



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC
Well Puckett GM 513-8
Field Grand Valley
County Garfield State Colorado

Location: API #: 05-045-24095
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			
Run Number	One			
Depth Driller	6715 FT			
Depth Logger	6663 FT			
Bottom Logged Interval	6649 FT			
Top Log Interval	Surface			
Open Hole Size	8.750"			
Type Fluid	Water			
Density / Viscosity	8.34 lb/gal			
Max. Recorded Temp.	216°F			
Estimated Cement Top	See Log			
Time Well Ready	ROA			
Time Logger on Bottom	09:50			
Equipment Number	HD-0359			
Location	Grand Junction, CO			
Recorded By	J. Donnelly			
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 4146 - 4168 FT
Recorded with 0 PSI Surface Induced Pressure

Thank you for choosing Reliance Oilfield Services, LLC!!

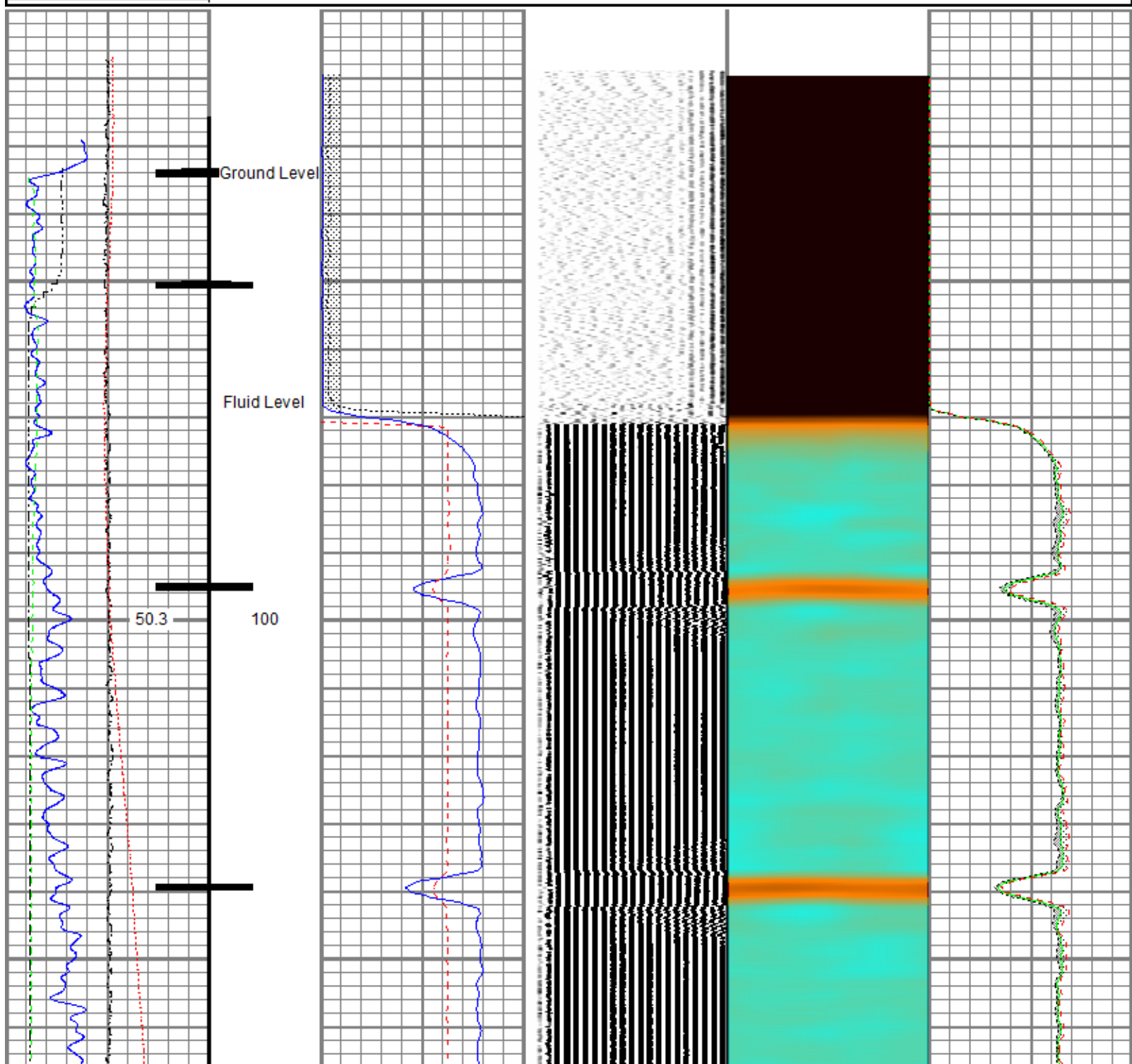
Main Pass

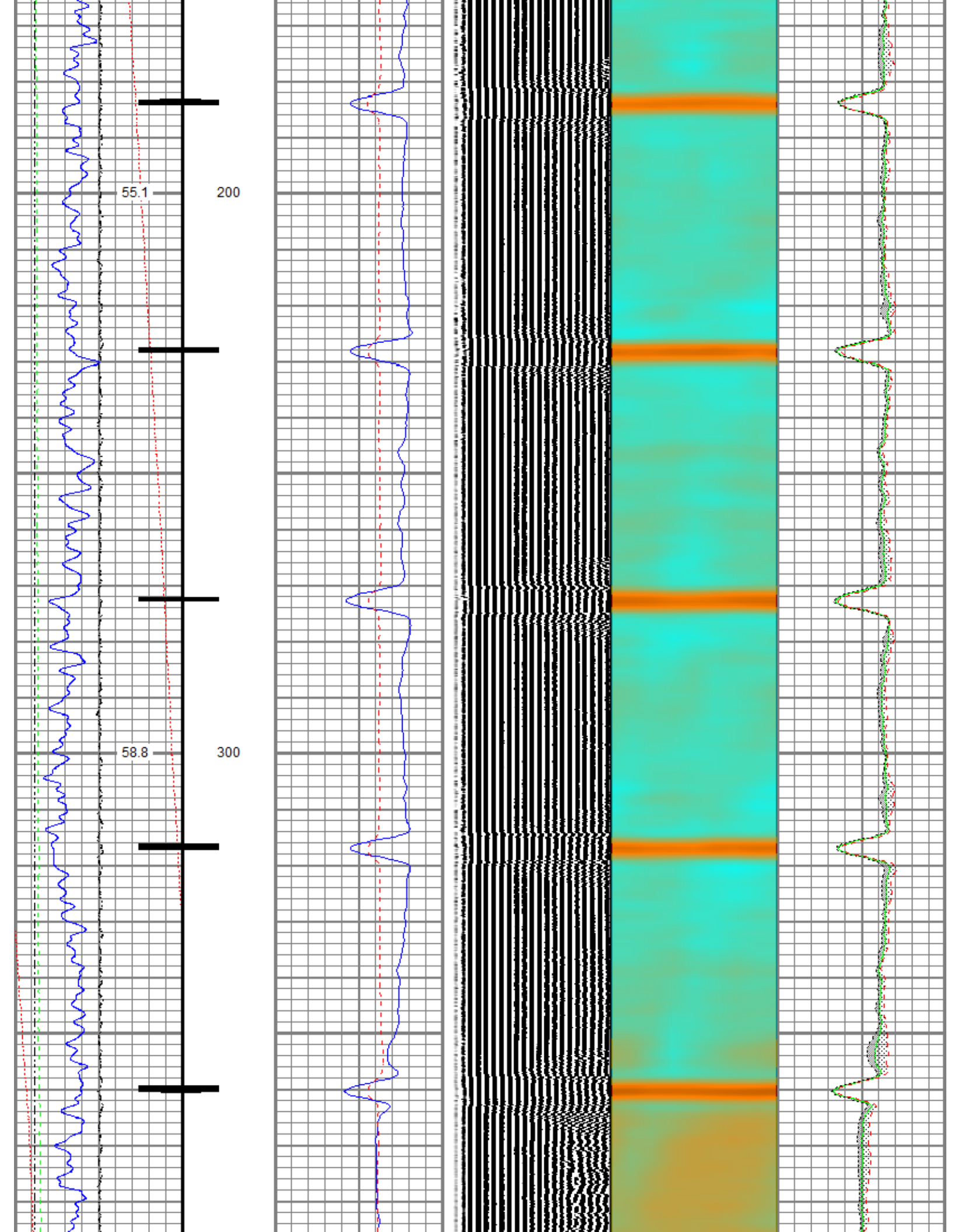


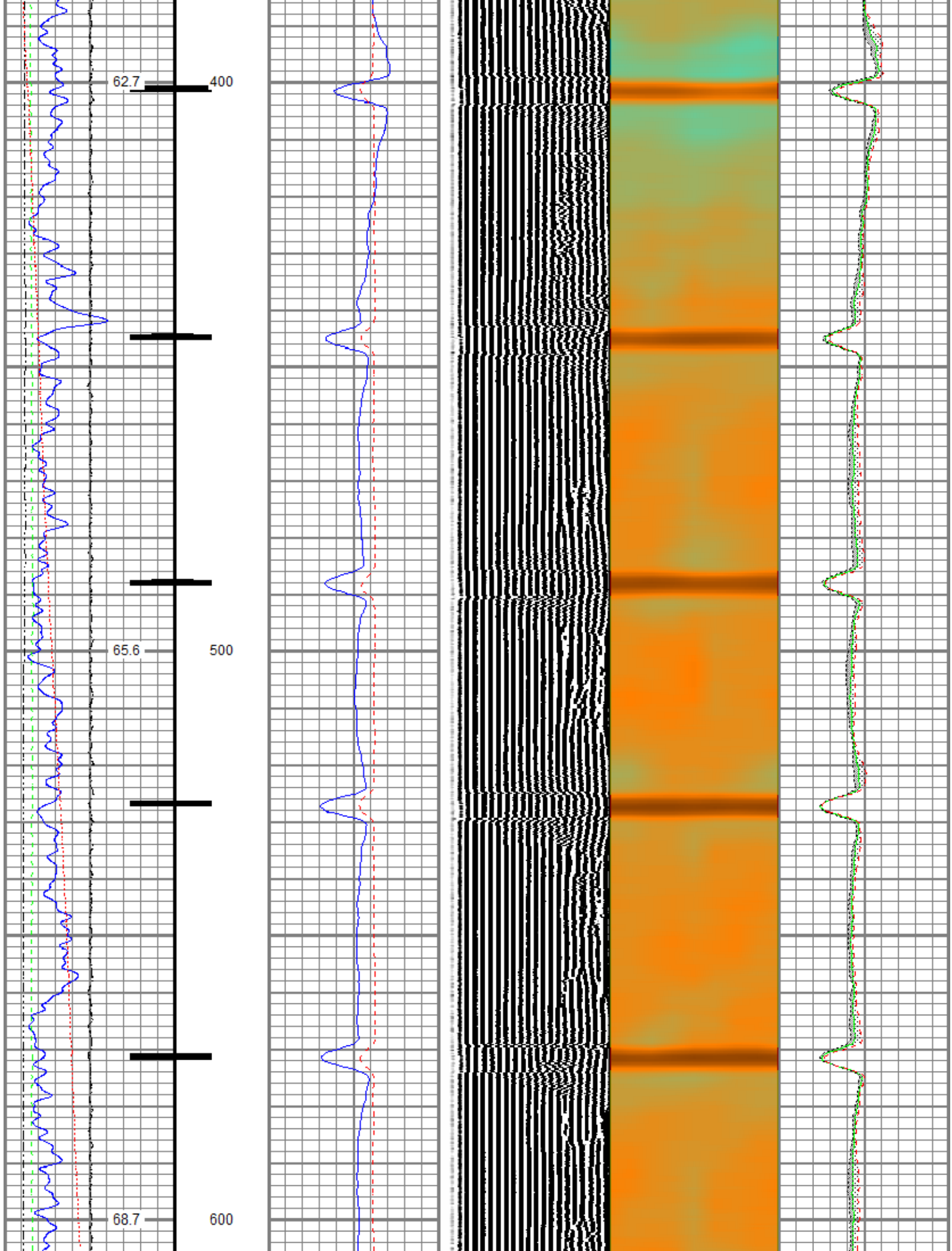
Recorded With 0 PSI Surface Induced Pressure

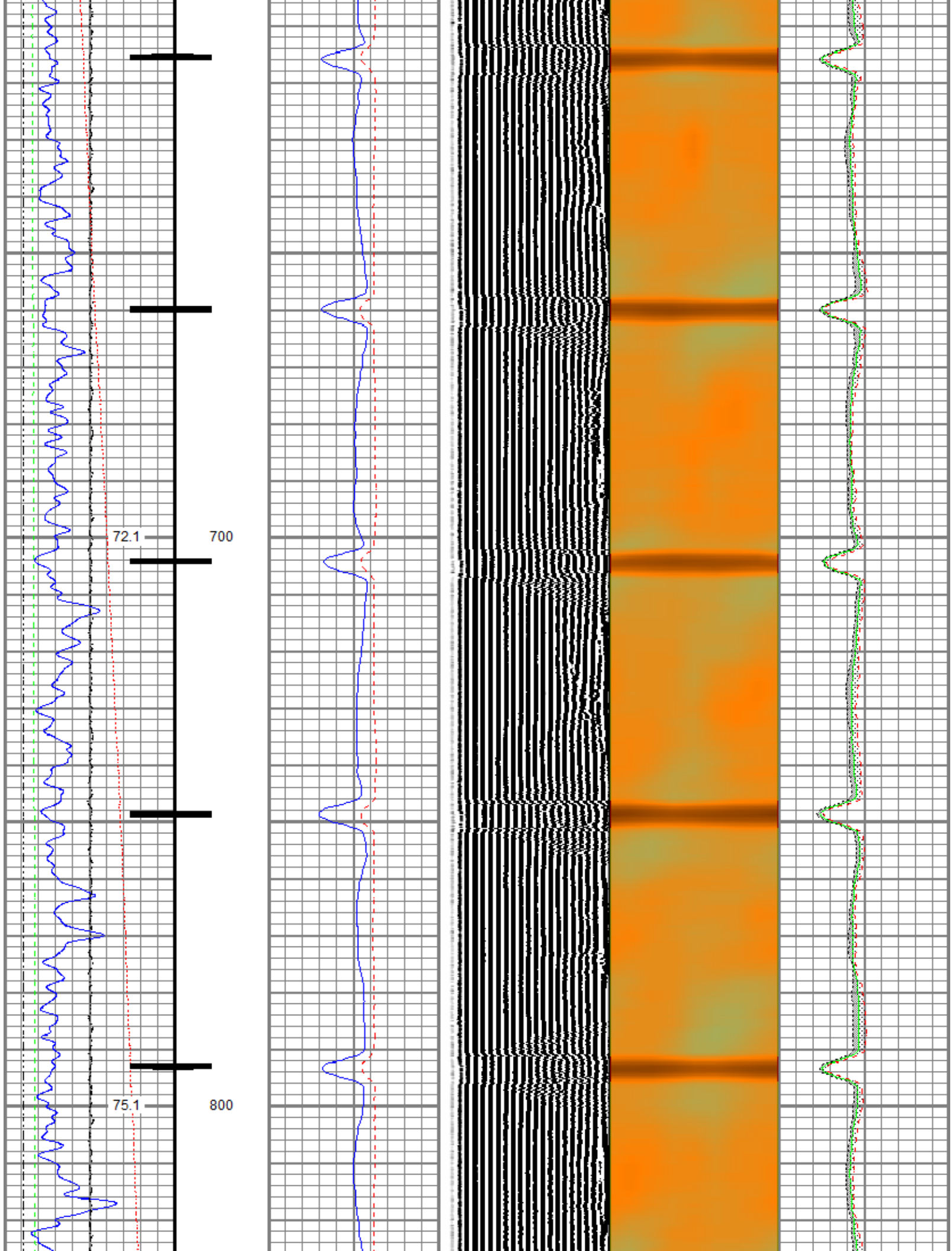
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 Dataset Creation Wed Nov 20 16:43:37 2019
 Charted by Depth in Feet scaled 1:240

