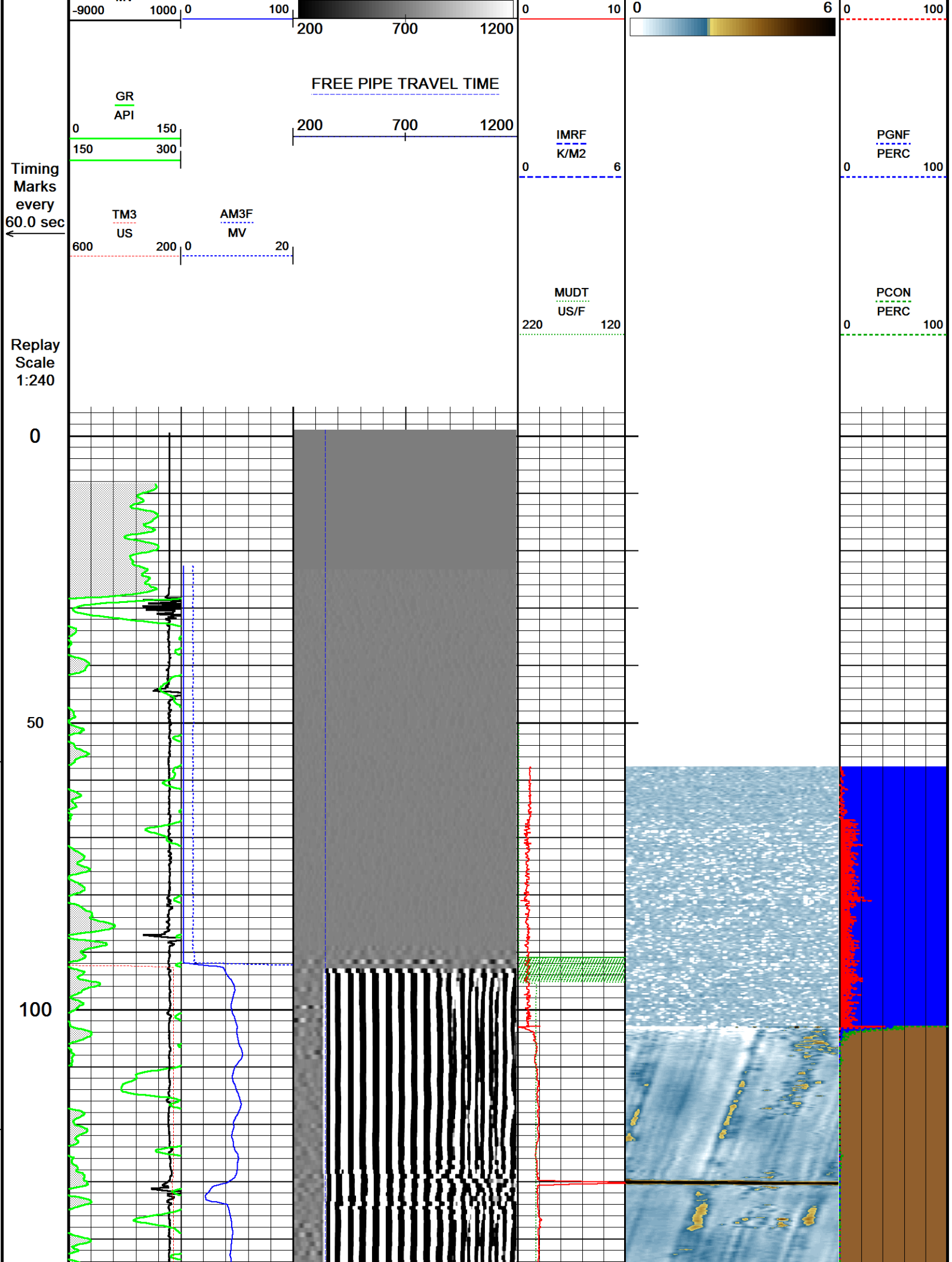
 Weatherford®				SECUREVIEW ULTRAVIEW/BONDVIEW CEMENT ANALYSIS			
COMPANY WELL FIELD PROVINCE/COUNTY COUNTRY/STATE LOCATION				EXTRACTION OIL & GAS LEONARD 3N WATTENBERG WELD USA / COLORADO			
SEC 21	TWP 2N	RGE 67W	Other Services		Elevations: KB 5032.00 DF 5032.00 GL 5004.00		
Latitude							
Longitude							
API Number		051234504900					
Permanent Datum GROUND LEVEL, Elevation 5004 feet Log Measured From KB, 28 feet above Permanent Datum Drilling Measured From KB							
Date	07-OCT-2017		PERFORATION RECORD				
Run Number	ONE	Shot	Number	Depth From	Depth To		
Service Order	TBD	Density	of Shots	feet	feet		
Type Log	URS/CBT						
Depth Driller	12120.00						
Depth Logger	6800.00						
Top Log Interval	0.00						
Bottom Log Interval	6800.00						
Hole Fluid Type	WATER						
Hole Fluid Level	0.00						
Restriction ID	4.653	inches	Gun Type				
Max Recorded Temp			Gun Size				
Well Head Pressure	0.00	psi	CASING / TUBING RECORD				
Well Head Equipment		Size	Weight	Depth From	Depth To		
Time Well Ready	ROA	inches	pounds/ft	feet	feet		
Time Logger Bottom	SEE LOG	5.500	20.00	0.00	12120.00		
Unit	14115						
Equipment Name	WSS-E						
Base	CASPER						
Recorded By	P. MAZUR						
Witnessed By							

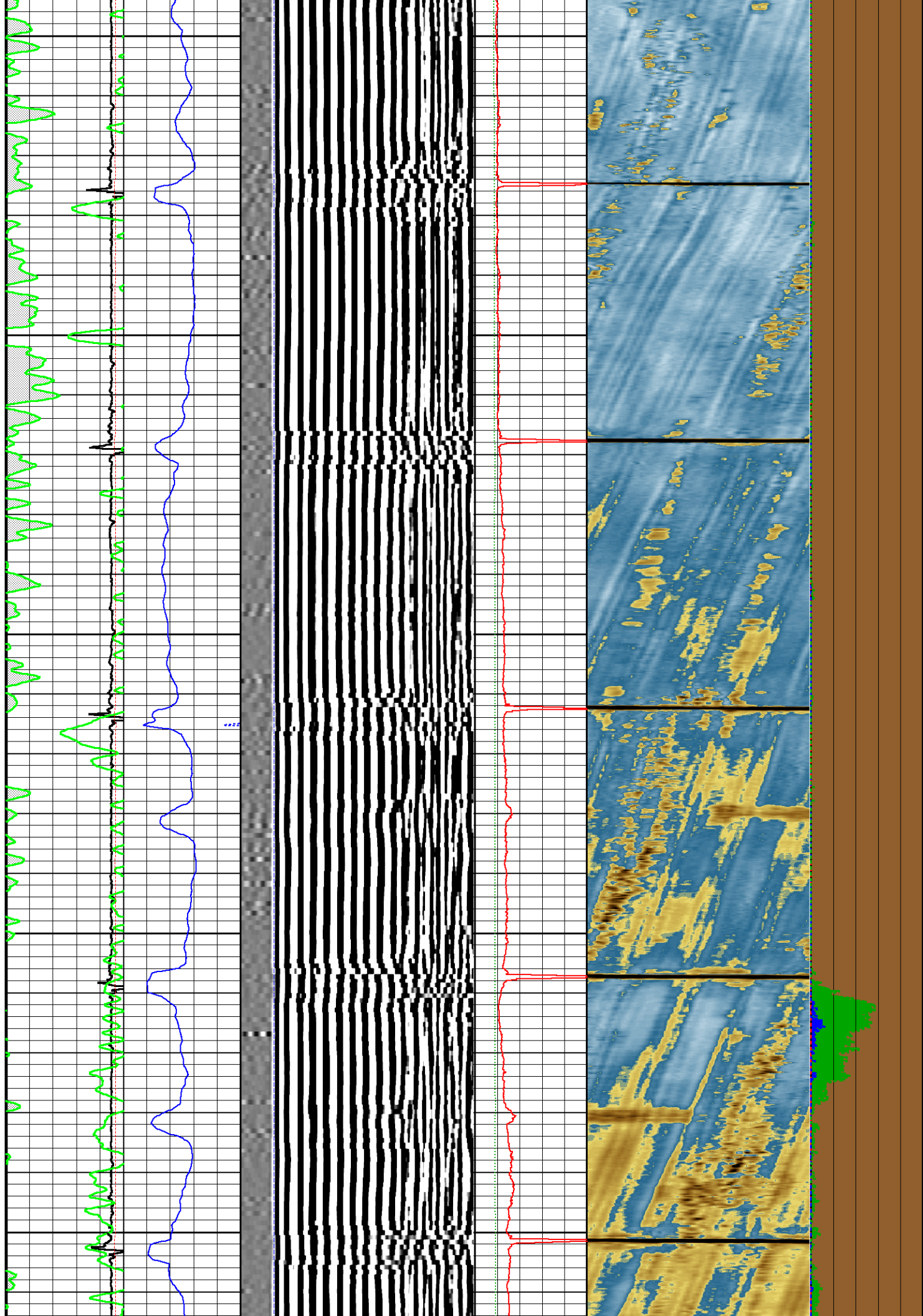
CASING / TUBING RECORD						
Type	Grade	TypeJoint	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
CASING	P 110	LTC	5.500	0.00	12120.00	20.00

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.

MAIN PASS 1:240						
Depth Based Data - Maximum Sampling Increment 2.5cm					Plotted on 08-OCT-2017 12:30	
Filename: C:\Logs\Extraction\LEONARD 3N\LEONARD 3N MAIN URS FINAL.dta					Recorded on 08-OCT-2017 12:13	
System Versions: Logged with 16.05.3841 Plotted with 16.05.3841						
Depth in Feet	XY Signature 5FT microseconds			IMAV K/M2	Impd Map MRAYLS	PGAS PERC
	CCL MV	AM3F MV	-10000 10000			



