



**RADIAL CEMENT BOND
VARIABLE DENSITY LOG
W/ GAMMA RAY / CCL**

Company NOBLE ENERGY INC.		Company NOBLE ENERGY INC.	
Well WOLFPACK B02-66-1HN		Well WOLFPACK B02-66-1HN	
Field WATEENBERG		Field WATEENBERG	
County WELD		County WELD	
State COLORADO		State COLORADO	
Location: 2350' FNL & 660' FEL NW/SW		API # : 05.123.37328	
SEC 2 TWP 5N RGE 64W		Other Services	
Permanent Datum GL	Elevation 4649	Elevation	
Log Measured From KB		K.B. 4673	
Drilling Measured From KB		D.F. 4673	
		G.L. 4649	
Date 9.3.13			
Run Number 0N1			
Depth Driller 10989			
Depth Logger 6875			
Bottom Logged Interval 6874			
Top Log Interval 900			
Open Hole Size WATER			
Type Fluid			
Density / Viscosity			
Max. Recorded Temp. 241			
Estimated Cement Top 1352			
Time Well Ready 9:30			
Time Logger on Bottom 10:30			
Equipment Number 130-33CH			
Location BRIGHTON			
Recorded By LEROY HOBBS			
Witnessed By BILL MANSFIELD			
Borehole Record		Tubing Record	
Run Number	Bit	From	To
Casing Record	Size	Wgt/Ft	Top
Surface String	9-5/8"	36	SURFACE
Prot. String			
Production String	7"	26	SURFACE
Liner	4-1/2"	11.6	6886.10
			7016
			10979

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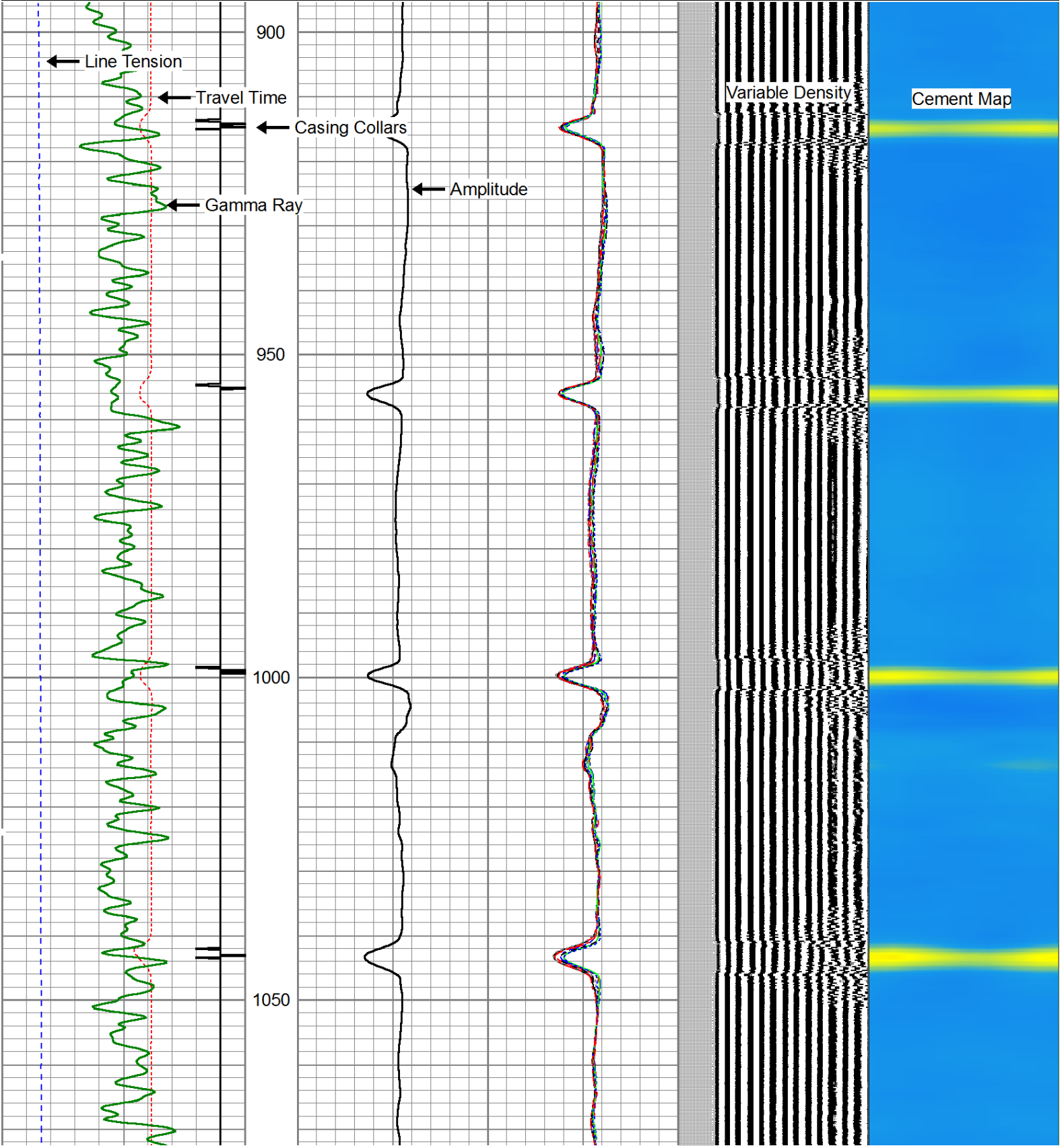
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

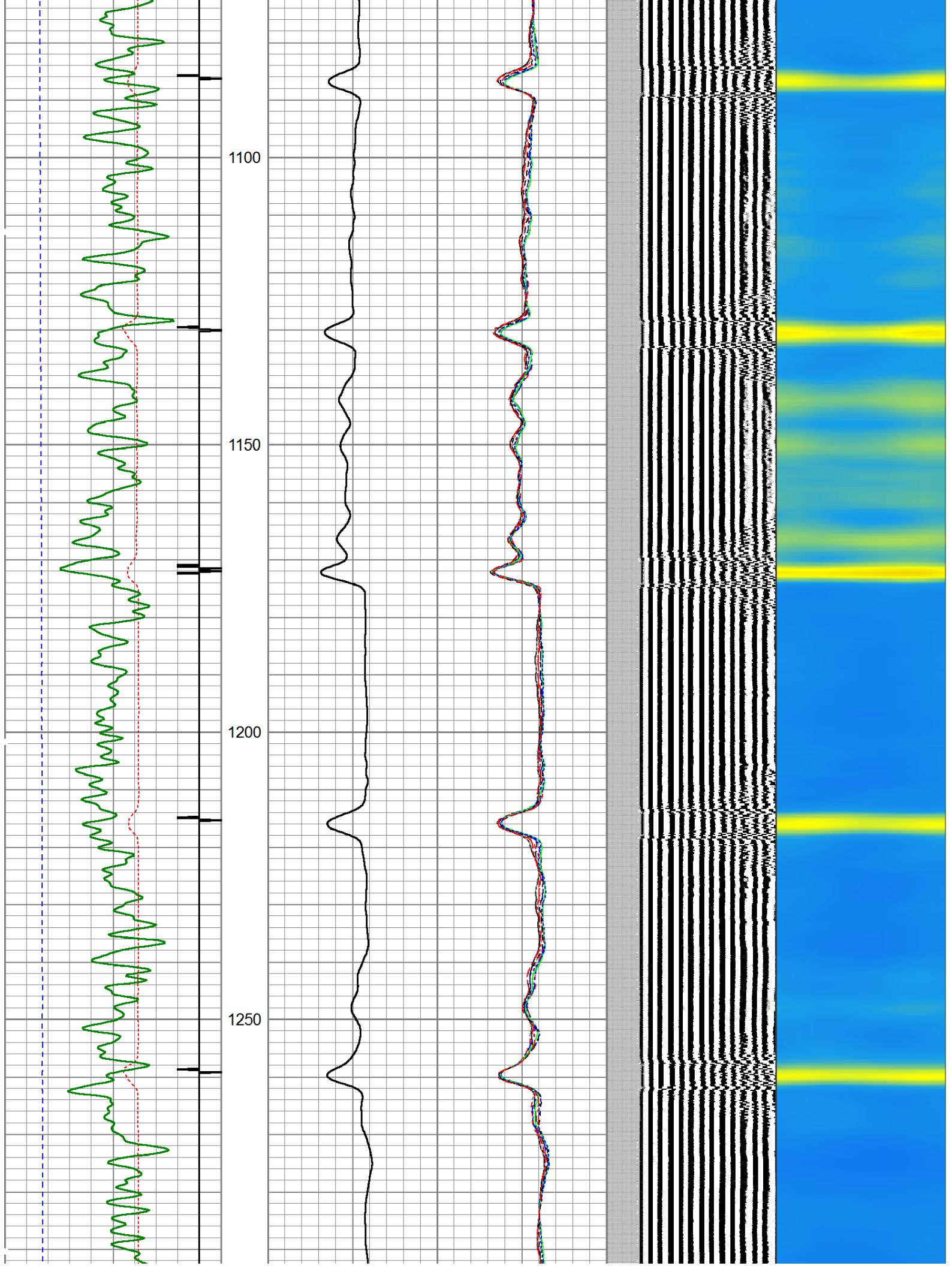
Comments

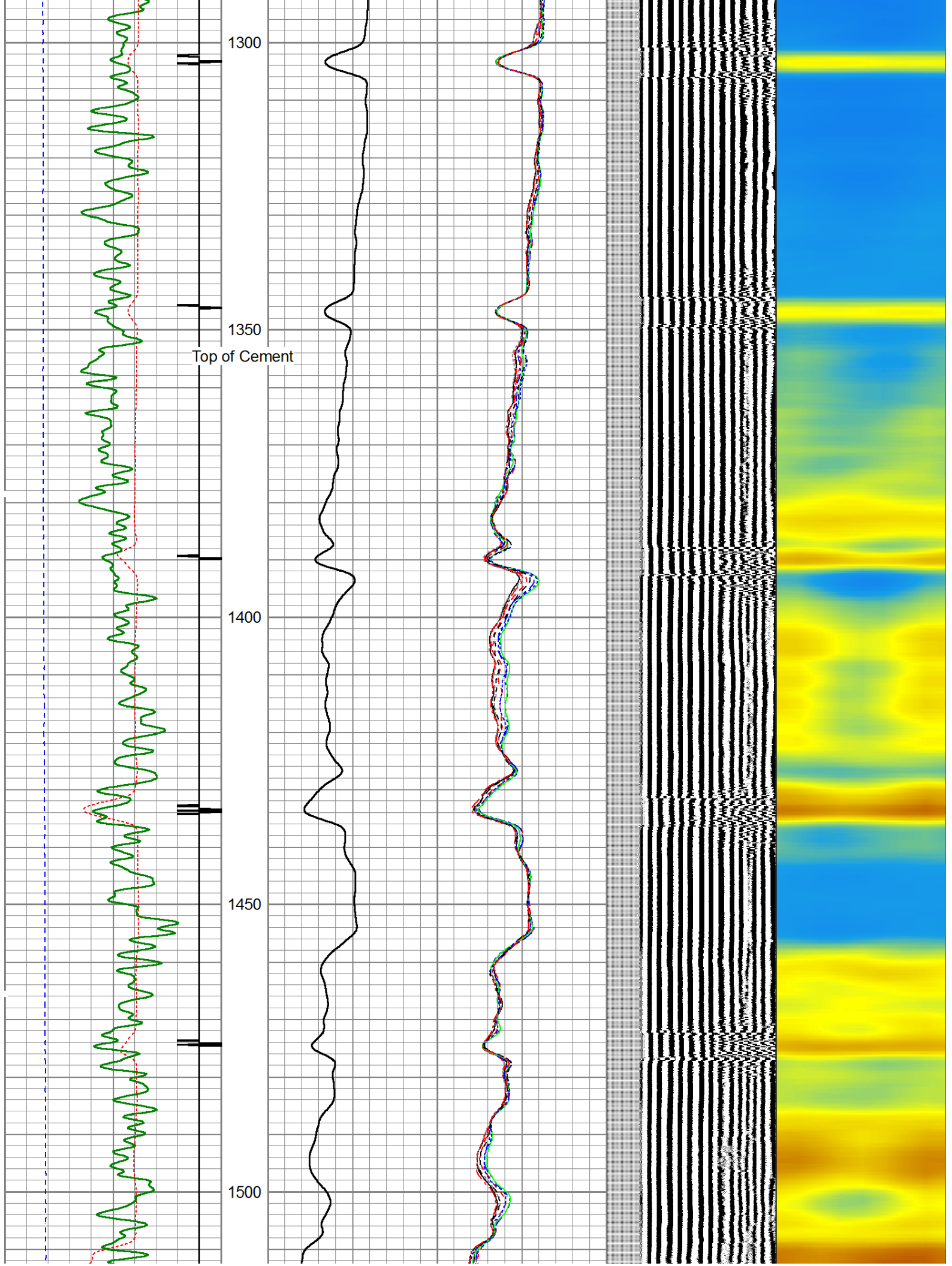
WELL LOGGED USING 24' KB.

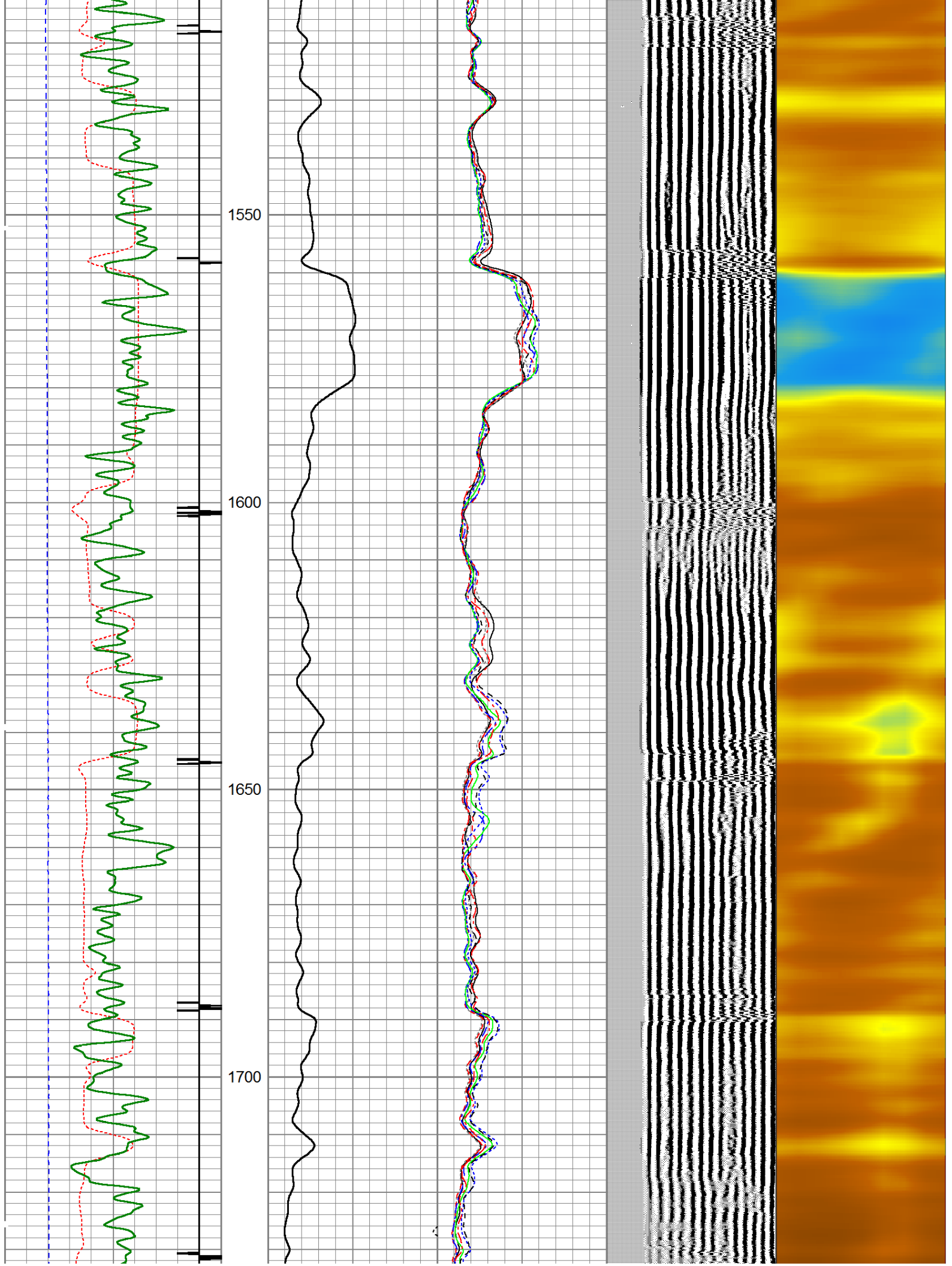
THANK YOU FOR USING ALLIED WIRELINE.

