



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	Kerr-McGee Oil & Gas Onshore, L.P.		
Well	Fehrn 38N-32HZ		
Field	Wattenberg		
County	Weld		
State	Colorado		
Location:		API # : 05-123-41484	Other Services
SEC 32 TWP 2N RGE 66W			Gauge Ring
Permanent Datum	Ground Level	Elevation	4926'
Log Measured From	Kelly Bushing	20FT	
Drilling Measured From	Kelly Bushing		K.B. 4946' D.F. 4945' G.L. 4926'

Date	30-Sep-2015
Run Number	Two
Depth Driller	12744 FT
Depth Logger	7502 FT
Bottom Logged Interval	7498 FT
Top Log Interval	Surface
Open Hole Size	7.875
Type Fluid	Water
Density / Viscosity	8.34 lbm/gal
Max. Recorded Temp.	235°F
Estimated Cement Top	28 FT
Time Well Ready	ROA
Time Logger on Bottom	8:15 AM
Equipment Number	HD-0324
Location	Fort Lupton, CO
Recorded By	B. Kalkwarf
Witnessed By	Van Franke

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record	Size (in)	Wgt (lbs/ft)	Grade	Top	Bottom		
Surface Casing	9 5/8	36	J-55 LTC	Surface	1856 FT		
Intermediate #1							
Intermediate #2	5 1/2	17	HCP-110 LTC	Surface	12736 FT		
Liner							

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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 6752 FT - 6775 FT
Adjusted log -21 FT from KB zero to correlate with Marker Joint
Recorded with 2800 PSI Surface Induced Pressure

Thank you for choosing FMC Technologies Completion Services, Inc.!!

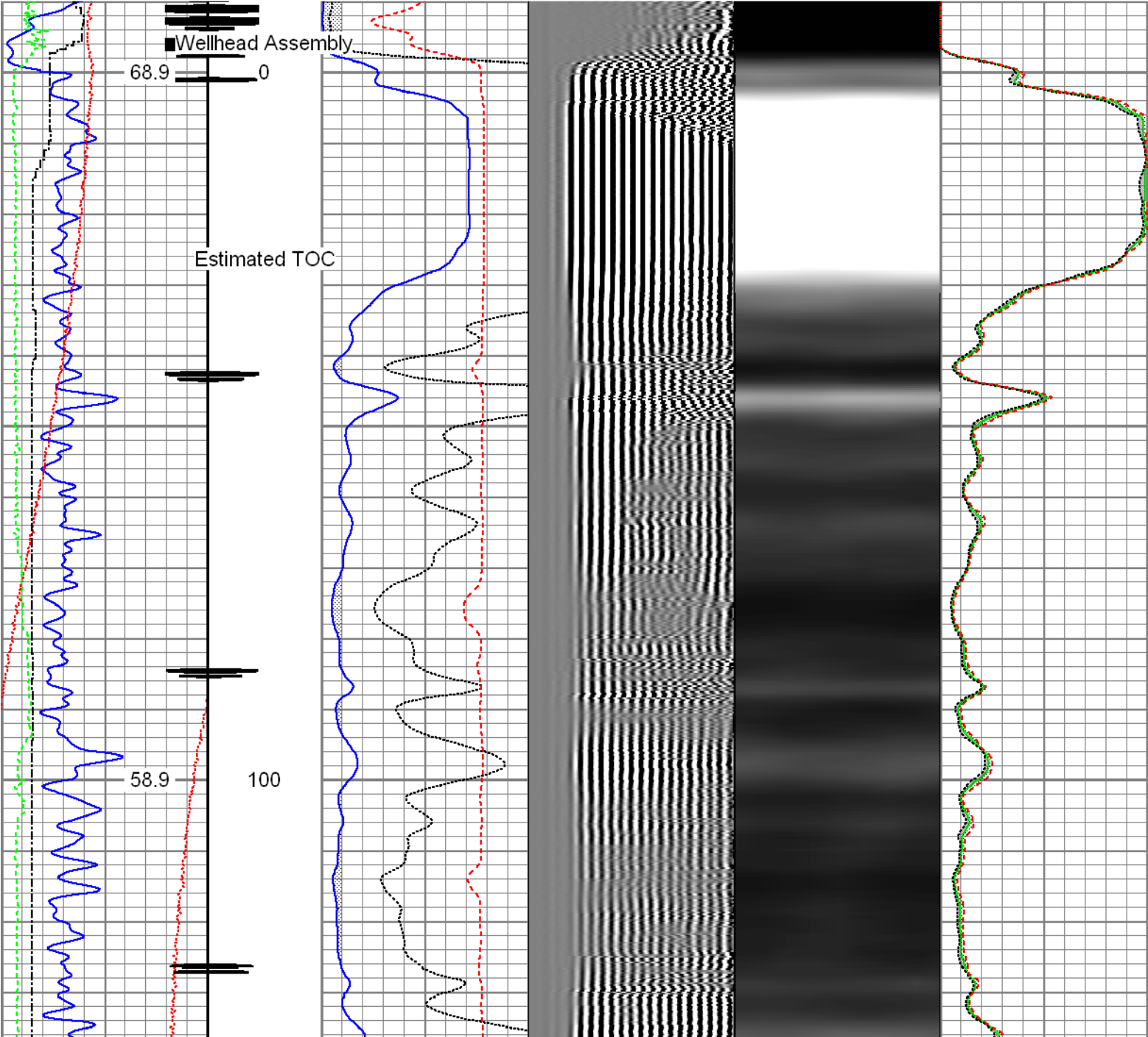


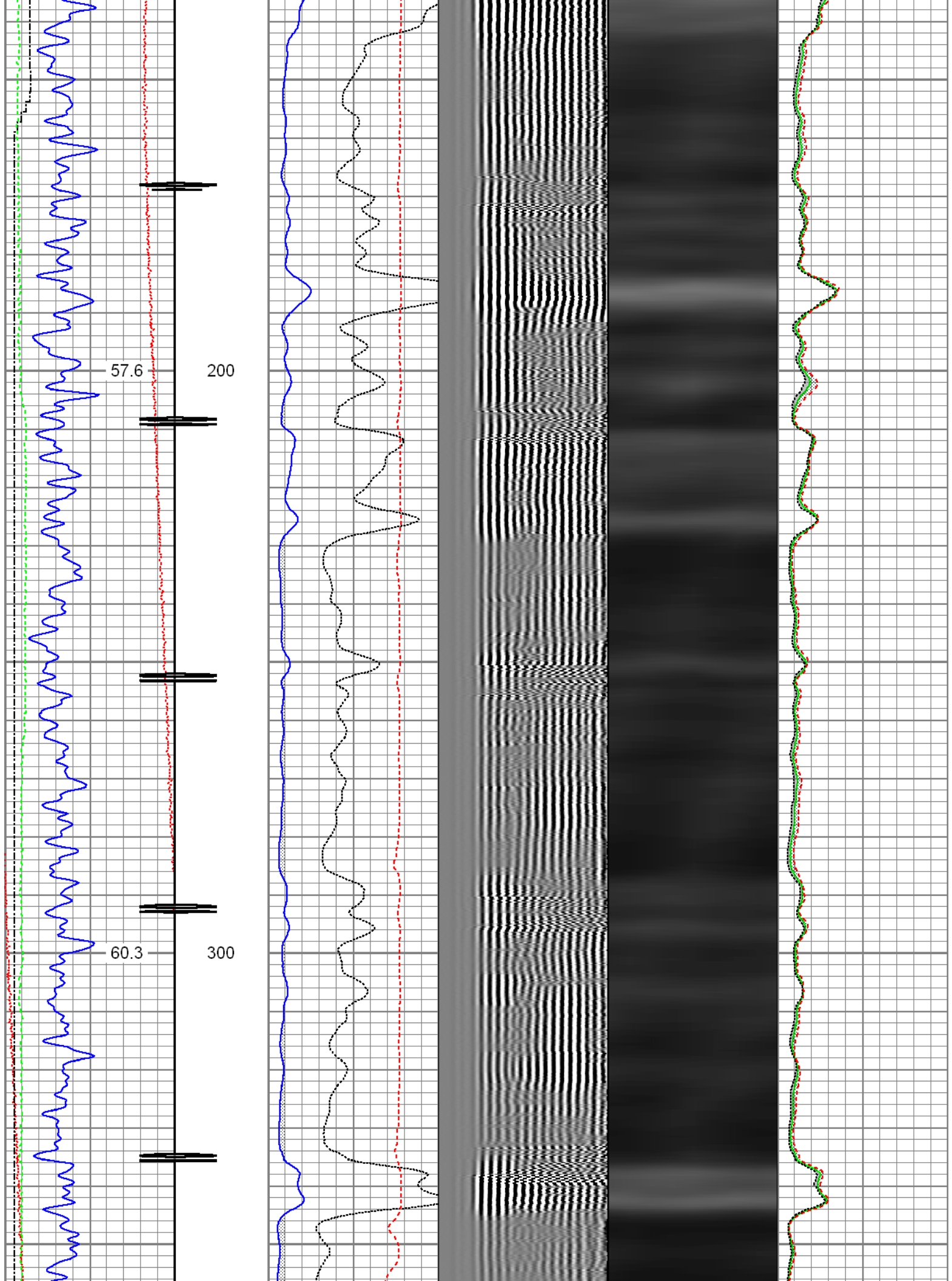
Main Pass

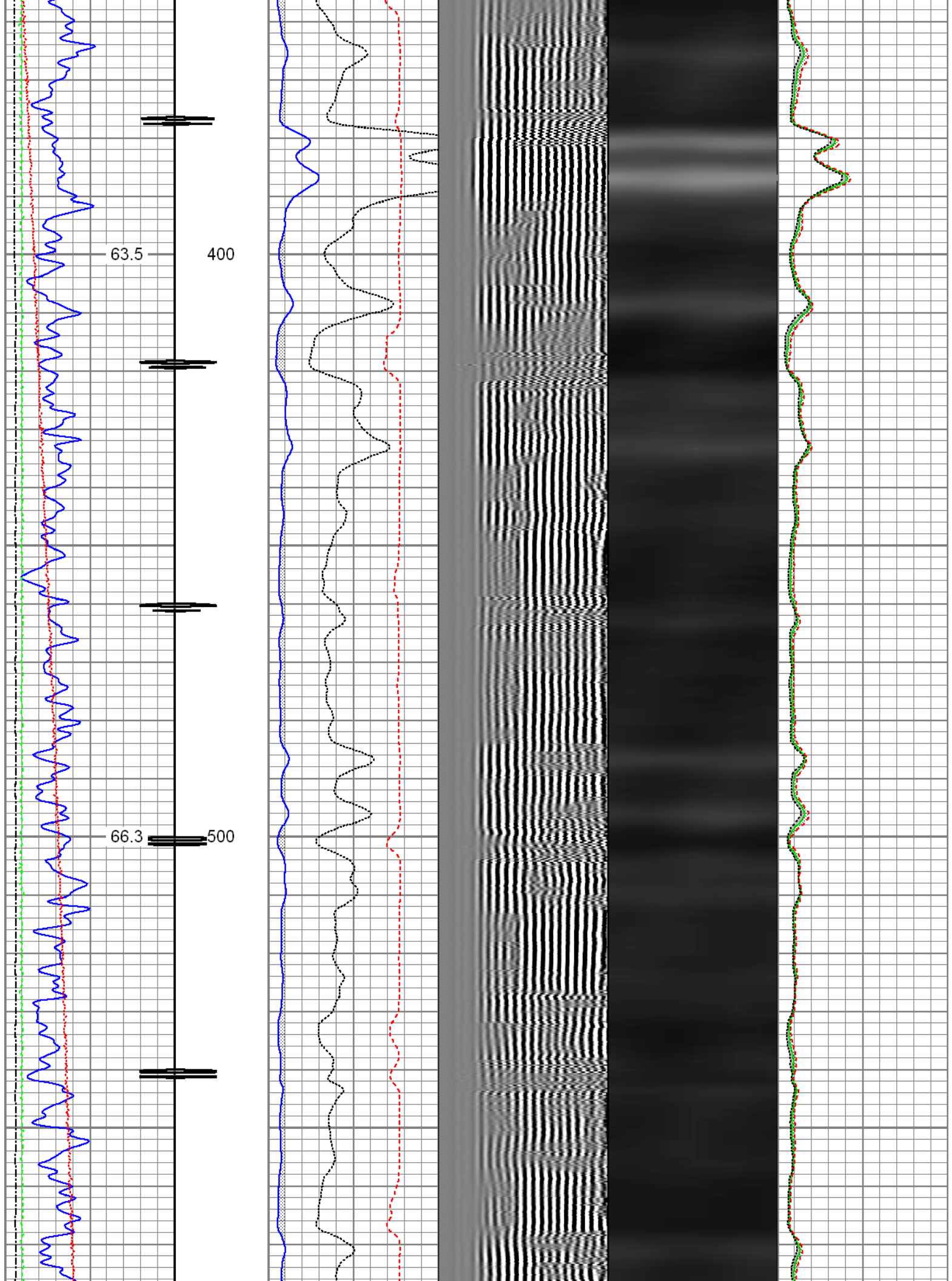
Recorded With 2800 PSI Surface Induced Pressure

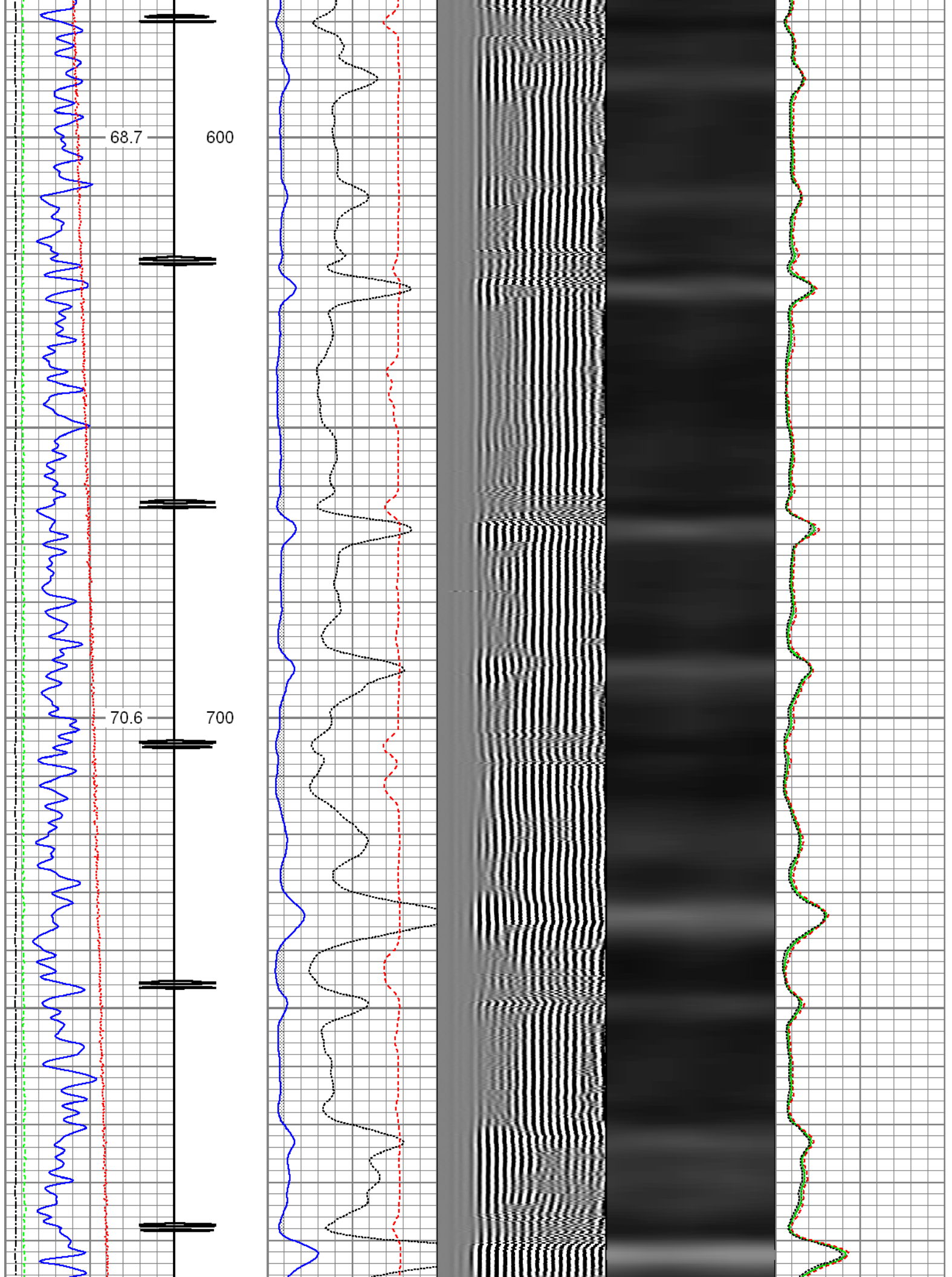
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Dataset Pathname: pass6.1
Presentation Format: radii
Dataset Creation: Wed Sep 30 09:21:00 2015 by Calc 7.0 B1
Charted by: Depth in Feet scaled 1:240

