

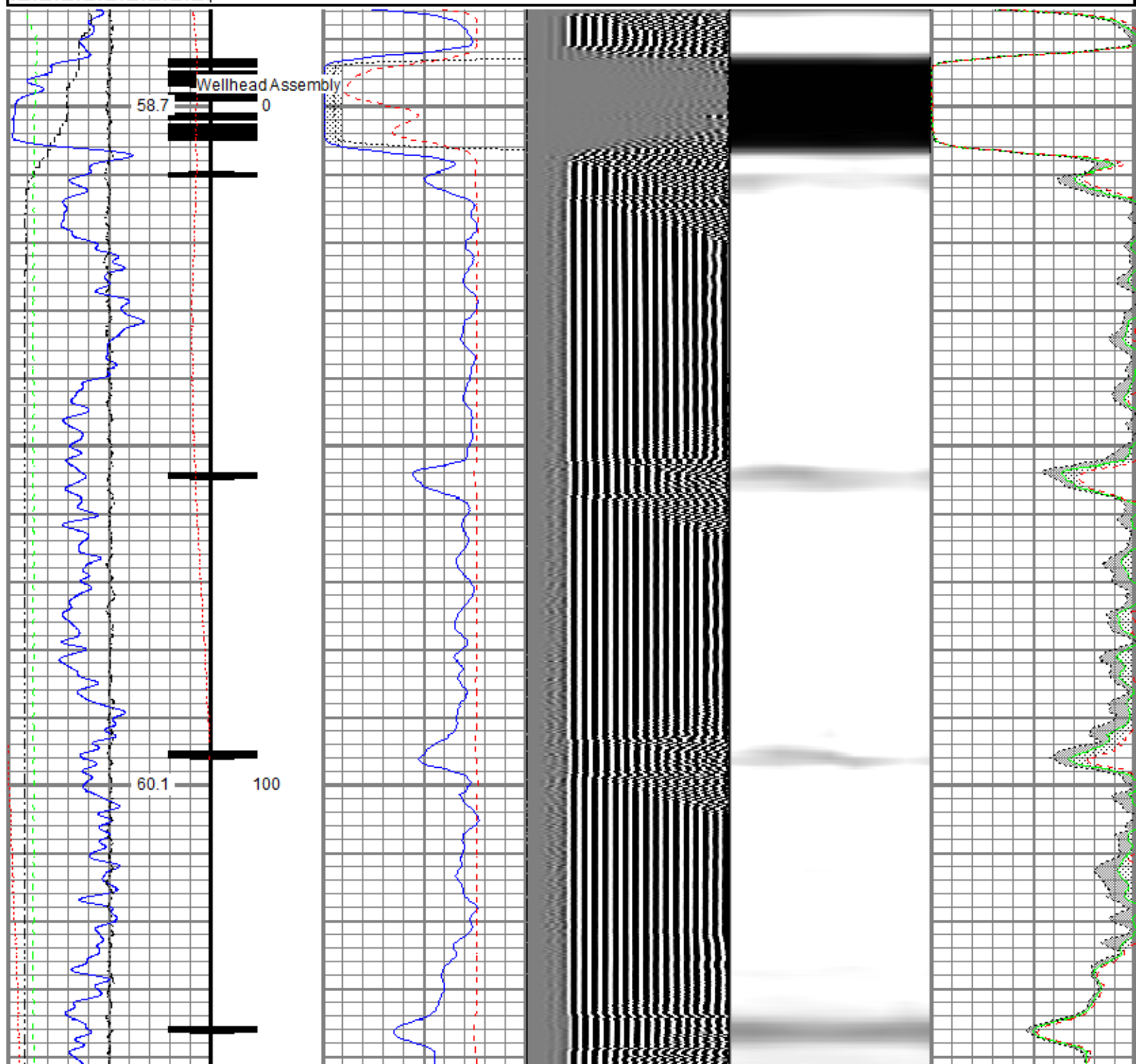


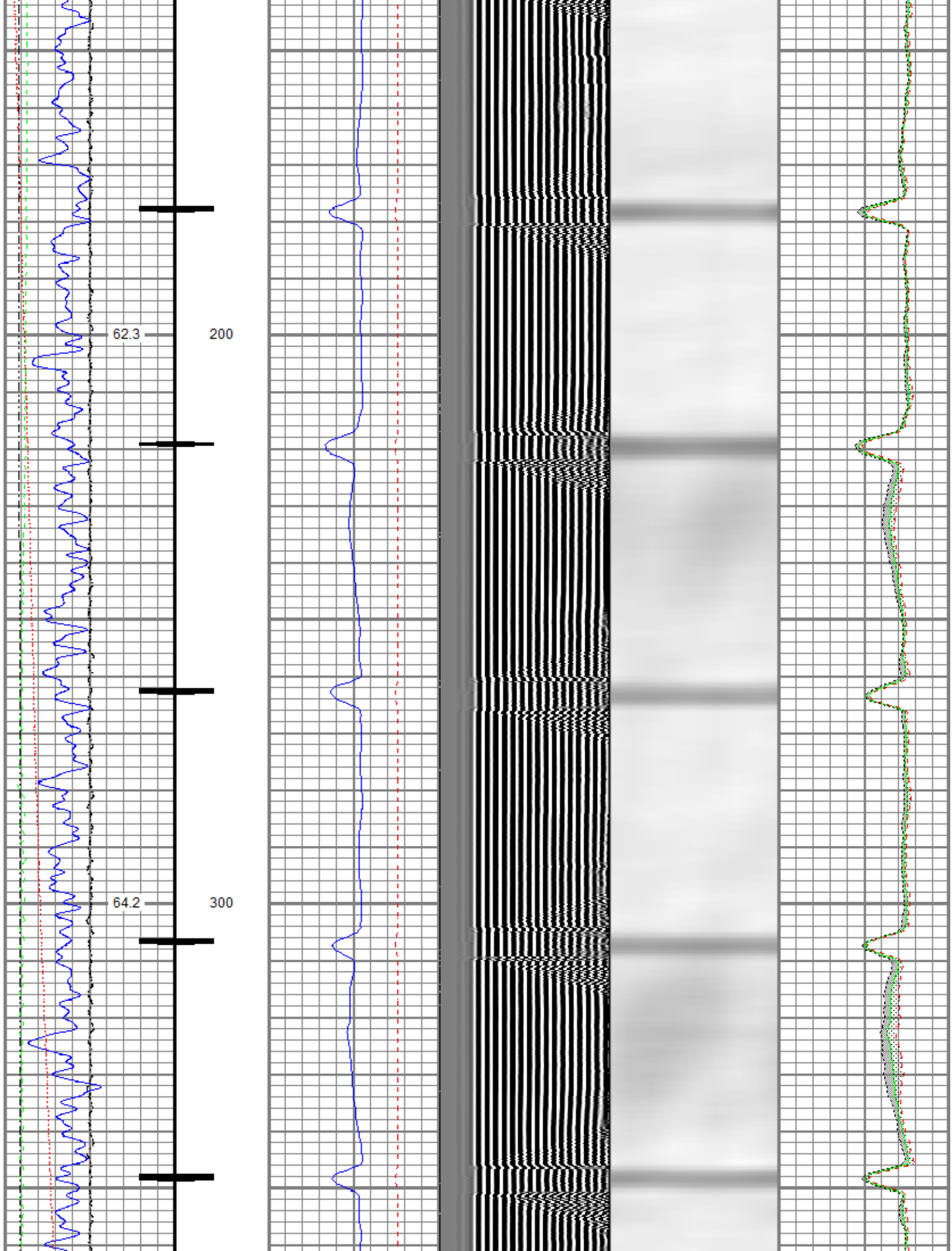
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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 Top at 6619 FT Adjusted 0 FT to correlate with Marker Joint Top Gauge Ring/Junk Basket ran to 7520 FT with no debris 5.50" RBP Set at 6734 FT Recorded 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!!

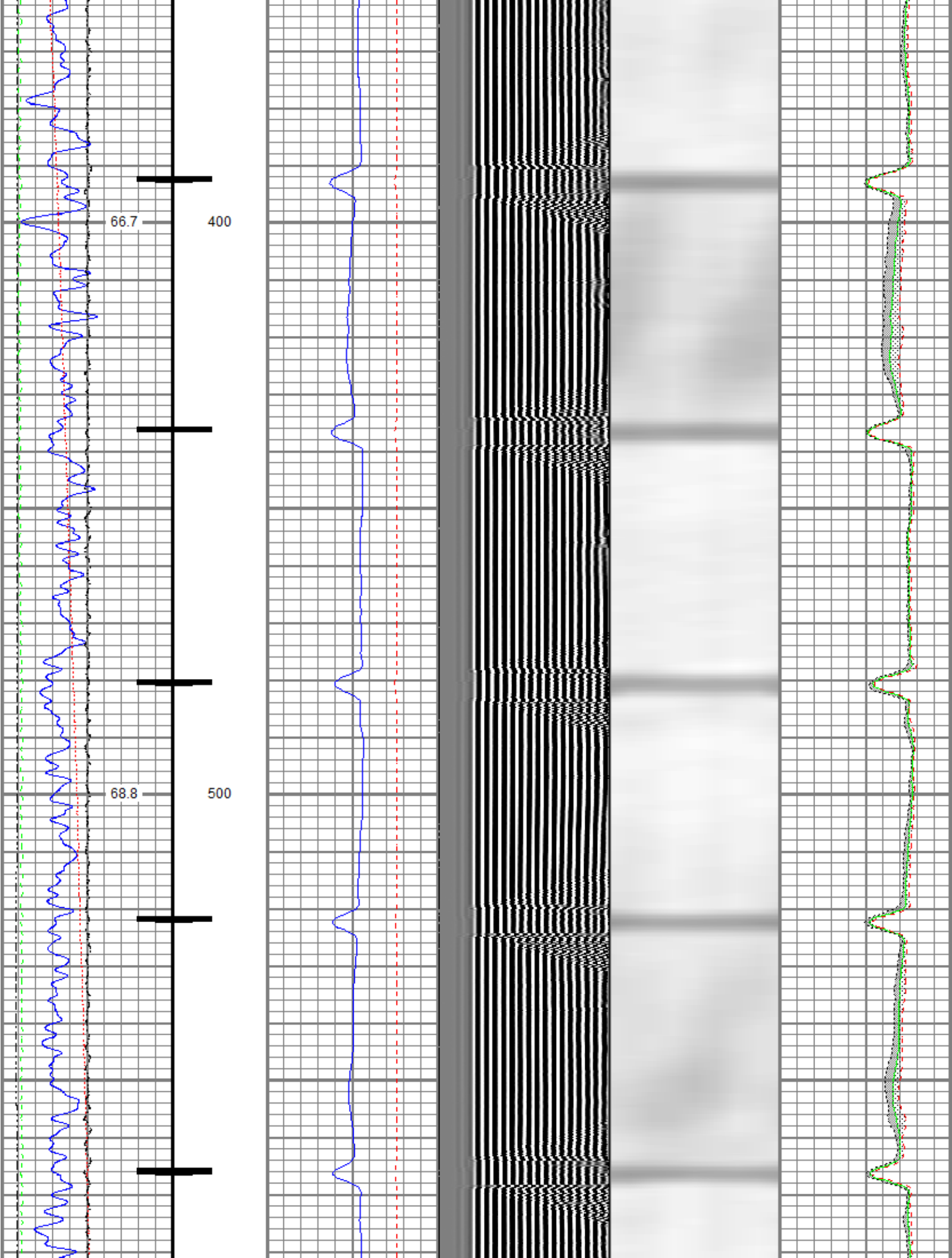
Recorded With 2800 PSI Surface Induced Pressure

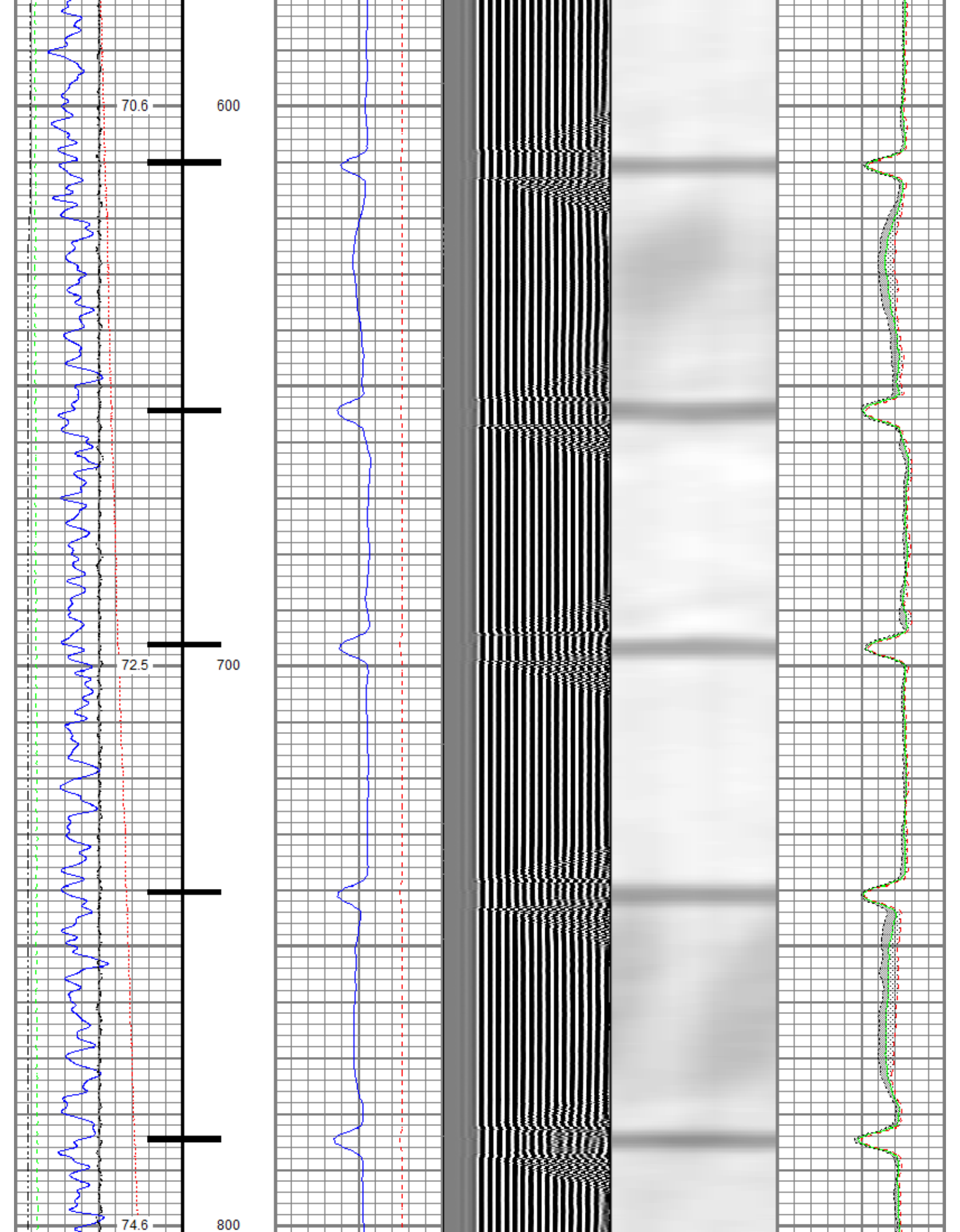
Database File anadarko_castle pines 19-11hz\0512347709_anadarko_castle pines 19-11hz_rbl_2800 psi.db
 Dataset Pathname Main
 Presentation Format ros_radrii
 Dataset Creation Sat Mar 16 15:38:02 2019
 Charted by Depth in Feet scaled 1:240

