



Weatherford

**SECUREVIEW
ULTRAVIEW / BONDVIEW
CEMENT ANALYSIS LOG**

COMPANY

EXTRACTION OIL & GAS

WELL

HFE #8

FIELD

WATTENBERG

WELD

UNITED STATES / COLORADO

SWSW S22 T4N R68W

LOCATION

SEC 22 TWP 4N RGE 68W

Other Services

Latitude

Longitude

API Number

05-123-4477100

Permanent Datum GL, Elevation 4918 feet

Log Measured From KB, 28.00 feet above Permanent Datum

Drilling Measured From KB

Date

07-SEP-2017

Run Number

ONE

Service Order

7145-191992471

Type Log

URS / CBT

Depth Driller

Depth Logger

Top Log Interval

Bottom Log Interval

Hole Fluid Type

Hole Fluid Level

Restriction ID

Max Recorded Temp

Well Head Pressure

Well Head Equipment

Time Well Ready

Time Logger Bottom

Unit

Equipment Name

Base

Recorded By

Witnessed By

NOT WITNESSED

PERFORATION RECORD

Shot Number of Shots Depth From Depth To

Density

feet

feet

feet

feet

feet

feet

feet

feet

feet

feet

feet

feet

feet

feet

feet

feet

feet

feet

Elevations:
KB 4946.00
DF
GL 4918.00

CASING / TUBING RECORD

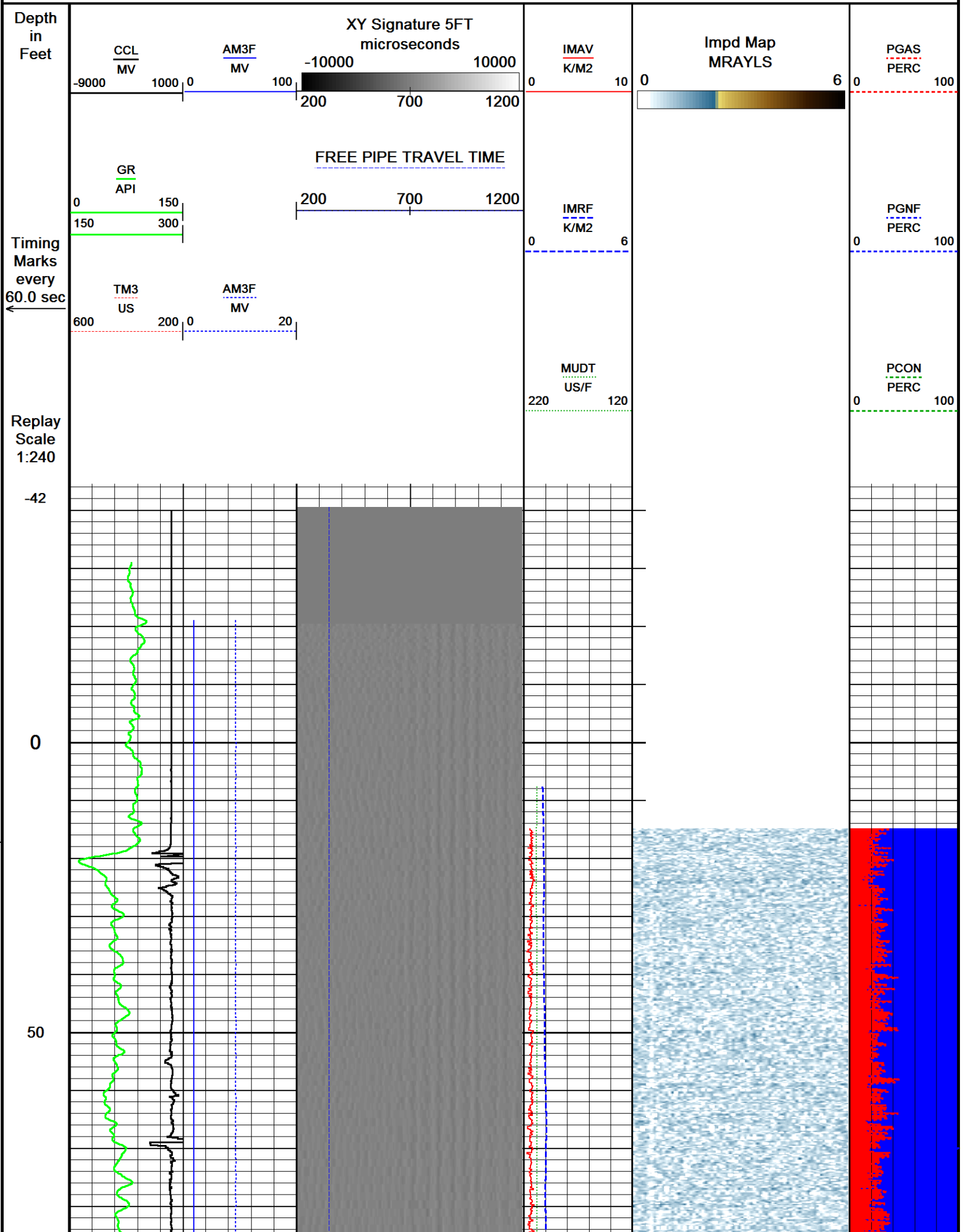
| Type | Grade | TypeJoint | Size inches | Depth From feet | Shoe Depth feet | Weight pounds/ft |
|------------|-------|-----------|----------------|--------------------|--------------------|---------------------|
| PRODUCTION | P-110 | | 5.500 | 0.00 | 16000.00 | 20.00 |

REMARKS

SECUREVIEW ULTRAVIEW BONDVIEW LOG CORRELATED TO RIG KB @ 28 FT ABOVE GROUND LEVEL

100% STANDARD FREE PIPE AMPLITUDE IN 5.5 INCH CASING IS 72 mV

In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.



Timing
Marks
every
60.0 sec

←

TM3
US

600

200

0

20

AM3F
MV

MUDT
US/F

220

120

PCON
PERC

0

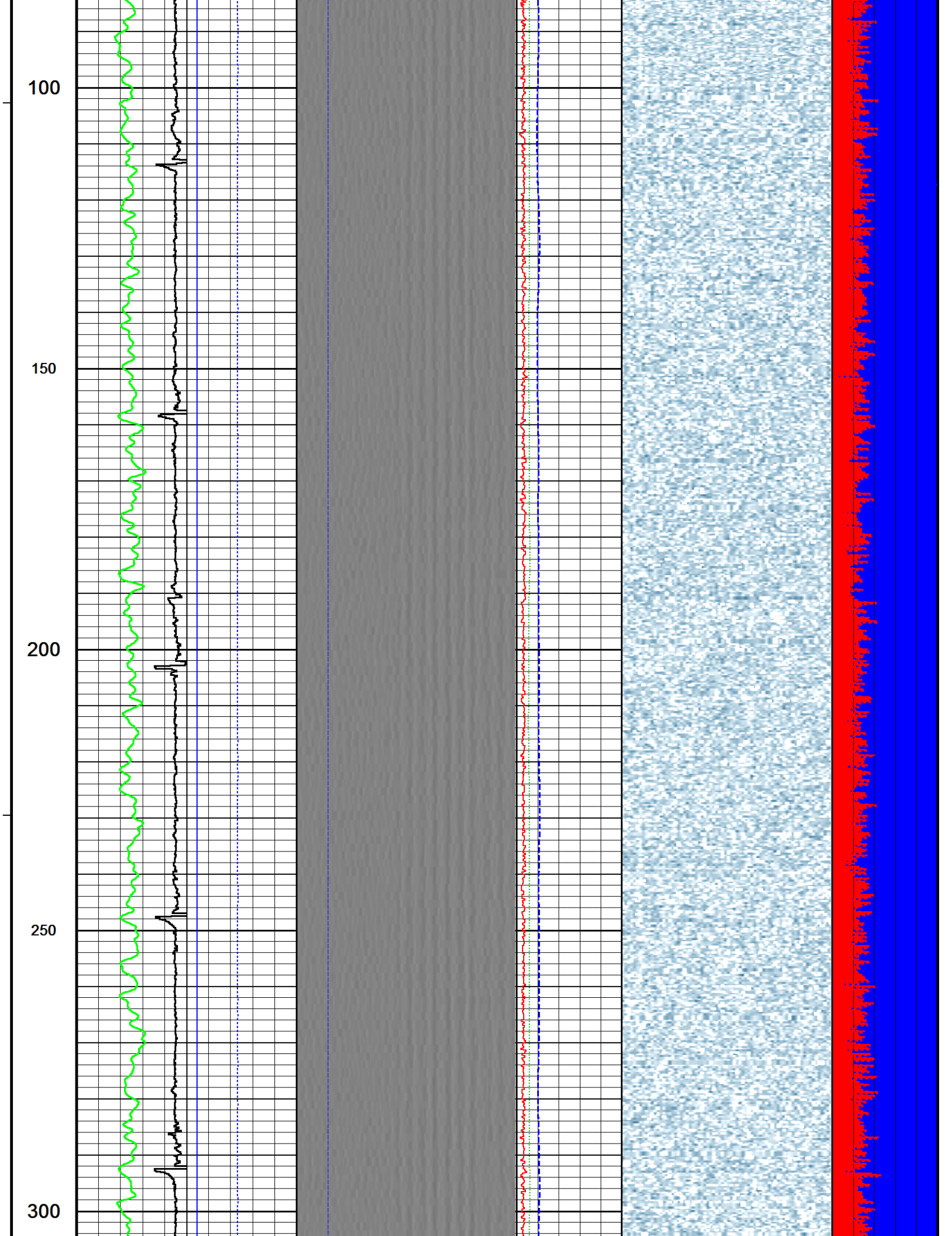
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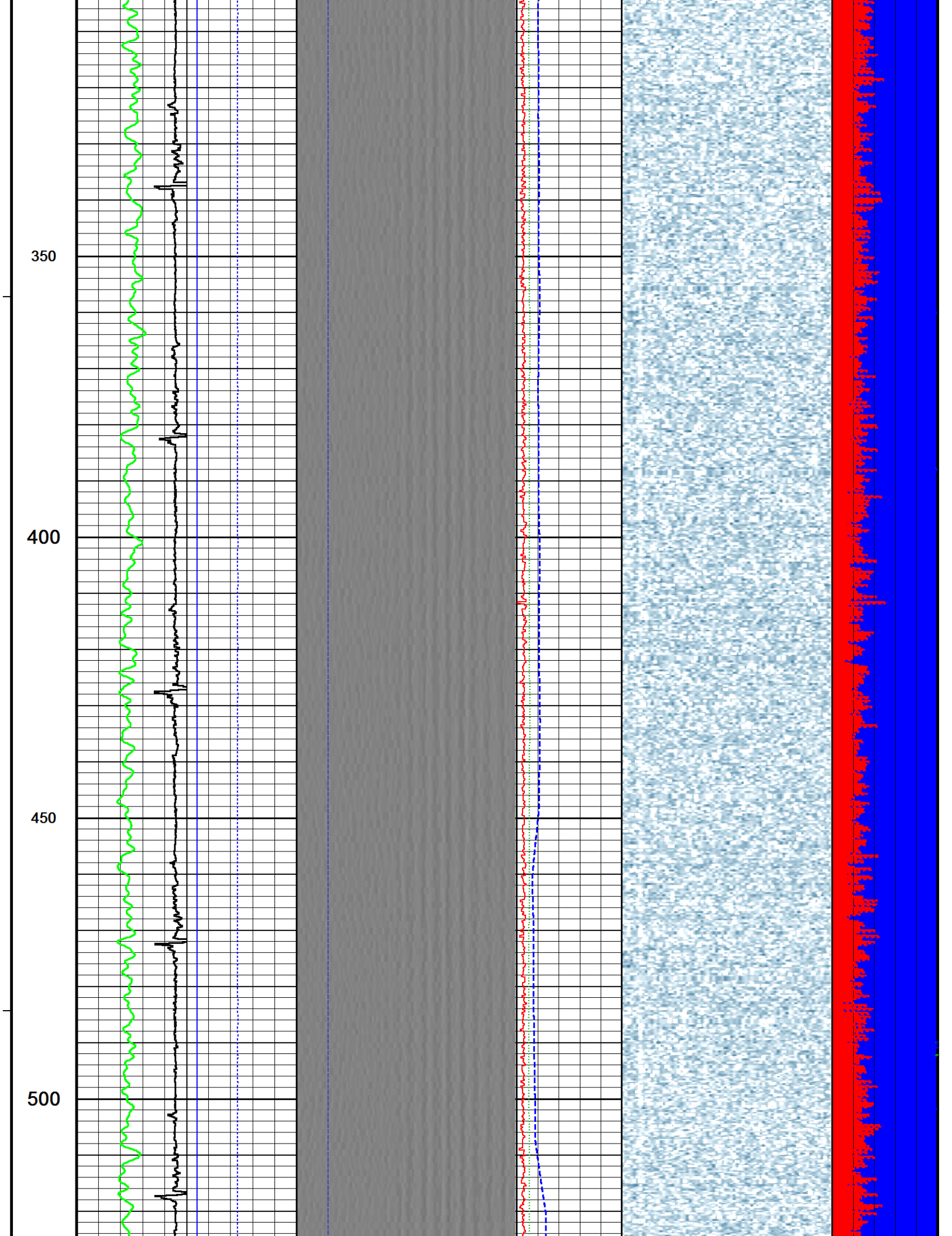
Replay
Scale
1:240