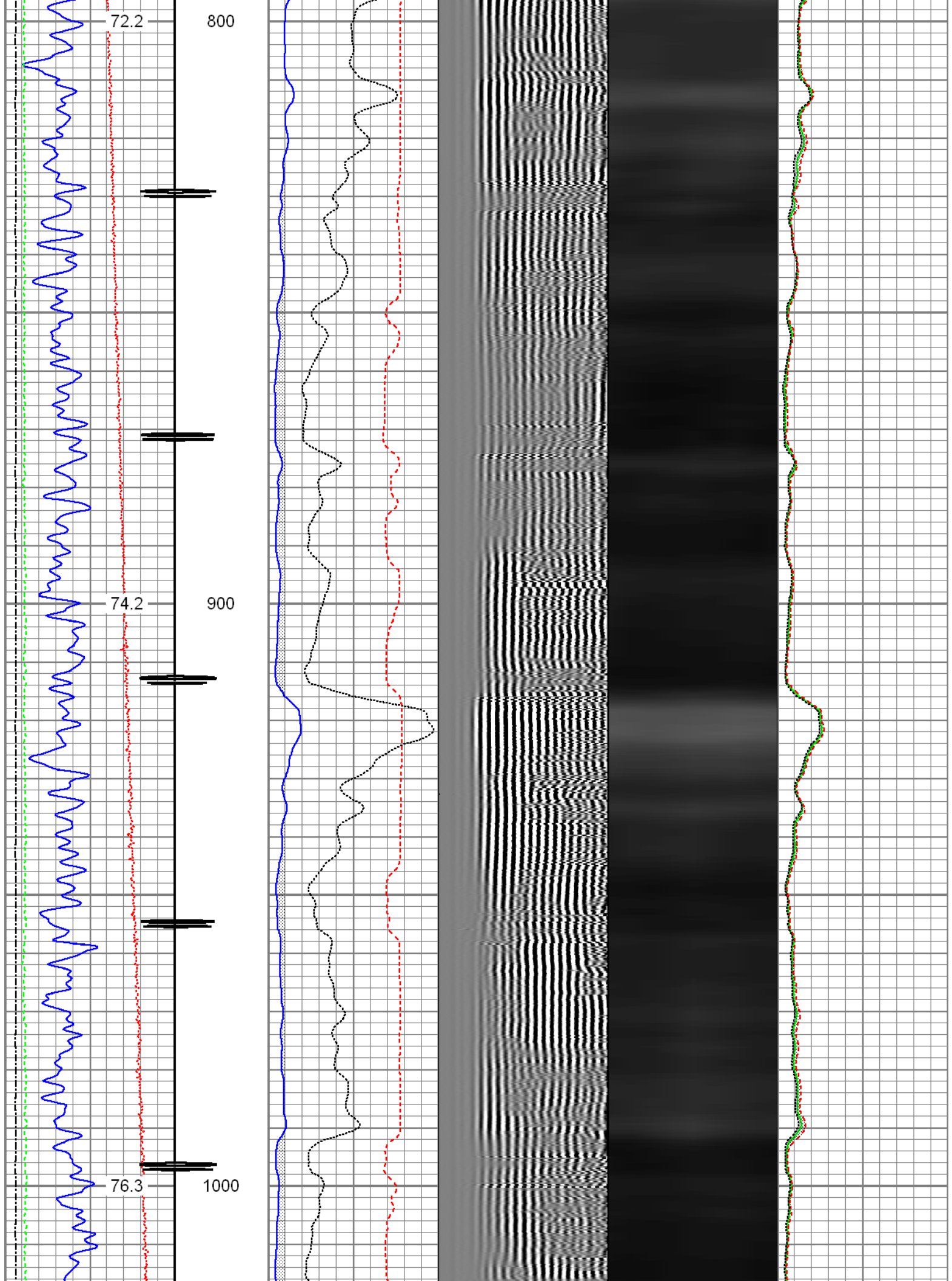
Gamma Ray 0 (GAPI) 120	3' Amplitude 0 (mV) 100	5' Variable Density Log 200 1200	Sector Map	Average Amplitude 0 100
Temperature 0 (degF) 20	3' Amplitude x 5 0 (mV) 20			Minimum Amplitude 0 100
Line Speed -150 (ft/min) 150	3' Travel Time 650 (usec) 150			Maximum Amplitude 0 100
Line Tension 0 (lb) 2000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

