



**RADIAL CEMENT BOND  
GAMMA RAY  
CCL  
TEMP**

**Company OCCIDENTAL PETROLEUM CORP.  
Well DAMORE 18-1HZ  
Field WATTENBERG  
County WELD State COLORADO**

**Location:** API # : 05-123-50775 Other Services

SW NW

NONE

SEC 18 TWP 5N RGE 67W

Permanent Datum GROUND LEVEL Elevation 4922'  
Log Measured From KELLY BUSHING = 26'  
Drilling Measured From KELLY BUSHING

Elevation  
K.B. 4948'  
D.F. 4947'  
G.L. 4922'

Date 15 MAY 2020

Run Number	ONE		
Depth Driller	20205'		
Depth Logger	6280'		
Bottom Logged Interval	6280'		
Top Log Interval	SURFACE		
Open Hole Size	8.50"		
Type Fluid	WATER		
Density / Viscosity	~8.3#		
Max. Recorded Temp.	203 DEG F		
Estimated Cement Top	3509'		
Time Well Ready	ROA		
Time Logger on Bottom	12:15		
Equipment Number	W-205		
location	WINDSOR, CO		
Recorded By	Z. EMICK		
Witnessed By	R. PEVLER		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	13.50"	0'	1871'				
TWO	8.50"	1871'	20205'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9-5/8"	36# J-55	0'	1861'
Prot. String				
Production String	5-1/2"	17# HCP110	0'	20194'
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**

**LOG CORRELATED TO SHORT JOINT AT 6232' - 6254'**

**LOG RAN WITH 0 PSI ON CASING.**

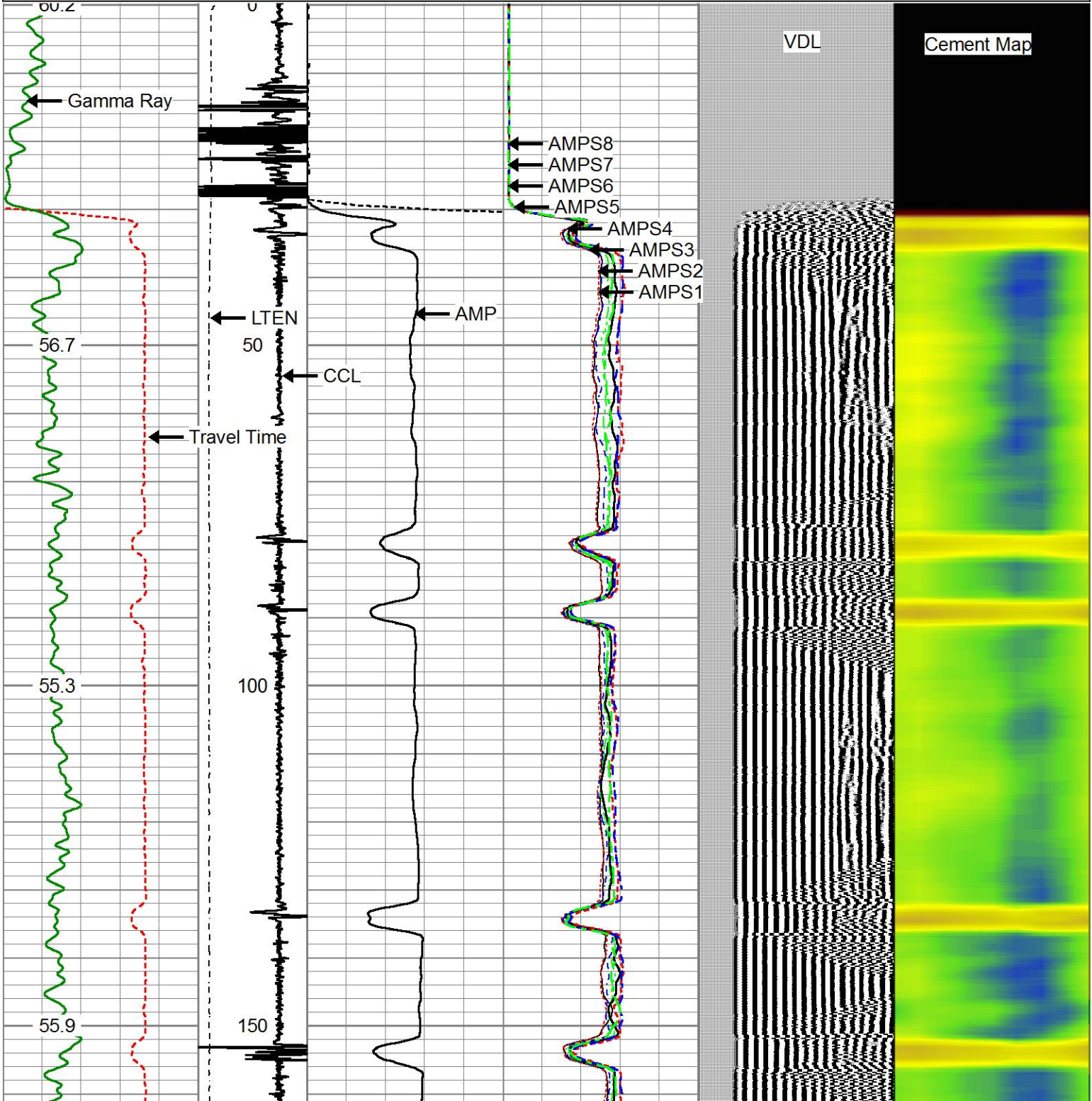
**THANK YOU FOR CHOOSING CUTTERS WIRELINE SERVICE.**



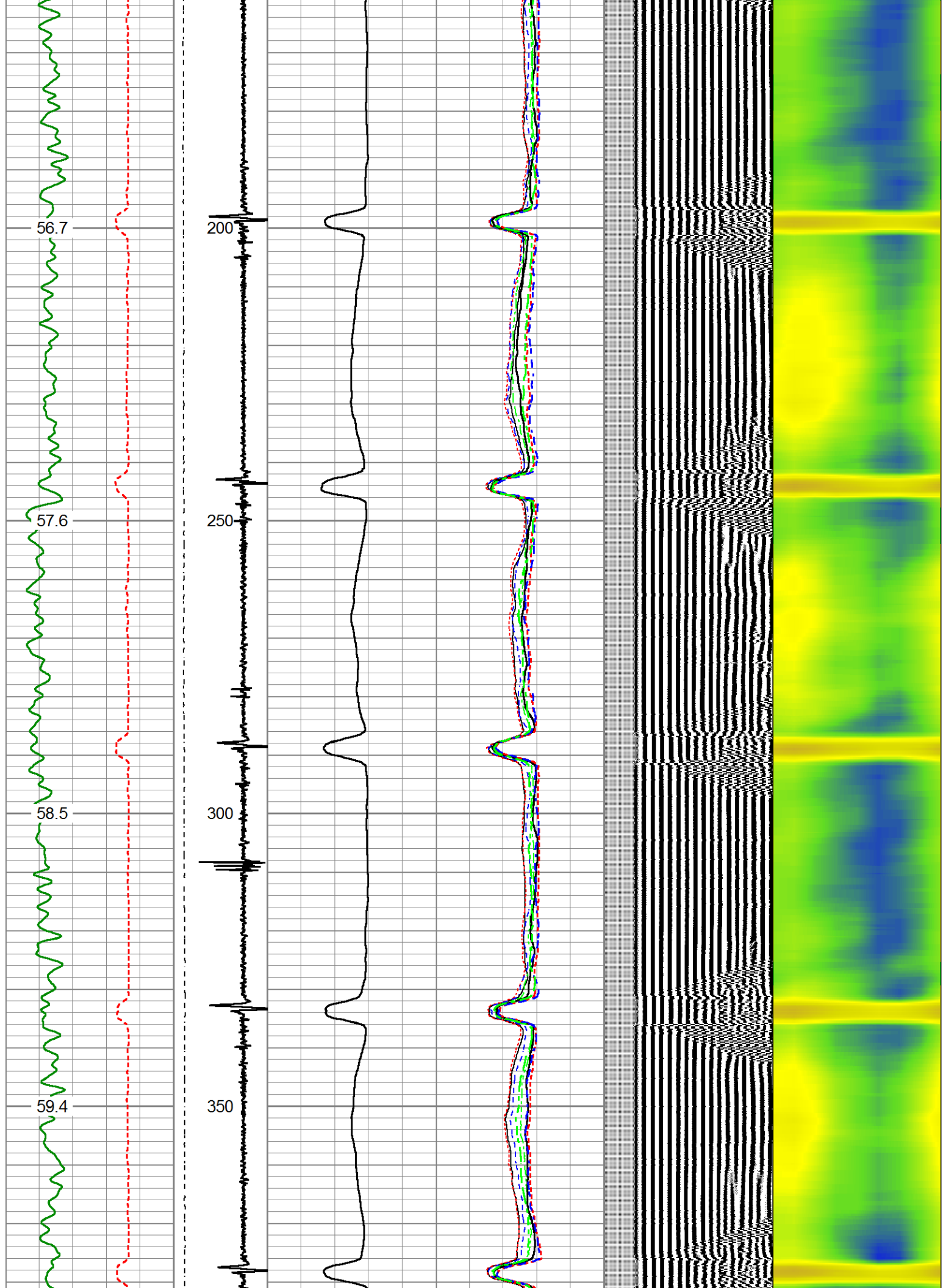
**MAIN PASS, 0 PSI**

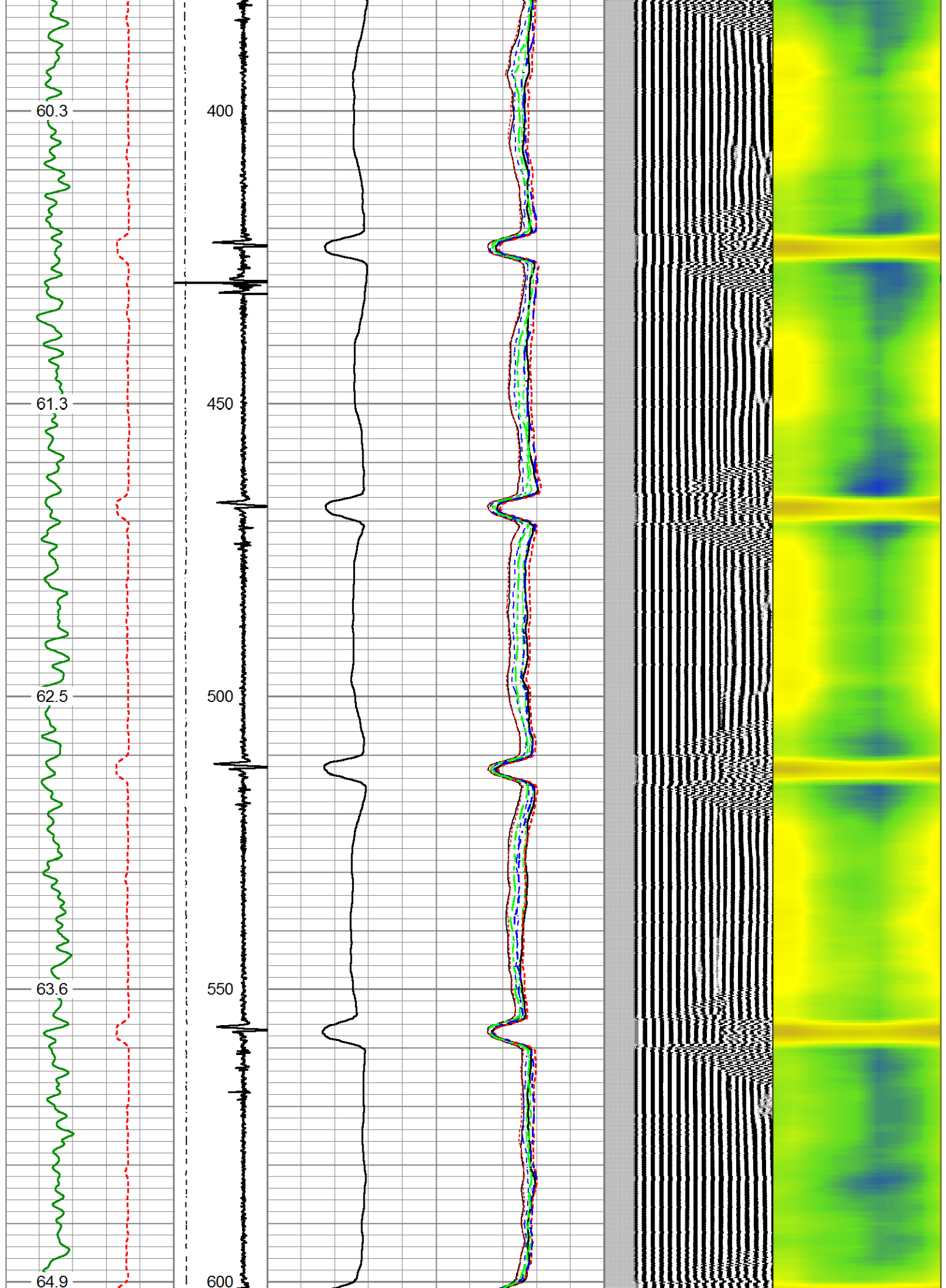
**5" = 100'**

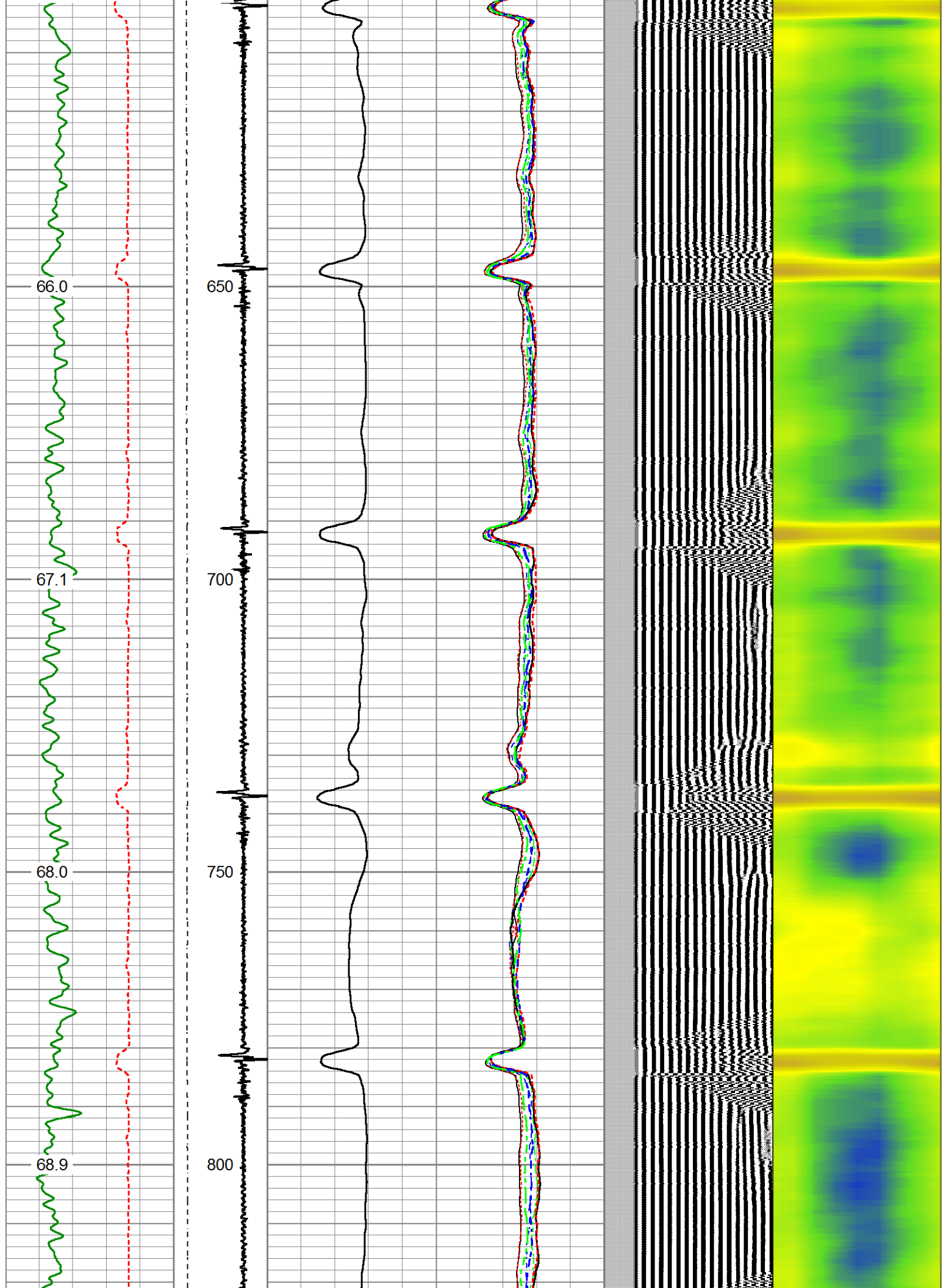
Travel Time	-3	CCL	1	0	AMP (mV)	100	-5	AMPS1	150	200	VDL (usec)	1200	1	Cement Map	8
343 (usec)	243	LTEN	0	AMPx10 (mV)	10	-5	AMPS2	150							
Gamma Ray	0	(lb/3000)				-5	AMPS3	150							
0 (GAPI)	200					-5	AMPS4	150							
TEMP						-5	AMPS5	150							
(degF)						-5	AMPS6	150							
						-5	AMPS7	150							
						-5	AMPS8	150							

