	0.559	0.000	100.000	179.136	-0.103
S4	0.001	0.574	0.000	100.000	174.427	-0.156
S5	0.001	0.651	0.000	100.000	153.784	-0.119
S6	0.001	0.745	0.000	100.000	134.363	-0.074
S7	0.001	0.756	0.000	100.000	132.382	-0.079
S8	0.001	0.677	0.000	100.000	147.821	-0.099

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.002	0.712	1.000	0.000

Air Zero Calibration, performed Sun Sep 17 07:33:44 2017:

	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



Company	Kerr-McGee Oil & Gas Onshore, L.P.
Well	FL Greens 35C-8HZ
Field	Wattenberg
County	Weld
State	Colorado