



Radial Cement Bond  
Variable Density Log  
W/Gamma Ray/CCL

Company	Noble Energy		Location:	API # : 05-123-36260		Other Services	
Well	SLW Ranch B01-62-1HN		Well	SLW Ranch B01-62-1HN		None	
Field	Wattenburg		Field	Wattenburg			
County	Weld		County	Weld			
State	Colorado		State	Colorado			
Permanent Datum			SEC 1 TWP 5N RGE 64W			Elevation K.B. 4634' D.F. 4635' G.L. 4604'	
Log Measured From			Ground Level				
Drilling Measured From			Kelly Bushing				
Date	30-Apr-2013						
Run Number	1						
Depth Driller	11286'						
Depth Logger	7100'						
Bottom Logged Interval	7096'						
Top Log Interval	0'						
Open Hole Size	8.125"						
Type Fluid	Fresh Water						
Density / Viscosity	8.33						
Max. Recorded Temp.	234 Deg						
Estimated Cement Top	1040'						
Time Well Ready	0645						
Time Logger on Bottom	0720						
Equipment Number	Truck # 13033						
Location	Brighton, CO						
Recorded By	G.Lueck		M. Schneider				
Witnessed By	B. Mansfield						
Borehole Record			Tubing Record				
Run Number	Bit	From	To	Size	Weight	From	To
One	9.625"	30'	630.8				
Two	7"	30'	7205'				
Three	4.5"	7099.3'	11276'				
Casing Record	Size		Wgt/Ft	Top	Bottom		
Surface String	9.625"		36#	Surface	630.8'		
Prot. String	7"		26#	30'	7205'		
Production String	4.5"		11.6#	7099.3'	11276'		
Liner	Short Joint		3737'-3765'	Short Joint	5824'-5839'		

<<< Fold Here >>>

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

Primary Log on Well. Well logged using 30' KB.

Main Pass and Repeat Pass logged with zero pressure on surface

Estimated top of cement 1040'.

Unable to fall below liner top.

Thank you for using Allied Wireline



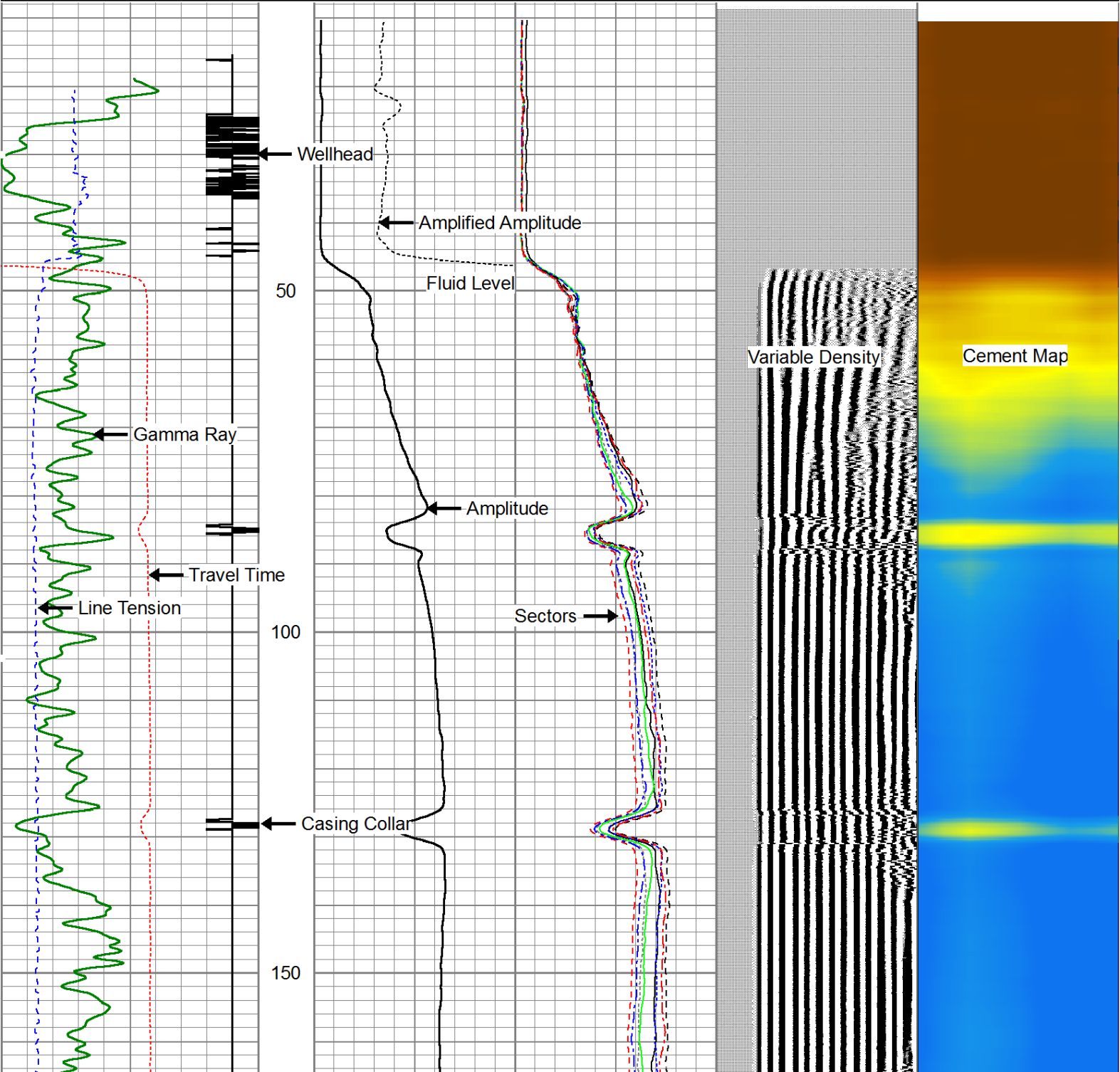
Main Pass ( 0 PSI )

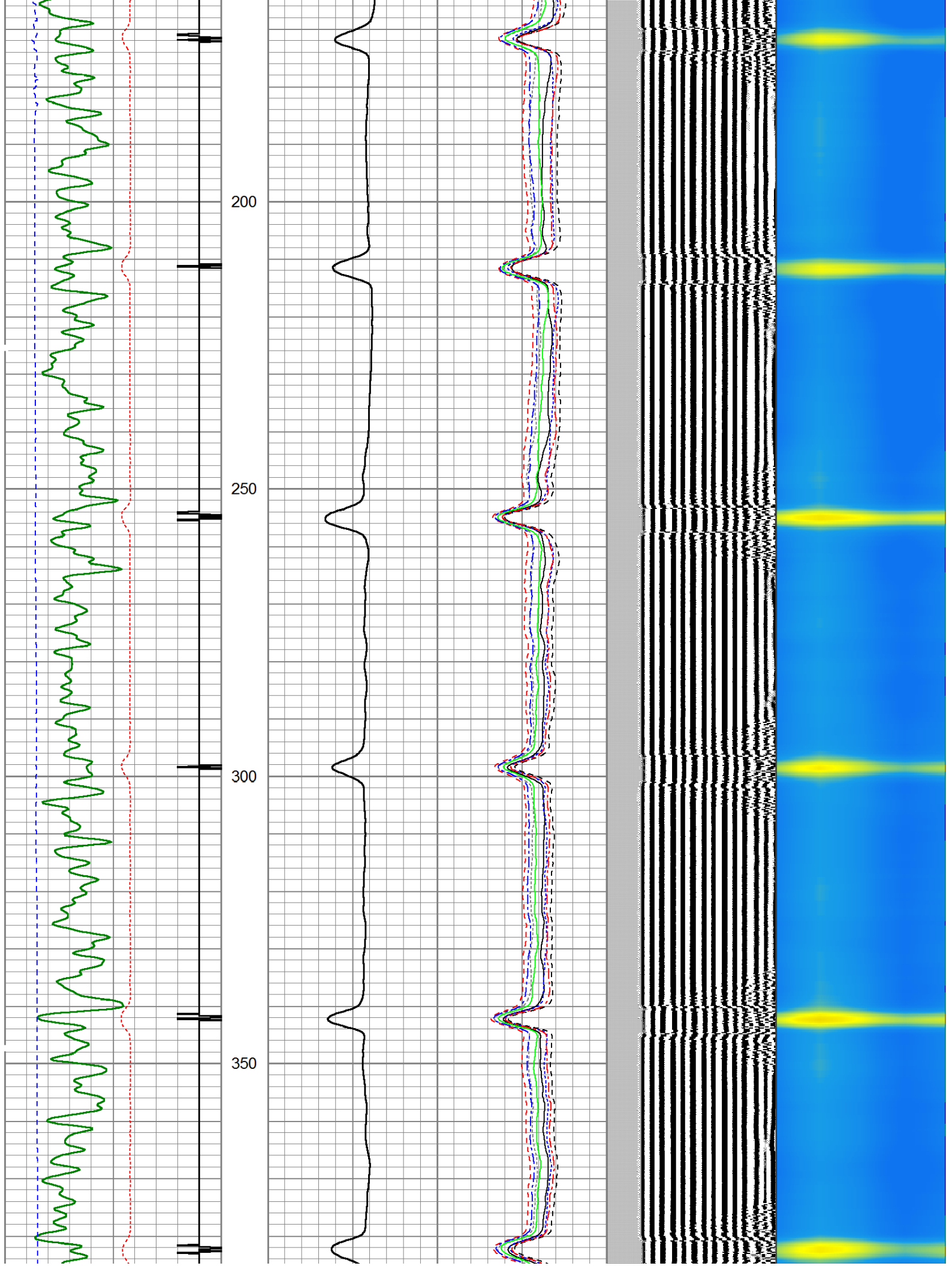
Database File: noble\_slw\_ranch\_bo1\_62\_1hn.db  
Dataset Pathname: merge2  
Presentation Format: scbl03  
Dataset Creation: Tue Apr 30 08:35:31 2013  
Charted by: Depth in Feet scaled 1:240

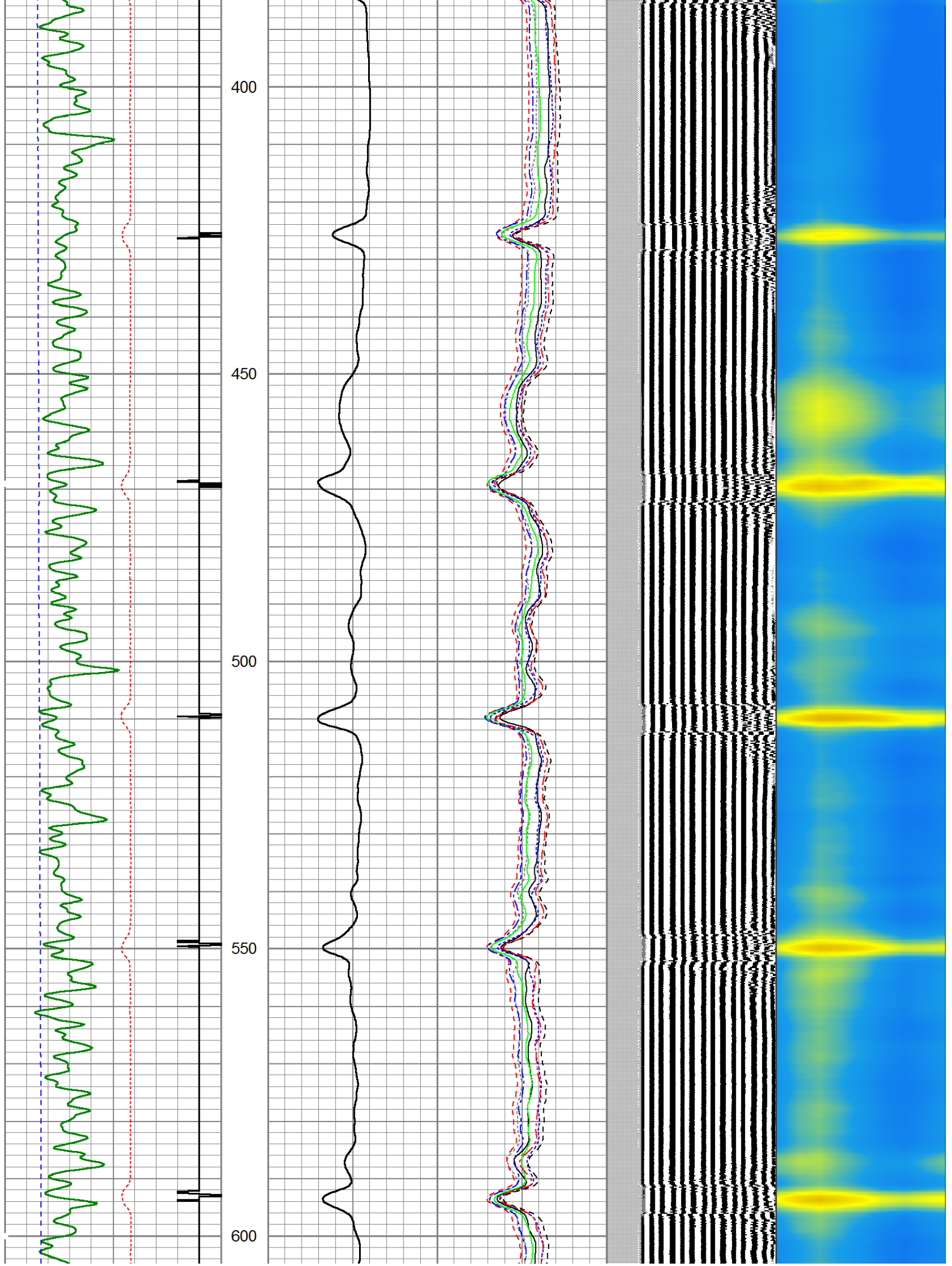
400	Travel Time (usec)	200
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
0	Line Tension (lb)	2000

0	Amplitude (mV)	100	-5	AMPS1	150
	Amplified Amplitude		-5	AMPS2	150
0	(mV)	10	-5	AMPS3	150
			-5	AMPS4	150
			-5	AMPS5	150
			-5	AMPS6	150
			-5	AMPS7	150
			-5	AMPS8	150

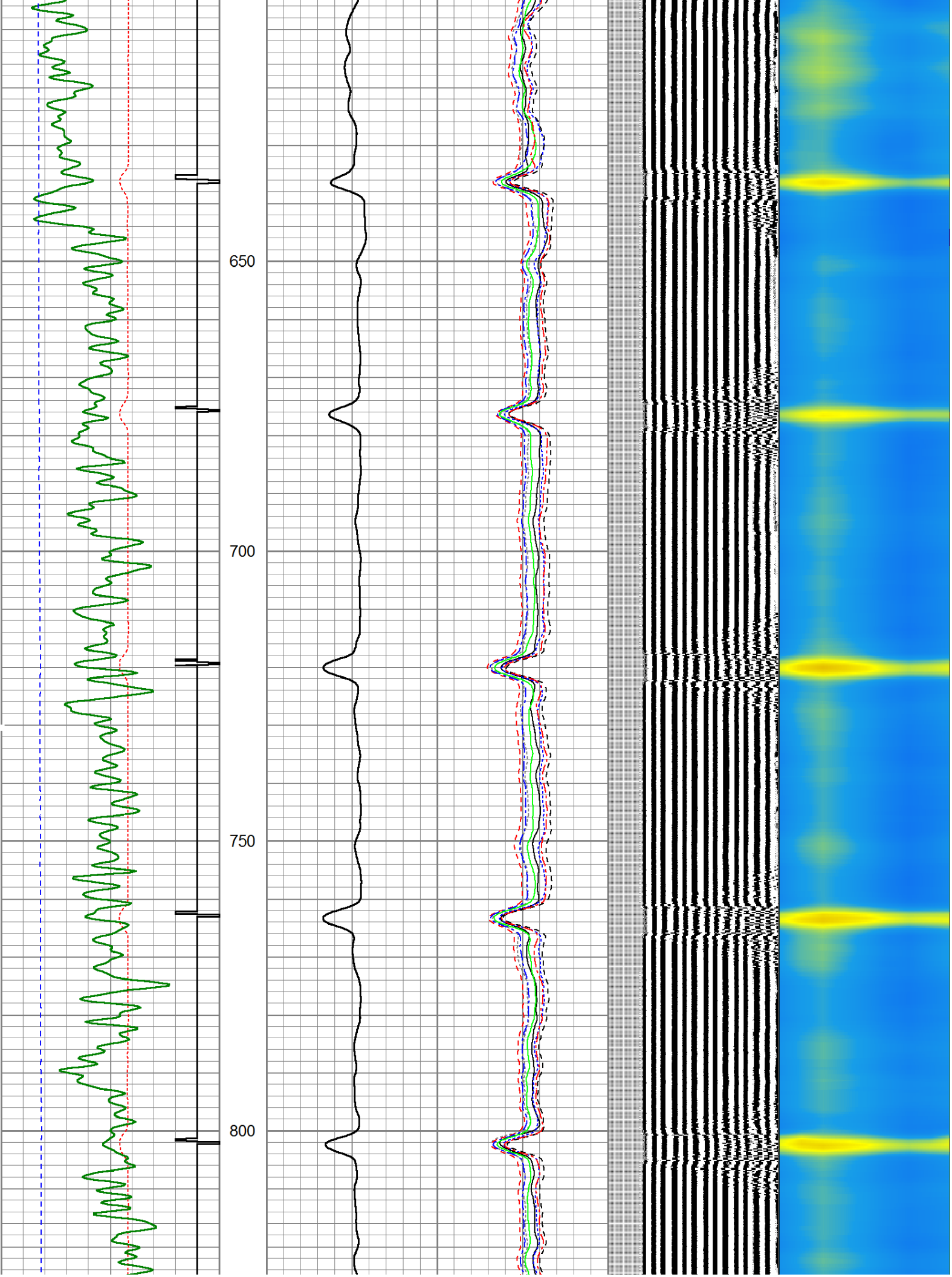
Variable Density		1	Cement Map	8
200	1200	0		100