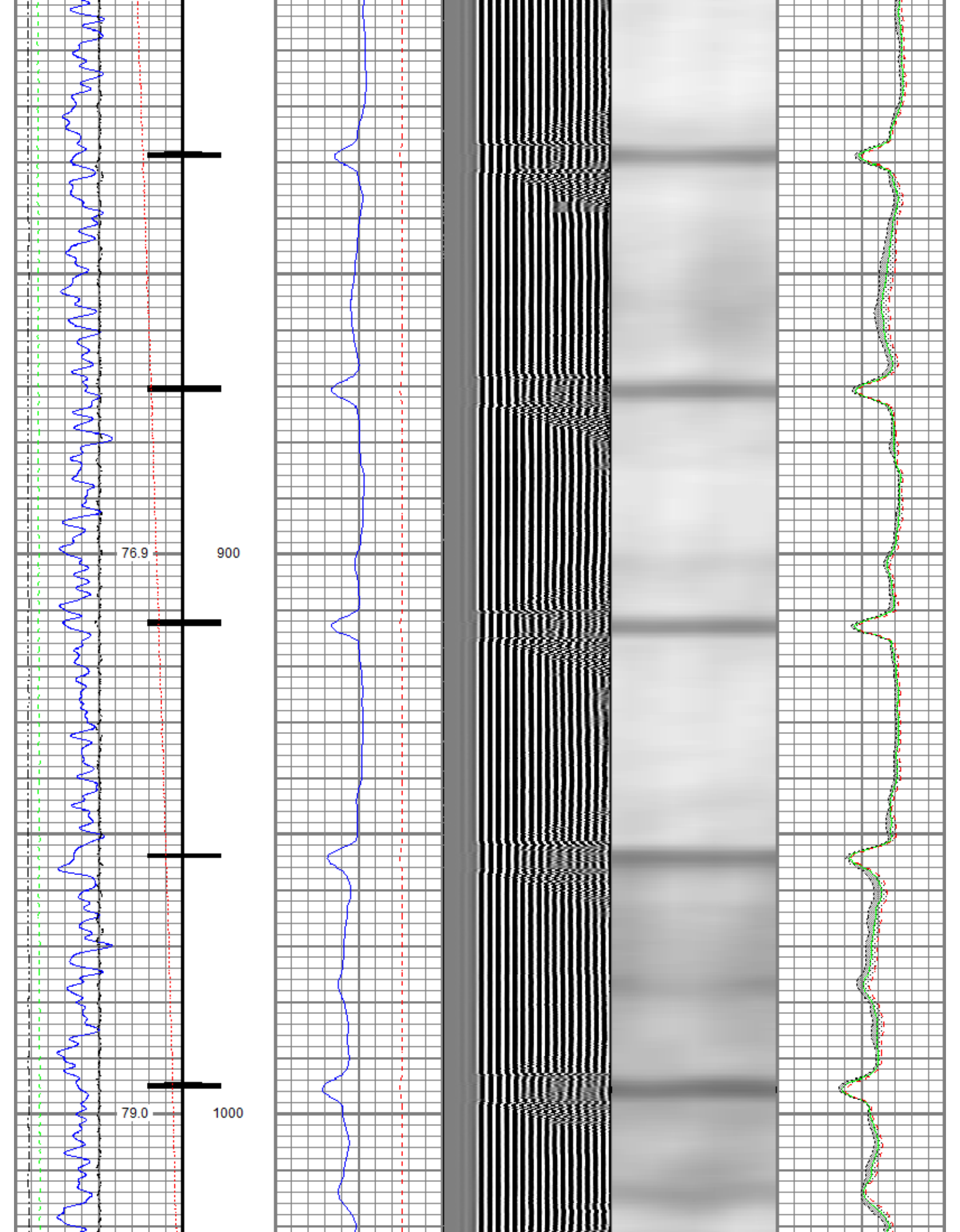
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min) 150						
Line Tension (lb) 2000						
Differential Temperature						
-2 (degF) 2						