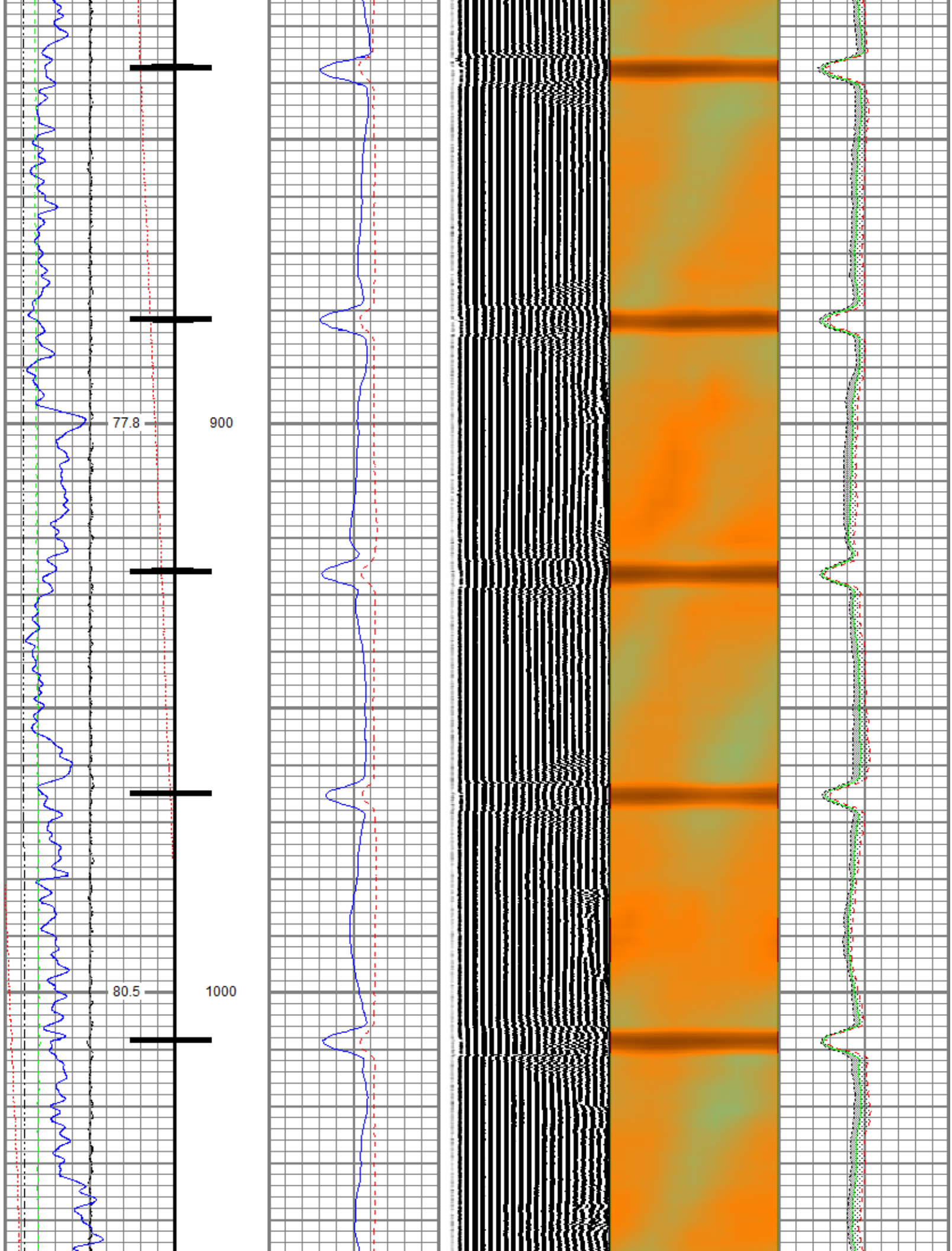
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 150
(GAPI) 200		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Line Speed	0	(mV) 20			0	150
(ft/min) 150		3' Travel Time				Maximum Amplitude
Line Tension (lb) 2000	0	(usec) 200			0	150
Differential Temperature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

