



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC									
Well Federal WMC 33-20									
Field Rulison									
County Garfield									
State Colorado									
Location: API # : 05-045-24488									
Other Services									
SEC 17 TWP 7S RGE 93W									
Permanent Datum Ground Level Elevation 8868 FT									
Log Measured From Kelly Bushing									
Drilling Measured From Kelly Bushing									
K.B. 8898 FT									
D.F. 8898 FT									
G.L. 8868 FT									
Date 02-JAN-2023									
Run Number One									
Depth Driller 11611 FT									
Depth Logger 11477 FT									
Bottom Logged Interval 11470 FT									
Top Log Interval Surface									
Open Hole Size 8.75"									
Type Fluid Water									
Density / Viscosity 8.34 Lb/Gal									
Max. Recorded Temp. 259°F									
Estimated Cement Top See Log									
Time Well Ready ROA									
Time Logger on Bottom 11:45									
Equipment Number 8045									
Location Grand Junction									
Recorded By A. Ellsworth									
Witnessed By D. Welsh									
Borehole Record									
Tubing Record									
Run Number Bit From To Size Weight From To									
Casing Record									
Surface String Size 9-5/8" Wgt/Ft 36 Top Surface Bottom 1135 FT									
Prot. String									
Production String 4-1-2" 11.6 Surface 11611 FT									
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 30 FT
Marker joint logged from 7328 FT to 7338 FT



Thank you for choosing The Wireline Group!

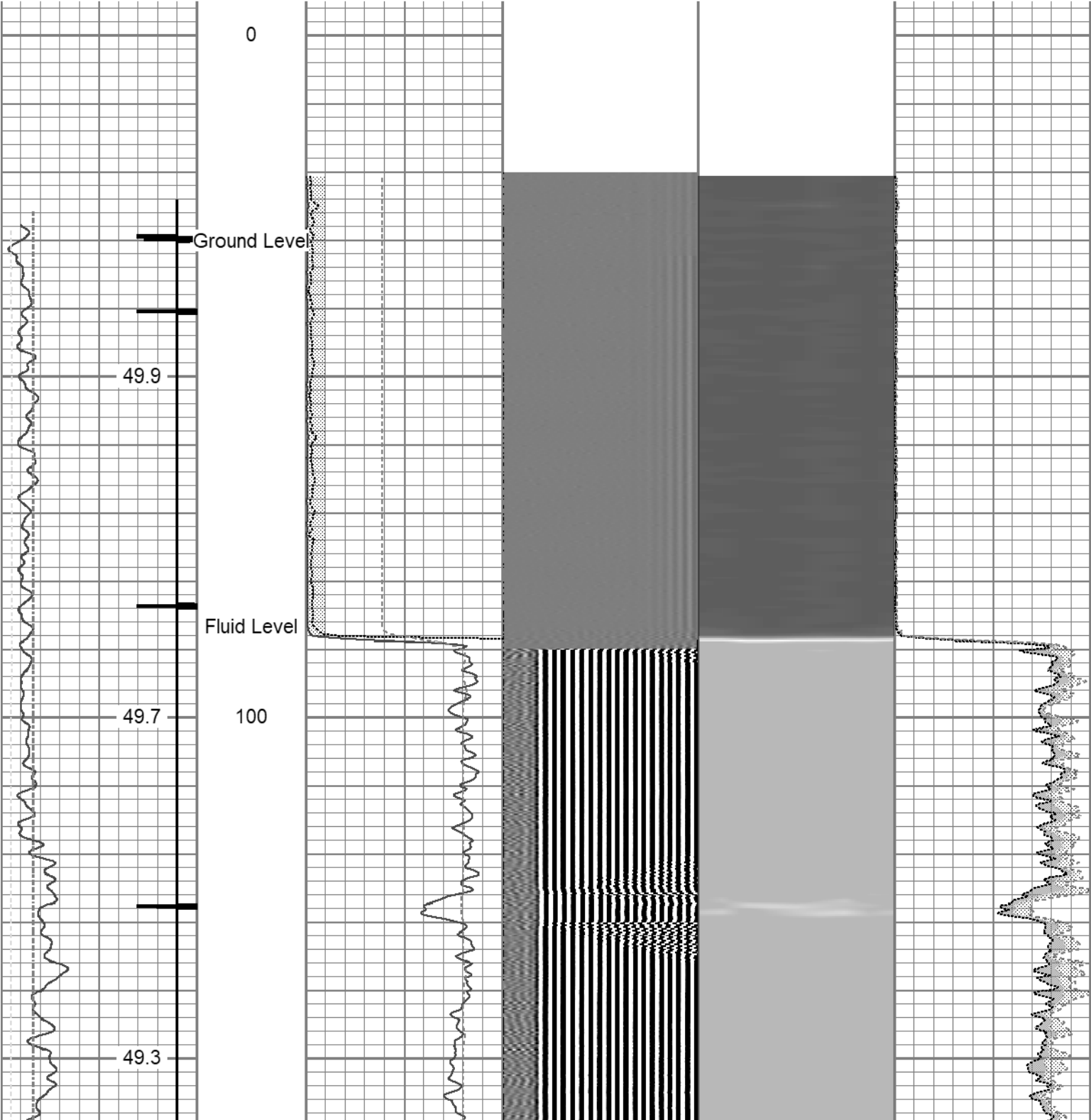


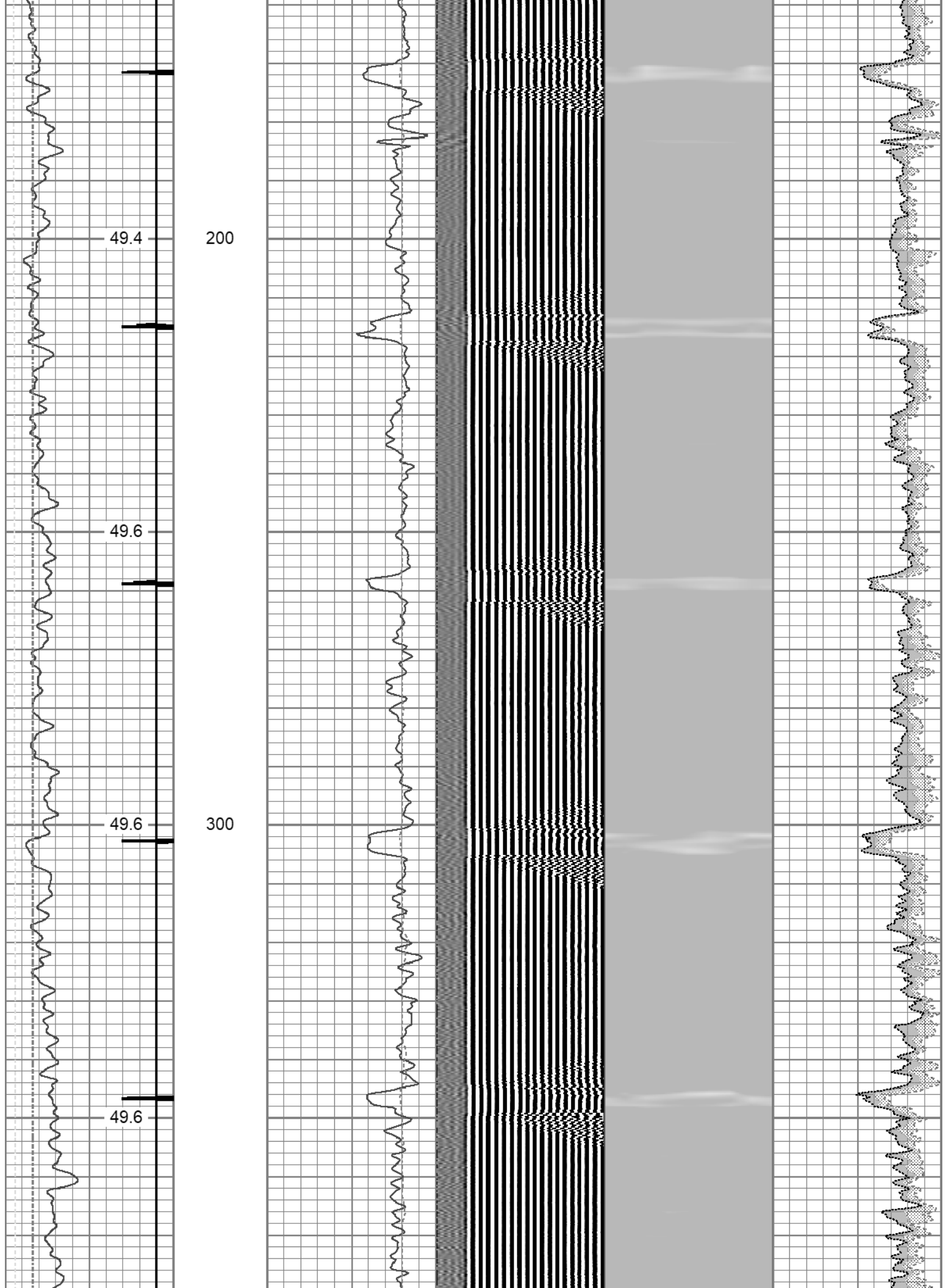
Main Pass 5" = 100'

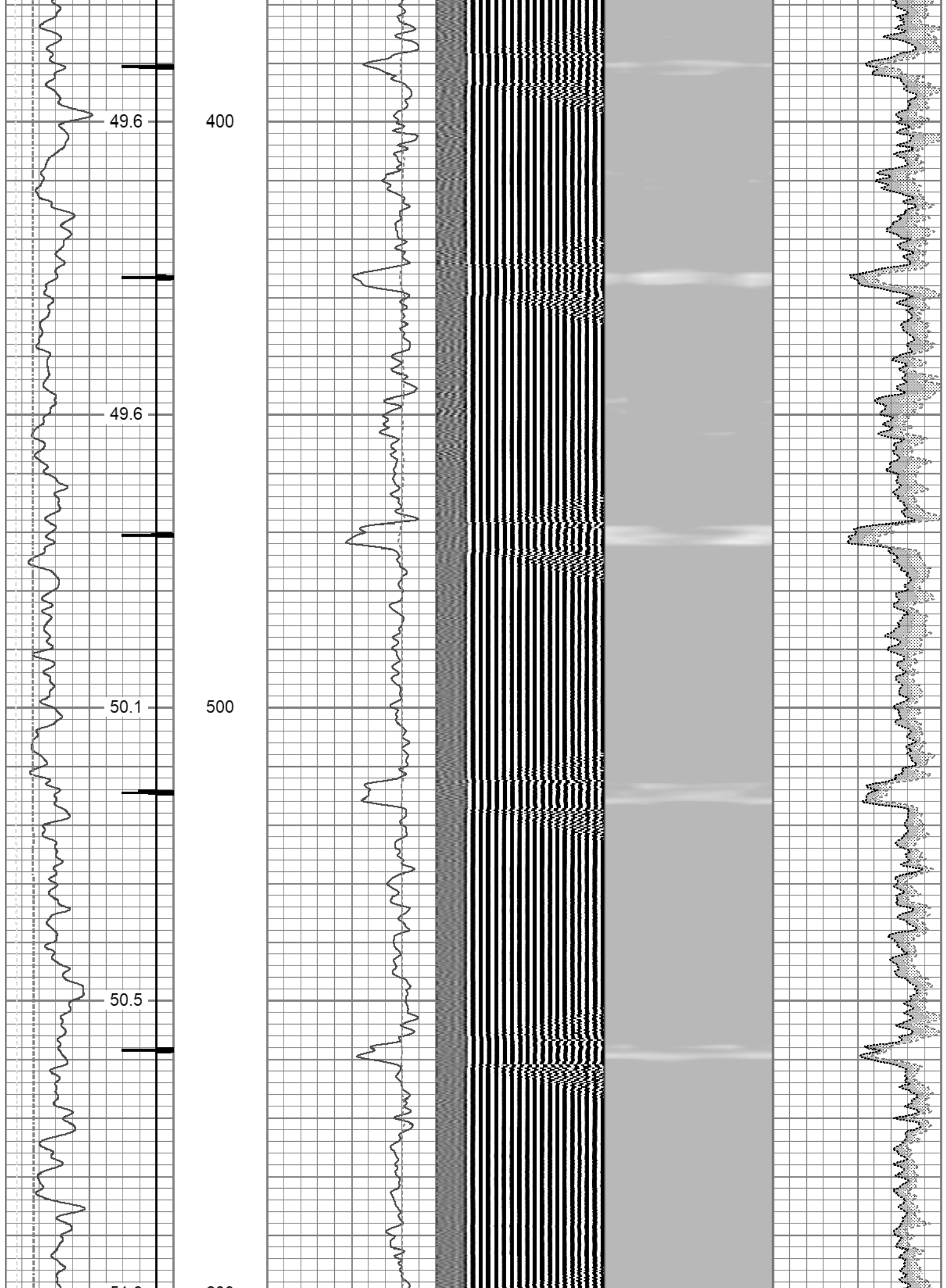
Database File
Dataset Pathname
Presentation Format
Dataset Creation
Charted by

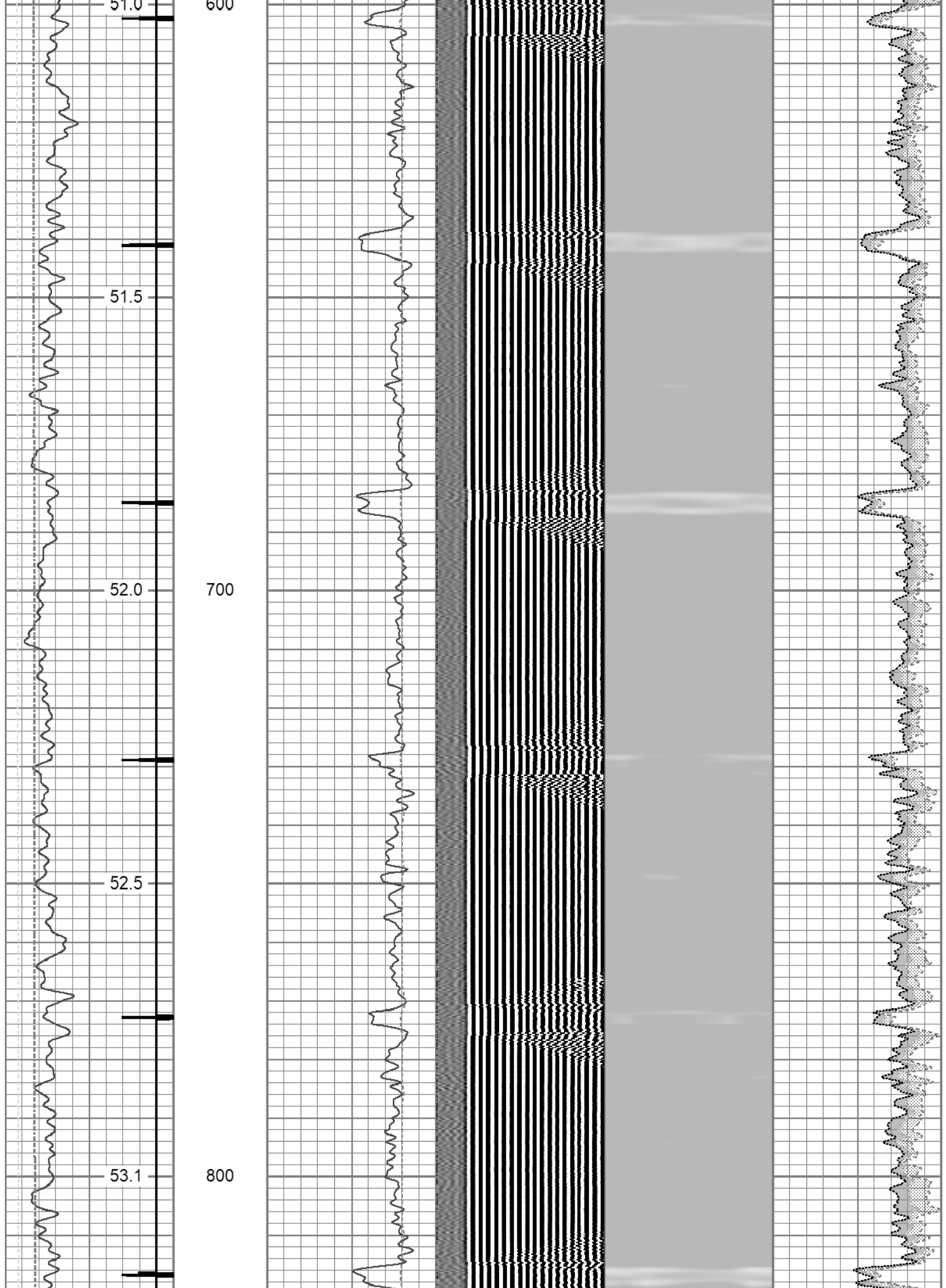
tep_wmc fed 33-20_rcbl_1-2-2023.db
main.1
twgrcbl
Mon Jan 02 16:44:06 2023
Depth in Feet scaled 1:240

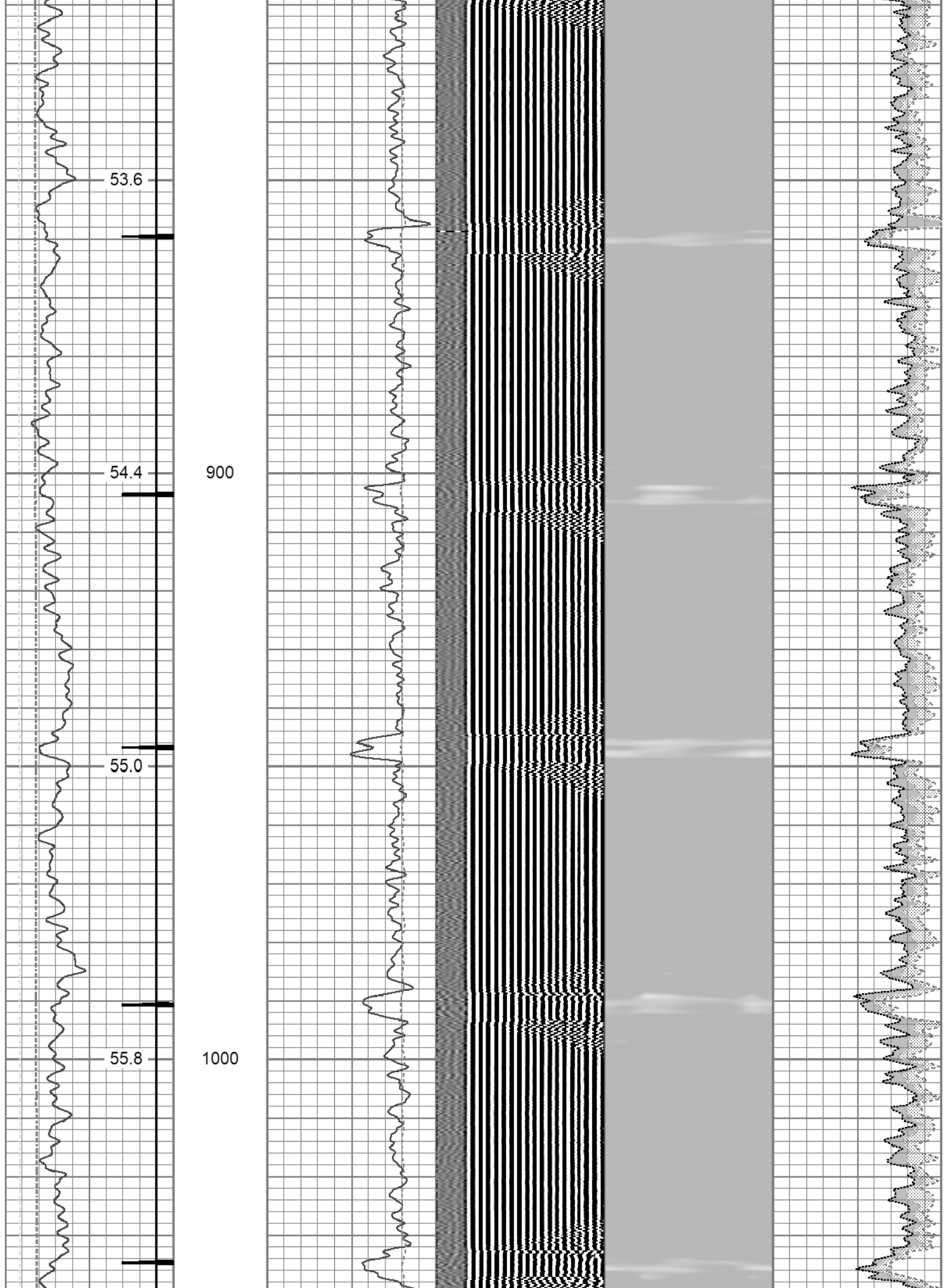
Gamma Ray			3' Amplitude			5' Variable Density Log			Sector Map			Average Amplitude		
0	(GAPI)	200	0	(mV)	100	200	(usec)	1200				0		120
Line Tension			3' Amplitude x 5						Minimum Amplitude					
0	(lb)	4000	0	(mV)	20				0		120			
CCL			3' Travel Time						Maximum Amplitude					
-9		1												
Temp (degF)			650 (usec)						0		120			
300			150											

