



Radial Cement Bond
Gamma Ray CCL
Log

Company	Petroshare Corp	Company	Petroshare Corp
Well	SHOOK 3-10-5CDH	Well	SHOOK 3-10-5CDH
Field	WATTENBERG	Field	WATTENBERG
County	ADAMS	County	ADAMS
State	COLORADO	State	COLORADO
Location:		API # : 05-001-09979	Other Services
Permanent Datum		G.L.	Elevation
Log Measured From		K.B.	5098'
Drilling Measured From		K.B.	Elevation
		K.B. 5111'	D.F. N/A
		G.L. 5098'	
NWSE SEC.03-T1S-R67W 2058' FSL & 2139' FEL			
Date	MARCH 4, 2018		
Run Number	ONE		
Depth Driller	13988'		
Depth Logger	8098'		
Bottom Logged Interval	8087		
Top Log Interval	48'		
Open Hole Size	N/A		
Type Fluid	H2O		
Density / Viscosity	8.4		
Max. Recorded Temp.	N/A		
Estimated Cement Top	2243'		
Time Well Ready	21:30		
Time Logger on Bottom	22:35		
Equipment Number	200121		
Location	GREENEY CO		
Recorded By	MIKE NOWICKI		
Witnessed By	HAROLD POWELL		
Borehole Record		Tubing Record	
Run Number	Bit	From	To
		Size	Weight
		From	To
Casing Record	Size	Wgt/Ft	Top
Surface String	9-5/8"	36 PPF	SURFACE
Prot. String	5-1/2	20 PPF	SURFACE
Production String			
Liner			

<<< 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

Depth correlated to marker joint
Marker joint at 7102' - 7124'

THANK YOU FOR USING C&J CASEDHOLE SOLUTIONS

M. NOWICKI, B. SISSON, S. BARNETT



Free Pipe Pass (0) PSI

Database File e:\petroshare corp shook pad\db\s\fs0215 ps shook 3-10-5cdh cbl.db
Dataset Pathname Shook3-10-5CDH/run1/free3
Presentation Format scbl5_5
Dataset Creation Sun Mar 04 22:16:08 2018
Charted by Depth in Feet scaled 1:240

341 Travel Time (usec) 241
0 Gamma Ray (GAPI) 200
0 Line Tension (lb) 4000

CCL

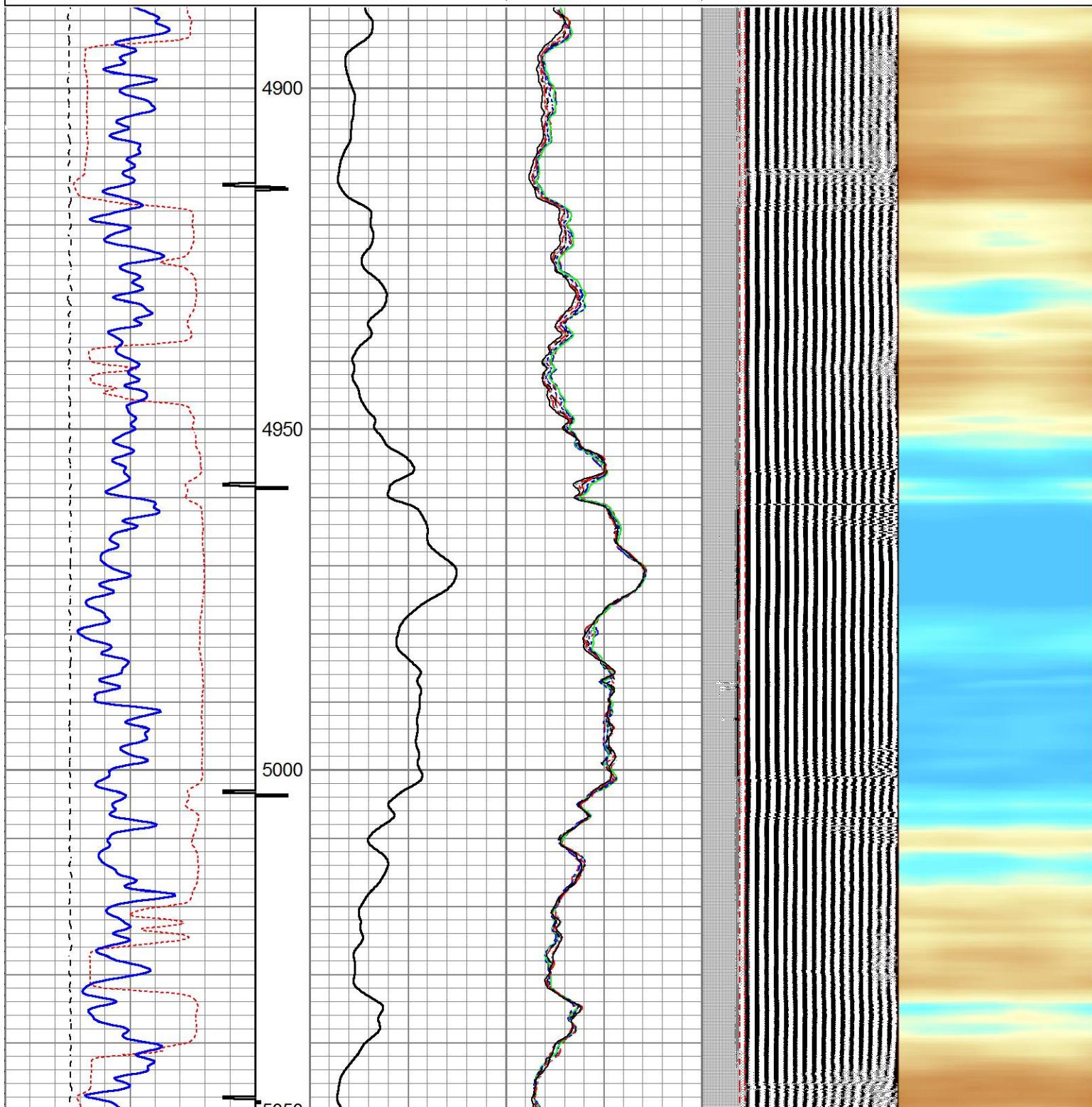
0 Amplitude (mV)100
Amplified Amplitude
0 (mV) 10

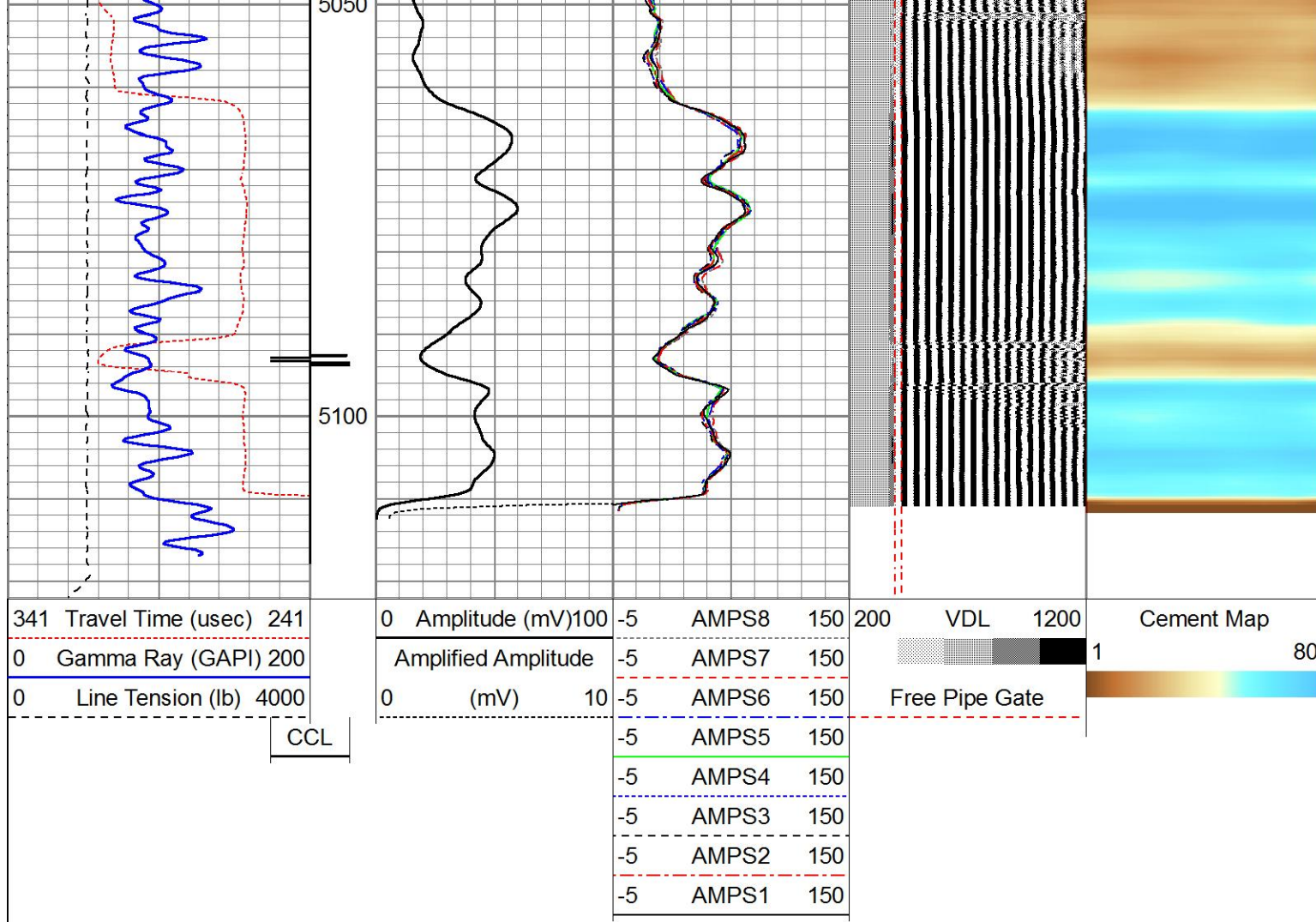
-5	AMPS8	150
-5	AMPS7	150
-5	AMPS6	150
-5	AMPS5	150
-5	AMPS4	150
-5	AMPS3	150
-5	AMPS2	150
-5	AMPS1	150