150
200
250
300
350

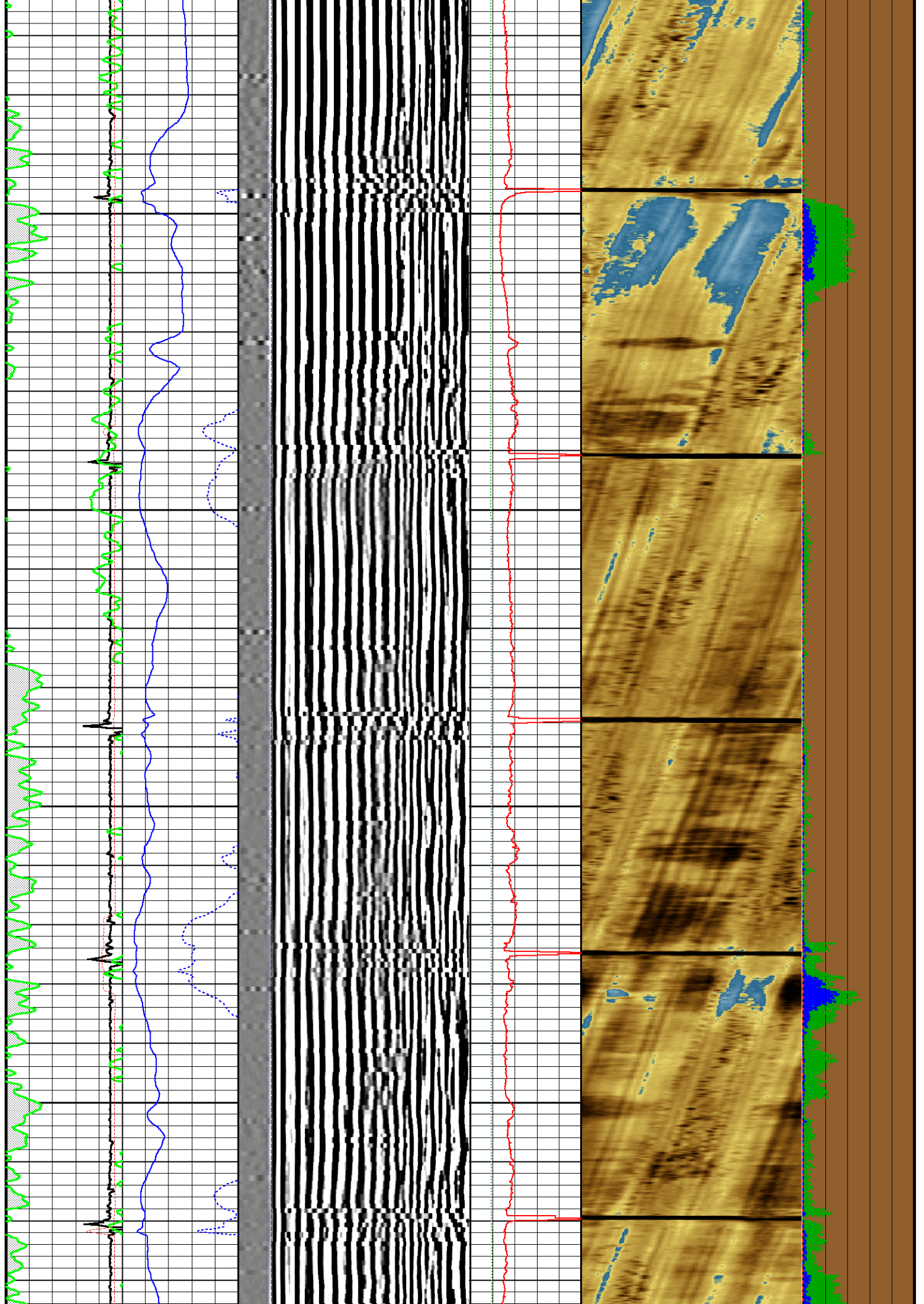


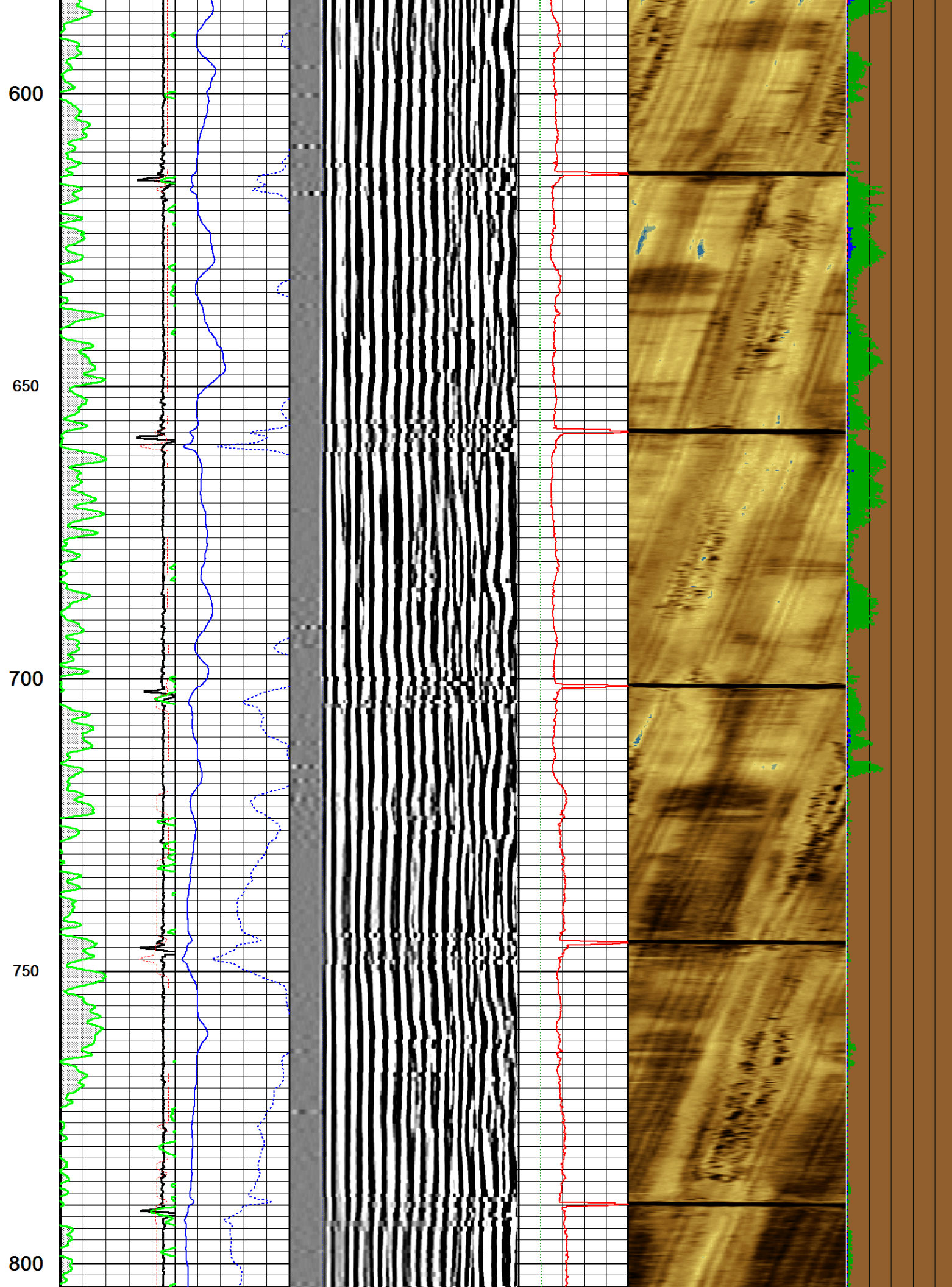
400

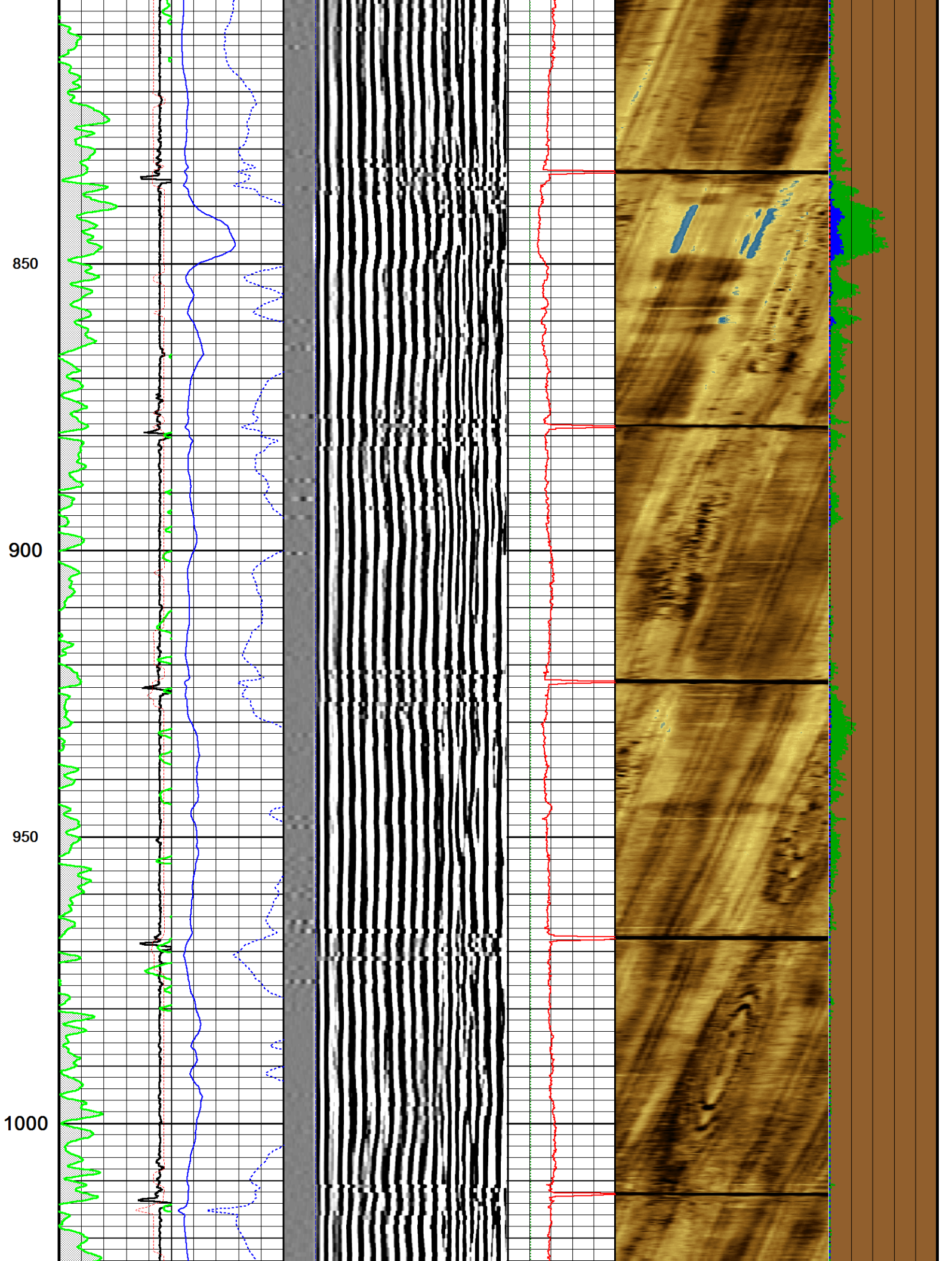
450

500

550





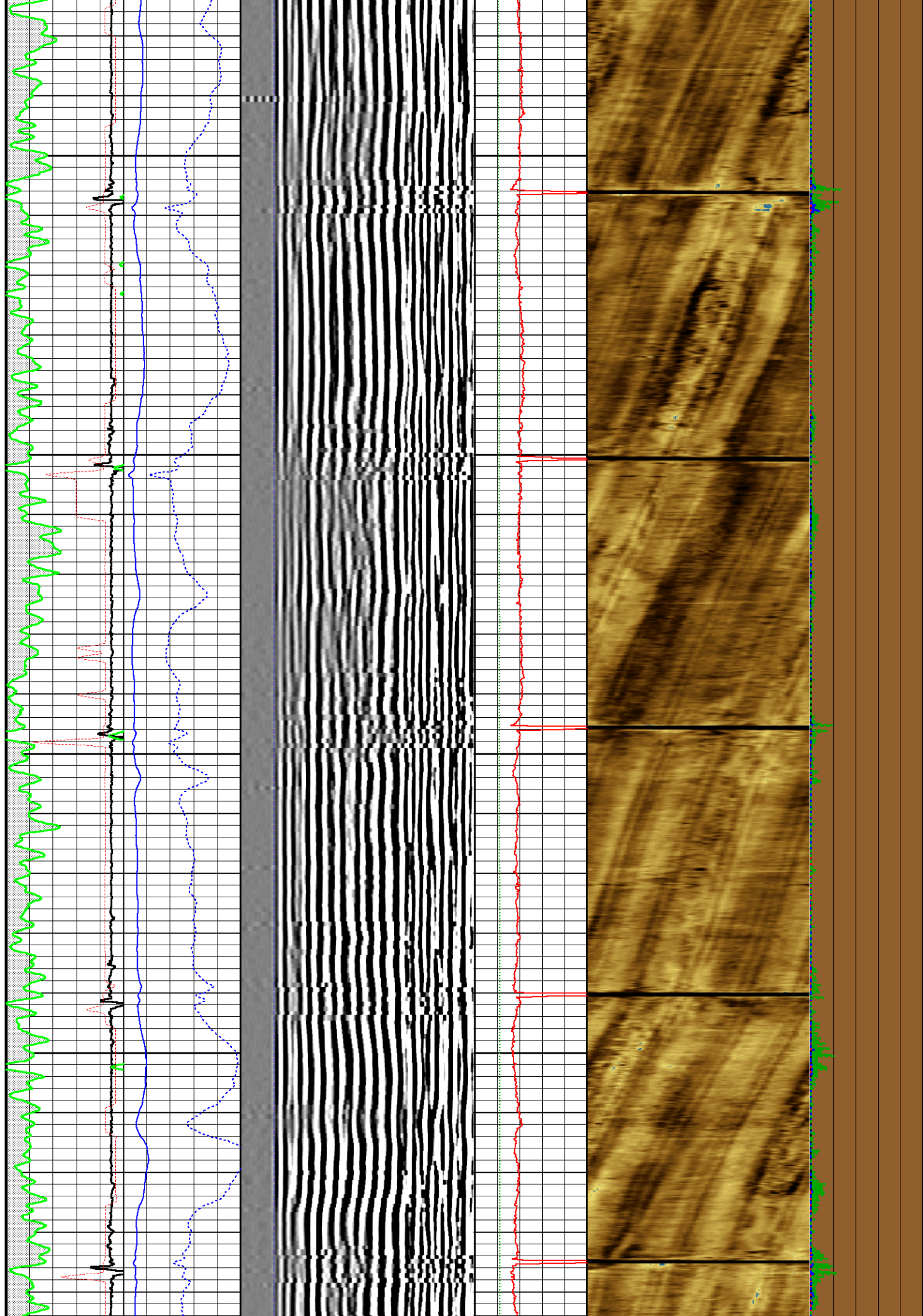


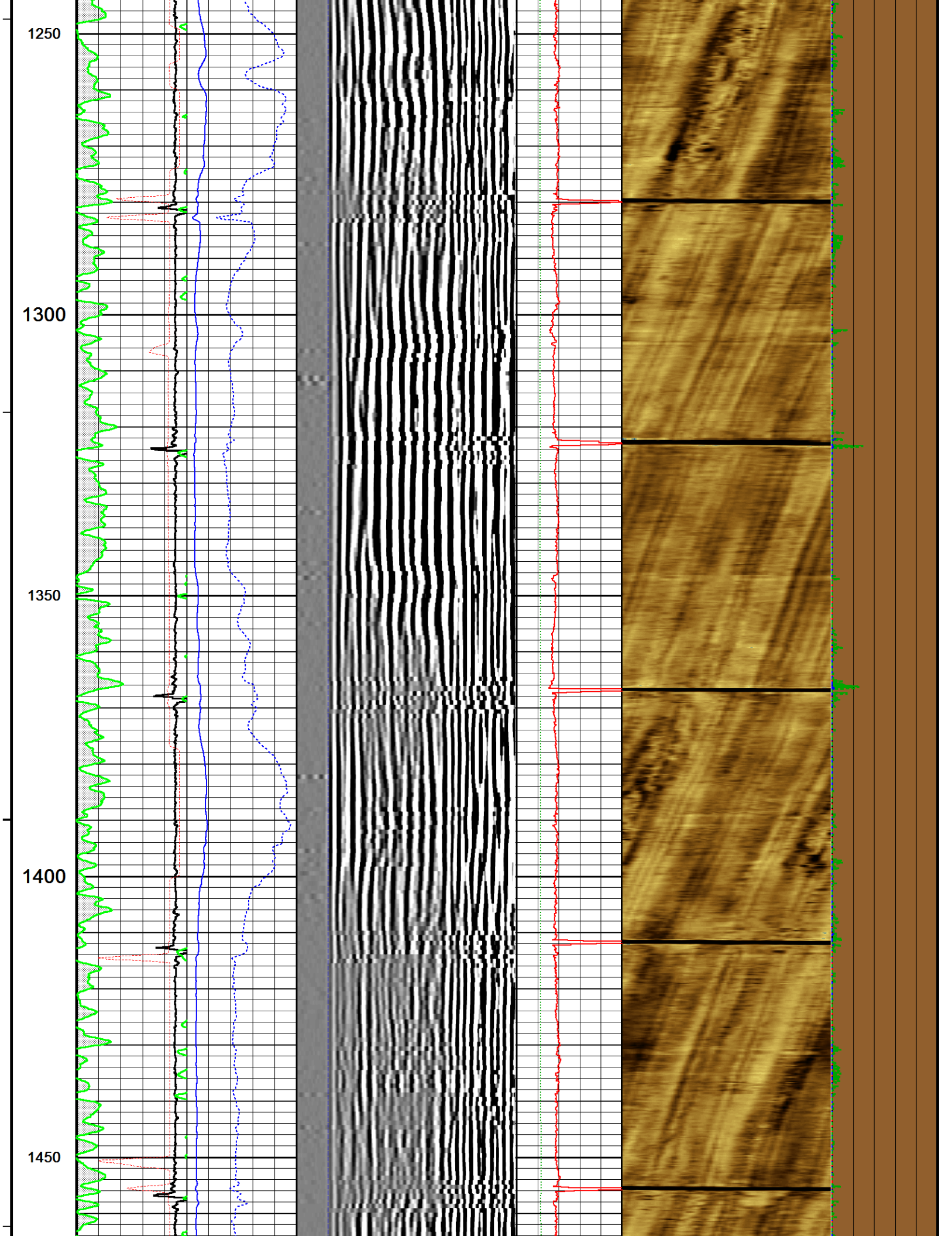
