



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company TEP Rocky Mountain LLC

Well Puckett GM 443-8

Field Grand Valley

County Garfield State Colorado

Location: API #: 05-045-24101

Other Services

SEC 8 TWP 7S RGE 96W

Elevation

Permanent Datum Ground Level Elevation 6281'

Log Measured From Kelly Bushing 24 FT

Drilling Measured From Kelly Bushing

K.B. 6305'

D.F. ---

G.L. 6281'

Date 19-NOV-2019

Run Number One

Depth Driller 7258 FT

Depth Logger 7191 FT

Bottom Logged Interval 7177 FT

Top Log Interval Surface

Open Hole Size 8.750"

Type Fluid Water

Density / Viscosity 8.34 lb/gal

Max. Recorded Temp. 212°F

E. Estimated Cement Top See Log

Time Well Ready R.O.A.

Time Logger on Bottom 08:05

Equipment Number HD-0359

Location Grand Junction, CO

Recorded By J. Donnelly

Witnessed By ---

Run Number

Bit From To

Size Weight From To

Casing Record Size (in) Wgt (lbs/ft) Grade Top Bottom

Surface Casing 9 5/8 32.3 H-40 Surface 1033 FT

Intermediate #1 4 1/2 11.6 P-110 Surface 7217 FT

Intermediate #2

Inner

<<< 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

Log ran as per customer request  
Depth referenced to Kelly Bushing at 24 FT  
Marker Joint logged from 4686 - 4707 FT  
Recorded with 0 PSI Surface Induced Pressure

Thank you for choosing Reliance Oilfield Services, LLC!

Main Pass

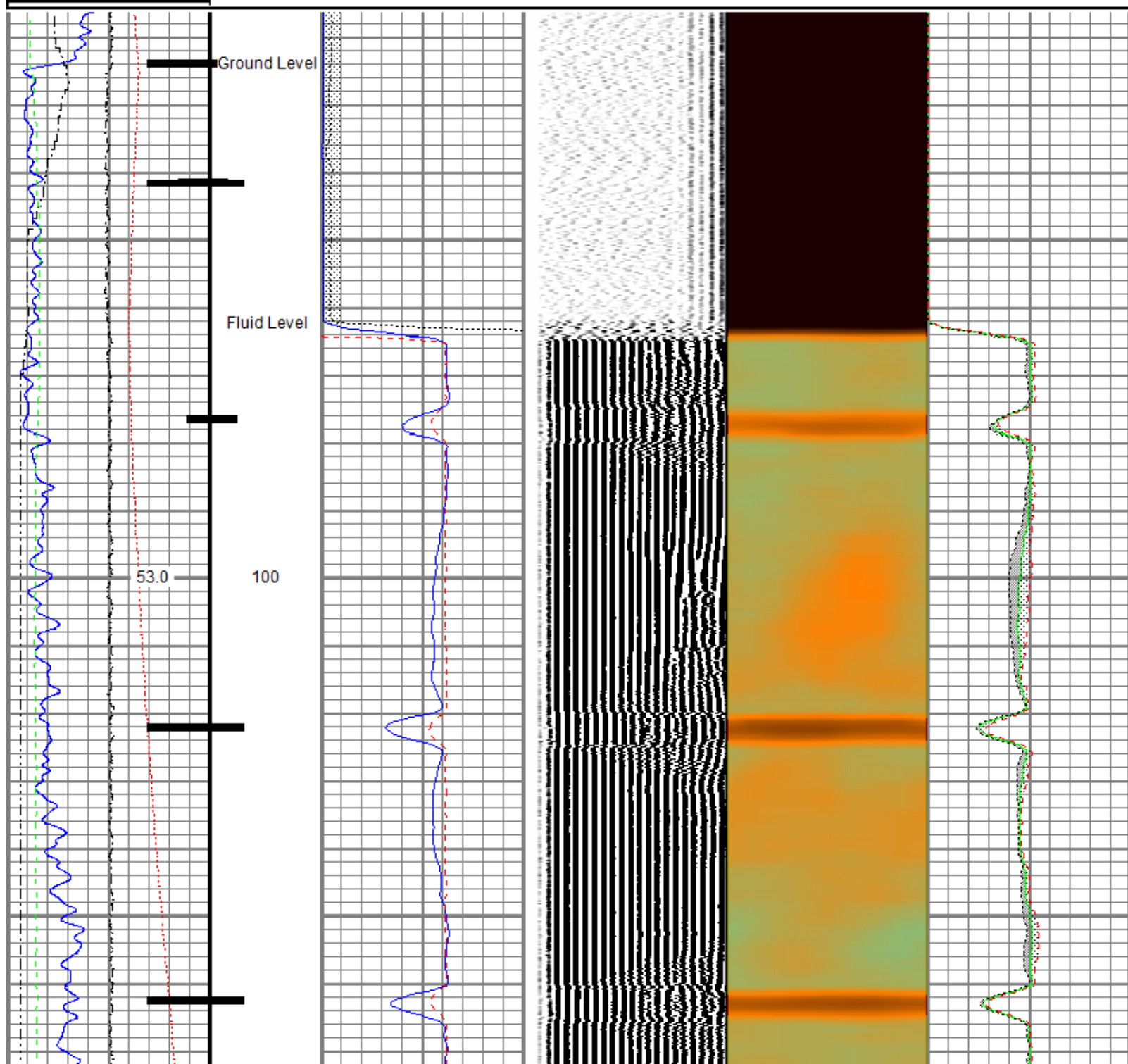


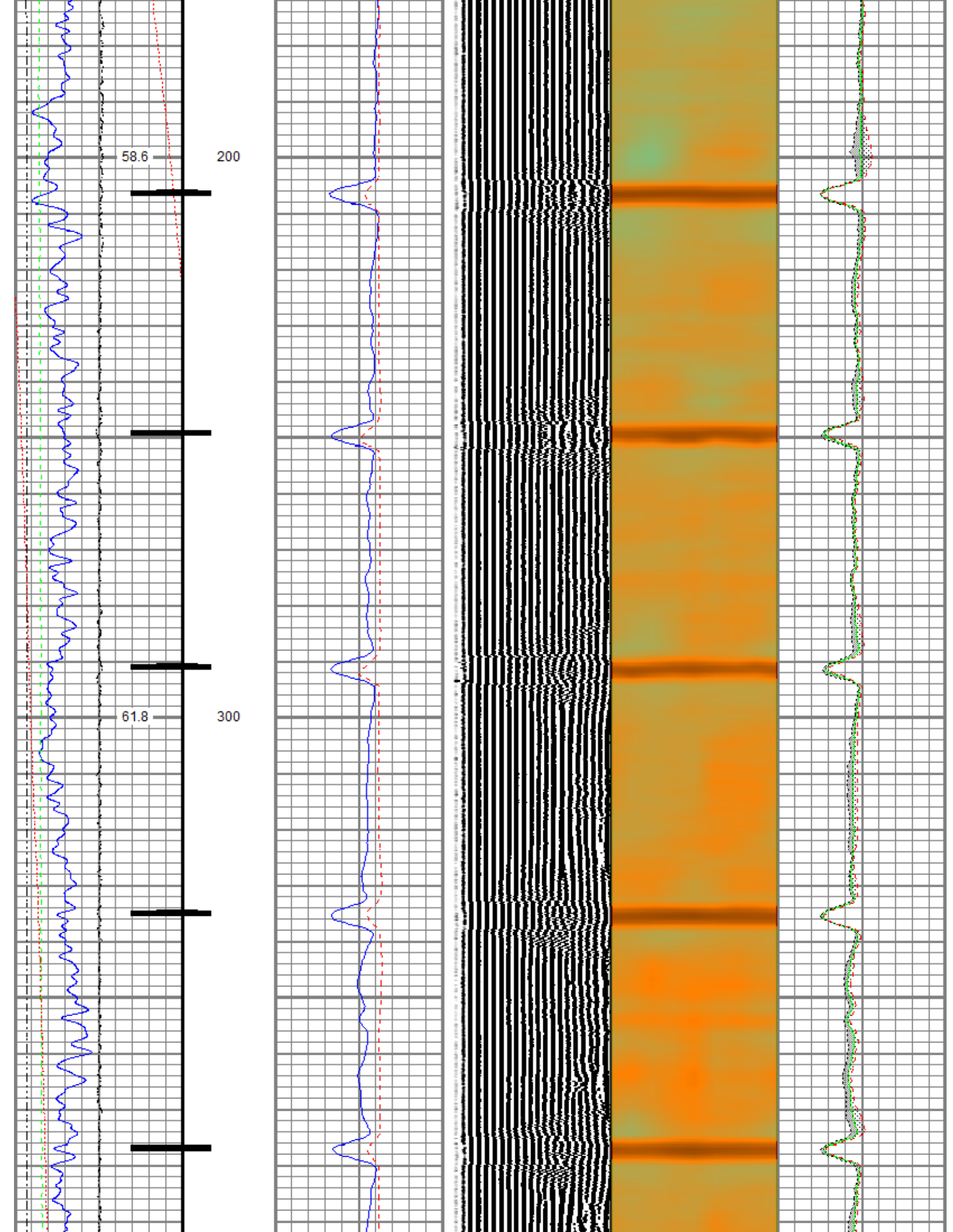
Recorded With 0 PSI Surface Induced Pressure

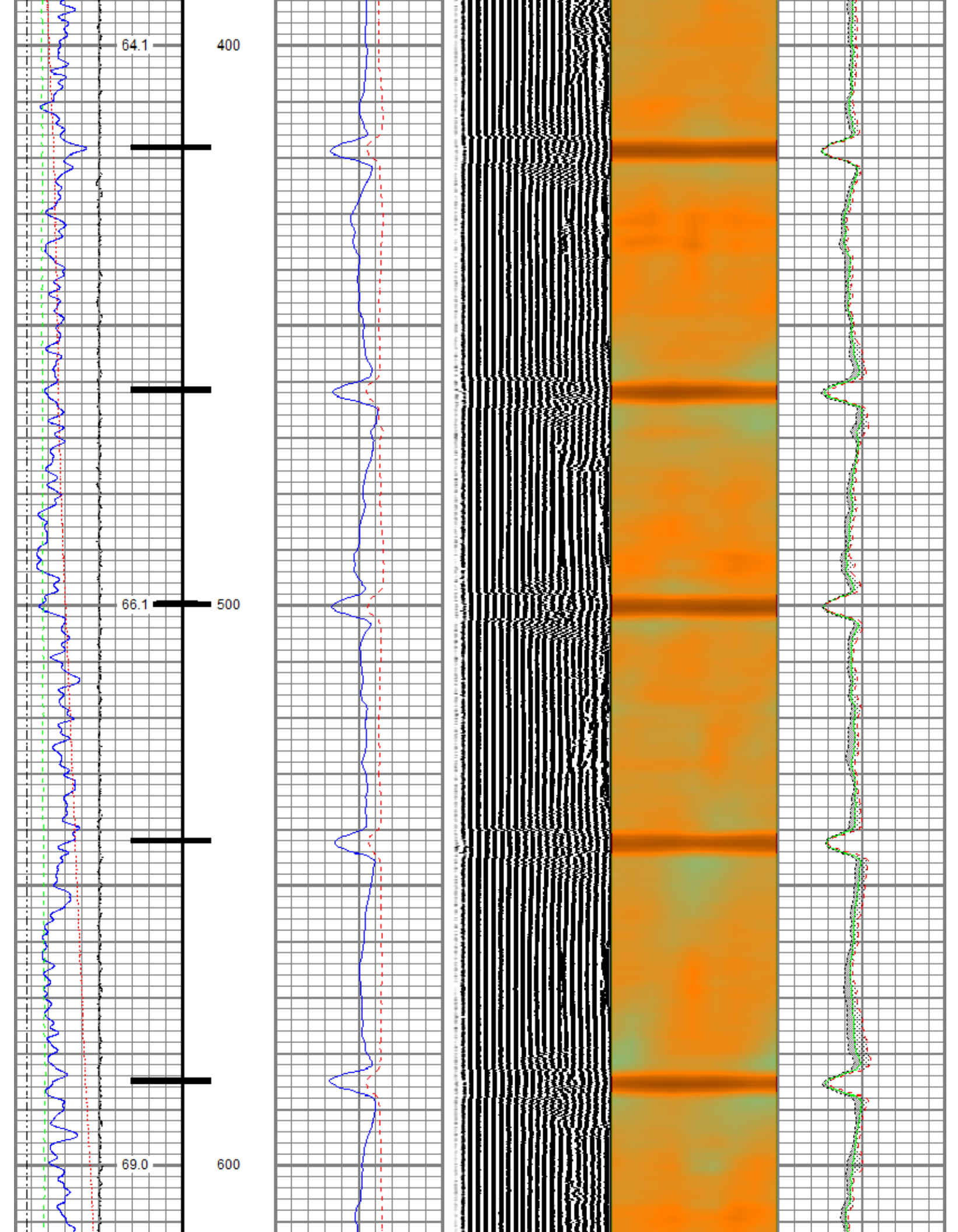
# Recorded with 0 PSI Surface Induced Pressure

Database File tep\_puckett gm 443-8\_rbl\_11-19-19\tep\_puckett gm 443-8\_rbl\_11-19-19.db  
 Dataset Pathname run2/main.1  
 Presentation Format ros\_rbt004\_tep  
 Dataset Creation Wed Nov 20 17:40:45 2019  
 Charted by Depth in Feet scaled 1:240

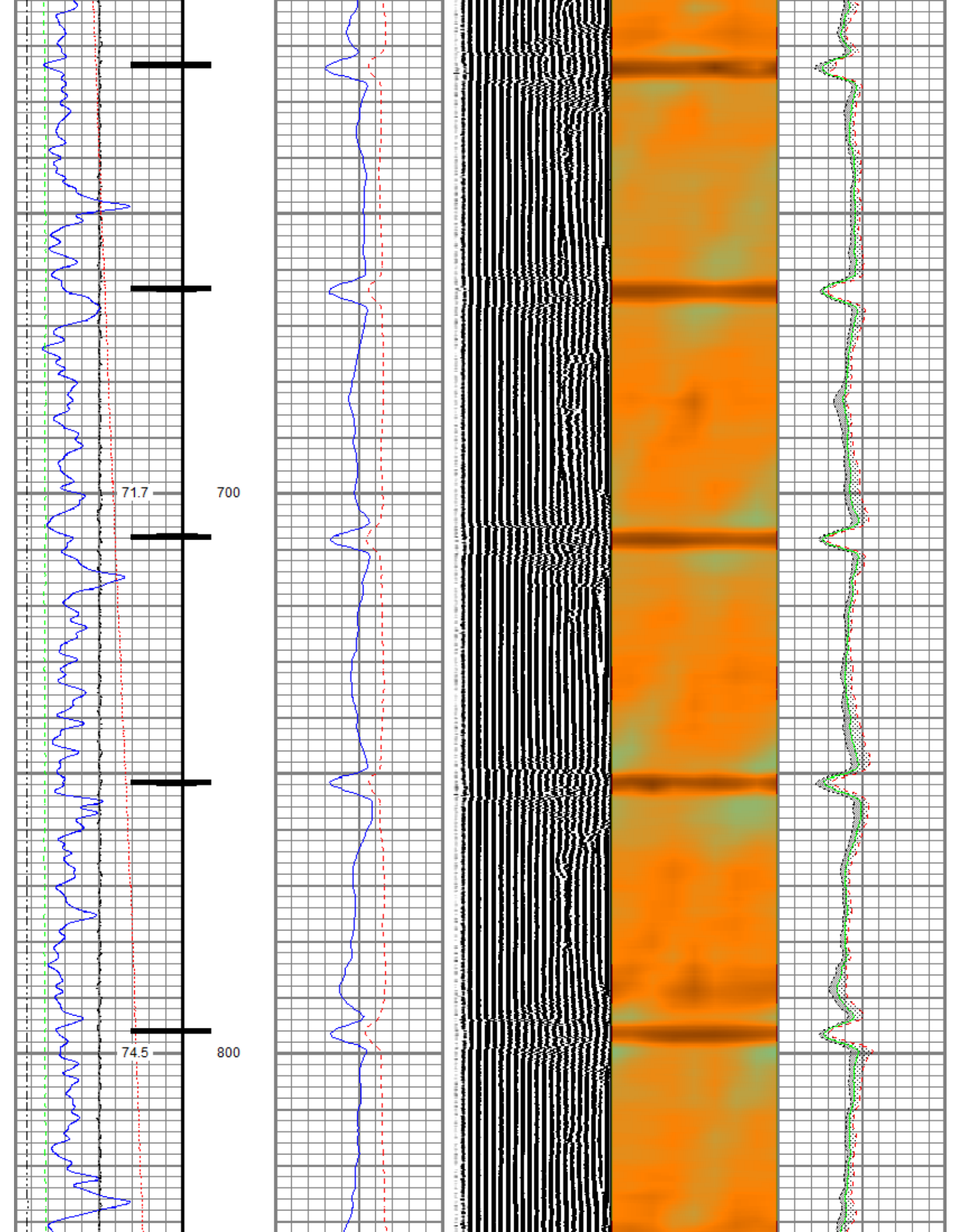
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 150
(GAPI) 200		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Line Speed	0	(mV) 20			0	150
(ft/min) 150		3' Travel Time				Maximum Amplitude
Line Tension (lb) 2000	0	300 (usec) 200			0	150
Differential Temperature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

