



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC
Well Chevron TR 344-22-597
Field Trail Ridge
County Garfield State Colorado

Location: API #: 05-045-23698
SEC 22 TWP 5S RGE 97W
Permanent Datum Ground Level Elevation 8134.8'
Log Measured From Kelly Bushing 24 FT
Drilling Measured From Kelly Bushing
Other Services
Elevation
K.B. 8458.8'
D.F. 8157.8'
G.L. 8134.8'

Company TEP Rocky Mountain LLC
Well Chevron TR 344-22-597
Field Trail Ridge
County Garfield
State Colorado

Date	03-APR-2019			
Run Number	One			
Depth Driller	9430 FT			
Depth Logger	9370 FT			
Bottom Logged Interval	9356 FT			
Top Log Interval	Surface			
Open Hole Size	8.750"			
Type Fluid	Water			
Density / Viscosity	8.34 lb/gal			
Max. Recorded Temp.	266°F			
E. estimated Cement Top	See Log			
Time Well Ready	ROA			
Time Logger on Bottom	08:00			
E. equipment Number	HD-0359			
Location	Grand Junction, CO			
Recorded By	J. Donnelly			
Witnessed By	D. Welsh			
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	36	J-55	Surface
Intermediate #1	4 1/2	11.6	P-110	Surface
Intermediate #2				
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

Log ran as per customer request
Depth referenced to Kelly Bushing at 24 FT
Marker Joint recorded at 5367 - 5389 FT
Recorded with 0 PSI Surface Induced Pressure

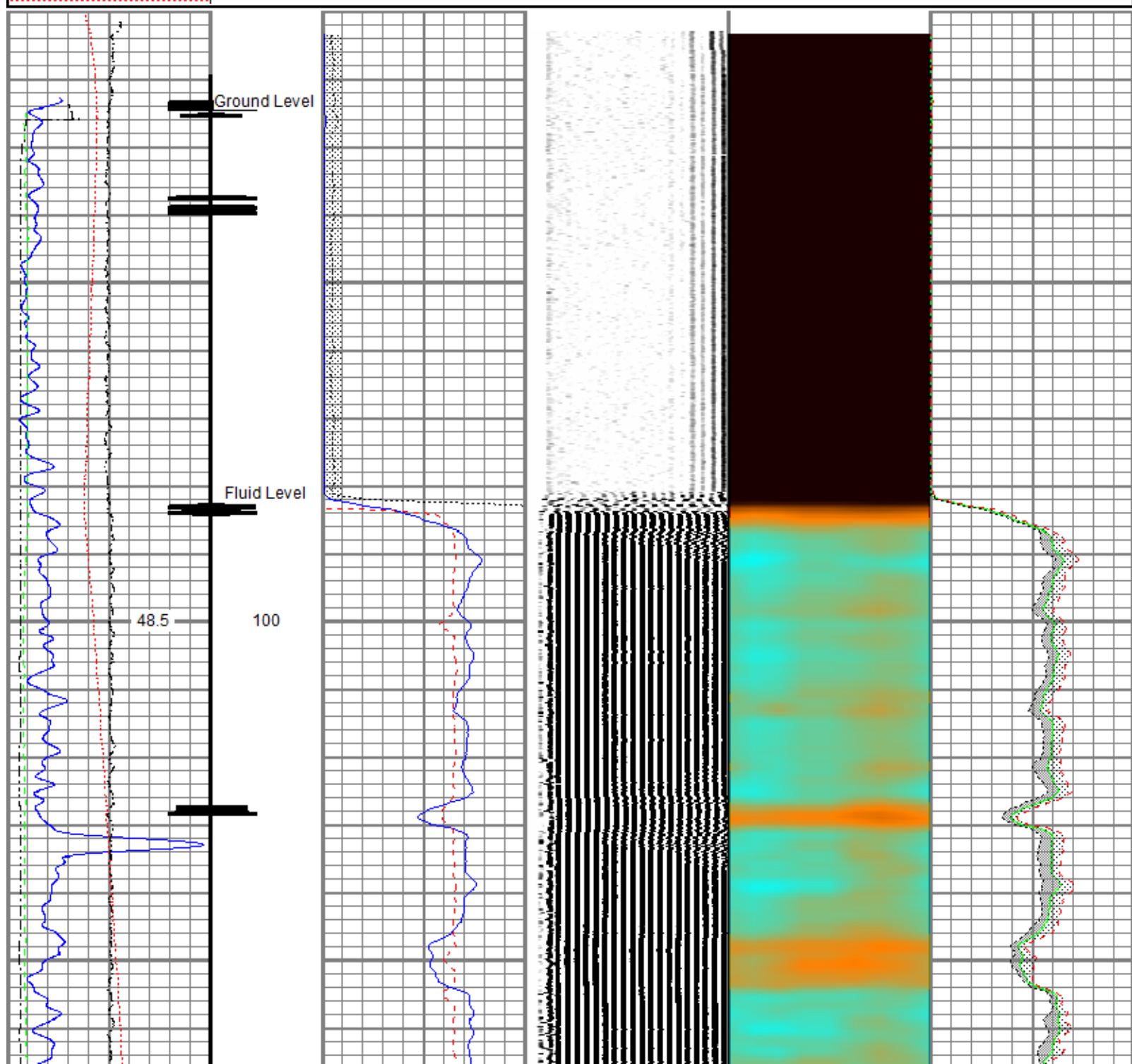
Thank you for choosing Reliance Oilfield Services, LLC!

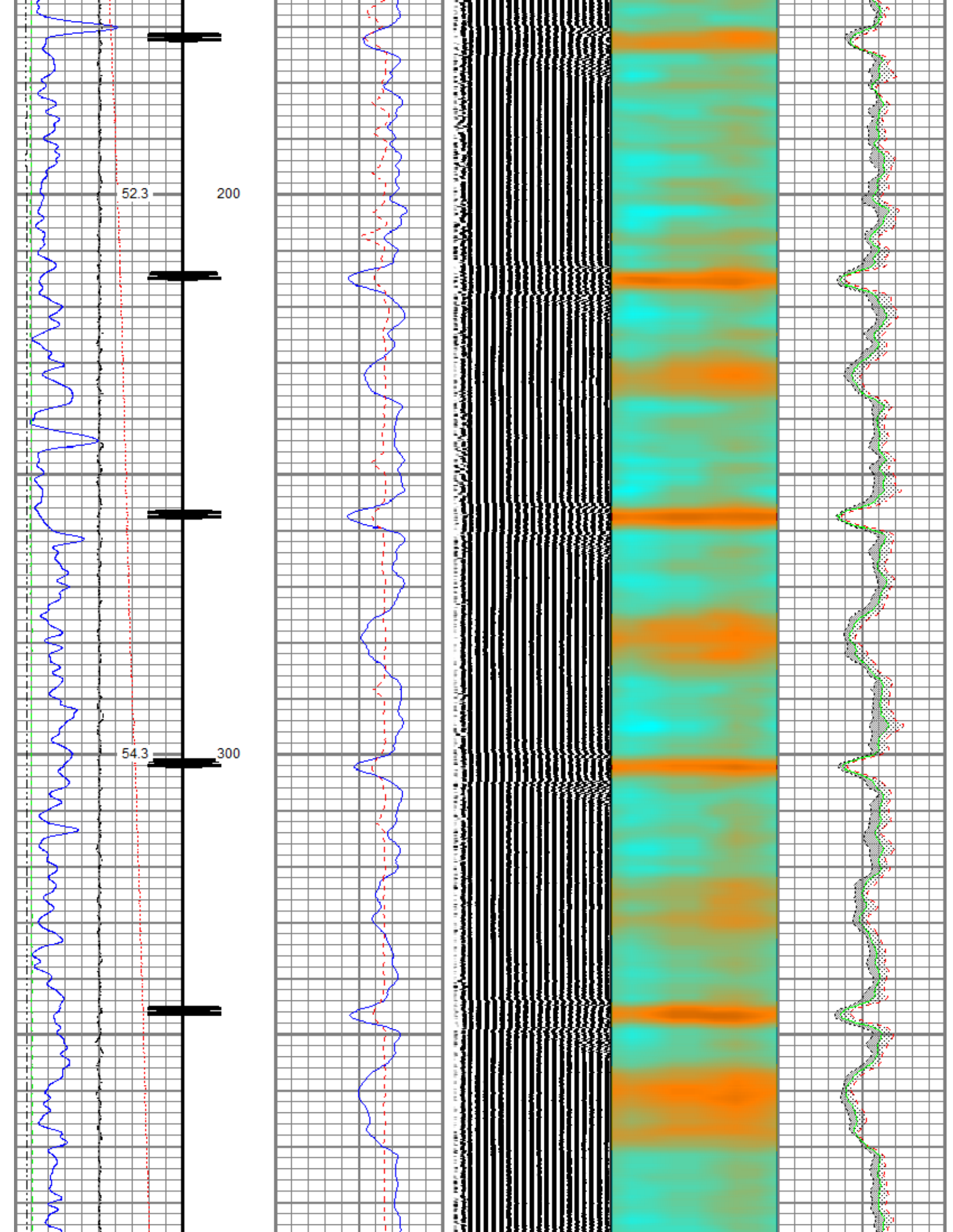
Main Pass

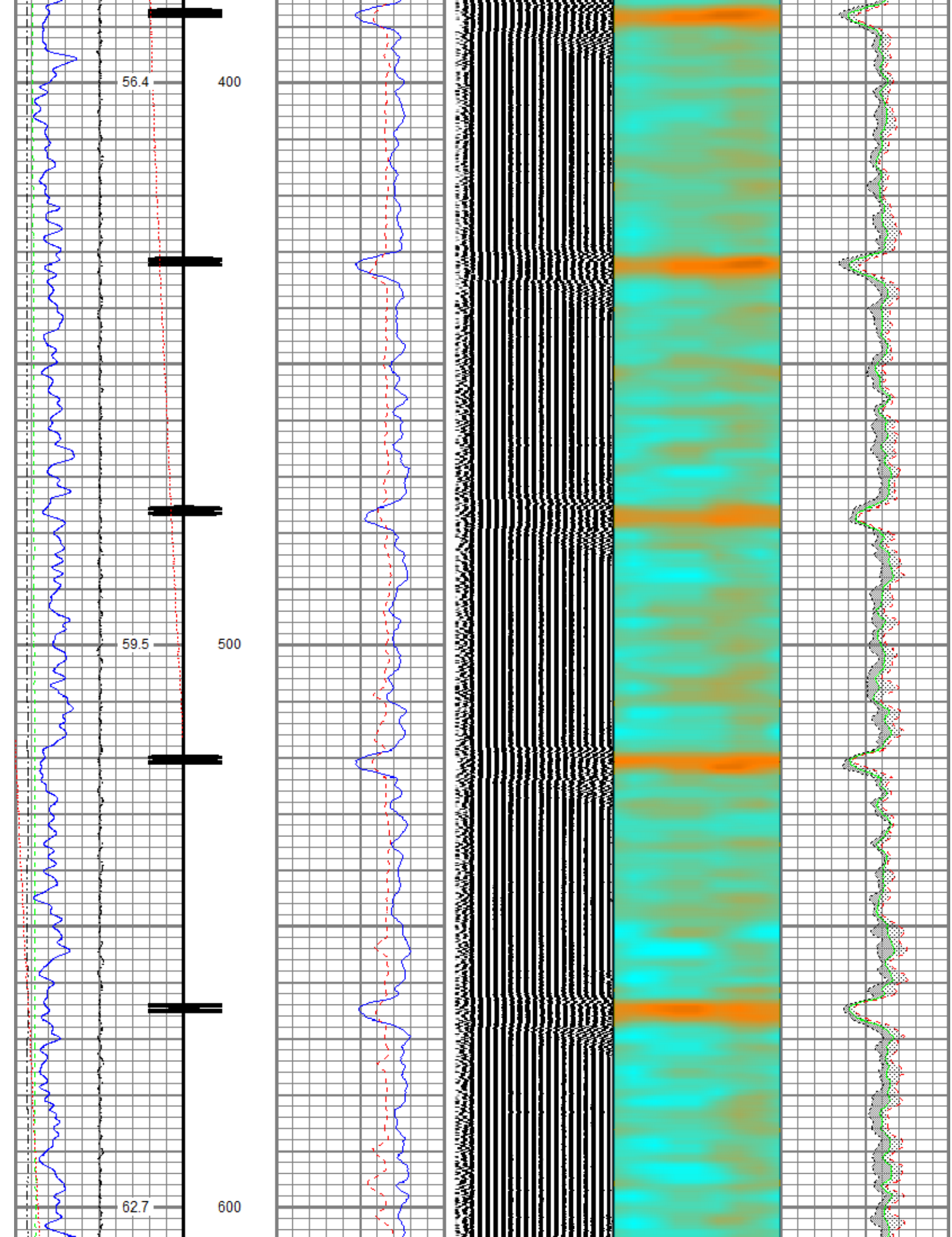


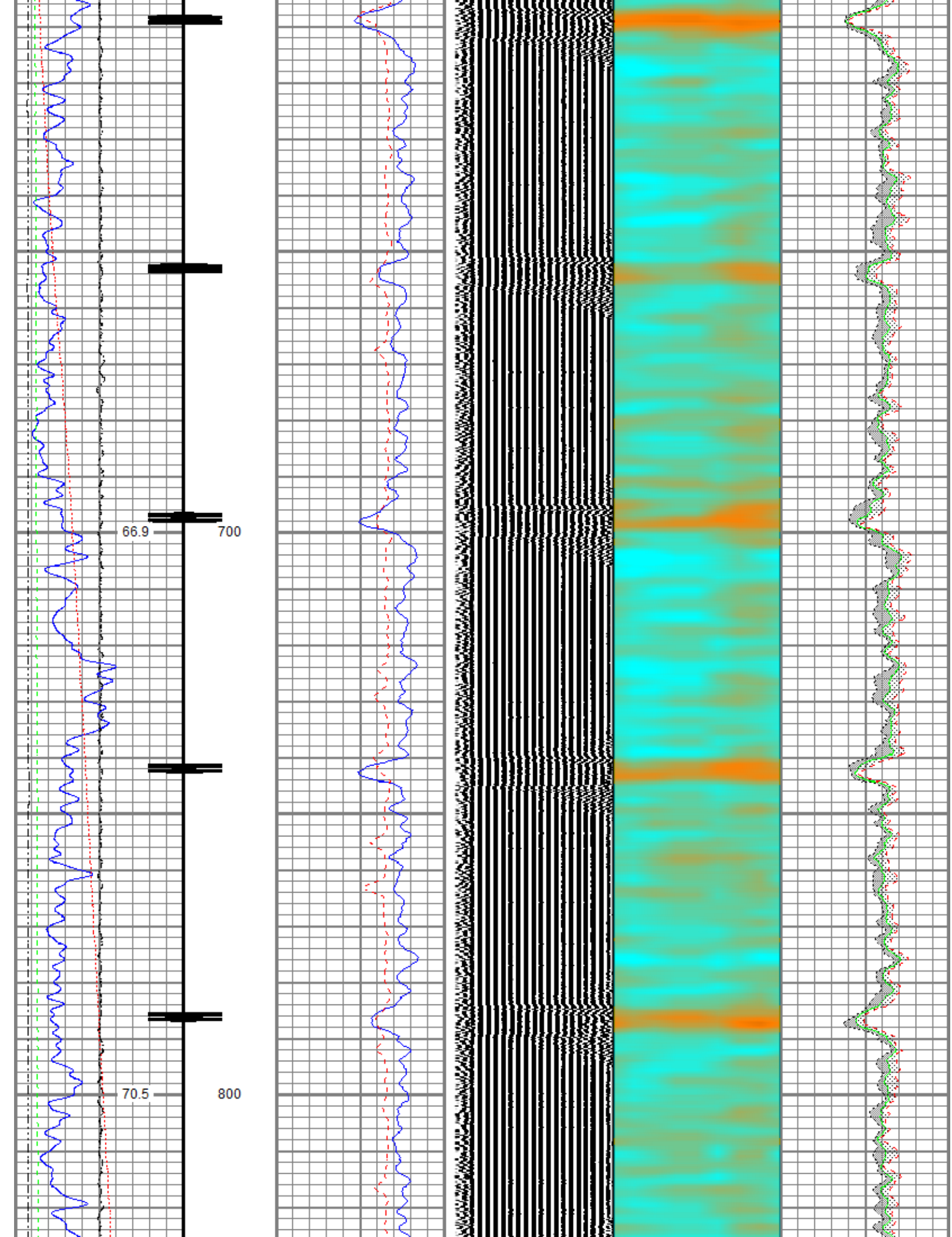
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 Dataset Pathname merge1.2
 Presentation Format ros_rbt004_tep
 Dataset Creation Thu Apr 04 07:23:15 2019
 Charted by Depth in Feet scaled 1:240

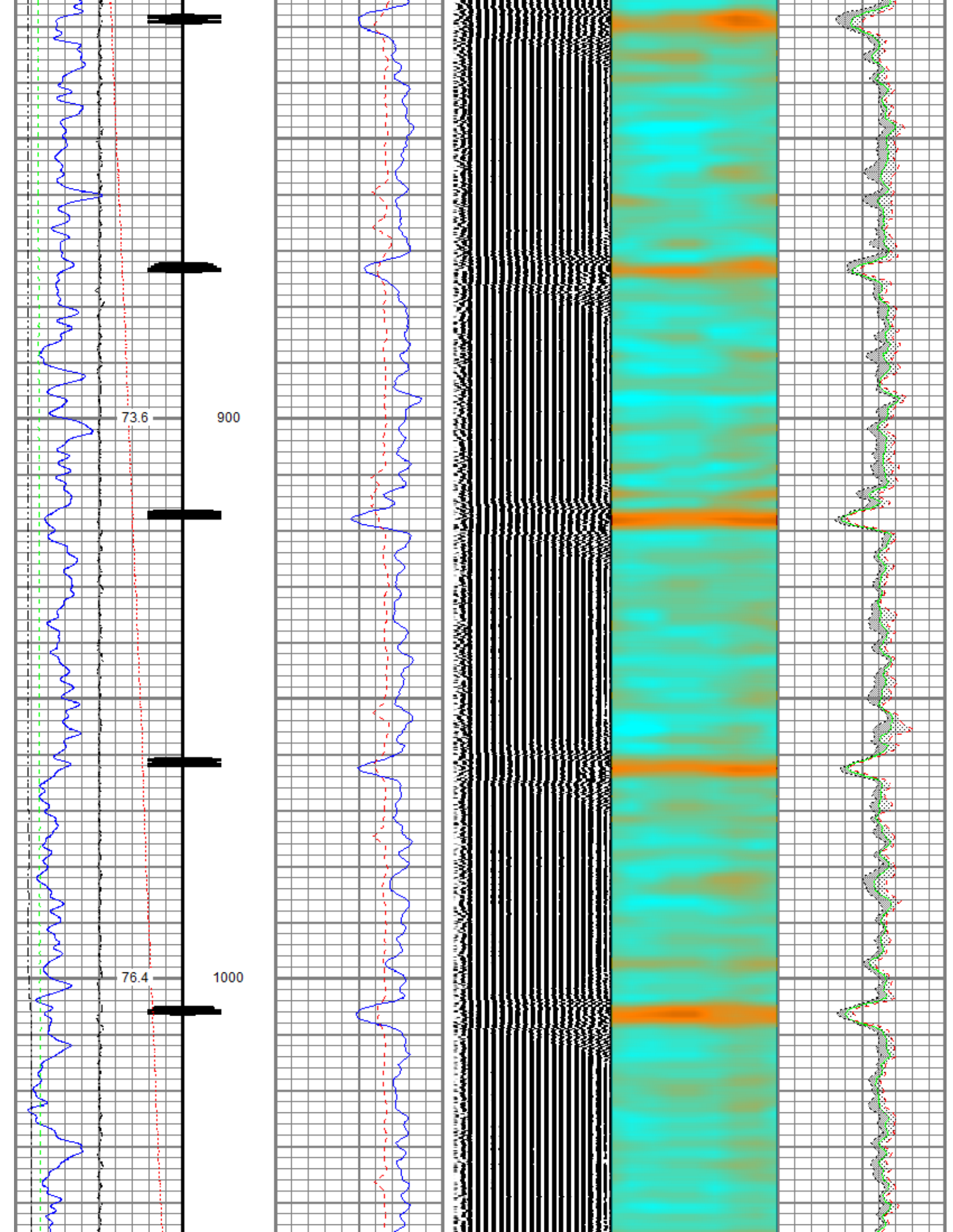
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 150
(GAPI) 200		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	150
Line Speed		3' Travel Time				Maximum Amplitude
-150 (ft/min) 150		300 (usec) 200			0	150
Line Tension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

