



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company TEP Rocky Mountain LLC  
Well Federal WMC 531-20  
Field Rulison  
County Garfield  
State Colorado

Company TEP Rocky Mountain LLC  
Well Federal WMC 531-20  
Field Rulison  
County Garfield  
State Colorado

Location: API #: 05-045-24498

Other Services

SEC 17 TWP 7S RGE 93W

Elevation

Permanent Datum Ground Level Elevation 8869  
Log Measured From Kelly Bushing  
Drilling Measured From Kelly Bushing  
K.B. 8899 FT  
D.F. 8898 FT  
G.L. 8869 FT

Date 03-JAN-2023

Run Number One

Depth Driller 11160 FT

Depth Logger 11058 FT

Bottom Logged Interval 11050 FT

Top Log Interval Surface

Open Hole Size 8.75"

Type Fluid Water

Density / Viscosity 8.34 Lb/Gal

Max. Recorded Temp. 260°F

Estimated Cement Top See Log

Time Well Ready ROA

Time Logger on Bottom 13:00

Equipment Number 8045

Location Grand Junction

Recorded By P. Edwards

Witnessed By D. Welsh

Borehole Record

Run Number

Bit

From

To

Size

Weight

From

To

Tubing Record

Run Number

Bit

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

Comments

Log is correlated to 30' K.B.  
Marker joint logged @ 6583 FT - 6593 FT  
Log ran with 0 PSI at surface

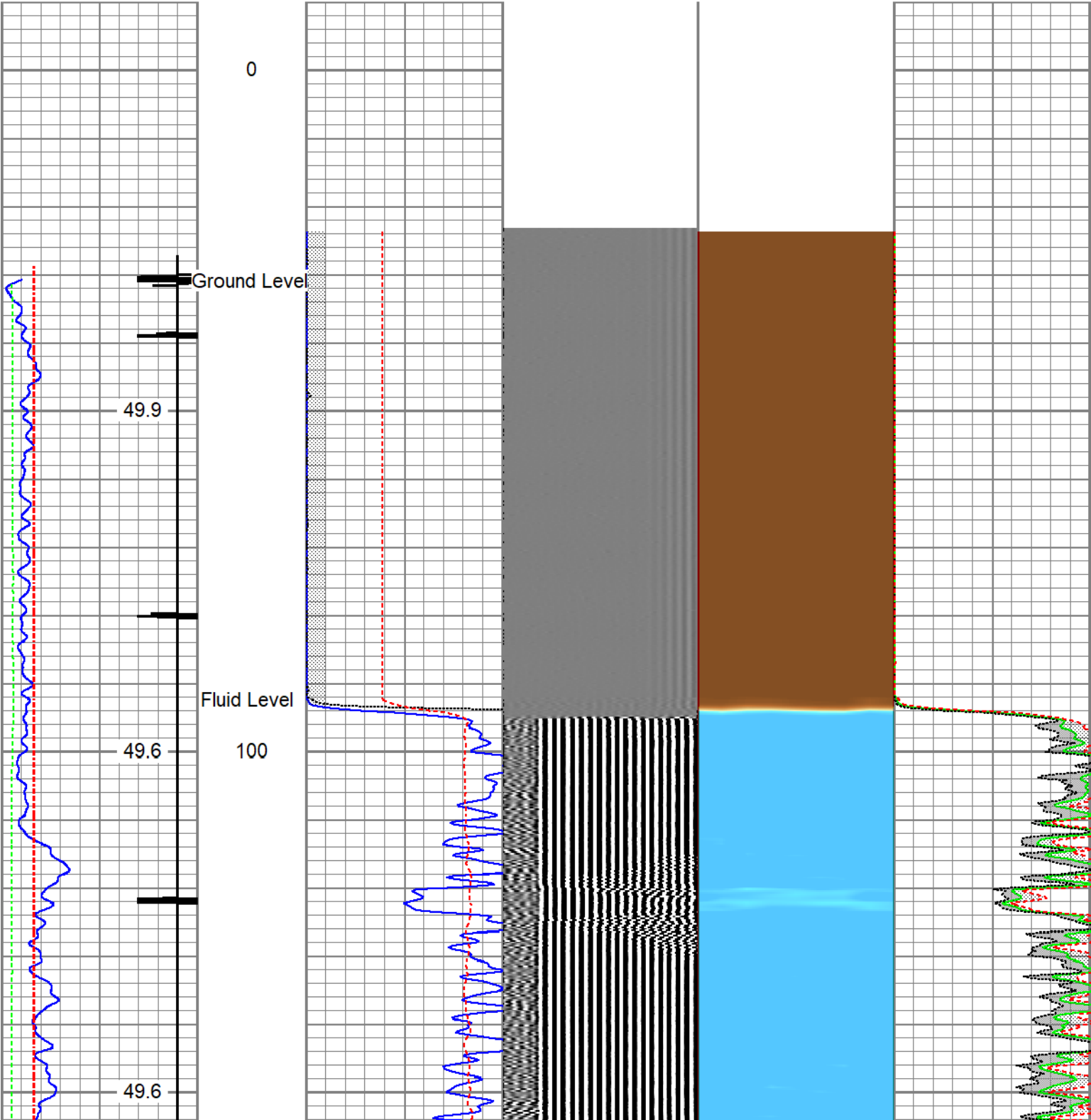
Thank you for choosing The Wireline Group!

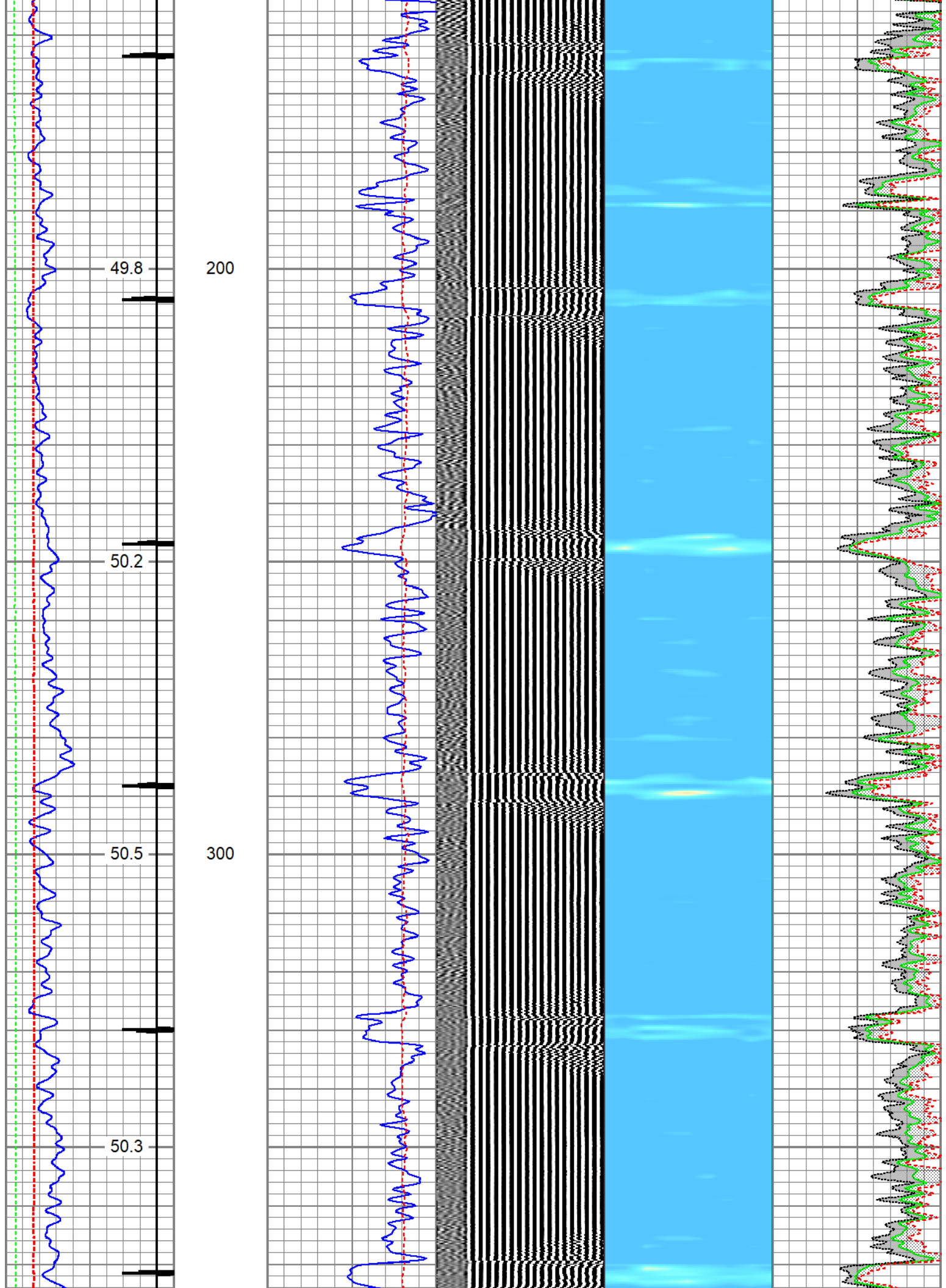


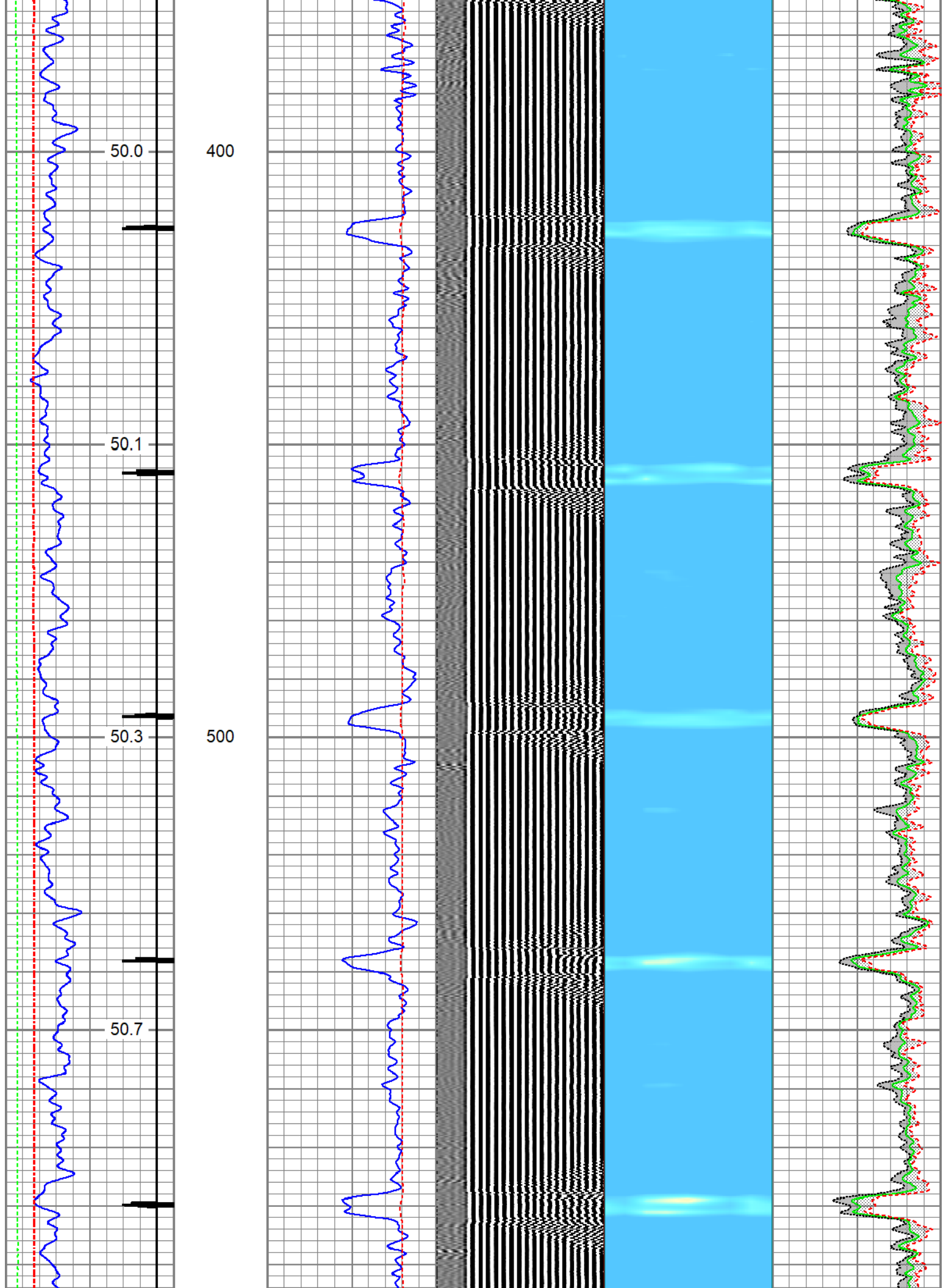
Main Pass 5" = 100'

Database File	tep_wmc fed 531-20_rcbl_1-3-2023.db
Dataset Pathname	main
Presentation Format	twgrcbl
Dataset Creation	Tue Jan 03 13:02:18 2023
Charted by	Depth in Feet scaled 1:240

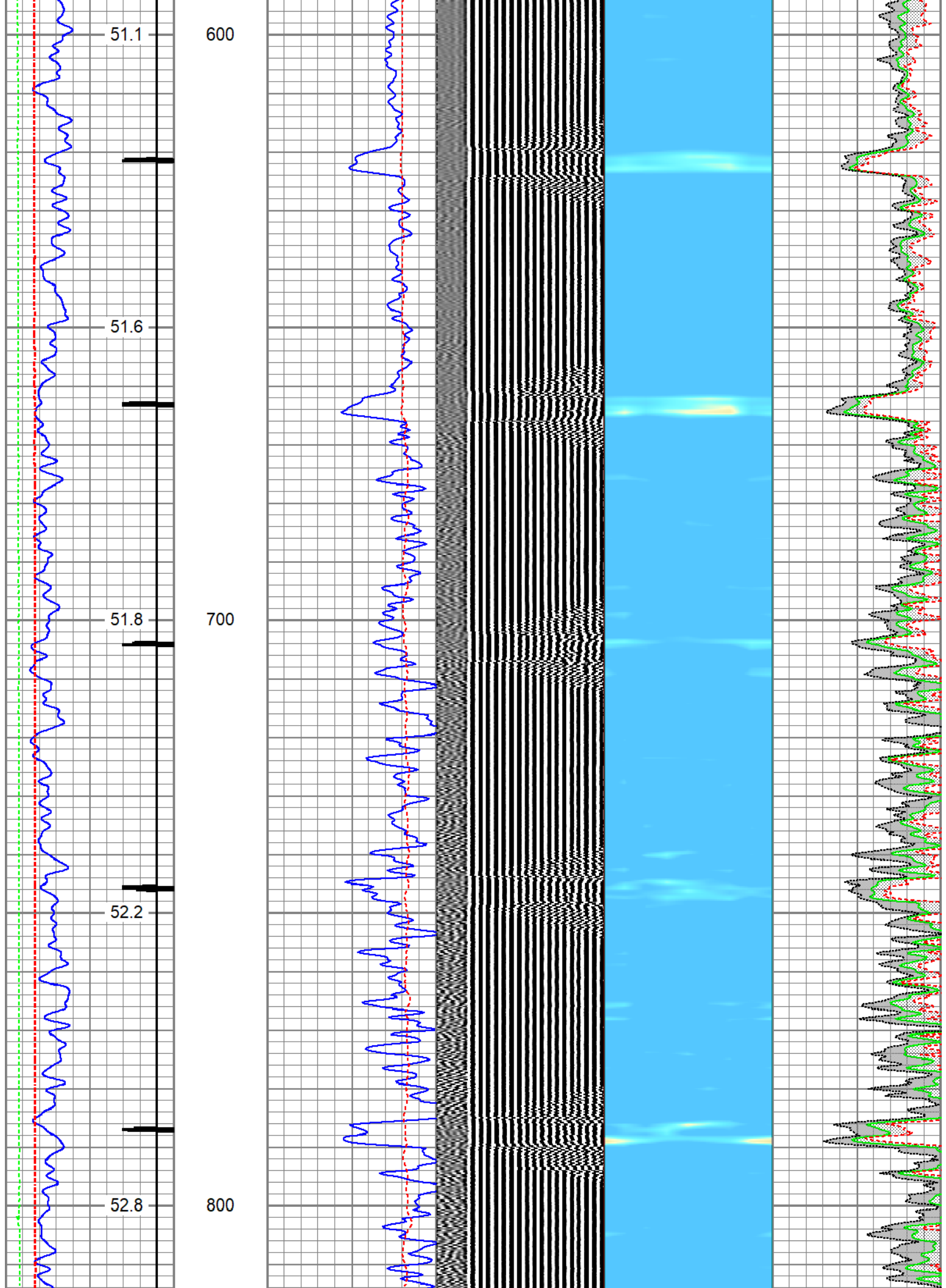
Gamma Ray		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200		0 (mV) 100	200 (usec) 1200		0 120
Line Tension		3' Amplitude x 5			Minimum Amplitude
0 (lb) 4000		0 (mV) 20			0 120
-9 CCL 1		3' Travel Time			Maximum Amplitude
0 Temp (degF) 300		650 (usec) 150			0 120

