



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC
Well Federal WMC 412-20
Field Rulison
County Garfield
State Colorado

Company TEP Rocky Mountain LLC
Well Federal WMC 412-20
Field Rulison
County Garfield
State Colorado

Location: API #: 05-045-24495

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 14-DEC-2022

Run Number One

Depth Driller 11357 FT

Depth Logger 11277 FT

Bottom Logged Interval 11277 FT

Top Log Interval Surface

Open Hole Size 8.75"

Type Fluid Water

Density / Viscosity 8.34 Lb/Gal

Max. Recorded Temp. 262 °F

Estimated Cement Top See Log

Time Well Ready ROA

Time Logger on Bottom 14:00

Equipment Number 8047

Location Grand Junction

Recorded By A. Ellsworth

Witnessed By C. Borgstede

Borehole Record

Run Number Bit From To Size Weight From To

Tubing Record

Run Number Bit From To Size Weight From To

Size

9-5/8"

4-1-2"

4-1-2"

Wgt/Ft

36

11.6

11.6

Top

Surface

Surface

Surface

Bottom

1138 FT

11347 FT

11347 FT

Comments



Log ran as per customer request
Depth referenced to Kelly Bushing at 30 FT
Marker joint logged from 6947 FT to 6956 FT

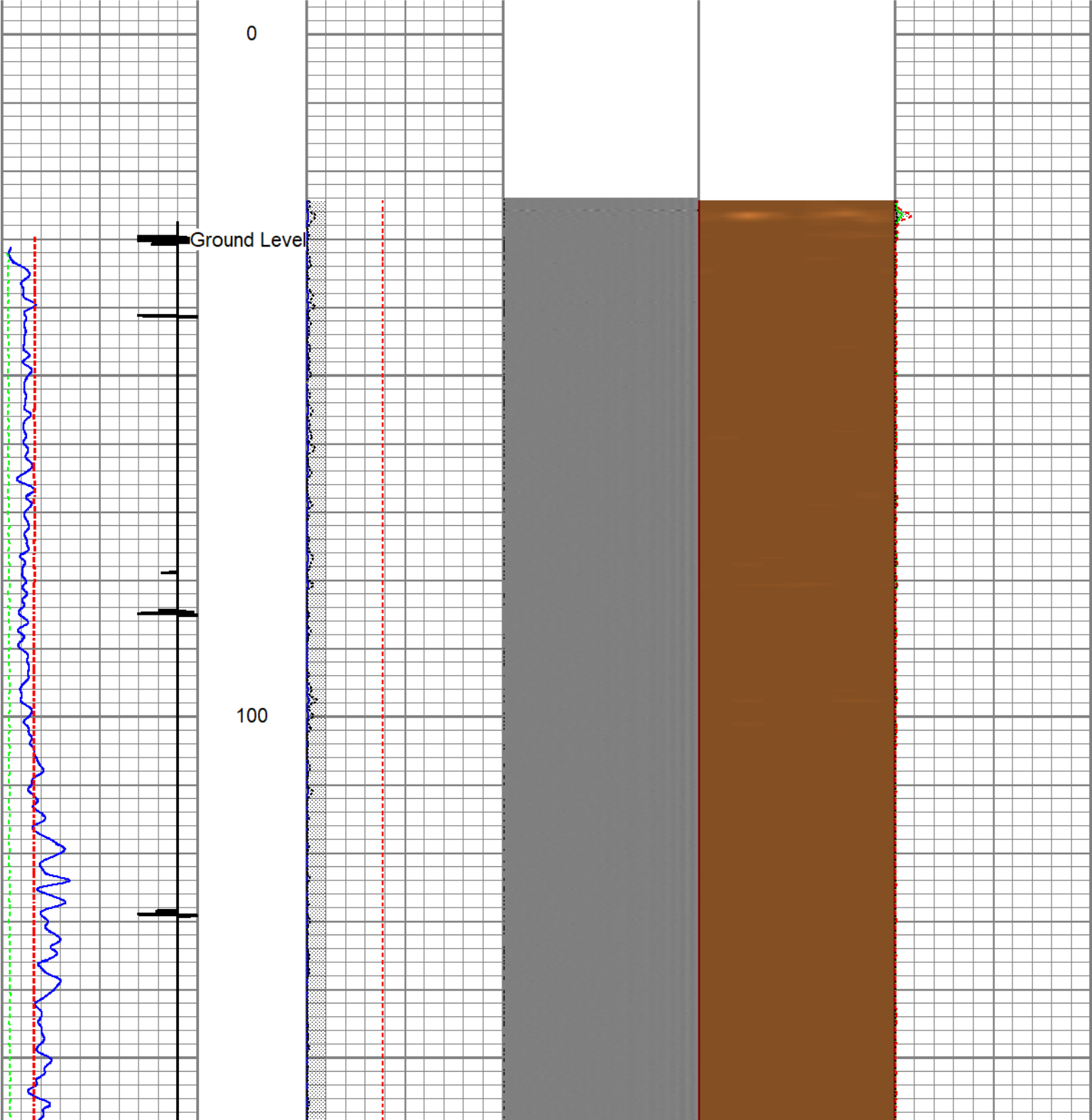
Thank you for choosing The Wireline Group!

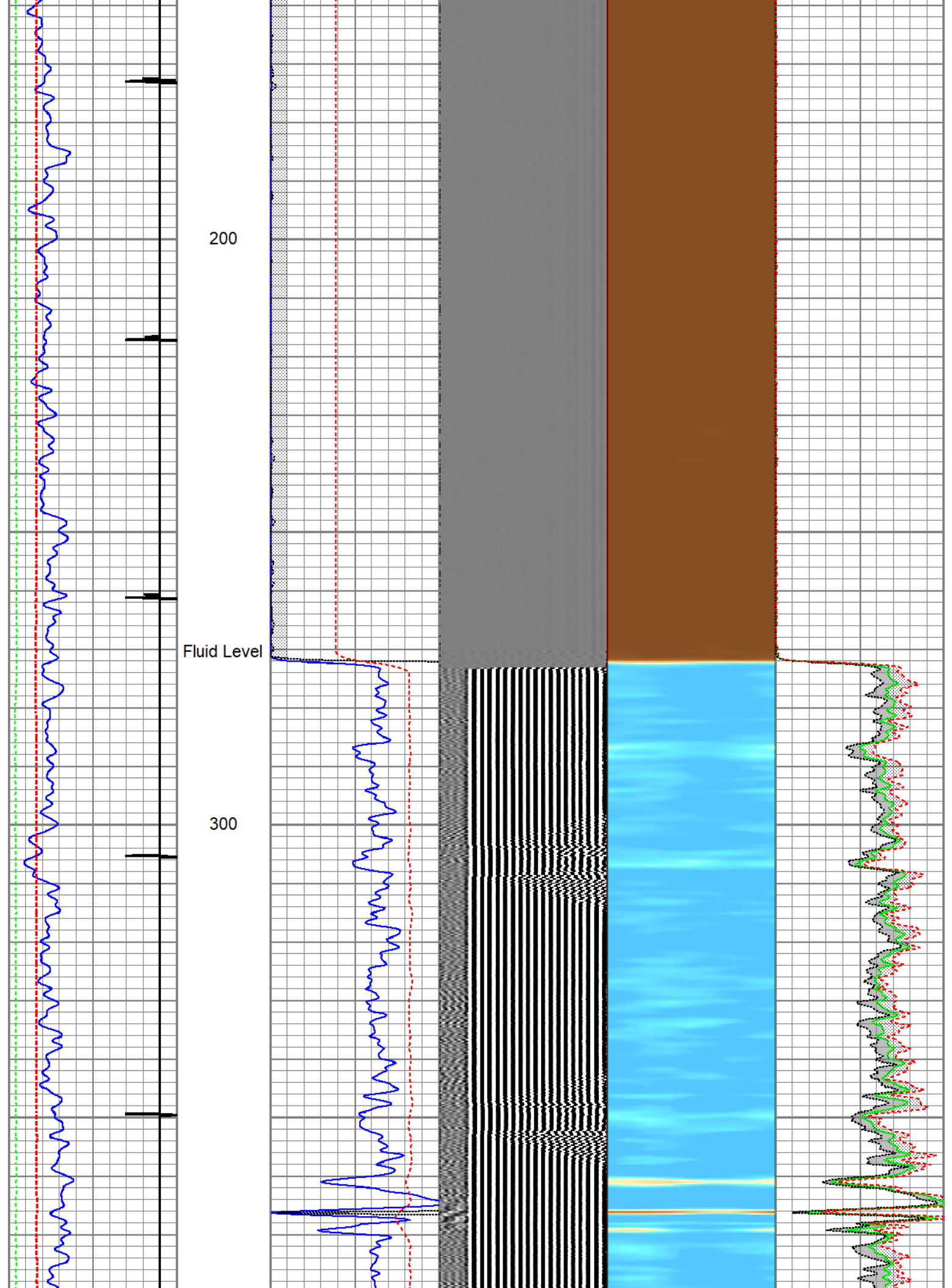


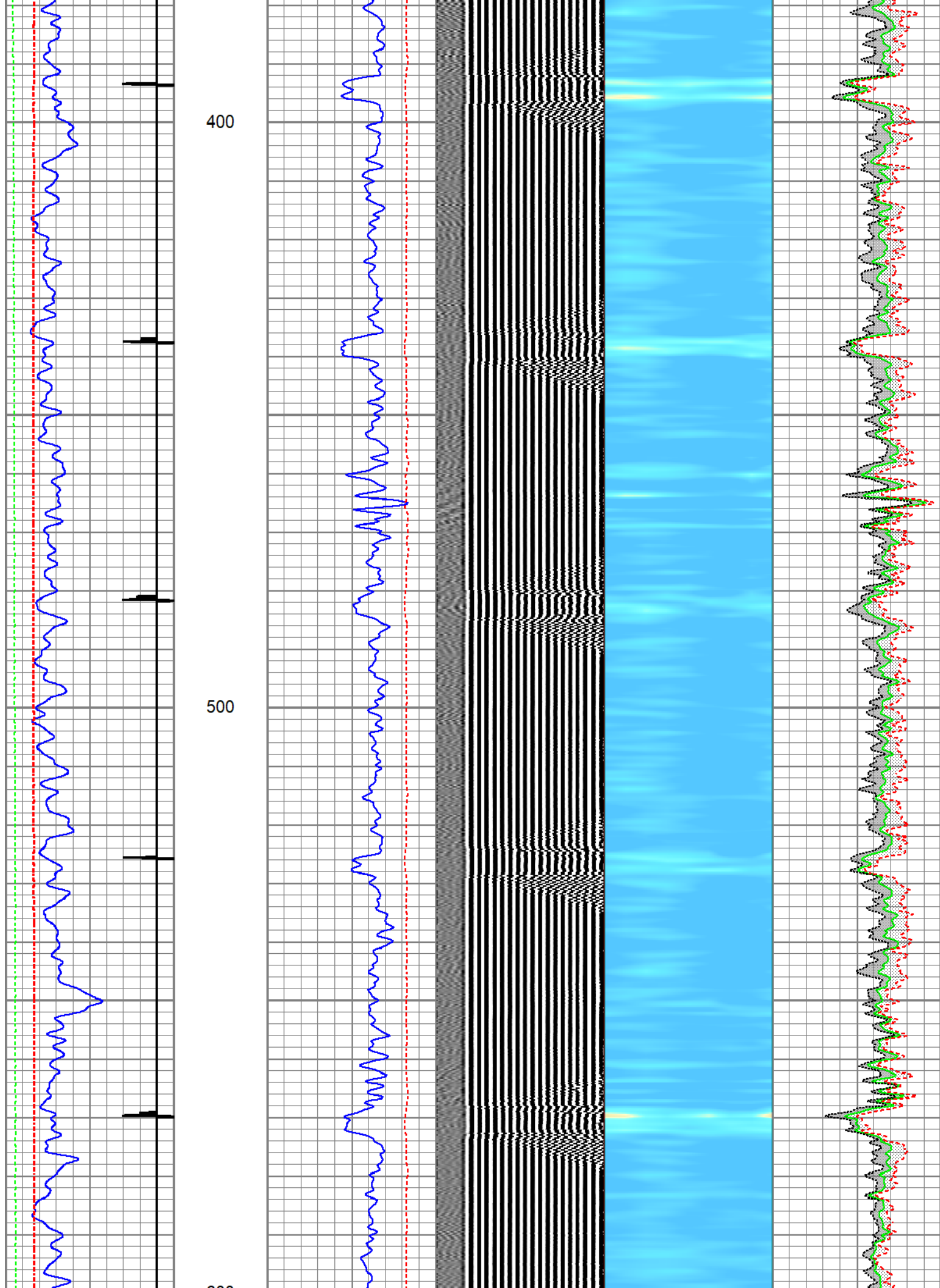
Main Pass 5" = 100'

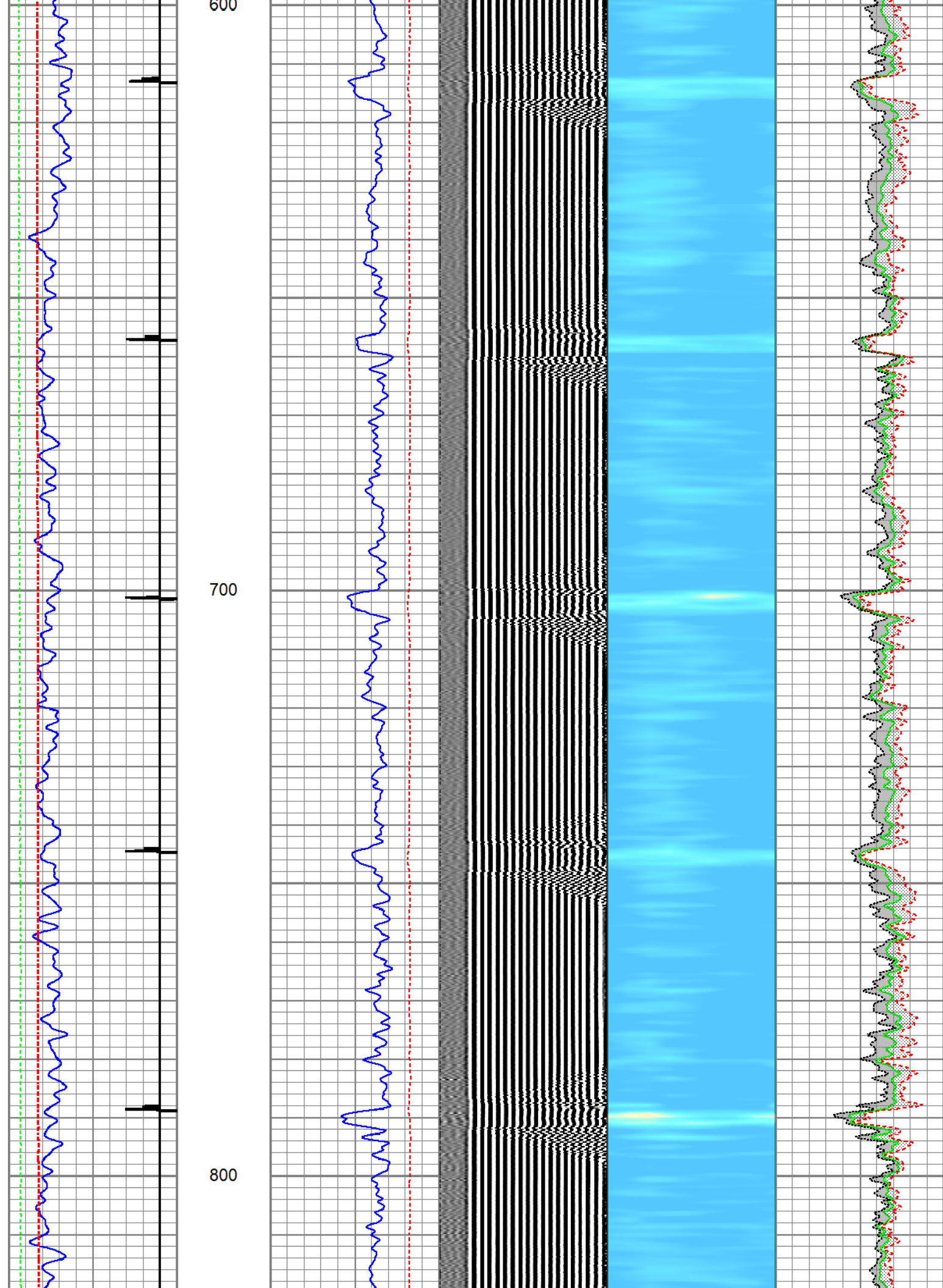
Database File	wmc 24-17 pad\tep_federal wmc 412-20_rcbl_12-14-2022\tep_fed wmc 412-20_rcbl_12-14-2022.db
Dataset Pathname	main
Presentation Format	twgrcbl
Dataset Creation	Wed Dec 14 13:59:06 2022
Charted by	Depth in Feet scaled 1:240

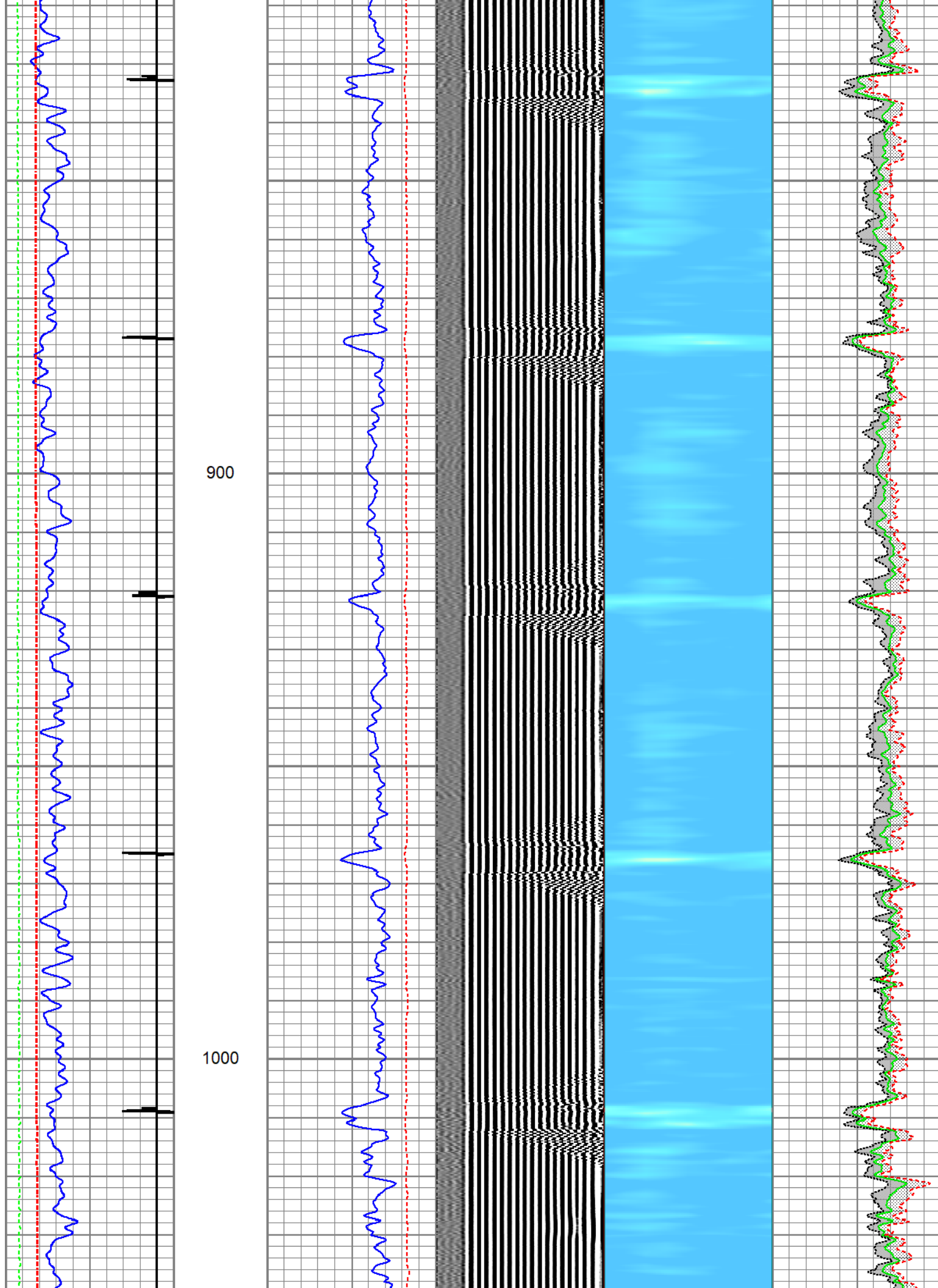
Gamma Ray		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200		0 (mV) 100	200 (usec) 1200		0 120
Line Tension		3' Amplitude x 5			Minimum Amplitude
0 (lb) 3000		0 (mV) 20			0 120
-9 CCL\$1 1		3' Travel Time			Maximum Amplitude
0 Temp (degF) 300		650 (usec) 150			0 120