1050

1100

1150

1200



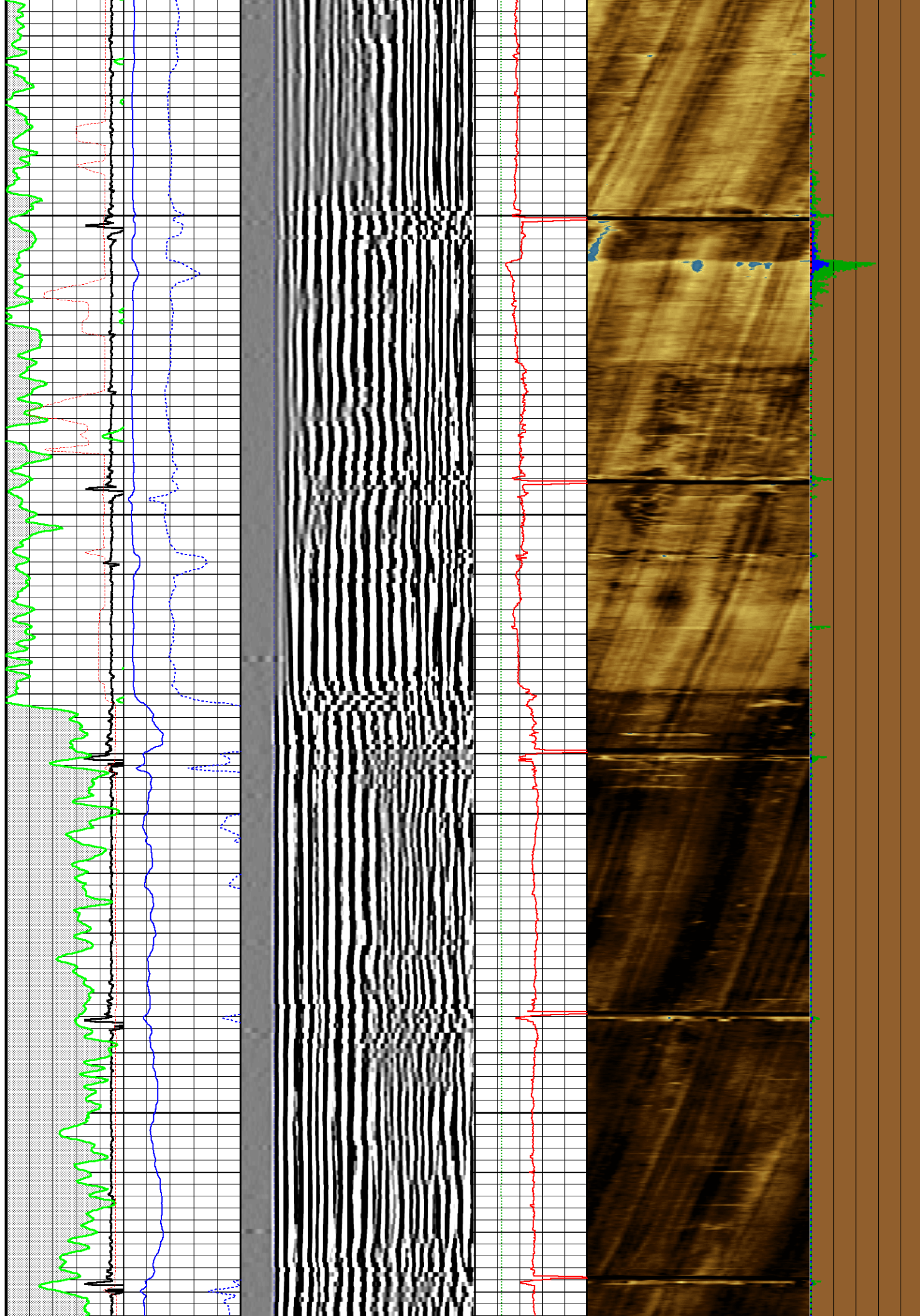


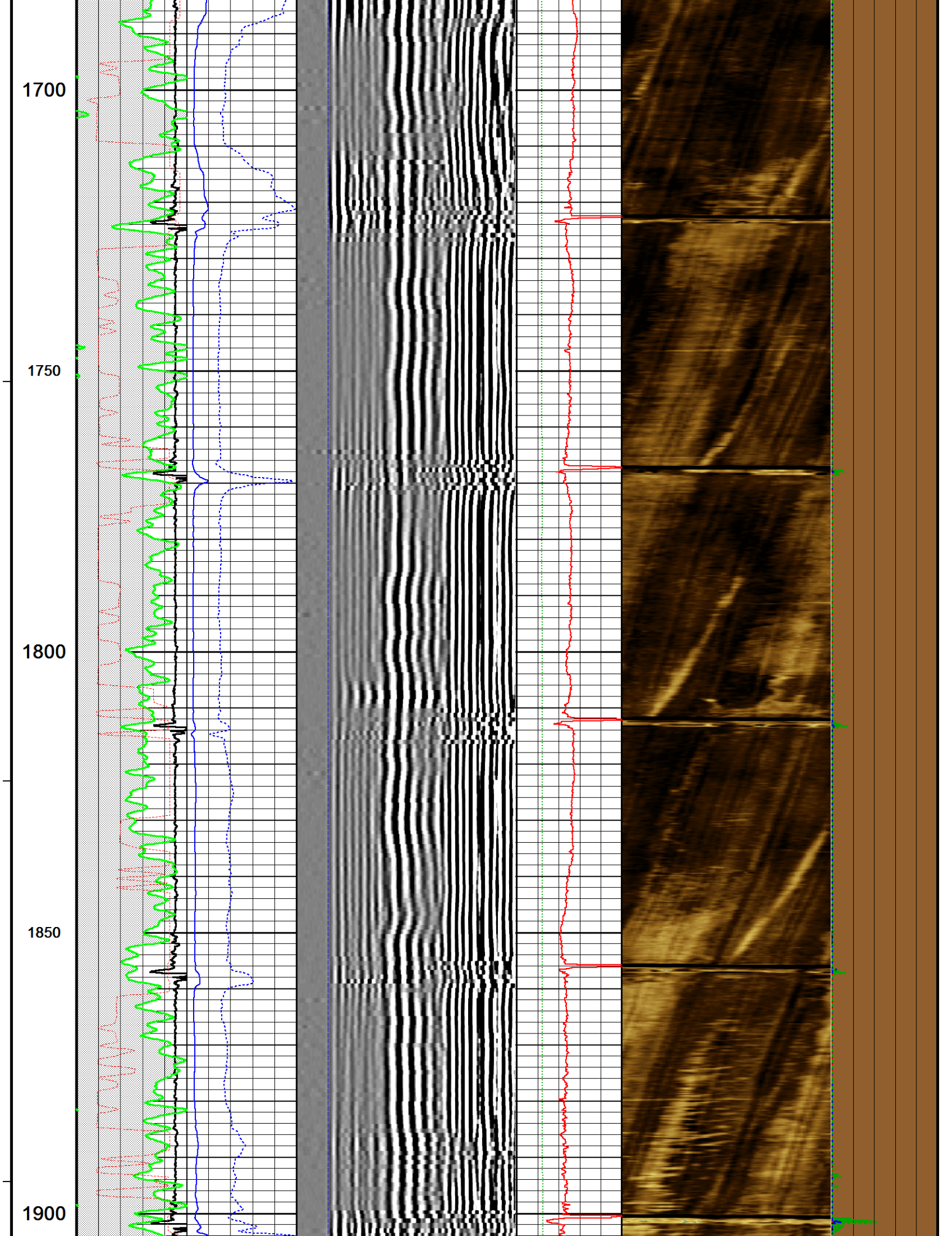
1500

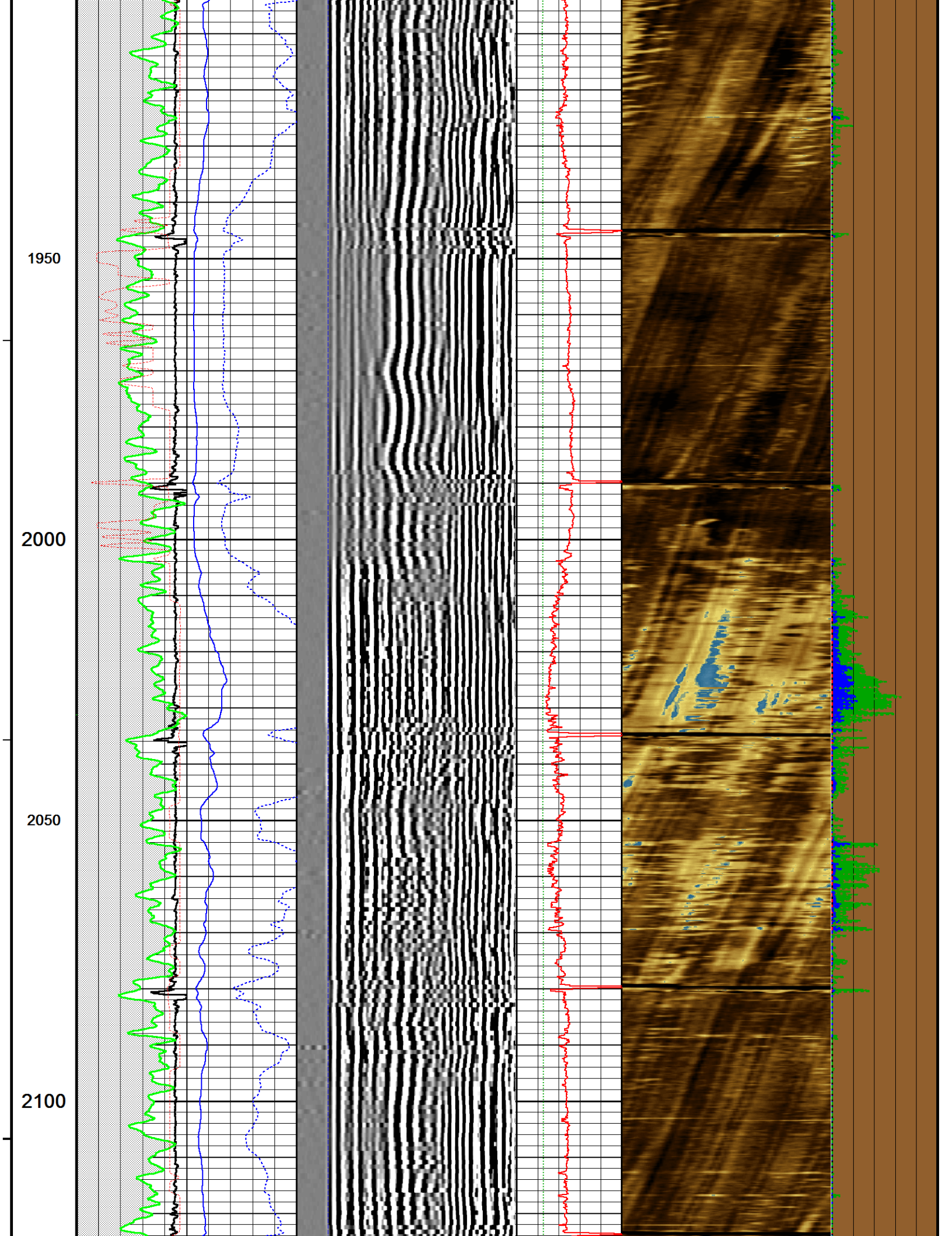
1550

1600

1650





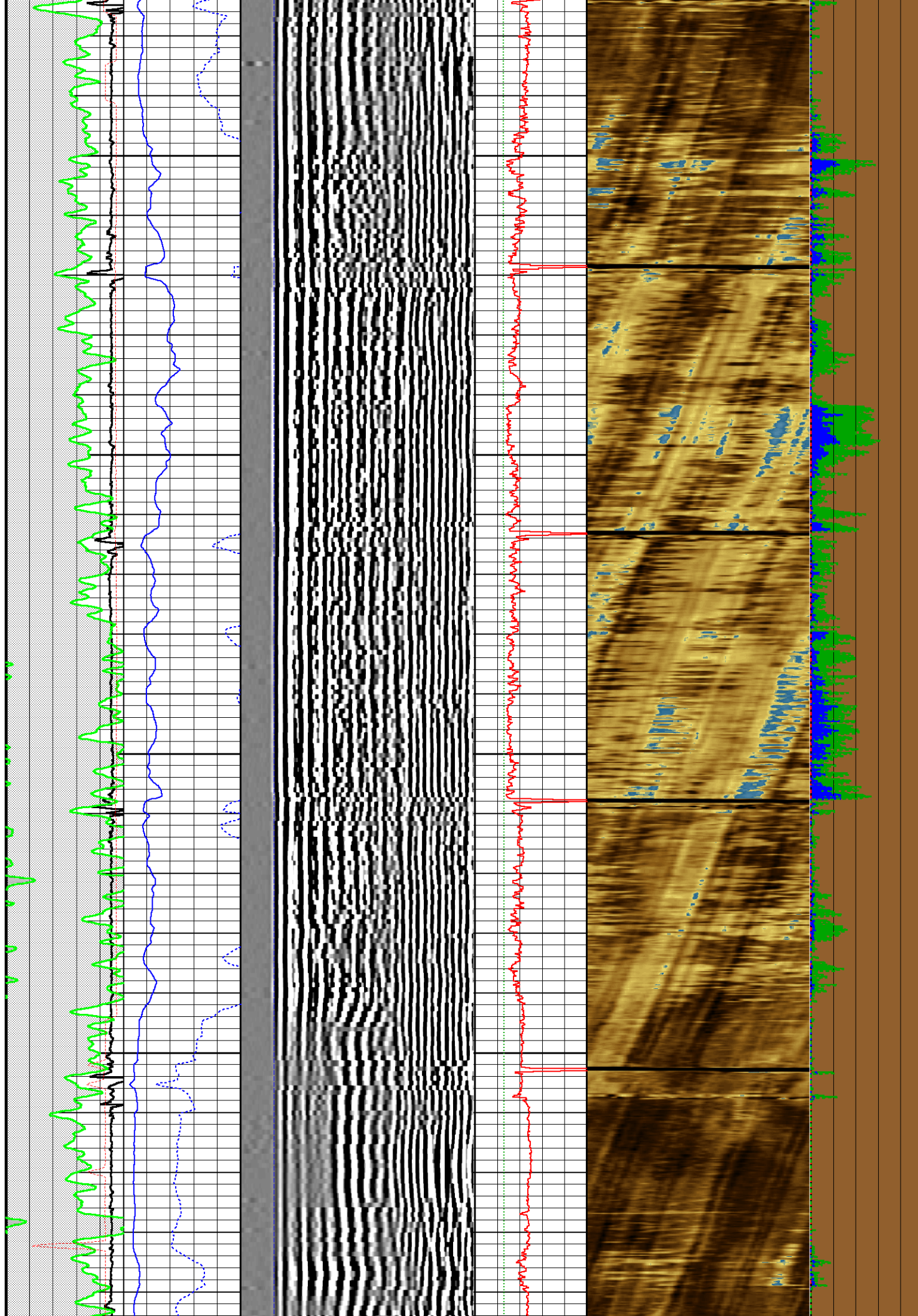


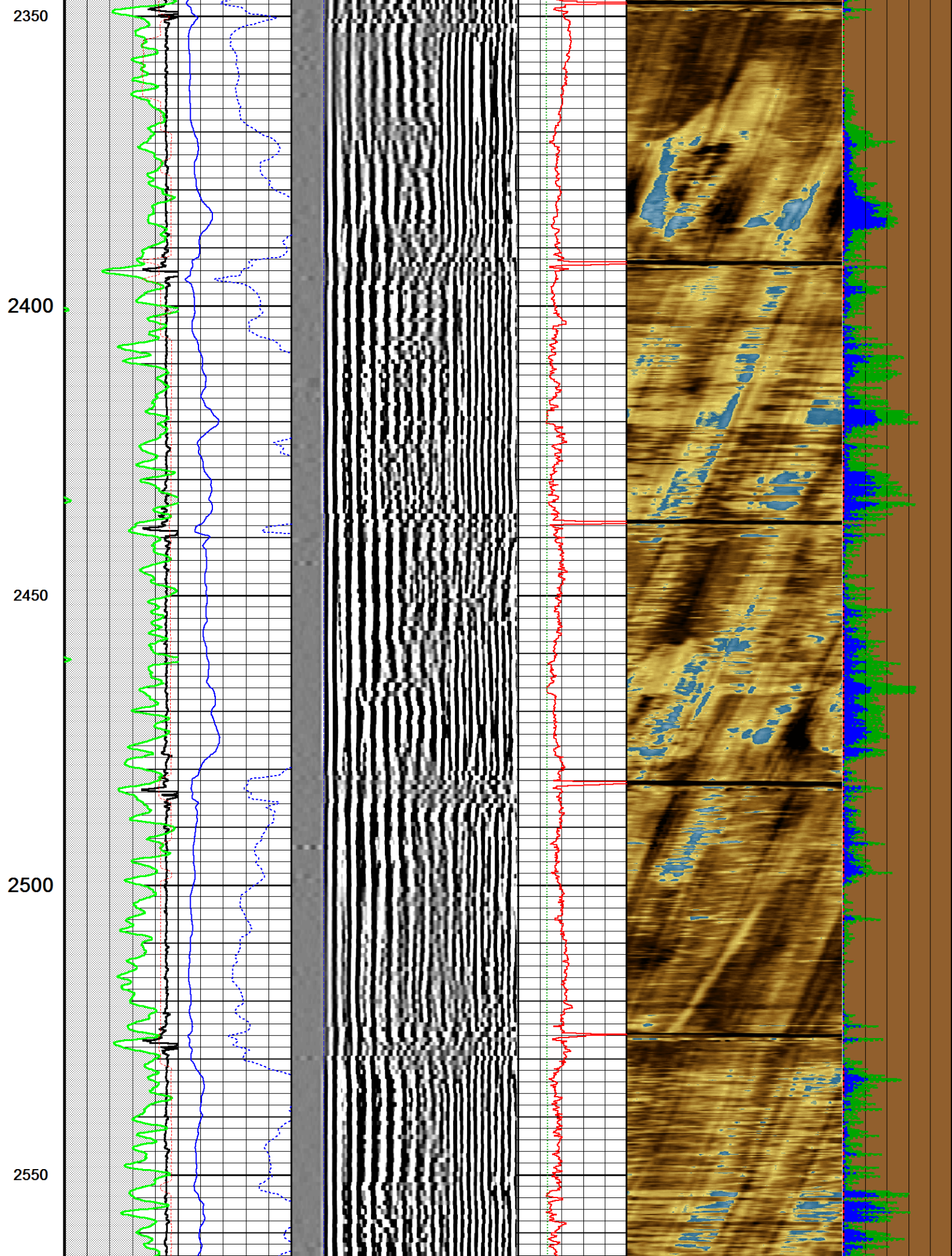