200 VDL 1200
Free Pipe Gate

Cement Map

1 80





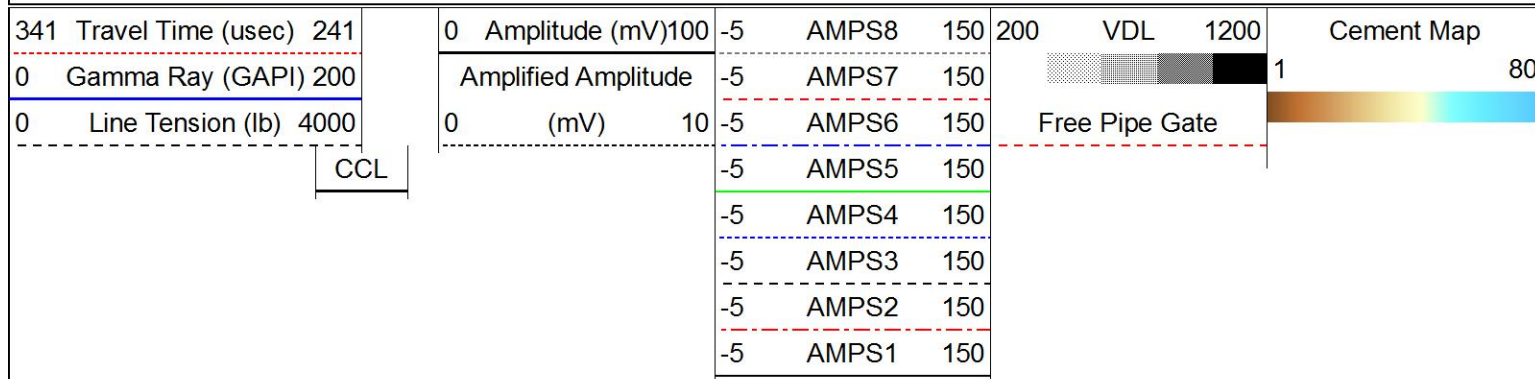
C&J ENERGY SERVICES

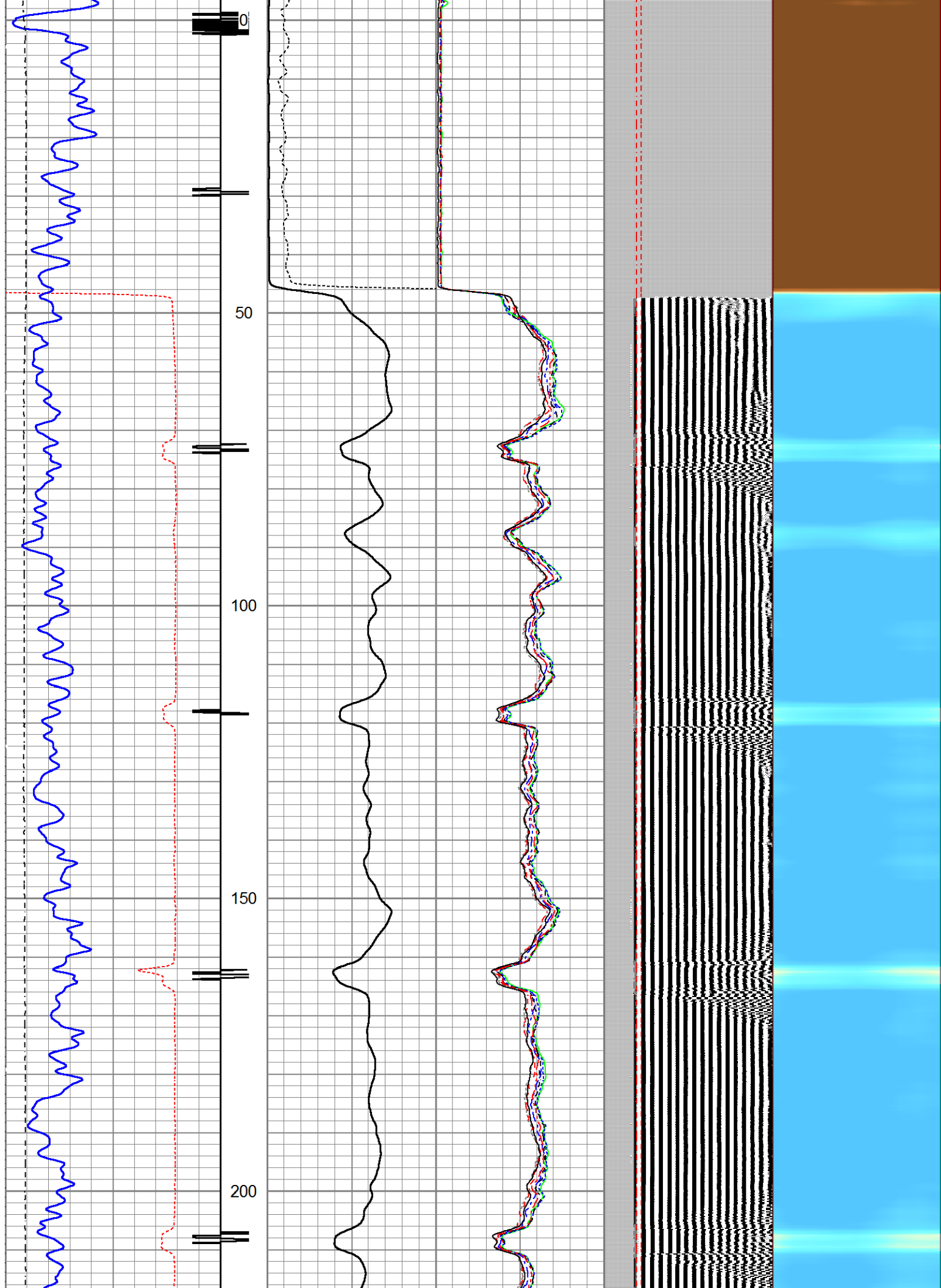
Free Pipe Pass (0) PSI

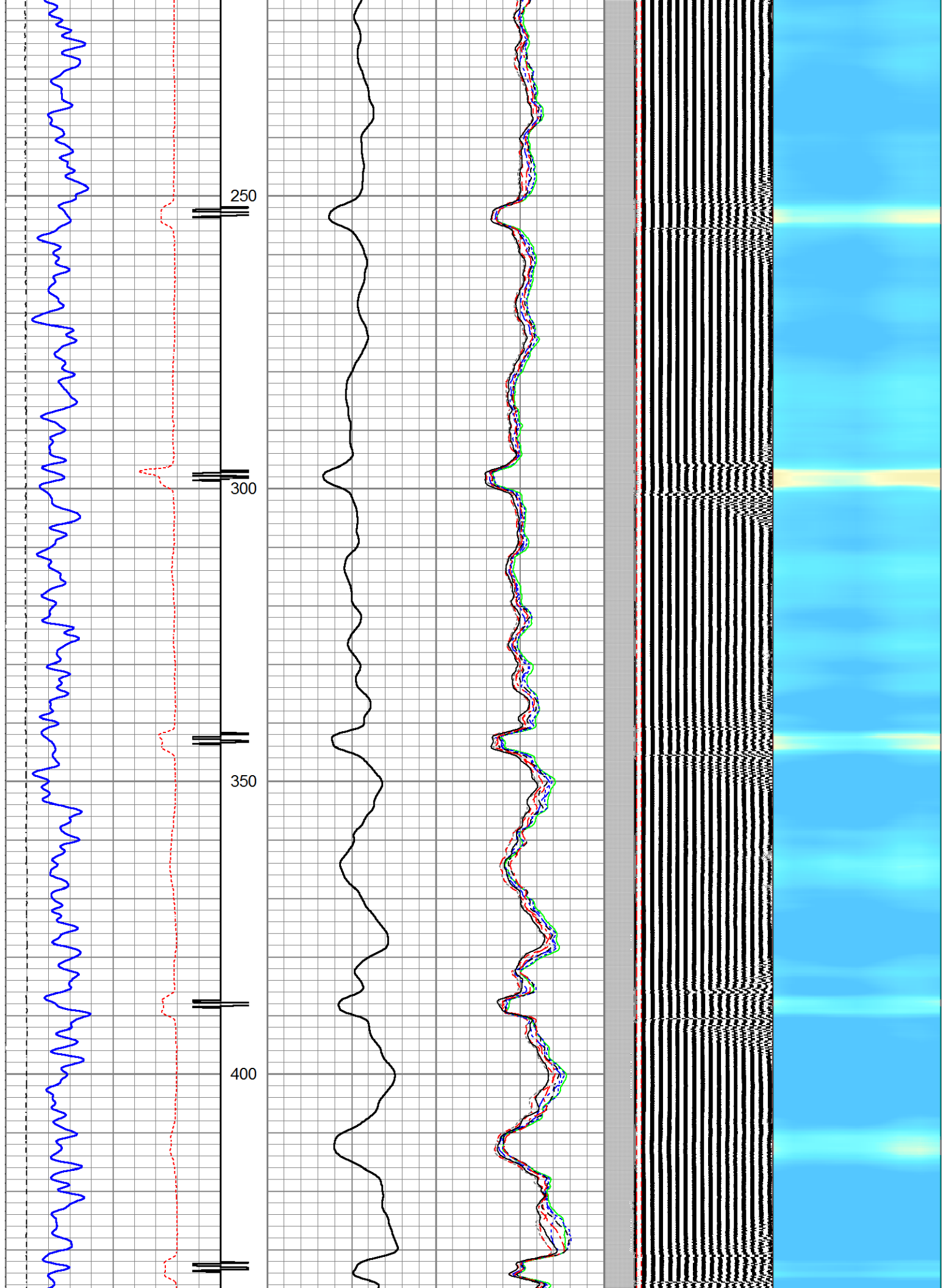
C&J ENERGY SERVICES

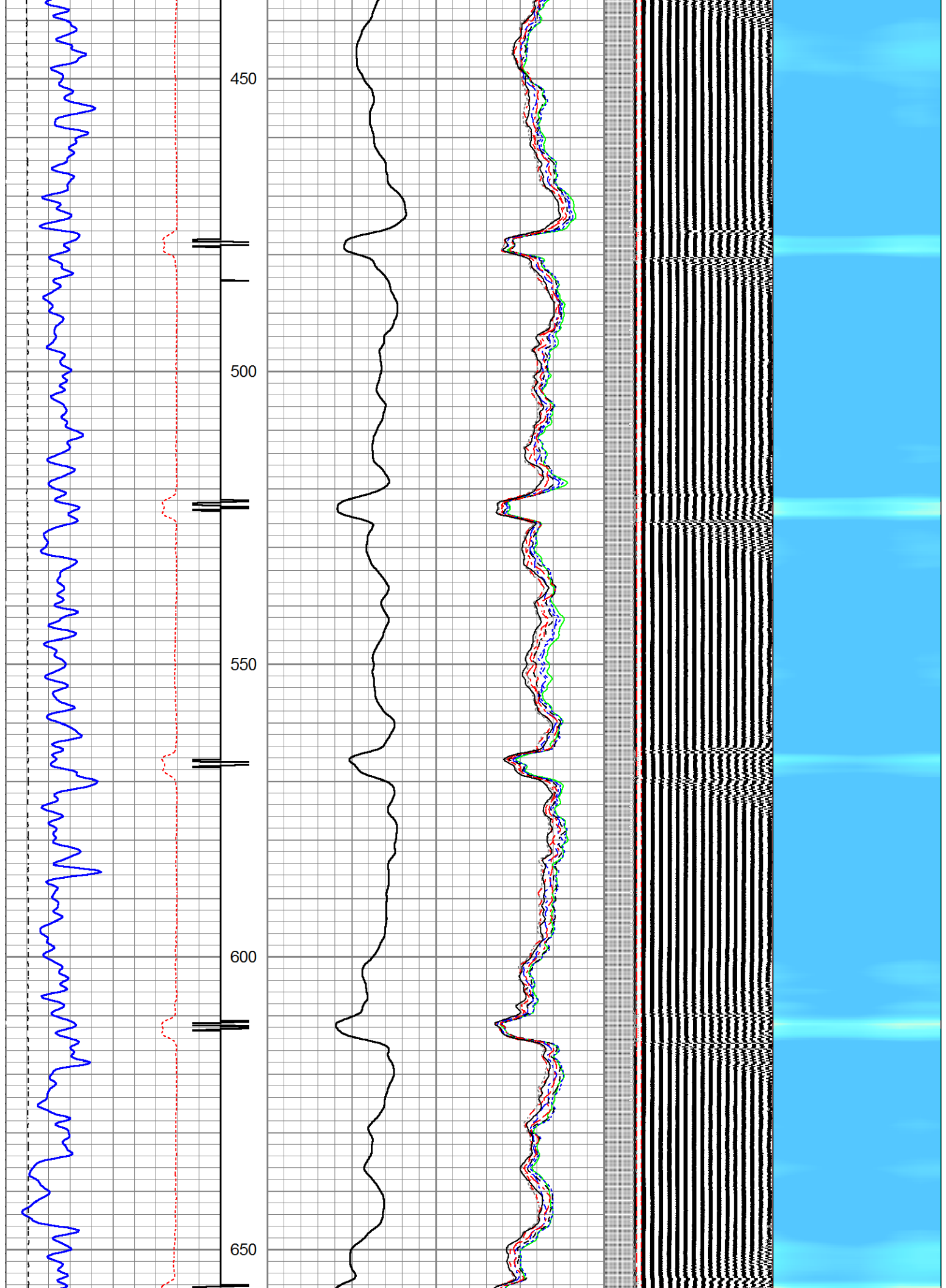
Main Pass (0) PSI

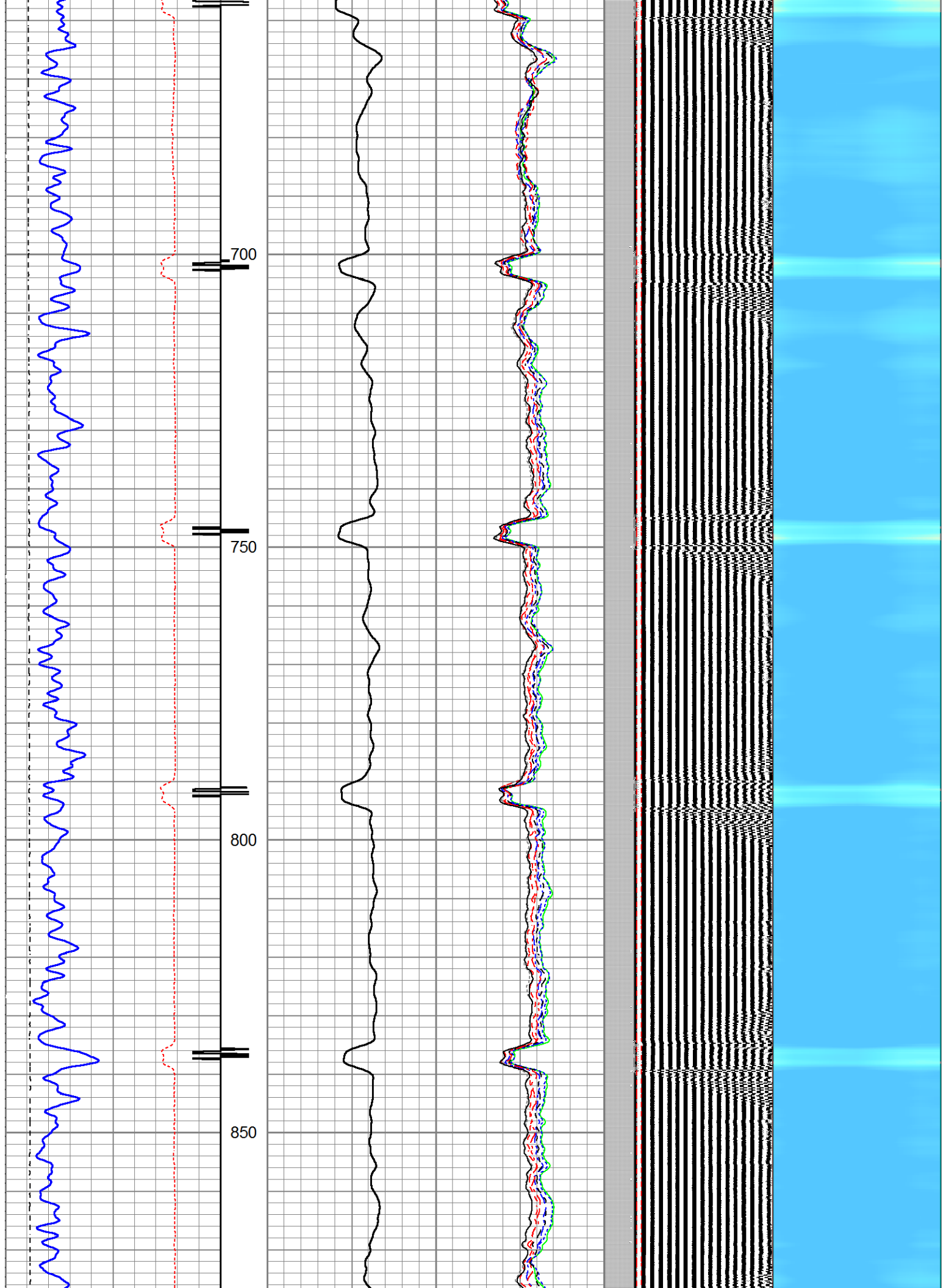
Database File e:\petroshare corp shook pad\db\s\fs0215 ps shook 3-10-5cdh cbl.db
 Dataset Pathname Shook3-10-5CDH/run1/main_1
 Presentation Format scbl5_5
 Dataset Creation Sun Mar 04 22:39:29 2018
 Charted by Depth in Feet scaled 1:240