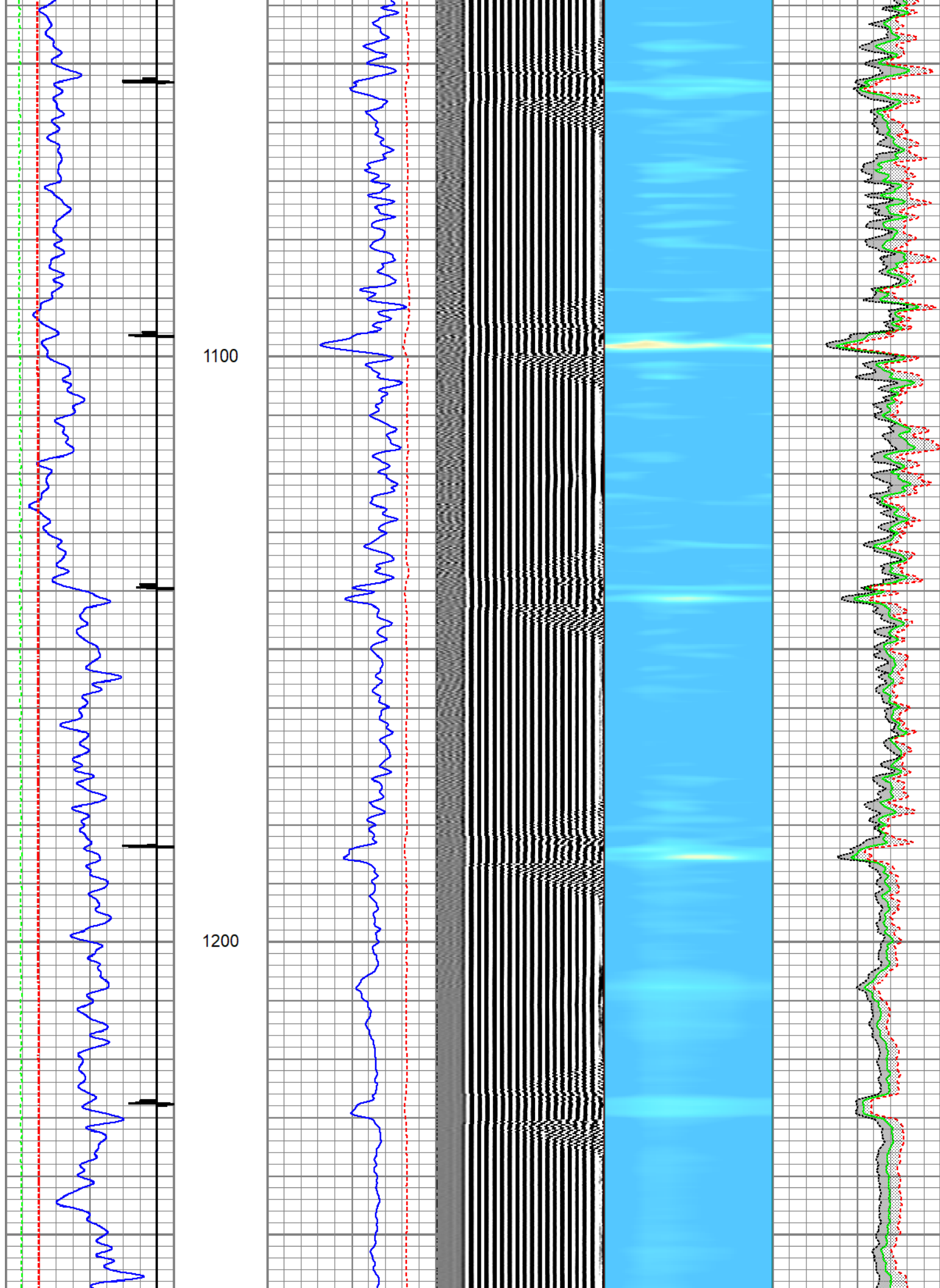


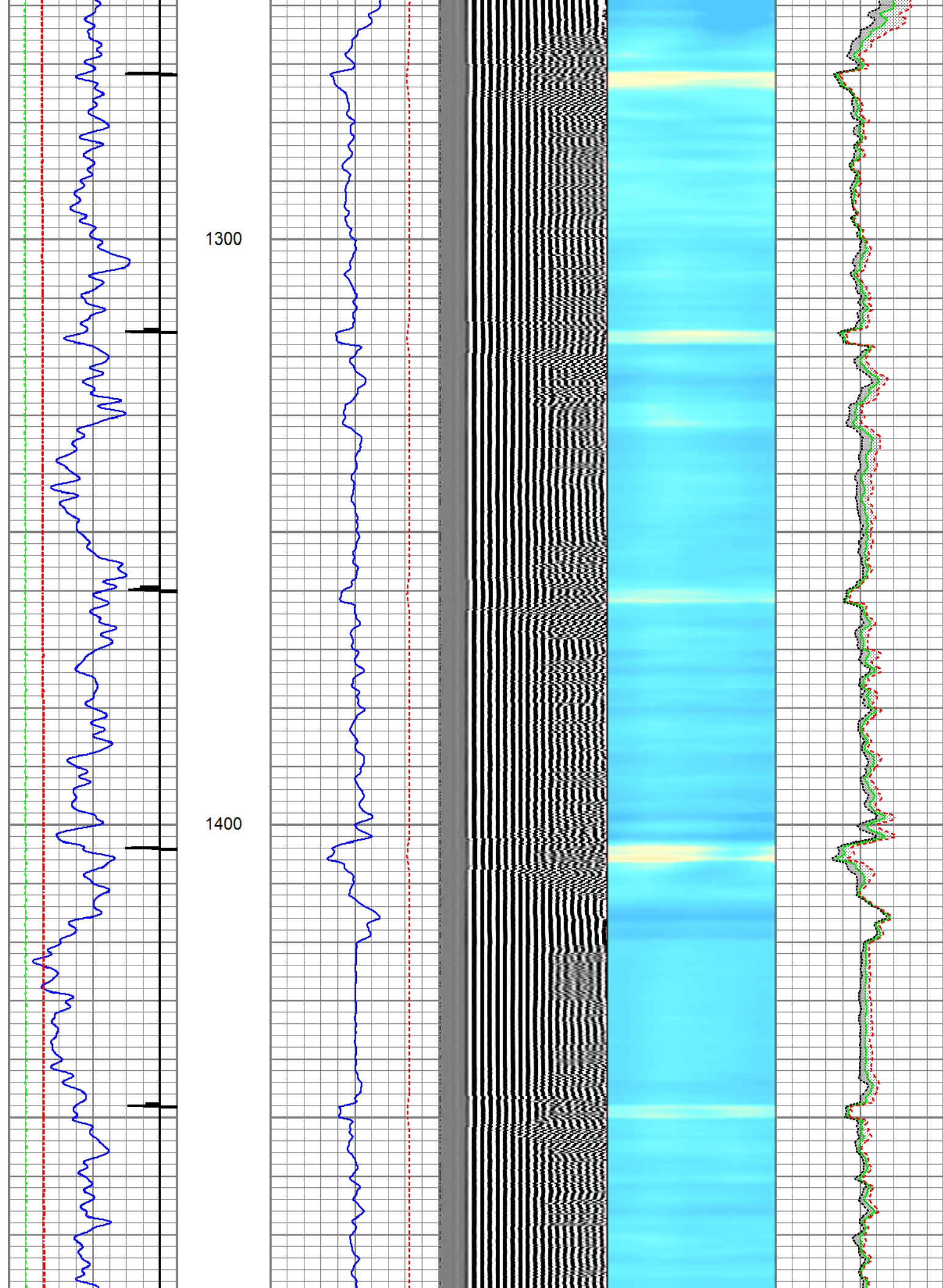


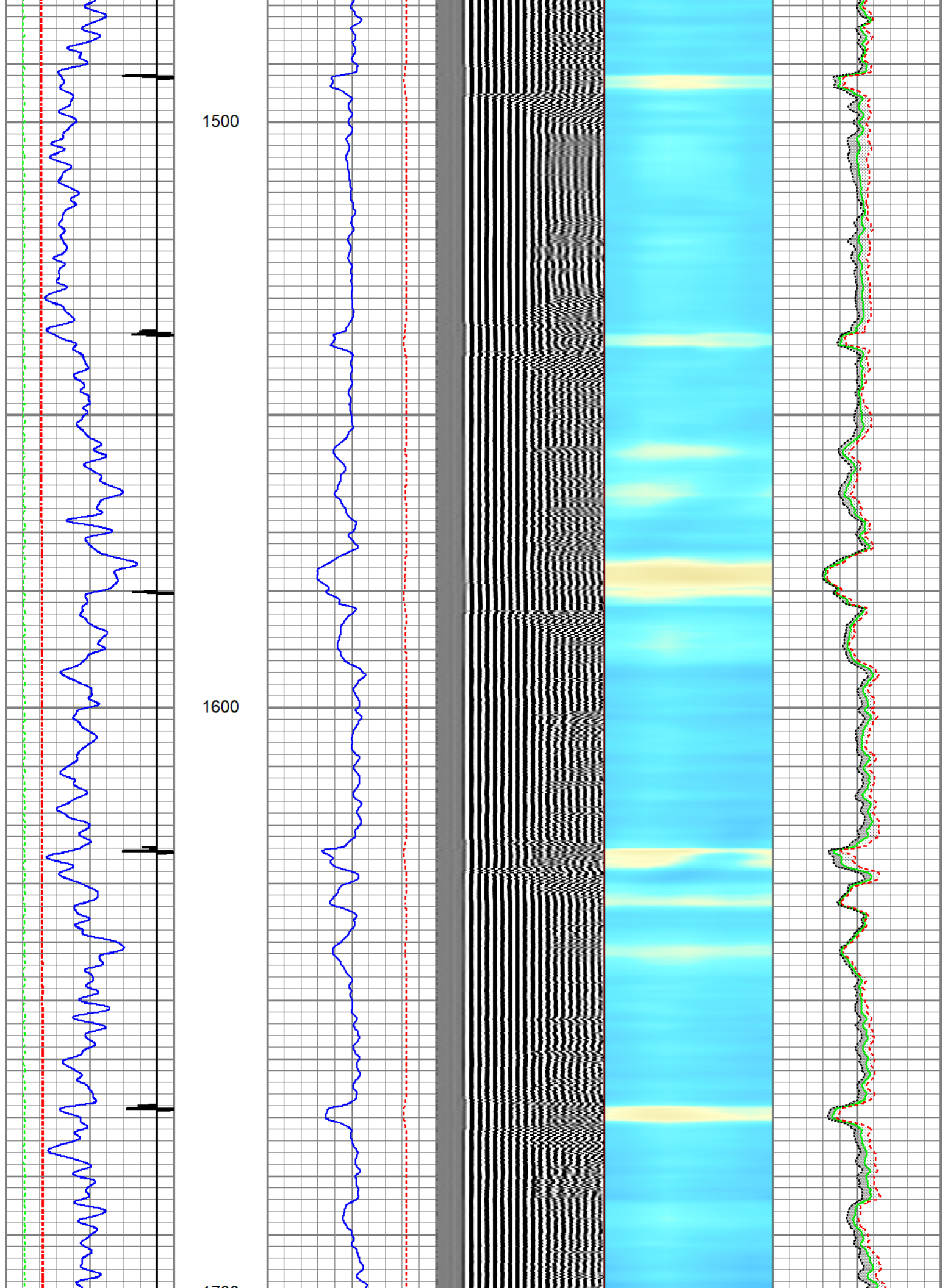


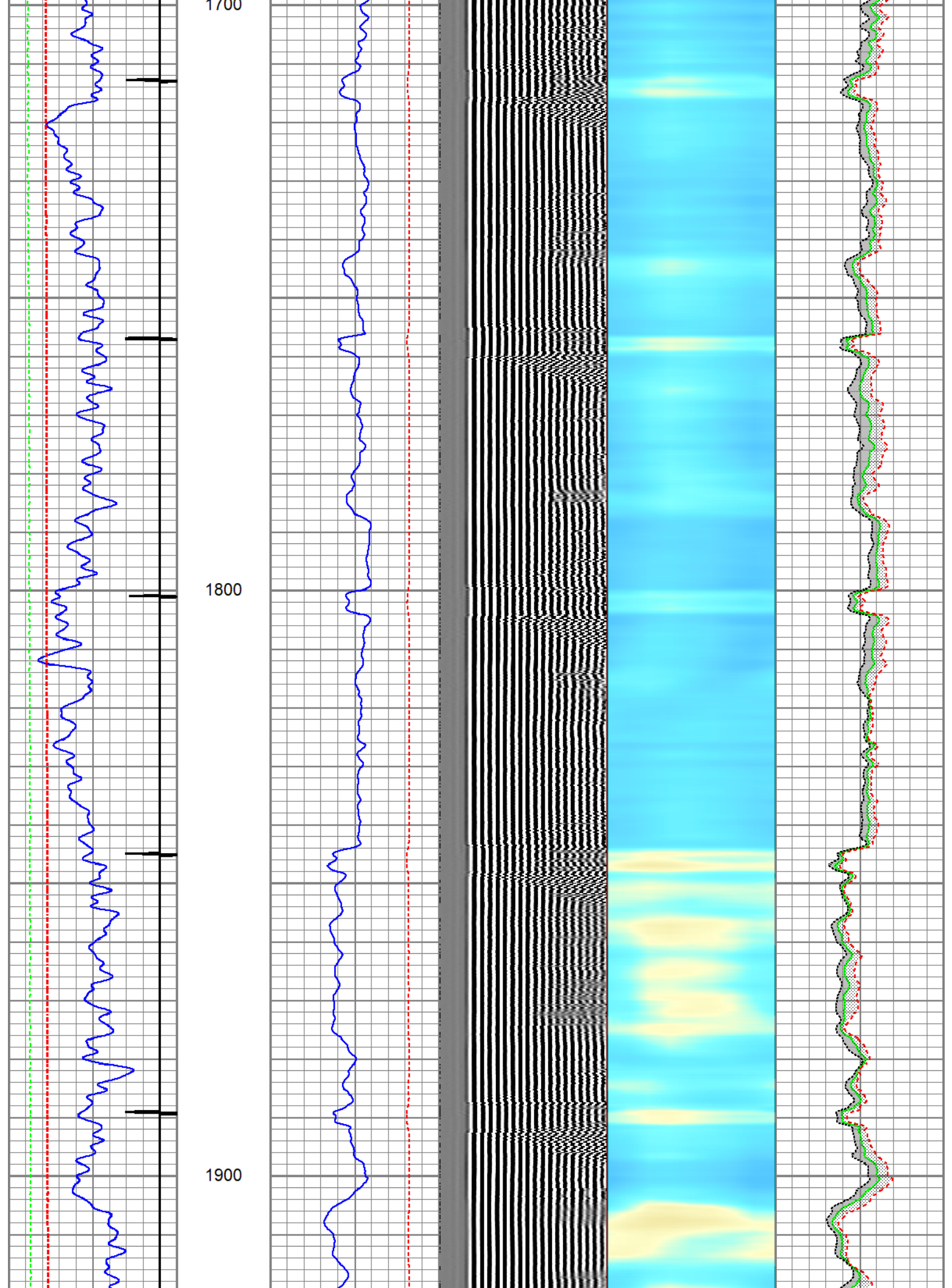


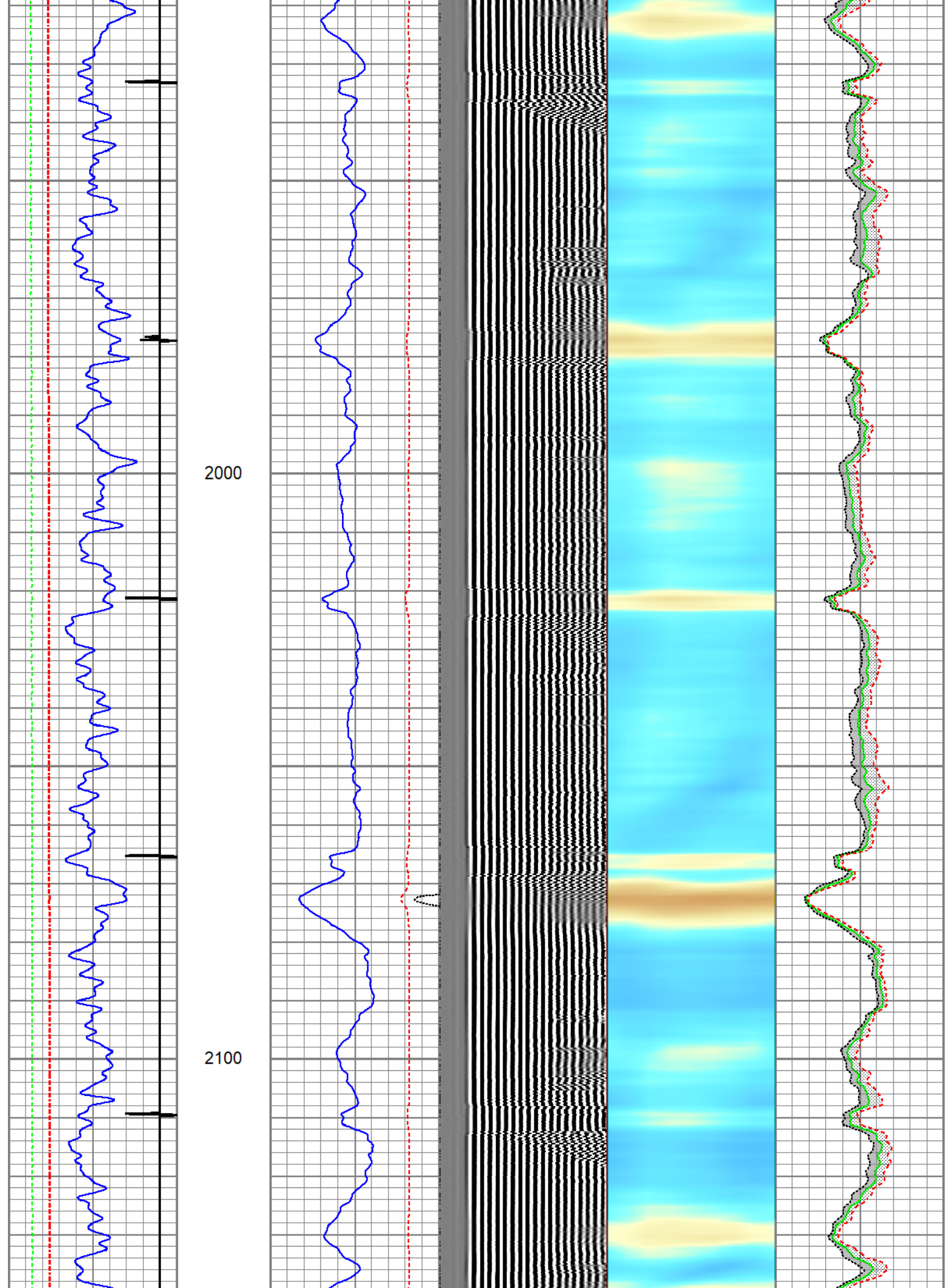


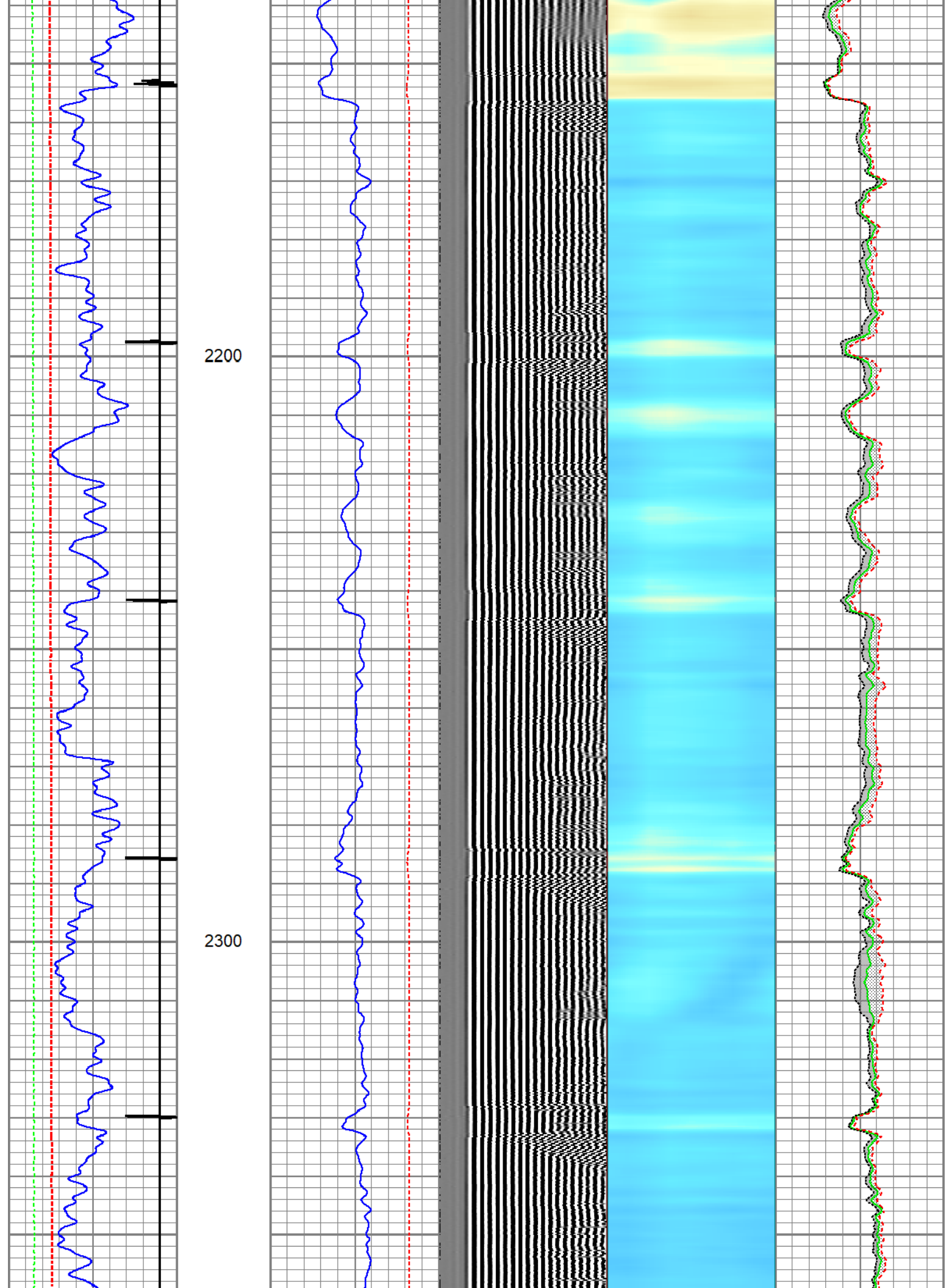


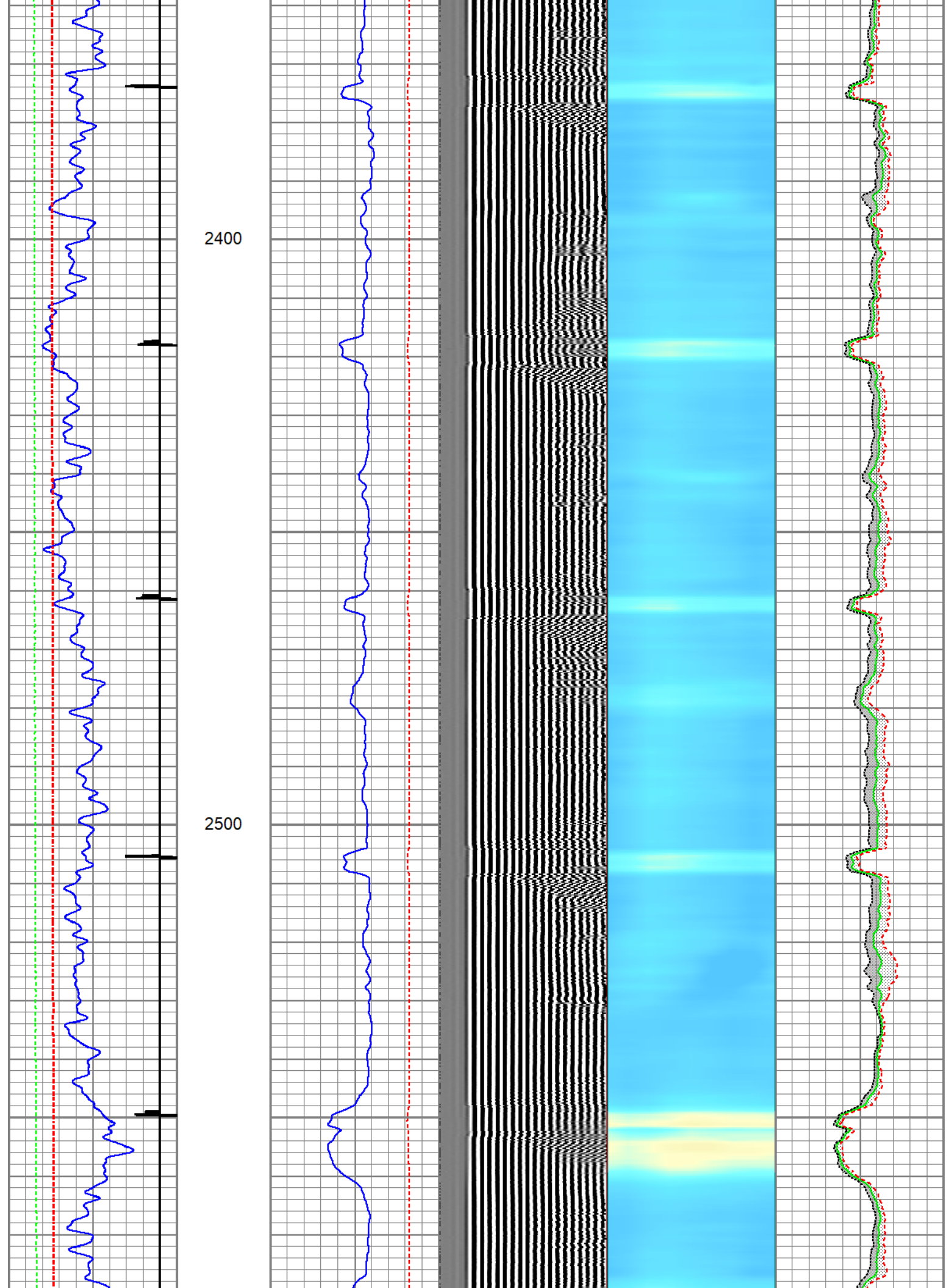


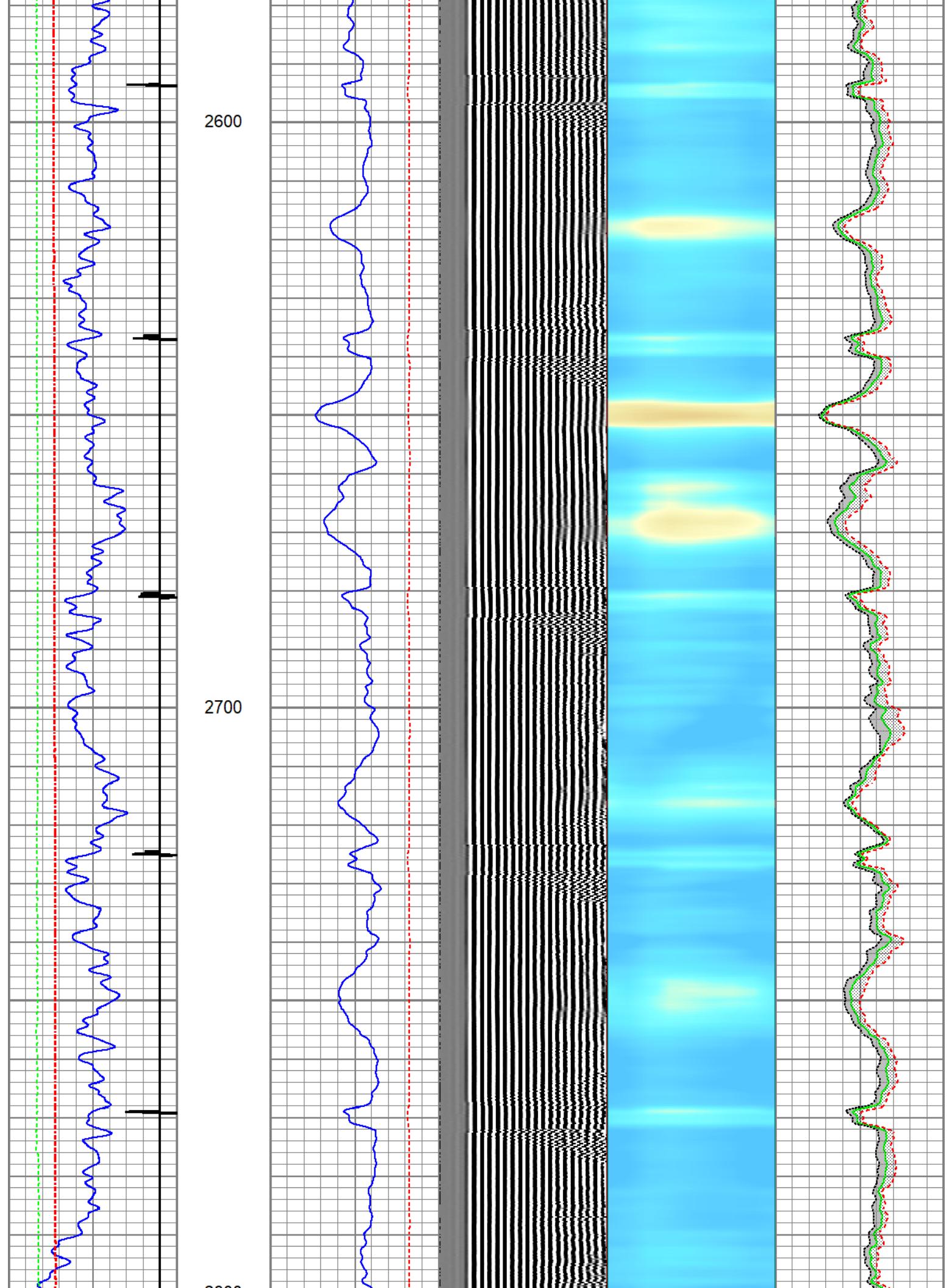








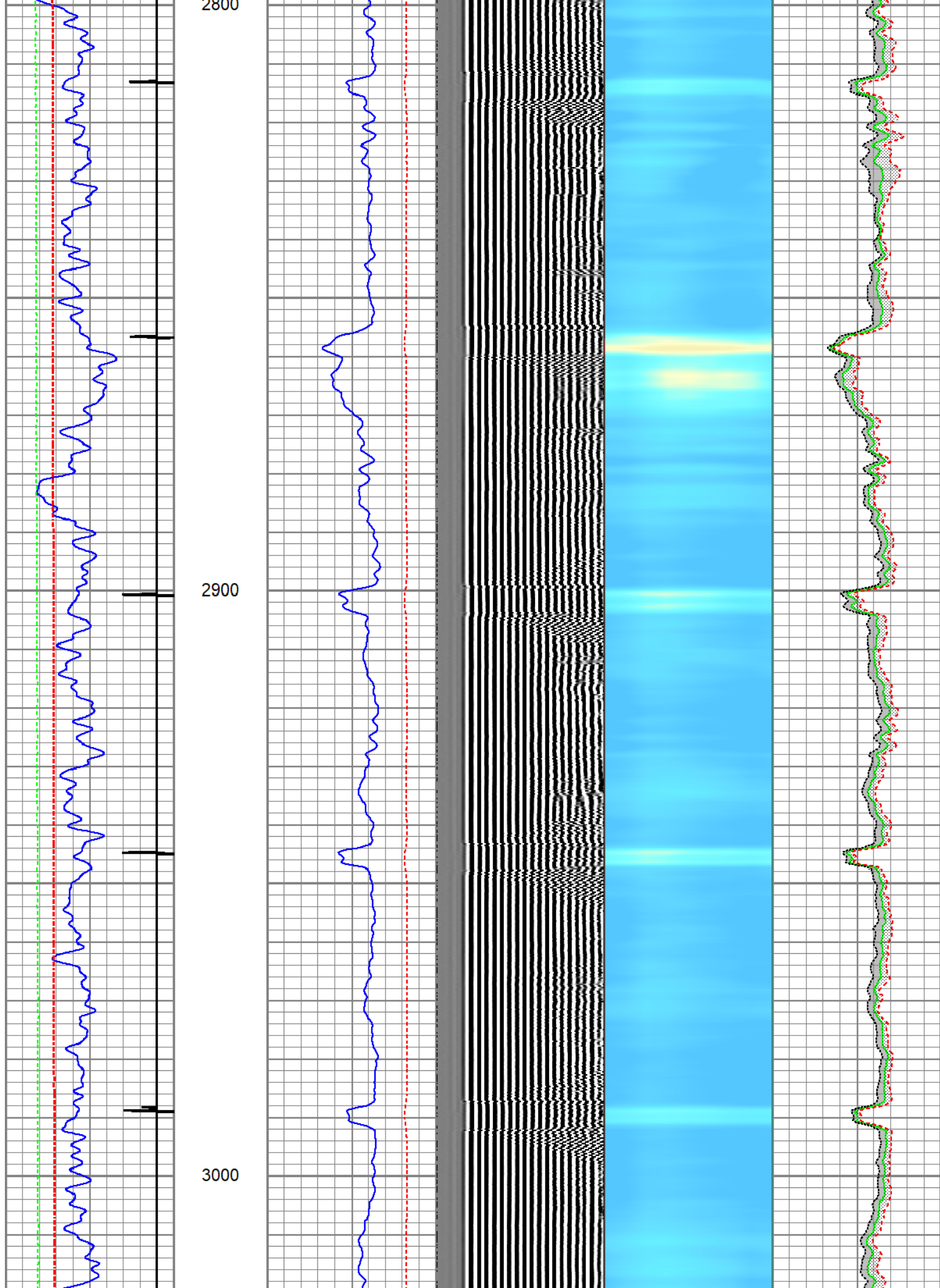


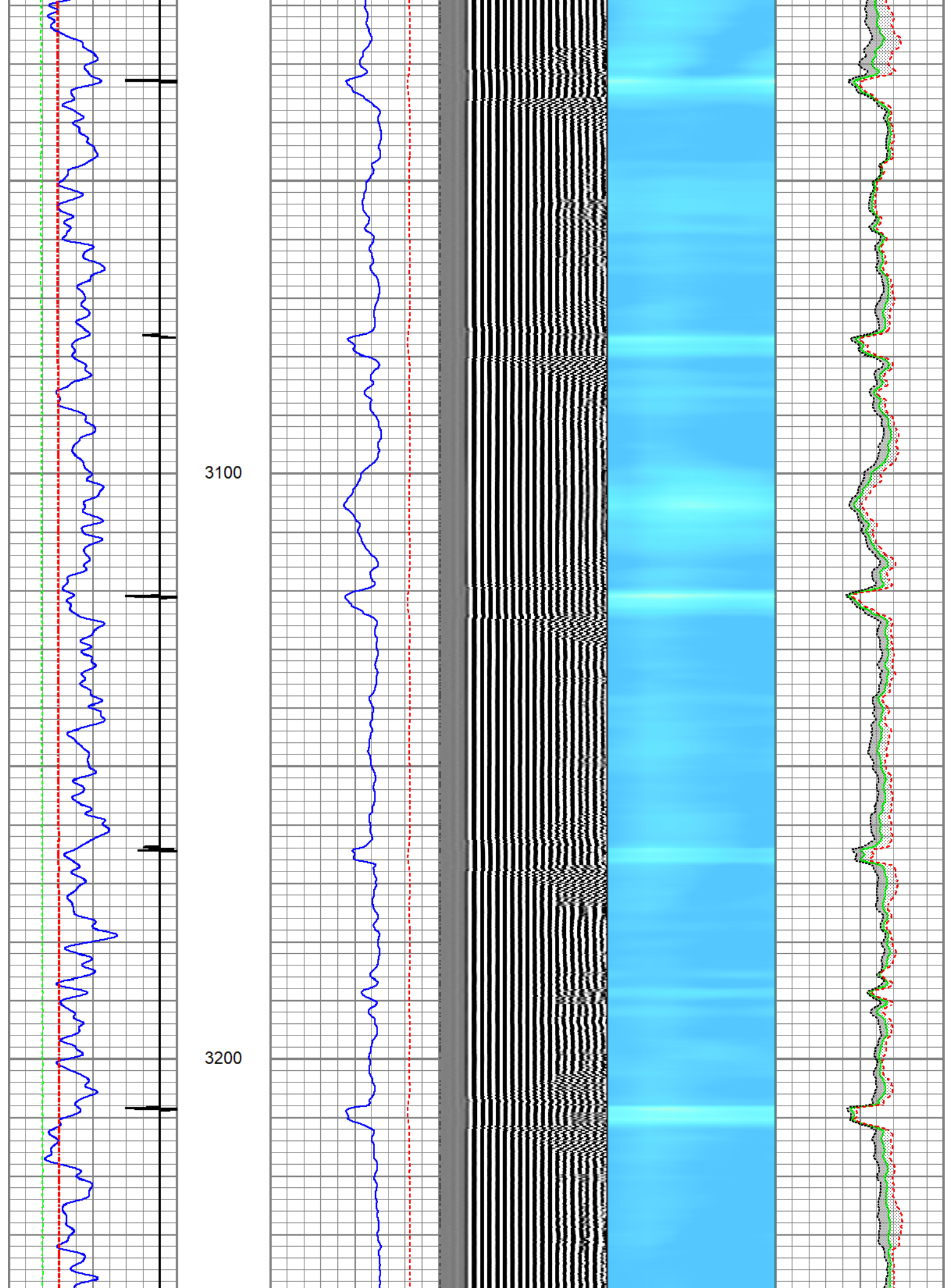


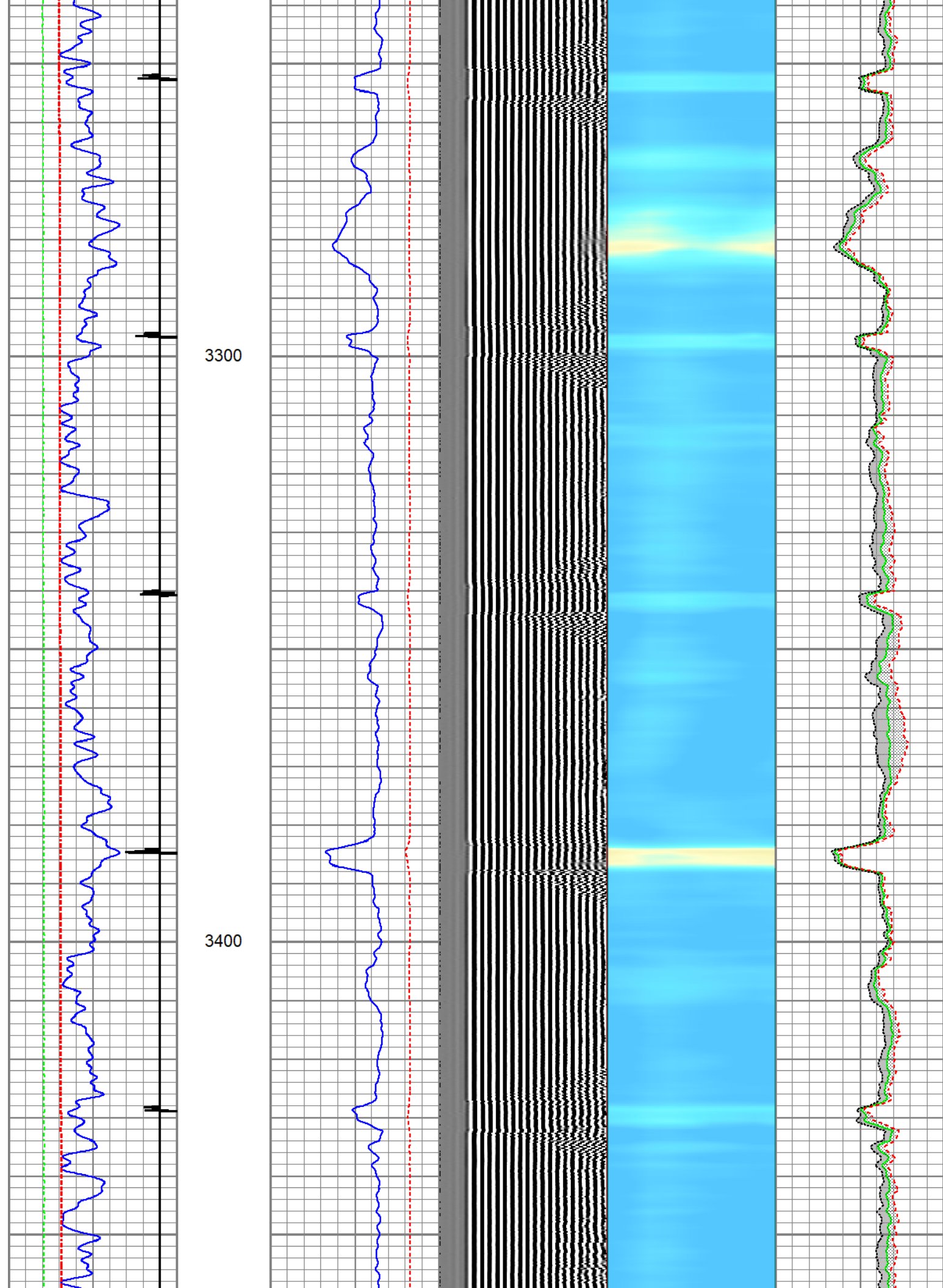
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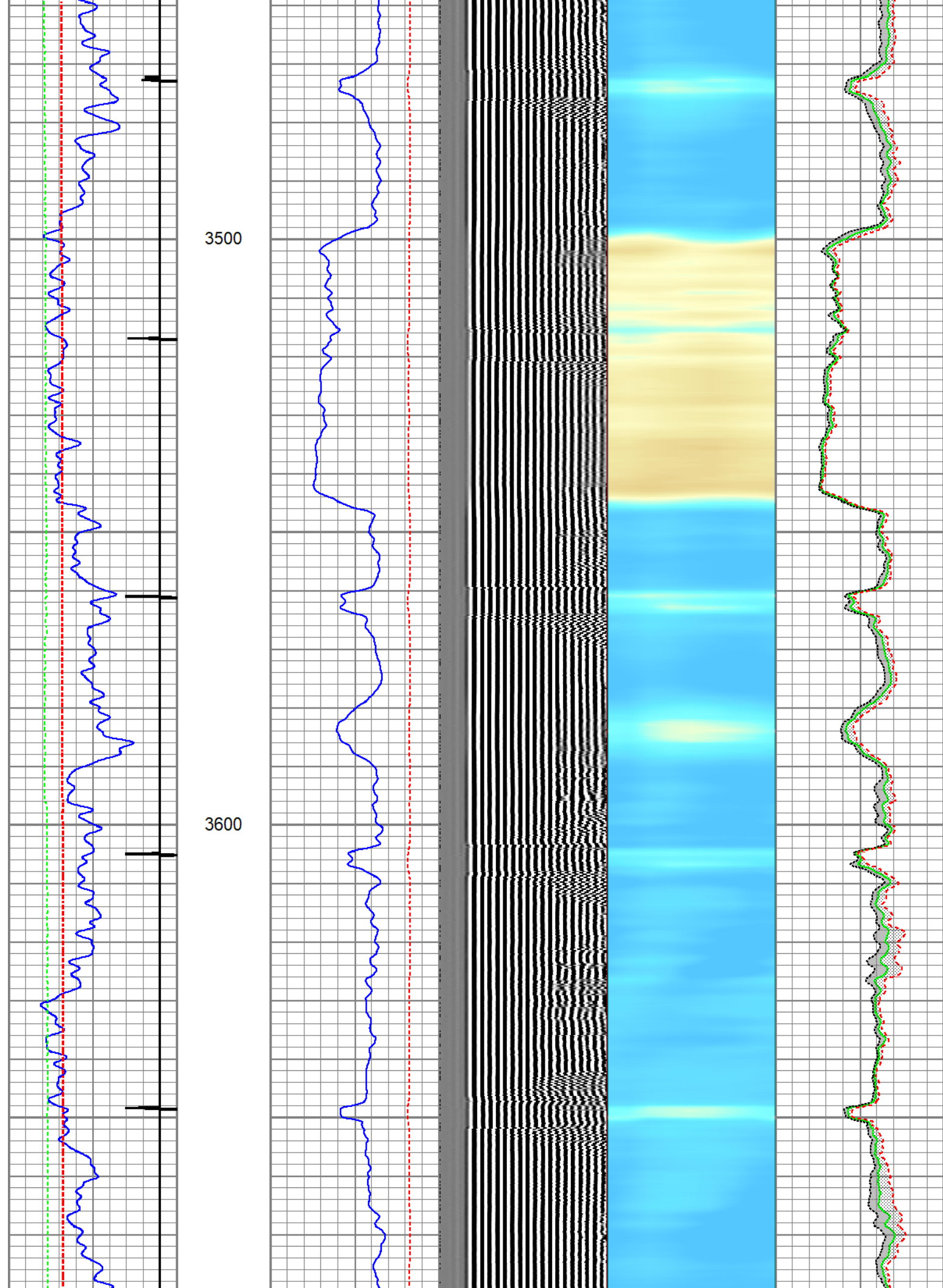
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3000





