



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company		Kerr-McGee Oil & Gas Onshore, L.P.	
Well		JZM 30N-3HZ	
Field		Wattenberg	
County		Weld	
State		Colorado	
Company		Kerr-McGee Oil & Gas Onshore, L.P.	
Well		JZM 30N-3HZ	
Field		Wattenberg	
County		Weld	
State		Colorado	
Location:		API # : 05-123-42667	
Permanent Datum		SEC 10 TWP 1N RGE 67W	
Log Measured From		Ground Level	
Drilling Measured From		Kelly Bushing	
		Elevation 5067'	
		Gauge Ring	
		Elevation	
		K.B. 5084'	
		D.F. 5083'	
		G.L. 5067'	
Date		11-Feb-2017	
Run Number		Two	
Depth Driller		17552 FT	
Depth Logger		7001 FT	
Bottom Logged Interval		6996 FT	
Top Log Interval		Surface	
Open Hole Size		7.875"	
Type Fluid		Water	
Density / Viscosity		8.34 lb/gal	
Max. Recorded Temp.		218 °F	
Estimated Cement Top		Surface	
Time Well Ready		ROA	
Time Logger on Bottom		15:00	
Equipment Number		HD-0324	
Location		Fort Lupton, CO	
Recorded By		Chad Bryan	
Witnessed By		Brian Jolly	
Run Number		Borehole Record	
Bit		From	
		To	
		Size (in)	
		Weight (lb/ft)	
		From	
		To	
Casing Record		Size (in)	
Surface Casing		9 5/8	
Intermediate #1		5 1/2	
Intermediate #2			
Liner			
Wgt (lb/ft)		Grade	
36		J55 LTC	
17		HCP-110	
		Top	
		Surface	
		Bottom	
		2232 FT	
		17552 FT	

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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 17 FT as per APC Rep
Adjusted -4 FT to correlate to Kelly Bushing
Casing Talley reported Marker Joint depth at 6925 FT
Recorded Marker Joint depth at 6837 FT
Log ran from 6996 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 Reliance Oilfield Services, LLC!!

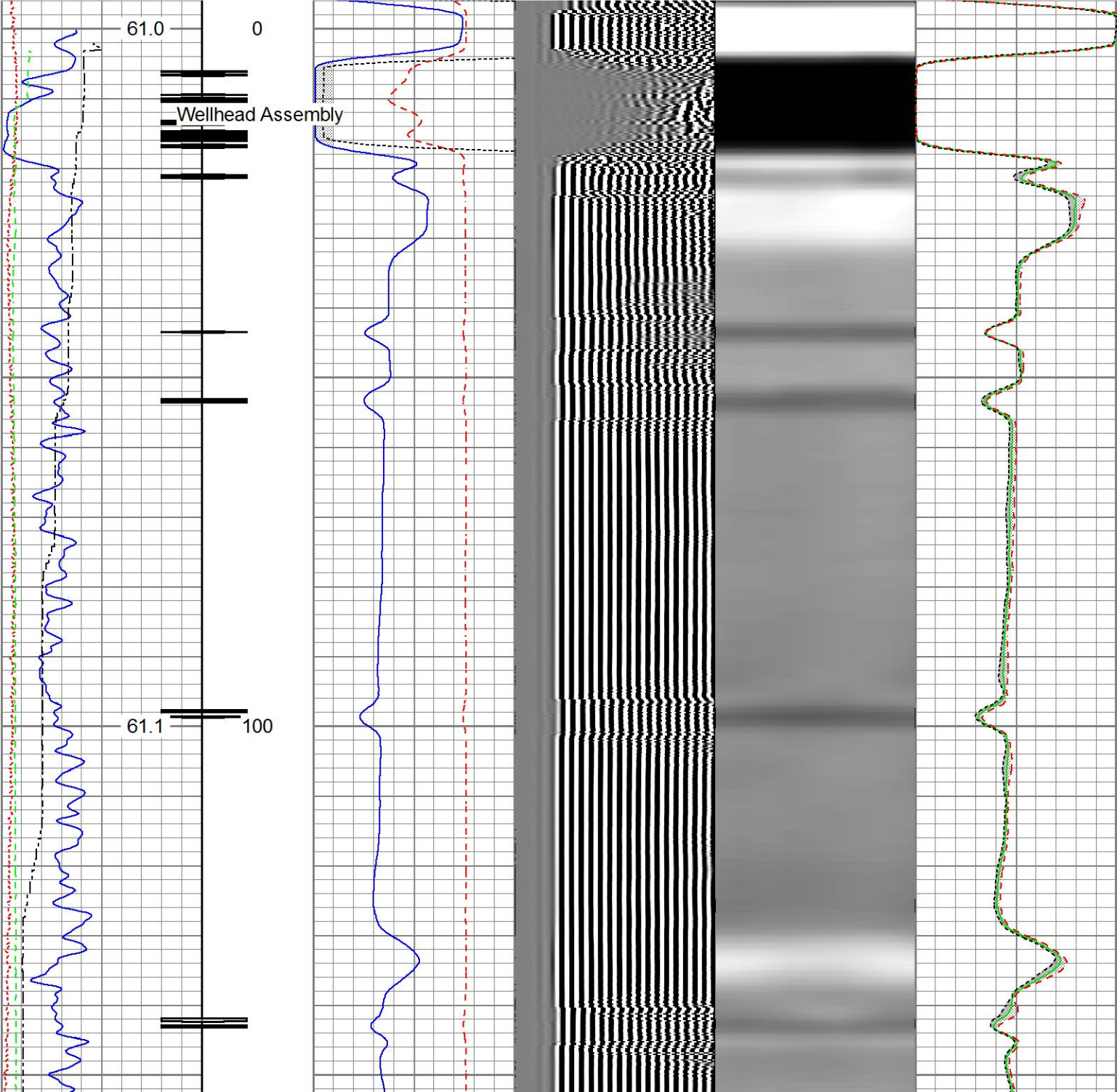


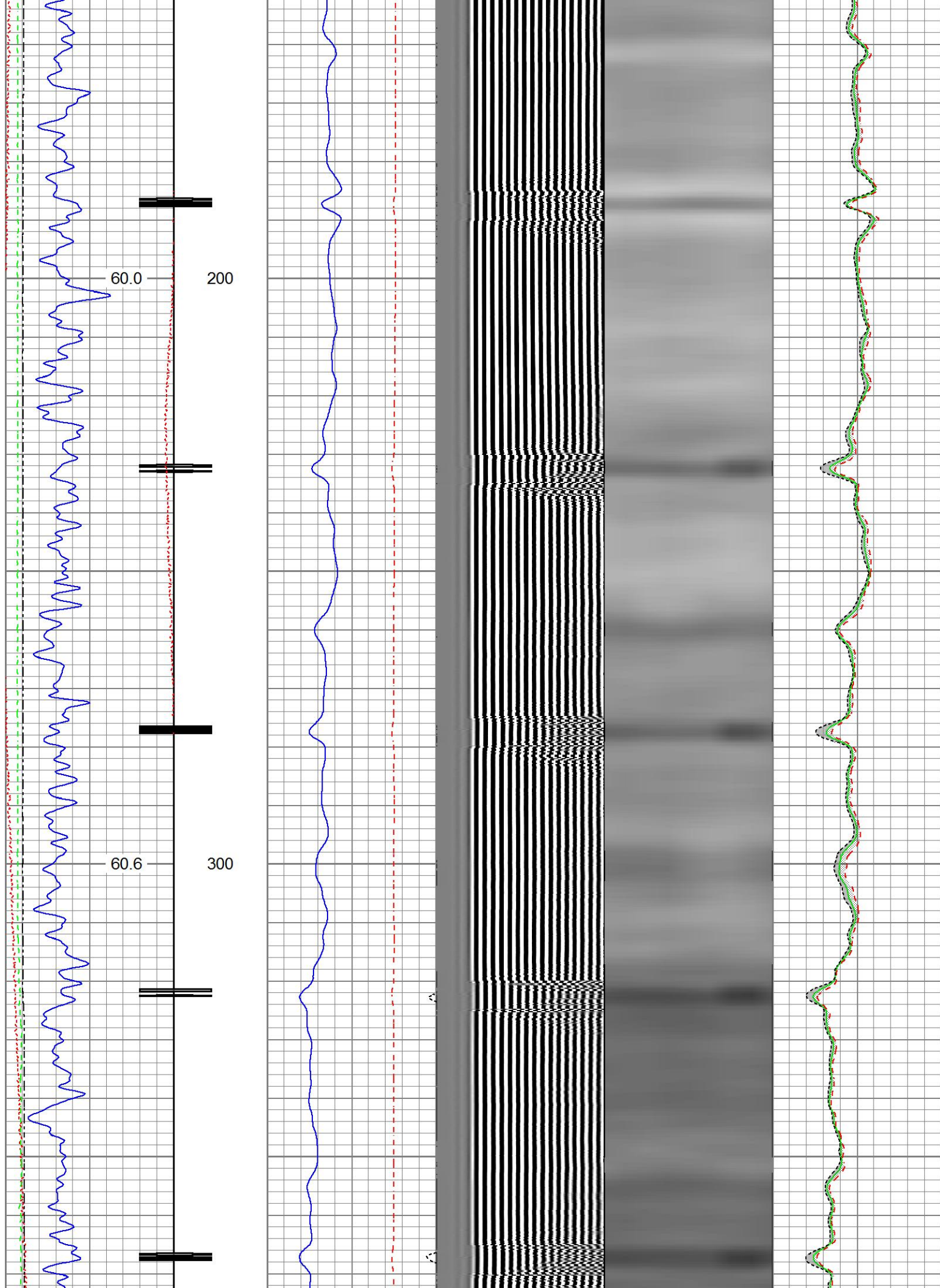
Main Pass

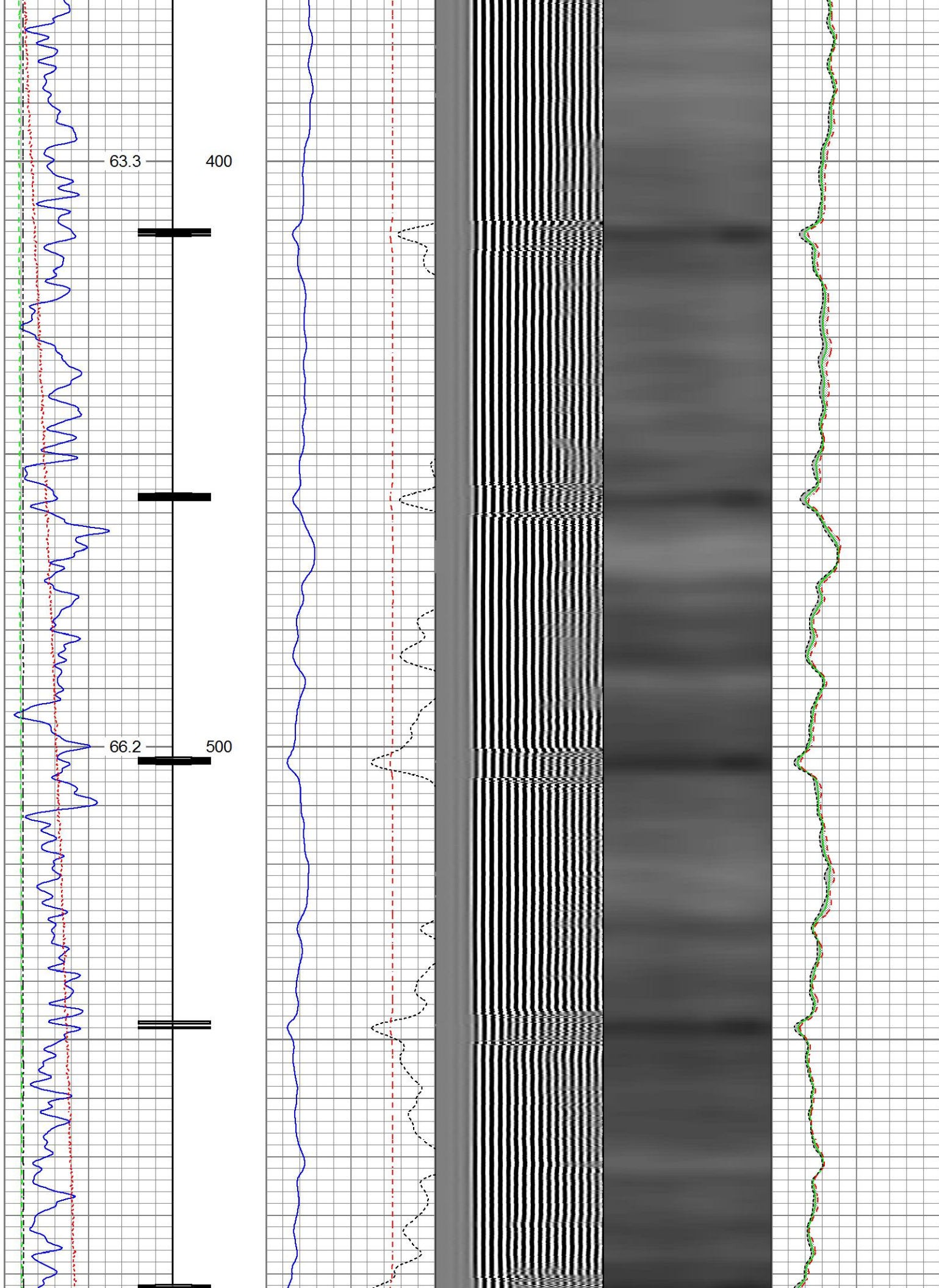
Recorded with 2800 PSI Surface Induced Pressure

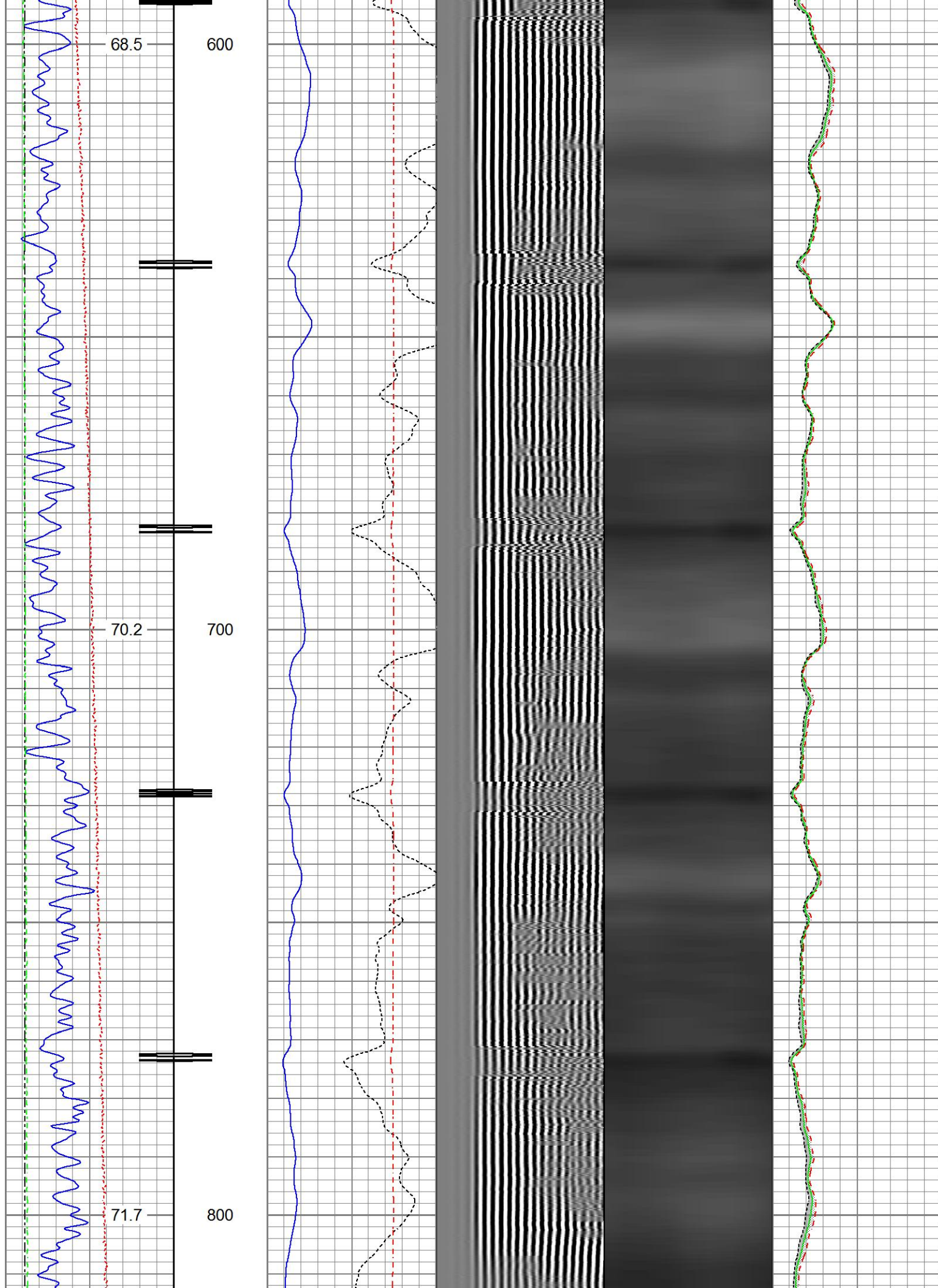
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Dataset Pathname	main
Presentation Format	ros_radri
Dataset Creation	Sat Feb 11 14:56:37 2017
Charted by	Depth in Feet scaled 1:240

