C&J ENERGY SERVICES

GAMMA RAY C.C.L.
CEMENT BOND V.D.L.

Company PDC Energy
Well Fern 11W - 214
Field Wattenberg
County Weld State CO

Location: API #: 05-123-44583
396' FNL & 687' FWL
NW / NW
SEC 11 TWP 5N RGE 65W

Other Services

Permanent Datum GL Elevation 4619'
Log Measured From GL
Drilling Measured From KB

Elevation
K.B.
D.F.
G.L. 4619'

Company PDC Energy
Well Fern 11W - 214
Field Wattenberg
County Weld
State CO

Date	April 27, 2018	
Run Number	1	
Depth Driller	15,777'	
Depth Logger	6900'	
Bottom Logged Interval	6900'-0'	
Top Log Interval		
Casing Size		
Type Fluid	WATER	
Max. Recorded Temp.	N/A	
Estimated Cement Top		
Time Well Ready		
Time Logger On Bottom		
Unit Number	923856	
Tool Size / ID Number	2-3/4" Probe Radii	
Location	HWY263+Fern,S1/10,Einto	
Recorded By	Meisner	
Witnessed By	Gardella	

Borehole Record			Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String	5.5"			
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

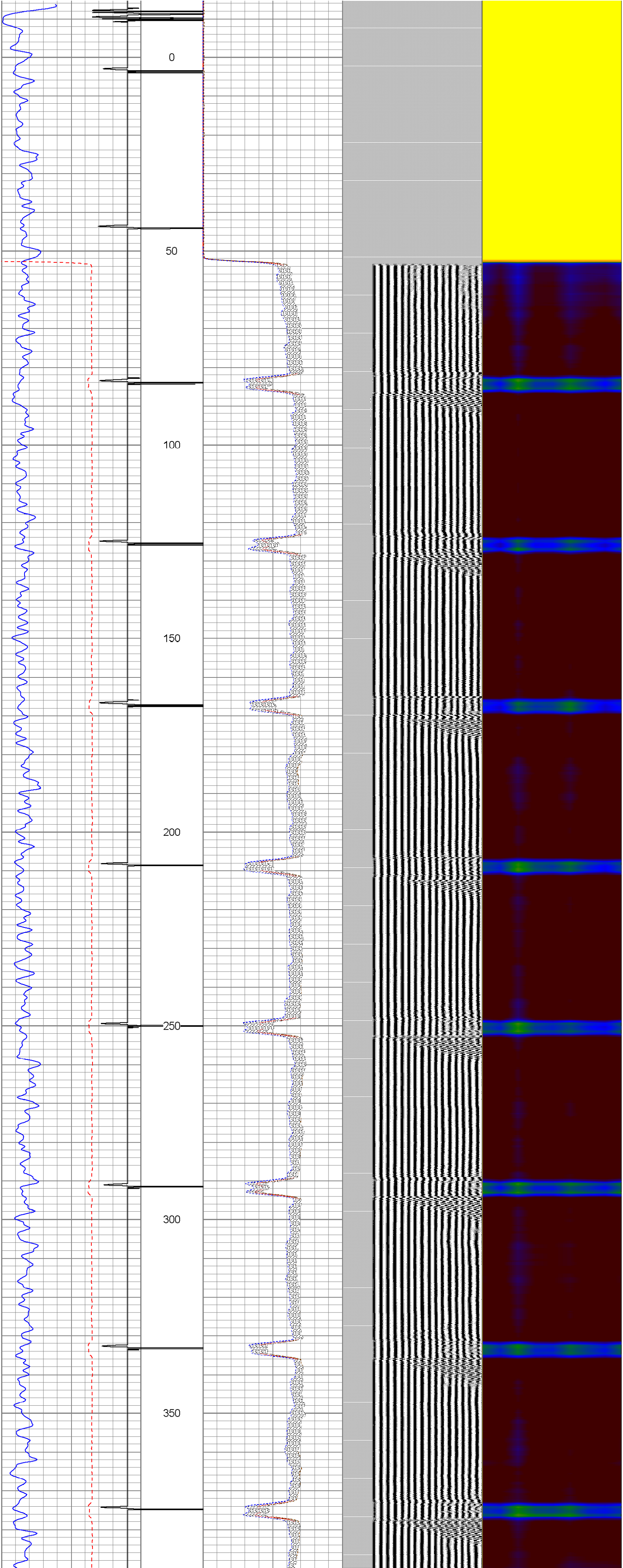
Fern 10 Well Pad

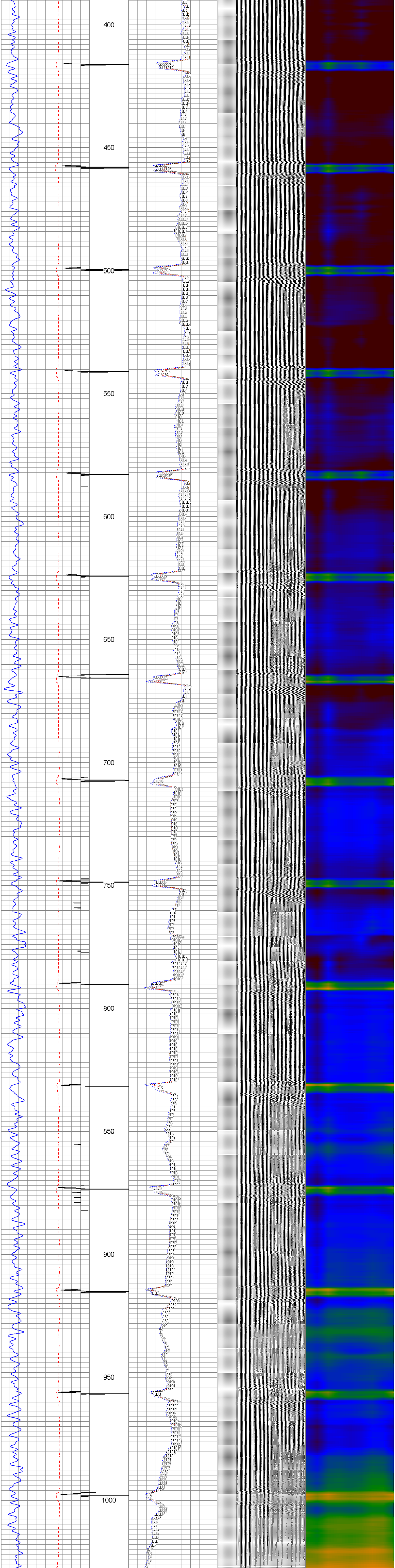
