



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company SRC Energy Inc		Location: API #: 05-123-45390		Other Services JBGR RBP			
Well	Boomerang 34N-6C-M						
Field	Wattenberg						
County	Weld	State Colorado					
SEC 5 TWP 5N RGE 66W		Elevation					
Permanent Datum	Ground Level	Elevation		4770'			
Log Measured From	Ground Level			K.B. 4790' D.F. --- G.L. 4770'			
Drilling Measured From	Kelly Bushing	20 FT					
Date	24-APR-2018						
Run Number	Three						
Depth Driller	15550 FT (GL)						
Depth Logger	6518 FT						
Bottom Logged Interval	6513 FT						
Top Log Interval	Surface						
Open Hole Size	8.5"						
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	16:04						
Equipment Number	HD-363						
Location	Fort Lupton, CO						
Recorded By	J. Fresquez						
Witnessed By	Kelly Weiser						
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	---	---	---	---	---		
Intermediate #1	5 1/2	20	HCP-110	Surface	15535.40 FT		
Intermediate #2							
Inner							

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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  
Log measured from Ground Level at 0 FT  
Adjusted -3 FT to Correlate with Ground Level  
Log ran from approximately 50 FT above RBP  
Gauge Ring/Junk Basket ran to 6945 FT with no debris  
Marker Joint logged from 6478 FT - 6498 FT  
Log ran with 2500 PSI Surface Induced Pressure  
Logging tools were clean and free of debris upon completion of operations

Thank you for choosing Reliance Oilfield Services, LLC!!

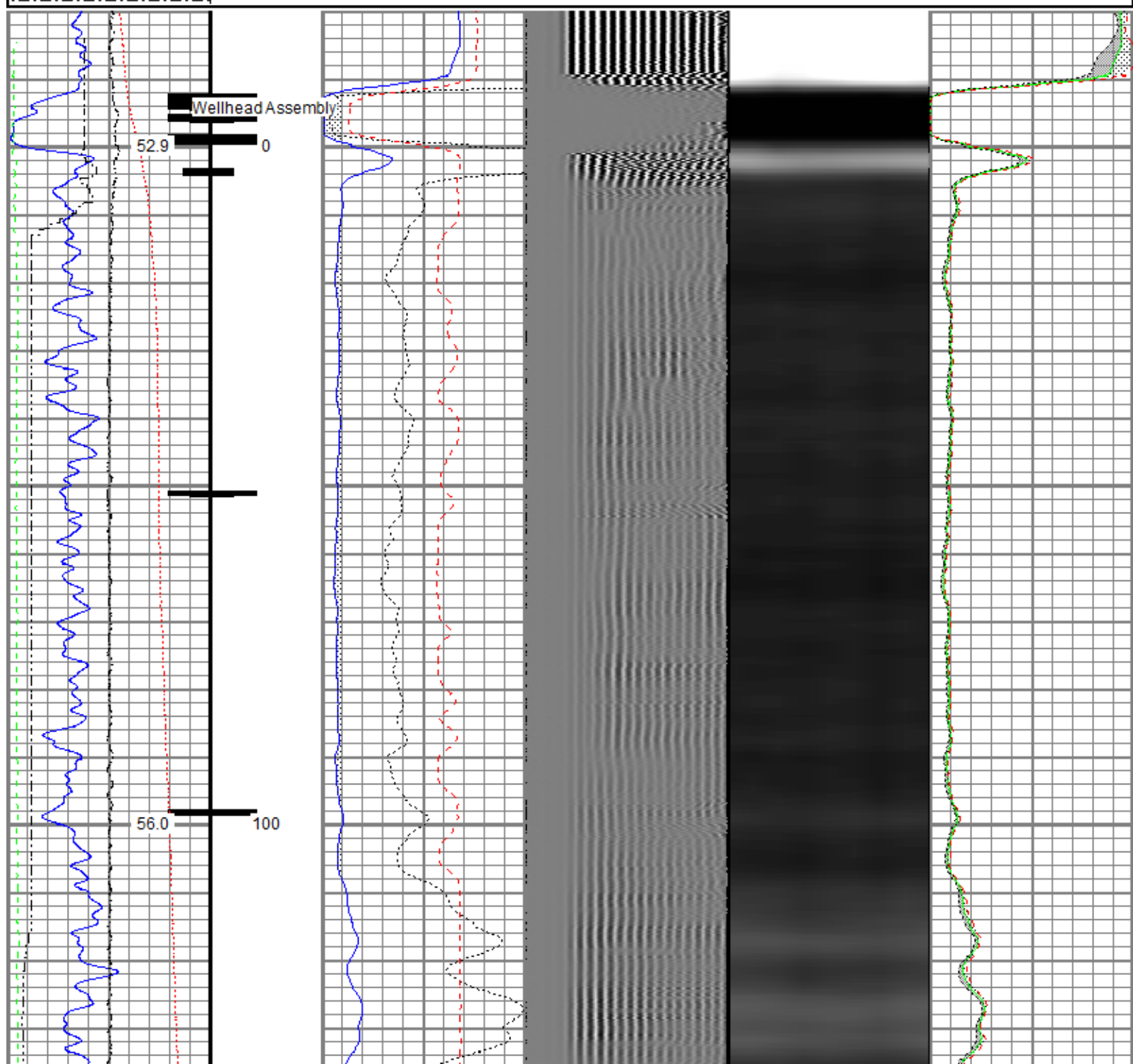


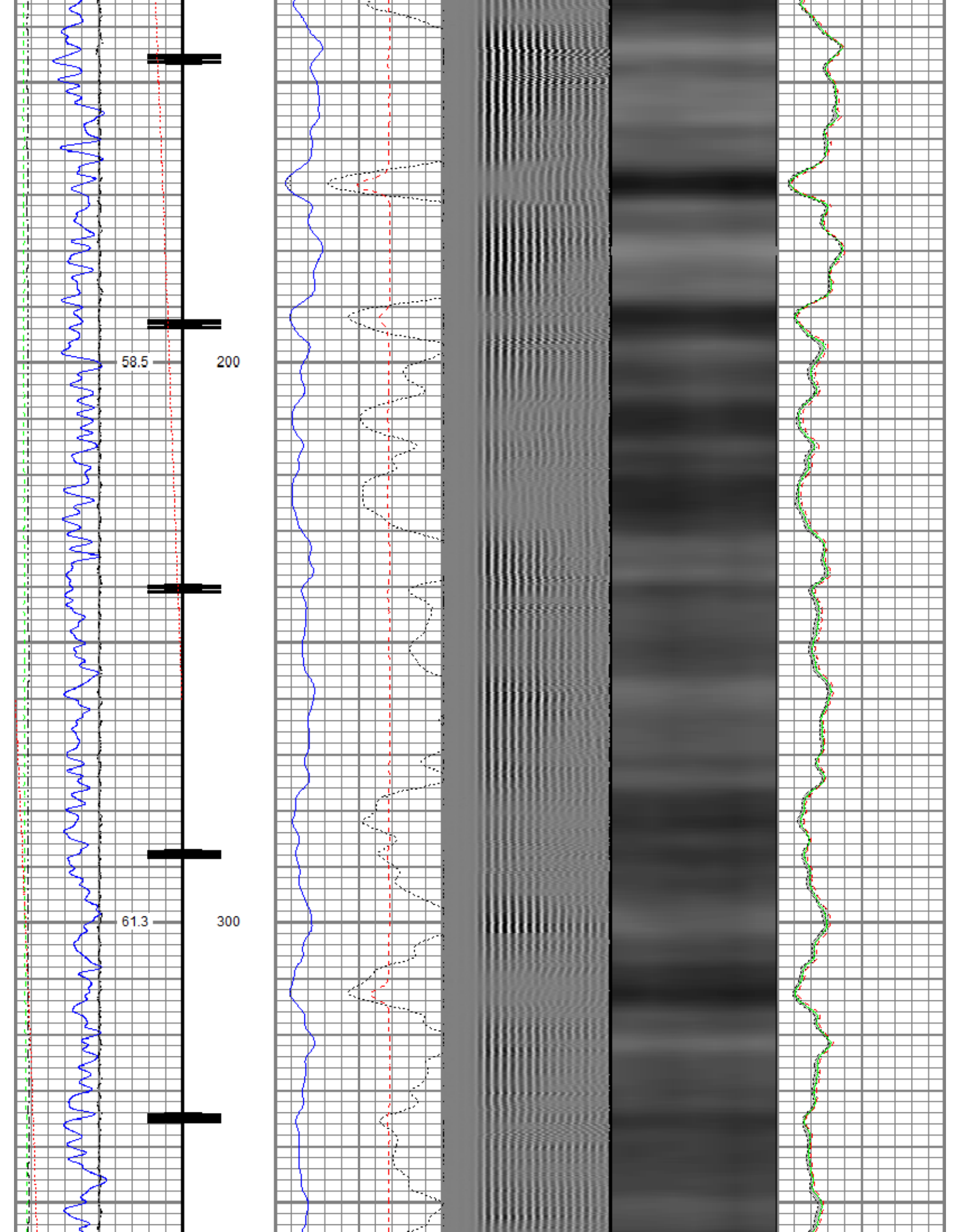
Main Pass

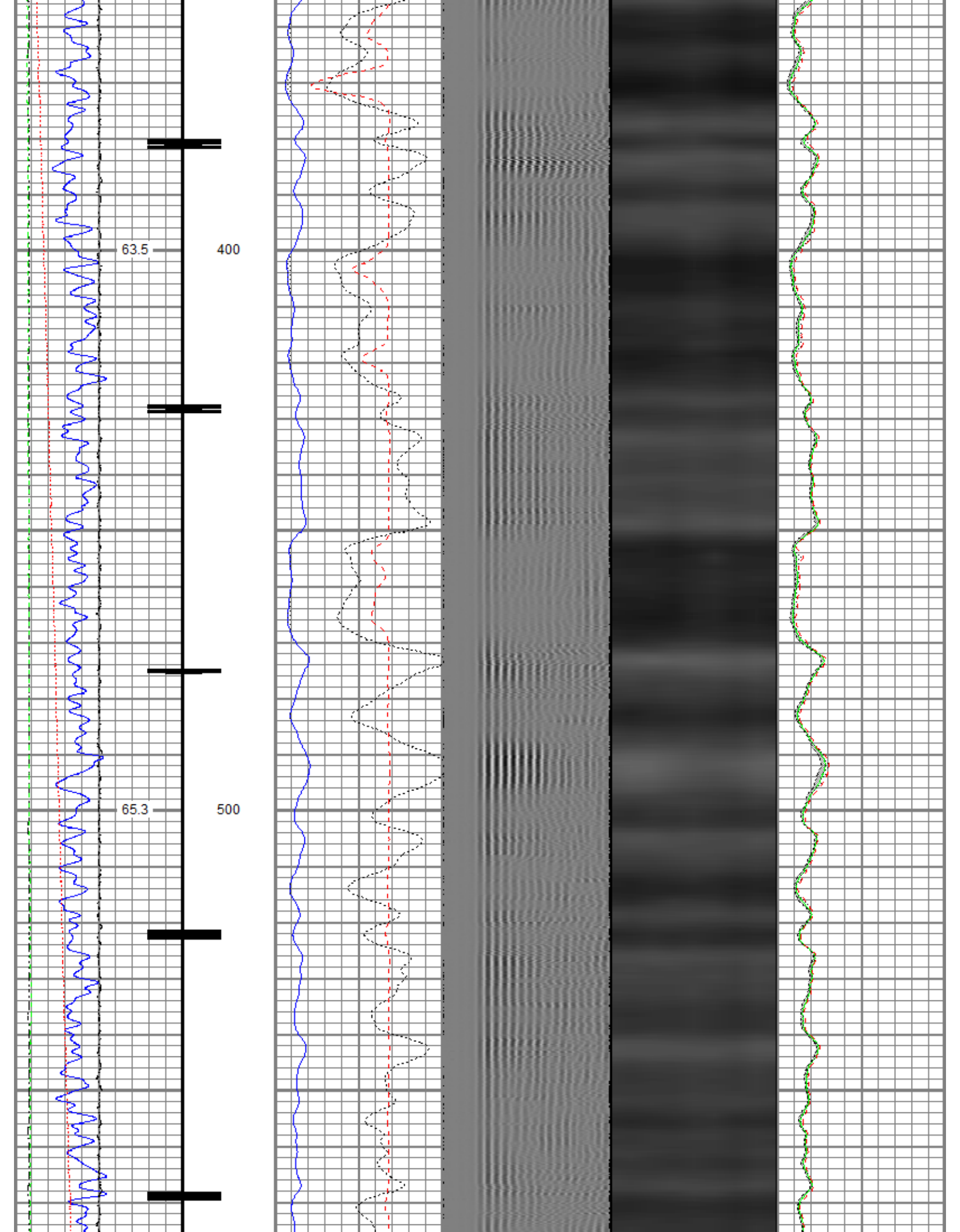
Recorded With 2500 PSI Surface Induced Pressure

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 Presentation Format ros\_radri  
 Dataset Creation Tue Apr 24 16:04:17 2018  
 Charted by Depth in Feet scaled 1:240

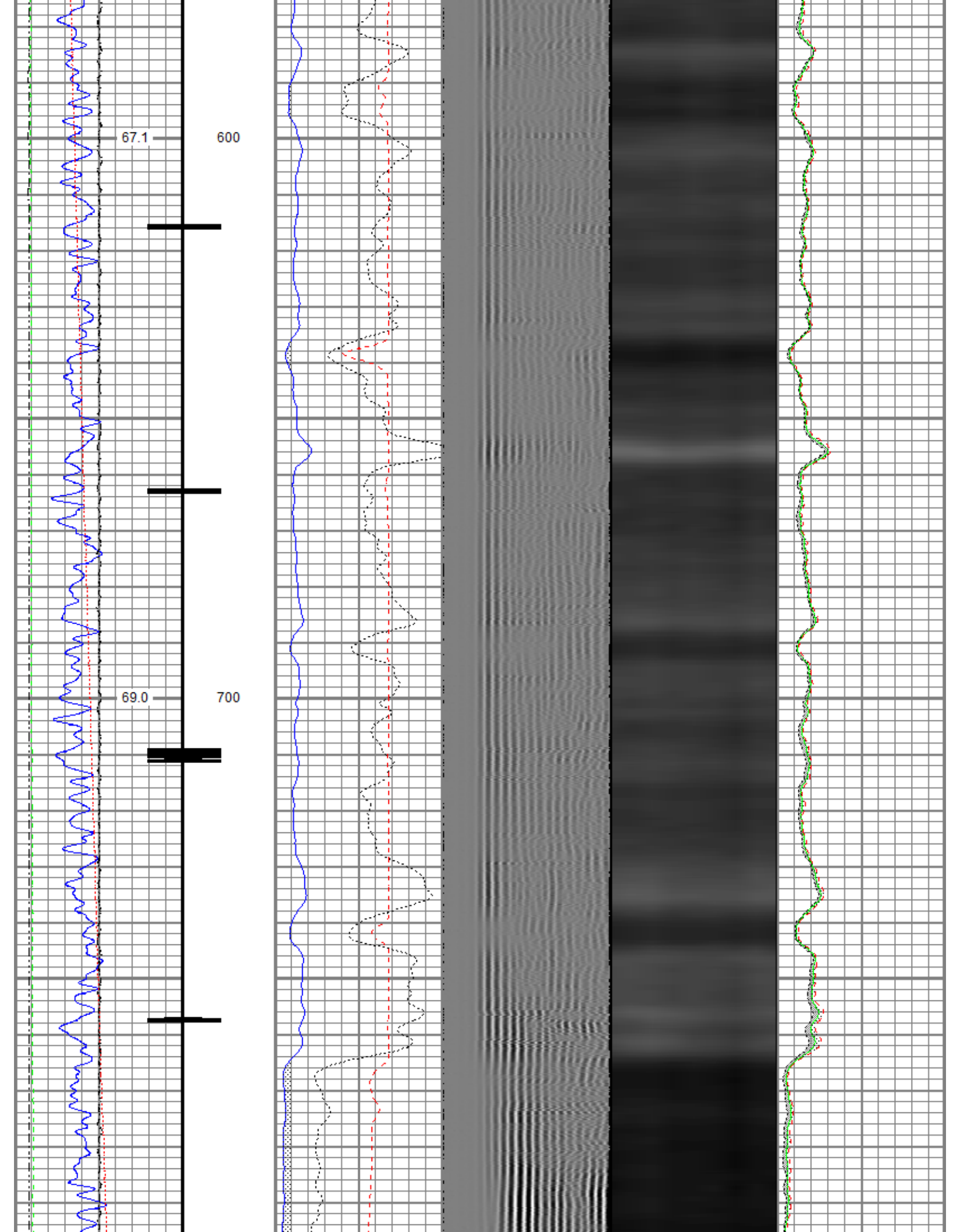
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
(ft/min) 150						
Line Tension (lb) 2000						
Differential Temperature						
(degF) 2						