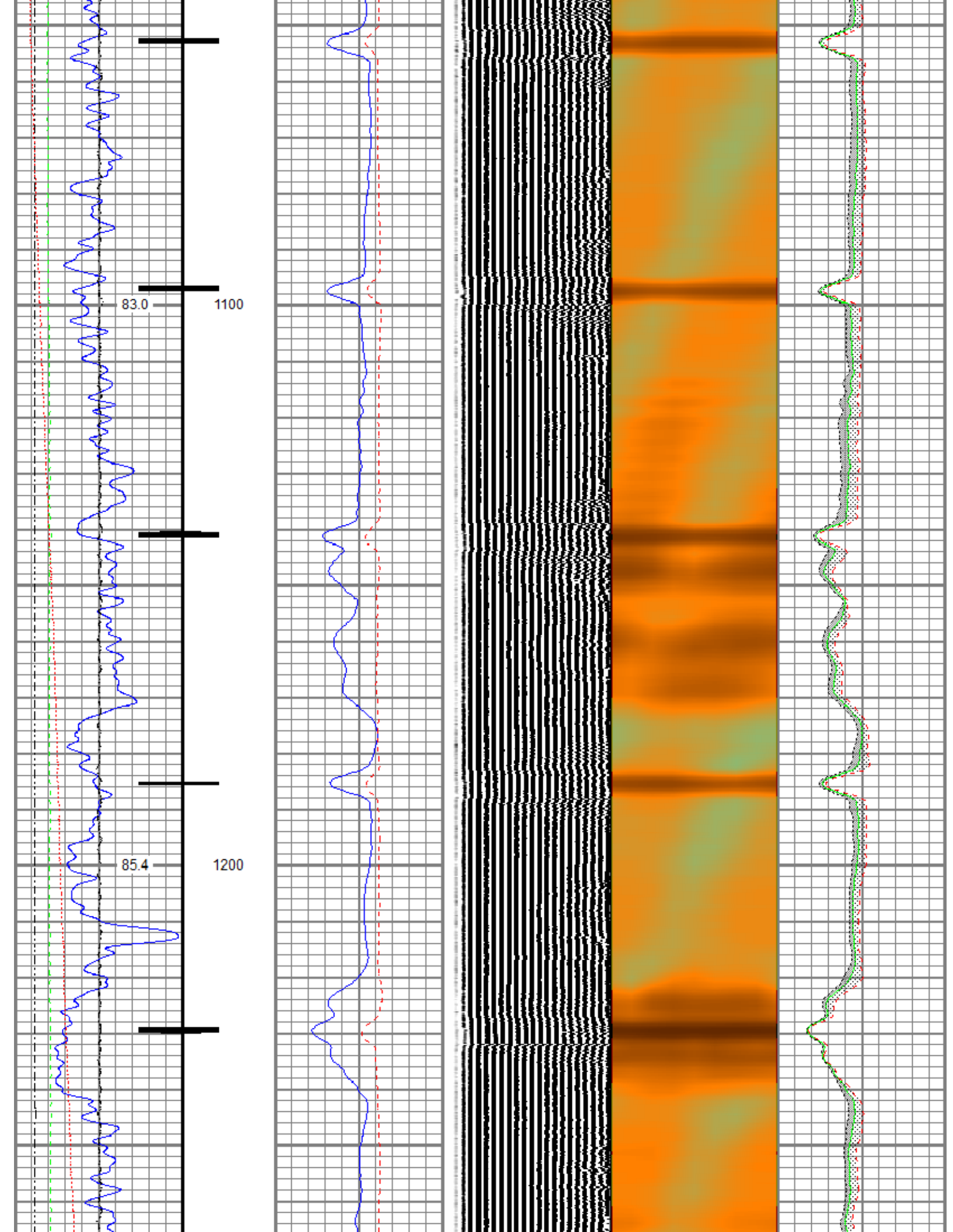


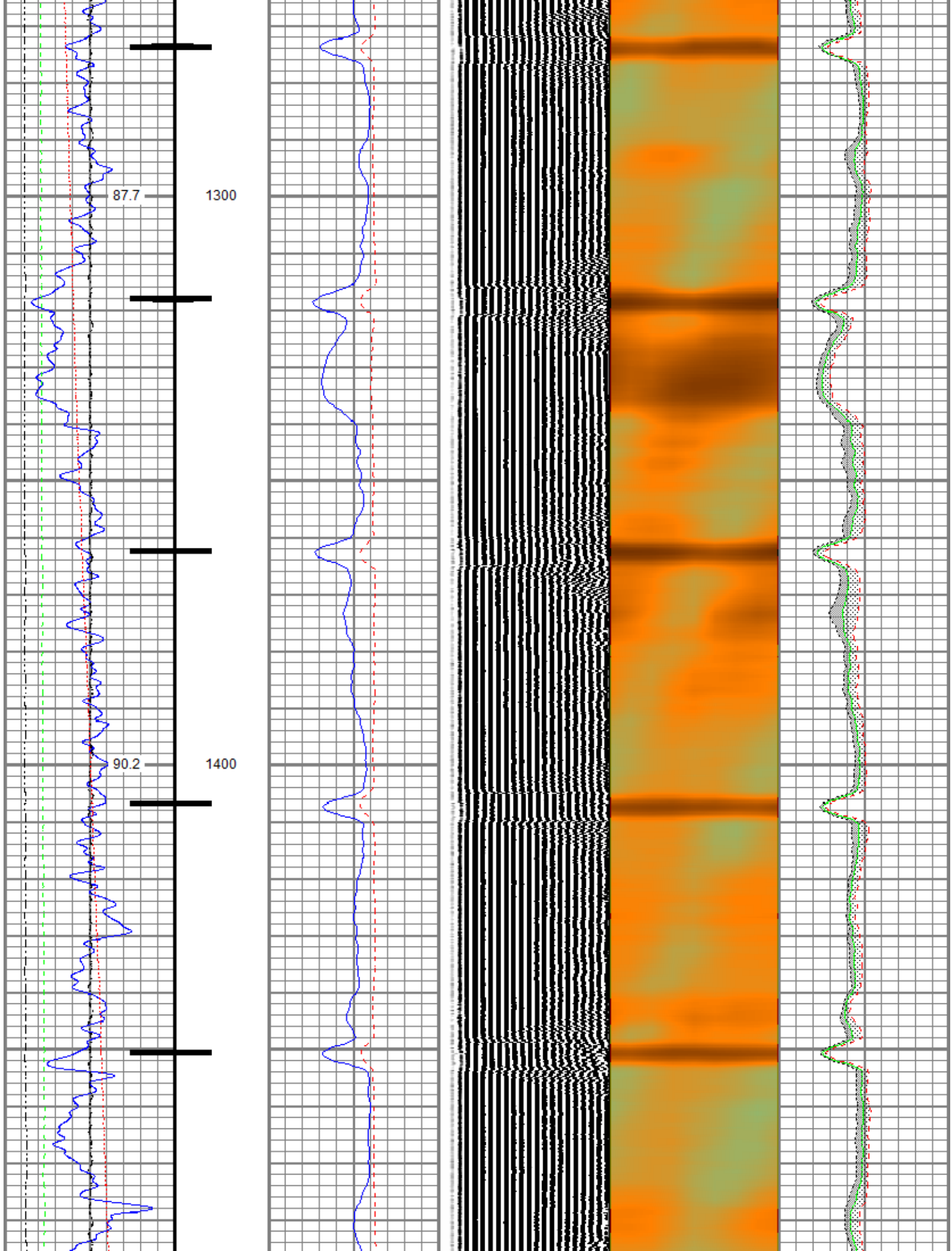


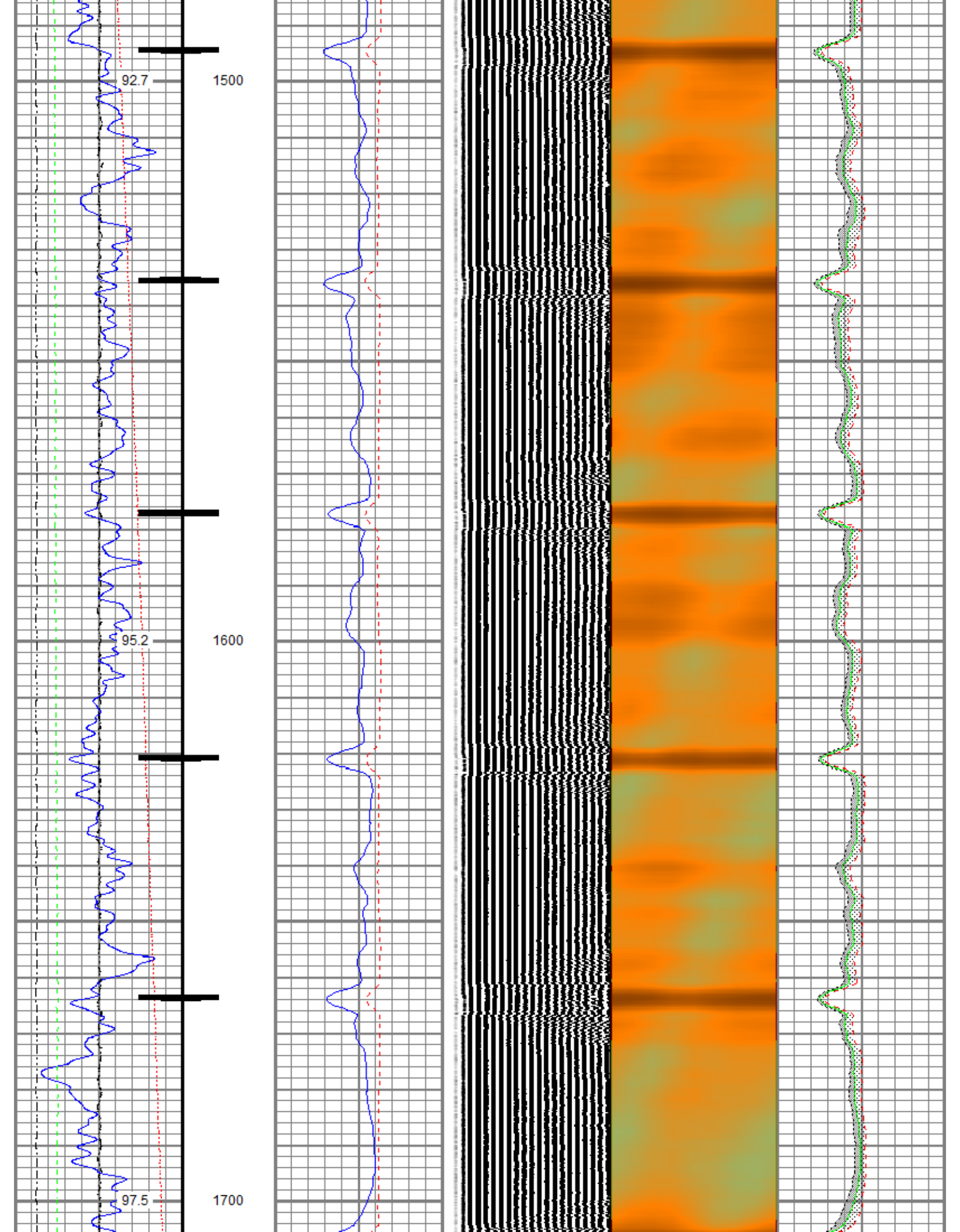


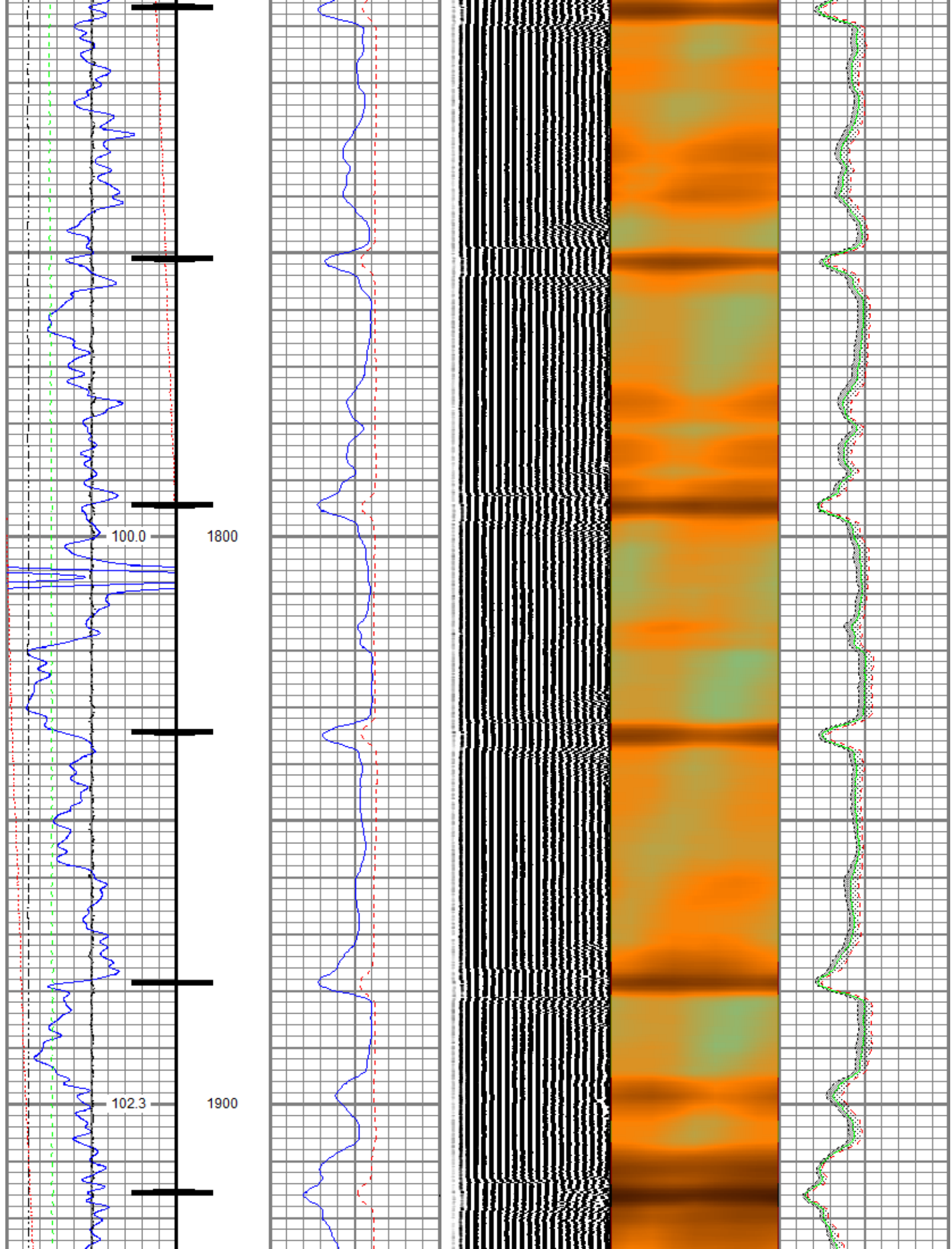


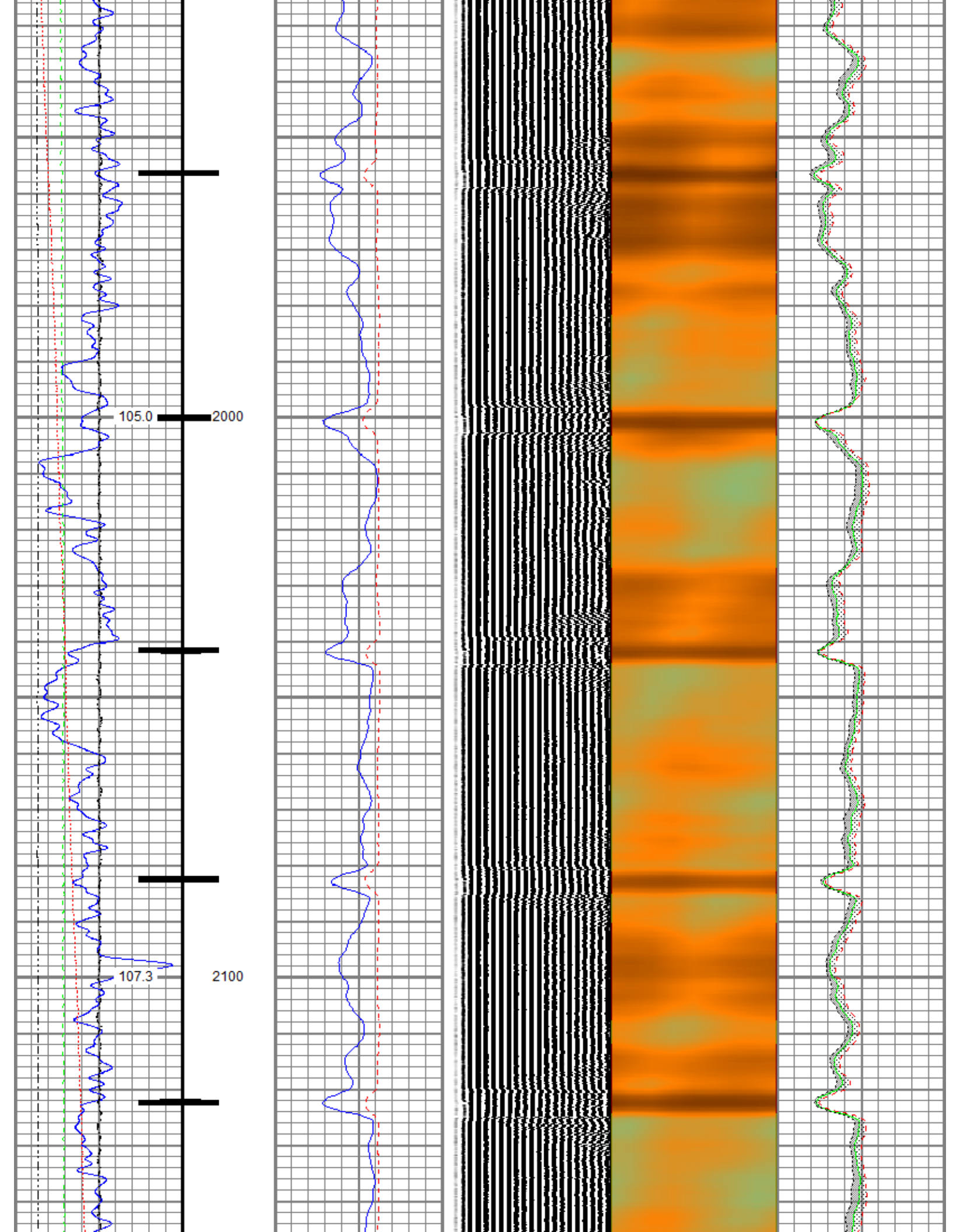