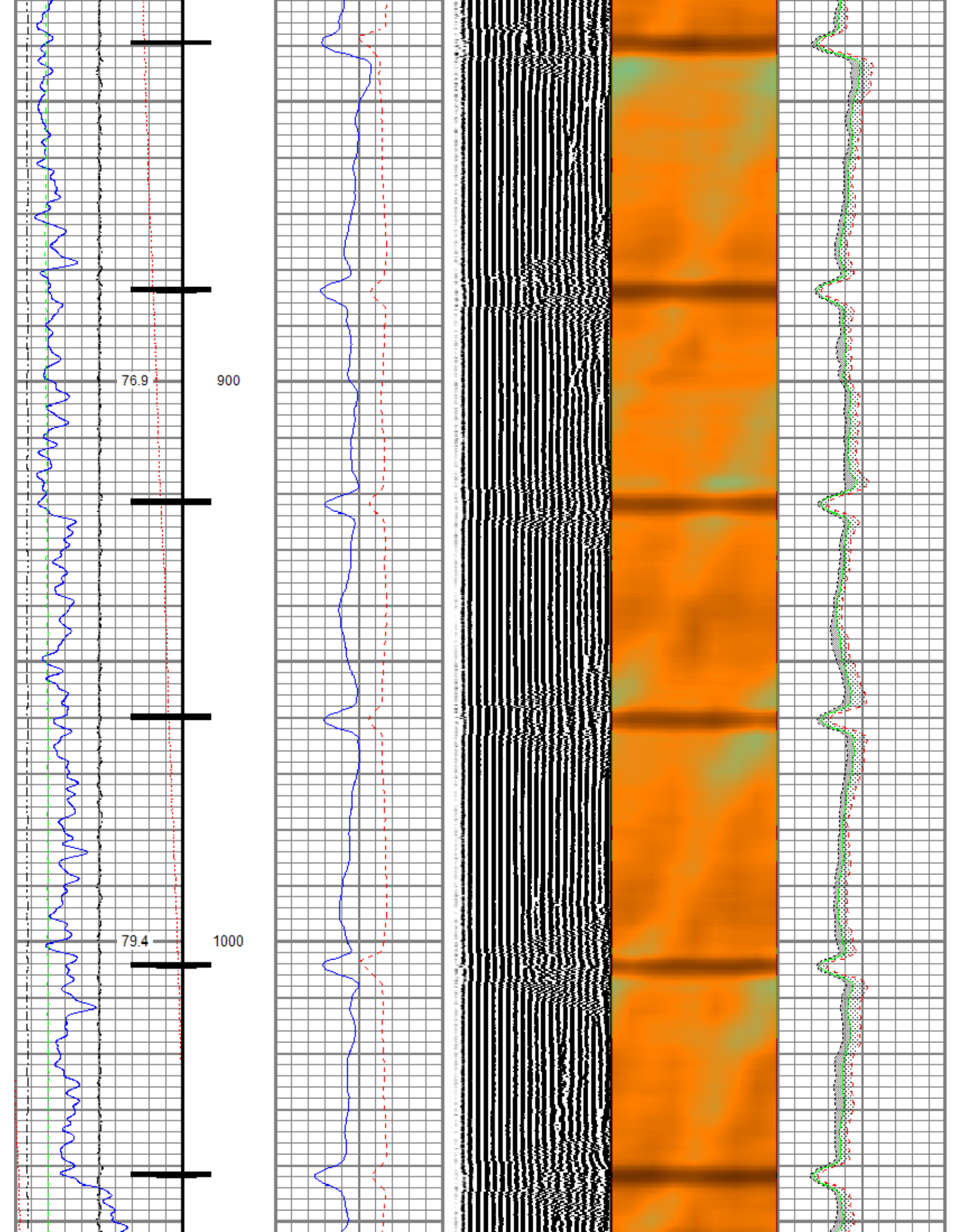


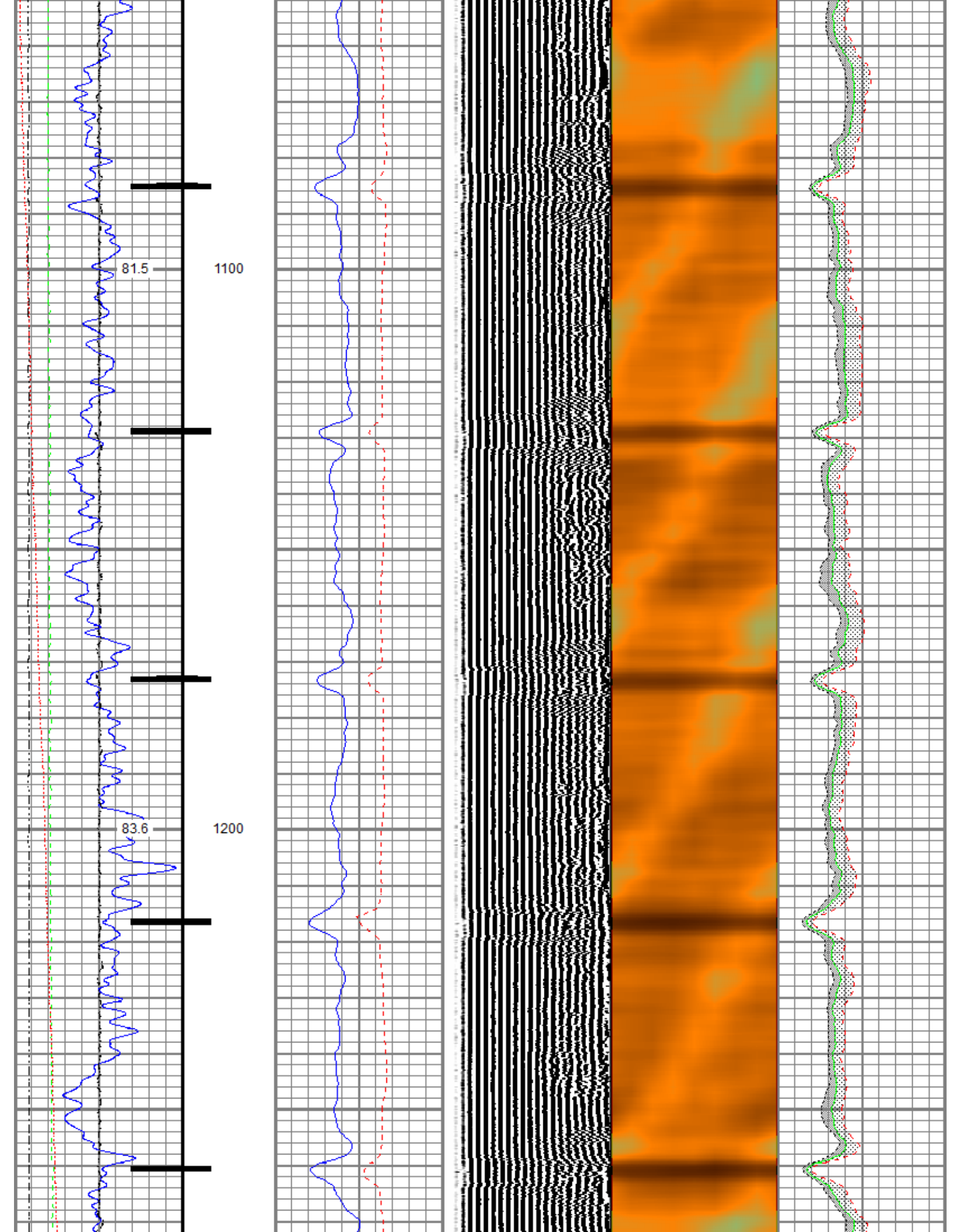




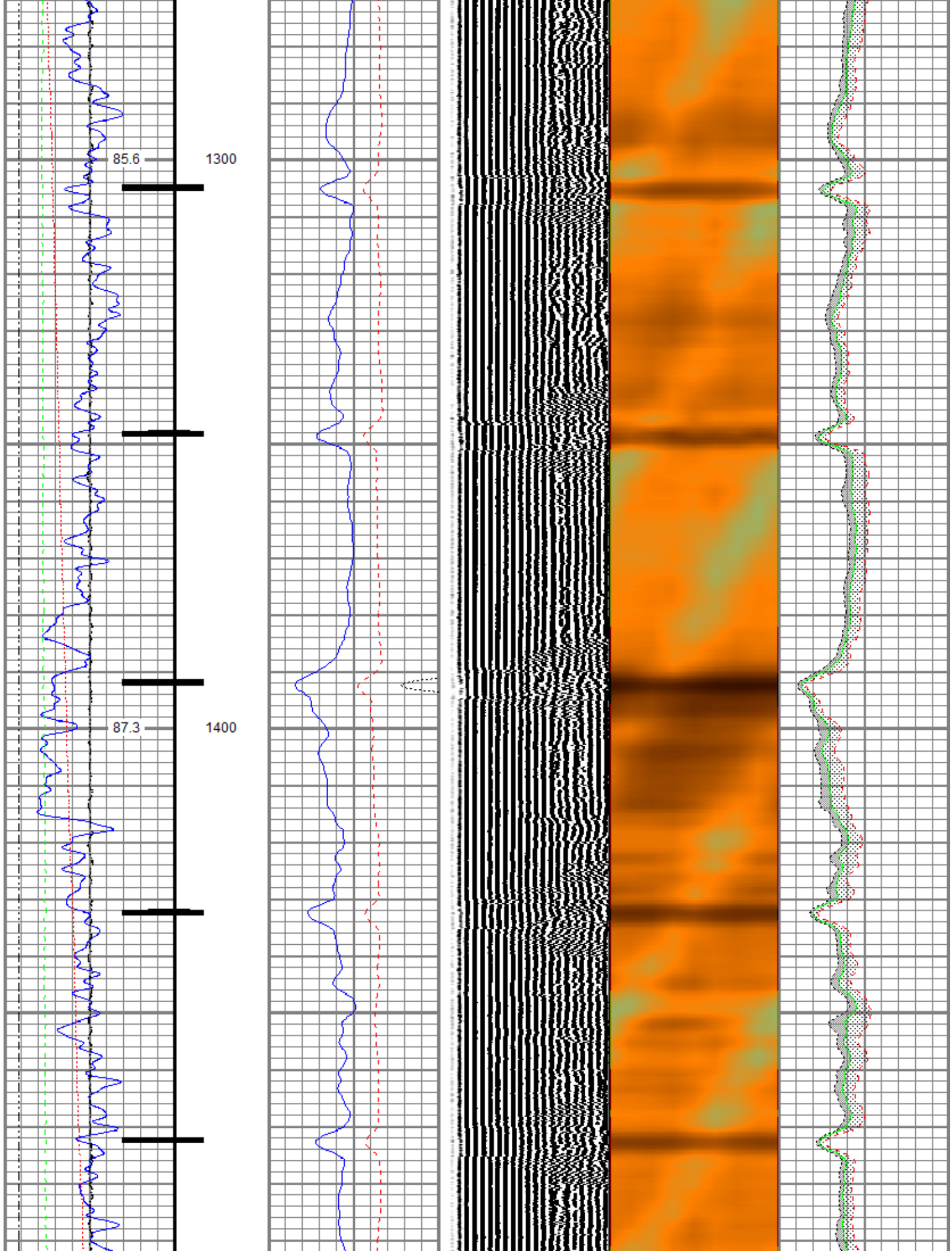




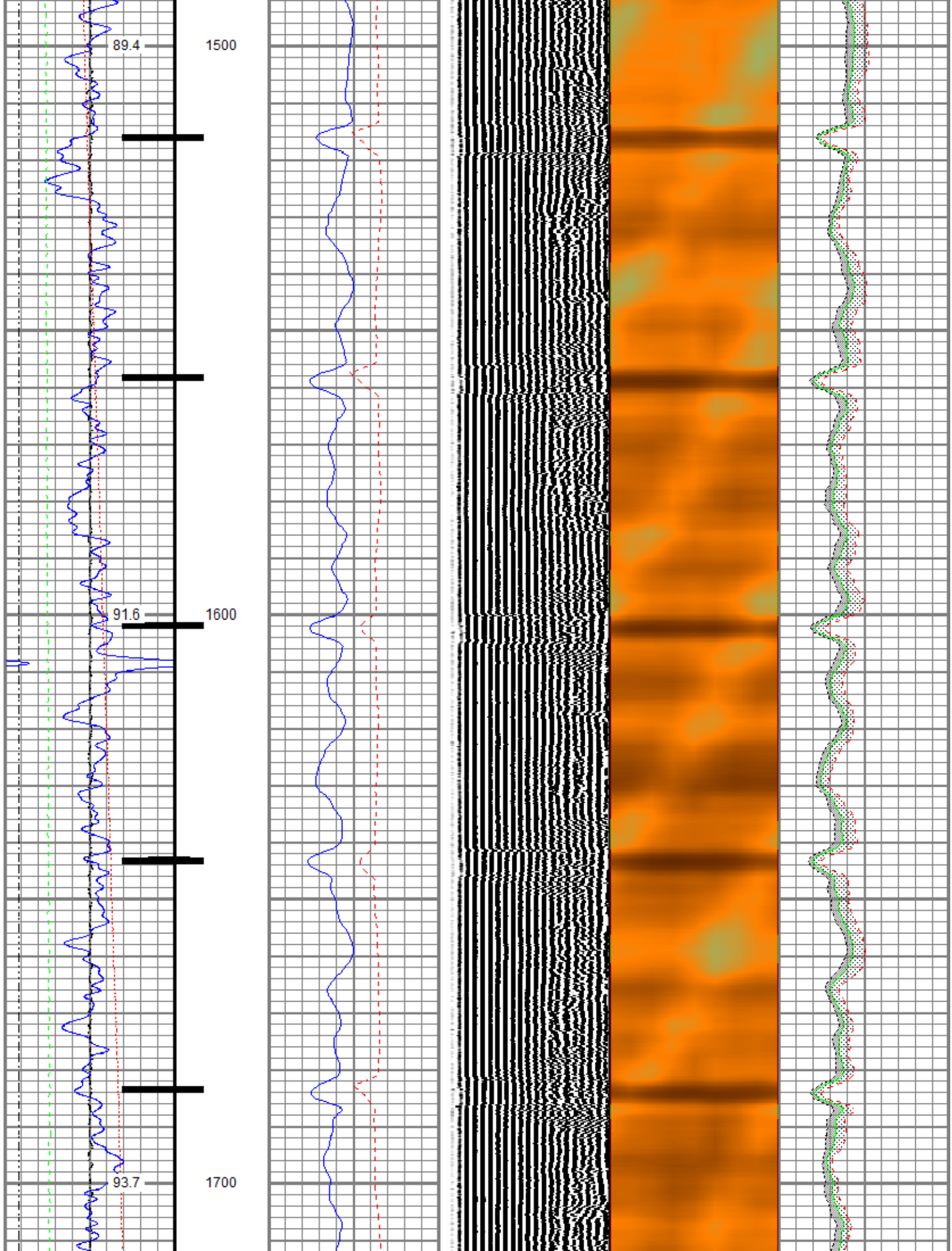


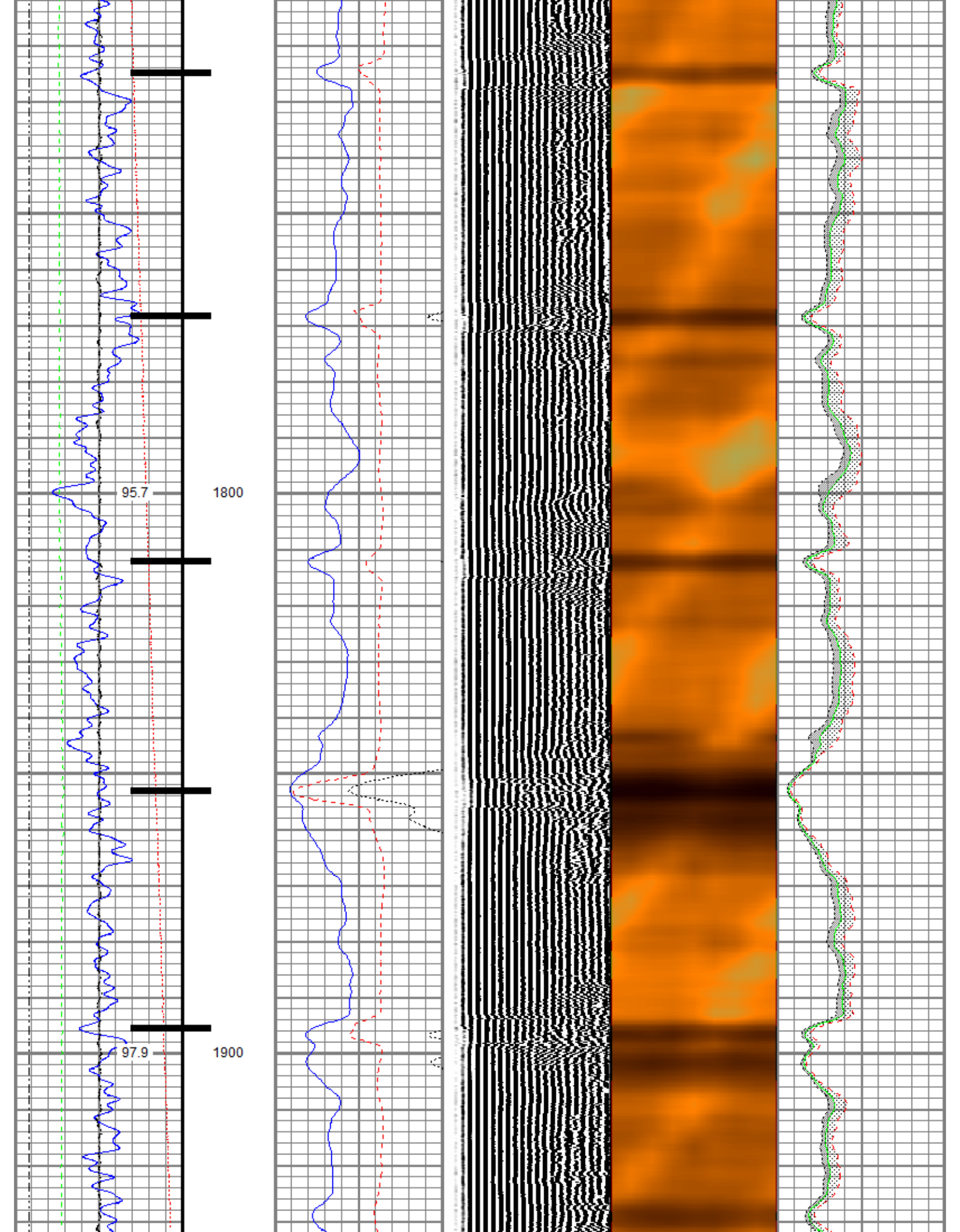


