



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

Company		Noble Energy	
Well		ROHN LB22-62HN	
Field		Wattenberg	
County		Weld	
State		Colorado	
Location:		API # : 05-123-36293	
SEC 21 TWP 9N RGE 60W		660 FSL & 660 FEL	
Permanent Datum		Ground Level	
Log Measured From		Kelly Bushing 24' Above P.D.	
Drilling Measured From		Kelly Bushing	
Other Services		None	
Elevation		K.B. 5006'	
		D.F. 5004'	
		G.L. 4982'	
Date		21-FEB-20013	
Run Number		One	
Depth Driller		6542'	
Depth Logger		6486'	
Bottom Logged Interval		6483	
Top Log Interval		Surface	
Open Hole Size		26"	
Type Fluid		Water	
Density / Viscosity		N/A	
Max. Recorded Temp.		N/A	
Estimated Cement Top		1013'	
Time Well Ready		10:30	
Time Logger on Bottom		10:50	
Equipment Number		12027	
Location		Brighton, CO	
Recorded By		M. Schneider	
Witnessed By		B. Mansfield	
Borehole Record		Tubing Record	
Run Number		Bit	
From		To	
Size		Weight	
From		To	
Casing Record		Size	
Surface String		Wgt/Ft	
Prot. String		Top	
Production String		Bottom	
Liner		4.5"	
		7"	
		26#	
		11.6#	
		6542'	
		10607'	
		5272' - 5287'	

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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

Primary Log On Well

Well Logged with 0 PSI using 24' K.B.

Unable to reach liner top
made 5 attempts

Your Crew Today Was: M.Schneider, S. Hughes, B. Monroe

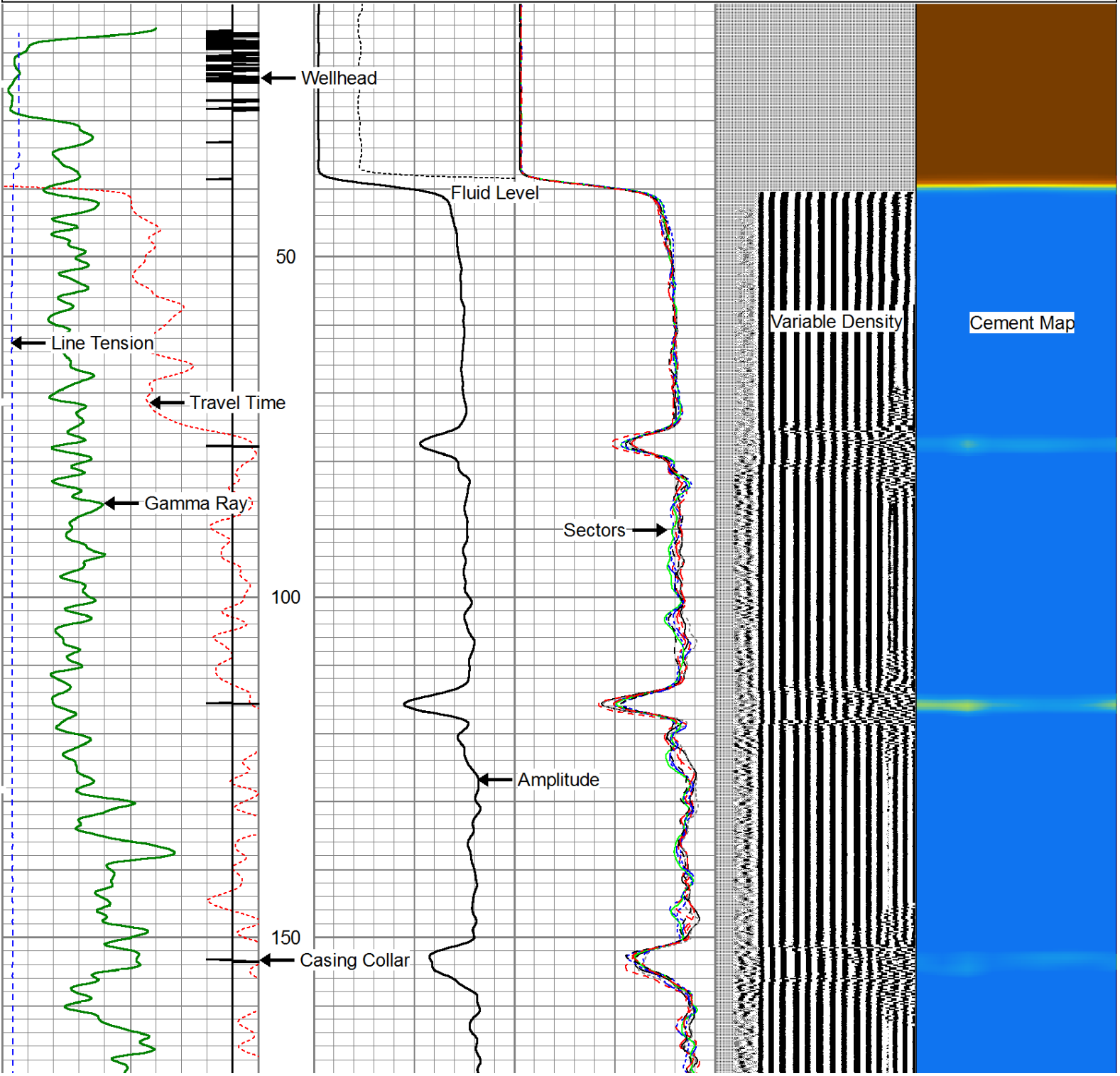
Thank you for choosing
Allied Wireline Services

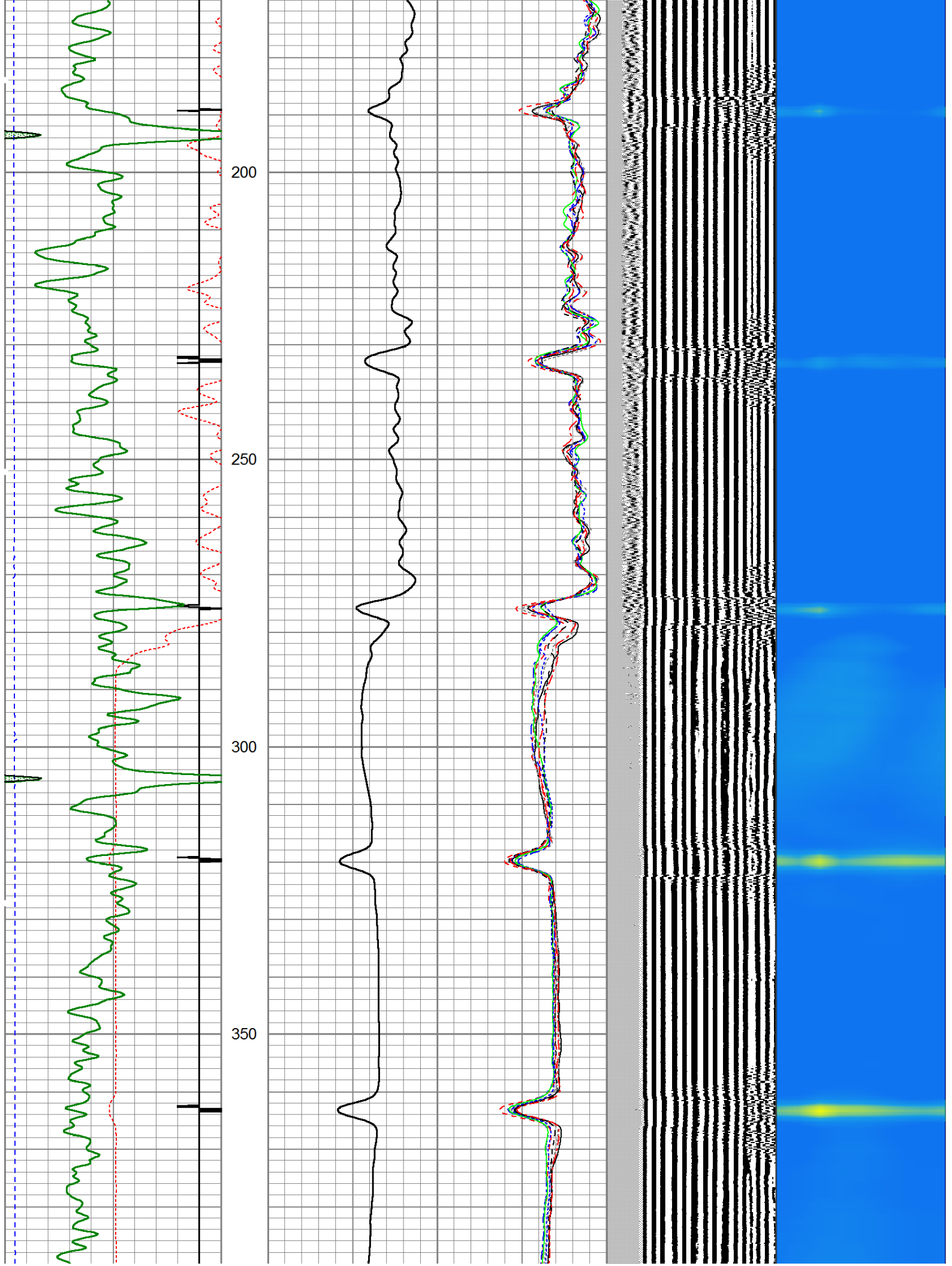


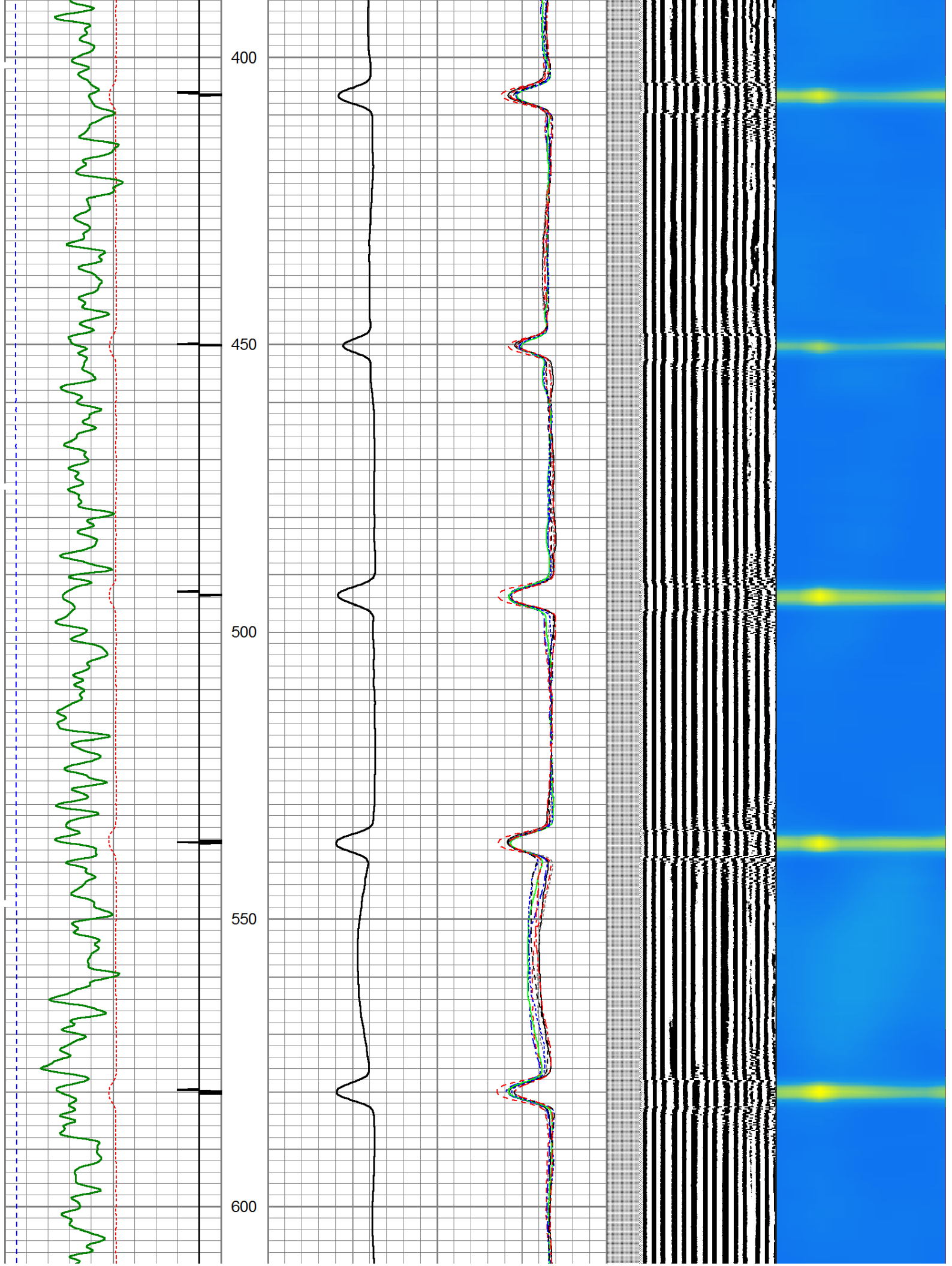
Main Pass (0 PSI)

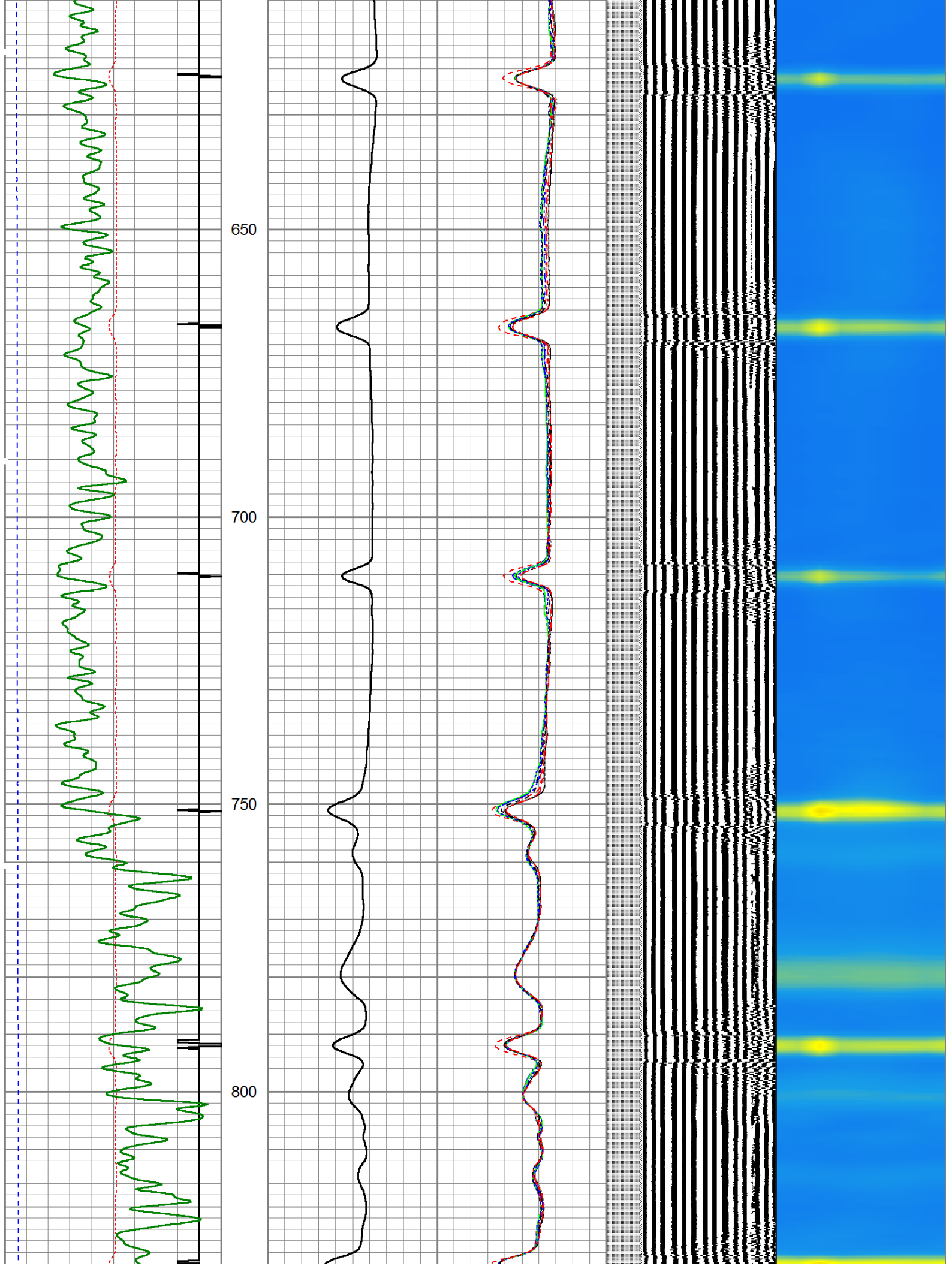
Database File: noble_rohn_lb22_62hn_rcbl.db
Dataset Pathname: rcbl/pass17.4
Presentation Format: scbl03
Dataset Creation: Mon Feb 25 14:35:35 2013
Charted by: Depth in Feet scaled 1:240