<NORTH> O O O O O O O O O X <SOUTH>

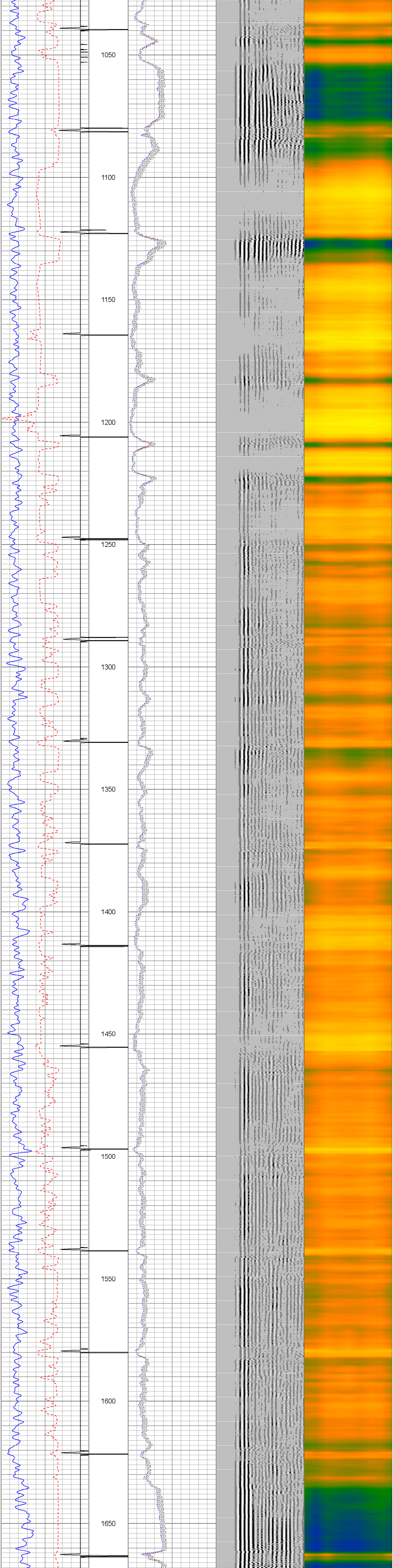
X = Fern 11W - 214

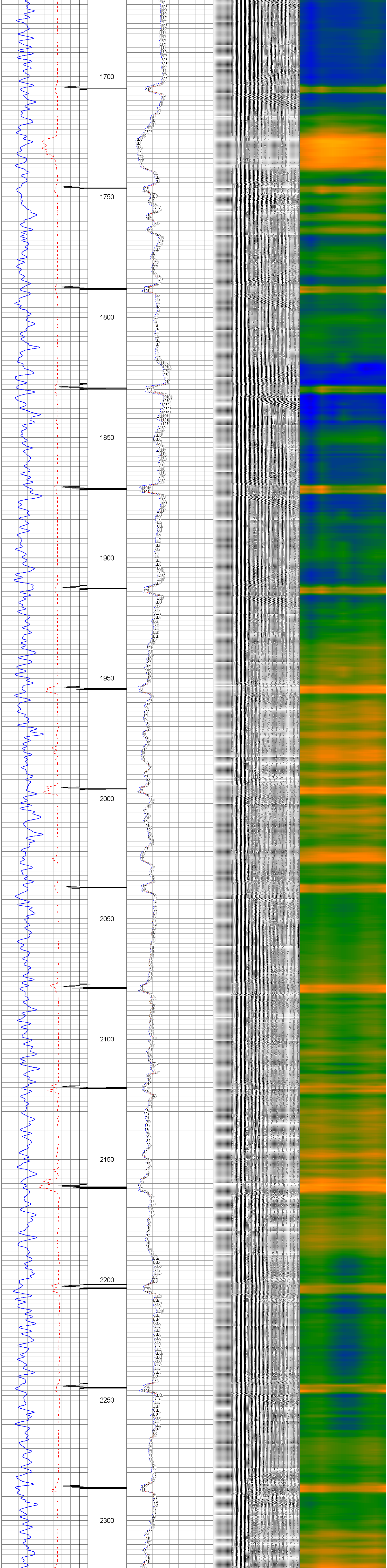
Database File:	pdcf11w214.db
Dataset Pathname:	pass3
Presentation Format:	sector2
Dataset Creation:	Fri Apr 27 08:12:21 2018 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

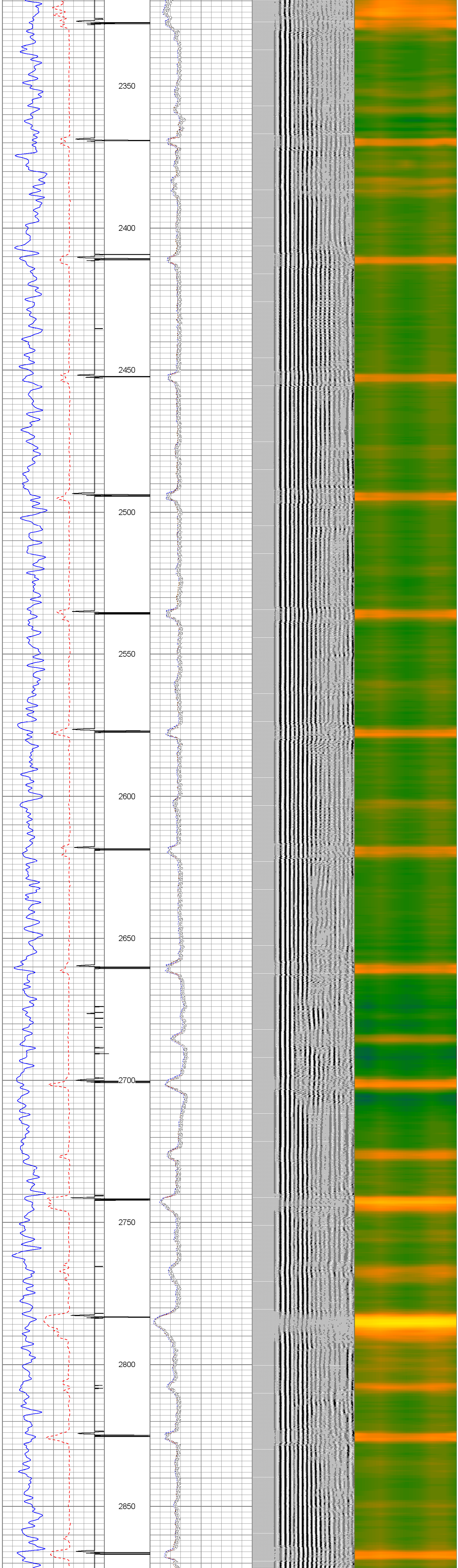
0 GR (GAPI) 200 | 5 CCL 5.5 | 0 AMPMAX 100 | 200 WVF5FT 1200 | 1 Sector Map 8
400 TT3FT (usec) 200 | 0 AMPAVG 100
-50 CCL 5 | 0 AMPMIN 100
0 AMP3FT (mV) 100