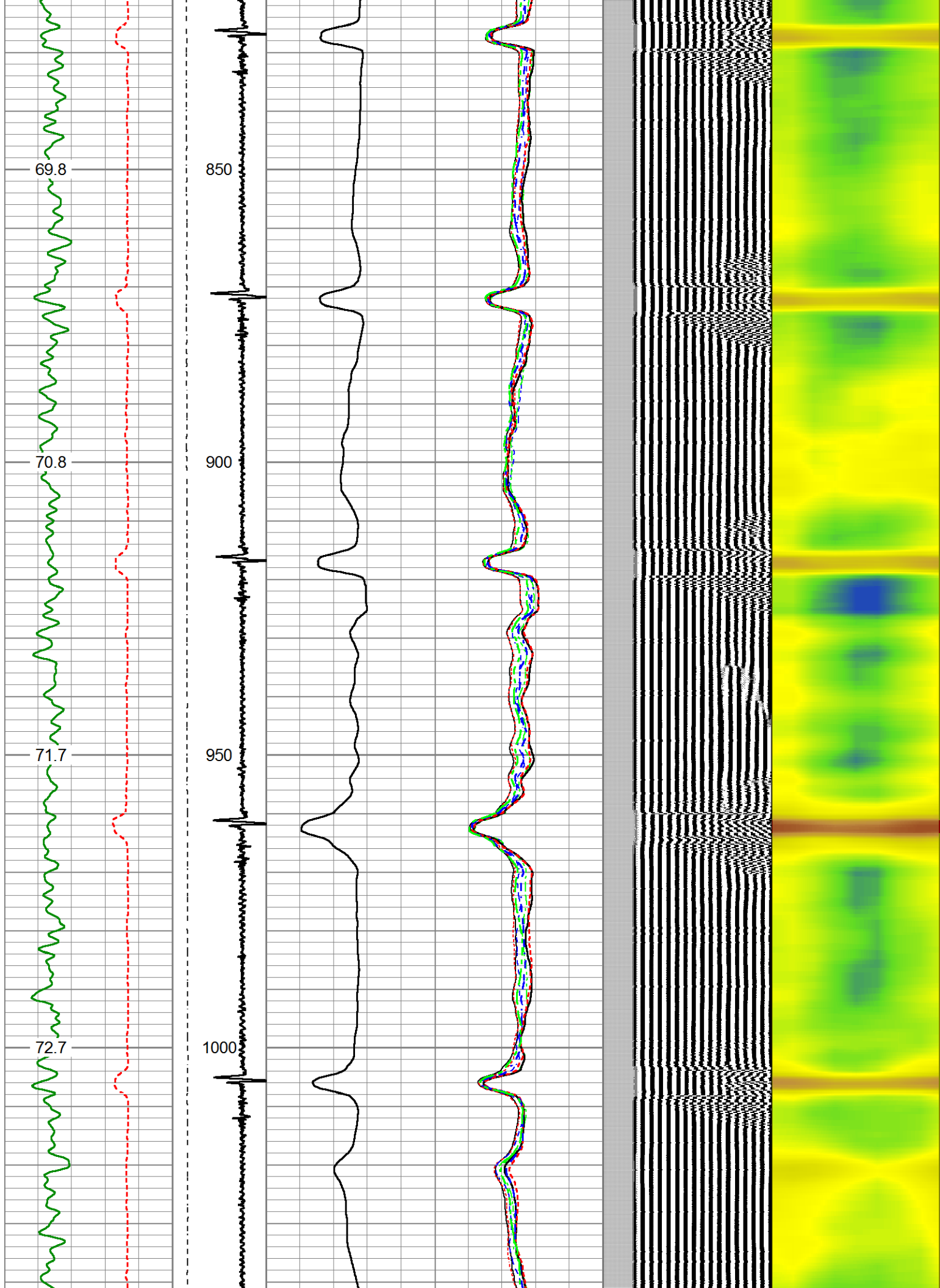




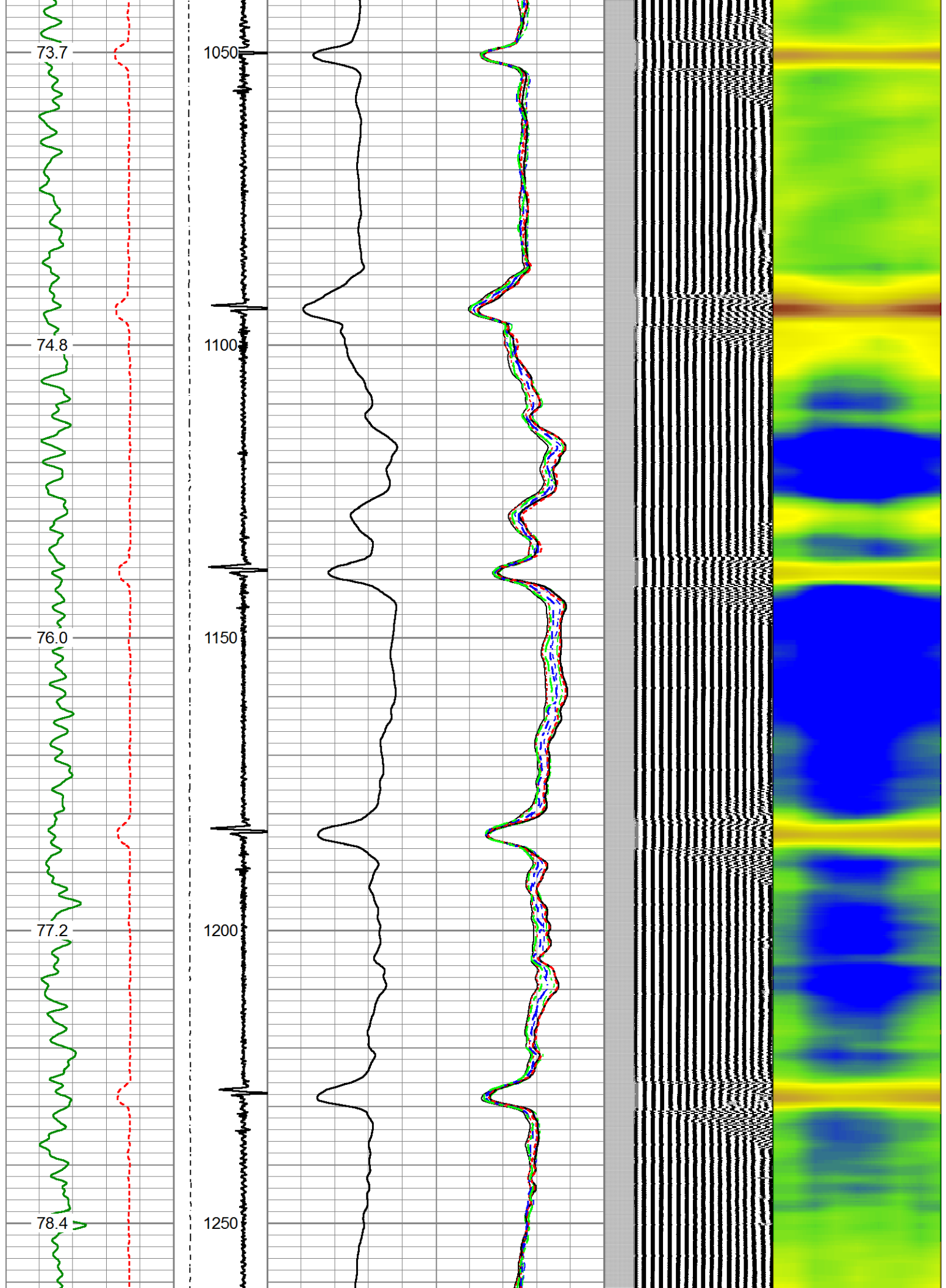


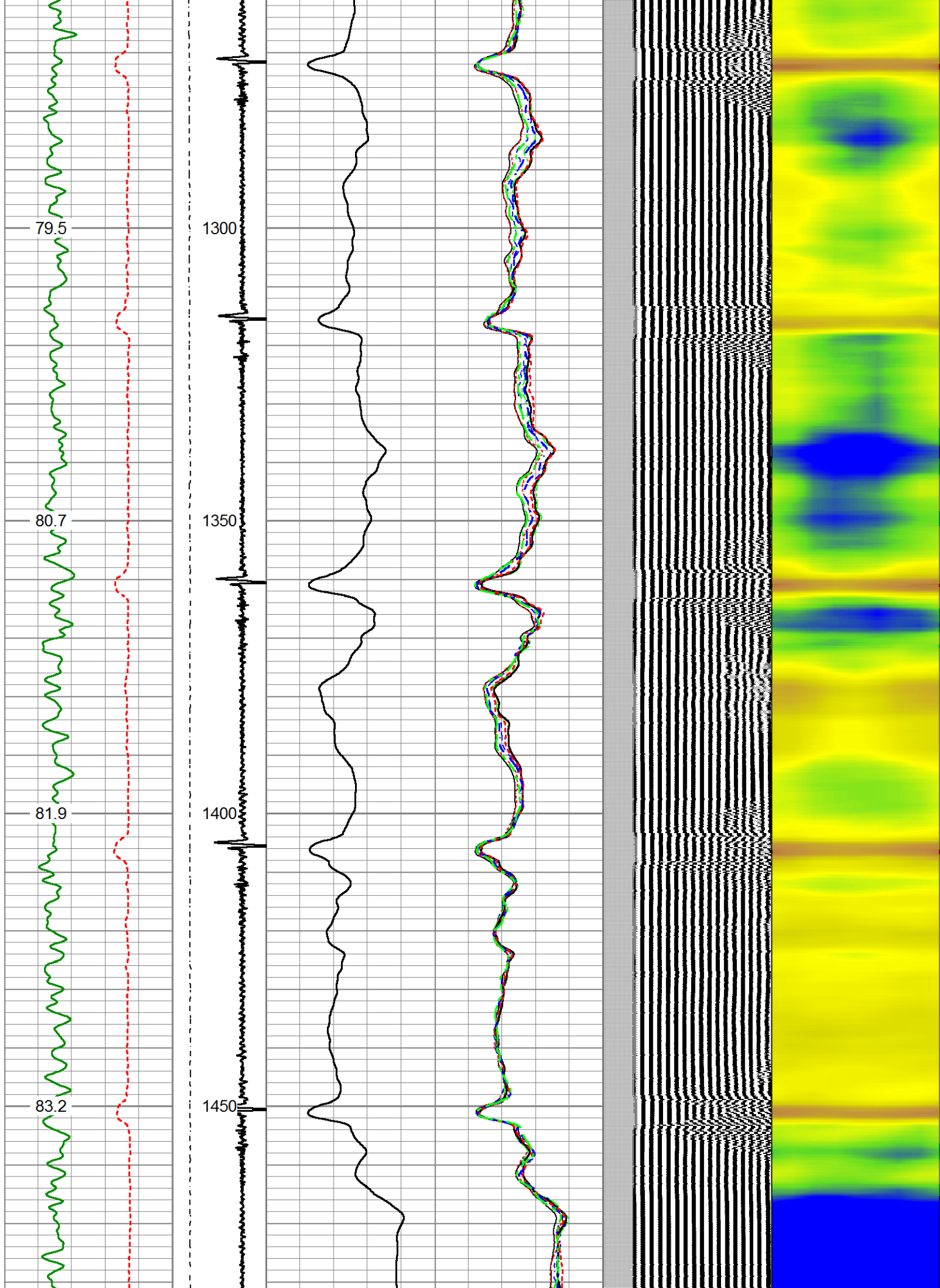




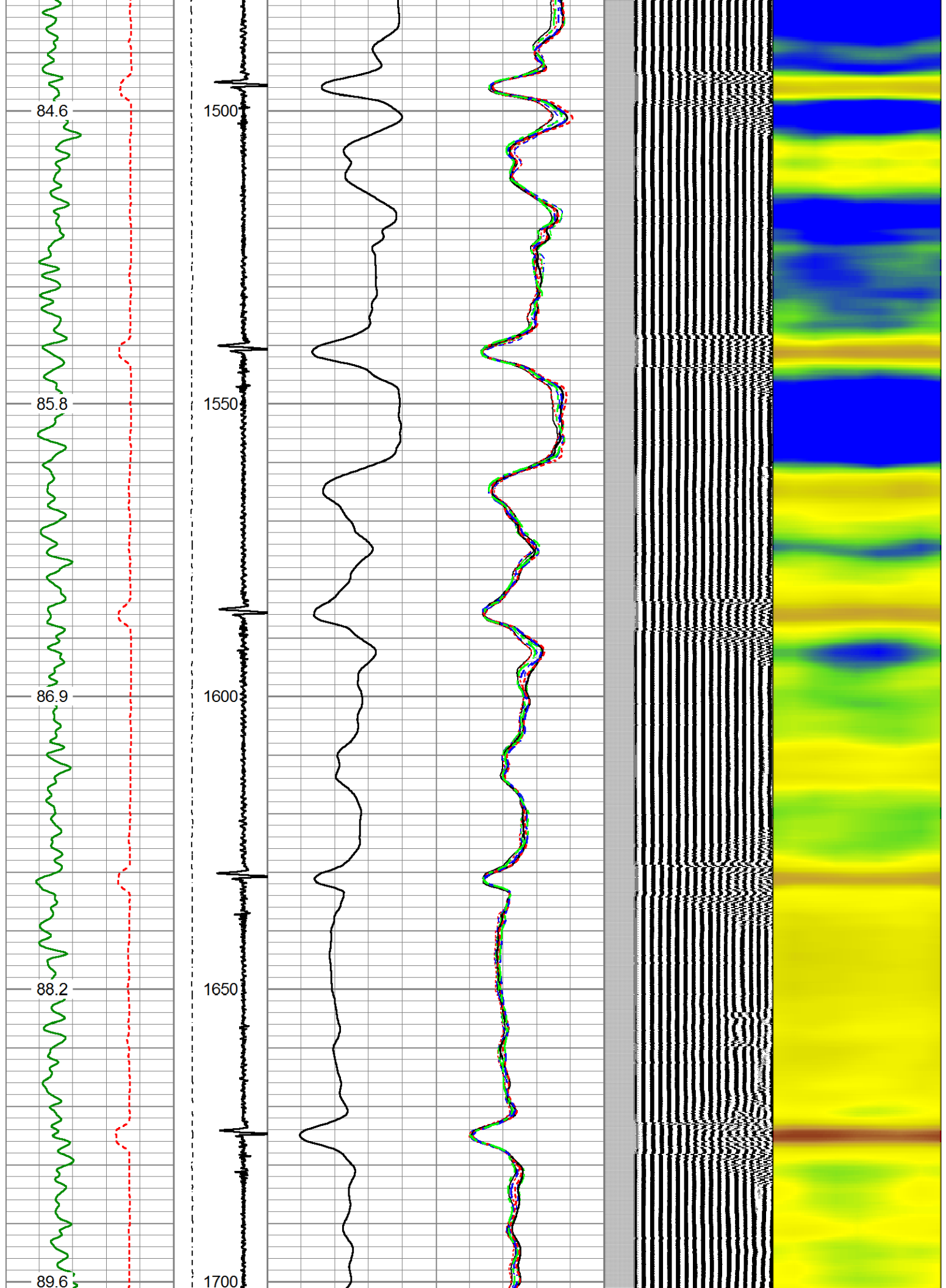


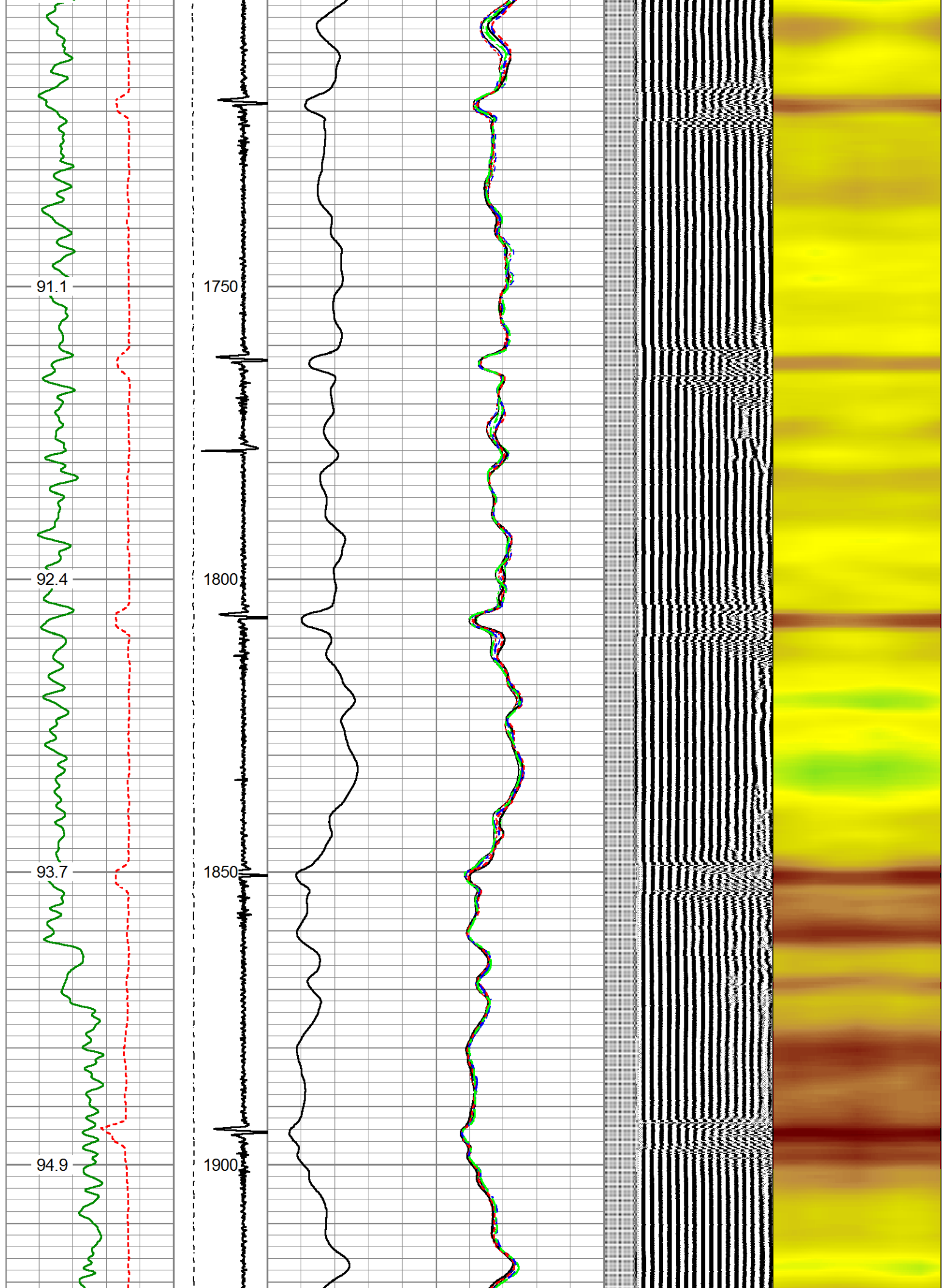


