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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 30 FT Log ran from as deep as possible in heel to surface Recorded with 2500 PSI surface induced pressure Logging tools were clean and free of any debris upon completion of operations Thank you for choosing FMC Technologies Surface Integrated Services.



Recorded with 2500 PSI Surface Induced Pressure

Database File: c:\warrior\data\01-22-16_noble energy_moser h34-735_rb\01-22-16_noble energy_moser h34-735_r

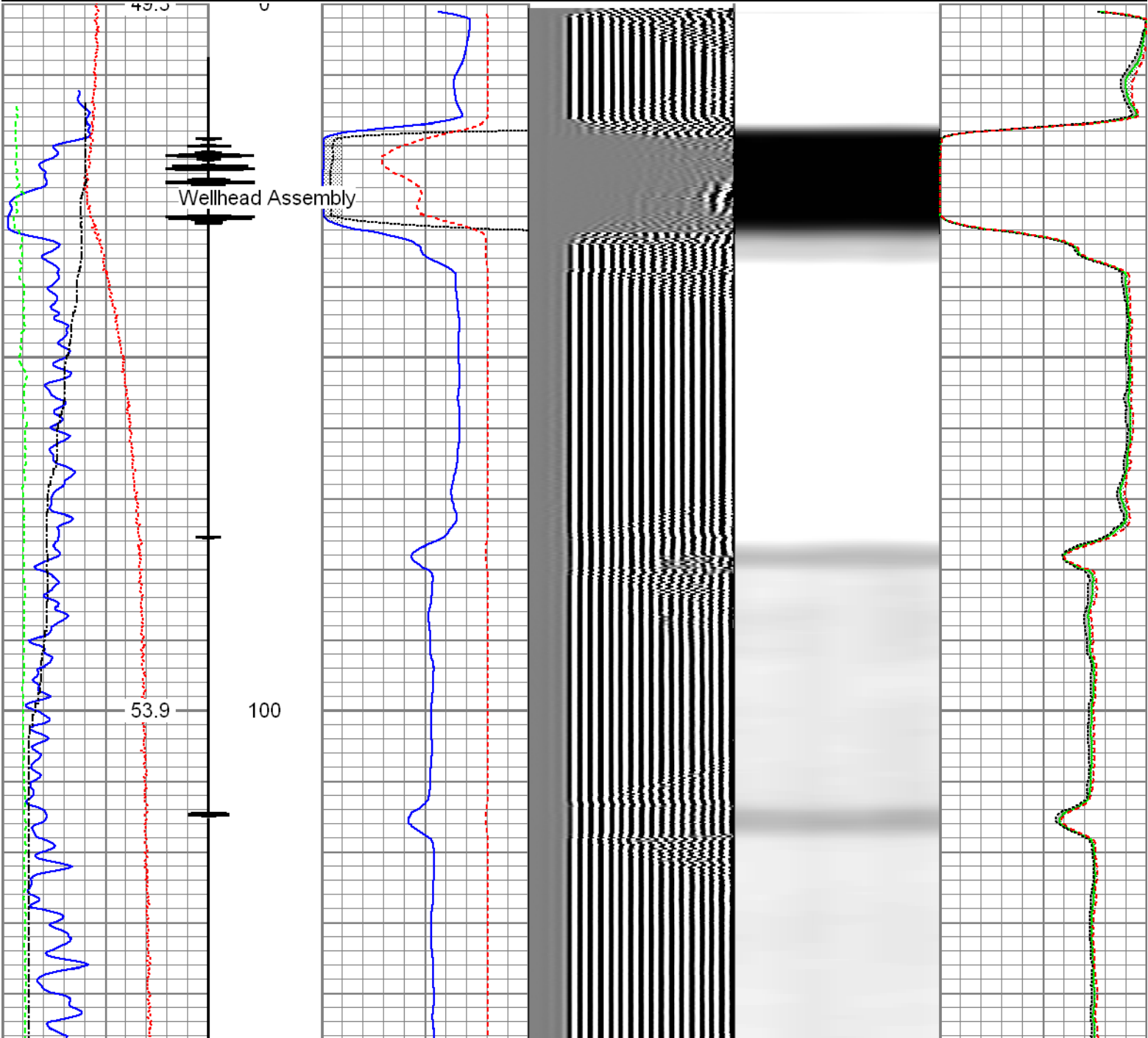
Dataset Pathname: main.1

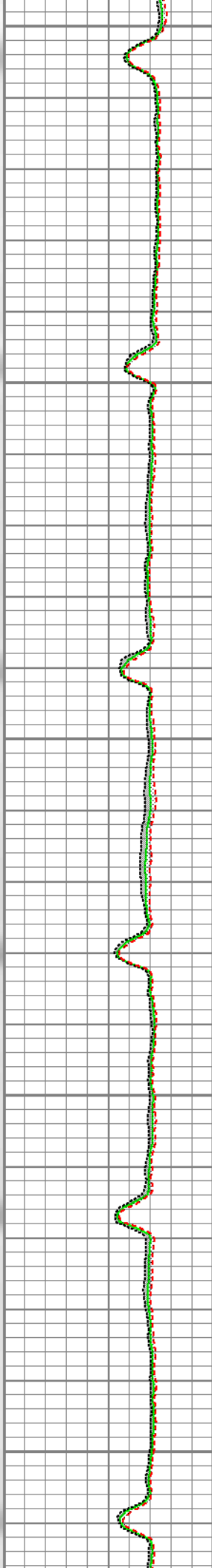
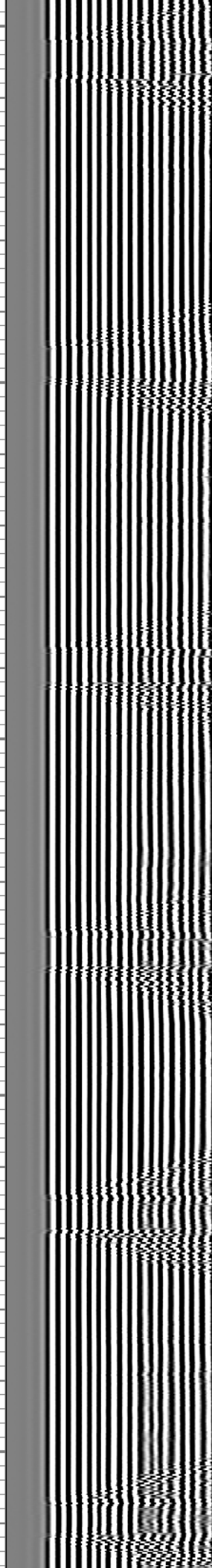
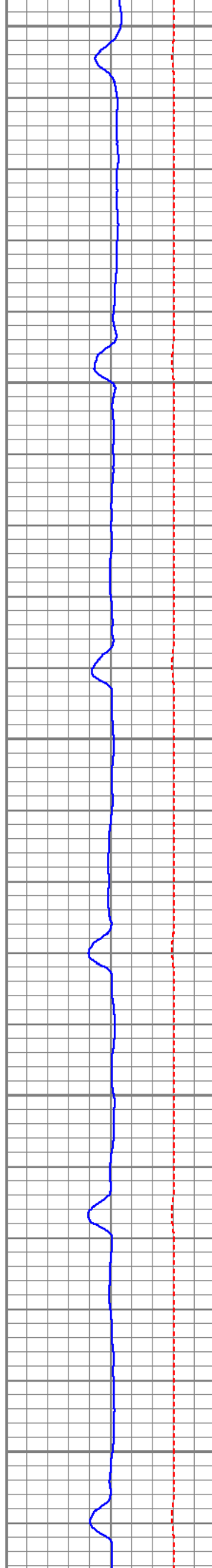
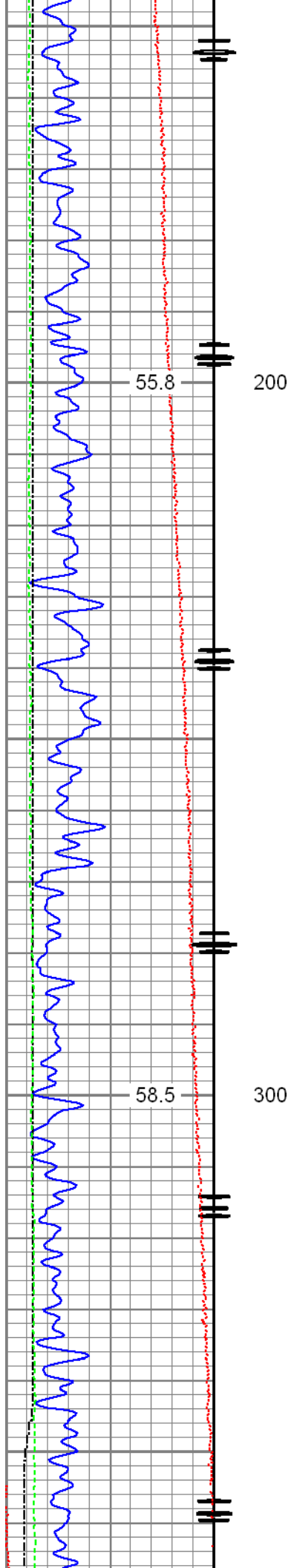
Presentation Format: radii

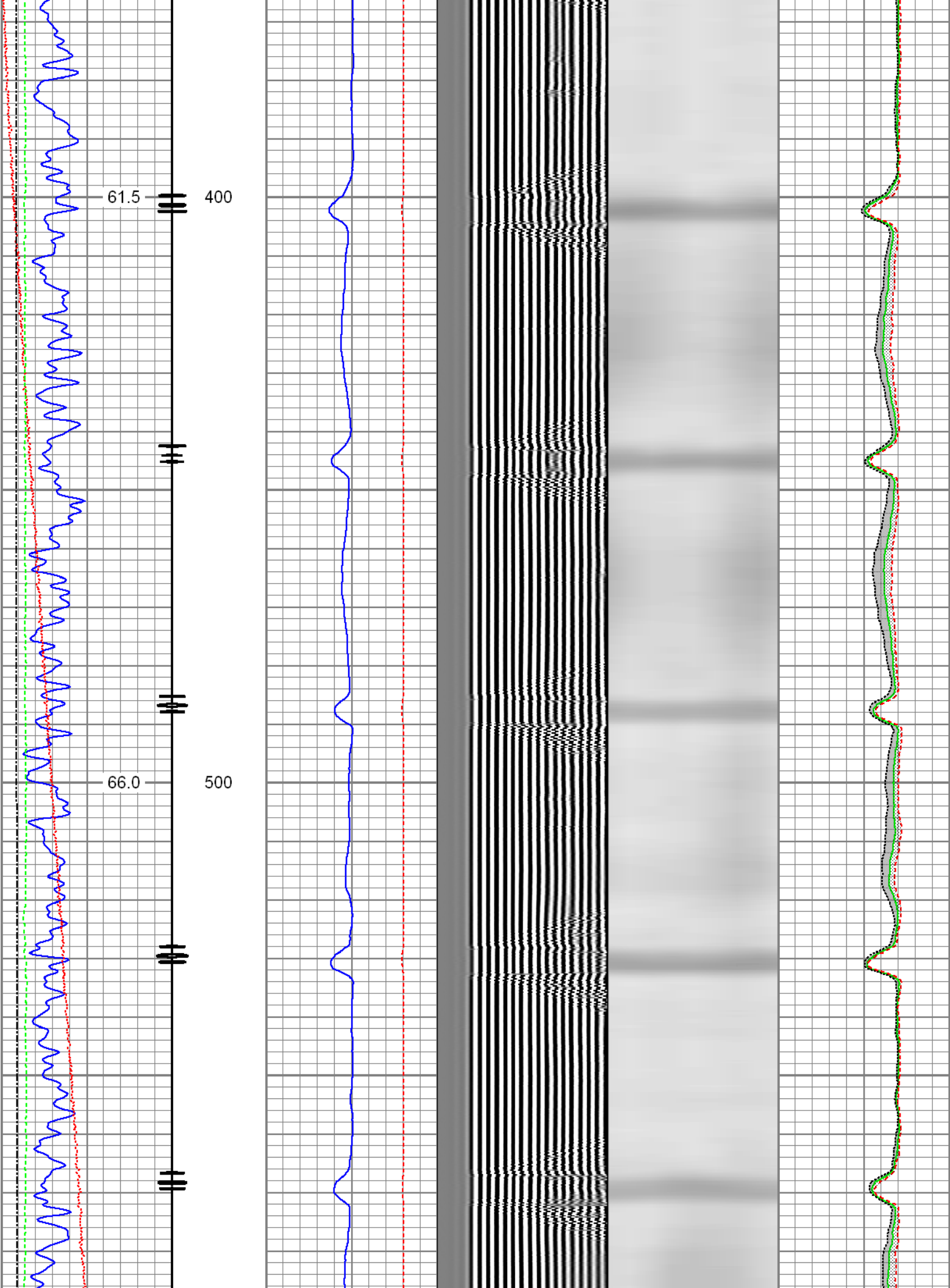
Dataset Creation: Tue Jan 26 10:02:03 2016 by Calc SCH 120430