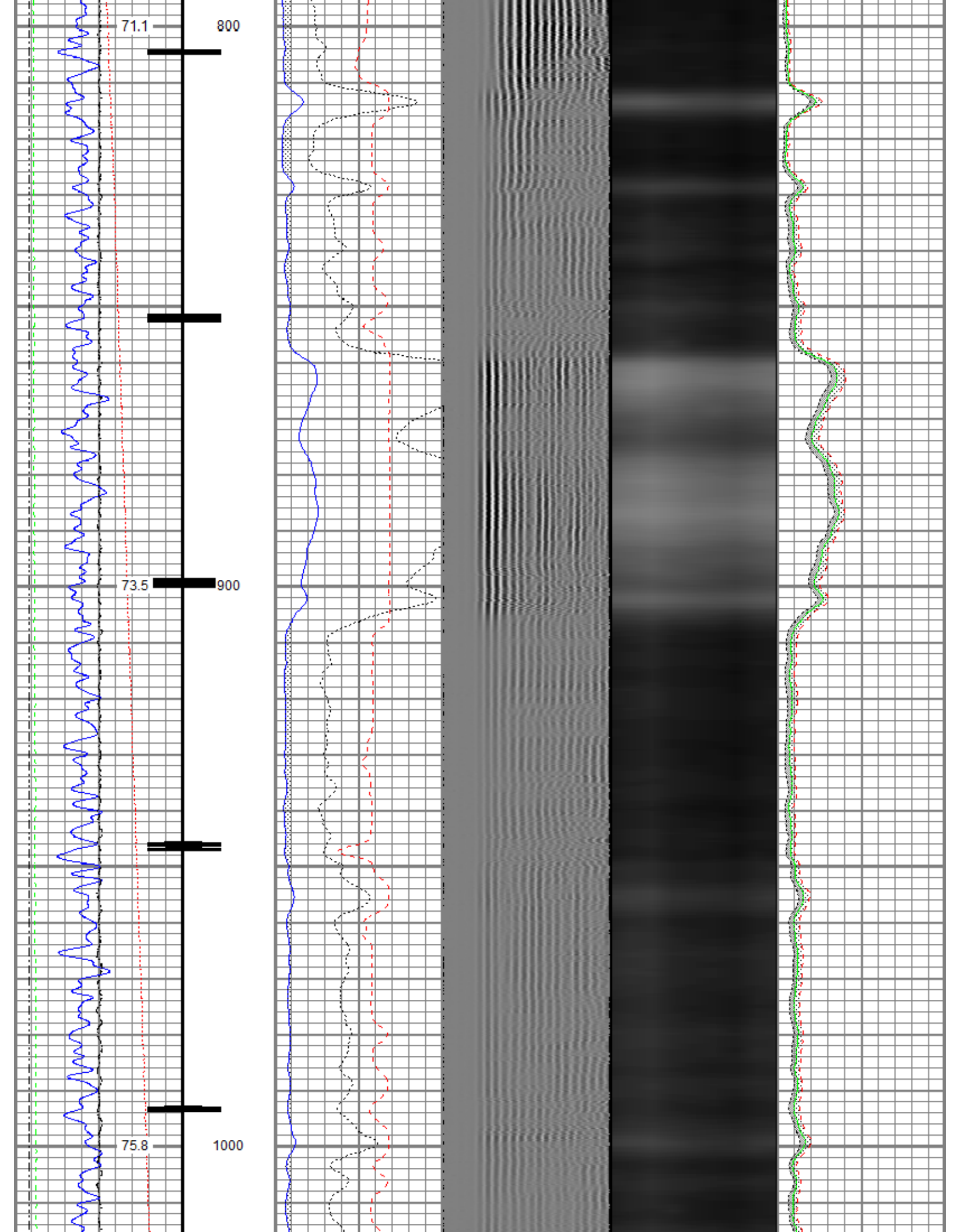


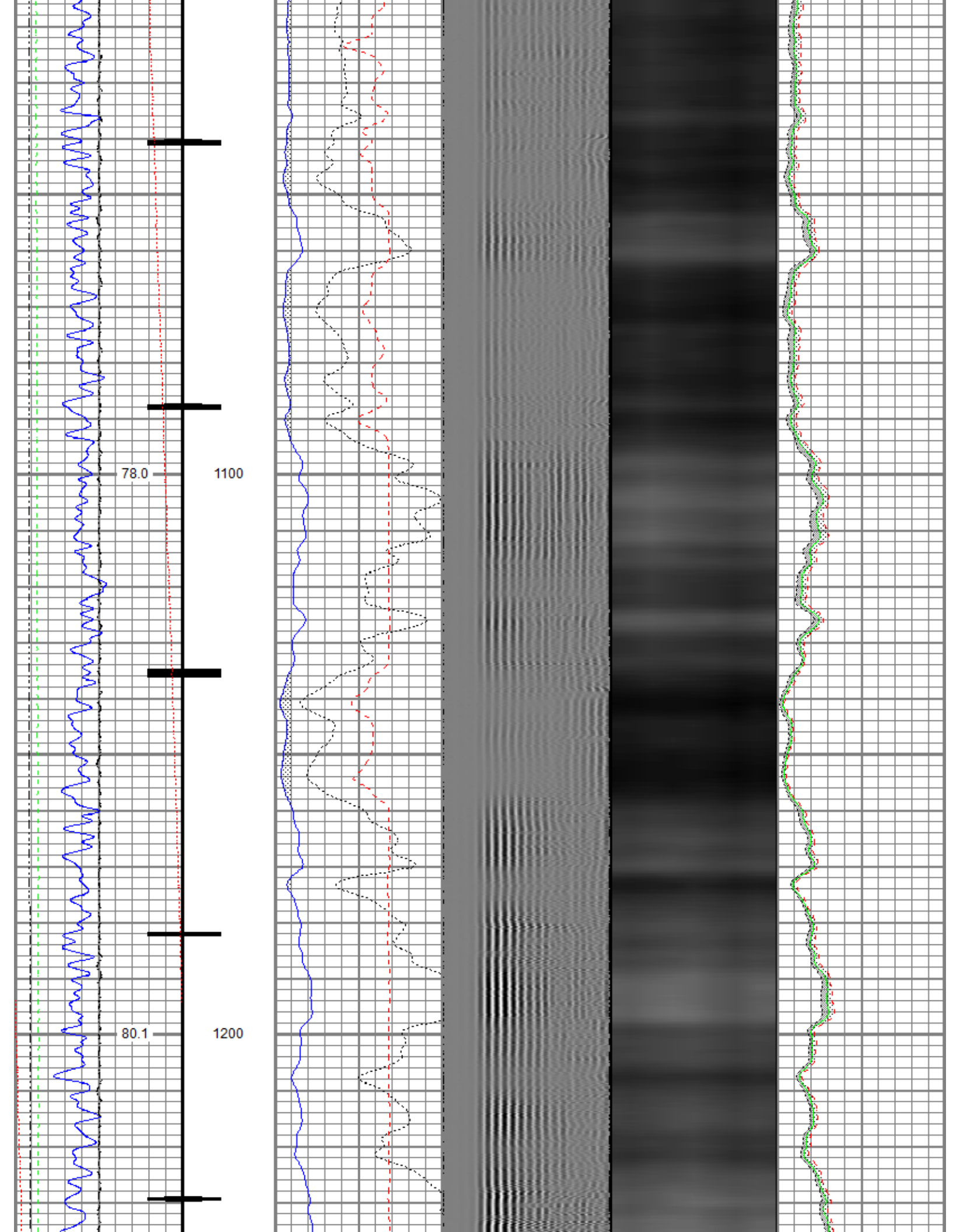


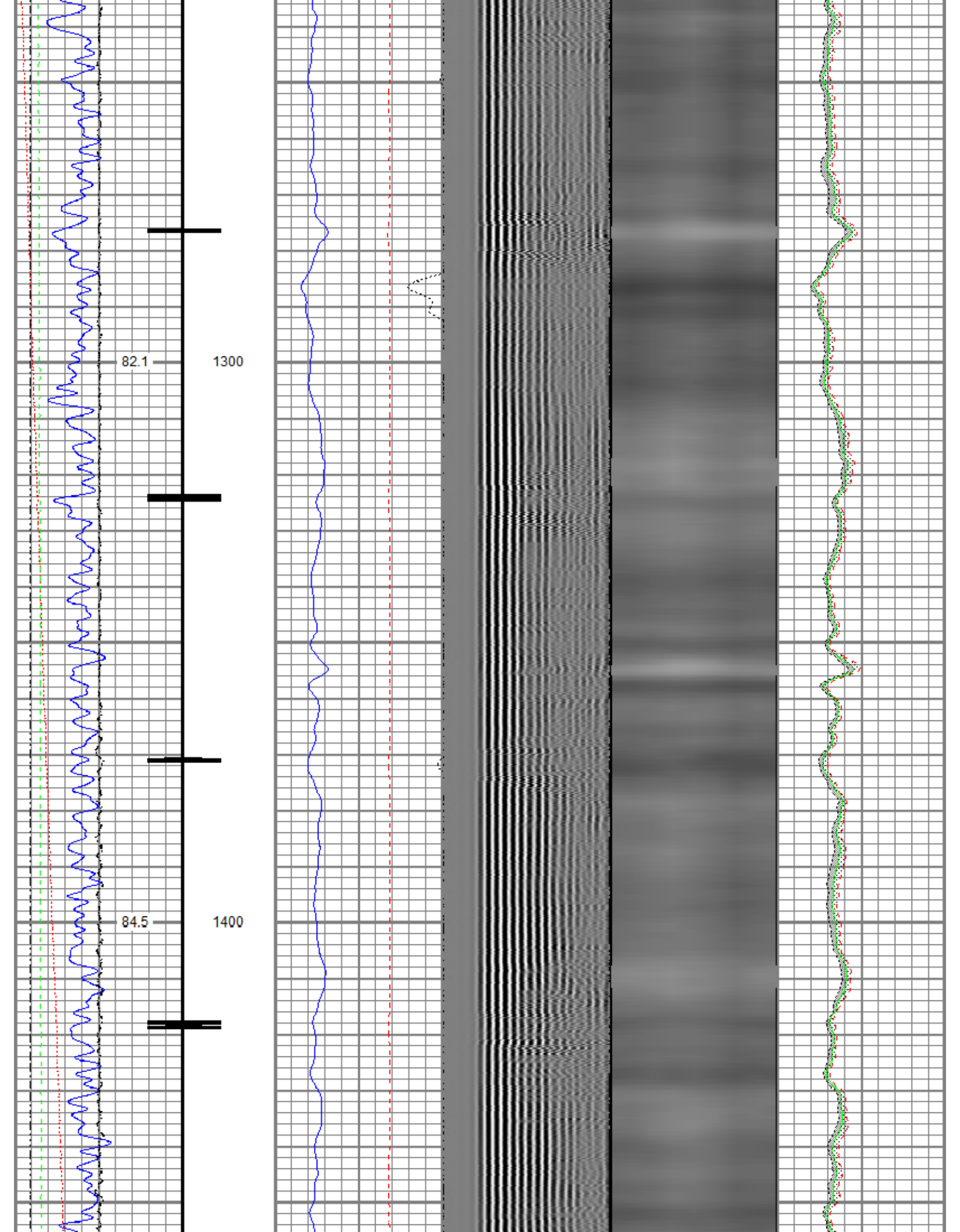




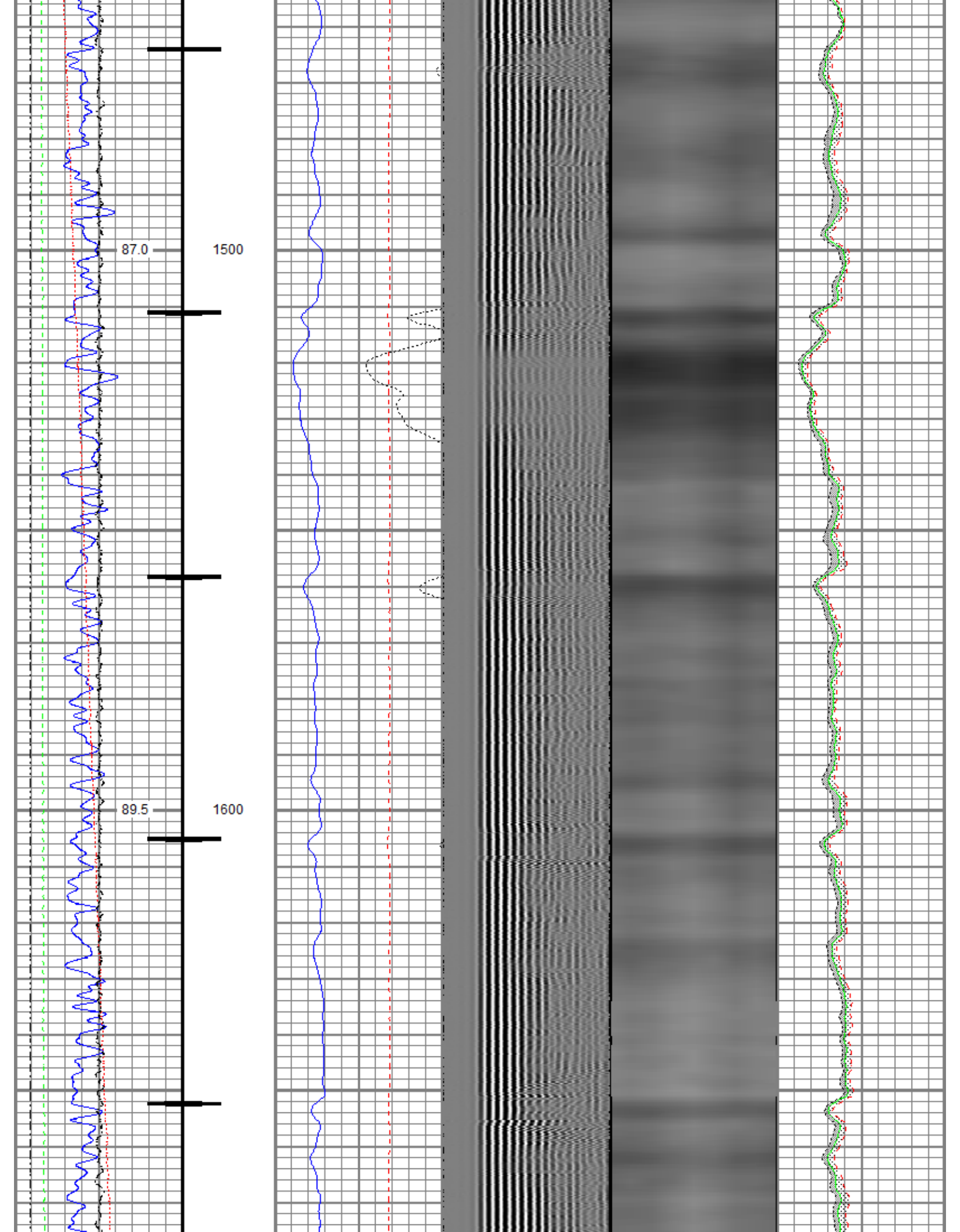


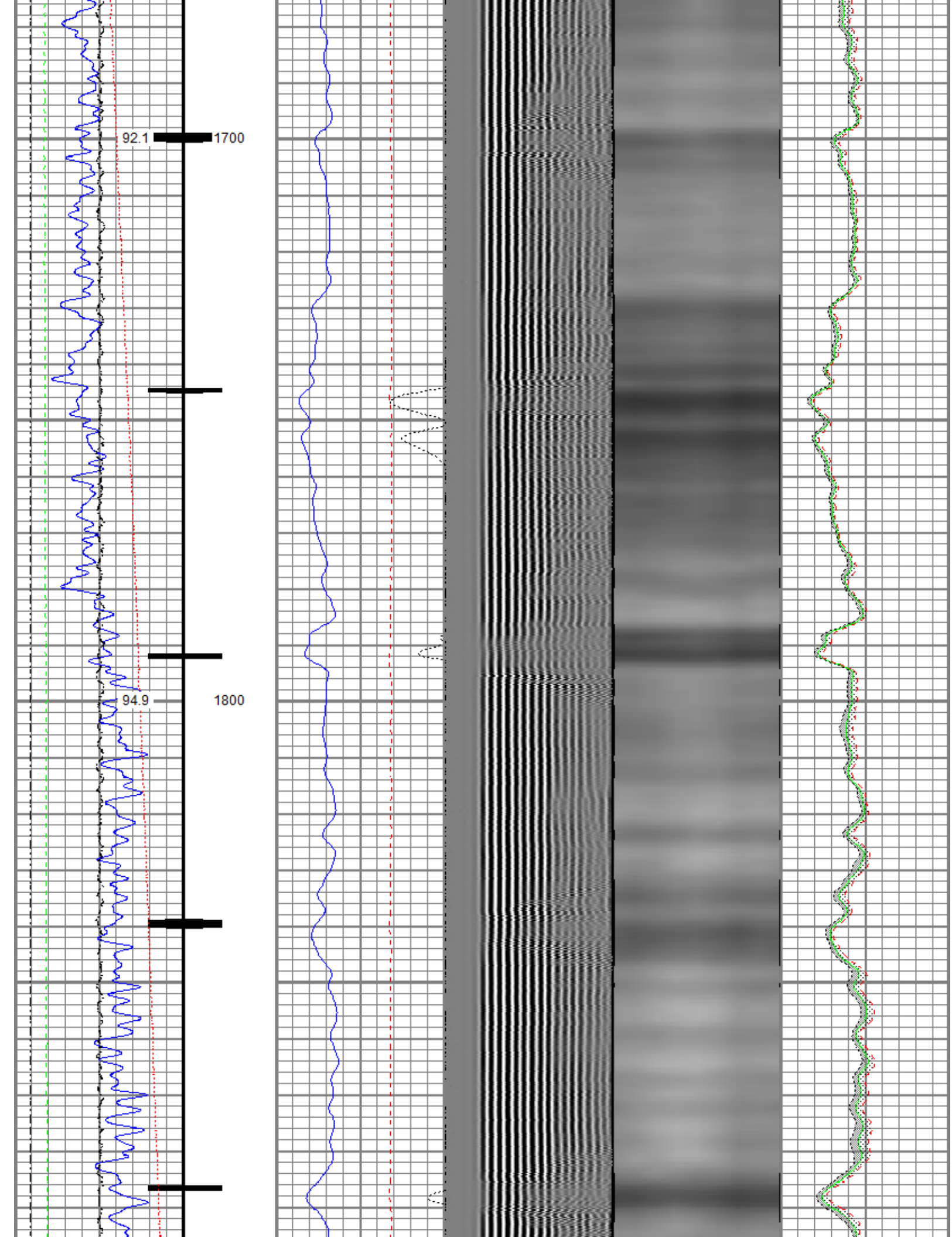


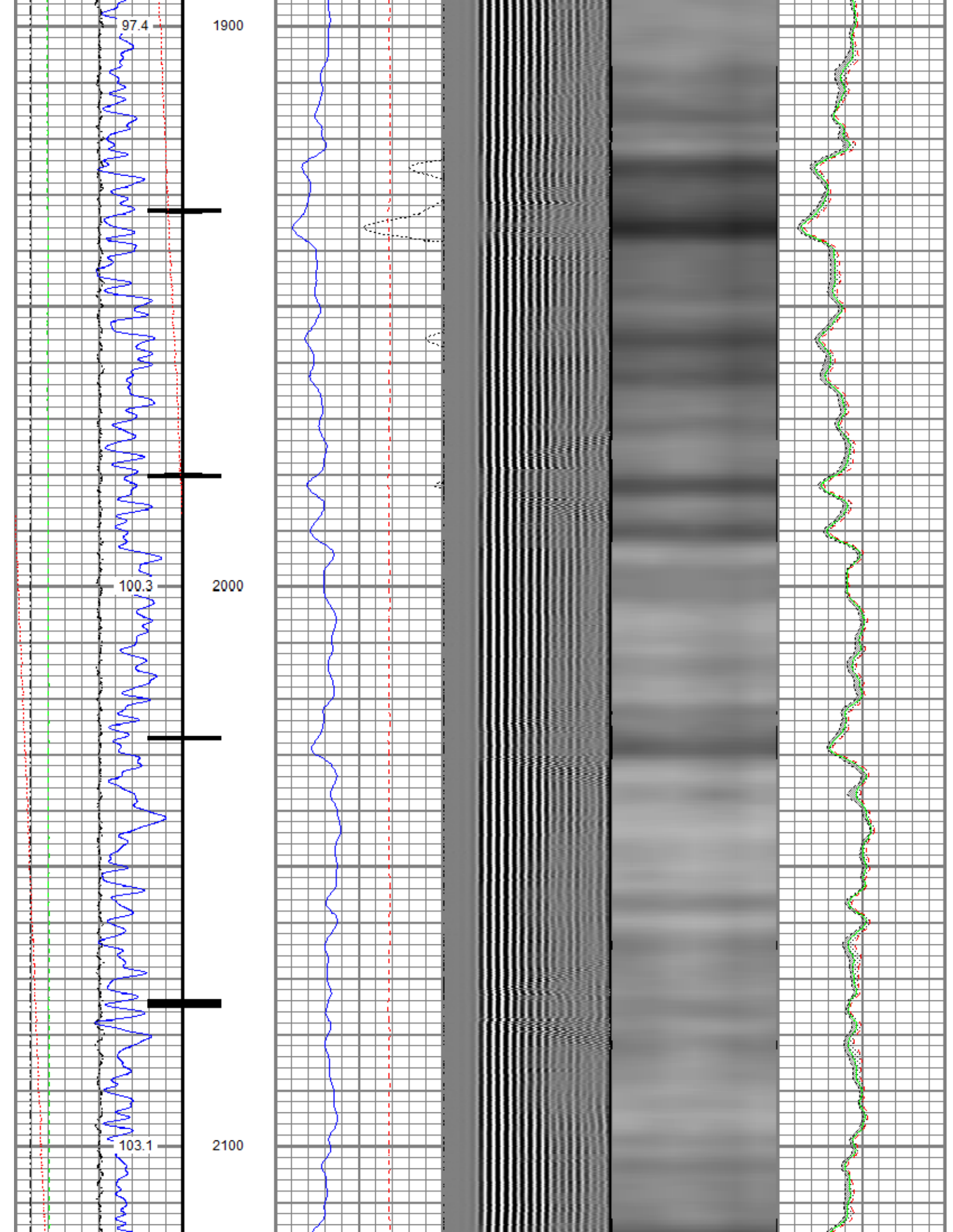




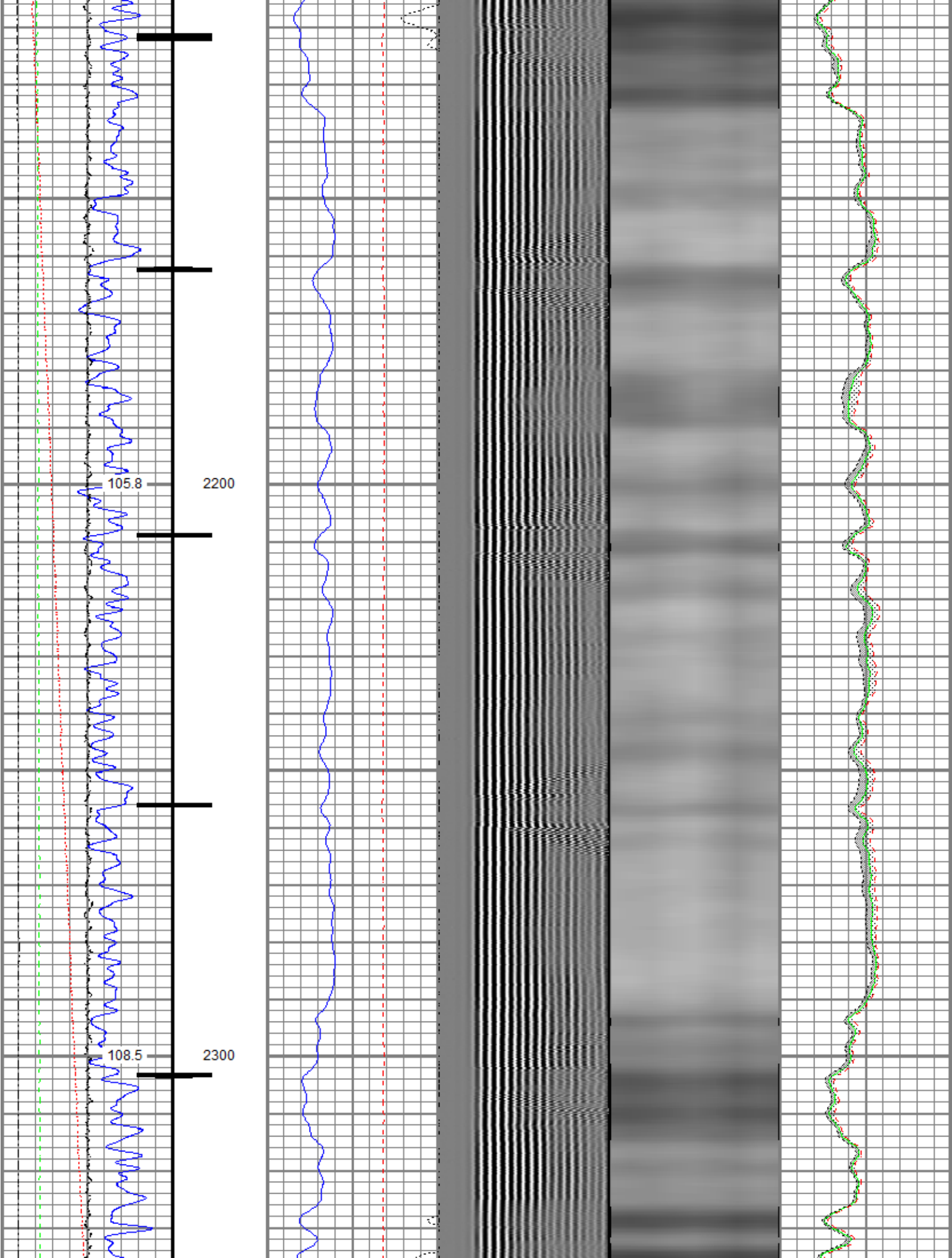




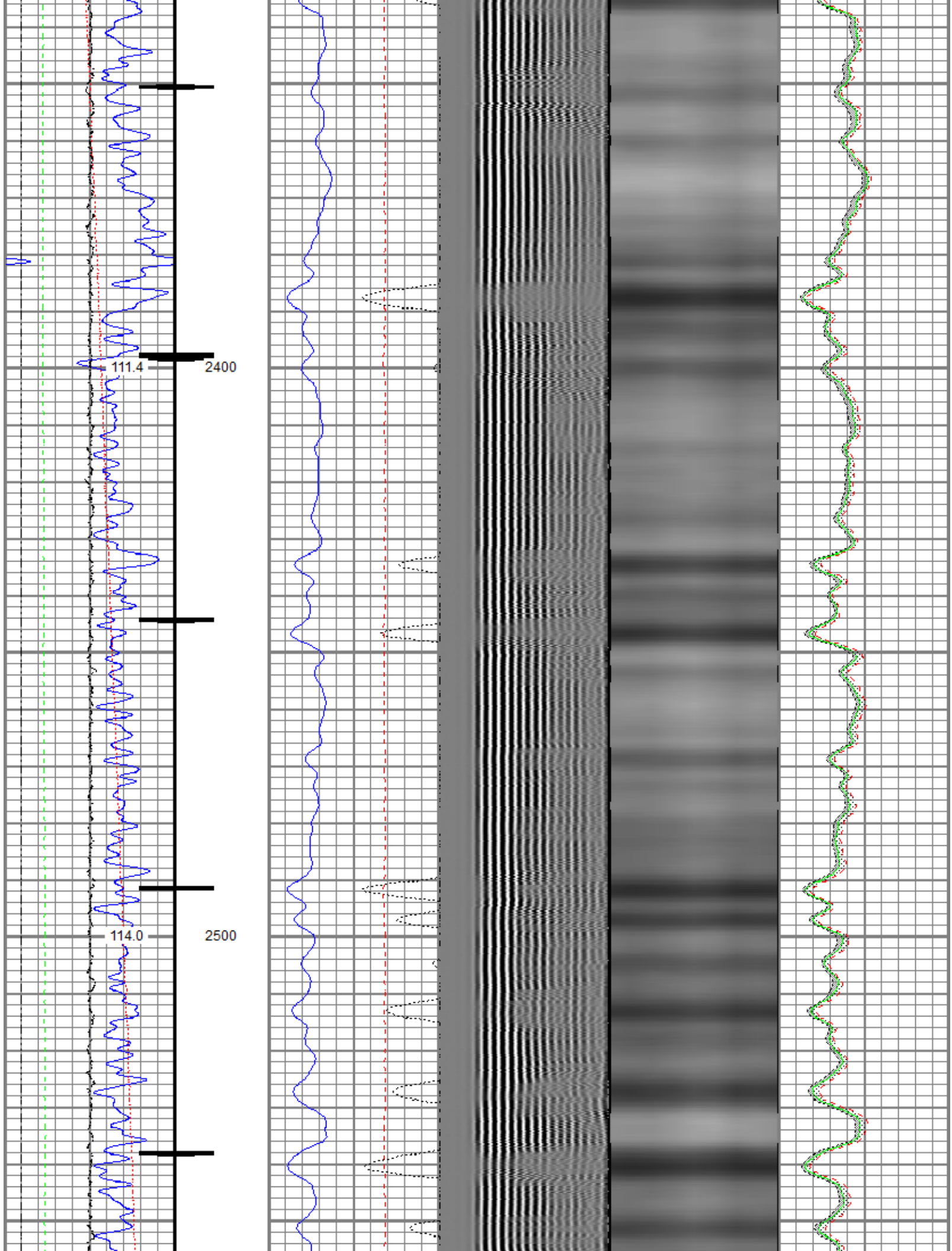


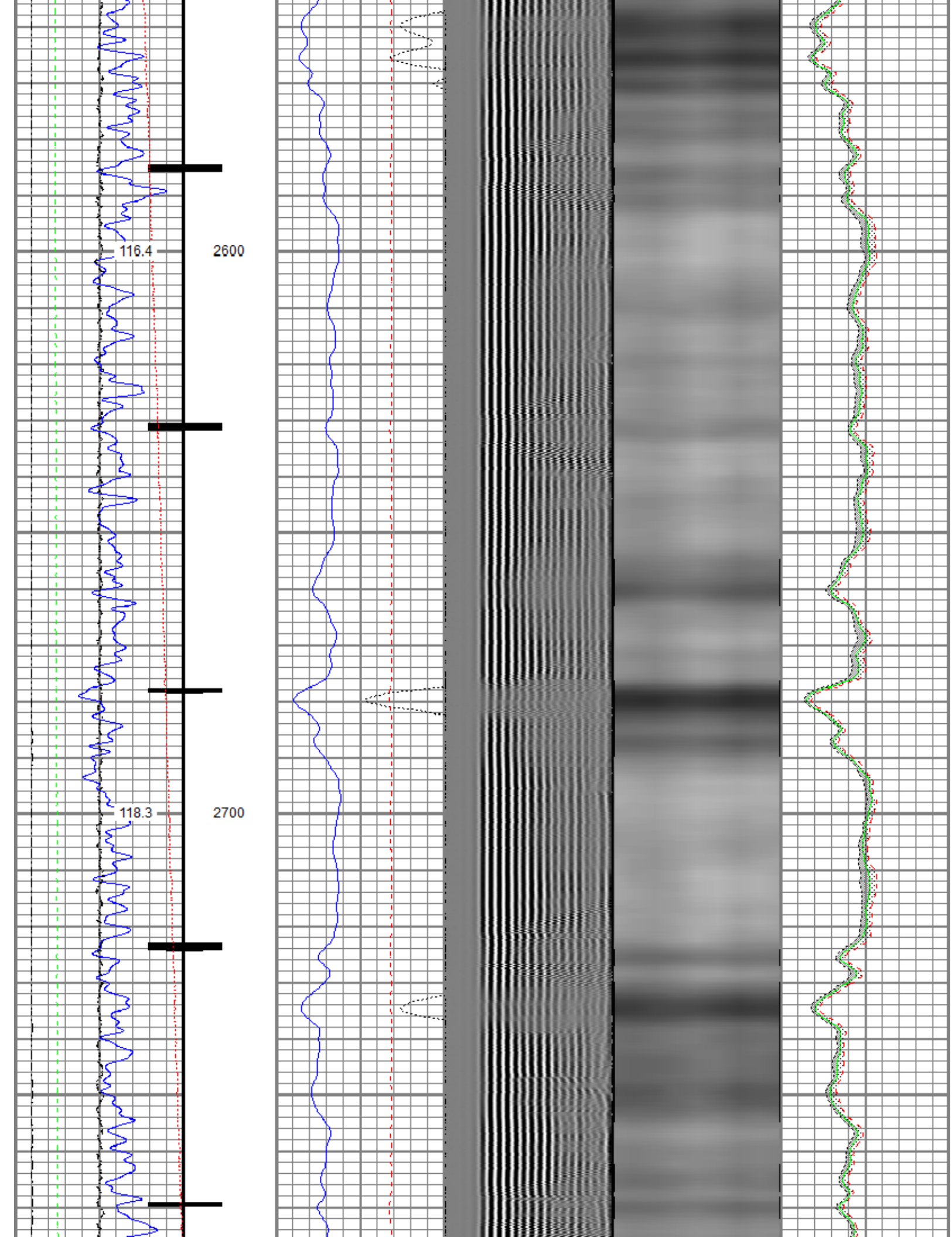


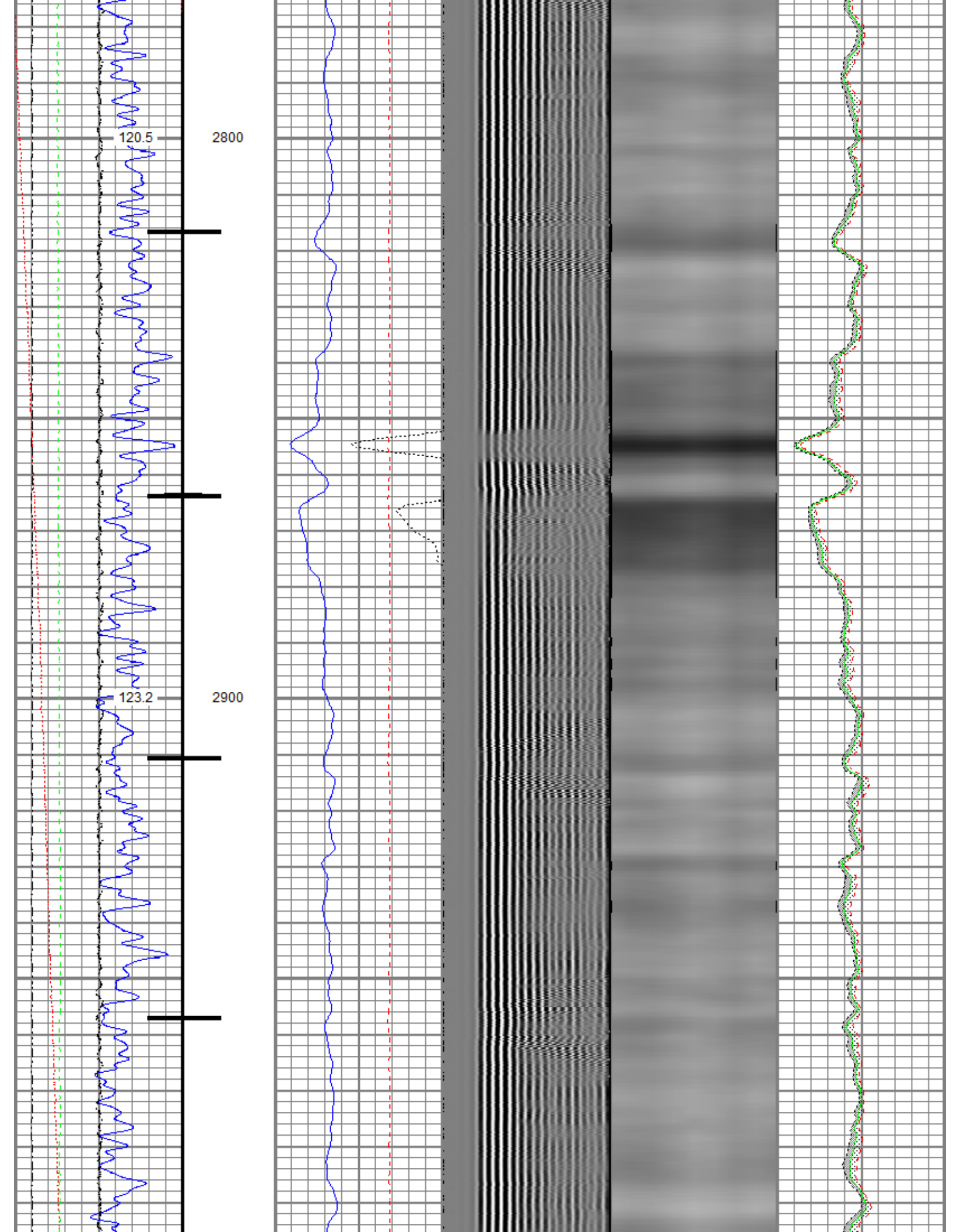




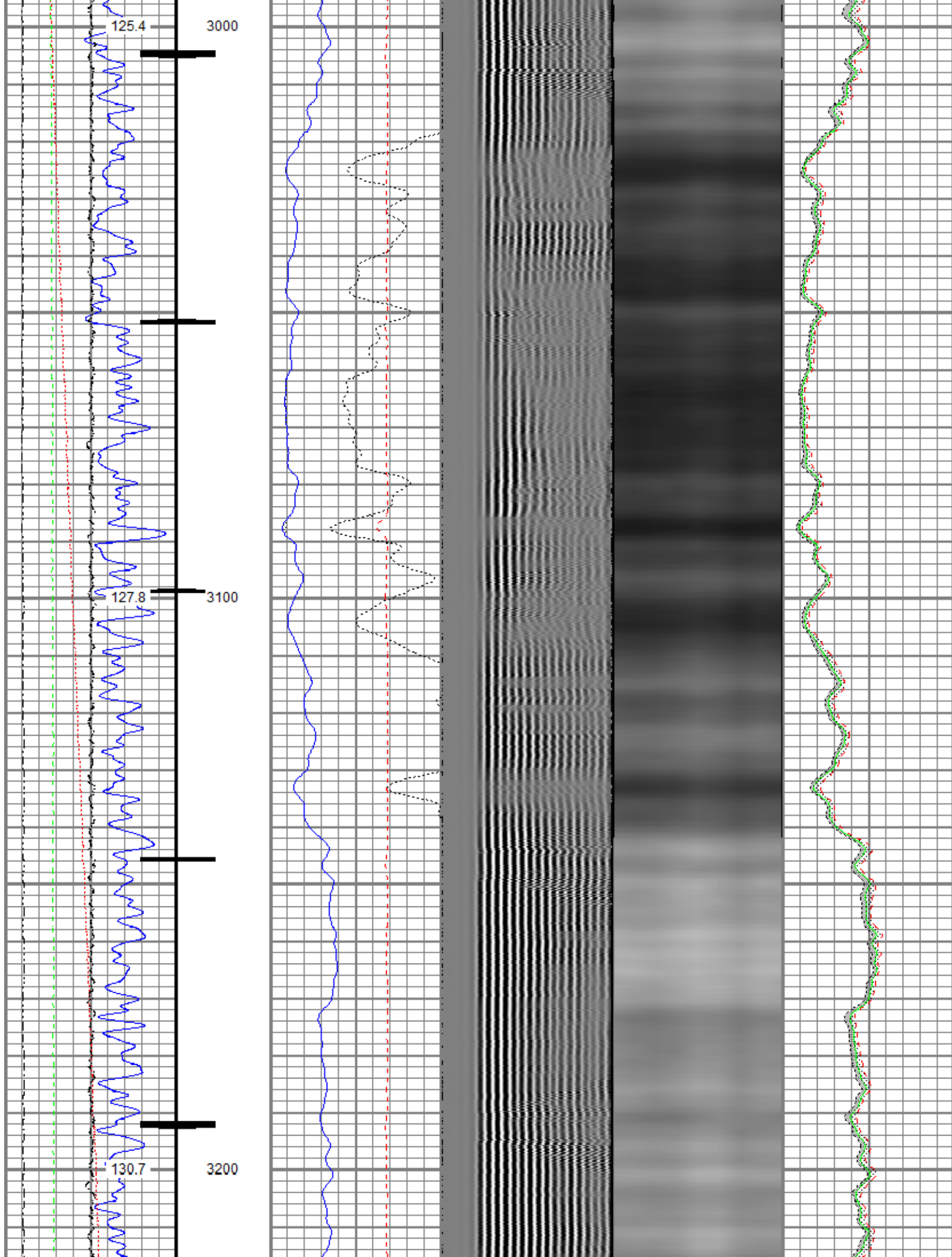




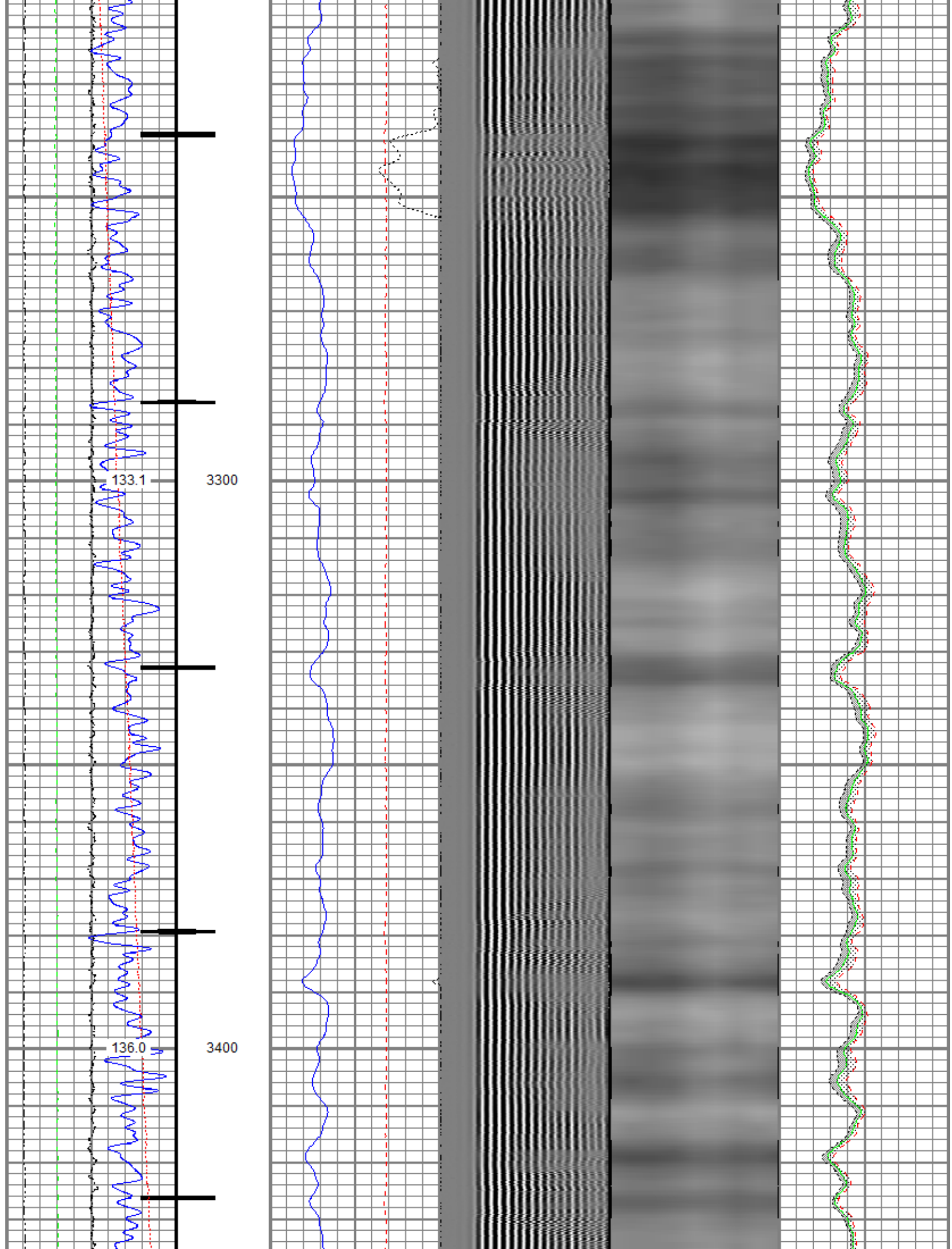


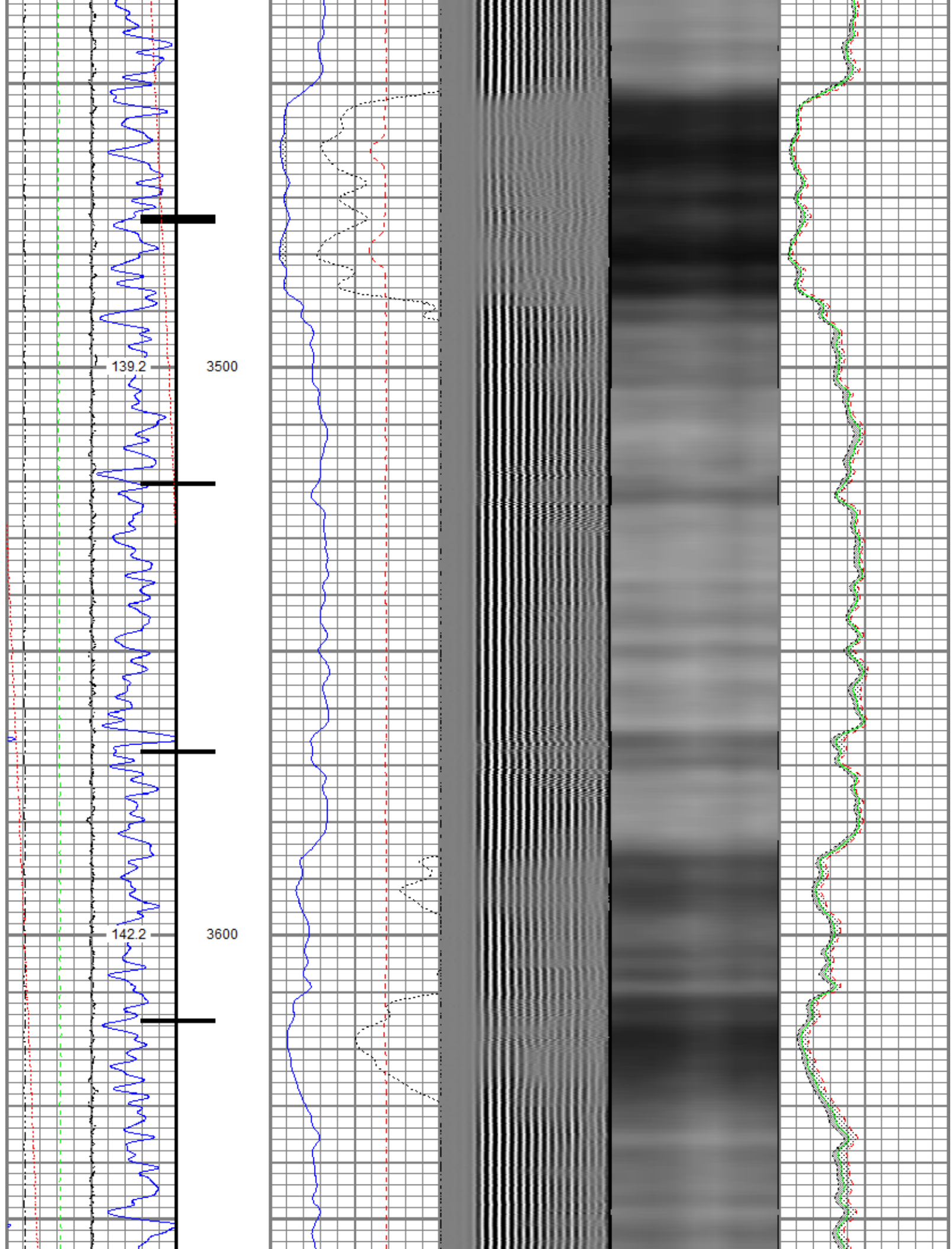


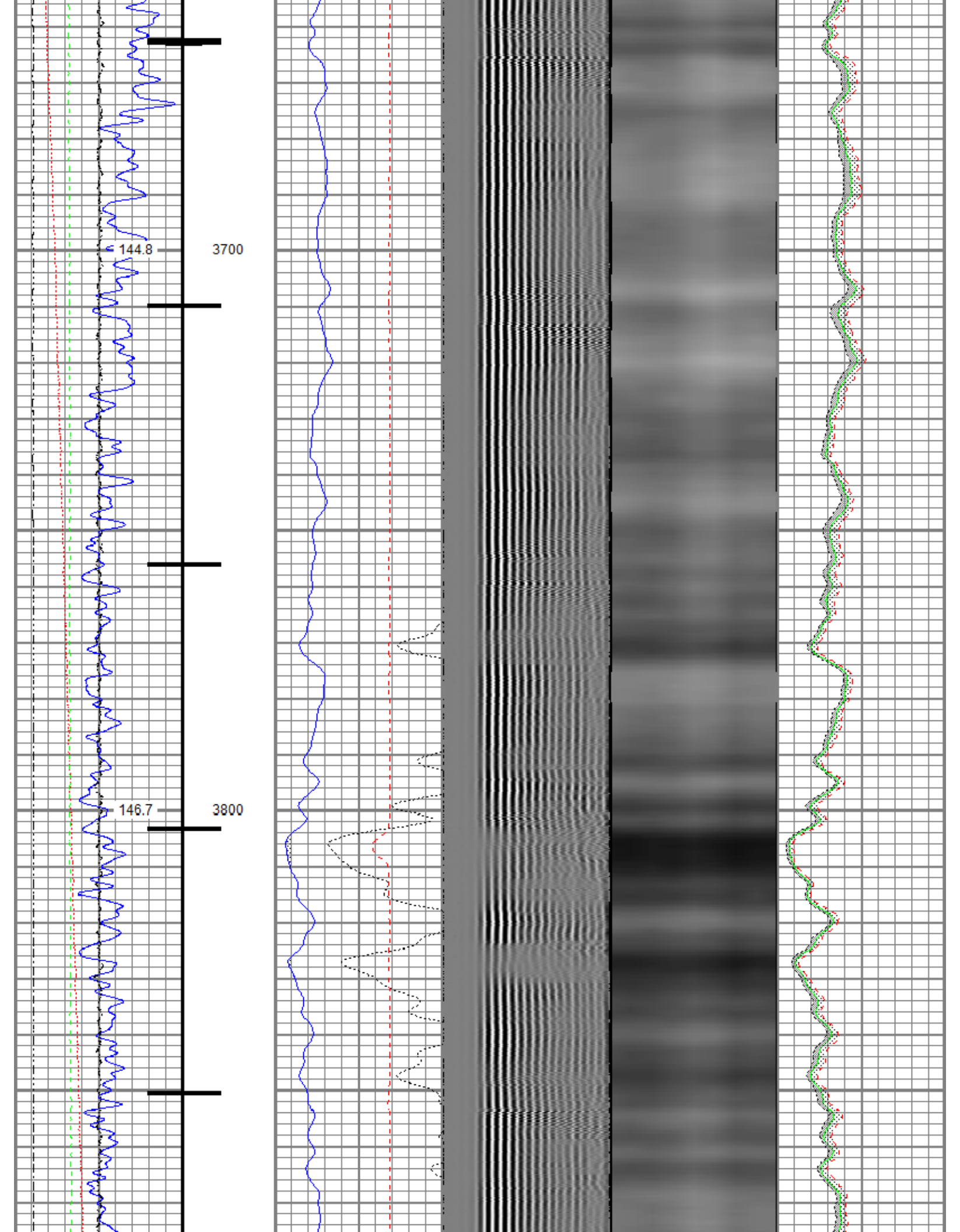




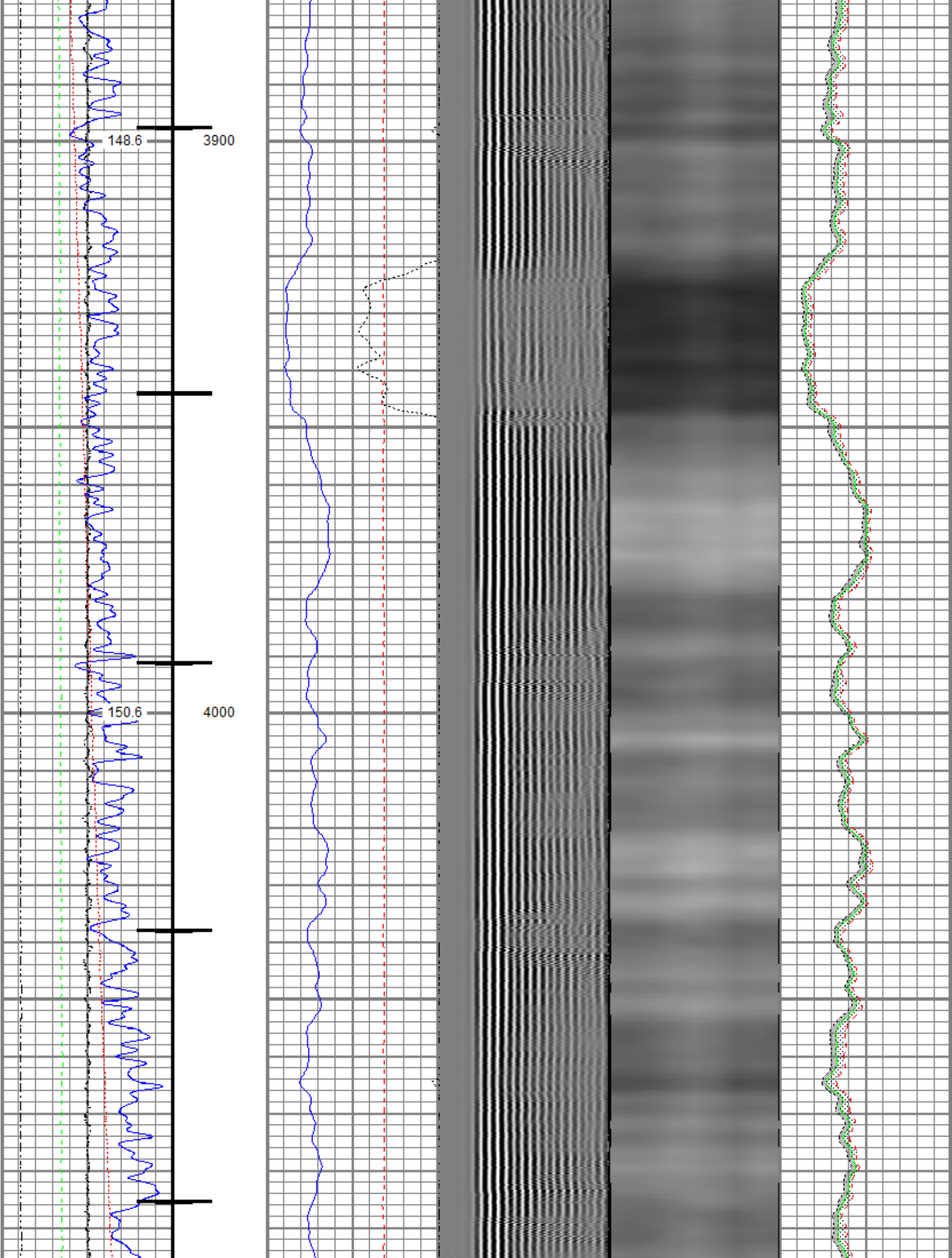




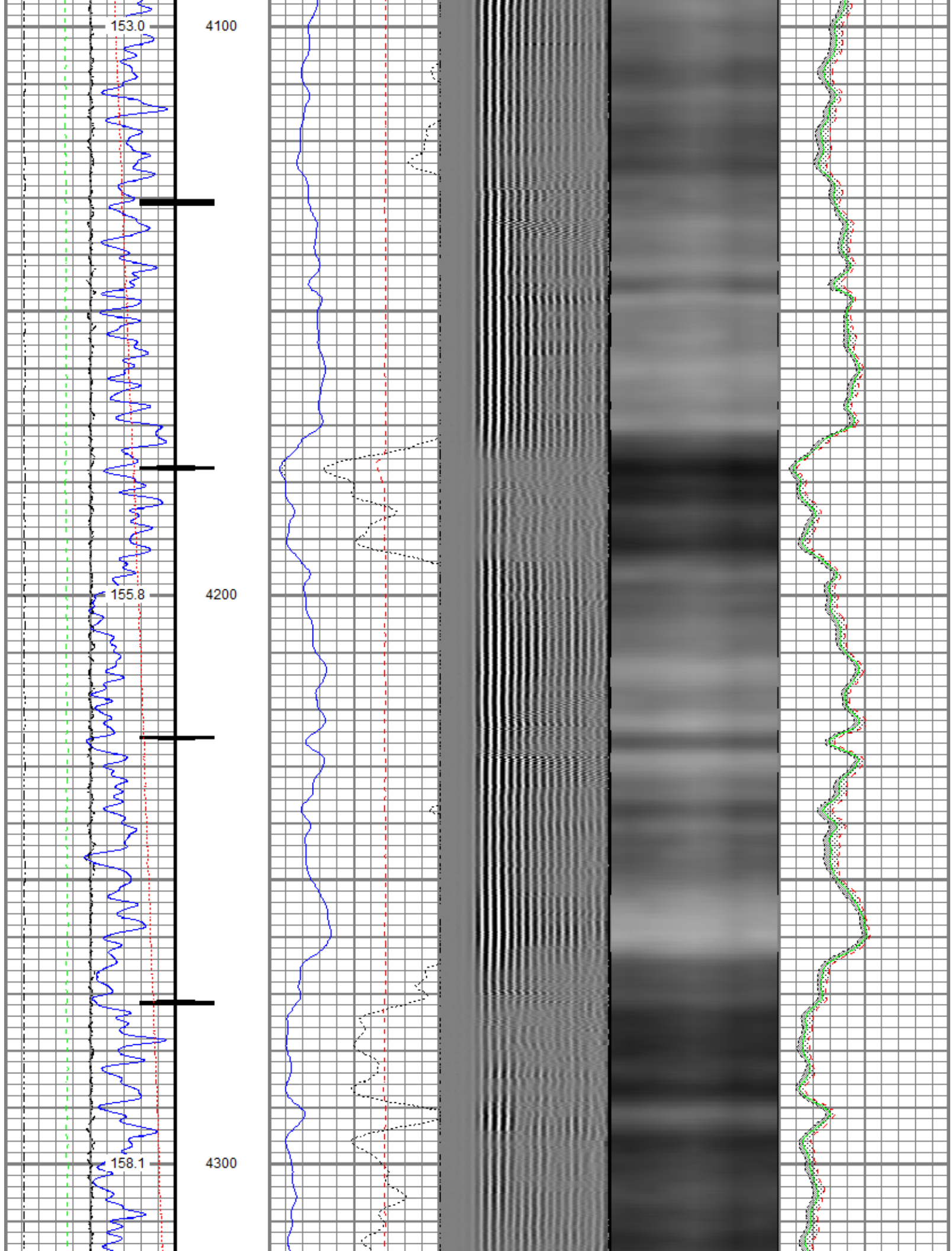


