



County Weld State Colorado

Drilling Measured From	Kelly Bushing	G.L. 5100
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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.

Log ran as per customer request
Depth referenced to Kelly Bushing at 21 FT
Gauge Ring/Junk Basket ran to 7783 FT with no debris
Retrievable Bridge Plug set at 6900 FT
Casing Tally reported Maker Joint at 6853 FT was not logged due to RBP set depth
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!!

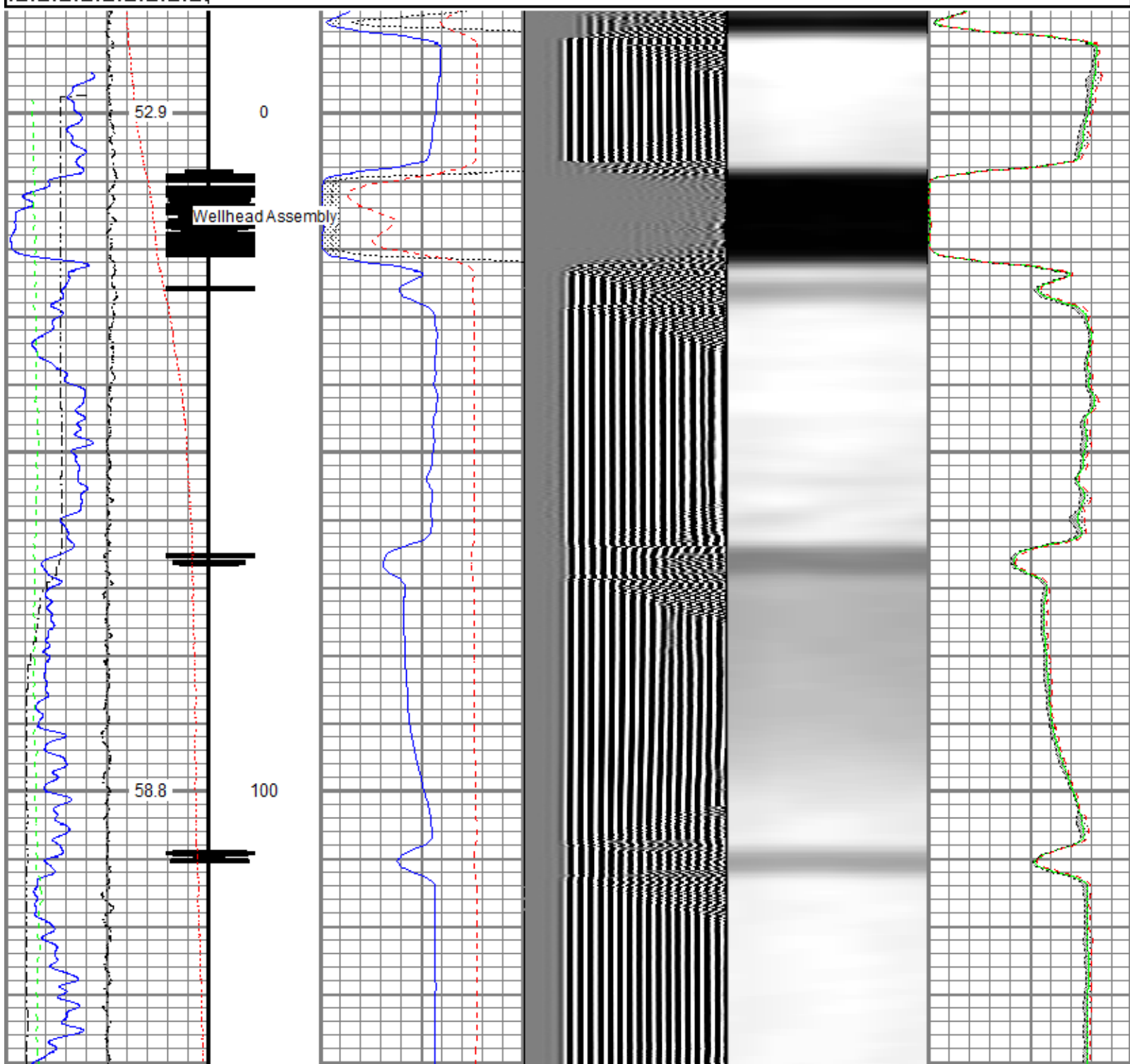
Main Pass

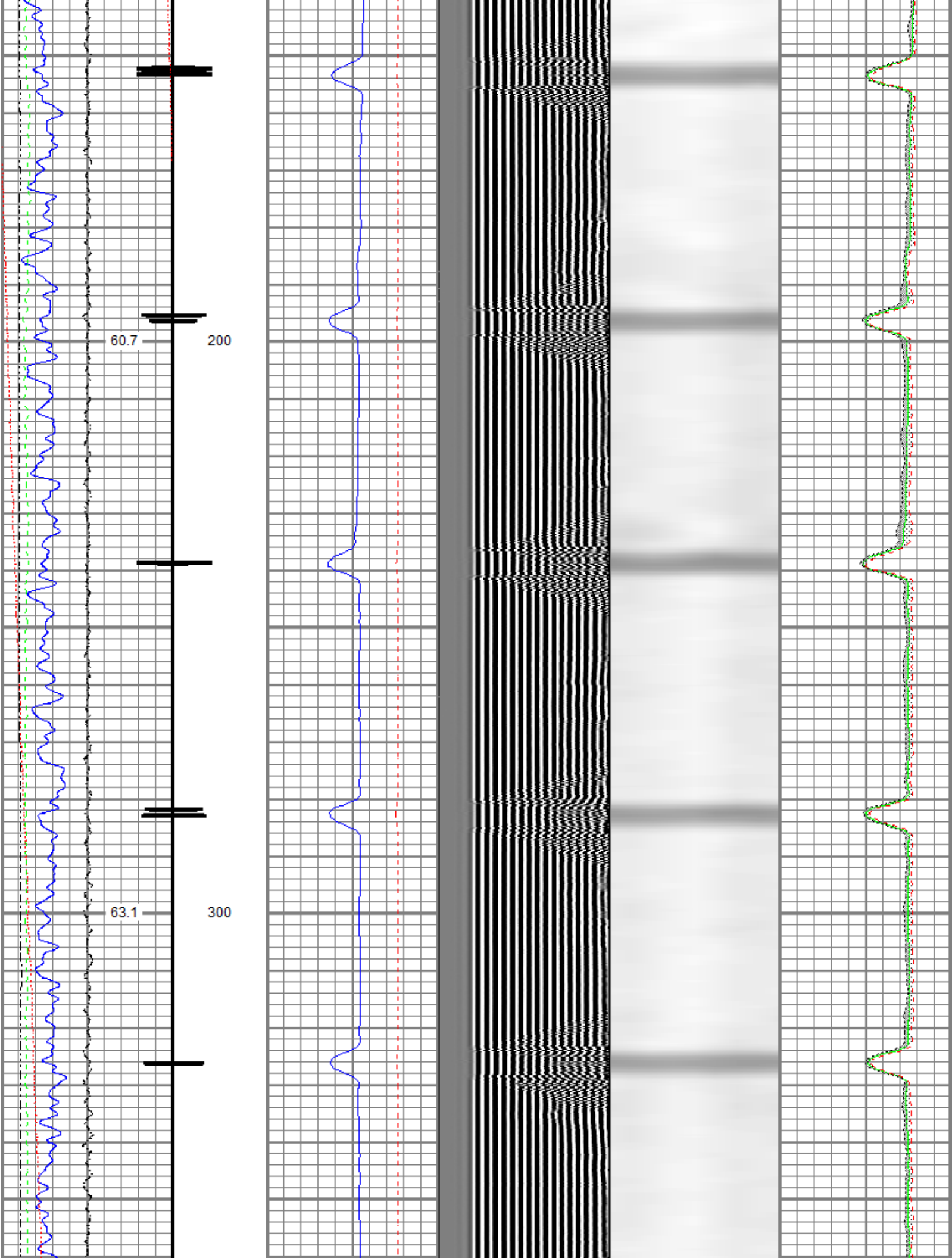


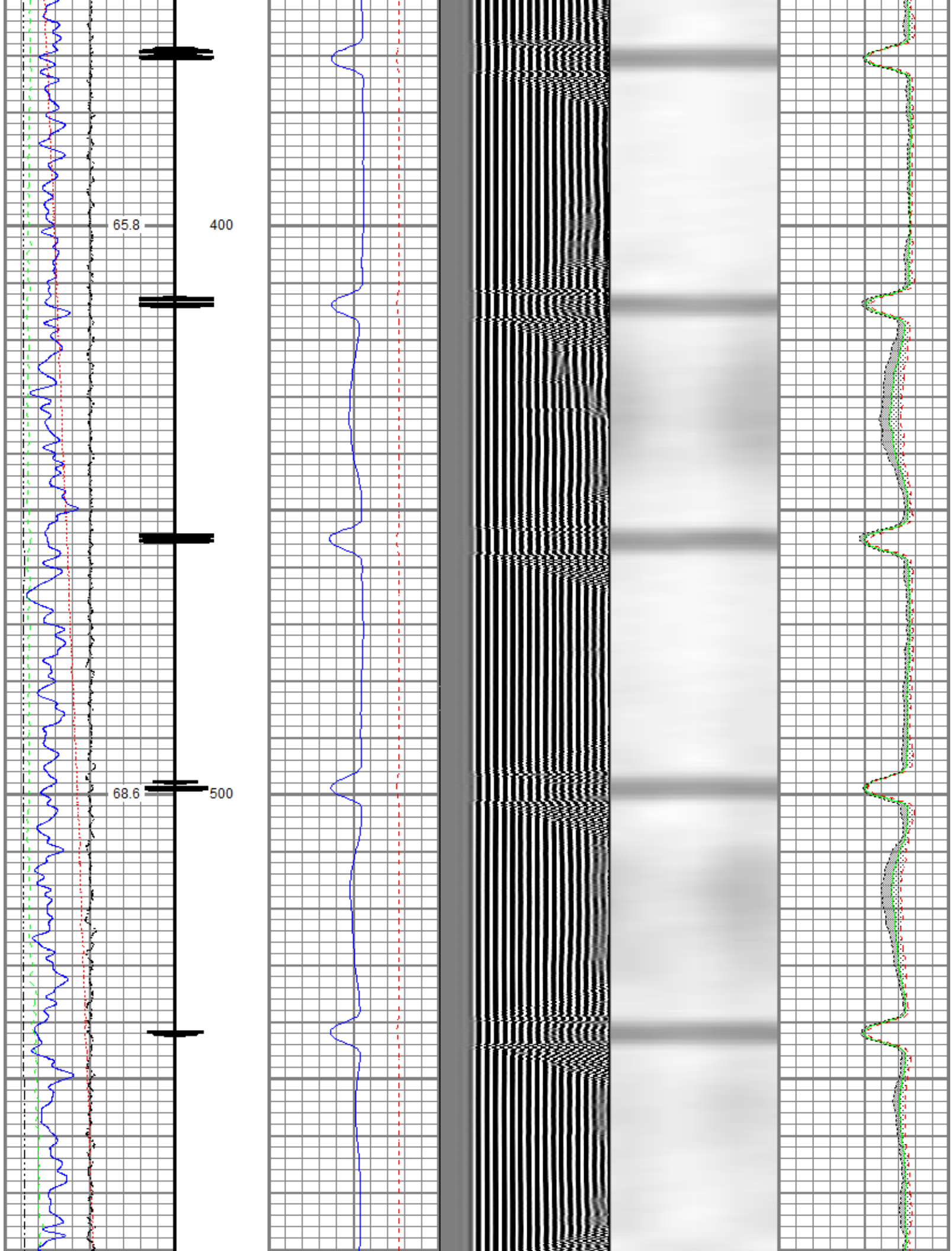
Recorded With 2000 PSI Surface-Induced Pressure

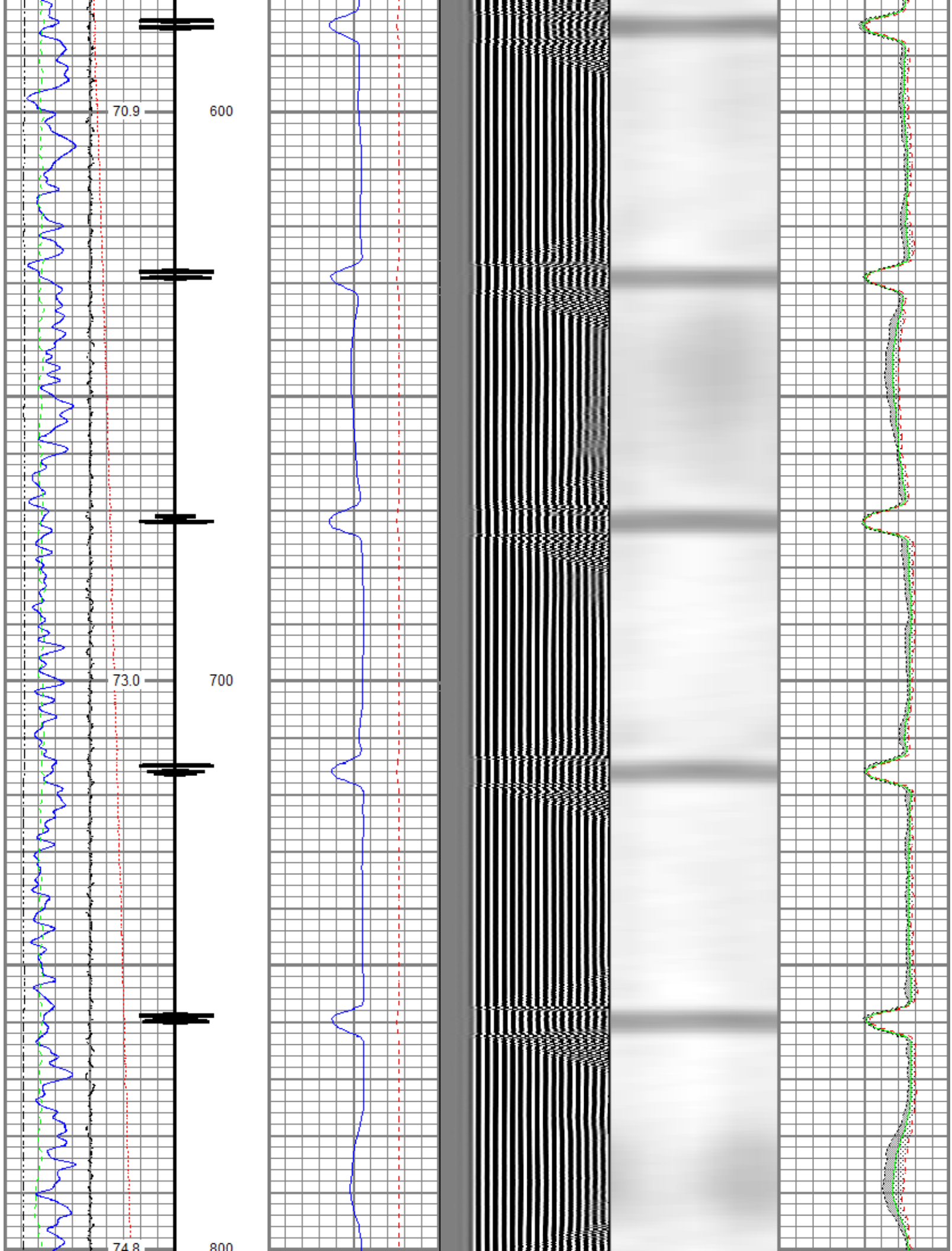
Database File new folder\0512347265_anadarko_hendu 23-13hz_rbl_12-16-18_2800 psi.db
 Dataset Pathname RCBL2800/pass4
 Presentation Format ros_radrii
 Dataset Creation Mon Dec 17 07:49:16 2018
 Charted by Depth in Feet scaled 1:240

