



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company TEP Rocky Mountain LLC  
Well Puckett GM 313-8  
Field Grand Valley  
County Garfield State Colorado

Location: API #: 05-045-24090  
SEC 8 TWP 7S RGE 96W  
Permanent Datum Ground Level Elevation 6281'  
Log Measured From Kelly Bushing 24 FT  
Drilling Measured From Kelly Bushing  
Other Services  
Elevation  
K.B. 6305'  
D.F. ---  
G.L. 6281'

Date	19-NOV-2019	One		
Run Number		6735 FT		
Depth Driller		6660 FT		
Depth Logger		6646 FT		
Bottom Logged Interval		Surface		
Top Log Interval		8.750"		
Open Hole Size		Water		
Type Fluid		8.34 lb/gal		
Density / Viscosity		215°F		
Max. Recorded Temp.		See Log		
E. estimated Cement Top		ROA		
Time Well Ready		11:30		
Time Logger on Bottom		HD-0359		
Equipment Number		Grand Junction, CO		
Location		J. Donnelly		
Recorded By				
Witnessed By				
Borehole Record				
Run Number	Bit	From	To	Size
				Weight
				From
				To
Tubing Record				
Casing Record	Size (in)	Wgt (lbs/ft)	Grade	Top
Surface Casing	9 5/8	32.3	H-40	Surface
Intermediate #1	4 1/2	11.6	P-110	Surface
Intermediate #2				
Inner				

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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 ran as per customer request  
Depth referenced to Kelly Bushing at 24 FT  
Marker Joint logged from 4011 - 4033 FT  
Recorded with 0 PSI Surface Induced Pressure

Thank you for choosing Reliance Oilfield Services, LLC!

Main Pass

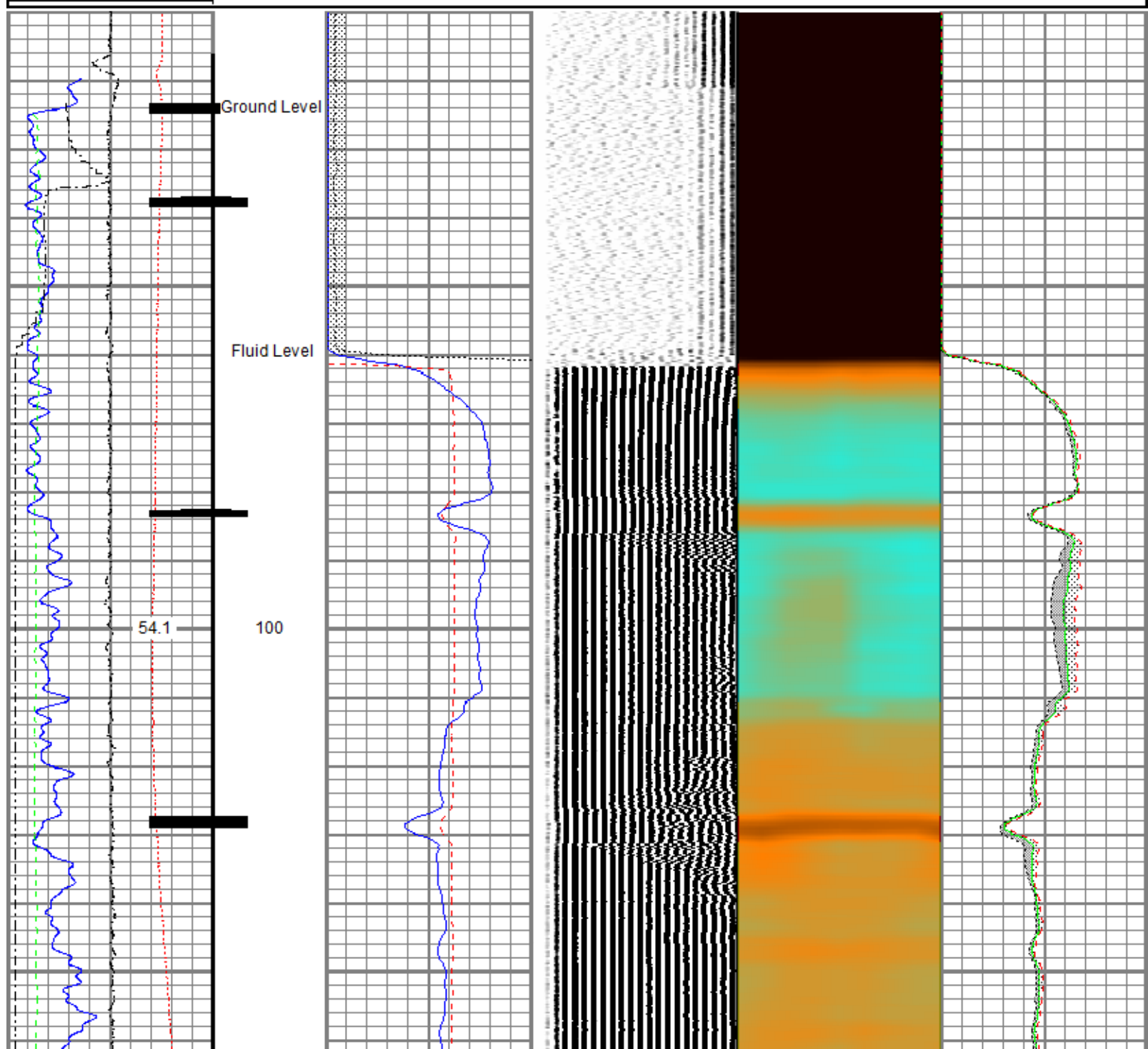


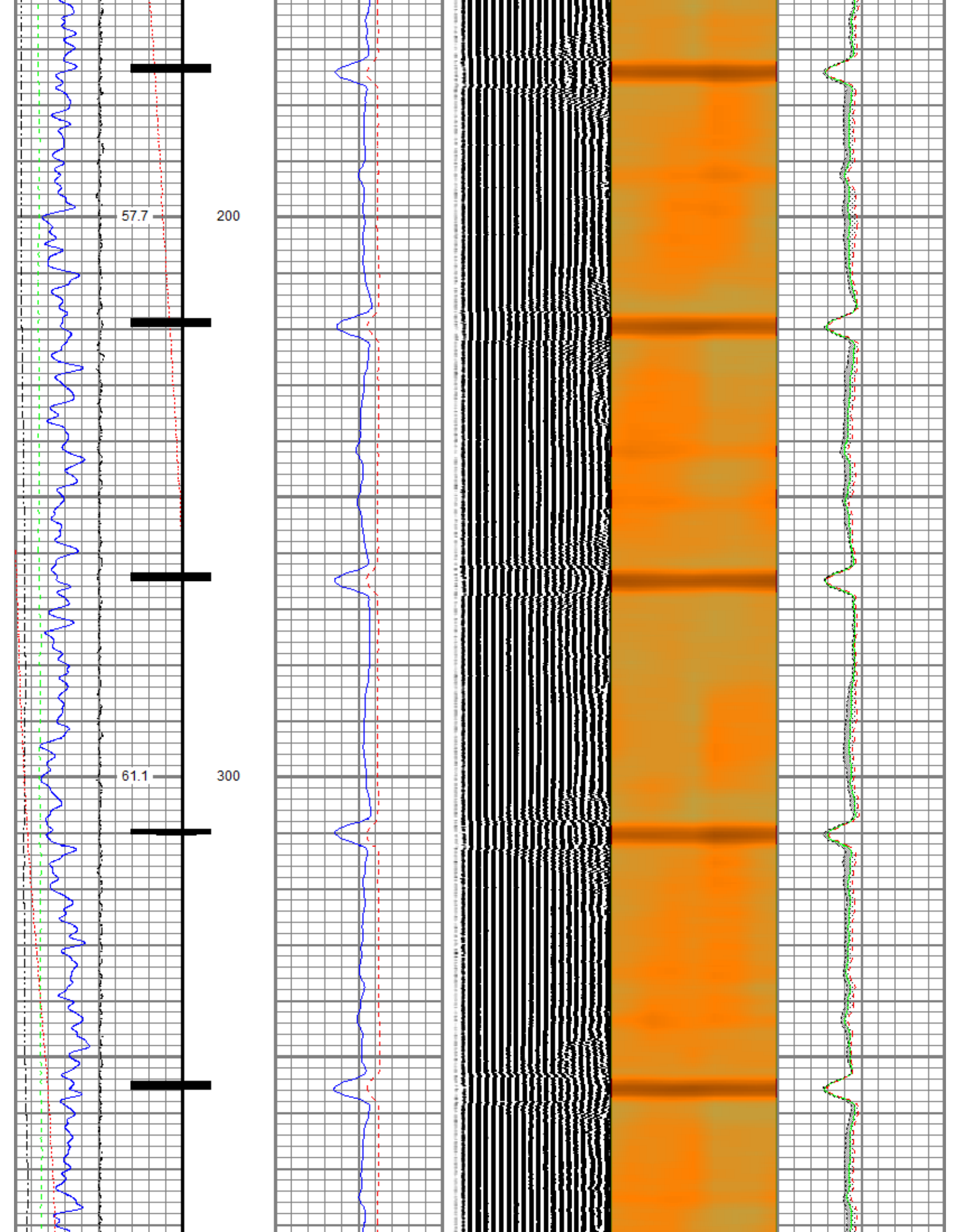
Recorded With 0 PSI Surface Induced Pressure

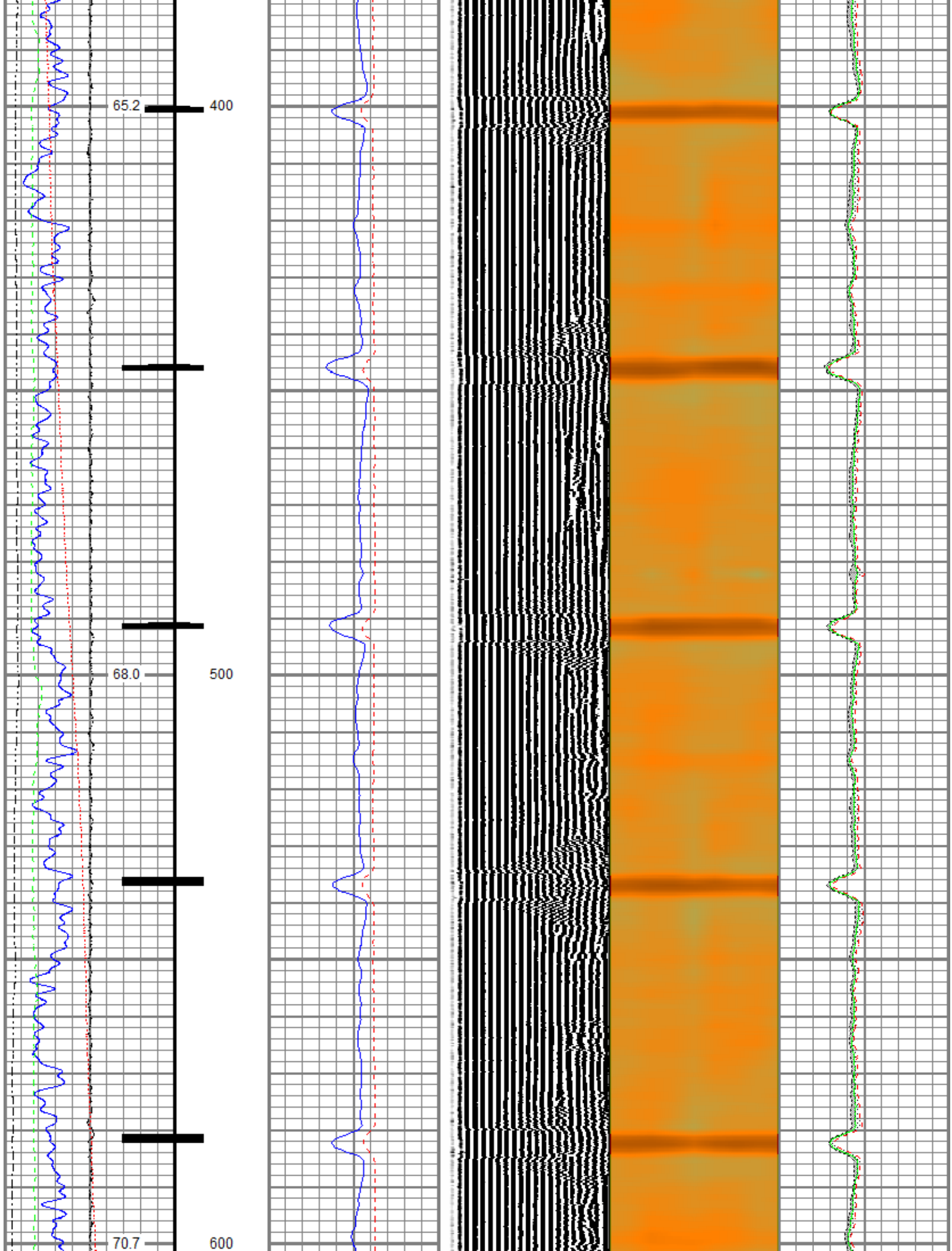
# Recorded with 0 PSI Surface Induced Pressure

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 Dataset Pathname run2/Main.1  
 Presentation Format ros\_rbt004\_tep  
 Dataset Creation Wed Nov 20 11:14:46 2019  
 Charted by Depth in Feet scaled 1:240

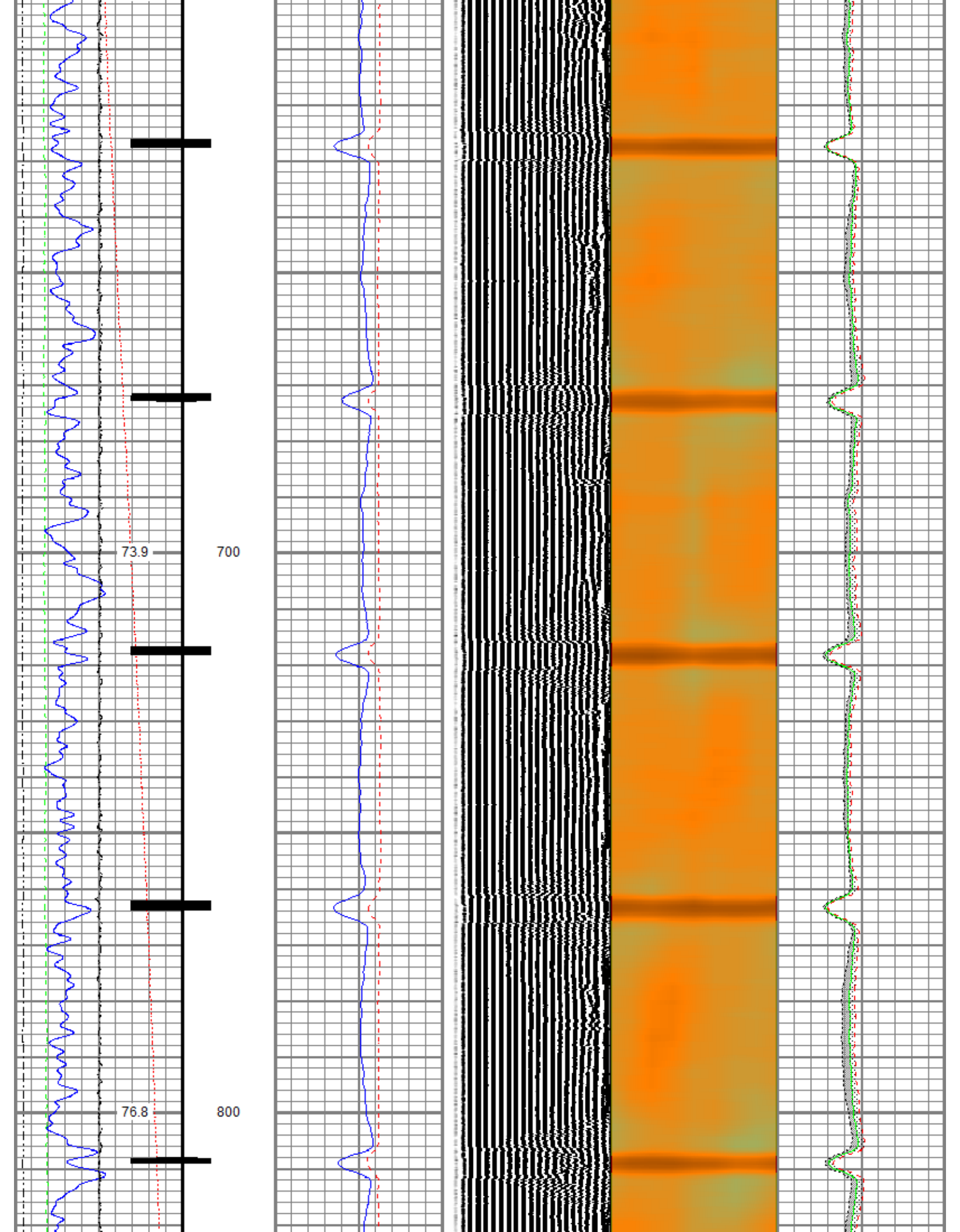
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 150
(GAPI) 200		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Line Speed	0	(mV) 20			0	150
(ft/min) 150		3' Travel Time				Maximum Amplitude
Line Tension (lb) 2000	0	(usec) 200			0	150
Differential Temperature						
(degF) 2	-2					
Temperature (degF) 20	0					
Casing Collar Locator						
10	0					