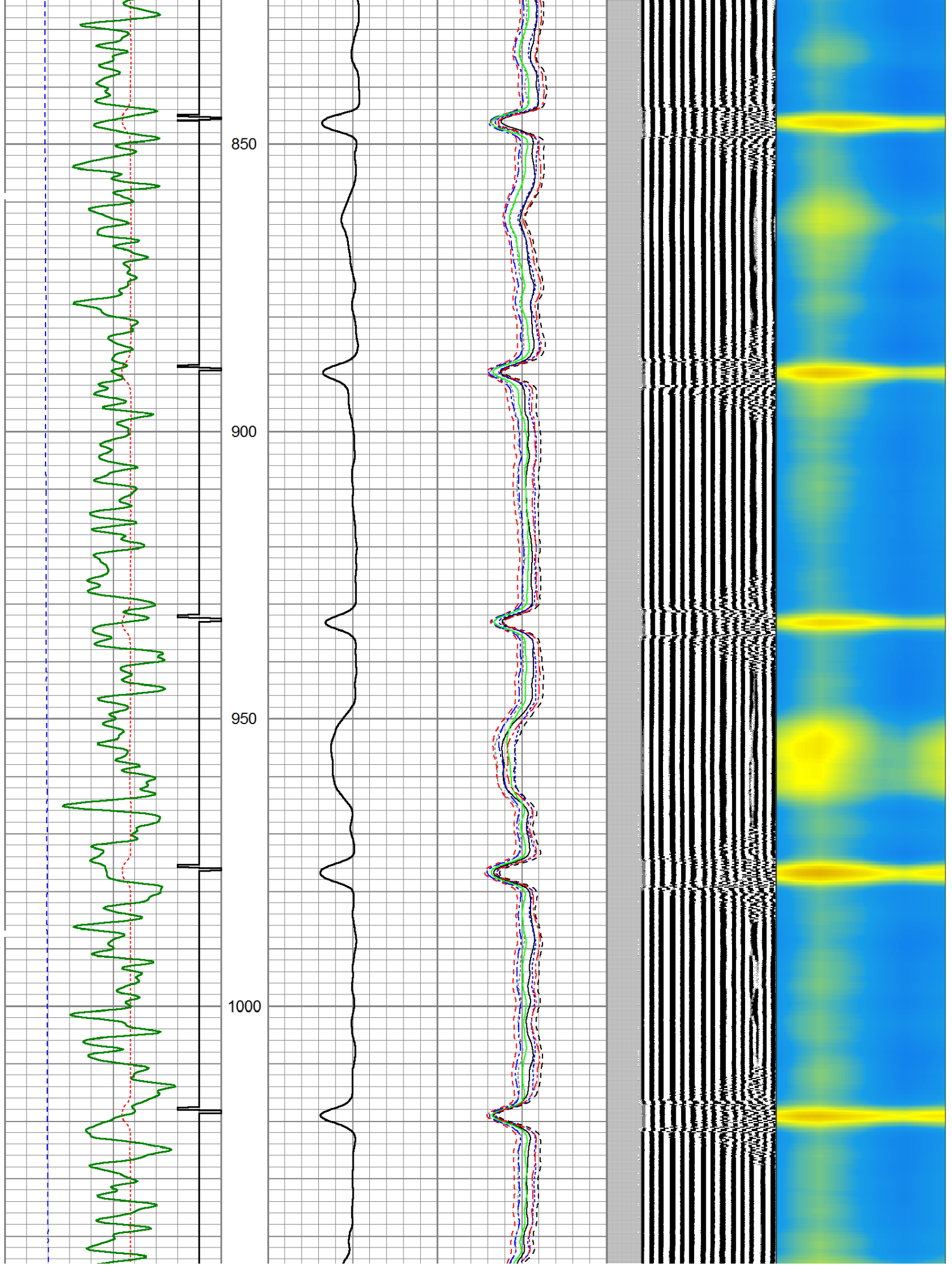


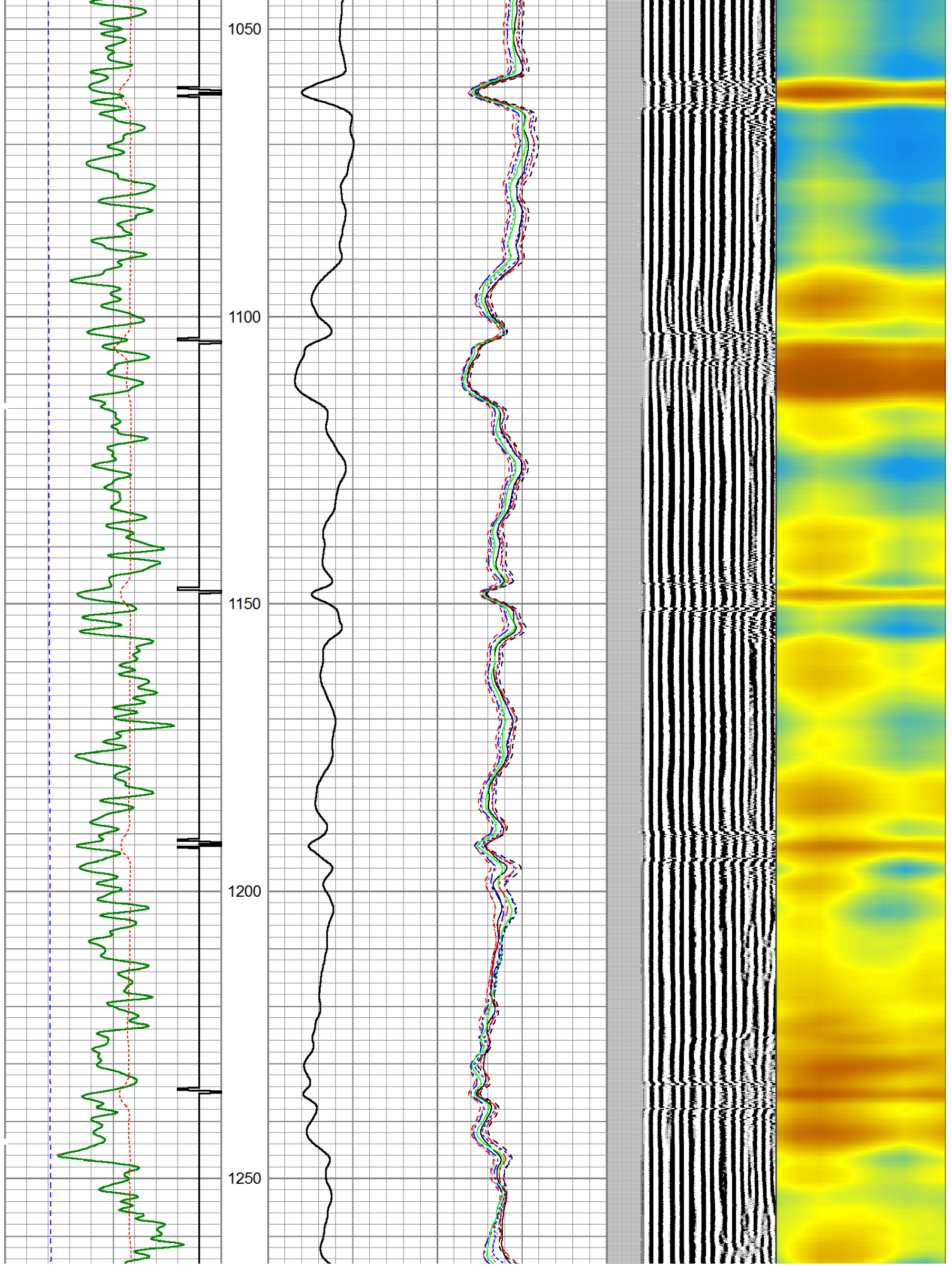




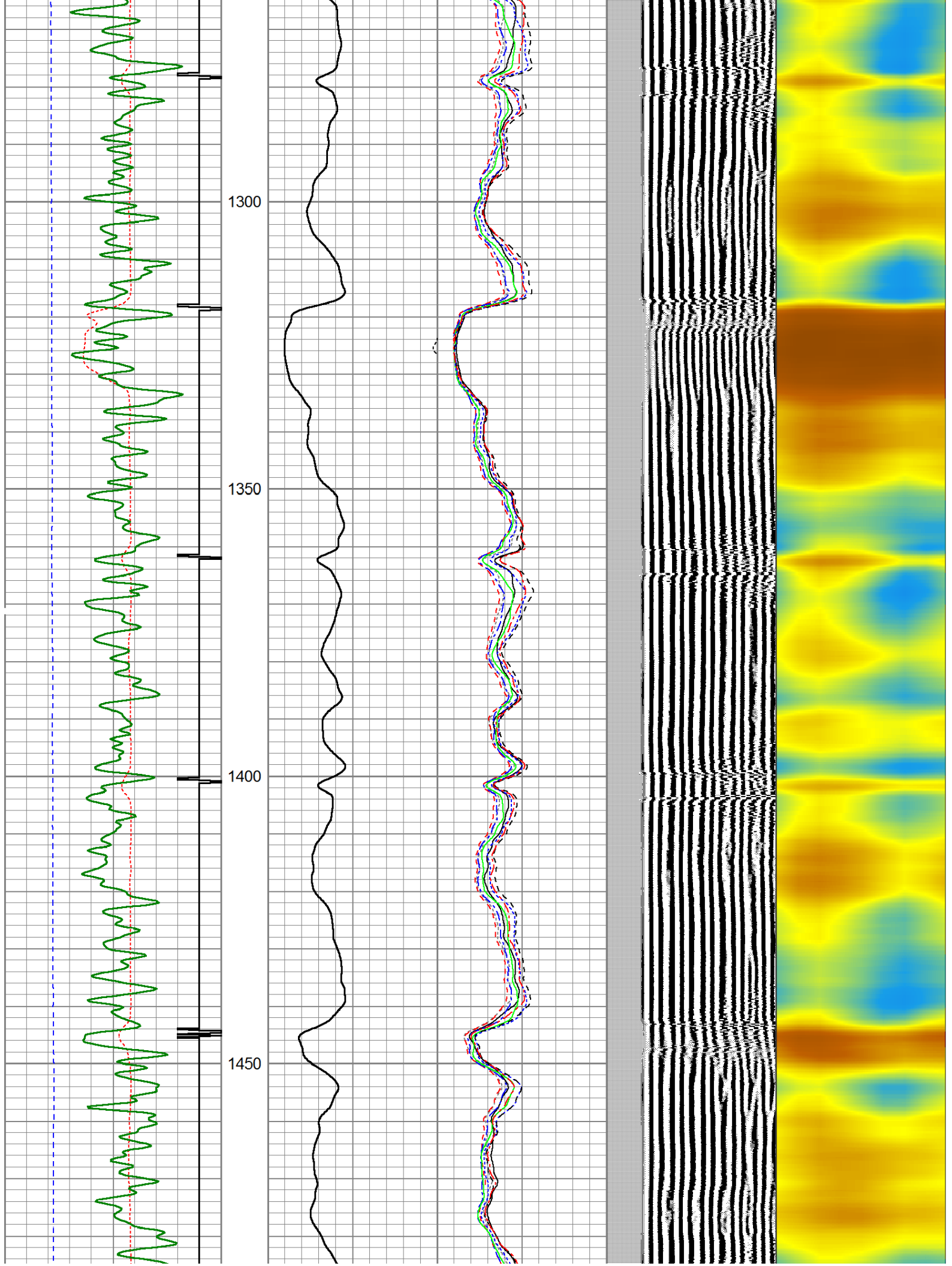




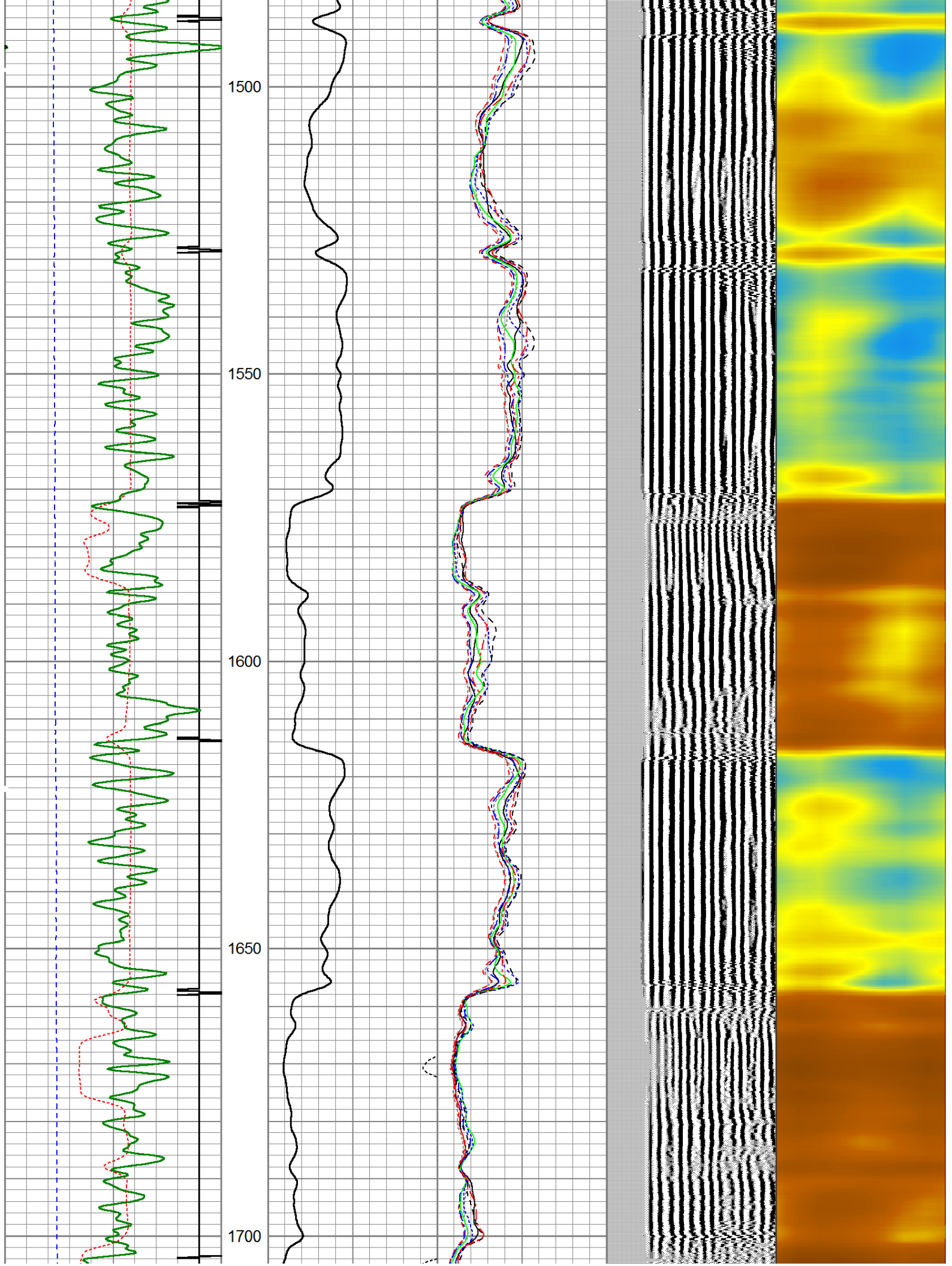


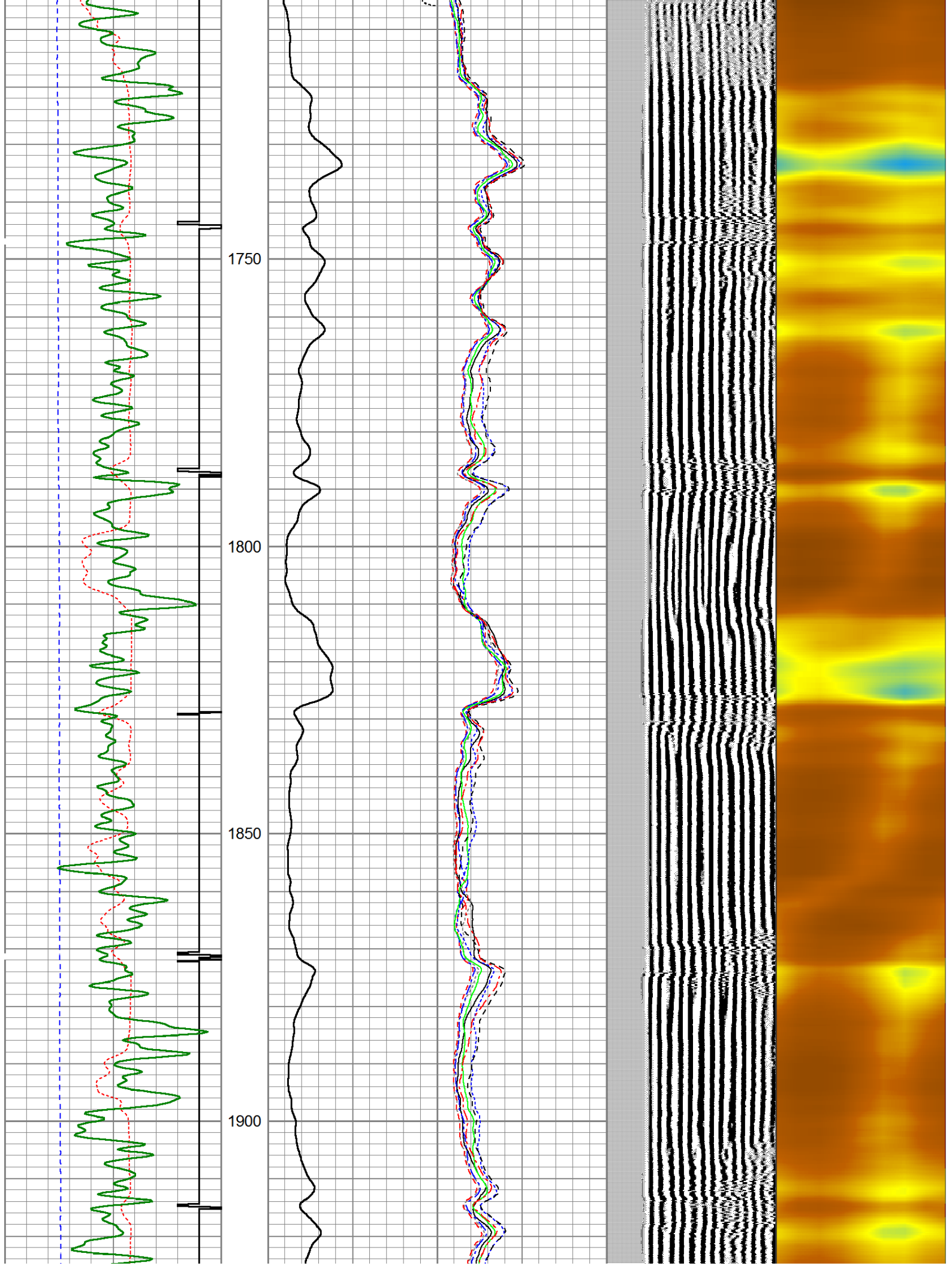




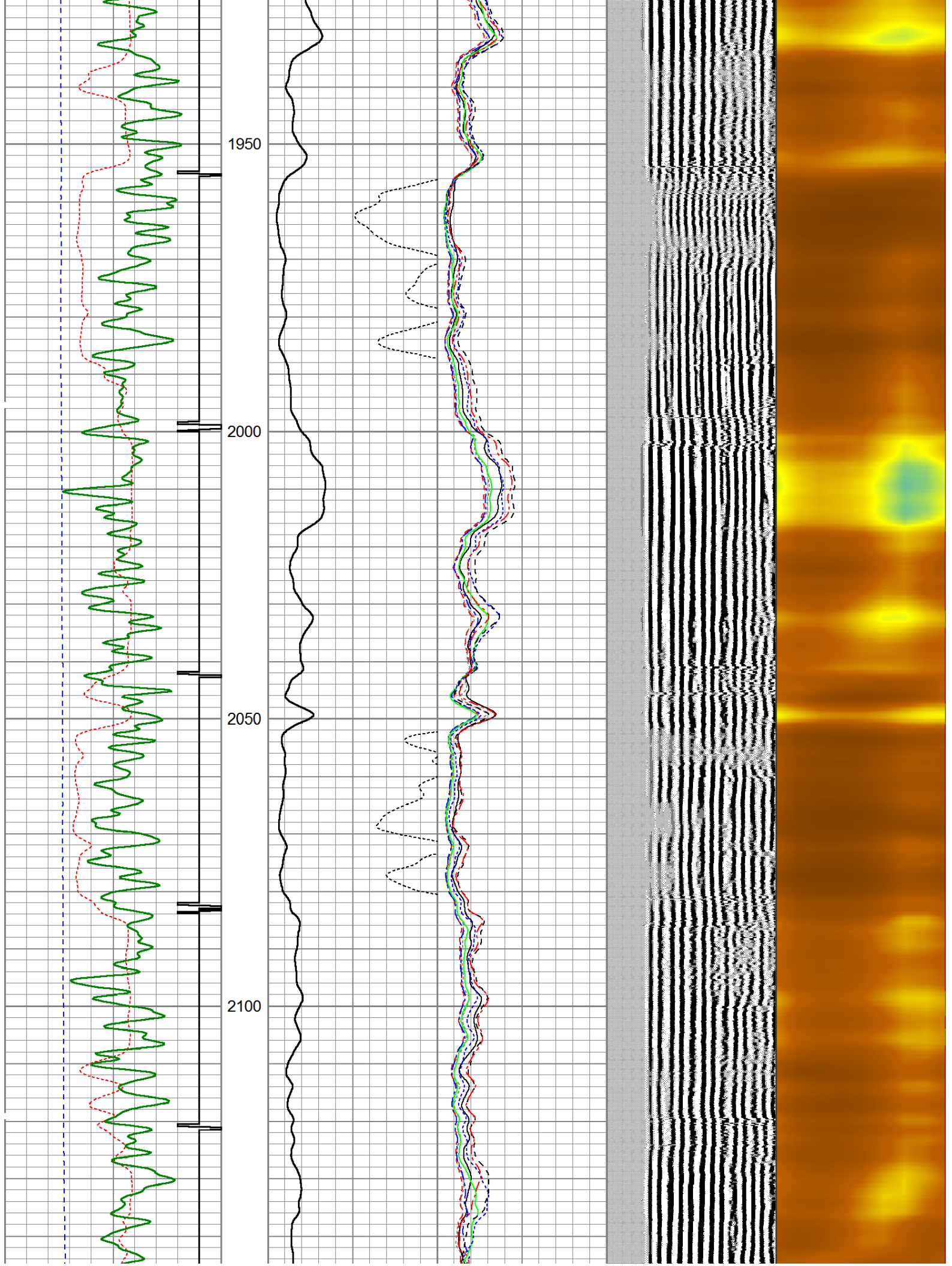


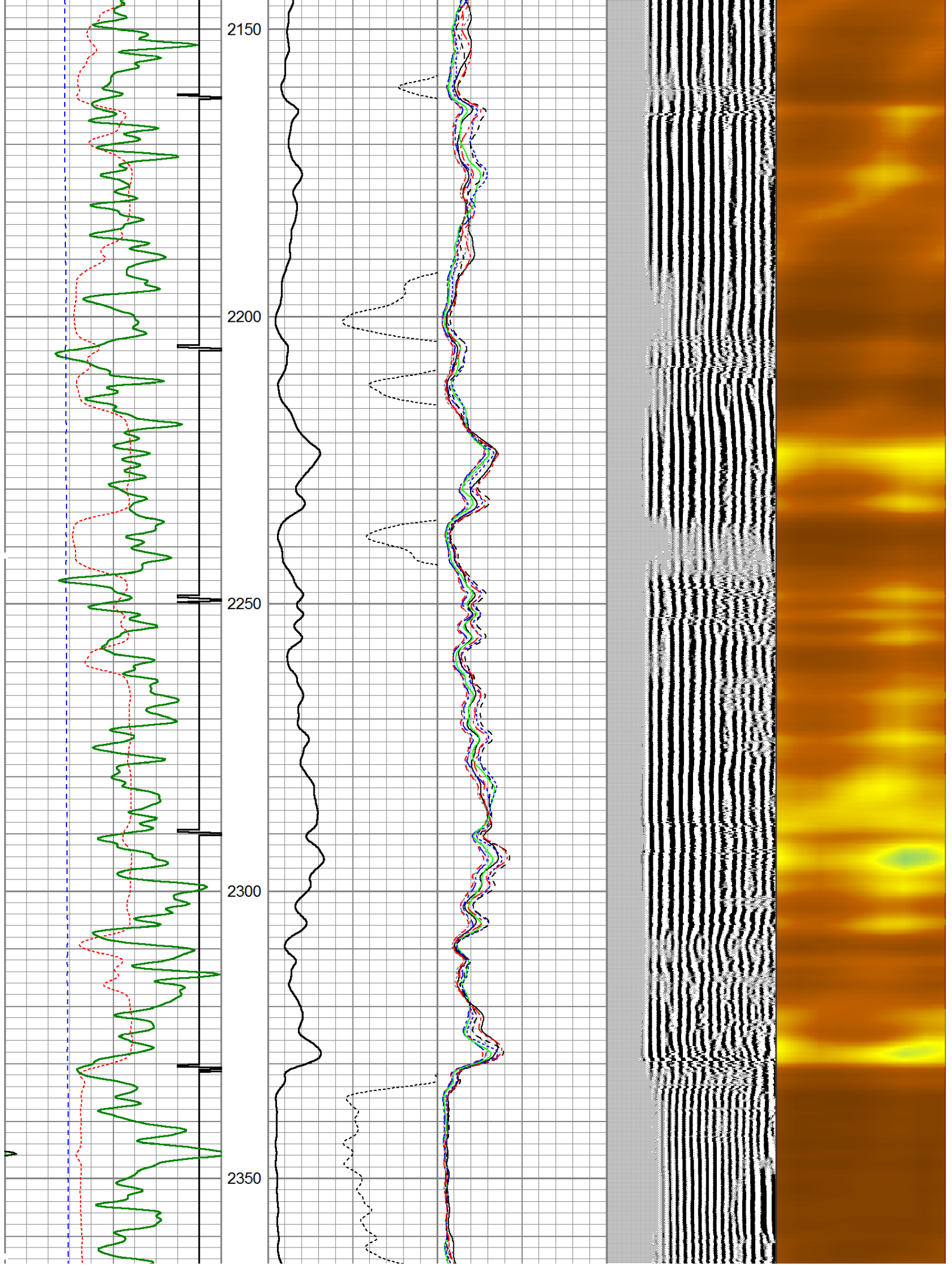




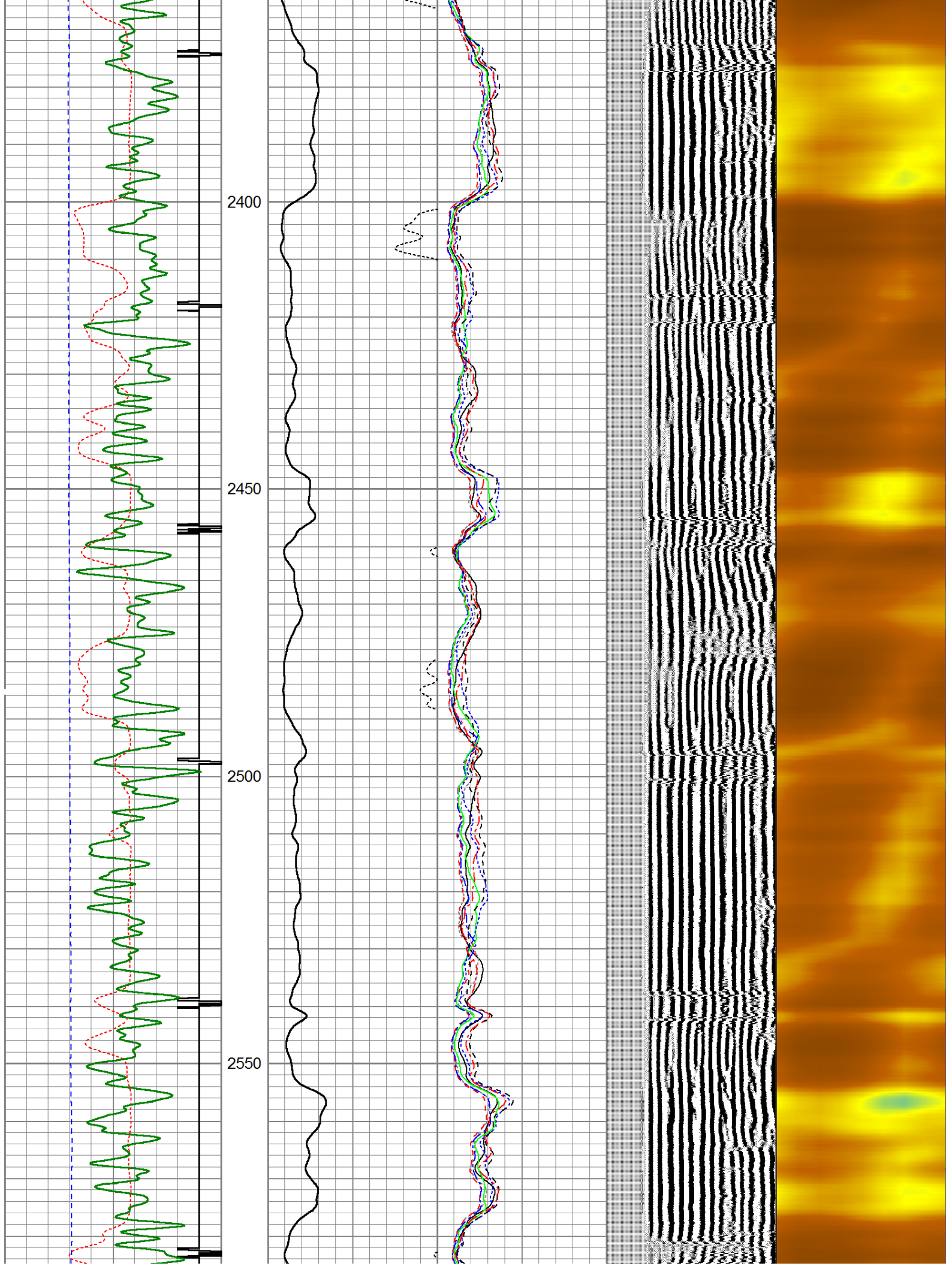


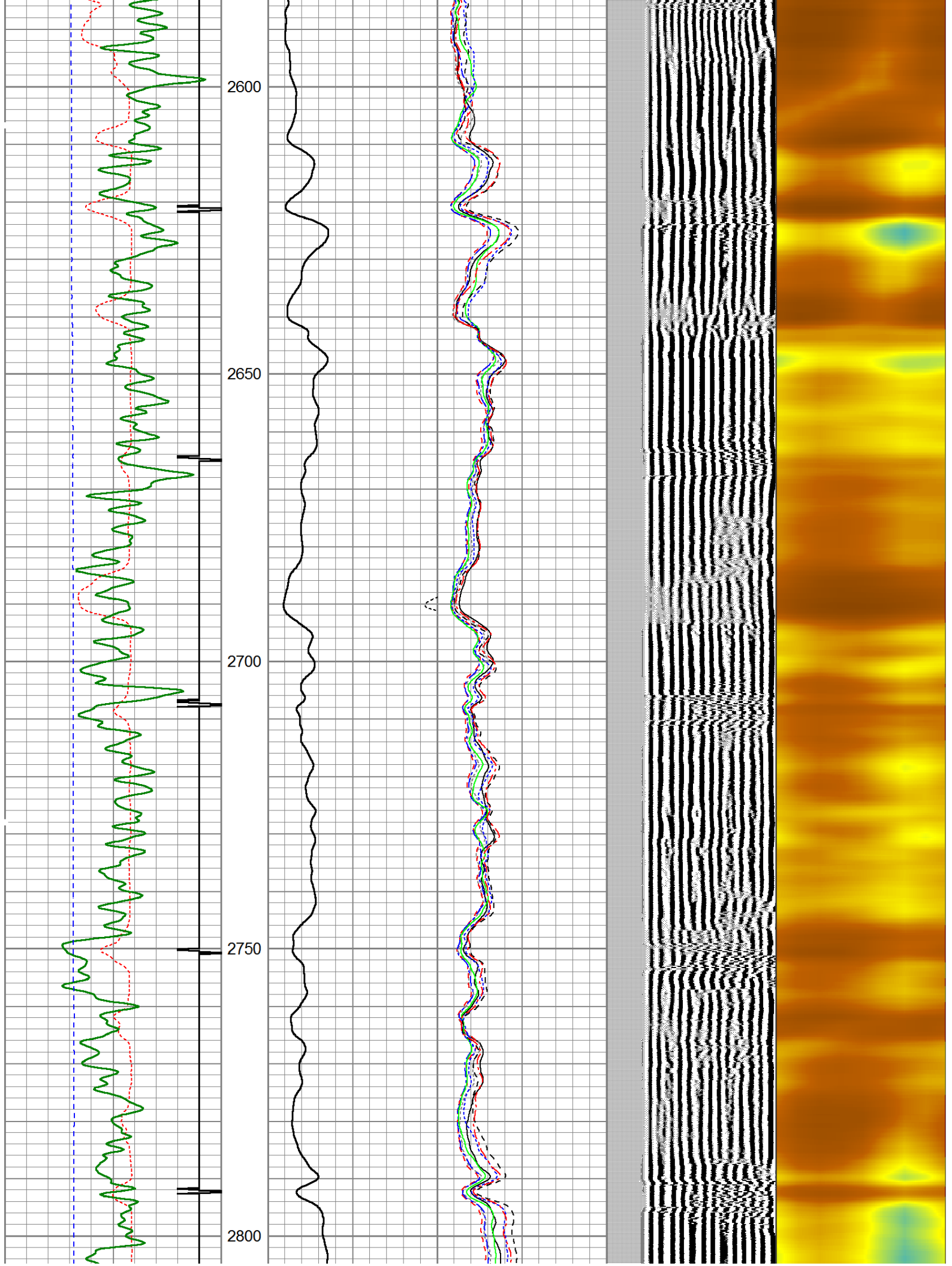




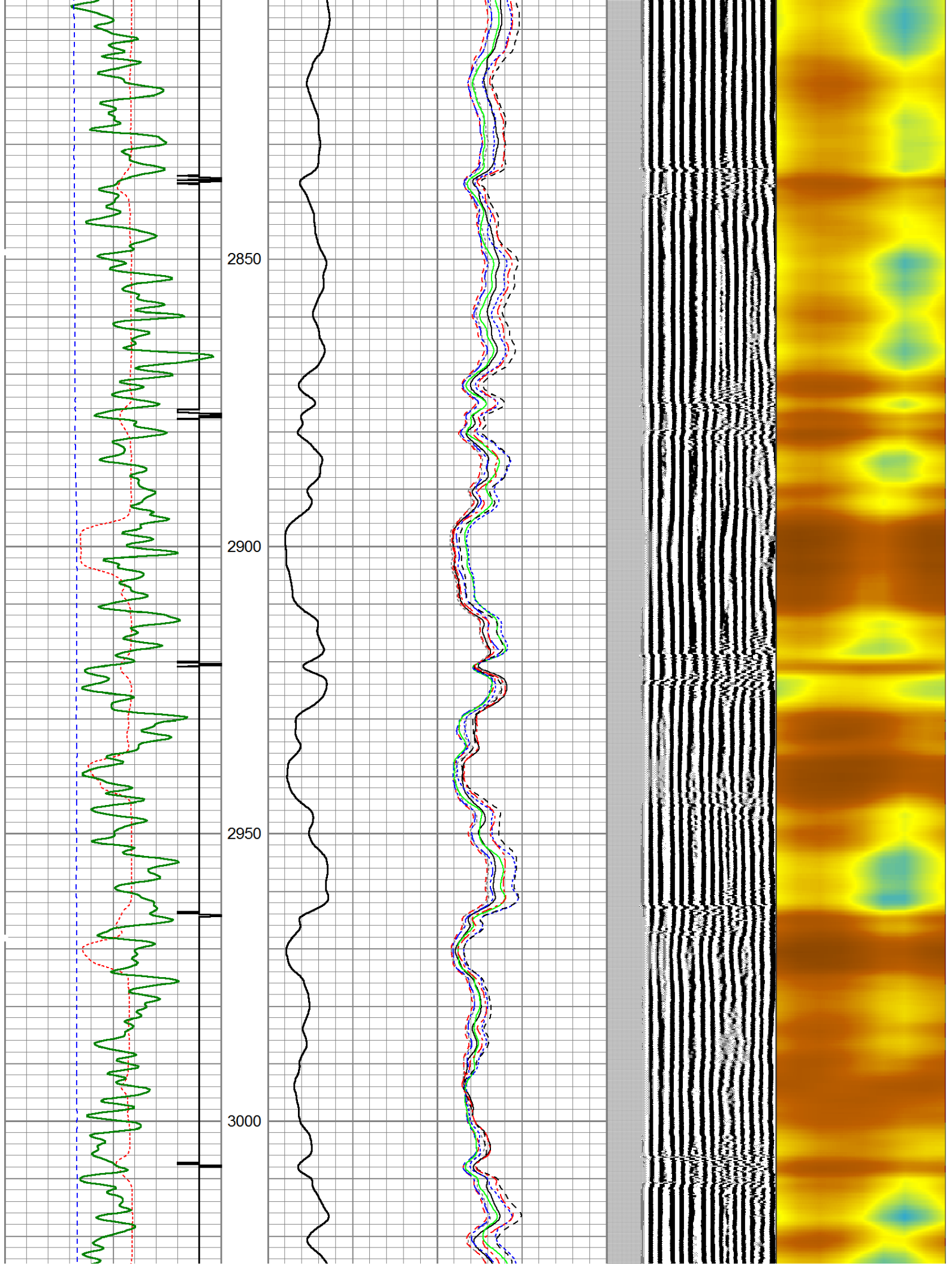


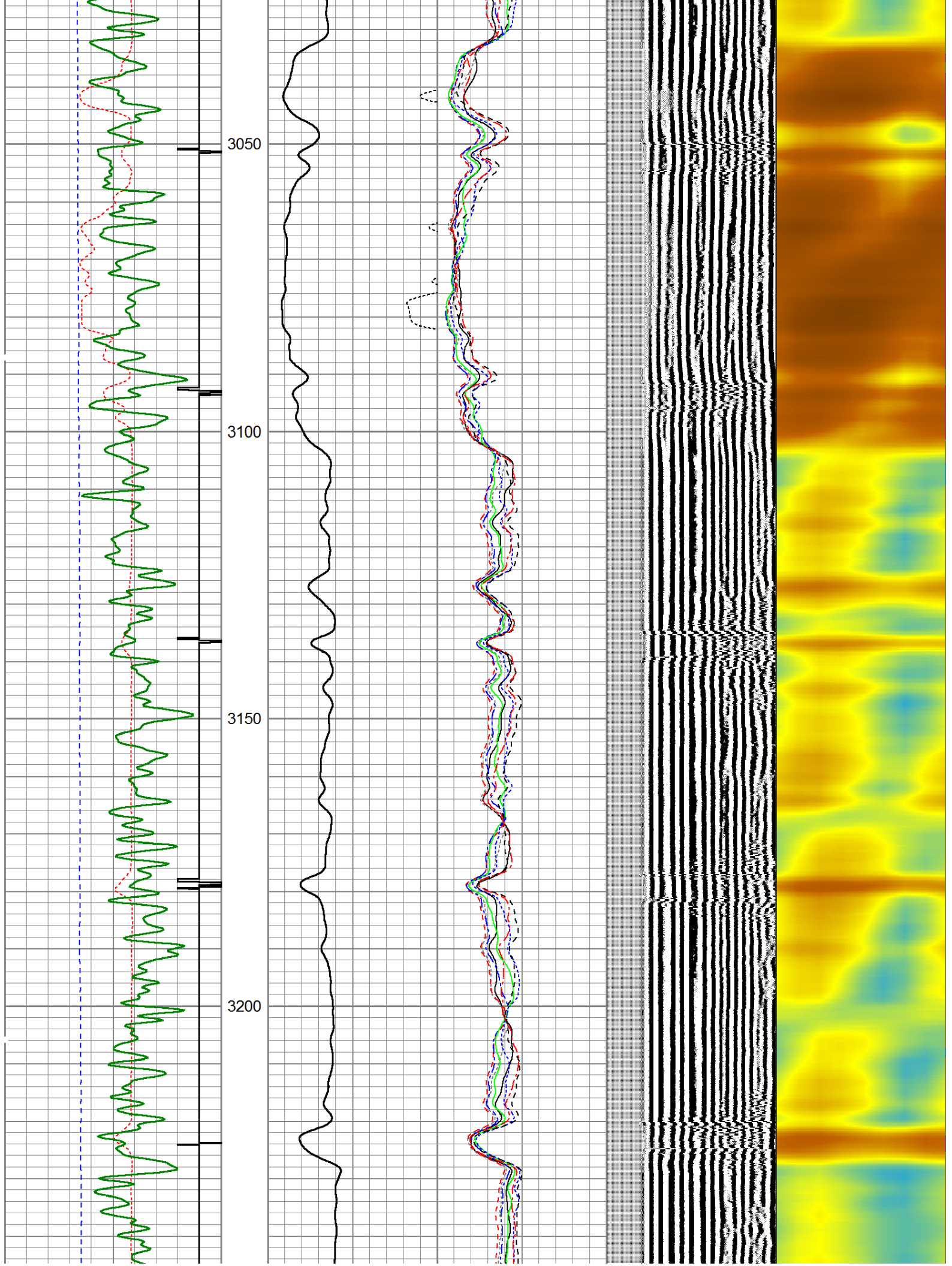




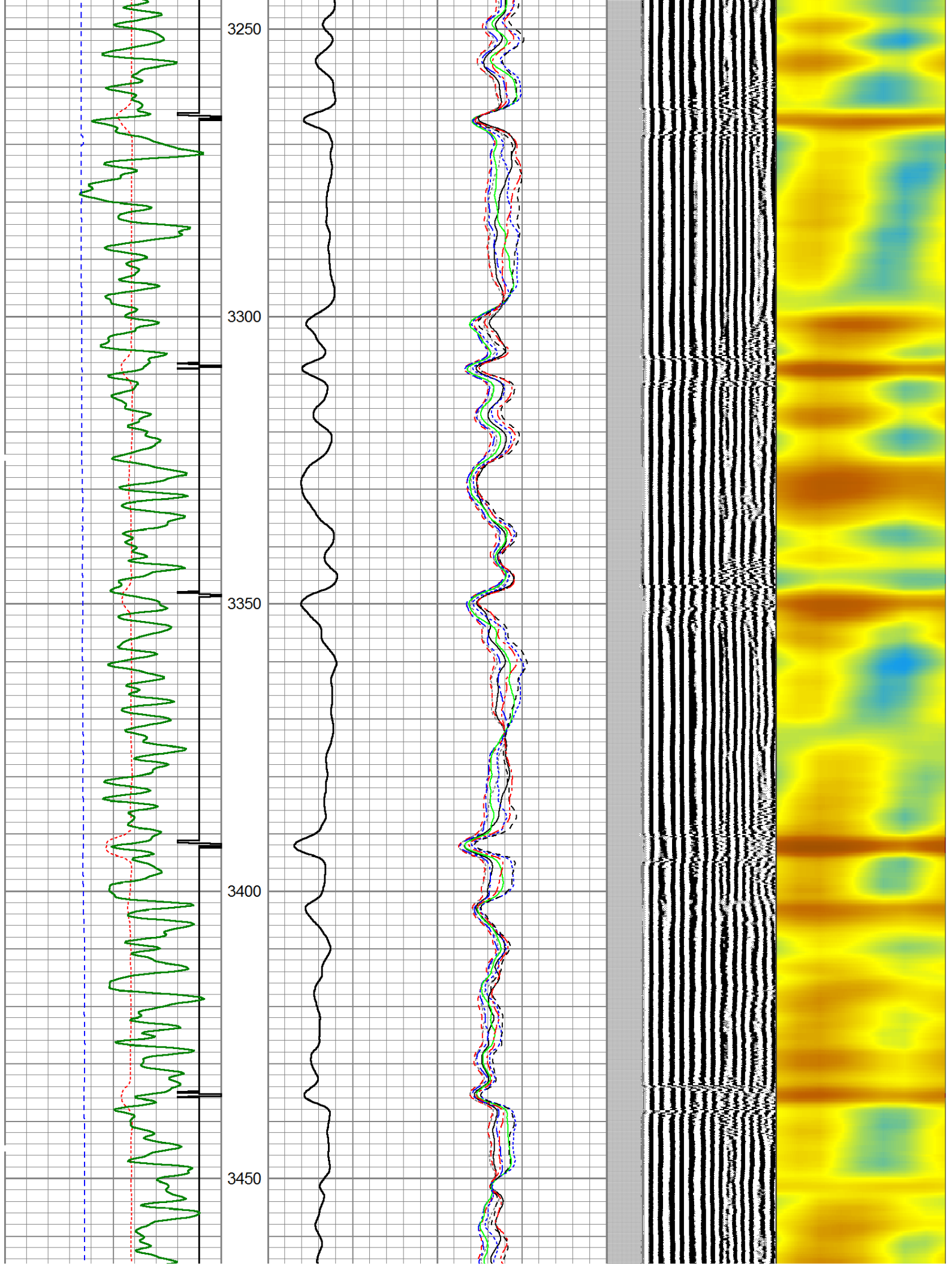


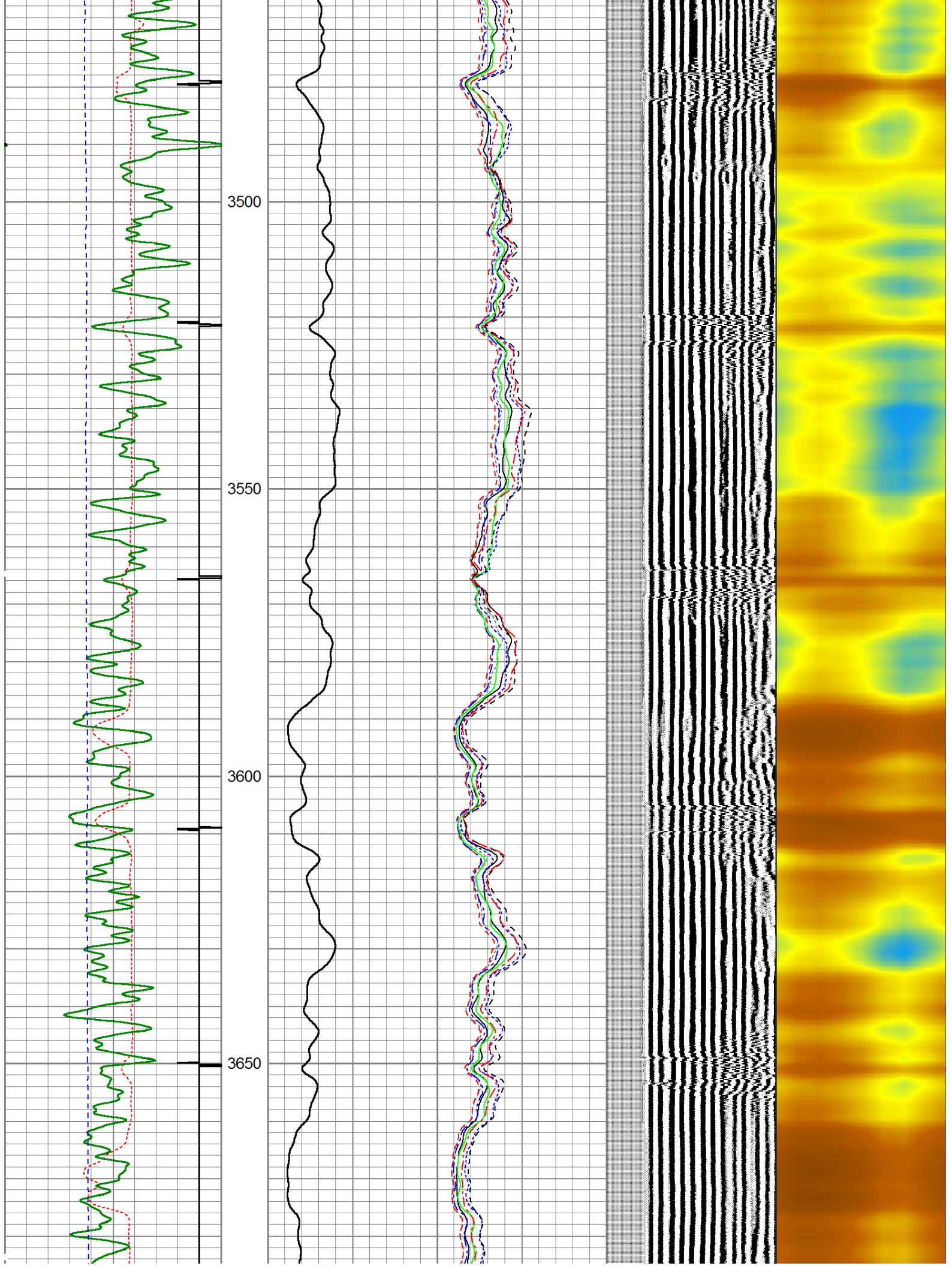


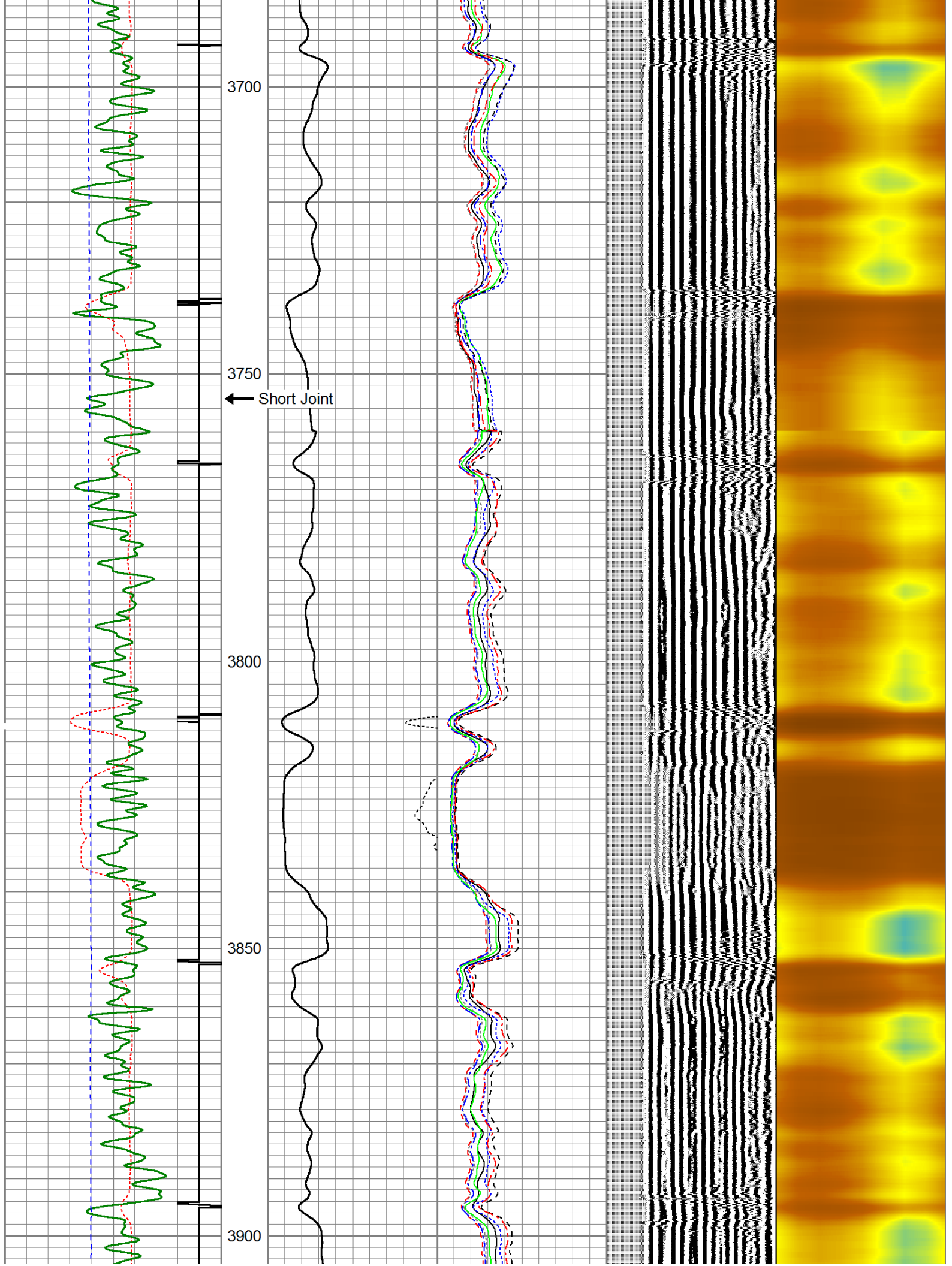