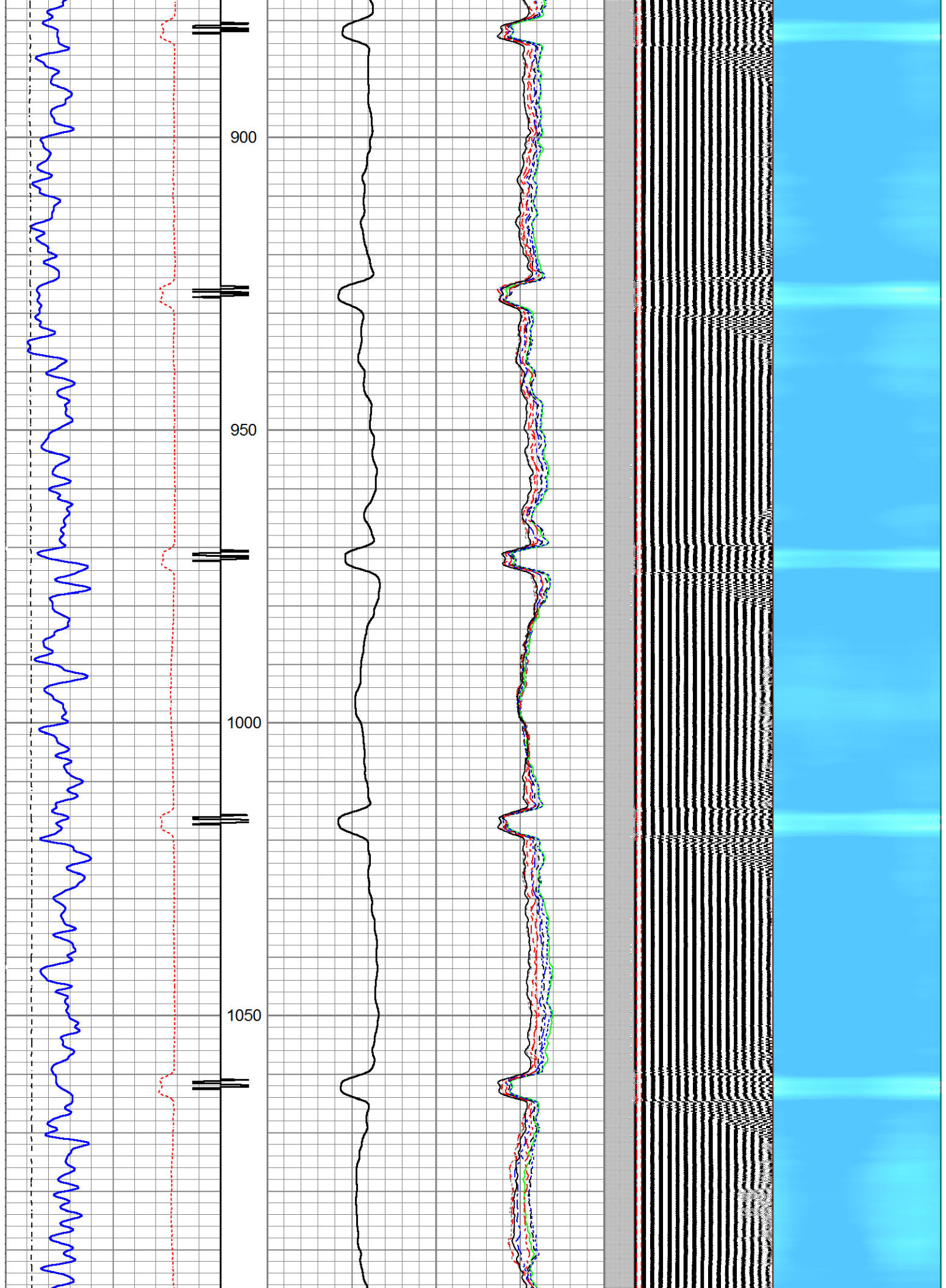


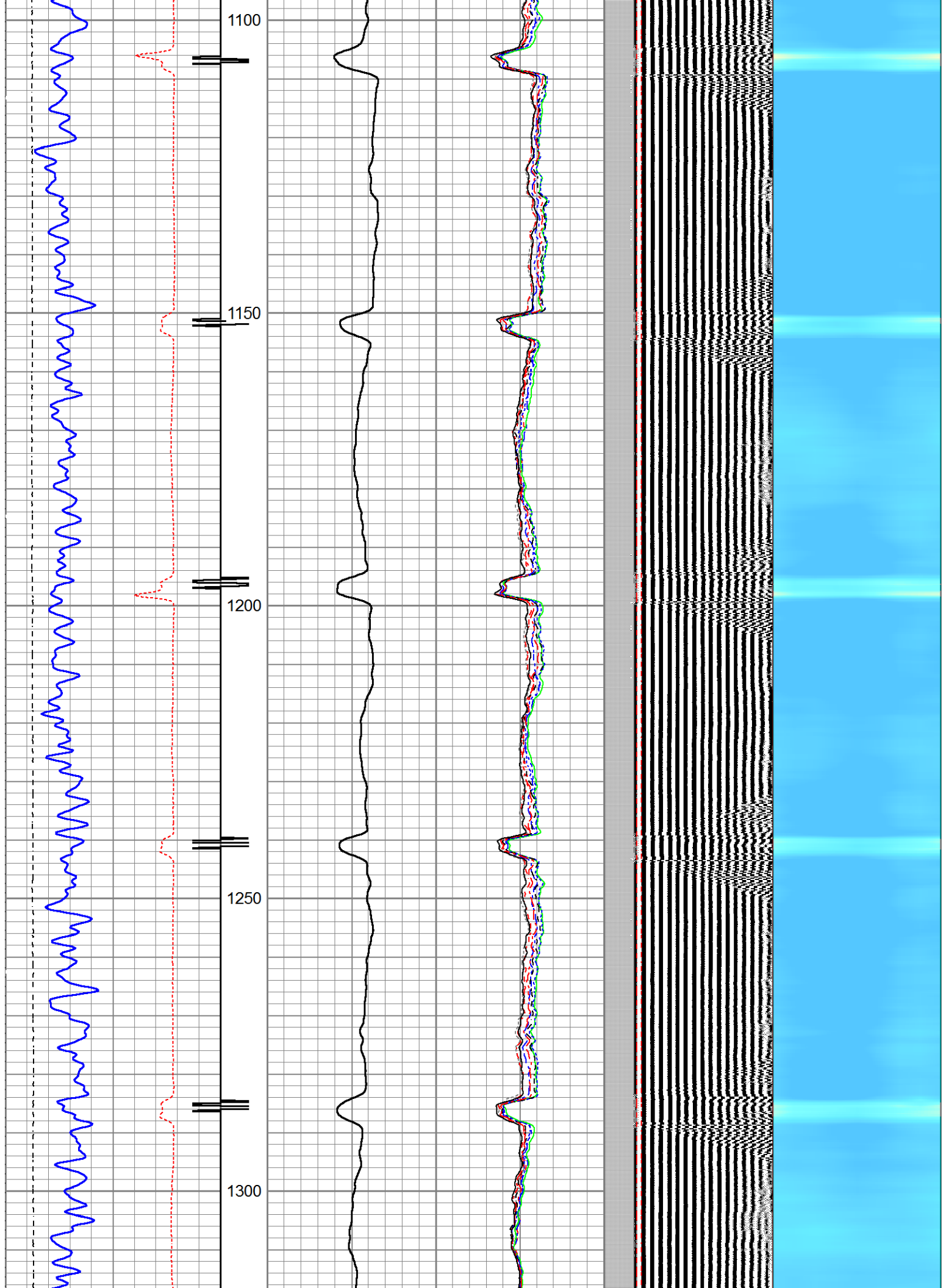


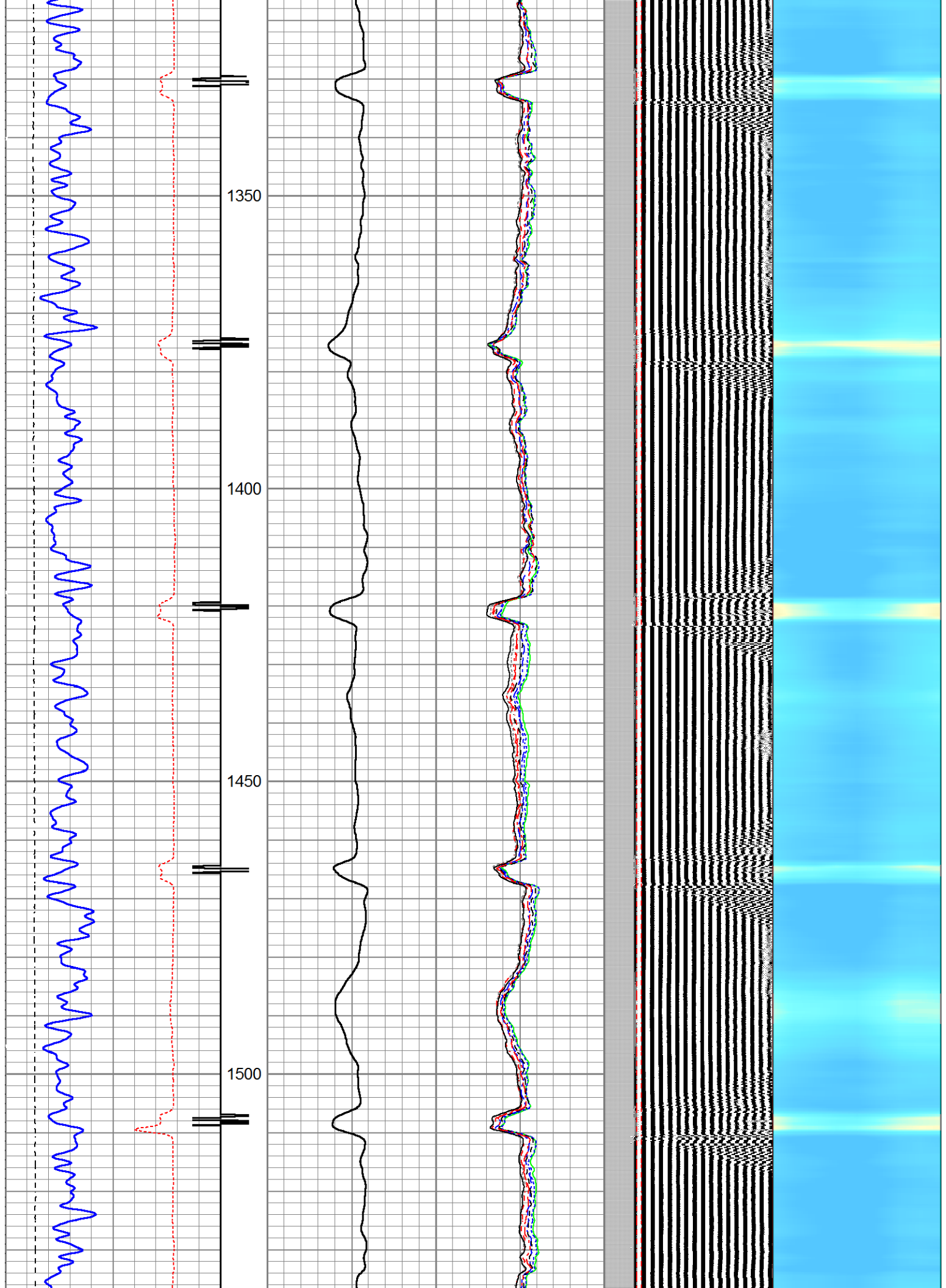


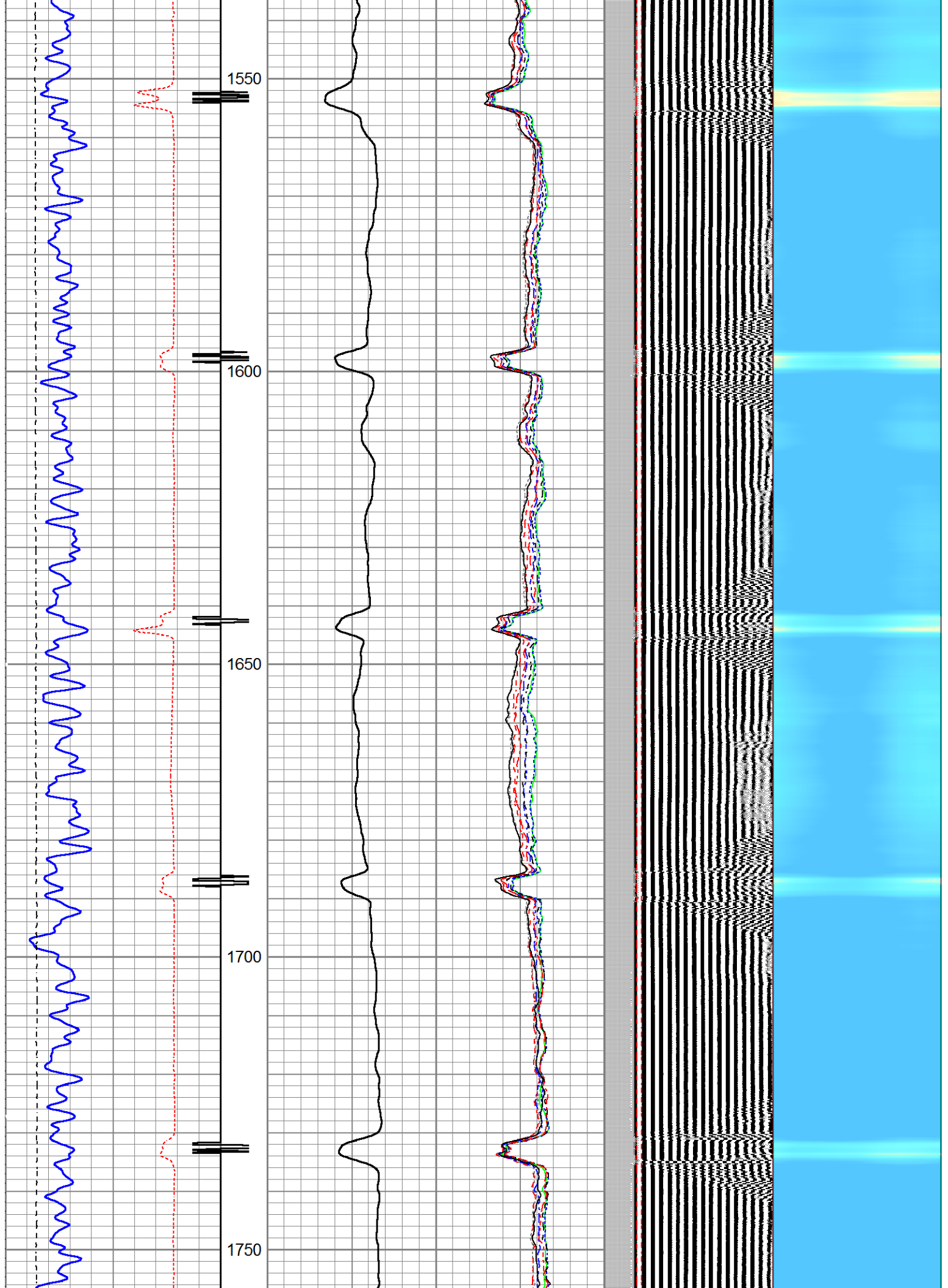


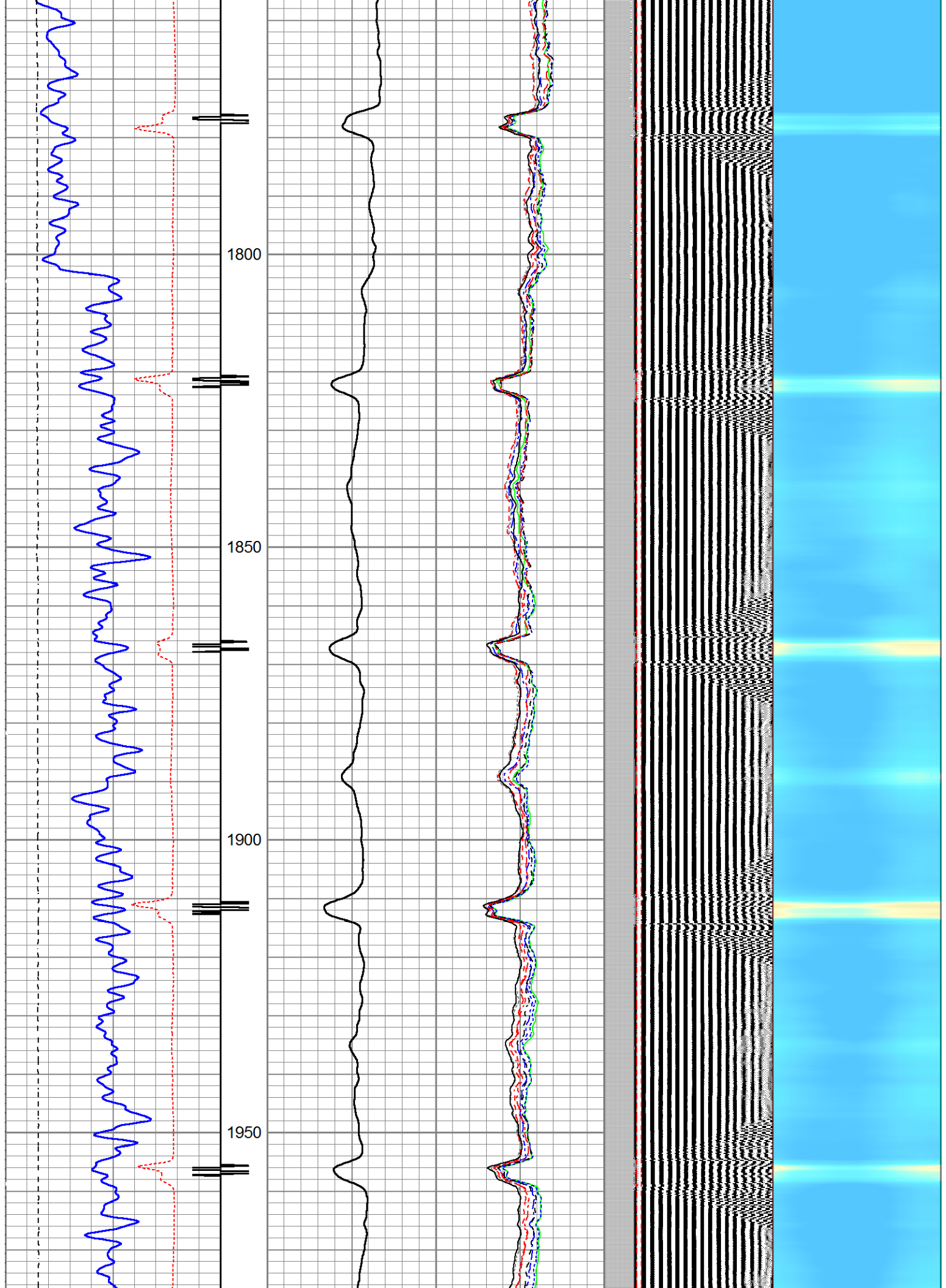


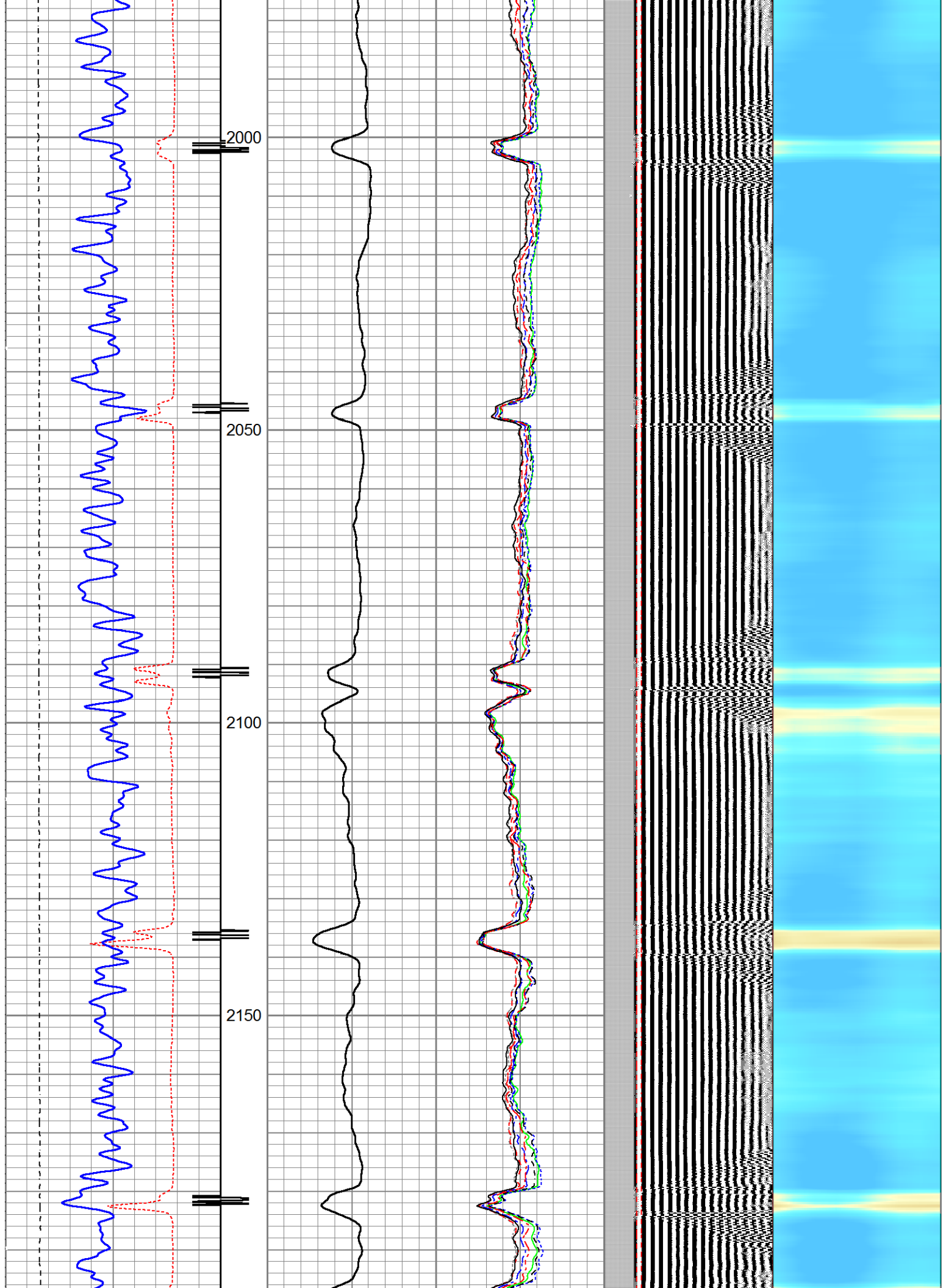


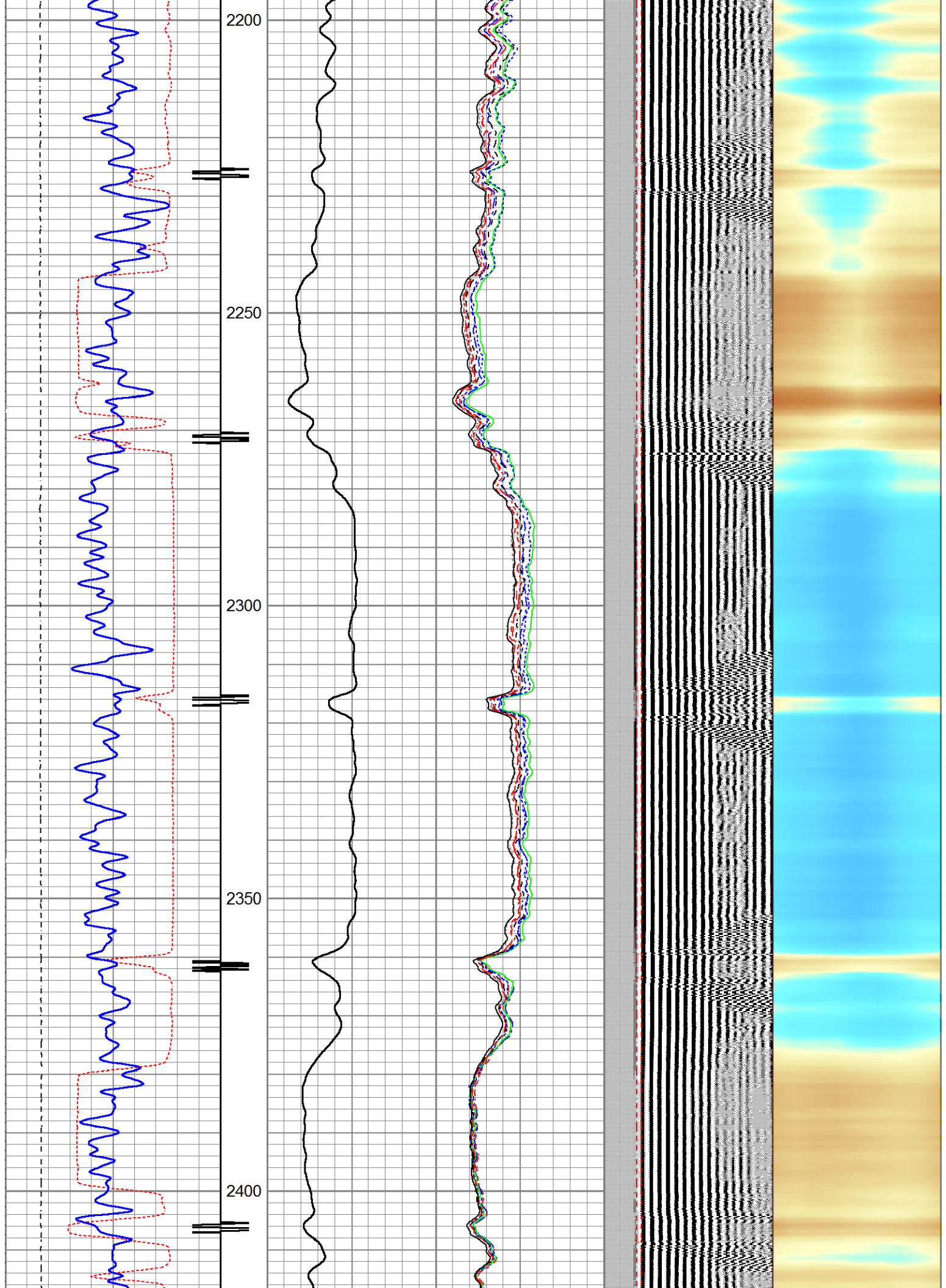


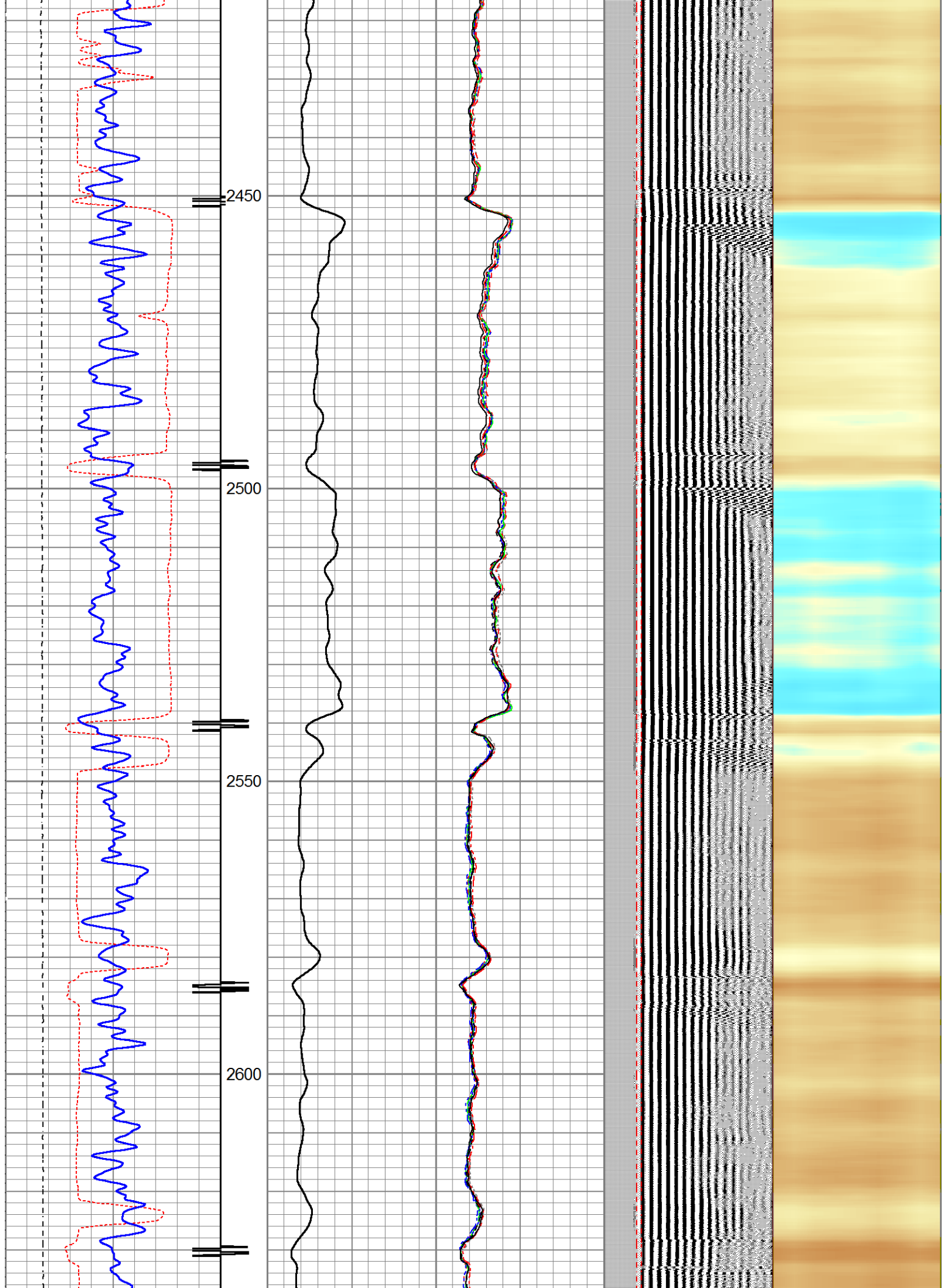


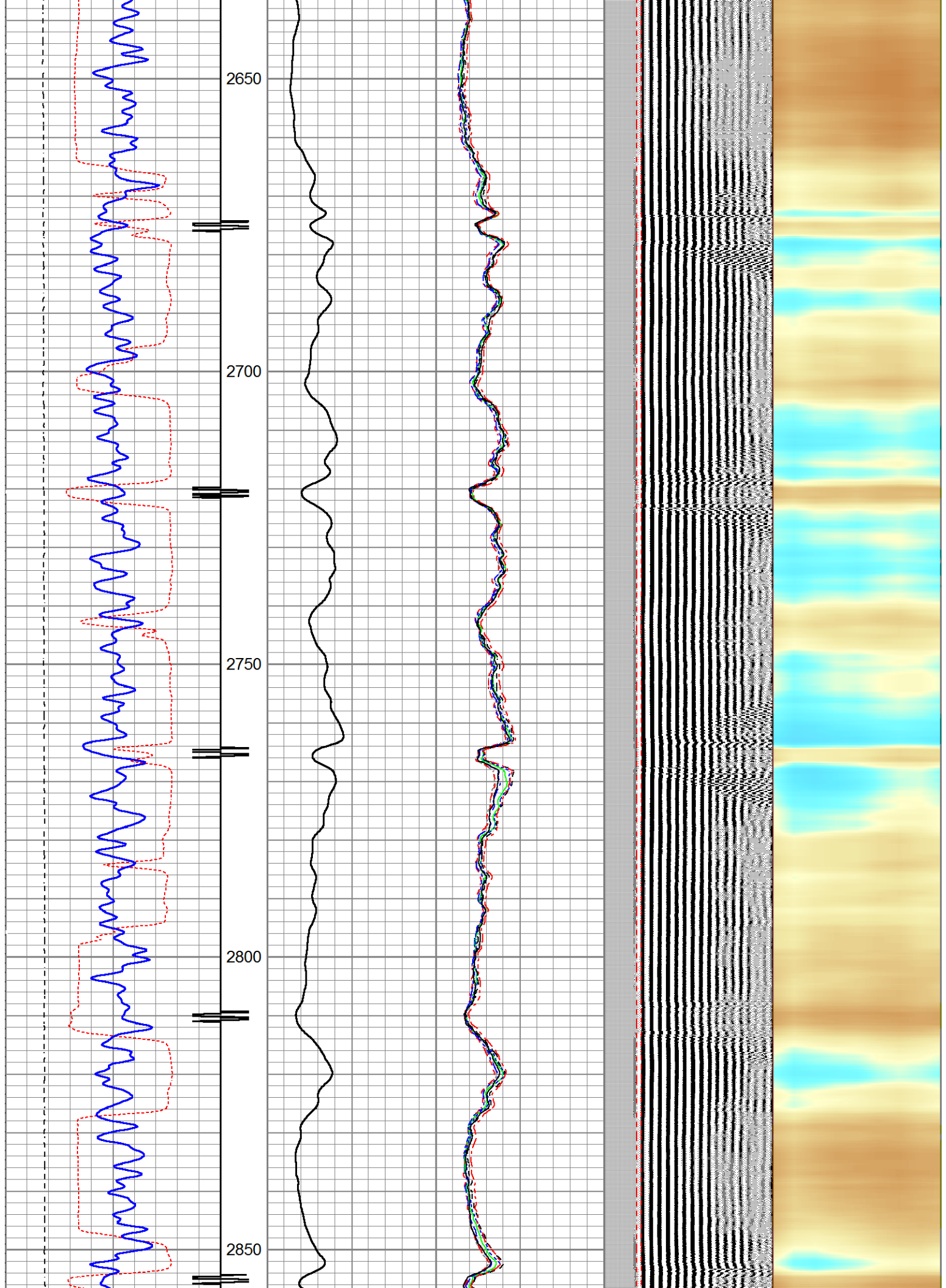


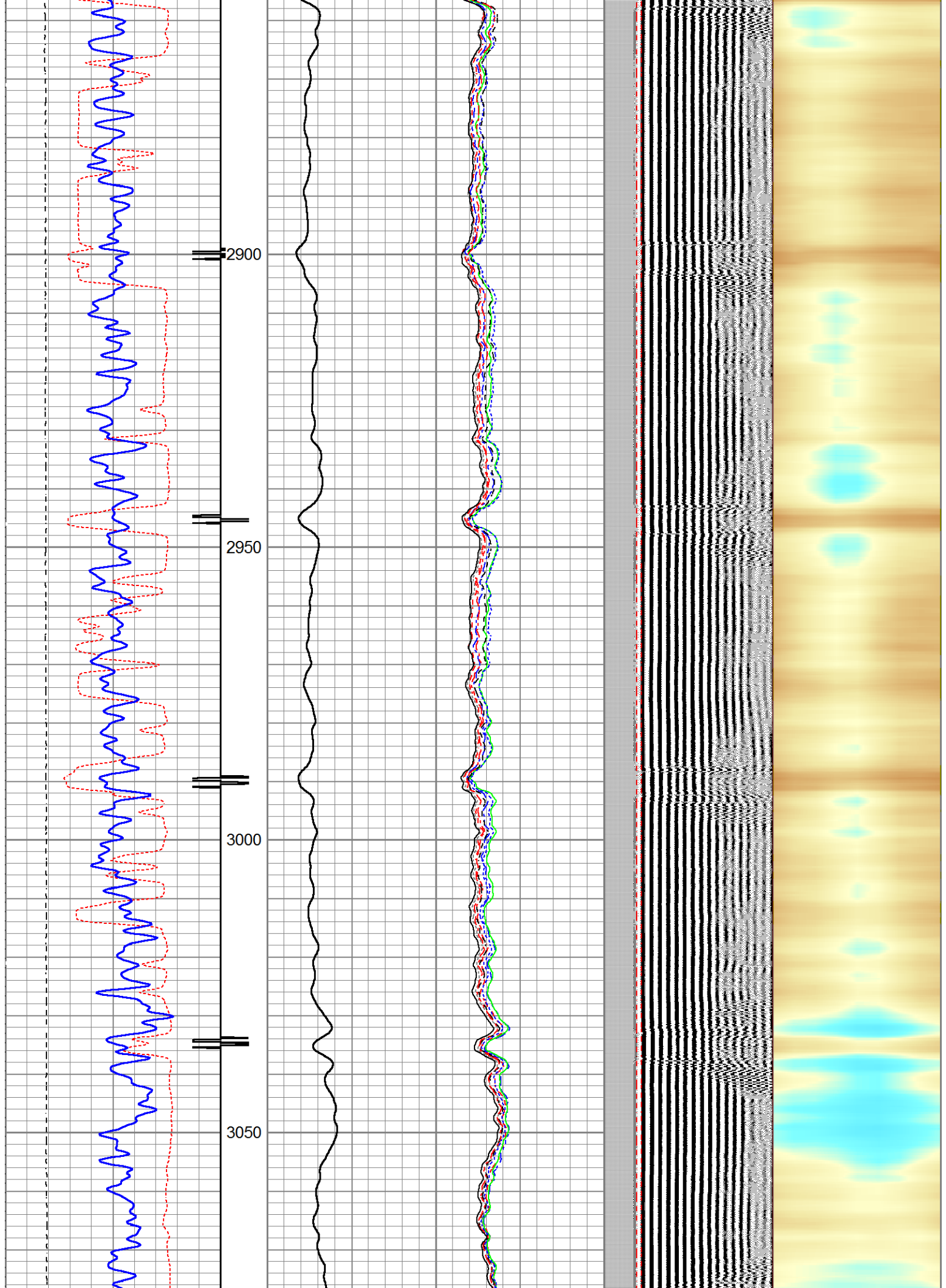


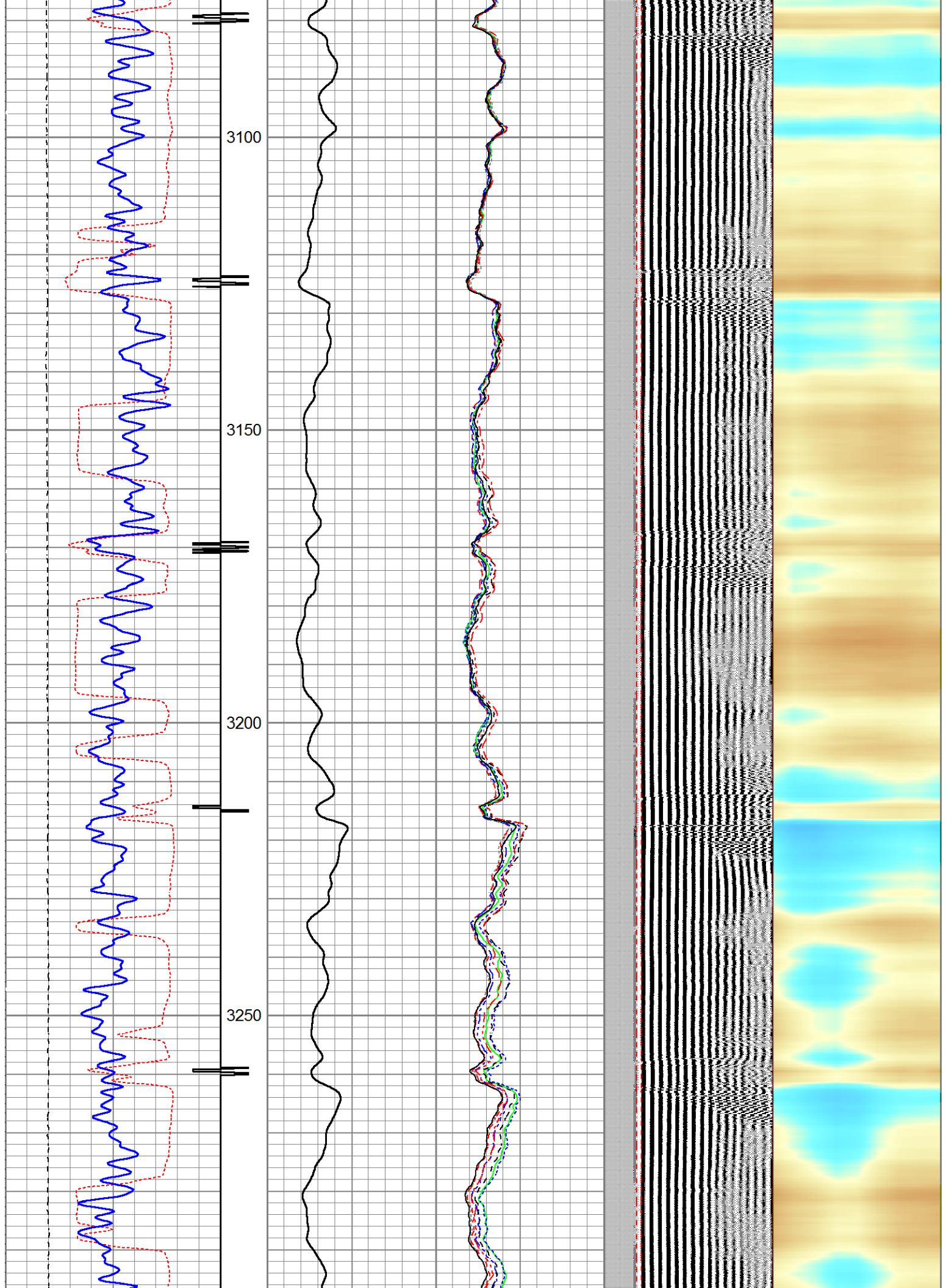


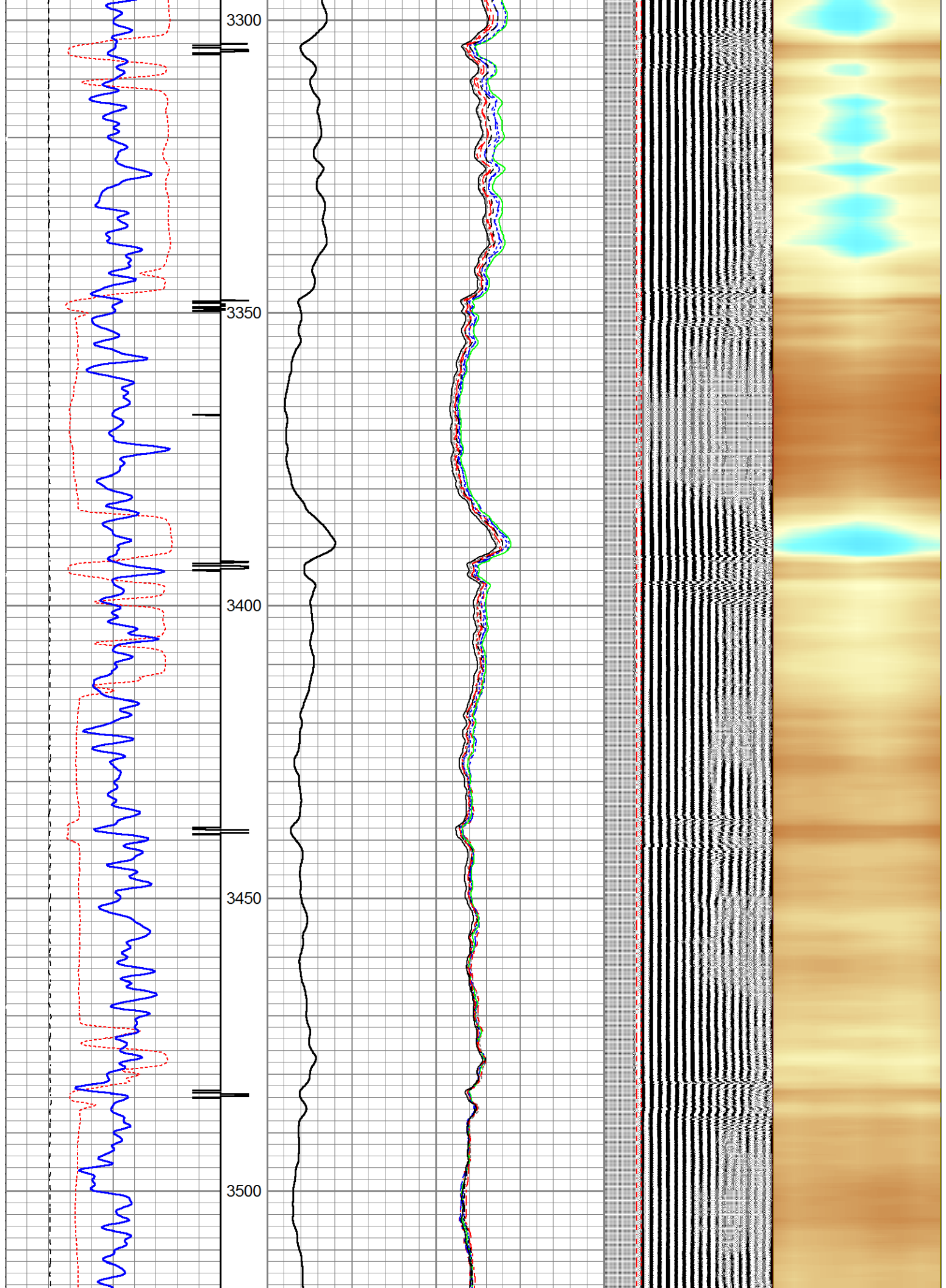


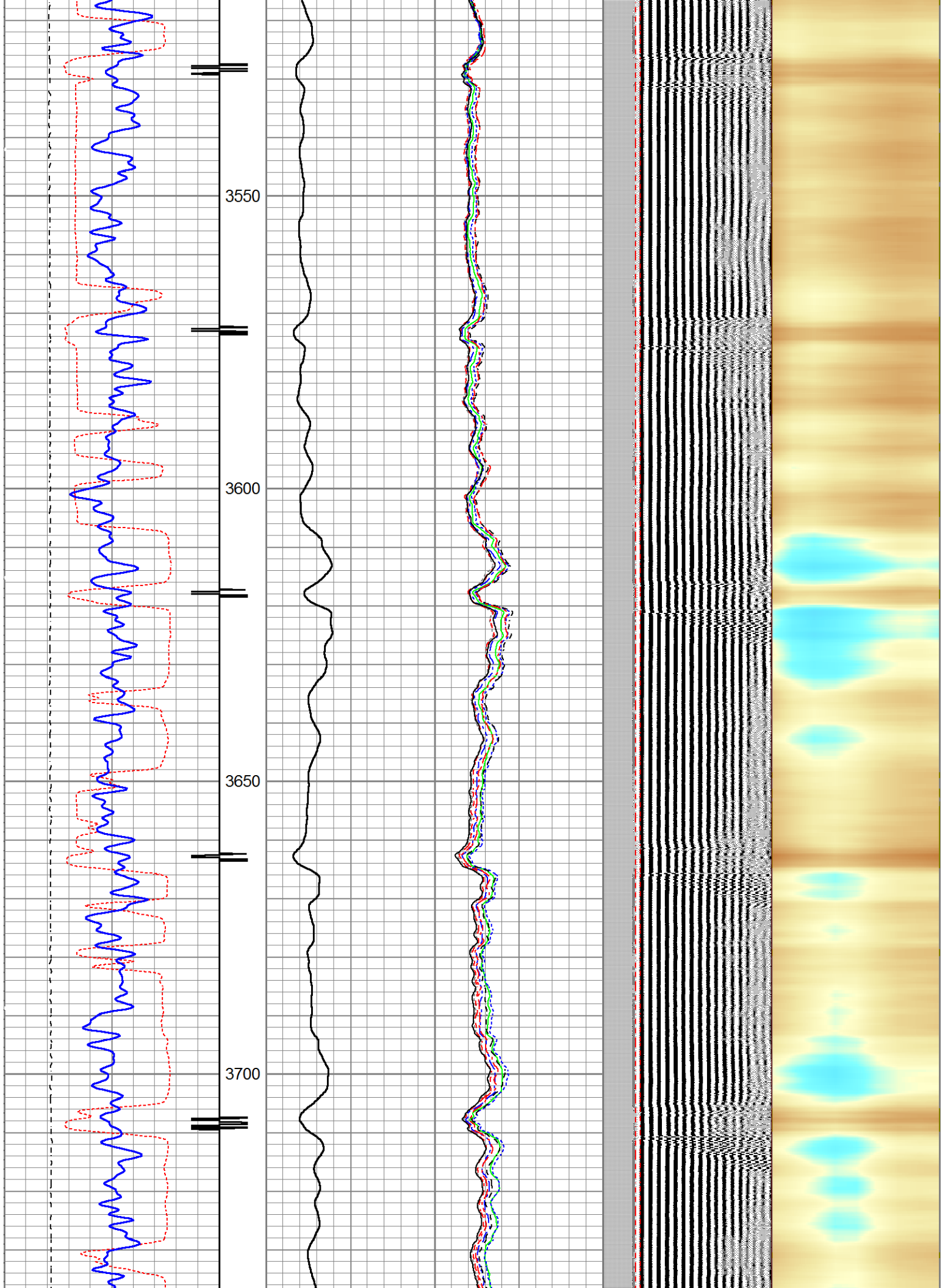


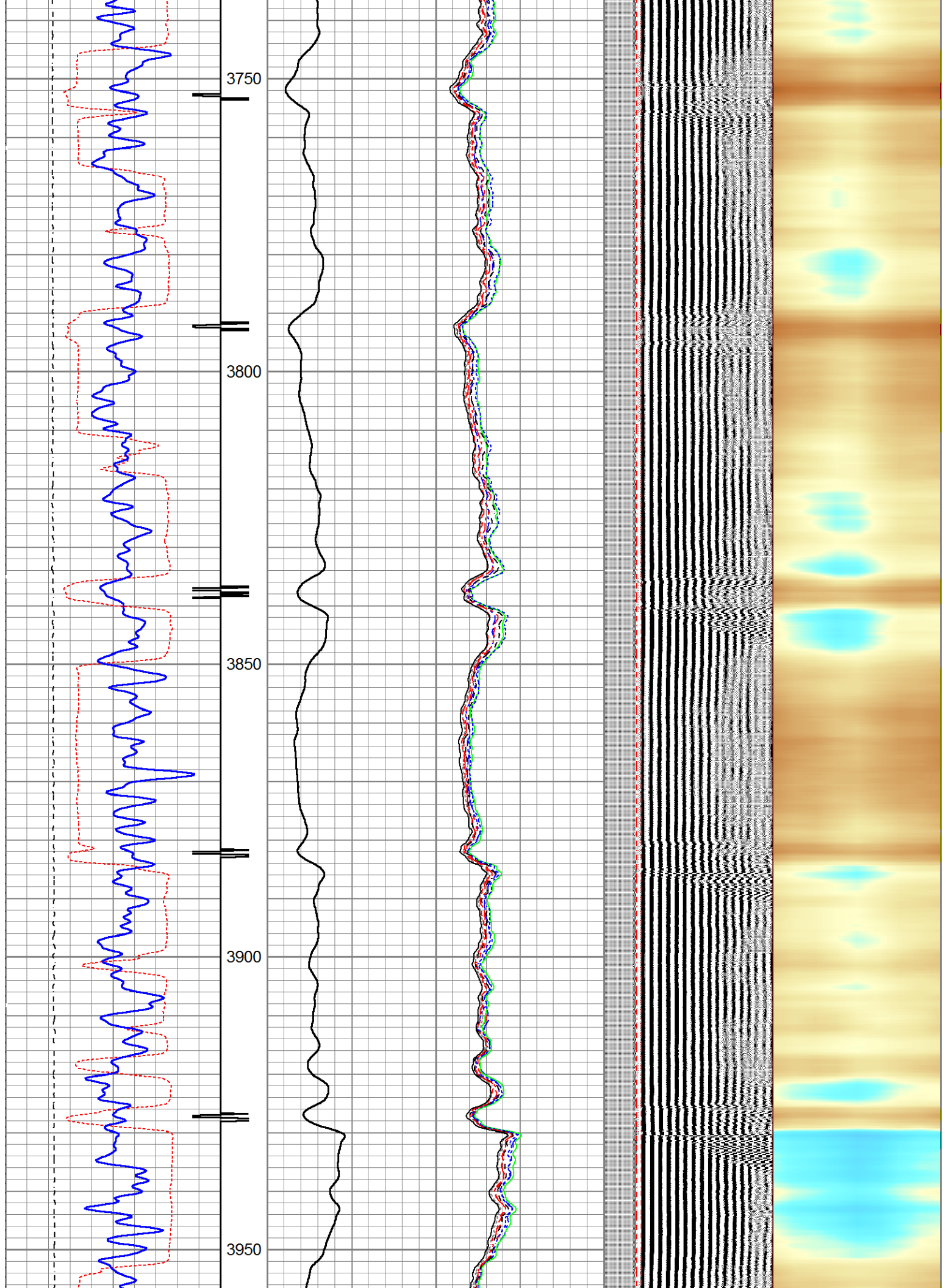


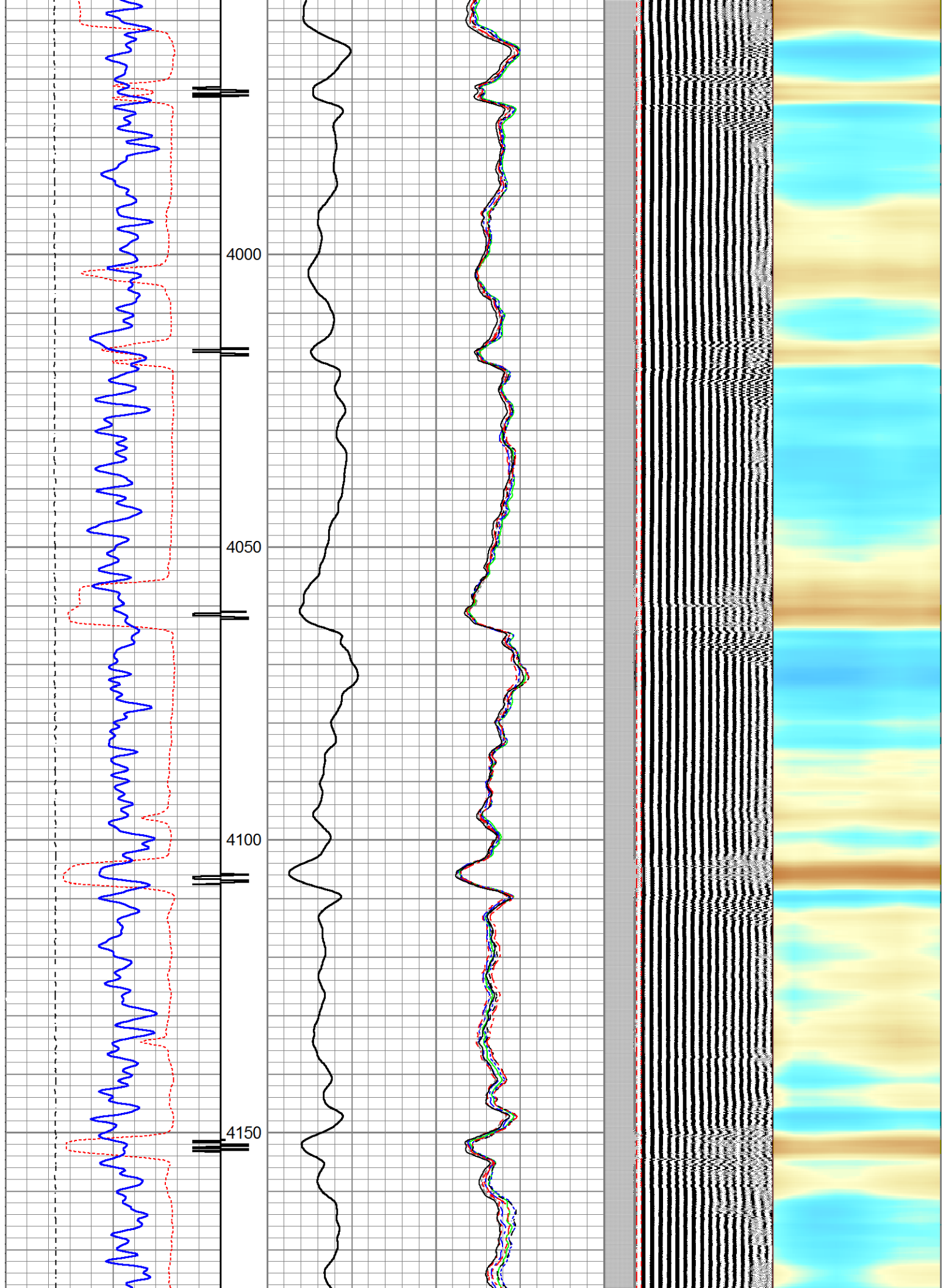


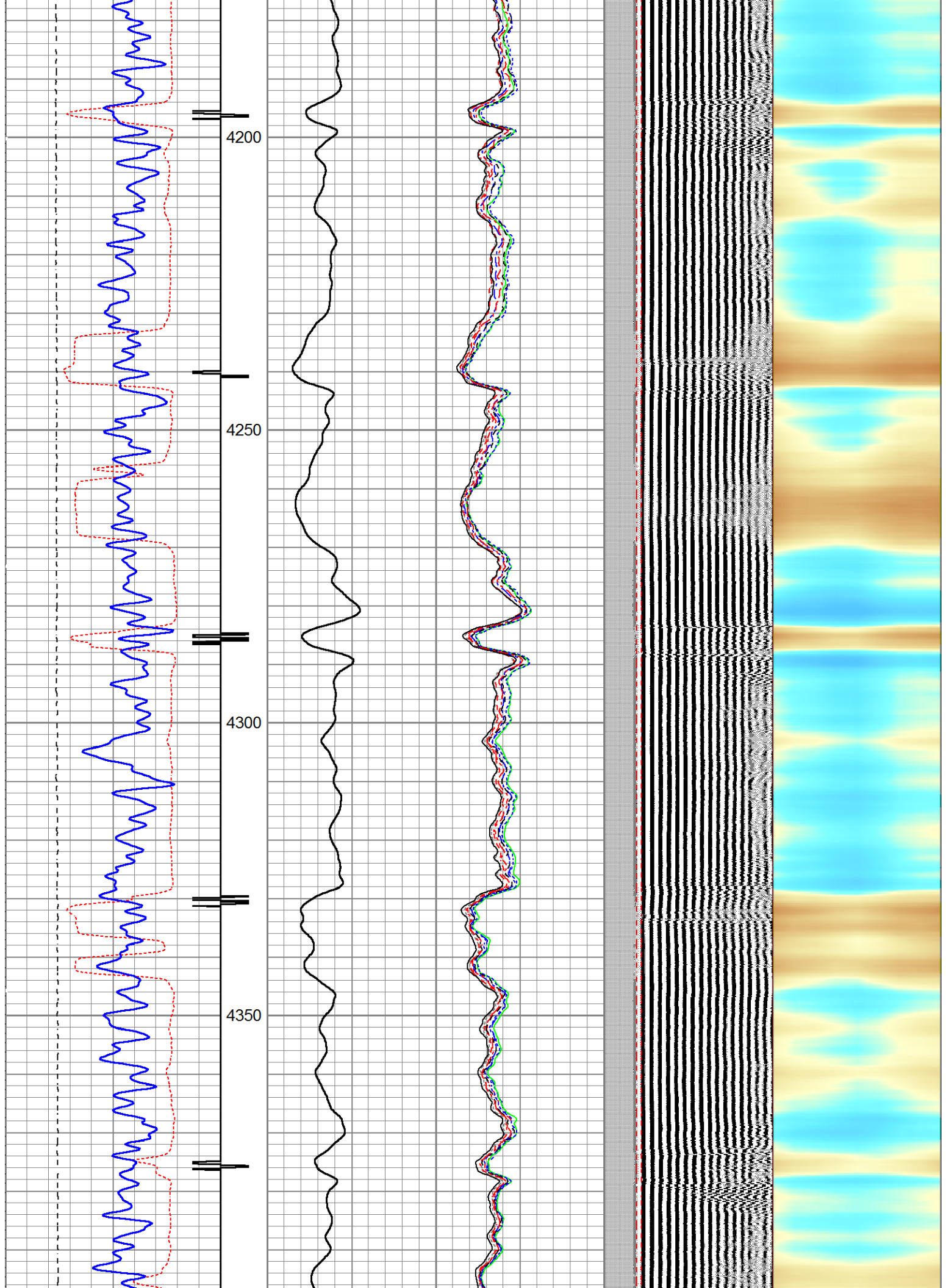


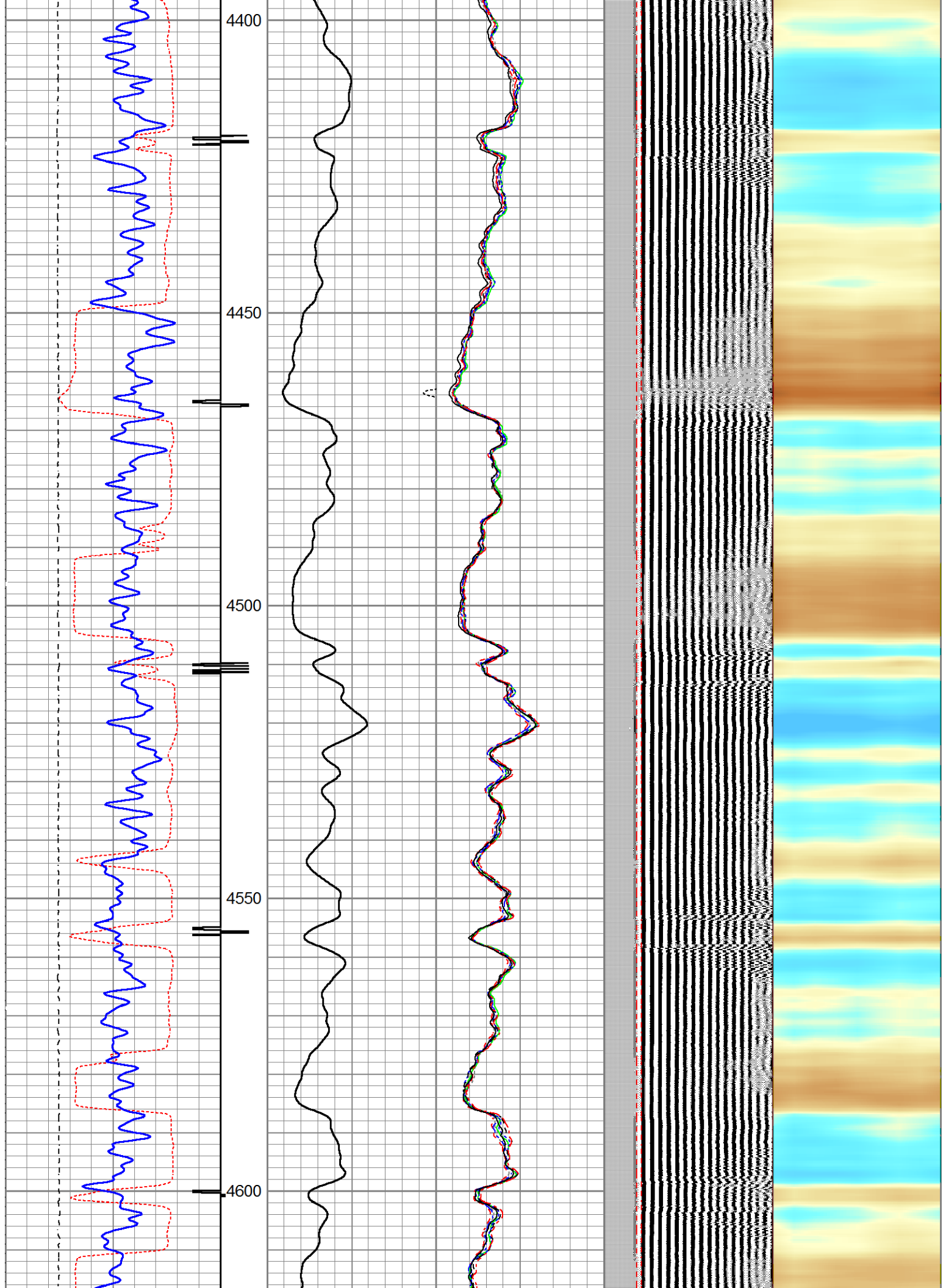


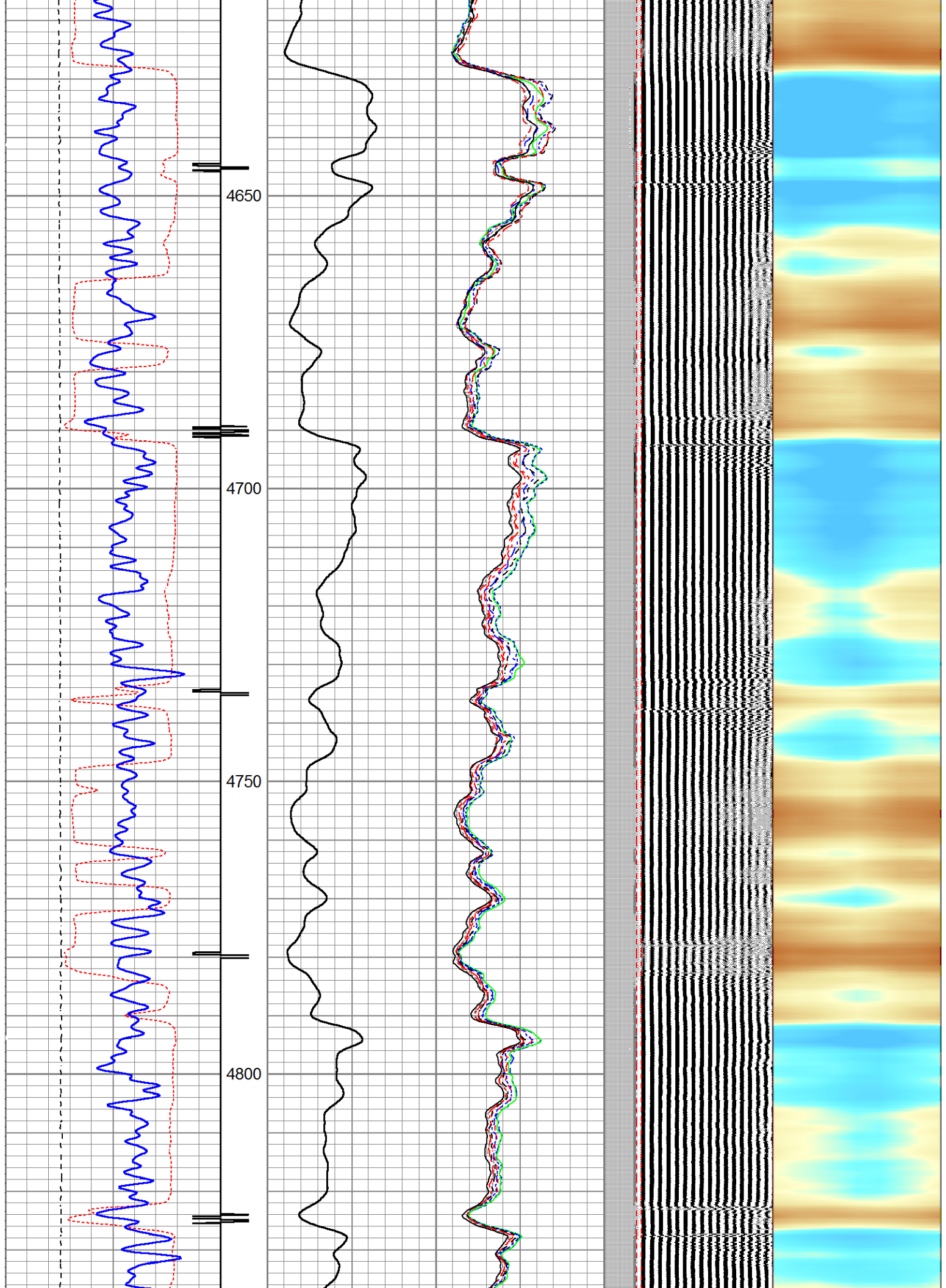


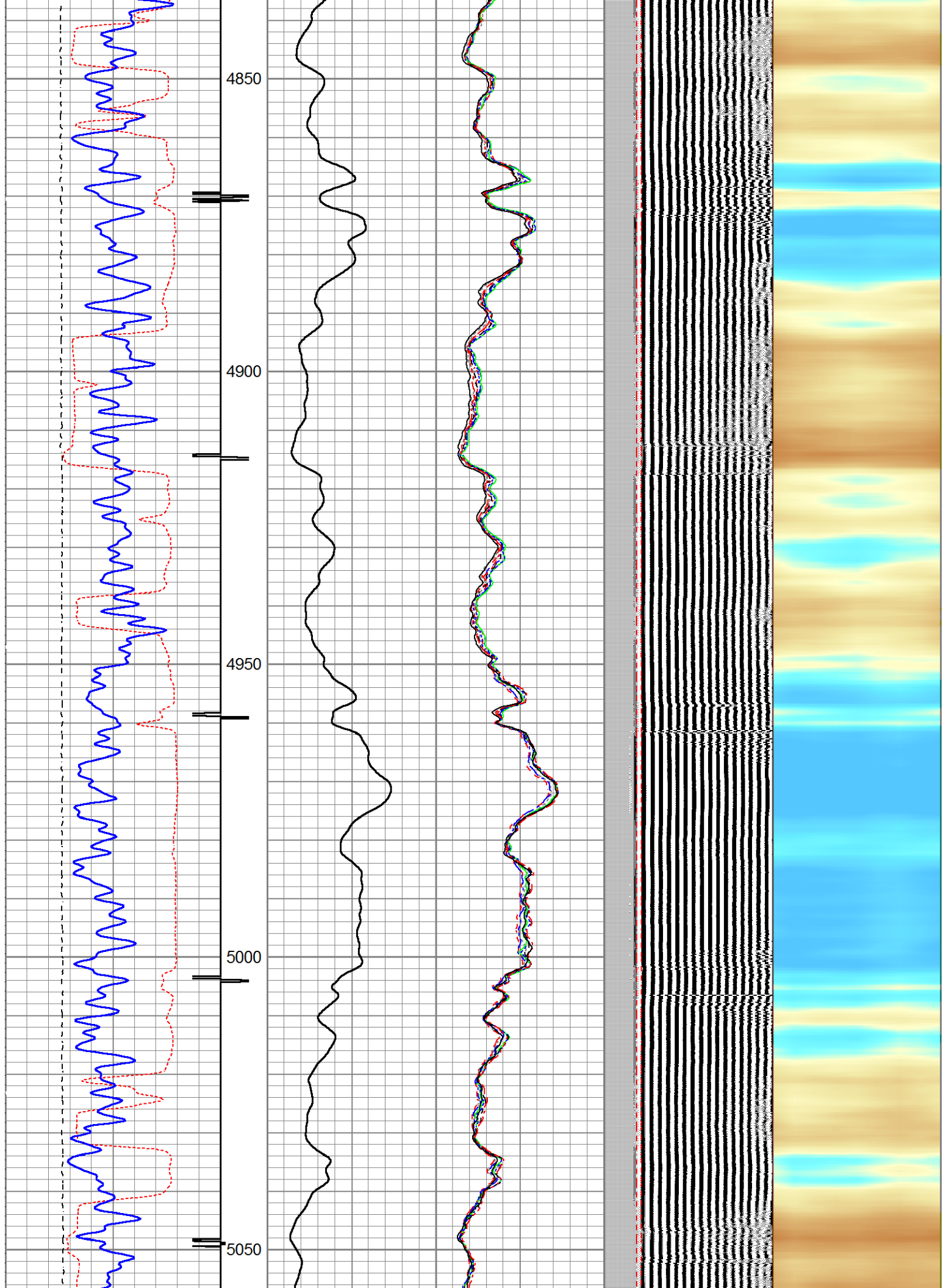


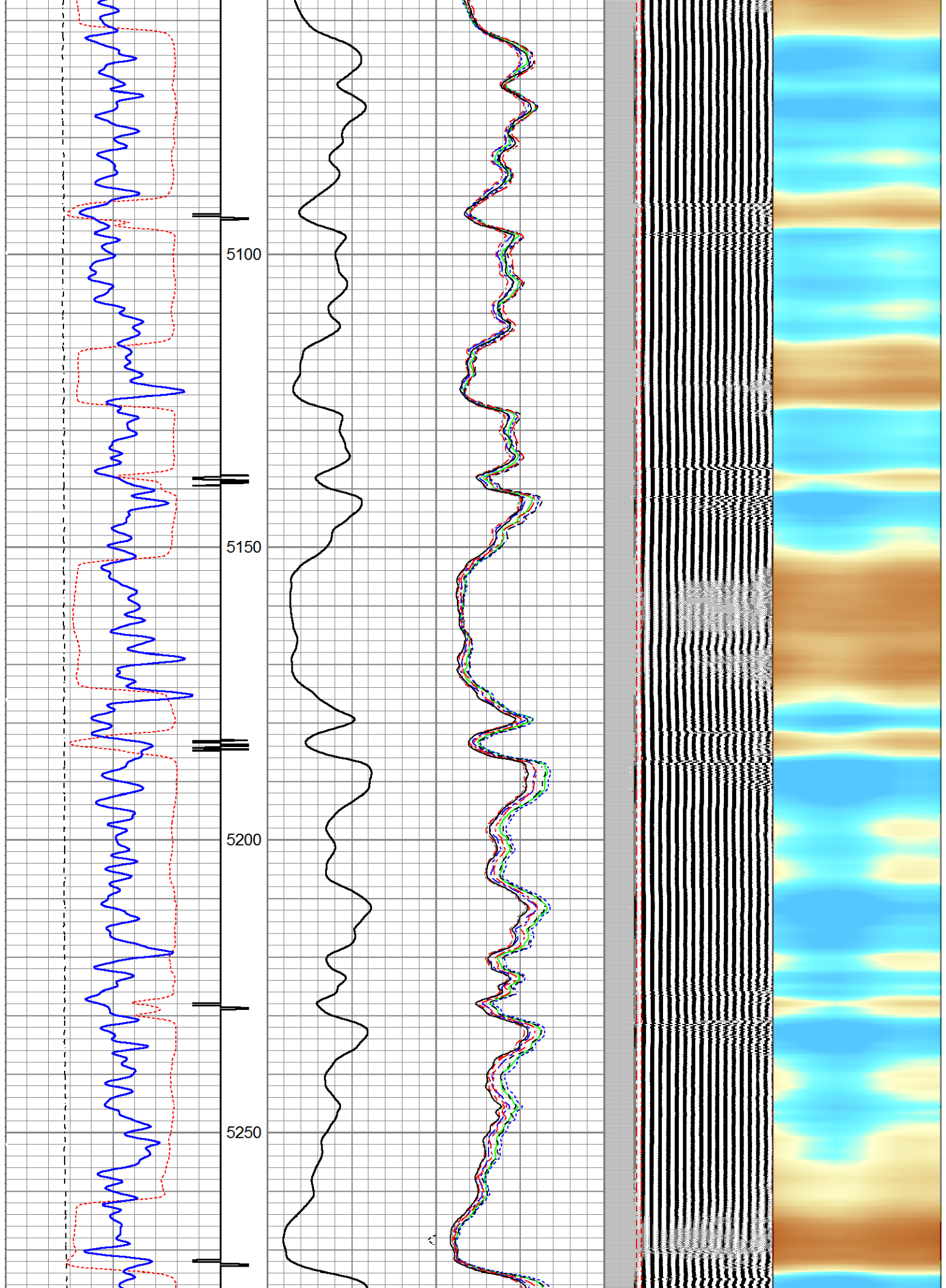


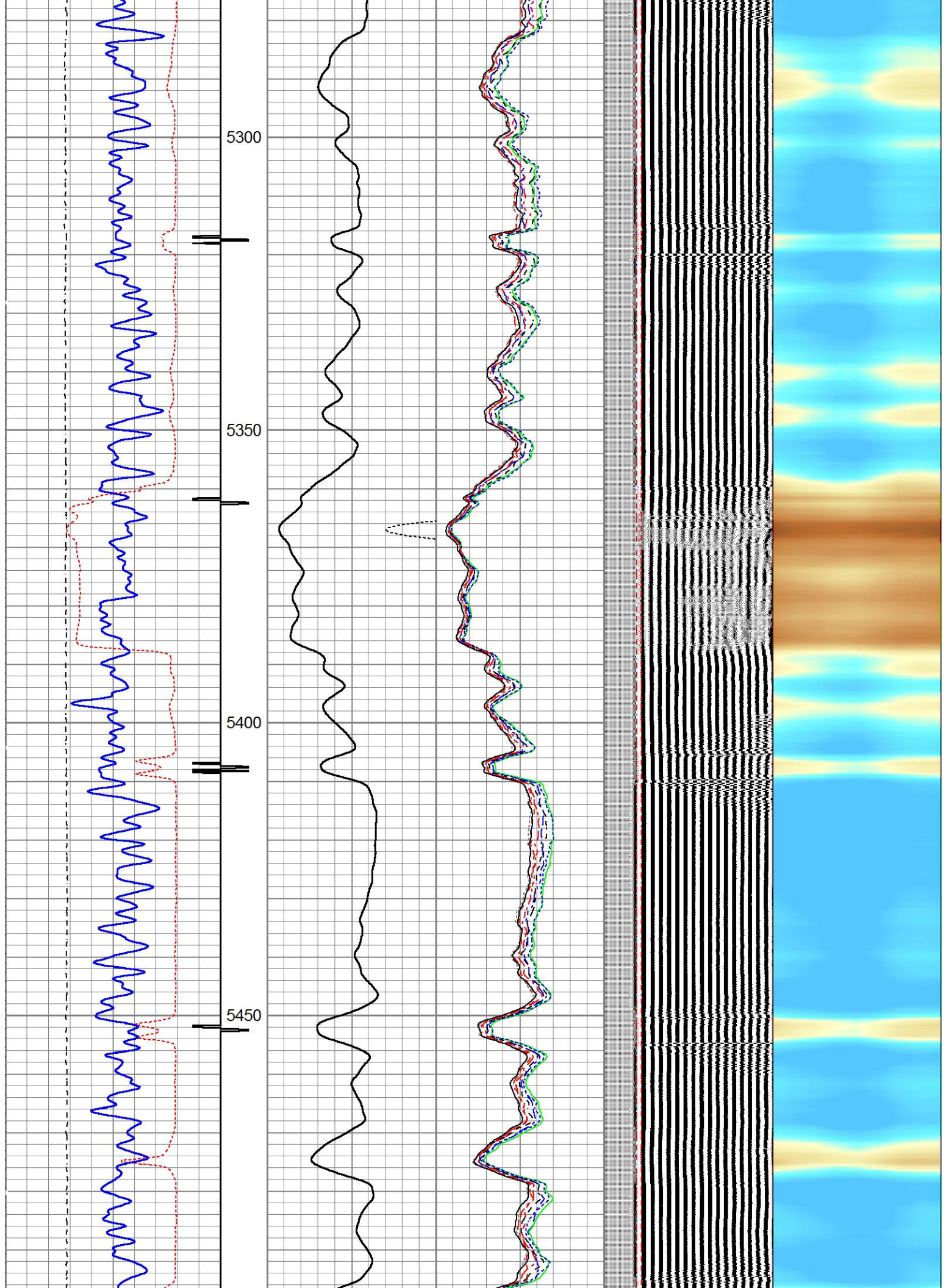


