



Radial Cement Bond
w/Variable Density
Gamma Ray/CCL/Temp Log
FINAL PRINT

Company Great Western Oil & Gas Company
Well Rio LC 12-368HN
Field Wattenberg
County Adams State Colorado

Location: API #: 05-001-10466
NWNW
39.999536/-104.939781
SEC 6 TWP 1S RGE 67W
Permanent Datum GL Elevation 5068'
Log Measured From KB
Drilling Measured From KB
Other Services
Gauge Ring
Elevation
K.B. 5088'
D.F.
G.L. 5068'

Date Sep 13 2019

Run Number	One
Depth Driller	18047'
Depth Logger	8287'
Bottom Logged Interval	8285'
Top Log Interval	Surface
Open Hole Size	8 1/2"
Type Fluid	H2O
Density / Viscosity	
Max. Recorded Temp.	233 Deg F
Estimated Cement Top	
Time Well Ready	11:30
Time Logger on Bottom	12:00
Equipment Number	59
Location	Plattville, CO
Recorded By	S Cornett
Witnessed By	Dave Pozas

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Mgt/Ft	Top	Bottom
Surface String	9 5/8"	36# J-55	Surface	1778'
Prot. String				
Production String	5 1/2"	17# P-110	Surface	18047'
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


Logged with 0 PSI
Log Correlated to Short Joint @ 7573'-7583'
Tool Ran with 3 Gemco Centerlizers

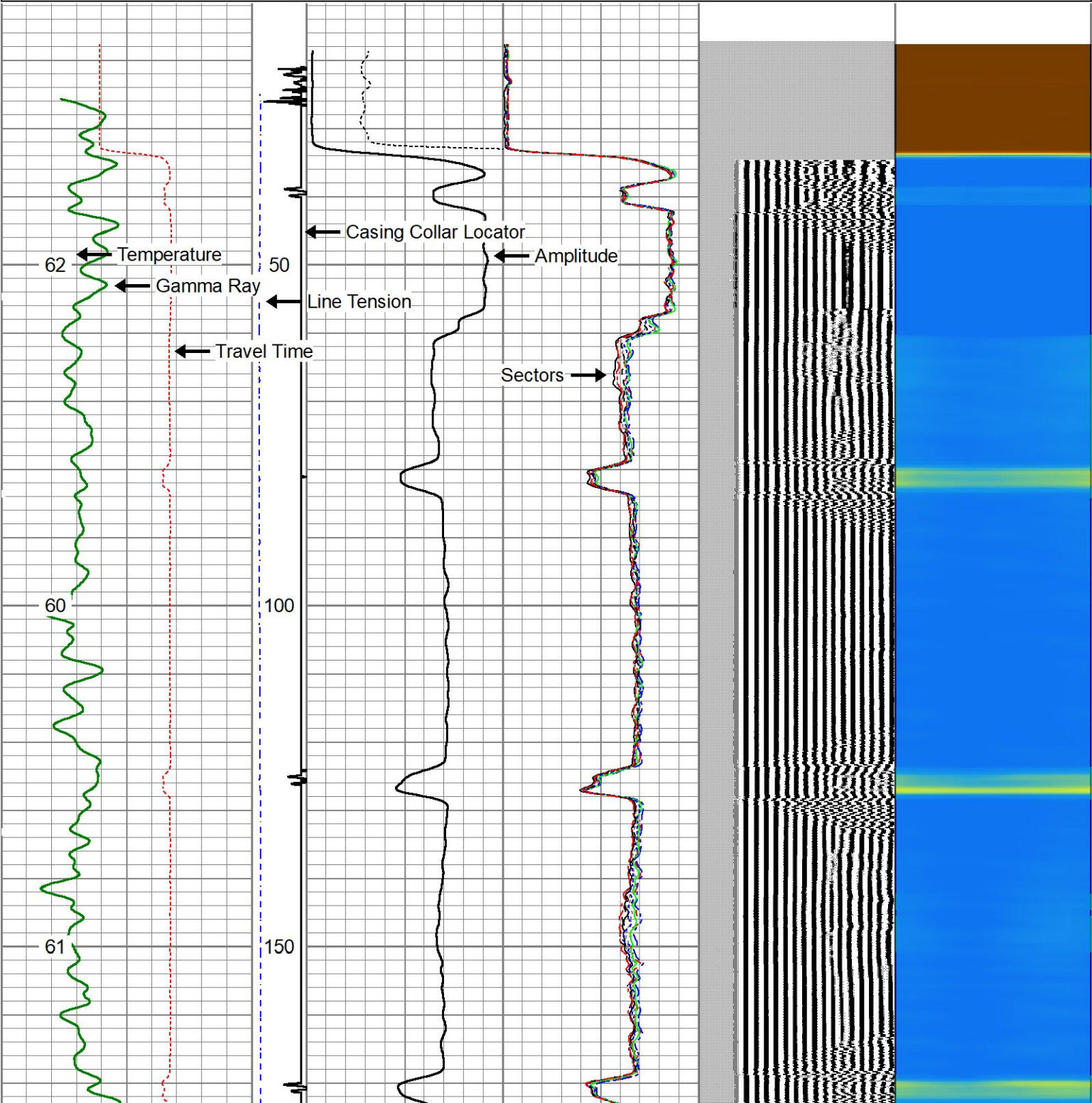
Thank You For Choosing KLX Energy Services.

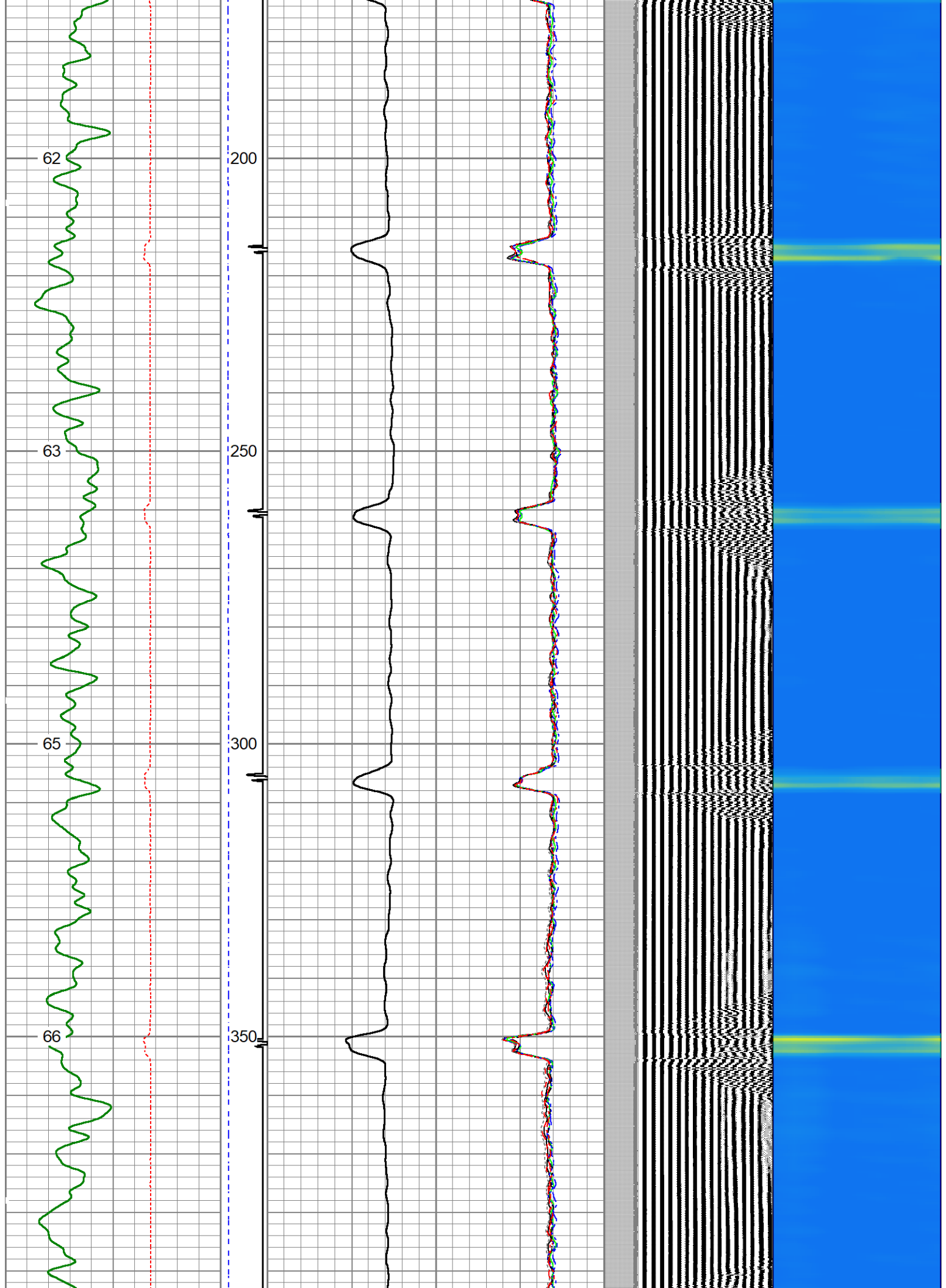


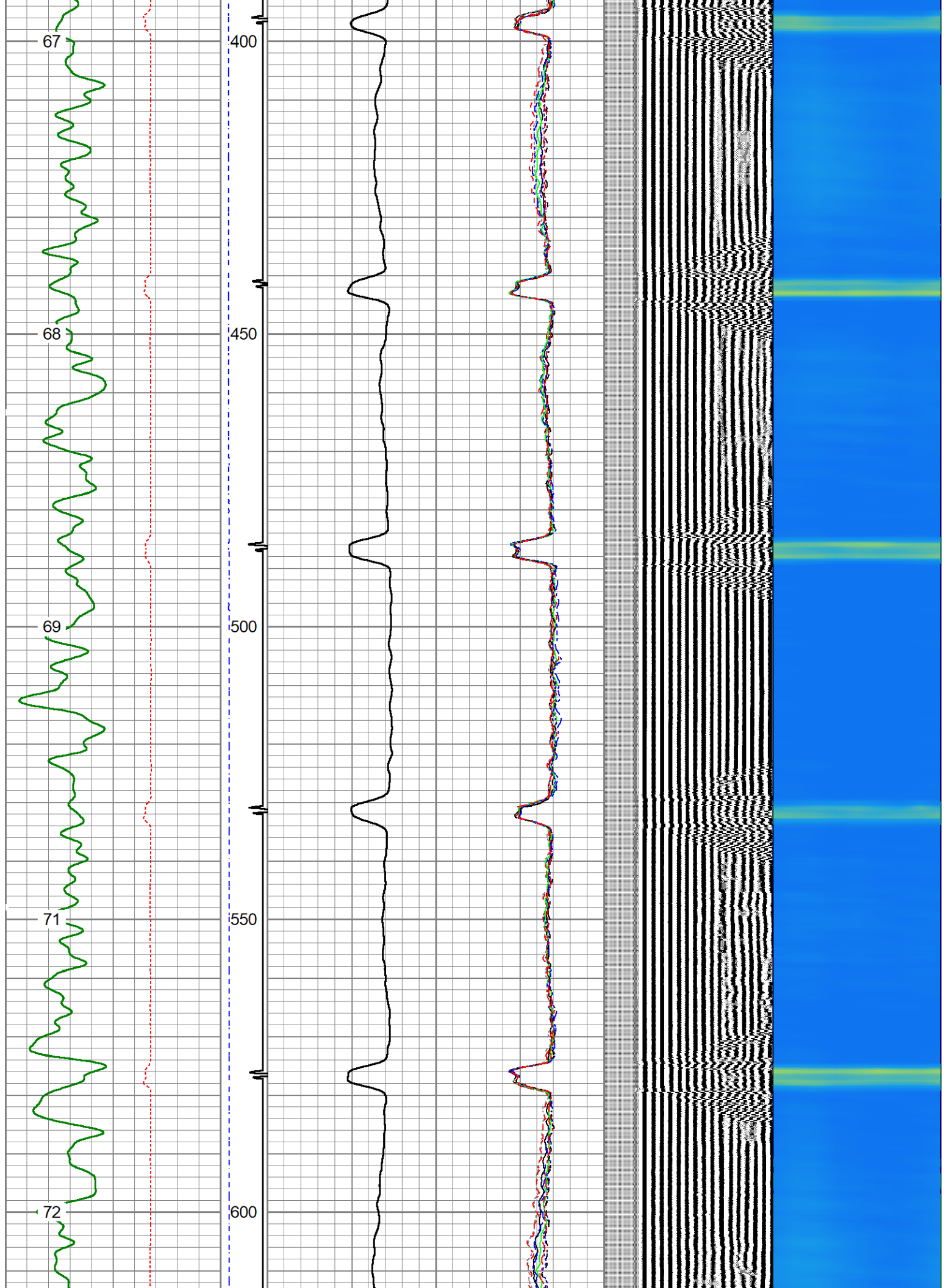
Main Pass 0 PSI

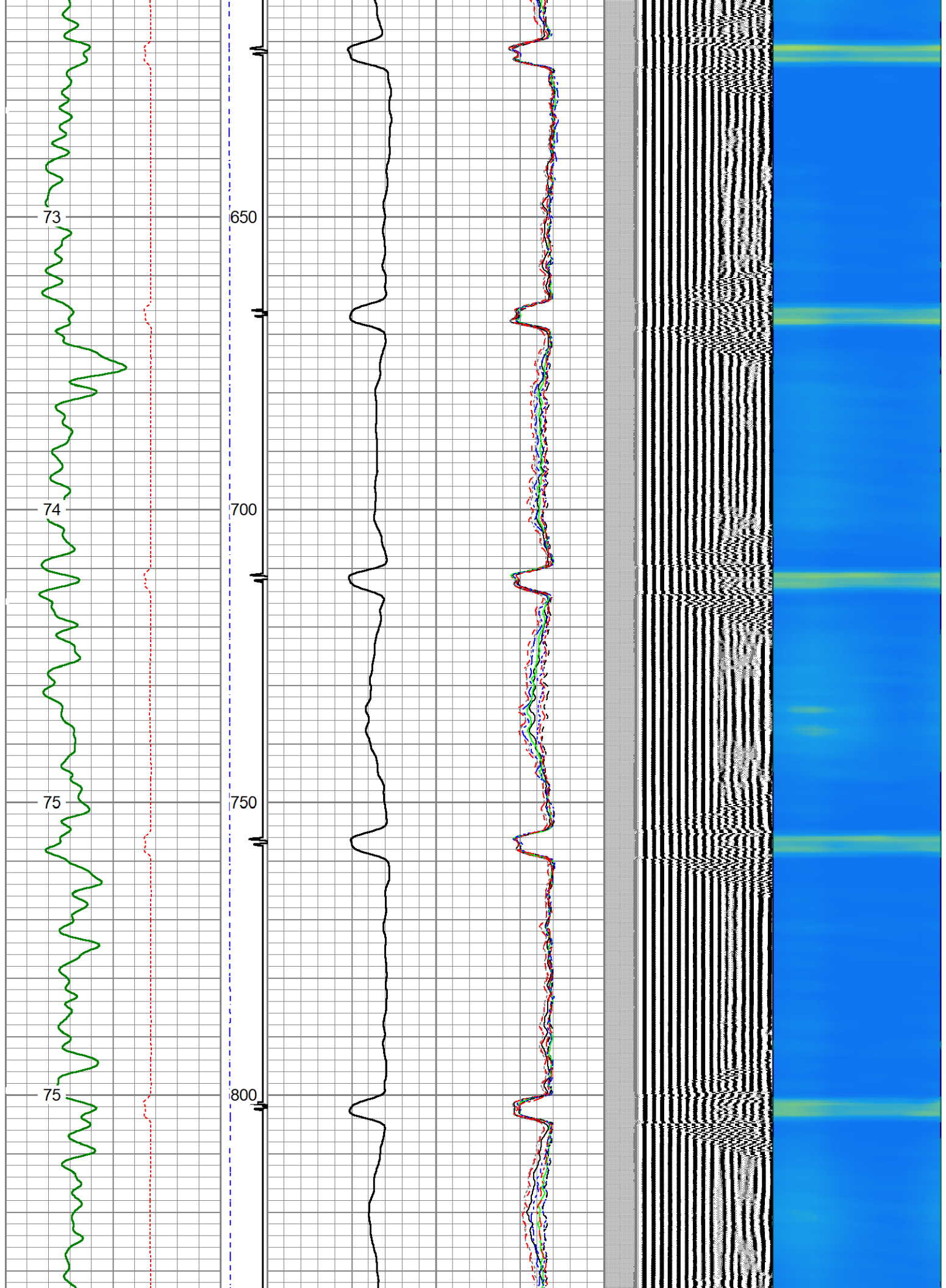
Database File		gw_rio_lc_12_368hn_rcbl_9_13_19.db											
Dataset Pathname		pass14.1											
Presentation Format		scbl03											
Dataset Creation		Fri Sep 13 14:55:44 2019											
Charted by		Depth in Feet scaled 1:240											

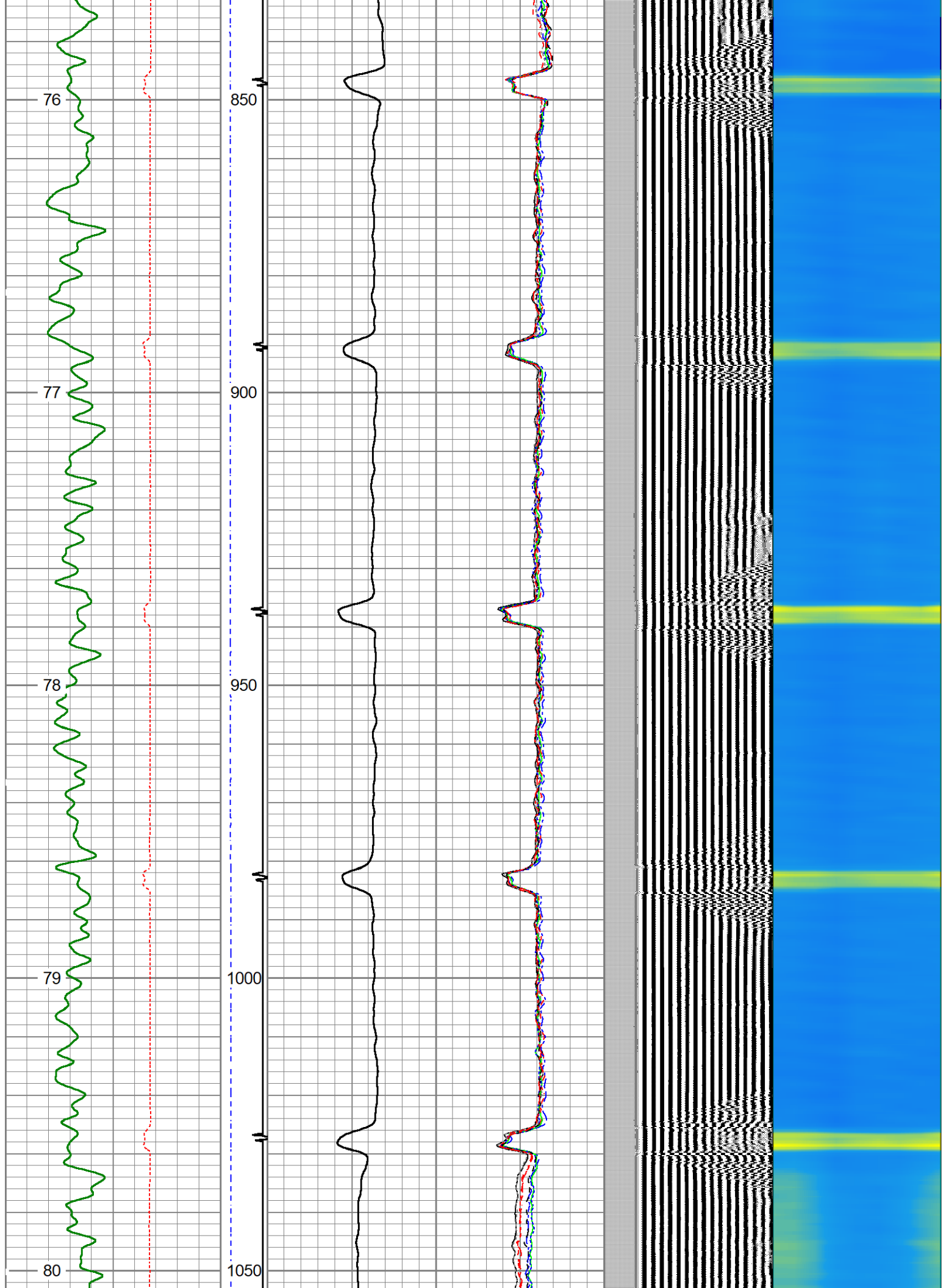
400	Travel Time (usec)	200	CCL	0	Amplitude (mV)	100	-5	Sector 1	150	Variable Density		1	Cement Map	8
0	Gamma Ray (GAPI)	150	9	-1	Amplified Amplitude		-5	Sector 2	150	200	(usec)	1200		
TEMP		LTEN	(lb)	(2000	0	(mV)	10	-5	Sector 3	150				
(degF)					-5	Sector 4	150							
					-5	Sector 5	150							
					-5	Sector 6	150							
					-5	Sector 7	150							
					-5	Sector 8	150							
					-5	Sector 8	150							