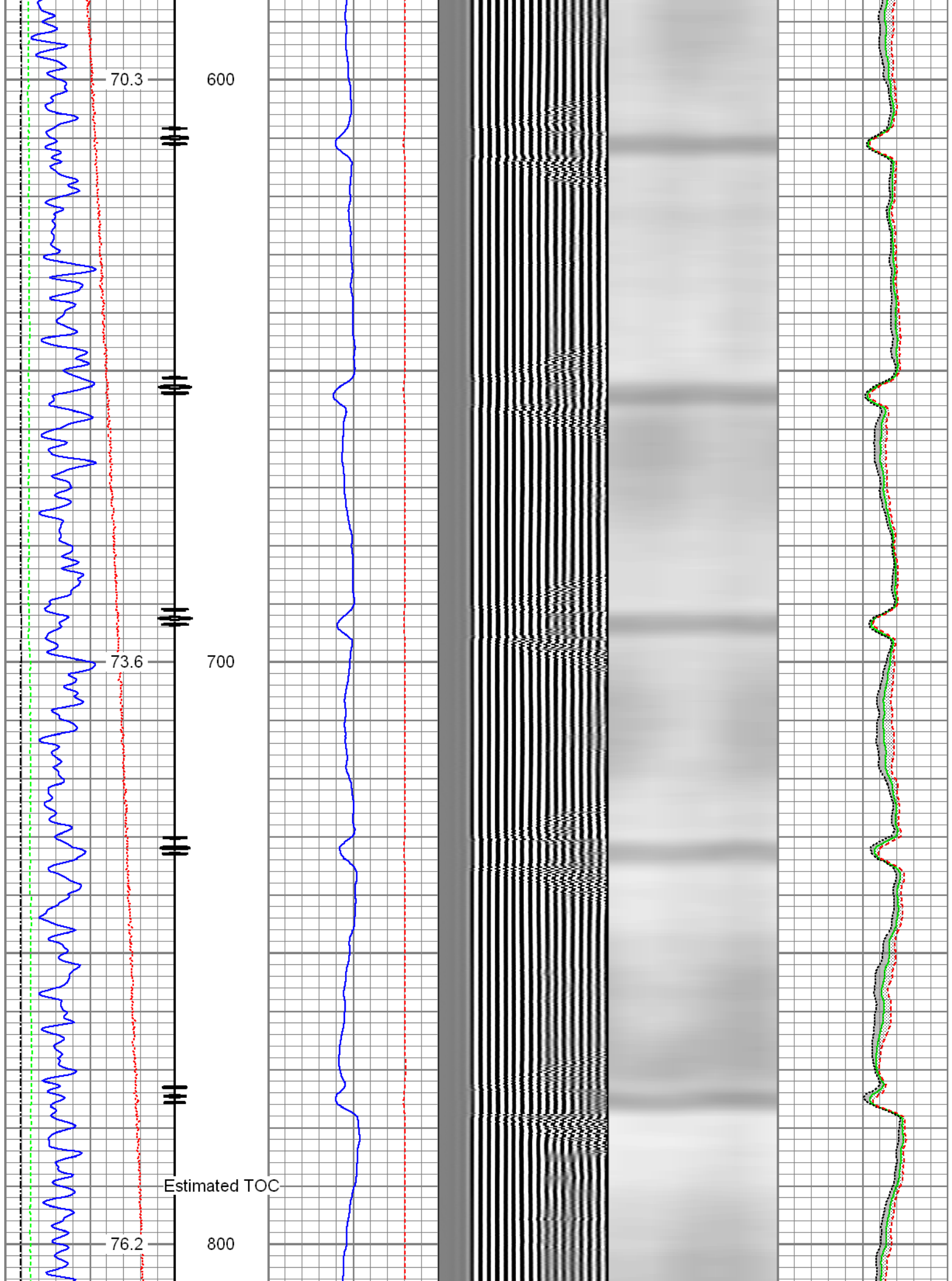
Charted by: Depth in Feet scaled 1:240

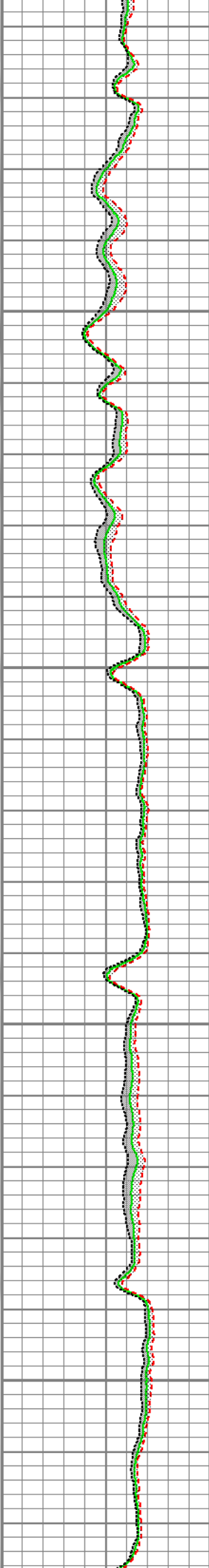
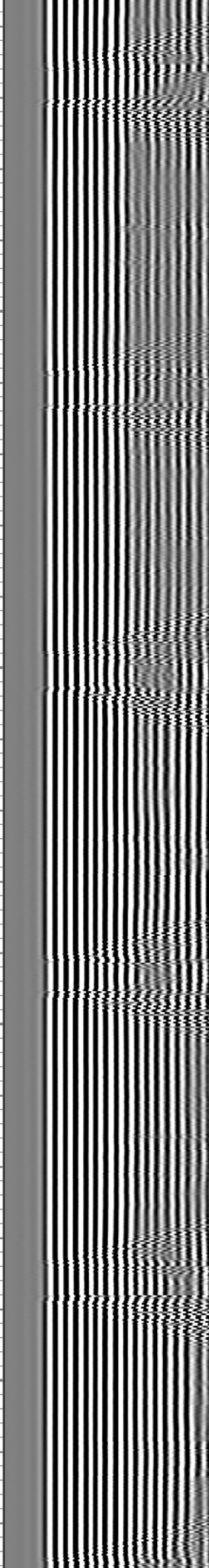
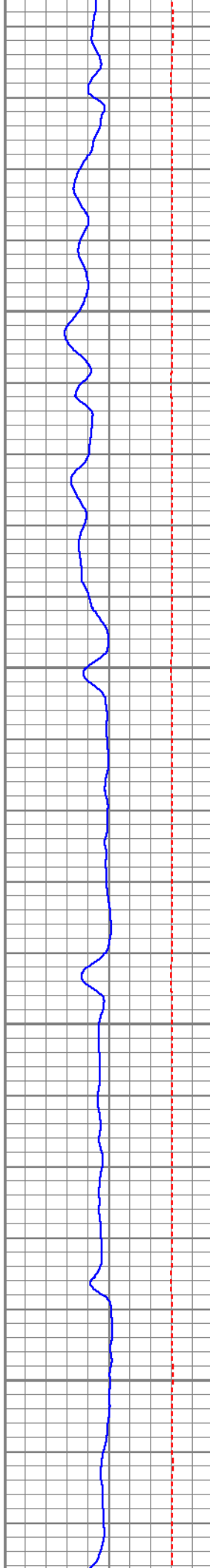
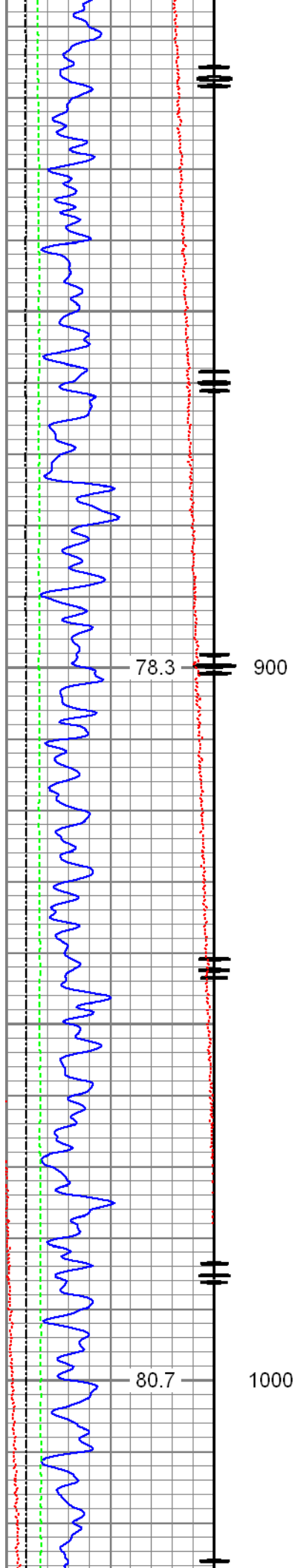
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Mimimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 20	3' Travel Time			Maximum Amplitude
Line Speed	650 (usec) 150			0 100
-150 (ft/min) 150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