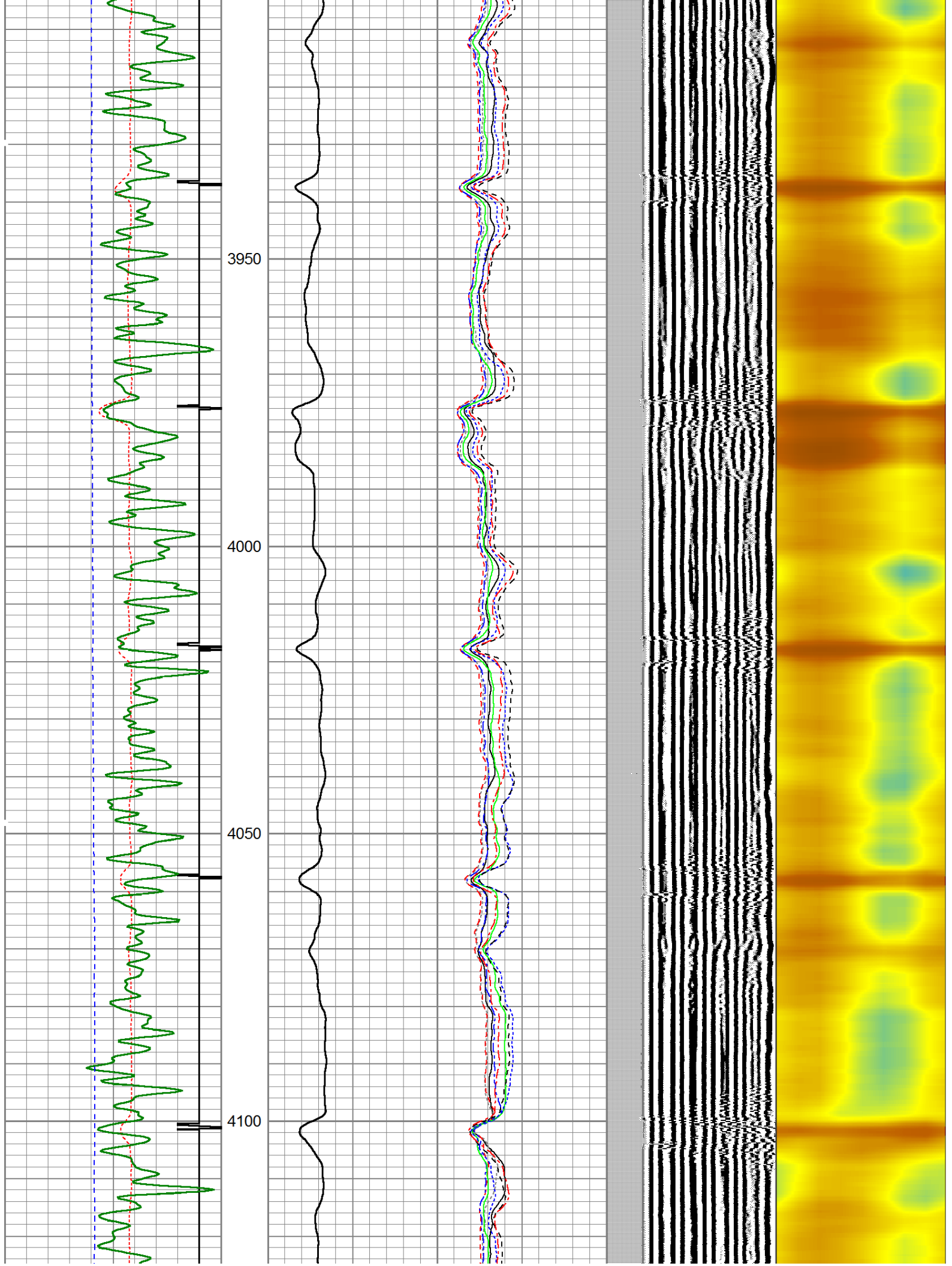




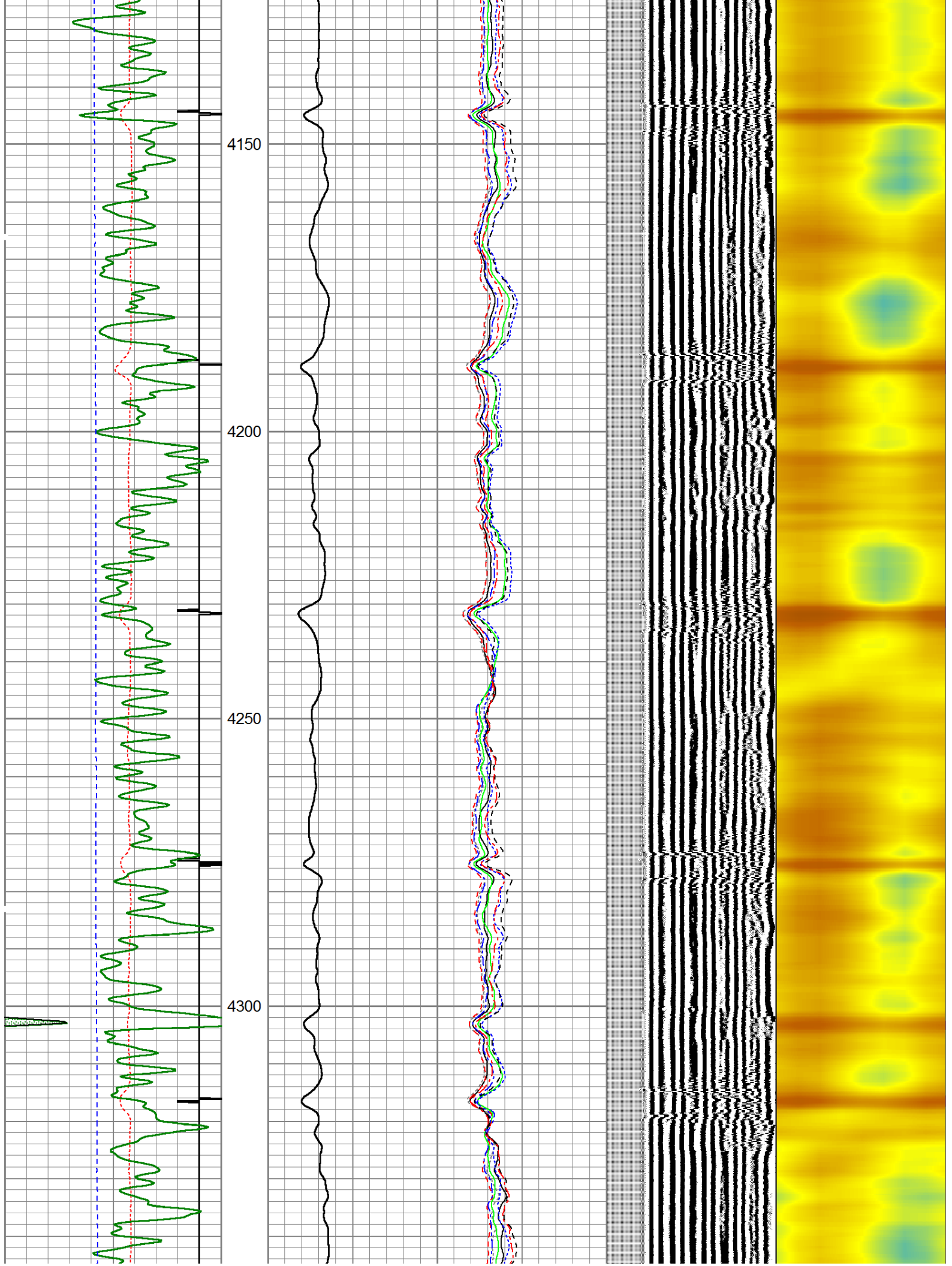


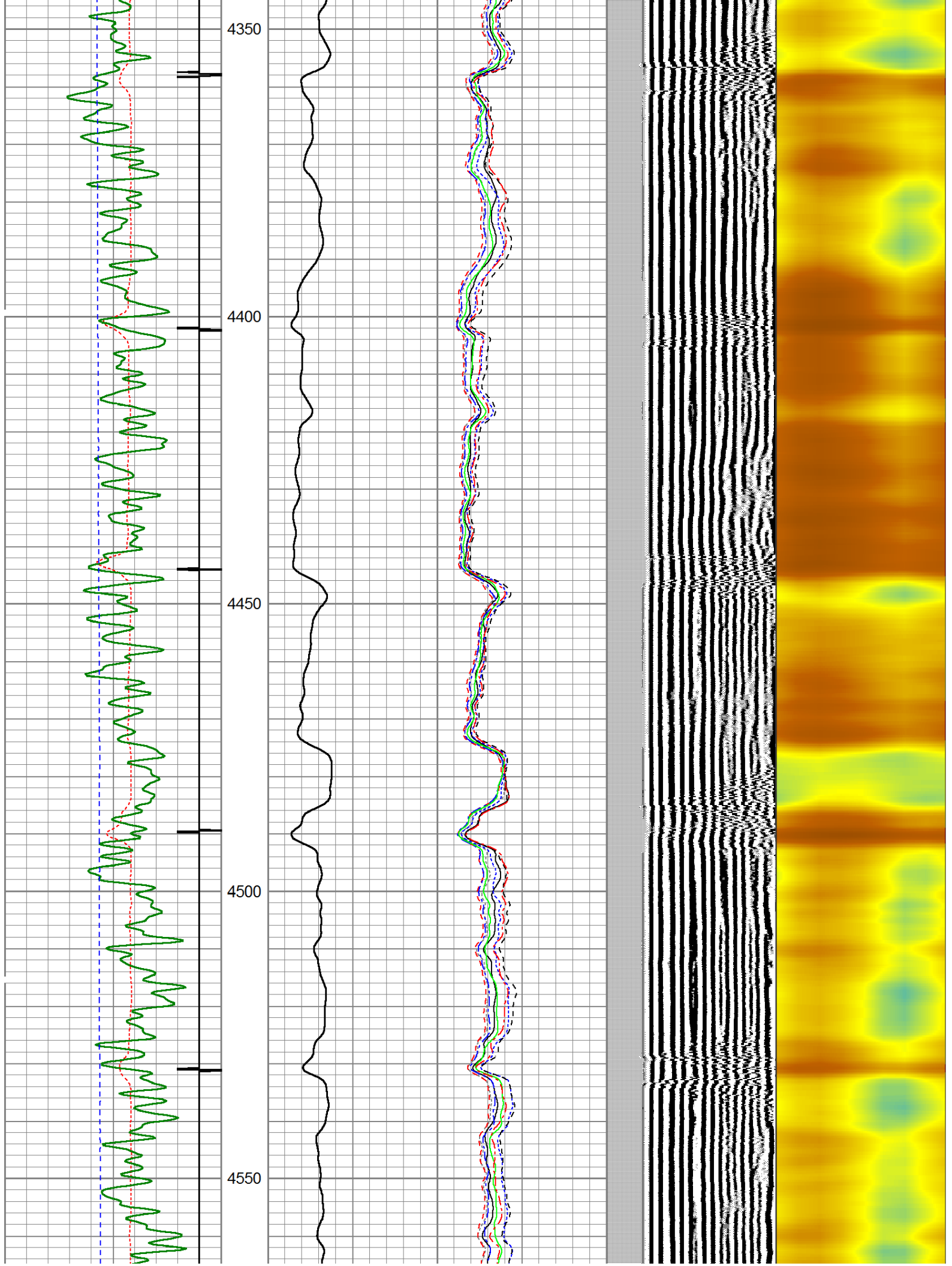


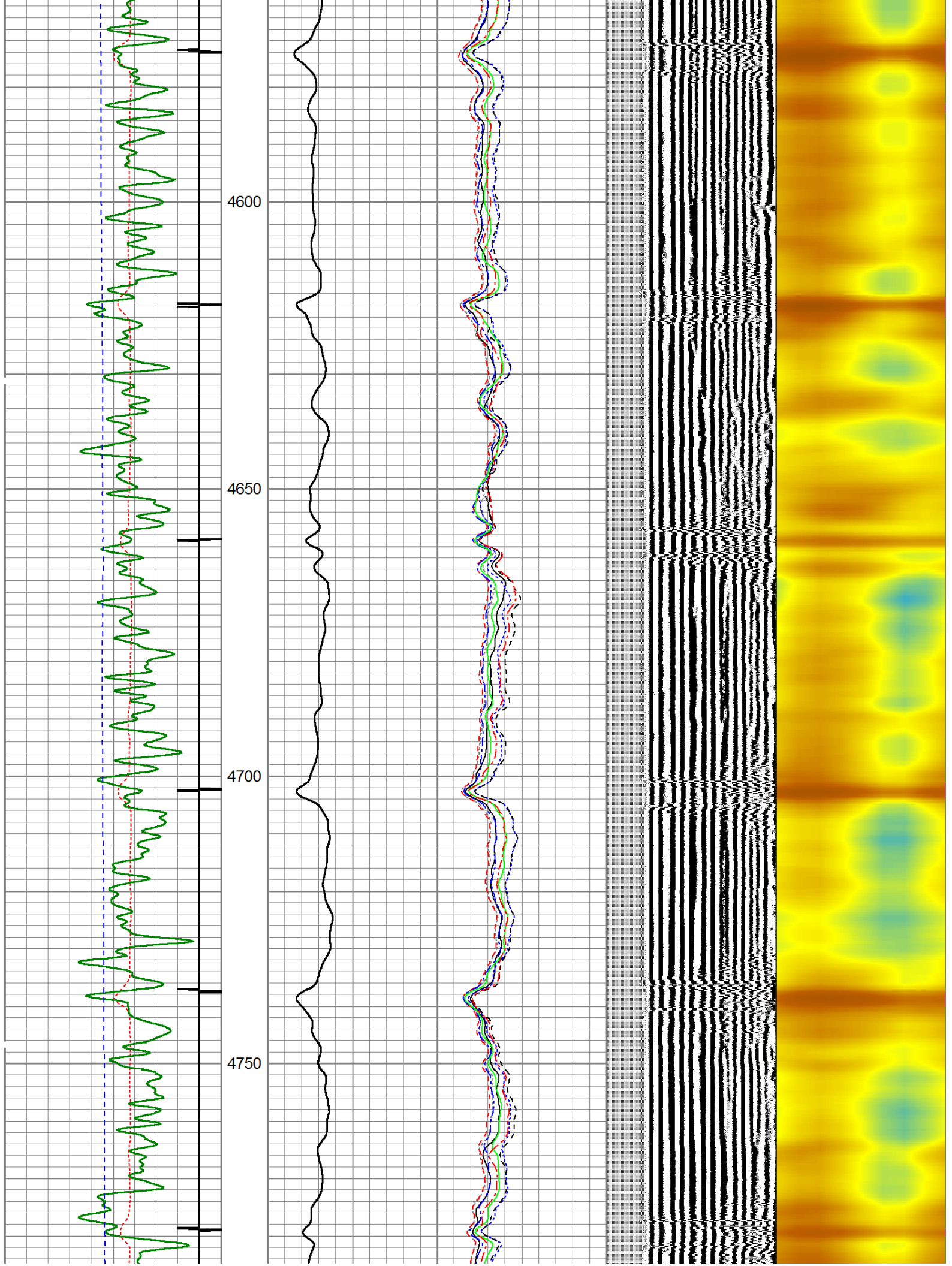




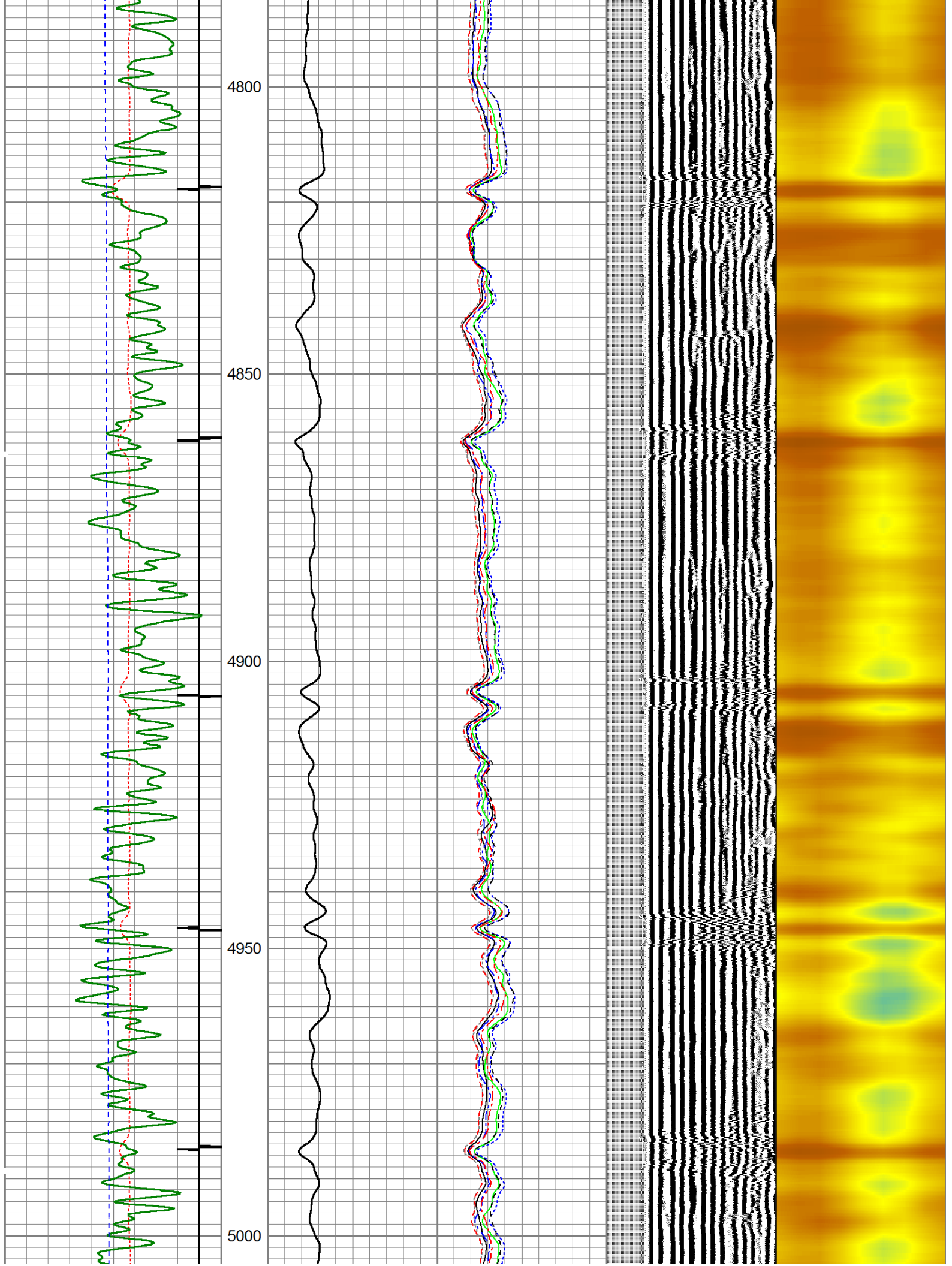


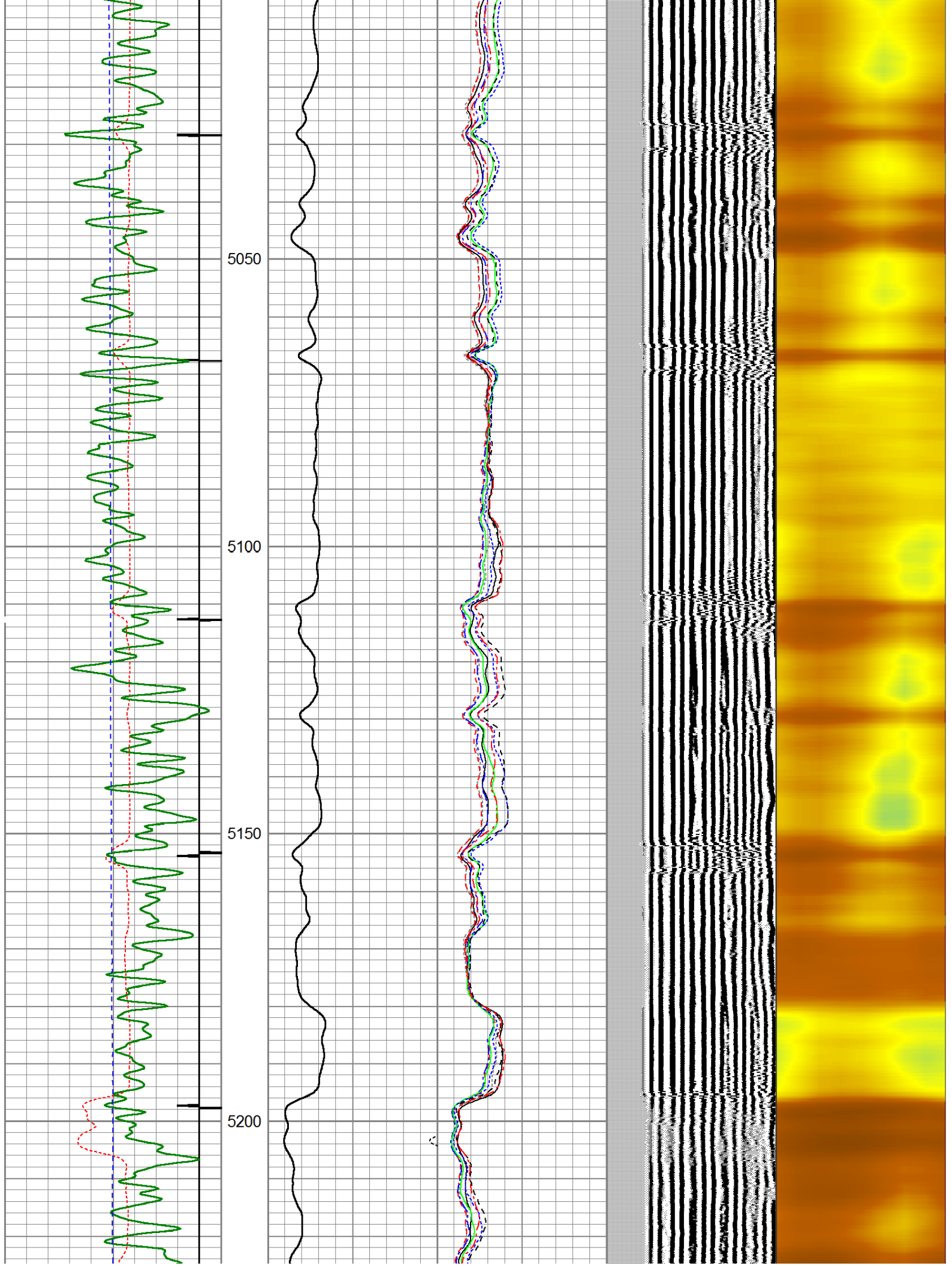


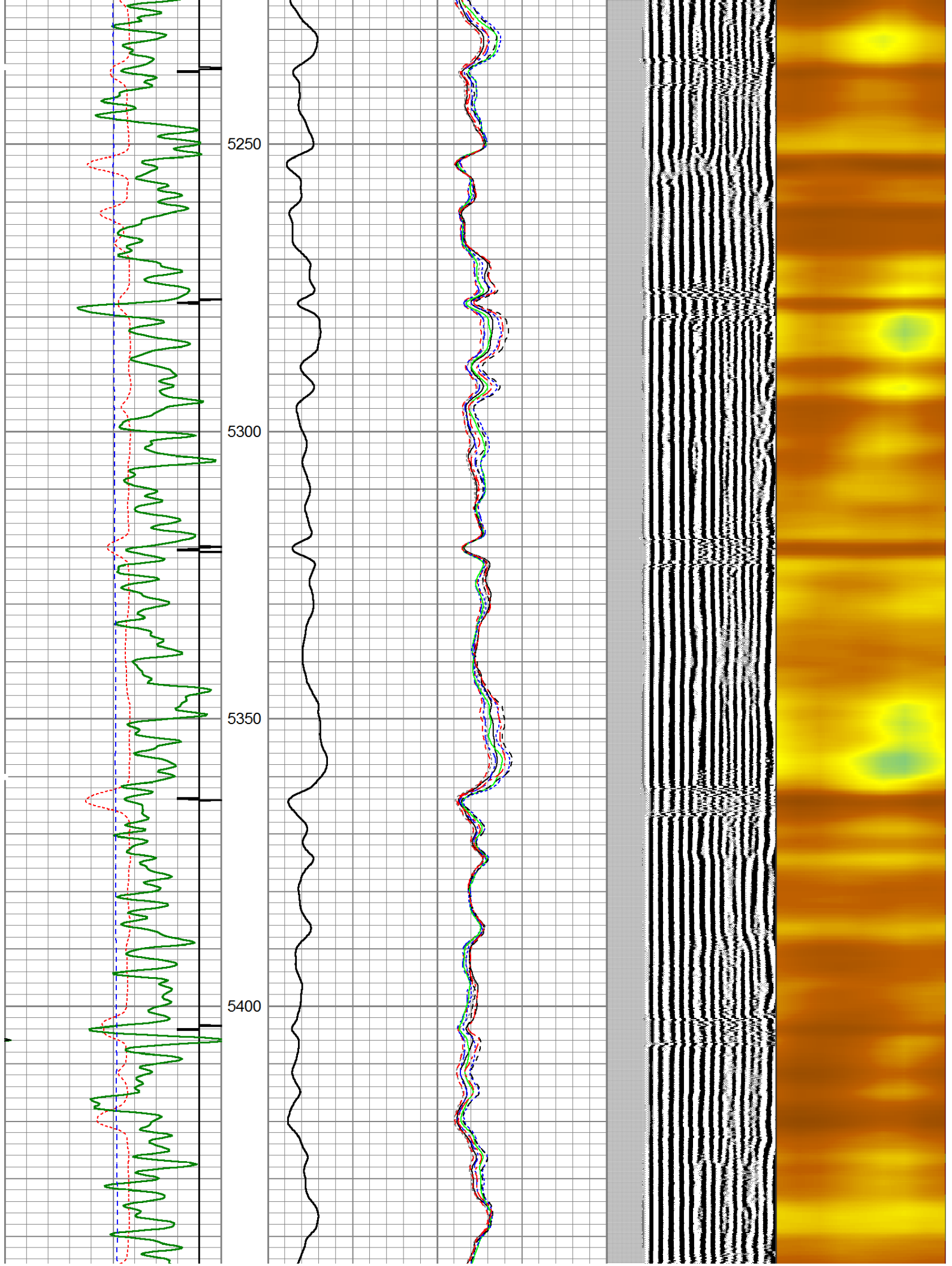




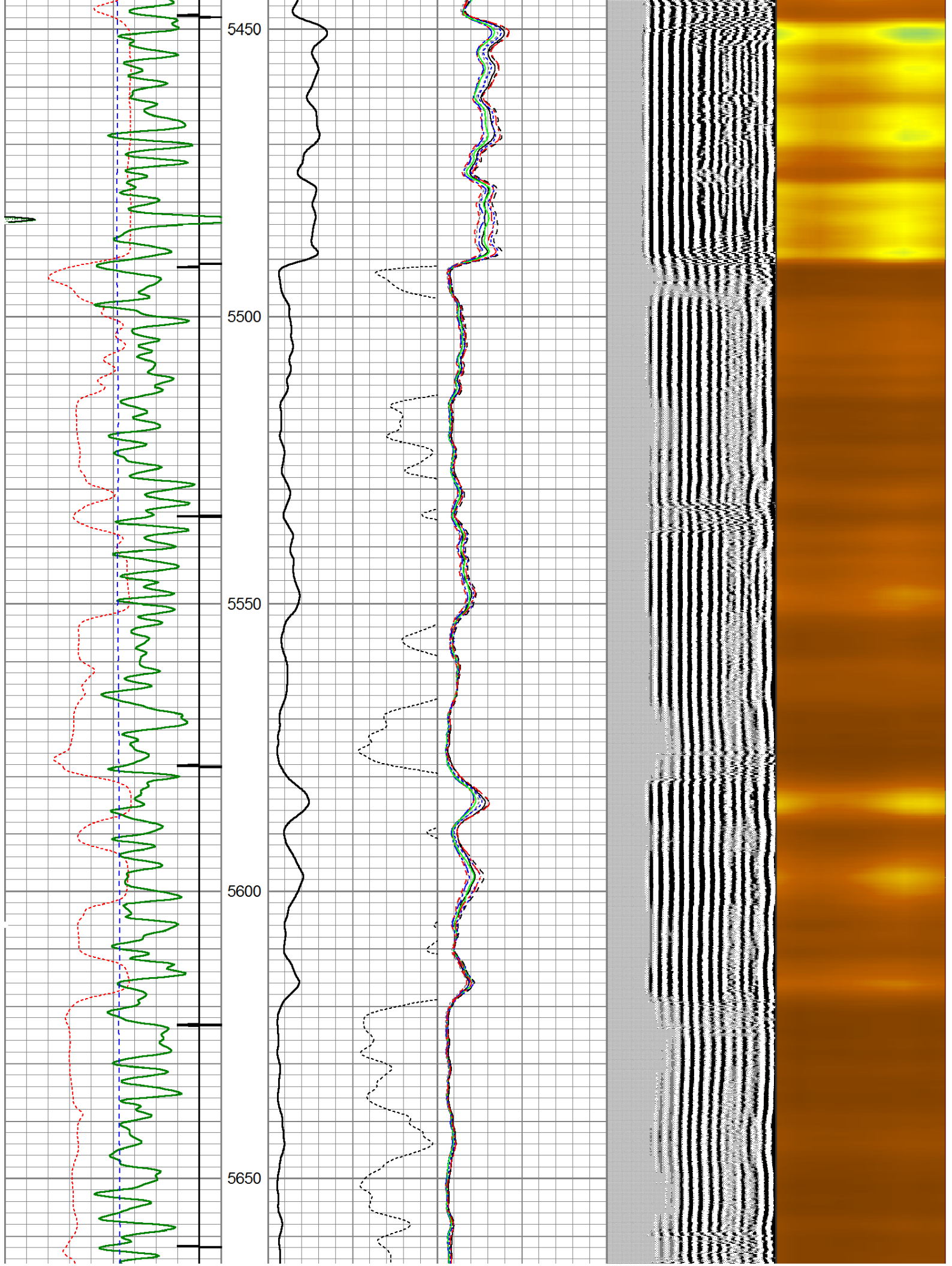


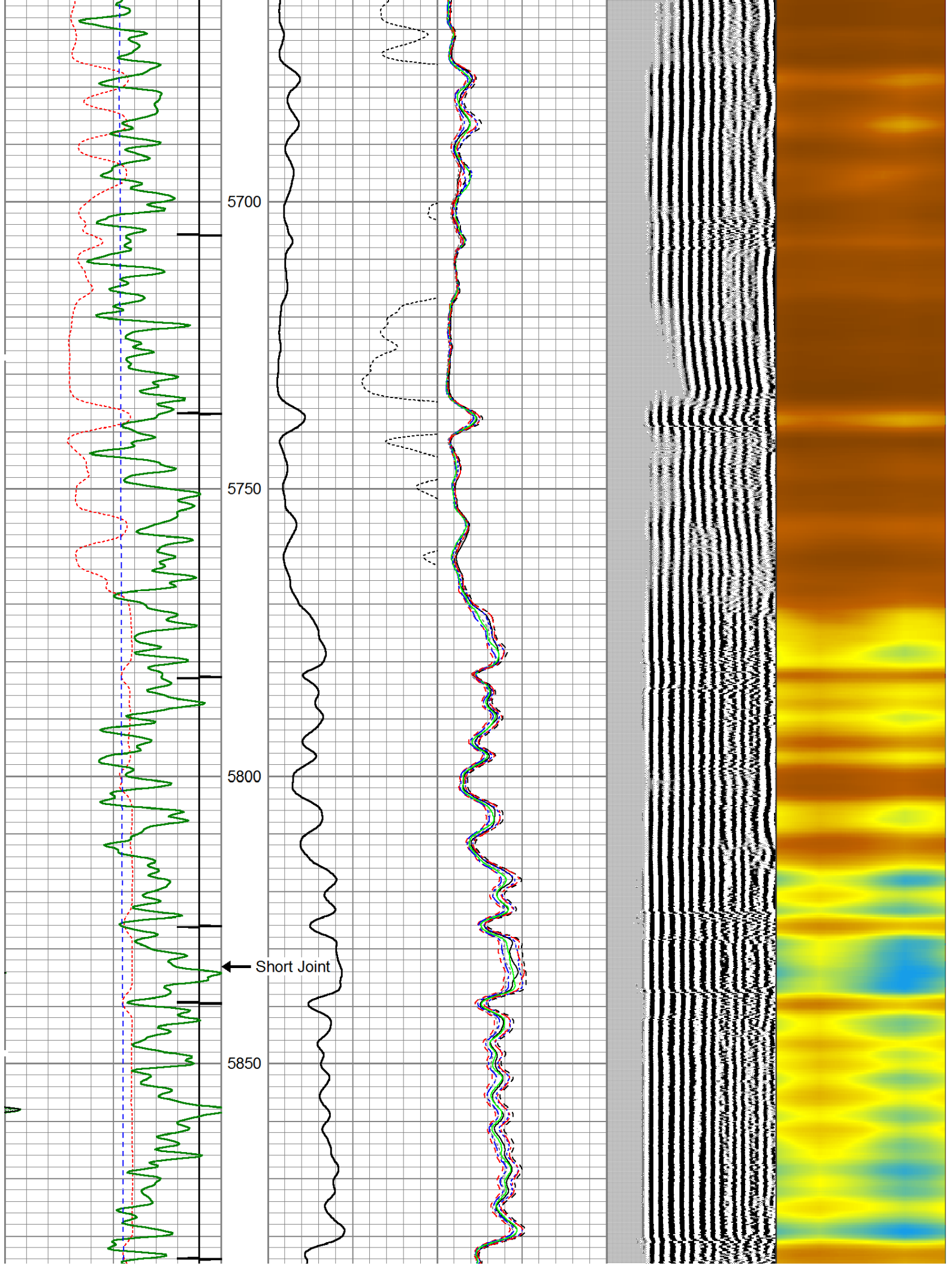




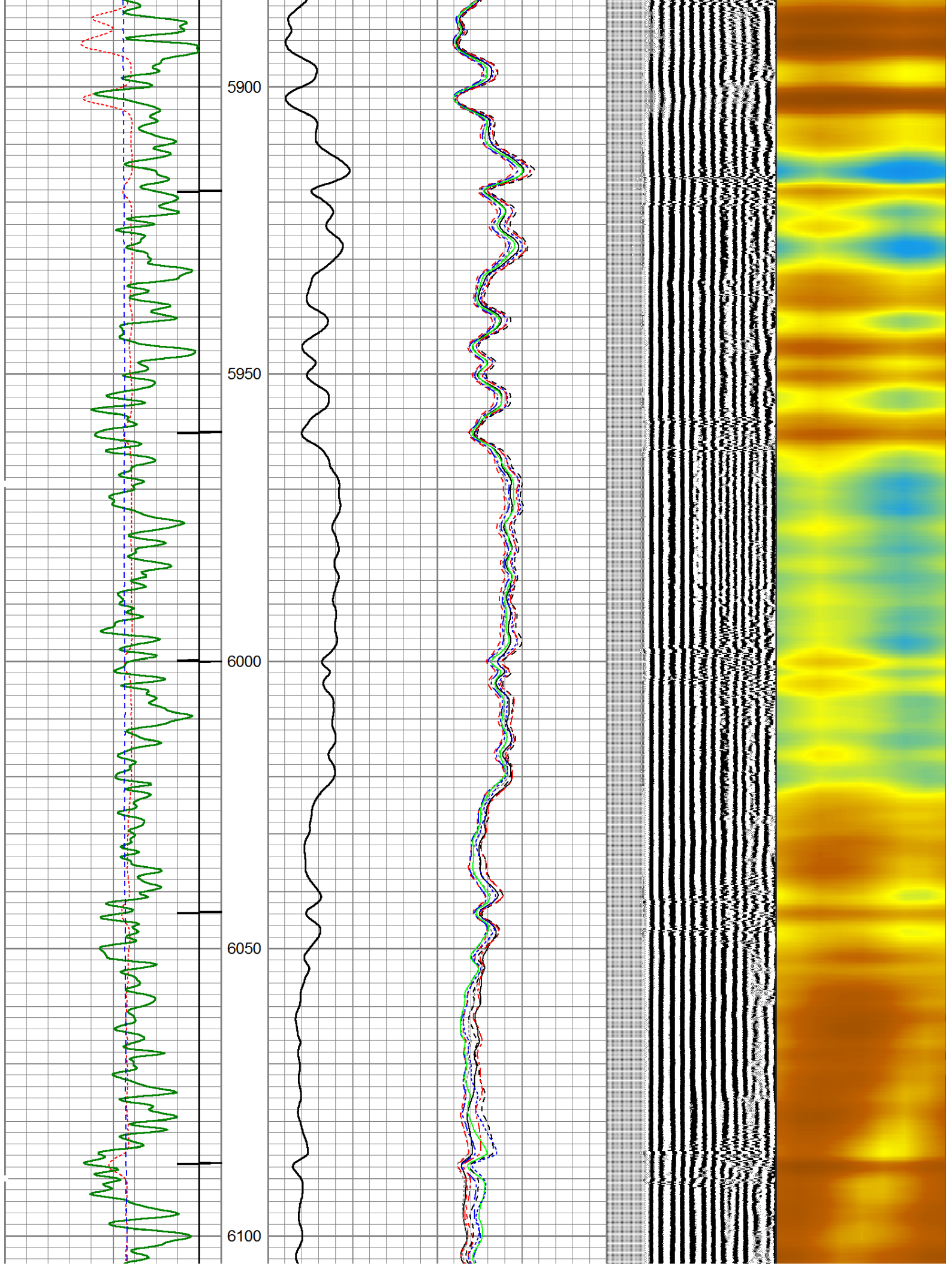




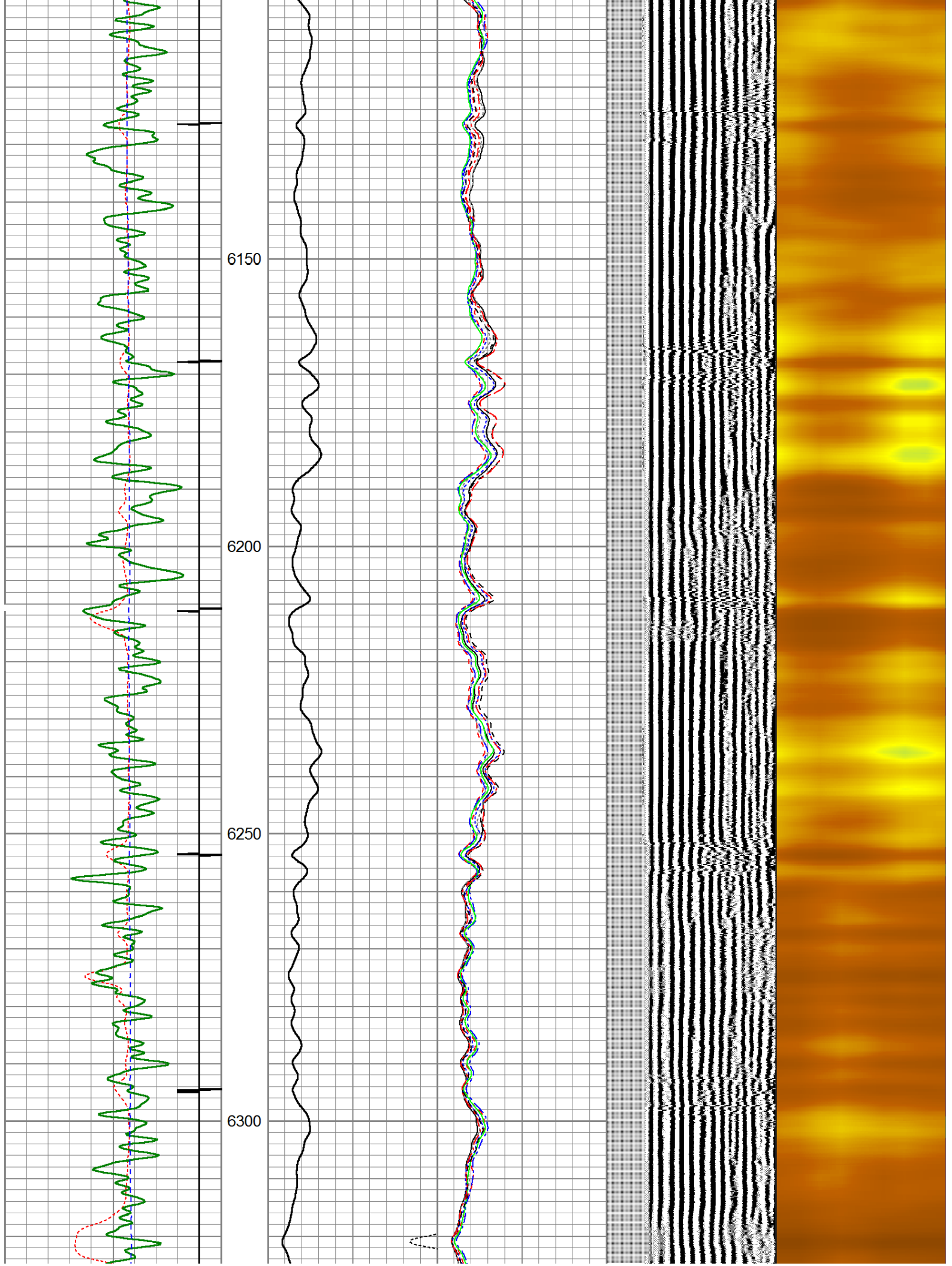


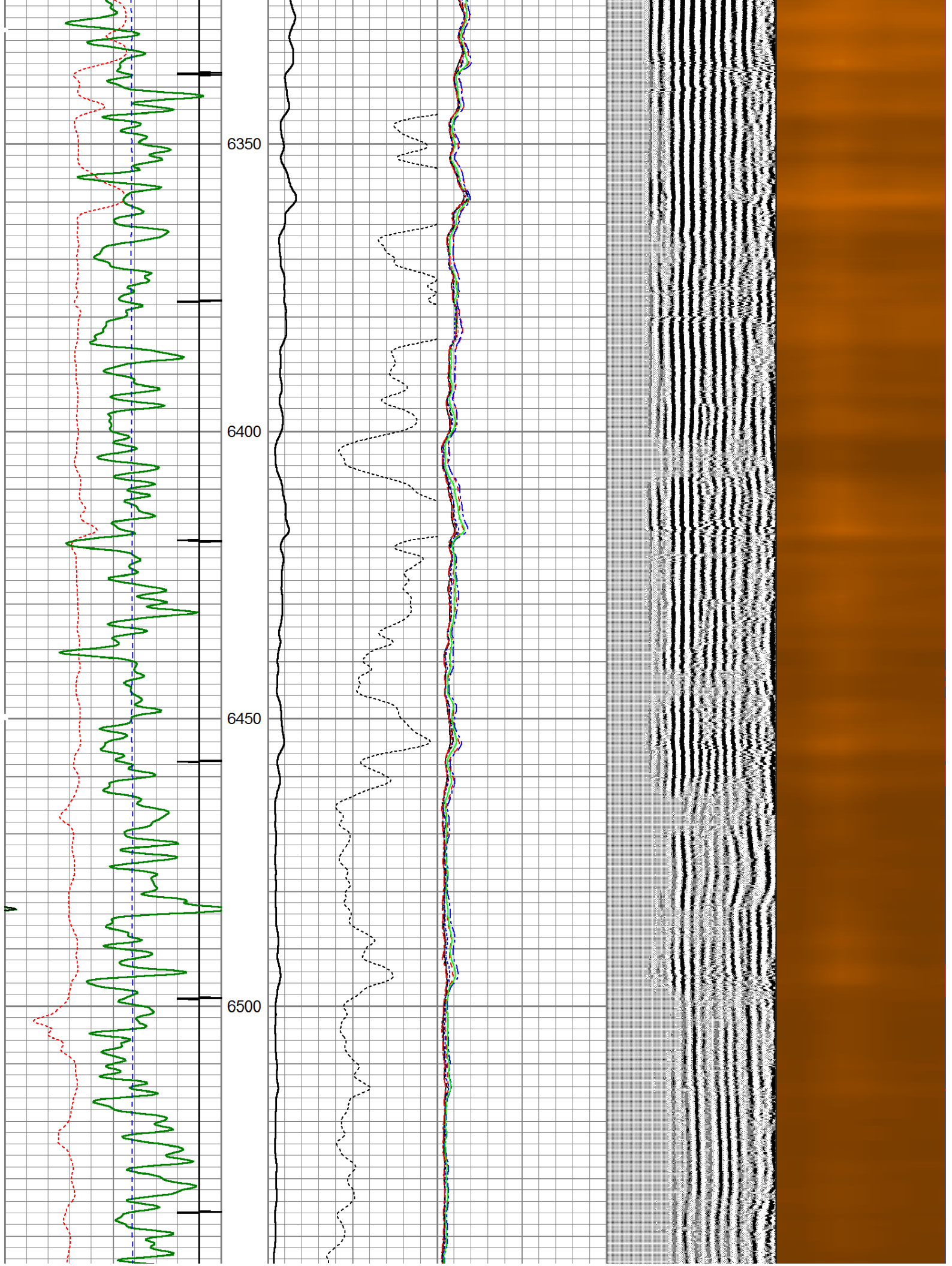




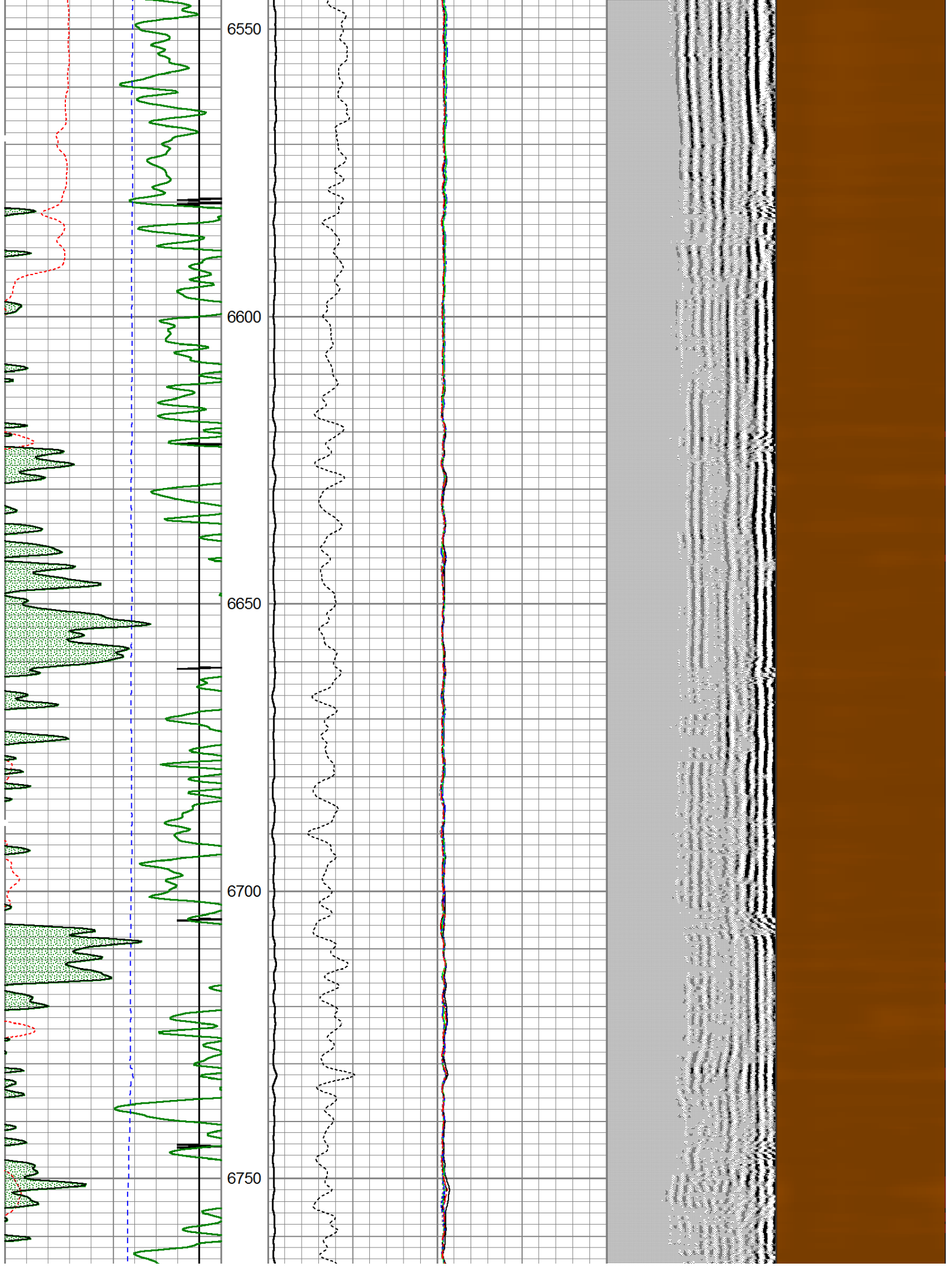




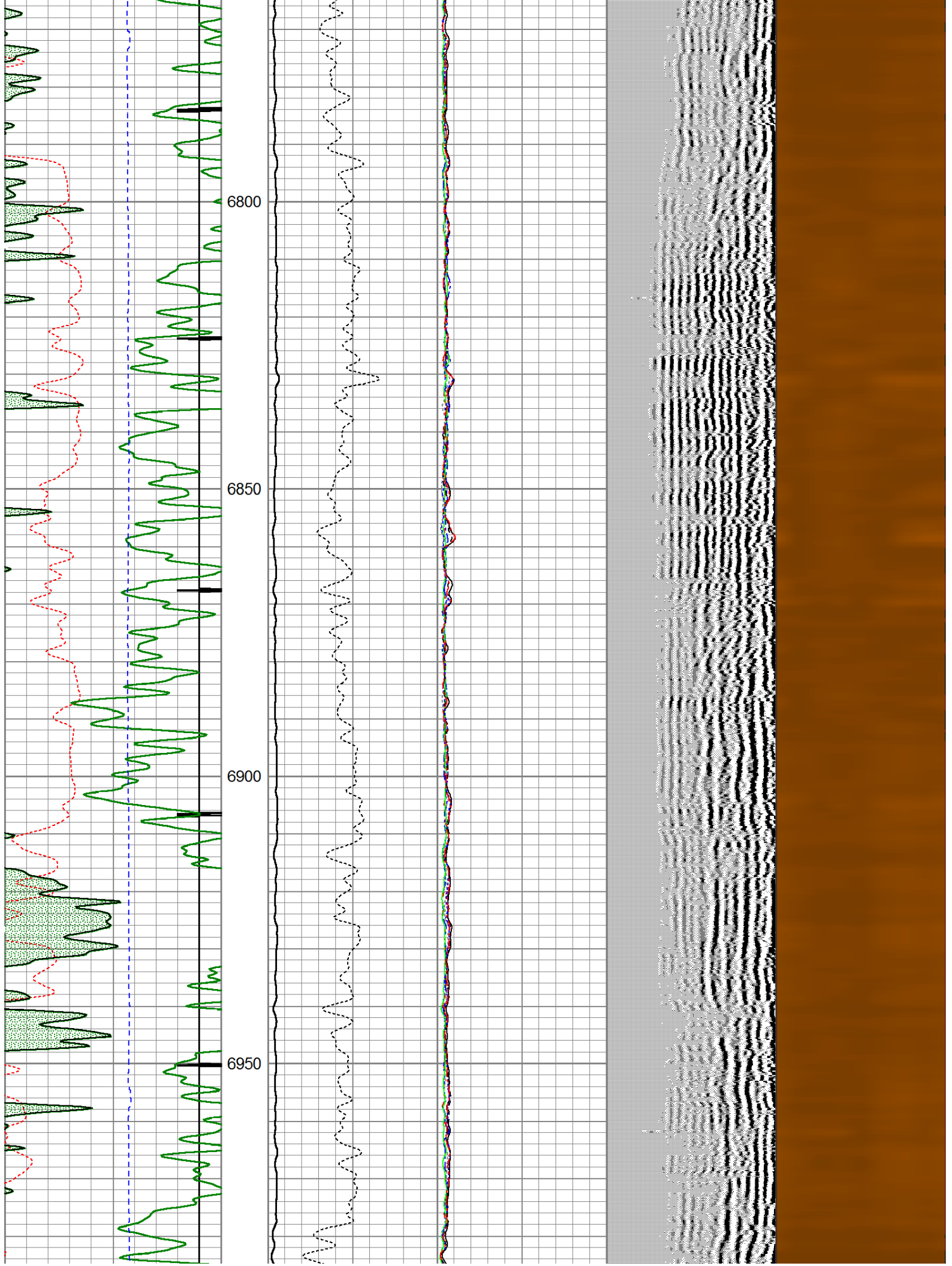