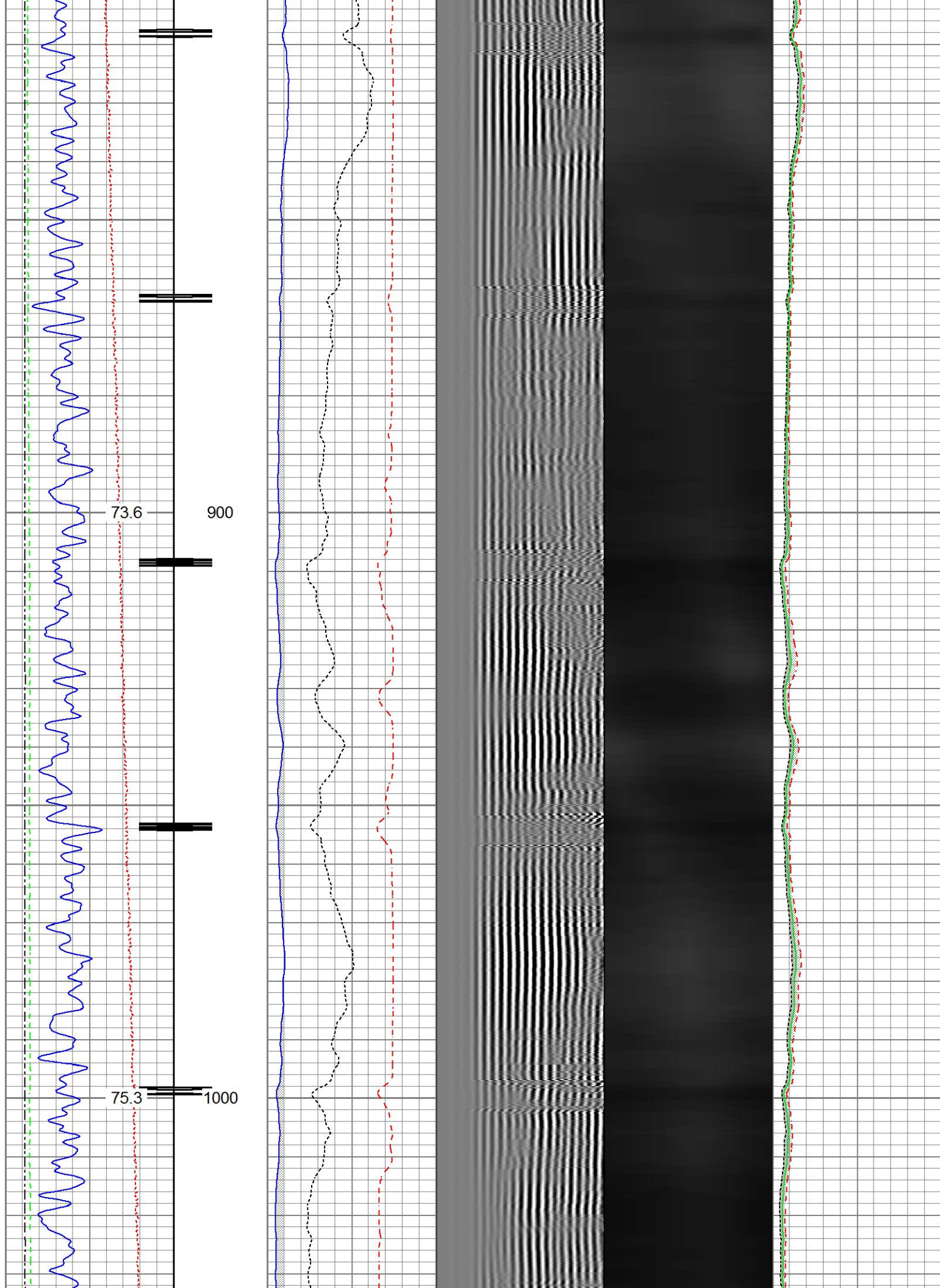
Gamma Ray		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120		0 (mV) 100	200 1200		0 100
Casing Collar Locator		3' Amplitude x 5			Minimum Amplitude
Temperature		0 (mV) 20			0 100
0 (degF) 20		3' Travel Time			Maximum Amplitude
Line Speed		650 (usec) 150			0 100
-150 (ft/min)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