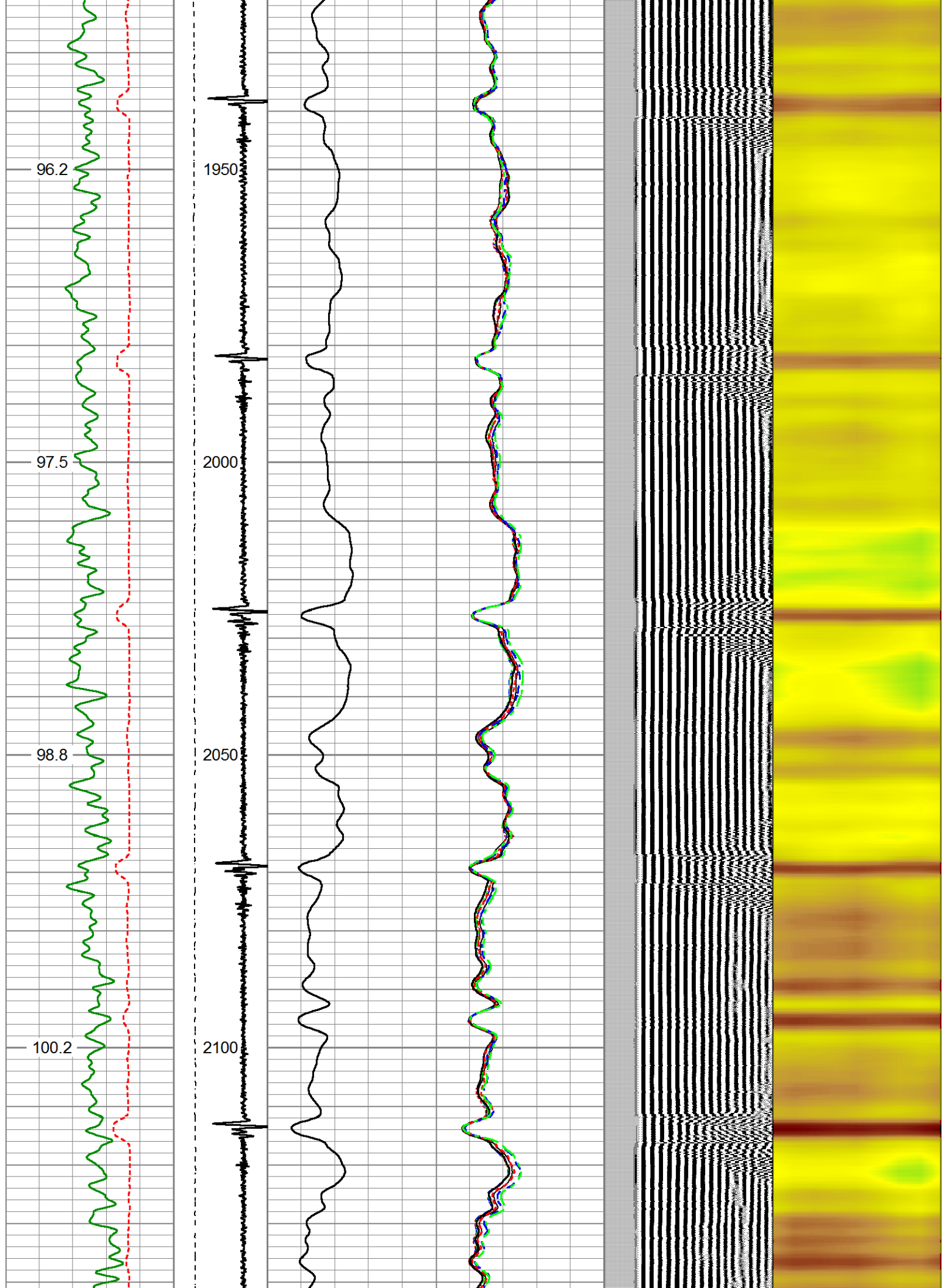




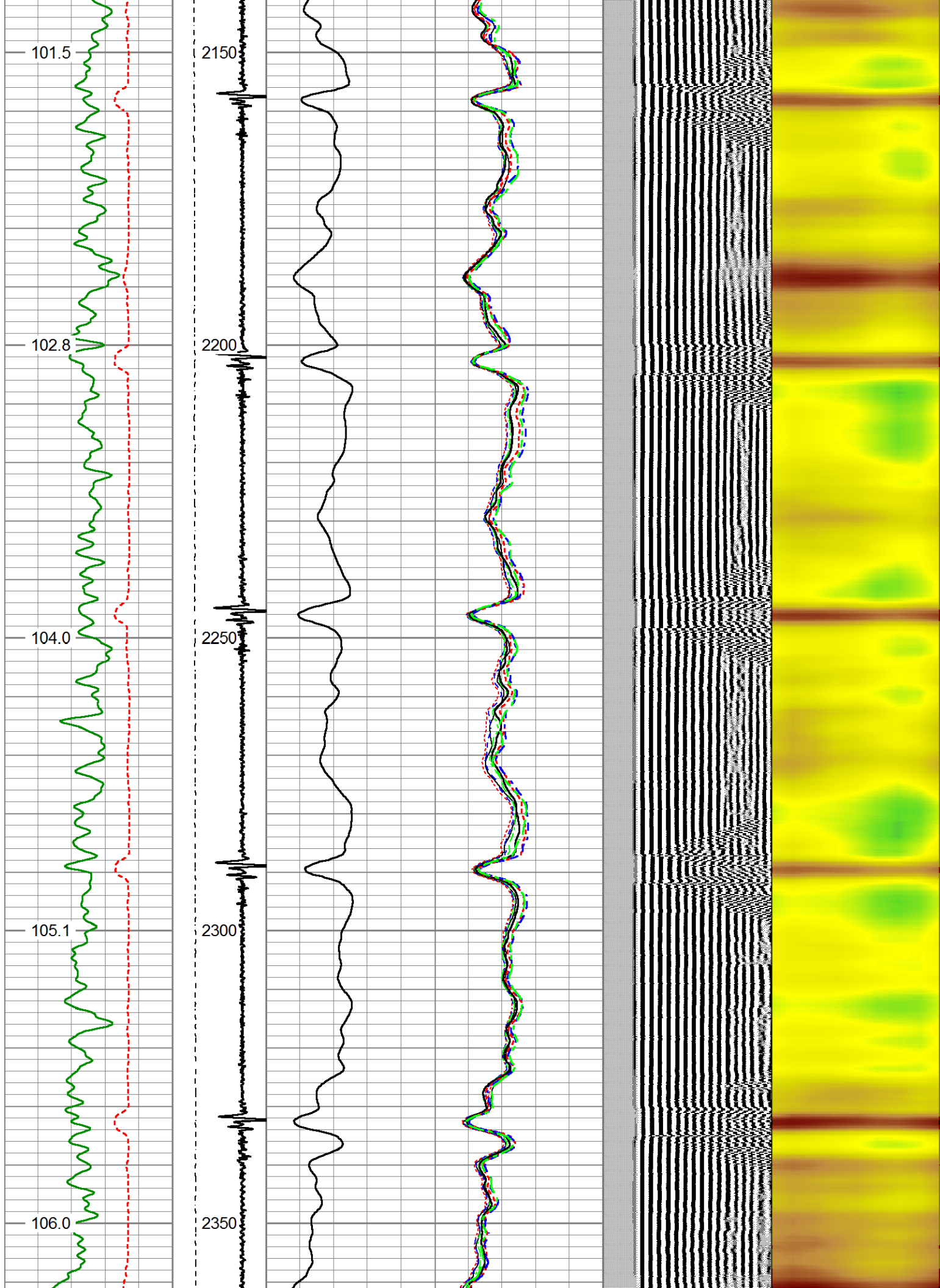


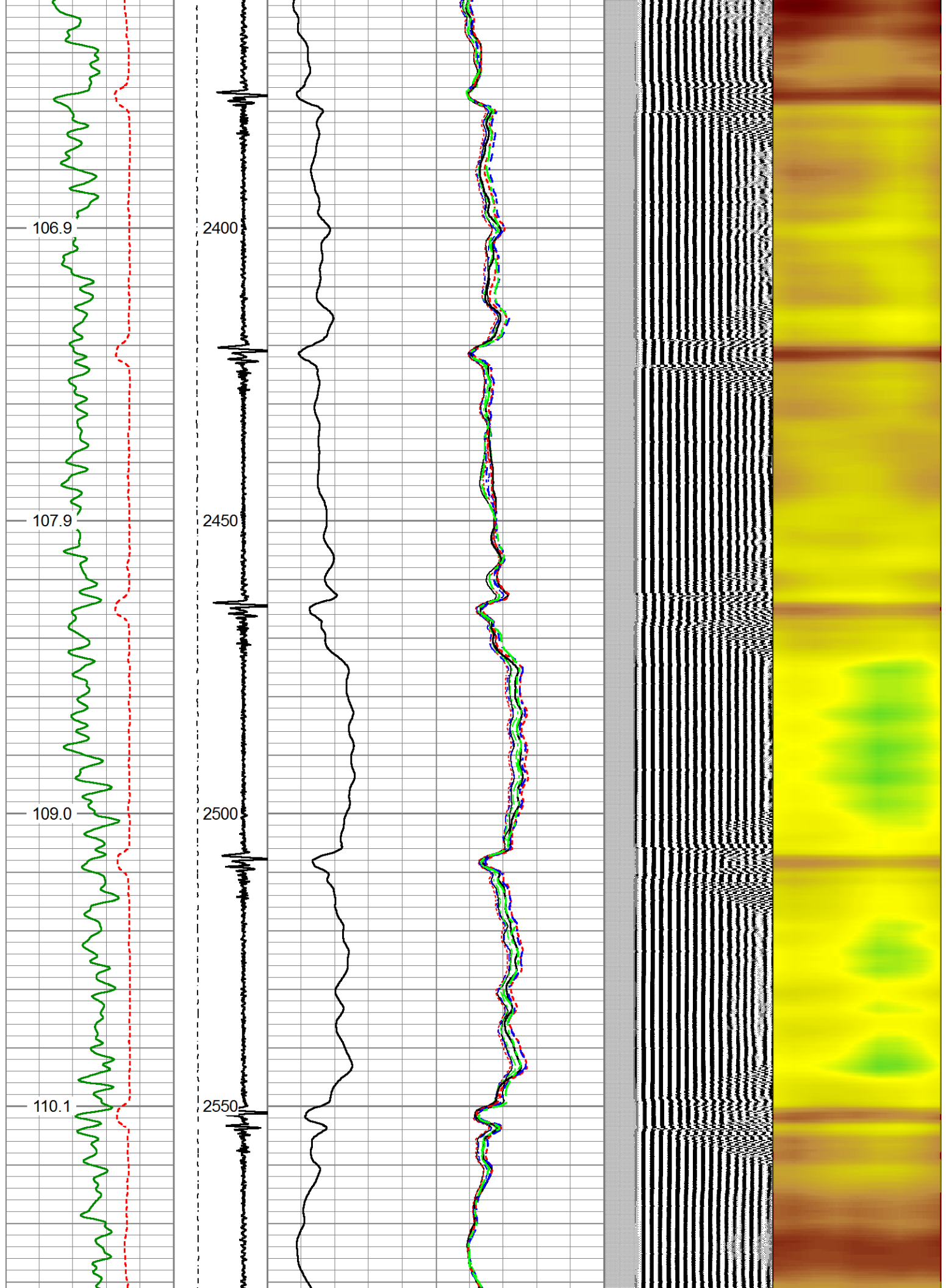


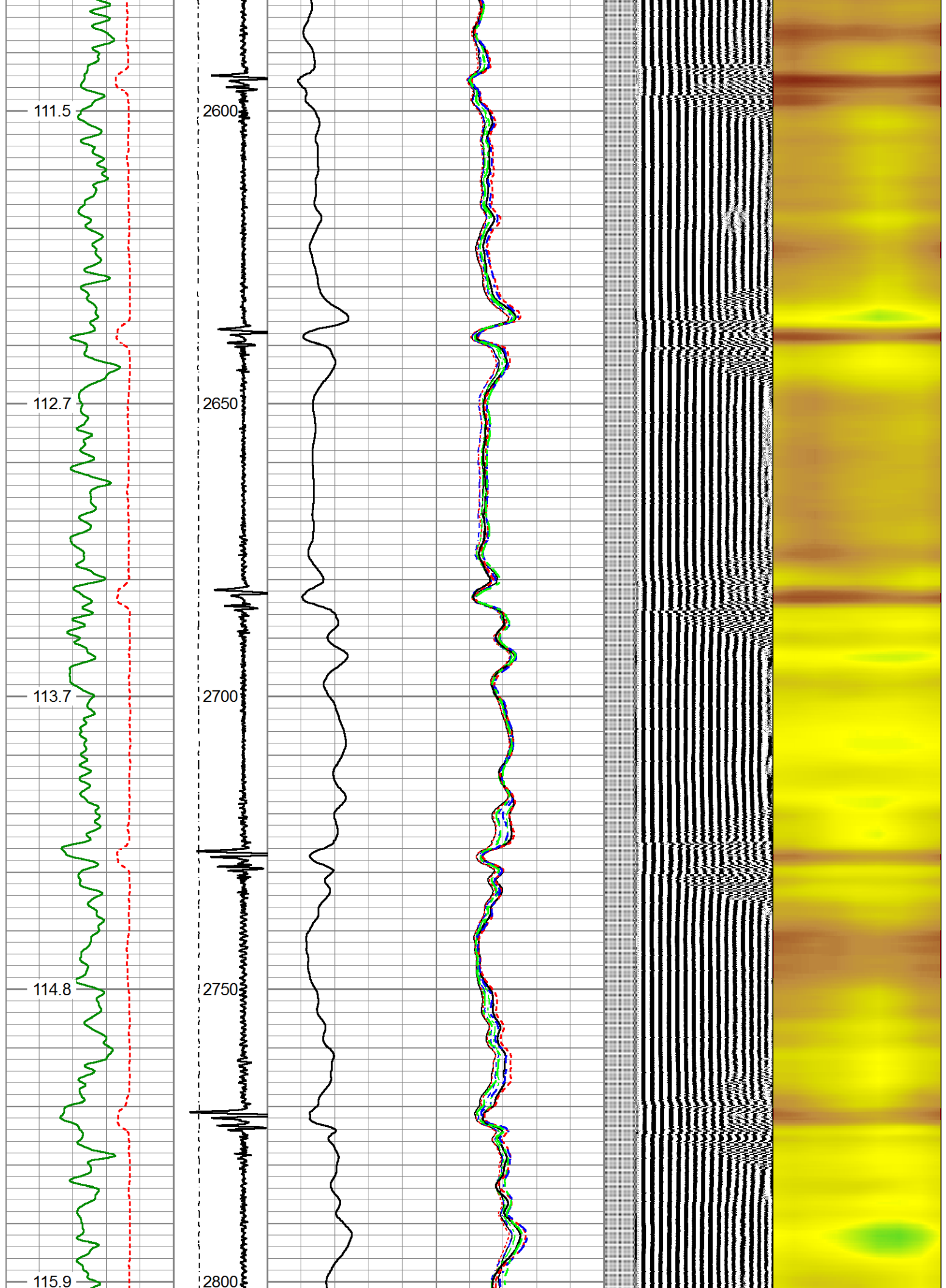




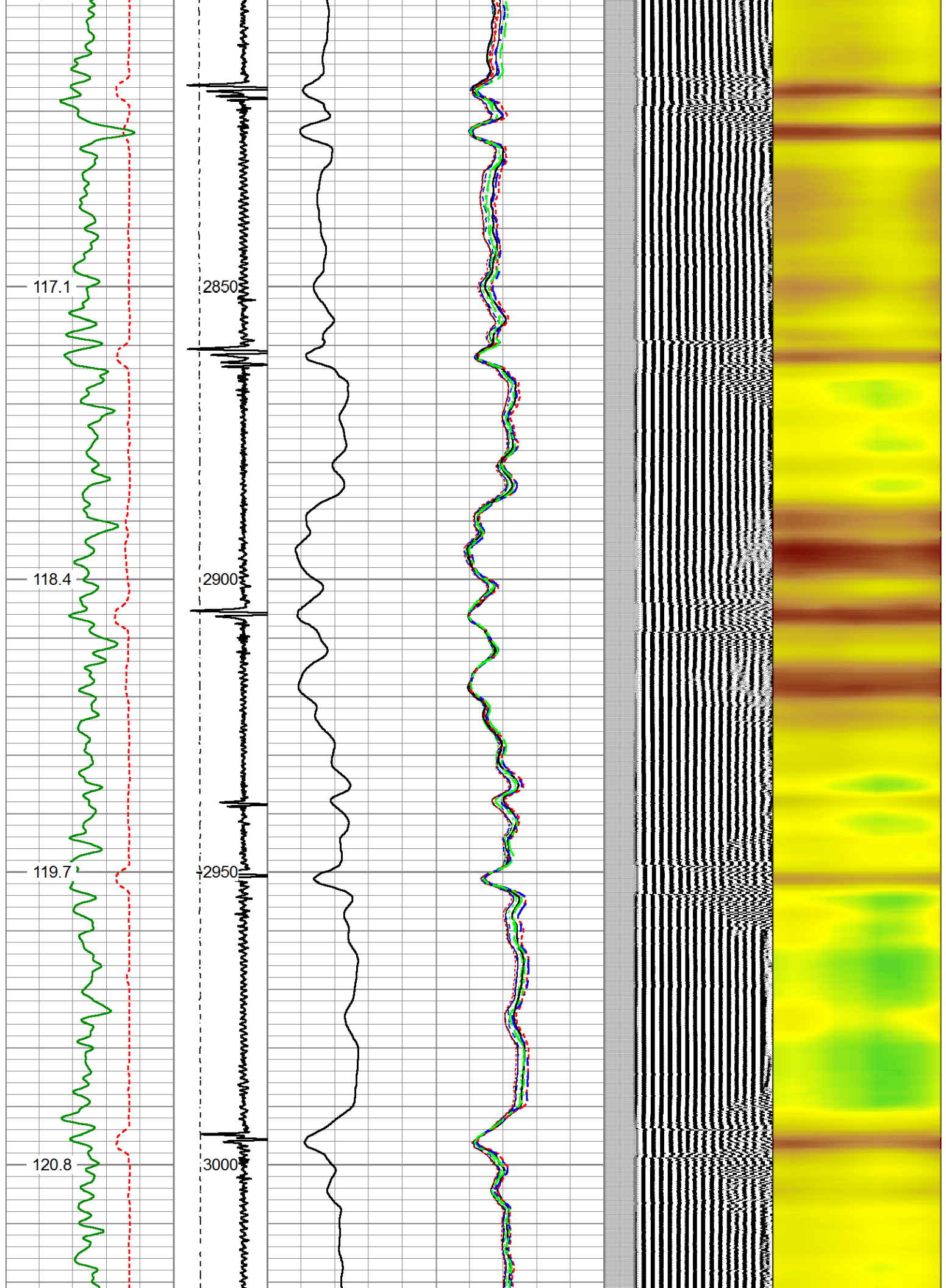


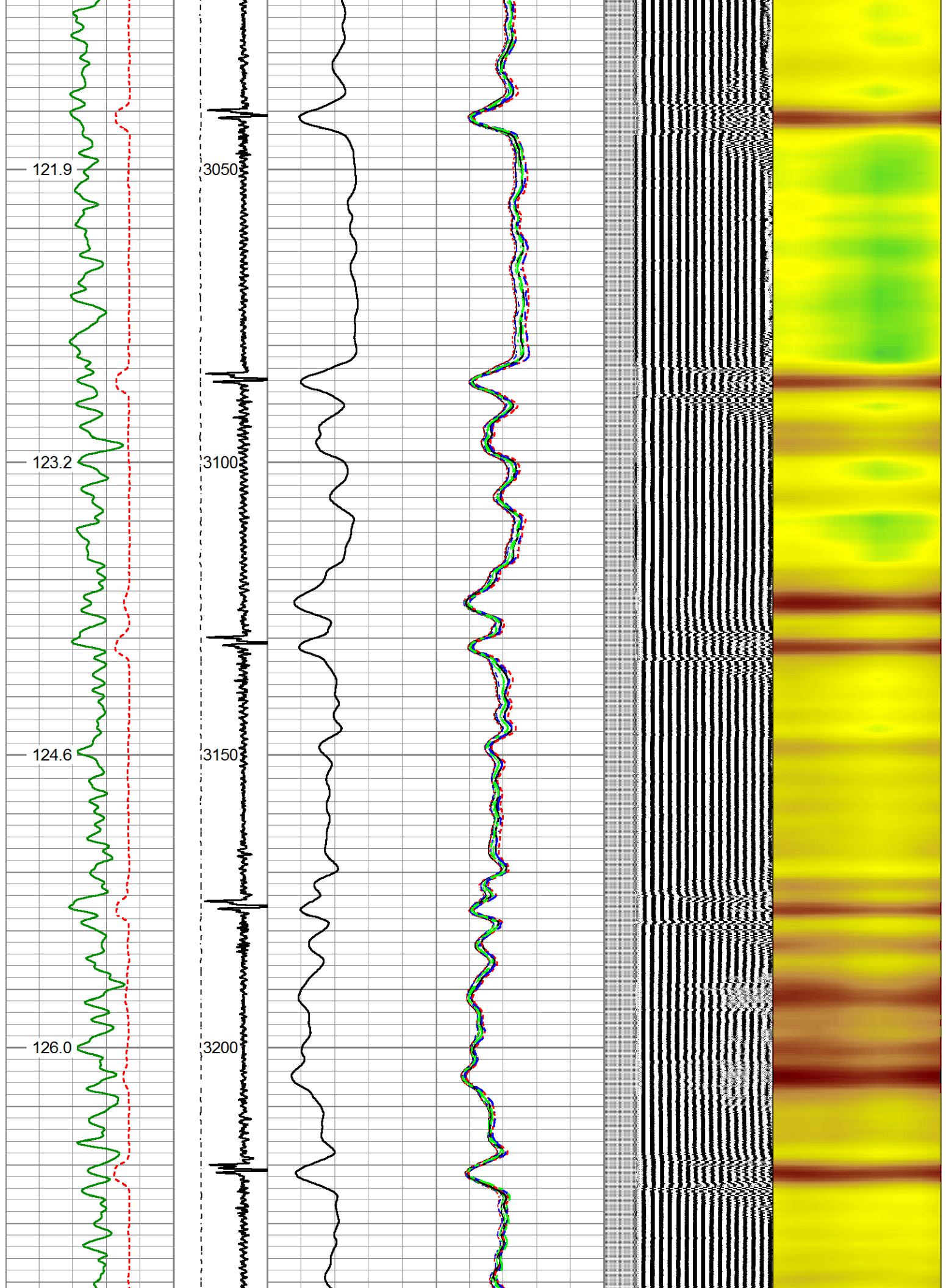