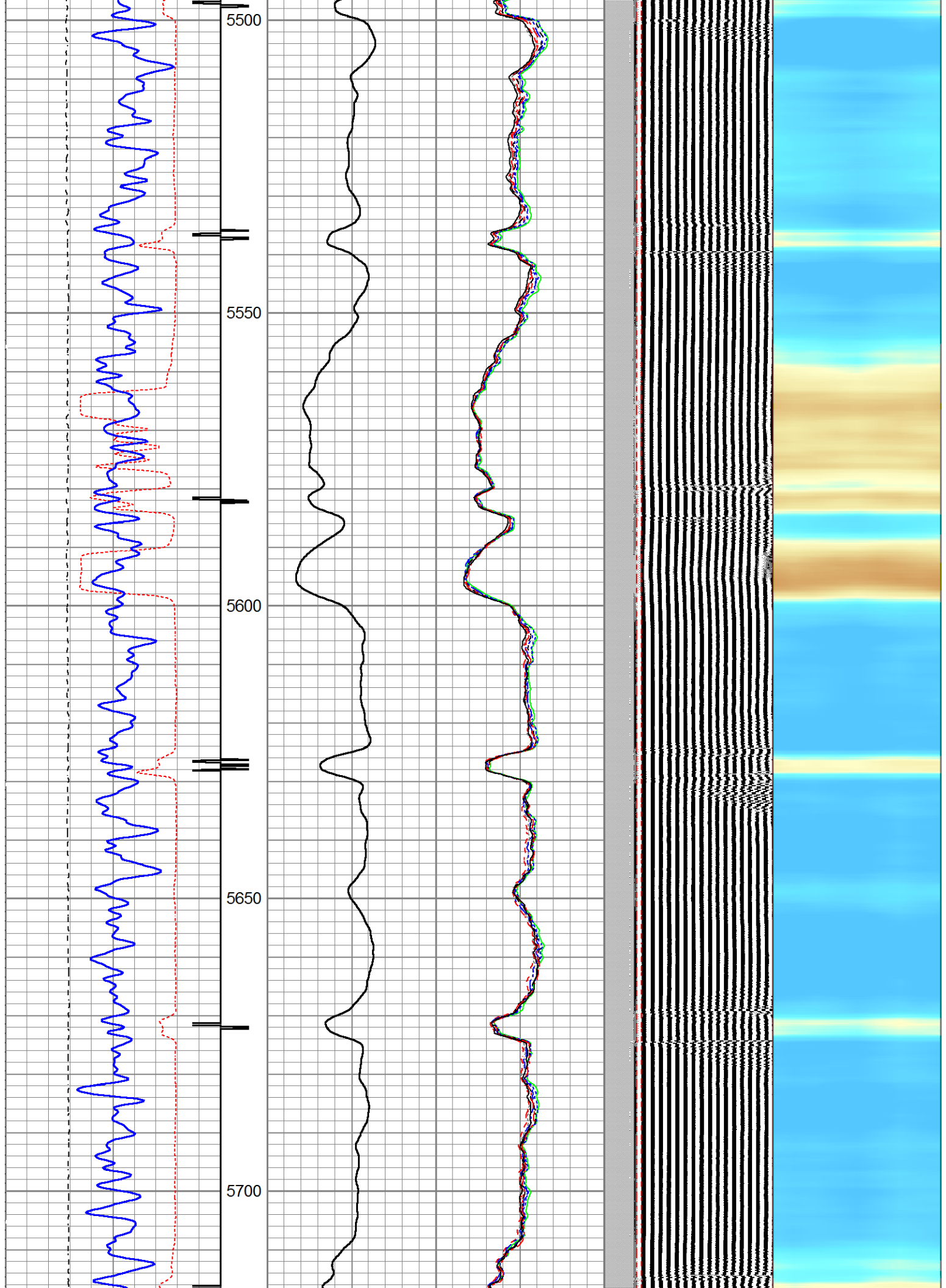


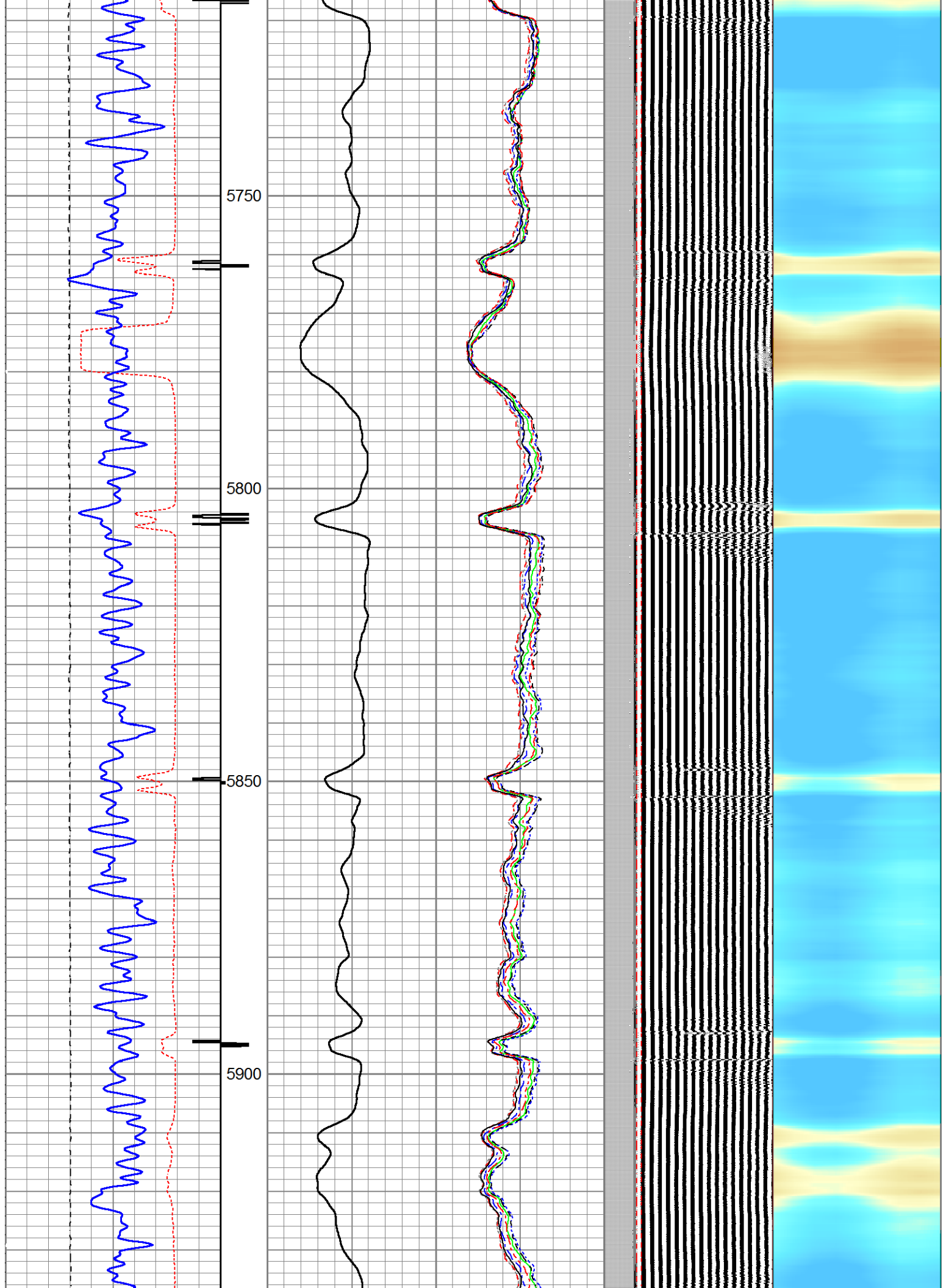


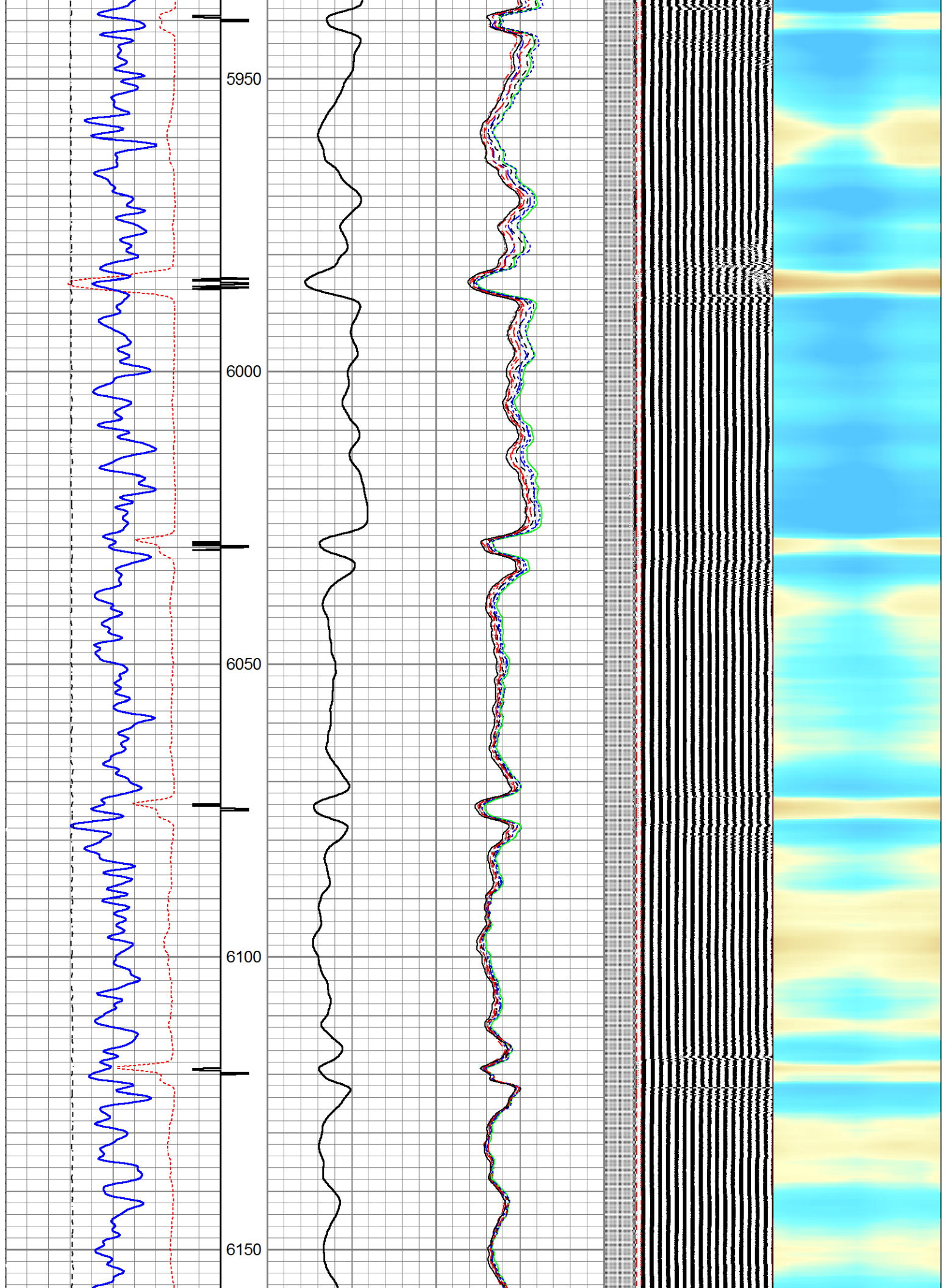


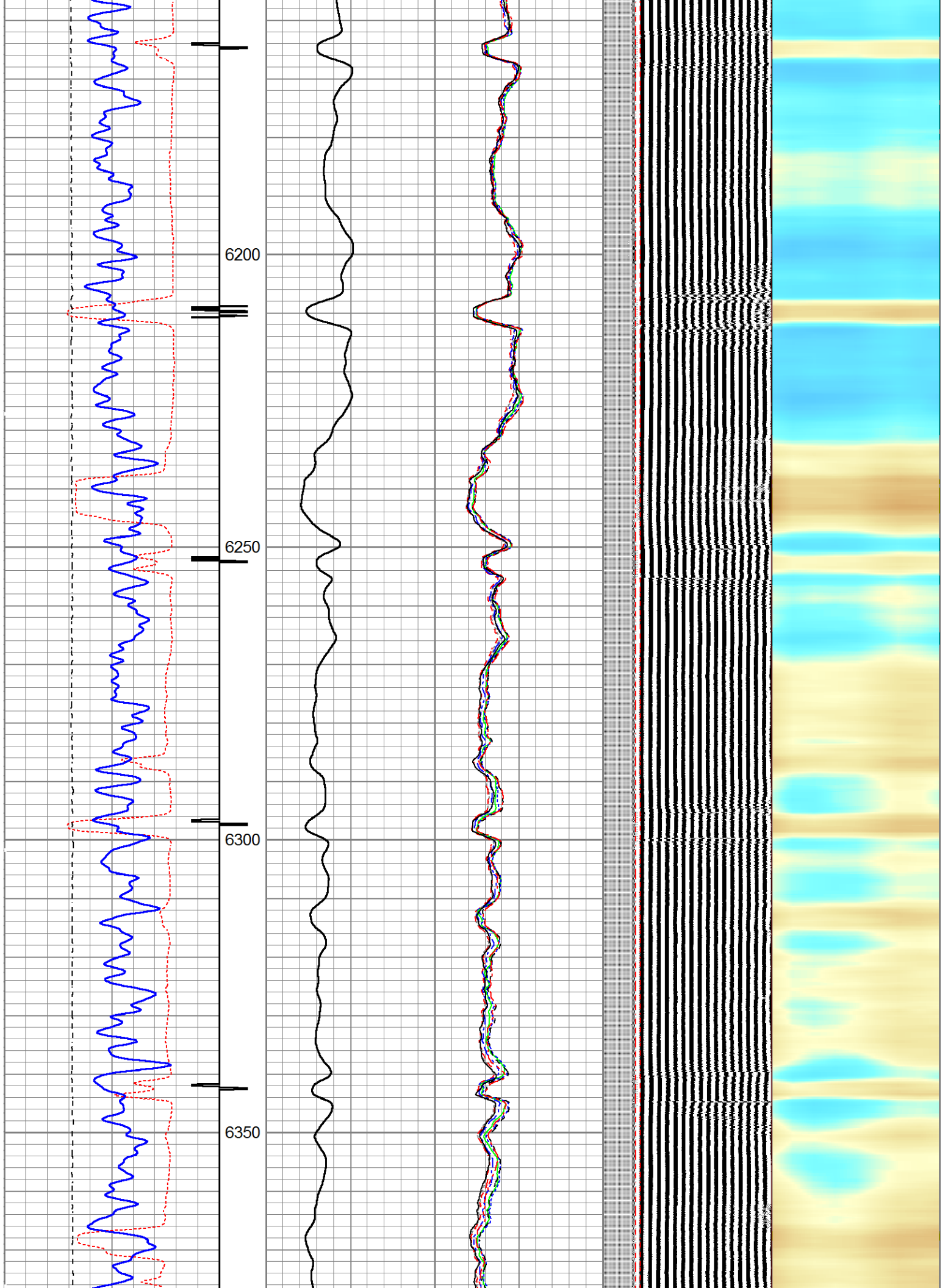


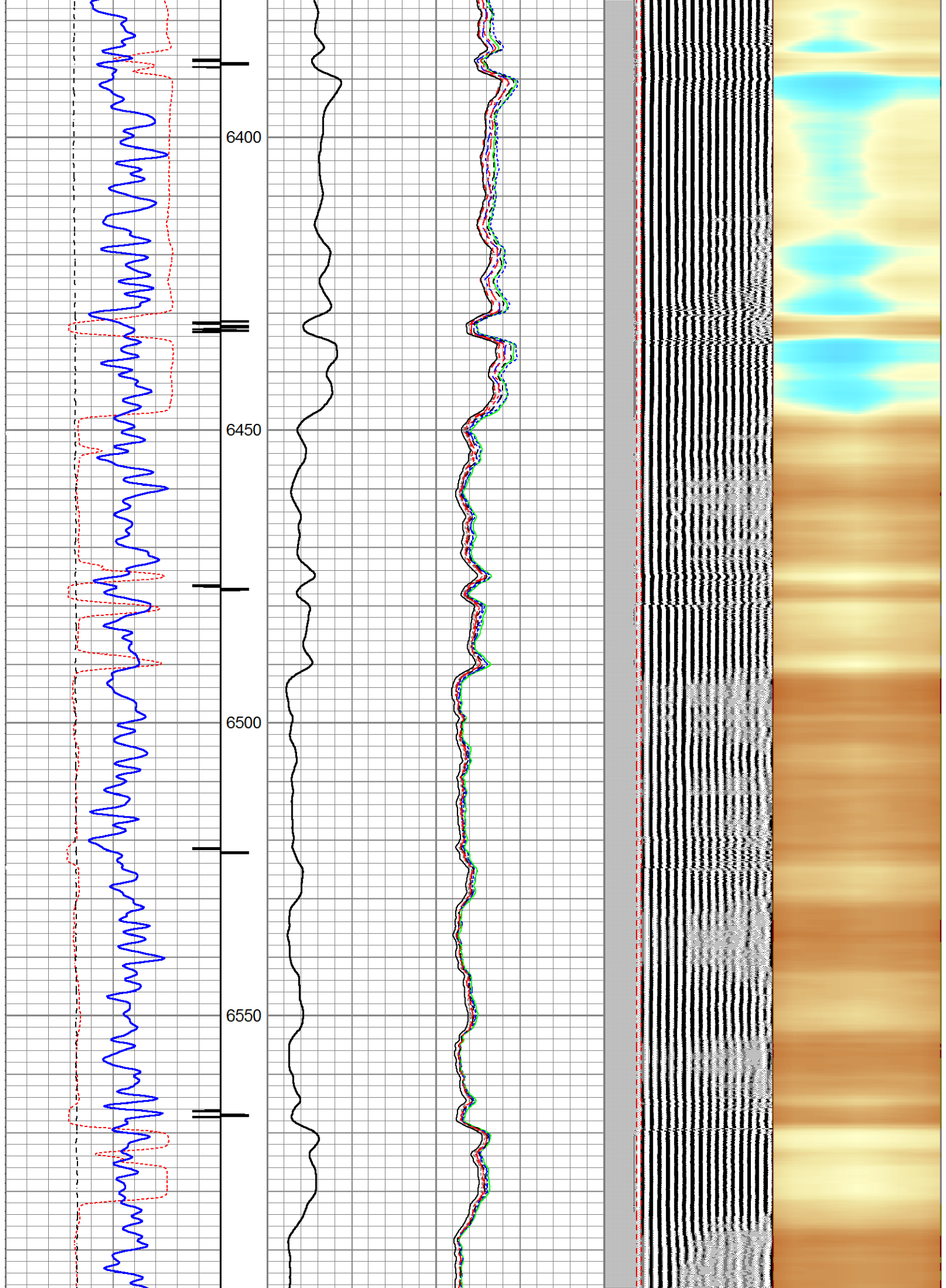


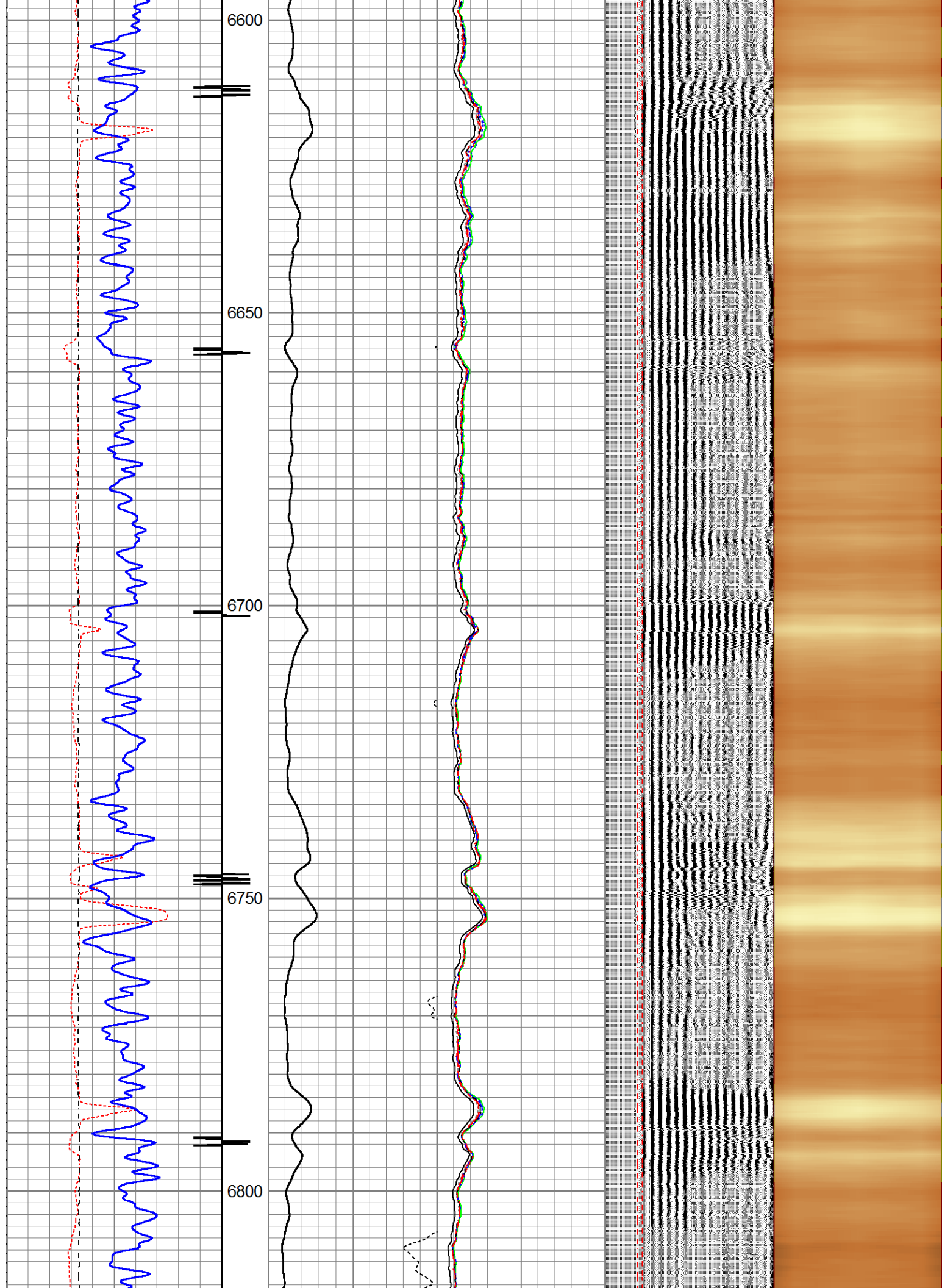


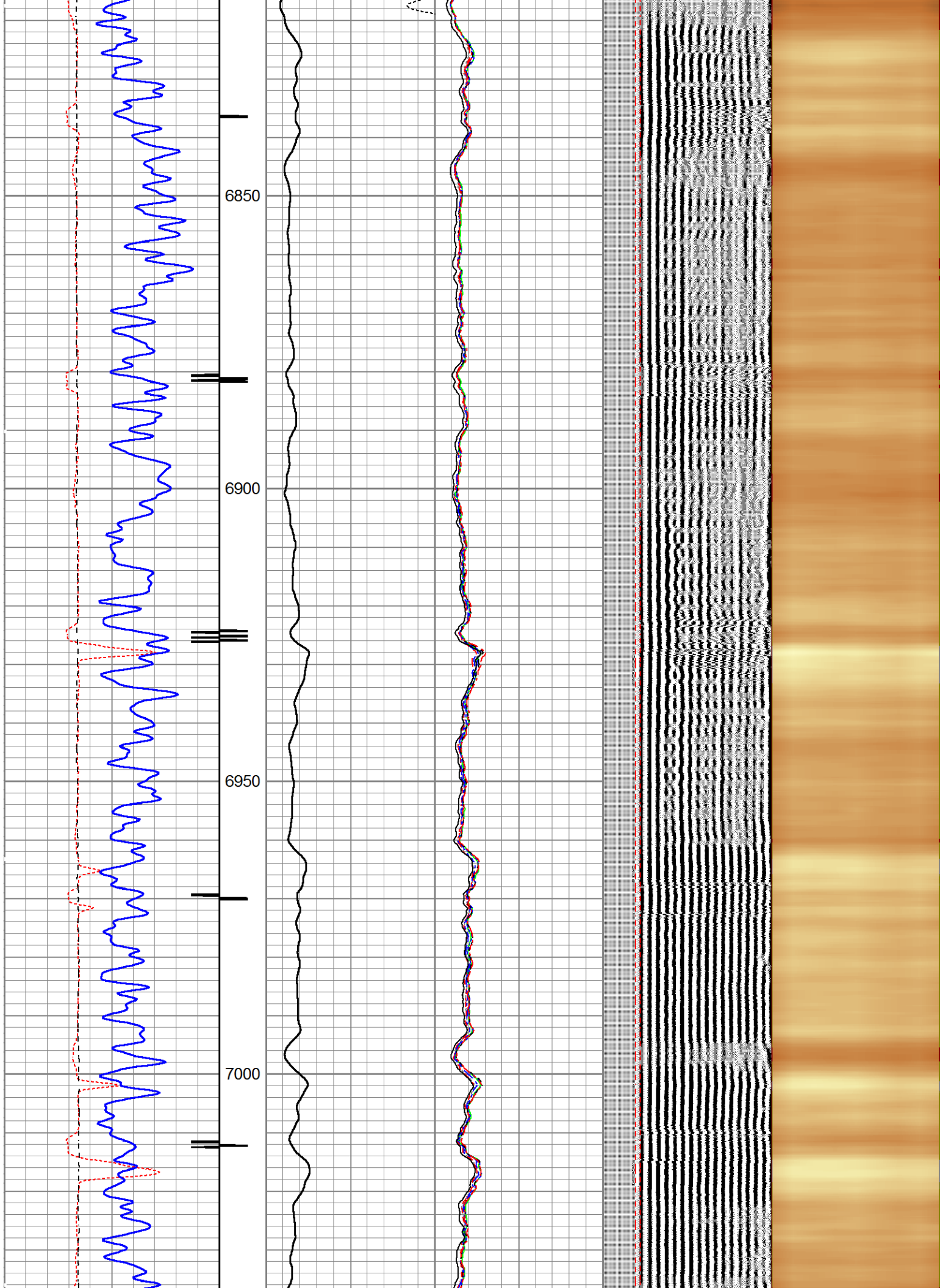


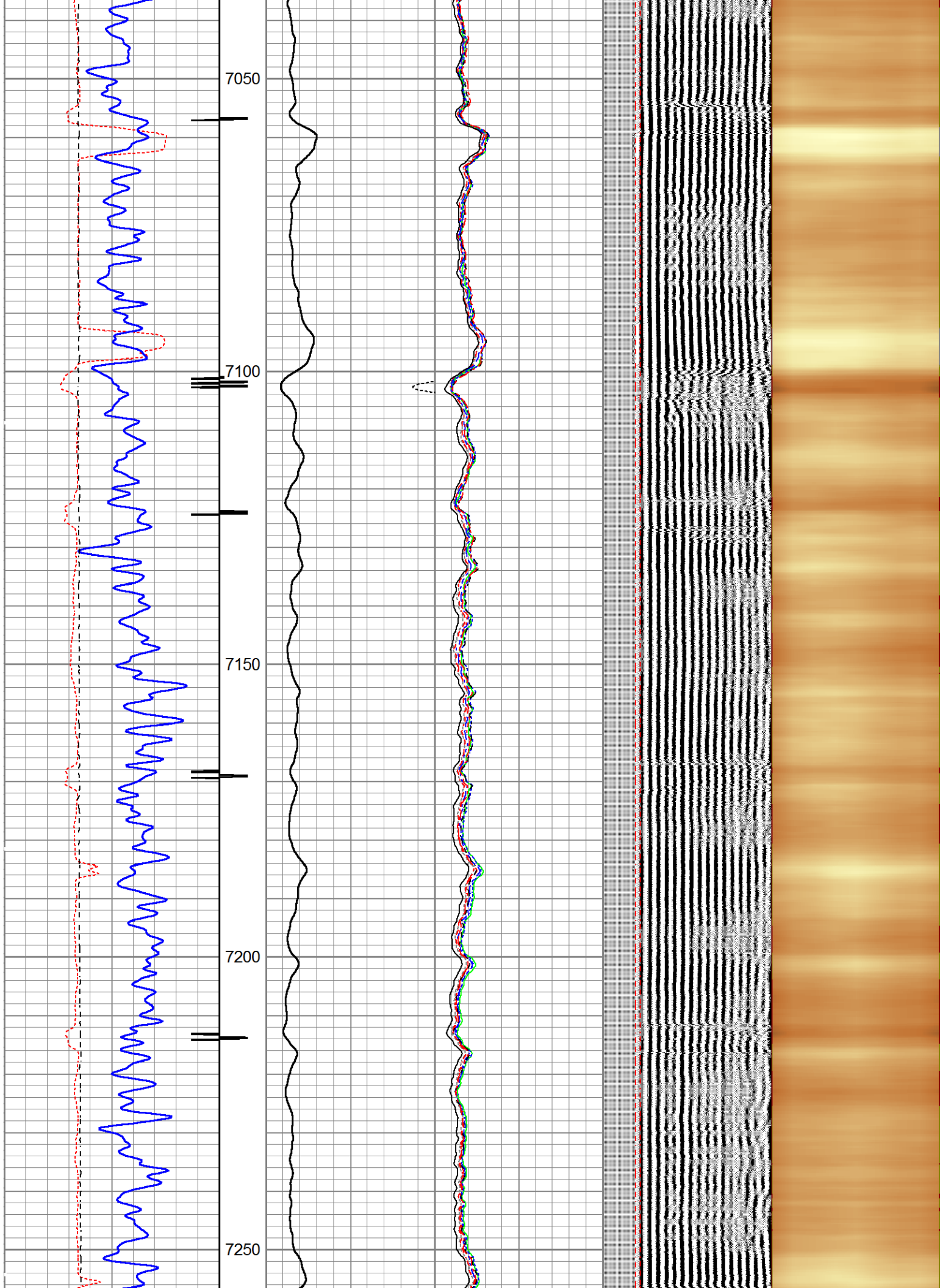


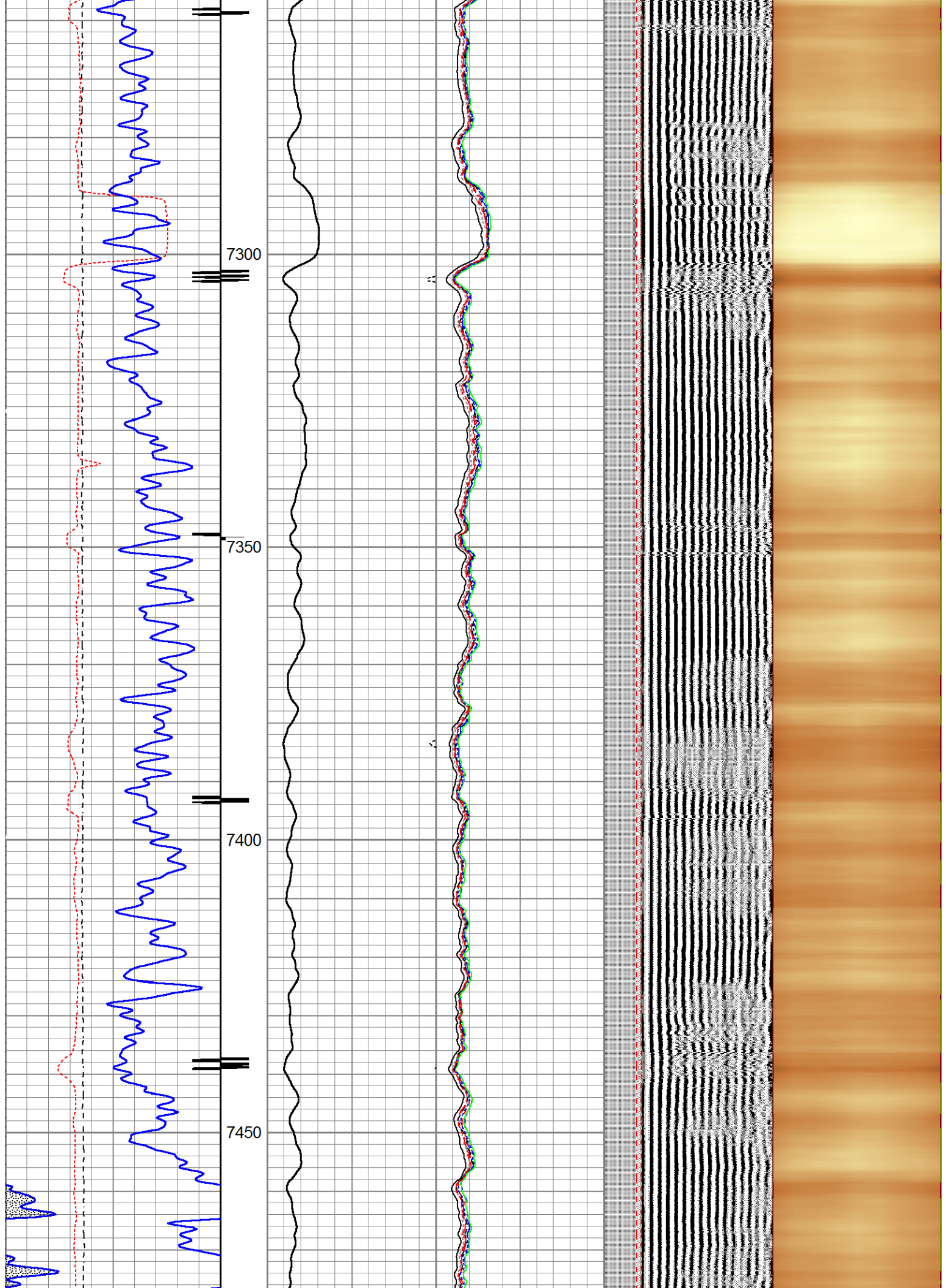


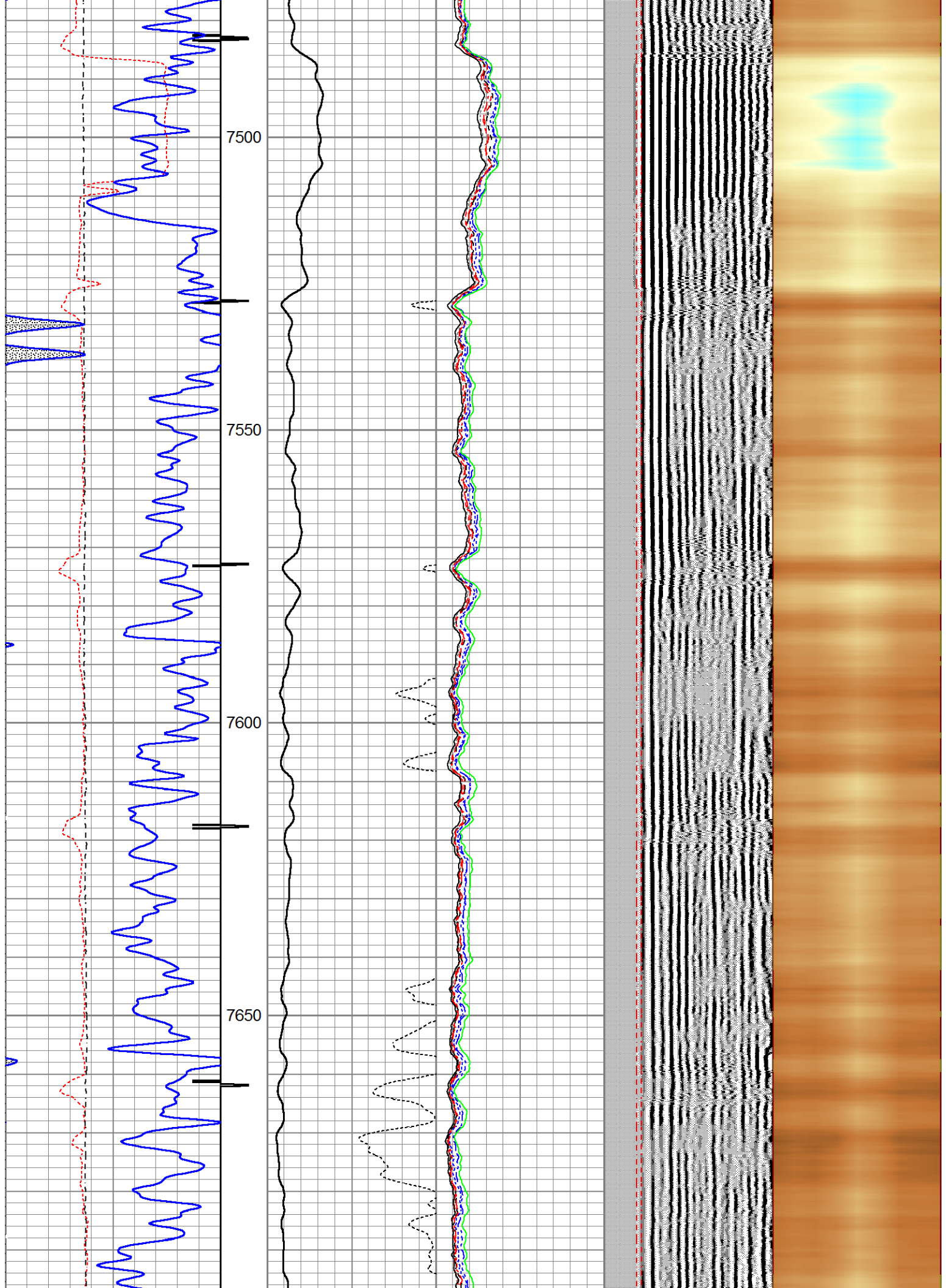


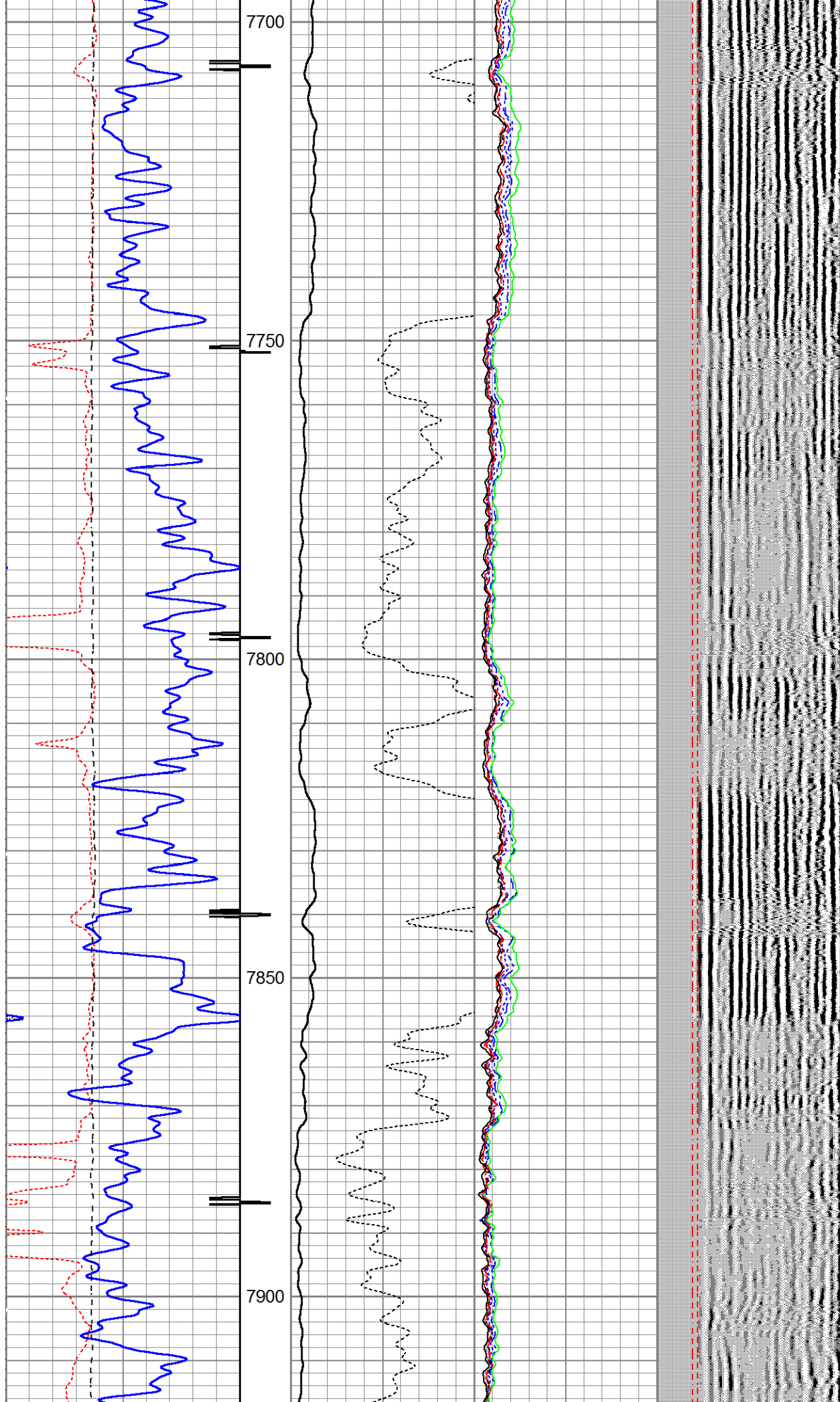


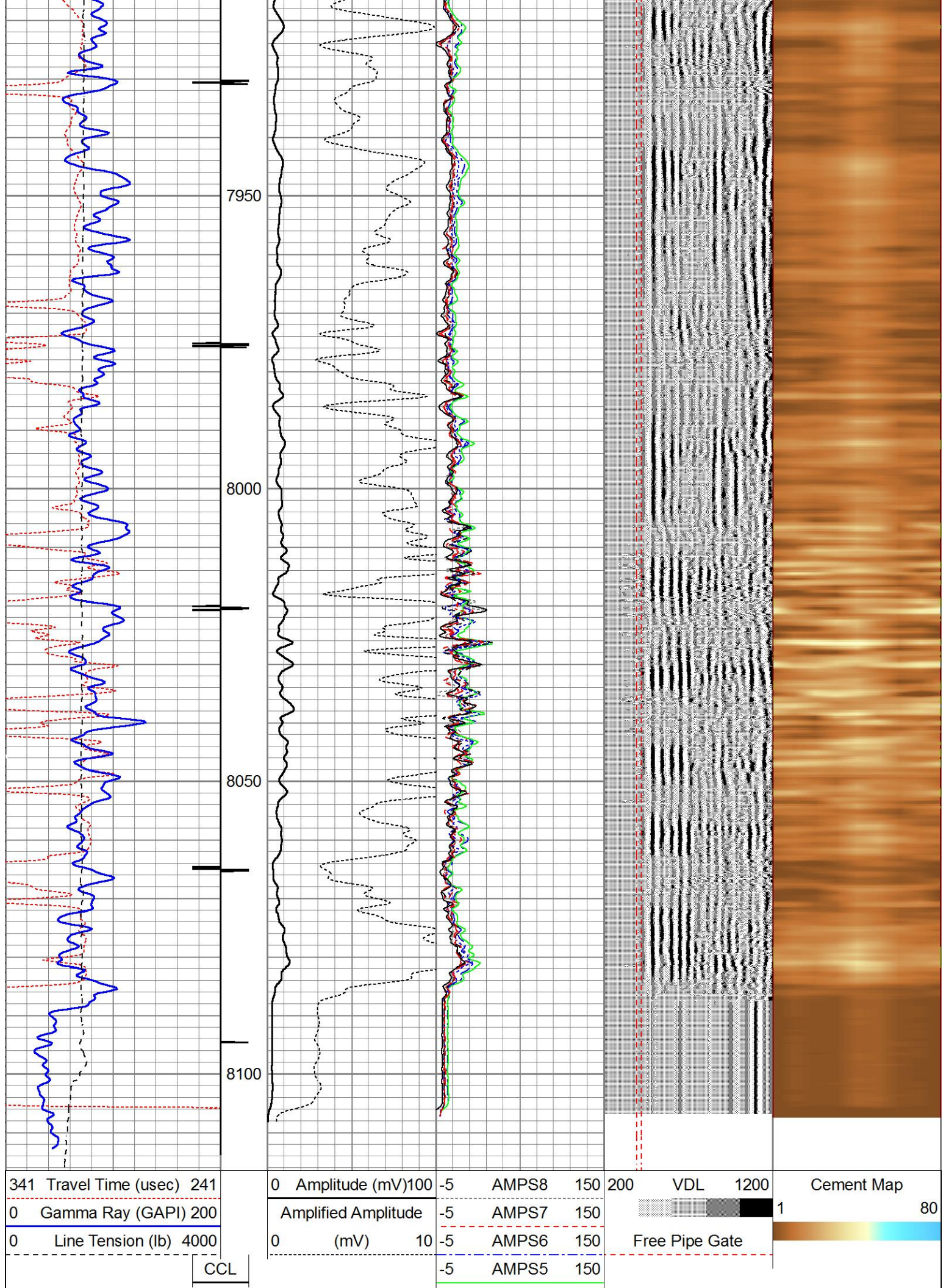












-5	AMPS4	150
-5	AMPS3	150
-5	AMPS2	150
-5	AMPS1	150



Main Pass (0) PSI

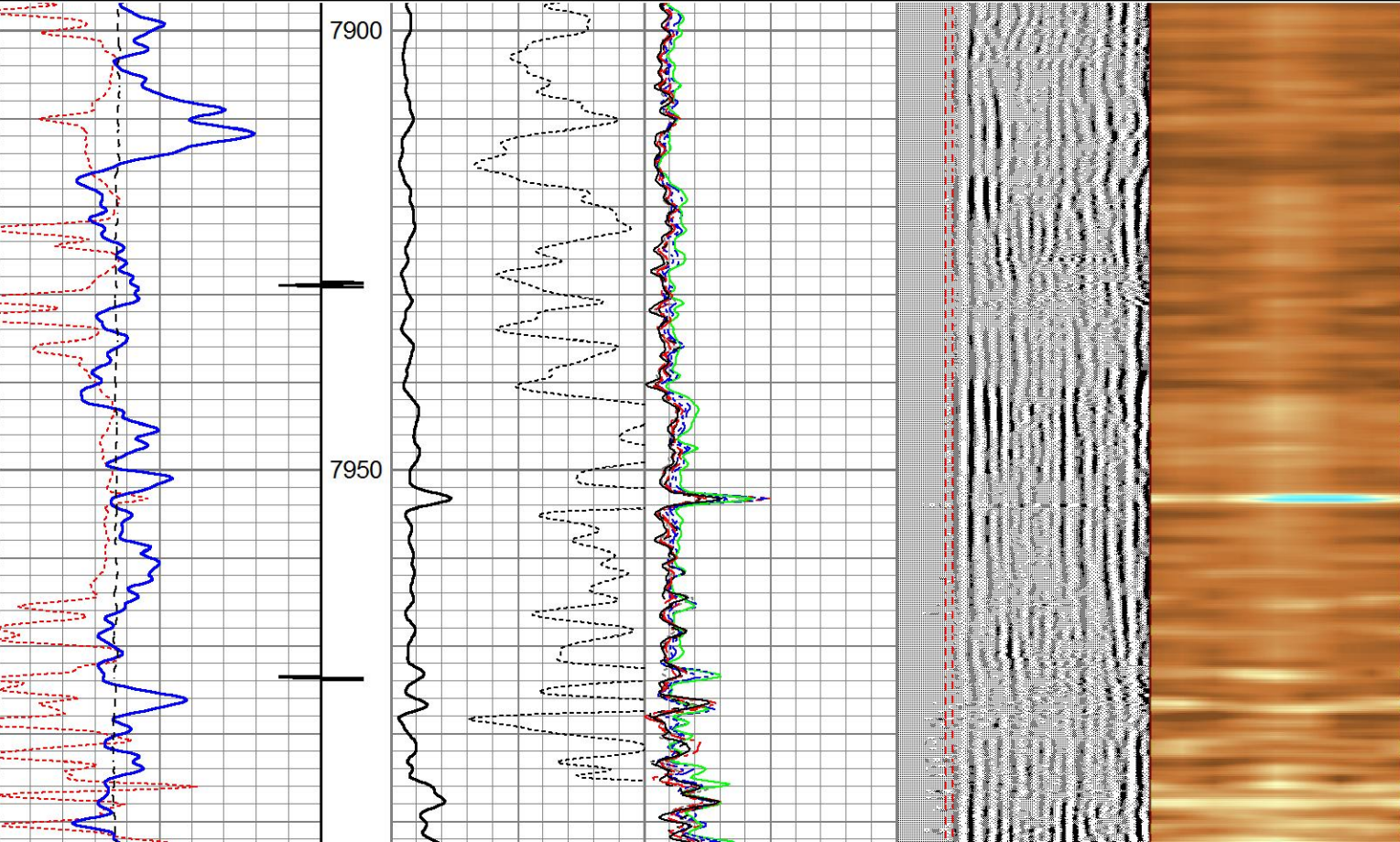


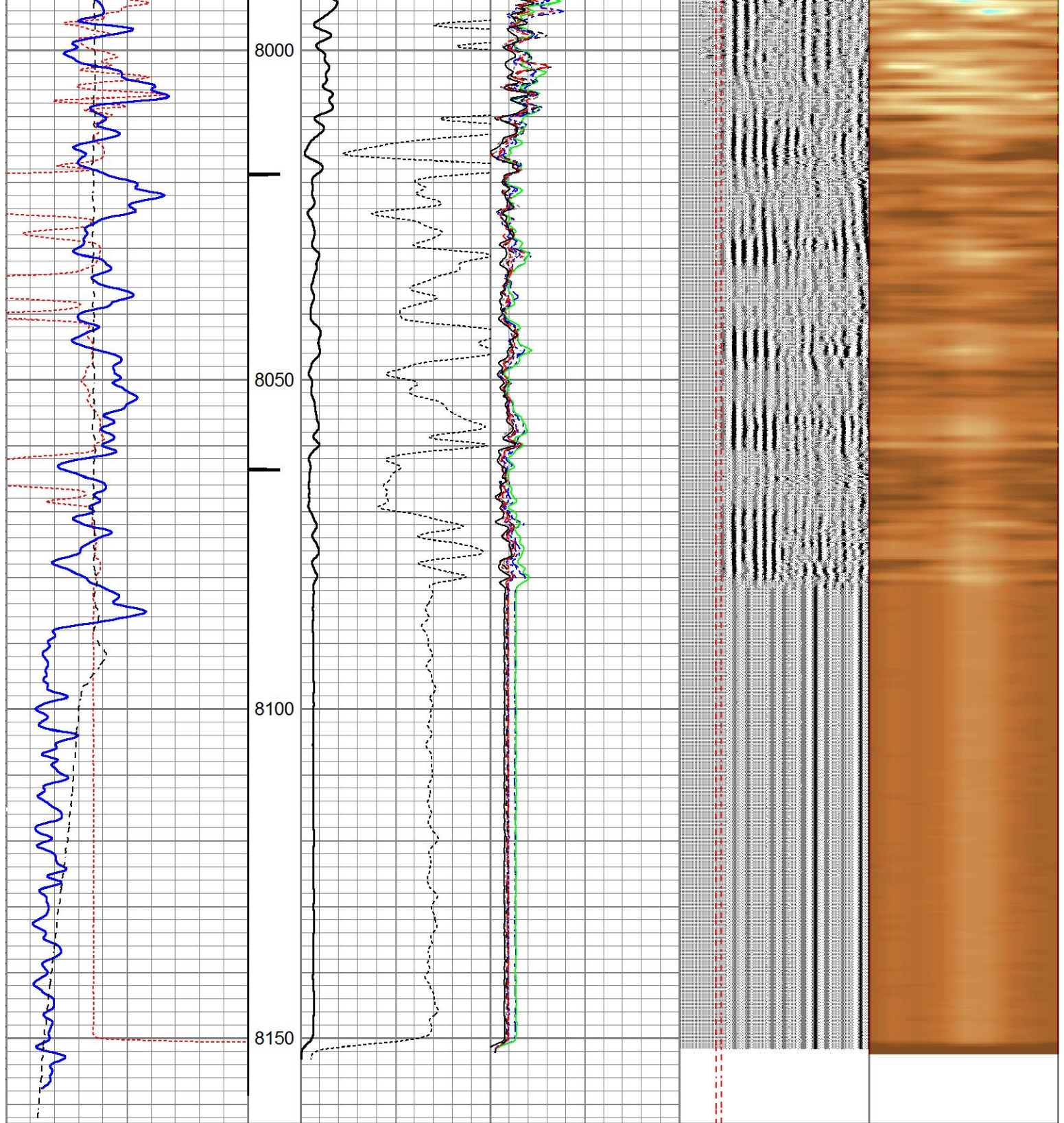
Repeat Pass (0) PSI

Database File
Dataset Pathname
Presentation Format
Dataset Creation
Charted by

e:\petroshare corp shook pad\db\s\fs0215 ps shook 3-10-5cdh cbl.db
Shook3-10-5CDH/run1/repeat1
scbl5_5
Sun Mar 04 22:33:02 2018