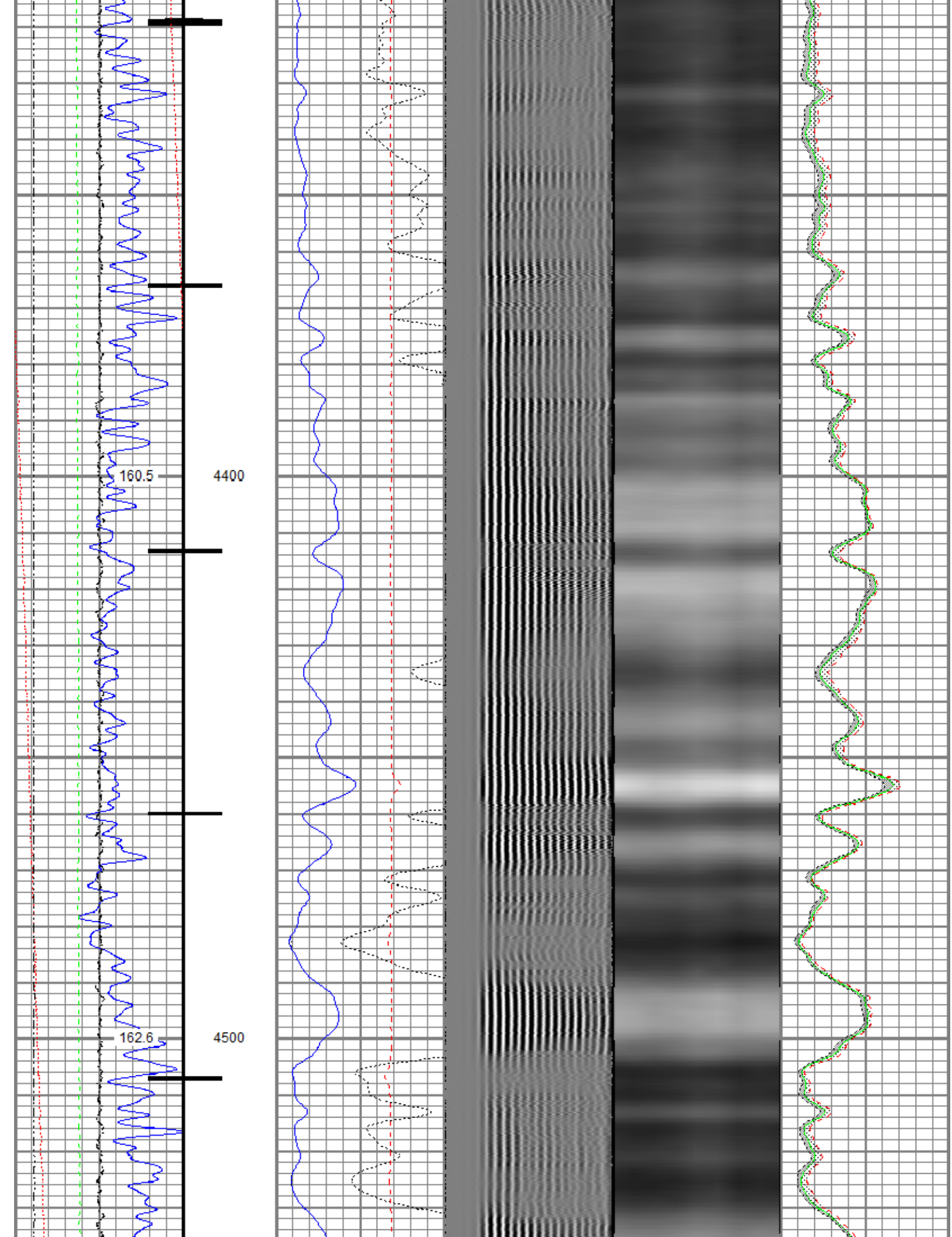


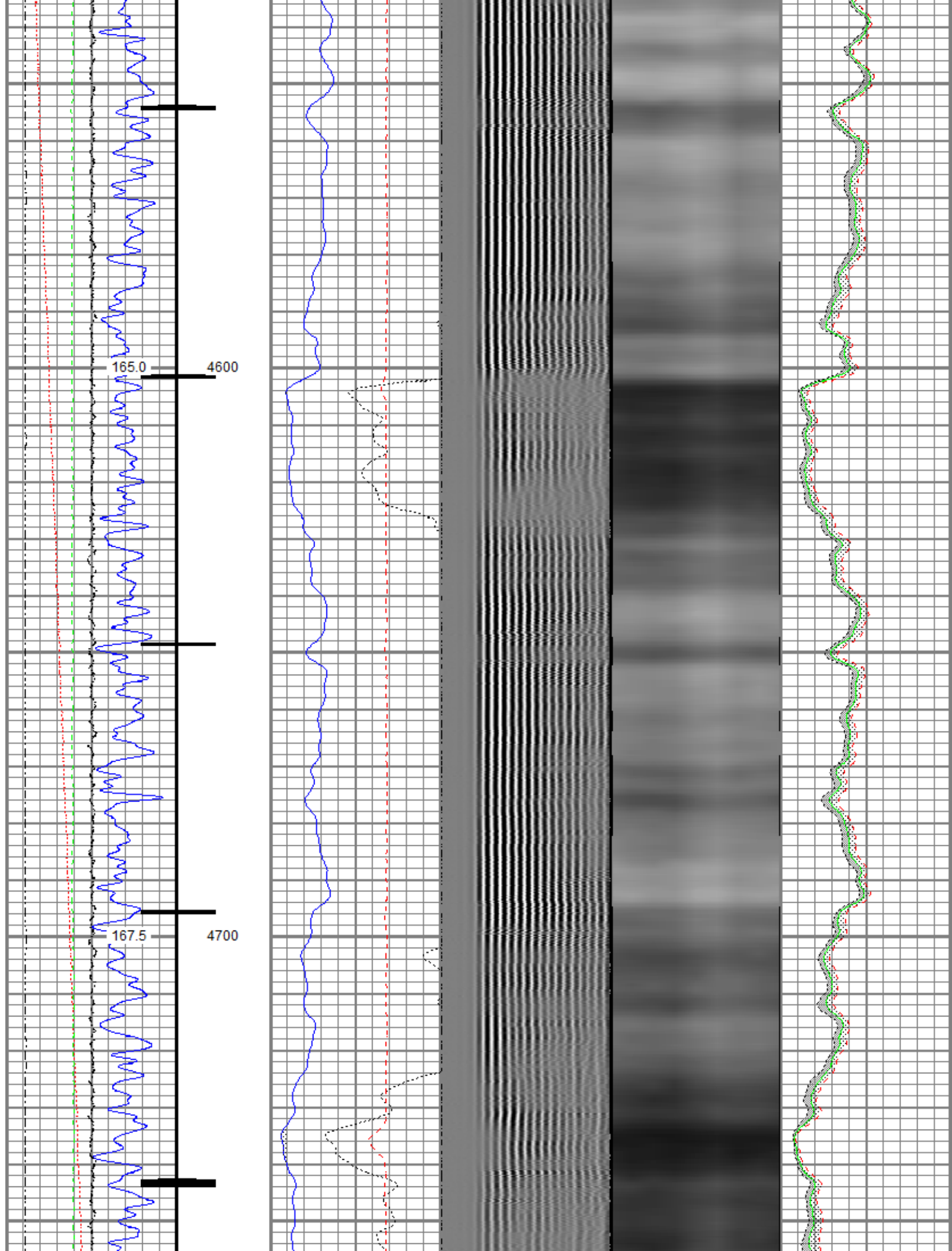




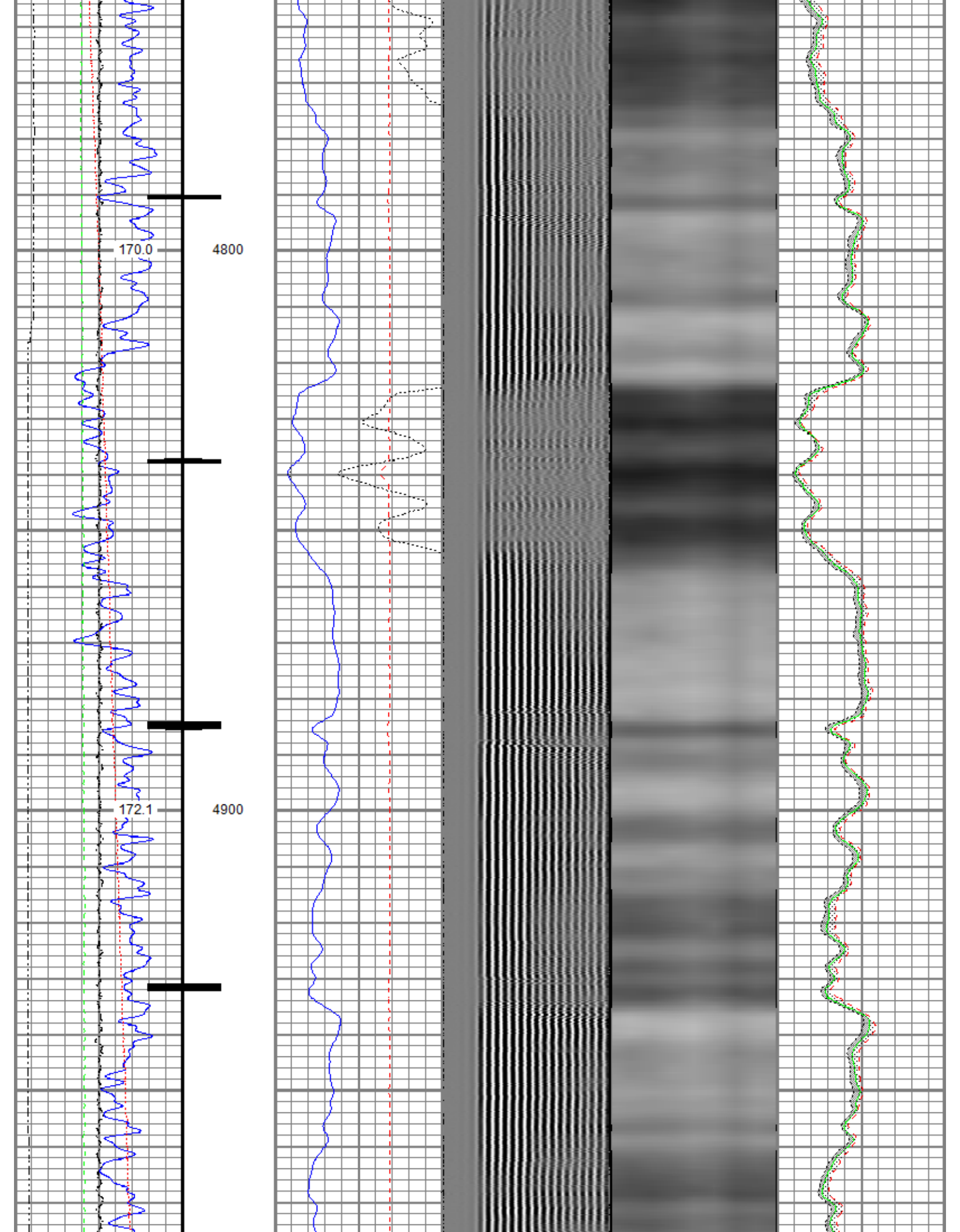




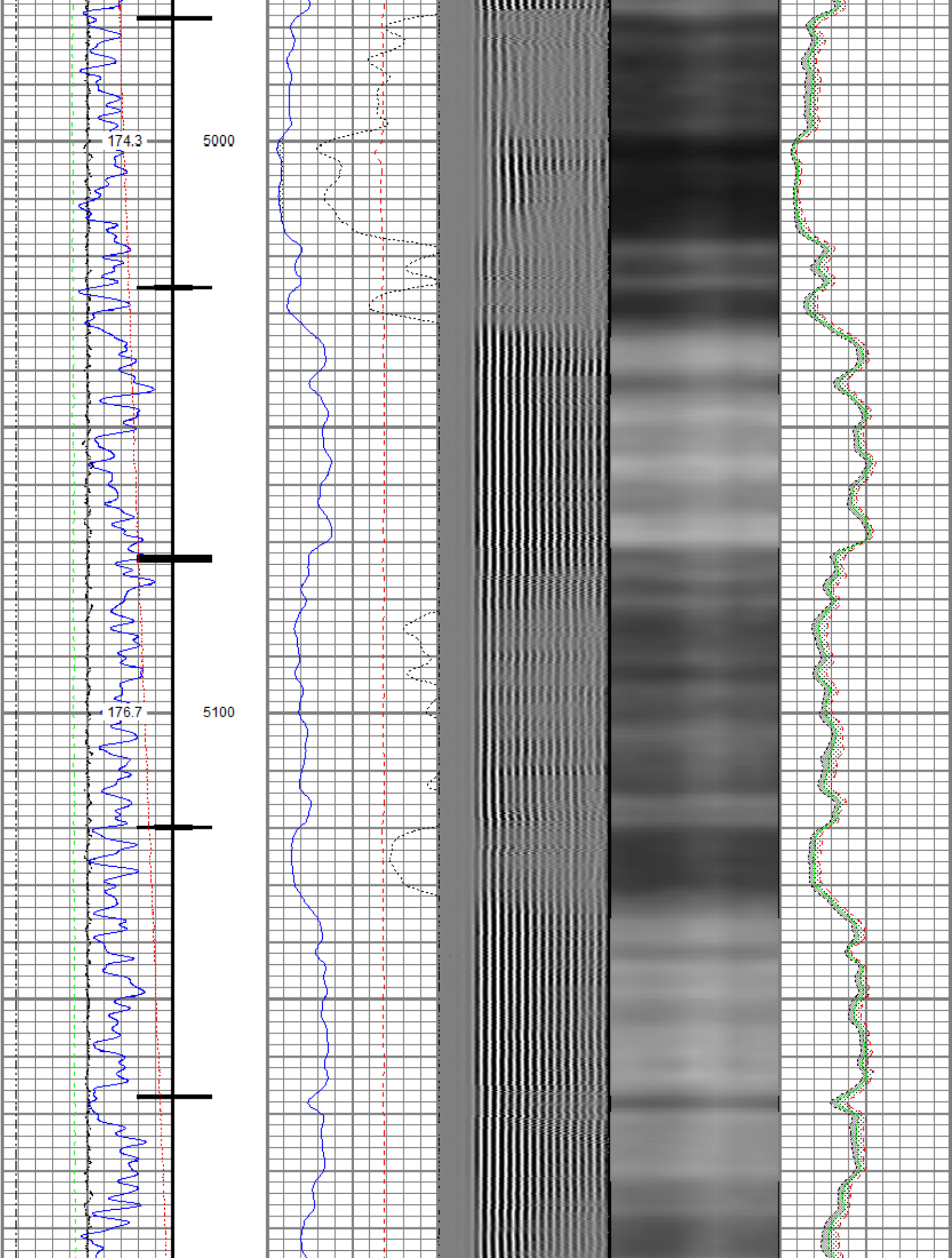


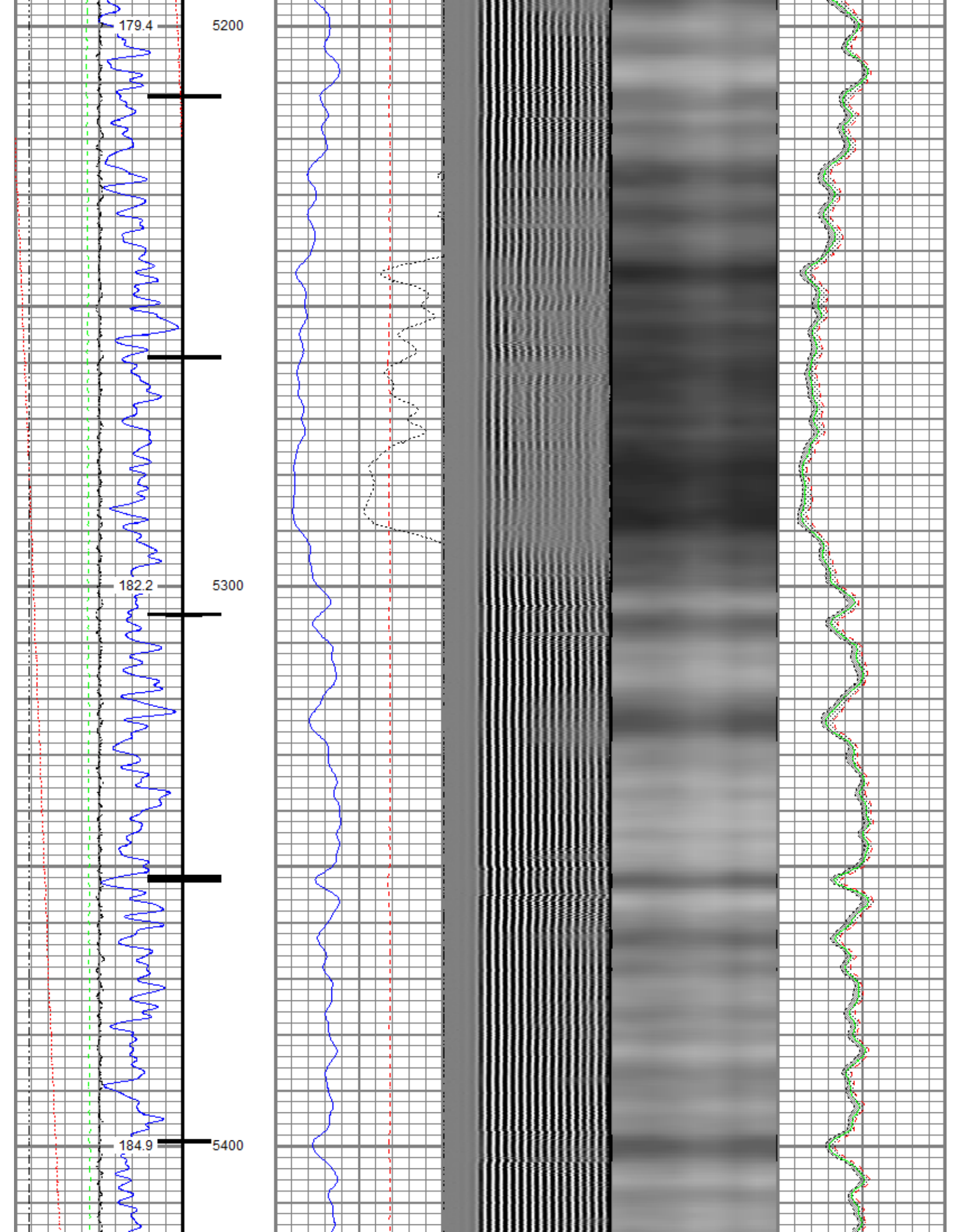


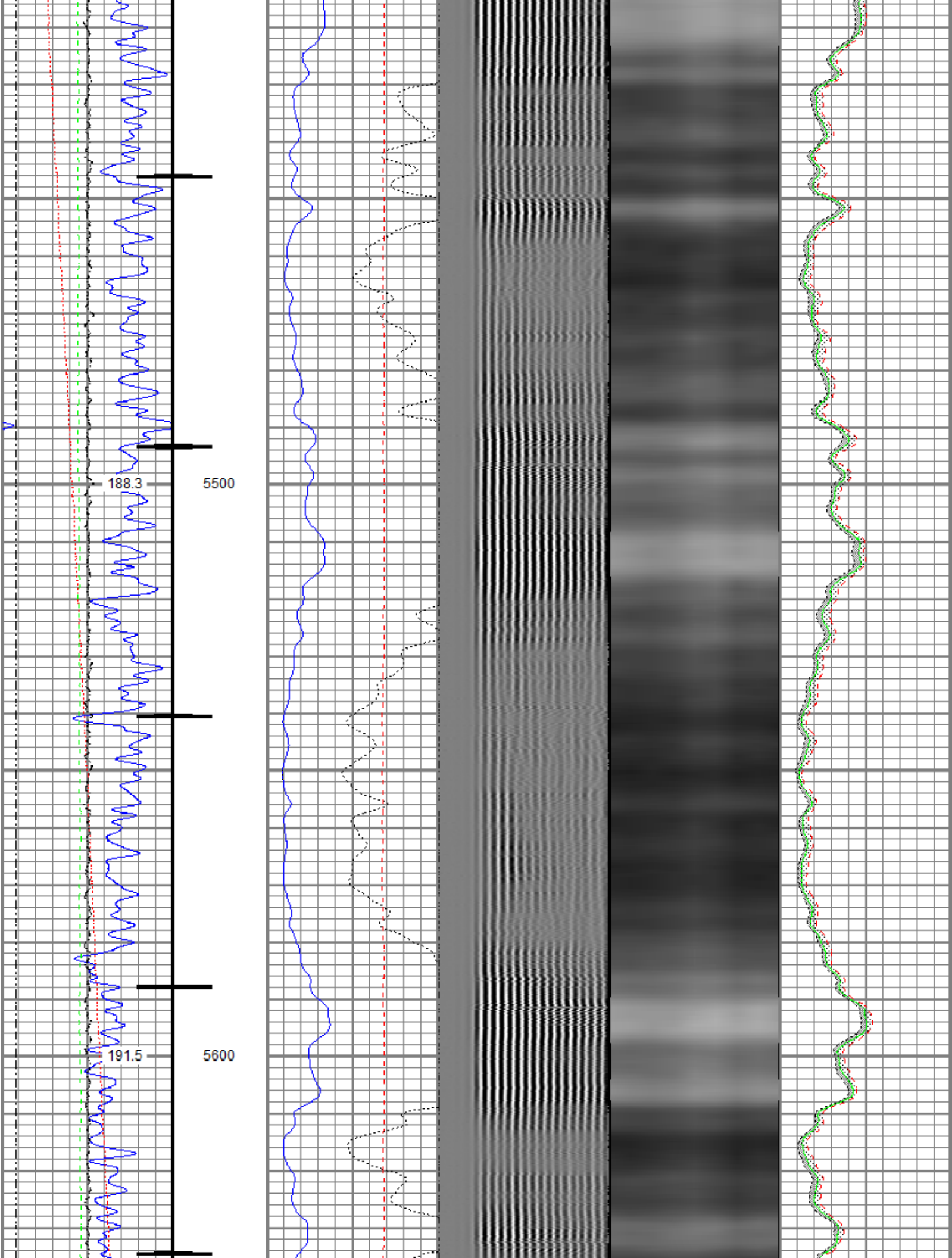




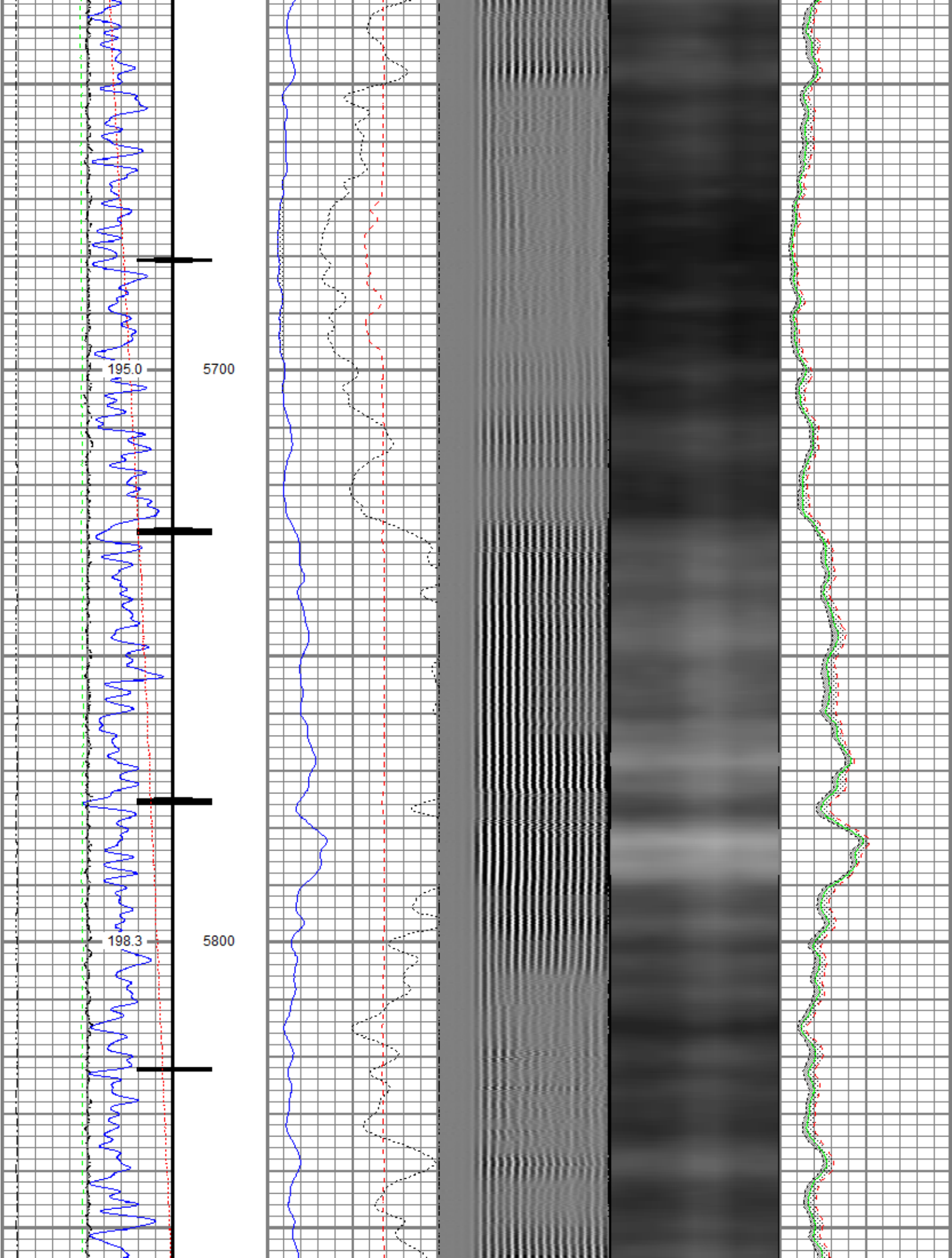




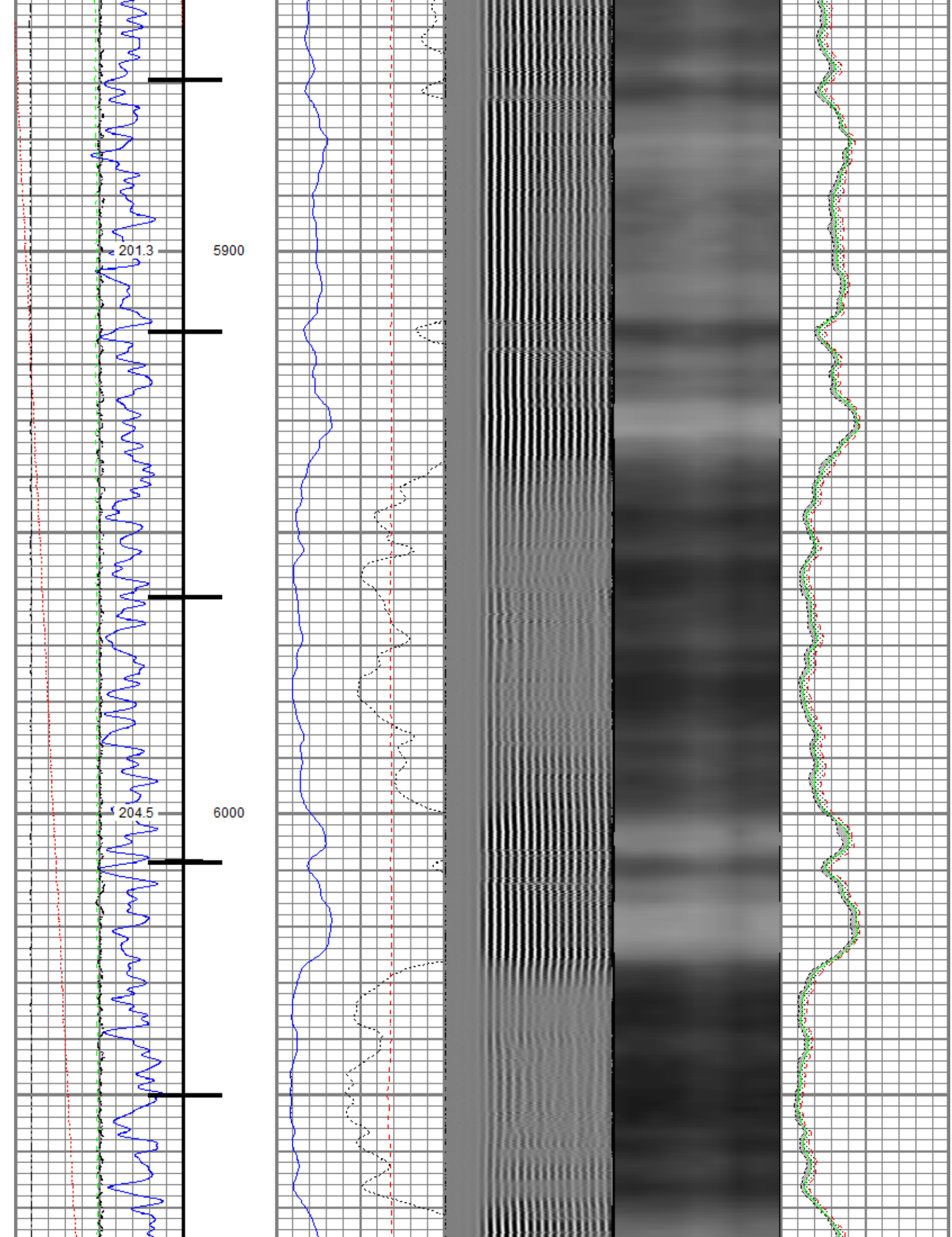


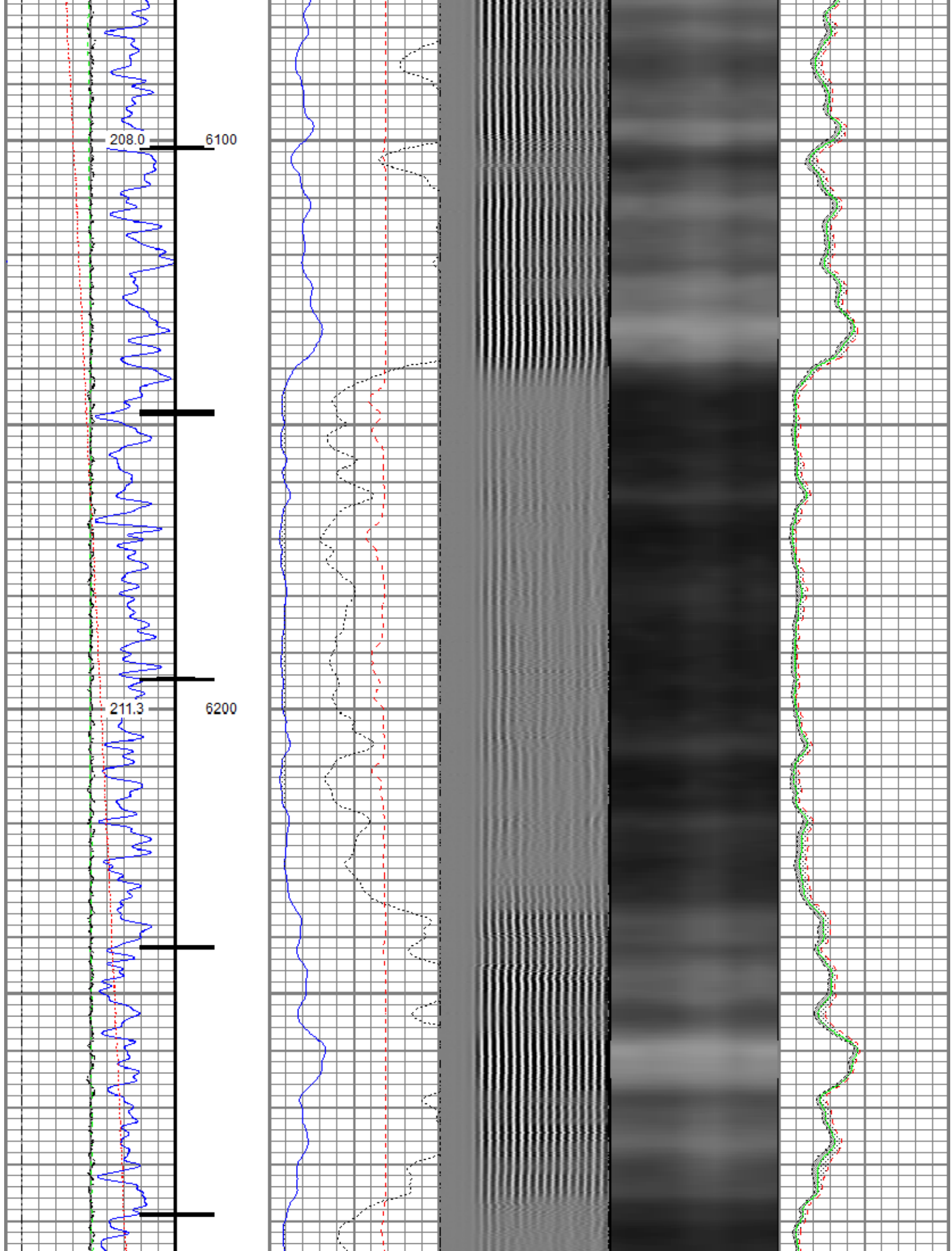


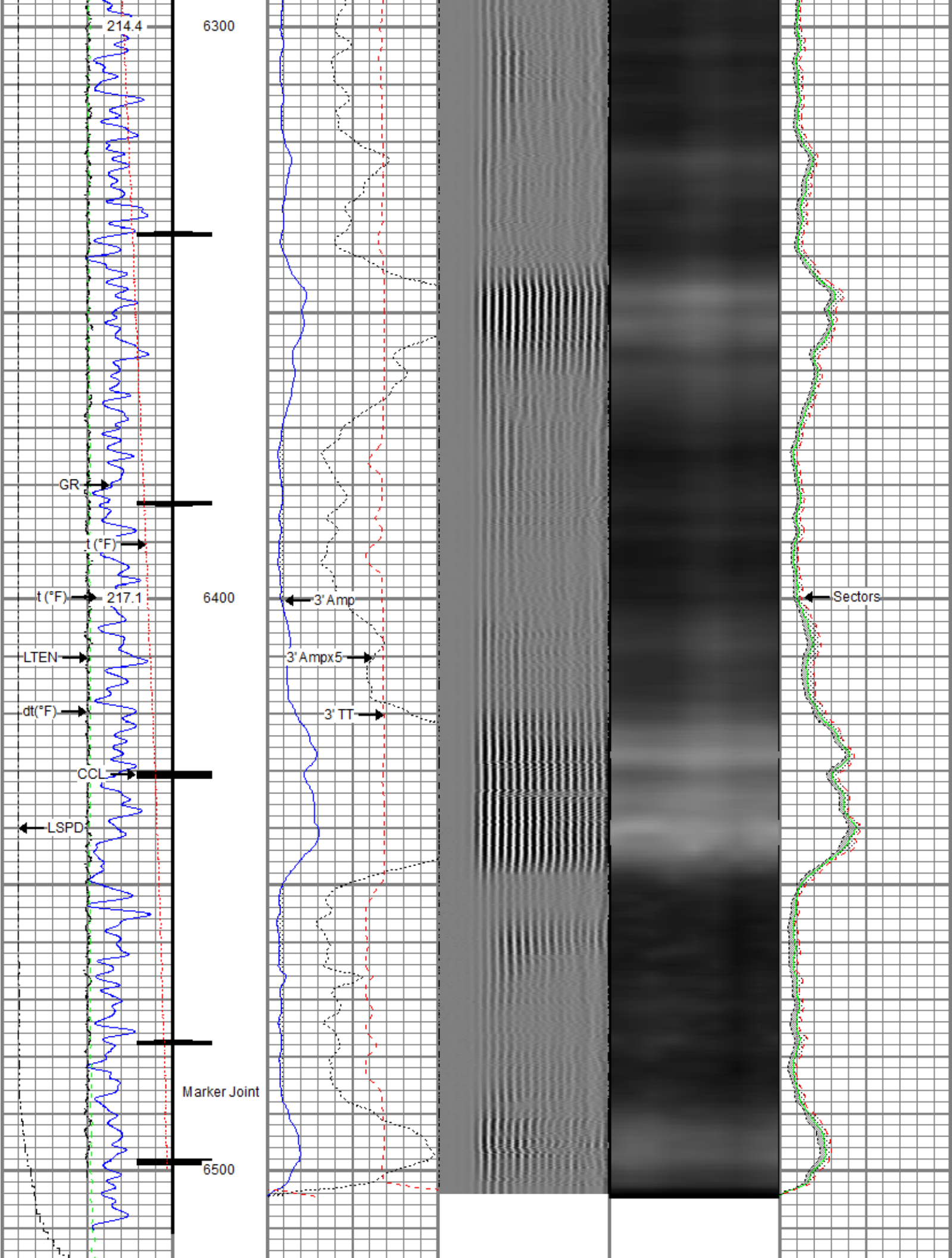












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(GAPI) 120		3' Amplitude x 5	200	1200		Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min) 150						
Line Tension (lb) 2000						
Differential Temperature						