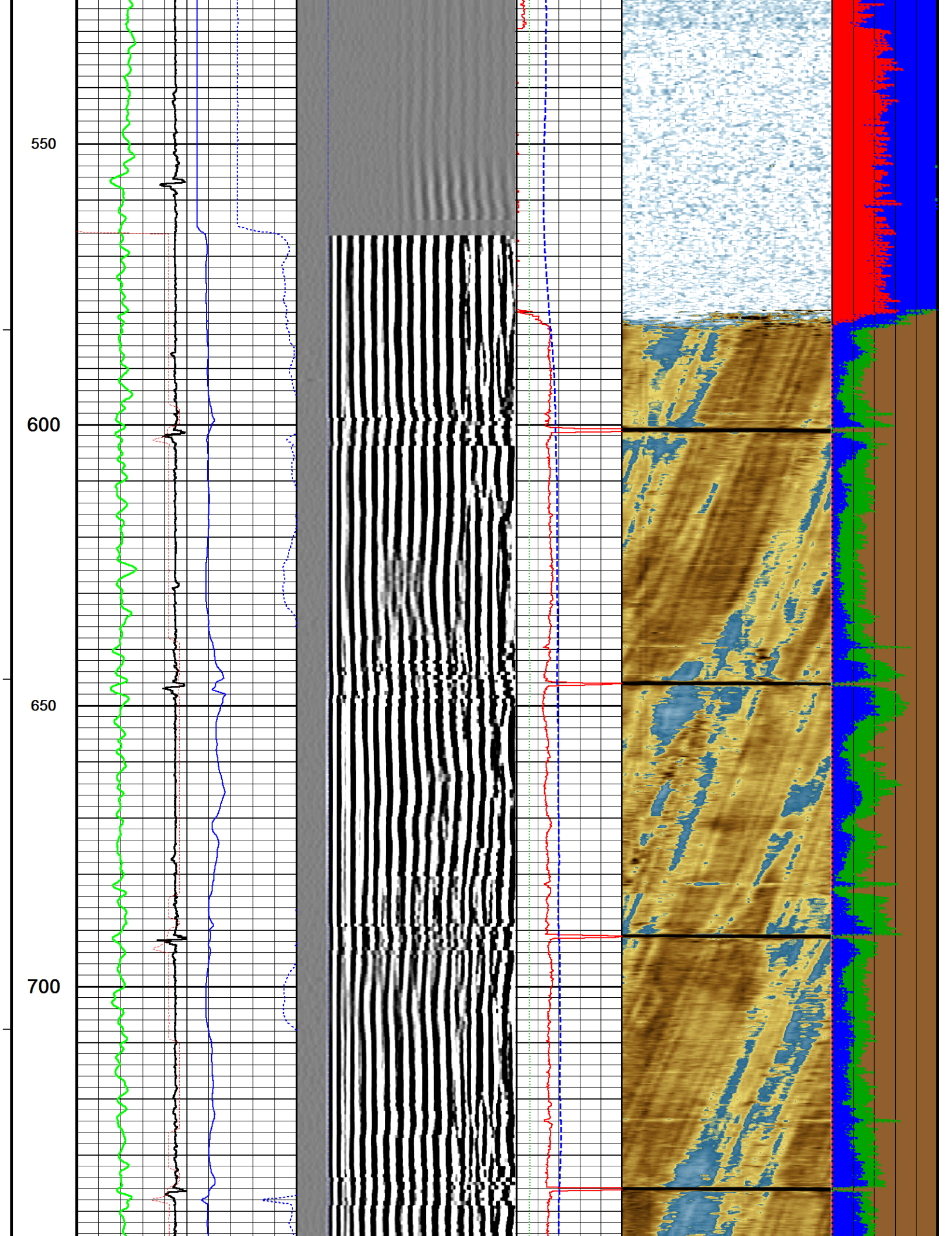
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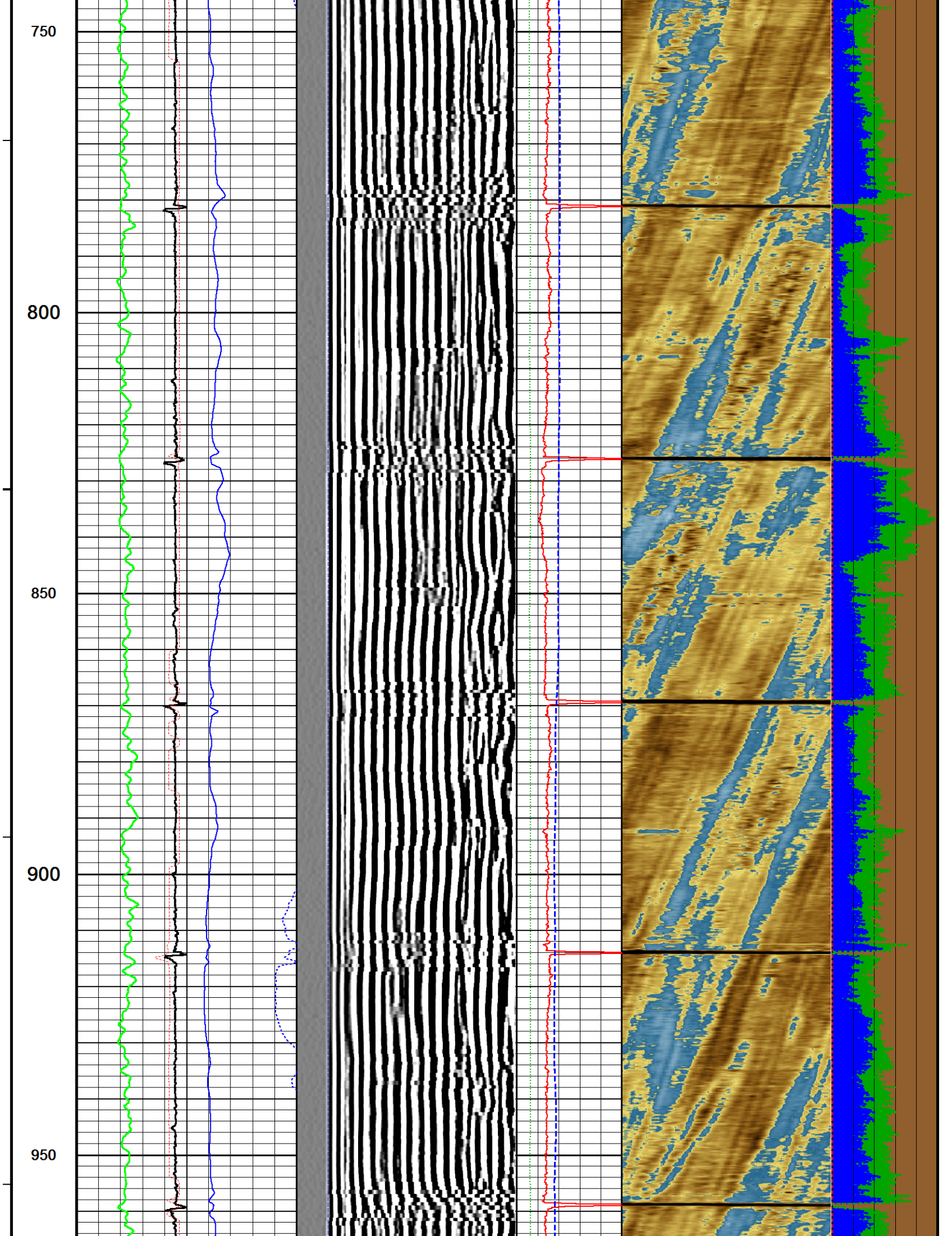
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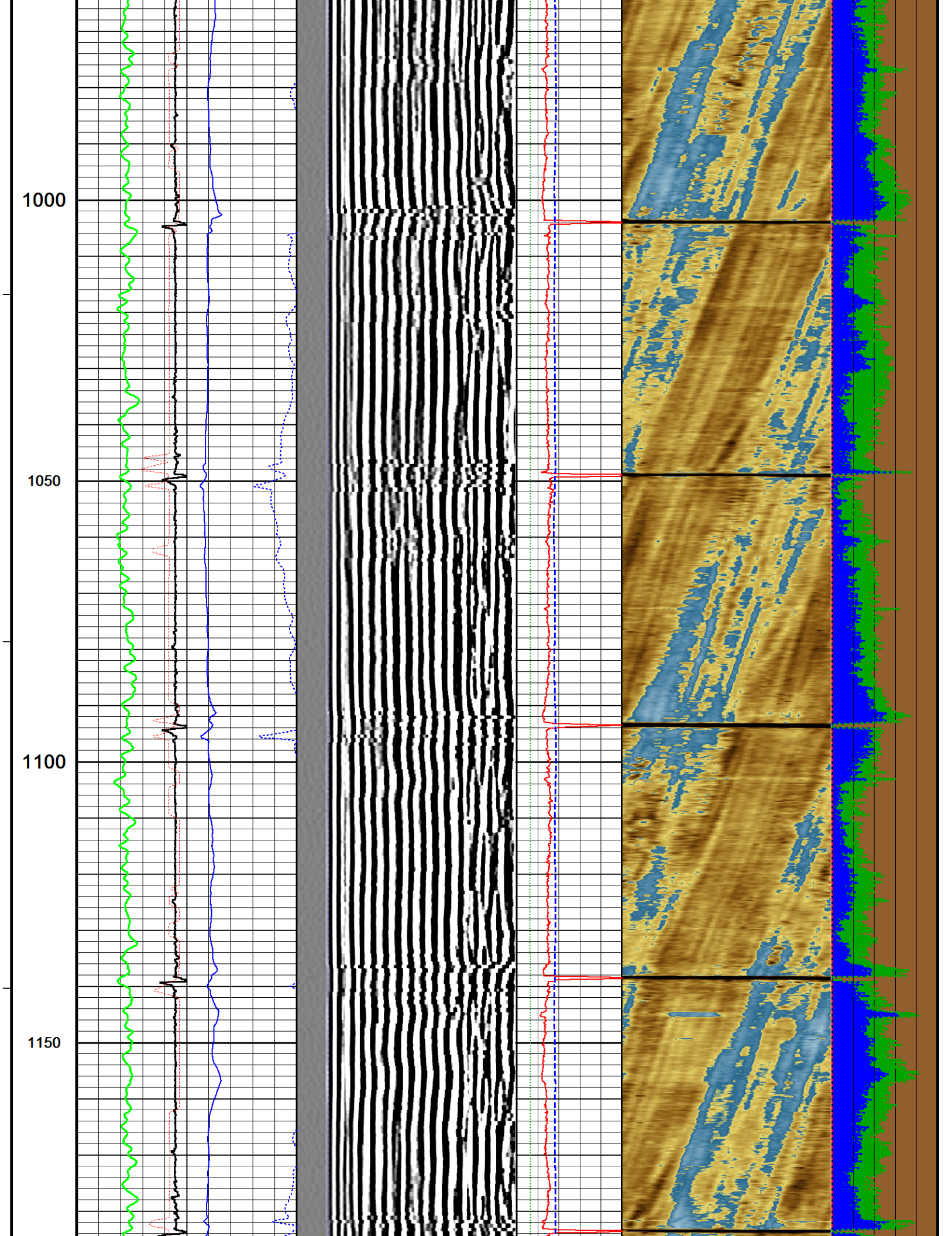
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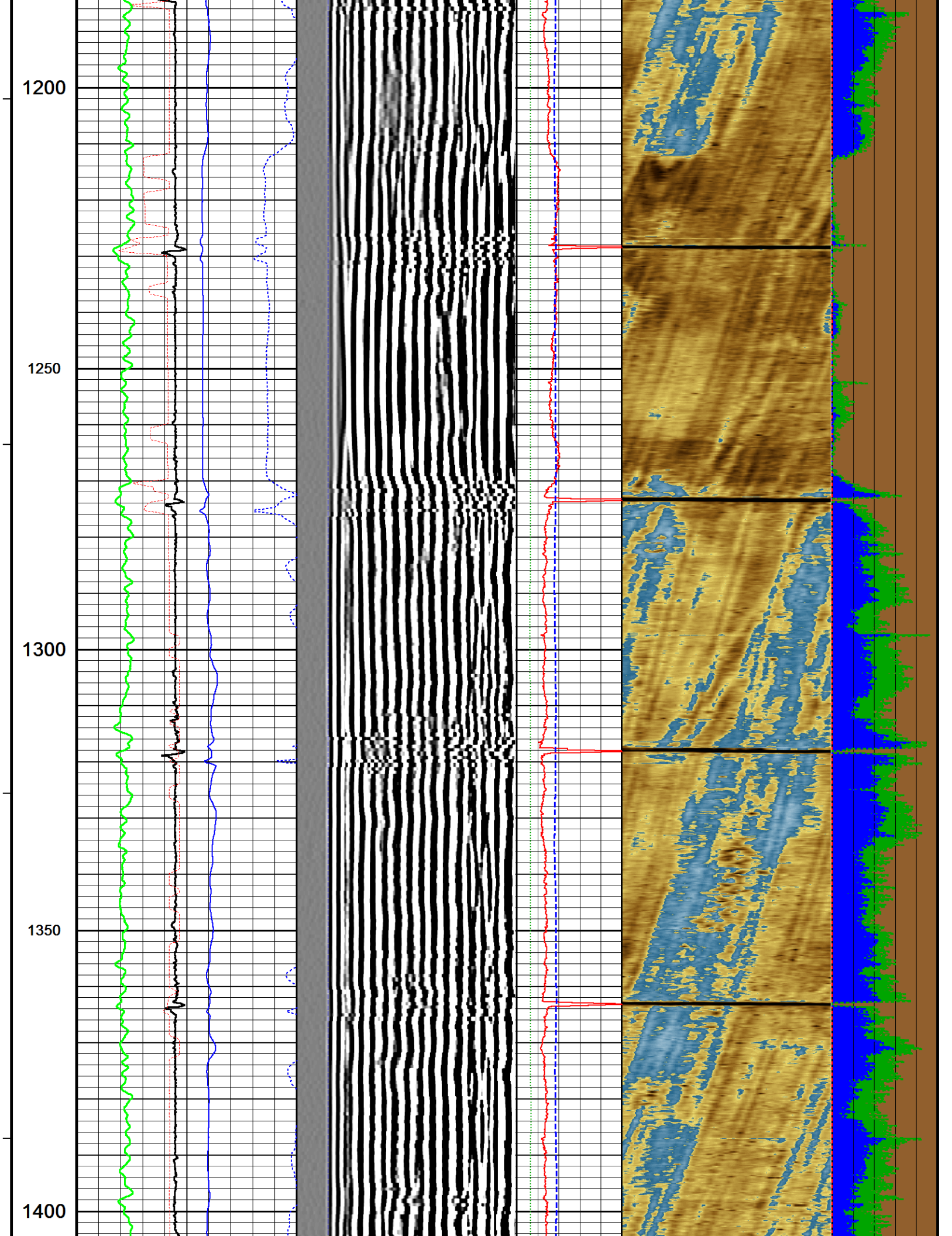


