



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company Kerr-McGee Oil & Gas Onshore, L.P.
Well Nelson 35-15HZ
Field Wattenberg
County Weld State Colorado

Location:		API #: 05-123-51252		Other Services
SEC 35 TWP 2N RGE 68W				
Permanent Datum	Ground Level	Elevation	4955'	JBGR
Log Measured From	Ground Level	0 FT		
Drilling Measured From	Kelly Bushing			
				Elevation
				K.B. 4975'
				D.F. ---
				G.L. 4955'

Date	14-MAY-2021						
Run Number	One						
Depth Driller	16412 FT						
Depth Logger	7368 FT						
Bottom Logged Interval	7354 FT						
Top Log Interval	Surface						
Open Hole Size	7.875"						
Type Fluid	Water						
Density / Viscosity	8.34 lb/gal						
Max. Recorded Temp.	224°F						
E. estimated Cement Top	See Log						
Time Well Ready	ROA						
Time Logger on Bottom	08:41						
E. equipment Number	HD-361						
Location	Platteville, CO						
Recorded By	S. Lopez						
Witnessed By	J. McMillan						
Borehole Record							
Run Number	Bit	From	To	Size	Weight	From	To
Tubing Record							
Casing Record	Size (in)	Wgt (lbs/ft)	Grade	Top	Bottom		
Surface Casing	9 5/8	36	J-55	Surface	1892 FT		
Intermediate #1	5 1/2	17	HC P-110	Surface	16403 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 Casing Tally reported Marker Joint at 6990 FT
Adjusted +22 FT to correlate with Marker Joint
Gauge Ring/Junk Basket ran to 7495 FT
Log ran with 2800 PSI Surface Induced Pressure
Logging tools were clean and free of debris upon completion of operations

Thank you for choosing Reliance Oilfield Services, LLC!!

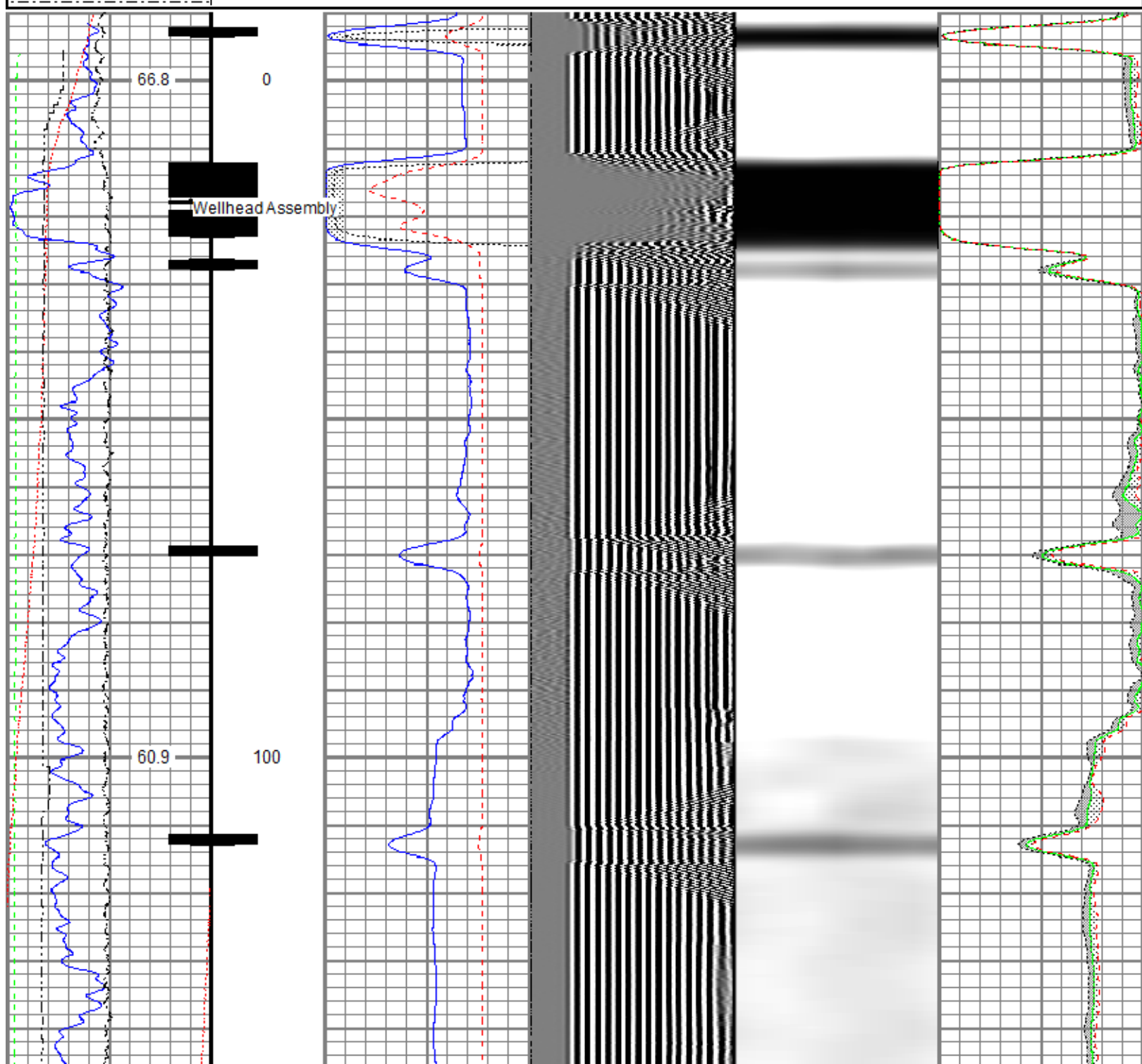
Main Pass

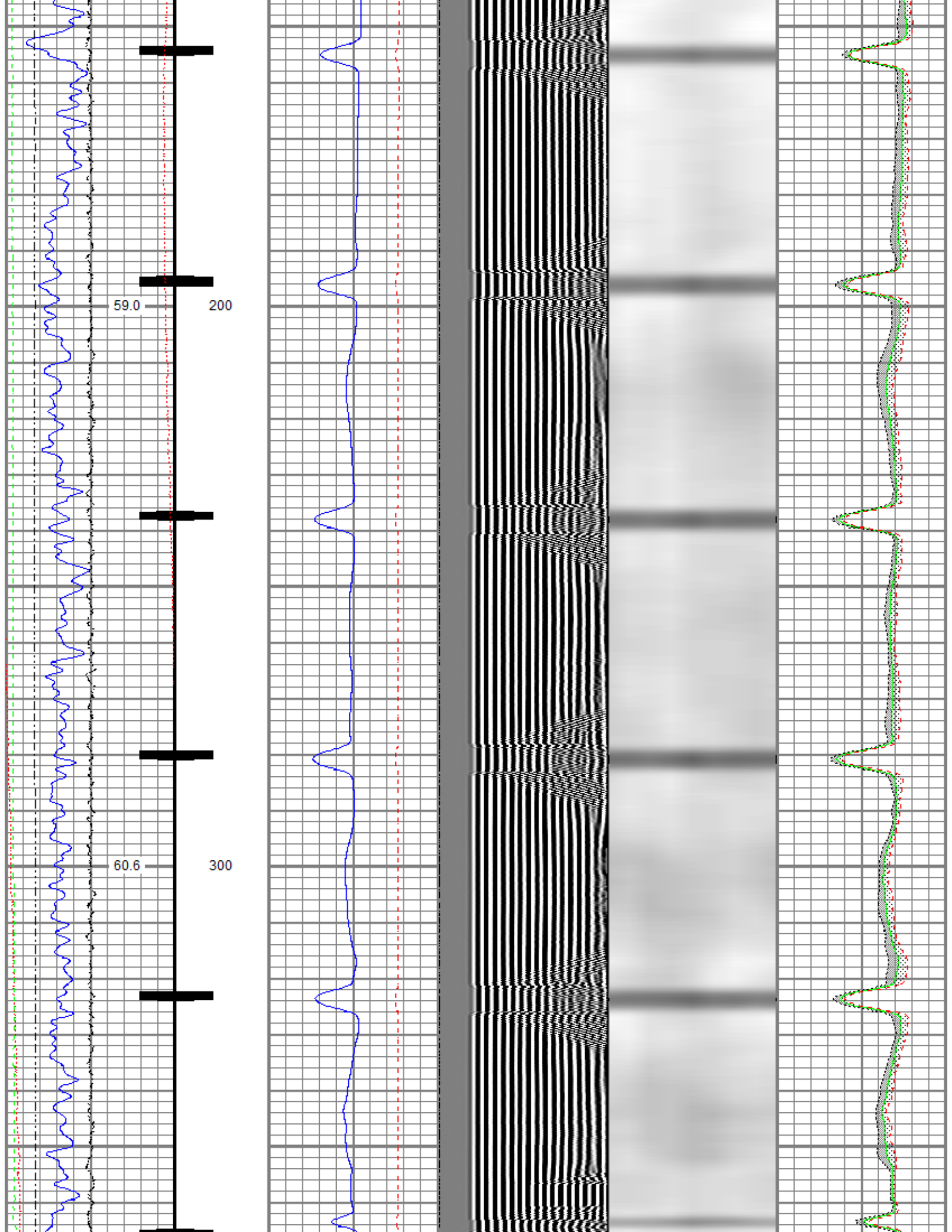


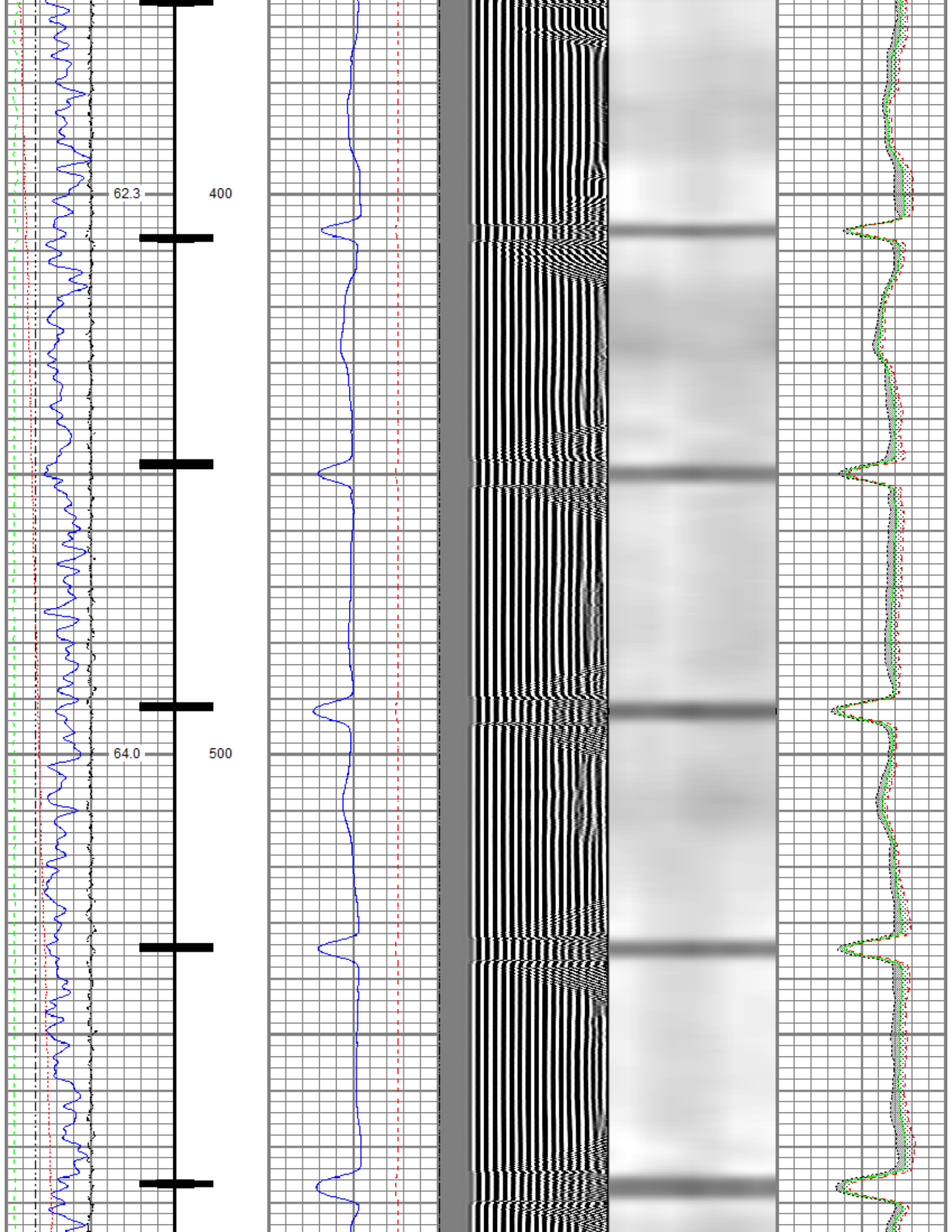
Recorded With 2800 PSI Surface Induced Pressure

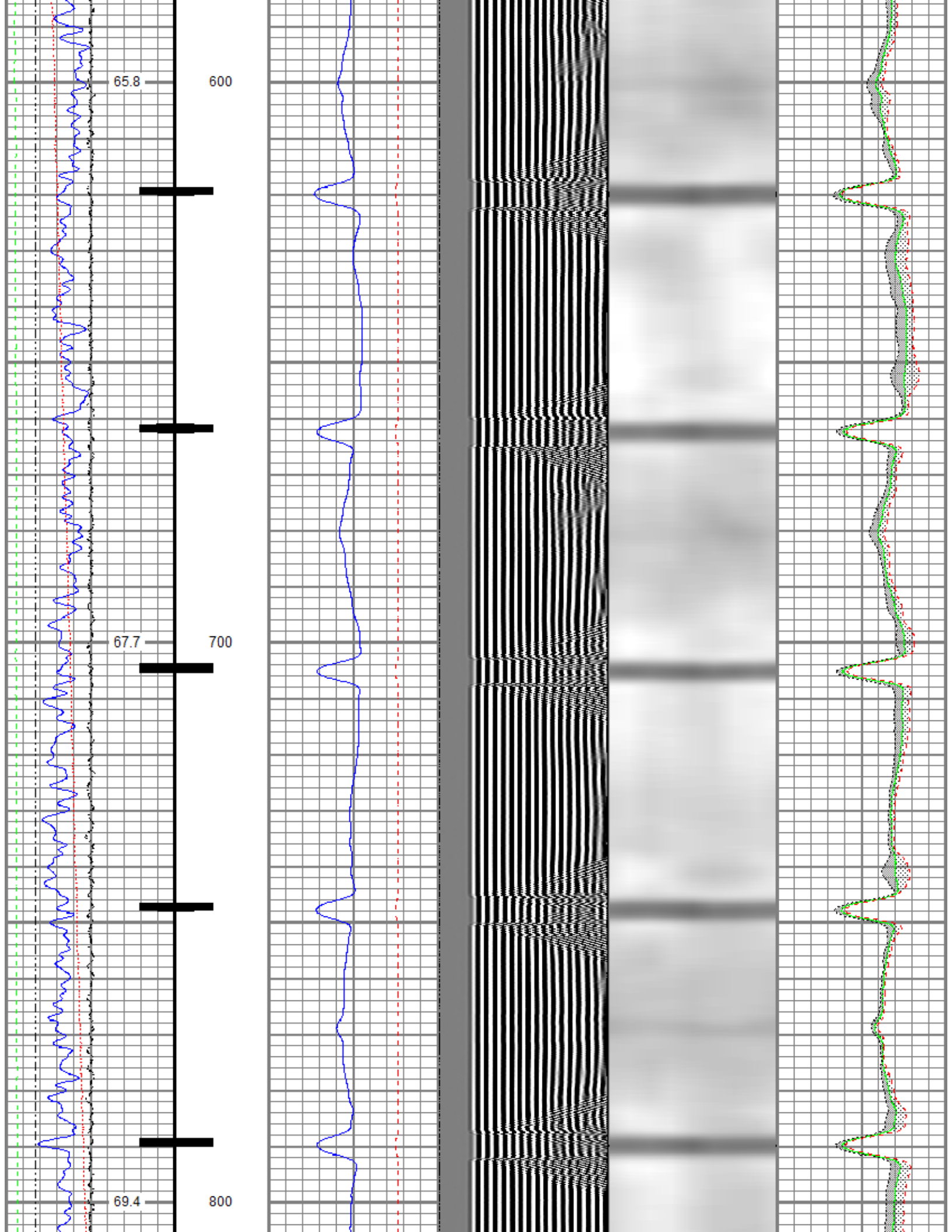
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Dataset Pathname pass11.2
Presentation Format ros_radrii
Dataset Creation Sat May 15 07:50:55 2021
Charted by Depth in Feet scaled 1:240