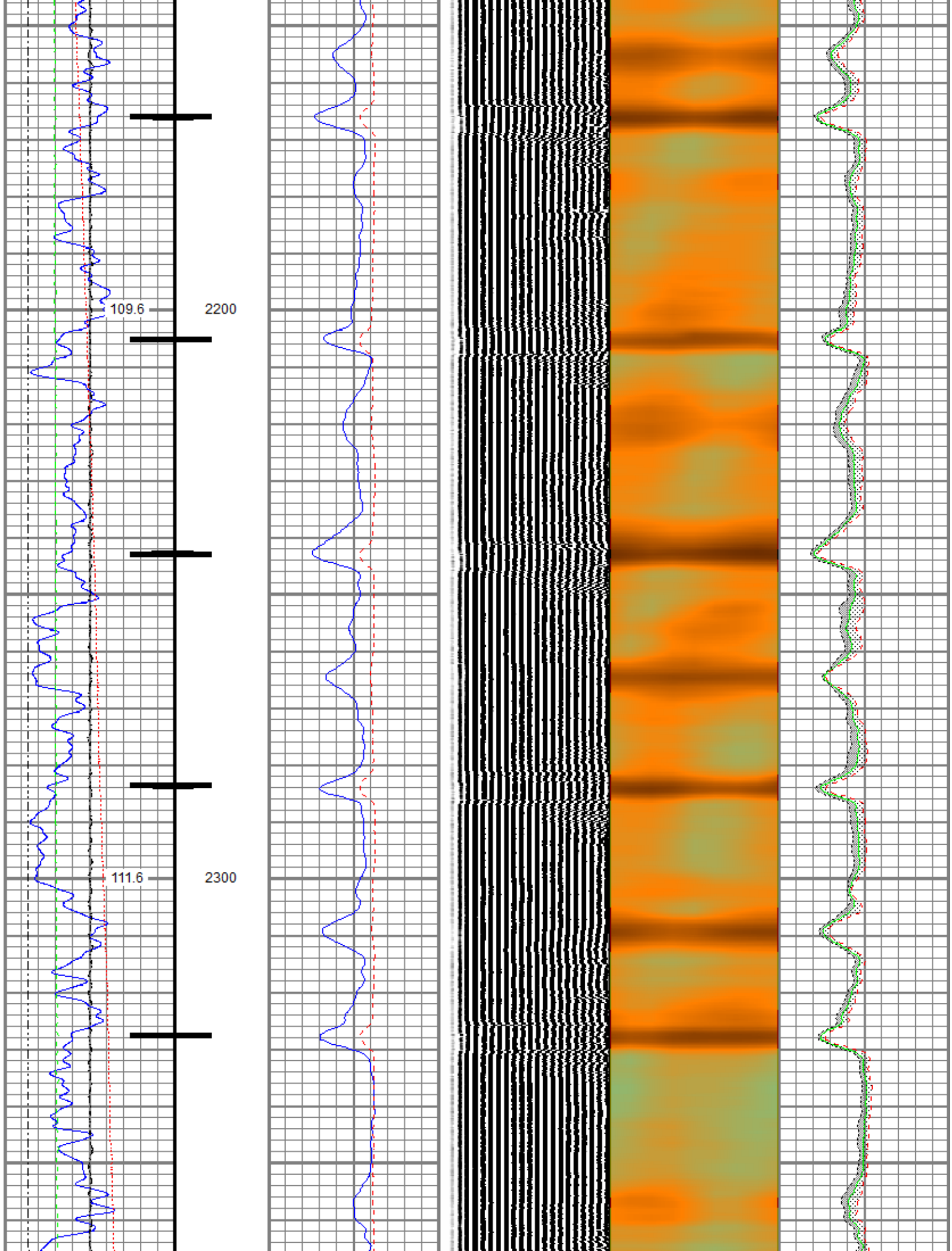


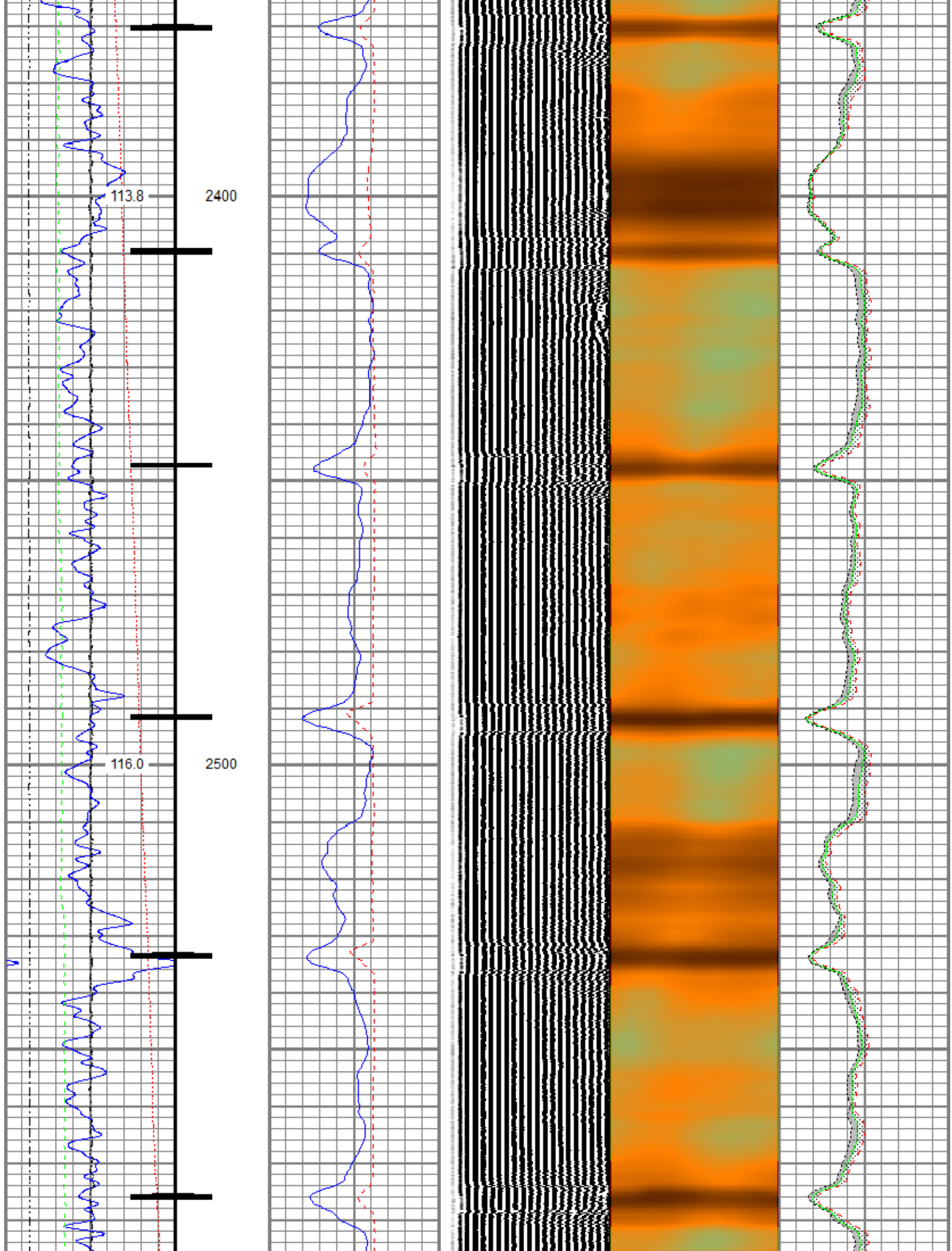


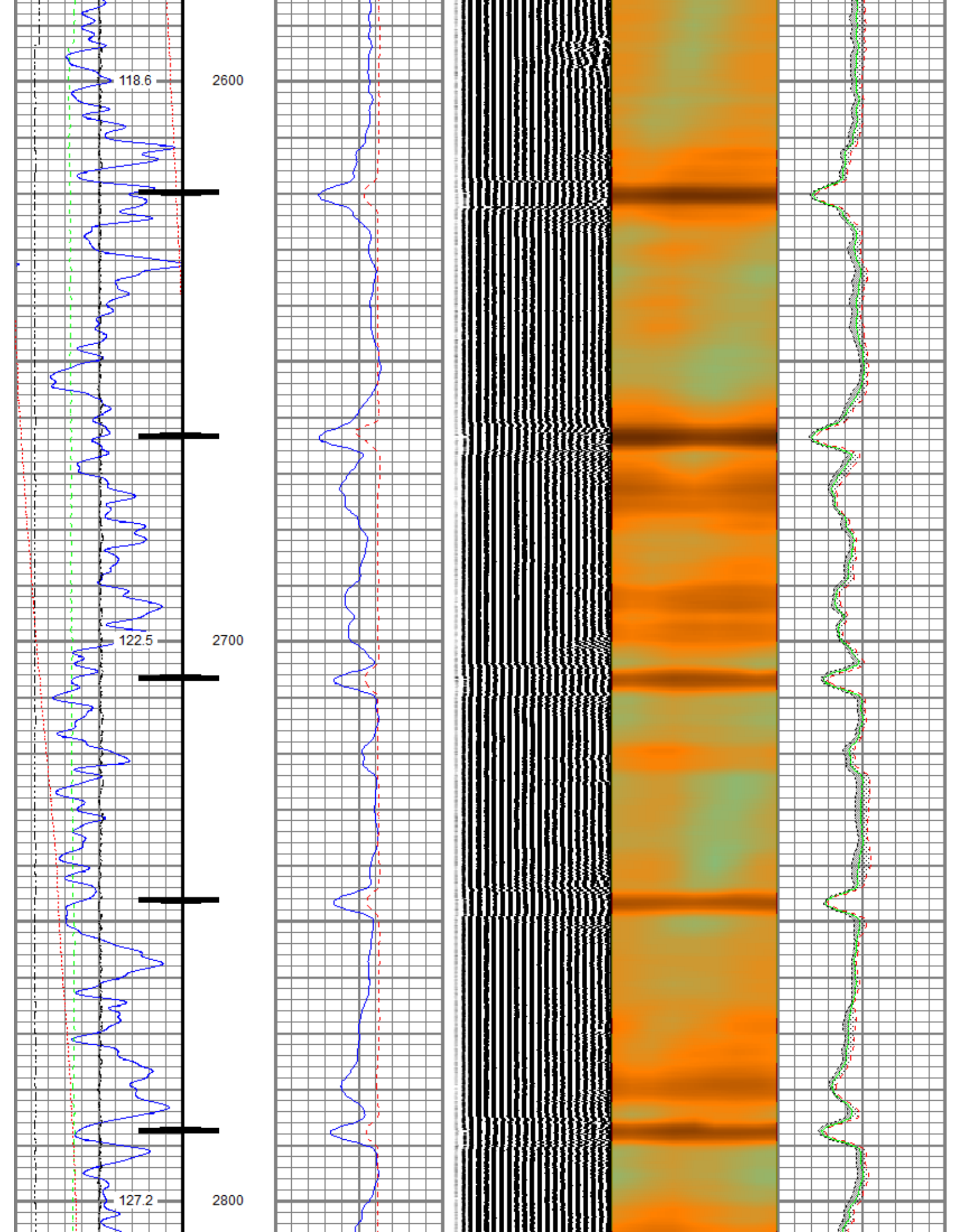


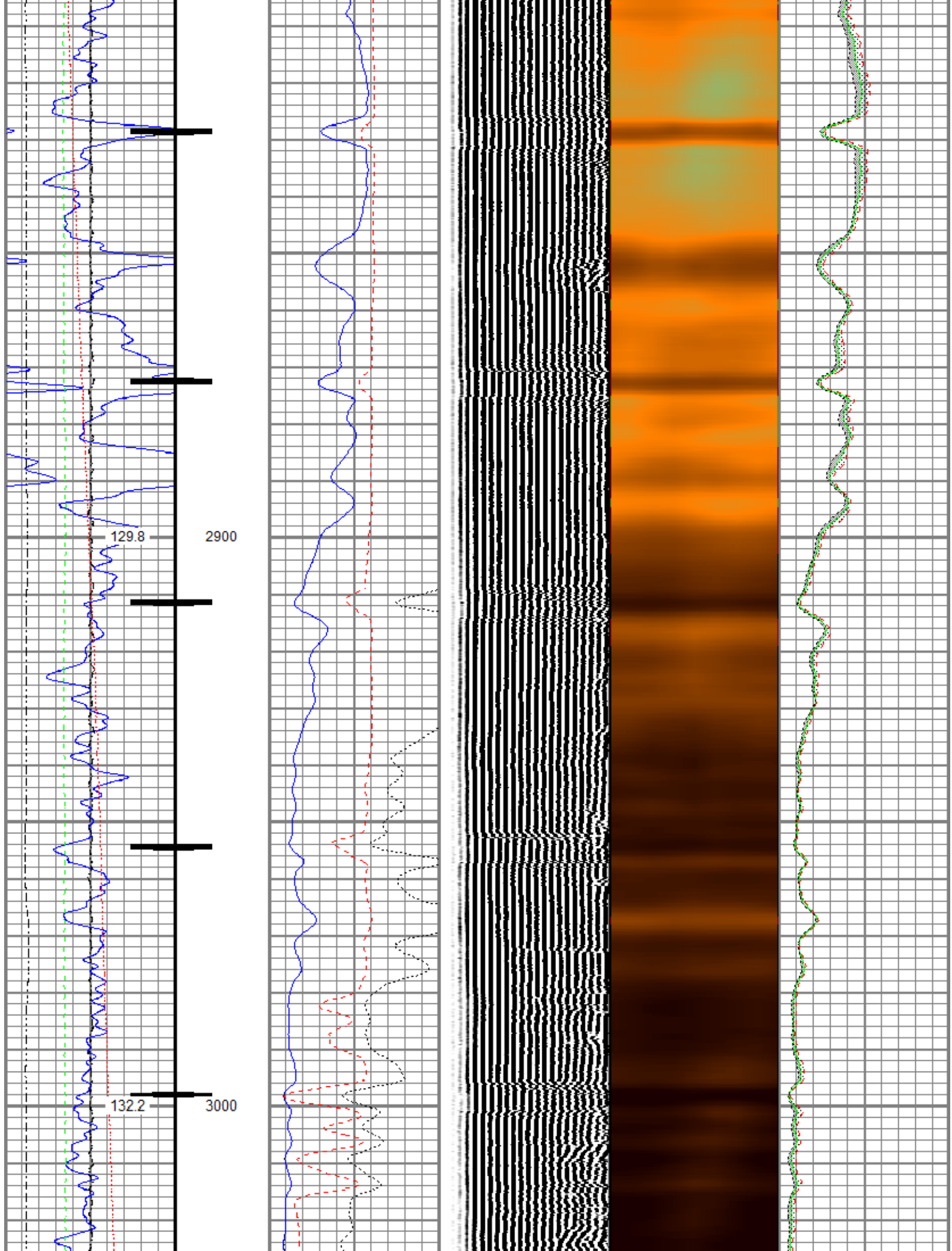


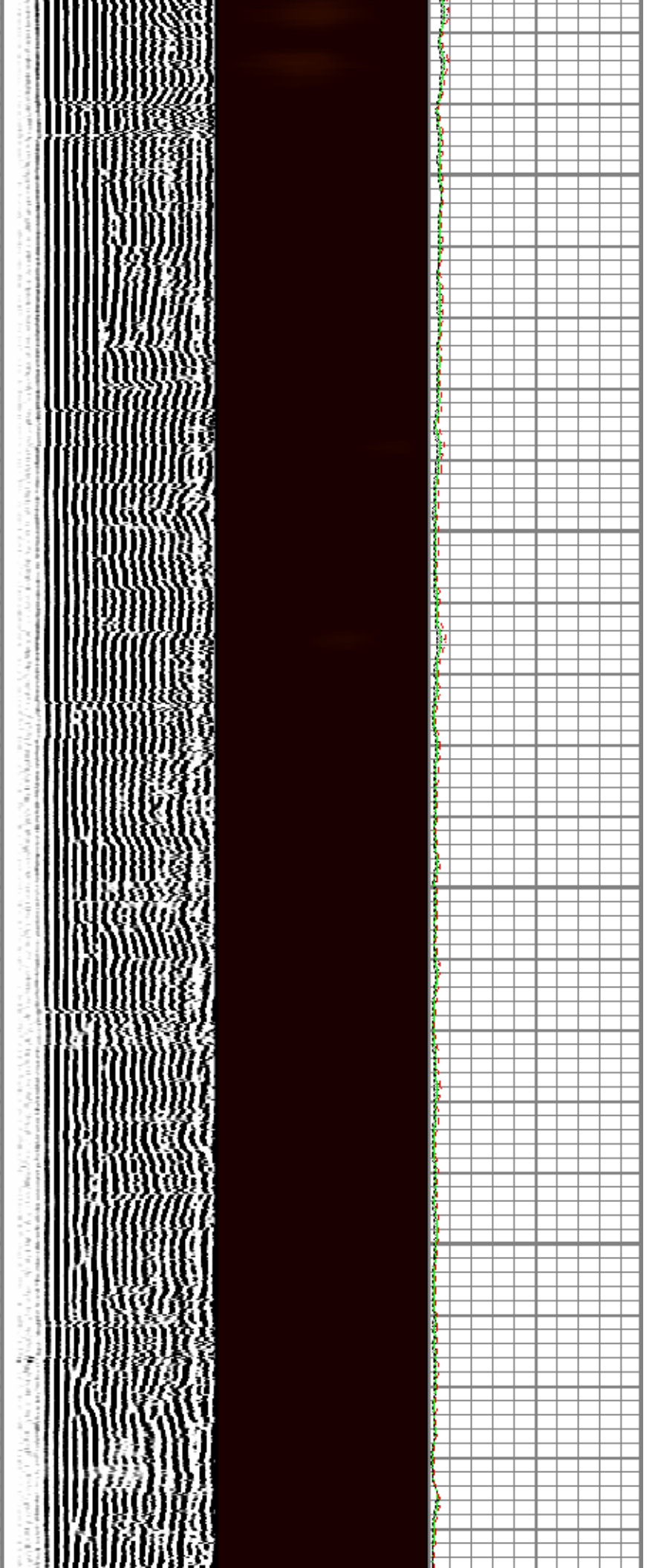
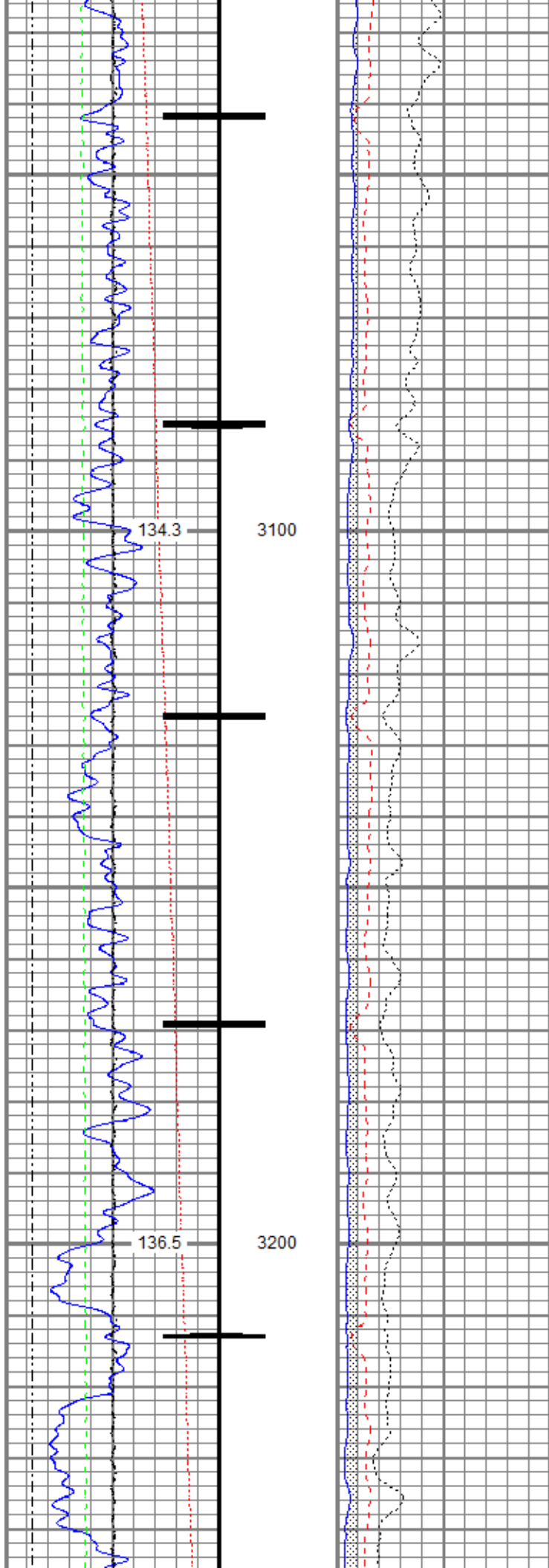