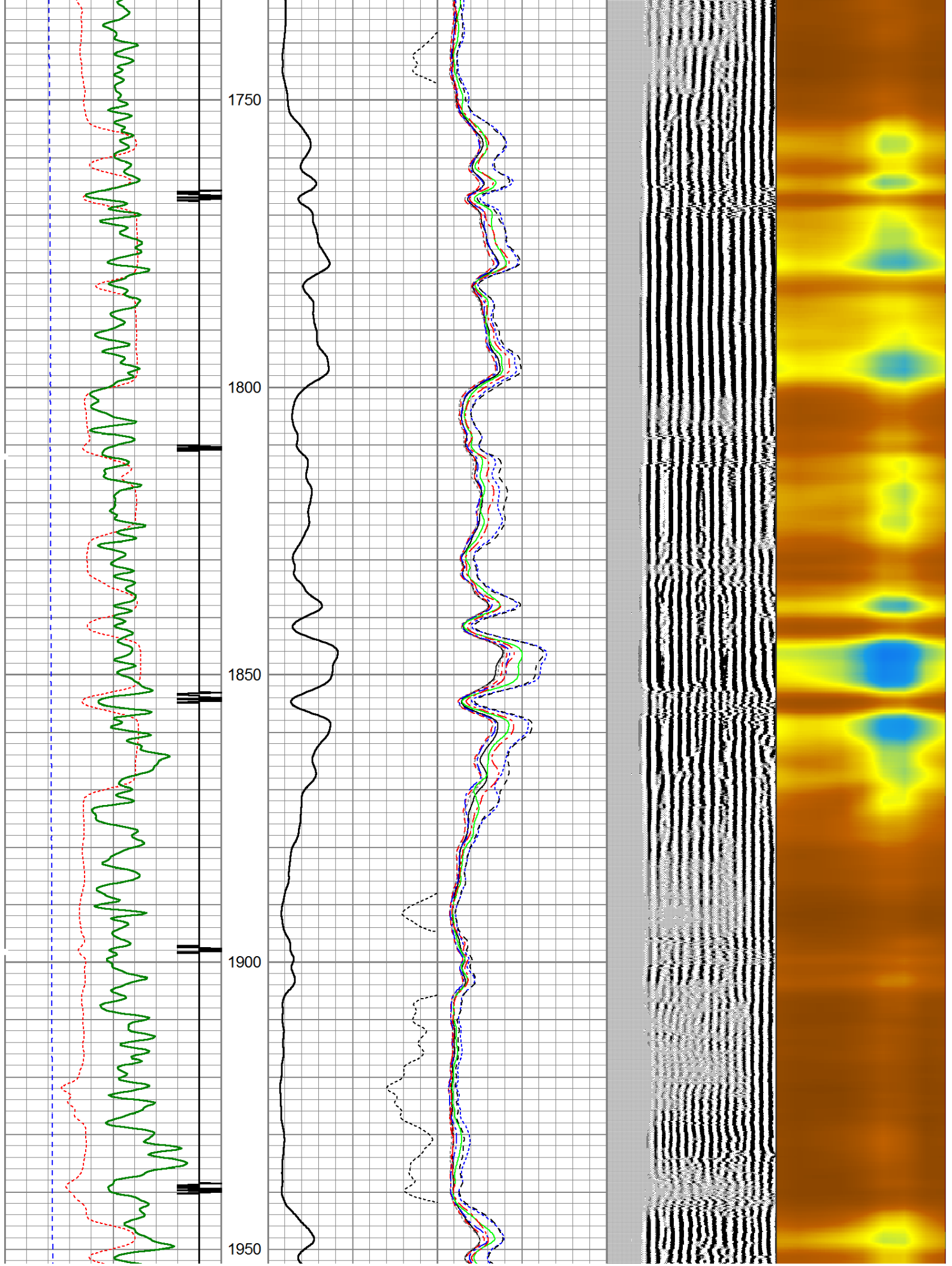
Charted by: Depth in Feet scaled 1:210			0 Amplitude (mV) 100			Variable Density		1 Cement Map	8
400	Travel Time (usec)	200	Amplified Amplitude			200	1200	0	100
9	Casing Collar	-1	(mV)						
0	Gamma Ray (GAPI)	150	-5 AMPS1						
0	Line Tension (lb)	2000	-5 AMPS2						
			-5 AMPS3						
			-5 AMPS4						
			-5 AMPS5						
			-5 AMPS6						
			-5 AMPS7						
			-5 AMPS8						