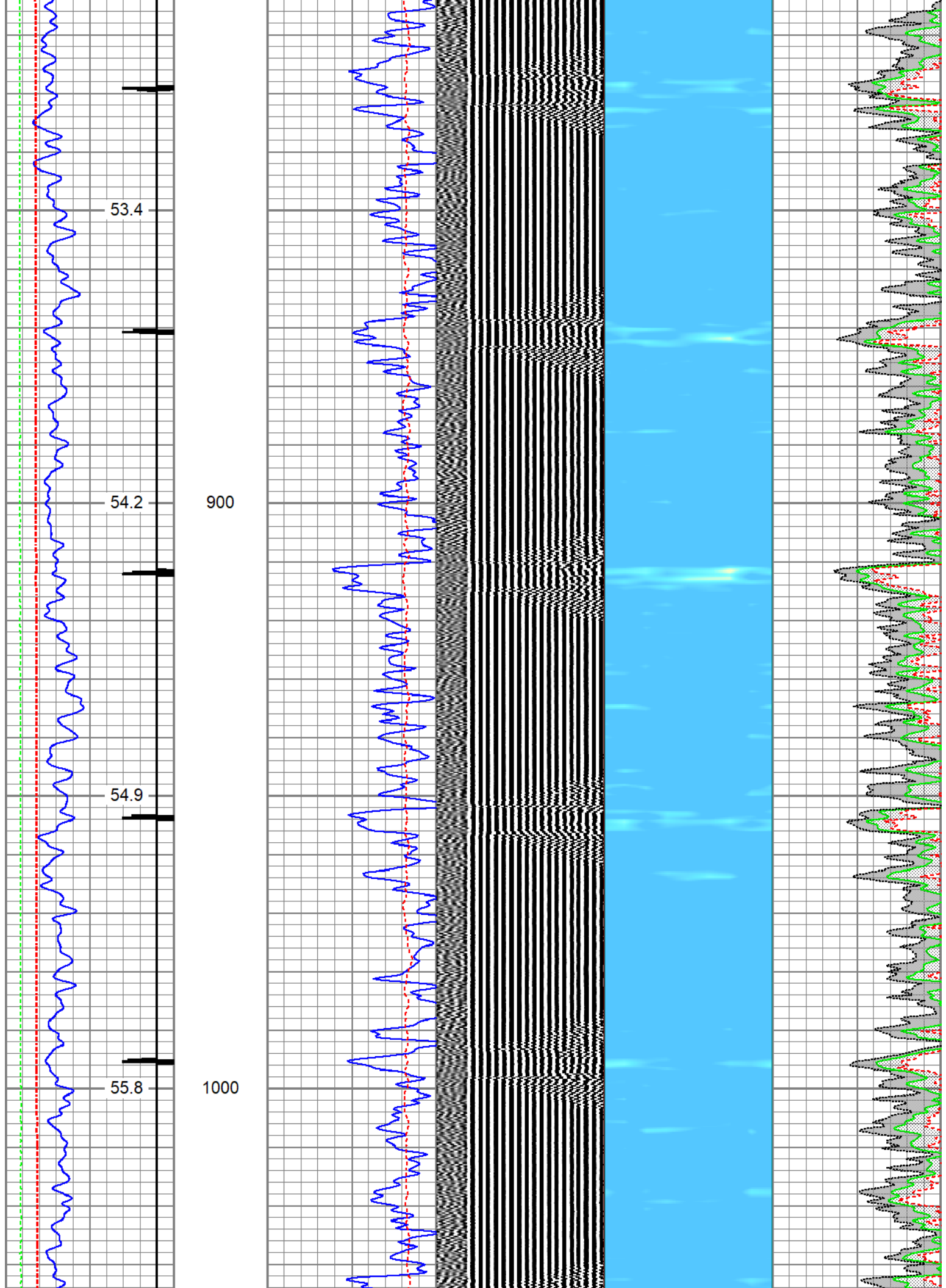


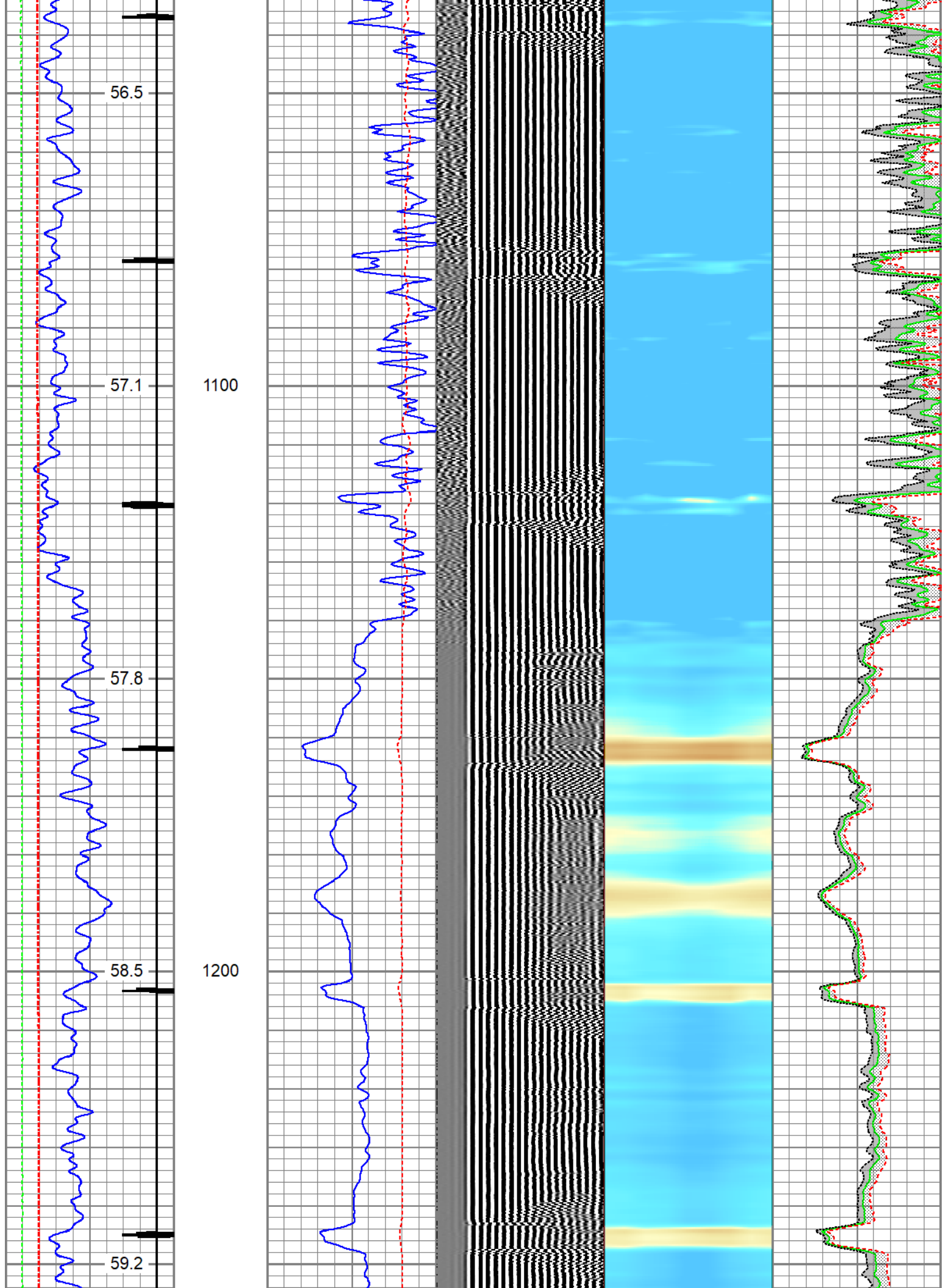




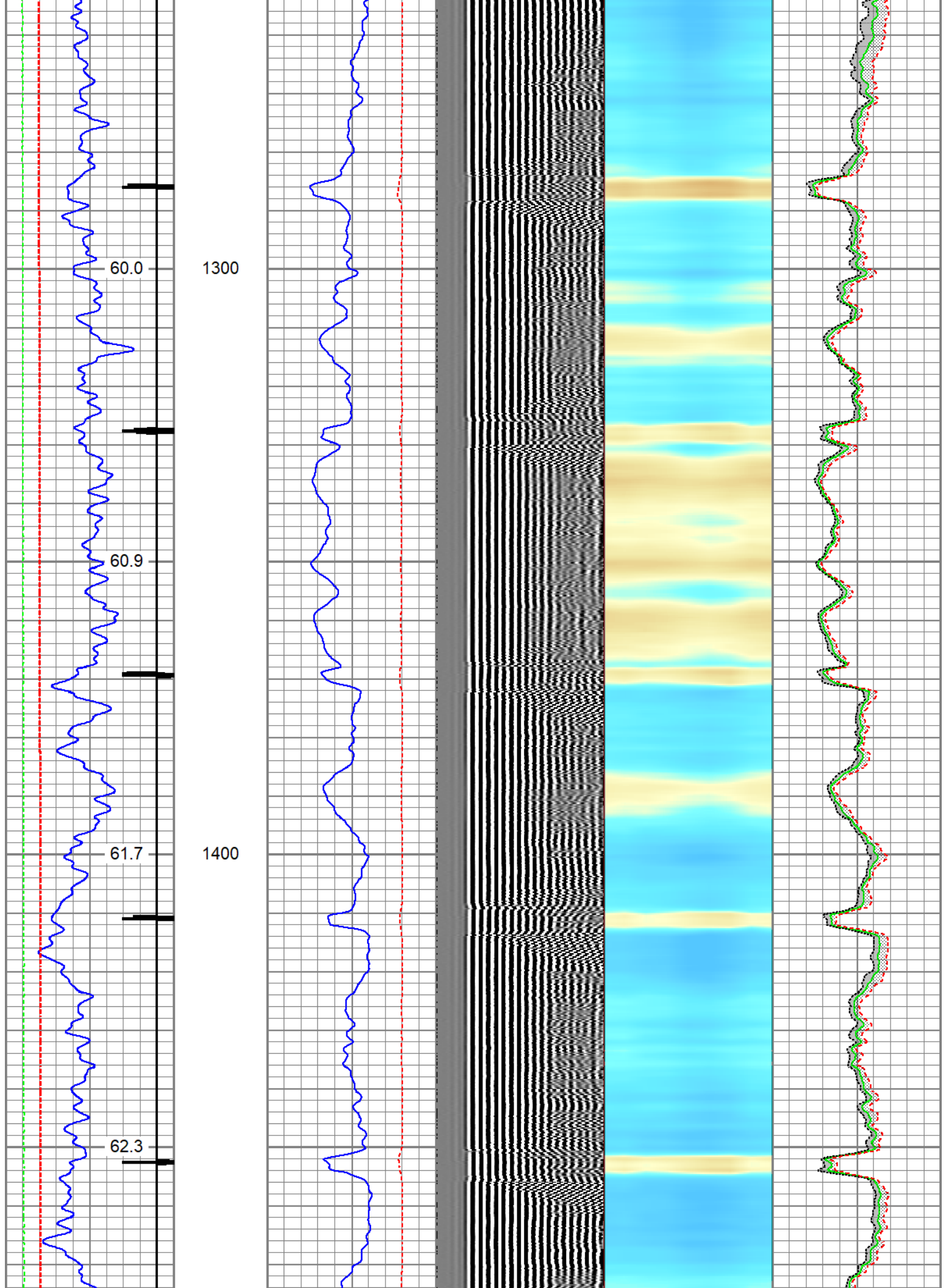




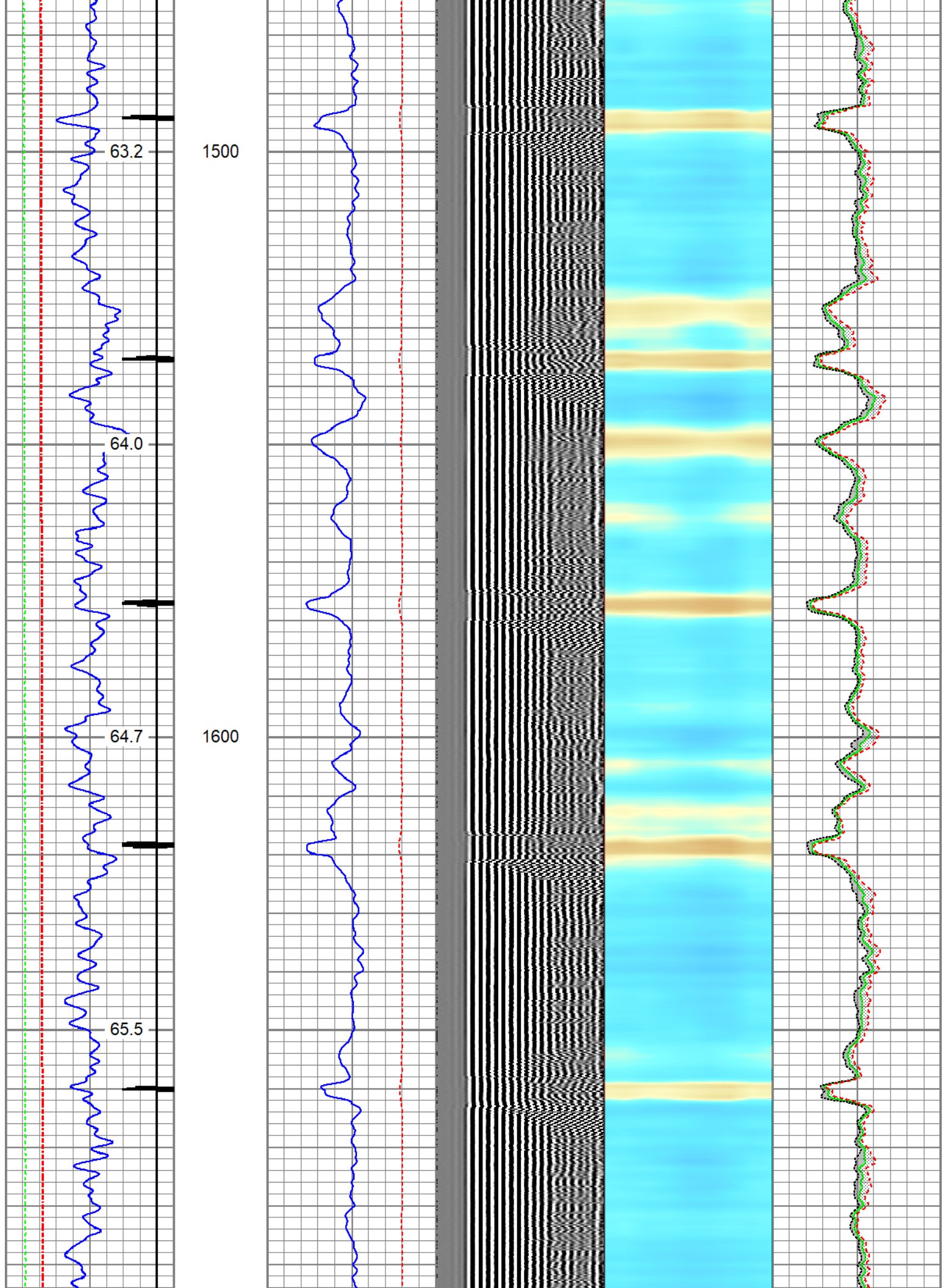


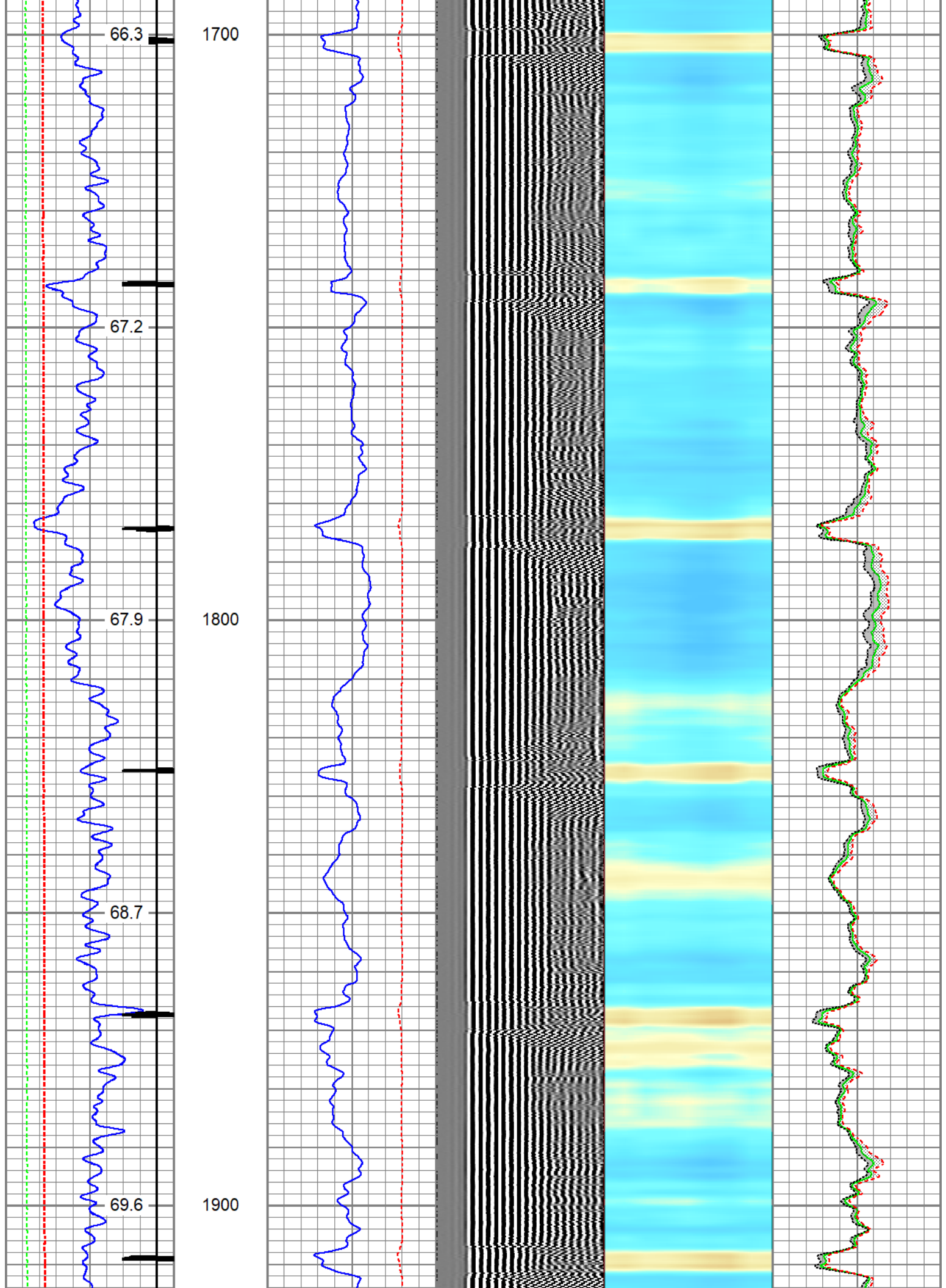


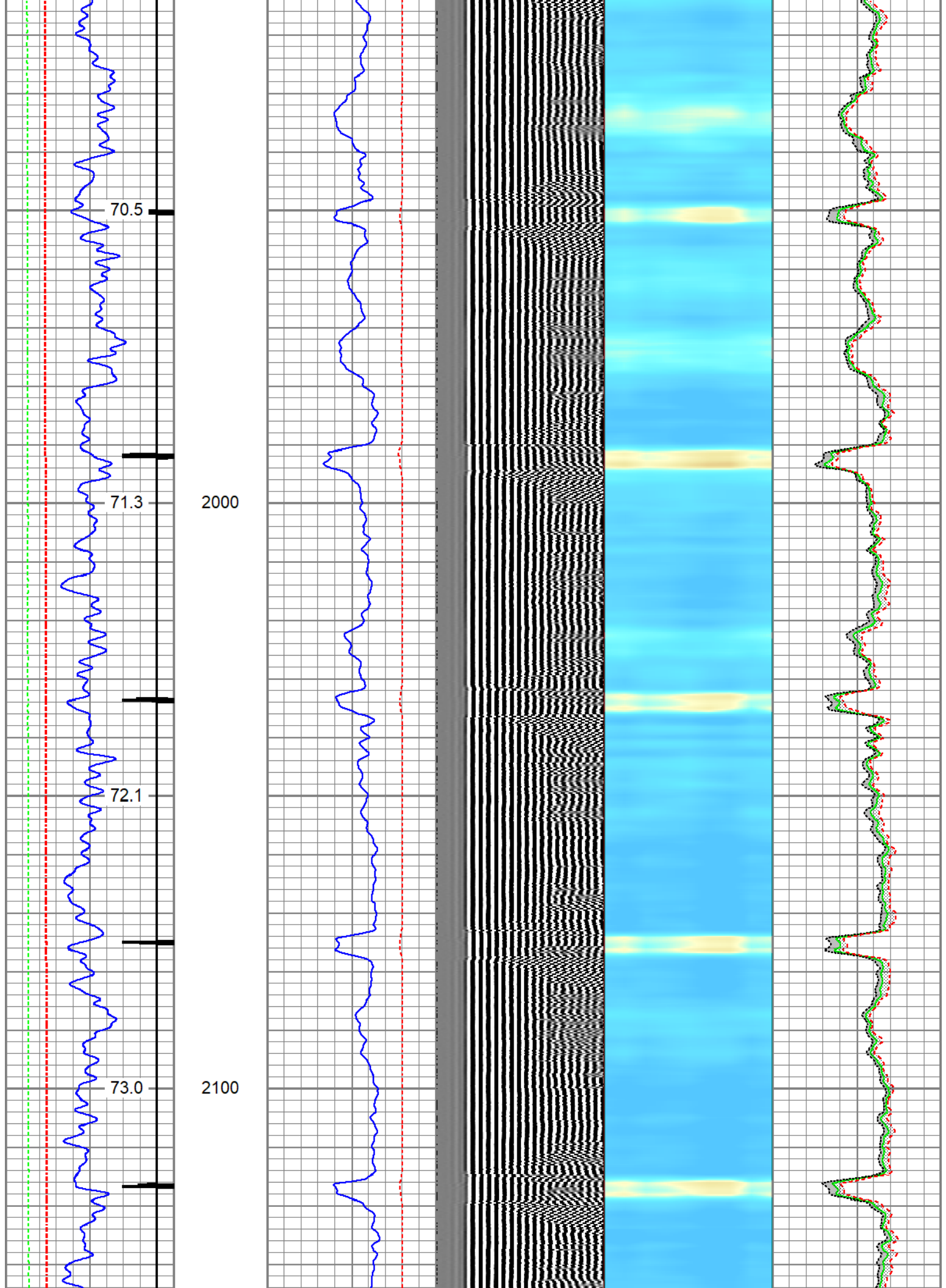




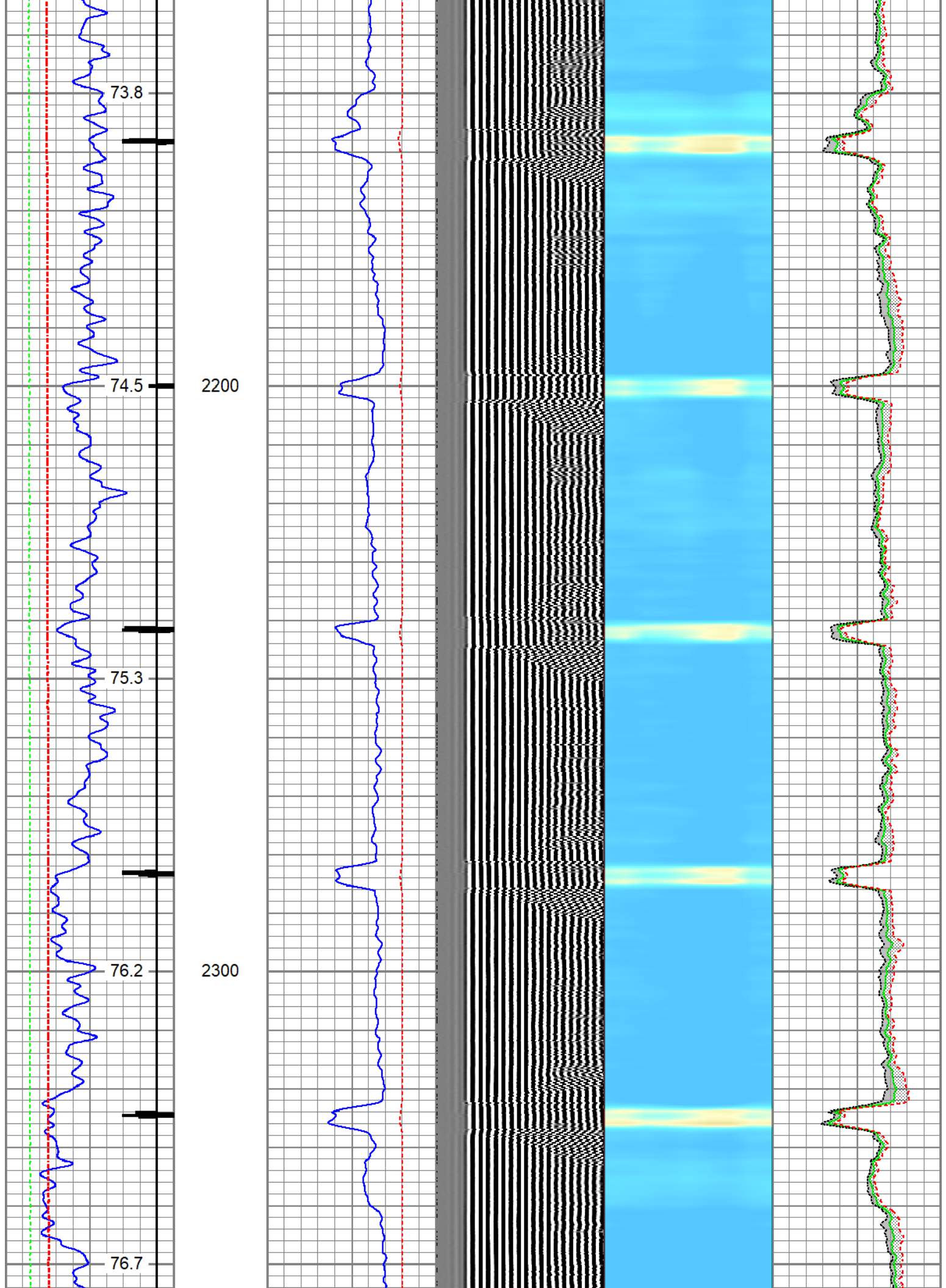




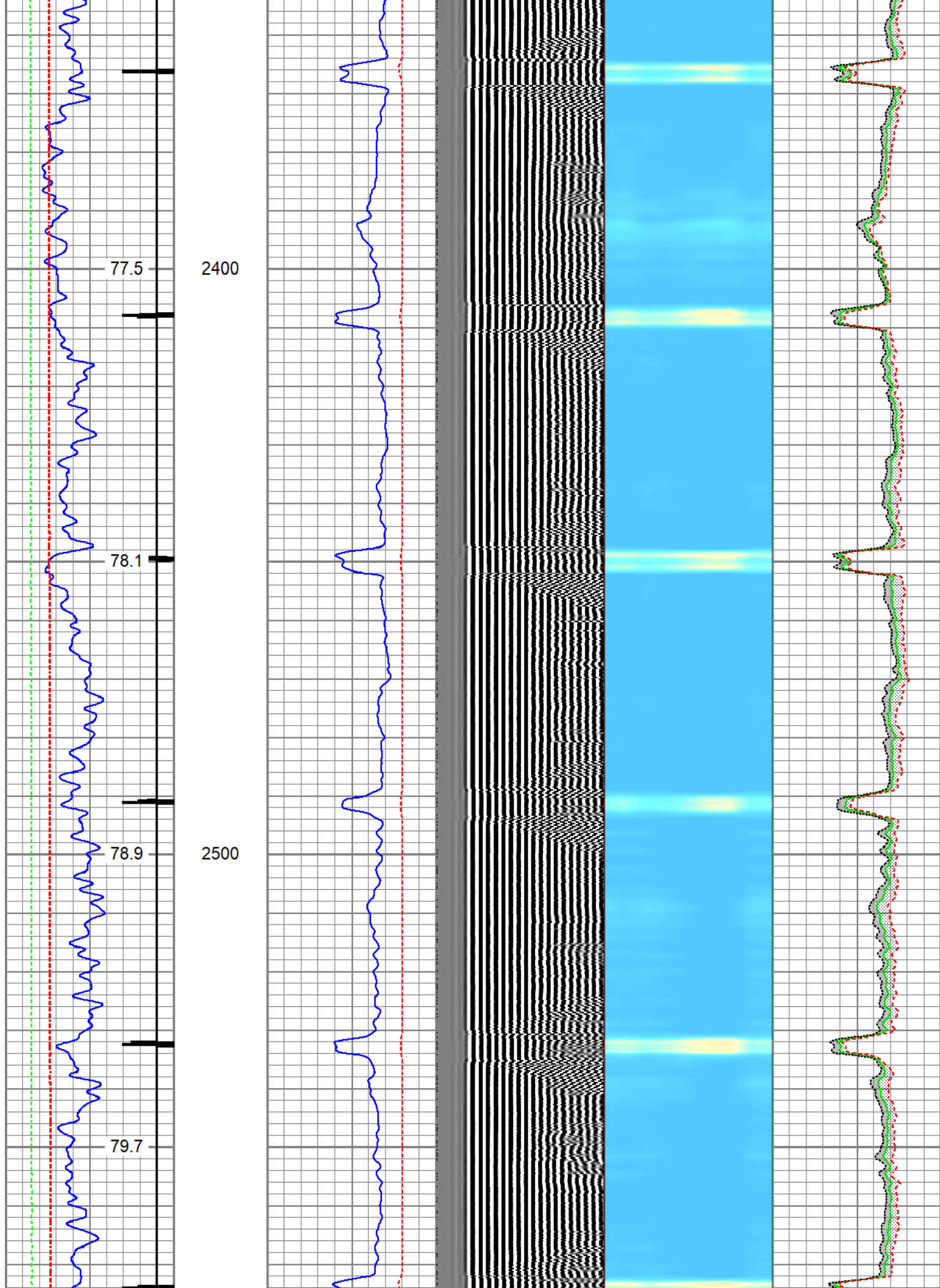