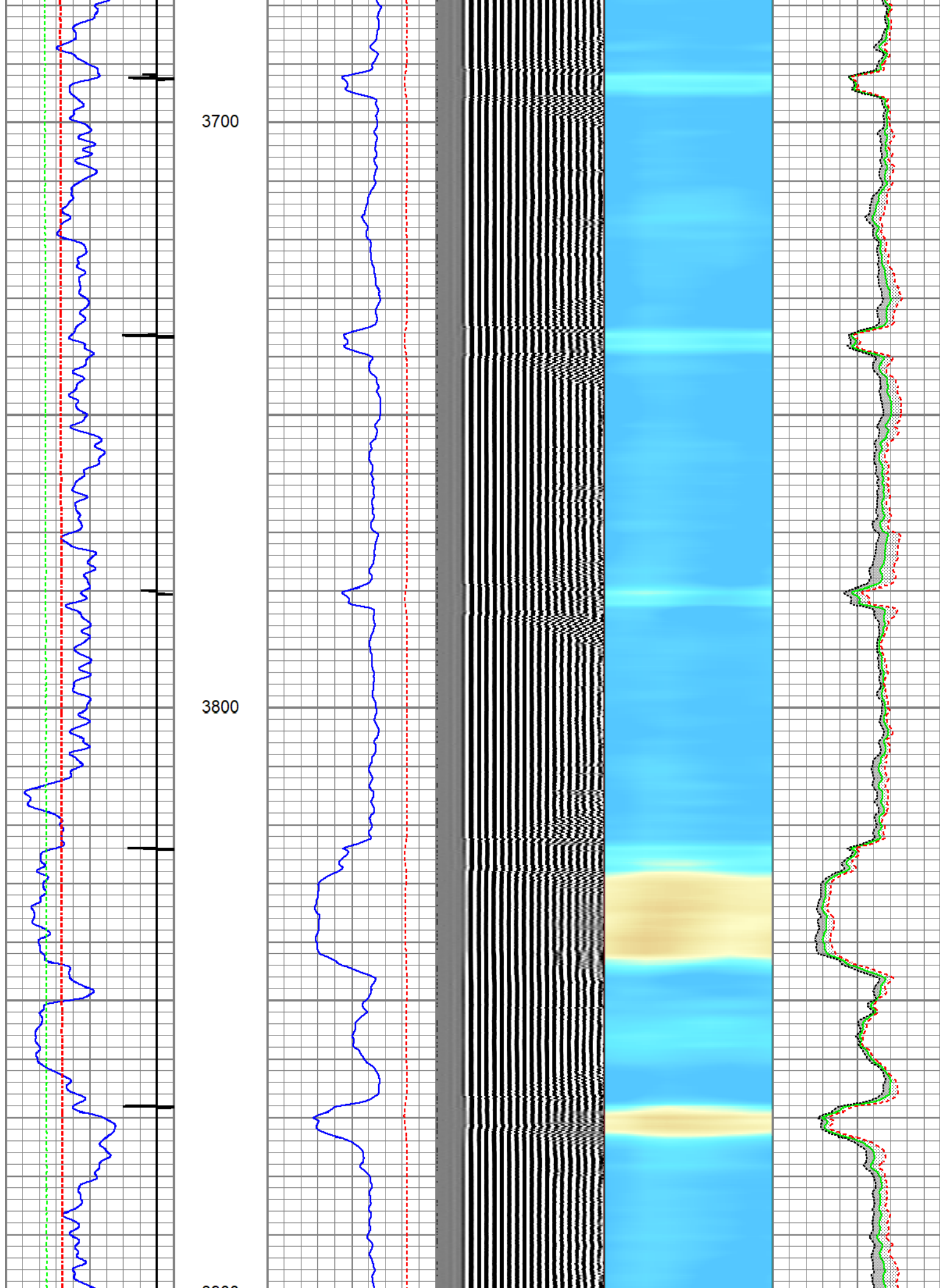


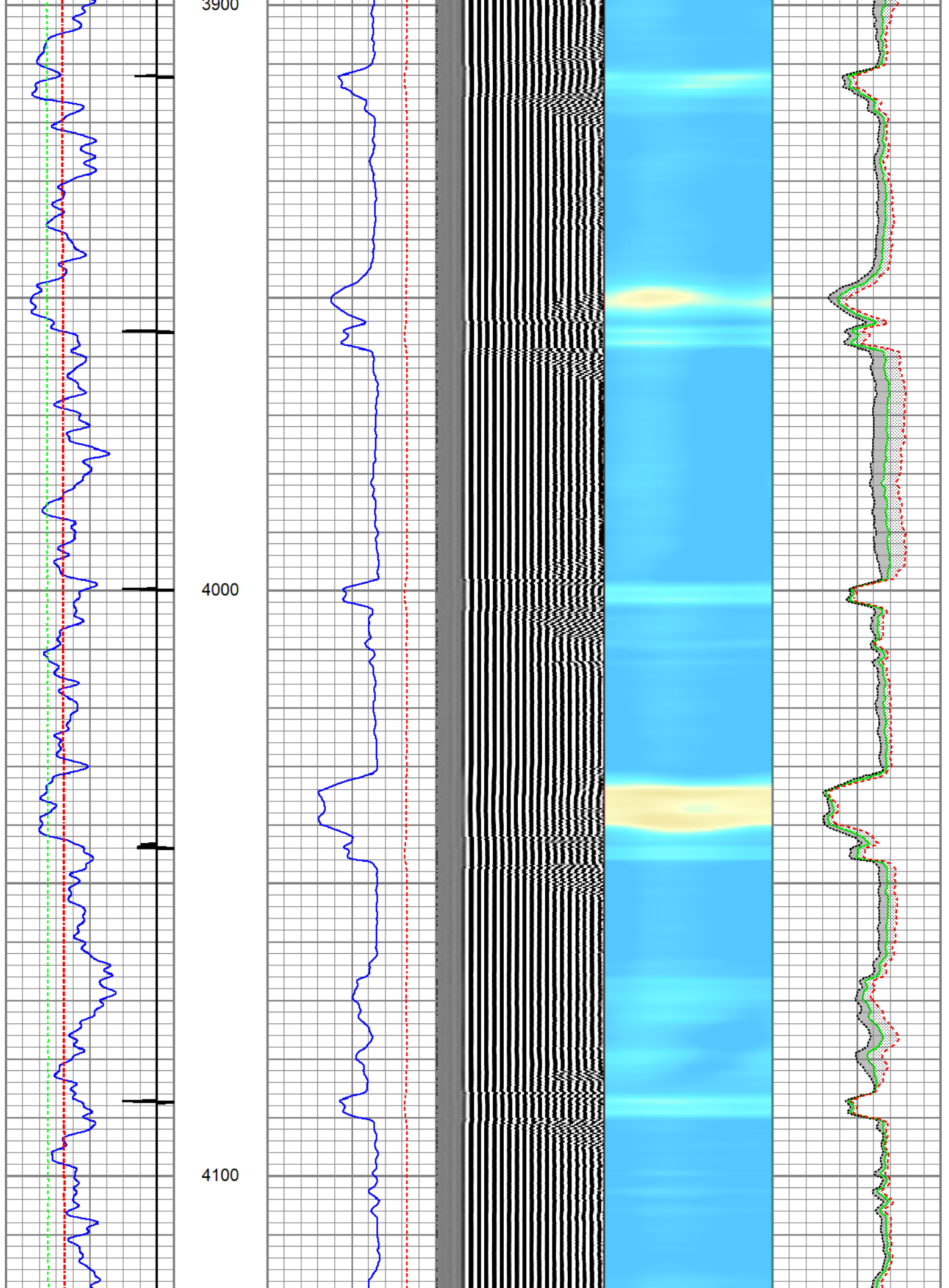


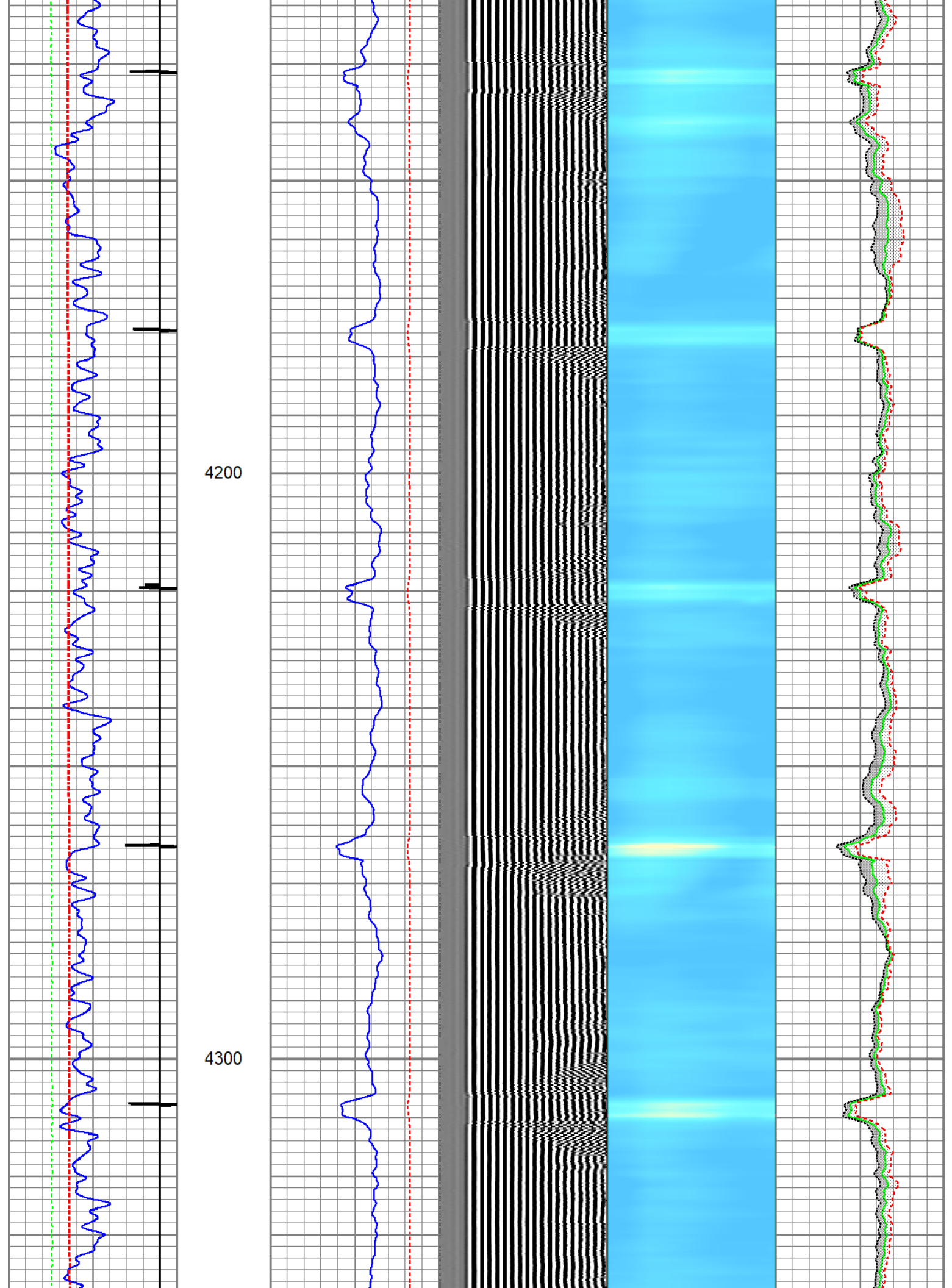
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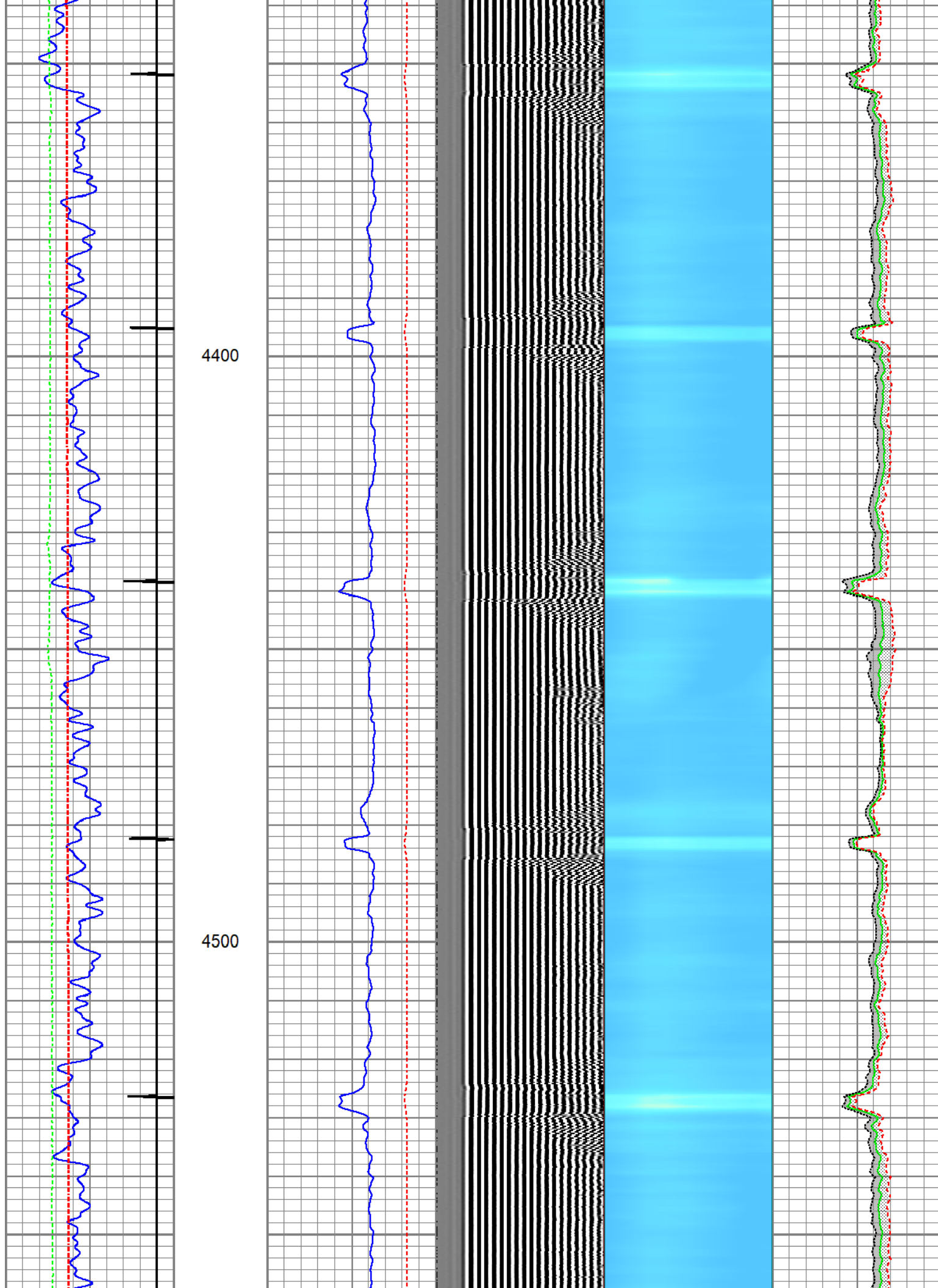
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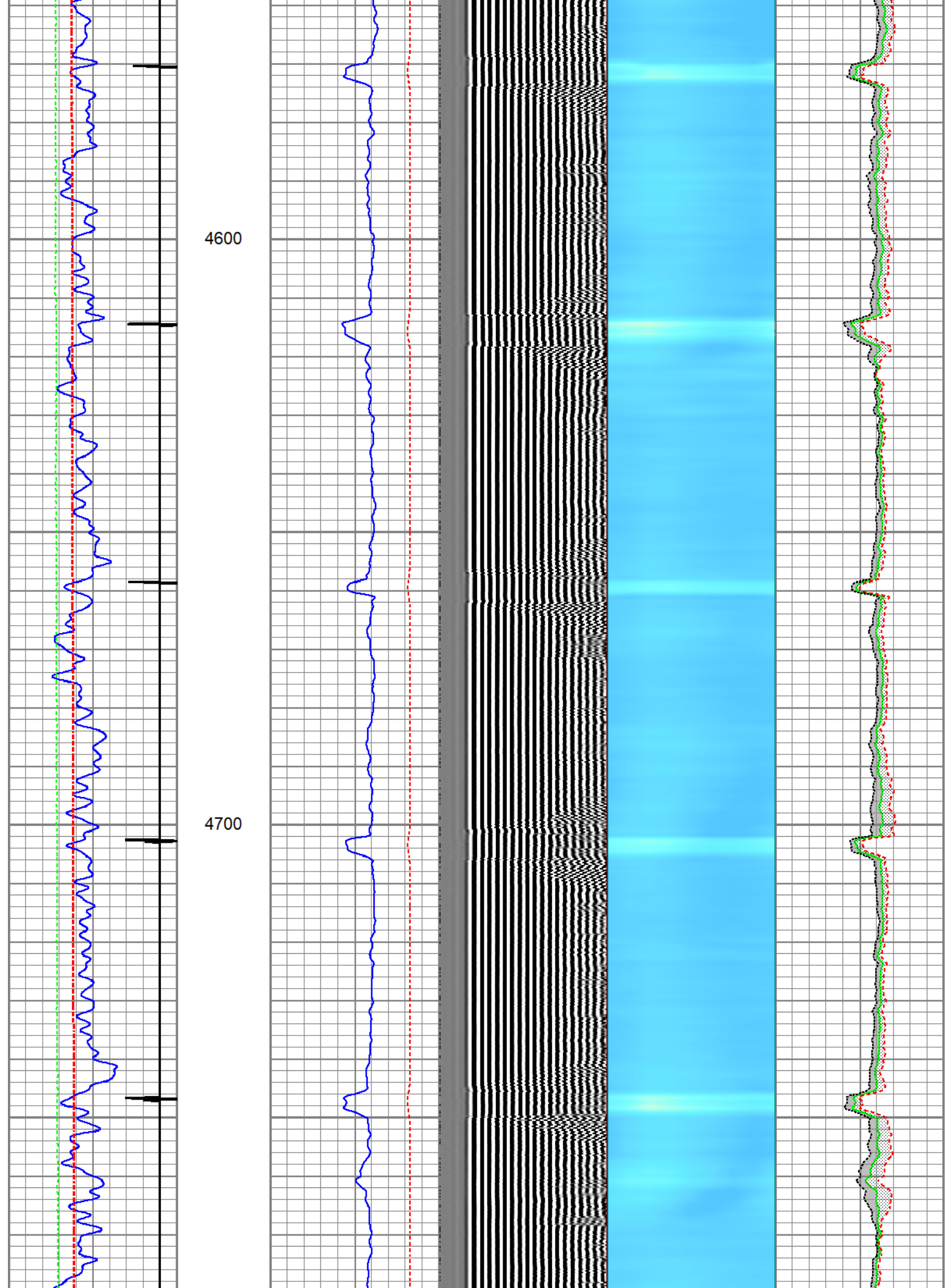
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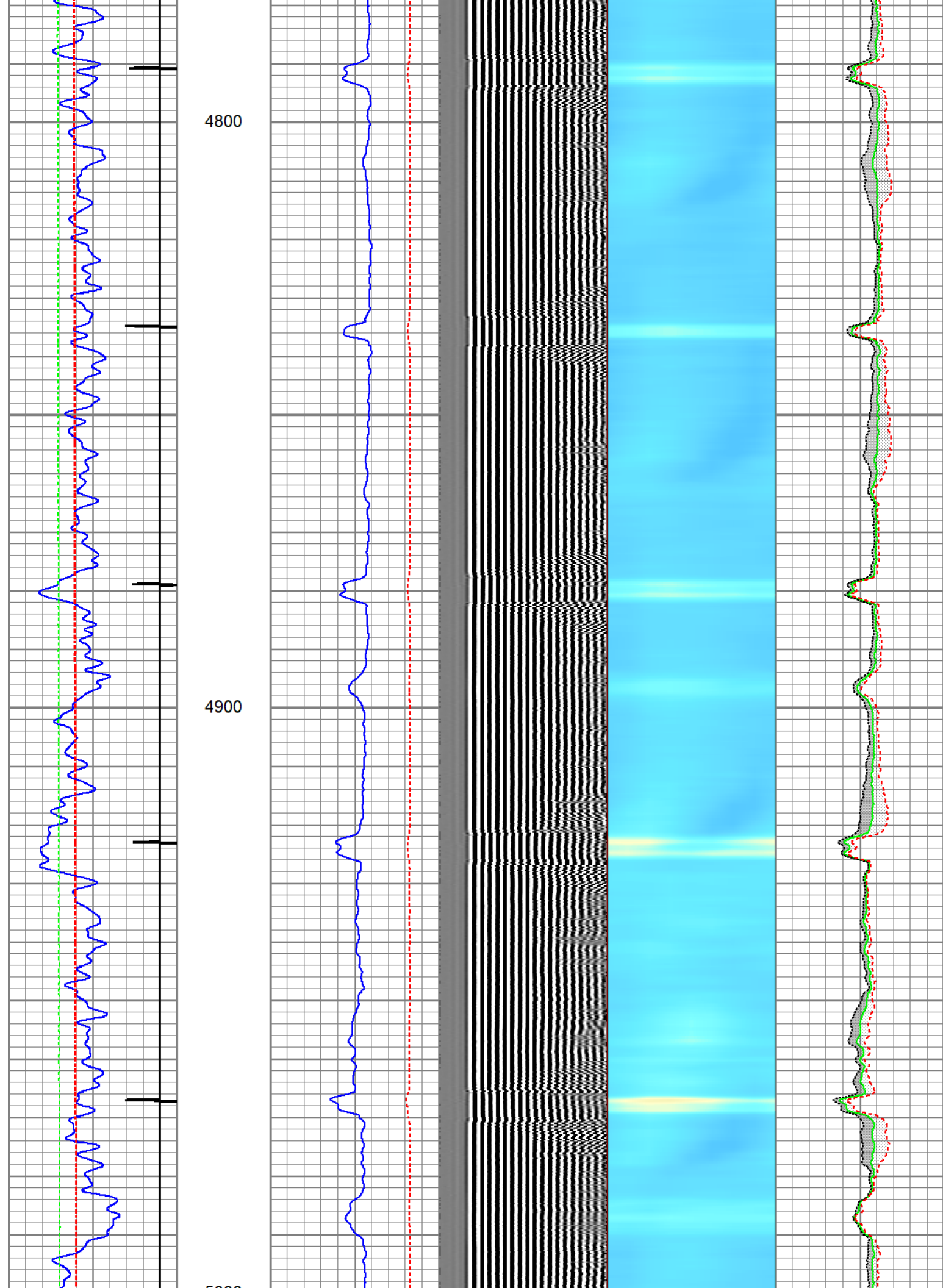