Depth in Feet scaled 1:240

341	Travel Time (usec)	241	0	Amplitude (mV)	100	-5	AMPS8	150	200	VDL	1200	Cement Map	
0	Gamma Ray (GAPI)	200		Amplified Amplitude		-5	AMPS7	150				1	80
0	Line Tension (lb)	4000	0	(mV)	10	-5	AMPS6	150		Free Pipe Gate			
						-5	AMPS5	150					
						-5	AMPS4	150					
						-5	AMPS3	150					
						-5	AMPS2	150					
						-5	AMPS1	150					





341 Travel Time (usec) 241
 0 Gamma Ray (GAPI) 200
 0 Line Tension (lb) 4000

CCL

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

200 VDL 1200
 Free Pipe Gate

Cement Map
 1 80

Log Variables

DatabaseE:\Petroshare Corp Shook Pad\DB's\fs0215 ps shook 3-10-5cdh cbl.db
Dataset field/Shook3-10-5CDH/run1/main_1/_vars_

Top - Bottom

BOREID in 7.875	BOTTEMP degF 100	CASEOD in 5.5	CASETHCK in 0	CASEWGHT lb/ft 20	MAXAMPL mV 72	MINAMPL mV 1	MINATTN db/ft 0.8
PERFS 0	PPT usec 0	SRFTEMP degF 0	TDEPTH ft 0				

Variable Description