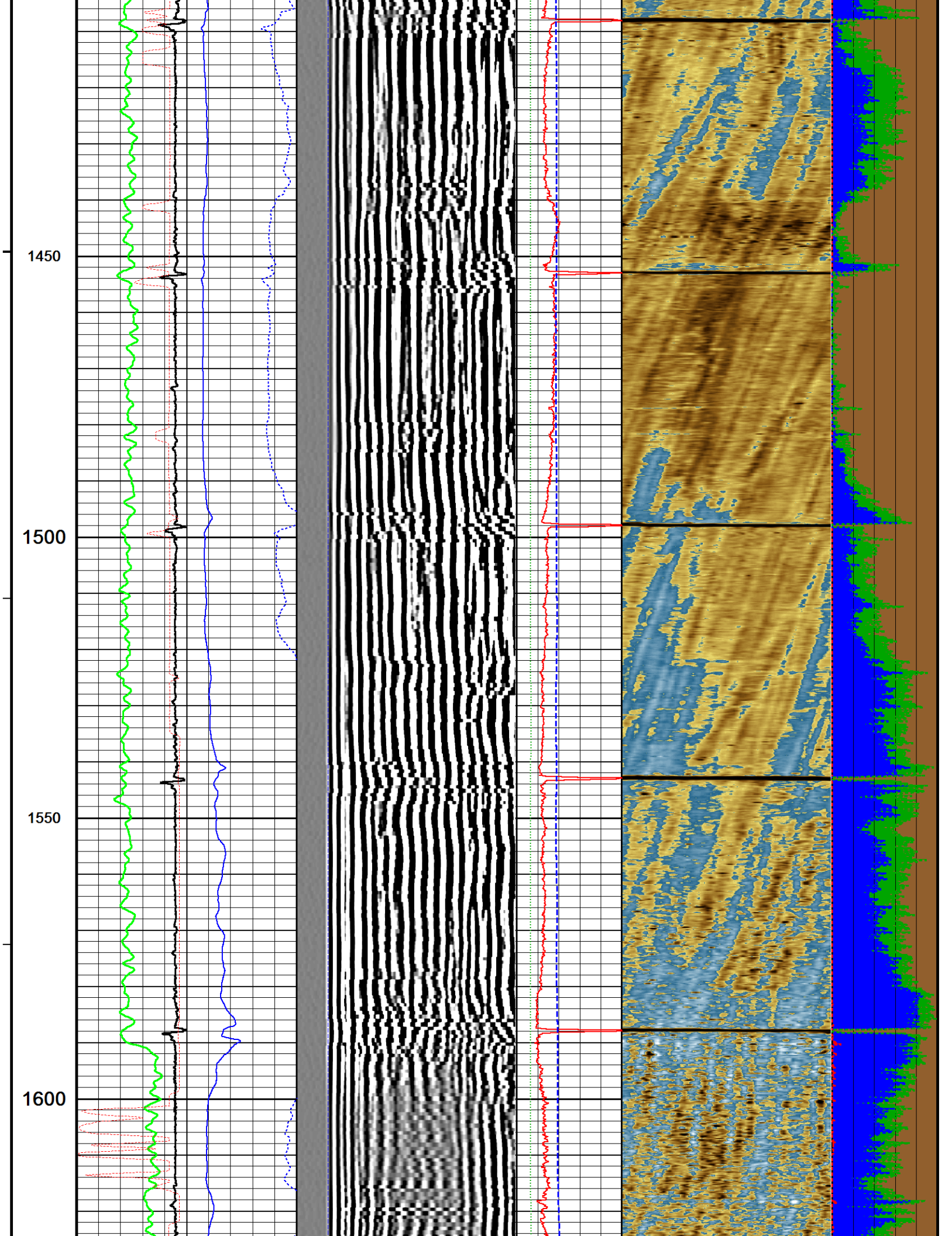


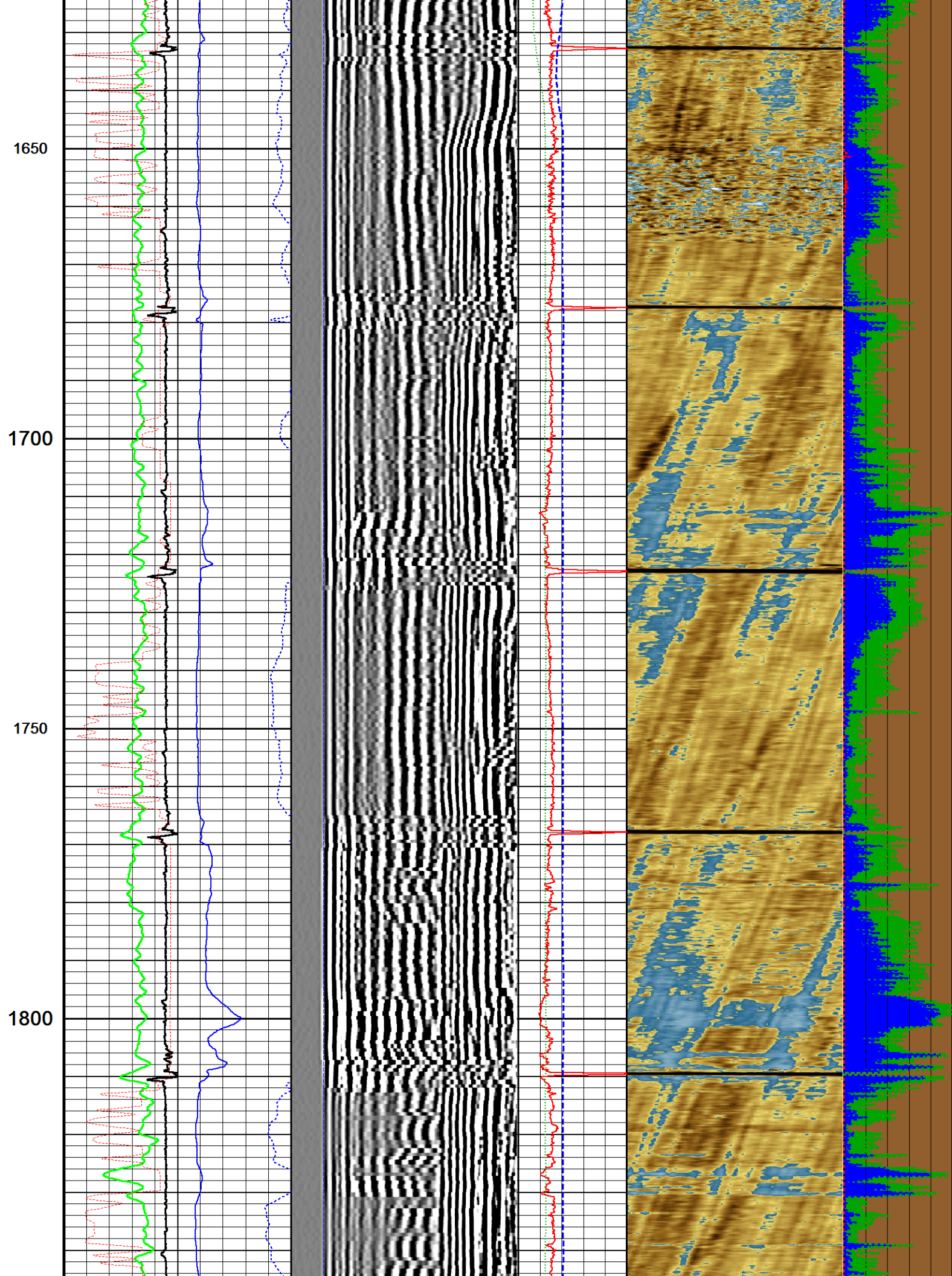


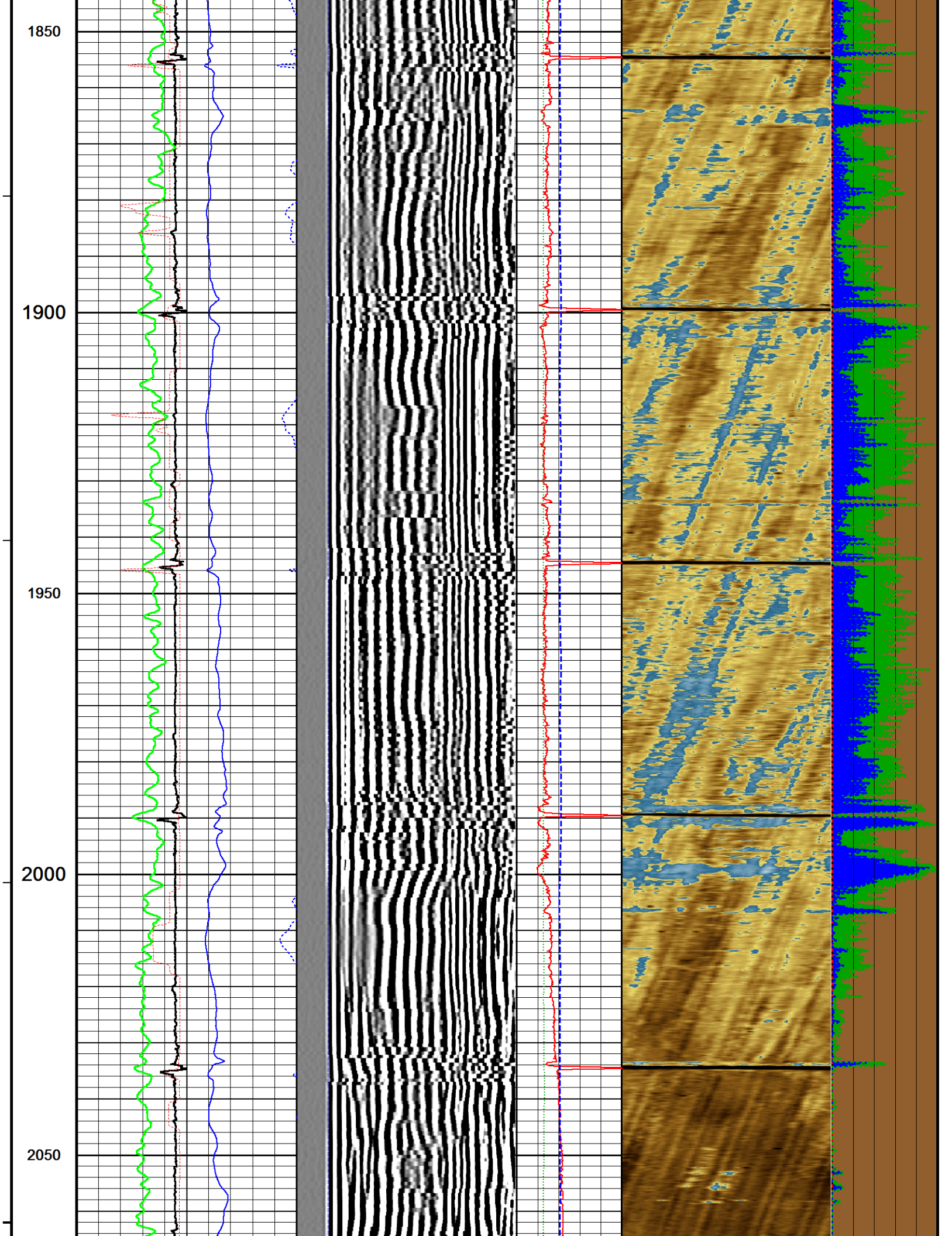










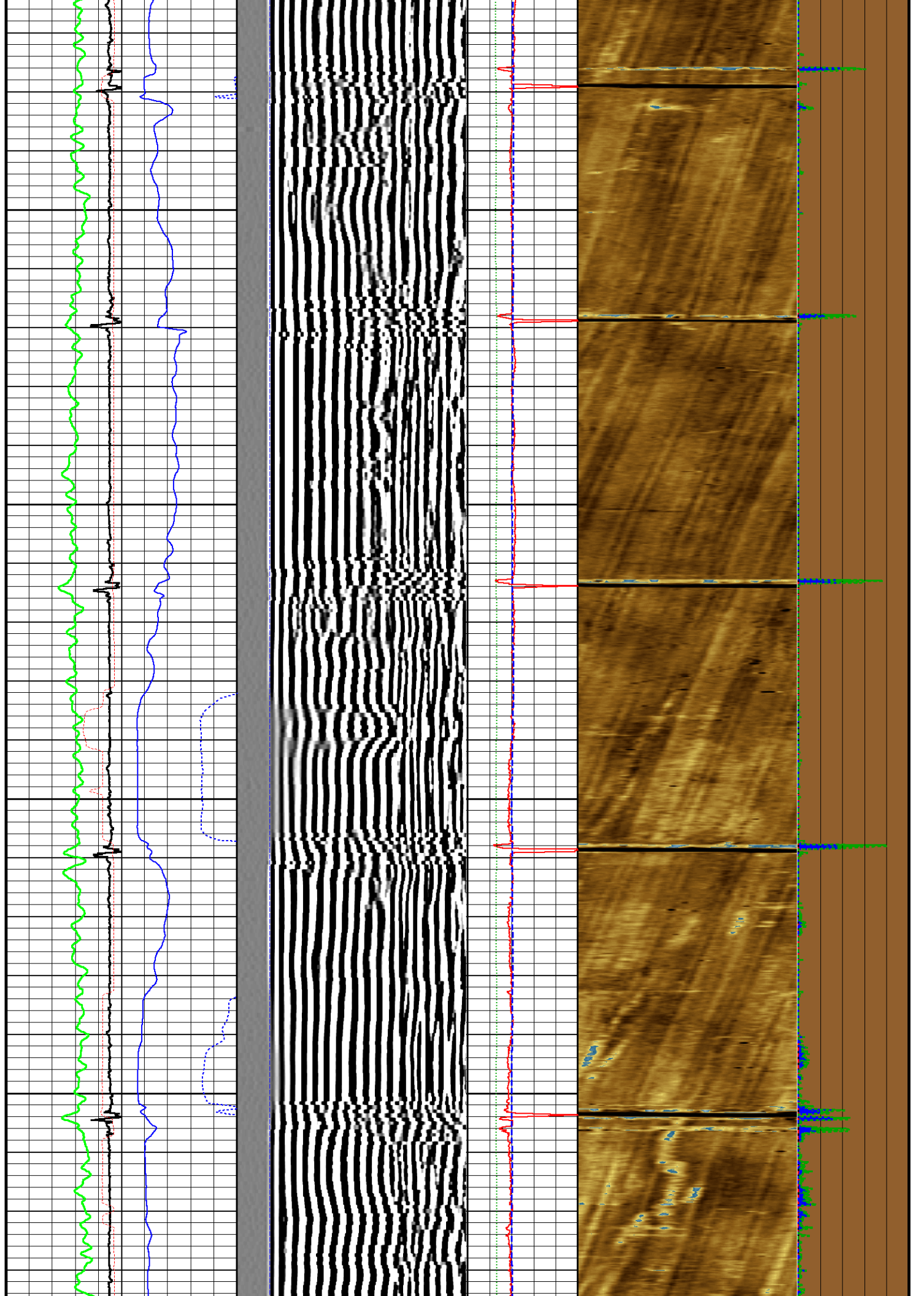


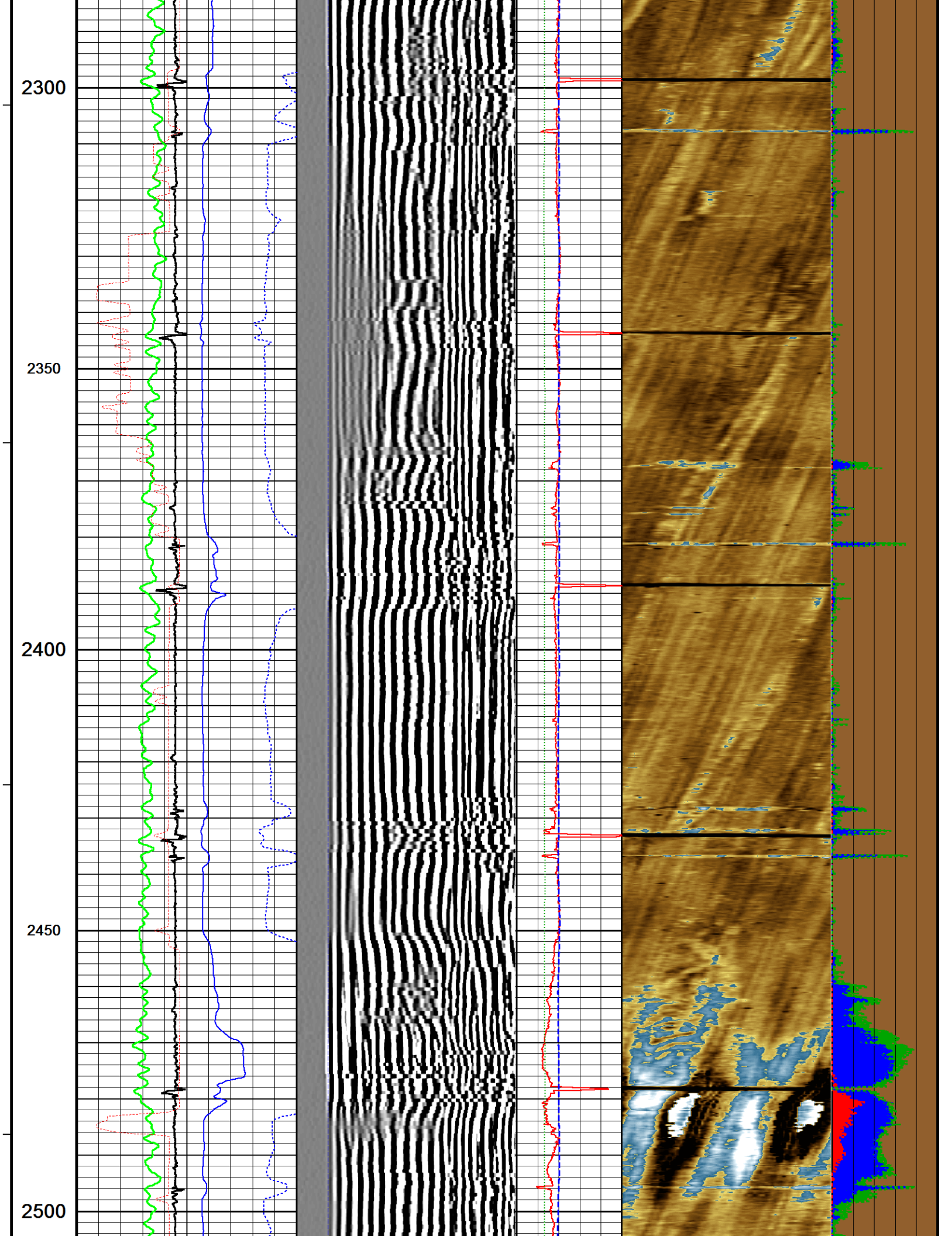
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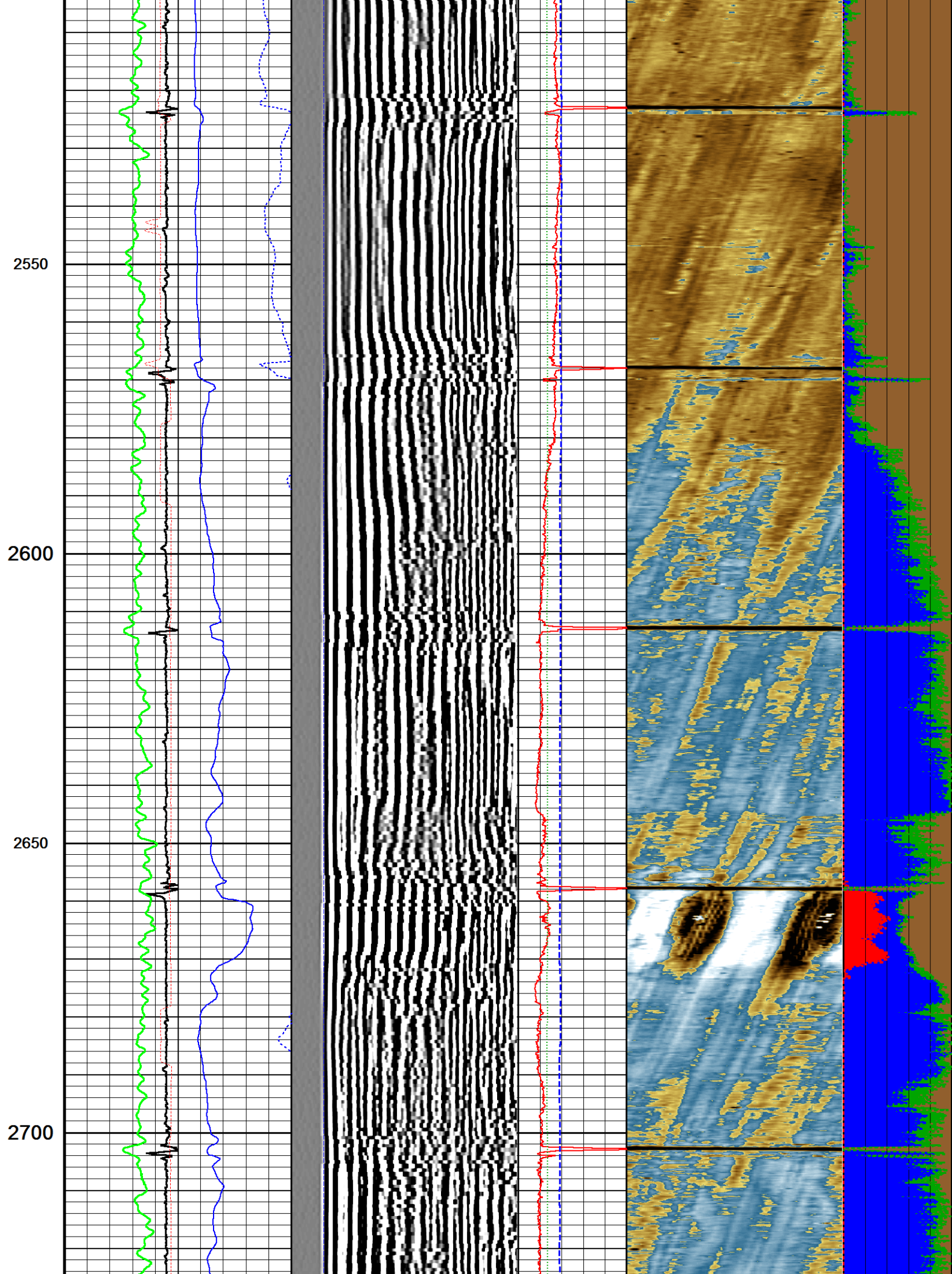