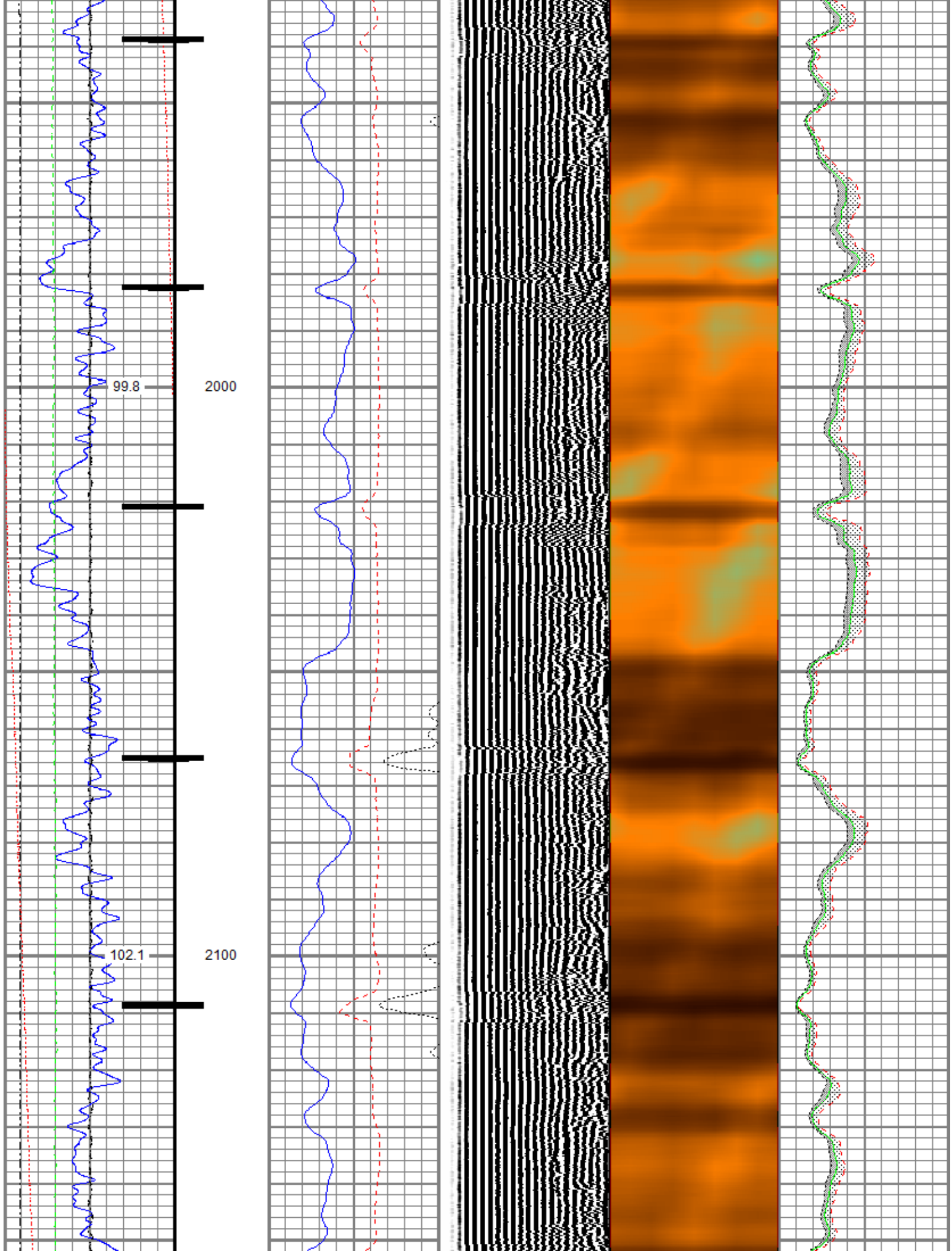




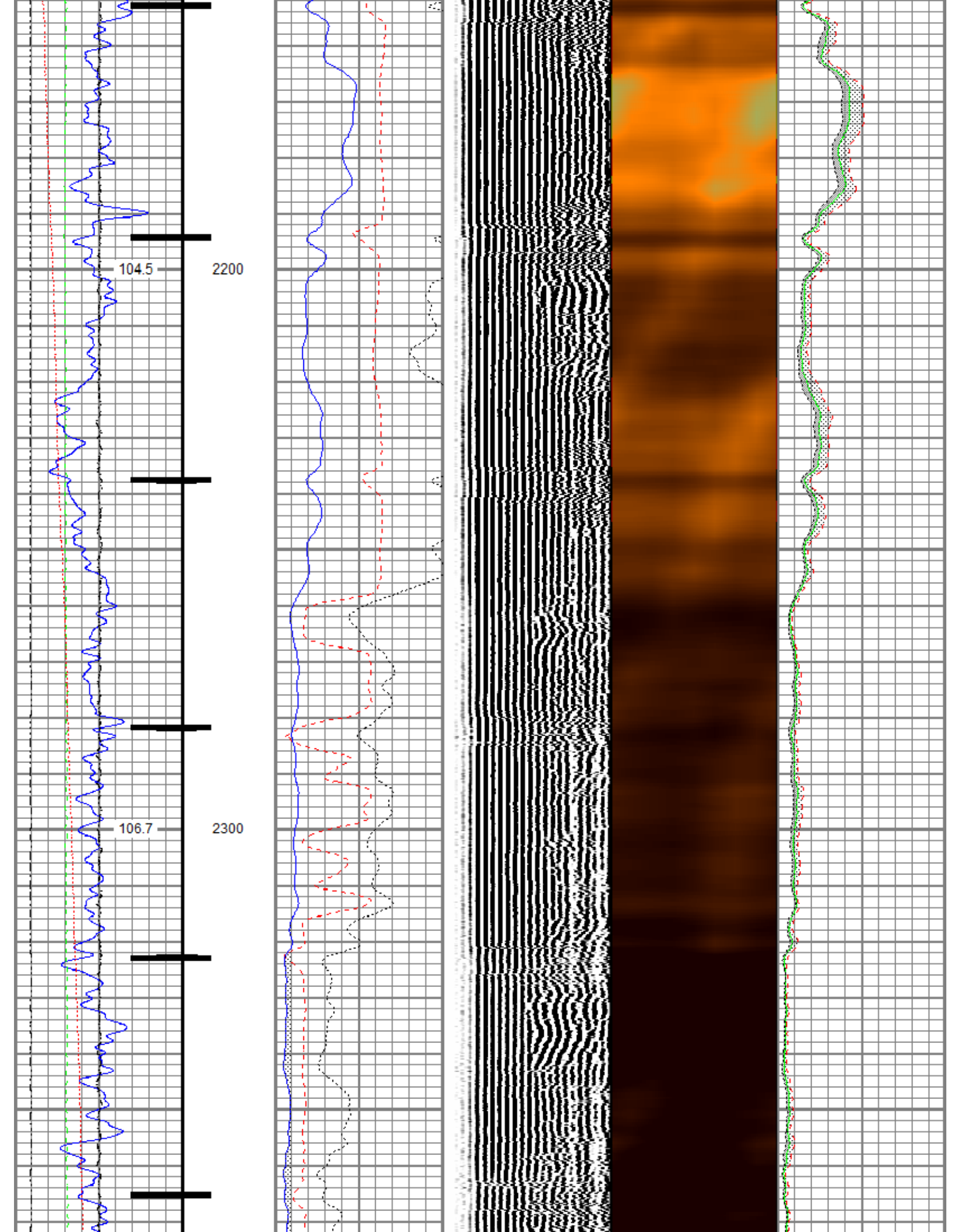




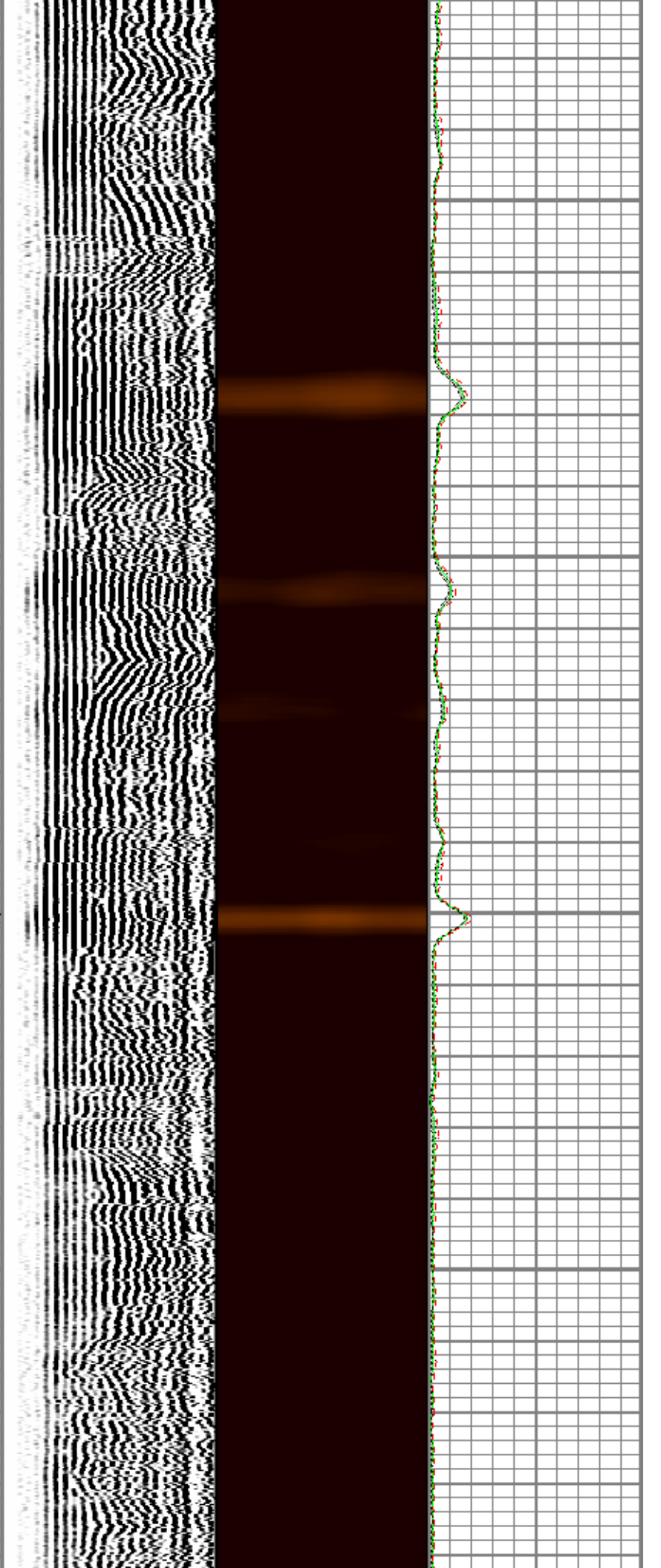
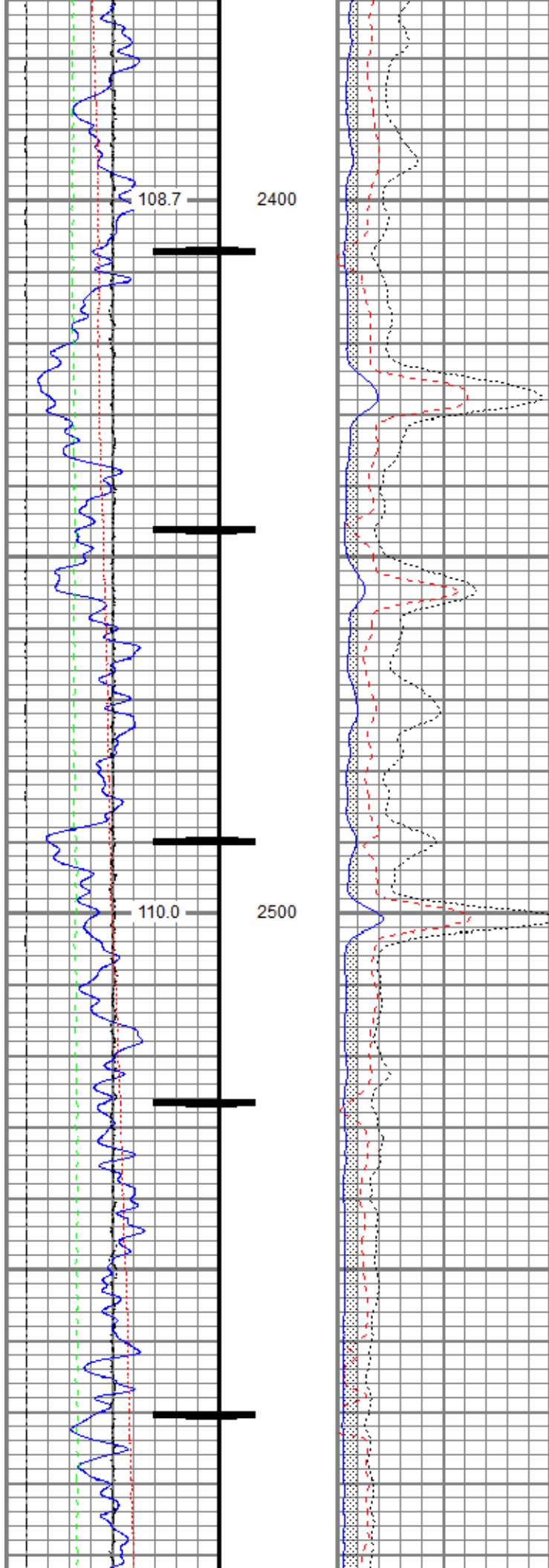


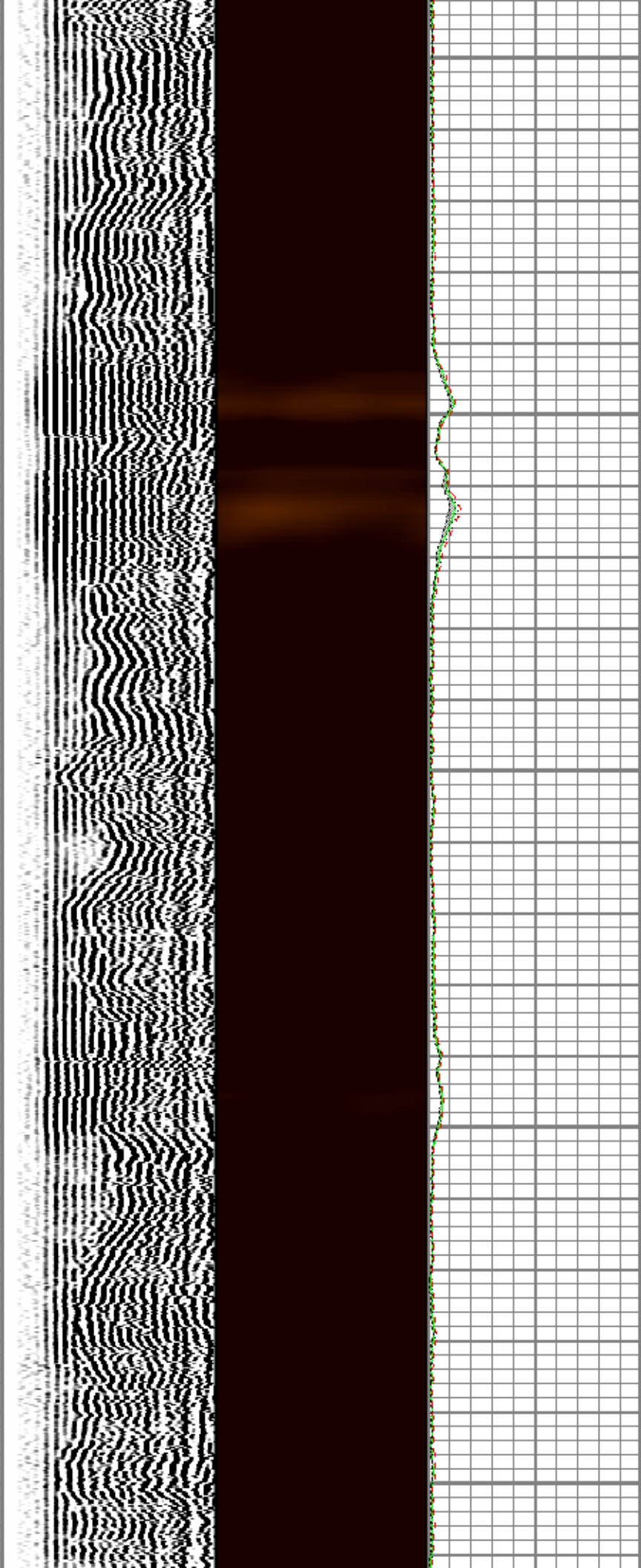
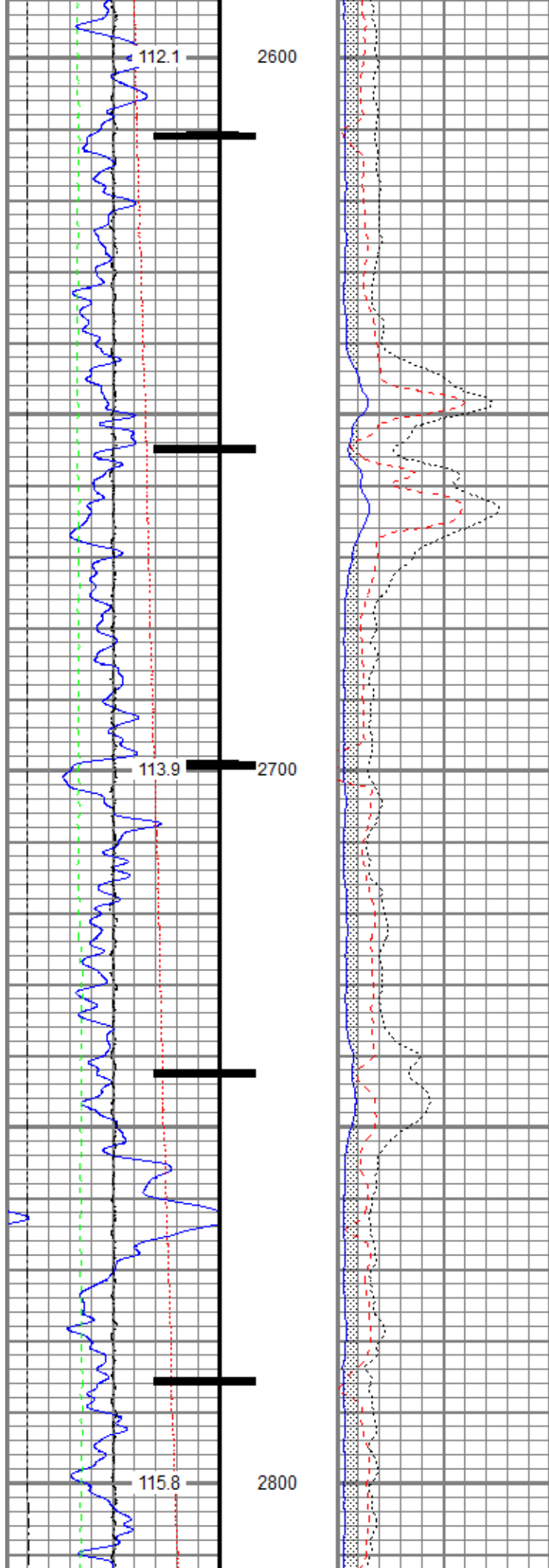