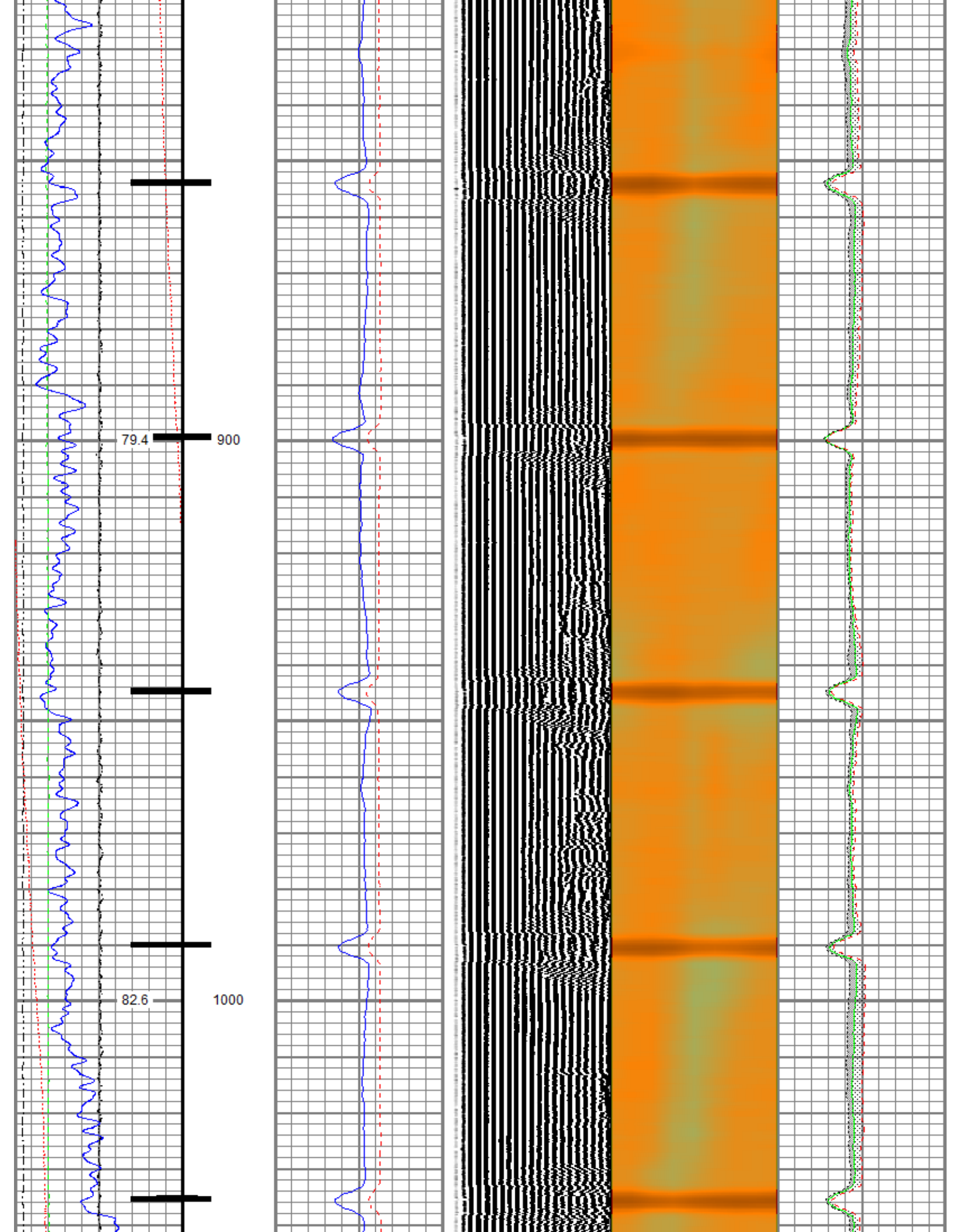


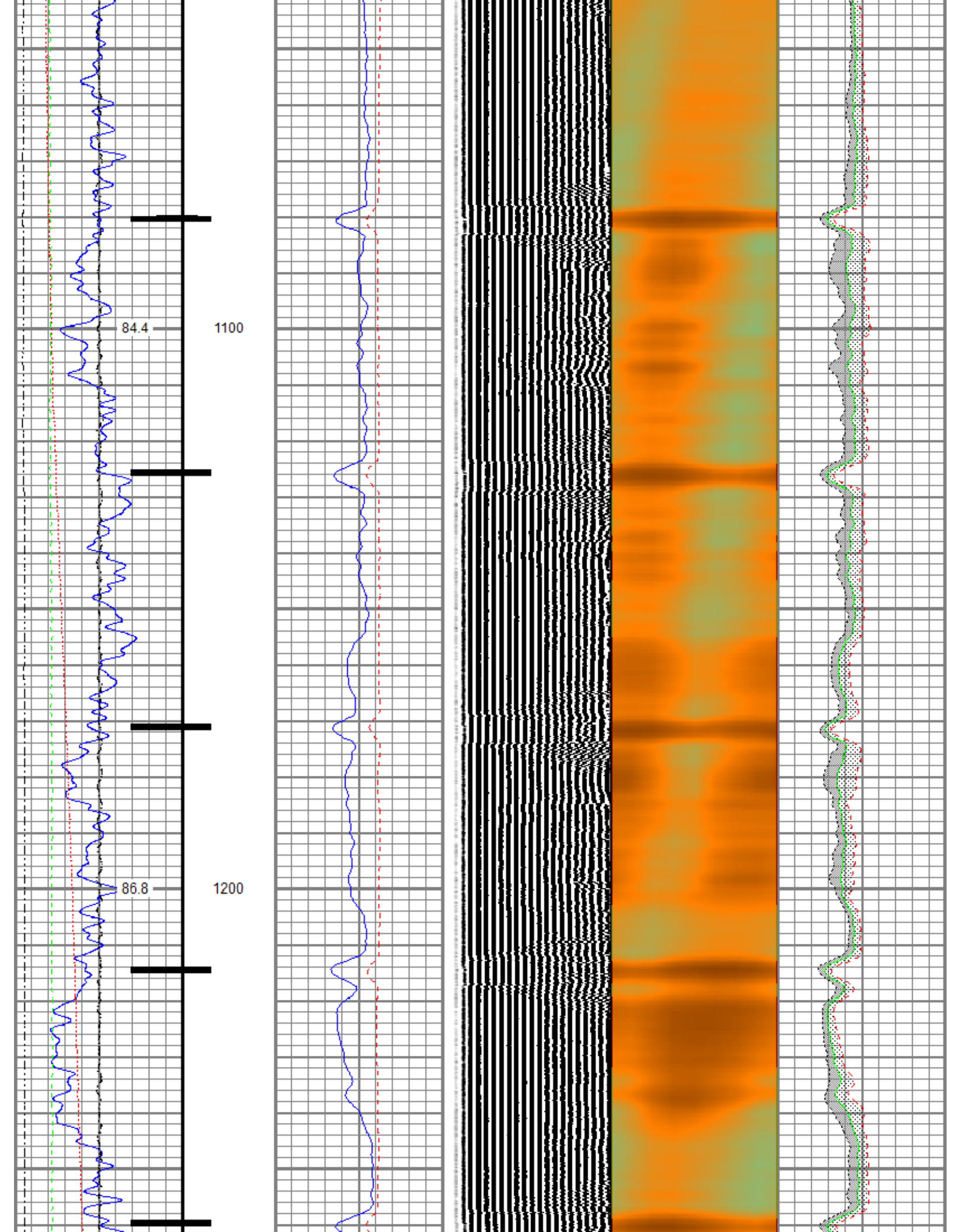


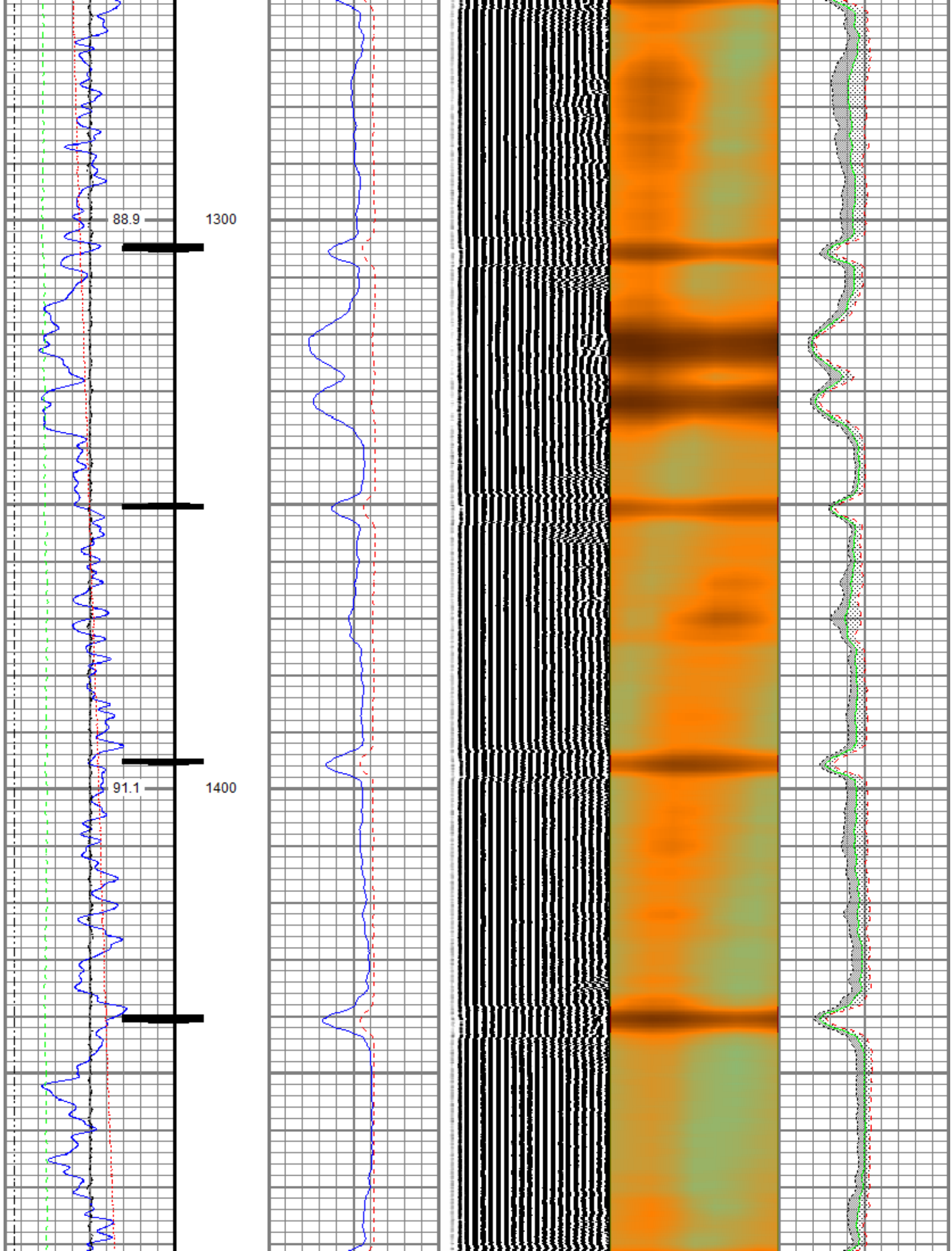




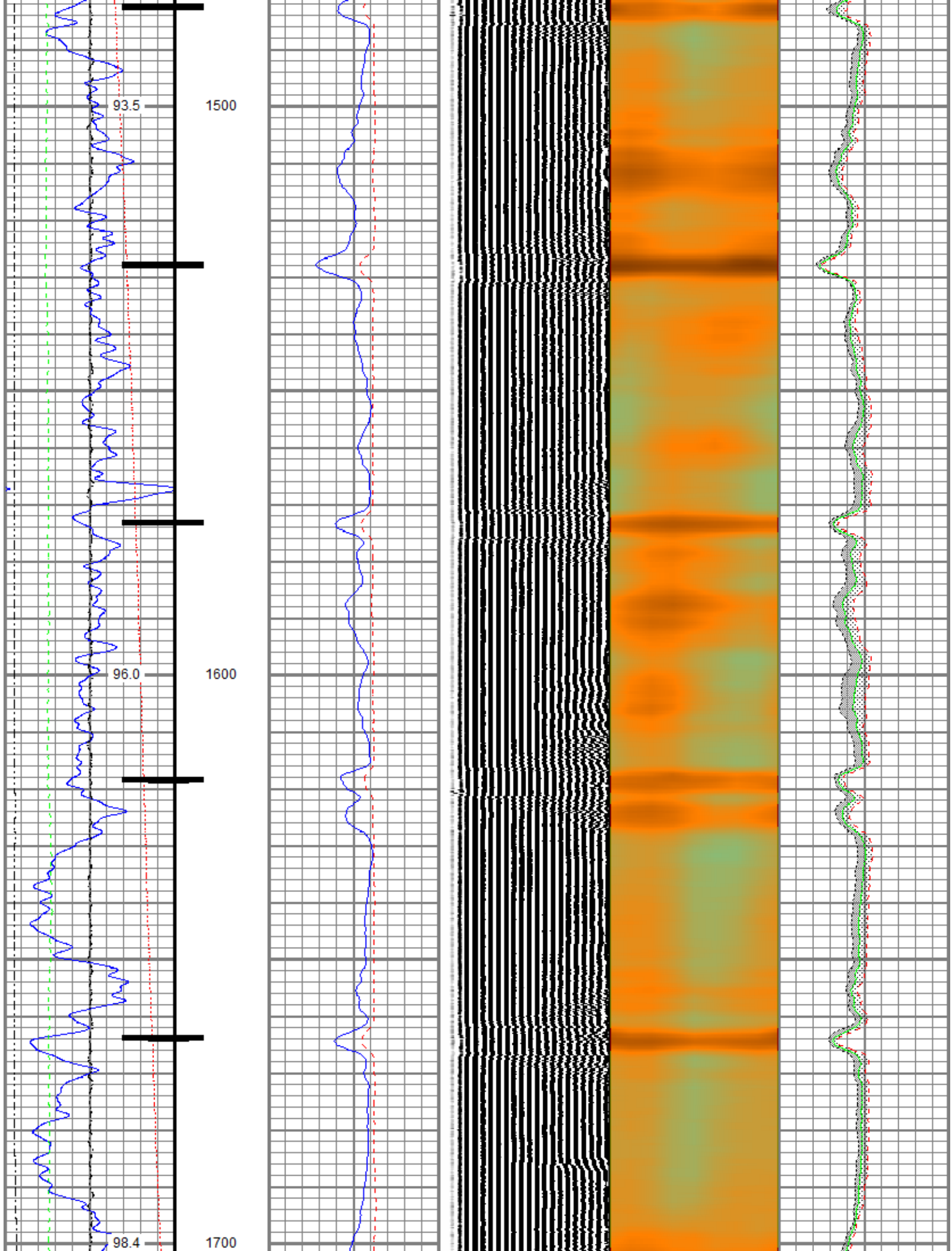


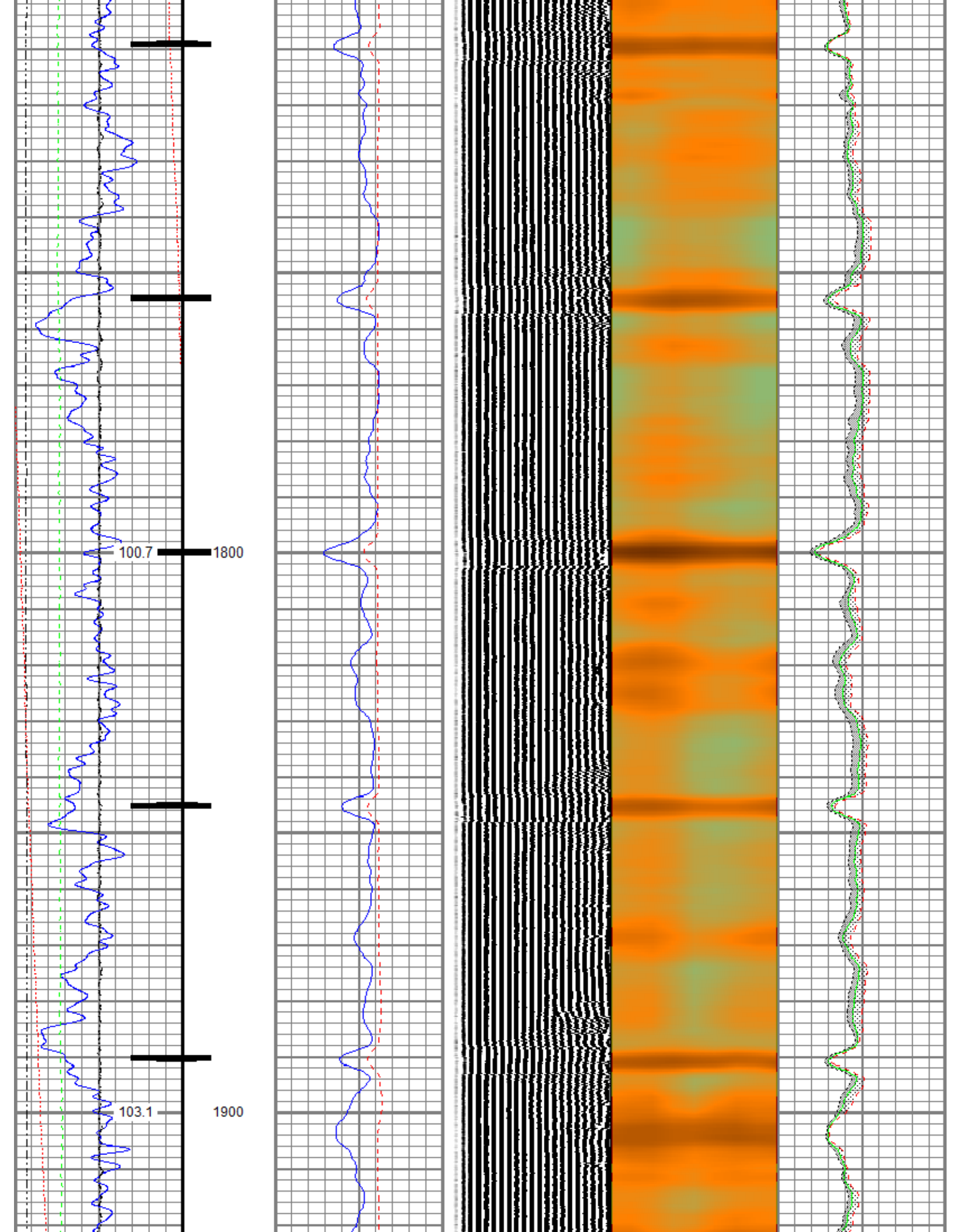