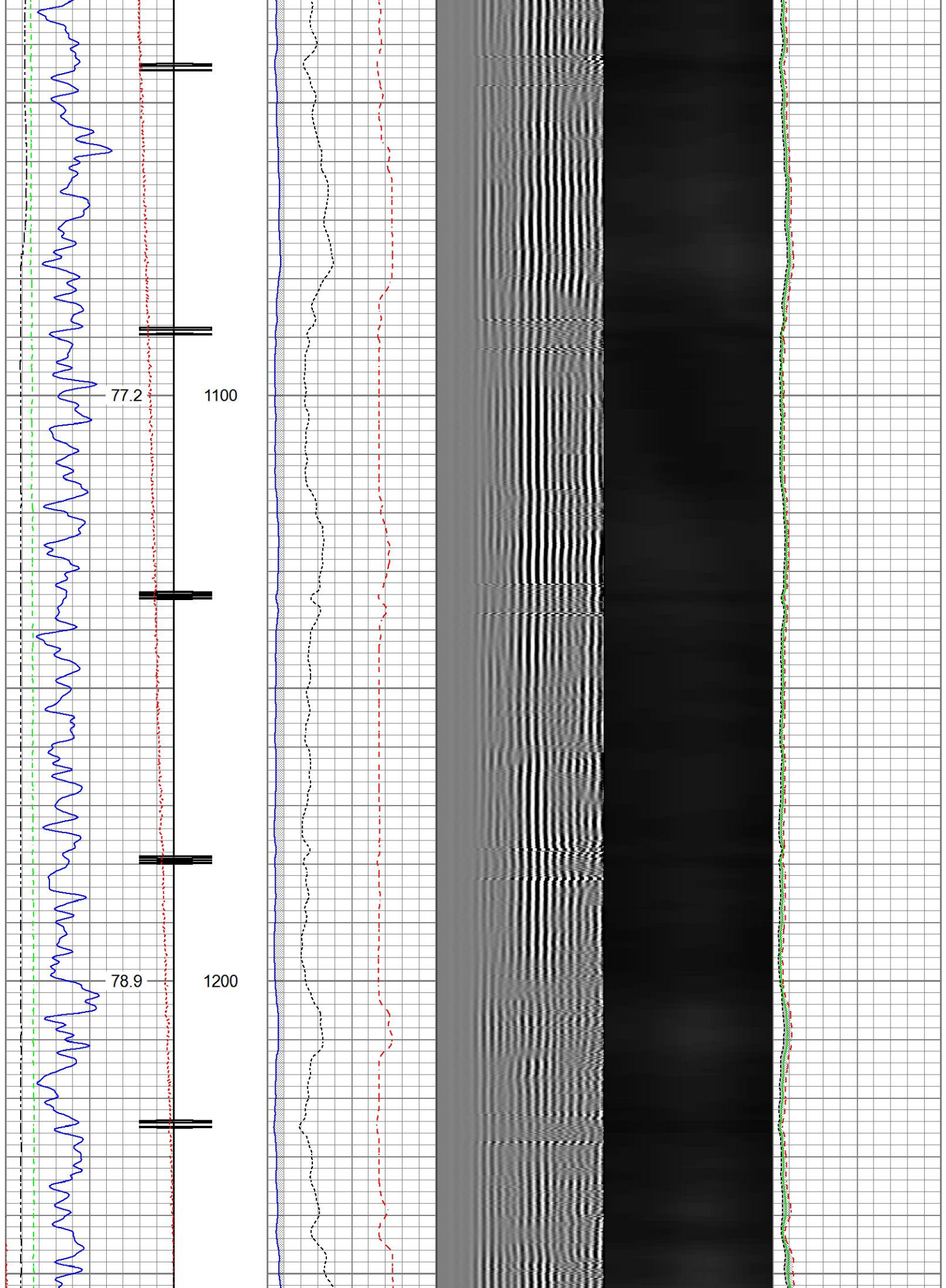


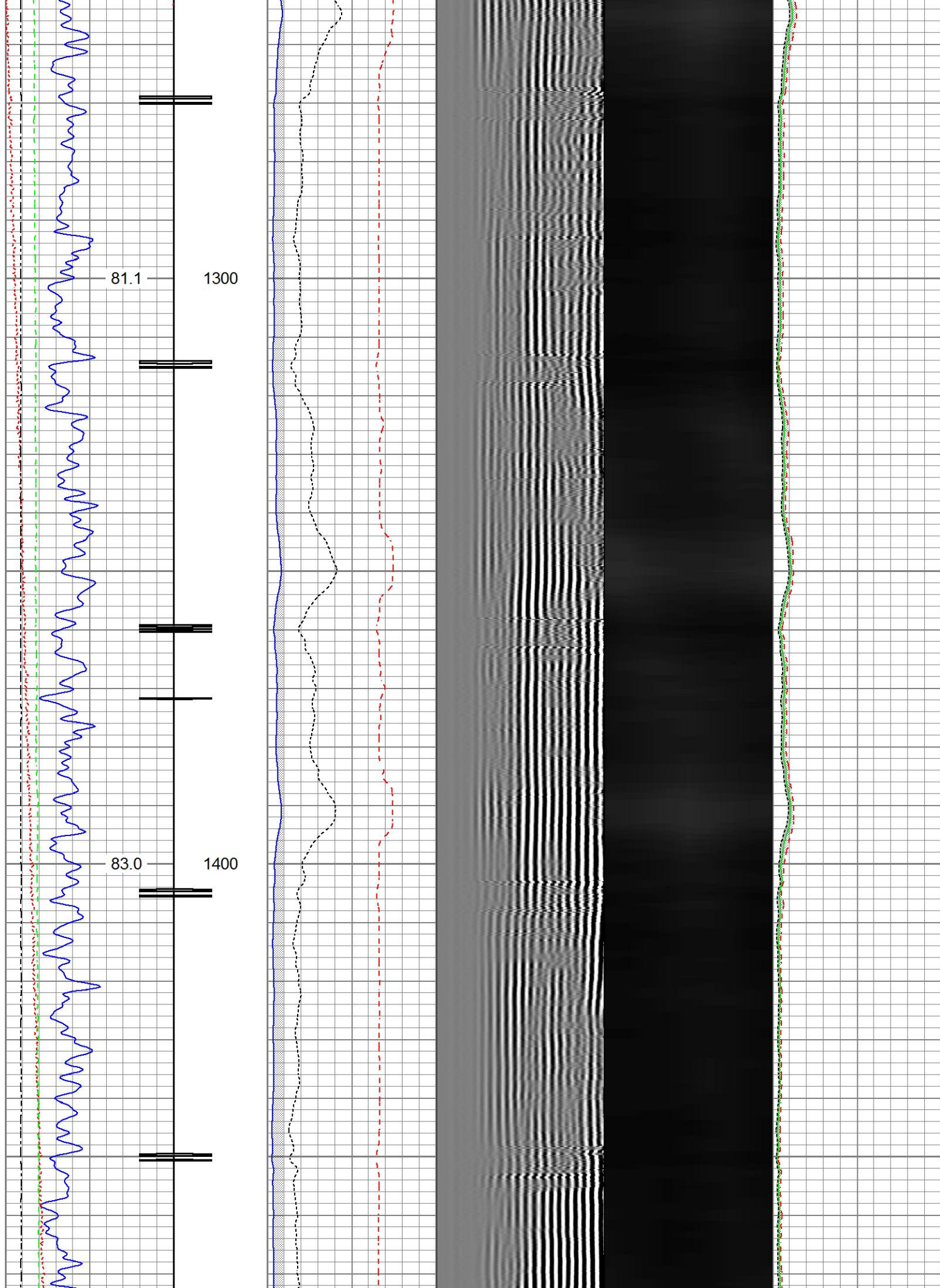


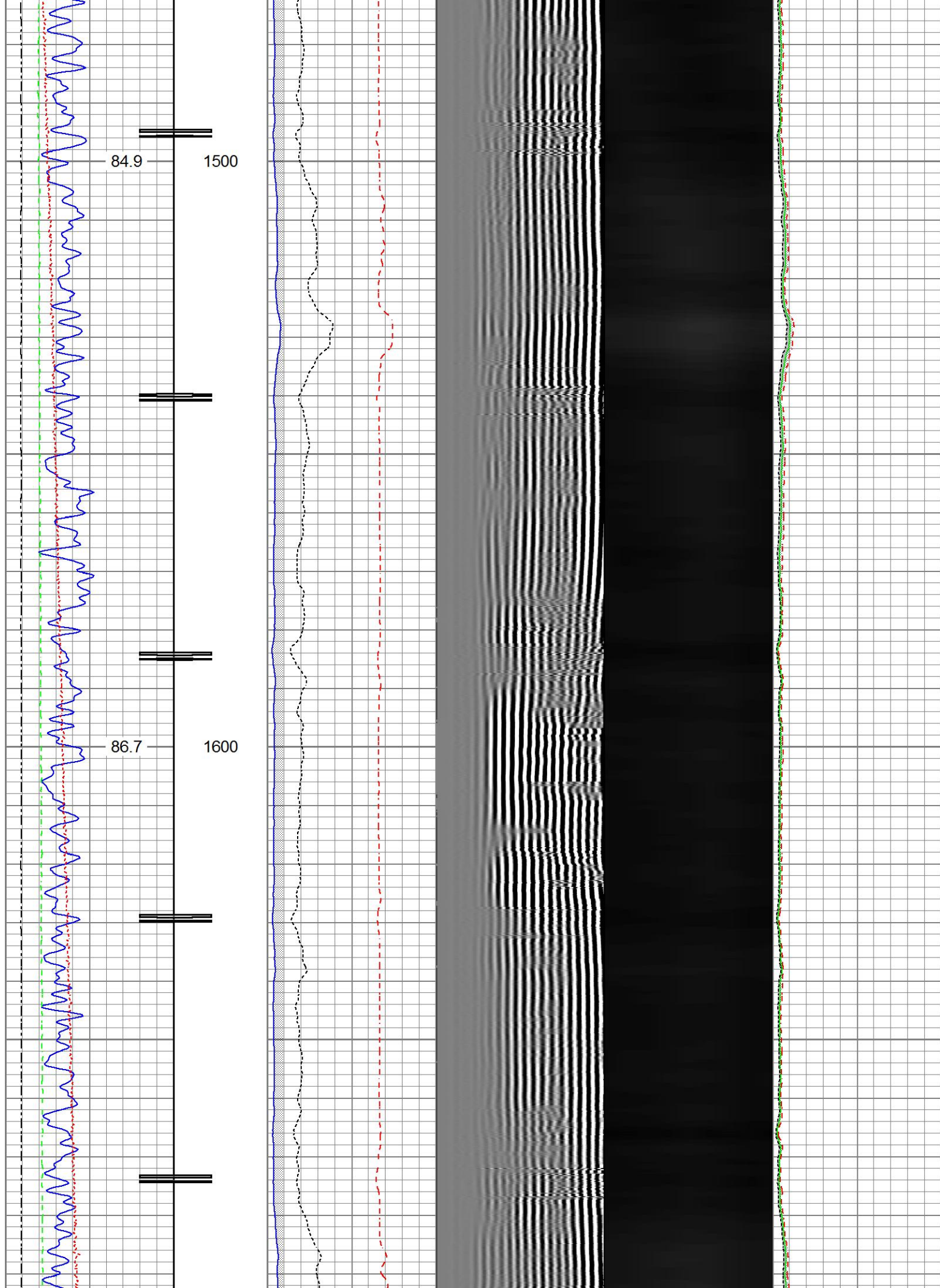


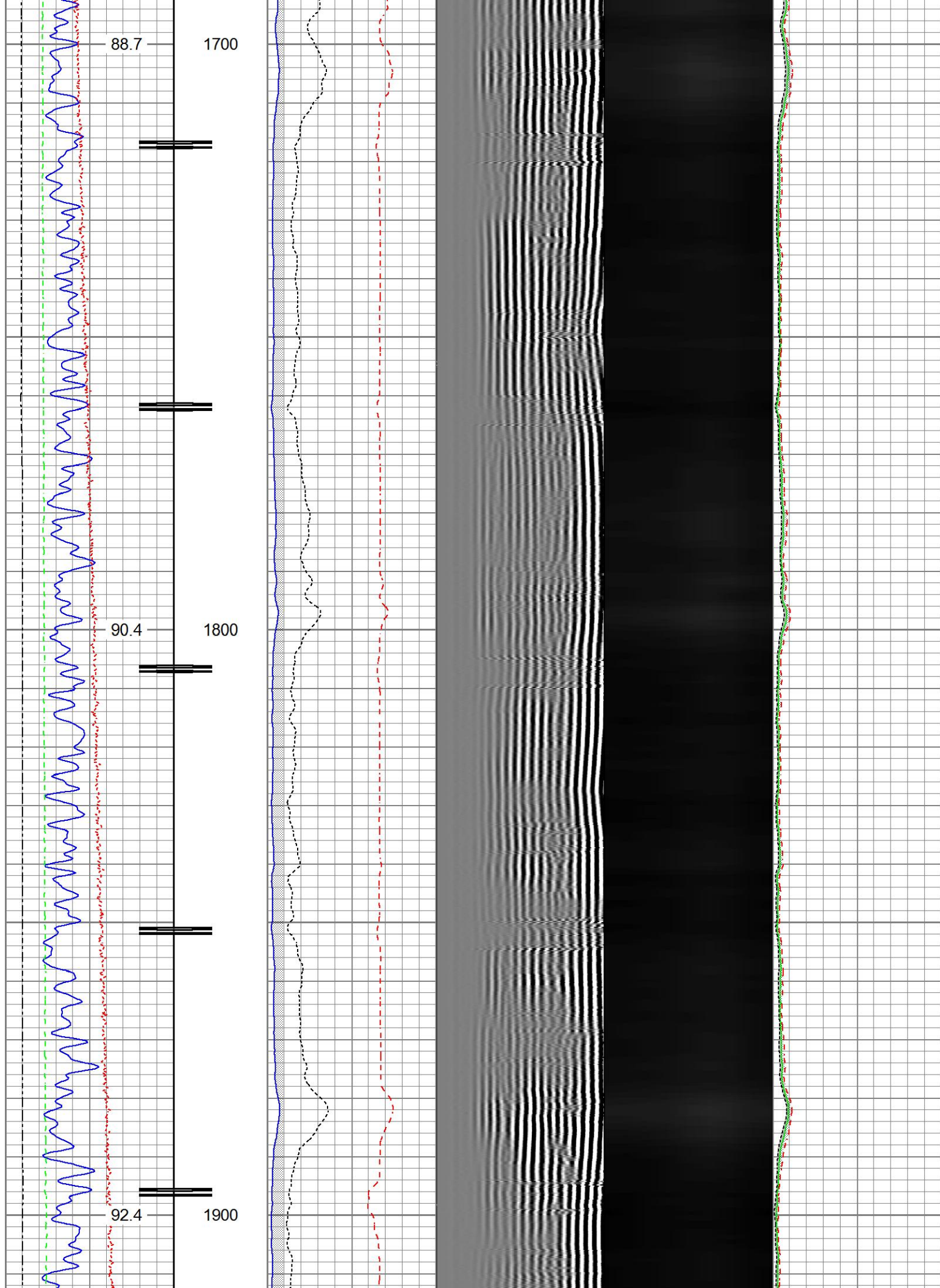


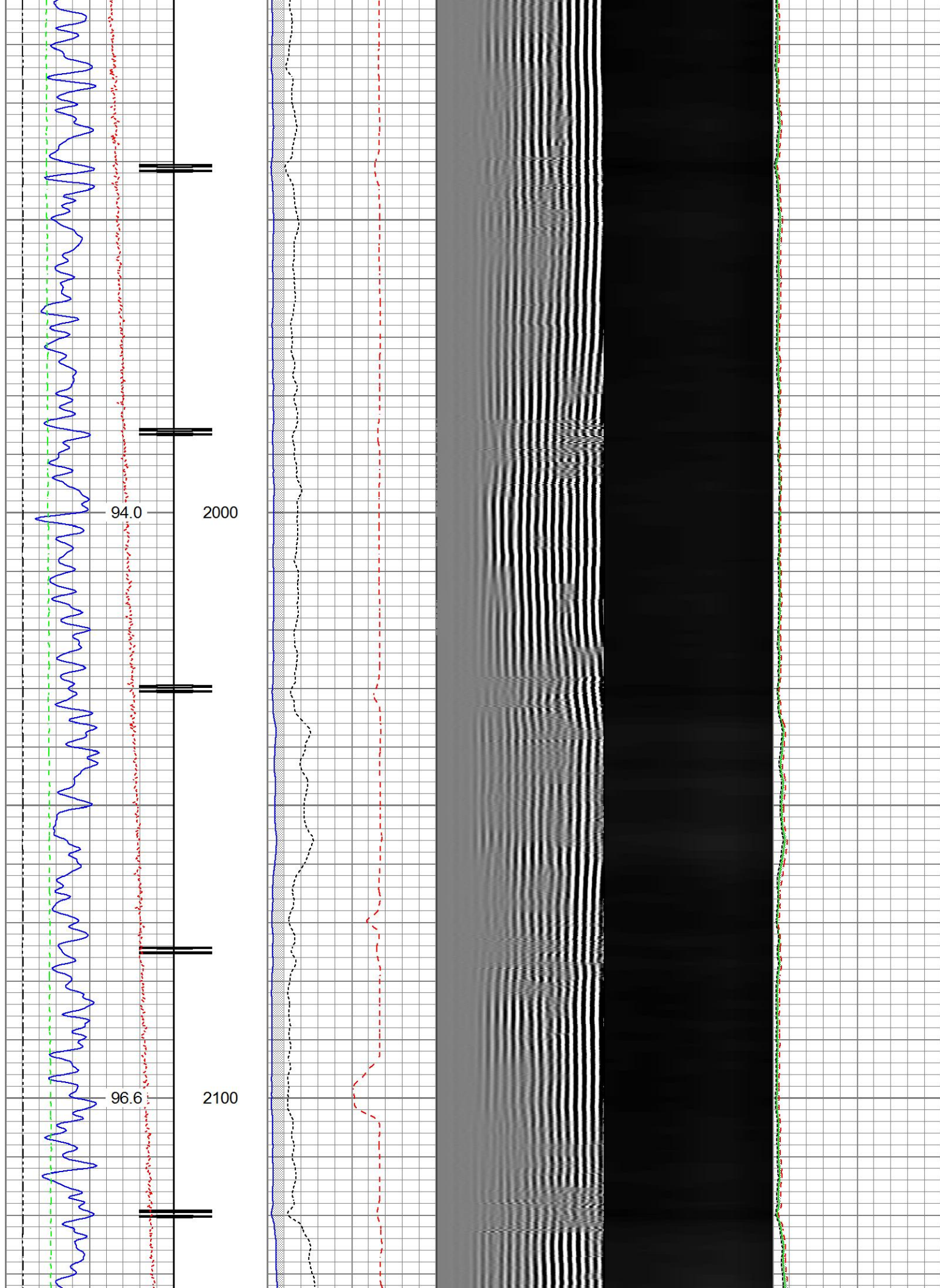


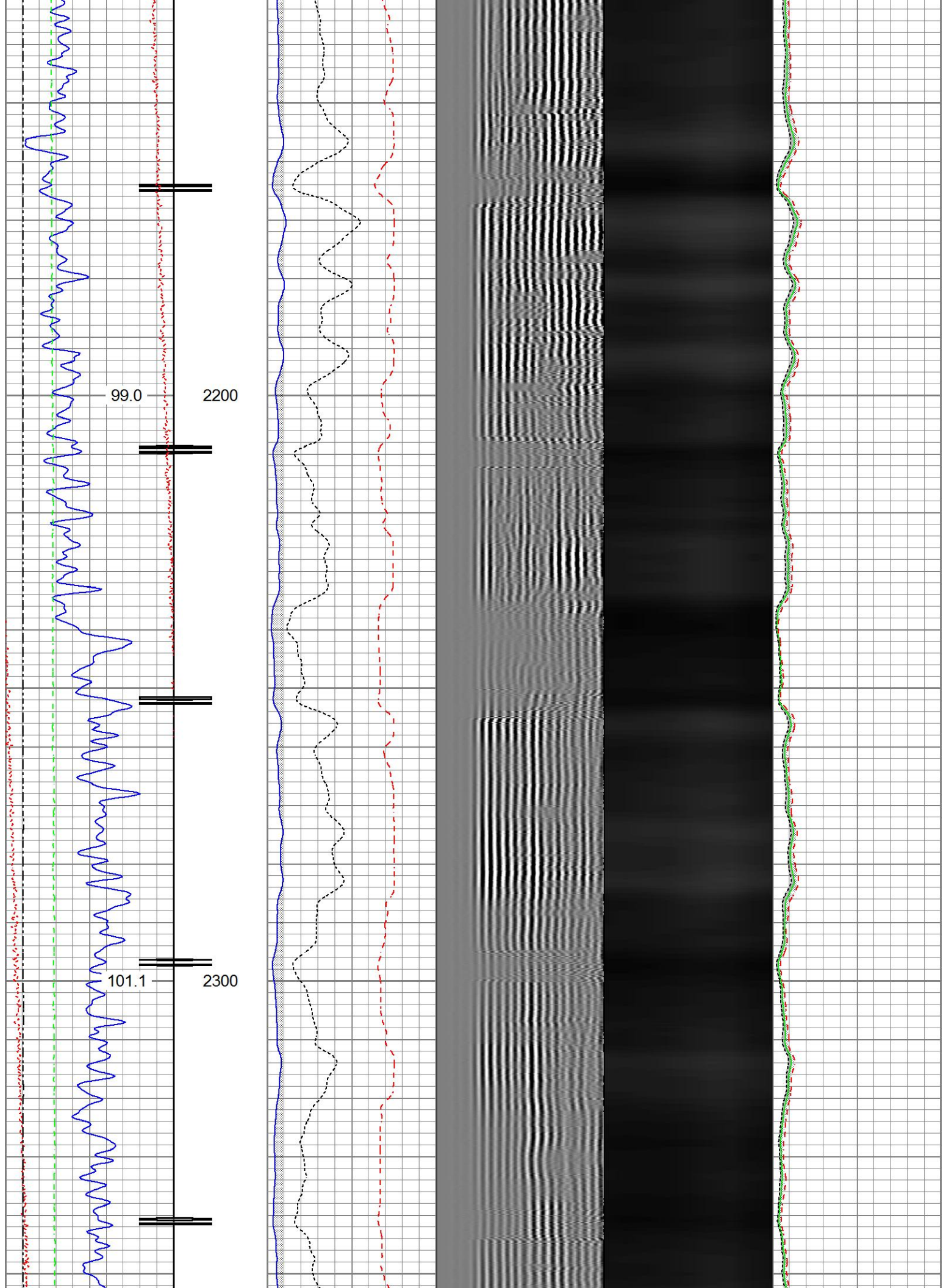


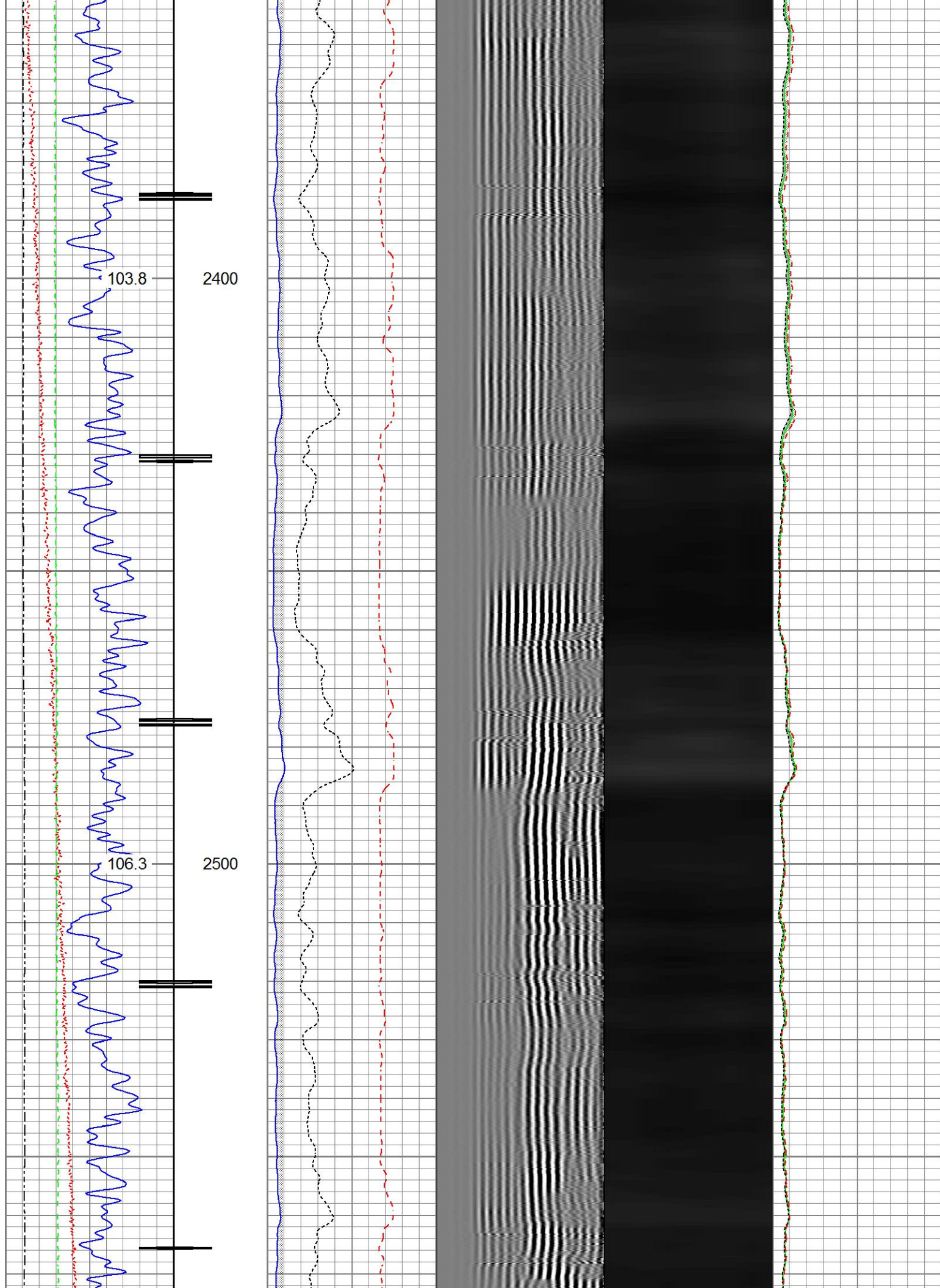


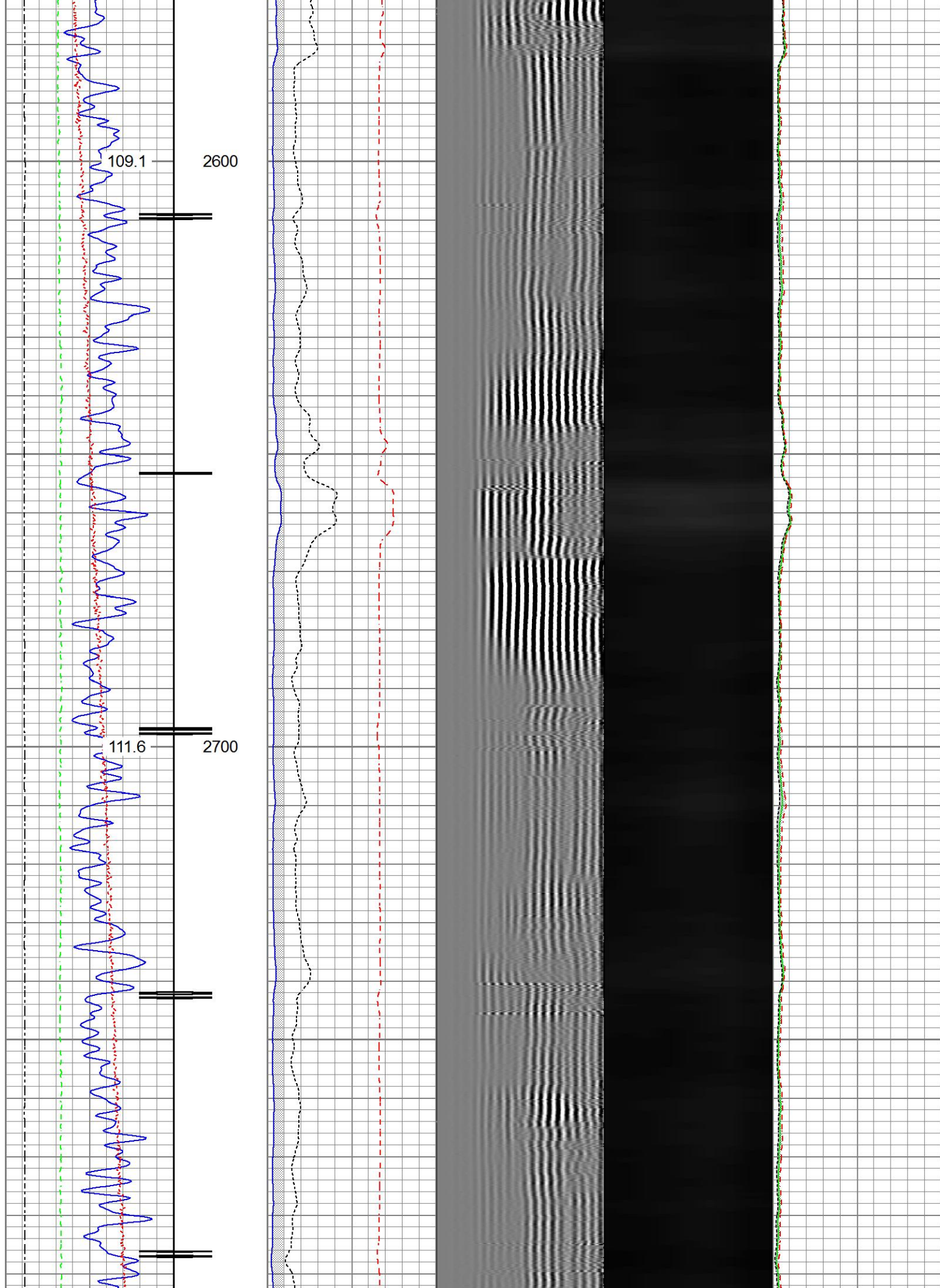


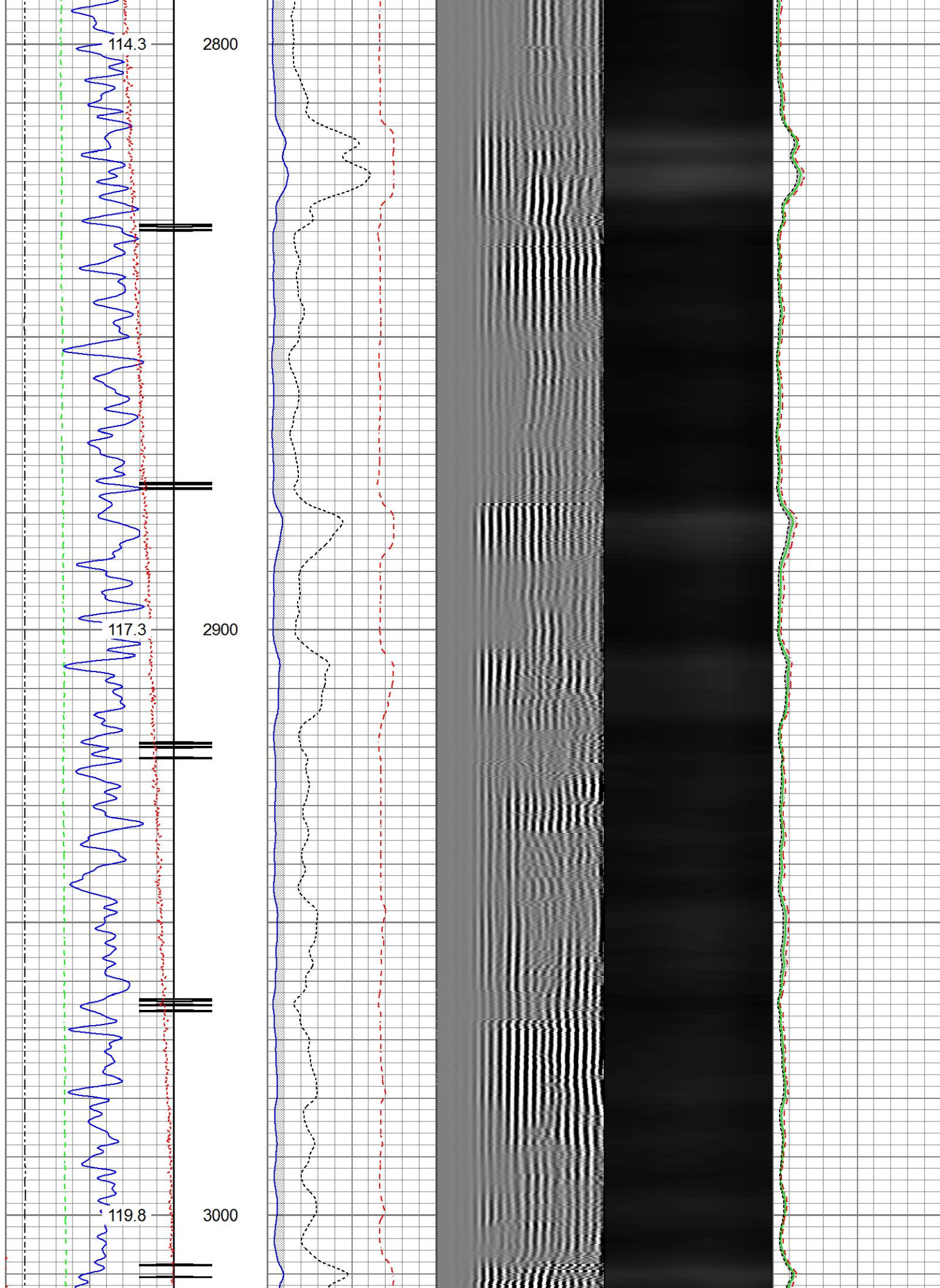


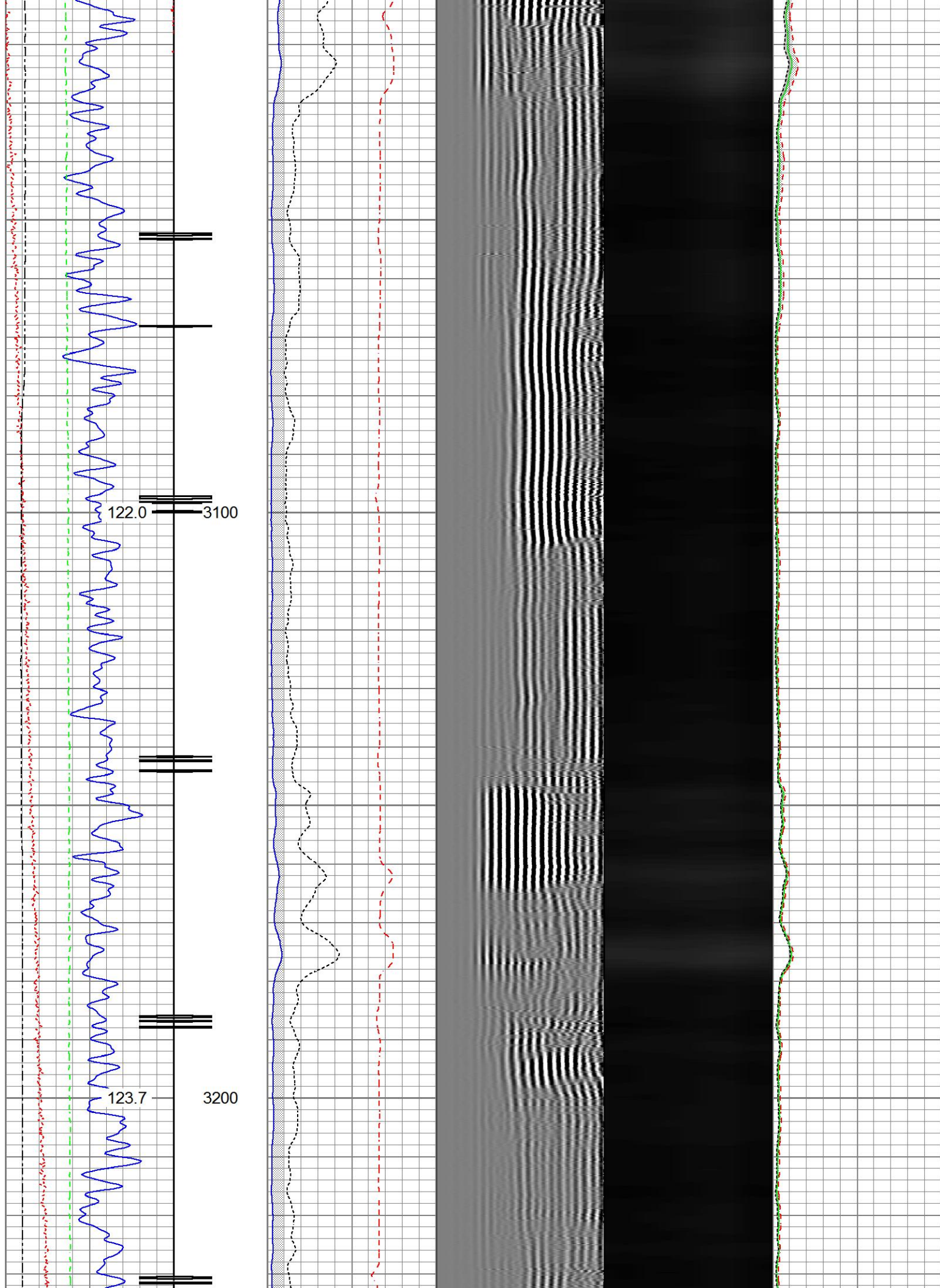


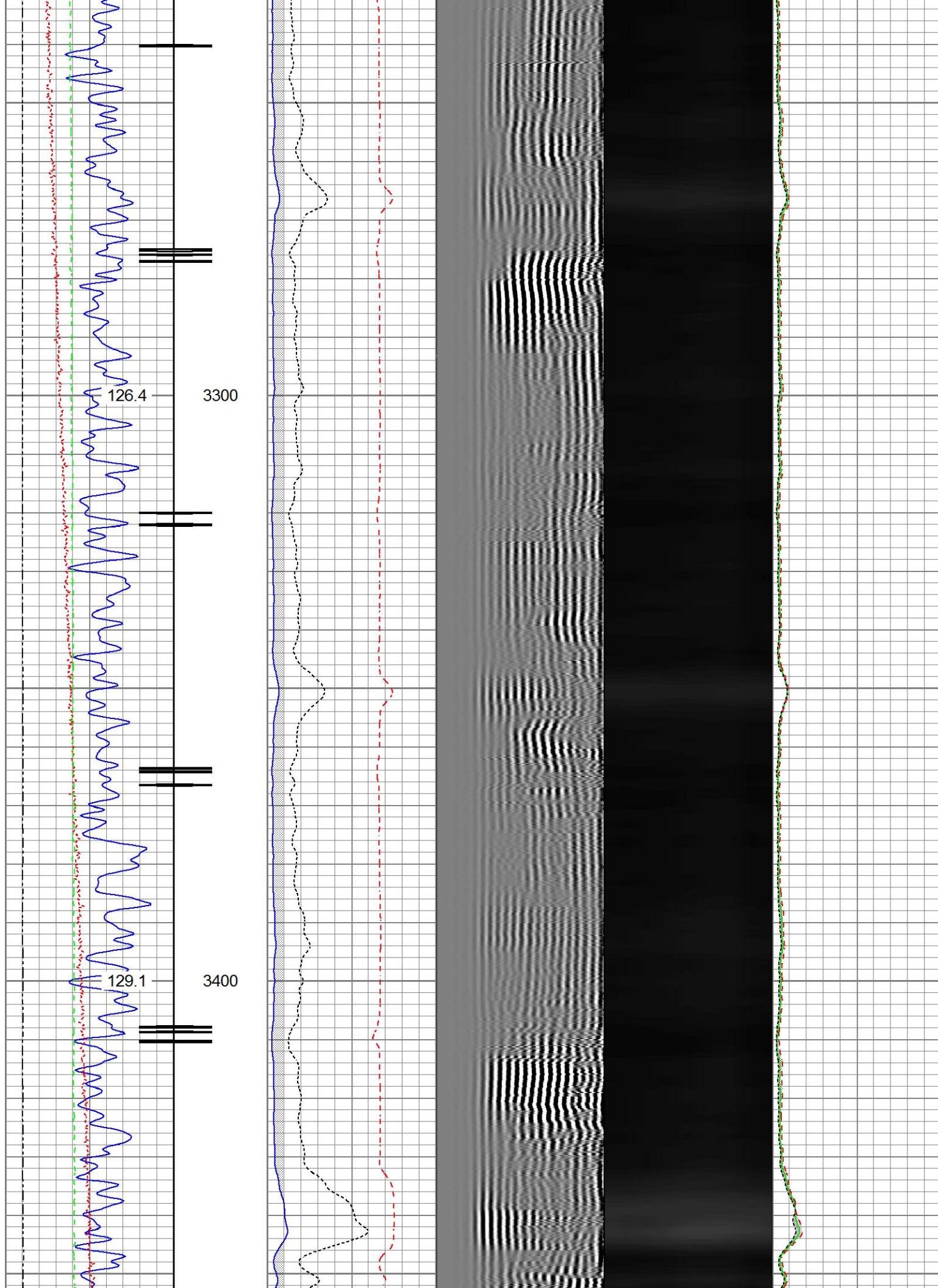


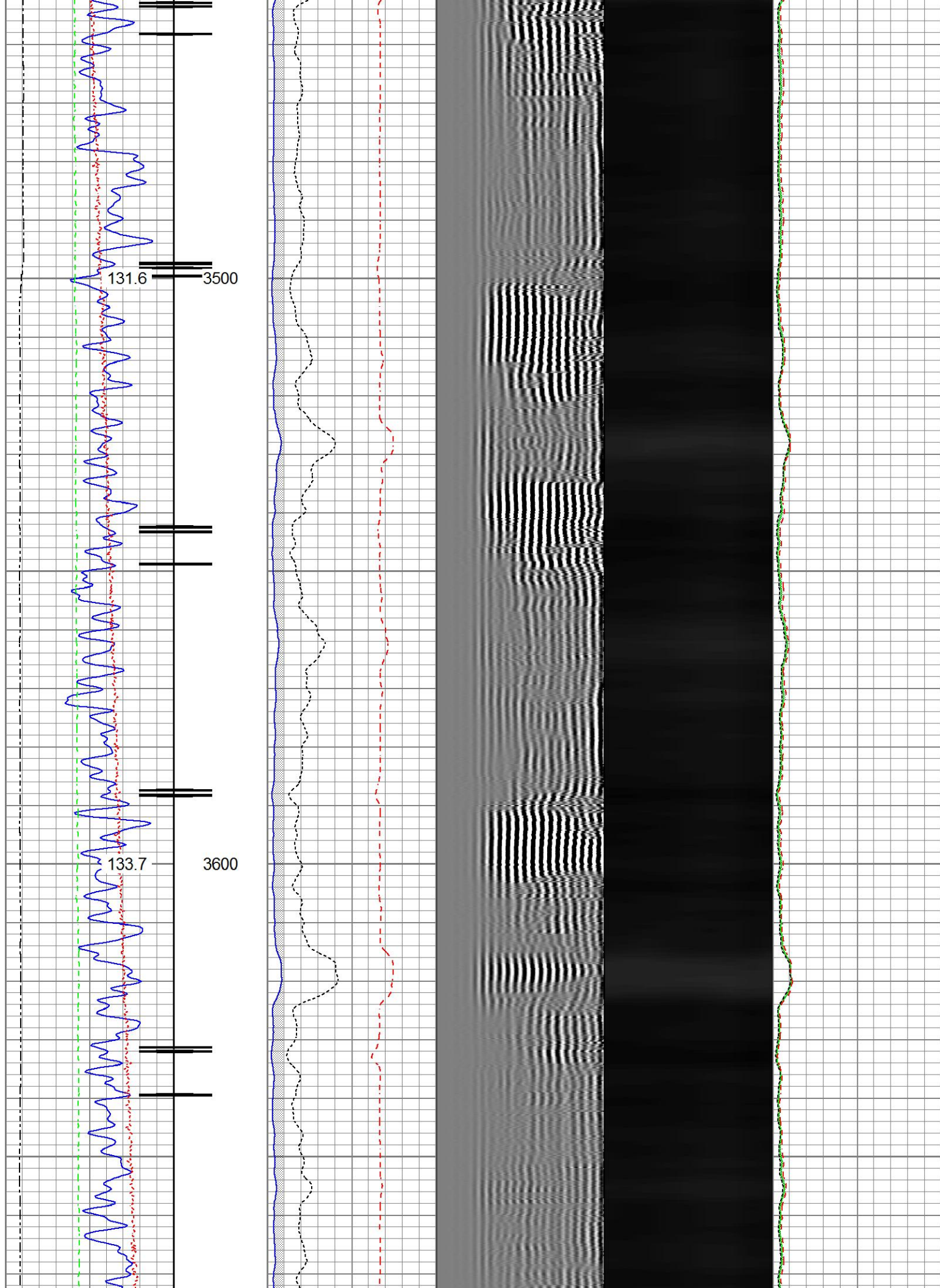


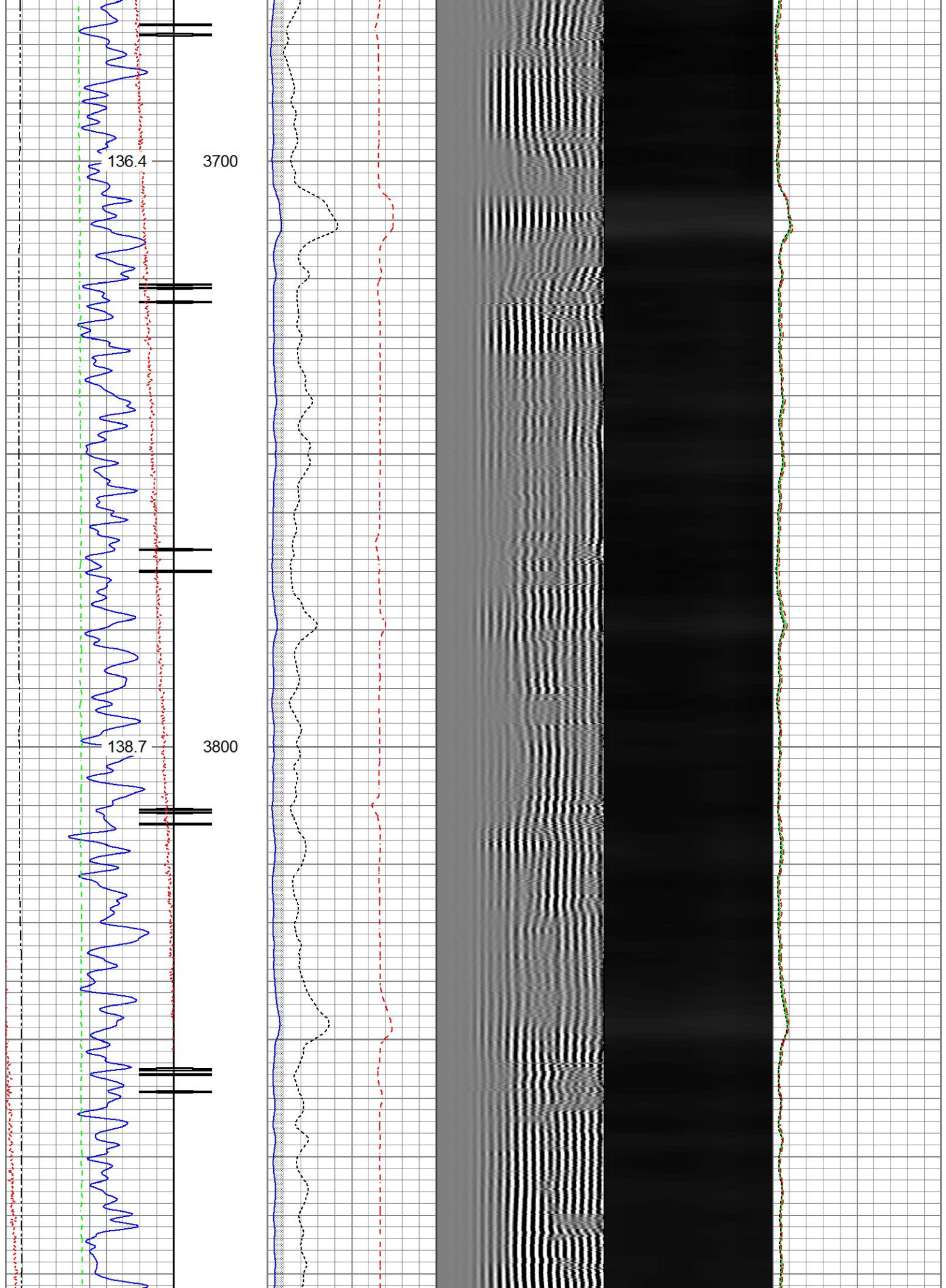


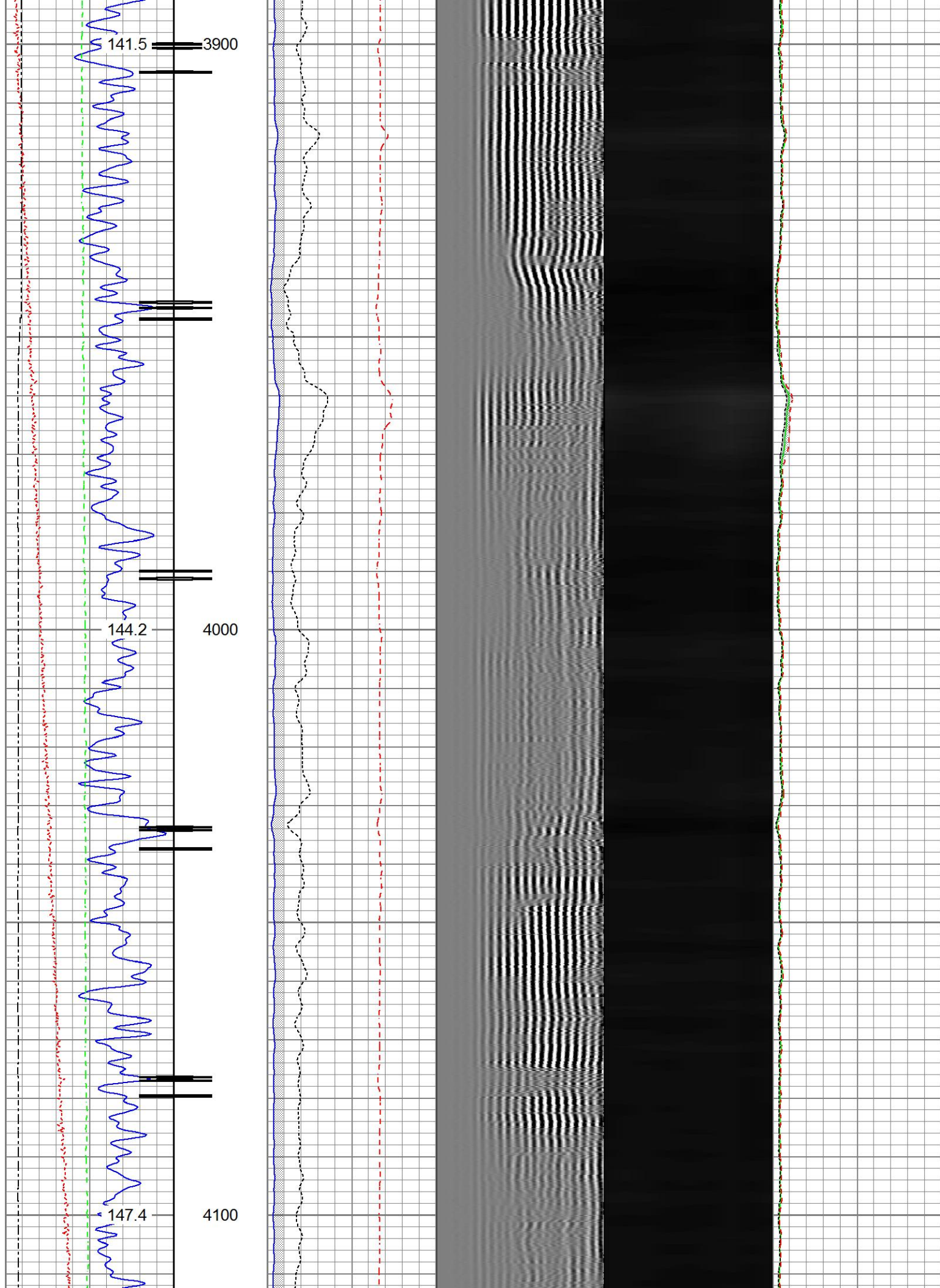


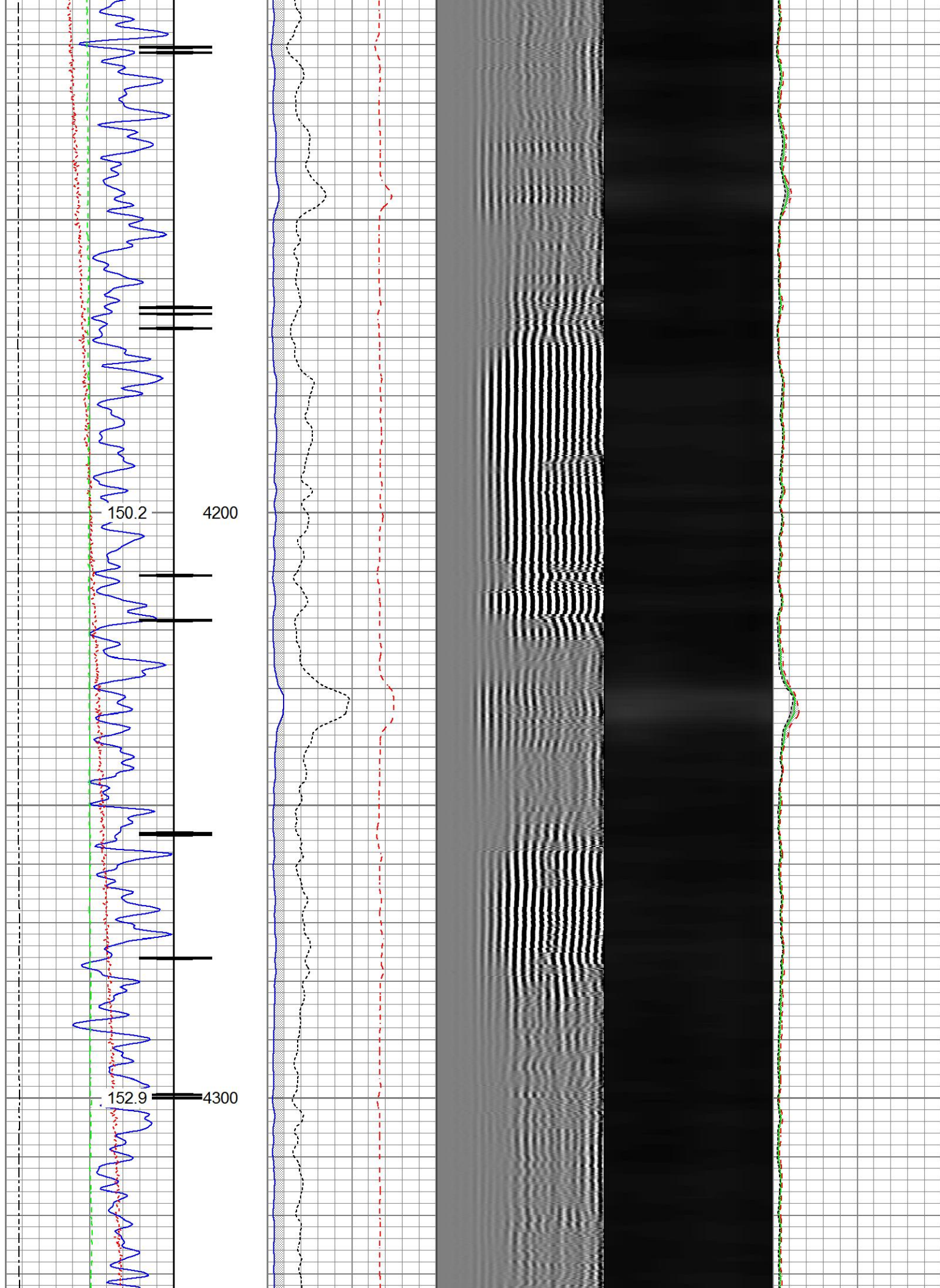


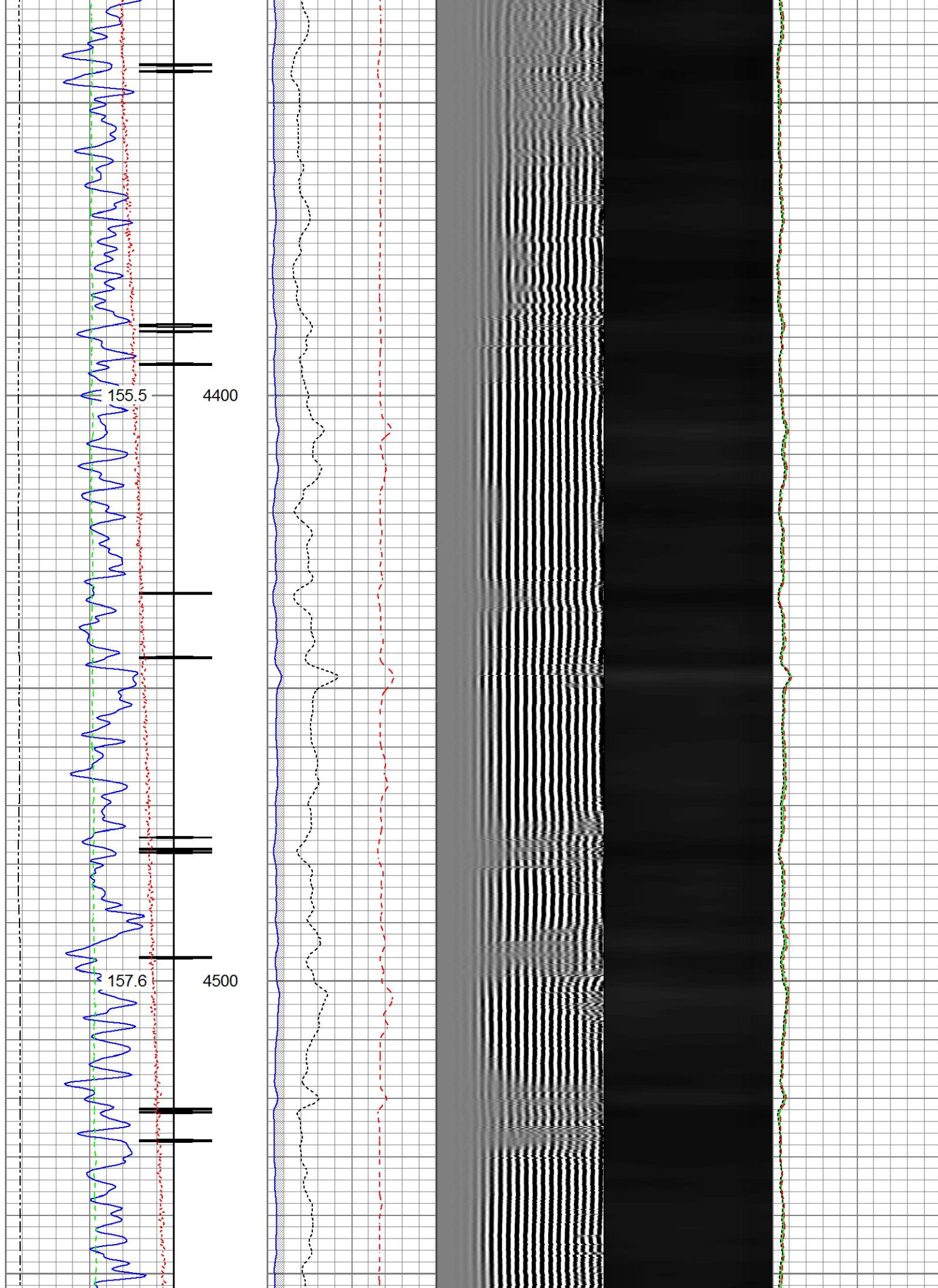


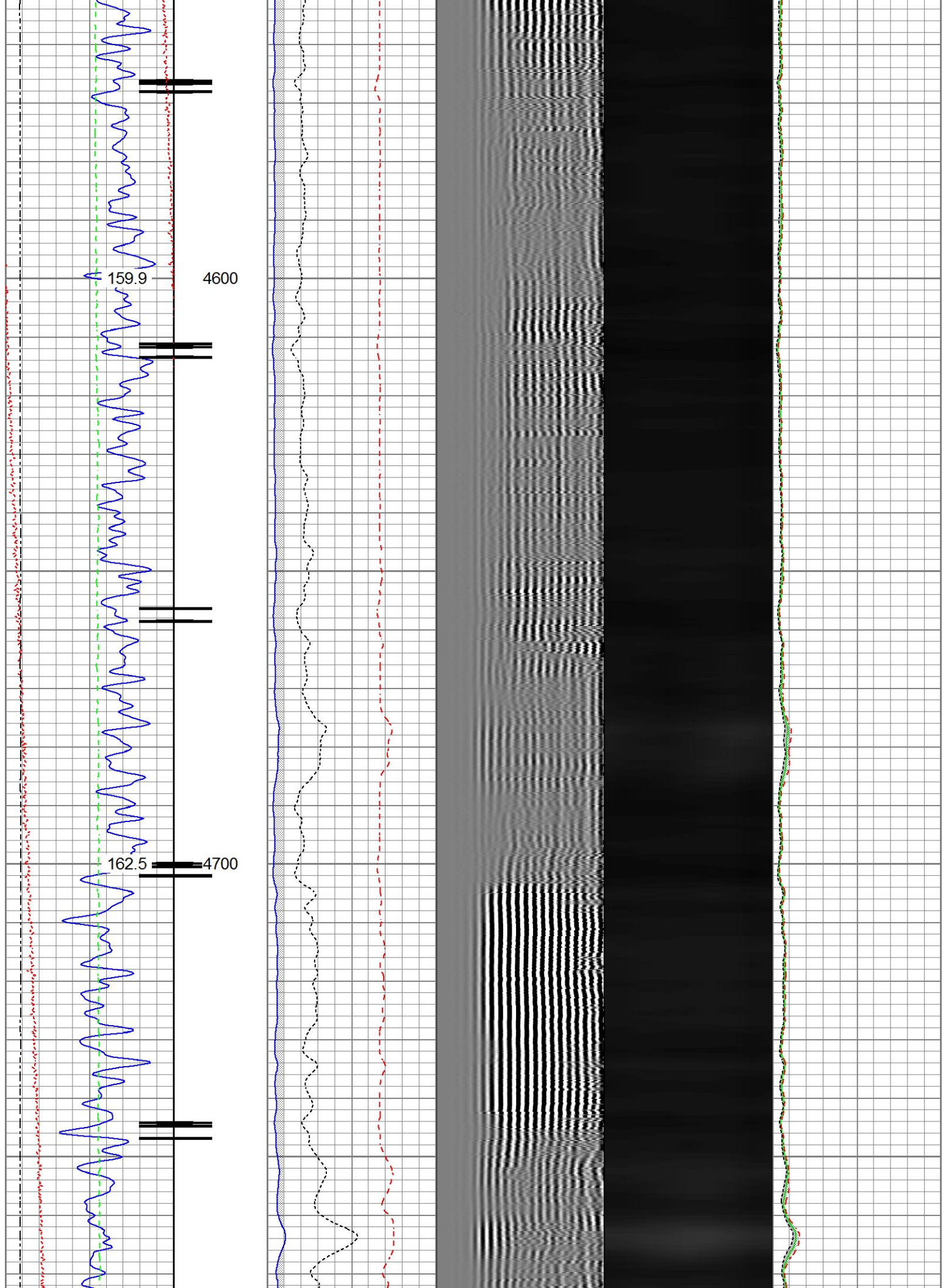