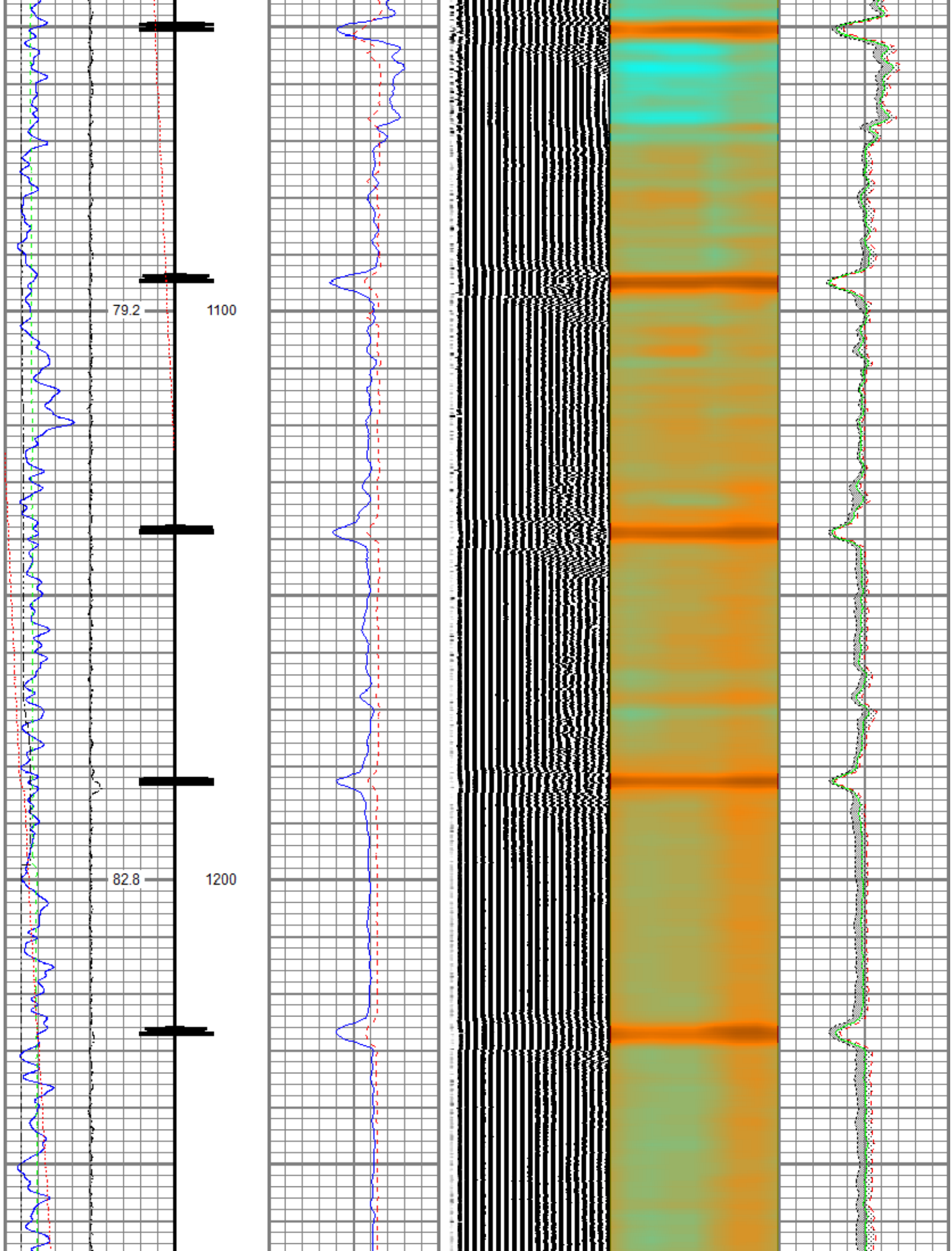


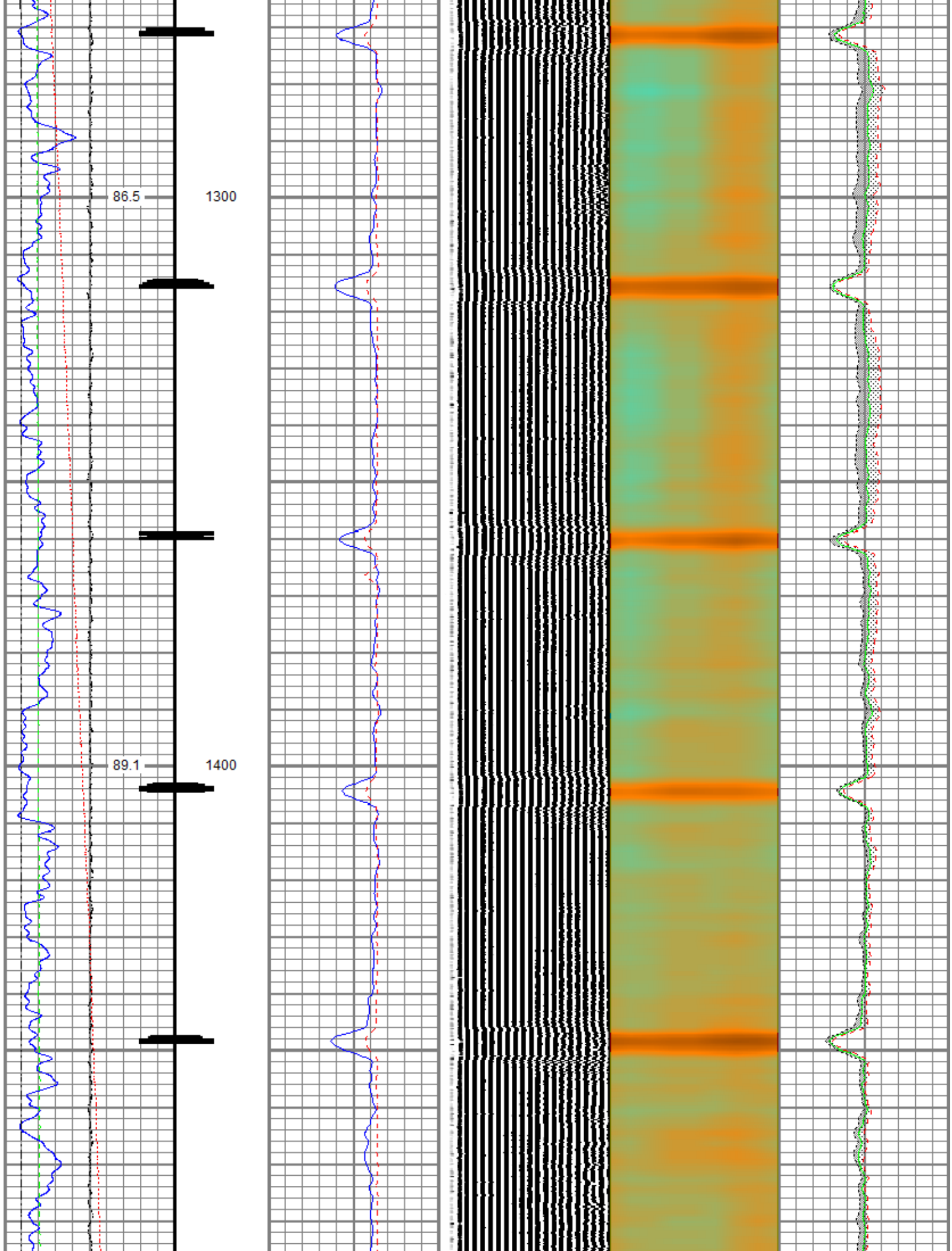


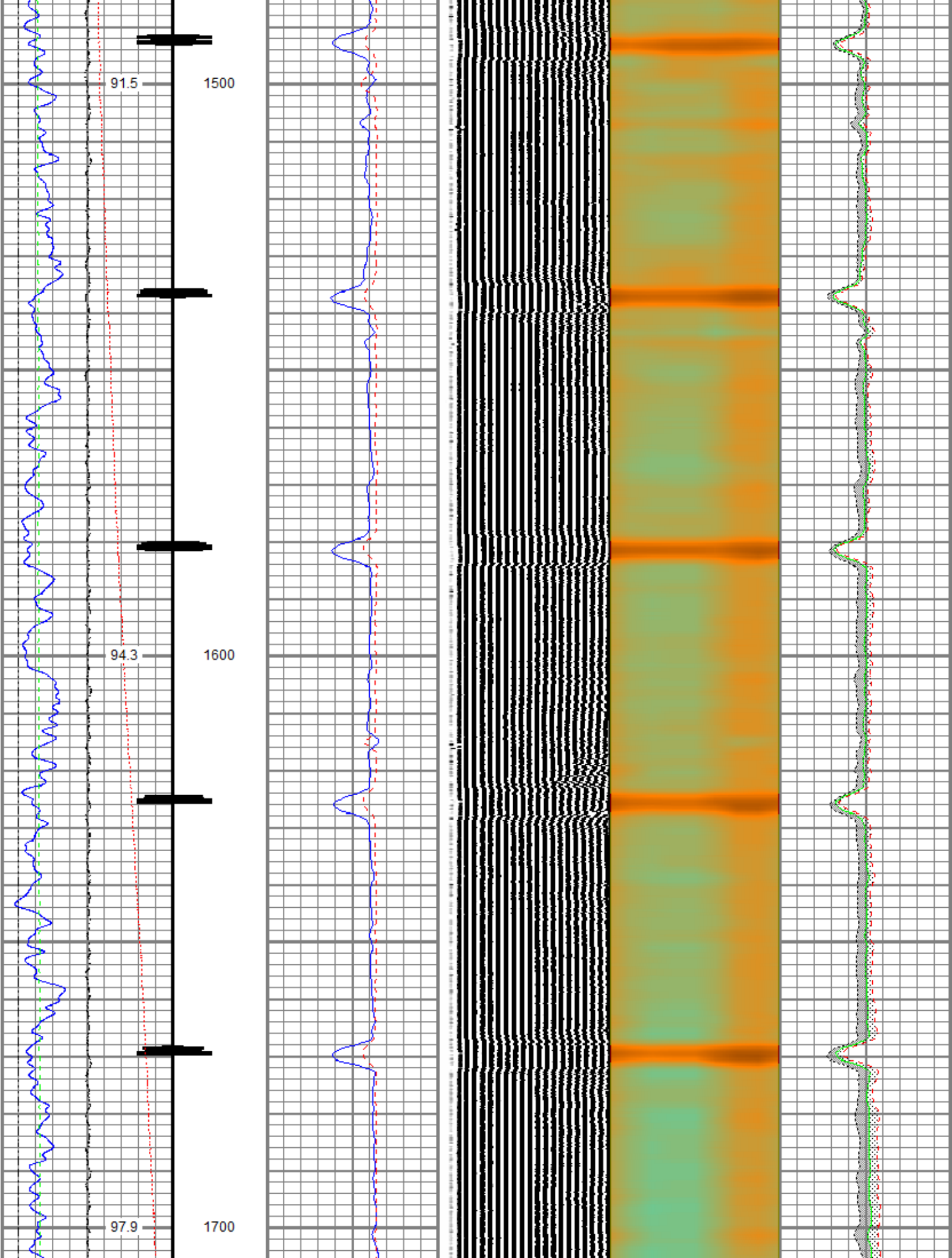


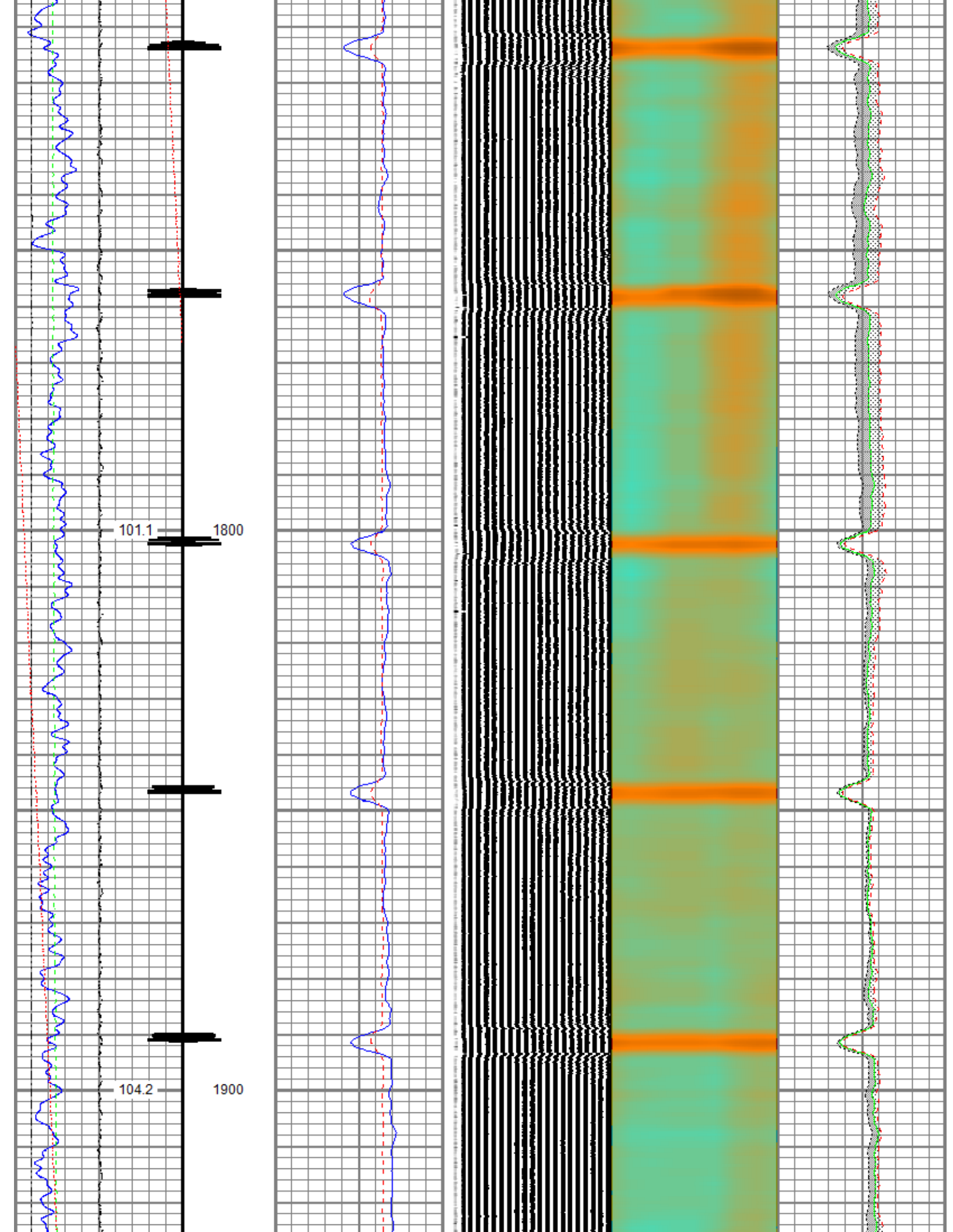


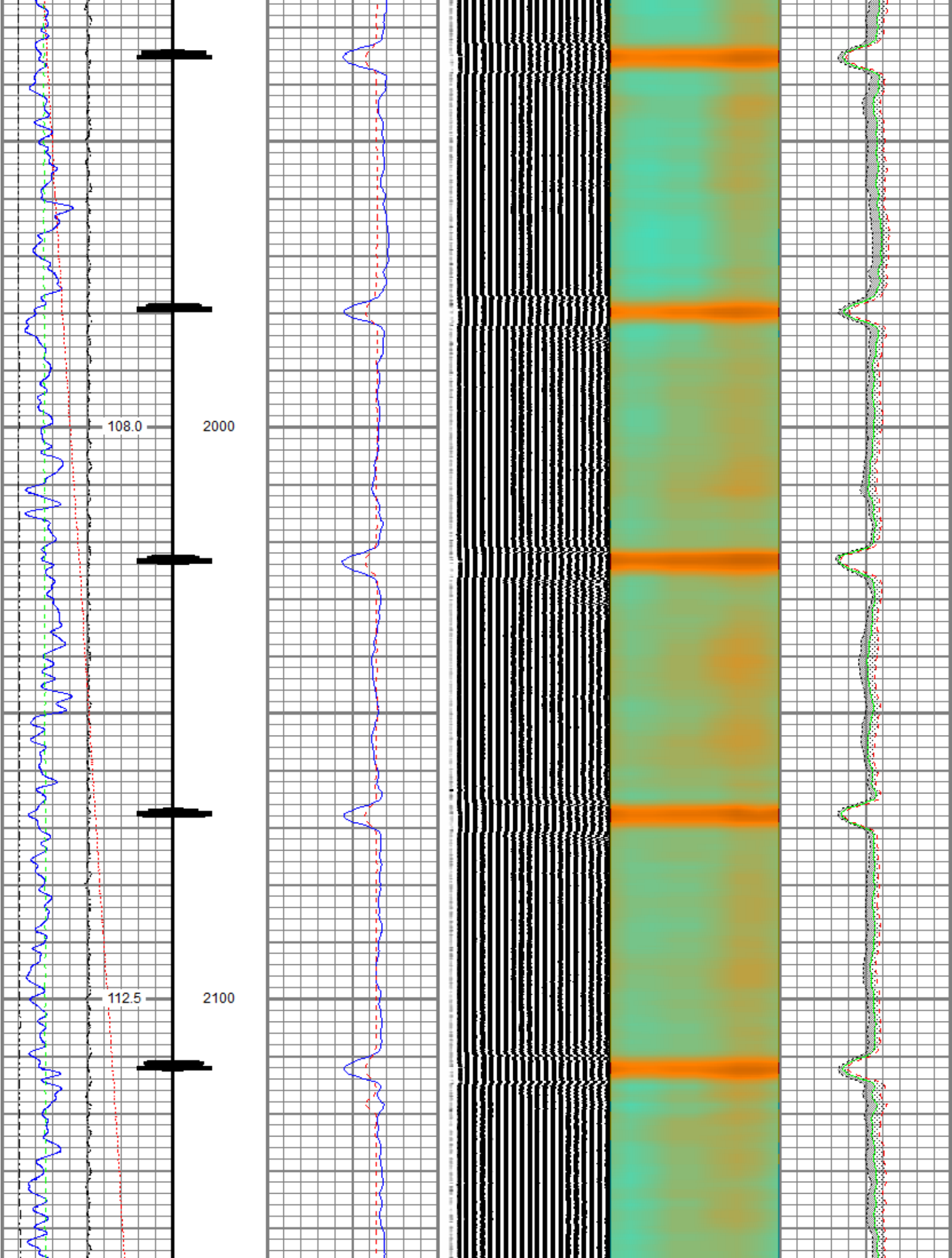


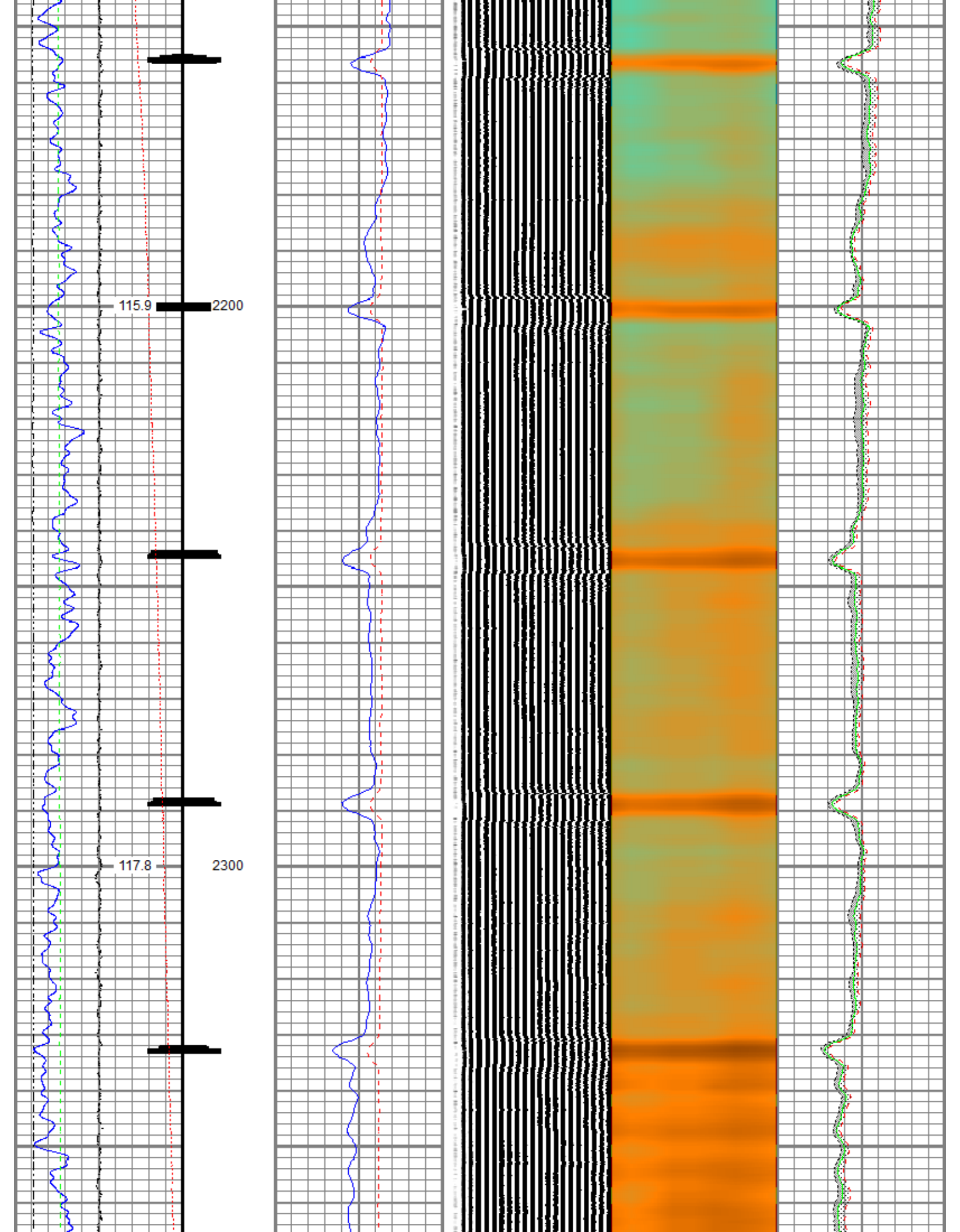


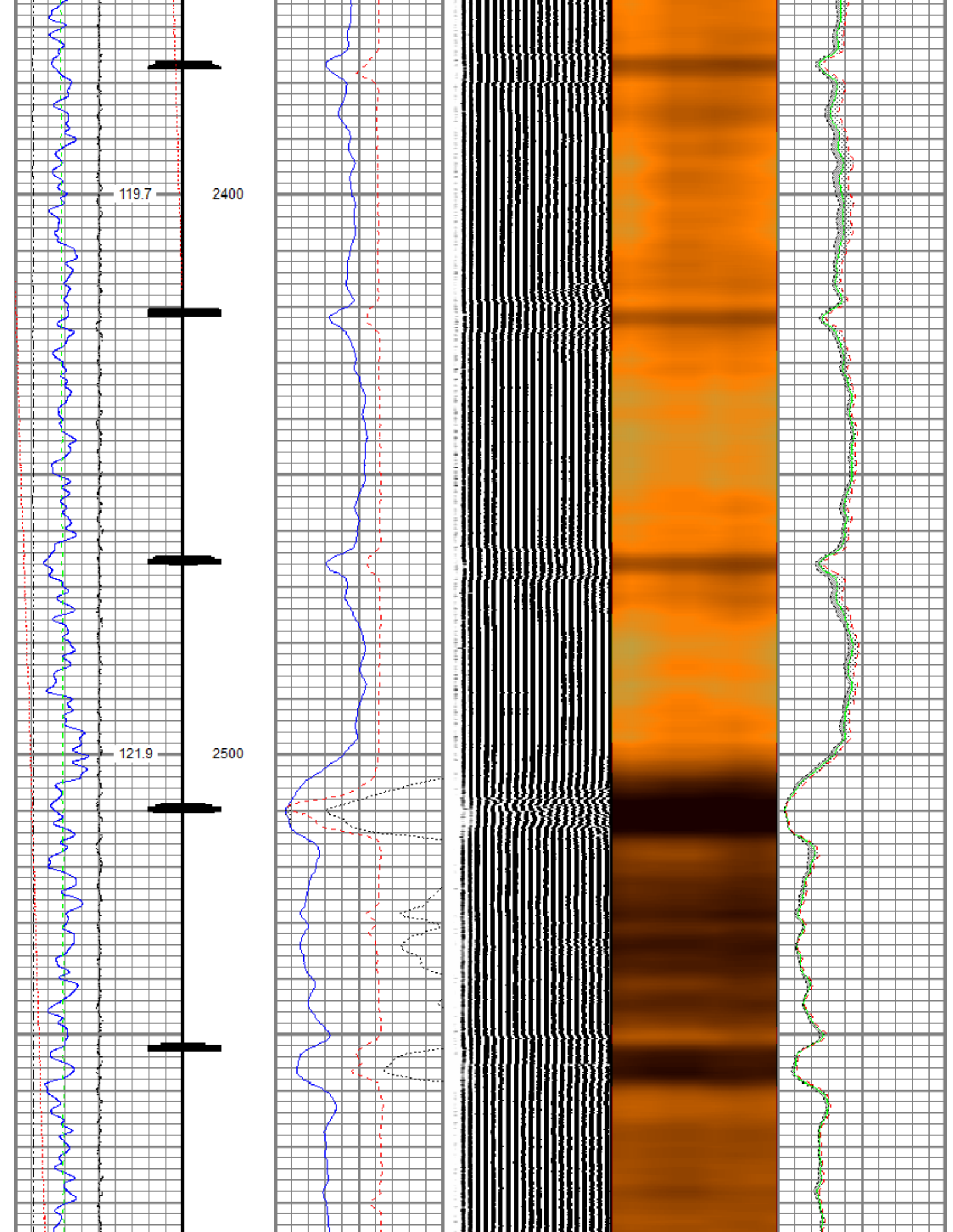