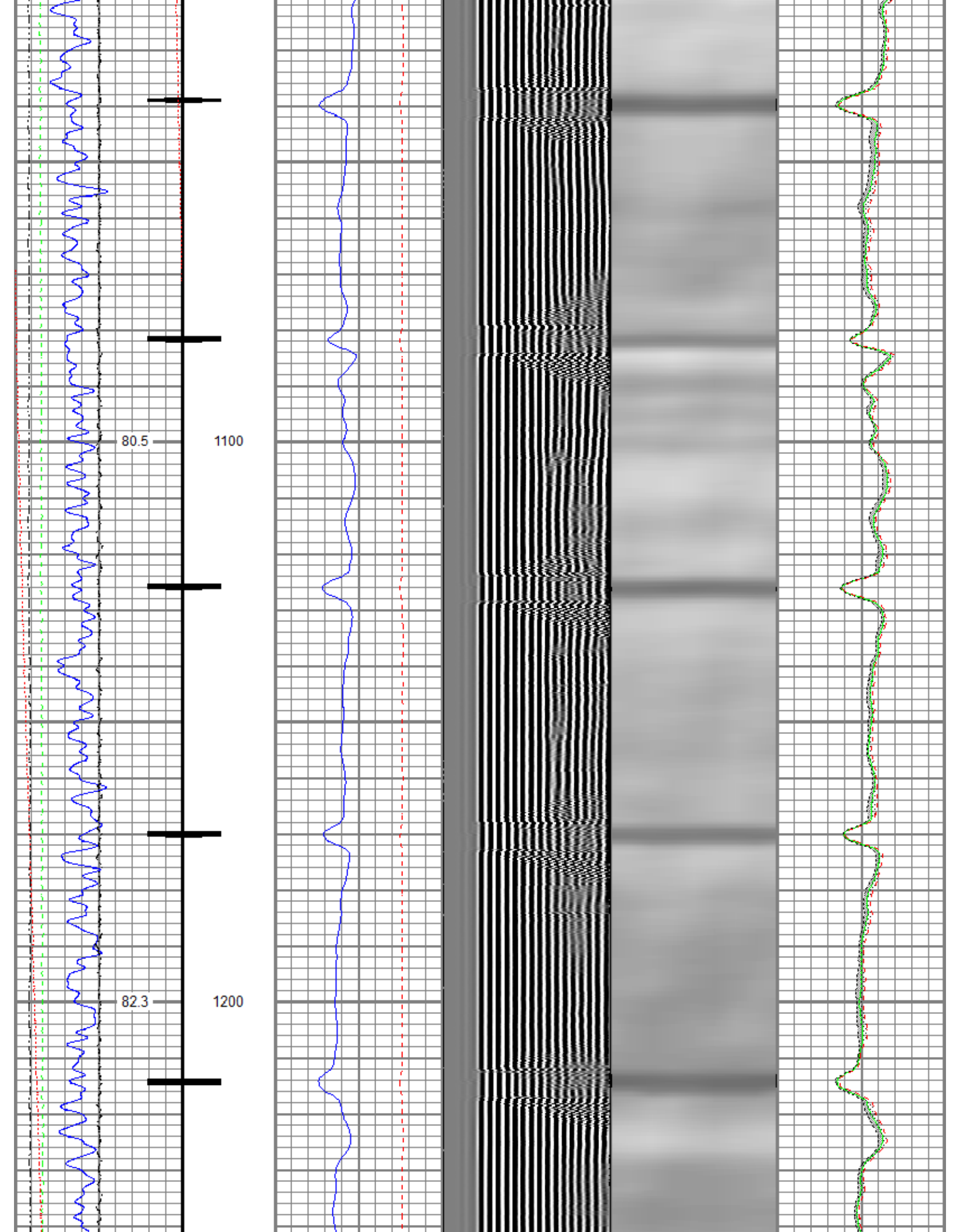


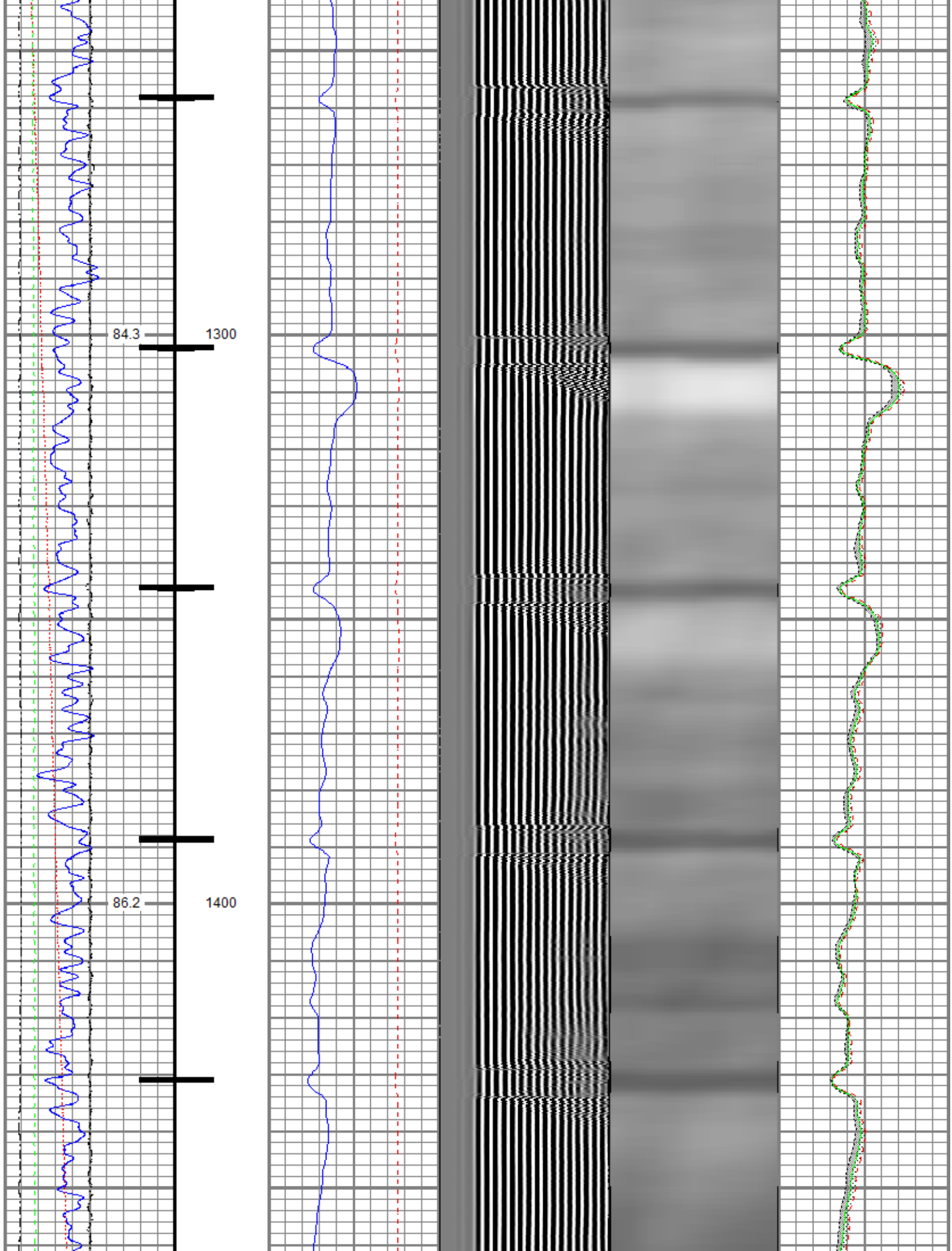


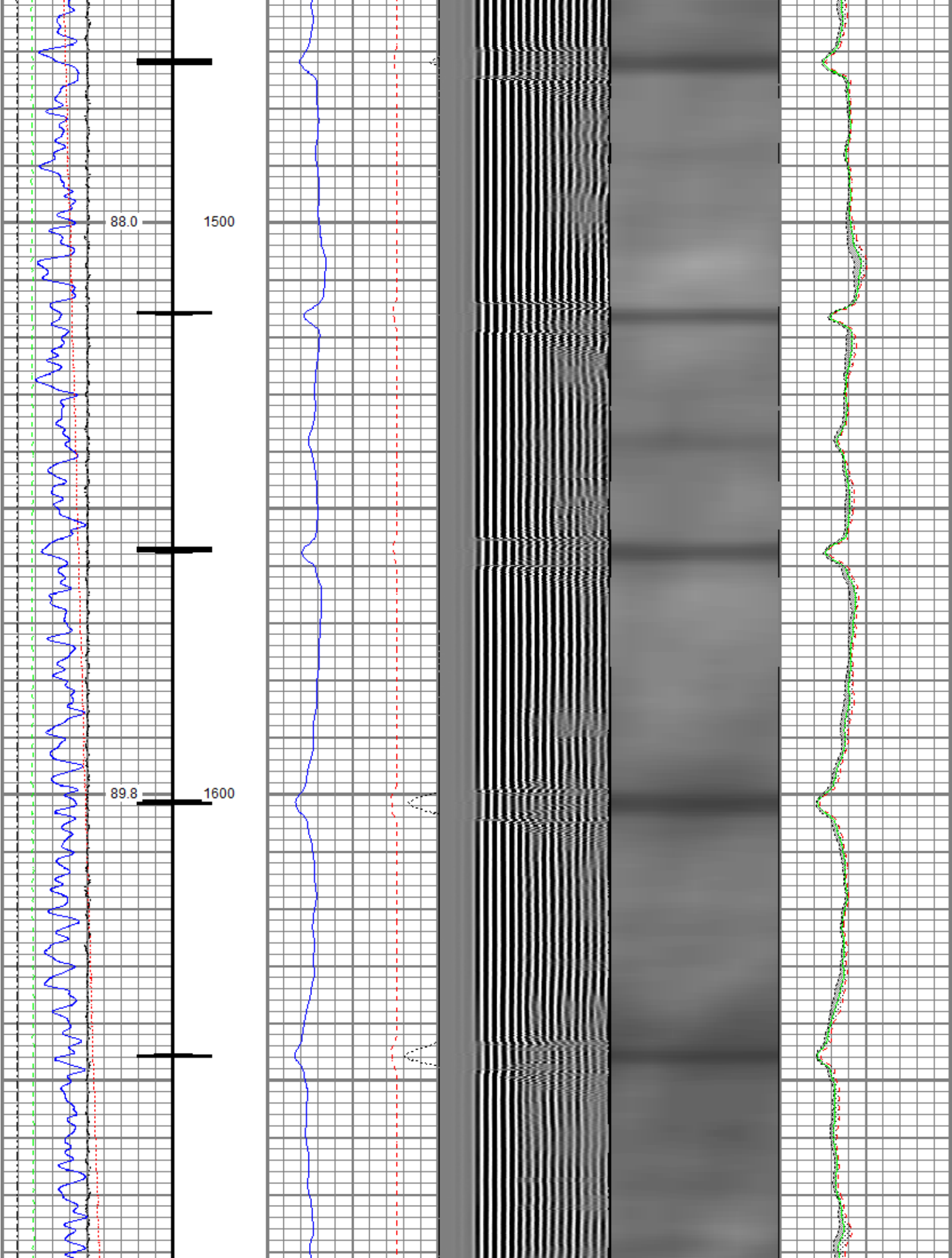


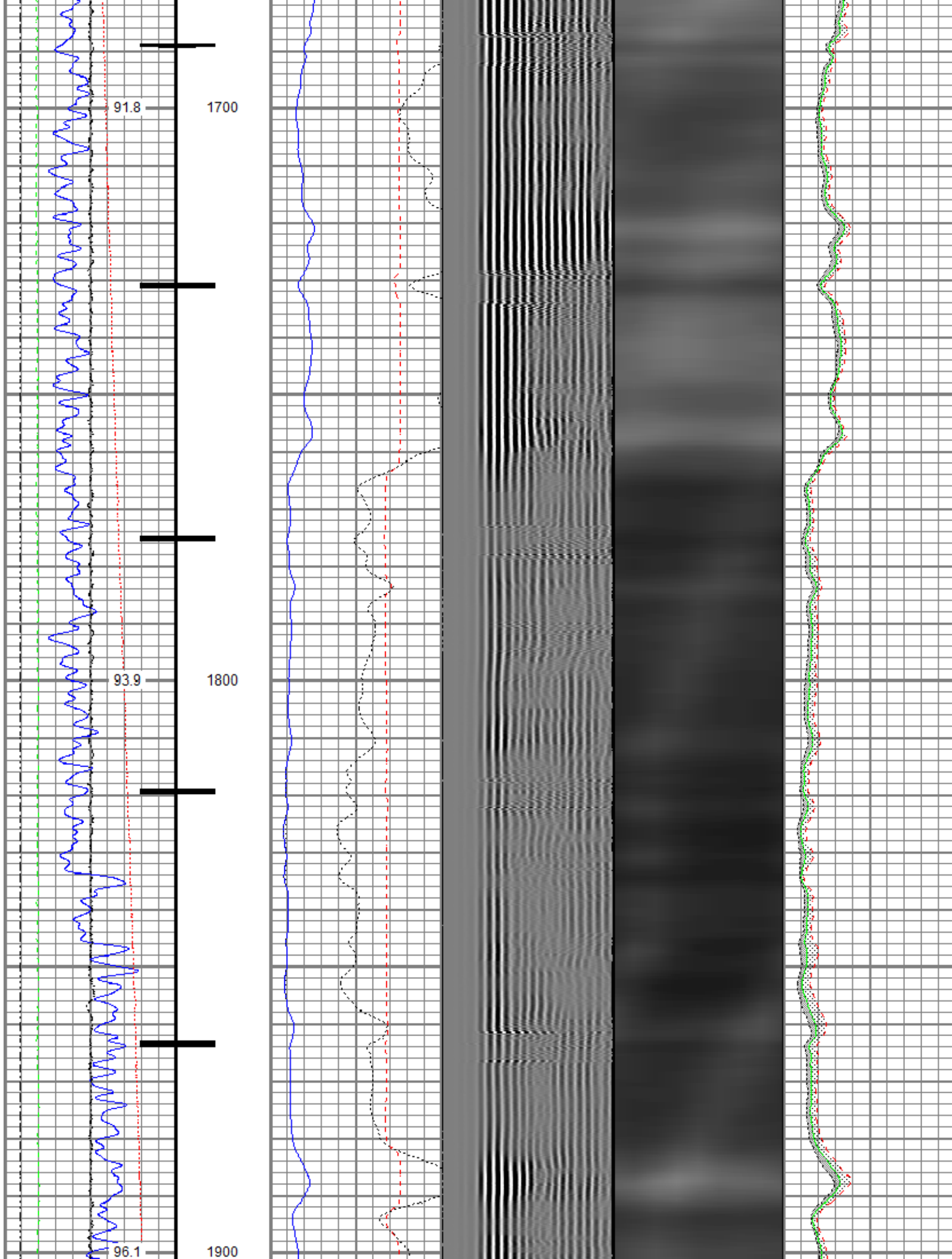


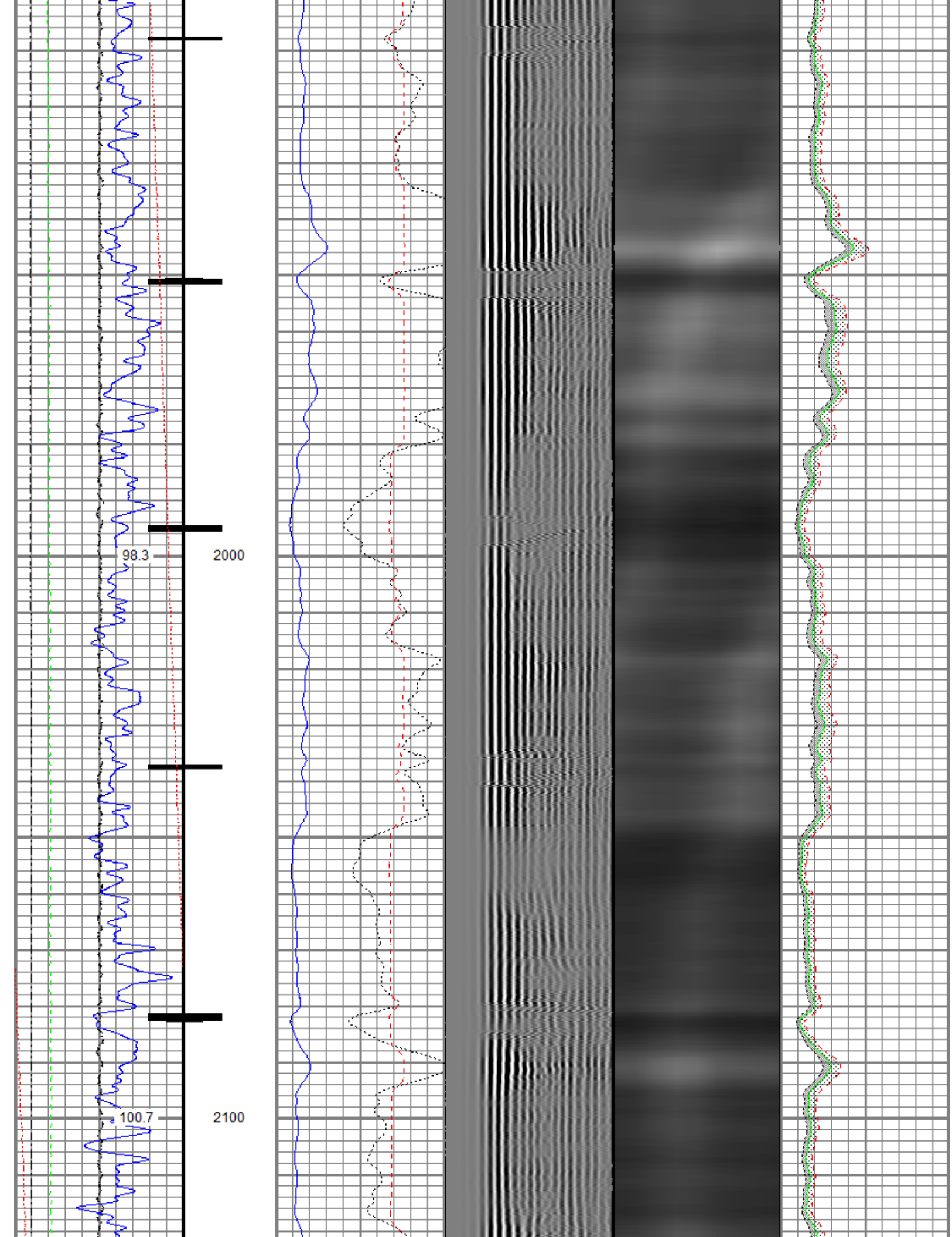