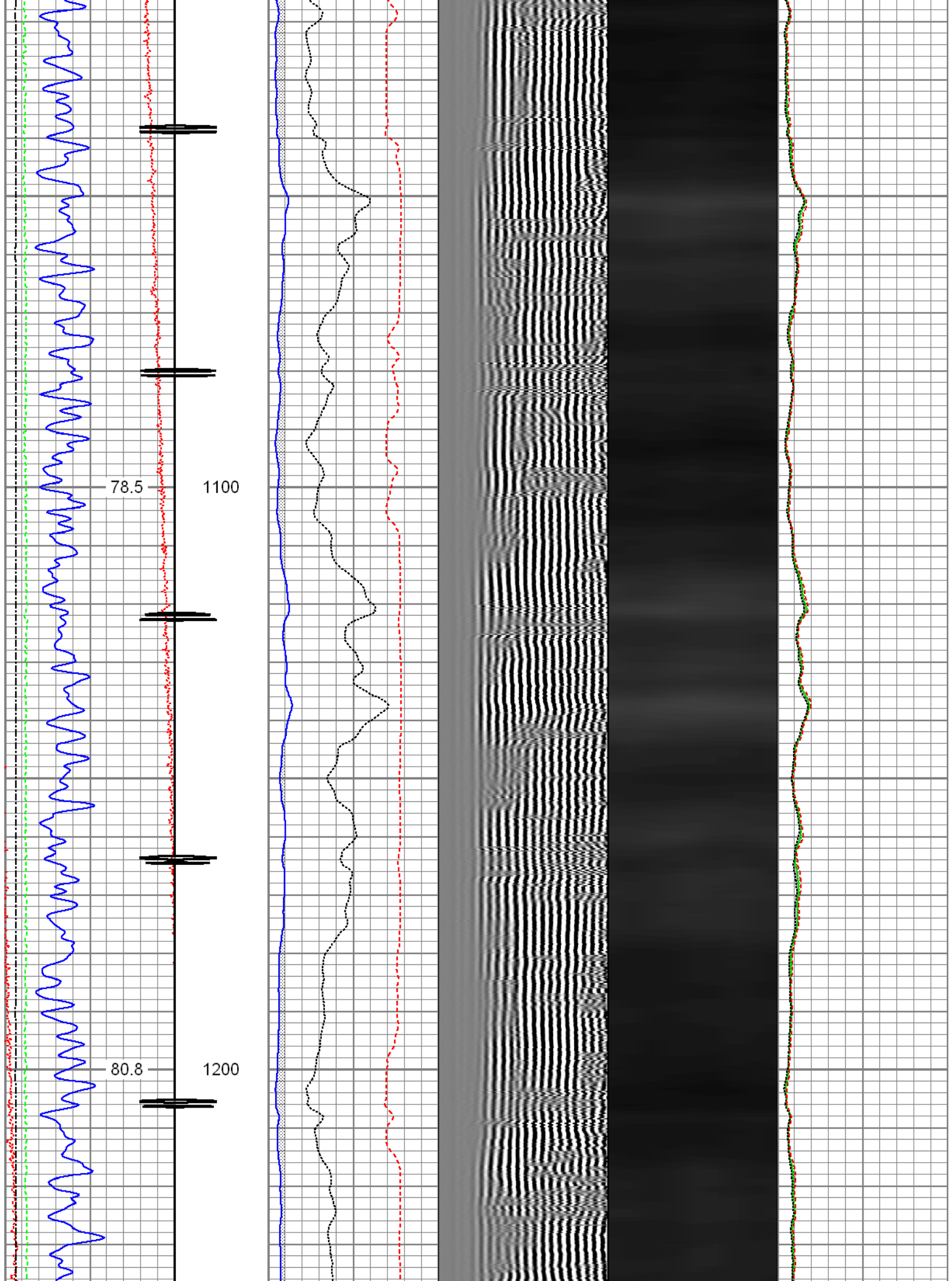


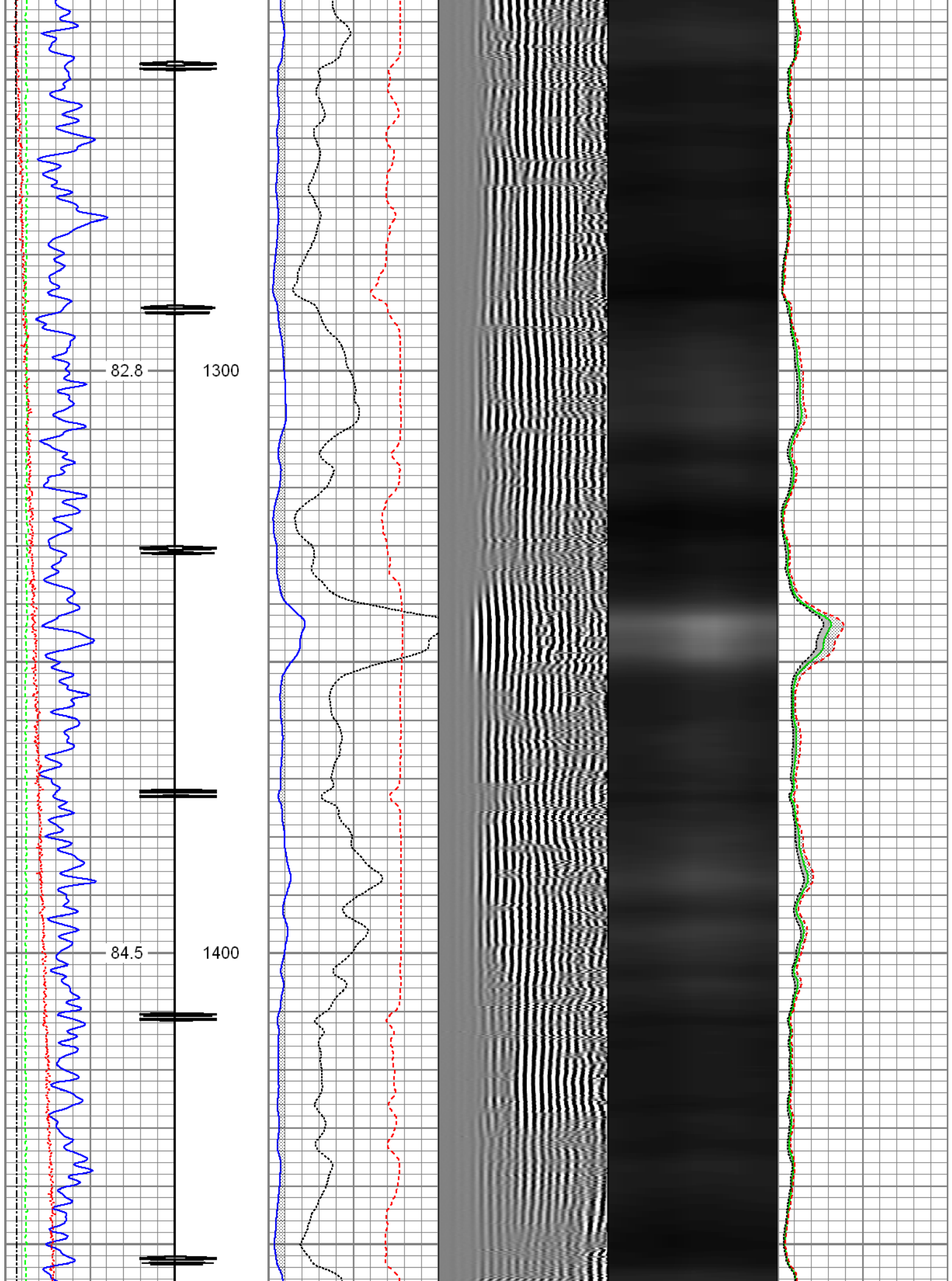


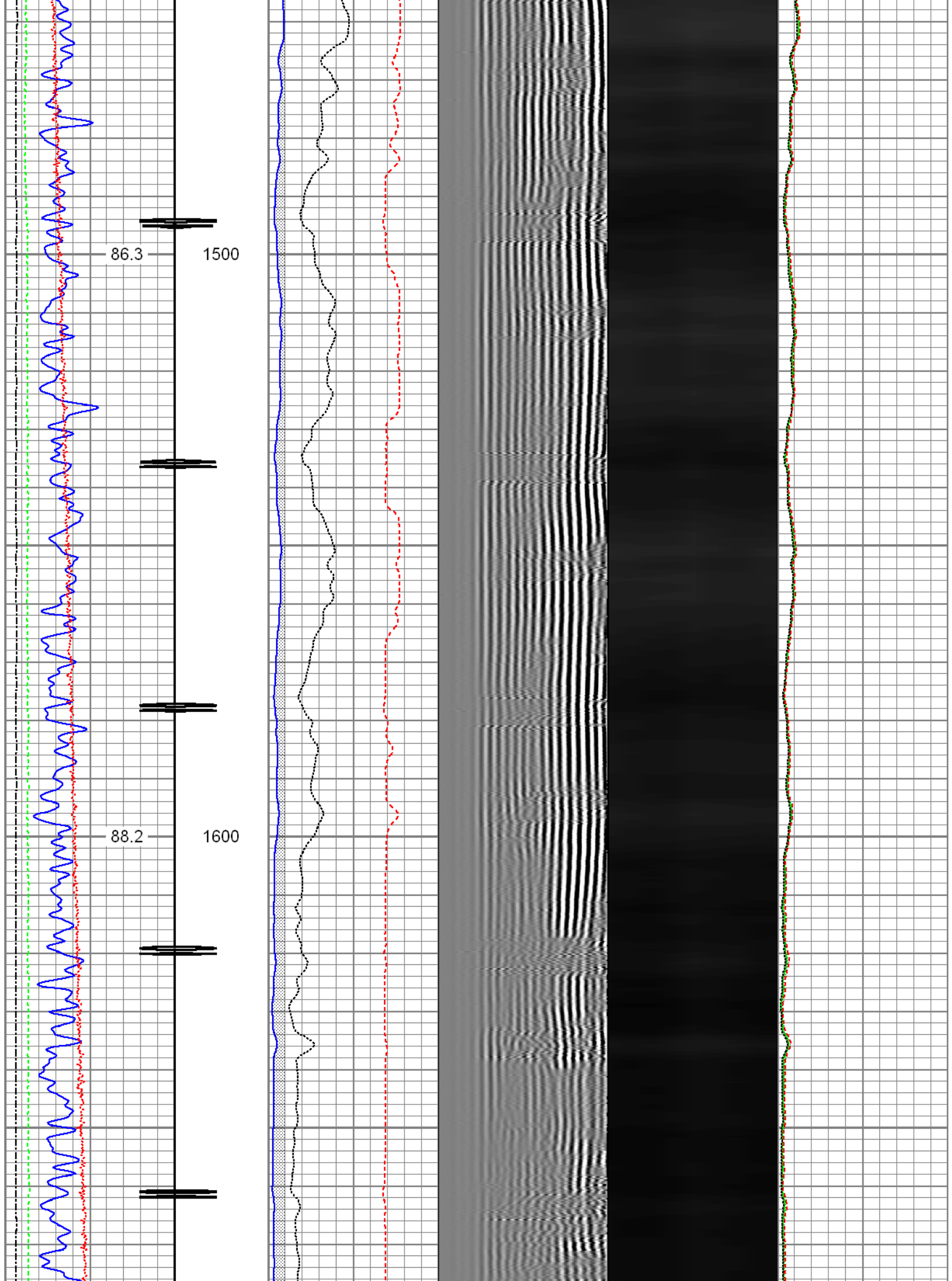


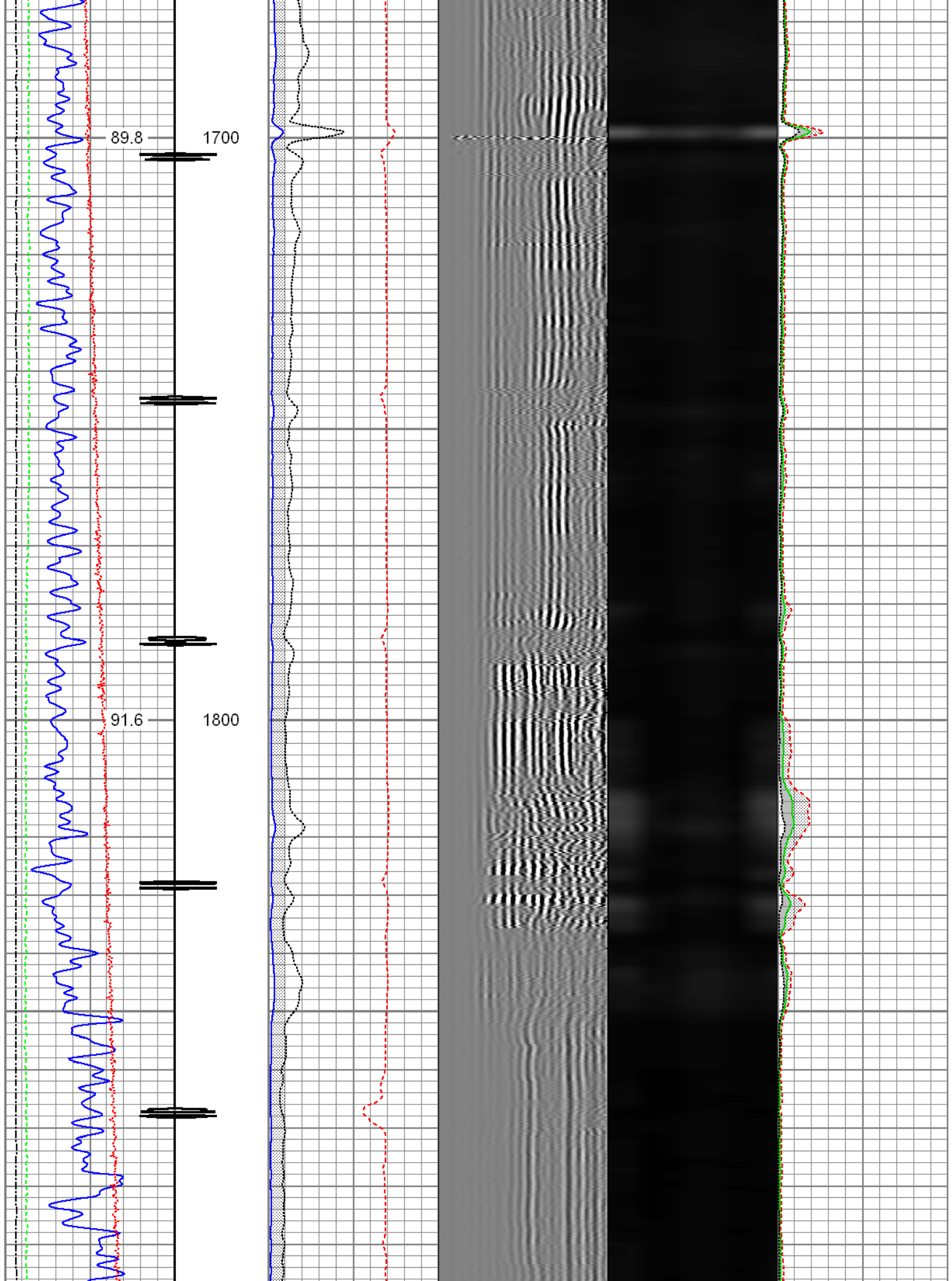


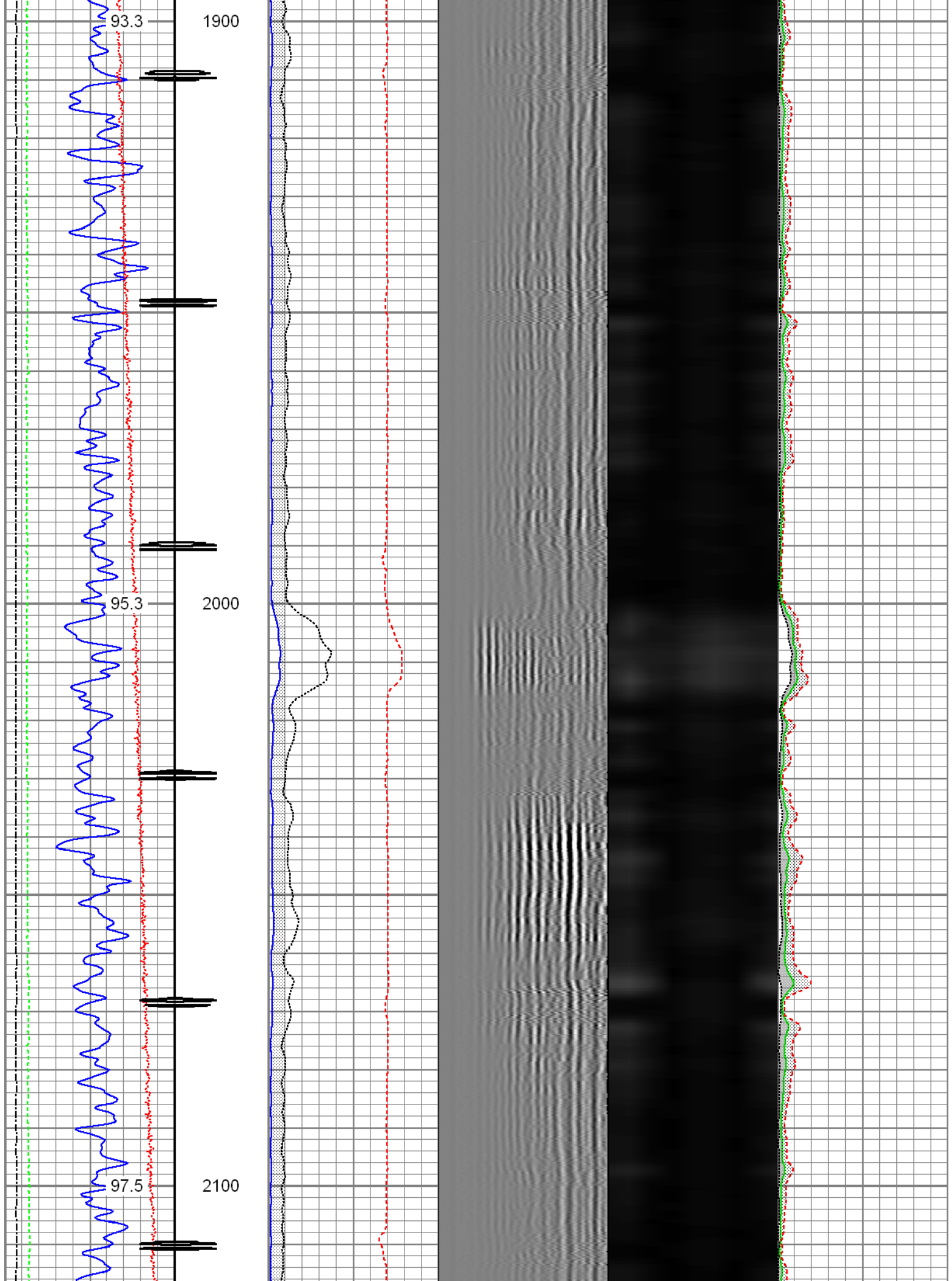


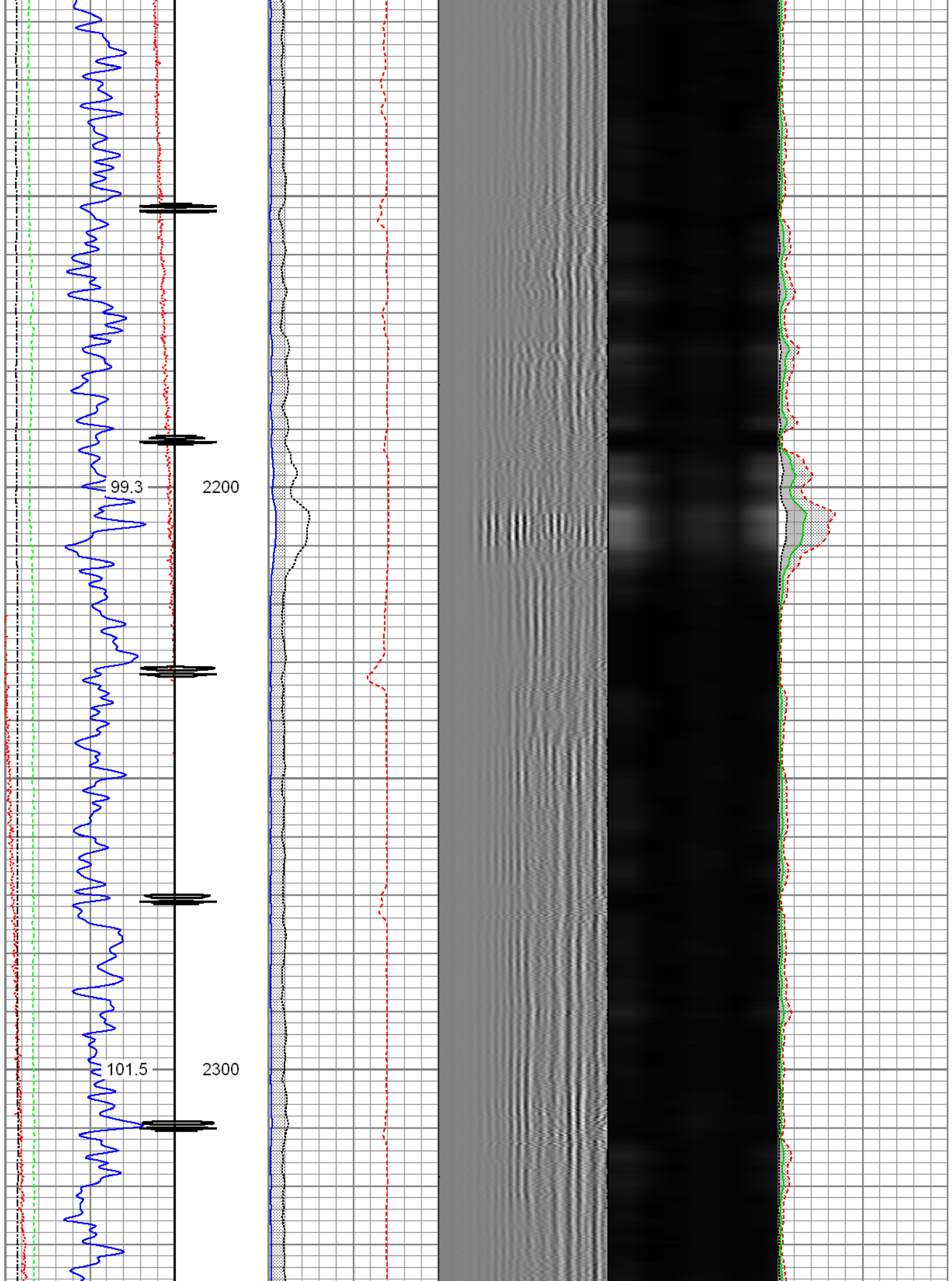


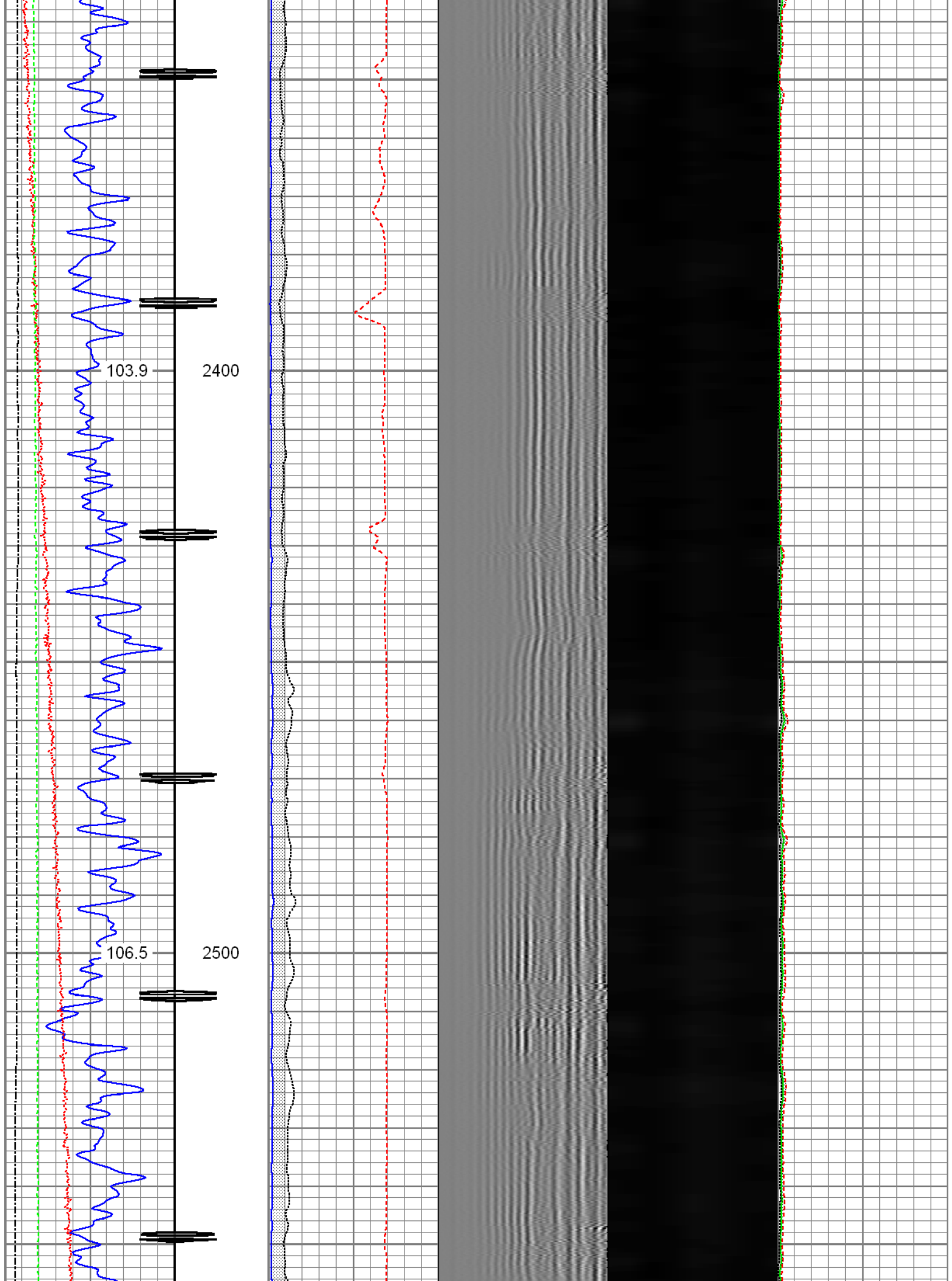


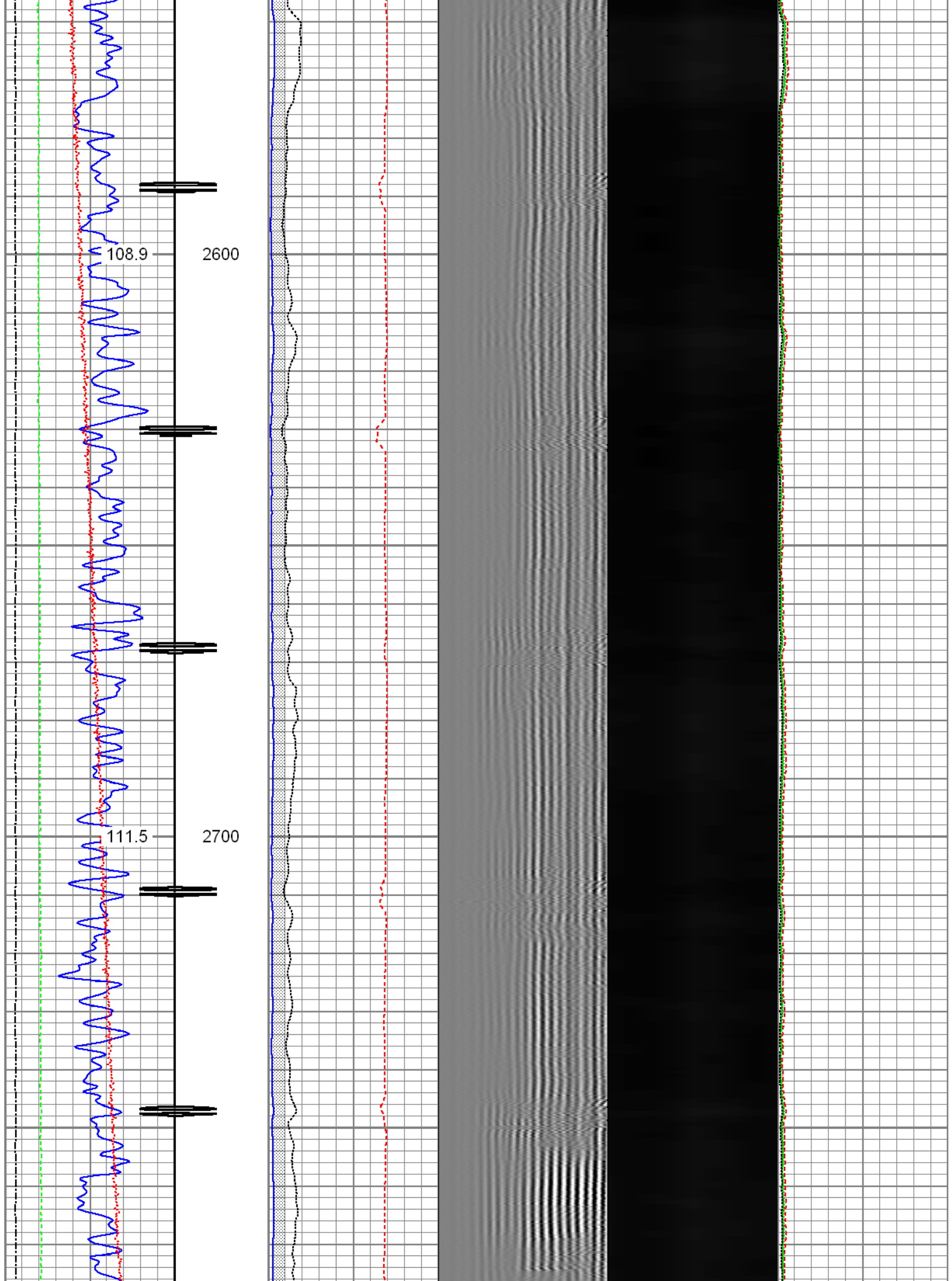


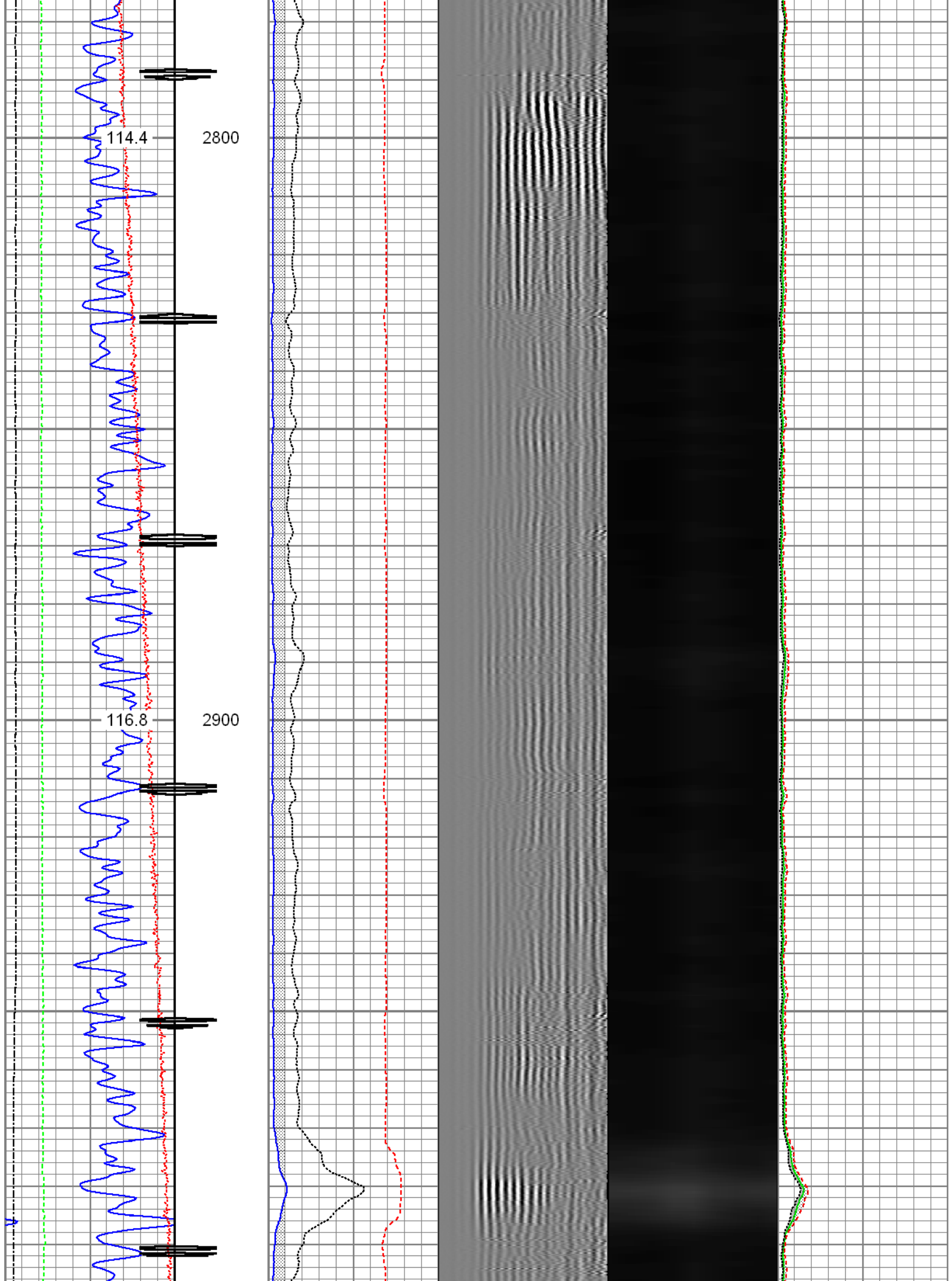


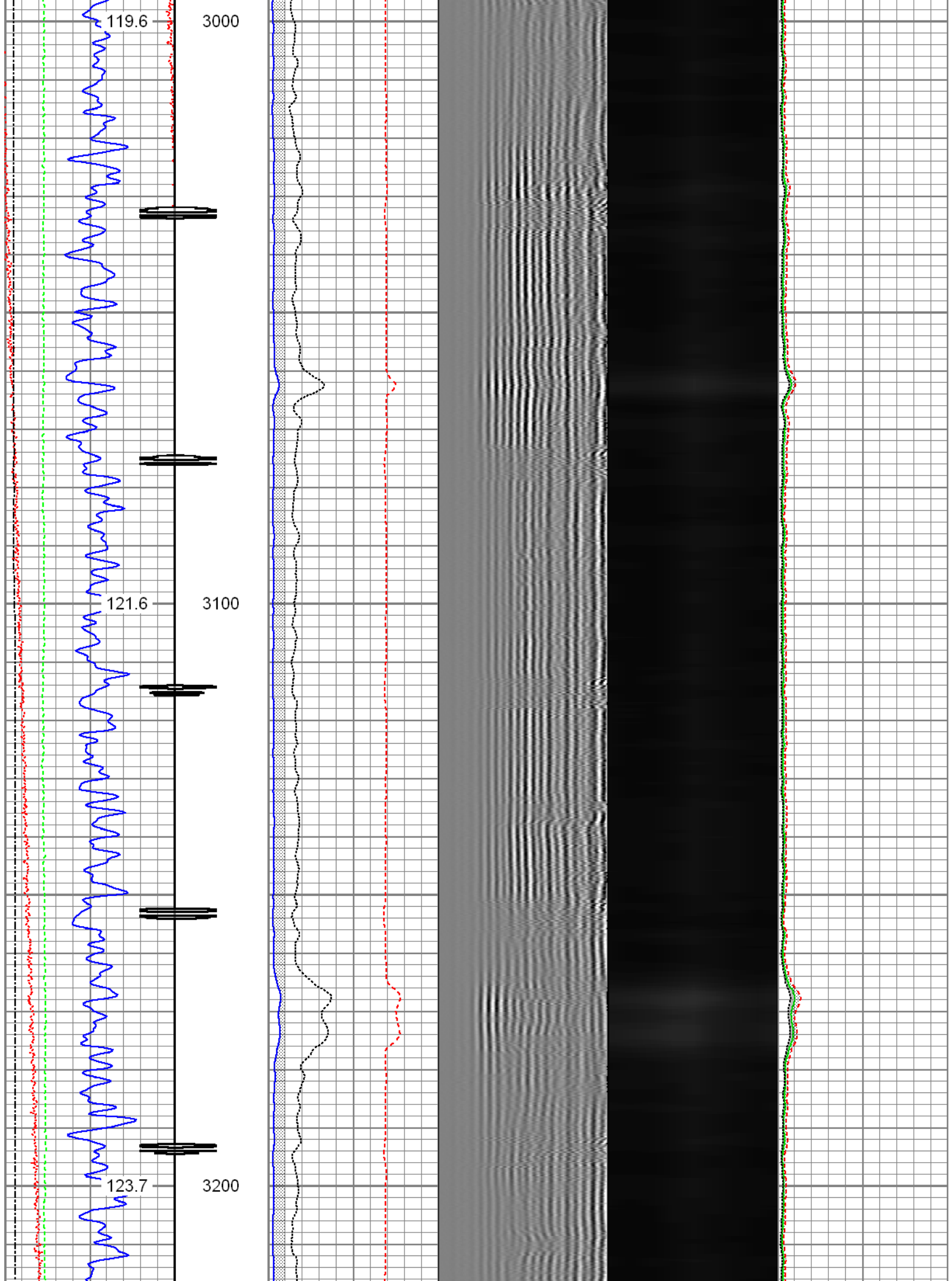


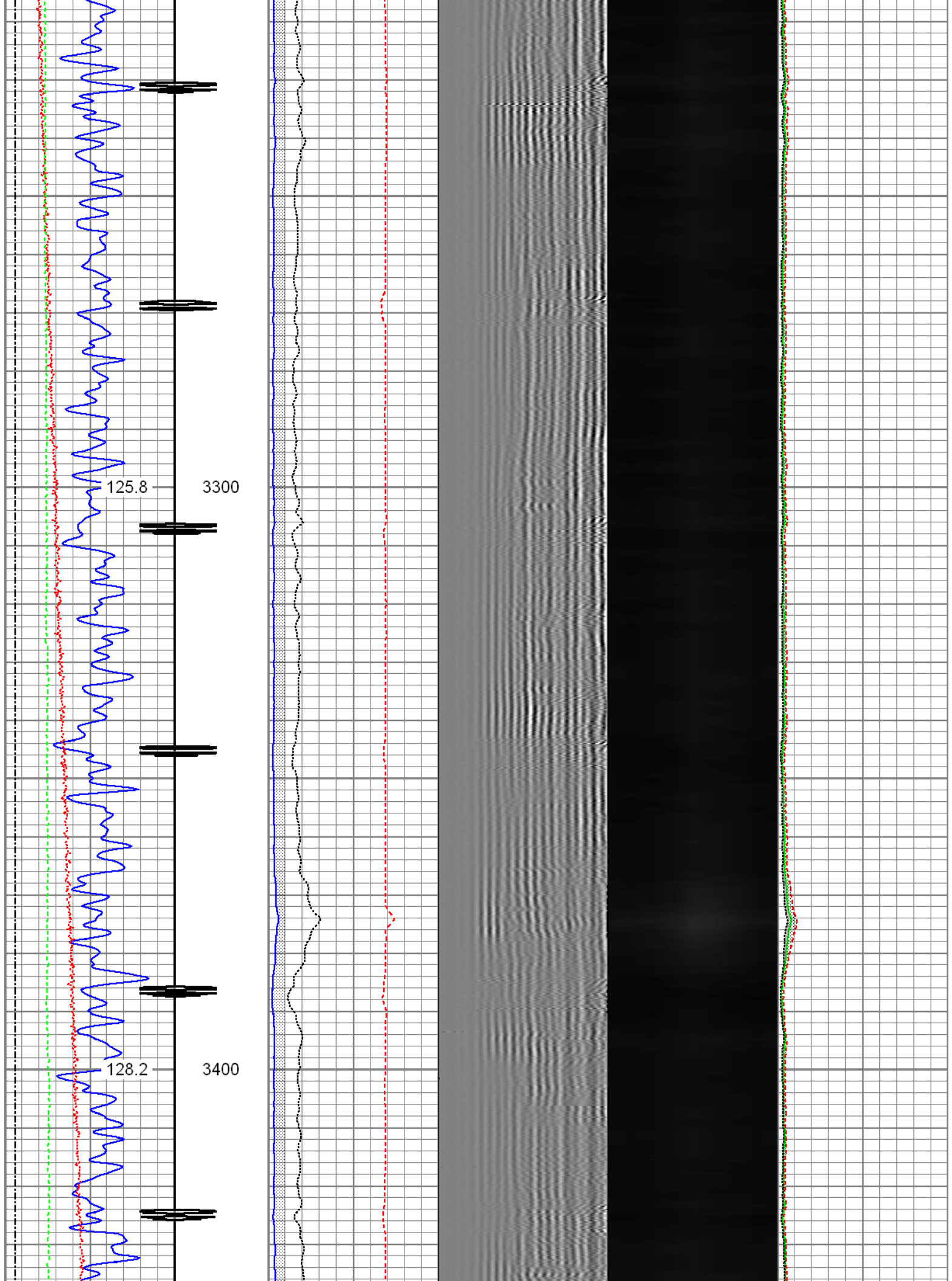


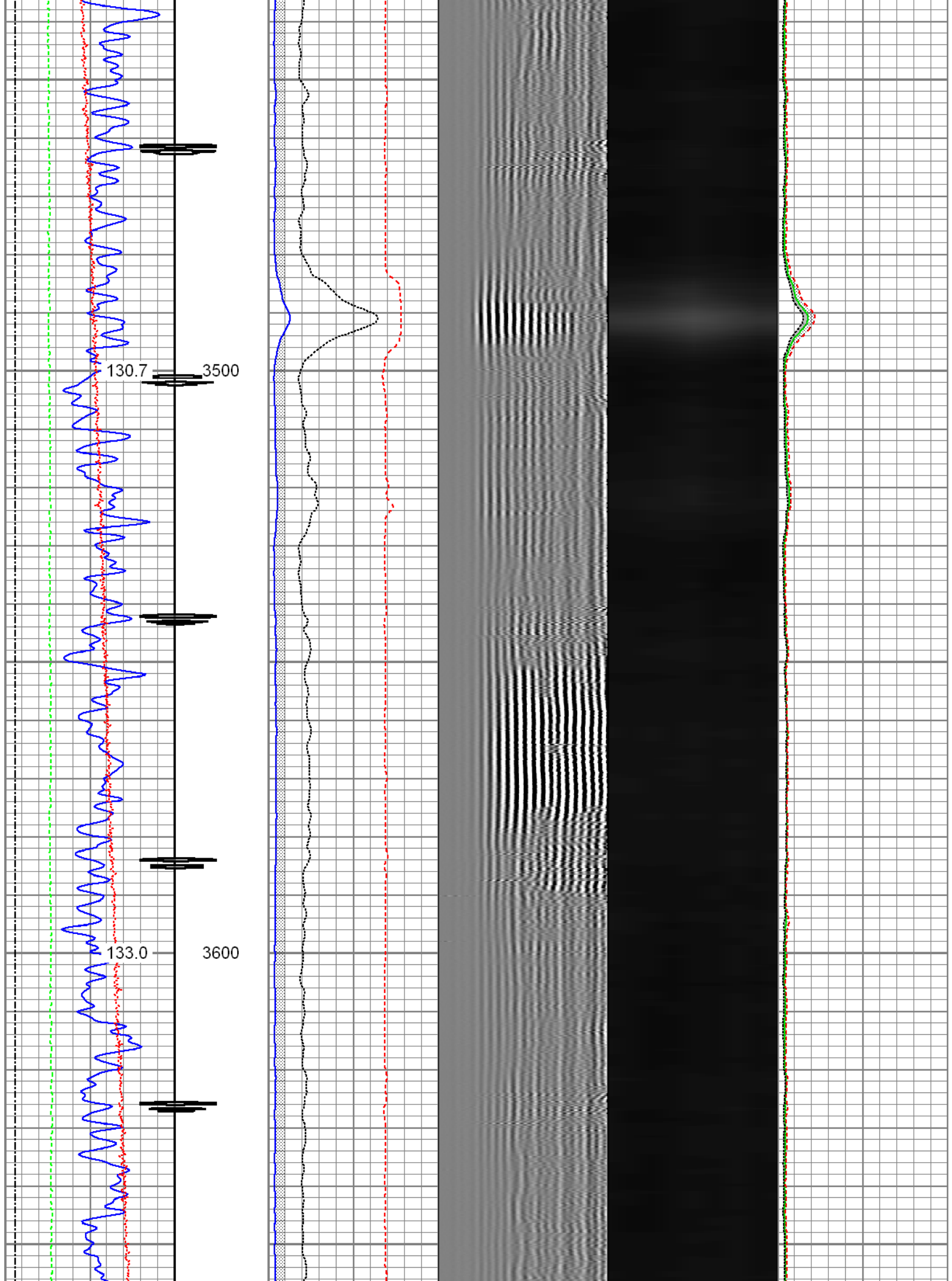




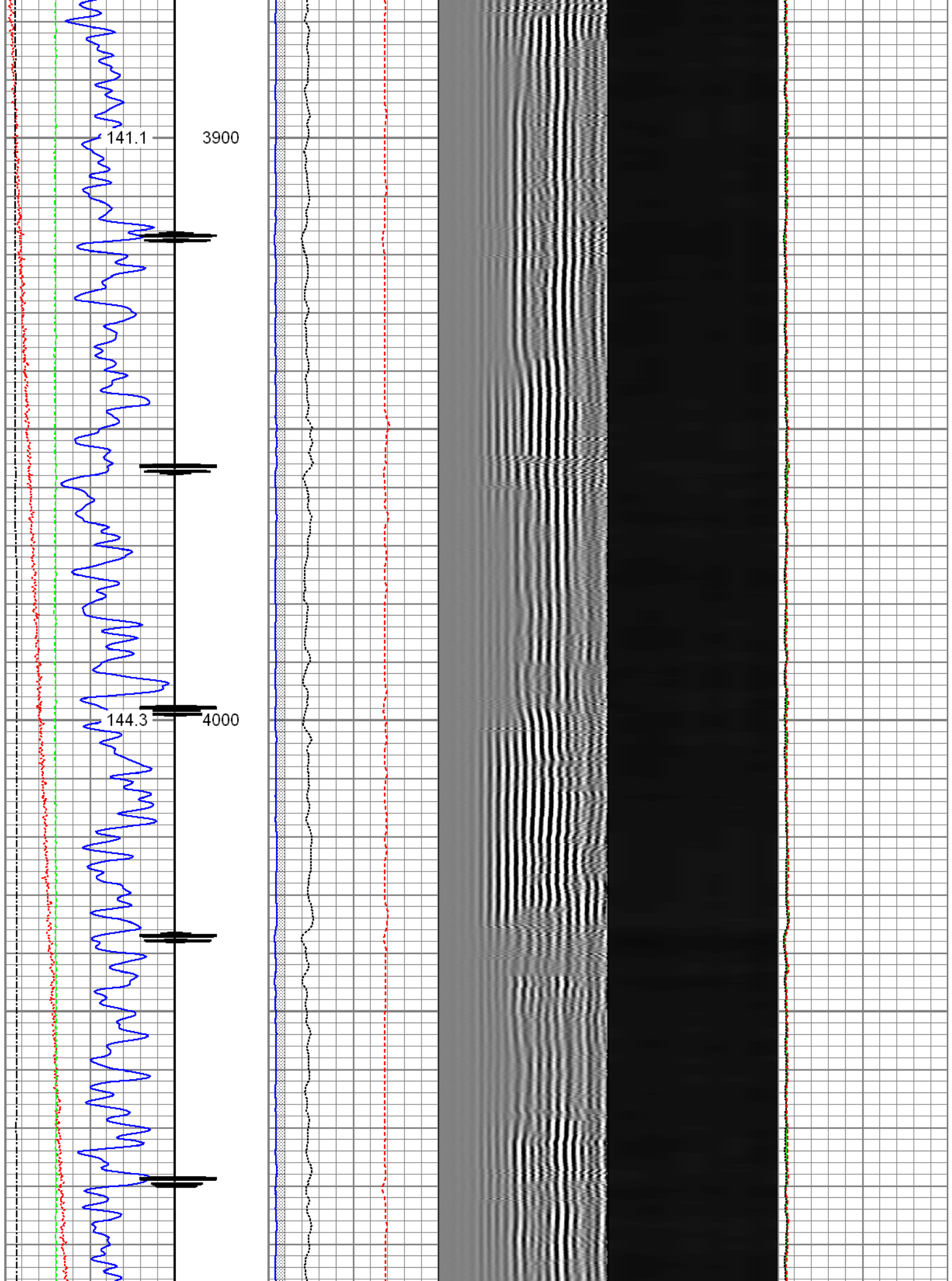