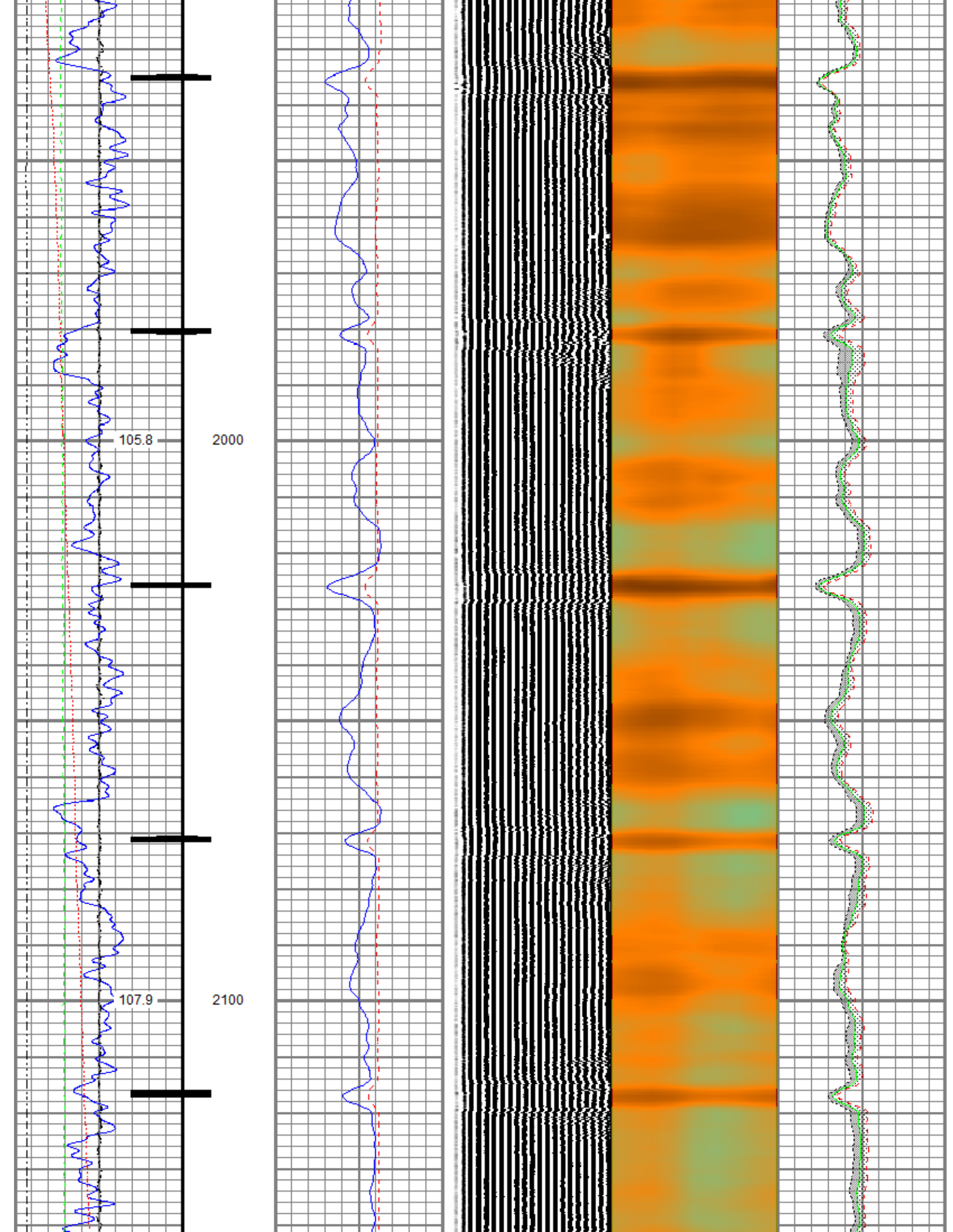


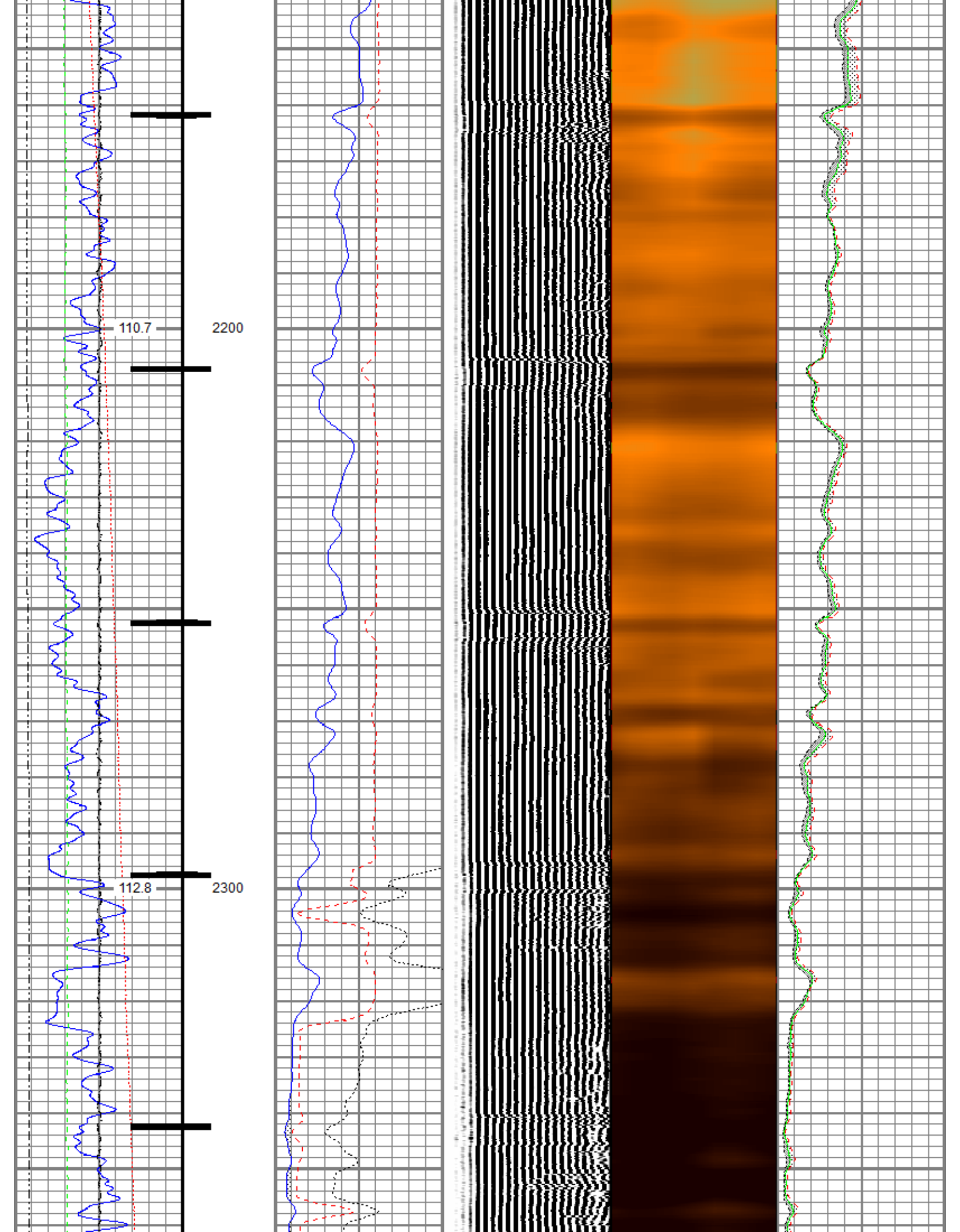




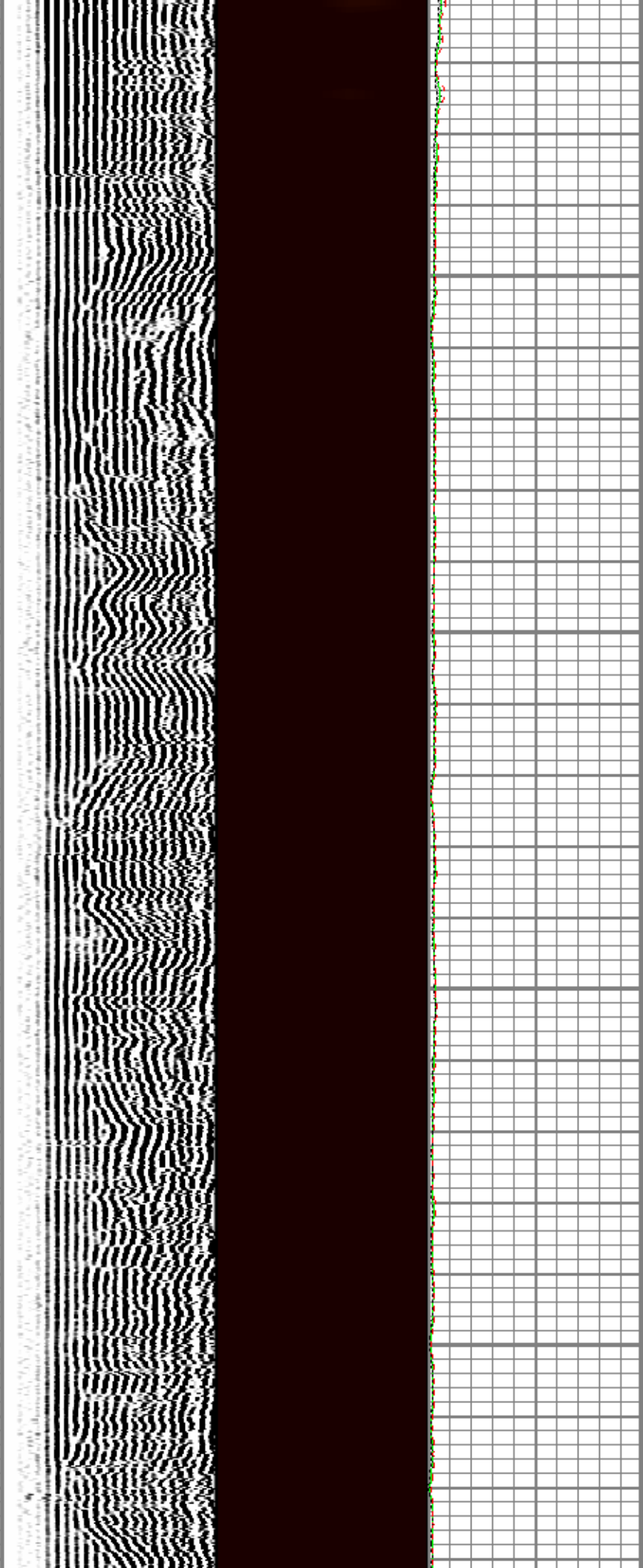
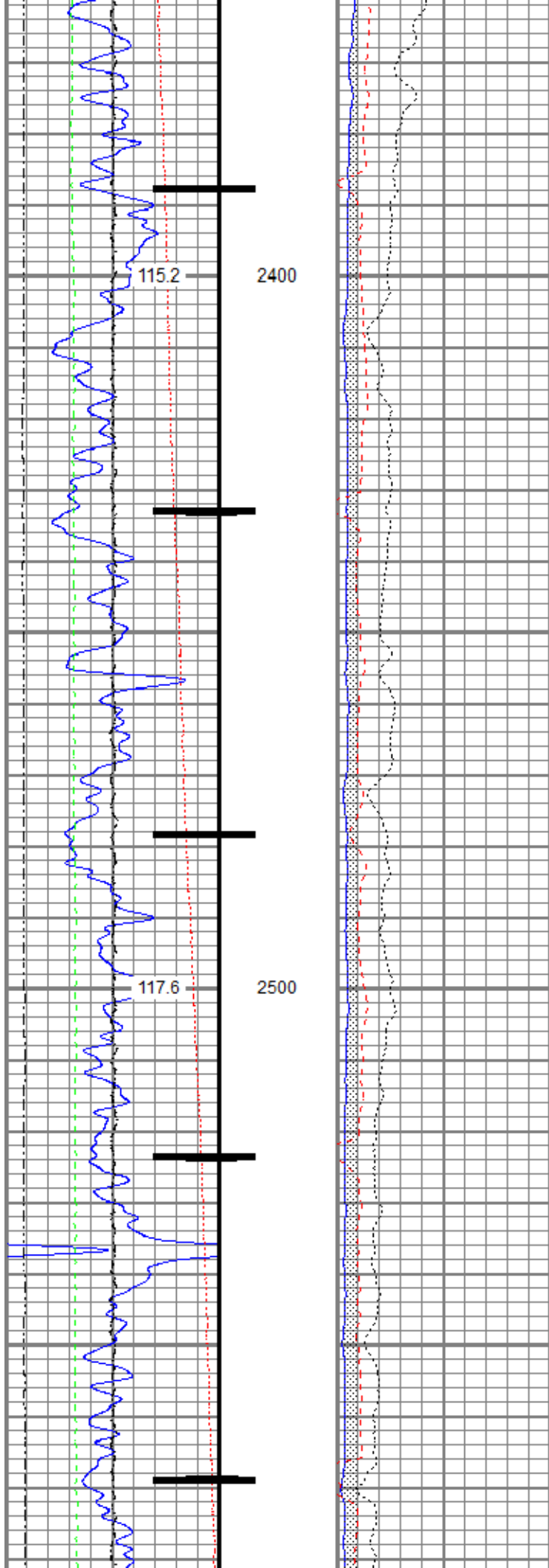


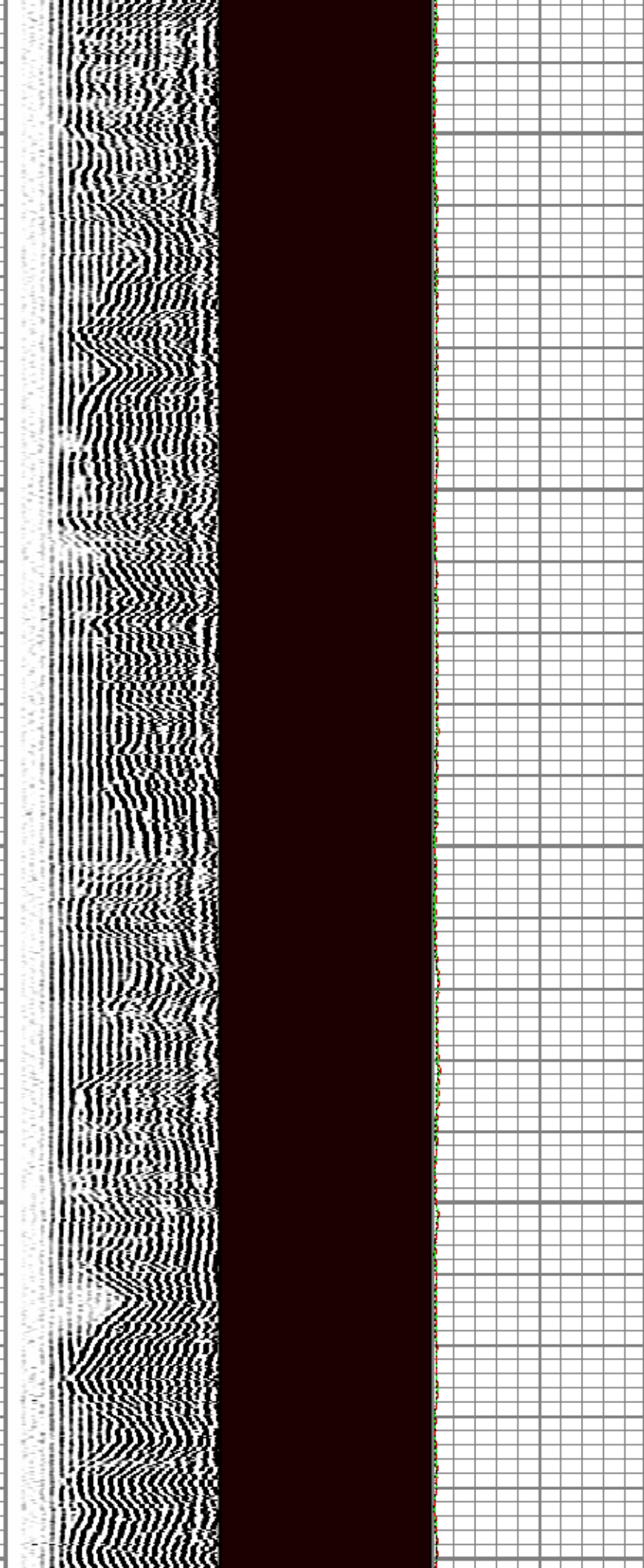
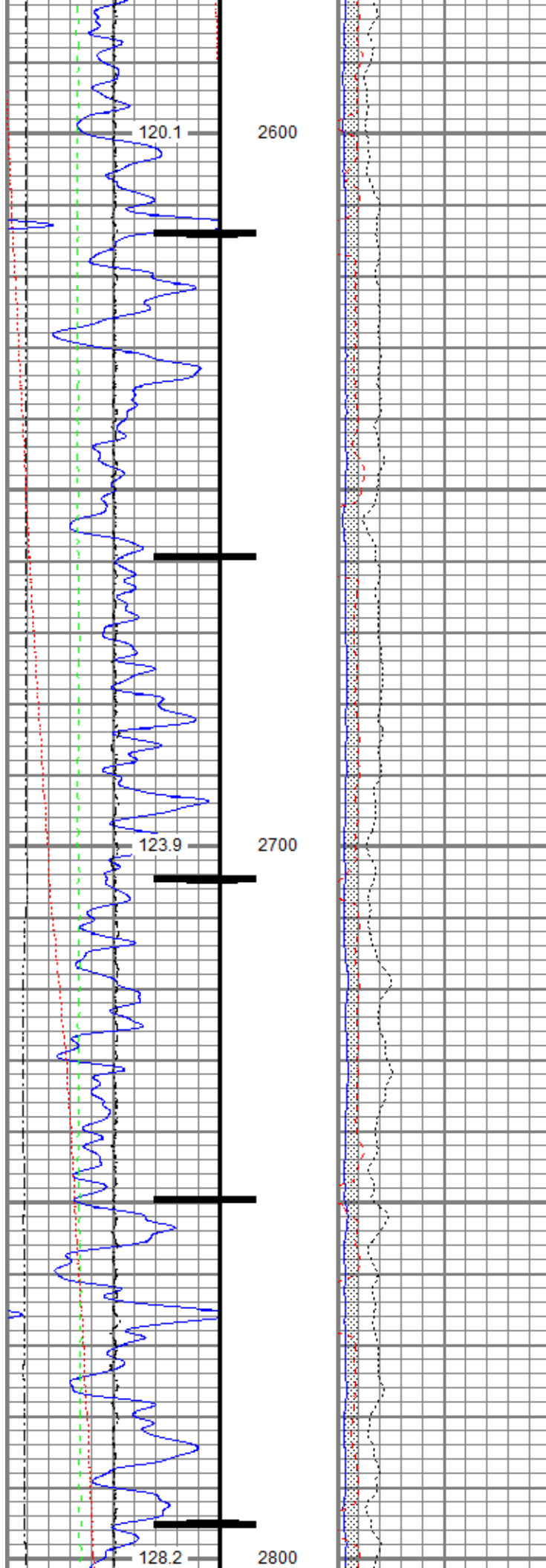