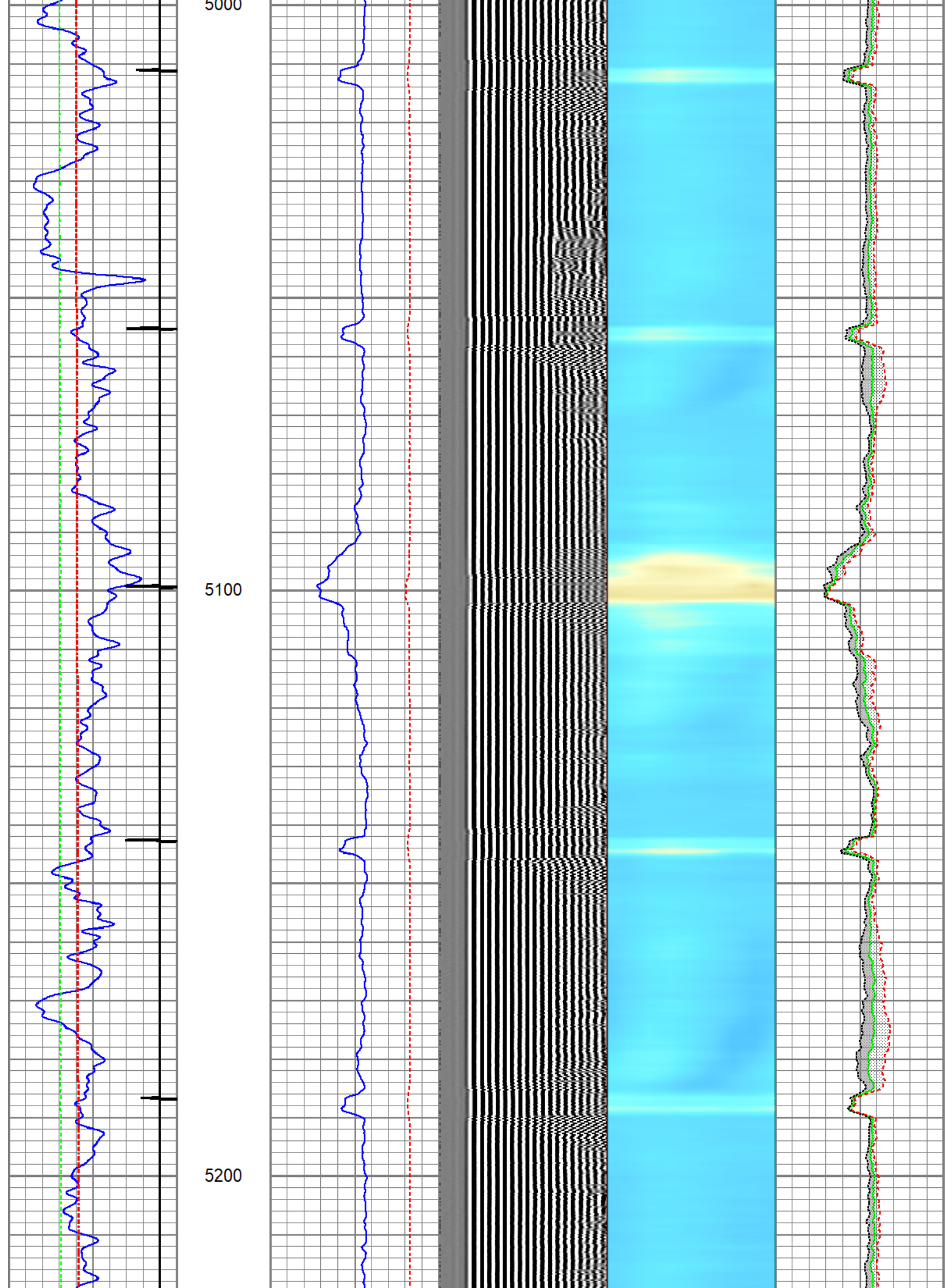


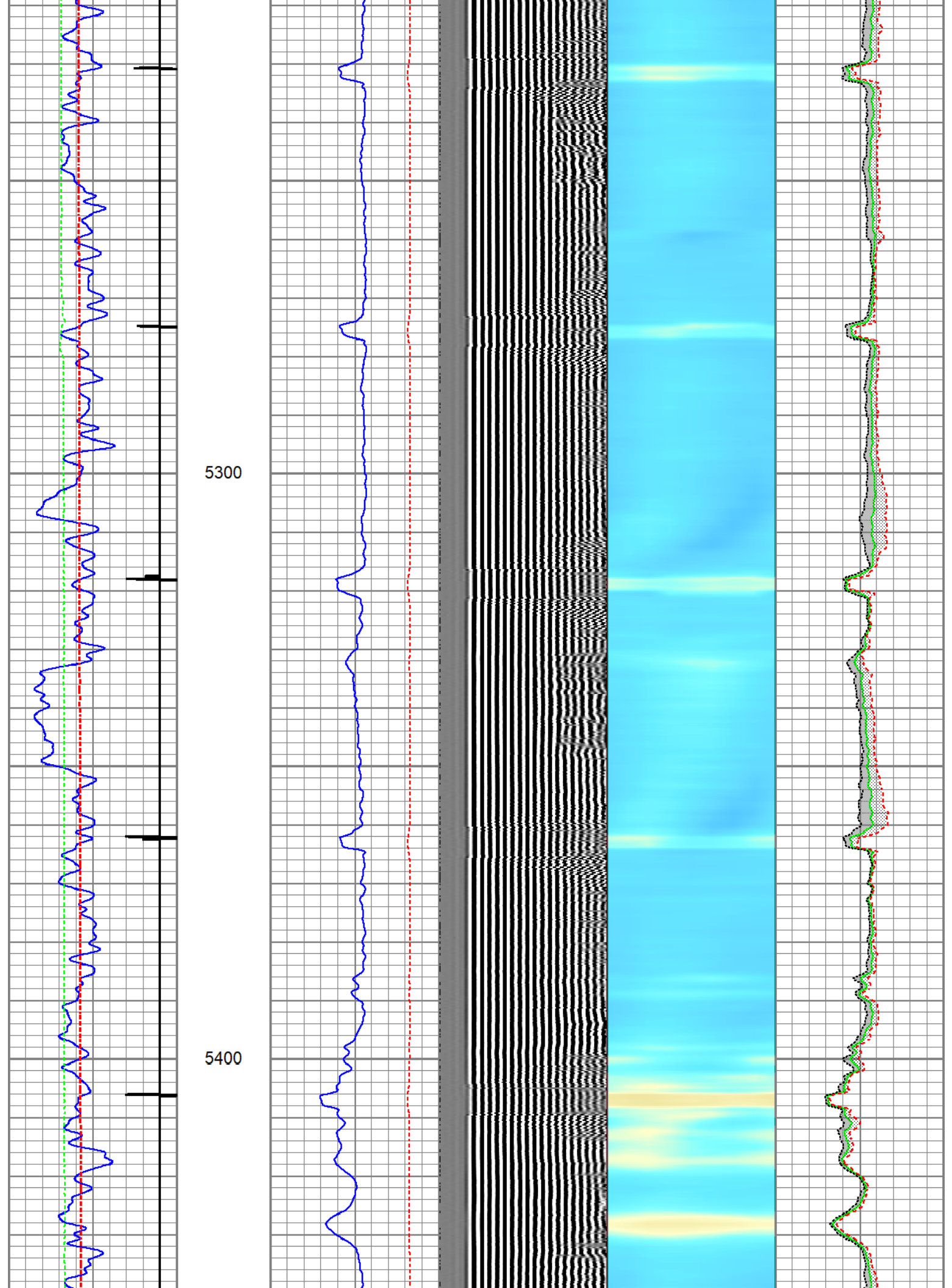


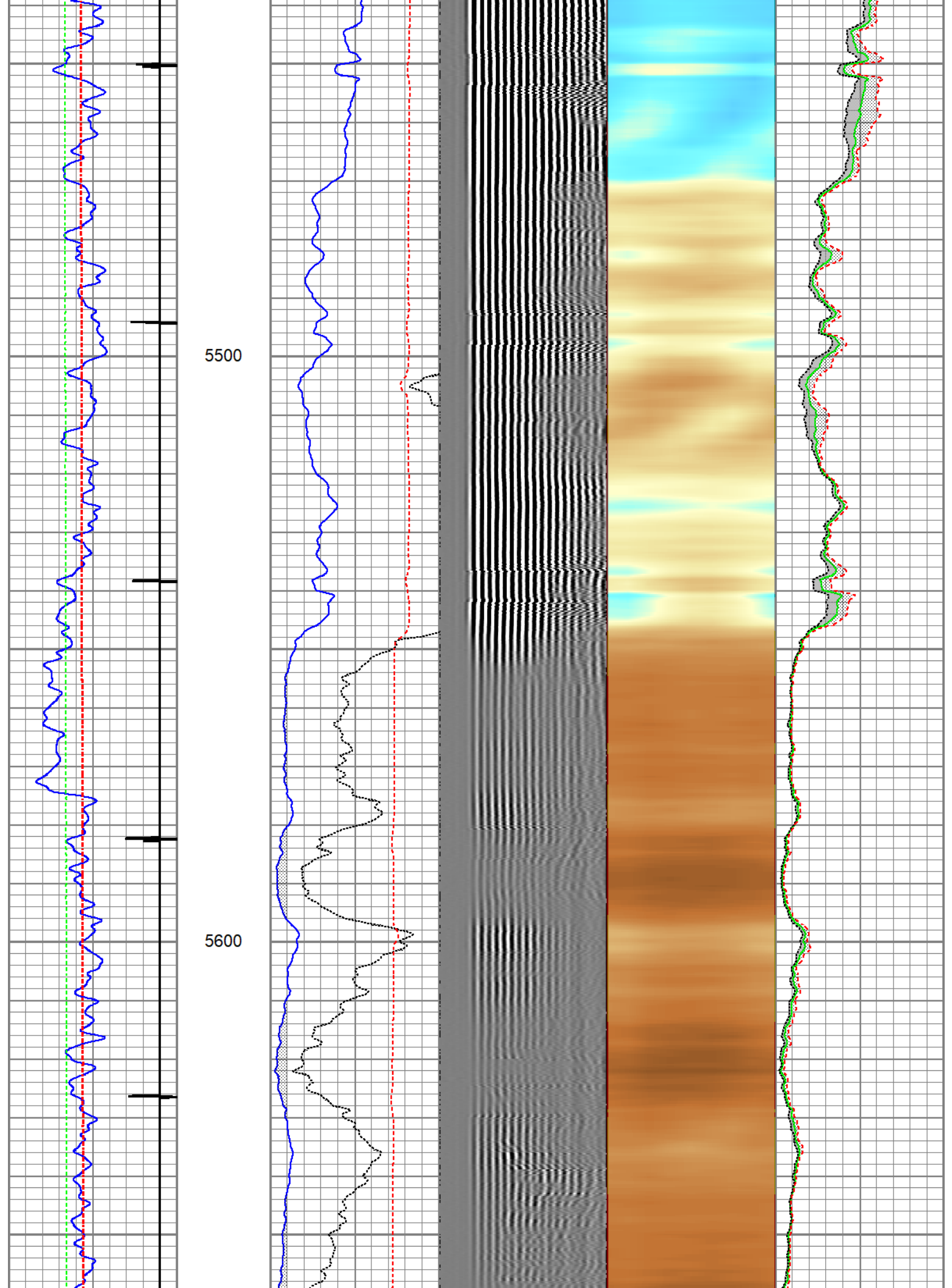


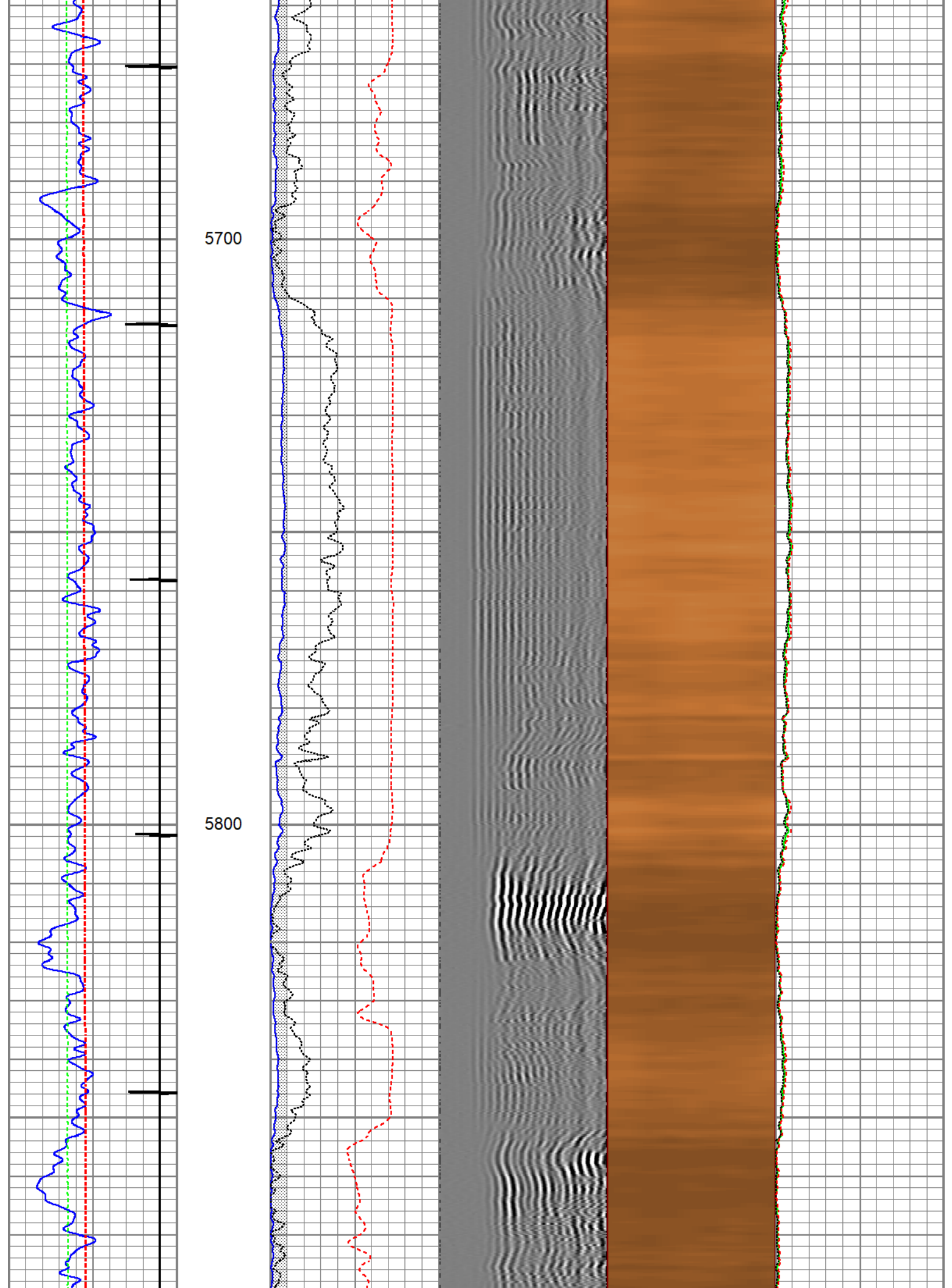


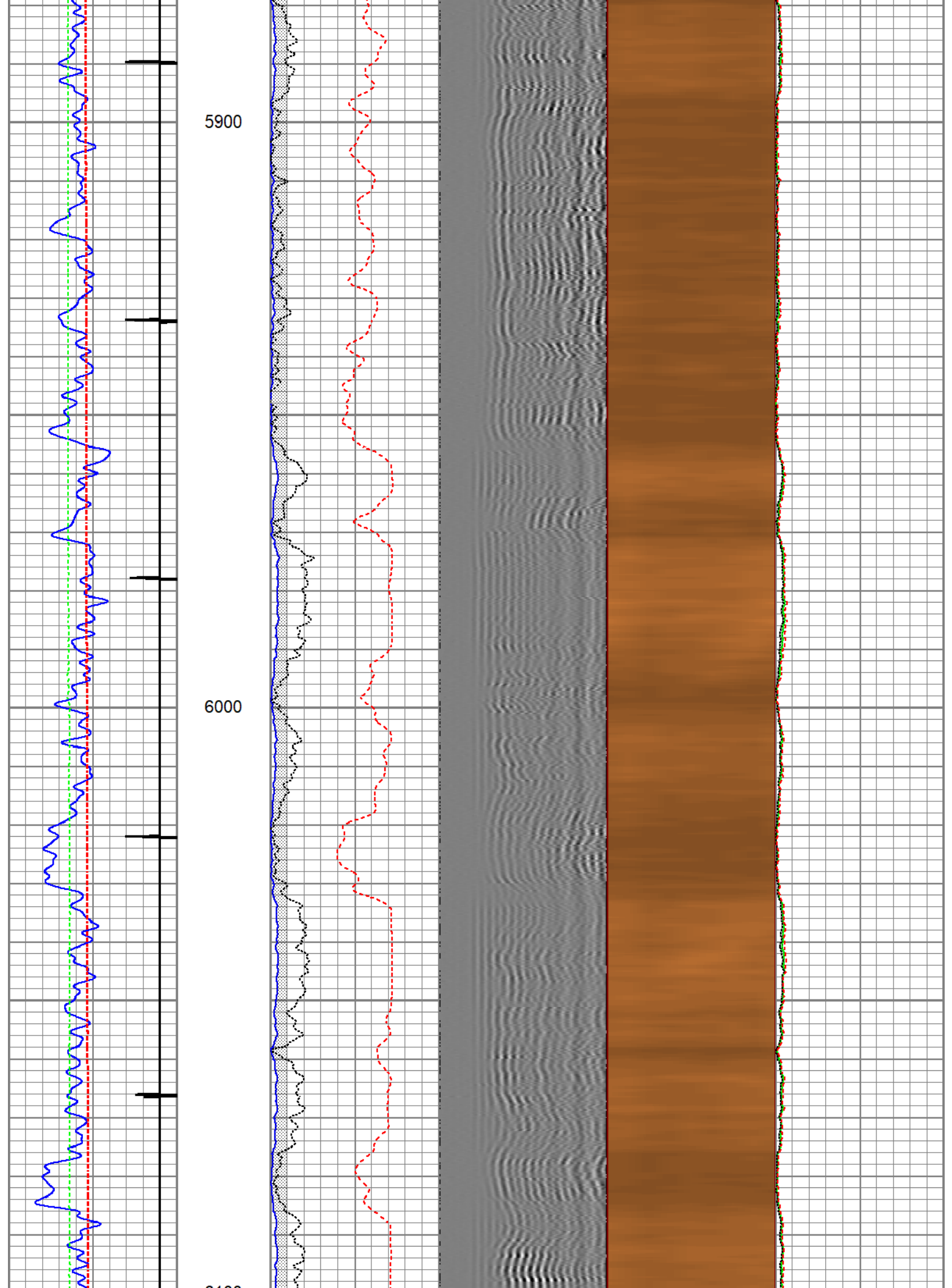








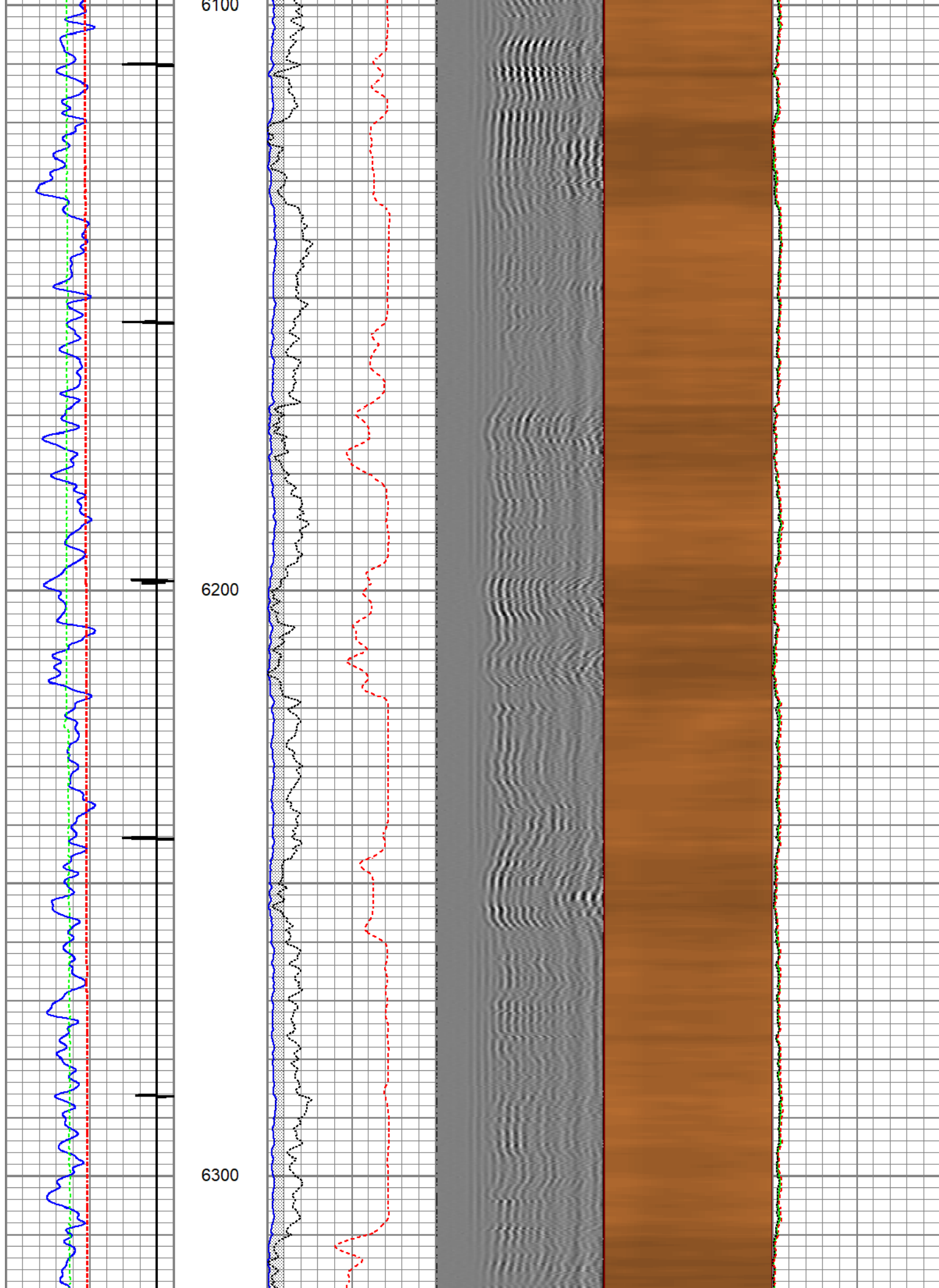




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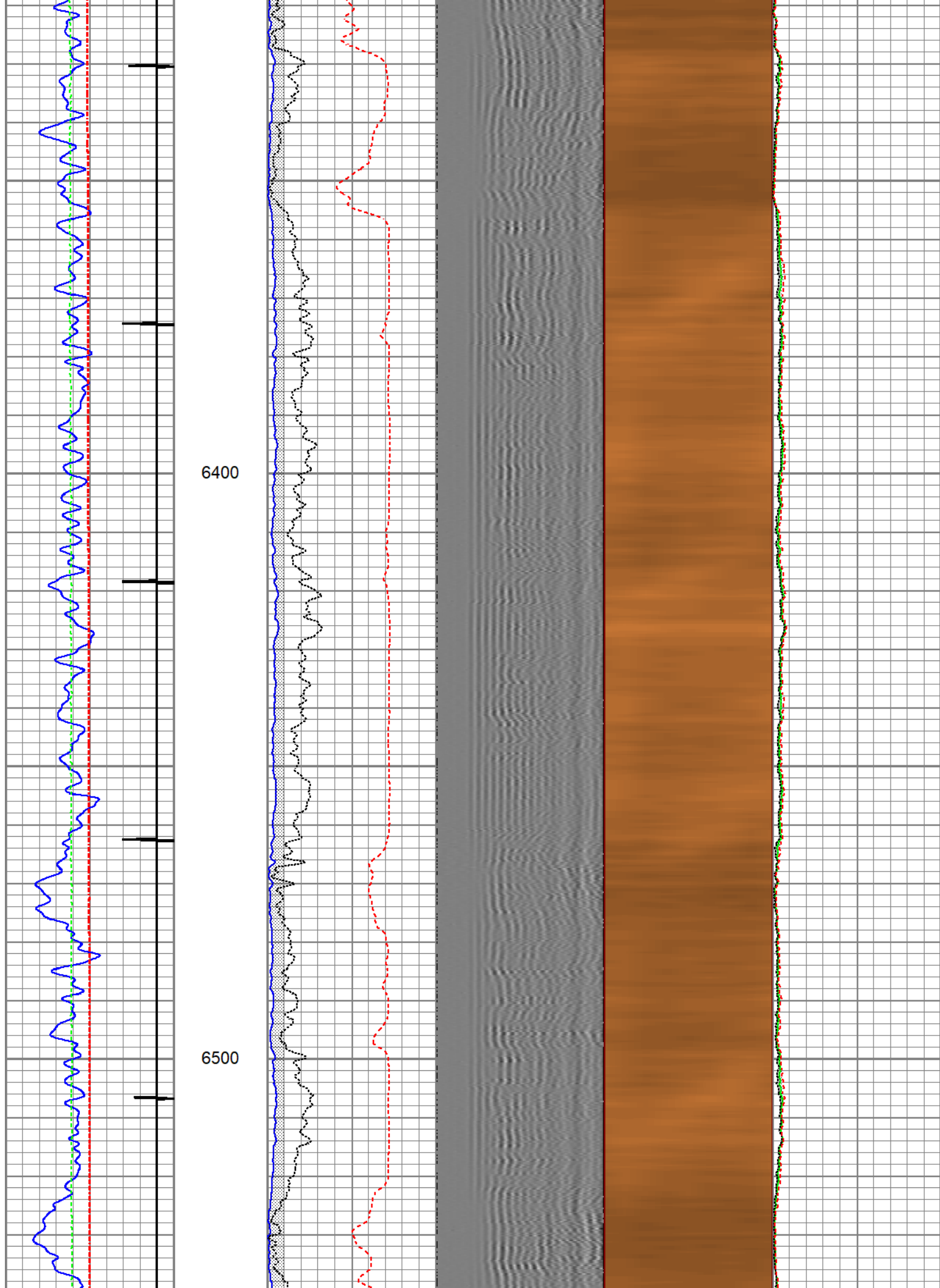