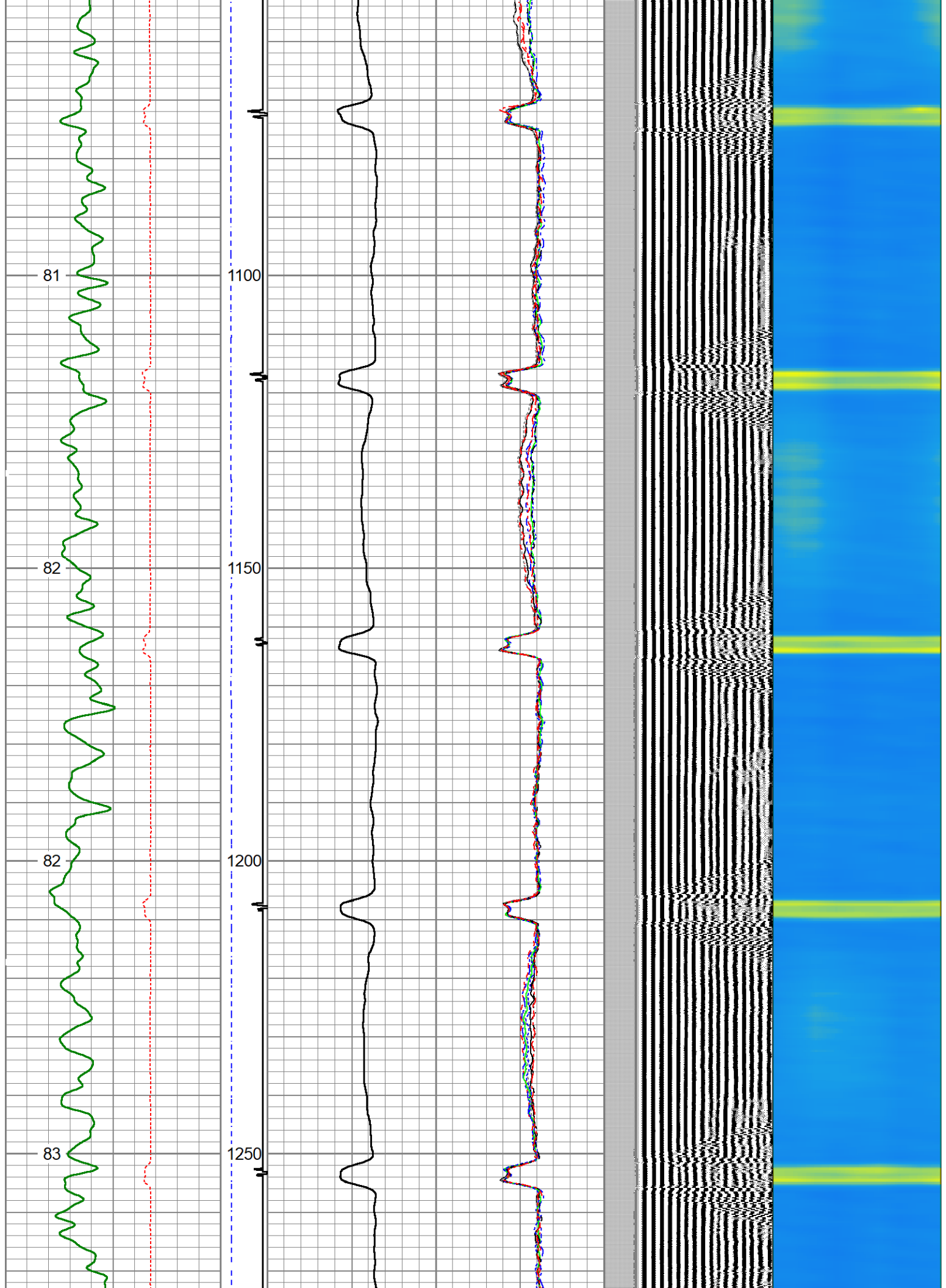


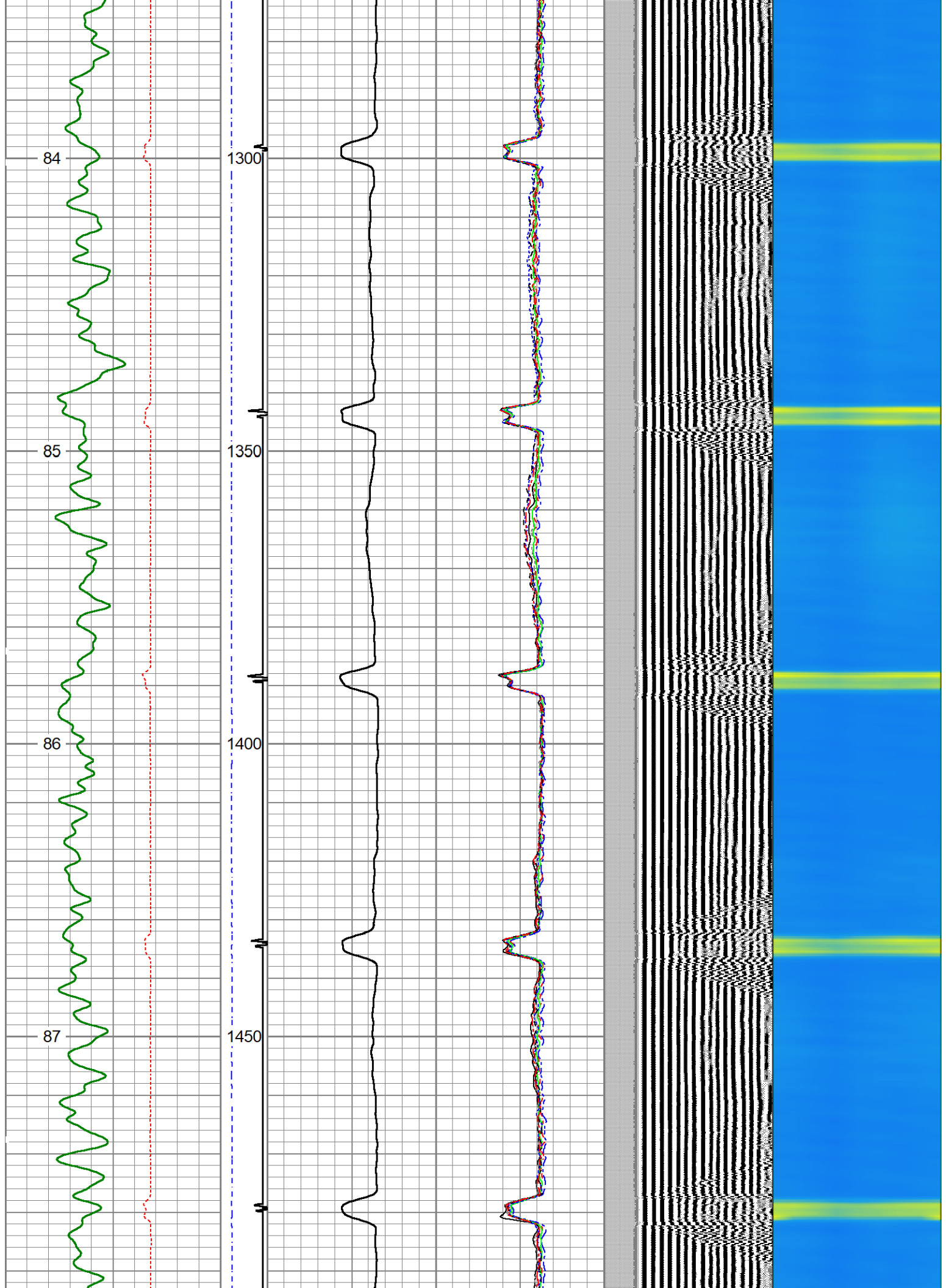


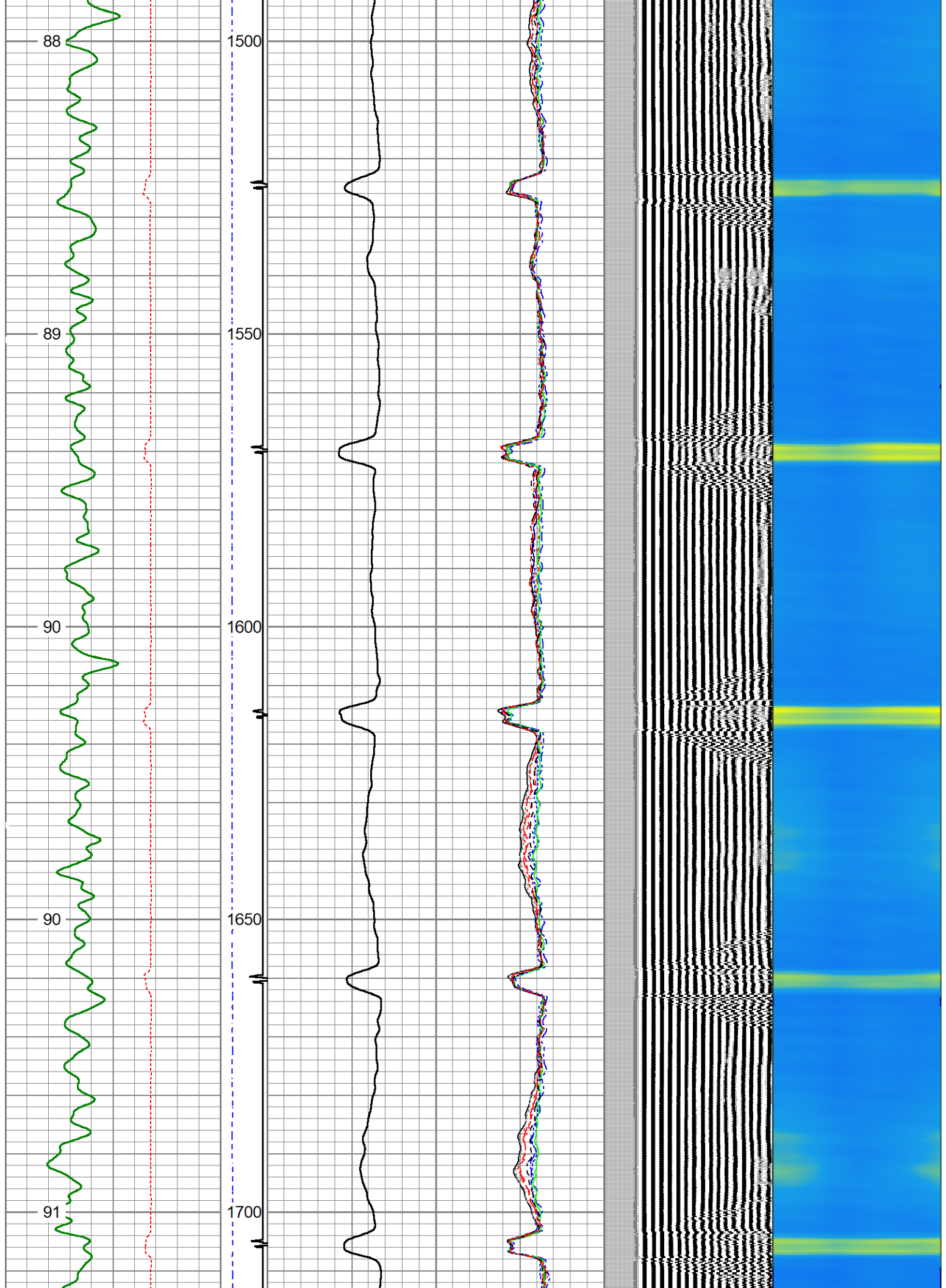


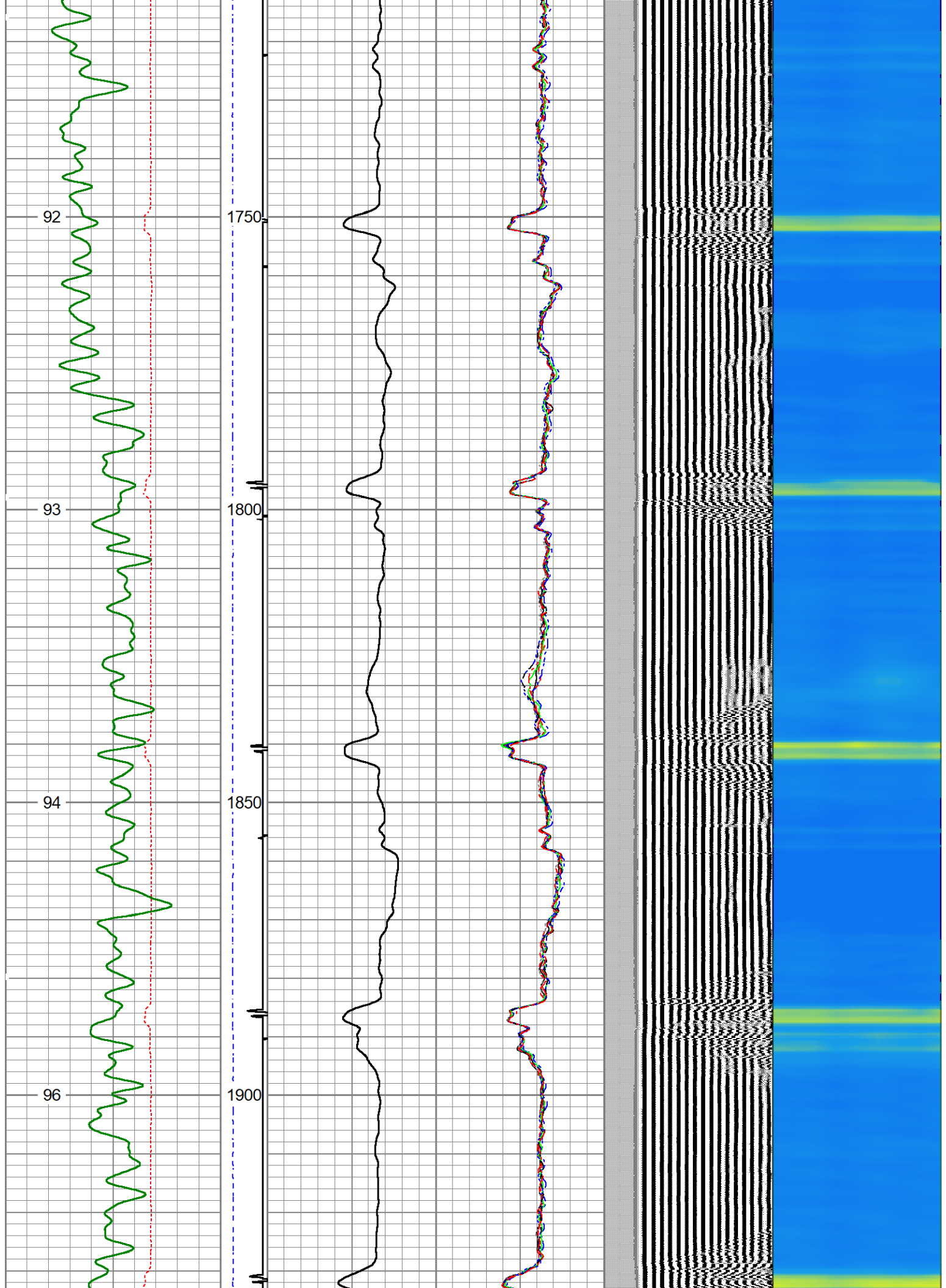


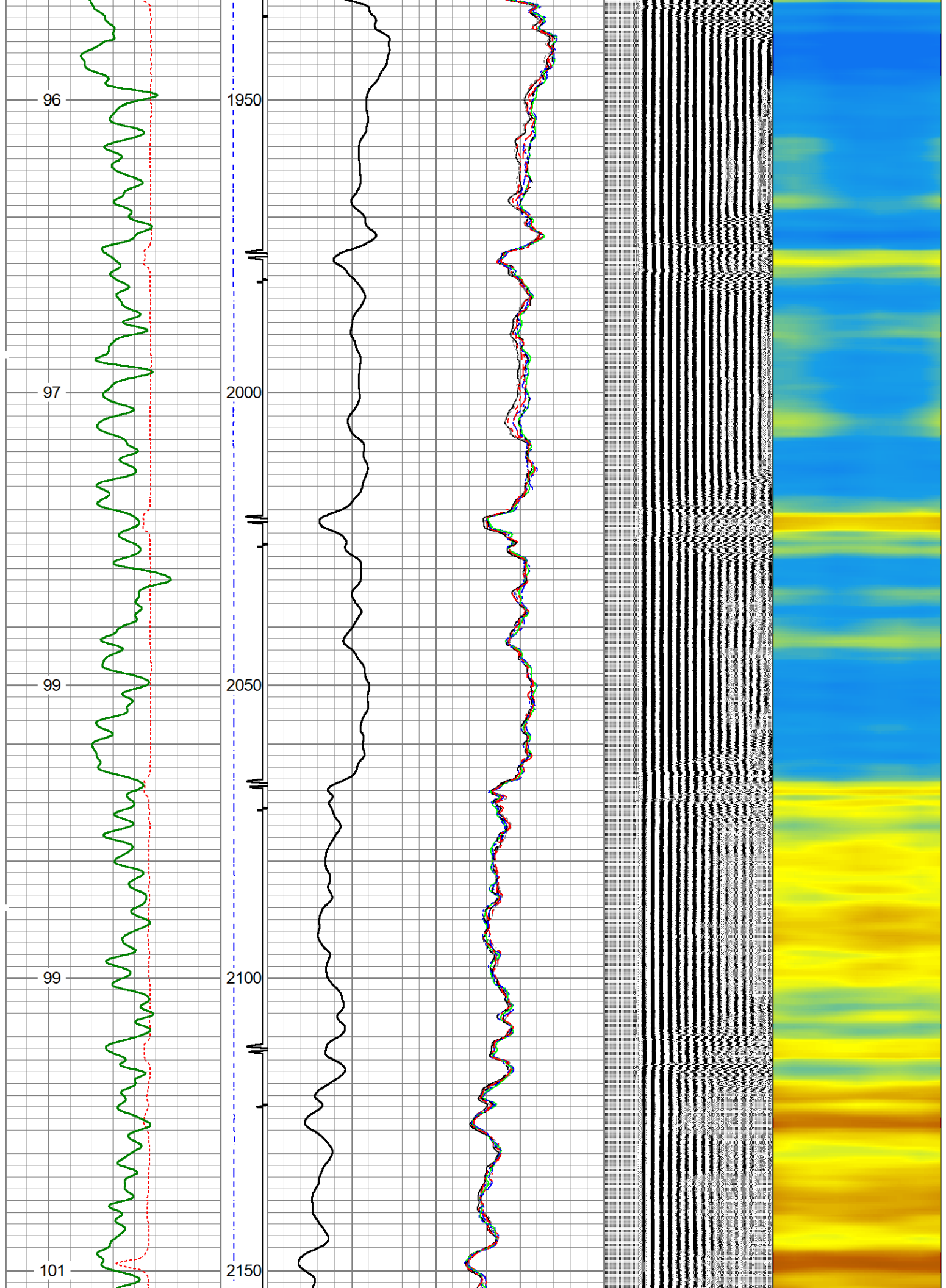


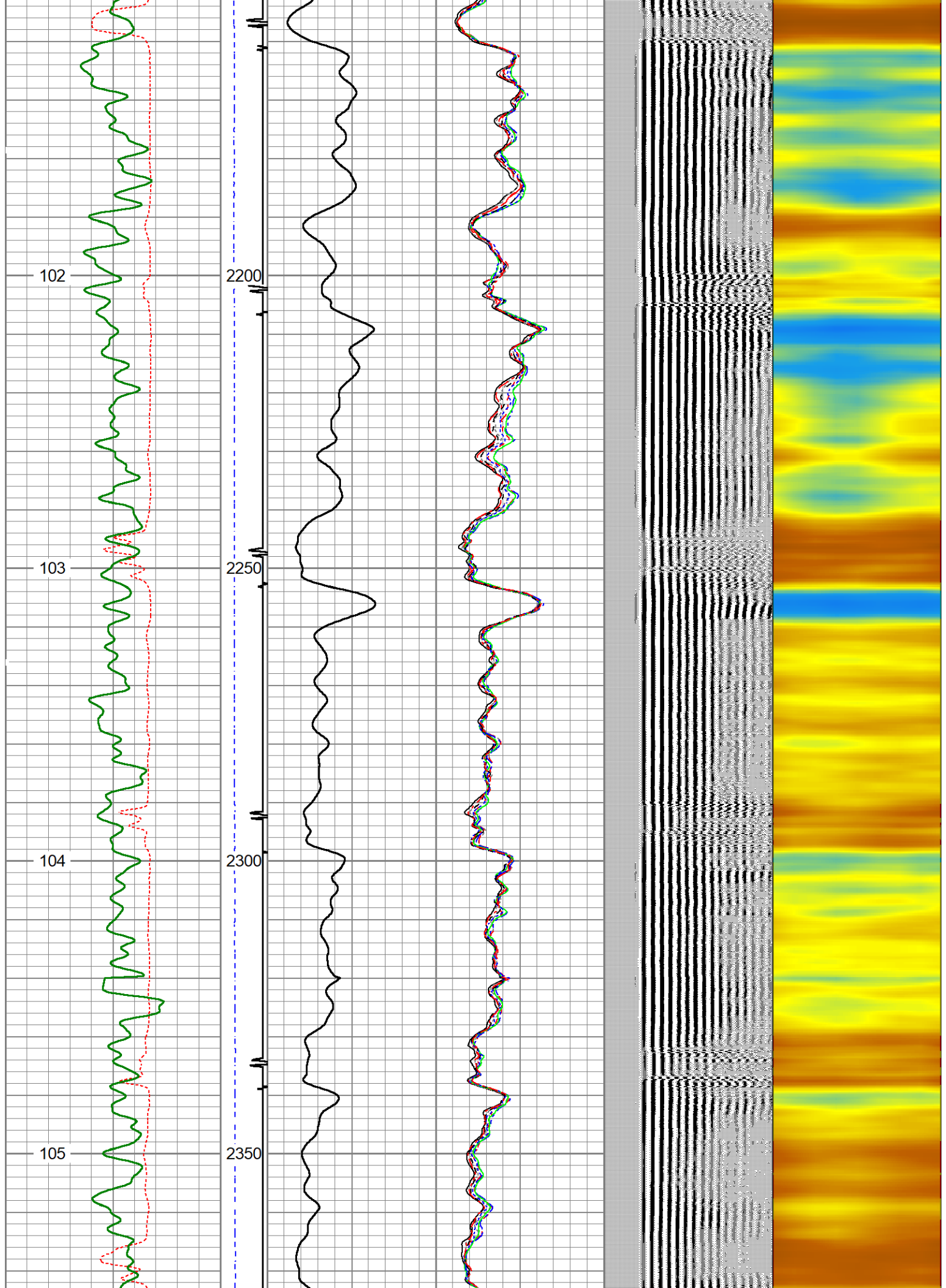


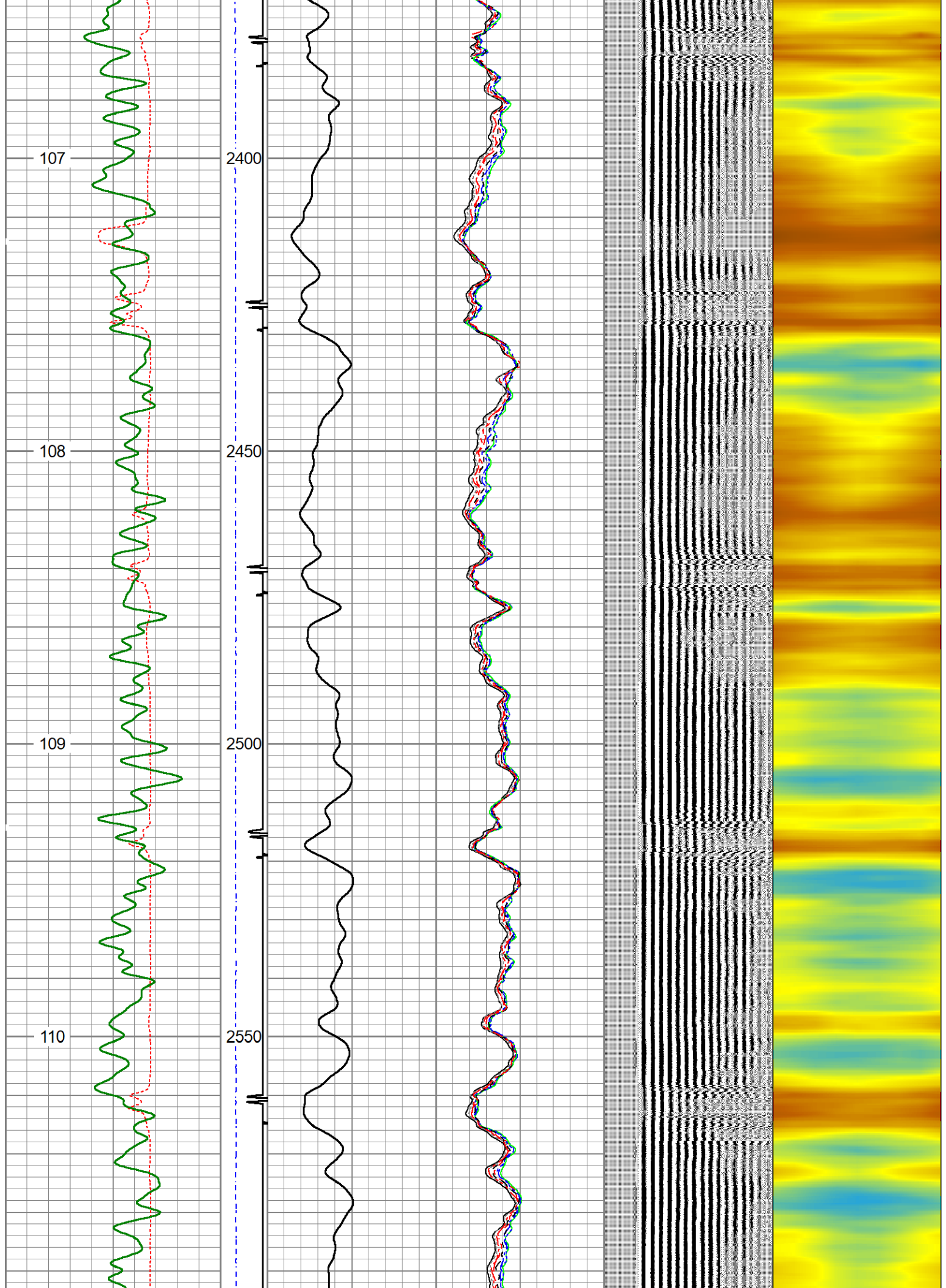


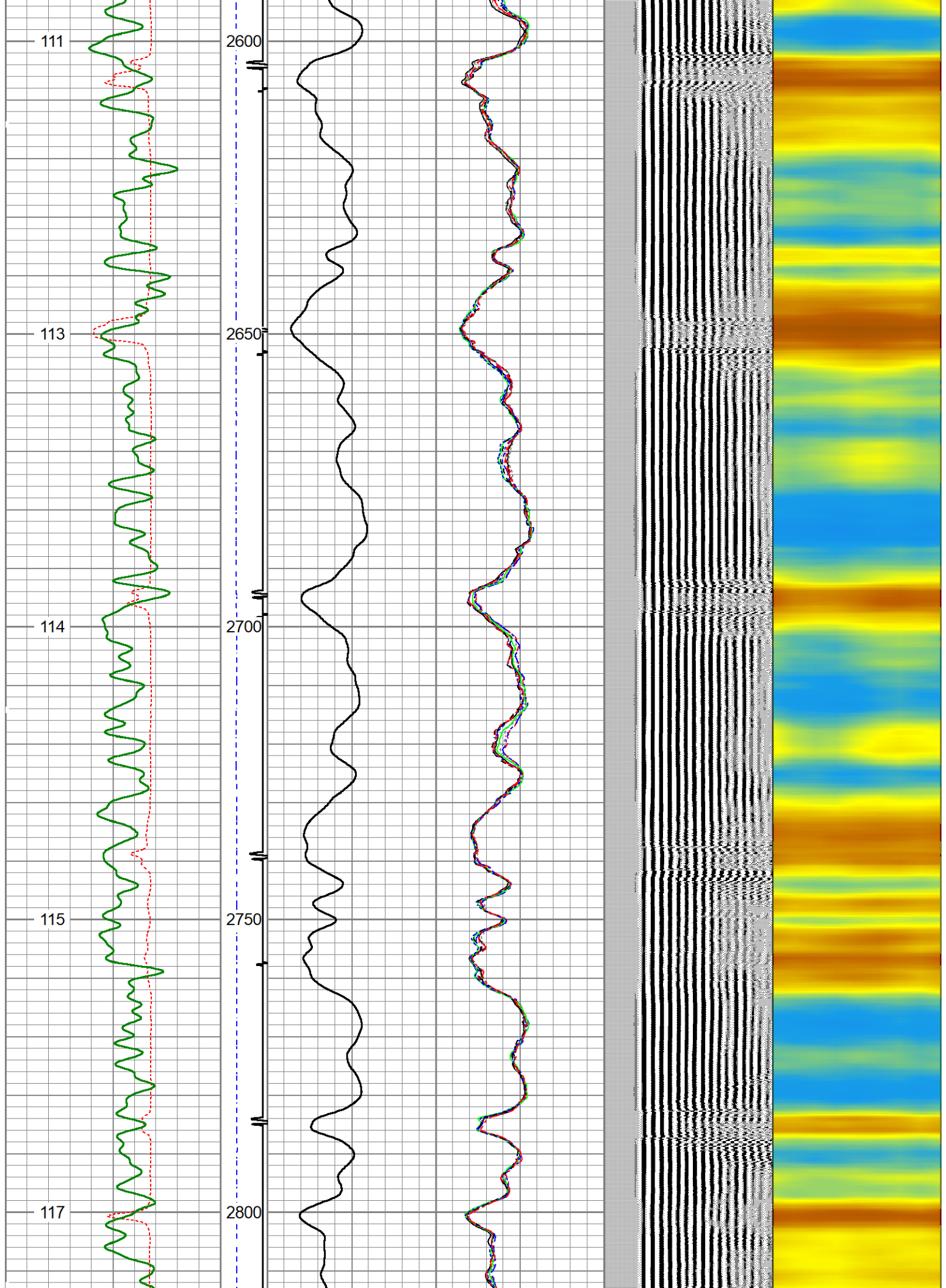


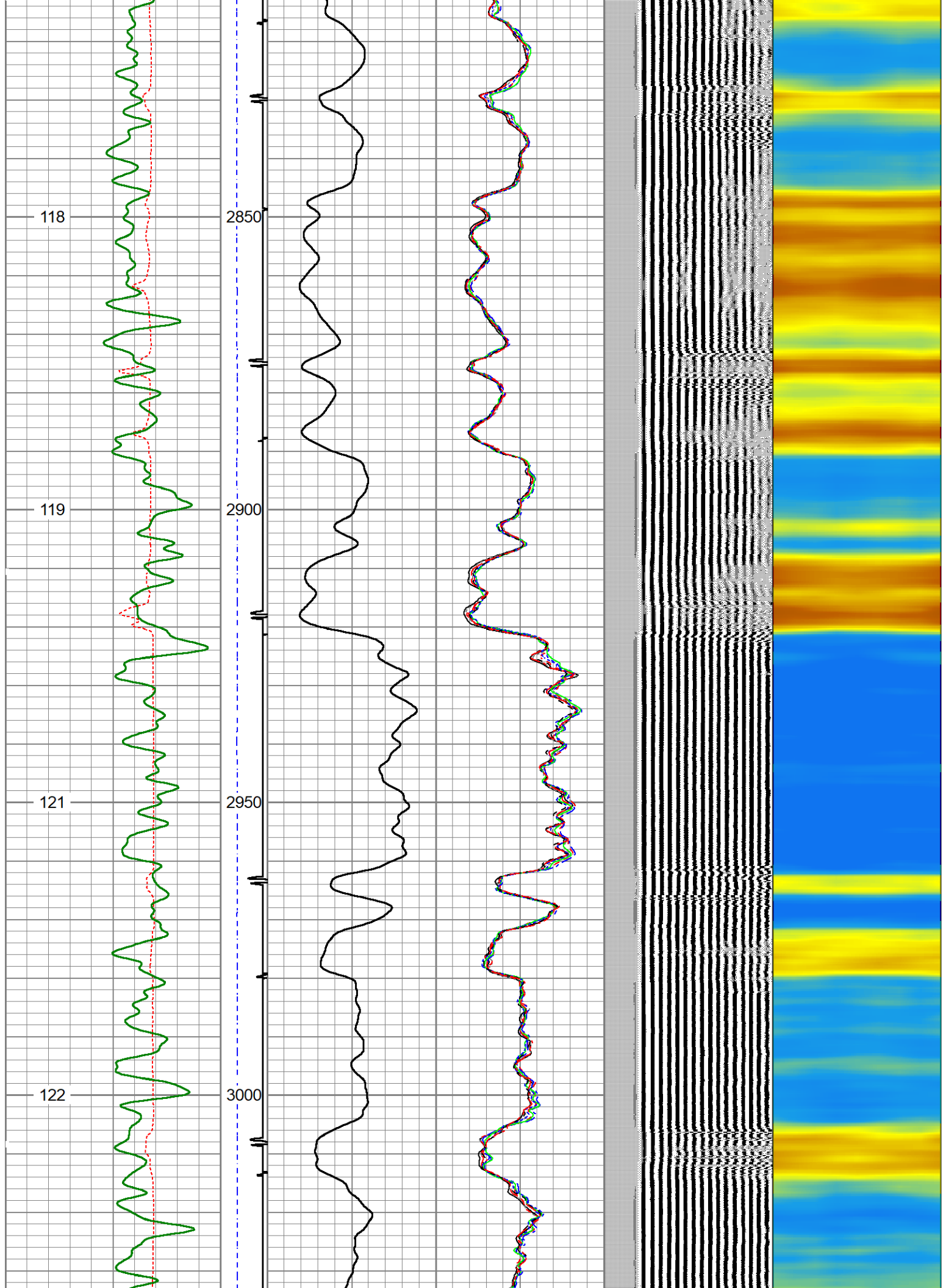


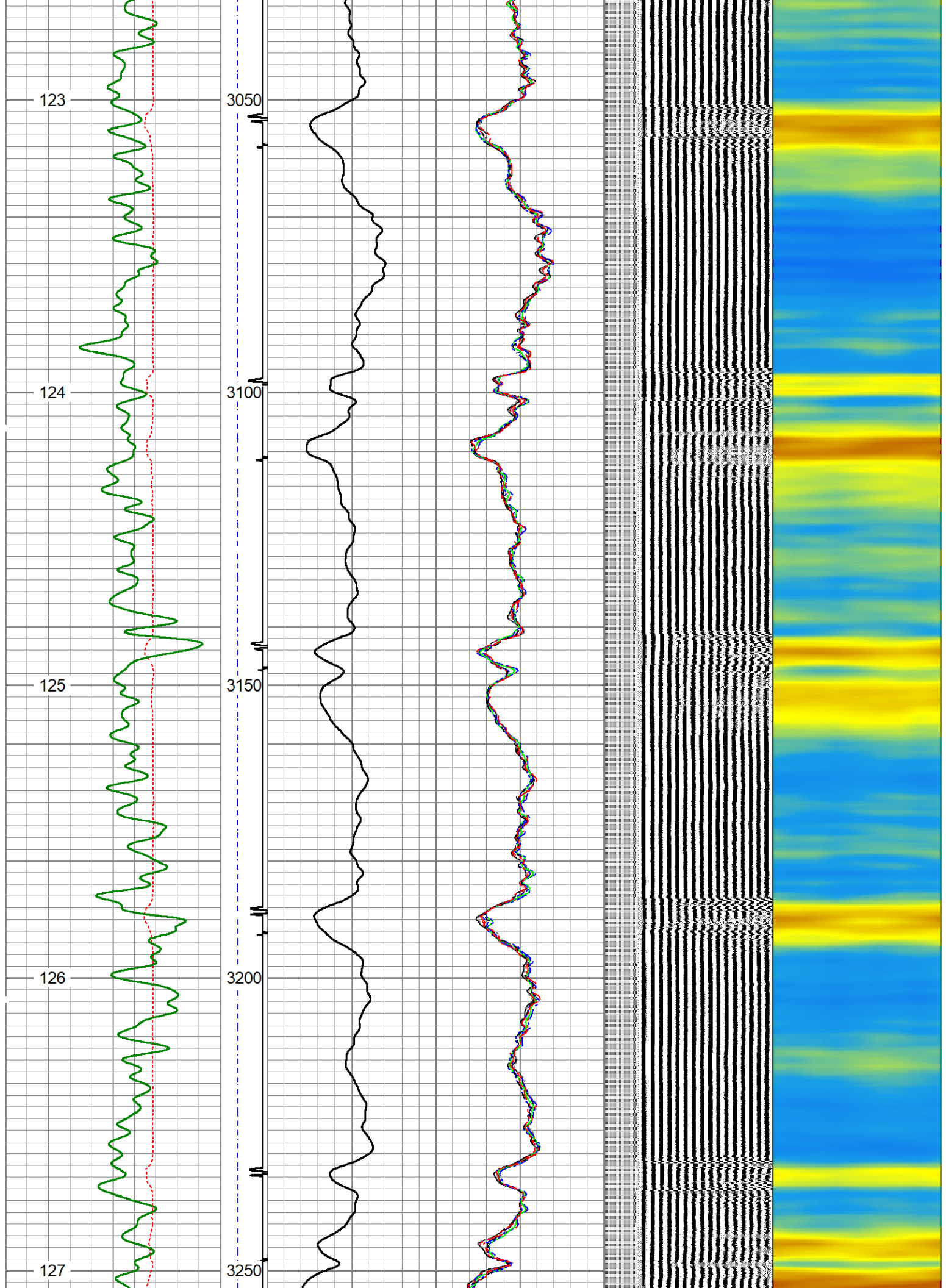


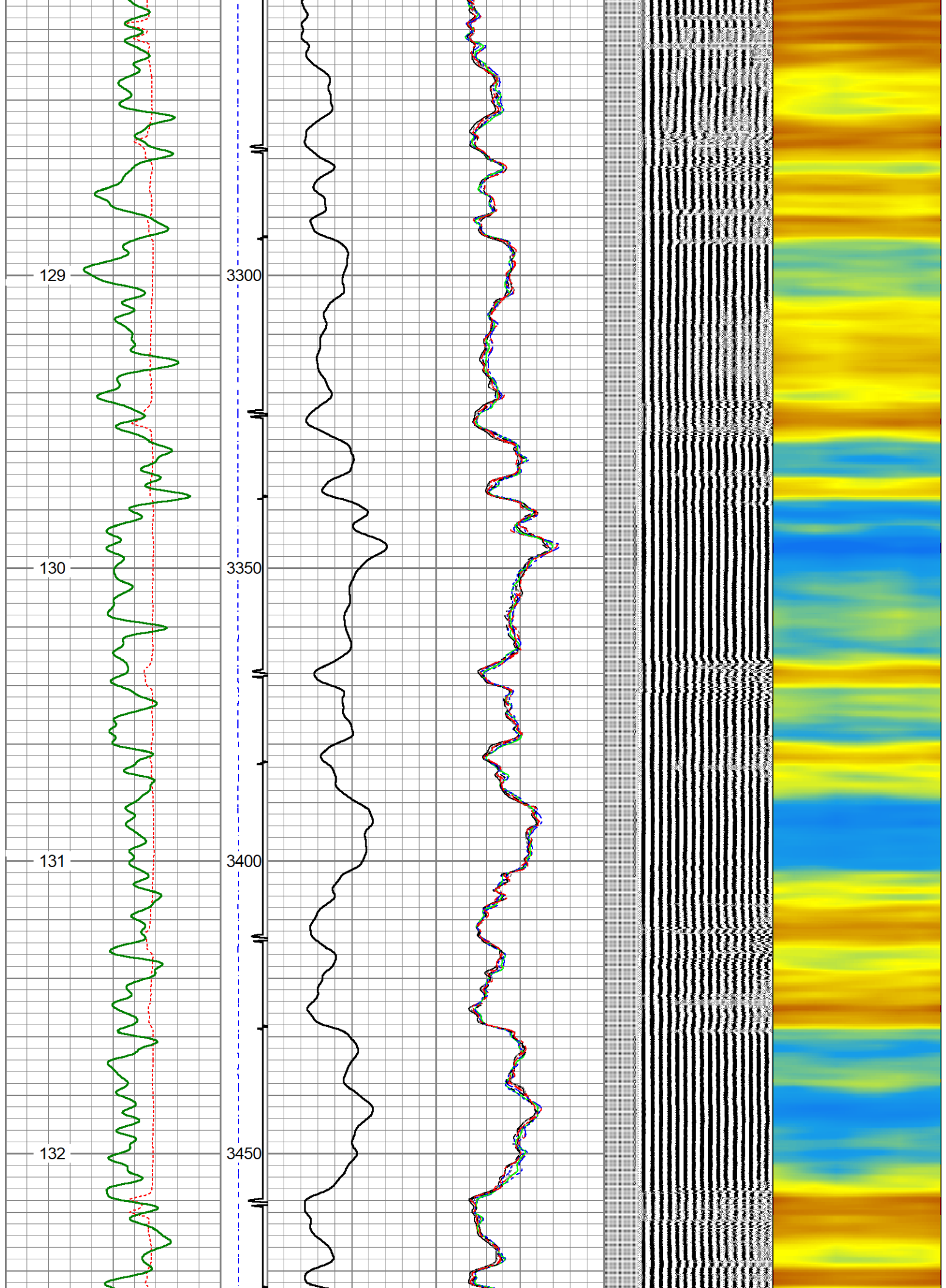


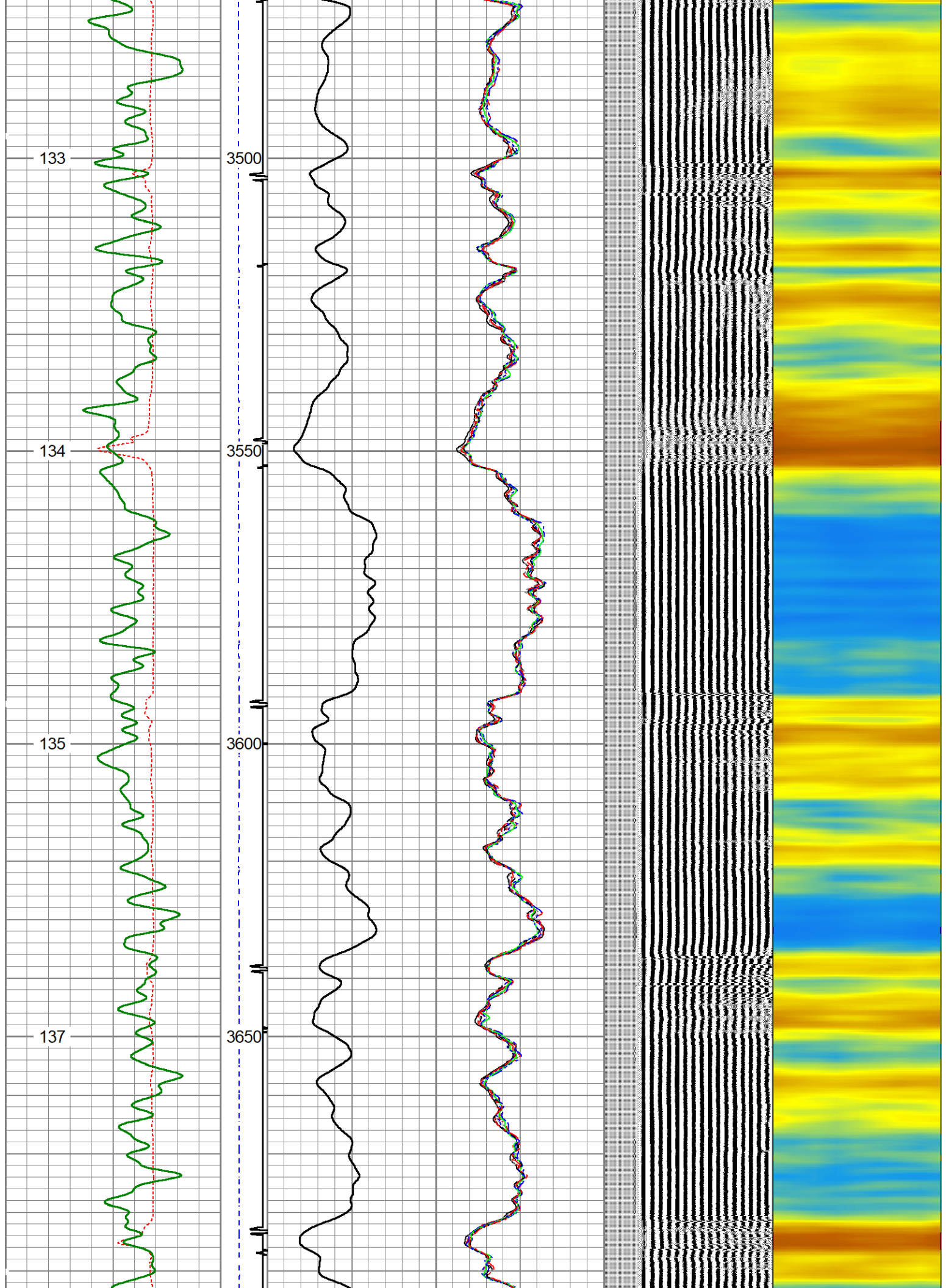


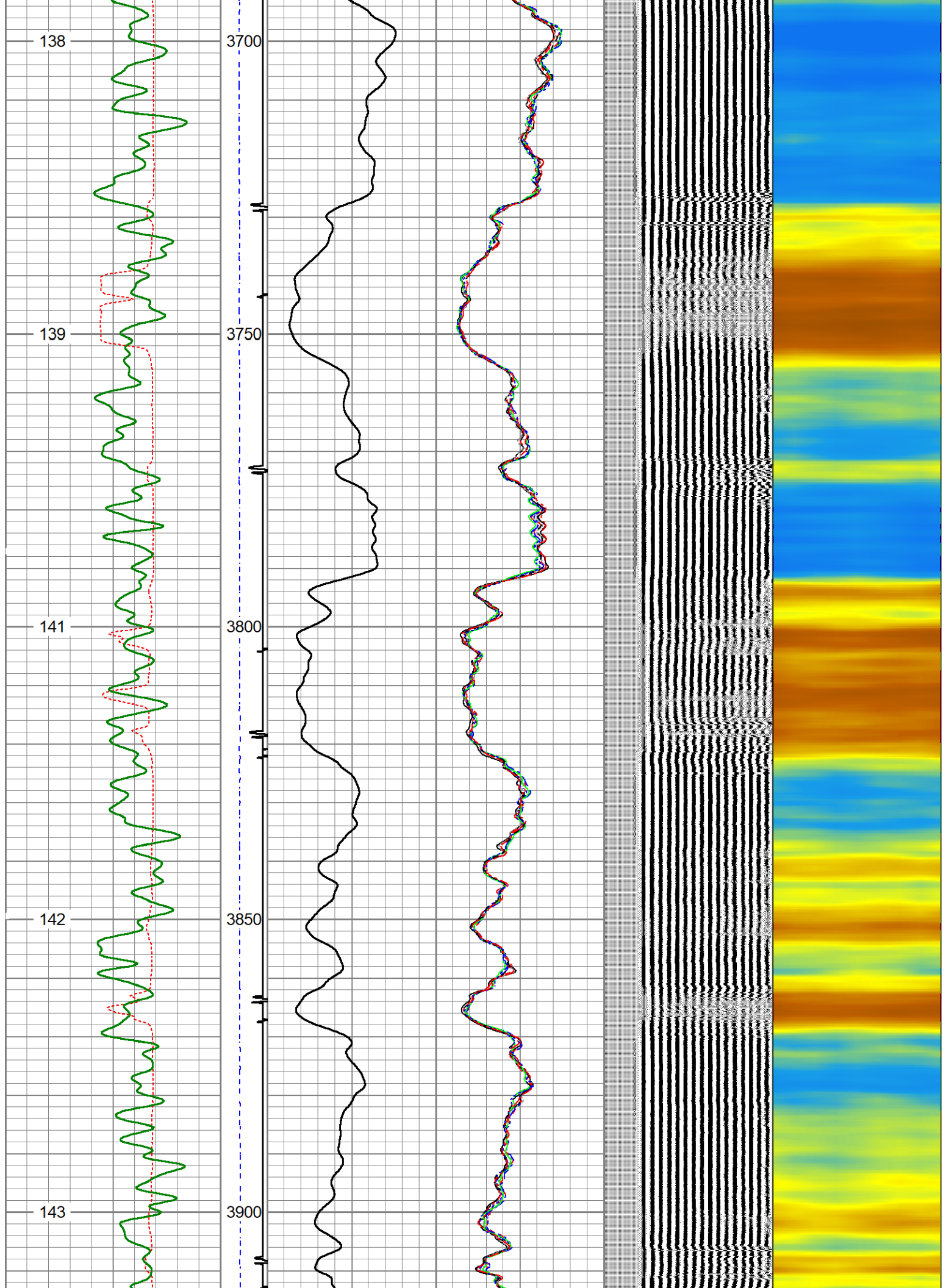


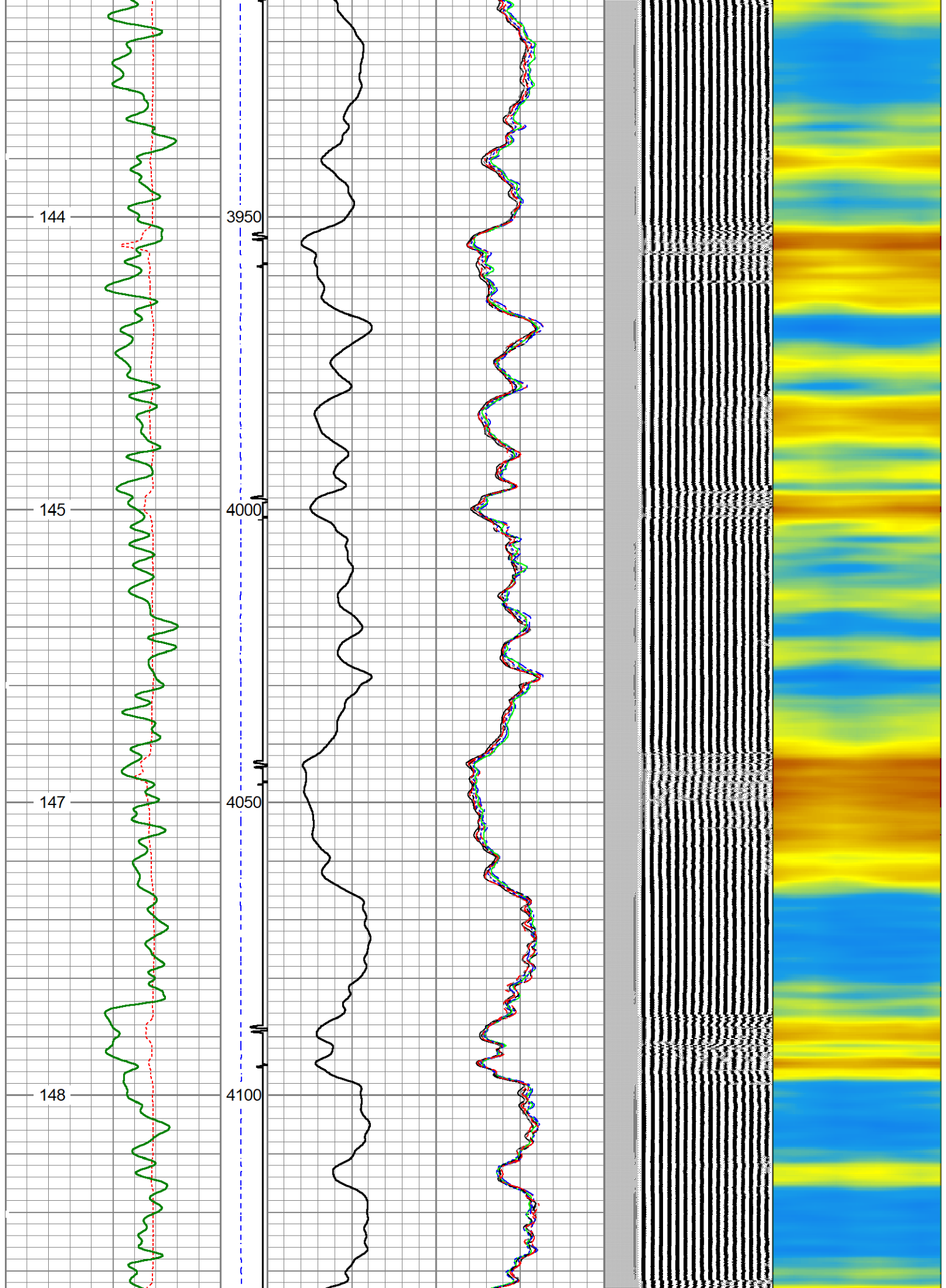


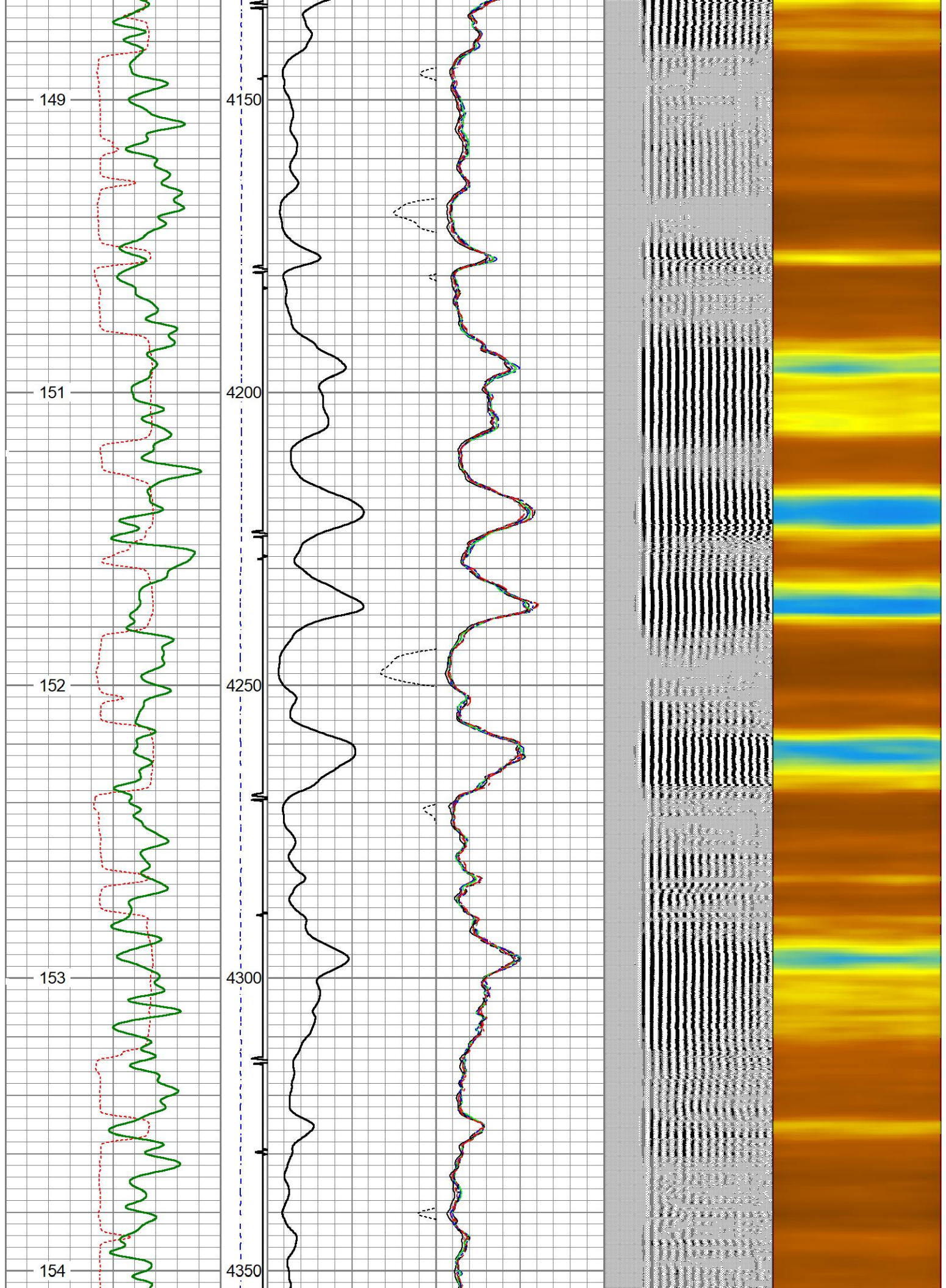