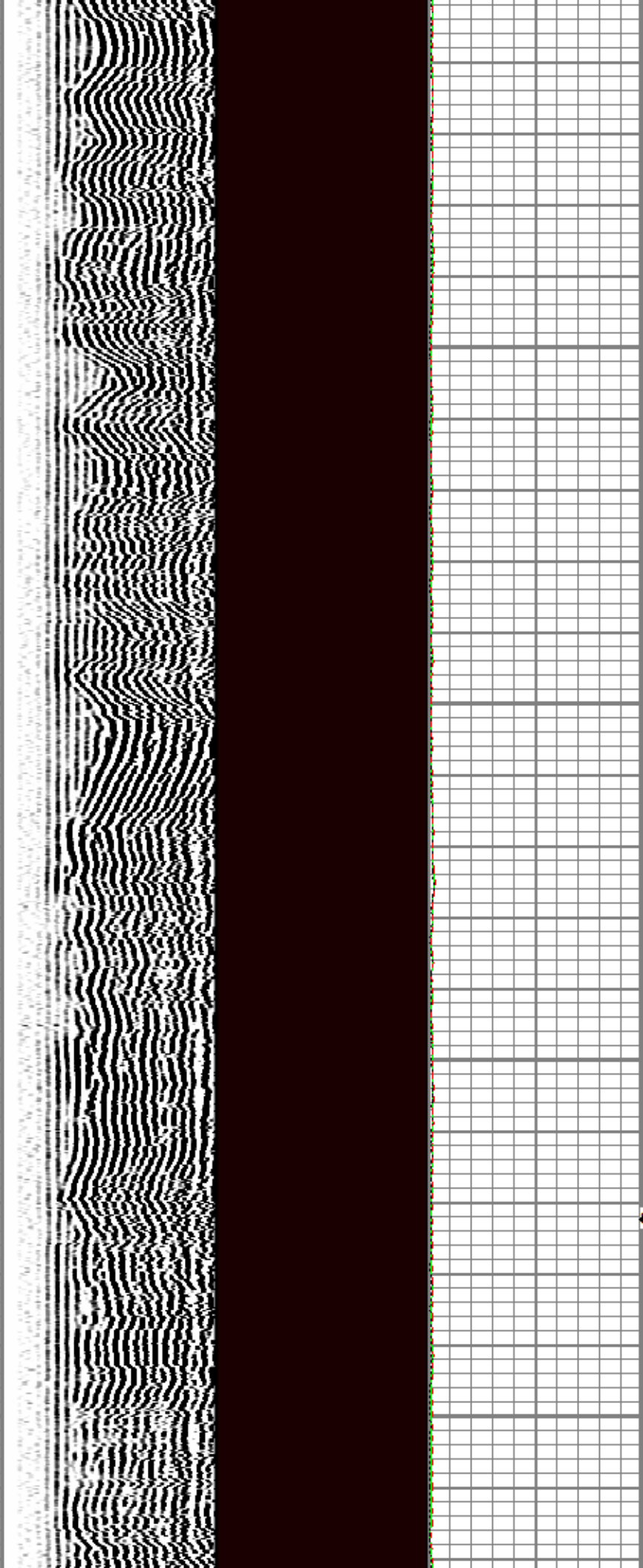
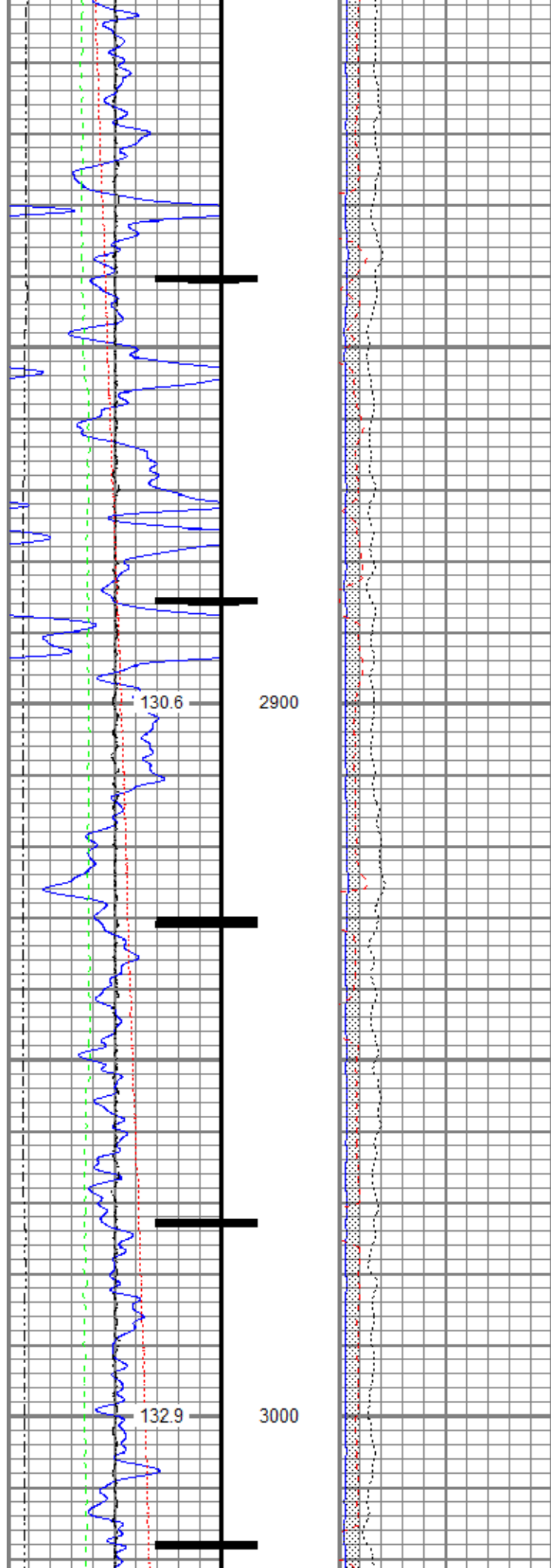




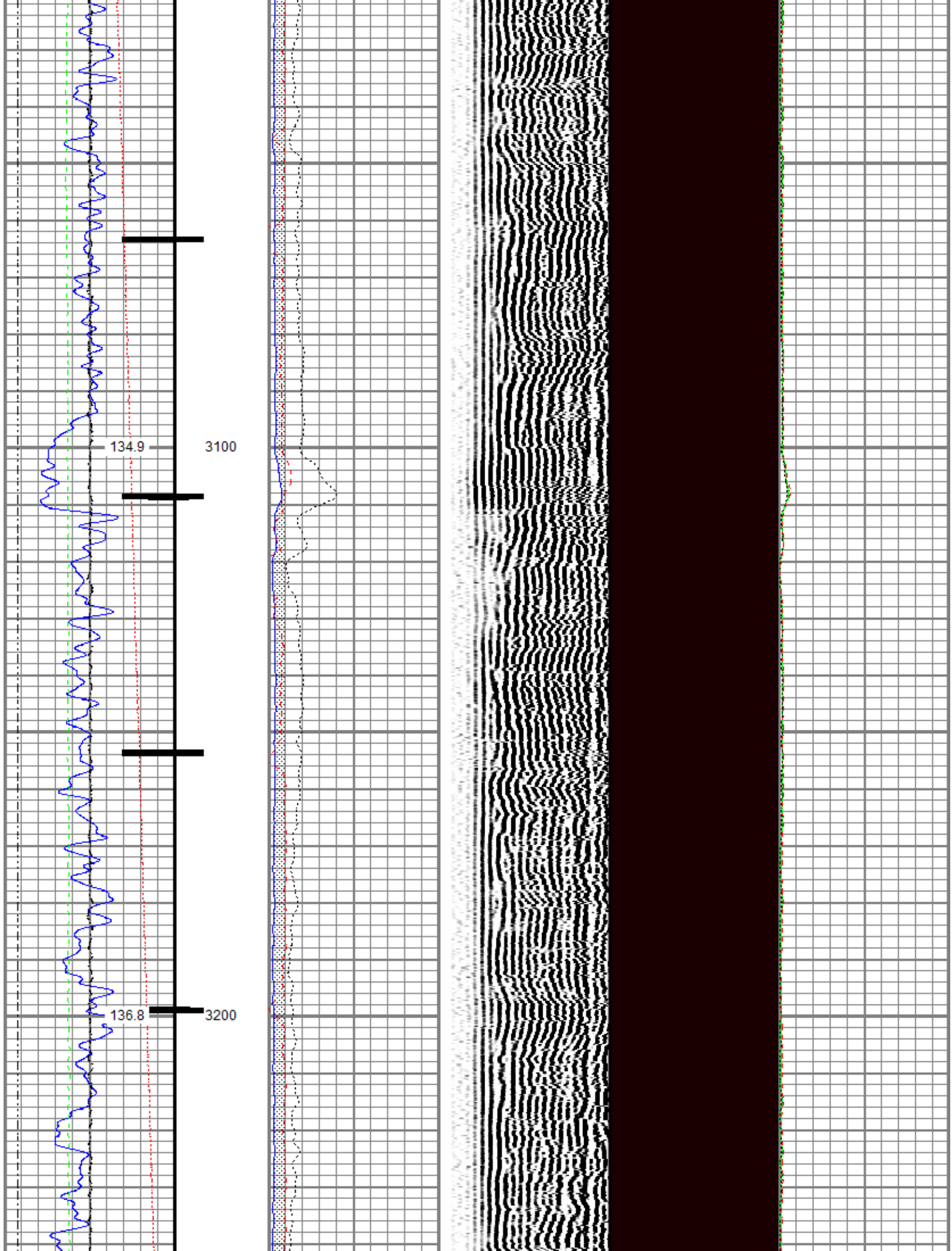




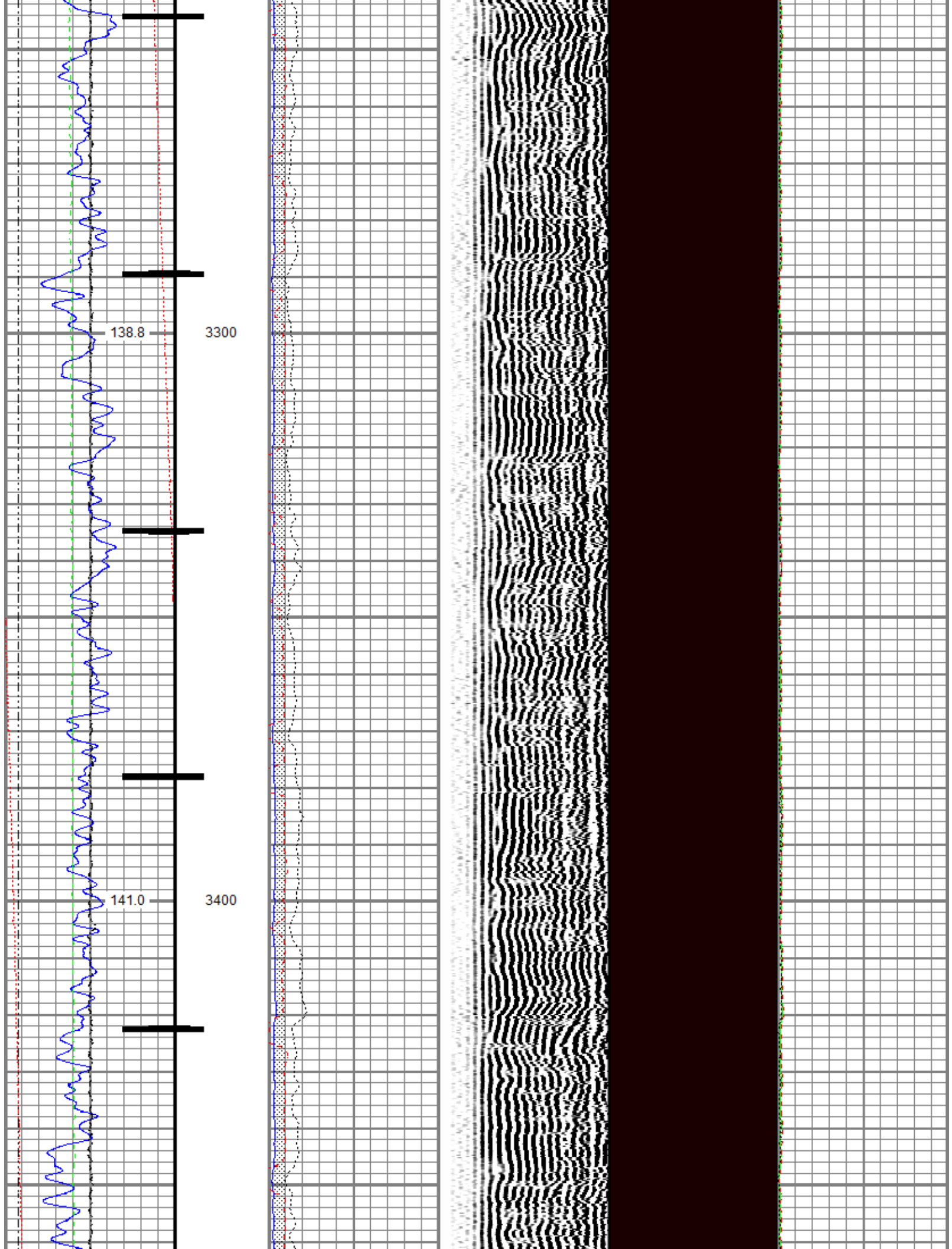


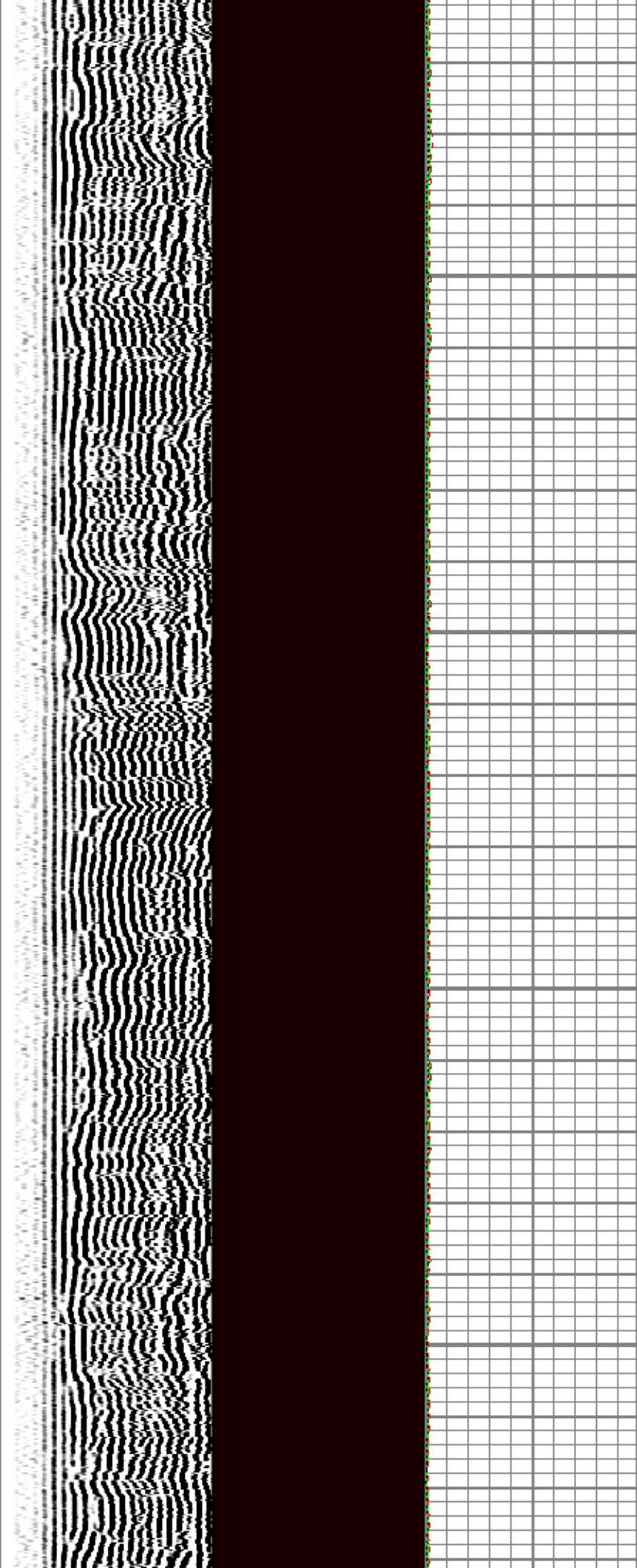
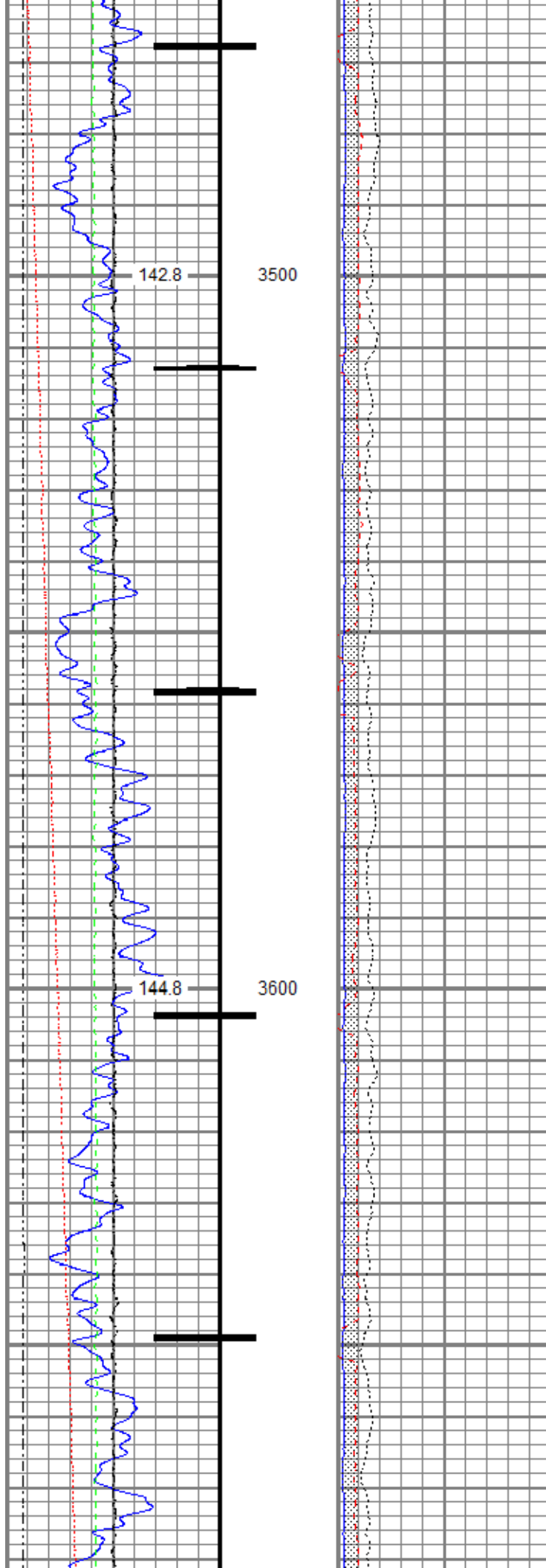