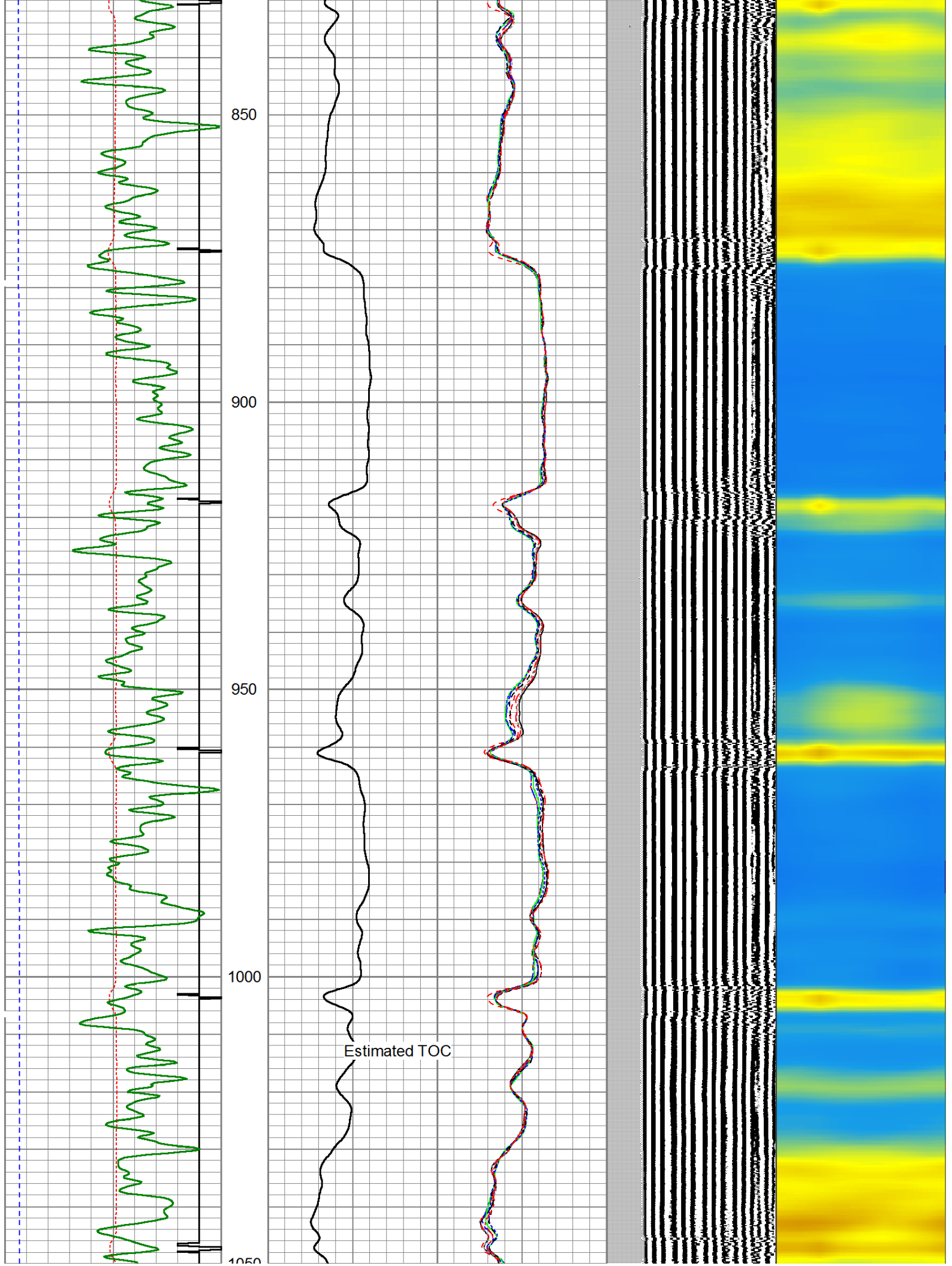
400	Travel Time (usec)	200	0	Amplitude (mV)	100	-5	AMPS1	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1		Amplified Amplitude		-5	AMPS2	150	200	1200	0	100
0	Gamma Ray (GAPI)	150	0	(mV)	10	-5	AMPS3	150				
0	Line Tension (lb)	5000				-5	AMPS4	150				
						-5	AMPS5	150				
						-5	AMPS6	150				
						-5	AMPS7	150				
						-5	AMPS8	150				