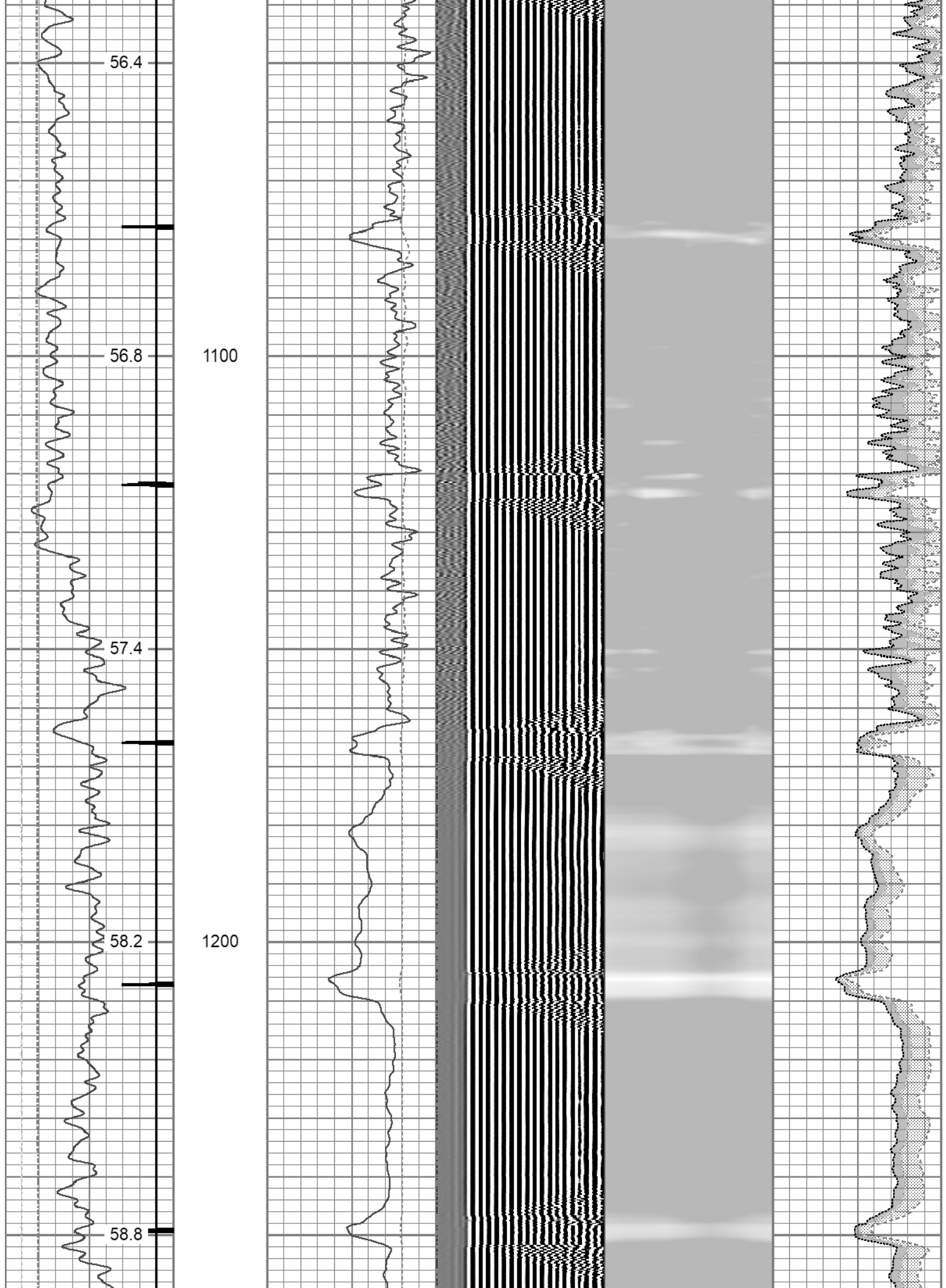


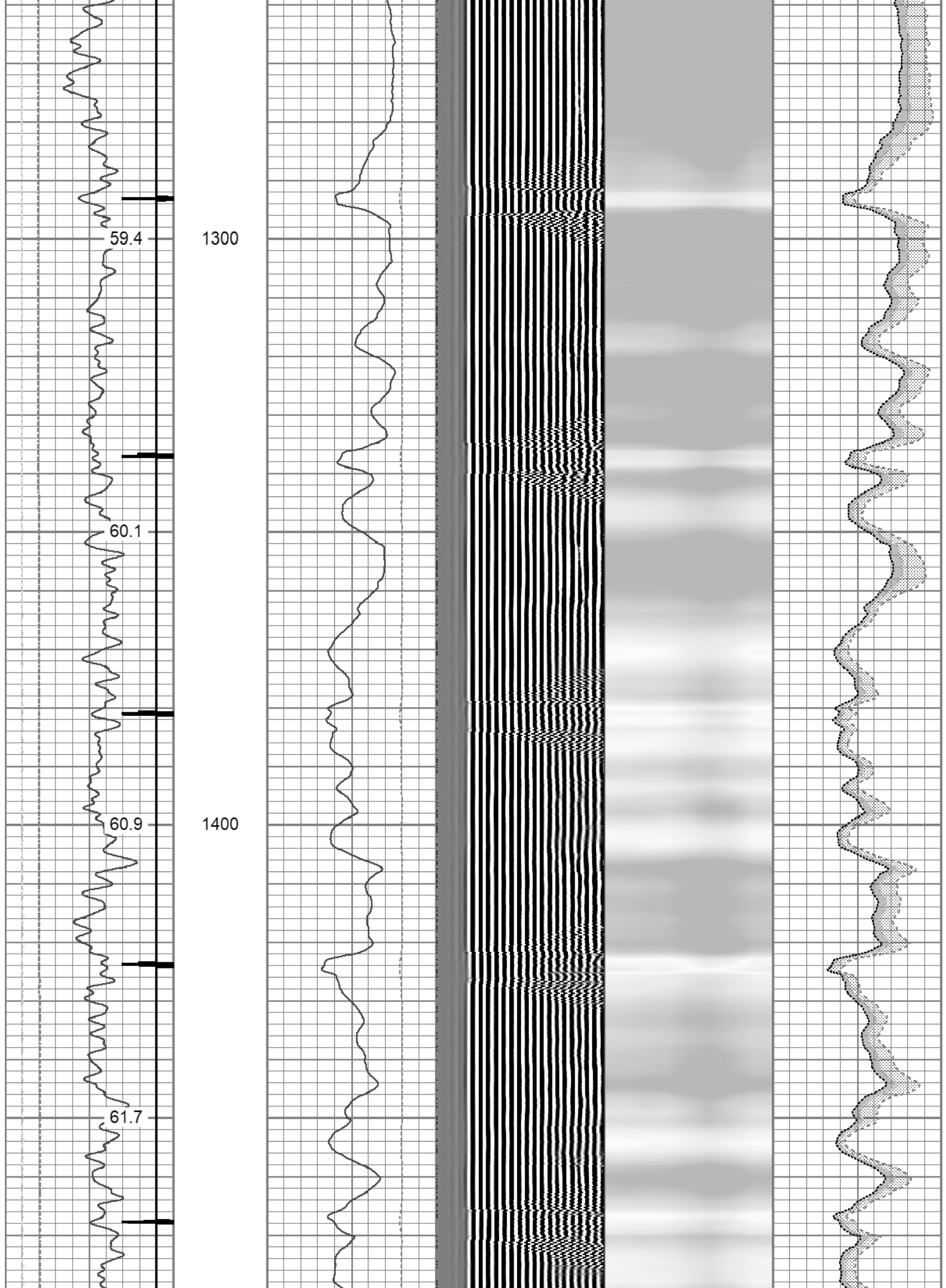


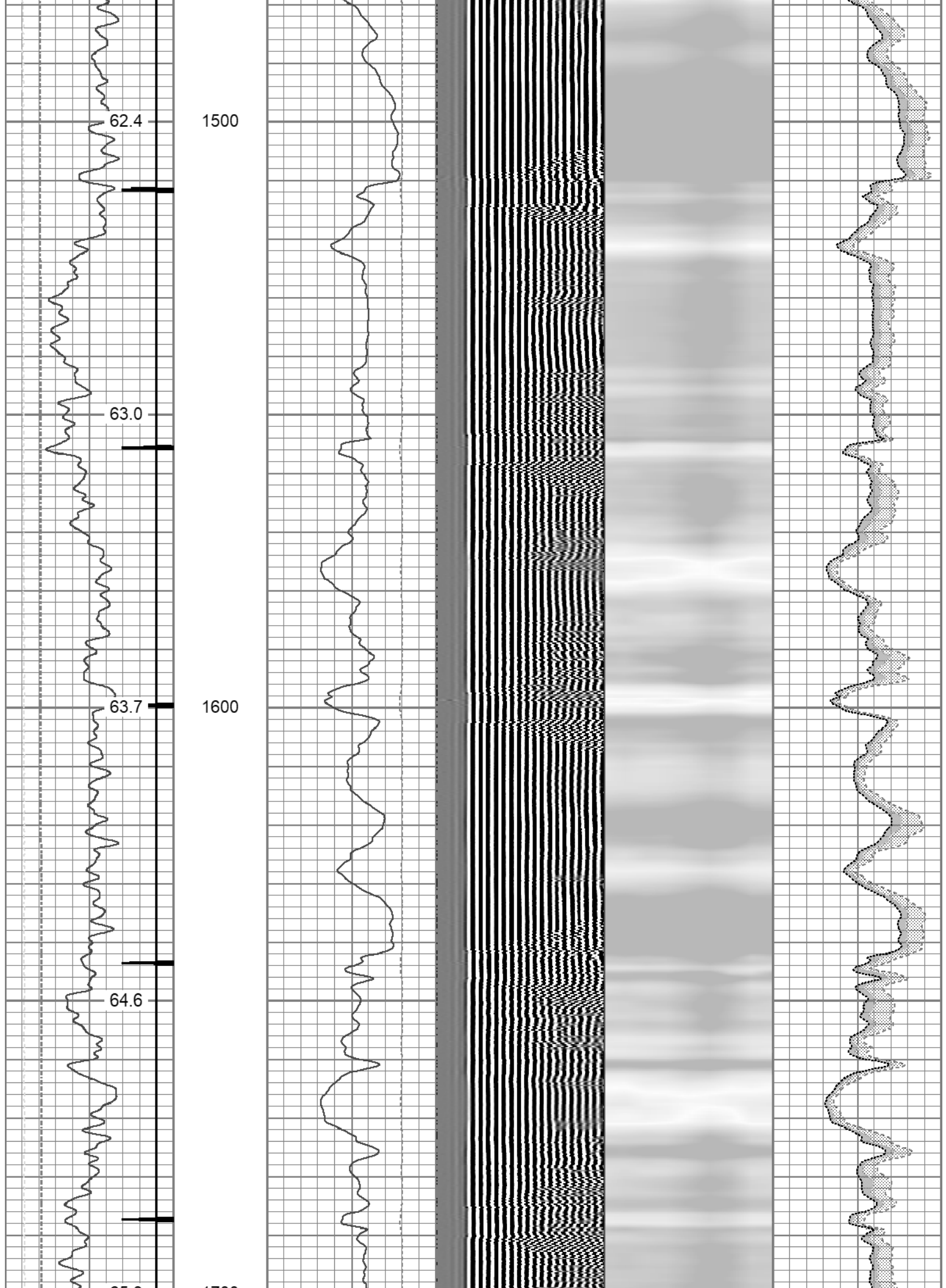


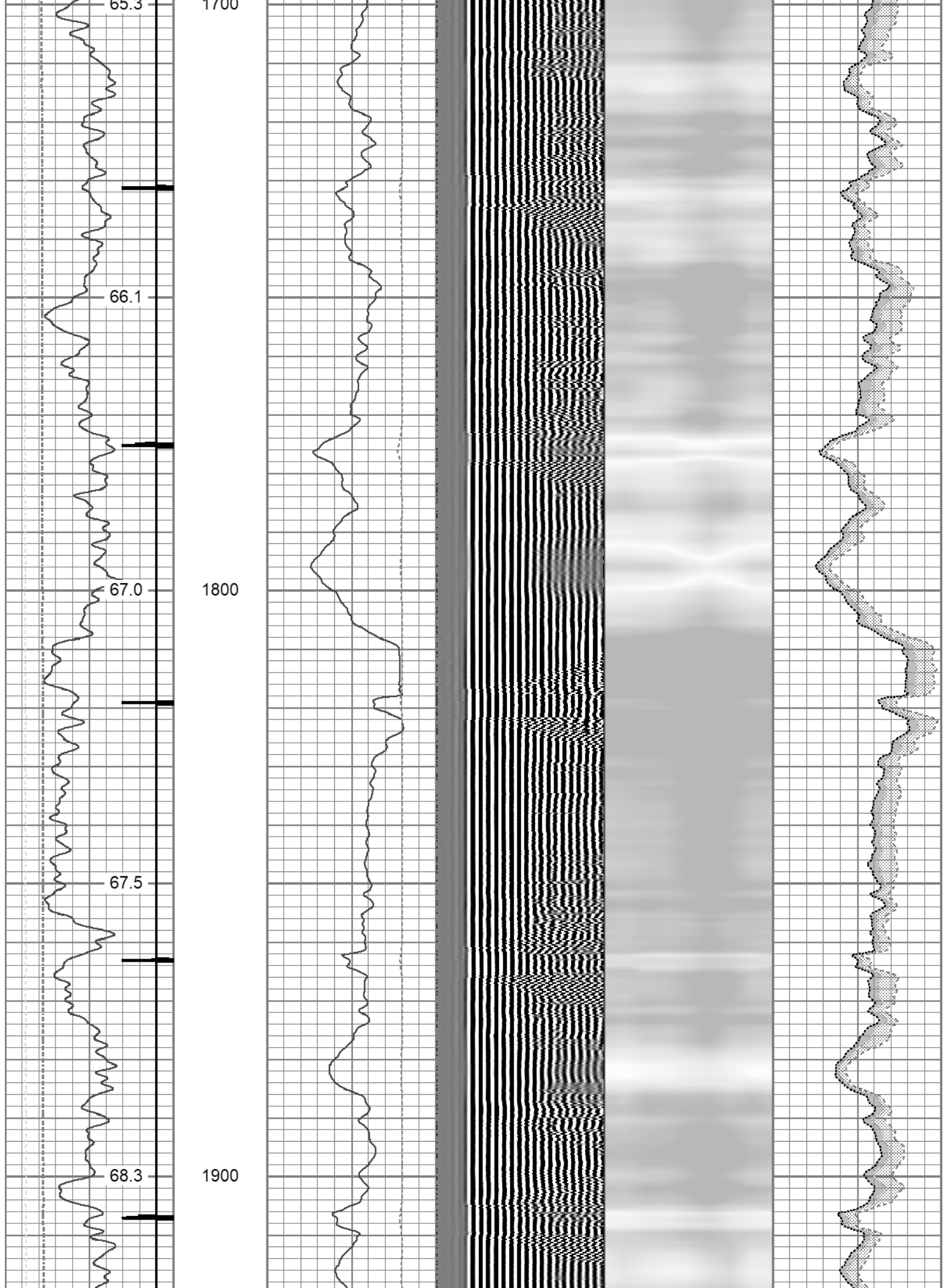


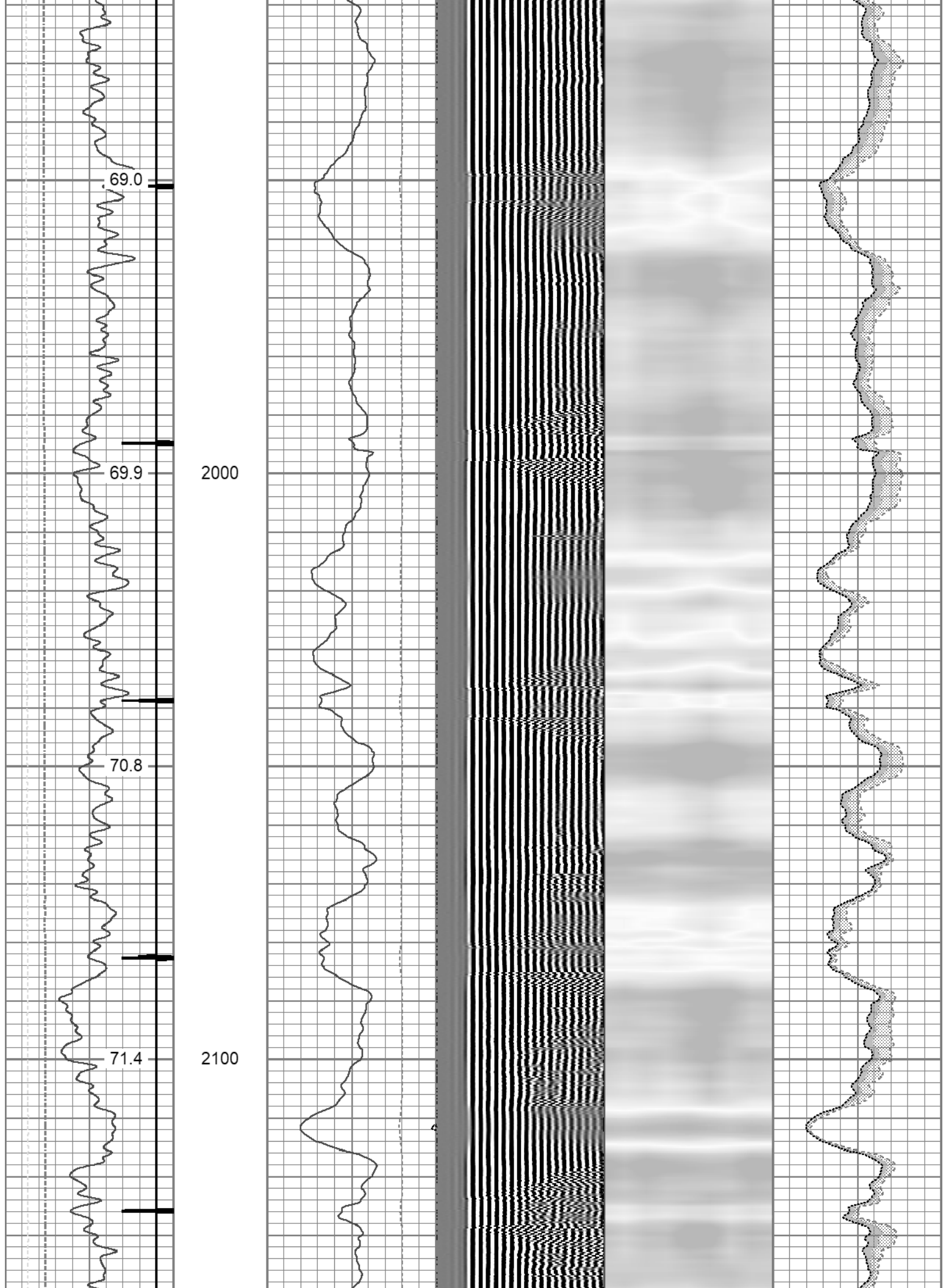


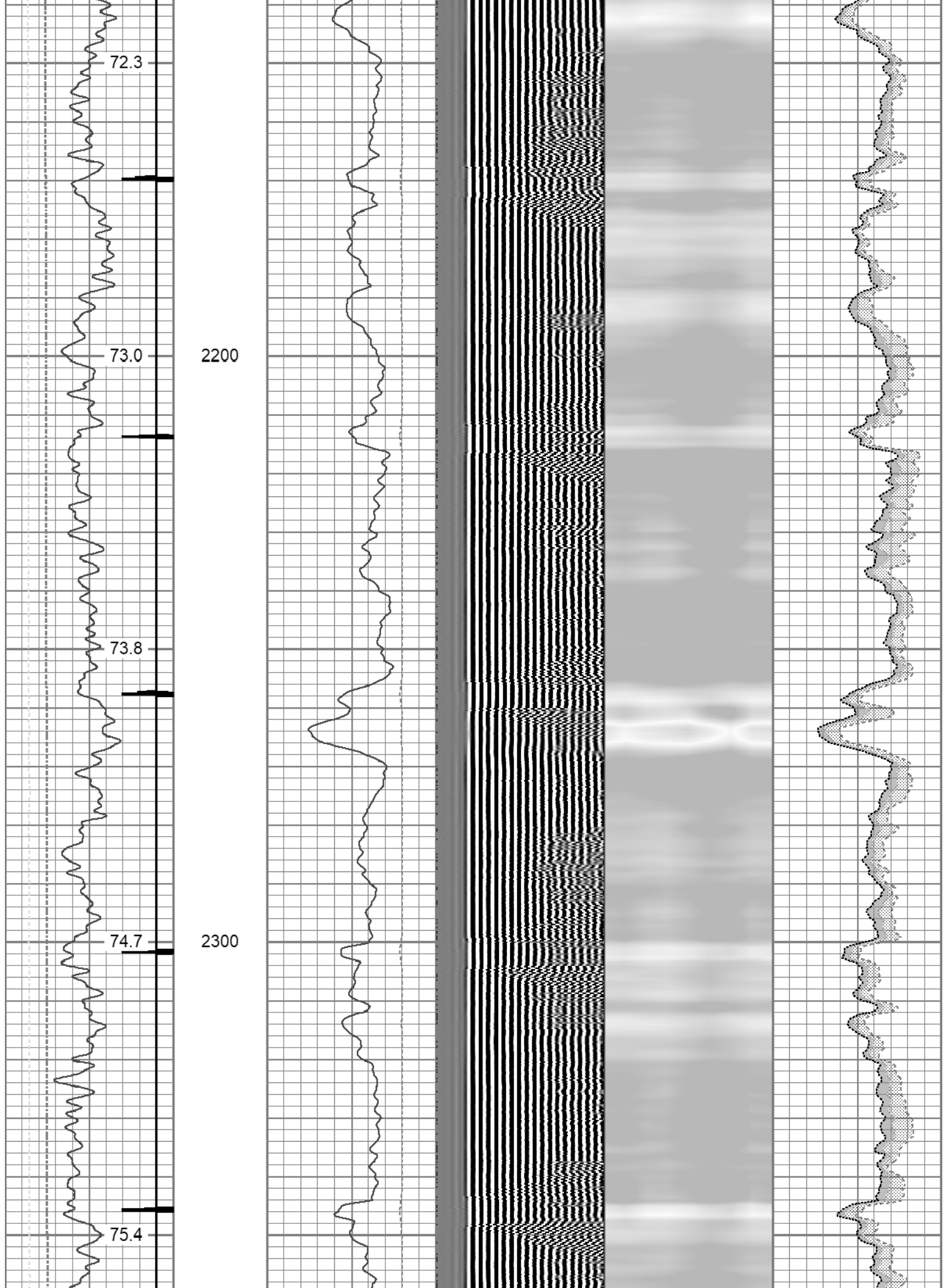