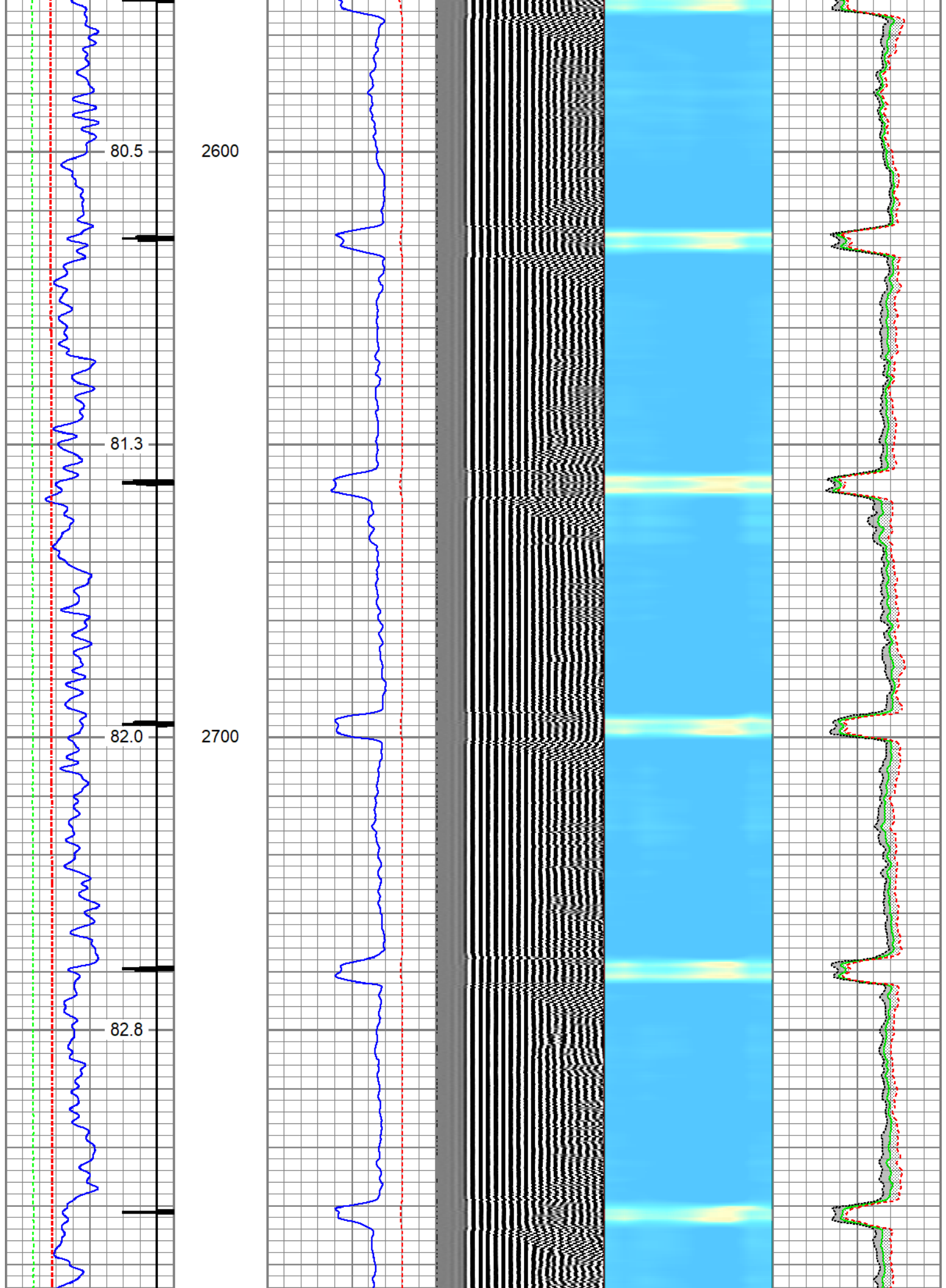


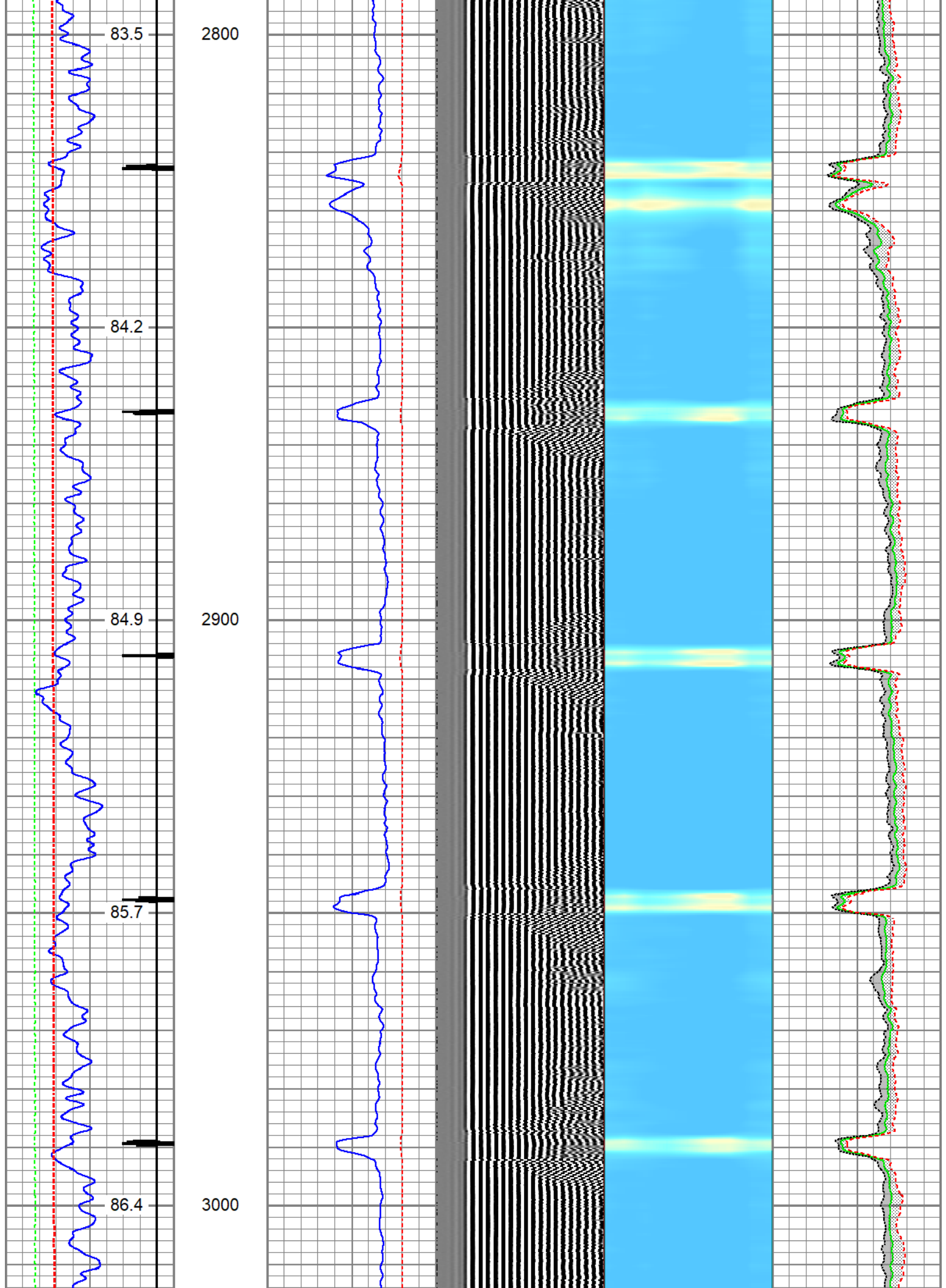




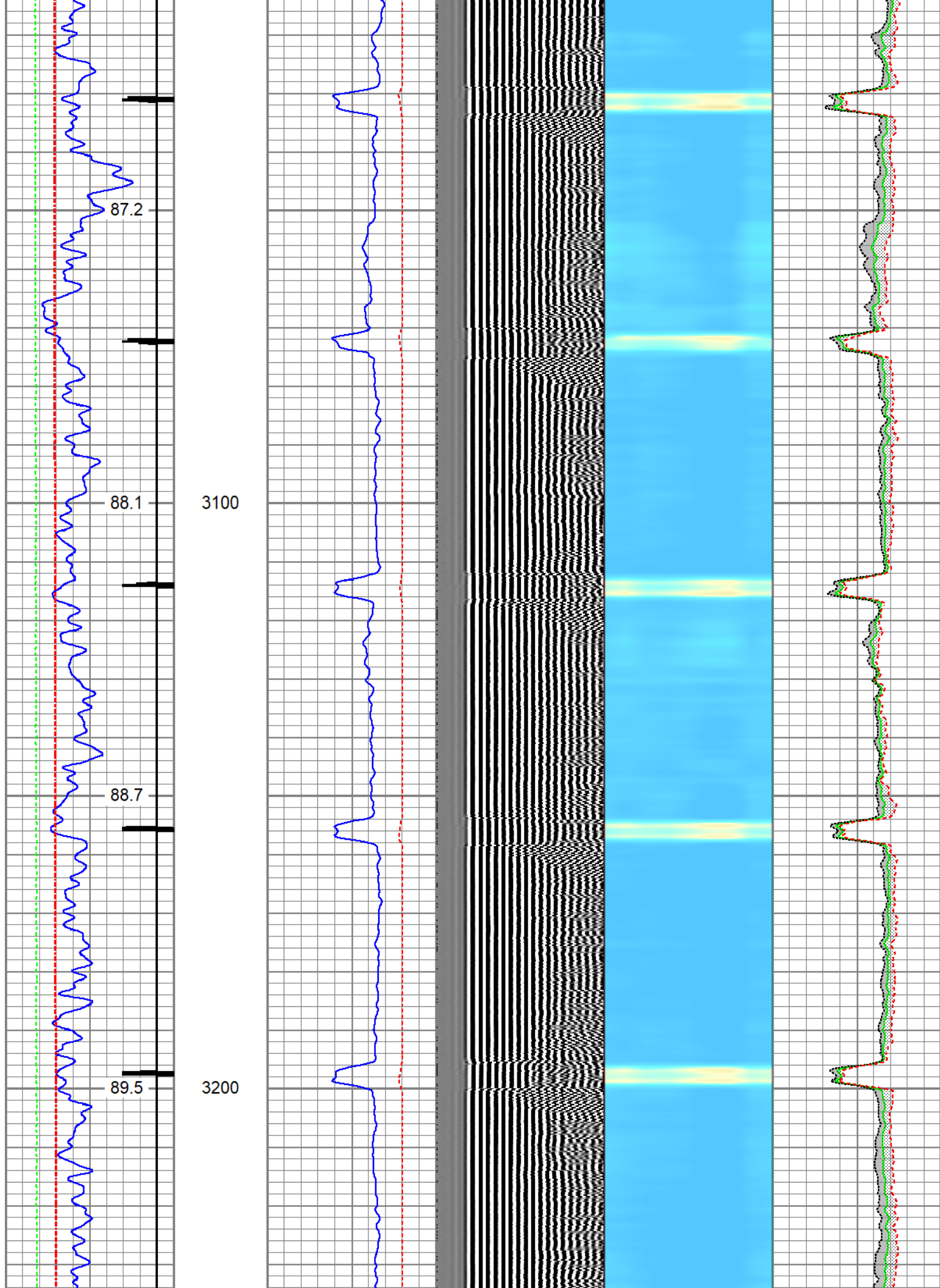




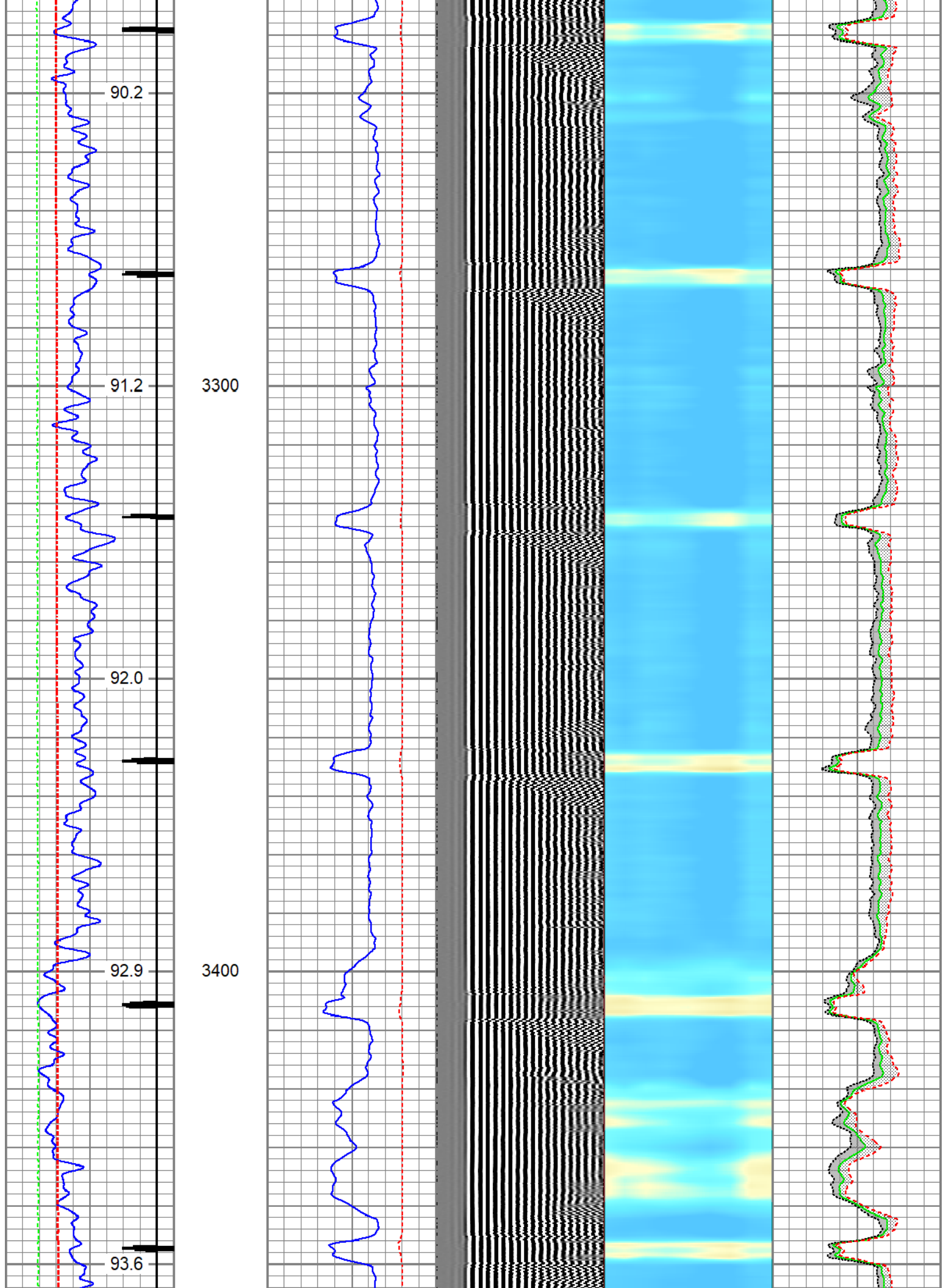


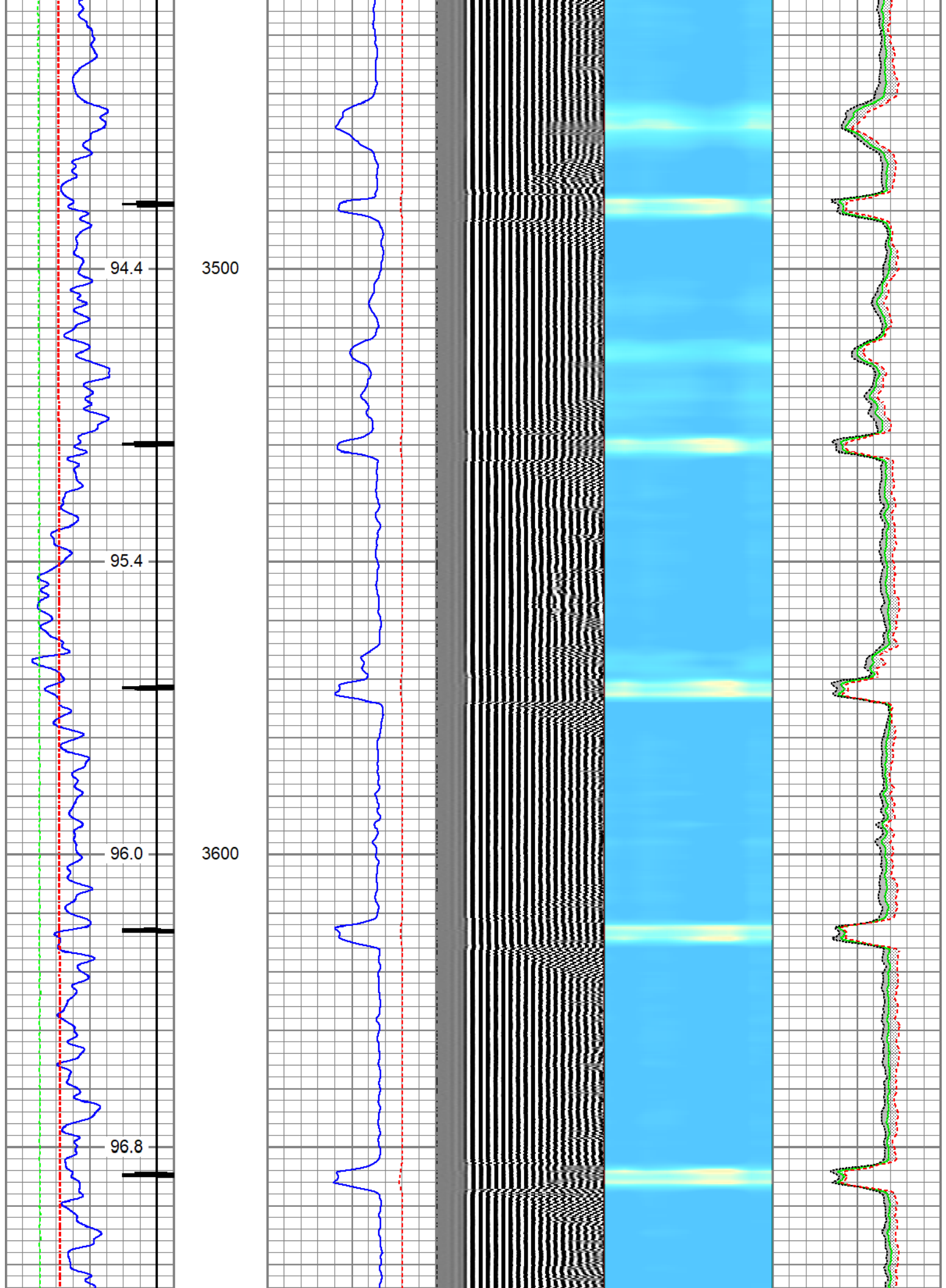


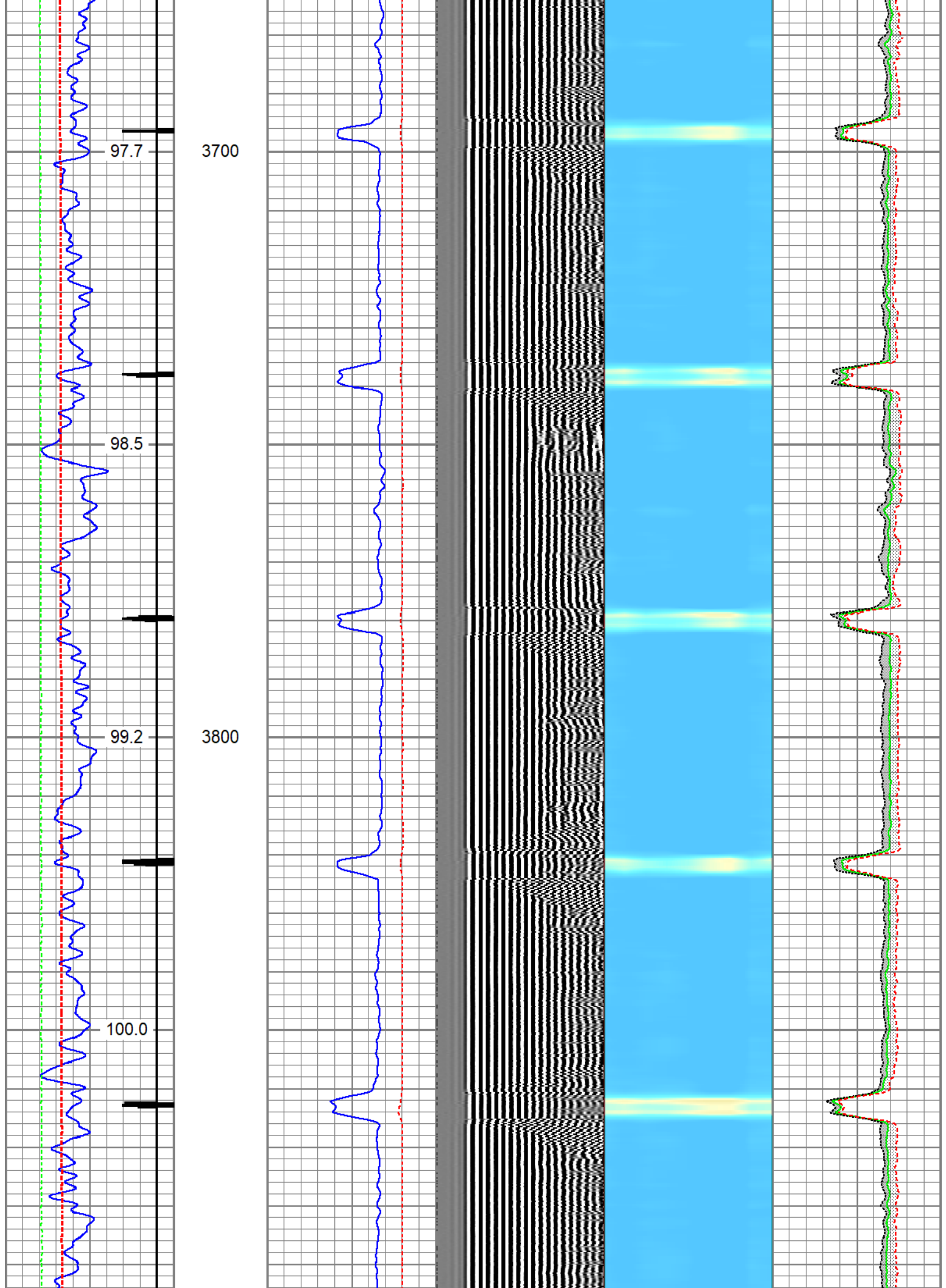




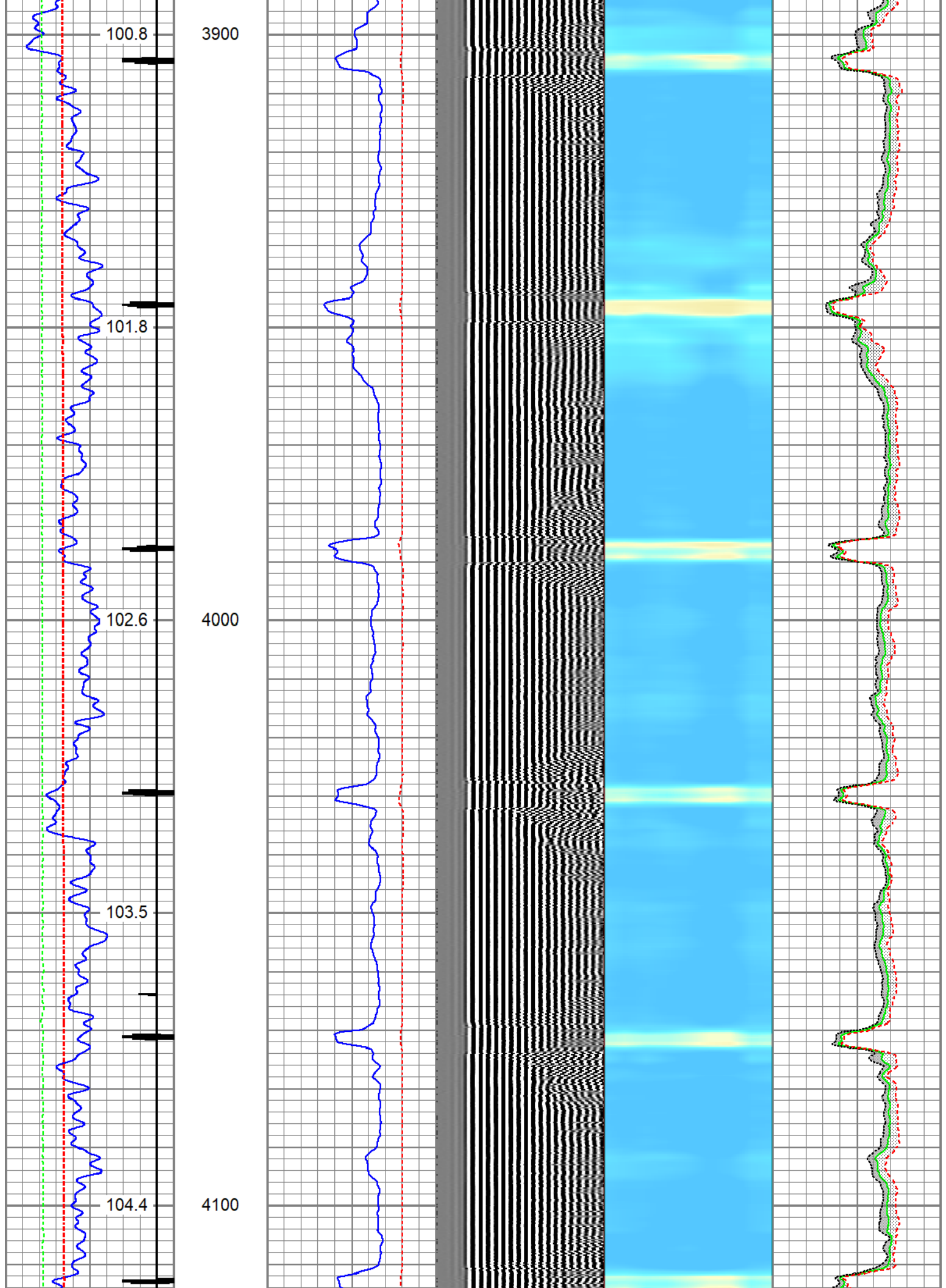




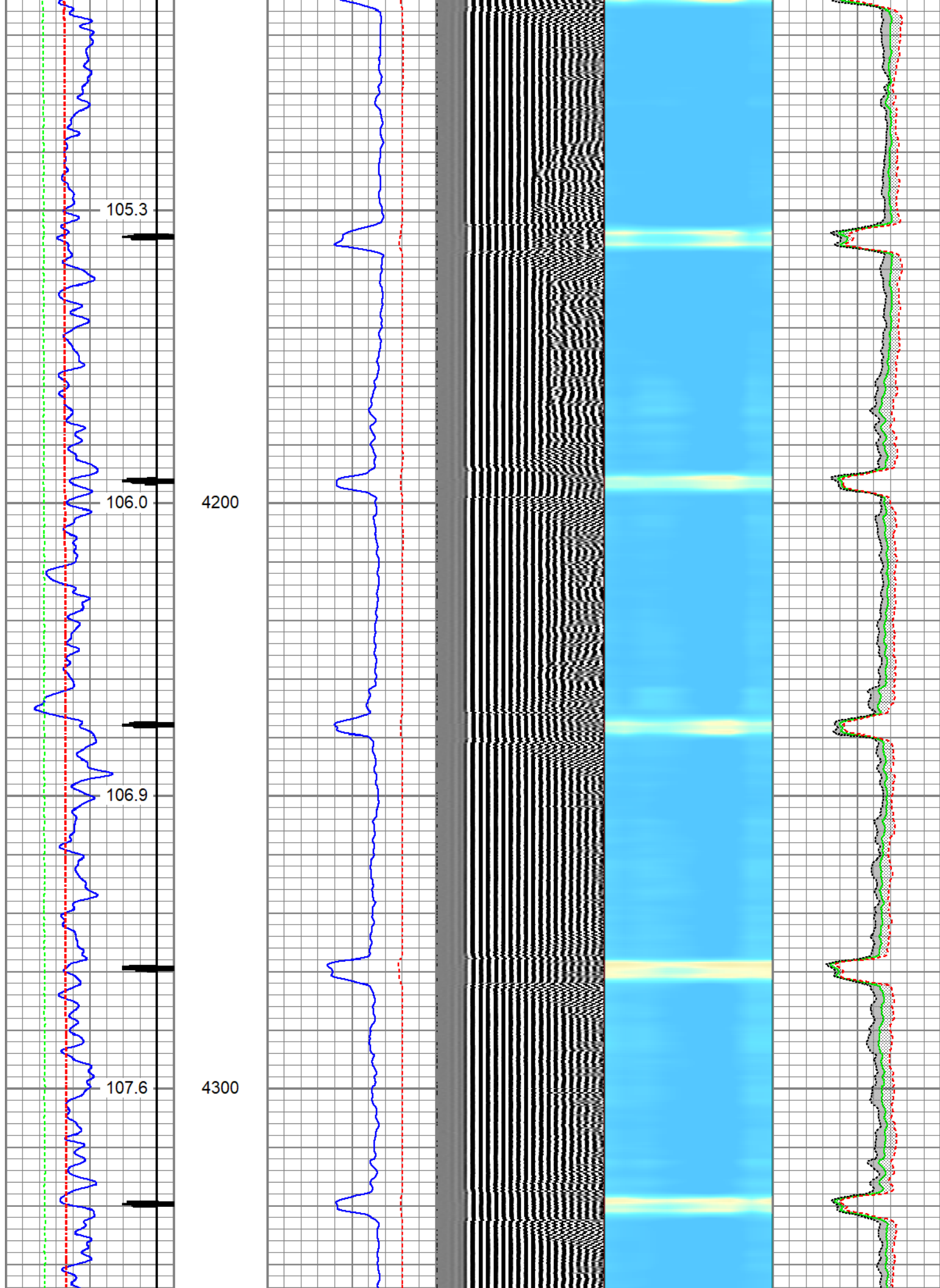