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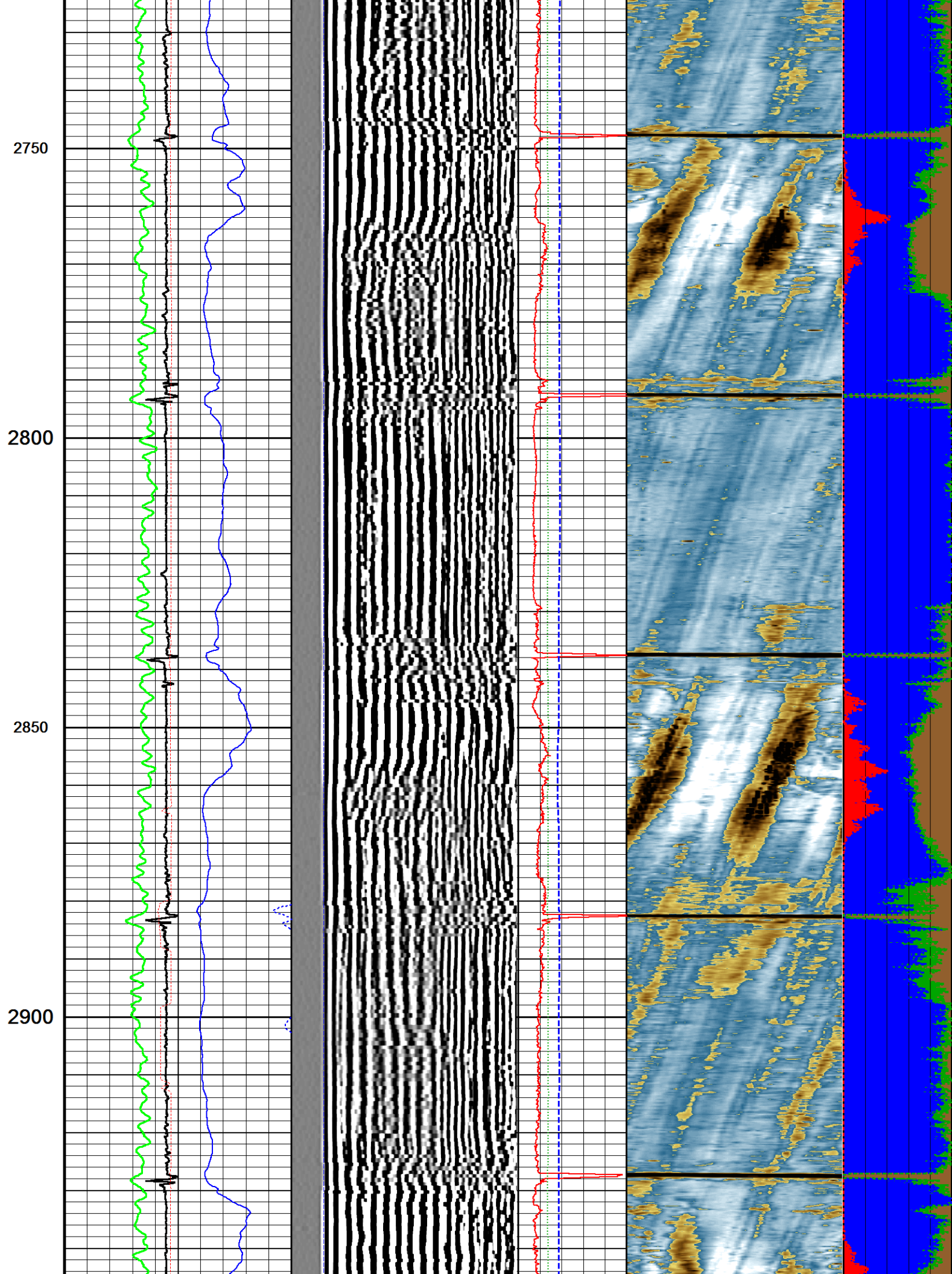
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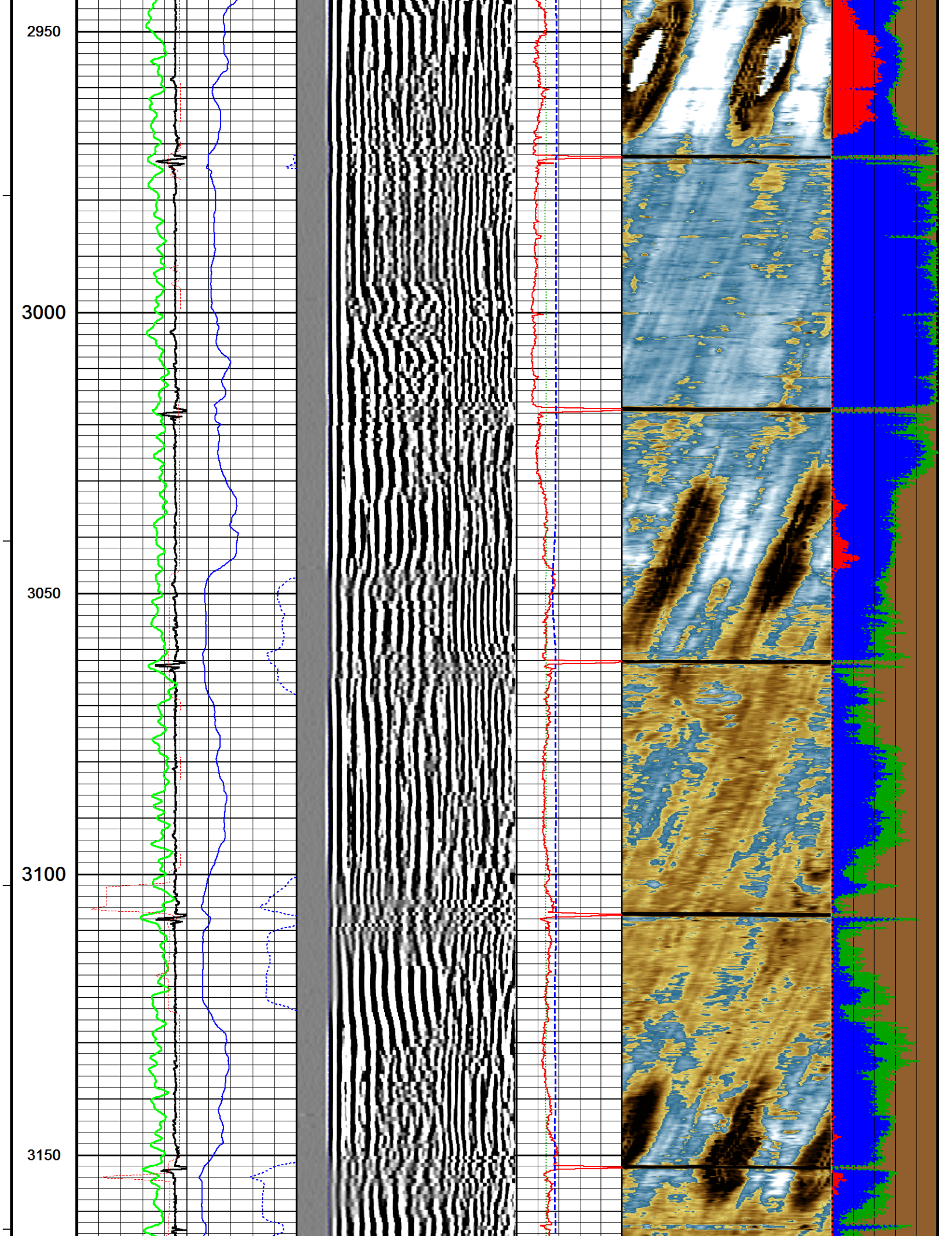
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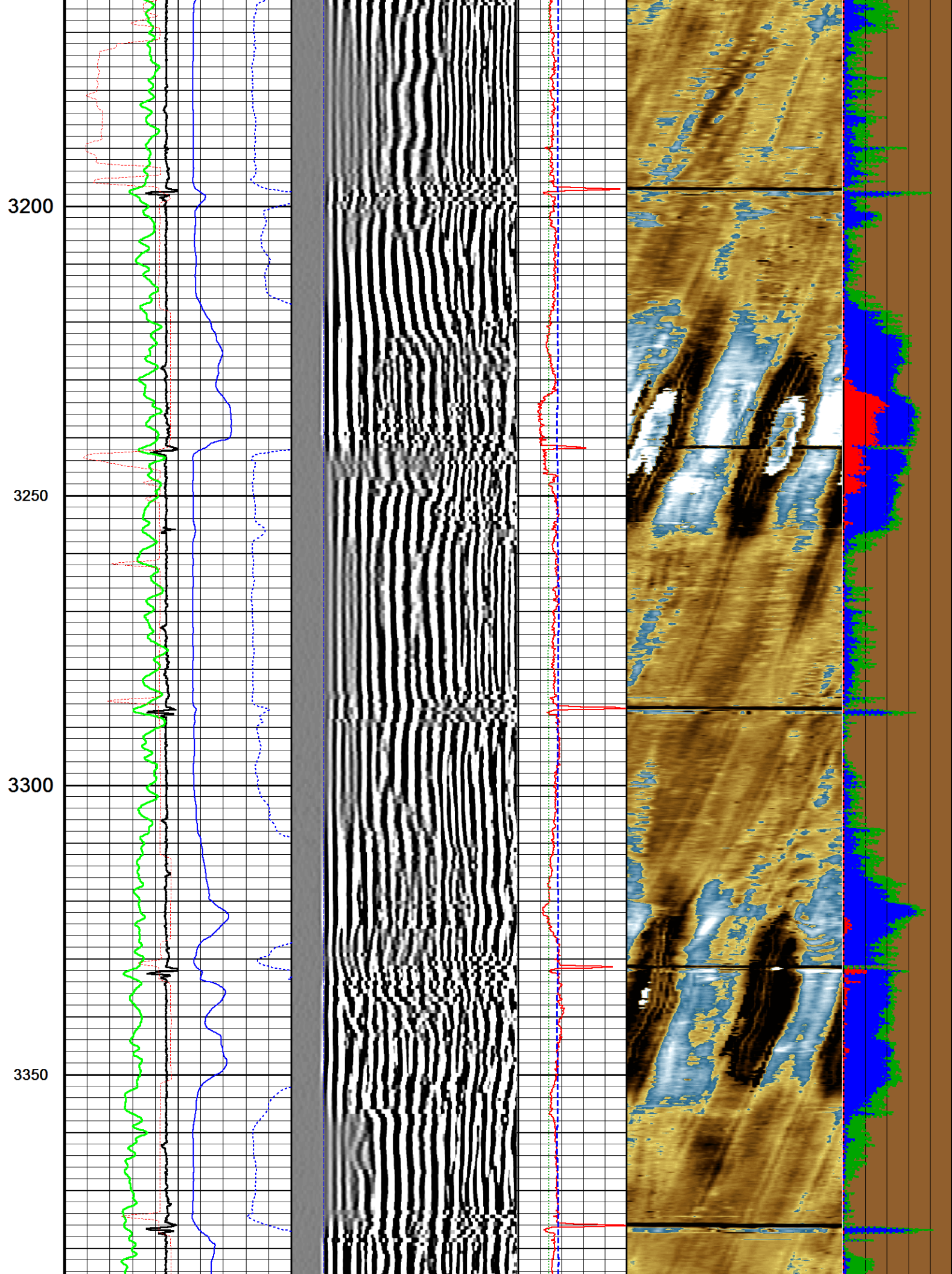