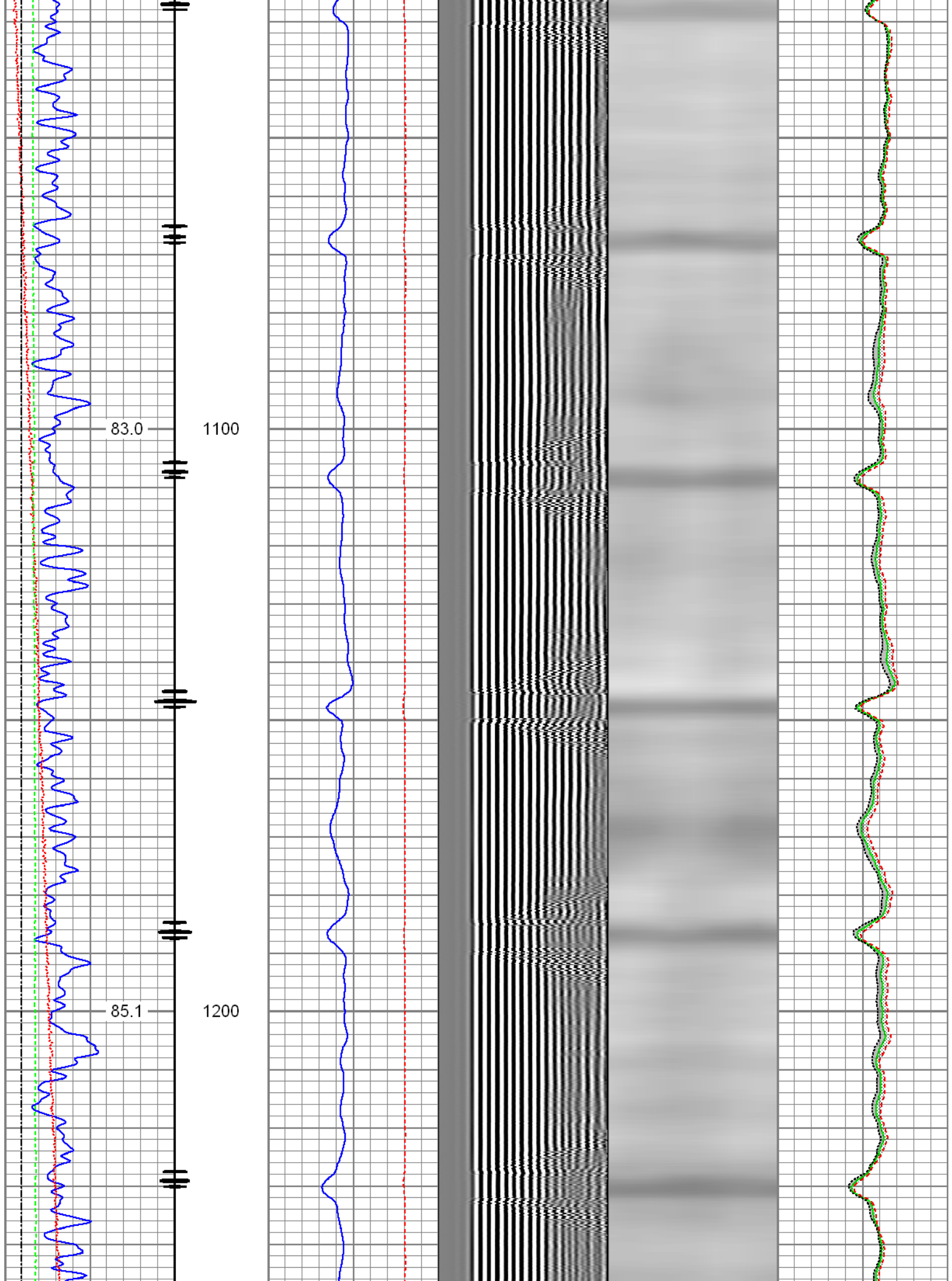


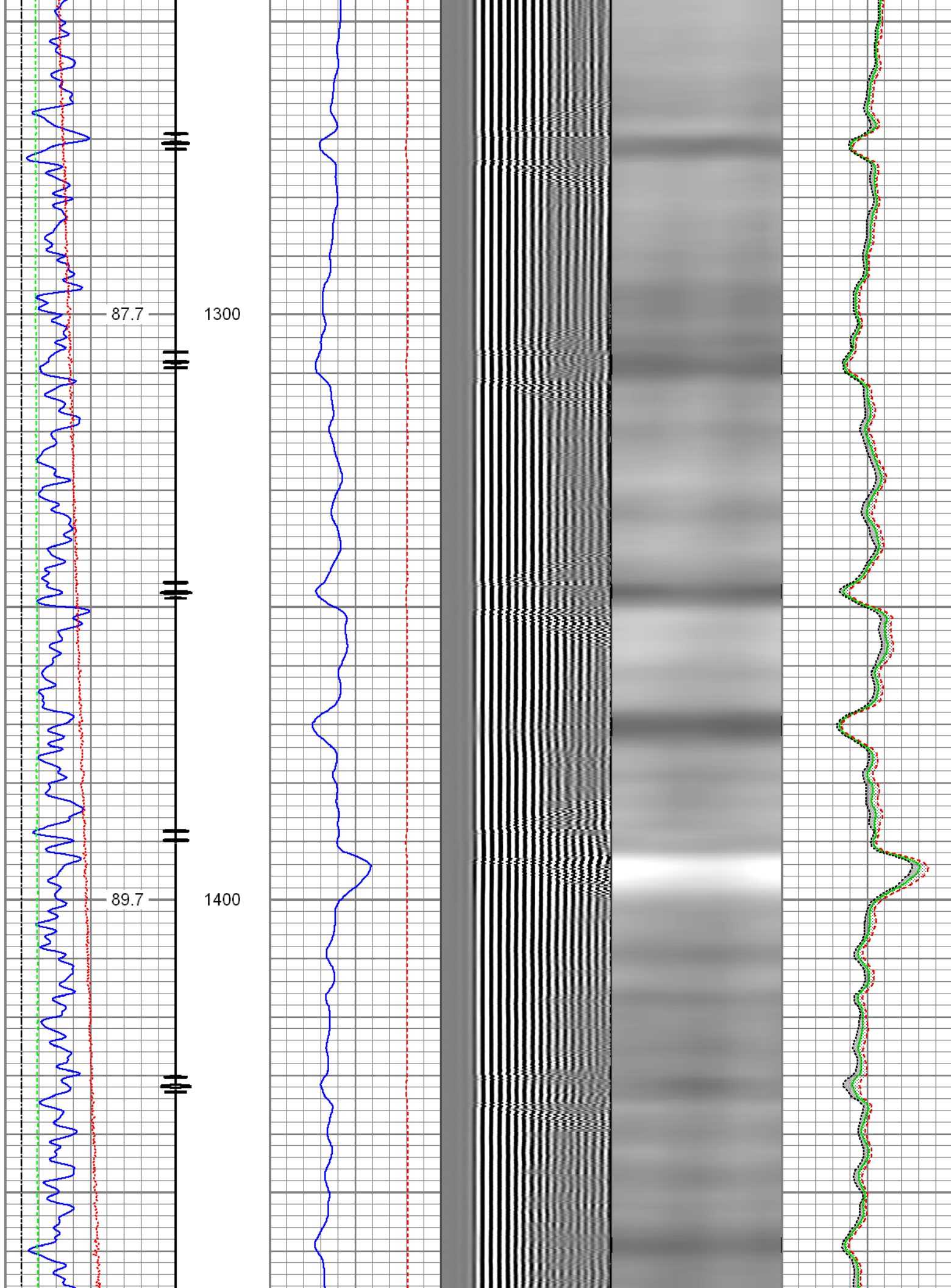


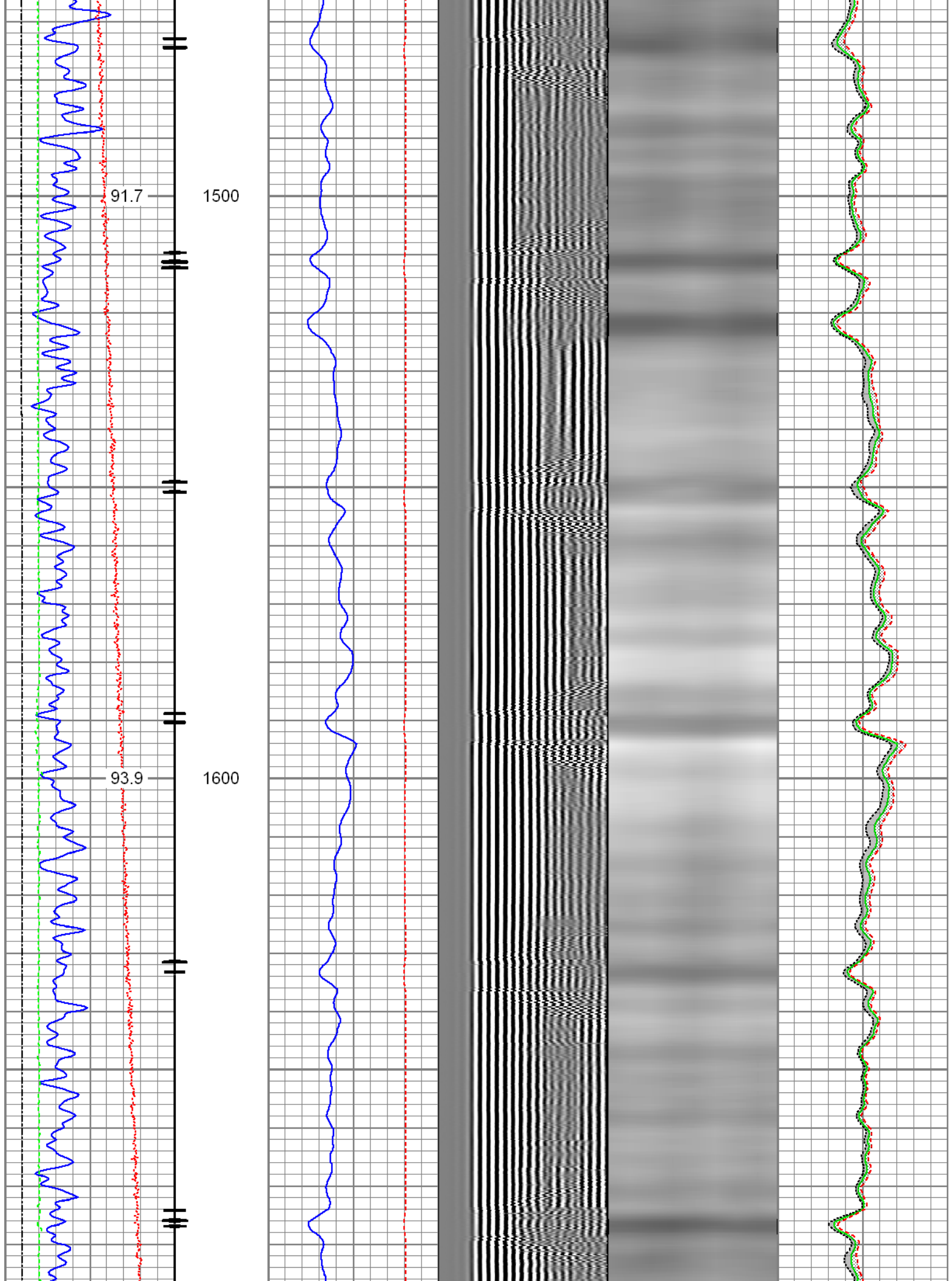


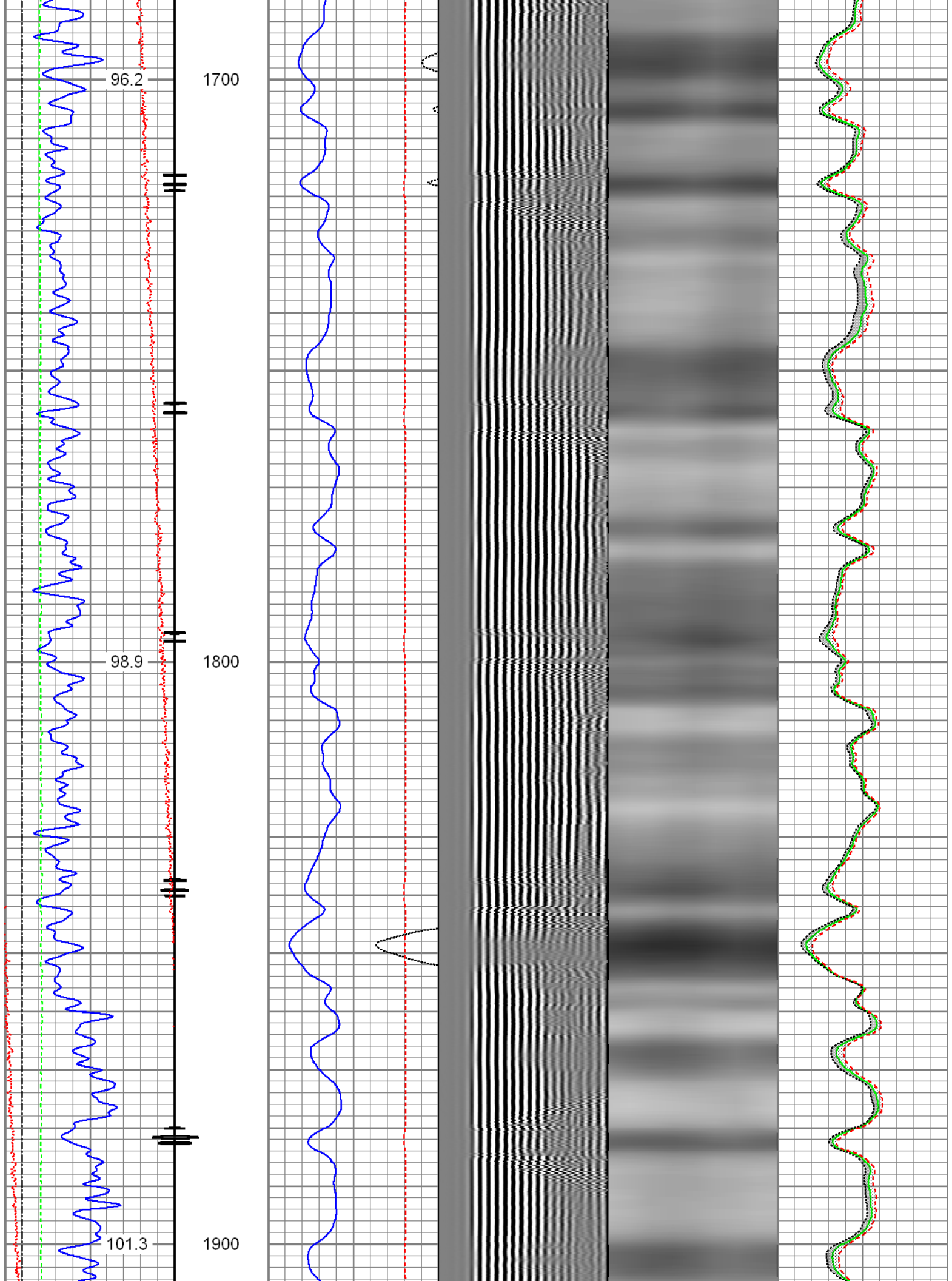


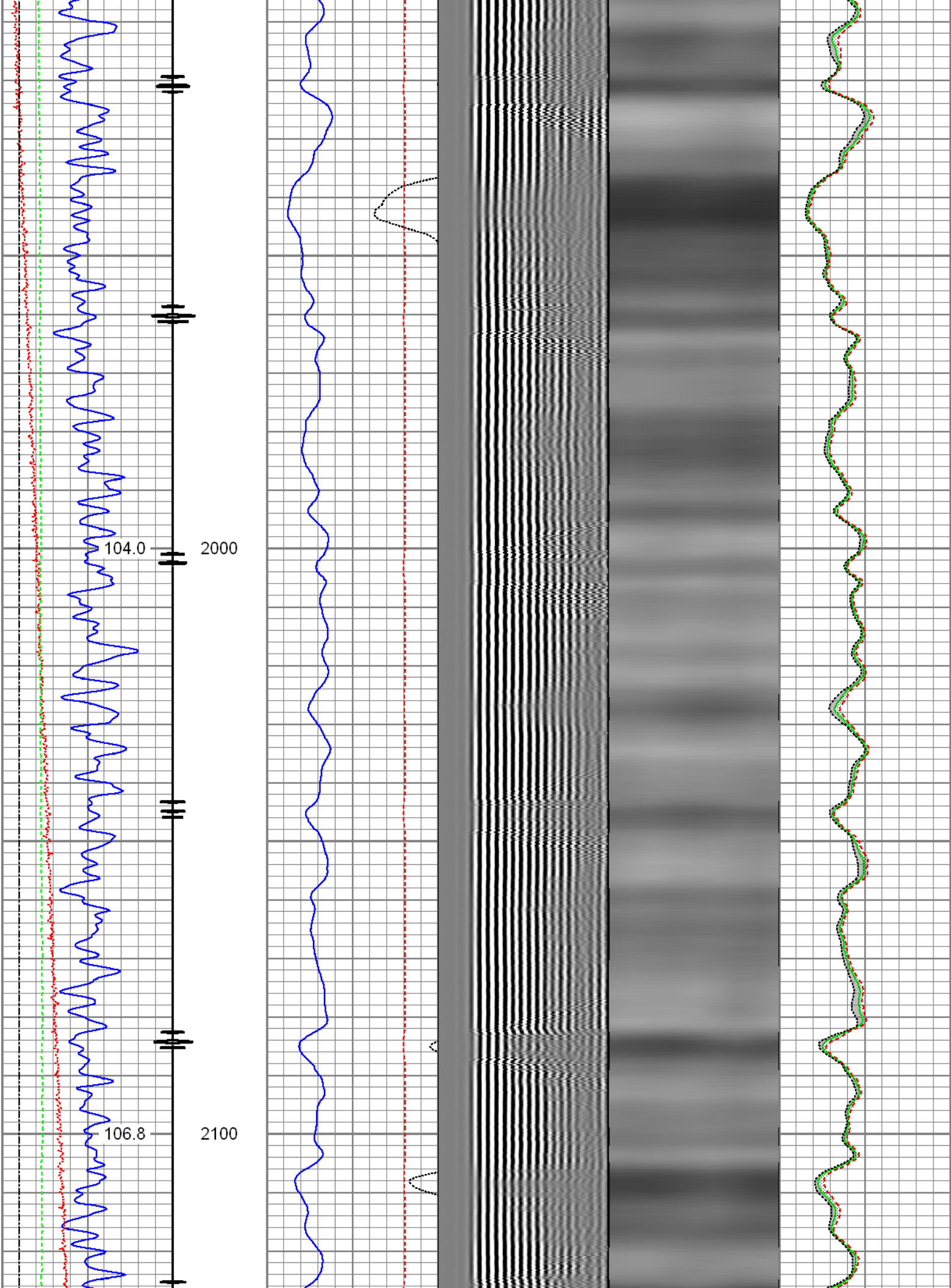


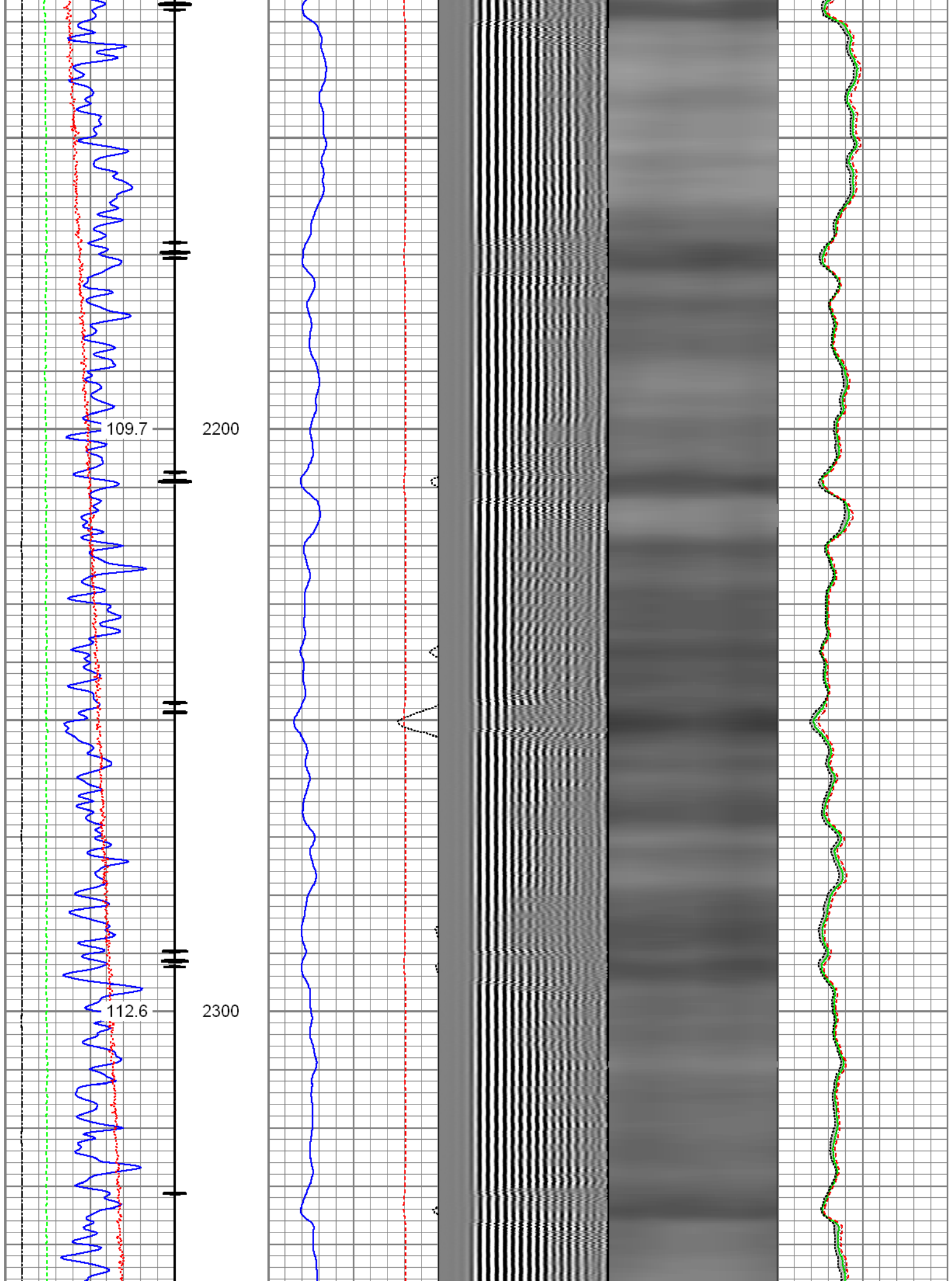


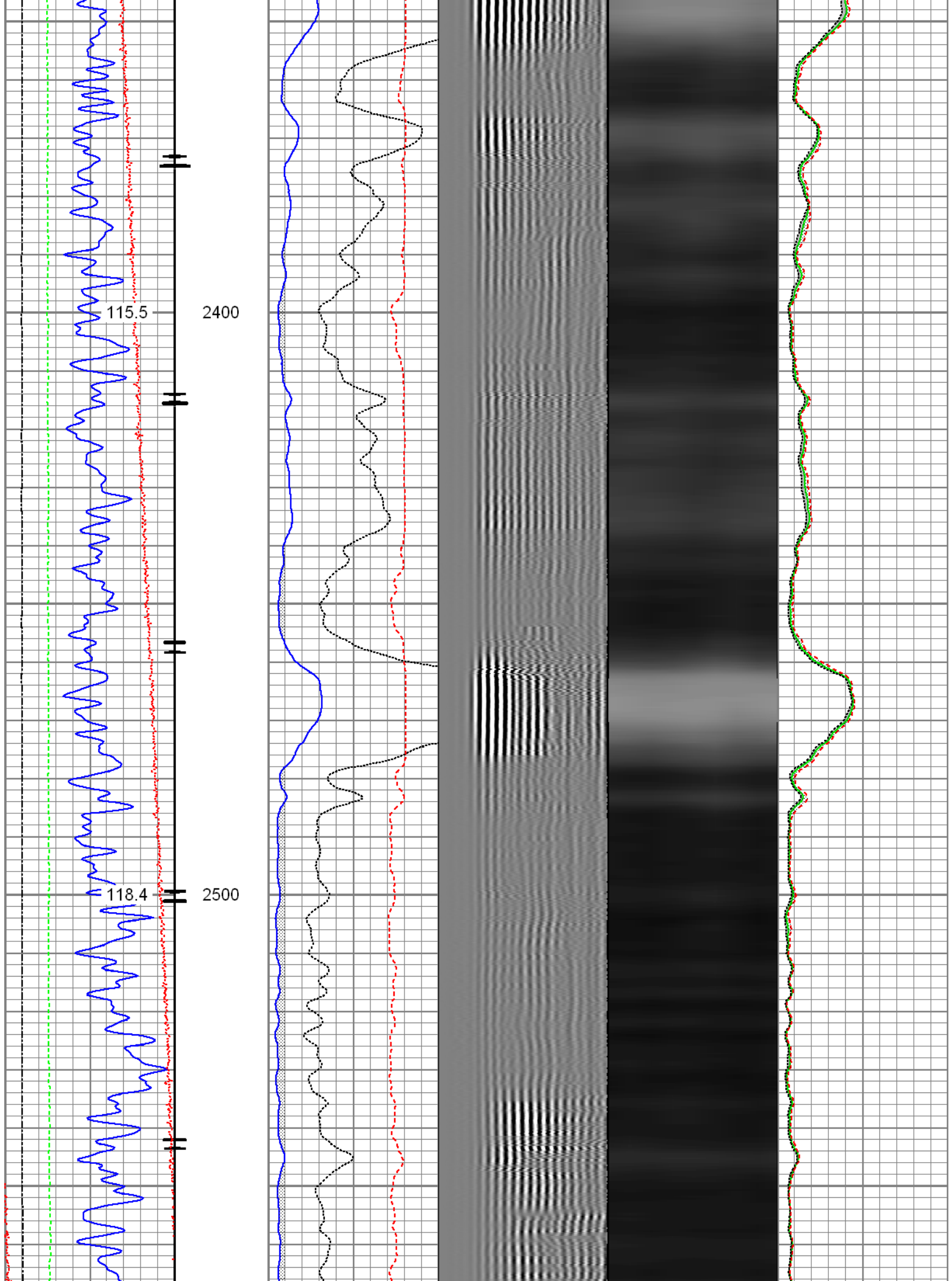


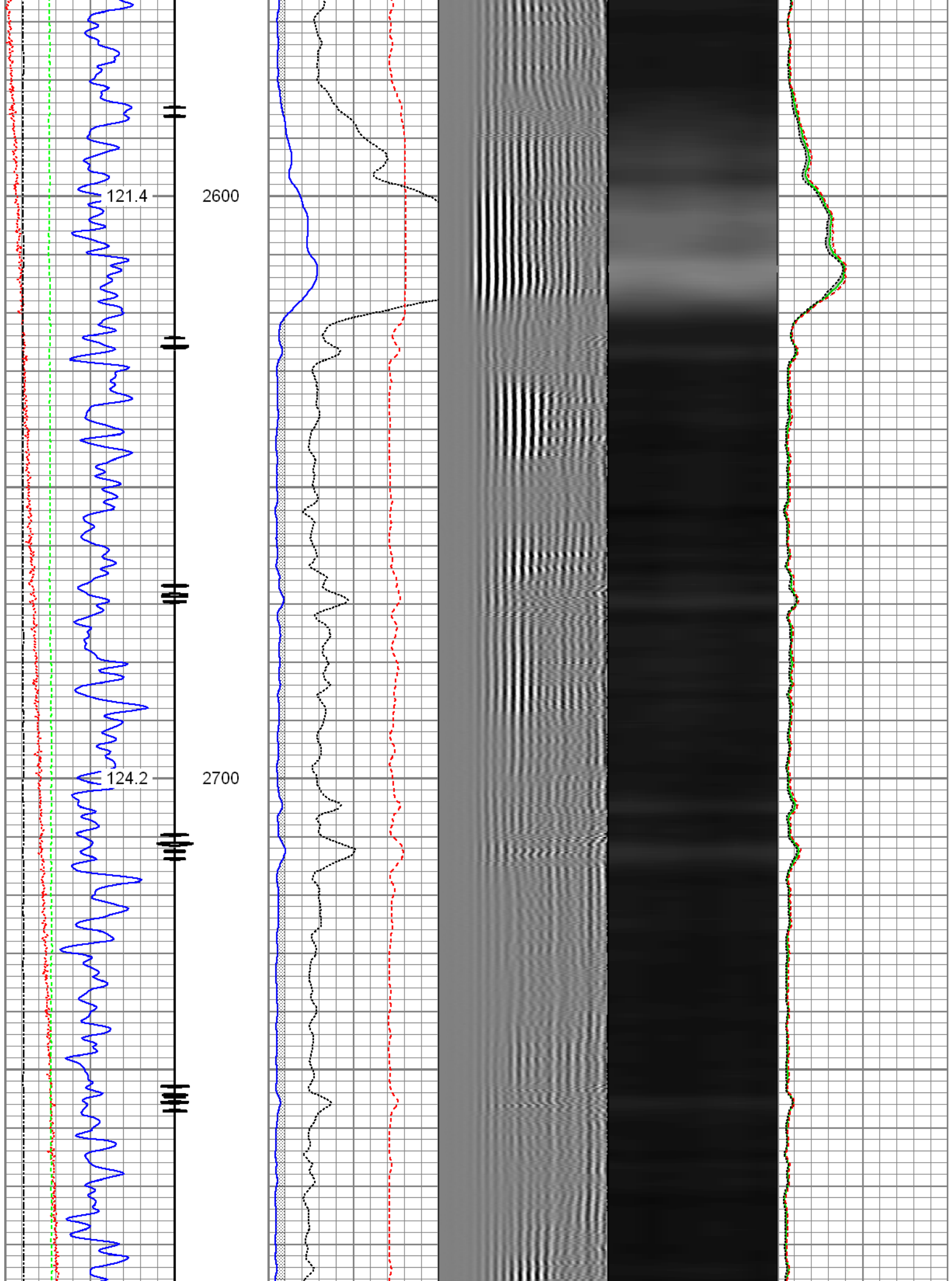


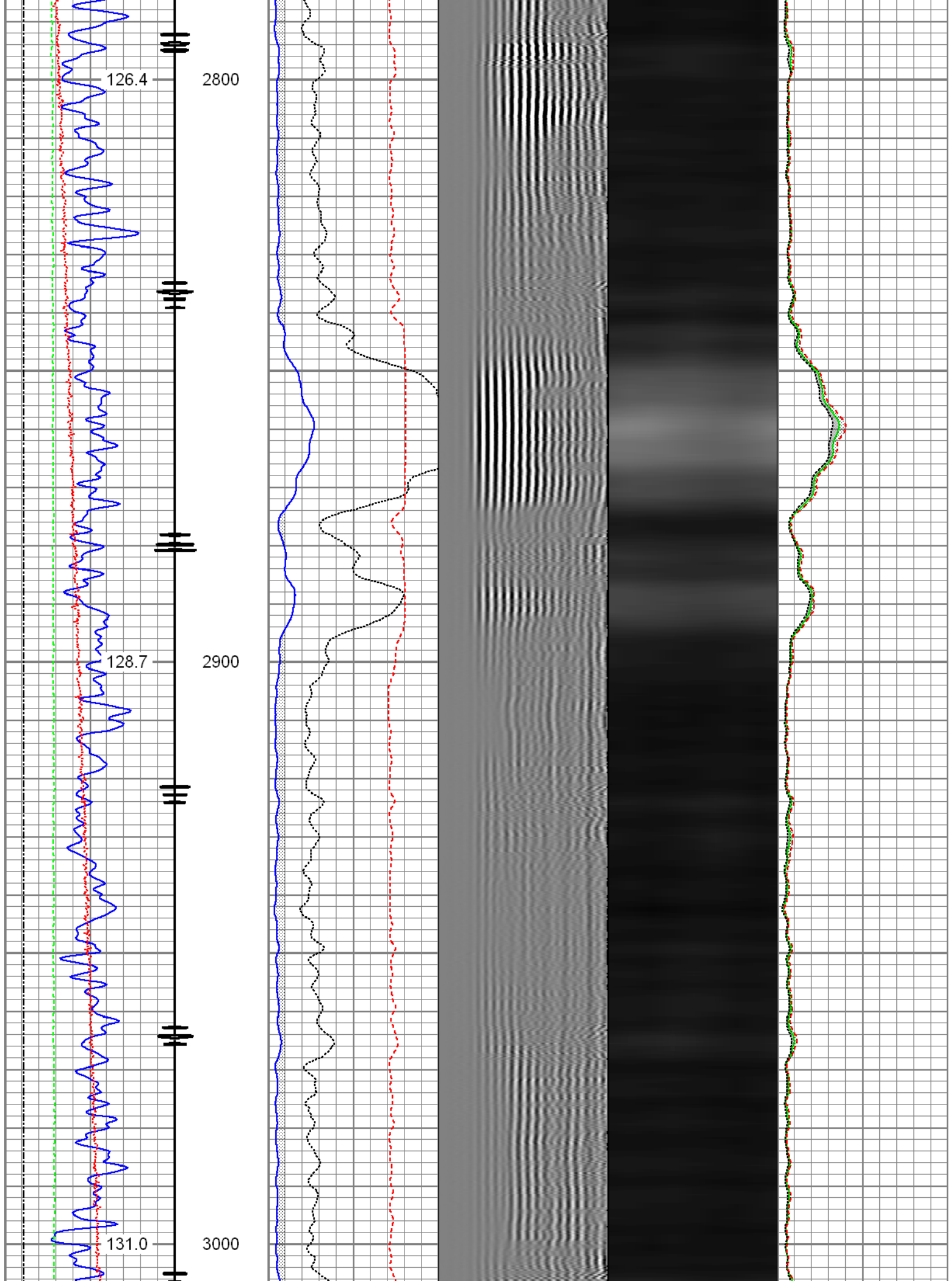


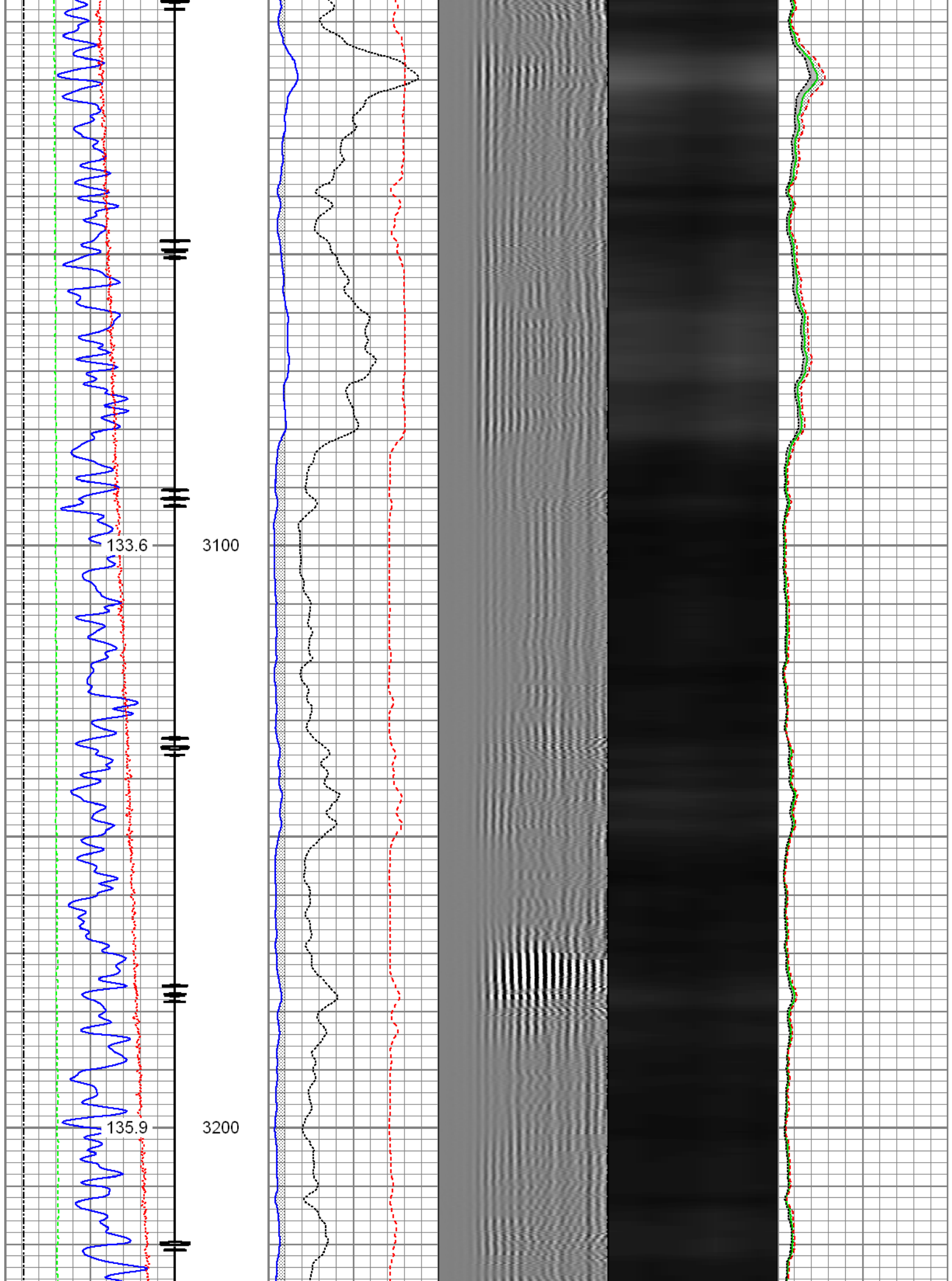


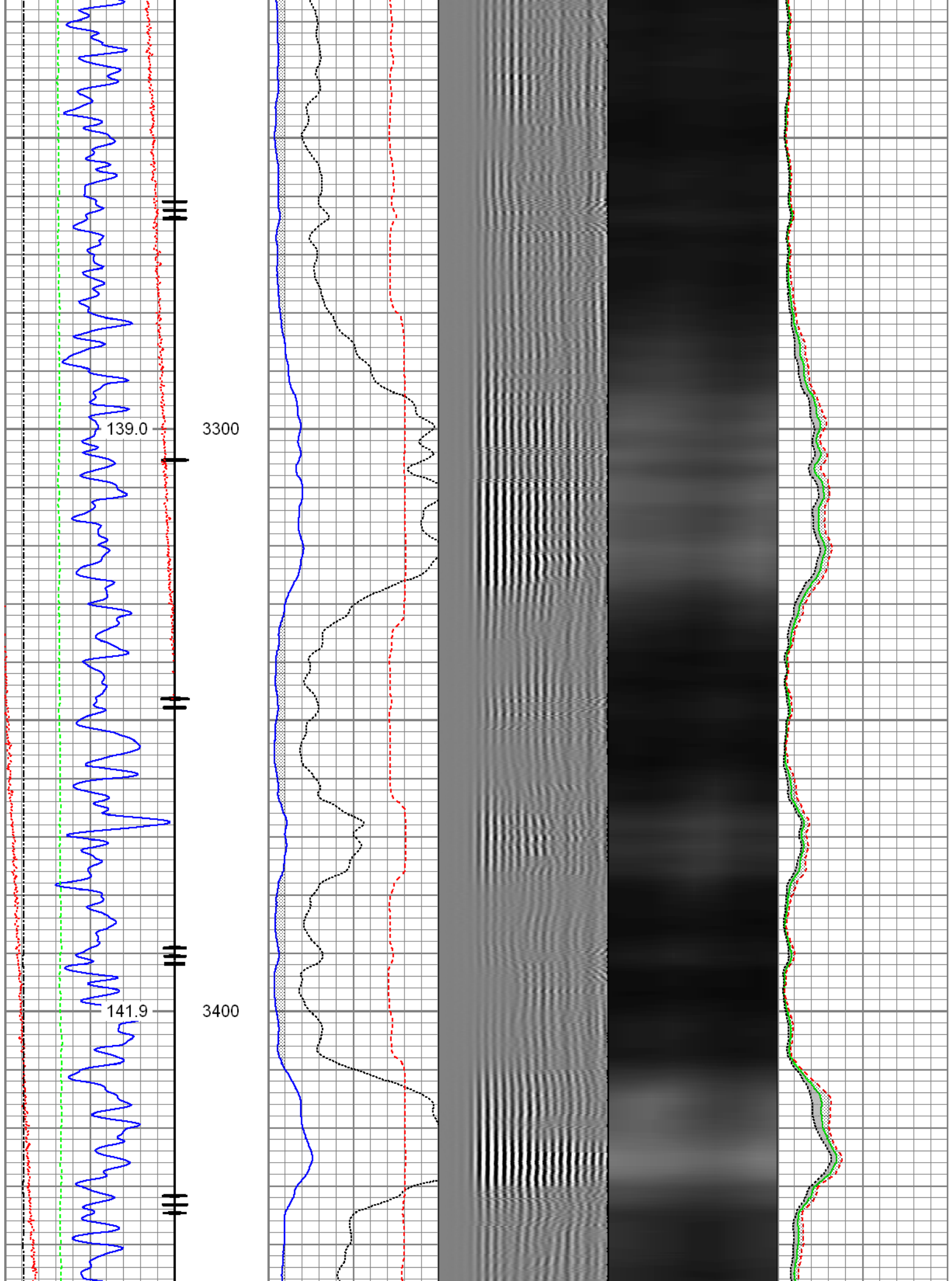


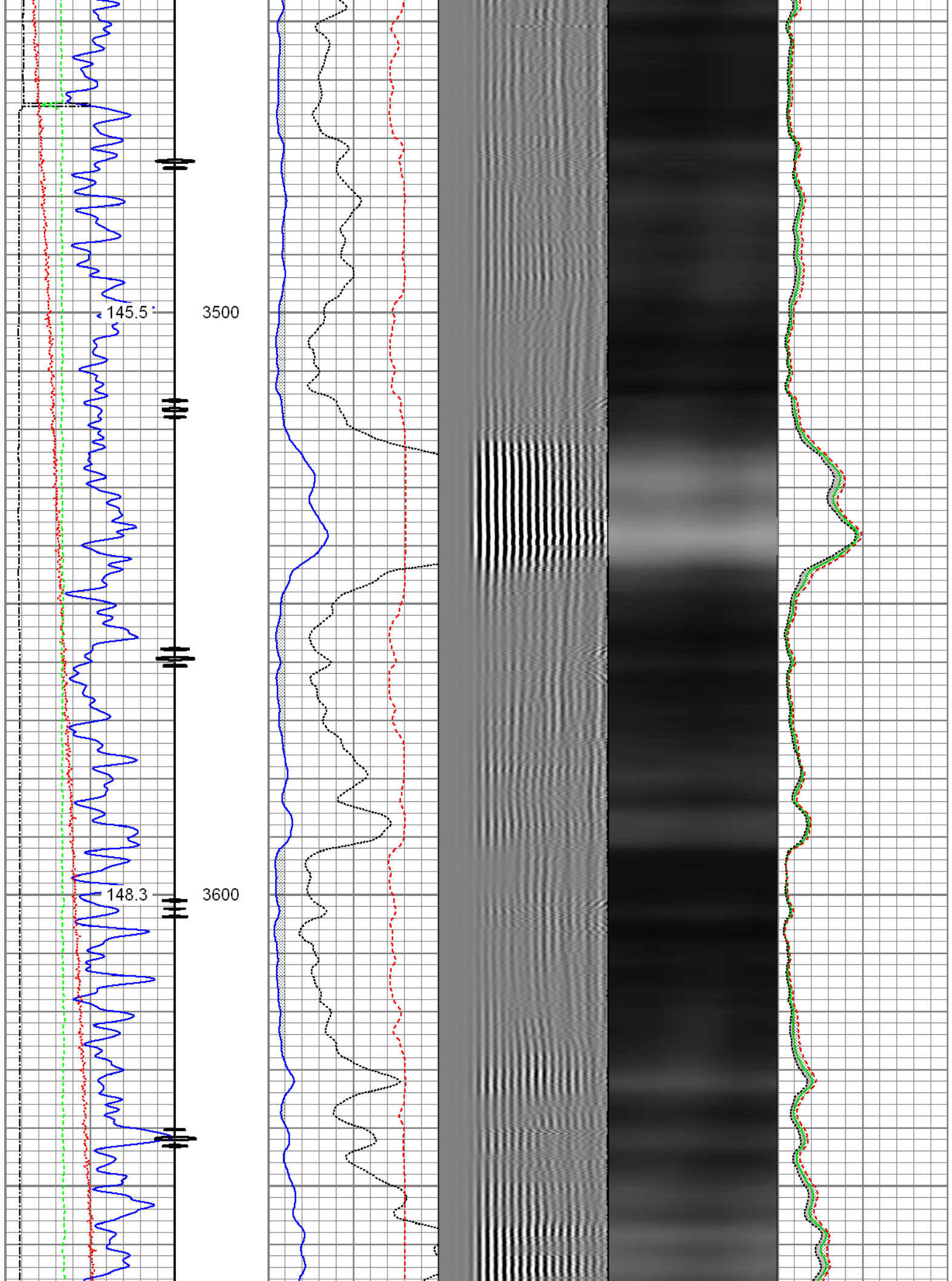


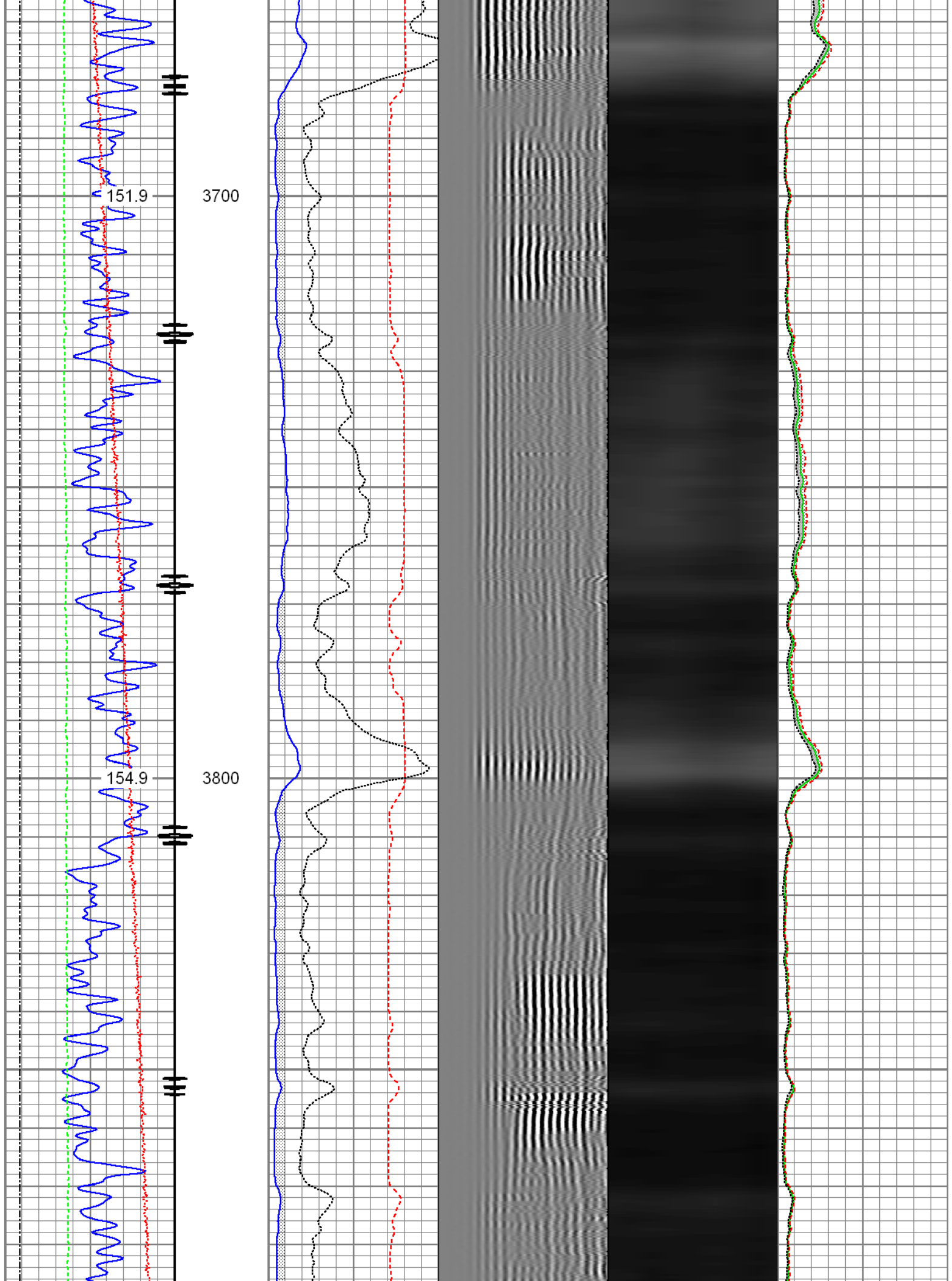


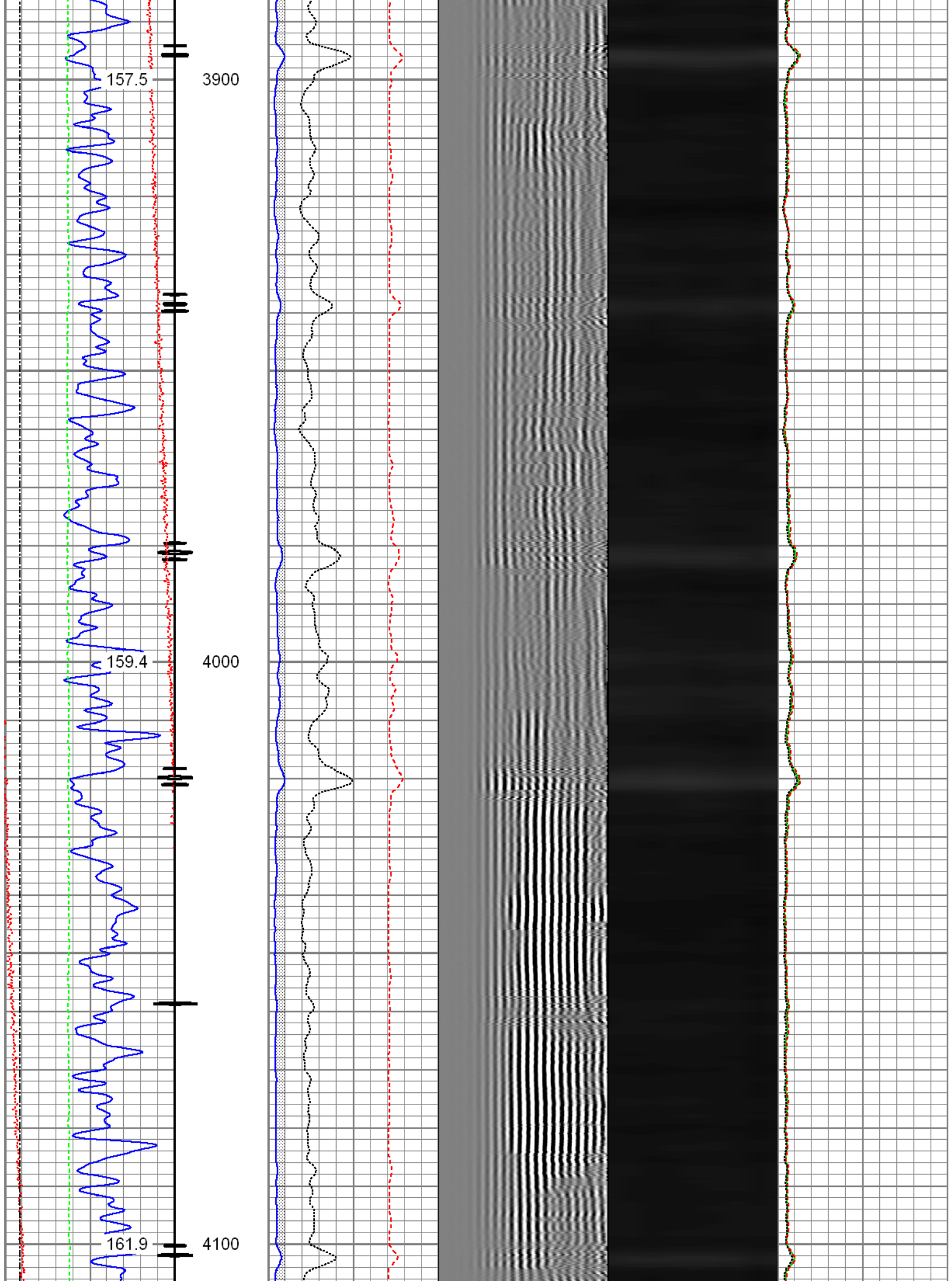


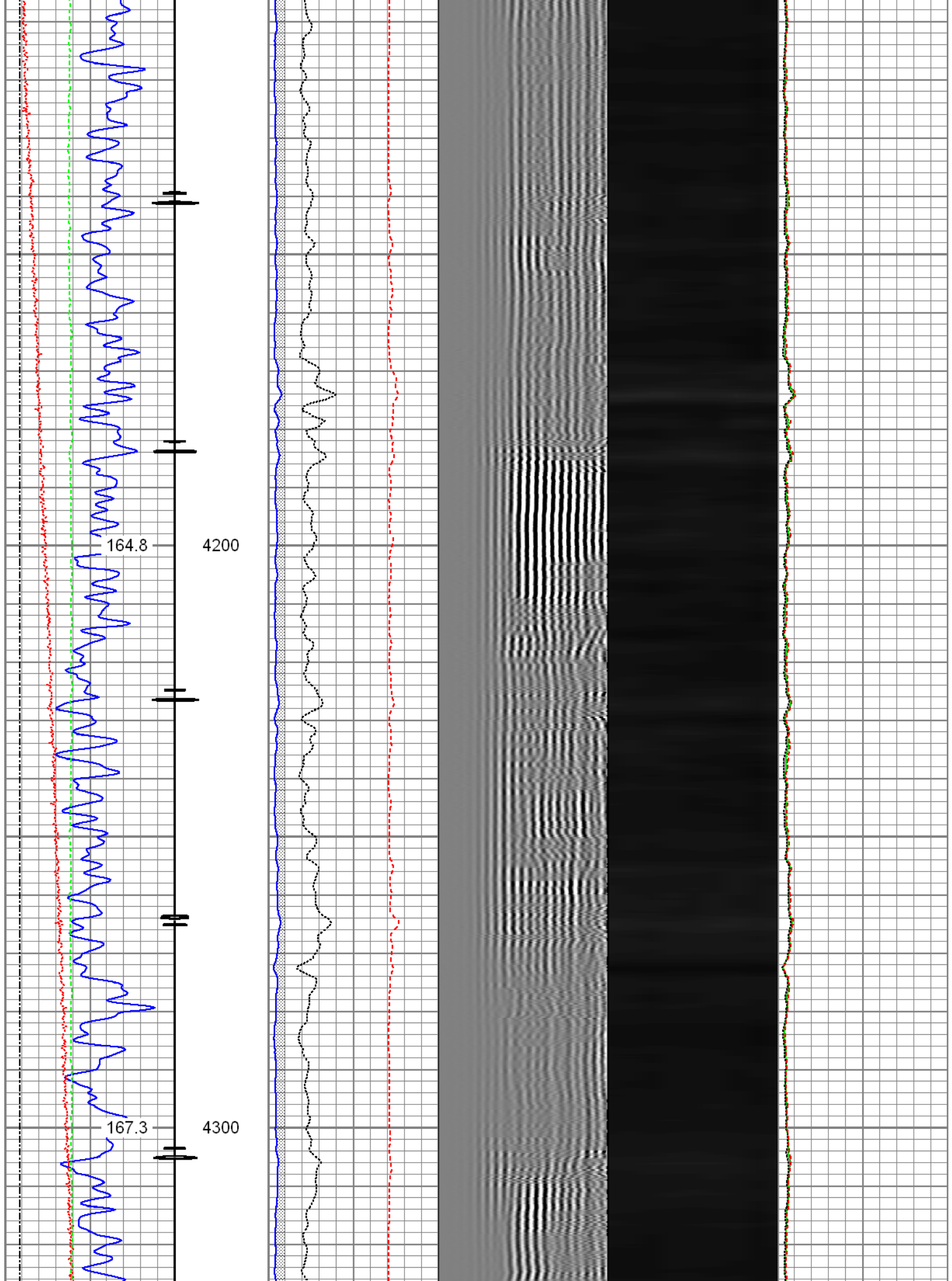