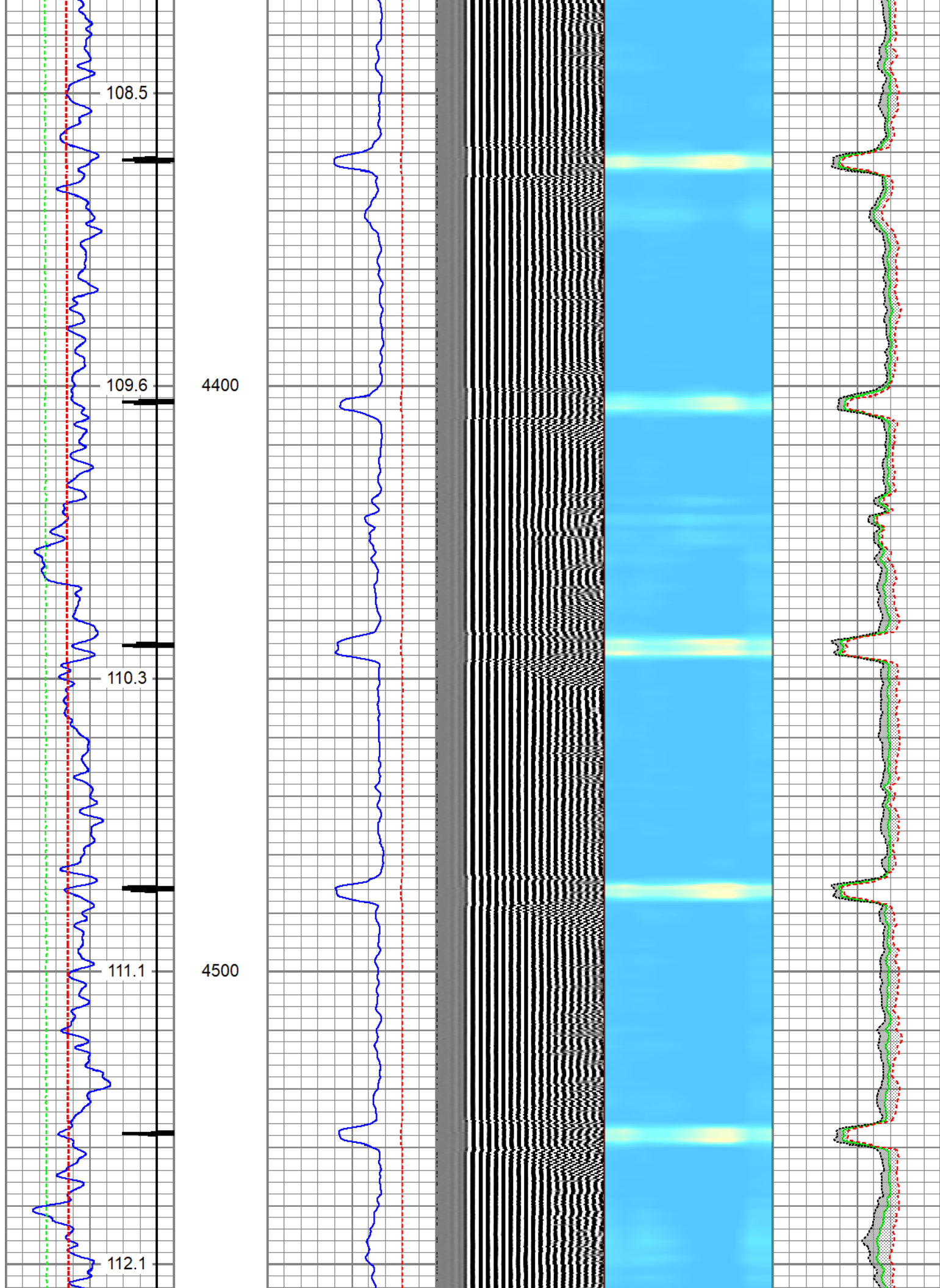


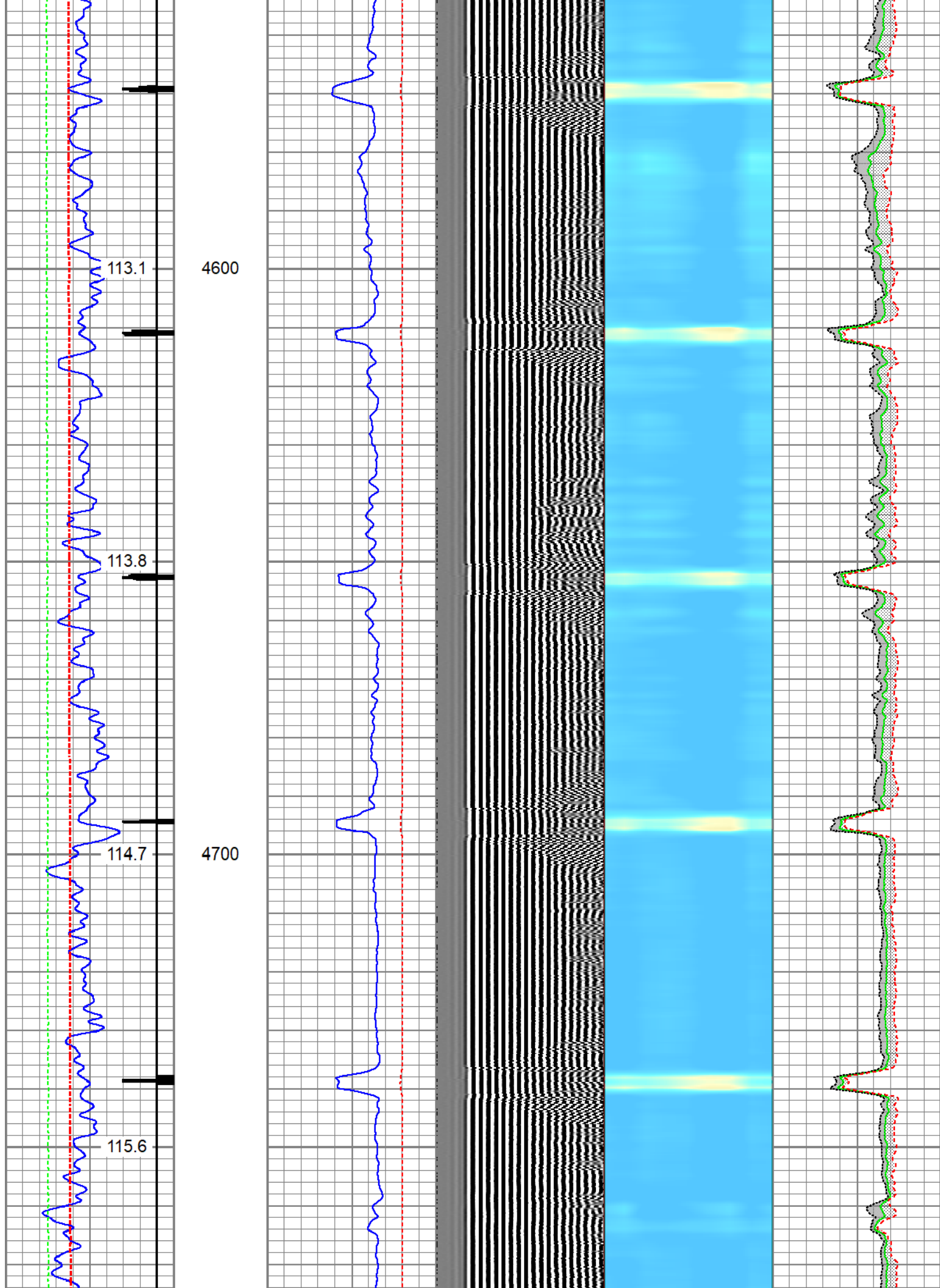




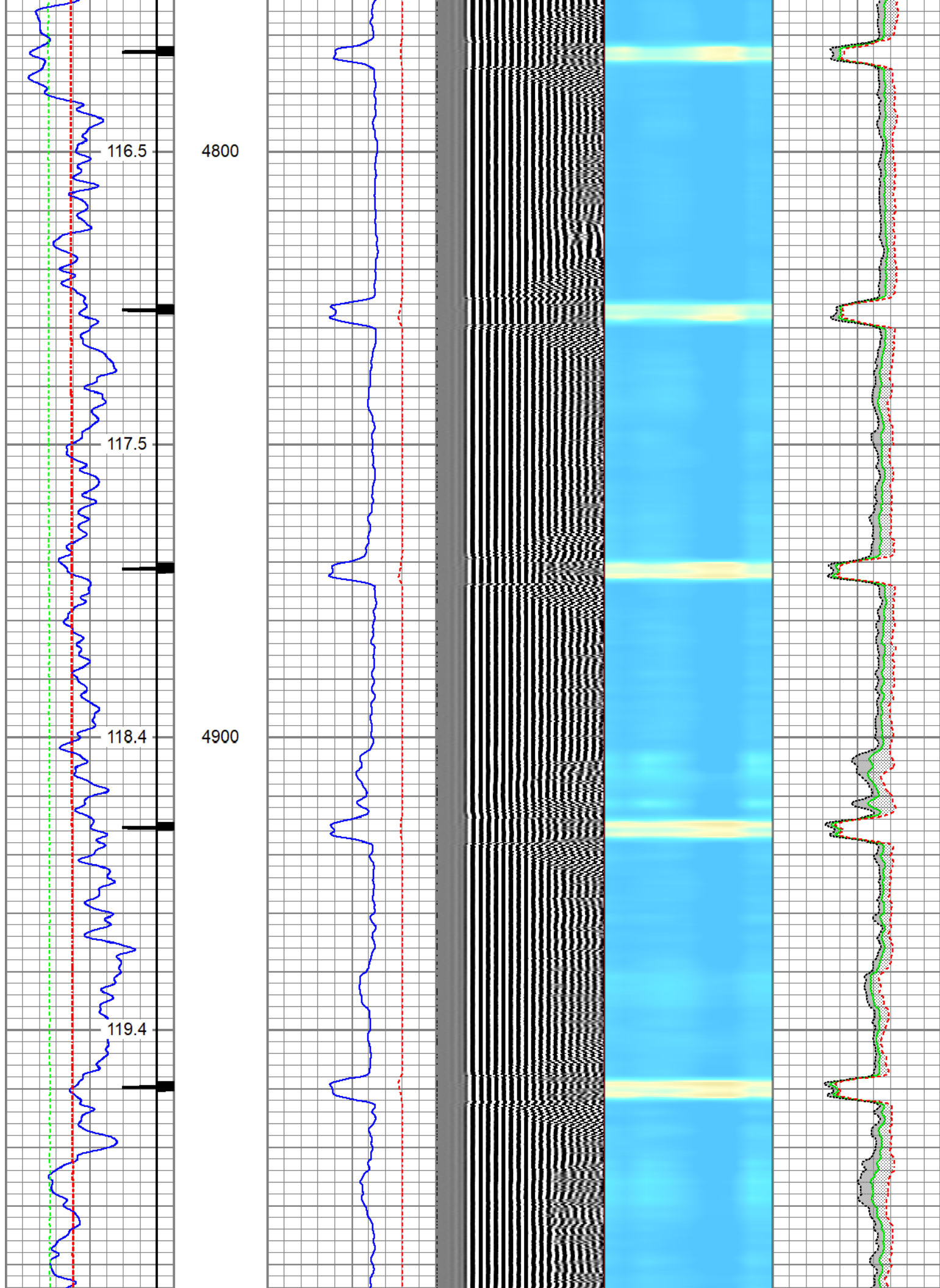


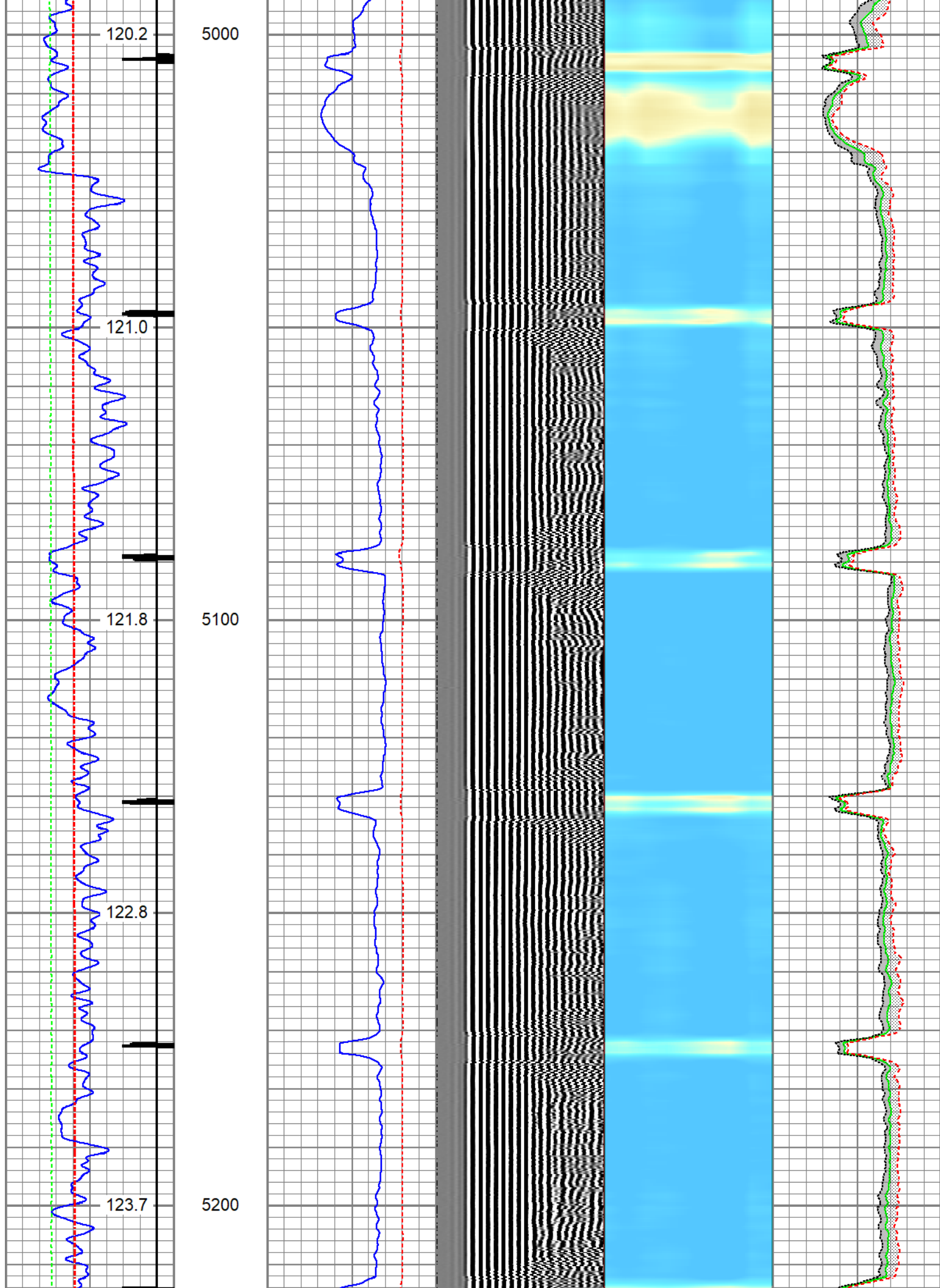


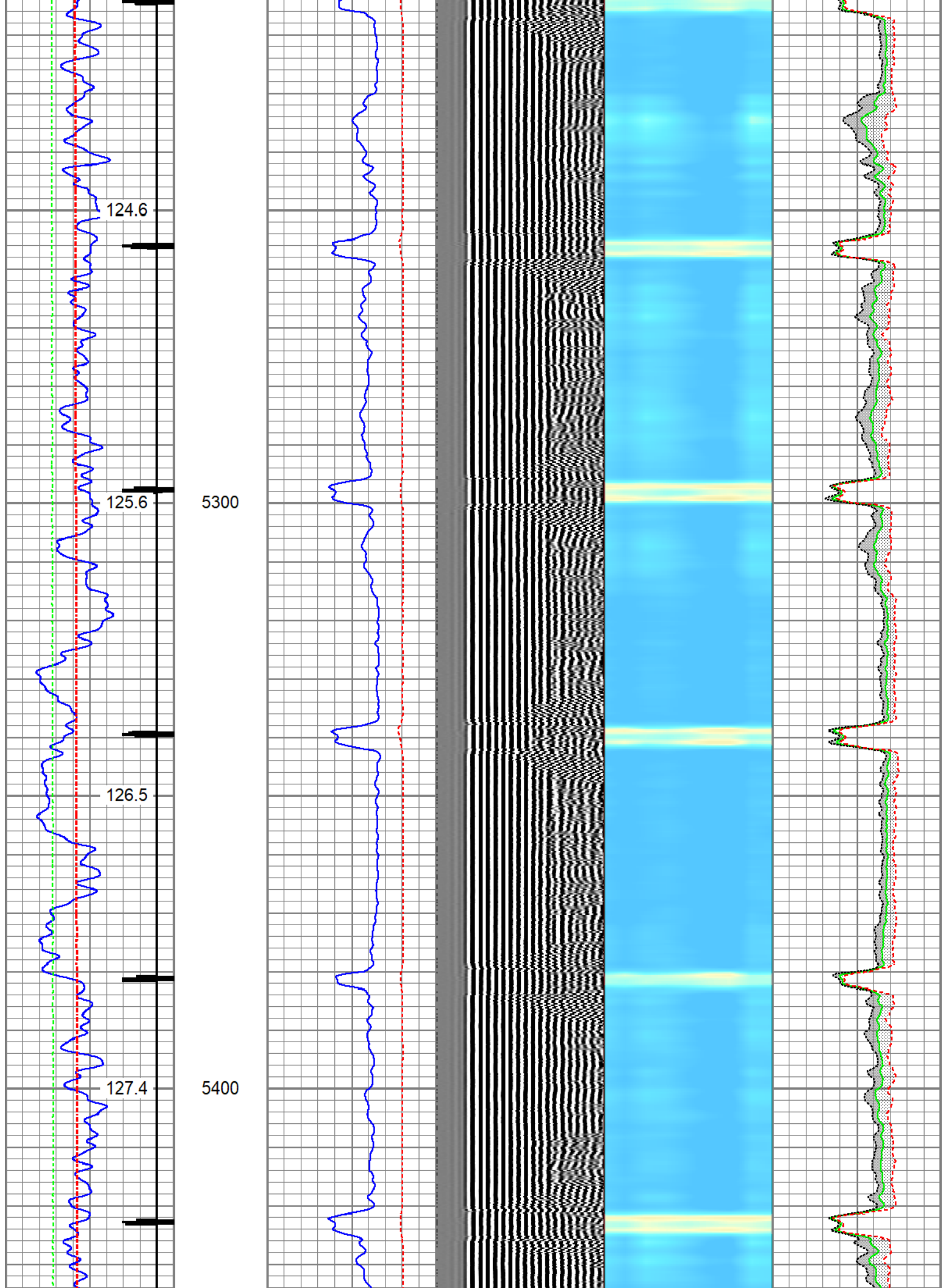




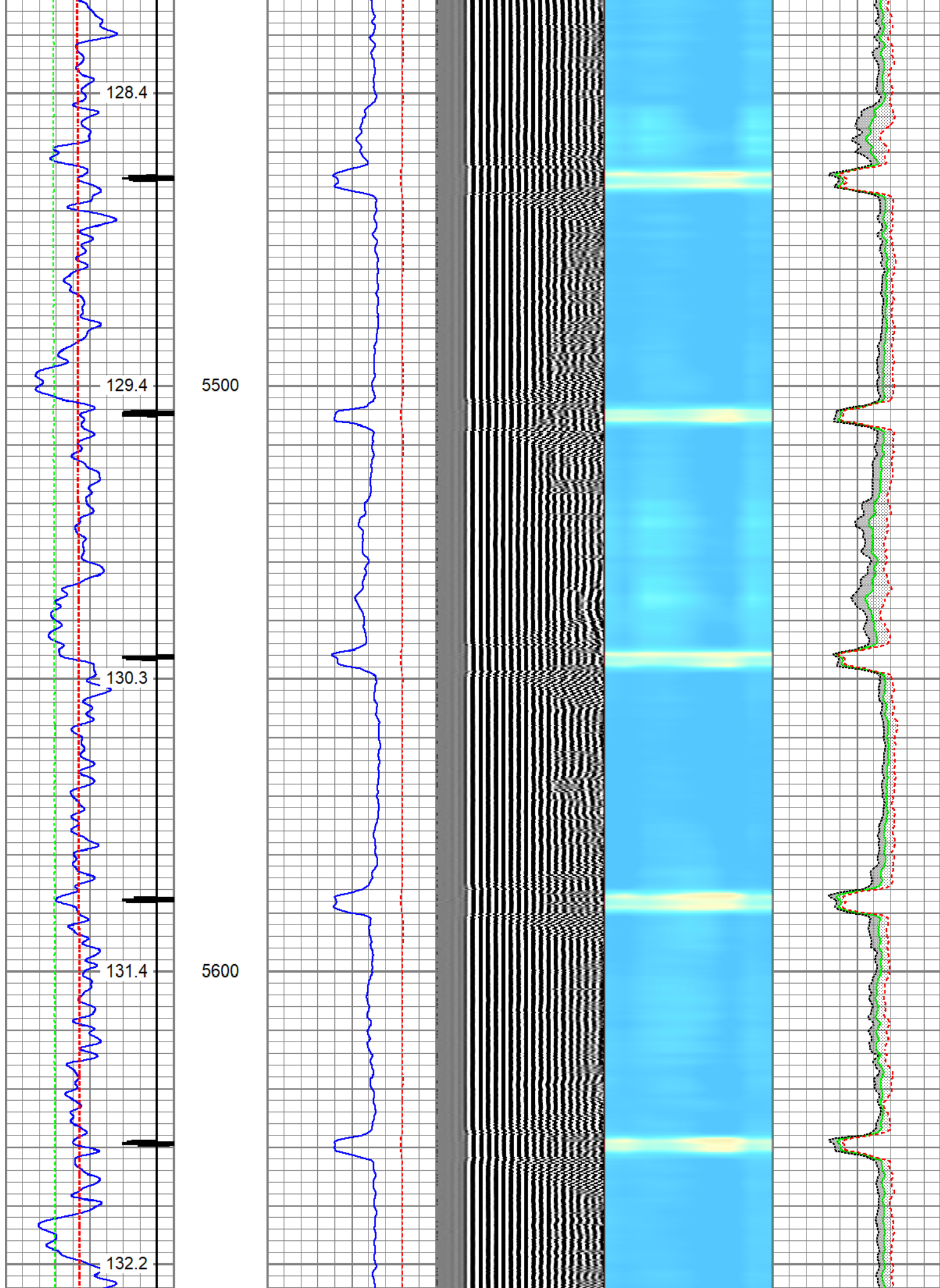


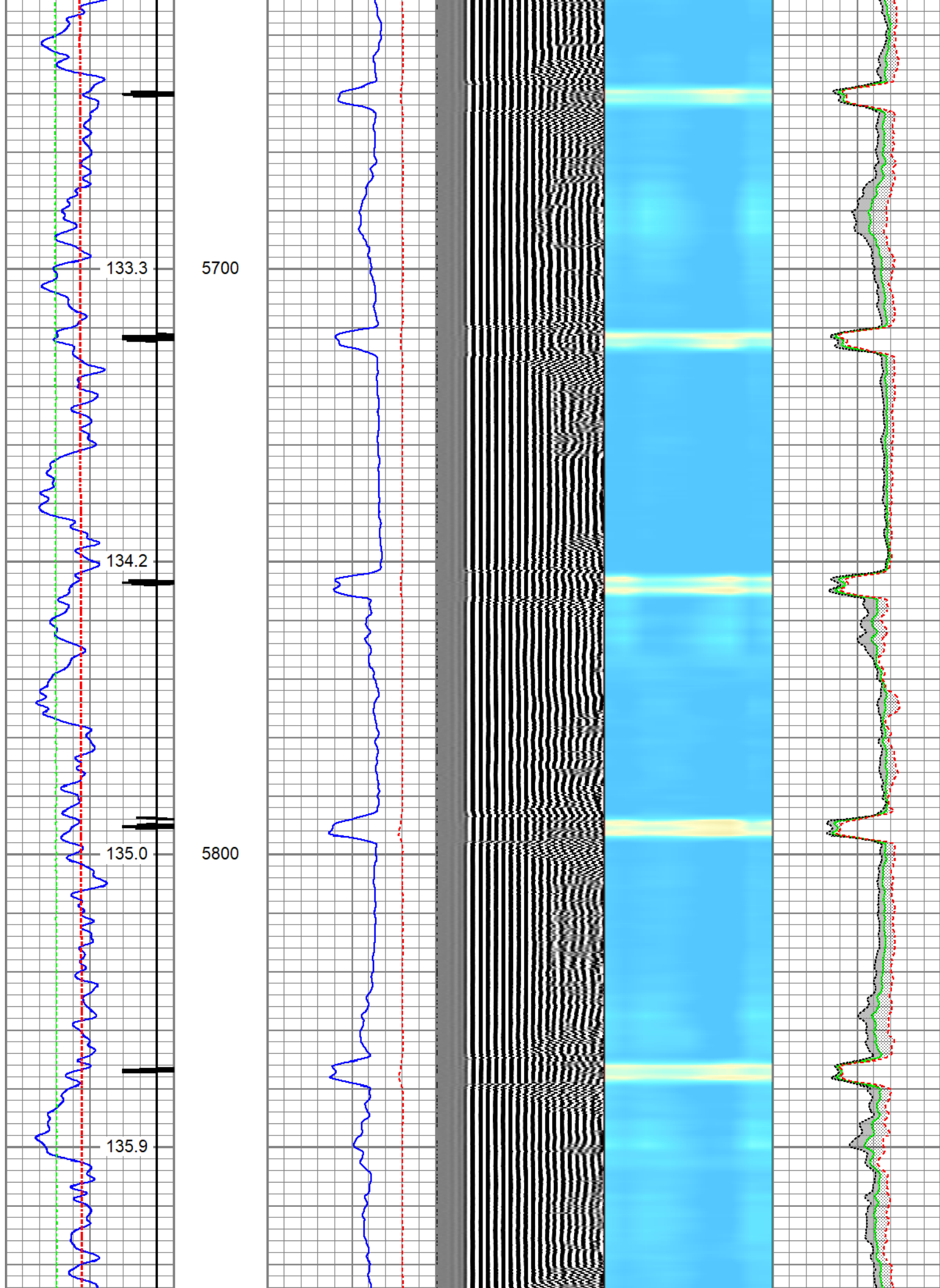


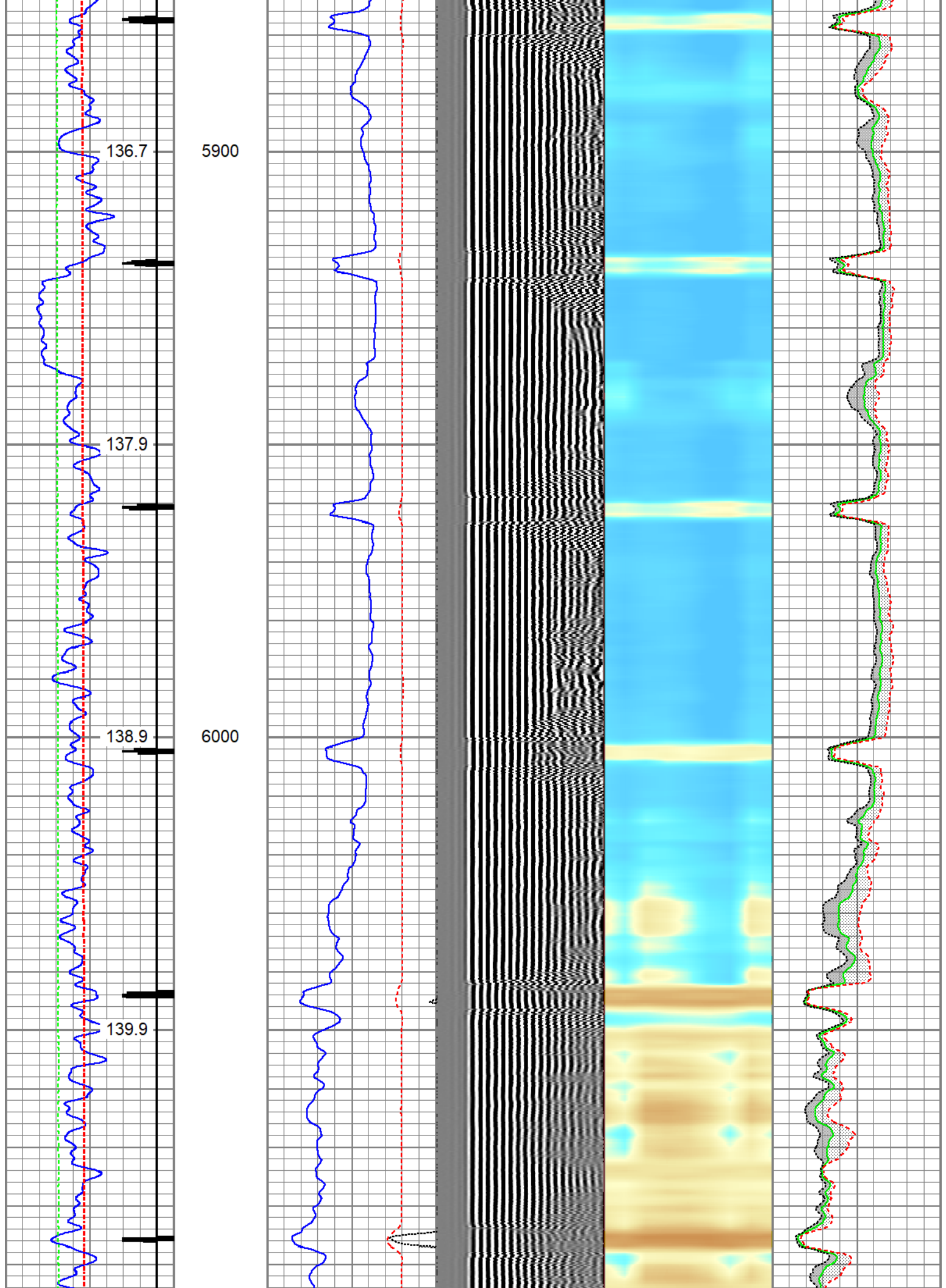




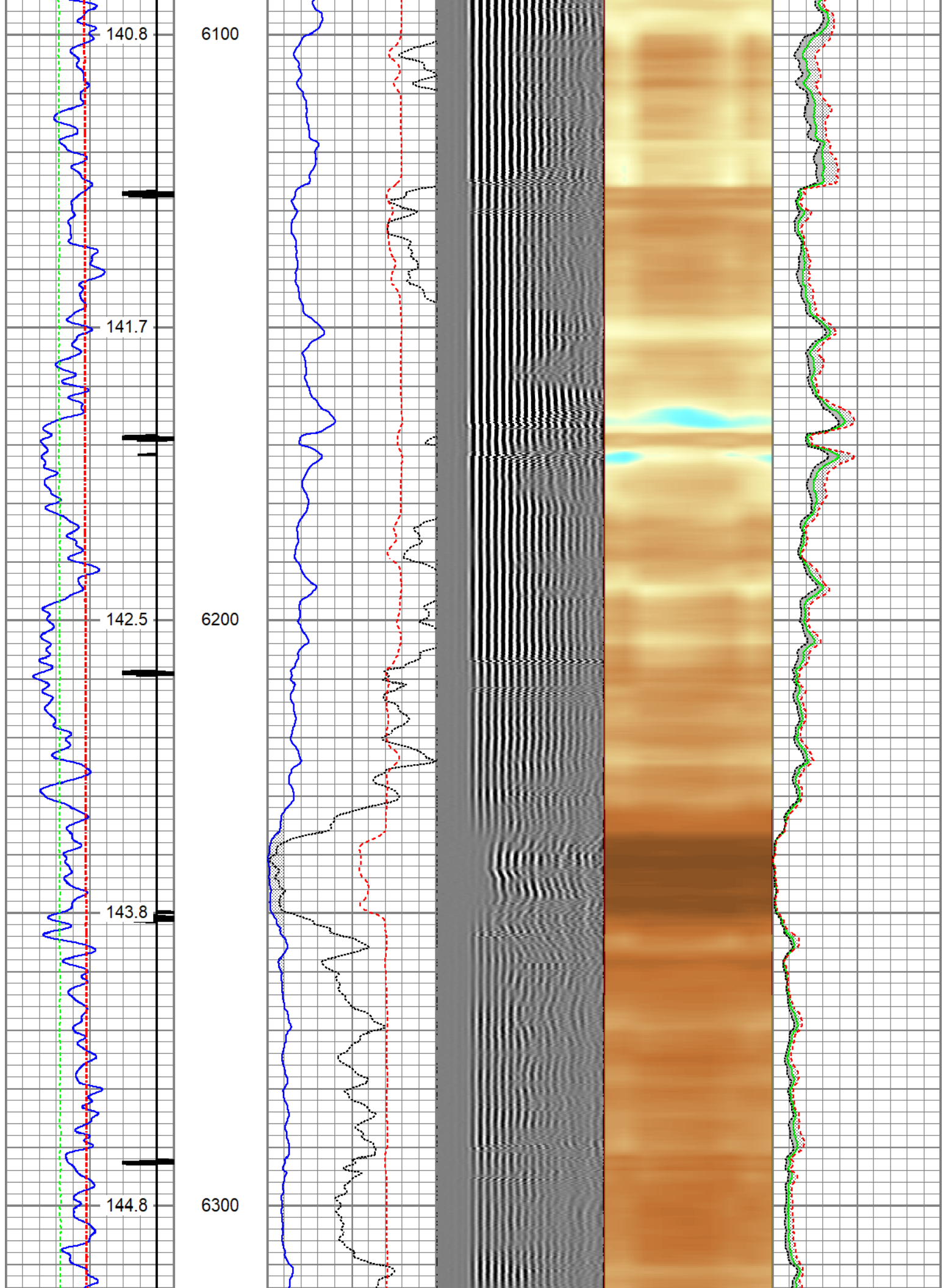