2150

2200

2250

2300



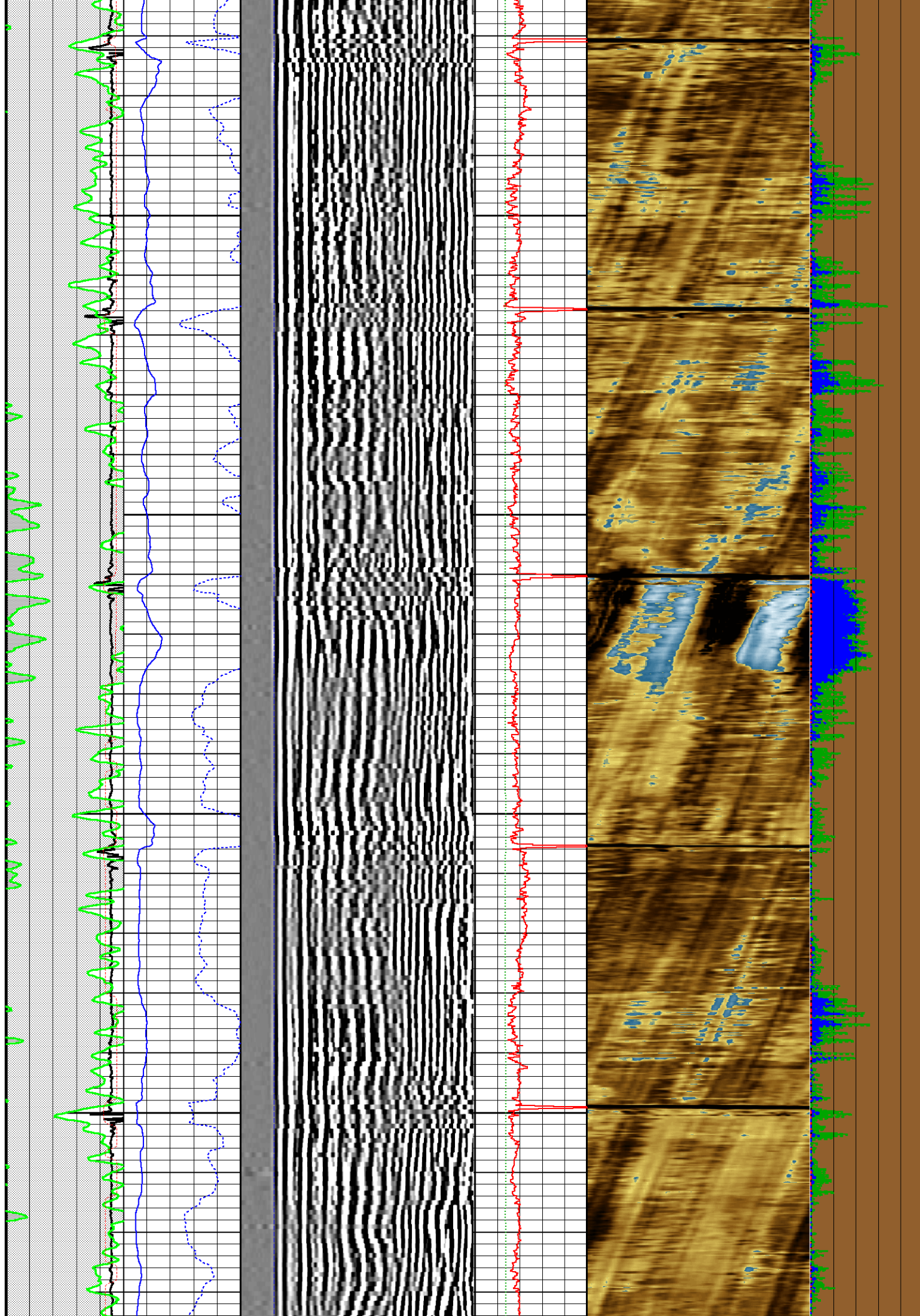


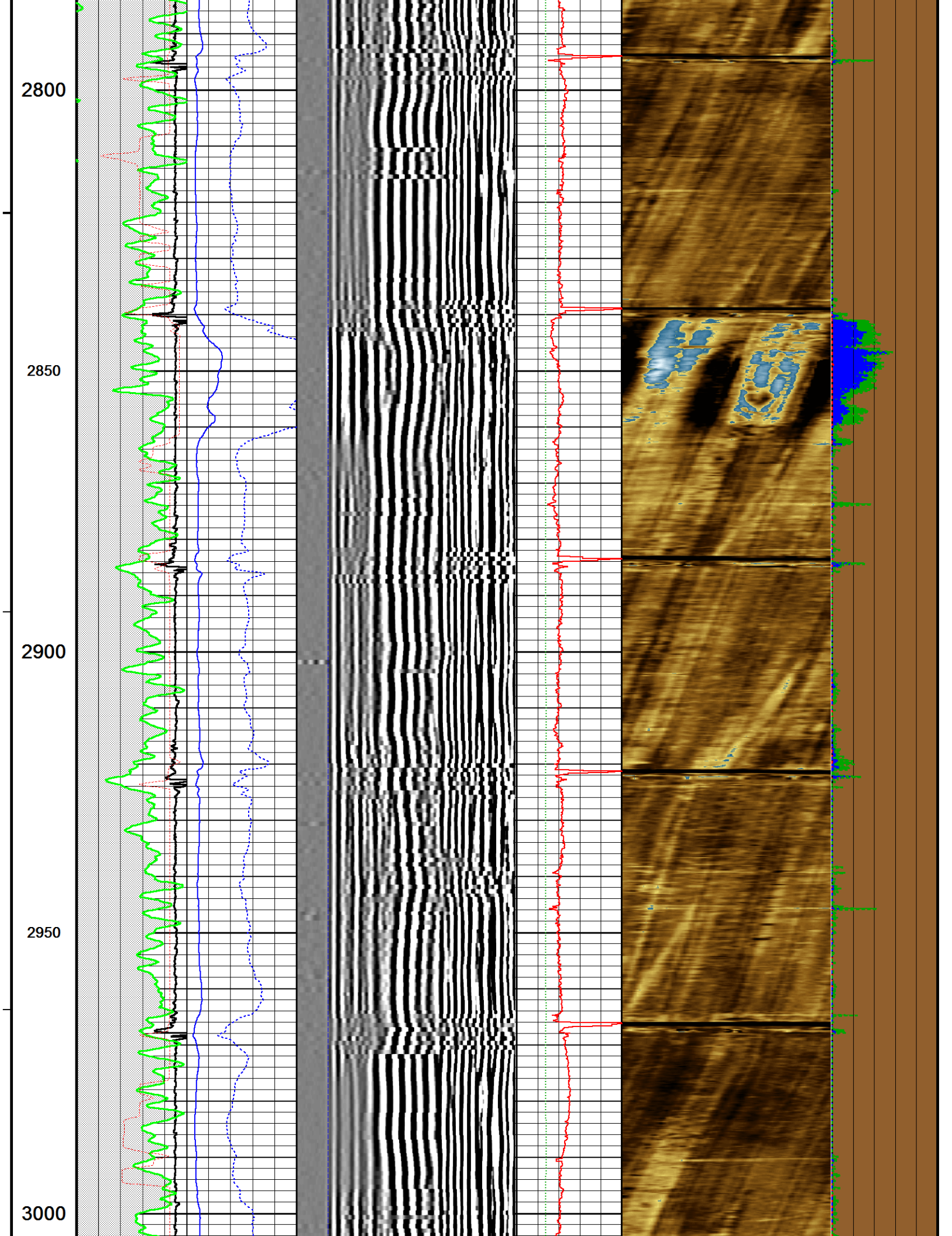
2600

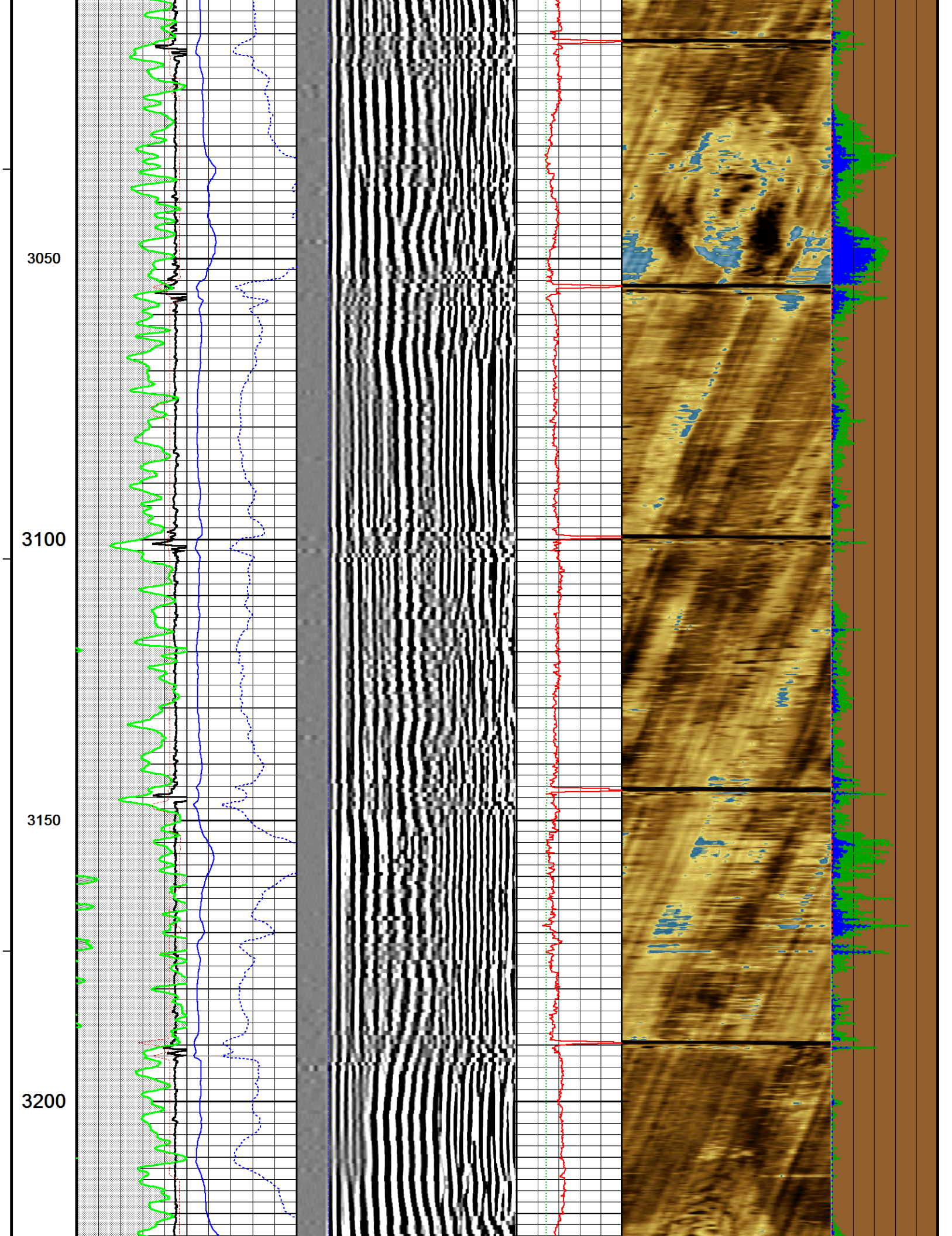
2650

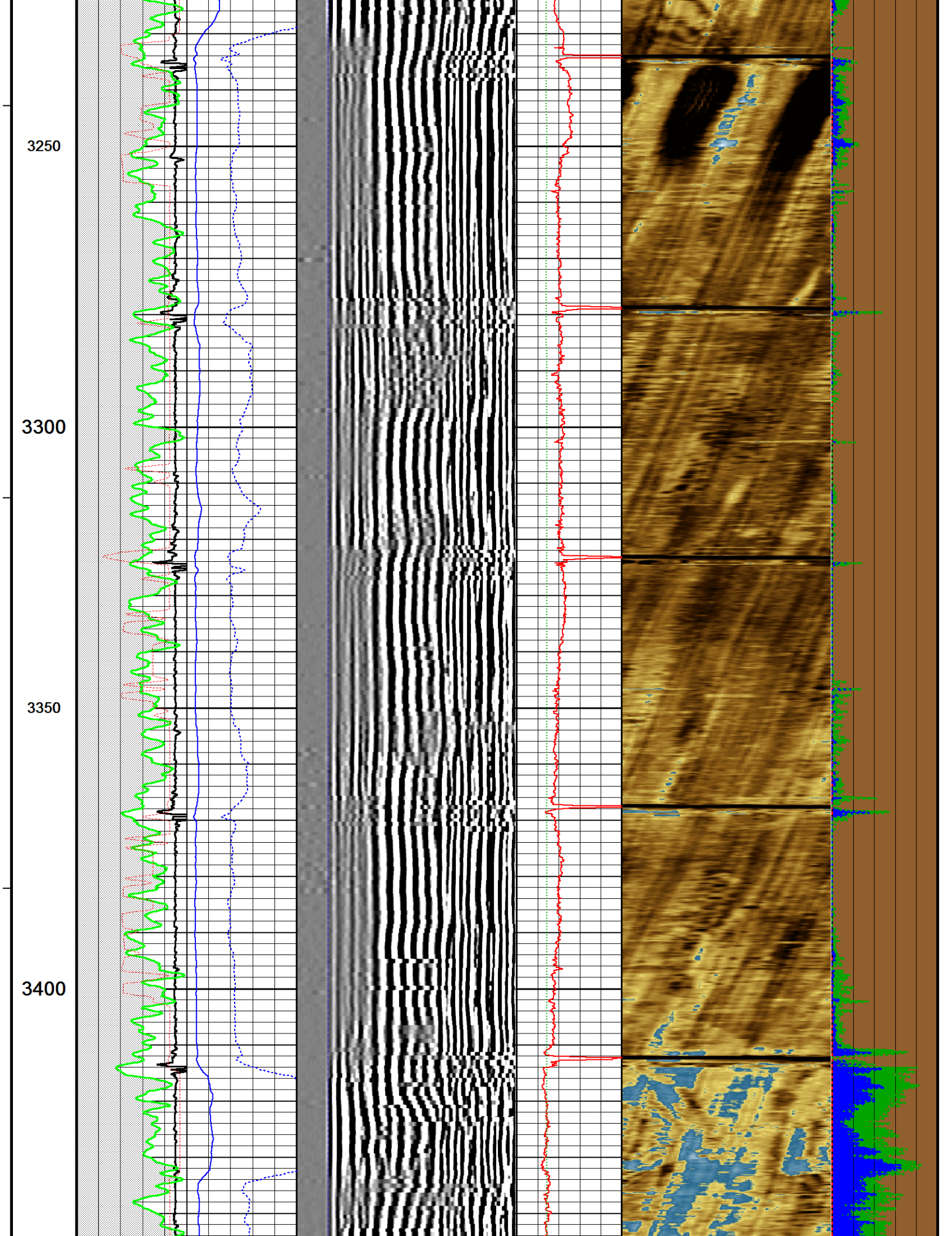
2700

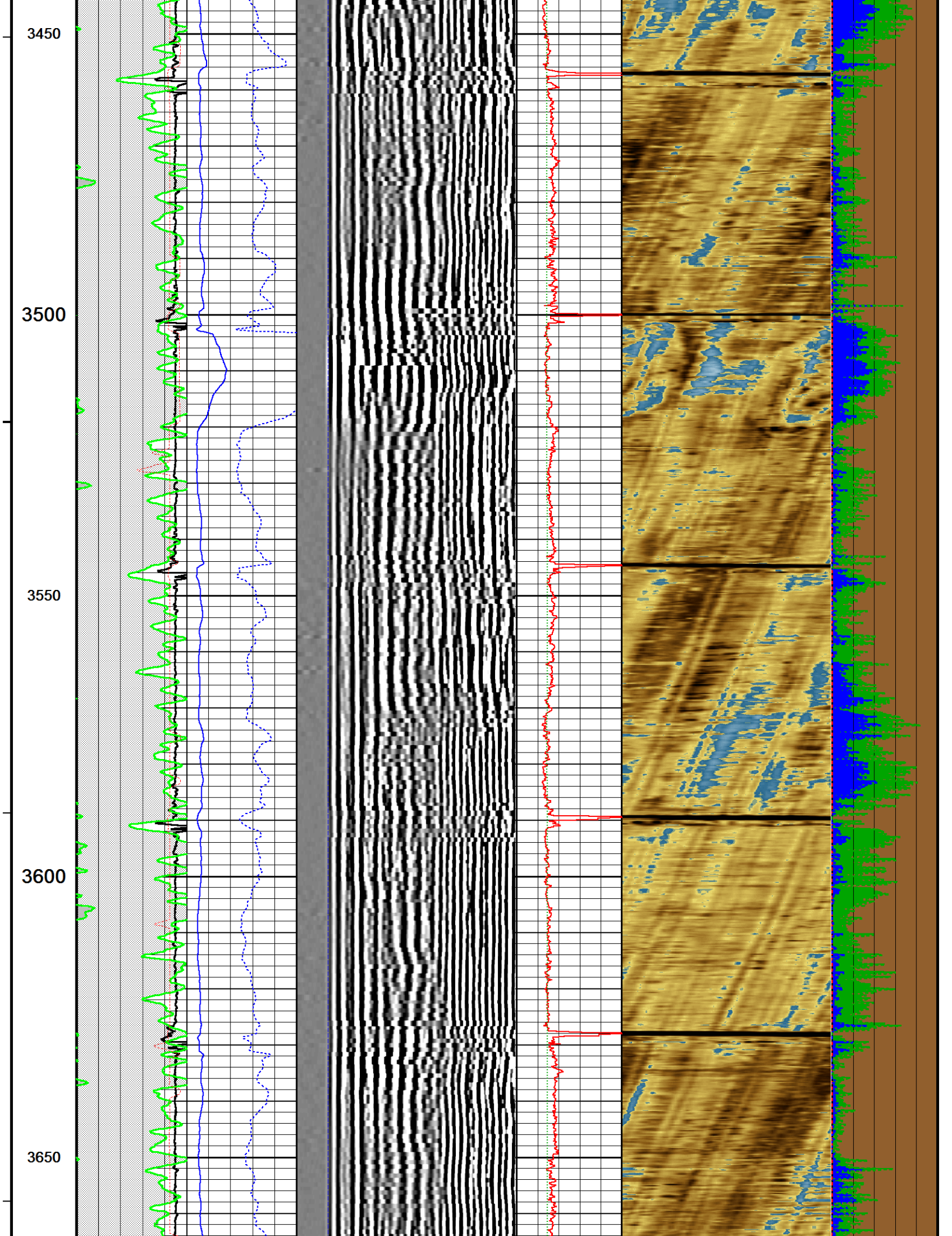