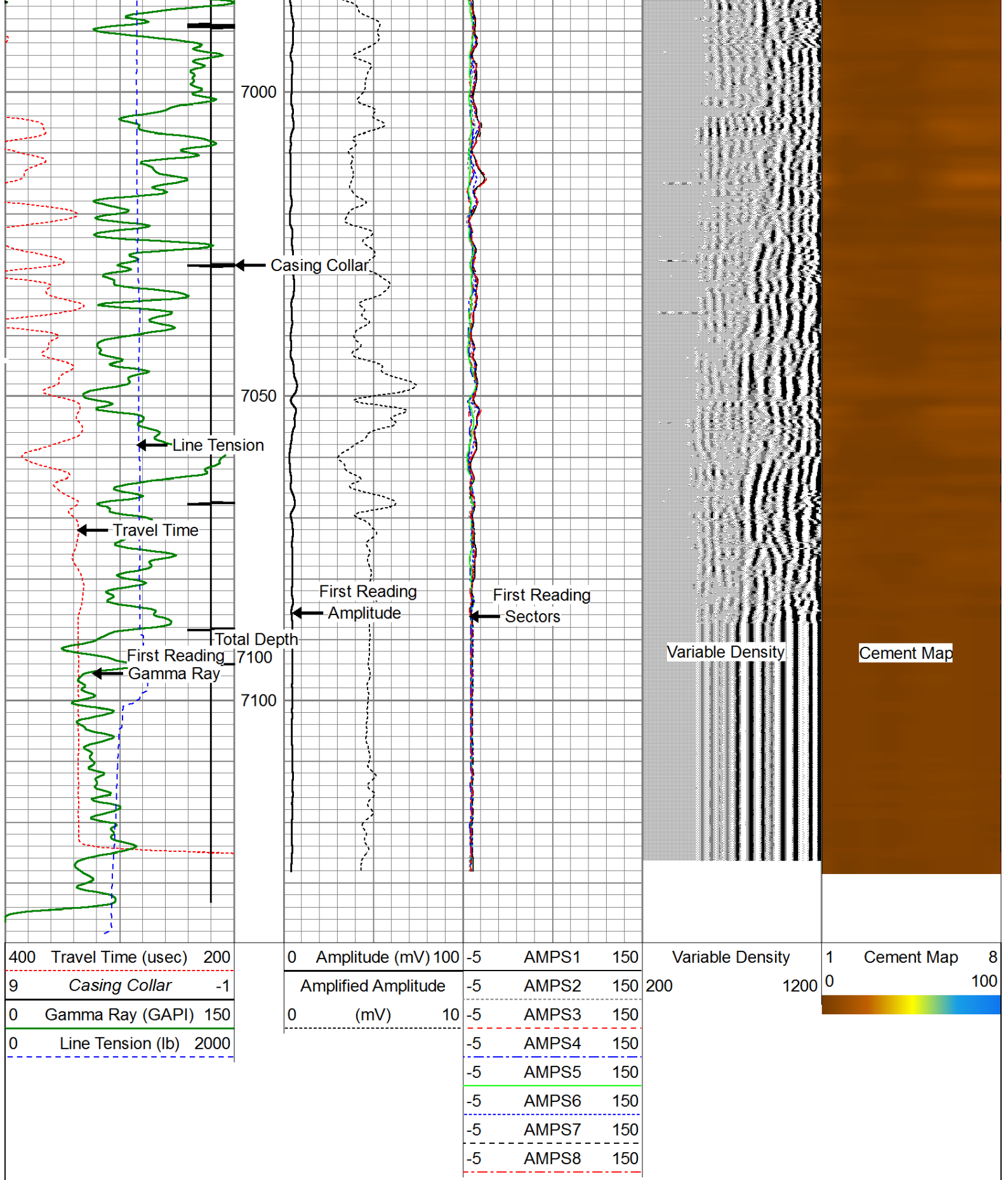








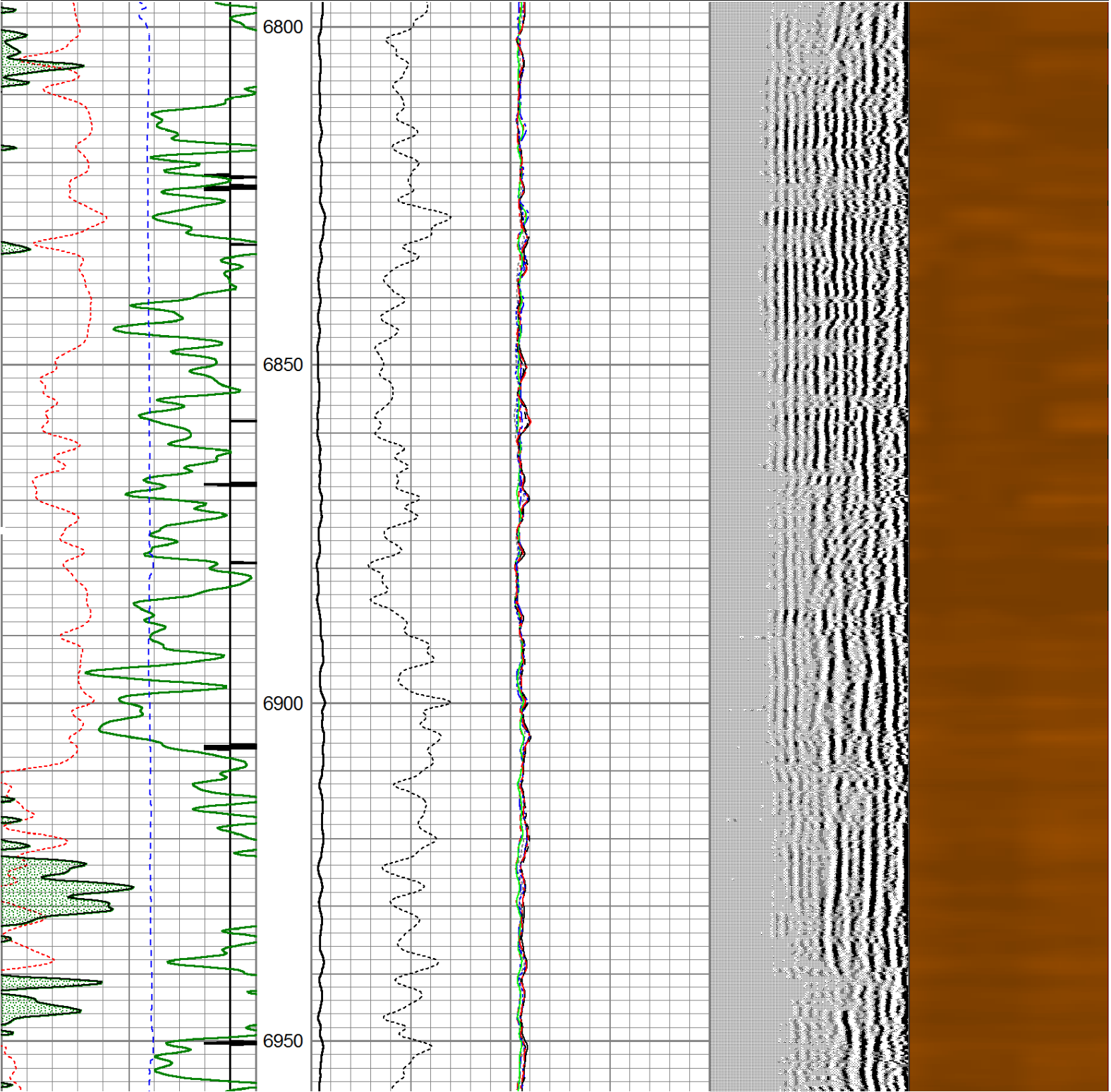




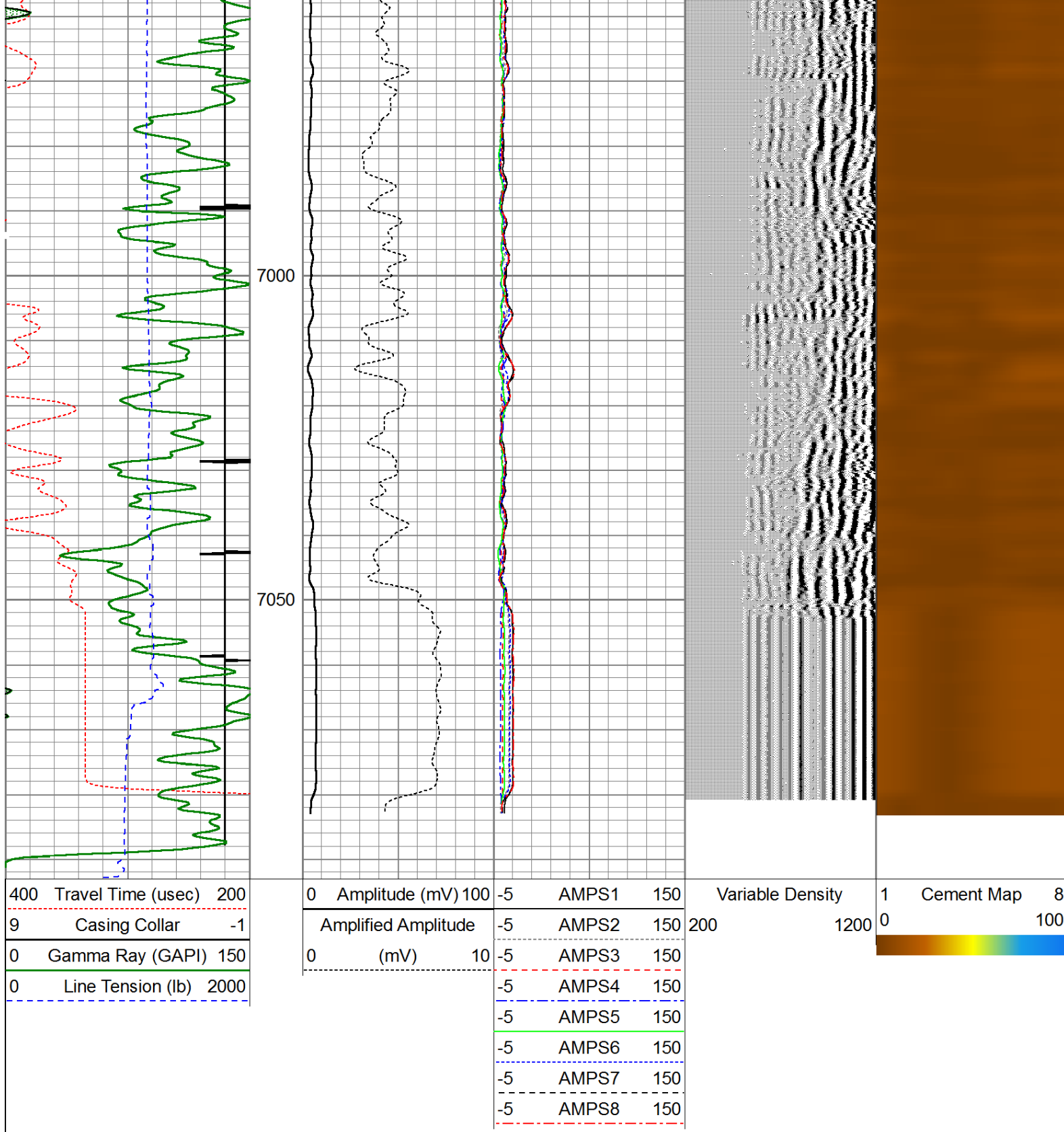


Database File: noble\_slw\_ranch\_bo1\_62\_1hn.db  
Dataset Pathname: pass8  
Presentation Format: scbl03  
Dataset Creation: Tue Apr 30 07:22:46 2013 by Log 0  
Charted by: Depth in Feet scaled 1:240

400	Travel Time (usec)	200	0	Amplitude (mV)	100	-5	AMPS1	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1		Amplified Amplitude		-5	AMPS2	150		0		100
0	Gamma Ray (GAPI)	150	0	(mV)	10	-5	AMPS3	150				
0	Line Tension (lb)	2000				-5	AMPS4	150				