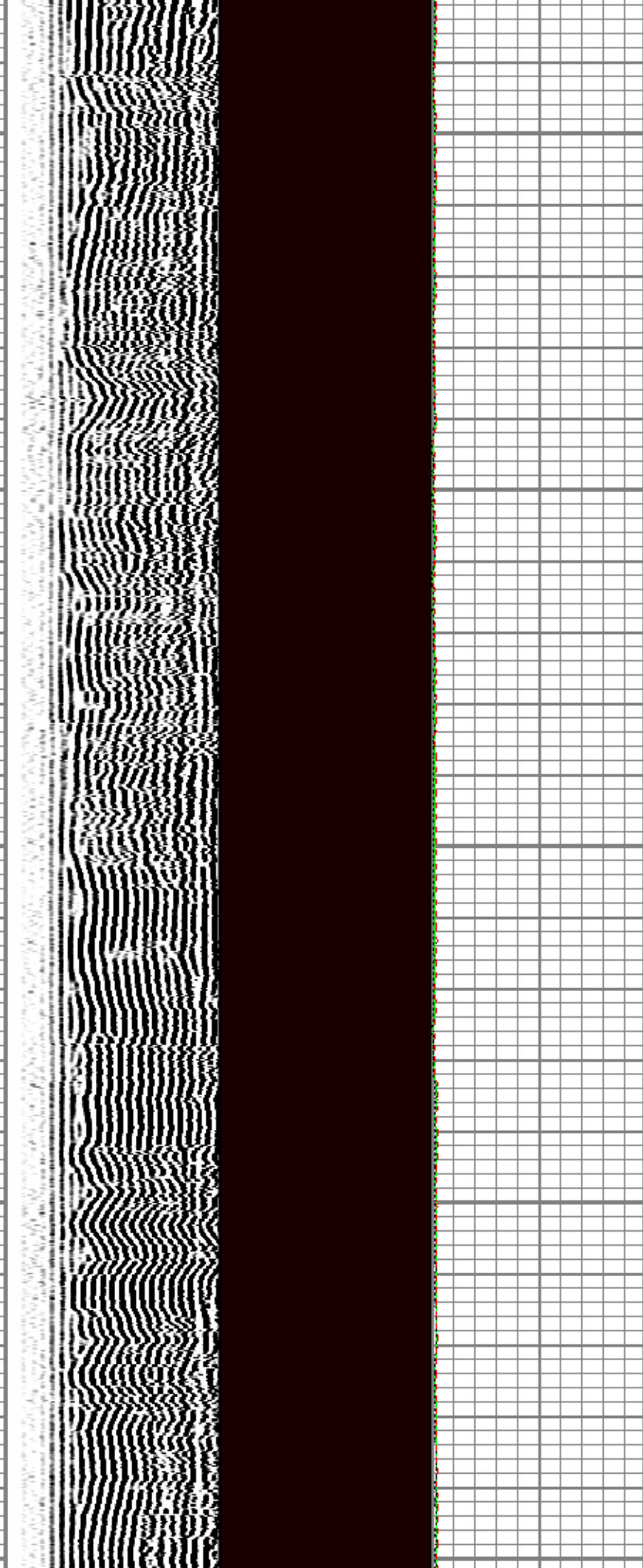
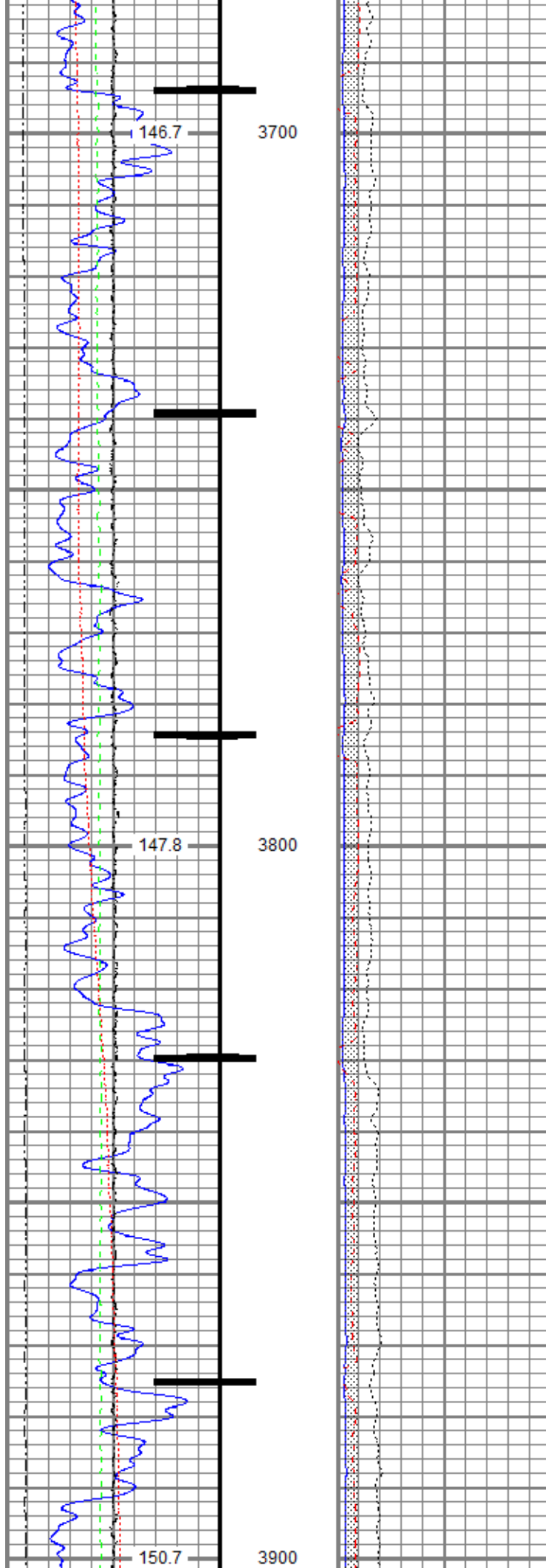




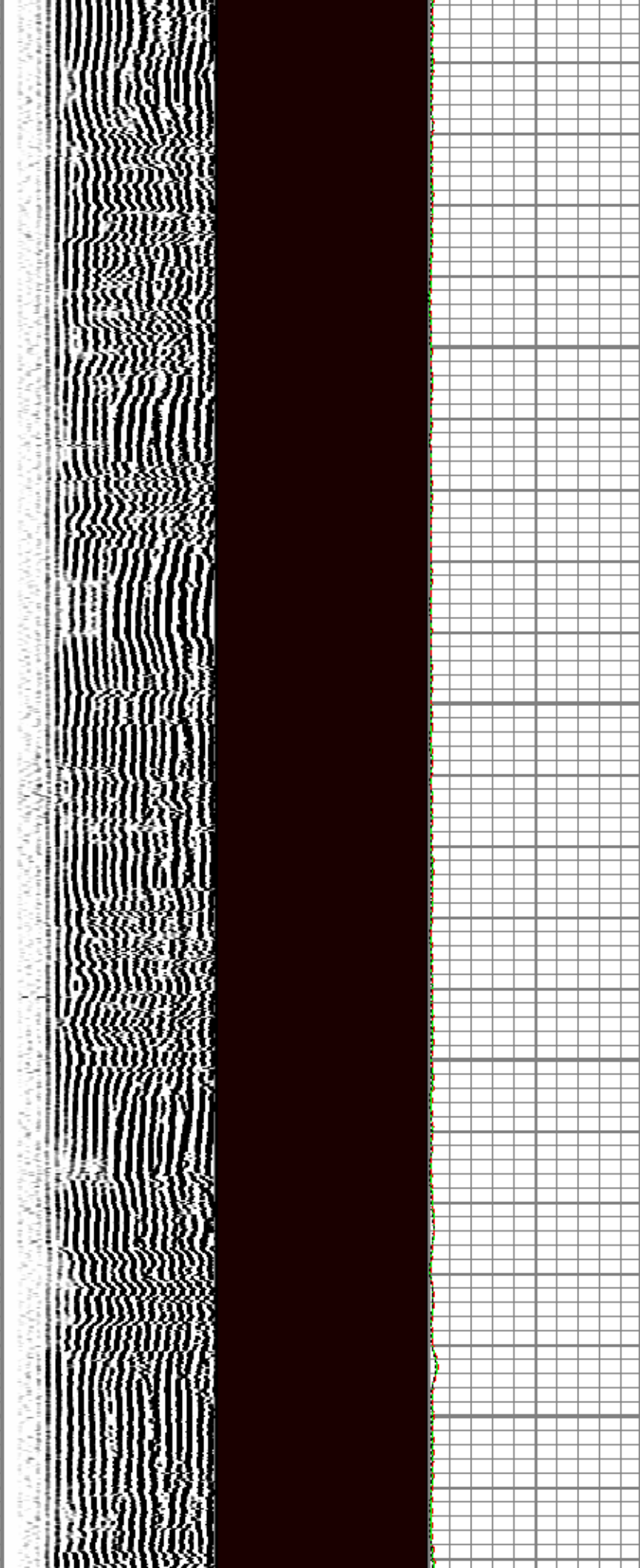
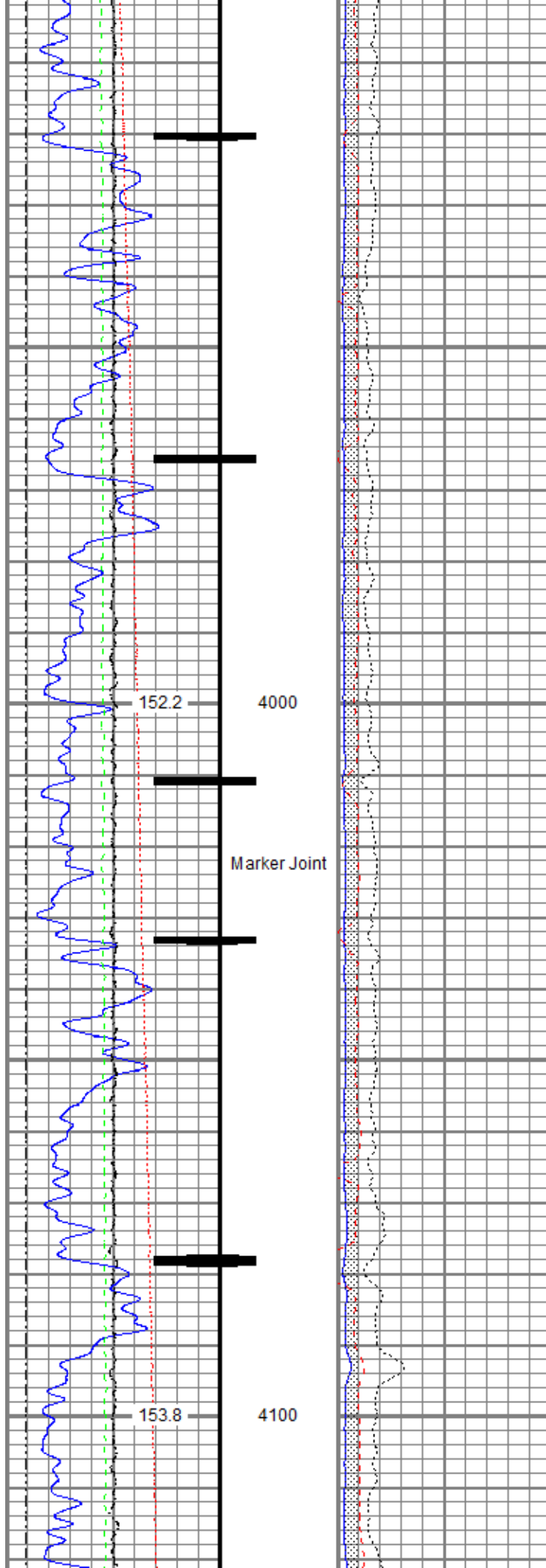




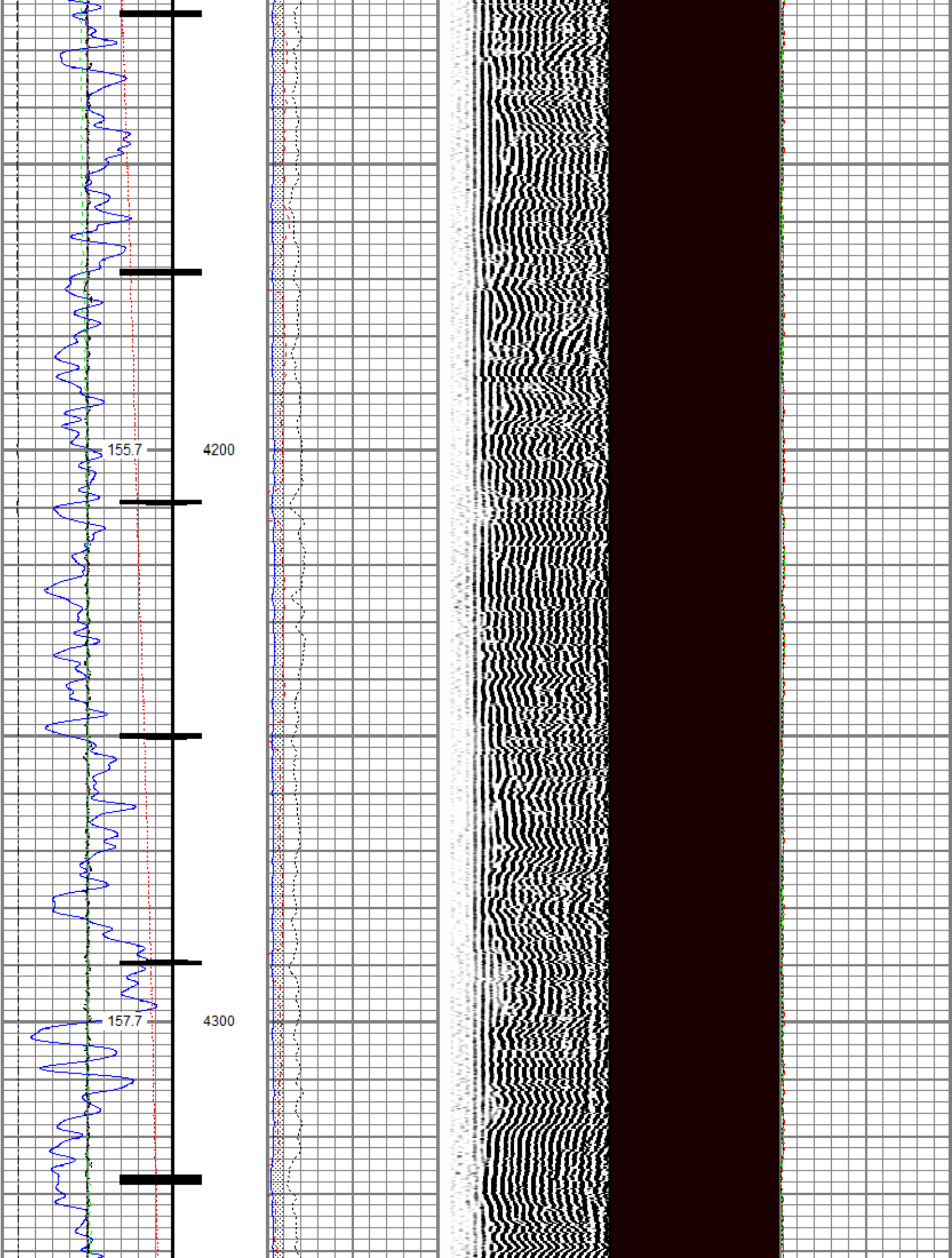


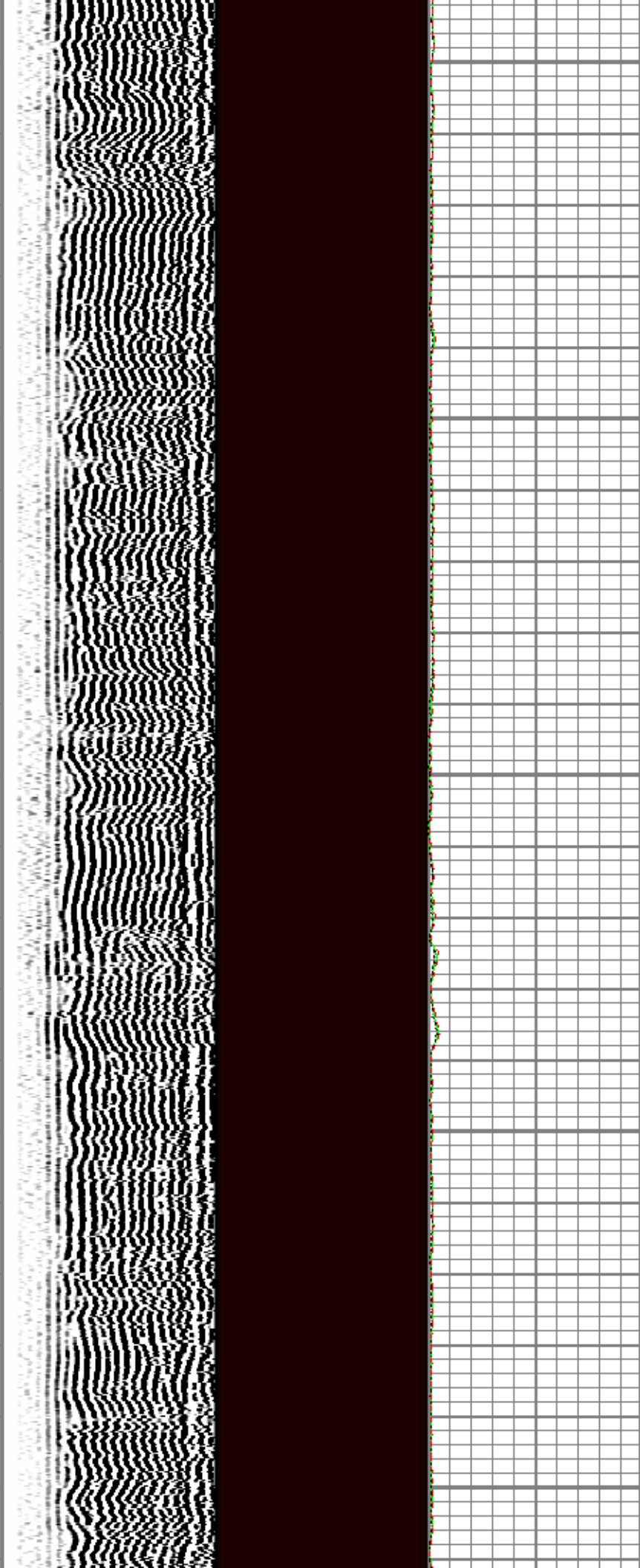
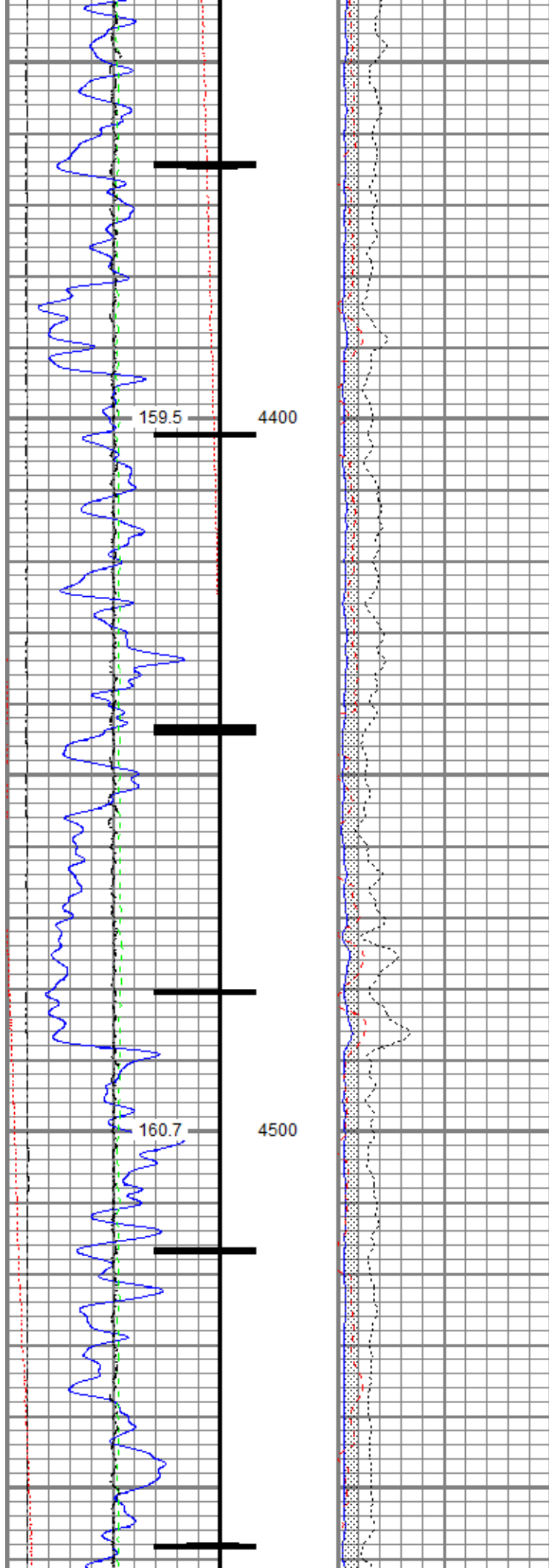