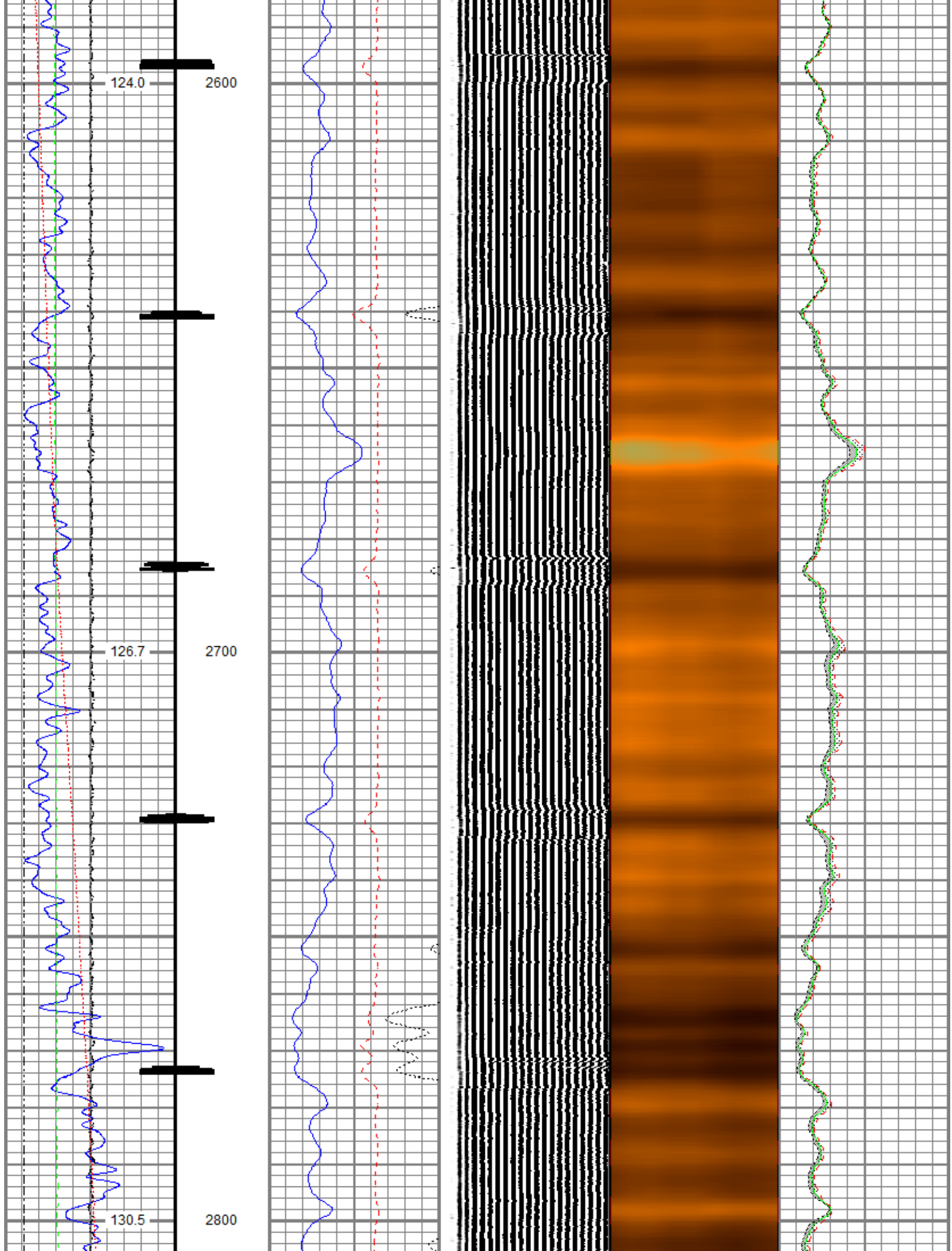


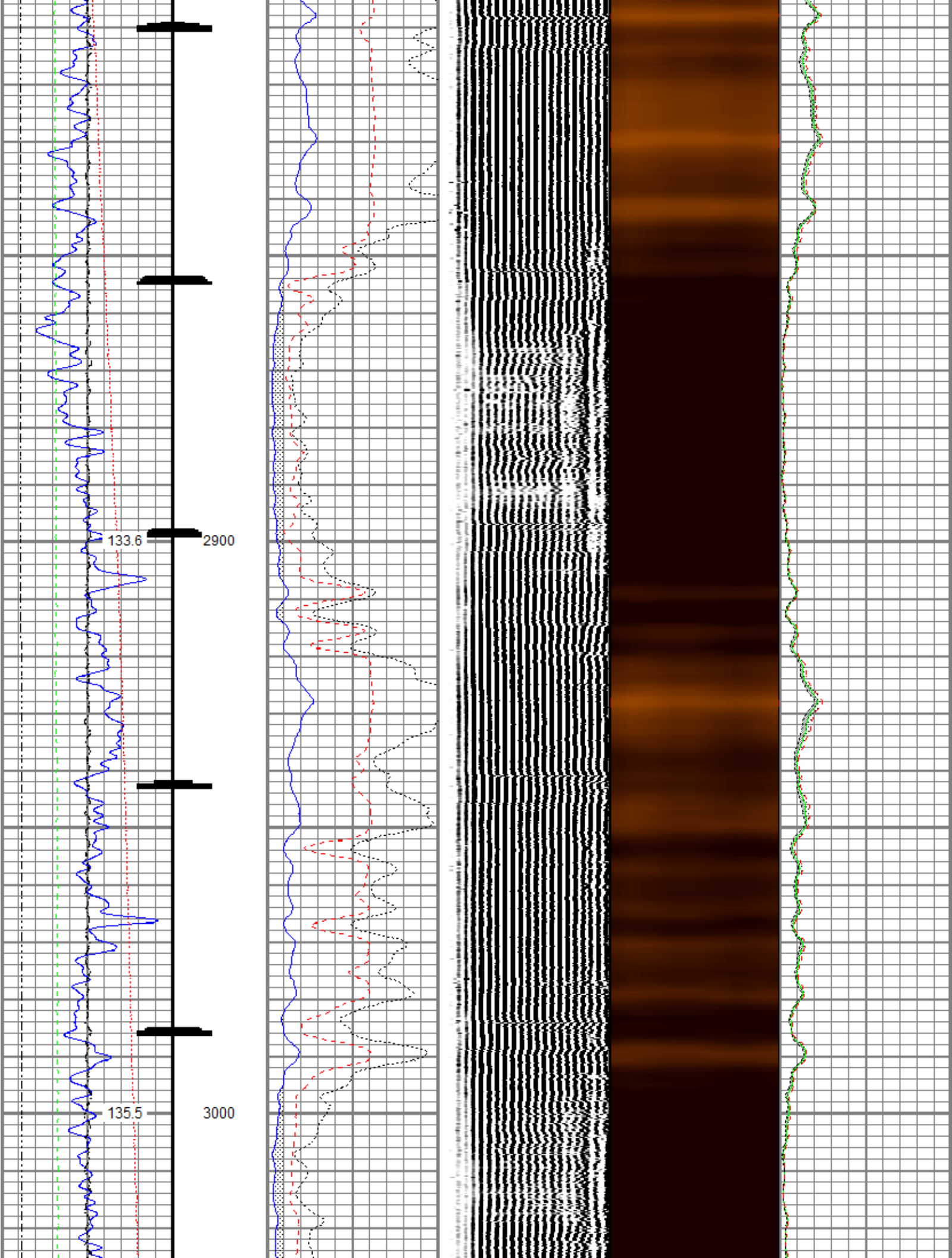


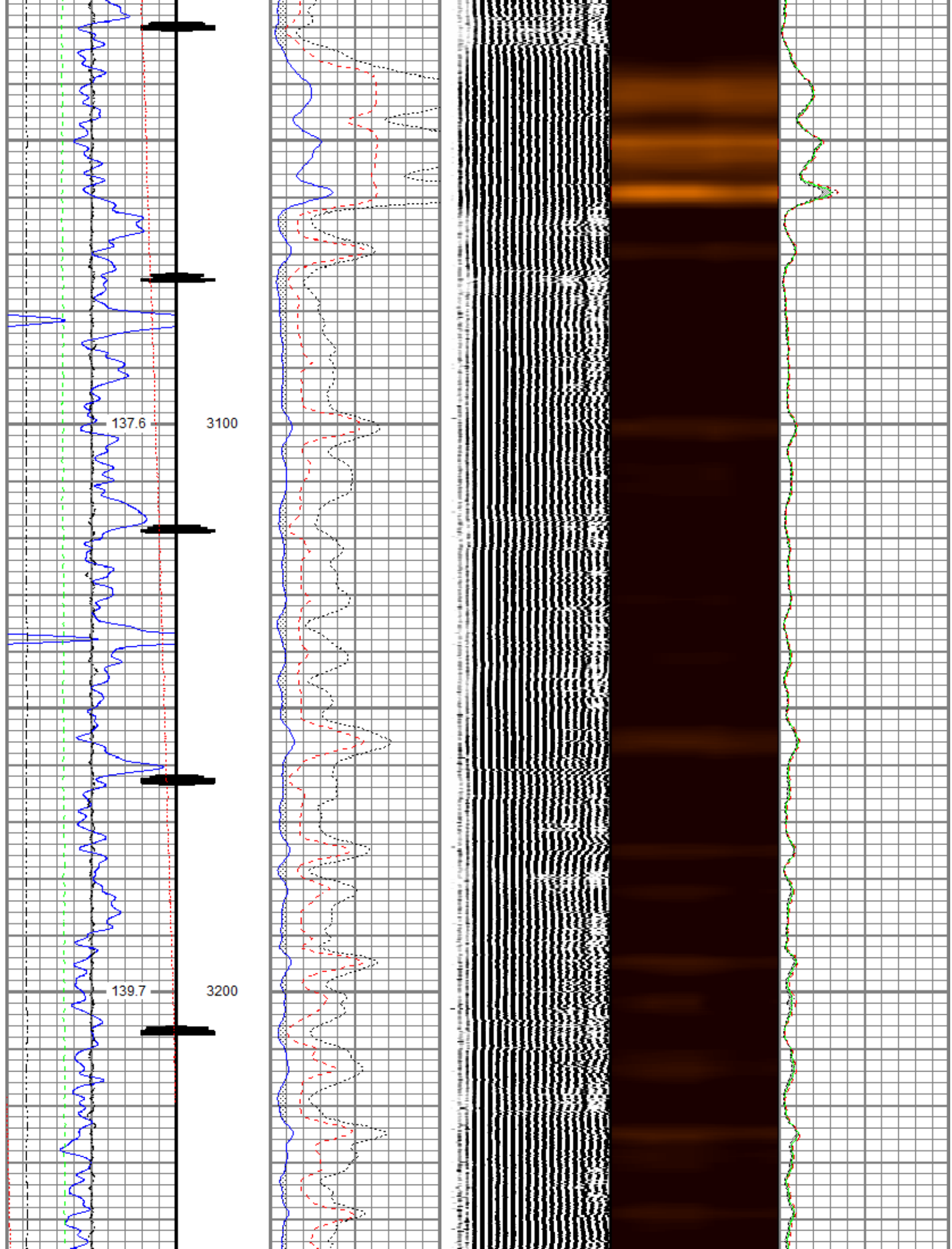


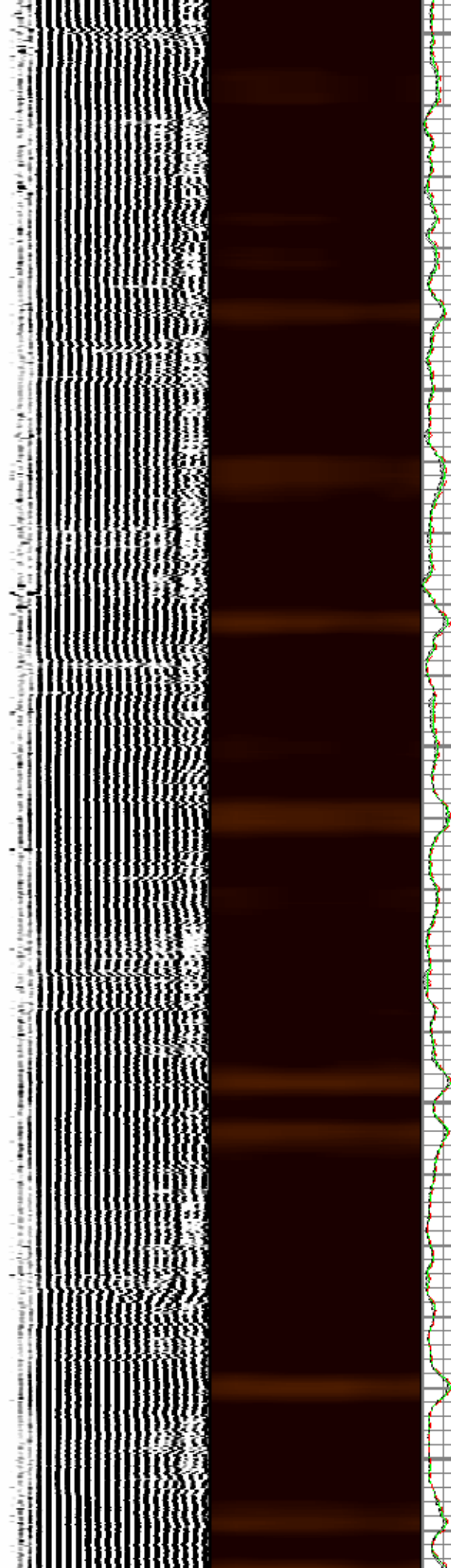
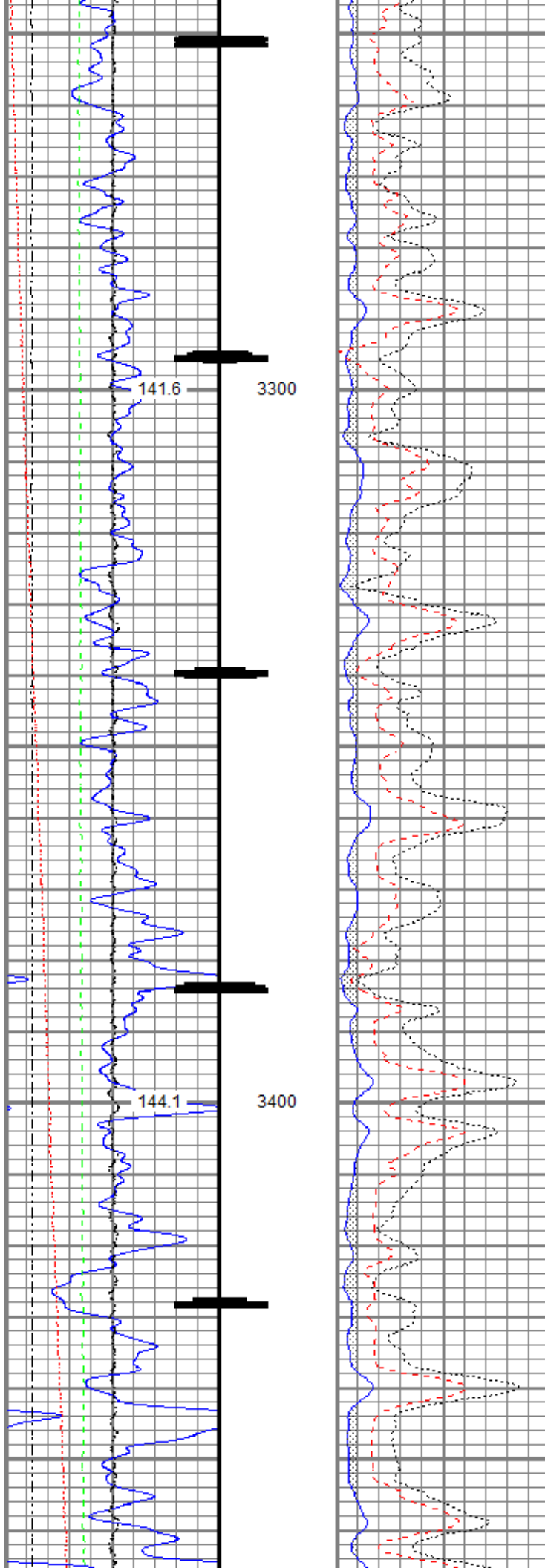


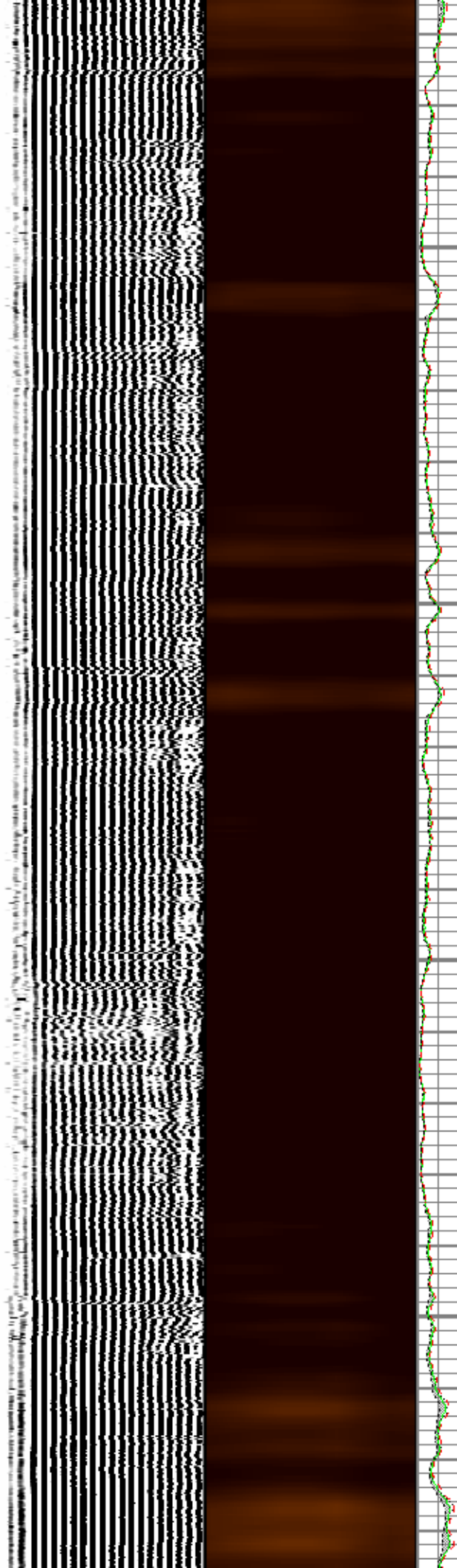
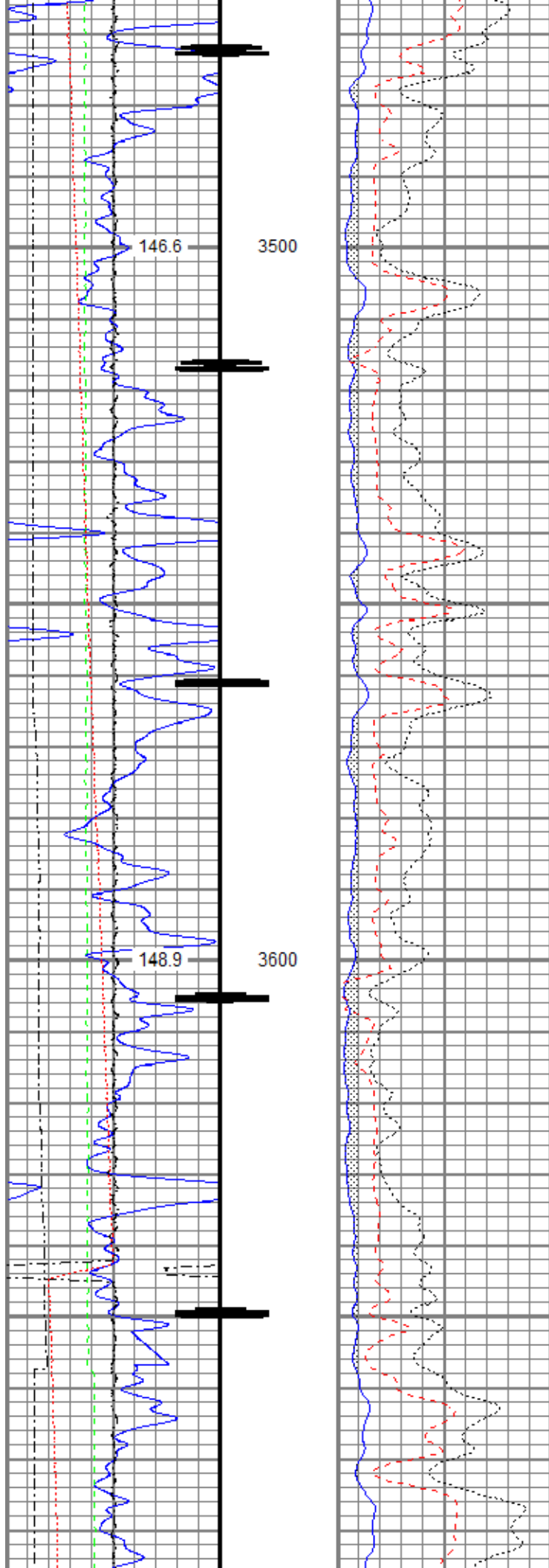


