



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	Kerr-McGee Oil and Gas Onshore LP		
Well	Tedford 3N-28HZ		
Field	Wattenberg		
County	Weld		
State	Colorado		
Location:	Company	Kerr-McGee Oil and Gas Onshore LP	
	Well	Tedford 3N-28HZ	
Location:	Field	Wattenberg	
	County	Weld	
Location:	State	Colorado	
	Other Services	JB/GR	
Permanent Datum	SEC 28	TWP 2N	RGE 66W
Log Measured From	Ground Level	Kelly Bushing	Elevation 4965'
Drilling Measured From	Kelly Bushing	25 FT	Elevation K.B. 4990' D.F. 4989' G.L. 4965'

Date	22-OCT-2015
Run Number	Two
Depth Driller	13089 FT
Depth Logger	7510 FT
Bottom Logged Interval	7506 FT
Top Log Interval	Surface
Open Hole Size	7.875"
Type Fluid	Water
Density / Viscosity	8.34 lbm/gal
Max. Recorded Temp.	237°F
Estimated Cement Top	Surface
Time Well Ready	ROA
Time Logger on Bottom	8:30 AM
Equipment Number	HD-0255
Location	Ft. Lupton, CO
Recorded By	B. Kalkwarf
Witnessed By	Levi McArthur

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	J55 LT&C	Surface	1880 FT		
Intermediate #1	5 1/2	17	HCP-110 LT&C	Surface	13077 FT		
Intermediate #2							
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 Kelly Bushing at 25 FT
Adjusted log 10 FT to correlate with Marker Joint at 6747 FT
Gauge Ring/Junk Basket ran to 7602 FT with no debris found
Log ran from 7510 FT 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 FMC Technologies Completion Services, Inc.!!



Main Pass

Recorded with 2800 PSI Surface Induced Pressure

Database File: c:\warrior\data\0512341790_anadarko_tedford 3n-28hz_10-22-15_rb\0512341790_anadarko_tedford

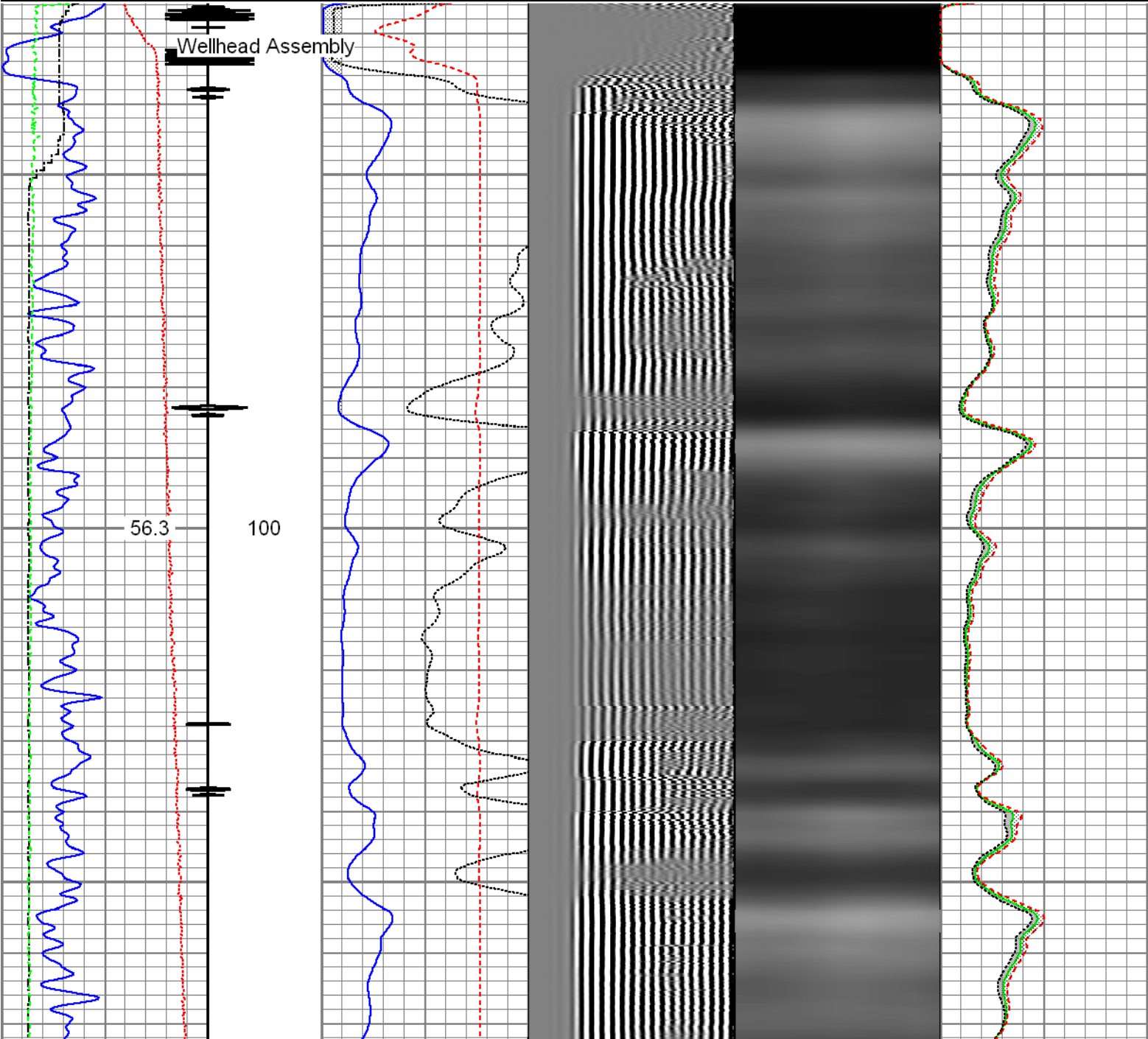
Dataset Pathname: pass4

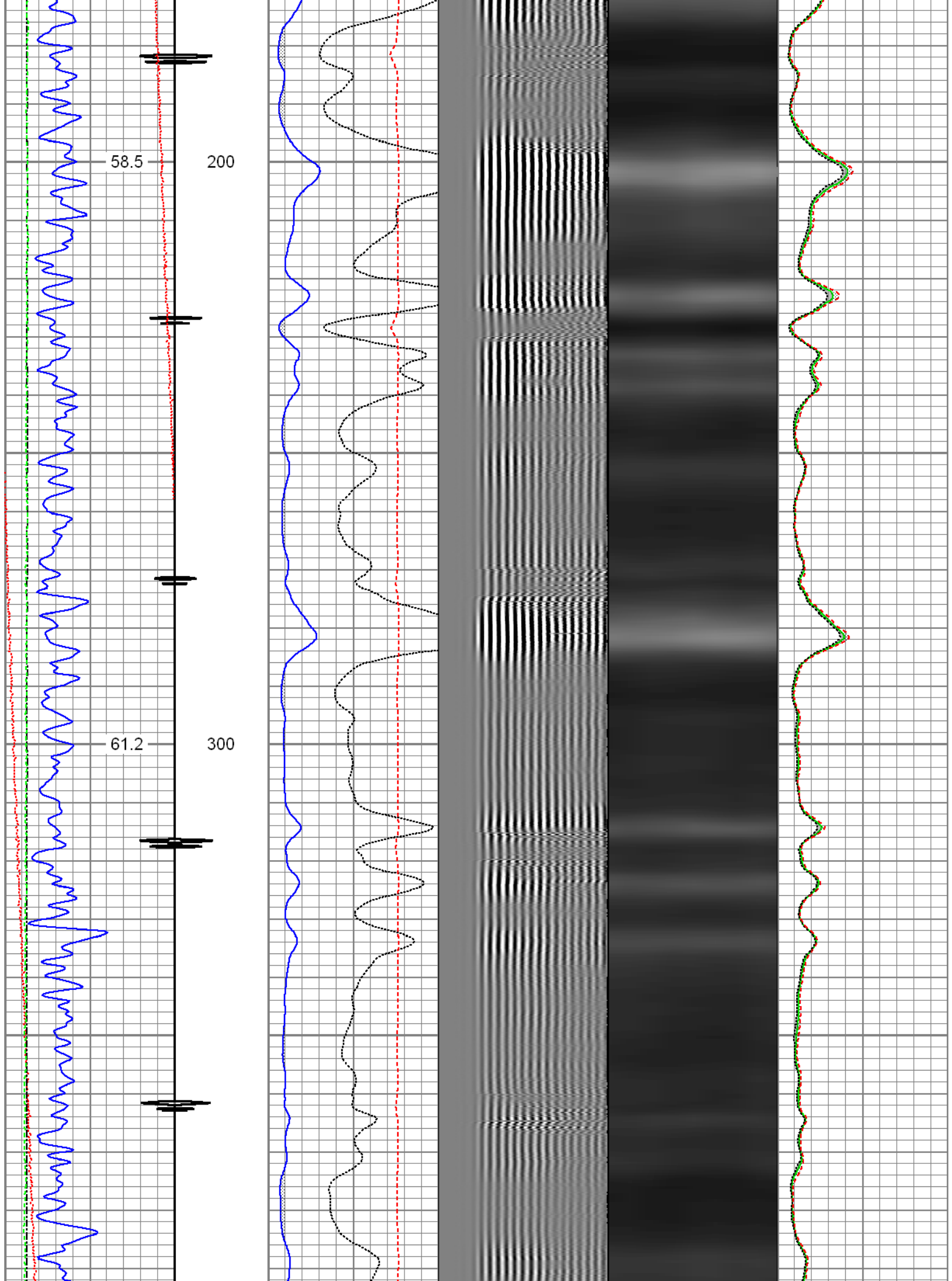
Presentation Format: radii

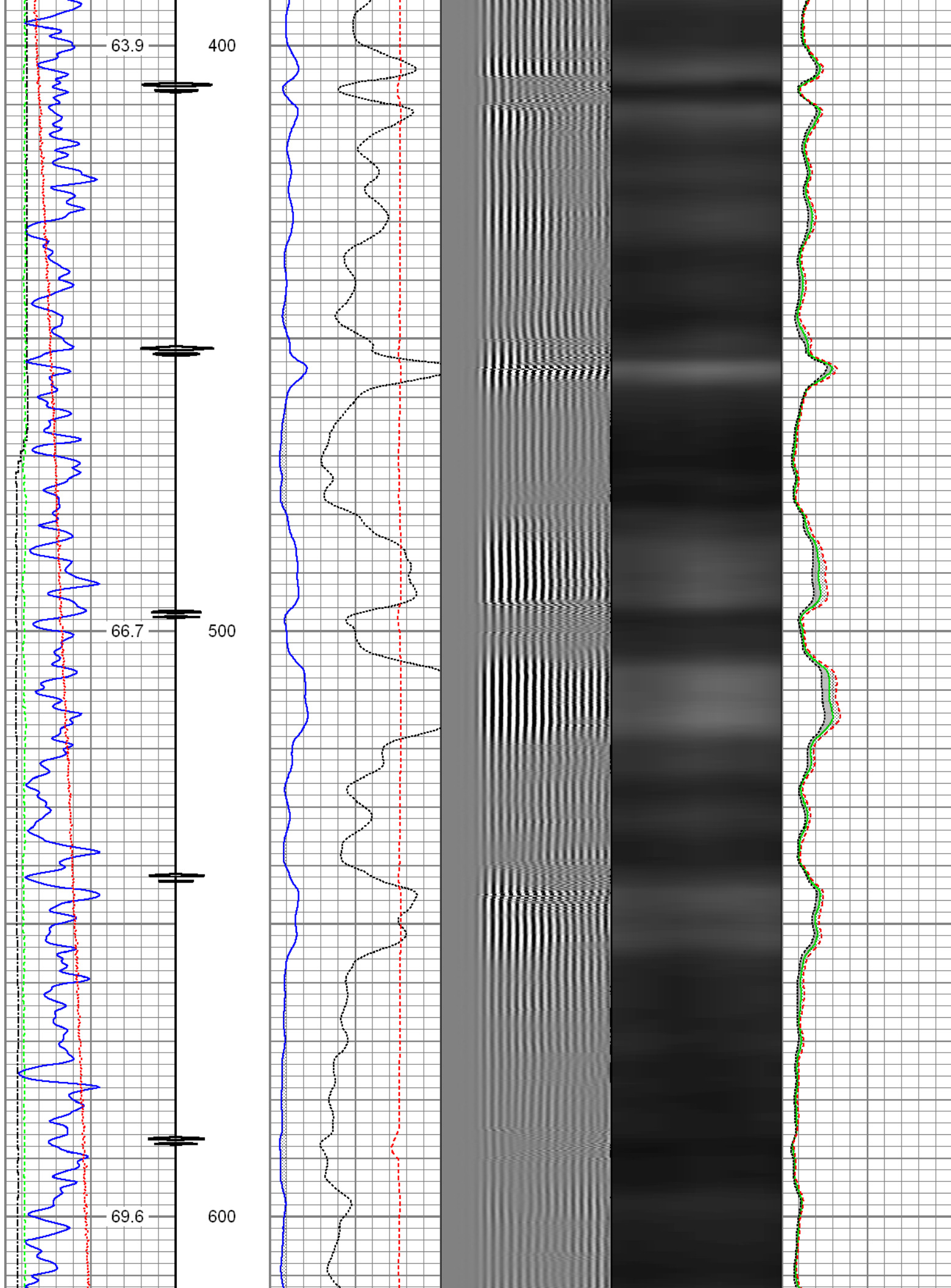
Dataset Creation: Thu Oct 22 08:32:54 2015 by Log 7.0 B1

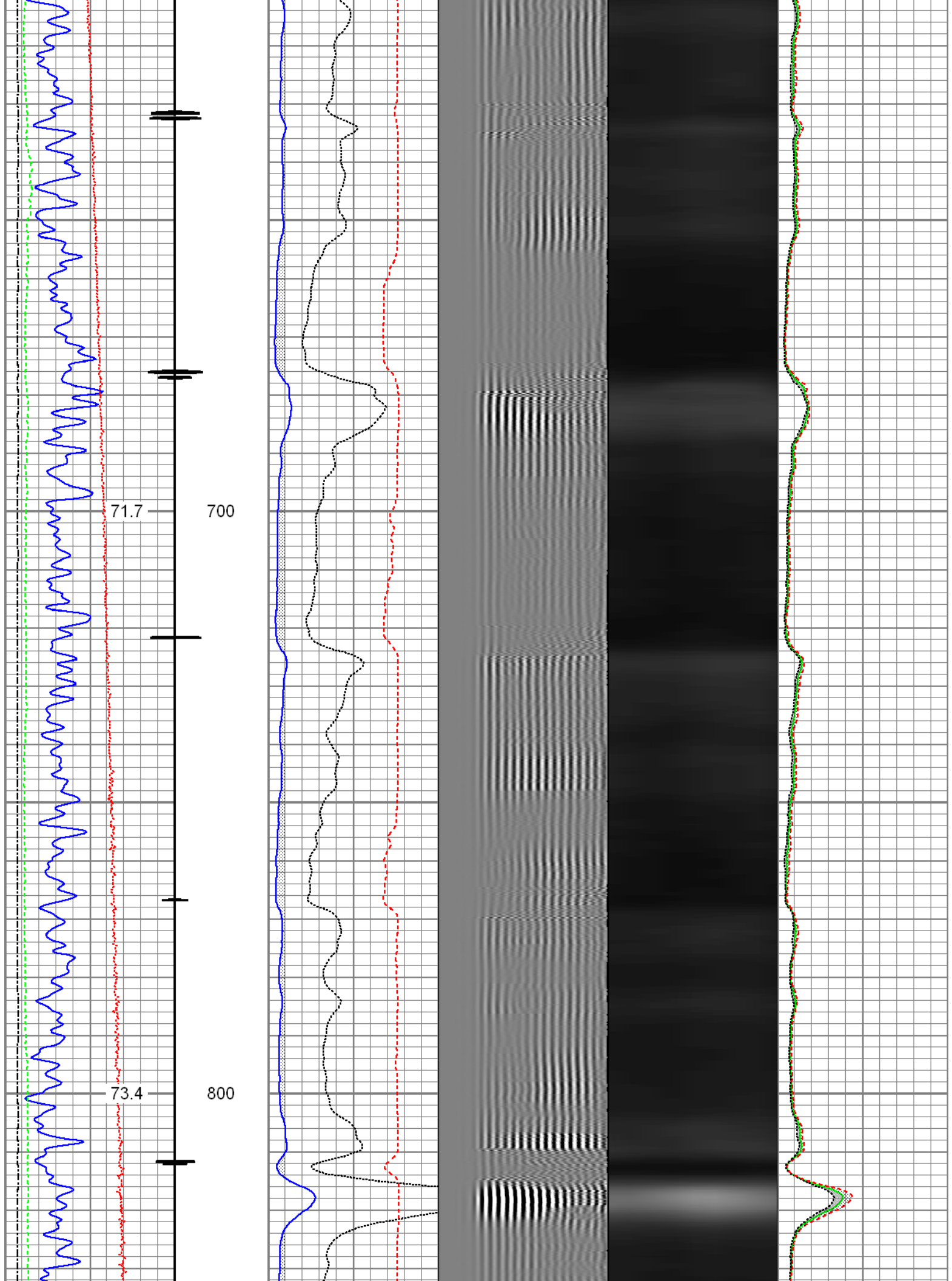
Charted by: Depth in Feet scaled 1:240

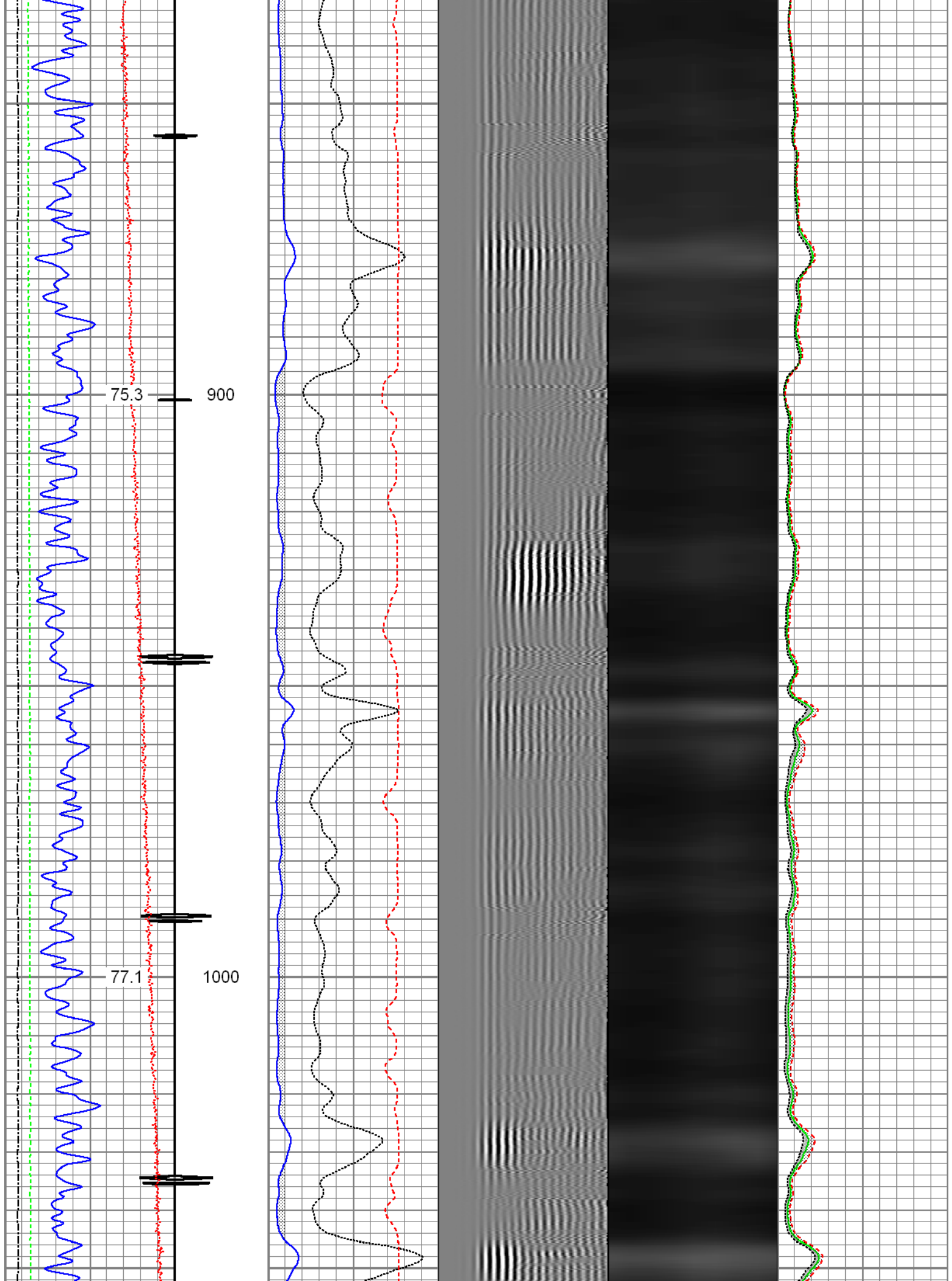
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Mimimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 20	3' Travel Time			Maximum Amplitude
Line Speed	650 (usec) 150			0 100
-150 (ft/min) 150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