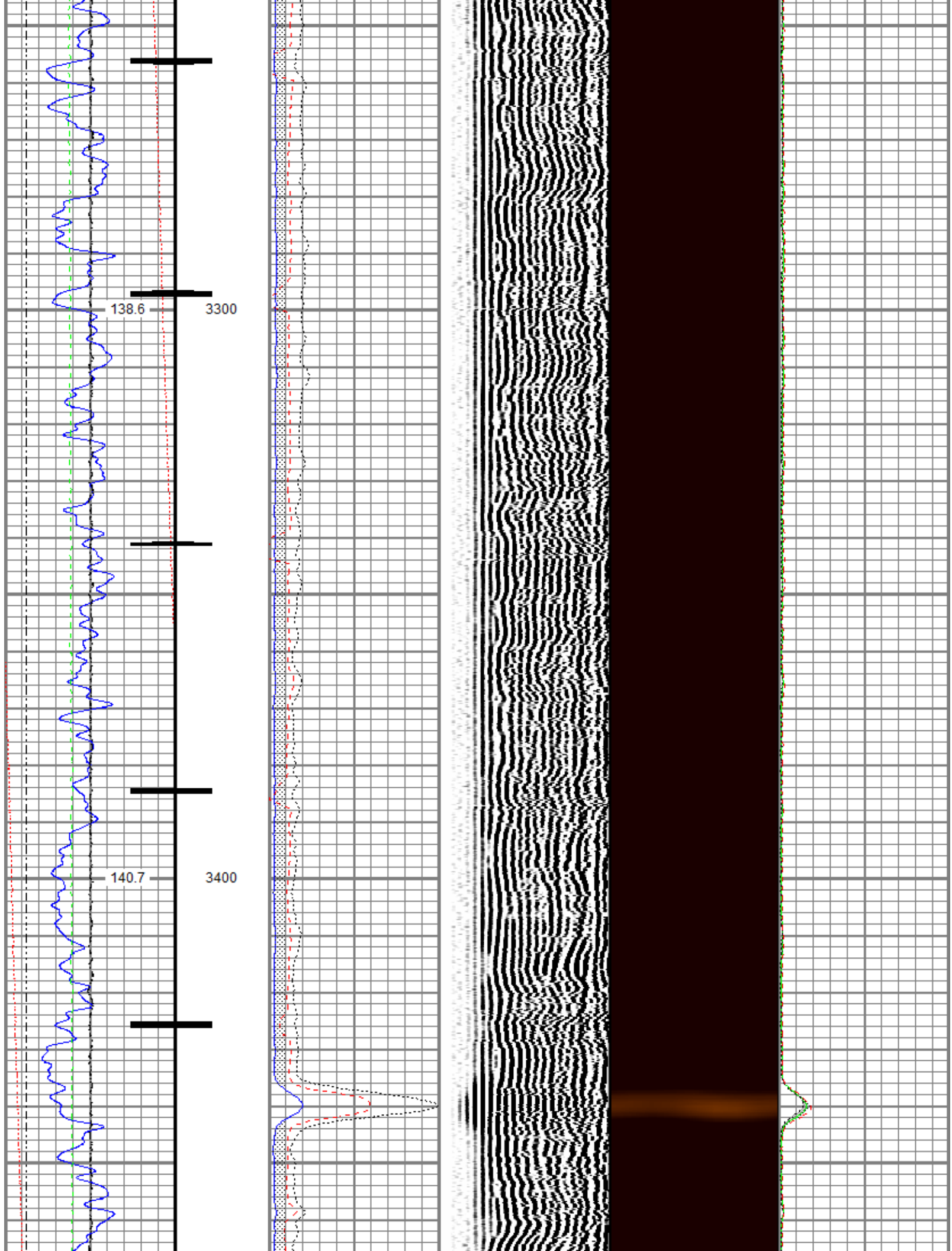


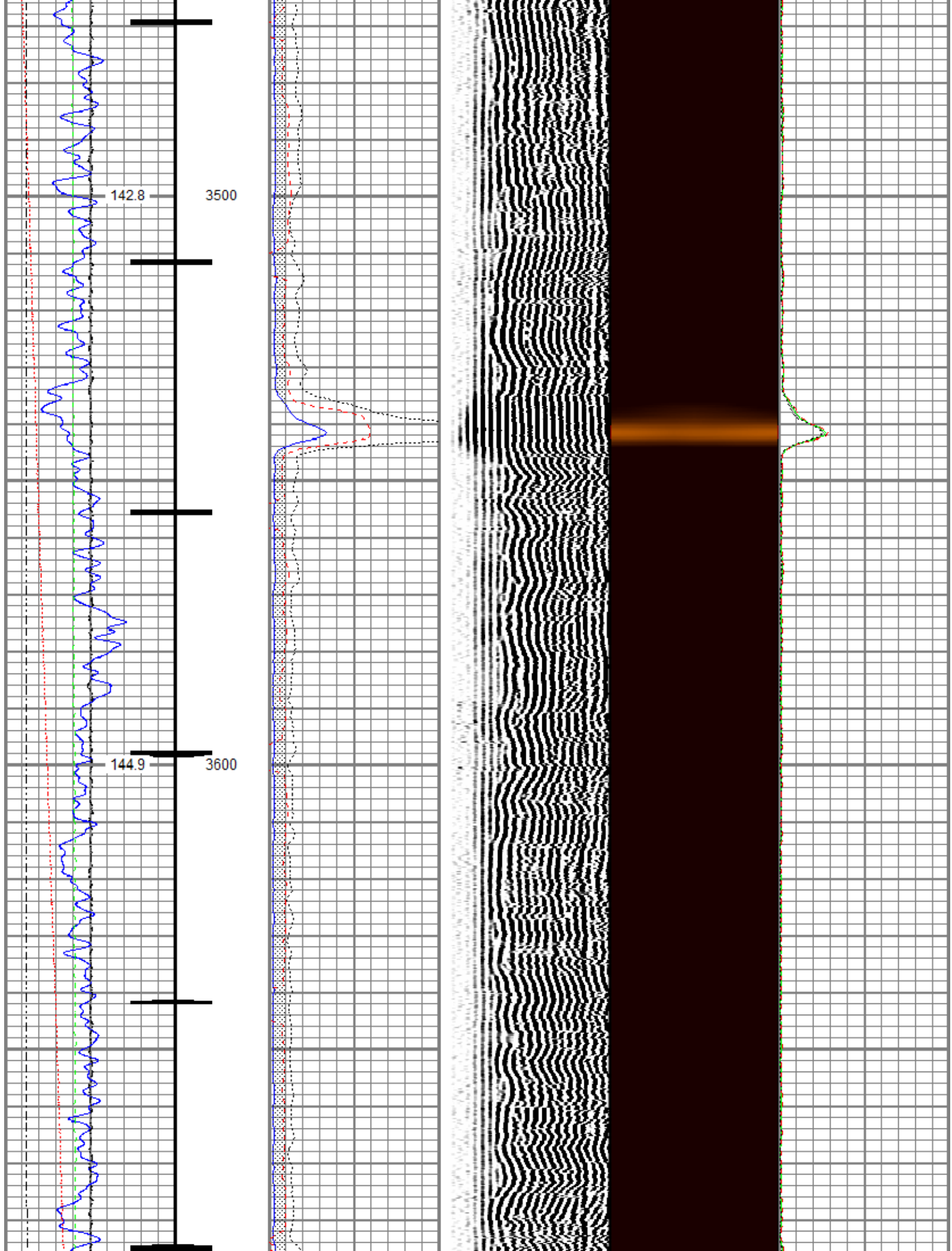


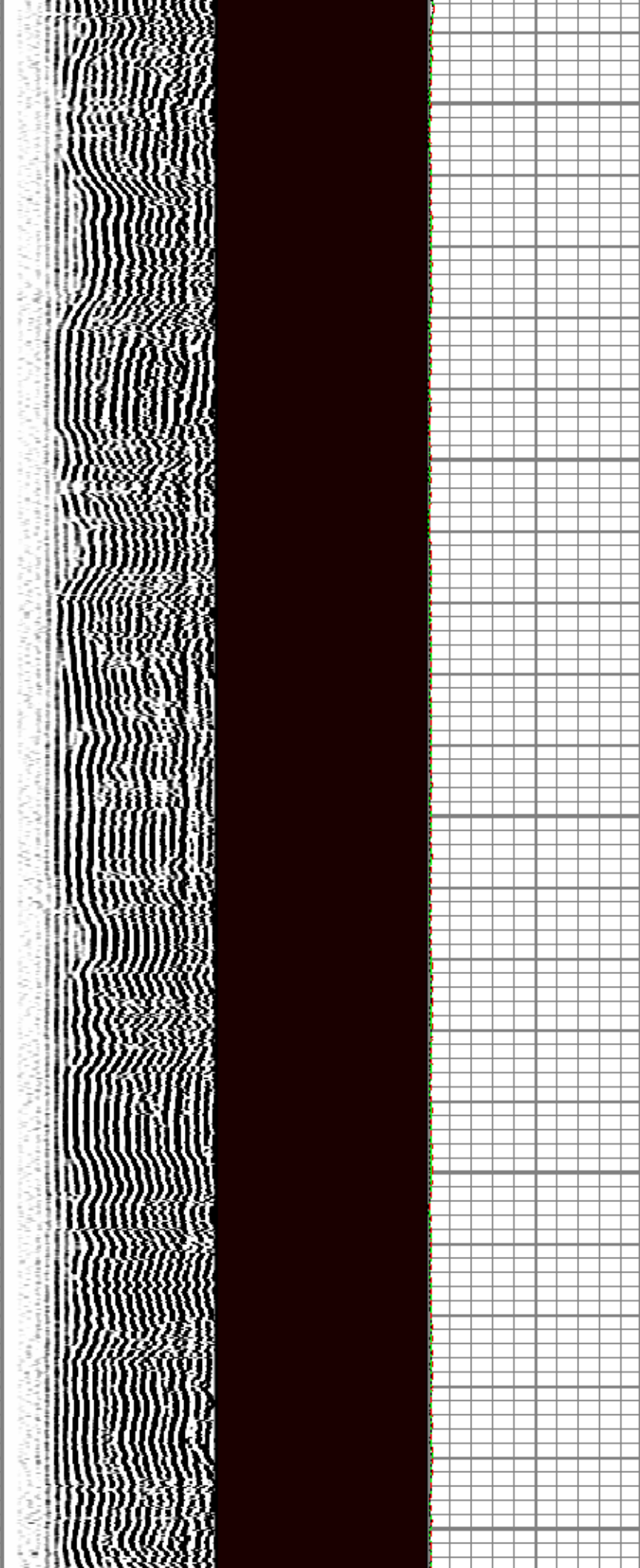
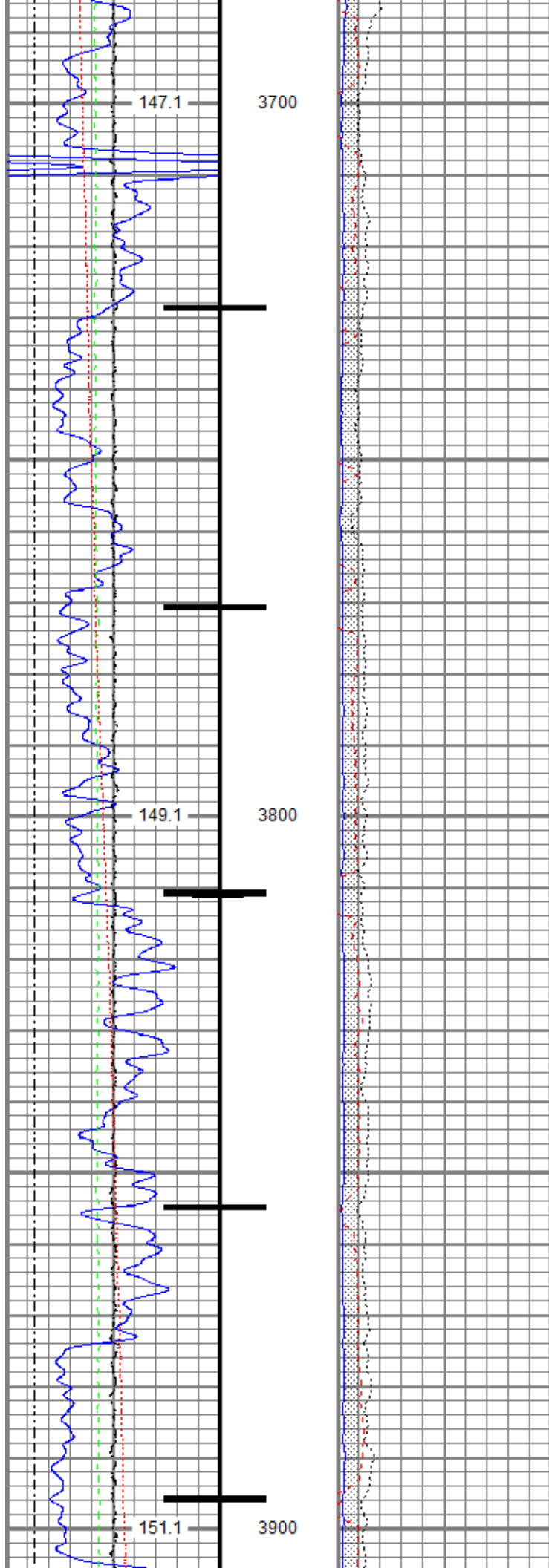