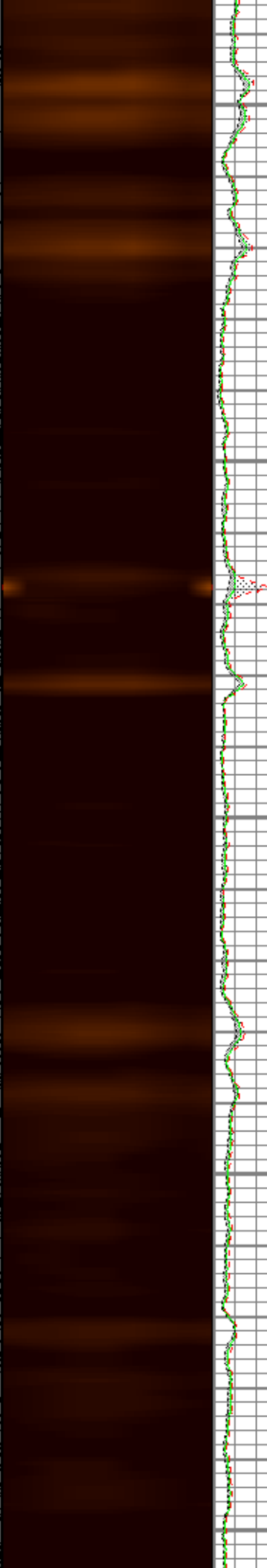
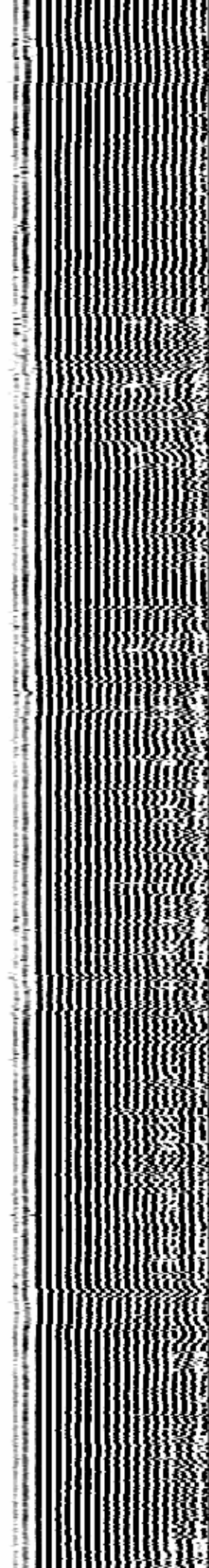
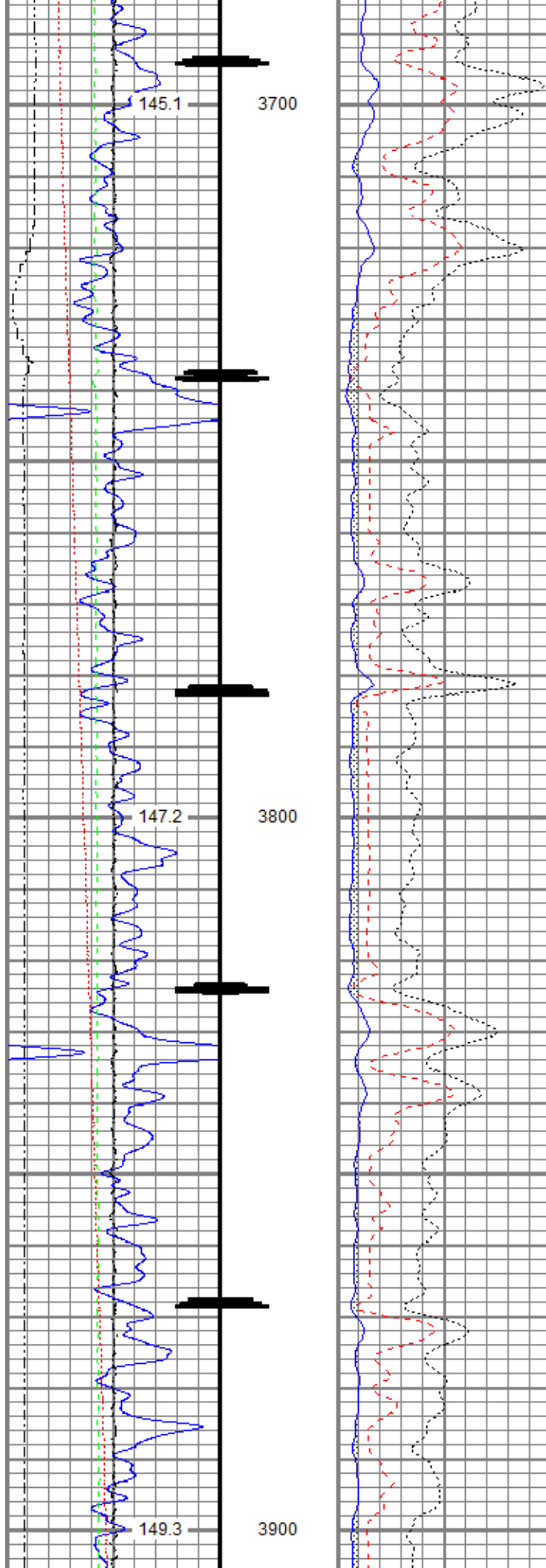


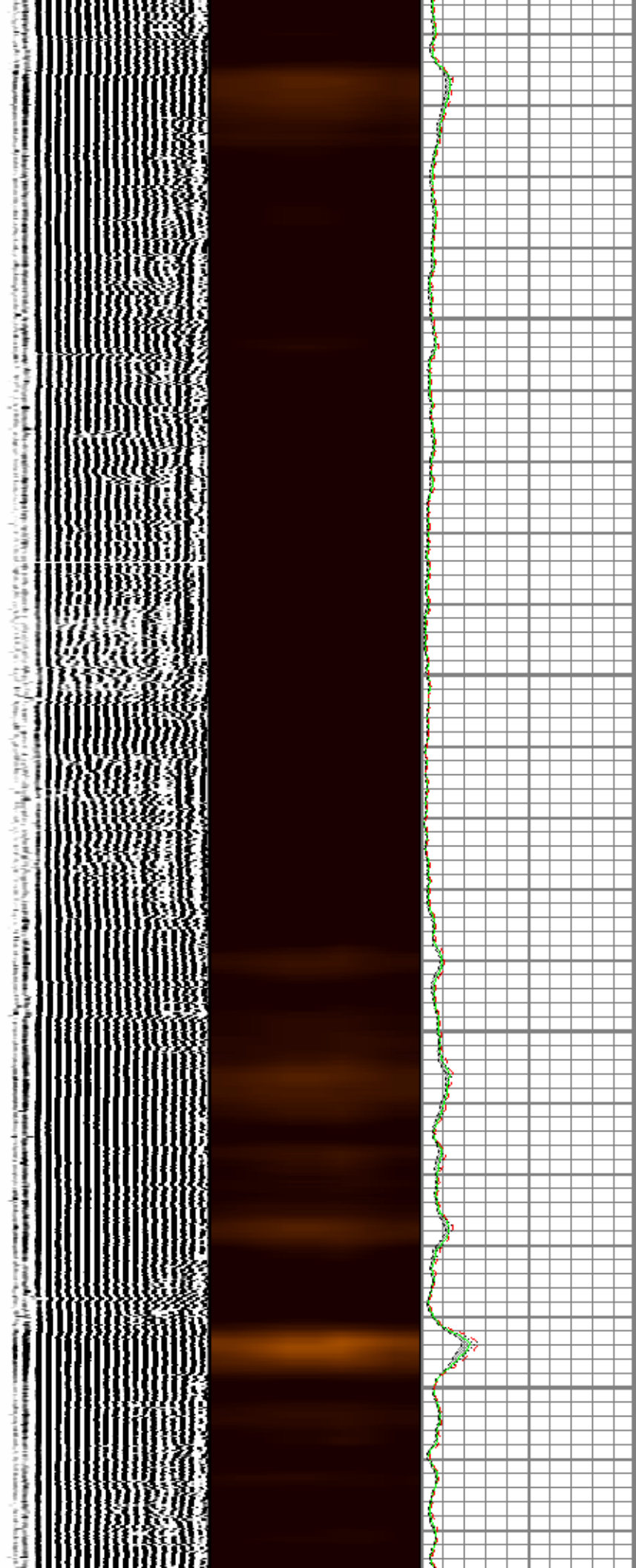
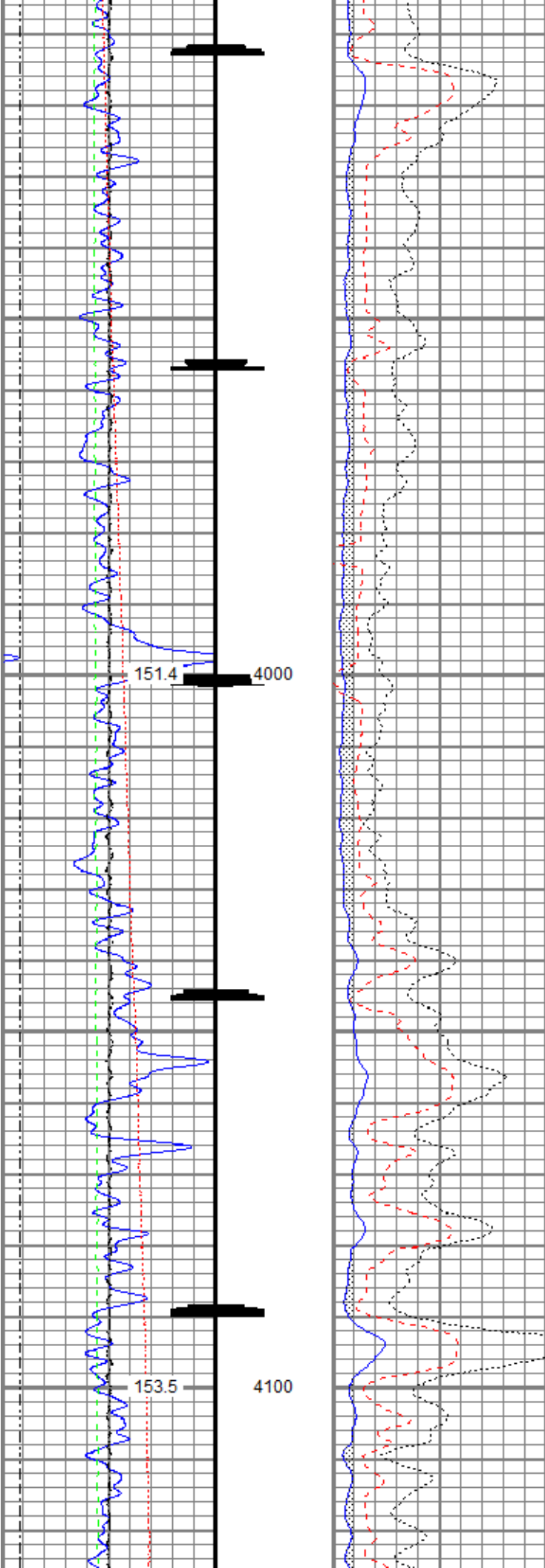


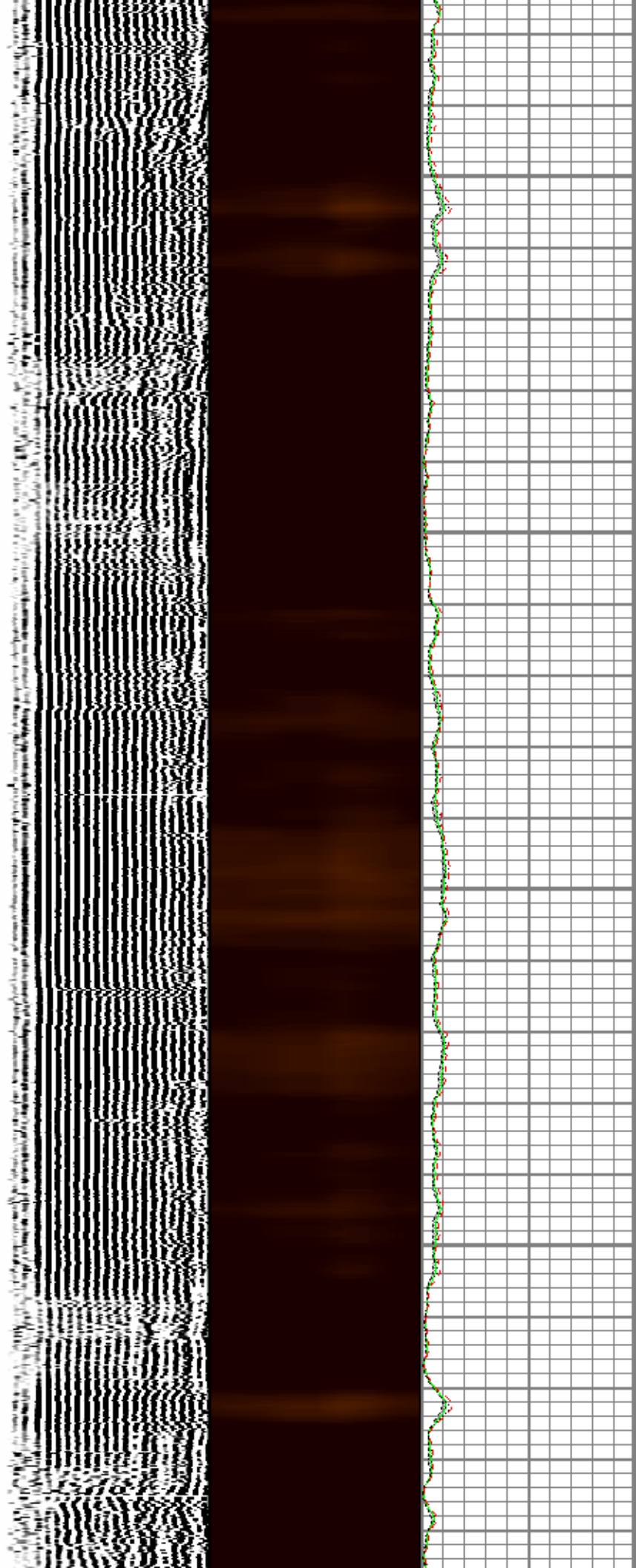
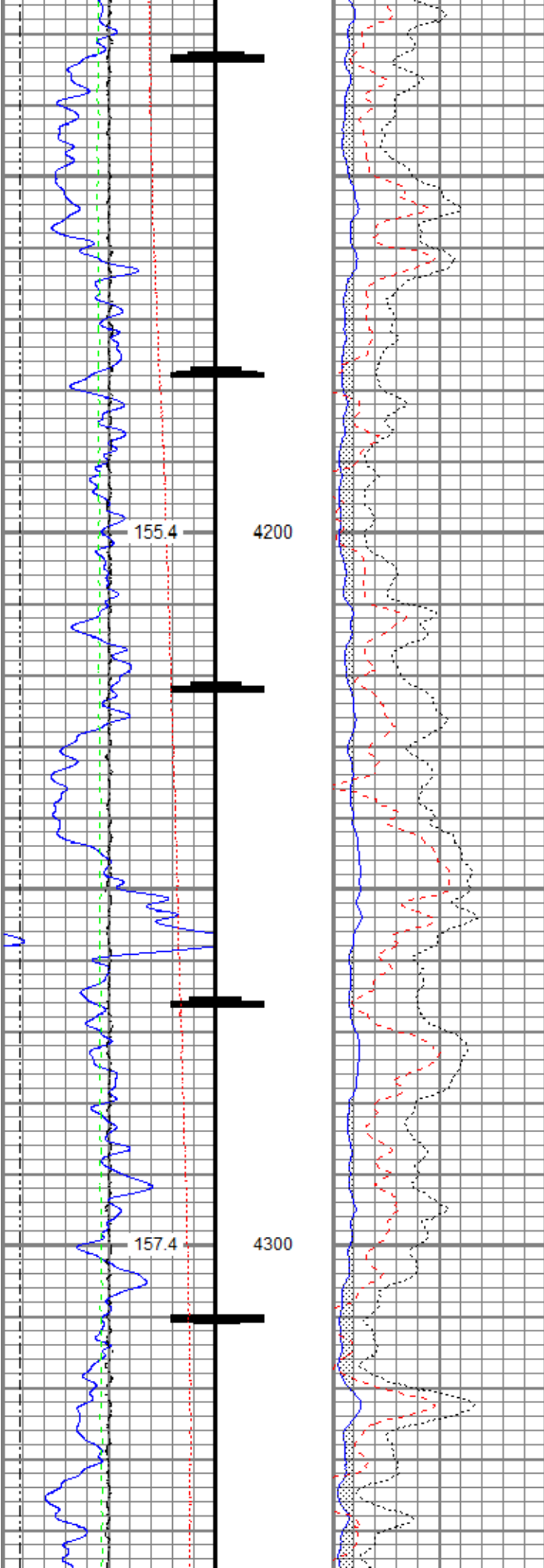