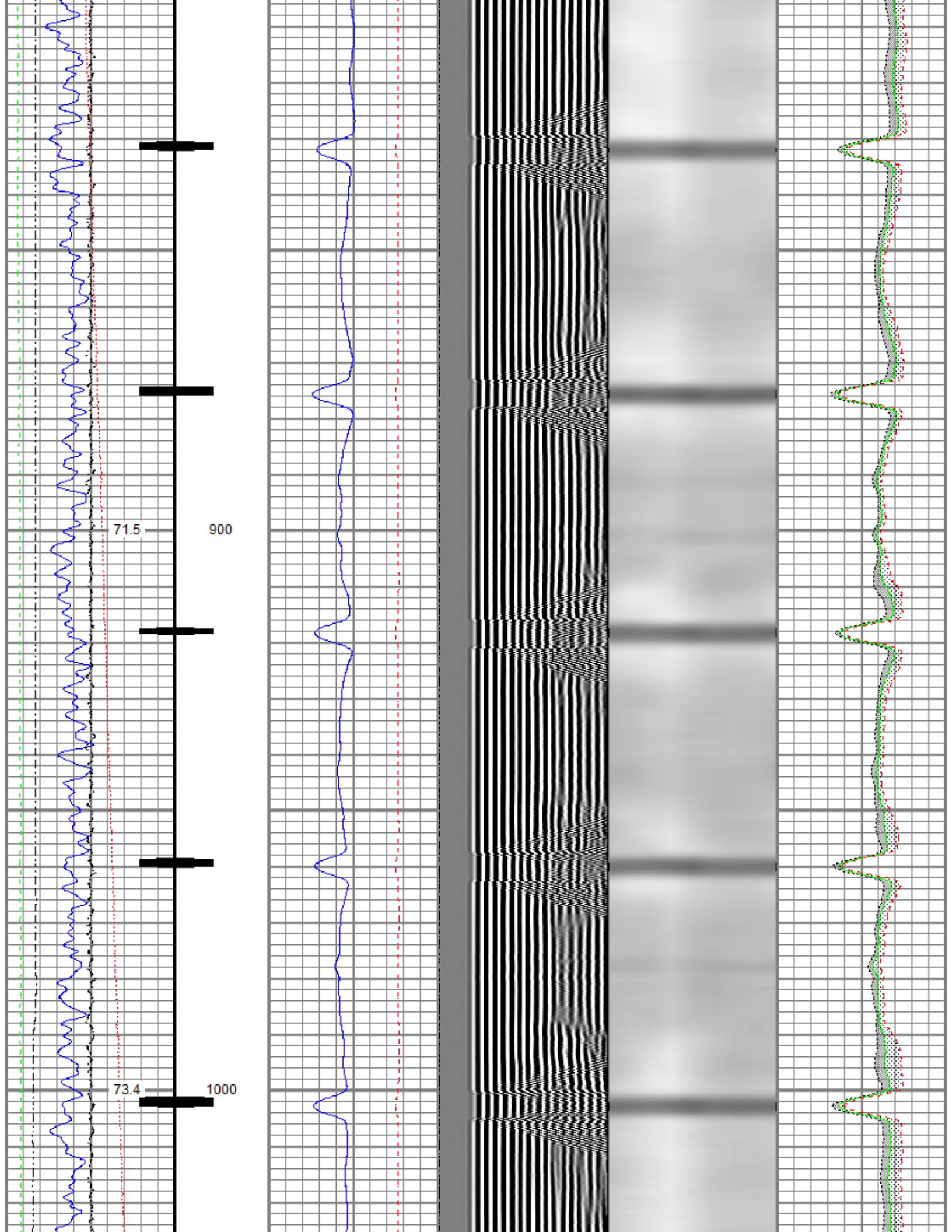
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
(ft/min) 150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