-2 (degF) 2						

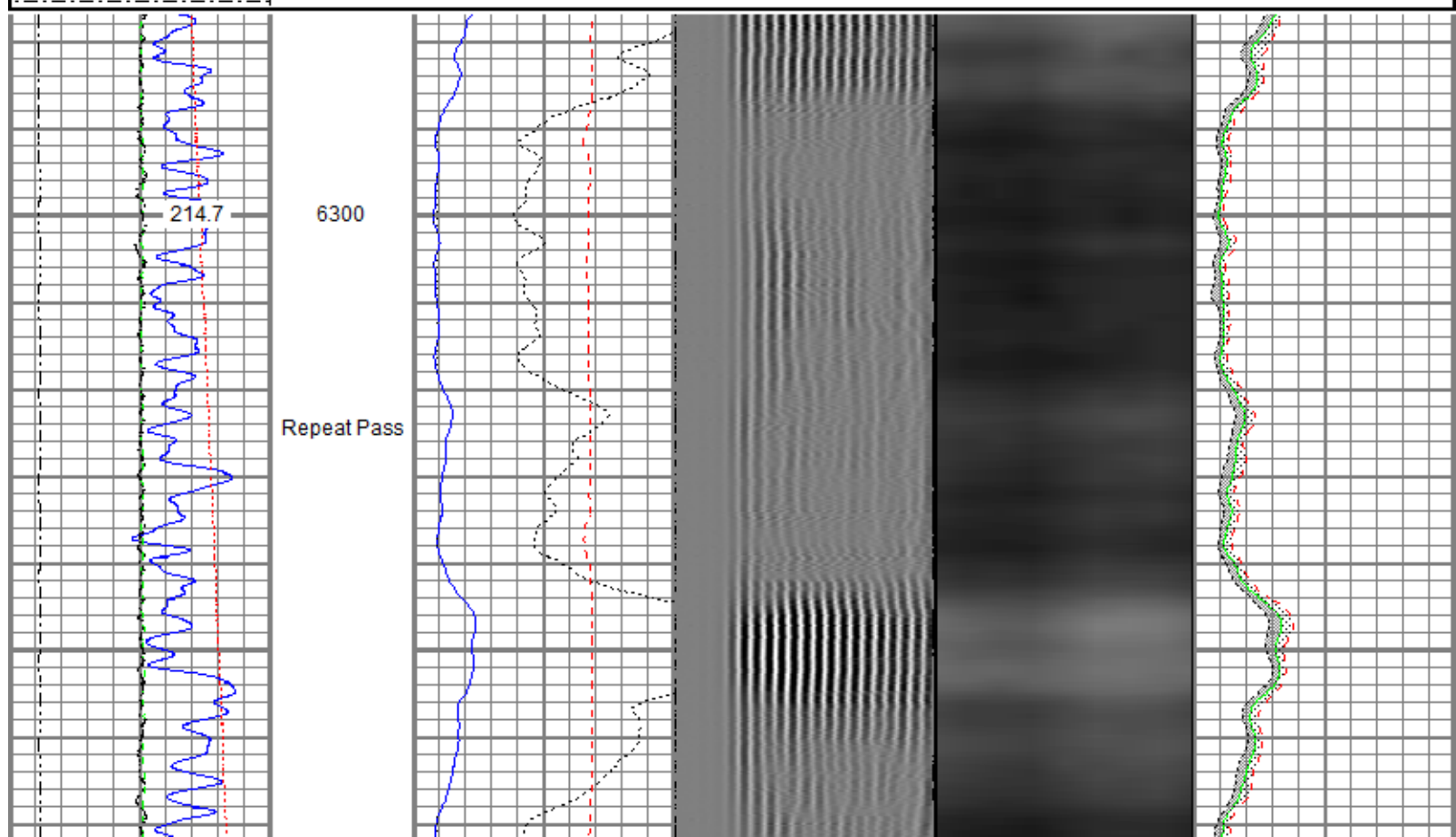


## Repeat Pass

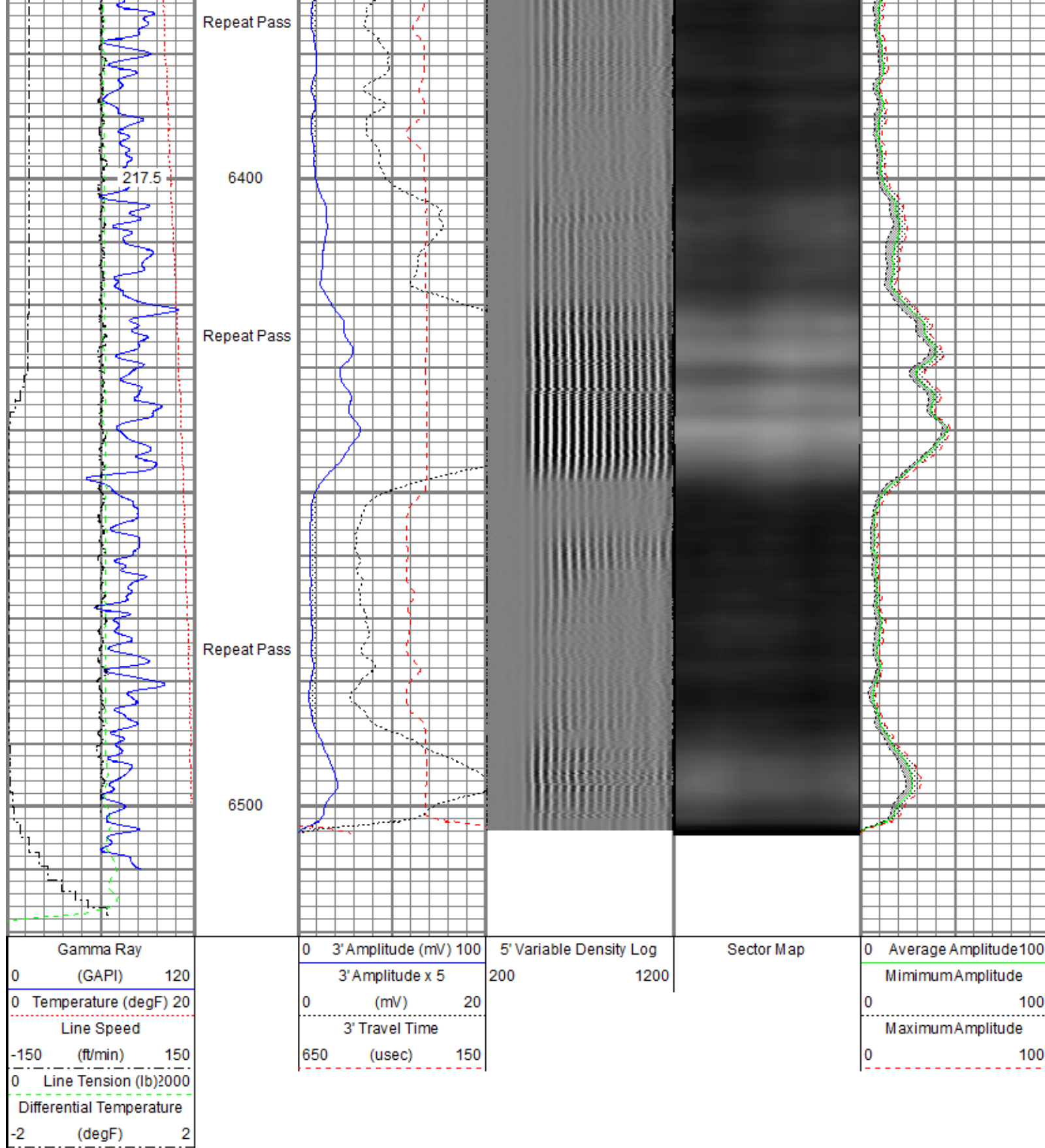
Recorded With 2500 PSI Surface Induced Pressure

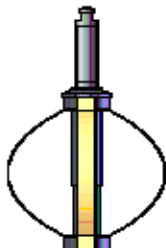
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Presentation Format ros\_radrii  
Dataset Creation Tue Apr 24 16:00:18 2018  
Charted by Depth in Feet scaled 1:240

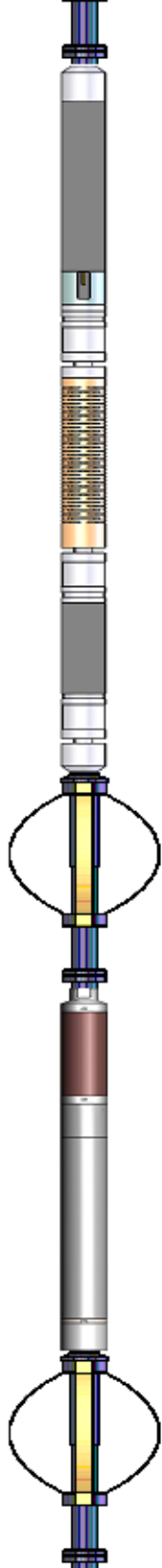
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(GAPI) 120		3' Amplitude x 5	200	1200		Minimum Amplitude
Temperature (degF) 20	0	(mV) 20			0	100
Line Speed		3' Travel Time				Maximum Amplitude
-150 (ft/min) 150	650	(usec) 150			0	100
Line Tension (lb) 2000						