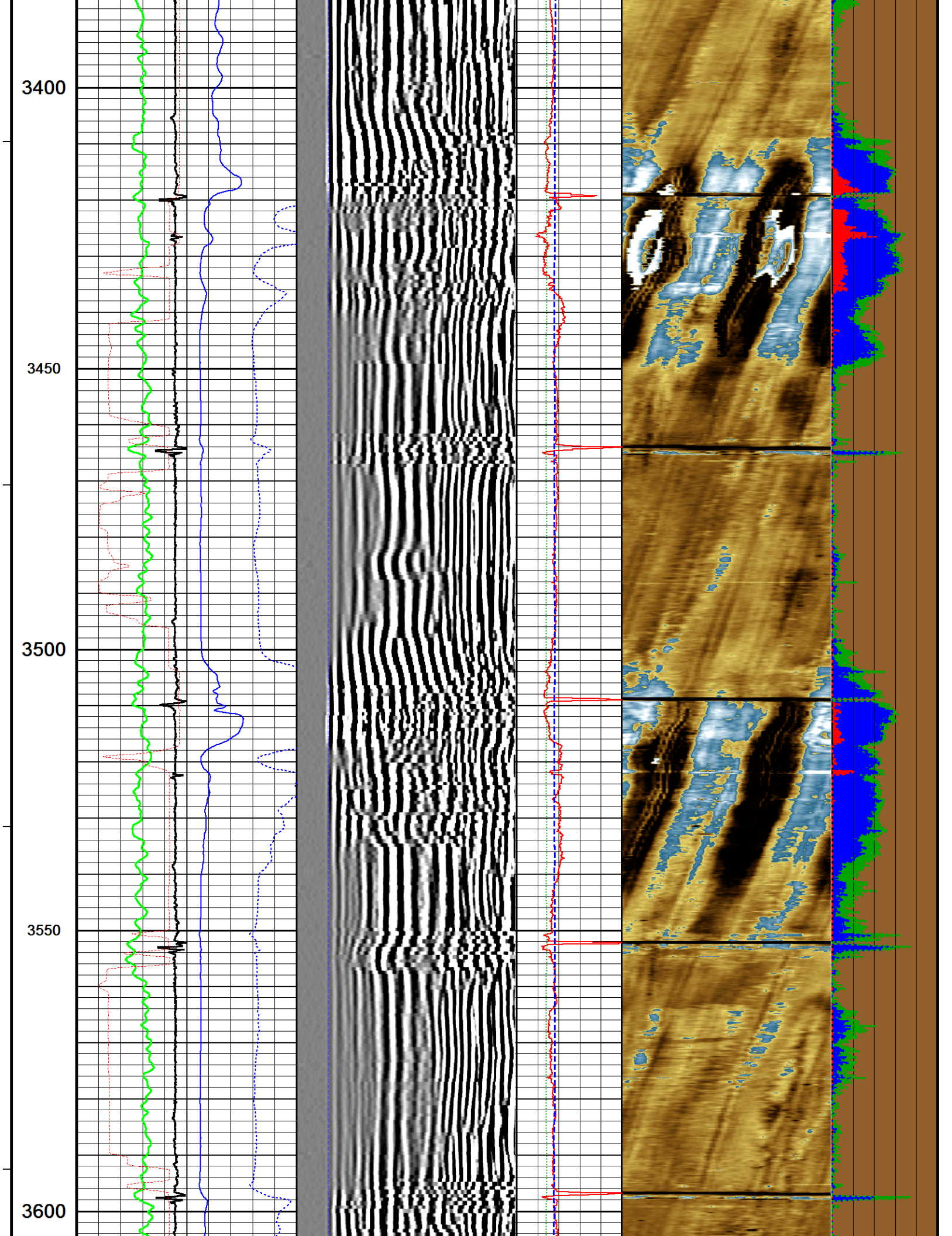


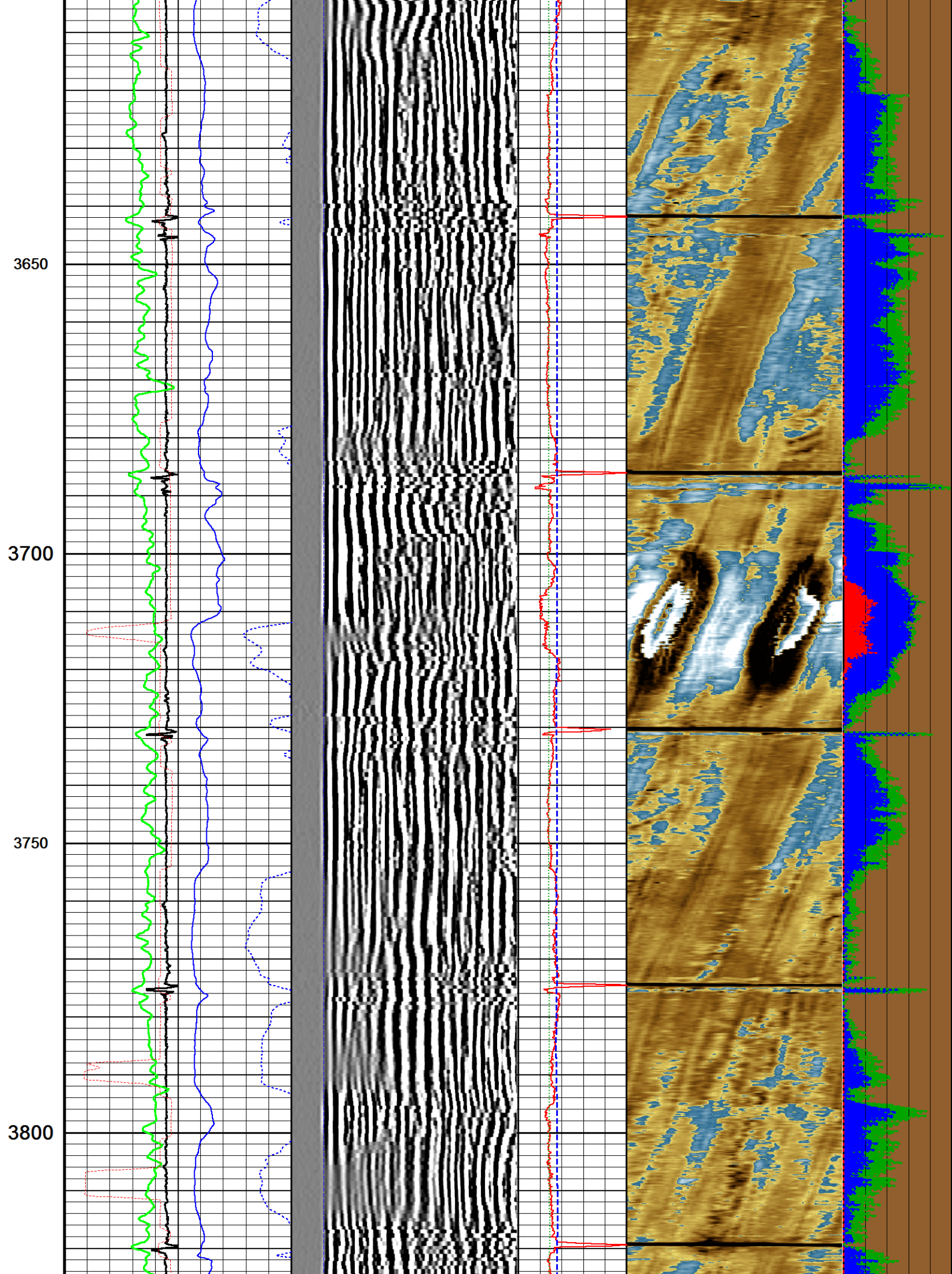


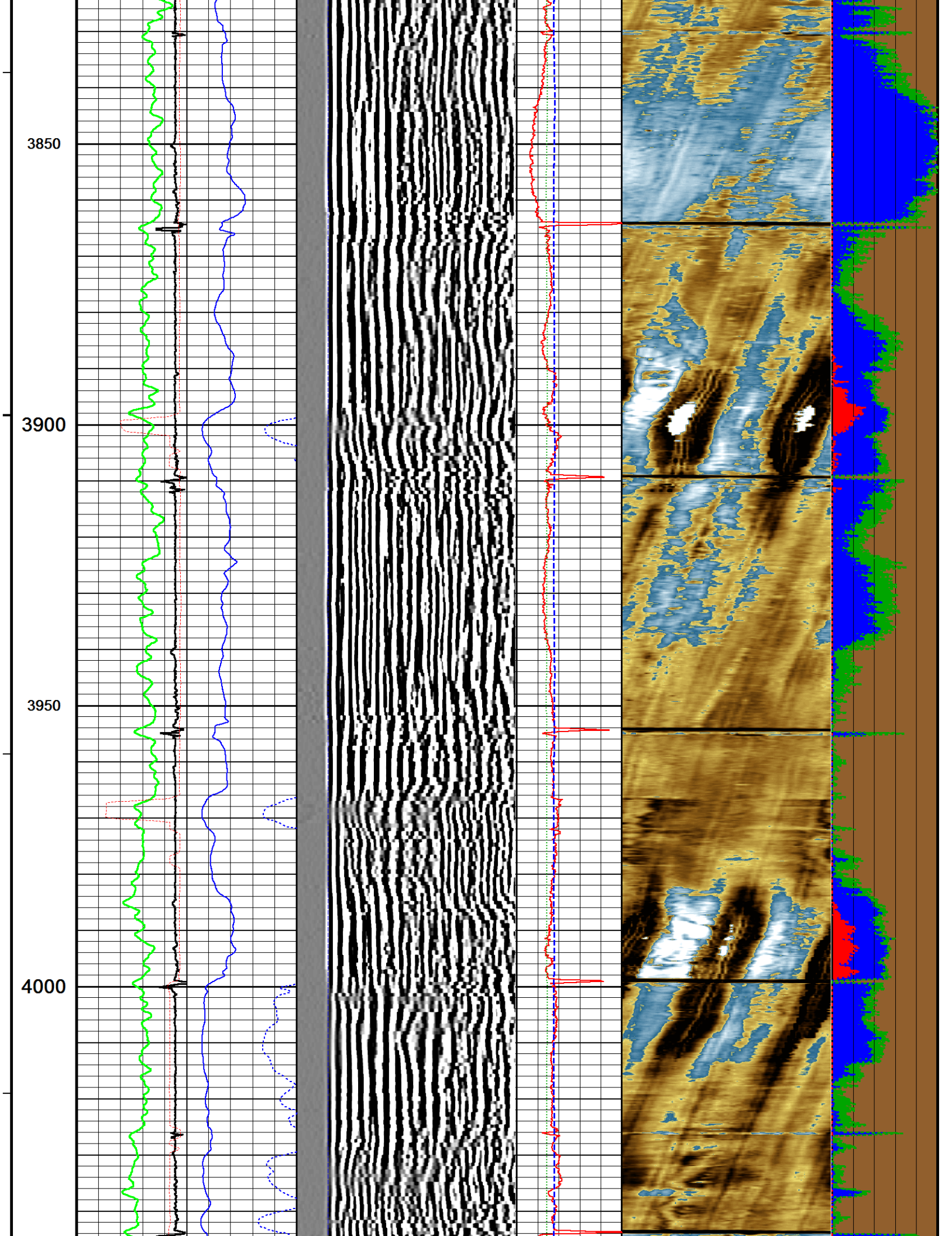


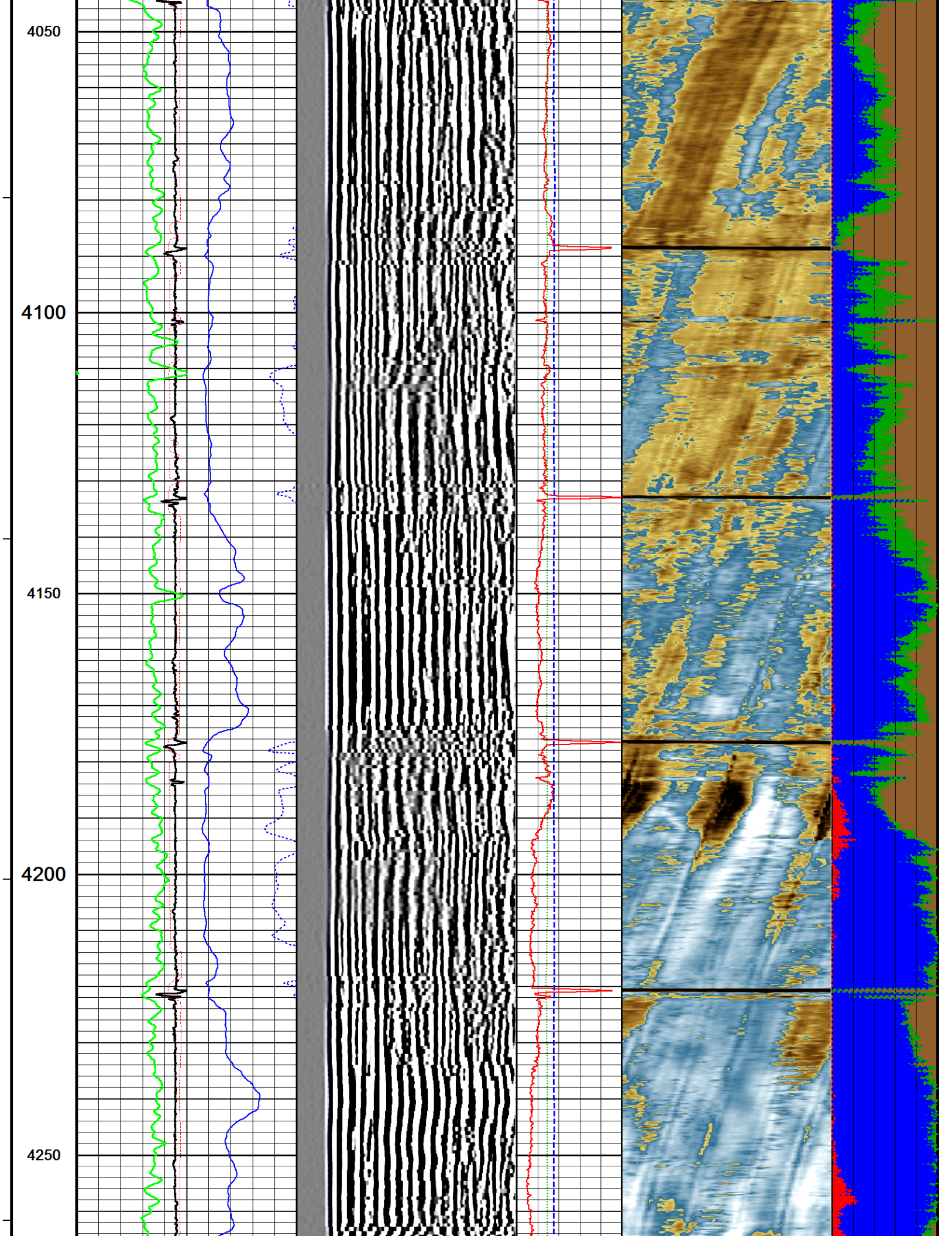


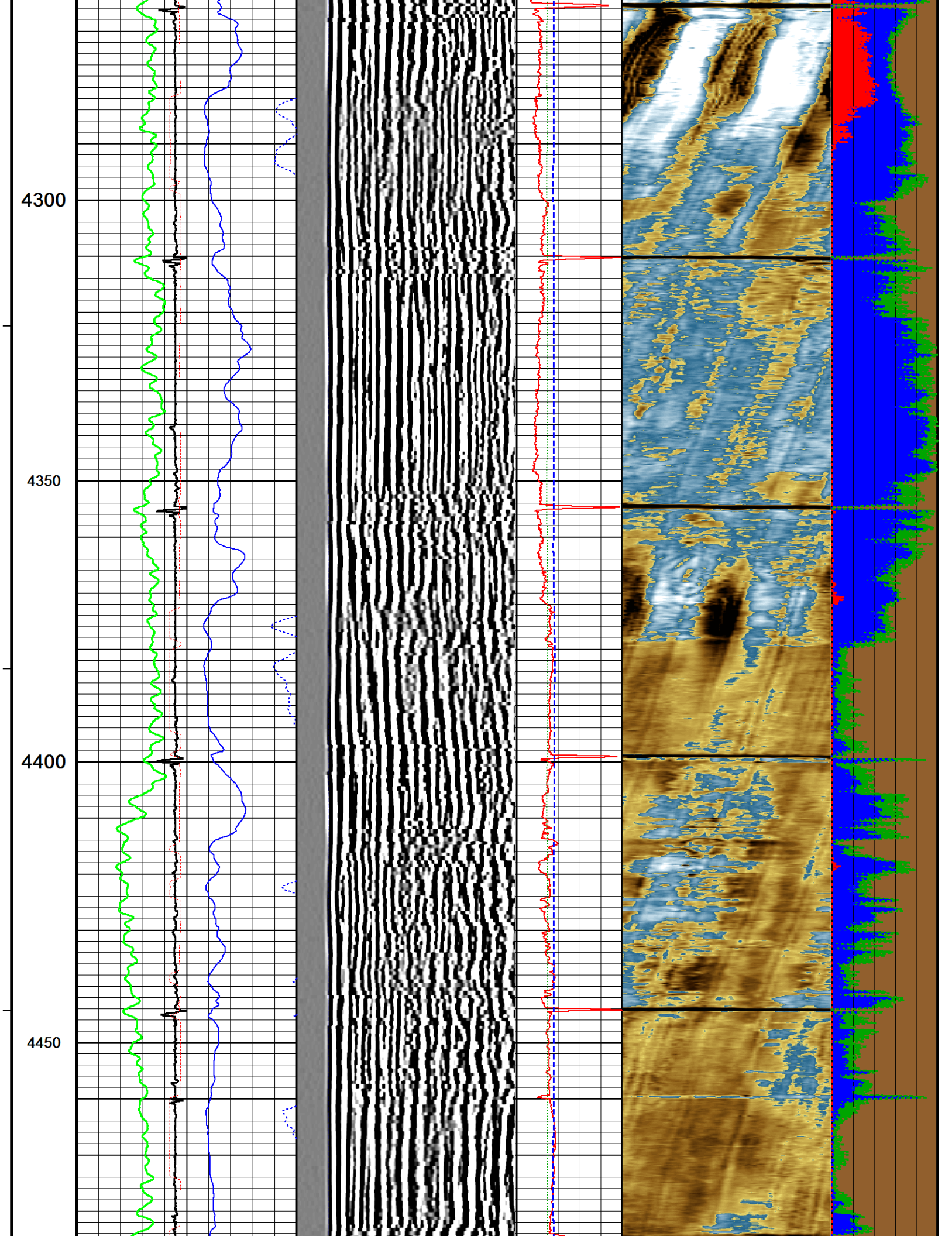


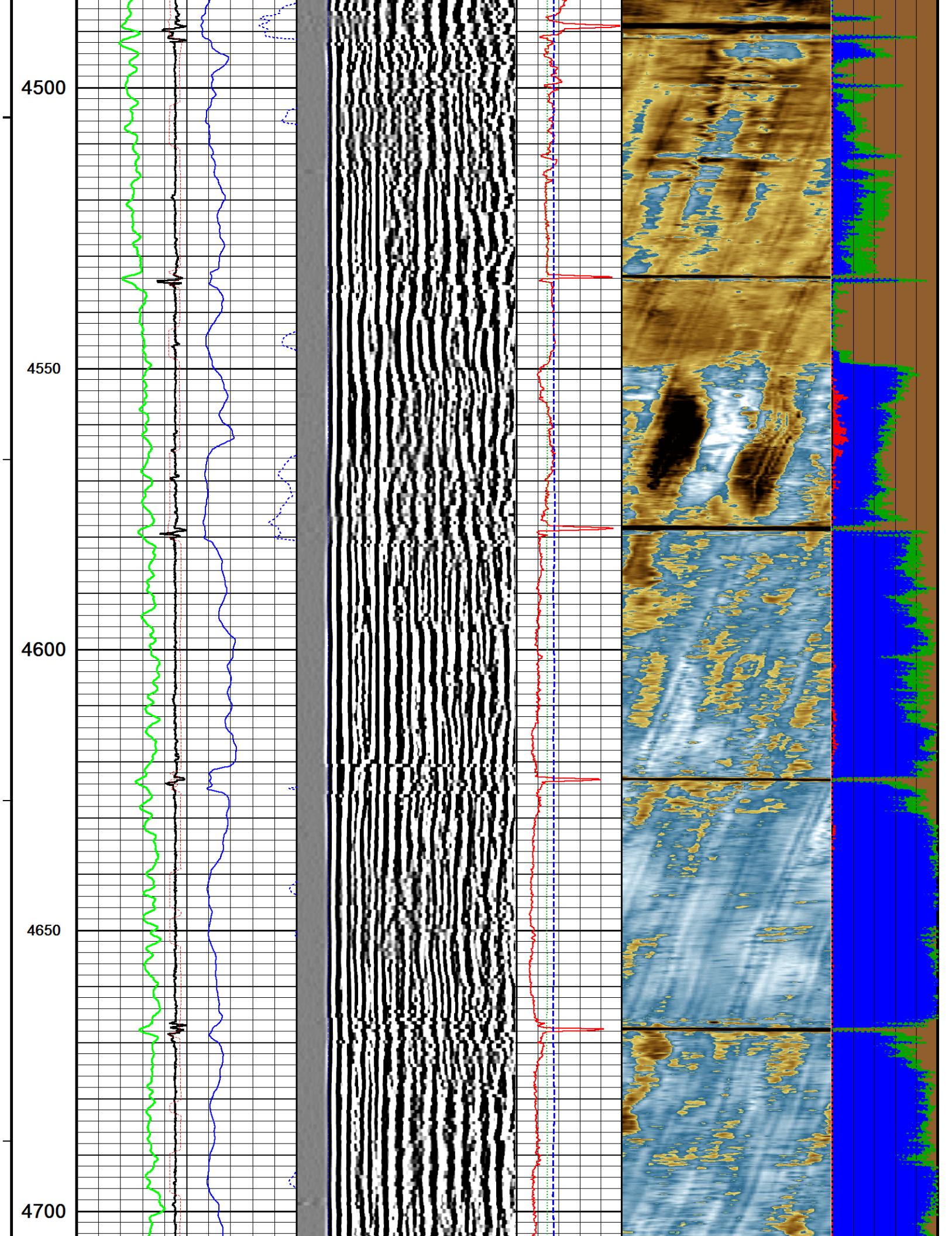


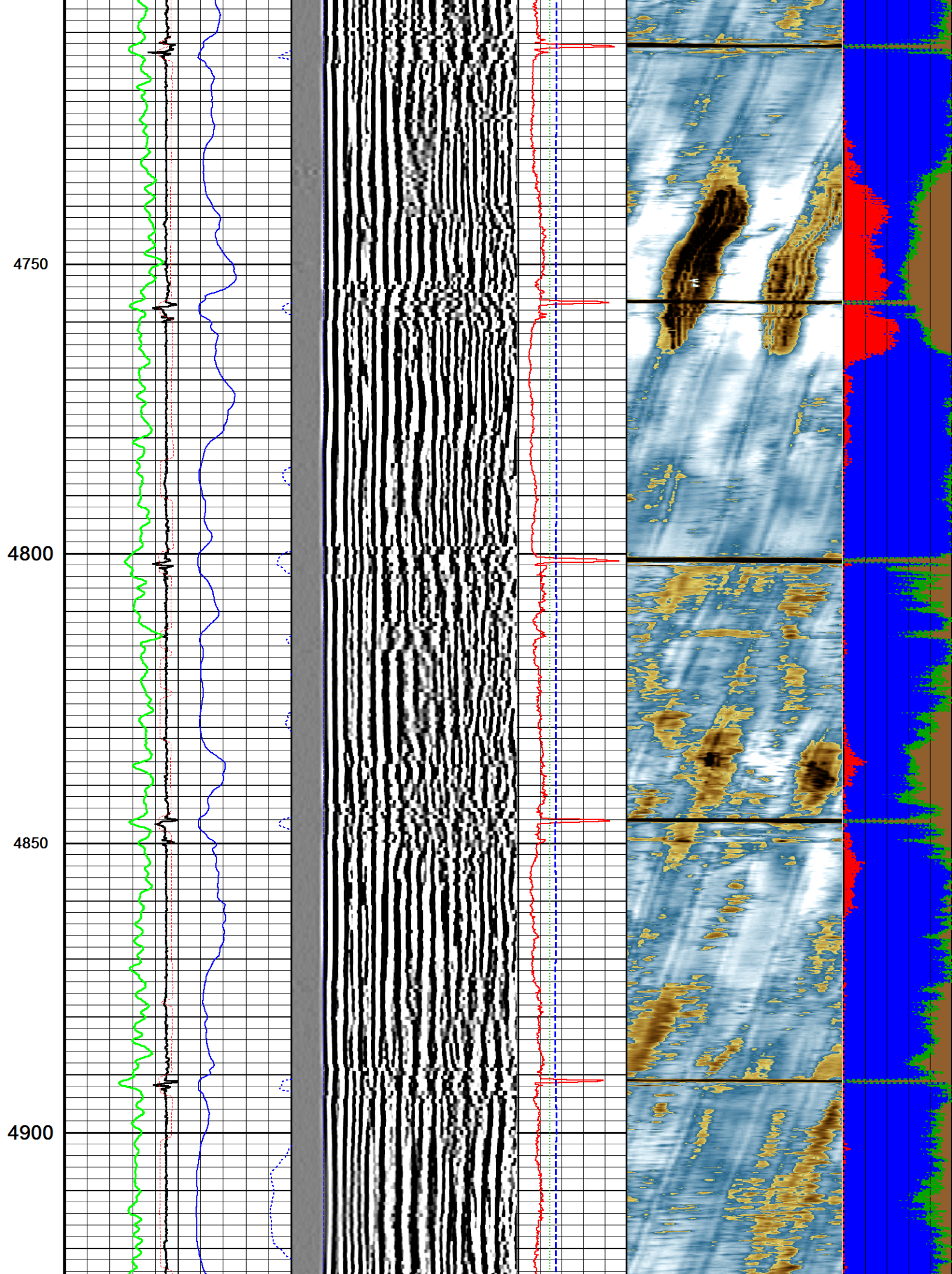


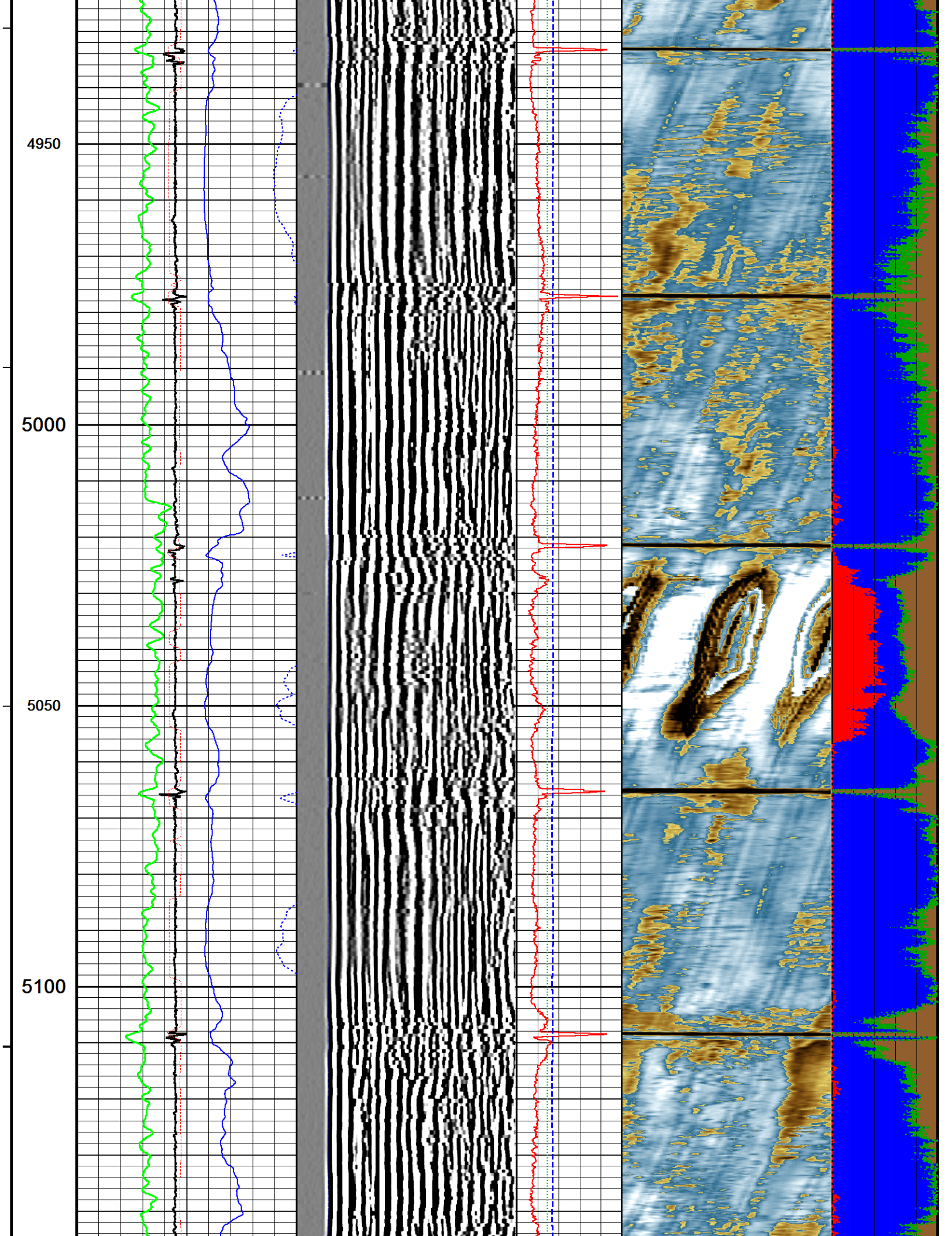