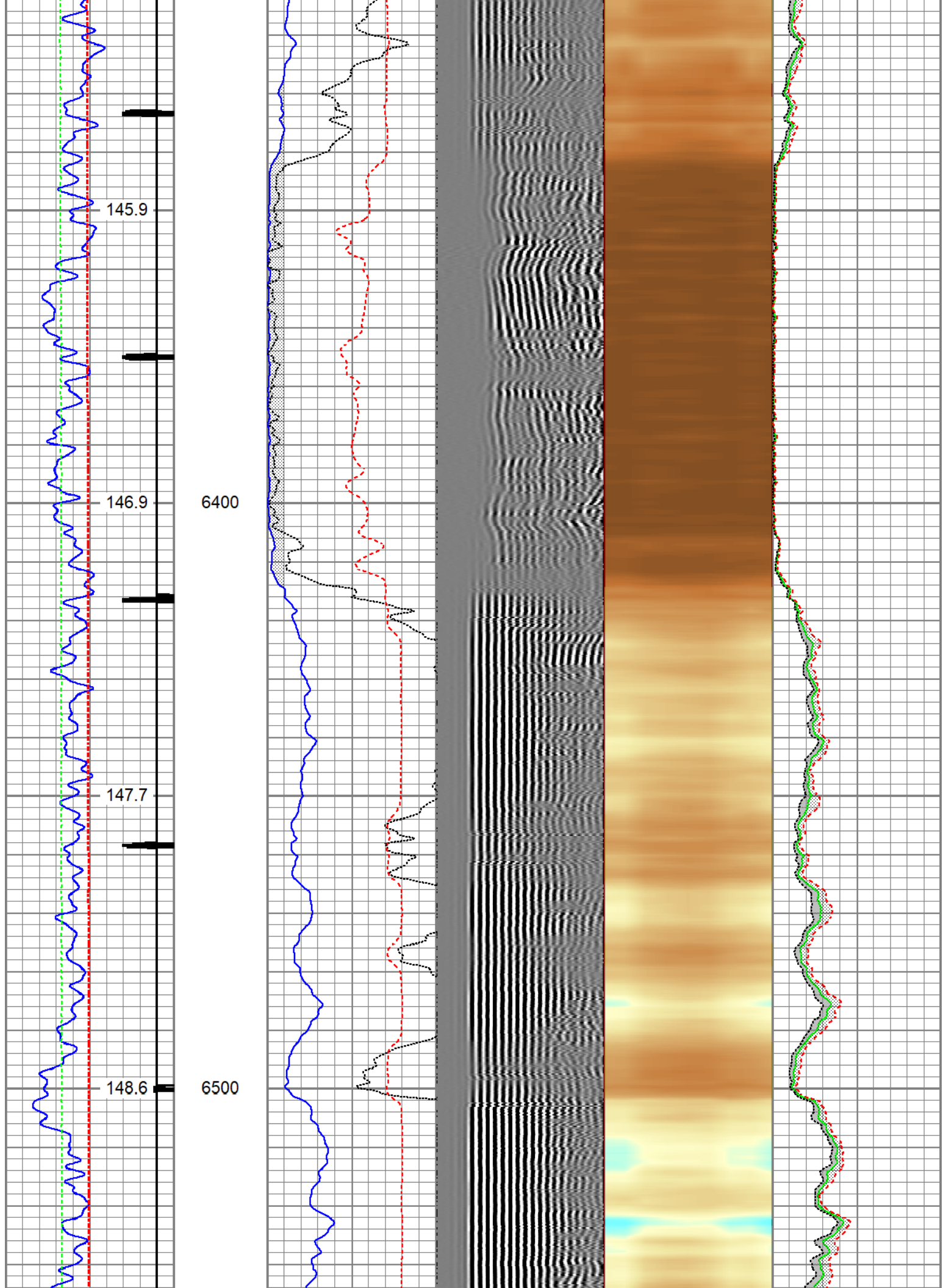


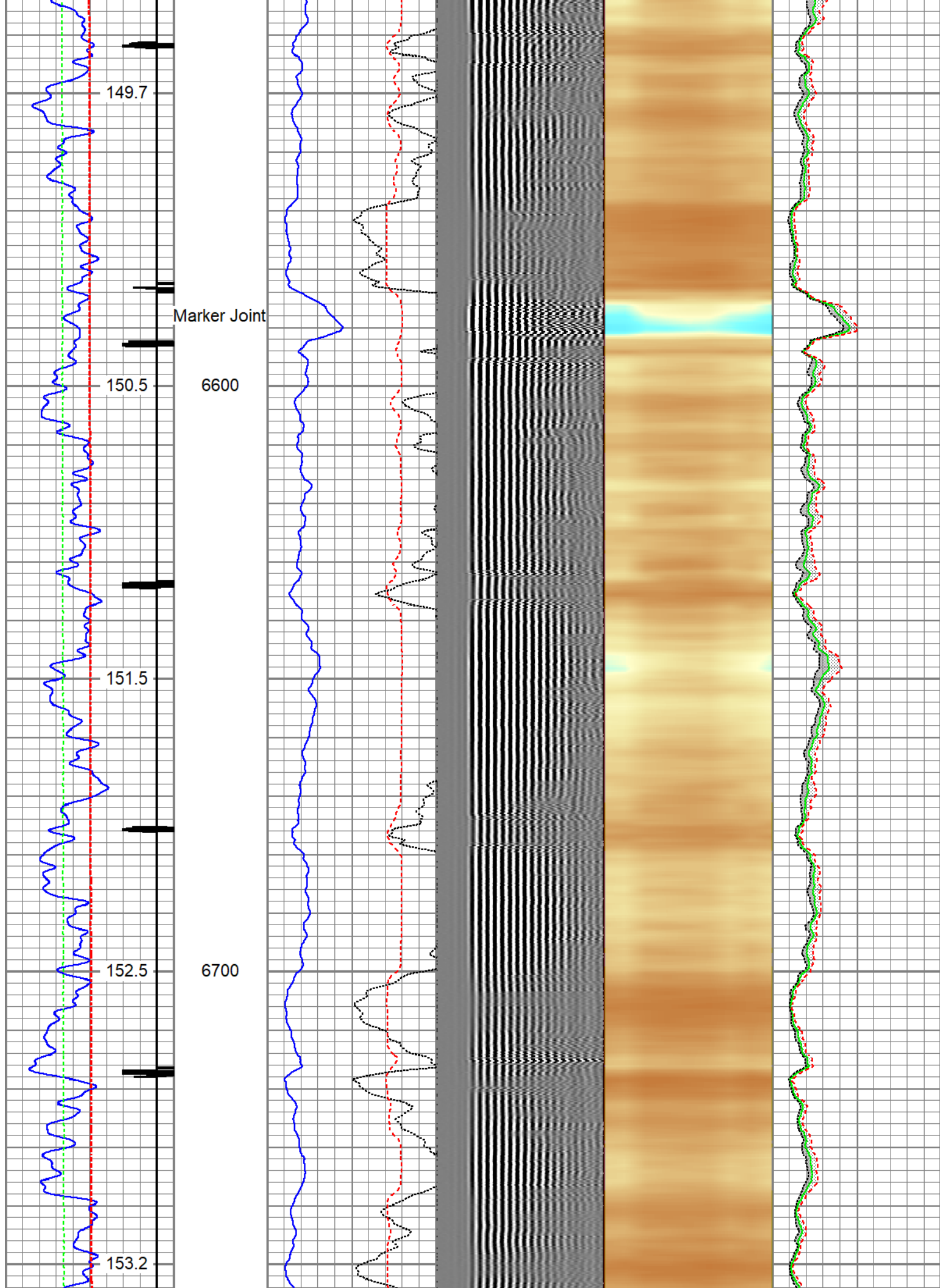




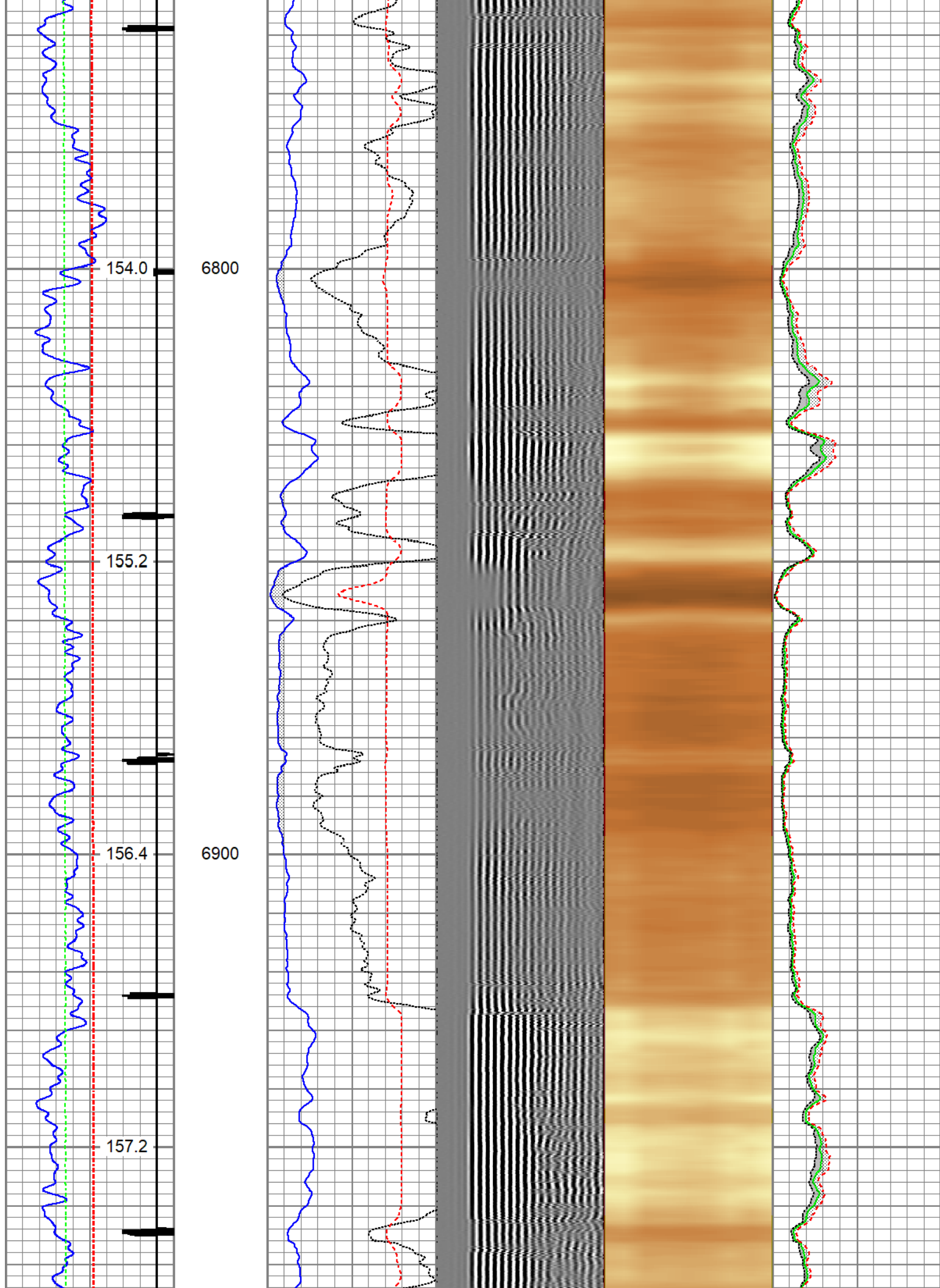


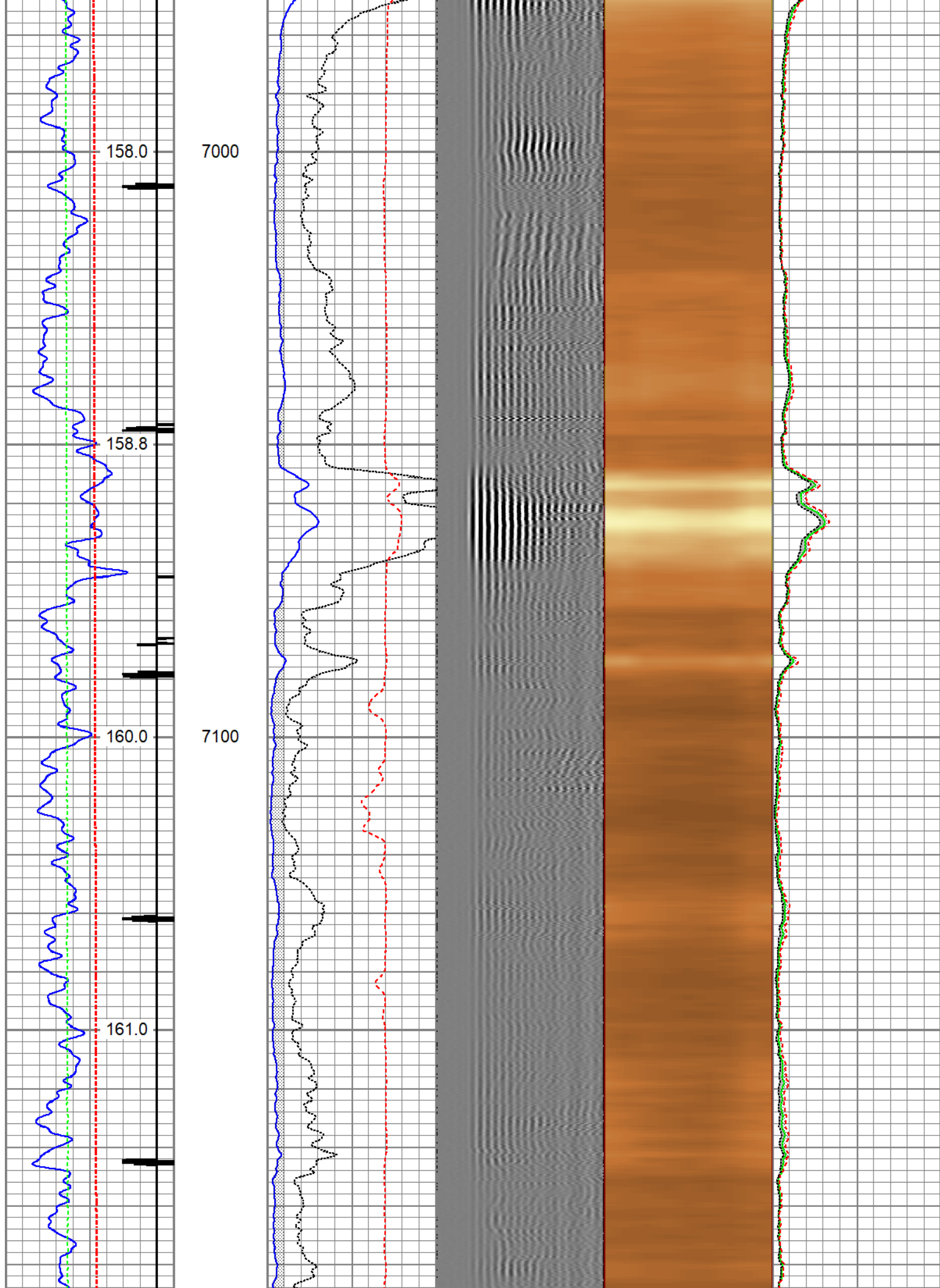


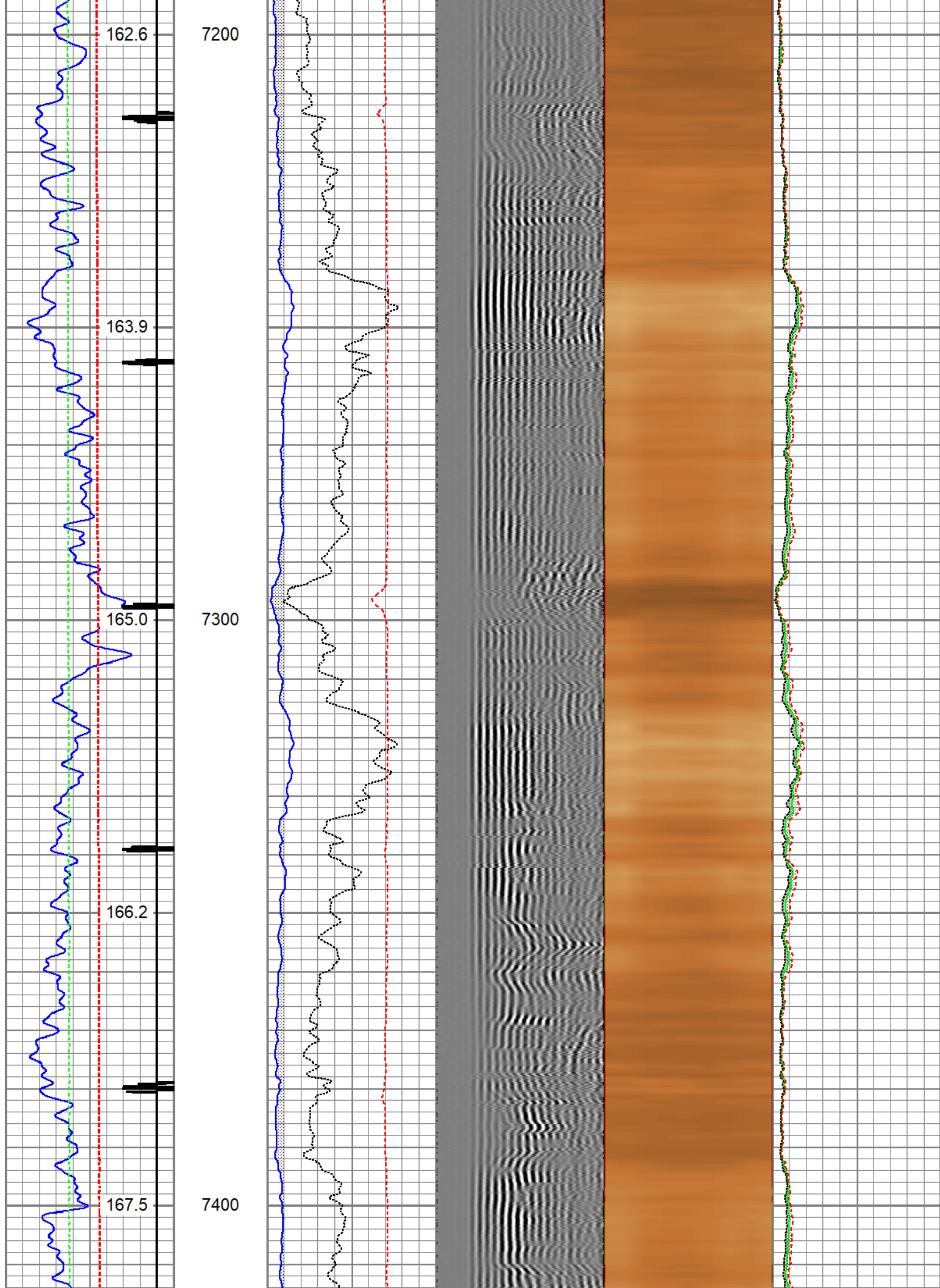




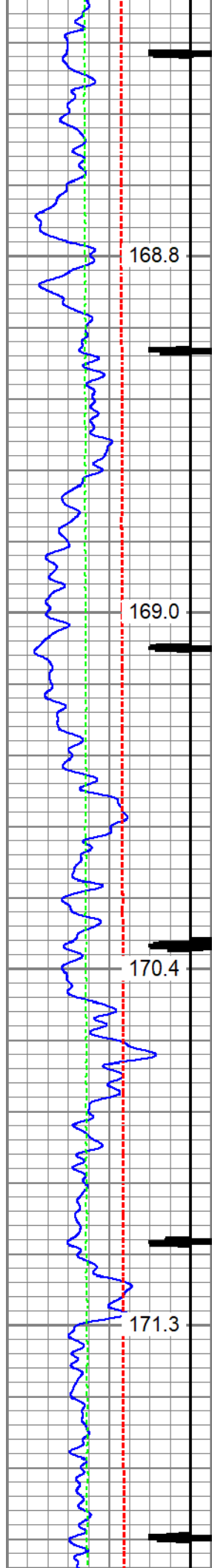






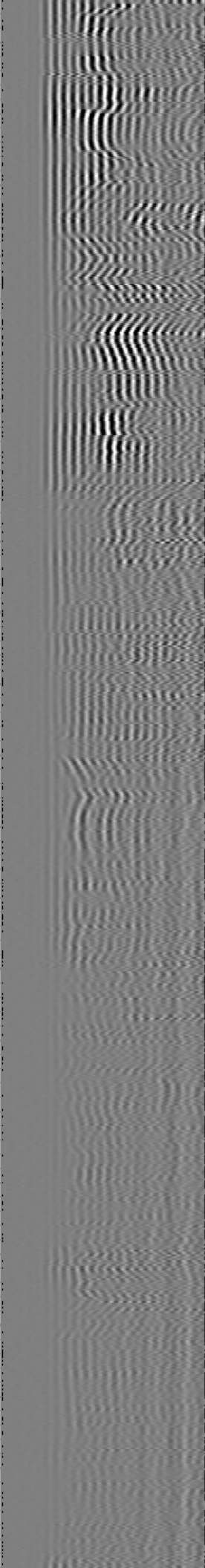
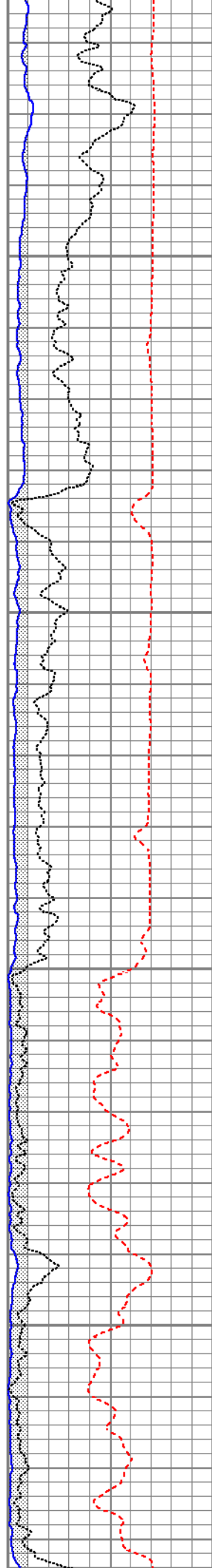