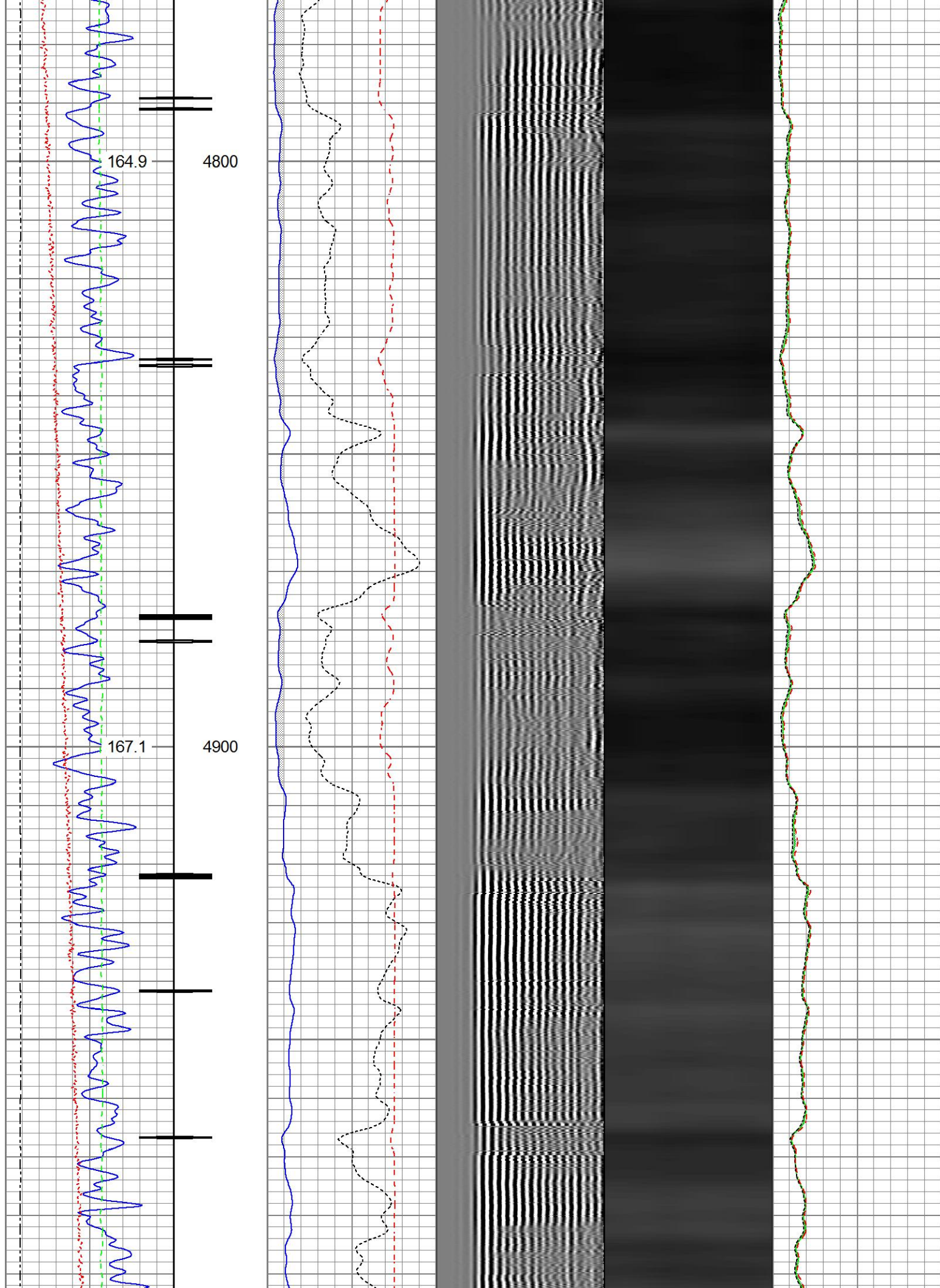


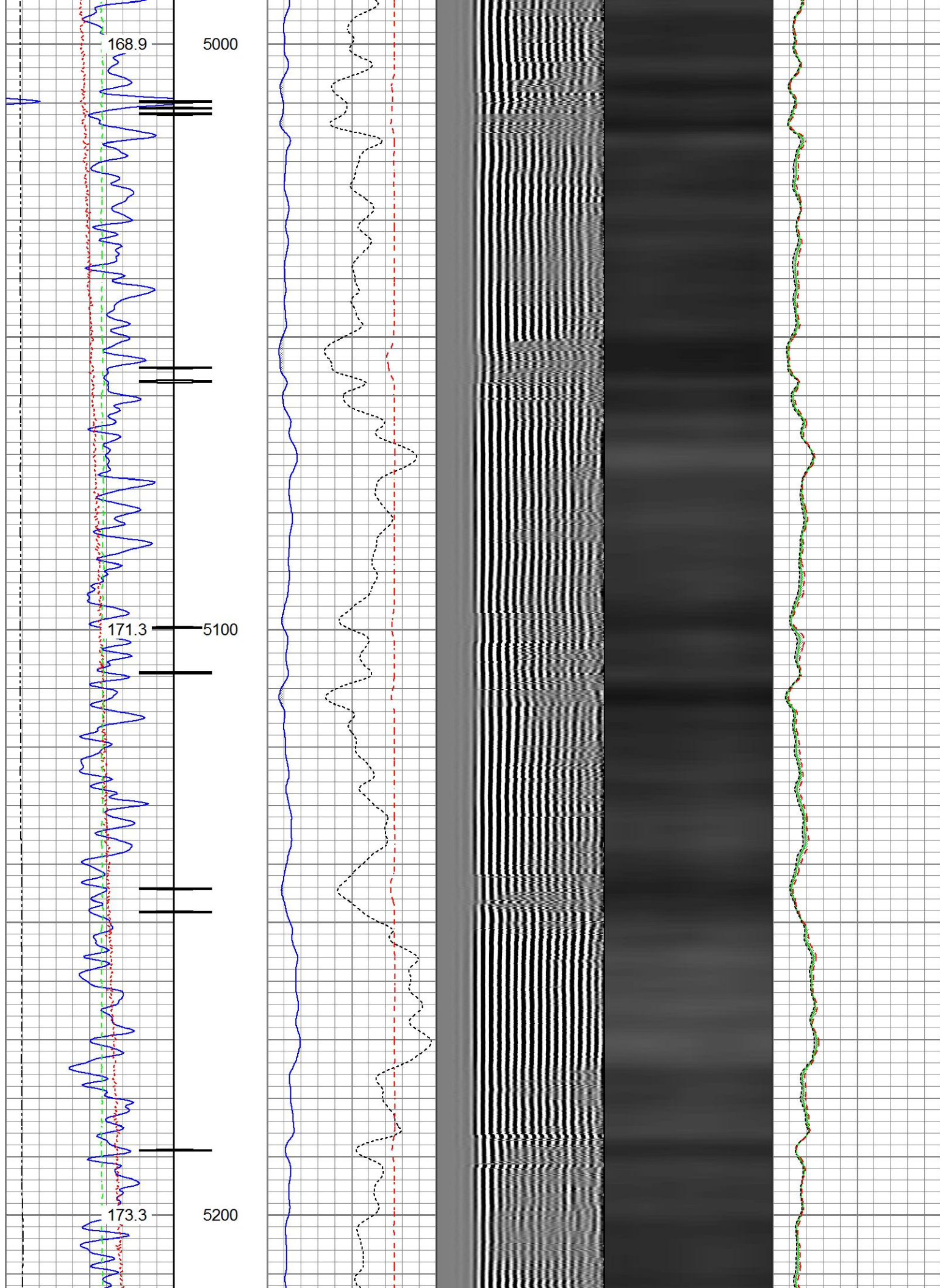


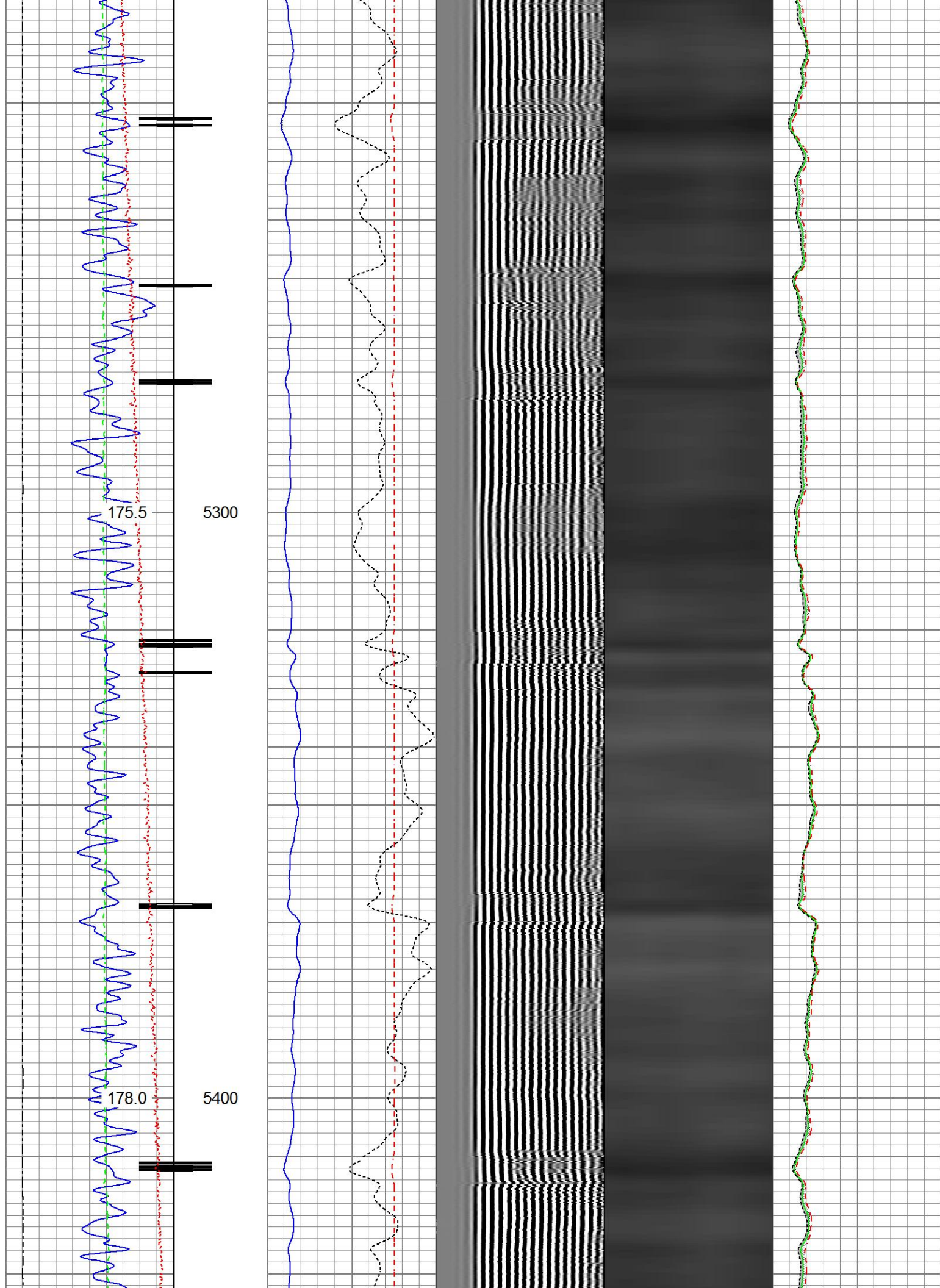


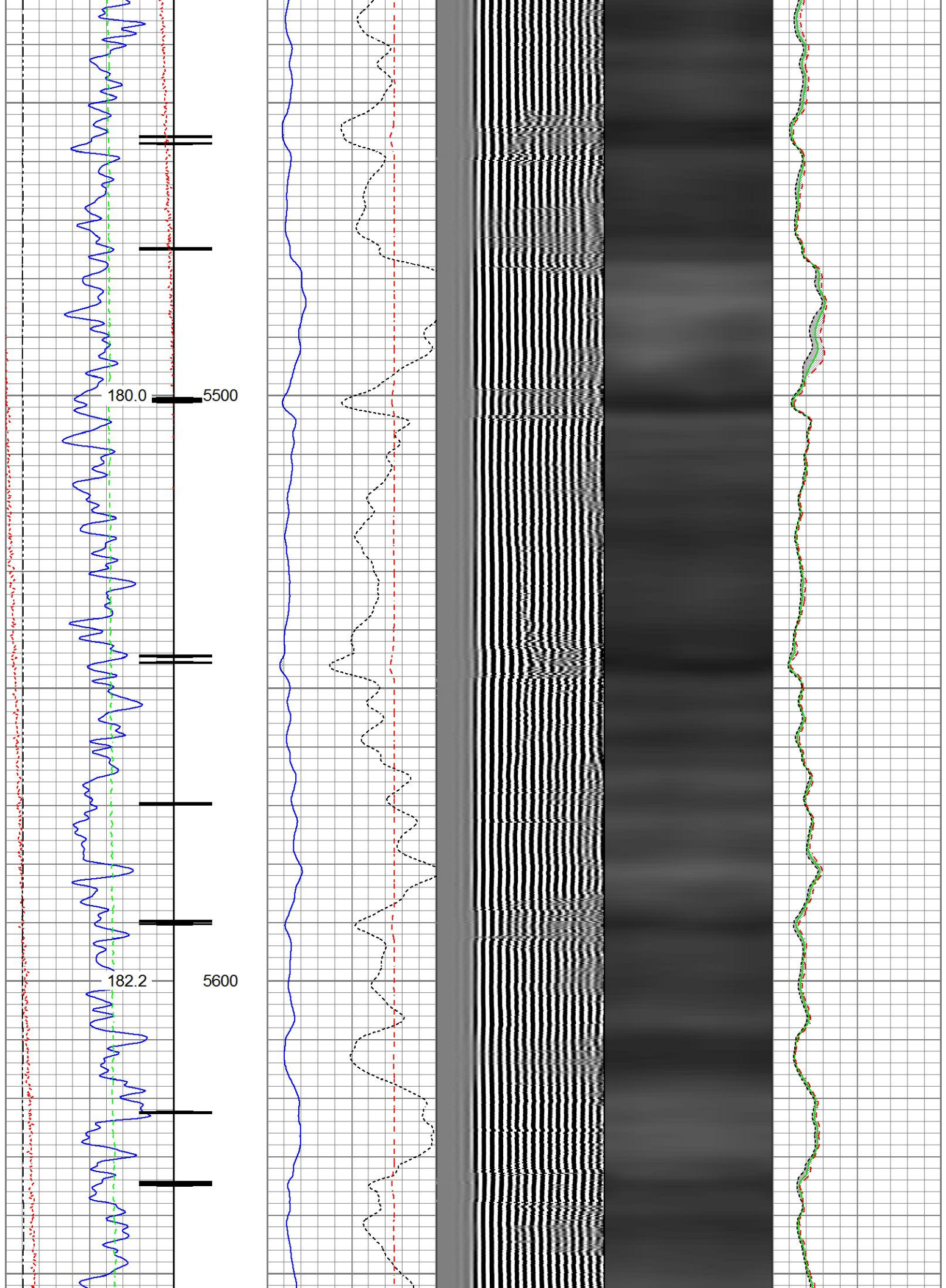


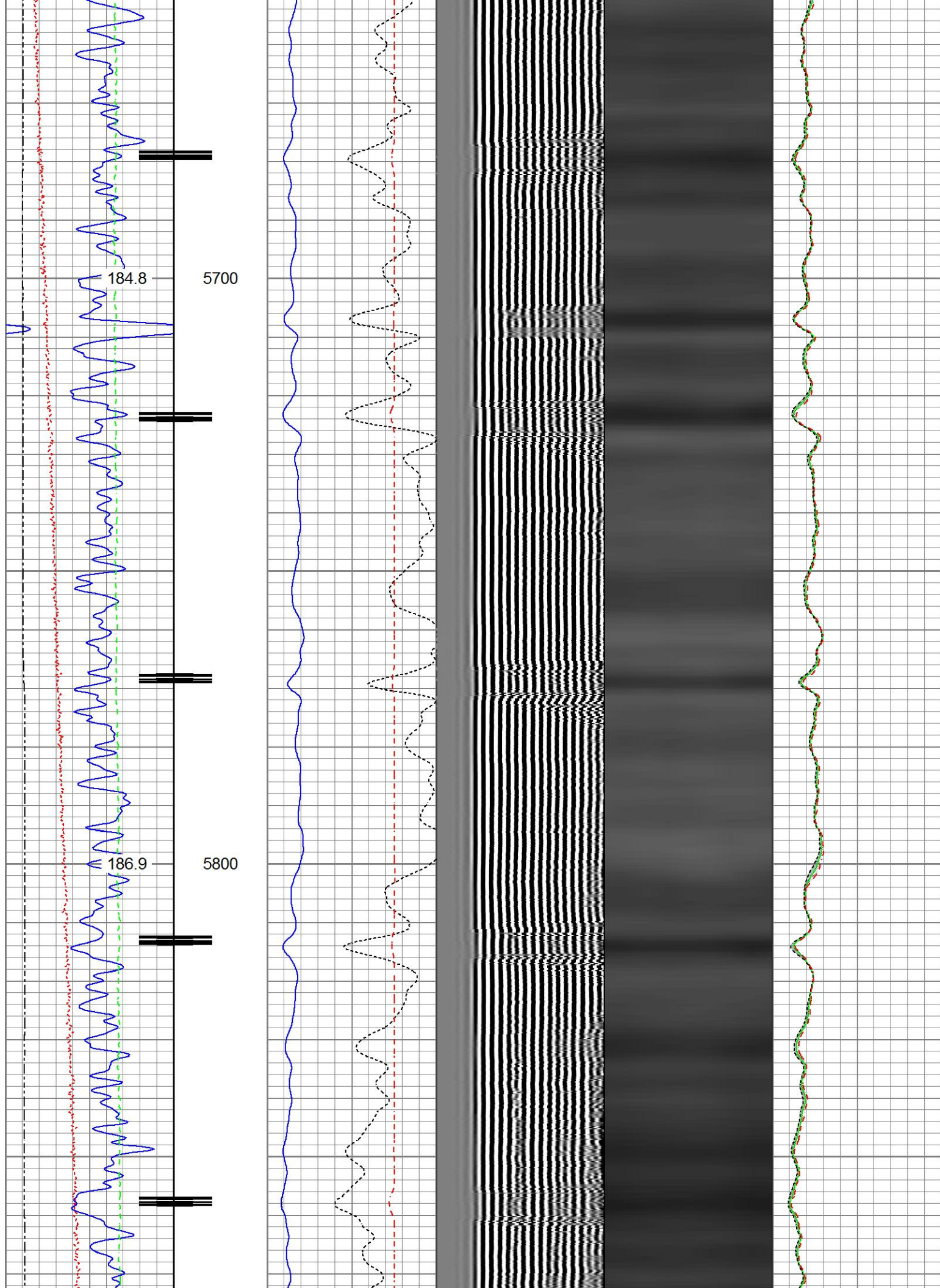


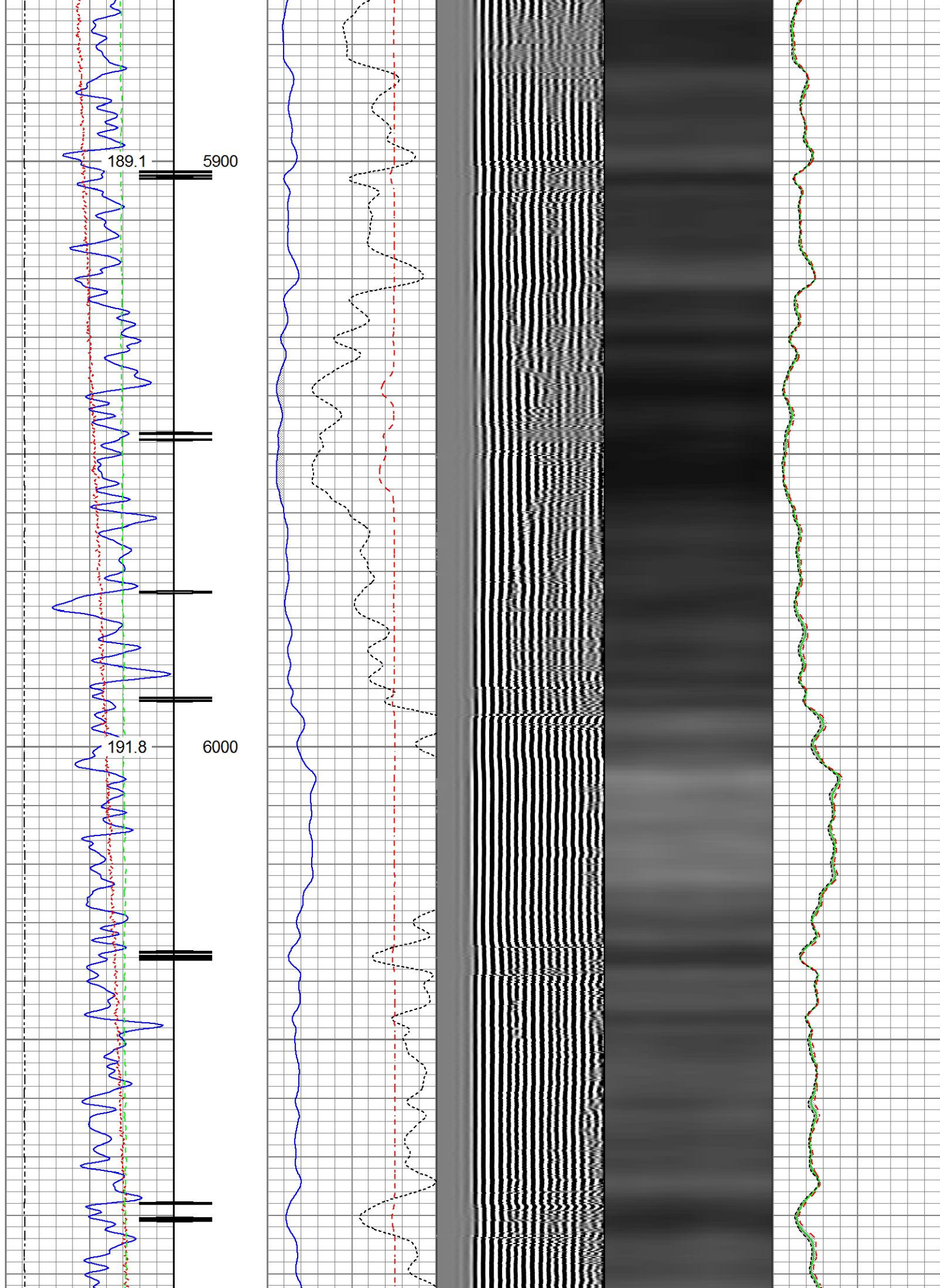


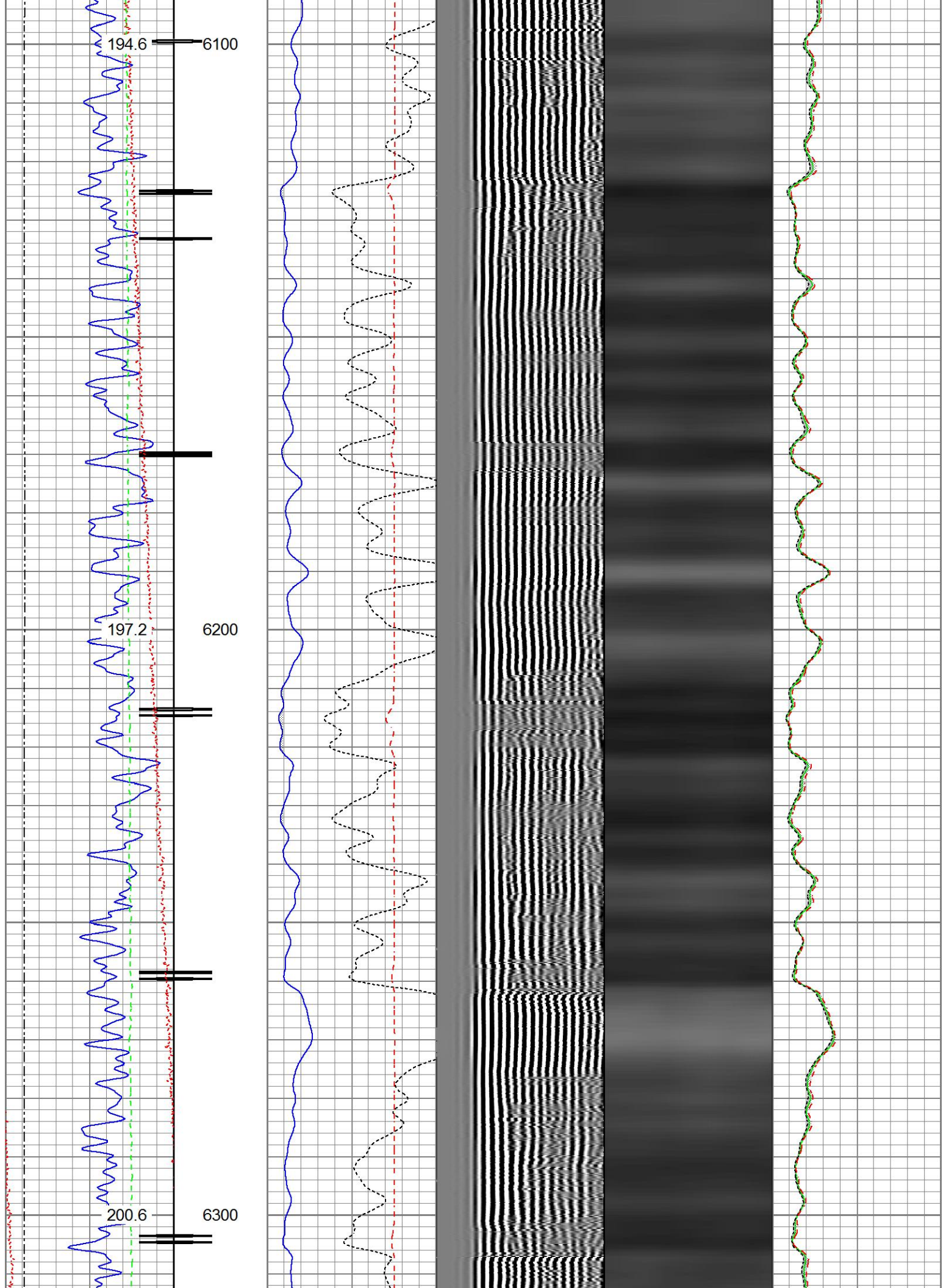


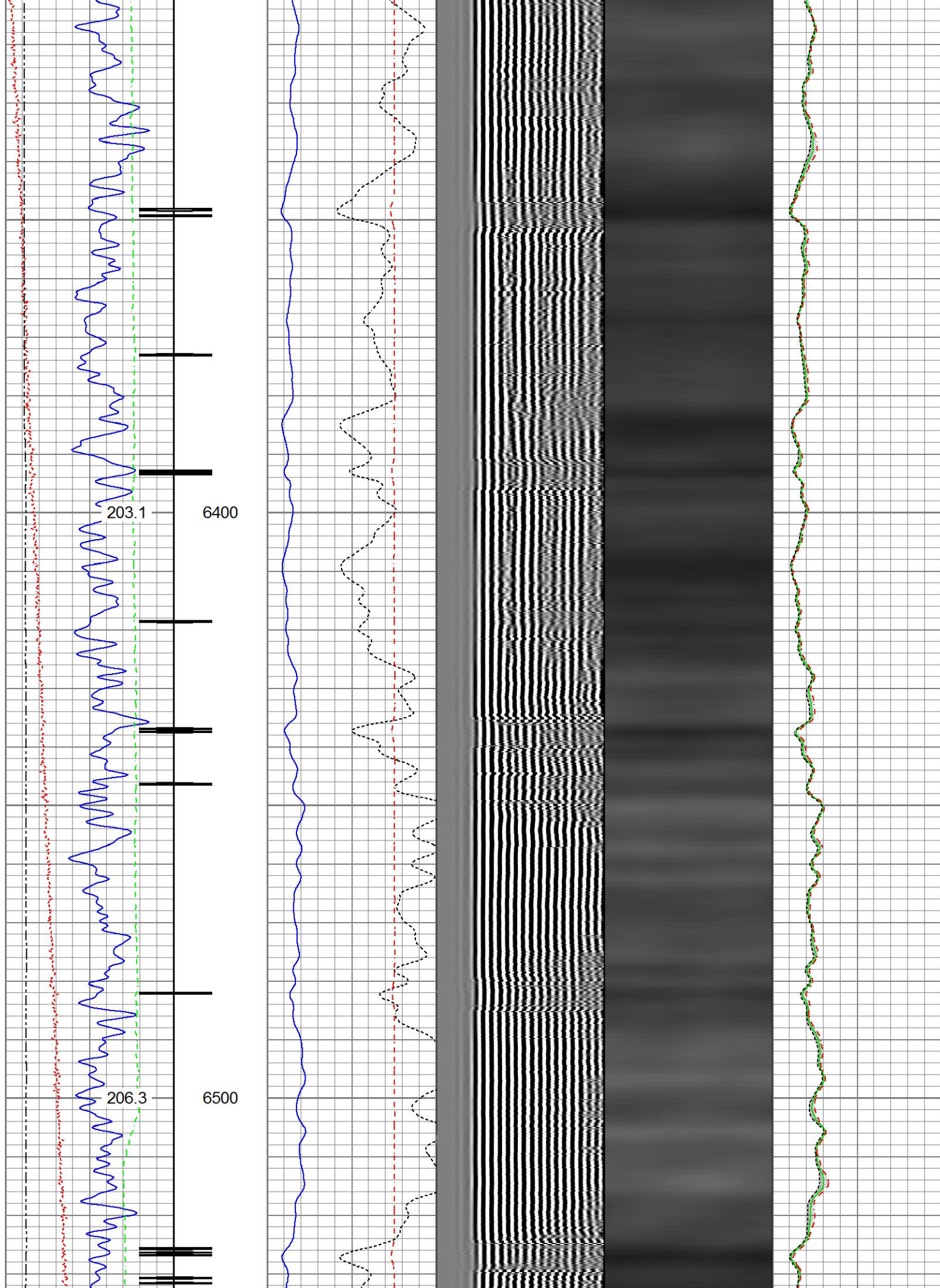


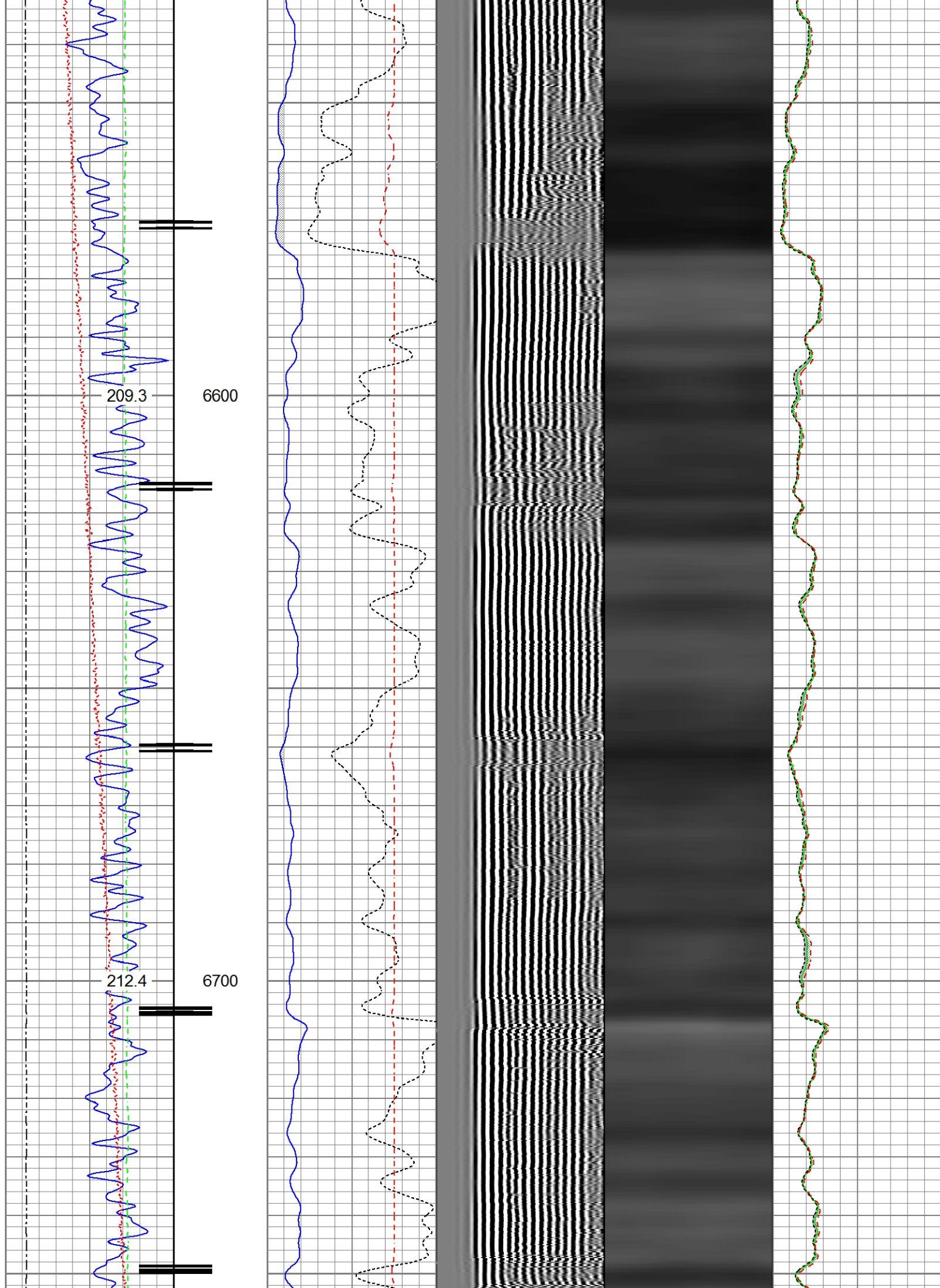


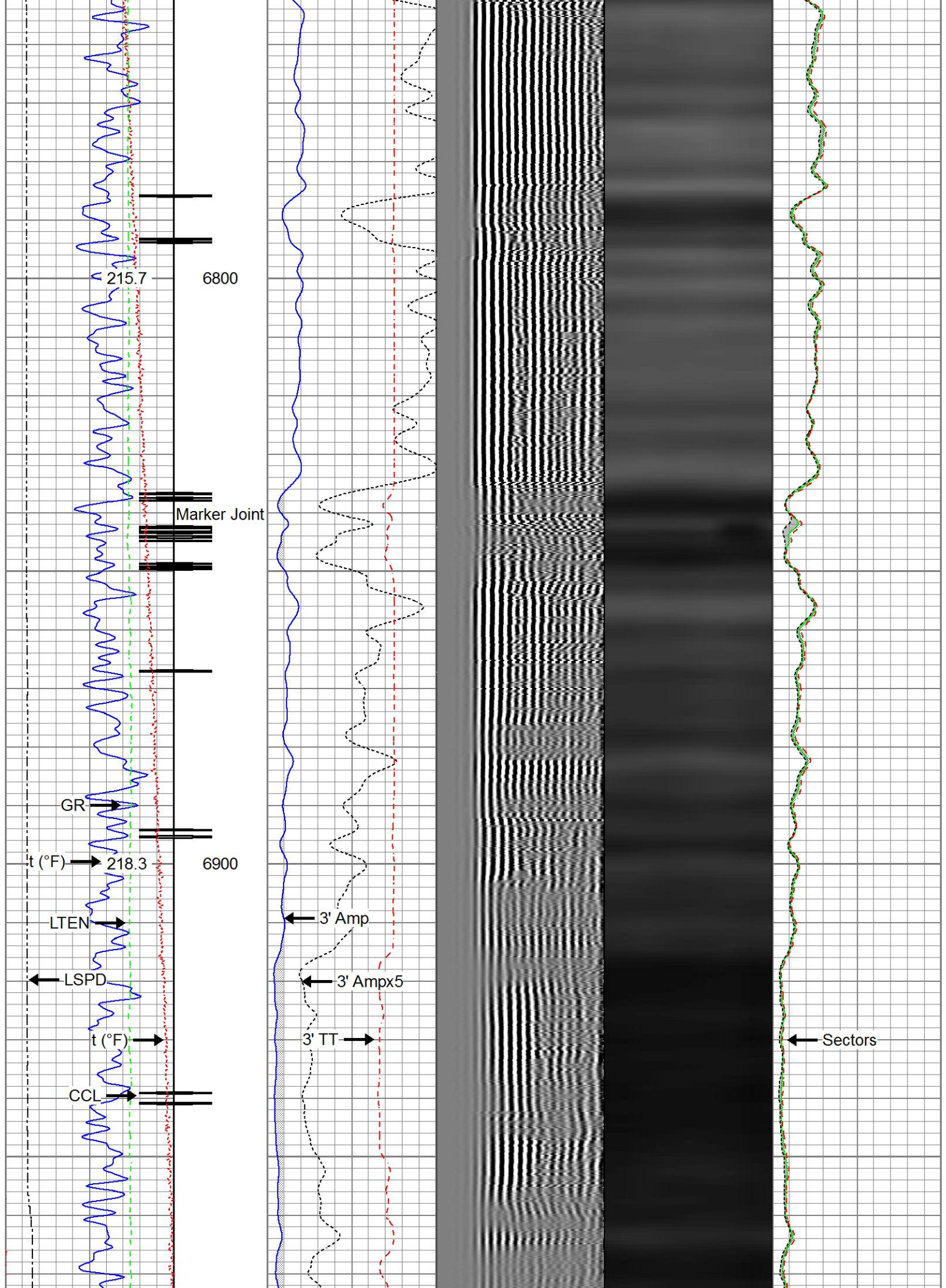


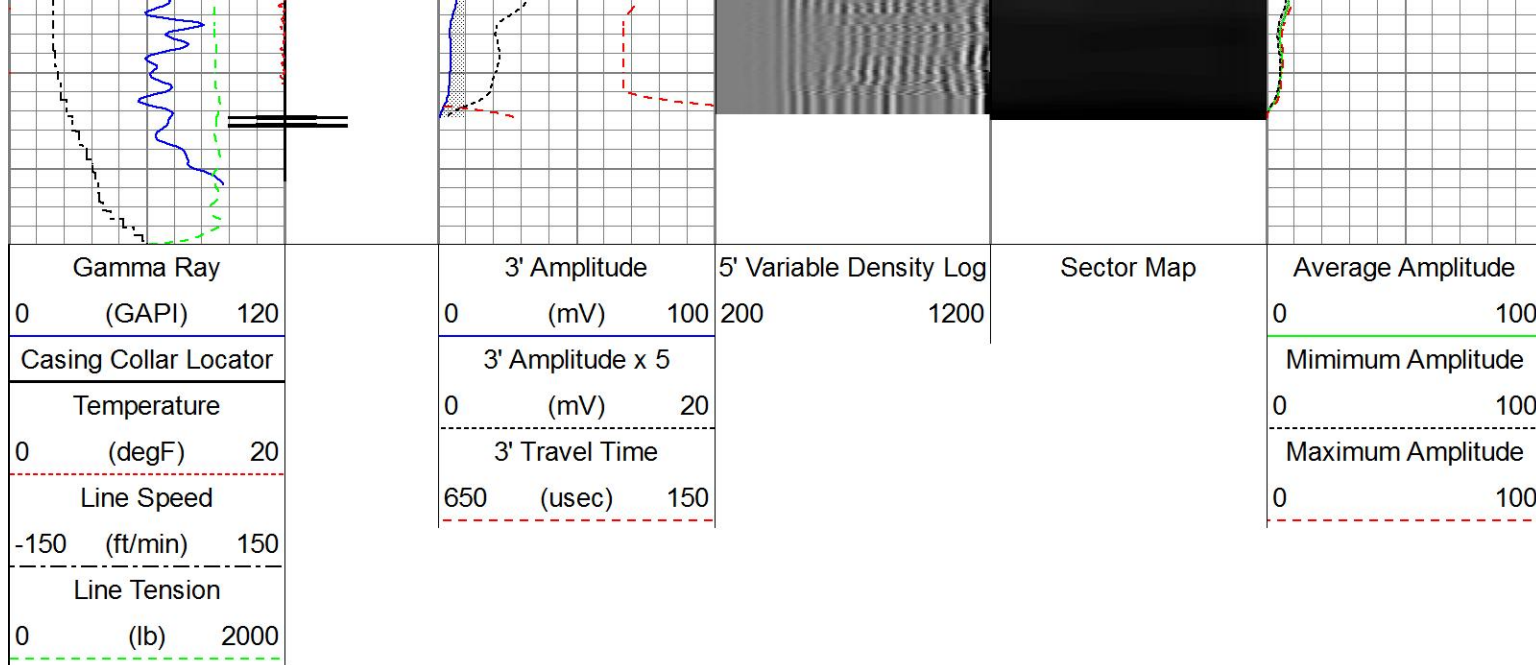








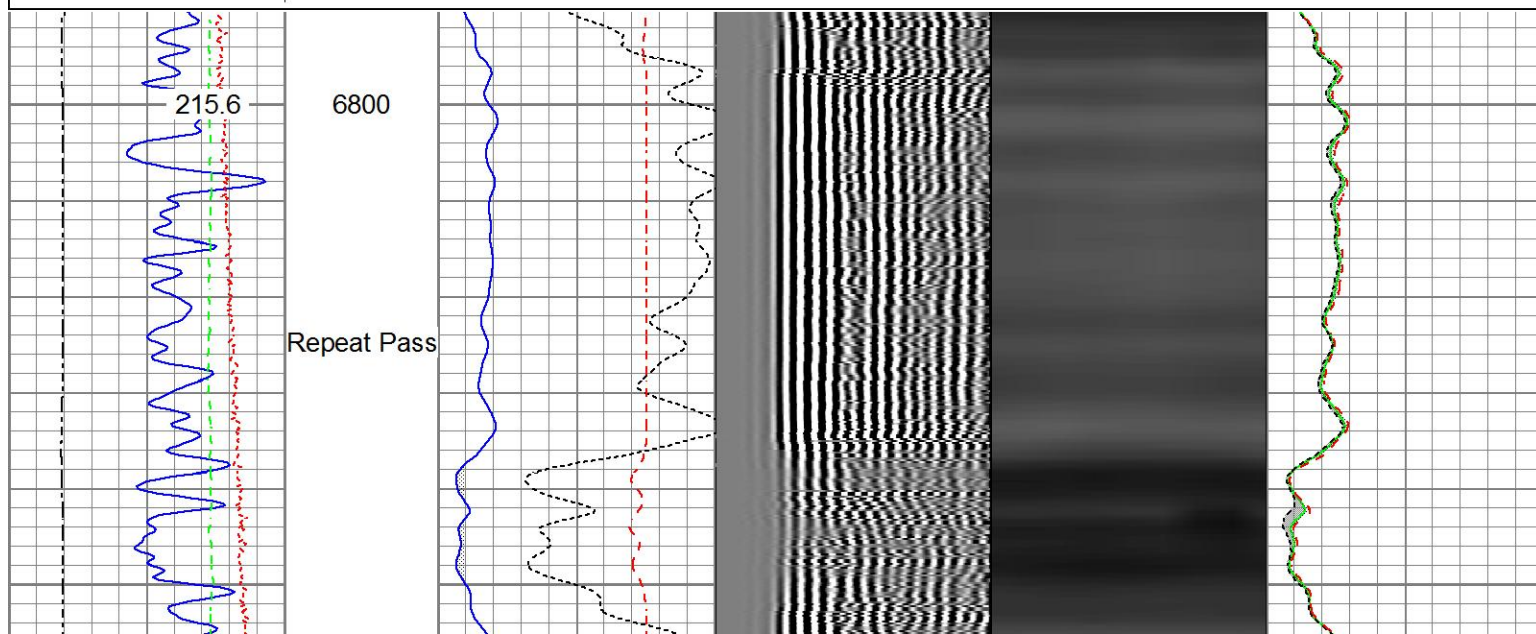
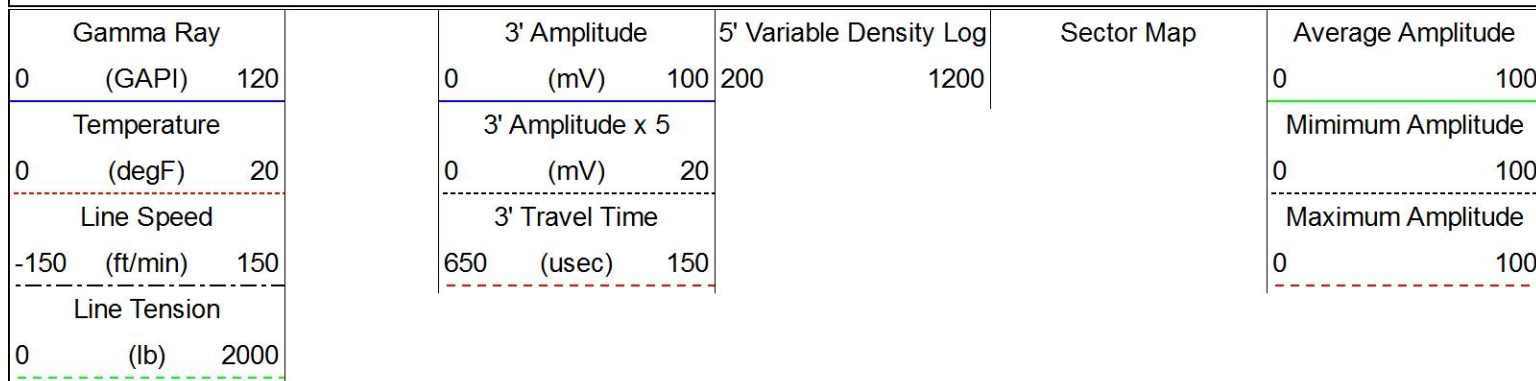


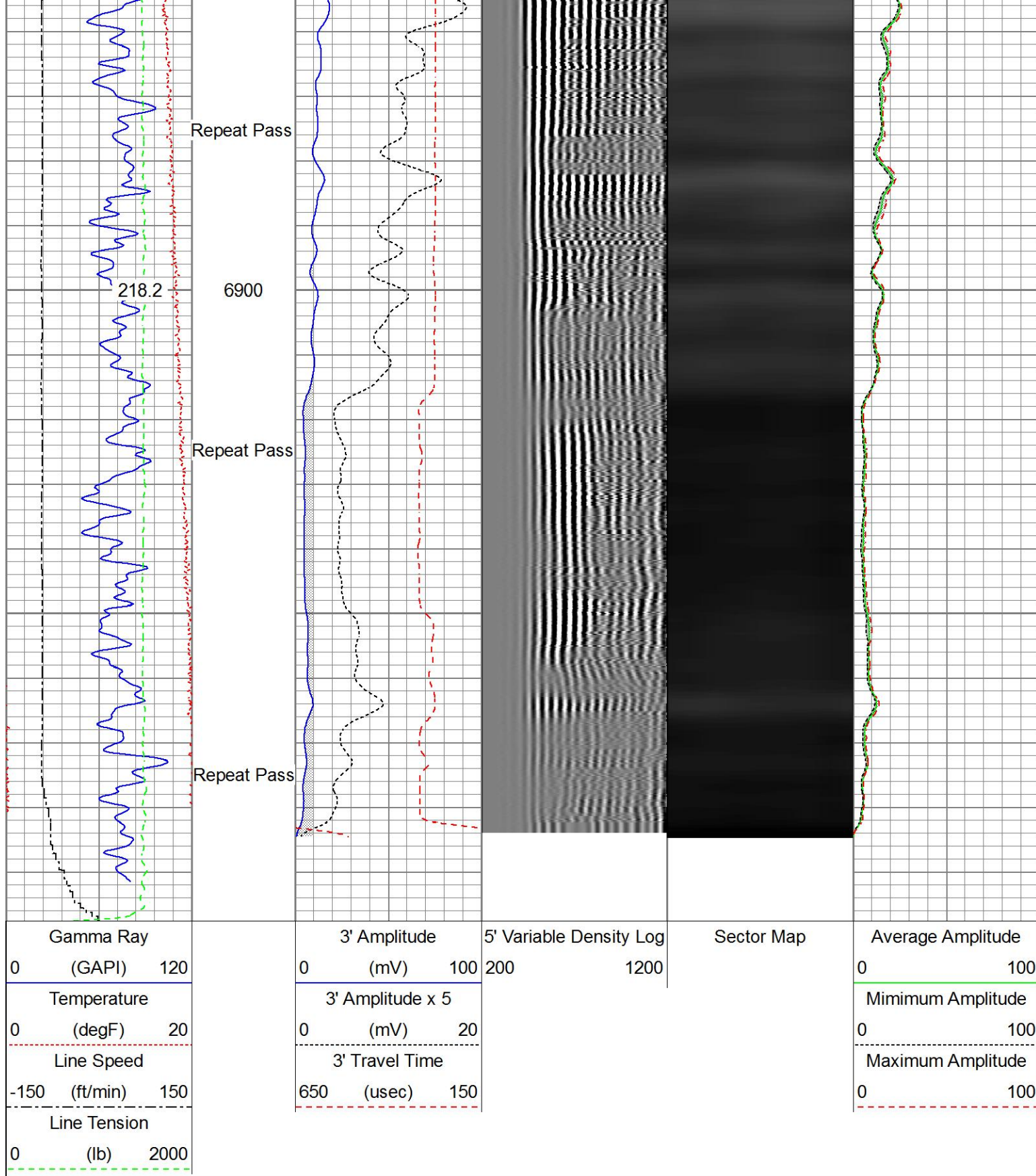


Repeat Pass

Recorded with 2800 PSI Surface Induced Pressure

Database File new folder (2)\0512342667_anadarko_jmz 30n-3hz_02-11-17_rbl.db