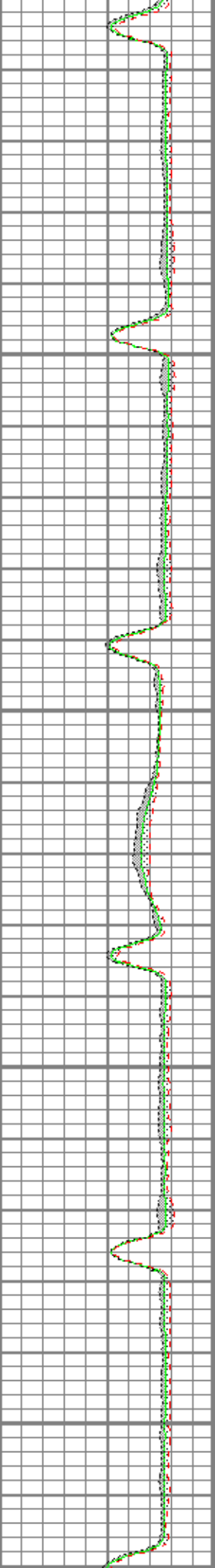
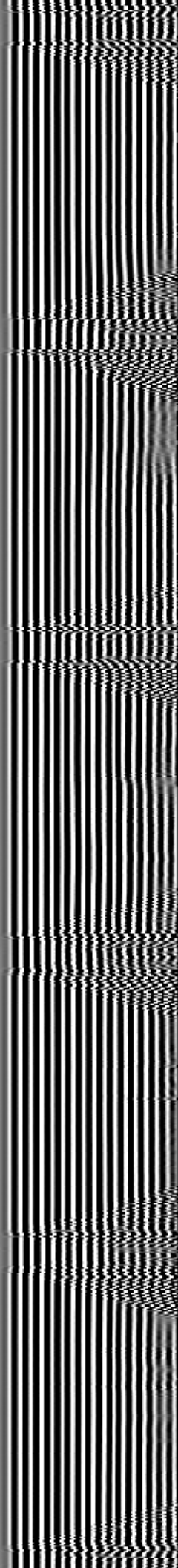
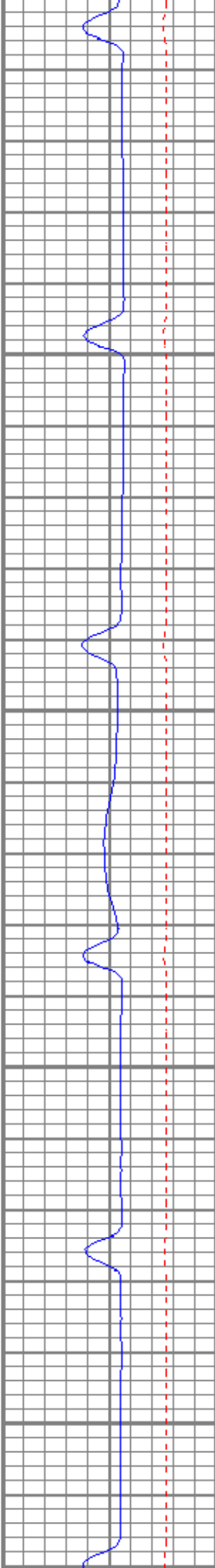
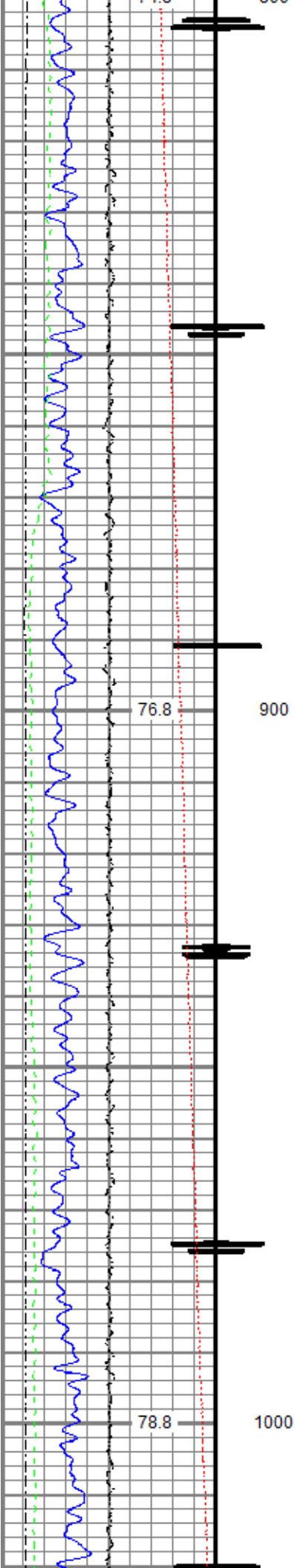
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min)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