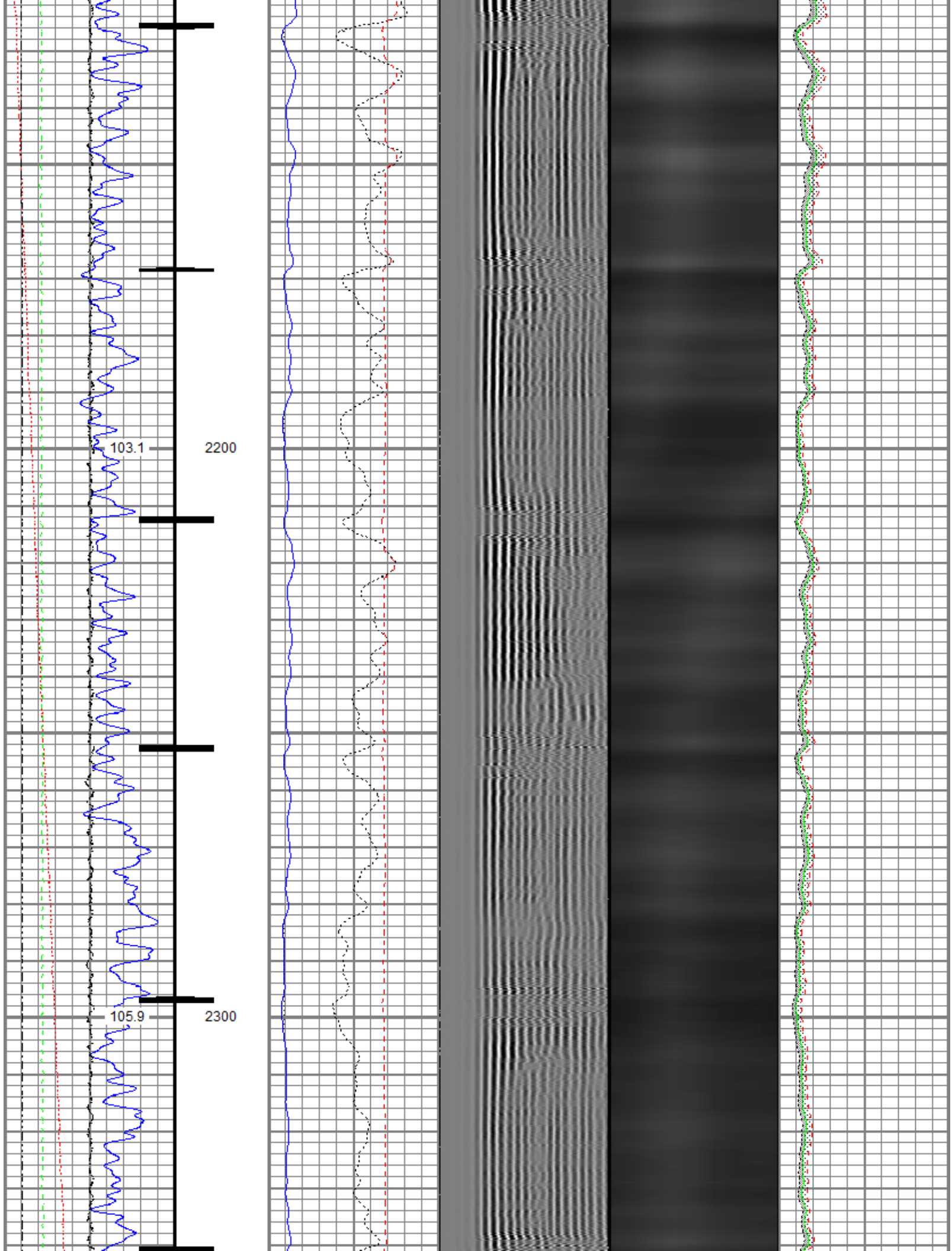


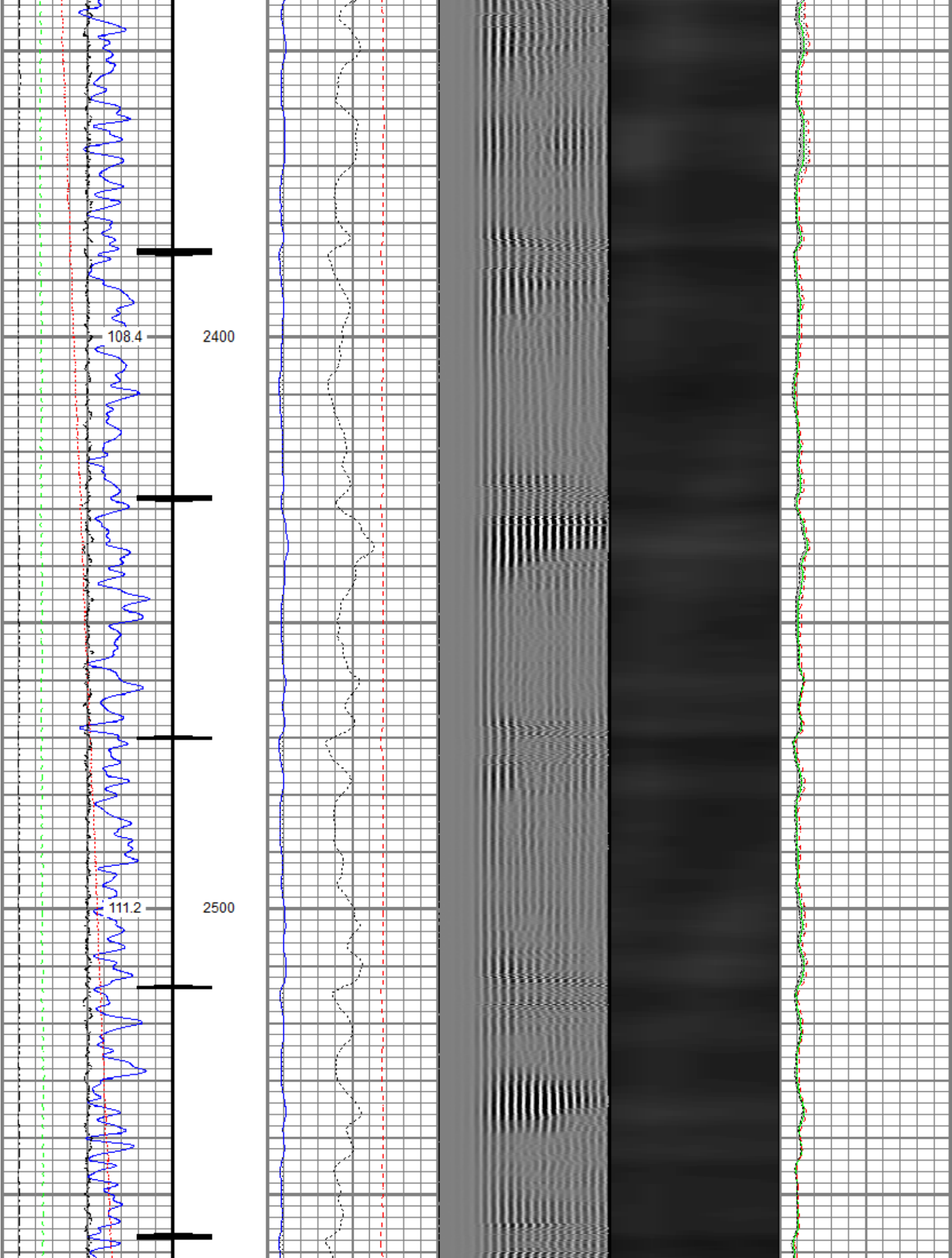


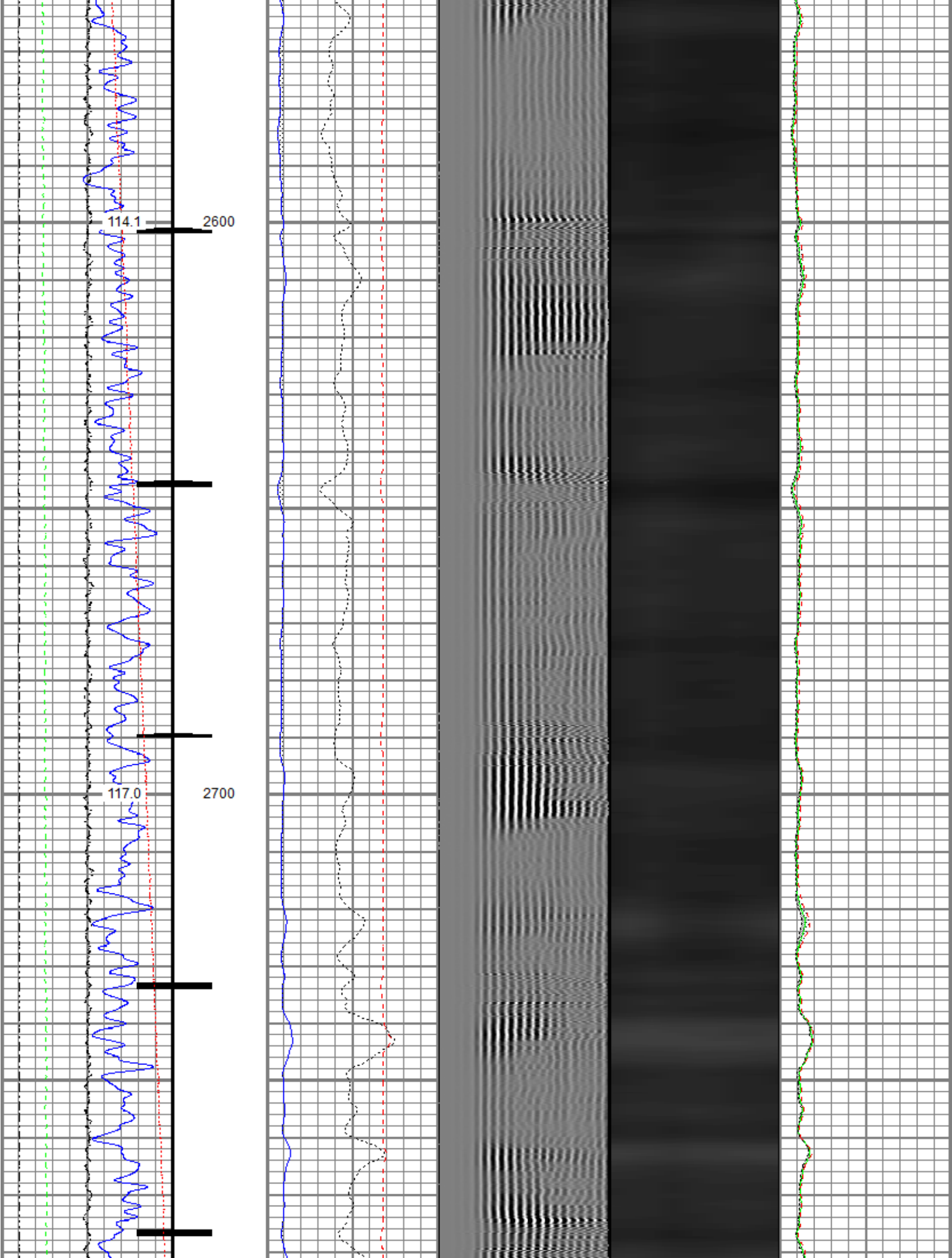


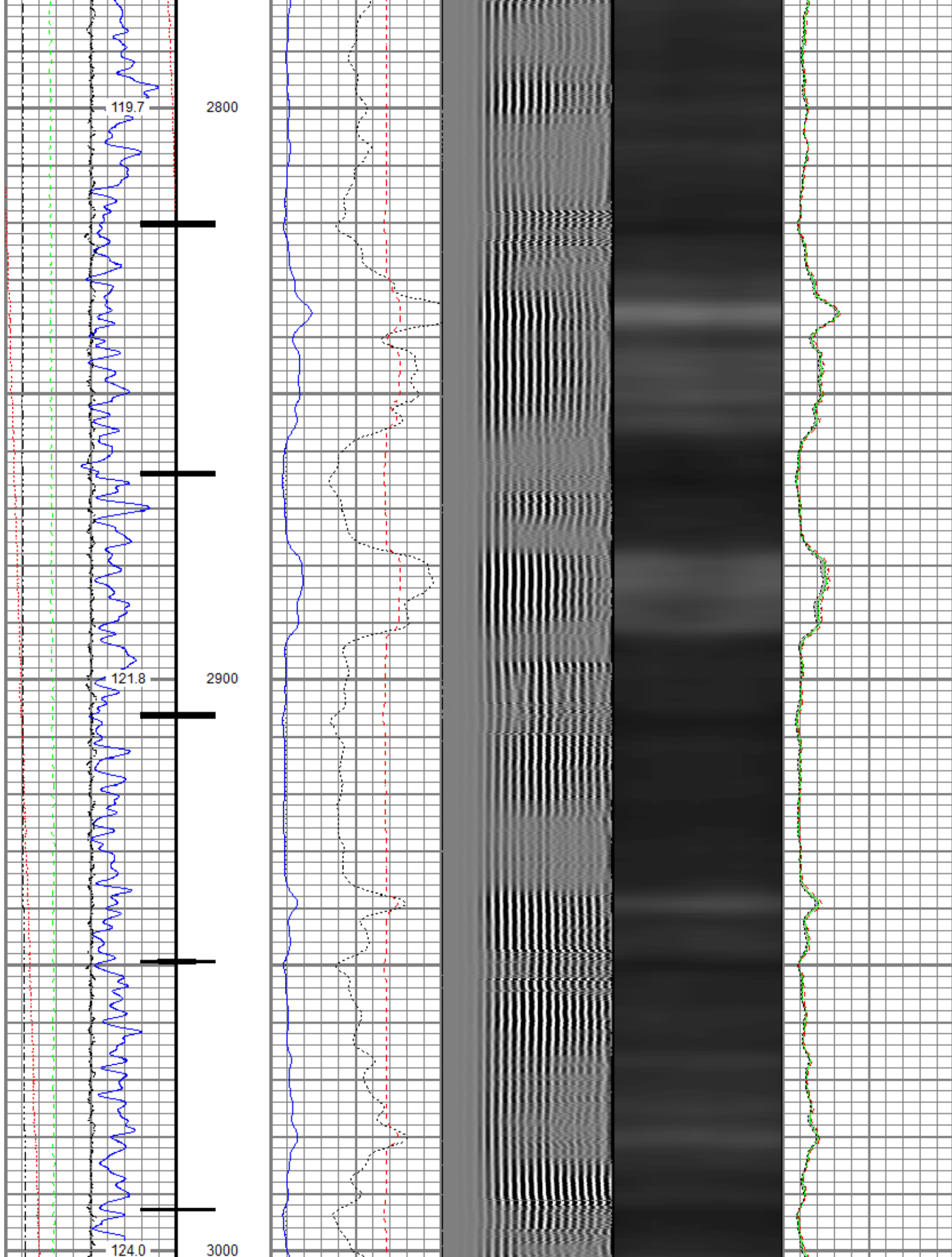


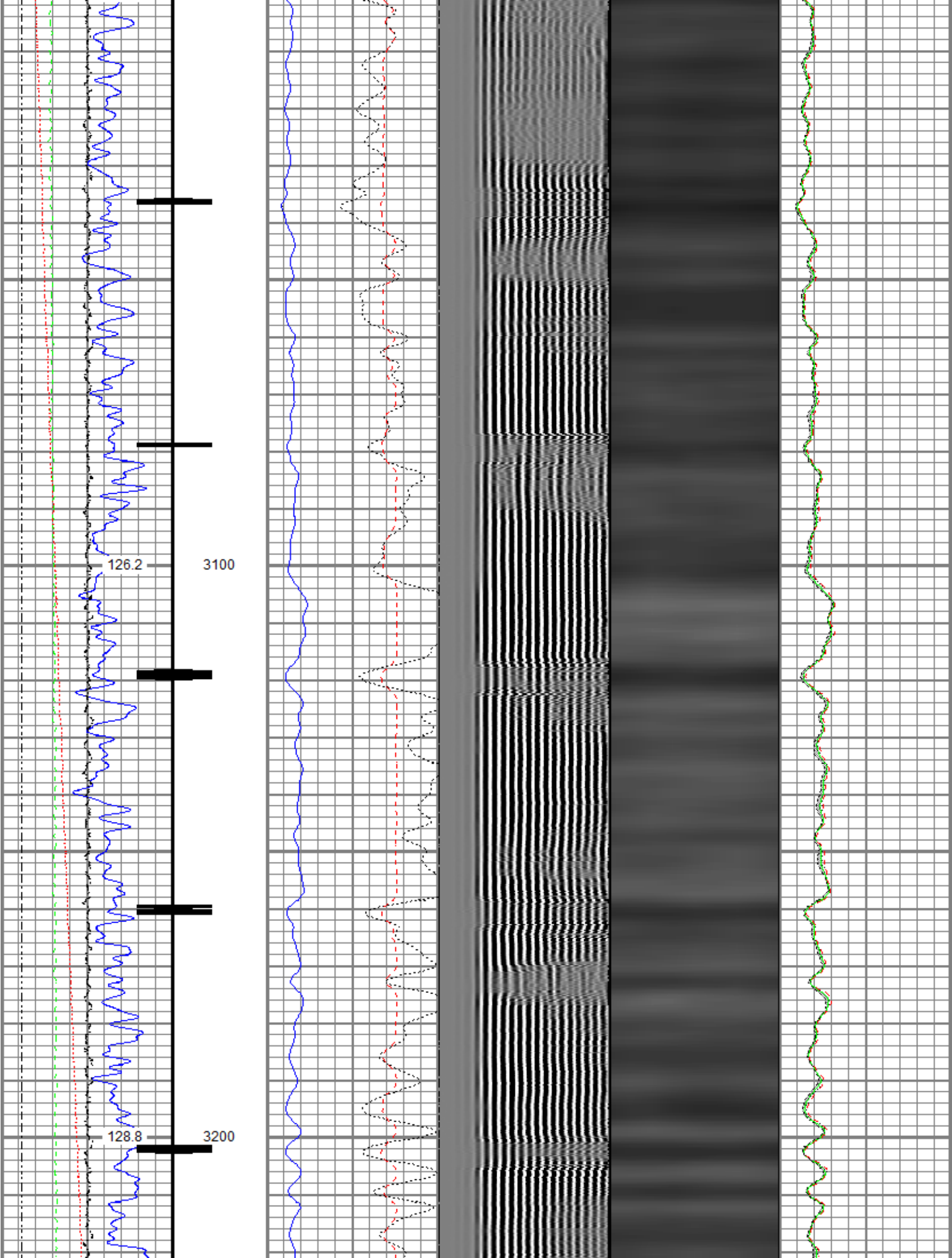