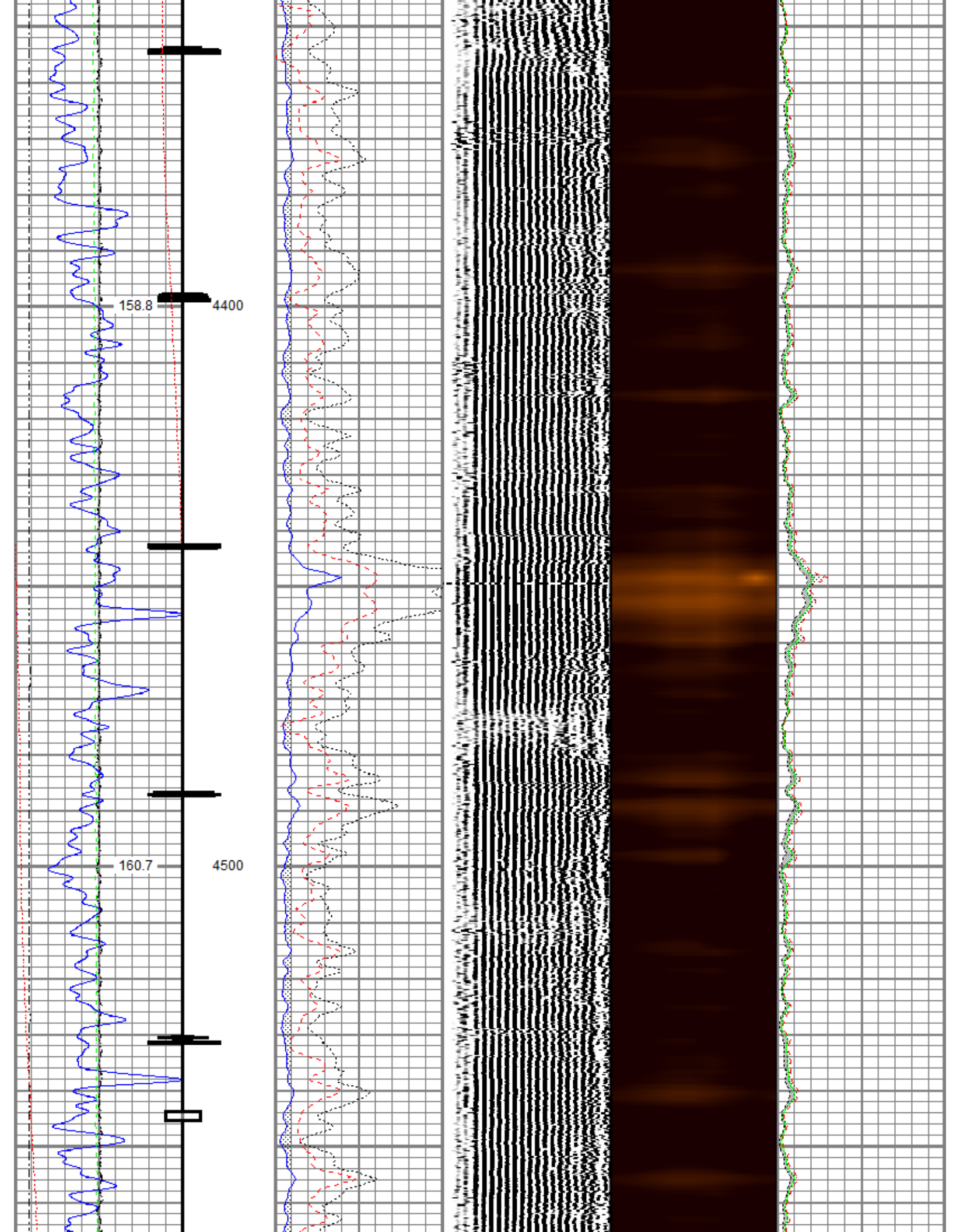


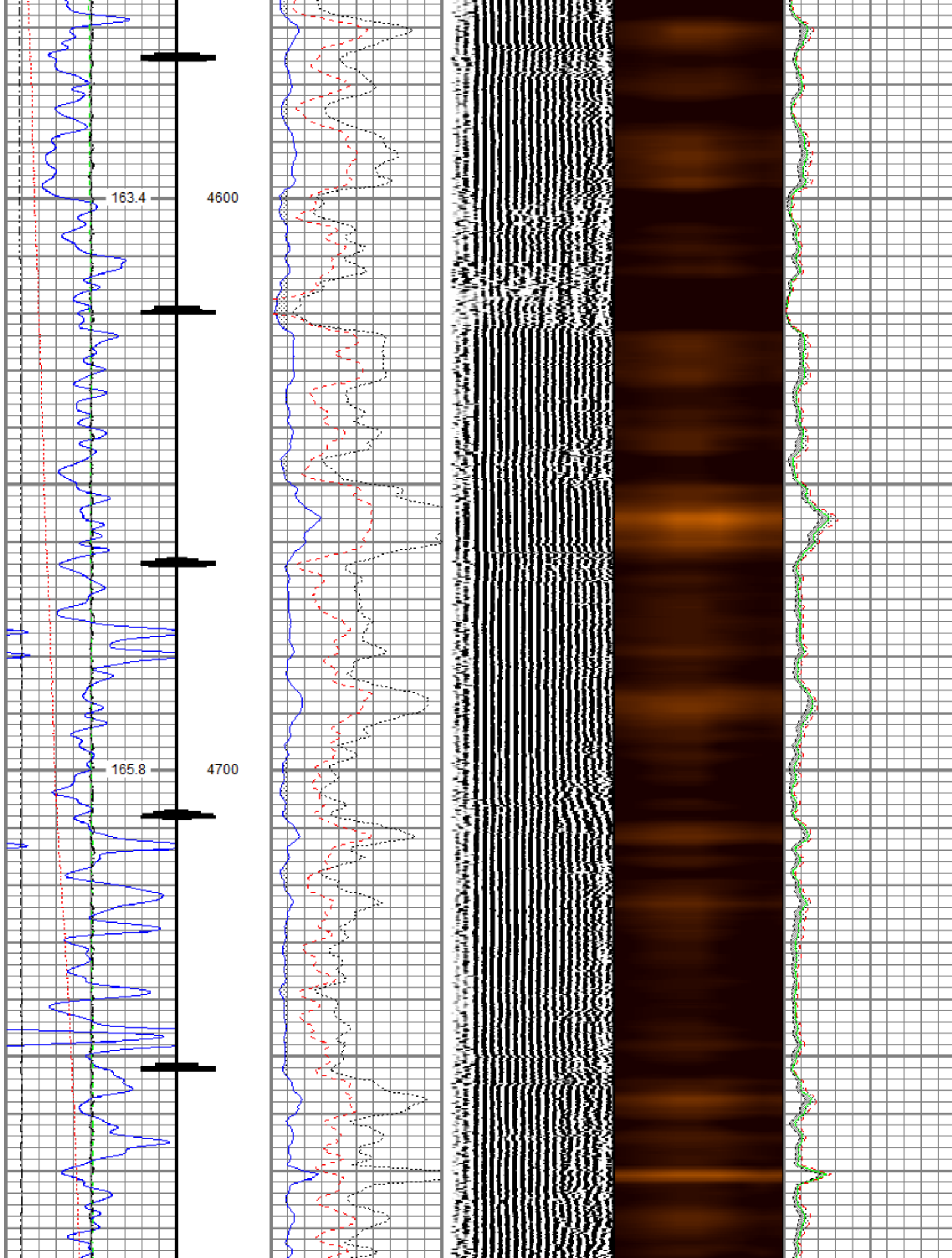


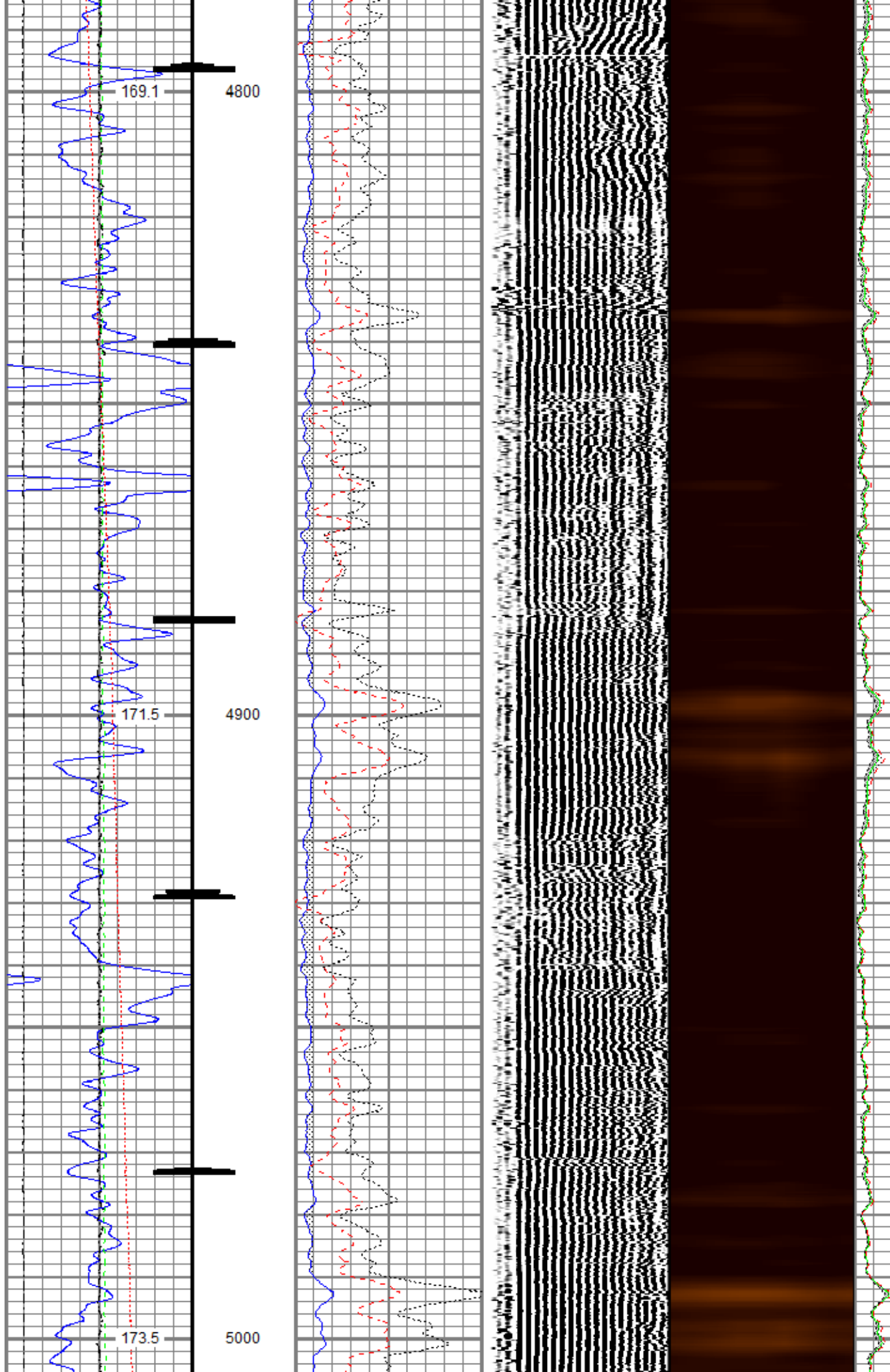


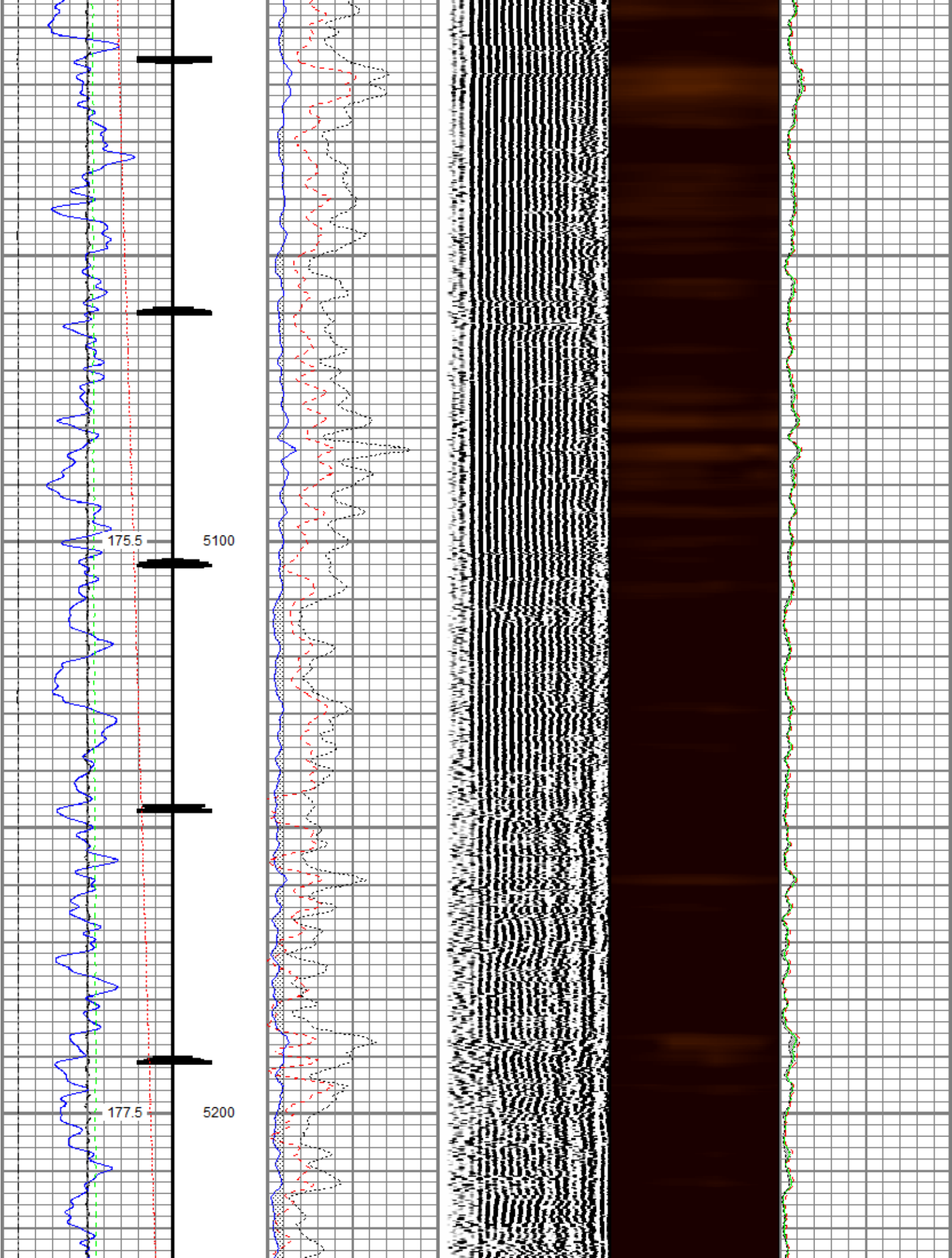


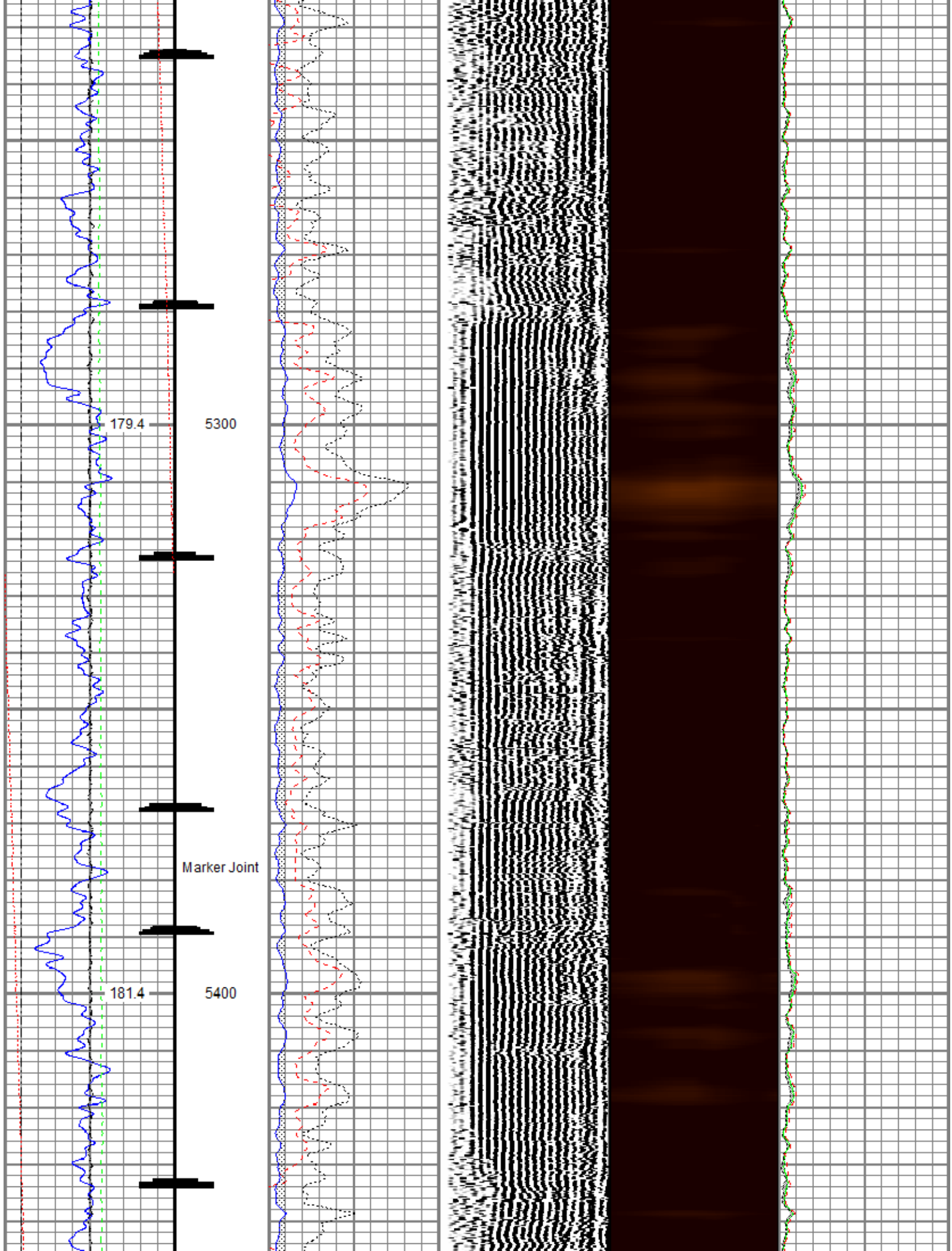


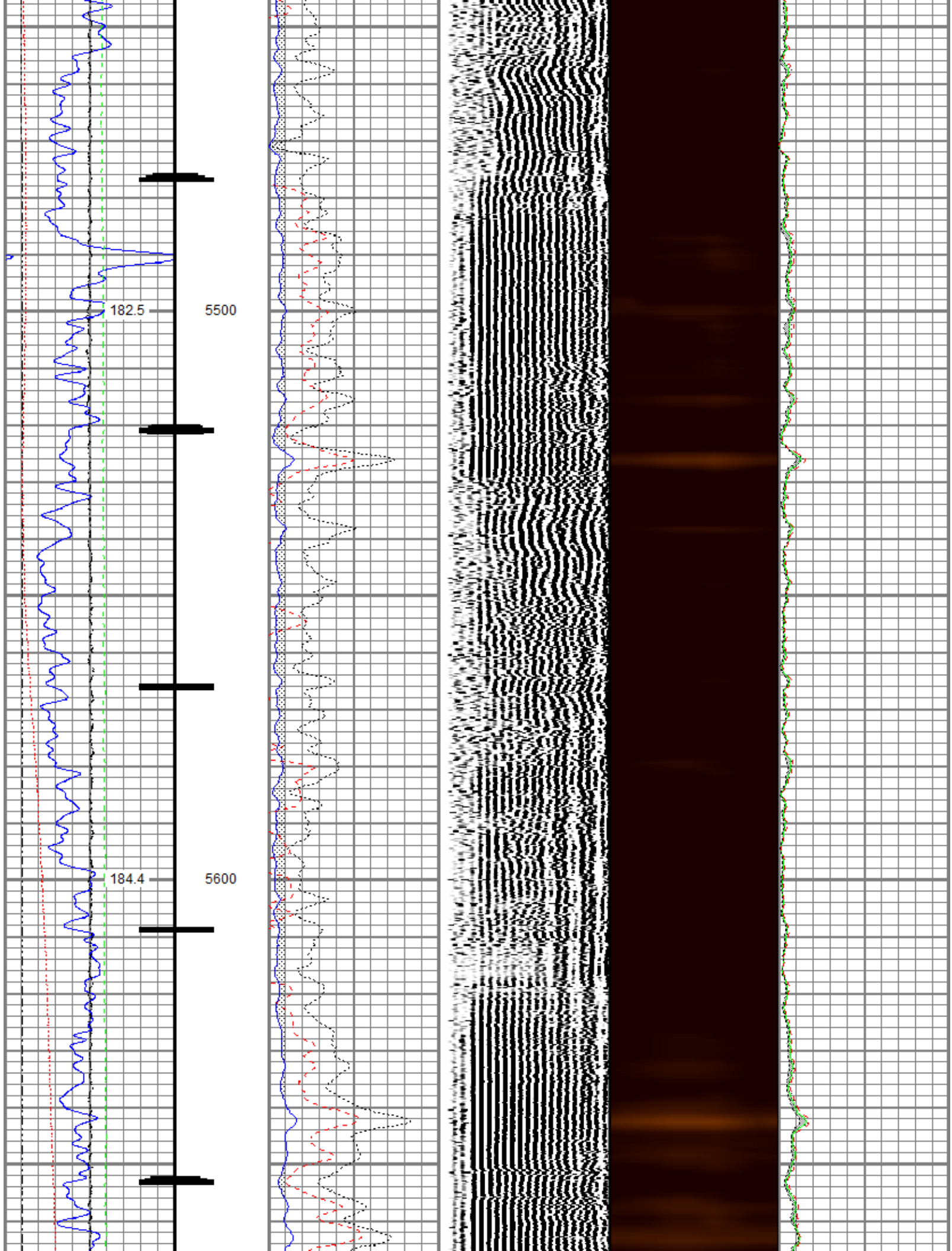


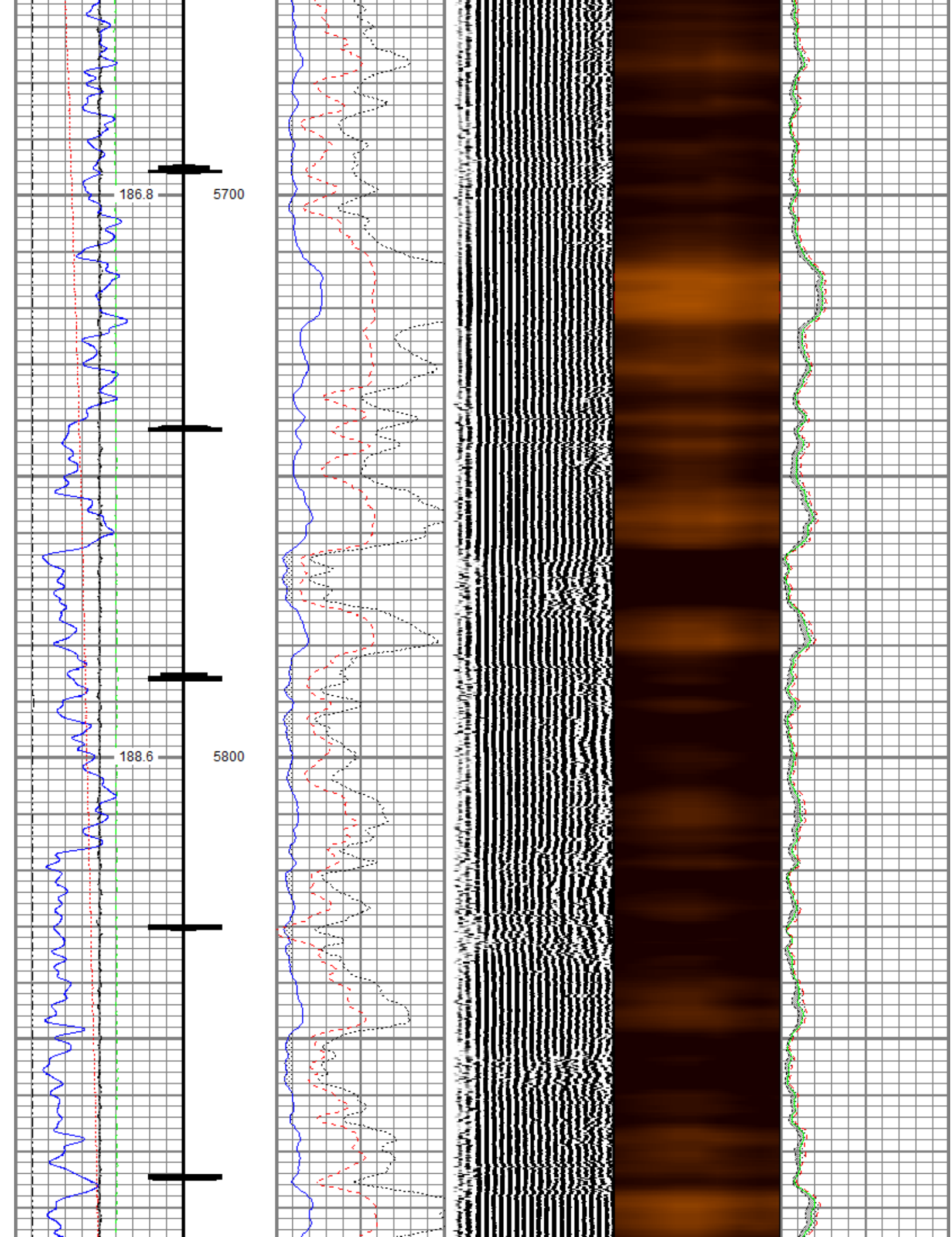