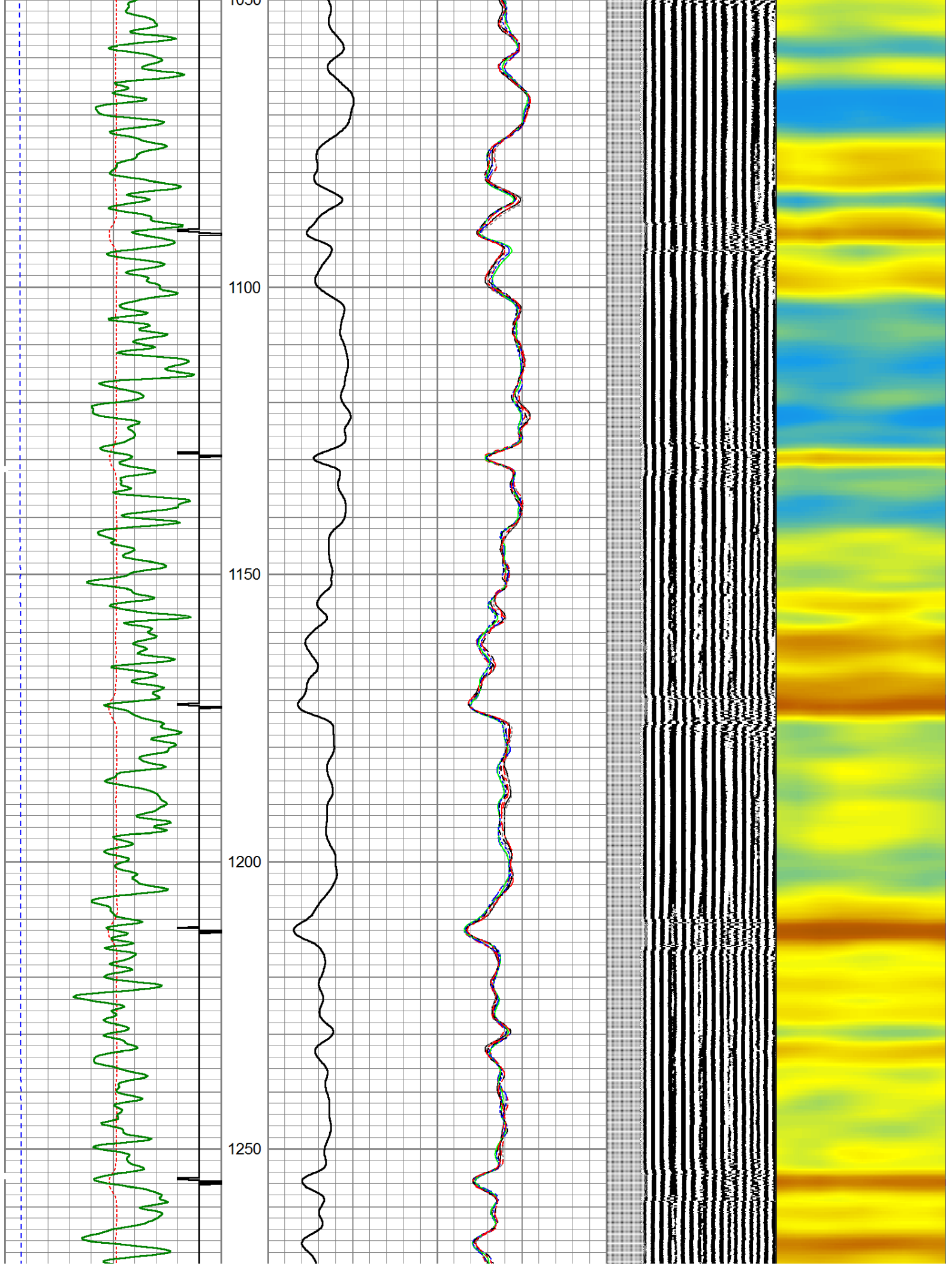


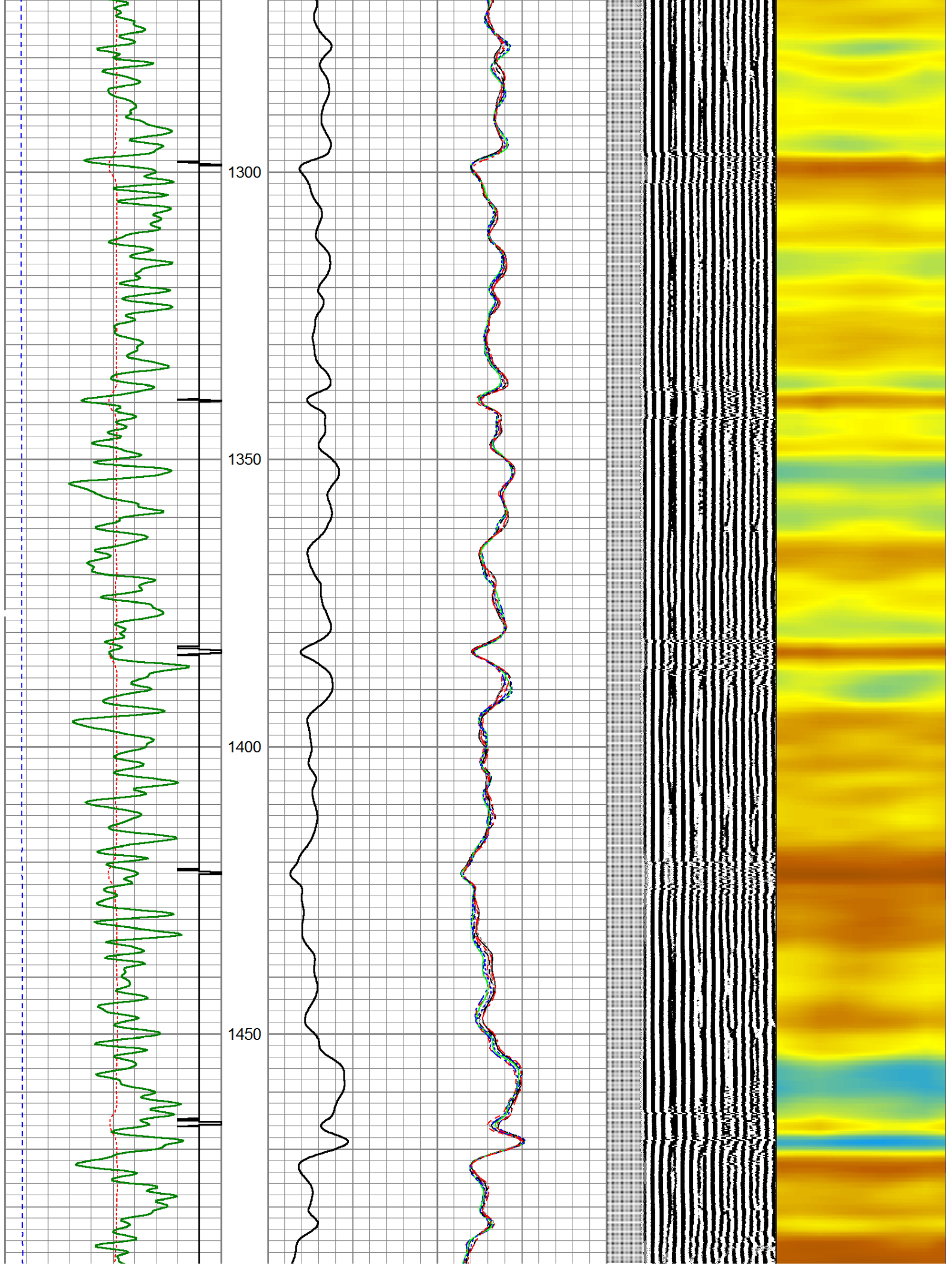


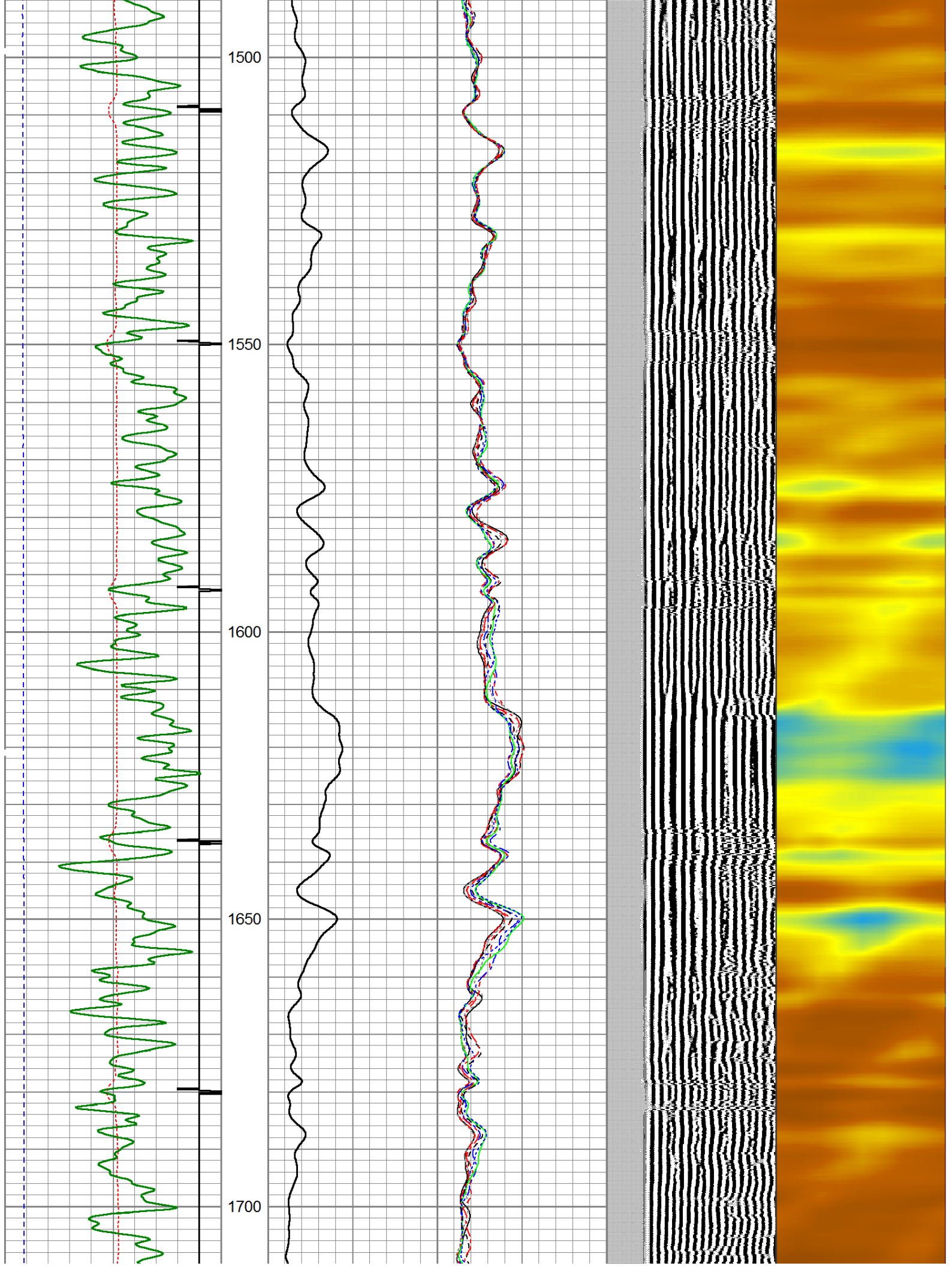


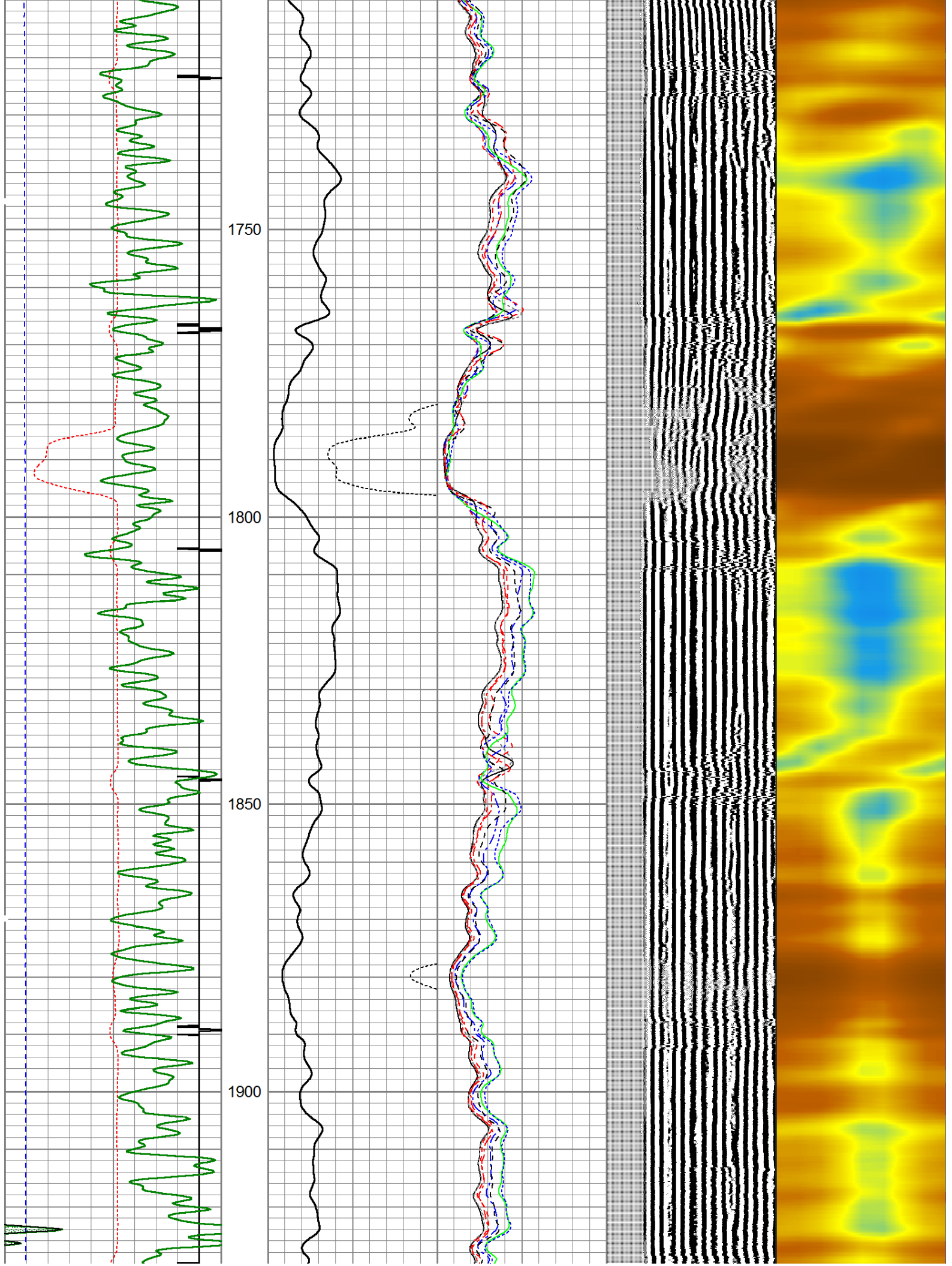


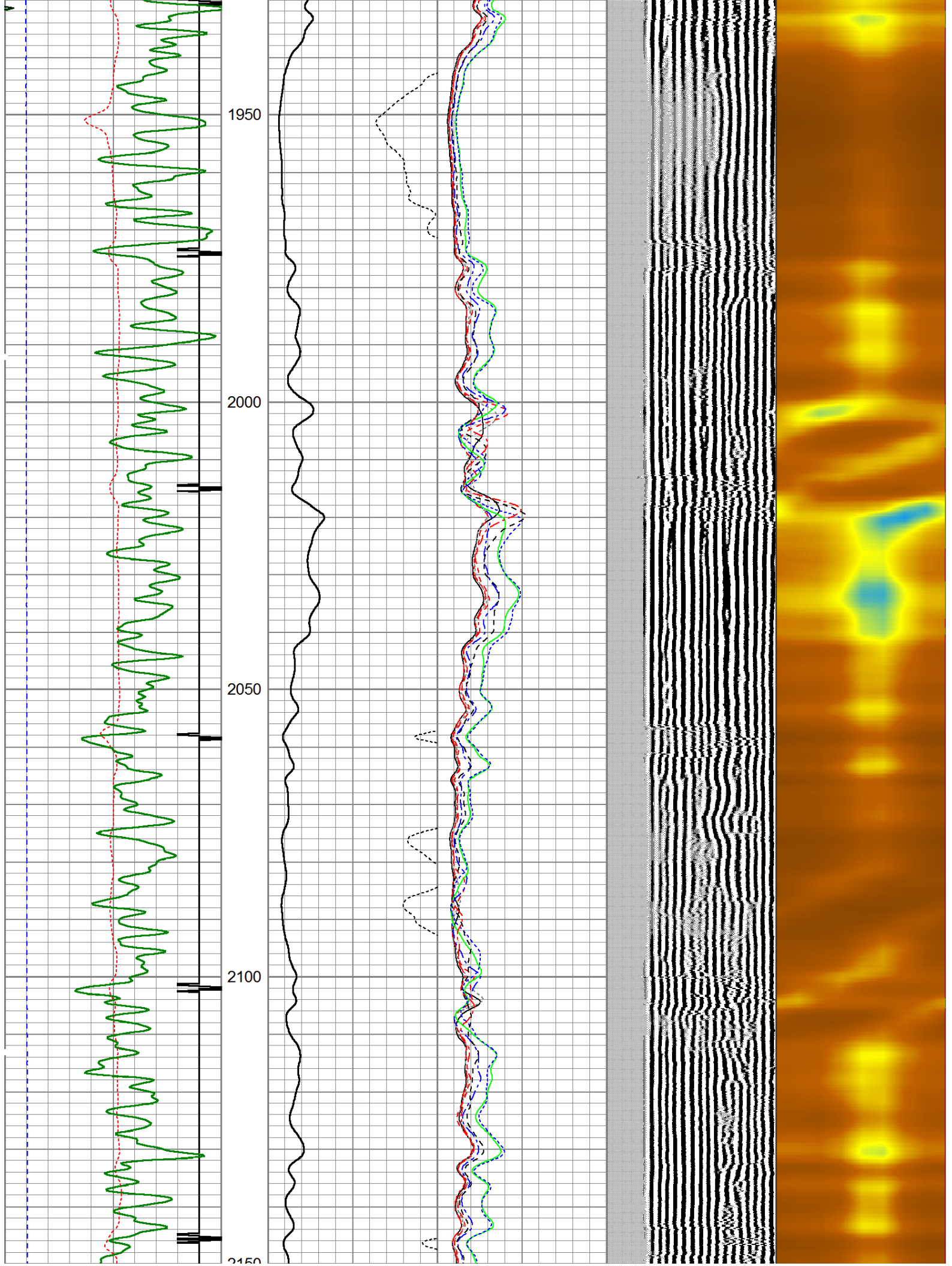


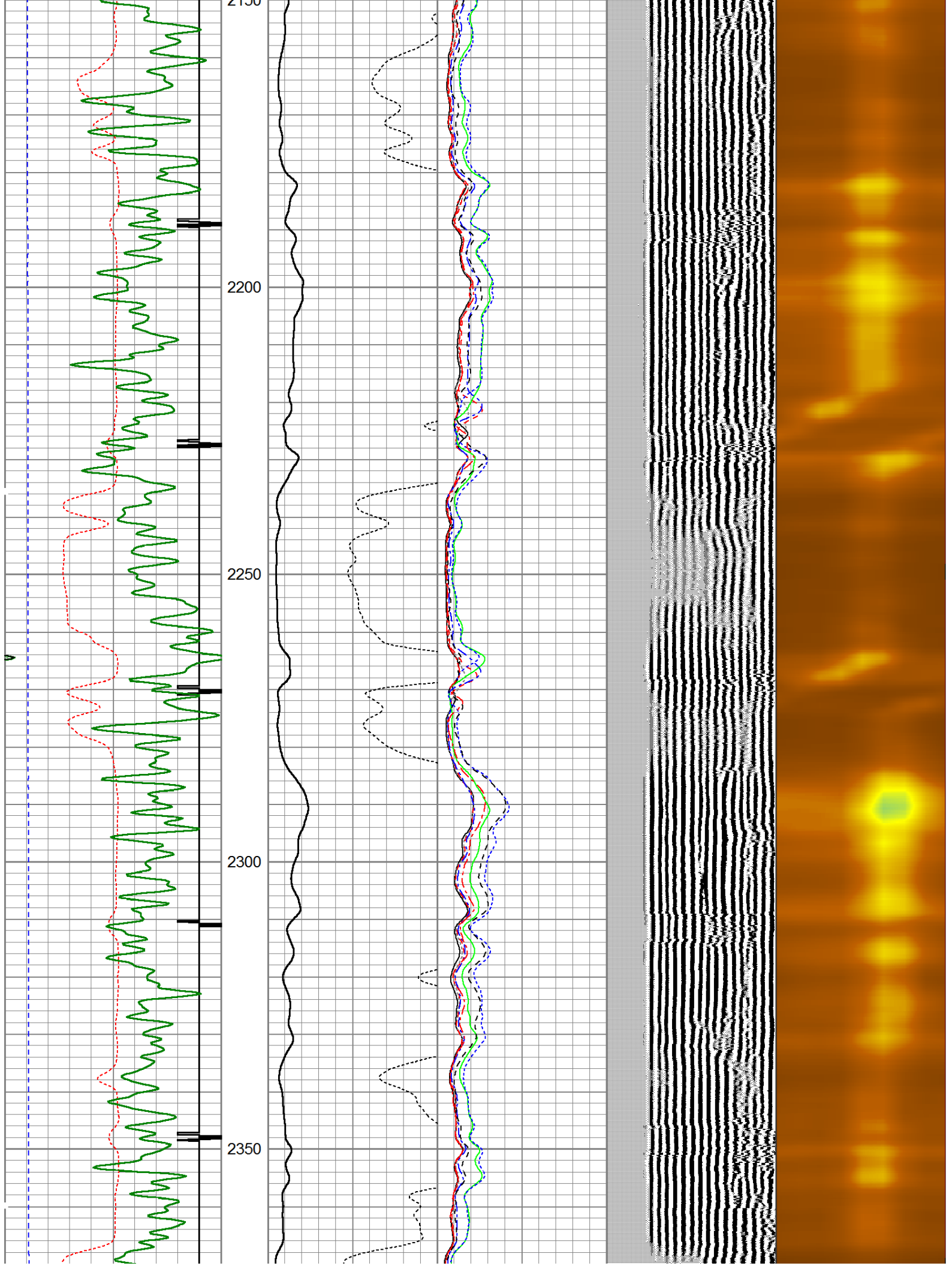


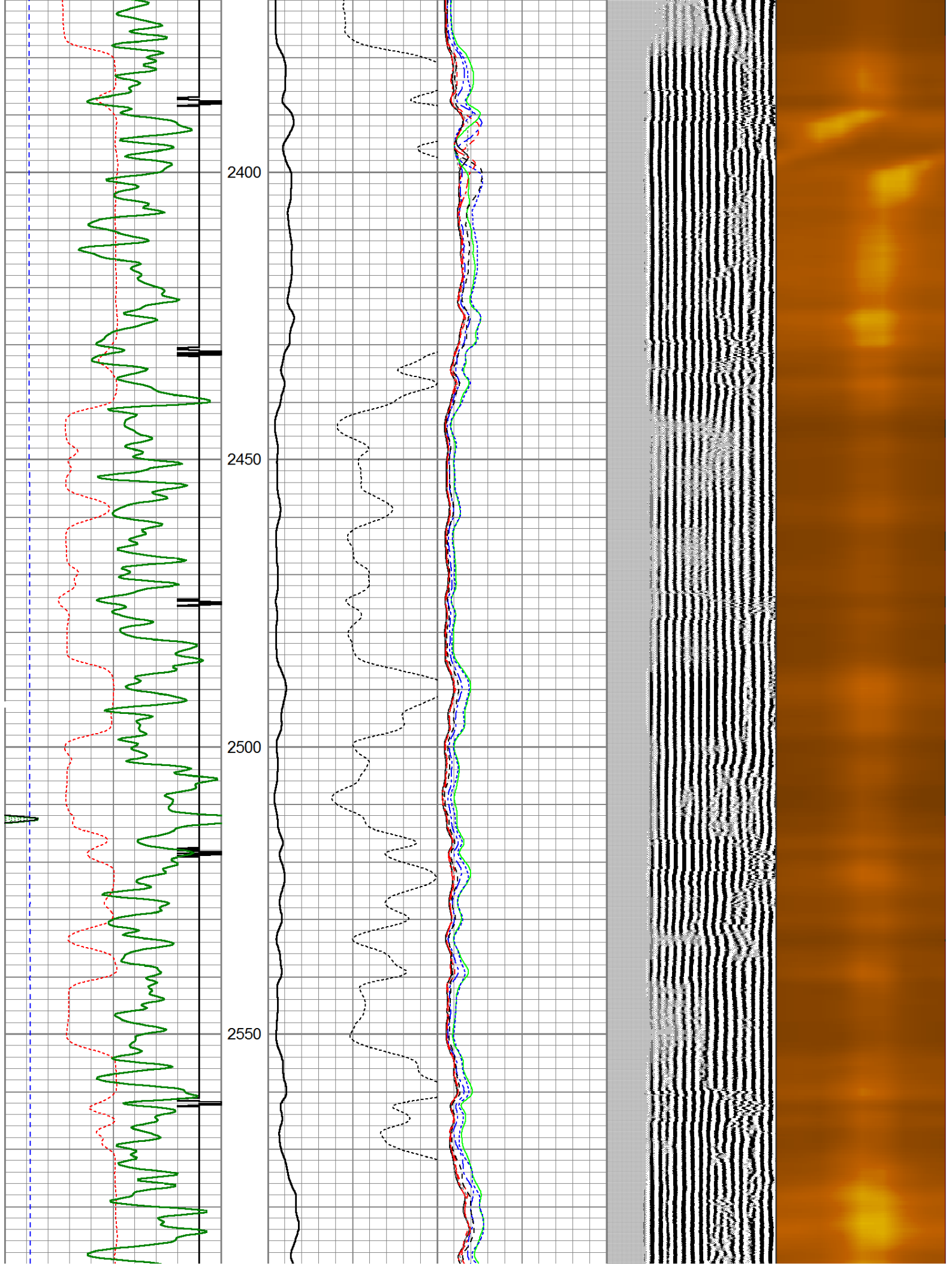


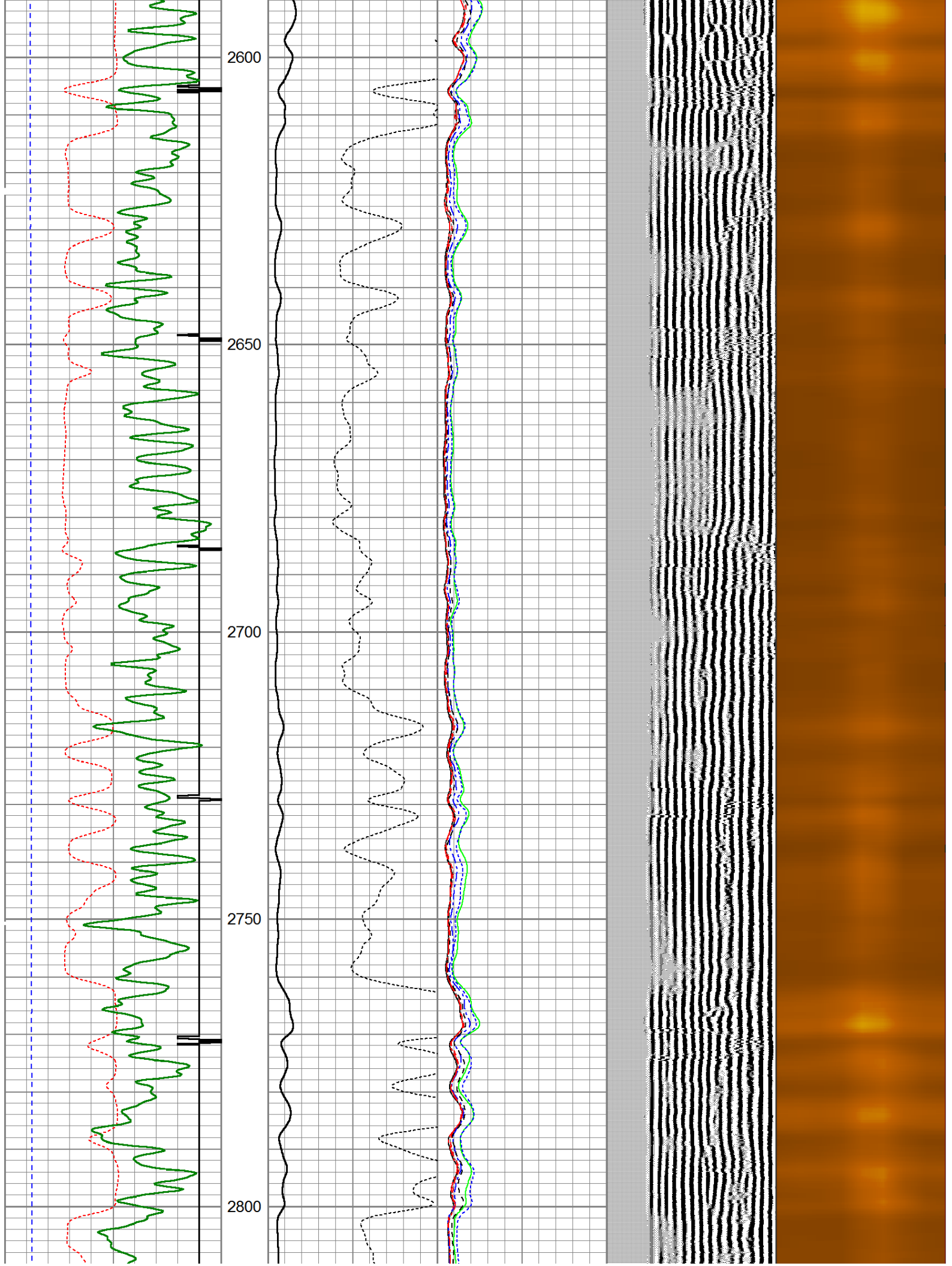


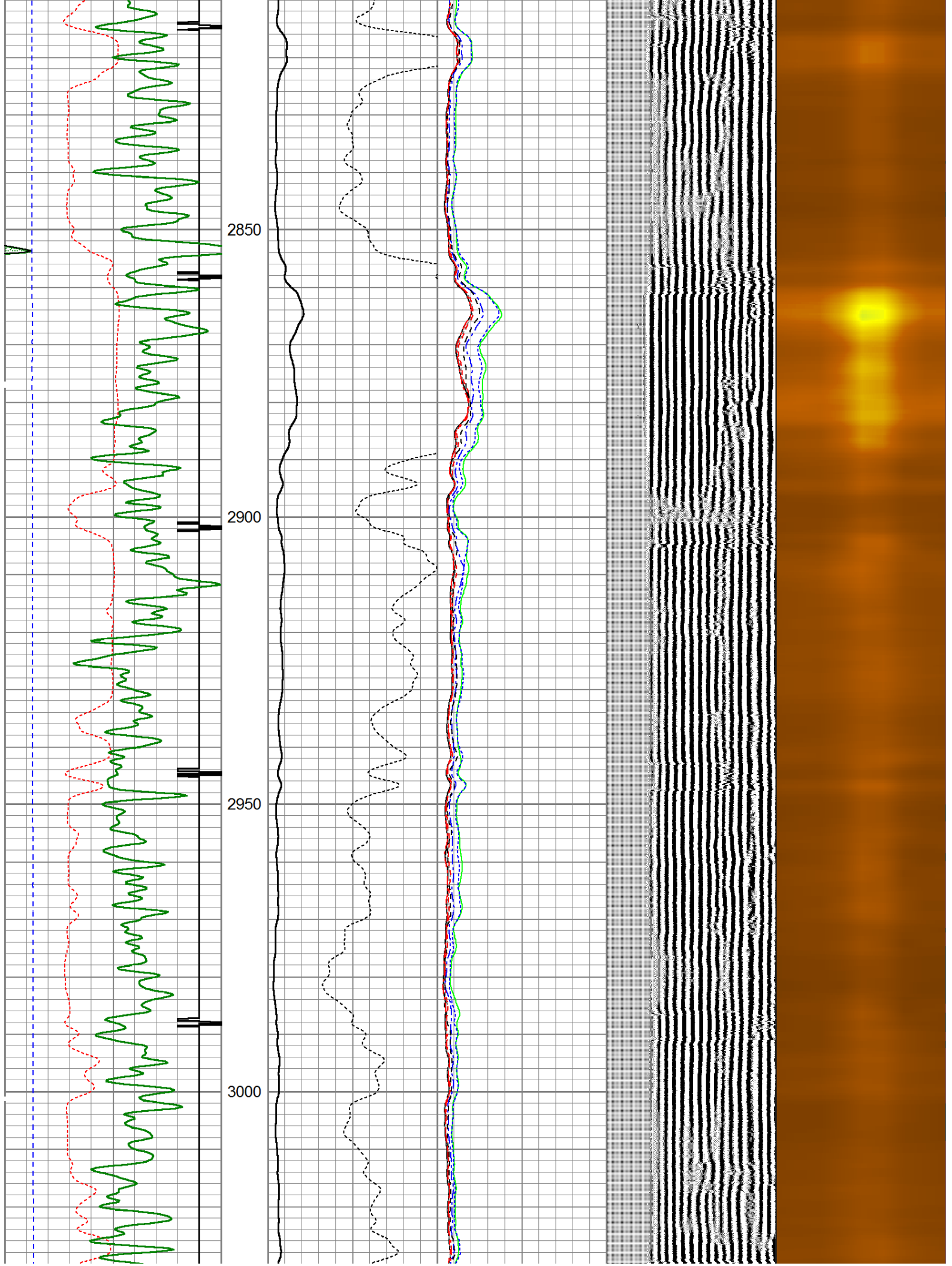


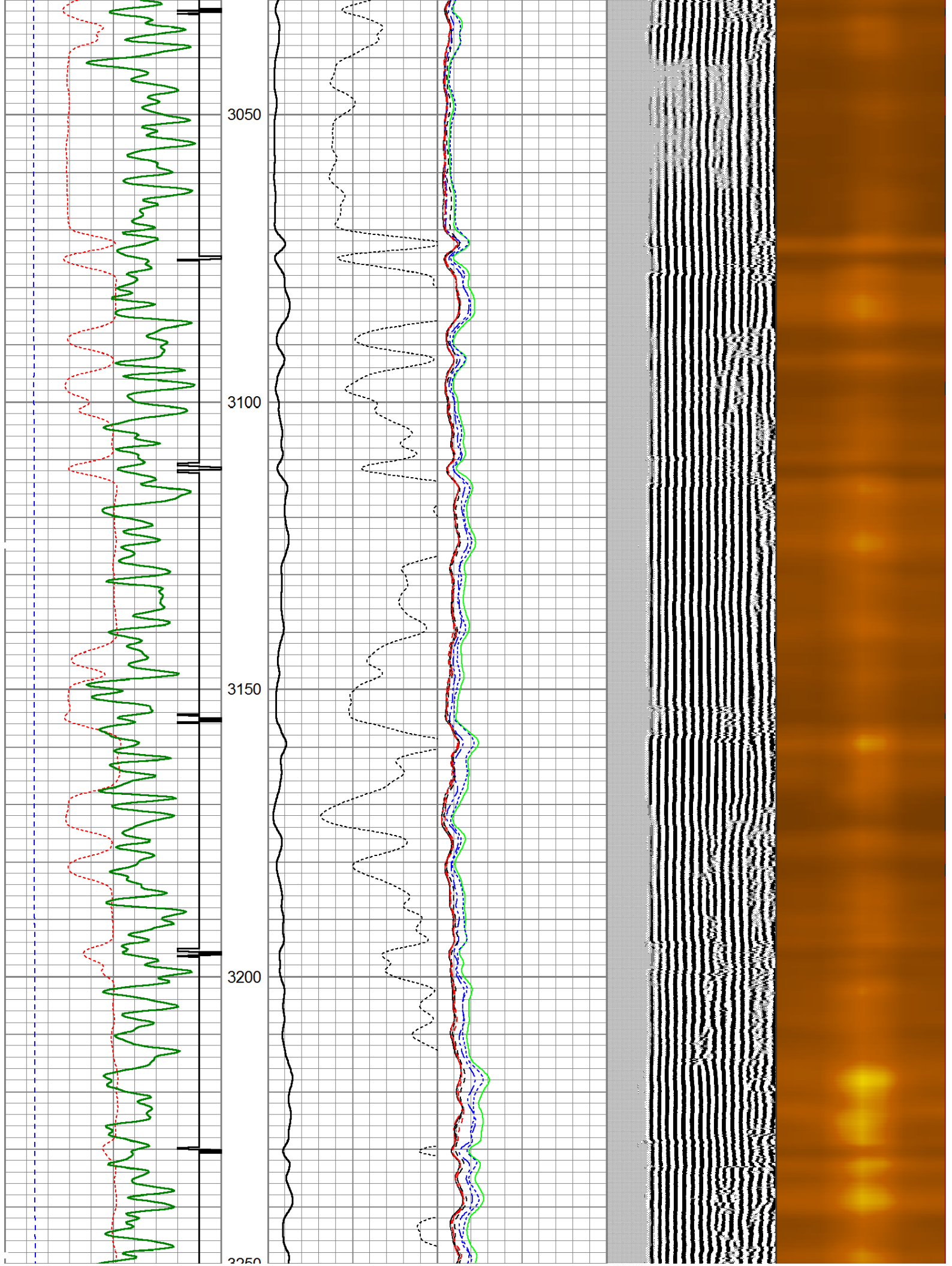


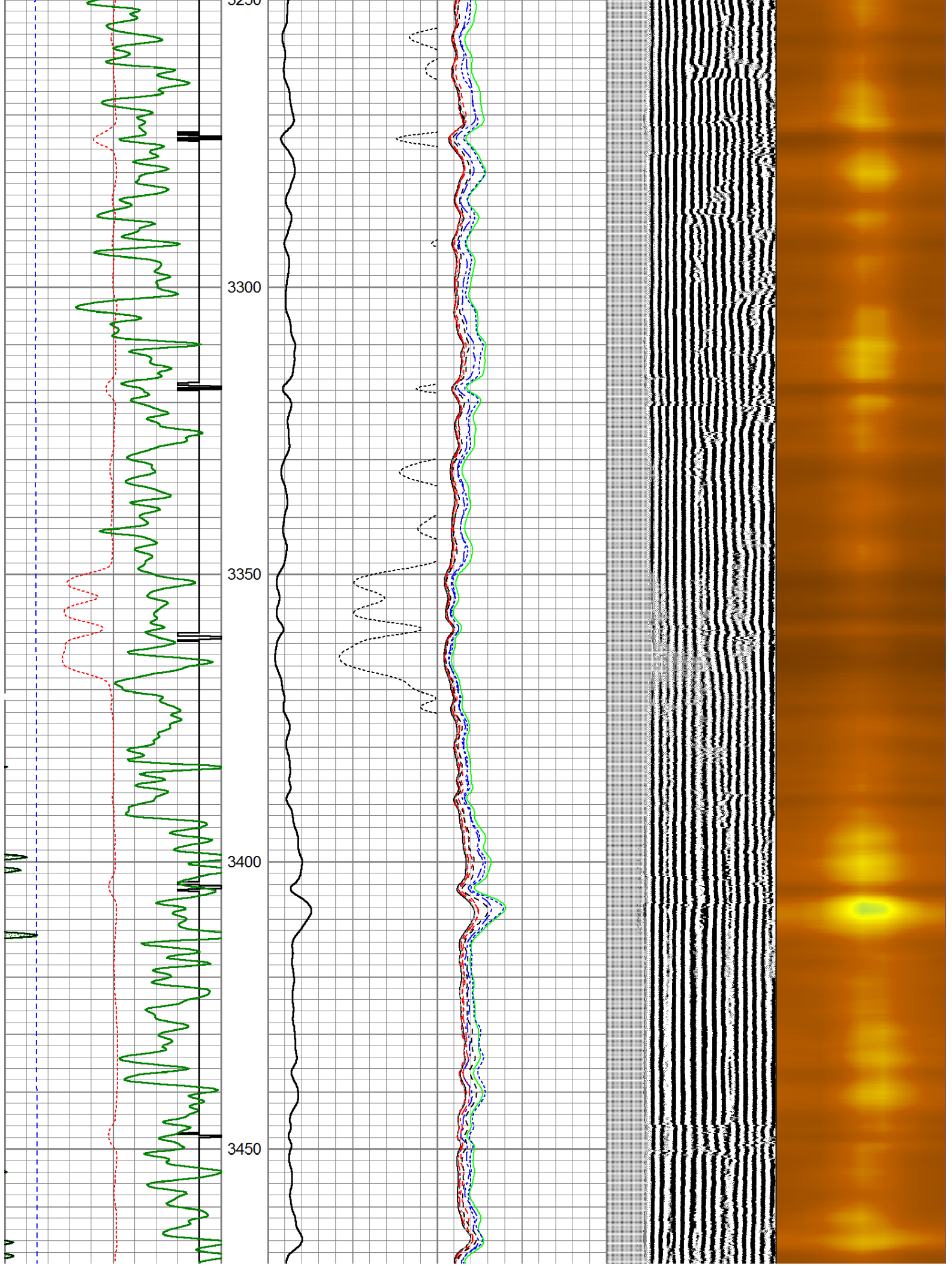


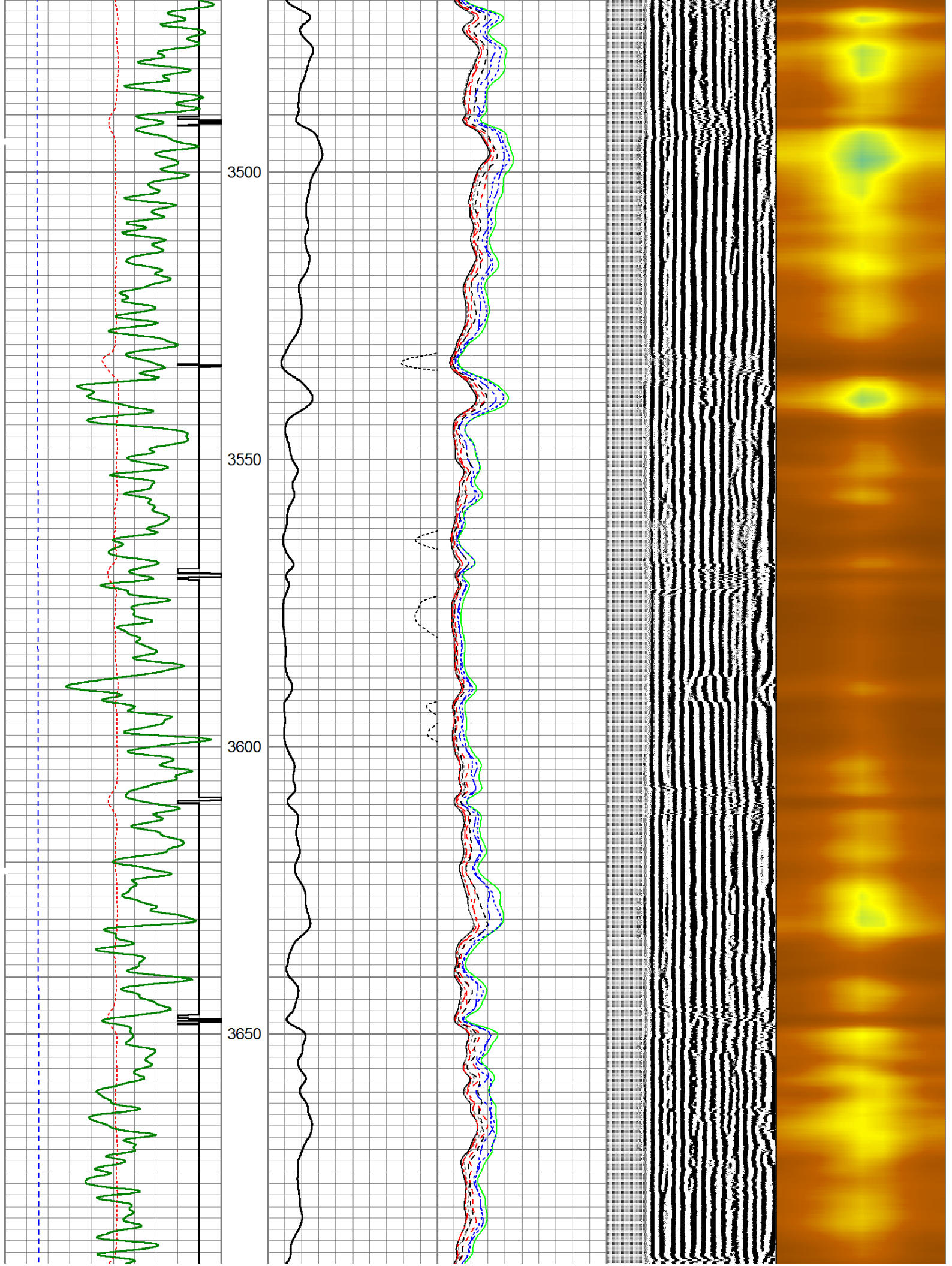


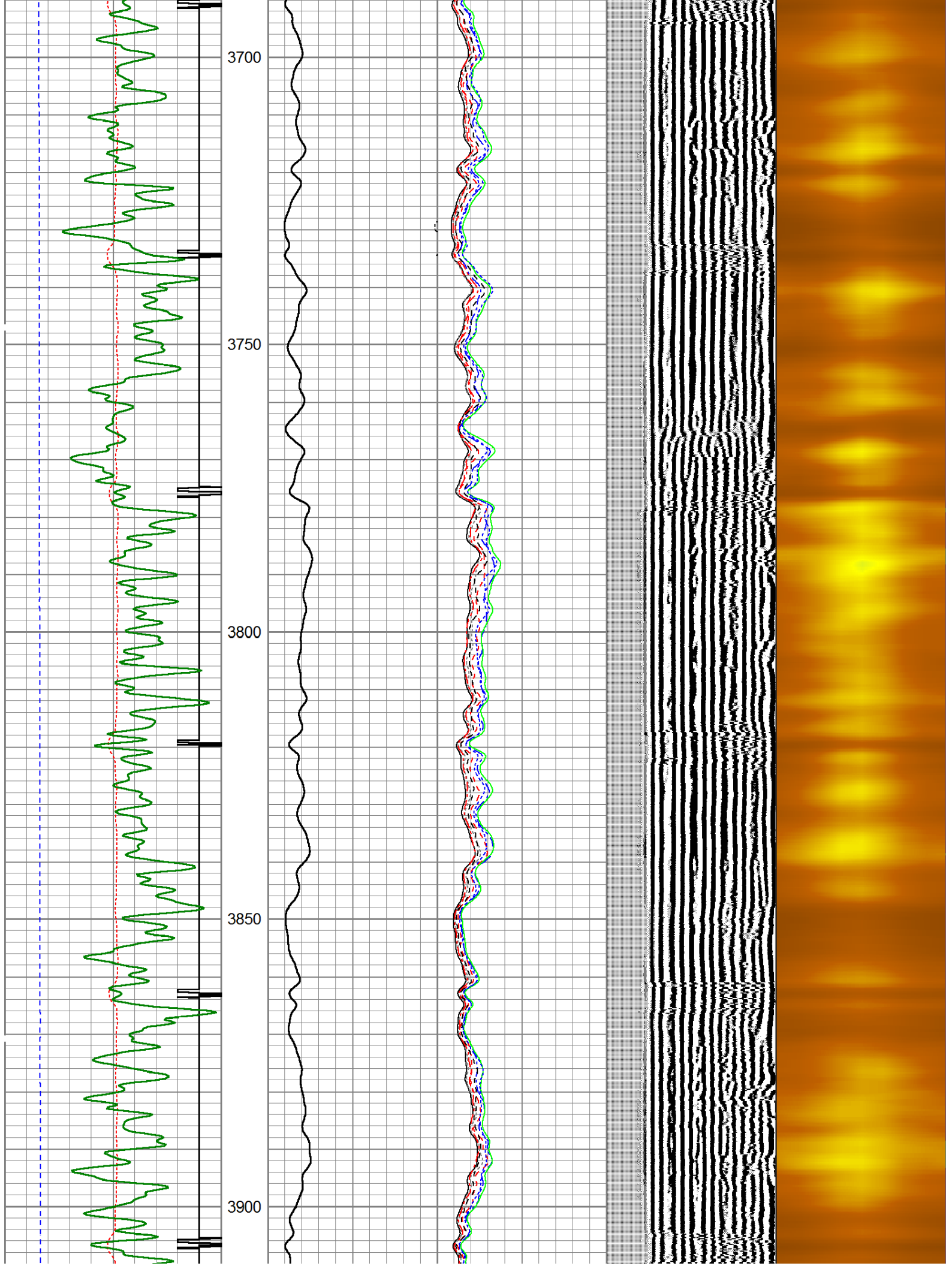