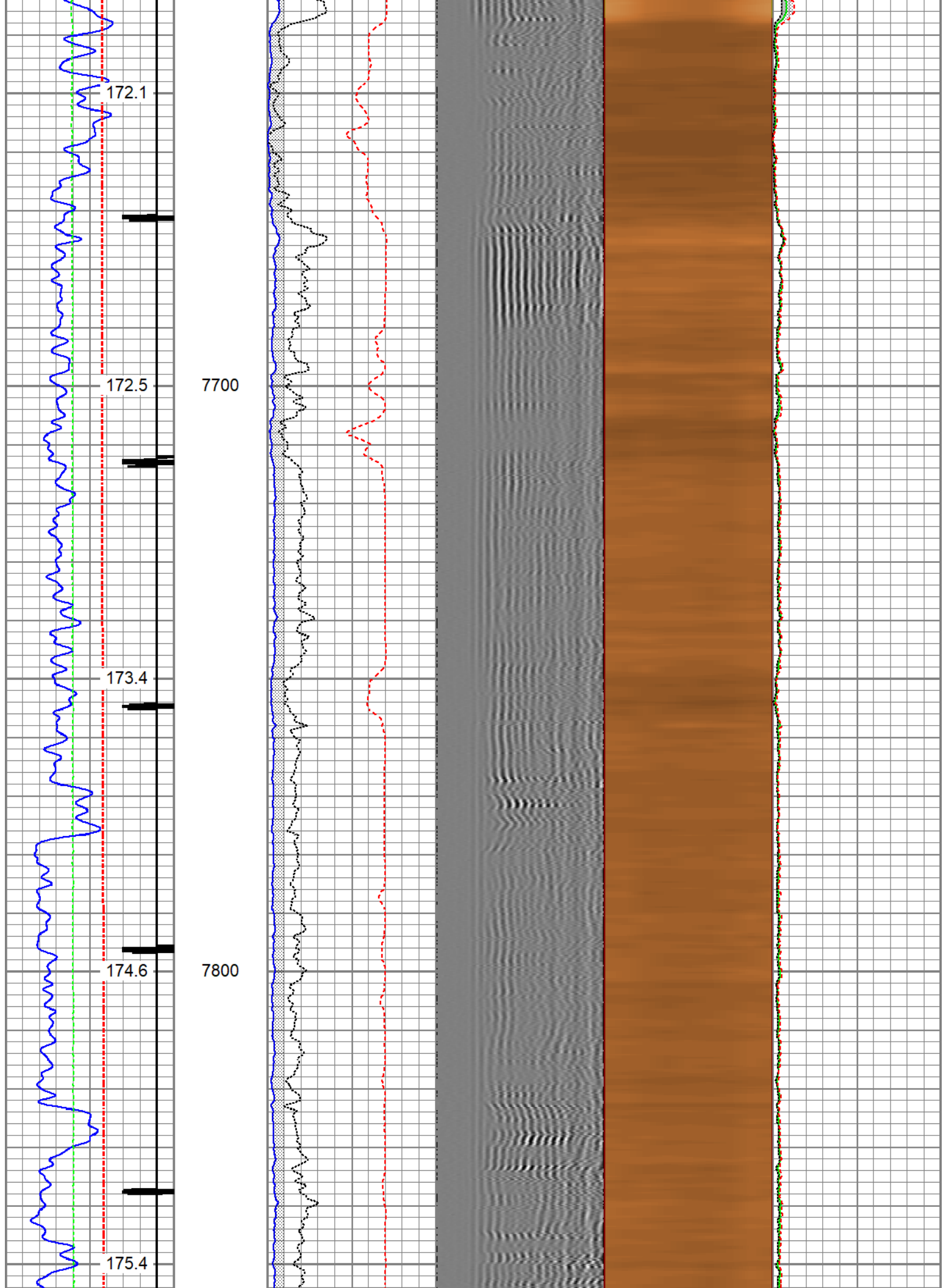


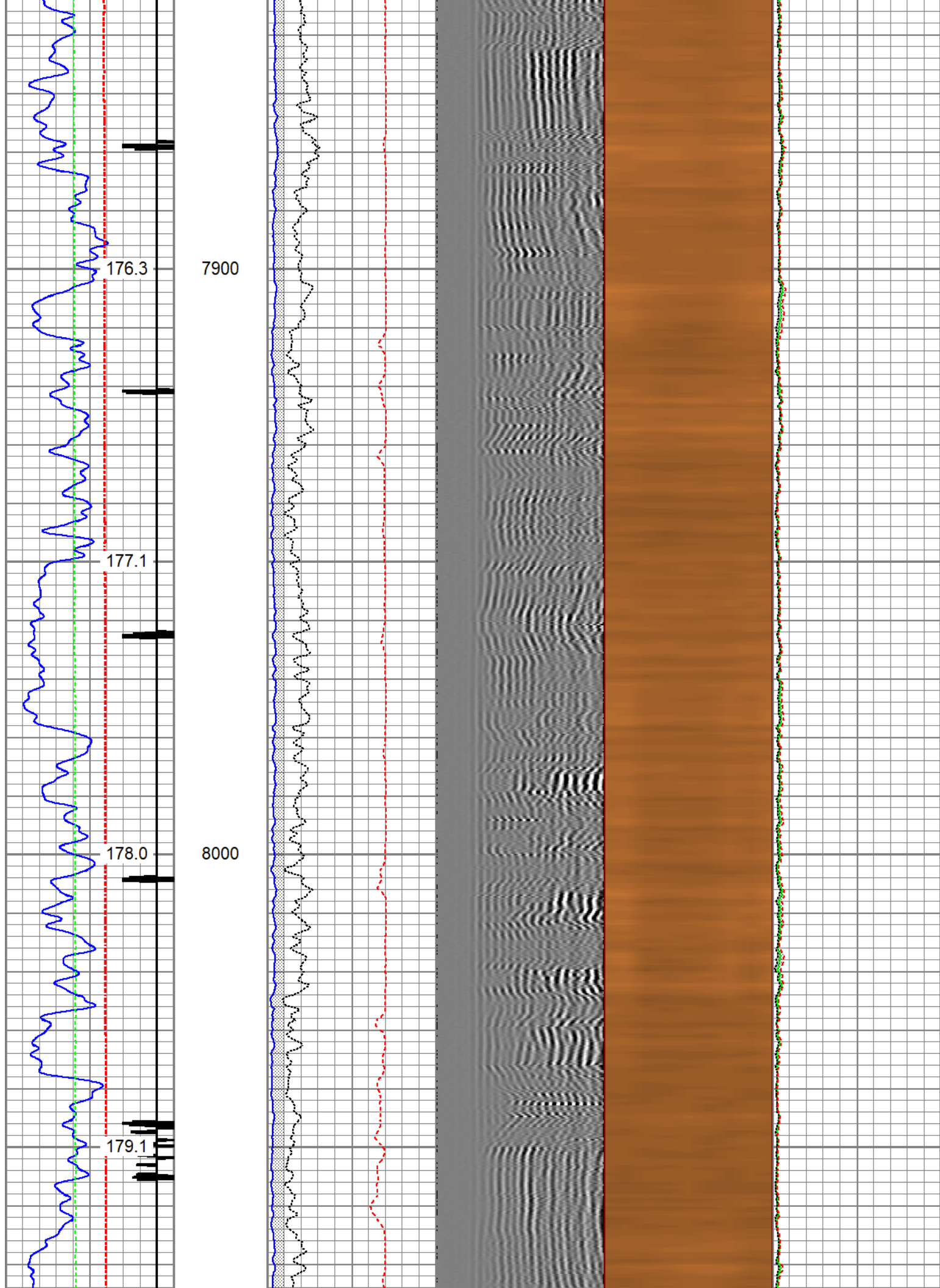


7500

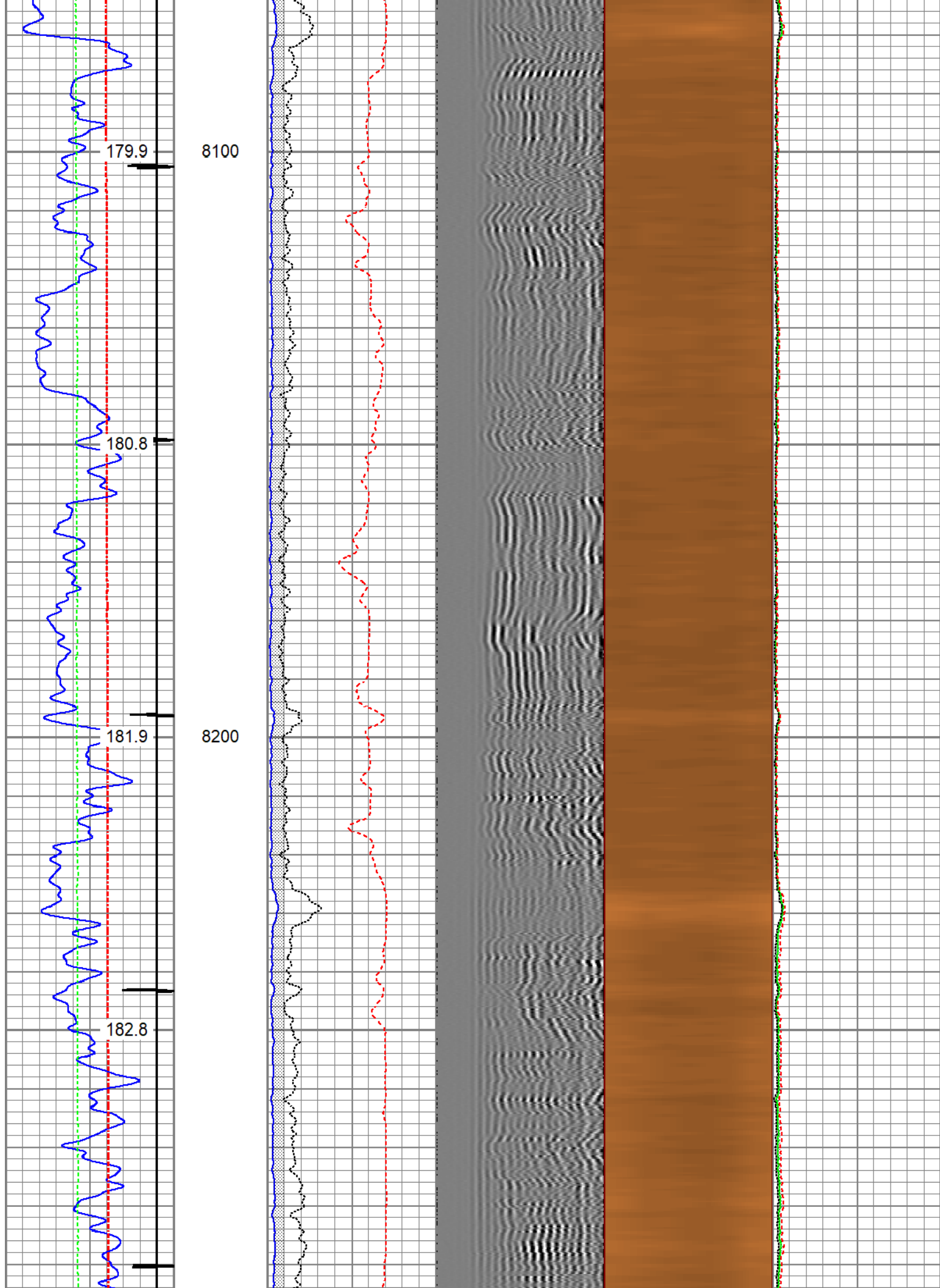
7600

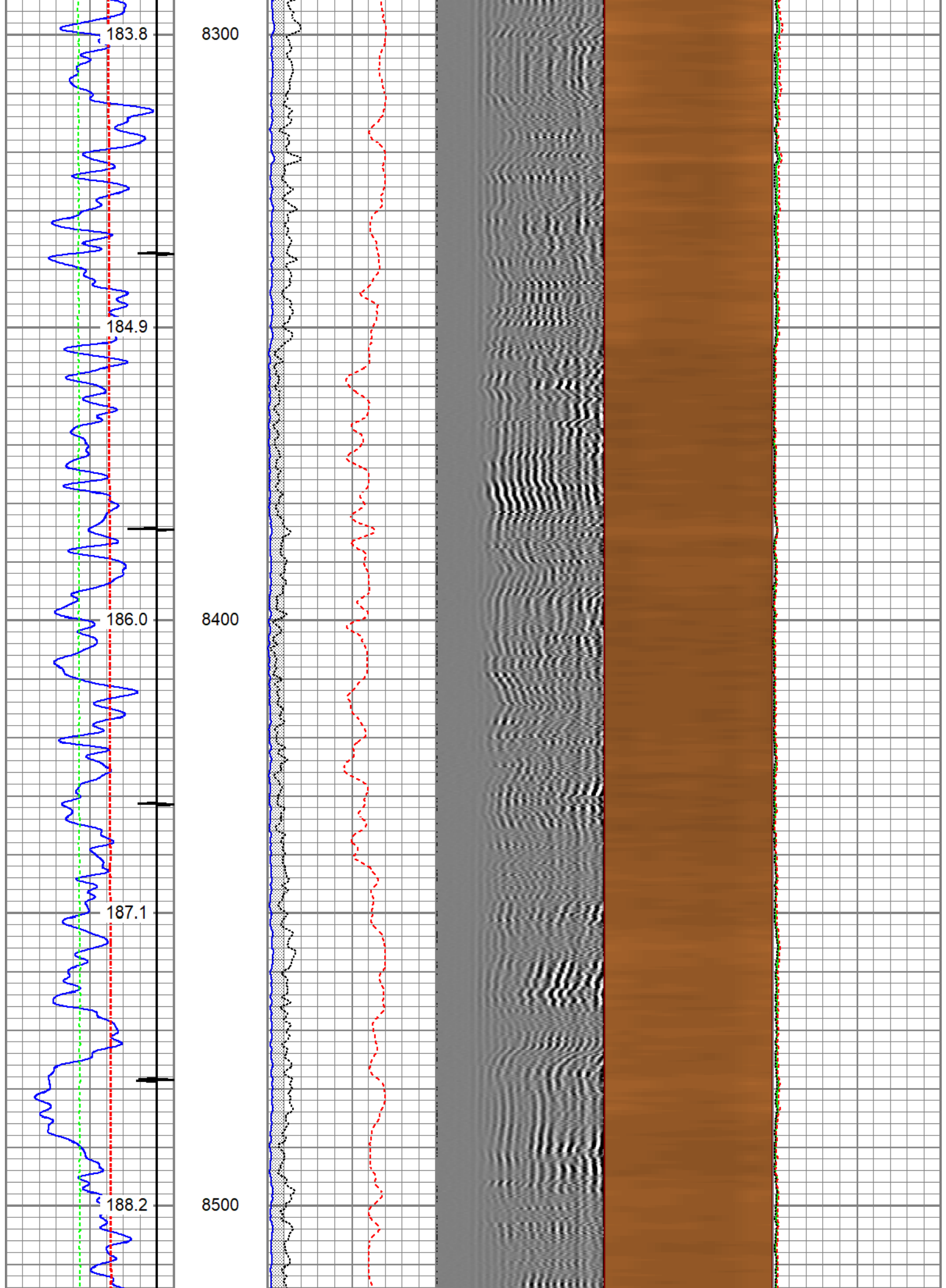


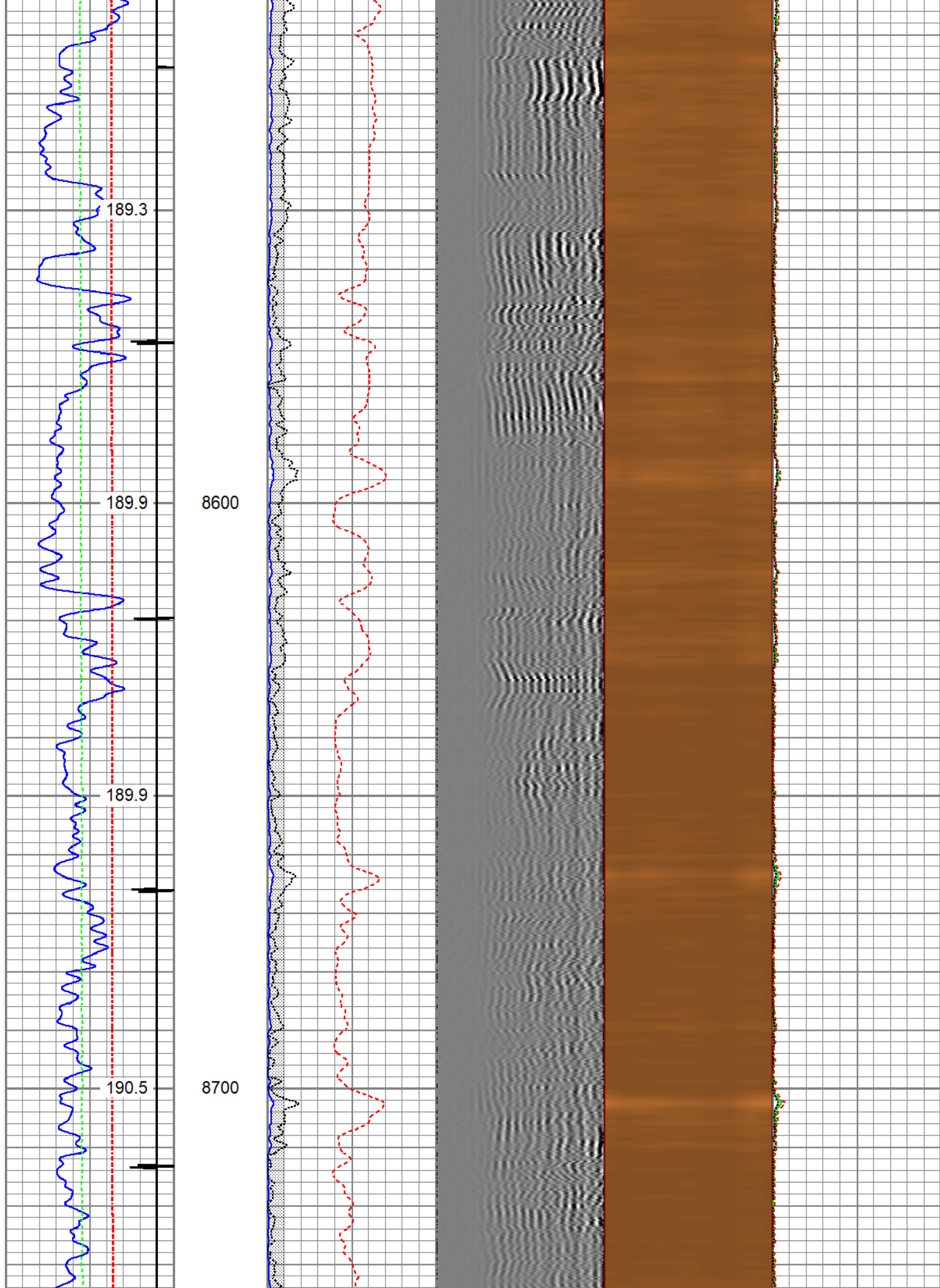




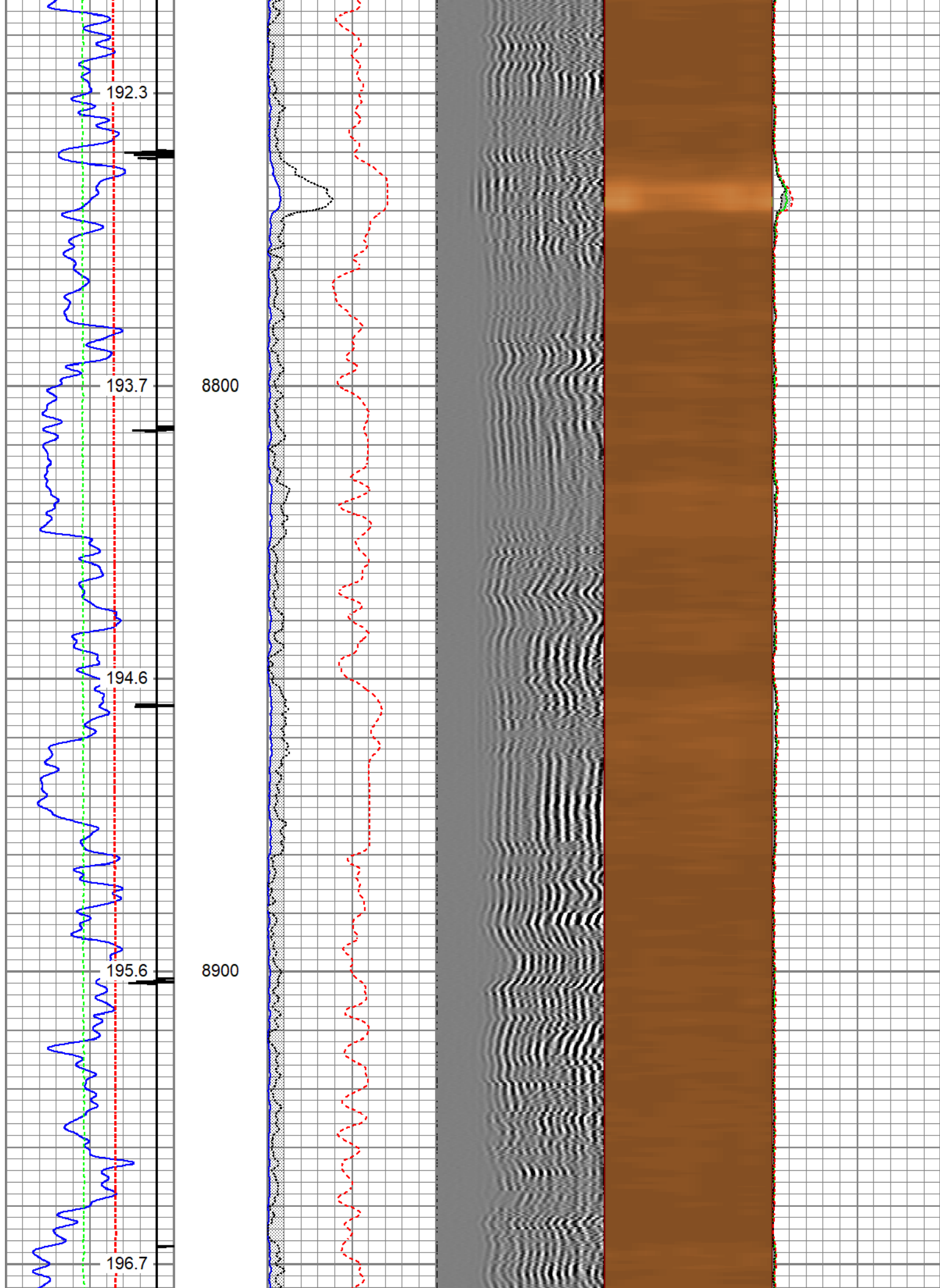


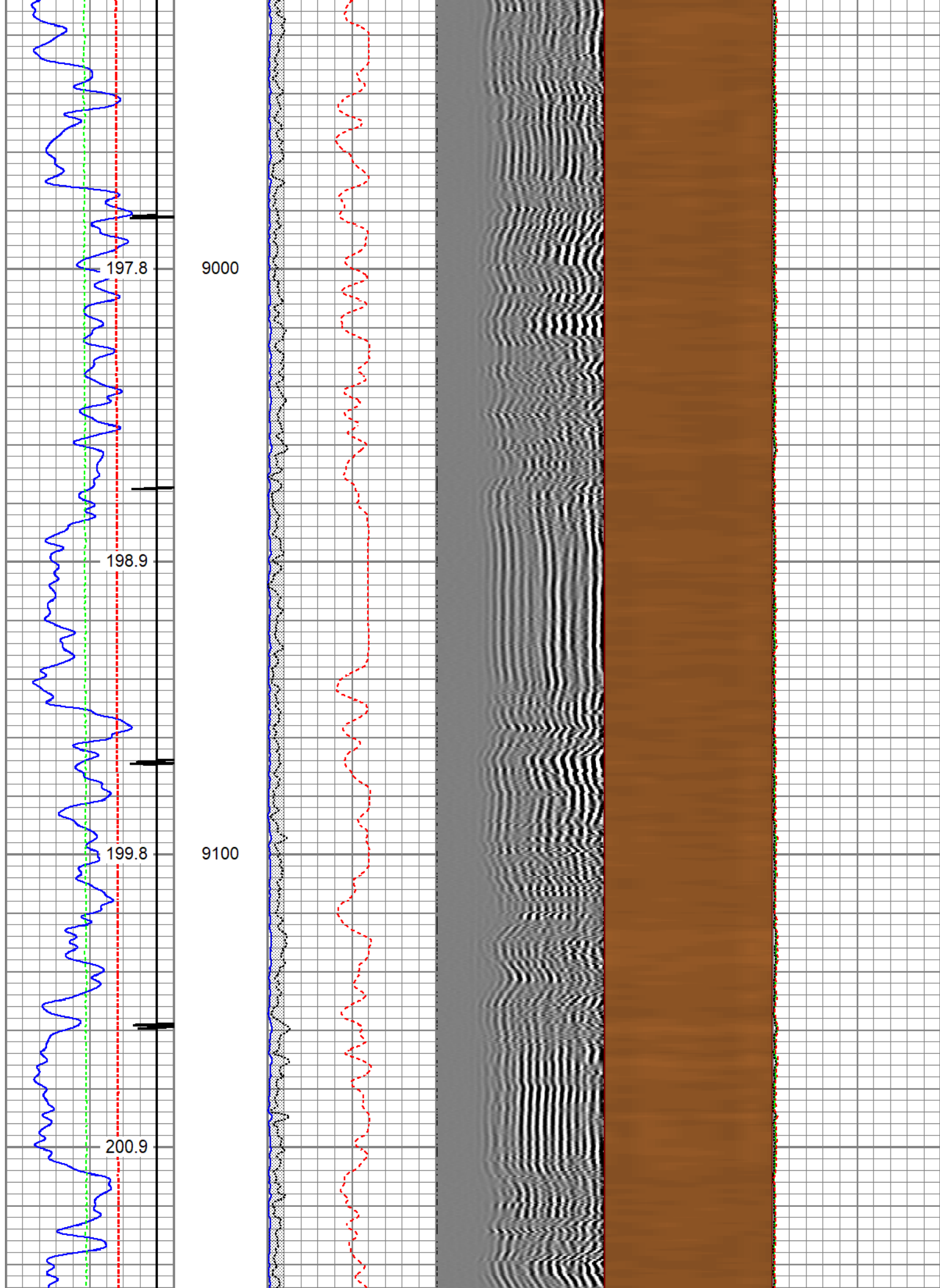


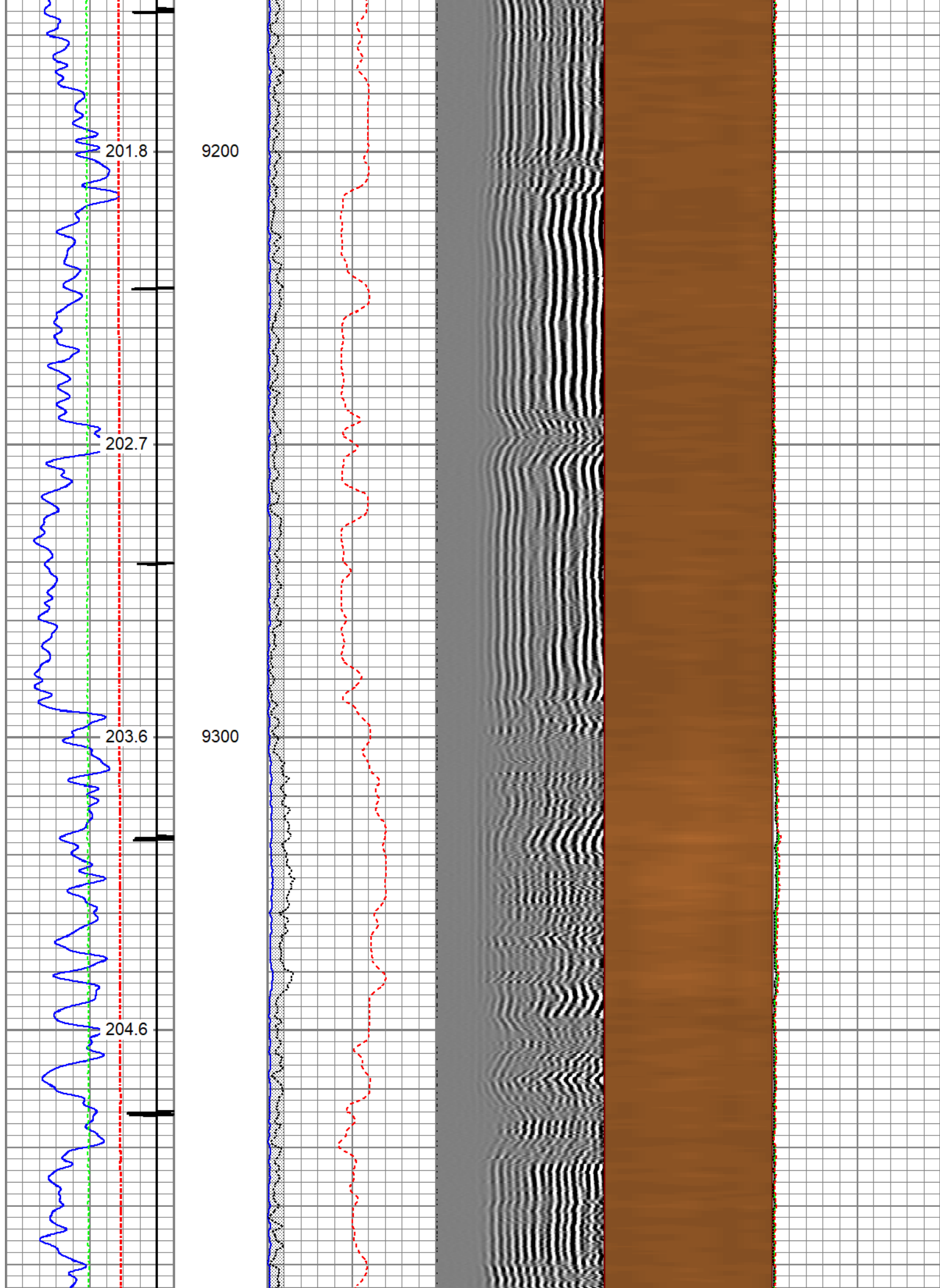




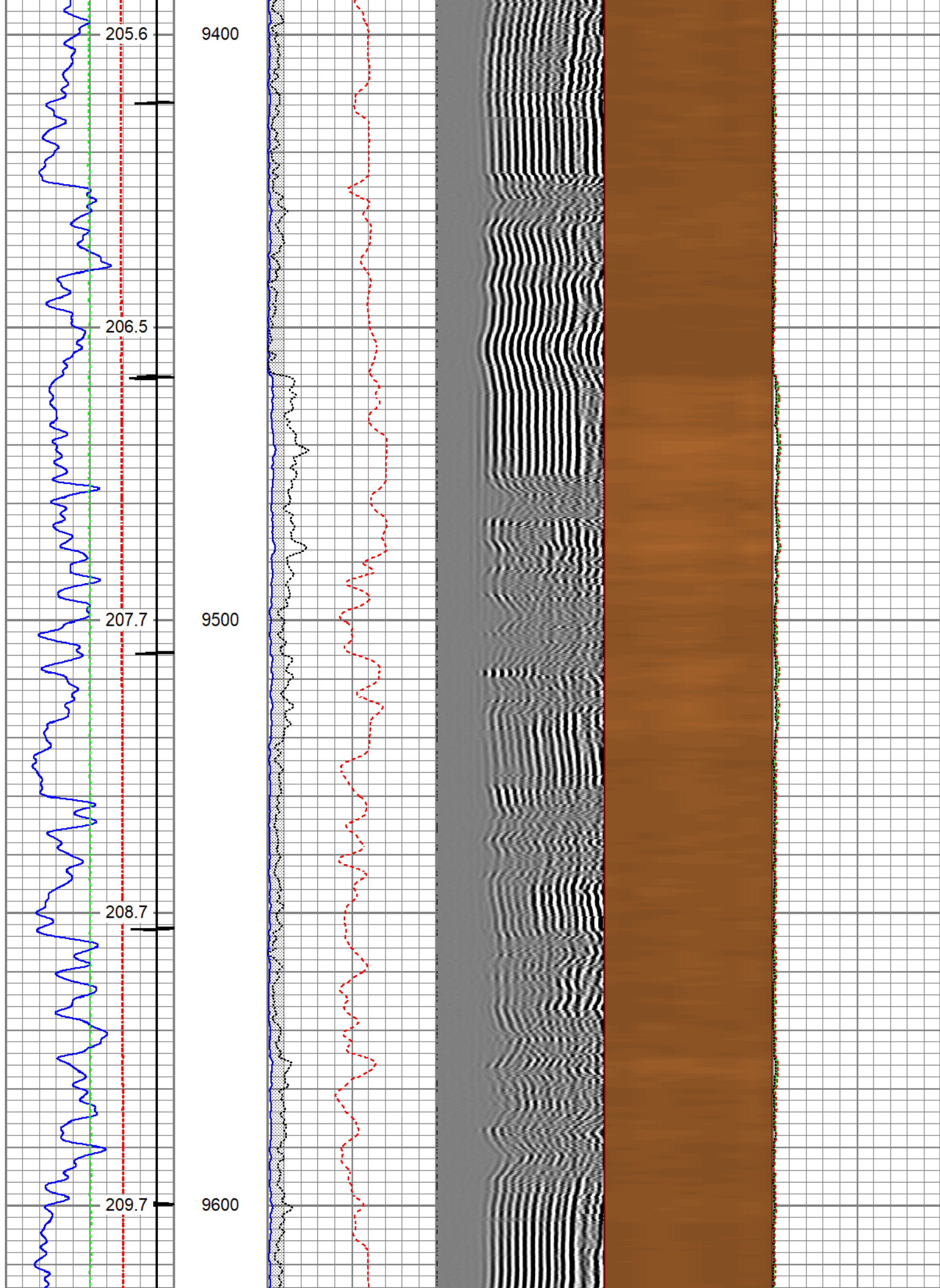


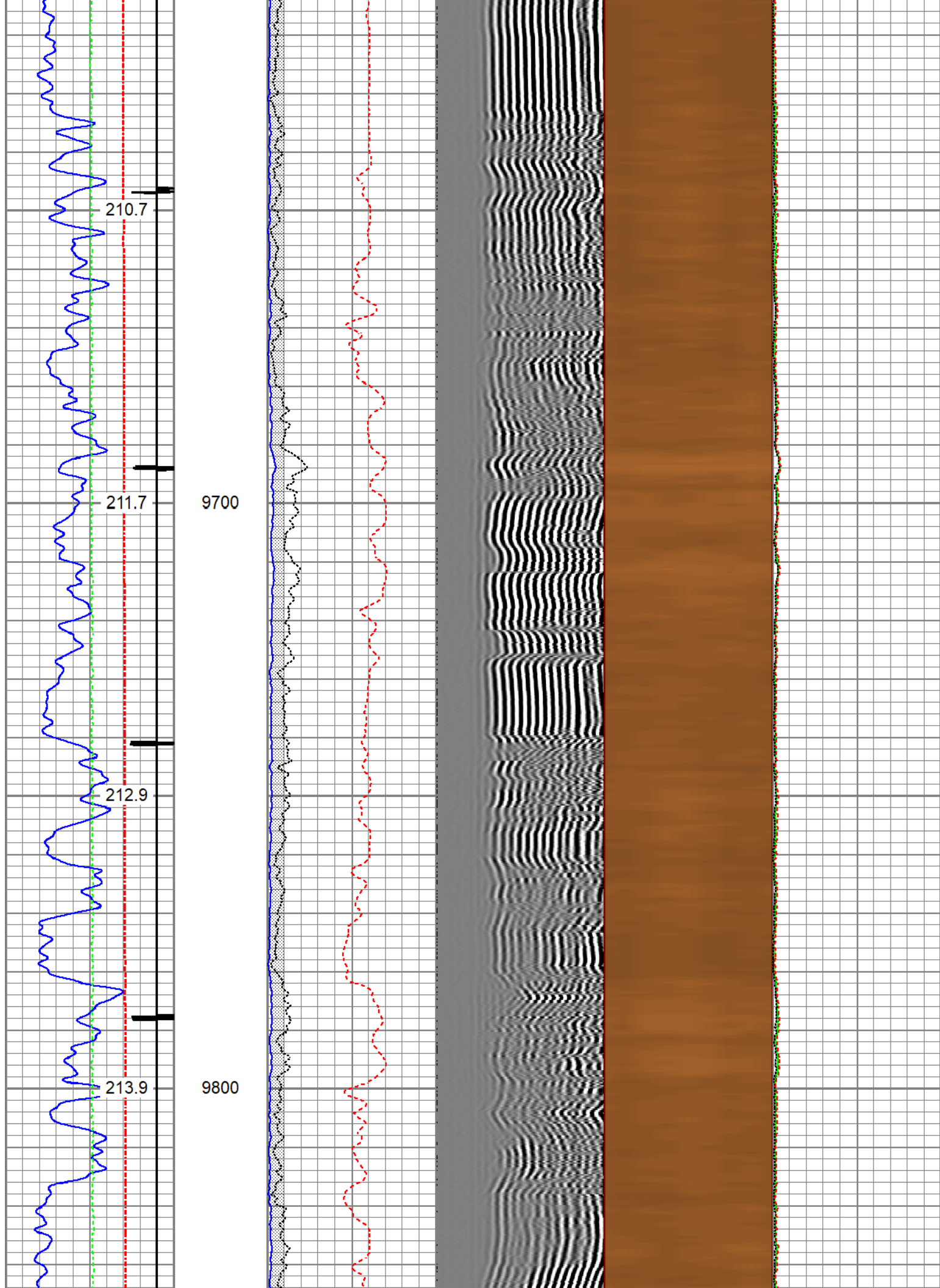


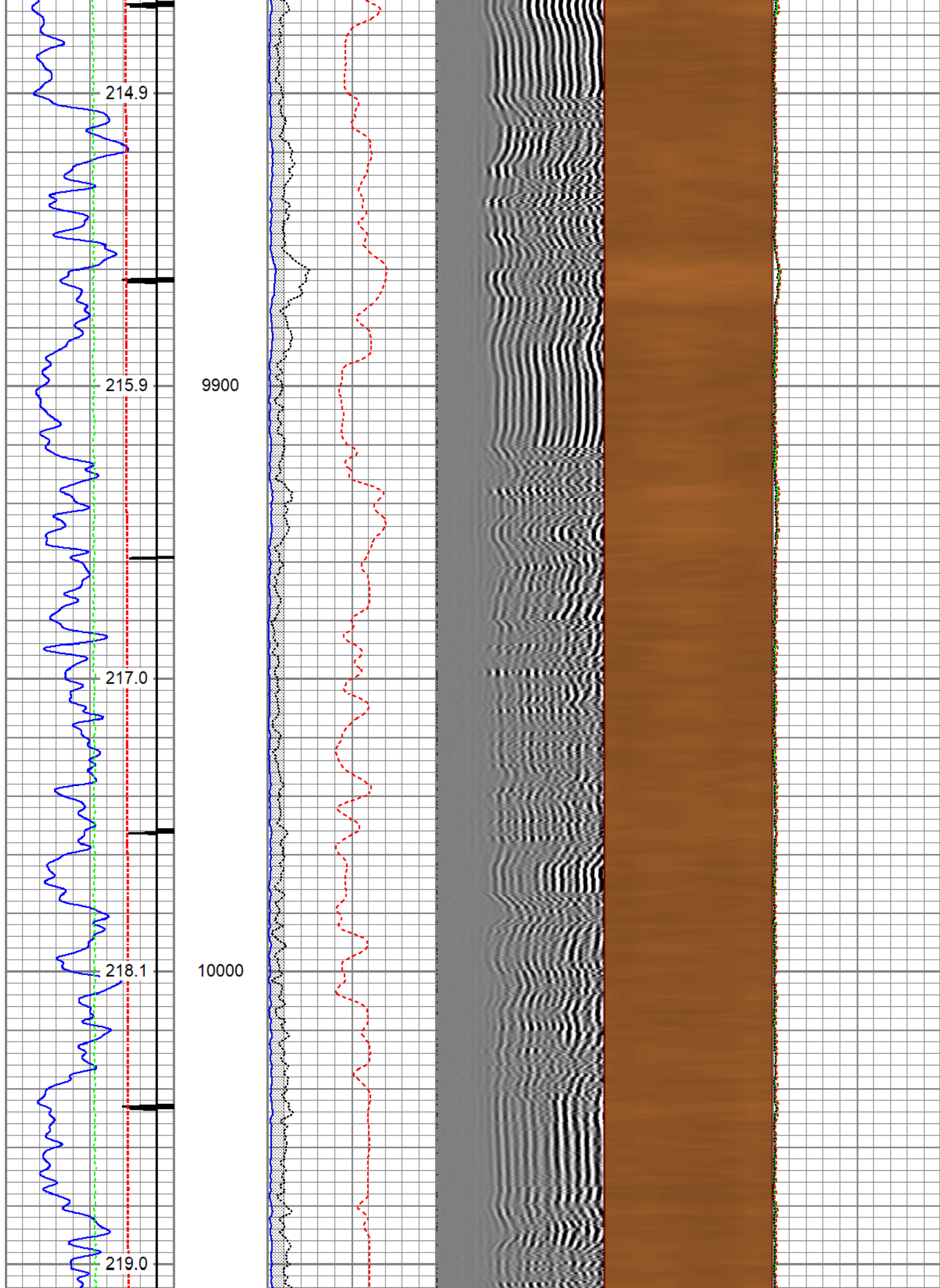




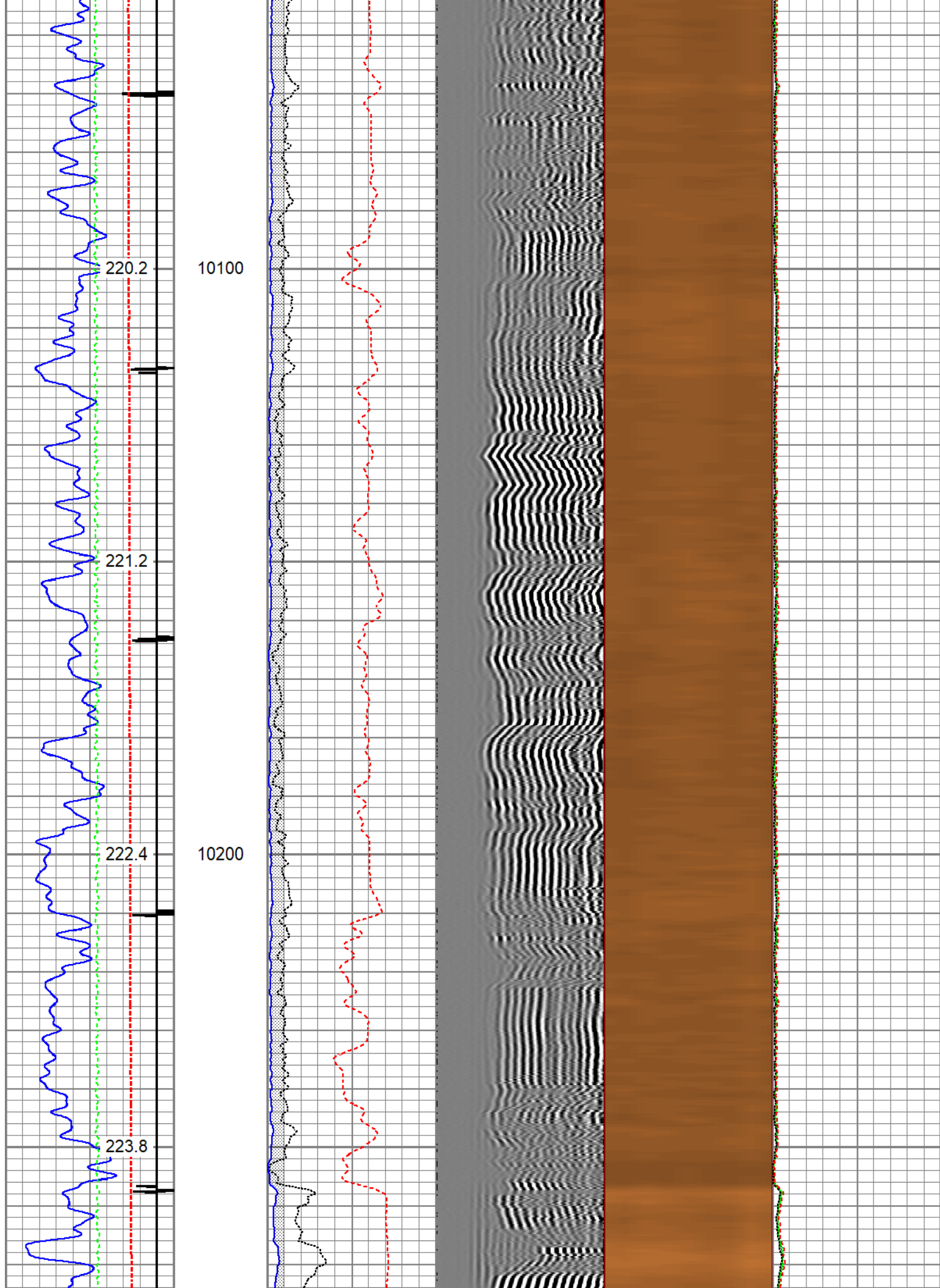


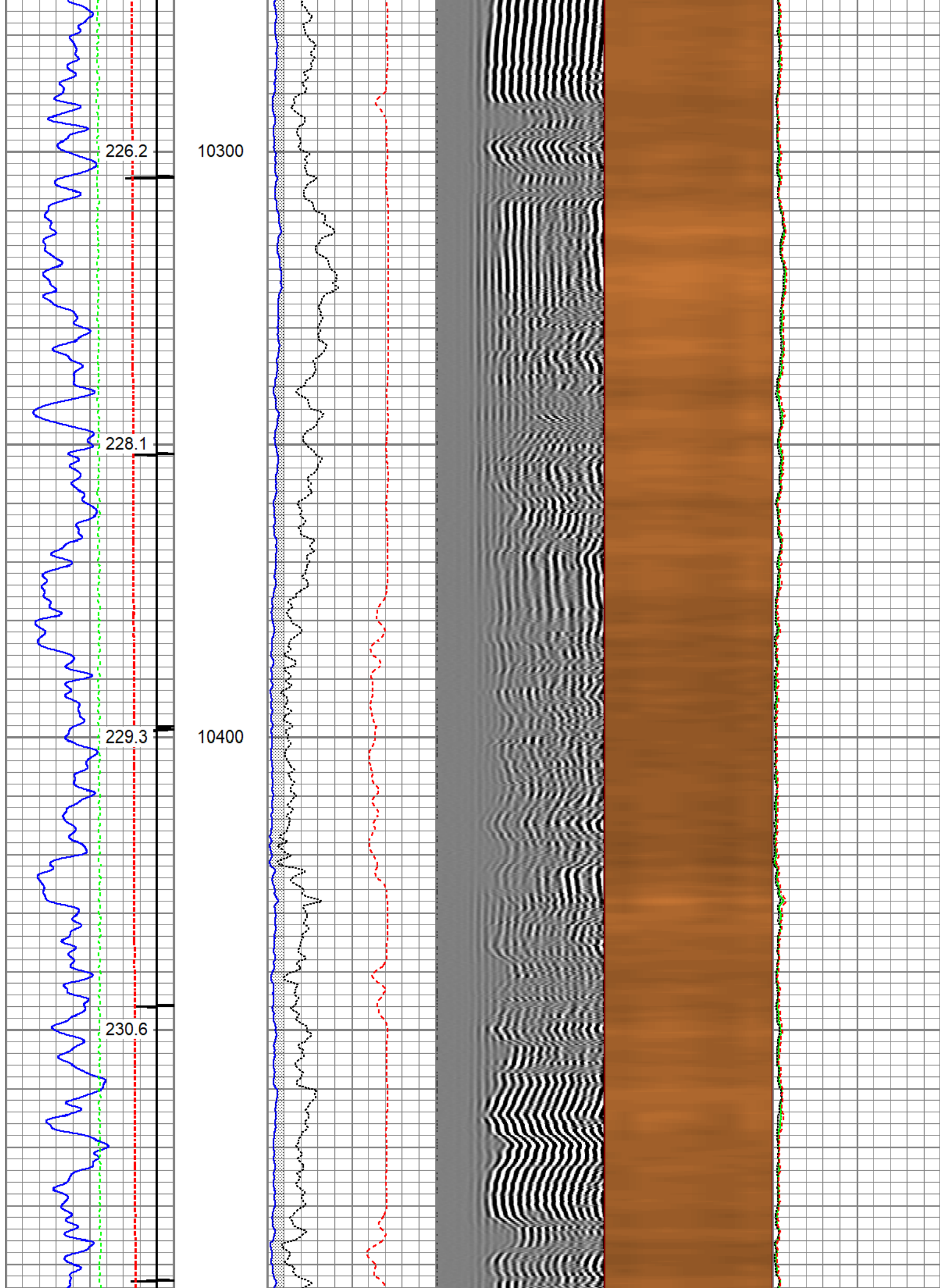


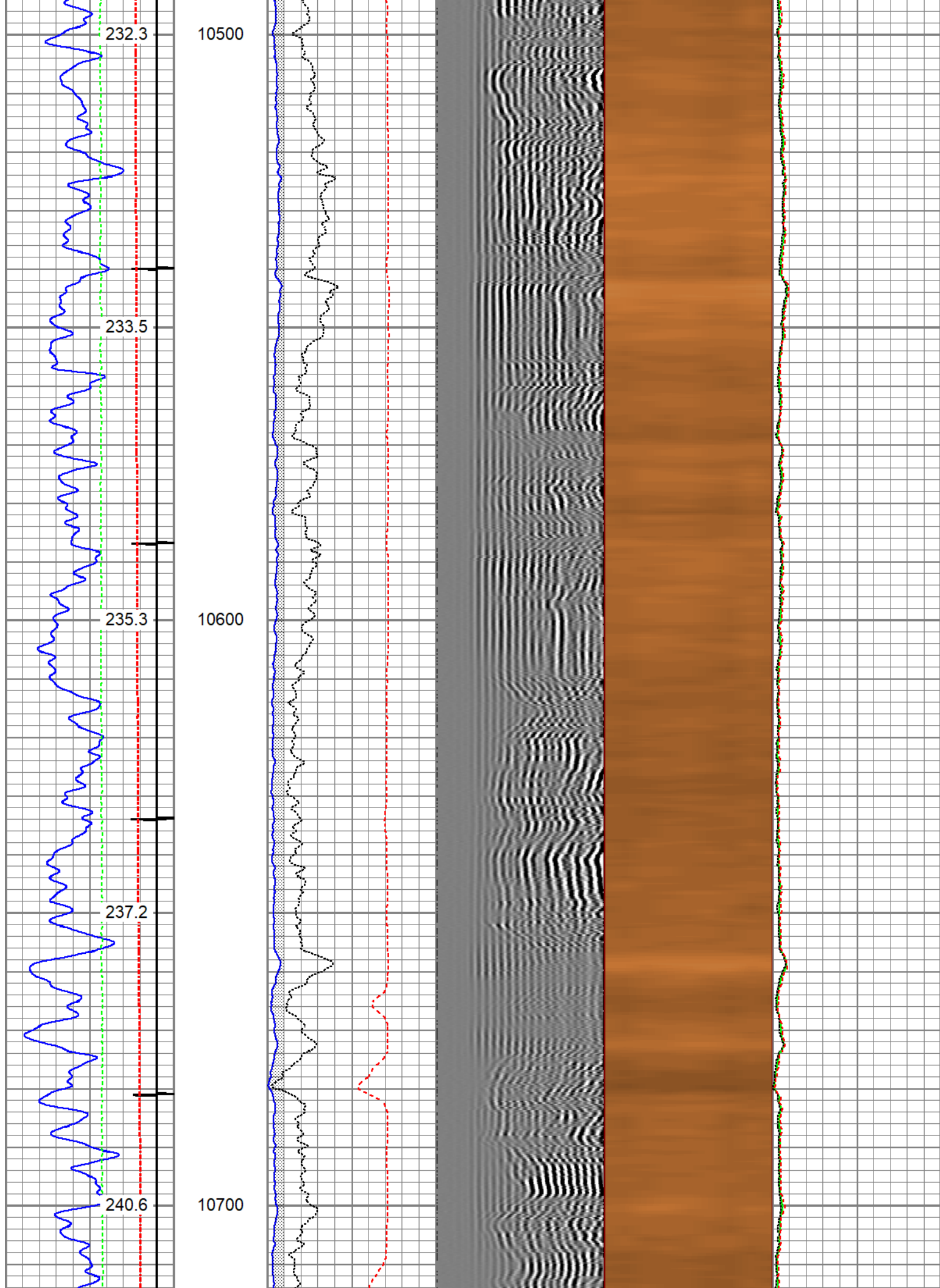




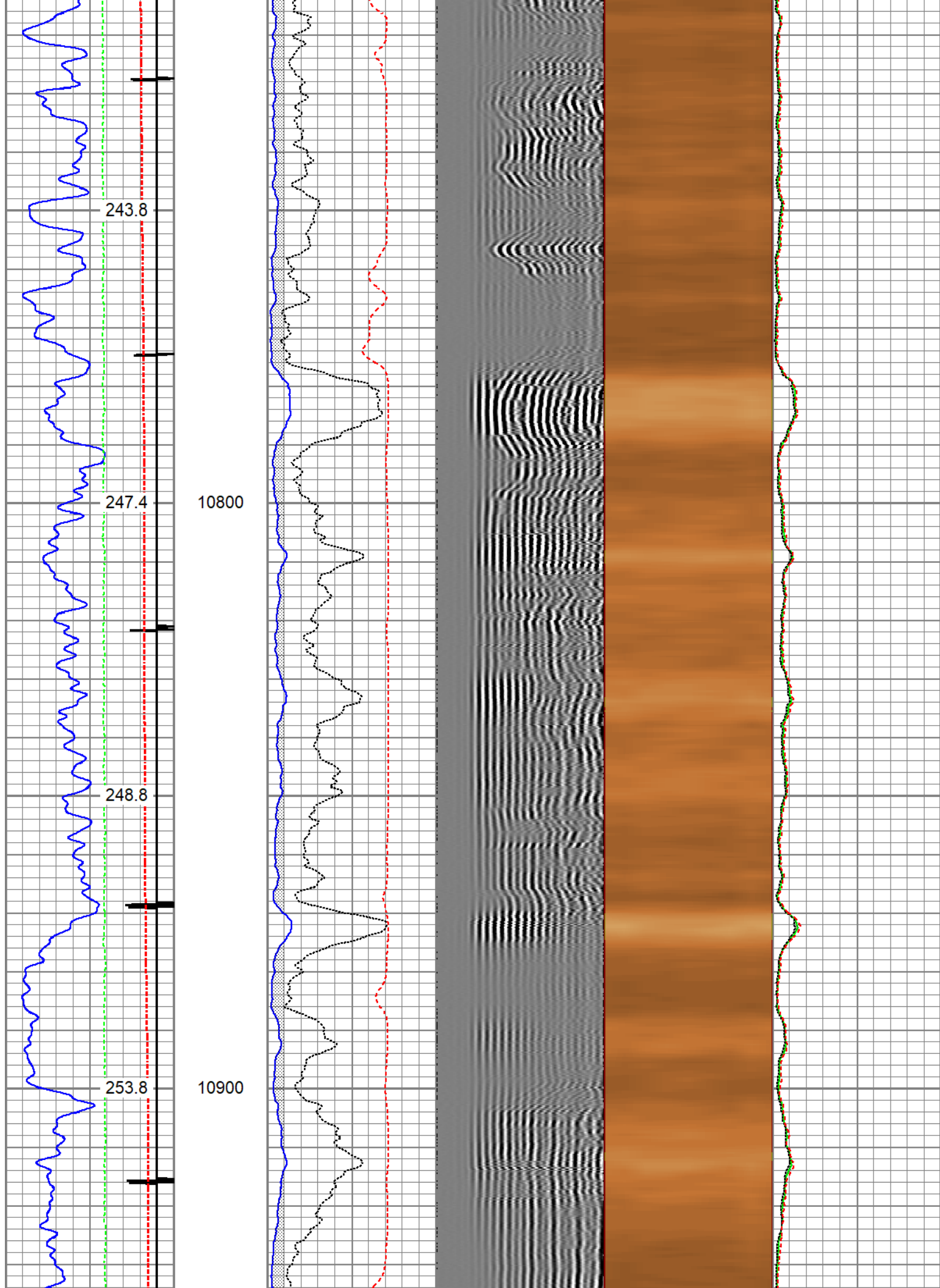


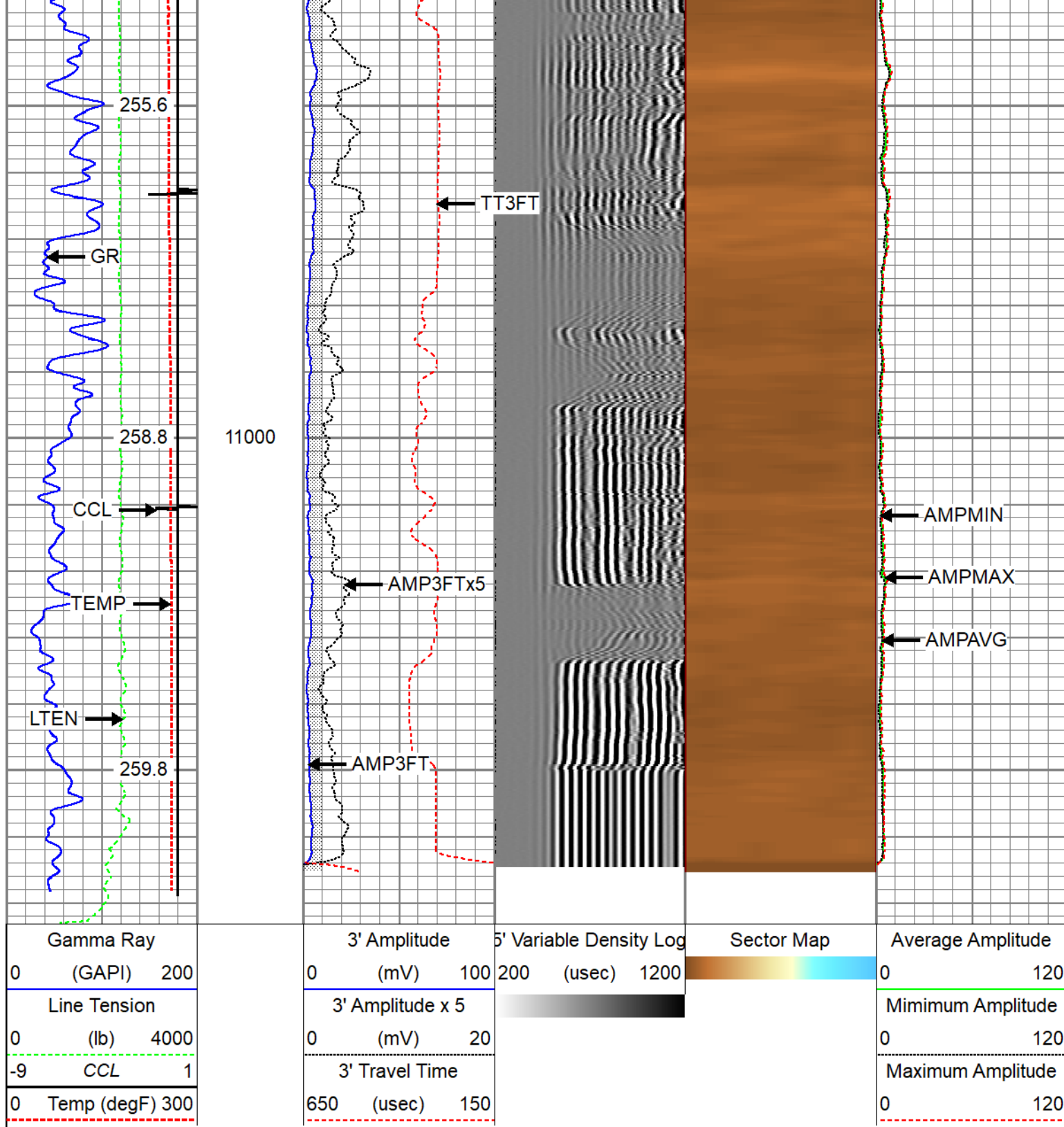








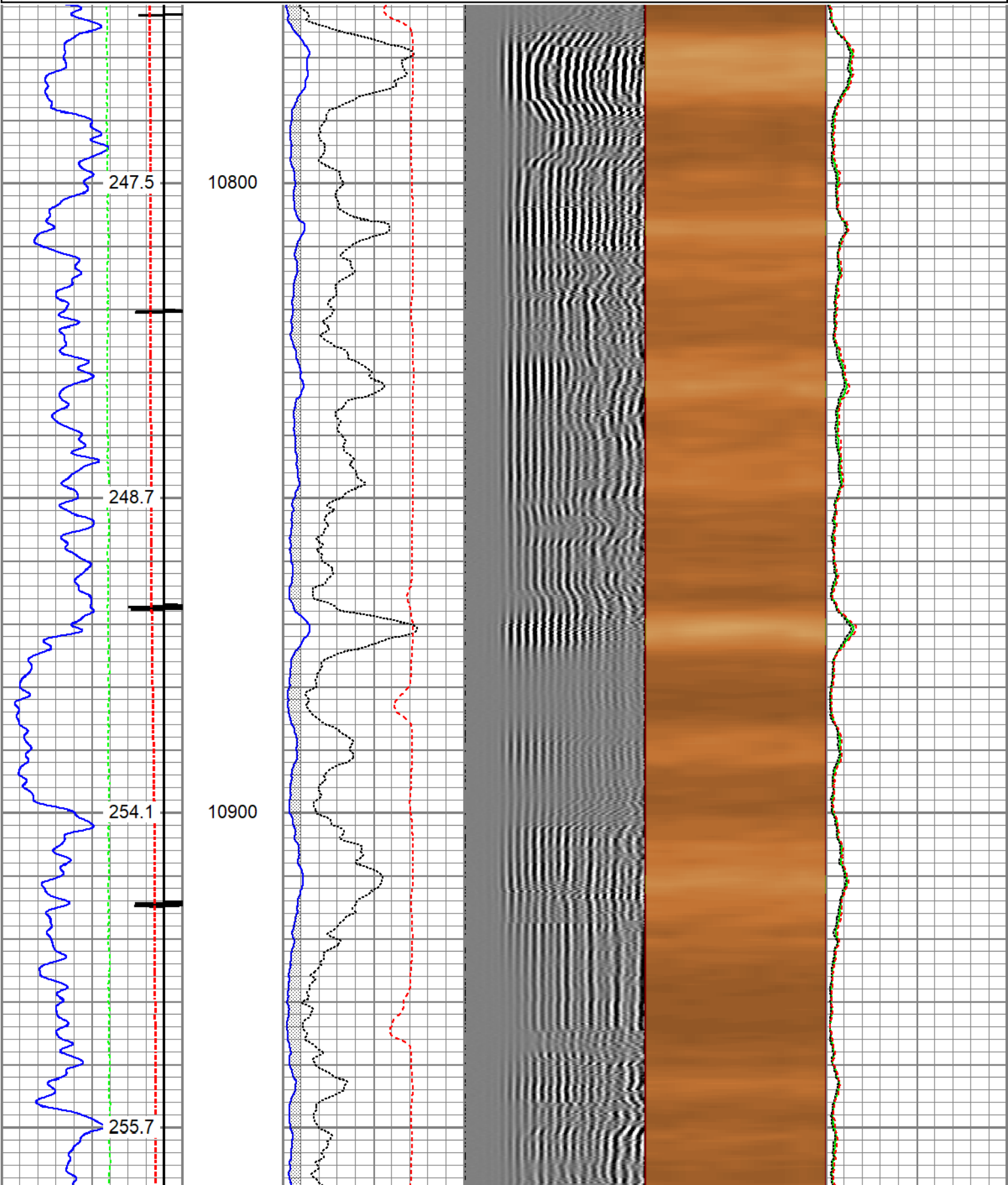




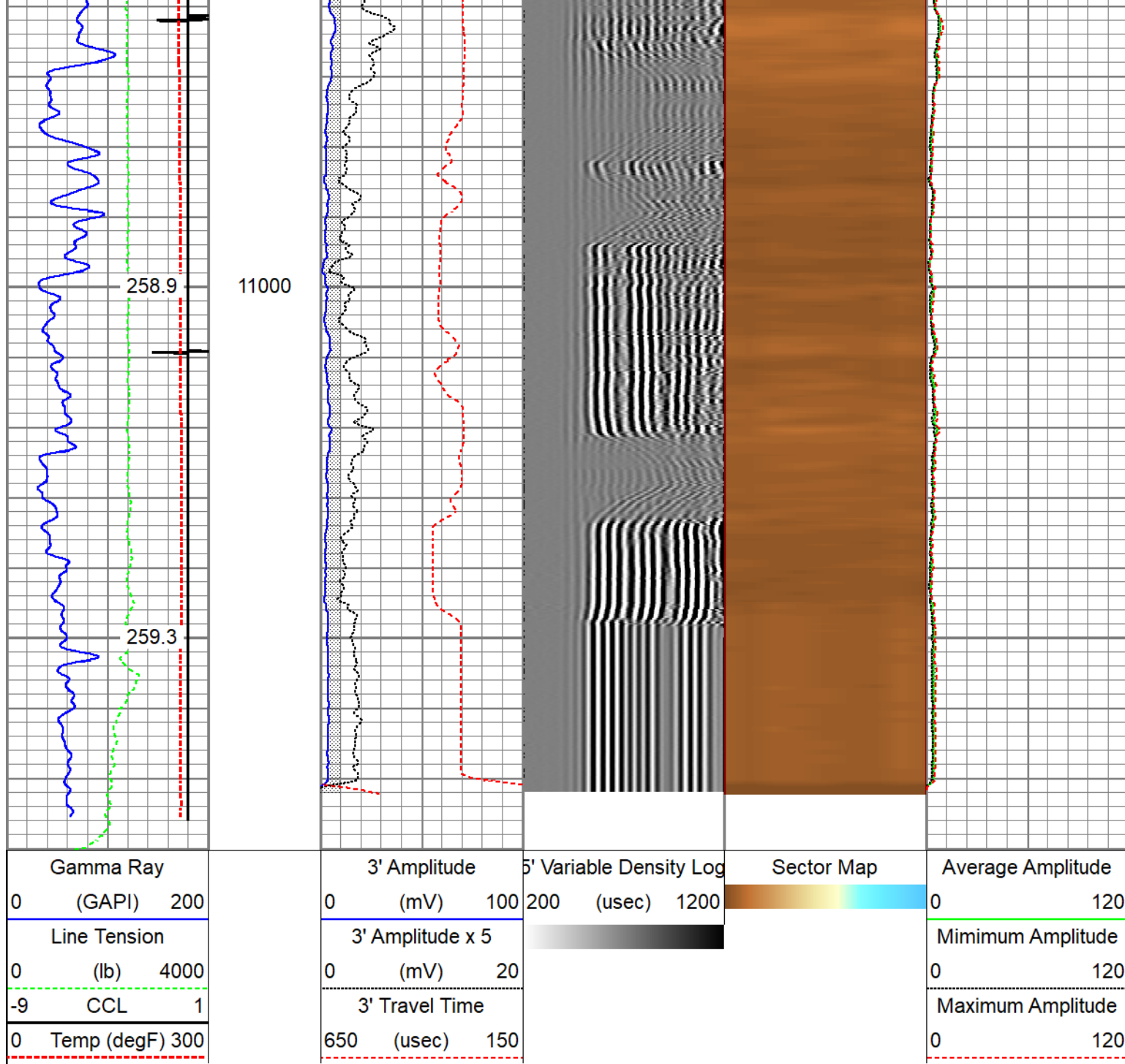
Repeat Pass 5" = 100'

Database File tep\_wmc fed 531-20\_rcbl\_1-3-2023.db  
 Dataset Pathname repeat  
 Presentation Format twgrcbl  
 Dataset Creation Tue Jan 03 12:56:15 2023  
 Charted by Depth in Feet scaled 1:240

Gamma Ray			3' Amplitude			5' Variable Density Log		Sector Map		Average Amplitude	
0	(GAPI)	200	0	(mV)	100	200	(usec)	1200		0	120
Line Tension			3' Amplitude x 5							Minimum Amplitude	
0	(lb)	4000	0	(mV)	20					0	120
CCL			3' Travel Time							Maximum Amplitude	
-9		1									
Temp (degF)			650 (usec)							0	120







Calibration Report		
Database File	tep_wmc fed 531-20_rcbl_1-3-2023.db	