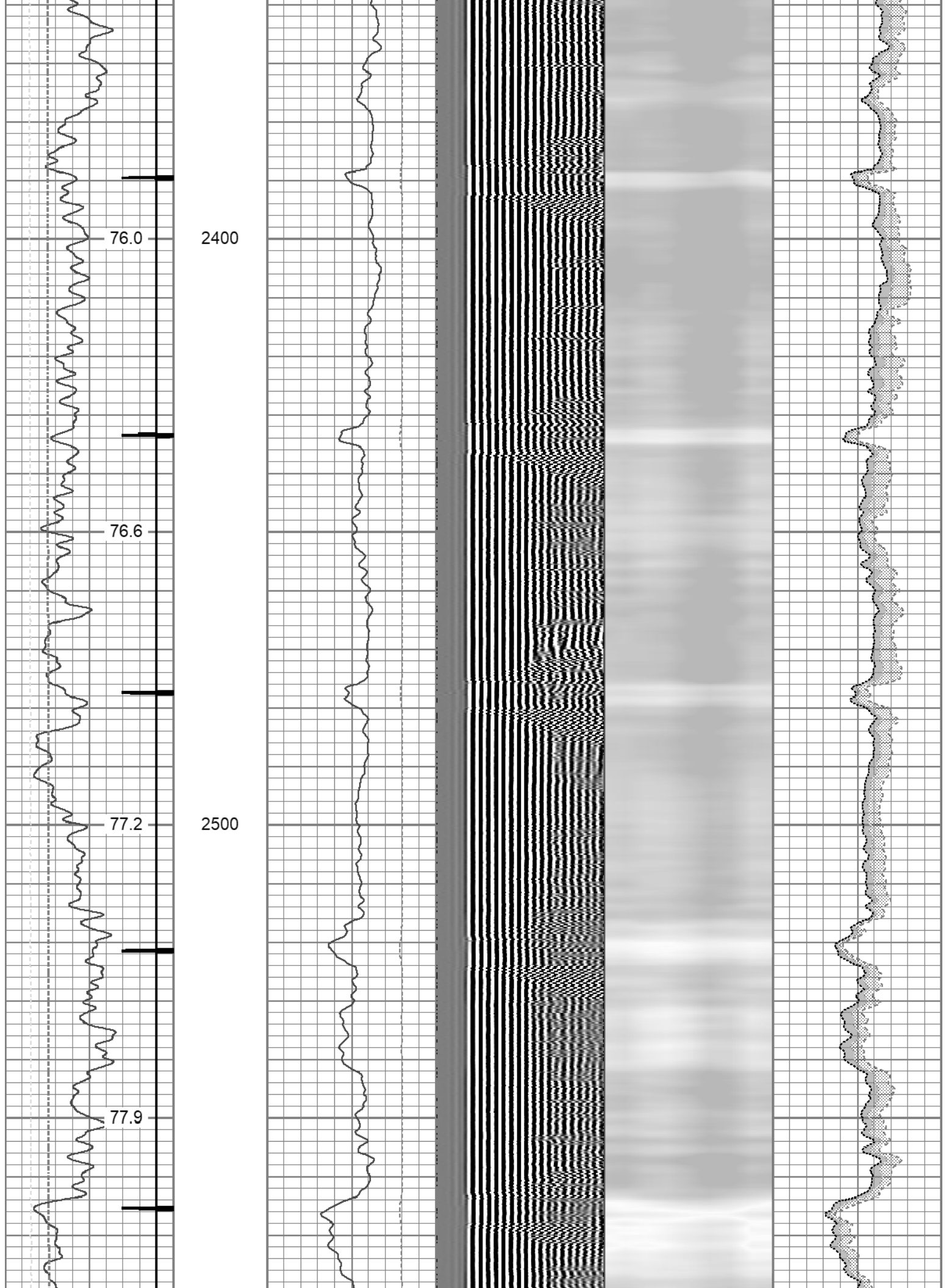


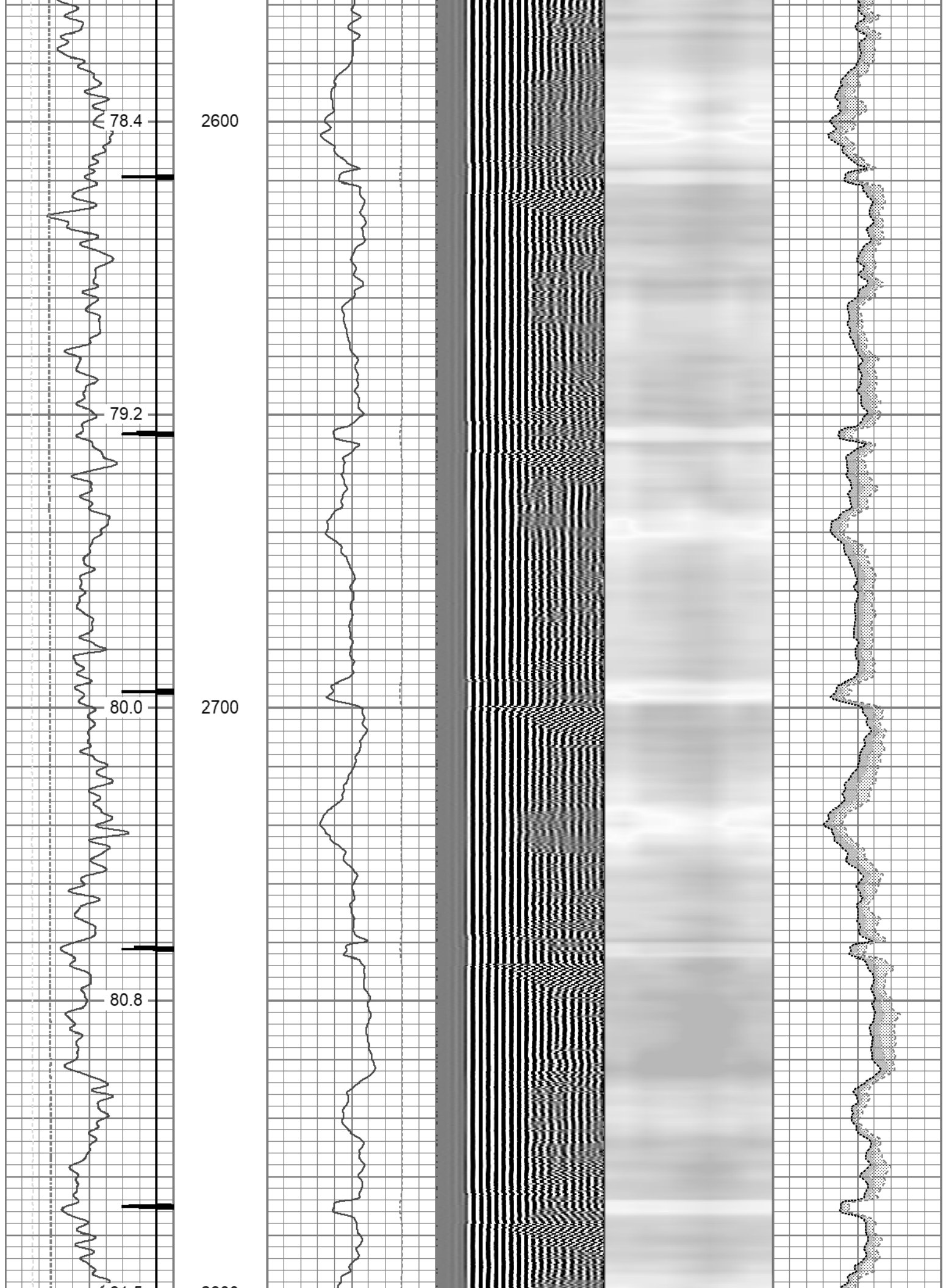


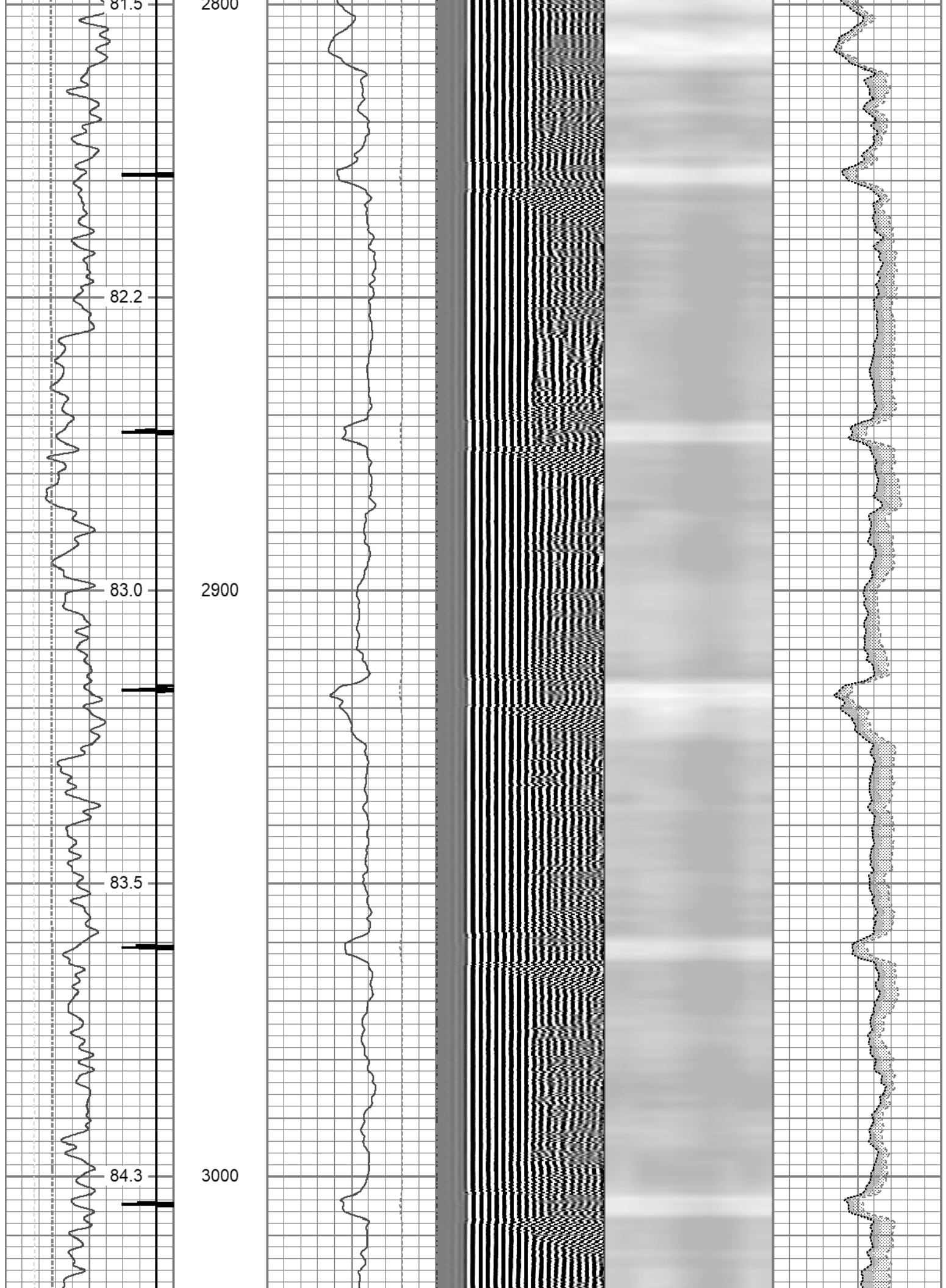


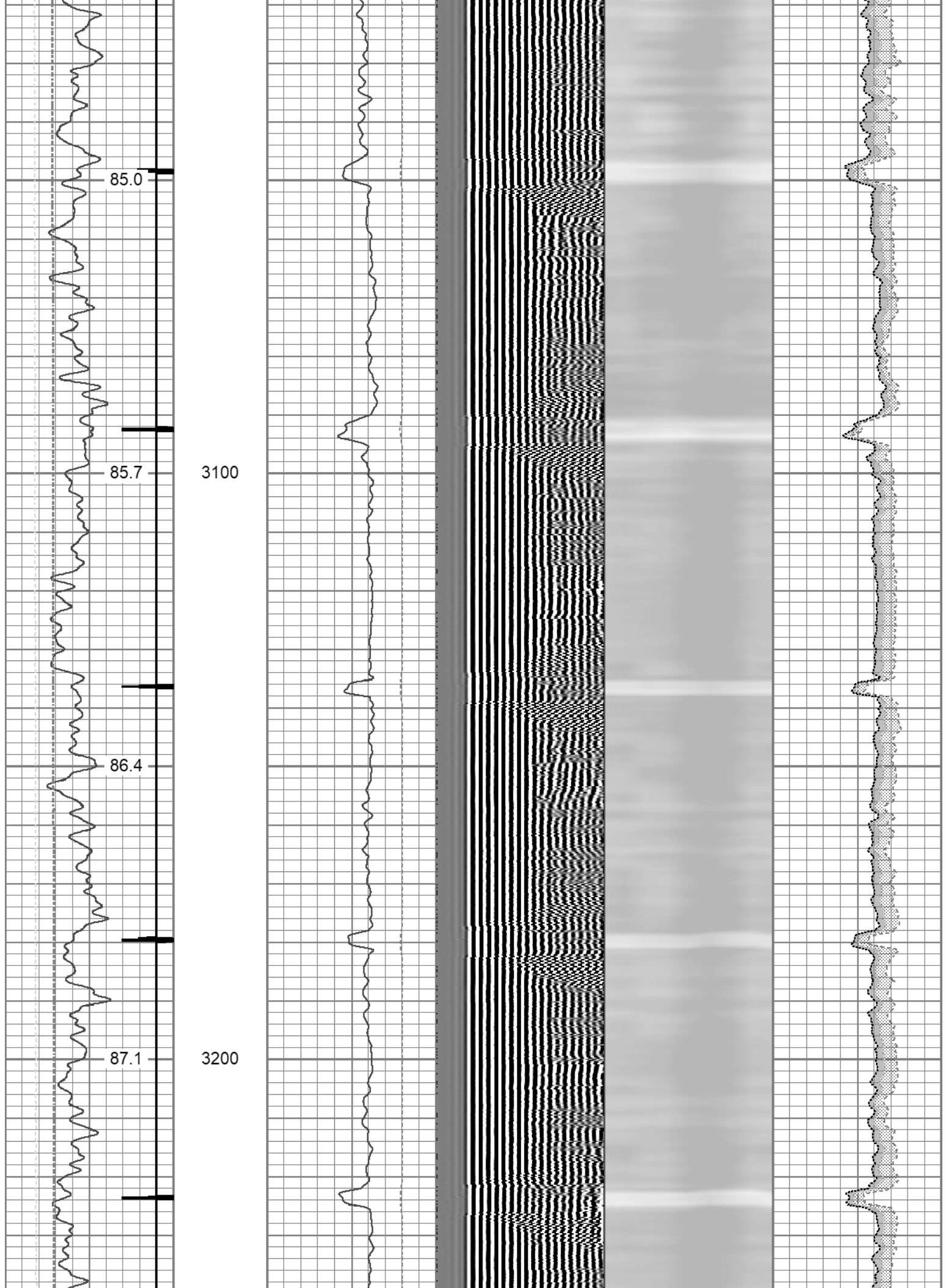


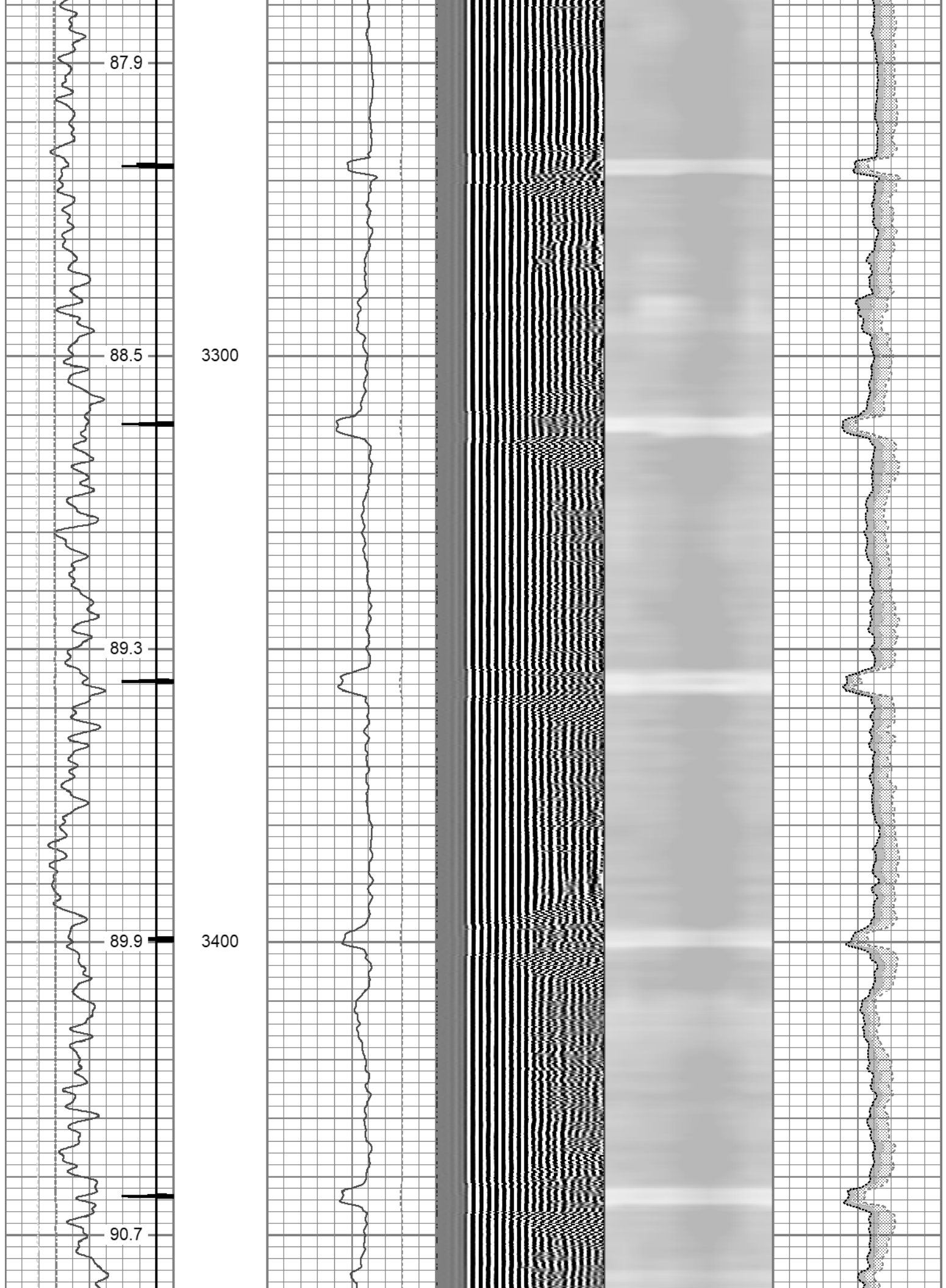


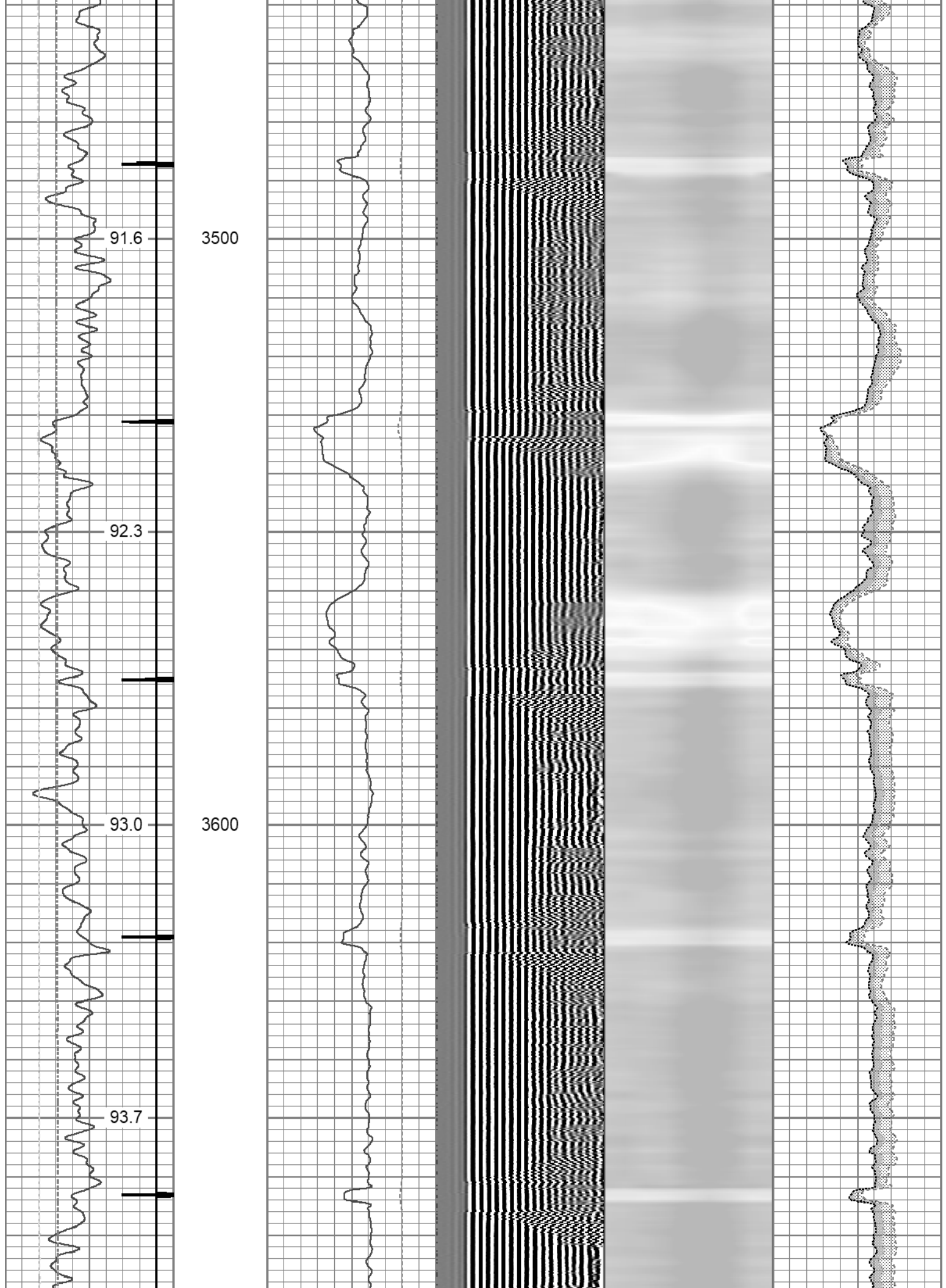