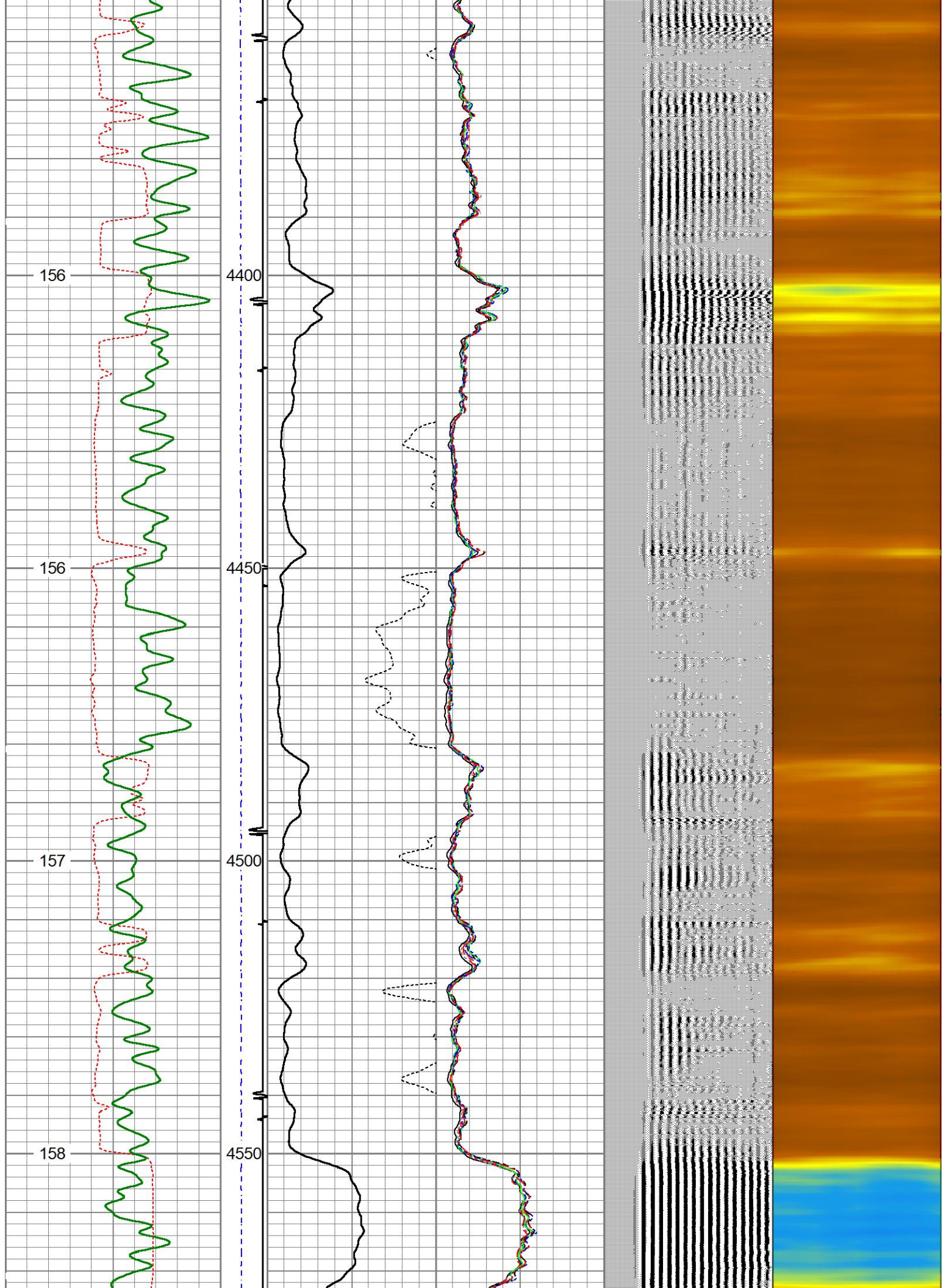


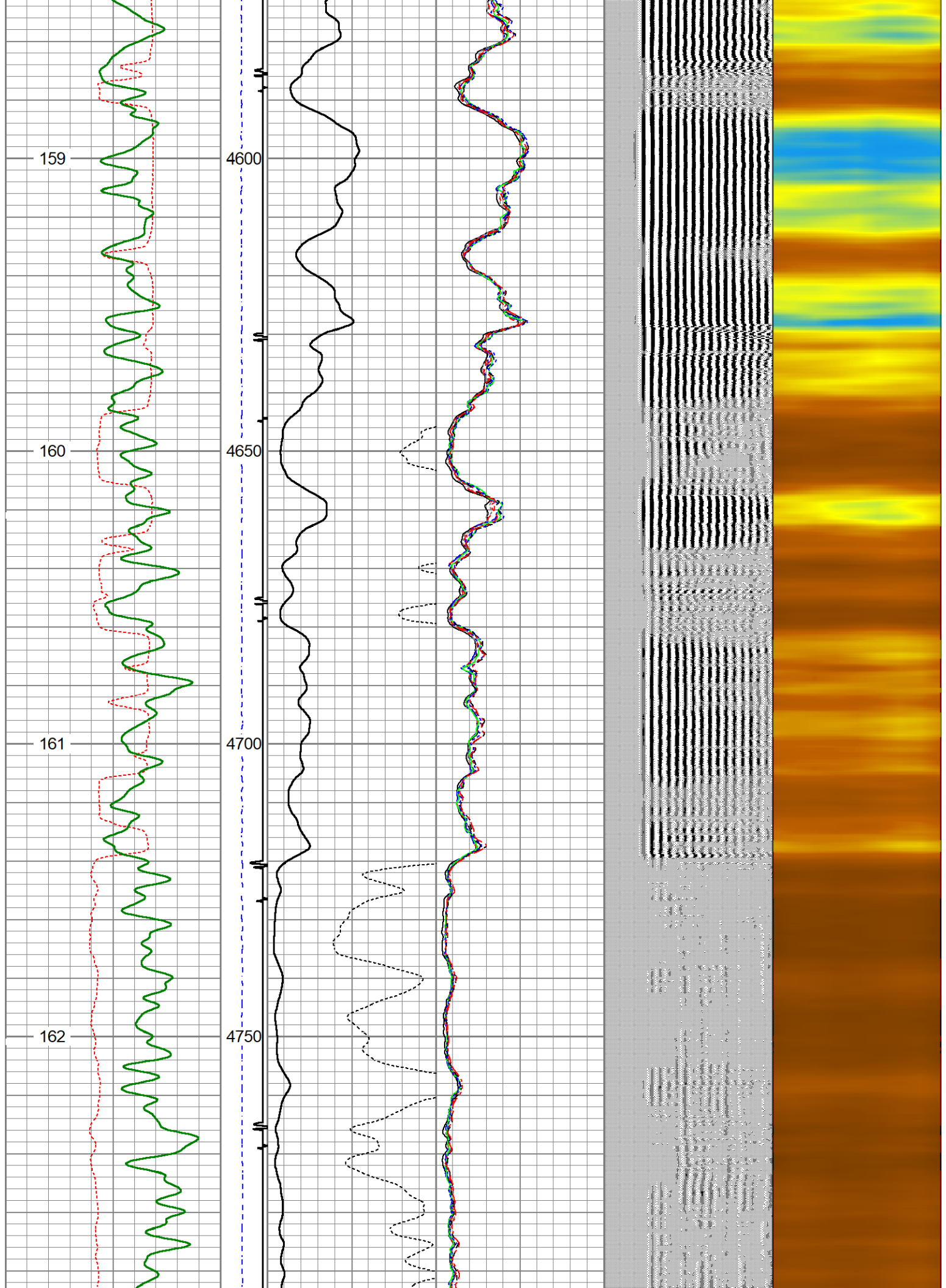


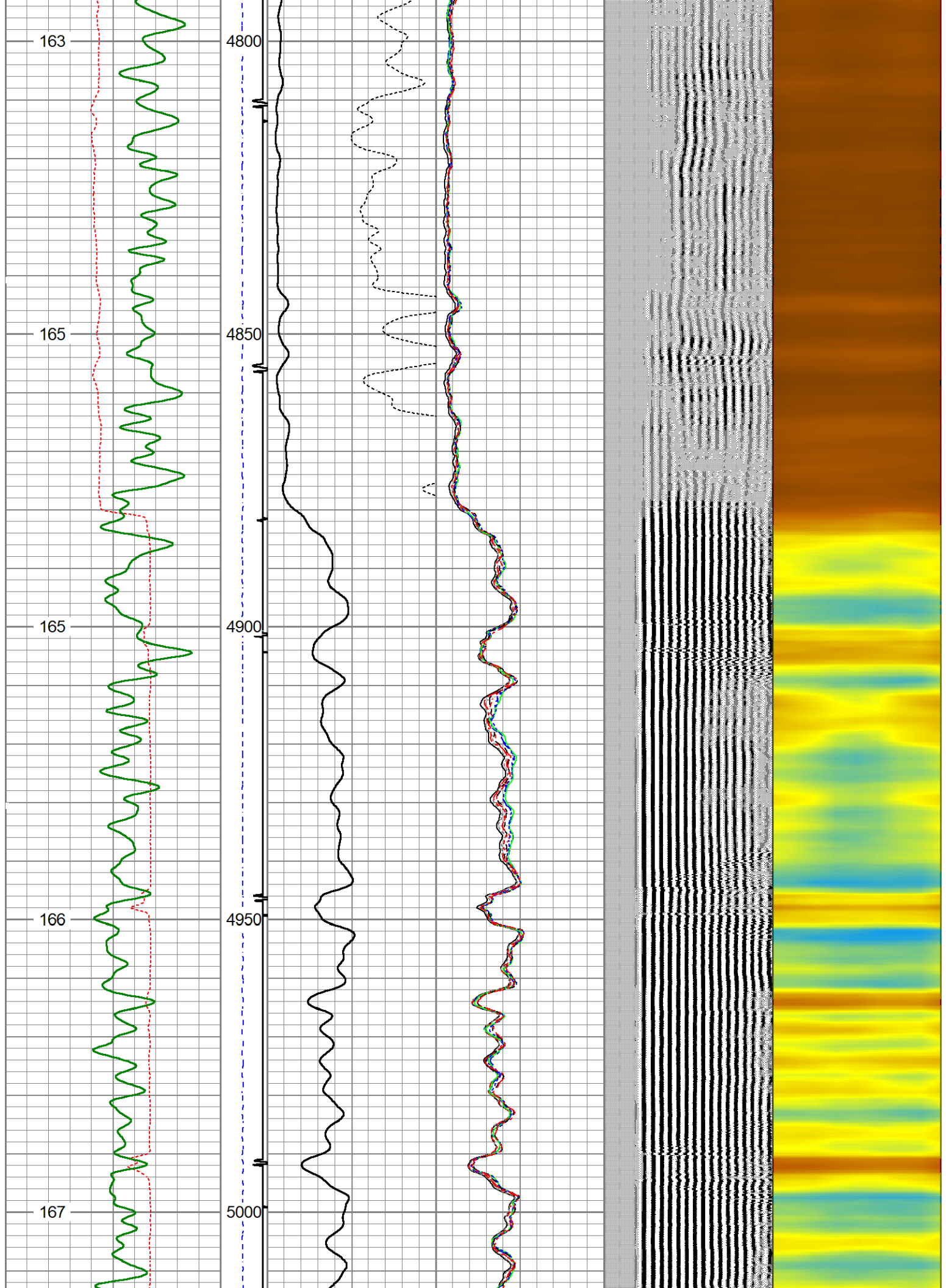


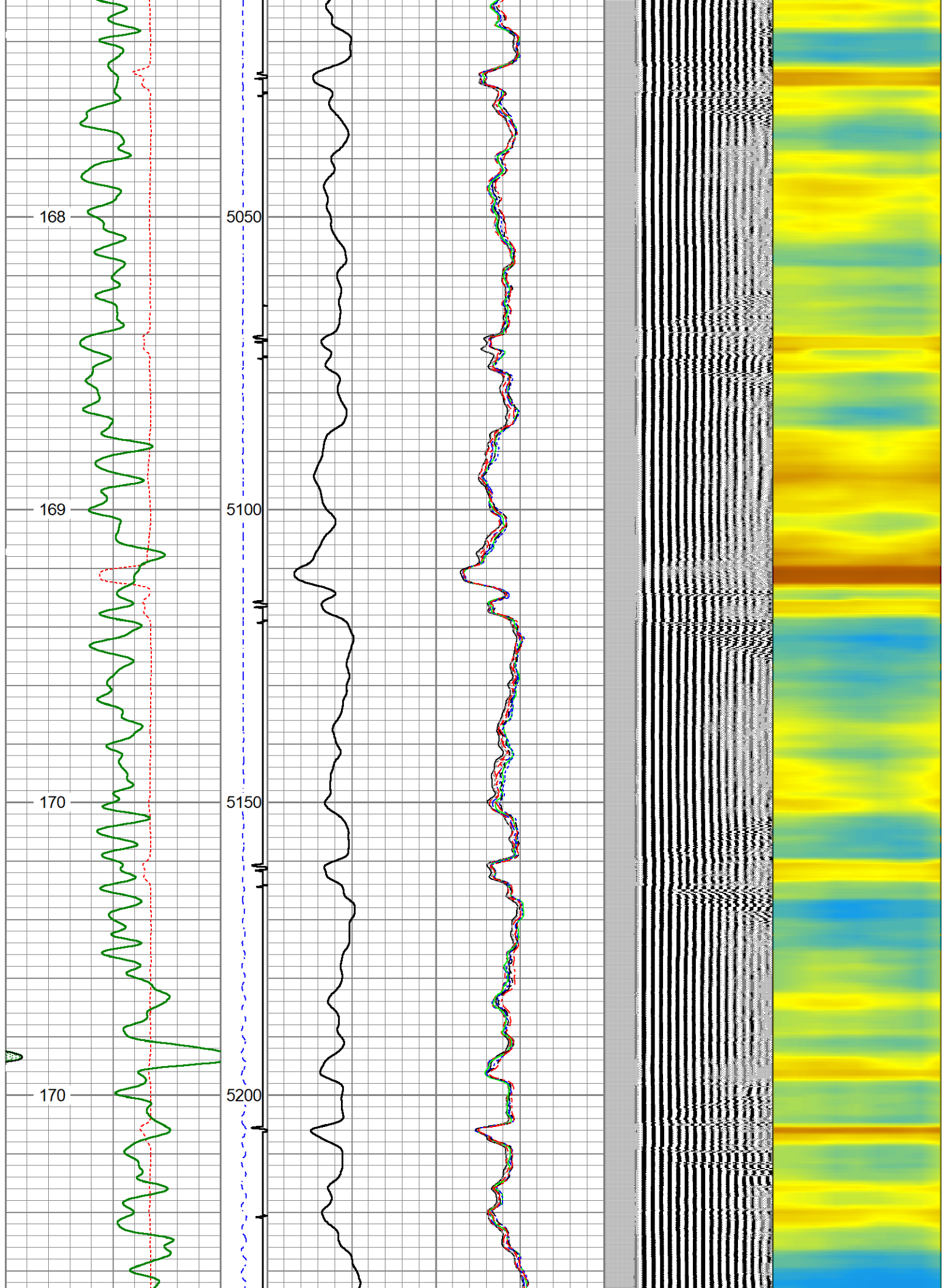


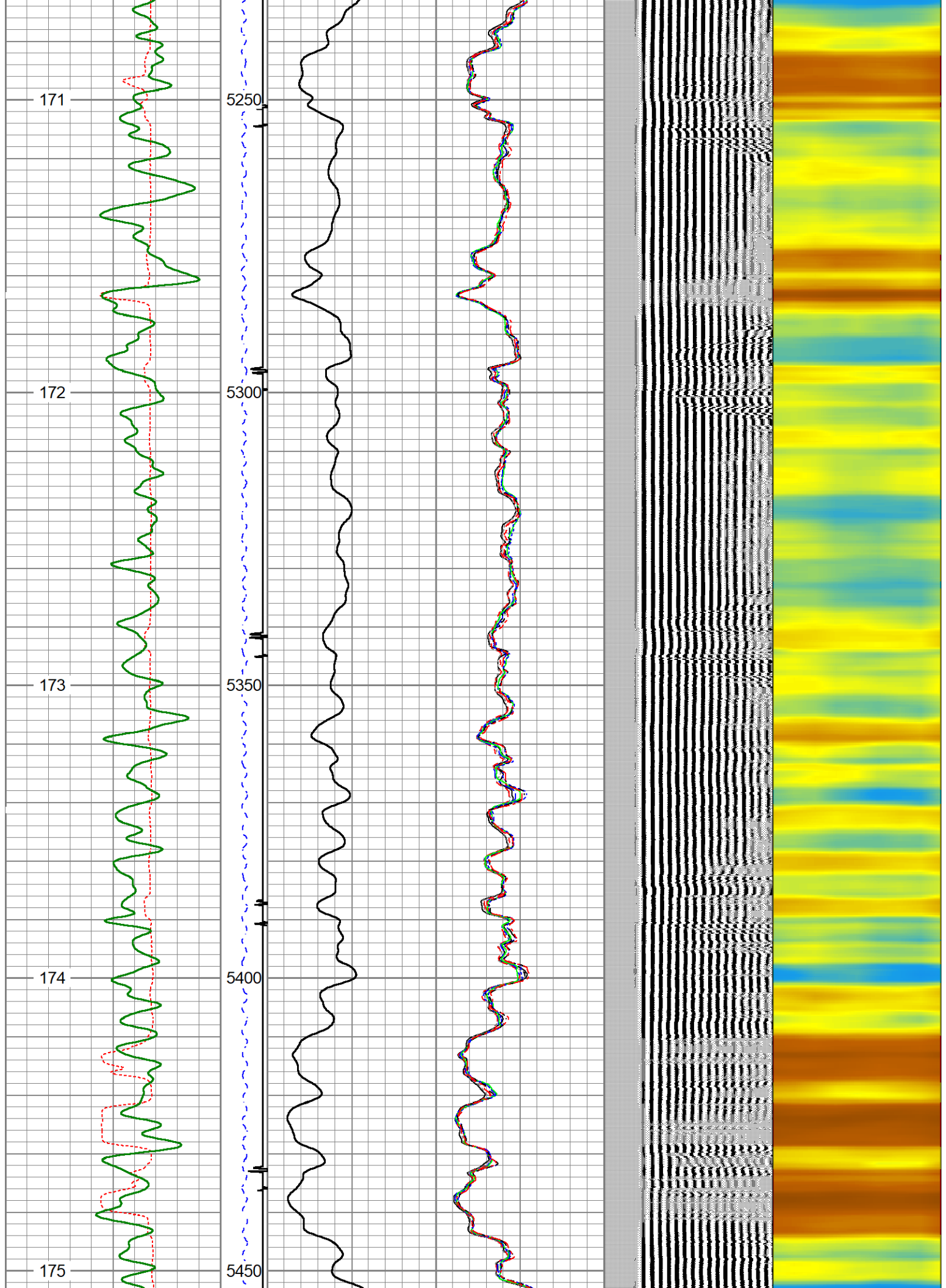


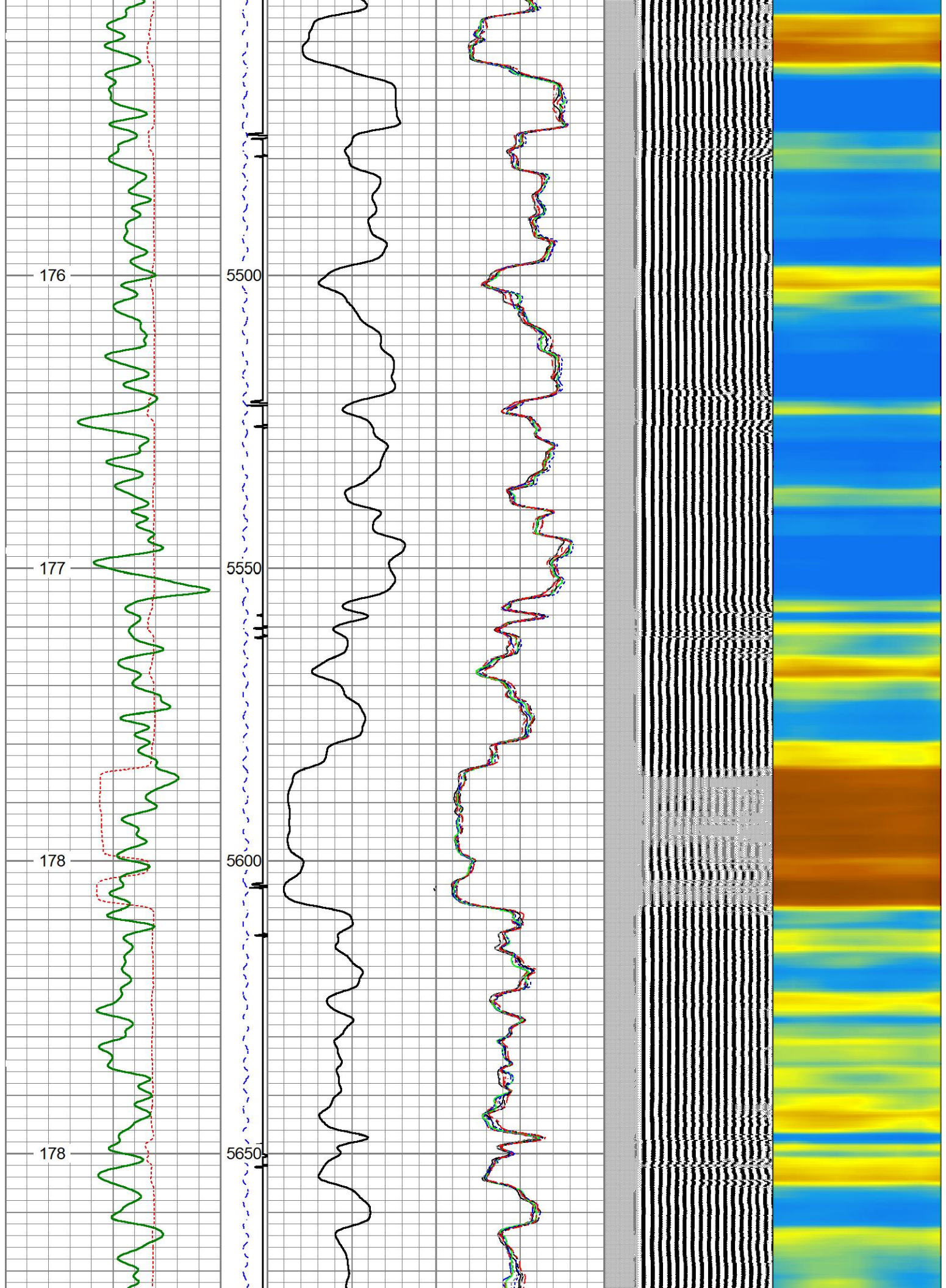


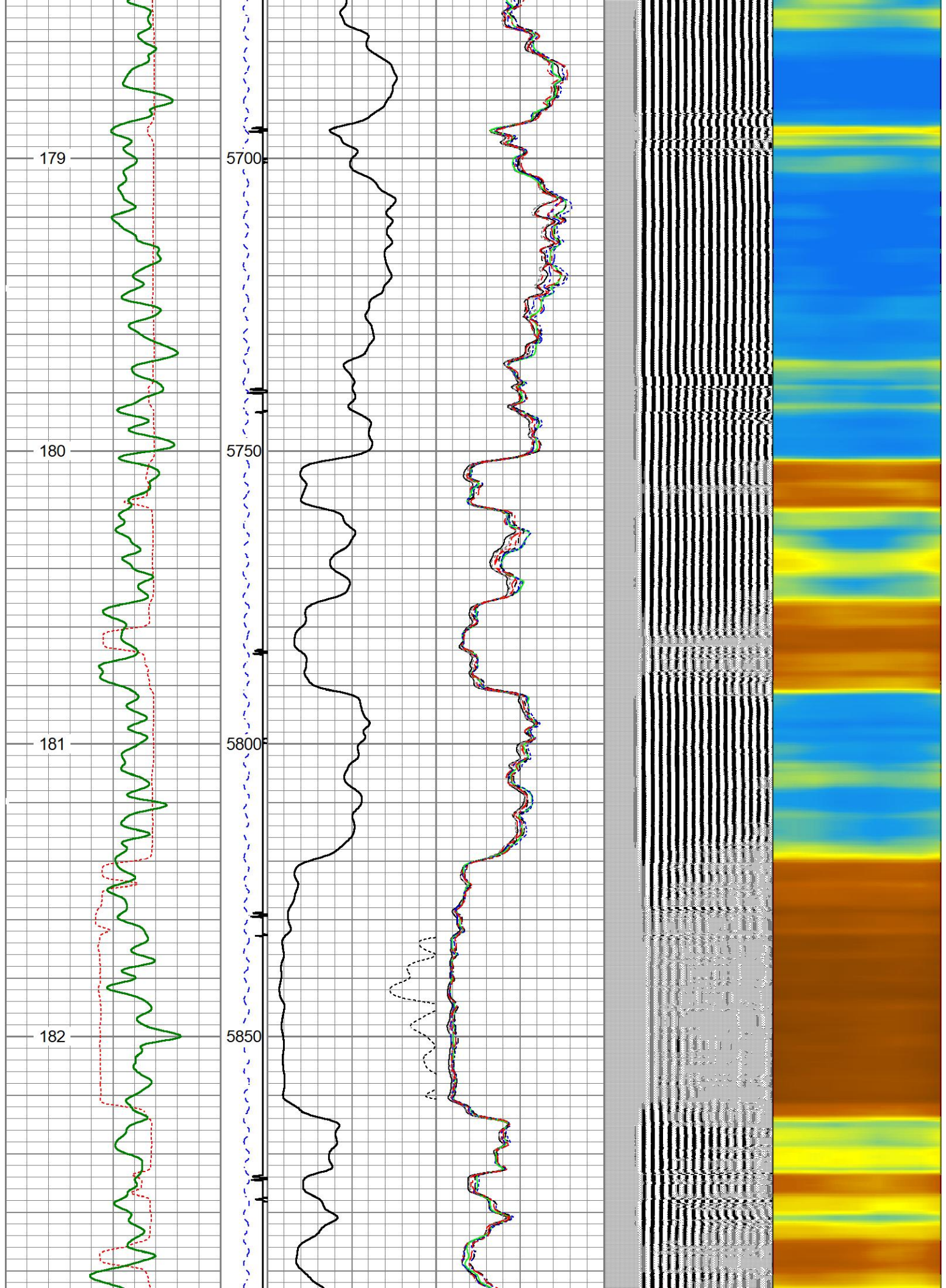


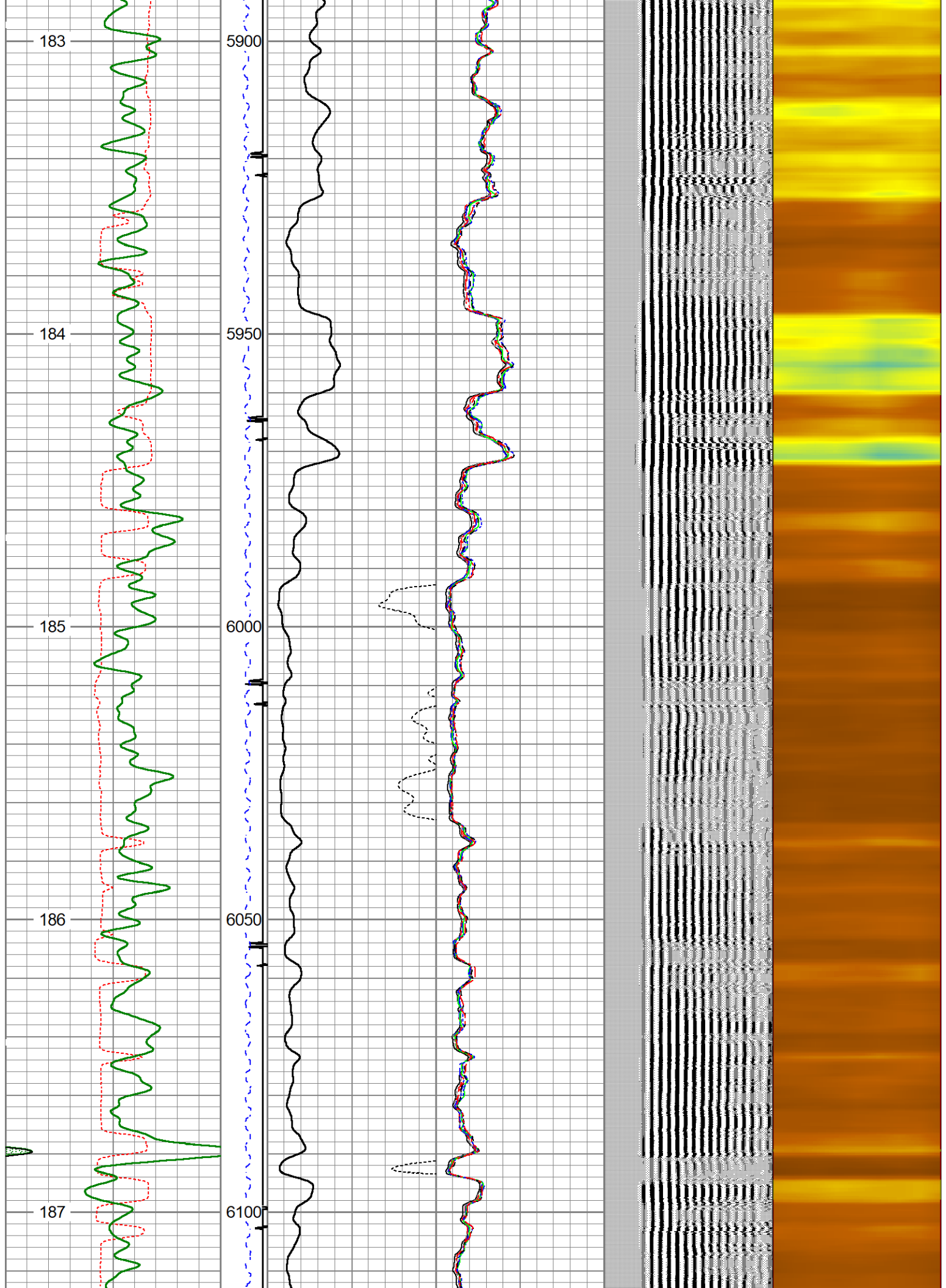


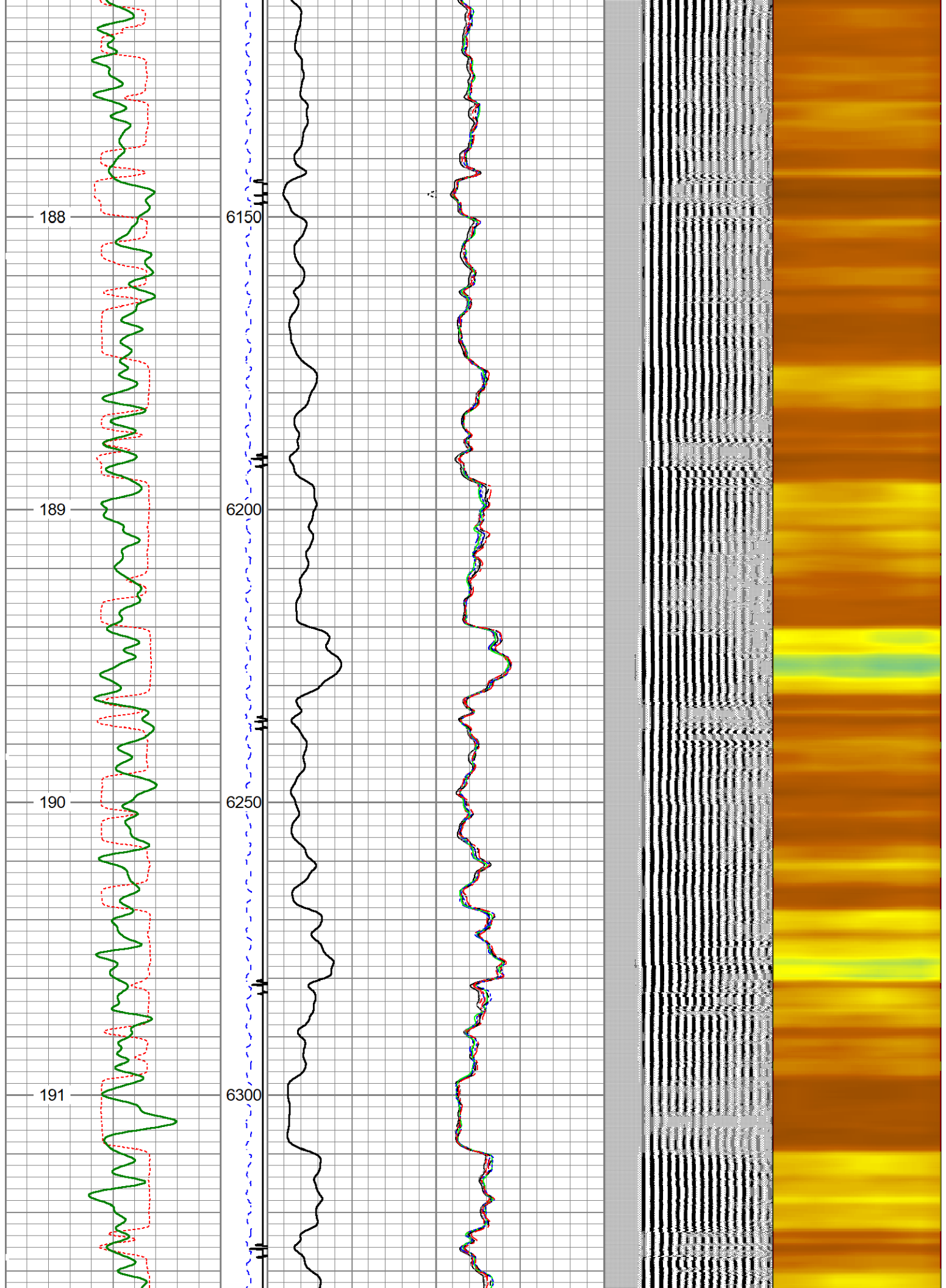


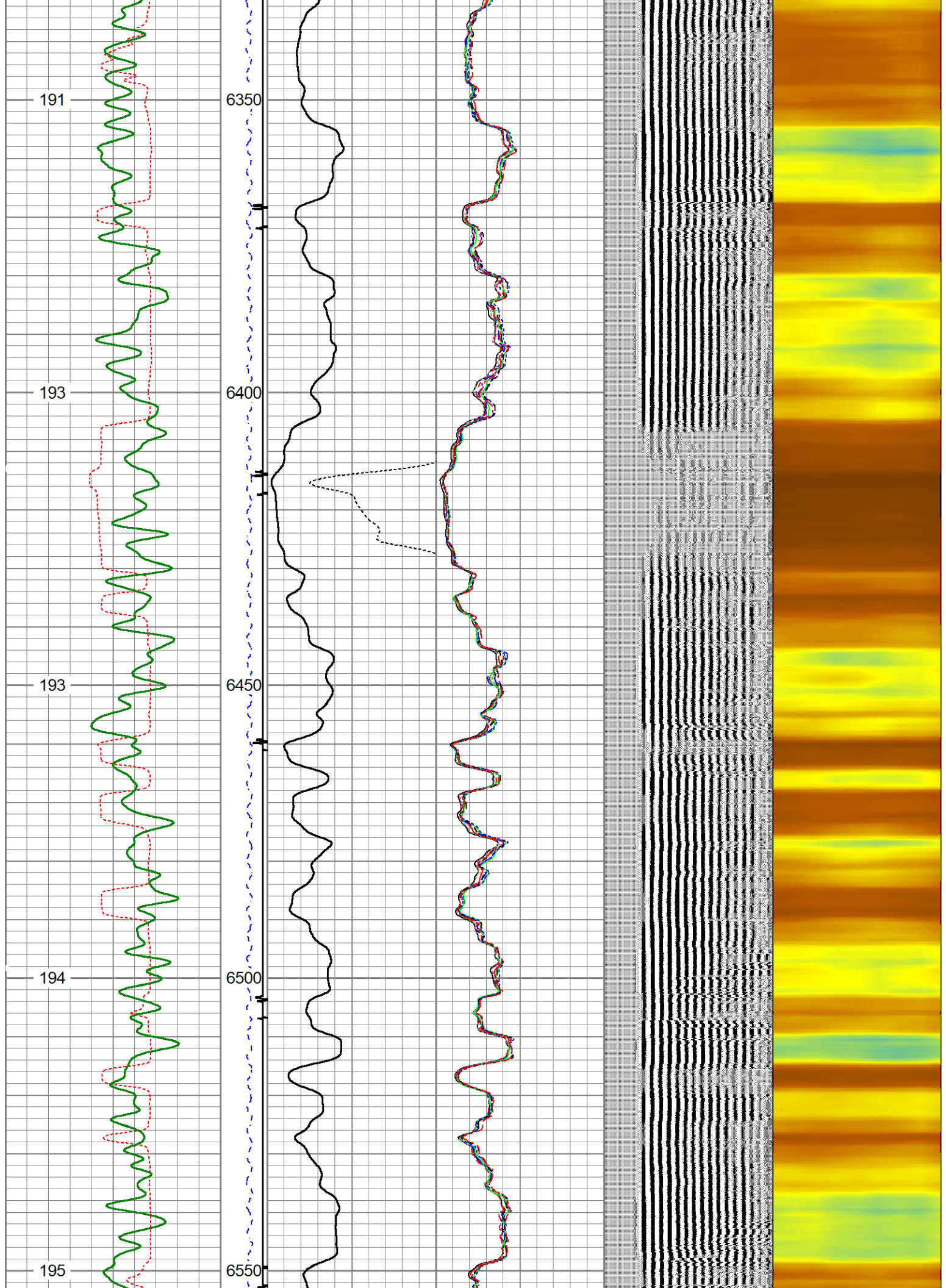


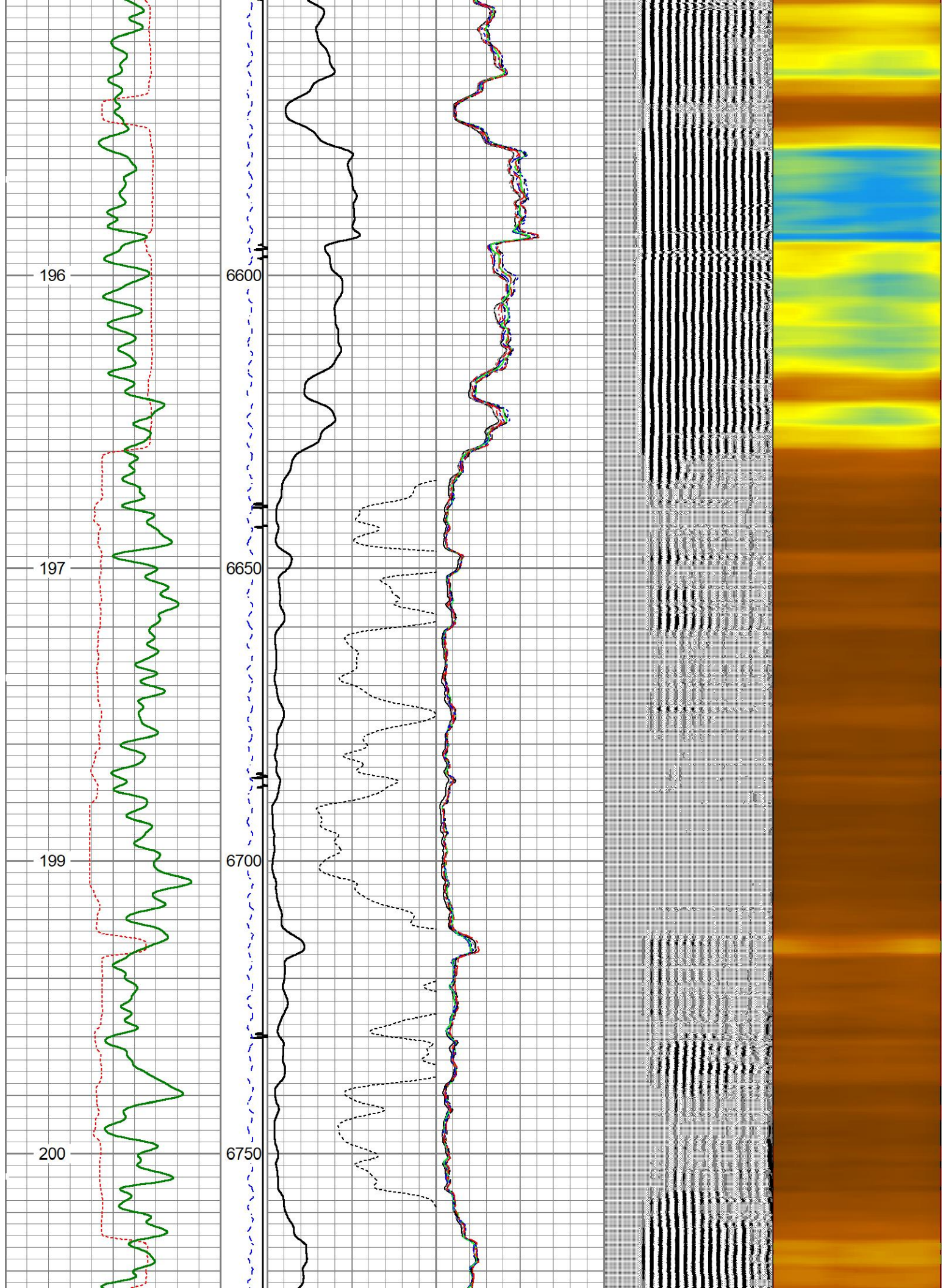


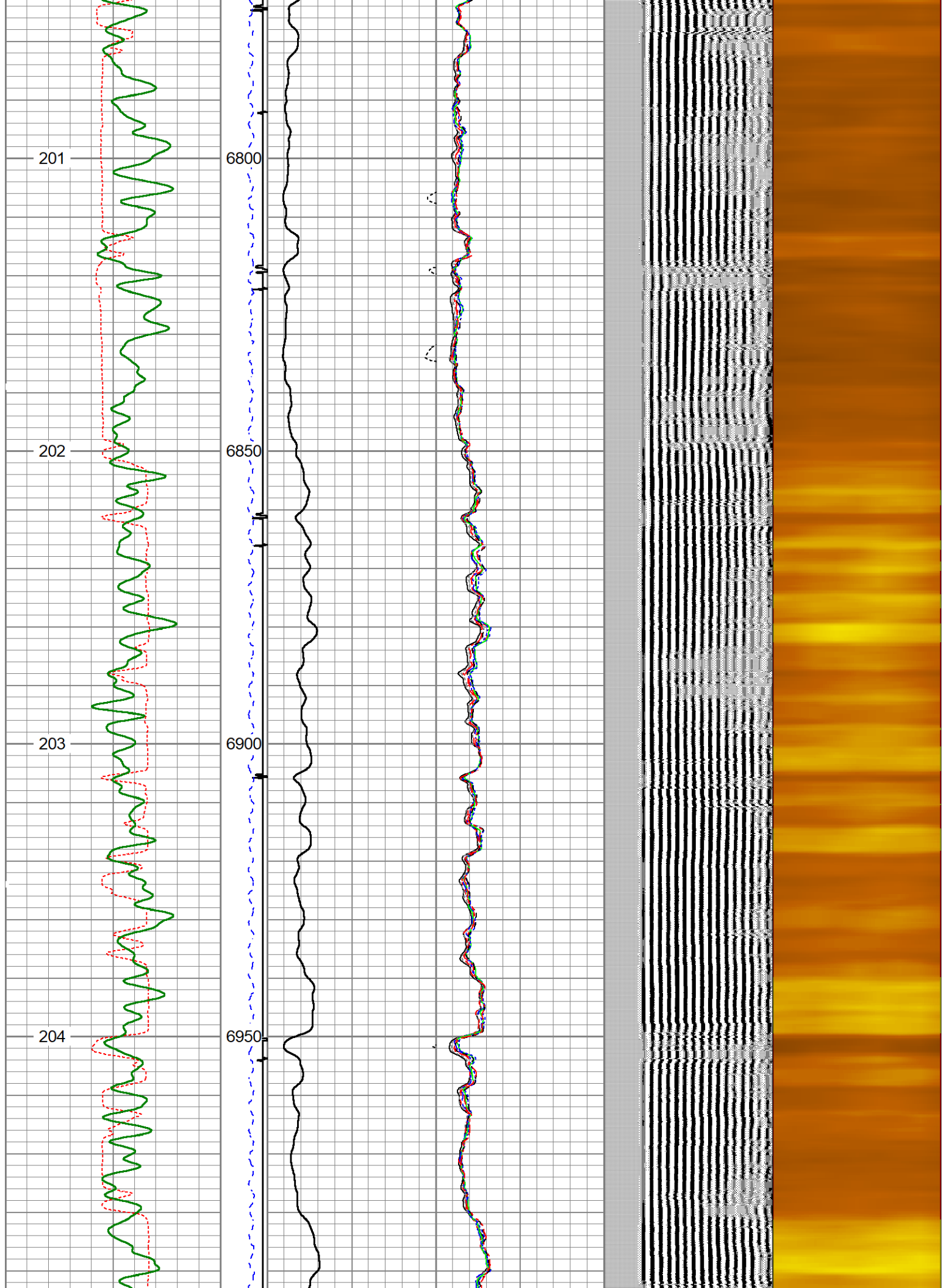


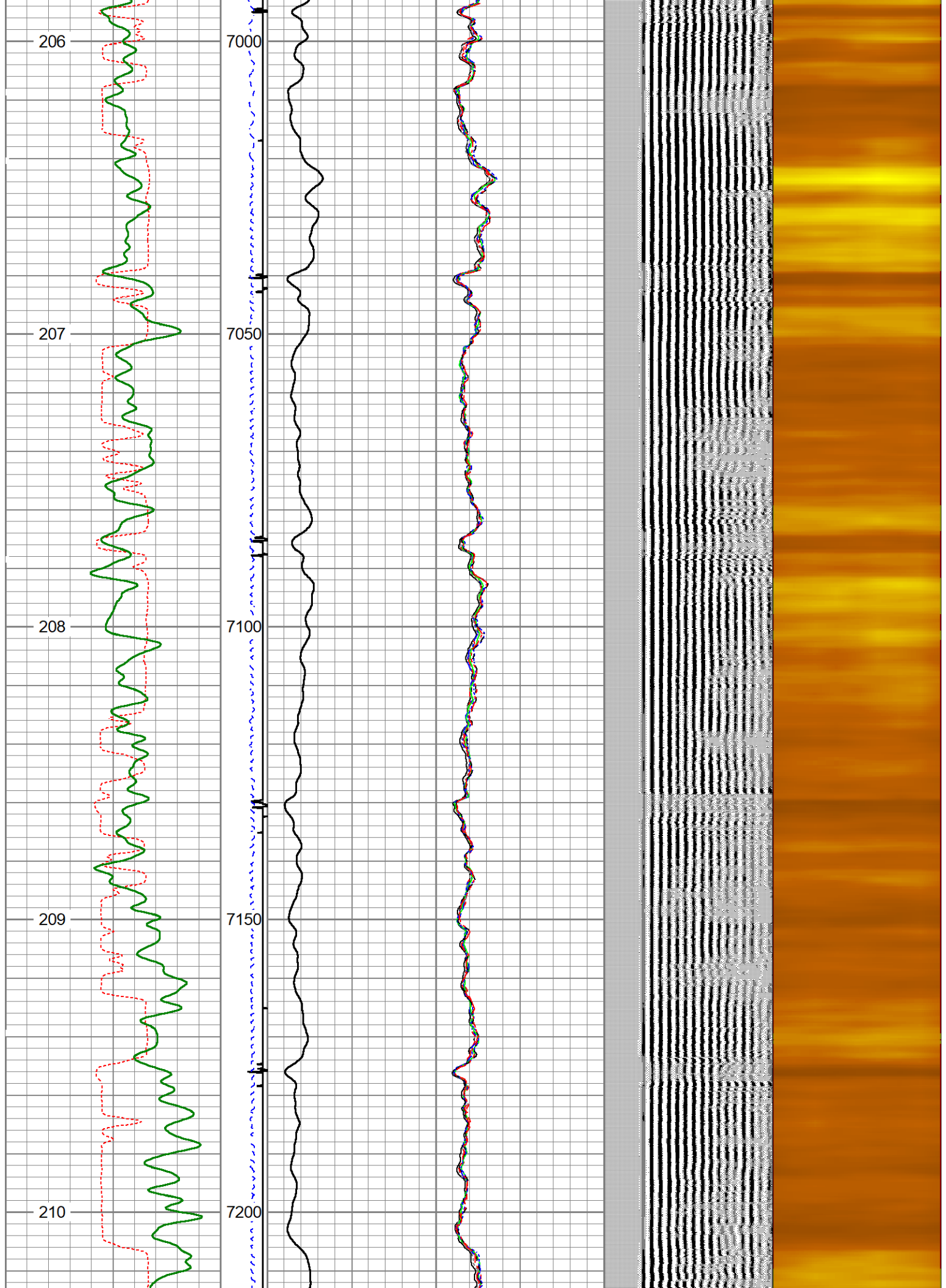


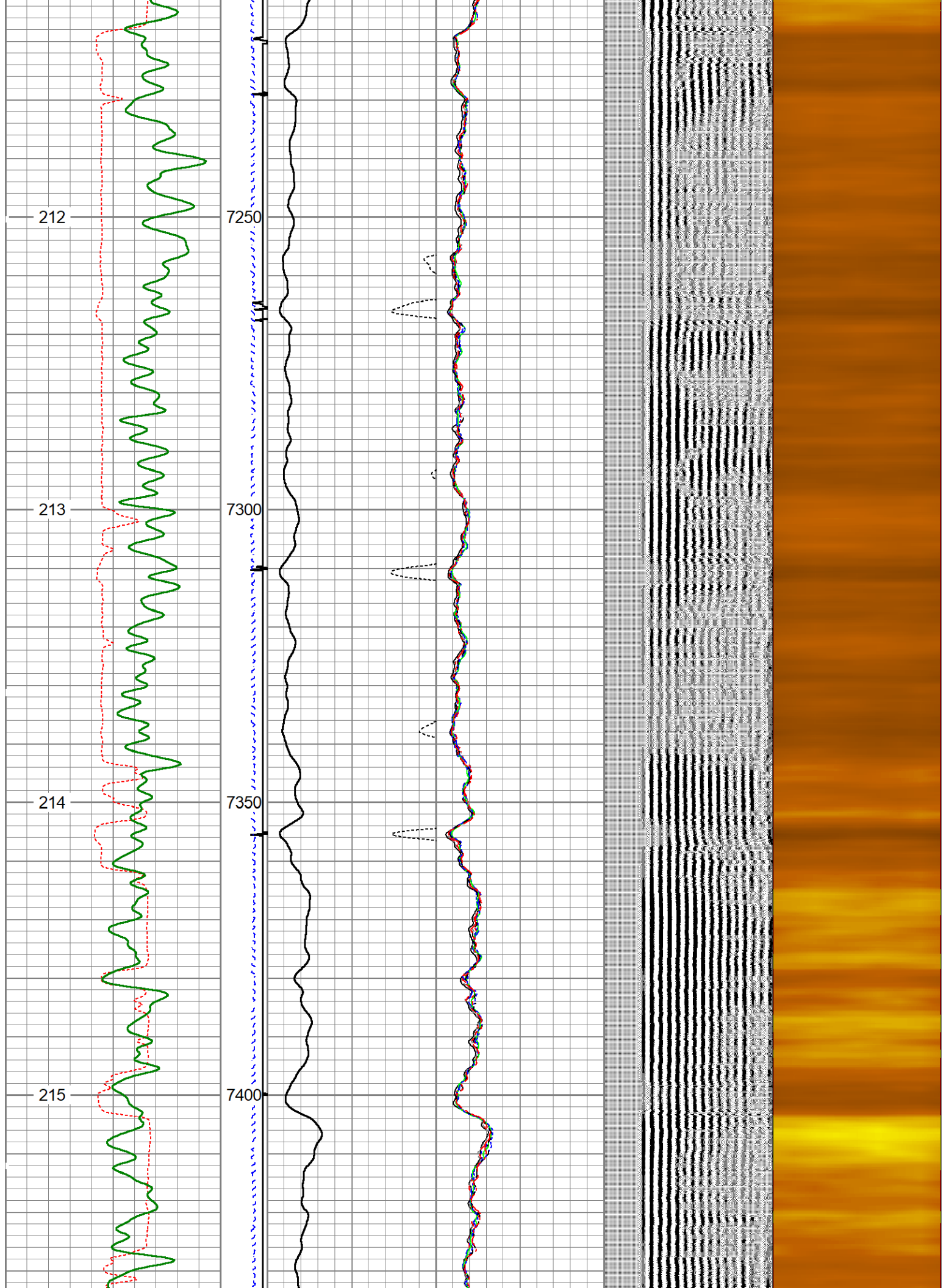


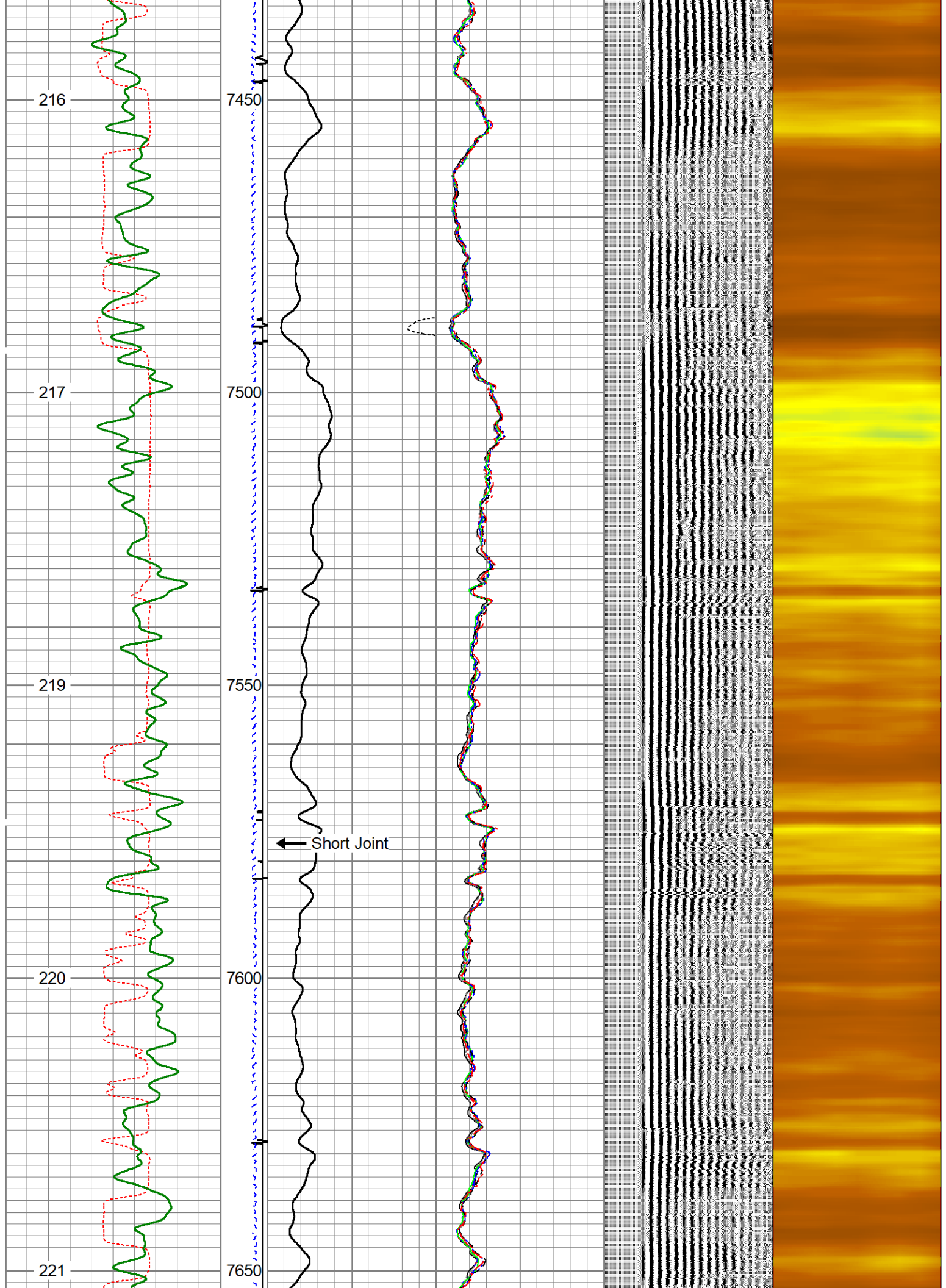