 Dataset Pathname repeat
 Presentation Format ros_radrii
 Dataset Creation Sat Feb 11 14:52:05 2017
 Charted by Depth in Feet scaled 1:240





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan_Electric_Cable_Heads-Titan_1-11/161.03 Electric Cable Head with 1" Fishing Neck		1.69	5.40
			Probe_ELine_BowSpring_Centralizer-P_EE2.88.275 Probe 2-3/4" Electric Inline Bowspring Centralizer		2.75	20.00

HeadVolt	19.51				
Temp	16.72				
WVFS8	14.55		Probe_RADII-C-P_RBT_2750 (FW1305-099.19) Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe	2.75	105.00
WVFS7	14.55				
WVFS6	14.55				
WVFS5	14.55				
WVFS4	14.55				
WVFS3	14.55				
WVFS2	14.55				
WVFS1	14.55				
WVFCAL	14.55				
WVF3FT	14.55				
WVF5FT	13.55				
HEADVOLT	10.30				
DCCL	6.51		Probe_ELine_BowSpring_Centralizer-P Probe 2-3/4" Electric Inline Bowspring Centralizer	EE2.88,275 2.75	20.00
CCL	6.51				
GR	3.77		Probe_GR_CCL-P_CGR_2750_S (FW1214.543) Probe 2-3/4" Digital CCL / Gamma Ray Combined	2.75	55.00
			Probe_ELine_BowSpring_Centralizer-P Probe 2-3/4" Electric Inline Bowspring Centralizer	EE2.88,275 2.75	20.00
Dataset: 0512342667_Anadarko_JMZ 30N-3HZ_02-11-17_RBL.db: field/well/run1/main Total length: 23.40 ft Total weight: 225.40 lb O.D.: 2.75 in					

Calibration Report	
Database File	D:\Warrior\Data\New folder (2)\0512342667_Anadarko_JMZ 30N-3HZ_02-11-17_RBL.db
Dataset Pathname	main
Dataset Creation	Sat Feb 11 14:56:37 2017
Gamma Ray Calibration Report	
Serial Number:	FW1212-026