						-5	AMPS5	150				
						-5	AMPS6	150				
						-5	AMPS7	150				
						-5	AMPS8	150				







### Calibration Report

Database File: noble\_slw\_ranch\_bo1\_62\_1hn.db  
 Dataset Pathname: merge2  
 Dataset Creation: Tue Apr 30 08:35:31 2013

### Temperature Calibration Report

Serial Number: 101234  
 Tool Model: 1.375TEMP  
 Performed: Tue Apr 30 07:40:44 2013

Reference

Reading

Low Reference: 1.00 degF 10.00 cps  
High Reference: 1.00 degF 10.00 cps

Gain: 0.10  
Offset: 0.00  
Delta Spacing 2

### Gamma Ray Calibration Report

Serial Number: 110108-Dig  
Tool Model: Probe275  
Performed: Mon Apr 29 16:12:13 2013

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
Calibrator Reading: 1.0 cps

Sensitivity: 0.8500 GAPI/cps

### Segmented Cement Bond Log Calibration Report

Serial Number: 101224  
Tool Model: Probe

Calibration Casing Diameter: 7.000 in  
Calibration Depth: 209.492 ft

Master Calibration, performed Tue Apr 30 07:15:05 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.003	0.628	2.000	62.165	95.446	3.255
CAL	-0.019	0.645				
5'	-0.006	0.699	1.000	62.165	86.725	1.519
SUM						
S1	-0.010	0.644	0.000	100.000	152.770	-16.565
S2	0.008	0.640	0.000	100.000	158.373	-1.346