Dataset Pathname	main	
Dataset Creation	Tue Jan 03 13:02:18 2023	
Gamma Ray Calibration Report		
Serial Number:	FW1311-93	
Tool Model:	GCT275-0000	
Performed:	Thu Dec 29 18:15:38 2022	
Calibrator Value:	168.0	GAPI
Background Reading:	69.0	cps
Calibrator Reading:	299.3	cps
Sensitivity:	0.7294	GAPI/cps

## Segmented Cement Bond Log Calibration Report

Serial Number: FW1312-30  
Tool Model: Probe275acc

Calibration Casing Diameter: 4.500 in  
Calibration Depth: 278.924 ft

Master Calibration, performed Tue Jan 3 07:14:00 2023:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	0.511	0.000	81.196	147.744	-0.671
CAL	0.003	0.764				
5'	0.013	0.470	0.000	81.196	189.928	-2.321
SUM						
S1	0.005	0.516	0.000	100.000	185.992	-1.072
S2	0.007	0.547	0.000	100.000	179.809	-1.220
S3	0.004	0.492	0.000	100.000	179.337	-0.921
S4	0.005	0.532	0.000	100.000	175.506	-0.867
S5	0.004	0.528	0.000	100.000	172.552	-0.669
S6	0.005	0.528	0.000	100.000	172.189	-0.946
S7	0.006	0.551	0.000	100.000	176.780	-1.127
S8	0.004	0.486	0.000	100.000	186.883	-0.747

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.003	0.764	1.000	0.000

Air Zero Calibration, performed Mon Jan 2 11:33:52 2023:

	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

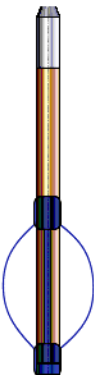
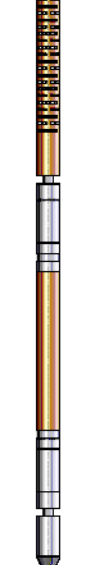
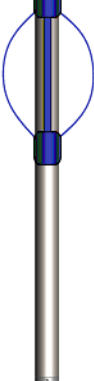
## Inclinometer Calibration Report

Performed: Thu Jul 28 15:46:49 2022