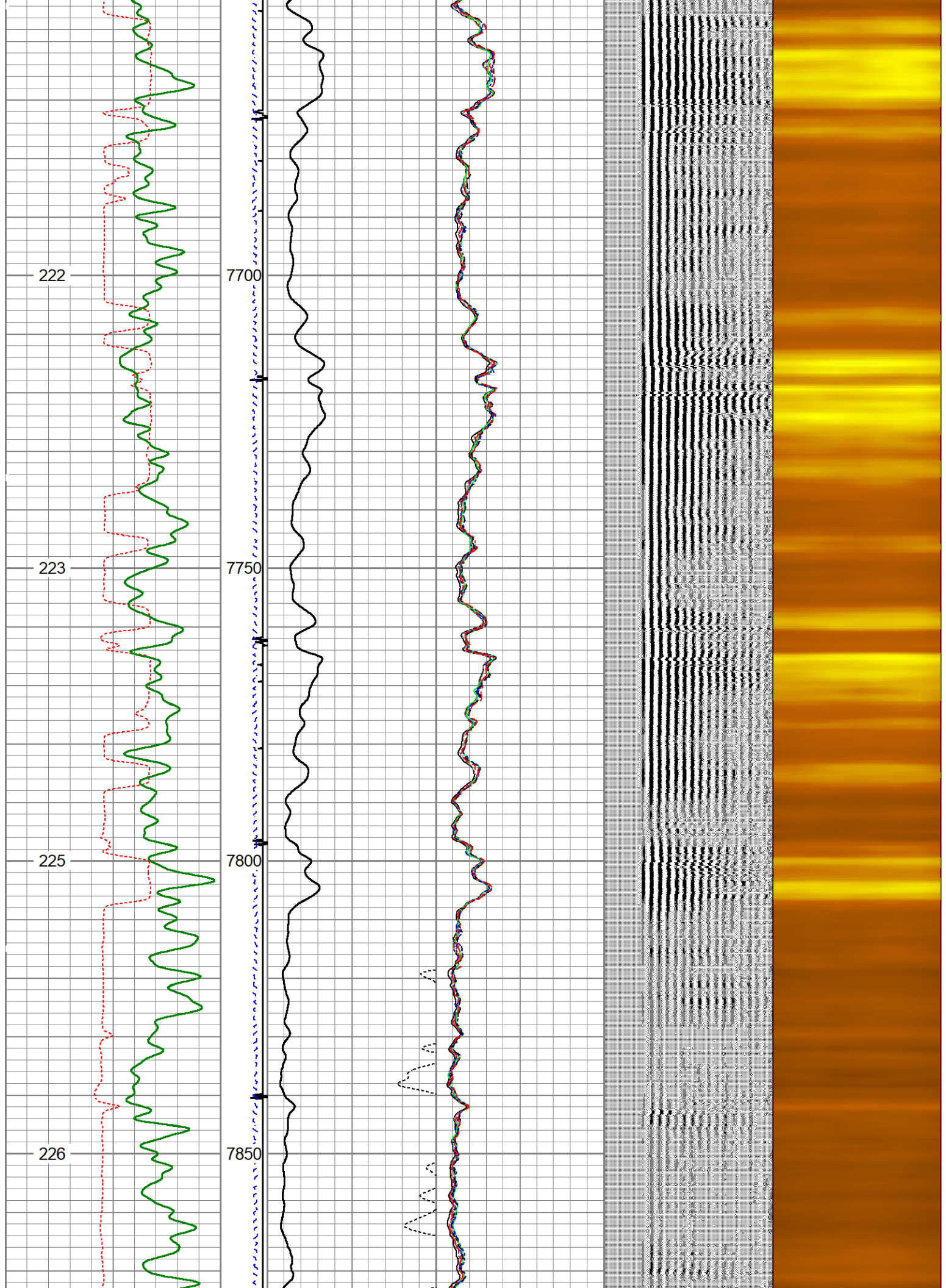


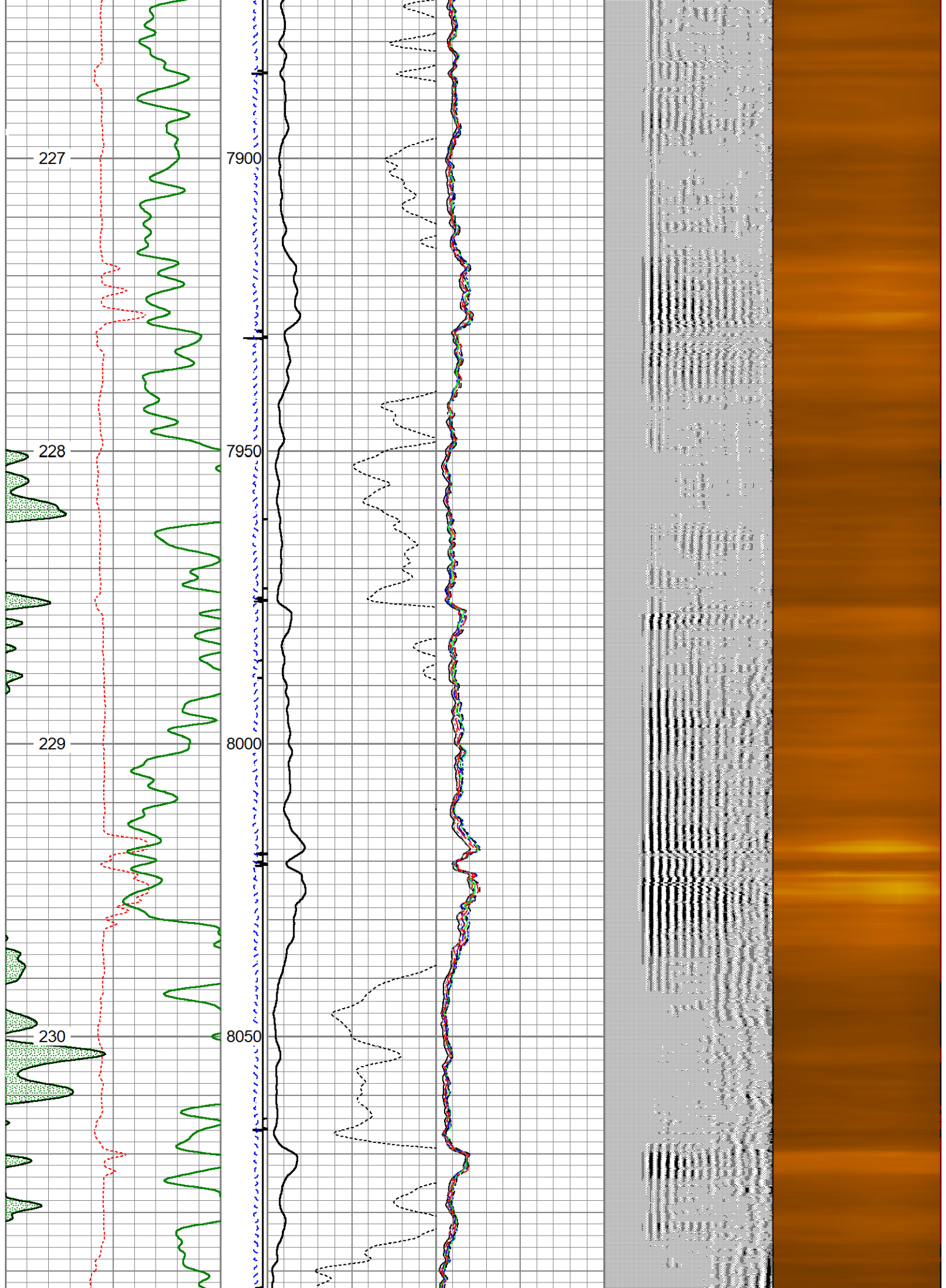


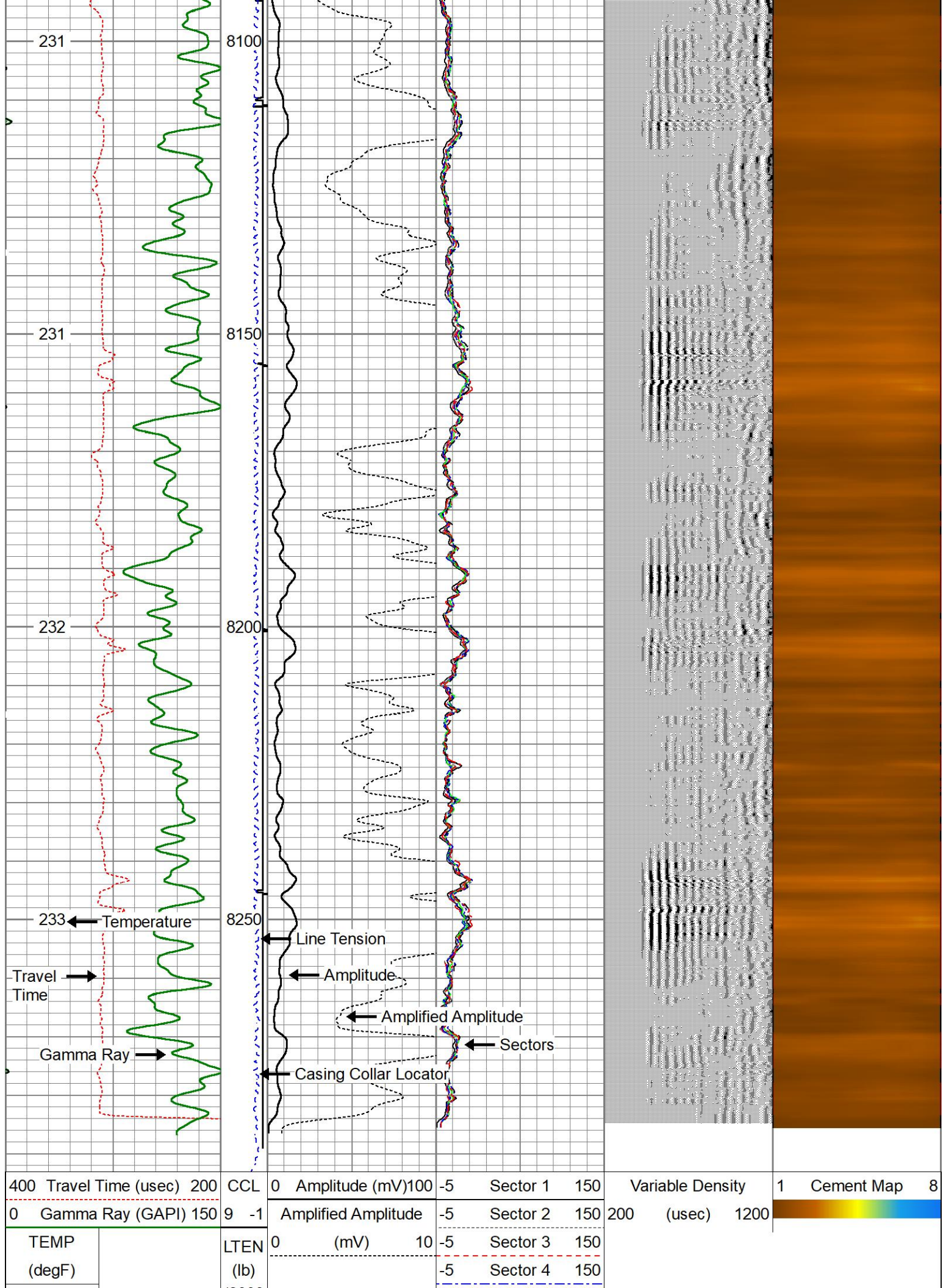












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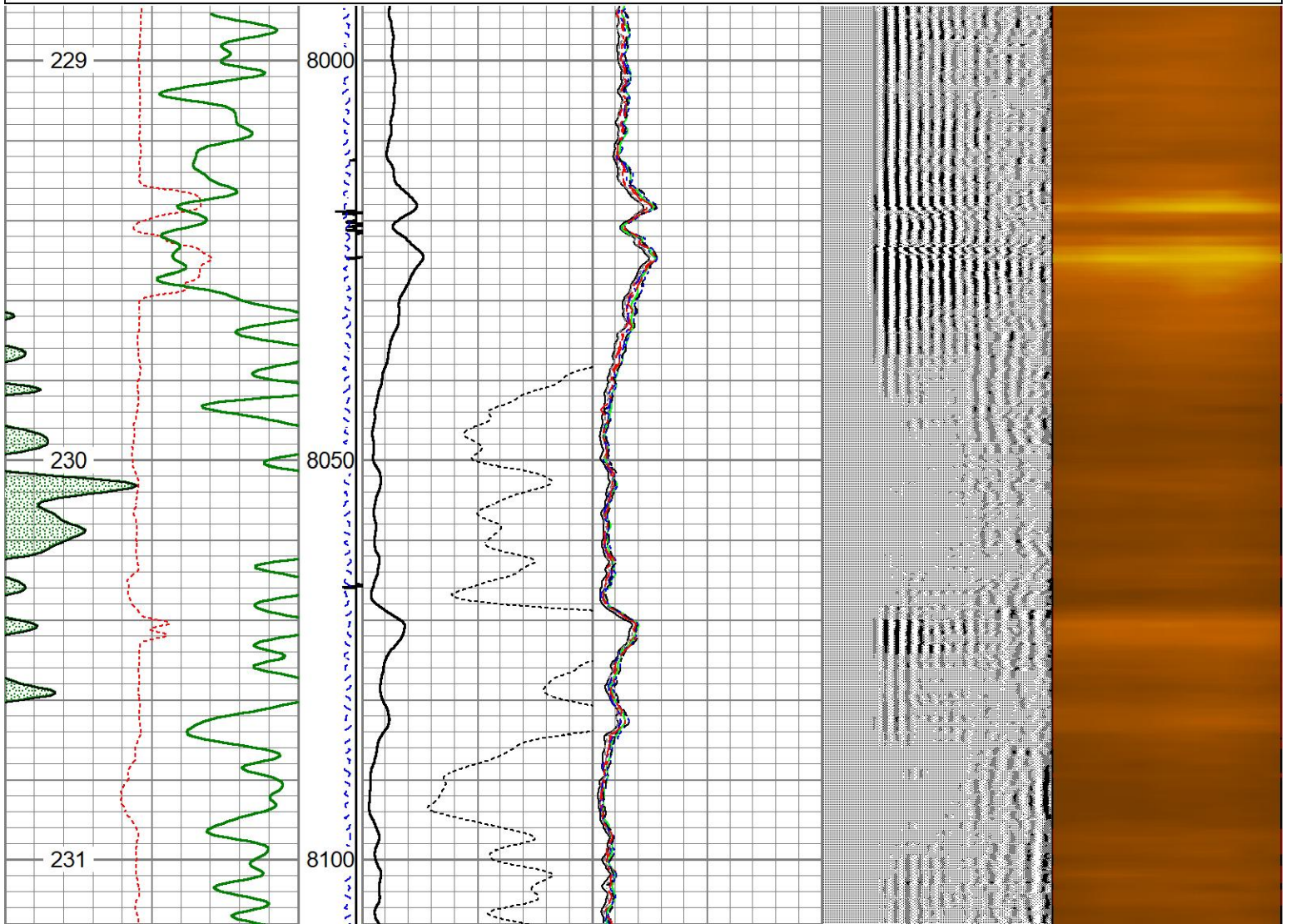
-5	Sector 5	150
-5	Sector 6	150
-5	Sector 7	150
-5	Sector 8	150

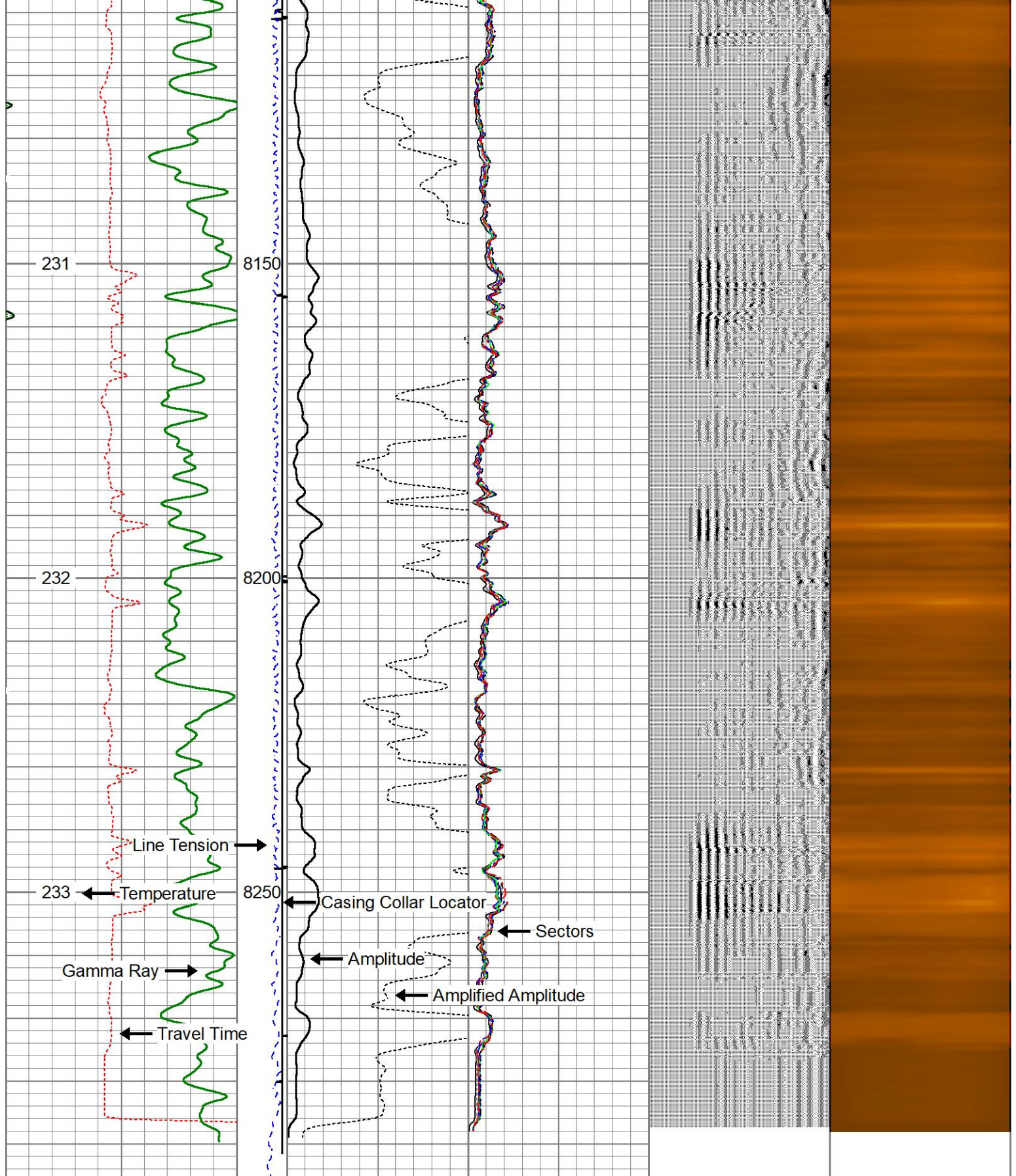


Repeat Pass 0 PSI

Database File gw_rio_lc_12_368hn_rcbl_9_13_19.db
Dataset Pathname pass11
Presentation Format scbl03
Dataset Creation Fri Sep 13 13:01:37 2019
Charted by Depth in Feet scaled 1:240

400	Travel Time (usec)	200	CCL	0	Amplitude (mV)	100	-5	Sector 1	150	Variable Density	1	Cement Map	8