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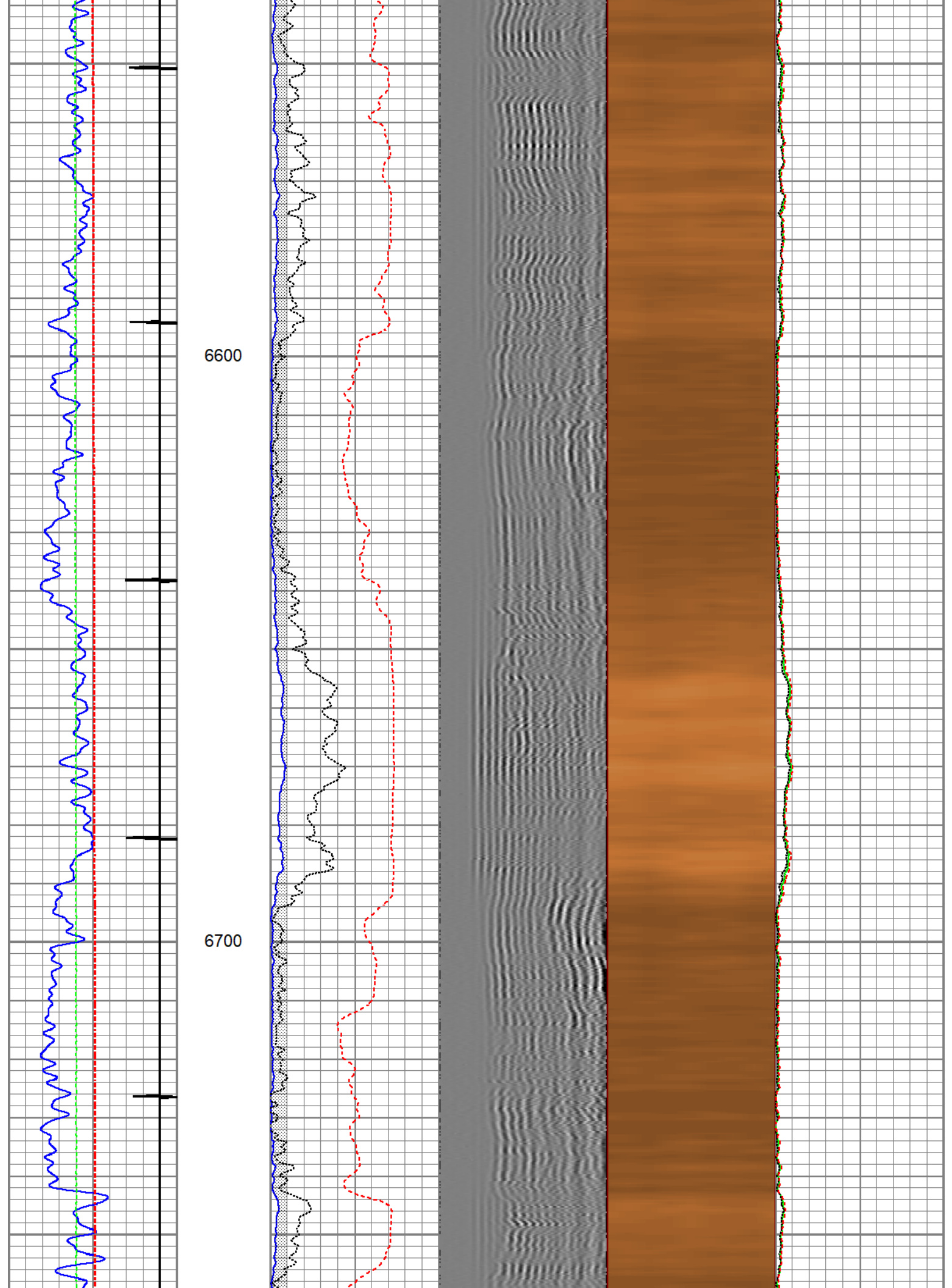
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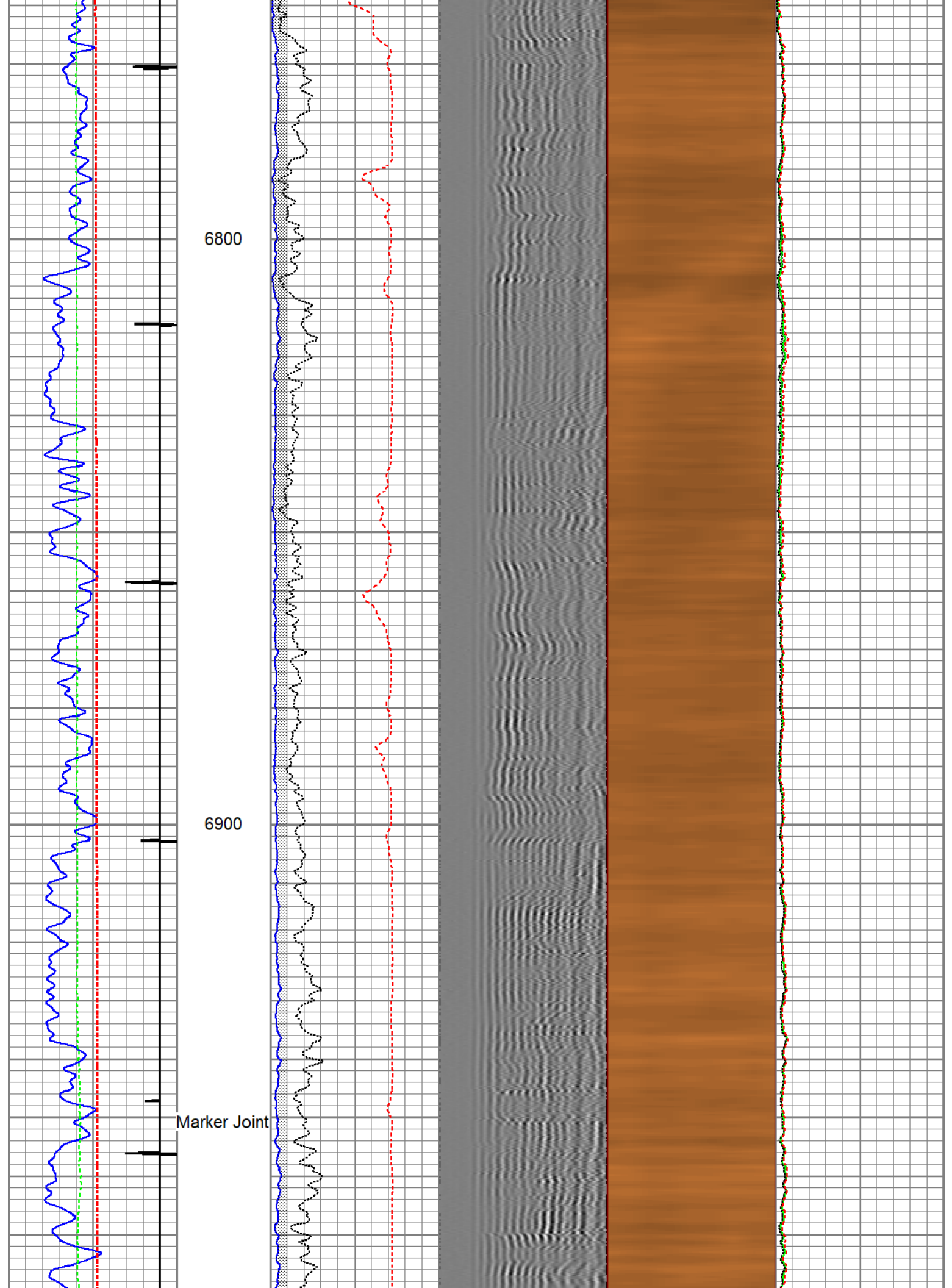


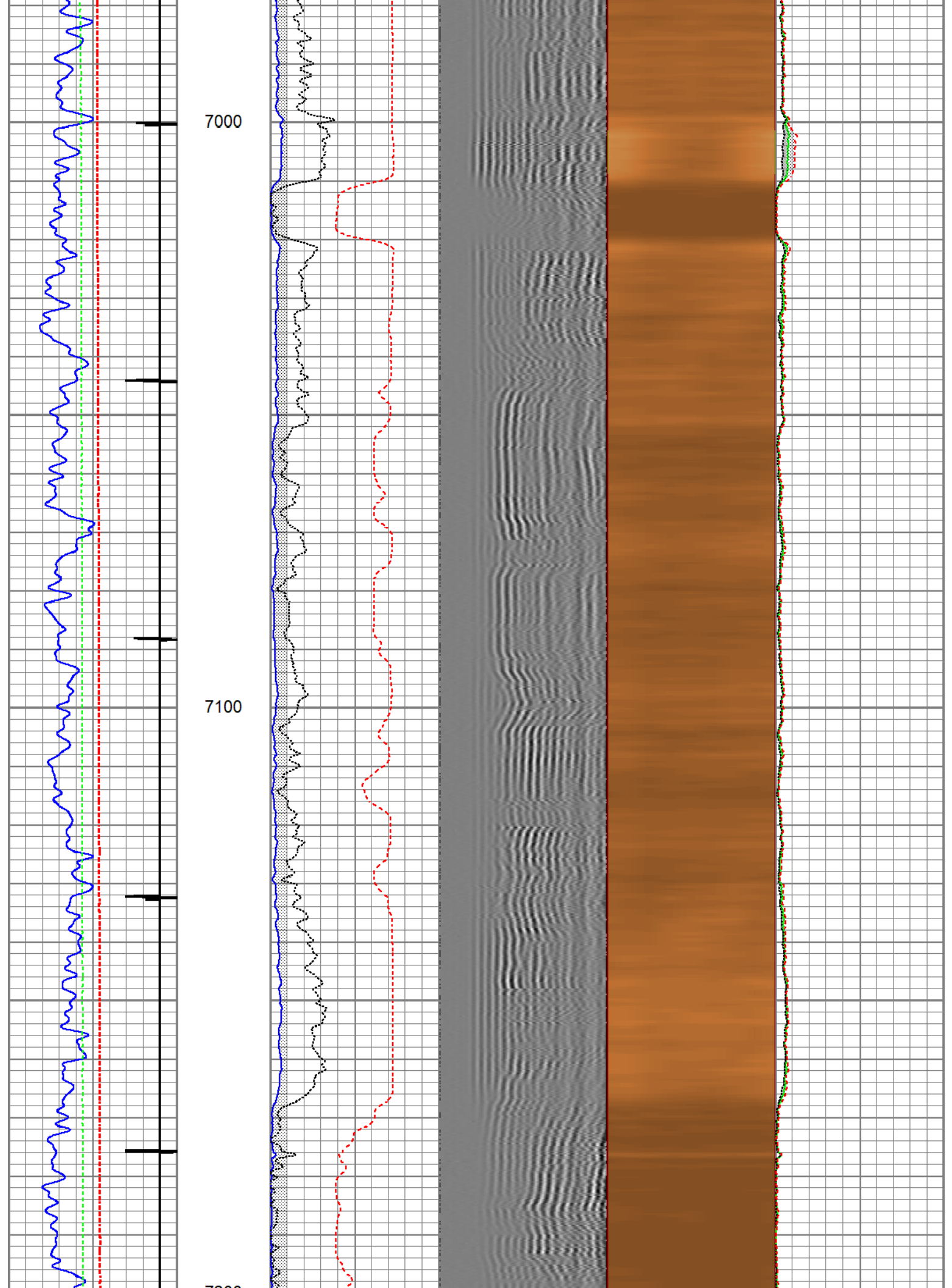
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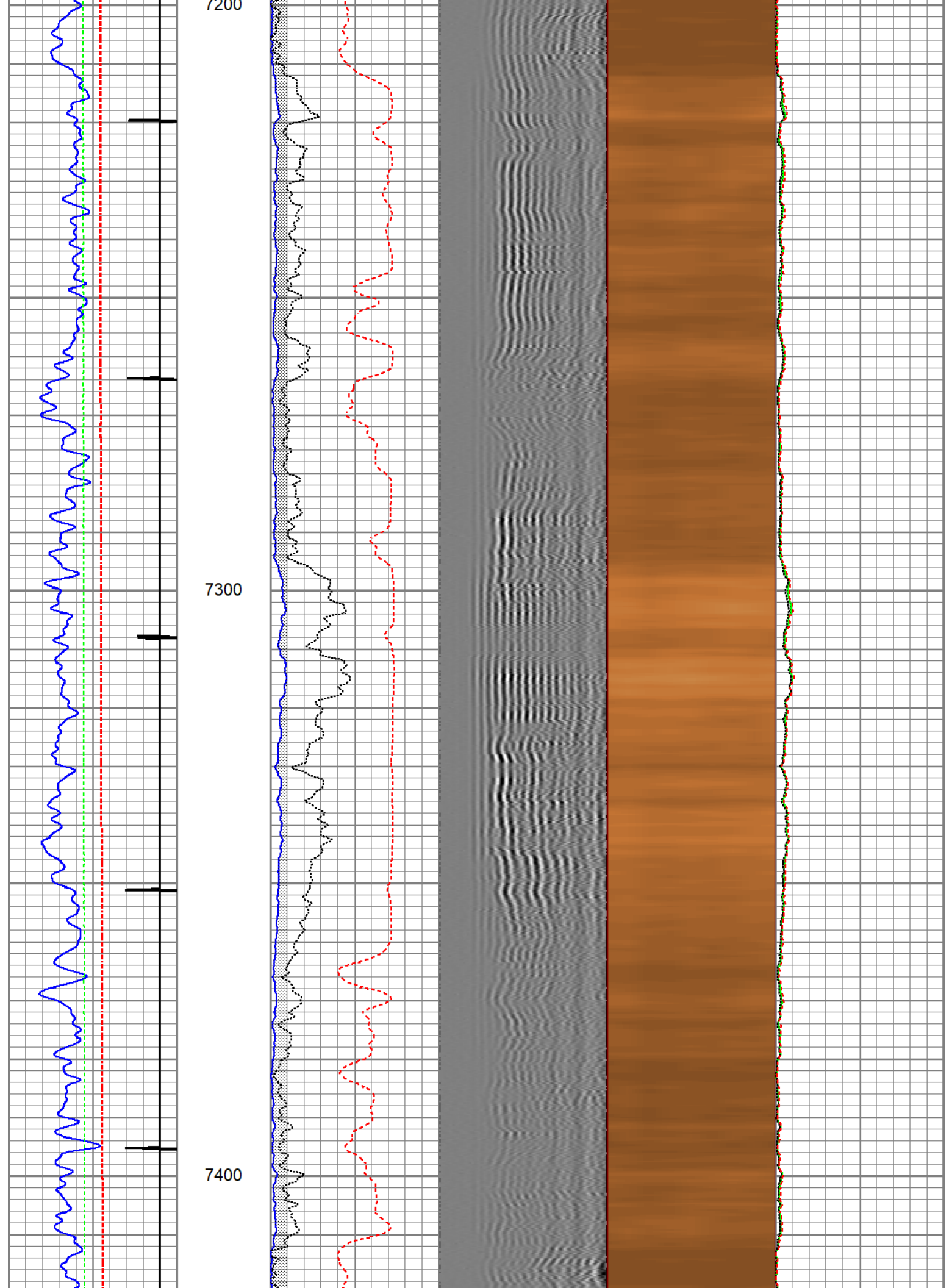
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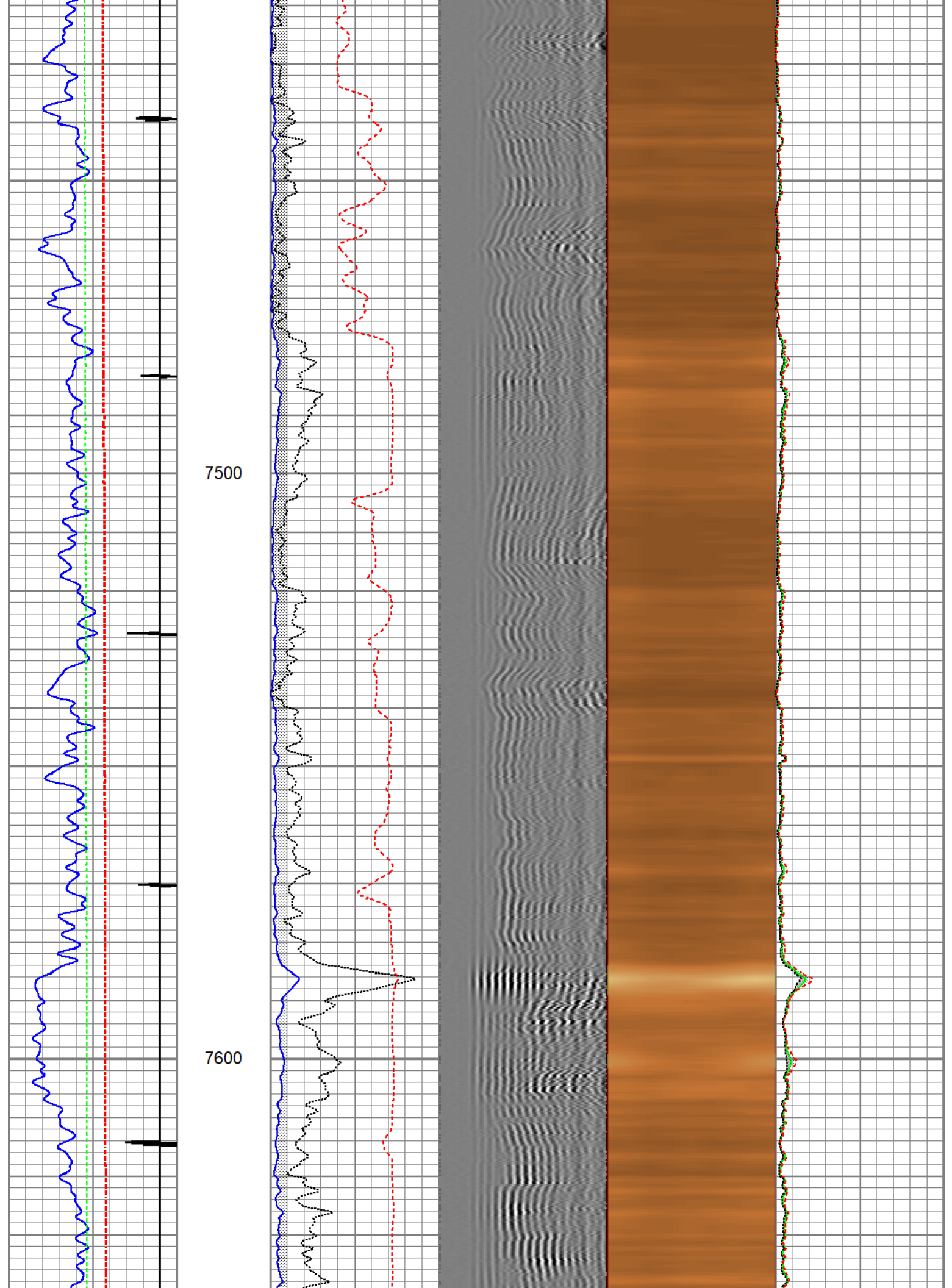