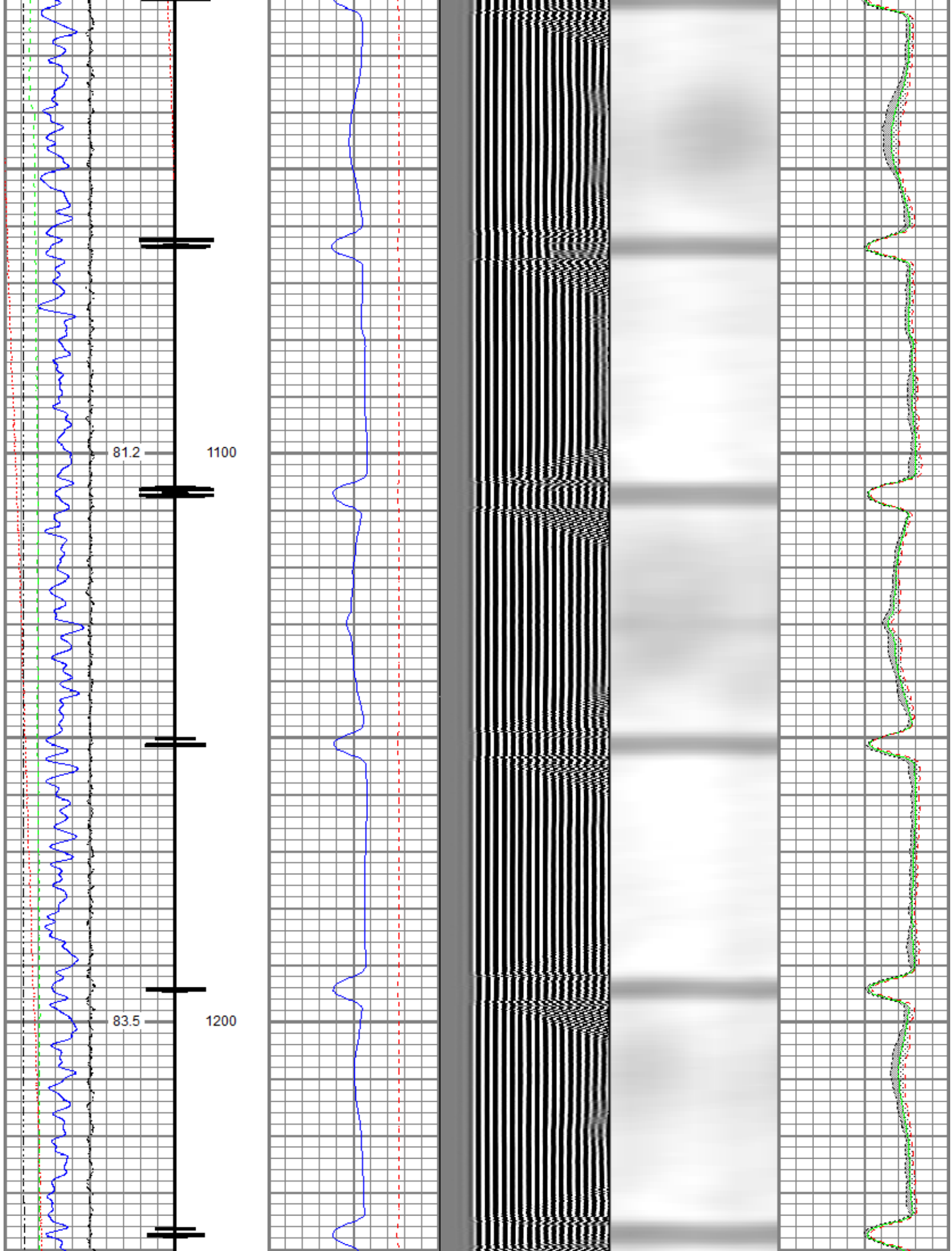


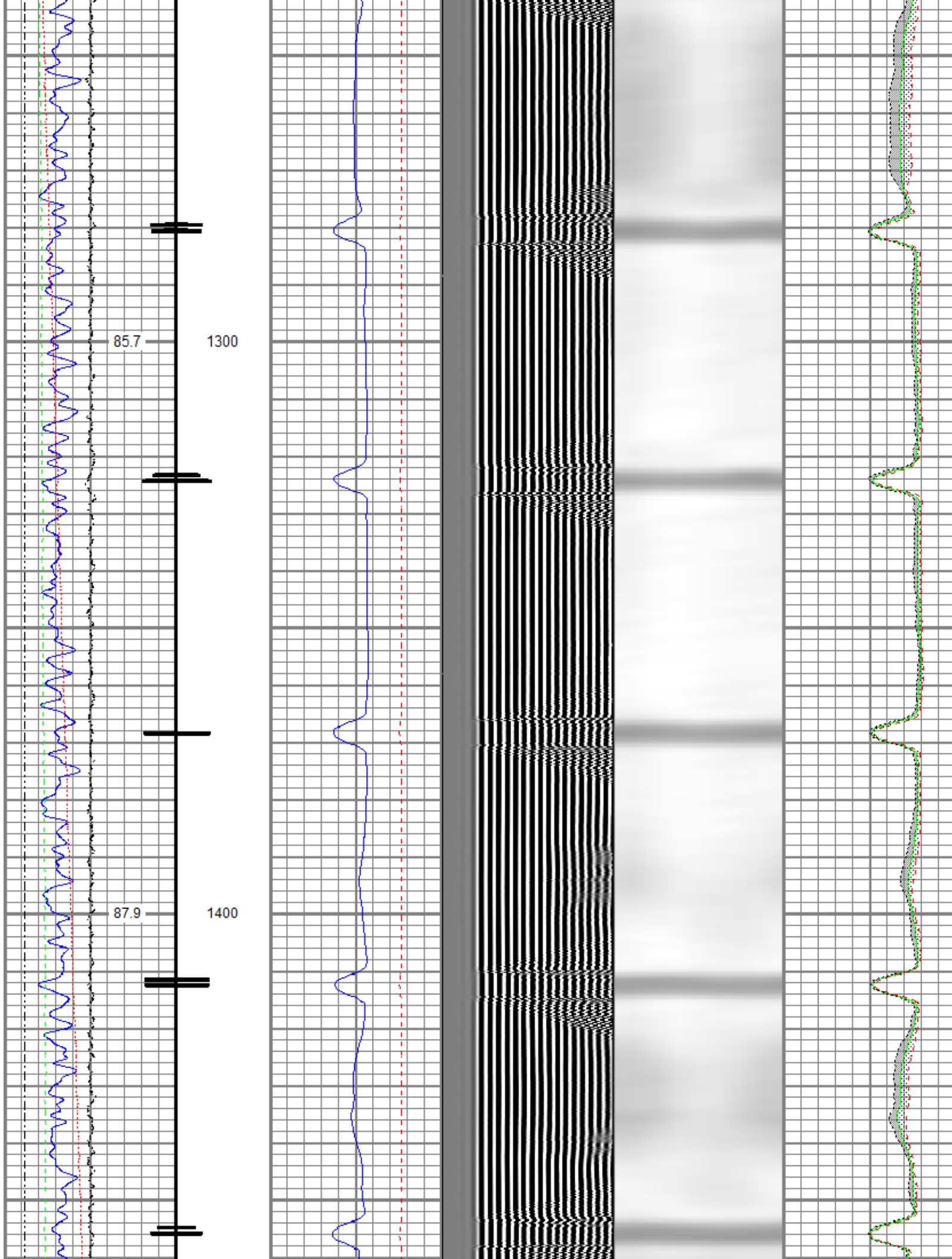


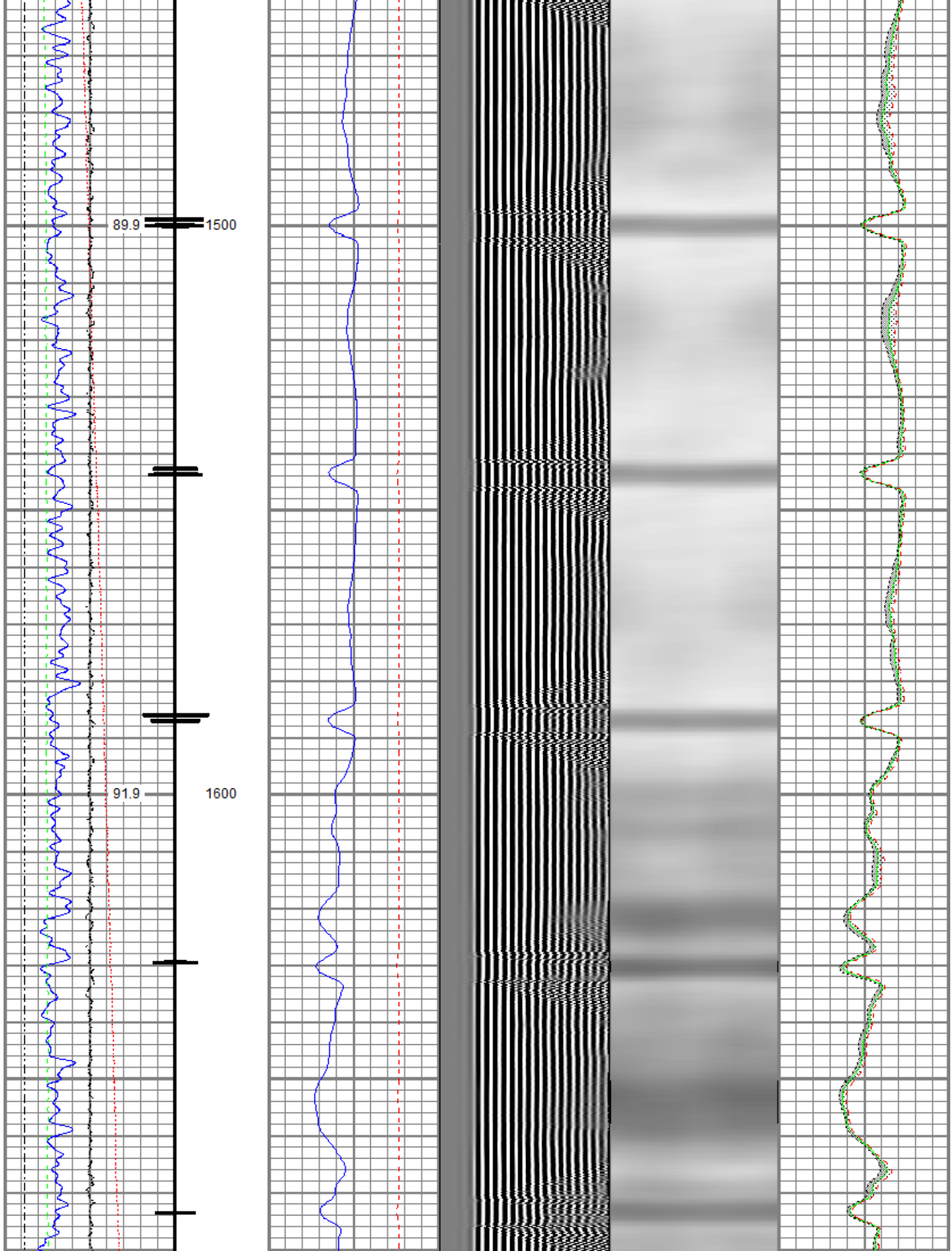


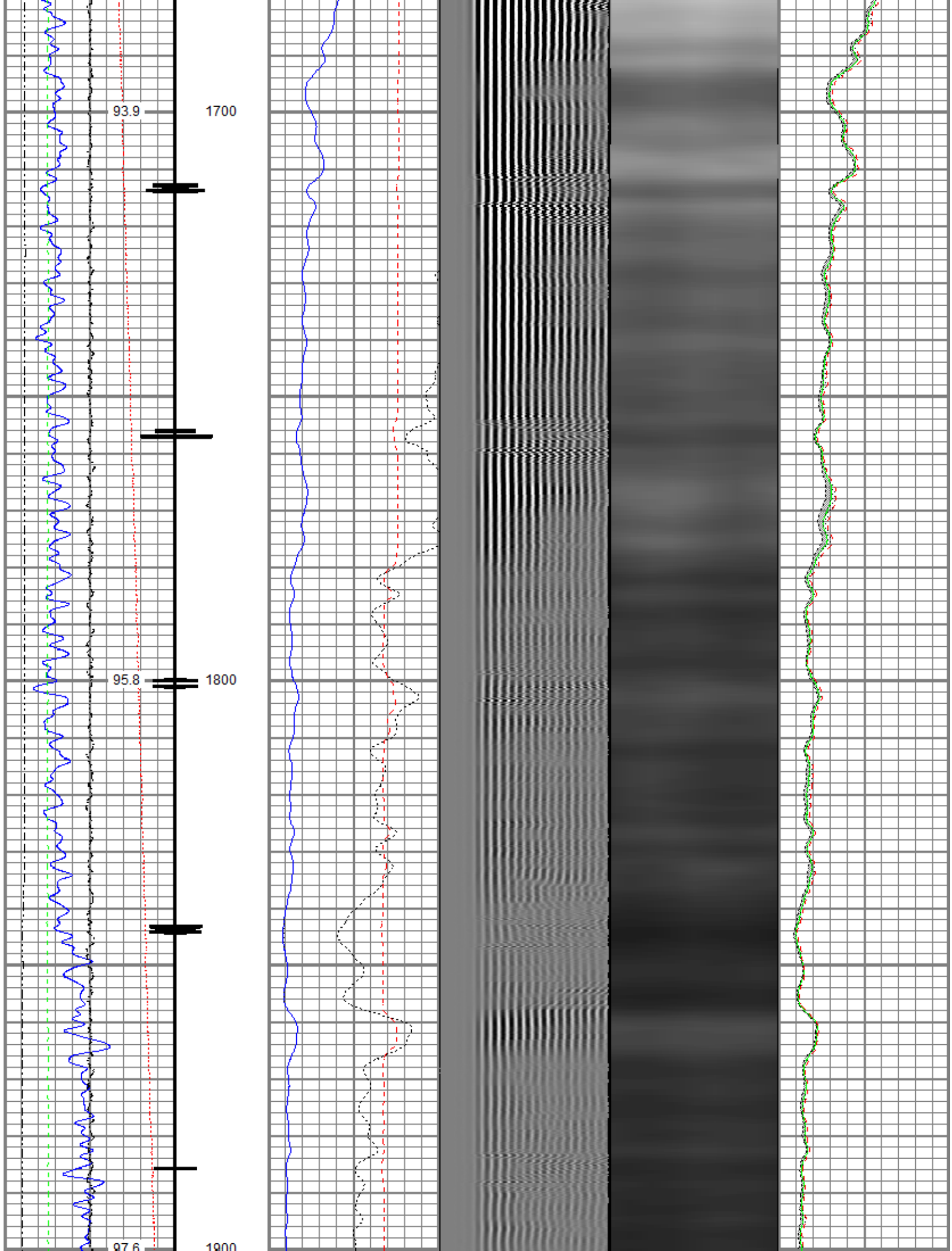


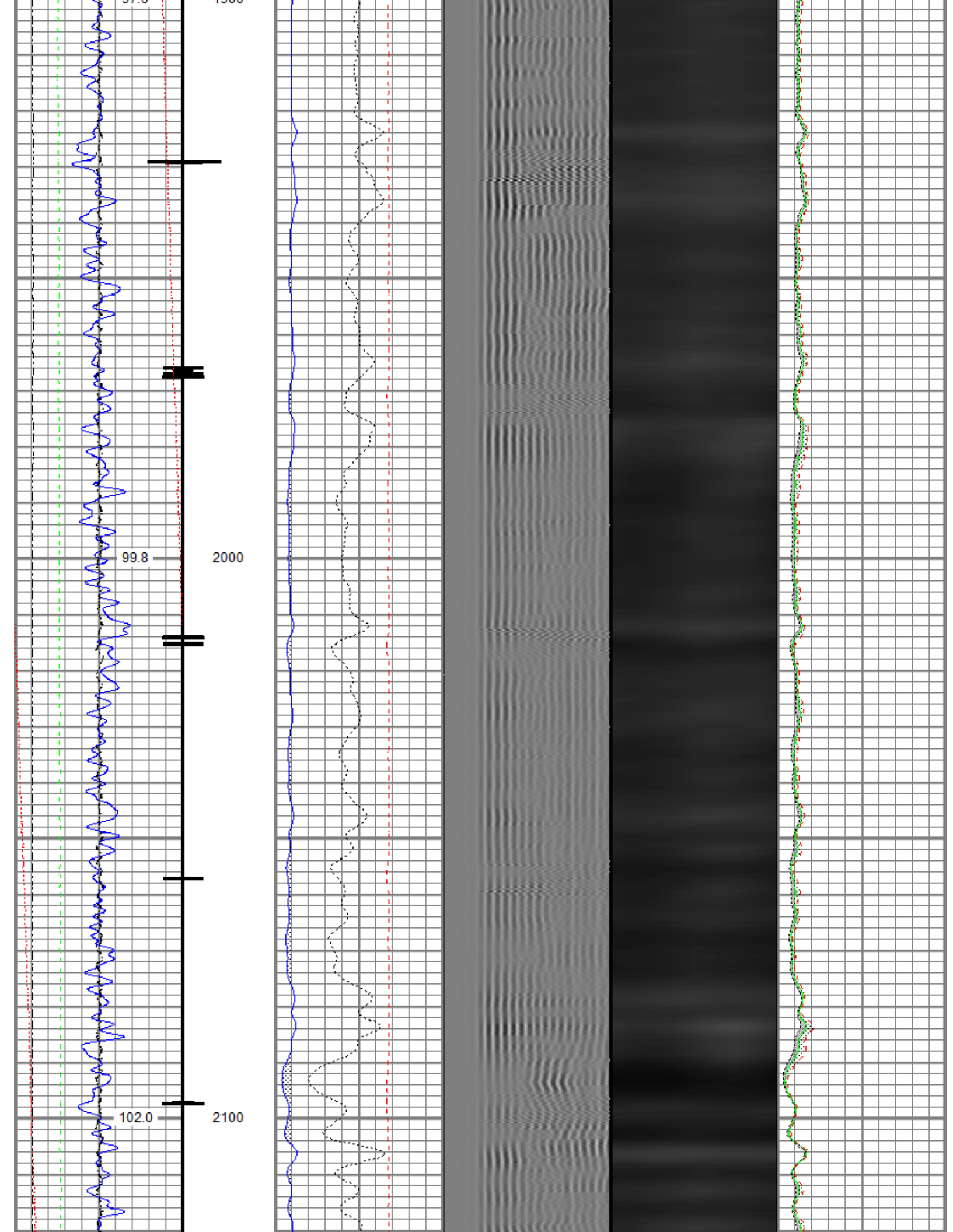


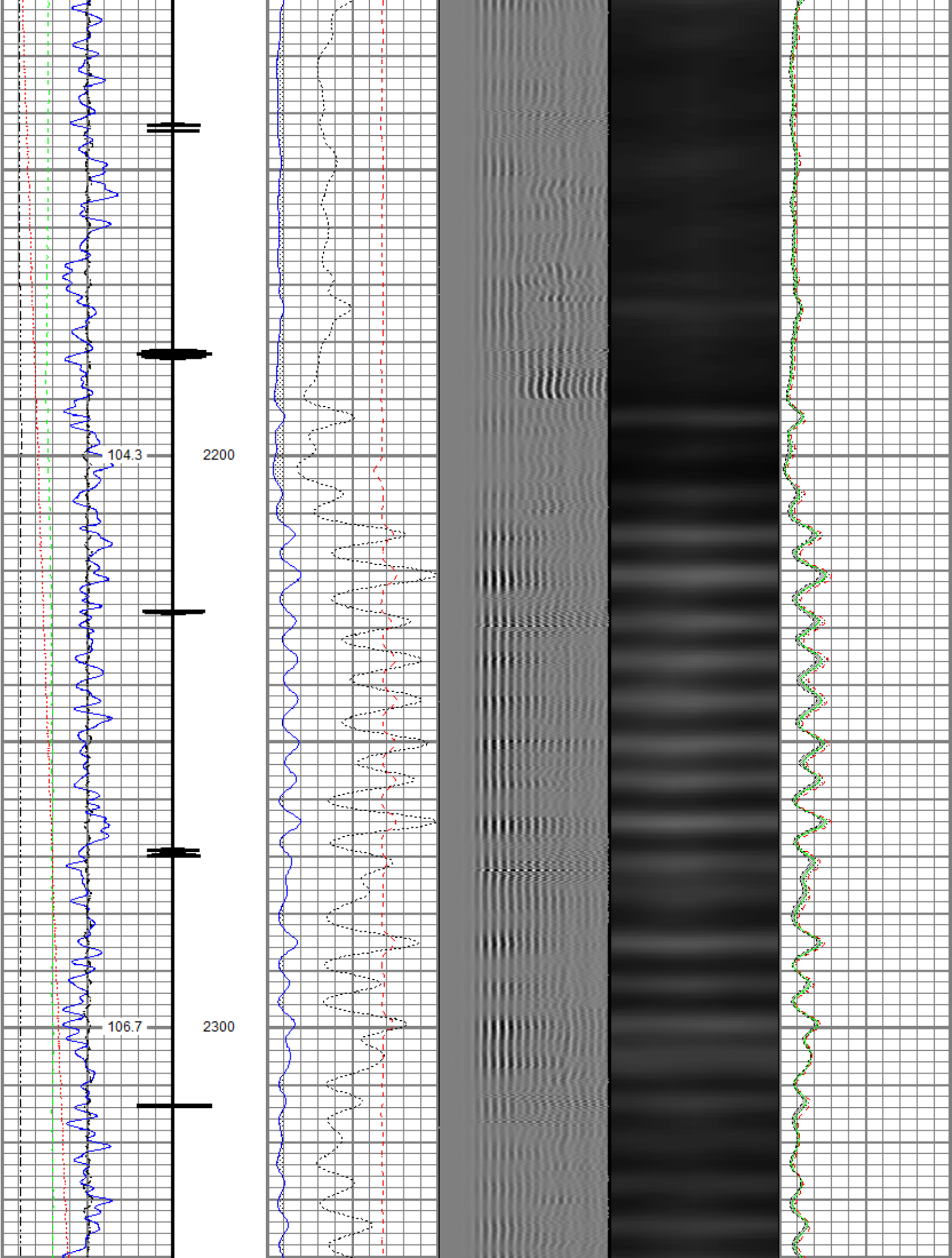


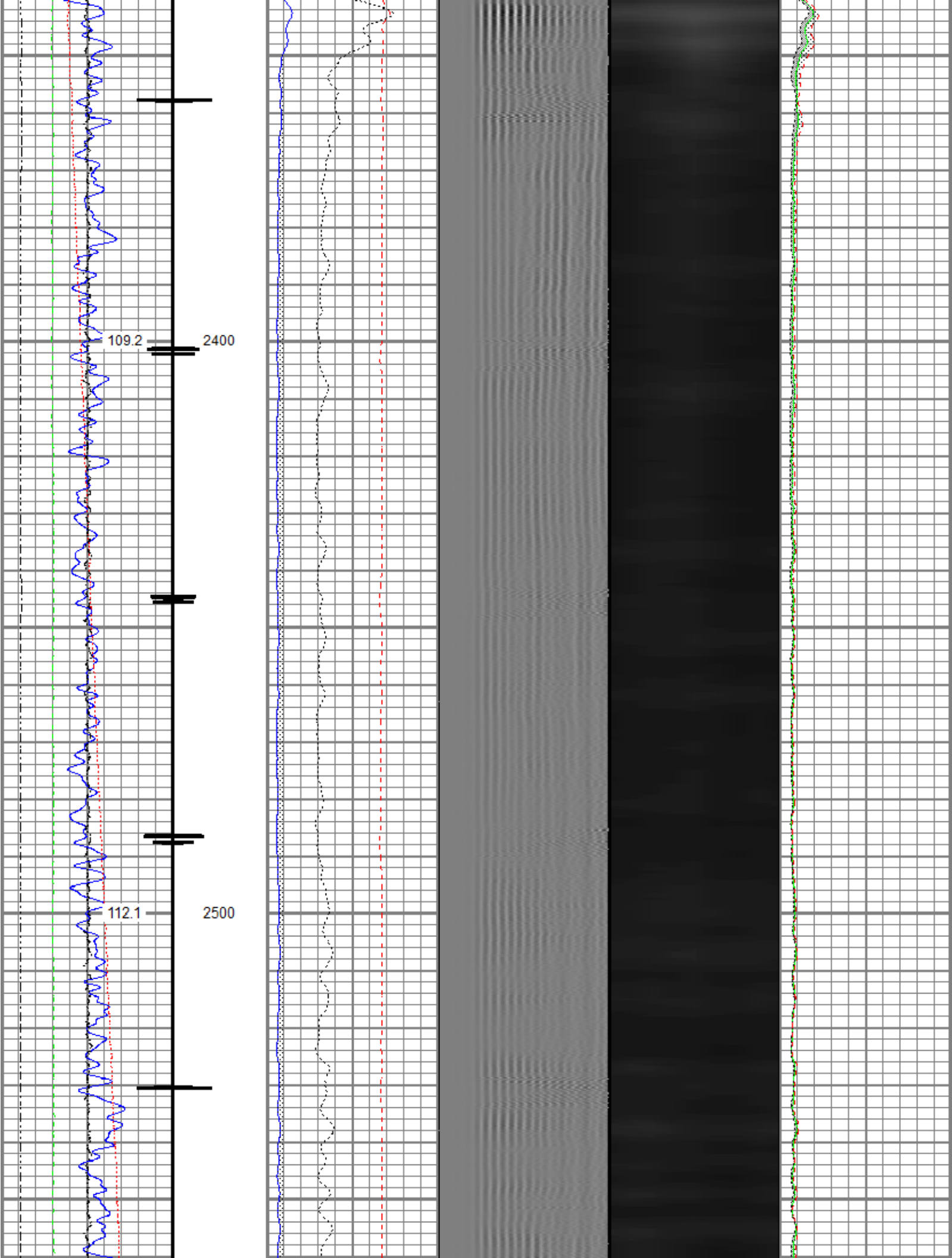


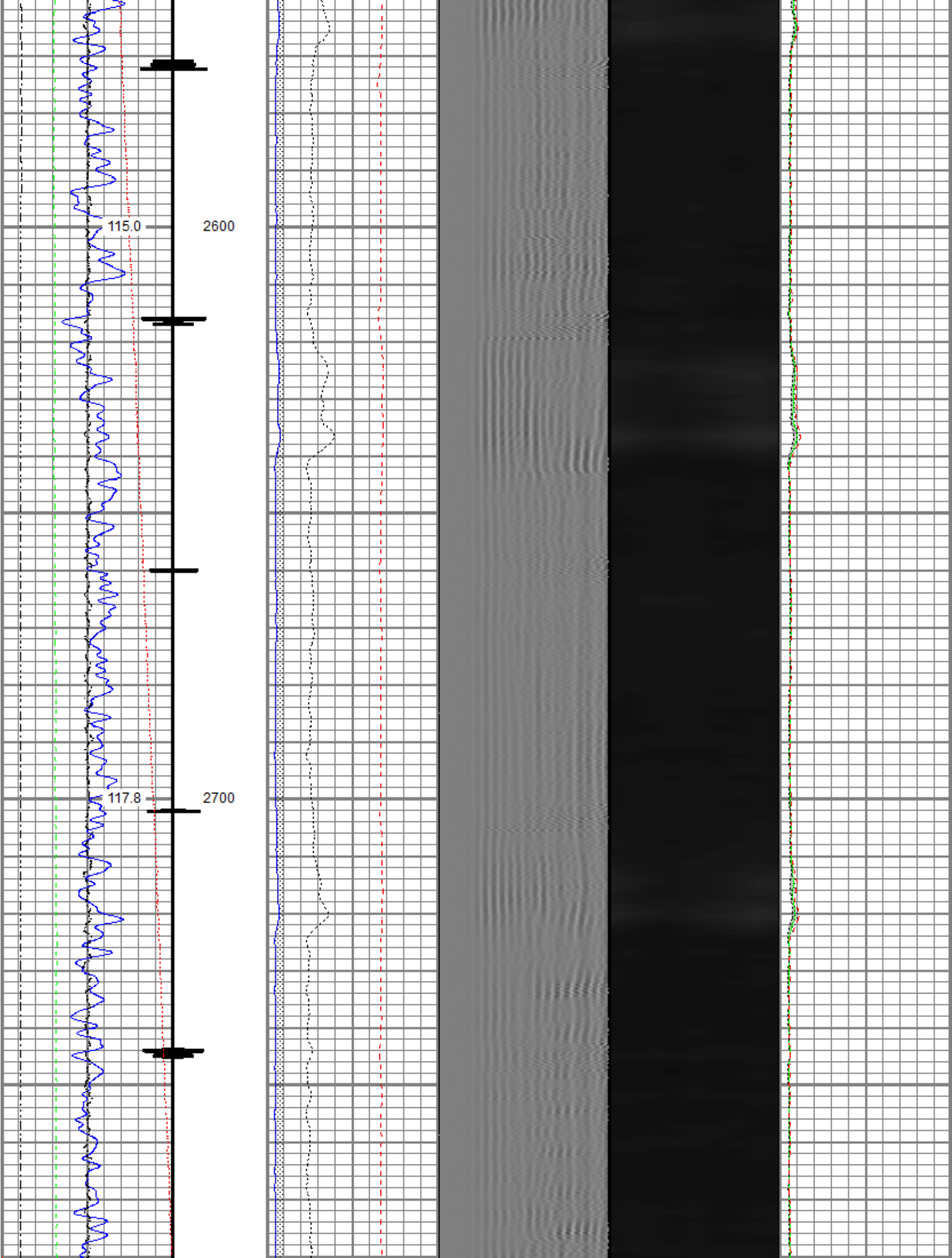


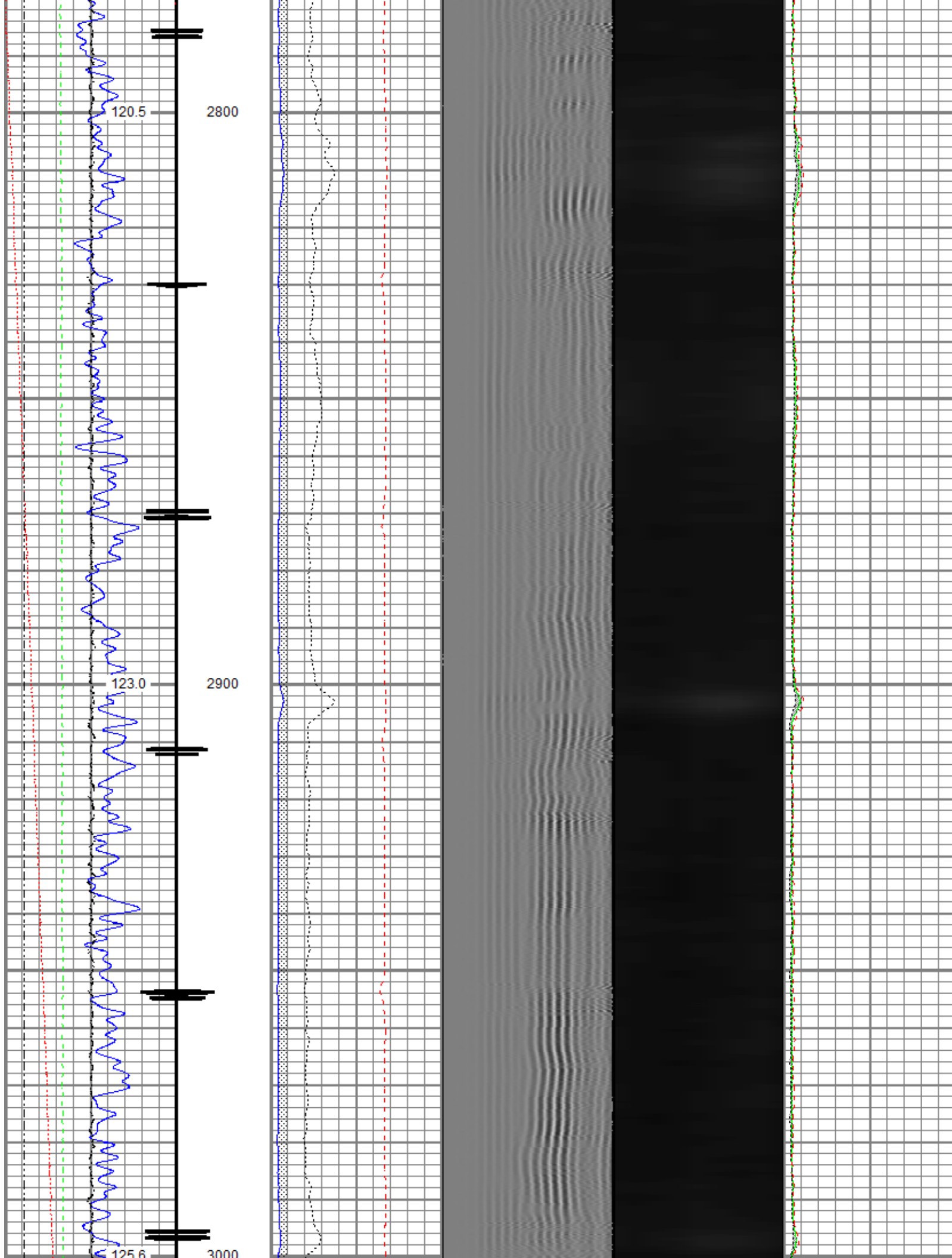


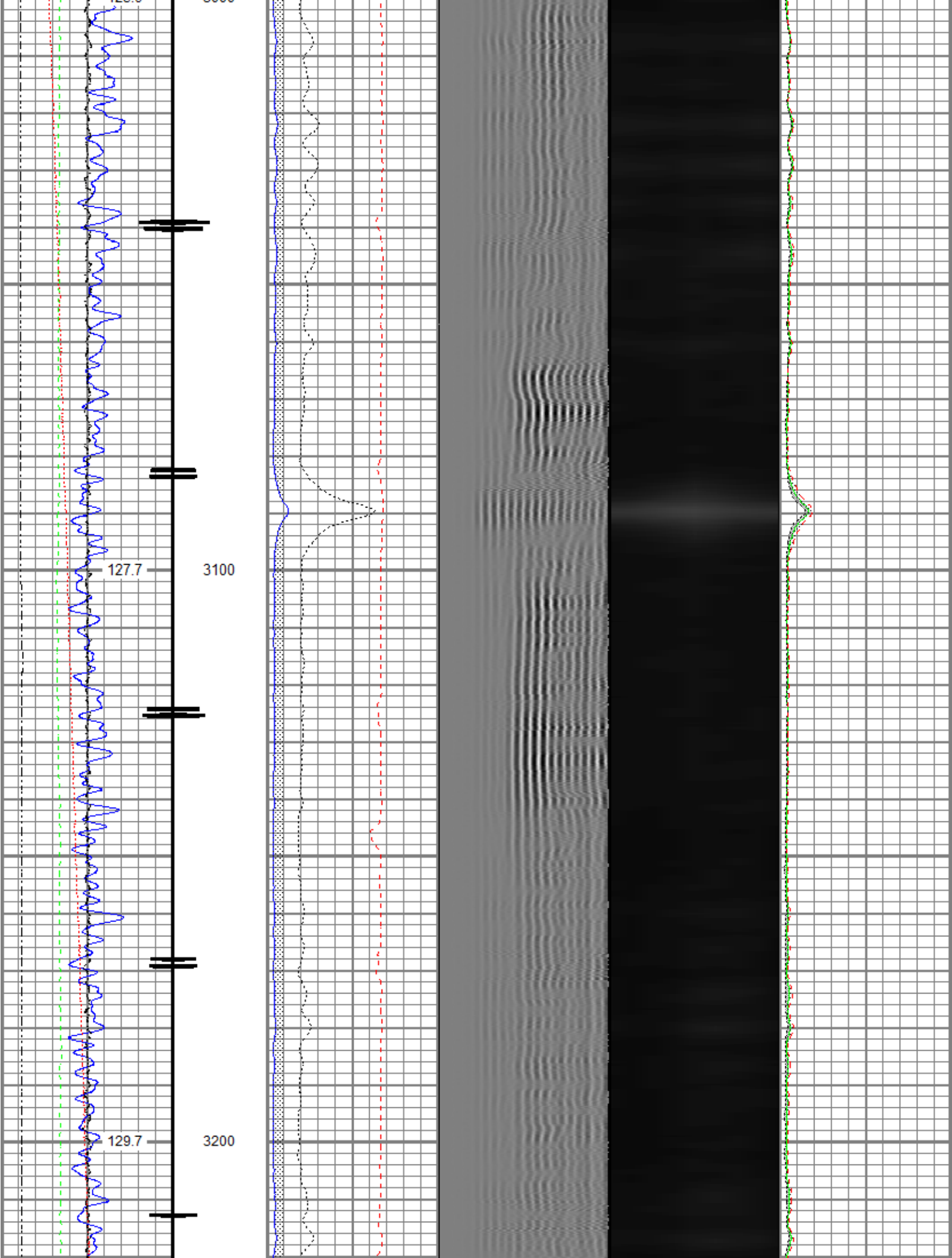


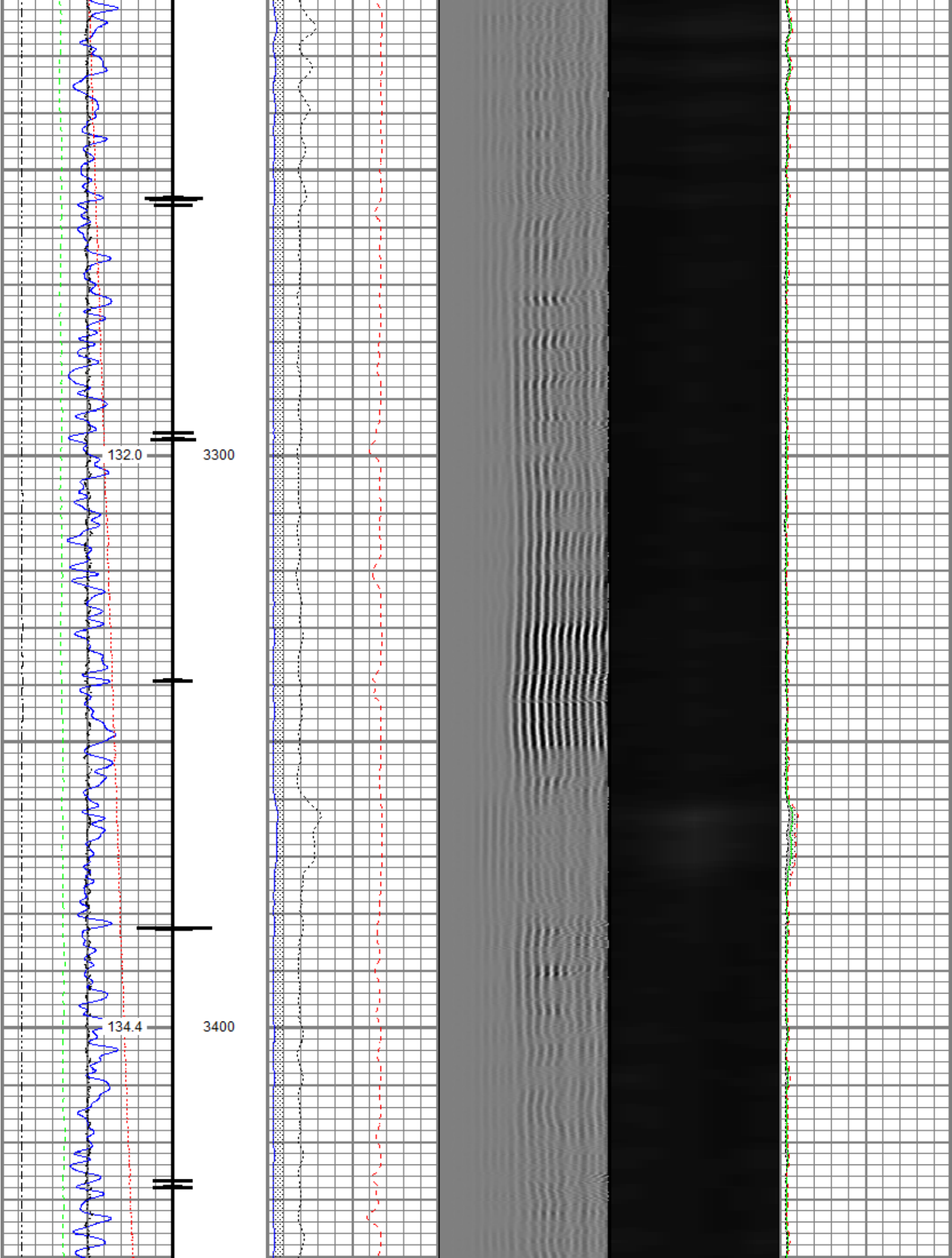


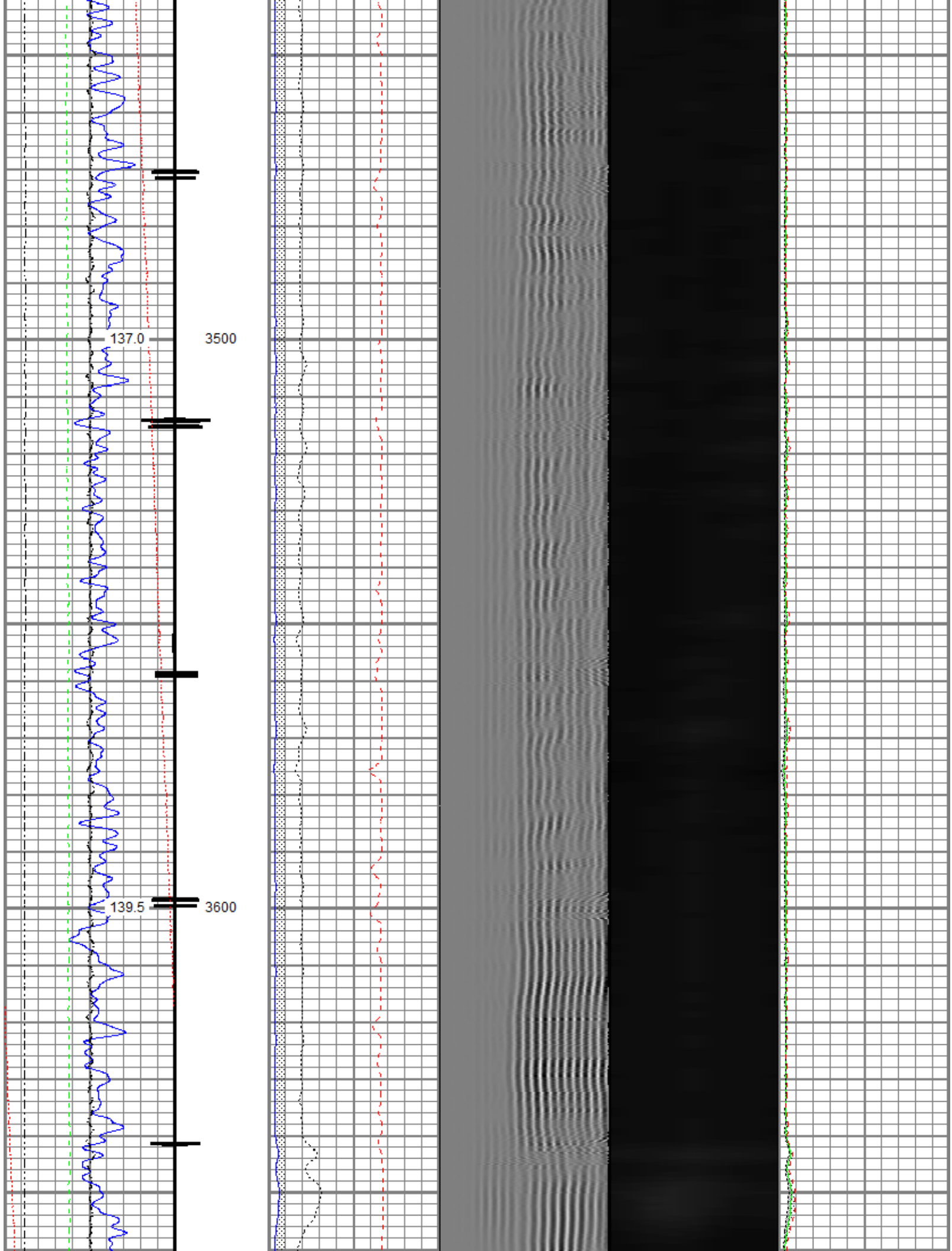


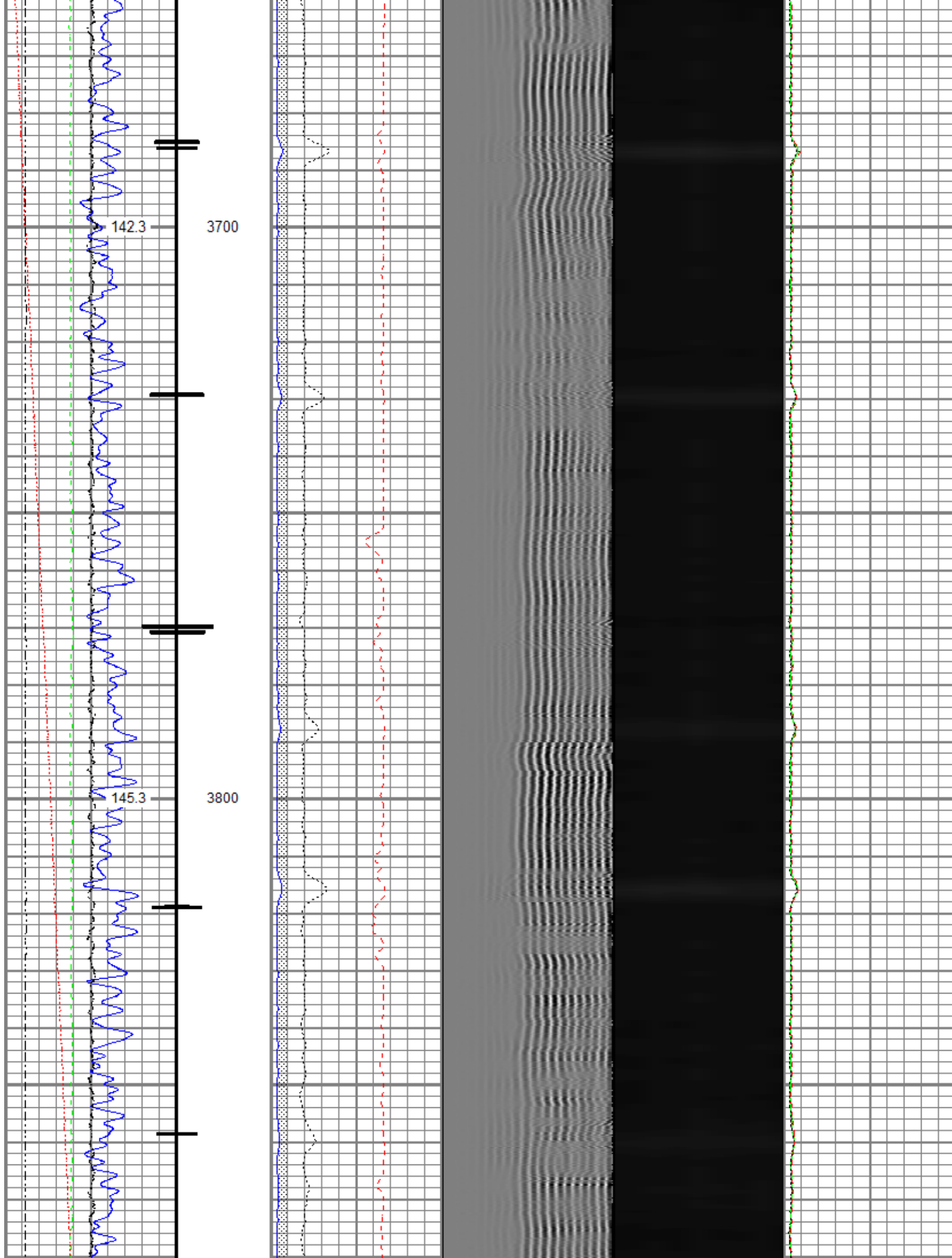


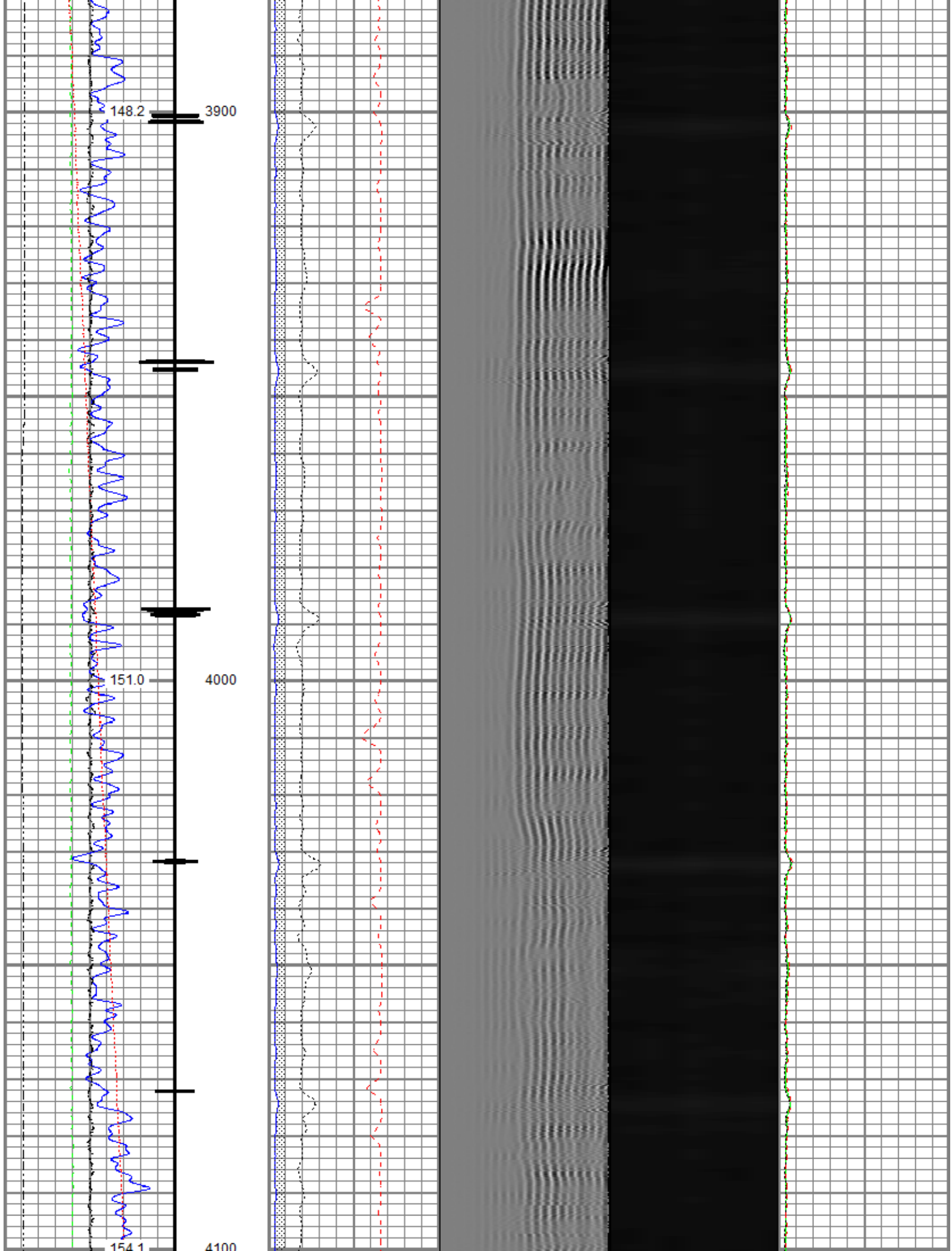


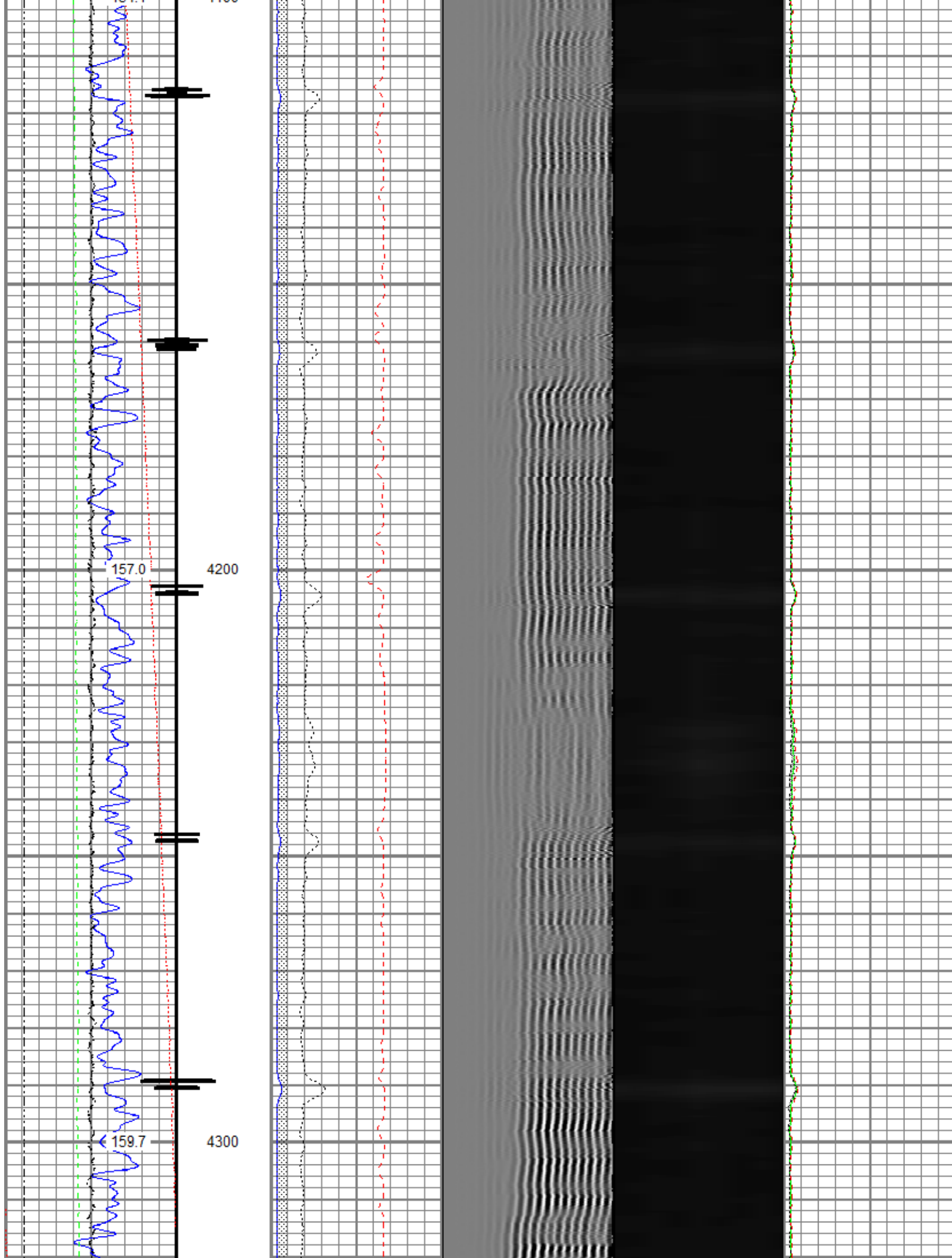