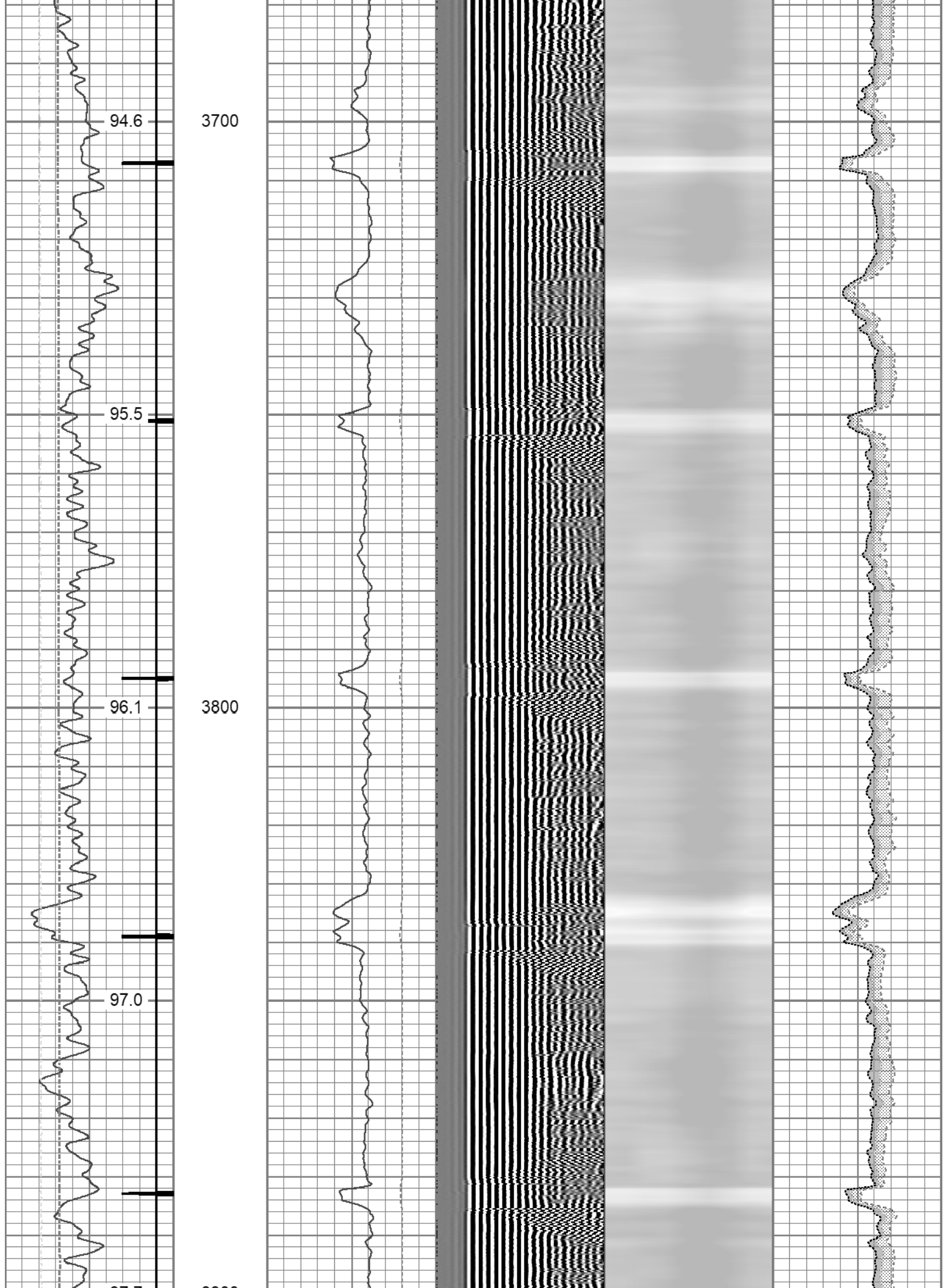


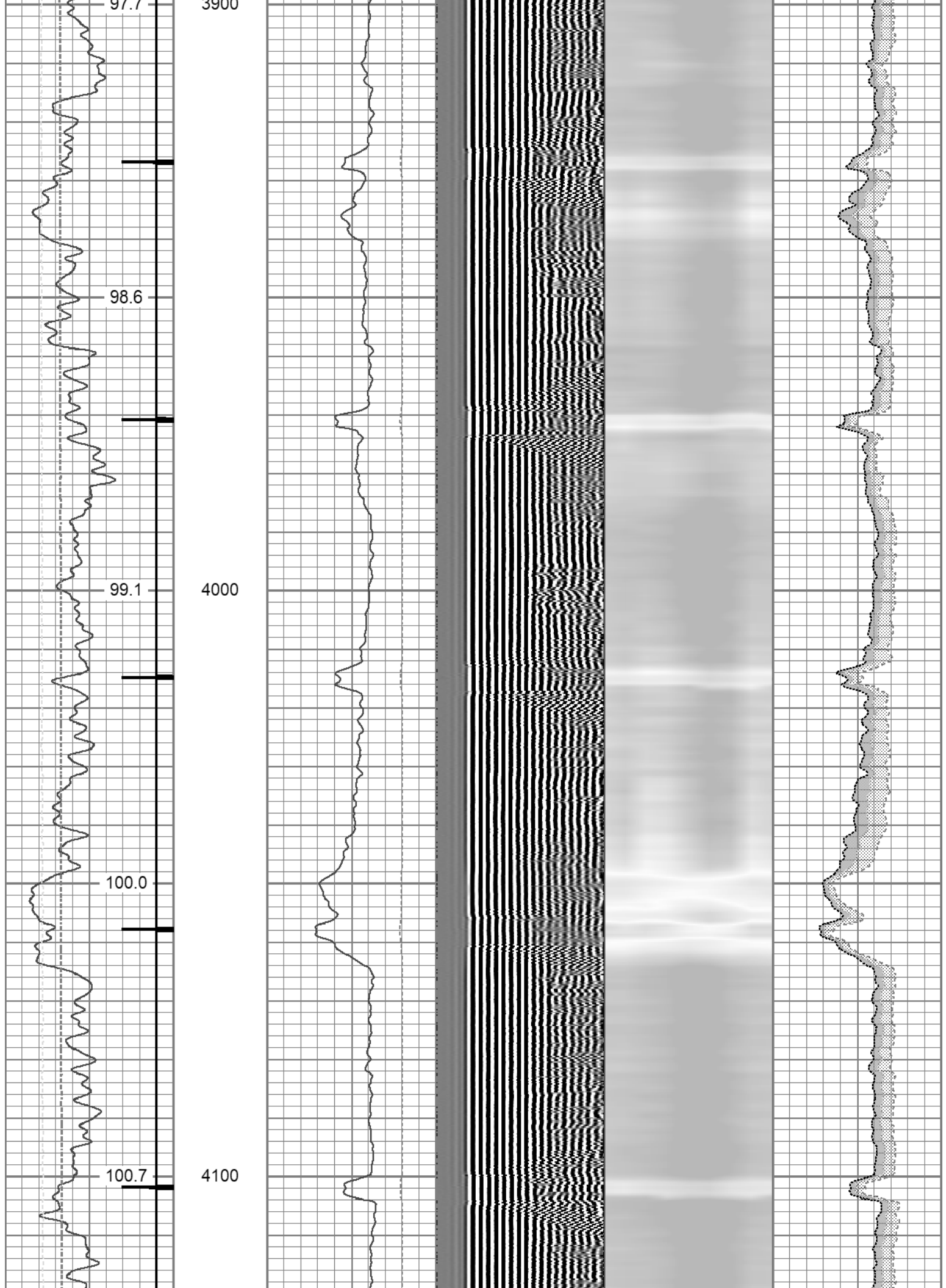




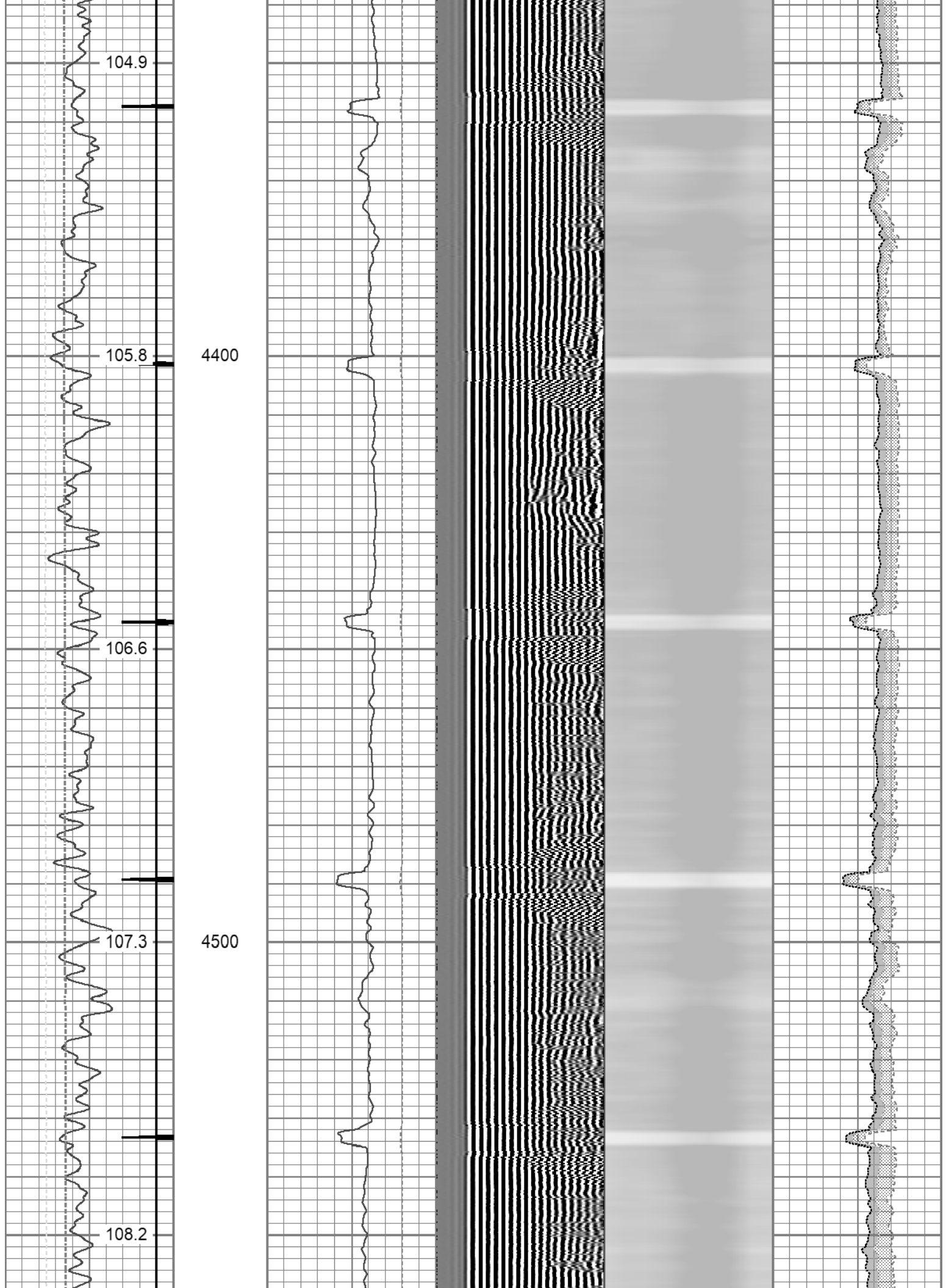






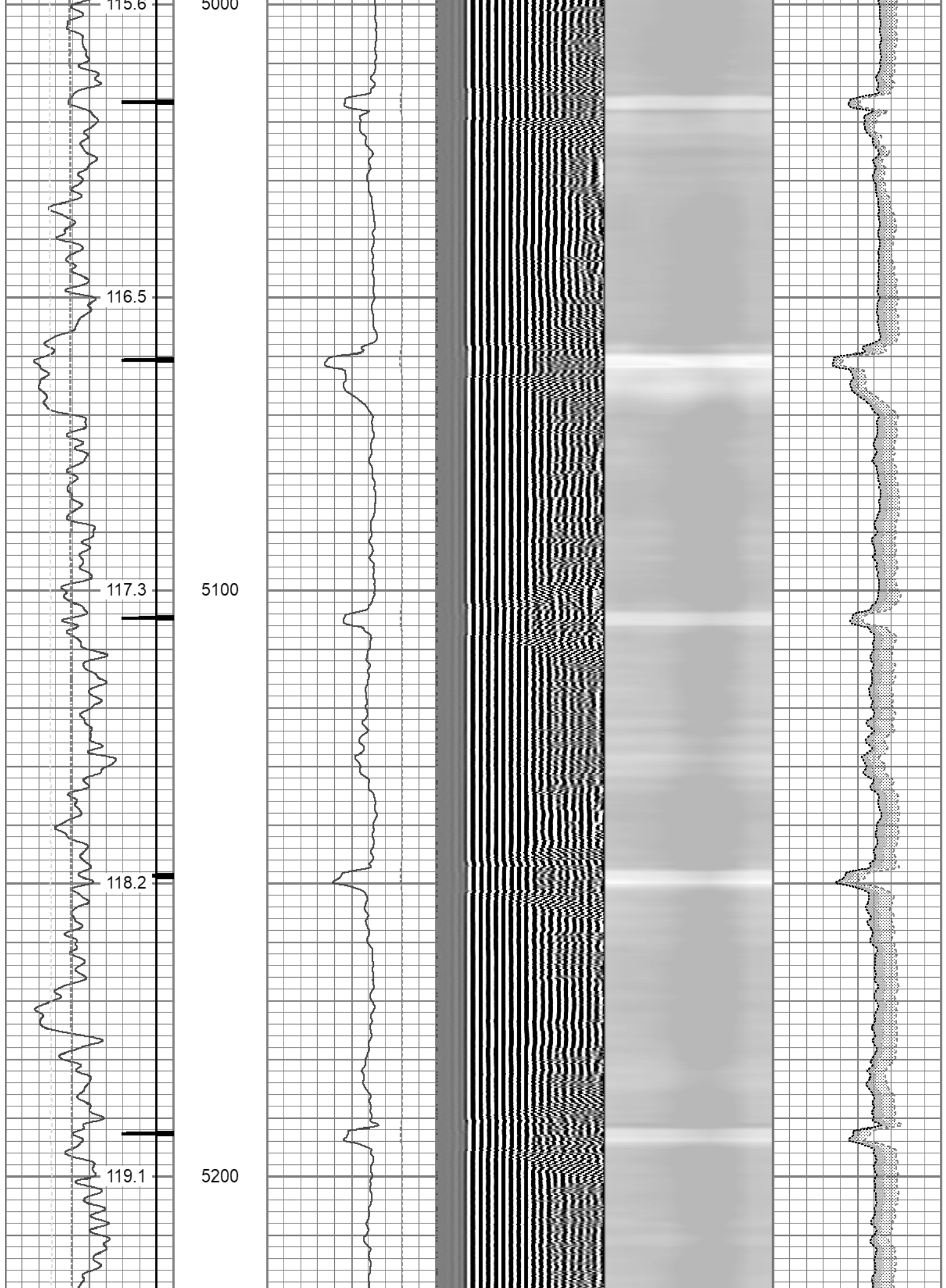


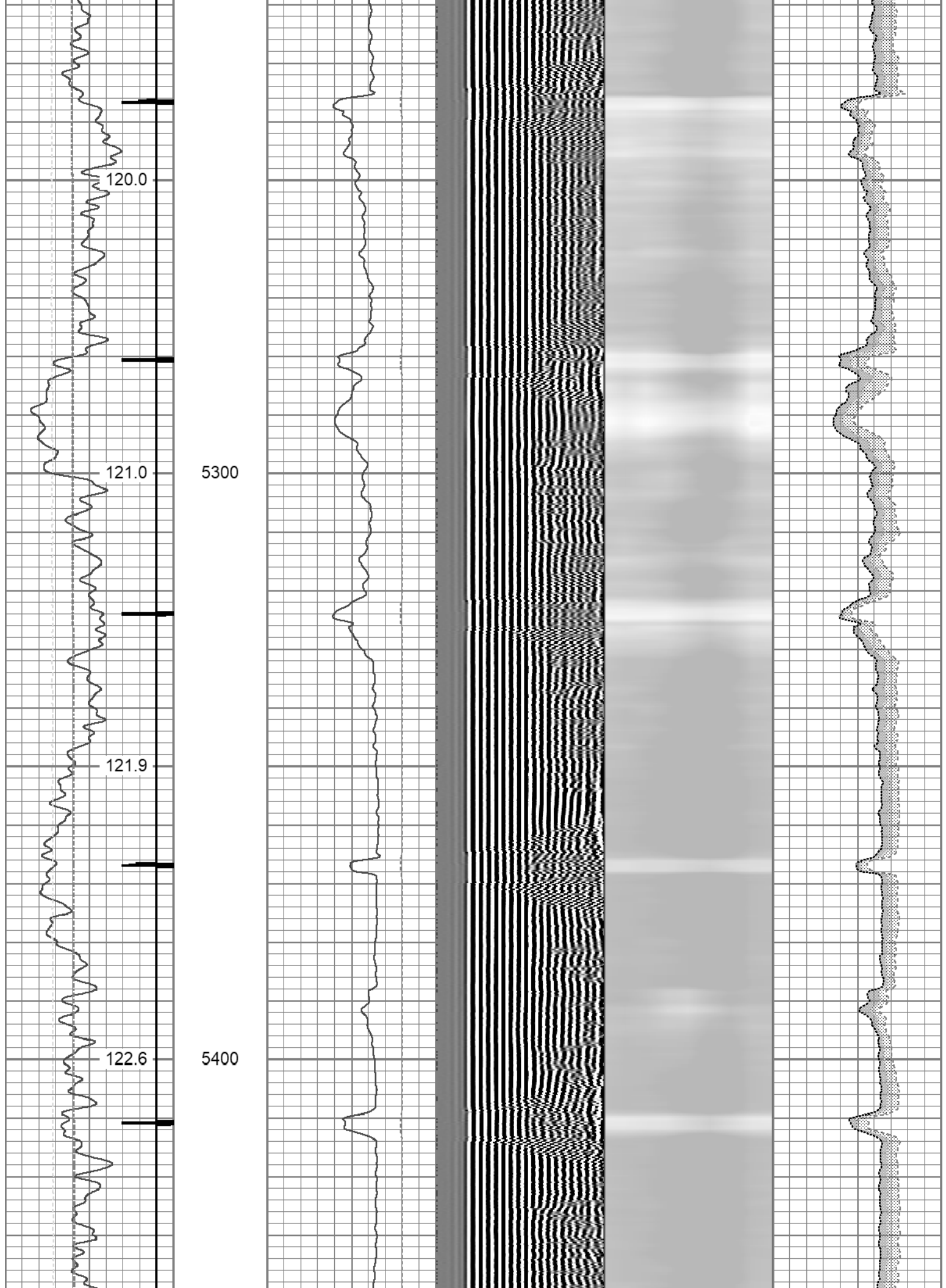


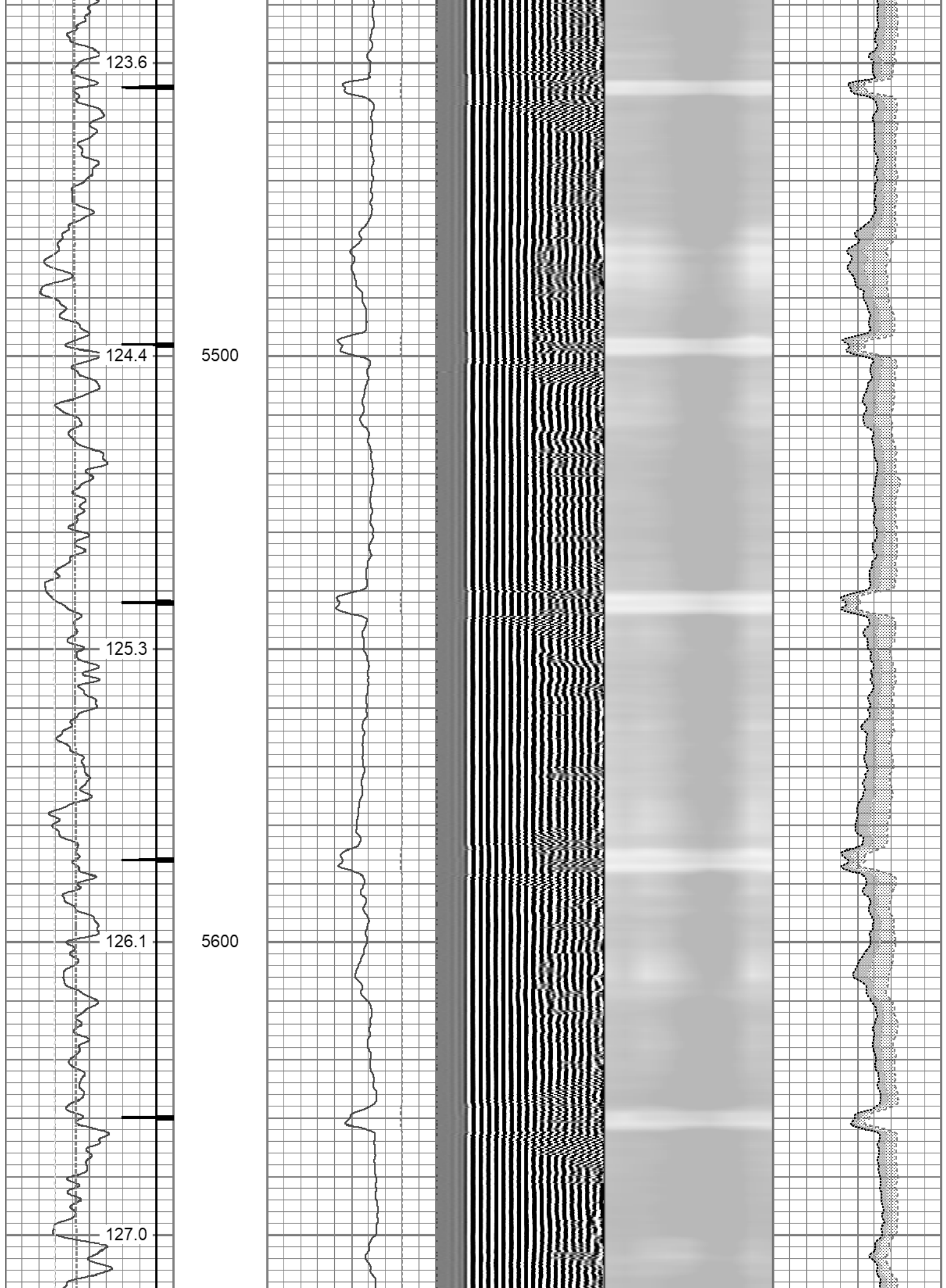