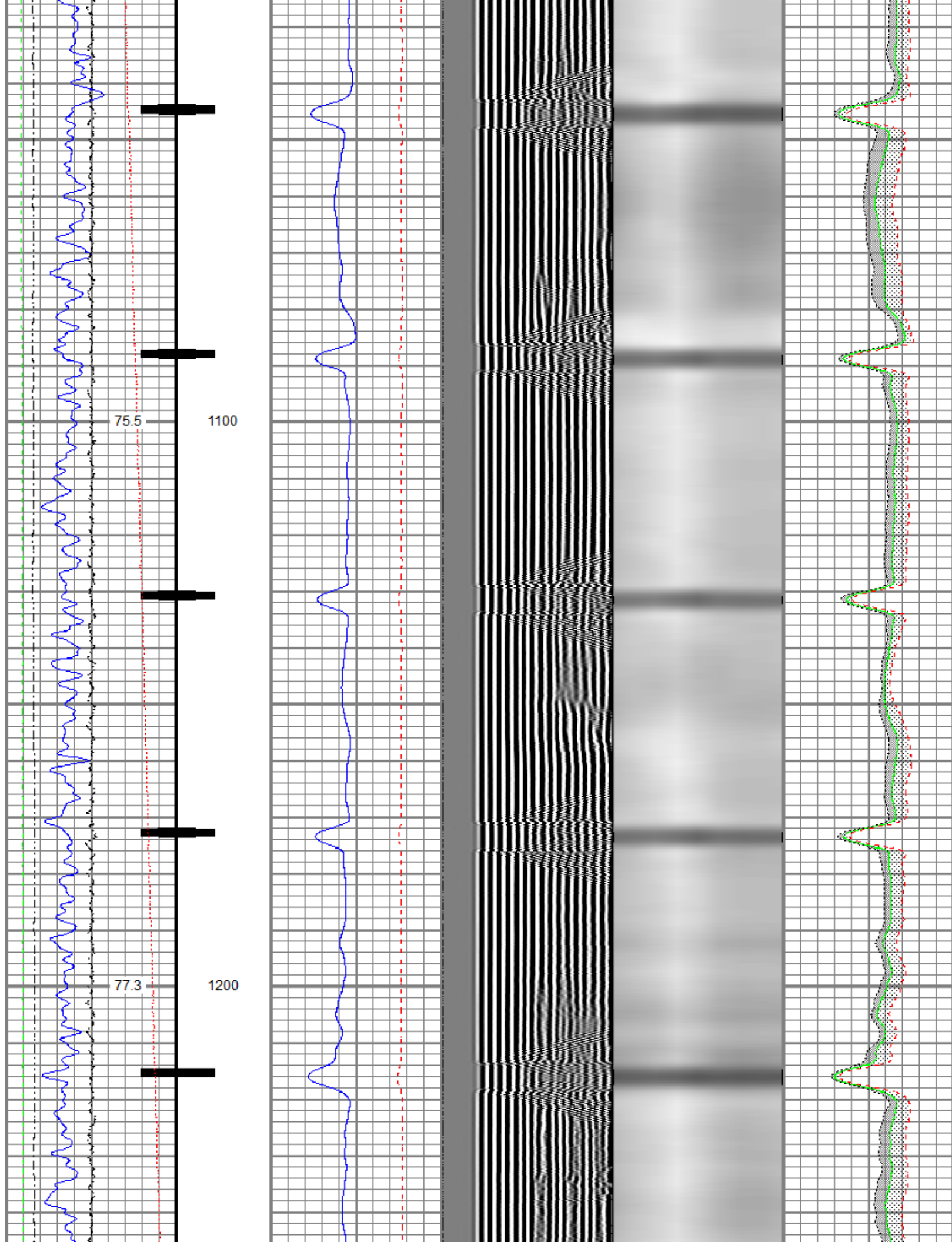


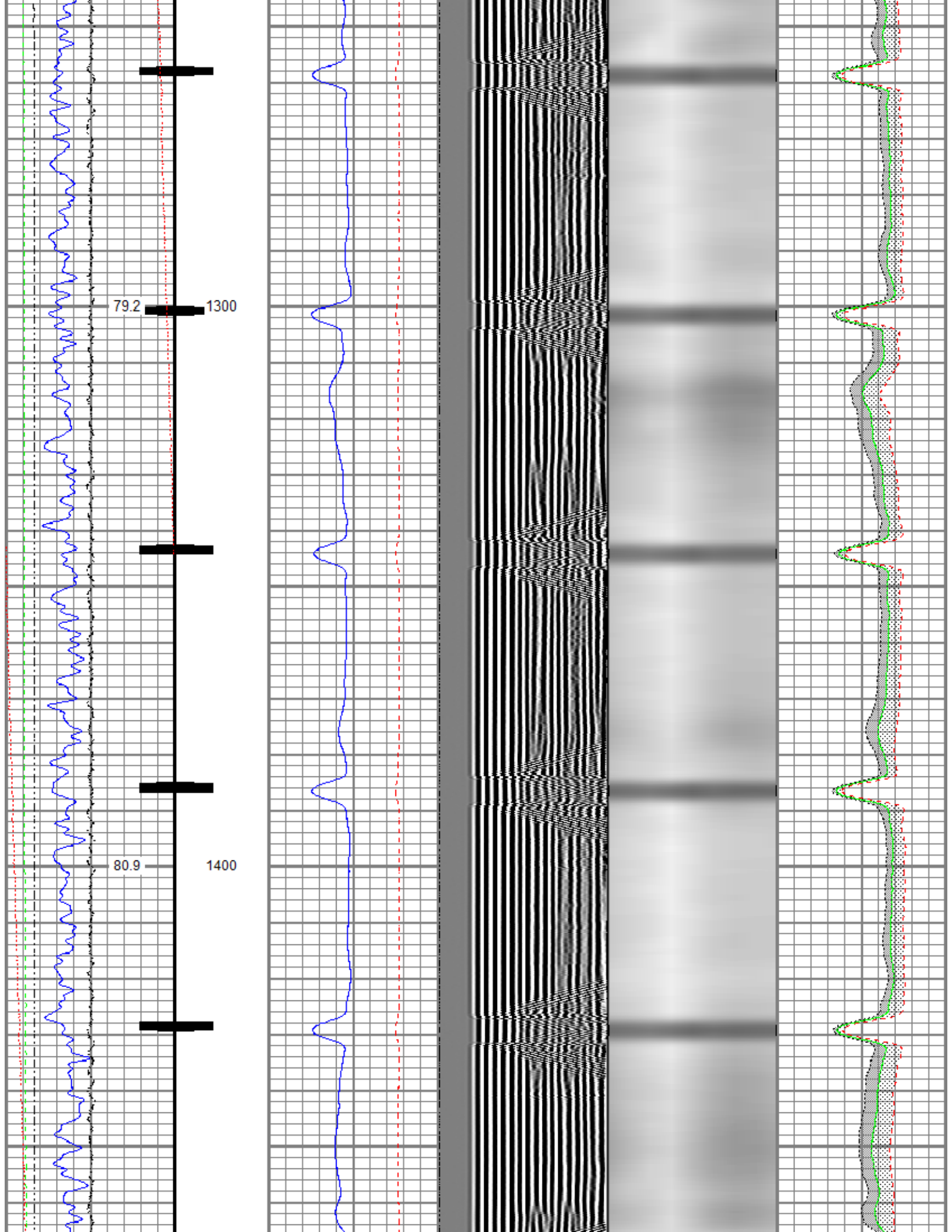


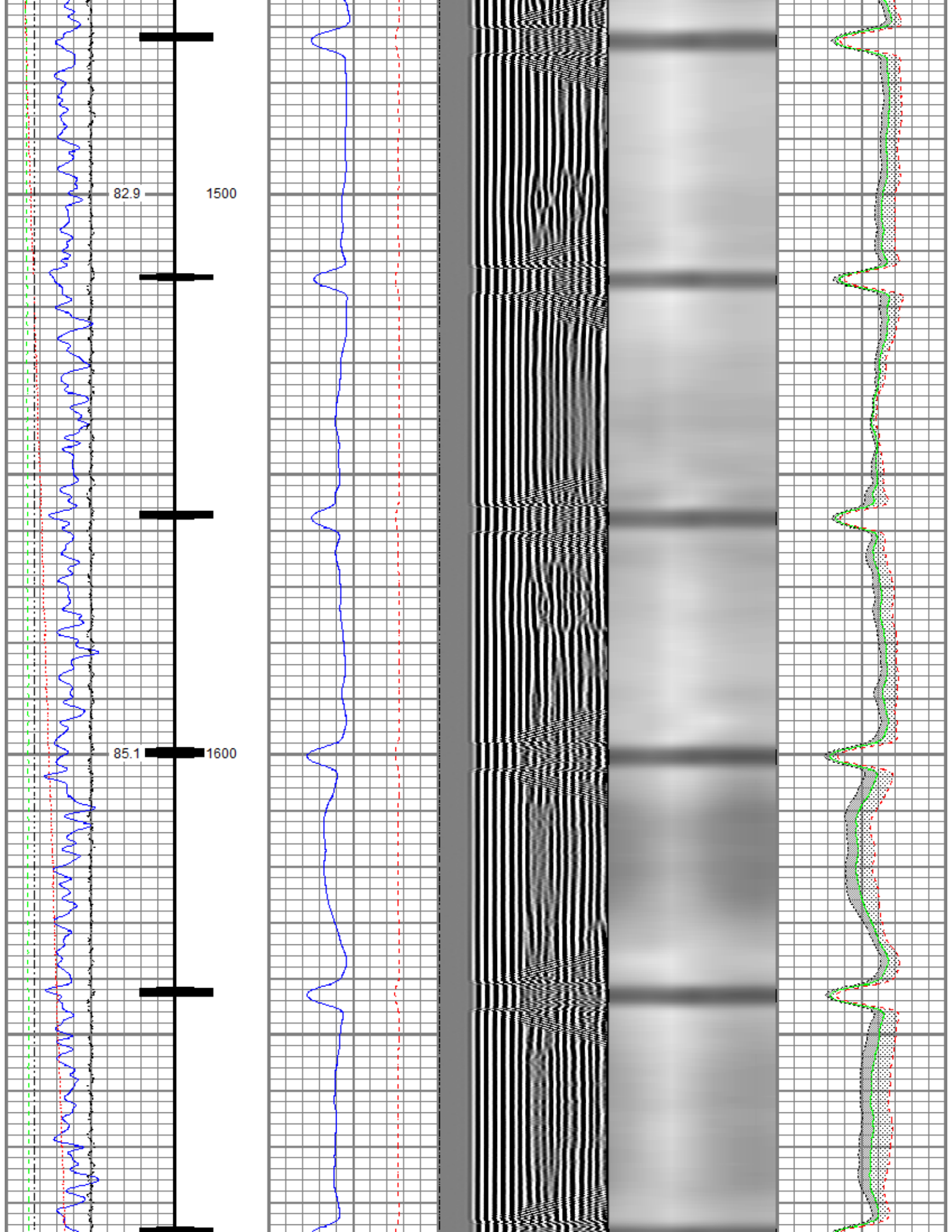


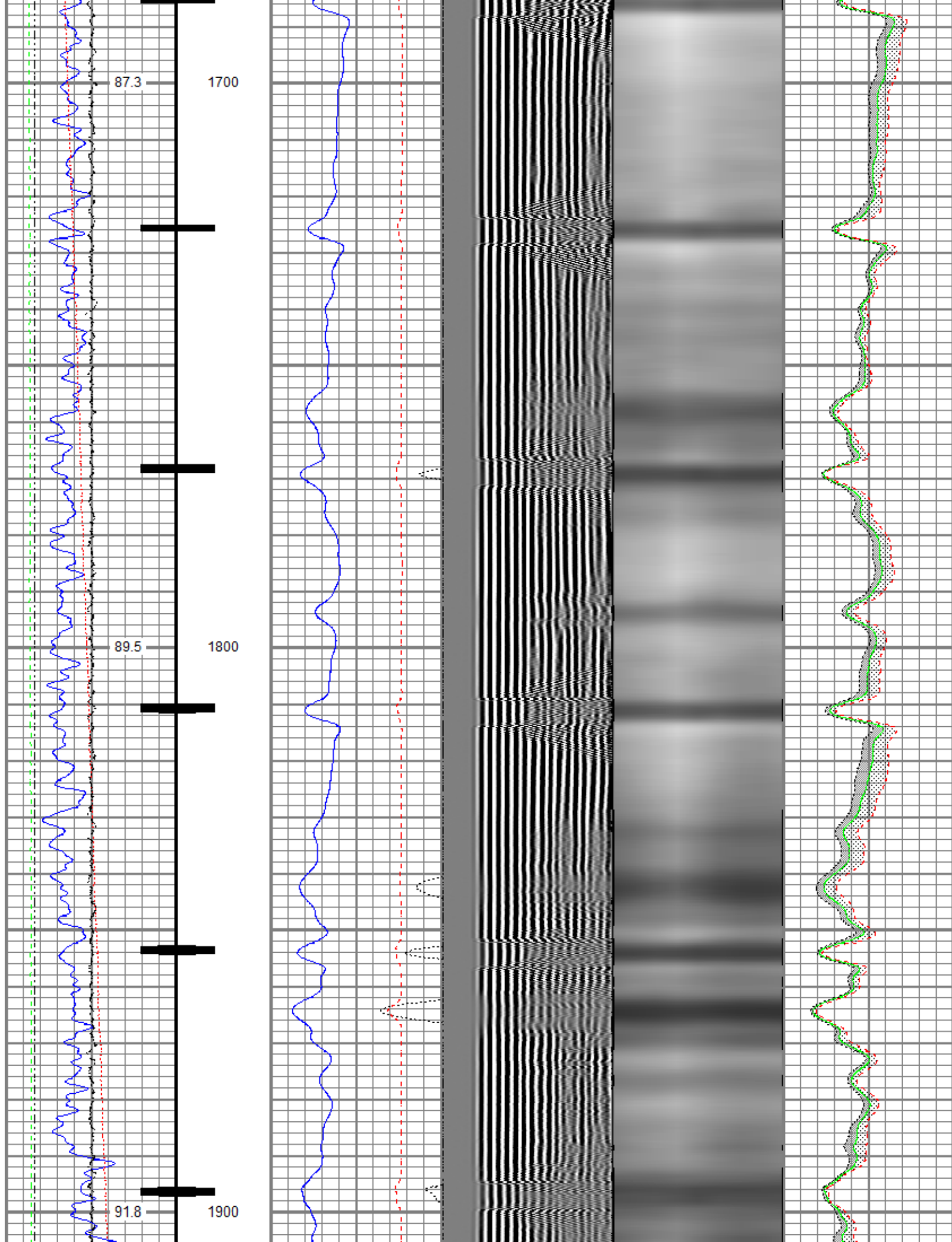


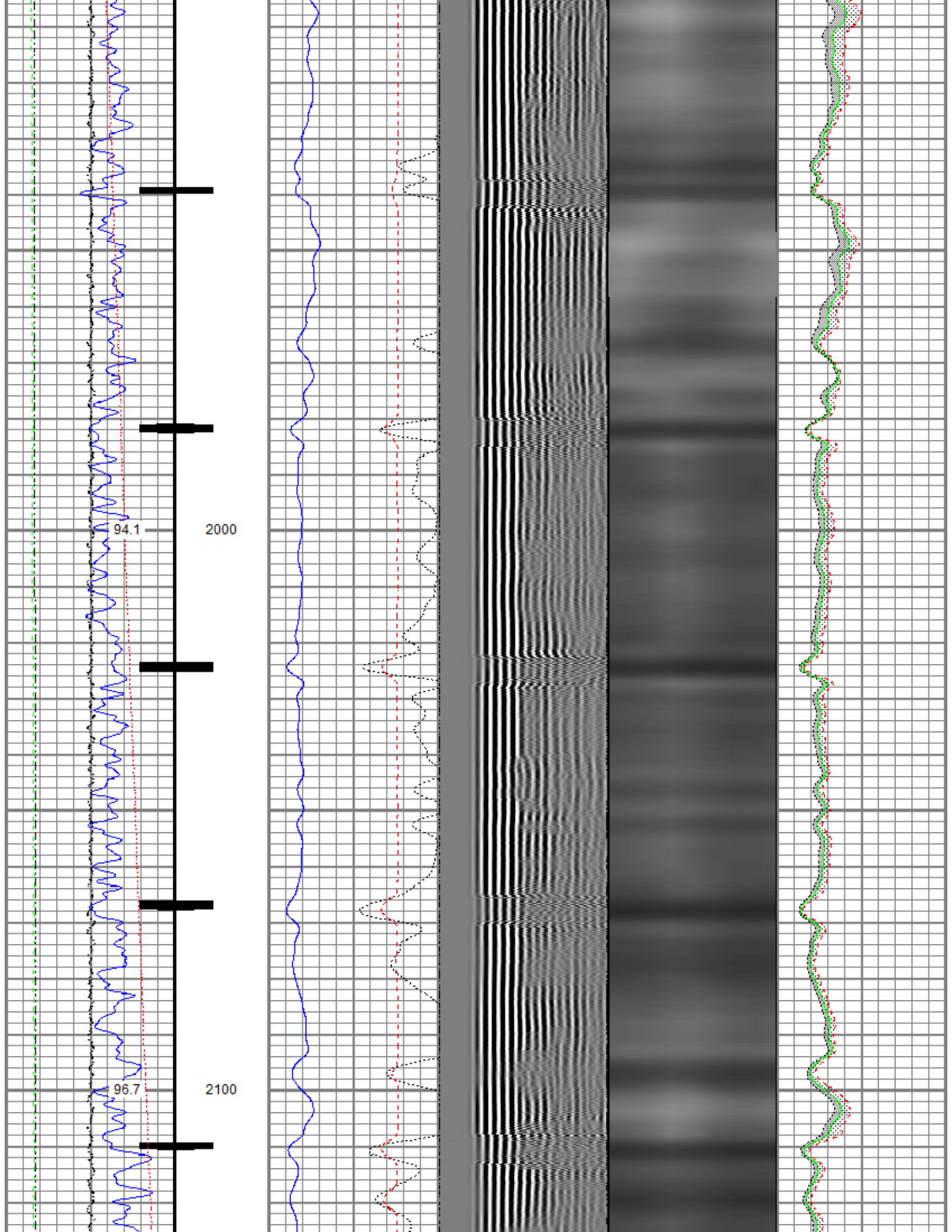


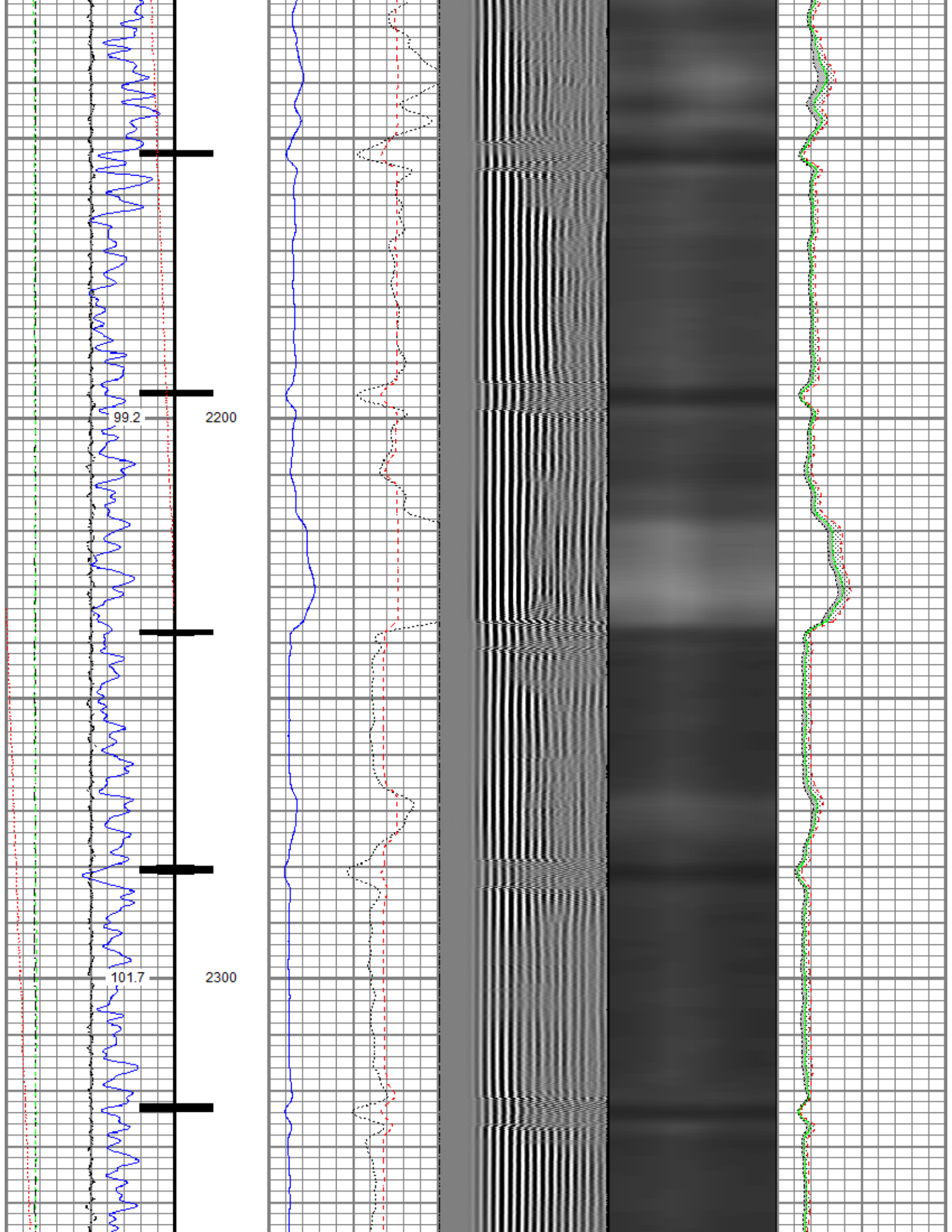


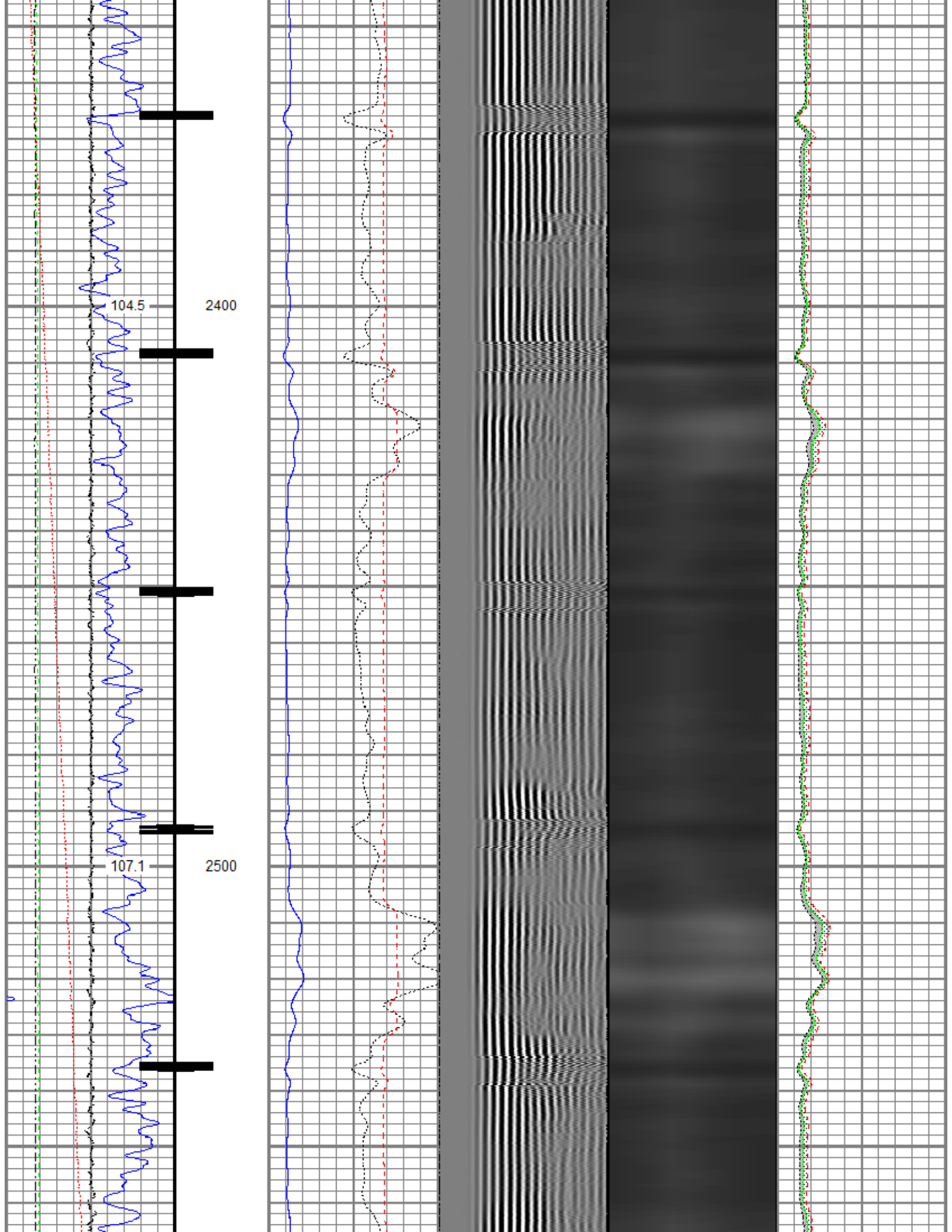


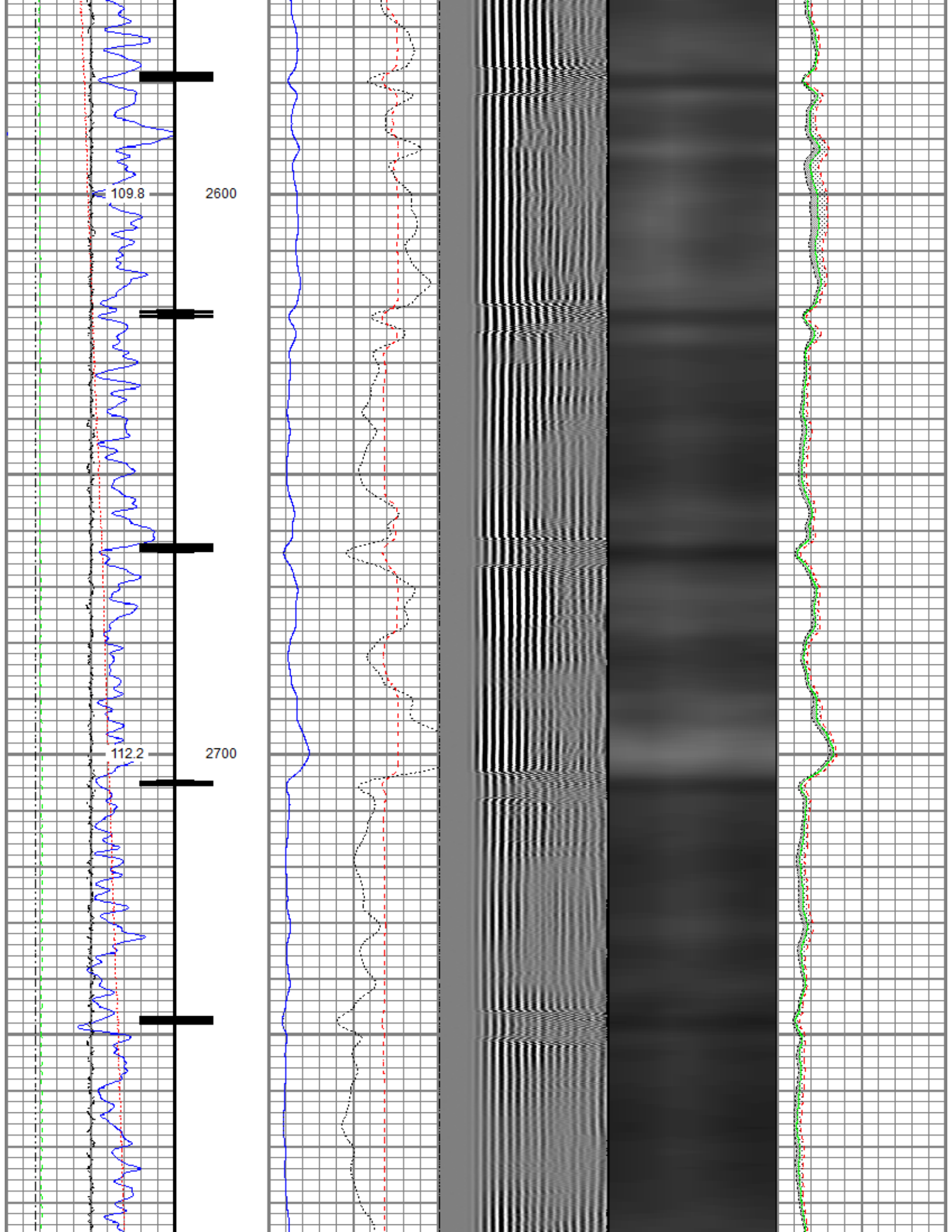


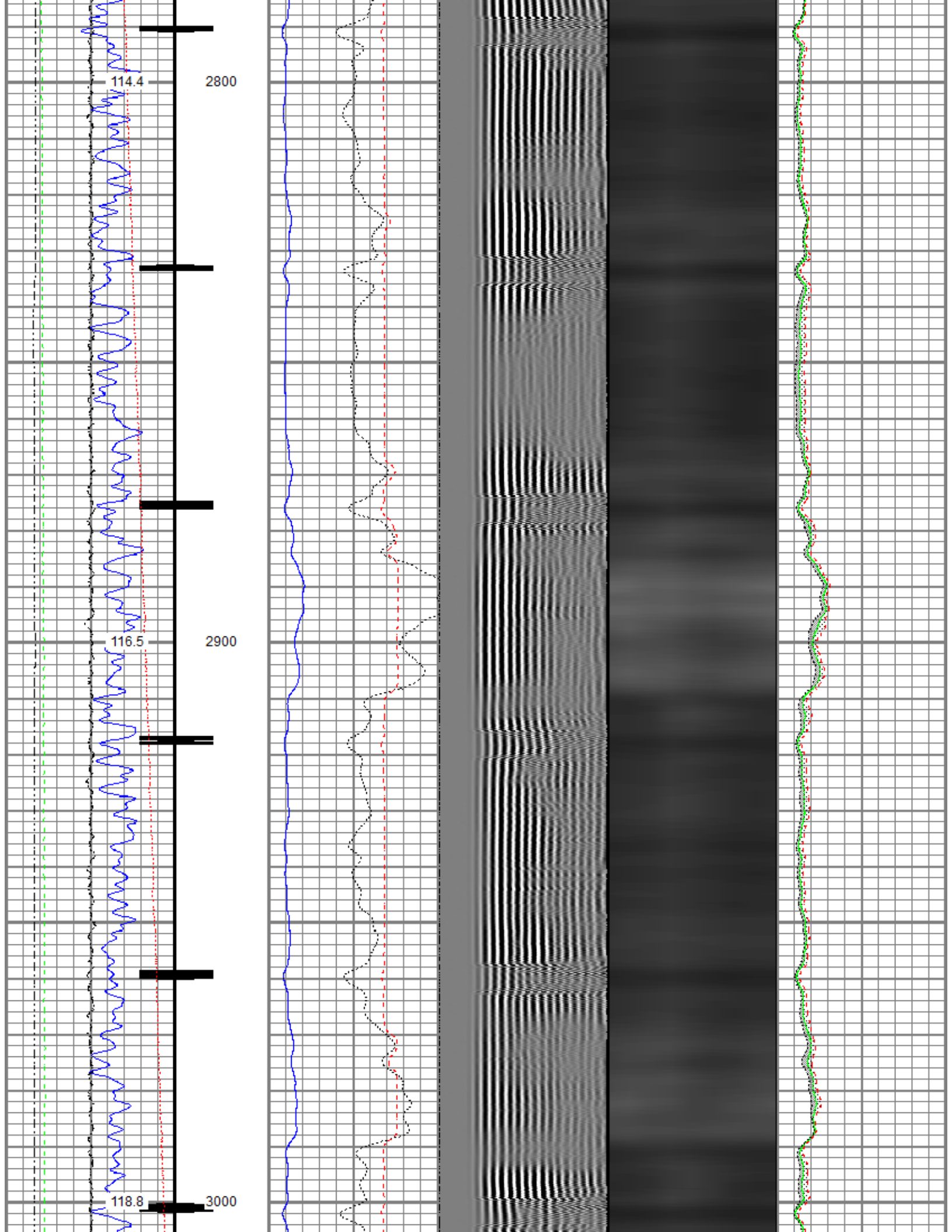


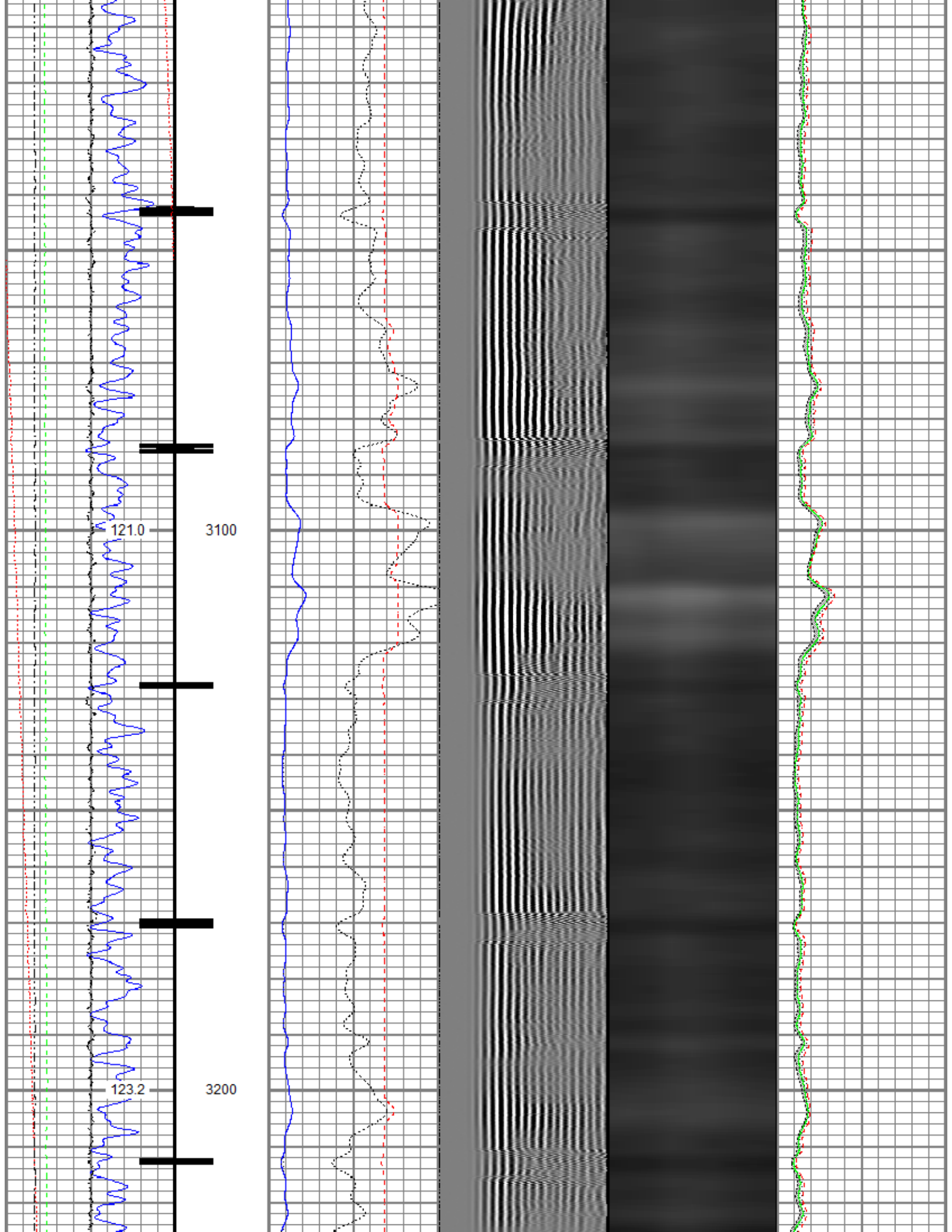


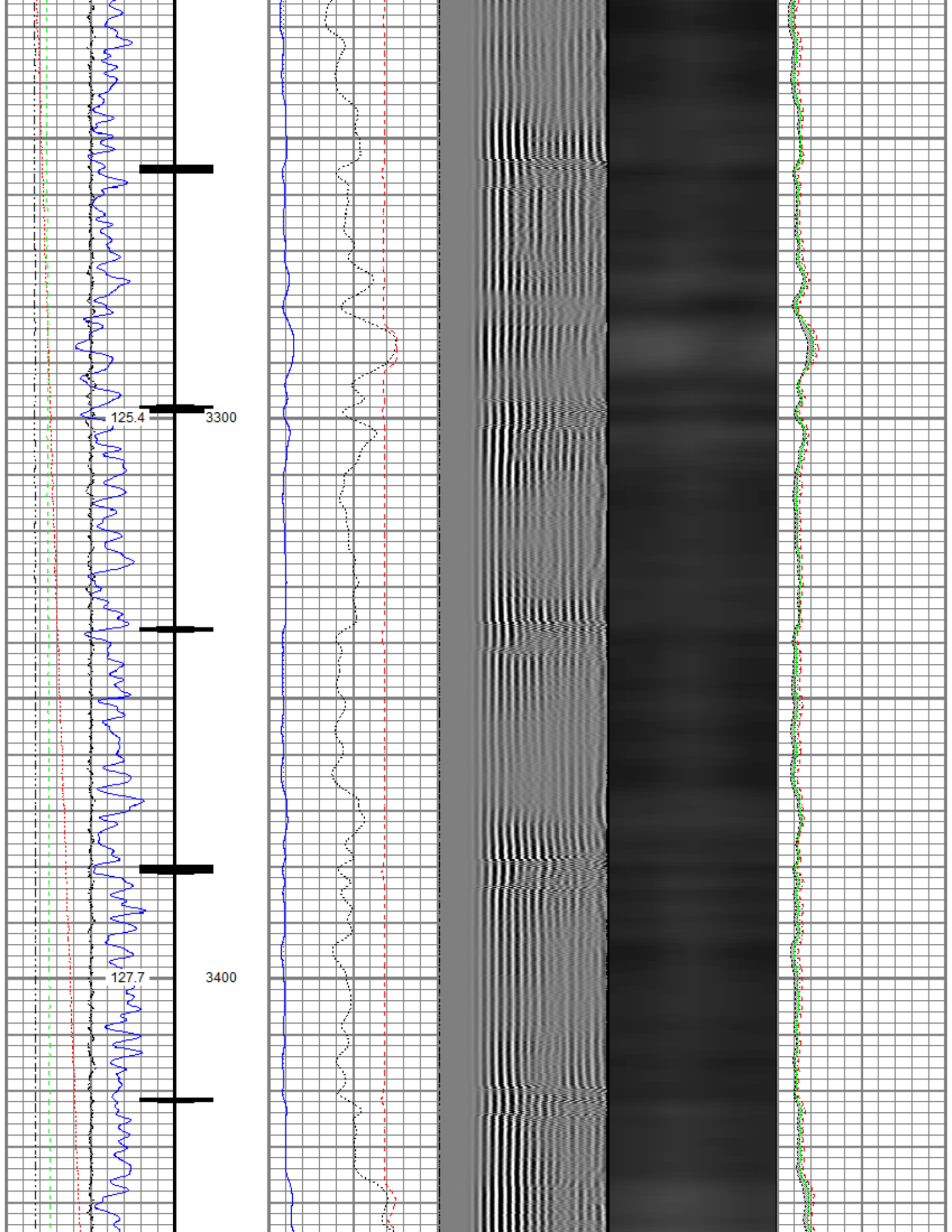


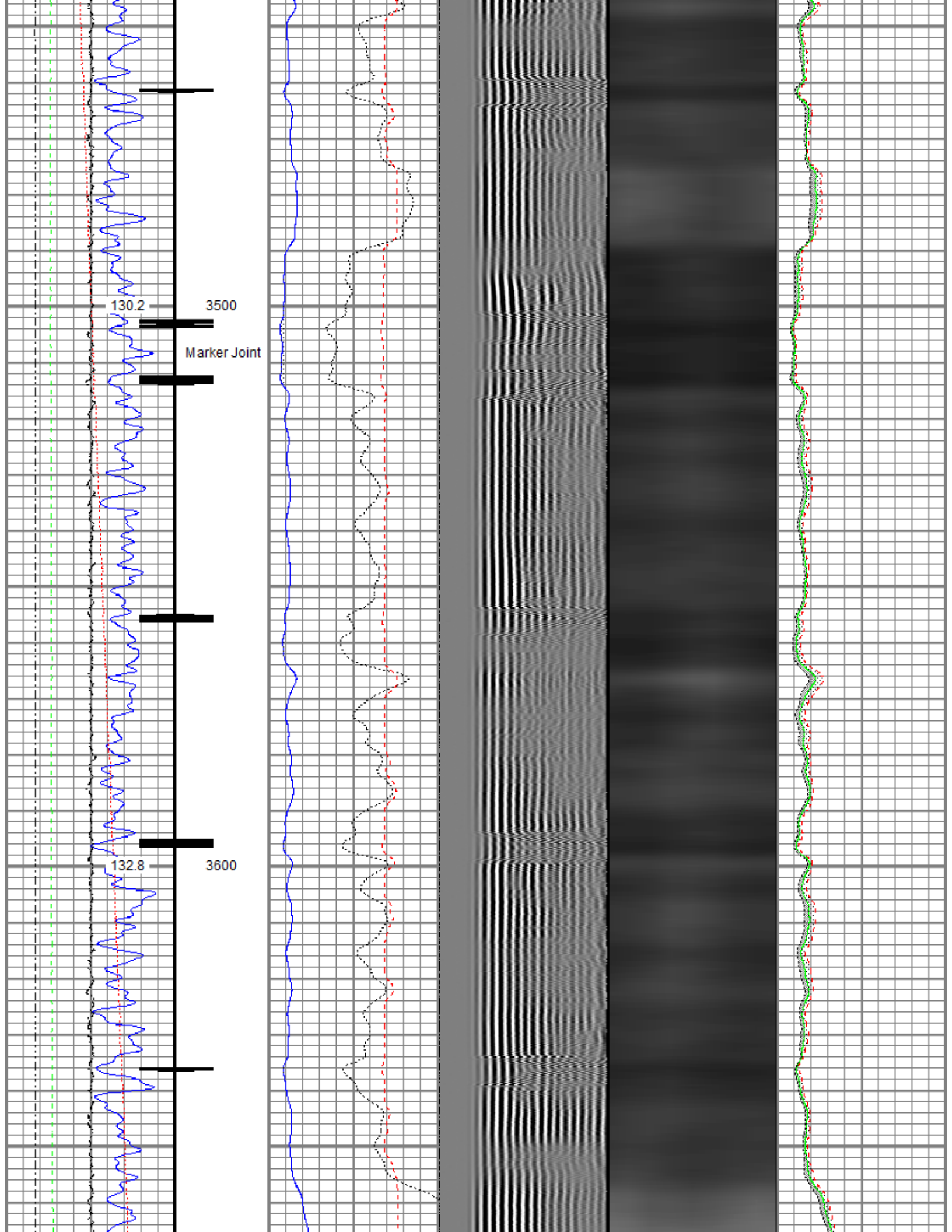


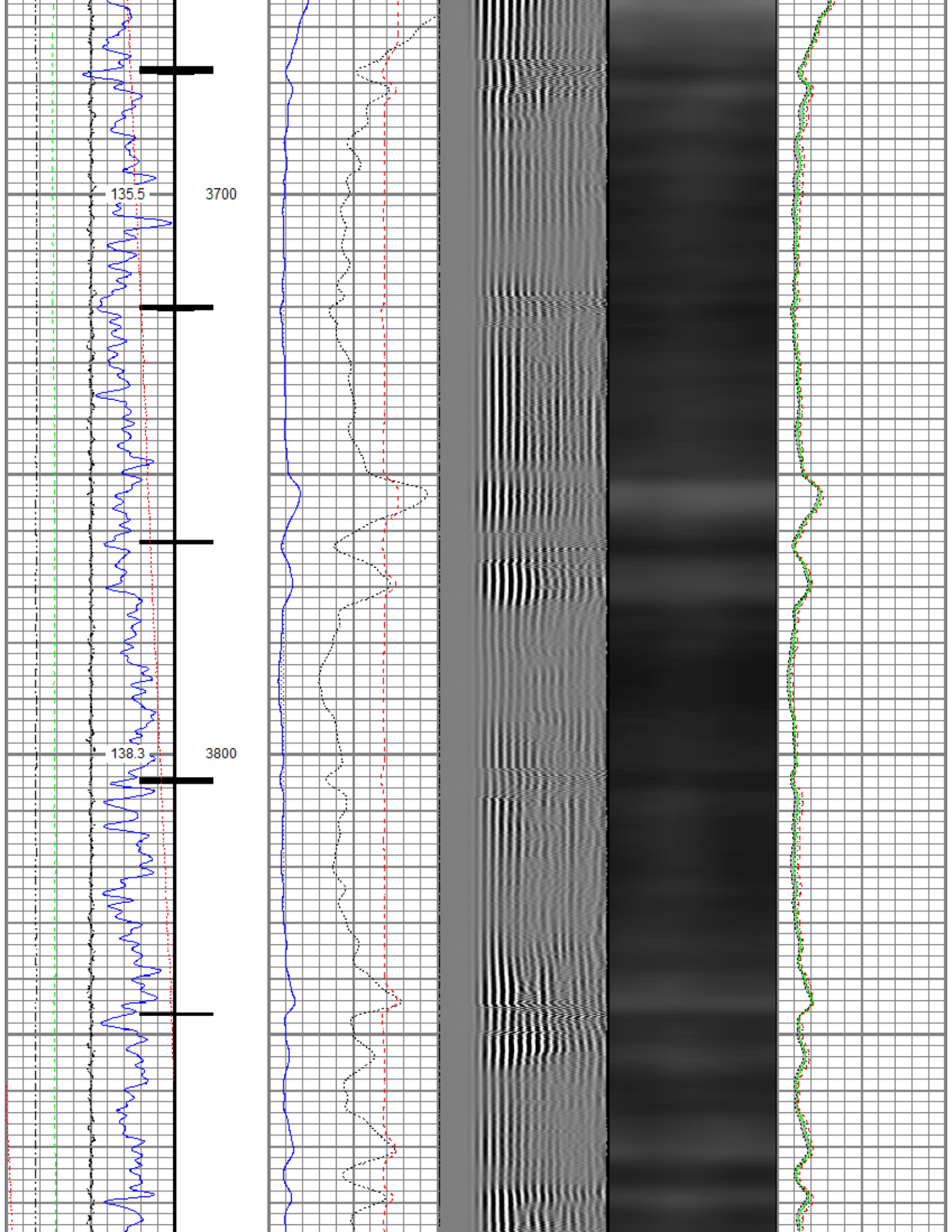


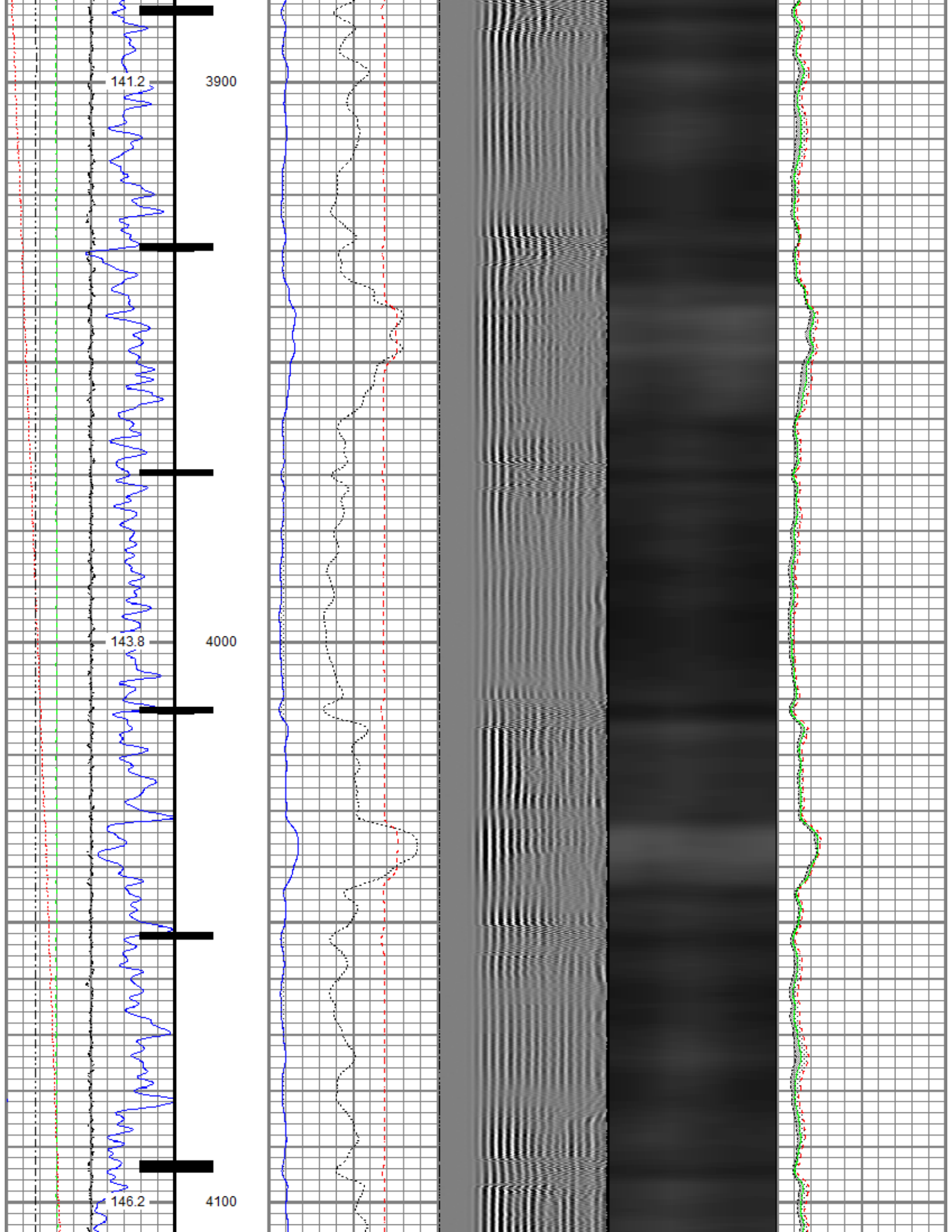


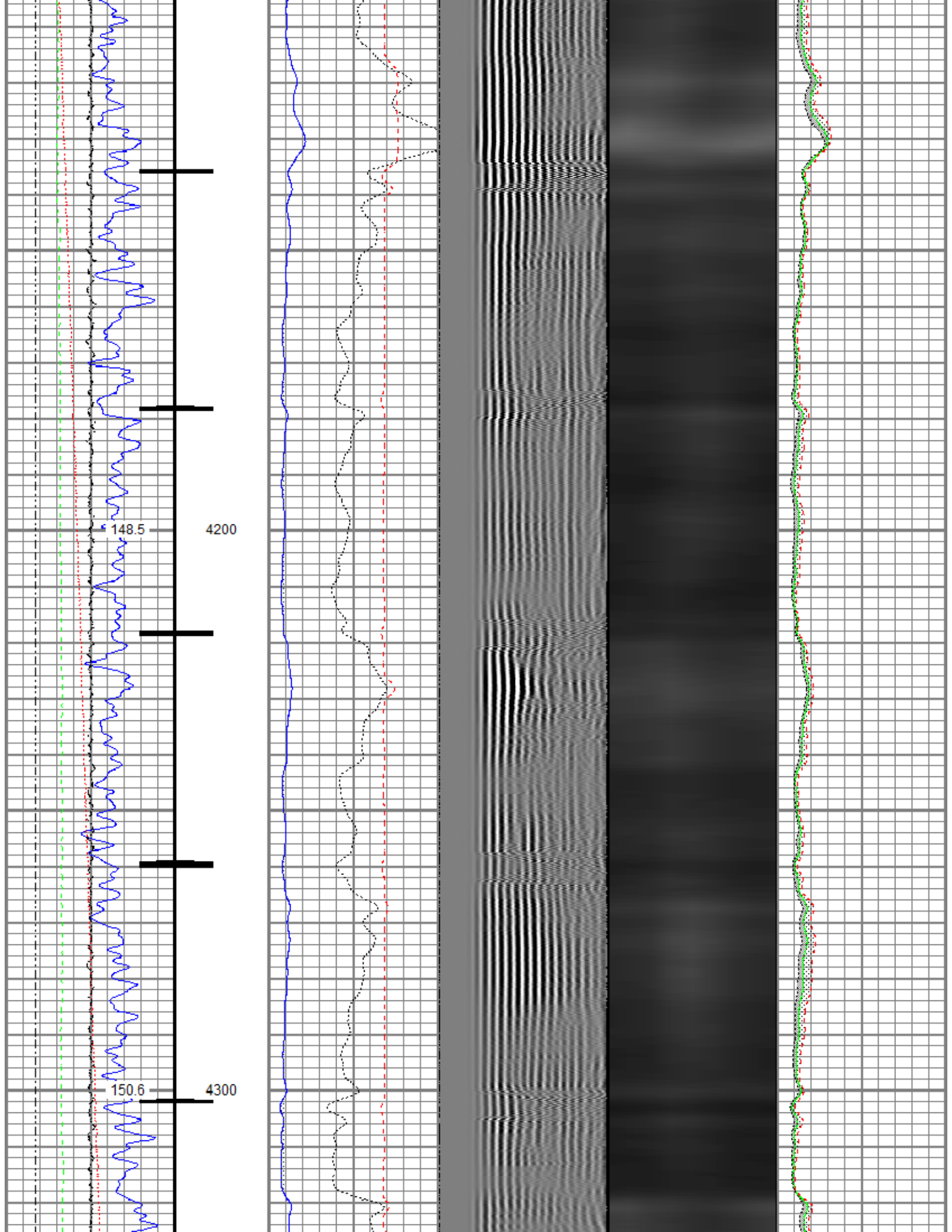


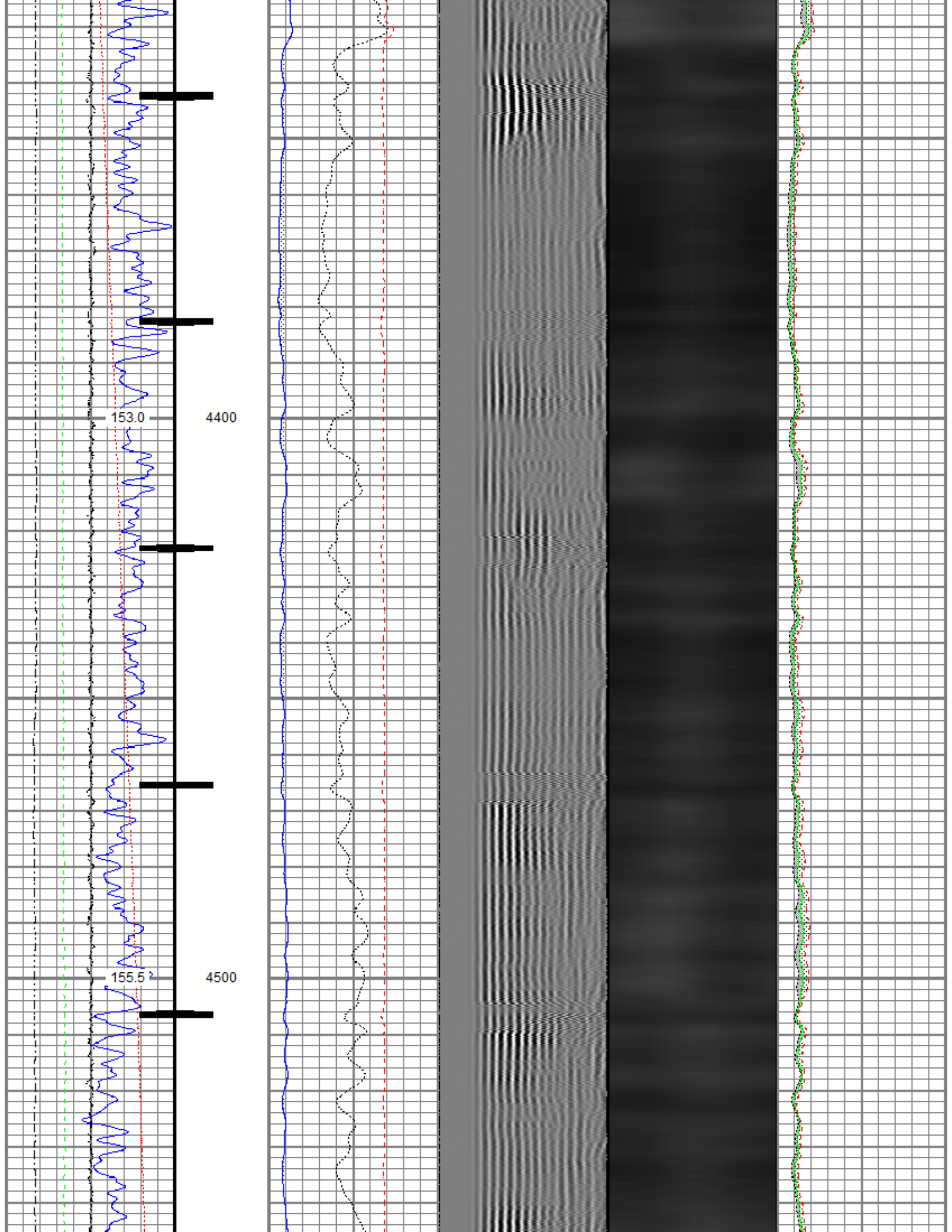


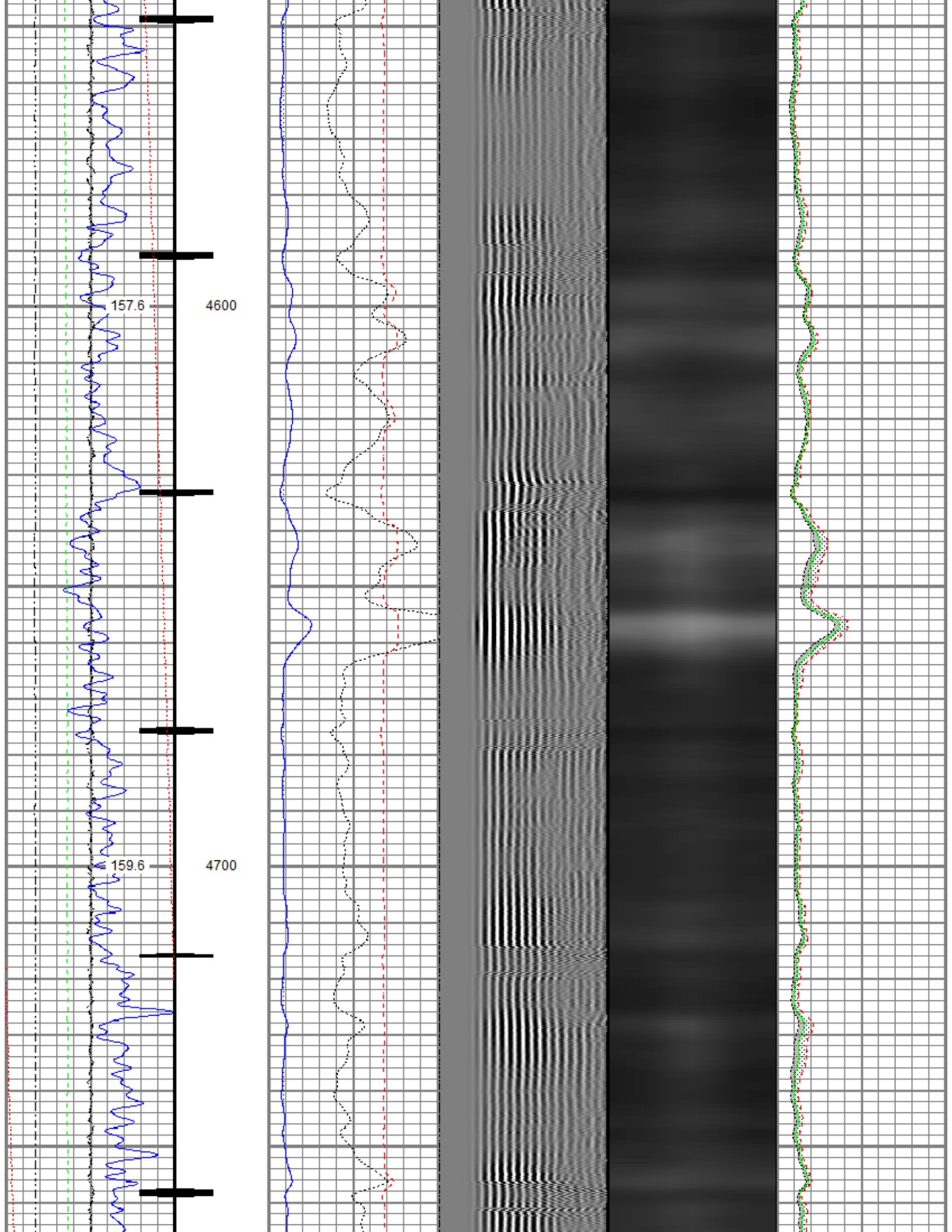


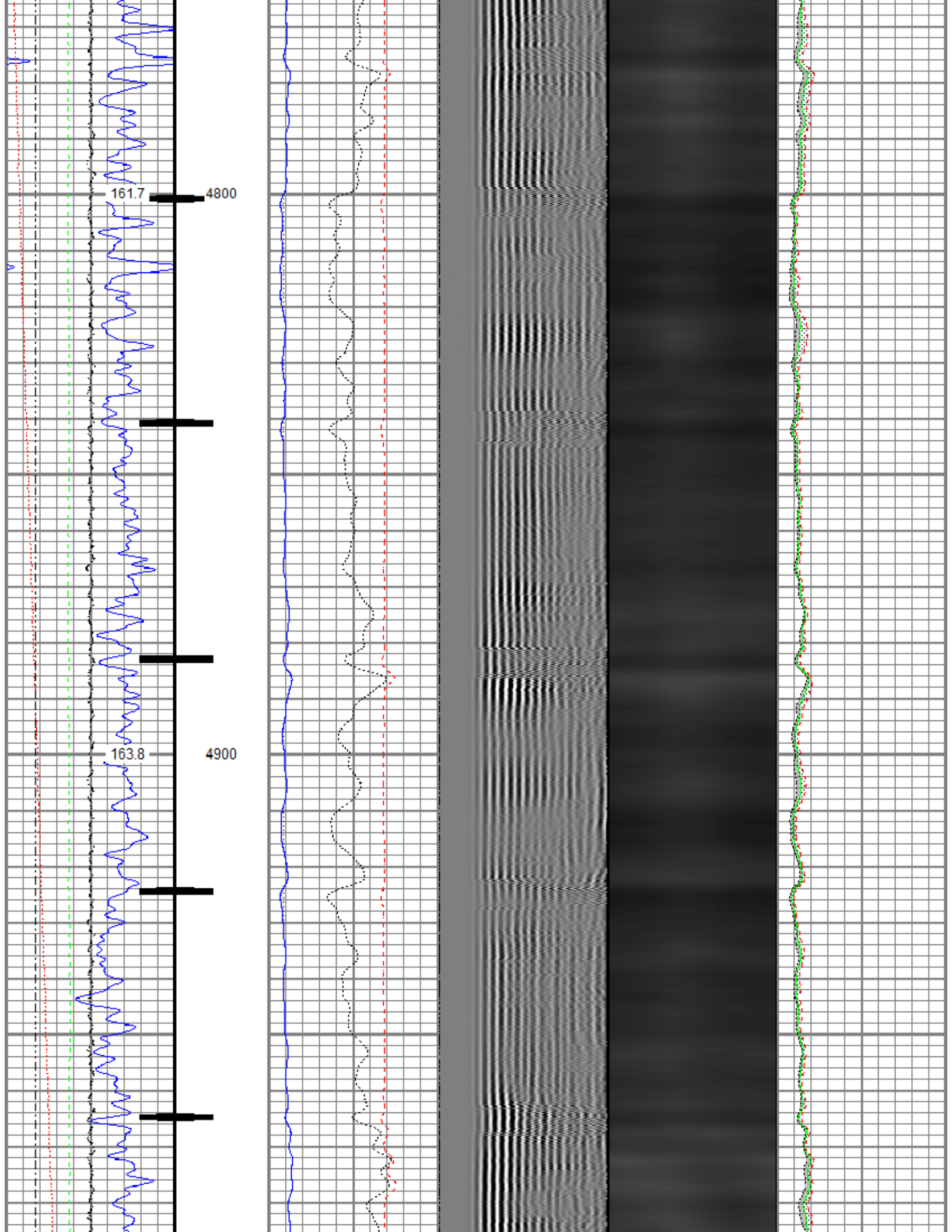


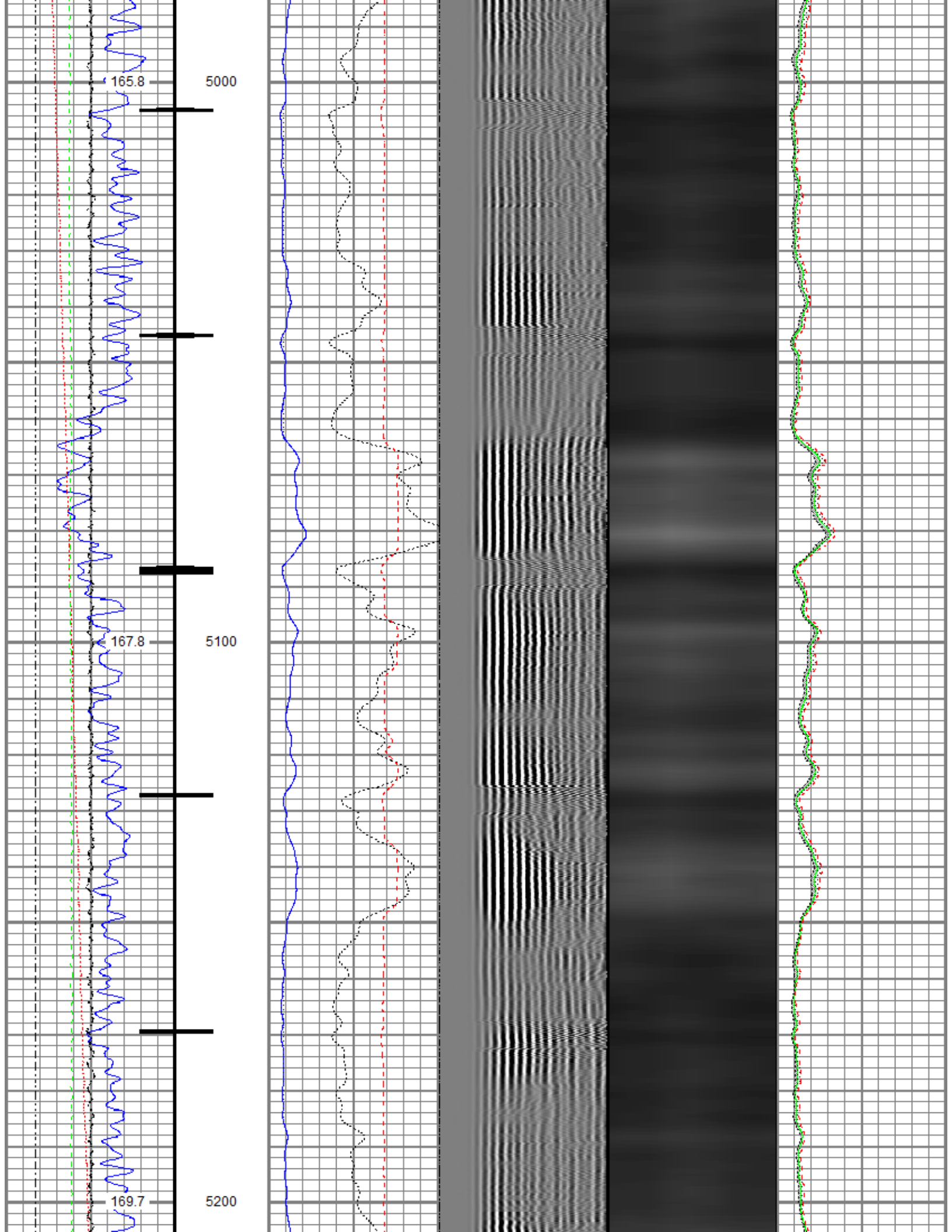


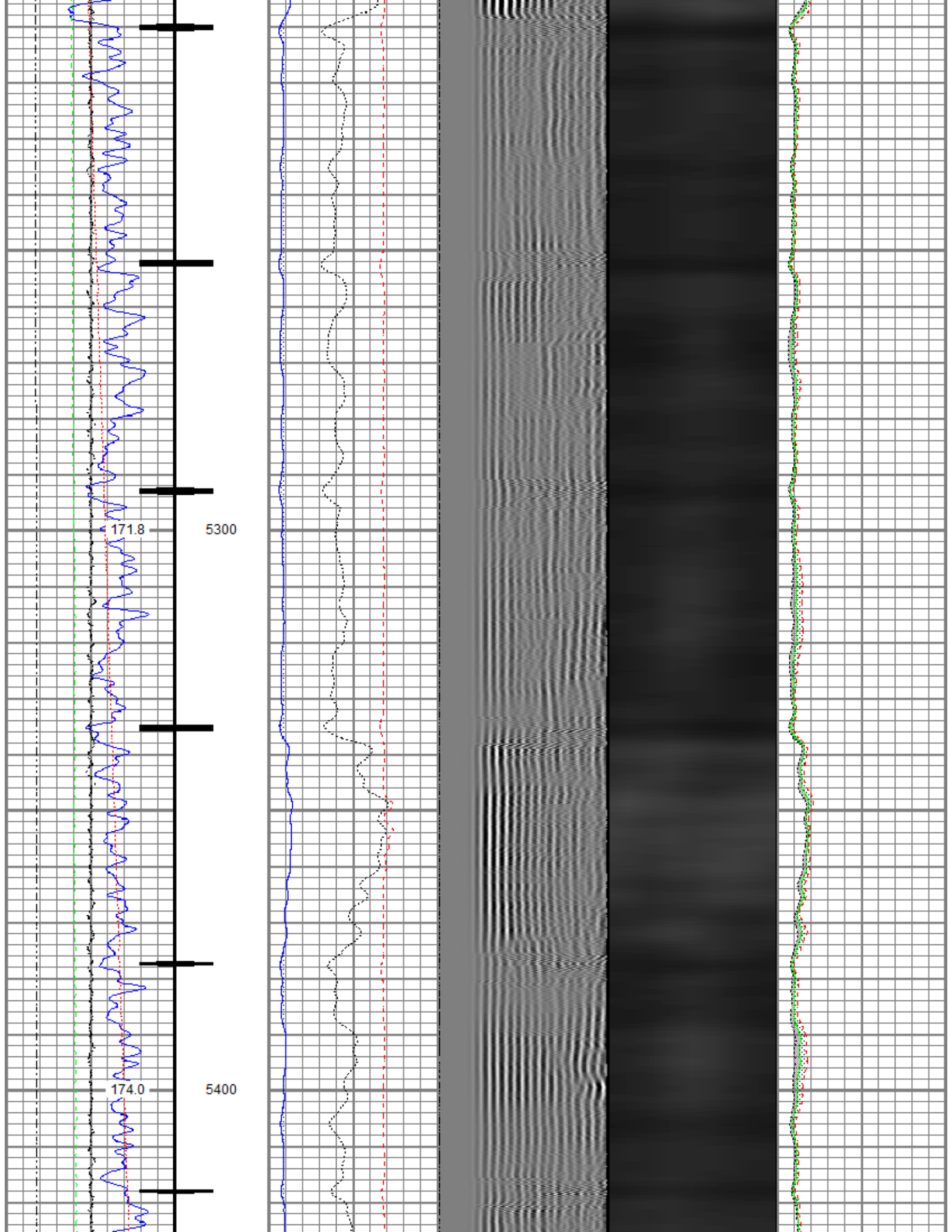