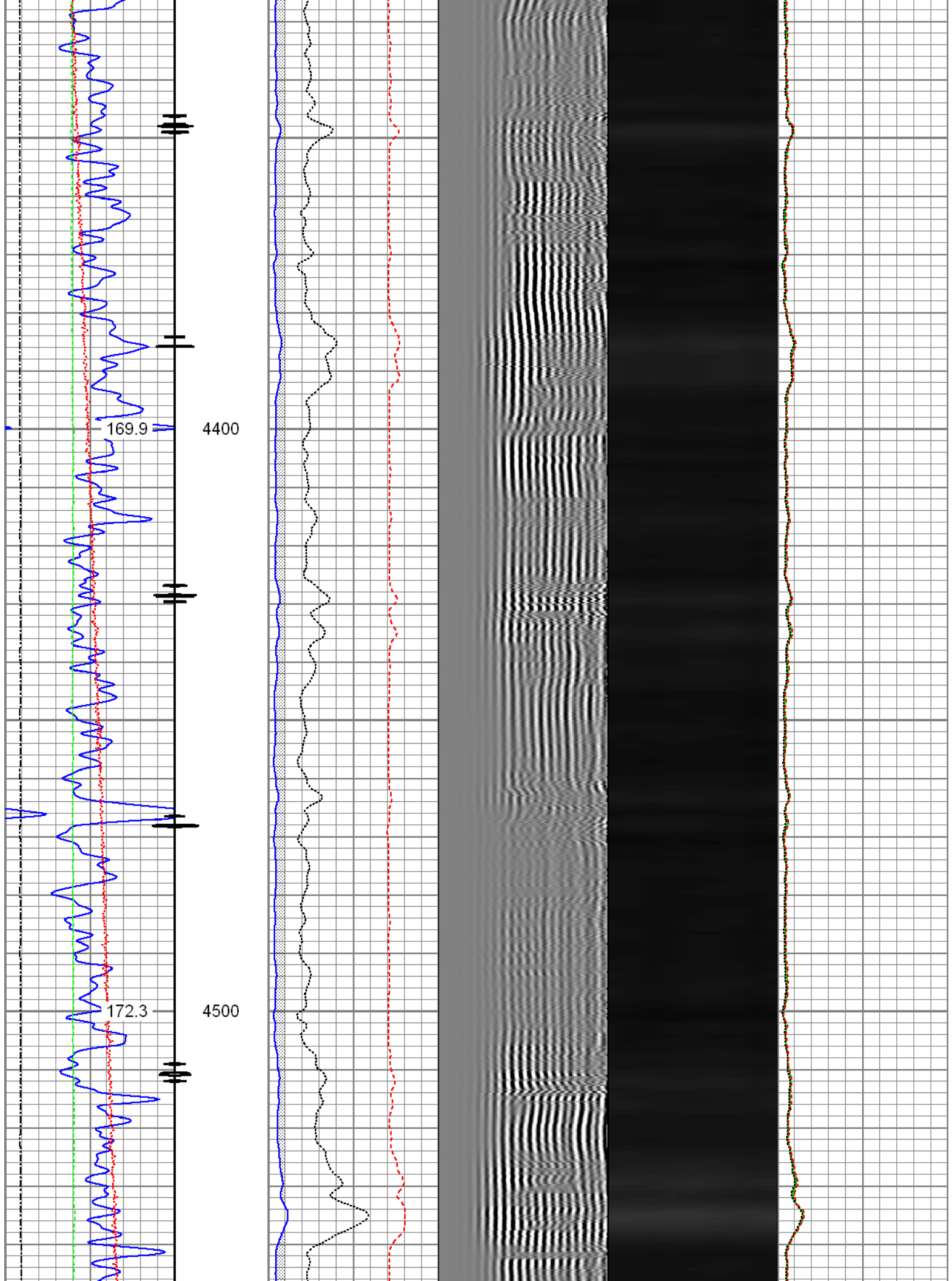


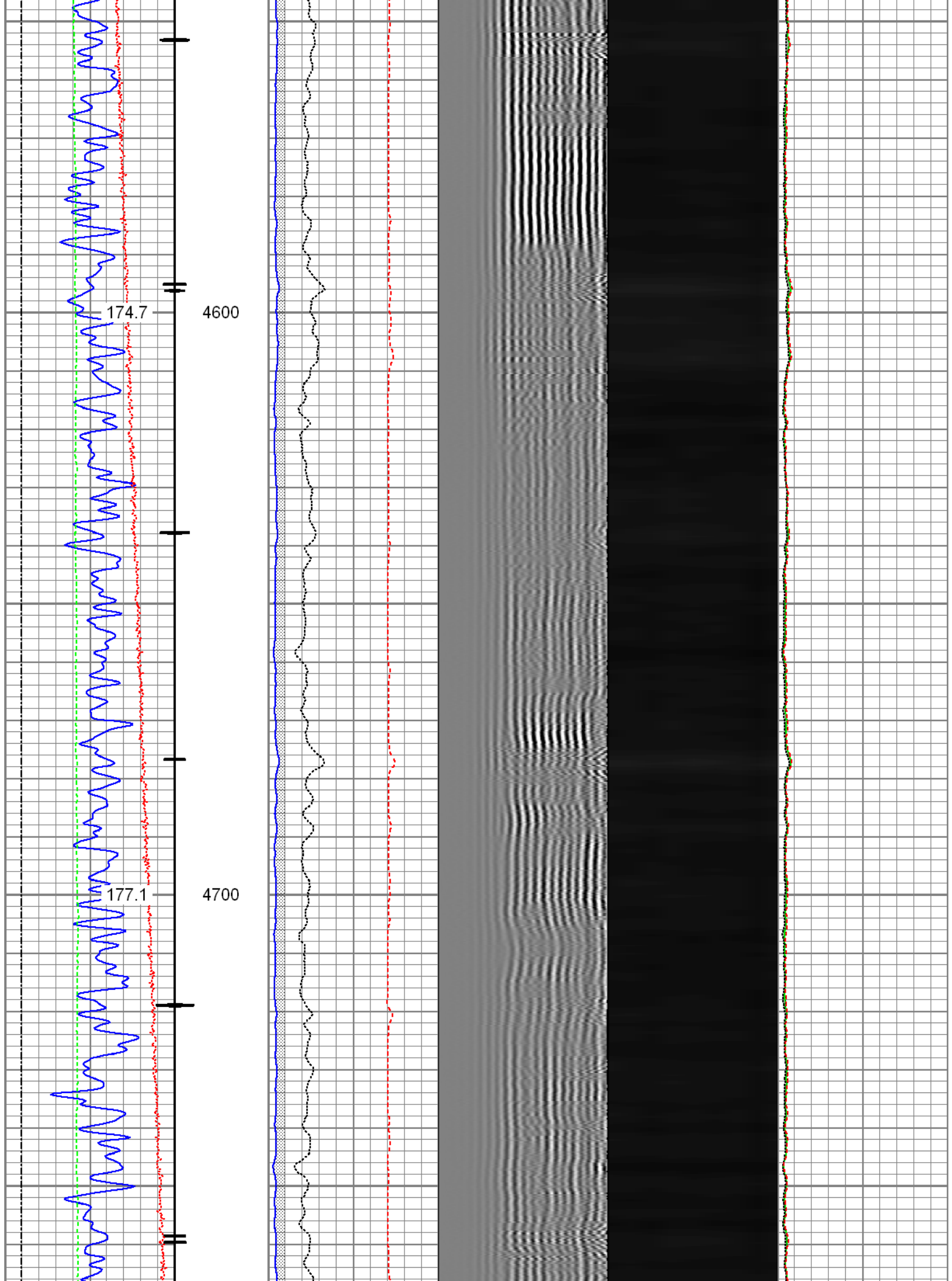


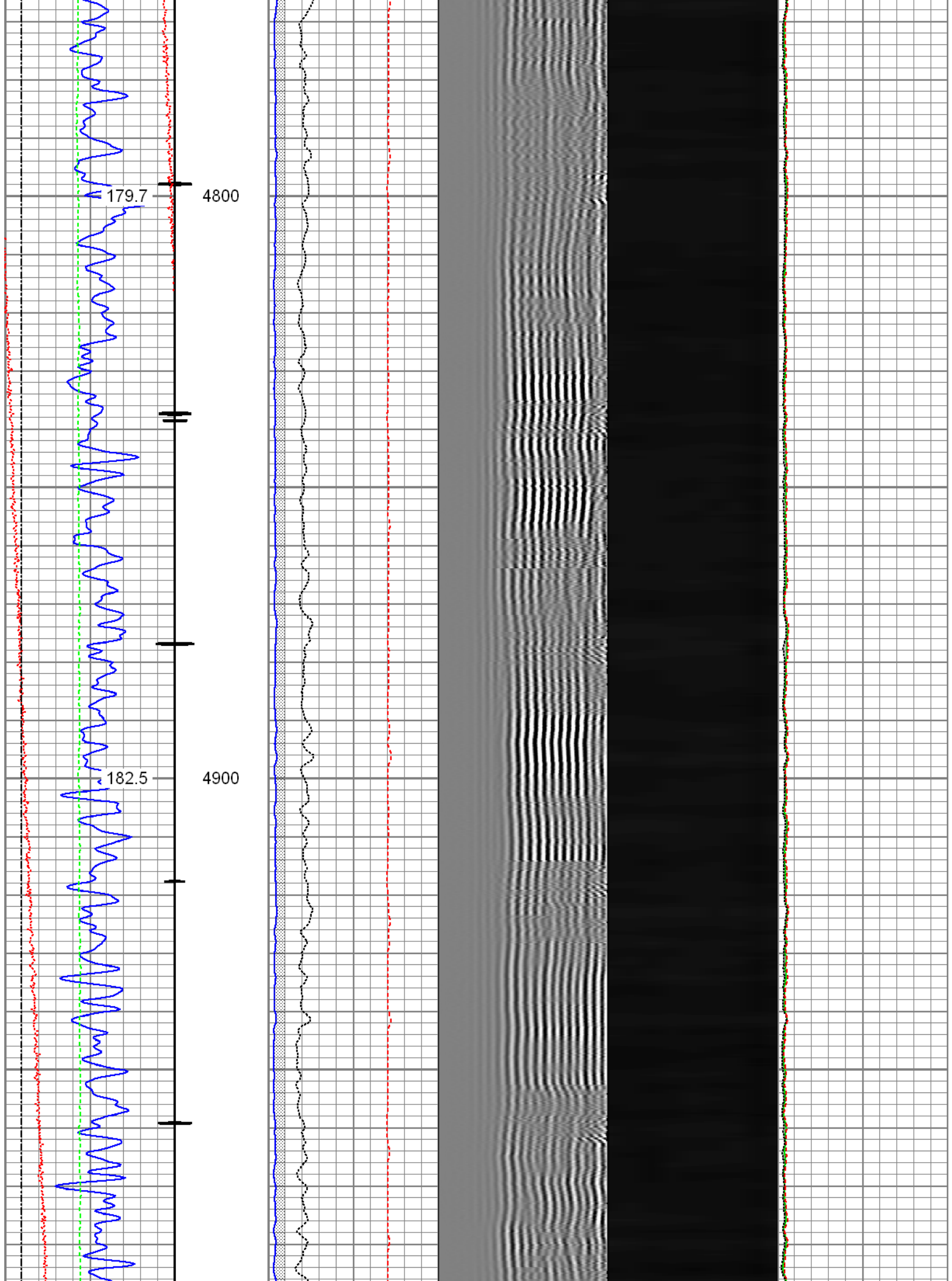


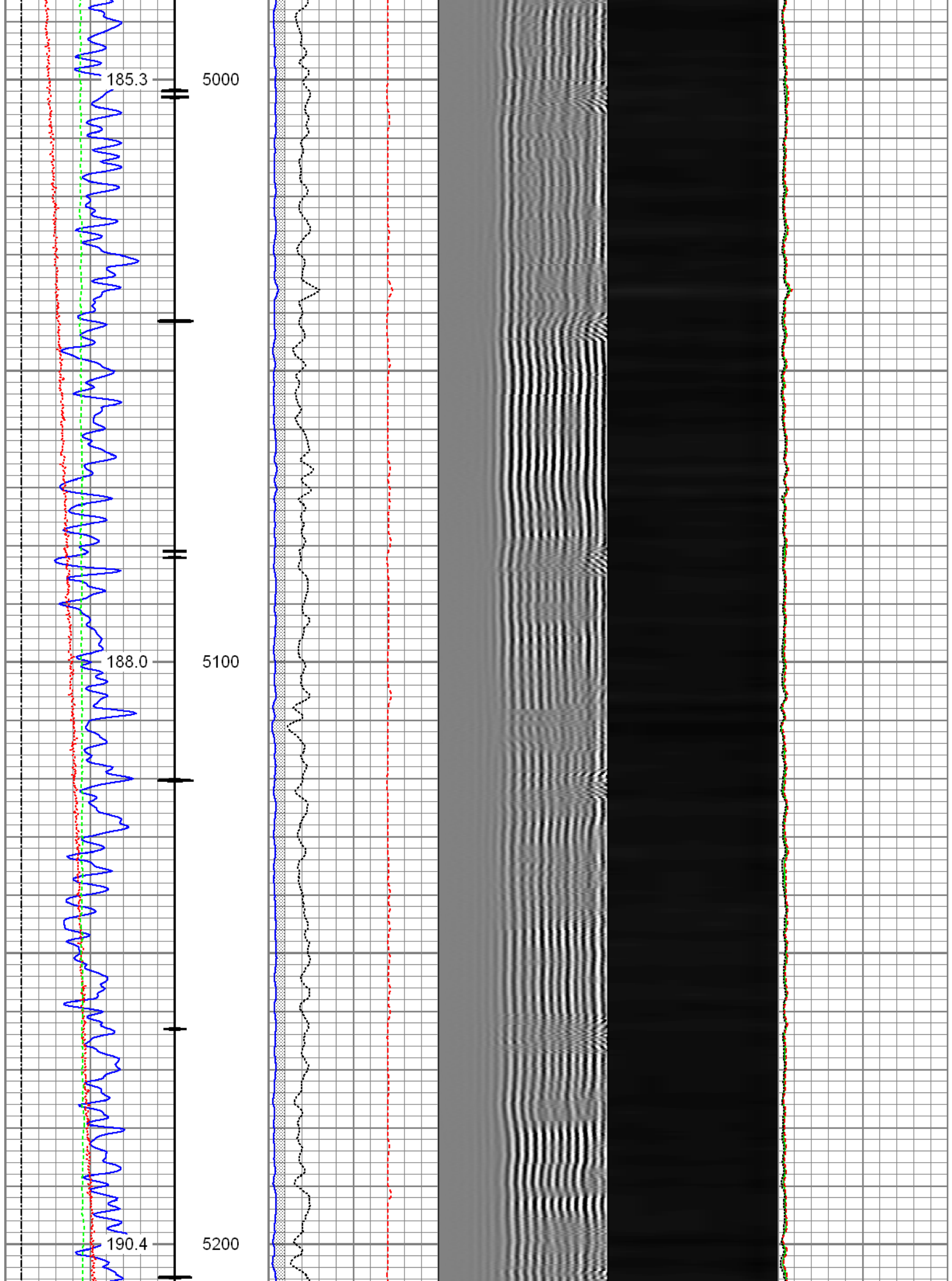


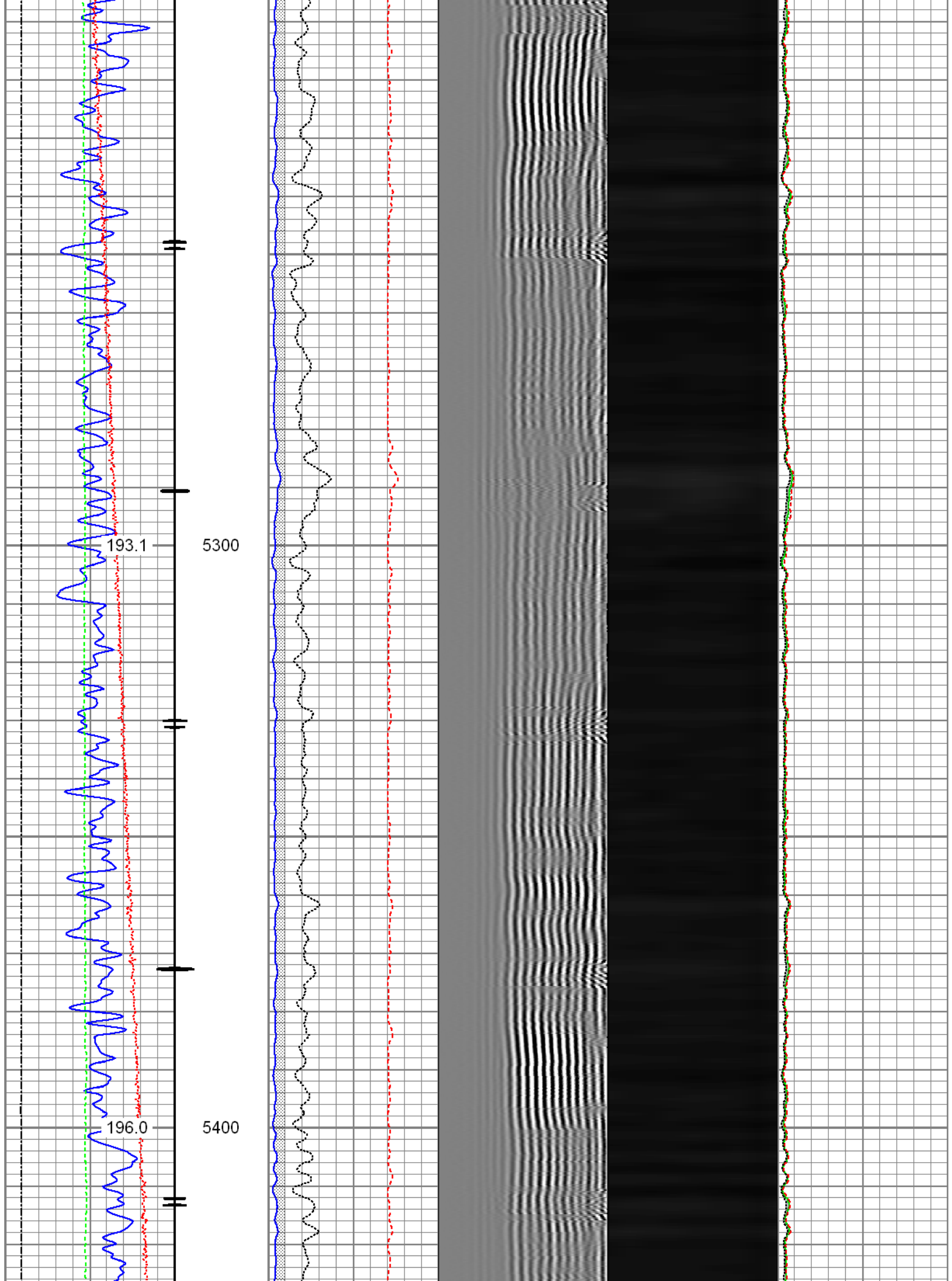


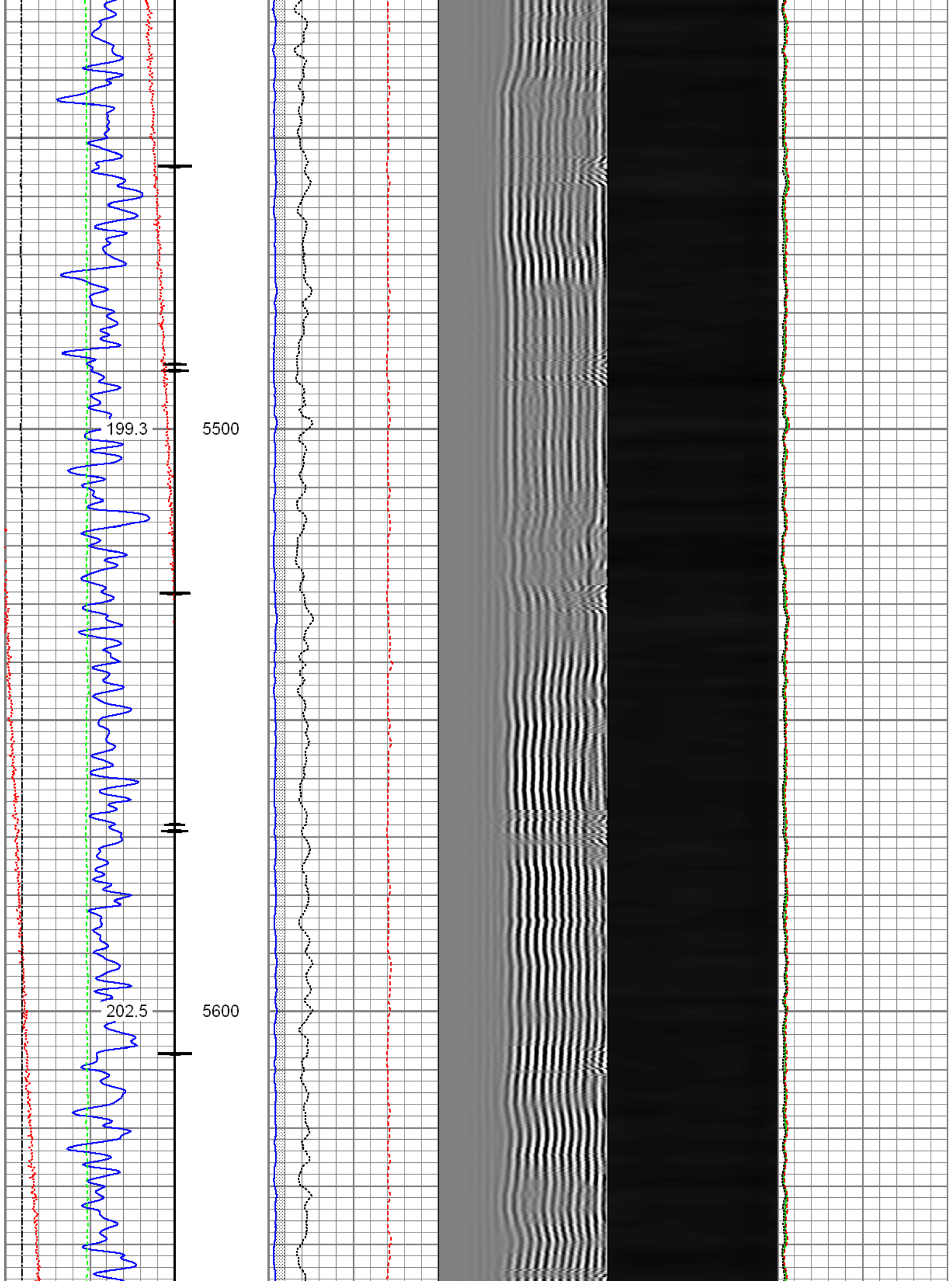


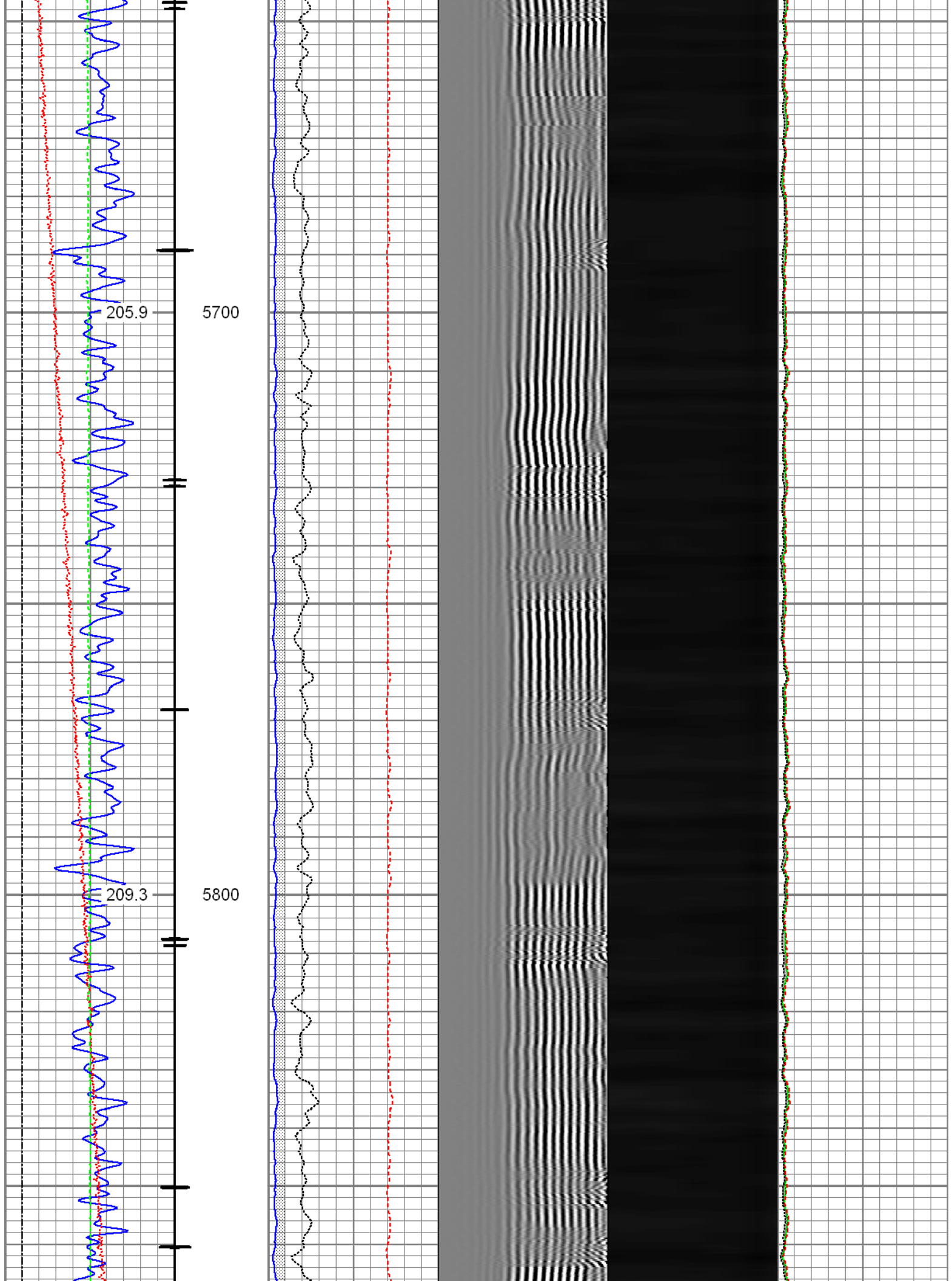


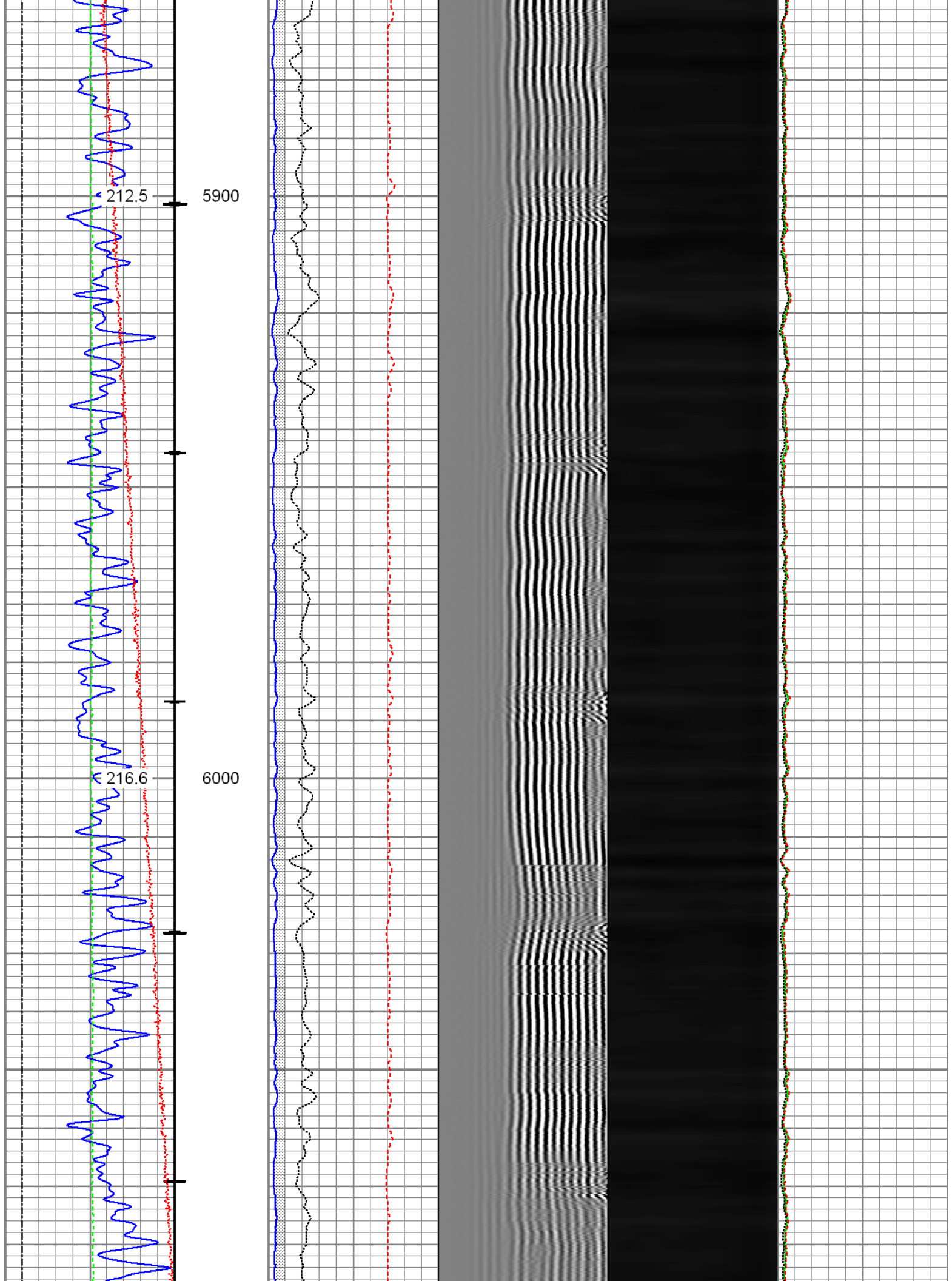


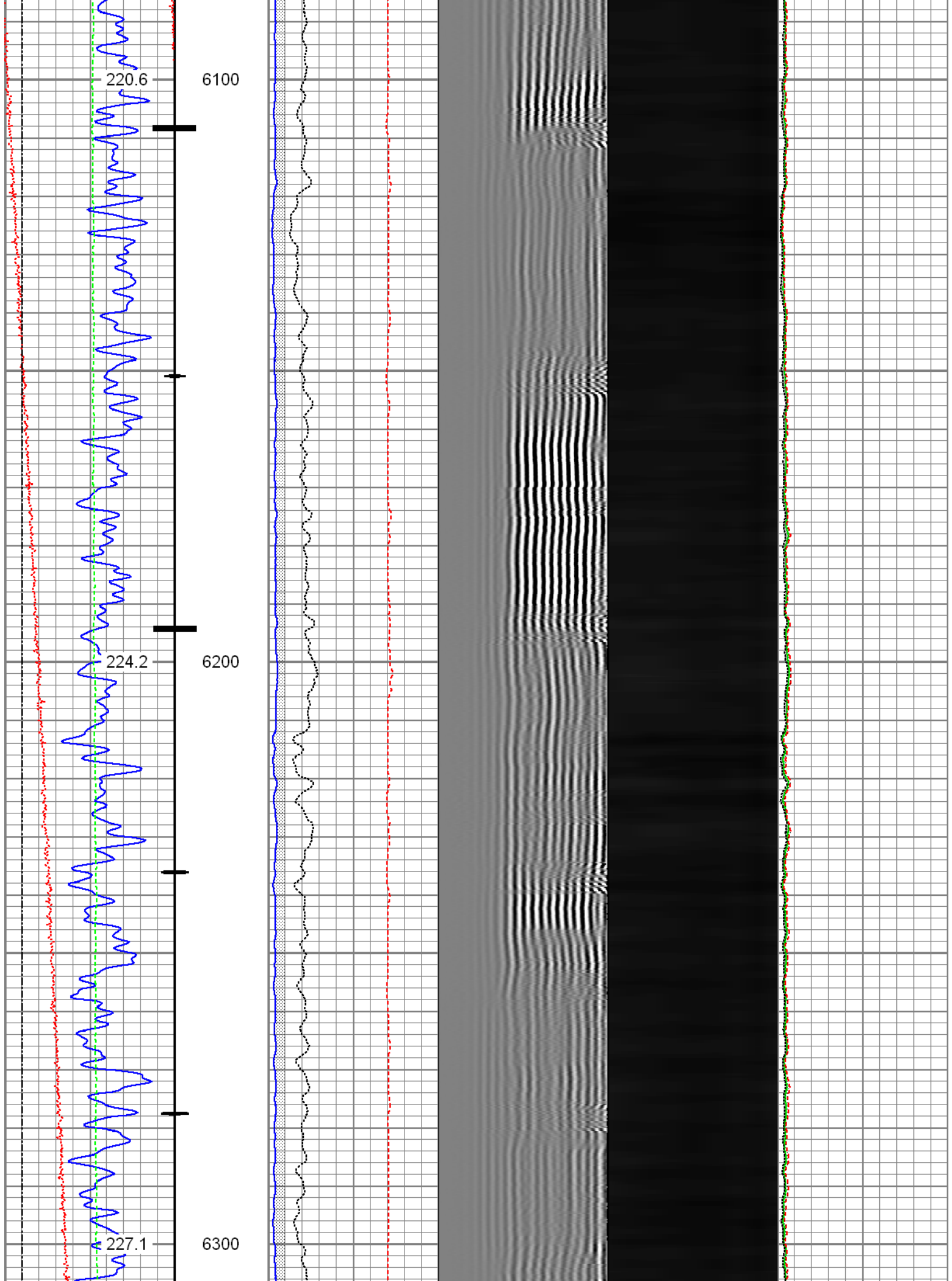


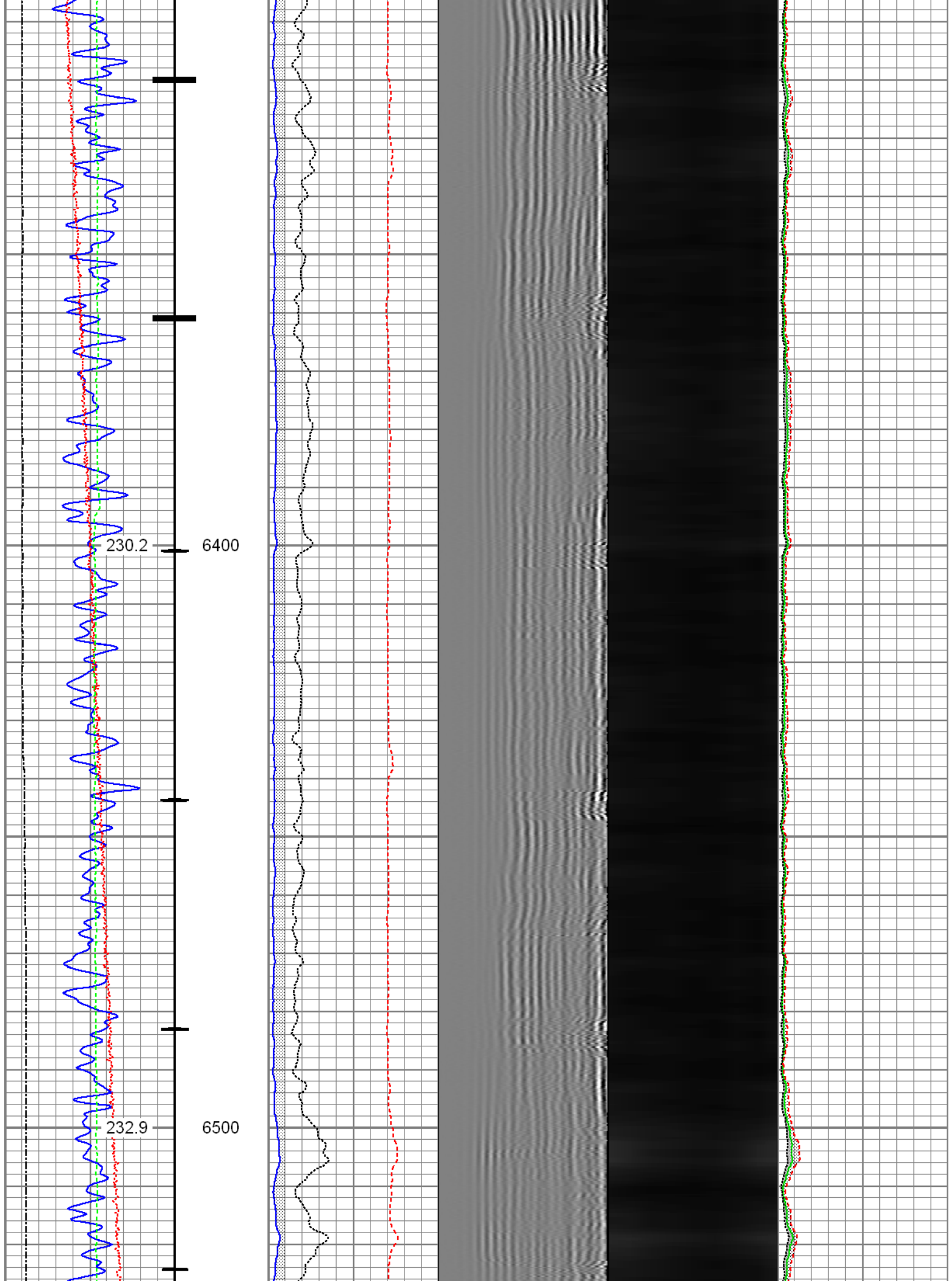


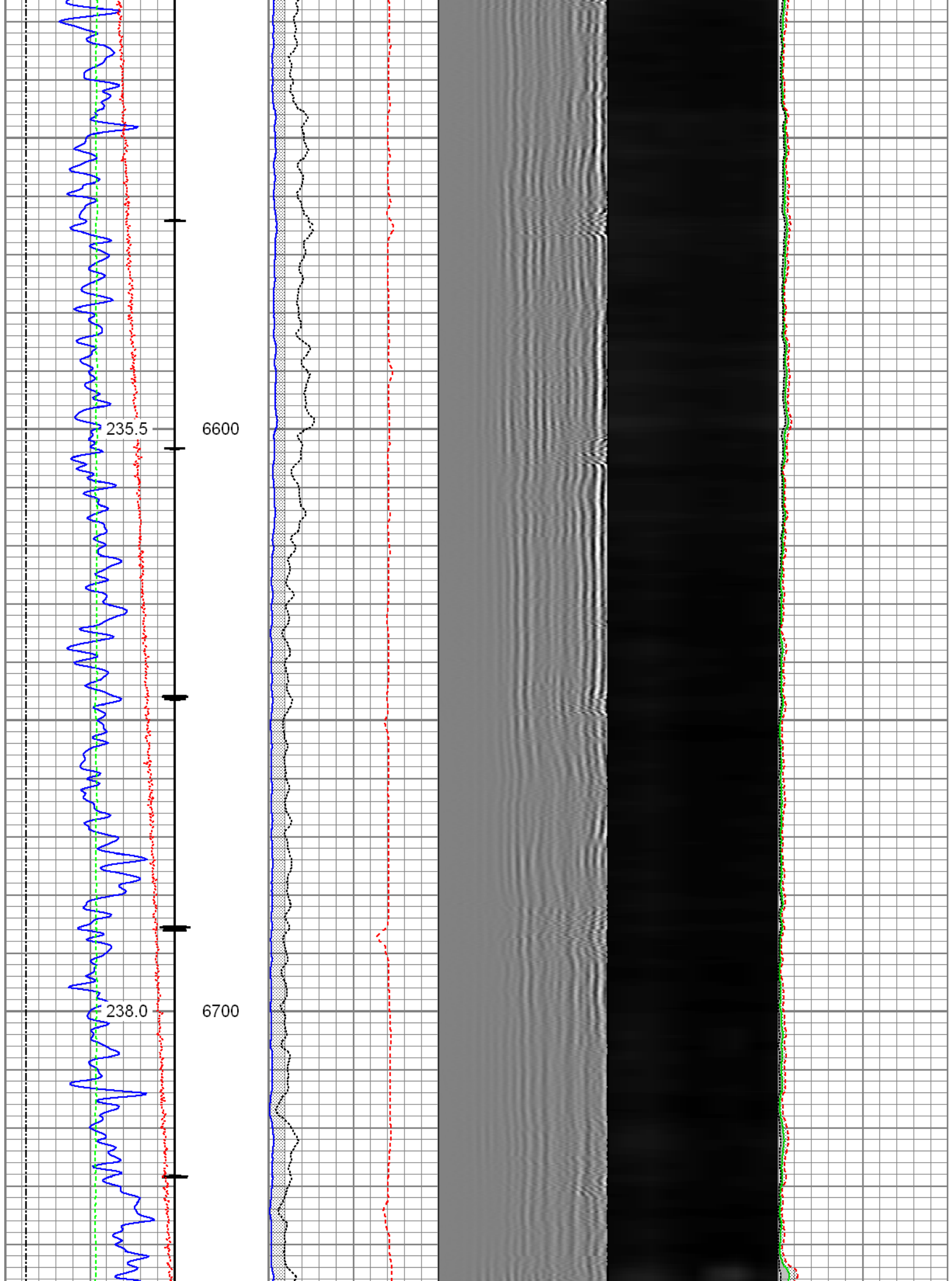


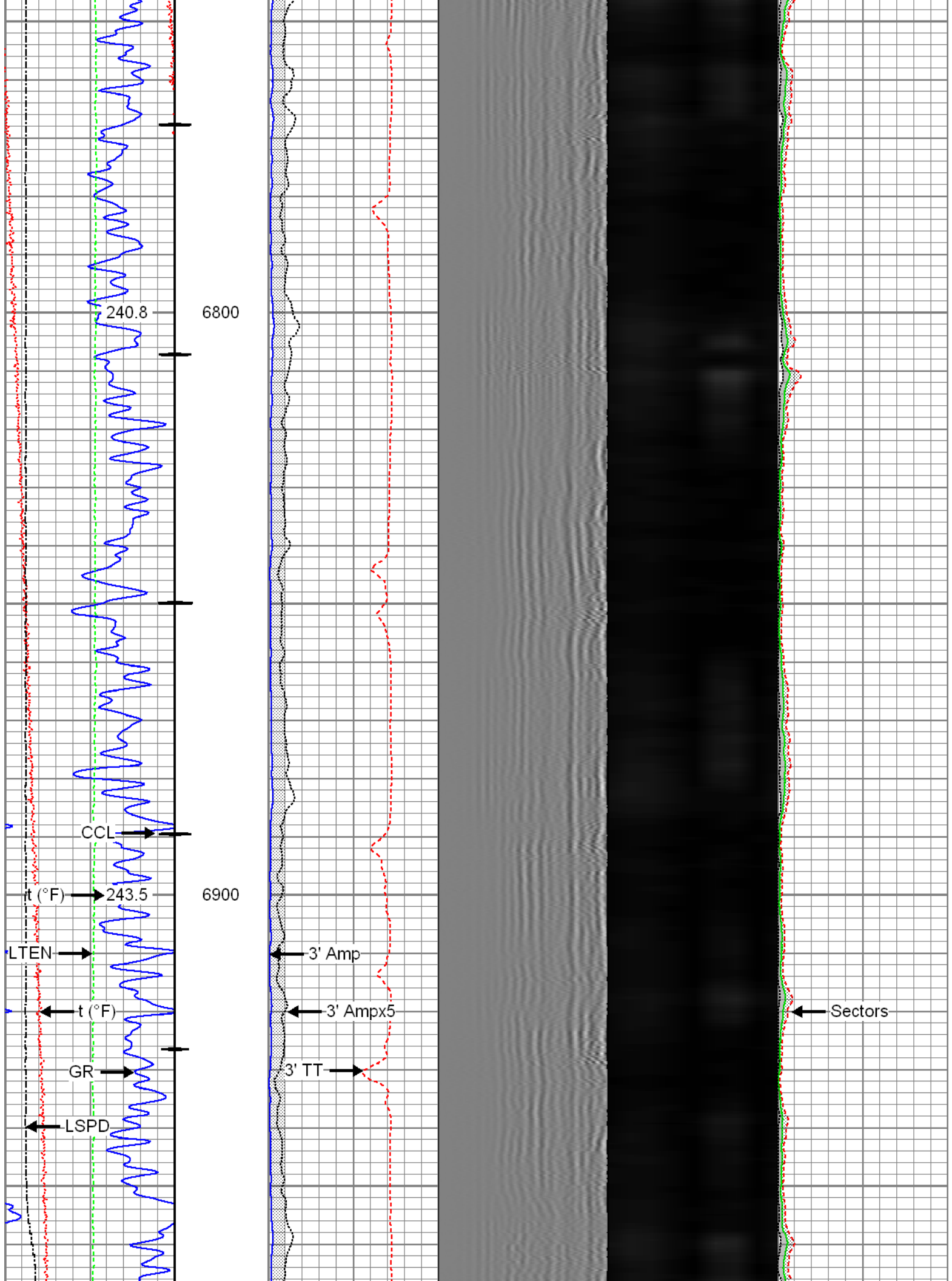


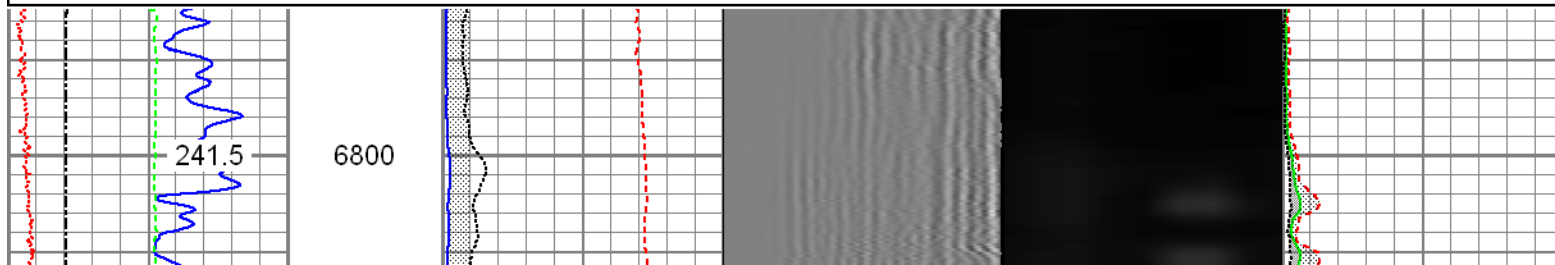
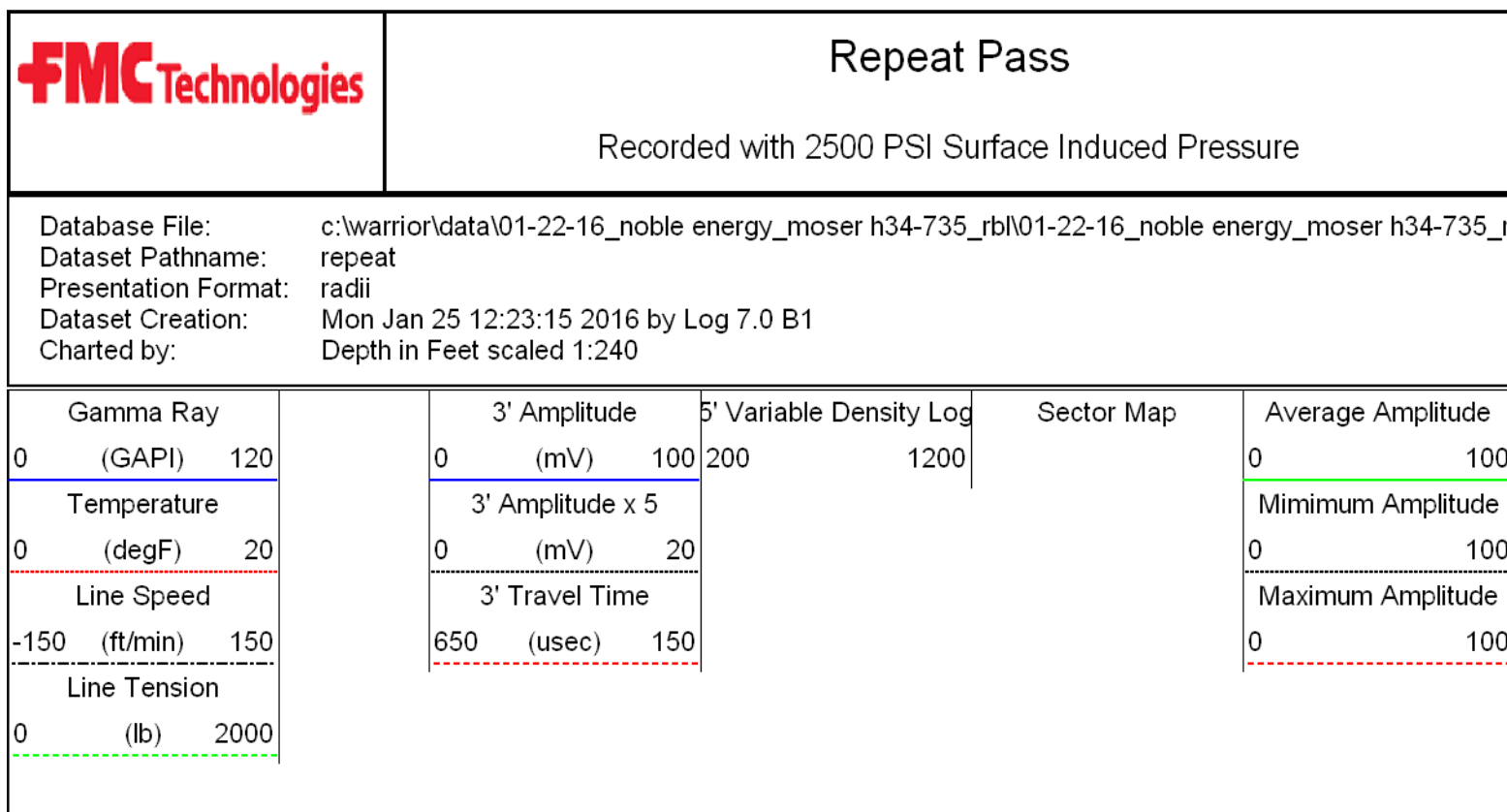
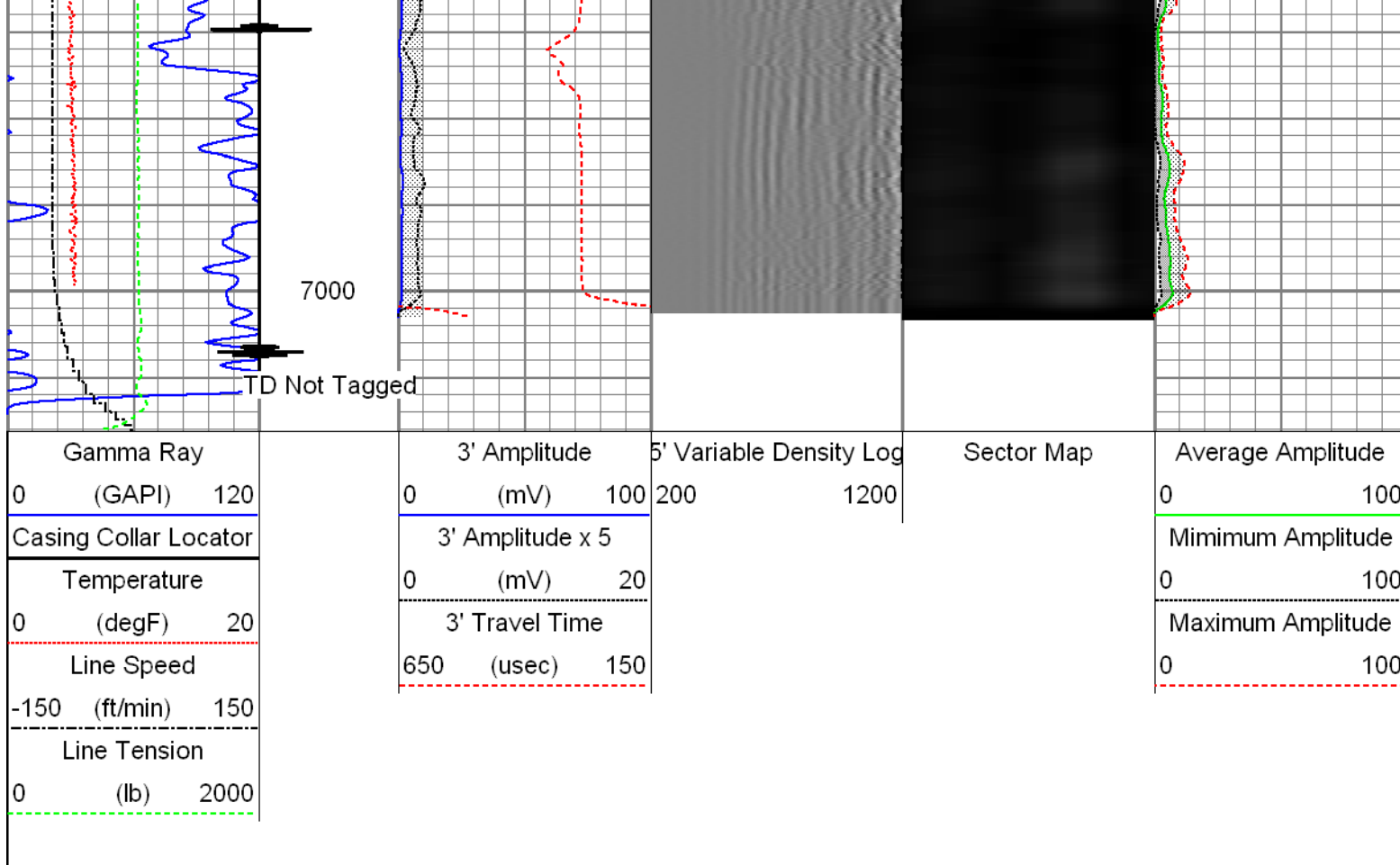