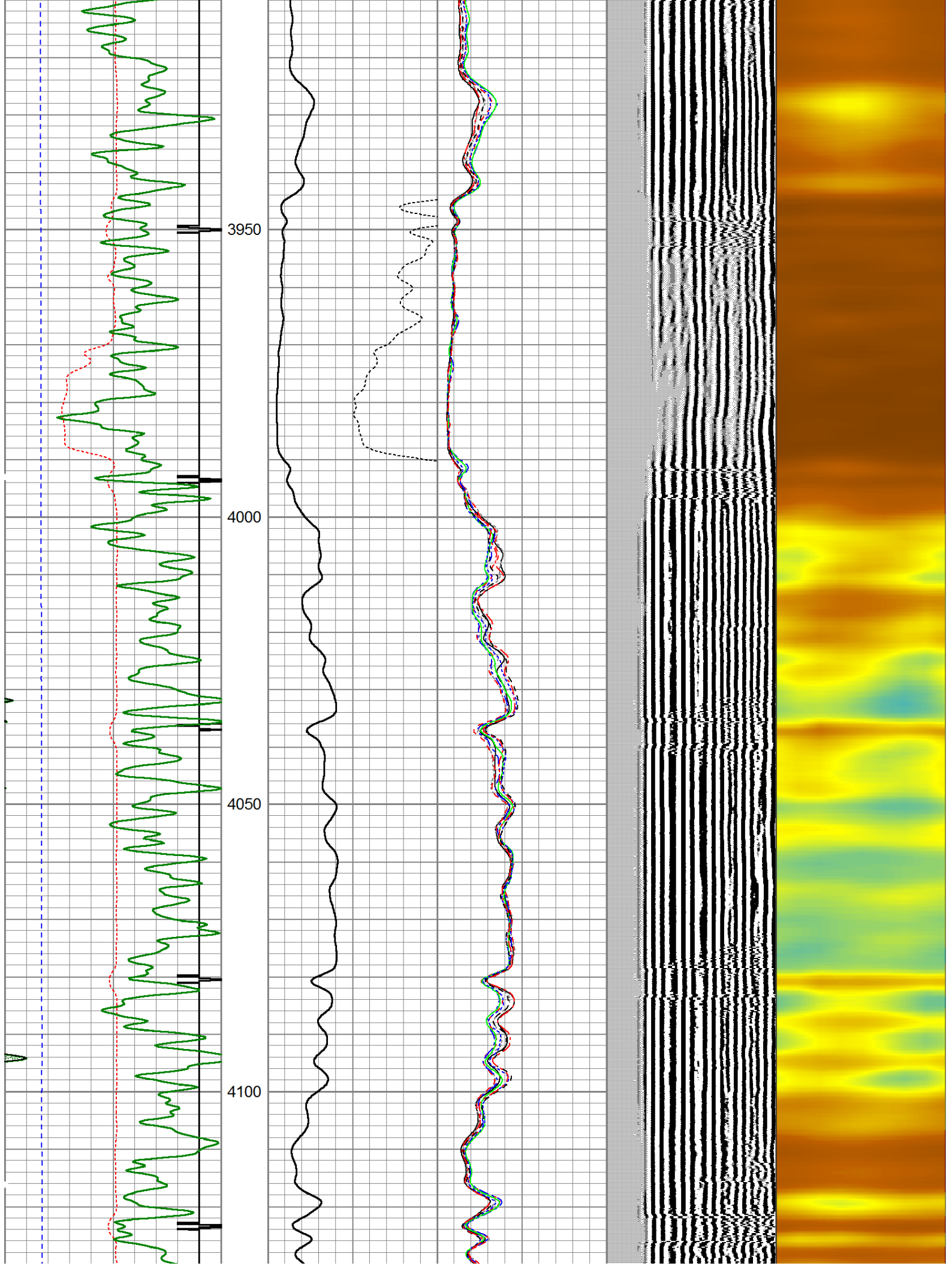


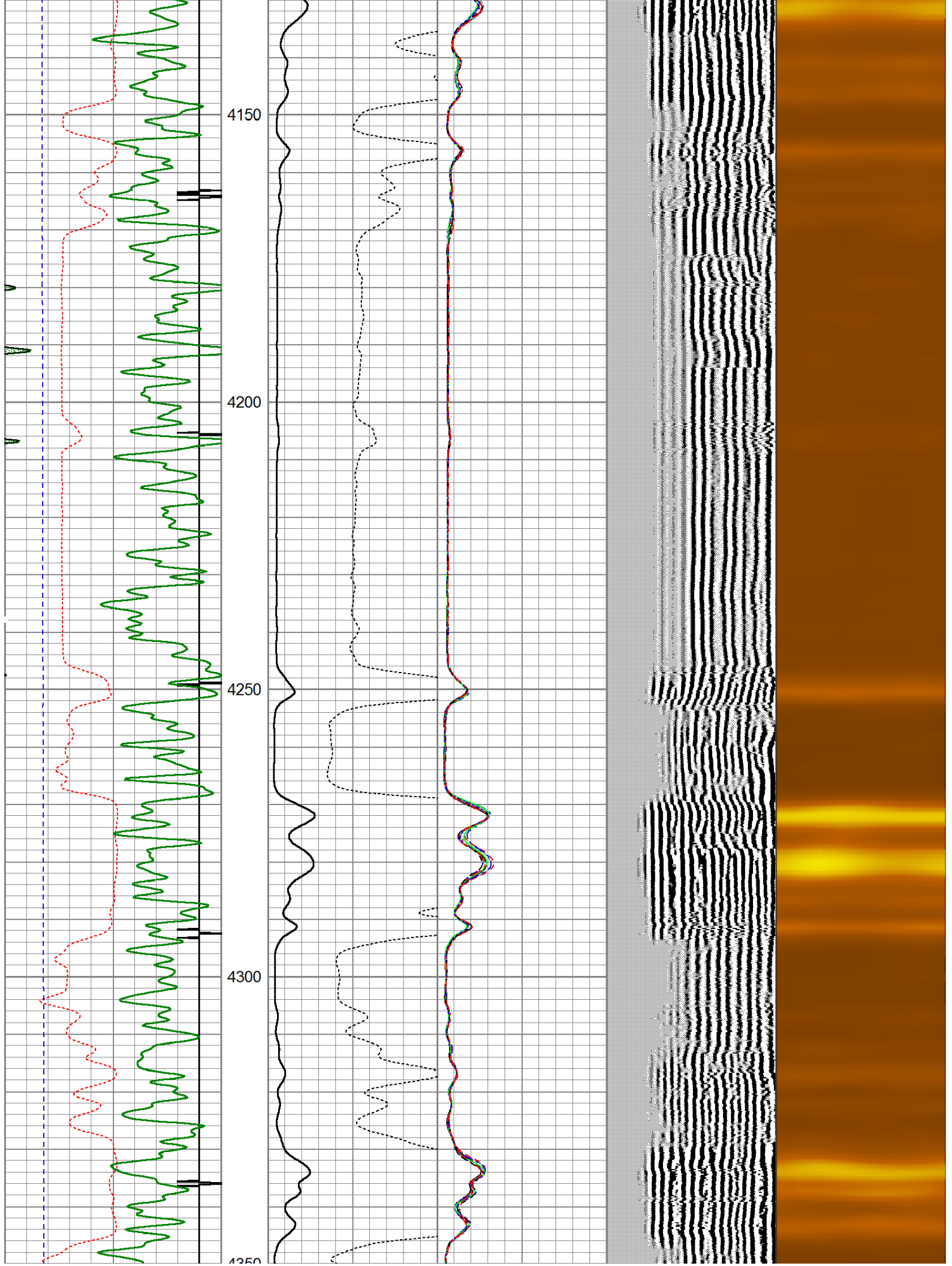


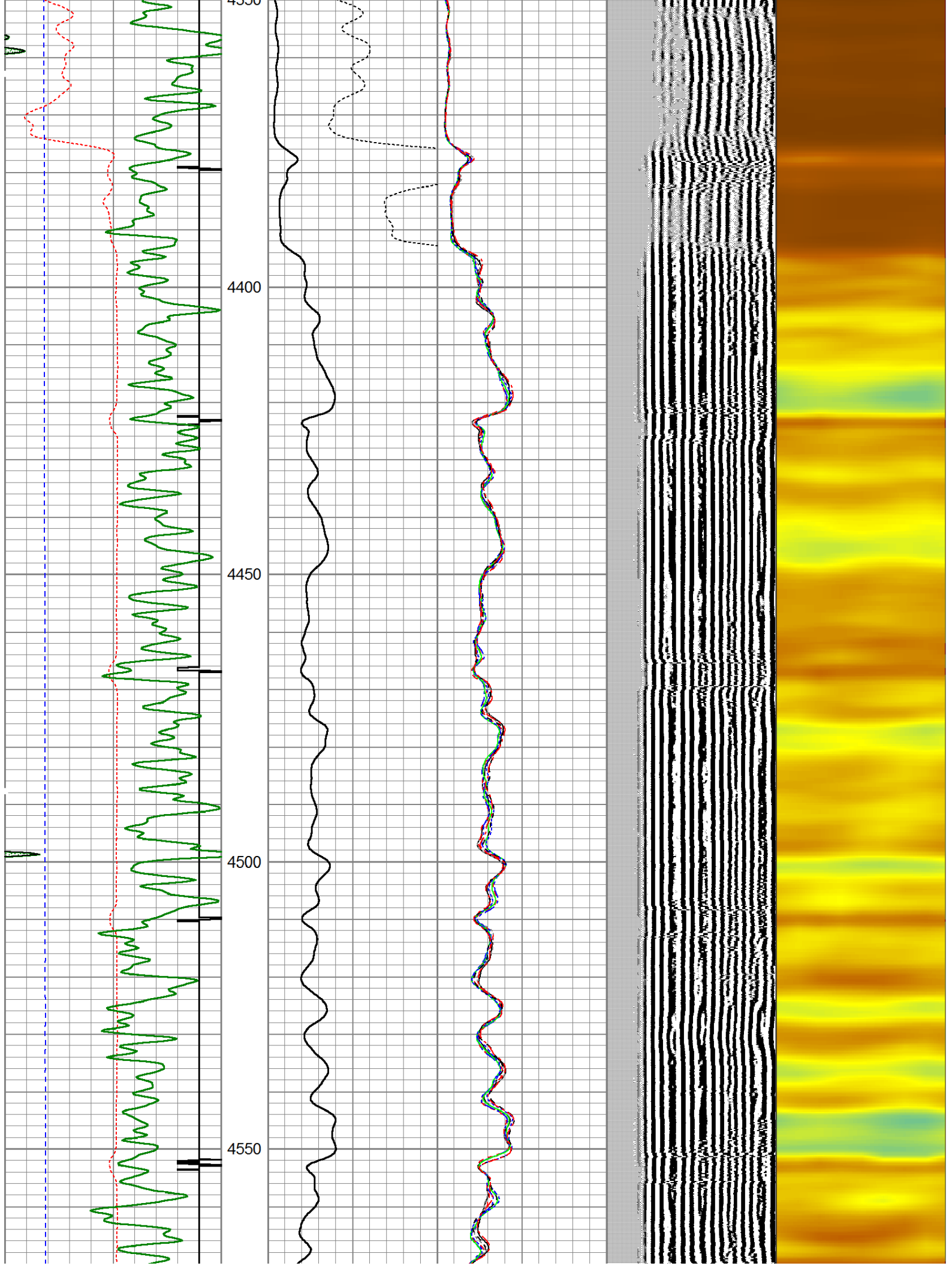


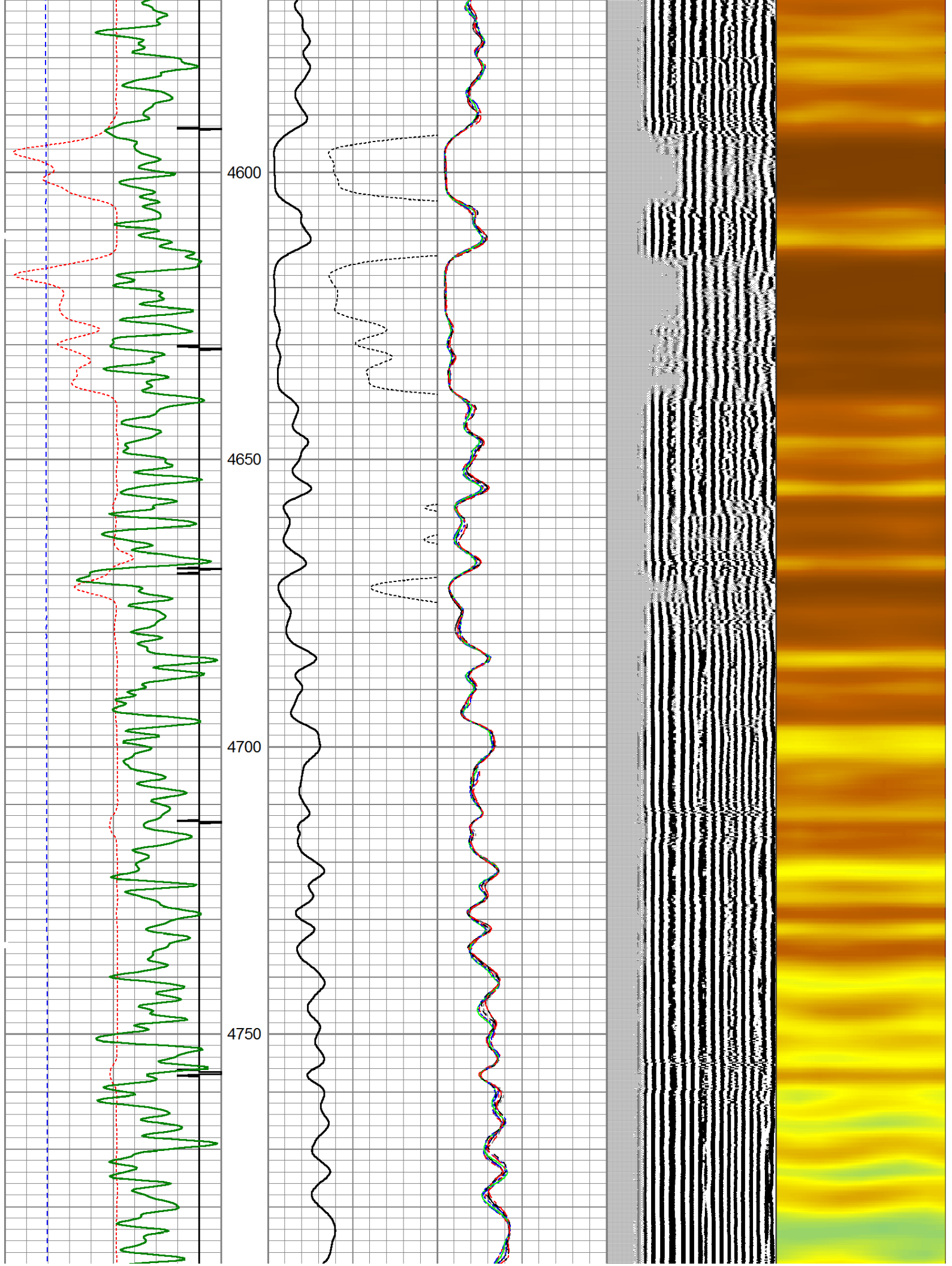


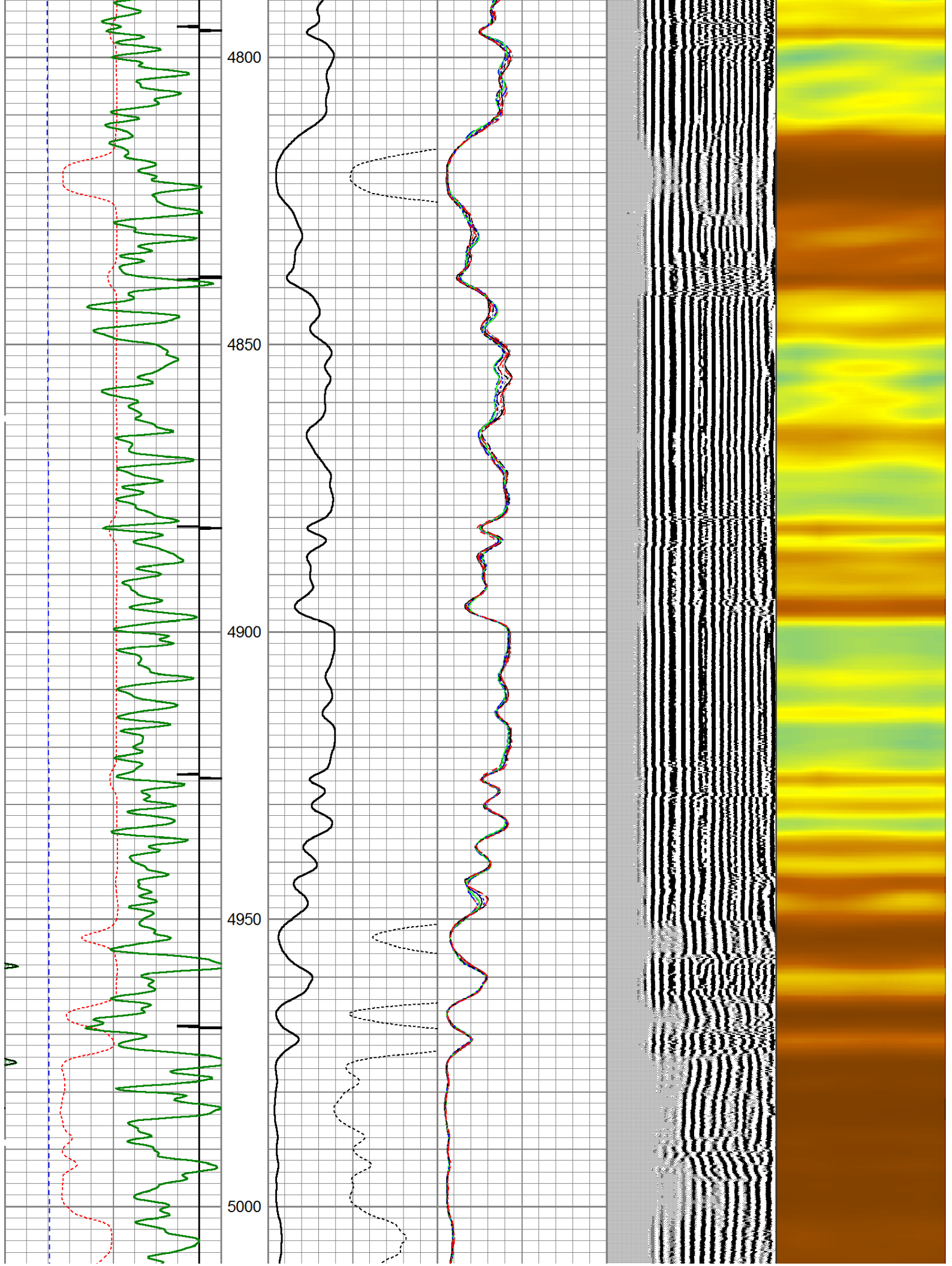


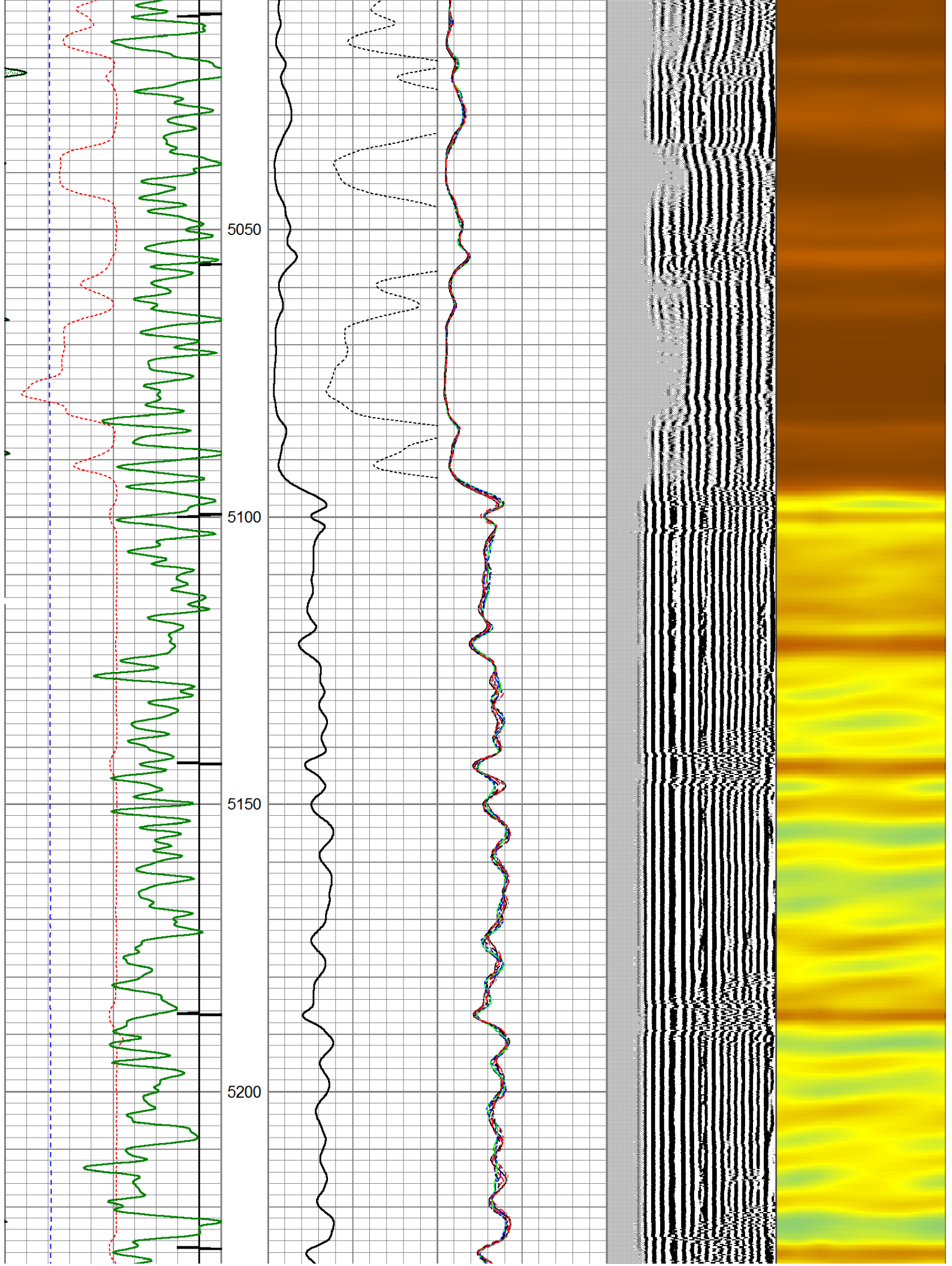


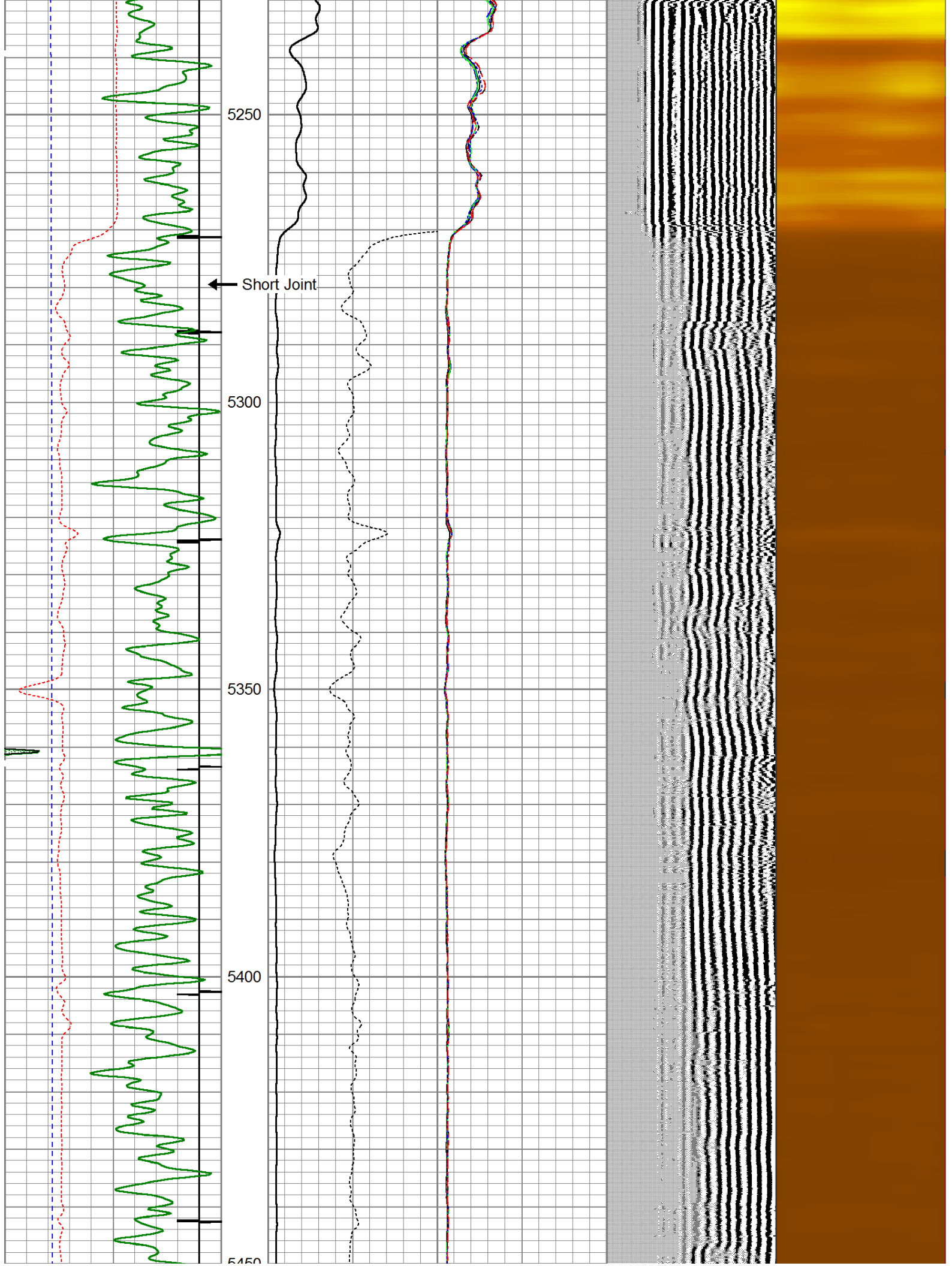


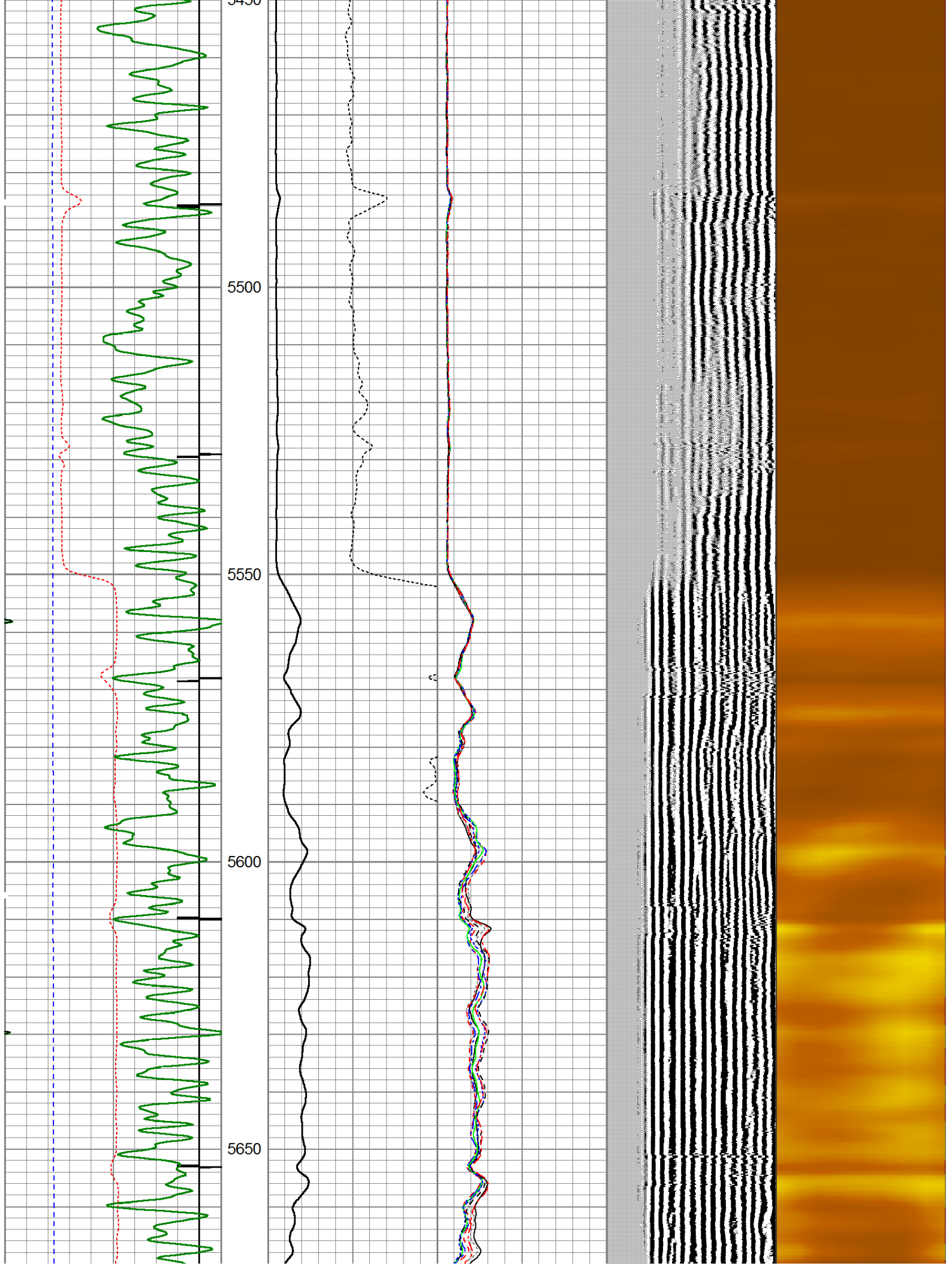


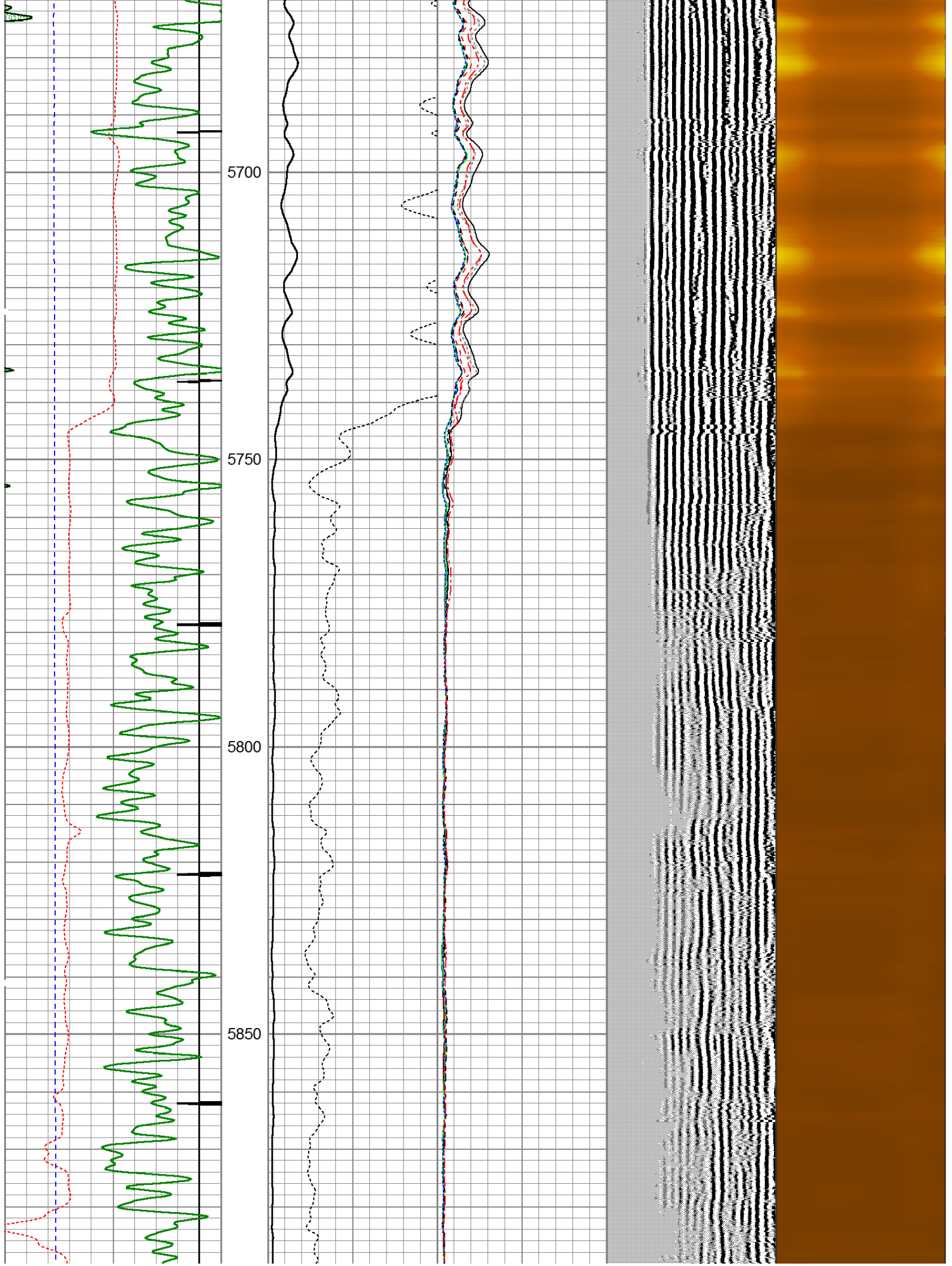


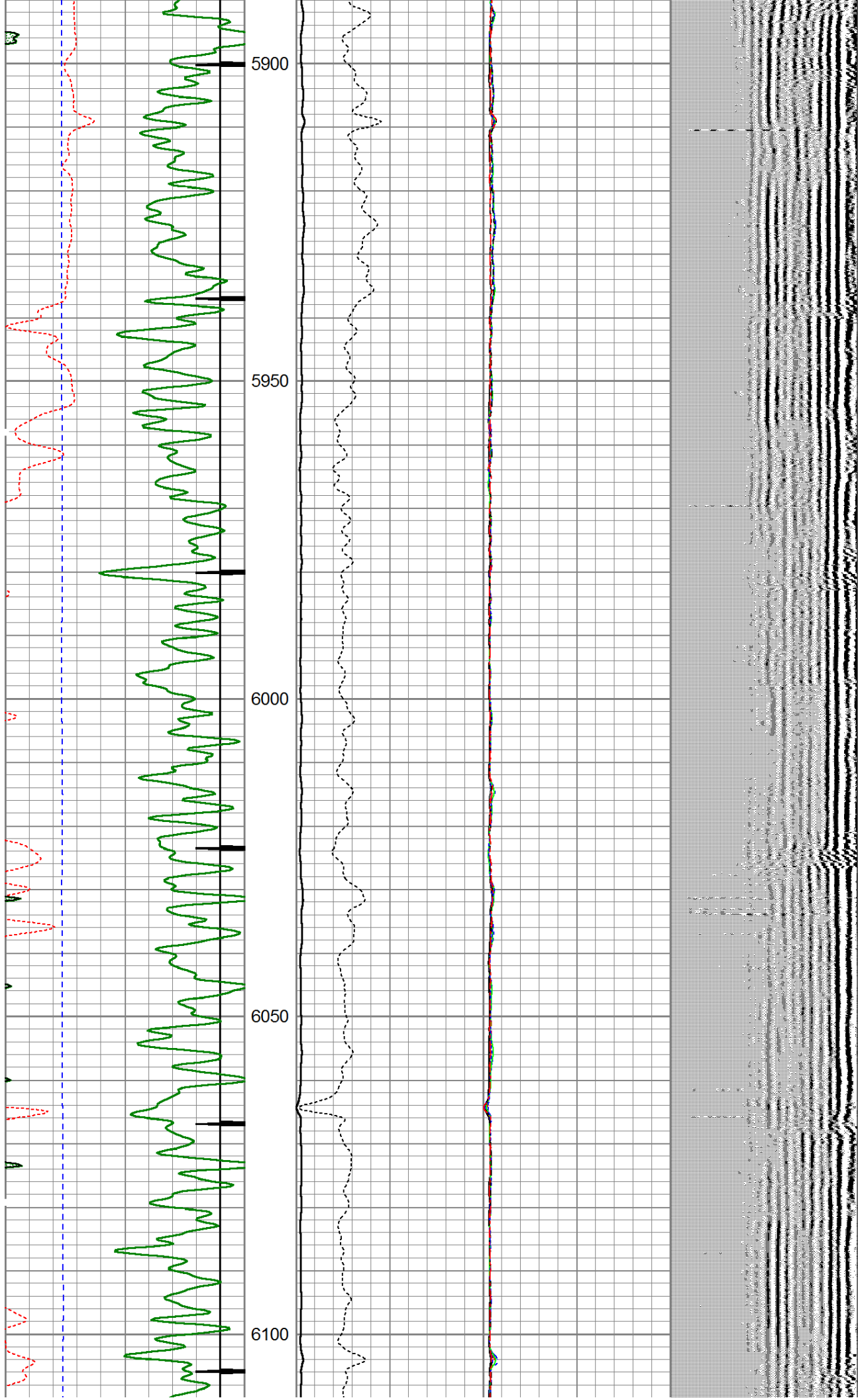


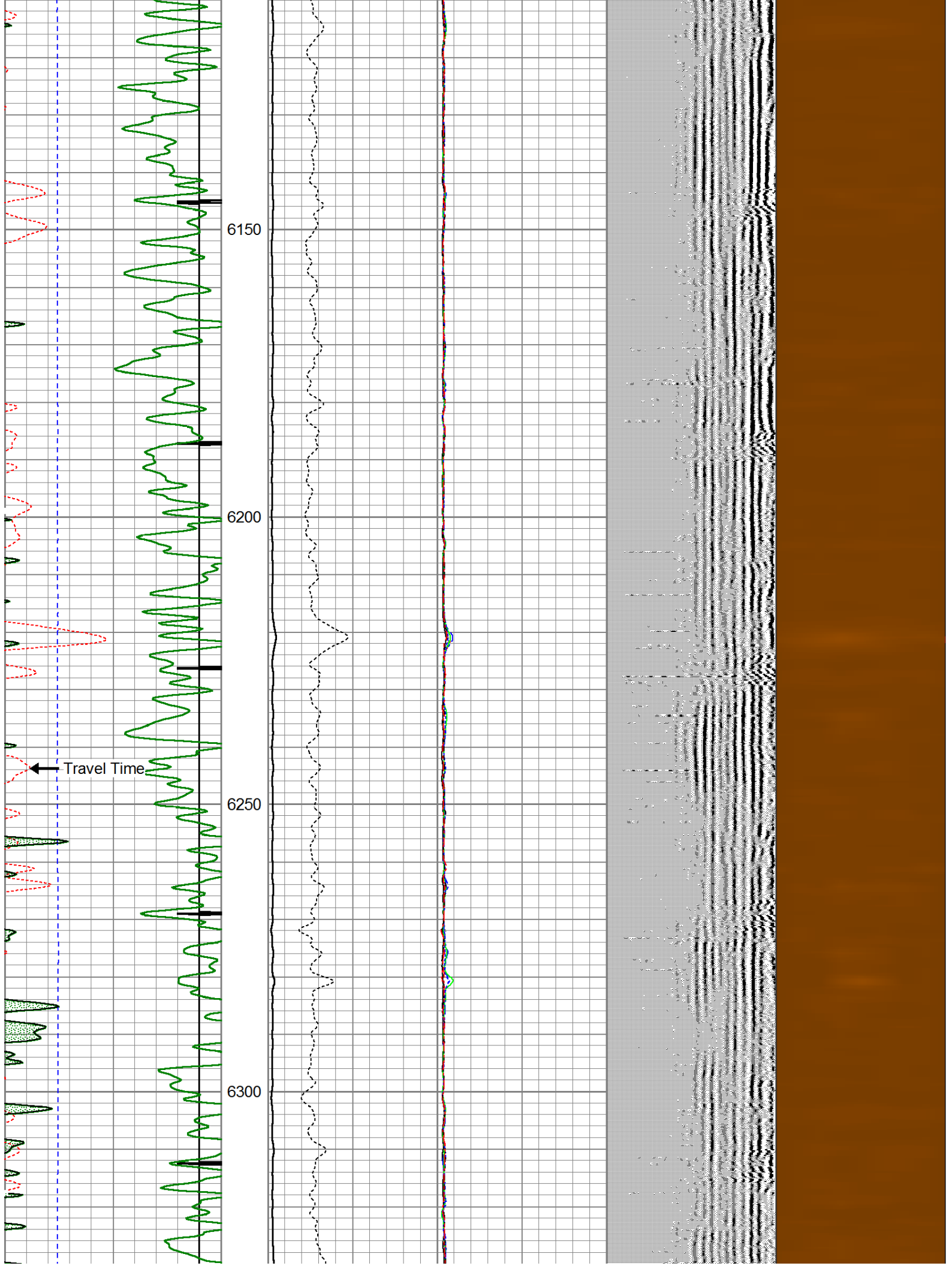


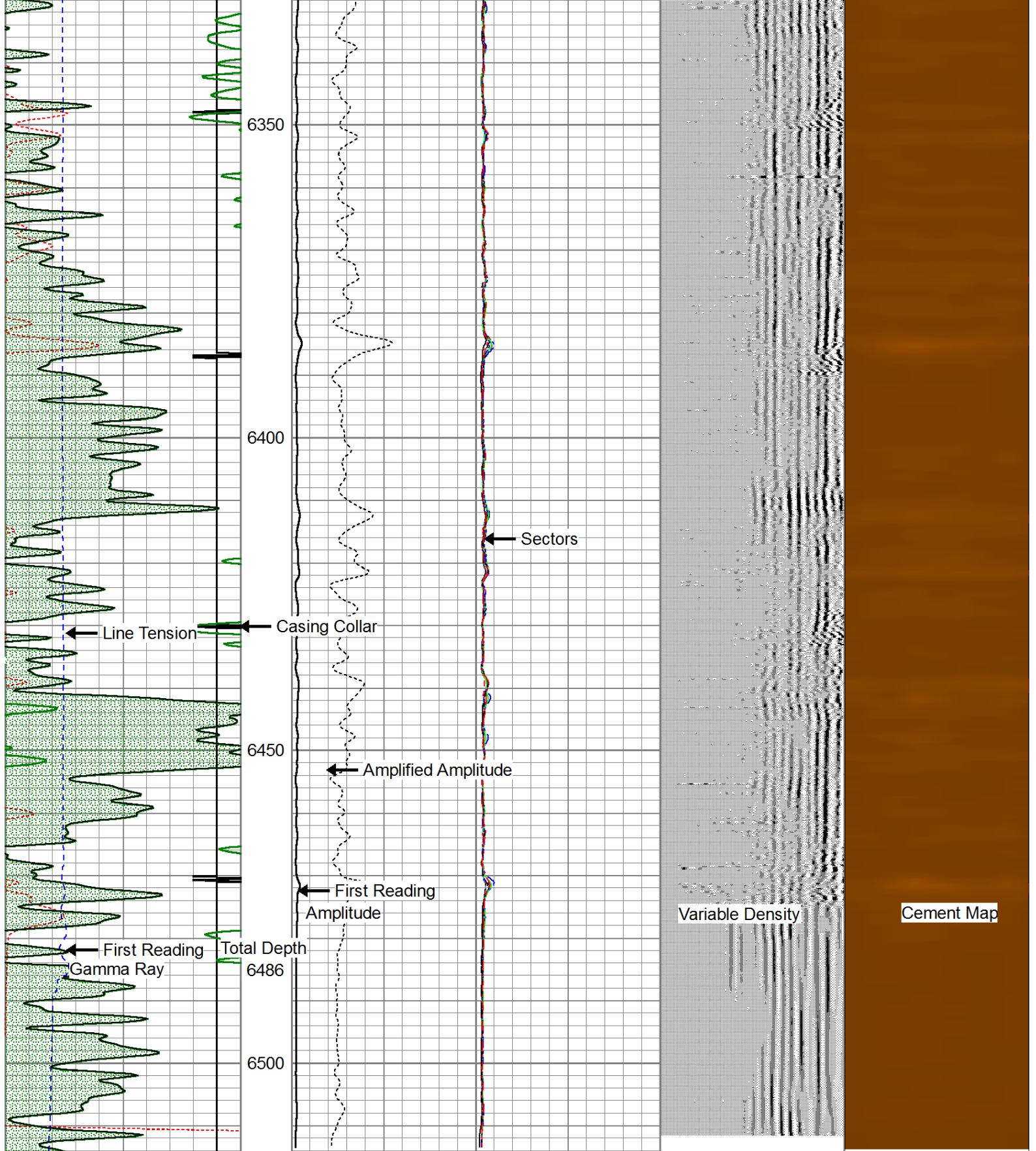












400	Travel Time (usec)	200