2750









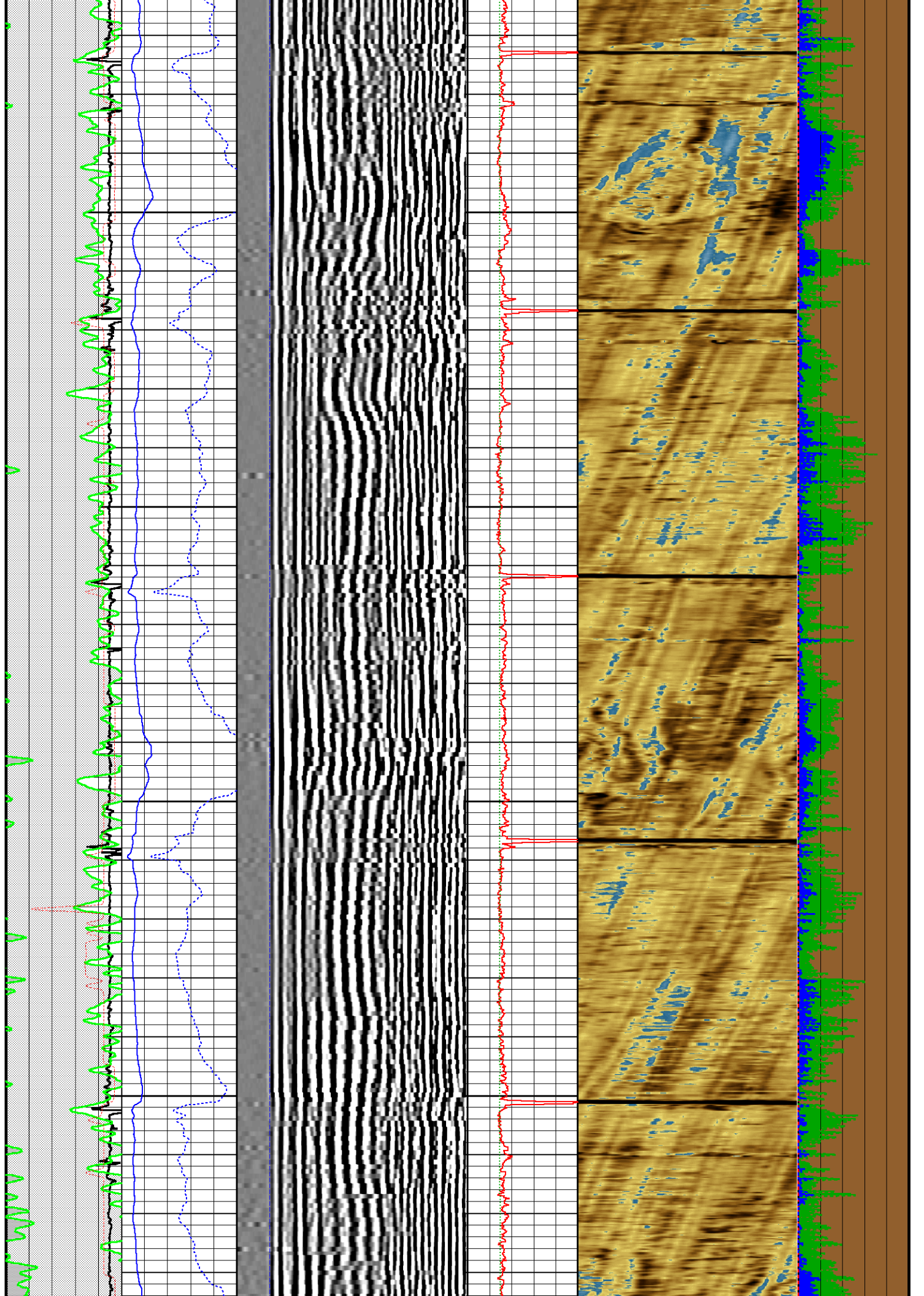


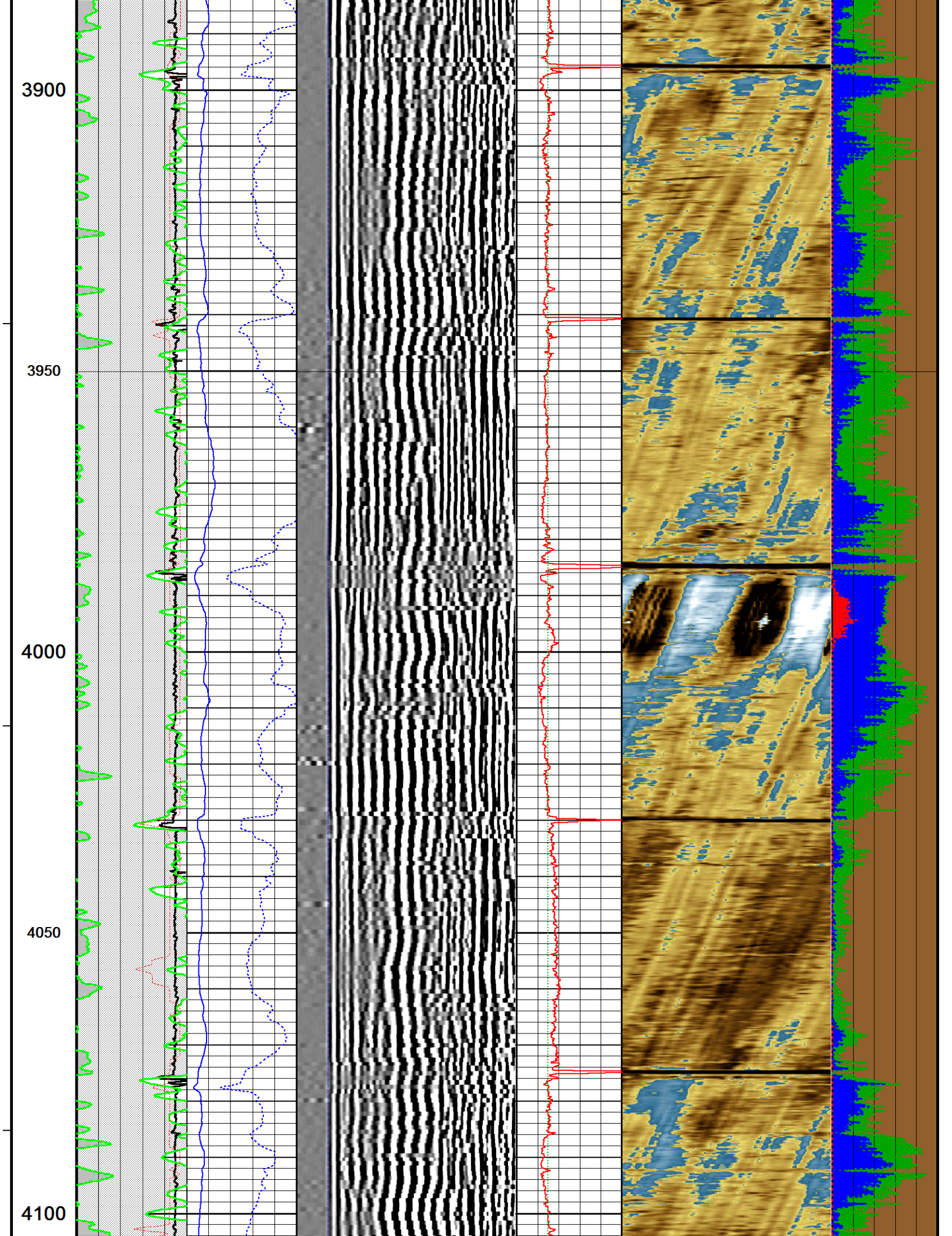
3700

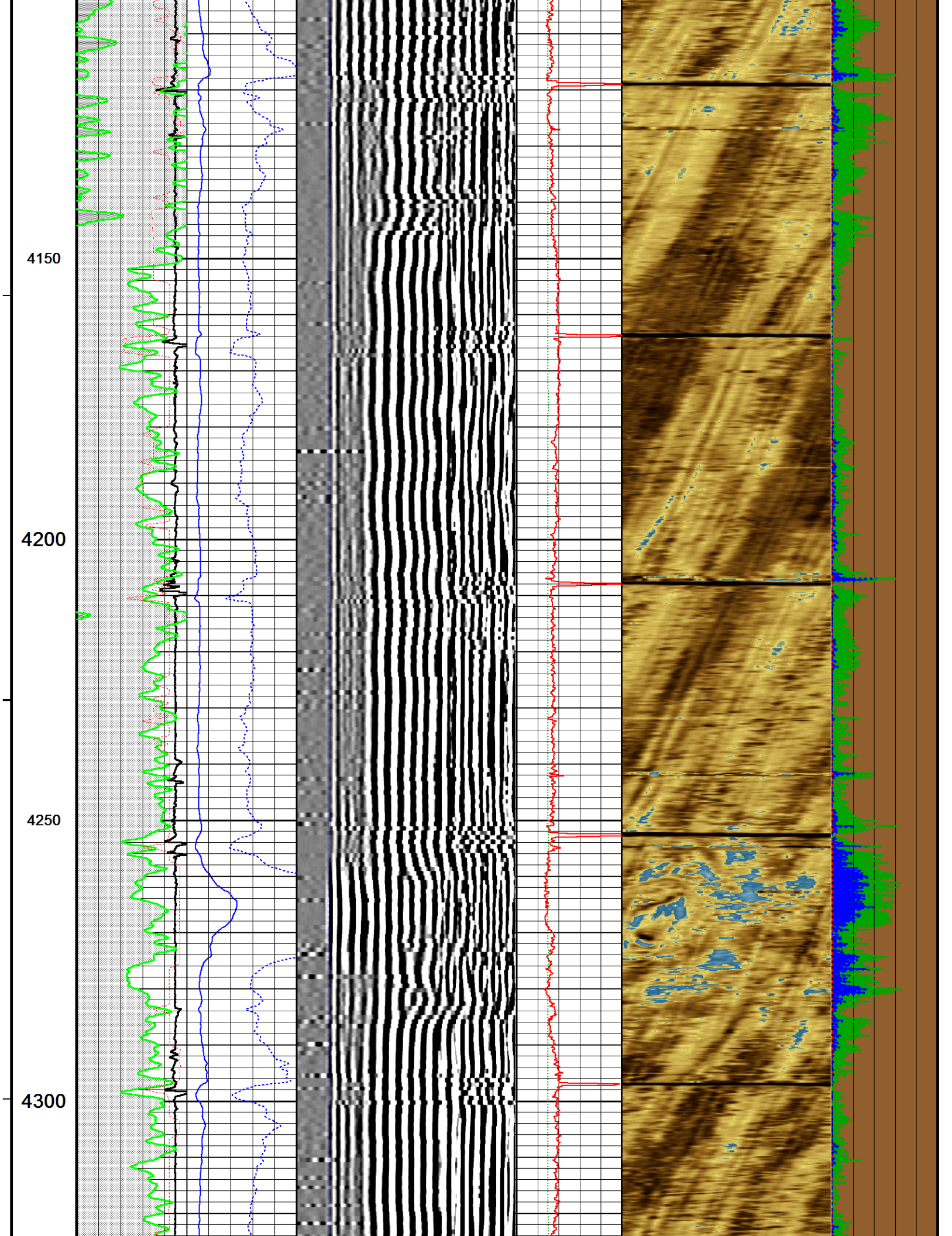
3750

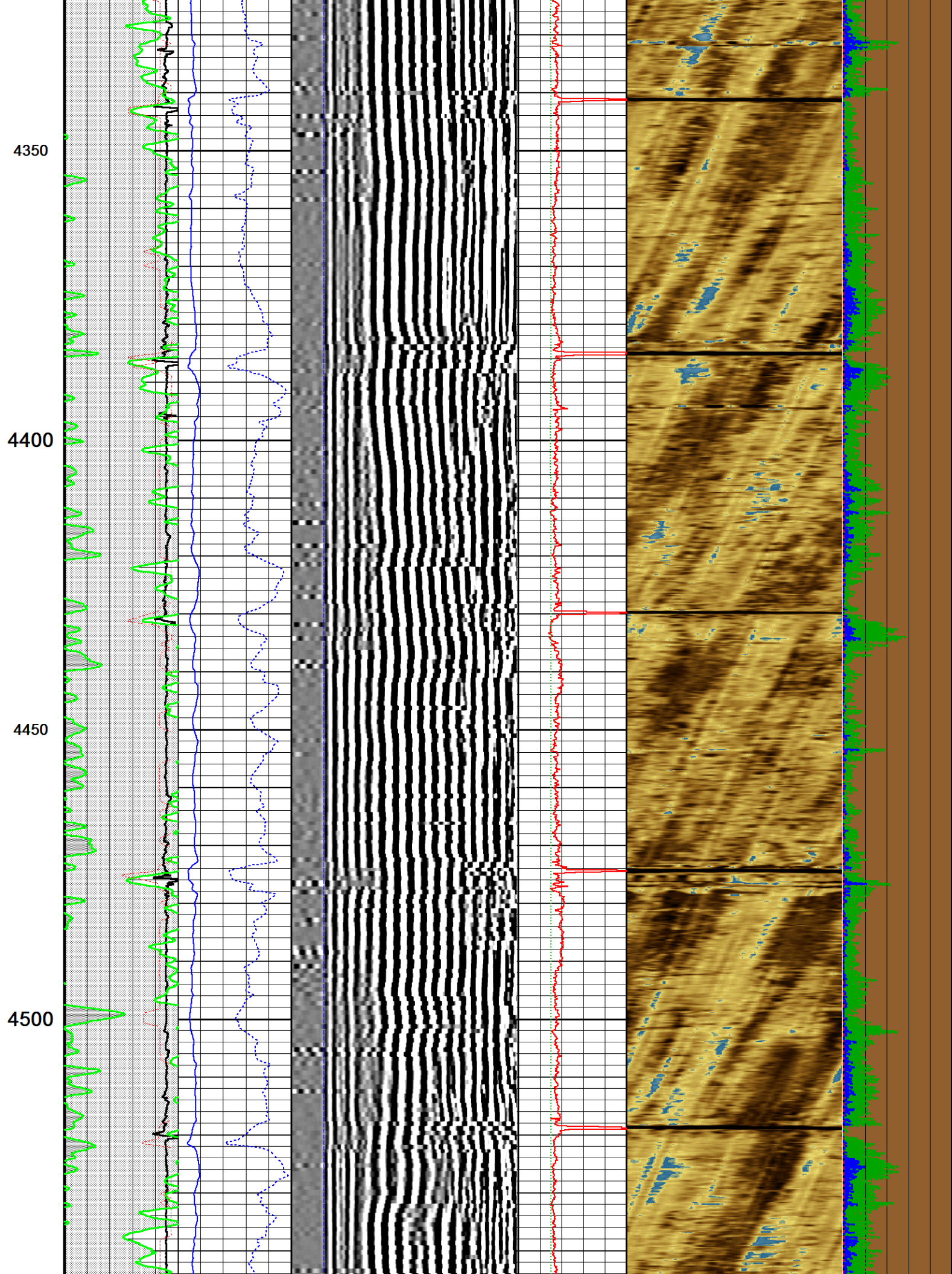
3800

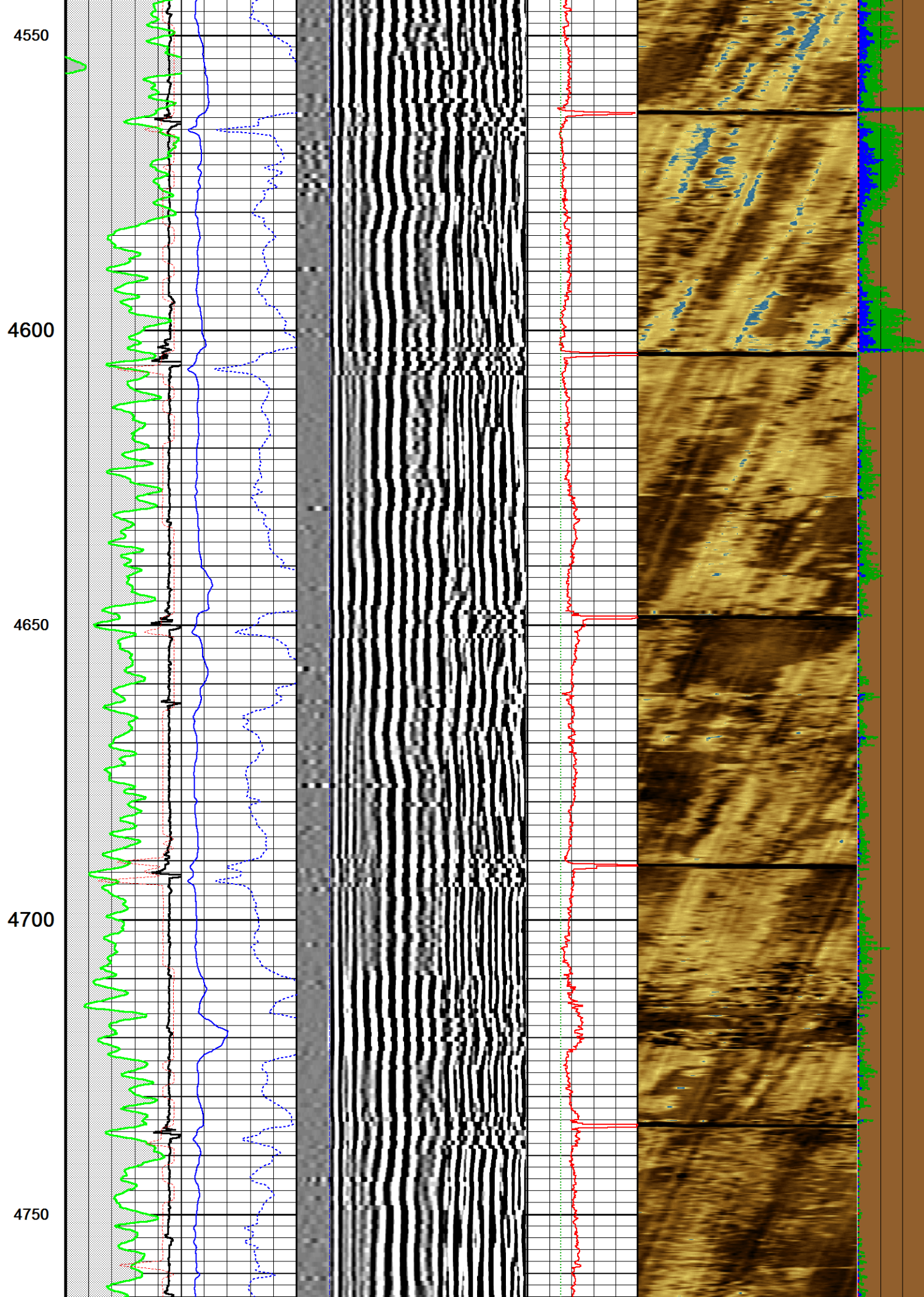
3850









