



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company SRC Energy Inc  
Well Ag 31C-31-L  
Field Wattenberg  
County Weld State Colorado

Location: API #: 05-123-44881

SEC 32 TWP 6N RGE 66W

Permanent Datum  
Log Measured From  
Drilling Measured From

Ground Level  
Ground Level  
Kelly Bushing

Elevation  
0 FT  
4706'

Other Services  
JB/GR  
RBP  
Elevation  
K.B. 4726'  
D.F. 4725'  
G.L. 4706'

Date 28-OCT-2017

Run Number	Two
Depth Driller	18580 FT
Depth Logger	6580 FT
Bottom Logged Interval	6575 FT
Top Log Interval	Surface
Open Hole Size	---
Type Fluid	Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	219°F
Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	9:45
Equipment Number	HD-0324
Location	Fort Lupton, CO
Recorded By	Jason Morrison
Witnessed By	Brian Moore

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size (in)	Weight (lb/ft)	From	To

Casing Record	Size (in)	Wgt (lb/ft)	Grade	Top	Bottom
Surface Casing	9 5/8	36	---	Surface	1700 FT
Intermediate #1	5 1/2	20	P-110	Surface	18562 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 Marker Joint reported at 6317 FT  
Log ran from 6580 FT to Surface  
Adjusted Log -20 FT to correlate with Marker Joint  
Log ran with 2000 PSI Surface Induced Pressure  
Logging tools came out clean and free of debris upon completion of operations

Thank you for choosing Reliance Oilfield Services, LLC!!

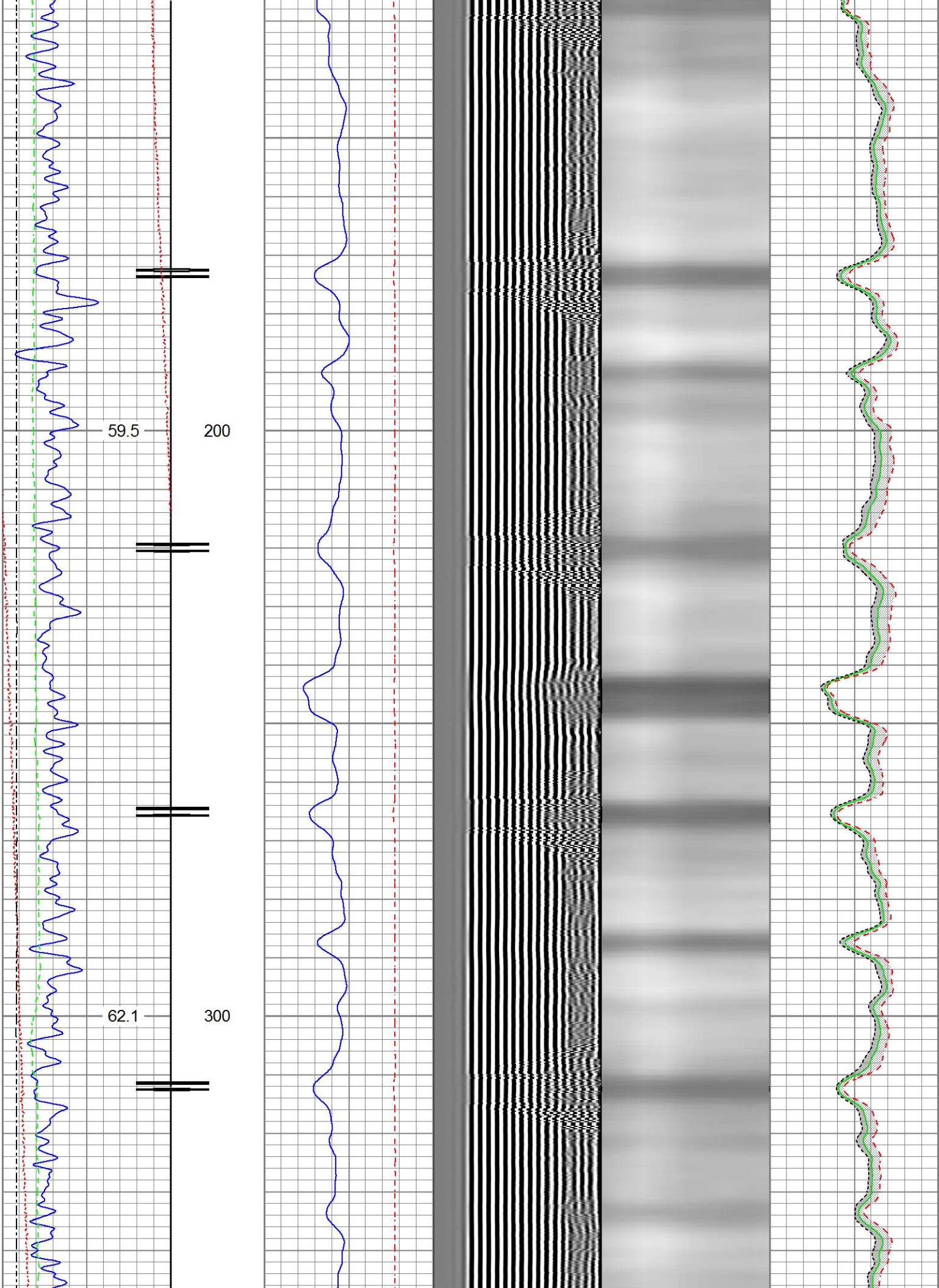


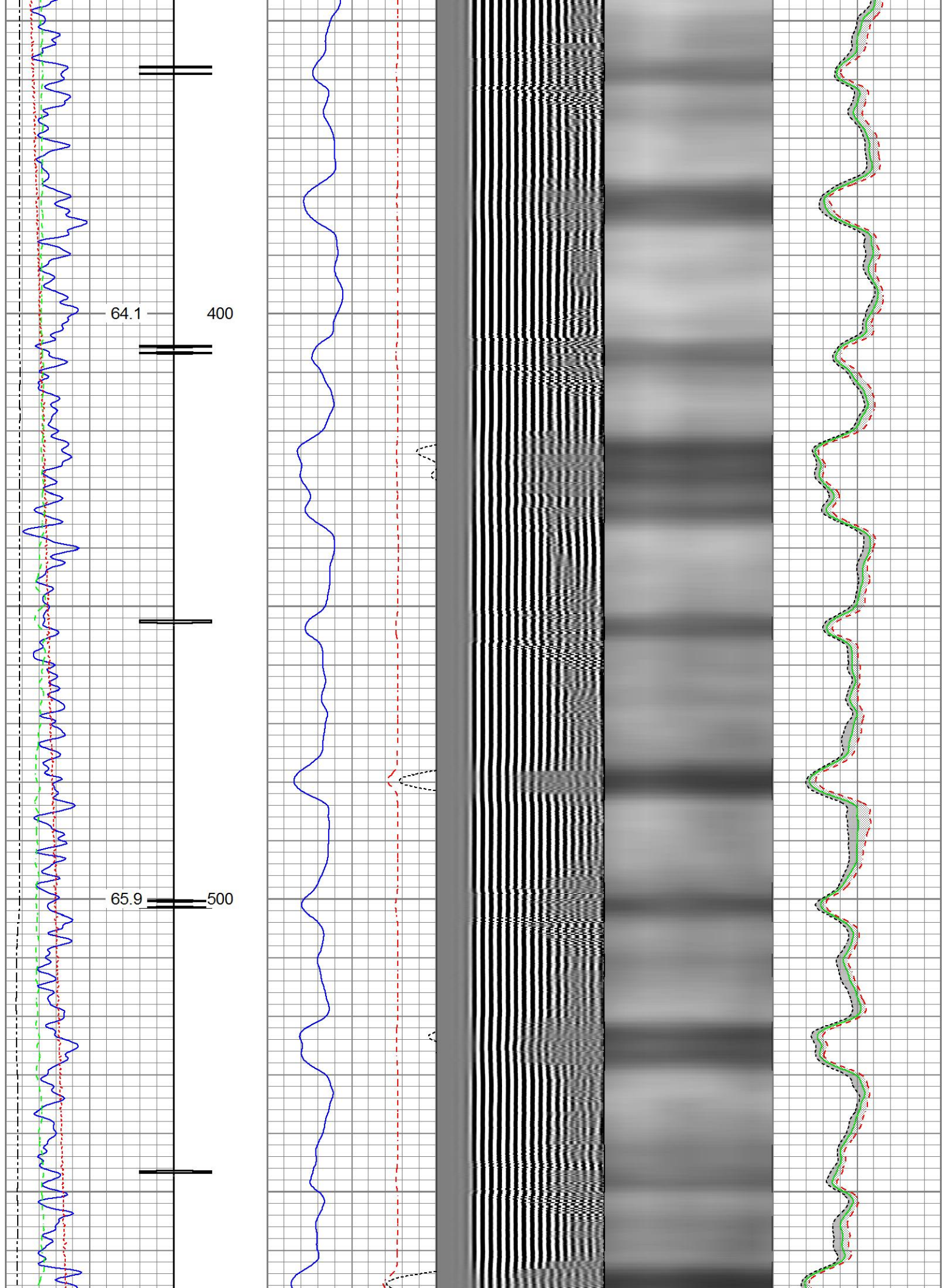
Main Pass

Recorded With 2000 PSI Surface Induced Pressure

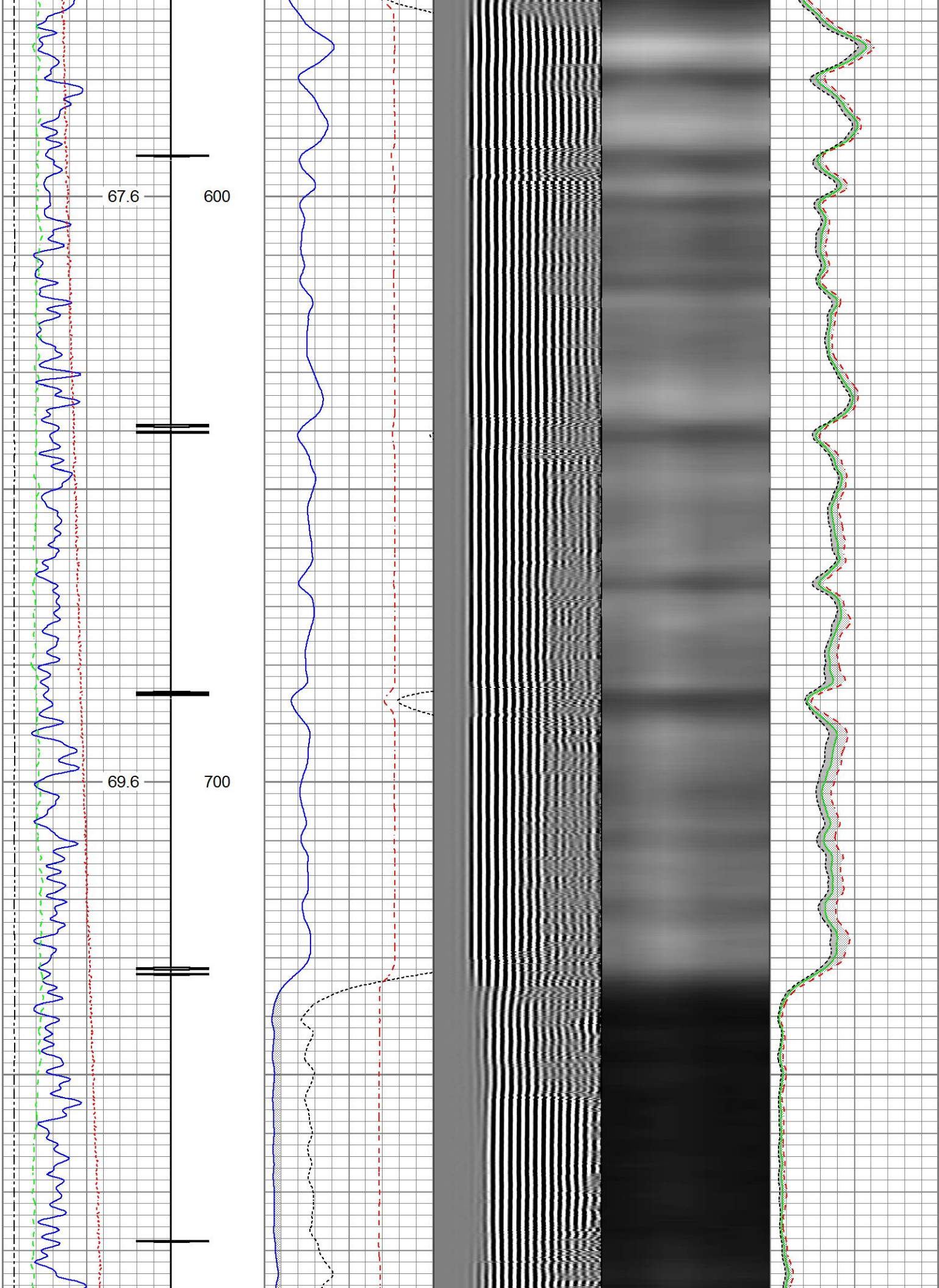
Gamma Ray			3' Amplitude			5' Variable Density Log		Sector Map	Average Amplitude	
0	(GAPI)	120	0	(mV)	100	200	1200		0	100
Casing Collar Locator			3' Amplitude x 5						Mimimum Amplitude	
Temperature			0 (mV) 20						0 100	
0	(degF)	20	3' Travel Time						Maximum Amplitude	
Line Speed			650 (usec) 150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