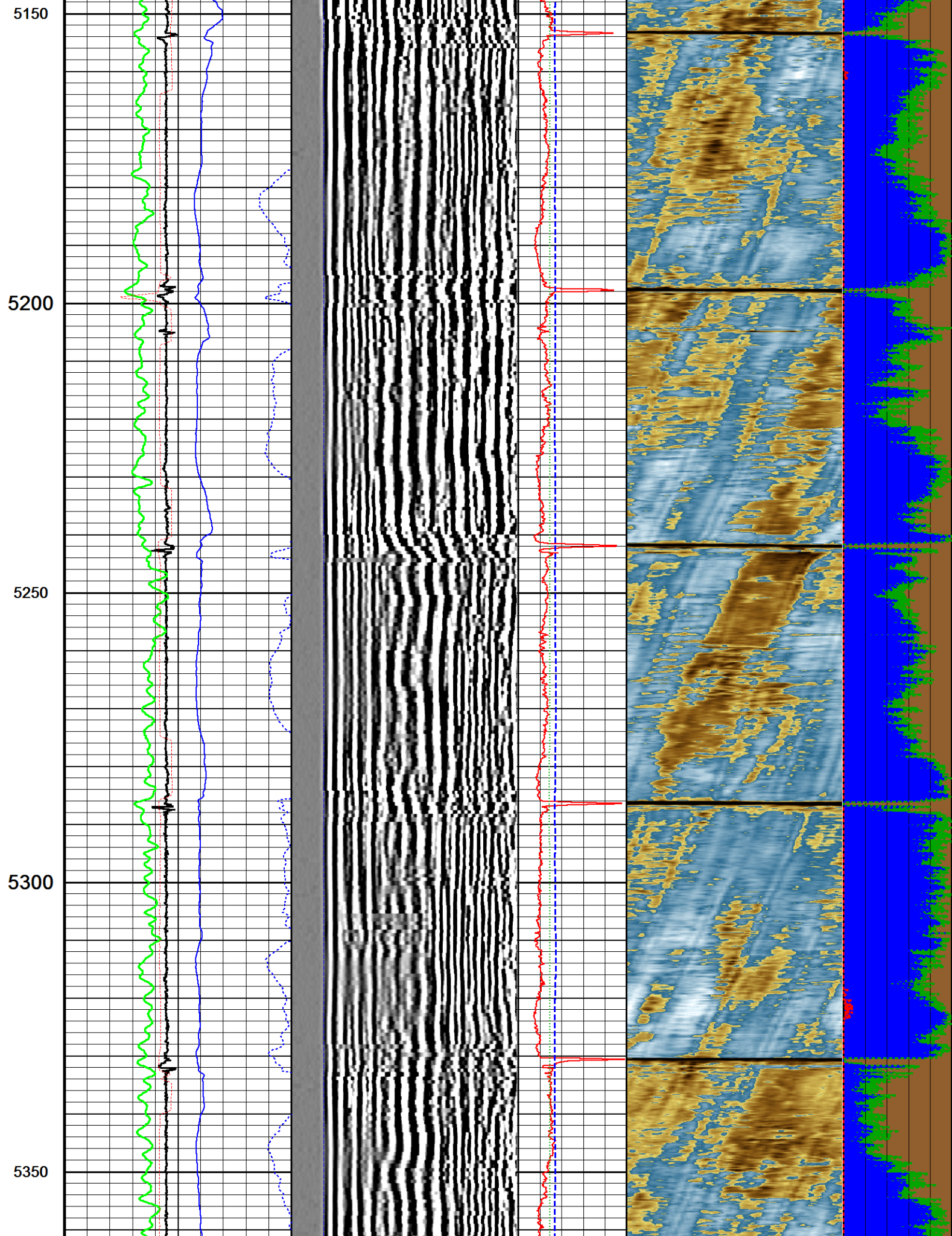










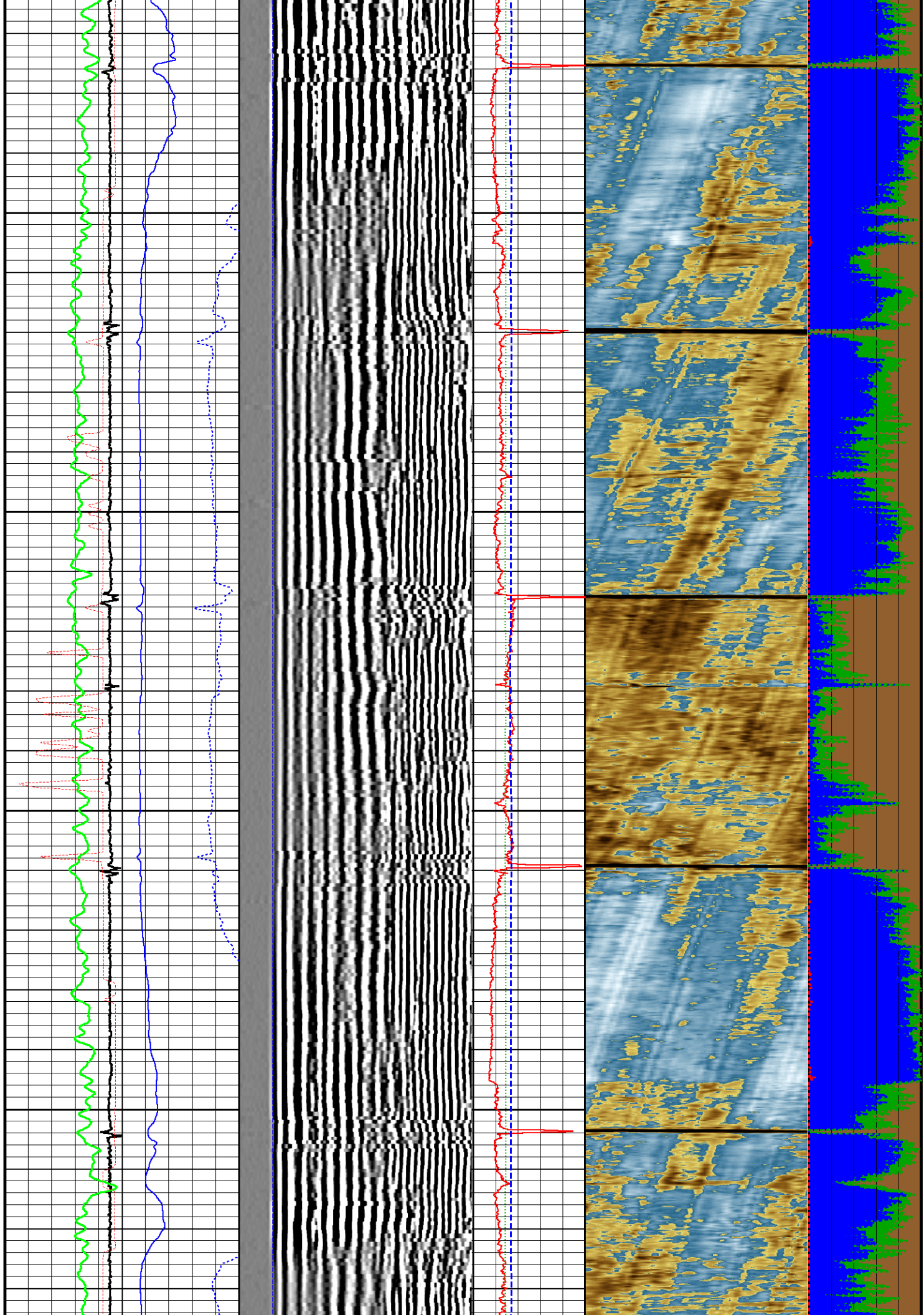


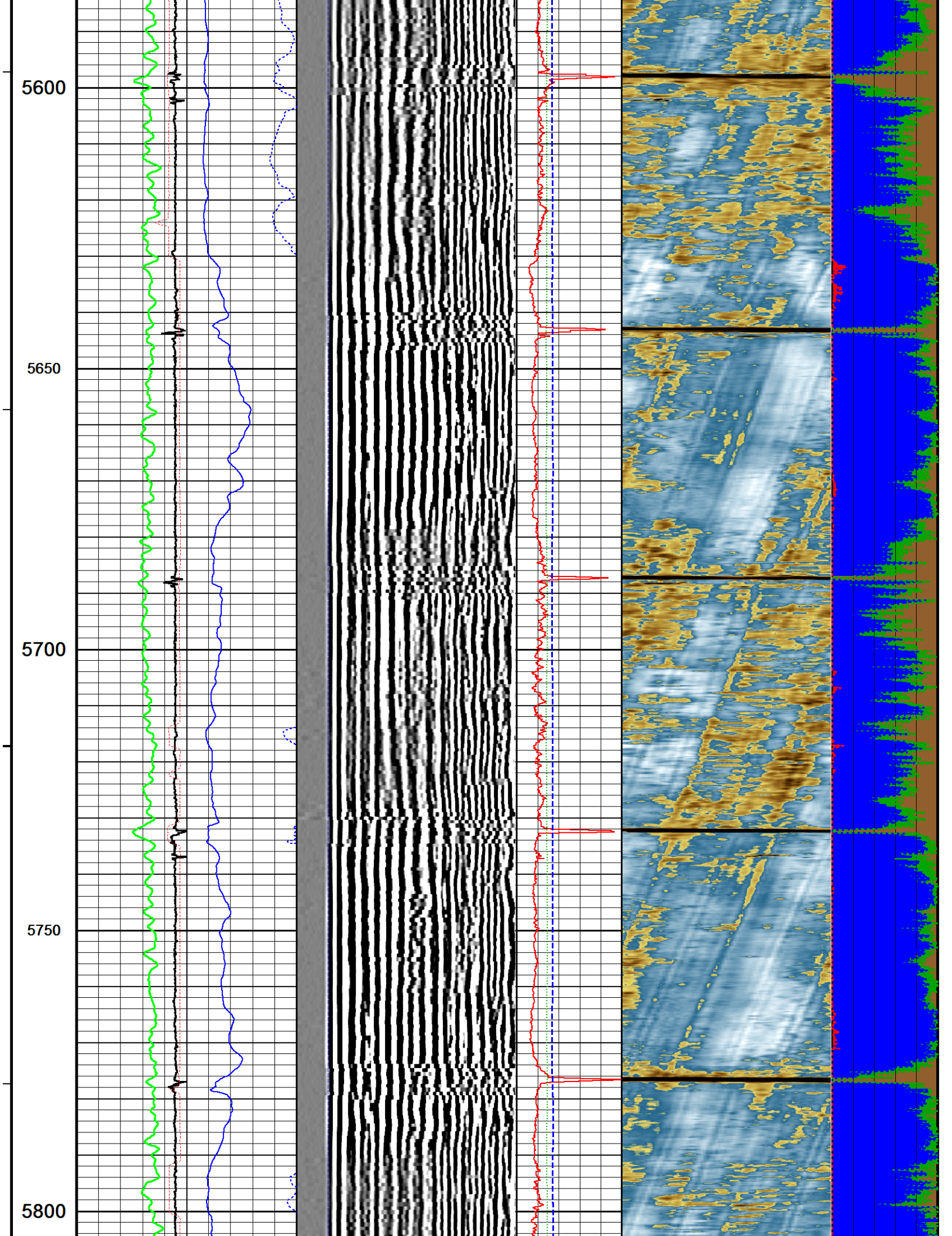
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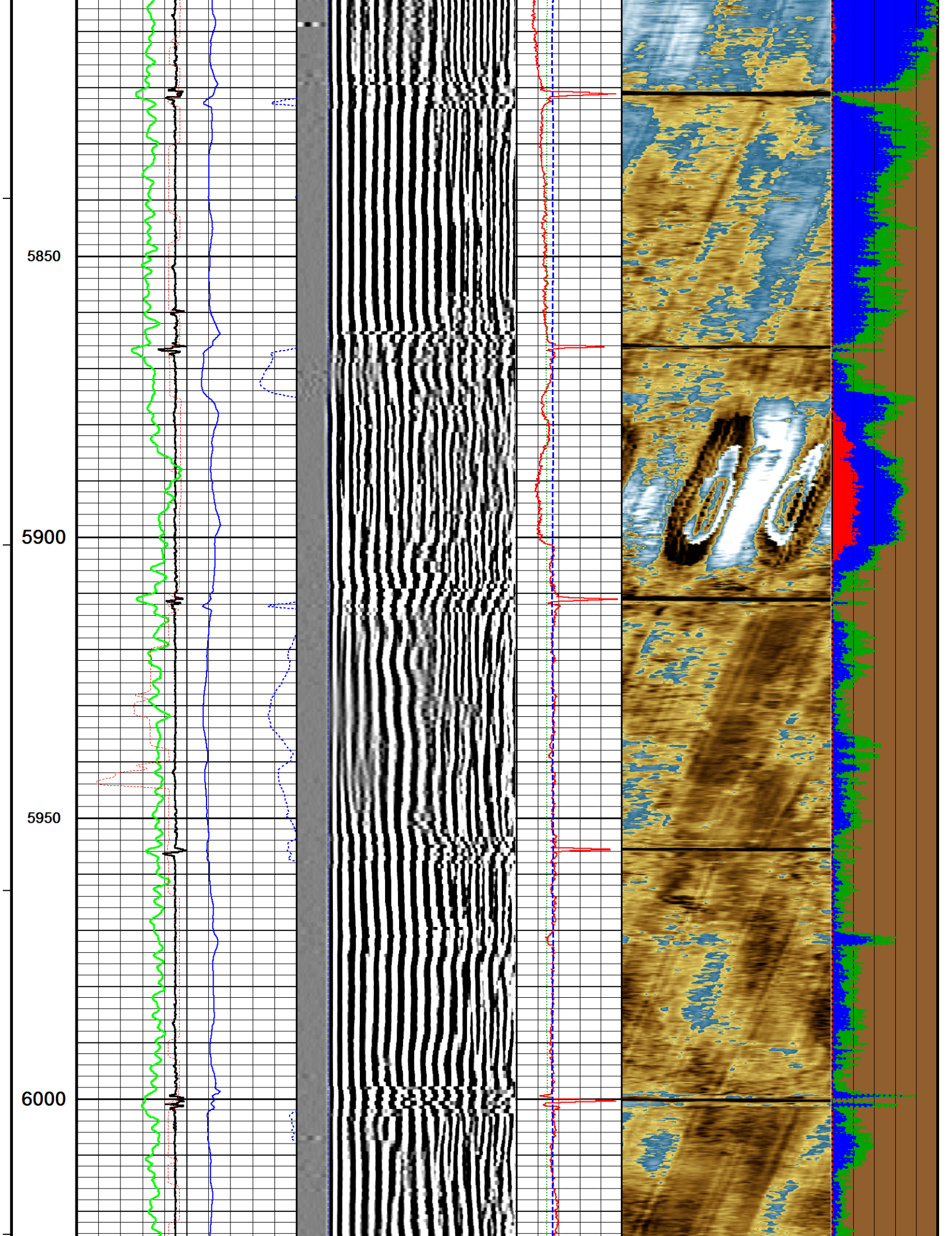
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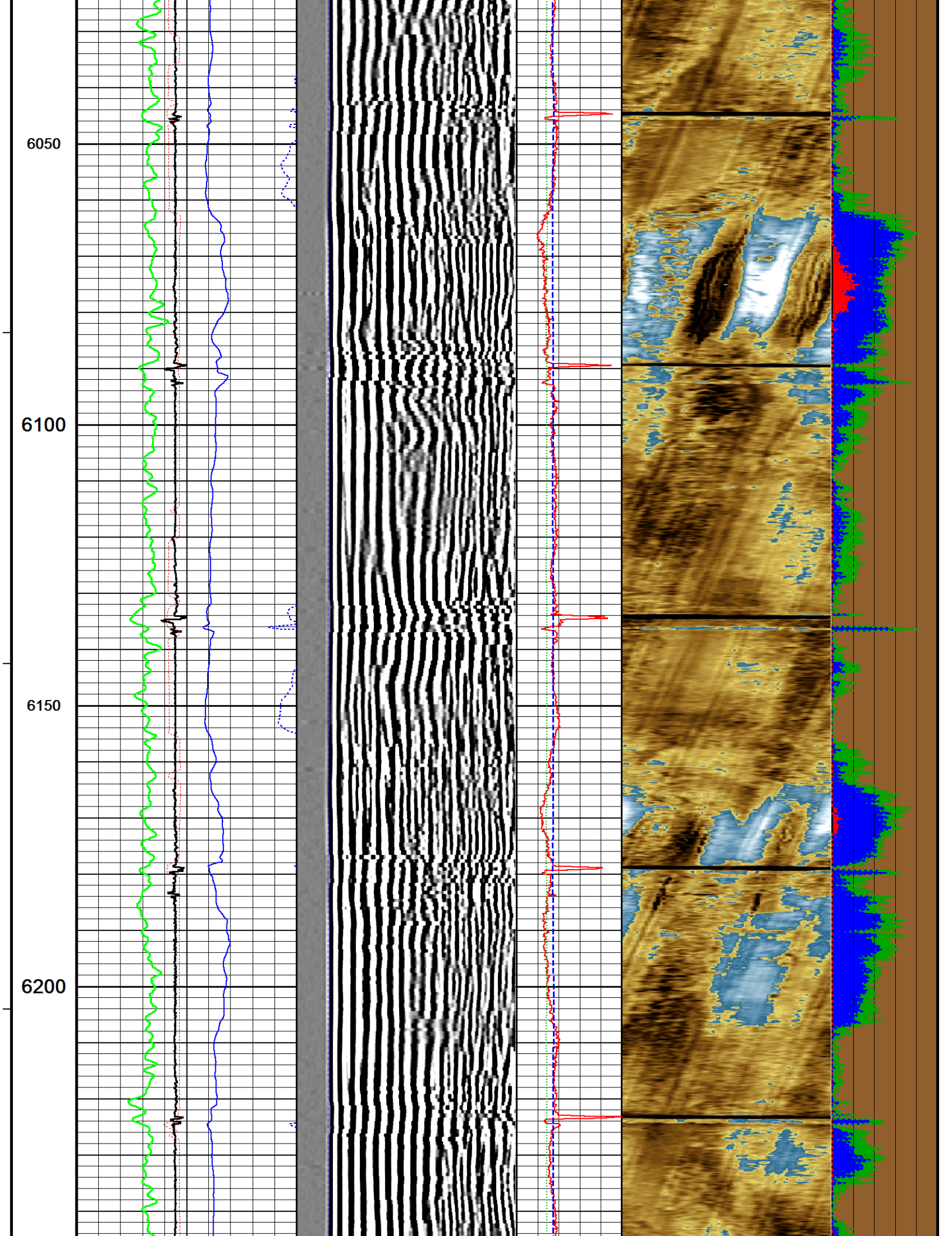