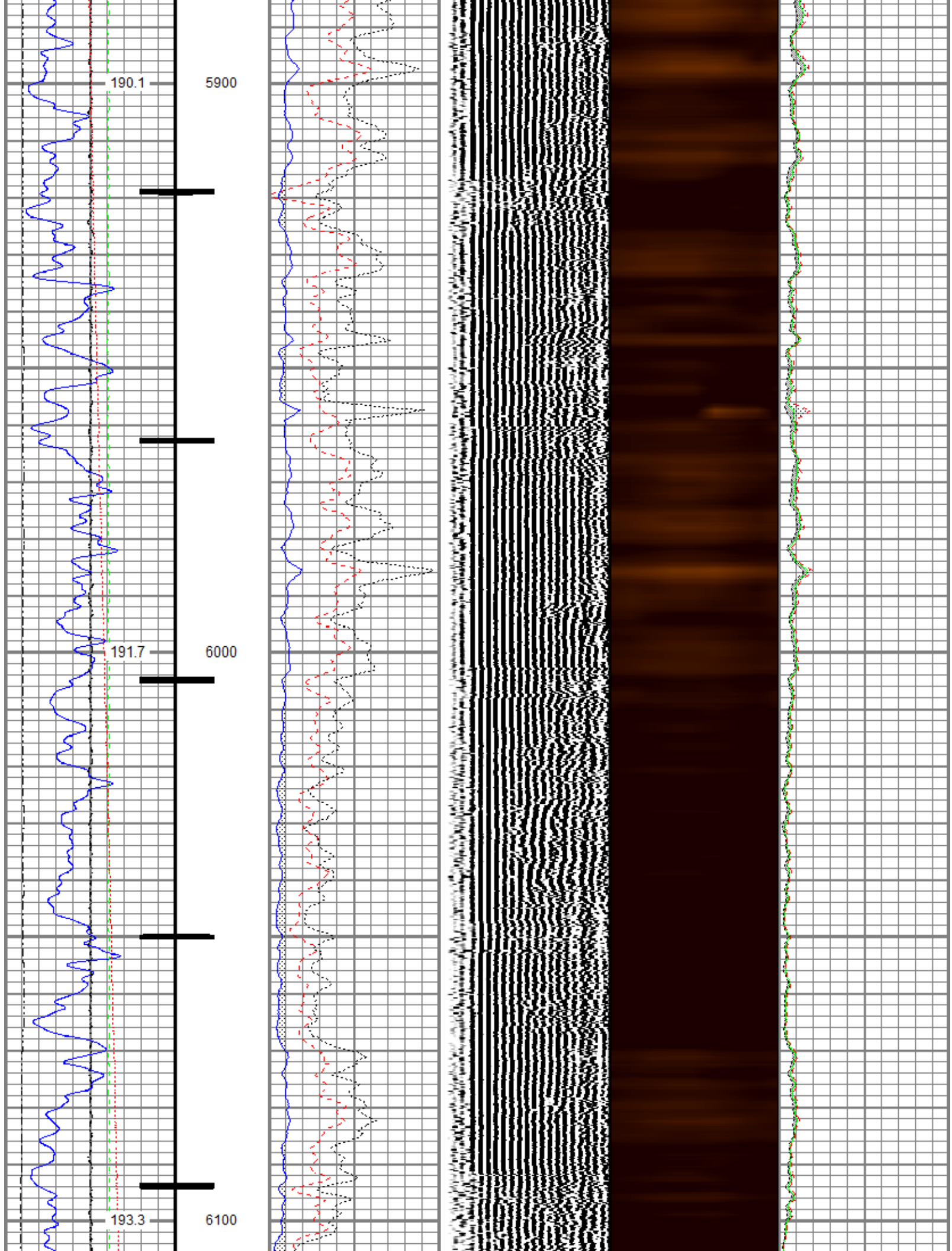


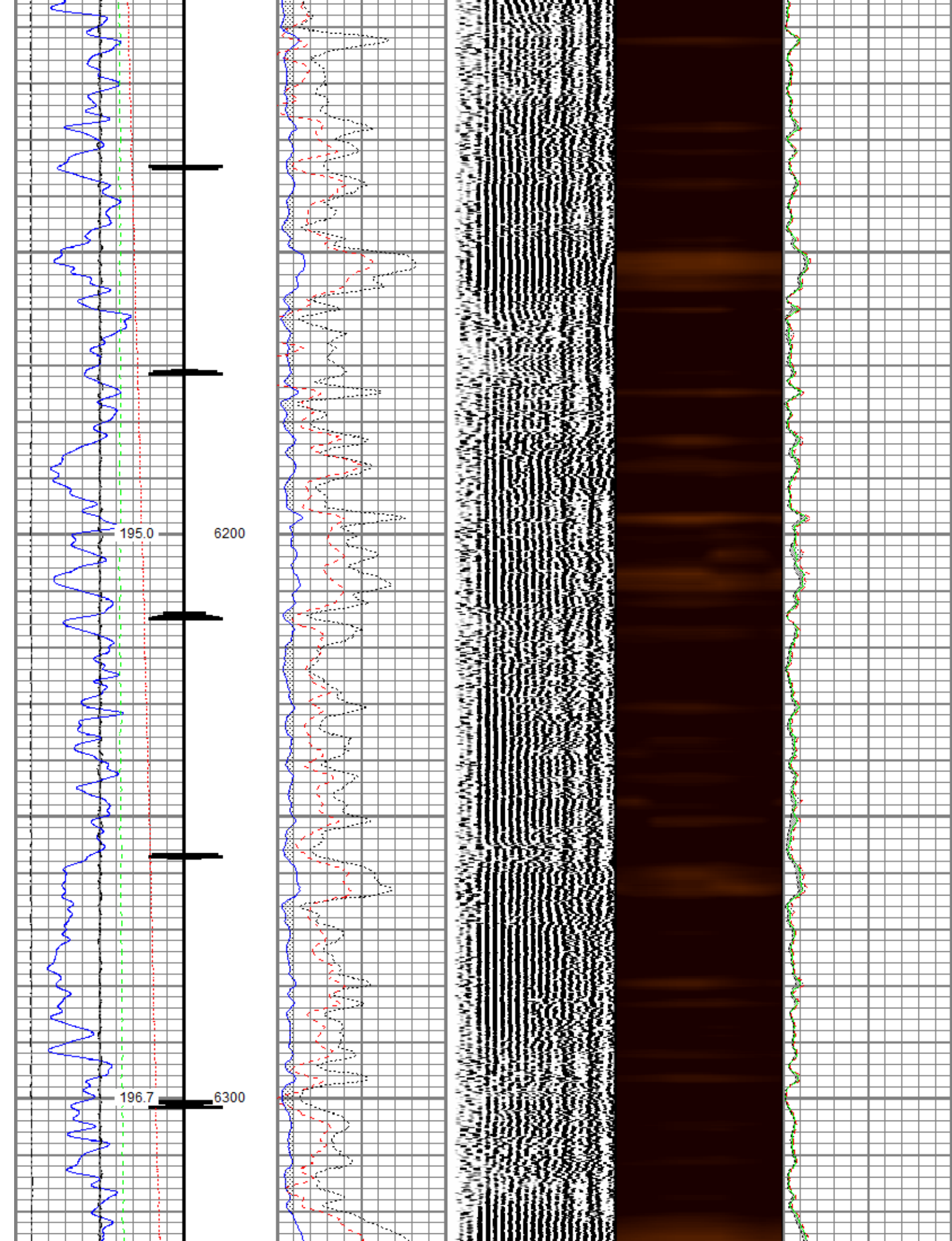


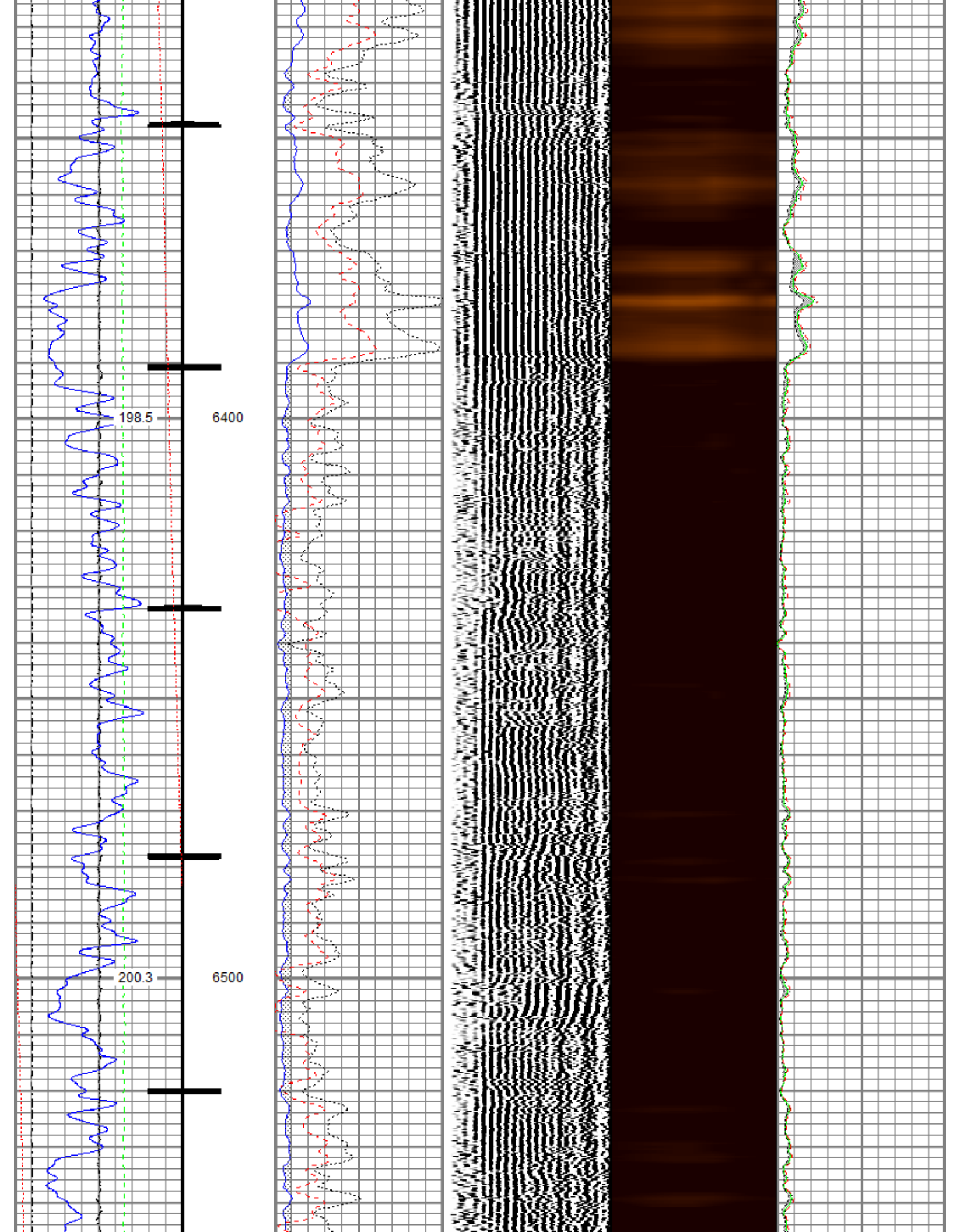


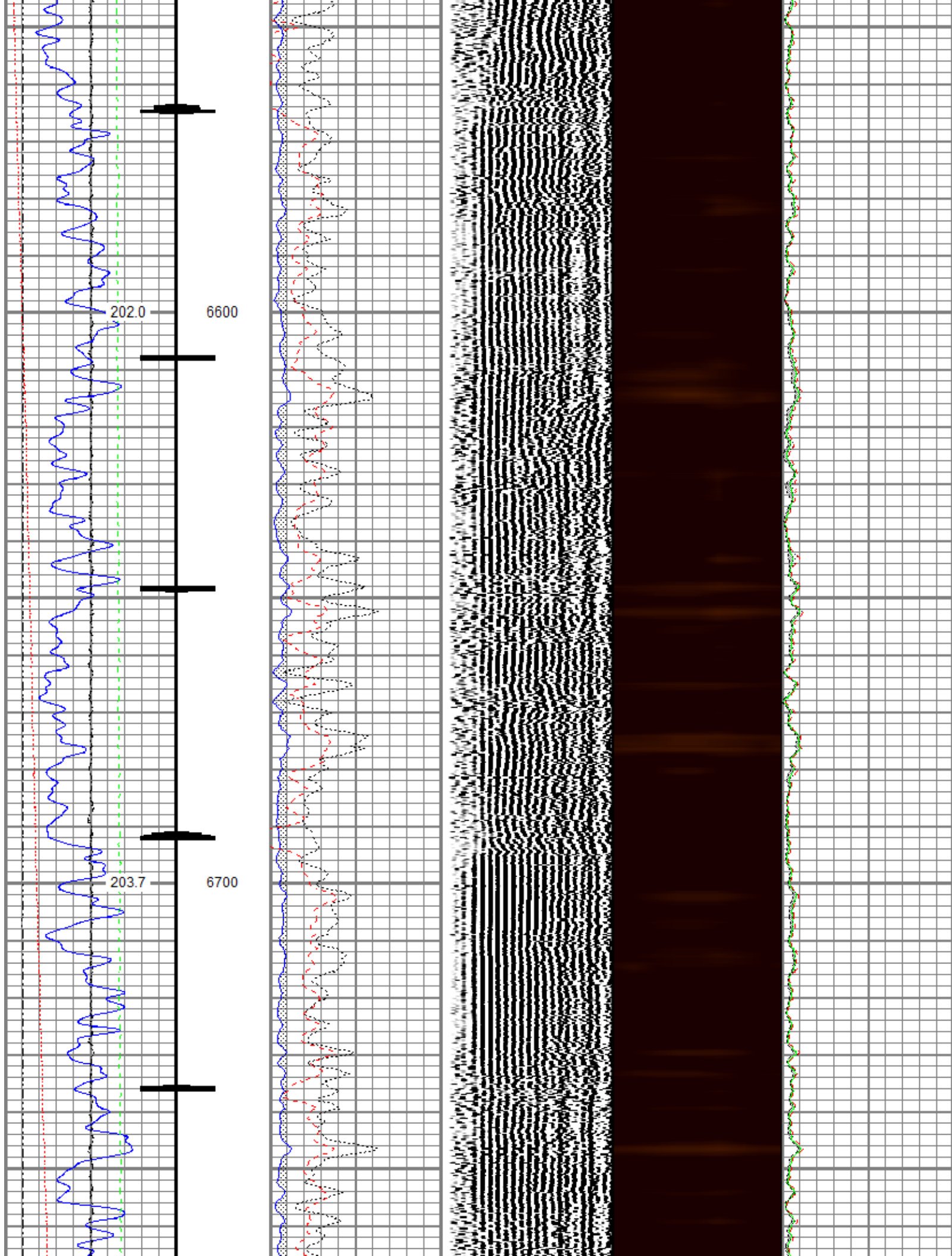


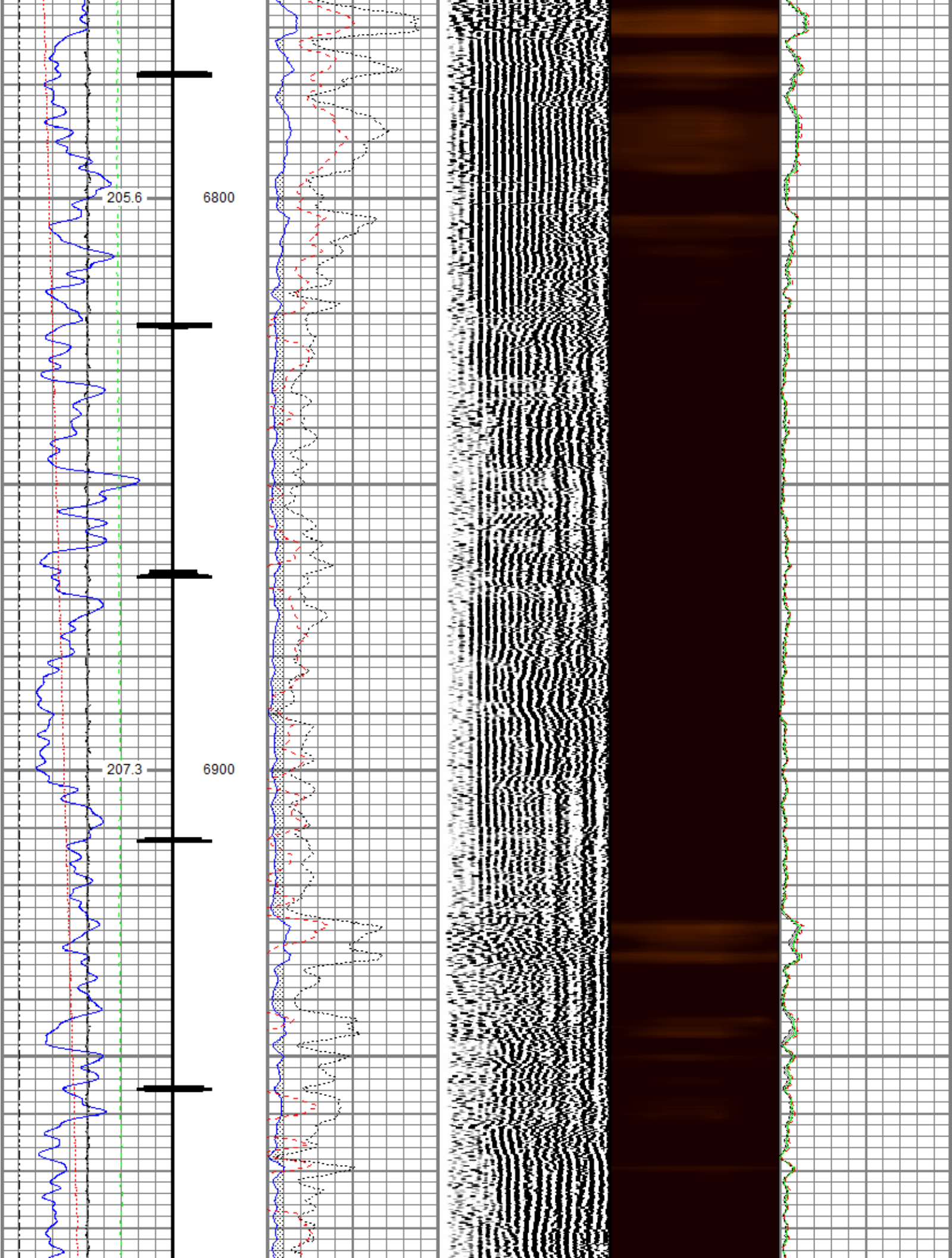








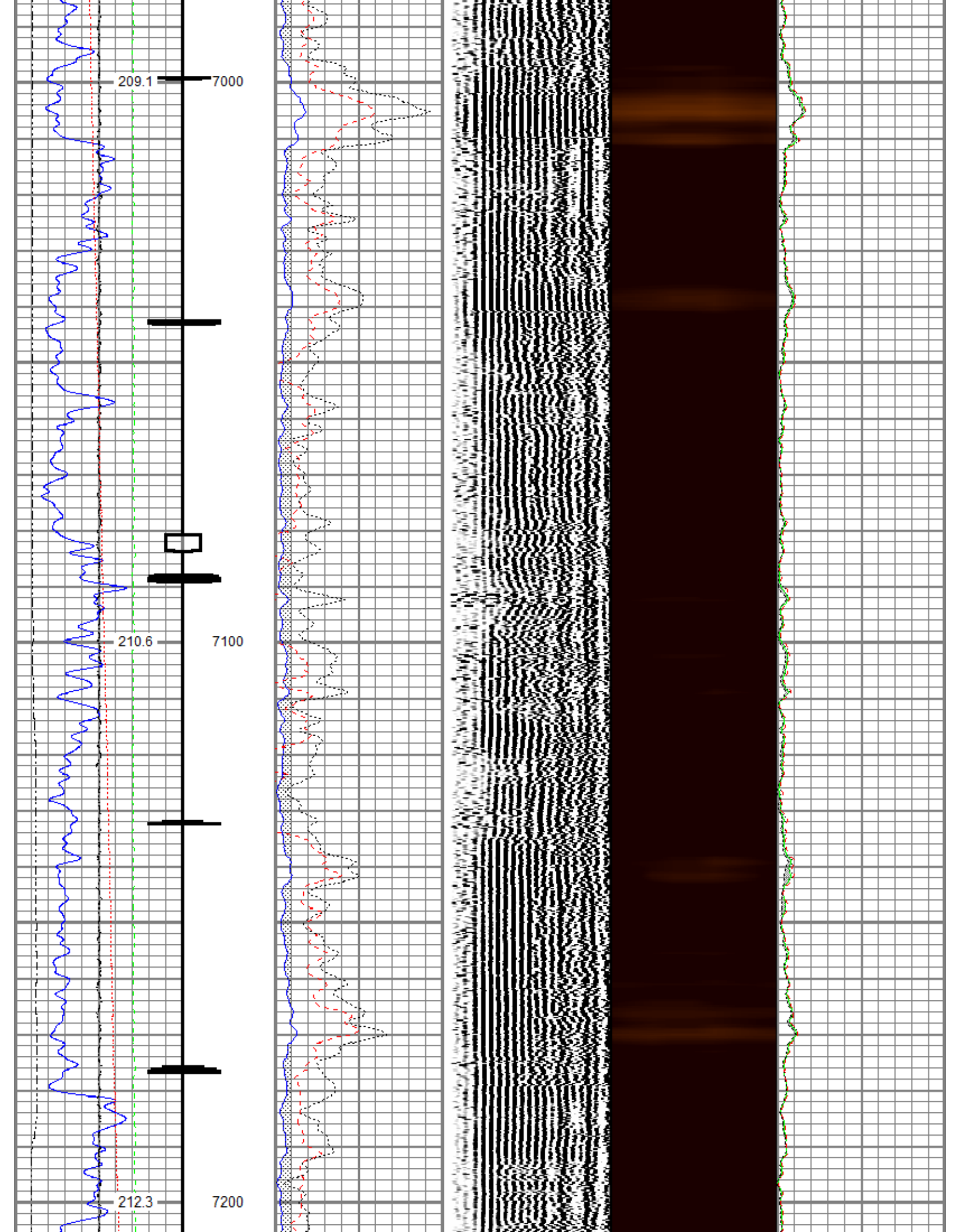


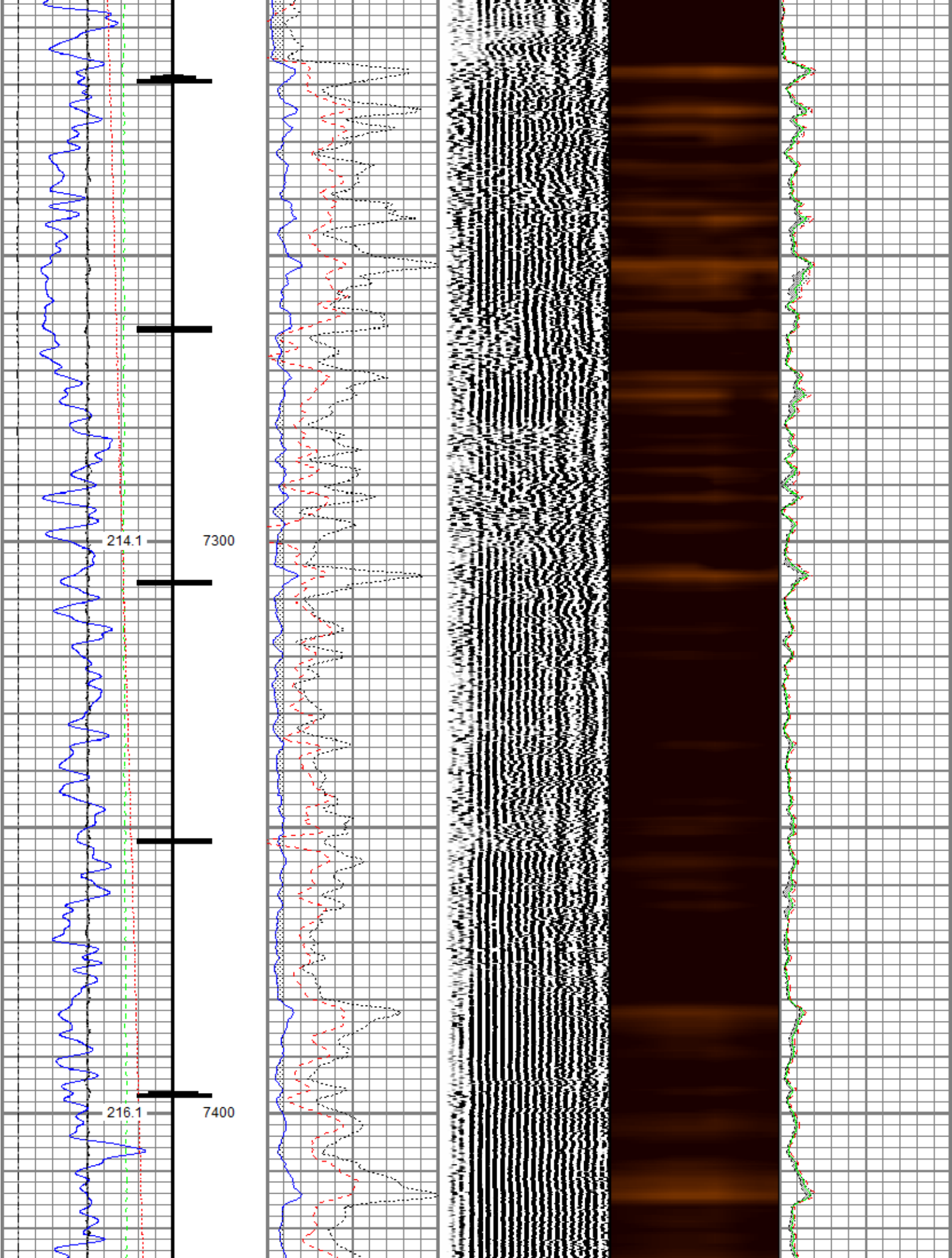