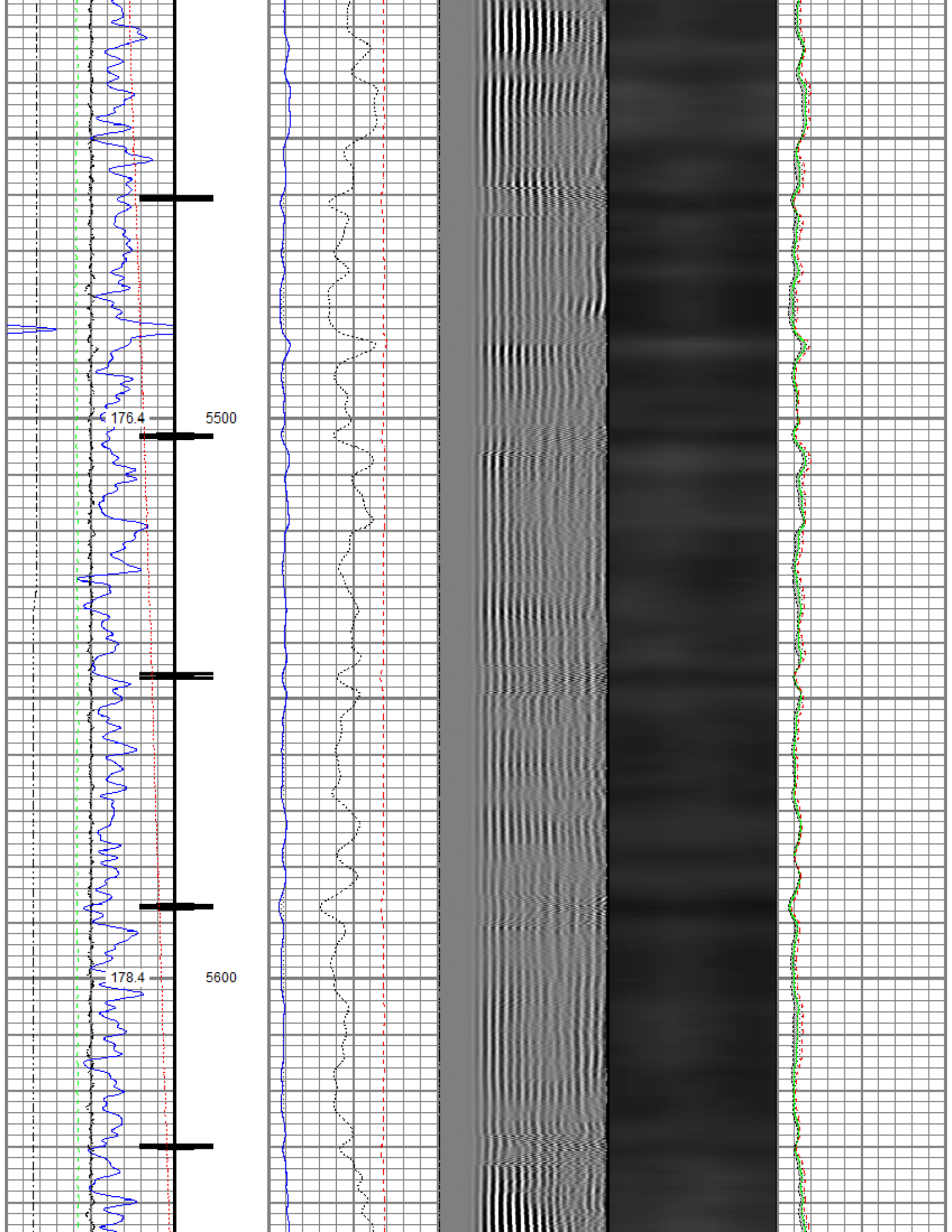


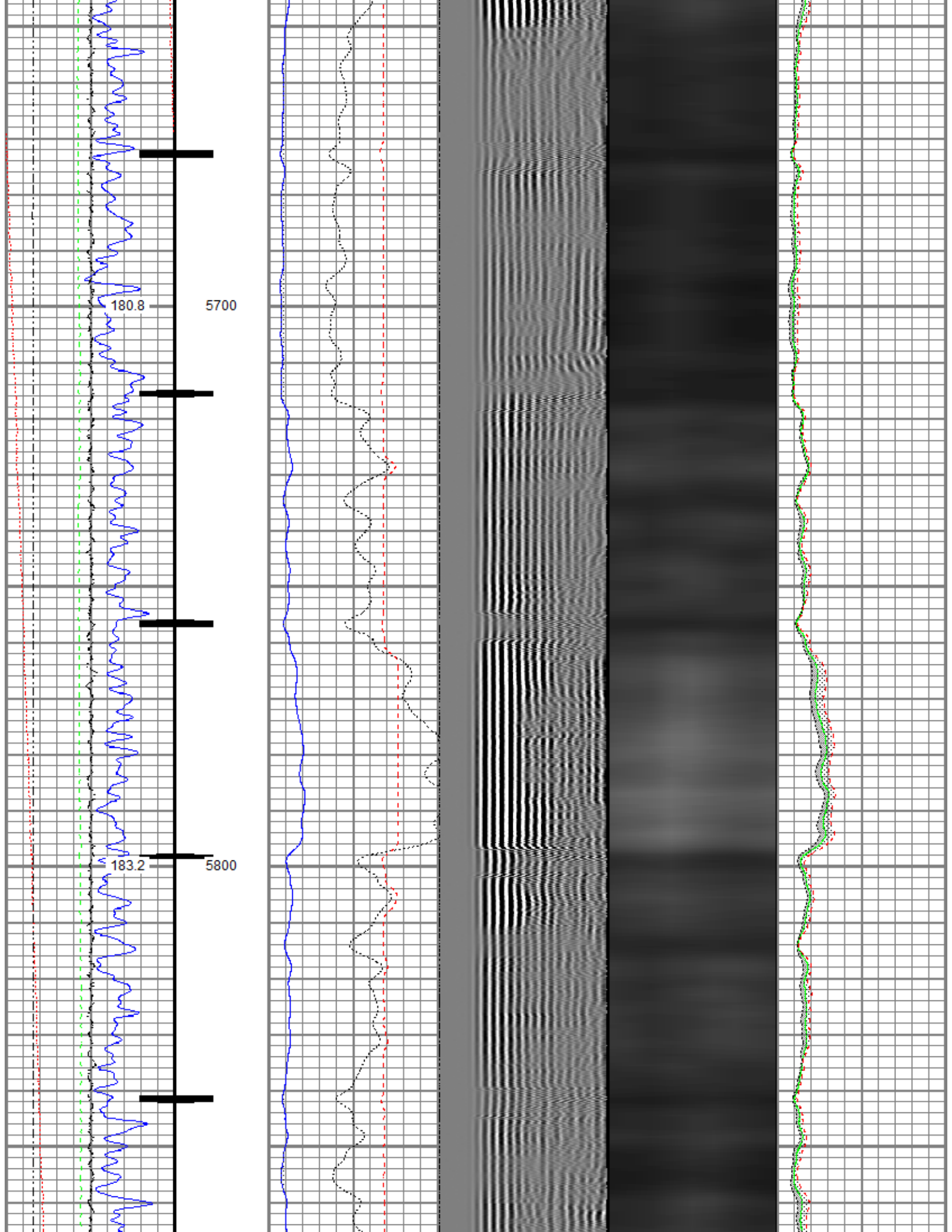


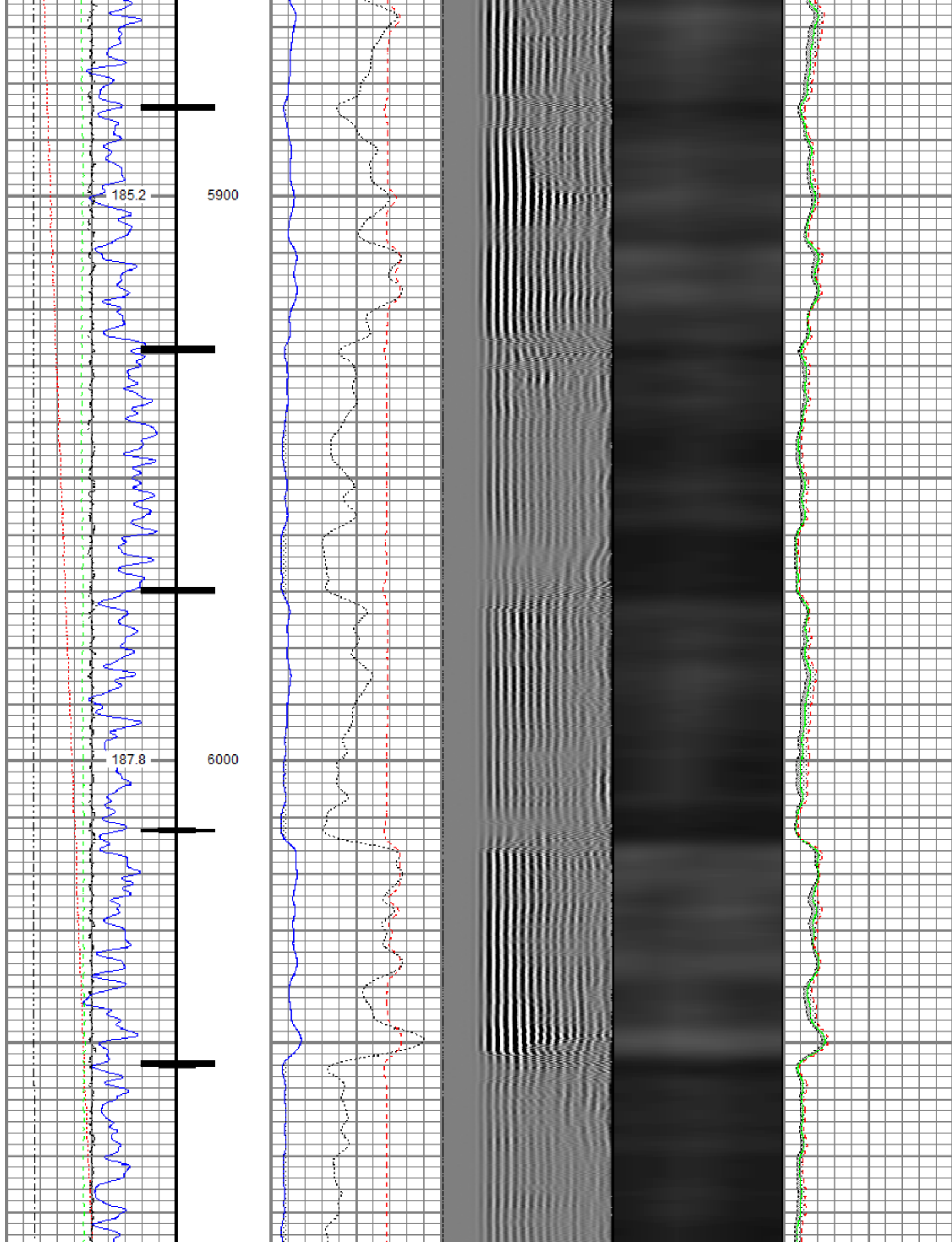


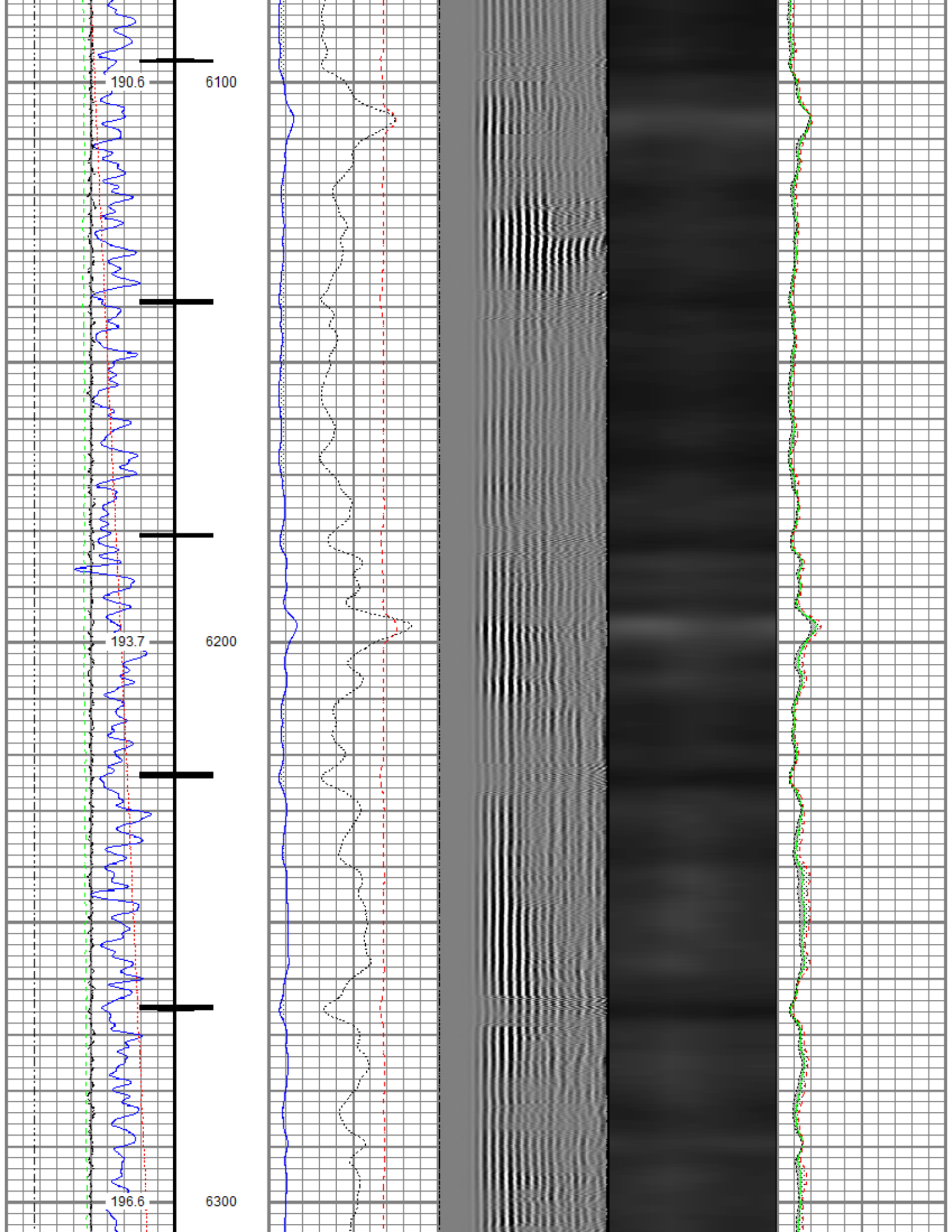


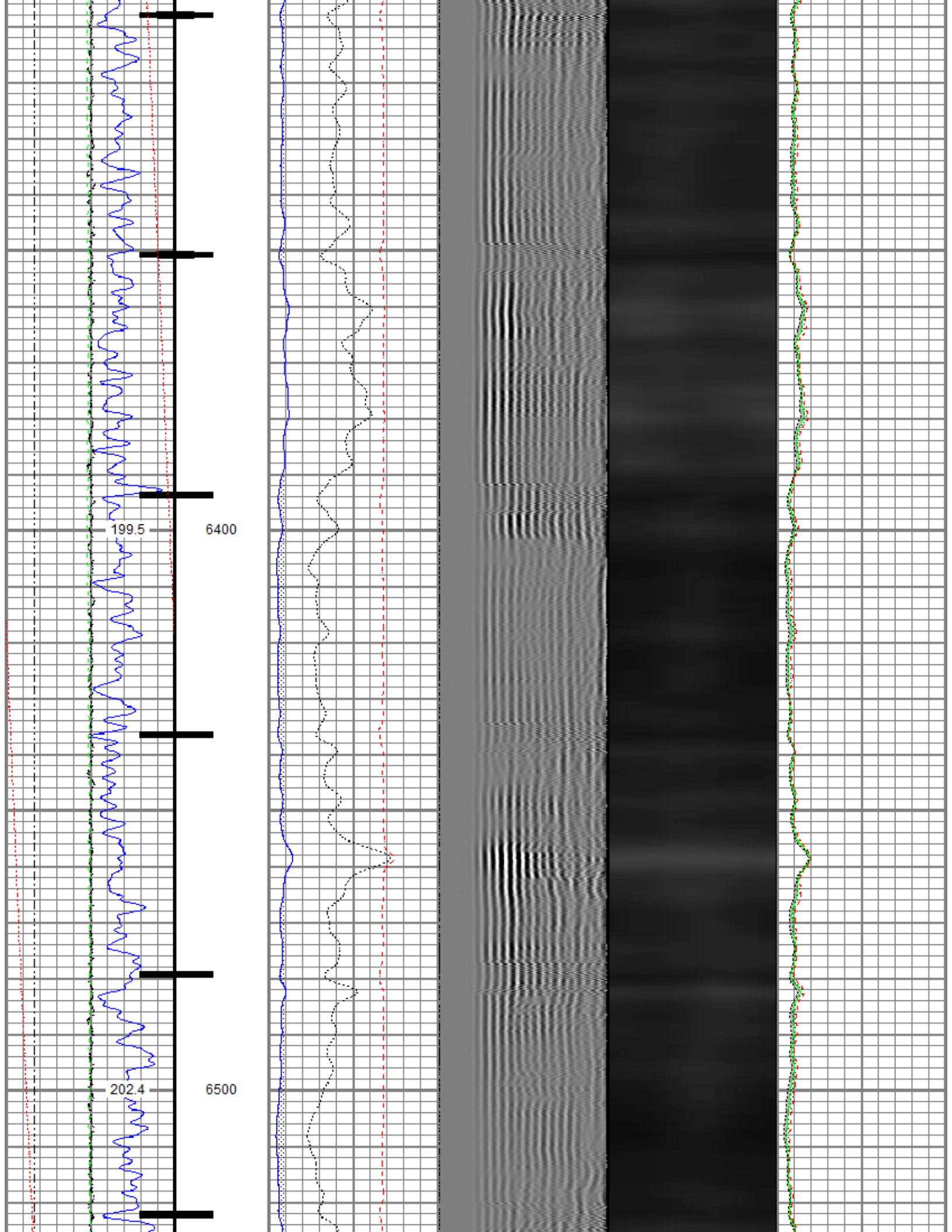


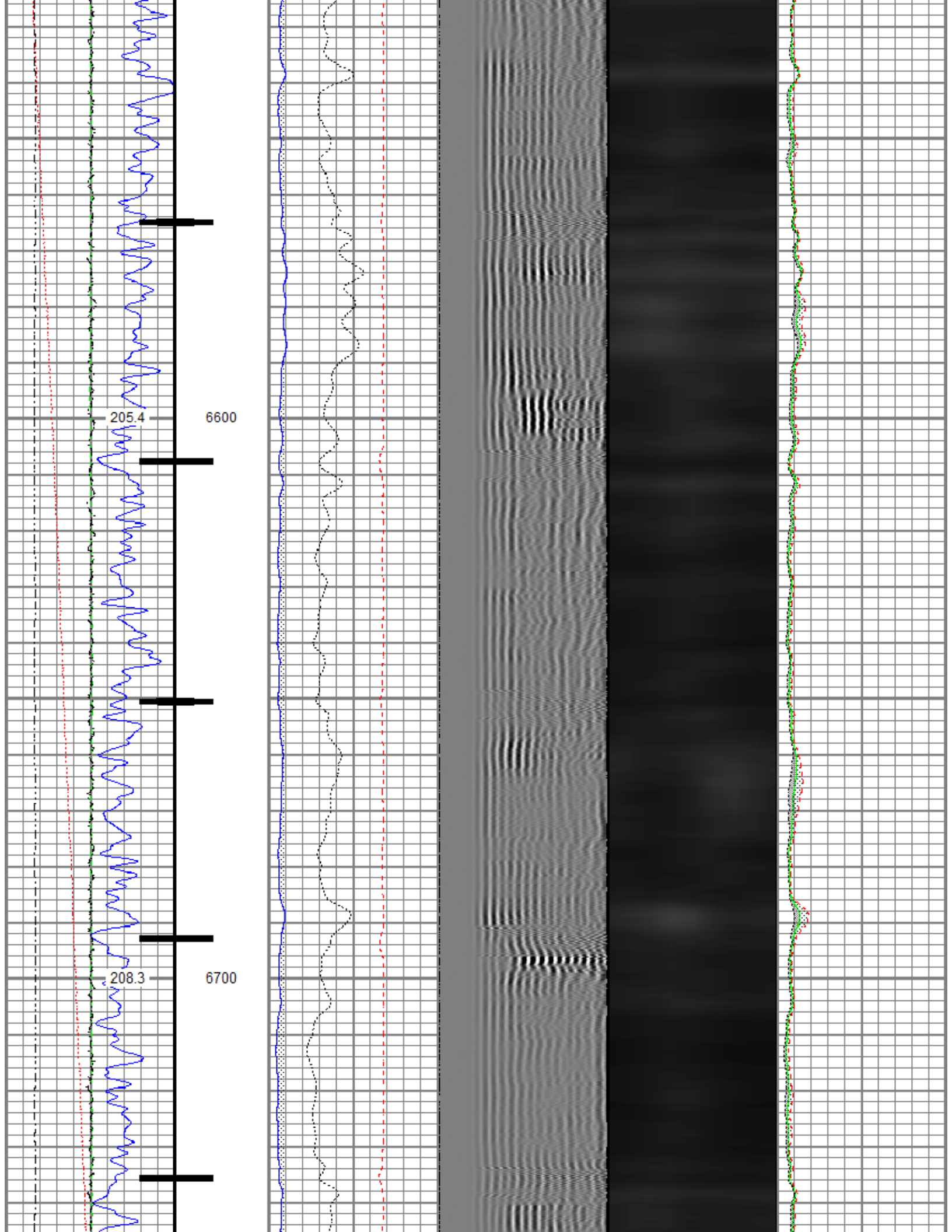


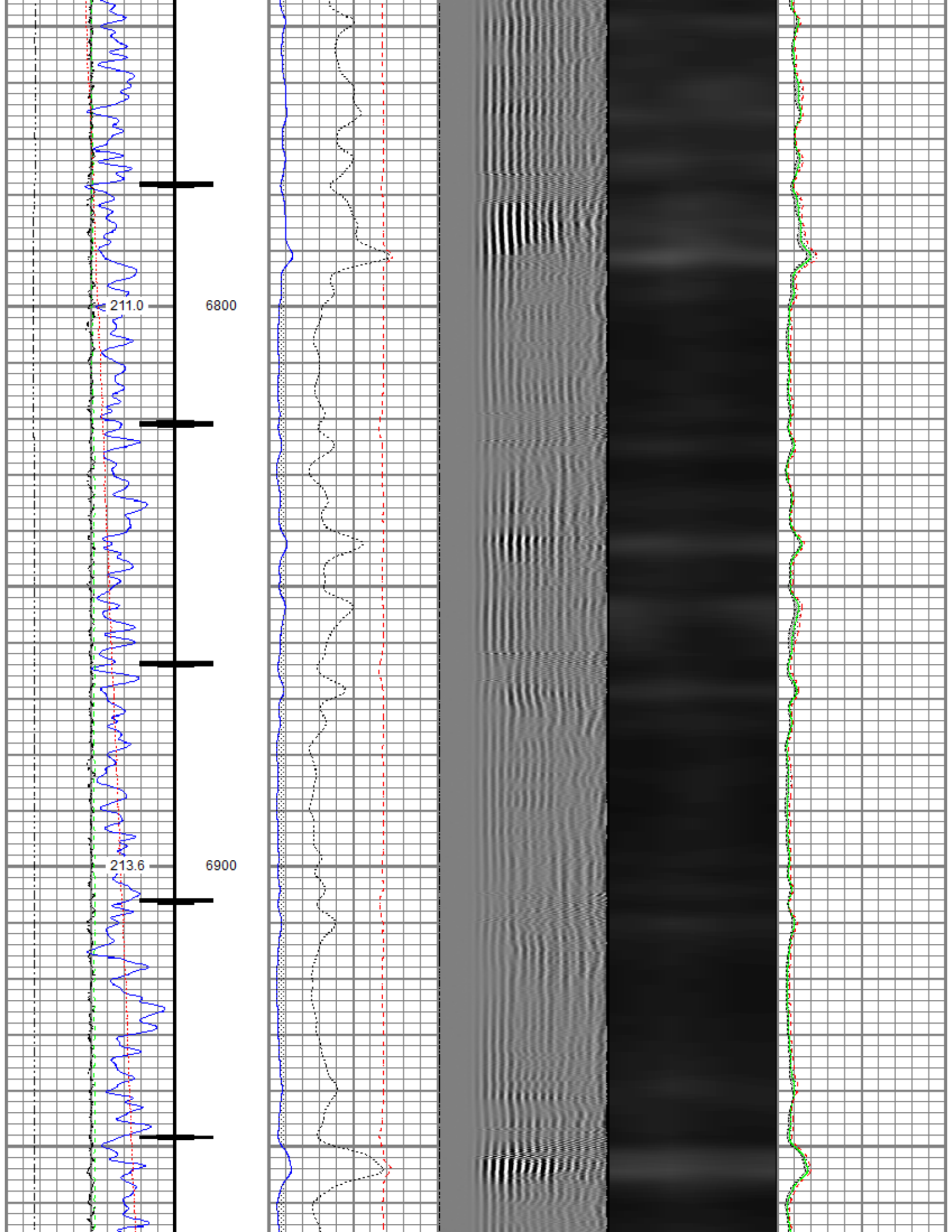


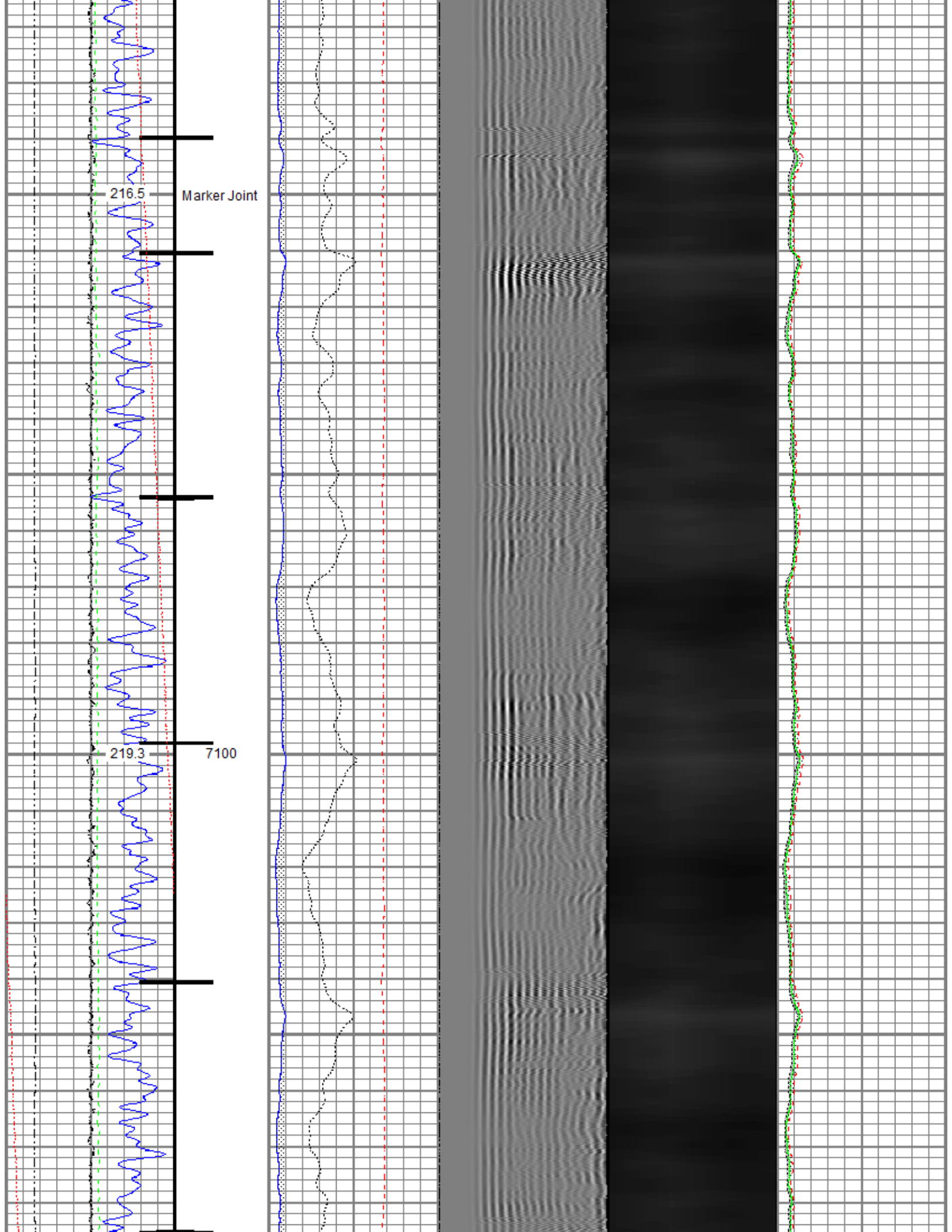


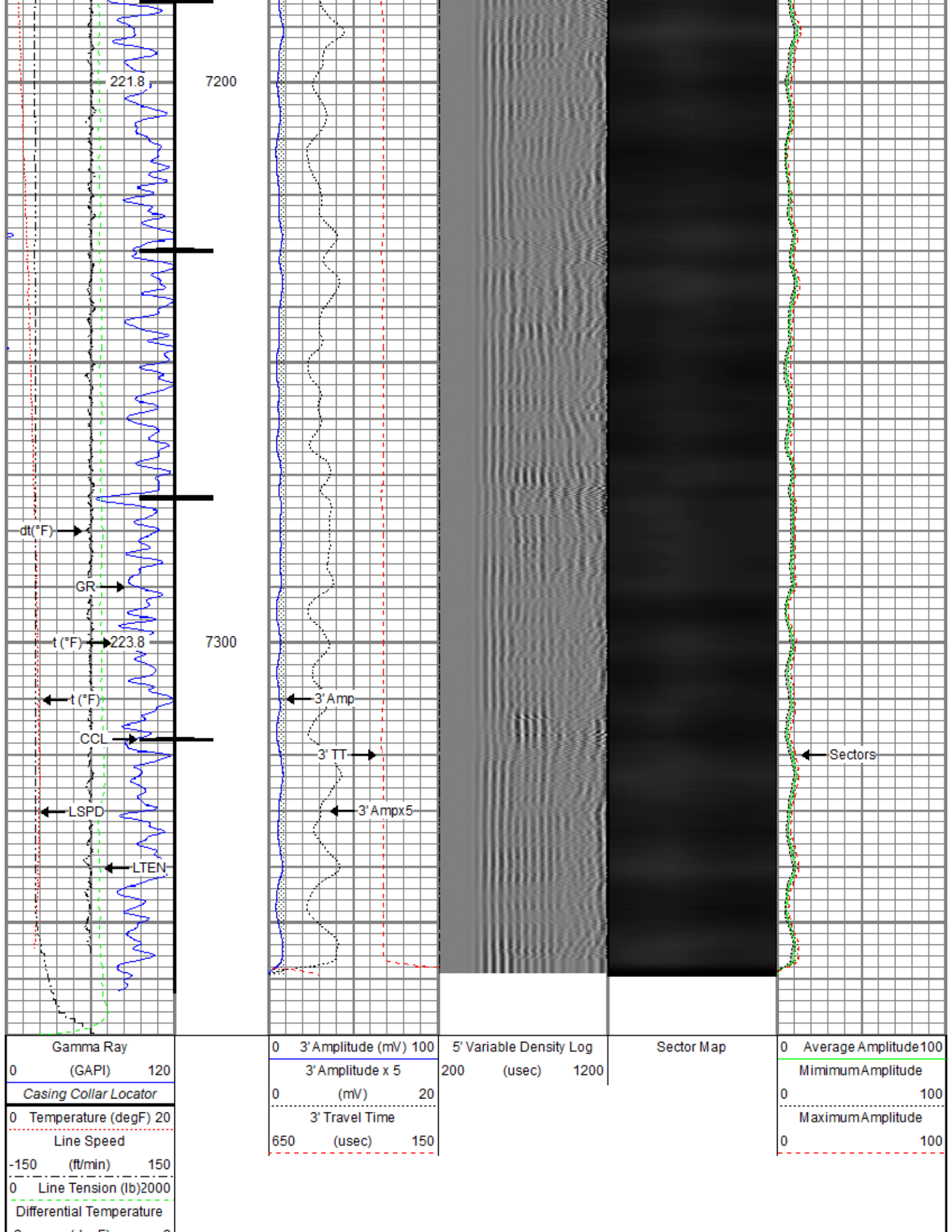












(degF) 2

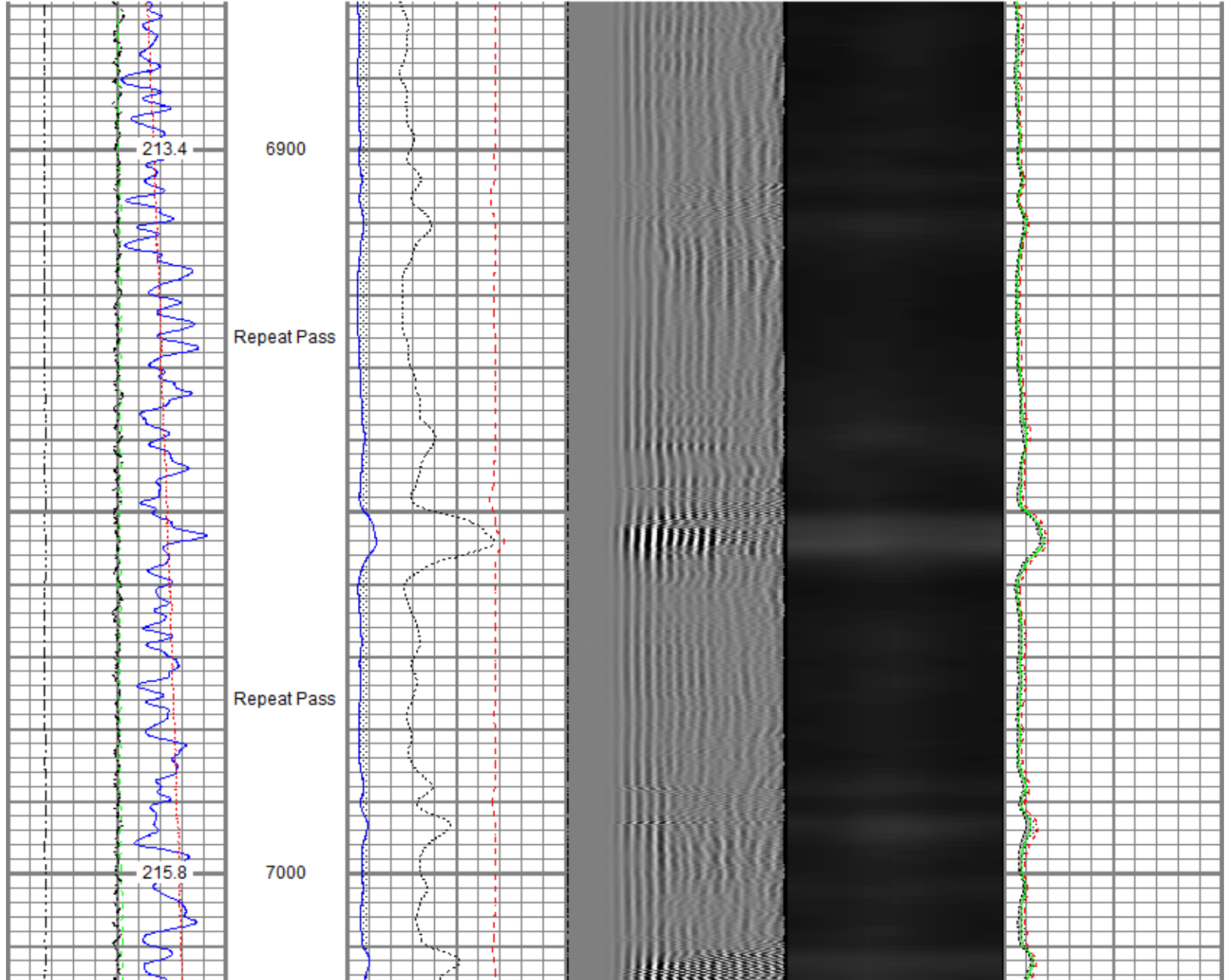


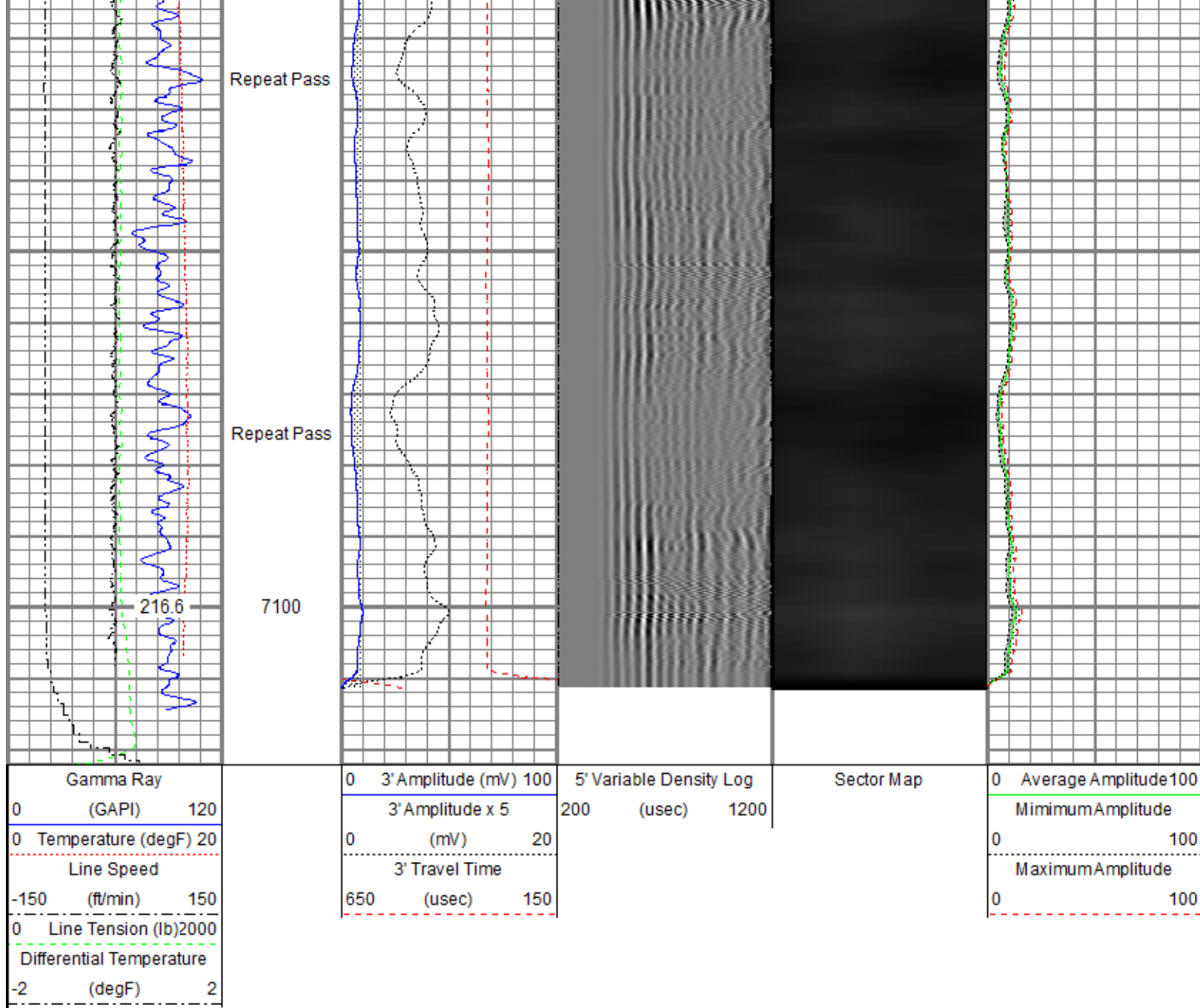
Repeat Pass

Recorded With 2800 PSI Surface Induced Pressure

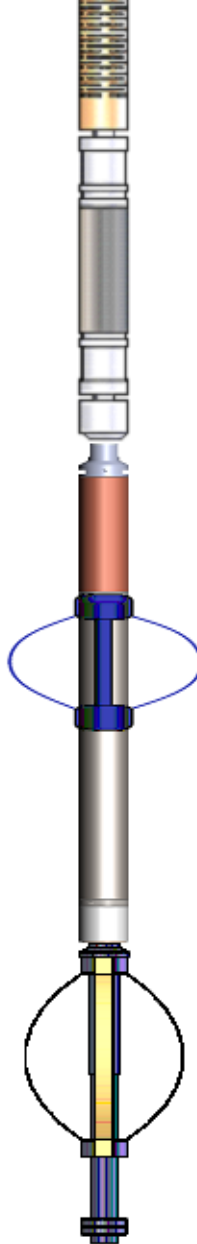
Database File 0512351252_oxy_nelson 35-15hz_rbl_05-14-21.db
Dataset Pathname pass9.2
Presentation Format ros_radri
Dataset Creation Sat May 15 07:55:50 2021
Charted by Depth in Feet scaled 1:240

Gamma Ray	0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	0	Average Amplitude	100