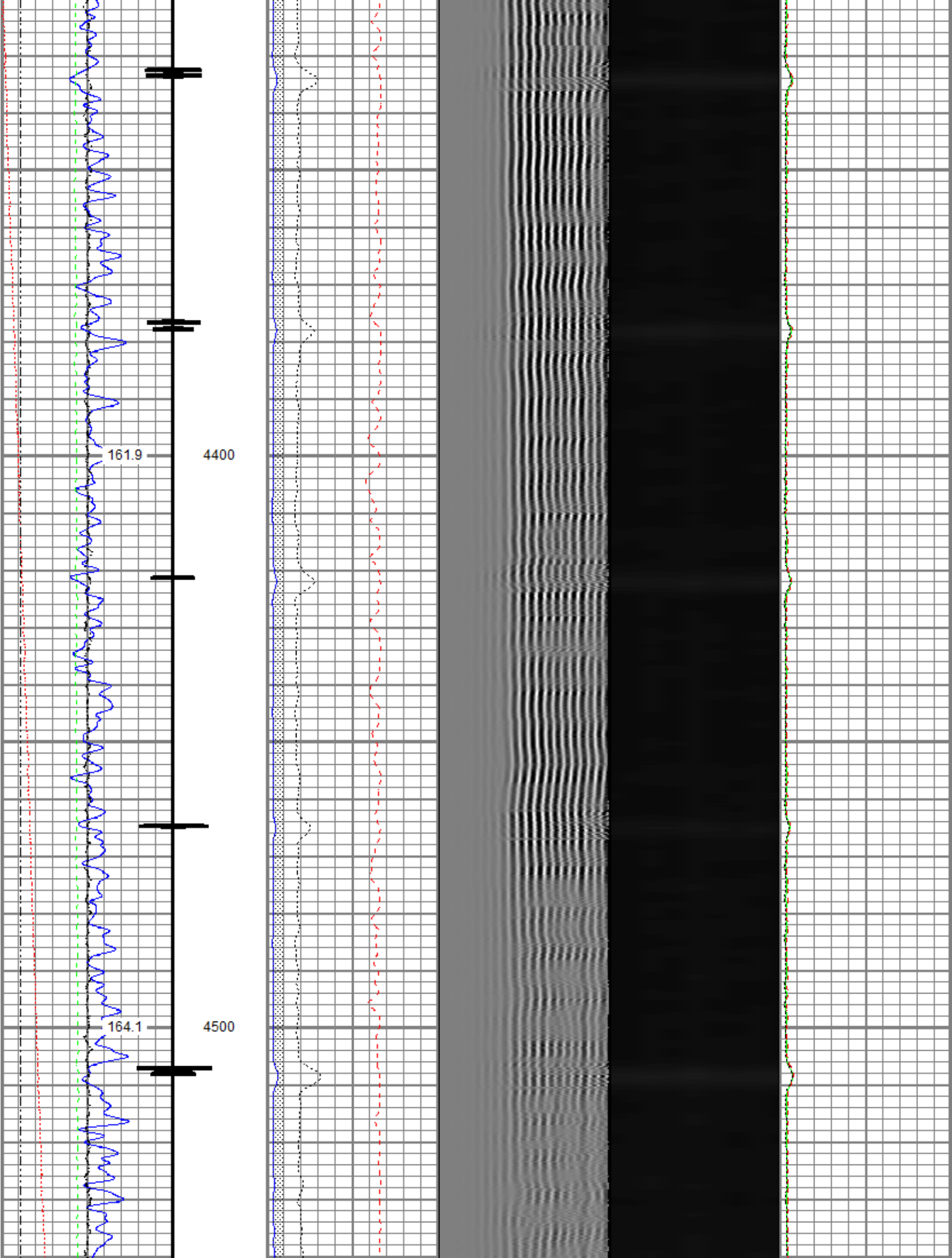


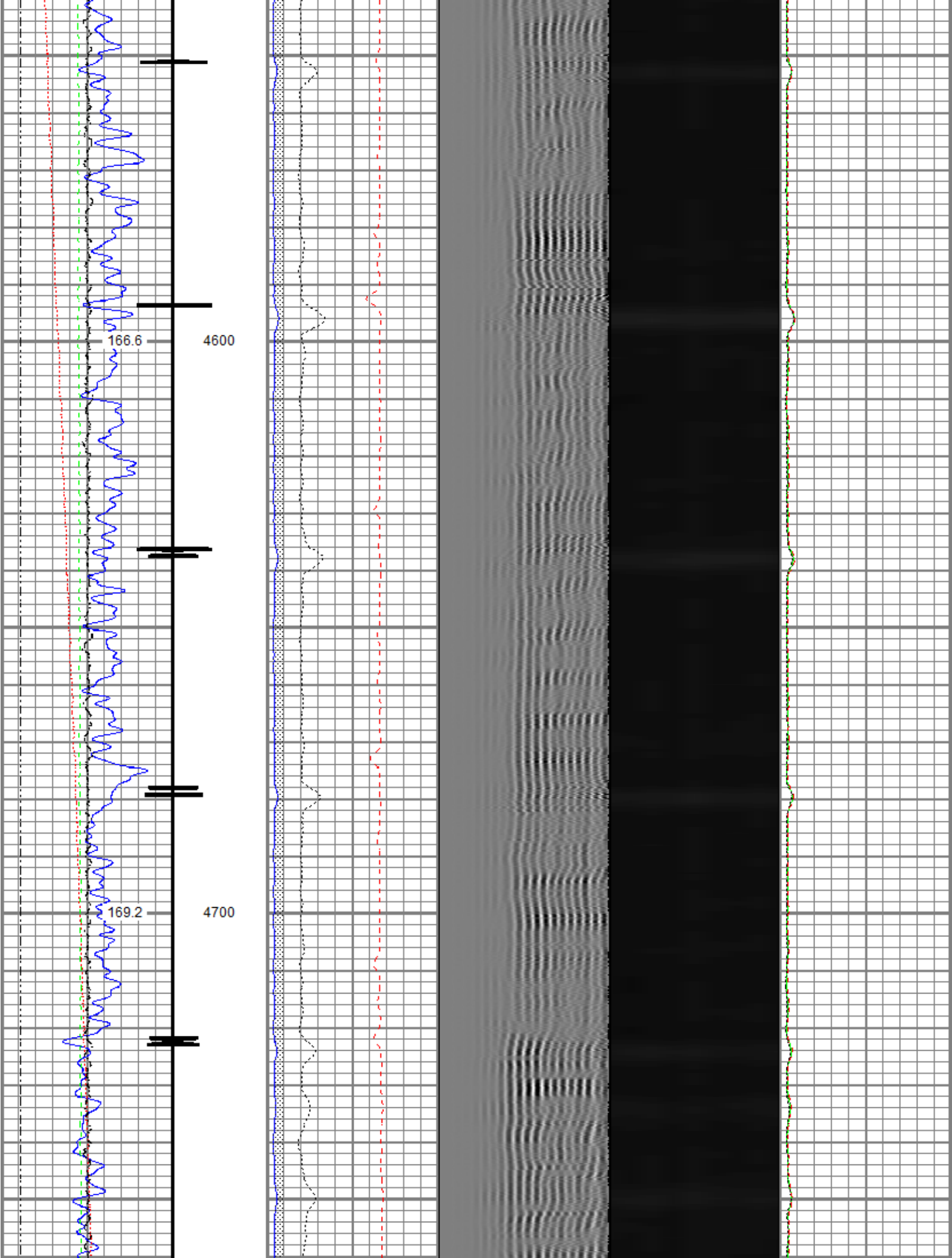


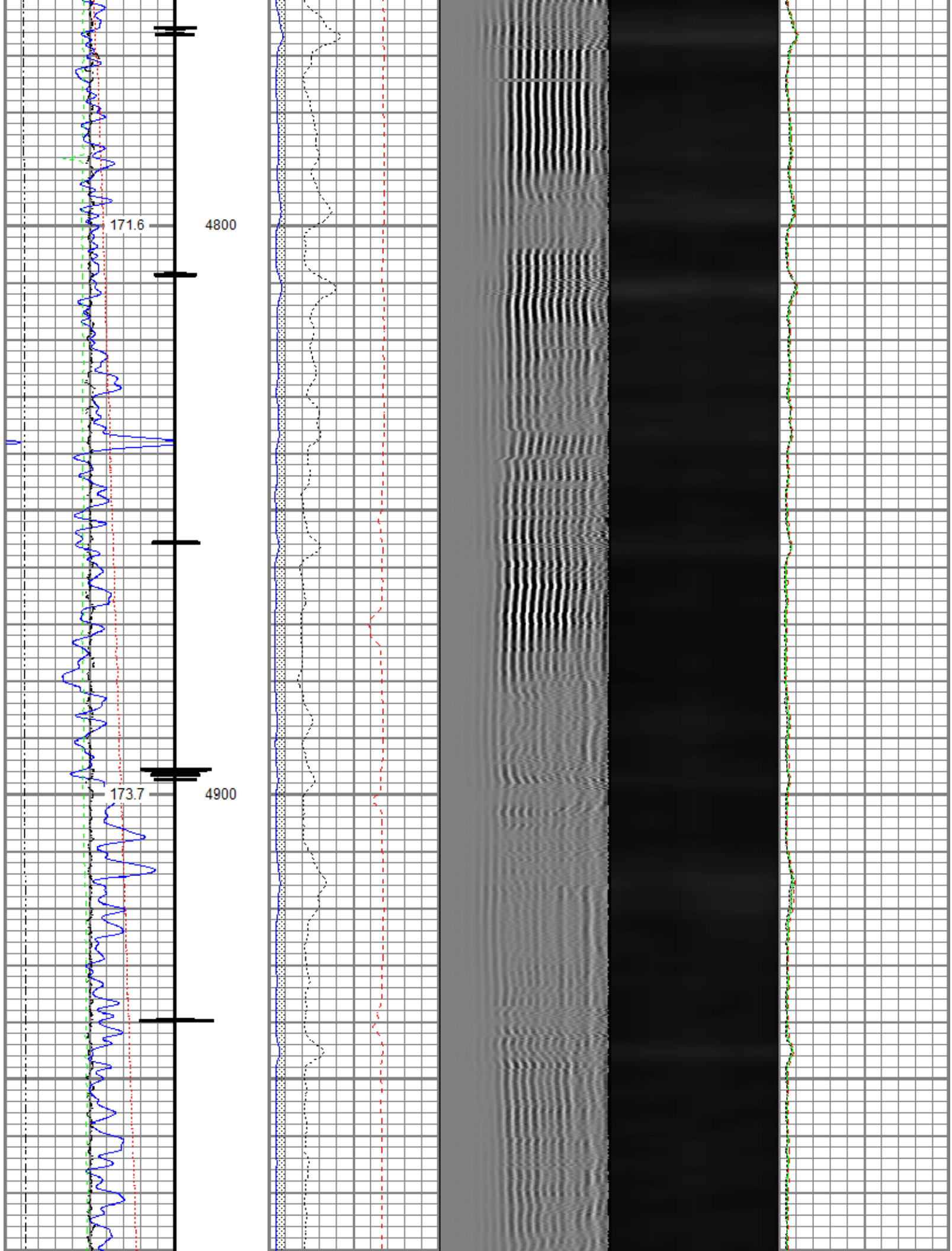


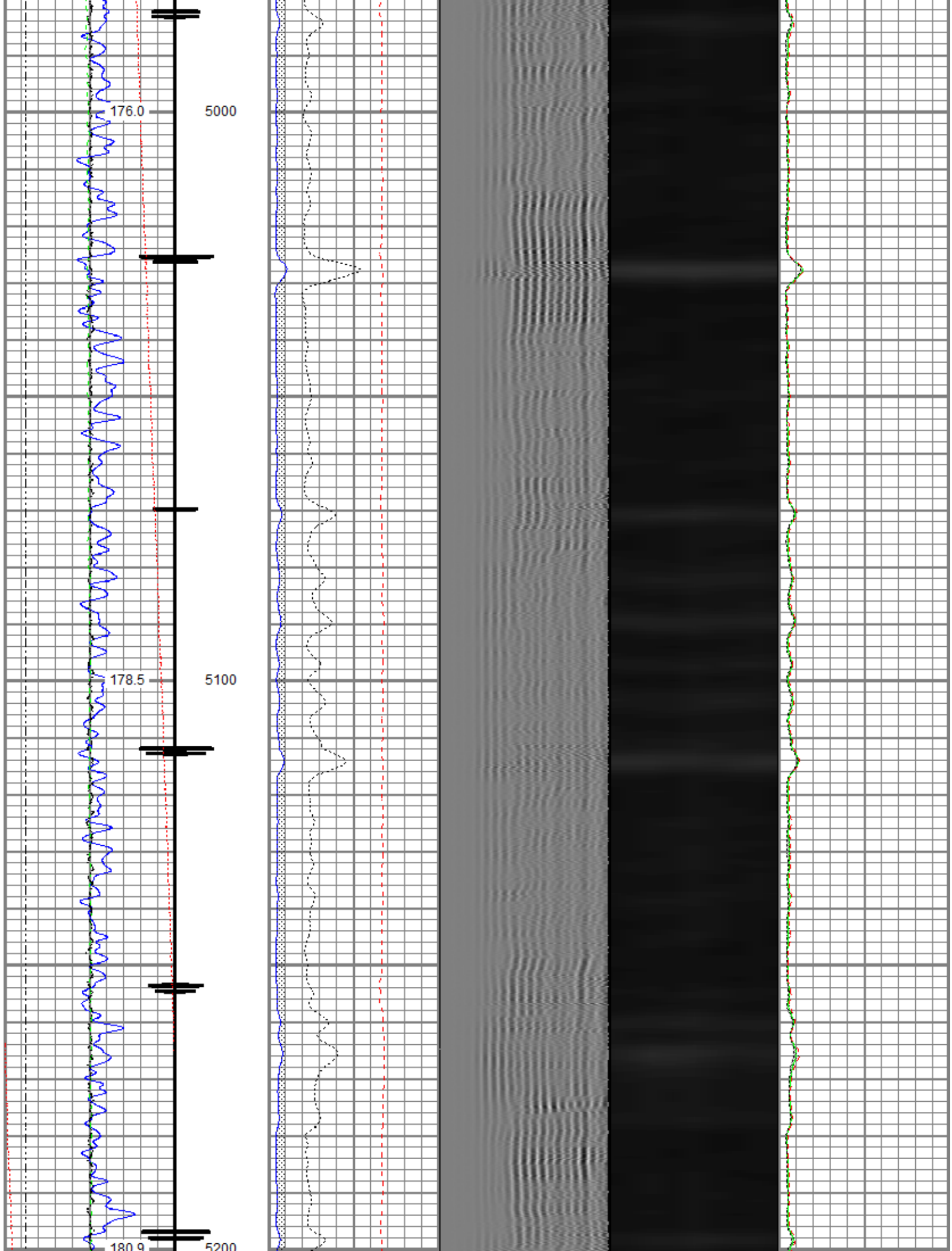


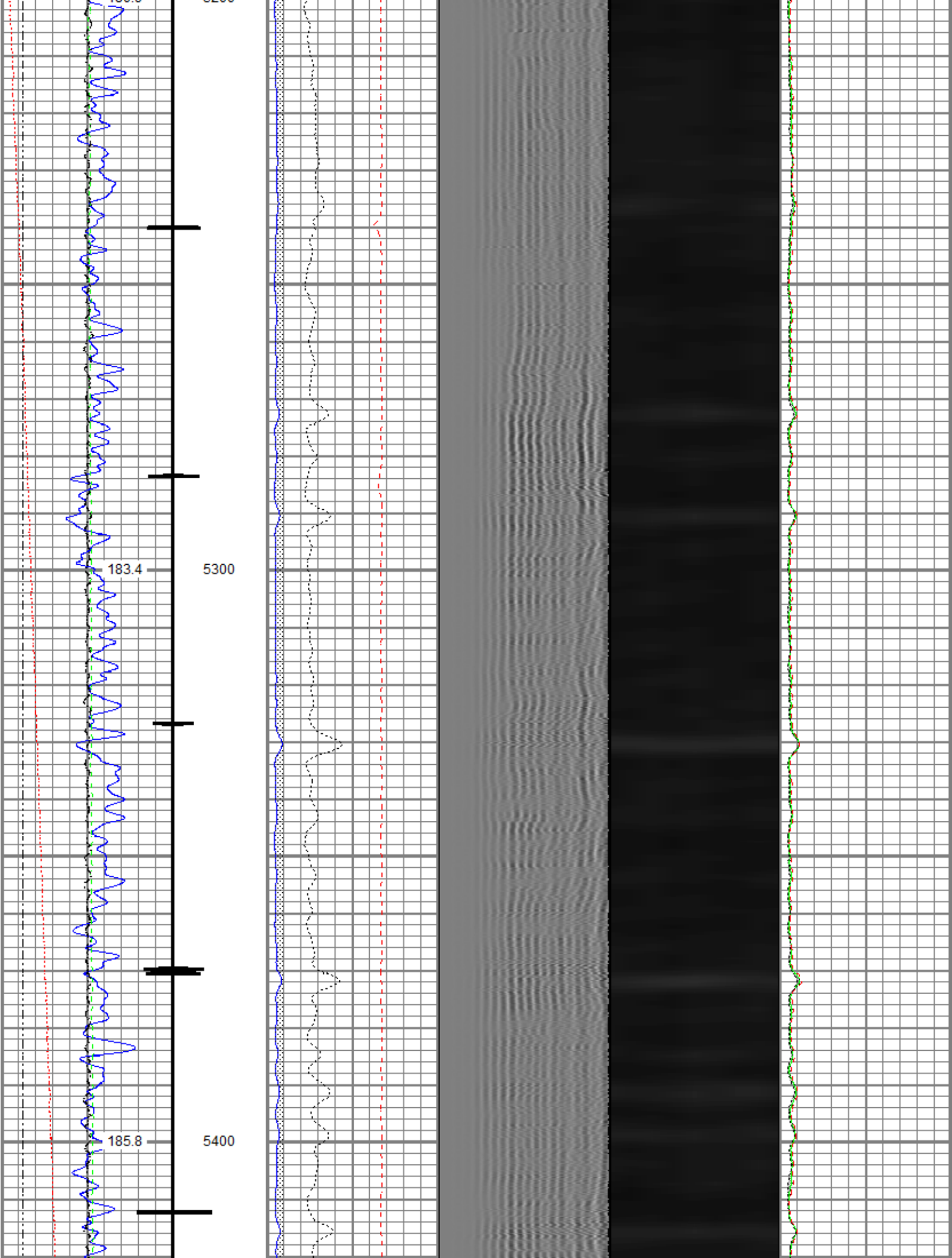


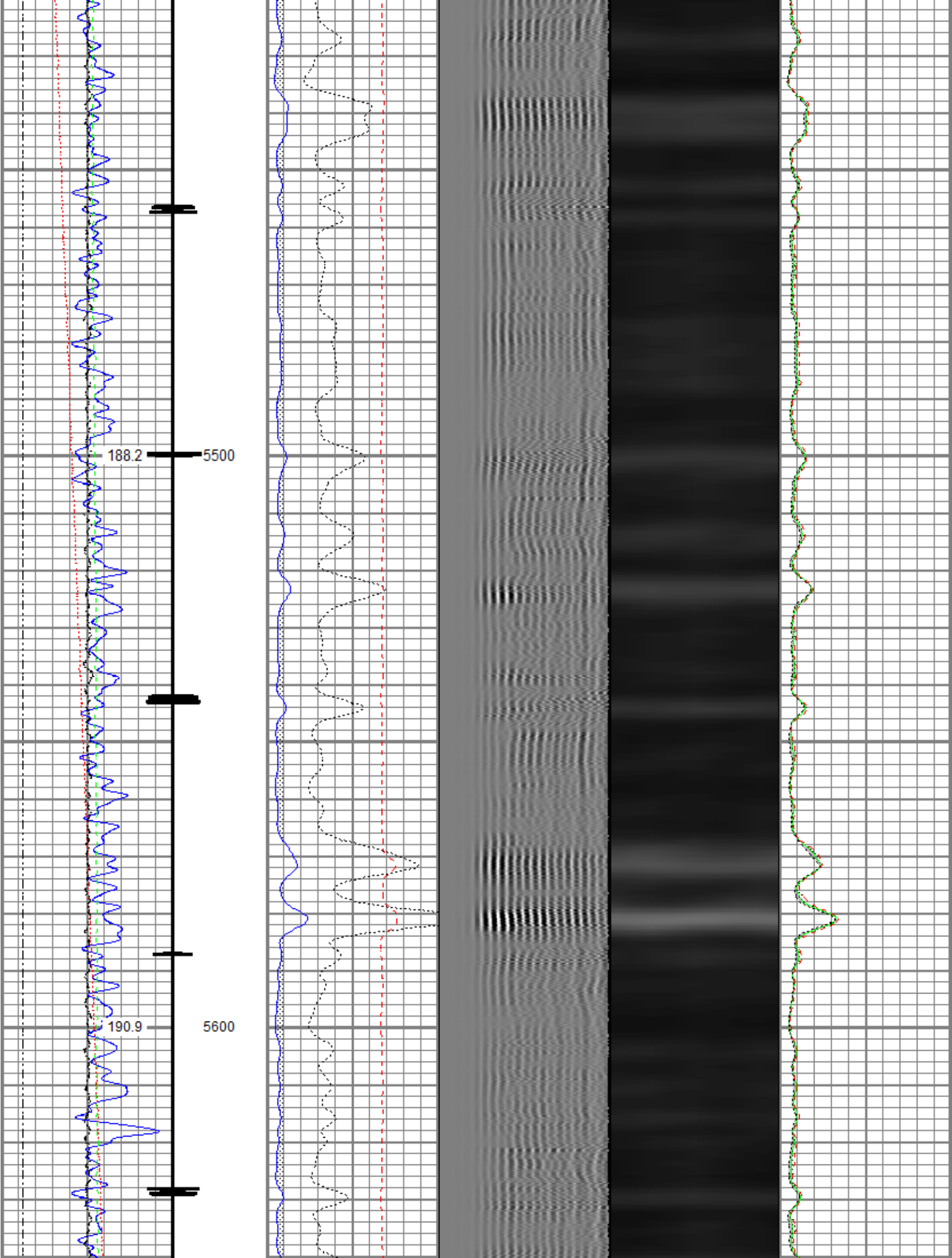


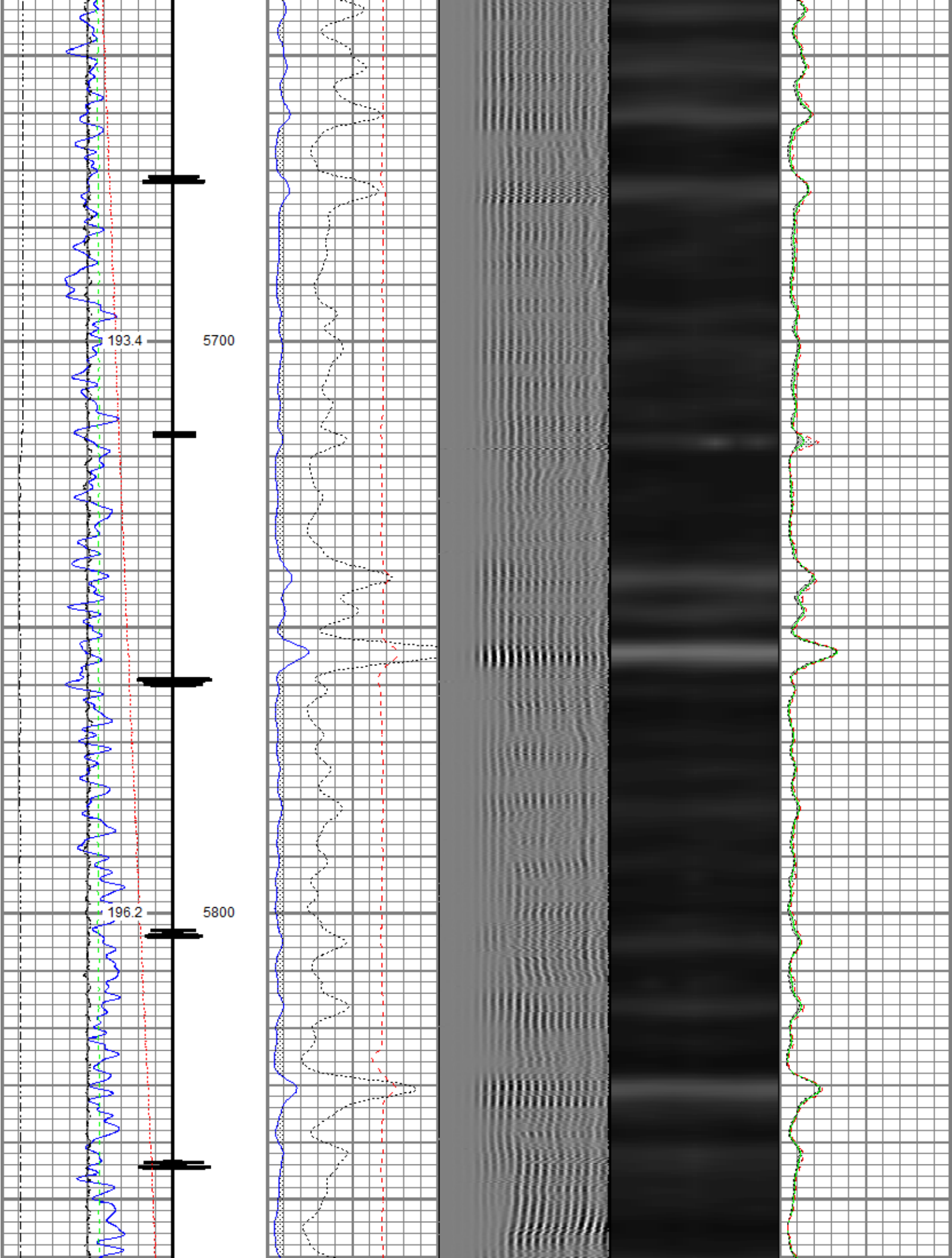


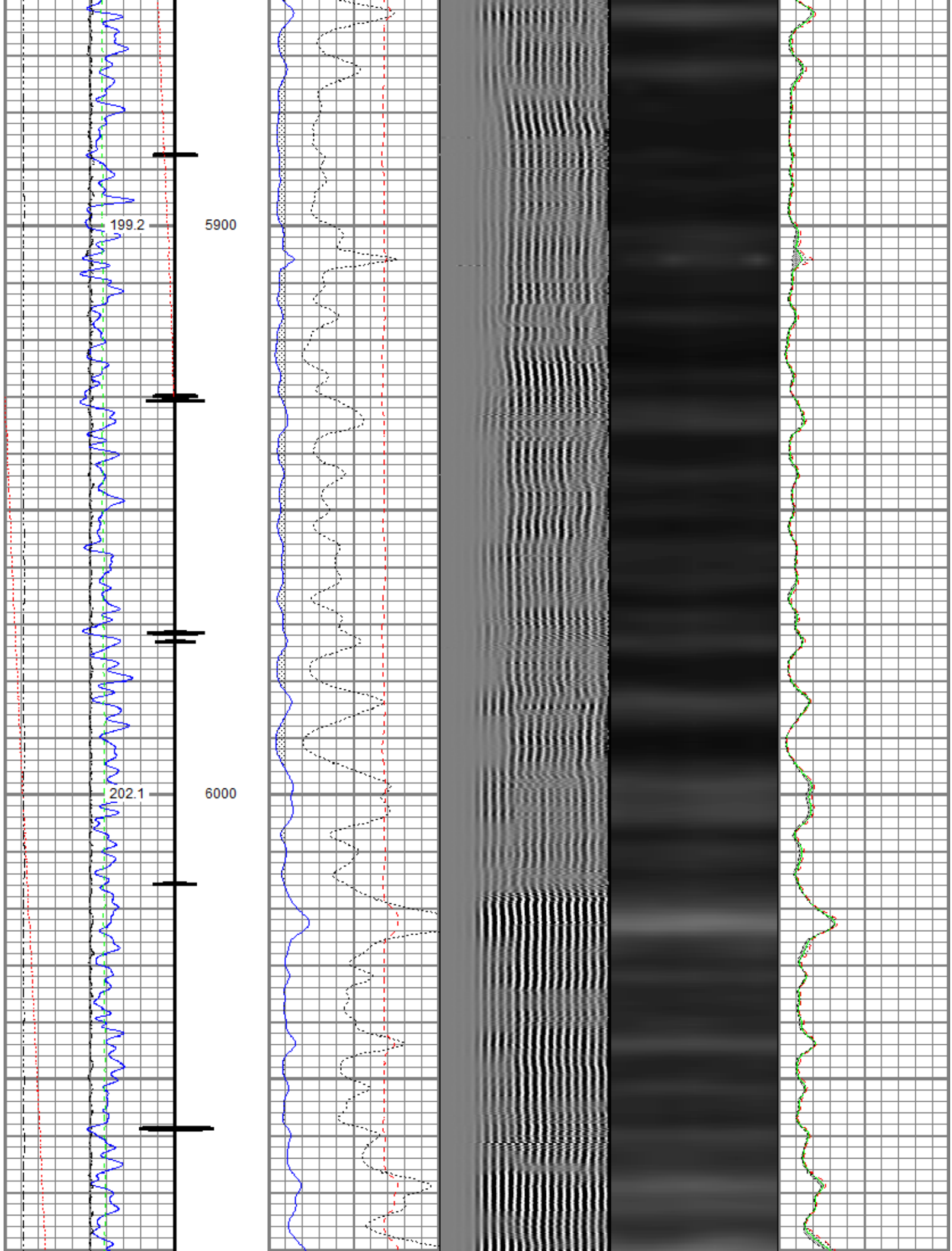


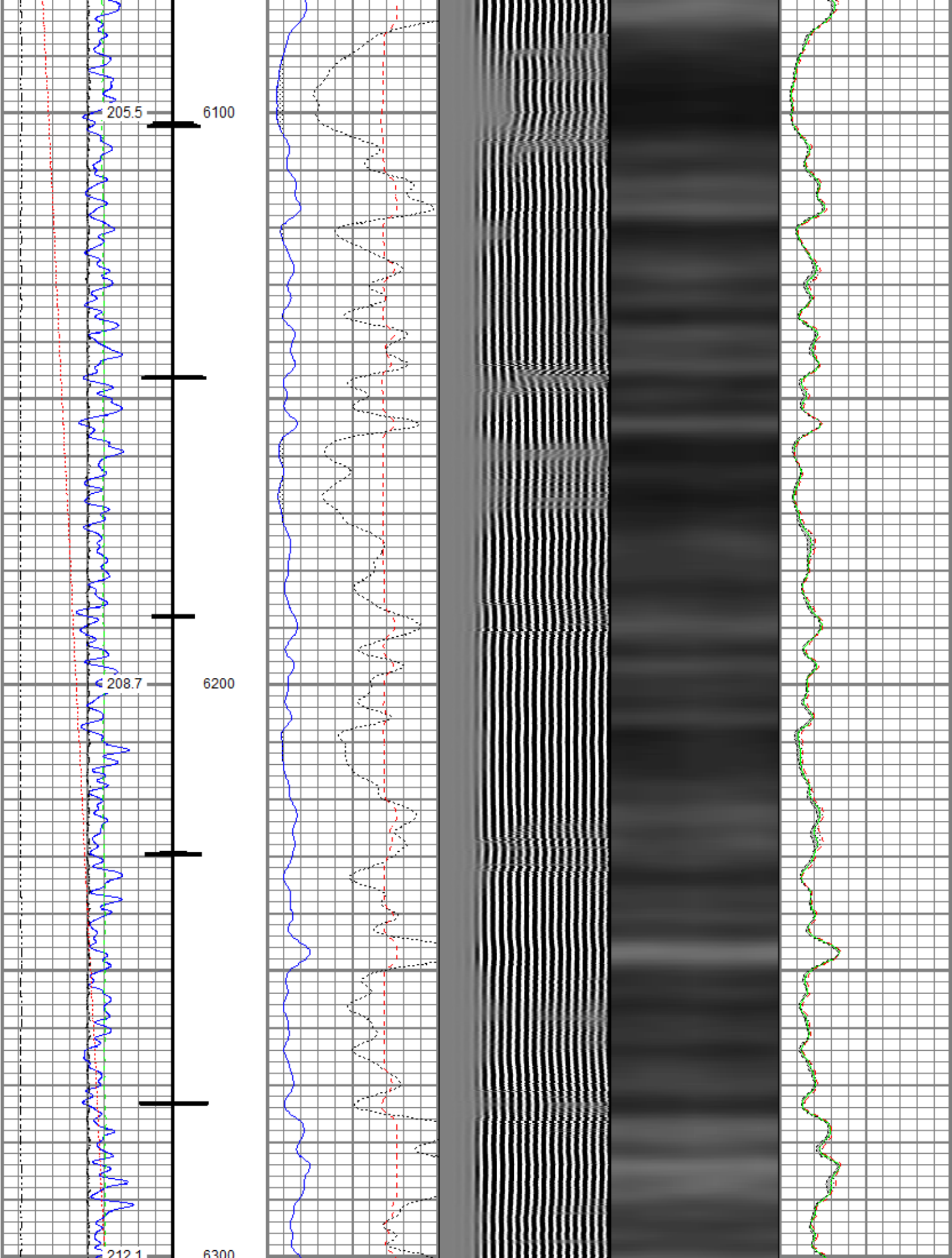


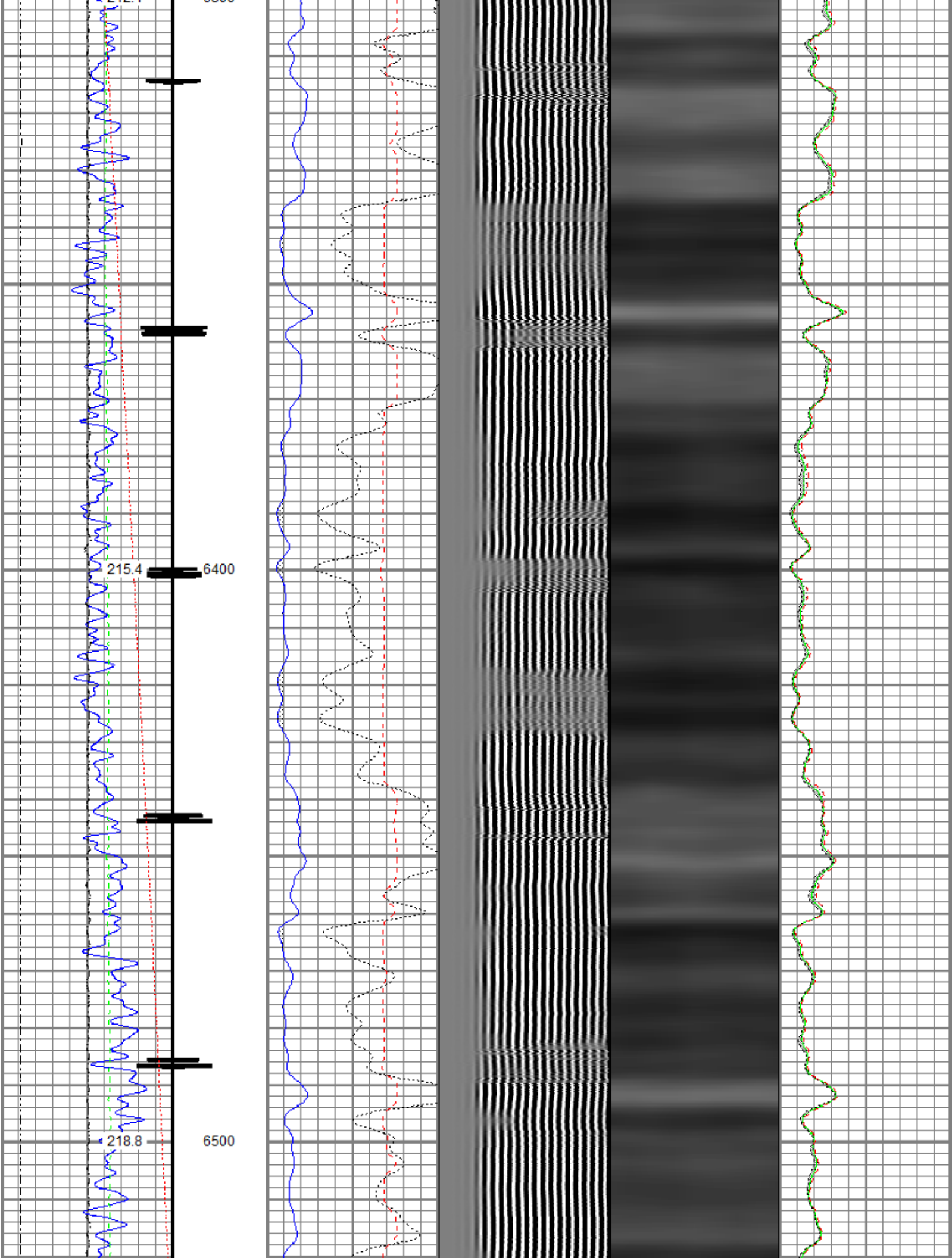


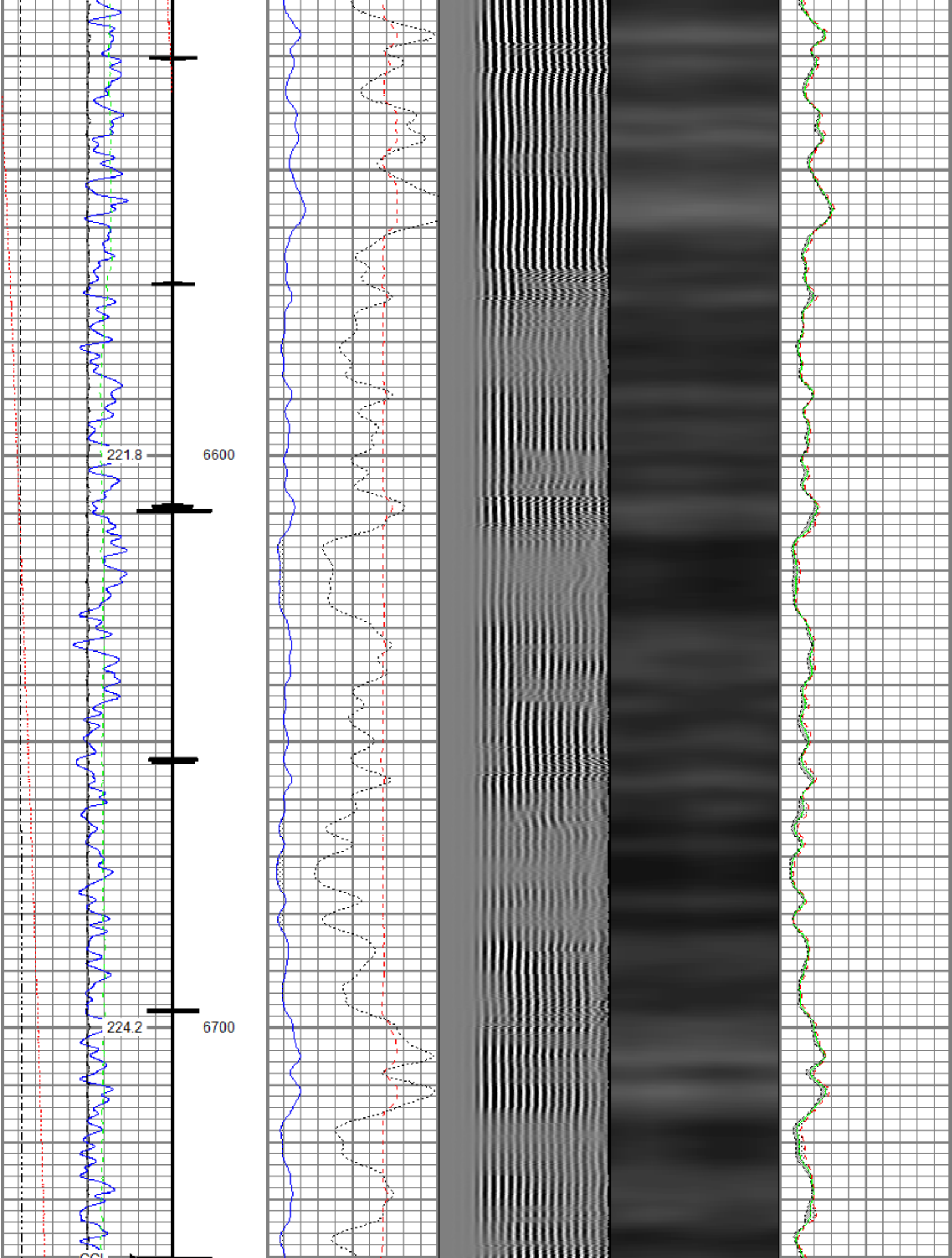


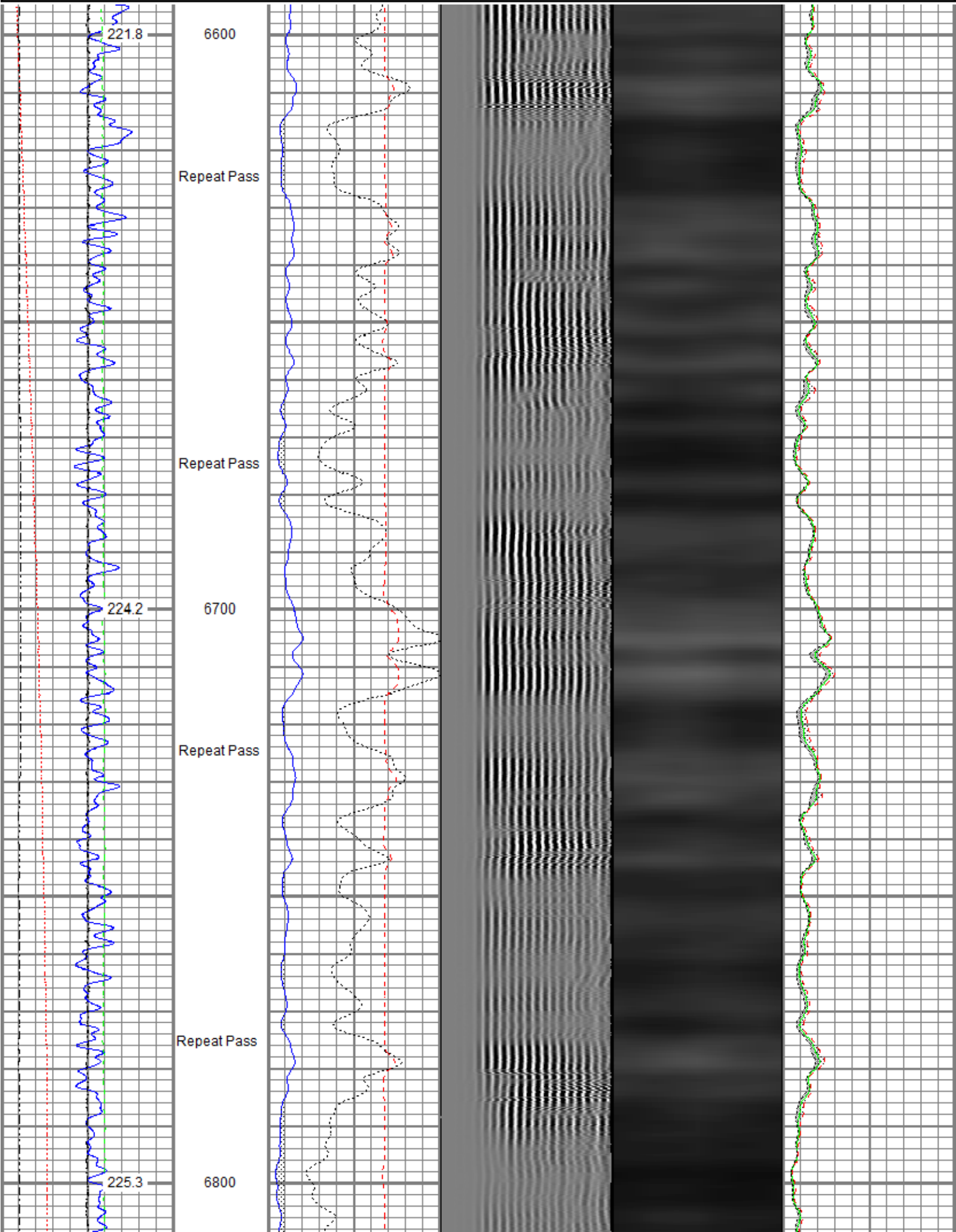


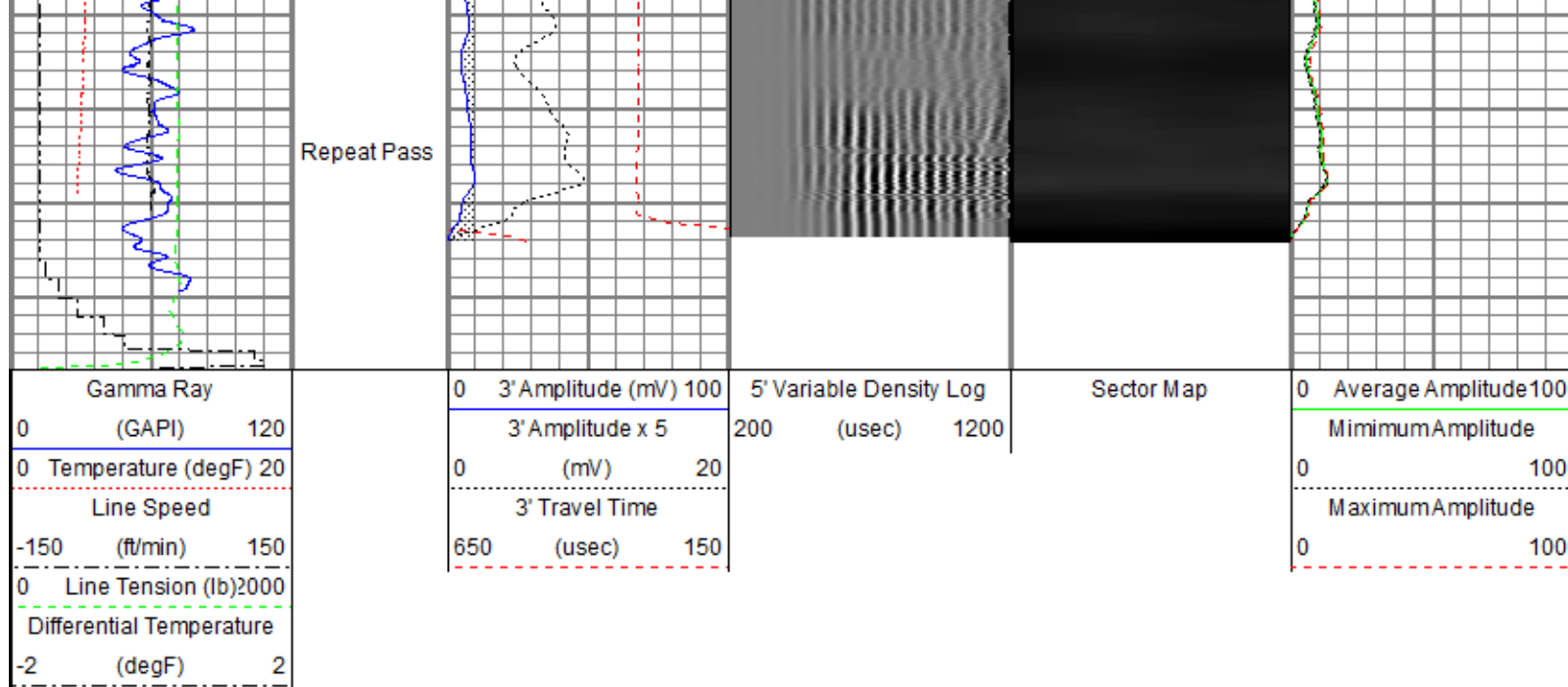




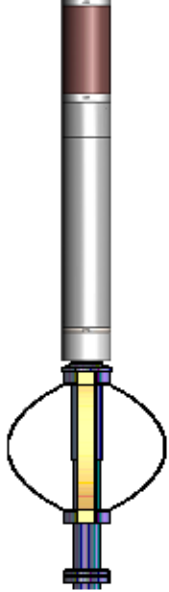








Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
TEMP	17.04		Titan CHD-14375 GO	1.03	1.44	3.60
			Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck			
			Probe CENT-2750	2.88	2.75	20.00
			Probe 2-3/4" Electric Inline Bowspring Centralizer			
WVFS8	14.81		Probe Radii-2750 RBT (FW1302-002)	9.39	2.75	105.00
WVFS7	14.81		Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub			
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	2.88	2.75	20.00
			Probe 2-3/4" Electric Inline Bowspring Centralizer			

CCL\$2	6.80		Probe GR-CCL-2750 6PB (FW1810-001) Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT	4.80	2.75	55.00
CCL\$1	6.80					
GR	5.46					
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Dataset: 0512347265_anadarko_hendu 23-13hz_rbl_12-16-18_2800 psi.db: field/well/RCBL2800/pass4 Total length: 23.86 ft Total weight: 223.60 lb O.D.: 2.75 in						

Calibration Report	
Database File	c:\programdata\warrior\data\new folder\0512347265_anadarko_hendu 23-13hz_rbl_12-16-18_2800 psi.db
Dataset Pathname	RCBL2800/pass4
Dataset Creation	Mon Dec 17 07:49:16 2018

Gamma Ray Calibration Report		
Serial Number:	FW1810-001	
Tool Model:	2750 6PB	
Performed:	Tue Nov 06 15:23:25 2018	
Calibrator Value:	637.0	GAPI
Background Reading:	100.1	cps
Calibrator Reading:	1264.5	cps