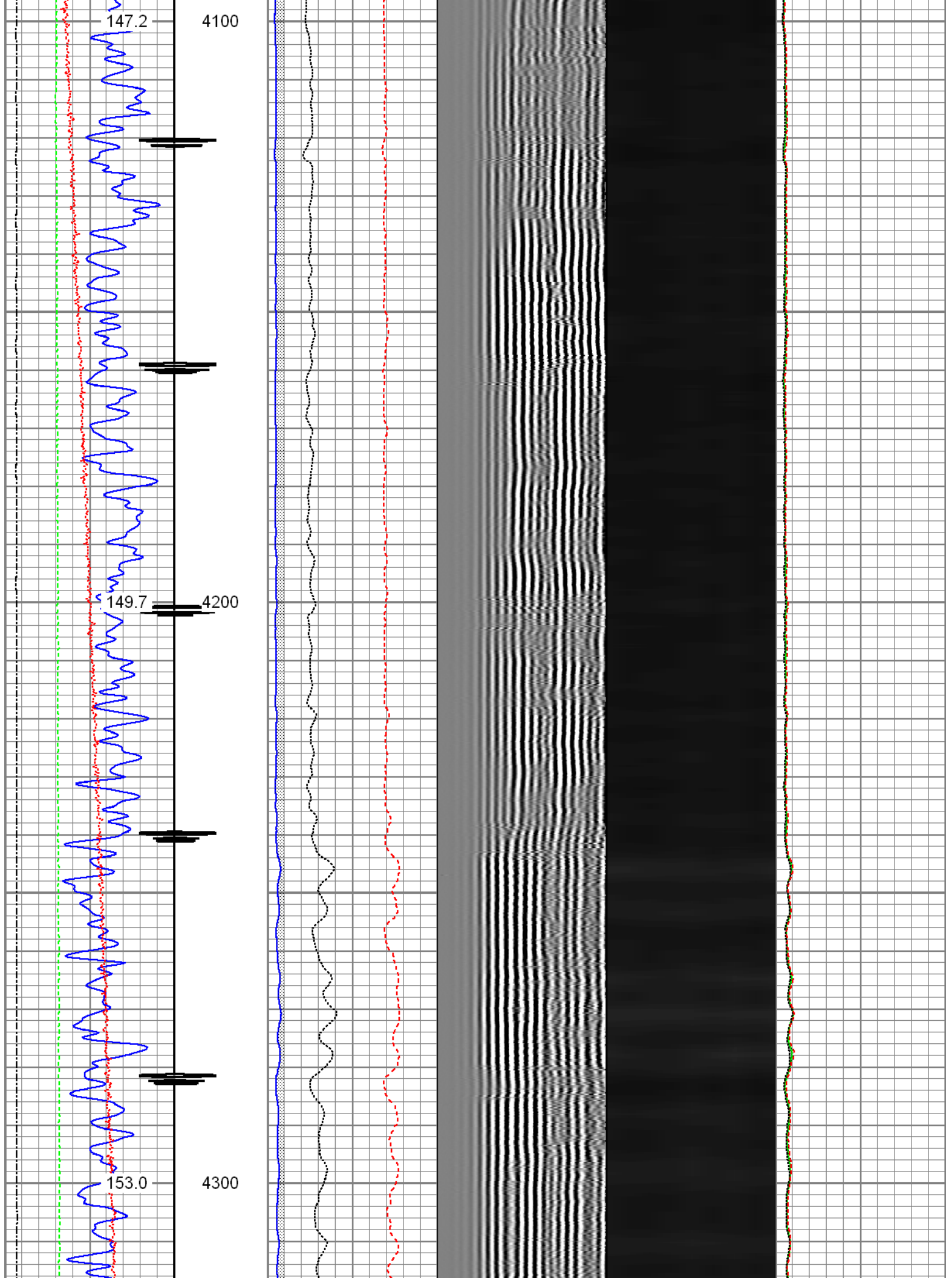


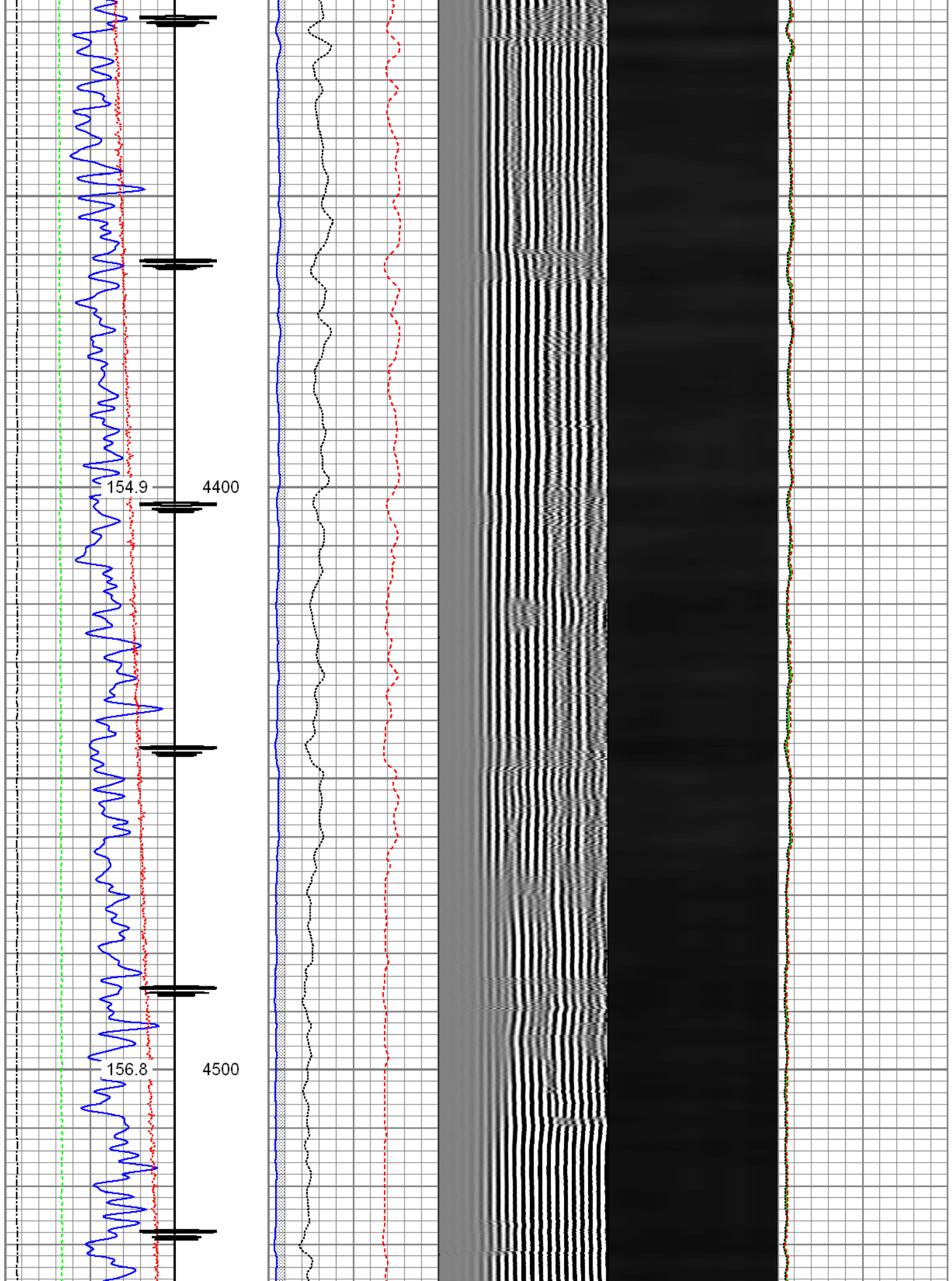


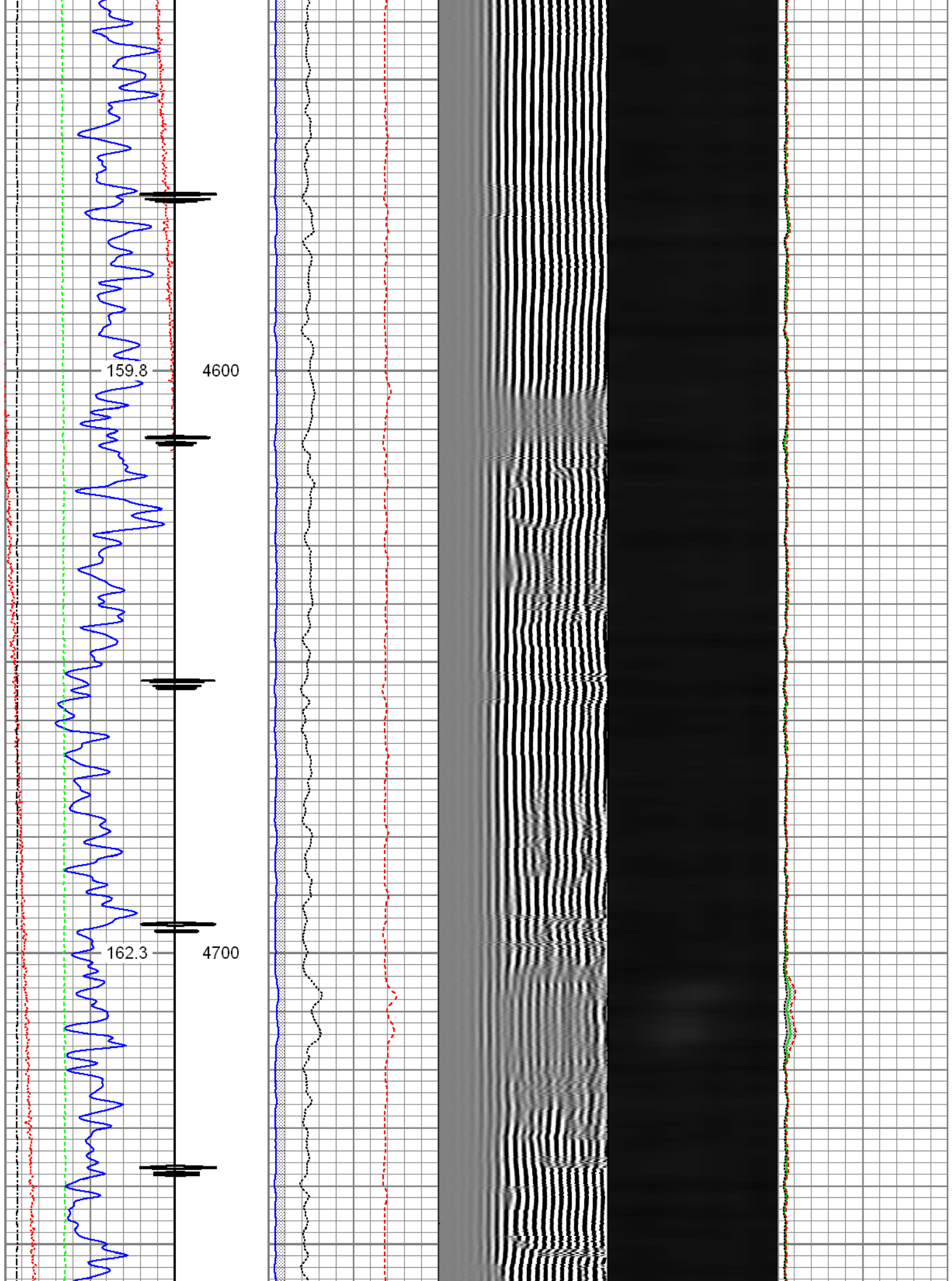


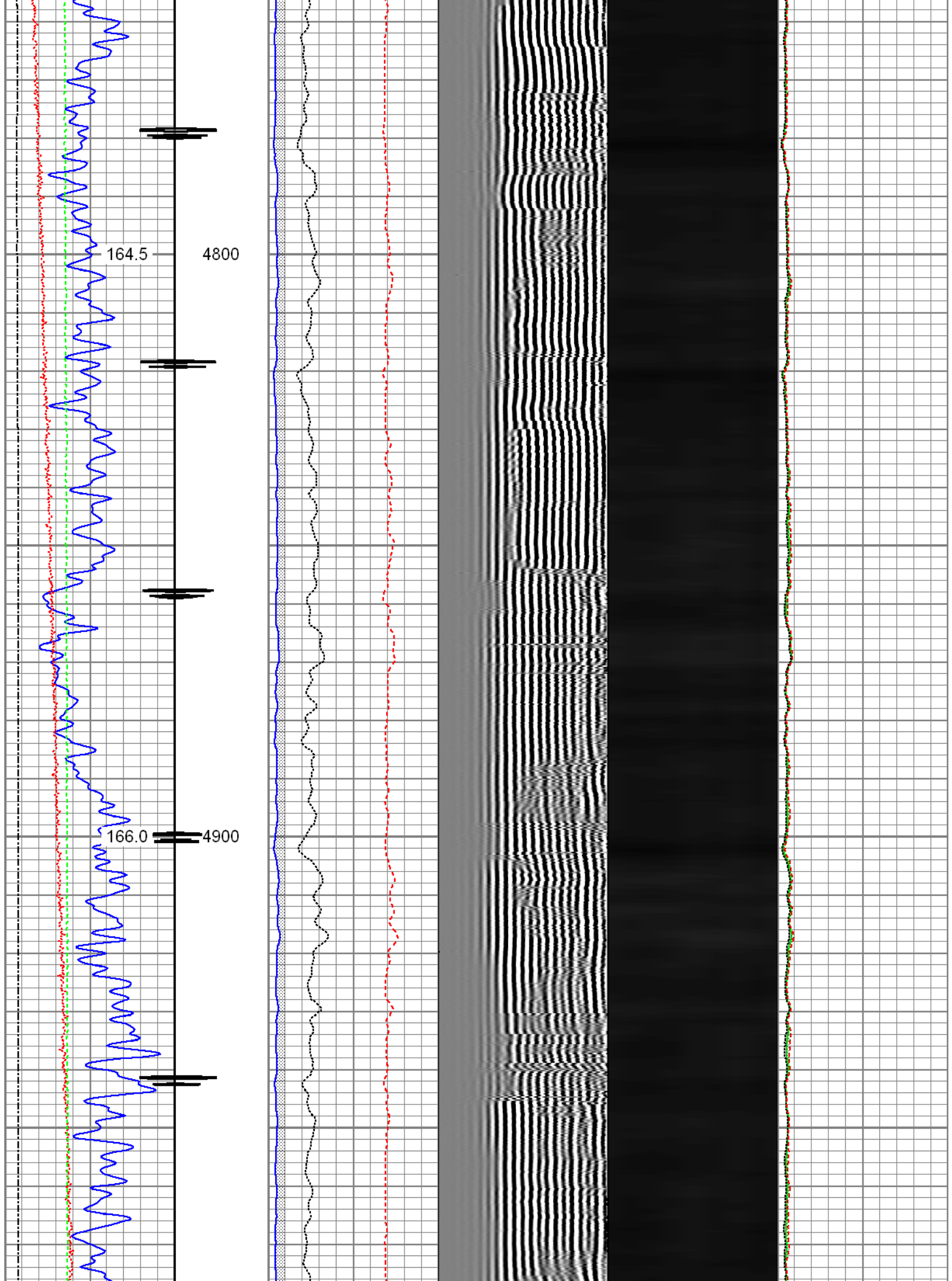


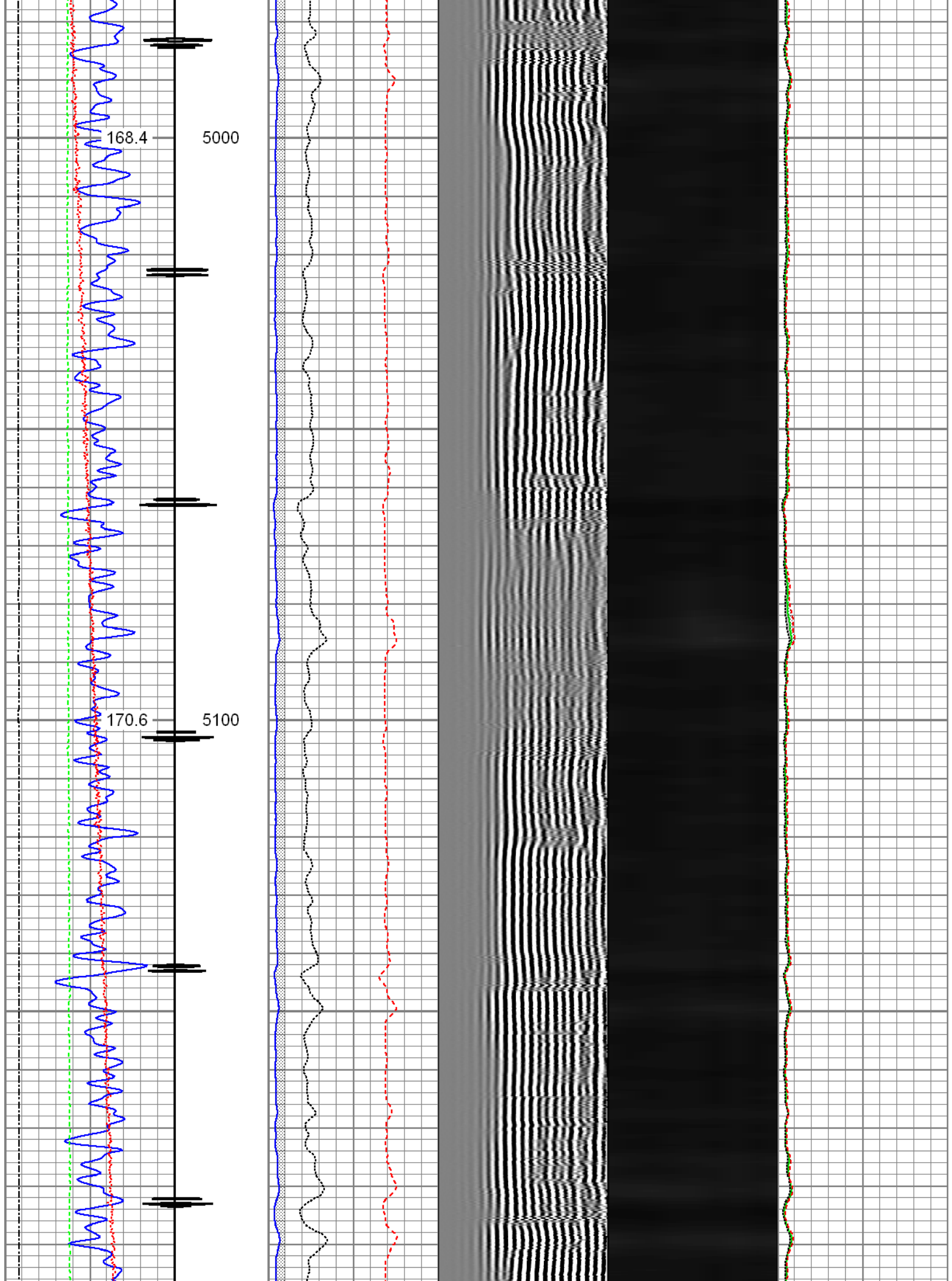


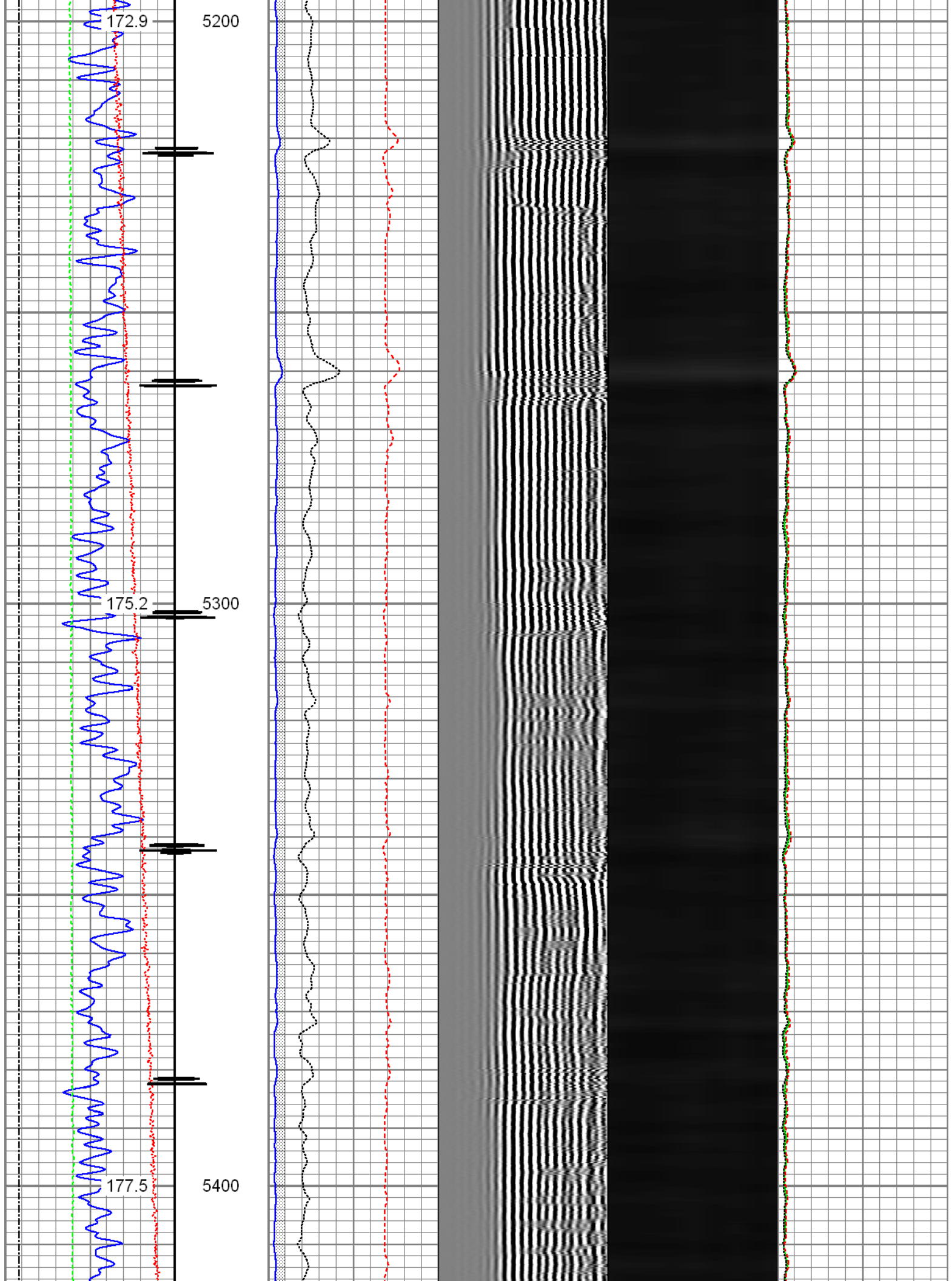


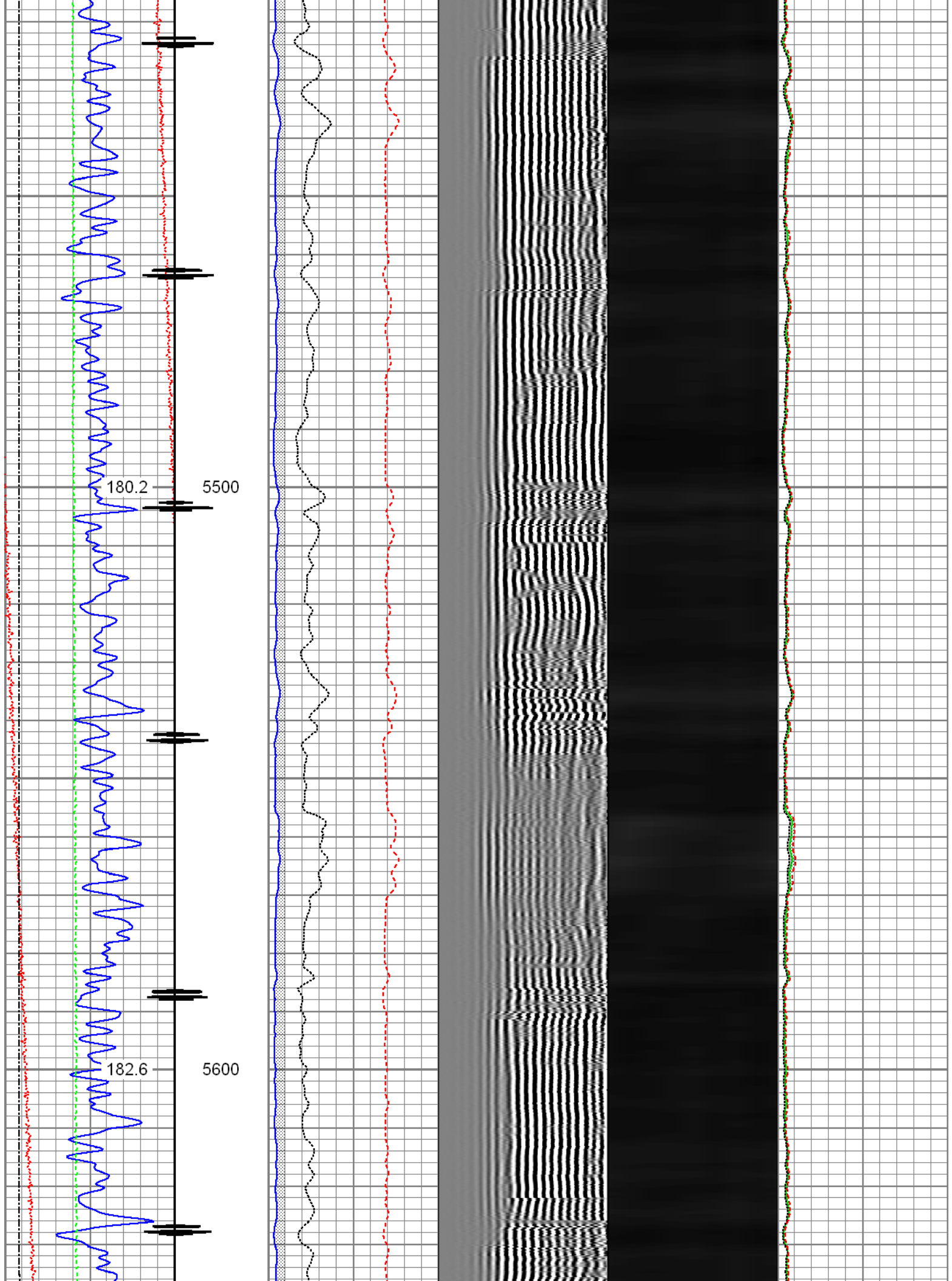


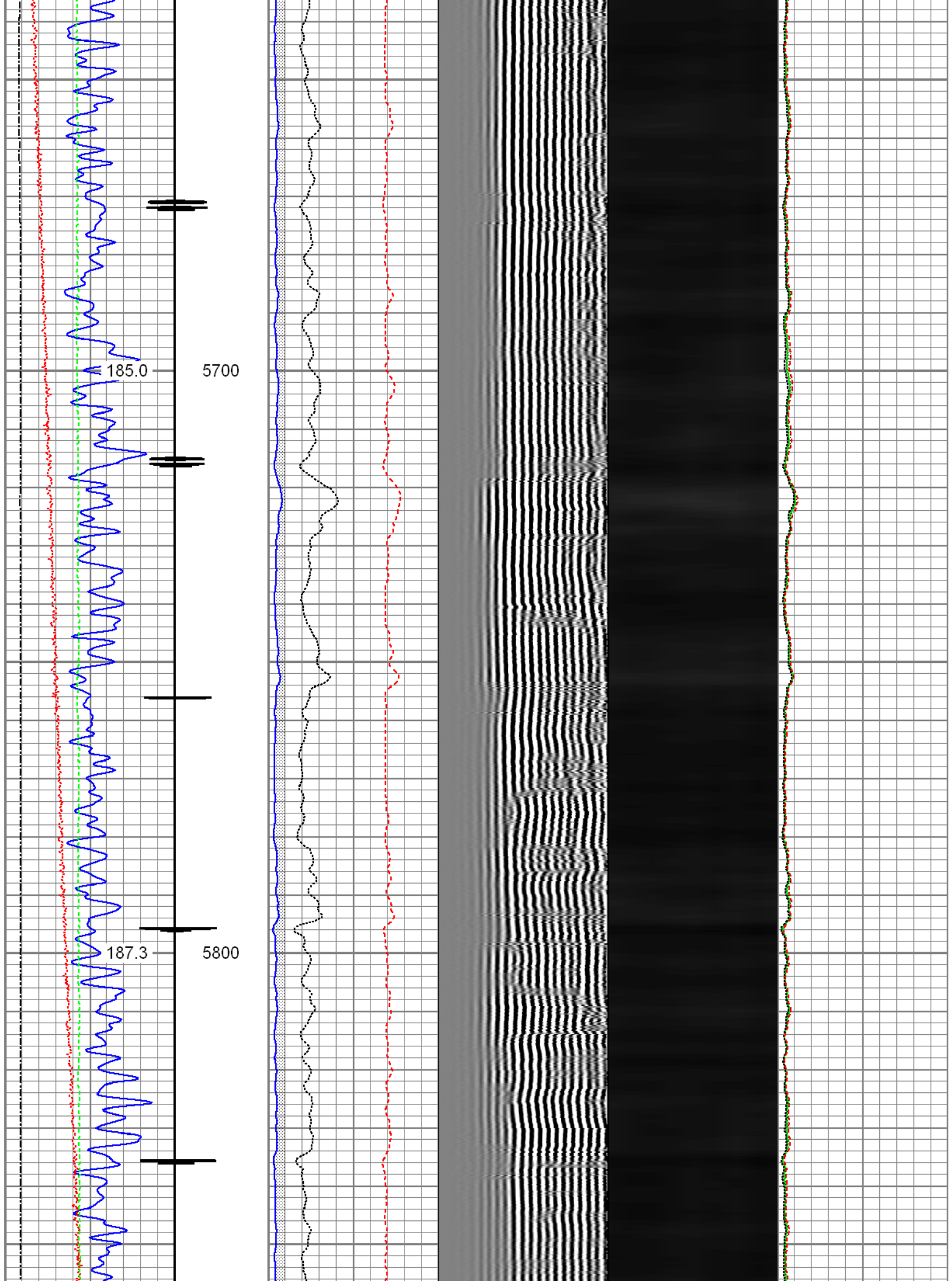


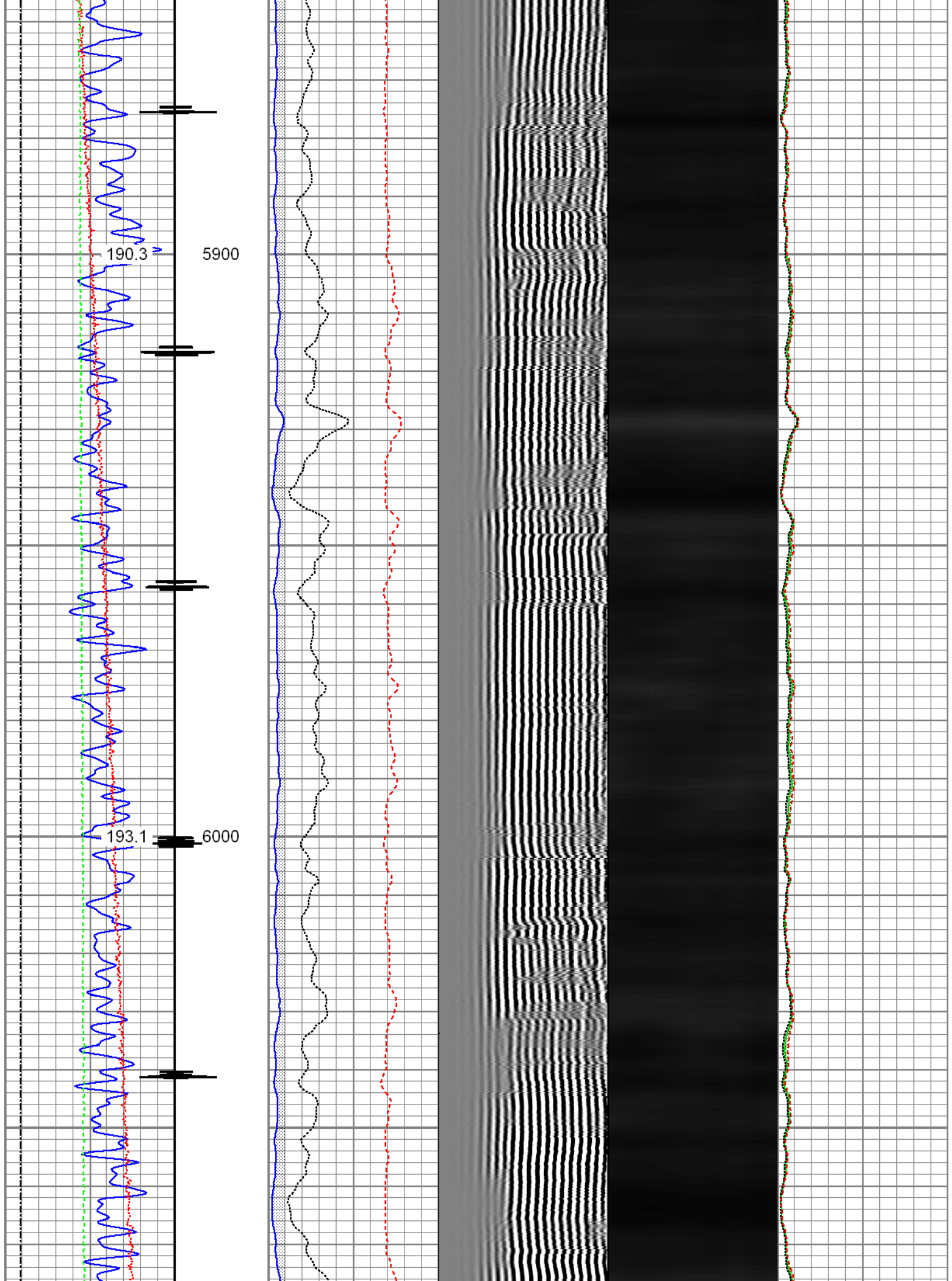


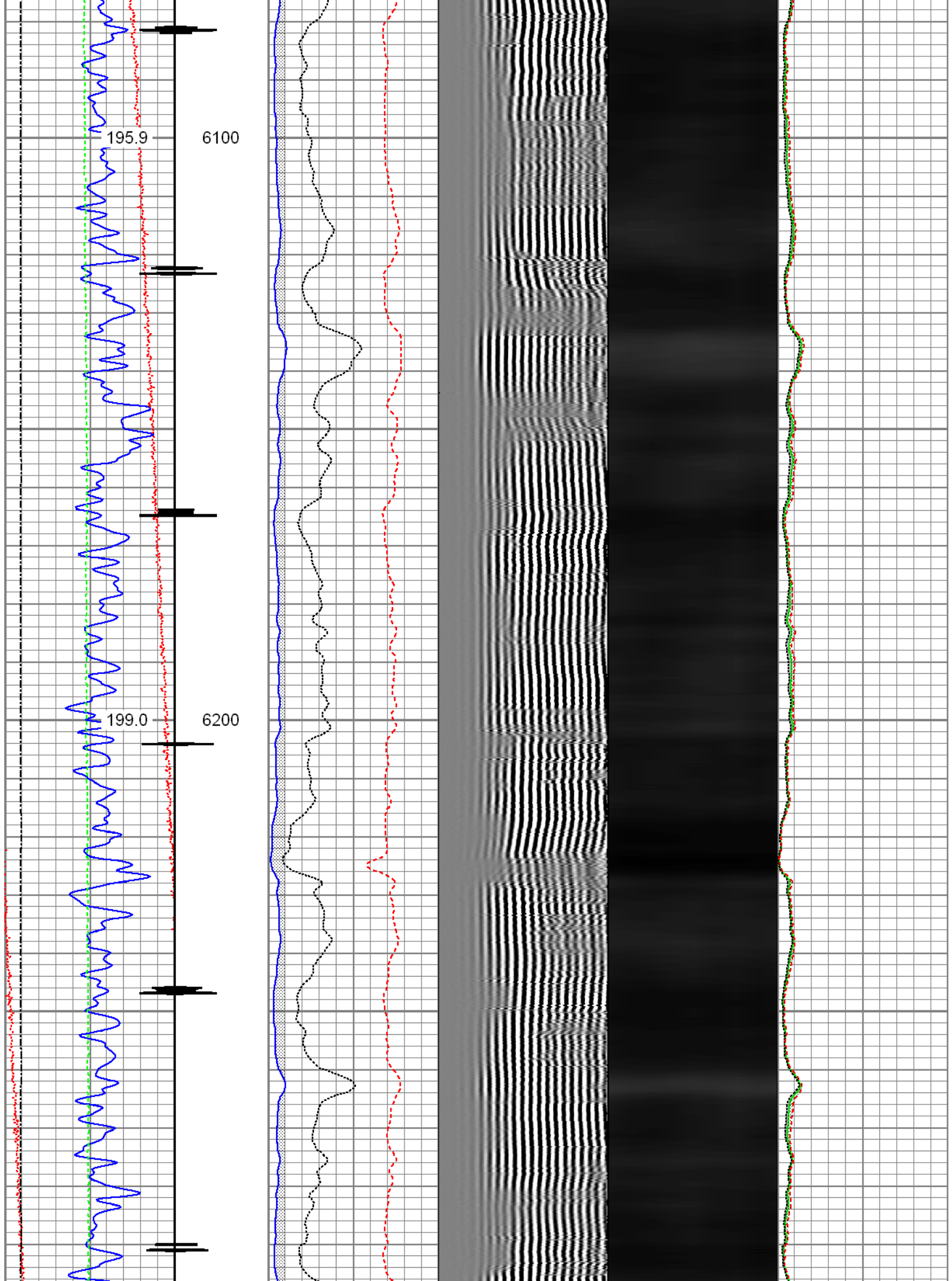


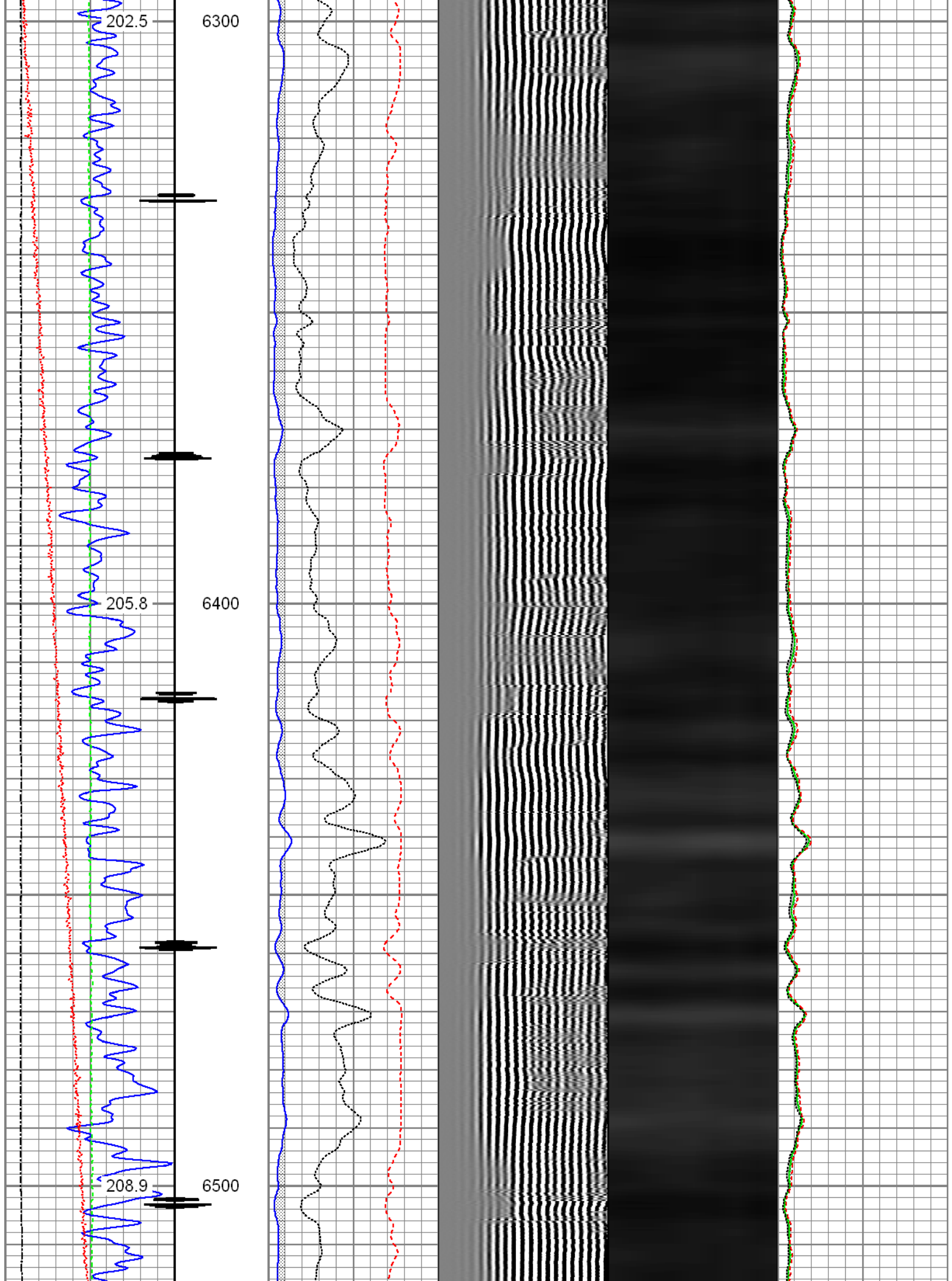


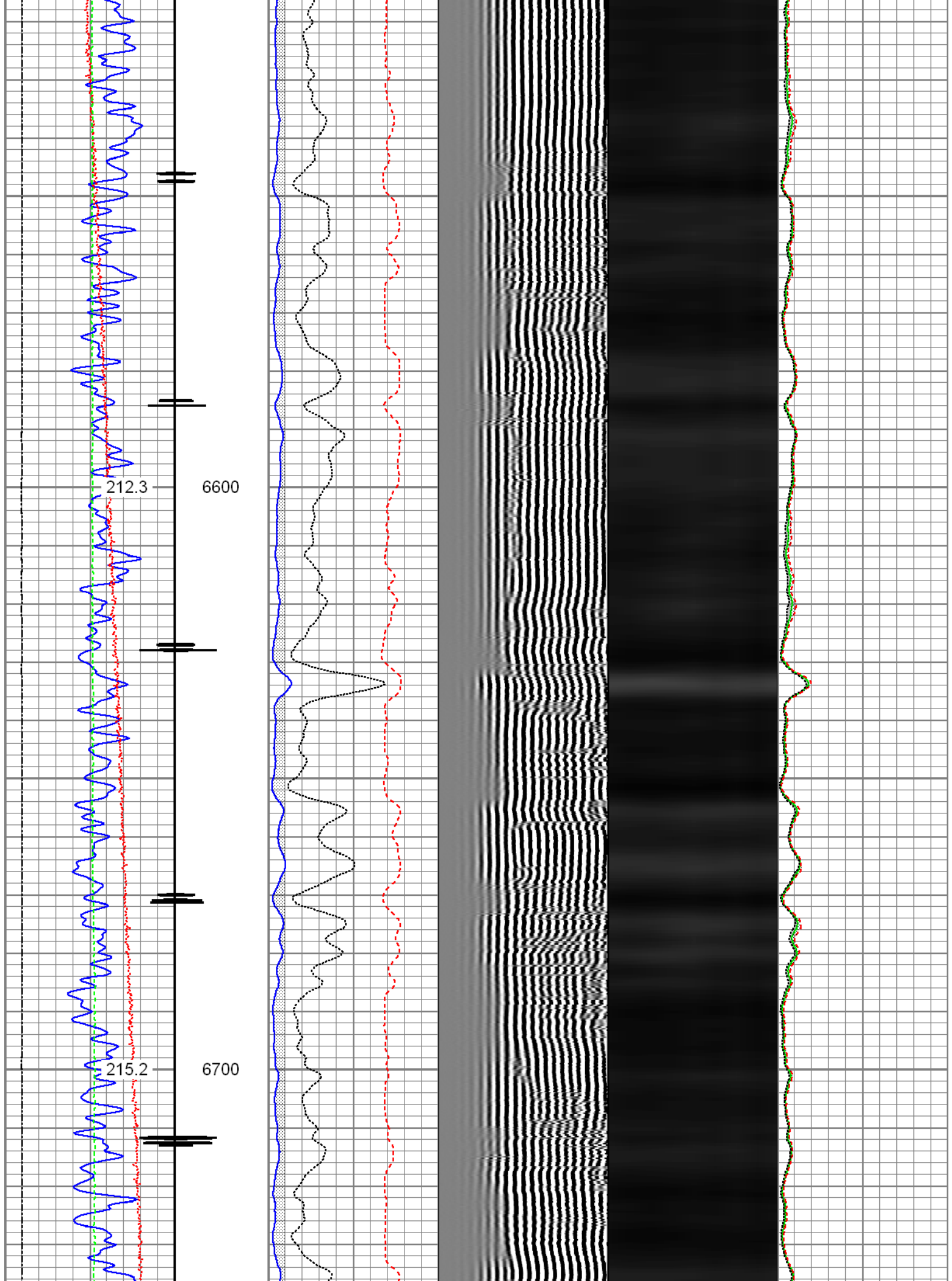


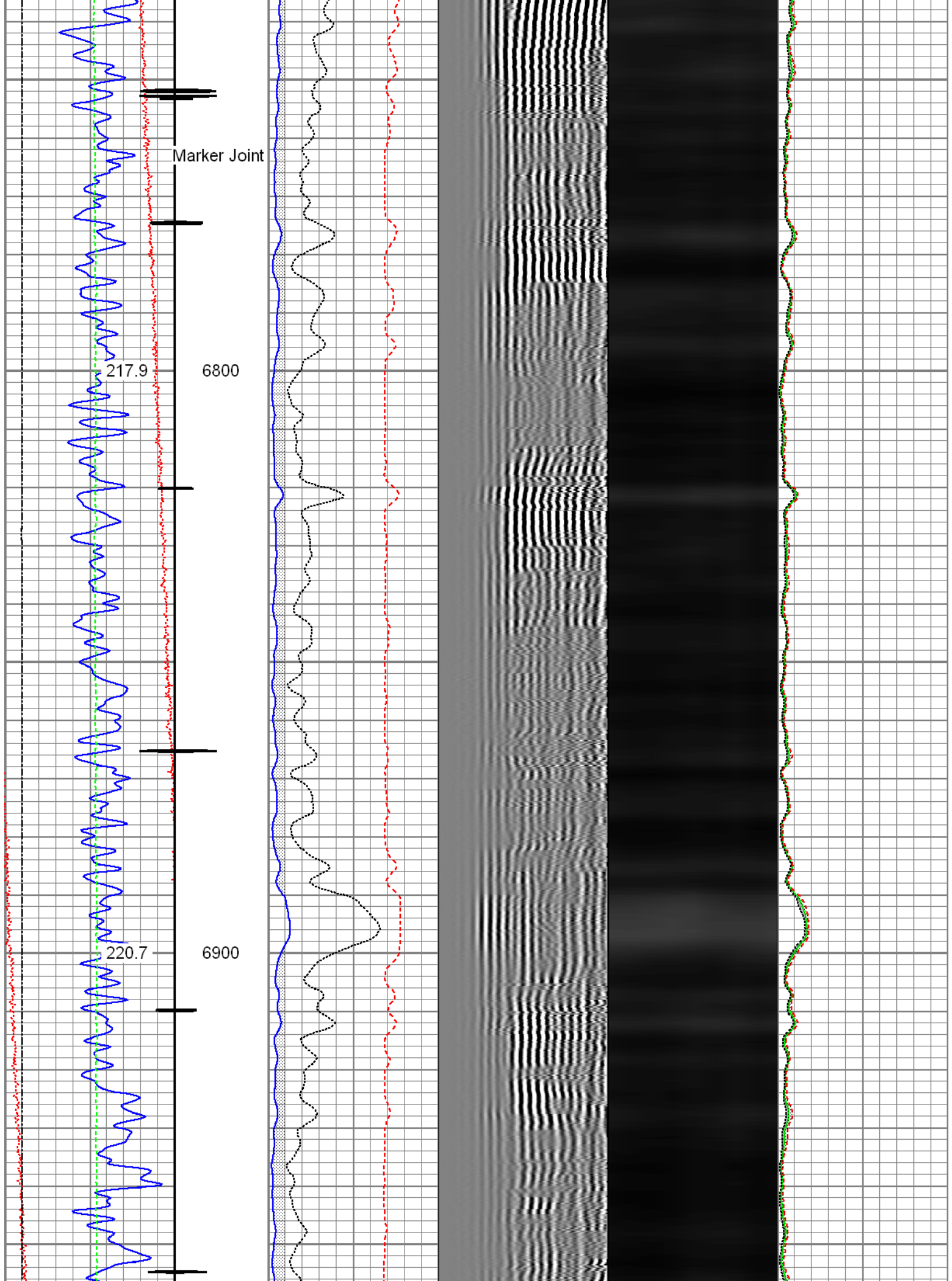