(GAPI)	120	3' Amplitude x 5	200	(u sec)	1200		Minimum Amplitude	
Temperature (degF)	20	(mV)	20			0	Maximum Amplitude	100
Line Speed		3' Travel Time						
(ft/min)	150	(u sec)	150			0		100
Line Tension (lb)	2000							
Differential Temperature								
(degF)	2							





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
ErrCt	18.10		Titan CHD-16875 GO	1.03	1.69	5.40
RBT_HV	17.07		Titan 1-11/16" Assembled Electric Cable Head with 1" Fishing Neck			
			SO BS CENT-2750-4500	1.33	3.25	10.00
			Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer			
TEMP	14.16					
RBT_ACCZ	11.03		Probe Radii ACC-2750 RBTa (FW1302-002)	9.39	2.75	105.00
			Probe 2-3/4" Radial Cement Bond Tool with Integral			

RBT_ACCZ	11.93		Temperature Sub and Accelerometer					
RBT_ACCY	11.93							
RBT_ACCX	11.93							
WVFSYNC	11.93							
WVFS8	11.93							
WVFS7	11.93							
WVFS6	11.93							
WVFS5	11.93							
WVFS4	11.93							
WVFS3	11.93							
WVFS2	11.93							
WVFS1	11.93							
WVFCAL	11.93							
WVF3FT	11.93							
WVF5FT	10.93							
CCL\$2	6.80							
CCL\$1	6.80							
GR	5.46		SO BS CENT-2750-4500	1.33	3.25	10.00		
		Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer						
		Probe GR-CCL-2750 6PB (FW1304-132)	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						
LOCTIM	0.00							
UTCTIM	0.00							
Dataset:		0512351252_oxy_nelson 35-15hz_rbl_05-14-21.db: field/well/run1/pass11.2						
Total length:		18.10 ft						
Total weight:		215.40 lb						
O.D.:		3.25 in						

Calibration Report		
Database File	0512351252_oxy_nelson 35-15hz_rbl_05-14-21.db	
Dataset Pathname	pass11.2	
Dataset Creation	Sat May 15 07:50:55 2021	
Gamma Ray Calibration Report		
Serial Number:	FW1304-132	
Tool Model:	2750 6PB	
Performed:	Mon Oct 19 14:19:51 2020	