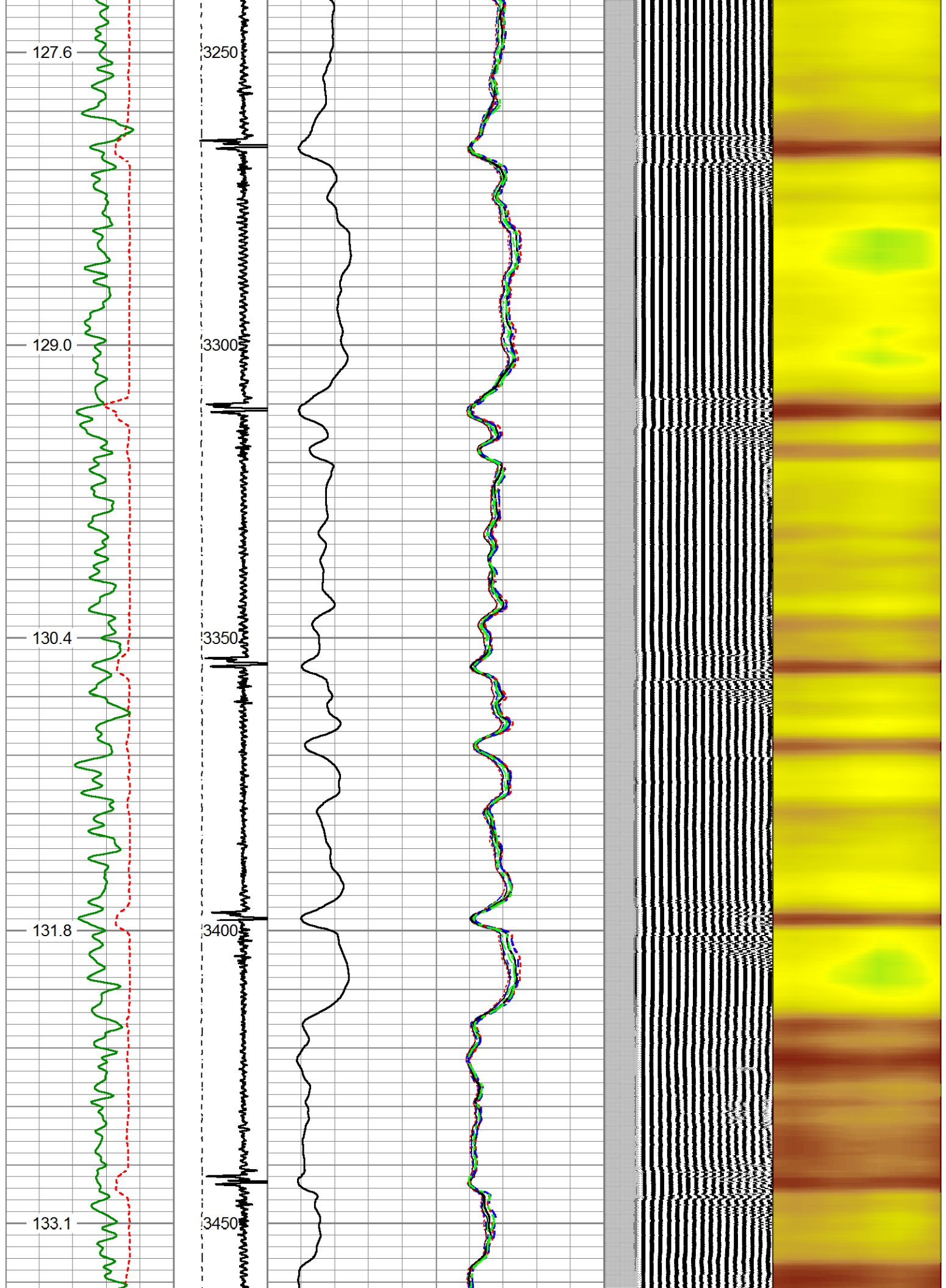




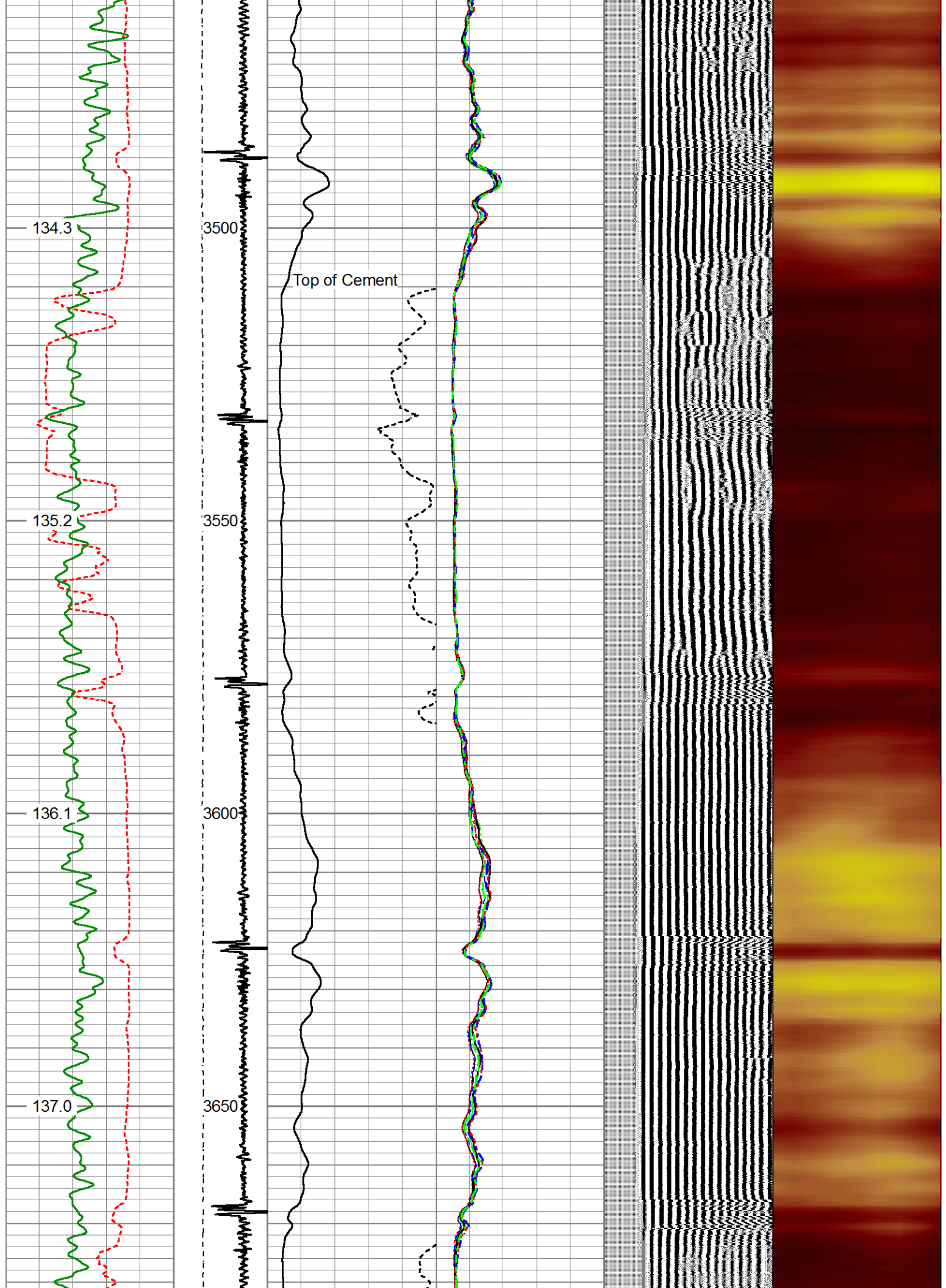


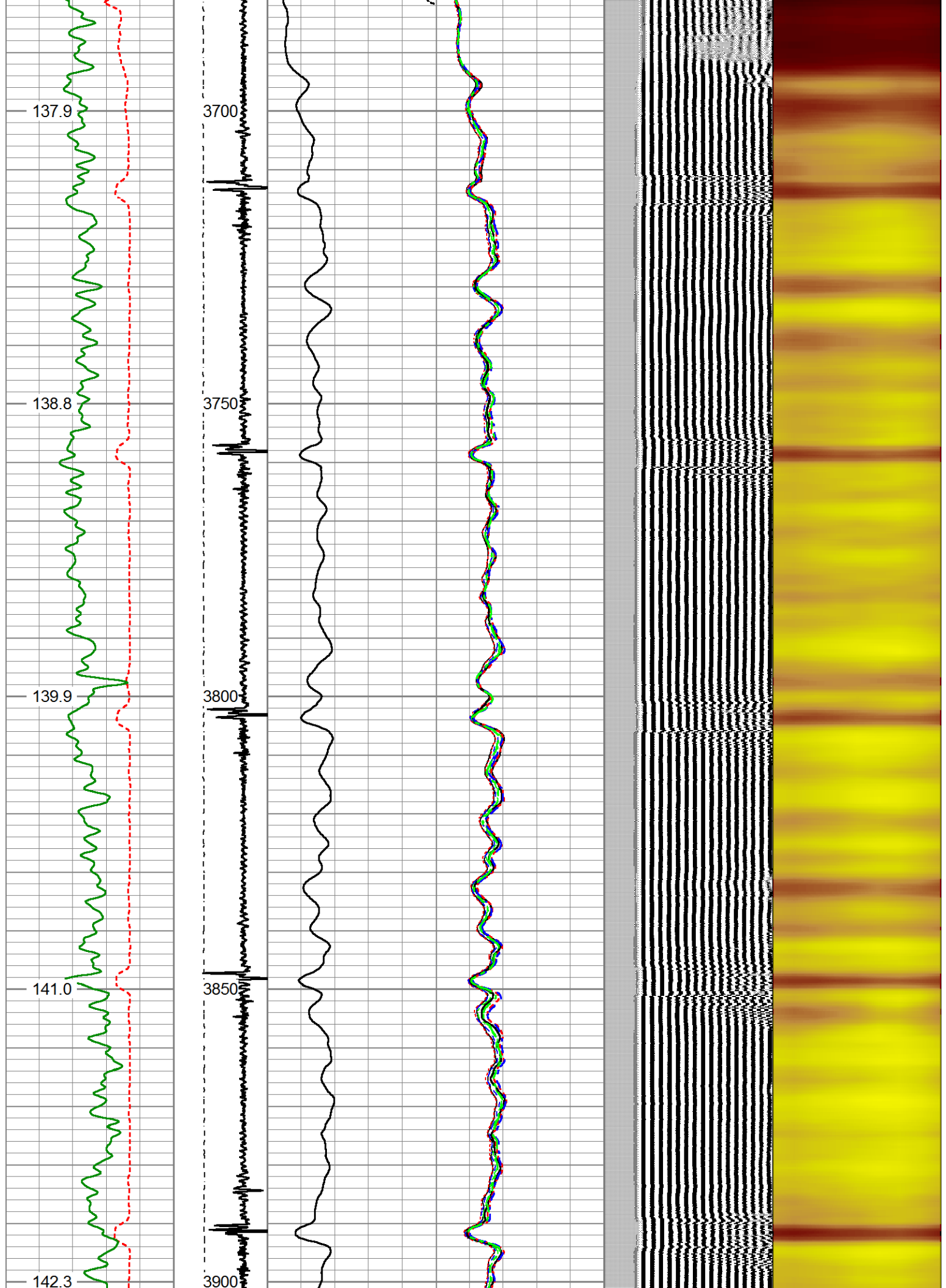


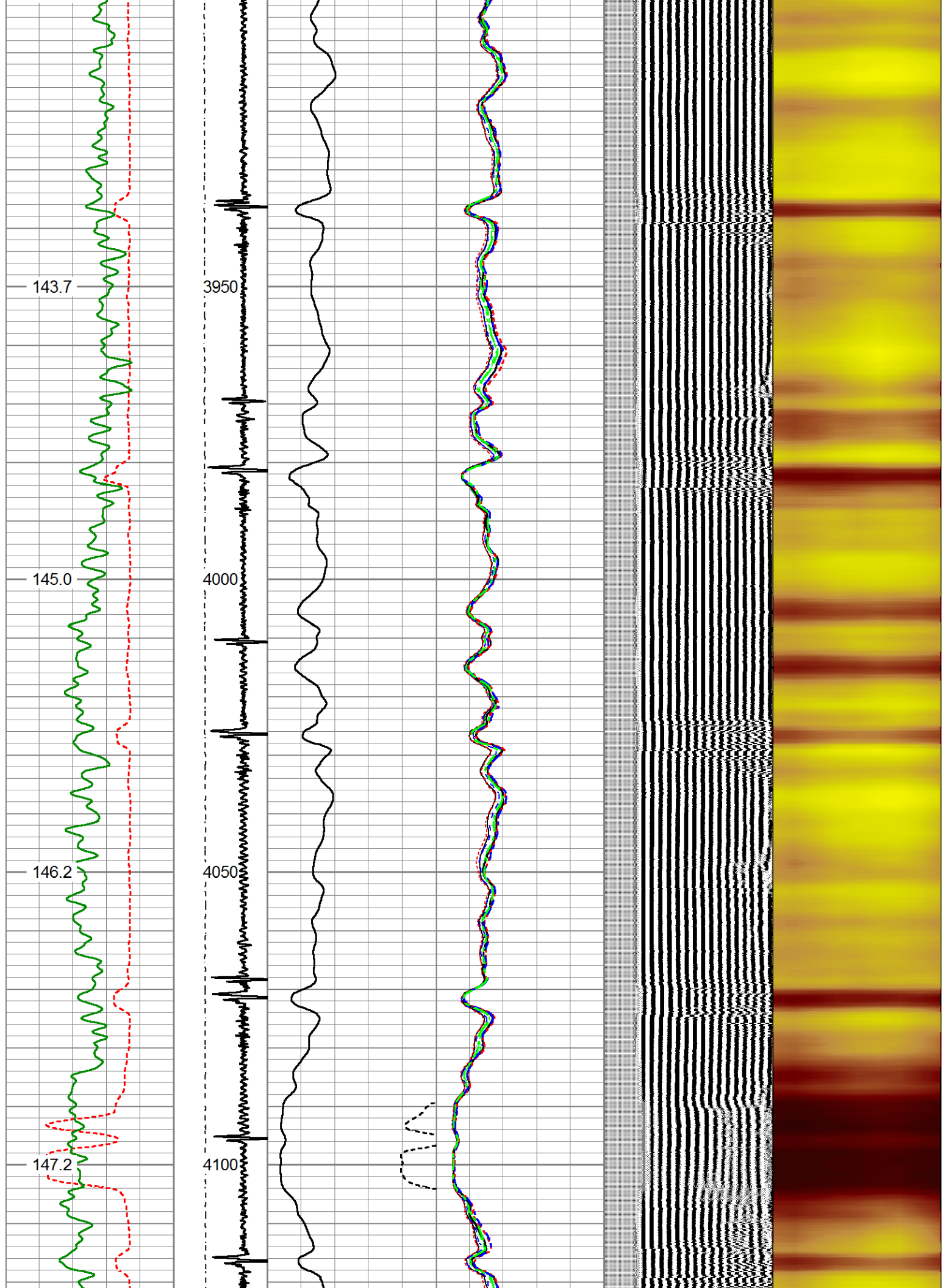




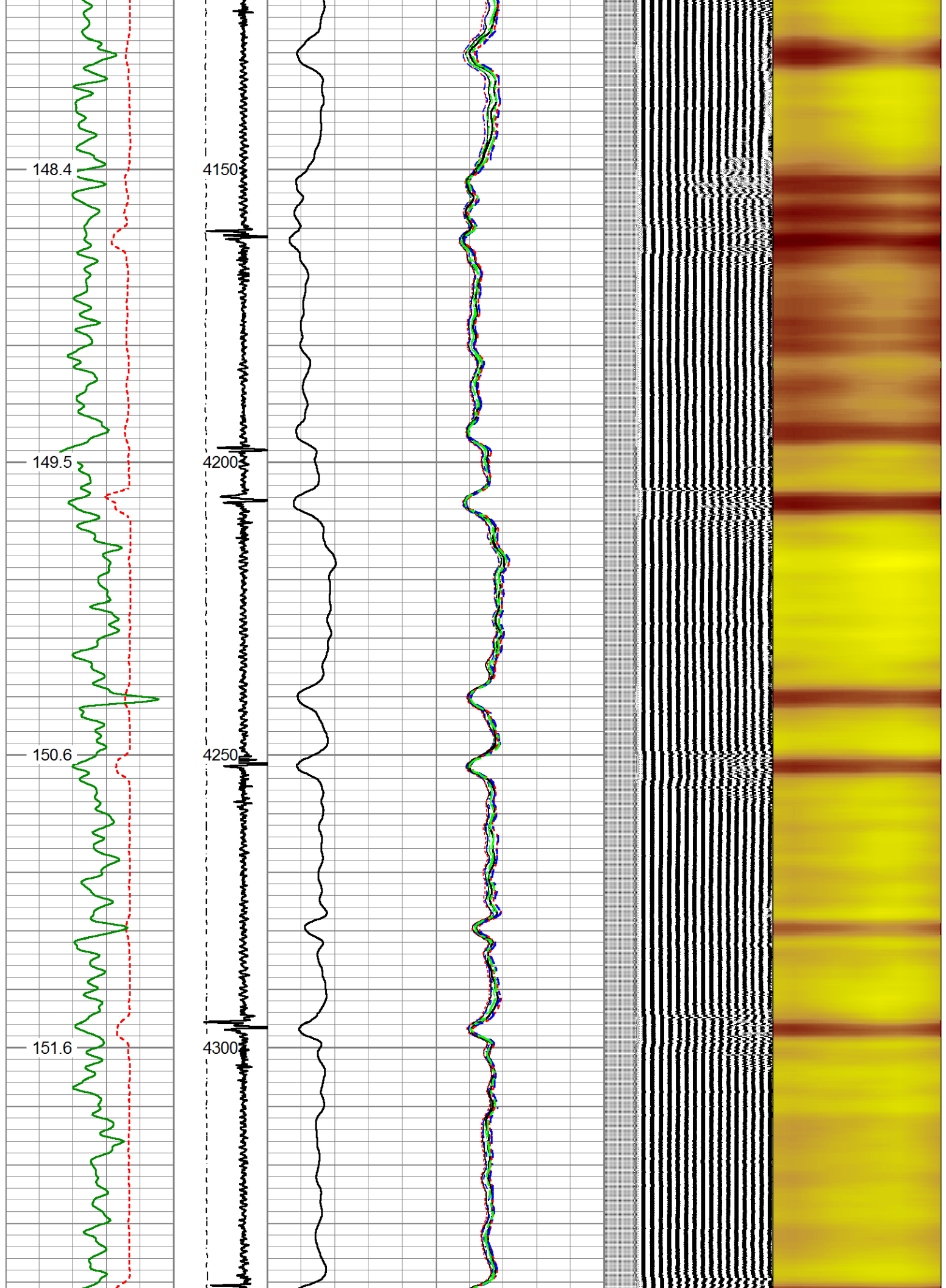