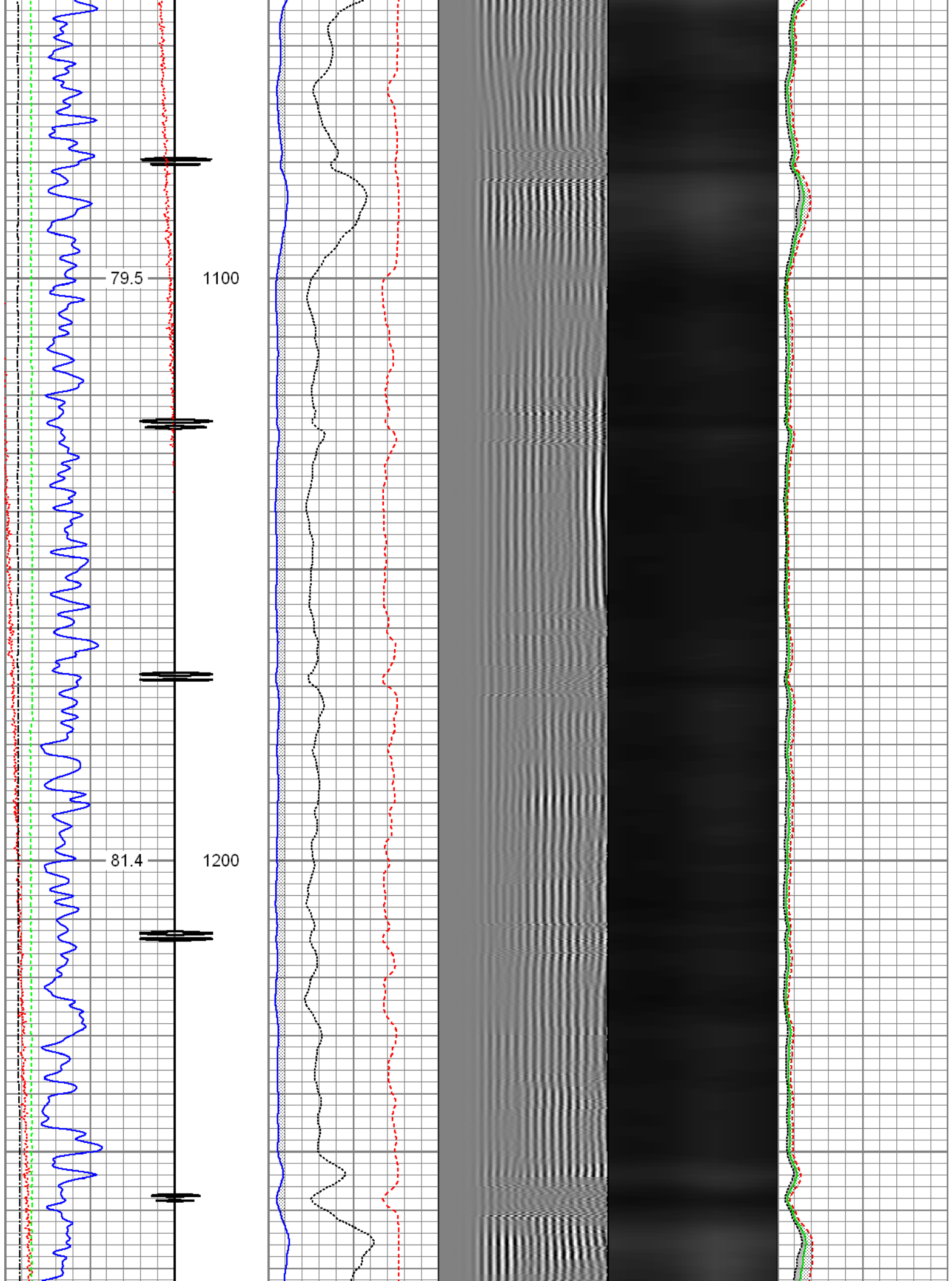


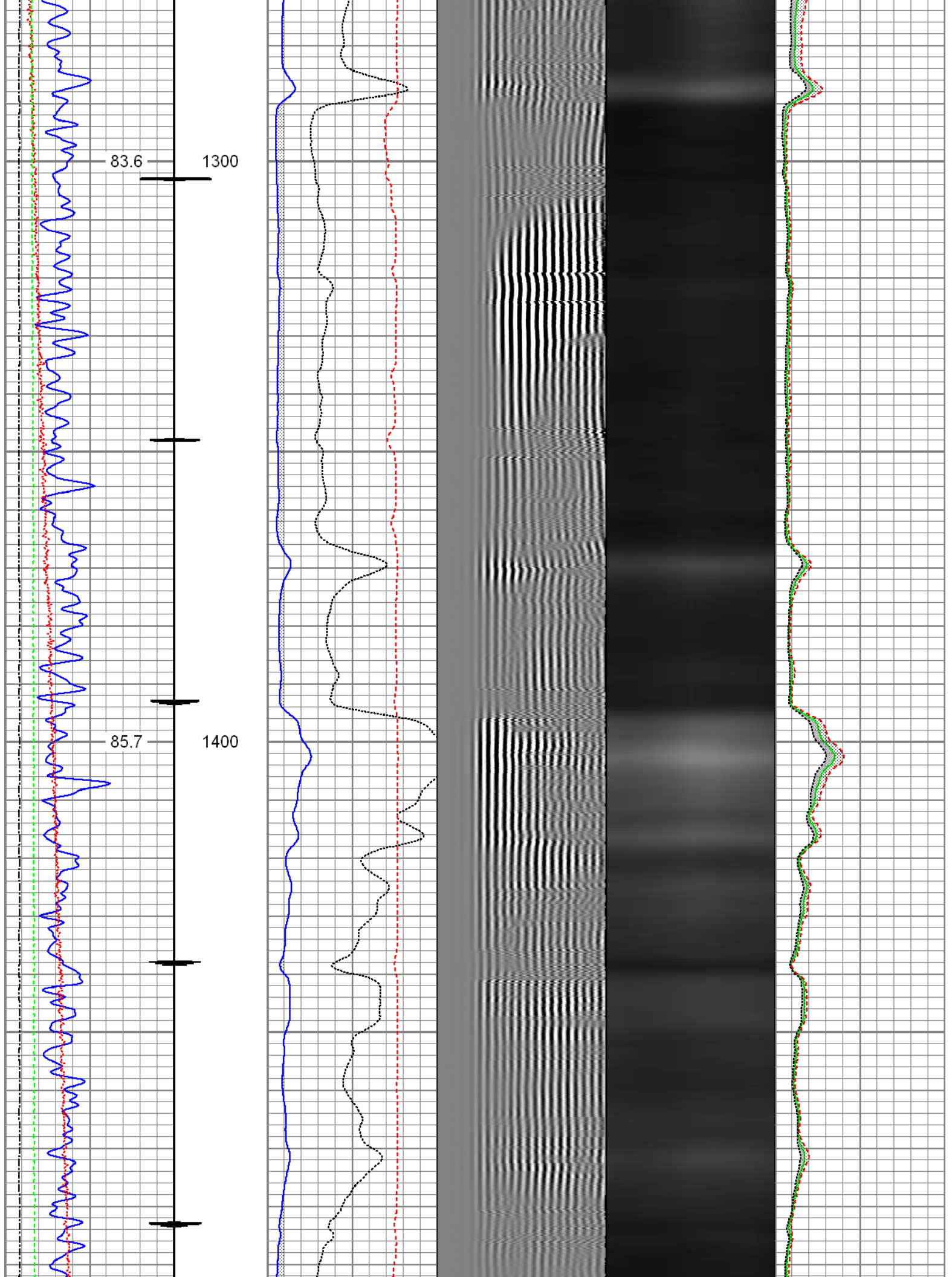


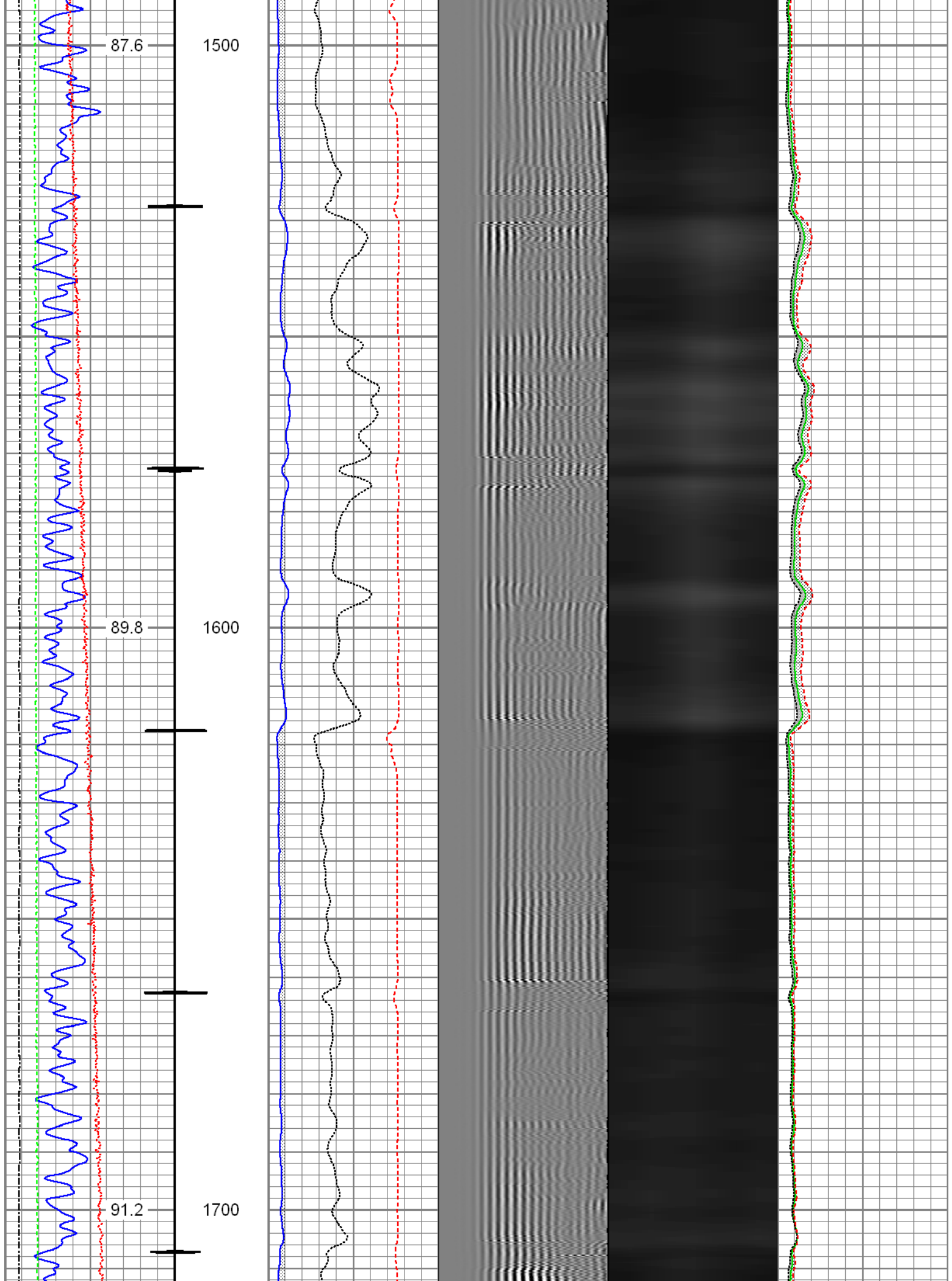


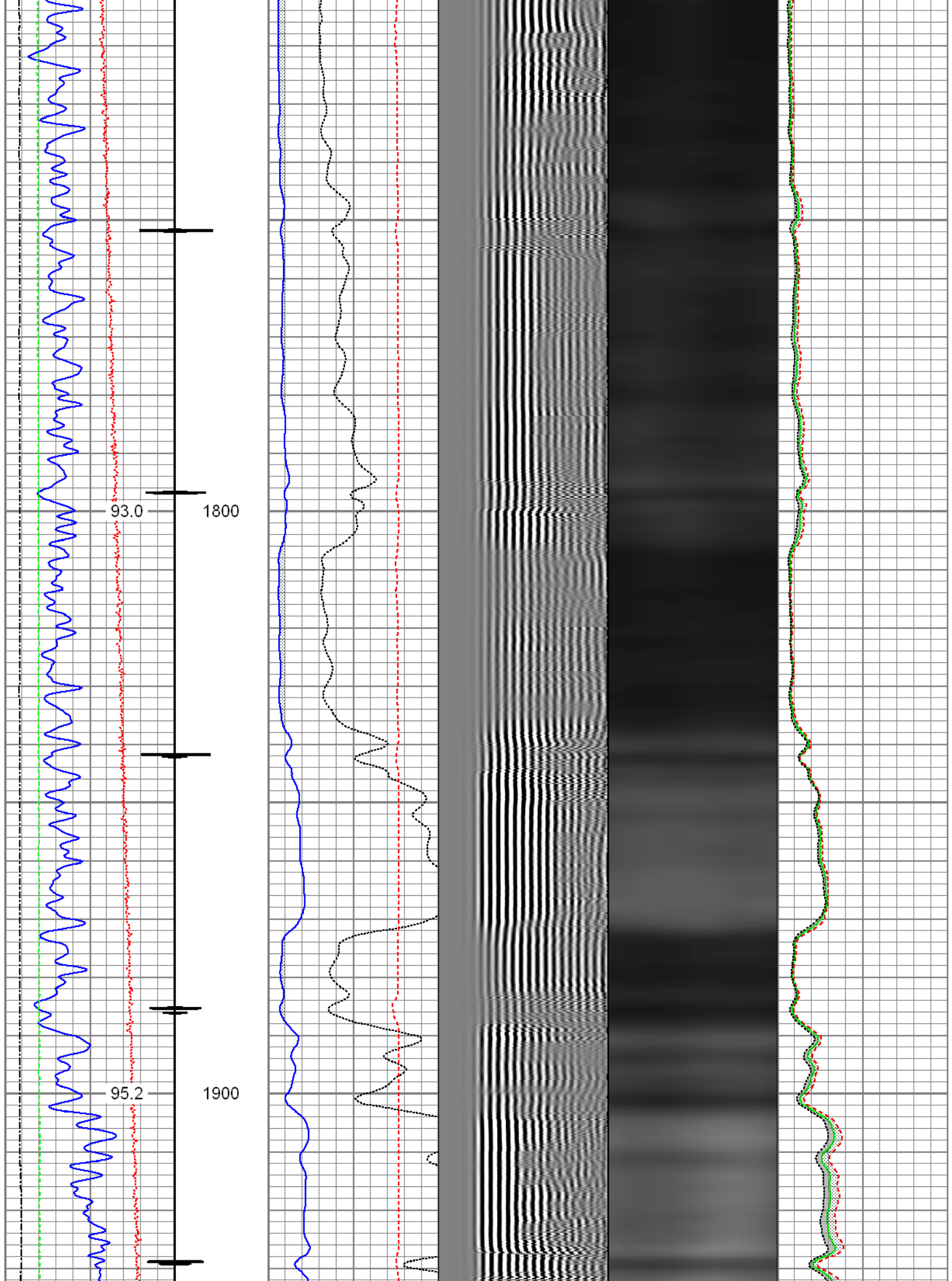


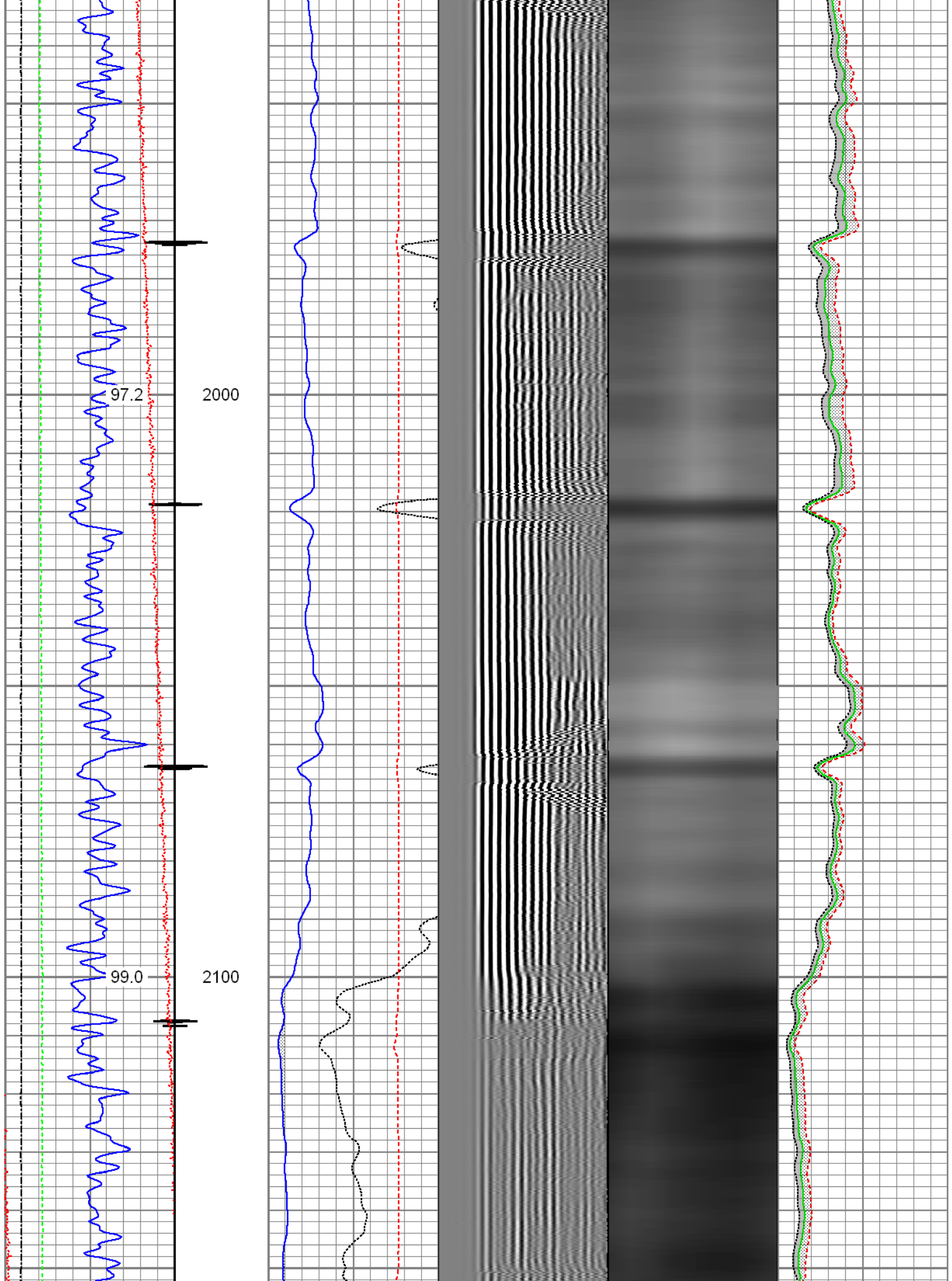


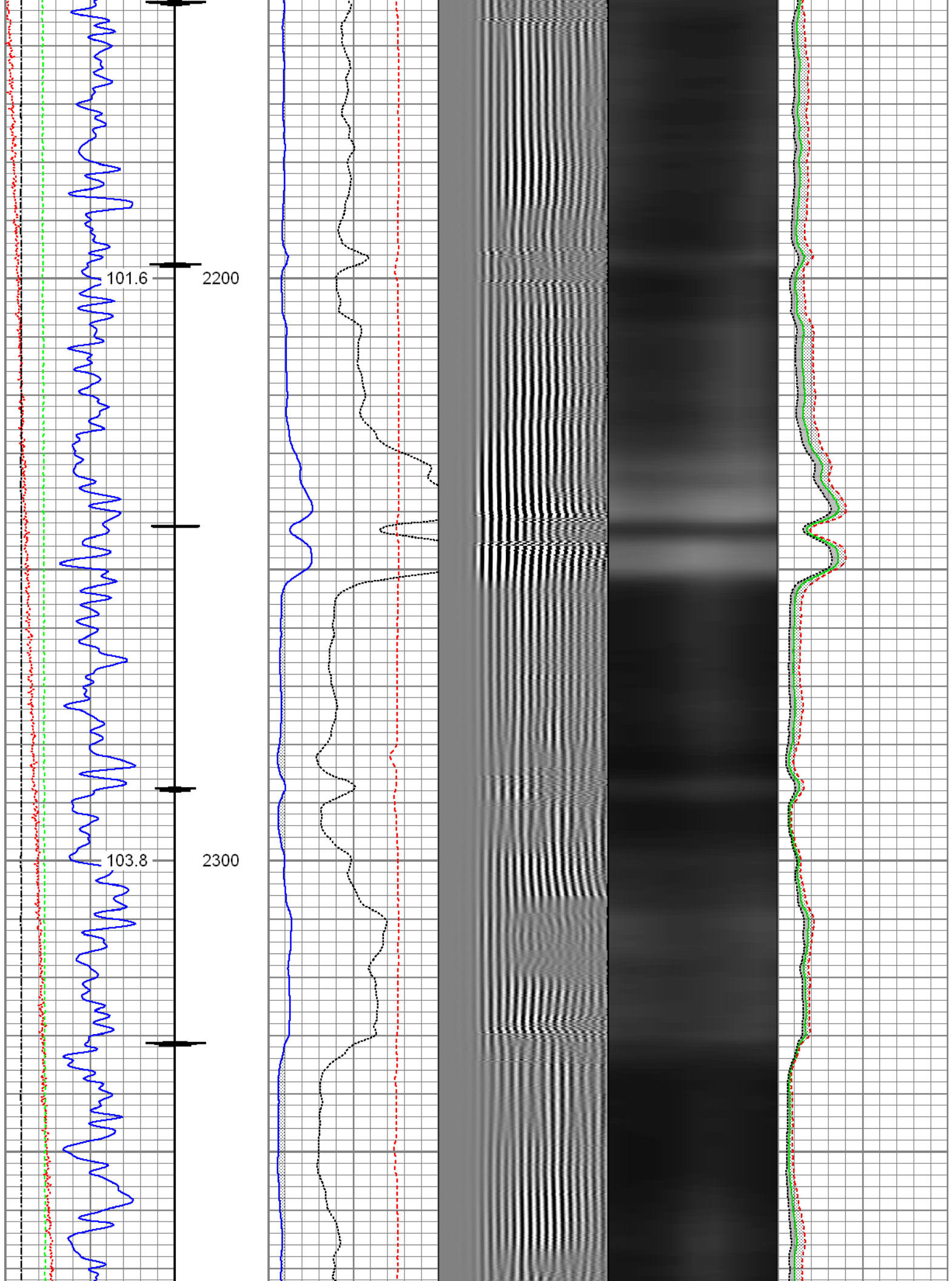


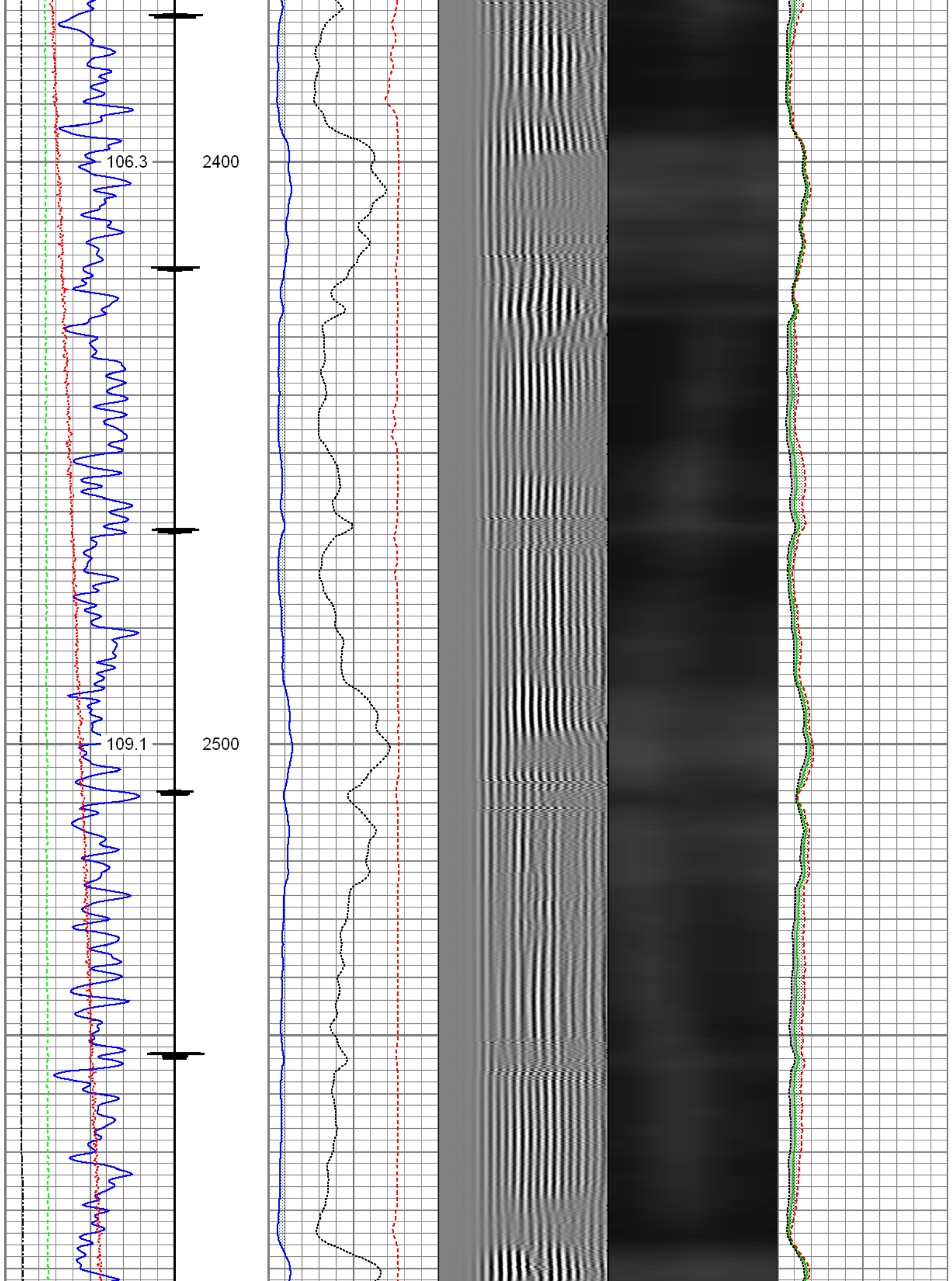


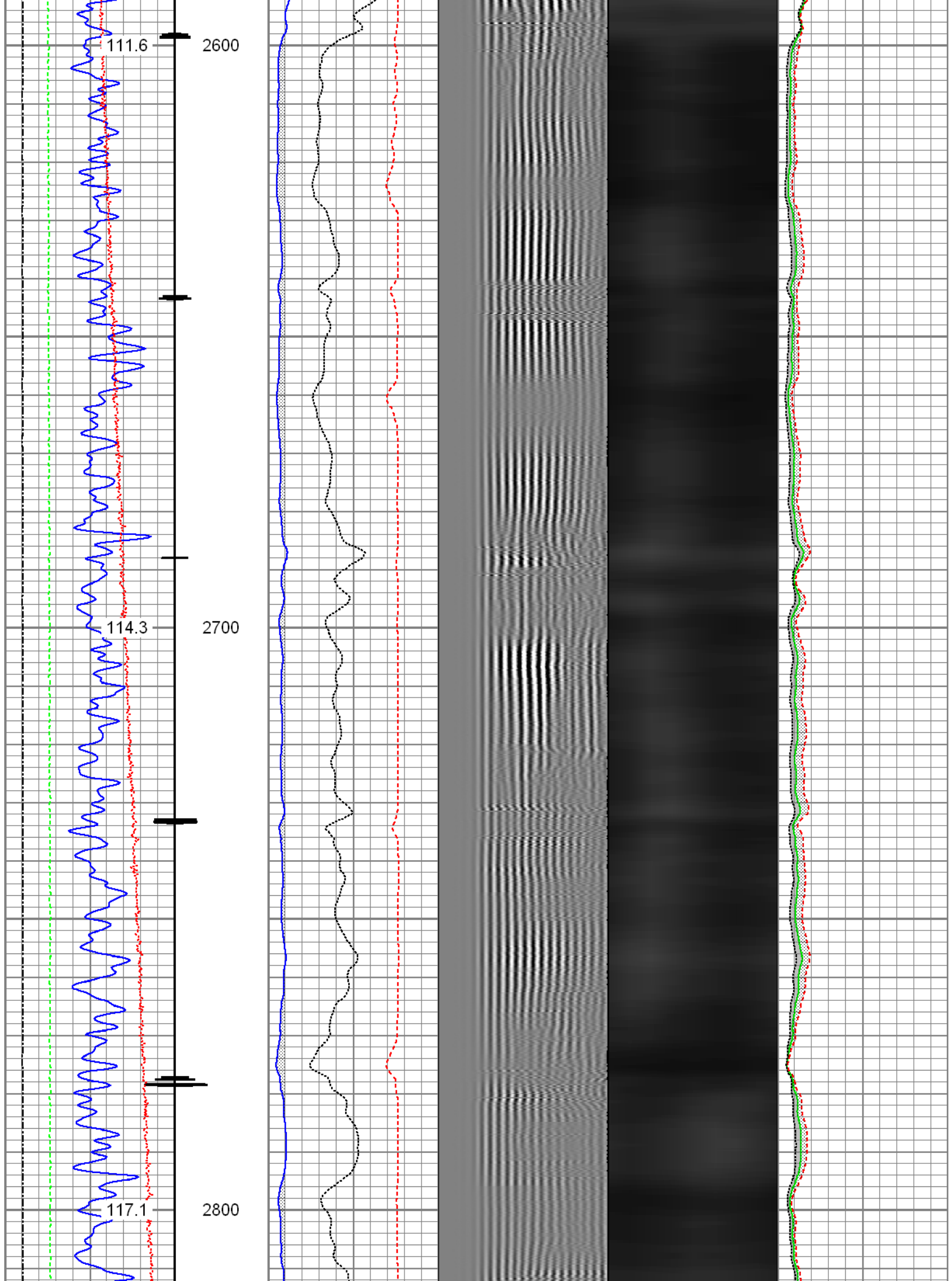


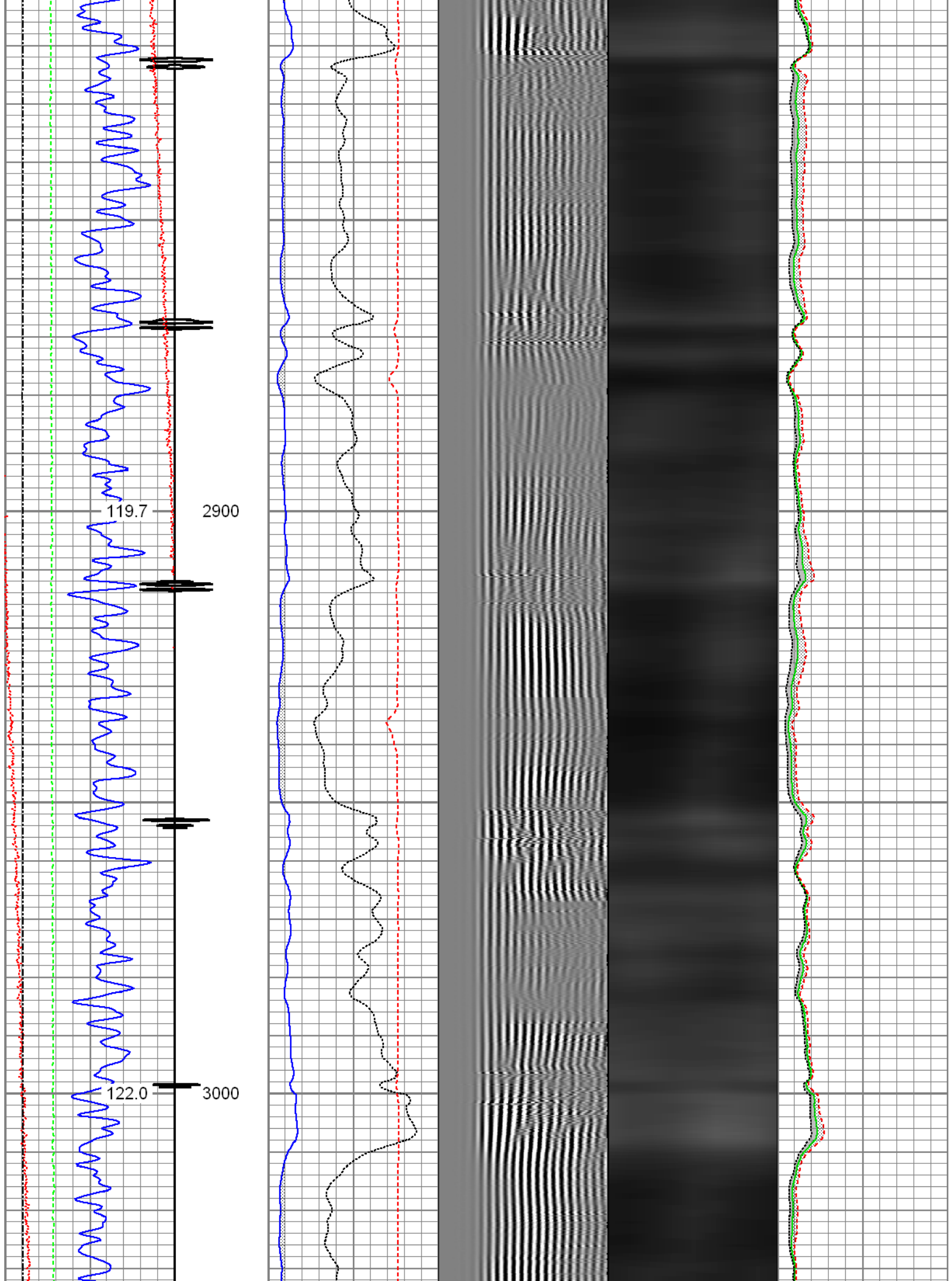


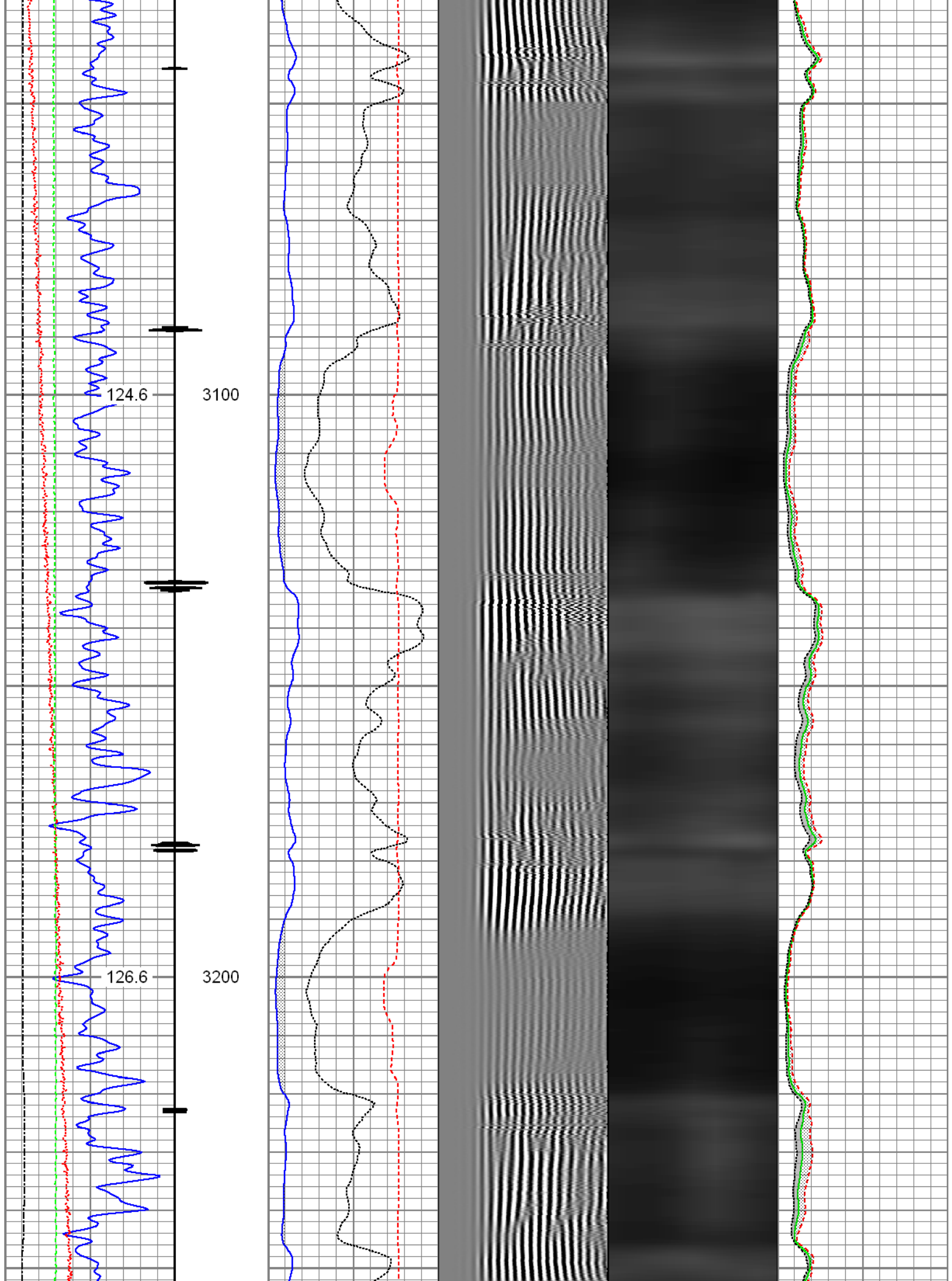


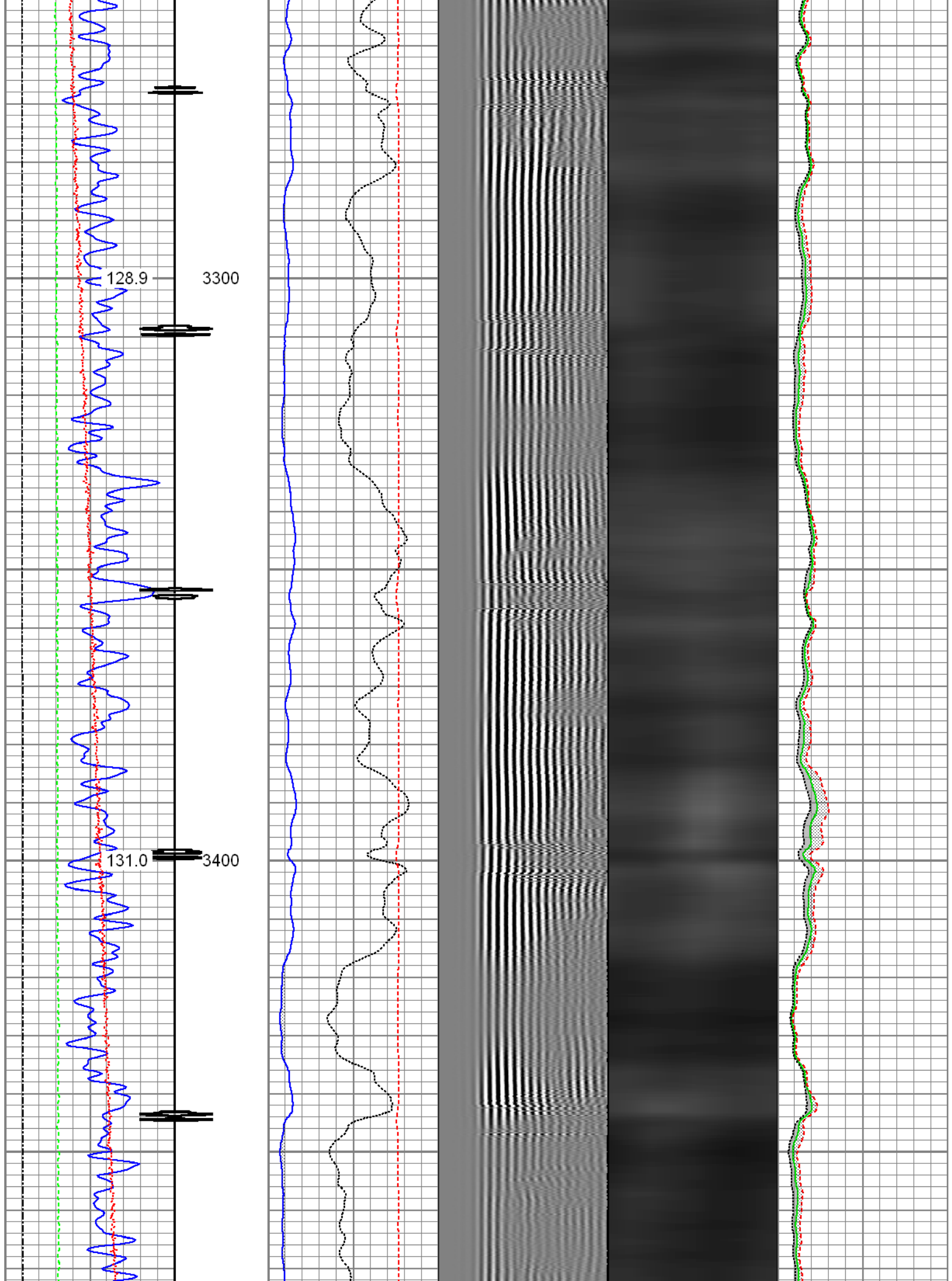


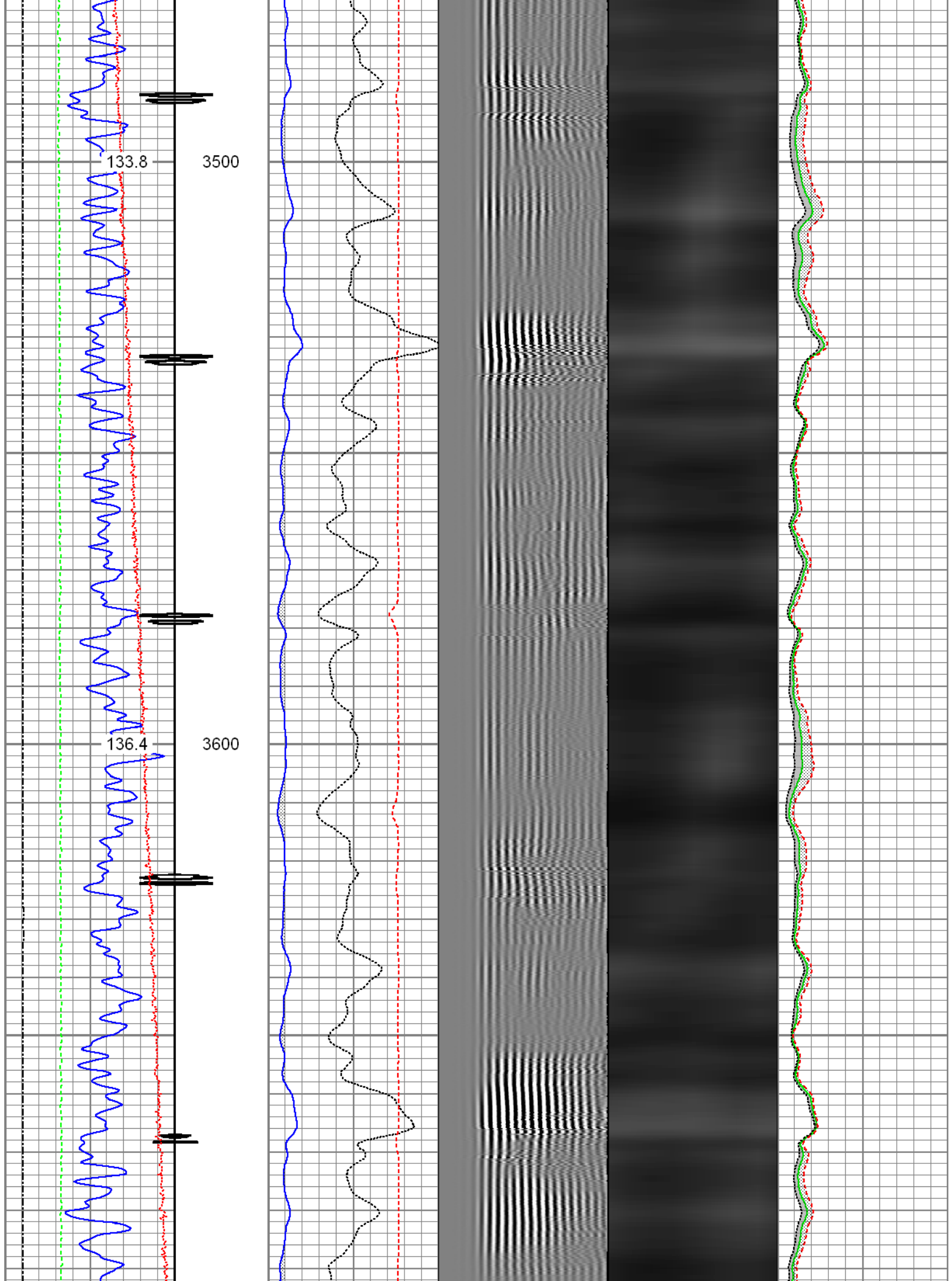