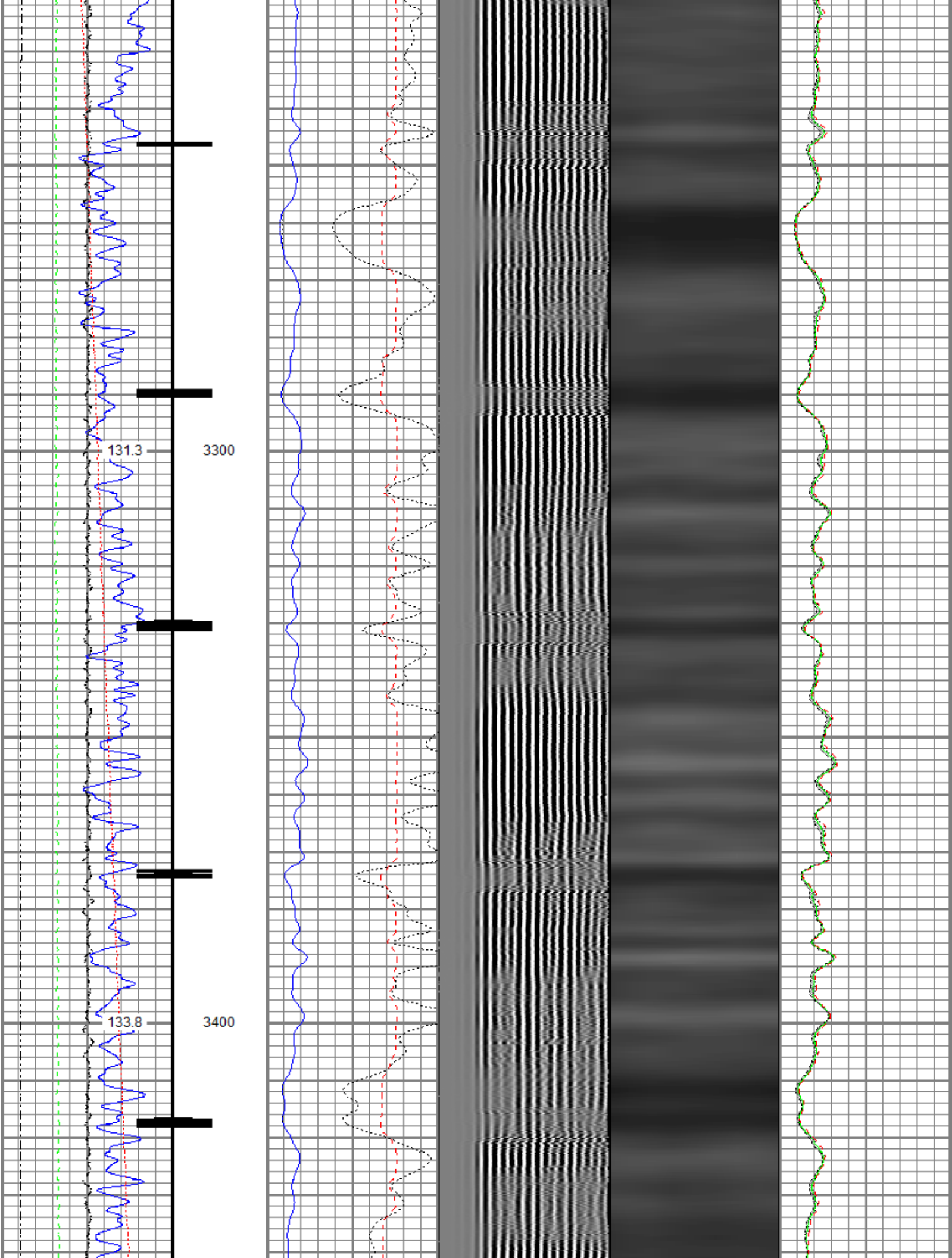


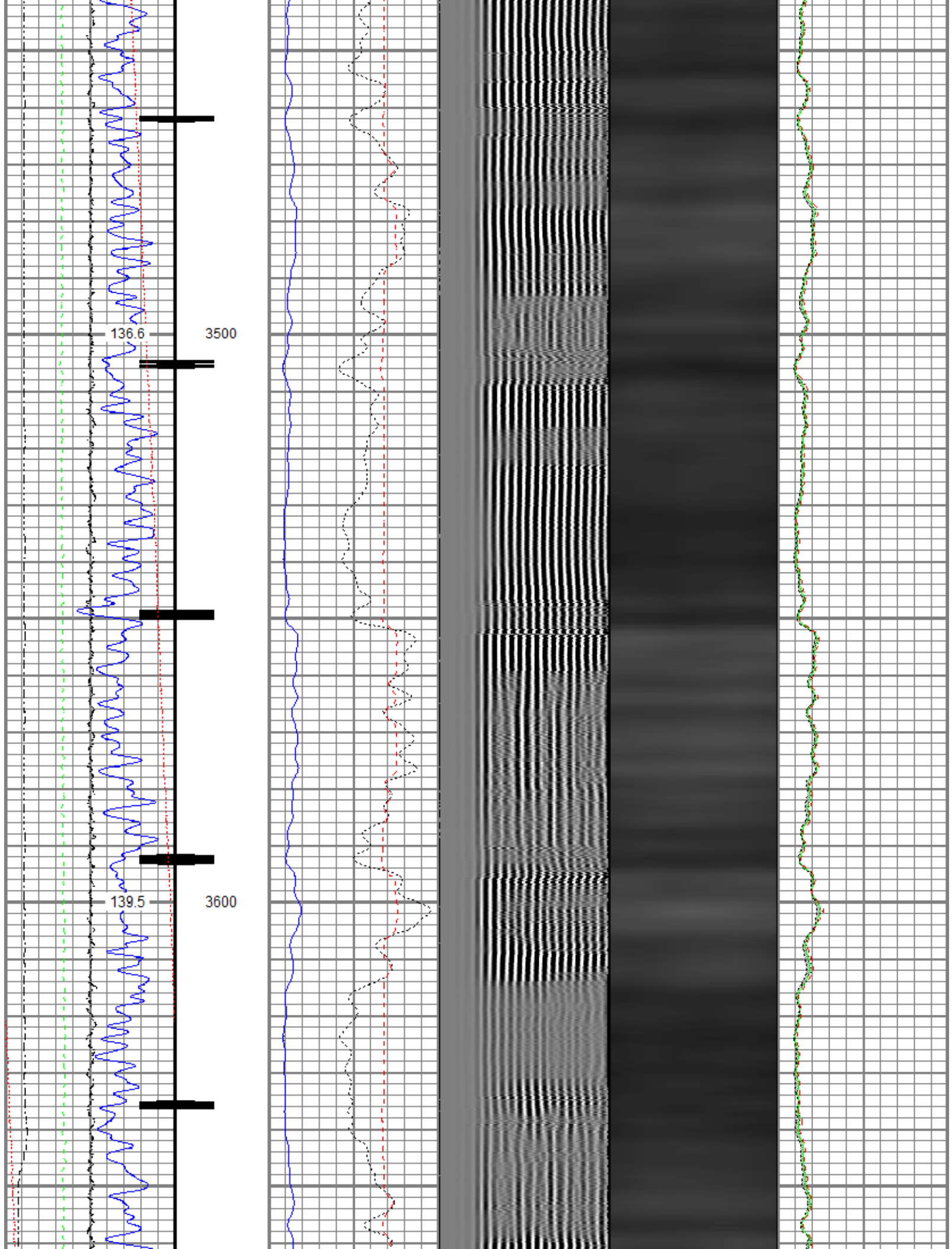


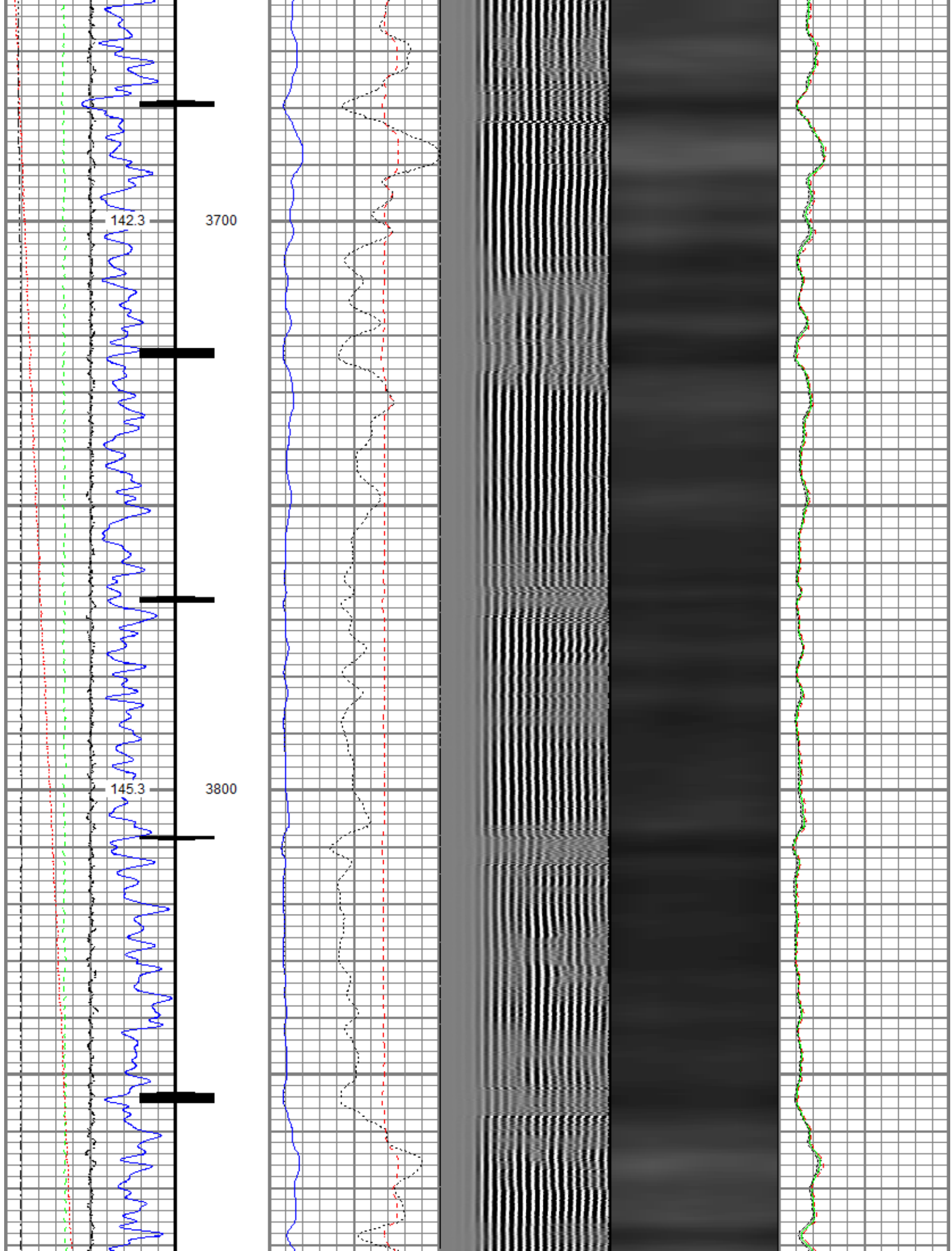


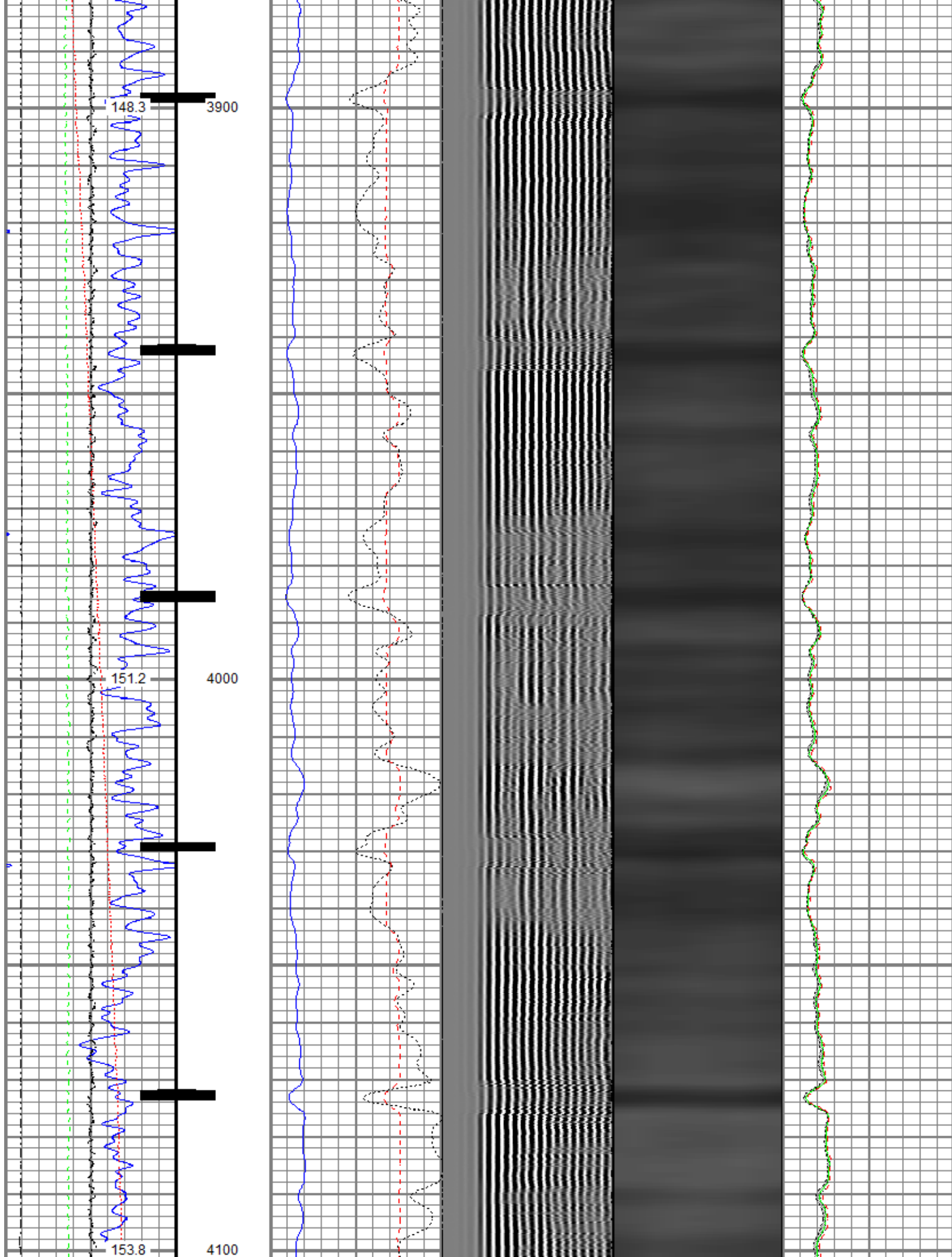