Differential Temperature						
-2 (degF) 2						







Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.44	3.60
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00

TEMP	17.04					
WVFS8	14.81		Probe Radii-2750 RBT (FW1305-096)	9.39	2.75	105.00
WVFS7	14.81		Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub			
WVFS6	14.81					
WVFS5	14.81					
WVFS4	14.81					
WVFS3	14.81					
WVFS2	14.81					
WVFS1	14.81					
WVFCAL	14.81					
WVF3FT	14.81					
WVF5FT	13.81					
HEADVOLT	10.56					
CCL\$2	6.80		Probe CENT-2750	2.88	2.75	20.00
CCL\$1	6.80		Probe 2-3/4" Electric Inline Bowspring Centralizer			
GR	5.46	Probe GR-CCL-2750 6PB (101001)	4.80	2.75	55.00	
		Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT				
		Probe CENT-2750	2.88	2.75	20.00	
		Probe 2-3/4" Electric Inline Bowspring Centralizer				
Dataset: SRC Energy_Boomerang 34N-6C-M_RBL_04-24-18.db: field/well_14/RBL/pass4						
Total length: 23.86 ft						
Total weight: 223.60 lb						
O.D.: 2.75 in						

Calibration Report	
Database File	C:\ProgramData\Warrior\Data\SRC Energy_Boomerang 34N-6C-M\SRC Energy_Boomerang 34N-6C-M_RBL_04-24-18.db
Dataset Pathname	well_14/RBL/pass4
Dataset Creation	Tue Apr 24 16:04:17 2018
Gamma Ray Calibration Report	
Serial Number:	101001

Tool Model:	2750 6PB	
Performed:	Sun Nov 12 11:25:32 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	100.6	cps