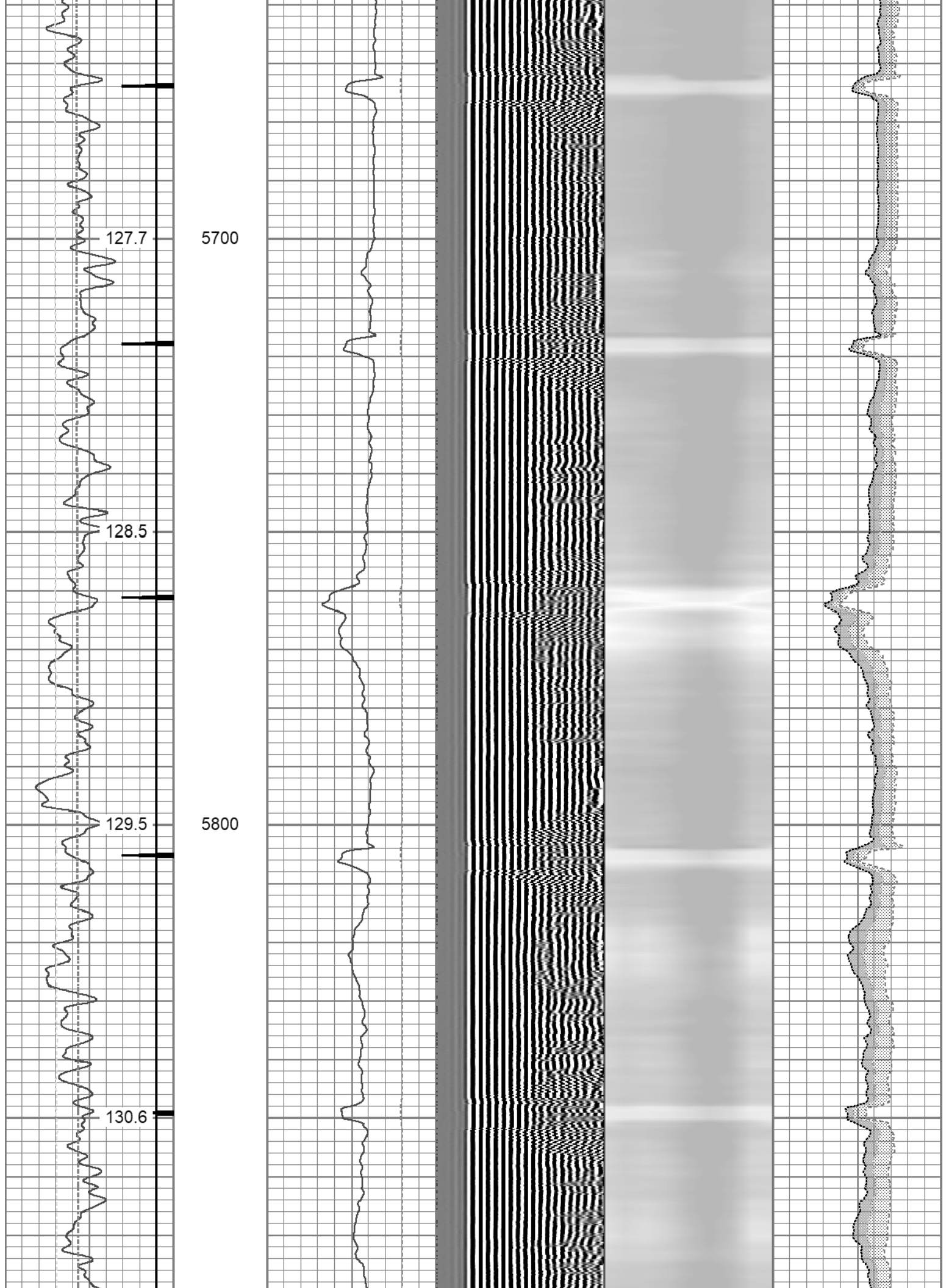


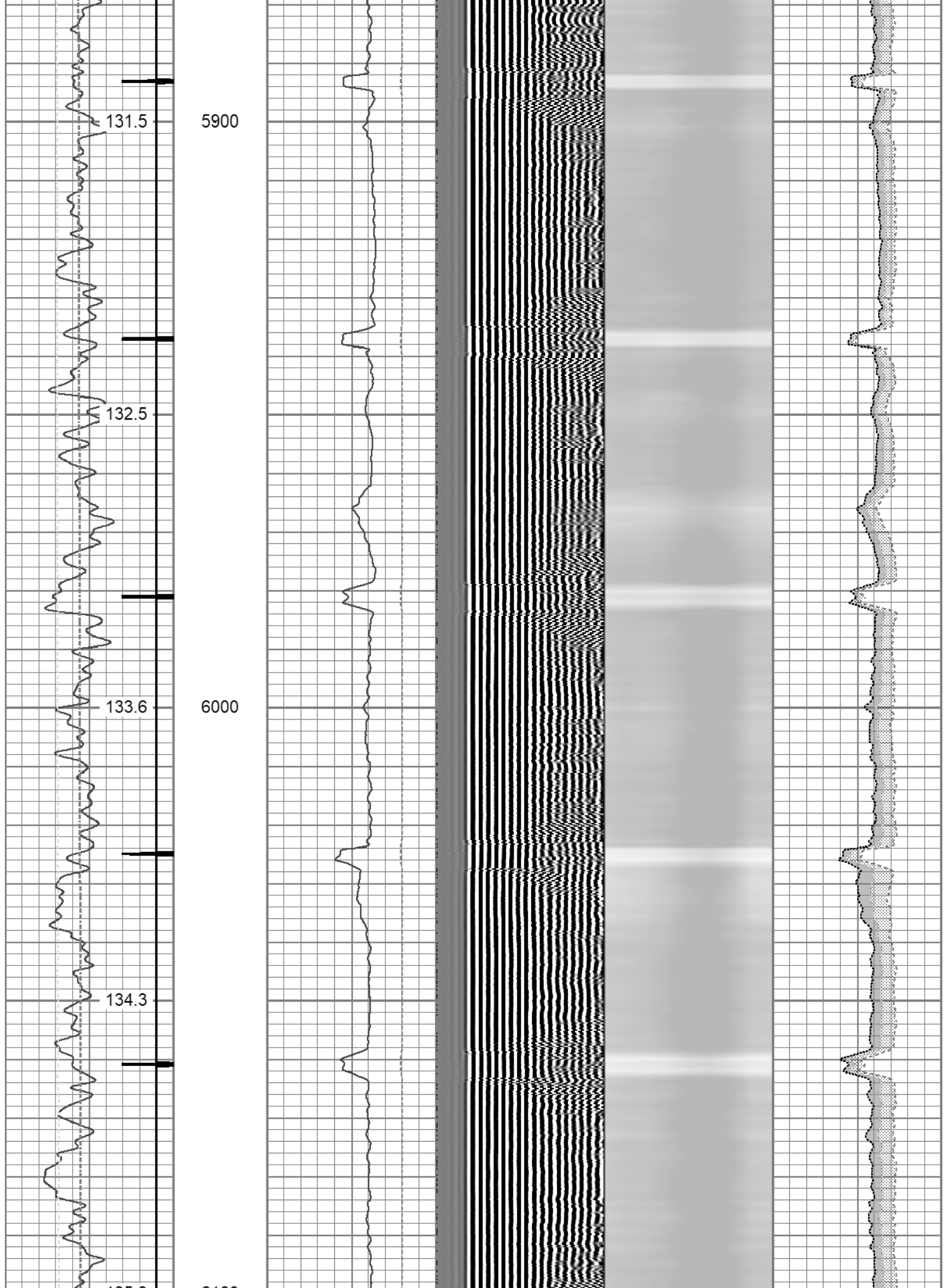


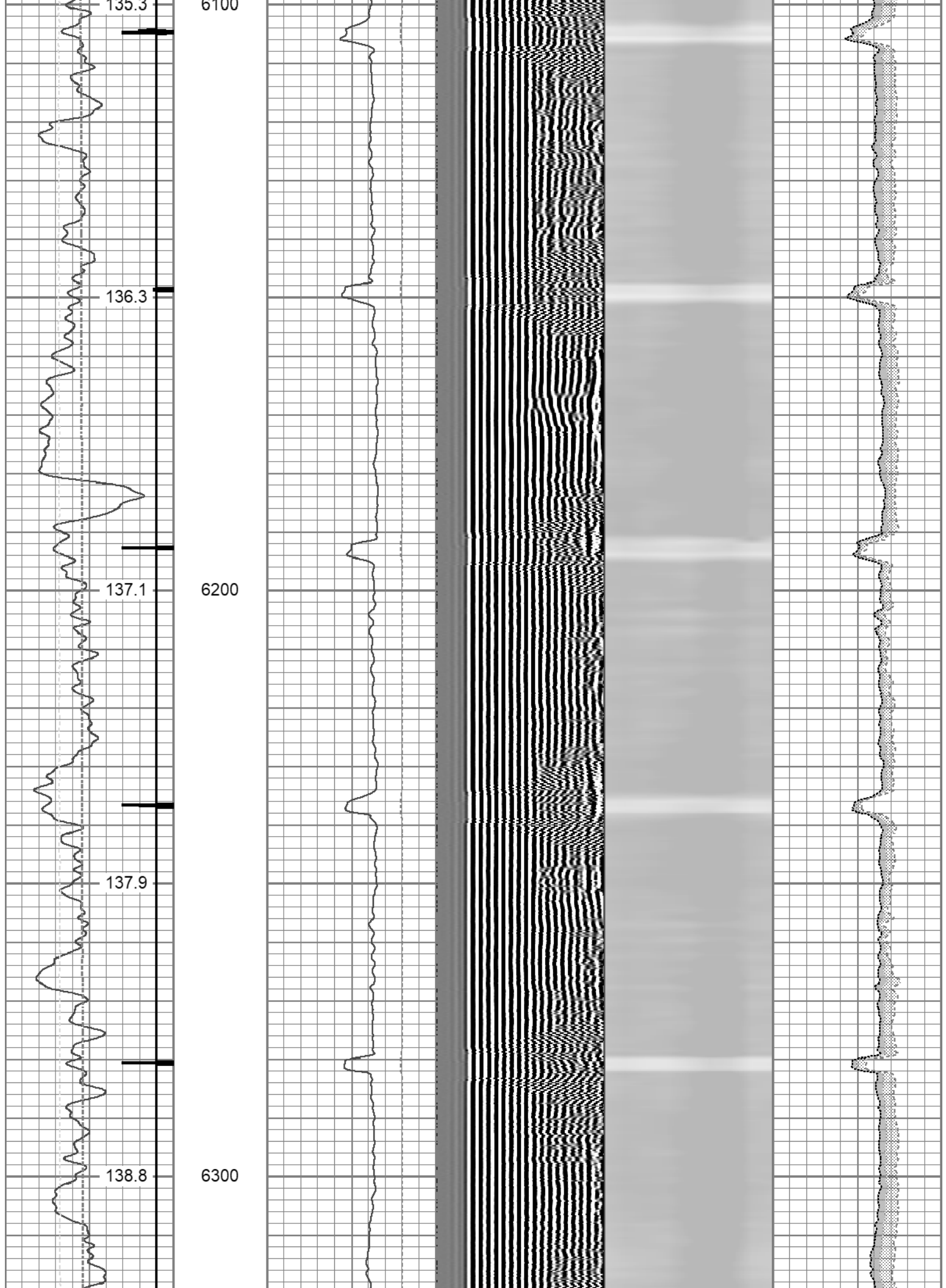


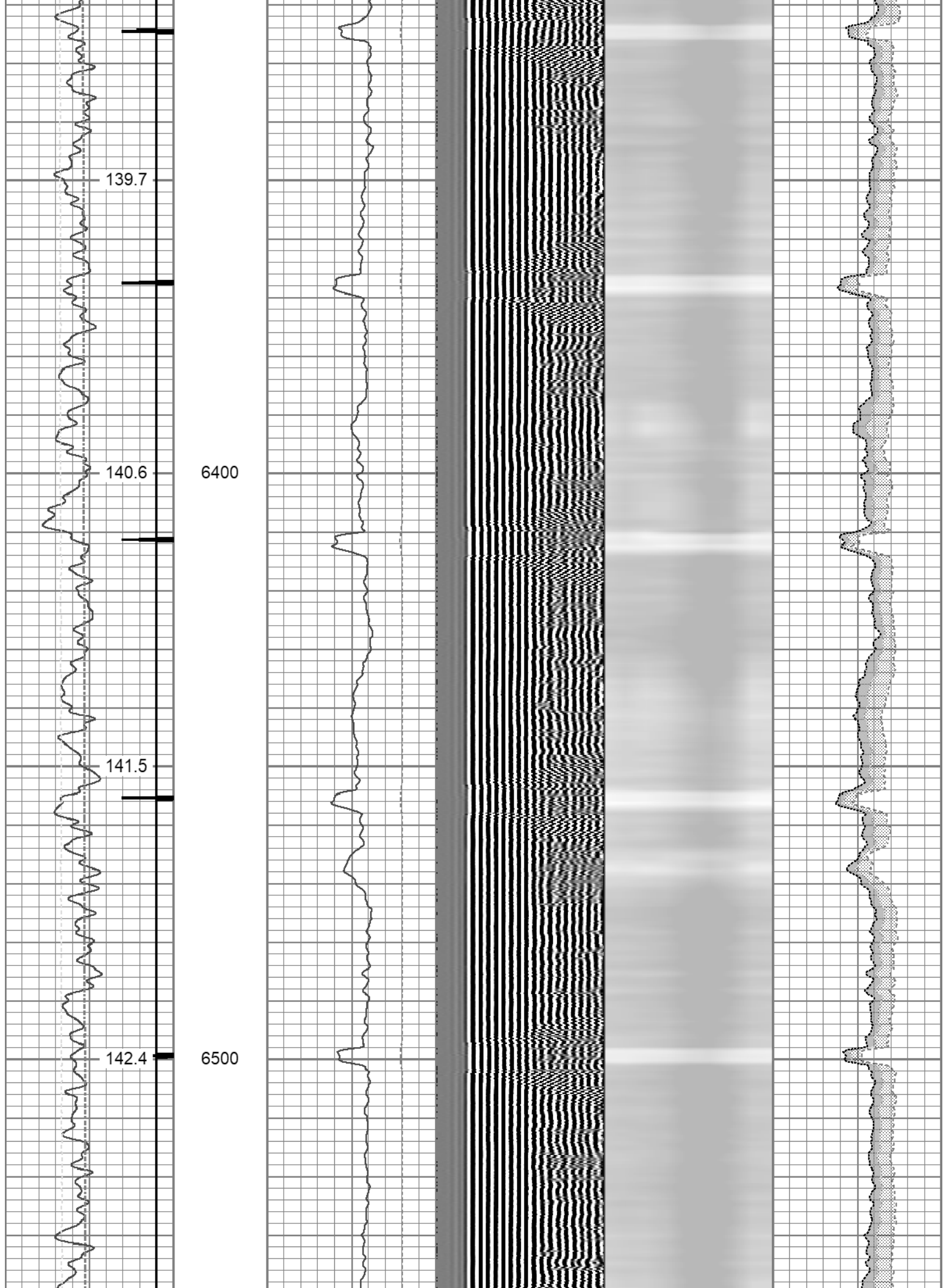


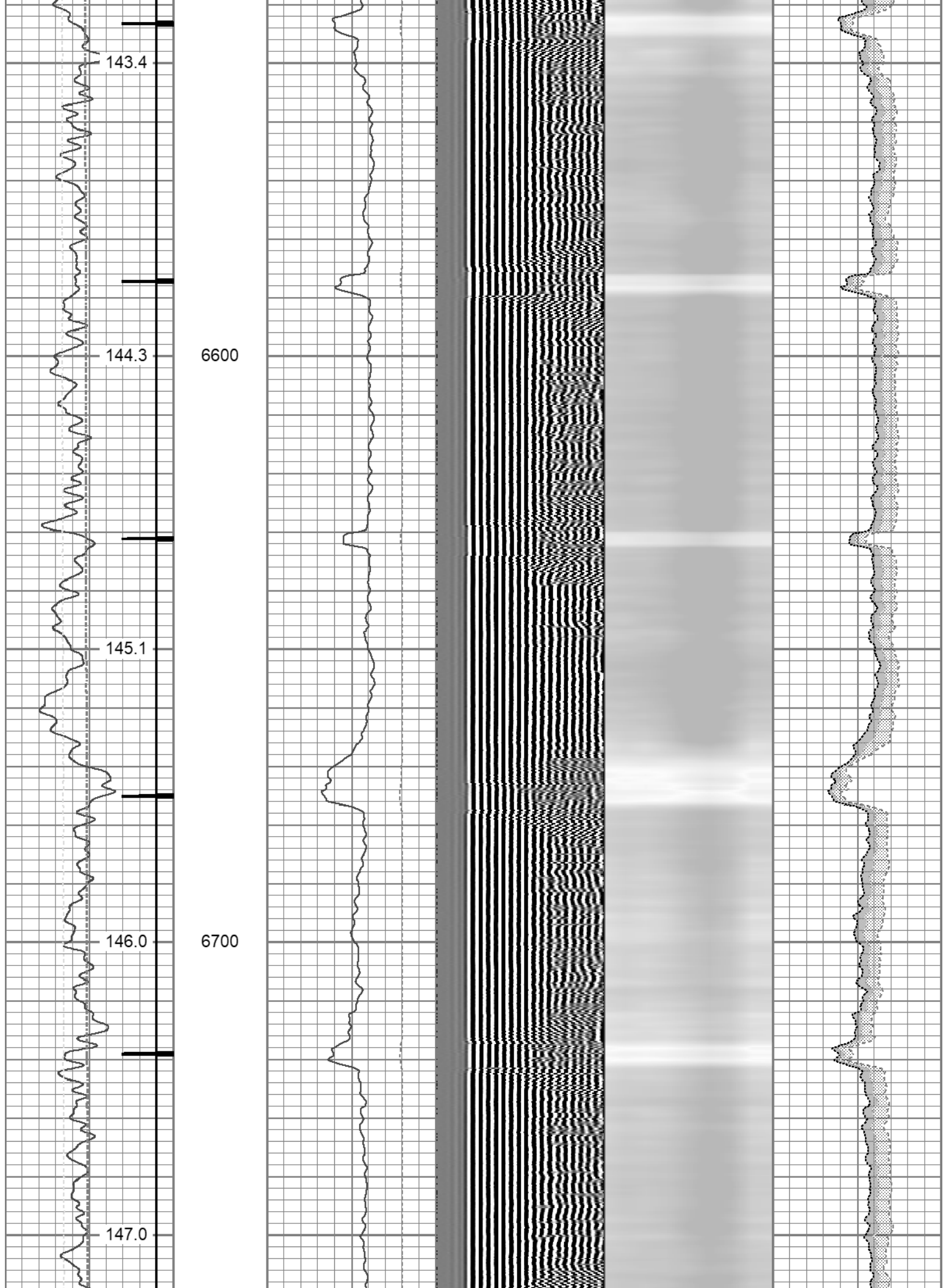


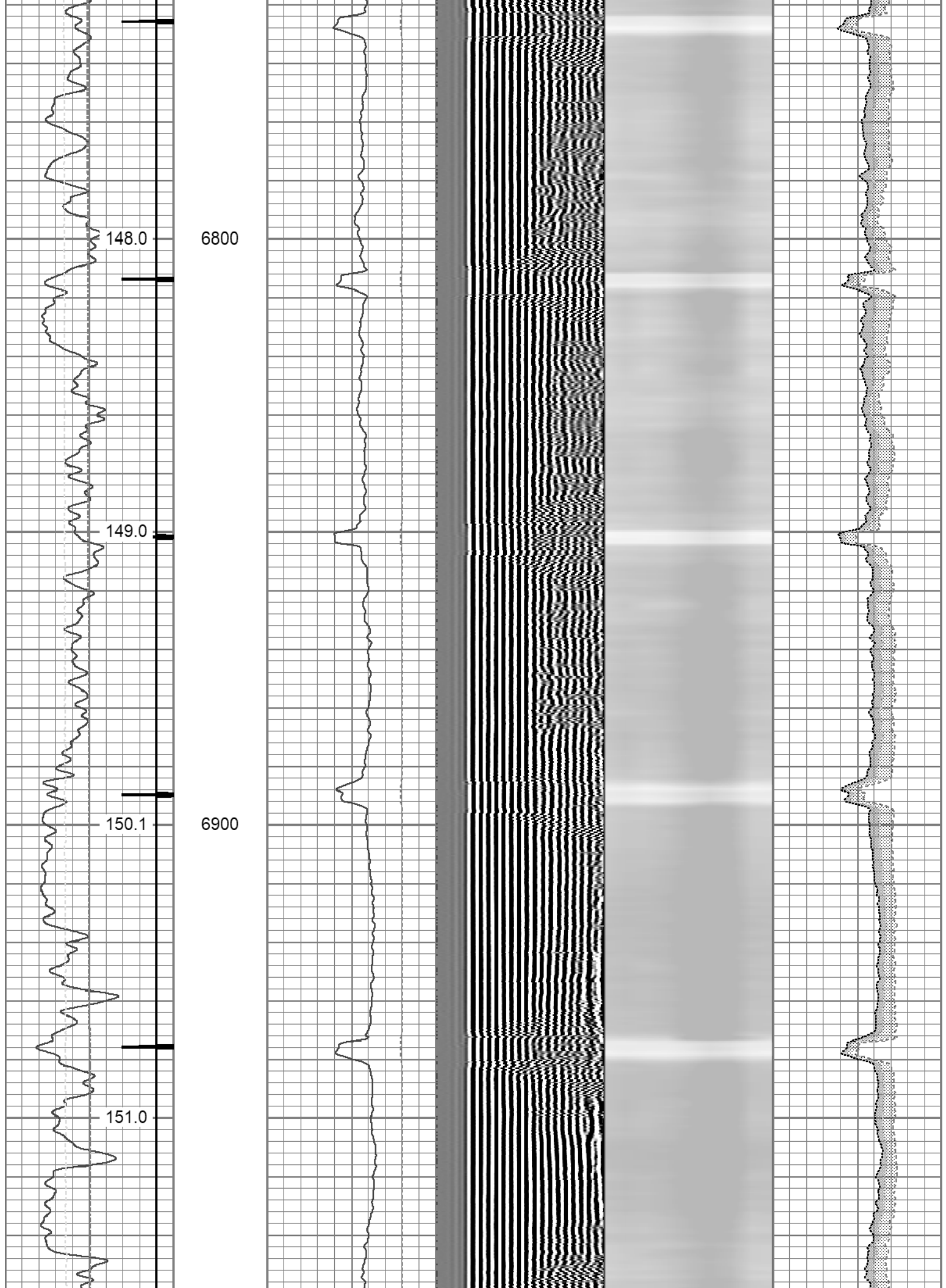


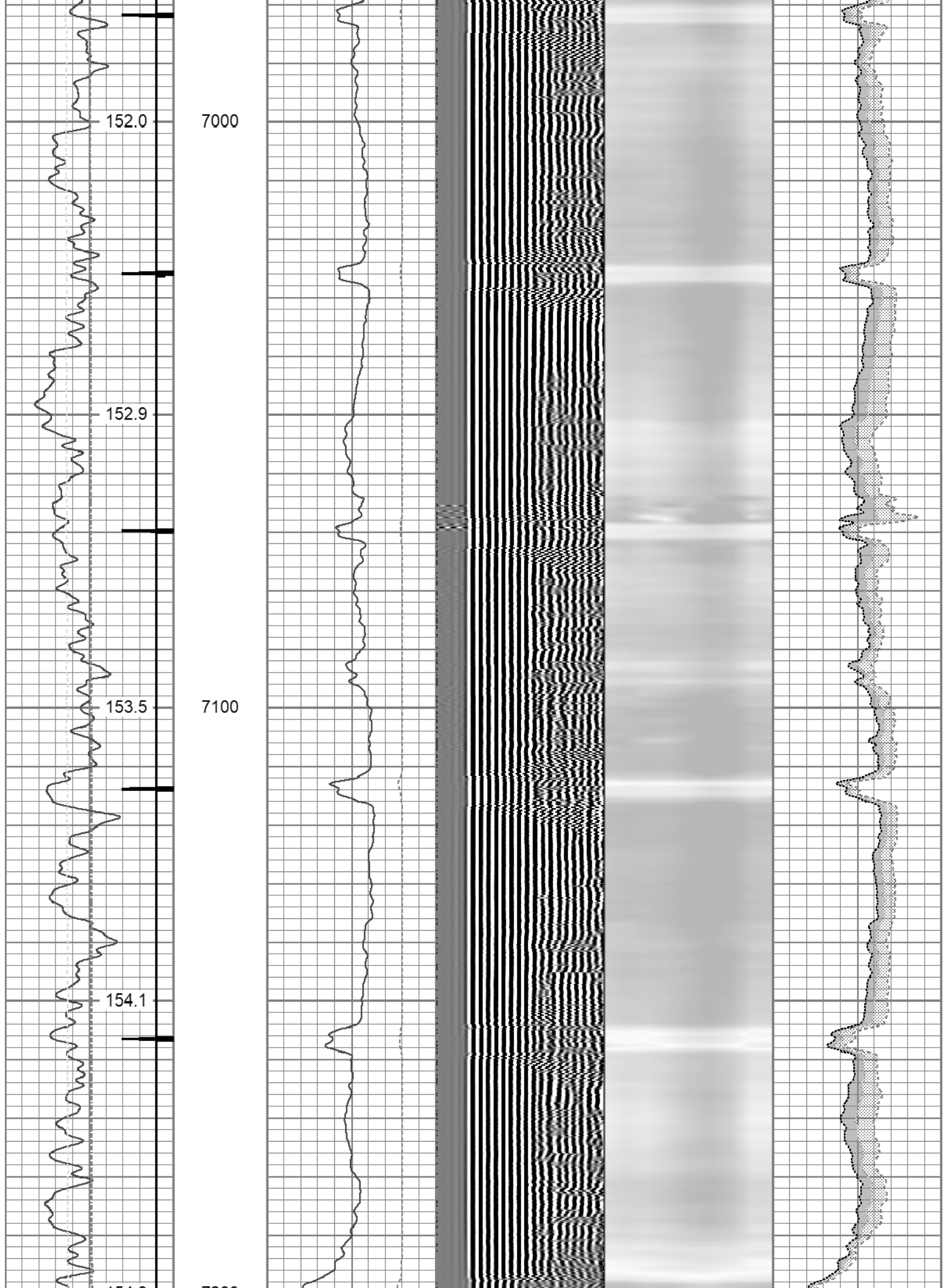