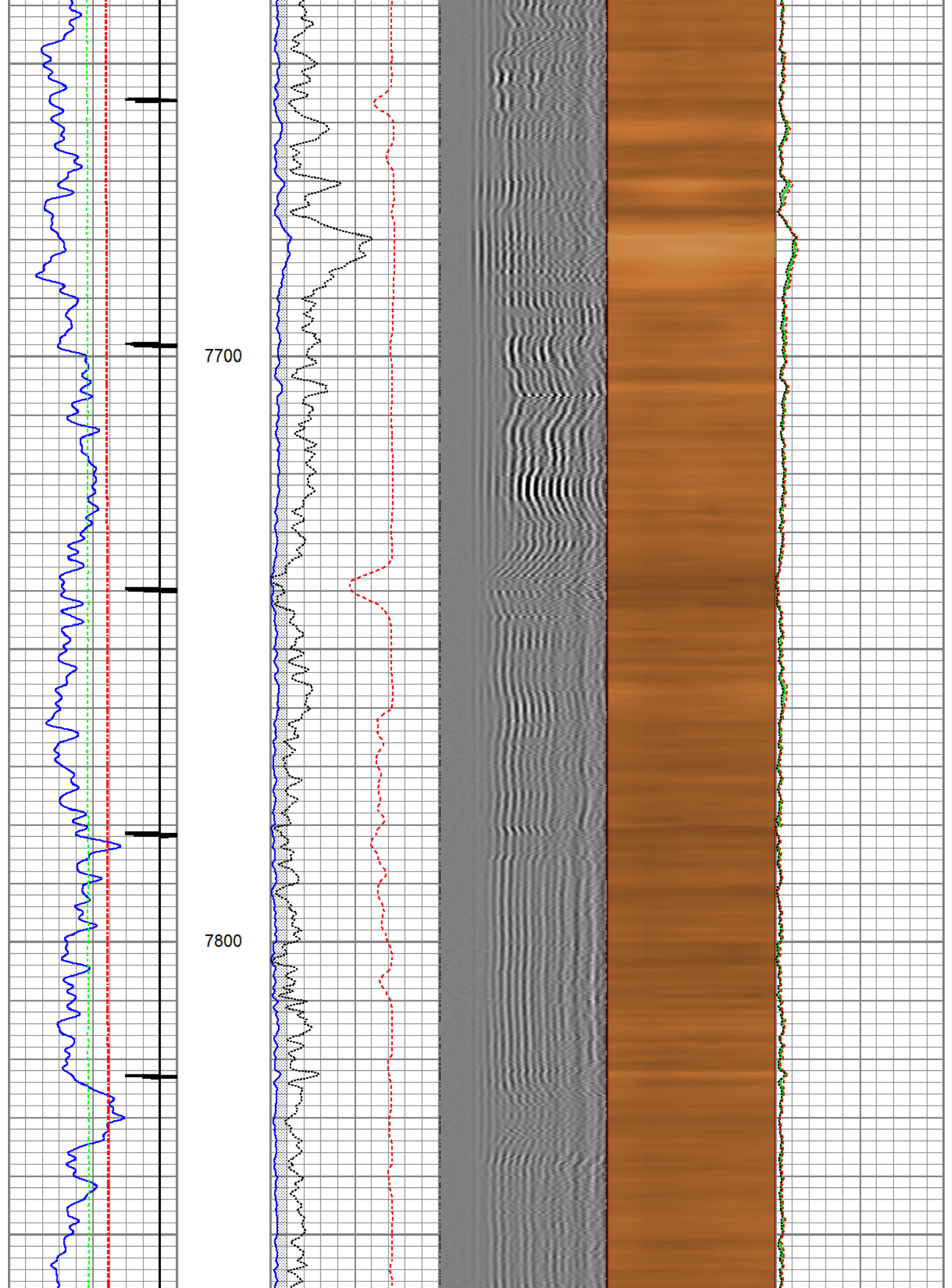


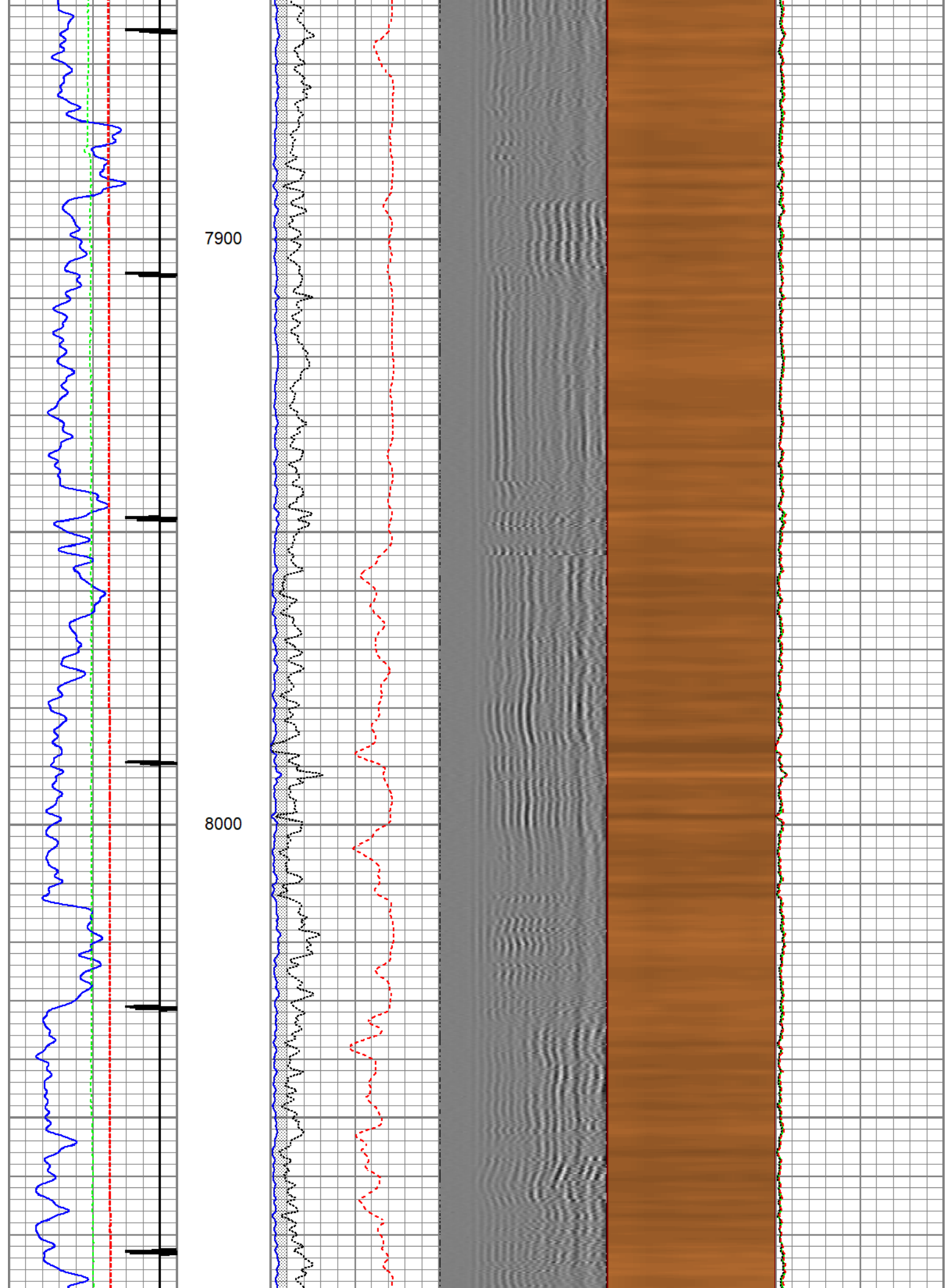


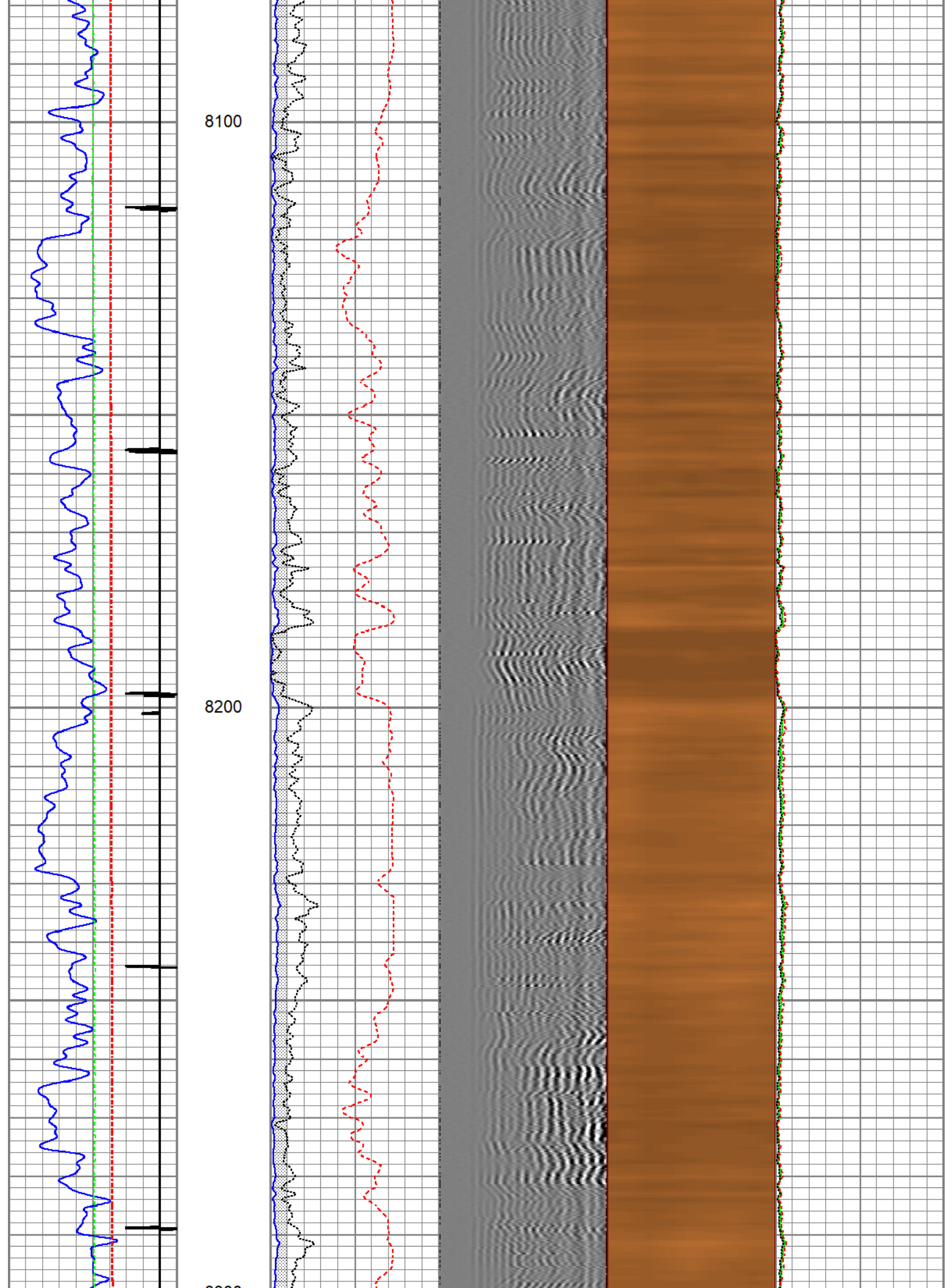








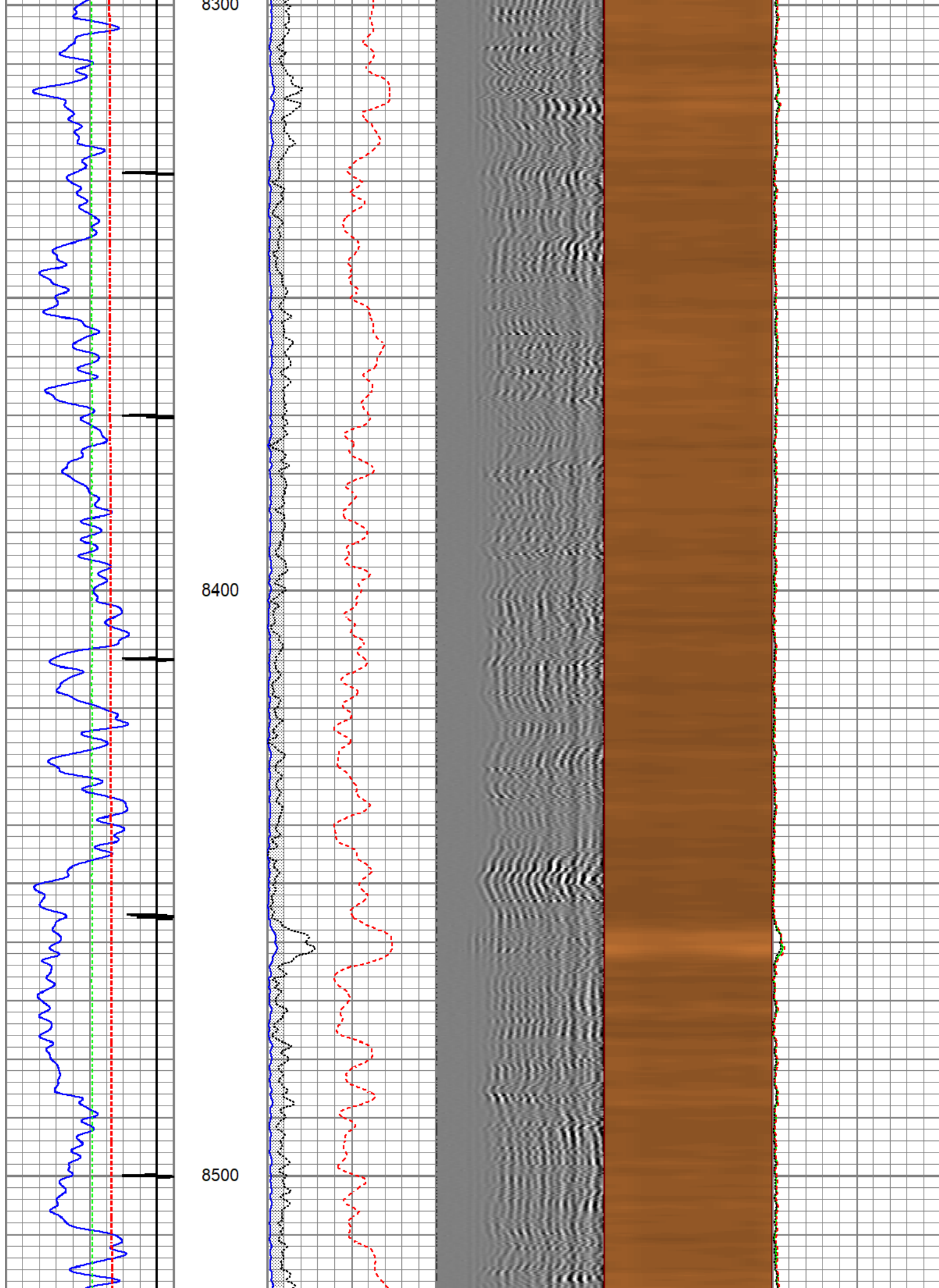




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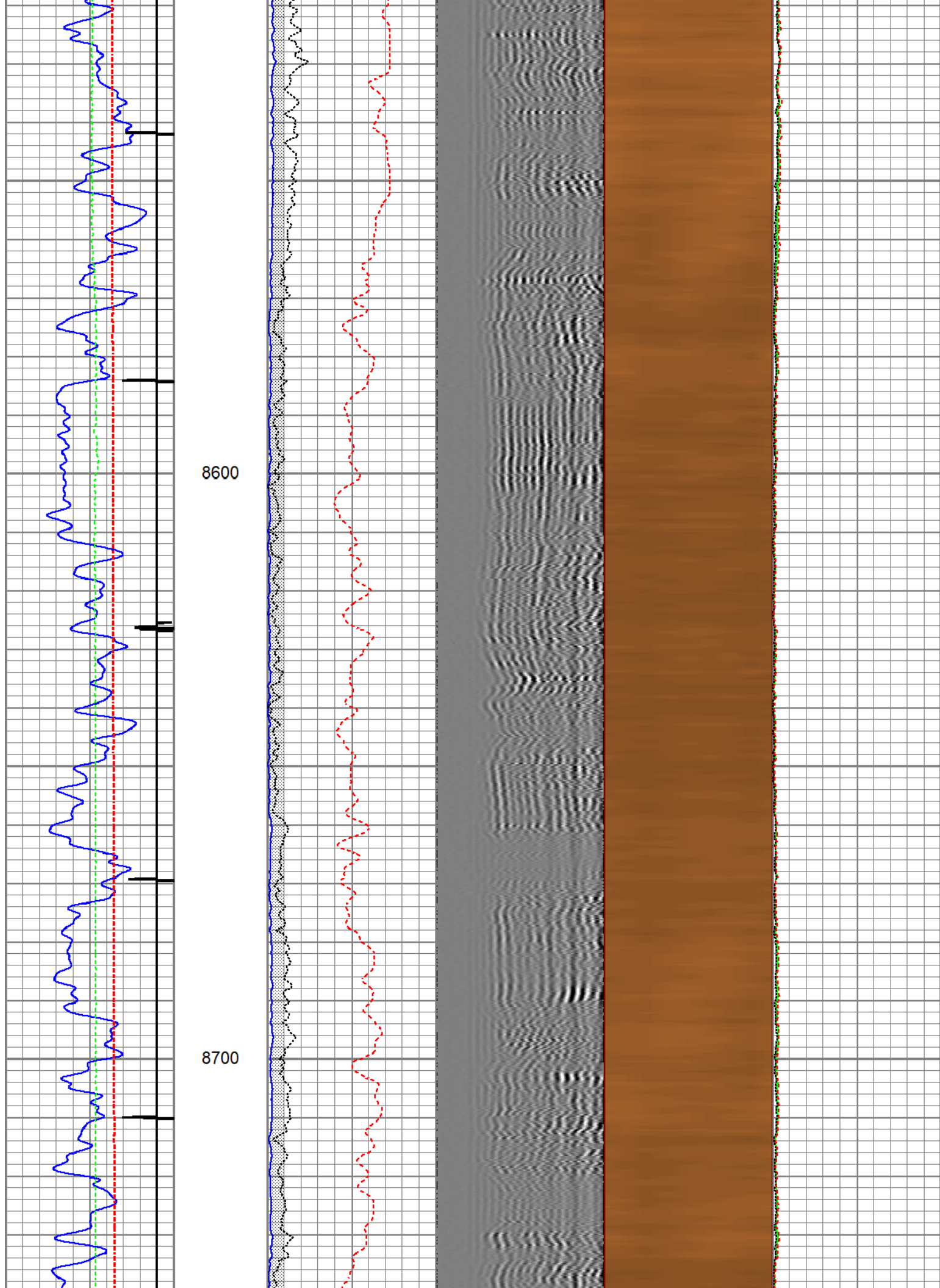
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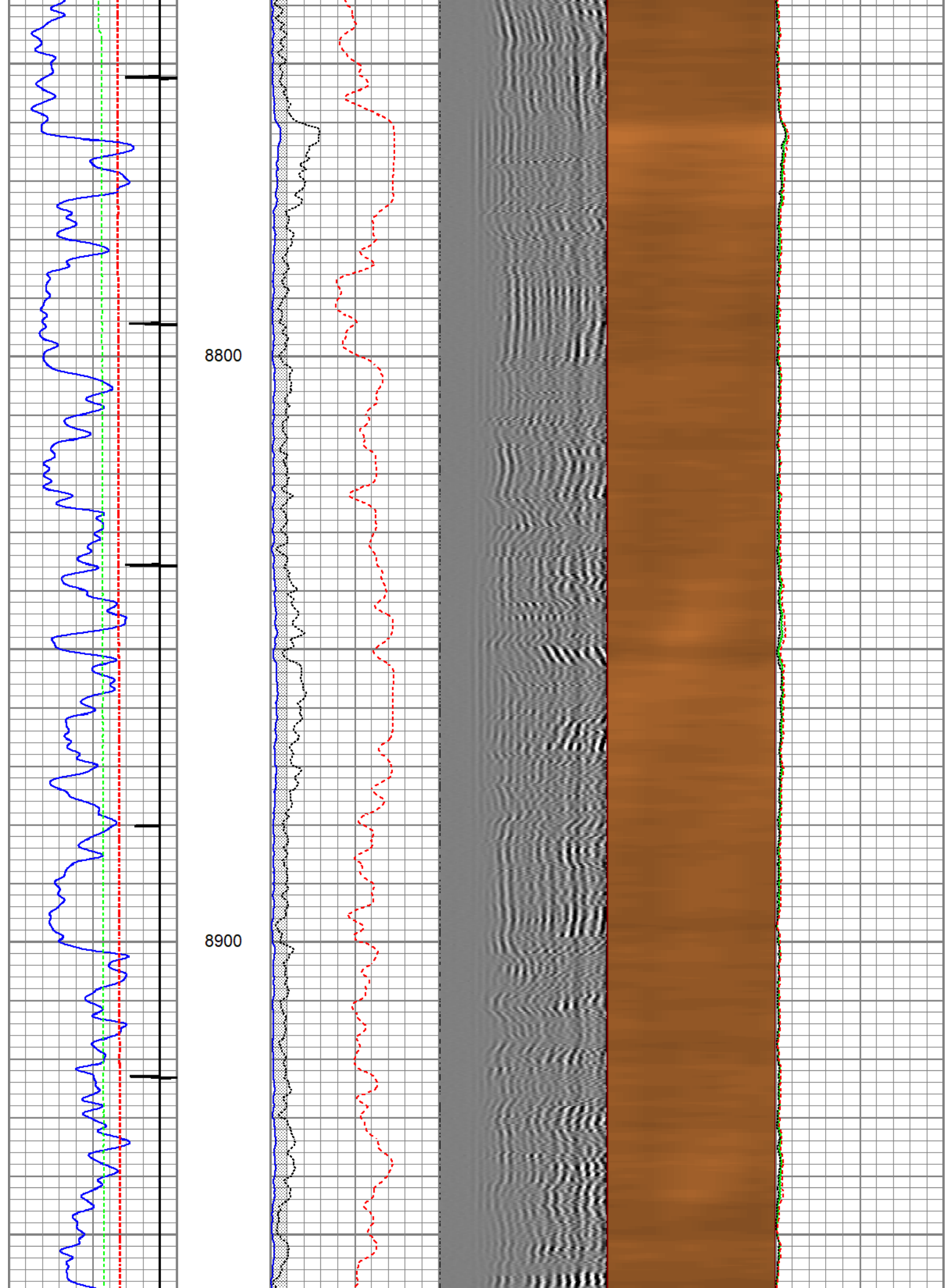
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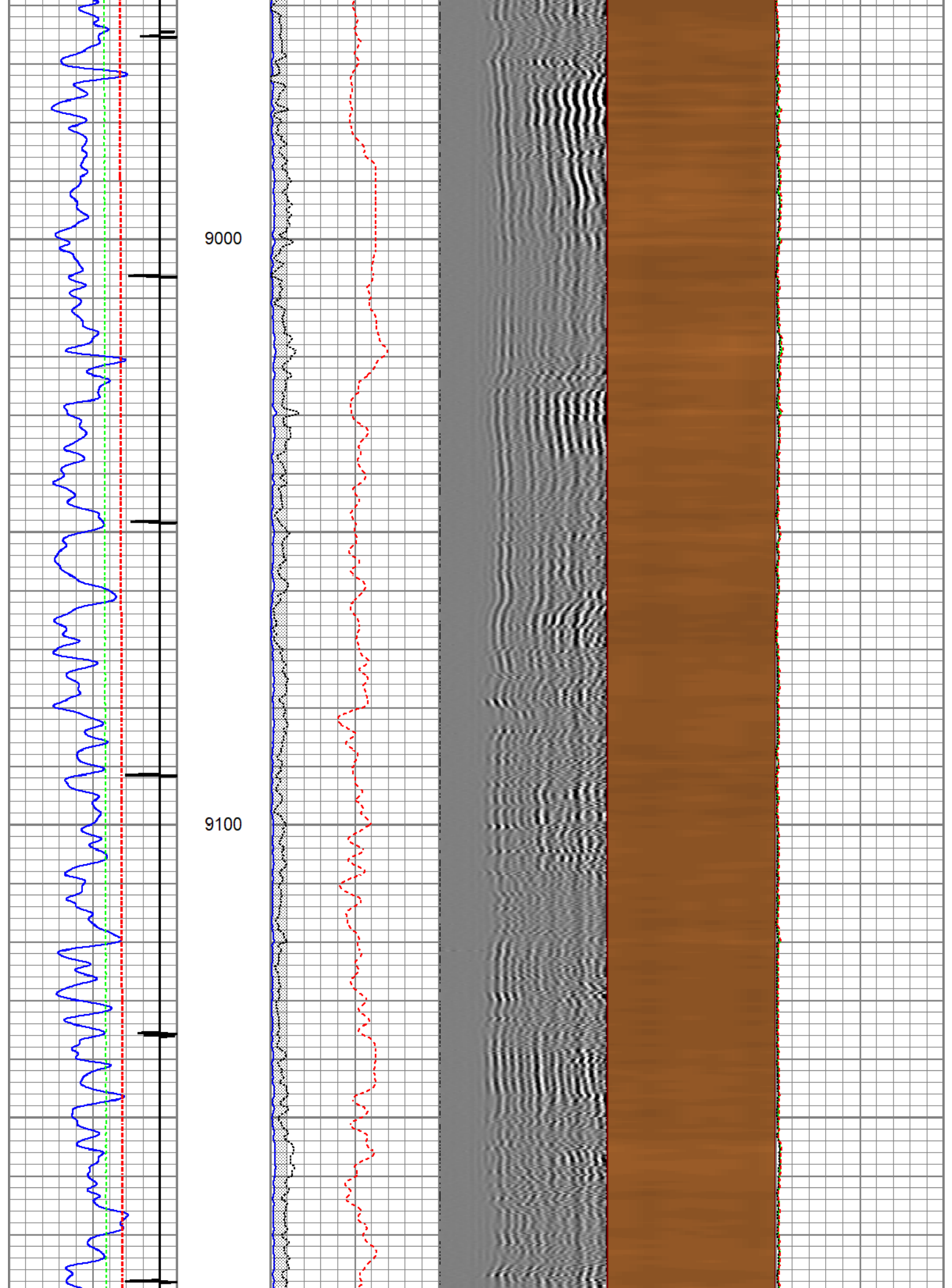