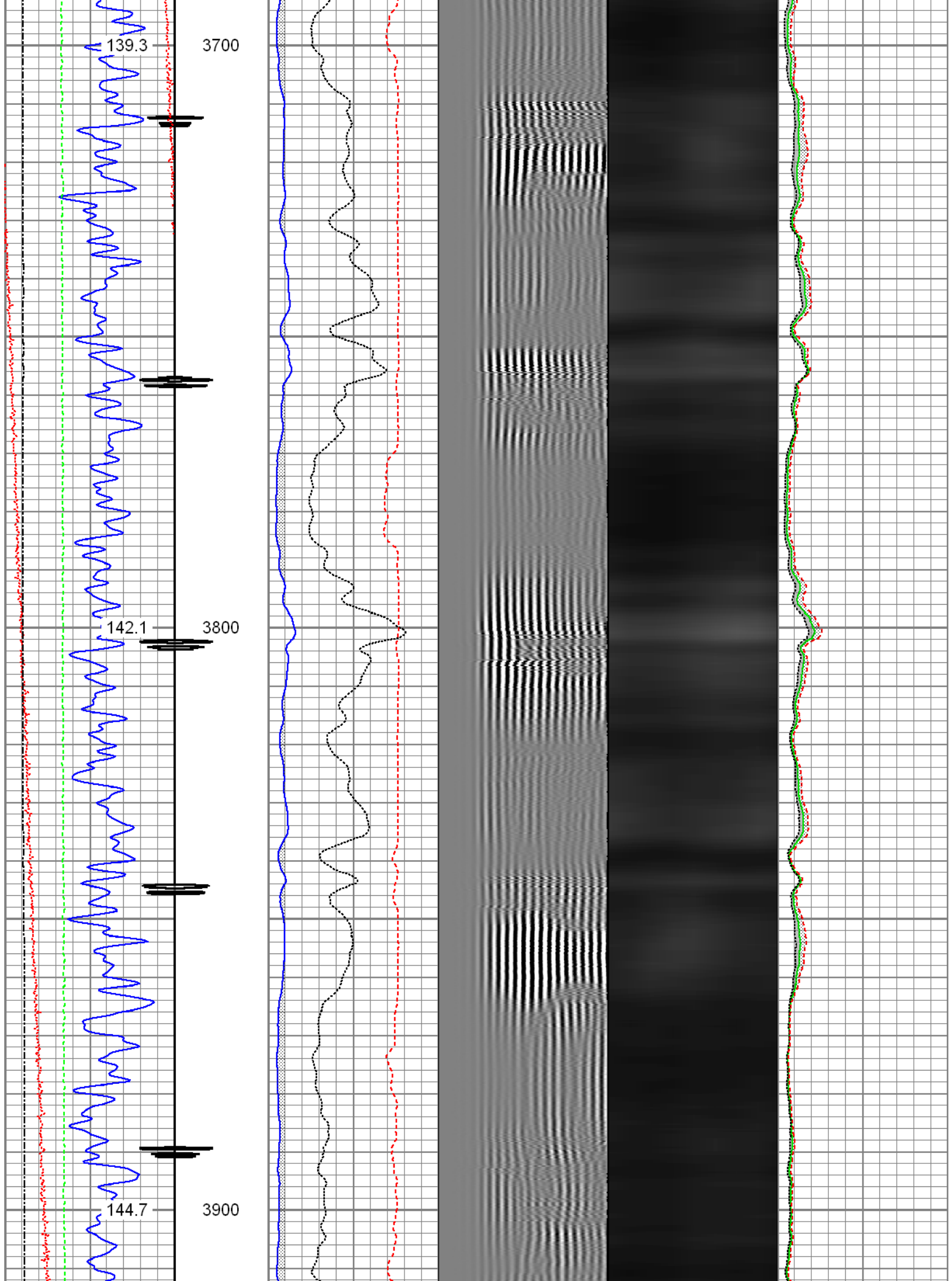


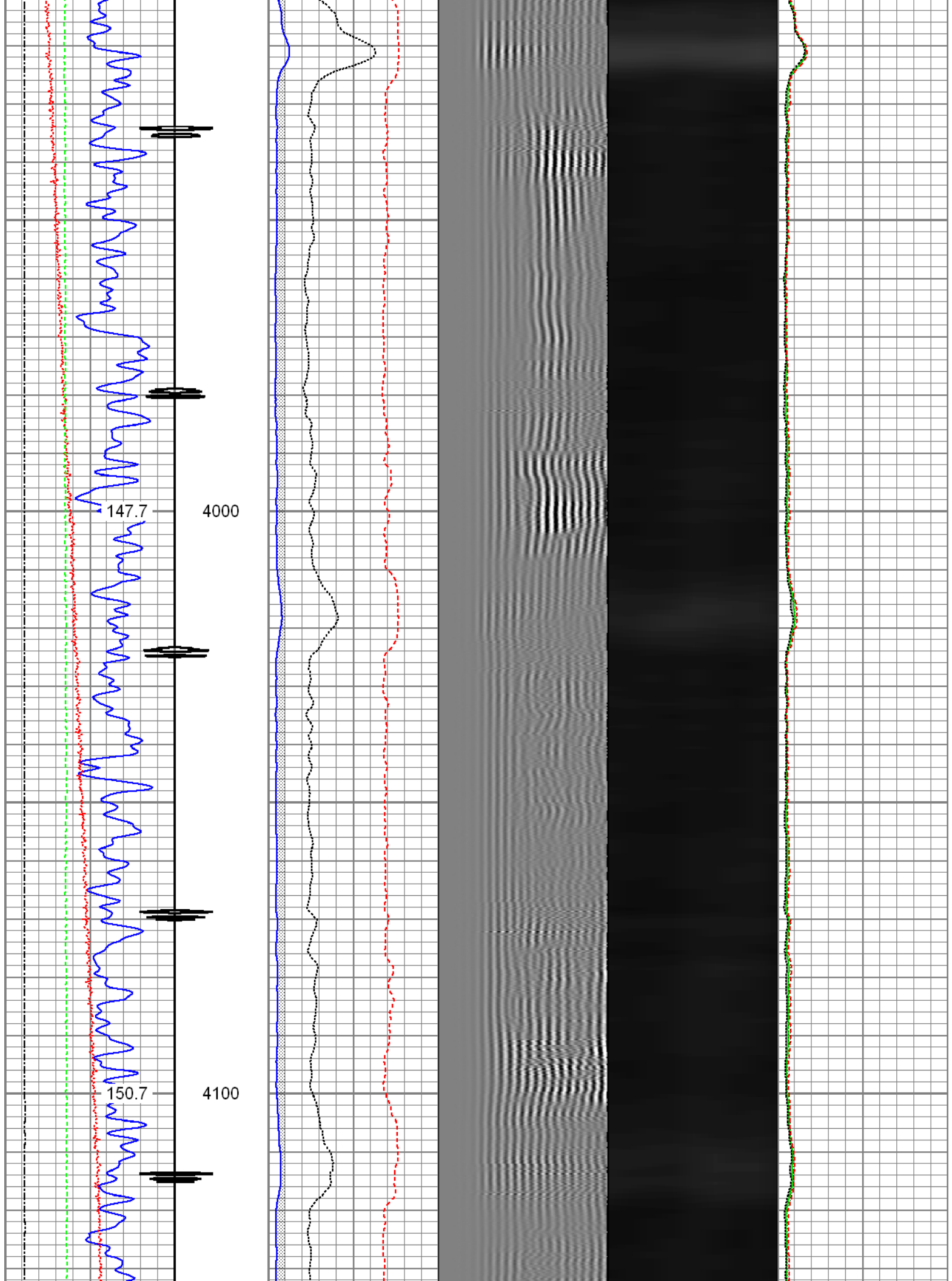


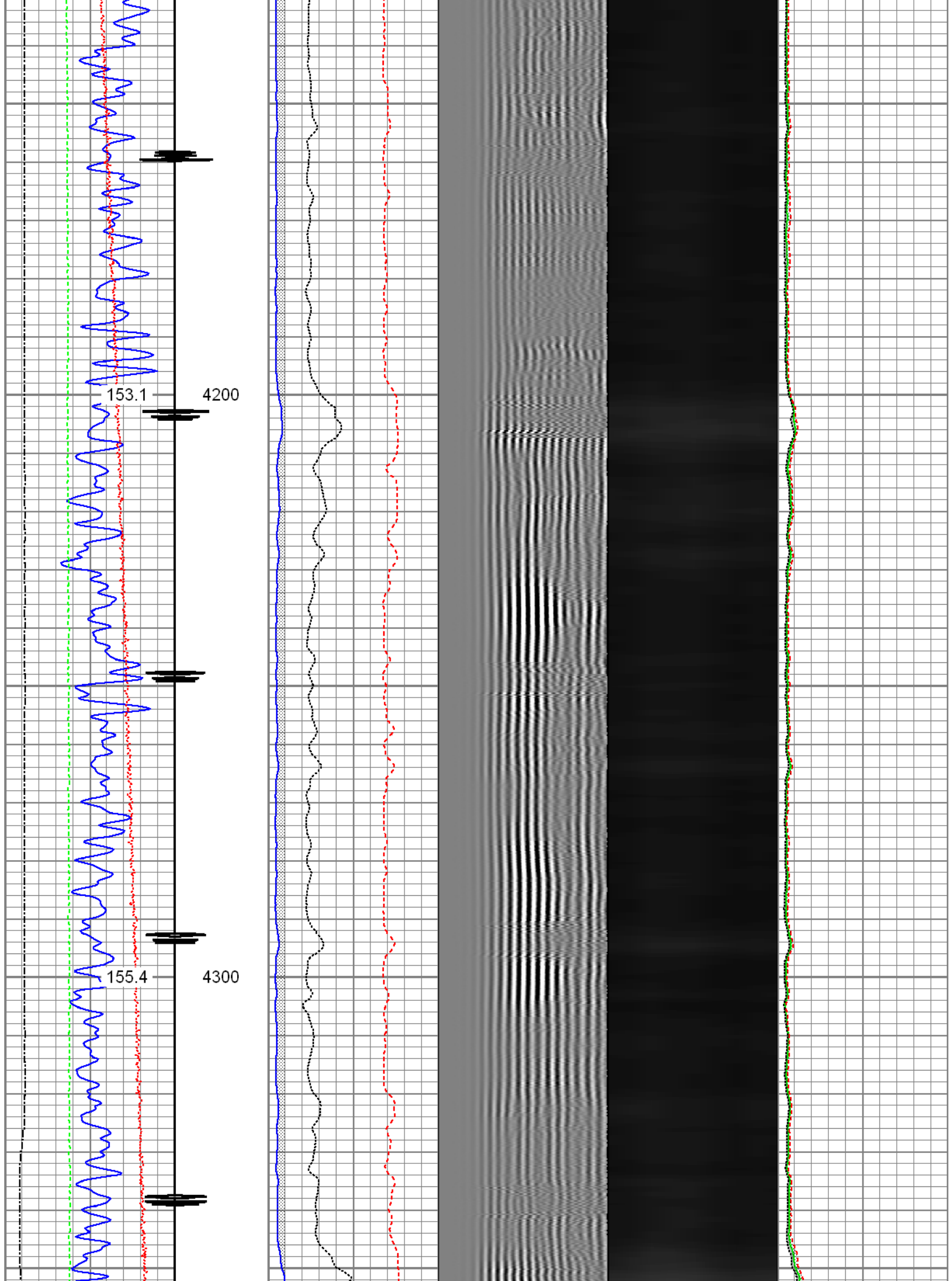


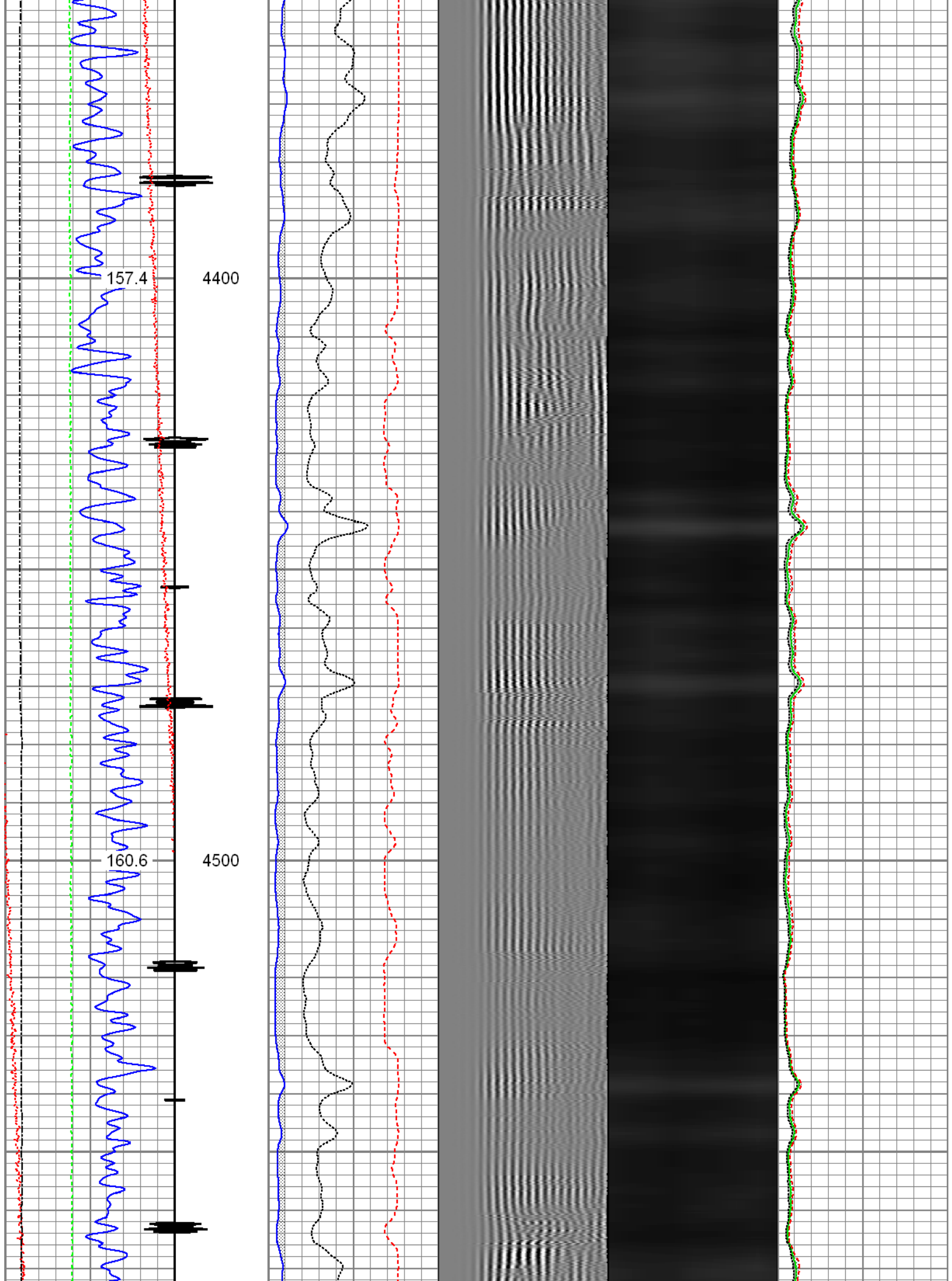


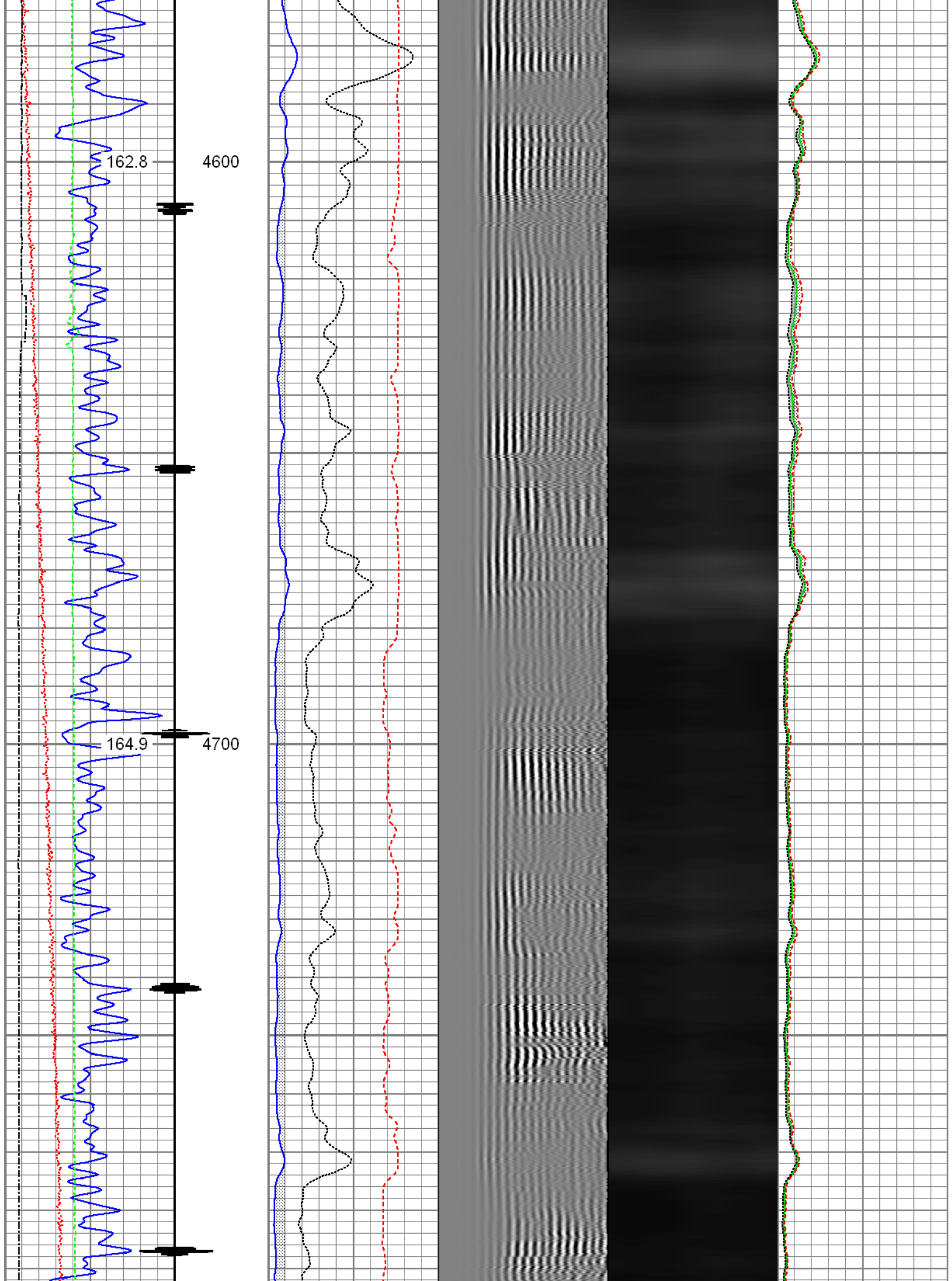


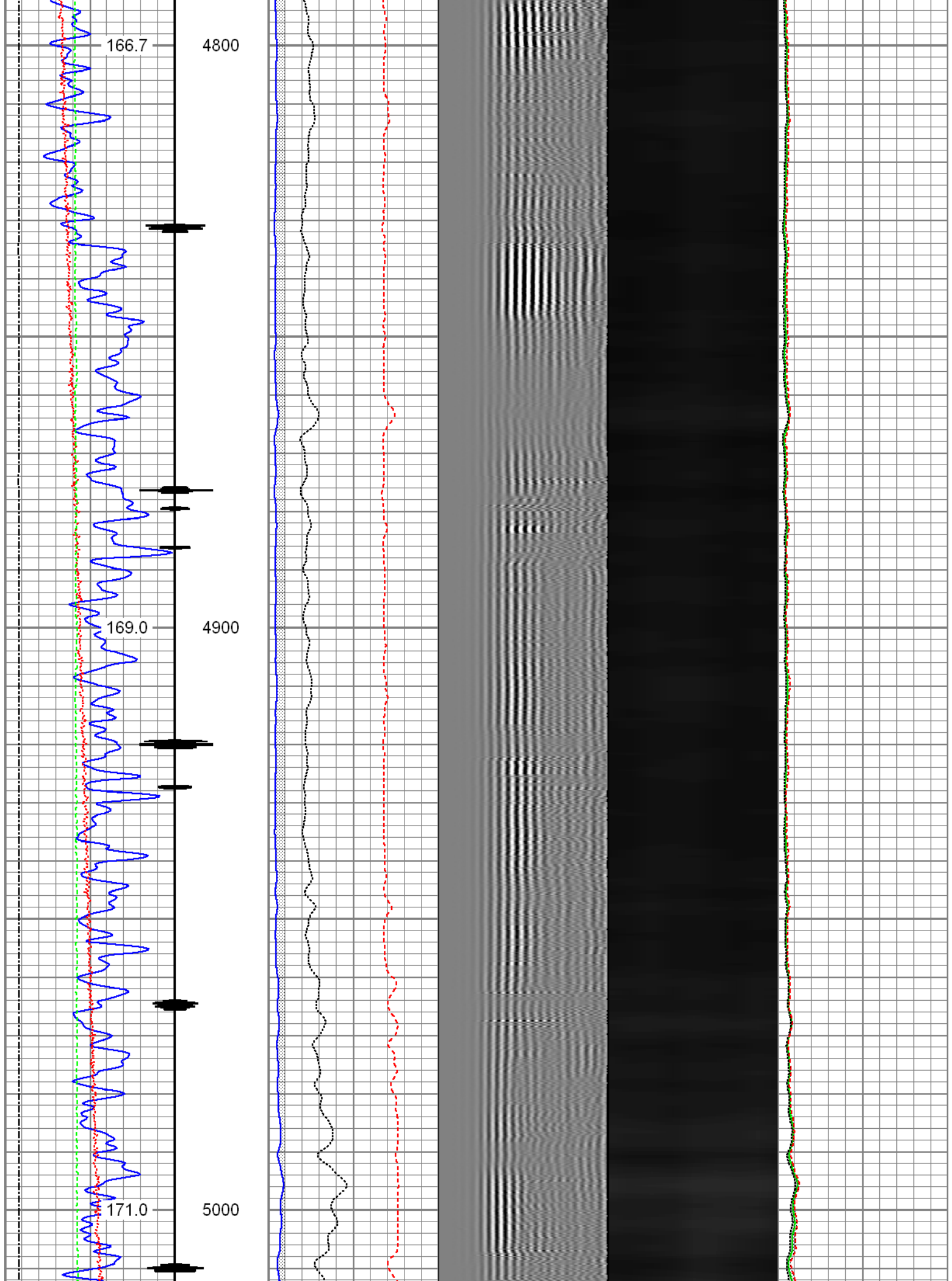


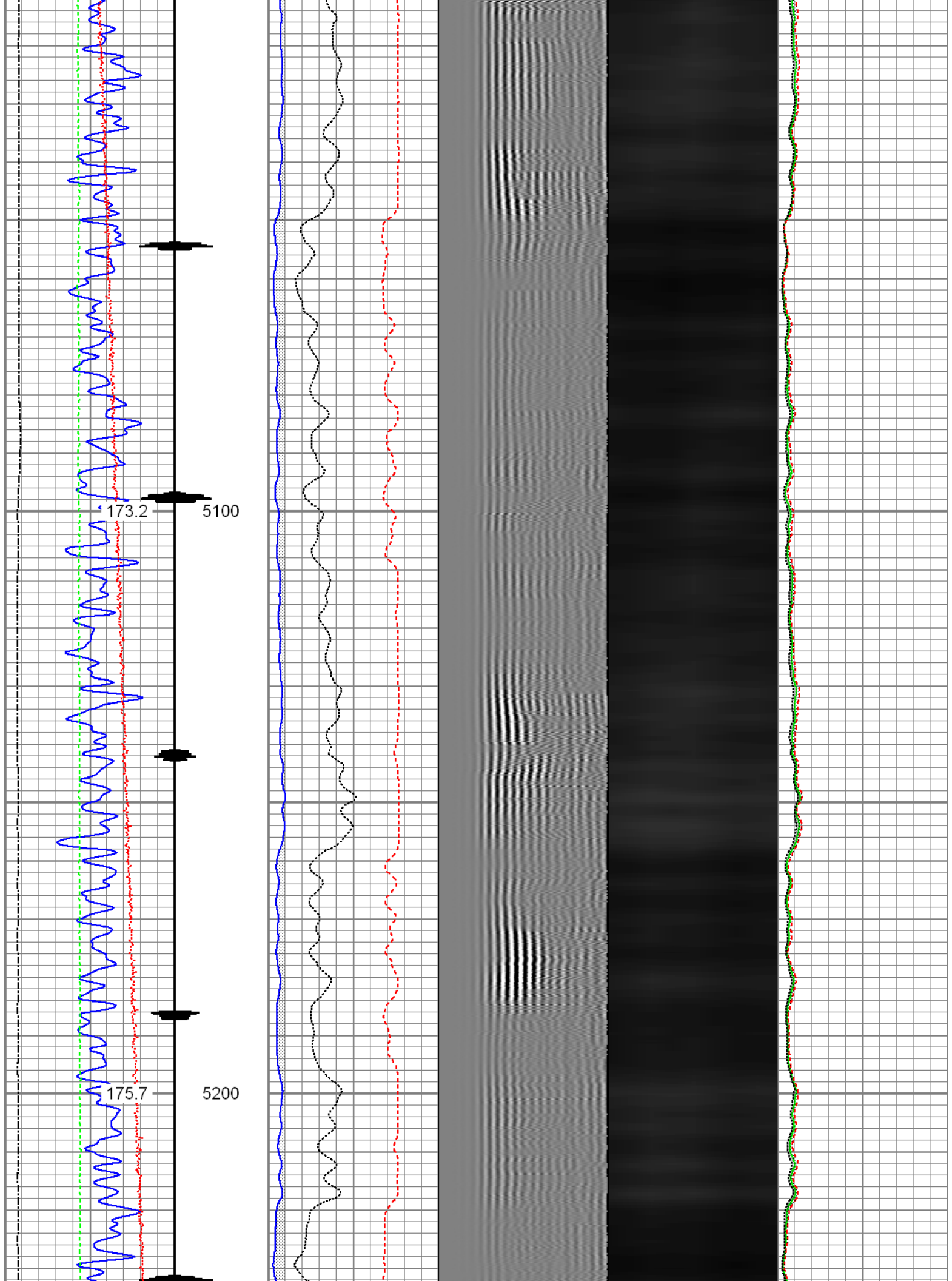


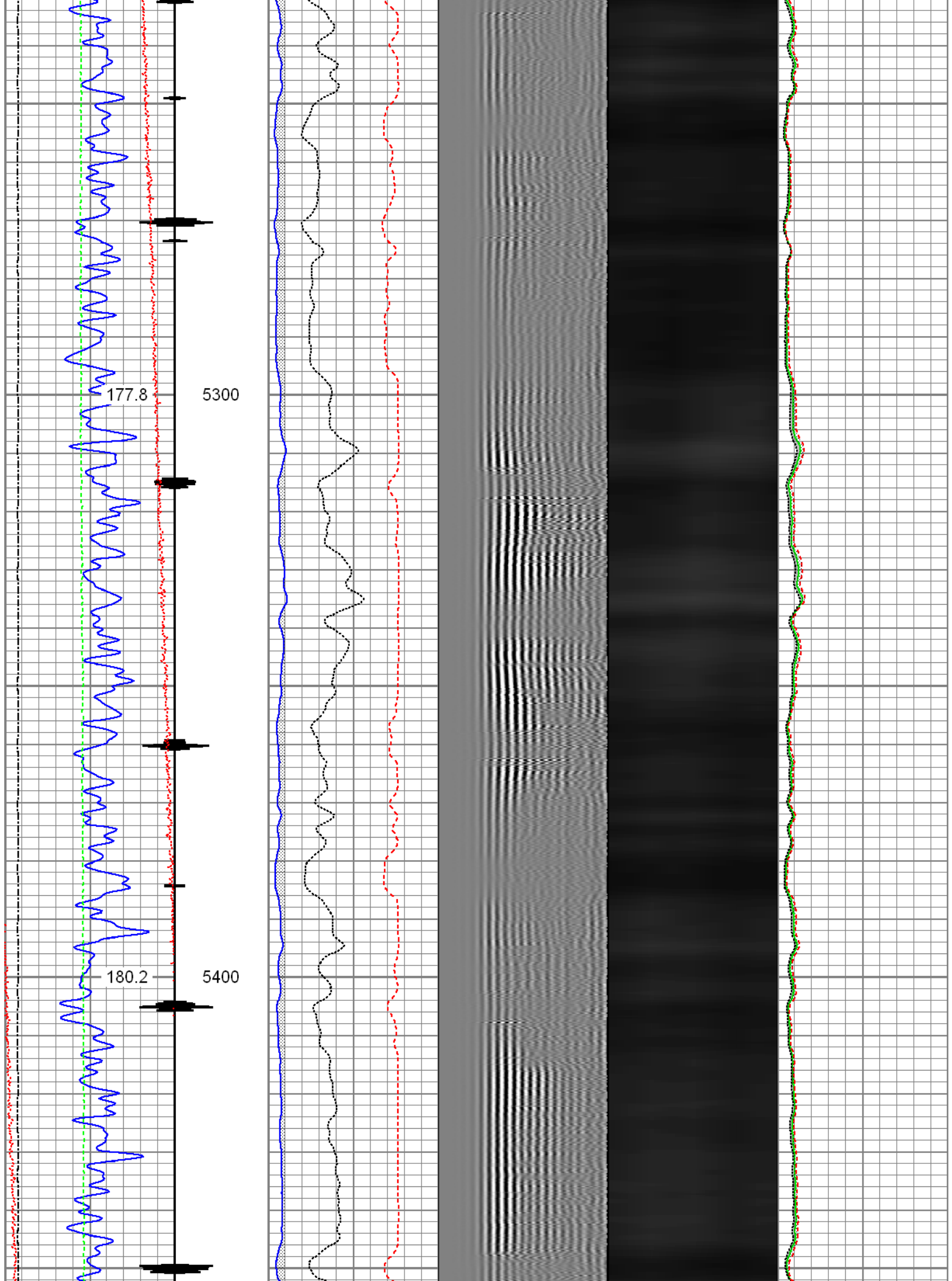


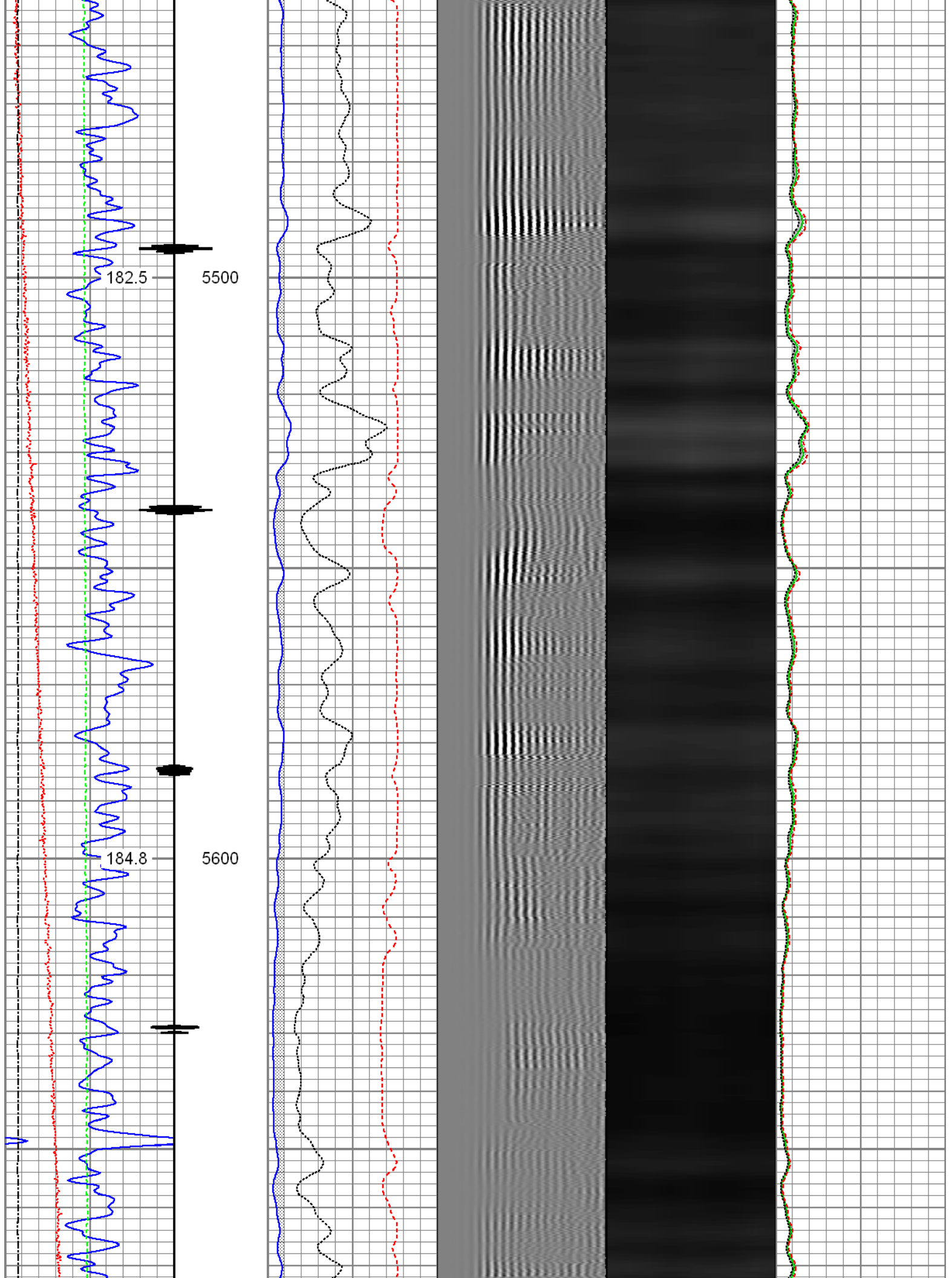


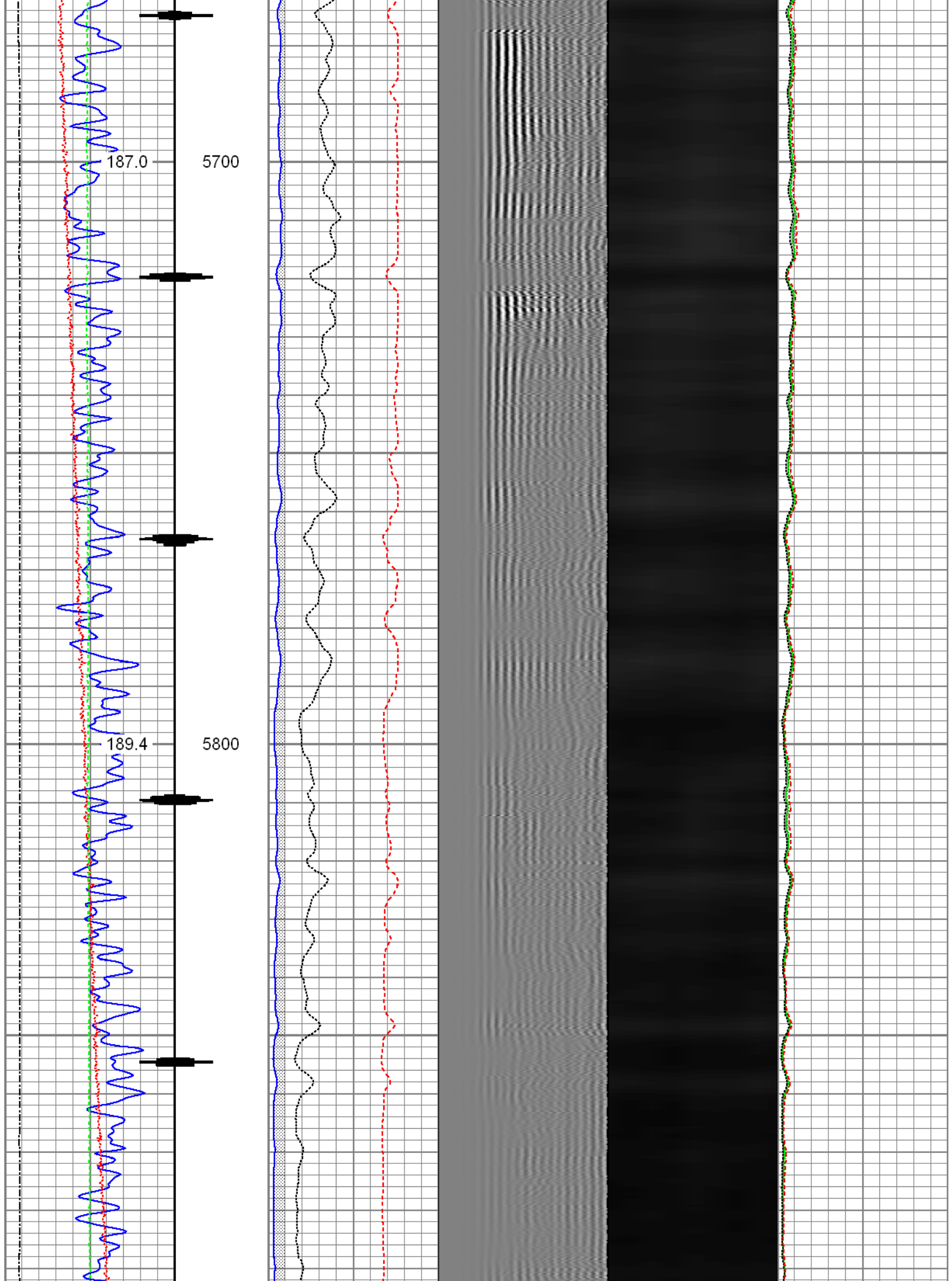


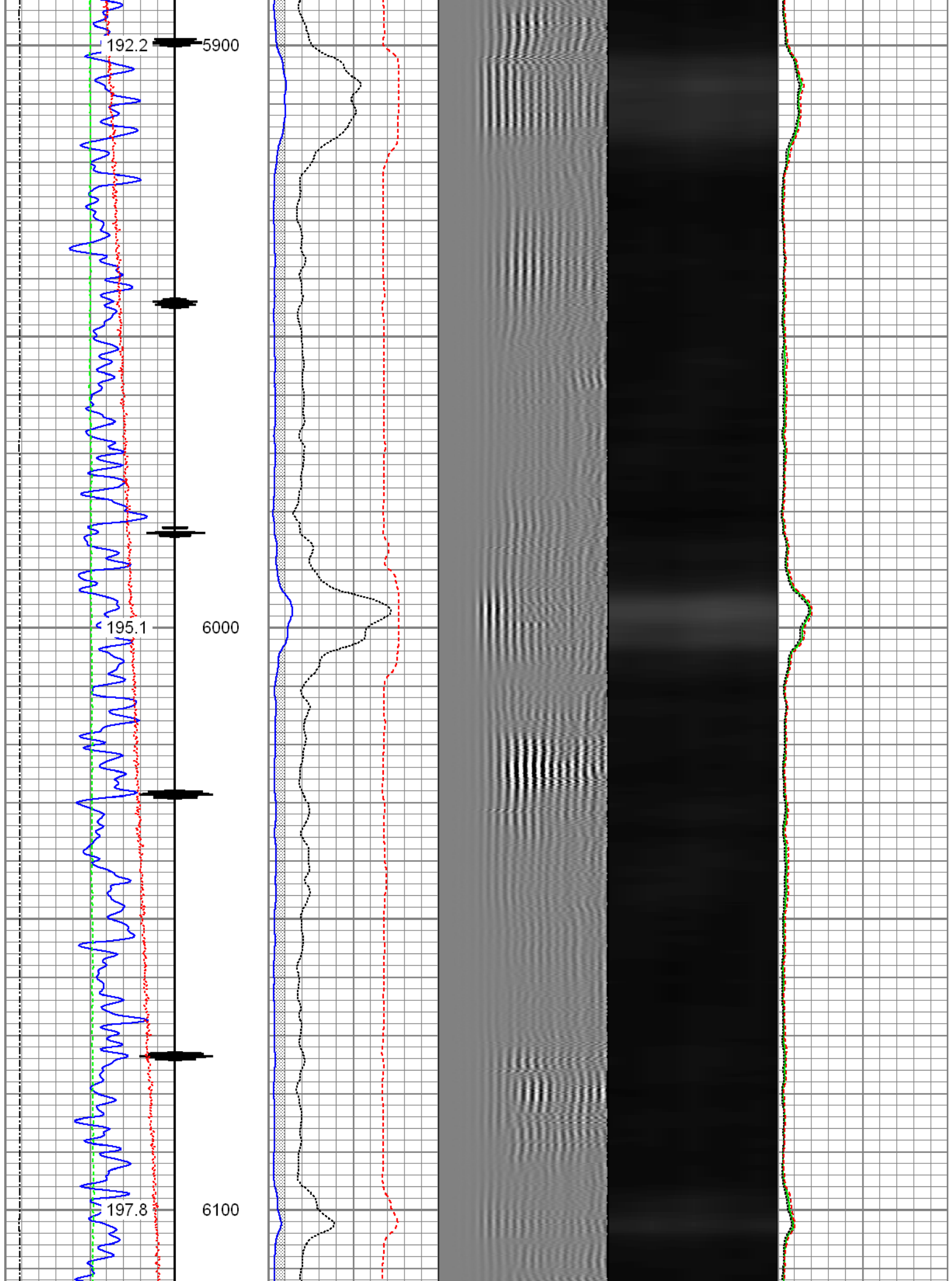