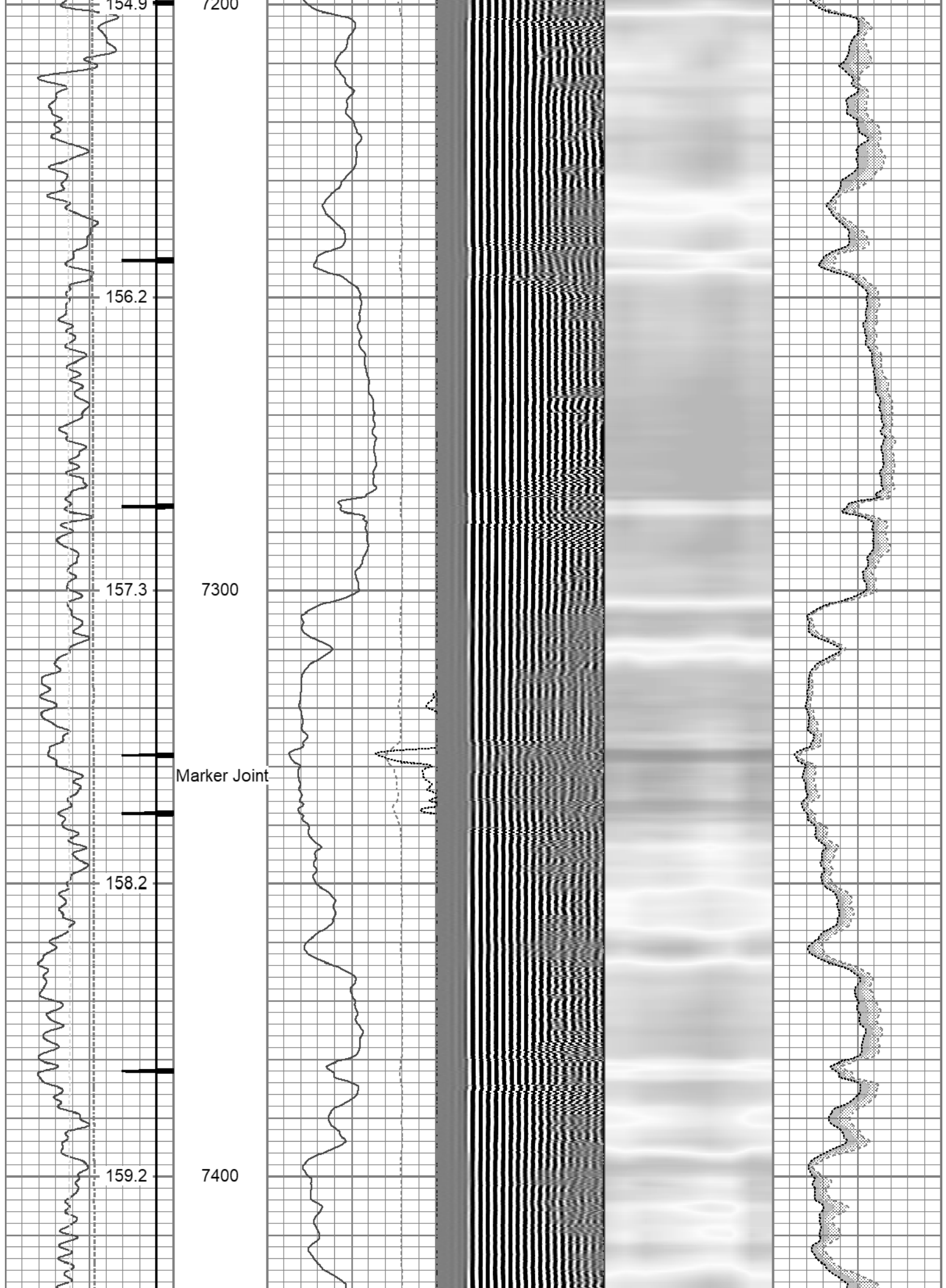


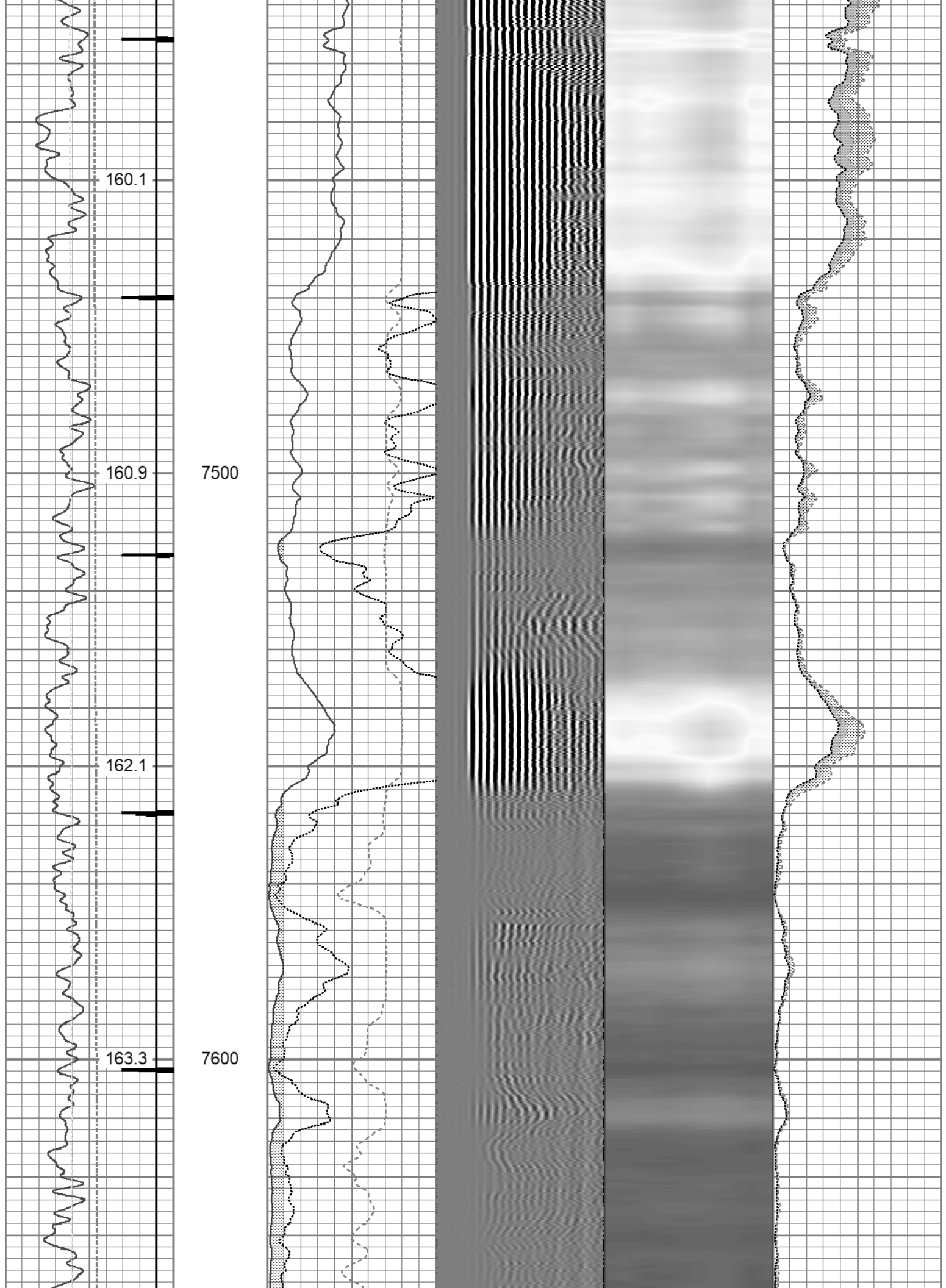


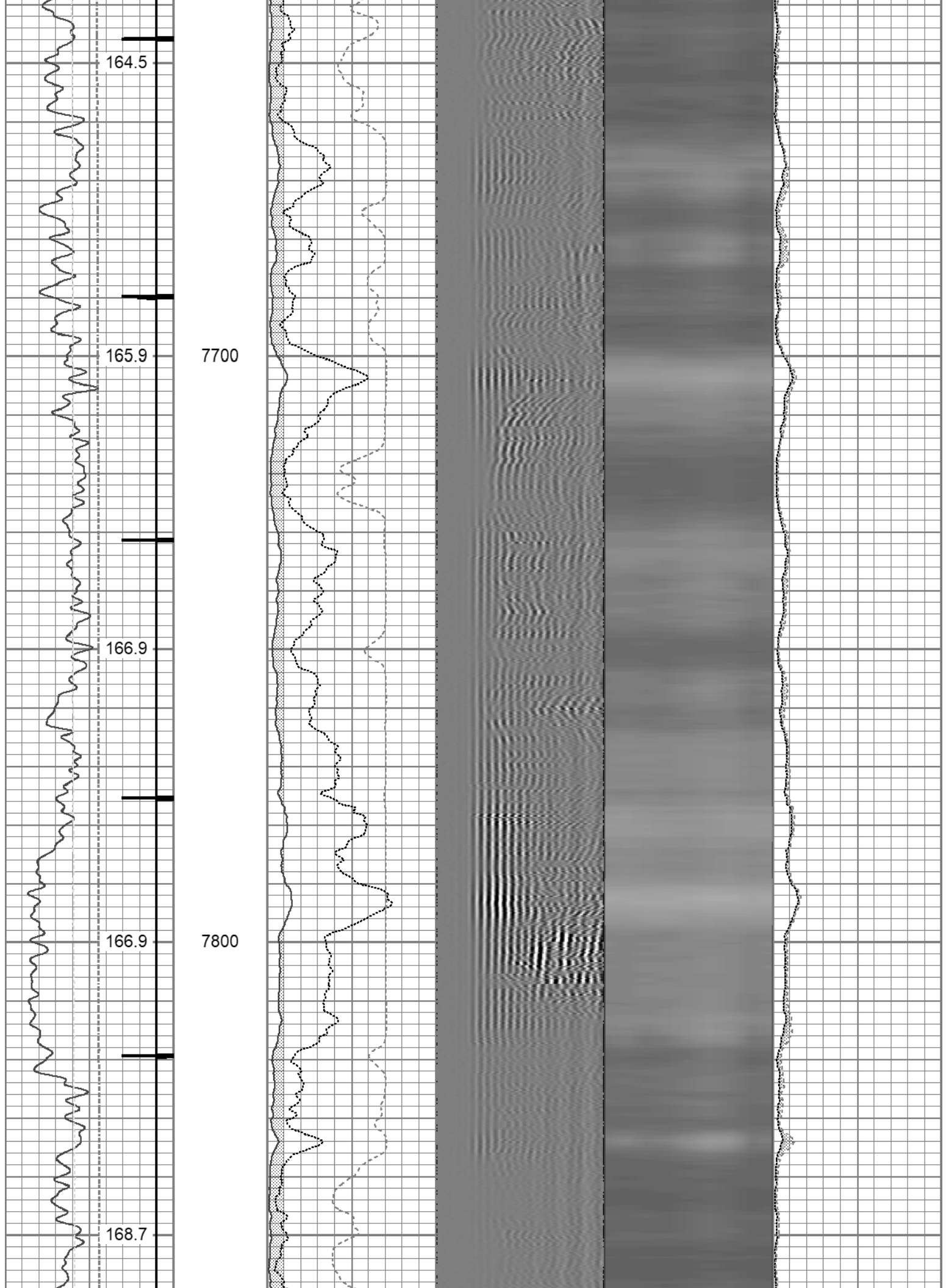


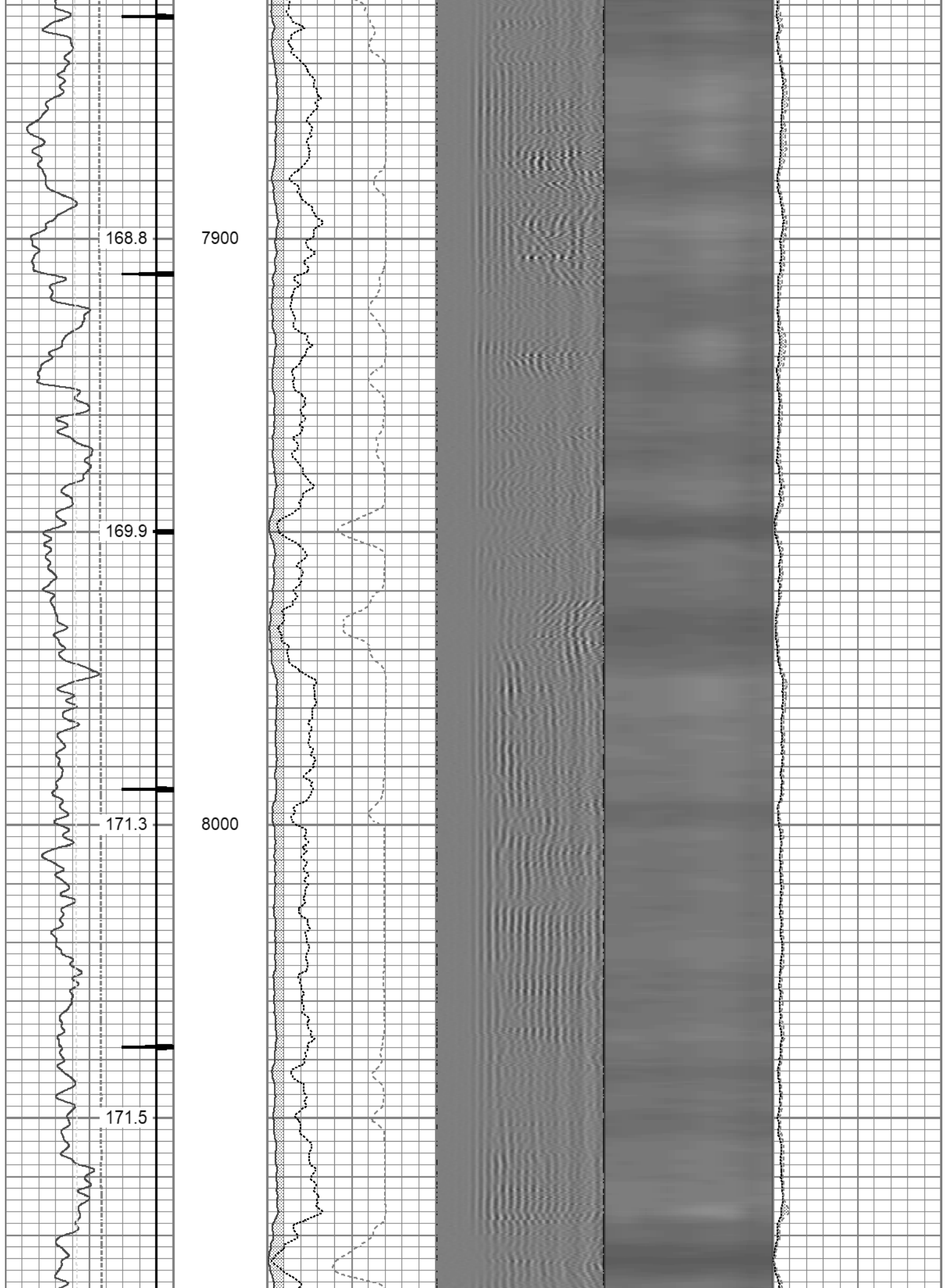


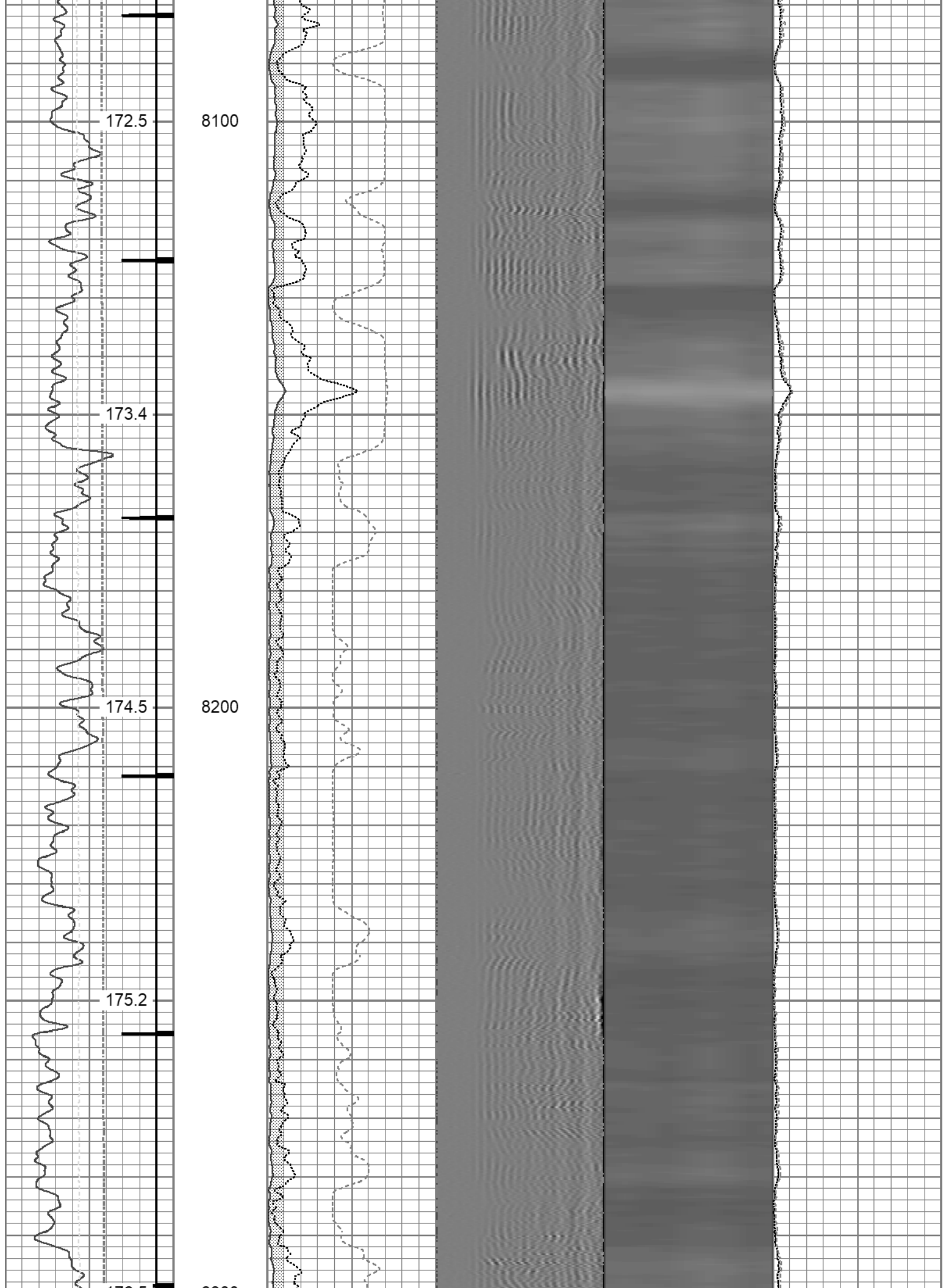


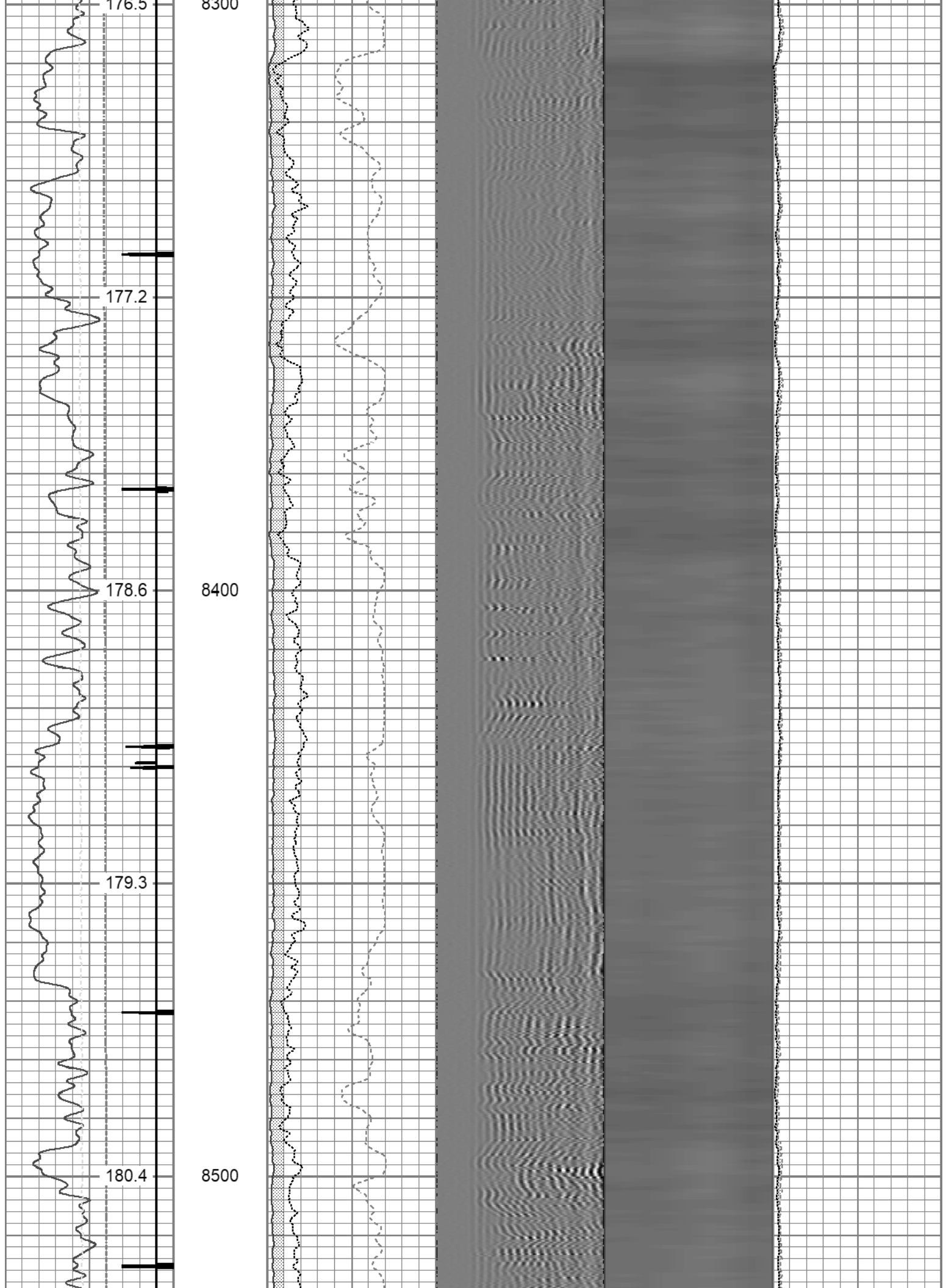