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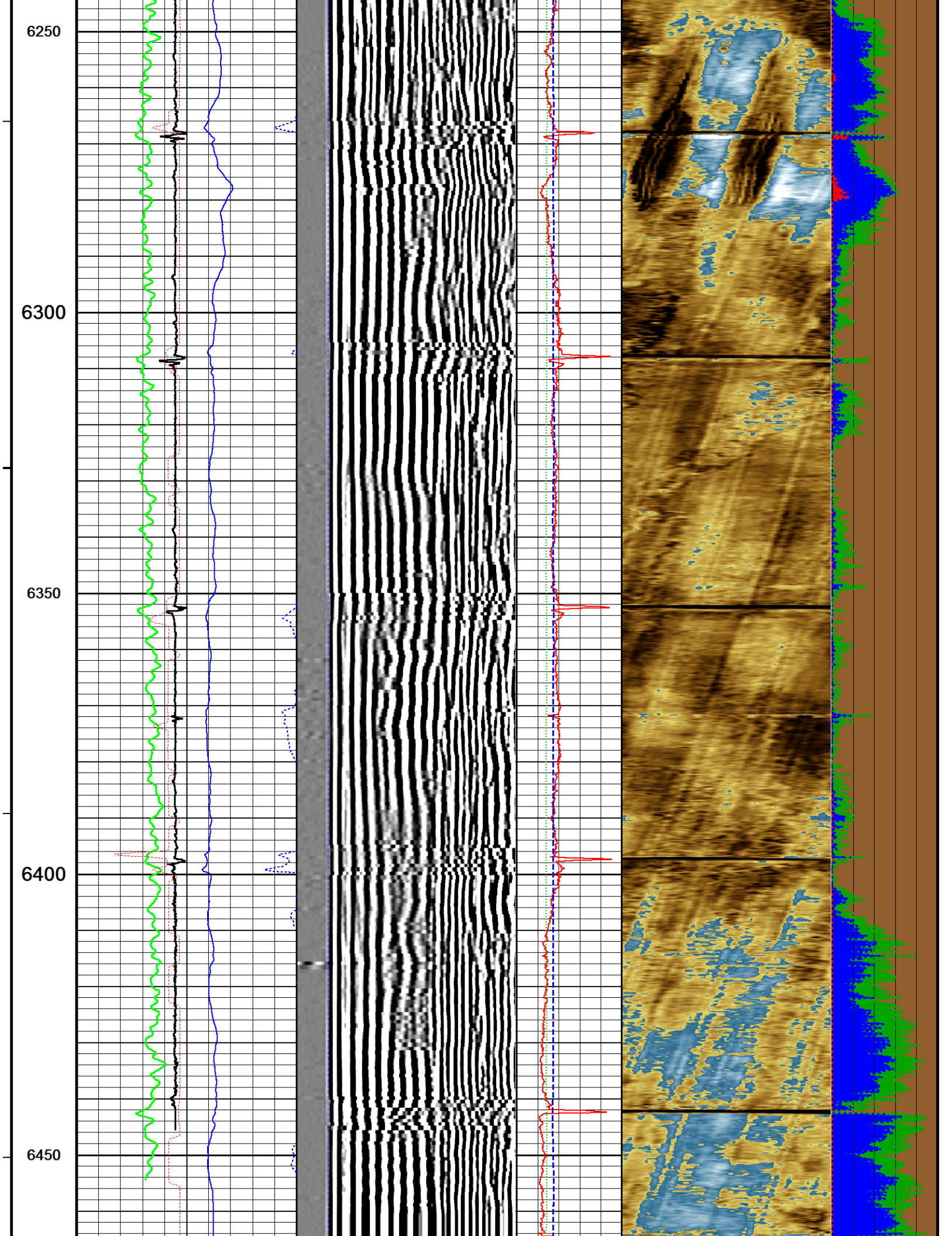
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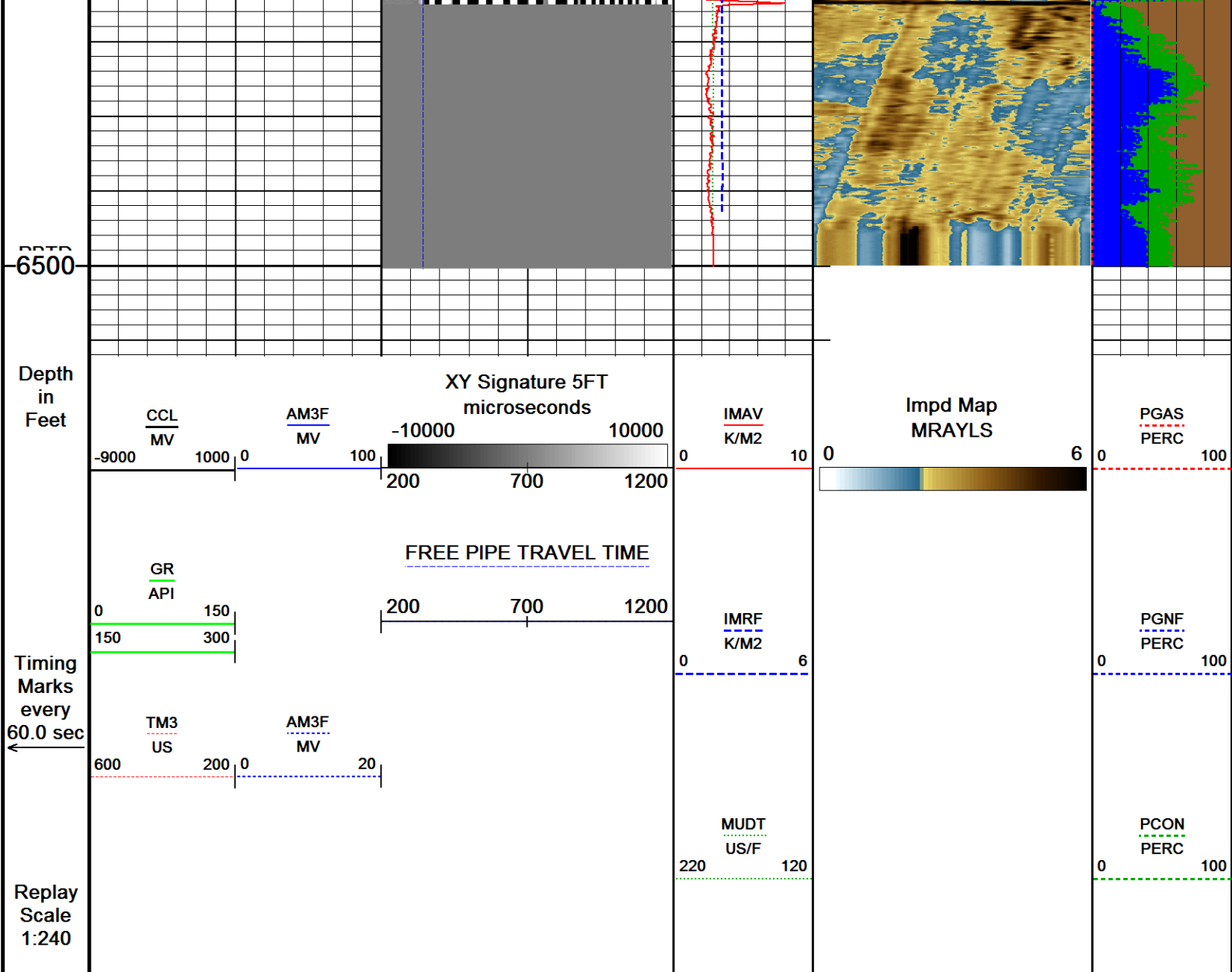












Depth Based Data - Maximum Sampling Increment 2.5cm

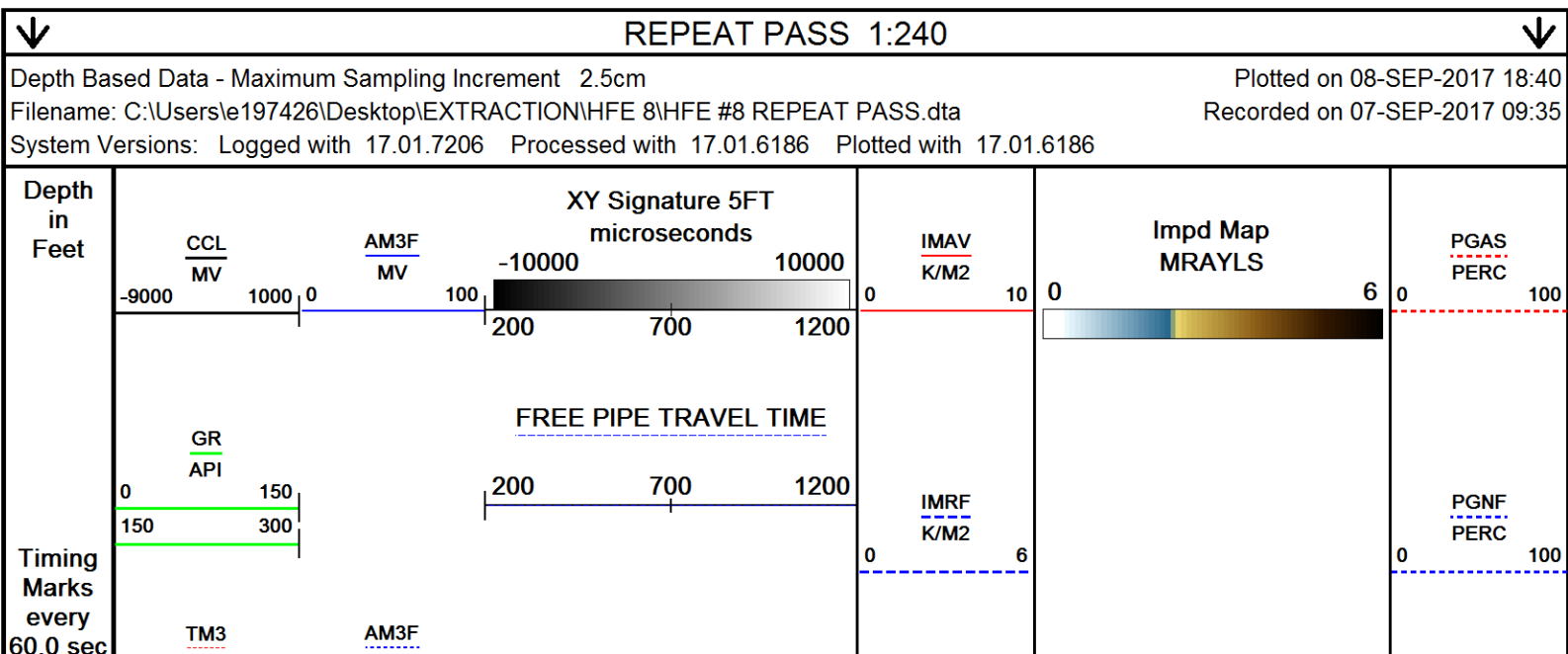
Filename: C:\Users\197426\Desktop\EXTRACTION\HFE 8\HFE #8 MAIN PASS.dta