Repeat Pass

Recorded with 2500 PSI Surface Induced Pressure

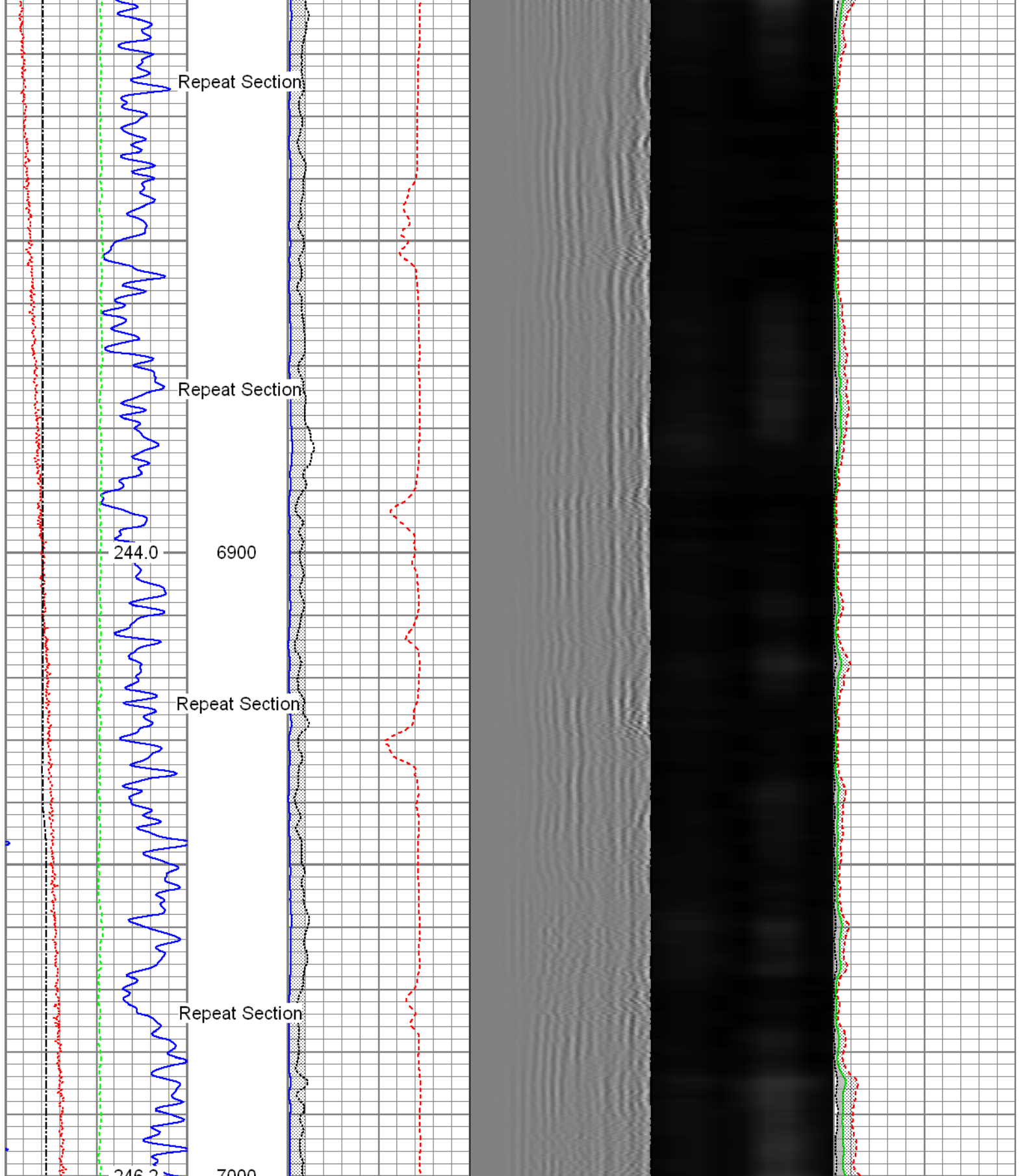
Database File: c:\warrior\data\01-22-16_noble energy_moser h34-735_rb\01-22-16_noble energy_moser h34-735_r

Dataset Pathname: repeat

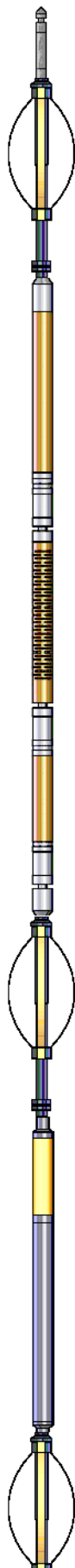
Presentation Format: radii

Dataset Creation: Mon Jan 25 12:23:15 2016 by Log 7.0 B1

Charted by: Depth in Feet scaled 1:240



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

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" (FW1305-096) 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					