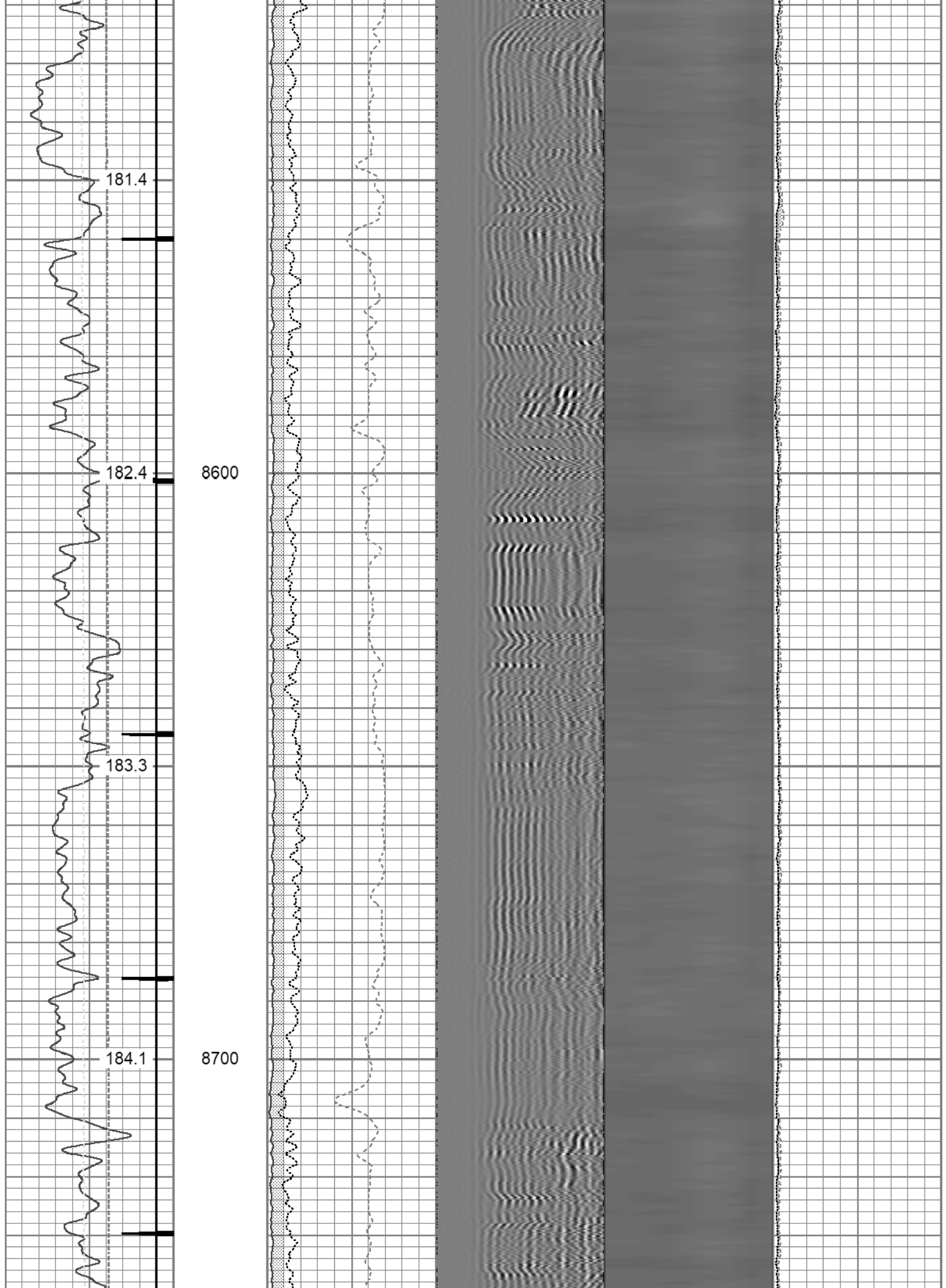


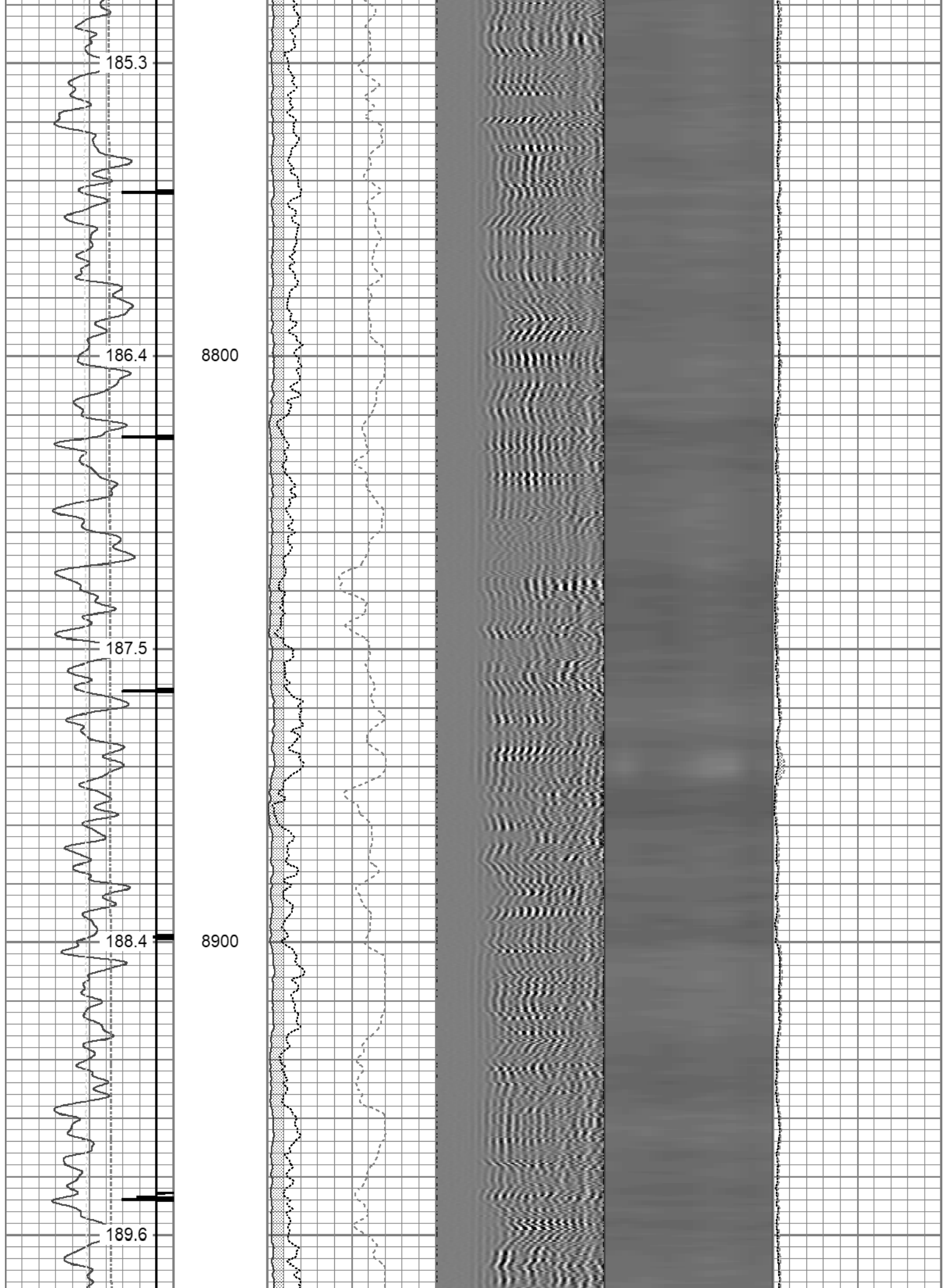


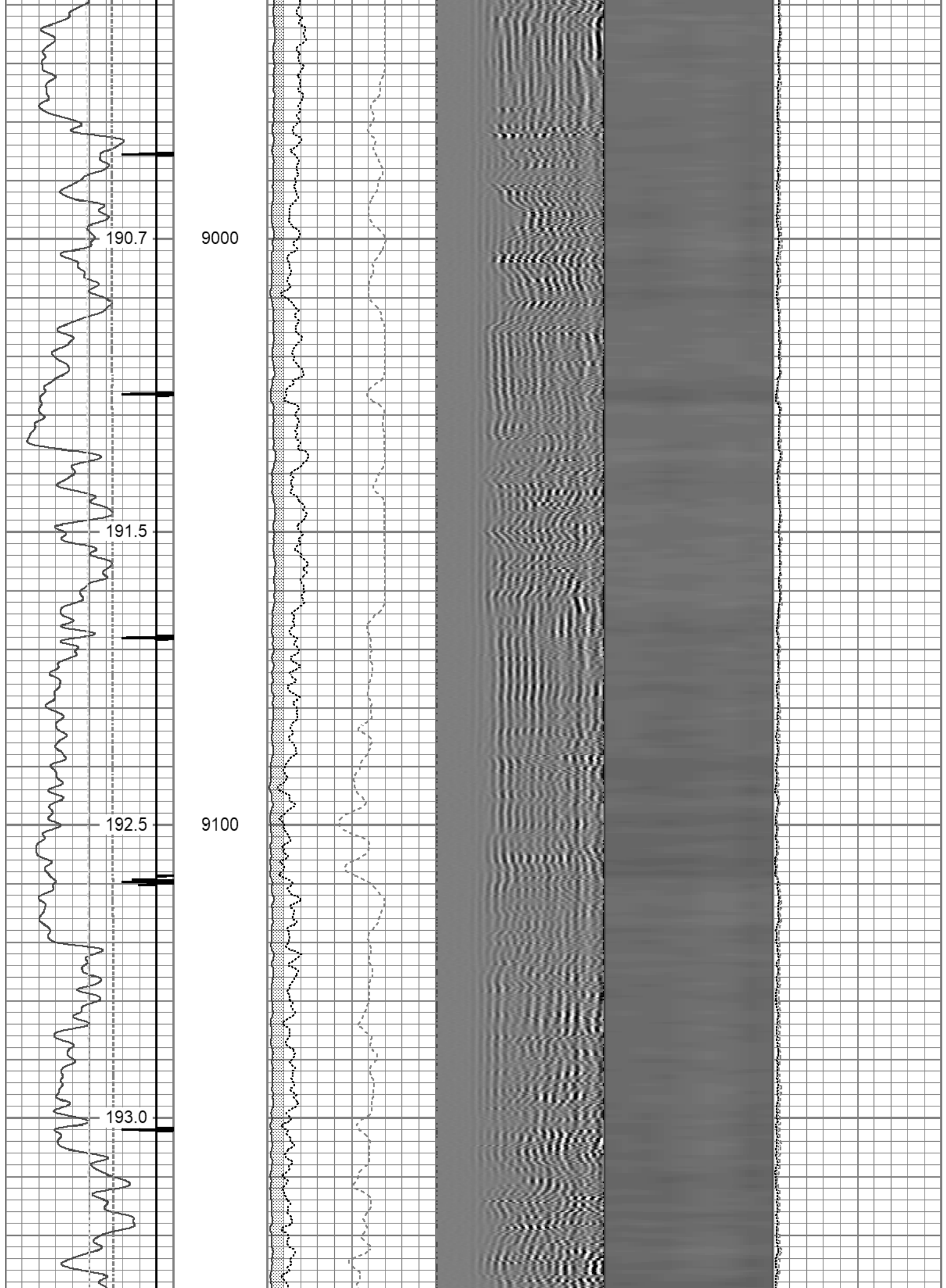


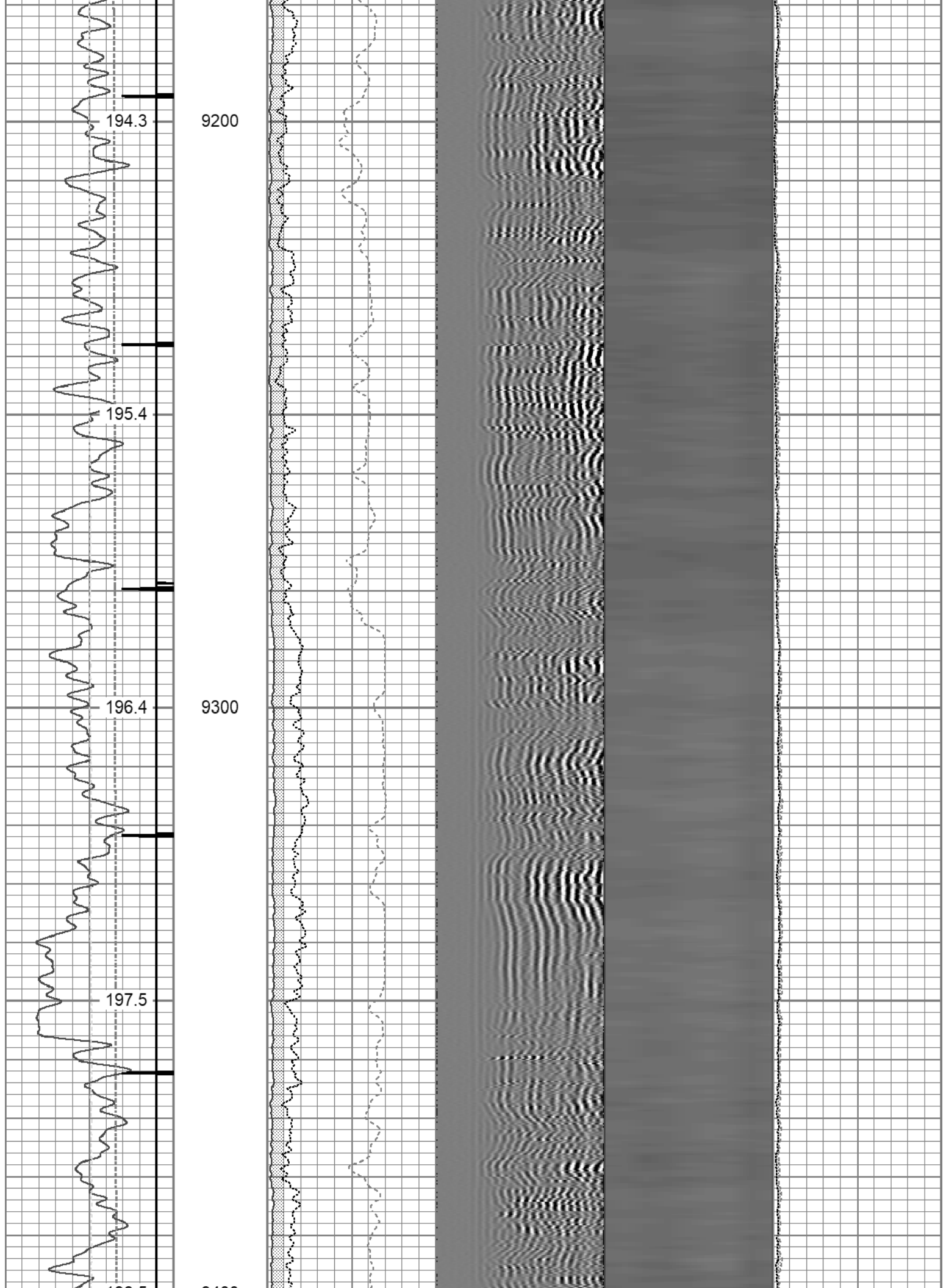


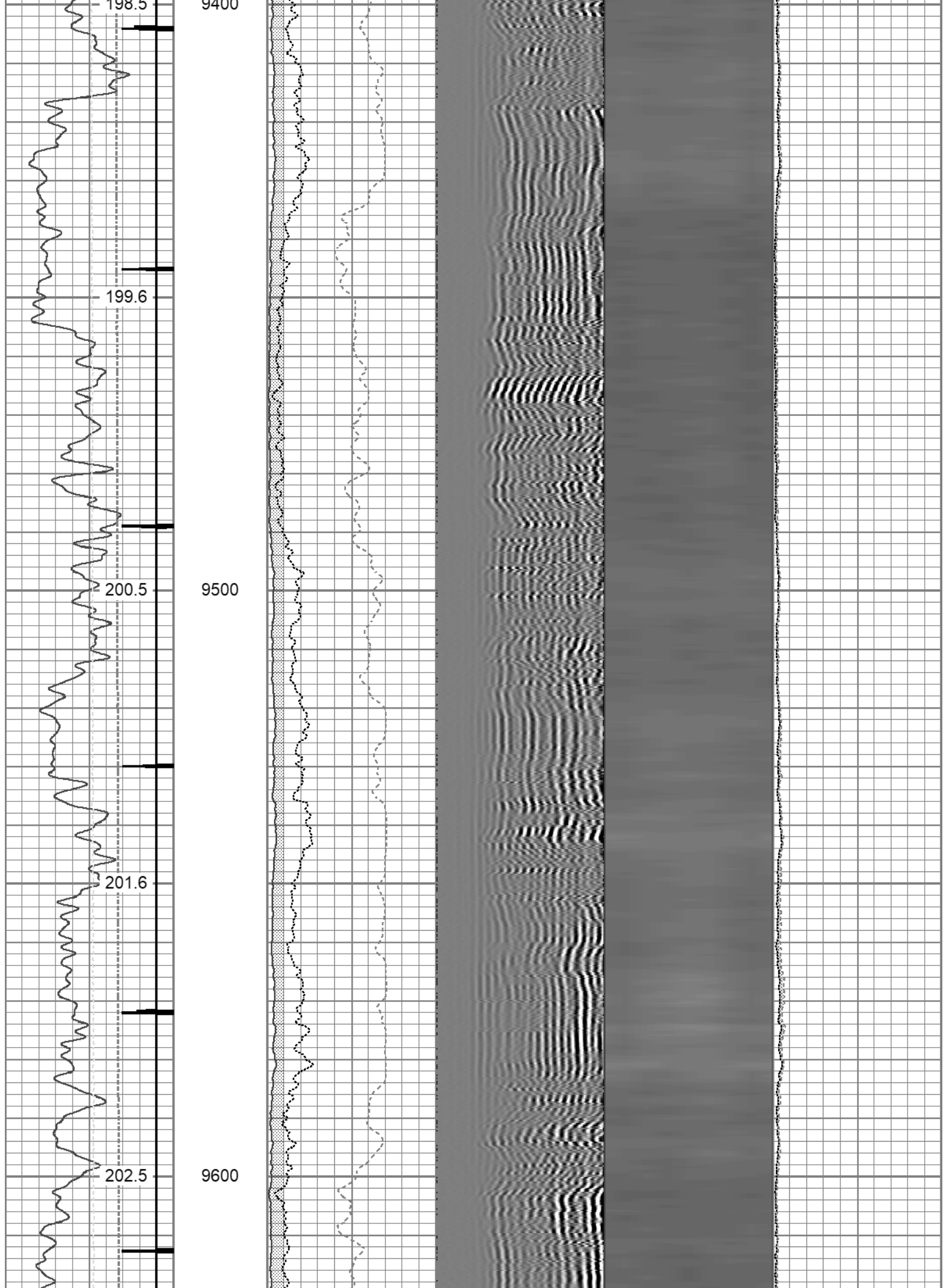


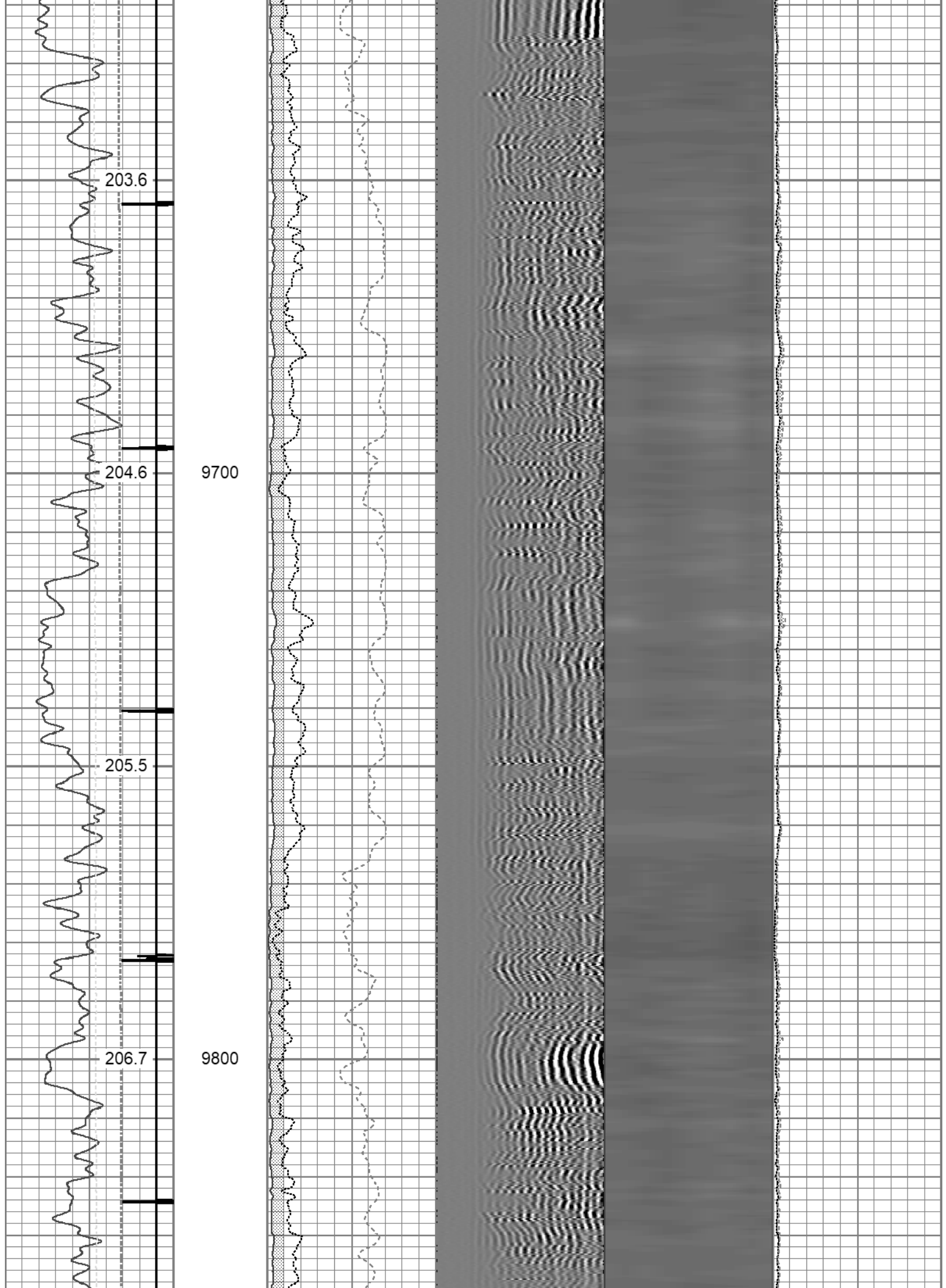