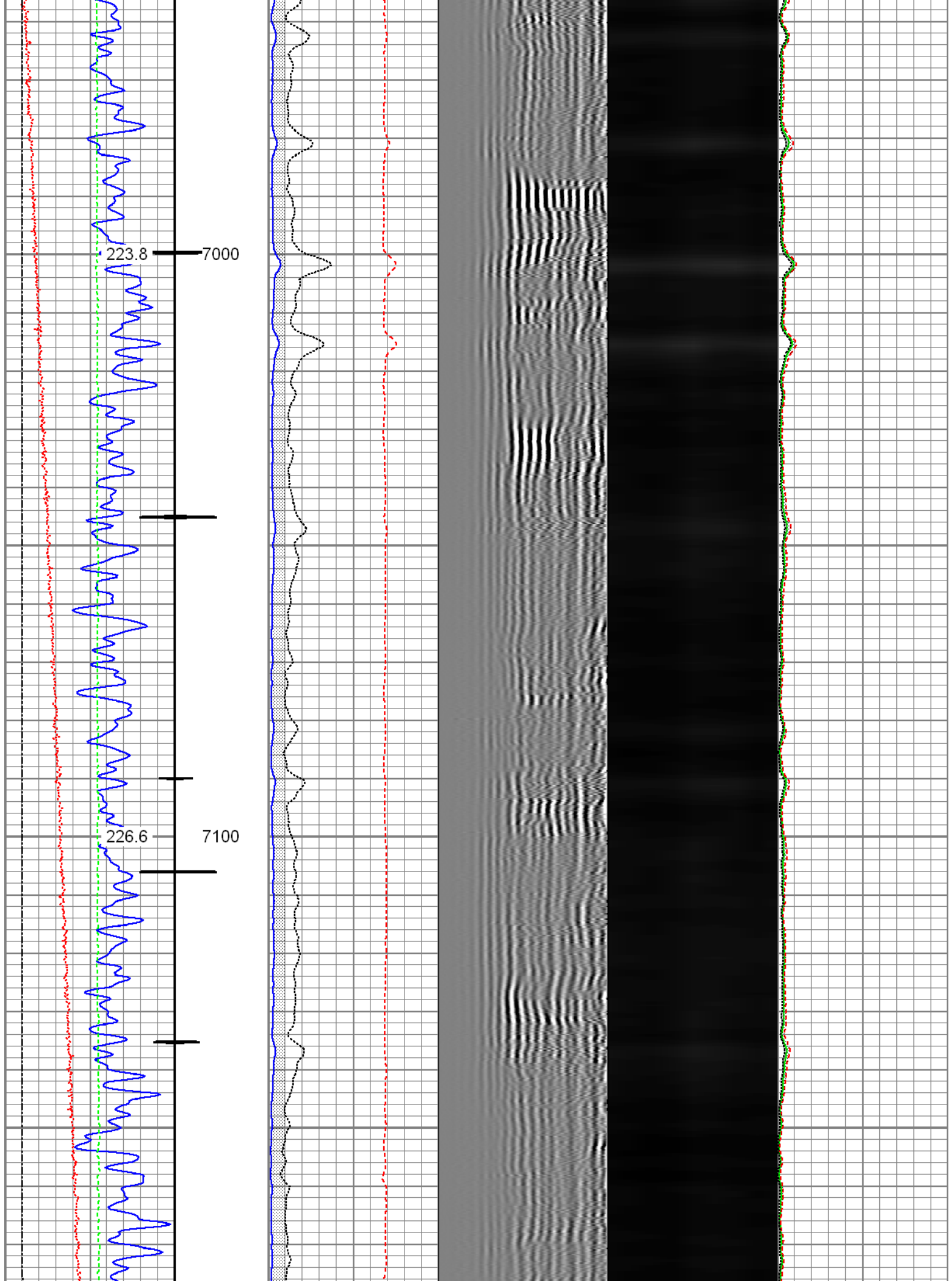


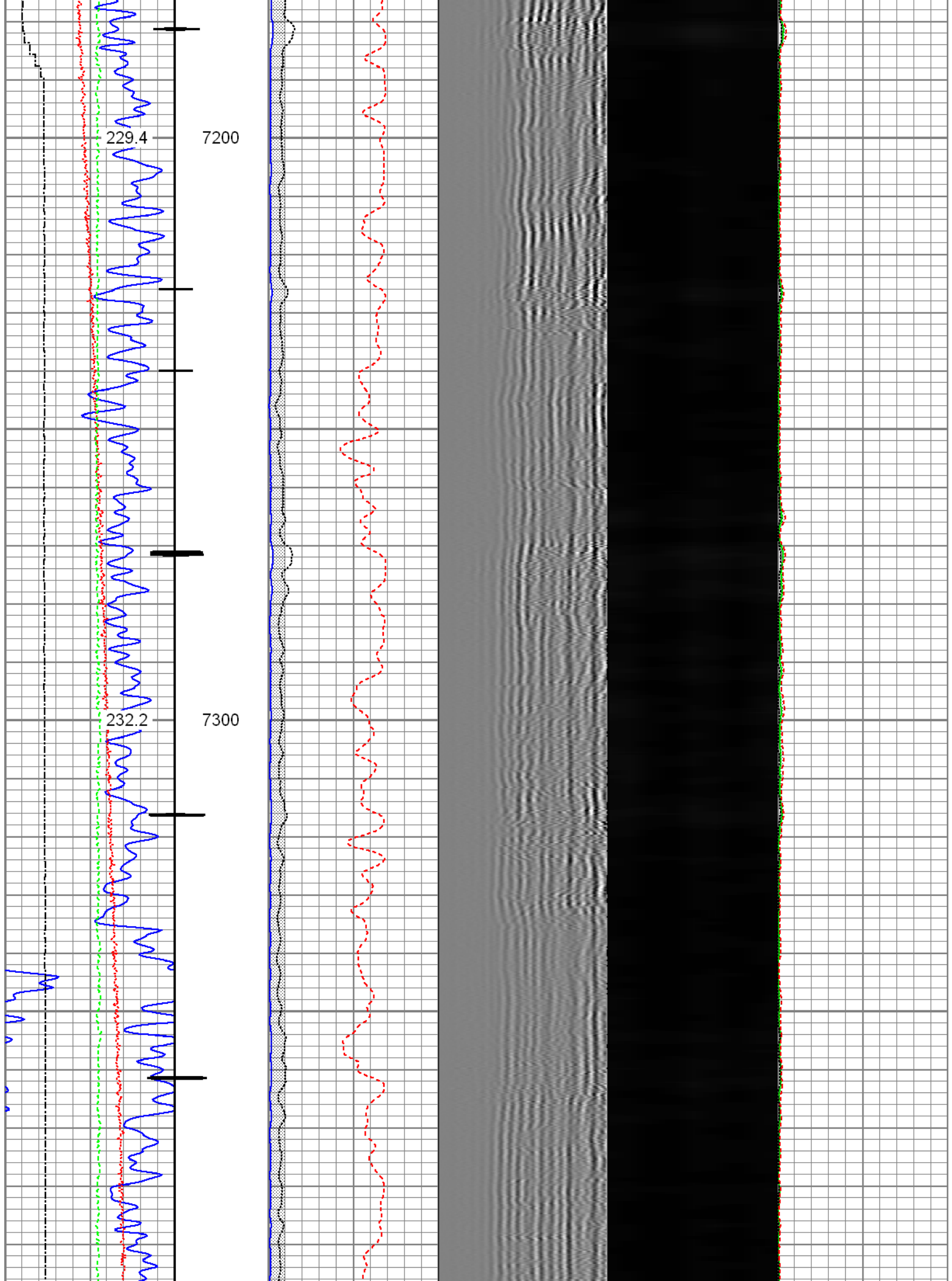


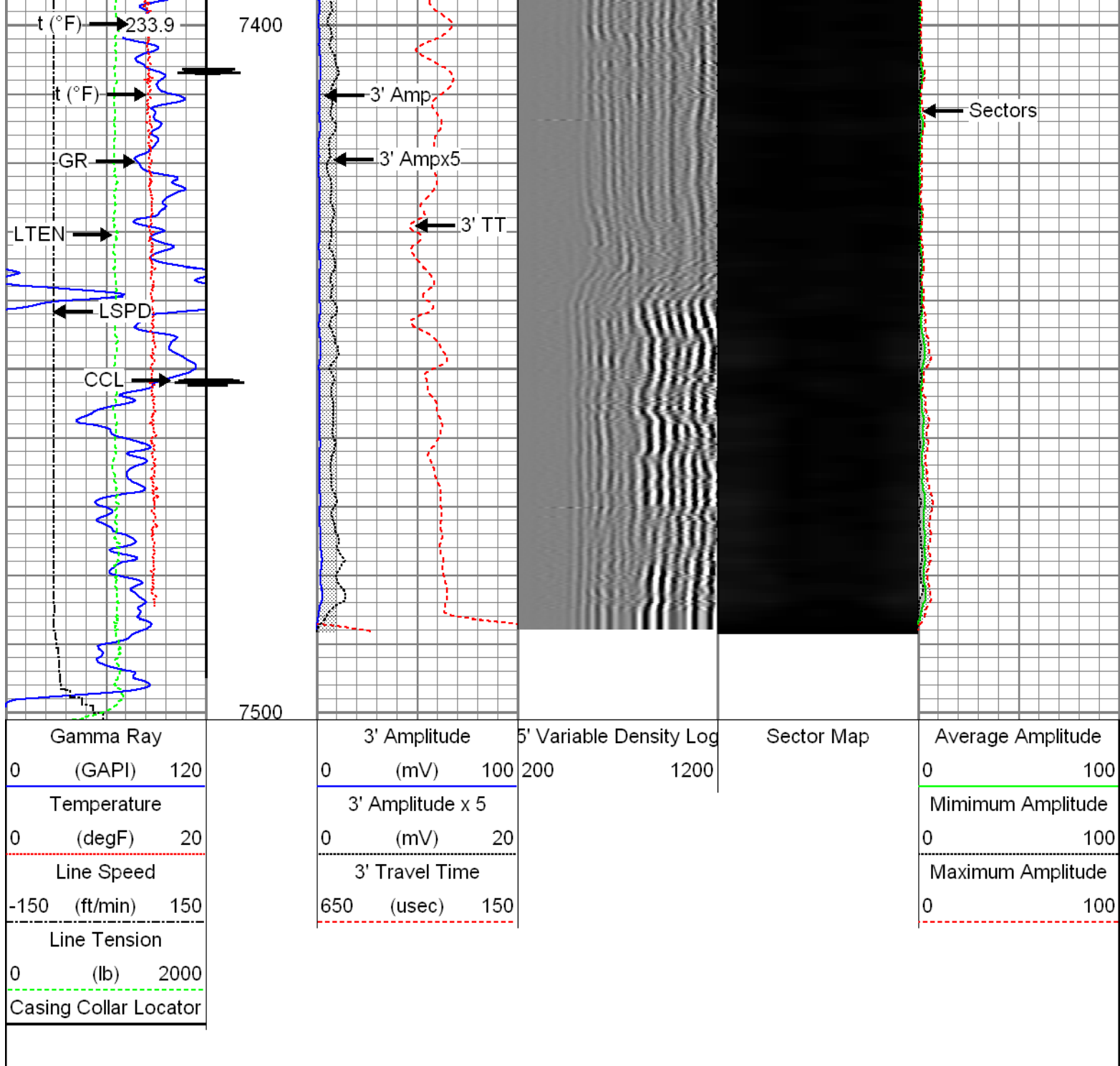








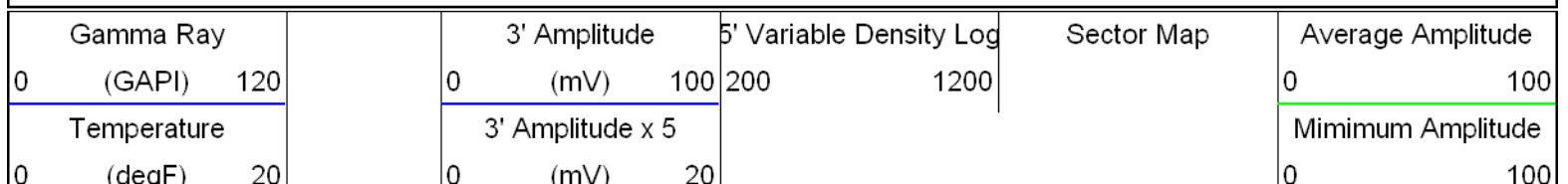




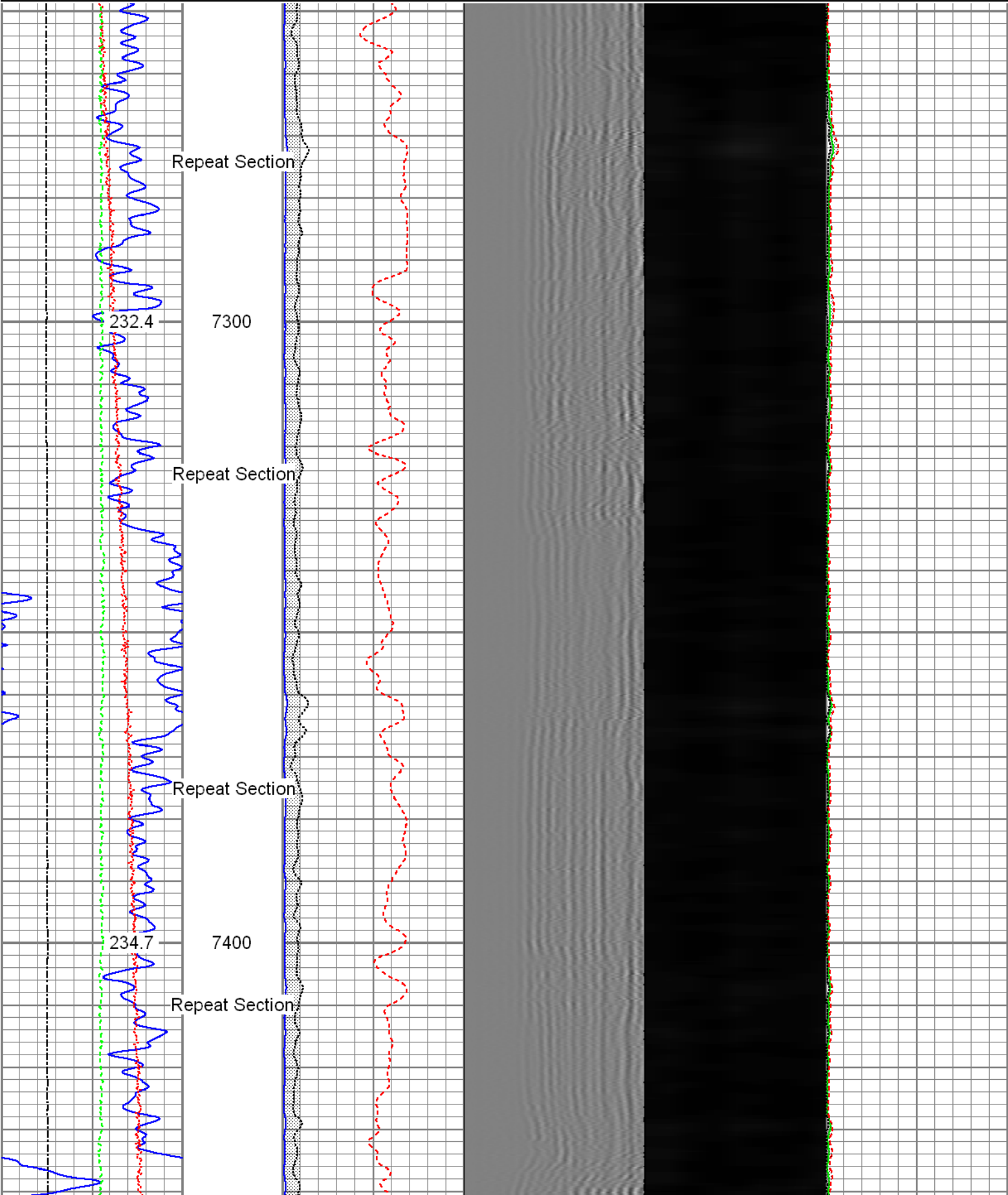
Repeat Pass

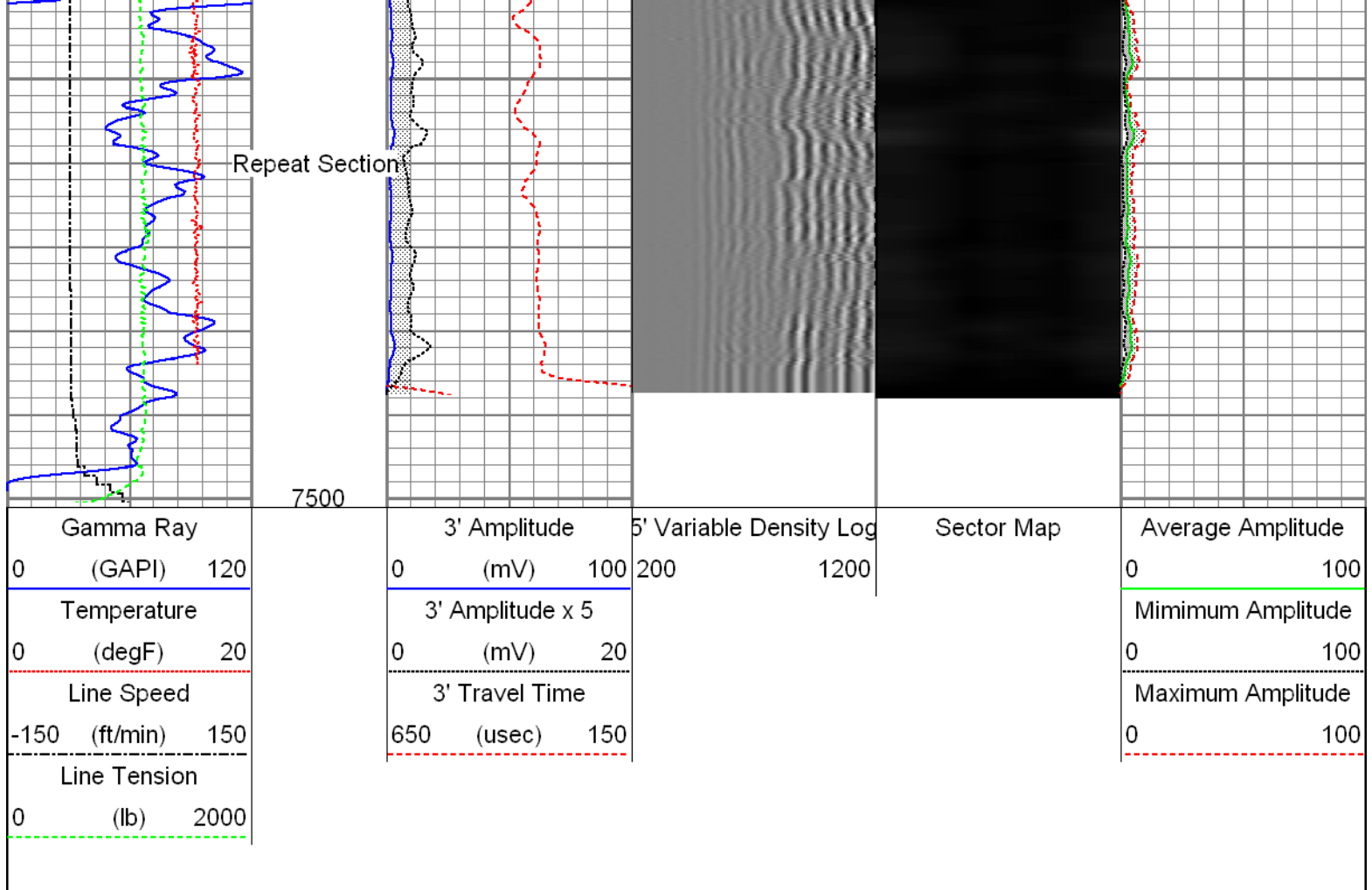
Recorded With 2800 PSI Surface Induced Pressure

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




Line Speed			3' Travel Time			Maximum Amplitude		
-150	(ft/min)	150	650	(usec)	150	0		100
Line Tension								
0	(lb)	2000						