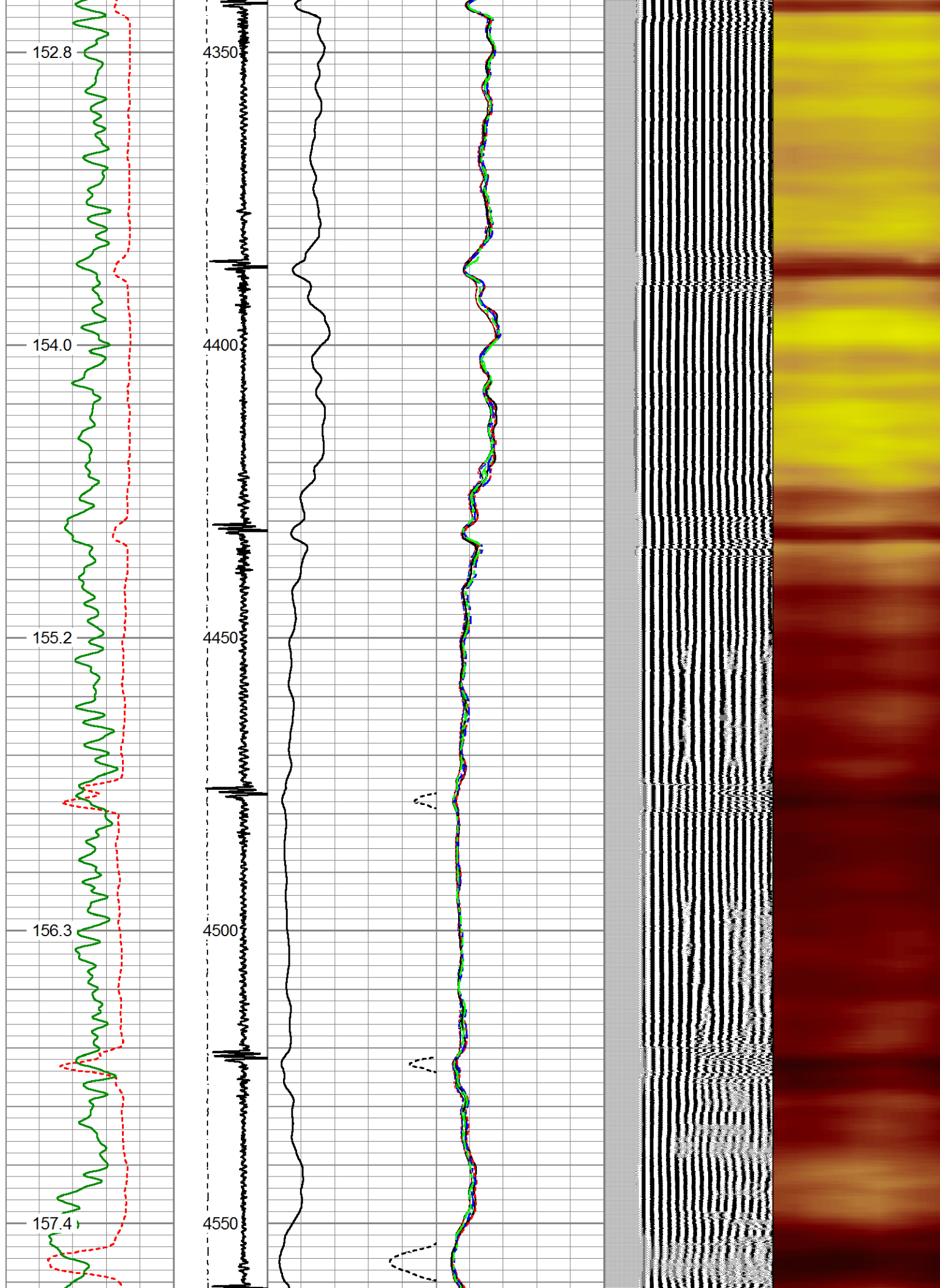


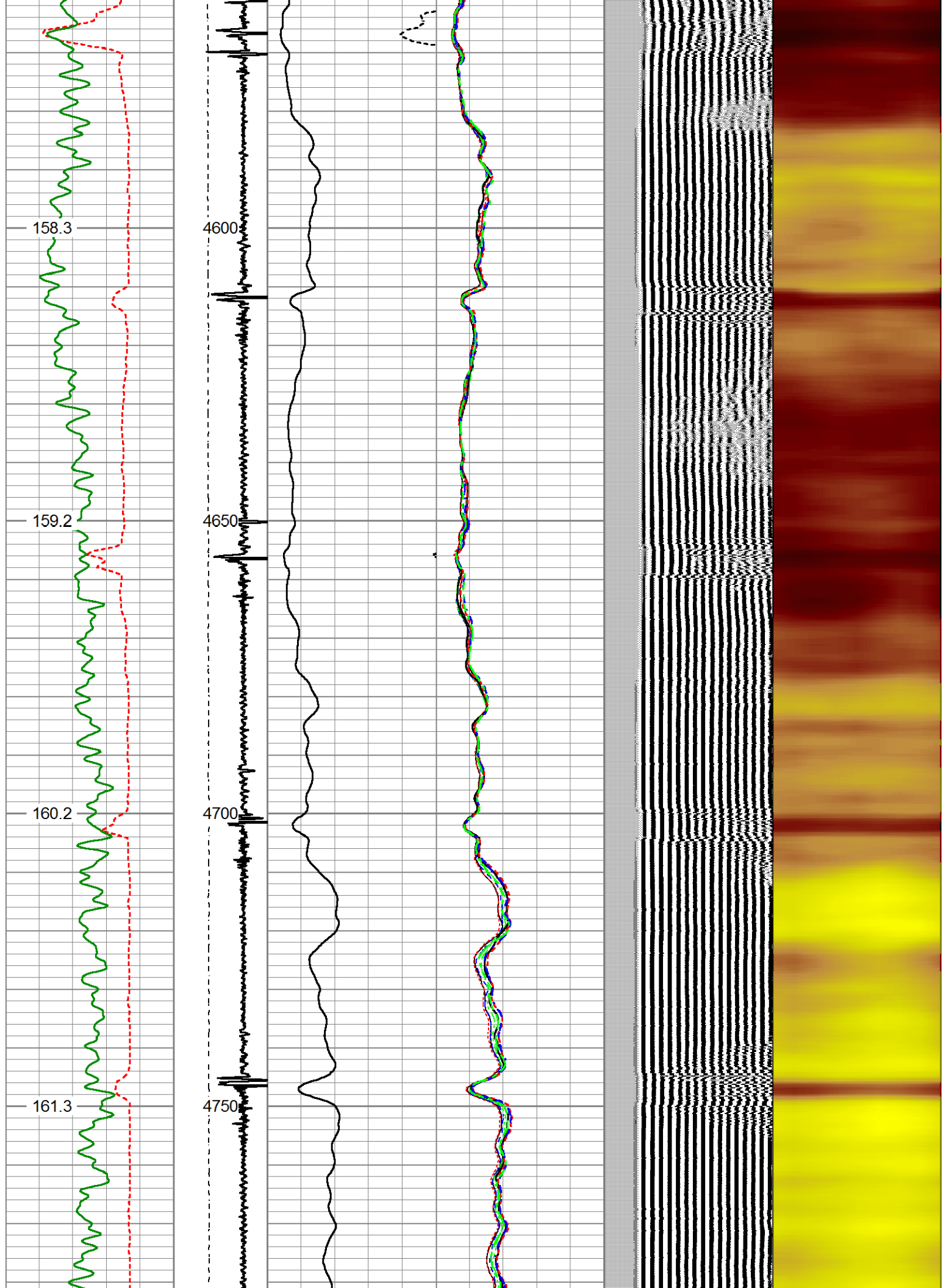




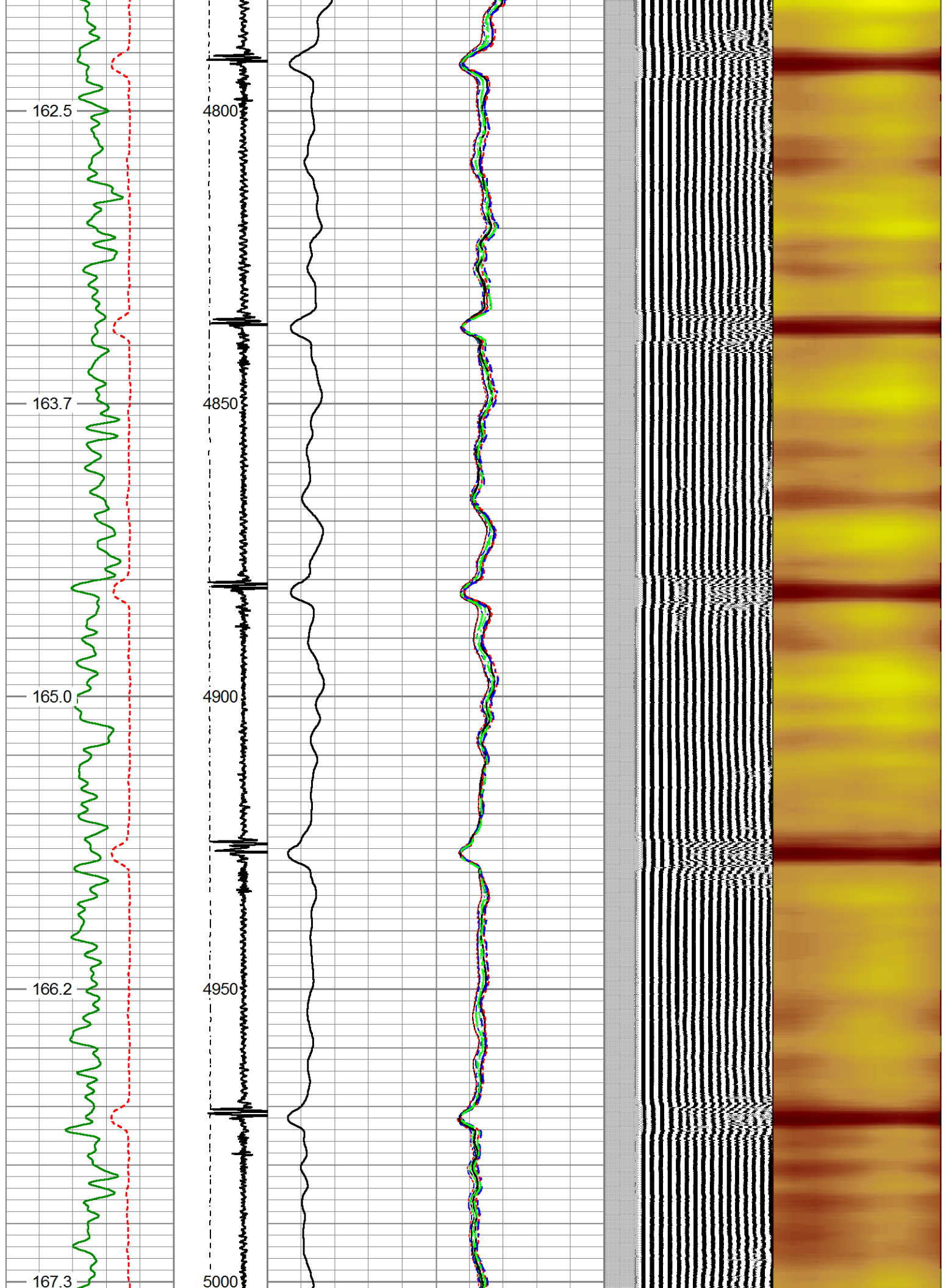


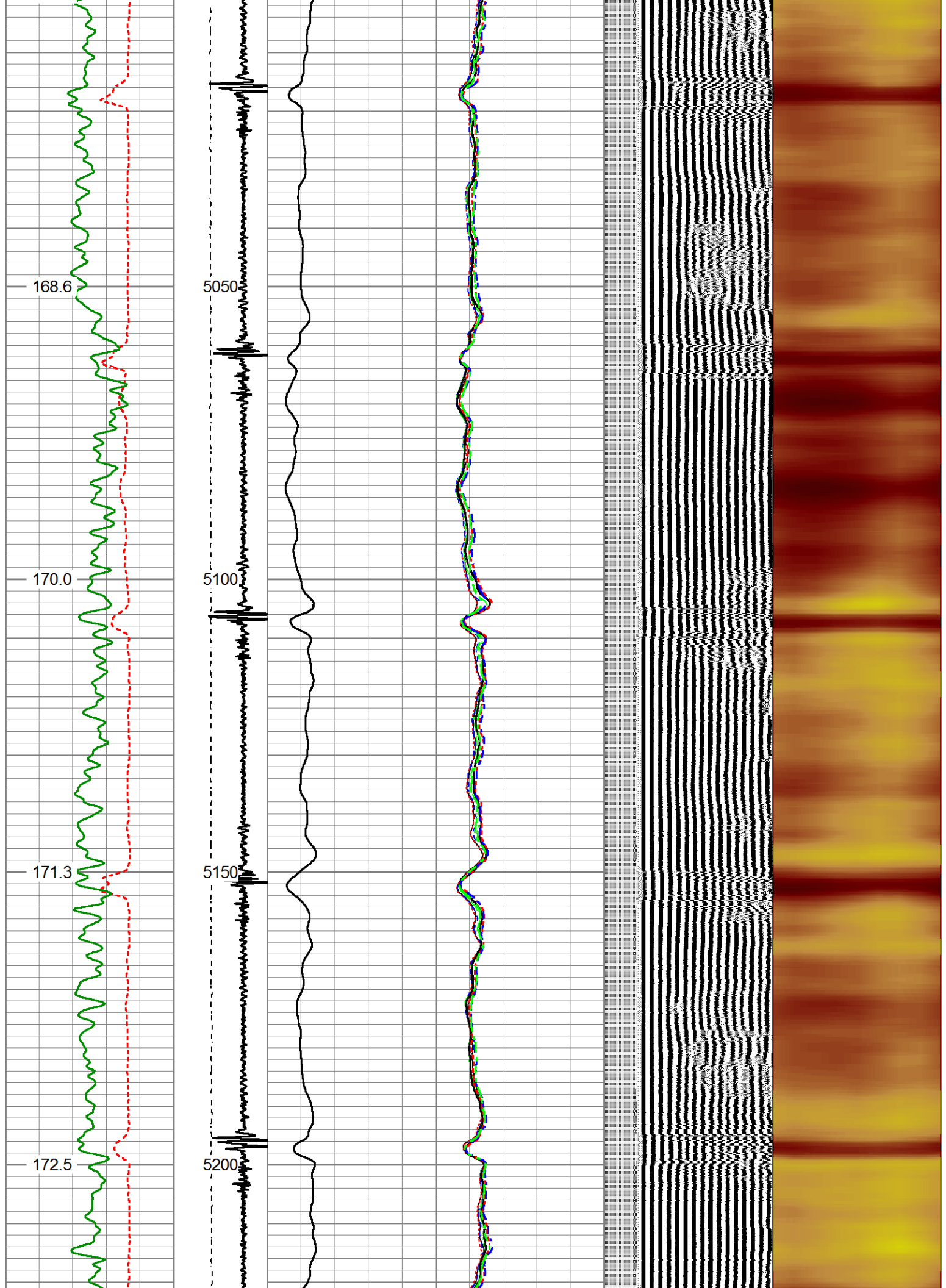


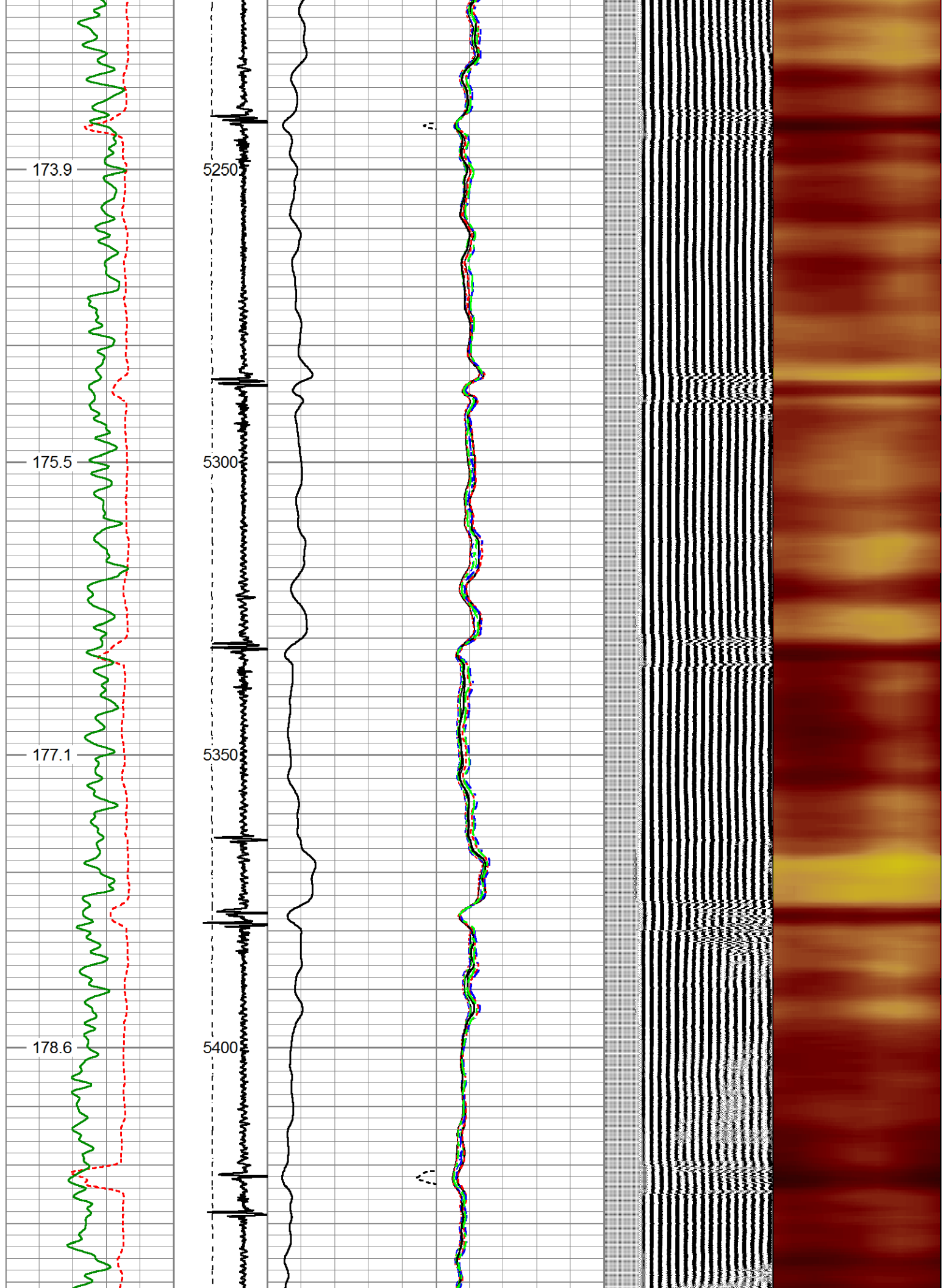




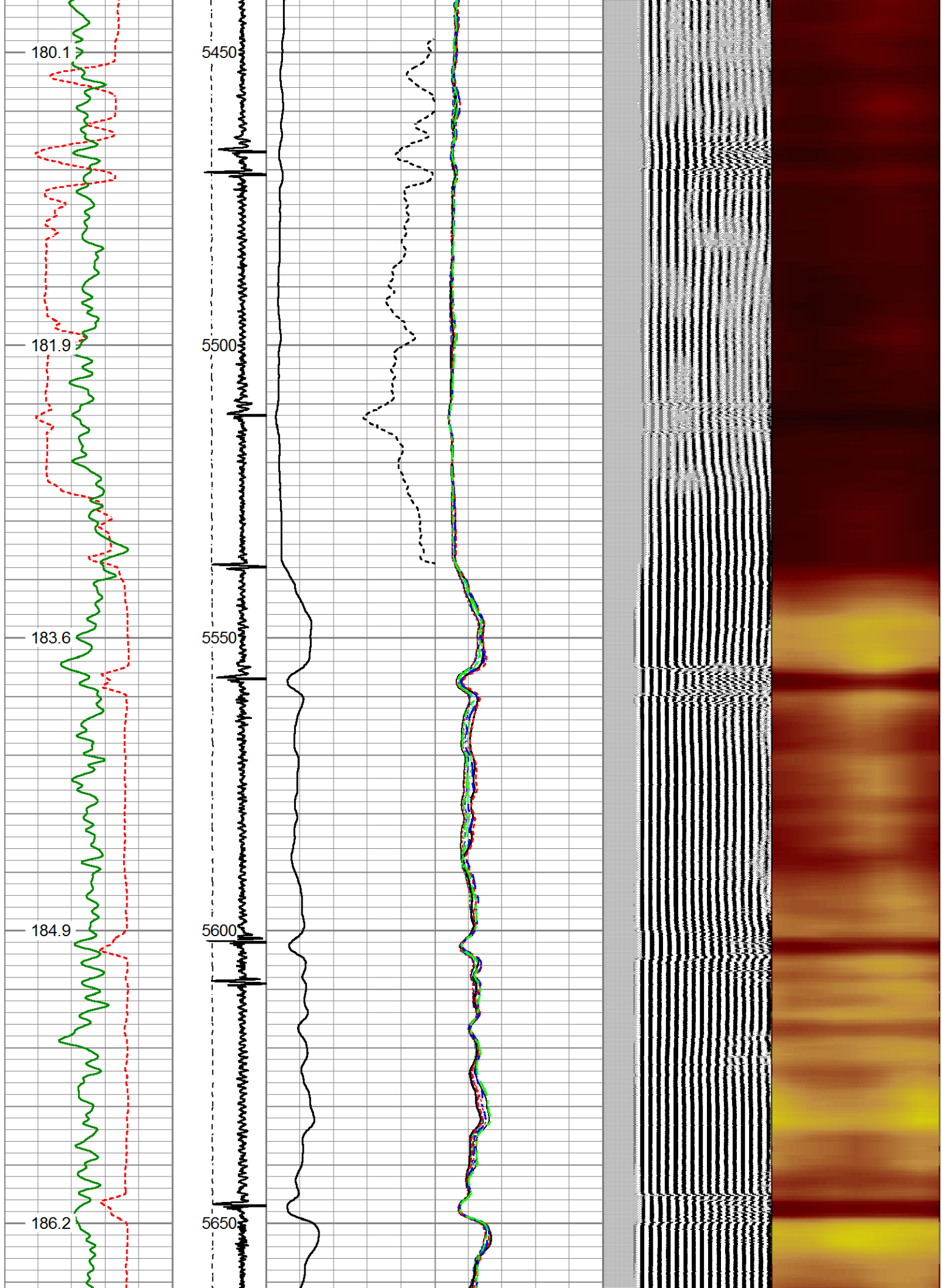