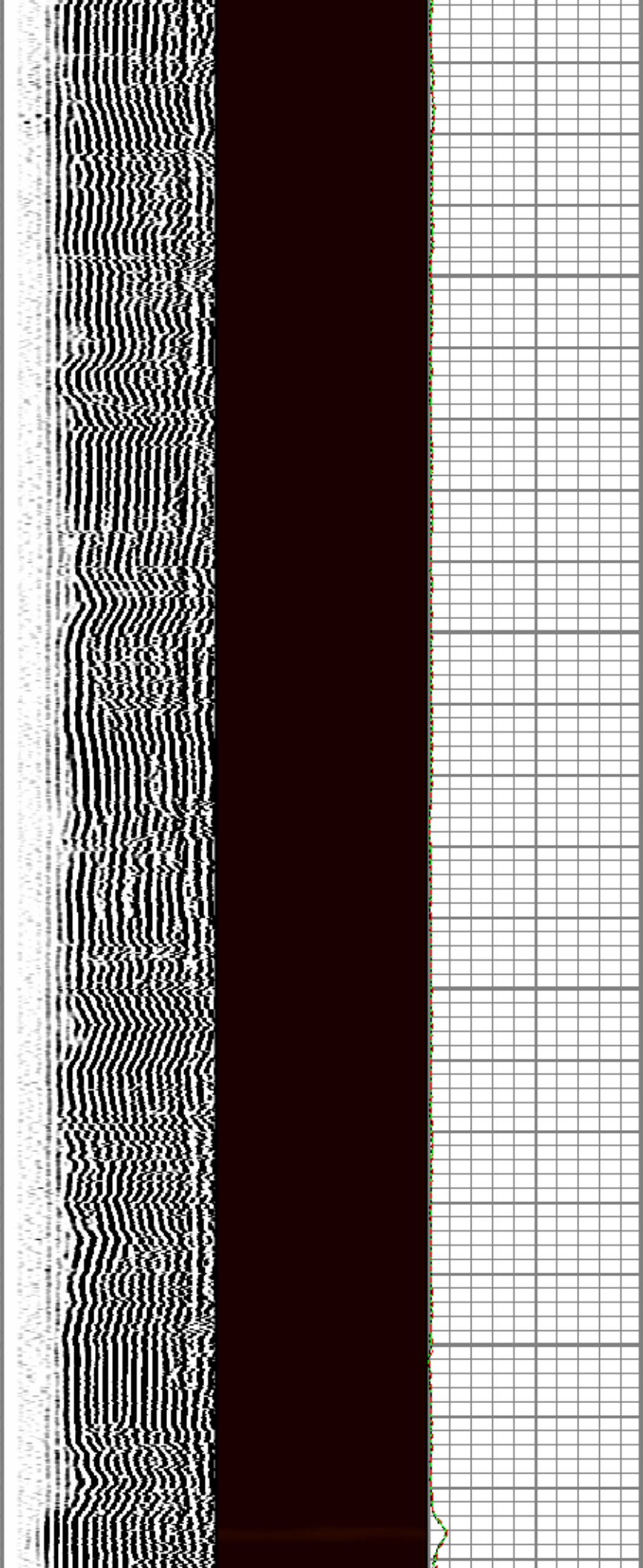
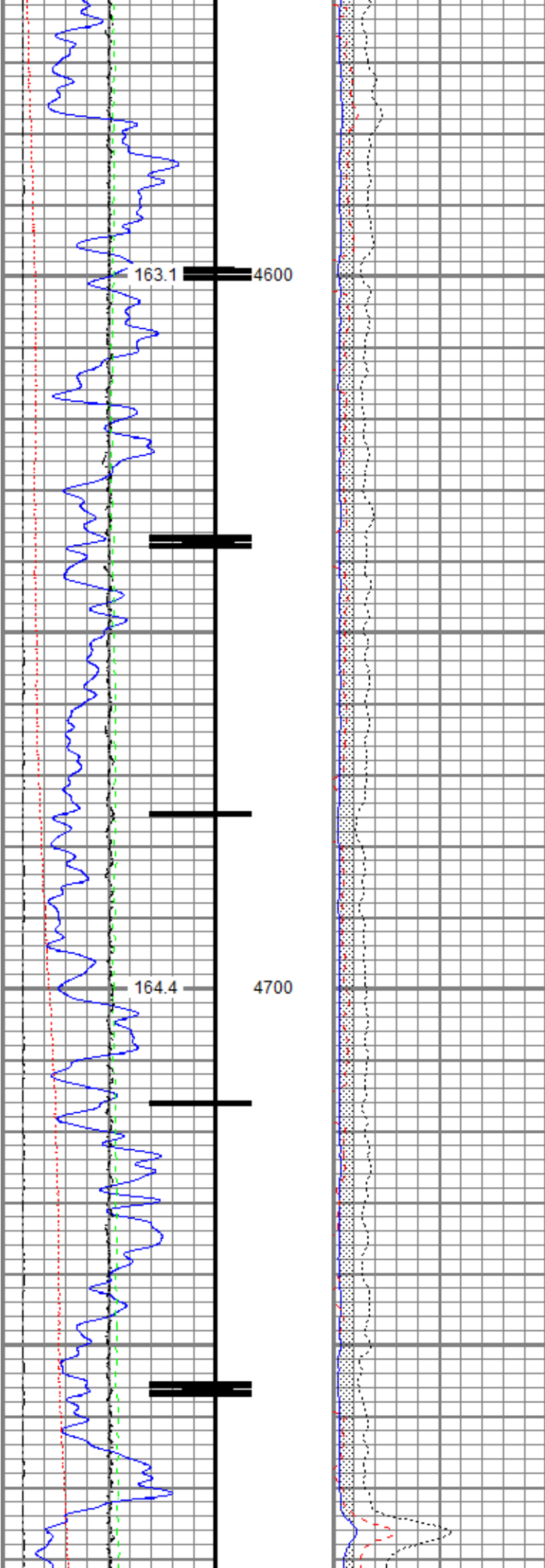




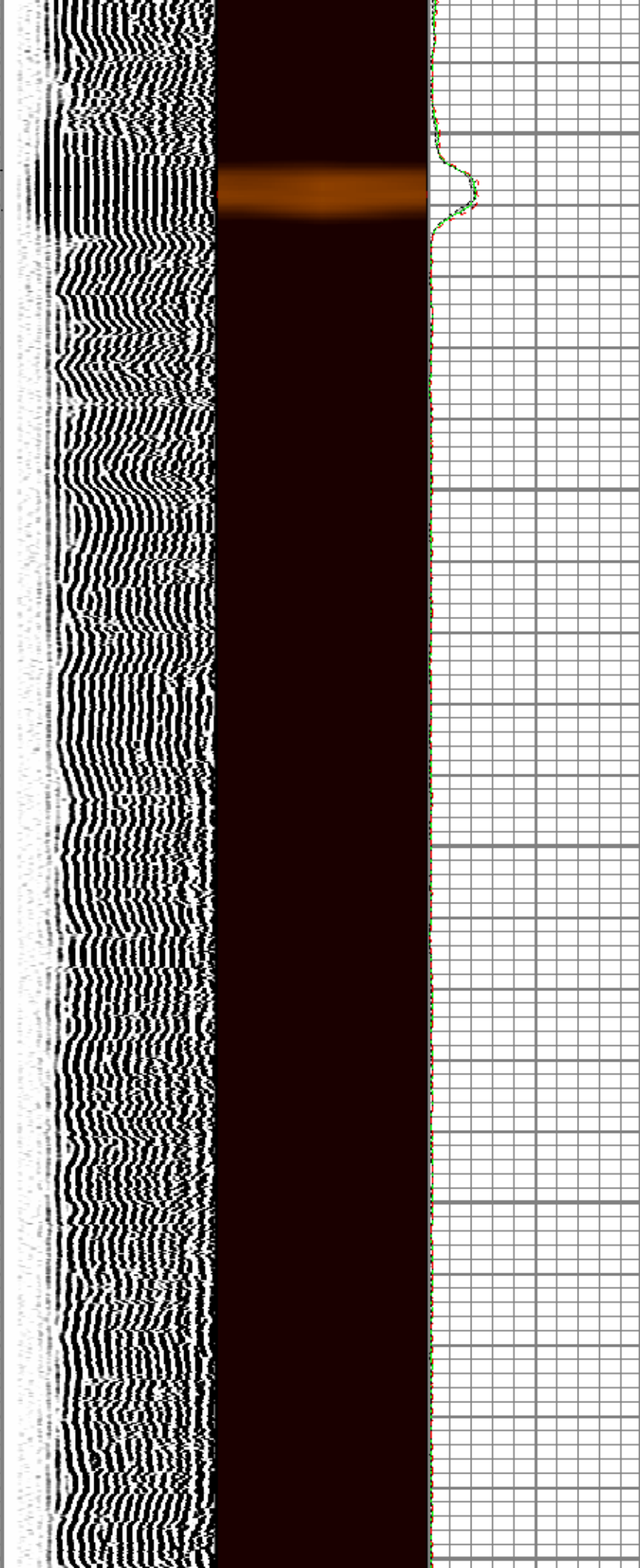
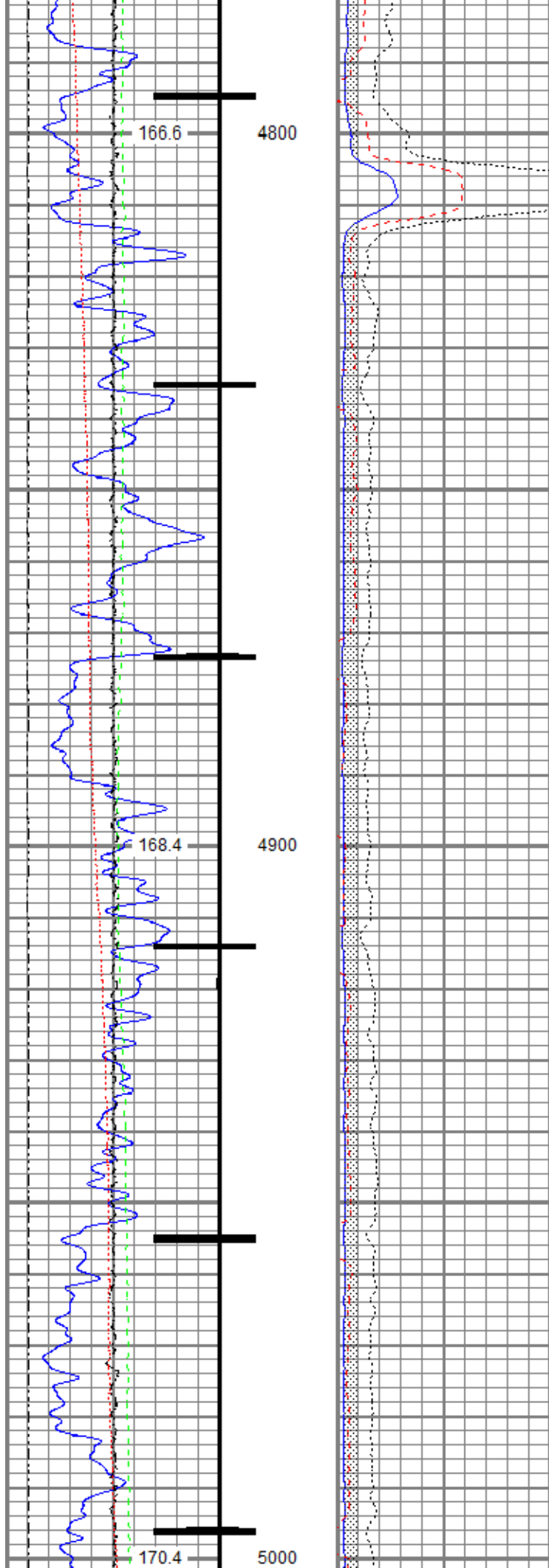