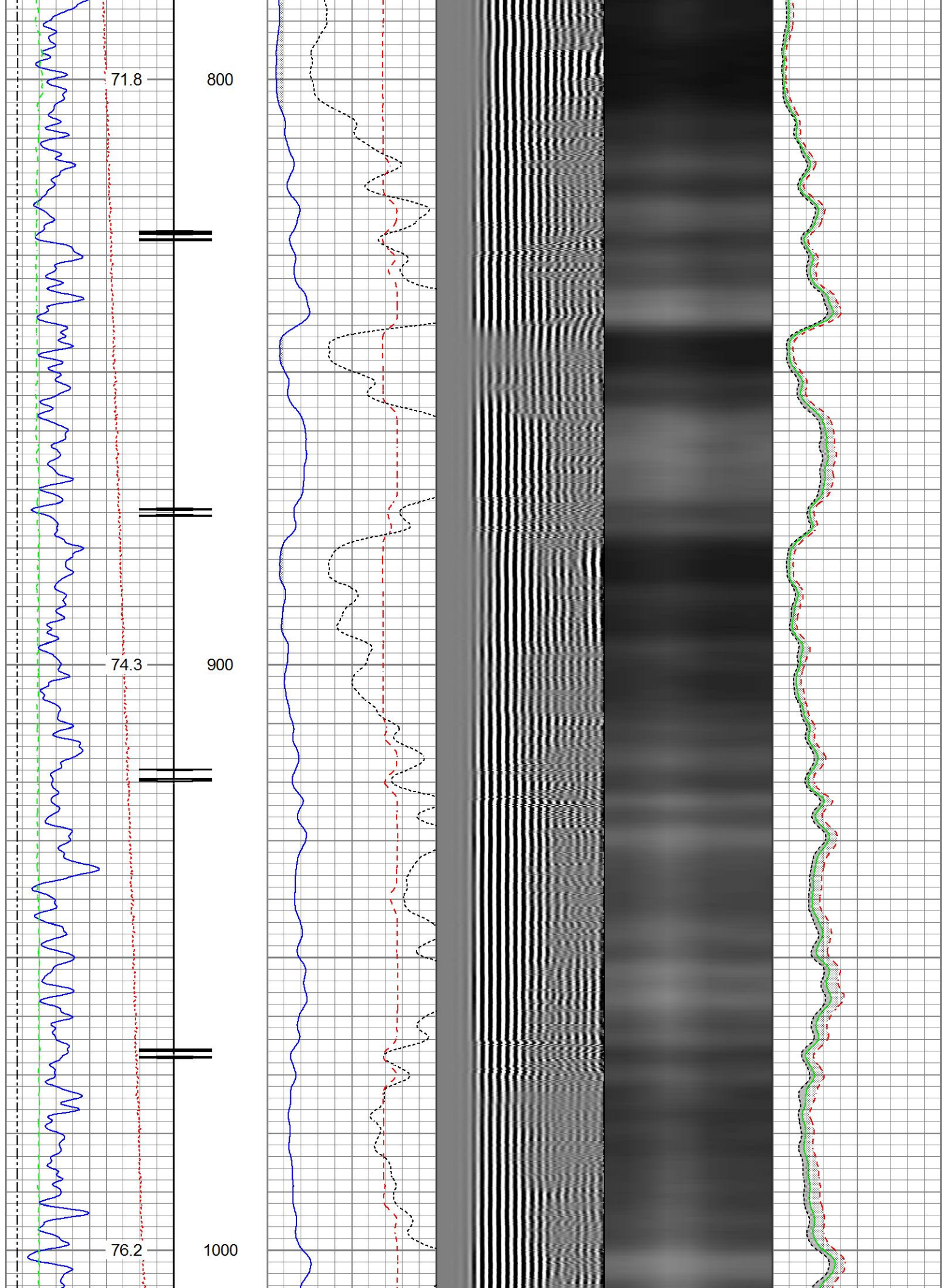




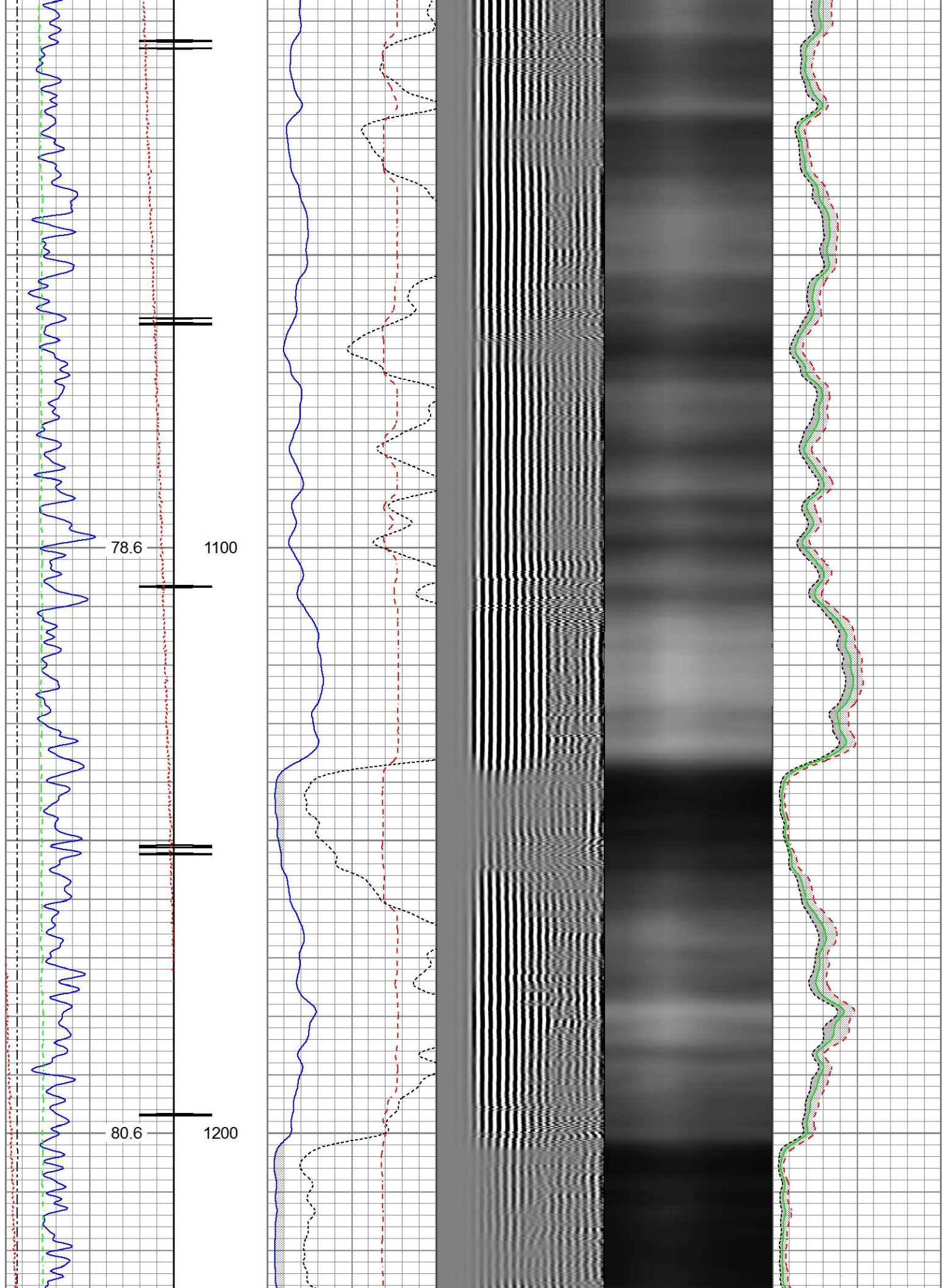


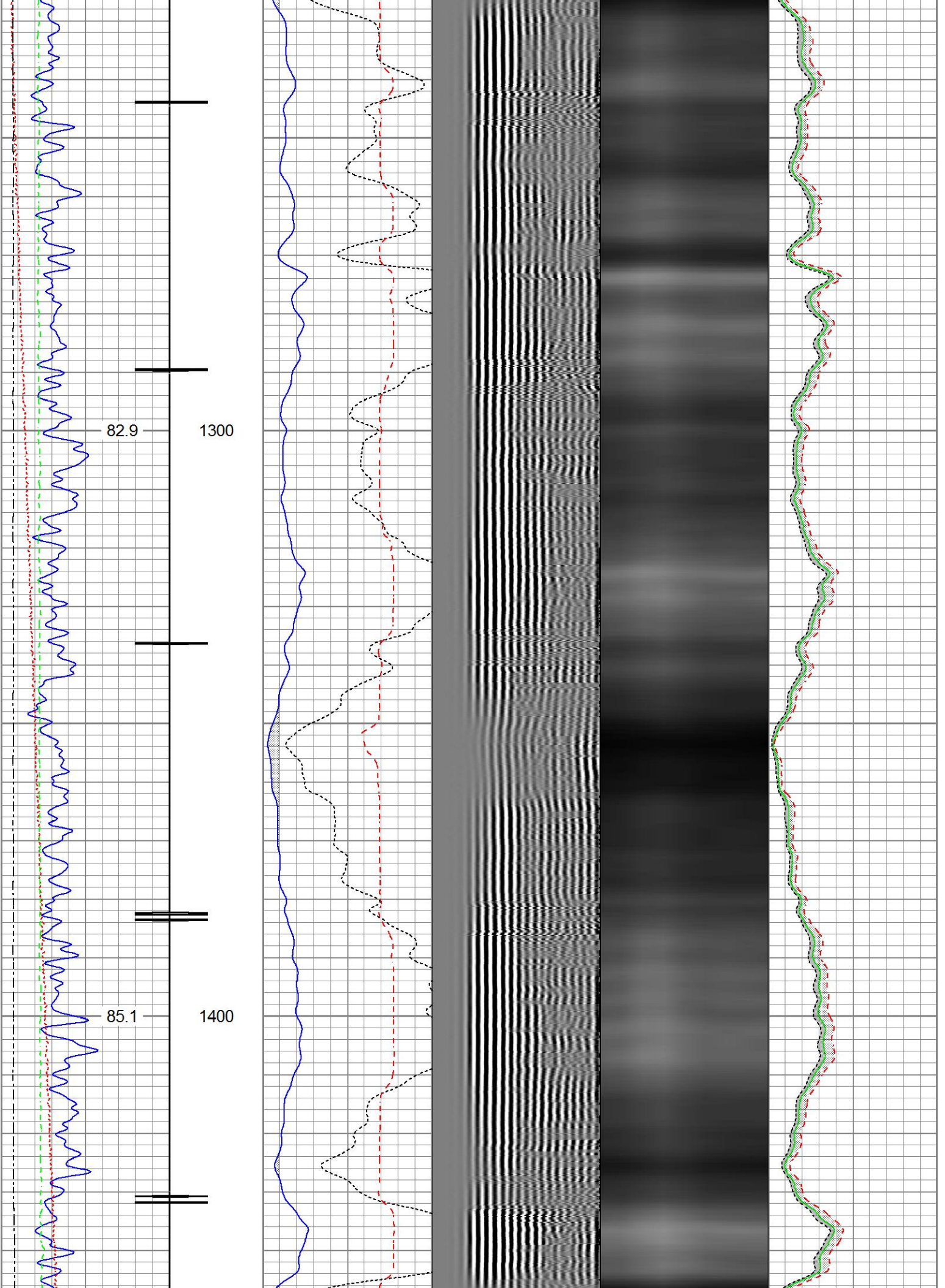




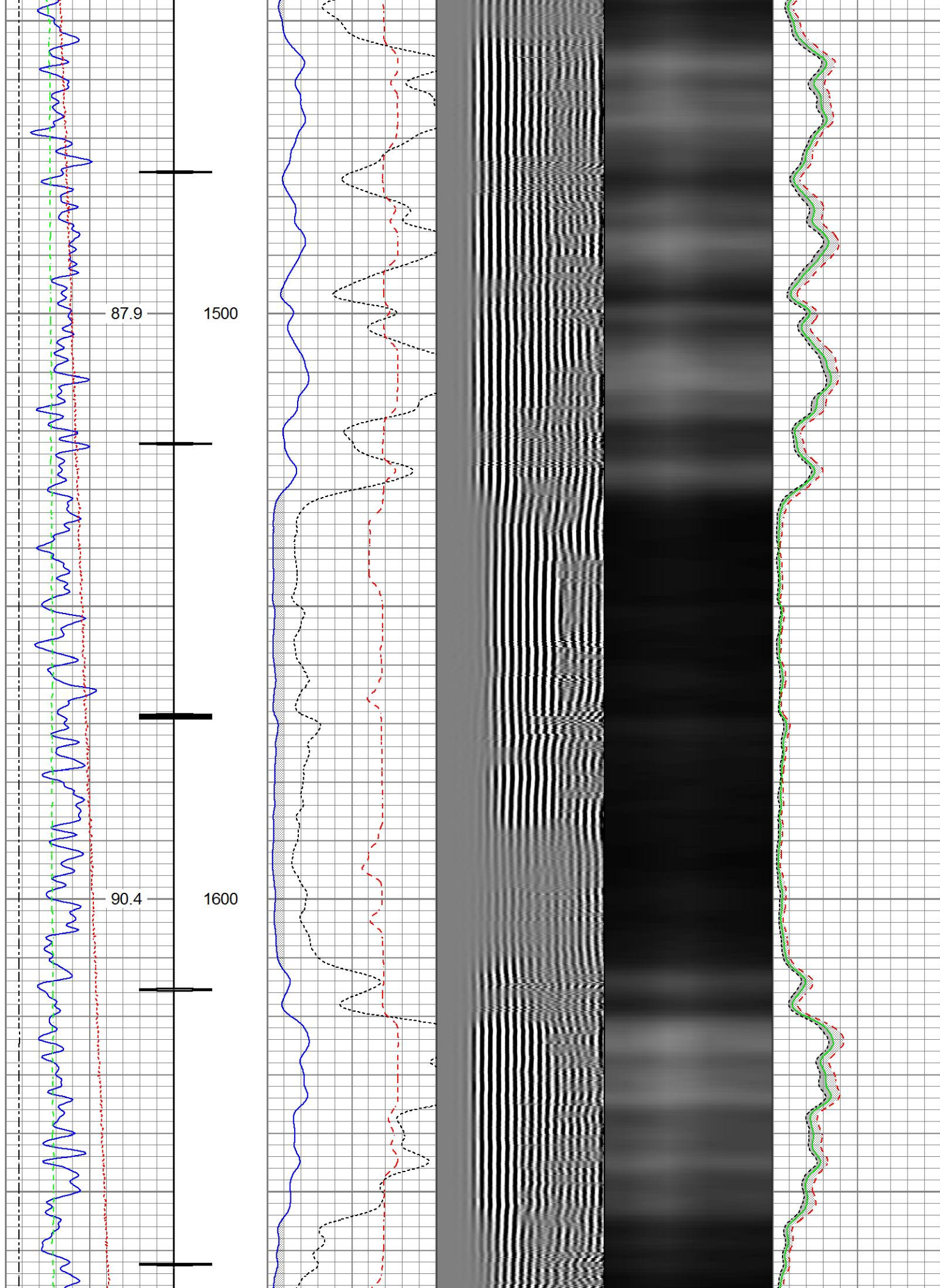


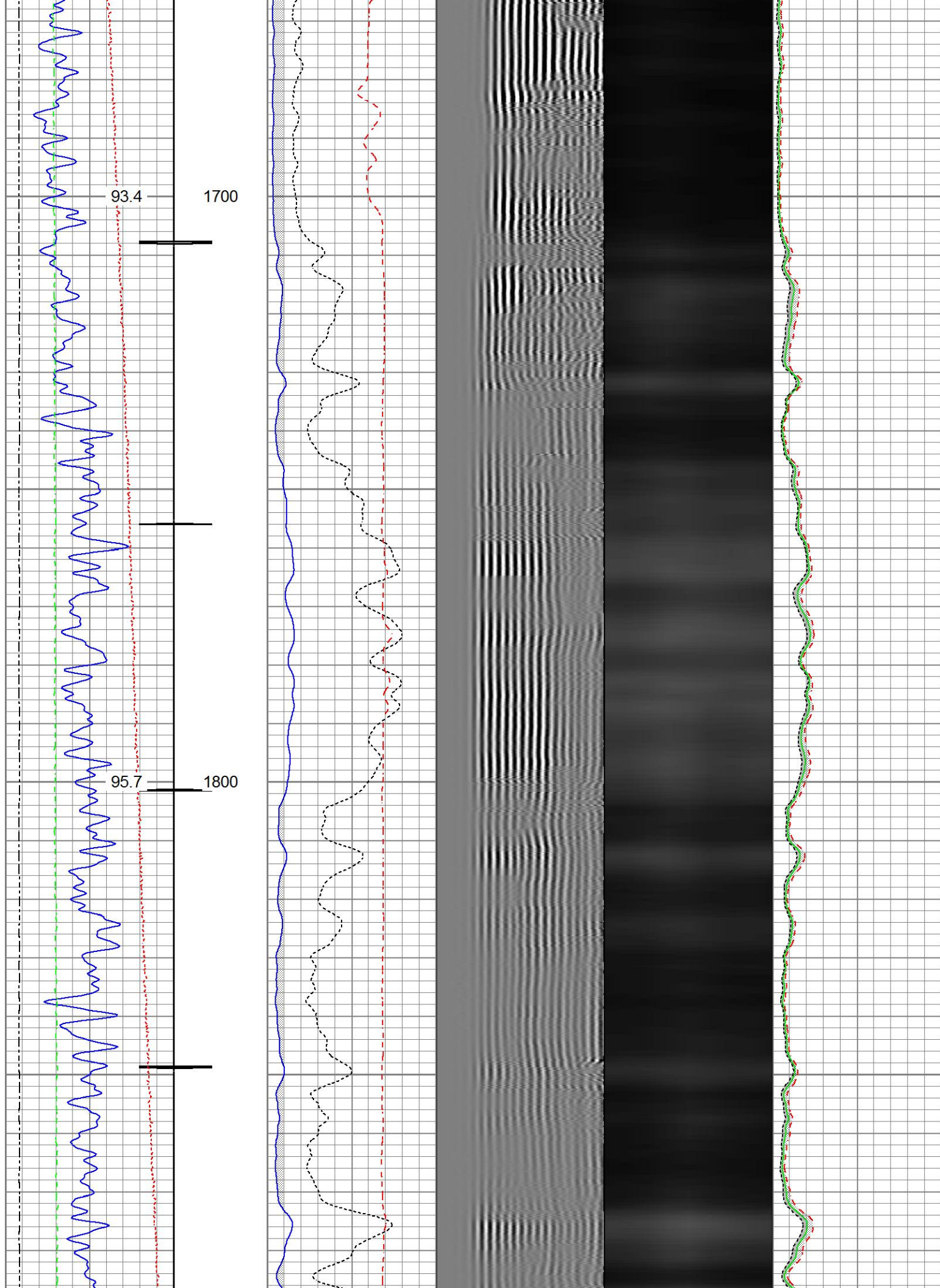




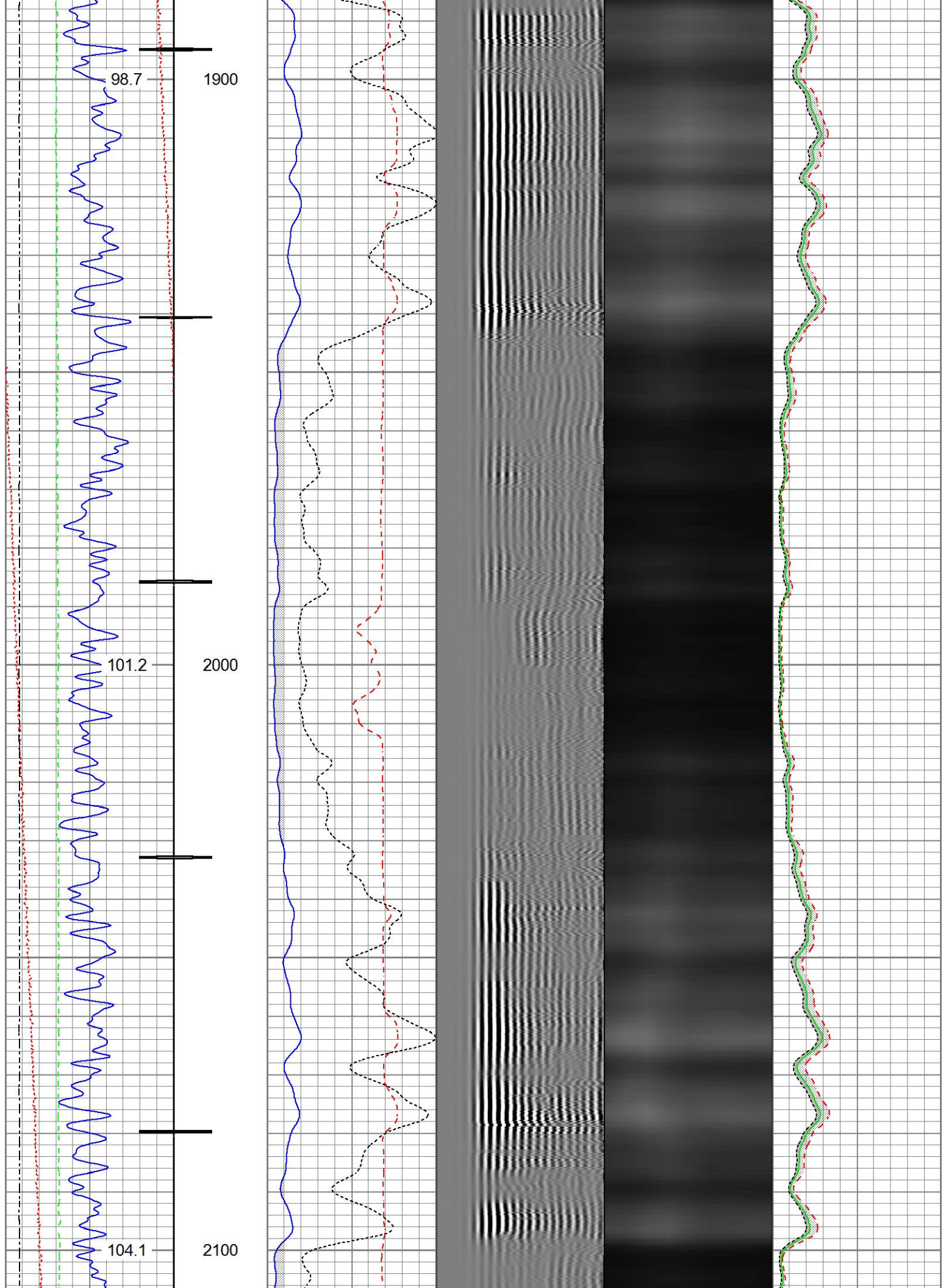


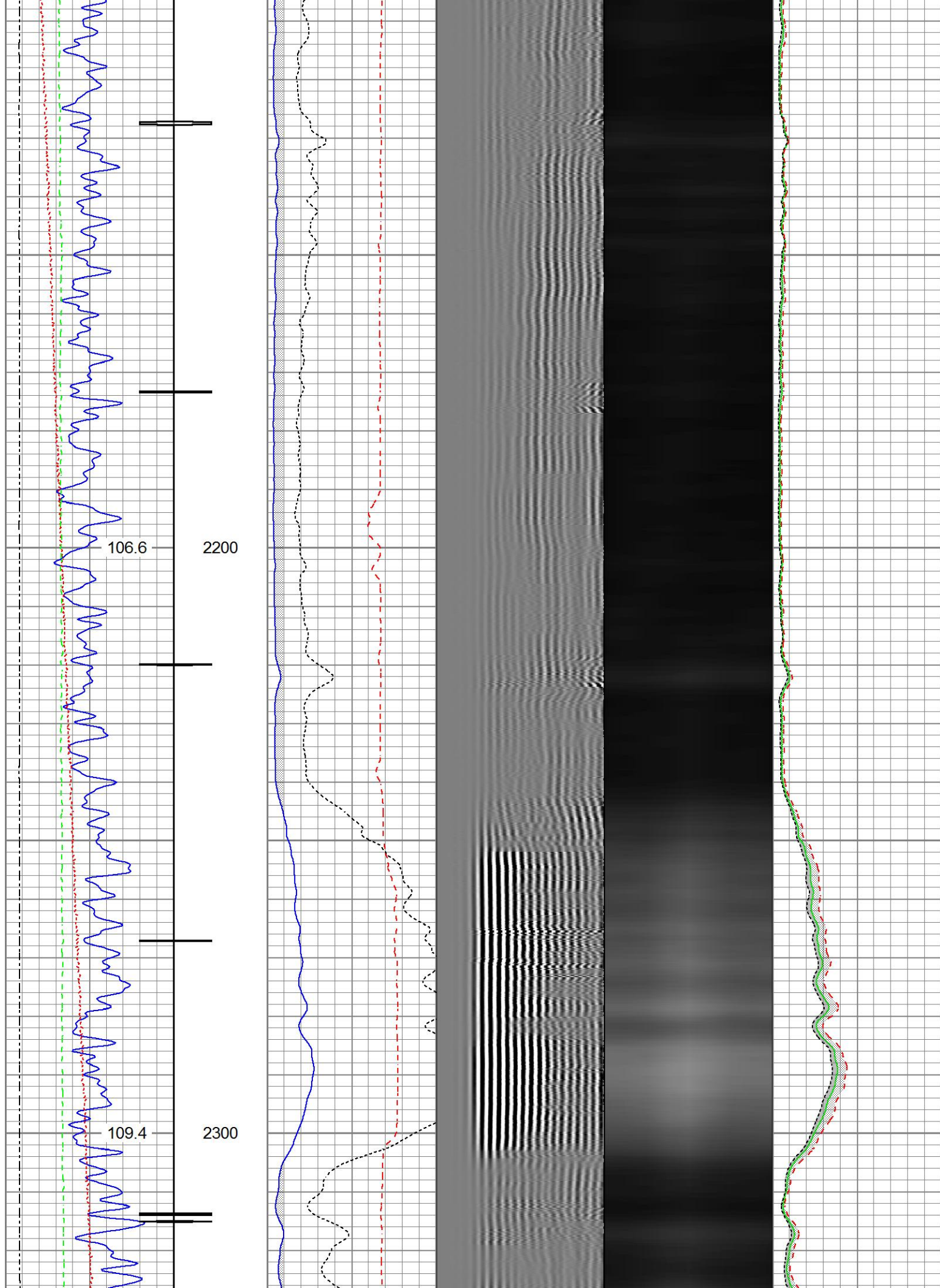




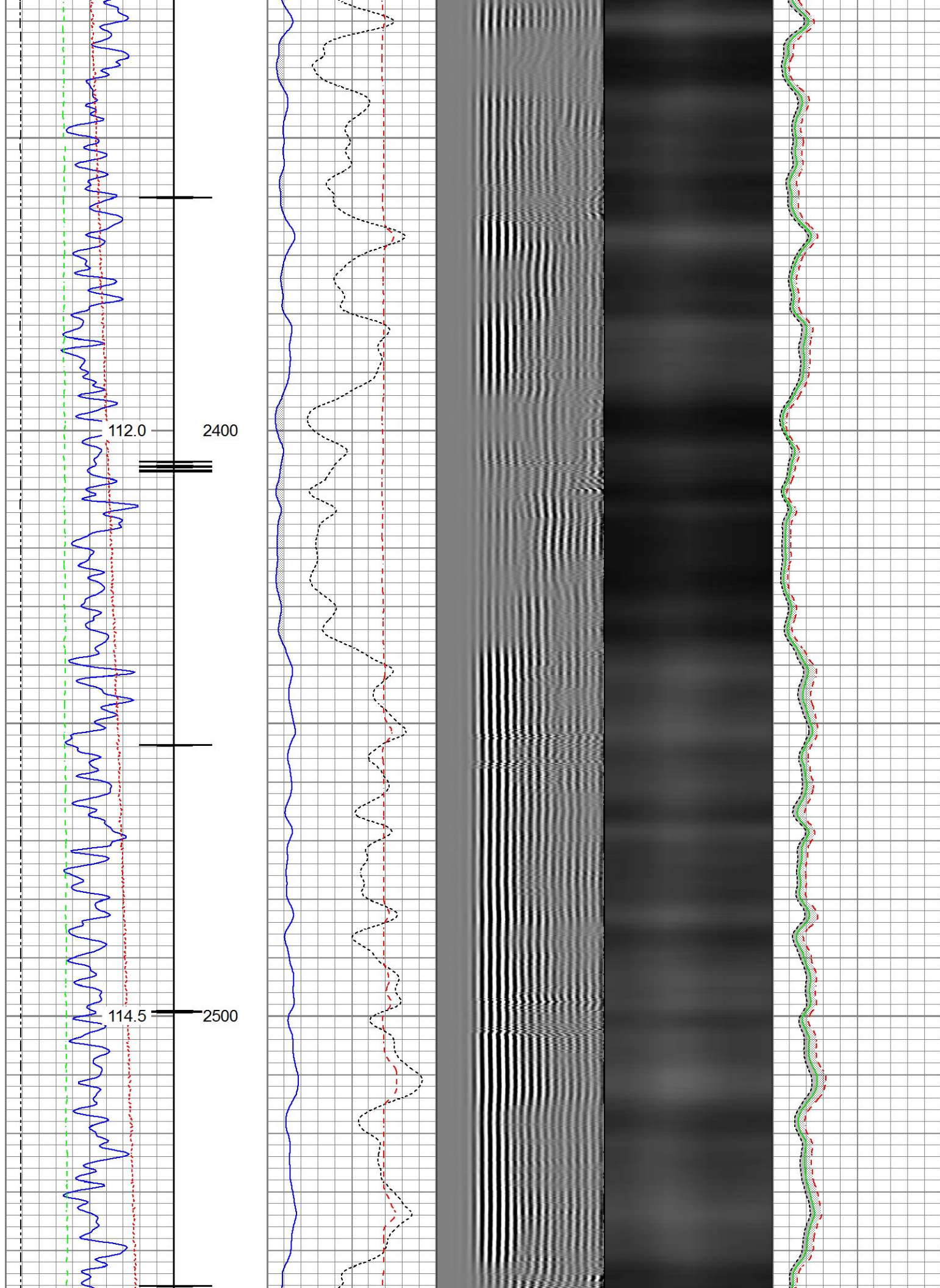


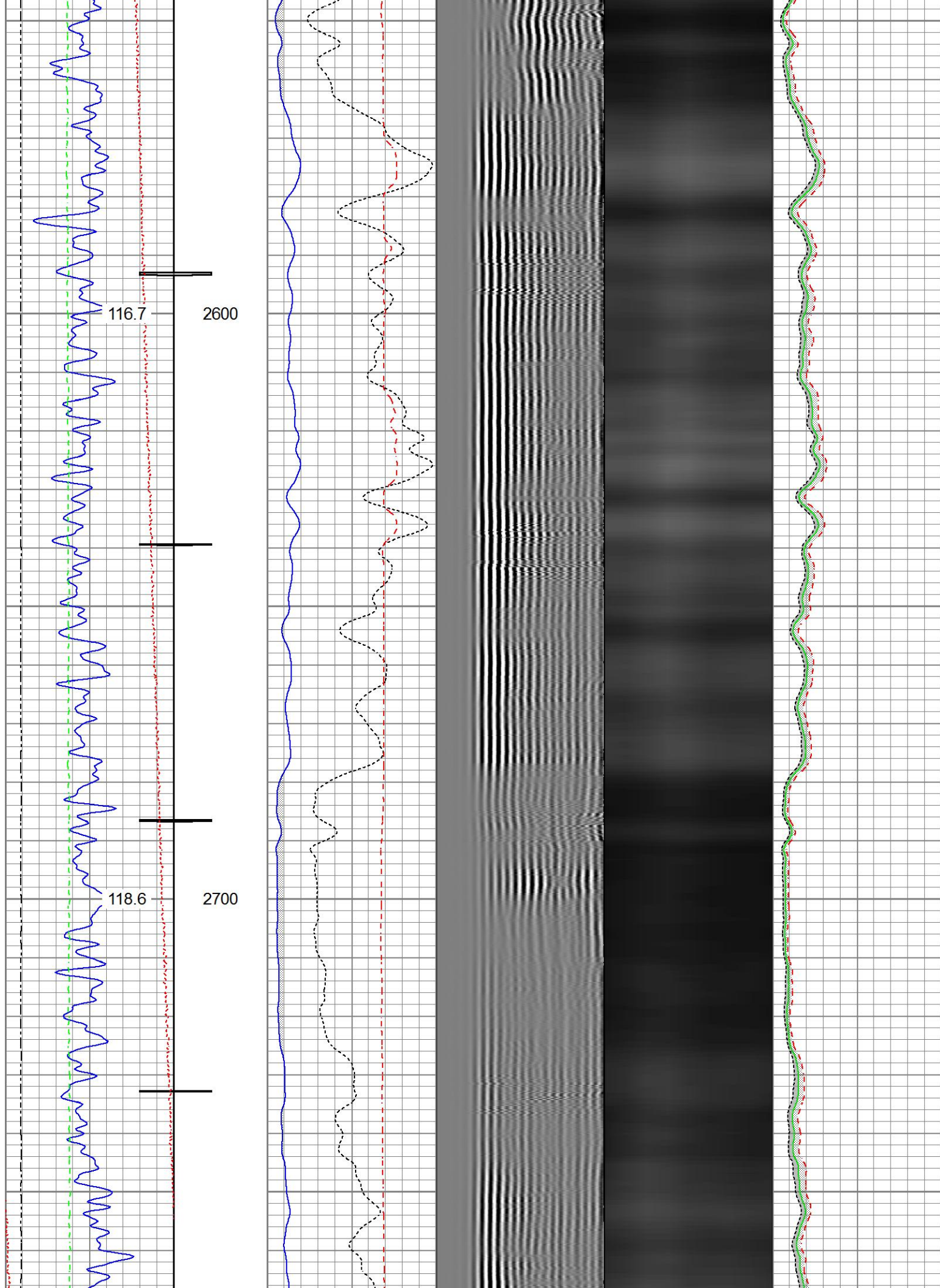




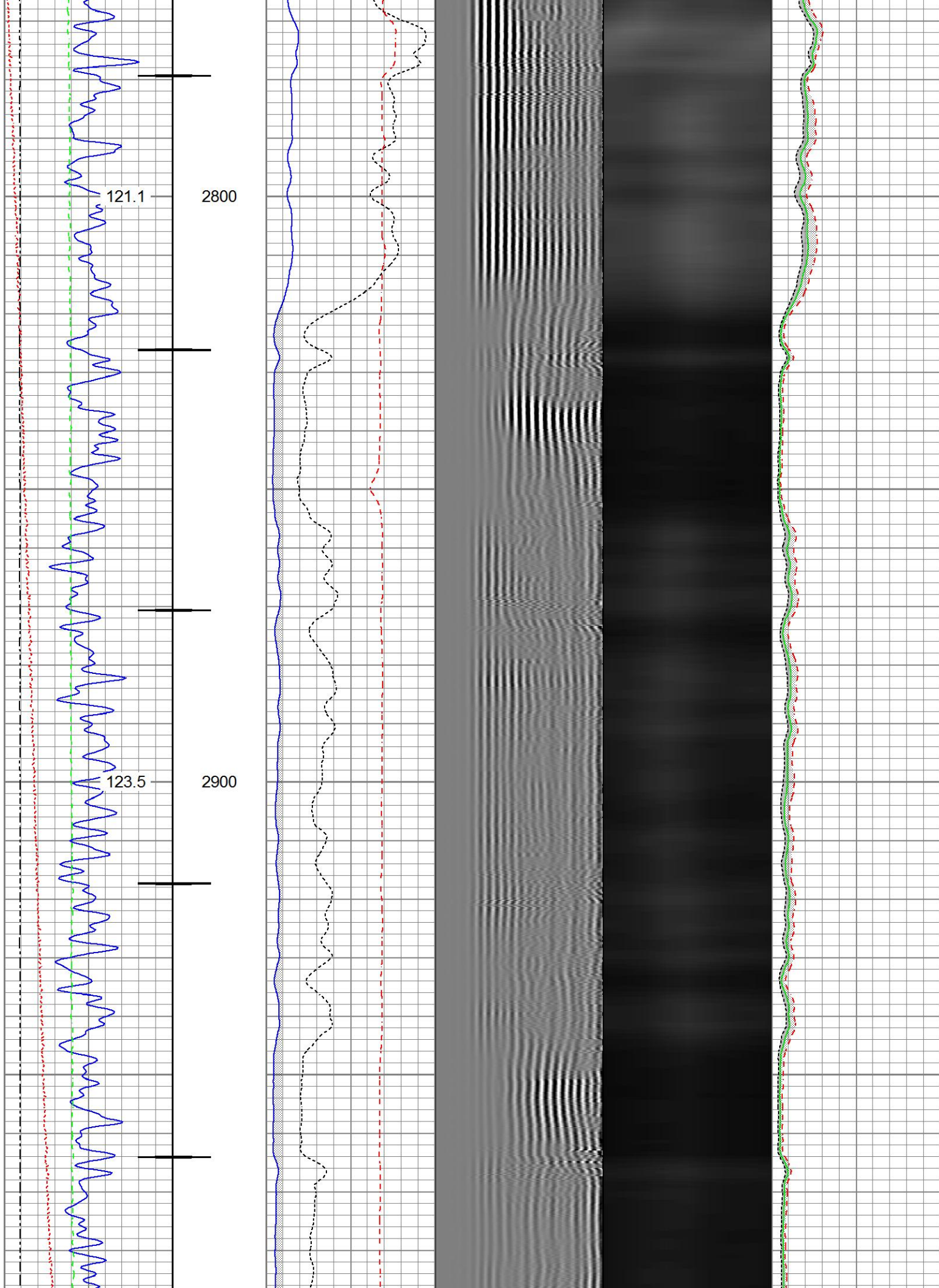


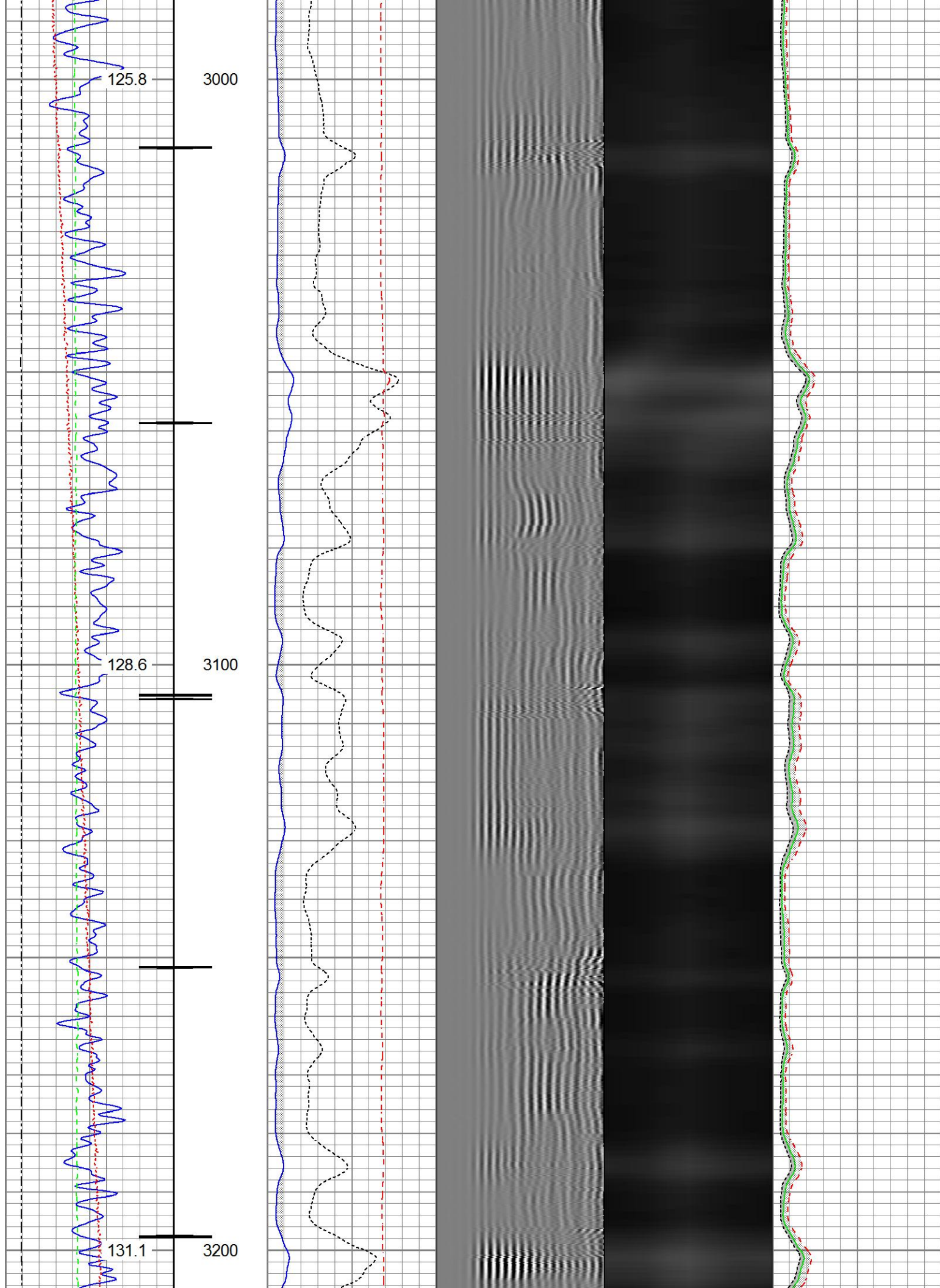




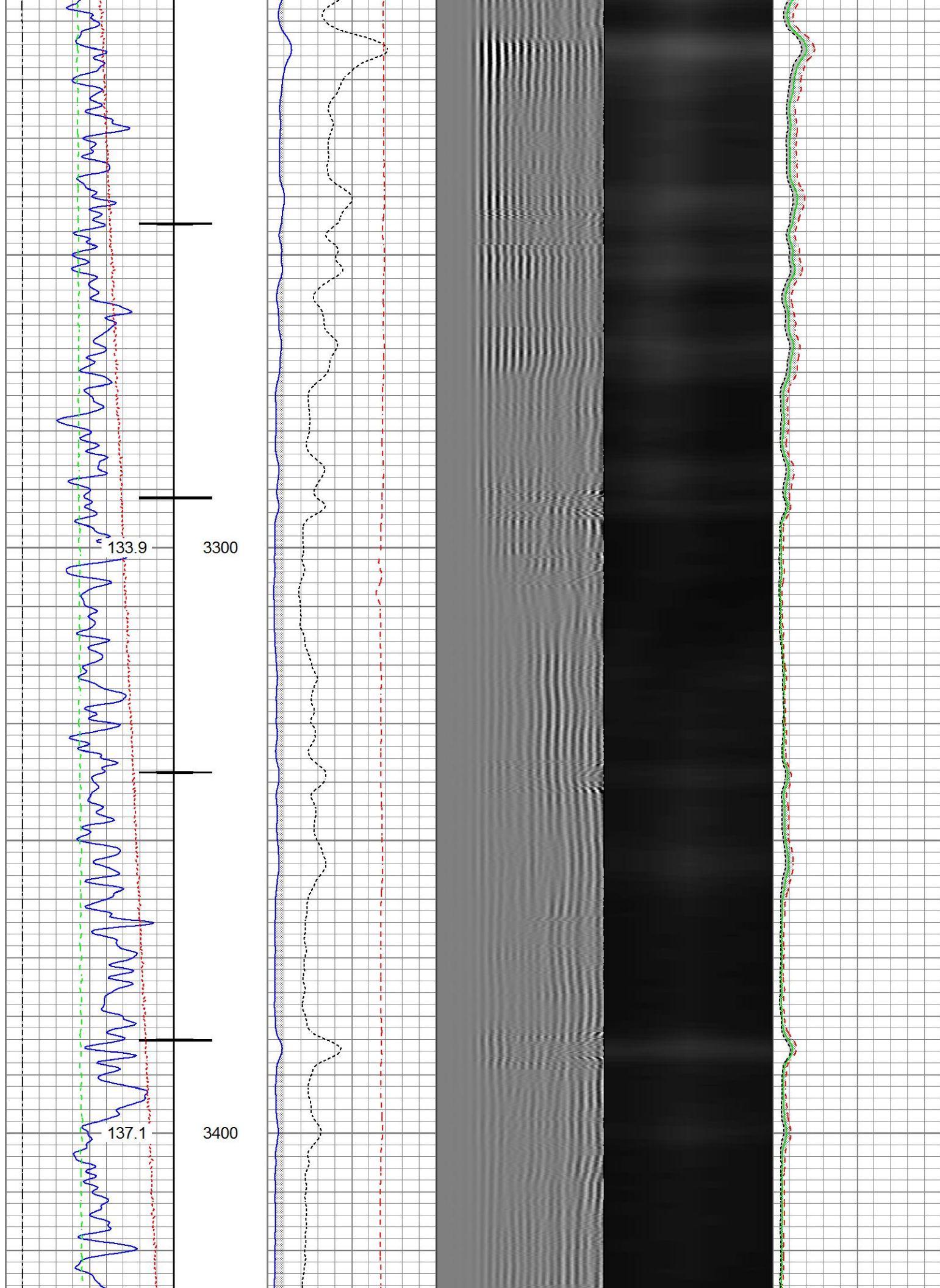