Calibrator Reading:	981.1	cps
Sensitivity:	0.7235	GAPI/cps

### Segmented Cement Bond Log Calibration Report

Serial Number:	FW1305-096	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	-26.552	ft

Master Calibration, performed Tue Apr 24 13:56:41 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.005	0.333	0.800	71.921	216.788	-0.367
CAL	0.304	0.662				
5'	0.007	0.312	0.800	71.921	233.670	-0.897
SUM						
S1	0.002	0.319	0.000	100.000	315.780	-0.617
S2	0.006	0.331	0.000	100.000	307.422	-1.753
S3	0.006	0.350	0.000	100.000	290.598	-1.838
S4	0.007	0.347	0.000	100.000	294.075	-1.935
S5	0.006	0.342	0.000	100.000	296.876	-1.656
S6	0.005	0.337	0.000	100.000	301.508	-1.605
S7	0.007	0.327	0.000	100.000	312.825	-2.177
S8	0.005	0.325	0.000	100.000	313.238	-1.656

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.304	0.662	1.000	0.000

Air Zero Calibration, performed Tue Apr 24 13:56:15 2018:

	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	

### Temperature Calibration Report

Serial Number:	FW1305-096
Tool Model:	2750 RBT
Performed:	Sun Nov 12 13:42:10 2017

Reference	Reading
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Low Reference:	100.00	degF	109.43	degF
High Reference:	350.00	degF	405.87	degF

Gain:	0.84
Offset:	7.72
Delta Spacing	1



Company	SRC Energy Inc
Well	Boomerang 34N-6C-M
Field	Wattenberg
County	Weld
State	Colorado