	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-931.00	904.00	-1.00	1.00	gee


Y Accelerometer

	-899.00	884.00	-1.00	1.00	gee
Z Accelerometer	1.47	886.18	0.00	1.00	gee

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GCT_FMWR	13.85		SO BS CENT-2750-4500 Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer	1.33	3.25	10.00
mSec_Count	13.85					
RBT_Status	13.85					
Error_Ct	13.85					
WVFS8	9.35		RBT8acc-Probe275acc (FW1312-30) 2.75" Radial Corrosion with accelerometer	8.75	2.75	110.00
WVFS7	9.35					
WVFS6	9.35					
WVFS5	9.35					
WVFS4	9.35					
WVFS3	9.35					
WVFS2	9.35					
WVFS1	9.35					
WVF3FT	9.35					
WVF5FT	8.35					
RBT_ACCZ	5.10					
RBT_ACCY	5.10					
RBT_ACCX	5.10					
GCT_HV	5.10					
WVFSYNC	5.10					
WVFCAL	5.10					
CCL\$2	4.14					
CCL\$1	4.14					
GCT_Temp	3.59					
GR	2.72					
GCT_IntTemp	2.00		SO BS CENT-2750-4500 Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer	1.33	3.25	10.00
			GC-GCT275-0000 (FW1311-93) Probe 2.75" Gamma Ray - CCL w/ Temp	4.77	2.75	55.00



			Plug-FA108-0000 1.38" Bull Plug	0.33	1.38	1.00
Dataset: tep_wmc fed 531-20_rcbl_1-3-2023.db: field/well/run1/main Total length: 13.85 ft Total weight: 186.00 lb O.D.: 3.25 in						

Company	TEP Rocky Mountain LLC				
Well	Federal WMC 531-20				
Field	Rulison				
County	Garfield		State	Colorado	
			Radial Cement Bond Gamma Ray Casing Collar Log		