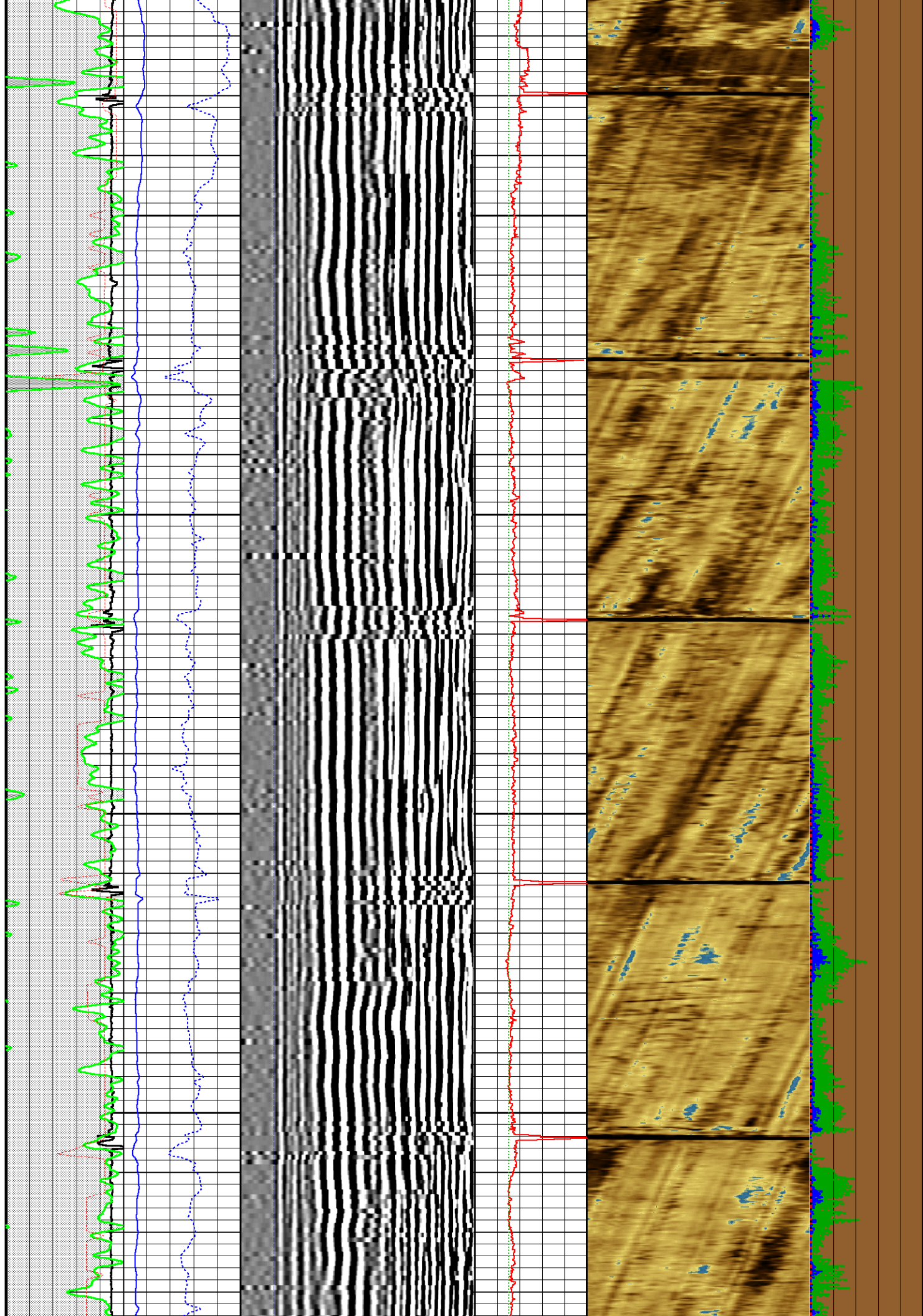


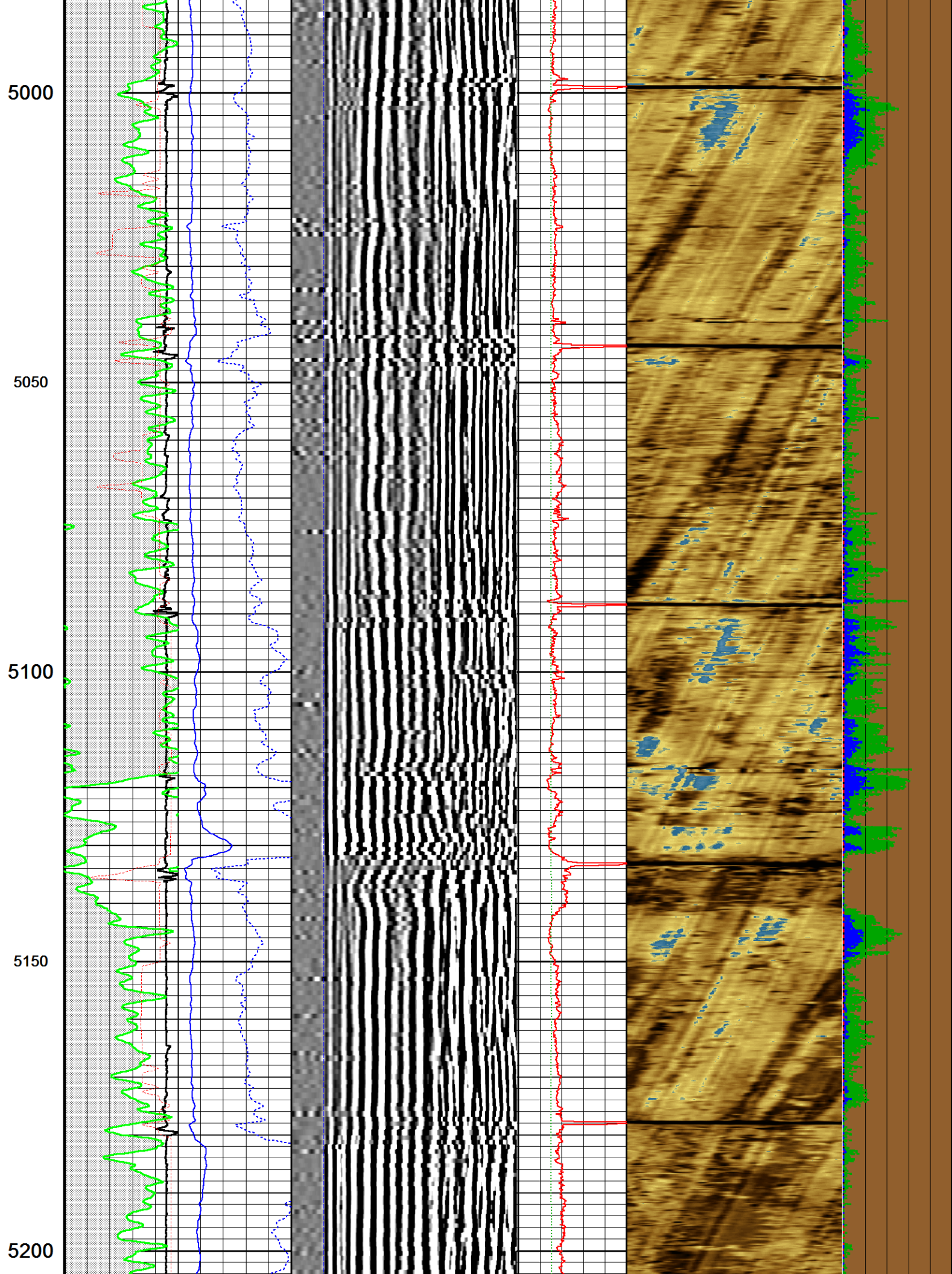
4800

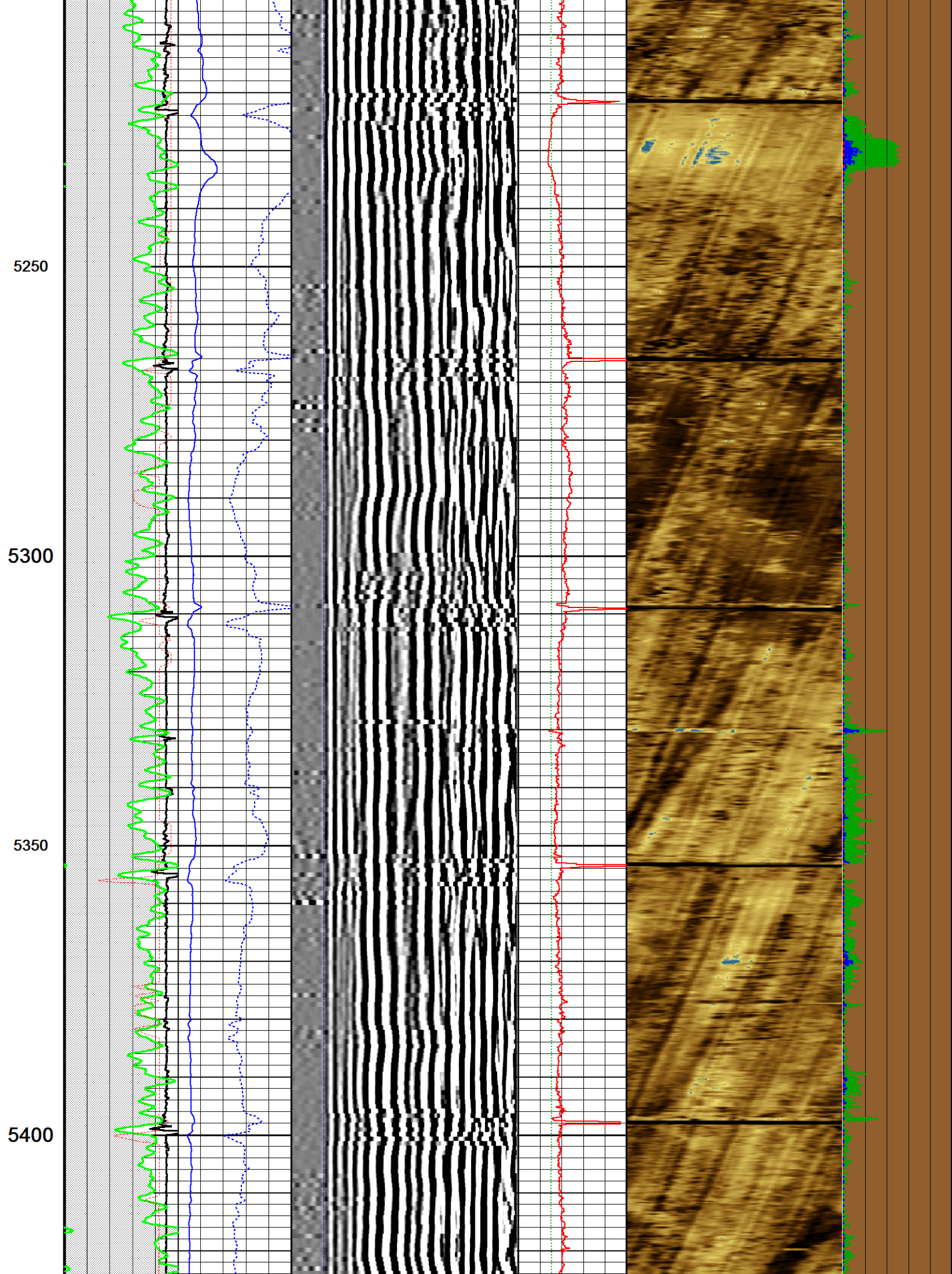
4850

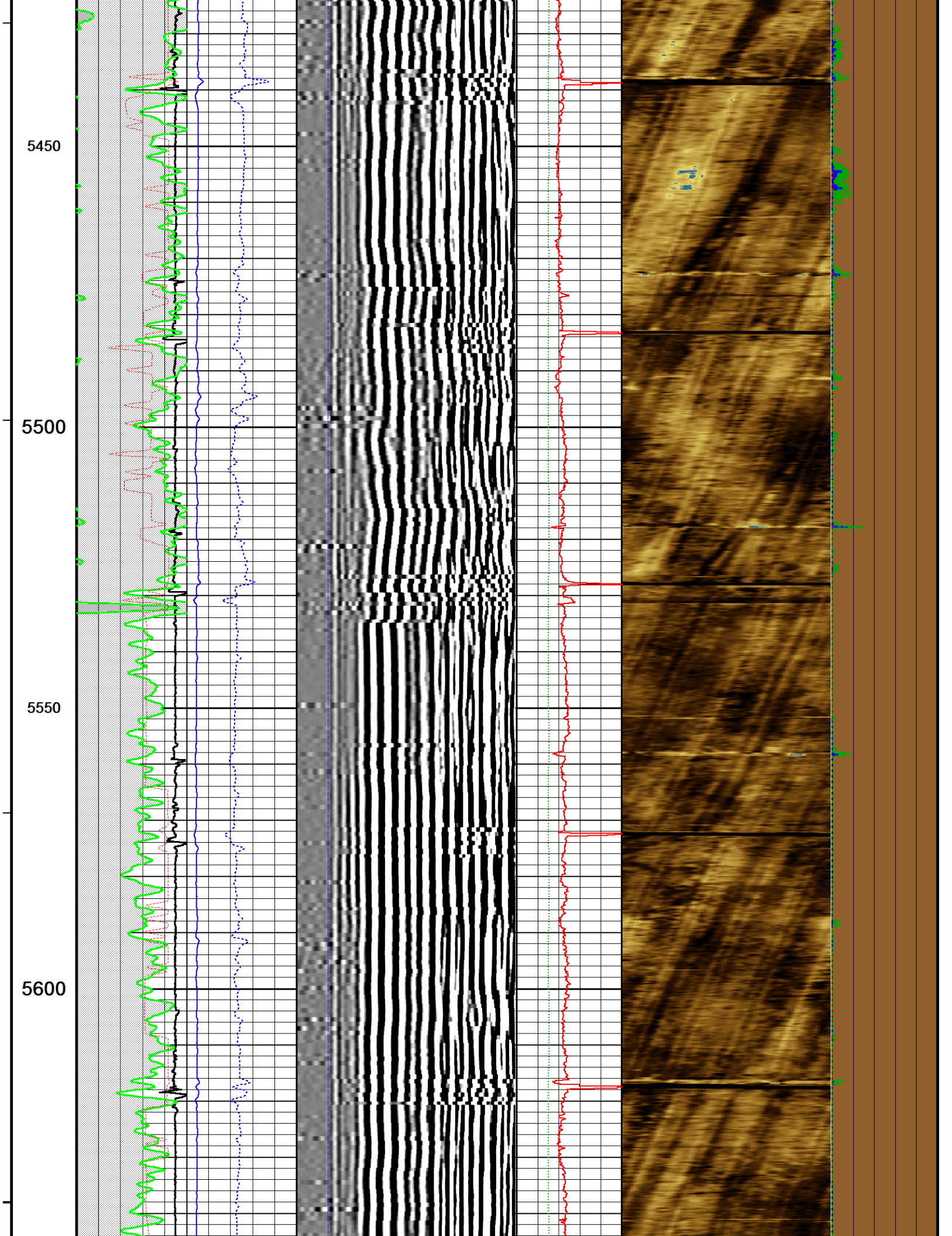
4900

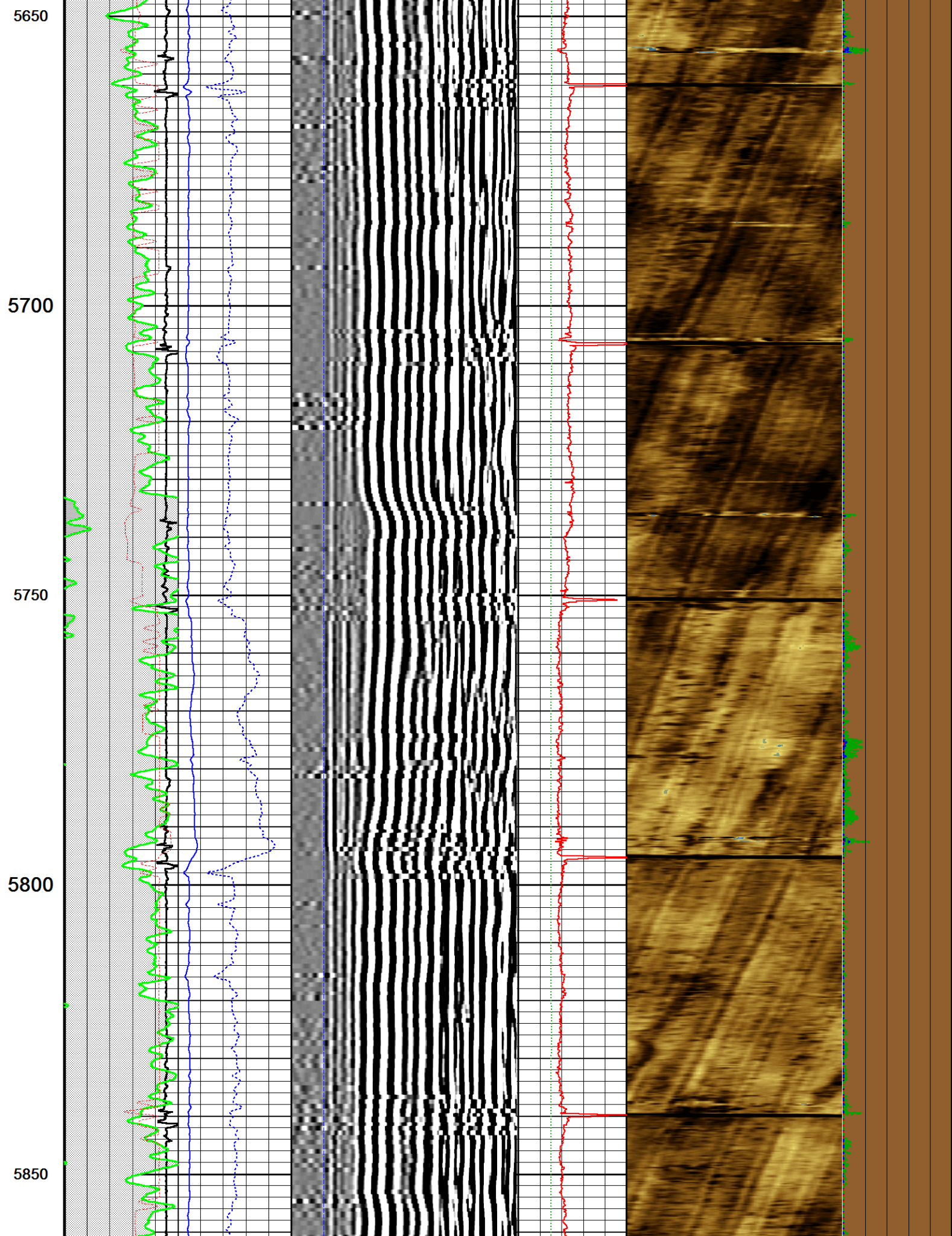
4950