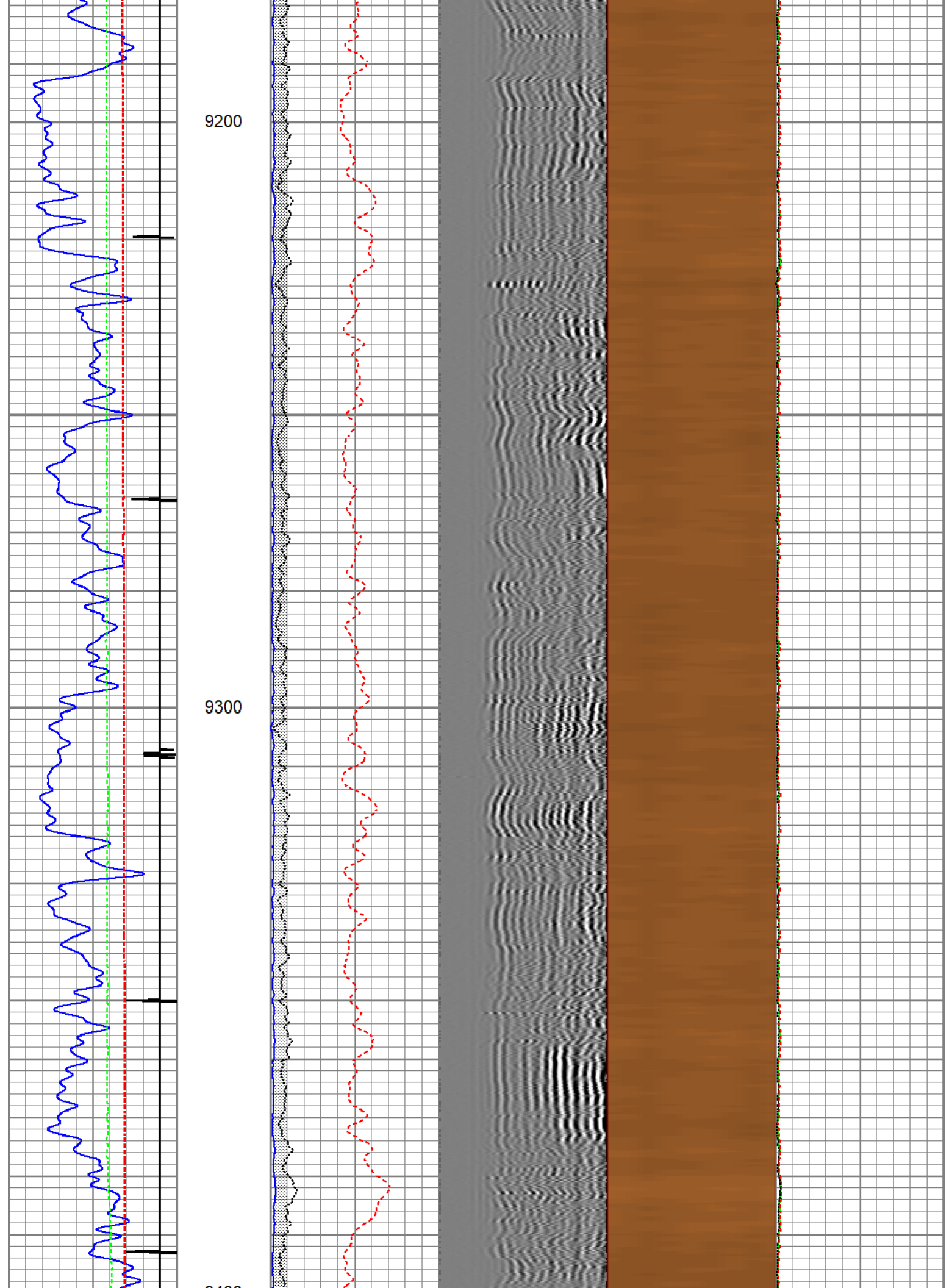
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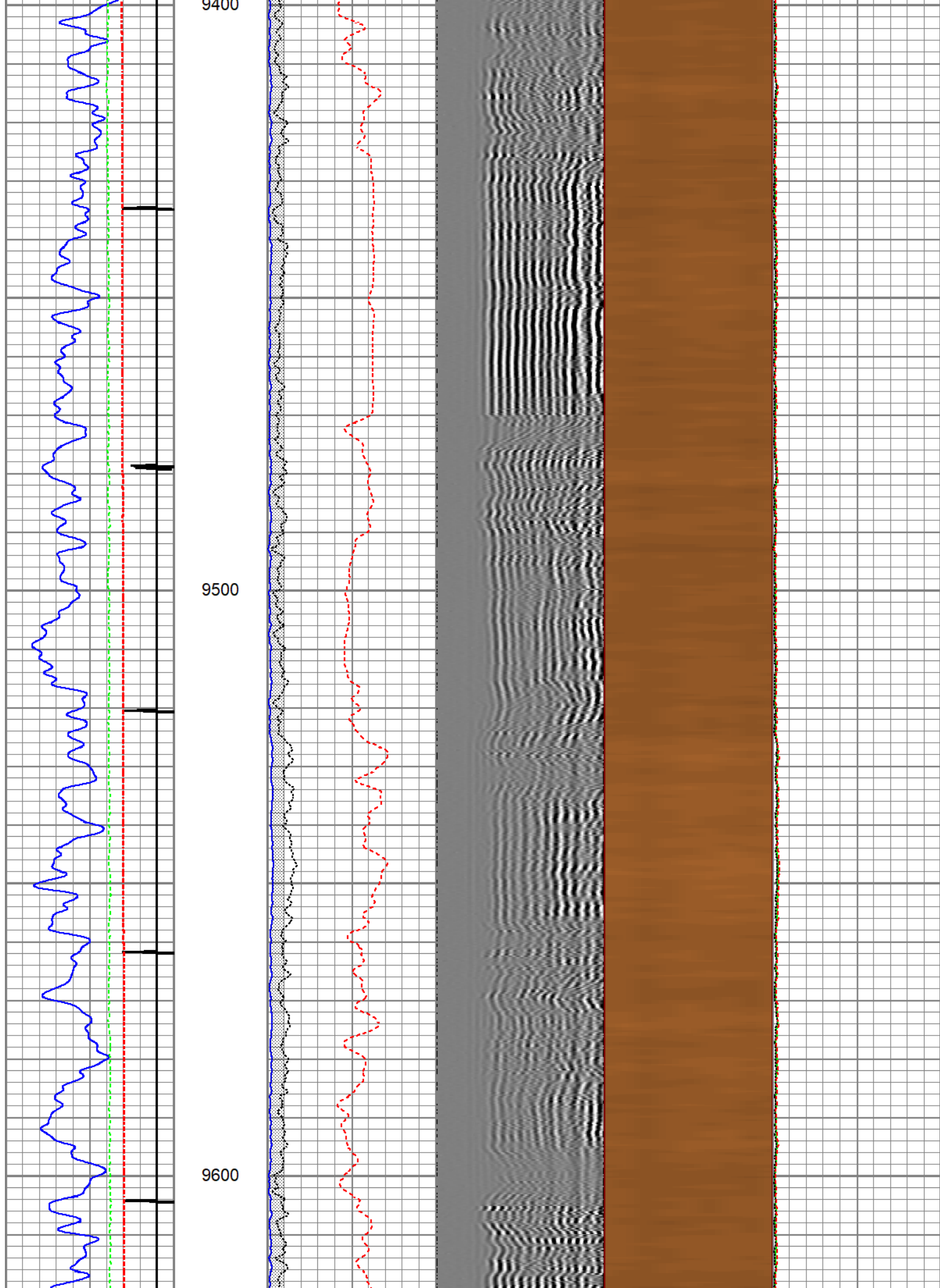


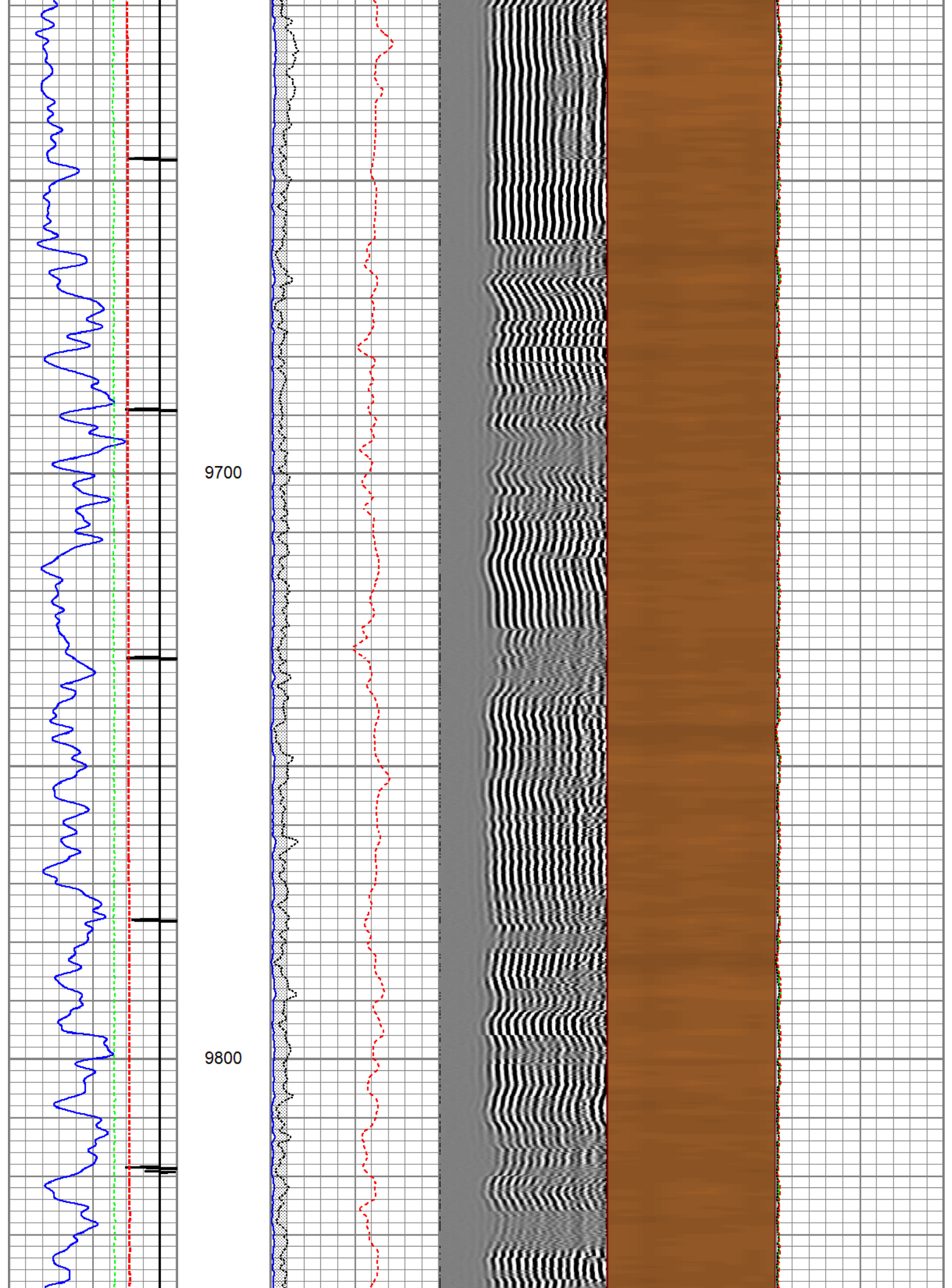


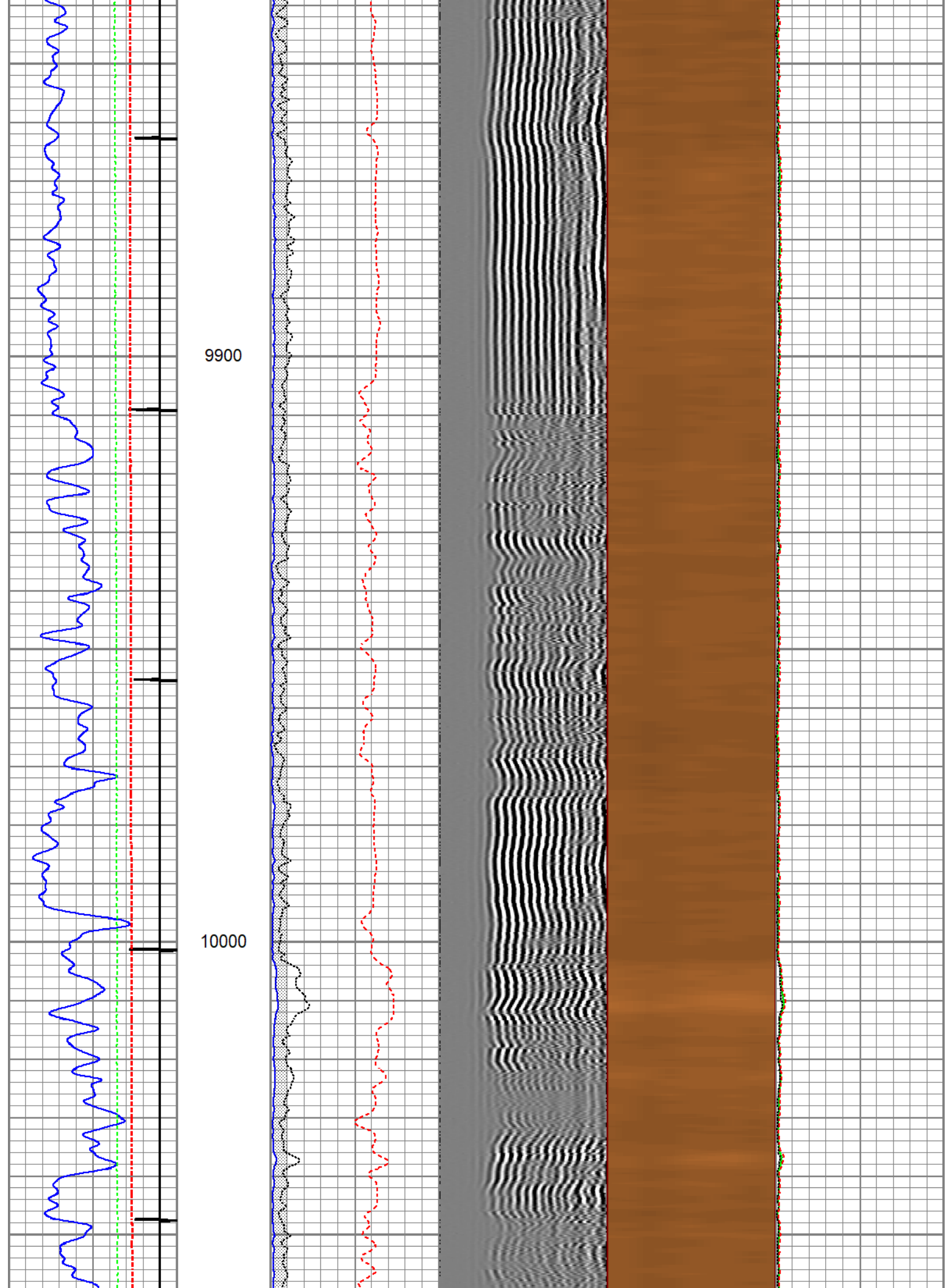
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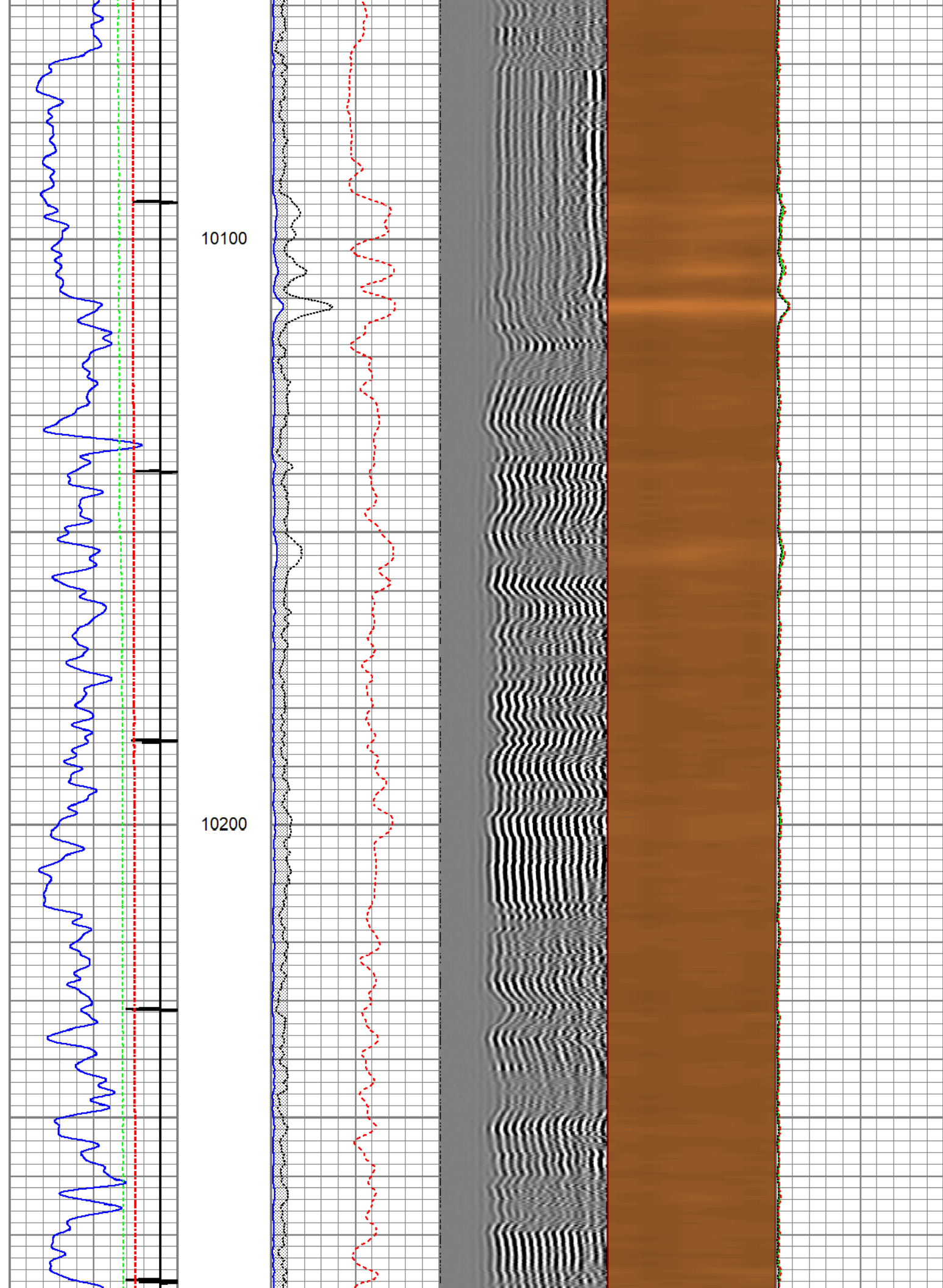
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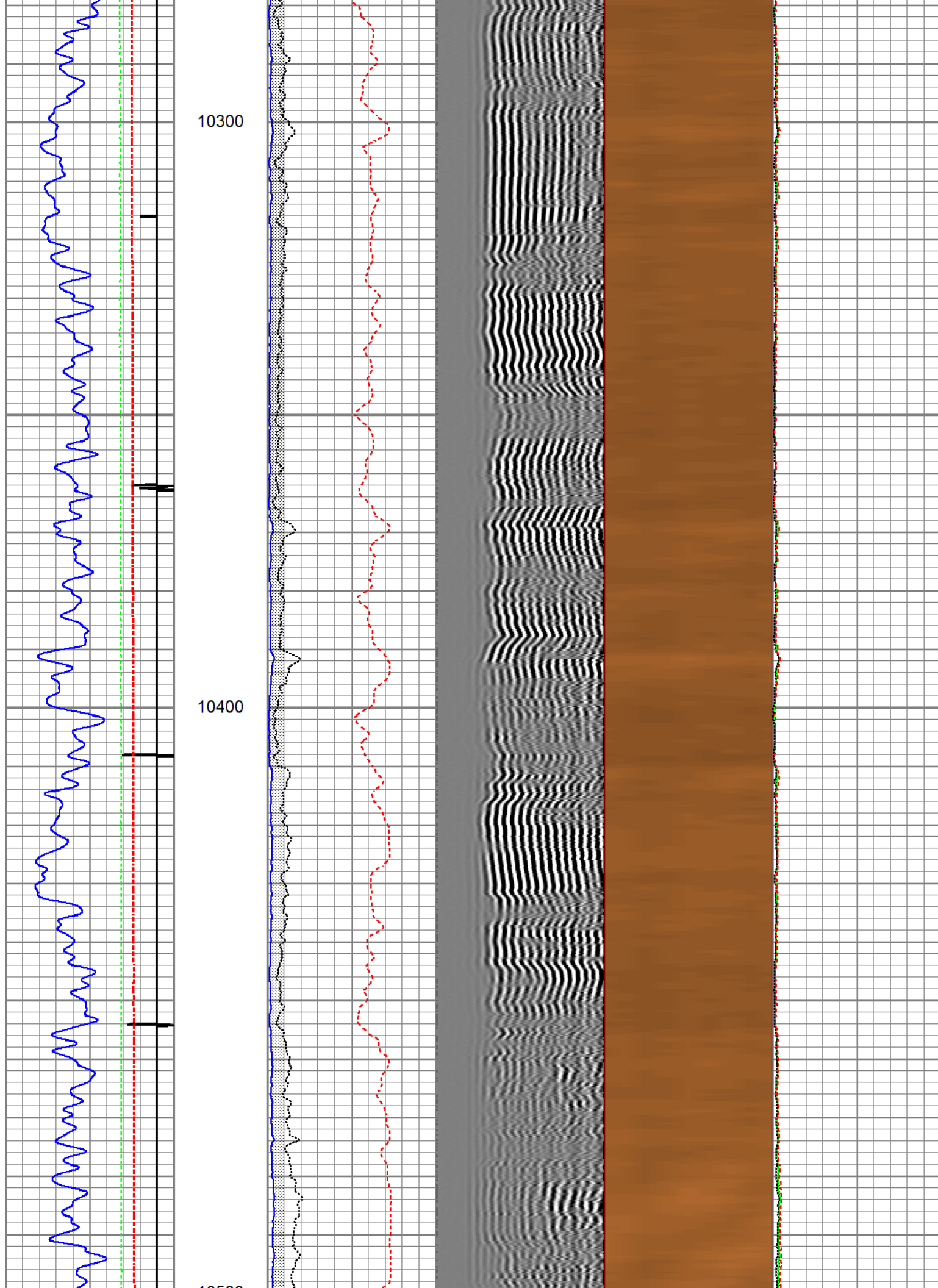
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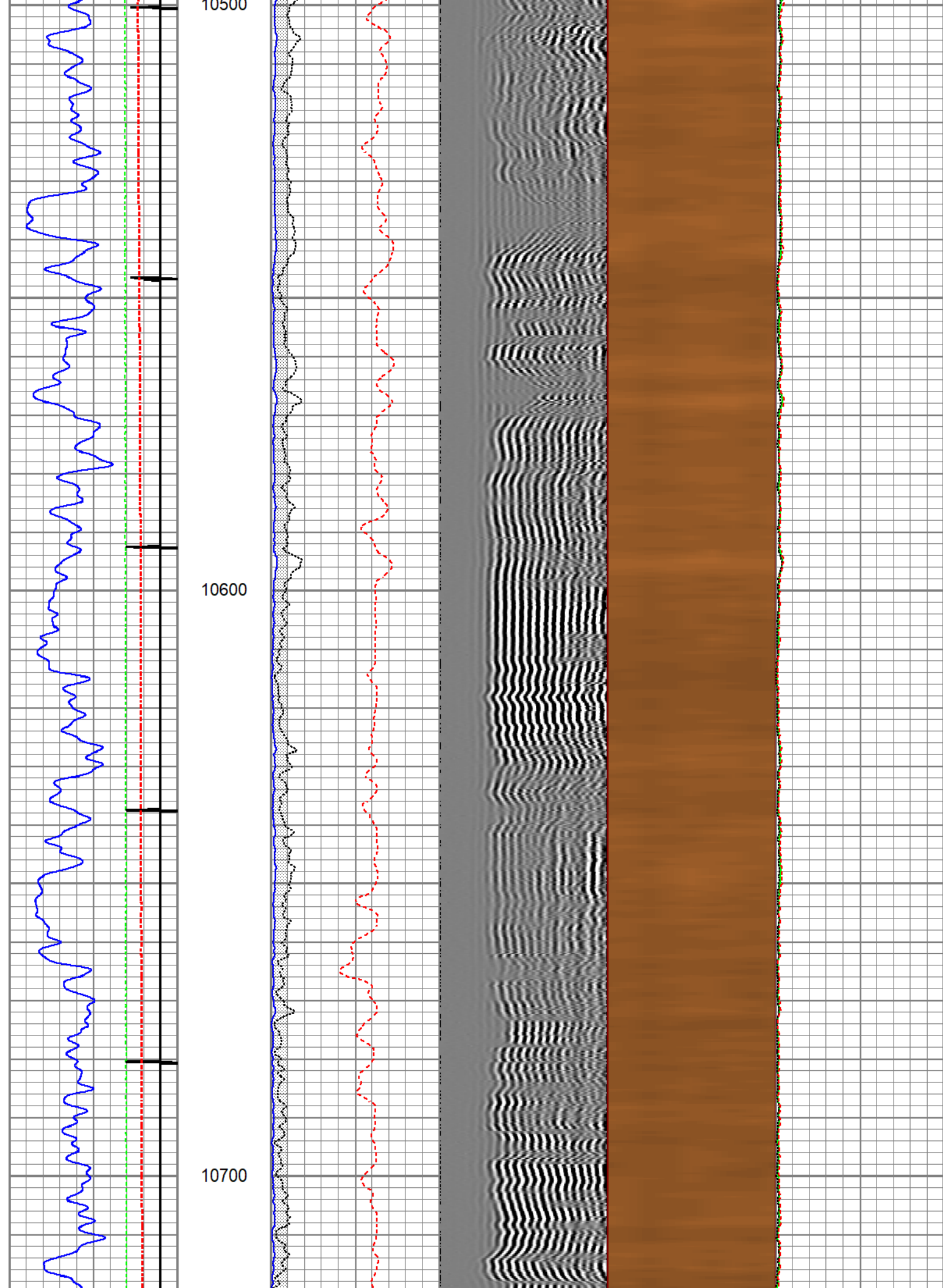