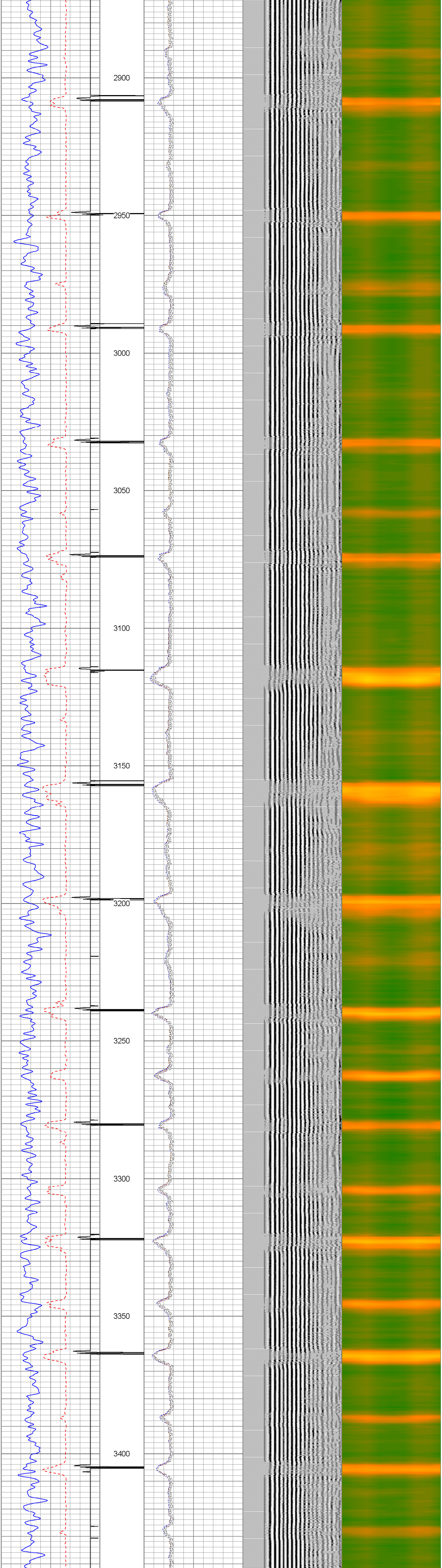


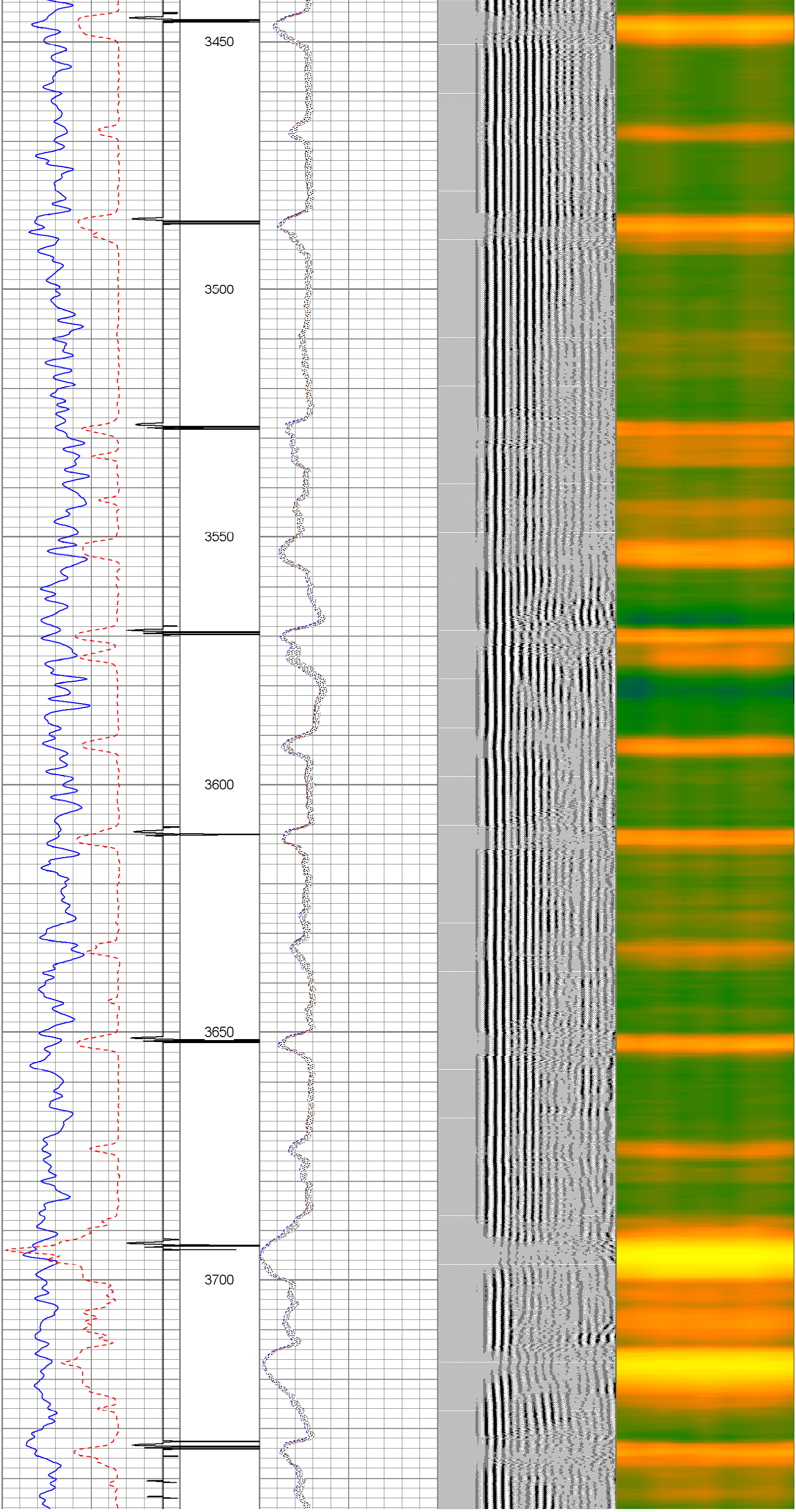


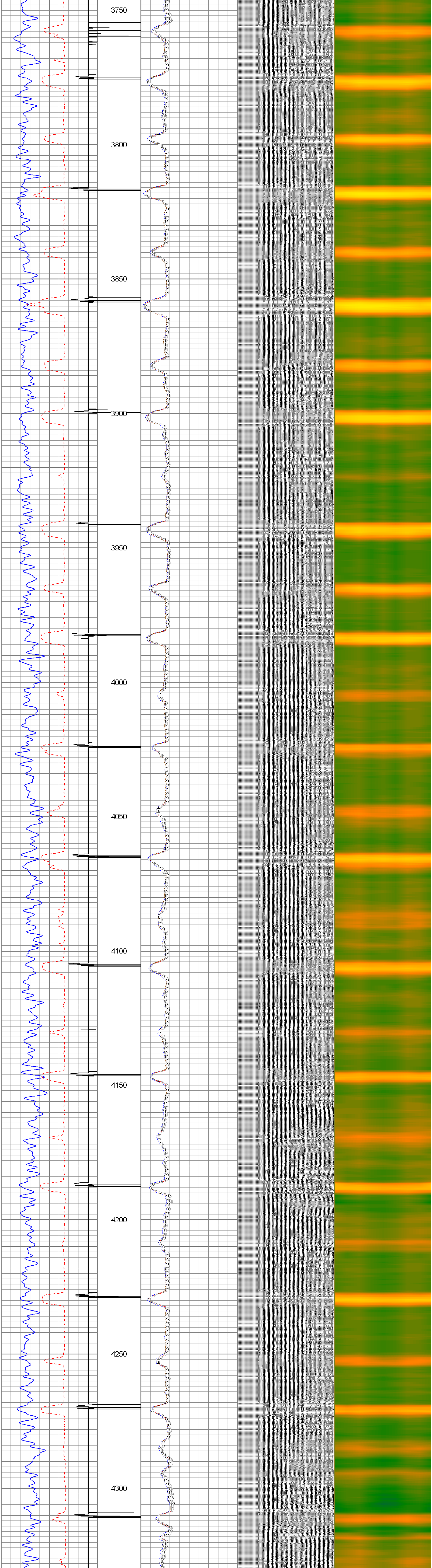


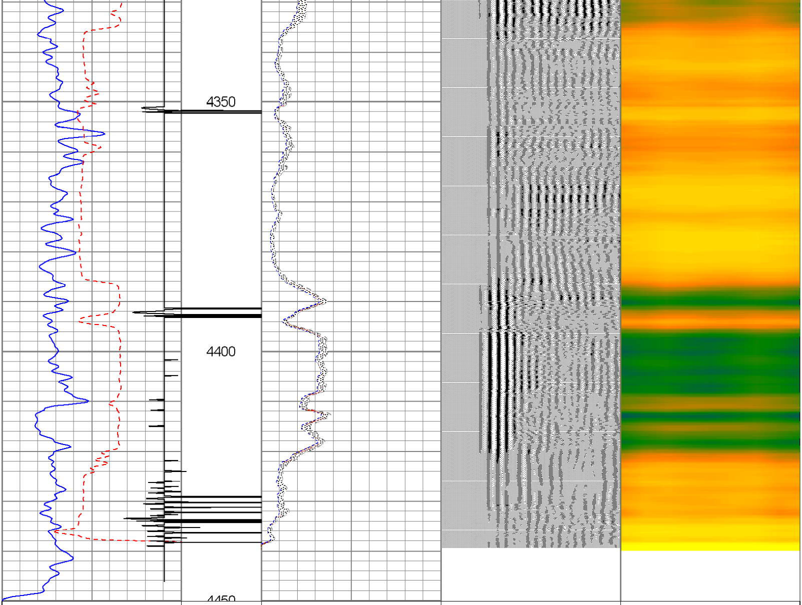