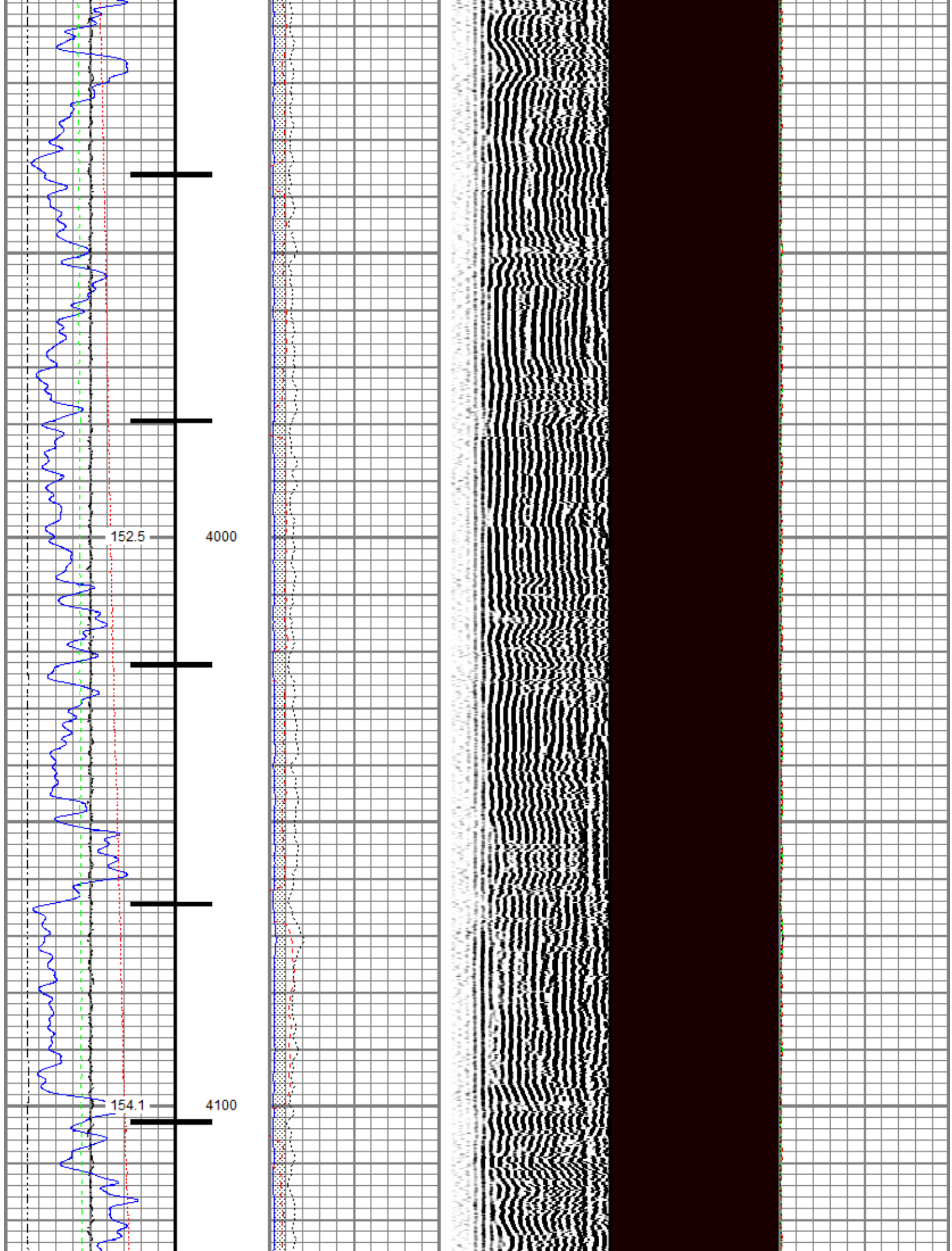


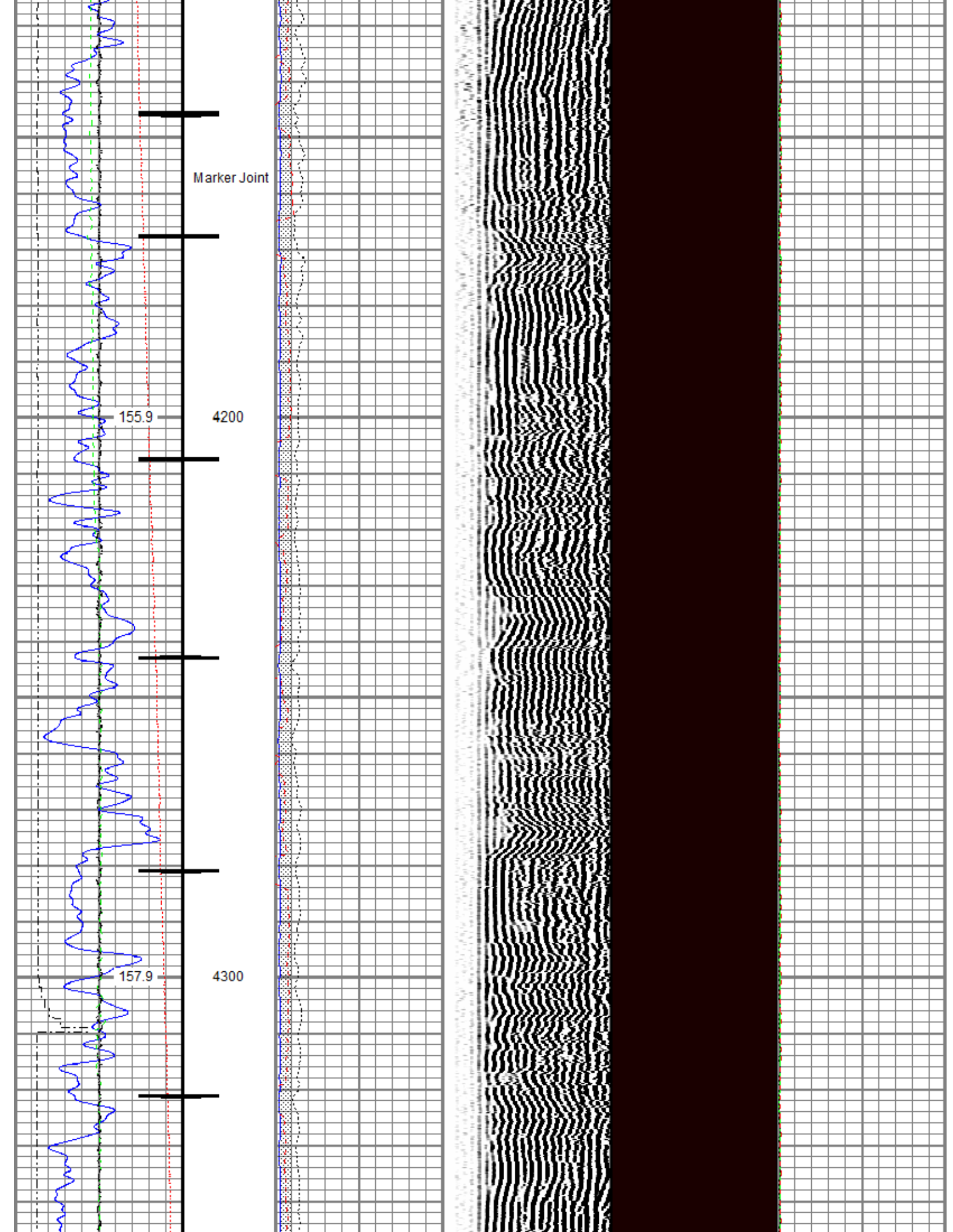


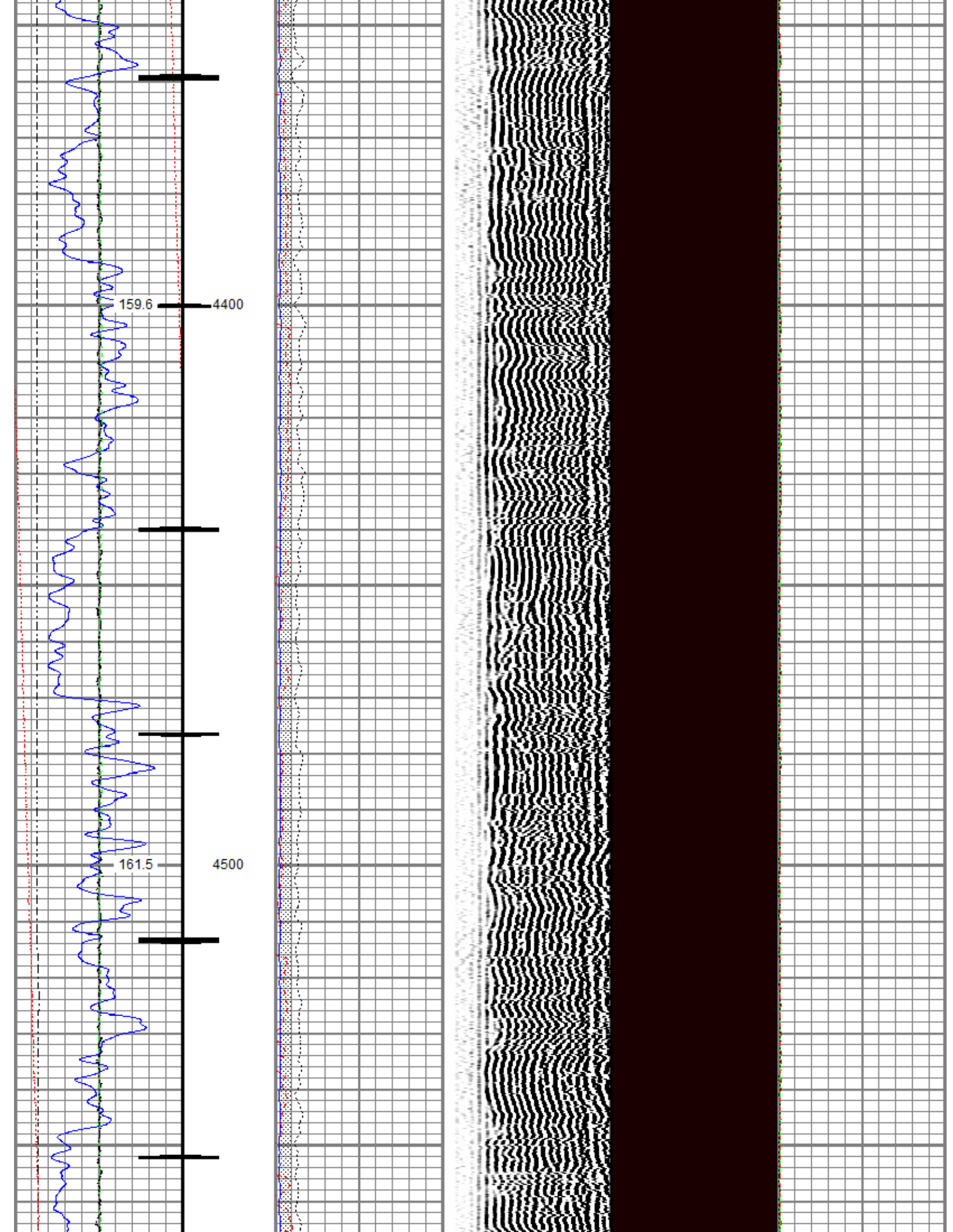


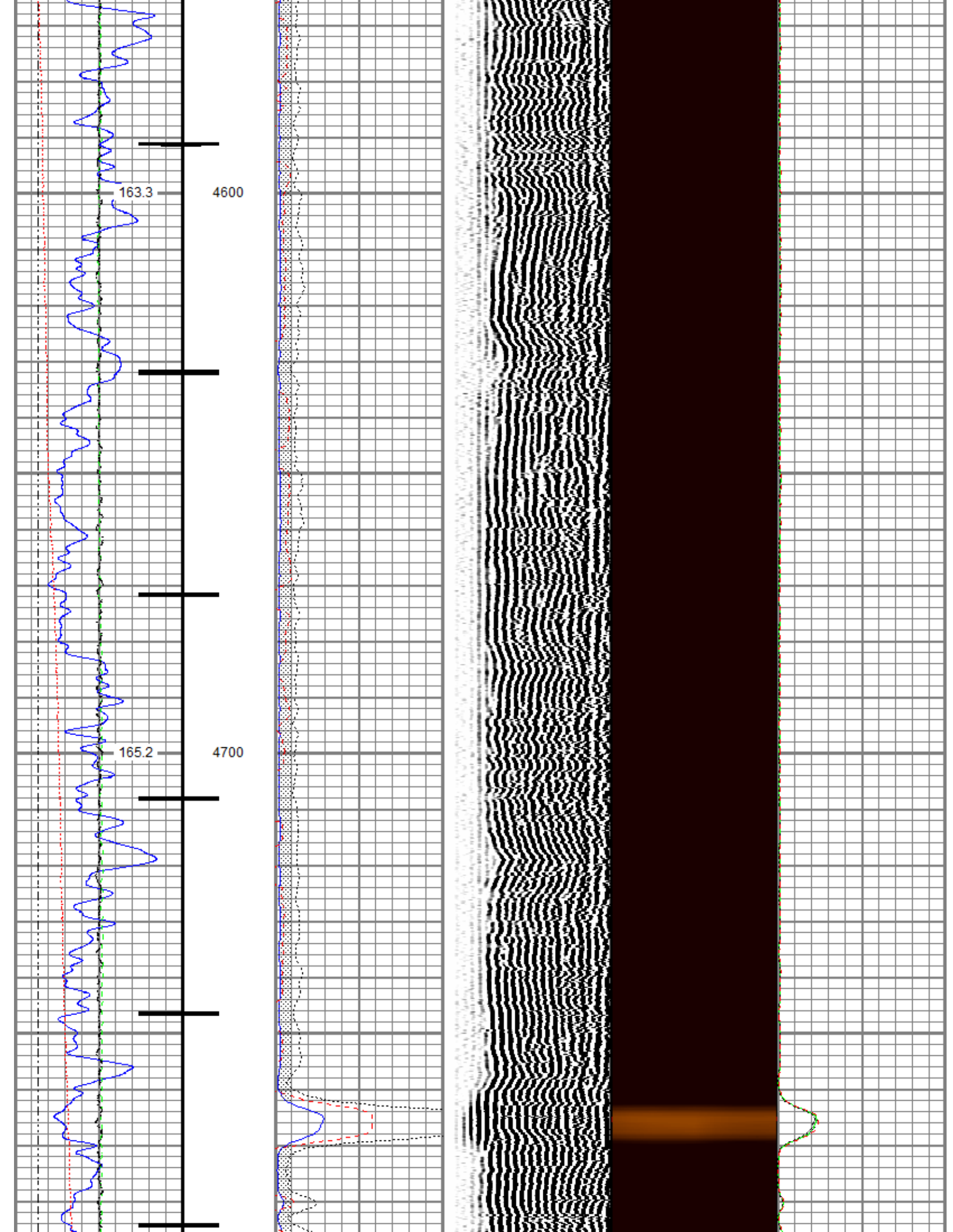


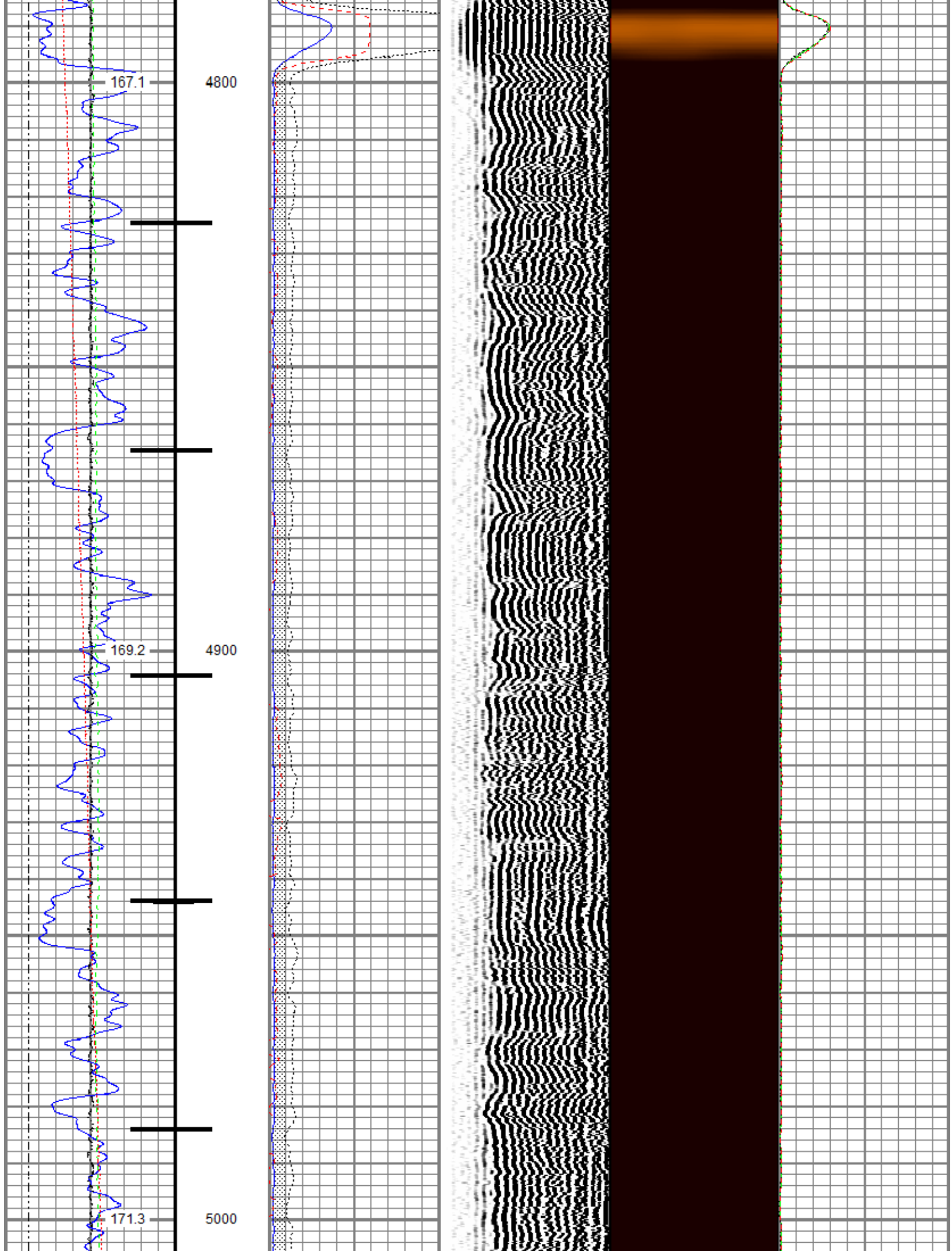


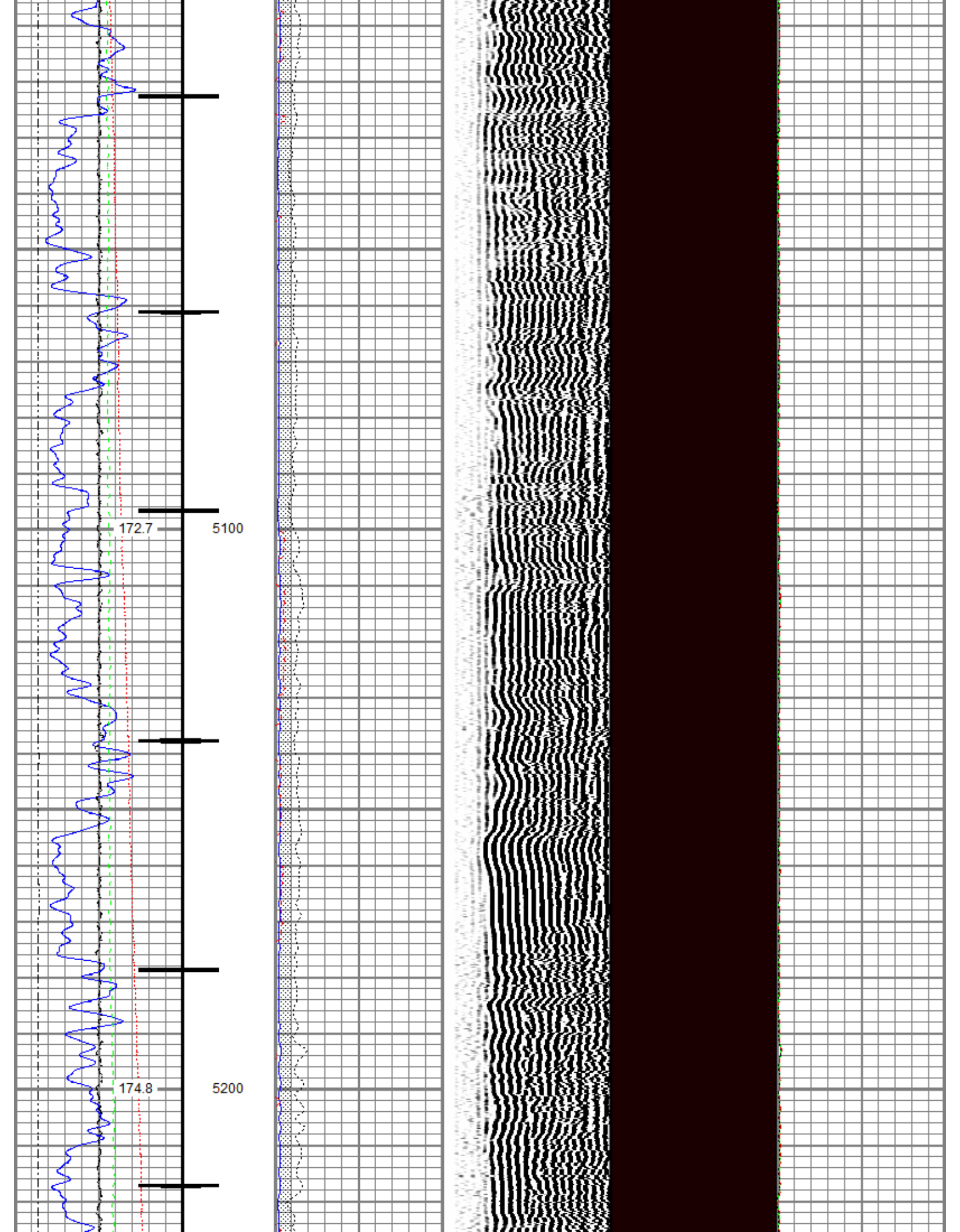


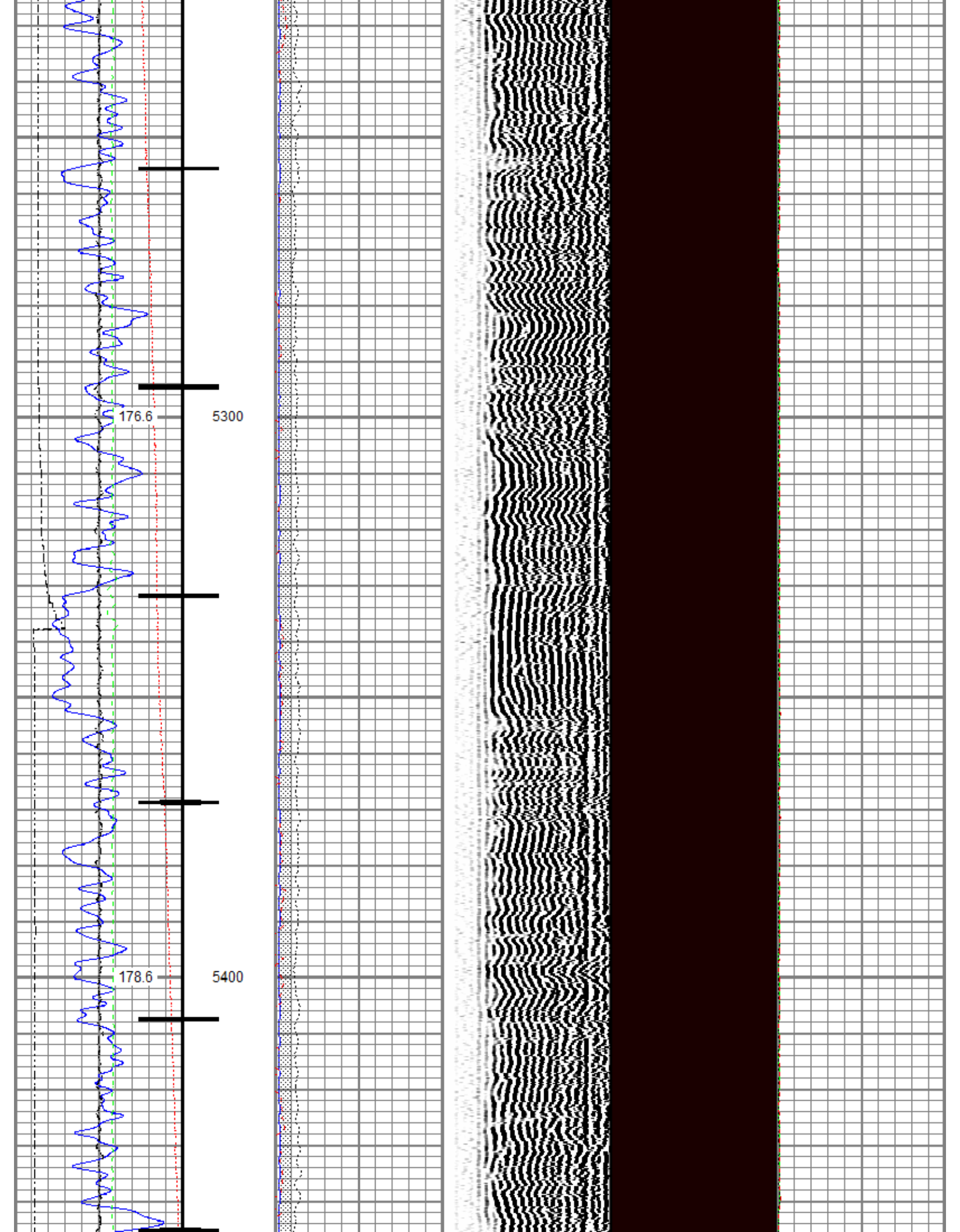


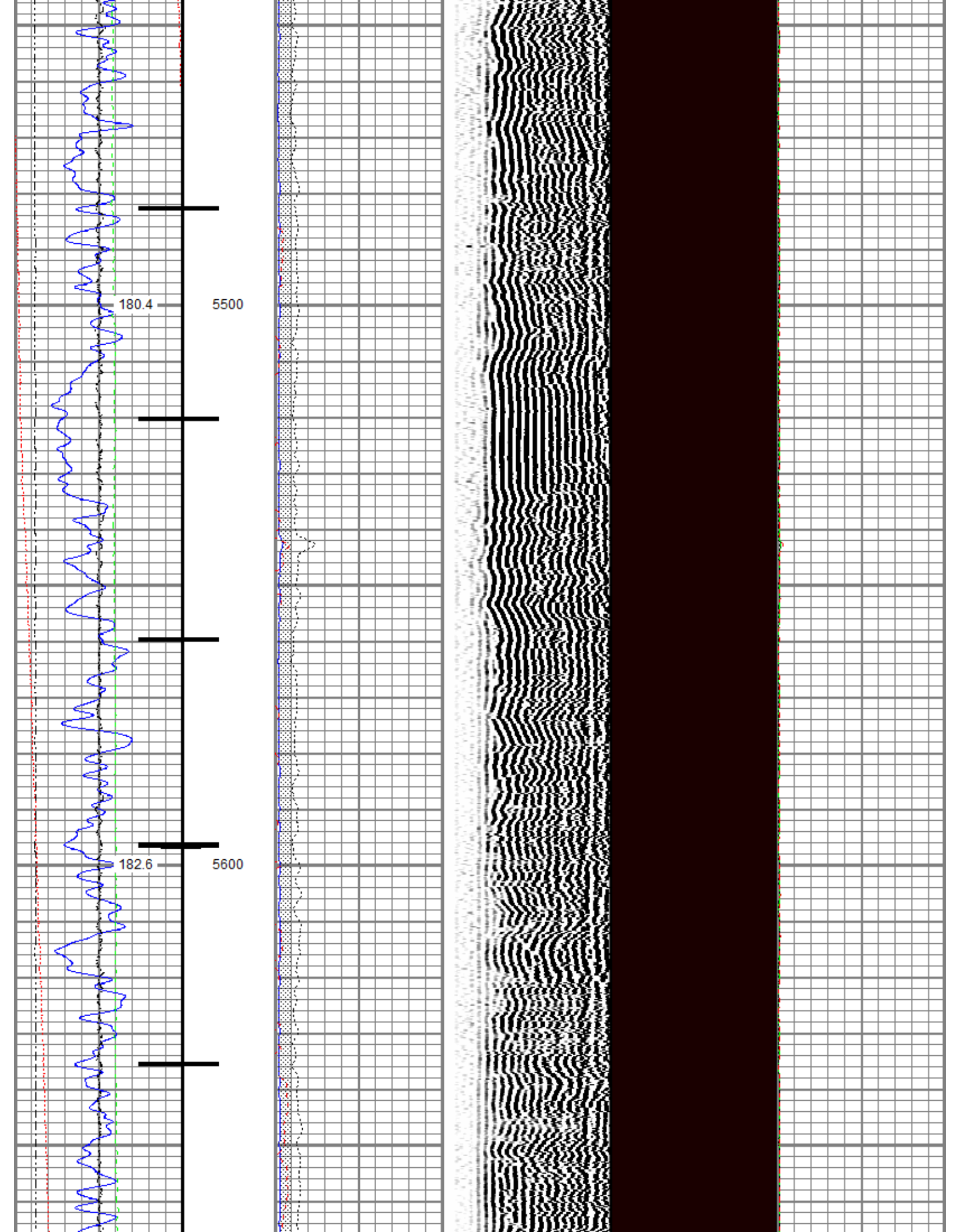


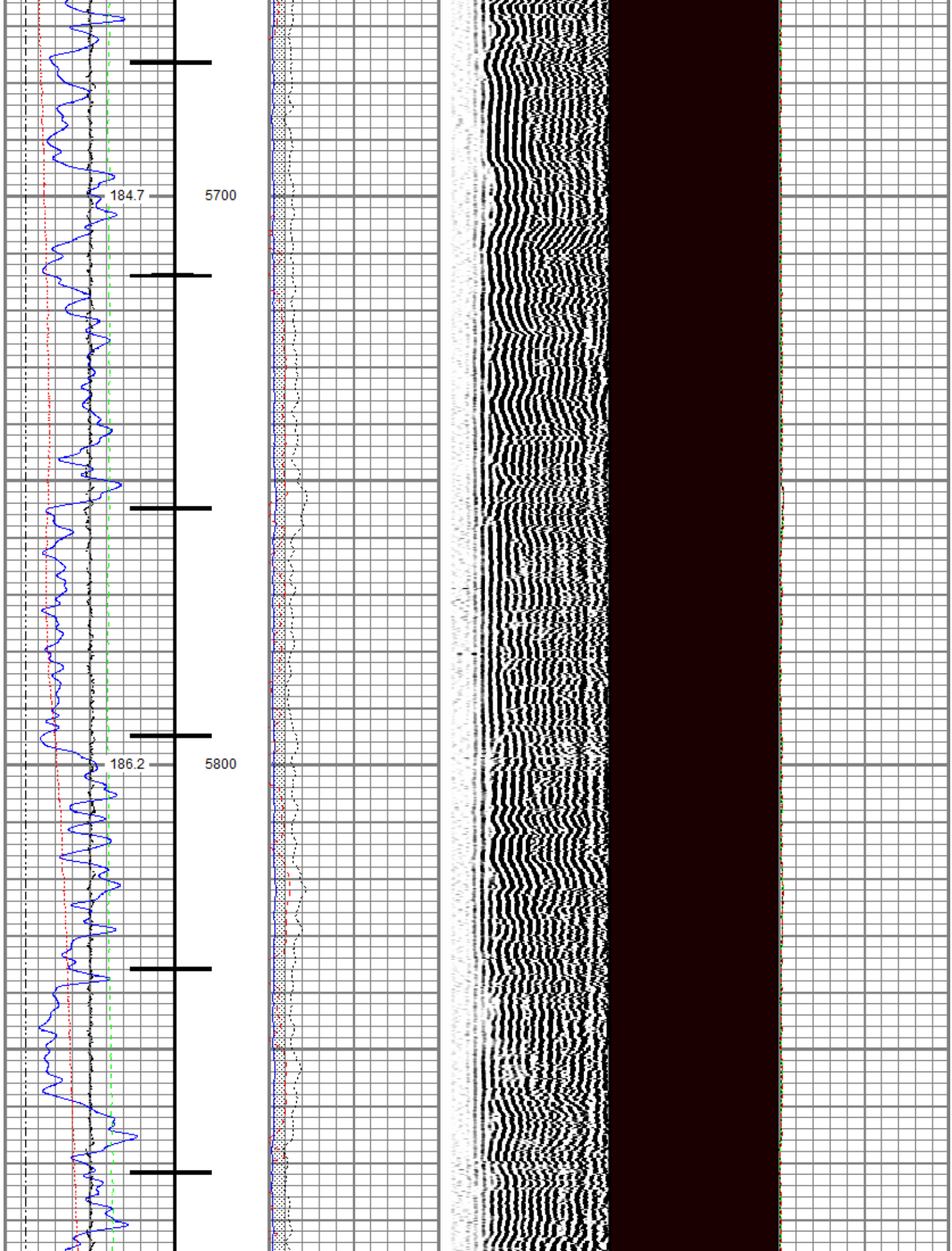


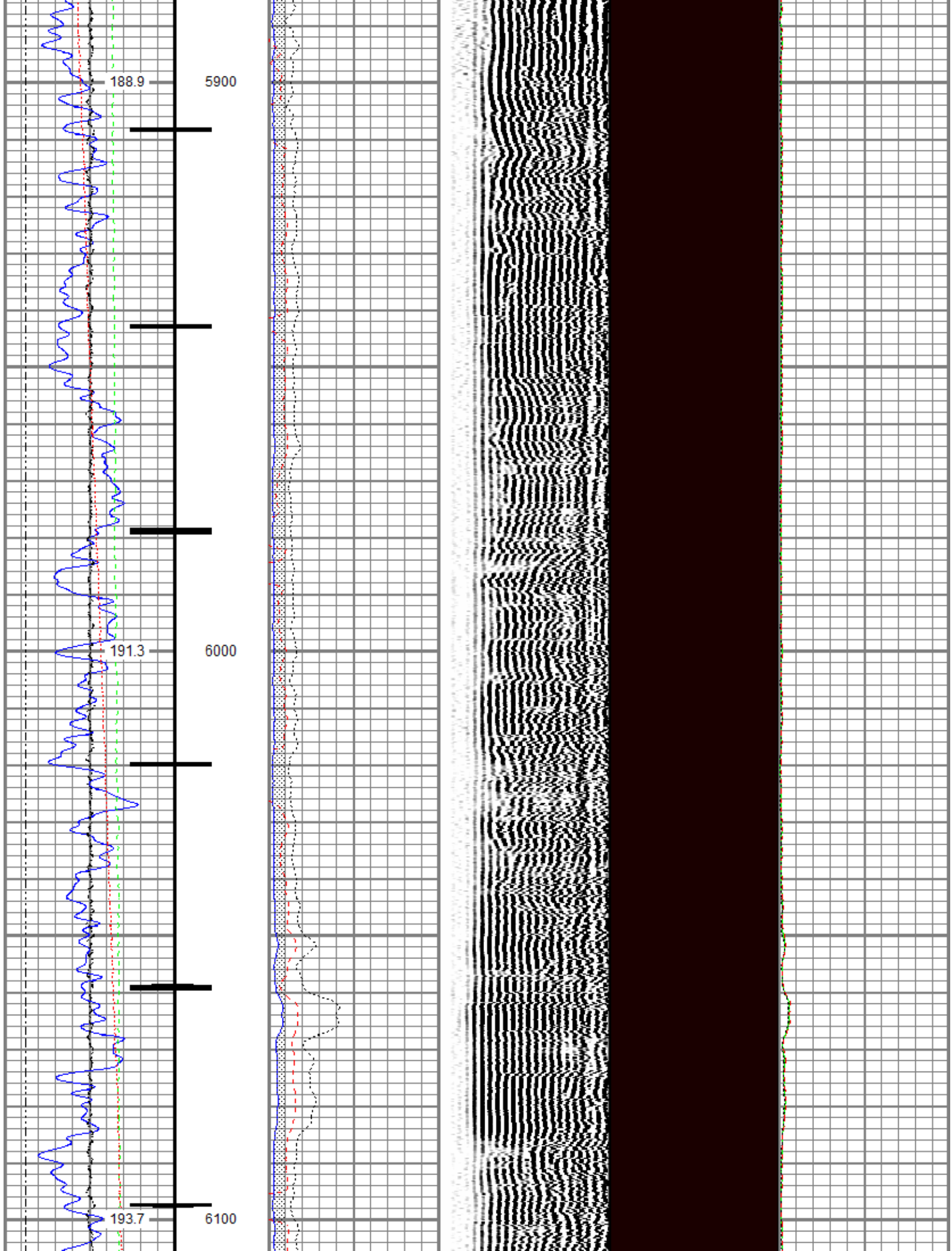


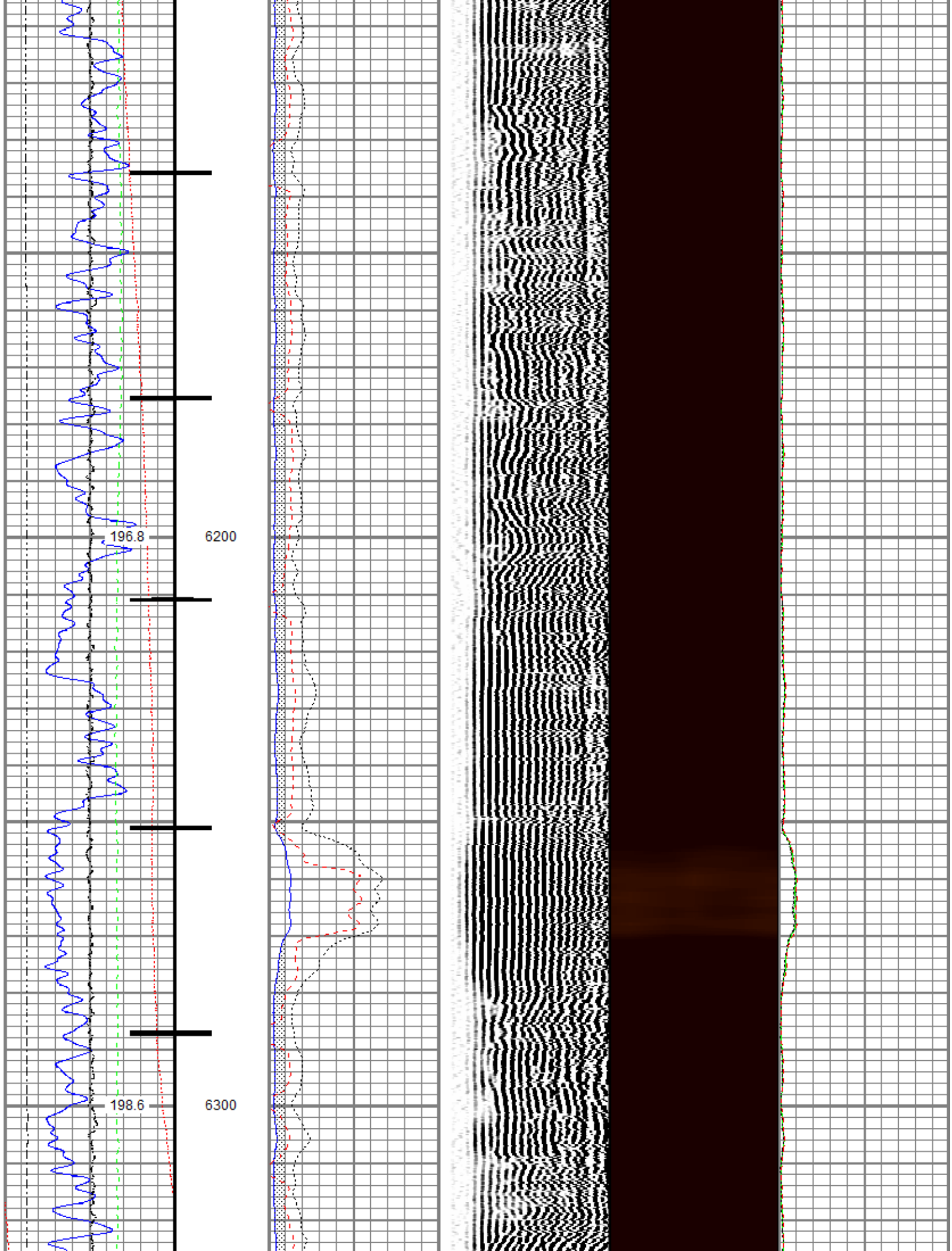


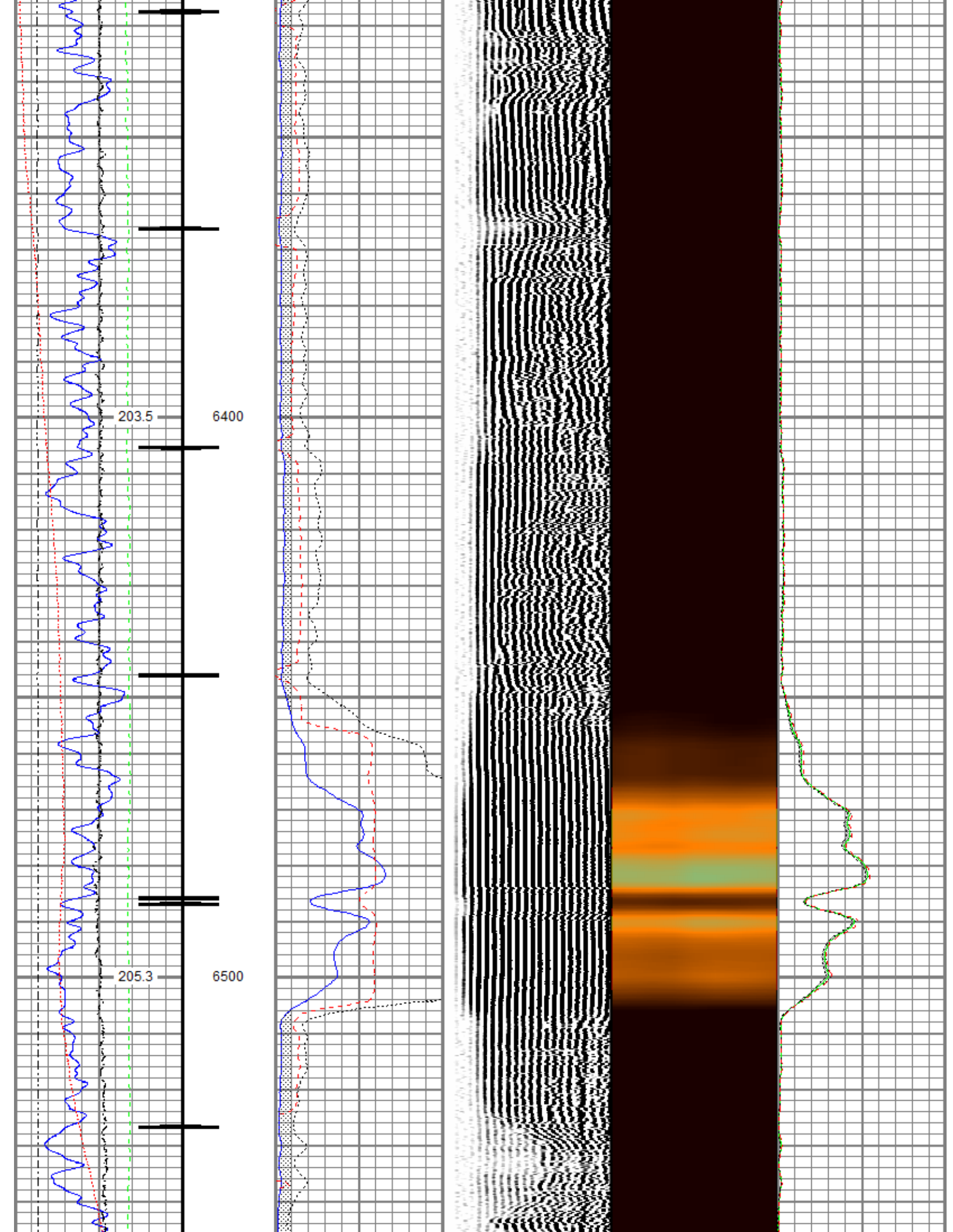


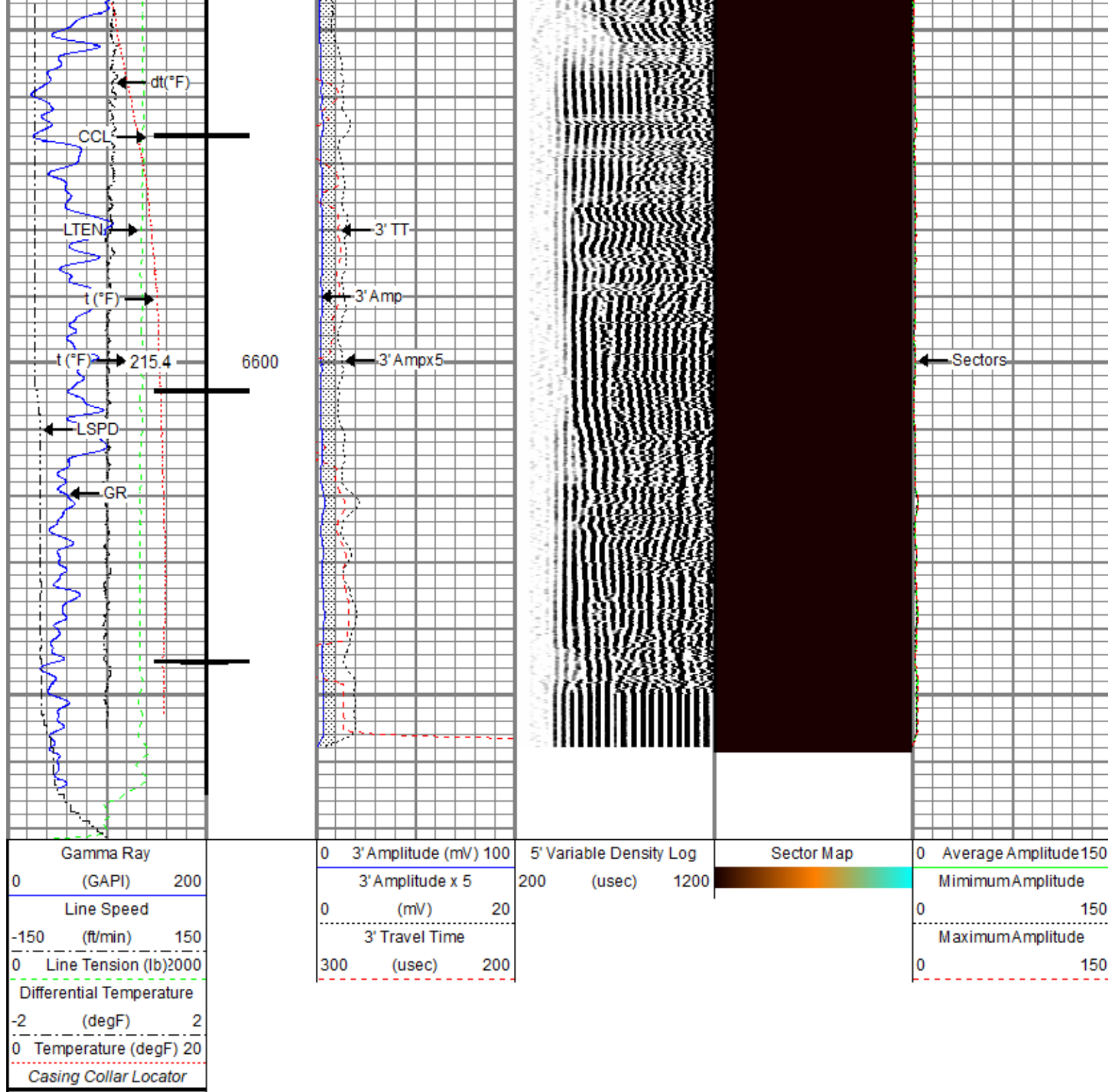








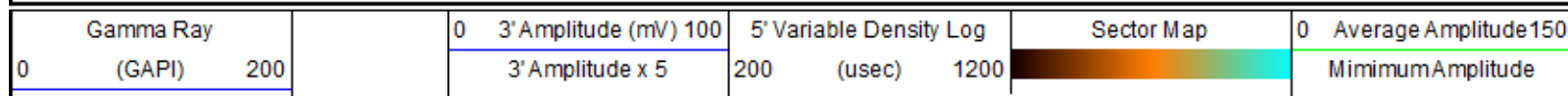




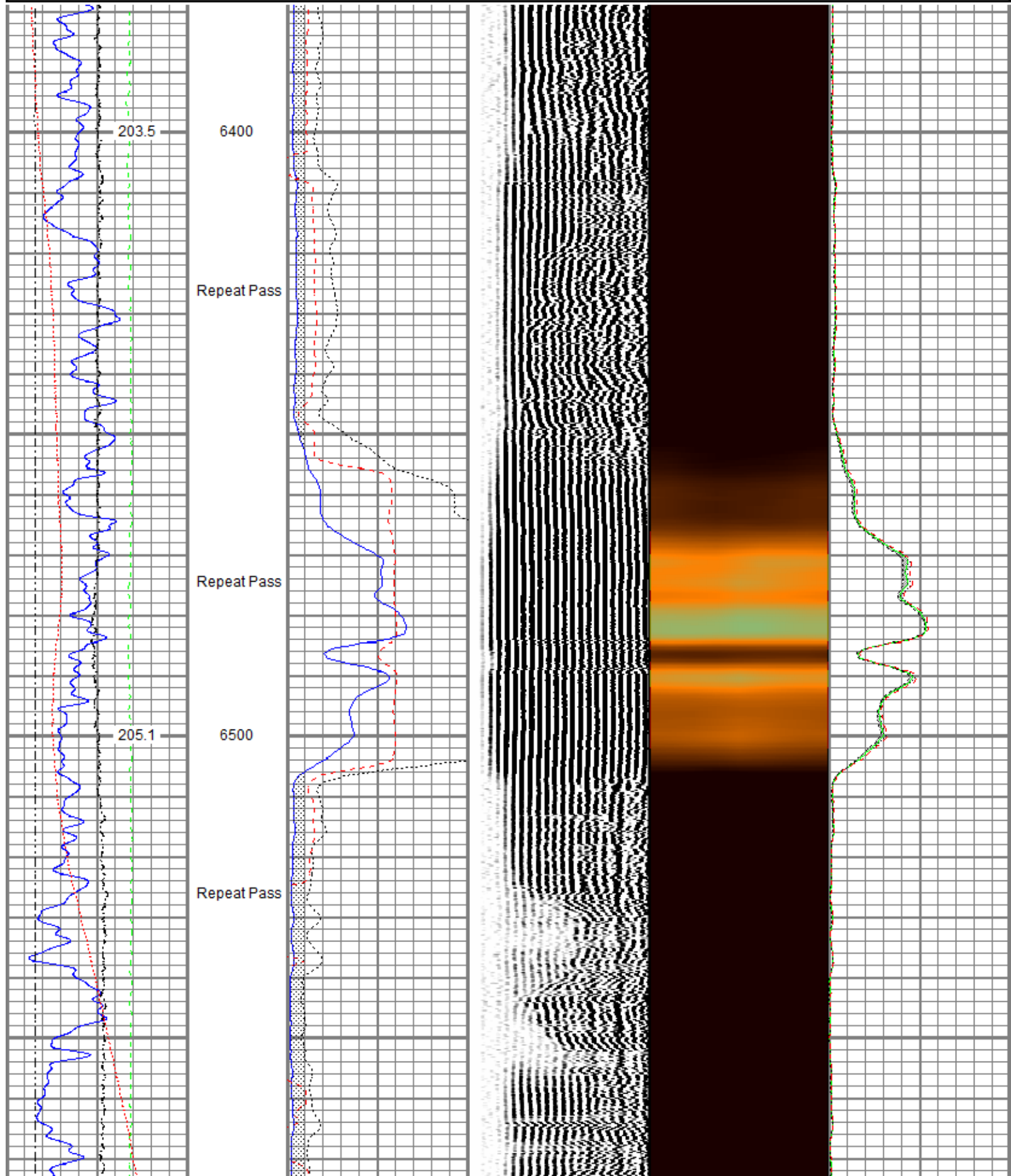
Repeat Pass

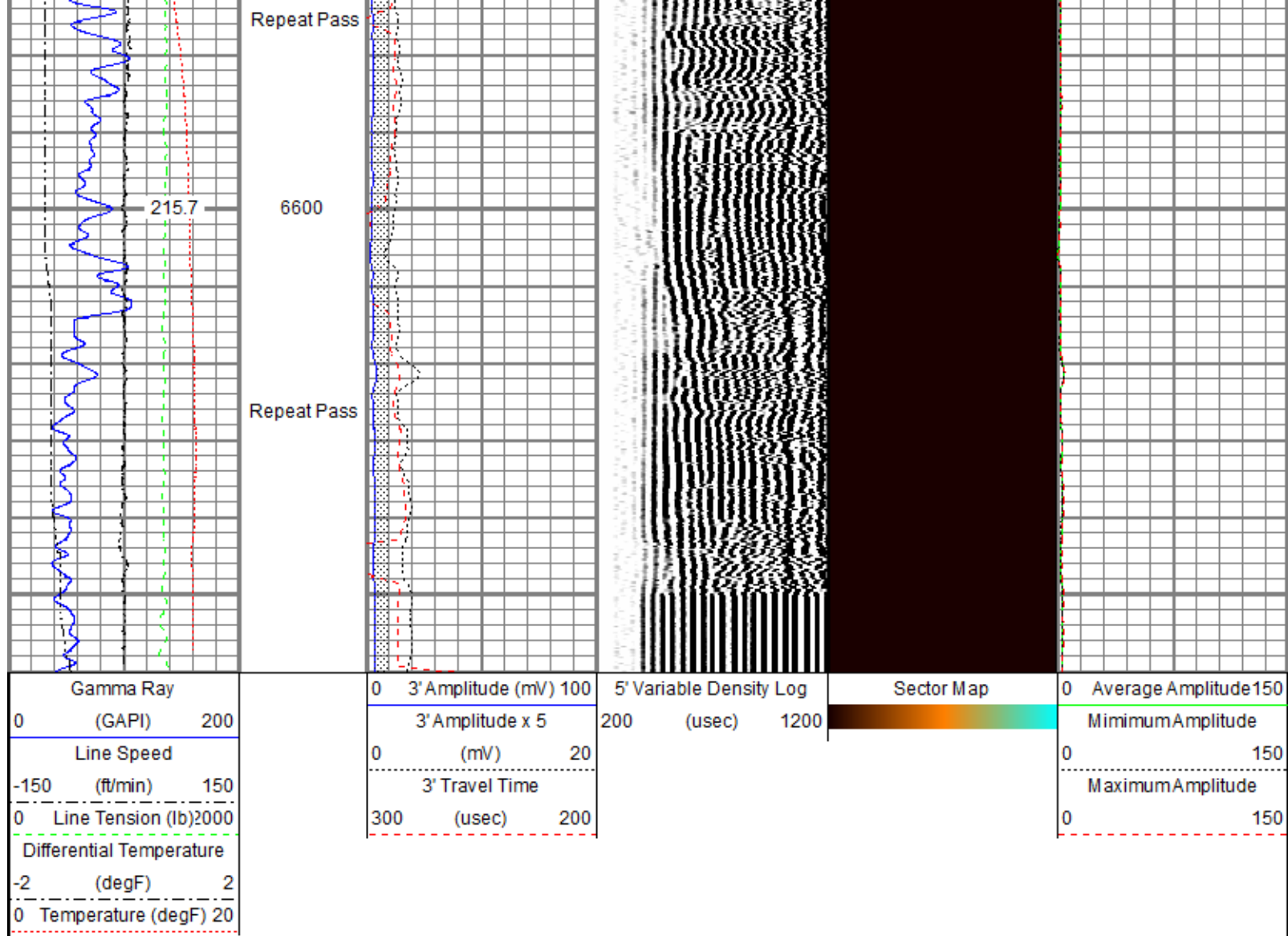
Recorded With 0 PSI Surface Induced Pressure

Database File tep_puckett gm 513-8_rbl_11-19-19\tep_puckett gm 513-8_rbl_11-19-19.db
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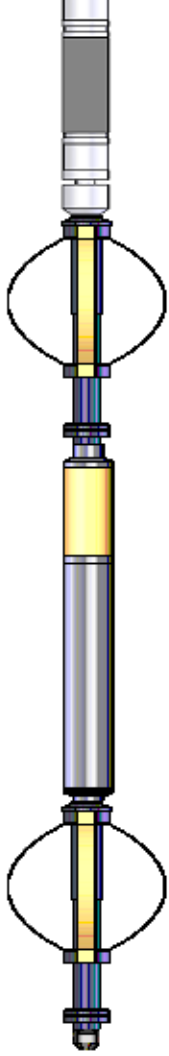