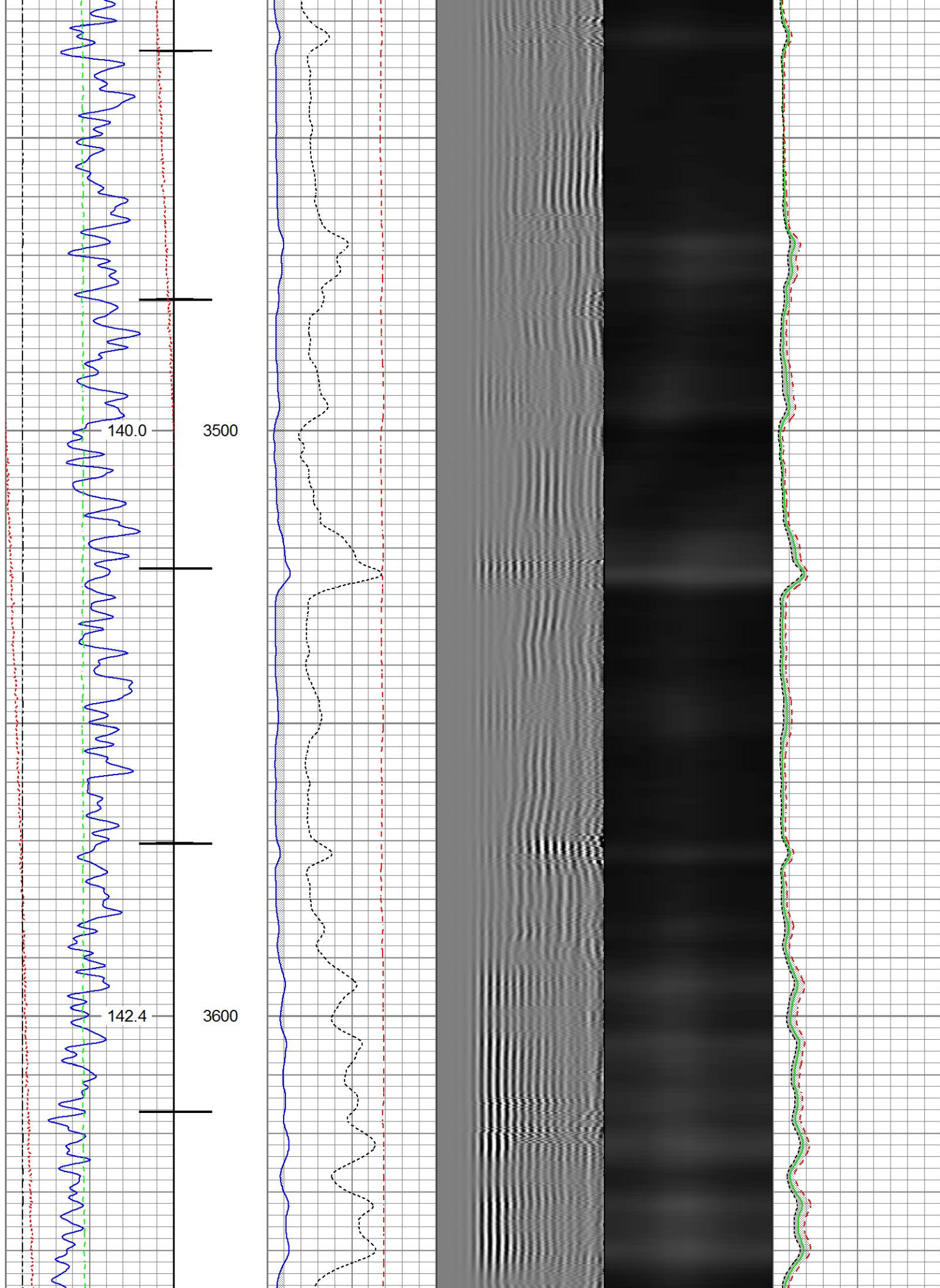




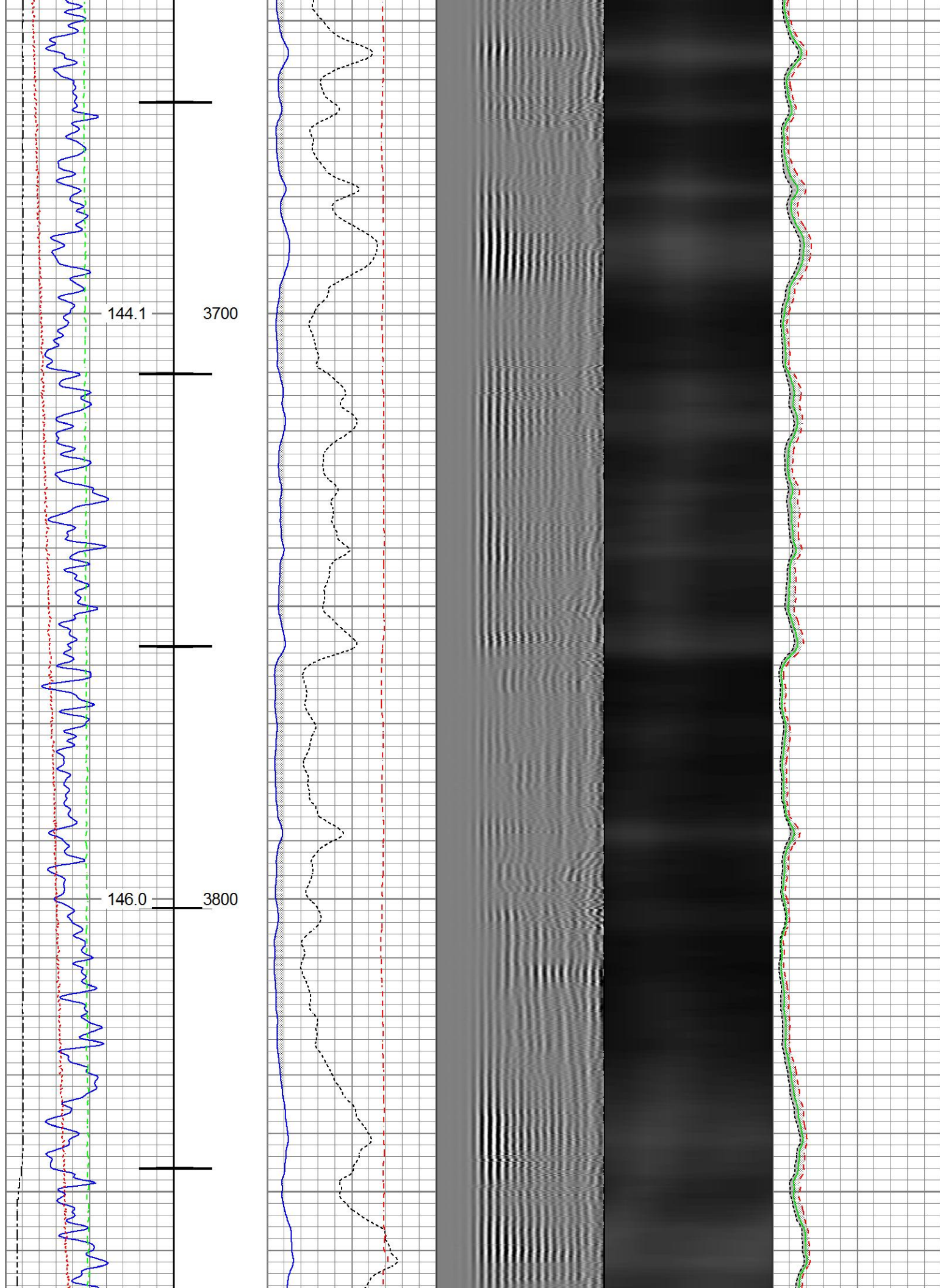


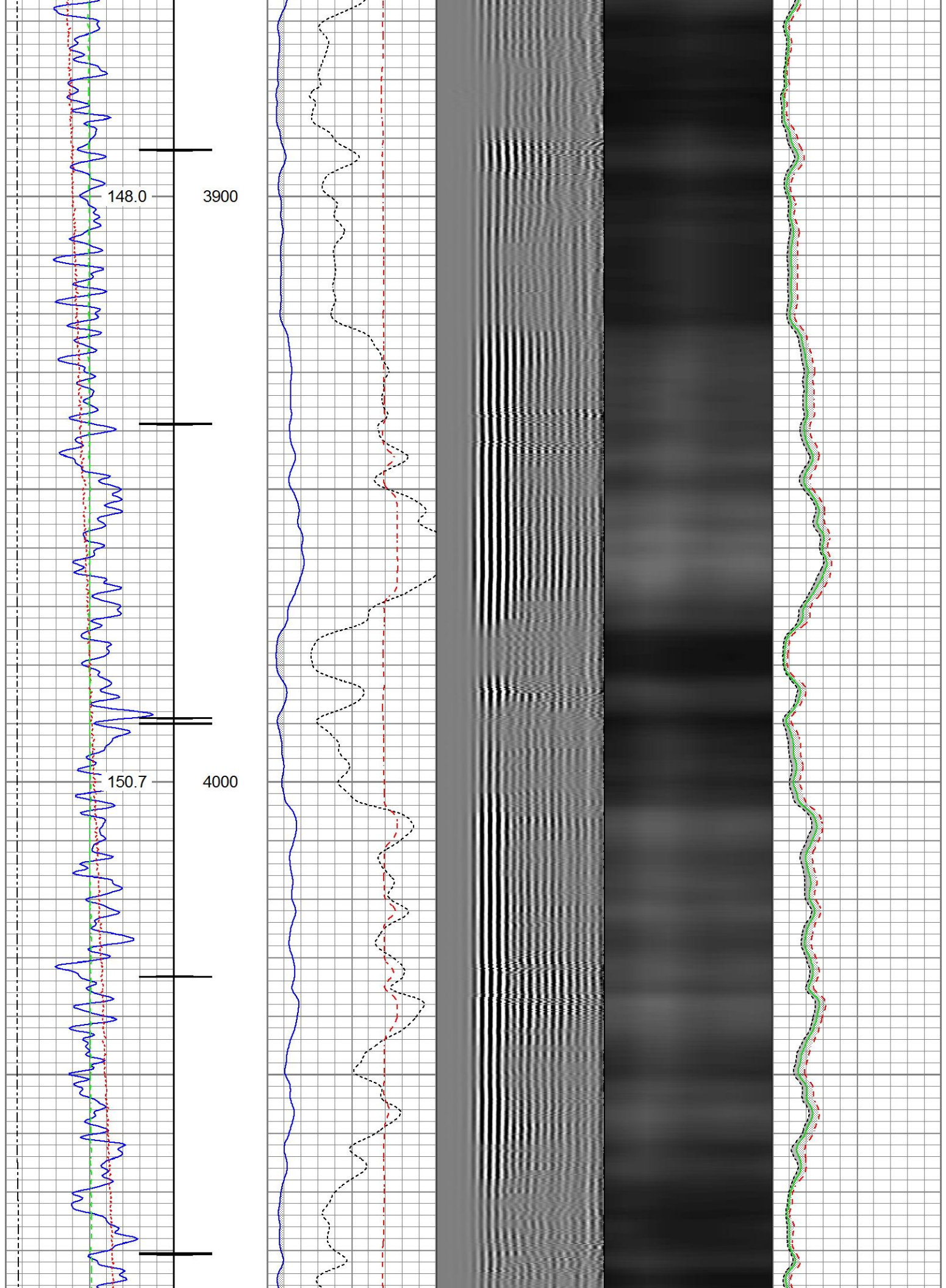




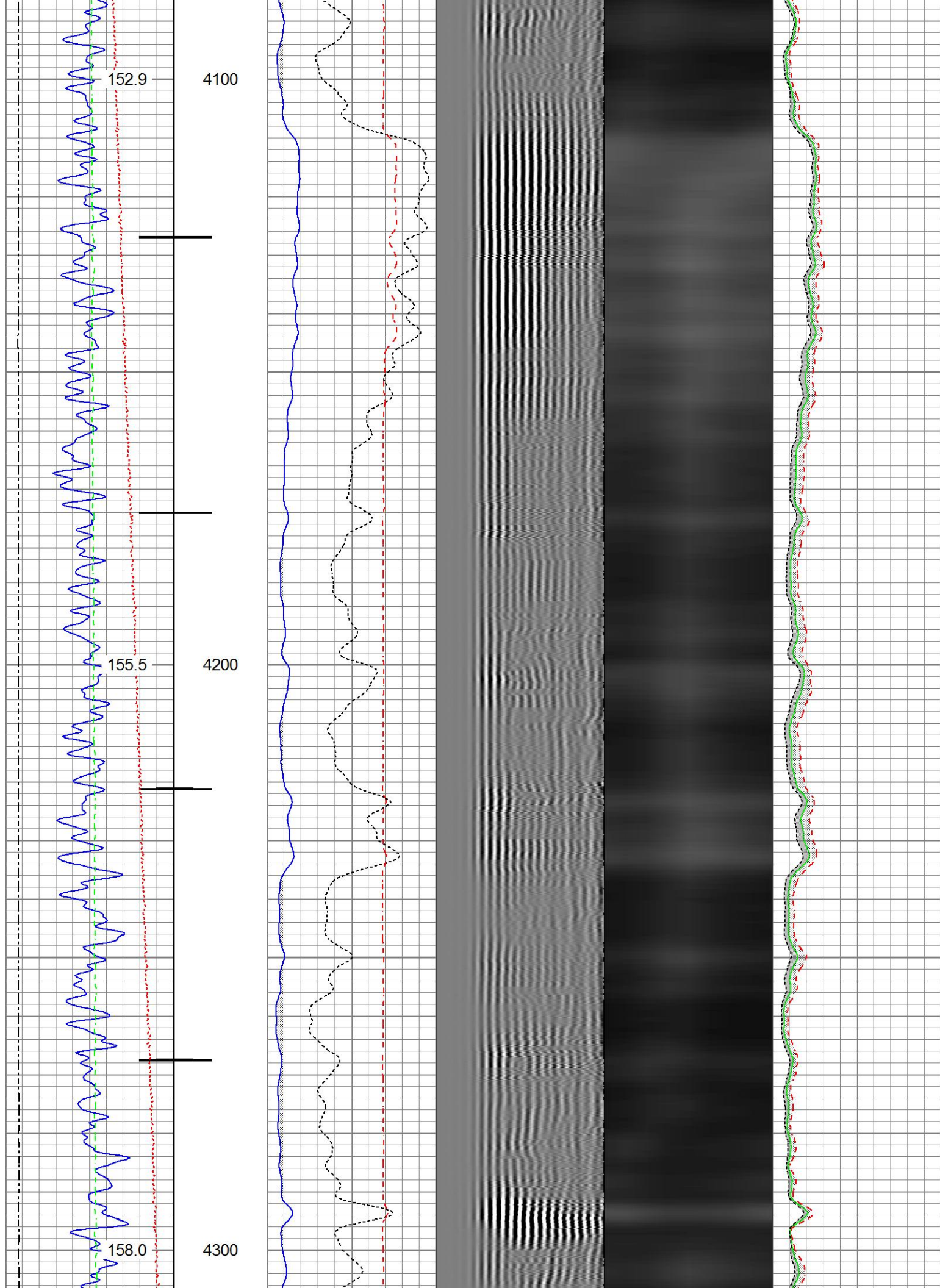


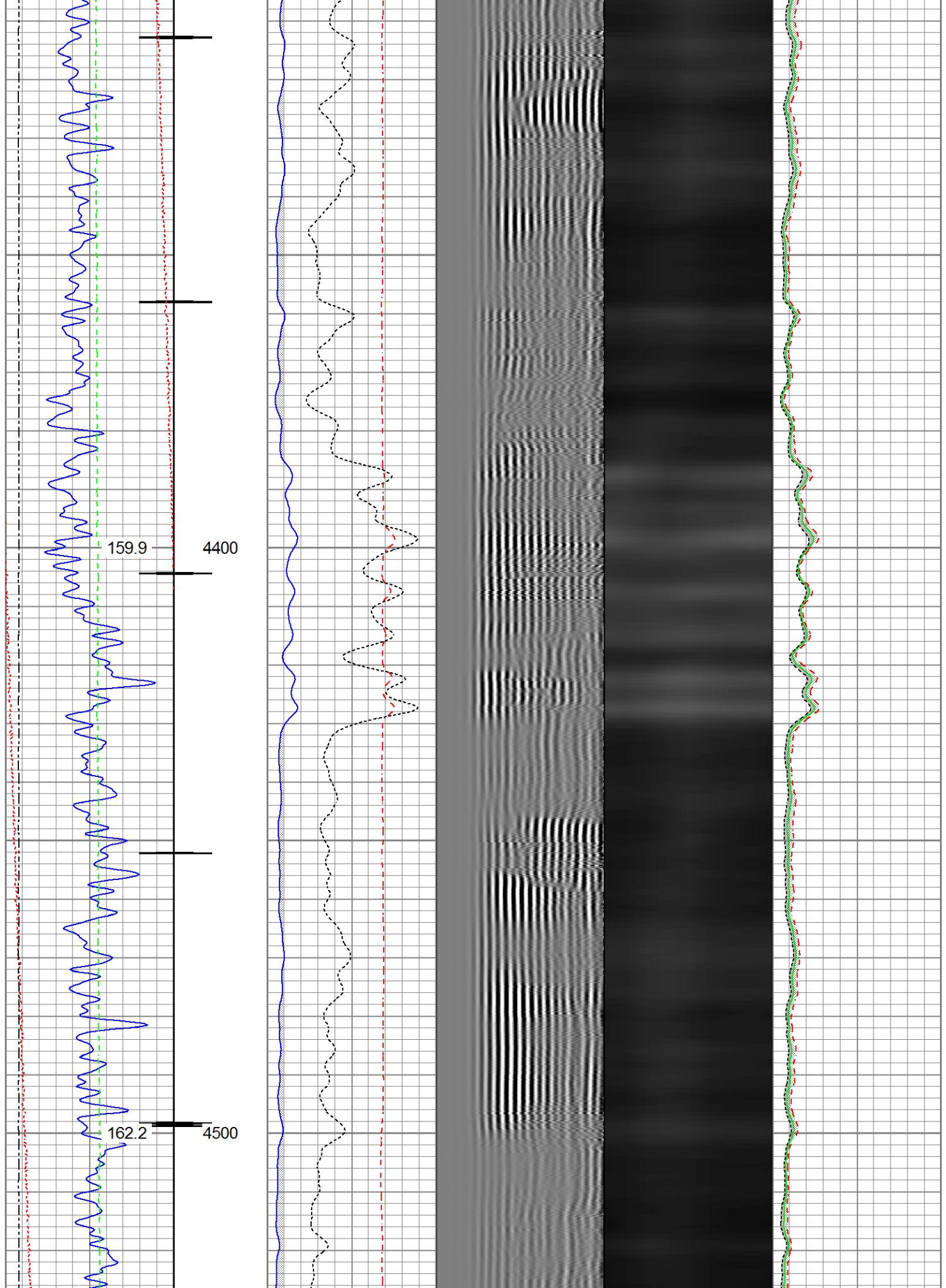




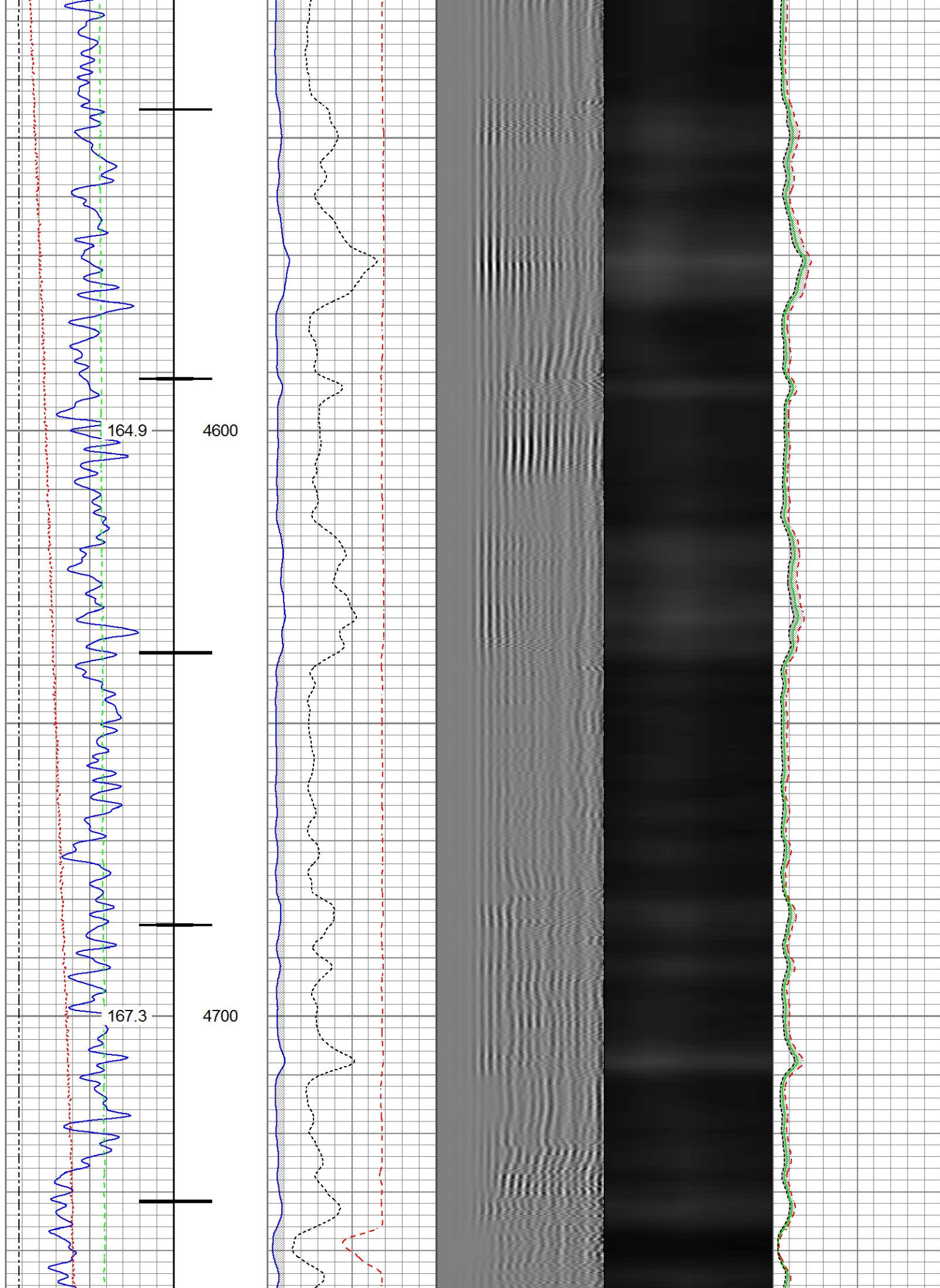


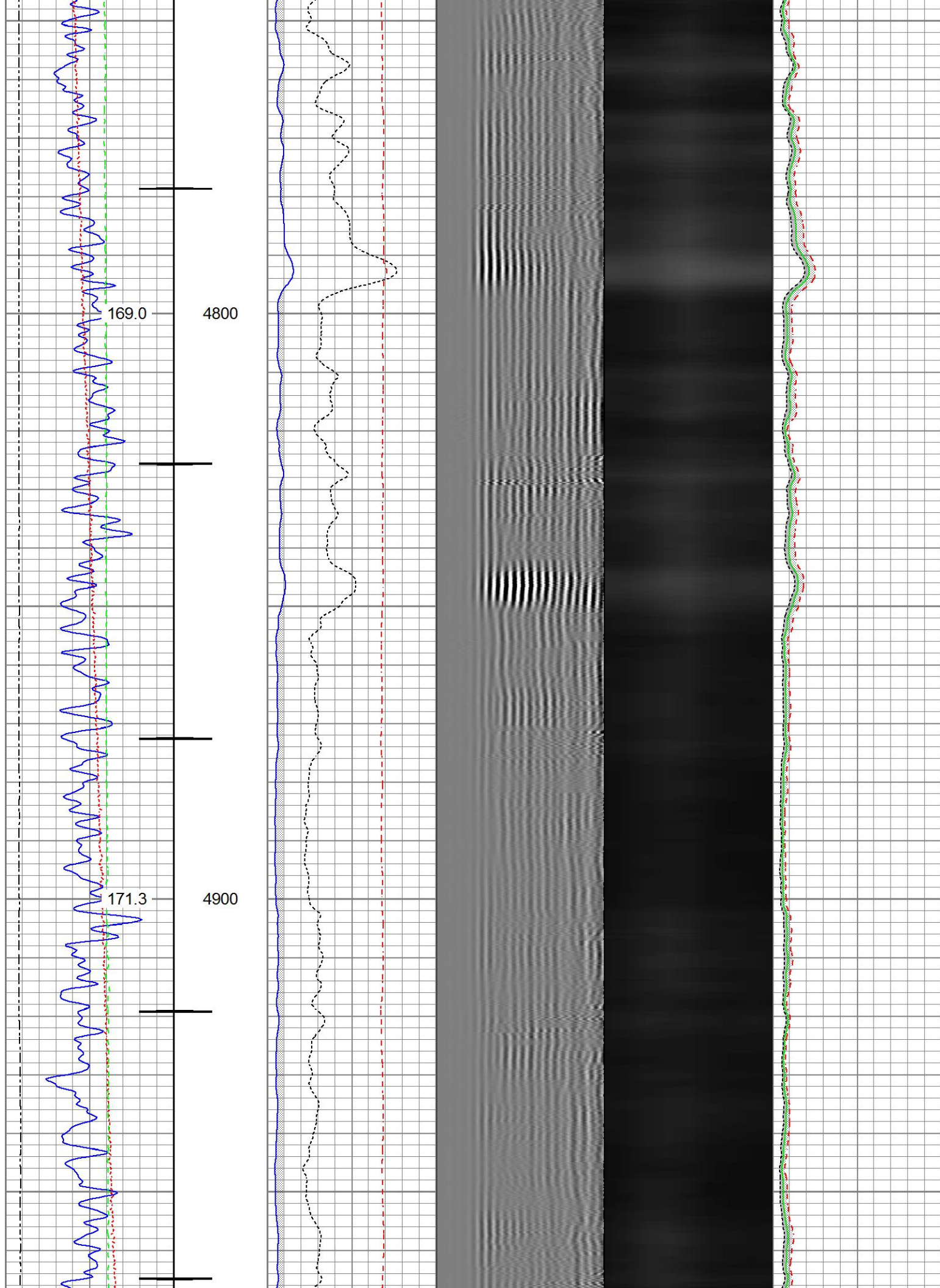




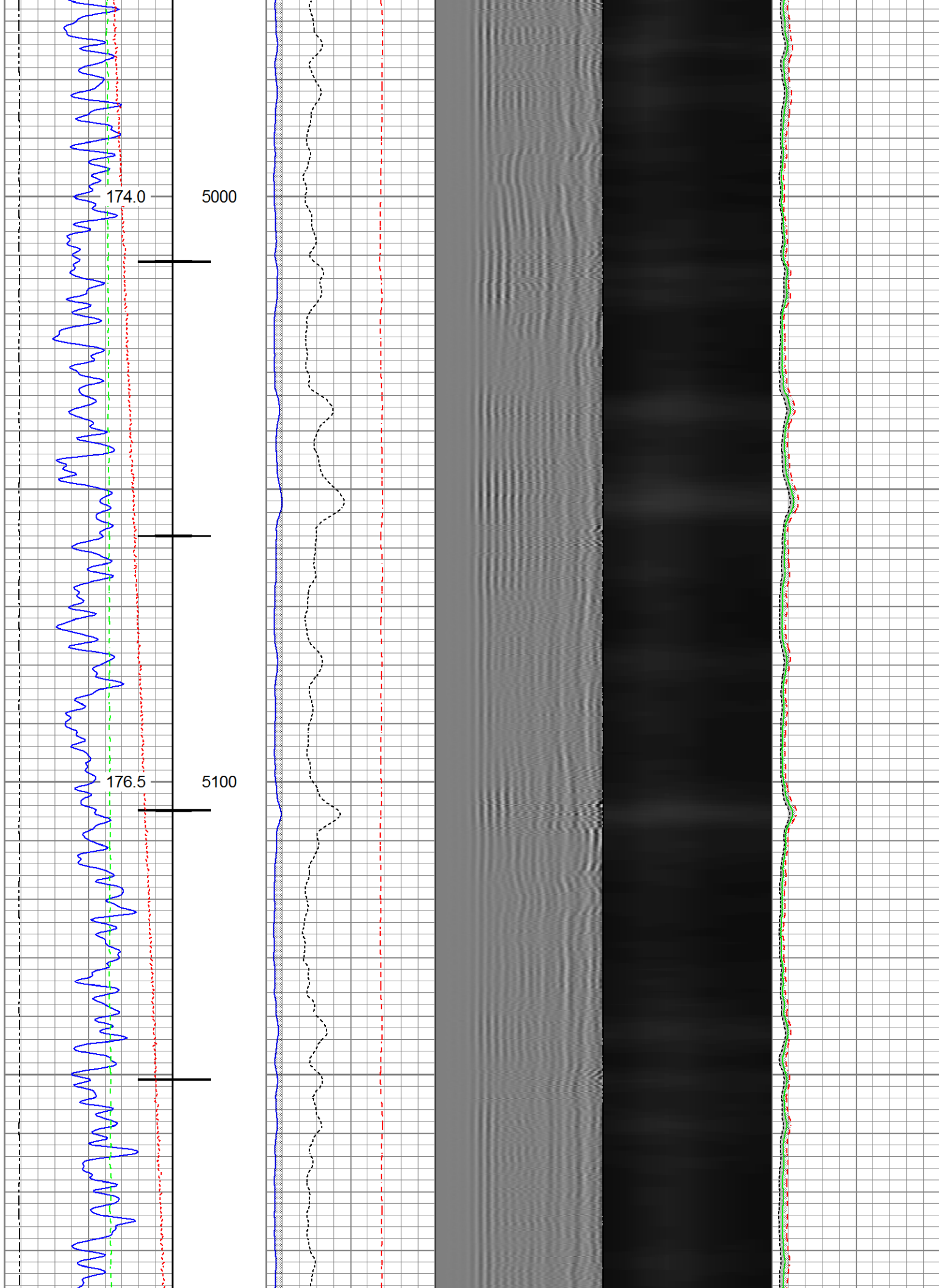


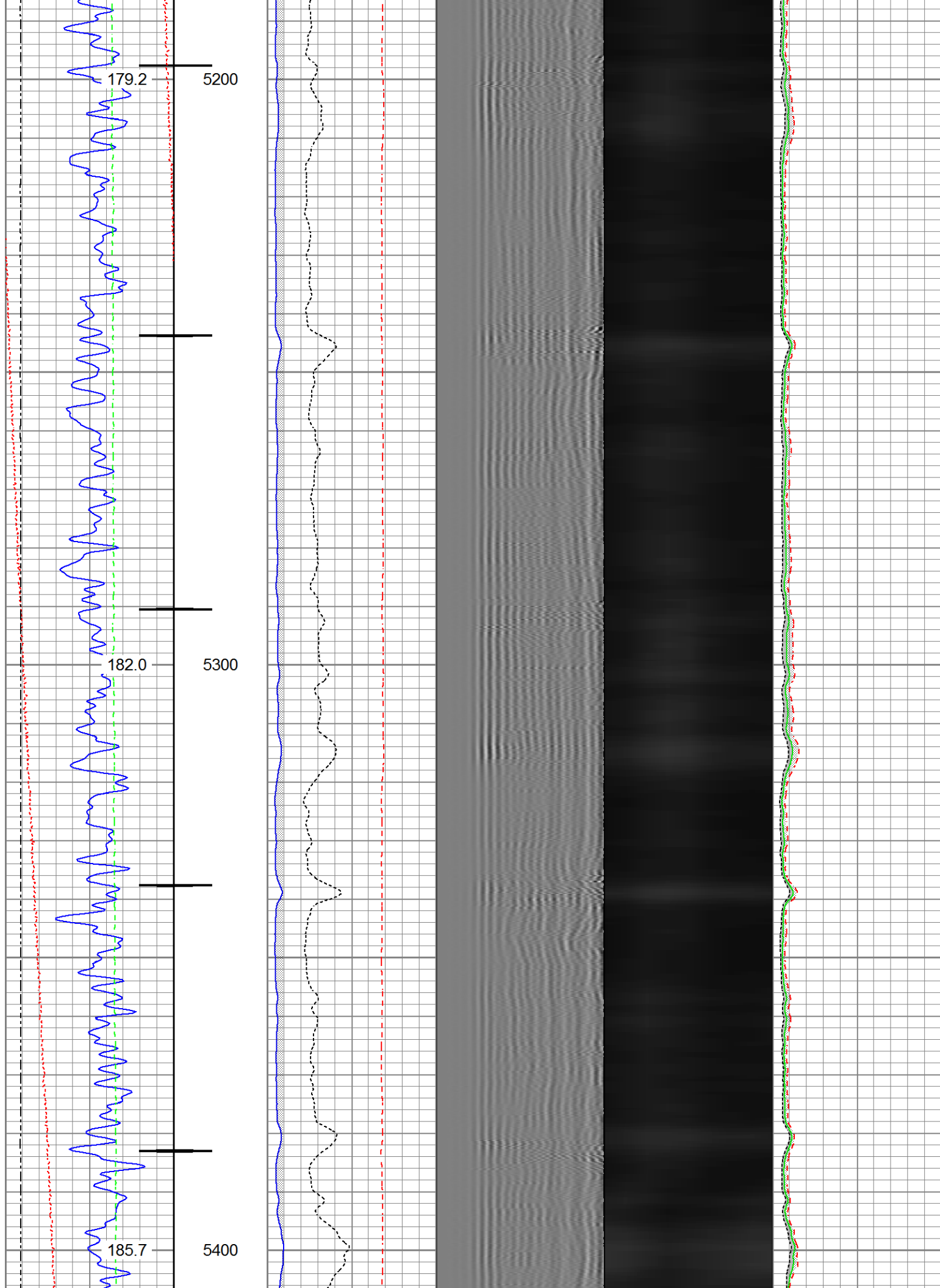




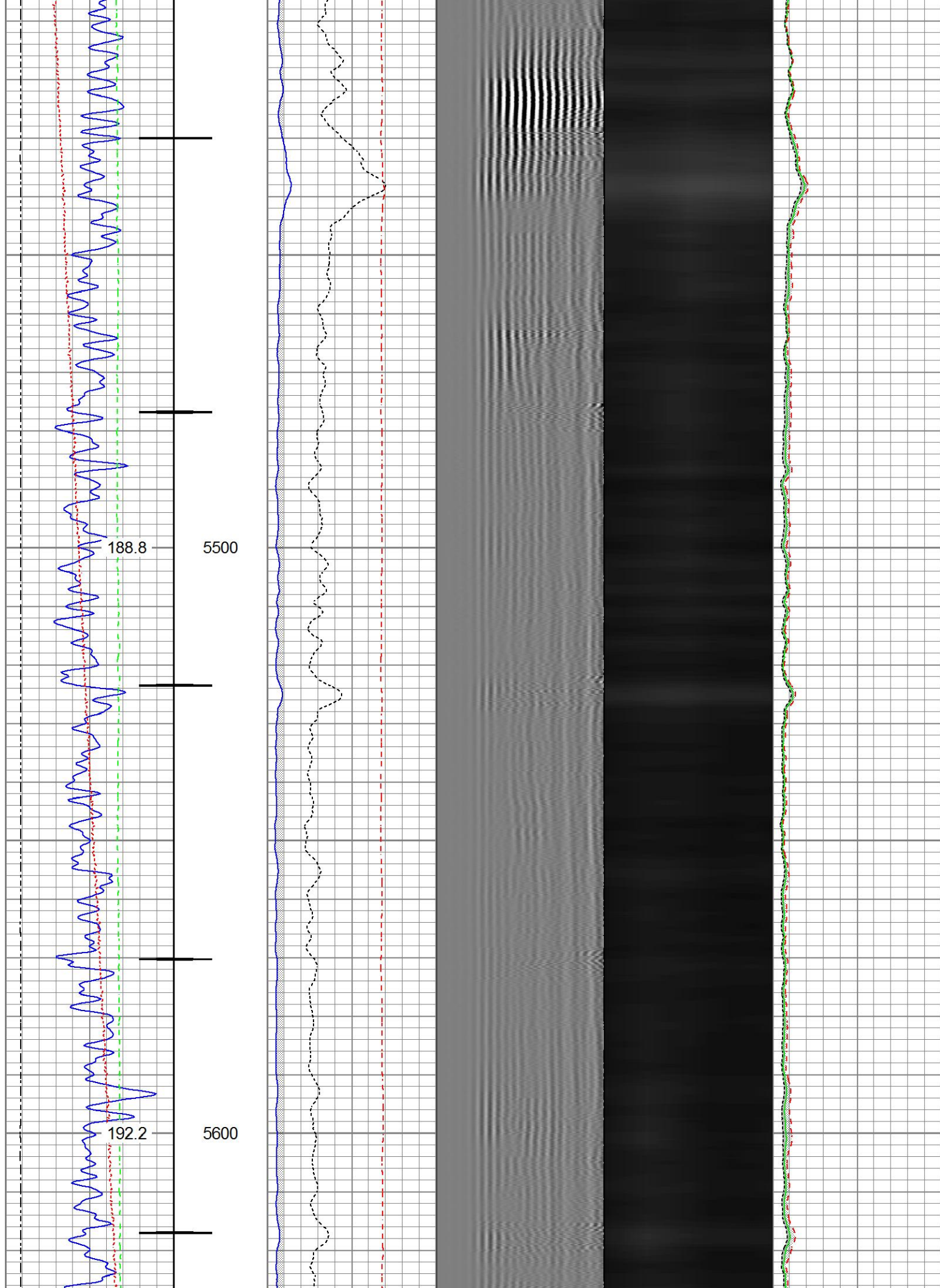


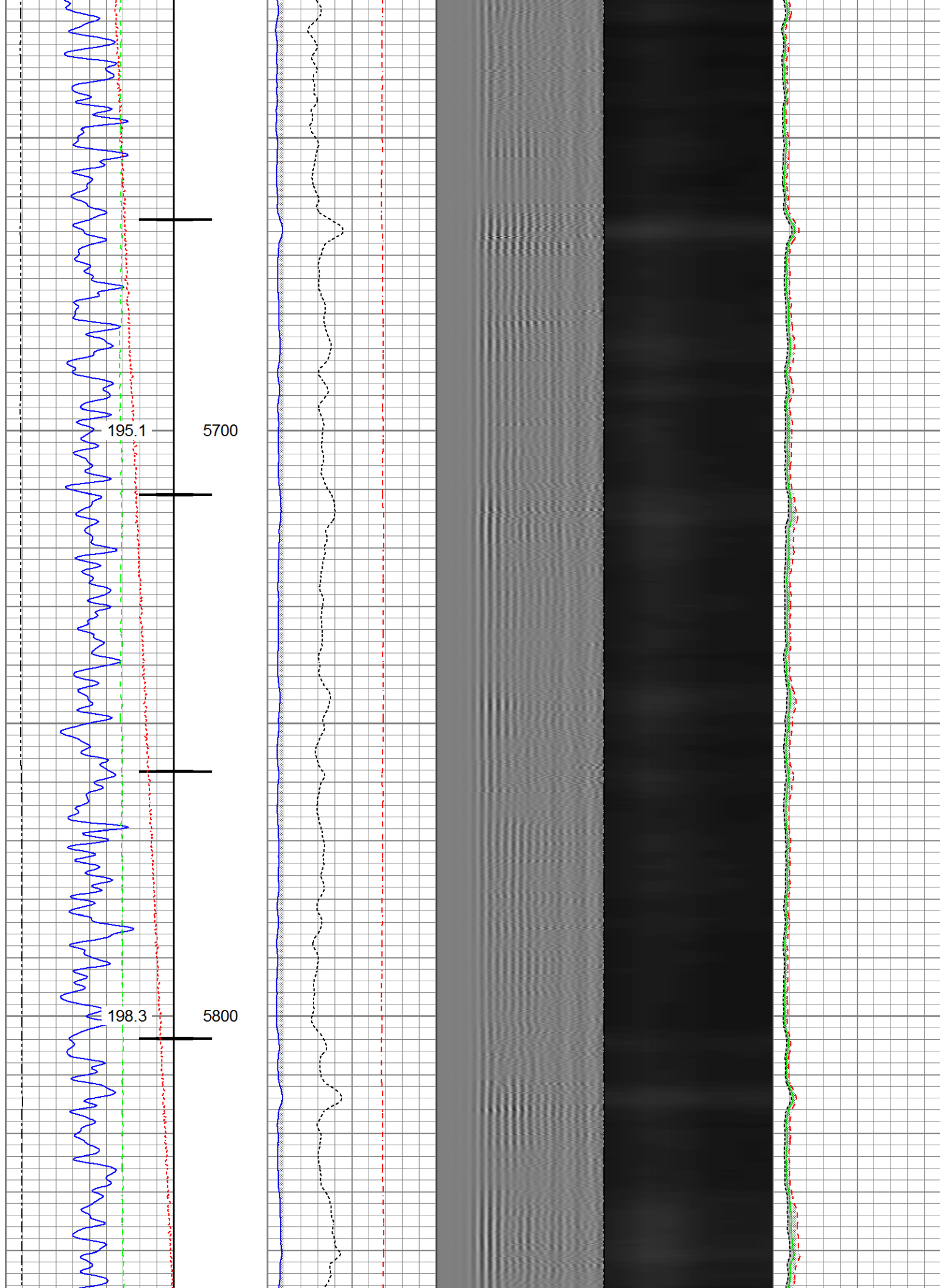




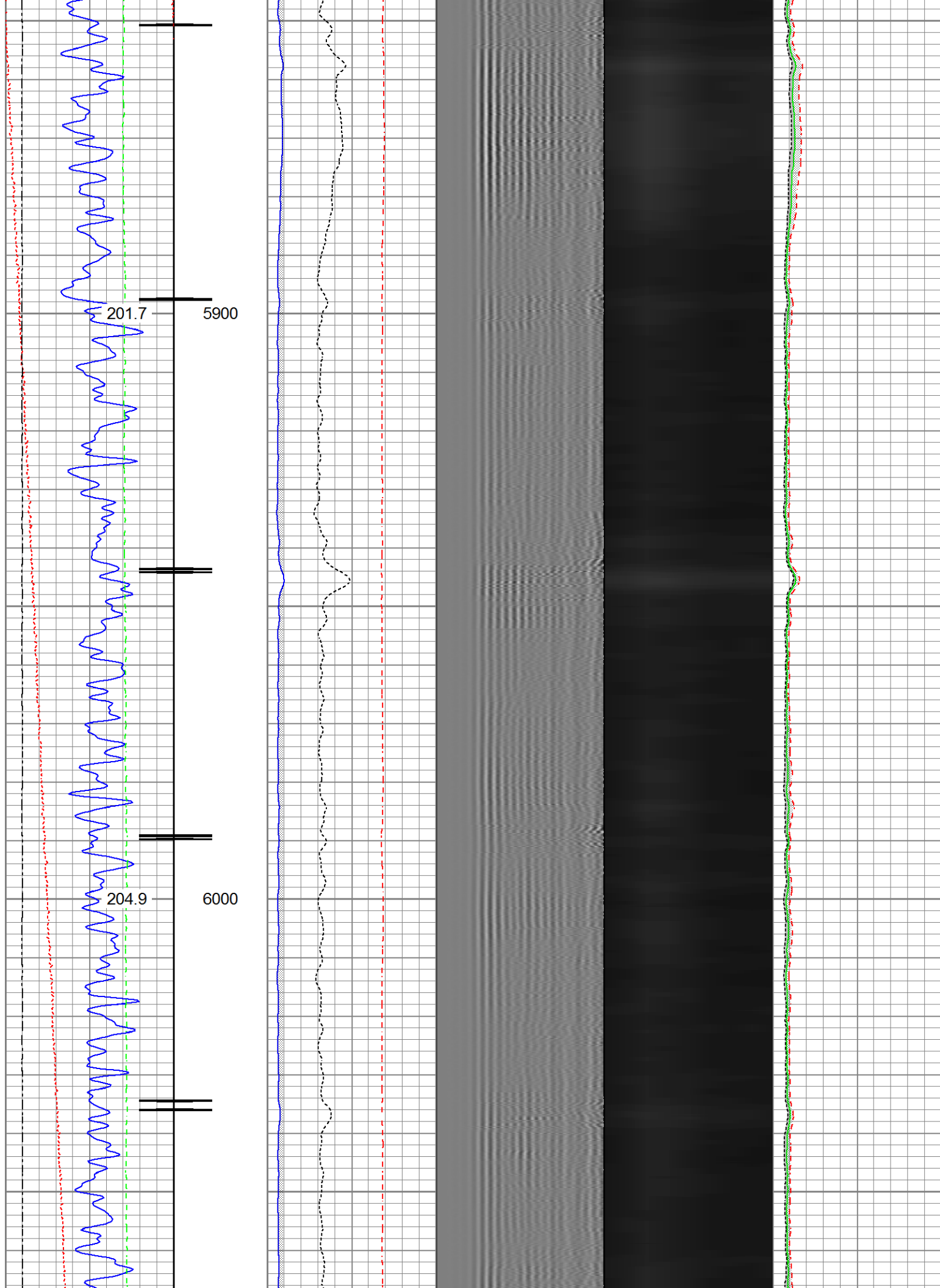