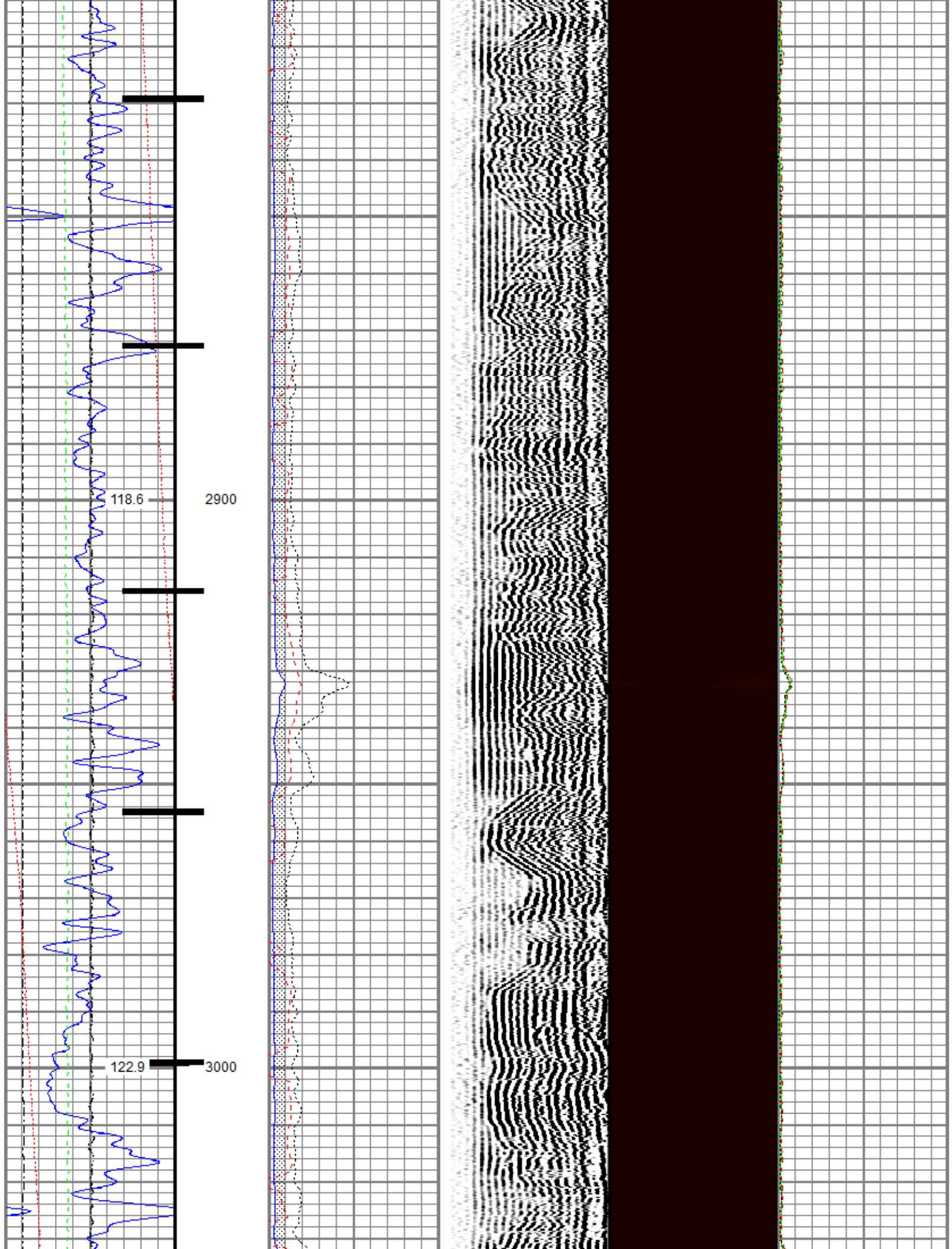




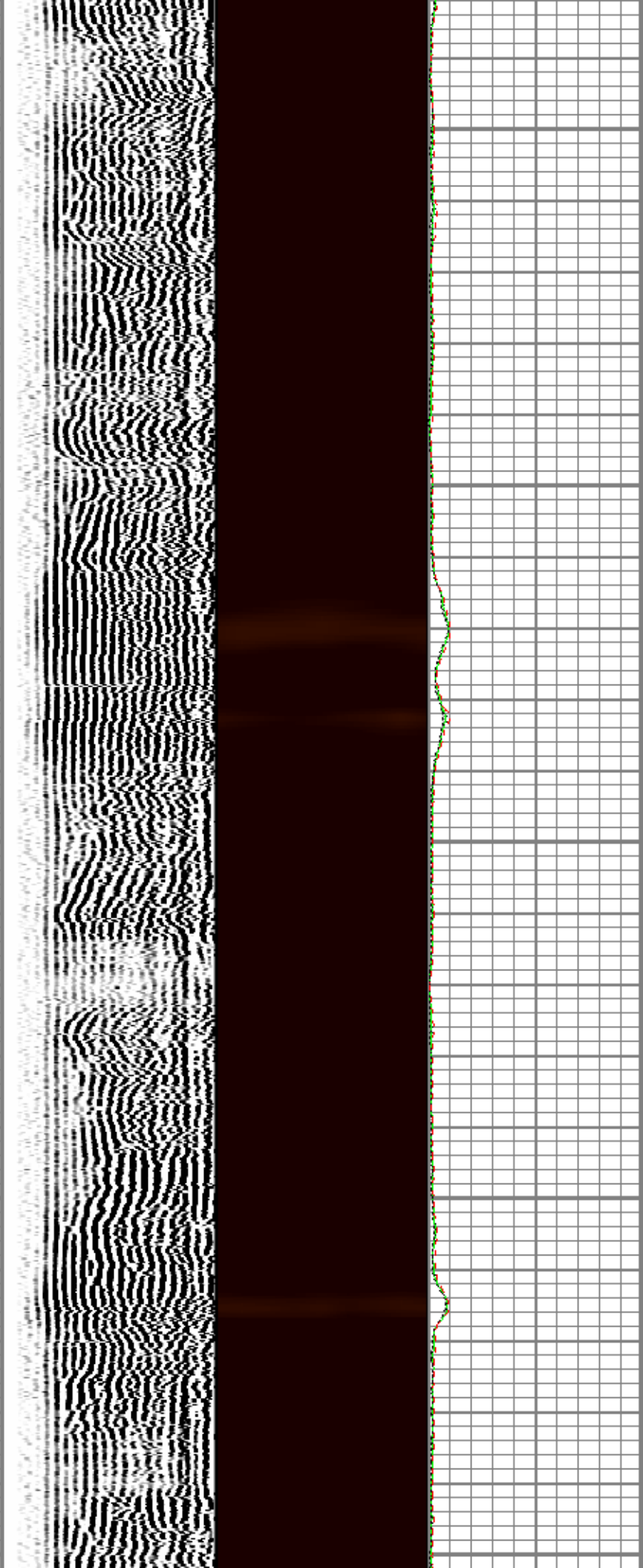
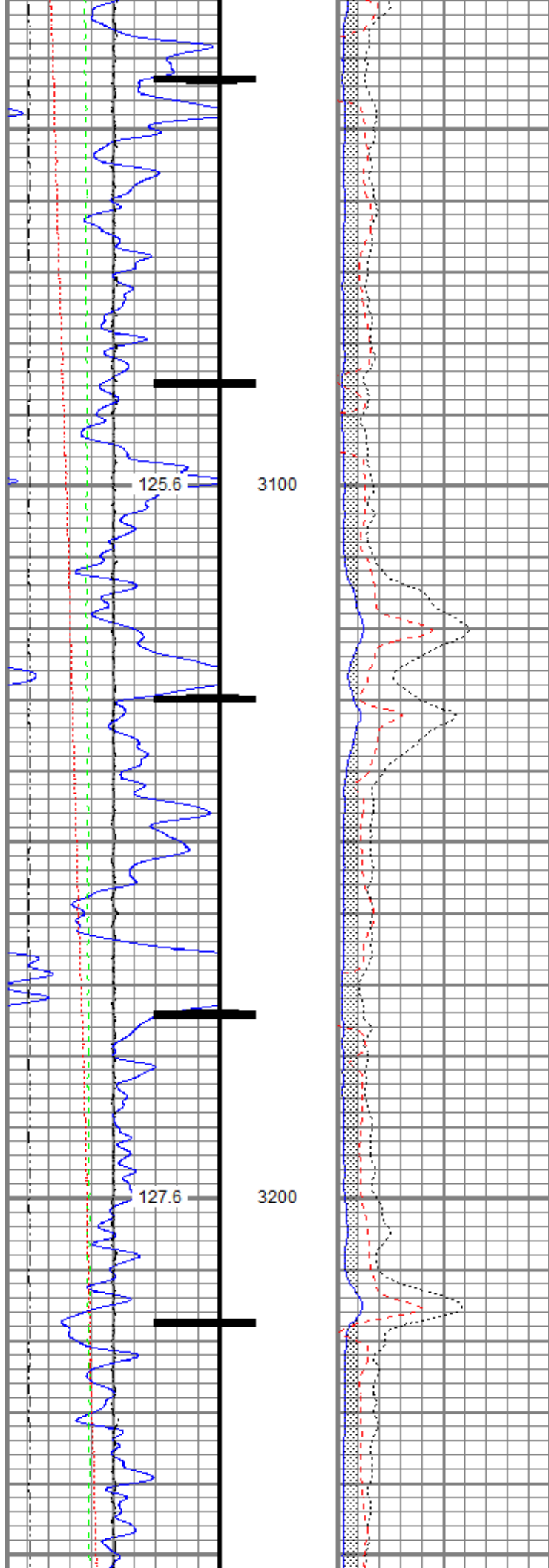