0	Gamma Ray (GAPI)	150	9	-1	Amplified Amplitude		-5	Sector 2	150	200	(usec)	1200	
TEMP			LTEN	0	(mV)	10	-5	Sector 3	150				
(degF)			(lb)				-5	Sector 4	150				
			(2000				-5	Sector 5	150				
							-5	Sector 6	150				
							-5	Sector 7	150				
							-5	Sector 8	150				





400	Travel Time (usec)	200	CCL	0	Amplitude (mV)	100	-5	Sector 1	150	Variable Density	1	Cement Map	8
0	Gamma Ray (GAPI)	150	9	-1	Amplified Amplitude		-5	Sector 2	150	200	(usec)	1200	
TEMP			LTEN	0	(mV)	10	-5	Sector 3	150				
(degF)			(lb)				-5	Sector 4	150				
			(2000				-5	Sector 5	150				
							-5	Sector 6	150				
							-5	Sector 7	150				

Calibration Report

Database File gw_rio_lc_12_368hn_rcbl_9_13_19.db
 Dataset Pathname pass14.1
 Dataset Creation Fri Sep 13 14:55:44 2019

Gamma Ray Calibration Report

Serial Number: FW1304-44
 Tool Model: Probe275
 Performed: (Not Performed)

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 121043
 Tool Model: Probe 2.75 Radii W/Temp

Calibration Casing Diameter: 5.500 in
 Calibration Depth: 996.067 ft

Master Calibration, performed Fri Sep 13 07:51:07 2019:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.225	1.000	71.921	316.251	0.861
CAL	0.000	0.377				
5'	-0.001	0.018	1.000	71.921	3922.920	3.155
SUM						
S1	0.010	0.228	0.000	100.000	457.935	-4.377