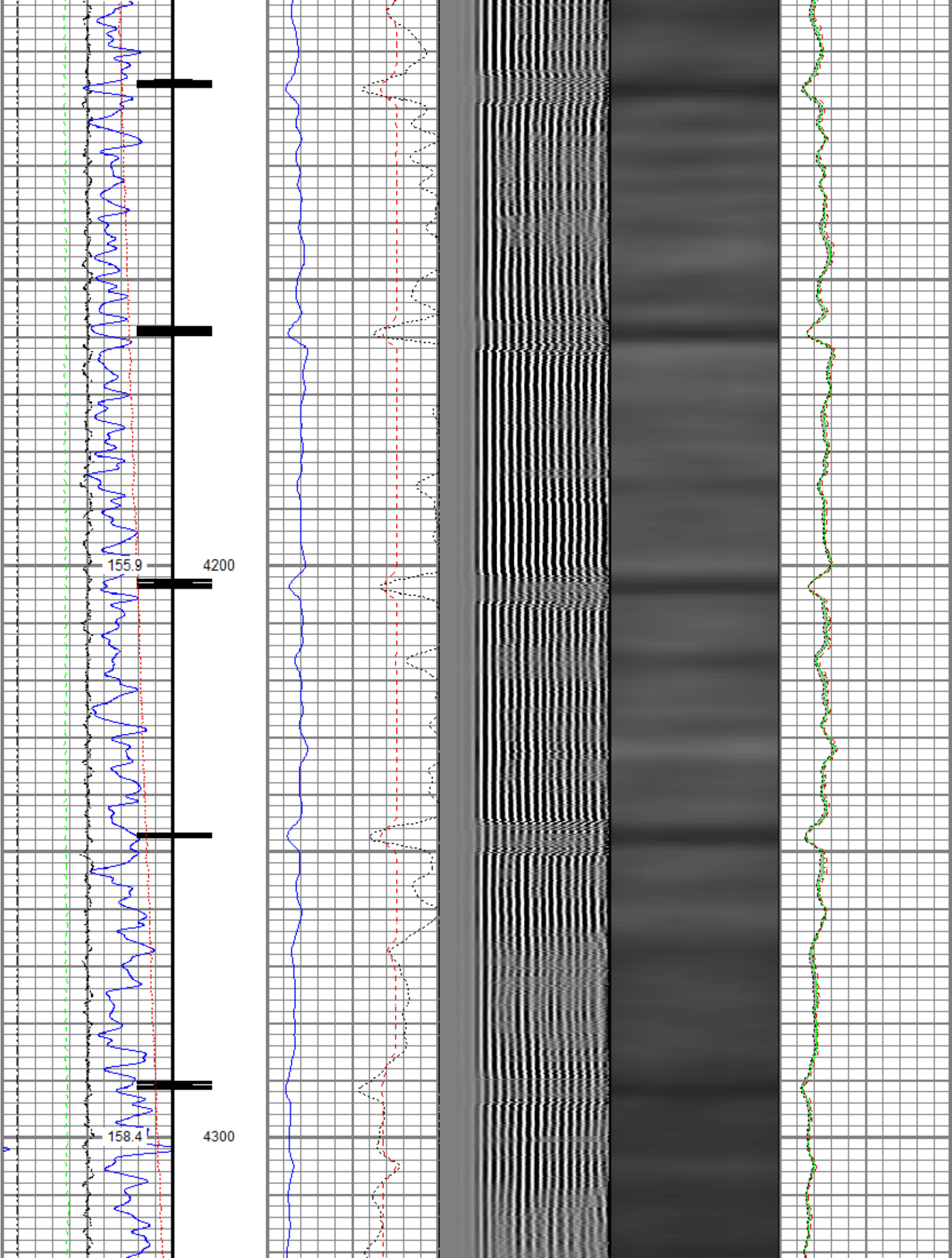


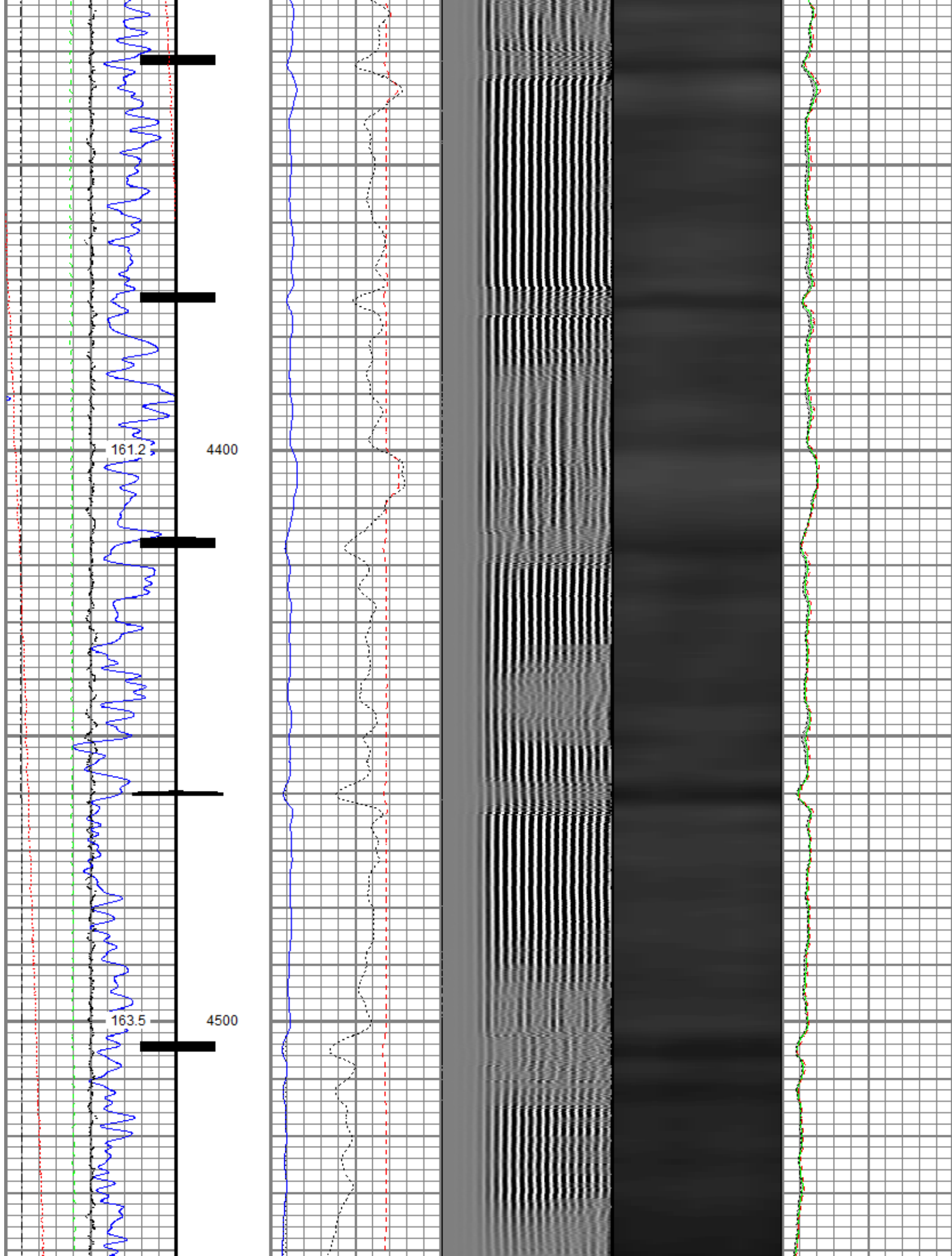


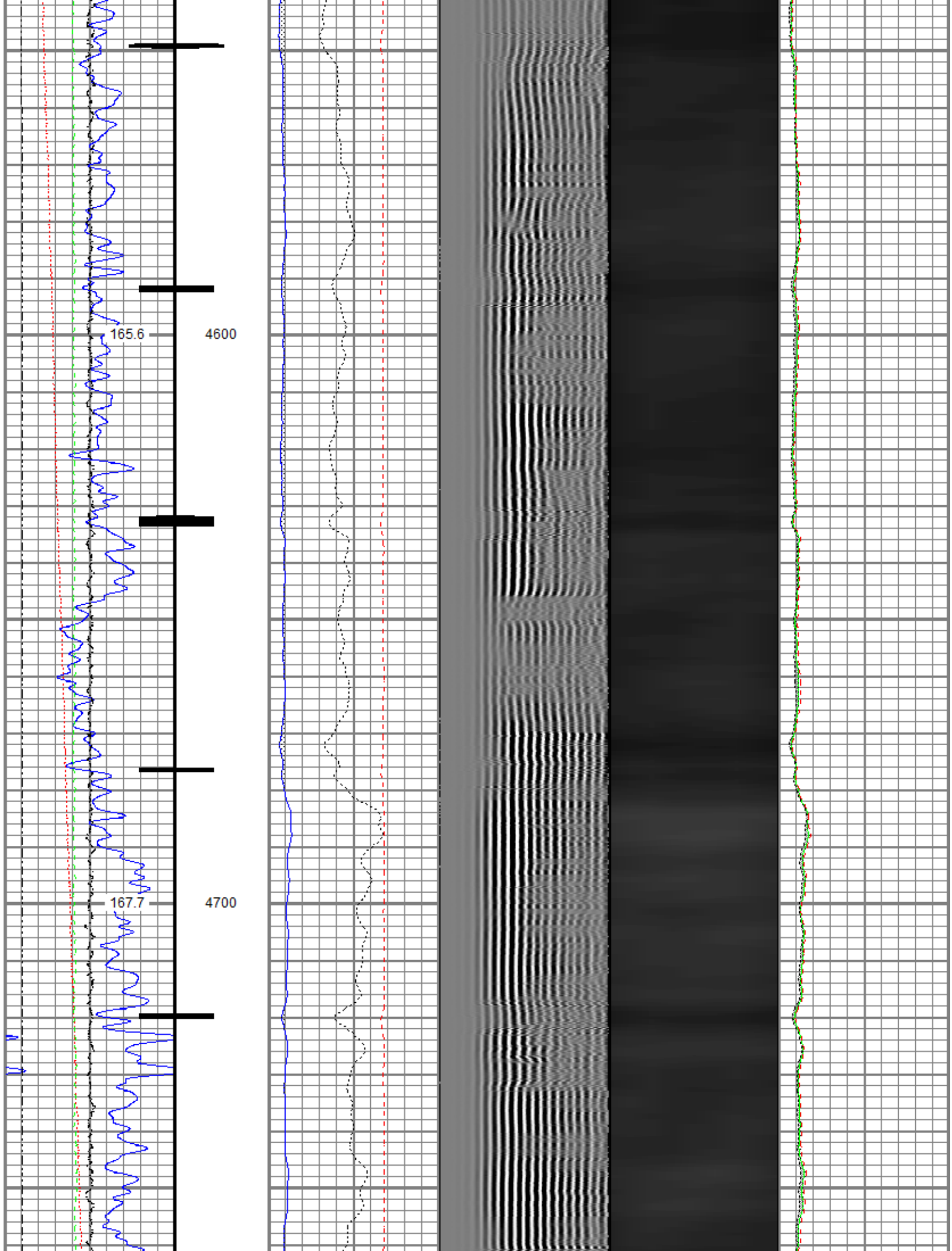


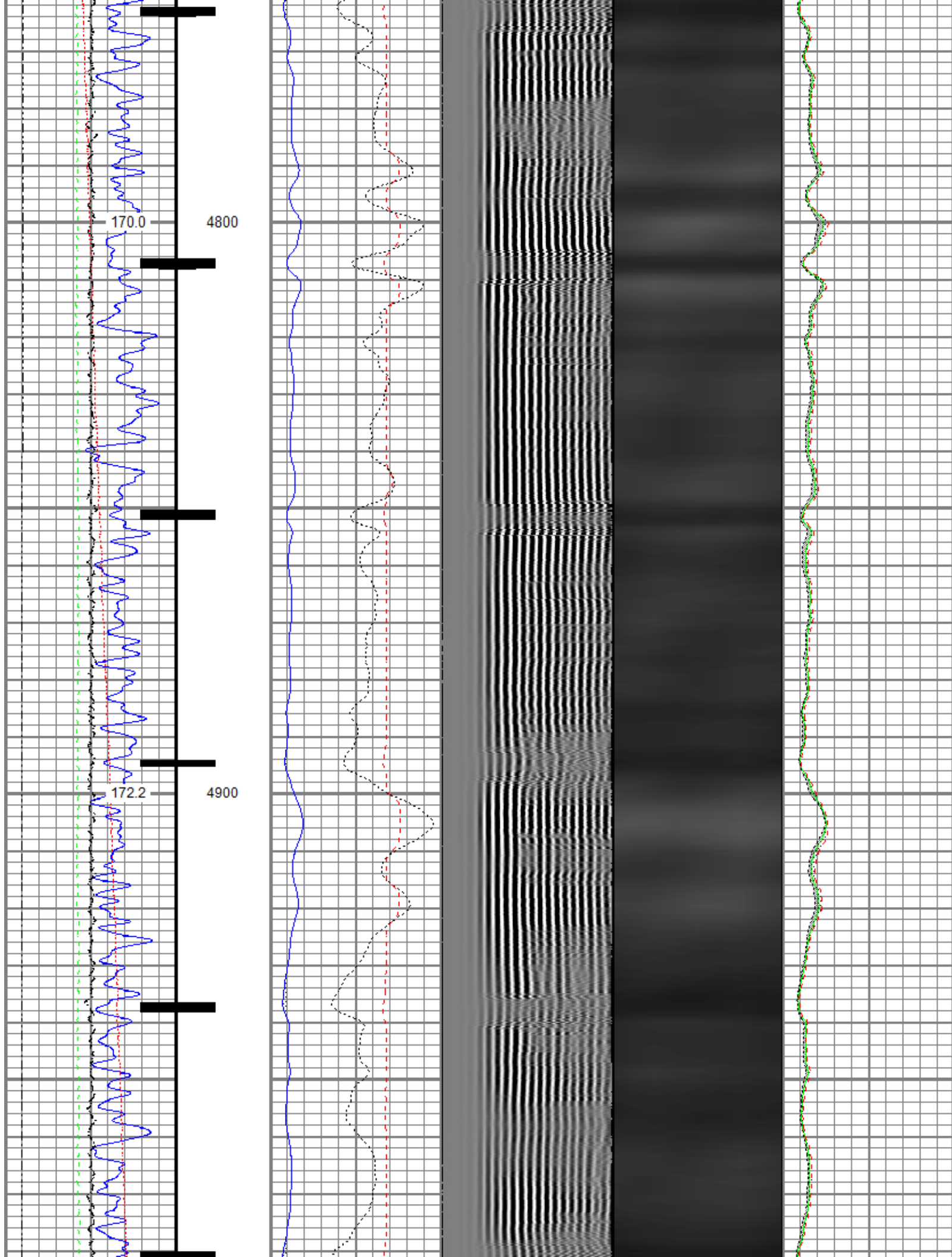


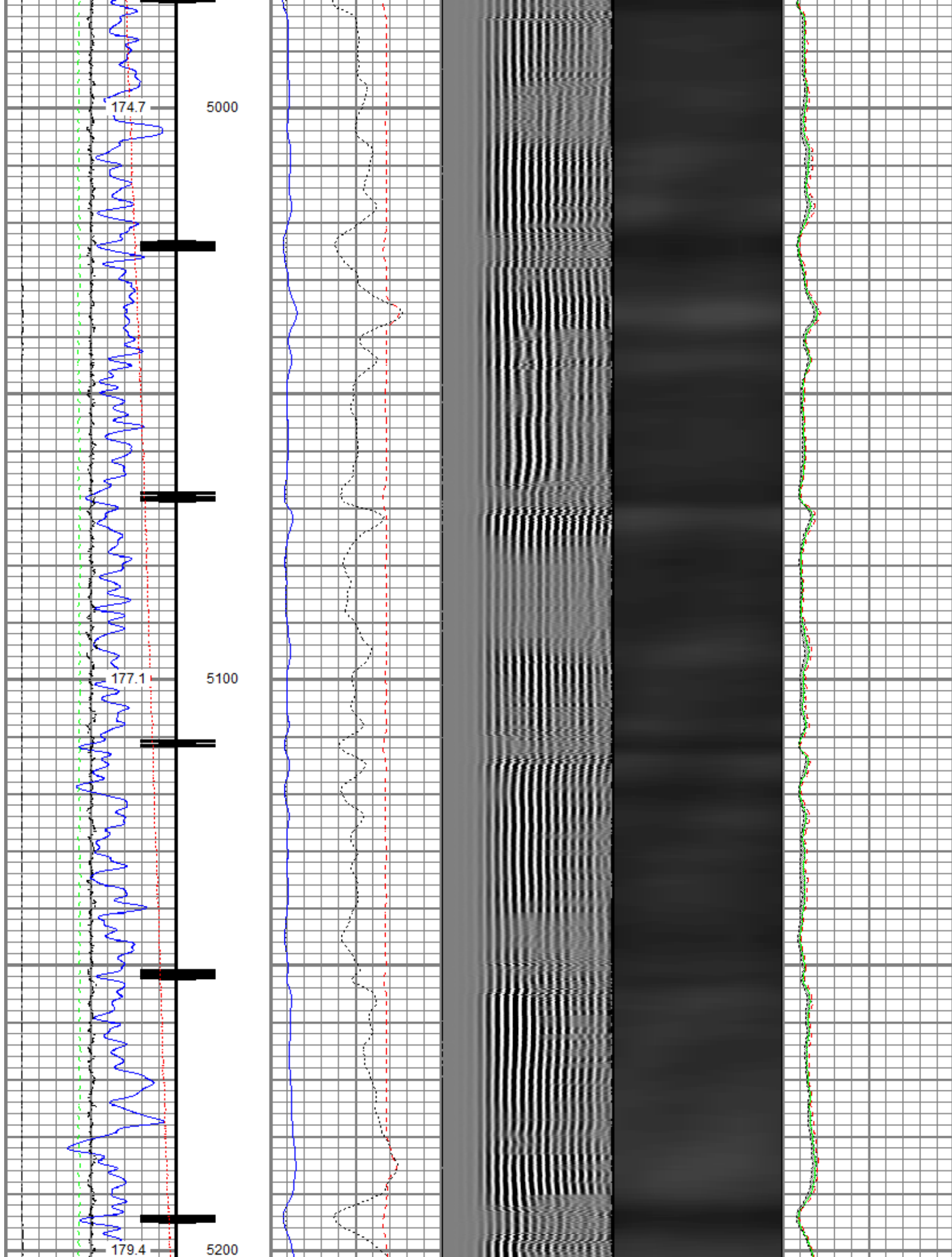