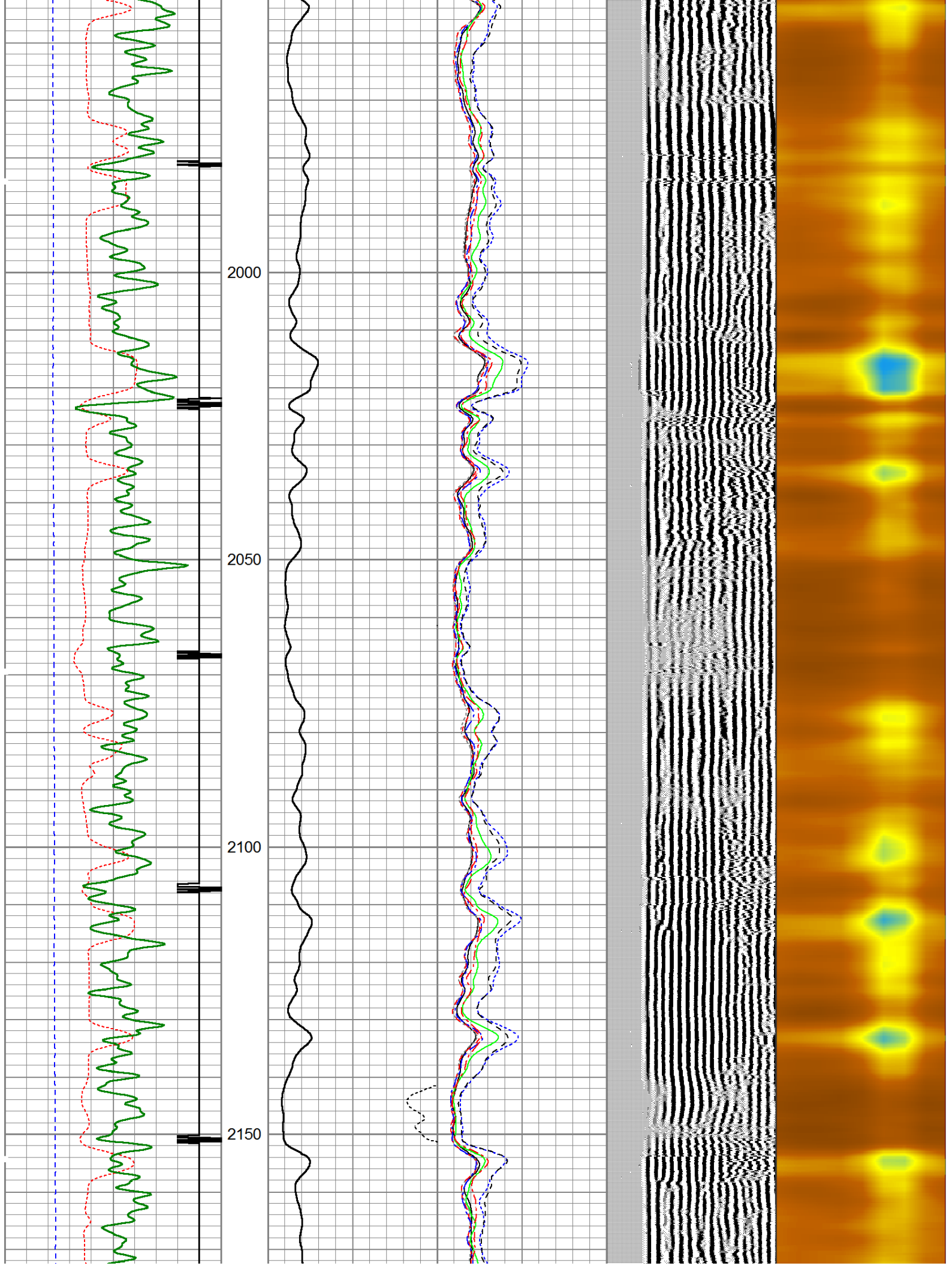


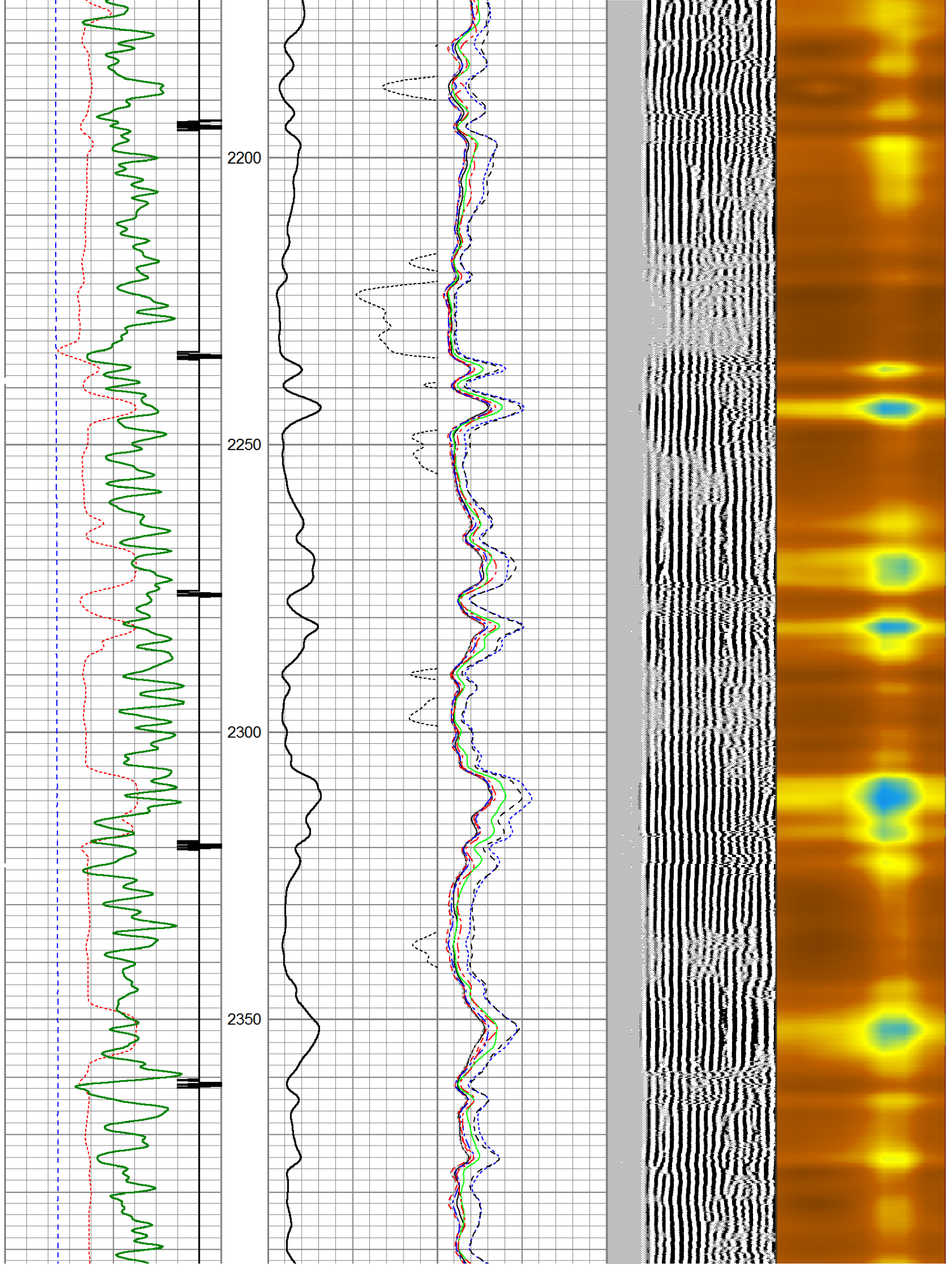


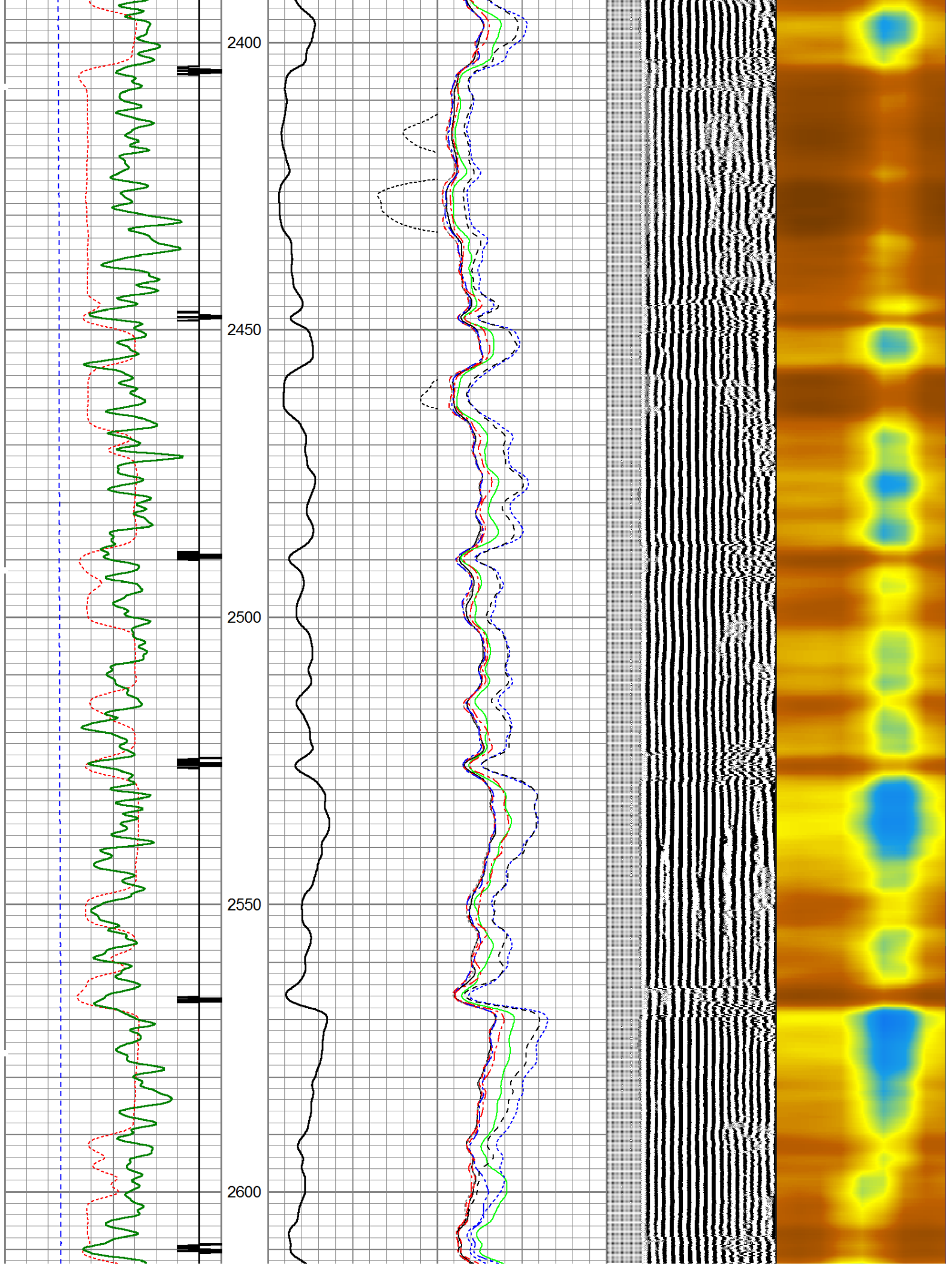


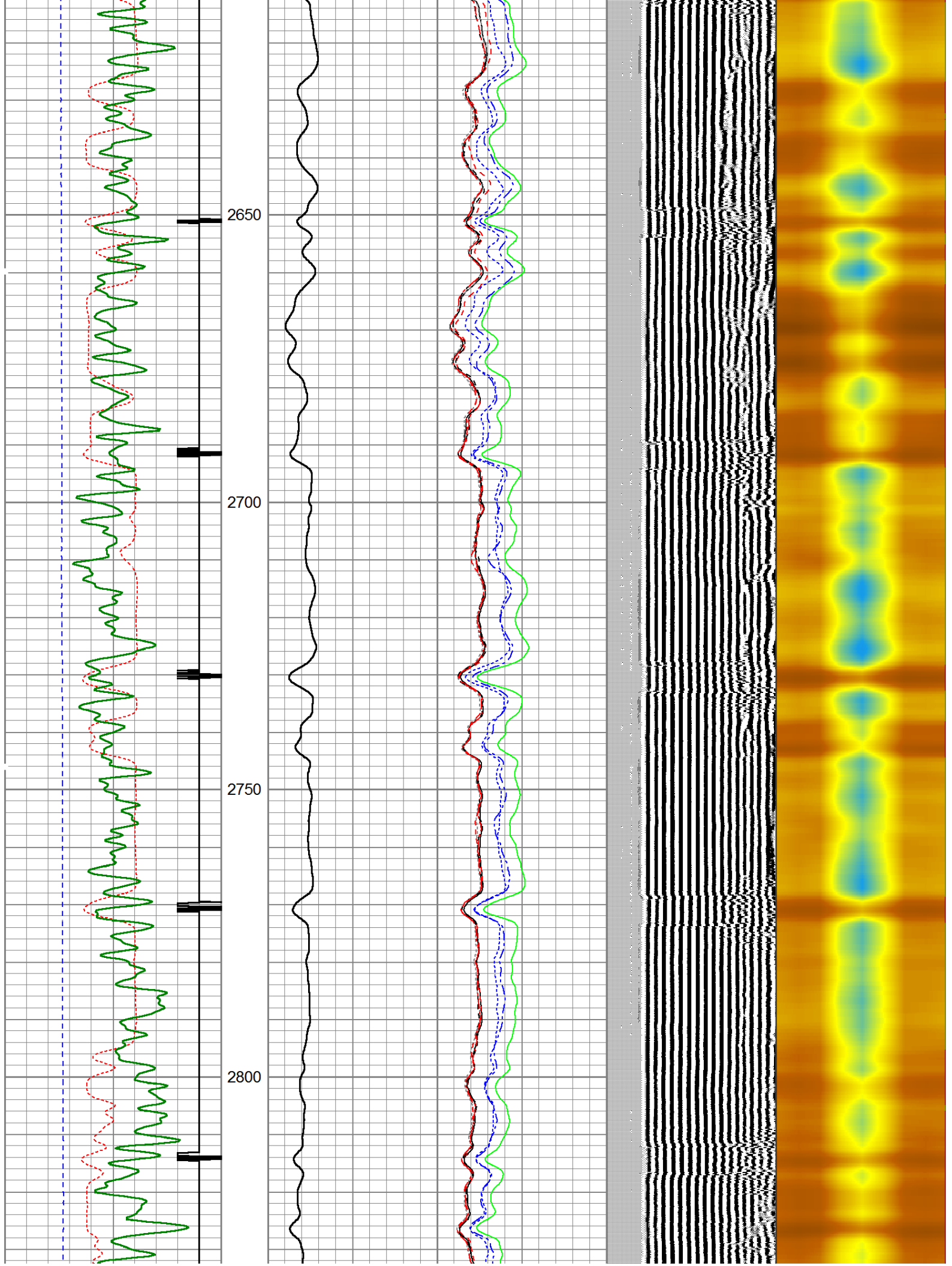


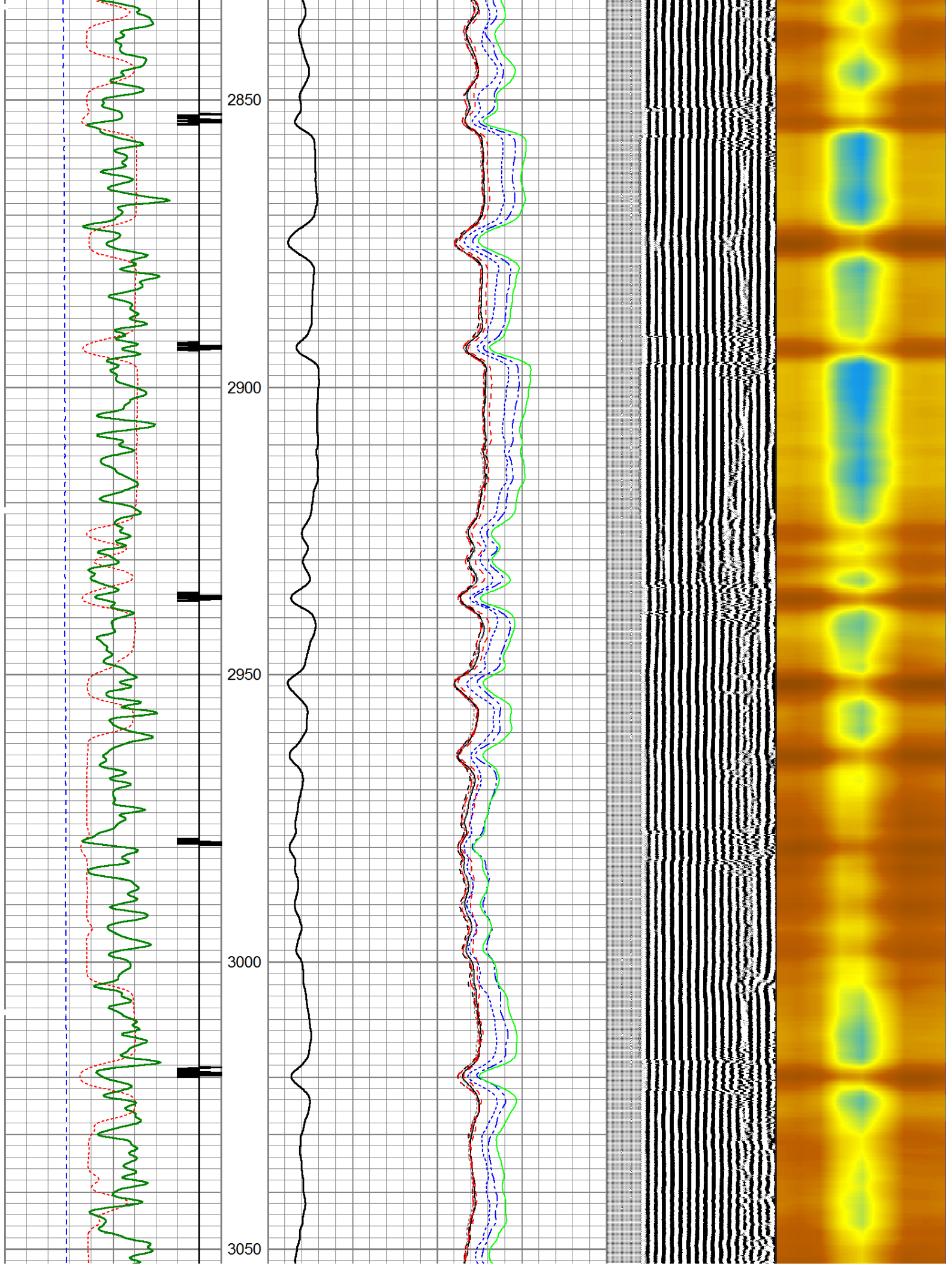


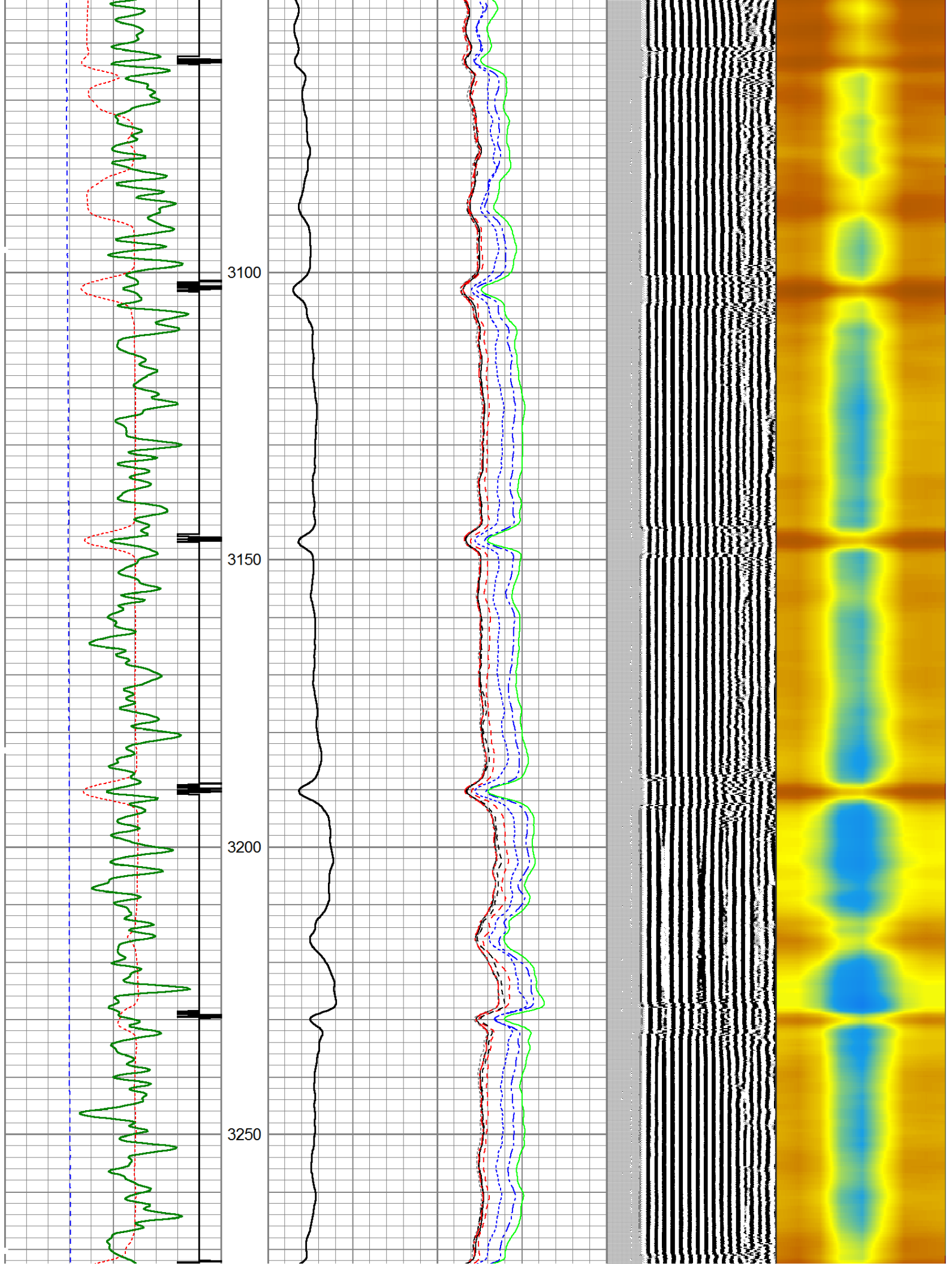


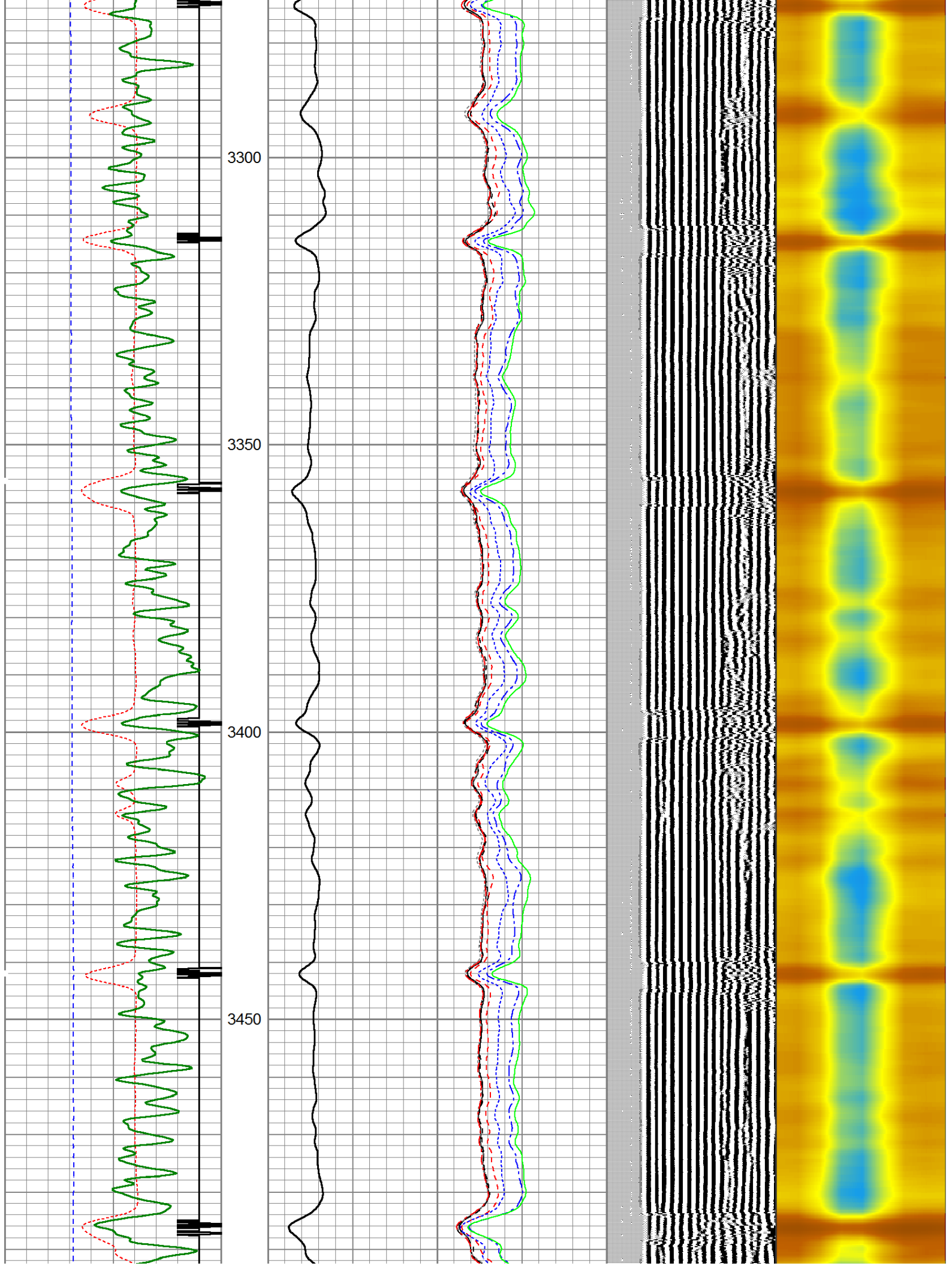


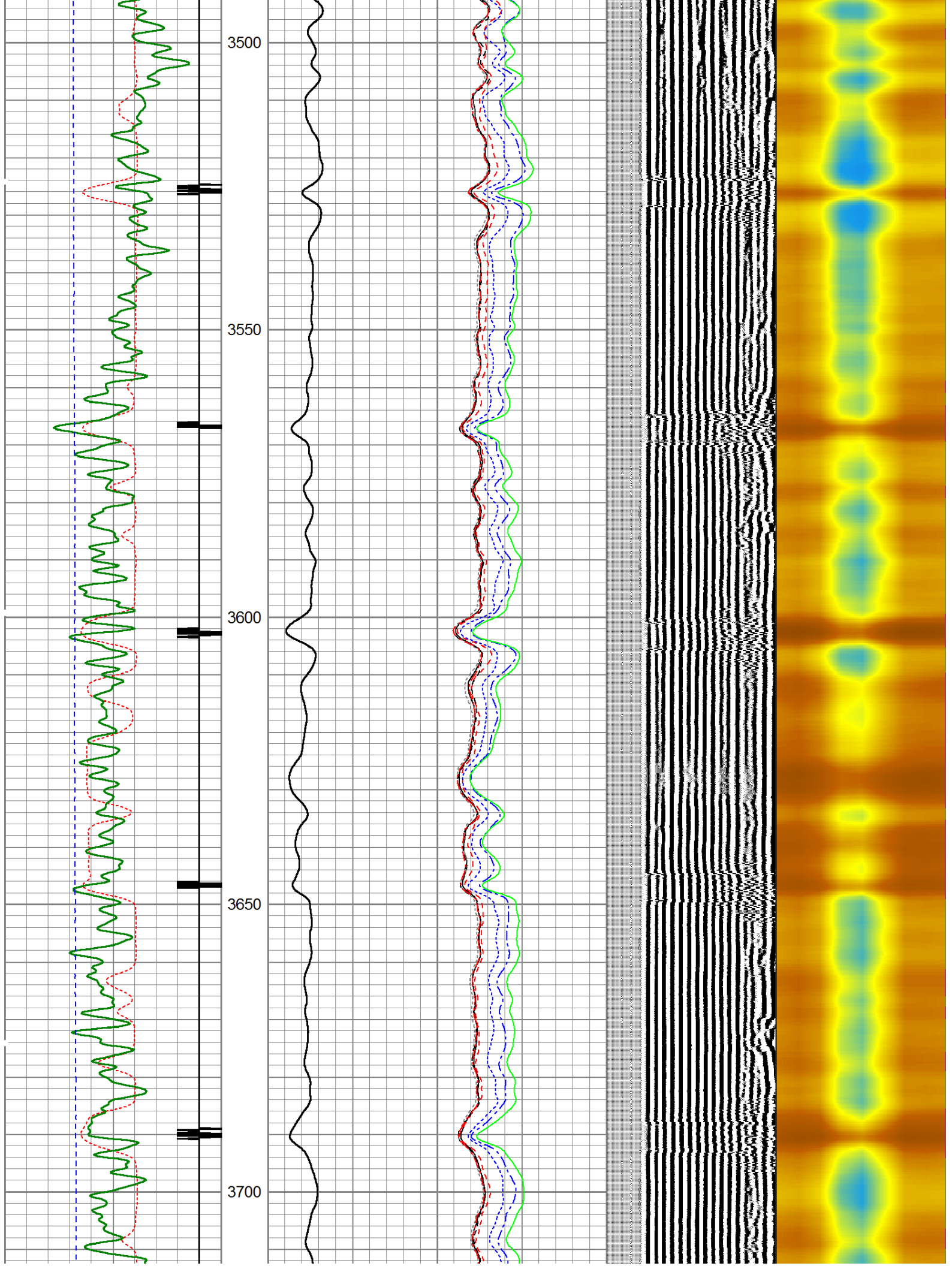


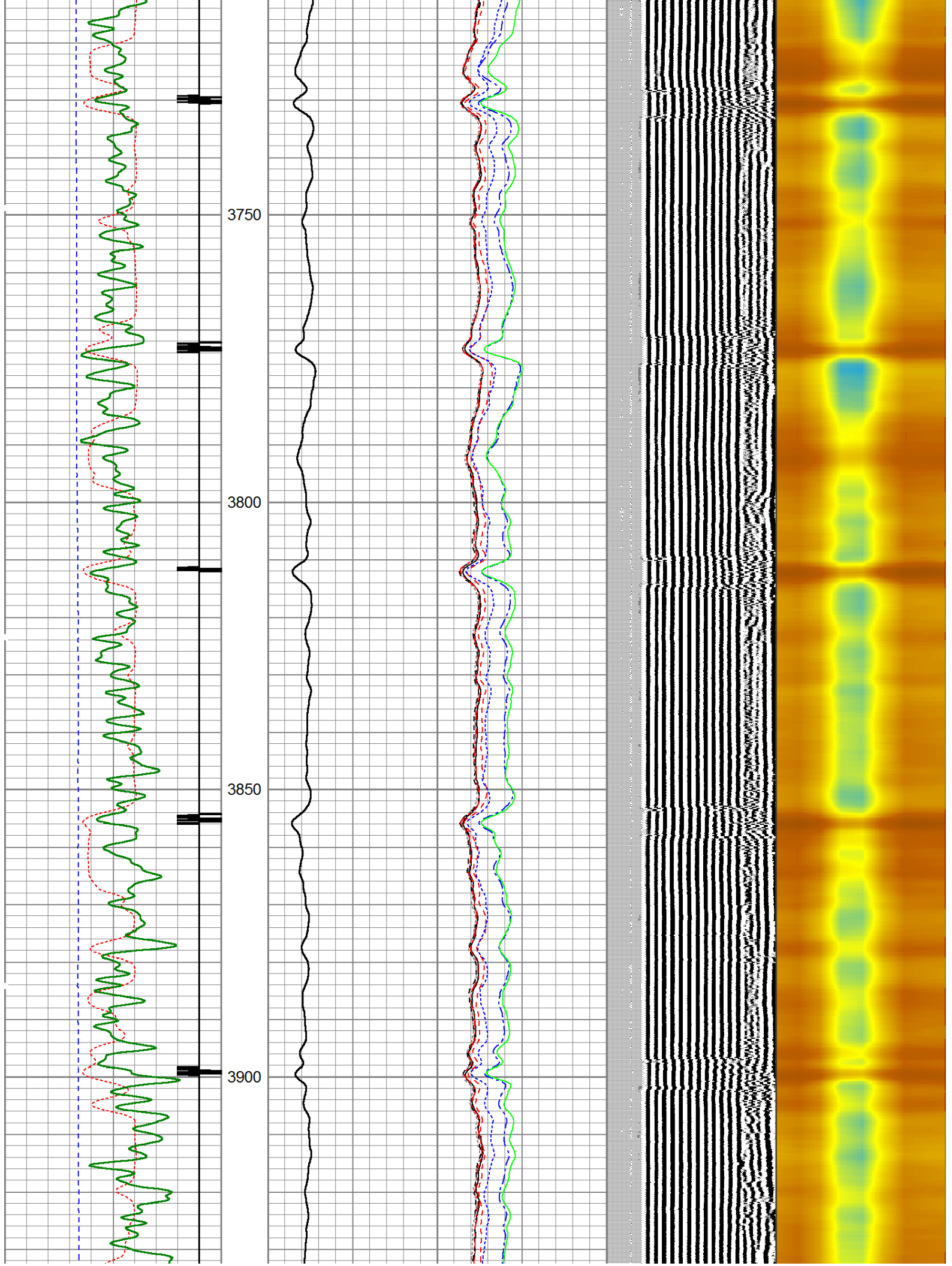


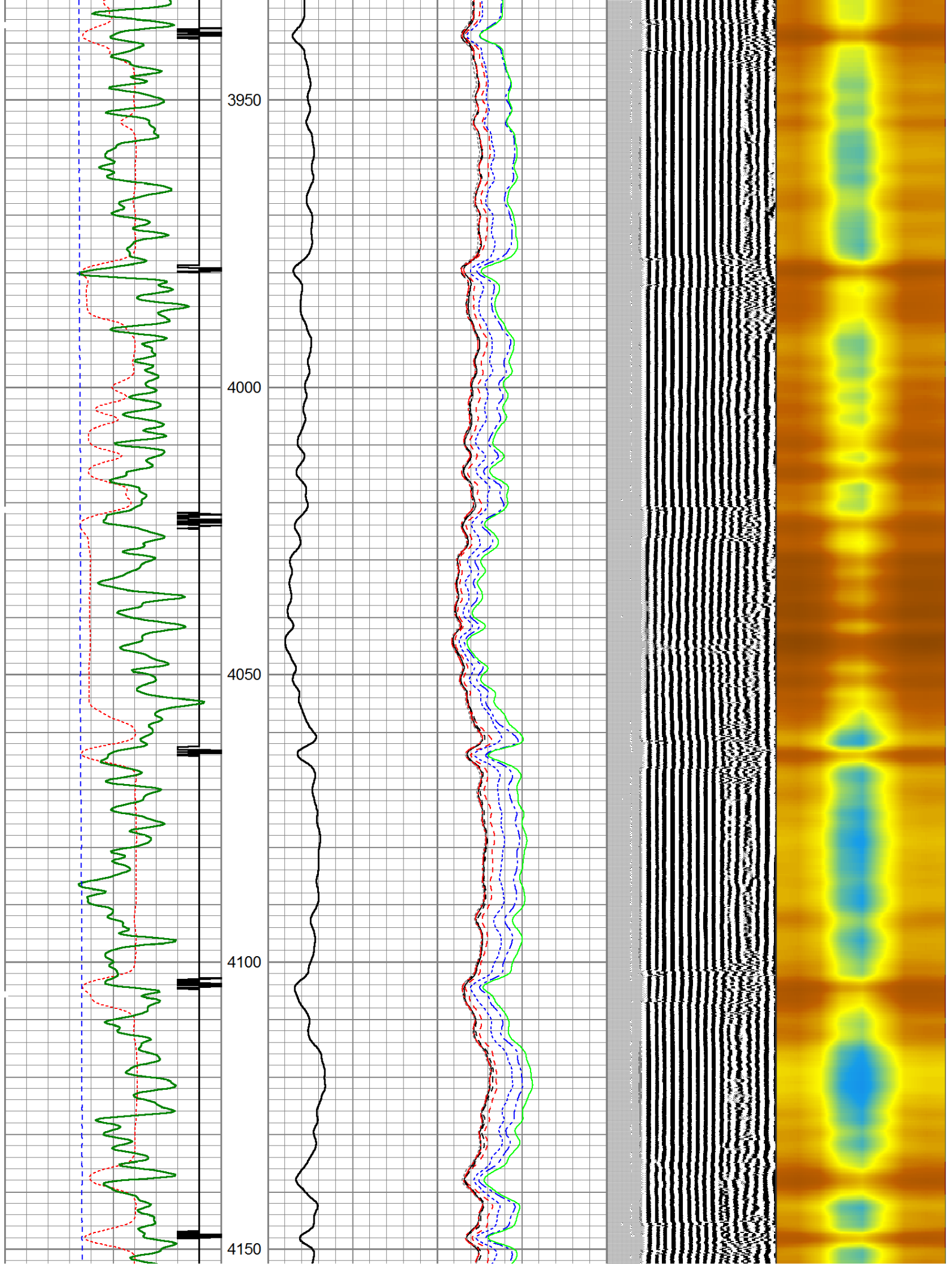


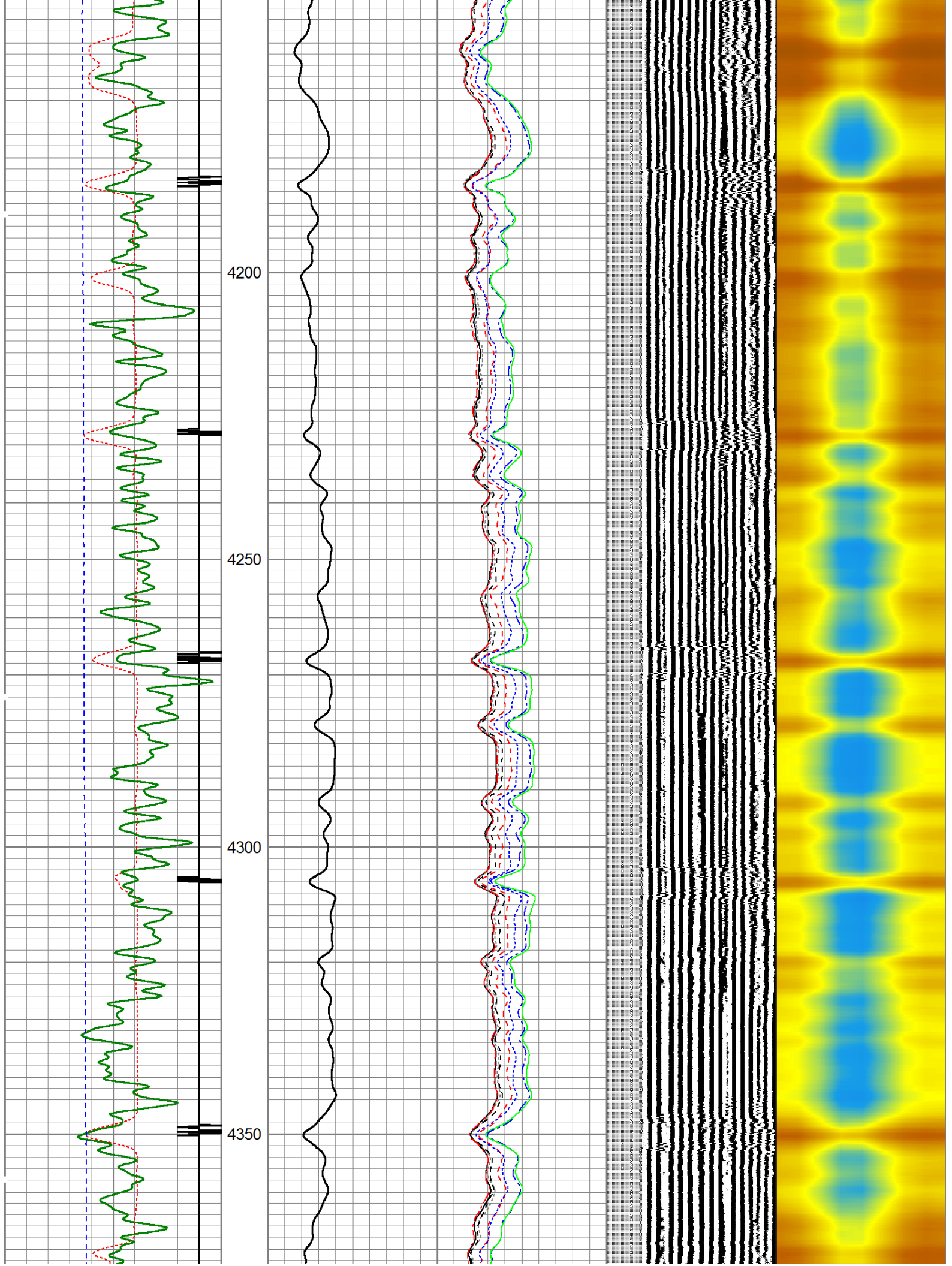


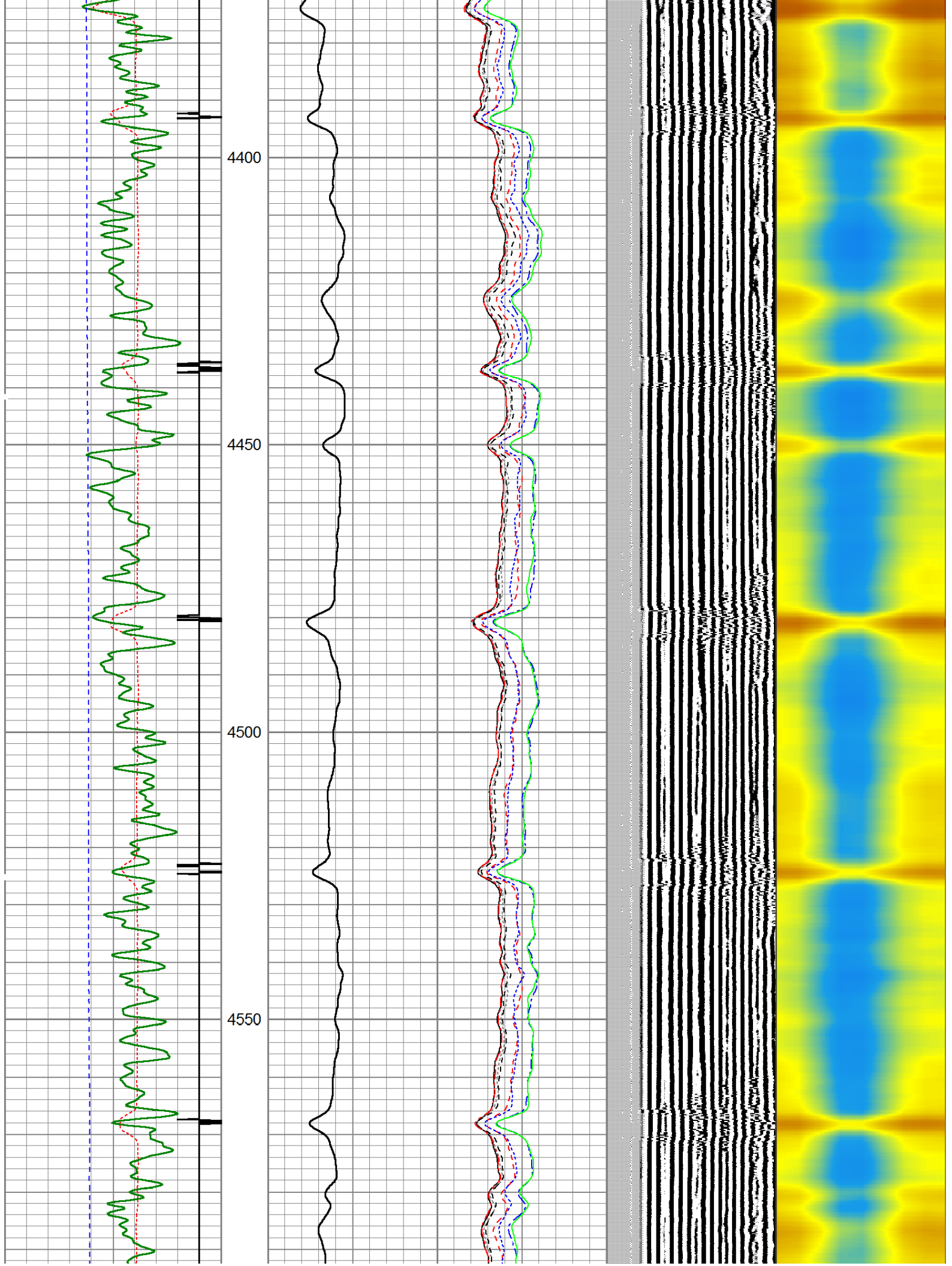