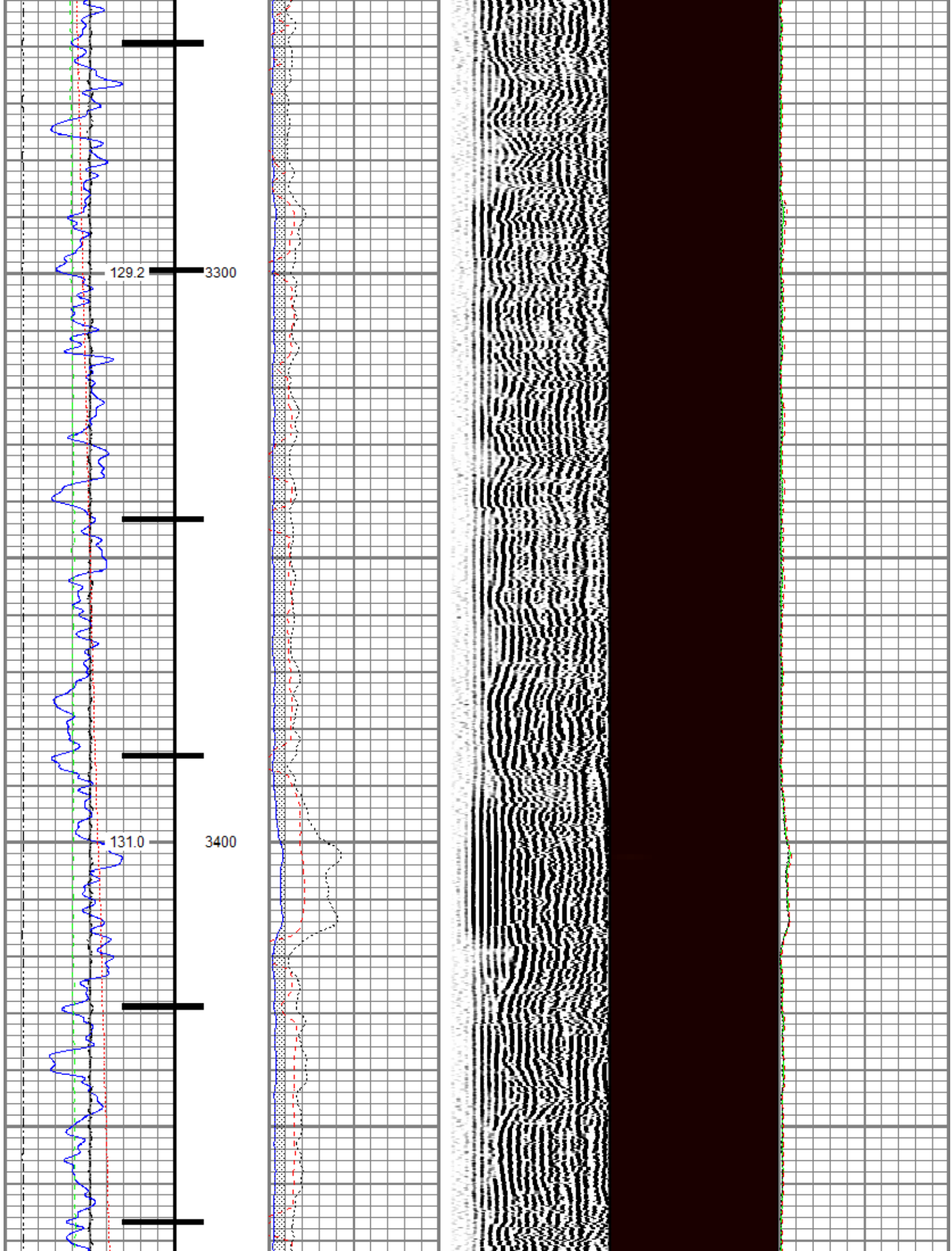


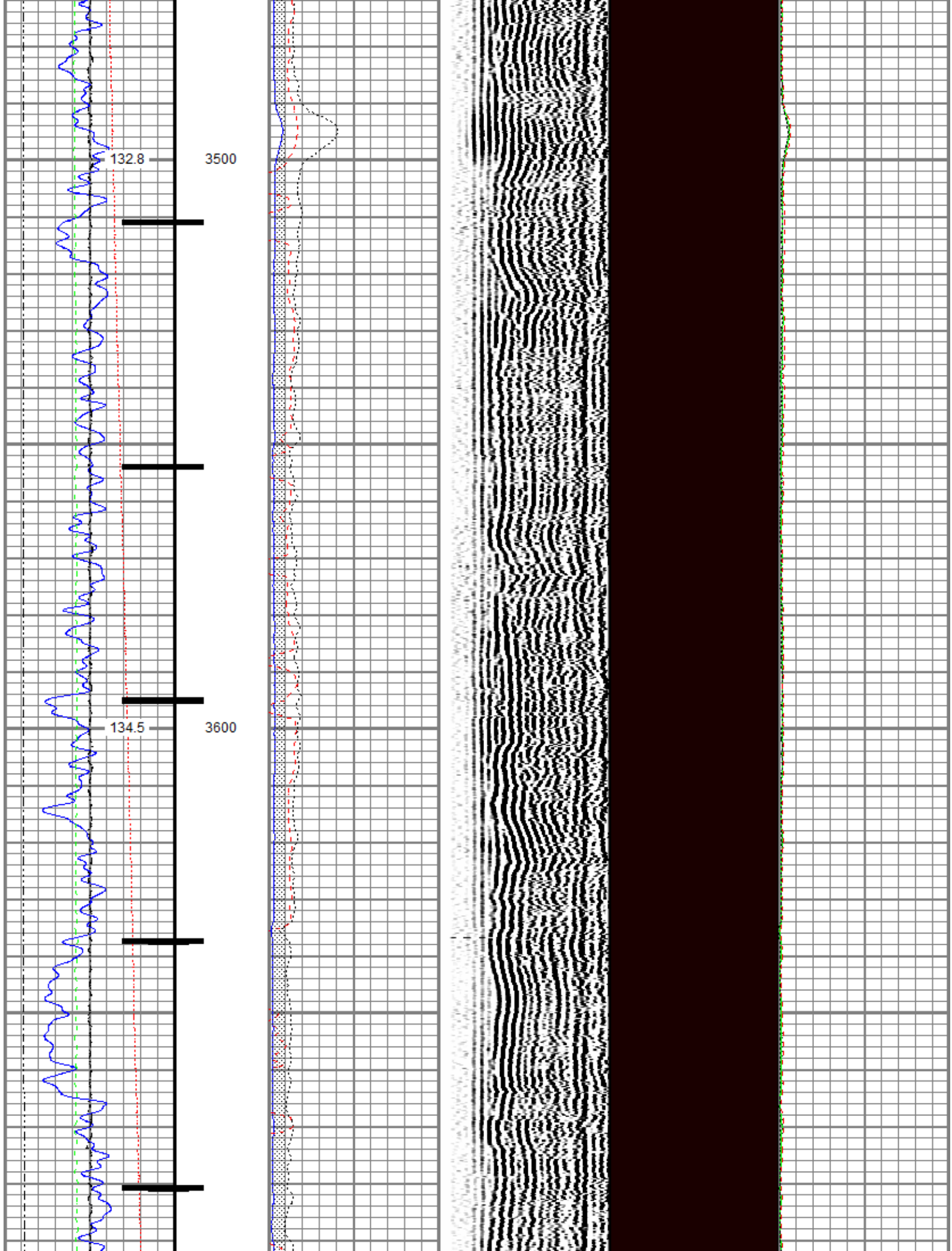


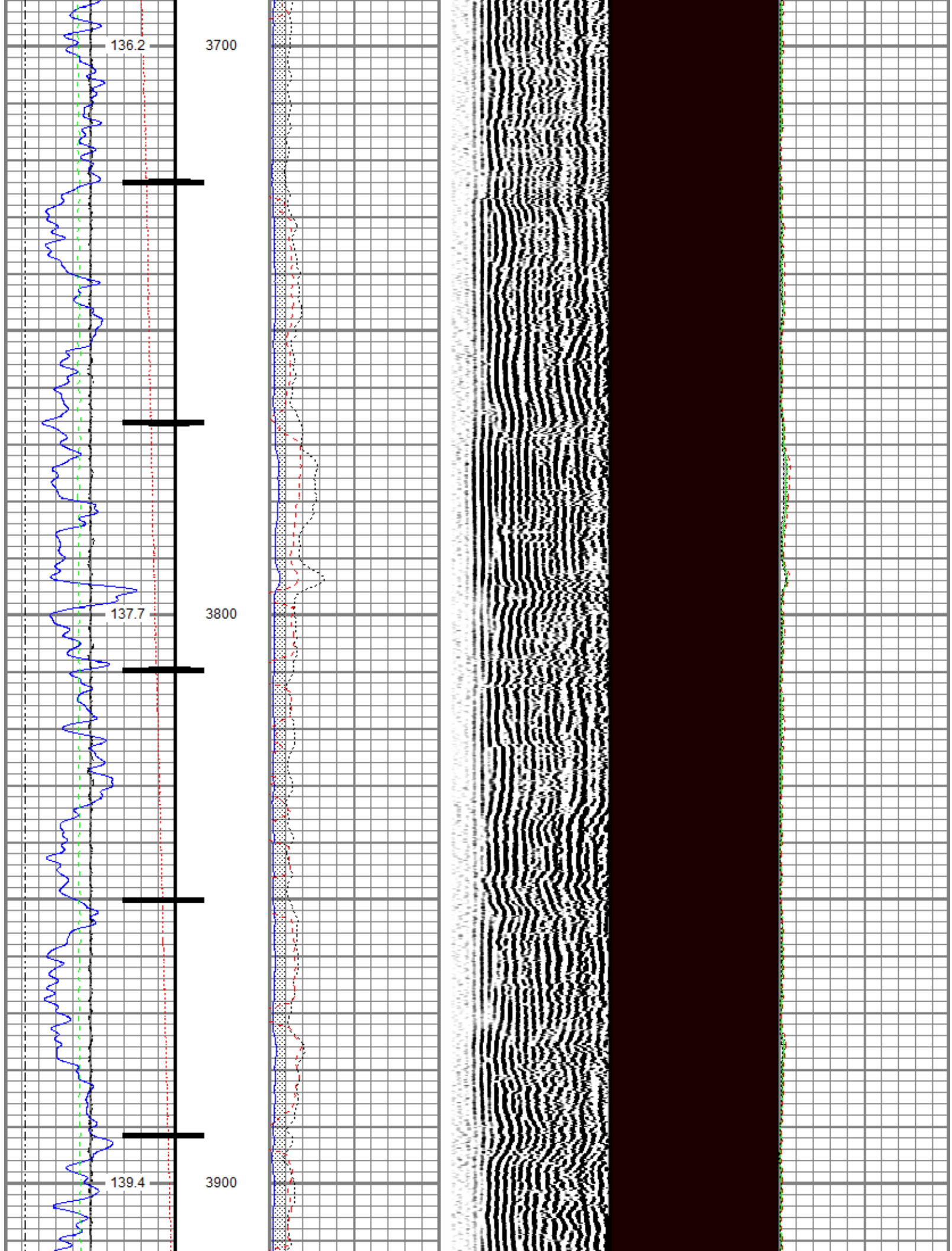




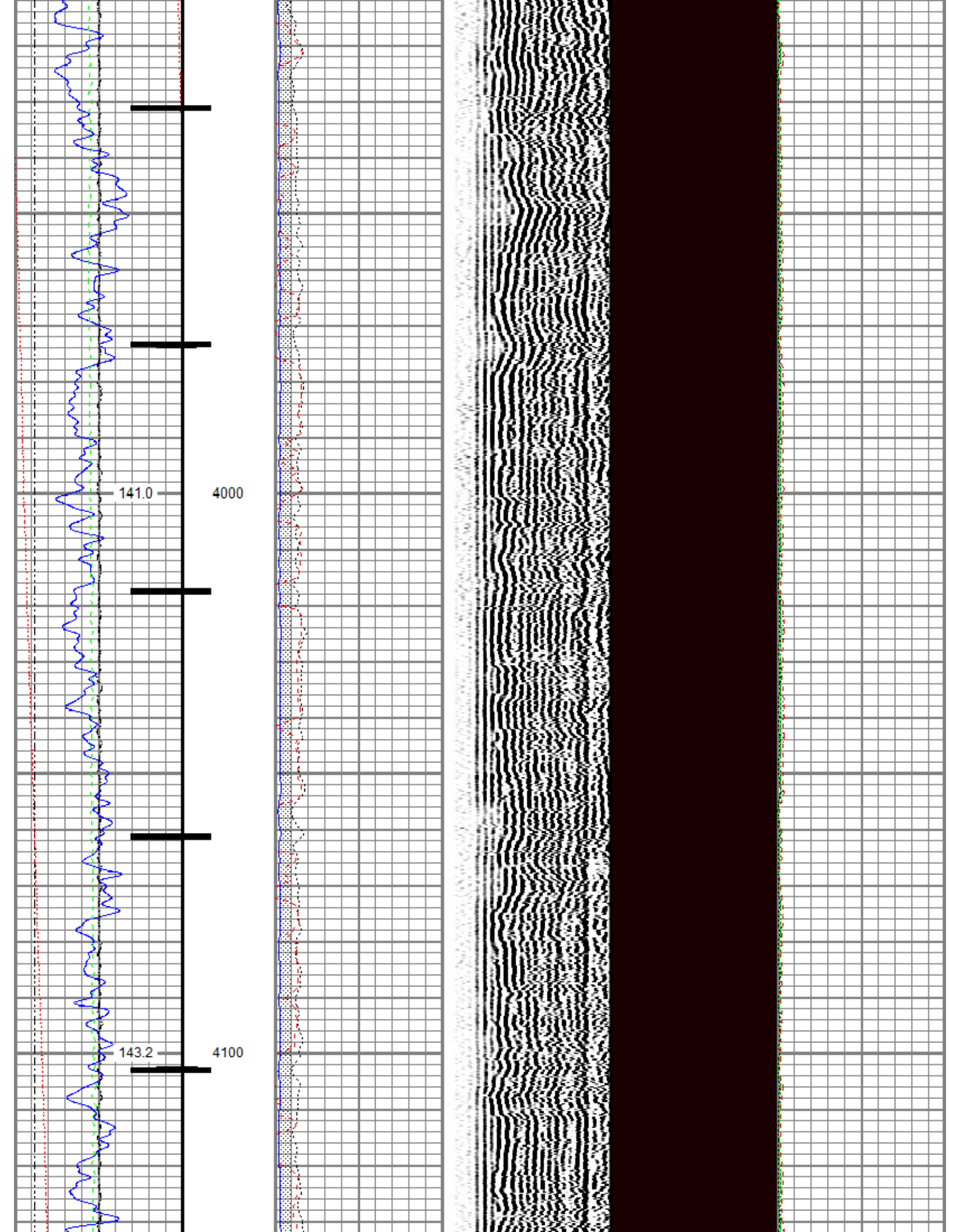




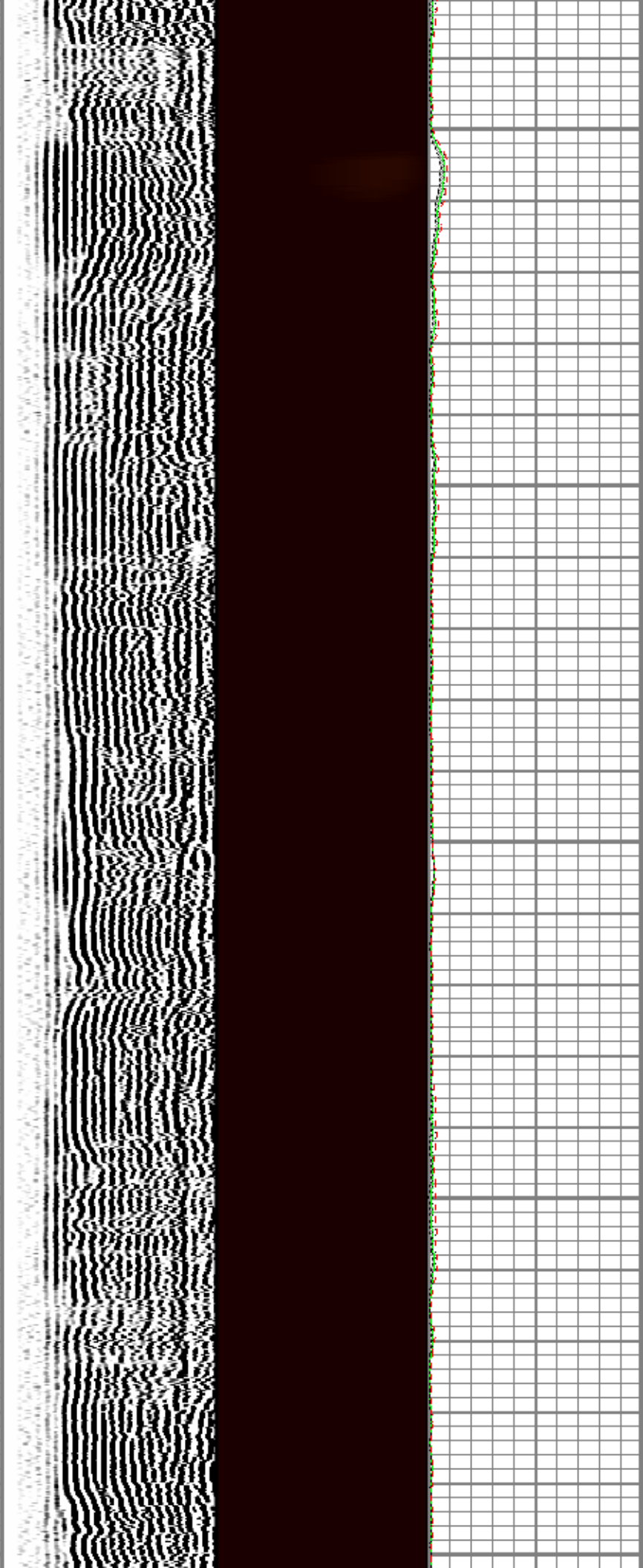
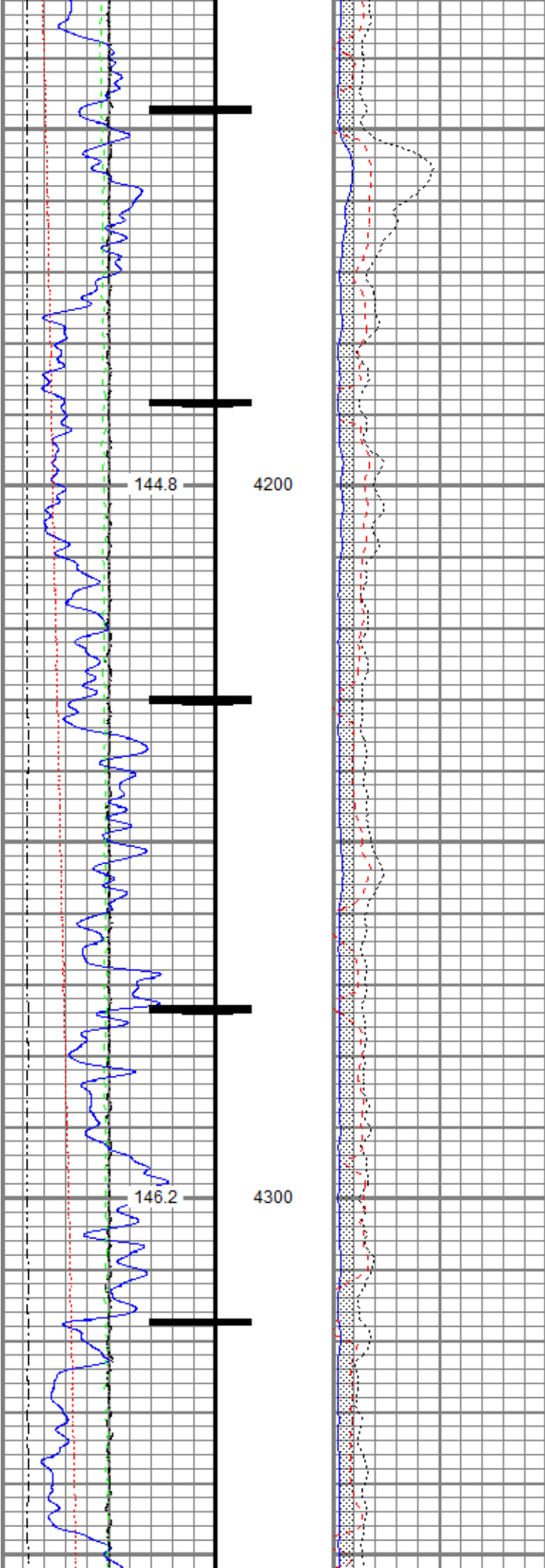