System Versions: Logged with 17.01.7206 Processed with 17.01.6186 Plotted with 17.01.6186

Plotted on 08-SEP-2017 18:40

Recorded on 07-SEP-2017 09:42

MAIN PASS 1:240



Depth Based Data - Maximum Sampling Increment 2.5cm

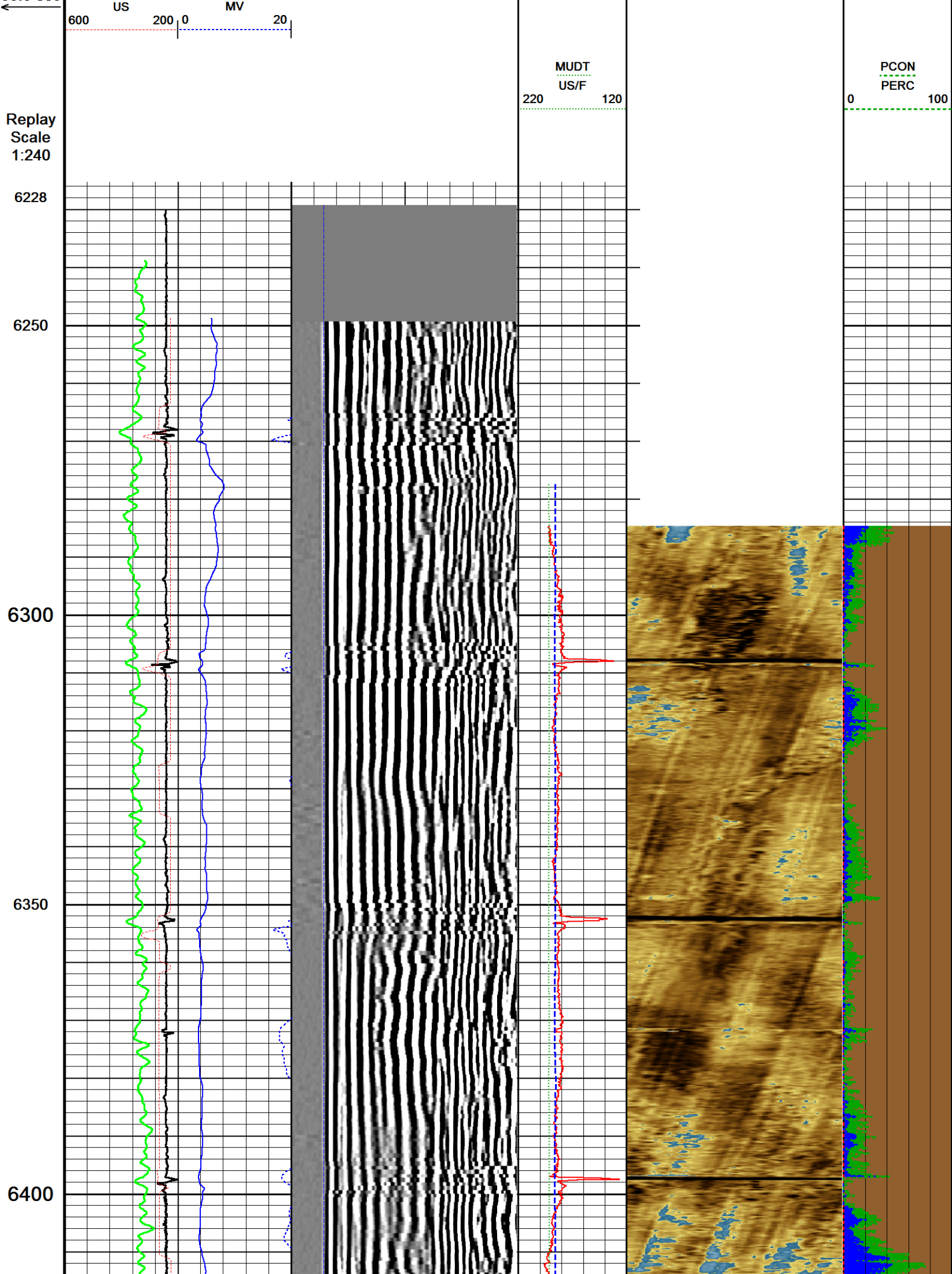
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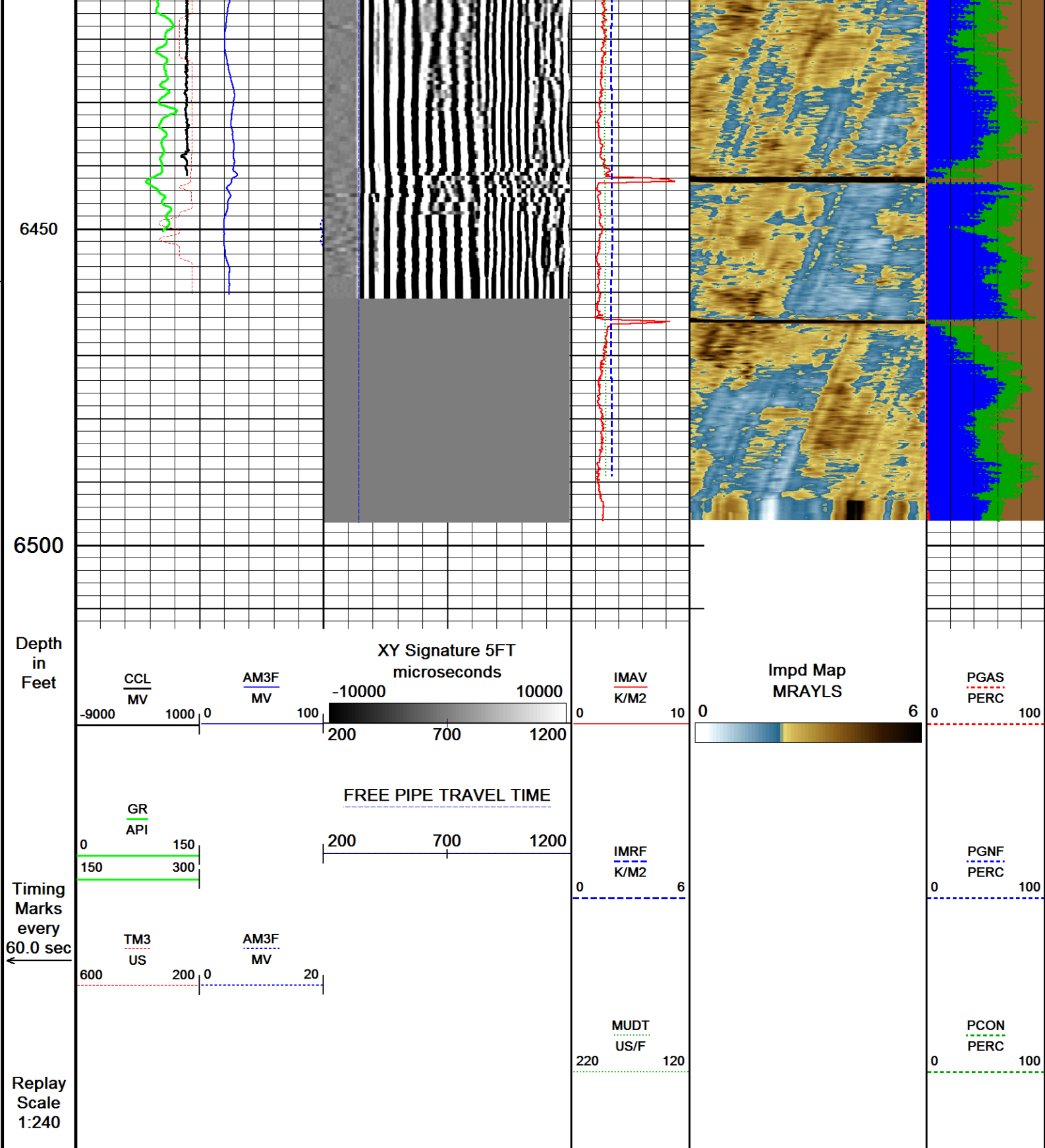
System Versions: Logged with 17.01.7206 Processed with 17.01.6186 Plotted with 17.01.6186

Plotted on 08-SEP-2017 18:40

Recorded on 07-SEP-2017 09:35

REPEAT PASS 1:240





Depth Based Data - Maximum Sampling Increment 2.5cm
Filename: C:\Users\le197426\Desktop\EXTRACTION\HFE 8\HFE #8 REPEAT PASS.dta
System Versions: Logged with 17.01.7206 Processed with 17.01.6186 Plotted with 17.01.6186
Plotted on 08-SEP-2017 18:40
Recorded on 07-SEP-2017 09:35

↑ REPEAT PASS 1:240 ↑

Field Calibration on 00-JAN-1988 00:00

Gamma Ray Field Survey Calibration

Tool Type: UGR-JD
Calibrator No:

Serial No: 118

| Background | Calibrator | Standard | Units |
|------------|------------|----------|-------|
|------------|------------|----------|-------|

| | | | |
|-----|-------|-------|-----|
| 0.0 | 389.0 | 140.0 | CPS |
|-----|-------|-------|-----|

Delta Counts Per Sec: 389.0 CPS/API = 2.779

CBT Field Calibration CBT-AA 116

Field Calibration on 00-JAN-1988 00:00

Cement Bond Tool Amplitude Field Calibration

| Tool Type | CBT-AA | Serial No | 116 |
|-----------|--------|-----------|-----|
|-----------|--------|-----------|-----|

Free Pipe Depth

| Sensor | Description | Standard(mv) | Measured(mv) |
|----------|-------------|--------------|--------------|
| AMP 3 FT | 100 % Bond | 9.20 | 0.00 |
| | Free Pipe | 72.00 | 736.50 |
| AMP 5 FT | 100 % Bond | 2.00 | 0.00 |
| | Free Pipe | 48.00 | 549.60 |

CBT Constants CBT-AA 116

Last Edited on 07-SEP-2017 09:42

| | |
|----------------------|------------|
| Min Ampl 100% Bond | 9.20 MV |
| Max Ampl 0% Bond | 72.00 MV |
| Cement Cmpr Strength | 580 PSI |
| Casing Size | 5.50 IN |
| Casing Weight | 20.0 LB/F |
| Casing Velocity | 57.00 US/F |
| DT Fluid | 200.0 US/F |
| Maximum Attenuation | 12.00 DB/F |
| 3' TT Correction | -999.3 US |
| Cement Weight | 0.00 LB/G |

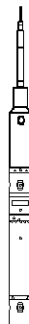
DOWNHOLE EQUIPMENT

C:\Users\le197426\Desktop\EXTRACTION\HFE 8\HFE #8 MAIN PASS.dta

Mono-Cablehead
MCH-AA 0 LG: 1.03 ft WT: 2.2 lb OD: 1.457 in

Crossover 1-pin to 55-pin for WCC-D
XOV-WC 128 LG: 1.05 ft WT: 15.4 lb OD: 3.386 in

Swivel Head 55 pin
SWH-CC 173 LG: 2.72 ft WT: 77.2 lb OD: 3.346 in



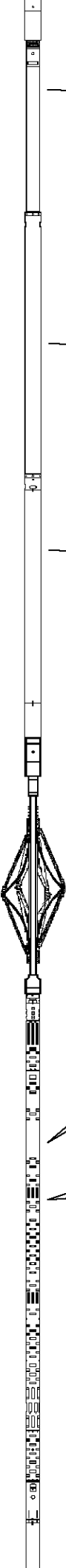
Casing Collar Locator, 55 pin
CCL-WA 197 LG: 3.01 ft WT: 19.8 lb OD: 2.756 in

Communication Cartridge 55pin 3-3/8in
WCC-DA 141 LG: 4.60 ft WT: 63.9 lb OD: 3.386 in

Gamma Ray
UGR-JD 118 LG: 4.60 ft WT: 81.6 lb OD: 3.386 in

55 pin Roller Centralizer
CEN-XA 185 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

Cement Bond Tool
CBT-AA 116 LG: 10.75 ft WT: 163.1 lb OD: 3.386 in



55.14 ft CCL - Collar Locator

50.67 ft INCL - INCLINATION

47.05 ft GR - Gamma Ray

36.70 ft AM3F - Amplitude 3FT

36.70 ft TM3 - Travel Time 3FT

35.70 ft TM5 - Travel Time 5FT

35.70 ft XY5 - XY Signature 5FT

55 pin Roller Centralizer
CEN-XA 186 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

Flexible Joint, URS, 55 Pin
FTP-FA 131 LG: 4.35 ft WT: 90.4 lb OD: 3.386 in

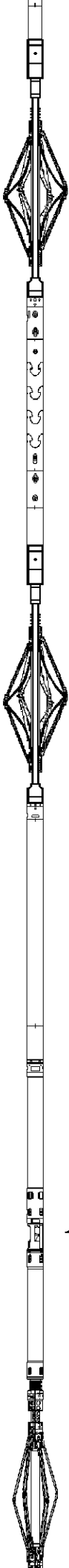
55 pin Roller Centralizer
CEN-XA 222 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

URS Electronics Cartridge
UCC-AA 191 LG: 4.51 ft WT: 79.4 lb OD: 3.386 in

URS Sonde Section
USS-AB 173 LG: 9.65 ft WT: 167.6 lb OD: 3.386 in

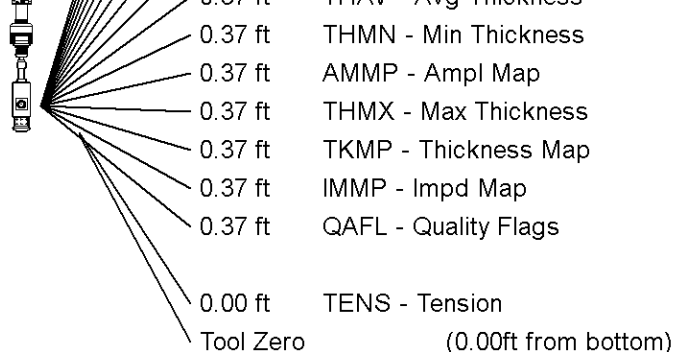
Ultrasonic Radial Scanner Head A
USH-AB 136 LG: 1.03 ft WT: 13.2 lb OD: 3.386 in

Total Length: 60.78 ft Weight: 1031.8 lb



7.65 ft IMRF - Mud Impedance
7.65 ft MUdT - Mud Slowness

0.37 ft ARMX - Max Area
0.37 ft ARAV - Avg Area
0.37 ft IMMX - Max Impedance
0.37 ft IMAV - Avg Impedance
0.37 ft IMMN - Min Impedance
0.37 ft ECCE - Eccentering
0.37 ft OVLI - ID Ovality
0.37 ft DIMX - Max Diameter
0.37 ft DIAV - Avg Diameter
0.37 ft DIMN - Min Diameter
0.37 ft THAV - Avg Thickness



All measurements relative to tool zero.

| | |
|-----------------|--------------------------|
| COMPANY | EXTRACTION OIL & GAS |
| WELL | HFE #8 |
| FIELD | WATTENBERG |
| PROVINCE/COUNTY | WELD |
| COUNTRY/STATE | UNITED STATES / COLORADO |

| | | | | | |
|-------------------------|------|------|---------------------|---------|------|
| Elevation Kelly Bushing | 4946 | feet | Bottom Log Interval | 6500.00 | feet |
| Elevation Drill Floor | | feet | Depth Driller | | feet |
| Elevation Ground Level | 4918 | feet | Depth Logger | 6500.00 | feet |



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 ULTRAVIEW / BONDVIEW
 CEMENT ANALYSIS LOG

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