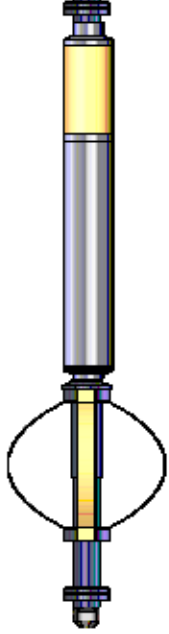


Line Speed			0 (mV) 20			0 150		
-150 (ft/min) 150			3' Travel Time			MaximumAmplitude		
0 Line Tension (lb)2000			300 (usec) 200			0 150		
Differential Temperature								
-2 (degF) 2								
0 Temperature (degF) 20								





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO	1.03	1.44	3.60
			Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck			
			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		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
WVFS3	14.77					
WVFS2	14.77					
WVFS1	14.77					
WVFCAL	14.77					
WVF3FT	14.77					
WVF5FT	13.77					
CCL\$2	6.76		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
CCL\$1	6.76					
GR	5.51					
			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 513-8_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 513-8_rbl_11-19-19\tep_puckett gm 513-8_rbl_11-19-19.db		
Dataset Pathname	run2/Main.1		
Dataset Creation	Wed Nov 20 16:43:37 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			
Serial Number:	120855		
Tool Model:	2750 RBT		
Calibration Casing Diameter:	4.500	in	
Calibration Depth:	170.797	ft	
Master Calibration, performed (Derived):			

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.005	0.909	0.800	81.196	88.947	0.375
CAL	0.003	0.760				
5'	0.014	0.770	0.800	81.196	106.381	-0.666
SUM						
S1	0.007	1.005	0.000	100.000	100.172	-0.661
S2	0.005	0.973	0.000	100.000	103.267	-0.491
S3	0.007	0.909	0.000	100.000	110.834	-0.770
S4	0.006	0.858	0.000	100.000	117.350	-0.713
S5	0.006	0.818	0.000	100.000	123.181	-0.758
S6	0.006	0.859	0.000	100.000	117.226	-0.710
S7	0.006	0.889	0.000	100.000	113.251	-0.629
S8	0.006	0.952	0.000	100.000	105.731	-0.643

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			



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