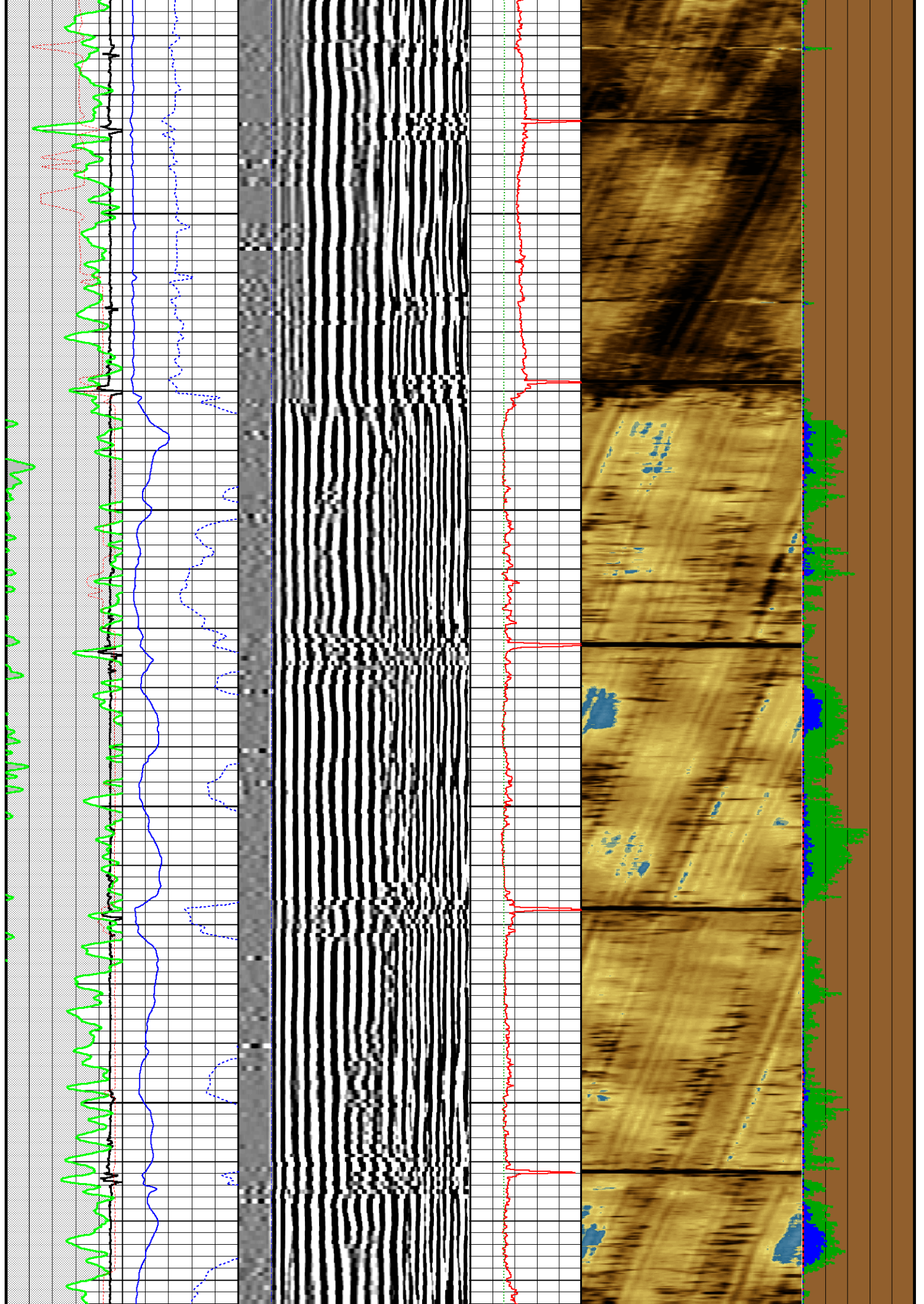


5900

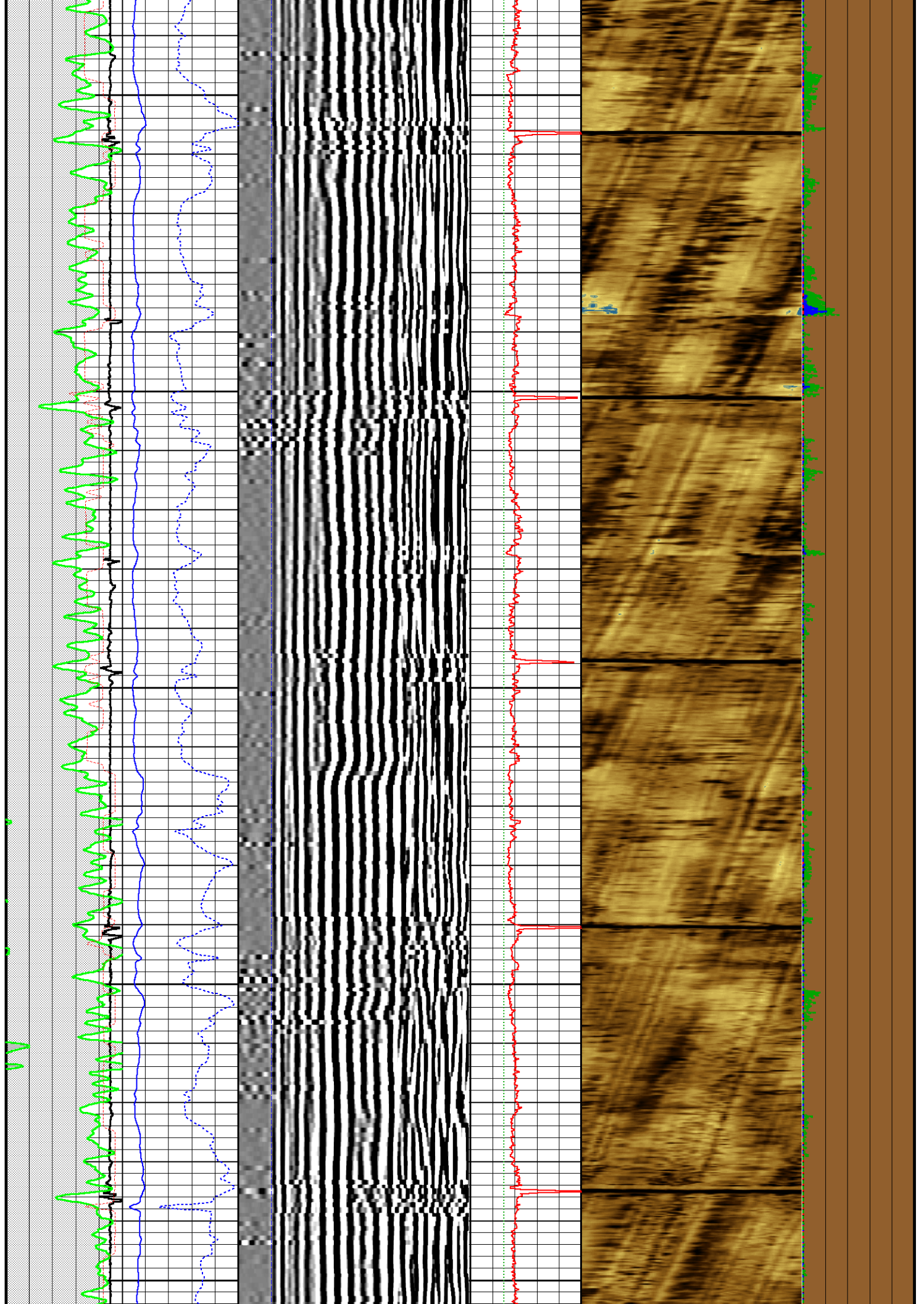
5950

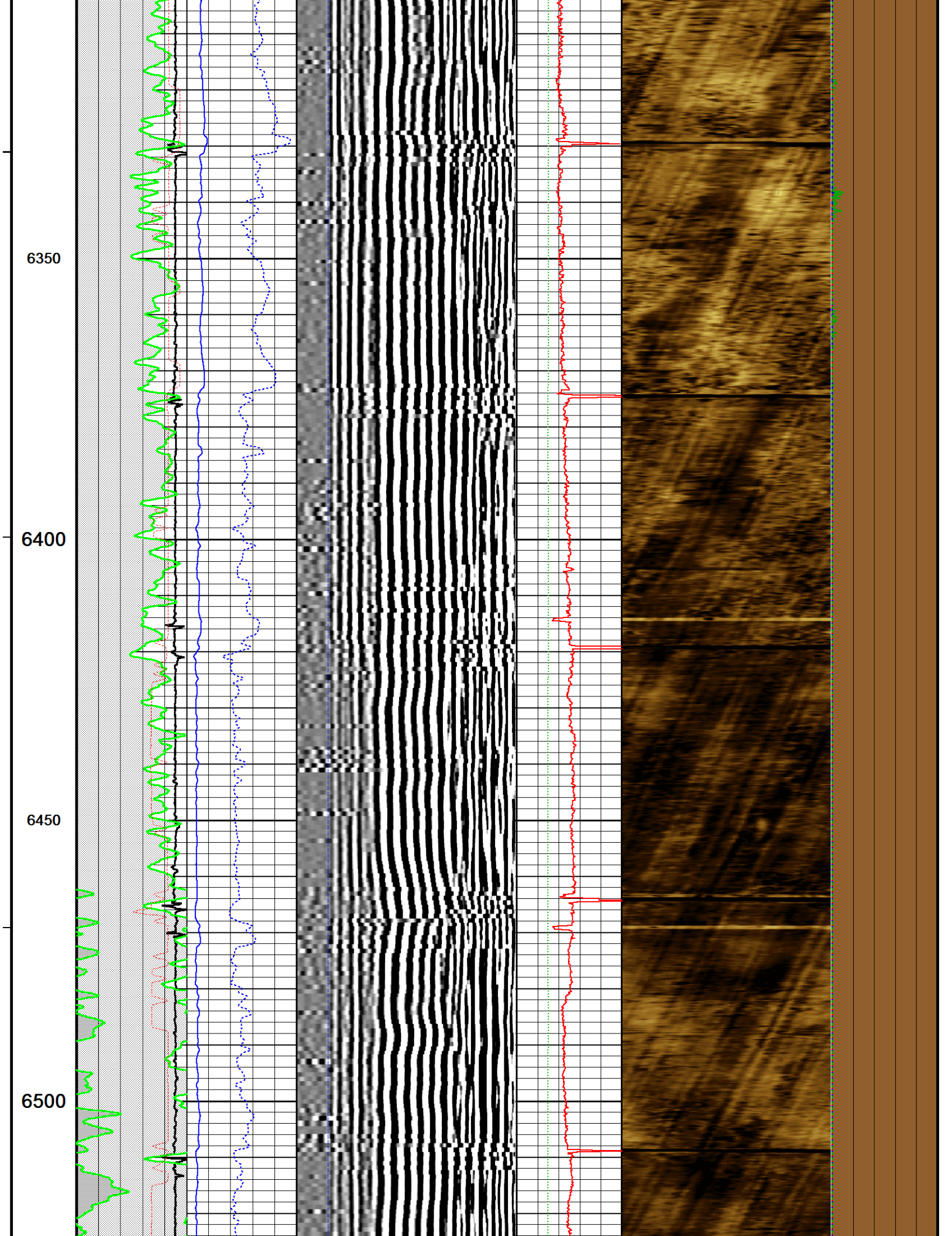
6000

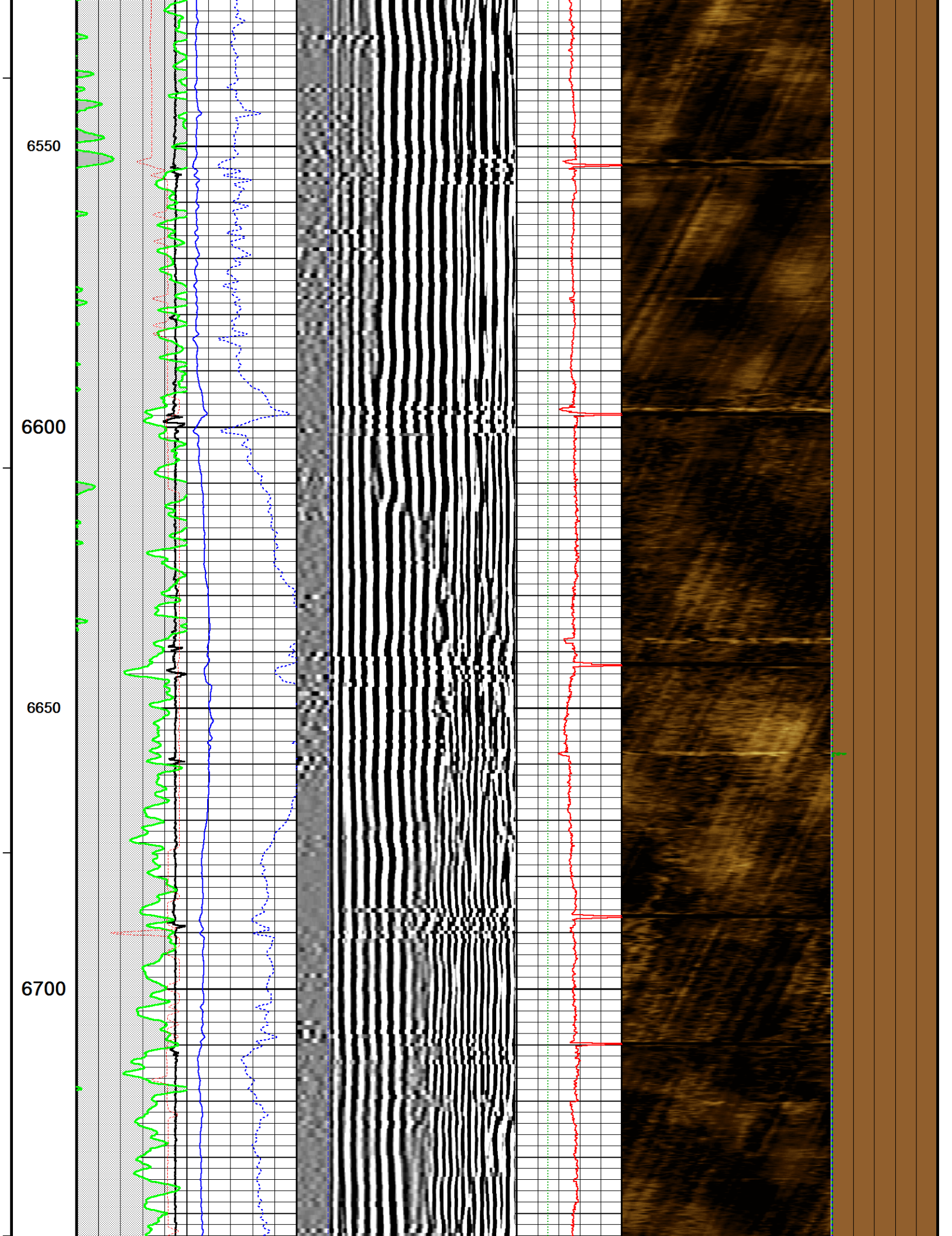
6050

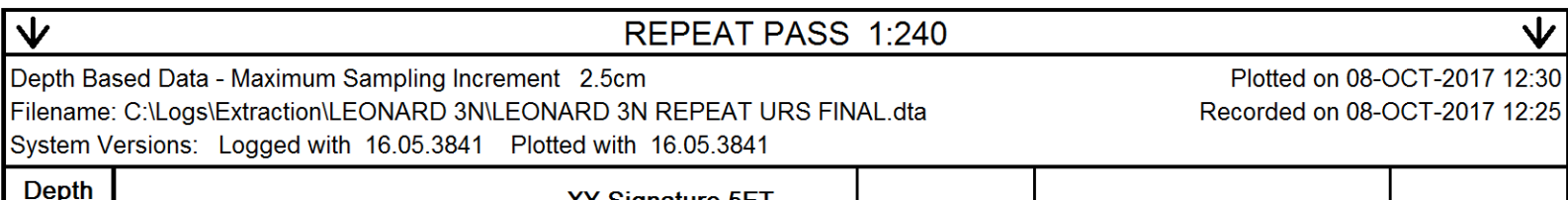
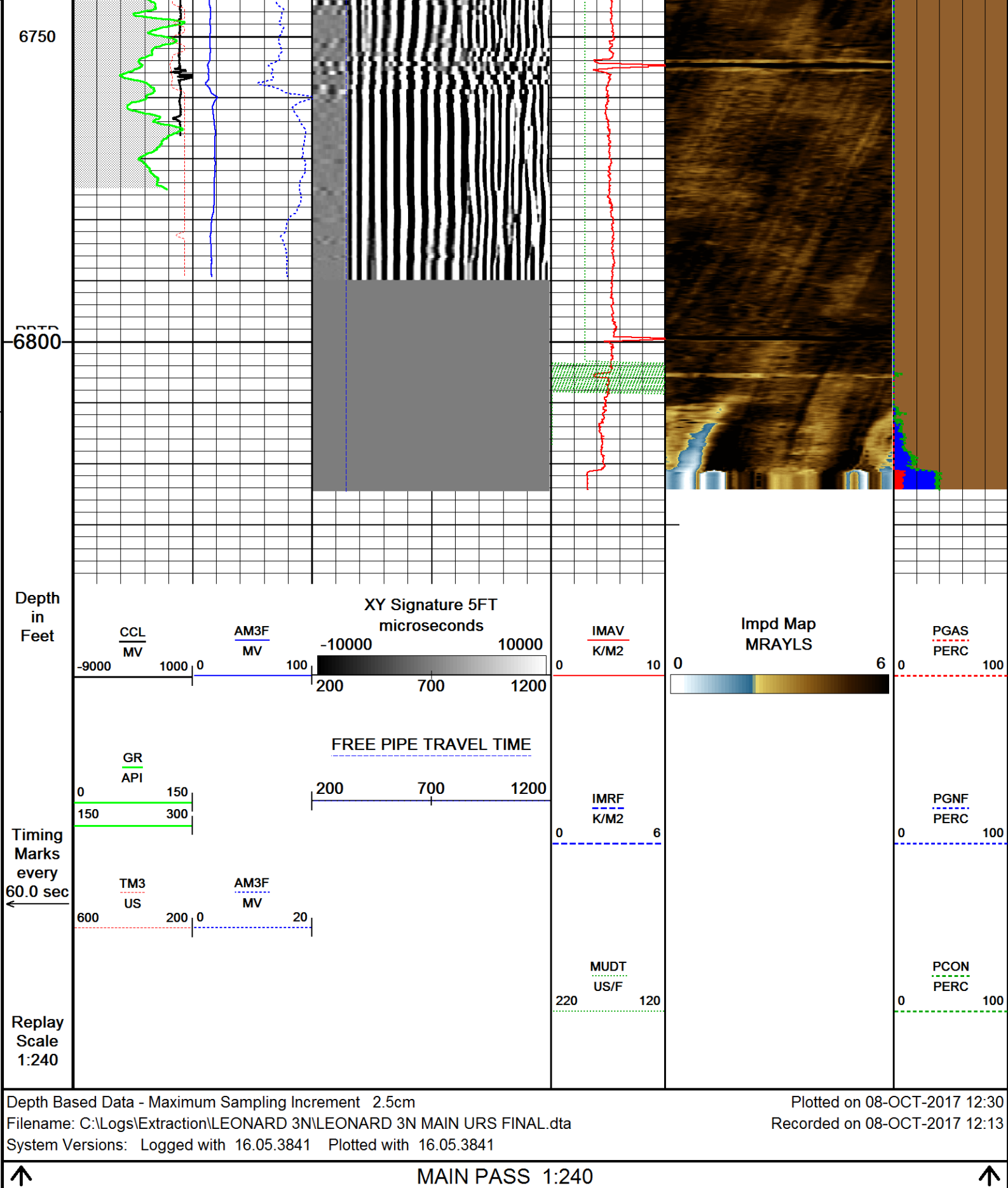