BOREID : Borehole I.D.	CASEWGHT : Casing Weight	PERFS : Perforation Flag
BOTTEMP : Bottom Hole Temperature	MAXAMPL : Maximum Amplitude	PPT : Predicted Pipe Time
CASEOD : Casing O.D.	MINAMPL : Minimum Amplitude	SRFTEMP : Surface Temperature
CASETHCK : Casing Thickness	MINATTN : Minimum Attenuation	TDEPTH : Total Depth

Calibration Report

Database File E:\Petroshare Corp Shook Pad\DB's\fs0215 ps shook 3-10-5cdh cbl.db
Dataset Pathname Shook3-10-5CDH/run1/main_1
Dataset Creation Sun Mar 04 22:39:29 2018

Gamma Ray Calibration Report

Serial Number:	pr120363	
Tool Model:	Probe275dig	
Performed:	(Not Performed)	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Radial Cement Bond Calibration Report

Serial Number:	120768C	
Tool Model:	Probe	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	4985.643	ft

Master Calibration, performed Sun Mar 04 22:16:05 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	0.479	1.000	71.921	149.089	0.549
CAL	0.003	0.836				
5'	0.003	0.328	1.000	71.921	217.916	0.396
SUM						
S1	0.037	0.520	0.000	100.000	206.853	-7.558
S2	0.004	0.487	0.000	100.000	206.931	-0.743
S3	0.006	0.472	0.000	100.000	214.349	-1.204
S4	0.006	0.457	0.000	100.000	221.627	-1.369

S5	0.004	0.451	0.000	100.000	223.489	-0.810
S6	0.004	0.475	0.000	100.000	212.415	-0.913
S7	0.004	0.503	0.000	100.000	200.470	-0.849
S8	0.006	0.516	0.000	100.000	195.868	-1.129



Internal Reference Calibration, performed Sat Mar 03 18:58:32 2018:

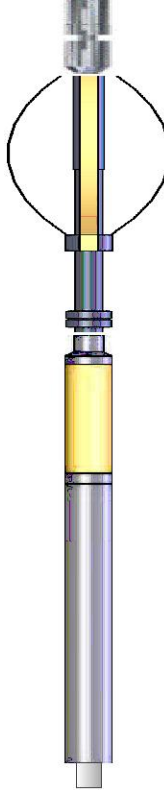
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.003	0.836	1.000	0.000


Temperature Calibration Report

Serial Number: 120768C
Tool Model: Probe
Performed: Tue Oct 09 13:55:20 2012

	Reference	Reading
Low Reference:	100.000	109.429
High Reference:	350.000	407.272
Gain:	0.839	
Offset:	8.149	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