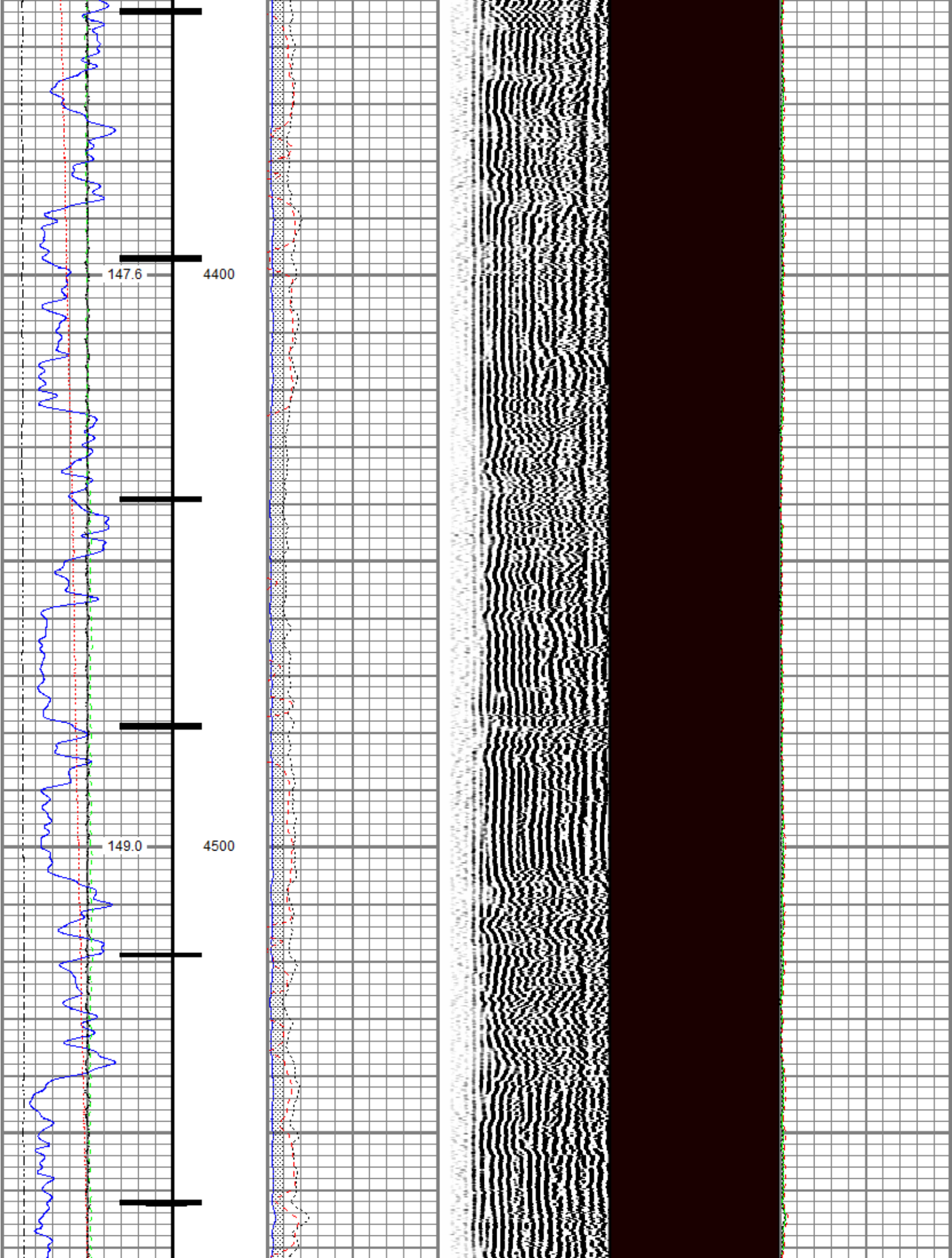


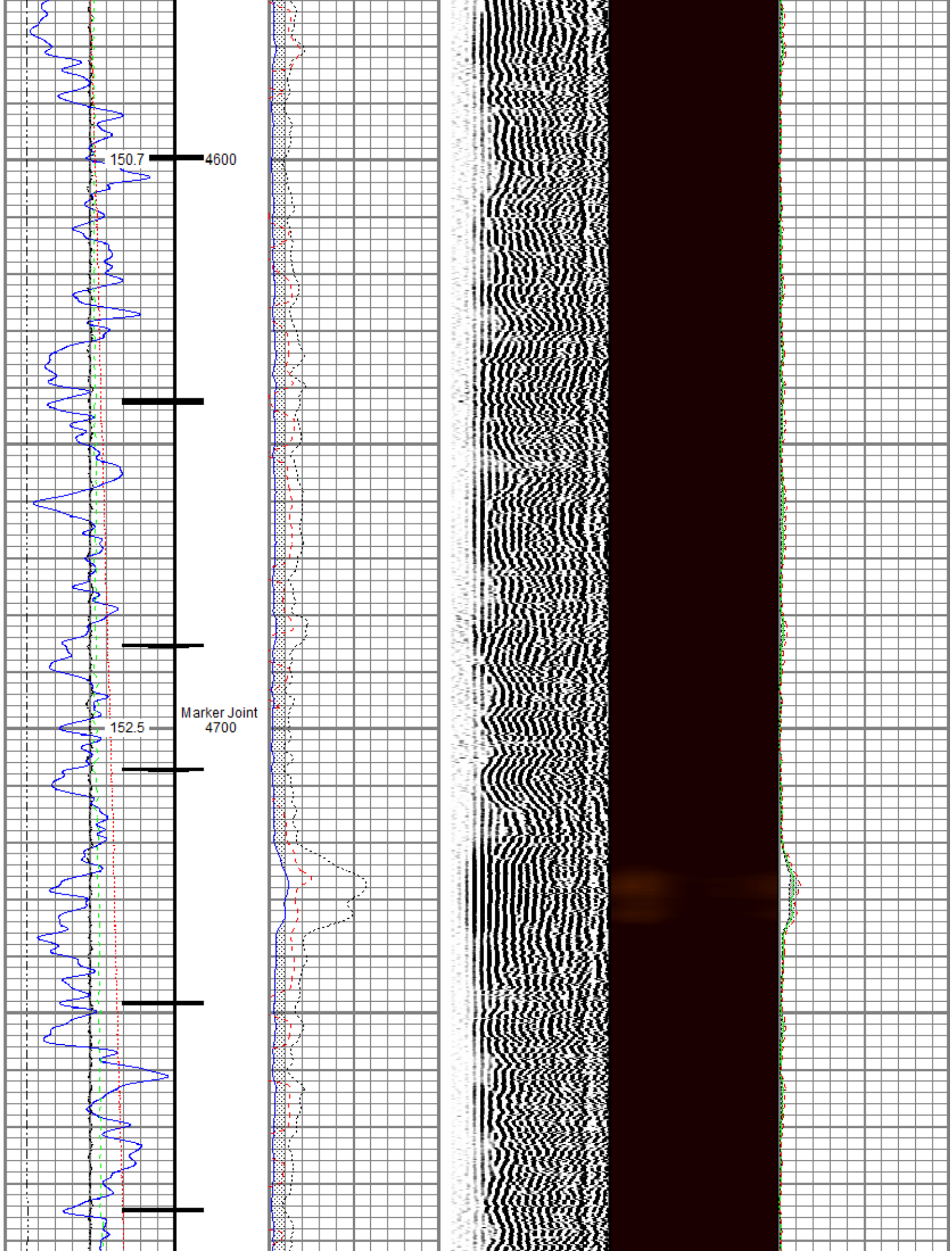




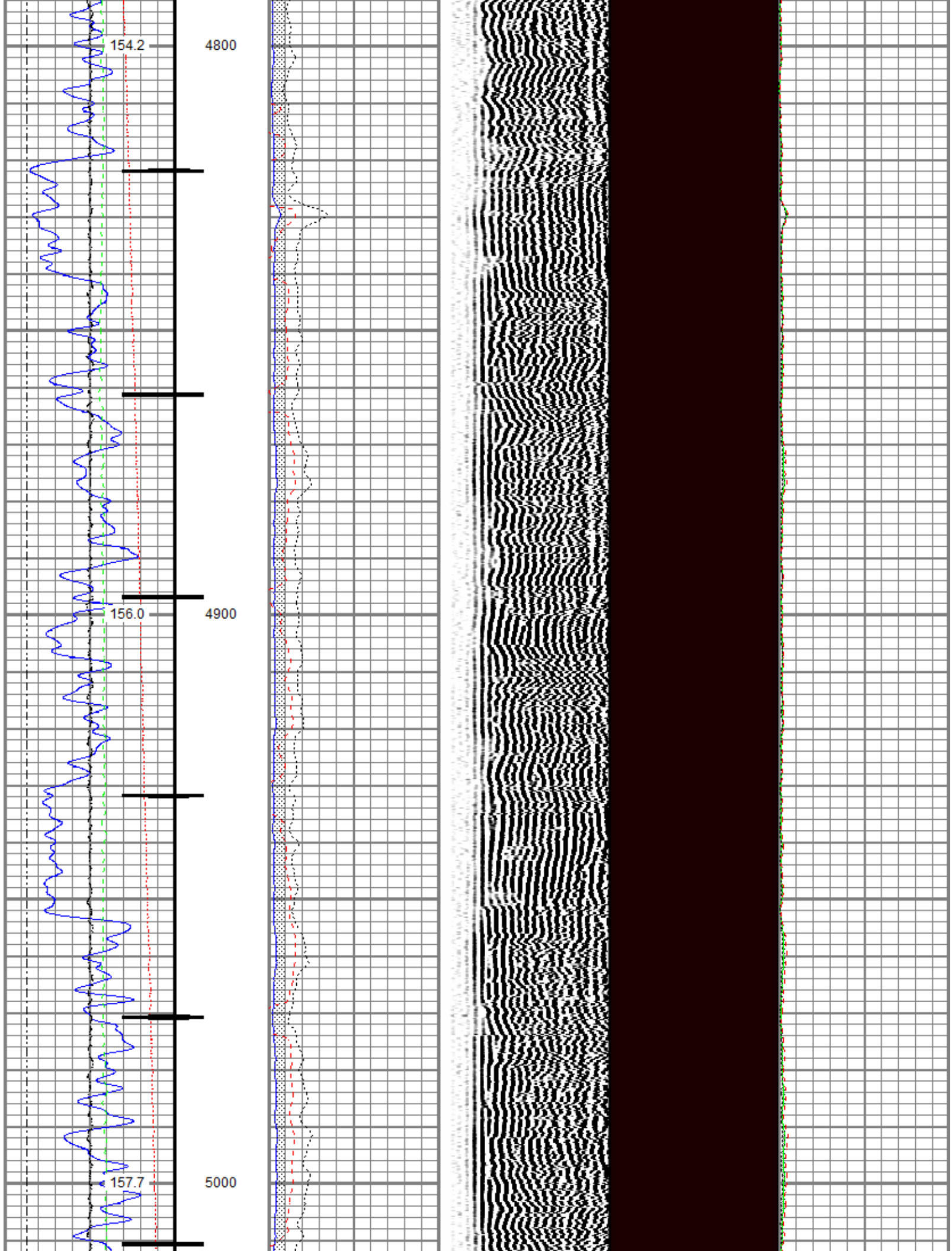


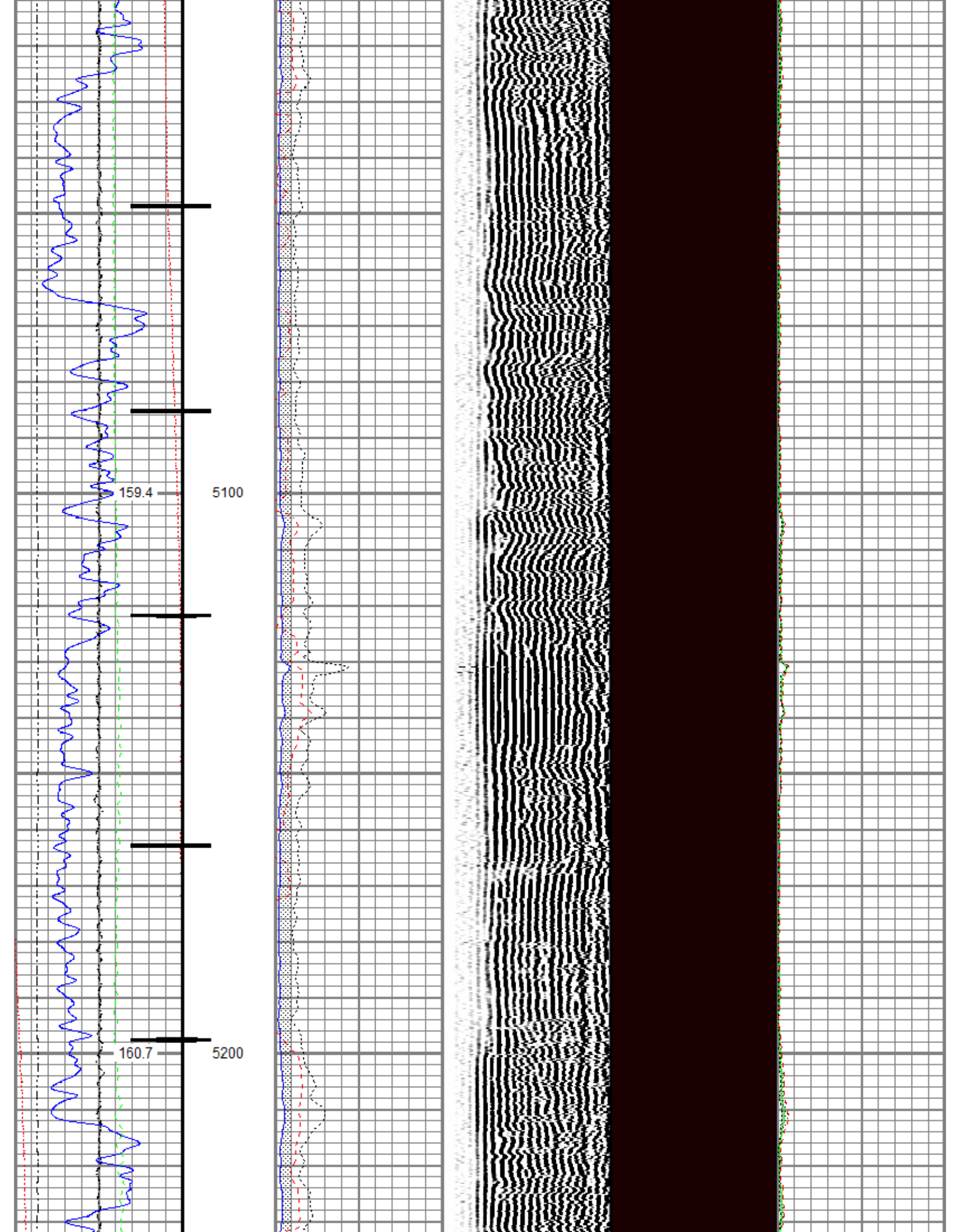


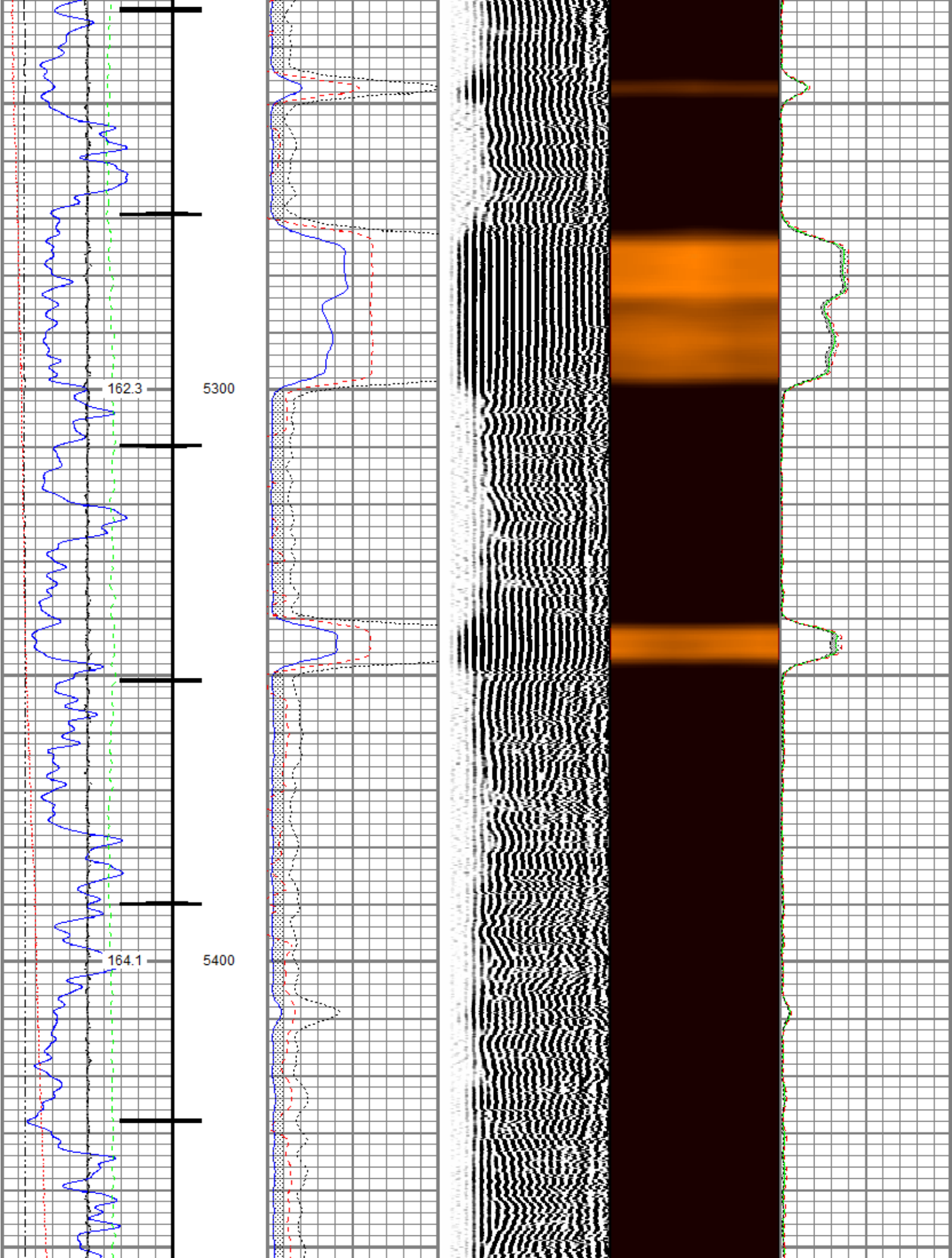




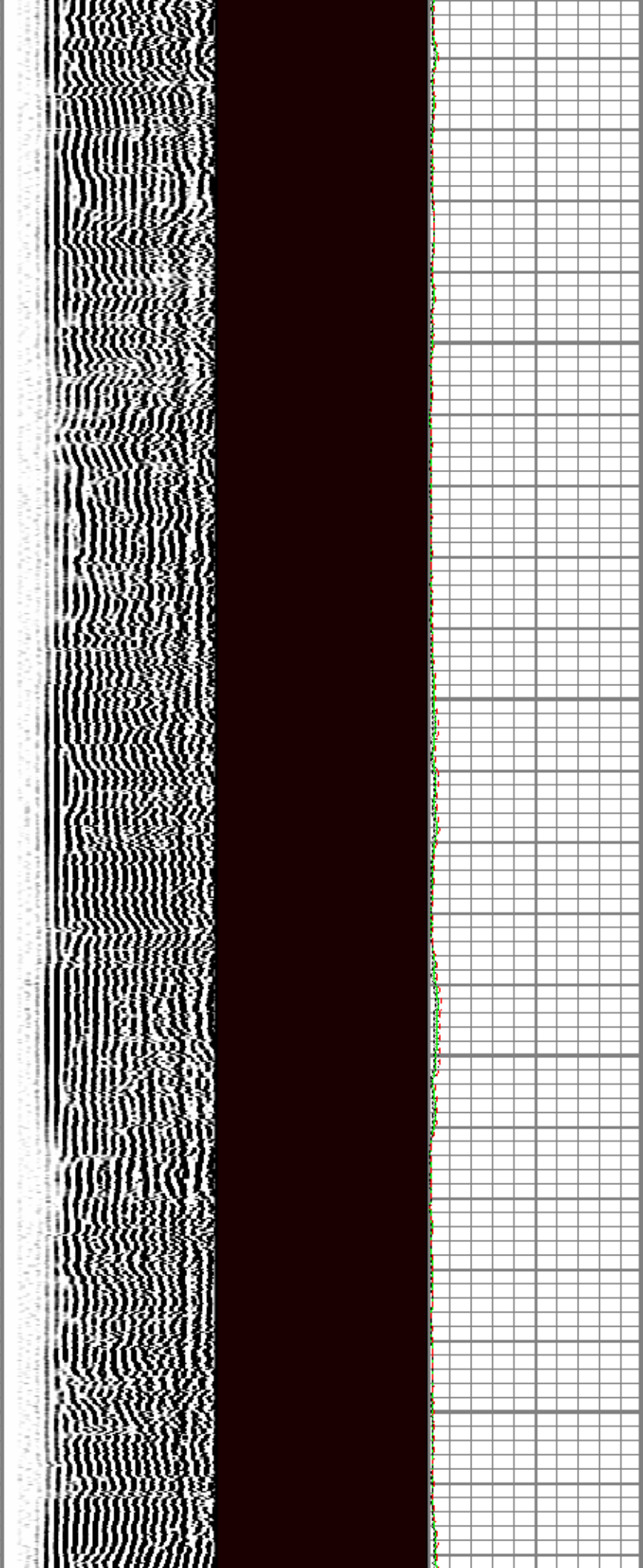
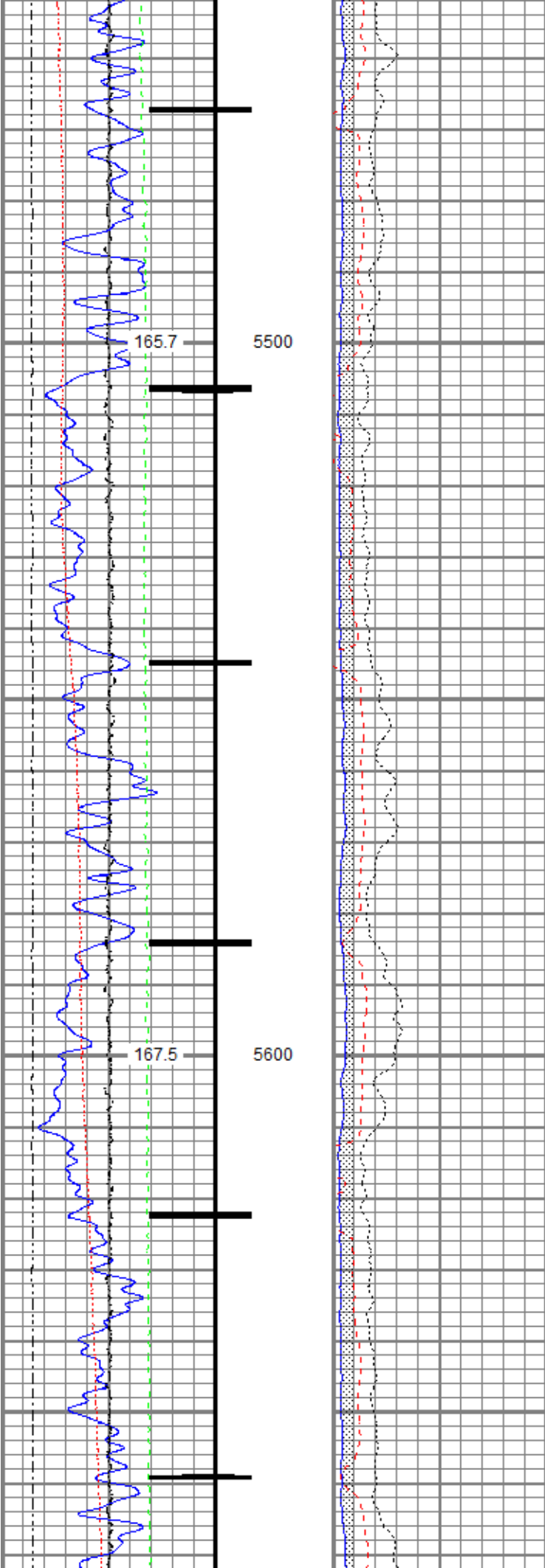