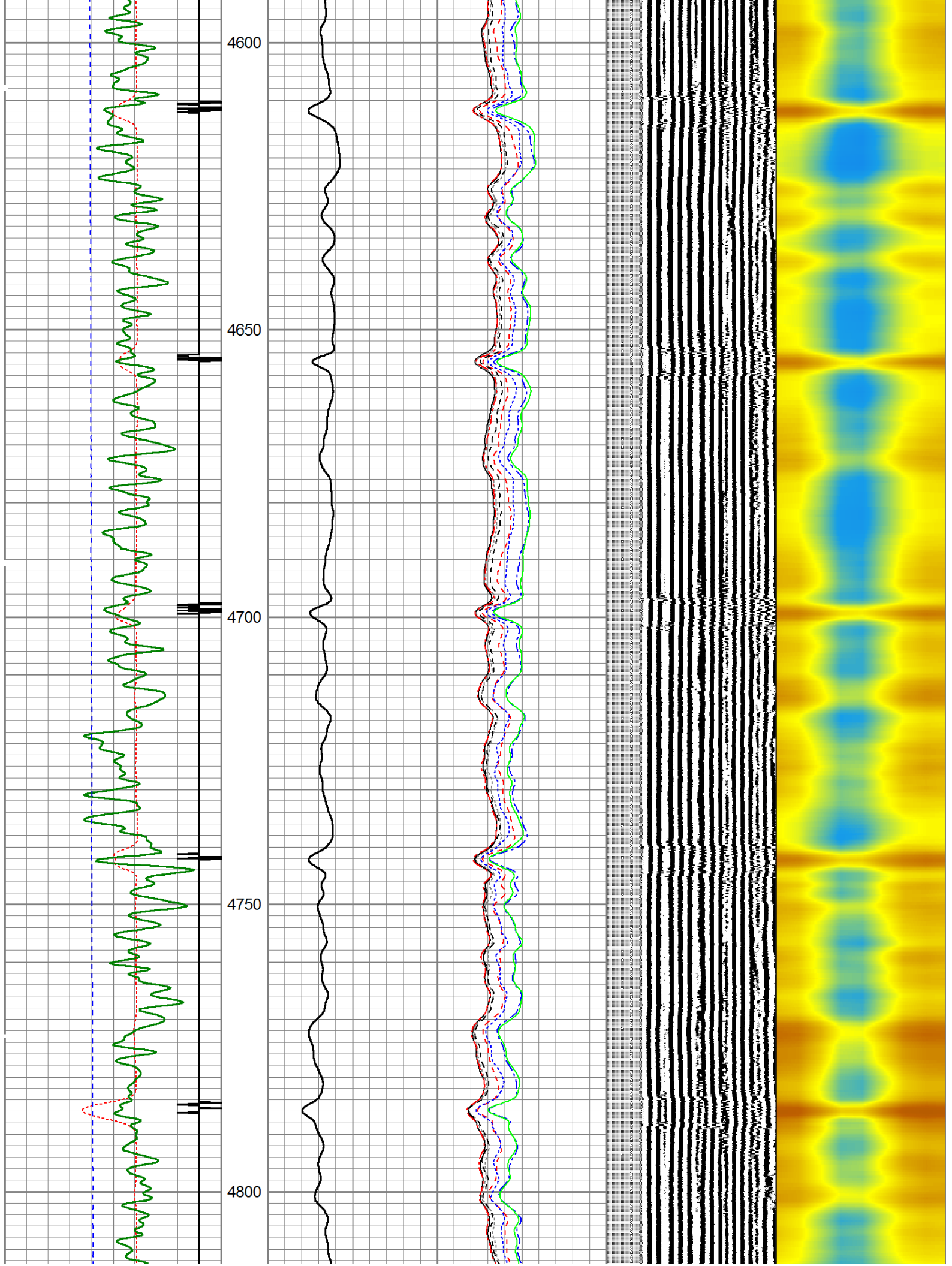


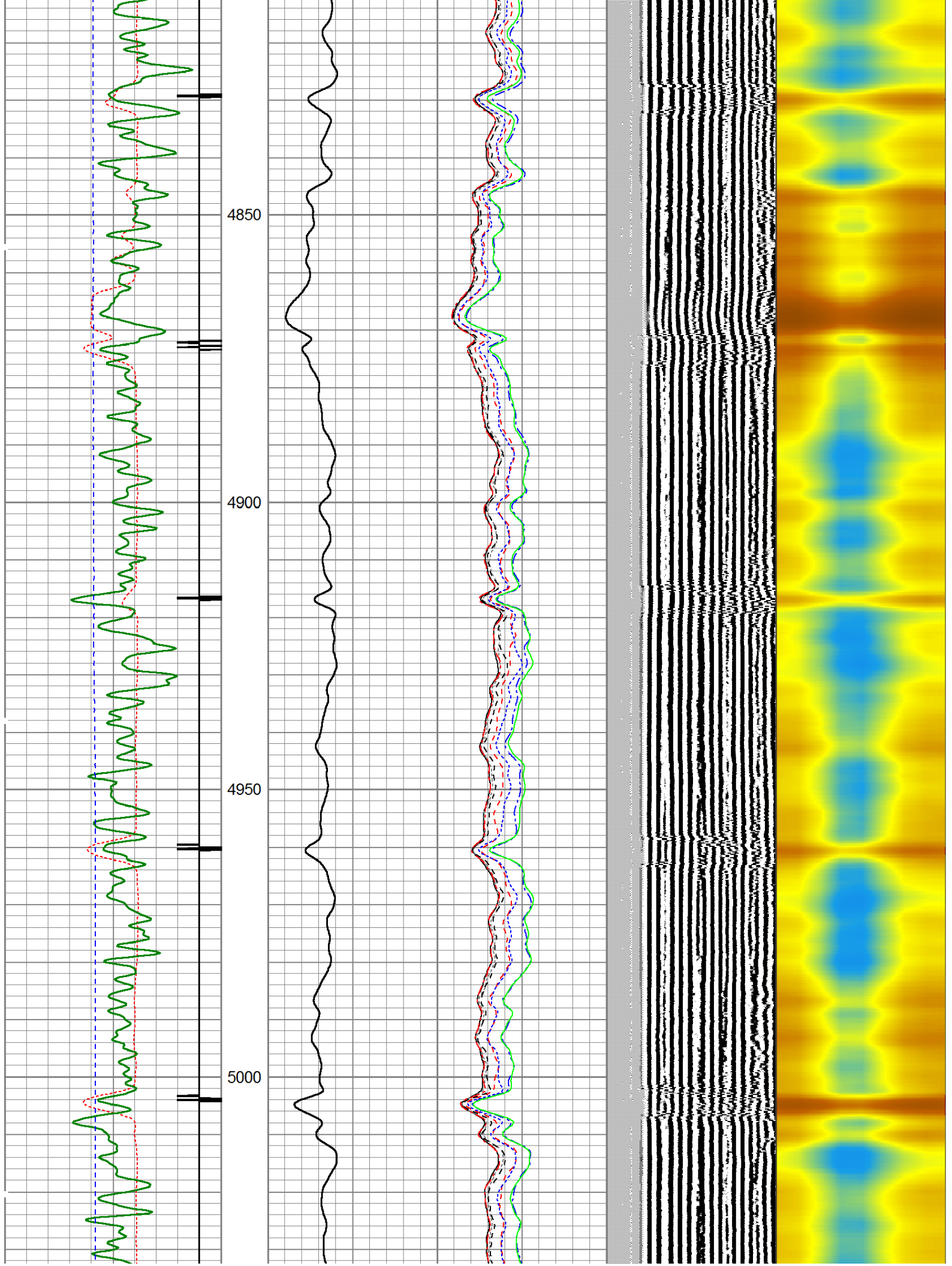


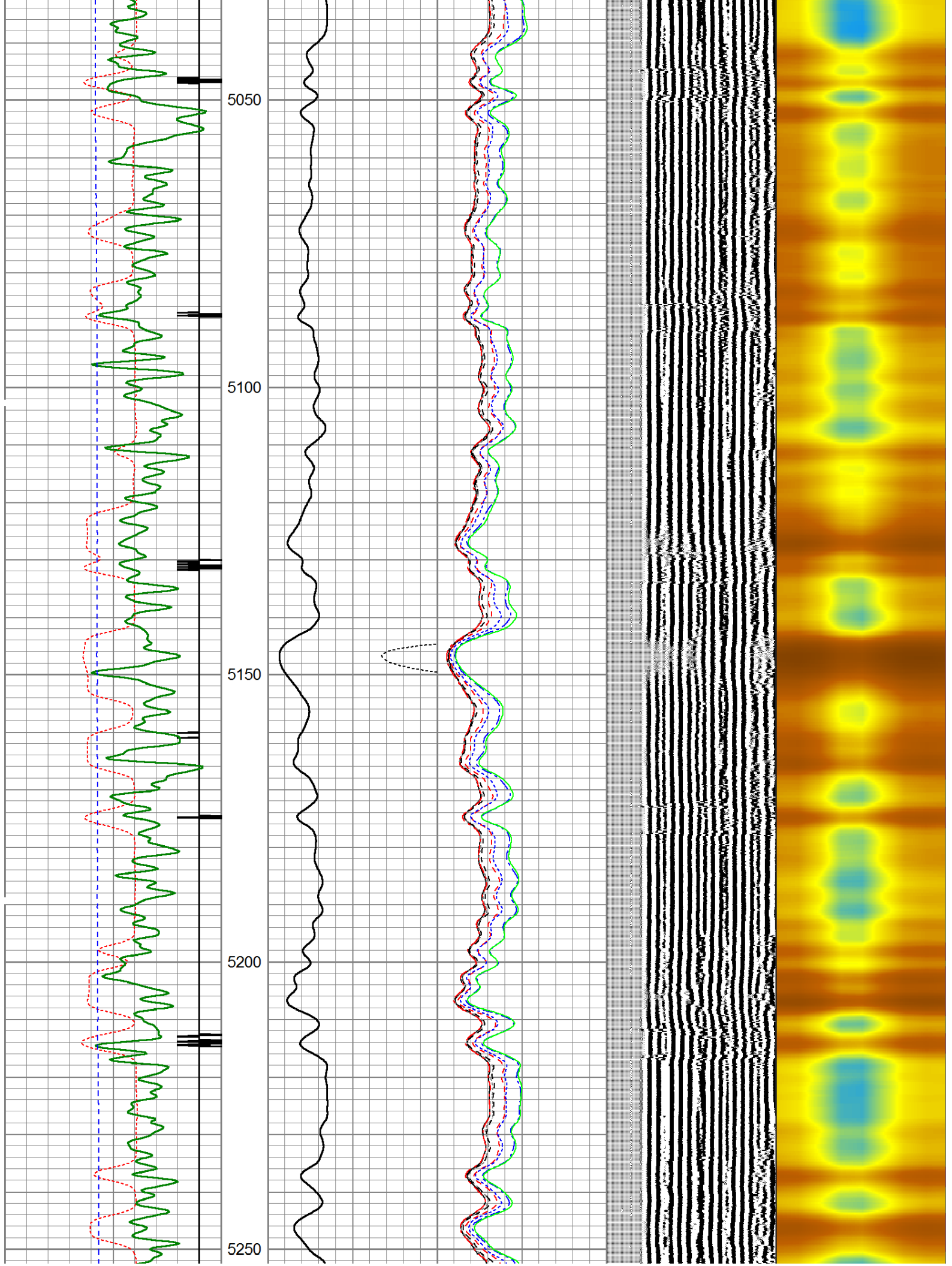


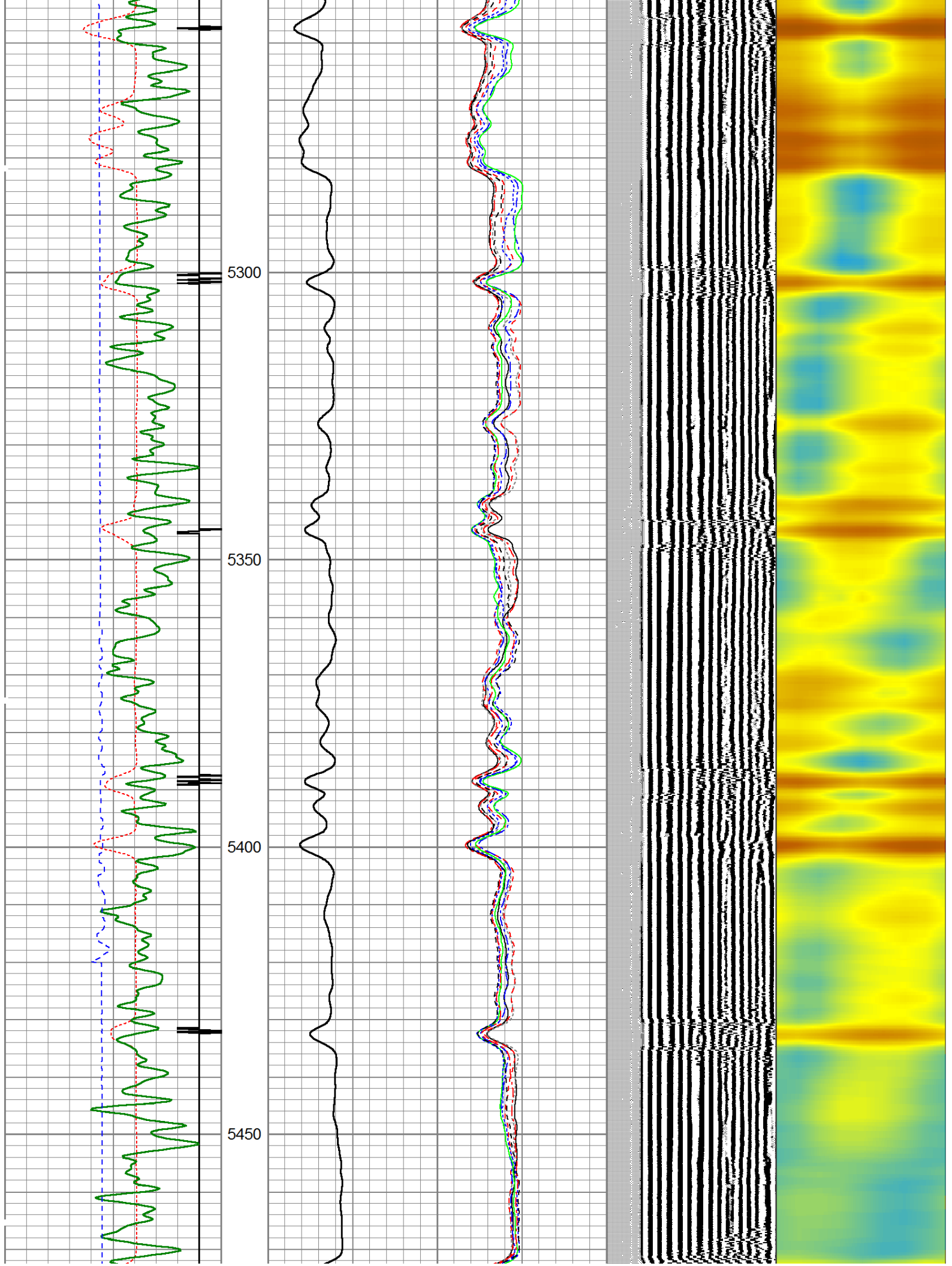


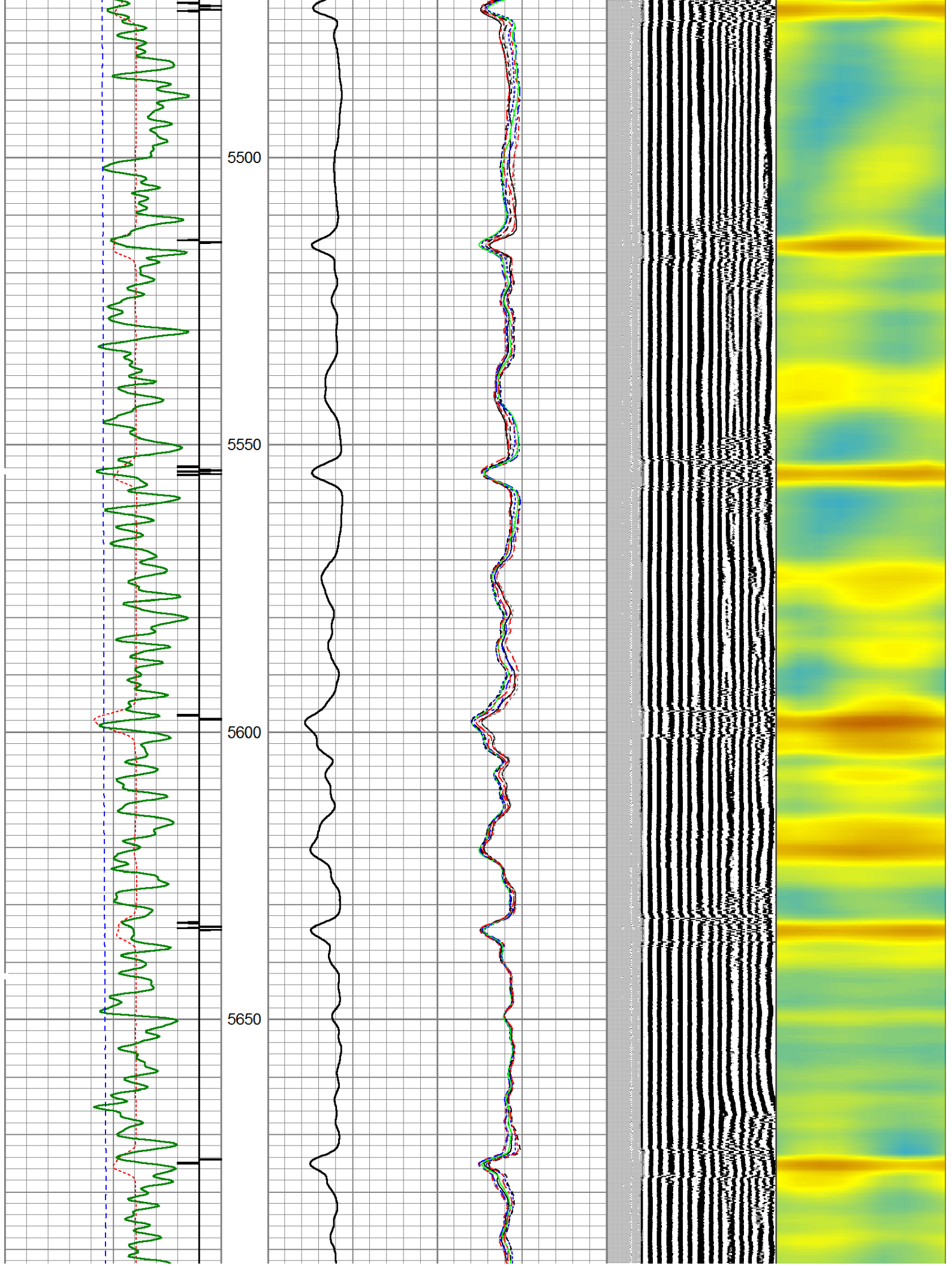


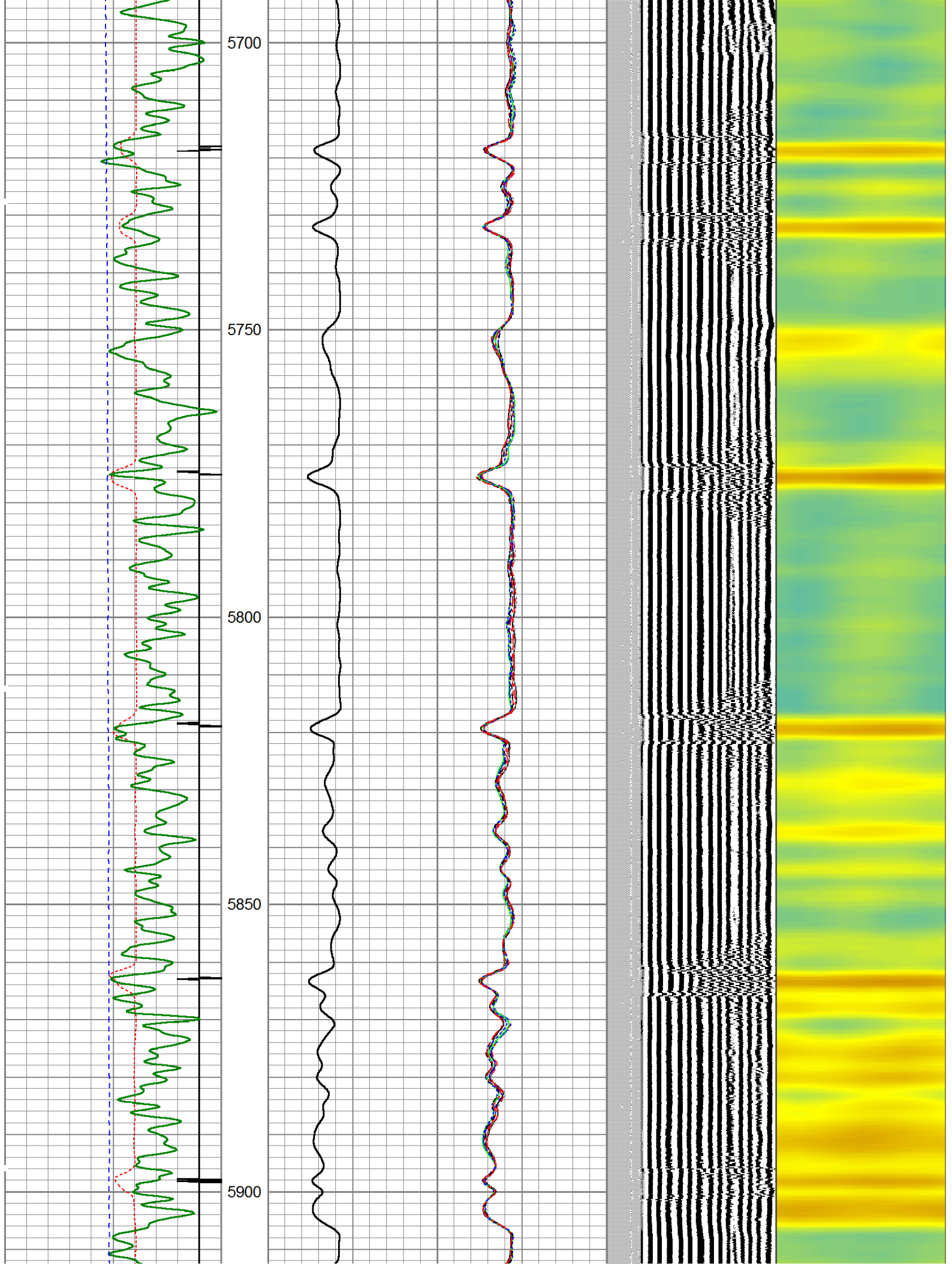


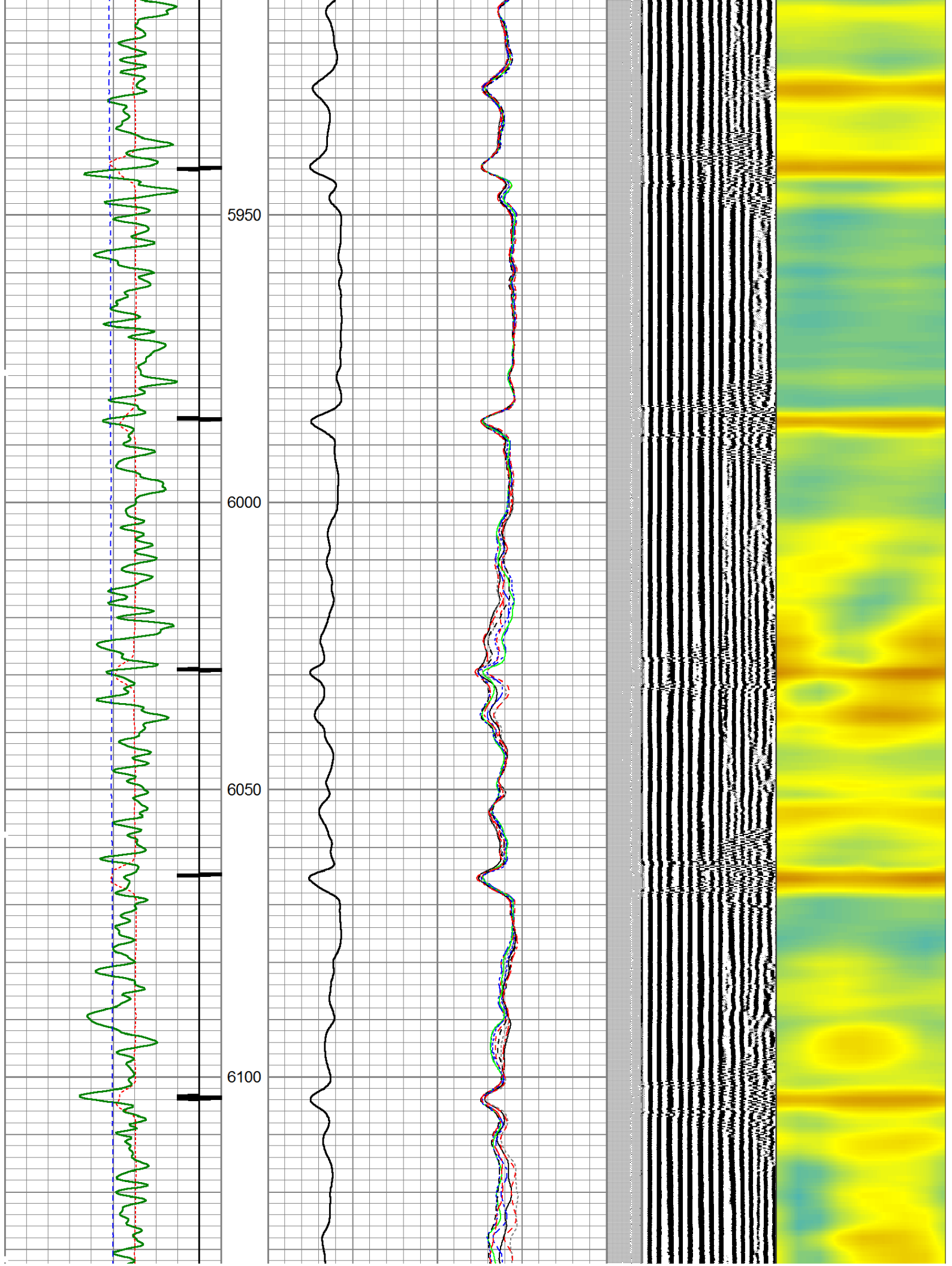


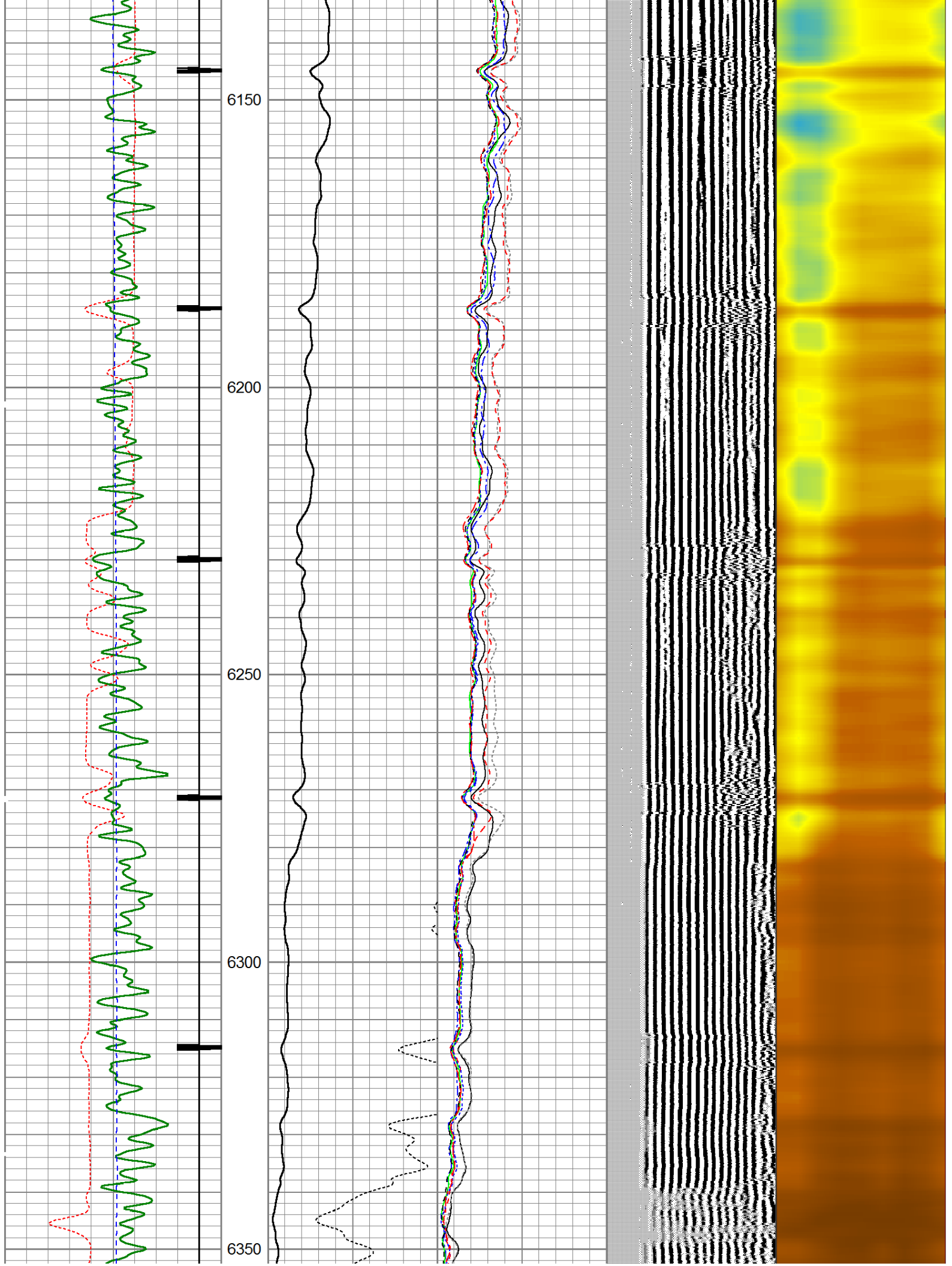


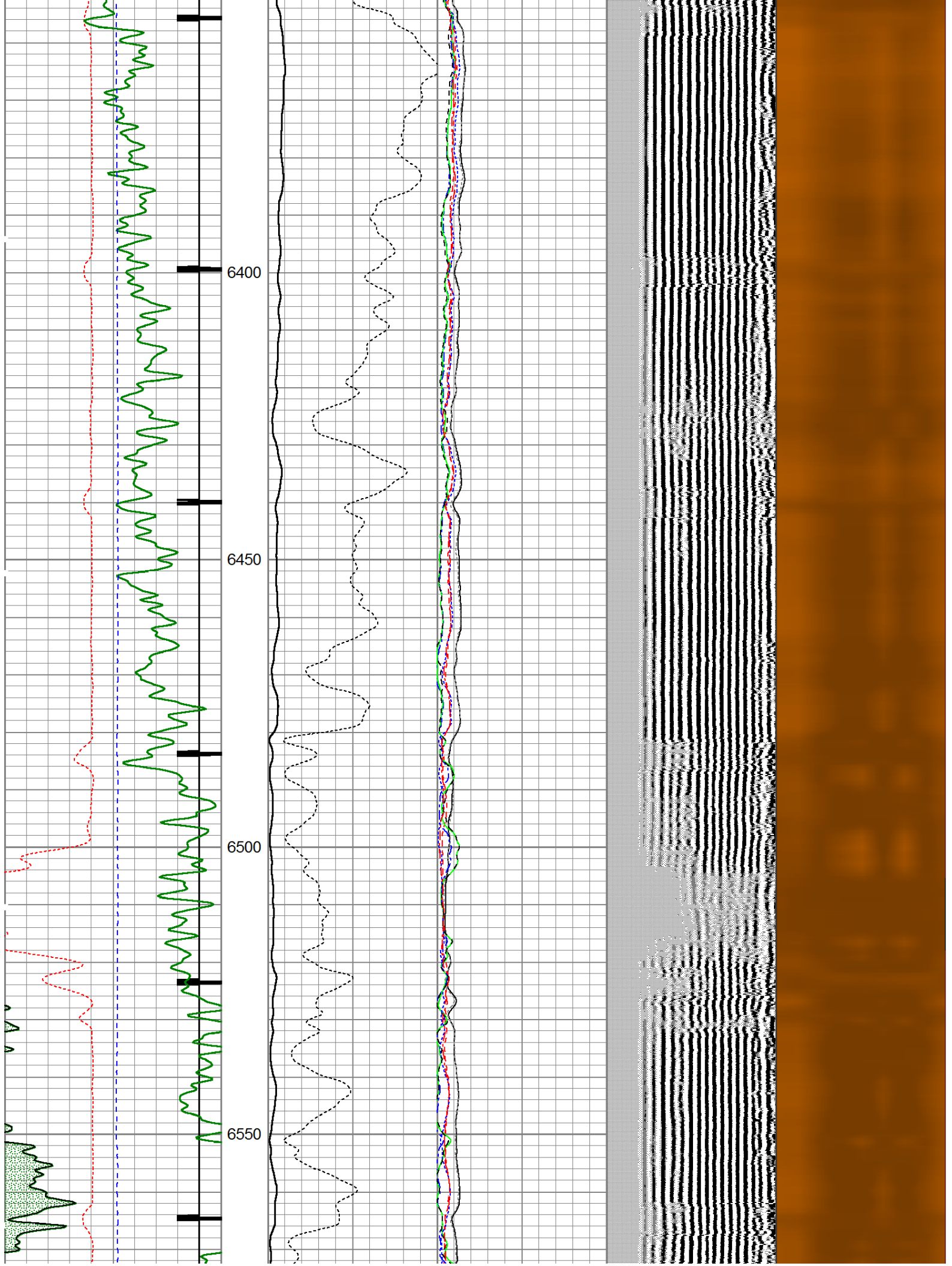


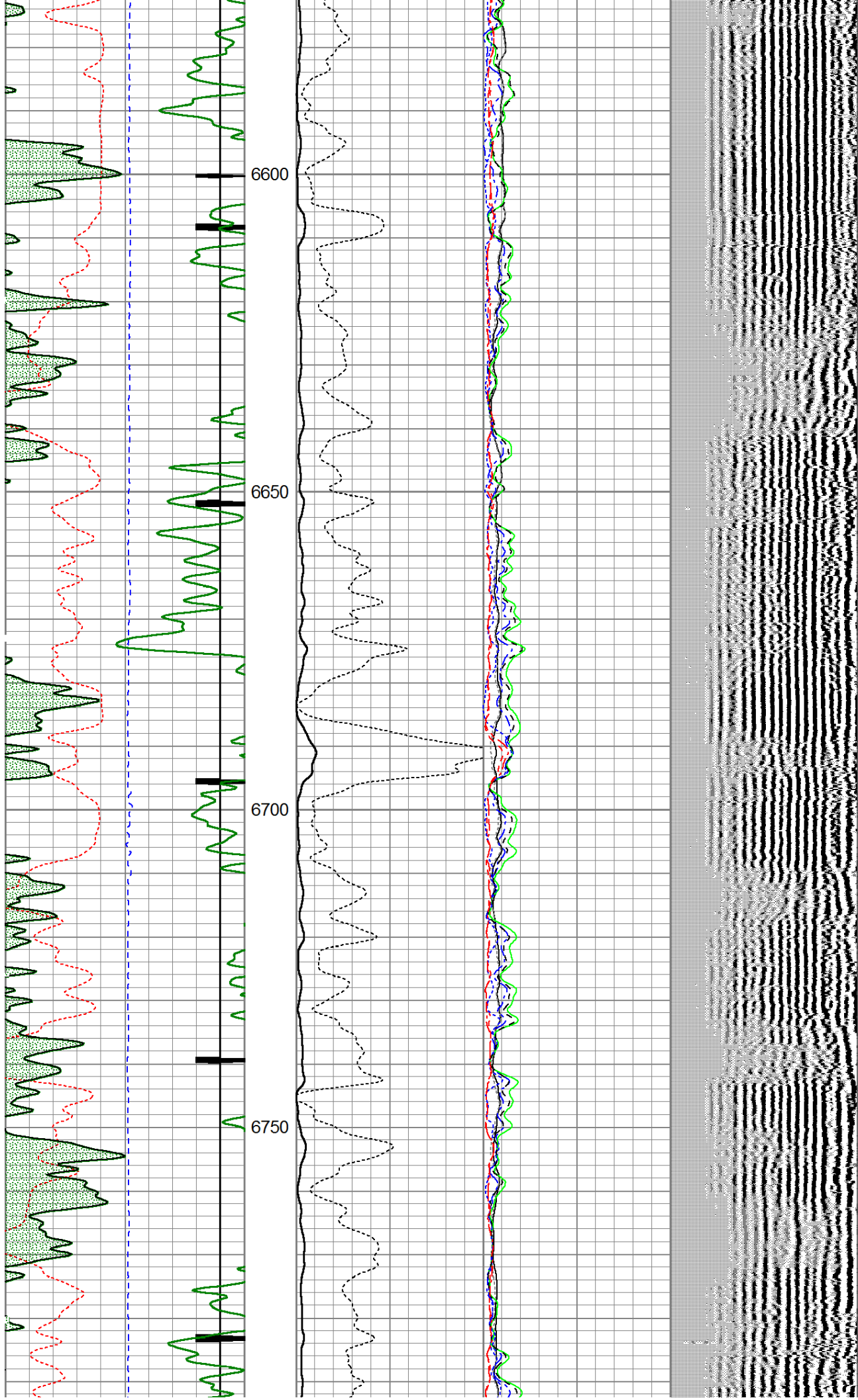


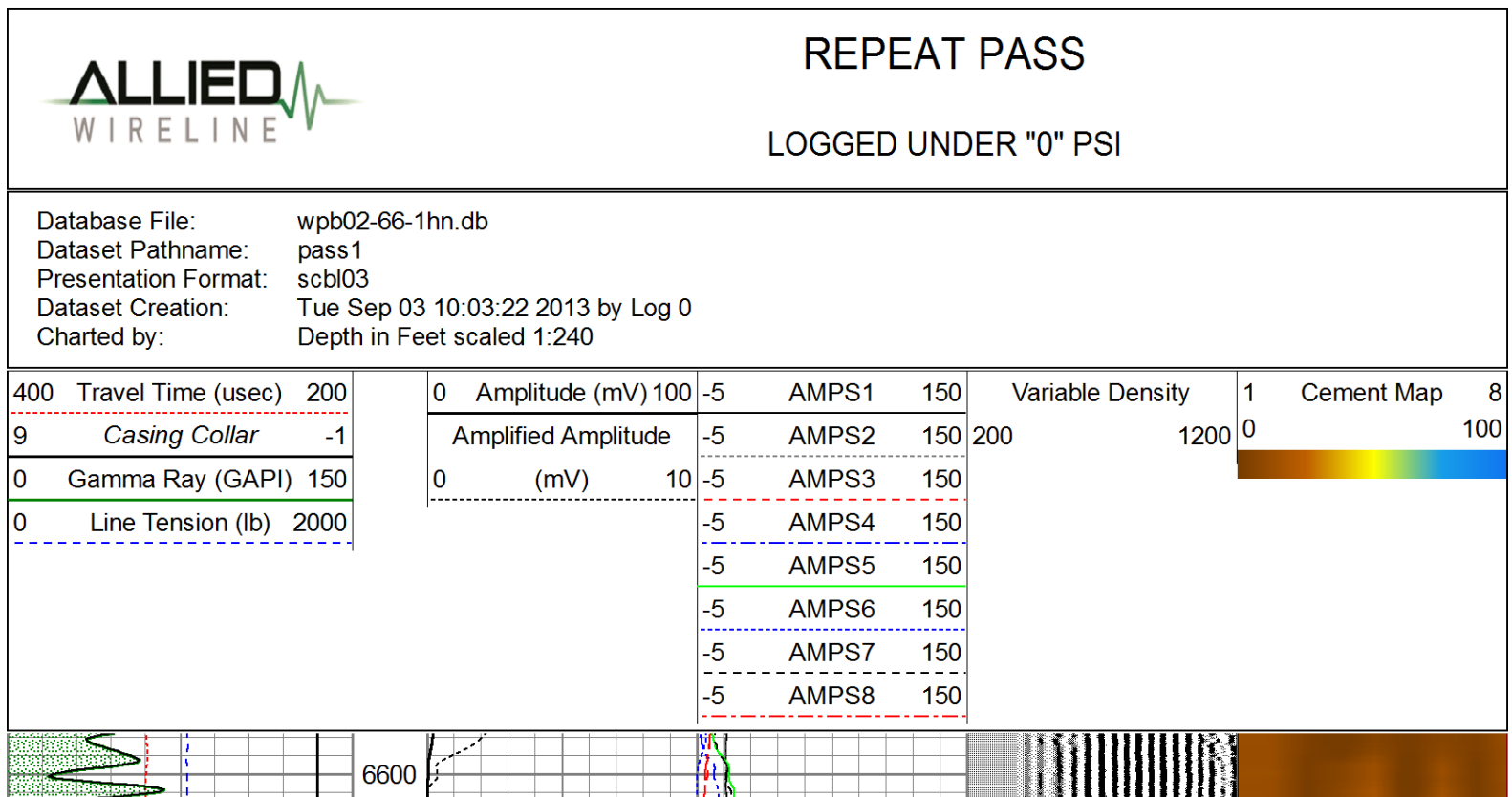