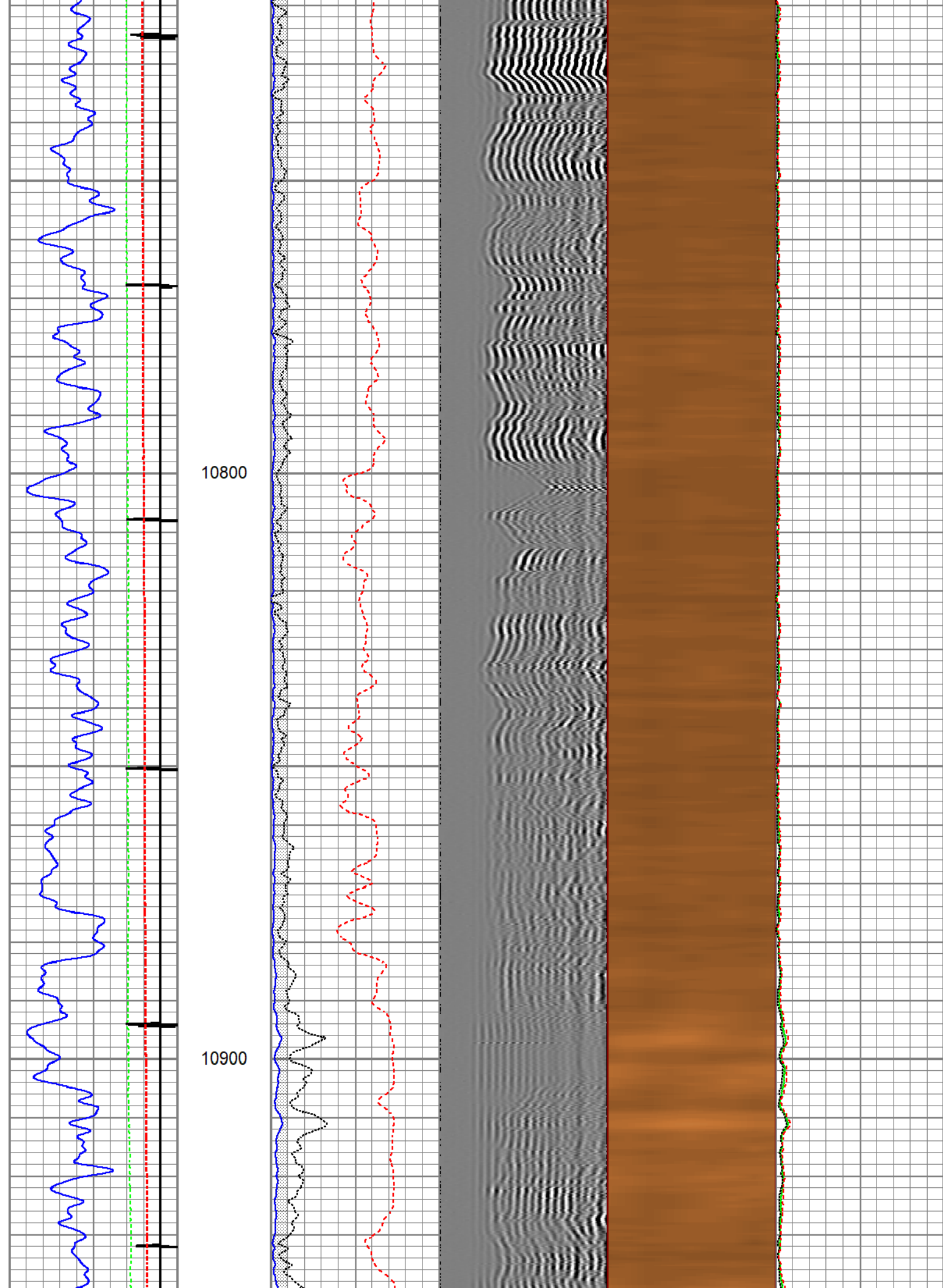


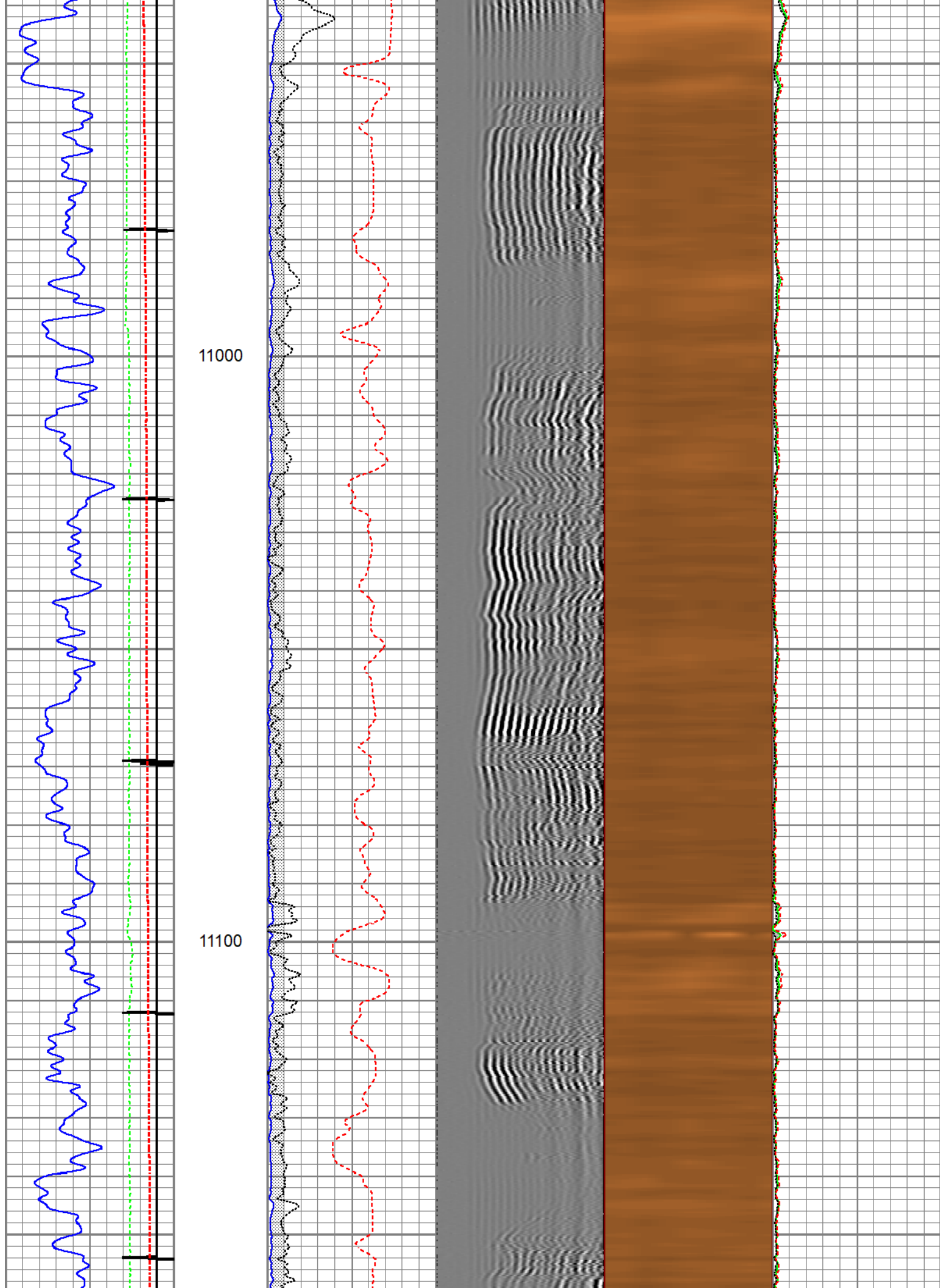


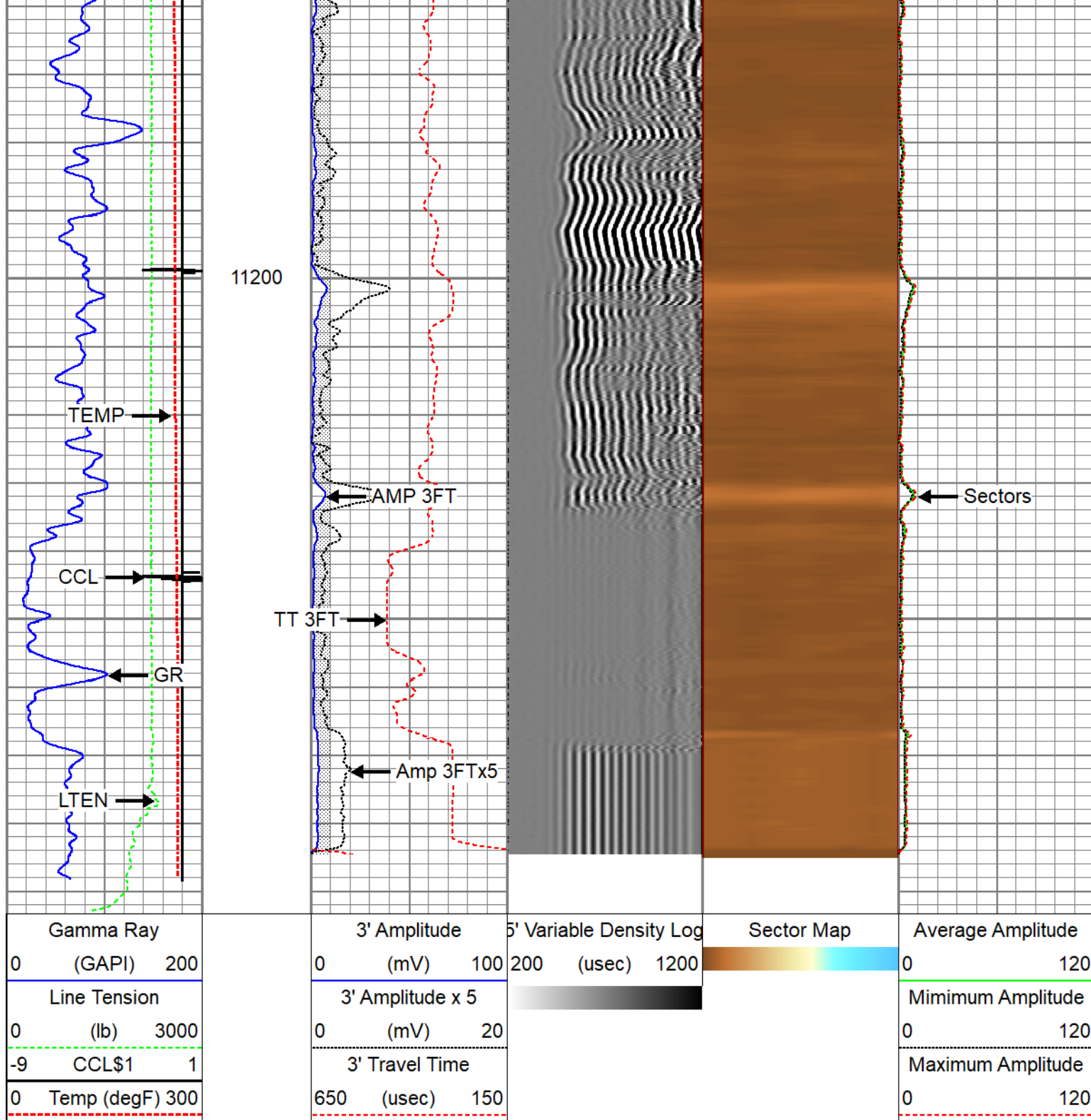






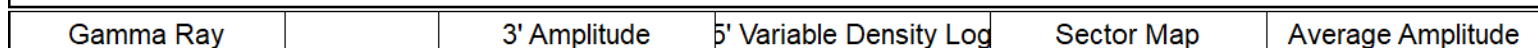






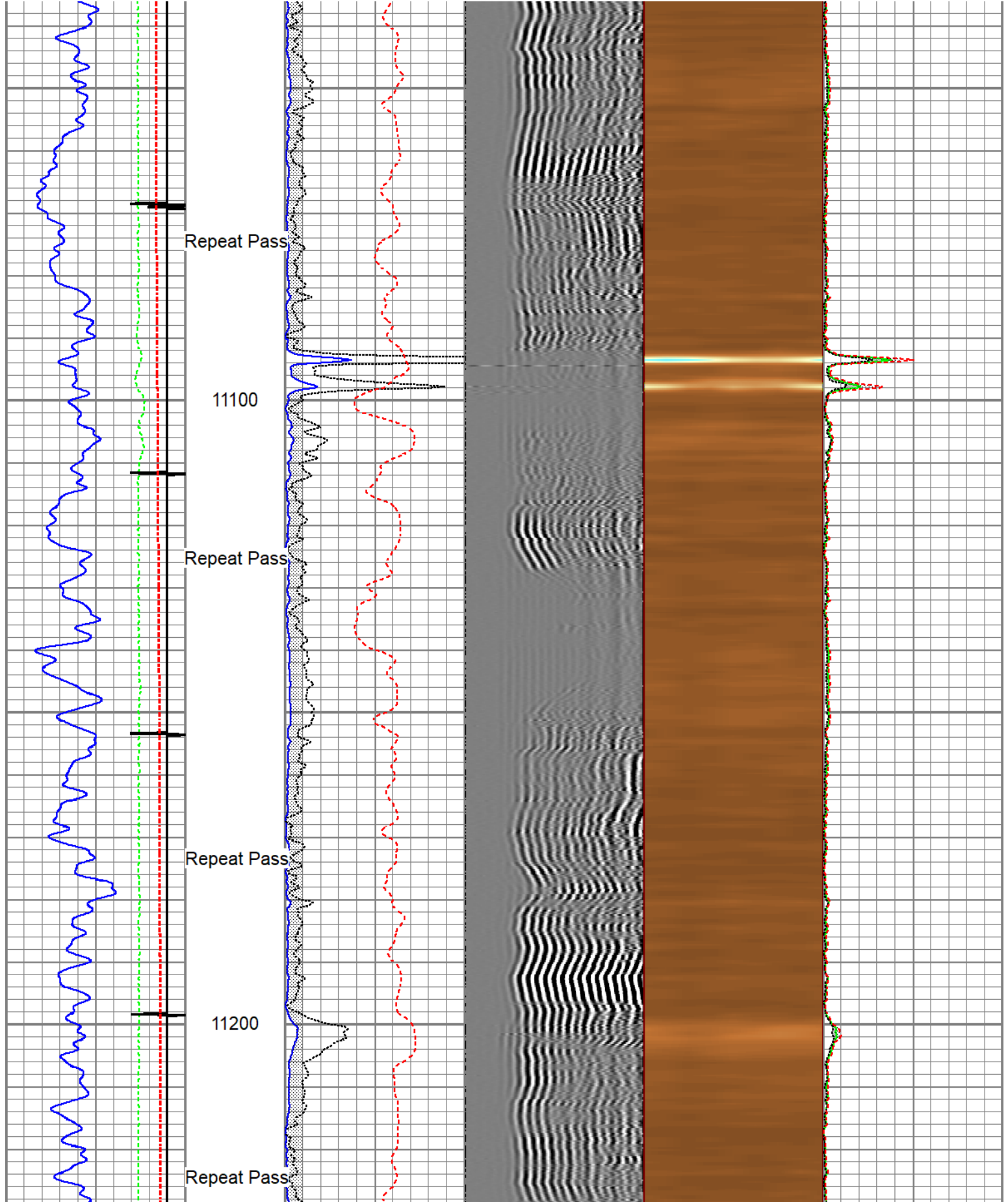


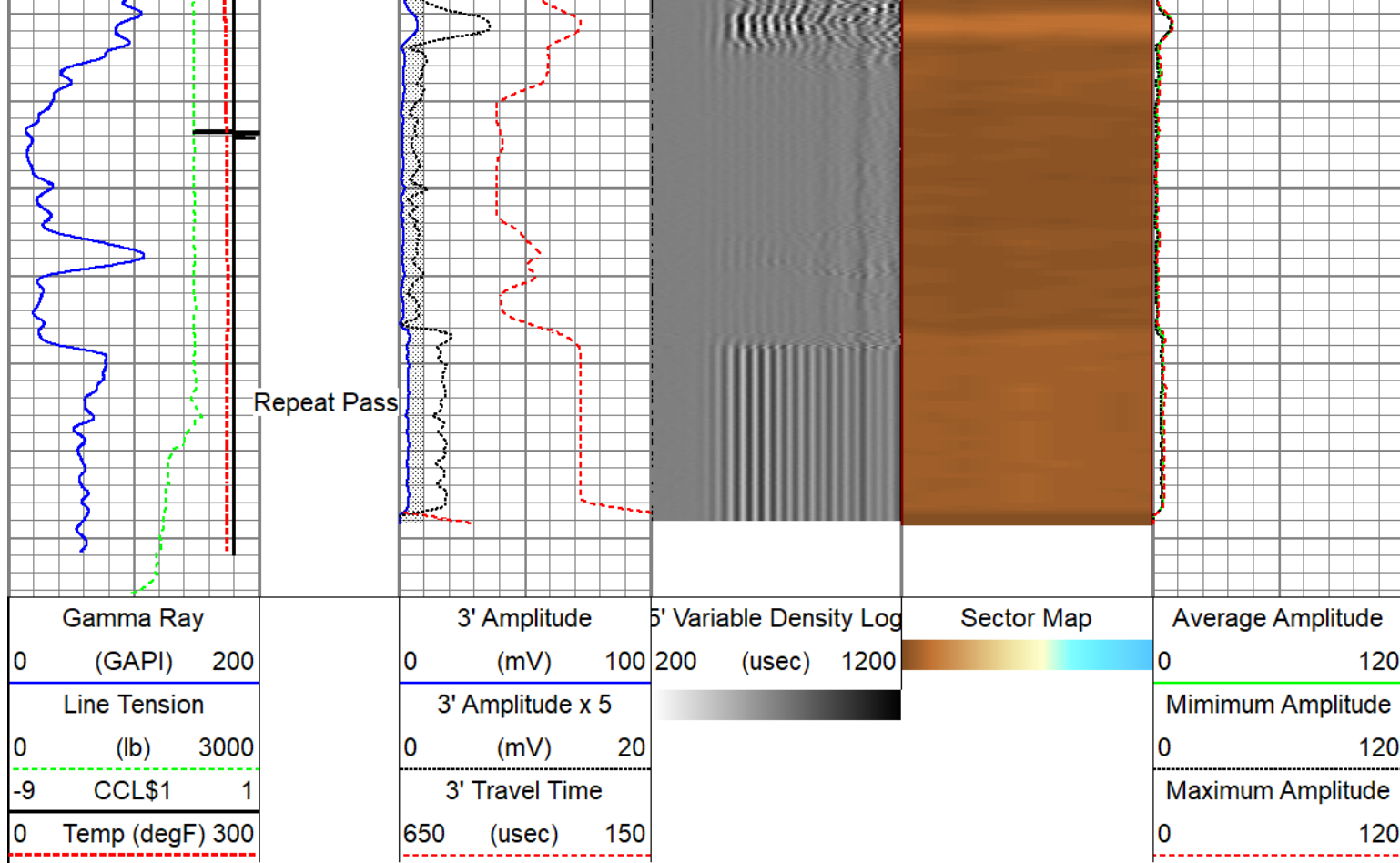
Repeat Pass 5" = 100'

Database File wmc 24-17 pad\tep_federal wmc 412-20_rcbl_12-14-2022\tep_fed wmc 412-20_rcbl_12-14-2022.db
 Dataset Pathname repeat
 Presentation Format twgrcbl
 Dataset Creation Wed Dec 14 13:53:06 2022
 Charted by Depth in Feet scaled 1:240



0	(GAPI)	200	0	(mV)	100	200	(usec)	1200		0	120
Line Tension			3' Amplitude x 5						Minimum Amplitude		
0	(lb)	3000	0	(mV)	20				0		120
-9	CCL\$1	1	3' Travel Time						Maximum Amplitude		
0	Temp (degF)	300	650	(usec)	150				0		120





Calibration Report					
Database File	C:\ProgramData\Warrior\Data\WMC 24-17 Pad\TEP_Federal WMC 412-20_RCBL_12-14-2022\tep_				
Dataset Pathname	main				
Dataset Creation	Wed Dec 14 13:59:06 2022				
Gamma Ray Calibration Report					
Serial Number:	110255				
Tool Model:	GCTacc_6-Pin-Base				
Performed:	Thu Sep 22 15:12:49 2022				
Calibrator Value:	165.0	GAPI			
Background Reading:	72.3	cps			
Calibrator Reading:	300.9	cps			
Sensitivity:	0.7216	GAPI/cps			
Inclinometer Calibration Report					
Performed:	Thu Sep 22 15:14:31 2022				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-910.00	1566.00	-1.00	1.00	gee
Y Accelerometer	-989.00	1748.00	-1.00	1.00	gee
Z Accelerometer	1.02	-895.47	0.00	1.00	gee

Segmented Cement Bond Log Calibration Report

Serial Number: FW1311-19
Tool Model: Probe275acc

Calibration Casing Diameter: 4.500 in
Calibration Depth: 30.000 ft

Master Calibration, performed Wed Dec 14 13:15:02 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	0.732	0.000	81.196	144.976	-0.413
CAL	0.004	0.754				
5'	0.005	0.670	0.000	81.196	158.560	-0.579
SUM						
S1	0.005	0.758	0.000	100.000	172.680	-0.650
S2	0.005	0.757	0.000	100.000	172.810	-0.646
S3	0.005	0.755	0.000	100.000	173.170	-0.626
S4	0.005	0.739	0.000	100.000	177.230	-0.692
S5	0.004	0.726	0.000	100.000	180.110	-0.565
S6	0.004	0.726	0.000	100.000	180.104	-0.565
S7	0.004	0.731	0.000	100.000	178.920	-0.590
S8	0.005	0.736	0.000	100.000	177.790	-0.648

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.004	0.754	1.000	0.000

Air Zero Calibration, performed Wed Dec 14 10:52:19 2022:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.004		0.000		-0.000	
5'	0.005		0.000		0.000	
SUM						
S1	0.005		0.000		0.000	
S2	0.004		0.000		0.000	
S3	0.005		0.000		-0.000	
S4	0.005		0.000		-0.000	
S5	0.004		0.000		-0.000	
S6	0.004		0.000		0.000	
S7	0.004		0.000		-0.000	
S8	0.005		0.000		-0.000	

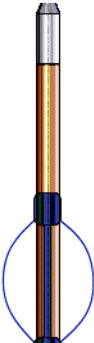
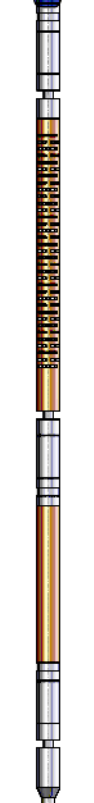
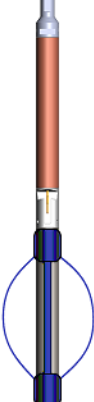

Inclinometer Calibration Report



Performed: Thu Jul 28 15:55:38 2022


	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-914.00	901.00	-1.00	1.00	gee

Y Accelerometer

	-903.00	898.00	-1.00	1.00	gee
Z Accelerometer	3.47	893.02	0.00	1.00	gee

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GCT_FMWR	14.03		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	14.03					
RBT_Status	14.03					
Error_Ct	14.03					
WVFS8	9.53		RBT8acc-Probe275acc (FW1311-19) 2.75" Radial Corrosion with accelerometer	8.75	2.75	110.00
WVFS7	9.53					
WVFS6	9.53					
WVFS5	9.53					
WVFS4	9.53					
WVFS3	9.53					
WVFS2	9.53					
WVFS1	9.53					
WVF3FT	9.53					
WVF5FT	8.53					
GCT_HV	5.67		GCTacc-GCTacc_6-Pin-Base (110255) Probe 2.75" Gamma Ray - CCL w/ Temp and 6 Pin Bottom	5.00	2.75	
RBT_ACCZ	5.28					
RBT_ACCY	5.28					
RBT_ACCX	5.28					
WVFSYNC	5.28					
WVFCAL	5.28					
CCL\$2	4.68					
CCL\$1	4.68					
GCT_TEMP	3.79					
GR	2.99					
GCT_IntTemp	1.95					
GCT_ACCZ	0.28					

GCT_ACCY	0.28			Probe ADPT-6P-GO Probe 2-3/4" 6-Pin Top to GO Bottom Adaptor Sub	0.28	2.75	2.00
GCT_ACCX	0.28						
Dataset: tep_fed wmc 412-20_rcbl_12-14-2022.db: field/well/run1/main Total length: 14.03 ft Total weight: 132.00 lb O.D.: 3.25 in							

Company	TEP Rocky Mountain LLC				
Well	Federal WMC 412-20				
Field	Rulison				
County	Garfield		State	Colorado	
			Radial Cement Bond Gamma Ray Casing Collar Log		