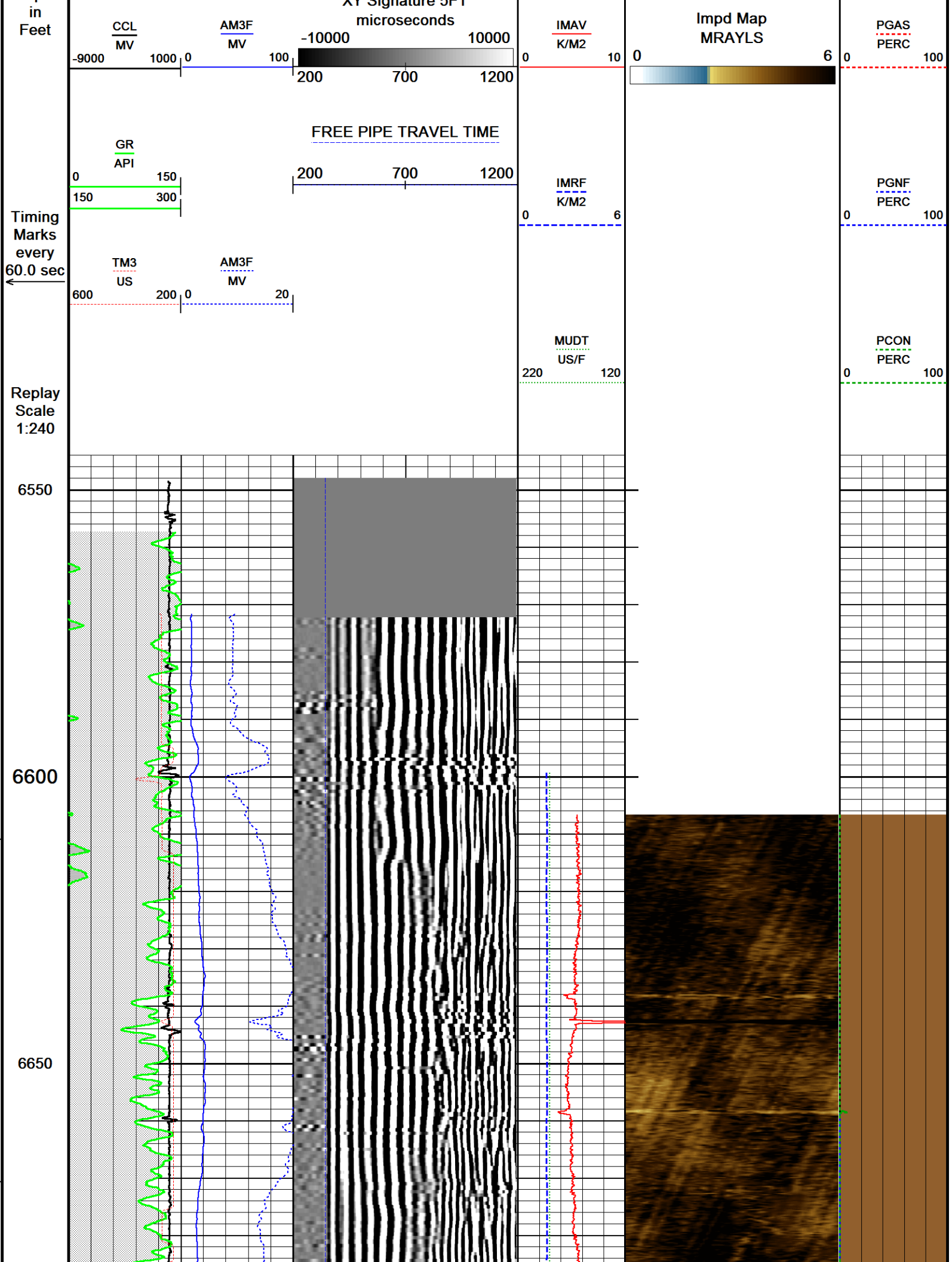
6100
6150
6200
6250
6300











6700

6750

6800

Depth
in
Feet

Timing
Marks
every
60.0 sec

Replay
Scale
1:240

CCL
MV

AM3F
MV

XY Signature 5FT
microseconds

IMAV
K/M2

Impd Map
MRAYLS

PGAS
PERC

GR
API

FREE PIPE TRAVEL TIME

IMRF
K/M2

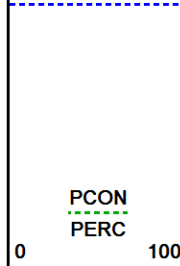
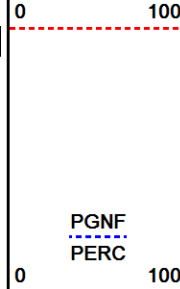
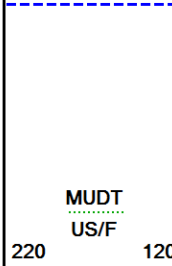
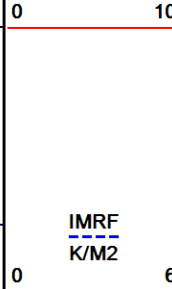
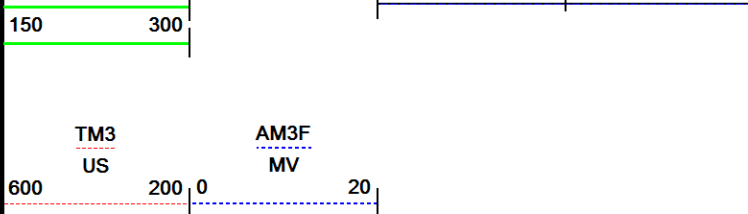
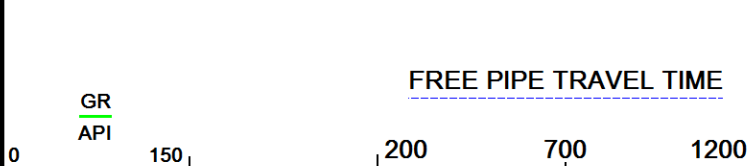
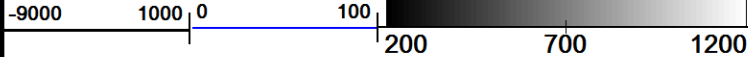
PGNF
PERC

TM3
US

AM3F
MV

MUDT
US/F

PCON
PERC



SHOP AND FIELD CALIBRATIONS				
C:\Logs\Extraction\LEONARD 3N\LEONARD 3N MAIN URS FINAL.dta				
UGR Field Survey Cal UGR-JD 118				
Field calibration on 00-JAN-1988 00:00				
Gamma Ray Field Survey Calibration				
Tool Type: UGR-JD		Serial No: 118		
Calibrator No:				
Background	Calibrator	Standard	Units	
0.0	140.0	140.0	CPS	
Delta Counts Per Sec: 140.0		CPS/API = 1.000		

CBT Field Calibration CBT-AA 109				
Field calibration on 17-JAN-2017 08:32				
Cement Bond Tool Amplitude Field Calibration				
Tool Type	CBT-AA	Serial No	109	
Free Pipe Depth				
Sensor	Description	Standard(mv)	Measured(mv)	
AMP 3 FT	100 % Bond	2.10	0.00	
	Free Pipe	62.00	714.30	
AMP 5 FT	100 % Bond	1.40	0.00	
	Free Pipe	41.00	702.00	

CBT Constants CBT-AA 109				
Last Edited on 08-OCT-2017 12:13				
Min Ampl 100% Bond	2.00 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	0.0 US			
Cement Weight	0.00 LB/G			

Ultrasonic Radial Scanner Before Cal USH-AB 136				
Field calibration on 00-JAN-1988 00:00				

Ultrasonic Radial Scanner Before Calibration

Tool Type USH-AB

Serial No 136

	Measured	Minimum	Maximum	
Free Pipe	-999.250	0.000	0.000	K/M2
Mud Impedance	1.500	0.000	0.000	K/M2

URS Constants USH-AB 136

Last Edited on 08-OCT-2017 12:13

*** Well Information ***

** NOTE **

If `Use General Settings` is set to `OFF`, the `ZHead cal` and `ZMud cal` values will be obtained from `Depth Specific Settings` entry

** General Settings **

Use General Settings	ON
ZHead Cal Area Ratio	4.40
ZMud Cal Area Ratio	4.00

** Depth Specific Settings **

Dpth Intvl Min(F)	Dpth Intvl Max(F)	Cs Sz (IN)	Cs WT (LB/G)	ZHd Cal ARatio	ZMd Cal ARatio	Thk (IN)	Harmnc K Factor
0.00	17120.00	5.50	20.00	1.50	1.50	0.36	1.00

** Constants **

Thickness Calculated from	Tool
Radius Offset	0.00
Mud slowness Offset	0.00 US/F
Mud Chamber Equation	Mud Plate
Z_mud at Calibration	1.70 K/M2
Z_mud Outside	1.75 K/M2
Gas Impedance Cutoff	0.38 K/M2
Fluid Impedance Cutoff	2.30 K/M2
Contam Impedance Cutoff	2.70 K/M2
Relative Bearing Rotate	OFF
RB Offset Angle	0.00 DEG
Cement Density	14.00 LB/G

DOWNHOLE EQUIPMENT

C:\Logs\Extraction\LEONARD 3N\LEONARD 3N MAIN URS FINAL.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 119 LG: 1.05 ft WT: 15.4 lb OD: 3.386 in

Swivel Head 55 pin
SWH-CB 137 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

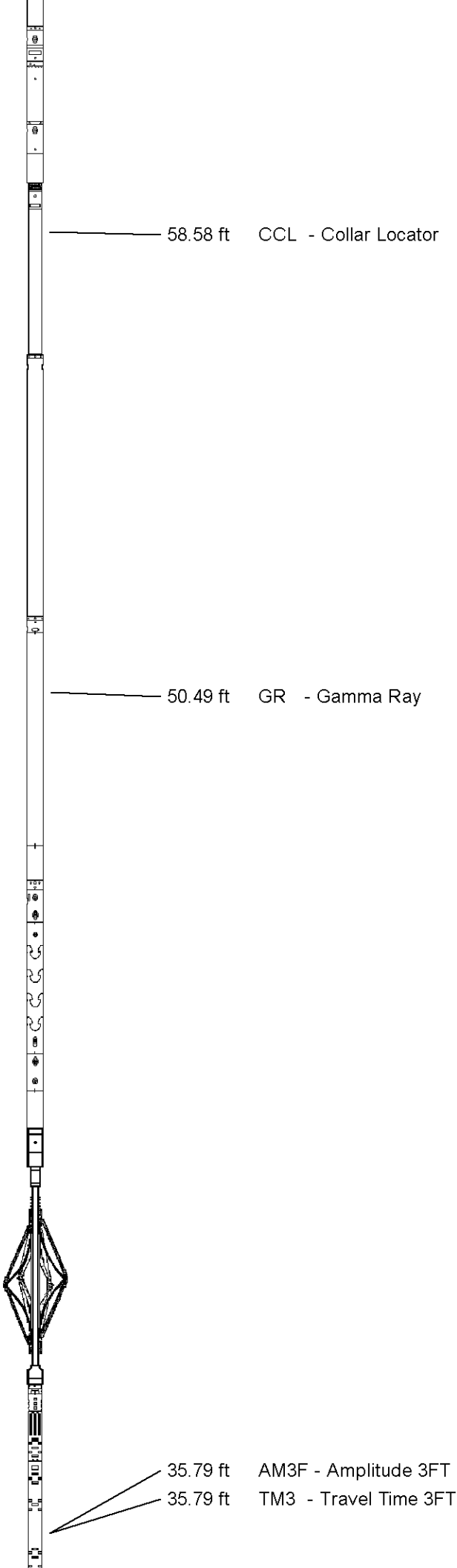
Communication Cartridge 55pin 3-3/8in
WCC-DA 141 LG: 4.60 ft WT: 63.9 lb OD: 3.386 in

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

Flexible Joint, URS, 55 Pin
FTP-FA 132 LG: 4.35 ft WT: 90.4 lb OD: 3.386 in

55 pin Roller Centralizer
CEN-XA 213 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

Cement Bond Tool
CBT-AA 109 LG: 10.75 ft WT: 163.1 lb OD: 3.386 in



55 pin Roller Centralizer
CEN-XA 132 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

Flexible Joint, 55 Pin
FTP-AA 134 LG: 3.44 ft WT: 77.2 lb OD: 3.346 in

55 pin Roller Centralizer
CEN-XA 221 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

URS Electronics Cartridge
UCC-AA 132 LG: 4.51 ft WT: 79.4 lb OD: 3.386 in

URS Sonde Section
USS-AB 179 LG: 9.65 ft WT: 167.6 lb OD: 3.386 in

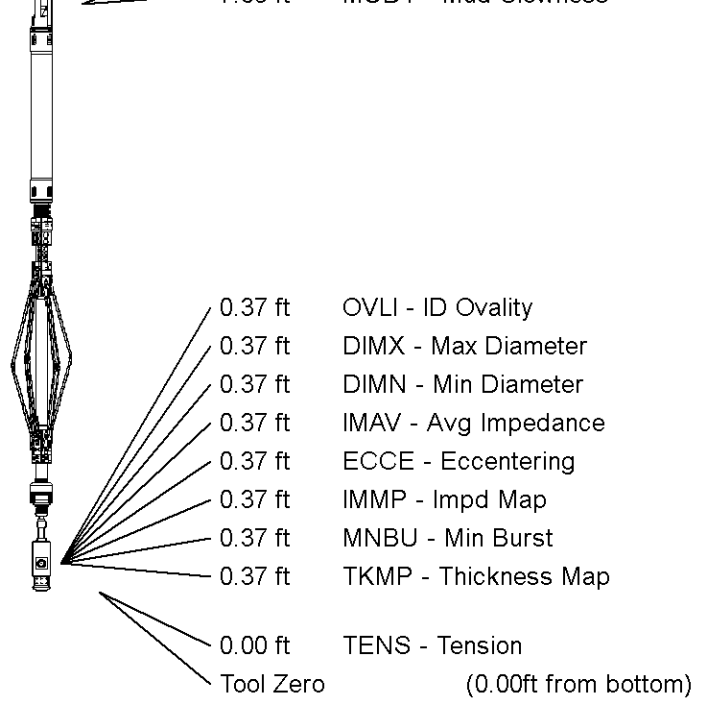
34.79 ft XY5 - XY Signature 5FT

7.65 ft IMRF - Mud Impedance

7.65 ft MIJDT - Mud Slowness

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

Total Length: 64.23 ft Weight: 1108.9 lb



COMPANY	EXTRACTION OIL & GAS
WELL	LEONARD 3N
FIELD	WATTENBERG
PROVINCE/COUNTY	WELD
COUNTRY/STATE	USA / COLORADO

Elevation Kelly Bushing	5032	feet	Bottom Log Interval	6800.00	feet
Elevation Drill Floor	5032	feet	Depth Driller	12120.00	feet
Elevation Ground Level	5004	feet	Depth Logger	6800.00	feet



Weatherford®

SECUREVIEW
ULTRAVIEW/BONDVIEW
CEMENT ANALYSIS