Calibrator Value:	637.0	GAPI
Background Reading:	109.1	cps
Calibrator Reading:	1009.7	cps
Sensitivity:	0.7072	GAPI/cps
Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1302-002	
Tool Model:	2750 RBTa	

Tool Model: 2750 RBTa
Calibration Casing Diameter: 5.500 in
Calibration Depth: 3364.846 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.007	0.690	0.800	71.921	104.190	0.045
CAL	0.006	0.665				
5'	0.009	0.598	0.800	71.921	120.679	-0.258
SUM						
S1	0.005	0.634	0.000	100.000	158.934	-0.742
S2	0.006	0.664	0.000	100.000	152.151	-0.965
S3	0.007	0.732	0.000	100.000	137.858	-0.971
S4	0.007	0.743	0.000	100.000	135.916	-0.974
S5	0.007	0.758	0.000	100.000	133.169	-0.983
S6	0.007	0.729	0.000	100.000	138.368	-0.931
S7	0.007	0.683	0.000	100.000	148.056	-1.067
S8	0.007	0.655	0.000	100.000	154.383	-1.093

Air Zero Calibration, performed Fri May 14 08:21:20 2021:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.006		0.000		0.000	
5'	0.006		0.000		0.000	
SUM						
S1	0.006		0.000		0.000	
S2	0.006		0.000		0.000	
S3	0.006		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	0.006		0.000		0.000	

Inclinometer Calibration Report

Performed:	Mon Oct 19 14:19:51 2020				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-891.00	891.00	-1.00	1.00	gee
Y Accelerometer	-899.00	877.00	-1.00	1.00	gee
Z Accelerometer	-7.47	873.36	0.00	1.00	gee

Temperature Calibration Report

Serial Number:	FW1302-002			
Tool Model:	2750 RBTa			
Performed:	Mon Oct 19 14:19:51 2020			
	Reference		Reading	
Low Reference:	100.00	degF	110.72	degF
High Reference:	350.00	degF	409.18	degF
Gain:	0.84			
Offset:	7.26			
Delta Spacing	1			



Company	Kerr-McGee Oil & Gas Onshore, L.P.
Well	Nelson 35-15HZ
Field	Wattenberg
County	Weld
State	Colorado