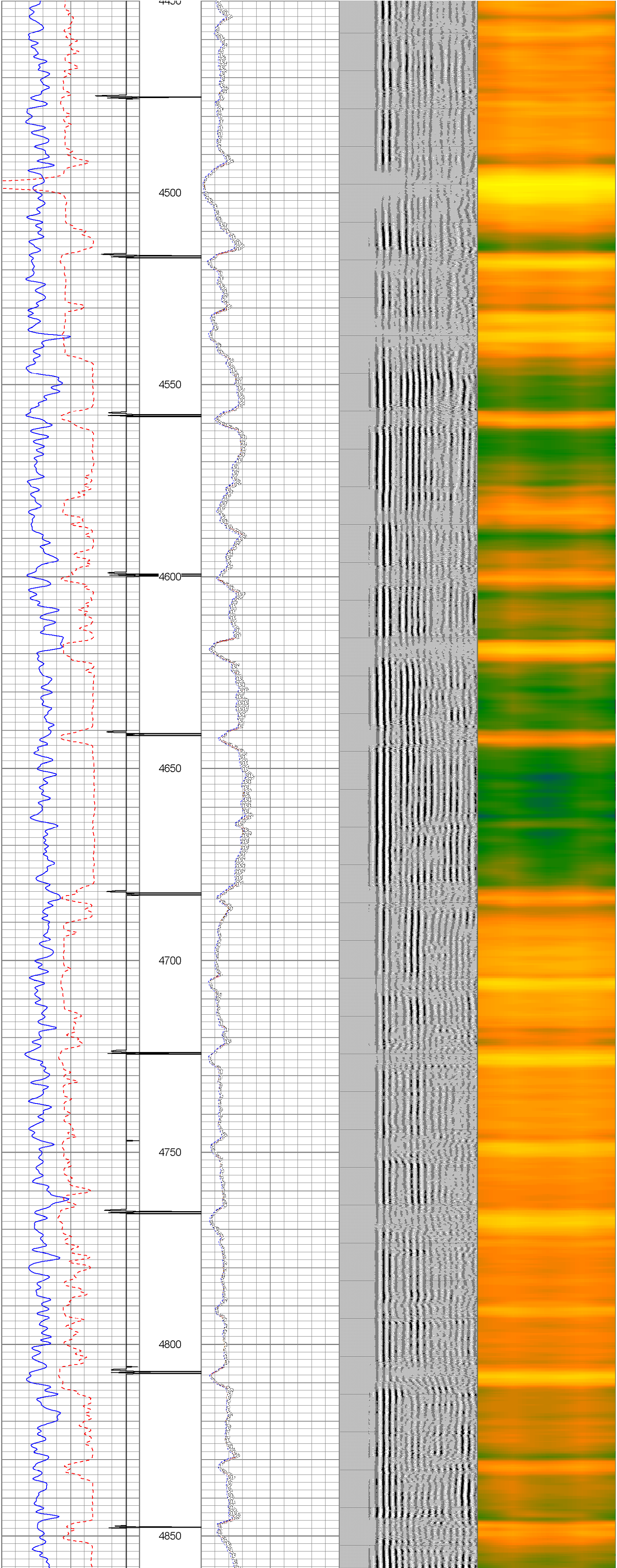


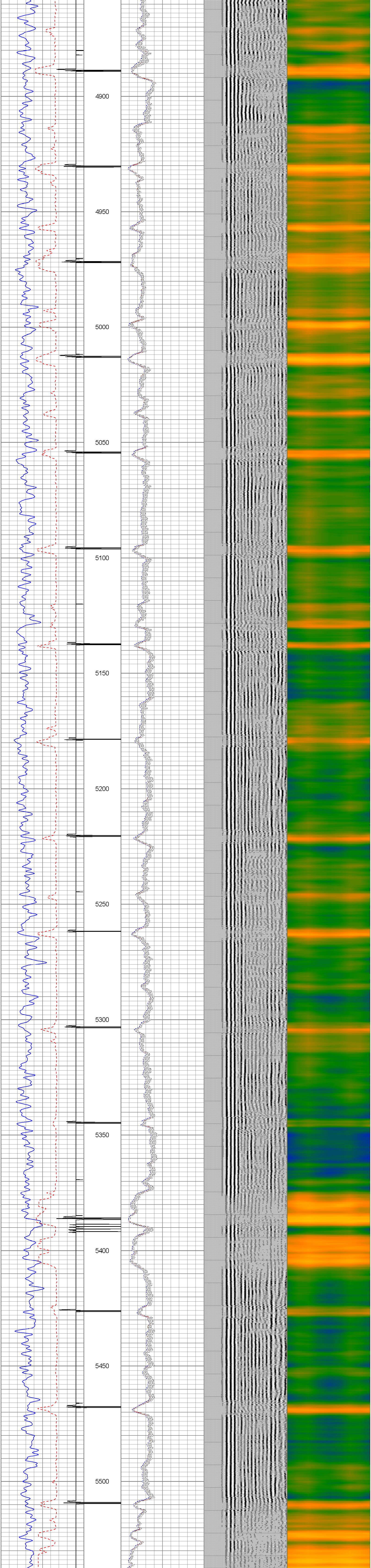


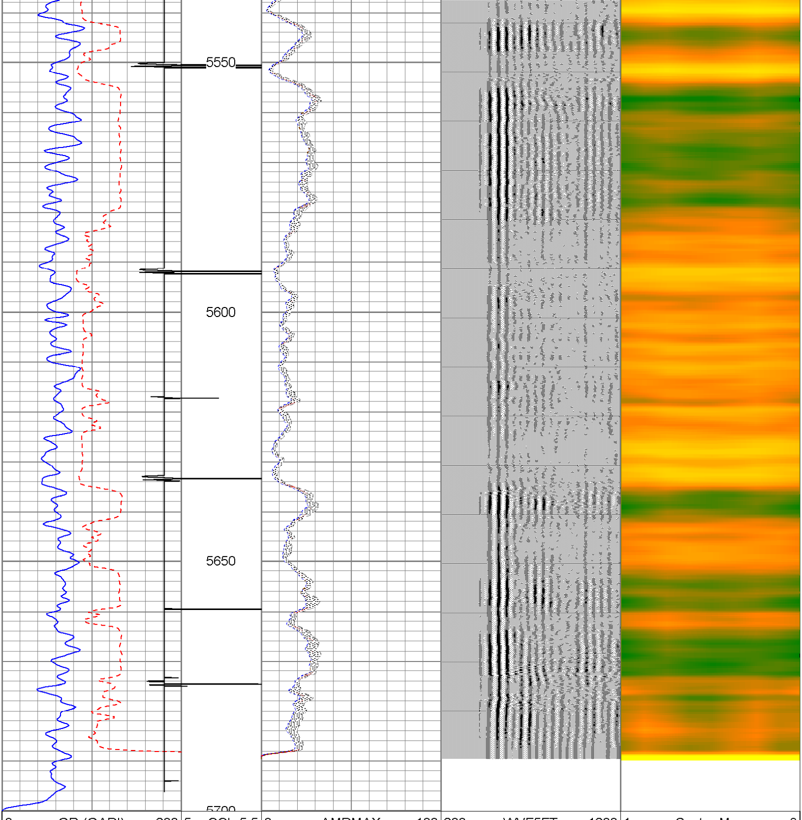
0 GR (GAPI) 200	5 CCL 5.5	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200		0 AMPAVG 100		
-50 CCL 5		0 AMPMIN 100		
		0 AMP3FT (mV) 100		

Database File: pdcf11w214.db
Dataset Pathname: pass2
Presentation Format: sector2
Dataset Creation: Fri Apr 27 07:59:32 2018 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240

0 GR (GAPI) 200	5 CCL 5.5	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200		0 AMPAVG 100		
-50 CCL 5		0 AMPMIN 100		
		0 AMP3FT (mV) 100		