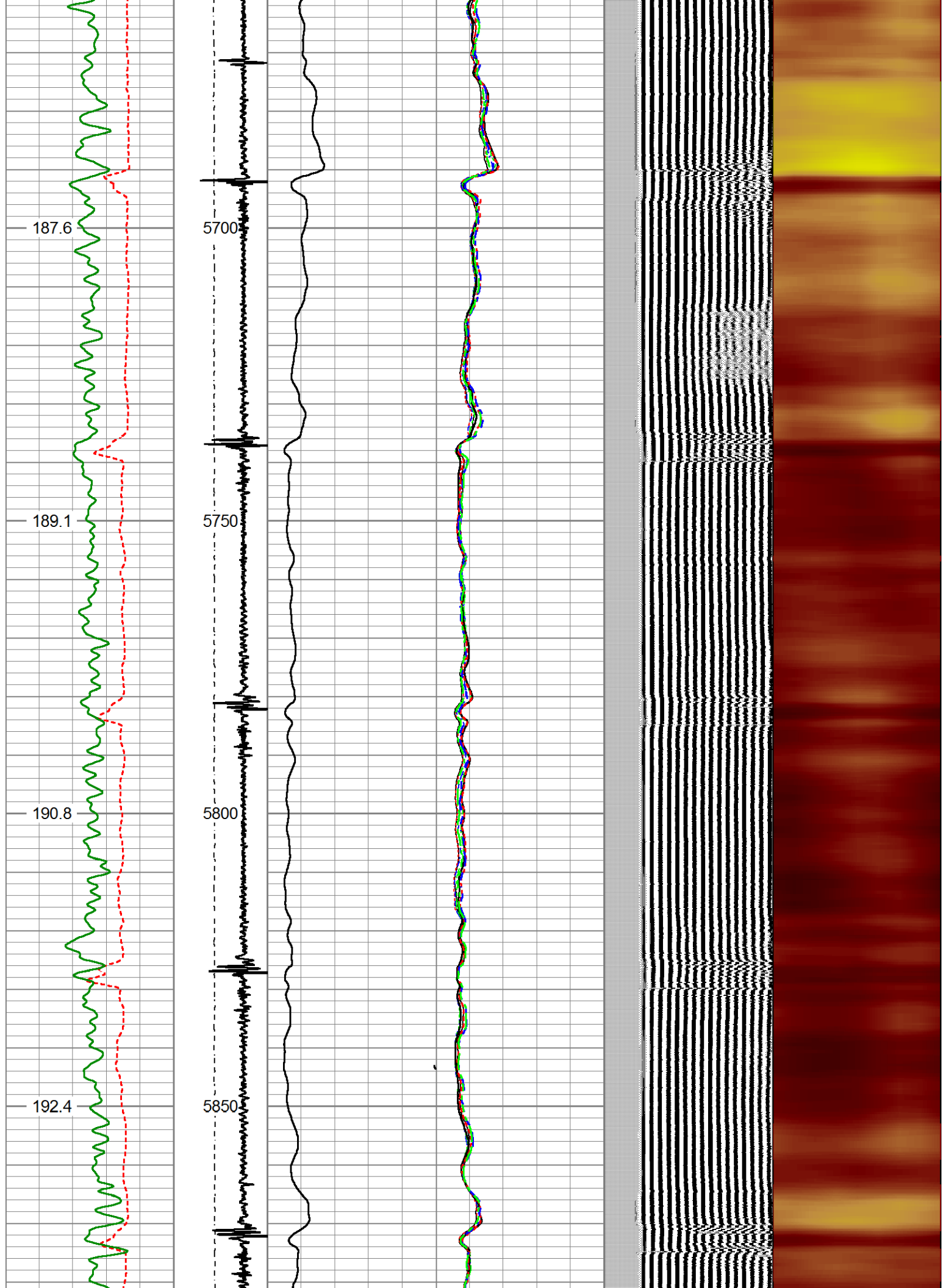


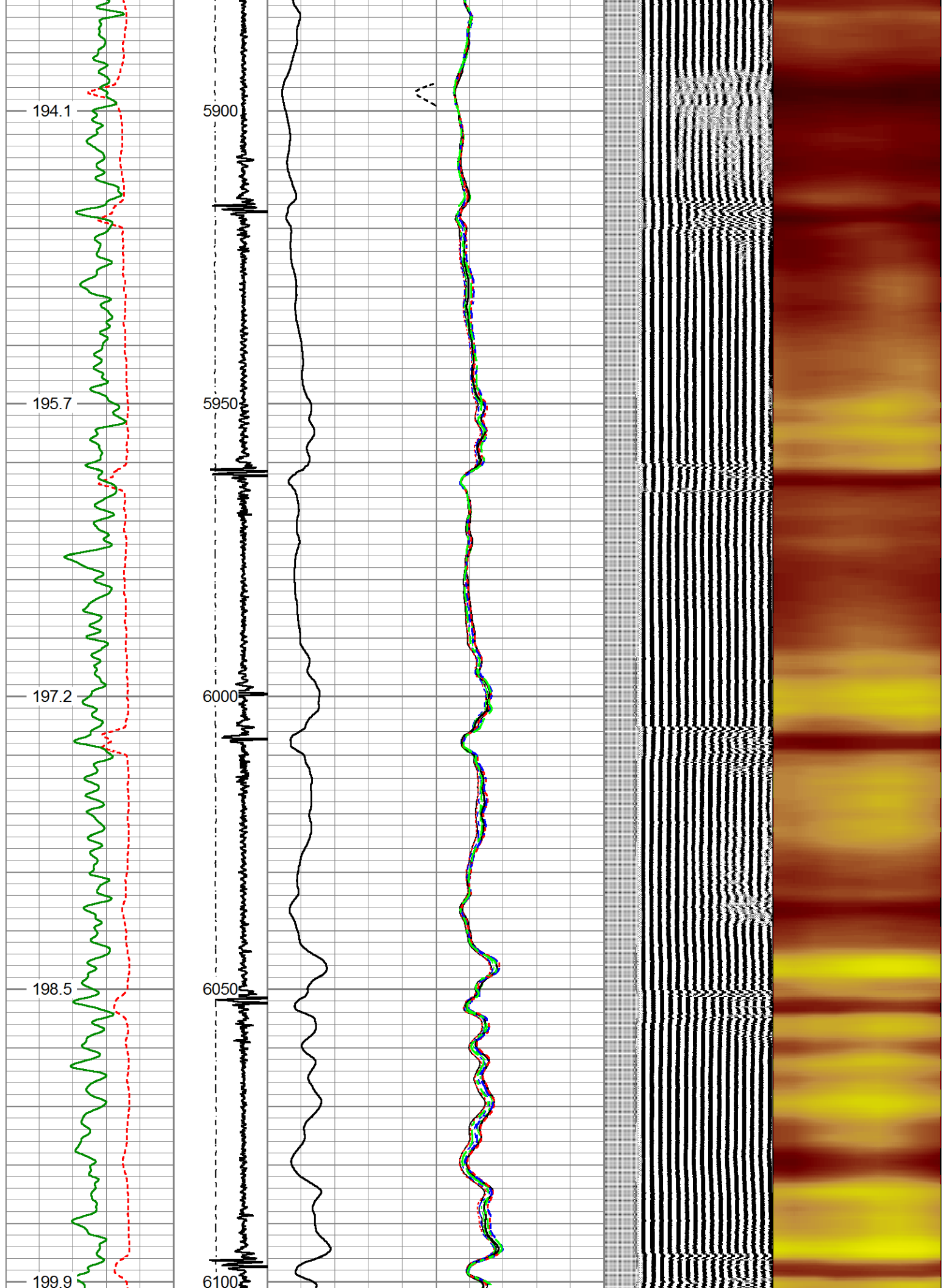




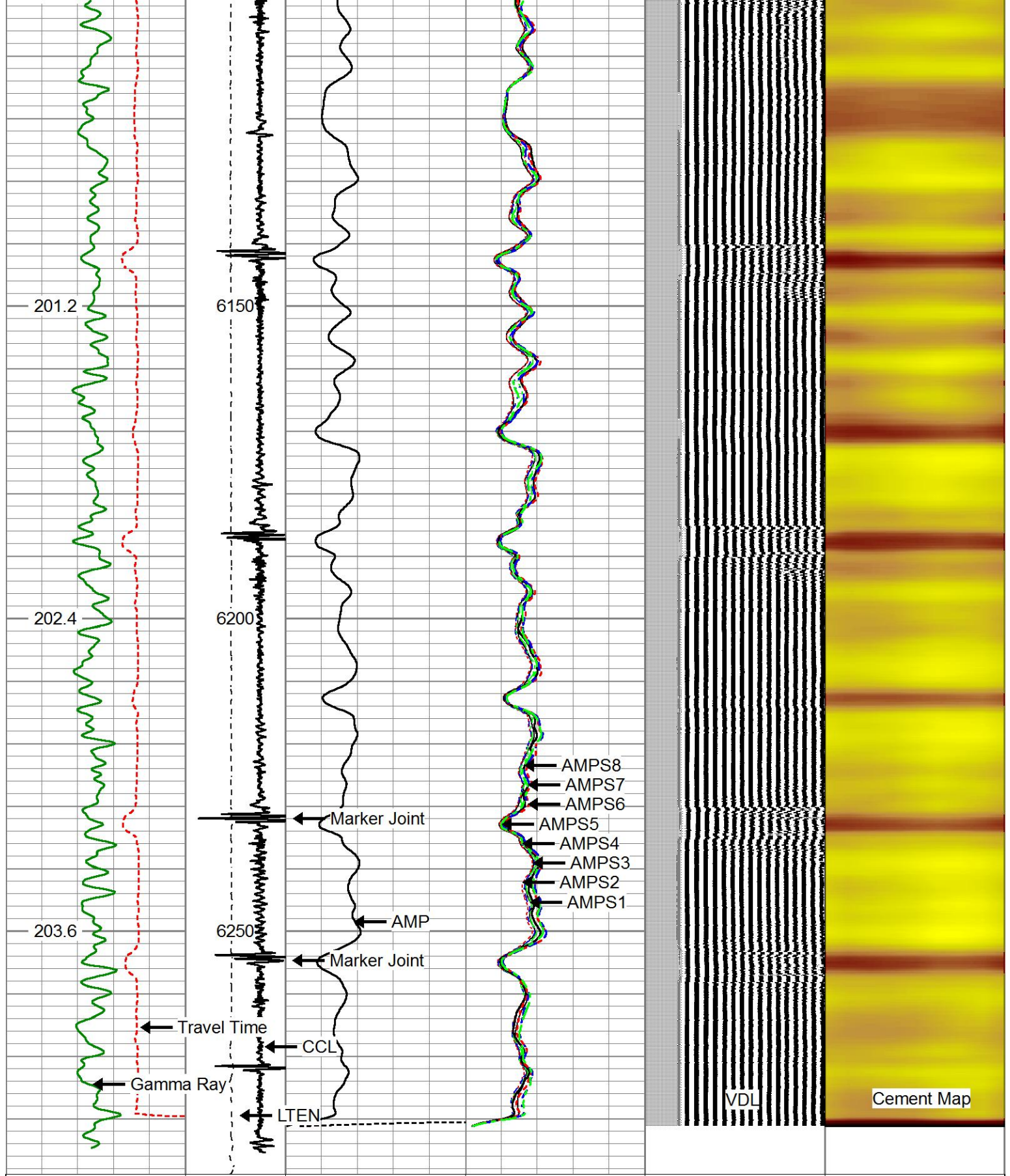












Travel Time	-3	CCL	1	0	AMP (mV)	100	-5	AMPS1	150	200	VDL (usec)	1200	1	Cement Map	8
343 (usec)	243	LTEN	0	AMPx10 (mV)	10	-5	AMPS2	150							
Gamma Ray	0	(lb 3000)				-5	AMPS3	150							
0 (GAPI)	200					-5	AMPS4	150							
TEMP						-5	AMPS5	150							
(degF)						-5	AMPS6	150							
						-5	AMPS7	150							