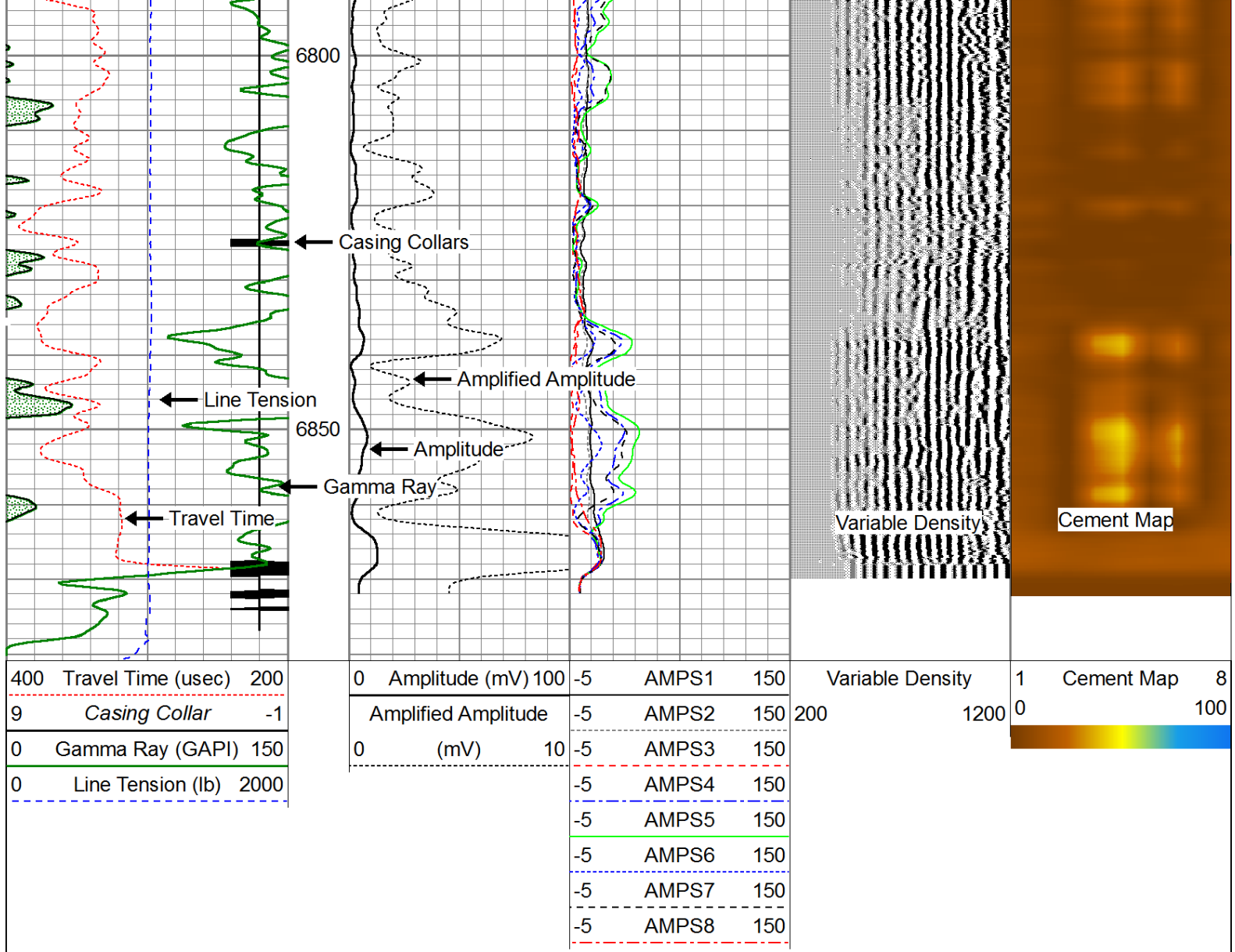


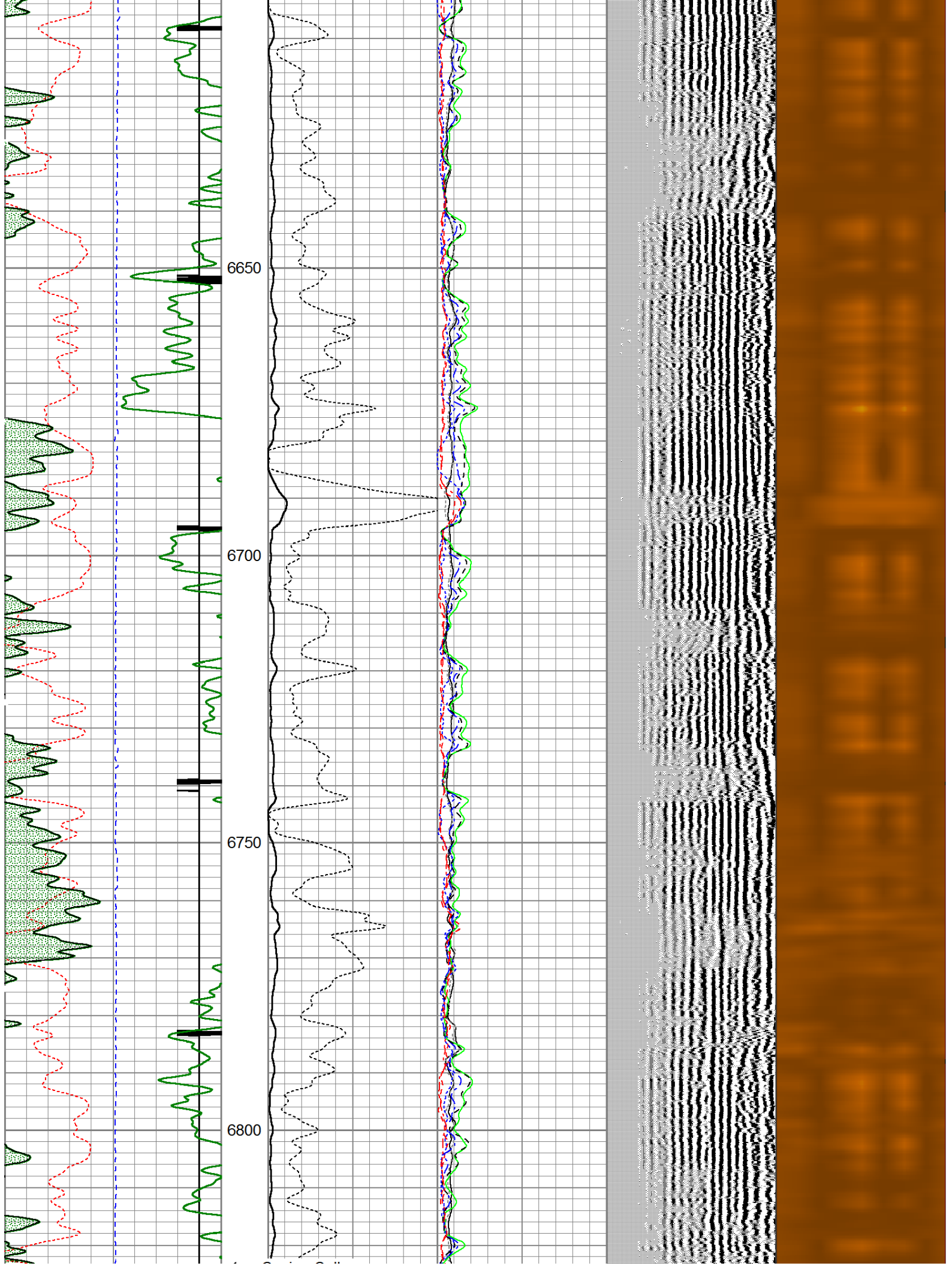


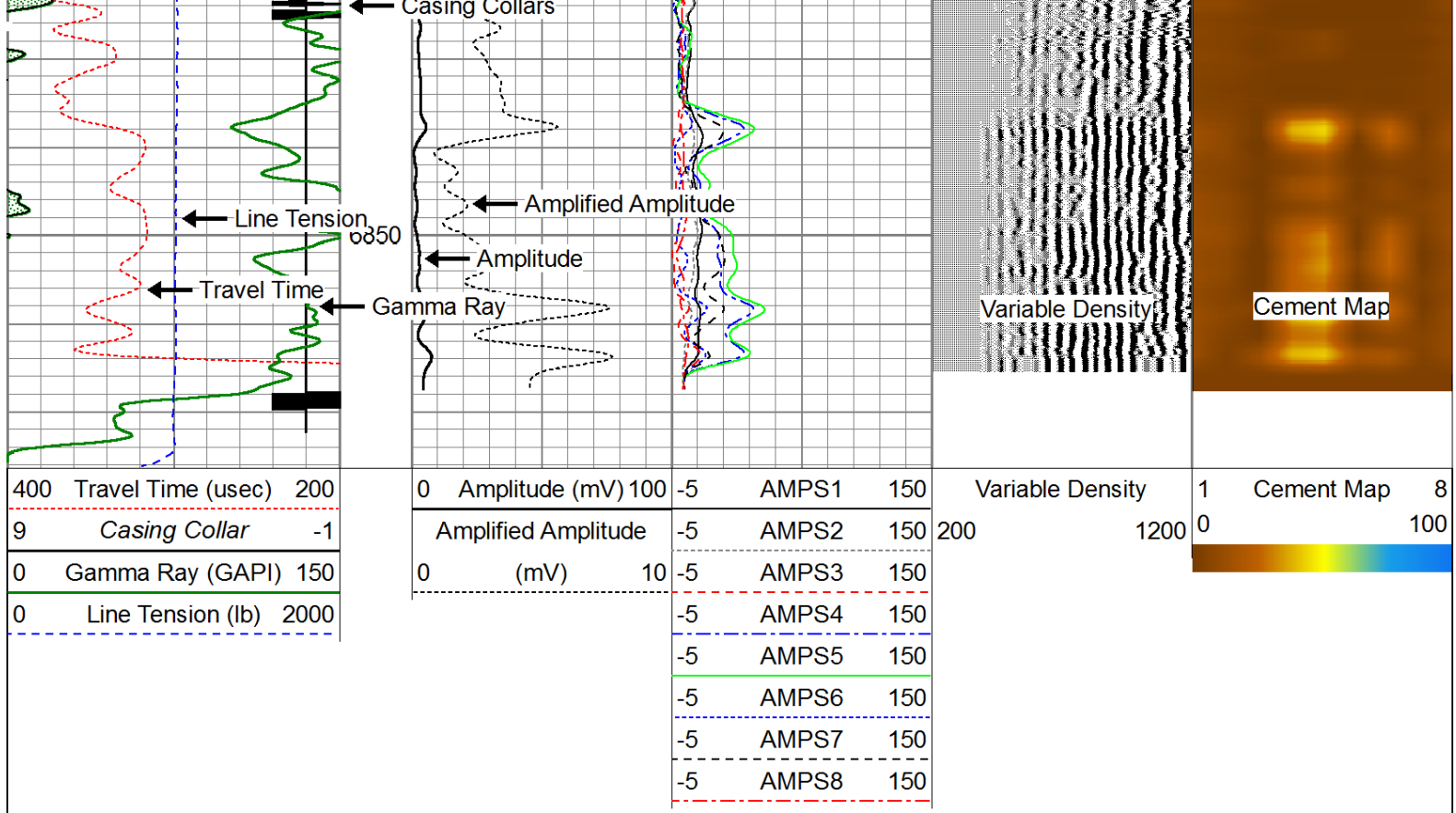












Calibration Report						
Database File:	wp66-1.db					
Dataset Pathname:	pass7					
Dataset Creation:	Tue Sep 03 09:32:13 2013 by Log 0					
Gamma Ray Calibration Report						
Serial Number:	110108-Dig					
Tool Model:	Probe275					
Performed:	Mon Jul 01 16:56:15 2013					
Calibrator Value:	1.0	GAPI				
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:	5.500	in				