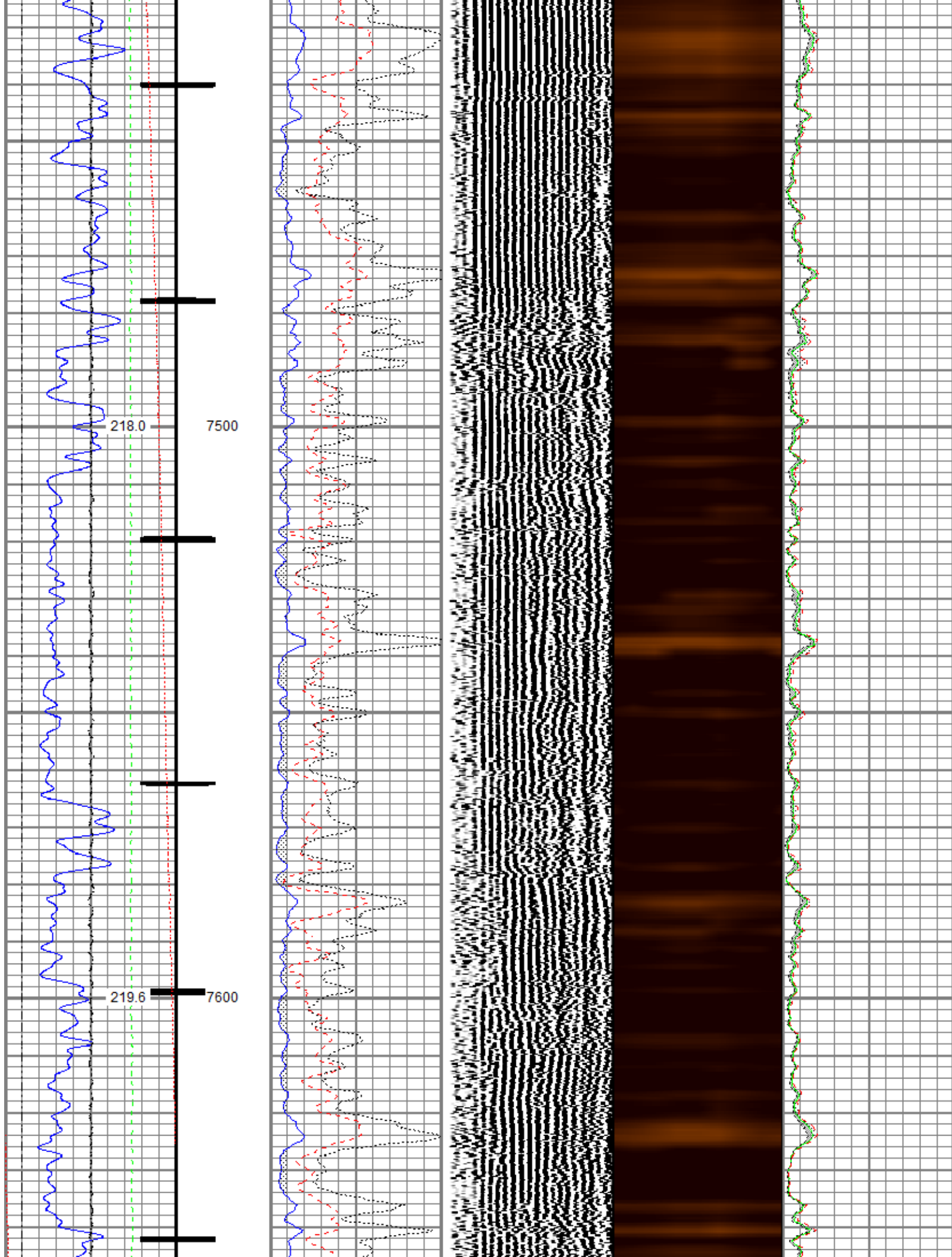
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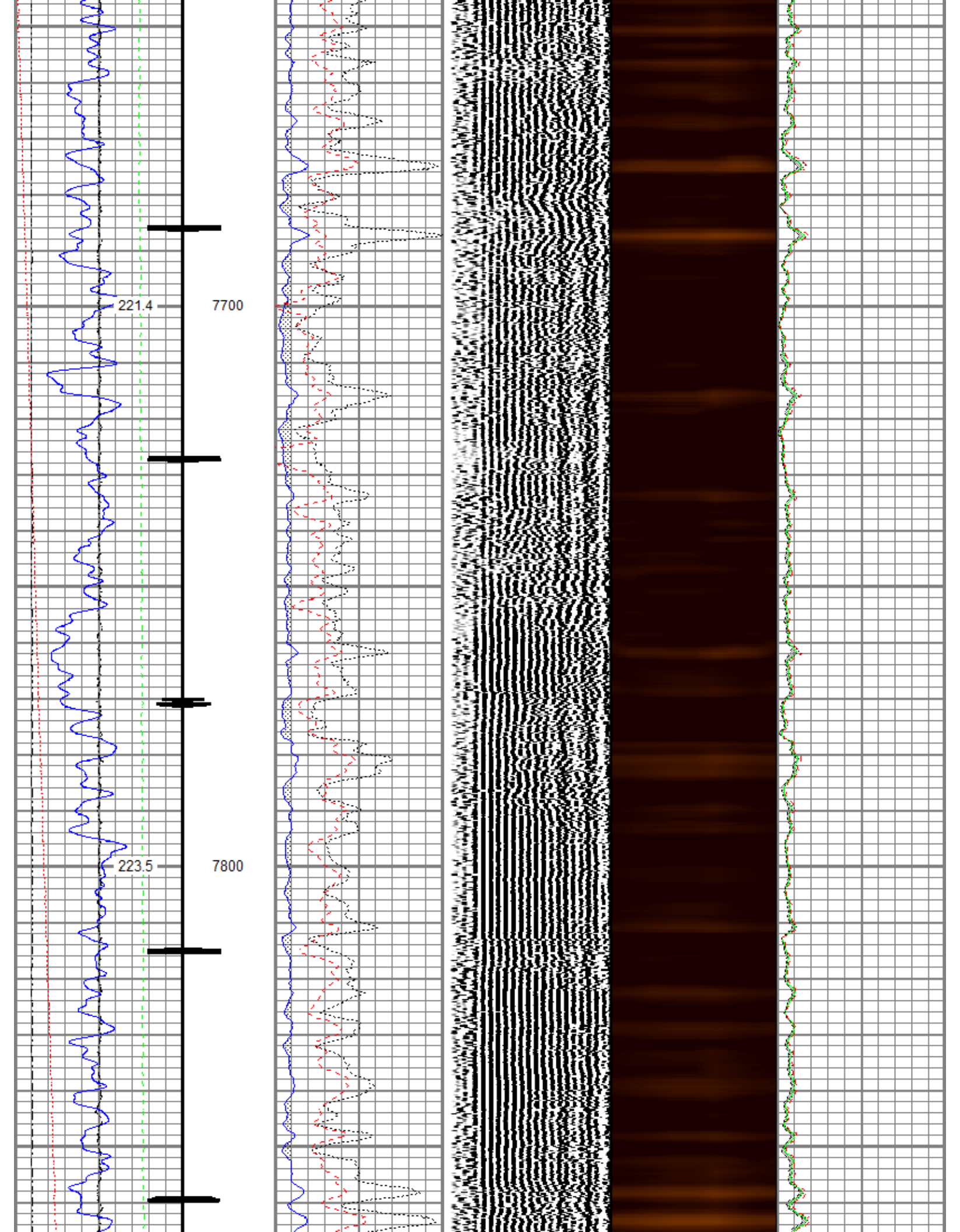
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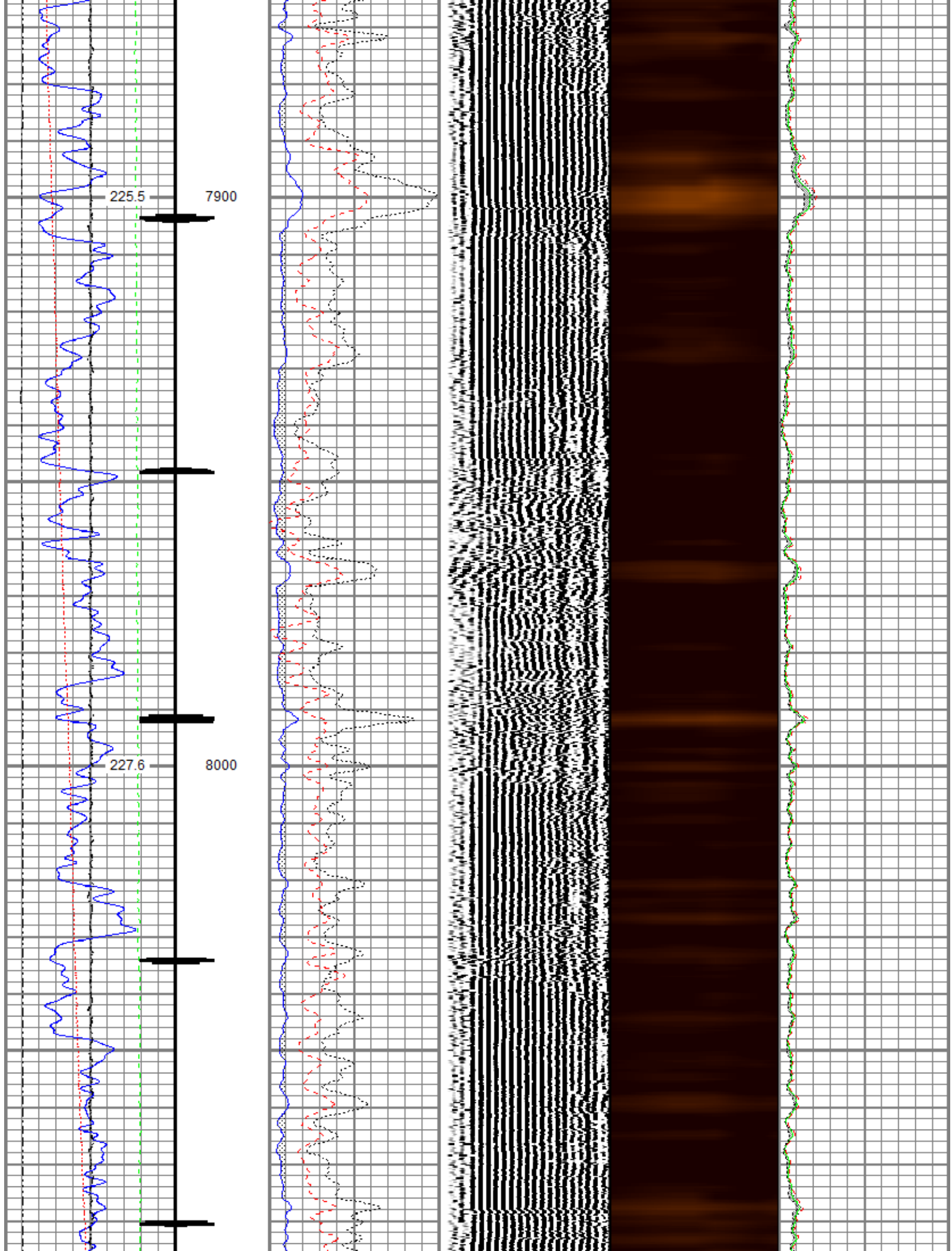
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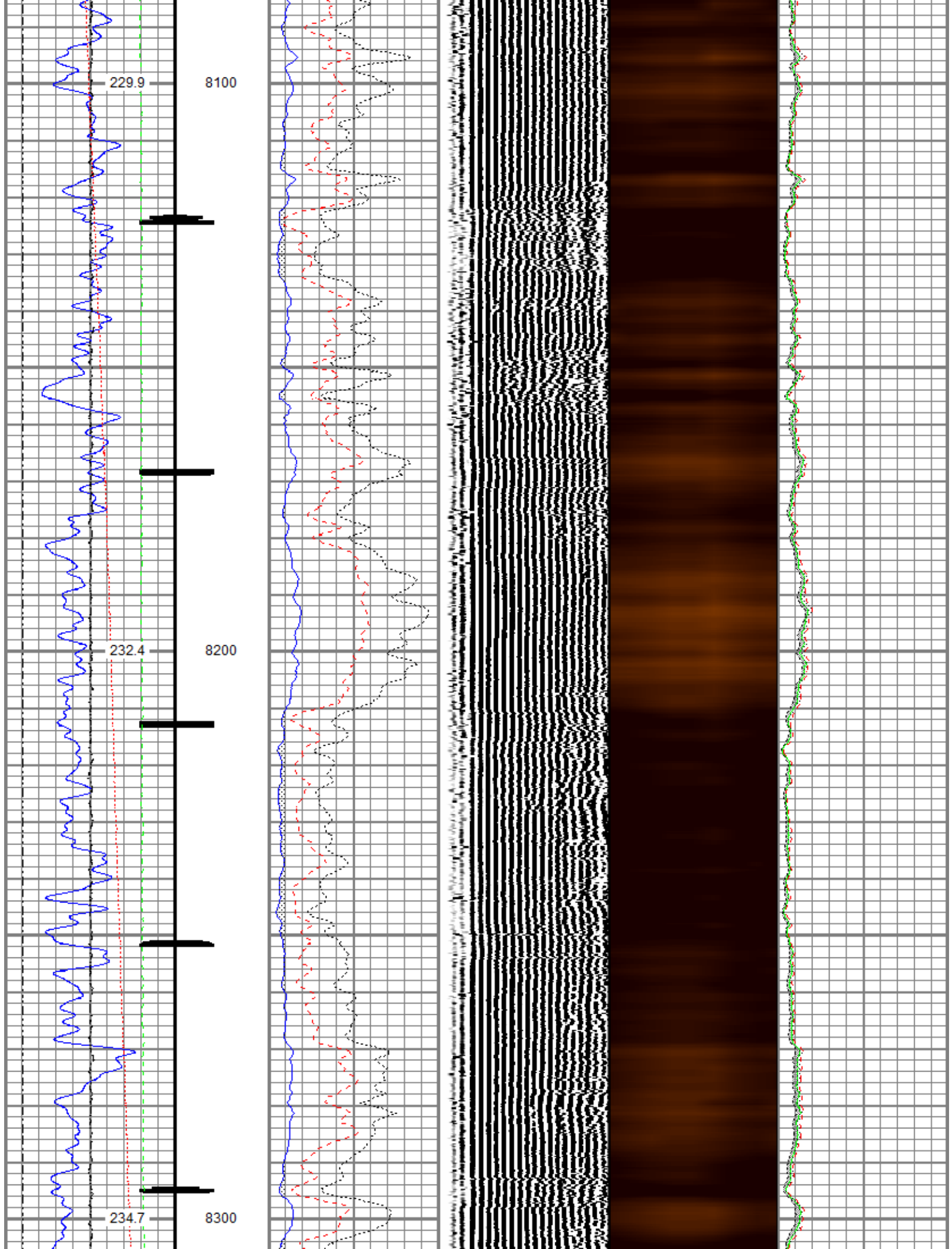