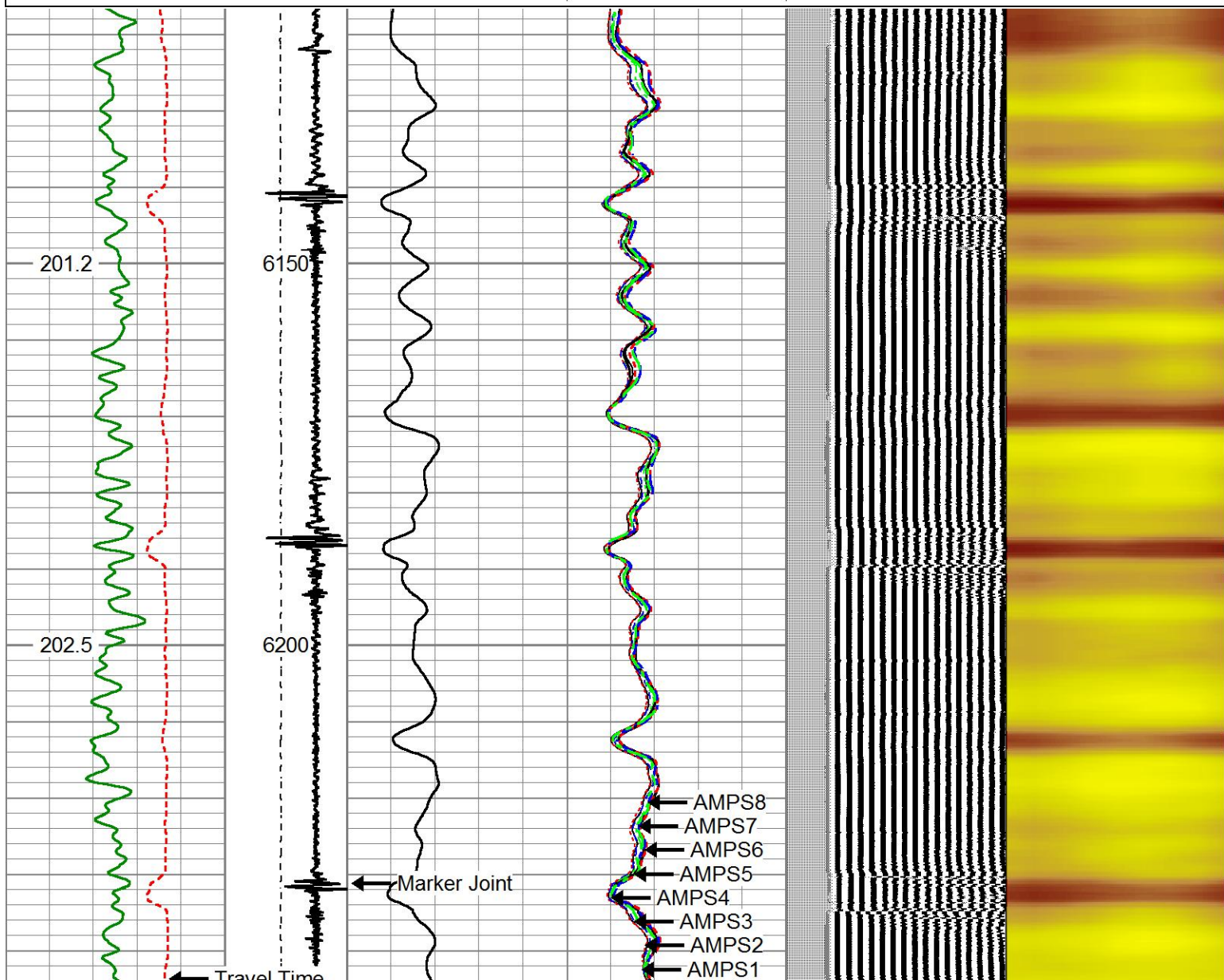


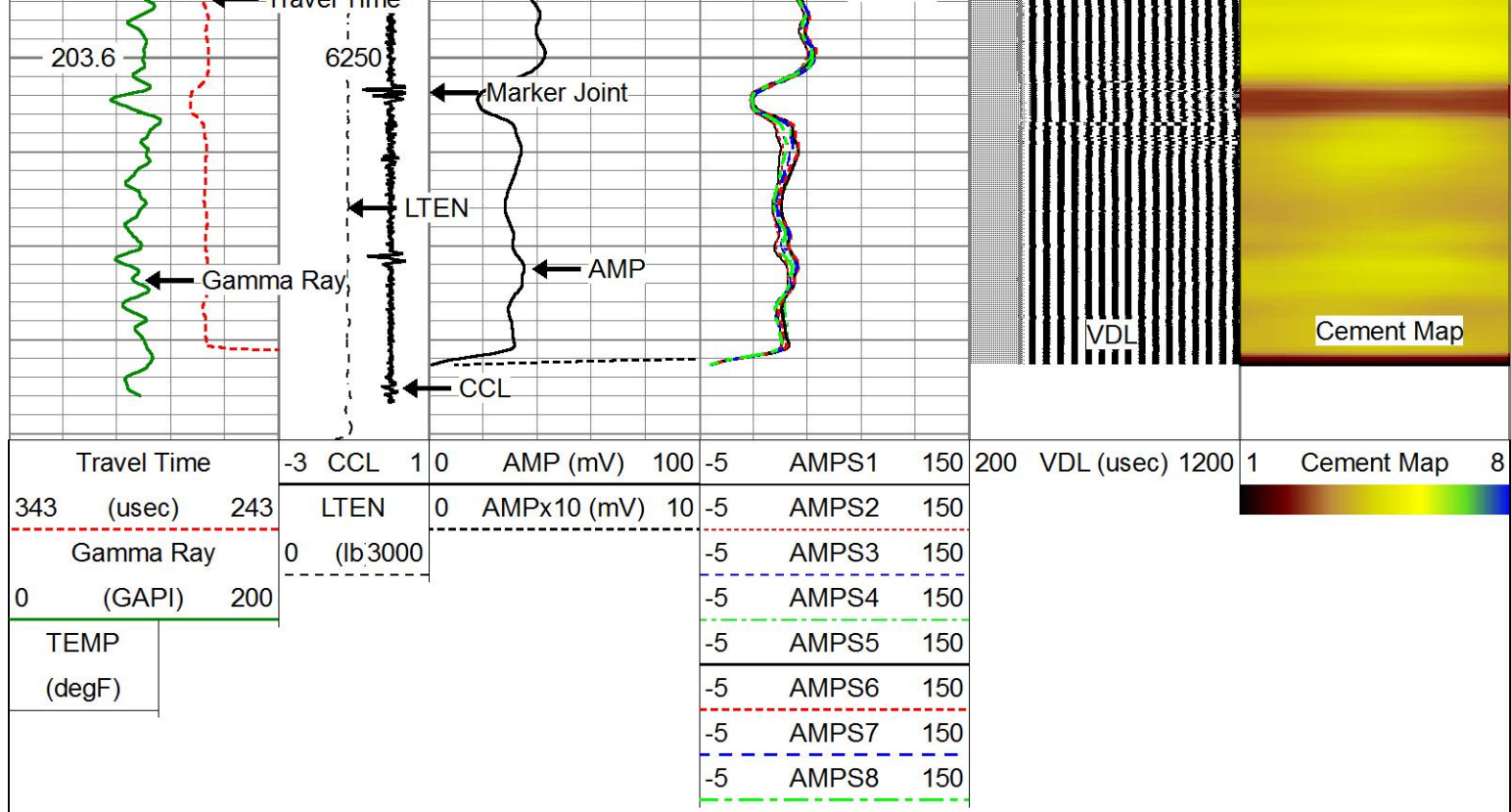
## REPEAT PASS, 0 PSI

5" = 100'

Database File damore 18-1hz.db  
Dataset Pathname LOG1/pass5  
Presentation Format rbt-gct8acc  
Dataset Creation Fri May 15 12:12:02 2020  
Charted by Depth in Feet scaled 1:240

Travel Time	-3 CCL	1 0	AMP (mV)	100	-5	AMPS1	150	200	VDL (usec)	1200	1	Cement Map	8
343 (usec)	243	LTEN	0	AMPx10 (mV)	10	-5	AMPS2	150					
Gamma Ray	0	(lb 3000)				-5	AMPS3	150					
0 (GAPI)	200					-5	AMPS4	150					
TEMP						-5	AMPS5	150					
(degF)						-5	AMPS6	150					
						-5	AMPS7	150					
						-5	AMPS8	150					





Calibration Report		
Database File	damore 18-1hz.db	
Dataset Pathname	LOG1/pass6	
Dataset Creation	Fri May 15 12:16:09 2020	
Gamma Ray Calibration Report		
Serial Number:	FW1304-53	
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
Temperature Calibration Report		
Serial Number:	FW1304-53	
Tool Model:	Probe275	
Performed:	Sun Jan 05 18:47:35 2020	
	Reference	Reading
Low Reference:	100.00 degF	6258.73
High Reference:	350.00 degF	26472.00
Gain:	0.01	
Offset:	22.59	
Delta Spacing	2	
Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1905-150	
Tool Model:	RBTC3	
Calibration Casing Diameter:	5.500	in



Master Calibration, performed Fri May 15 11:51:24 2020:

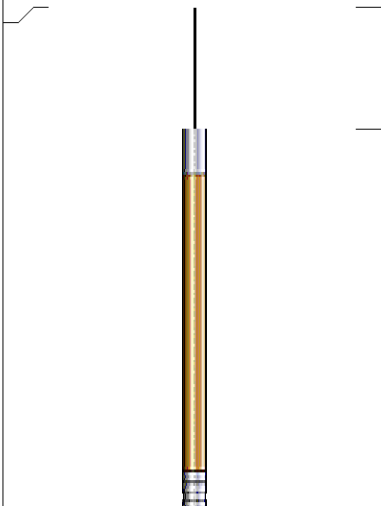
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	0.521	0.000	71.921	138.640	-0.354
CAL	0.004	0.629				
5'	0.003	0.475	0.000	71.921	152.443	-0.456
SUM						
S1	-0.002	0.557	0.000	100.000	178.759	0.369
S2	0.003	0.542	0.000	100.000	185.499	-0.514
S3	0.003	0.506	0.000	100.000	198.527	-0.545
S4	0.003	0.495	0.000	100.000	202.988	-0.523
S5	0.004	0.503	0.000	100.000	200.416	-0.714
S6	0.003	0.507	0.000	100.000	198.695	-0.648
S7	0.003	0.525	0.000	100.000	191.671	-0.615
S8	0.003	0.534	0.000	100.000	188.305	-0.556

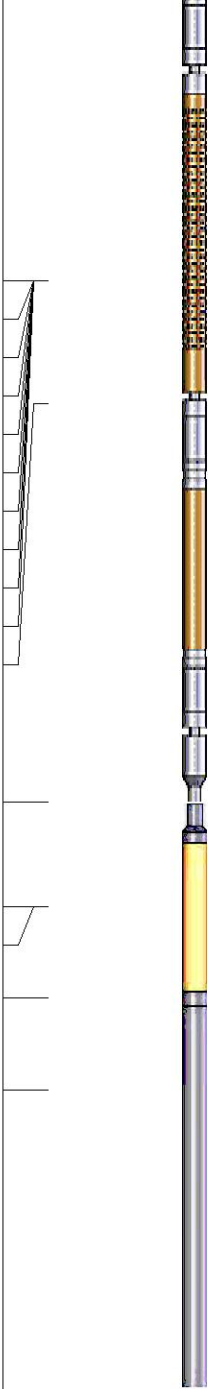
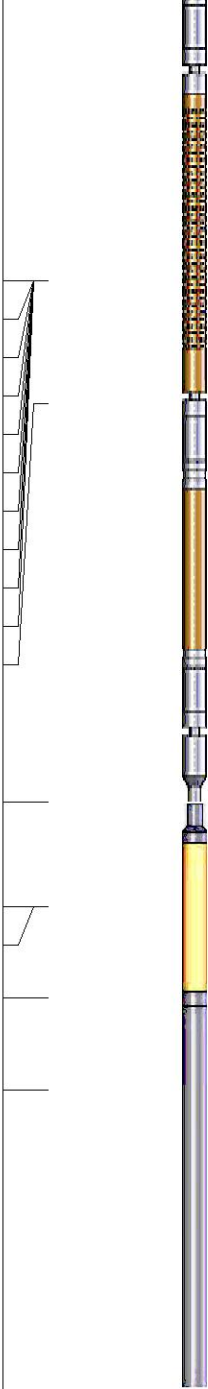
Internal Reference Calibration, performed (Not Performed):


	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.004	0.629	1.000	0.000

Air Zero Calibration, performed Mon Feb 17 07:02:20 2020:

	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)
ErrCt	15.39		Cable_Head-Standard Standard Cable Head	1.00	1.69	1.00

			RBT-RBTC3 (FW1905-150)	9.62	2.75	90.00
WVFS8	9.02					
WVFS7	9.02					
WVFS6	9.02					
WVFS5	9.02					
WVFS4	9.02					
WVFS3	9.02					
WVFS2	9.02					
WVFS1	9.02					
WVFCAL	9.02					
WV3FT	9.02					
WV5FT	8.02					
WVFSYNC	4.77					
DCCL	3.92					
CCL	3.92					
TEMP	3.17					
GR	2.42		GCT-Probe275 (FW1304-53) Probe 2 3/4" Gamma Ray CCL w/Temperature	4.77	2.75	40.00
Dataset: damore 18-1hz.db: field/well/LOG1/pass6 Total length: 15.39 ft Total weight: 131.00 lb O.D.: 2.75 in						

	Company	OCCIDENTAL PETROLEUM CORP.
	Well	DAMORE 18-1HZ
	Field	WATTENBERG
	County	WELD
	State	COLORADO