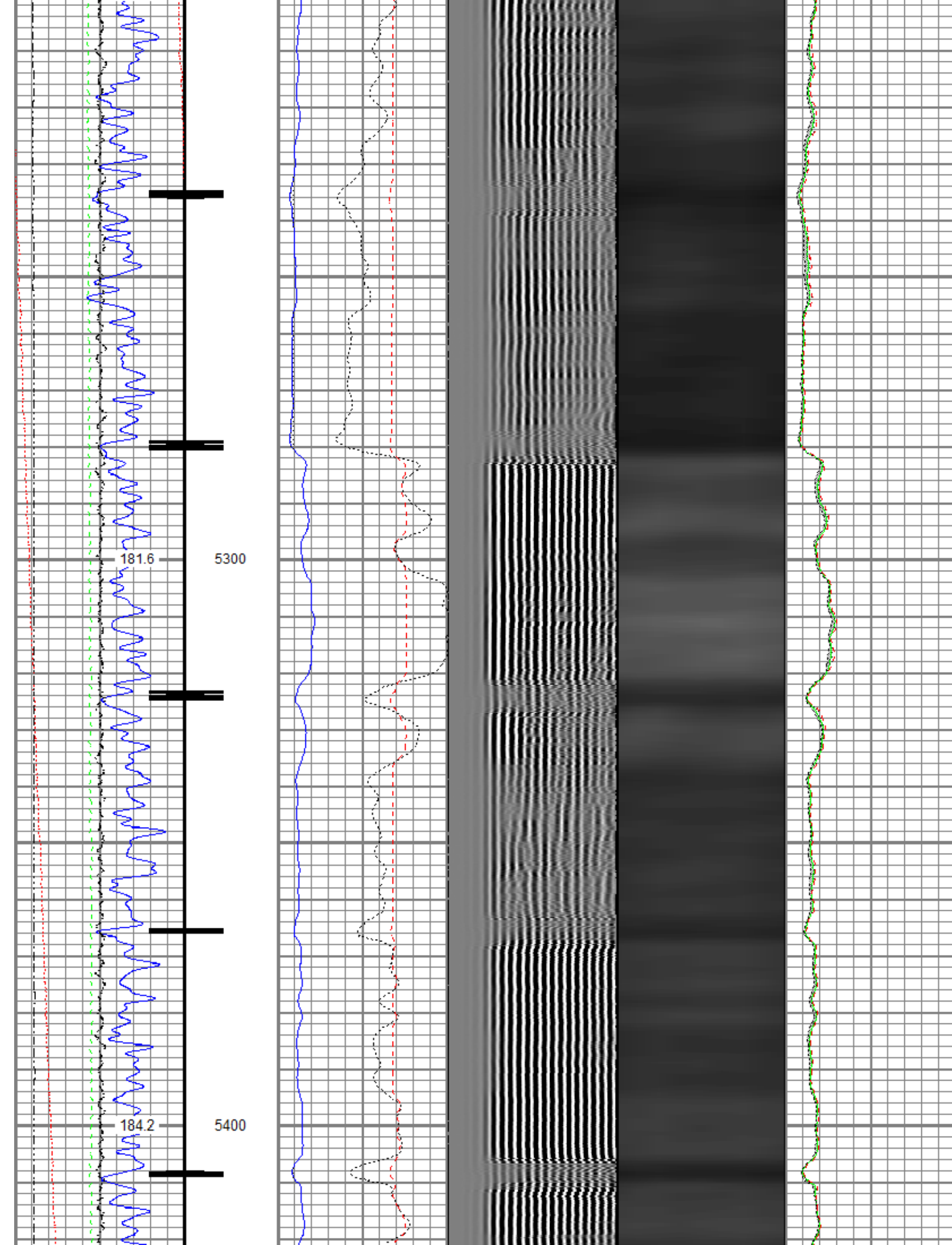


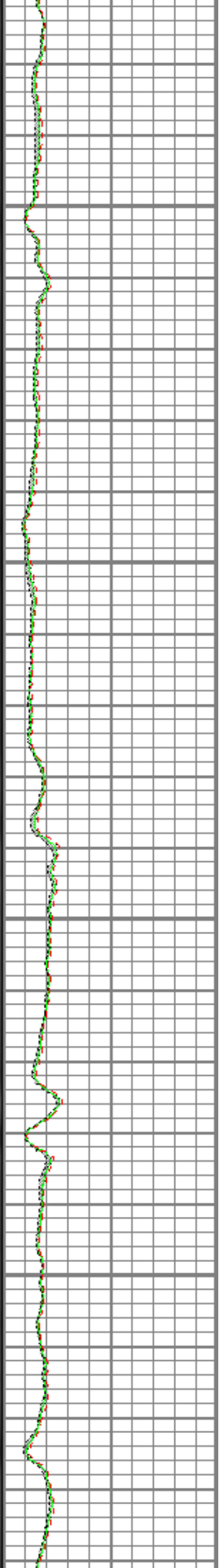
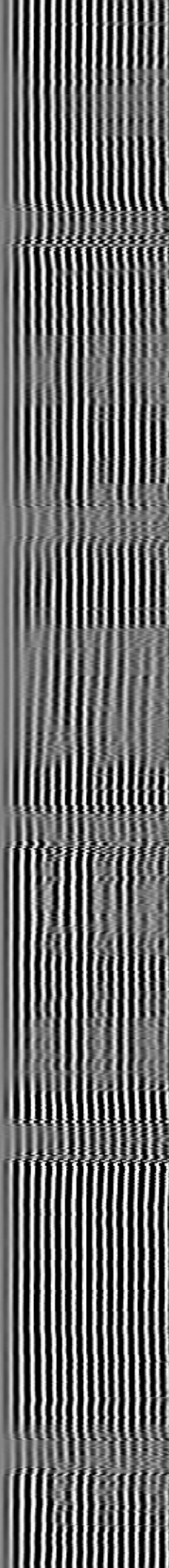
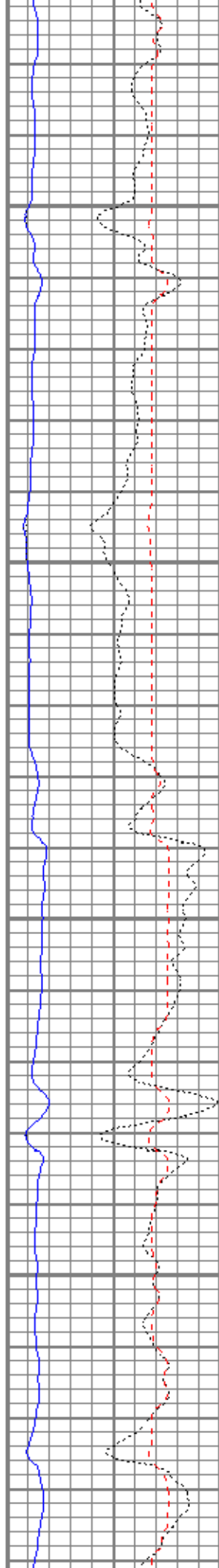
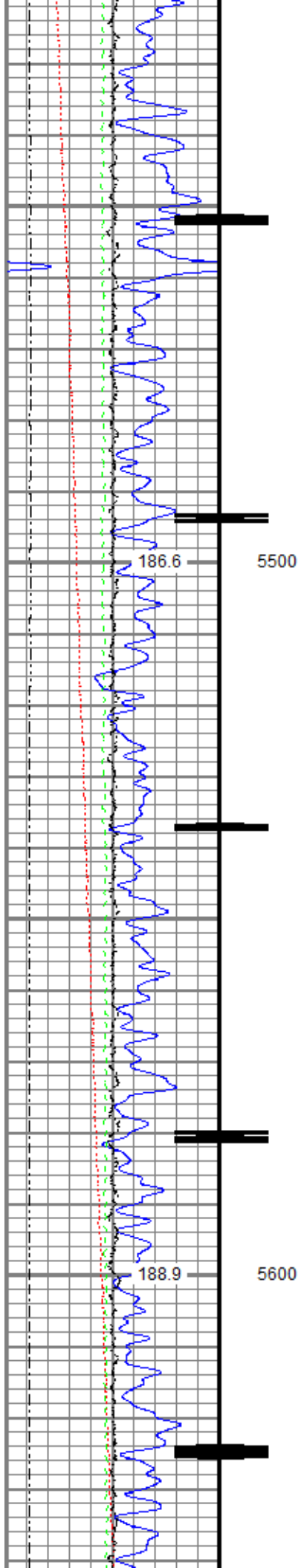