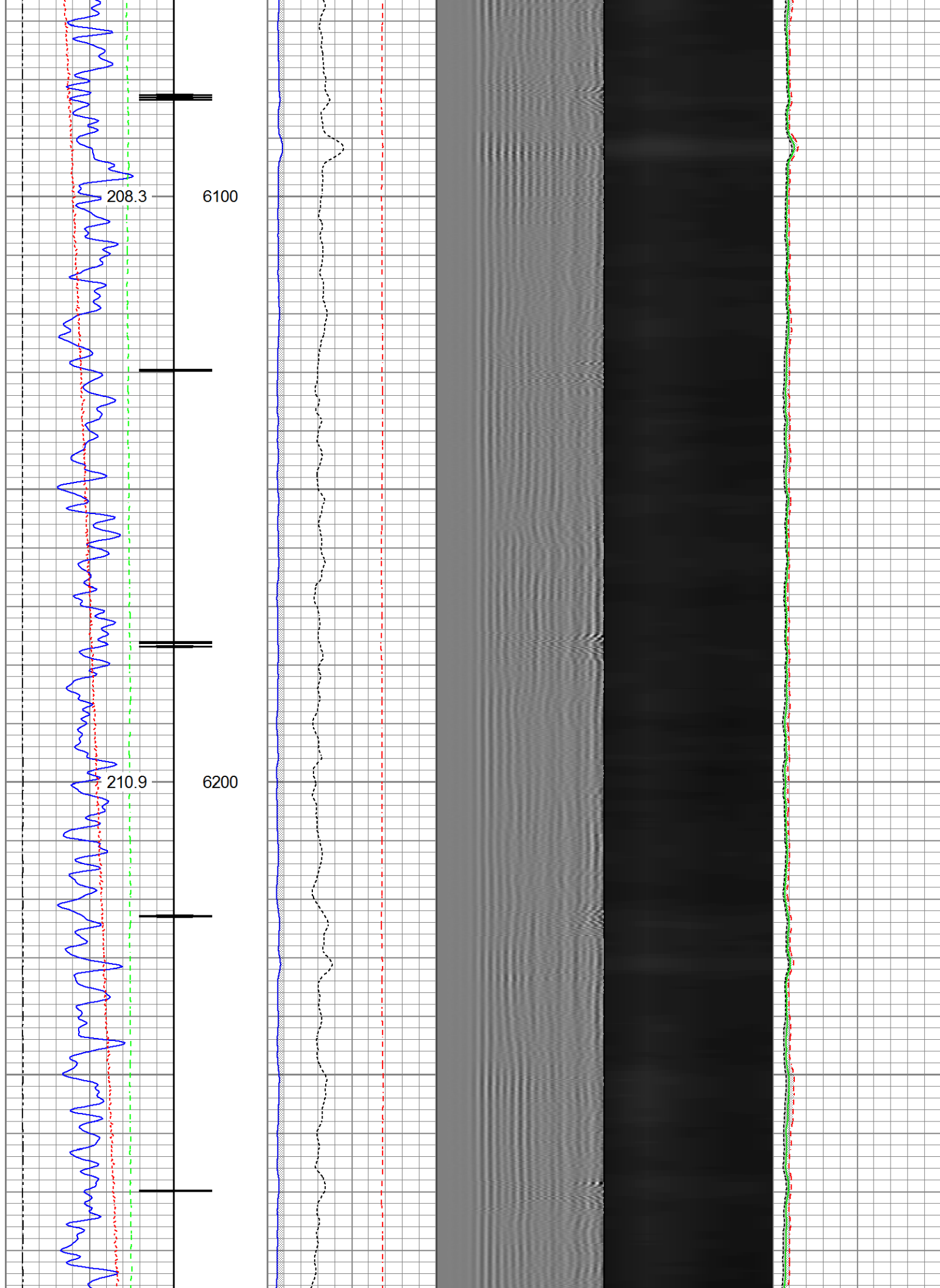




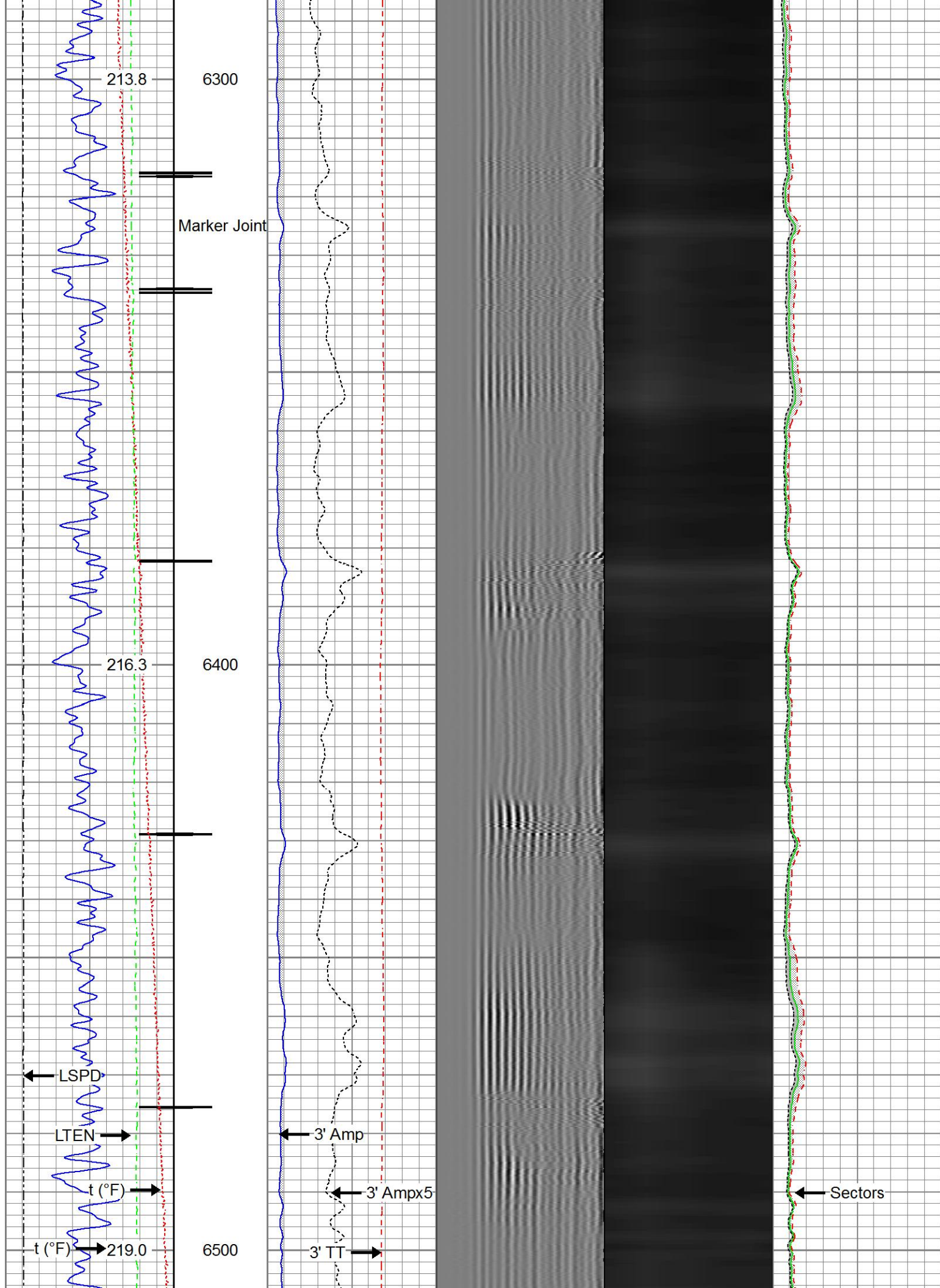


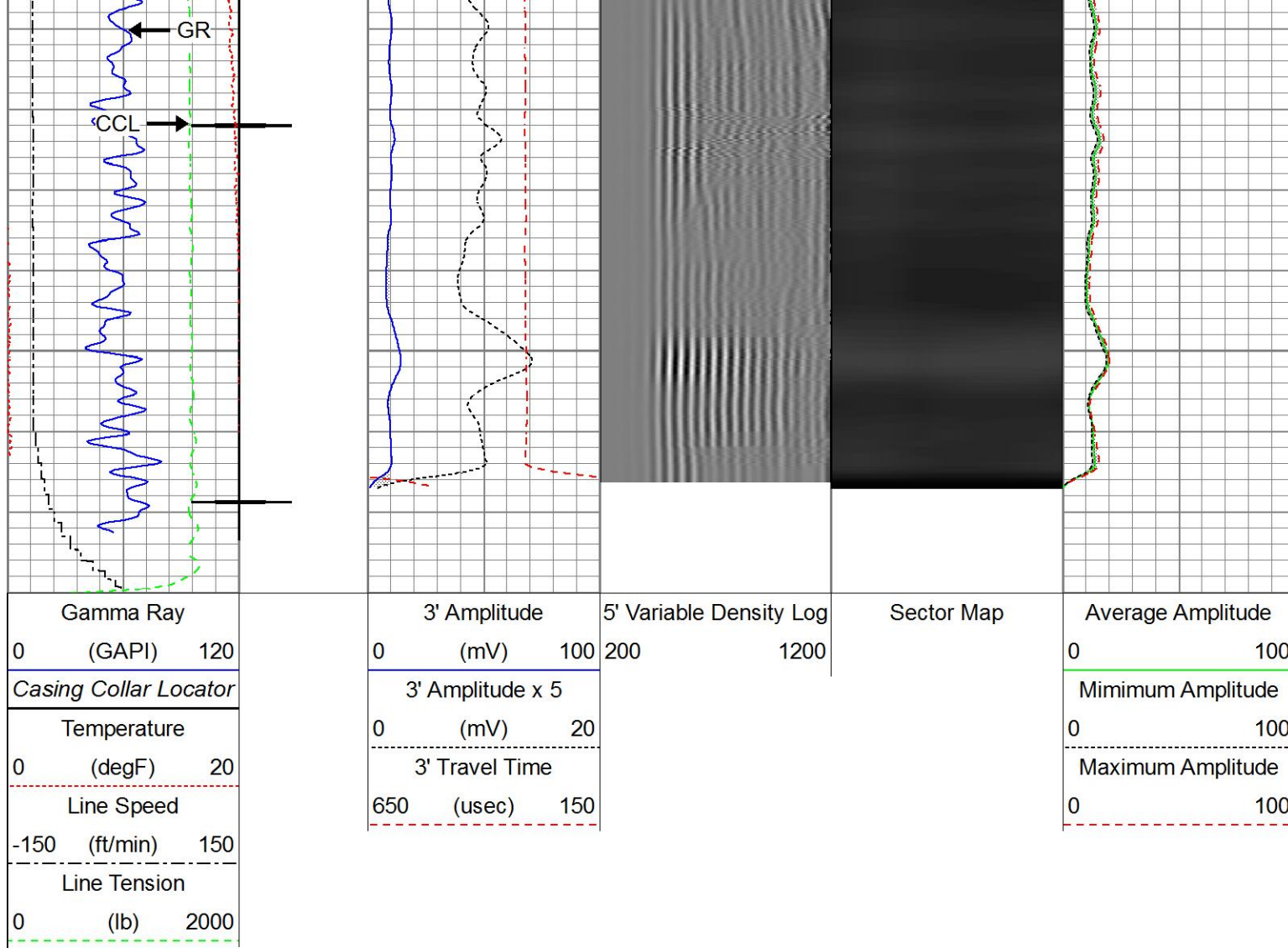








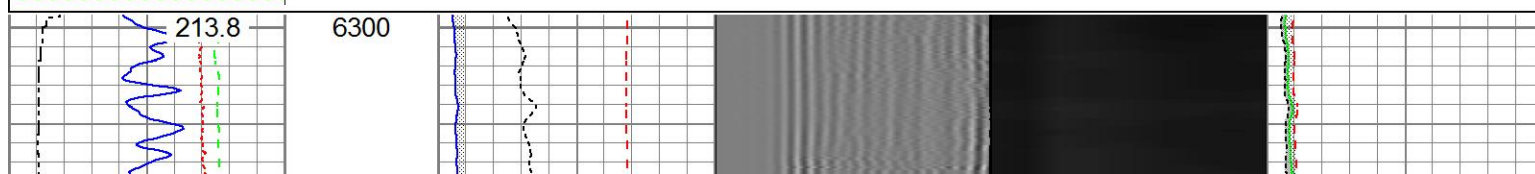
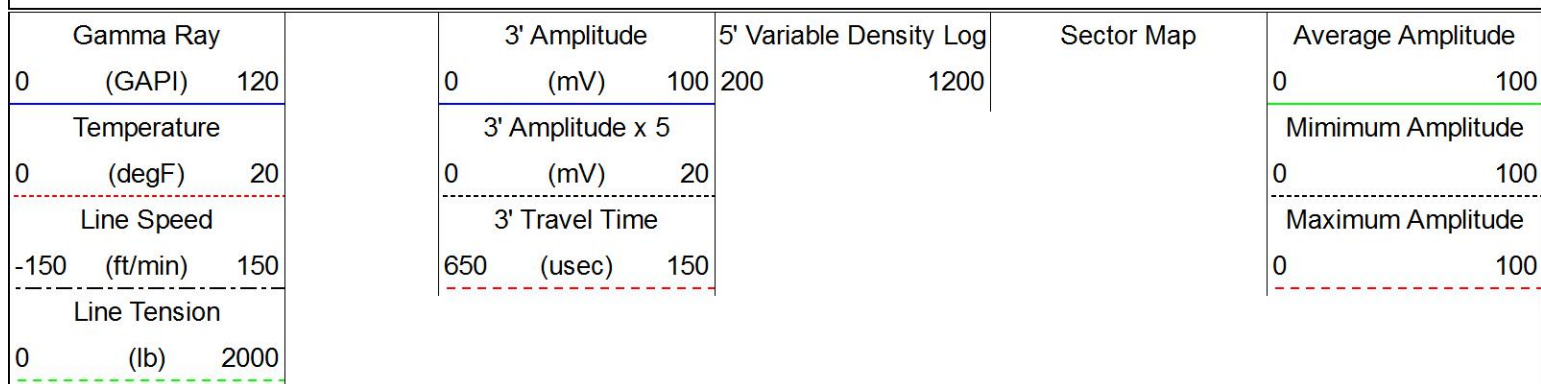




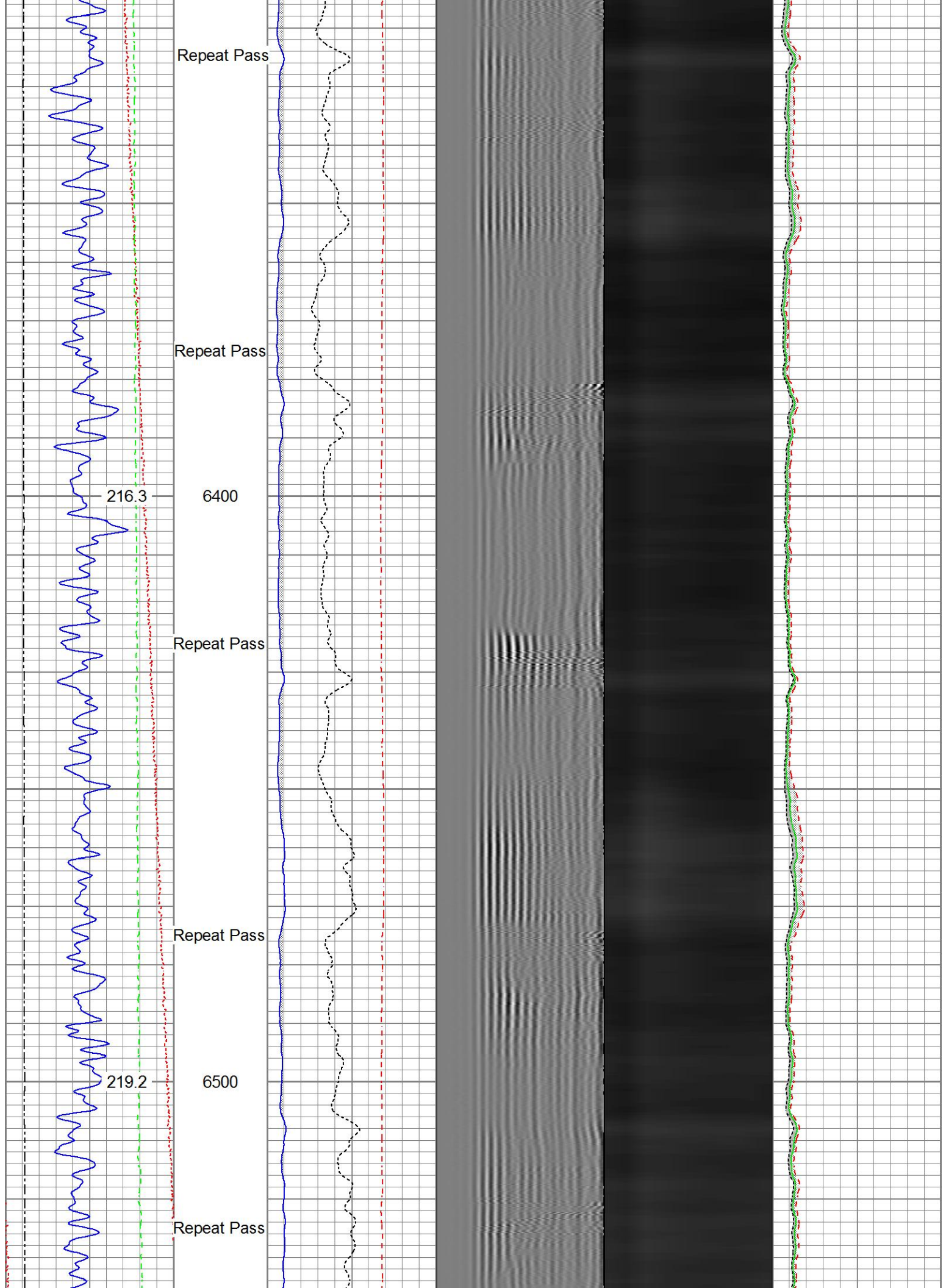
## Repeat Pass

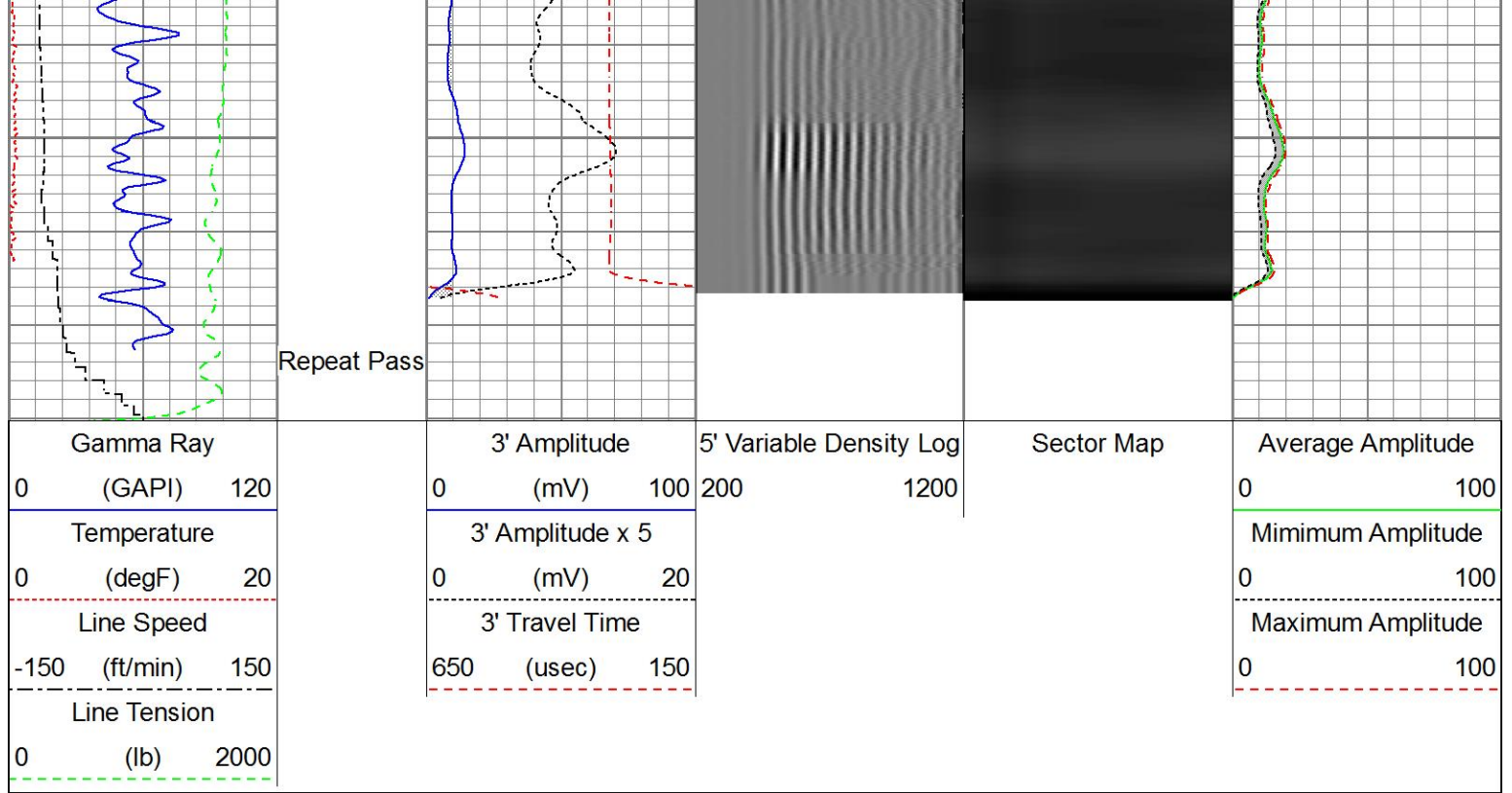
Recorded With 2000 PSI Surface Induced Pressure

Database File src energy\_ag 31c-31-l\_rbl\_10-28-17\src energy\_ag 31c-31-l\_rbl\_10-28-17.db  
 Dataset Pathname Repeat.1  
 Presentation Format ros\_radii  