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			T_CH14375_1_GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	4.00
			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
HeadVolt	19.49					
Temp	16.72					
WVFS3FT	14.55		Probe_RADII-C-2-3/4" (FW1305-098) Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe	9.19	2.75	105.00
WVFCAL	14.55					
WVFS1	14.55					
WVFS2	14.55					
WVFS3	14.55					
WVFS4	14.55					
WVFS5	14.55					
WVFS6	14.55					

WVFS7	14.55		Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
WVFS8	14.55					
WVF5FT	13.55					
CCL	6.51		Probe_CCL_GR-2.75"Digital (FW1212-026) 4.54 Probe 2-3/4" Digital CCL / Gamma Ray Combined	2.75	55.00	
DCCL	6.51					
GR	3.77		Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
<div>Dataset: 0512341484_anadarko_fehrn_38n-32hz_09-30-15_rbl.db: field/well/run1/pass6.1</div> <div>Total Length: 23.40 ft</div> <div>Total Weight: 194.00 lb</div> <div>O.D. 2.75 in</div>						

	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.009	0.581	1.000	71.921	113.504	-0.106
CAL	0.680	0.613				
5'	0.011	0.537	1.000	71.921	134.812	-0.486
SUM						
S1	0.006	0.584	0.000	100.000	165.536	-0.951
S2	0.009	0.582	0.000	100.000	162.190	-1.660
S3	0.009	0.577	0.000	100.000	155.670	-1.657
S4	0.009	0.581	0.000	100.000	151.761	-1.603
S5	0.009	0.577	0.000	100.000	153.033	-1.640
S6	0.009	0.579	0.000	100.000	157.919	-1.619
S7	0.009	0.574	0.000	100.000	163.429	-1.633
S8	0.009	0.580	0.000	100.000	166.856	-1.603

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.680	0.613	1.000	0.000

Air Zero Calibration, performed Wed Sep 30 07:19:56 2015:

	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 Fehr 38N-32HZ
Field Wattenberg
County Weld
State Colorado