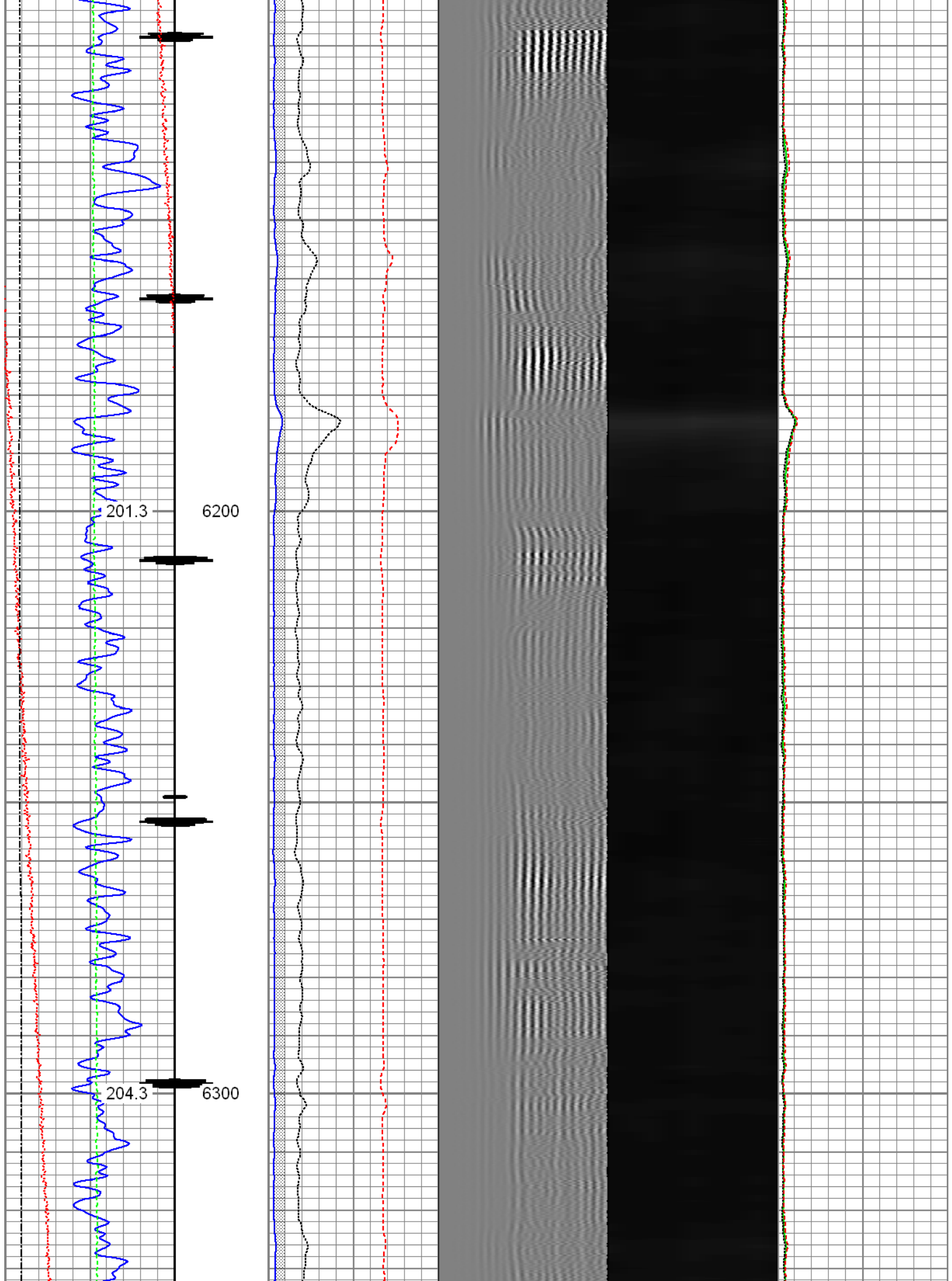


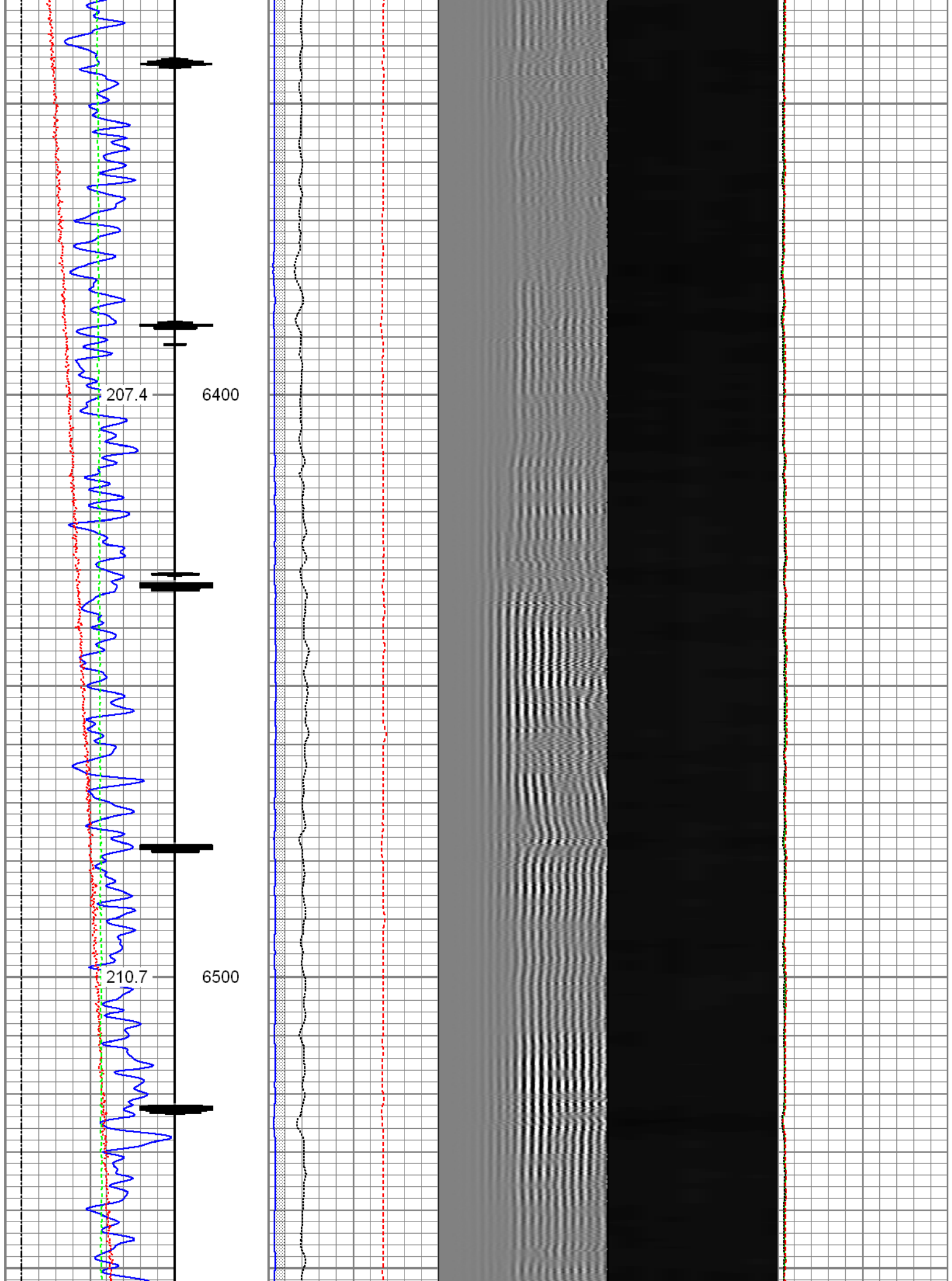


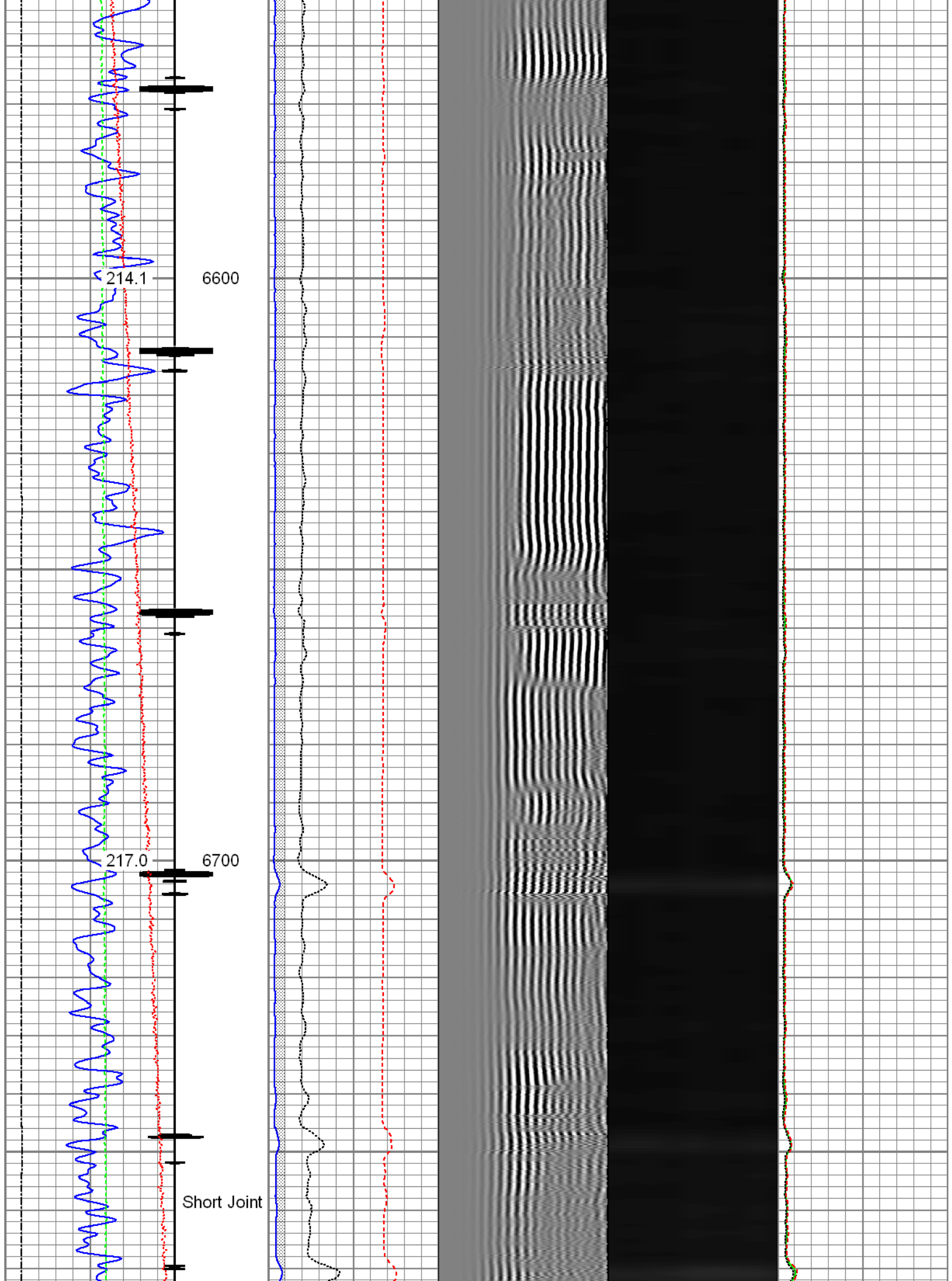


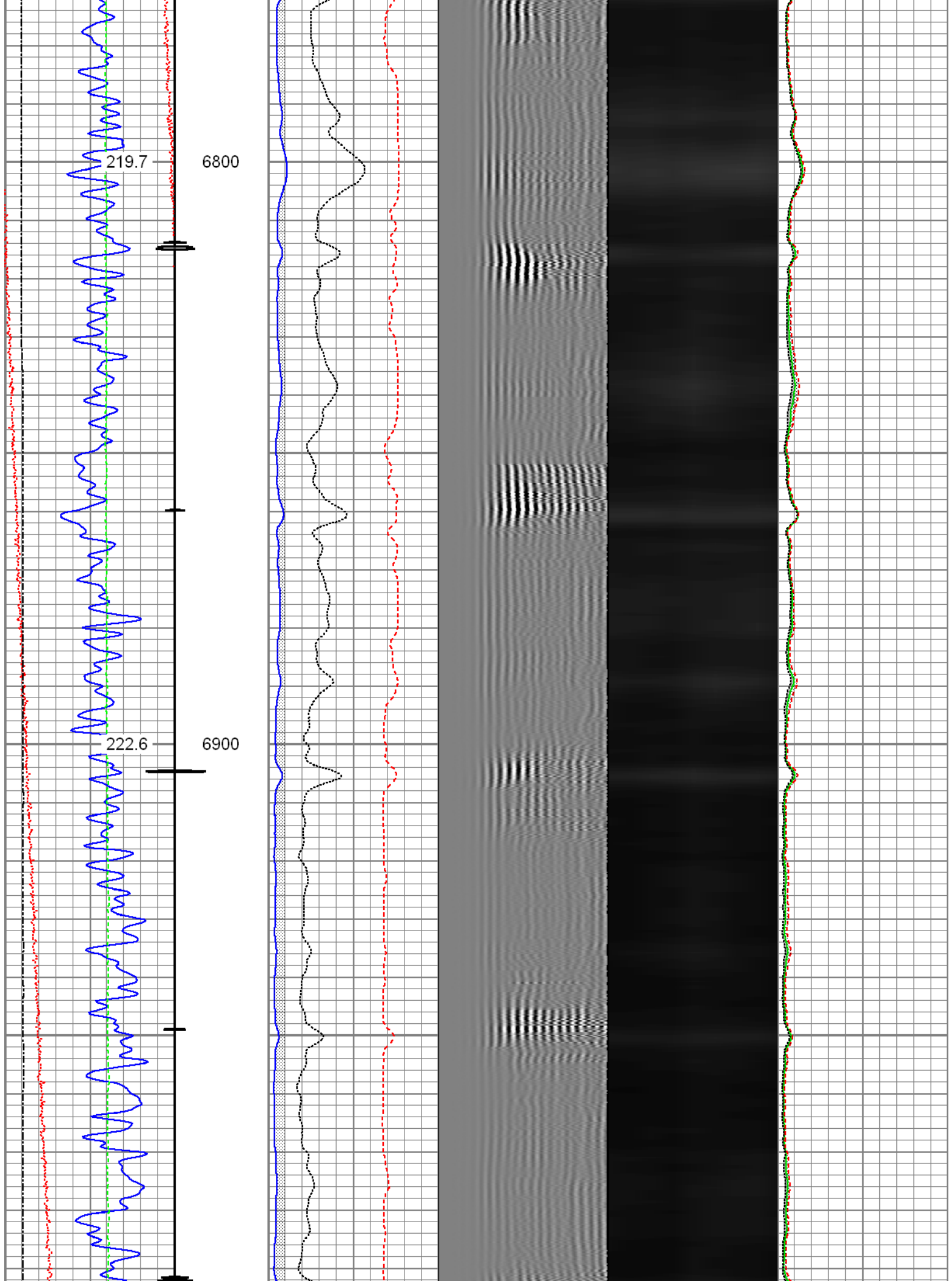


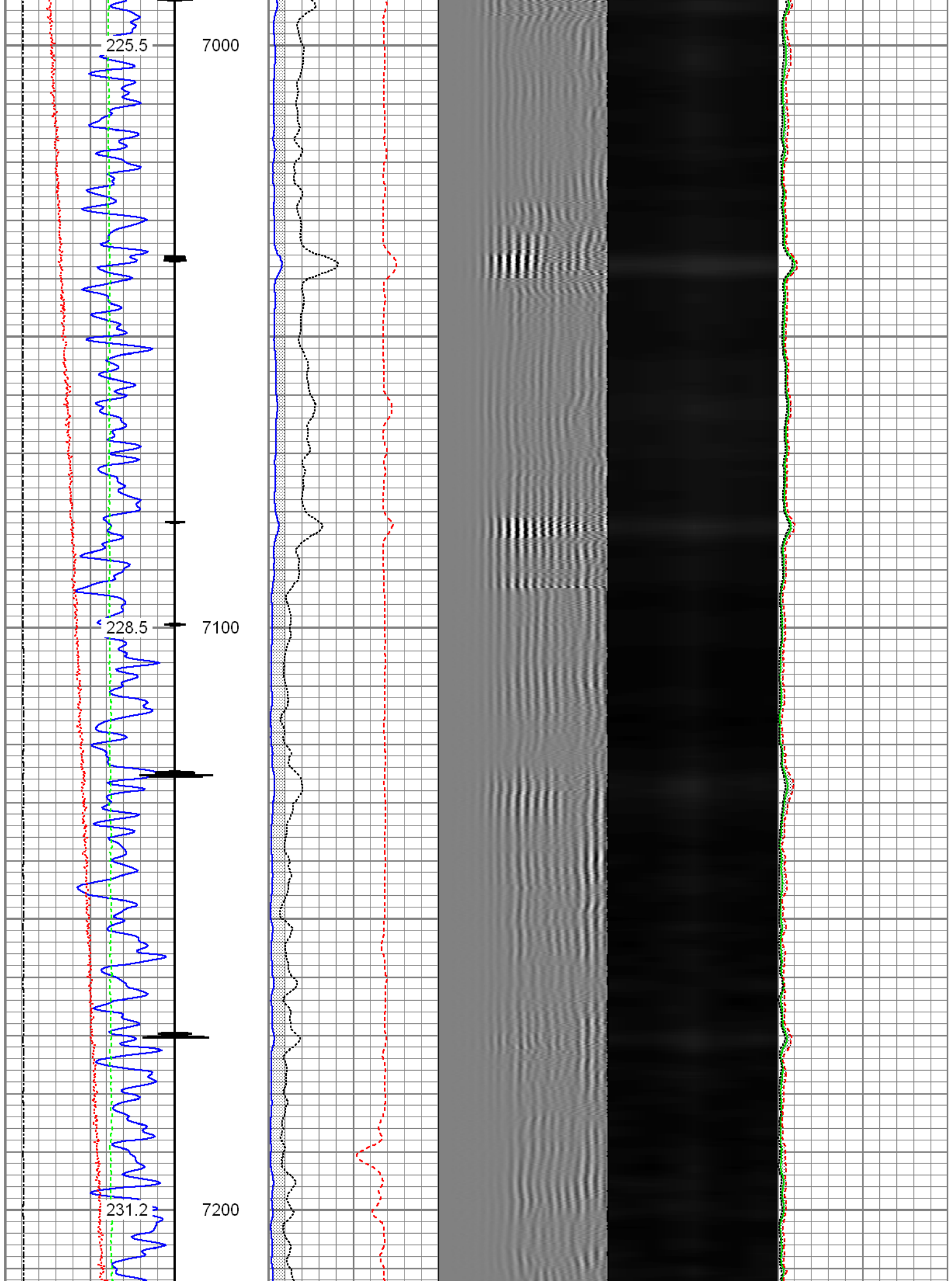


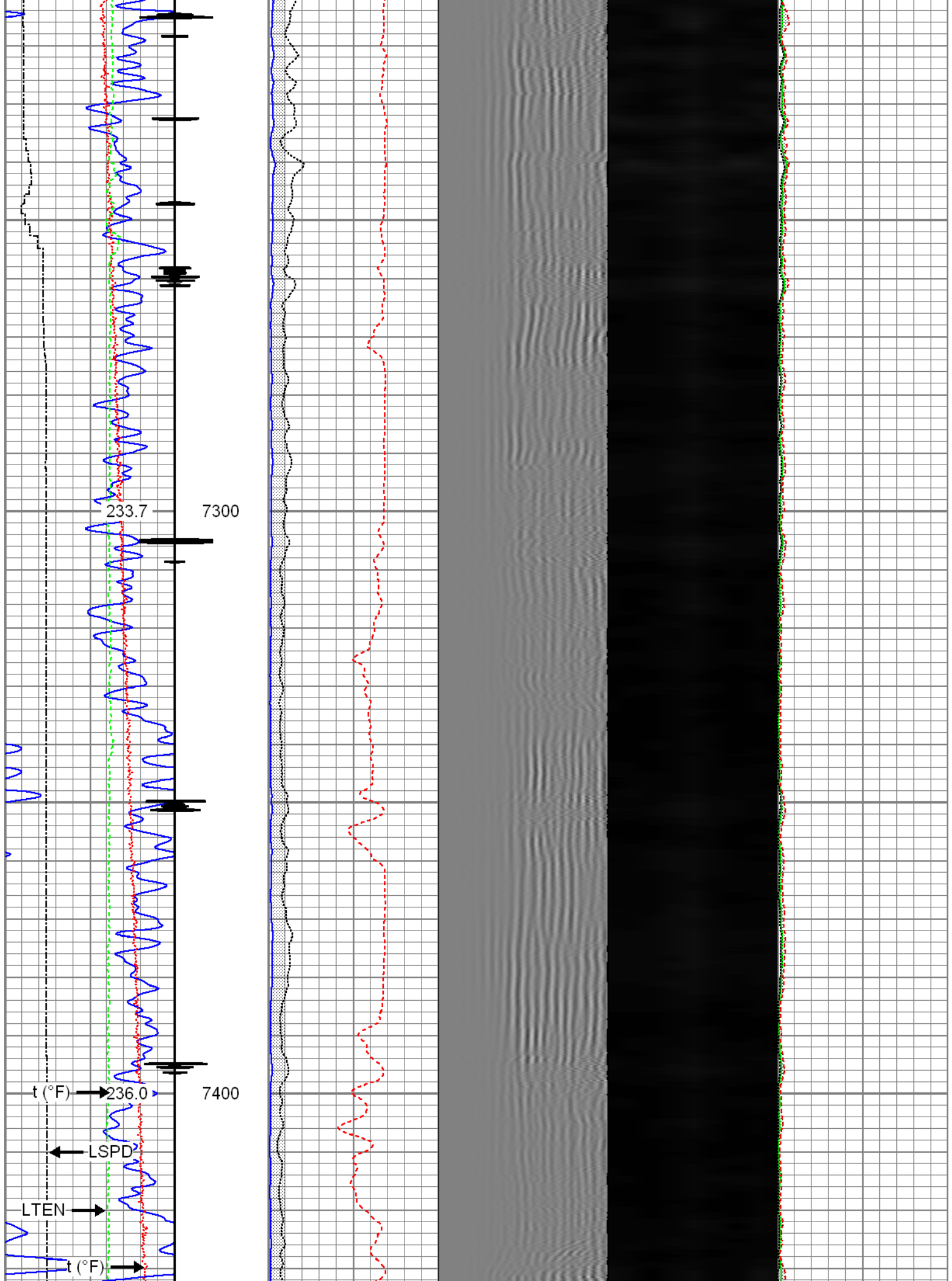


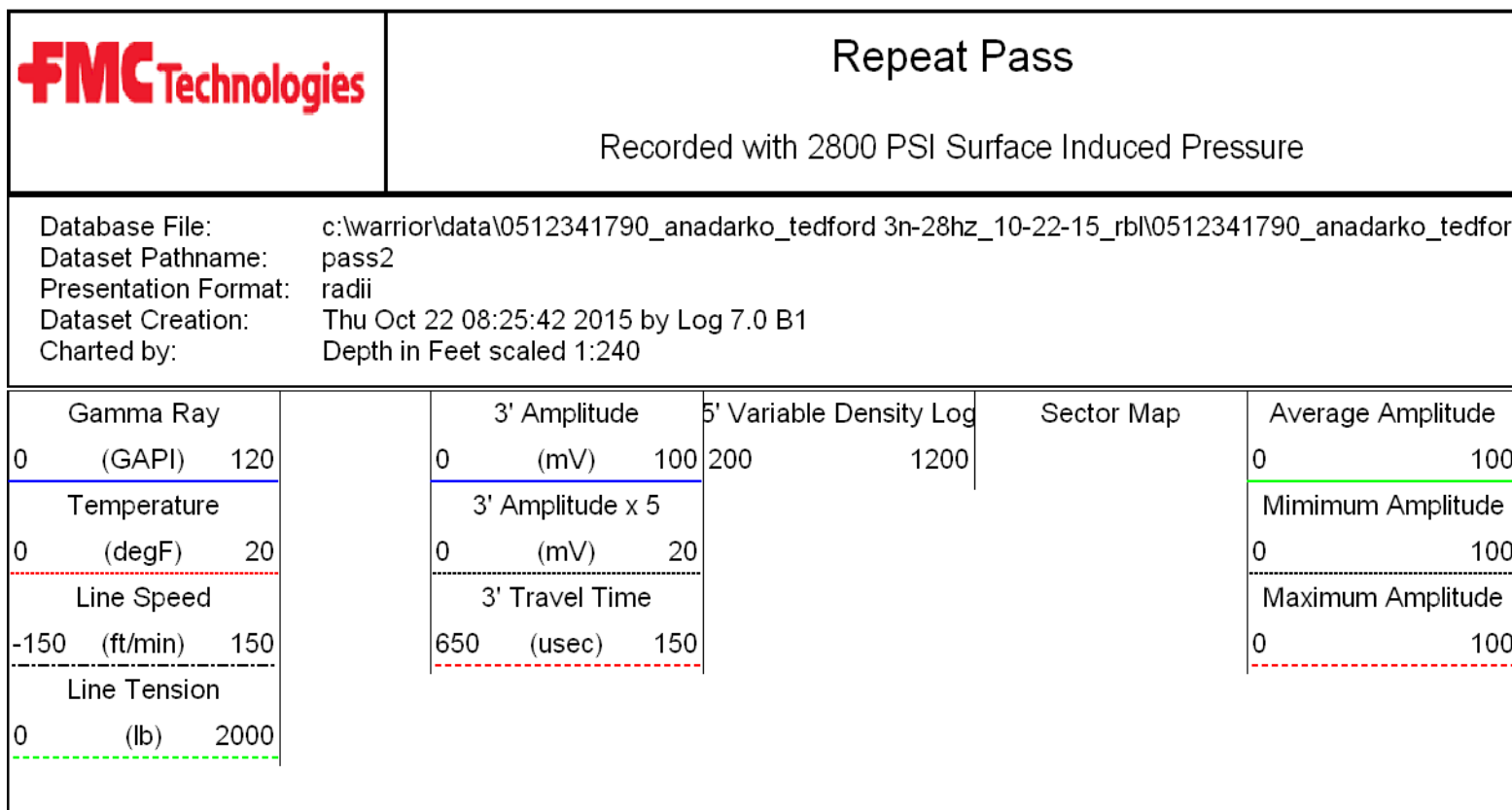
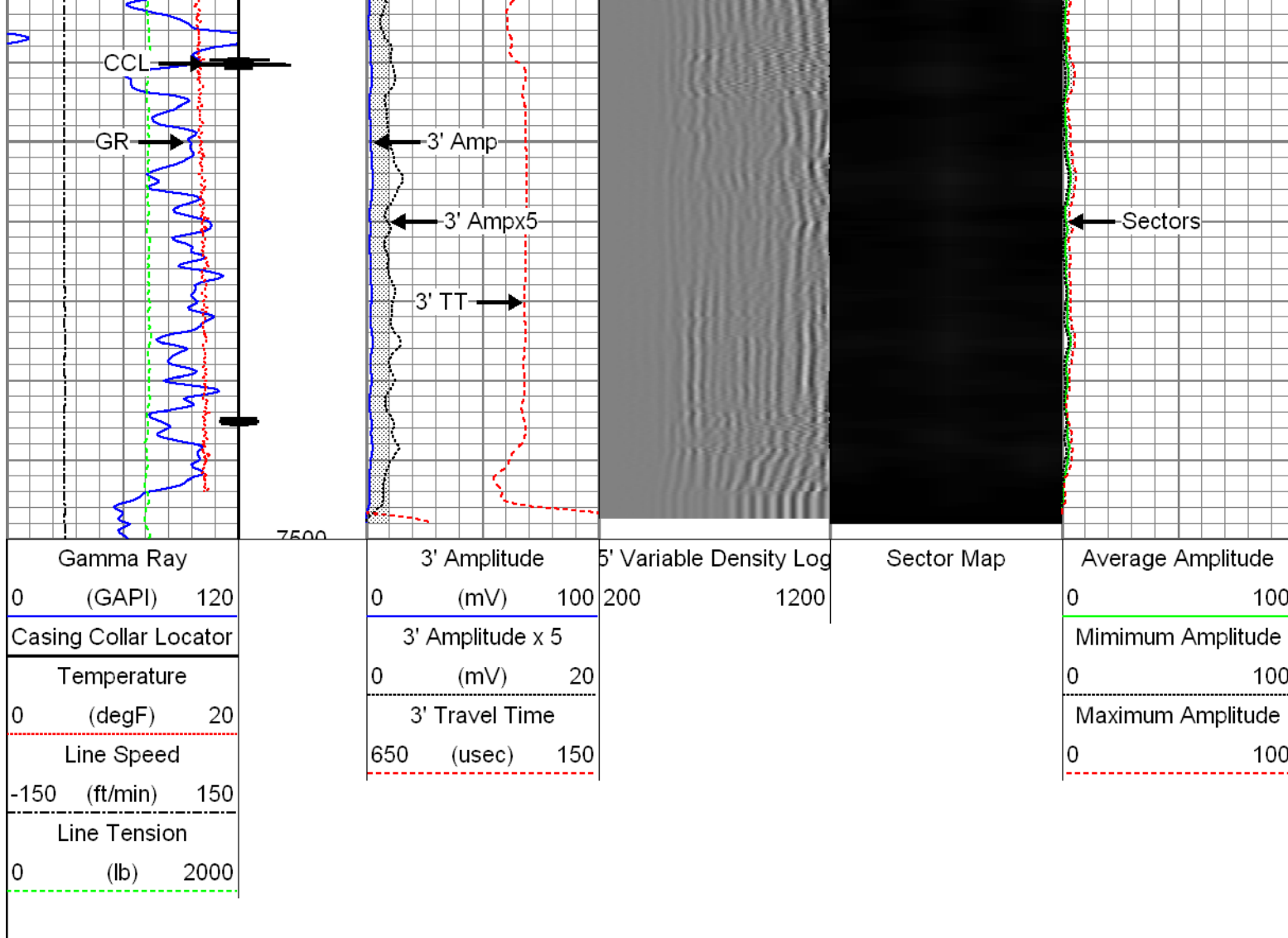


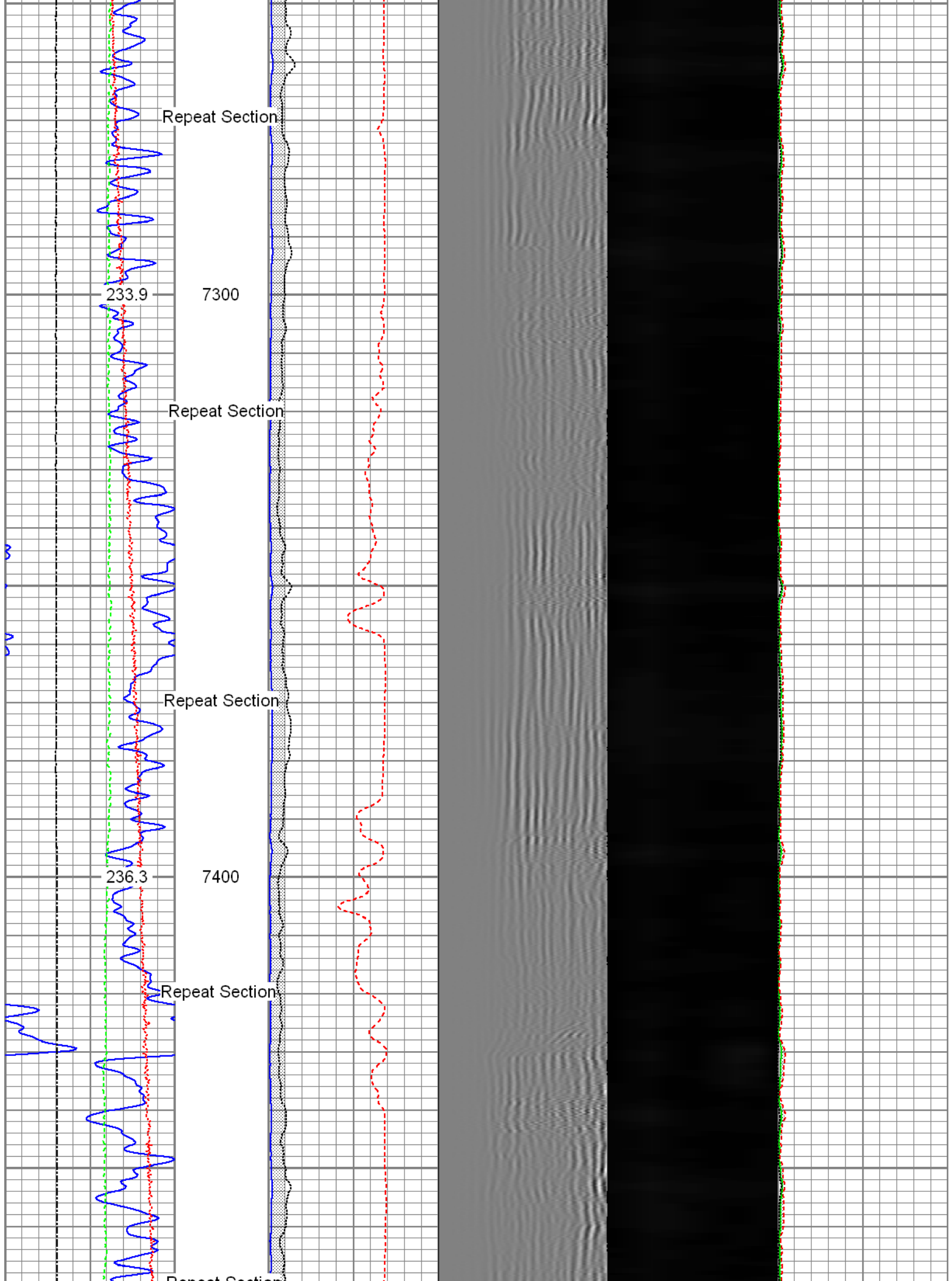


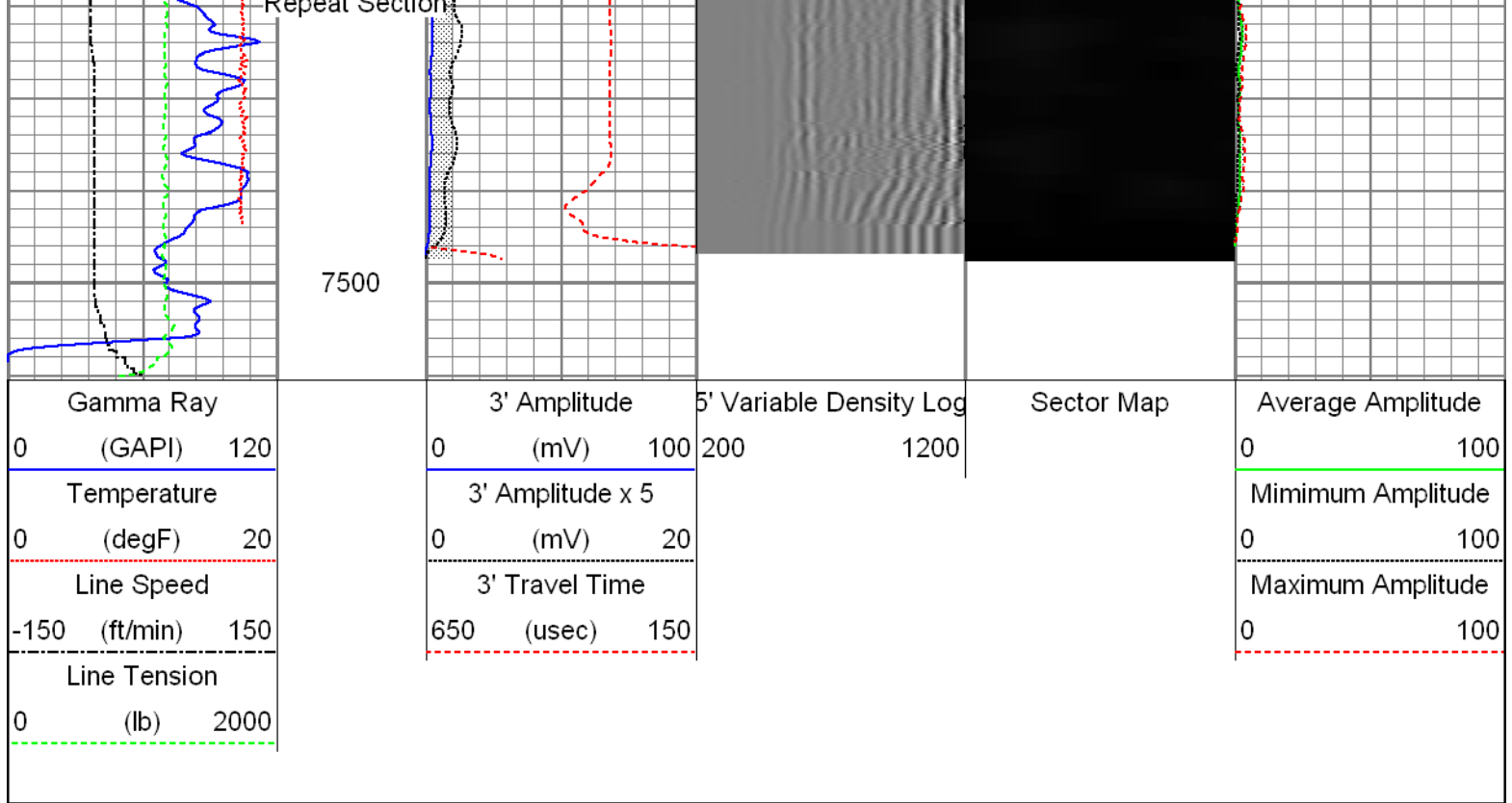












Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