 Dataset Creation Tue Oct 31 15:56:57 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
Temp	16.72					
WVFS8	14.55		Probe_RADII-C-P_RBT_2750 (FW1302-009.19 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					
			Probe_ELine_BowSpring_Centralizer-P-EE2.88.275 Probe 2-3/4" Electric Inline Bowspring Centralizer		2.75	20.00



DCCL CCL GR	6.51		Probe 2-3/4" Electric Inline Bowspring Centralizer			
	6.51					
	5.30		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	2.75	20.00	
Dataset: SRC Energy_Ag 31C-31-L_RBL_10-28-17.db: field/well/run1/Main.1 Total length: 23.40 ft Total weight: 225.40 lb O.D.: 2.75 in						

Calibration Report		
Database File	c:\programdata\warrior\data\src energy_ag 31c-31-l_rbl_10-28-17\src energy_ag 31c-31-l_rbl_10-28-17.db	
Dataset Pathname	Main.2	
Dataset Creation	Tue Oct 31 15:50:19 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:	FW1302-002	
Tool Model:	P_RBT_2750	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	-4.146	ft

Master Calibration, performed (Derived):						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	0.607	0.800	71.921	117.440	0.582
CAL	0.745	0.750				
5'	0.001	0.539	0.800	71.921	132.034	0.690
SUM						
S1	0.002	0.597	0.000	100.000	168.136	-0.310
S2	0.002	0.610	0.000	100.000	168.787	-0.305

S2	0.002	0.616	0.000	100.000	162.797	-0.285
S3	0.002	0.641	0.000	100.000	156.378	-0.237
S4	0.002	0.637	0.000	100.000	157.384	-0.261
S5	0.001	0.627	0.000	100.000	159.751	-0.191
S6	0.002	0.612	0.000	100.000	163.901	-0.257
S7	0.001	0.598	0.000	100.000	167.638	-0.206
S8	0.002	0.603	0.000	100.000	166.332	-0.302

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.745	0.750	1.000	0.000

Air Zero Calibration, performed Sat Oct 28 07:34:10 2017:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.008		0.000		0.000	
5'	0.009		0.000		-0.000	
SUM						
S1	0.005		0.000		-0.000	
S2	0.009		0.000		-0.000	
S3	0.008		0.000		-0.000	
S4	0.009		0.000		-0.000	
S5	0.008		0.000		-0.000	
S6	0.009		0.000		-0.000	
S7	0.009		0.000		-0.000	
S8	0.009		0.000		0.000	



**RELIANCE**  
OILFIELD SERVICES

Company SRC Energy Inc  
Well Ag 31C-31-L  
Field Wattenberg  
County Weld  
State Colorado