Tool Model: P_CGR_2750_S
 Performed: Sat Feb 06 11:32:54 2016

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.6 cps

Sensitivity: 0.6061 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1305-096
 Tool Model: P_RBT_2750

Calibration Casing Diameter: 5.500 in
 Calibration Depth: 49.749 ft

Master Calibration, performed Sat Feb 11 13:59:00 2017:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.007	1.654	0.800	71.921	43.183	0.489
CAL	0.007	1.630				
5'	0.007	1.584	0.800	71.921	45.101	0.486
SUM						
S1	0.007	1.652	0.000	100.000	60.793	-0.407
S2	0.007	1.655	0.000	100.000	60.671	-0.400
S3	0.007	1.648	0.000	100.000	60.937	-0.417
S4	0.007	1.662	0.000	100.000	60.409	-0.403
S5	0.007	1.672	0.000	100.000	60.064	-0.428
S6	0.007	1.674	0.000	100.000	59.995	-0.417
S7	0.007	1.649	0.000	100.000	60.924	-0.441
S8	0.007	1.646	0.000	100.000	61.026	-0.434

Internal Reference Calibration, performed Thu Dec 01 11:10:43 2016:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.007	1.630	1.000	0.000

Air Zero Calibration, performed Sat Feb 11 13:59:19 2017:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.007		0.000		0.000	
5'	0.007		0.000		0.000	
SUM						
S1	0.007		0.000		-0.000	
S2	0.007		0.000		-0.000	
S3	0.007		0.000		-0.000	
S4	0.007		0.000		-0.001	
S5	0.007		0.000		-0.000	
S6	0.007		0.000		0.000	
S7	0.007		0.000		0.000	
S8	0.007		0.000		0.000	



Company	Kell-McGee Oil & Gas Onshore, L.P.
Well	JZM 30N-3HZ
Field	Wattenberg
County	Weld
State	Colorado