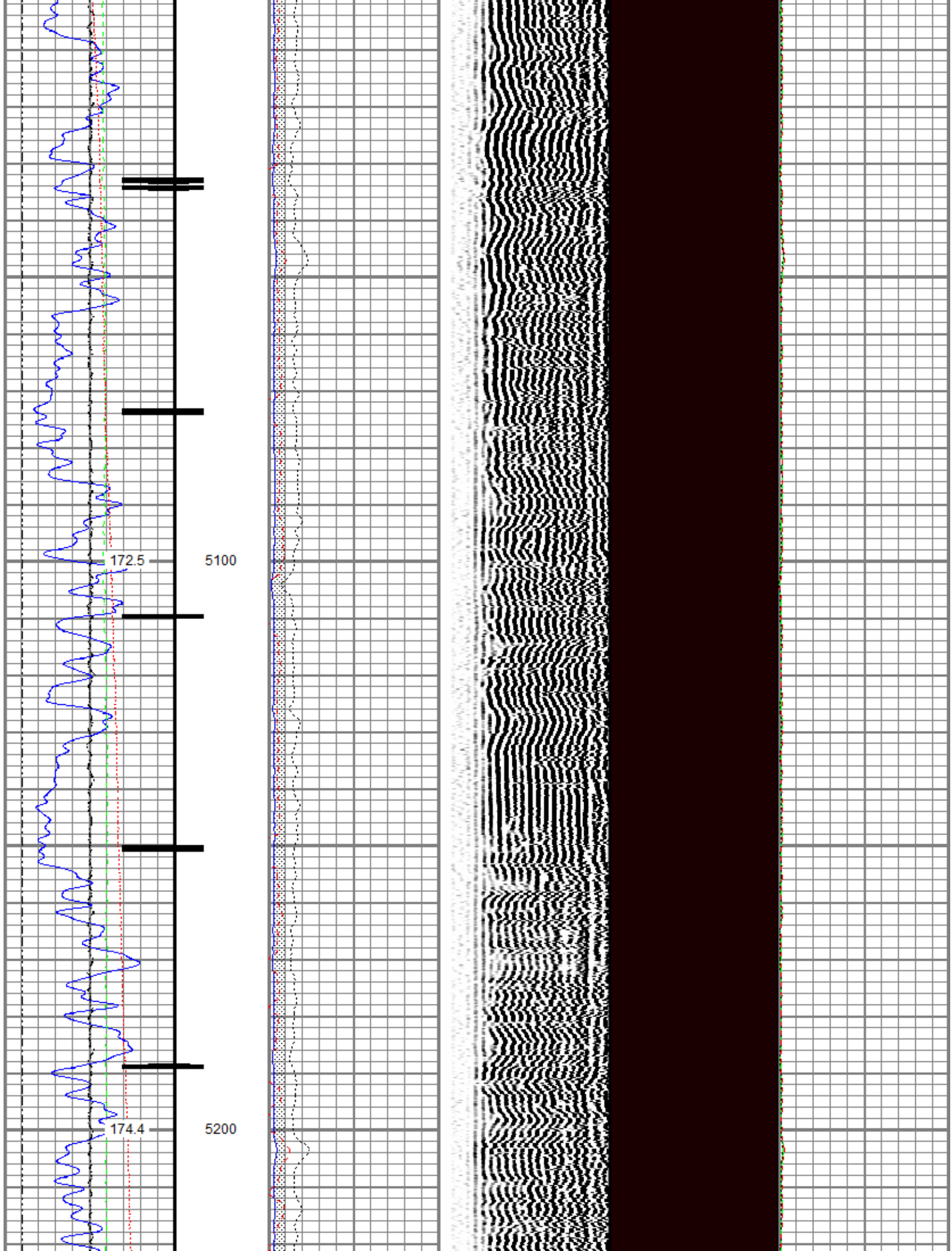


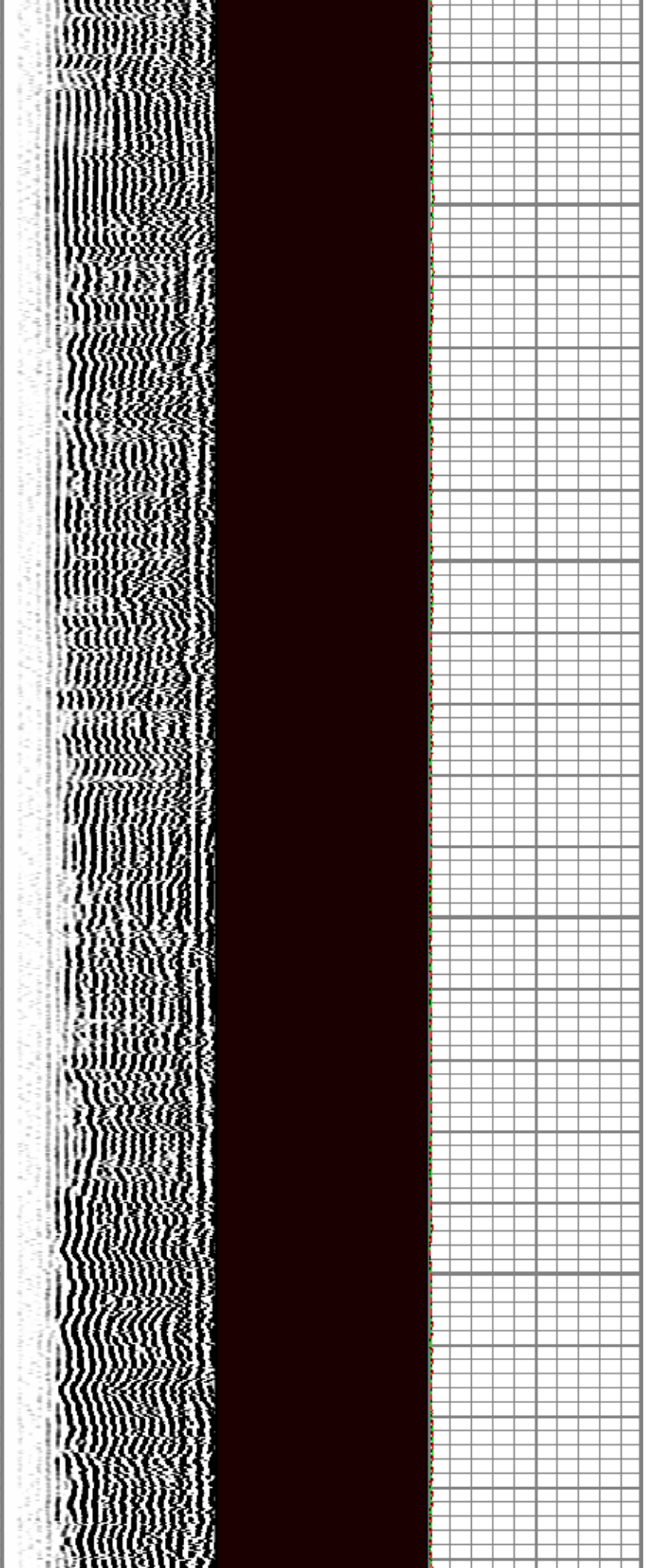
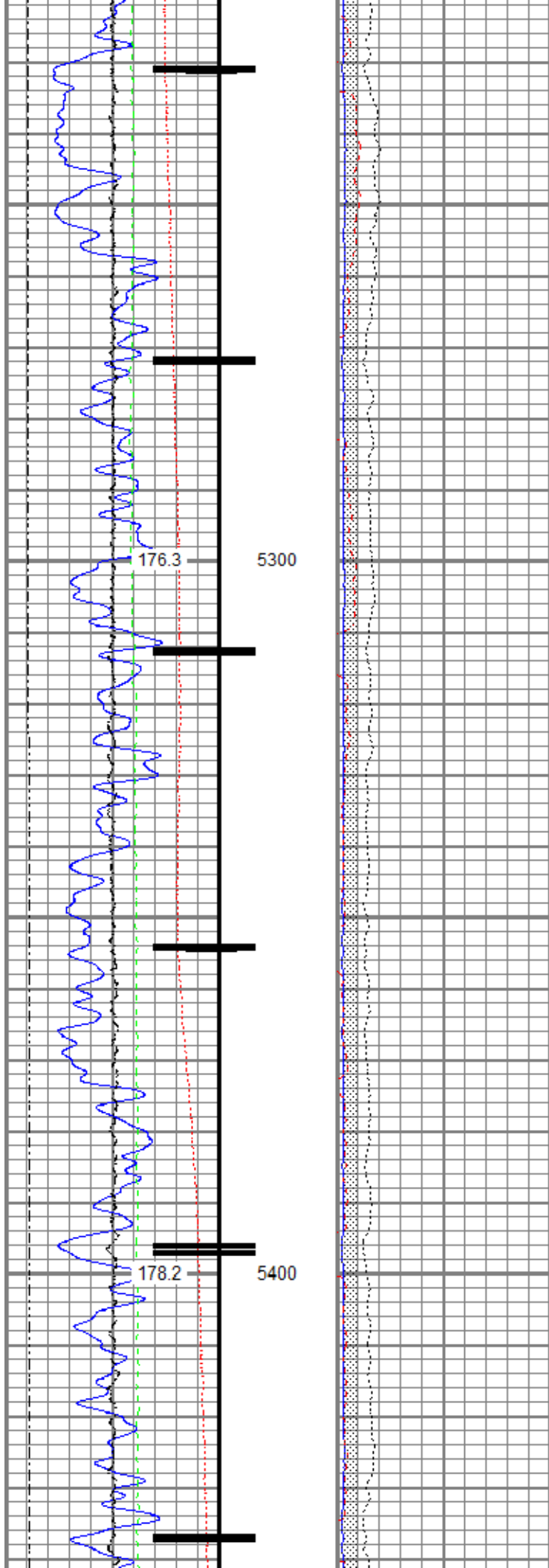