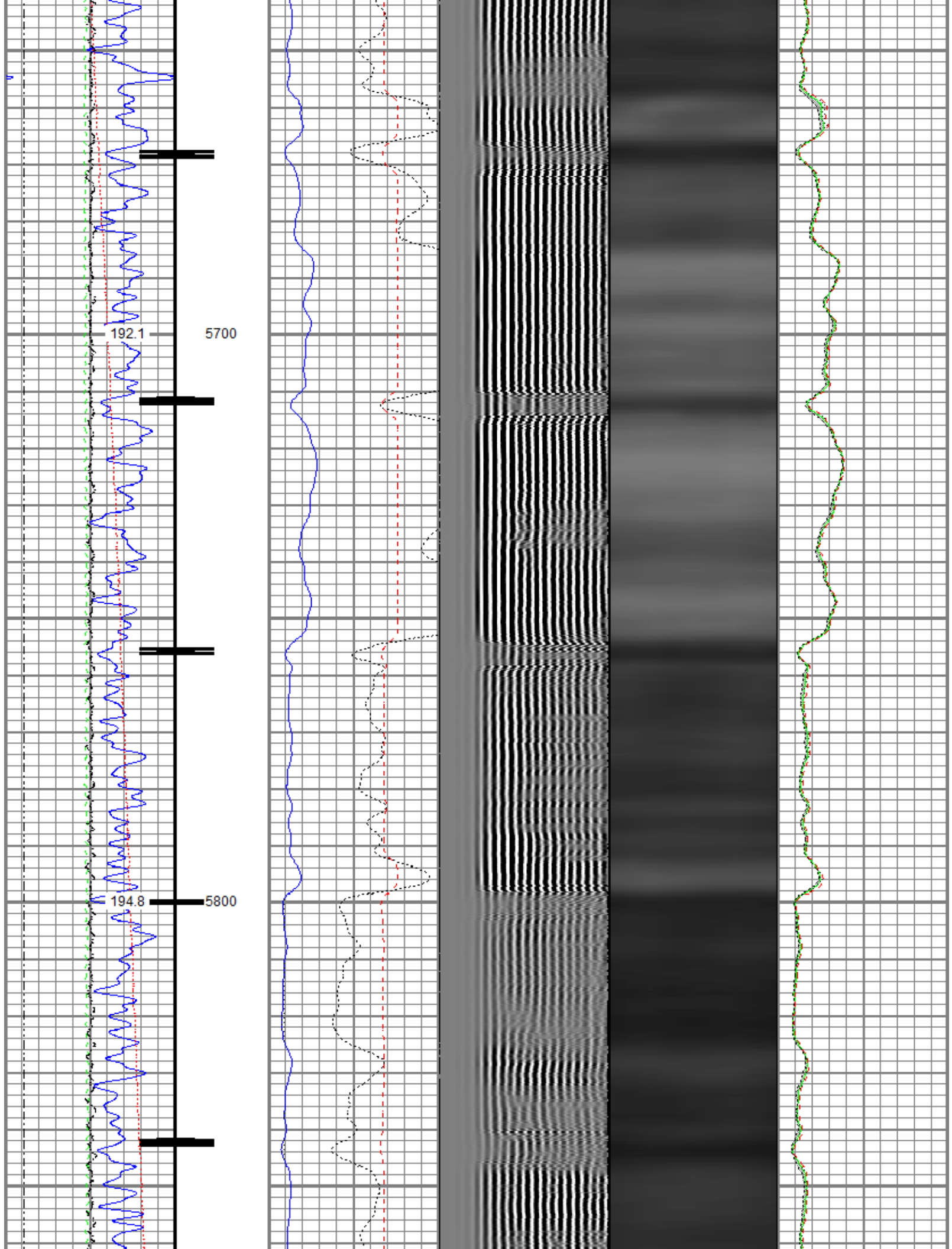


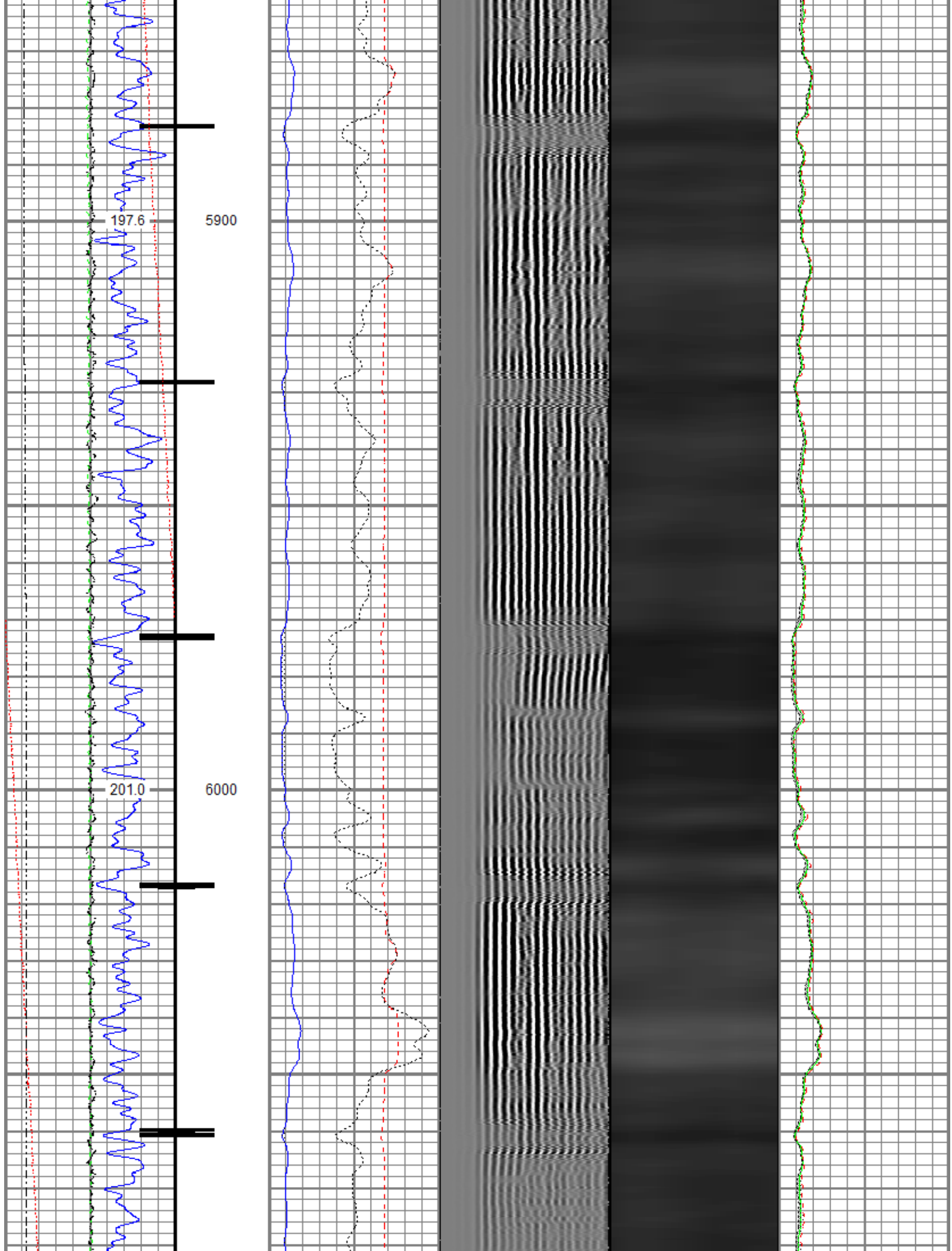


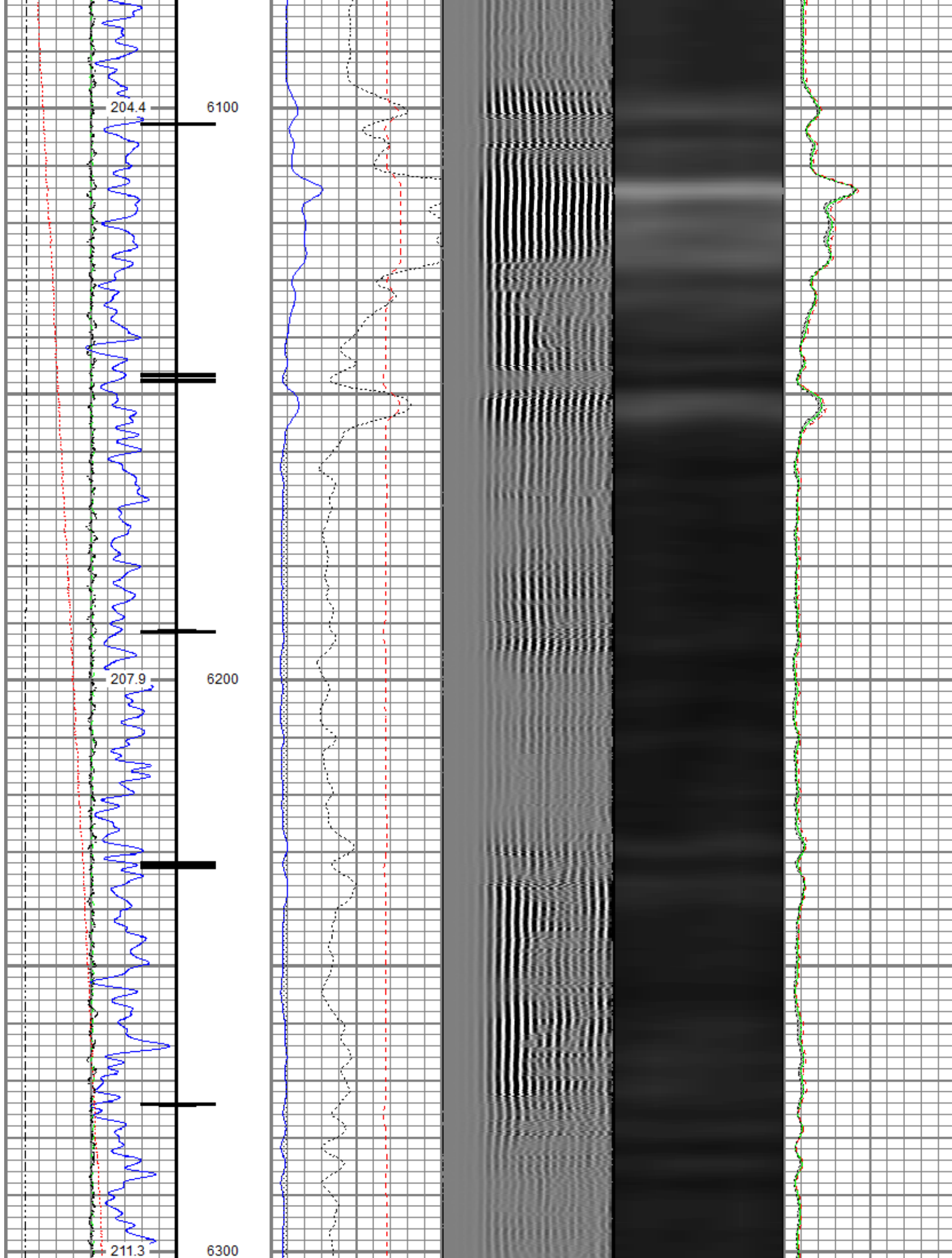


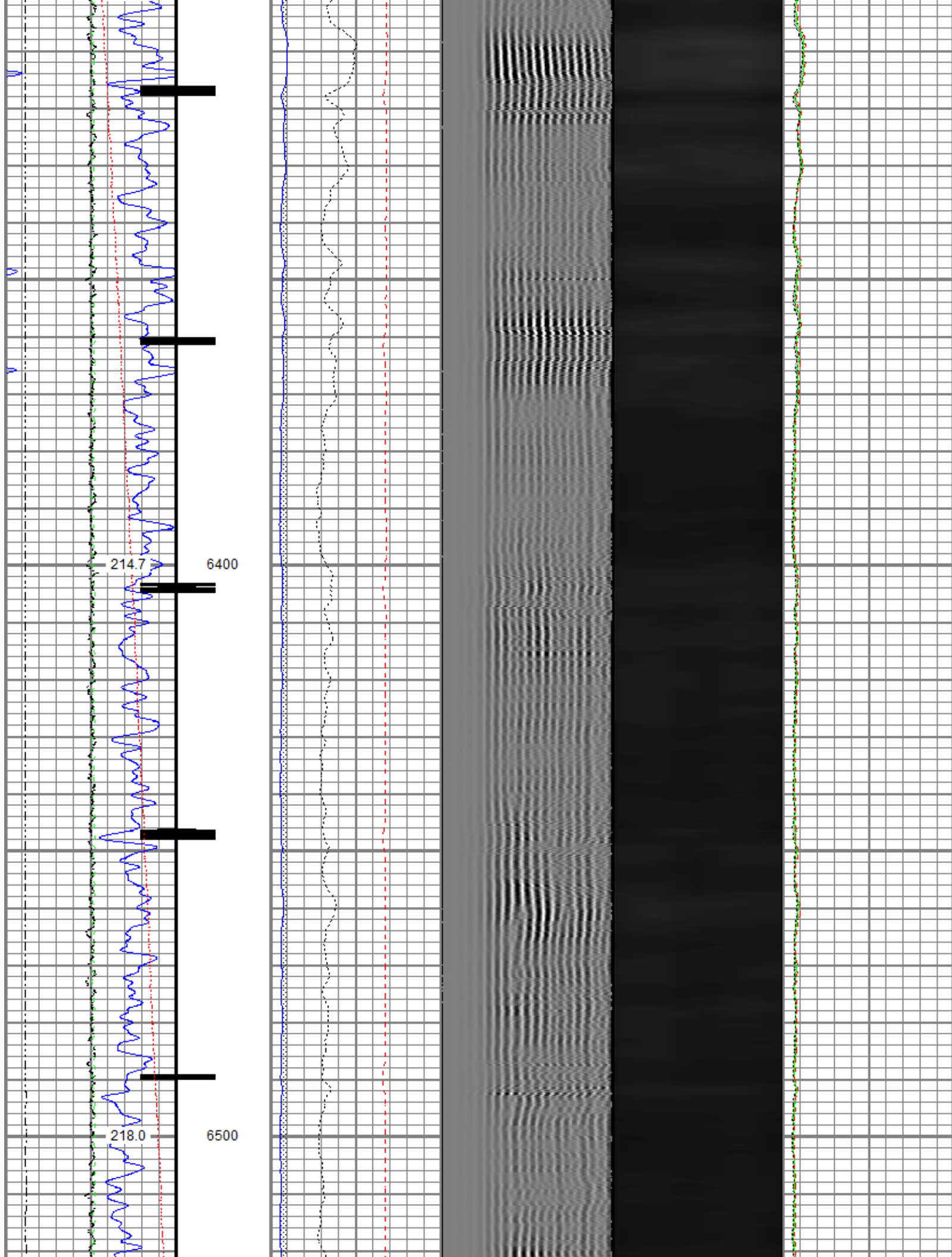


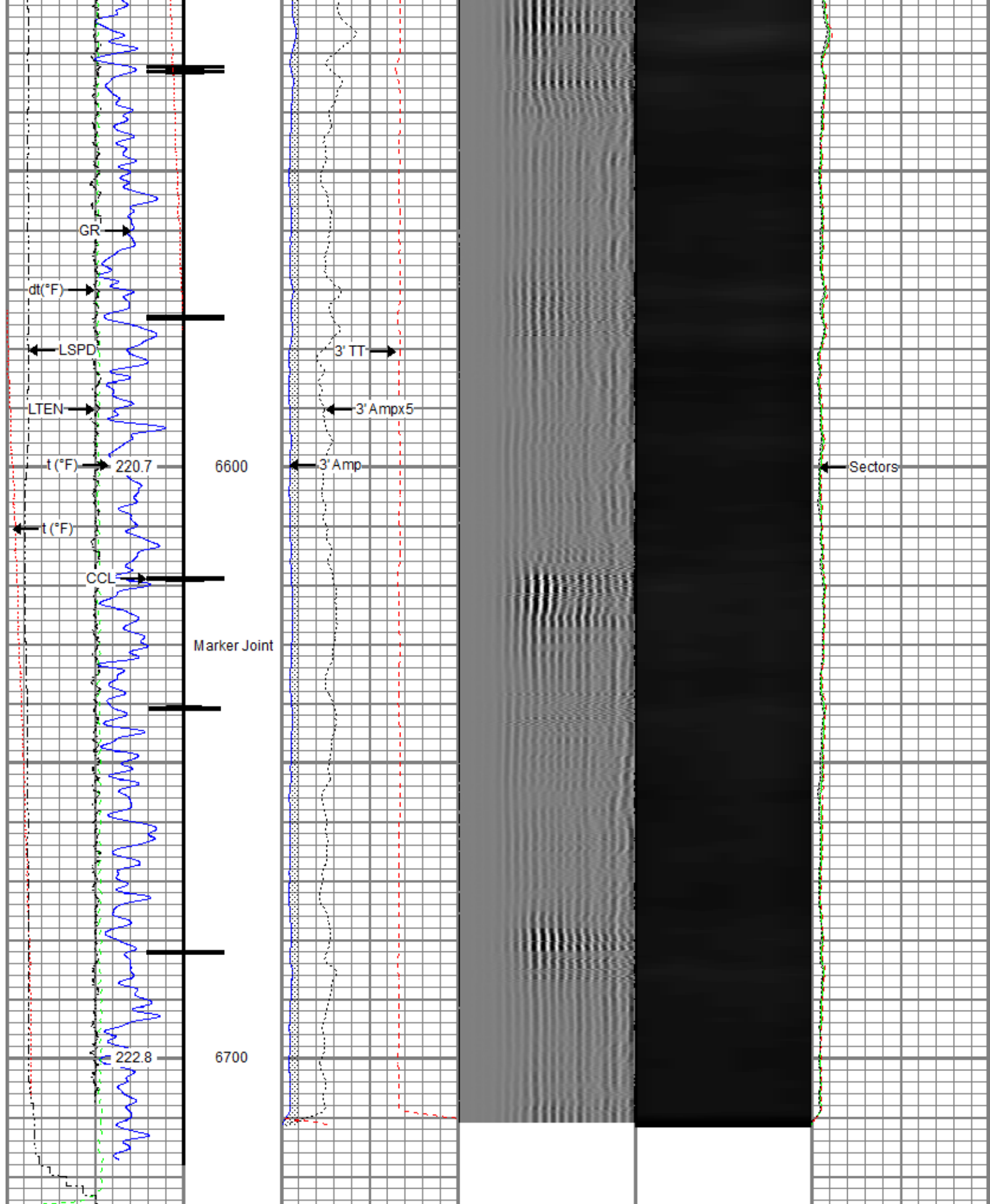












Gamma Ray (GAPI)	0	120
Casing Collar Locator	0	20
Temperature (degF)	0	20
dt(degF)	0	20
LSPD	0	20
LTEN	0	20
t(degF)	0	20
3' TT	0	20
3' Amp	0	20
3' Amp x 5	0	20
5' Variable Density Log (usec)	0	1200
Sector Map	0	100
Average Amplitude	0	100
Minimum Amplitude	0	100
Maximum Amplitude	0	100

Line Speed			650	(usec)	150	0	100
-150	(ft/min)	150					
0	Line Tension (lb)2000						
Differential Temperature							
-2	(degF)	2					

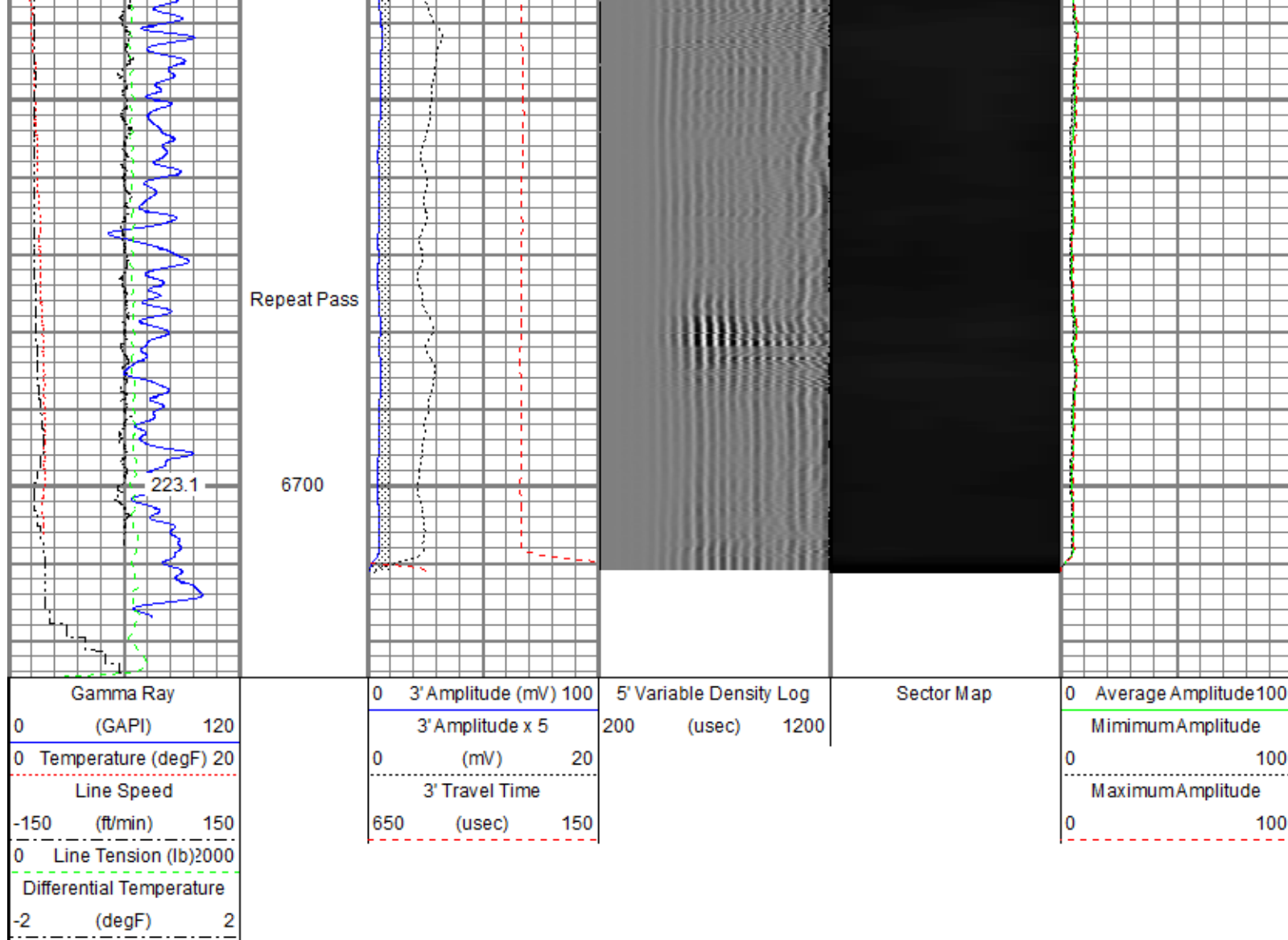


Repeat Pass

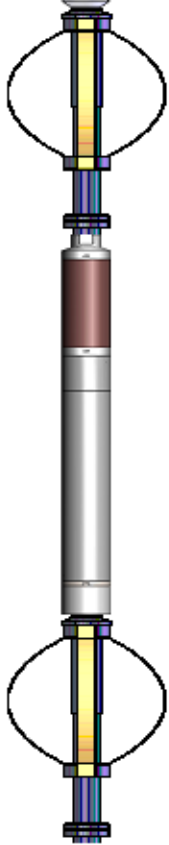
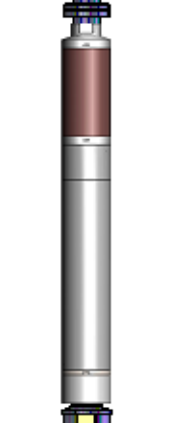
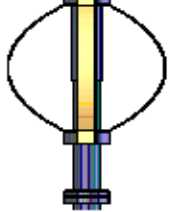
Recorded With 2800 PSI Surface Induced Pressure

Database File anadarko_castle pines 19-11hz\0512347709_anadarko_castle pines 19-11hz_rbl_2800 psi.db
Dataset Pathname Repeat
Presentation Format ros_radil
Dataset Creation Sat Mar 16 15:34:42 2019
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	(usec) 1200				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
WVFS8	14.81		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
WVFS7	14.81			9.39	2.75	105.00
WVFS6	14.81					
WVFS5	14.81					

WVFS4	14.81					
WVFS3	14.81					
WVFS2	14.81					
WVFS1	14.81					
WVFCAL	14.81					
WVF3FT	14.81					
WVF5FT	13.81					
HEADVOLT	10.56					
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$2	6.80					
CCL\$1	6.80					
GR	5.46					
			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
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Dataset: 0512347709_Anadarko_Castle Pines 19-11HZ_RBL_2800 PSI.db: field/well/run1/Main Total length: 23.86 ft Total weight: 223.60 lb O.D.: 2.75 in						

Calibration Report			
Database File	C:\ProgramData\Warrior\Data\Anadarko_Castle Pines 19-11HZ\0512347709_Anadarko_Castle Pines 19-11HZ_RBL_2800 PSI.d		
Dataset Pathname	Main		
Dataset Creation	Sat Mar 16 15:38:02 2019		
Gamma Ray Calibration Report			
Serial Number:	101001		
Tool Model:	2750 6PB		
Performed:	Mon Oct 01 11:32:32 2018		
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:	FW1308-091		
Tool Model:	2750 RBT		
Calibration Casing Diameter:	5.500	in	
Calibration Depth:	-110.932	ft	
Master Calibration, performed Sat Mar 16 12:23:55 2019:			

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	0.628	0.800	71.921	113.903	0.433
CAL	0.727	0.722				
5'	0.002	0.498	0.800	71.921	143.180	0.556
SUM						
S1	0.003	0.631	0.000	100.000	159.163	-0.478
S2	0.003	0.658	0.000	100.000	152.644	-0.508
S3	0.004	0.659	0.000	100.000	152.603	-0.561
S4	0.004	0.639	0.000	100.000	157.476	-0.624
S5	0.004	0.641	0.000	100.000	157.070	-0.674
S6	0.004	0.639	0.000	100.000	157.519	-0.598
S7	0.003	0.614	0.000	100.000	163.880	-0.541
S8	0.003	0.625	0.000	100.000	160.808	-0.455

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.727	0.722	1.000	0.000

Air Zero Calibration, performed Sat Mar 16 07:07:11 2019:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.007		0.000		-0.000	
5'	0.007		0.000		0.000	
SUM						
S1	0.003		0.000		0.000	
S2	0.008		0.000		-0.000	
S3	0.006		0.000		-0.000	
S4	0.007		0.000		-0.000	
S5	0.006		0.000		0.000	
S6	0.007		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: Mon Oct 01 11:32:16 2018

	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: Castle Pines 19-11HZ
Field: Wattenberg
County: Weld
State: Colorado