HeadVolt	19.49		T_CH14375_1_GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	4.00
			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
Temp	16.72					
WVF3FT	14.55		Probe_RADII-C-2-3/4" (FW1311-014) 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					
WVFS8	14.55					
WVF5FT	13.55					
			Probe_IL_BS_Cent	2.88	2.75	10.00

CCL DCCL GR	6.51		Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
	6.51		Probe_CCL_GR-2.75"Digital (FW1211-081) Probe 2-3/4" Digital CCL / Gamma Ray Combined	4.54	2.75	55.00
	3.77		Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
Dataset: 0512341790_Anadarko_Tedford 3N-28HZ_10-22-15_RBL.db: field/well/run1/pass4 Total Length: 23.40 ft Total Weight: 194.00 lb O.D.: 2.75 in						

Calibration Report	
Database File:	C:\Warrior\Data\0512341790_Anadarko_Tedford 3N-28HZ_10-22-15_RBL\0512341790_Anadarko_Te
Dataset Pathname:	pass4
Dataset Creation:	Thu Oct 22 08:32:54 2015 by Log 7.0 B1

Gamma Ray Calibration Report		
Serial Number:	FW1211-081	
Tool Model:	2.75"Digital	
Performed:	Tue Oct 13 10:37:22 2015	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1311-014	
Tool Model:	2-3/4"	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	5.947	ft

Master Calibration, performed Thu Oct 22 07:35:17 2015:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.010	0.690	1.000	71.921	104.370	-0.070
CAL	0.620	0.782				
5'	0.011	0.702	1.000	71.921	102.697	-0.181

SUM						
S1	0.010	0.693	0.000	100.000	146.448	-1.436
S2	0.011	0.693	0.000	100.000	146.518	-1.549
S3	0.010	0.691	0.000	100.000	146.850	-1.522
S4	0.011	0.690	0.000	100.000	147.200	-1.563
S5	0.011	0.688	0.000	100.000	147.651	-1.606
S6	0.011	0.691	0.000	100.000	147.156	-1.613
S7	0.011	0.696	0.000	100.000	146.022	-1.635
S8	0.011	0.691	0.000	100.000	147.013	-1.588

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	0.620	0.782	1.000	0.000

Air Zero Calibration, performed Thu Oct 22 07:34:07 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 and Gas Onshore LP
Well Tedford 3N-28HZ
Field Wattenberg
County Weld
State Colorado