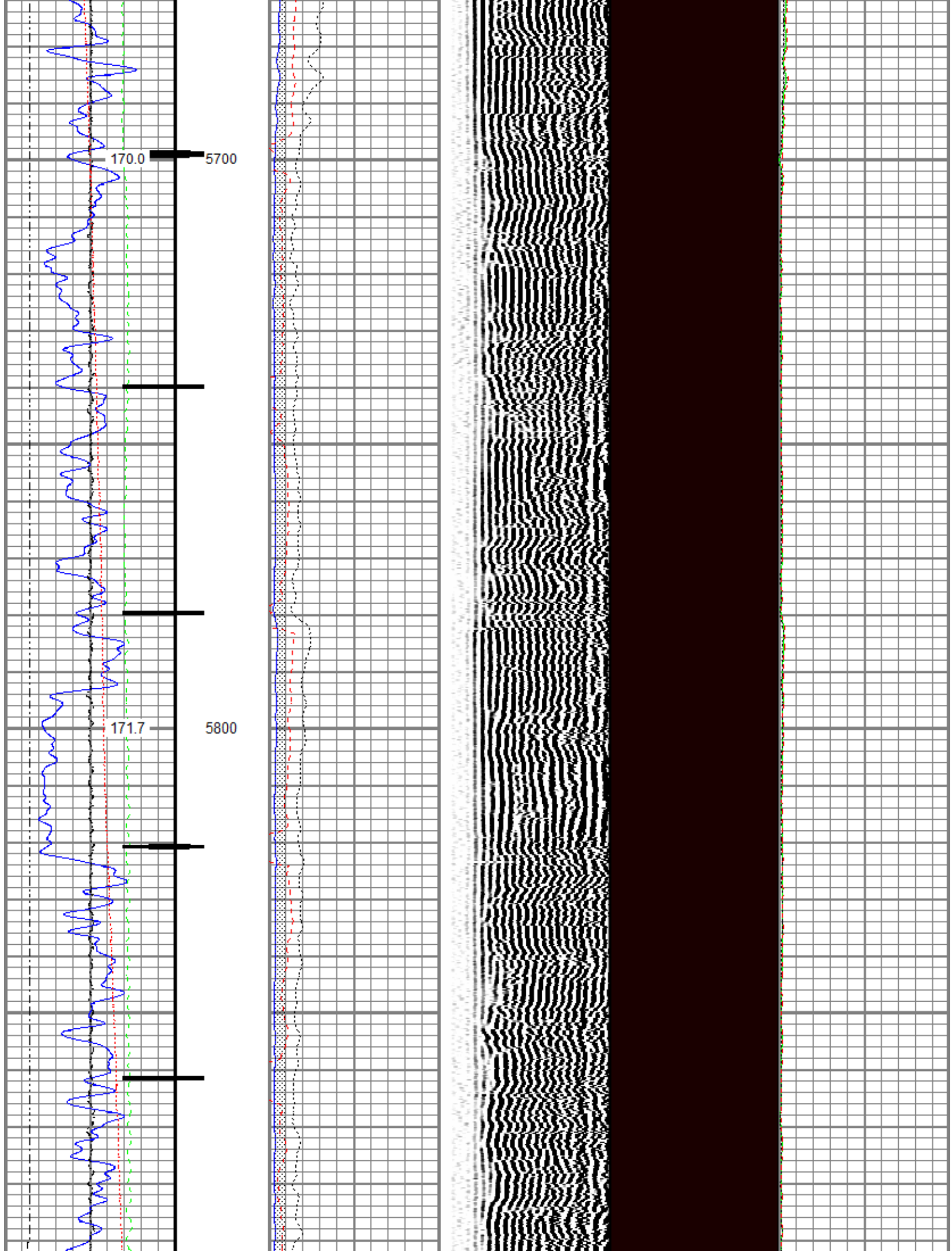


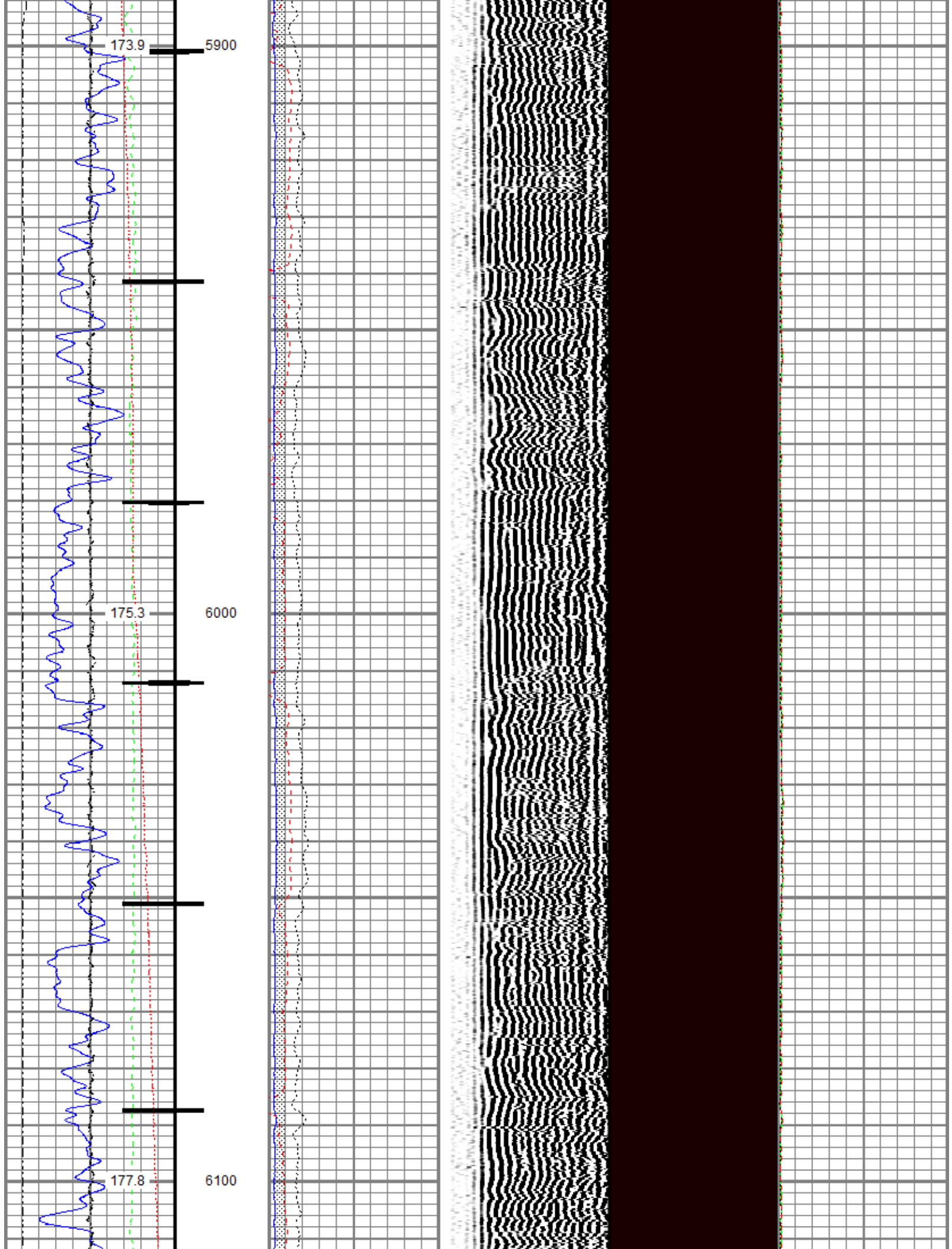




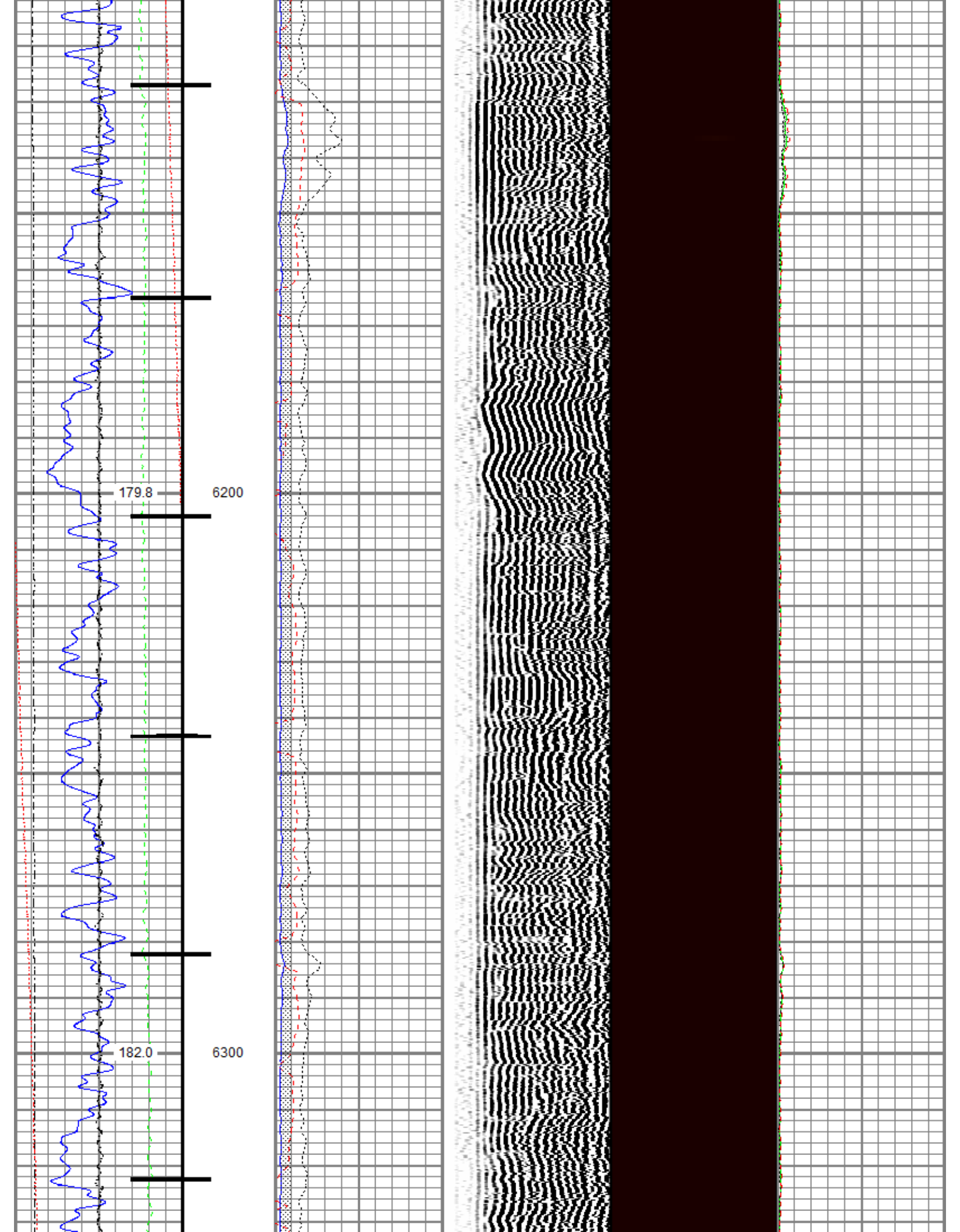


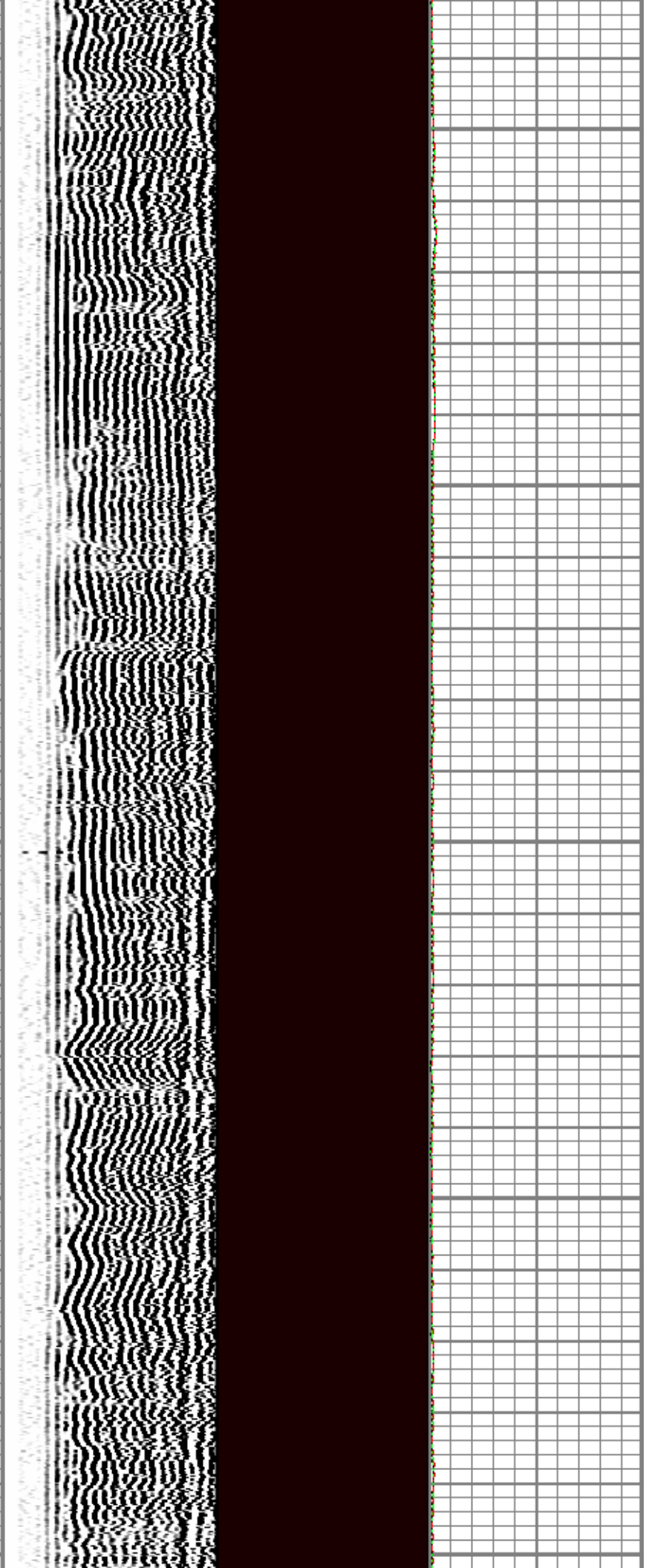
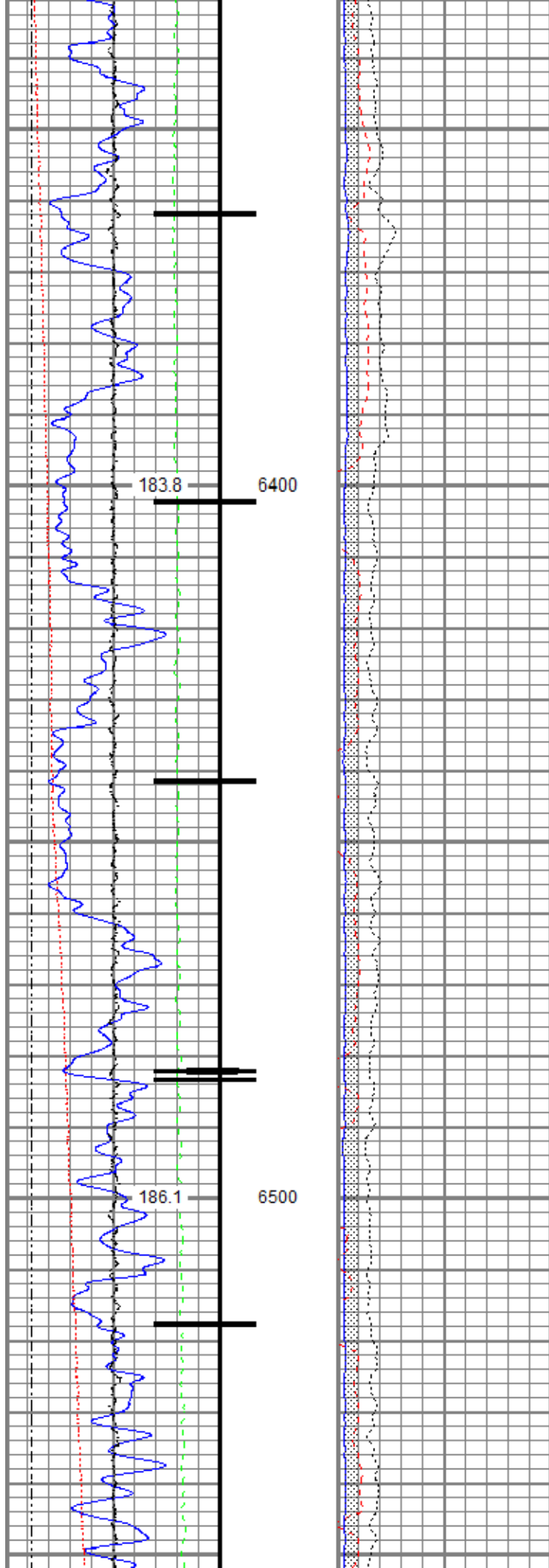


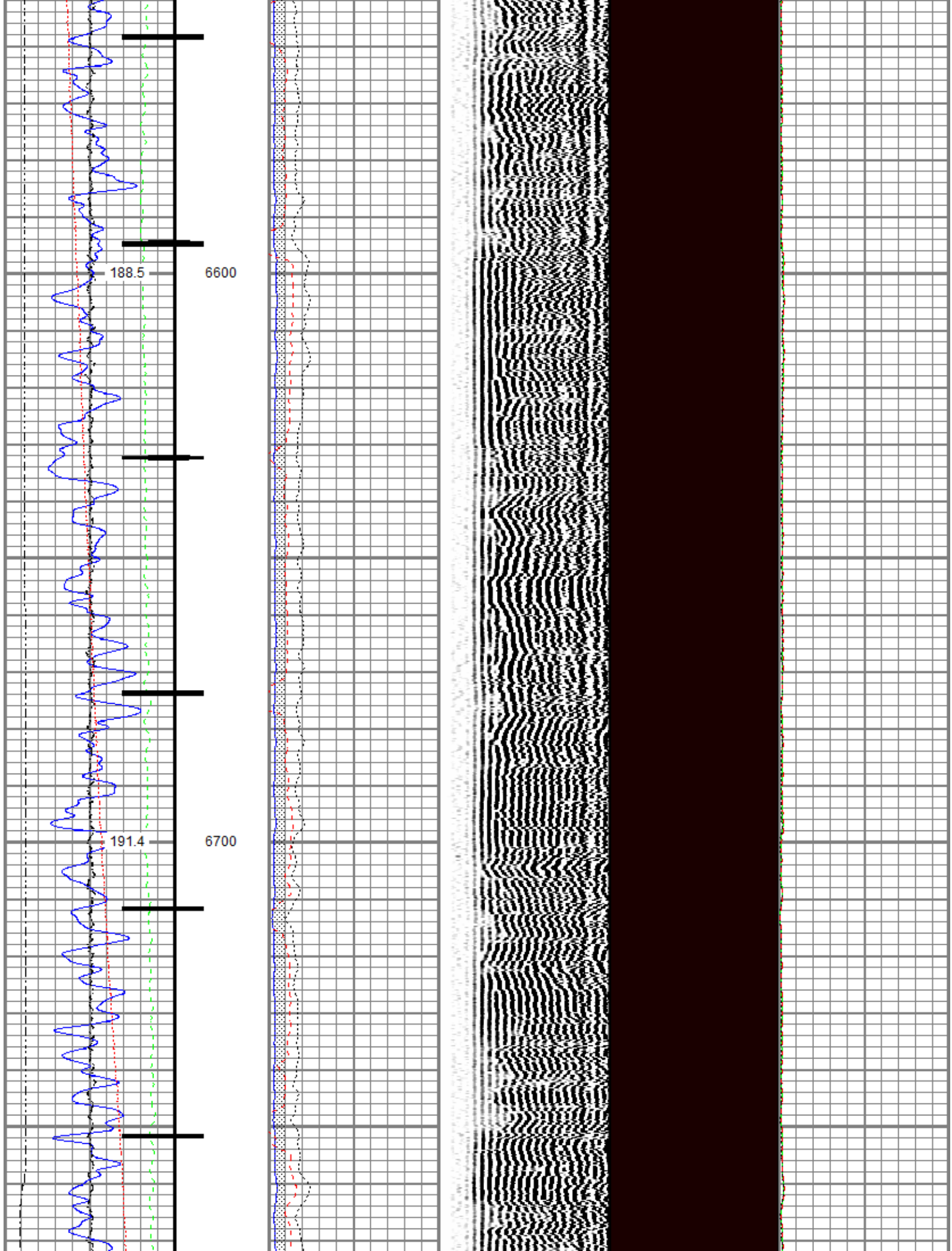




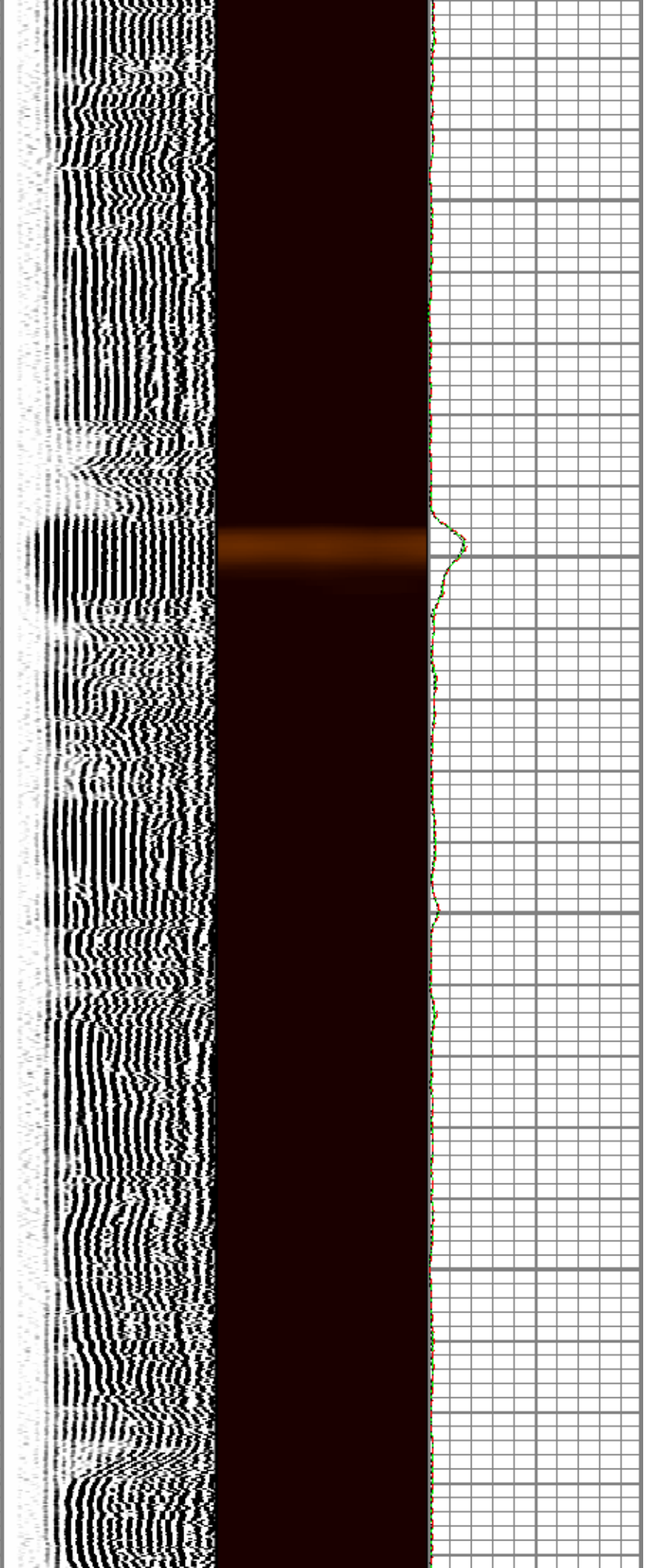
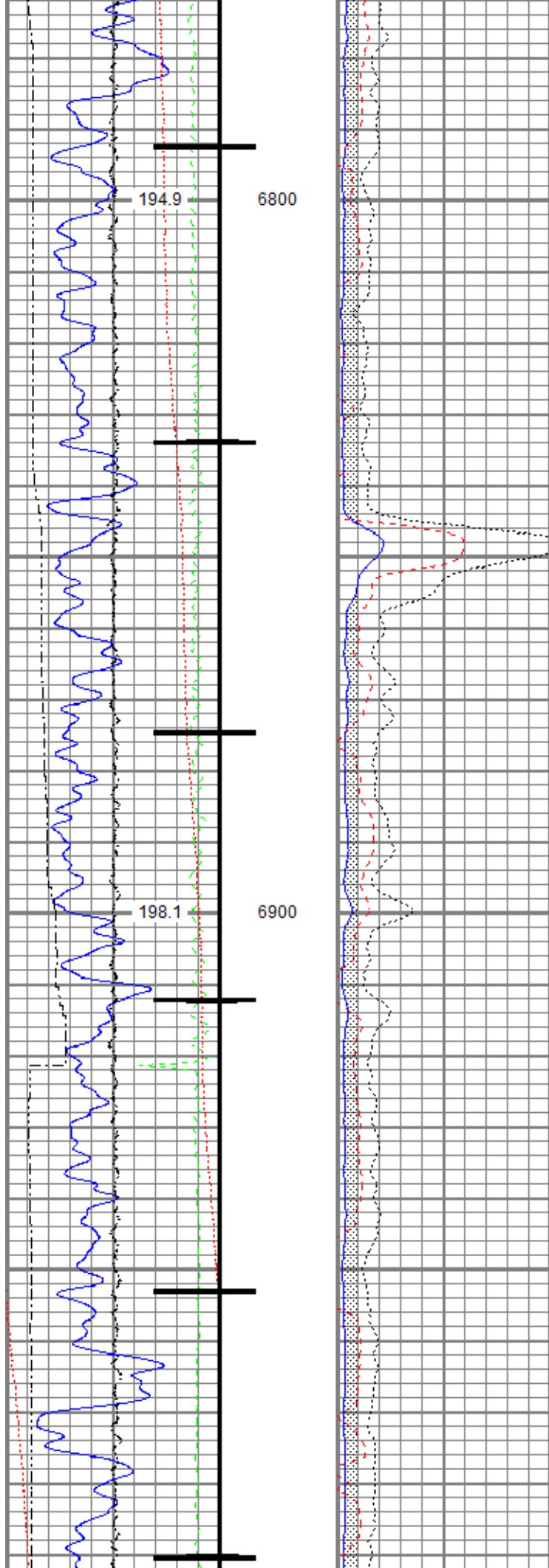