ExTemp	14.41		CHD-1.4375CHD Titan Cable Head 1 7/16	1.00	1.44	10.00
			CENT-Probe Probe 2 3/4 Centralizer	2.88	2.75	20.00
			CLT-RBT-Probe (120768C) Probe 2.75" Radial Bond Tool w/Temperature	9.21	2.75	93.00
WVFS8	12.11					
WVFS7	12.11					
WVFS6	12.11					
WVFS5	12.11					
WVFS4	12.11					
WVFS3	12.11					
WVFS2	12.11					
WVFS1	12.11					

WVFCAL	12.11					
WVF3FT	12.11					
WVF5FT	11.11					
			CENT-Probe Probe 2 3/4 Centralizer	2.88	2.75	20.00
CCL	4.14					
GR	2.81		CLT-GR-Probe275dig (pr120363) Probe Digital Gamma CCL	4.78	2.75	57.00
			Titan-1.375_Cap Titan 1 3/8" Cap	0.27	1.38	1.00
Dataset: fs0215 ps shook 3-10-5cdh cbl.db: field/Shook3-10-5CDH/run1/main_1 Total length: 21.01 ft Total weight: 201.00 lb O.D.: 2.75 in						

Company	Petroshare Corp				
Well	SHOOK 3-10-5CDH				
Field	WATTENBERG				
County	ADAMS		State	COLORADO	
			Radial Cement Bond Gamma Ray CCL Log		