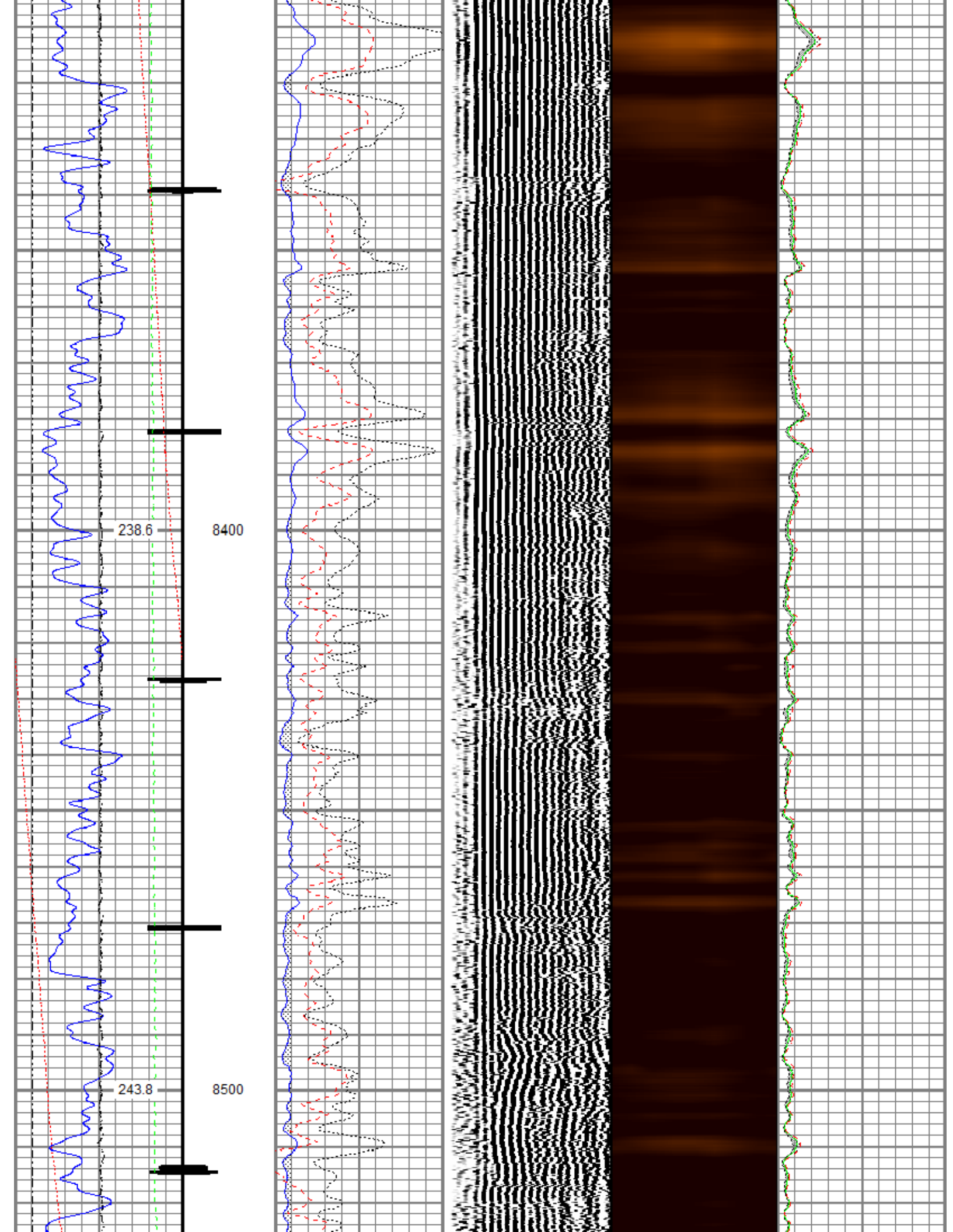


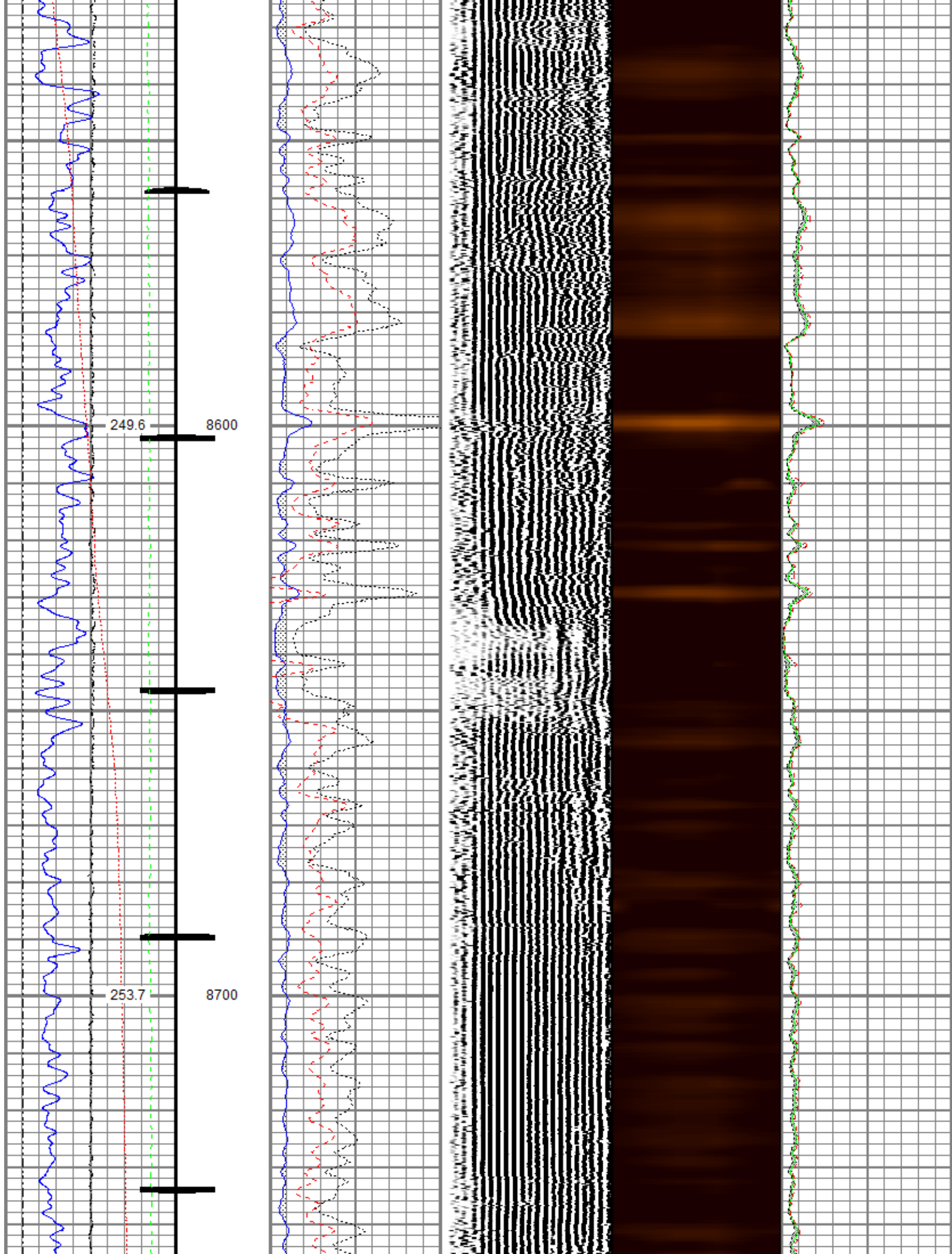


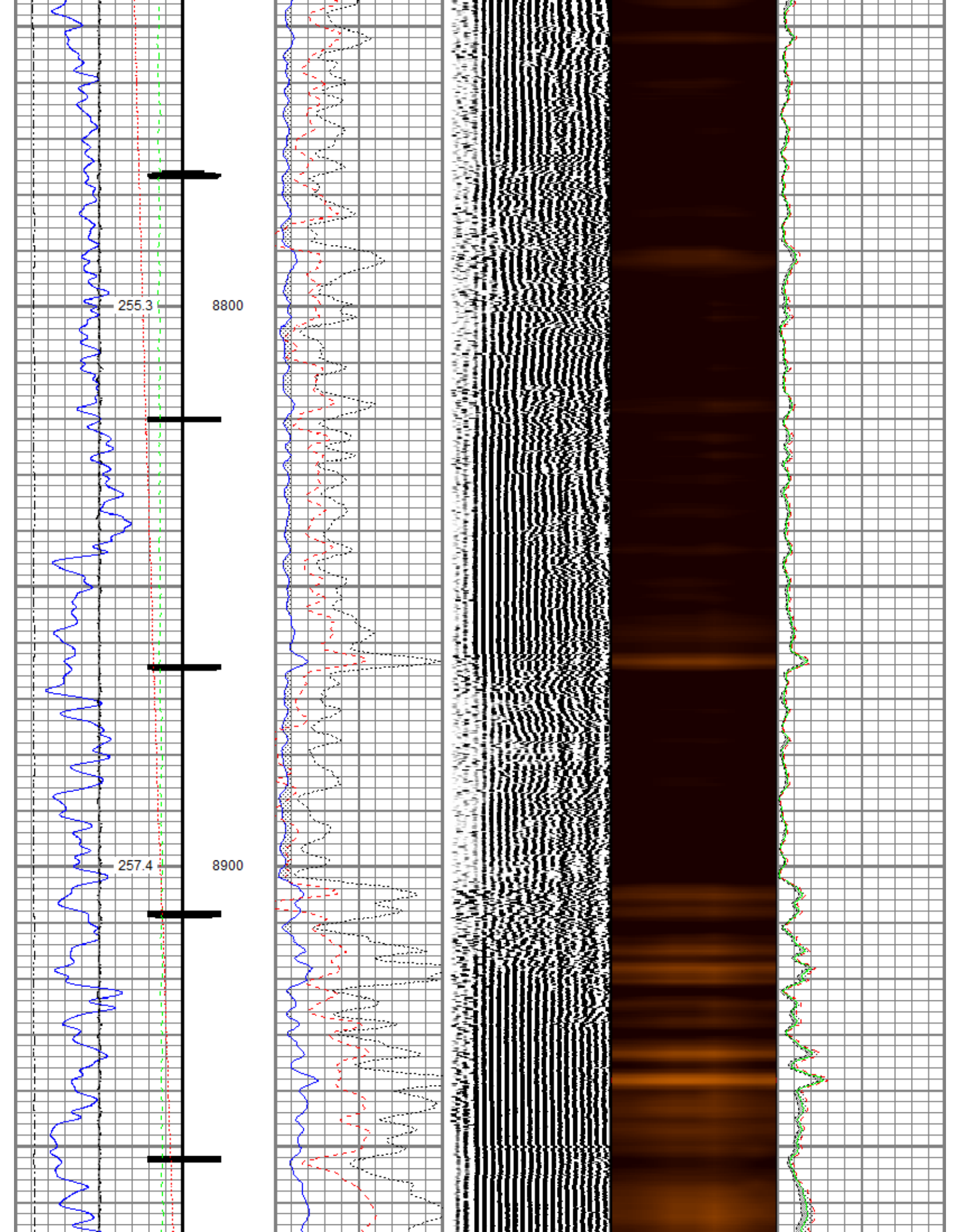


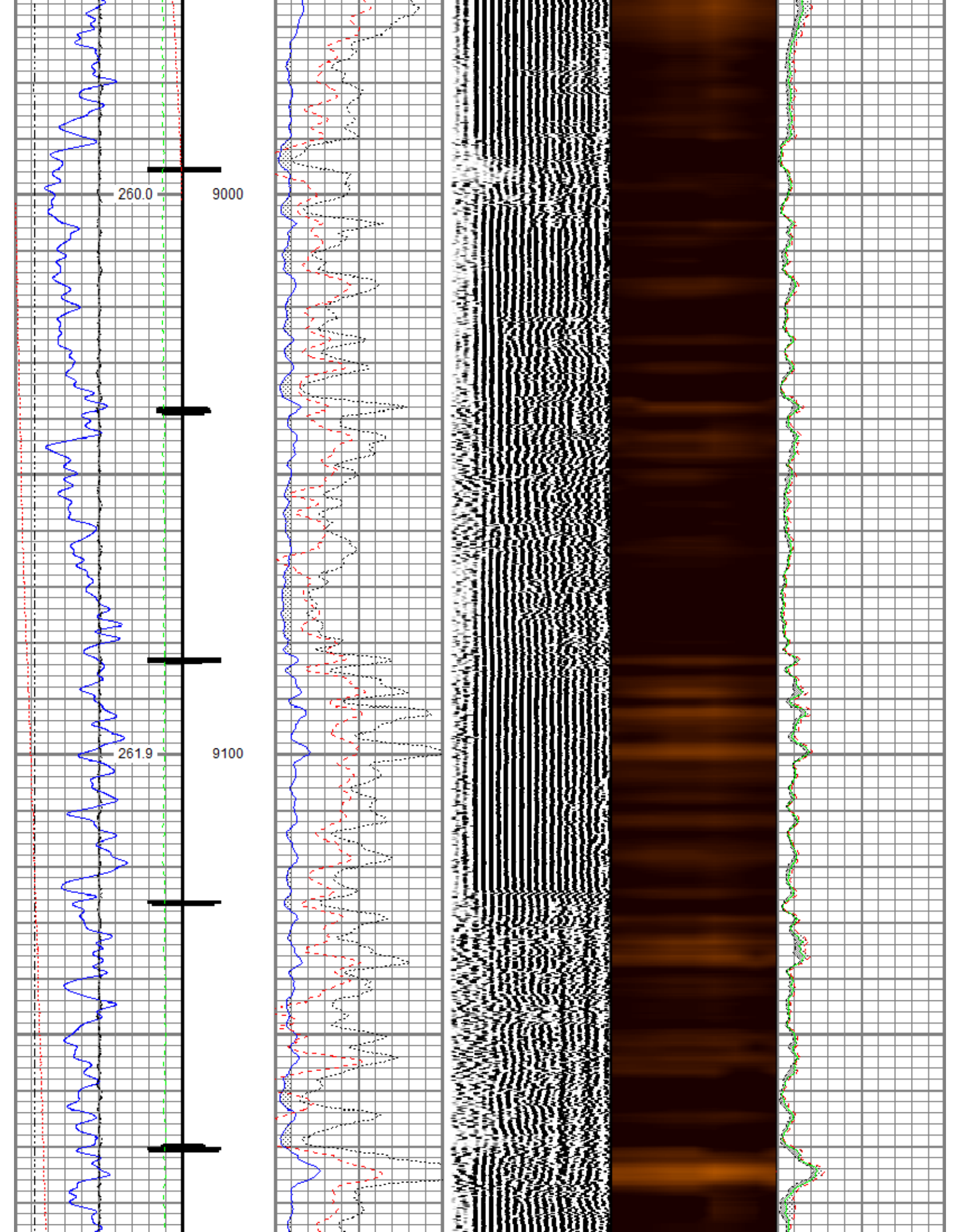


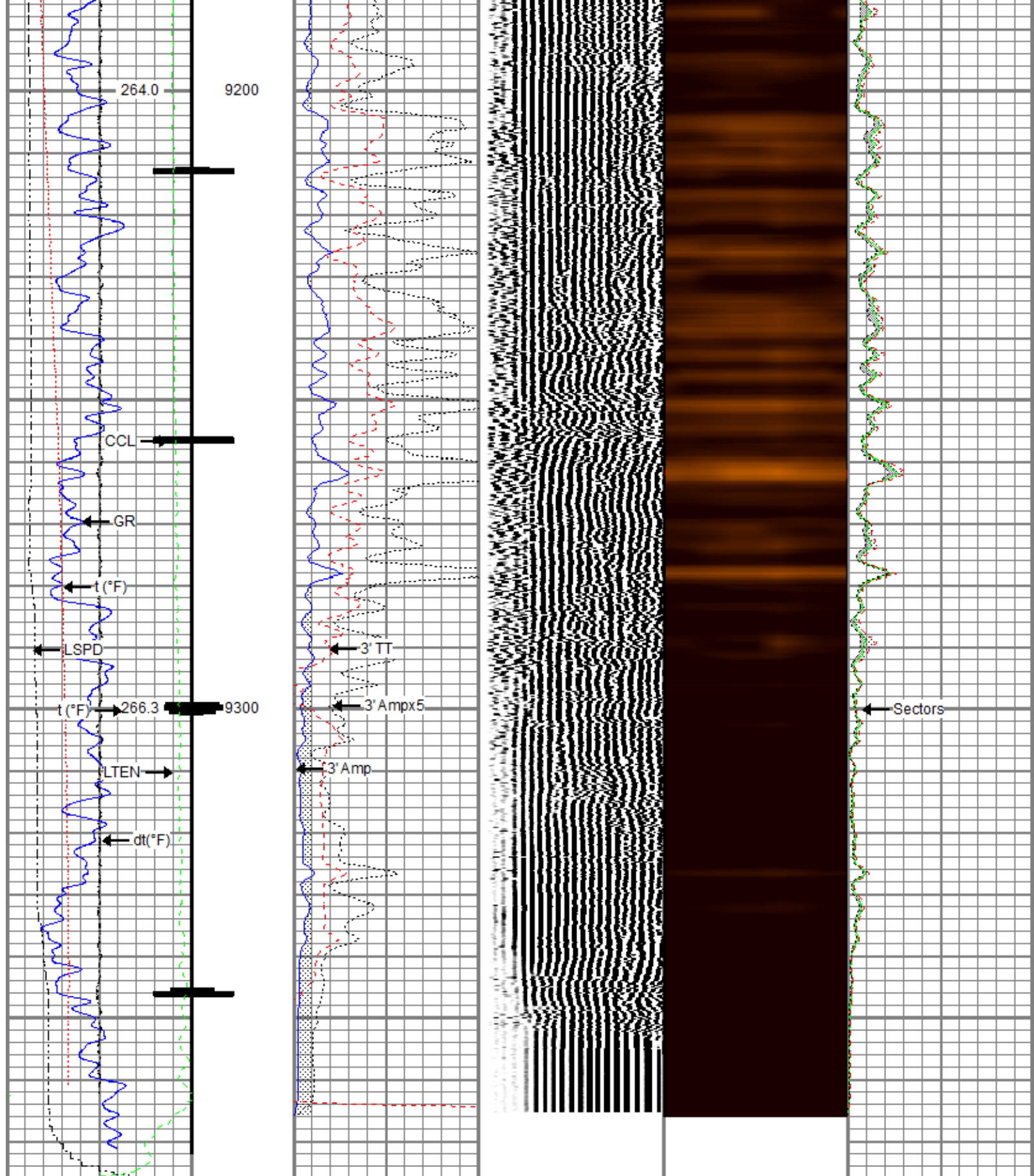












Gamma Ray (GAPI)	0	200
Casing Collar Locator		
Line Speed (ft/min)	-150	150
Line Tension (lb)	0	2000
Differential Temperature		

3' Amplitude (mV)	0	100
3' Amplitude x 5 (mV)	0	20
3' Travel Time (uSec)	300	200

5' Variable Density Log (uSec)	200	1200
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Sector Map	
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Average Amplitude	0	150
Minimum Amplitude	0	150
Maximum Amplitude	0	150

-2 (degF) 2
0 Temperature (degF) 20

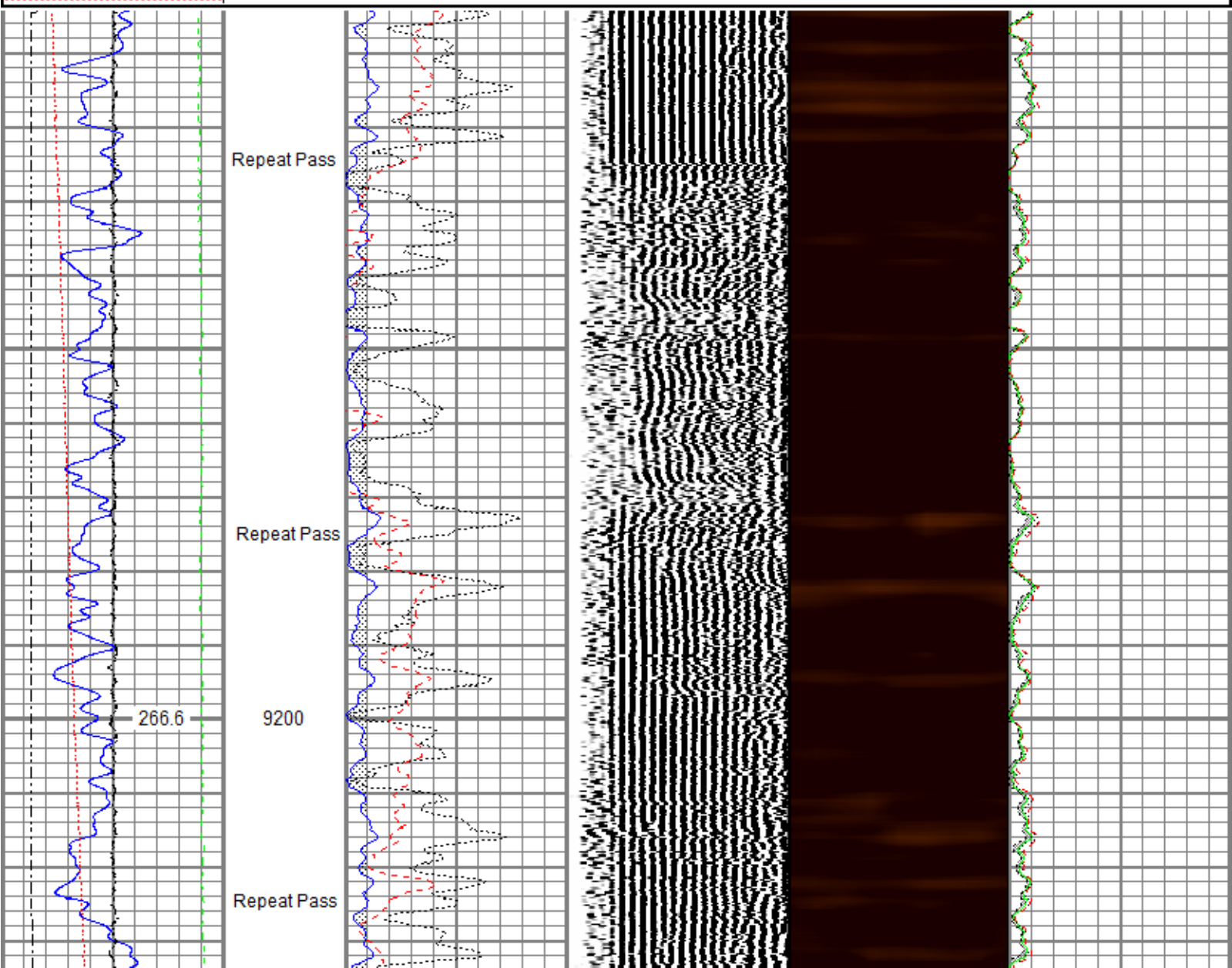


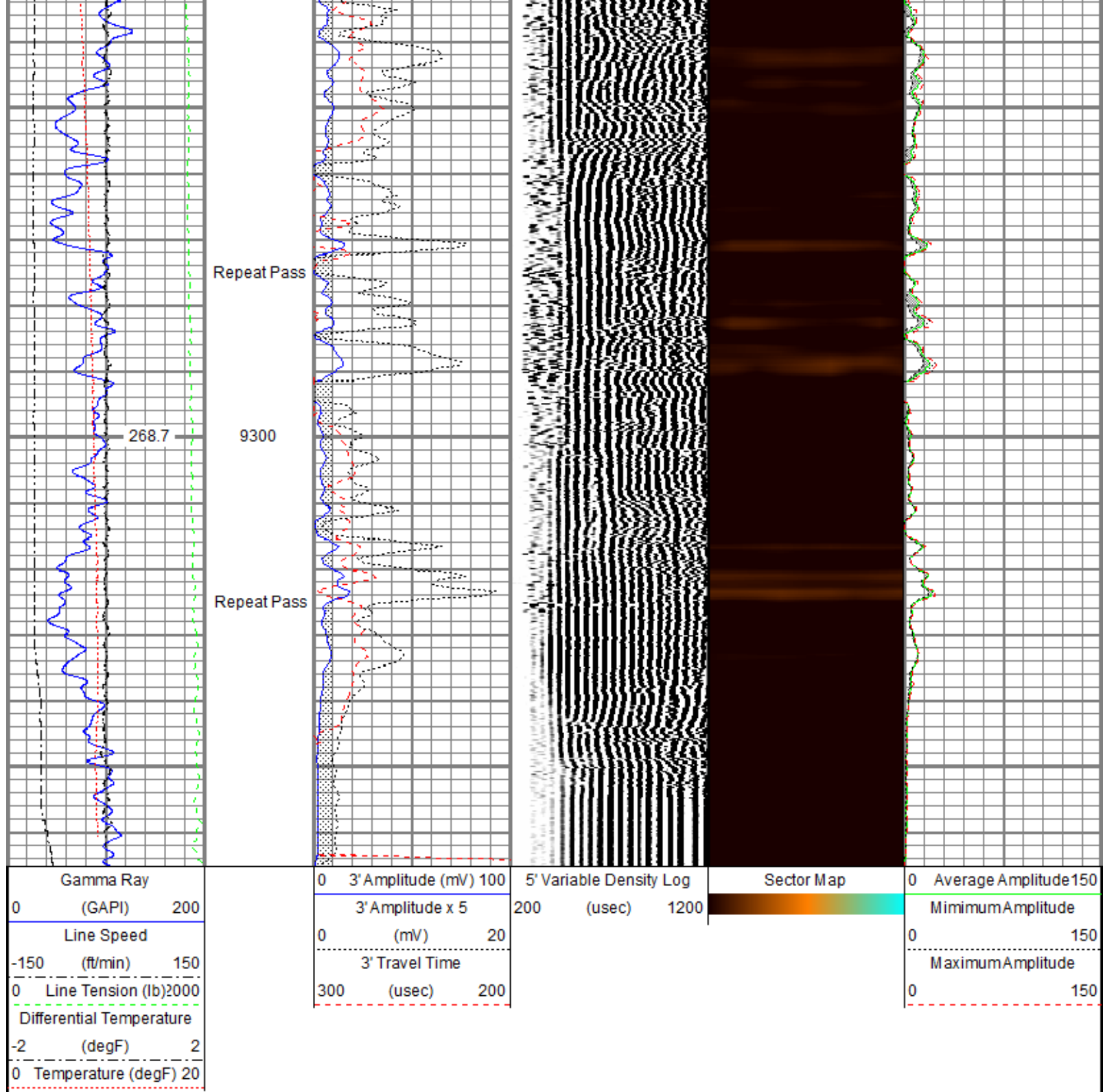
Repeat Pass

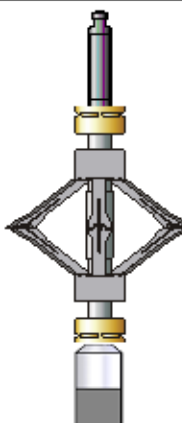
Recorded With 0 PSI Surface Induced Pressure

Database File tep_chevron tr 344-22-597_rbl_04-03-19/tep_chevron tr 344-22-597_rbl_04-03-19.db
Dataset Pathname repeat.2
Presentation Format ros_rbt004_tep
Dataset Creation Thu Apr 04 07:32:05 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
-150 (ft/min) 150		3' Travel Time				Maximum Amplitude
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 Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.44	3.60
			DSS RAC-2750 5A GO DSS 2-3/4" Roller 5 Arm Centralizer w/ GO Ends	2.55	2.75	32.00

TEMP	13.79					
WVFS8	11.55			Probe Radii-2750 RBT (101013)	9.39	2.75
WVFS7	11.55			Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub		105.00
WVFS6	11.55					
WVFS4	11.55					
WVFS3	11.55					
WVFS2	11.55					
WVFS1	11.55					
WVFCAL	11.55					
WVF3FT	11.55					
WVFS5	11.55					
WVF5FT	10.55					
				DSS RAC-2750 5A GO	2.55	2.75
				DSS 2-3/4" Roller 5 Arm Centralizer w/ GO Ends		32.00
CCL\$2	3.88					
CCL\$1	3.88					
GR	2.63			Probe GR-CCL-2750 GOB (FW1211-026)	4.51	2.75
				Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined		55.00
				GO BN-14375	0.25	1.44
				GO 1-7/16" Bull Nose with Go Box Top		1.00
Dataset: tep_chevron tr 344-22-597_rbl_04-03-19.db: field/well/run1/merge1.2 Total length: 20.27 ft Total weight: 228.60 lb O.D.: 2.75 in						

Calibration Report		
Database File	c:\programdata\warrior\data\tep_chevron tr 344-22-597_rbl_04-03-19\tep_chevron tr 344-22-597_rbl_04-03-19.db	
Dataset Pathname	merge1.2	
Dataset Creation	Thu Apr 04 07:23:15 2019	
Gamma Ray Calibration Report		
Serial Number:	FW1211-026	
Tool Model:	2750 GOB	
Performed:	Sun Nov 12 12:17:31 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	113.6	cps

Calibrator Reading:		1015.2	cps			
Sensitivity:		0.7065	GAPI/cps			
Segmented Cement Bond Log Calibration Report						
Serial Number:		101013				
Tool Model:		2750 RBT				
Calibration Casing Diameter:		4.500	in			
Calibration Depth:		31.058	ft			
Master Calibration, performed (Derived):						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	0.970	0.800	81.196	83.114	0.543
CAL	0.003	0.873				
5'	0.006	0.700	0.800	81.196	115.835	0.081
SUM						
S1	0.005	1.020	0.000	100.000	98.512	-0.459
S2	0.003	0.971	0.000	100.000	103.405	-0.358
S3	0.002	0.924	0.000	100.000	108.413	-0.176
S4	0.006	0.913	0.000	100.000	110.261	-0.626
S5	0.006	0.913	0.000	100.000	110.261	-0.626
S6	0.003	0.906	0.000	100.000	110.654	-0.300
S7	0.001	0.986	0.000	100.000	101.555	-0.104
S8	0.005	1.068	0.000	100.000	94.042	-0.450
Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.003	0.873	1.000	0.000
Air Zero Calibration, performed (Not Performed):						
	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:		101013				
Tool Model:		2750 RBT				
Performed:		Sun Nov 12 13:21:13 2017				
		Reference		Reading		
Low Reference:	100.00	degF	112.30	degF		
High Reference:	350.00	degF	394.75	degF		
Gain:	0.89					
Offset:	0.60					



Company	TEP Rocky Mountain LLC
Well	Chevron TR 344-22-597
Field	Trail Ridge
County	Garfield
State	Colorado