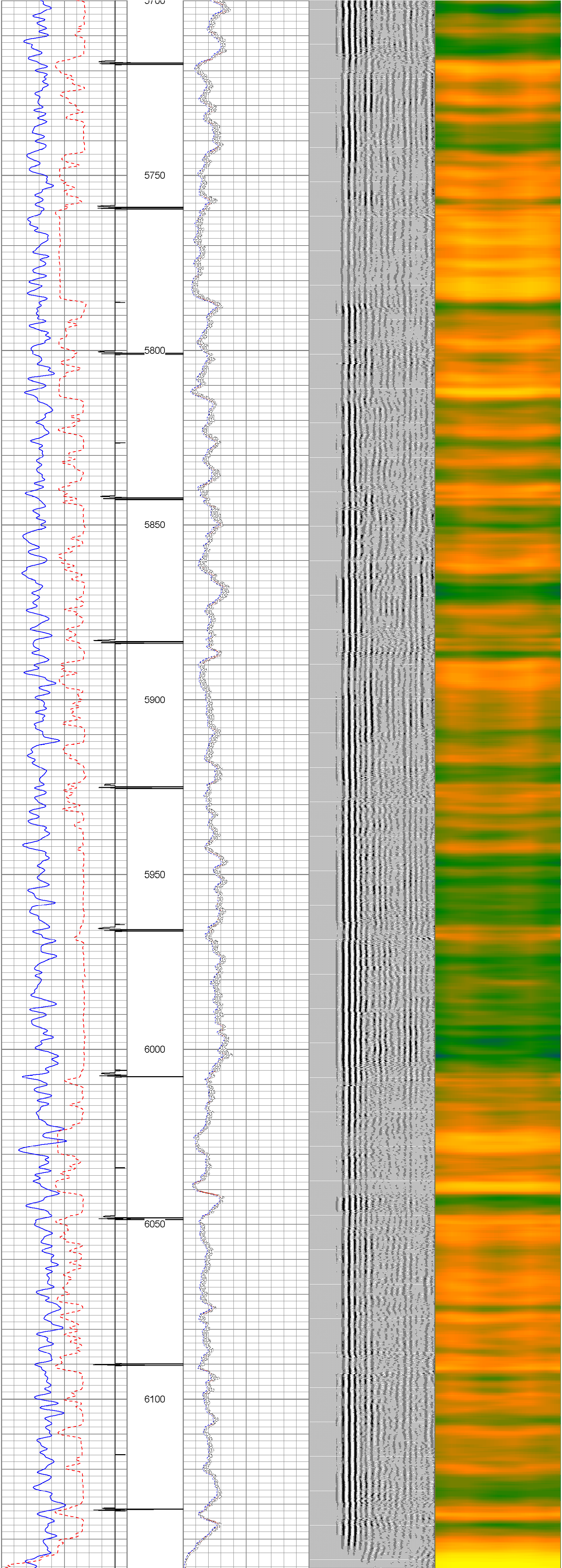
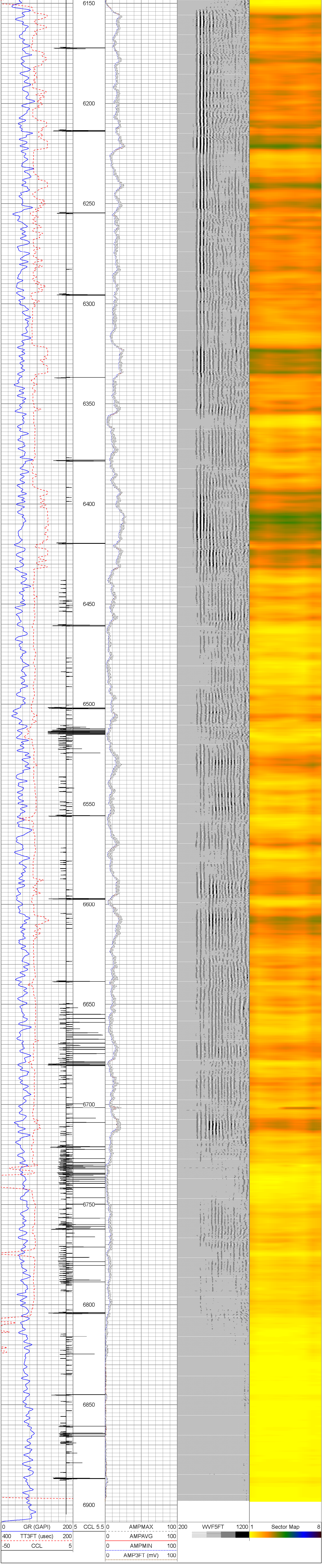






0 GR (GAPI) 200	5 CCL 5.5	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200		0 AMPAVG 100		
-50 CCL 5		0 AMPMIN 100		
		0 AMP3FT (mV) 100		

Database File: pdcf11w214.db
Dataset Pathname: pass1
Presentation Format: sector2
Dataset Creation: Fri Apr 27 07:42:15 2018 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240

0 GR (GAPI) 200	5 CCL 5.5	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200		0 AMPAVG 100		
-50 CCL 5		0 AMPMIN 100		
		0 AMP3FT (mV) 100