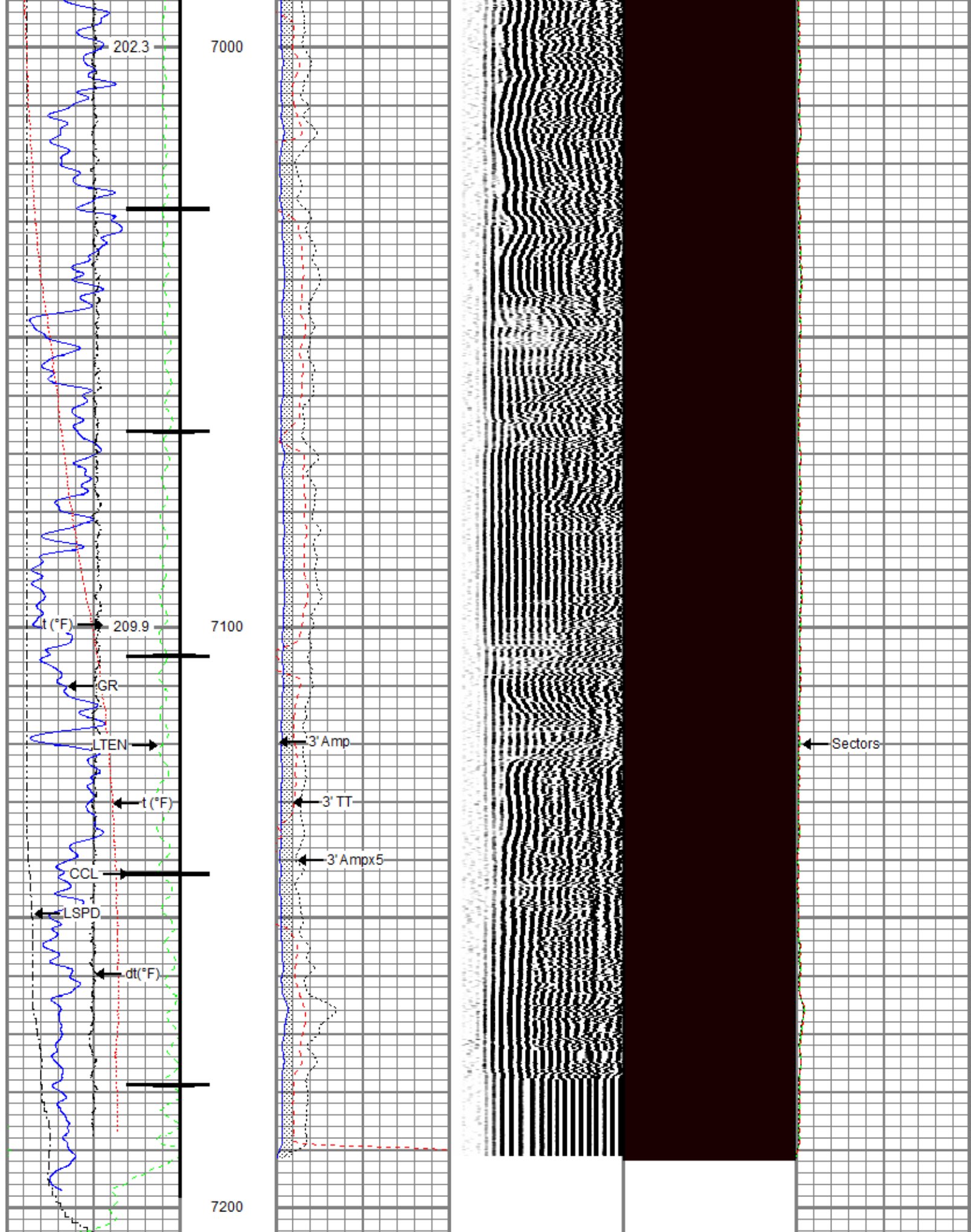




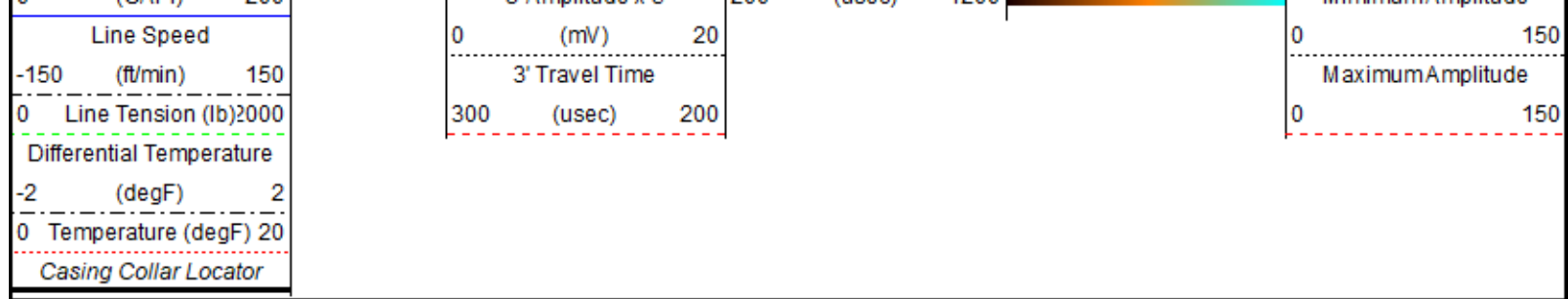








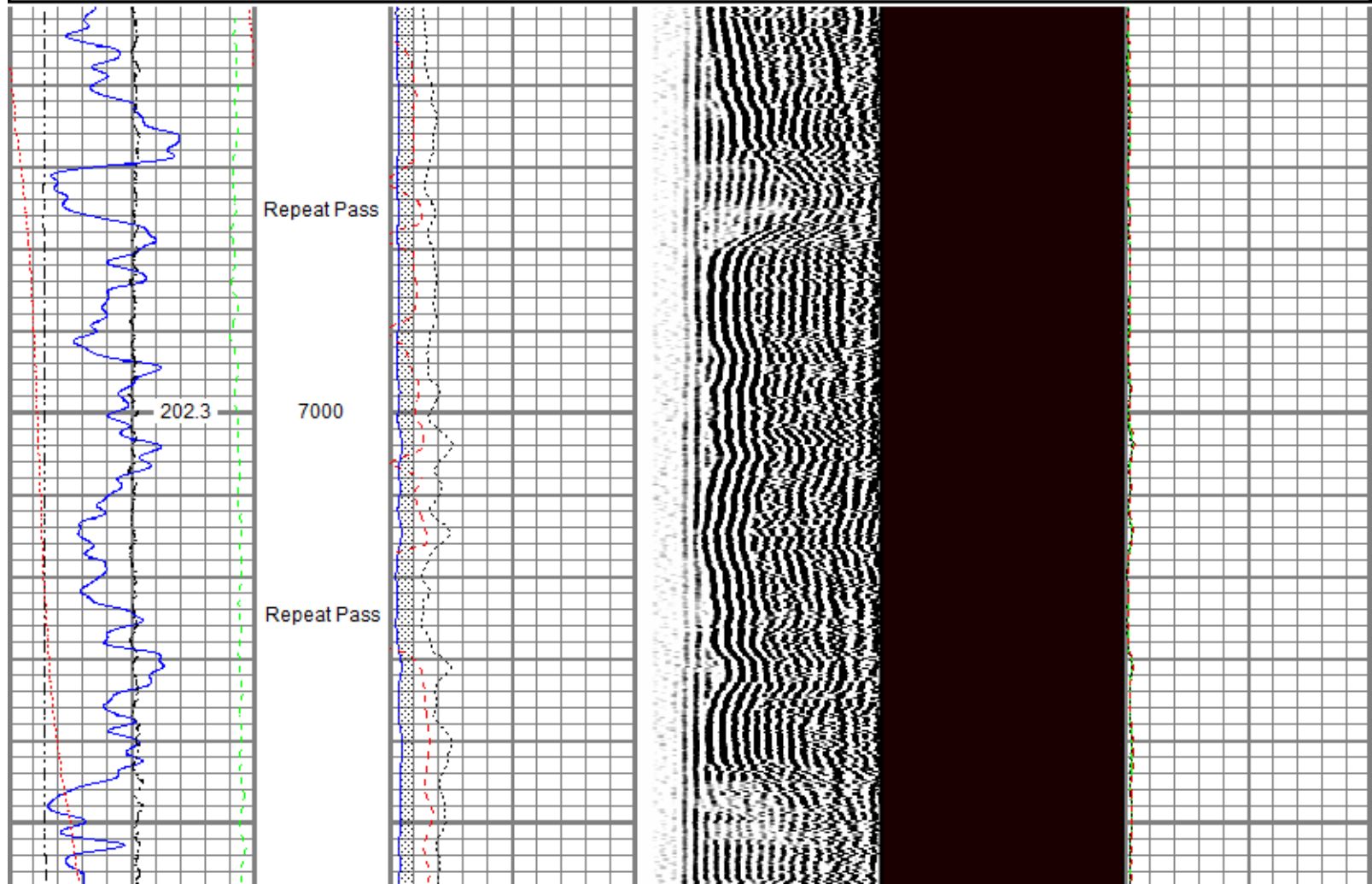
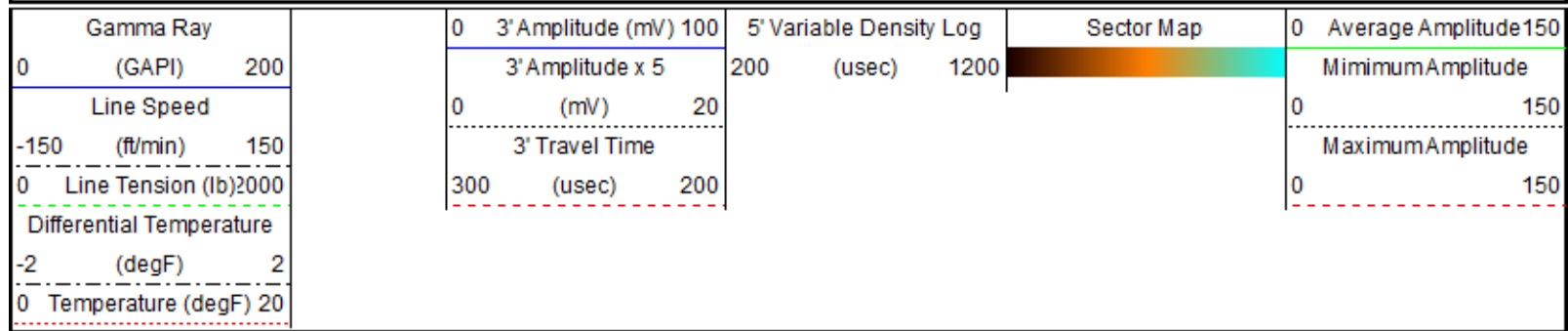
0	Gamma Ray (GAPI)	200	0	3' Amplitude (mV)	100	5' Variable Density Log (u sec)	1200	Sector Map	0	Average Amplitude	150
				3' Amplitude x 5						Minimum Amplitude	



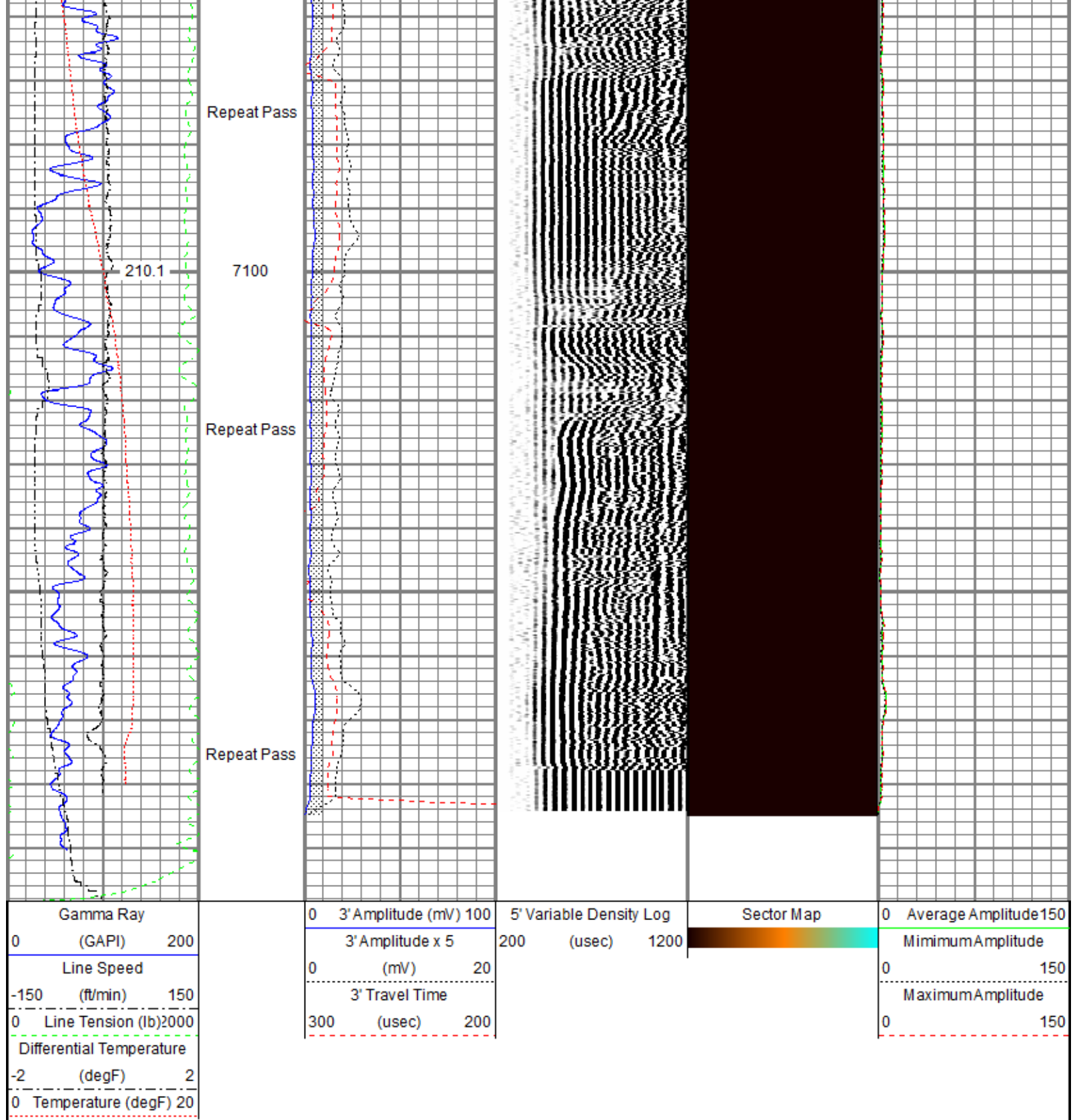
Repeat Pass

Recorded With 0 PSI Surface Induced Pressure

Database File	tep_puckett gm 443-8_rbl_11-19-19\tep_puckett gm 443-8_rbl_11-19-19.db
Dataset Pathname	run2/Repeat.1
Presentation Format	ros_rbt004_tep
Dataset Creation	Wed Nov 20 17:42:26 2019
Charted by	Depth in Feet scaled 1:240







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

TEMP	17.00							
WVFS8	14.77			Probe Radii-2750 RBT (120855)	9.39	2.75	105.00	
WVFS7	14.77			Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub				
WVFS6	14.77							
WVFS5	14.77							
WVFS4	14.77							
WVFS3	14.77							
WVFS2	14.77							
WVFS1	14.77							
WVFCAL	14.77							
WVF3FT	14.77							
WVF5FT	13.77							
				Probe CENT-2750	2.88	2.75	20.00	
				Probe 2-3/4" Electric Inline Bowspring Centralizer				
CCL\$2	6.76							
CCL\$1	6.76							
GR	5.51			Probe GR-CCL-2750 GOB (FW1211-081)	4.51	2.75	55.00	
				Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined with GO Bottom				
				Probe CENT-2750	2.88	2.75	20.00	
				Probe 2-3/4" Electric Inline Bowspring Centralizer				
				GO BN-14375	0.25	1.44	1.00	
				GO 1-7/16" Bull Nose with Go Box Top				
Dataset: tep_puckett gm 443-8_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								

Calibration Report	
Database File	c:\programdata\warrior\data\tep_puckett gm 443-8_rbl_11-19-19\tep_puckett gm 443-8_rbl_11-19-19.db
Dataset Pathname	run2/Repeat.1
Dataset Creation	Wed Nov 20 17:42:26 2019
Gamma Ray Calibration Report	
Serial Number:	FW1211-081
Tool Model:	2750 GOB
Performed:	Mon Oct 01 11:32:39 2018

Calibrator Value:	637.0	GAPI
Background Reading:	112.4	cps
Calibrator Reading:	1008.7	cps
Sensitivity:	0.7107	GAPI/cps

Segmented Cement Bond Log Calibration Report
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Serial Number:	120855	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	170.797	ft

Master Calibration, performed Mon Nov 18 20:19:49 2019:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	0.868	0.800	81.196	92.940	0.531
CAL	0.003	0.760				
5'	0.008	0.736	0.800	81.196	110.402	-0.102
SUM						
S1	0.007	0.938	0.000	100.000	107.487	-0.774
S2	0.005	0.915	0.000	100.000	109.936	-0.572
S3	0.007	0.860	0.000	100.000	117.237	-0.812
S4	0.006	0.821	0.000	100.000	122.650	-0.712
S5	0.005	0.801	0.000	100.000	125.696	-0.676
S6	0.006	0.837	0.000	100.000	120.304	-0.668
S7	0.006	0.863	0.000	100.000	116.705	-0.660
S8	0.005	0.904	0.000	100.000	111.295	-0.596

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
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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 443-8
Field	Grand Valley
County	Garfield
State	Colorado