S2	0.002	0.230	0.000	100.000	438.591	-0.739
S3	0.001	0.231	0.000	100.000	435.861	-0.468
S4	0.002	0.226	0.000	100.000	445.556	-0.772
S5	0.001	0.229	0.000	100.000	439.108	-0.584
S6	0.002	0.230	0.000	100.000	437.700	-0.753
S7	0.001	0.225	0.000	100.000	446.431	-0.518
S8	0.001	0.222	0.000	100.000	452.047	-0.452

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.377	1.000	0.000

Air Zero Calibration, performed Thu Sep 05 16:44:52 2019:

	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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
HeadVolt	14.13		CHD-Titan Titan 1 7/16" GO Cablehead	1.00	1.44	5.00
Temp	11.28					
			RBT-Probe 2.75 Radii W/Temp (121043) Probe 2.75" Radial with Integral Temperature Sub	9.39	2.75	90.00
WVFS8	9.05					
WVFS7	9.05					
WVFS6	9.05					
WVFS5	9.05					
WVFS4	9.05					
WVFS3	9.05					
WVFS2	9.05					
WVFS1	9.05					
WVFCAL	9.05					
WVF3FT	9.05					
WVF5FT	8.05					
HEADVOLT	4.80					
CCL	3.92					
GR	2.58		GR-Probe275 (FW1304-44) Probe 2 3/4" Logging Gamma Ray 6 Pin	4.80	2.75	57.00

Dataset: gw_rio_lc_12_368hn_rcbl_9_13_19.db: field/well/run1/pass14.1
Total length: 15.19 ft
Total weight: 152.00 lb
O.D.: 2.75 in



Company	Great Western Oil & Gas Company	
Well	Rio LC 12-368HN	
Field	Wattenberg	
County	Adams	
State	Colorado	Country