S3	-0.009	0.625	0.000	100.000	157.733	1.448
S4	-0.001	0.622	0.000	100.000	160.429	0.188
S5	0.002	0.632	0.000	100.000	158.671	-0.242
S6	0.001	0.623	0.000	100.000	160.776	-0.216
S7	0.001	0.613	0.000	100.000	163.598	-0.240
S8	-0.003	0.630	0.000	100.000	157.936	0.540

Internal Reference Calibration, performed Mon Oct 10 09:42:03 2005:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.019	0.645	1.000	0.000

Air Zero Calibration, performed Tue Apr 30 06:30:27 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	-0.014		0.000		0.011	
5'	-0.013		0.000		0.007	
SUM						
S1	-0.146		0.000		0.136	
S2	-0.006		0.000		0.014	

S2	-0.009	0.000	0.011
S3	-0.014	0.000	0.005
S4	-0.011	0.000	0.010
S5	-0.012	0.000	0.013
S6	-0.013	0.000	0.015
S7	-0.015	0.000	0.016
S8	-0.014	0.000	0.010

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
WVF3FT WVFCAL WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 WVF5FT	13.09 13.09 13.09 13.09 13.09 13.09 13.09 13.09 13.09 13.09 12.09		Titan Cable_head	1.00	1.44	10.00
			Probe275 2.75" Centralizer	2.88	2.75	20.00
			RBT-Probe (101224) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
CCL	5.13					
GR	3.79		GR-Probe275 (110108-Dig) Probe 2 3/4" Logging Gamma Ray	4.78	2.75	57.00