CCL DCCL	6.51 6.51		Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
			Probe_CCL_GR-2.75"Digital (FW1212-026) Probe 2-3/4" Digital CCL / Gamma Ray Combined	4.54	2.75	55.00
GR	3.77		Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00

Dataset:	01-22-16_Noble Energy_Moser H34-735_RBL.db: field/well/run1/main
Total Length:	23.40 ft
Total Weight:	194.00 lb
O.D.	2.75 in

Calibration Report

Database File: c:\warrior\data\01-22-16_noble energy_moser h34-735_rbl\01-22-16_noble energy_moser h34-735_rbl.
Dataset Pathname: main.1
Dataset Creation: Tue Jan 26 10:02:03 2016 by Calc SCH 120430

Gamma Ray Calibration Report

Serial Number:	FW1212-026	
Tool Model:	2.75"Digital	
Performed:	Fri Nov 06 09:15:34 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:	FW1305-096	
Tool Model:	2-3/4"	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	281.411	ft

Master Calibration, performed Tue Jan 26 10:02:01 2016:


	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.007	0.539	0.800	71.921	133.748	-0.164
CAL	0.006	0.710				
5'	0.010	0.501	0.800	71.921	144.674	-0.587
SUM						
S1	0.006	0.500	0.000	100.000	202.425	-1.233
S2	0.007	0.500	0.000	100.000	202.608	-1.395
S3	0.008	0.516	0.000	100.000	196.711	-1.487
S4	0.007	0.552	0.000	100.000	183.602	-1.266
S5	0.008	0.609	0.000	100.000	166.539	-1.389
S6	0.008	0.636	0.000	100.000	159.314	-1.301
S7	0.008	0.599	0.000	100.000	169.071	-1.353
S8	0.009	0.541	0.000	100.000	187.837	-1.675

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	0.006	0.710	1.000	0.000

Air Zero Calibration, performed Mon Jan 25 07:32:36 2016:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.006	0.000	0.000
5'	0.007	0.000	-0.000
SUM			
S1	0.007	0.000	-0.000
S2	0.007	0.000	0.000
S3	0.007	0.000	0.000
S4	0.006	0.000	0.000
S5	0.006	0.000	0.000
S6	0.006	0.000	0.000
S7	0.006	0.000	0.000
S8	0.007	0.000	0.000

	Company	Noble Energy Inc.
	Well	Moser H34-735
	Field	Wattenberg
	County	Weld
	State	Colorado