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
0	Line Tension (lb)	5000

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


Variable Density	1	Cement Map	8
200	0		100

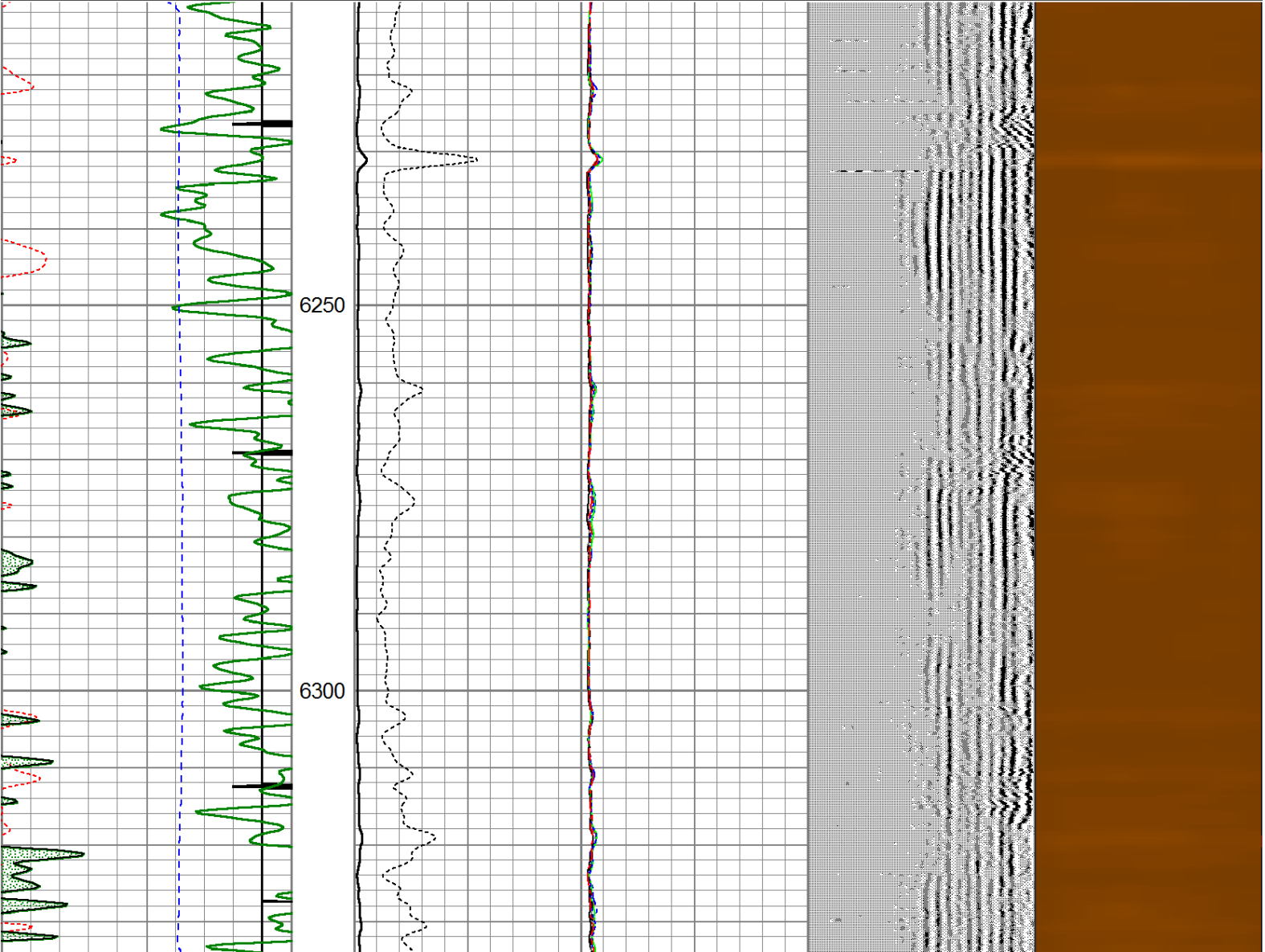
-5	AMPS7	150
-5	AMPS8	150

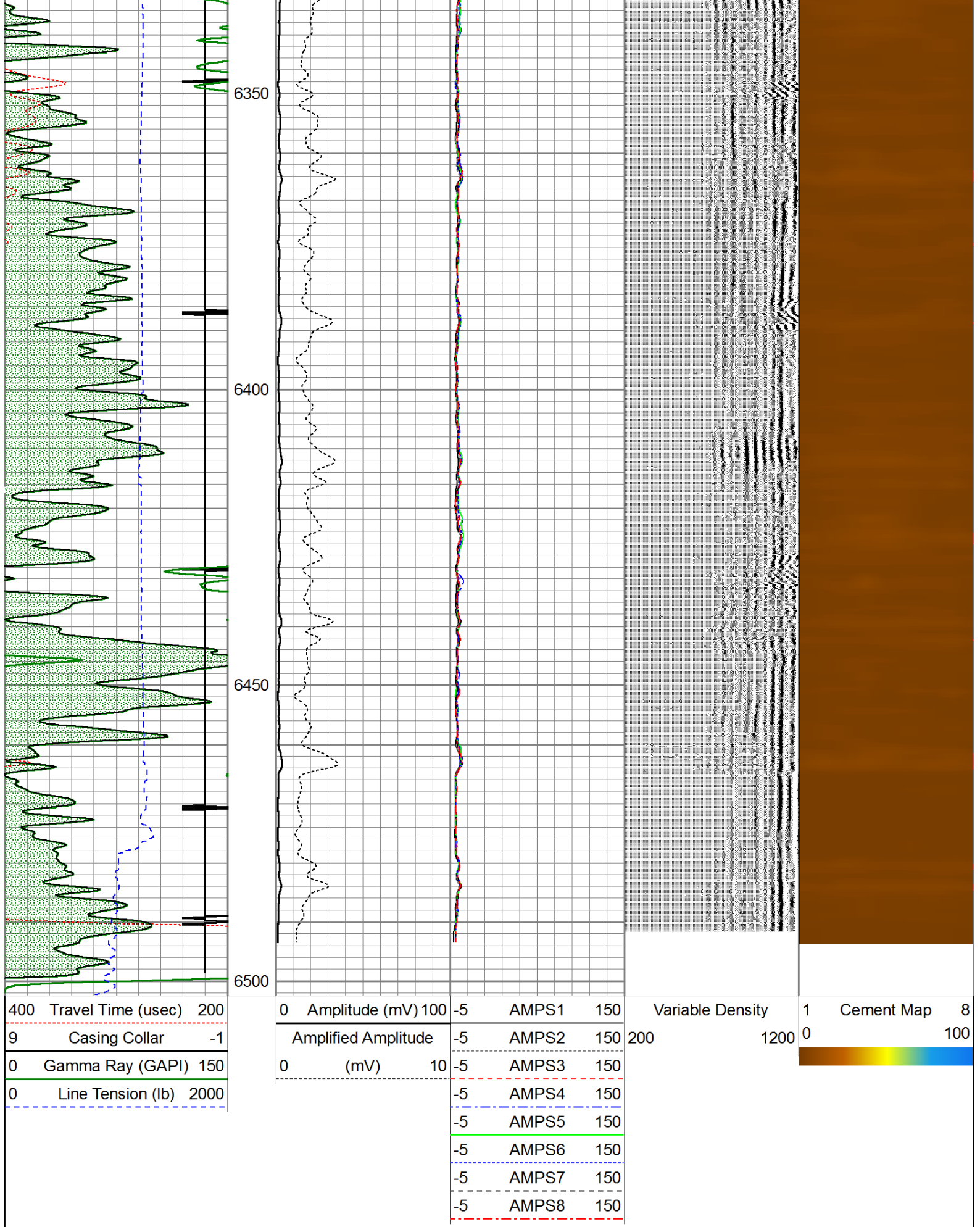


Repeat Pass (0 PSI)

Database File: noble_rohn_lb22_62hn_rcbl.db
Dataset Pathname: rcbl/pass15
Presentation Format: scbl03
Dataset Creation: Thu Feb 21 11:08:54 2013 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240