Calibration Depth:	820.900	ft				
Master Calibration, performed Tue Sep 03 09:32:09 2013:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.021	0.846	2.000	62.921	70.252	3.459
CAL	-0.021	0.998				
5'	-0.021	0.760	2.000	62.921	78.092	3.609
SUM						
S1	-0.021	0.900	0.000	100.000	108.585	2.277

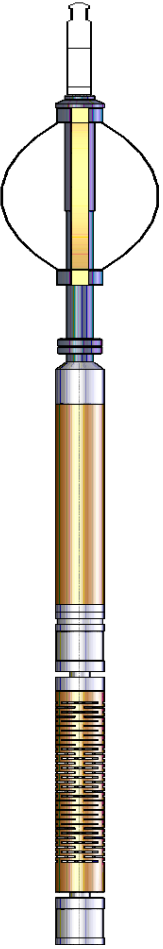

S2	0.021	0.950	0.000	100.000	103.041	2.156
S3	-0.021	0.930	0.000	100.000	105.212	2.191
S4	-0.021	0.887	0.000	100.000	110.150	2.286
S5	-0.021	0.805	0.000	100.000	121.144	2.489
S6	-0.021	0.742	0.000	100.000	131.171	2.711
S7	-0.021	0.708	0.000	100.000	137.302	2.829
S8	-0.021	0.770	0.000	100.000	126.492	2.611

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	-0.021	0.998	1.000	0.000

Air Zero Calibration, performed Fri Aug 09 10:42:06 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	
S8	0.000		0.000		0.000	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			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
WVF3FT	11.84					
WVFCAL	11.84					
WVFS1	11.84					
WVFS2	11.84					
WVFS3	11.84					

Tool Joint	Depth (ft)	Tool Joint Diagram	Tool Joint Description	Length (ft)	Weight (lb)	O.D. (in)
WVFS4	11.84					
WVFS5	11.84					
WVFS6	11.84					
WVFS7	11.84					
WVFS8	11.84					
WVF5FT	10.84					
CCL	3.88		Probe275 2.75" Centralizer	2.88	2.75	20.00
GR	2.54		GR-Probe275 (110108-Dig) Probe 2 3/4" Logging Gamma Ray	4.78	2.75	57.00
Dataset: wp66-1.db: field/well/run1/pass9 Total Length: 20.28 ft Total Weight: 197.00 lb O.D.: 2.75 in						