Sensitivity:	0.5471	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1302-002	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	19.079	ft

Master Calibration, performed Sun Dec 16 12:46:35 2018:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.006	0.588	0.800	71.921	122.287	0.045
CAL	0.006	0.614				
5'	0.006	0.543	0.800	71.921	132.330	0.000
SUM						
S1	0.006	0.582	0.000	100.000	173.548	-1.021
S2	0.006	0.583	0.000	100.000	173.365	-1.045
S3	0.006	0.583	0.000	100.000	173.471	-1.055
S4	0.006	0.595	0.000	100.000	169.930	-1.054
S5	0.006	0.597	0.000	100.000	169.221	-1.037
S6	0.006	0.597	0.000	100.000	169.169	-1.039
S7	0.006	0.595	0.000	100.000	169.884	-1.033
S8	0.006	0.599	0.000	100.000	174.124	-1.010

S8	0.006	0.590	0.000	100.000	171.134	-1.019
Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.006	0.614	1.000	0.000

Air Zero Calibration, performed Sun Dec 16 12:43:05 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:	FW1302-002		
Tool Model:	2750 RBT		
Performed:	Mon Oct 01 11:32:15 2018		
	Reference	Reading	
Low Reference:	100.00 degF	110.72	degF
High Reference:	350.00 degF	409.18	degF
Gain:	0.84		
Offset:	7.26		
Delta Spacing	1		



Company	Kerr-McGee Oil & Gas Onshore, L.P.
Well	Hendu 23-13HZ
Field	Wattenberg
County	Weld
State	Colorado