400	Travel Time (usec)	200	0	Amplitude (mV)	100	-5	AMPS1	150	Variable Density 2001200	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_rohn_lb22_62hn_rchl.db

Gamma Ray Calibration Report

Serial Number: 120367
Tool Model: Probe275
Performed: Sun Jun 13 13:33:21 1993

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: 120424
Tool Model: Probe

Calibration Casing Diameter: 7.000 in
Calibration Depth: 899.875 ft

Master Calibration, performed Thu Feb 21 10:45:15 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.004	1.321	1.000	62.165	42.425	2.198
CAL	-0.003	1.536				
5'	-0.003	1.388	1.000	62.165	43.979	1.111
SUM						
S1	0.023	1.422	0.000	100.000	67.377	-1.621
S2	0.002	1.274	0.000	100.000	73.585	-0.126
S3	-0.003	1.154	0.000	100.000	79.796	0.271
S4	-0.002	1.171	0.000	100.000	78.095	0.172
S5	-0.002	1.238	0.000	100.000	73.626	0.188
S6	-0.002	1.334	0.000	100.000	68.566	0.173
S7	-0.003	1.403	0.000	100.000	65.572	0.218
S8	-0.004	1.447	0.000	100.000	64.426	0.260

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.003	1.536	1.000	0.000

Air Zero Calibration, performed Thu Feb 21 10:14:00 2013:

	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	

S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
WVF3FT WVFCAL WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 WVF5FT	11.84 11.84 11.84 11.84 11.84 11.84 11.84 11.84 11.84 11.84 10.84		Titan Cable_head	1.00	1.44	10.00
			Probe275 2.75" Centralizer	2.88	2.75	20.00
			RBT-Probe (120424) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
CCL	3.88					
GR	2.54		GR-Probe275 (120367) Probe 2 3/4" Logging Gamma Ray	4.78	2.75	57.00

Dataset:	NOBS_F0001_ISLE_02001_F00002: hold/wcsl/02001/pass01.r
Total Length:	20.28 ft
Total Weight:	197.00 lb
O.D.	2.75 in