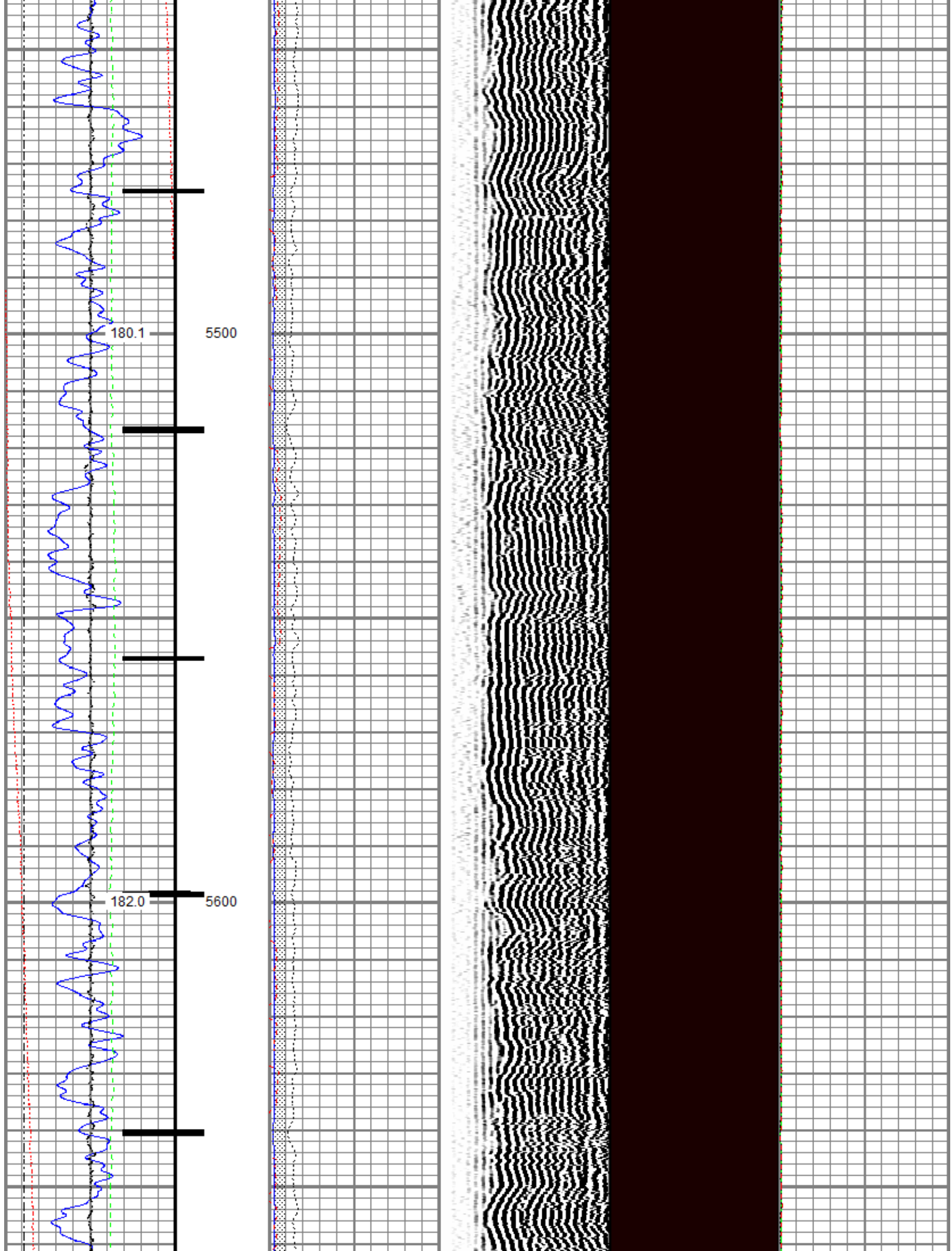




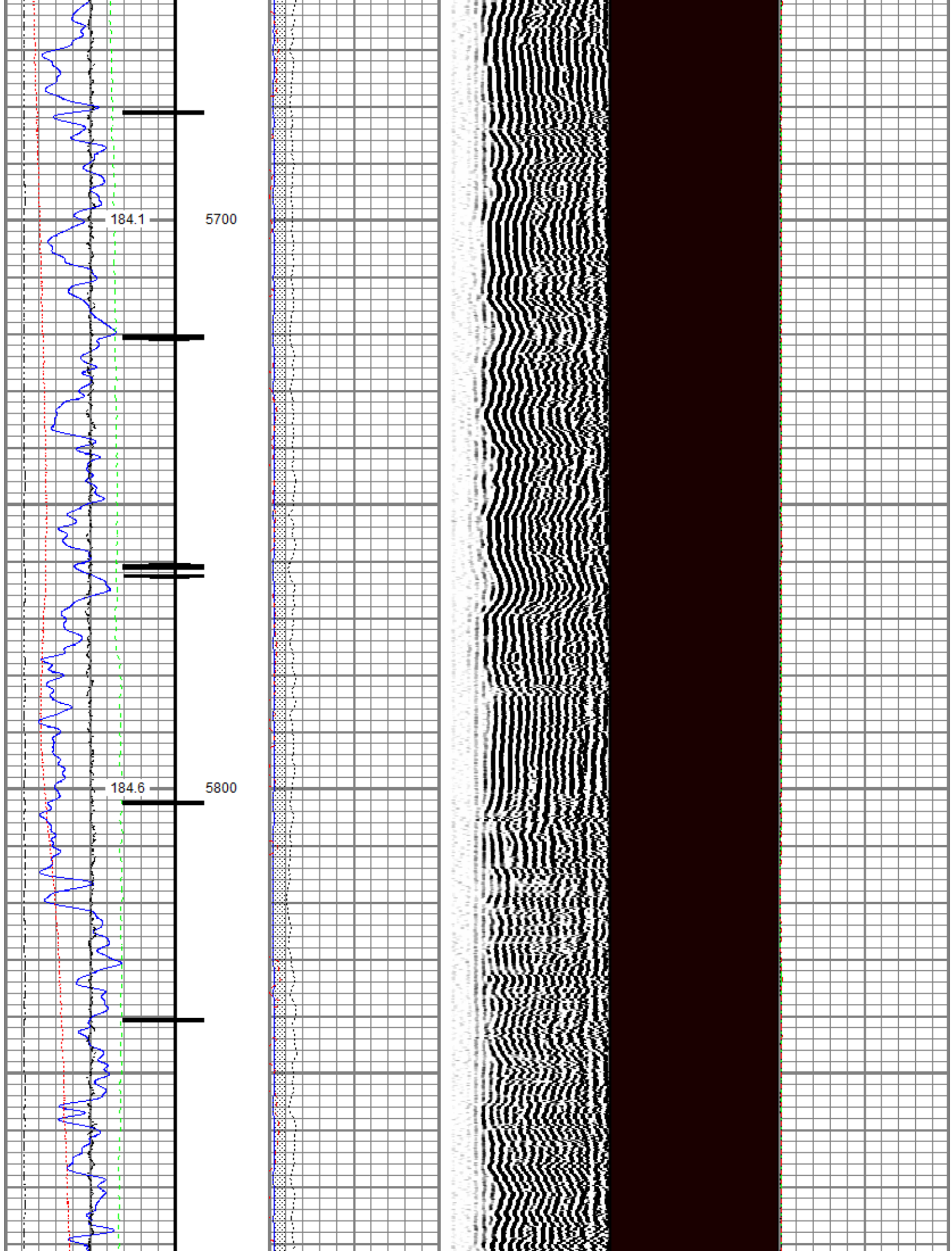


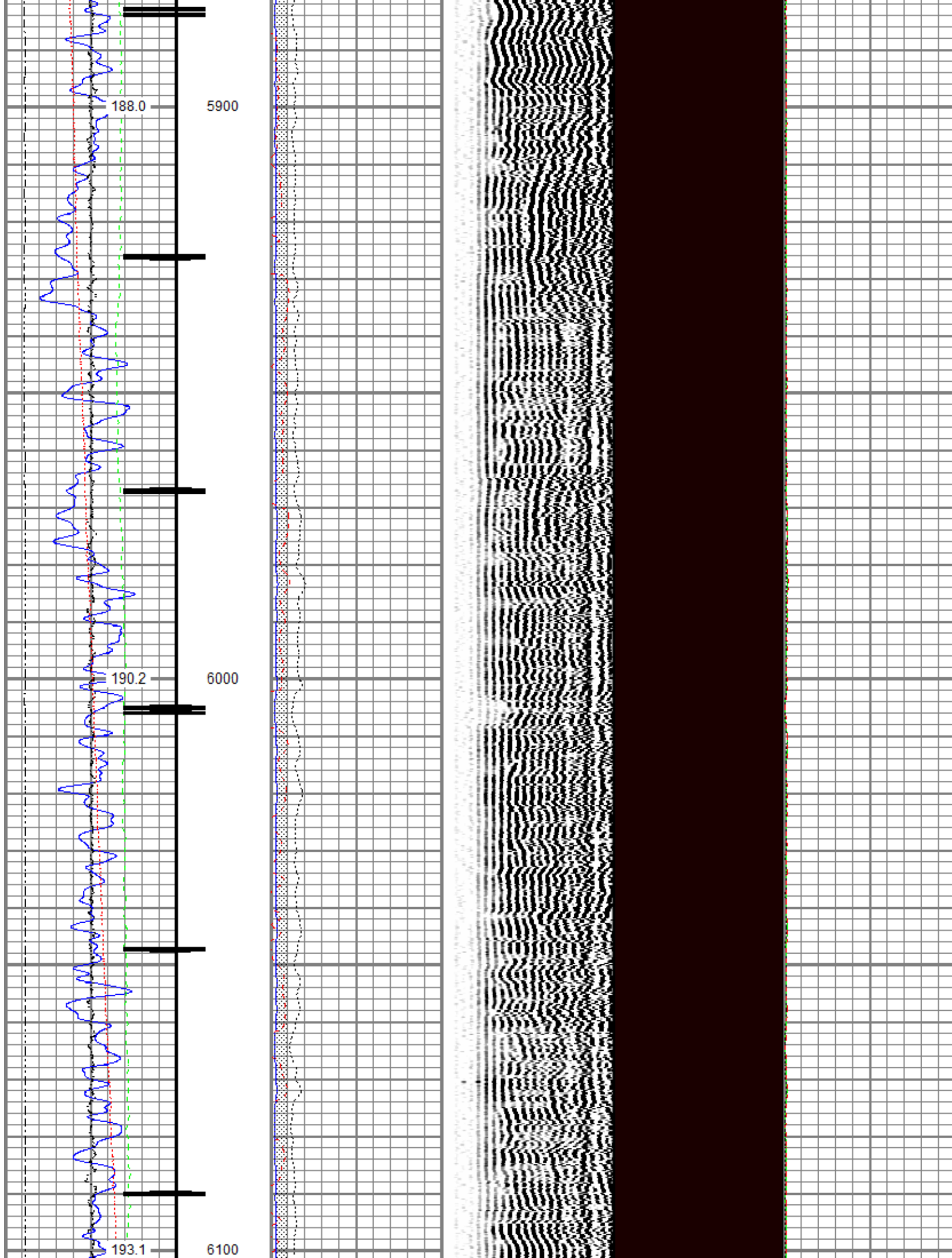


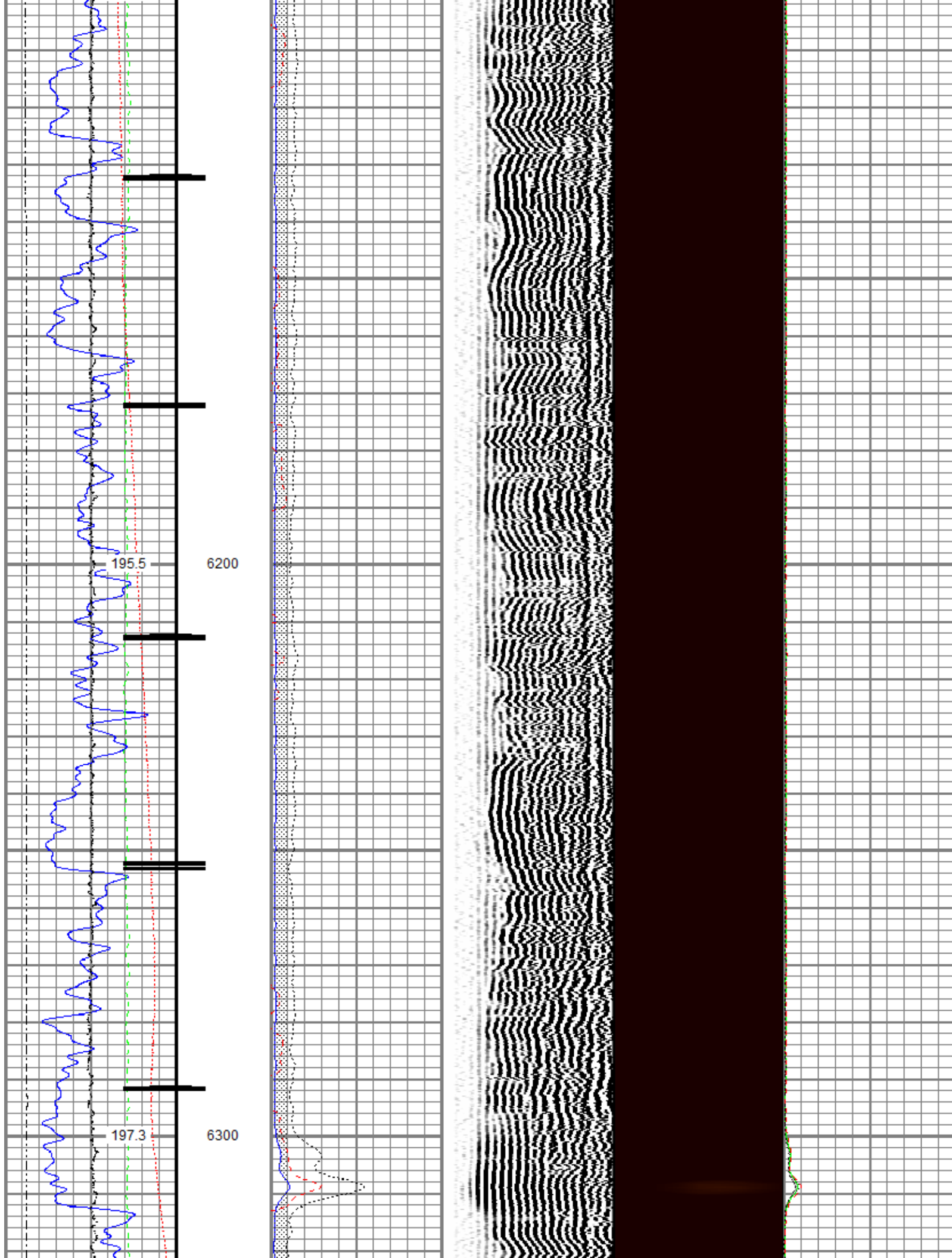




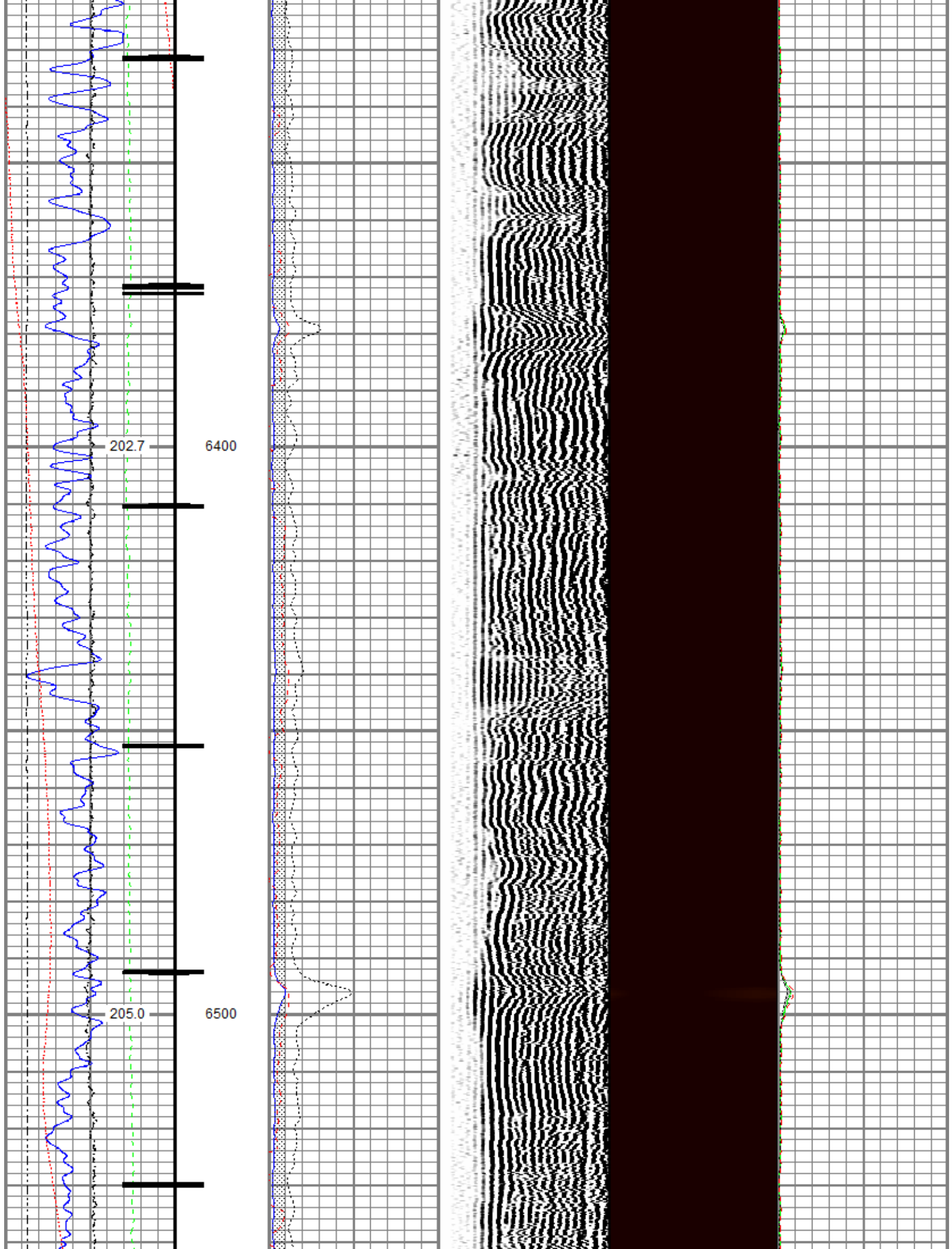


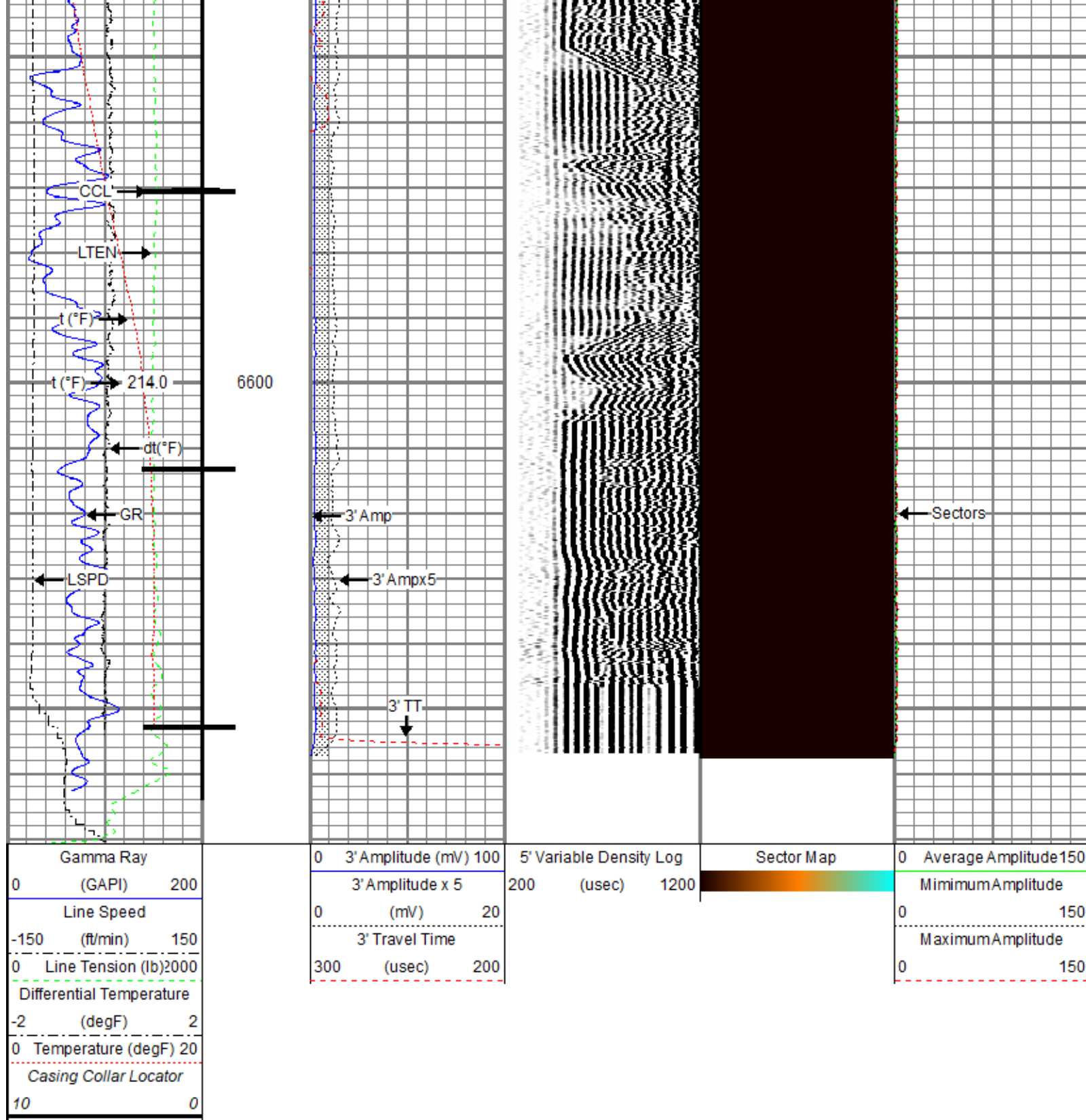










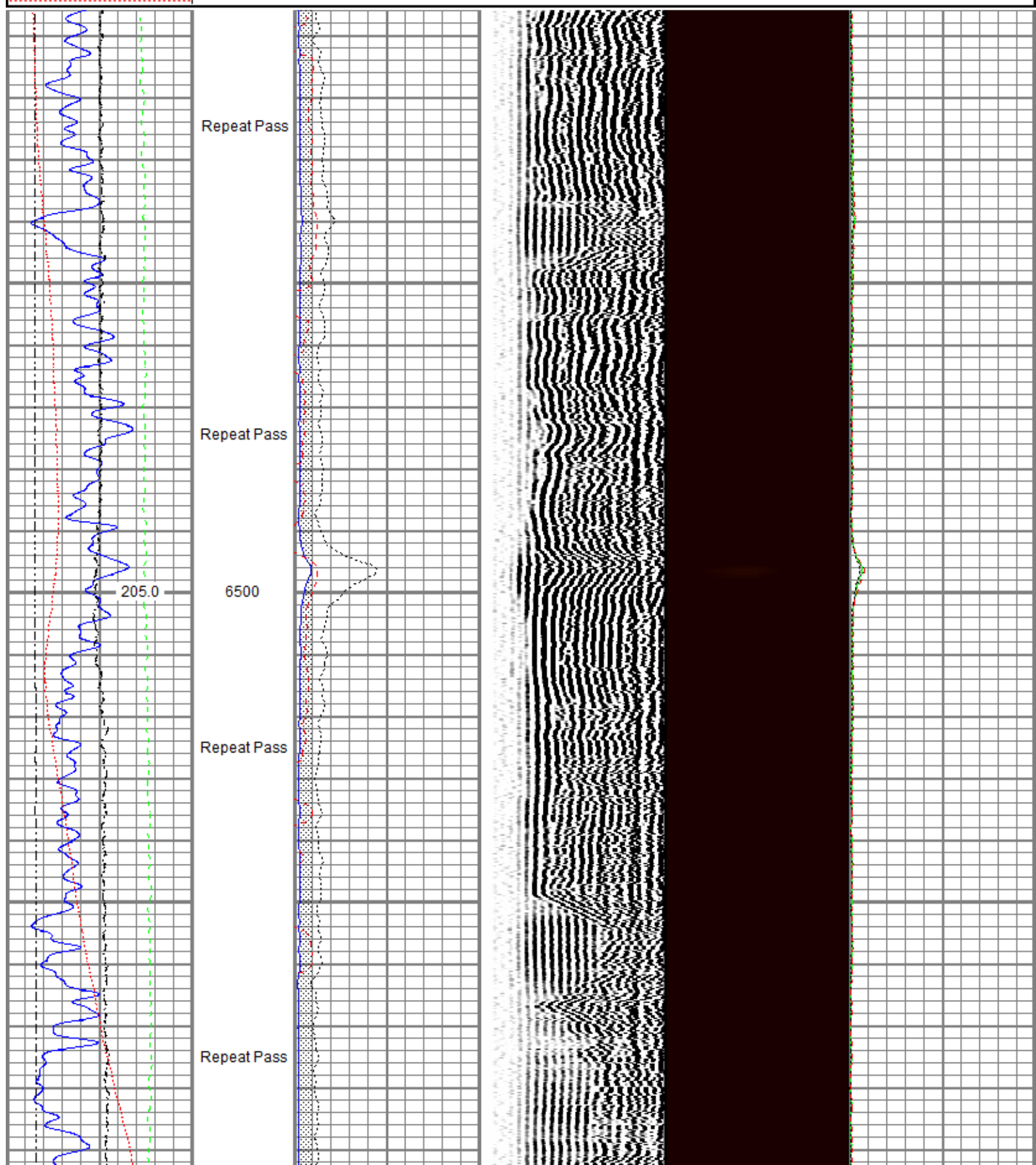


## Repeat Pass

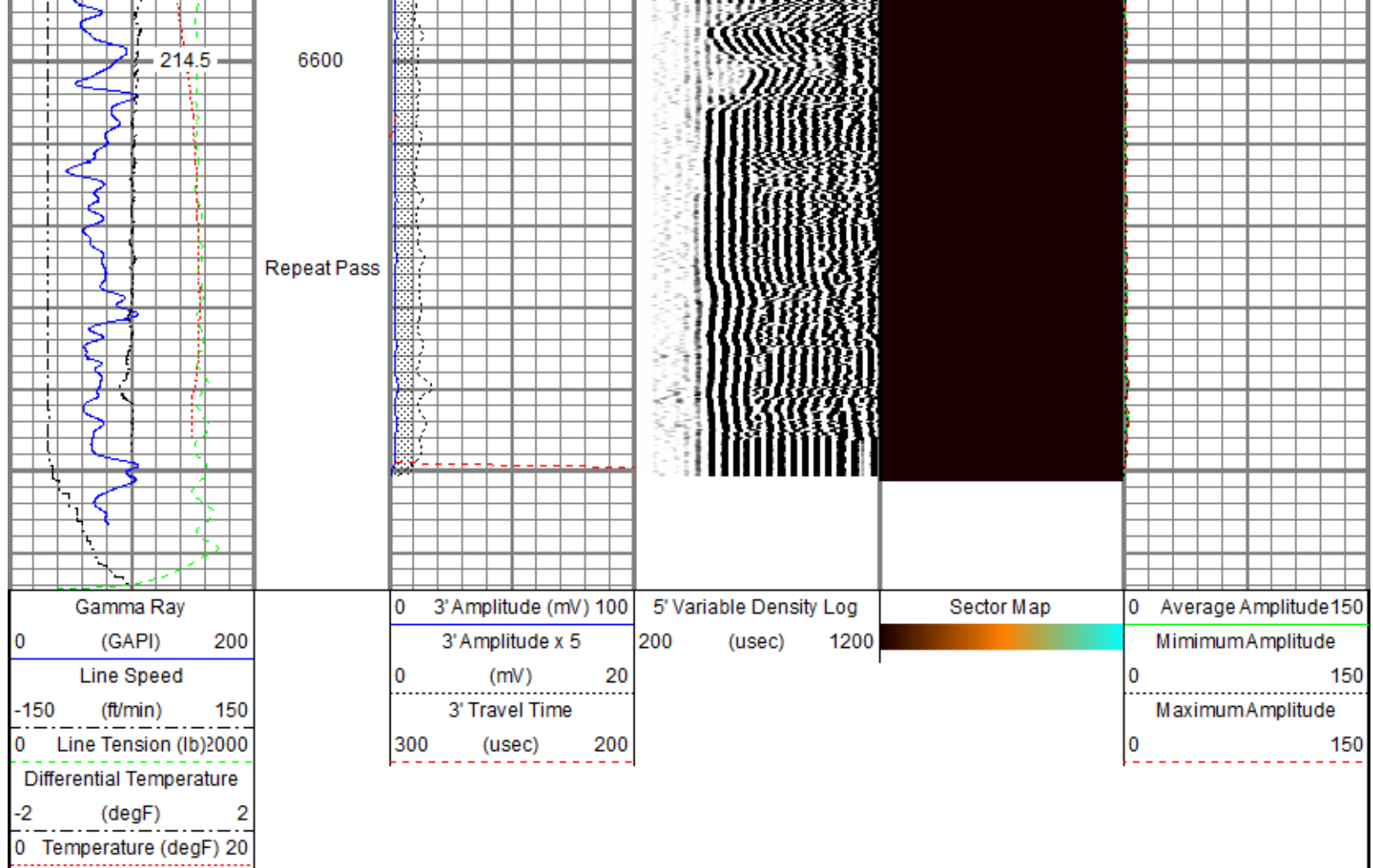
Recorded With 0 PSI Surface Induced Pressure

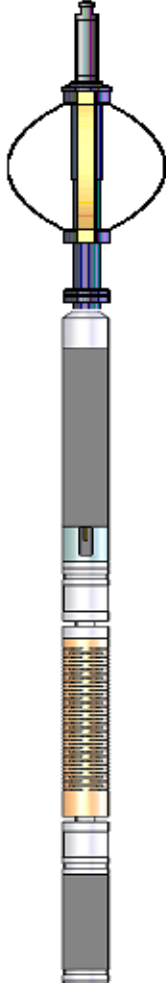
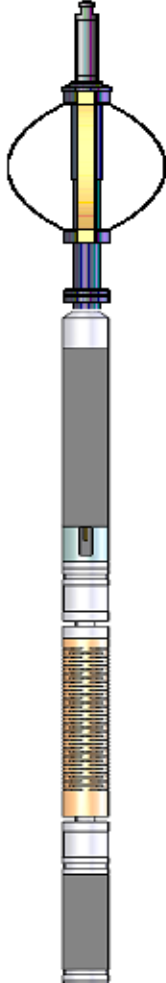
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 Presentation Format ros\_rbt004\_tep  
 Dataset Creation Wed Nov 20 11:17:45 2019  
 Charted by Depth in Feet scaled 1:240

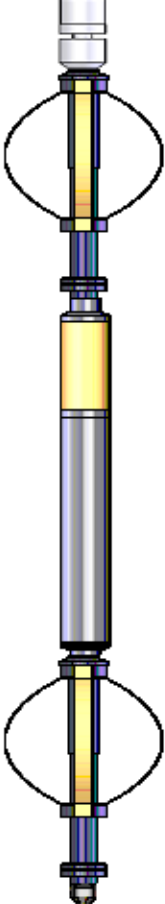
Gamma Ray			5 Variable Density Log			Sector Map		
0	(GAPI)	200	0	3' Amplitude (mV) x 5	100	200	(usec)	1200
Line Speed			3' Amplitude (mV)			Minimum Amplitude		
-150	(ft/min)	150	0		20	0		150
Line Tension (lb)			3' Travel Time			Maximum Amplitude		
0		2000	300	(usec)	200	0		150
Differential Temperature								
-2	(degF)	2						
Temperature (degF)								
0		20						







Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	3.60
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
			Probe Radii-2750 RBT (120855) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
TEMP	17.00					
WVFS8	14.77					
WVFS7	14.77					
WVFS6	14.77					
WVFS5	14.77					
WVFS4	14.77					
WVFS3	14.77					
WVFS2	14.77					
WVFS1	14.77					

WVFS1	14.77		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
WVFCAL	14.77					
WVF3FT	14.77					
WVF5FT	13.77					
CCL\$2	6.76					
CCL\$1	6.76					
GR	5.51	Probe GR-CCL-2750 GOB (FW1211-081) Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined with GO Bottom	4.51	2.75	55.00	
		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00	
		GO BN-14375 GO 1-7/16" Bull Nose with Go Box Top	0.25	1.44	1.00	
Dataset: tep_puckett gm 313-8_rbl_11-19-19.db: field/well/run2/Main.1 Total length: 23.82 ft Total weight: 224.60 lb O.D.: 2.75 in						

## Gamma Ray Calibration Report

## Segmented Cement Bond Log Calibration Report

Master Calibration, performed (Derived):

S	0.003	0.893	0.800	81.196	90.210	0.499
CAL	0.003	0.760				
5'	0.011	0.732	0.800	81.196	111.478	-0.450
SUM						
S1	0.005	0.969	0.000	100.000	103.654	-0.478
S2	0.005	0.963	0.000	100.000	104.371	-0.556
S3	0.006	0.916	0.000	100.000	109.846	-0.610
S4	0.005	0.862	0.000	100.000	116.685	-0.637
S5	0.008	0.808	0.000	100.000	124.874	-0.943
S6	0.007	0.855	0.000	100.000	117.853	-0.793
S7	0.005	0.870	0.000	100.000	115.613	-0.585
S8	0.004	0.918	0.000	100.000	109.429	-0.466

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.003	0.760	1.000	0.000

Air Zero Calibration, performed Mon Nov 18 18:07:41 2019:

	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	

#### Temperature Calibration Report

Serial Number: 120855  
Tool Model: 2750 RBT  
Performed: Mon Oct 01 11:32:15 2018

	Reference	Reading
Low Reference:	100.00 degF	112.30 degF
High Reference:	350.00 degF	394.75 degF

Gain: 0.89  
Offset: 0.60  
Delta Spacing: 1



Company: TEP Rocky Mountain LLC  
Well: Puckett GM 313-8  
Field: Grand Valley  
County: Garfield  
State: Colorado