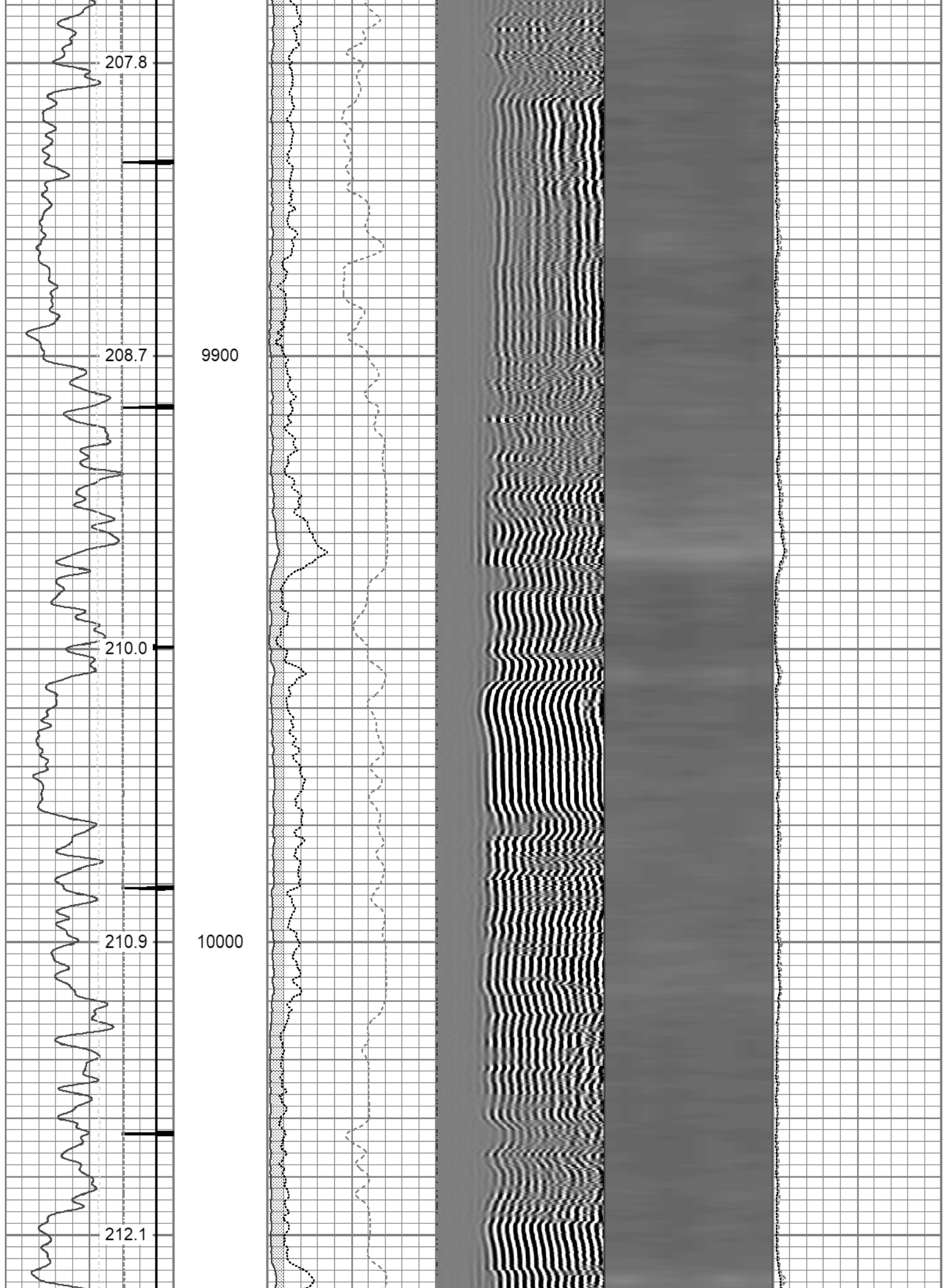


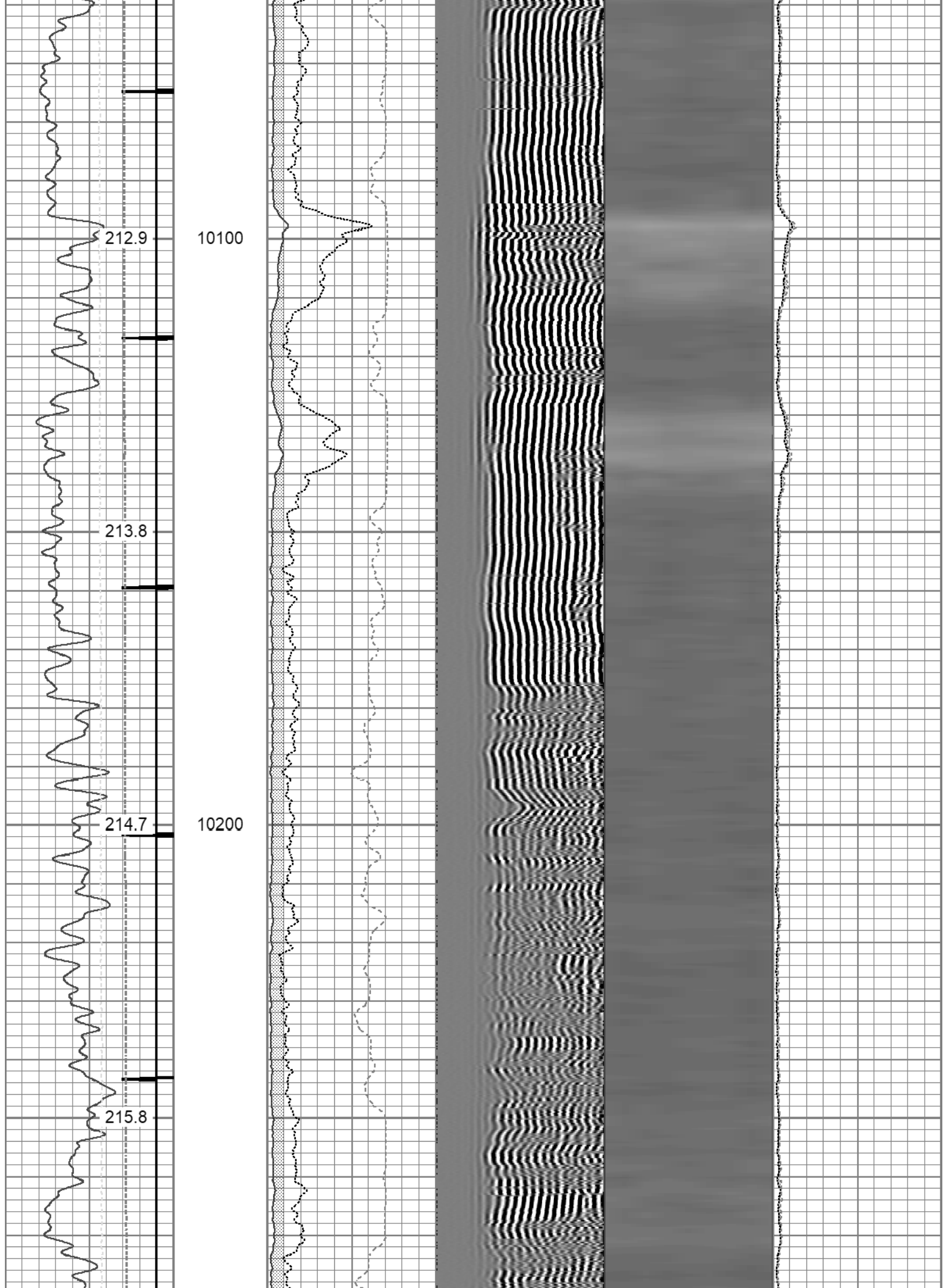


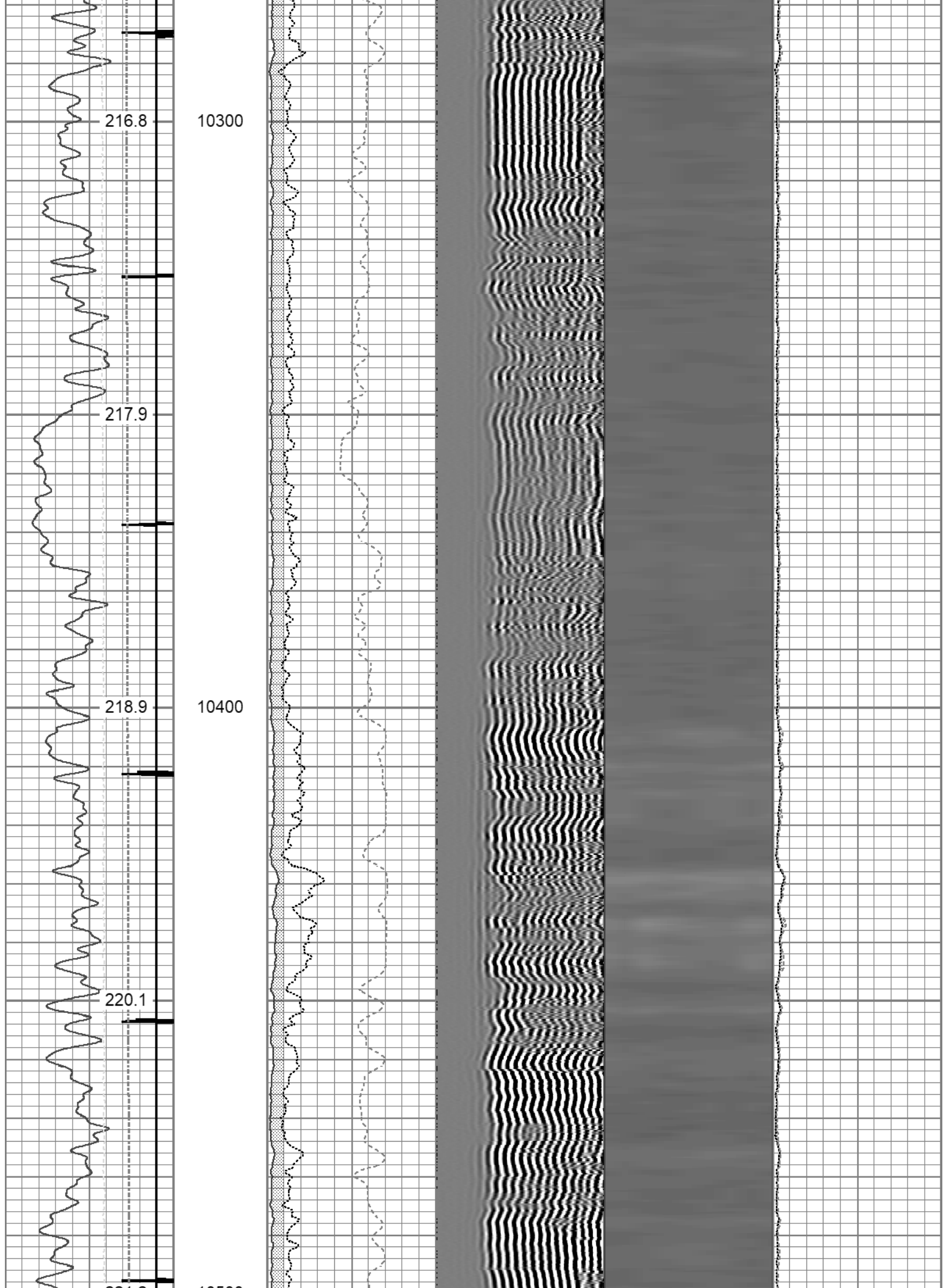


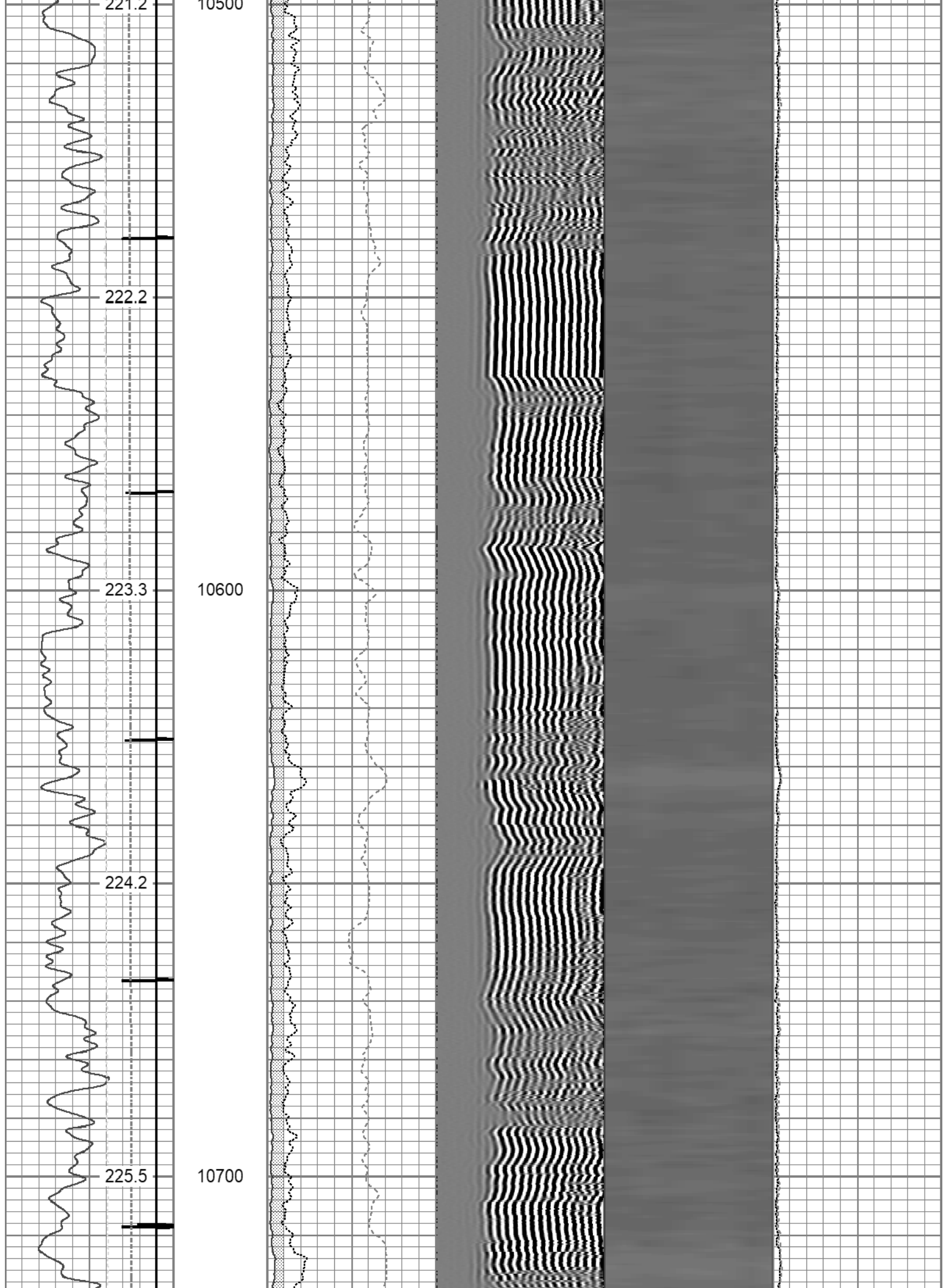


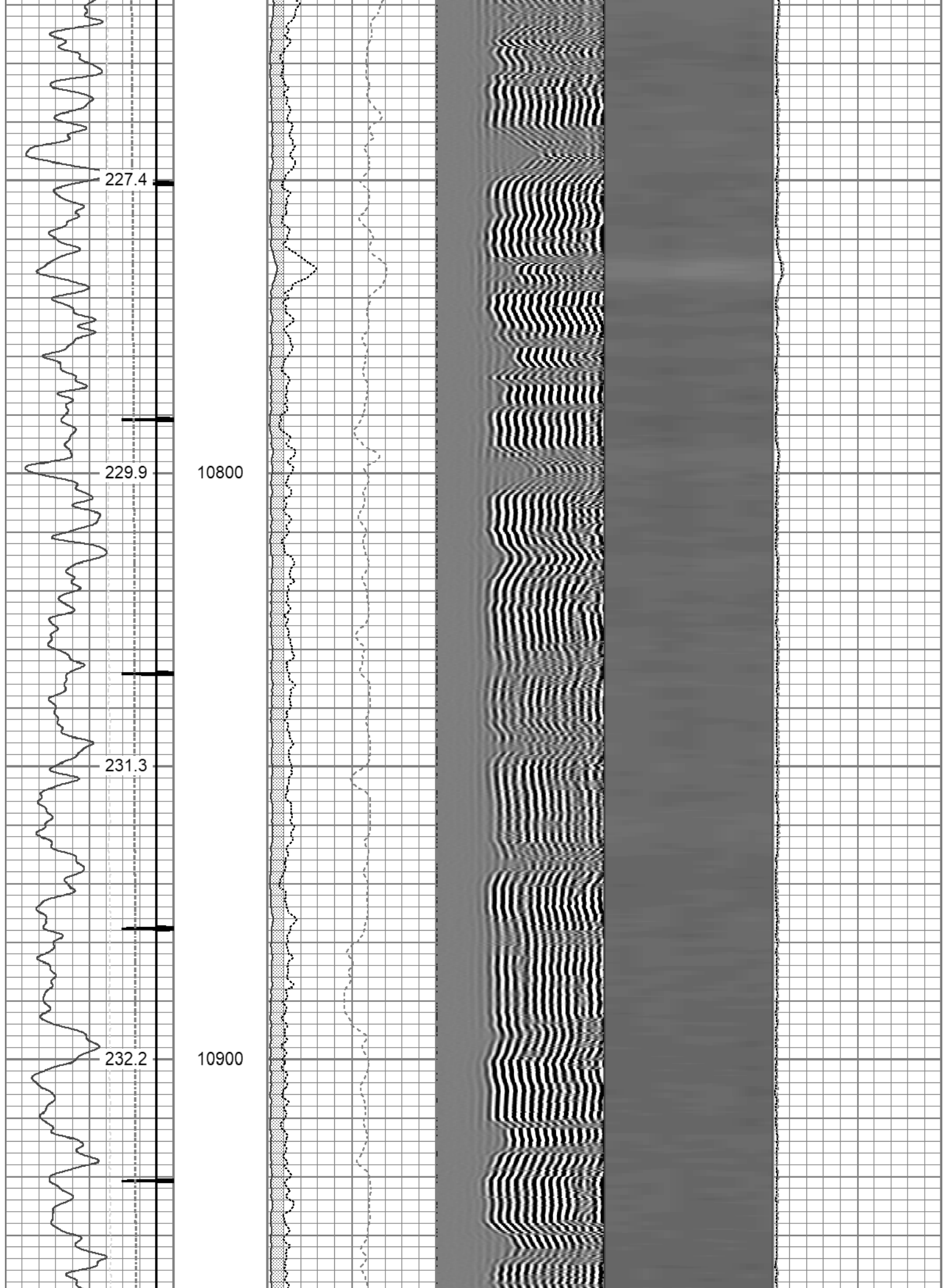


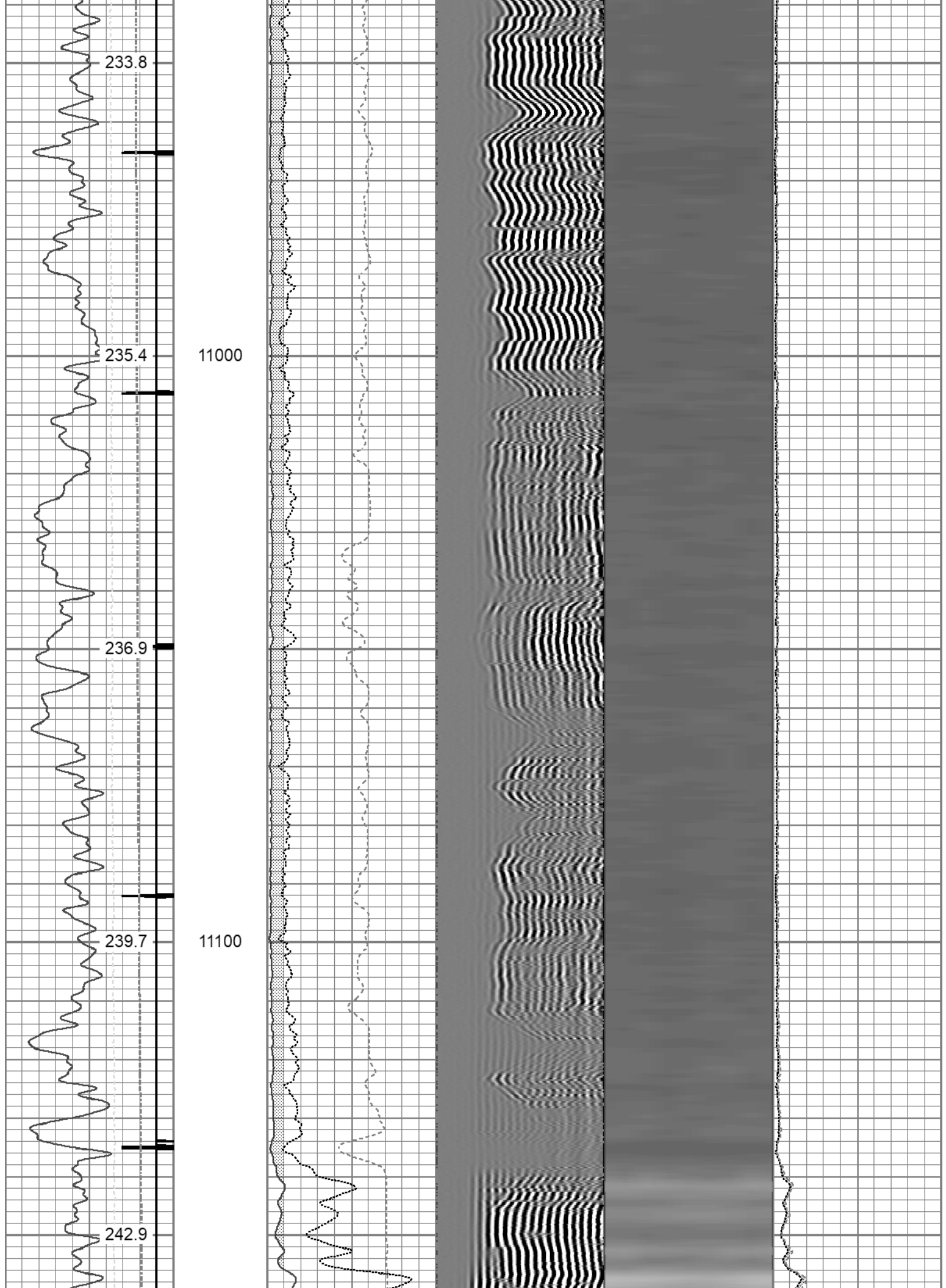


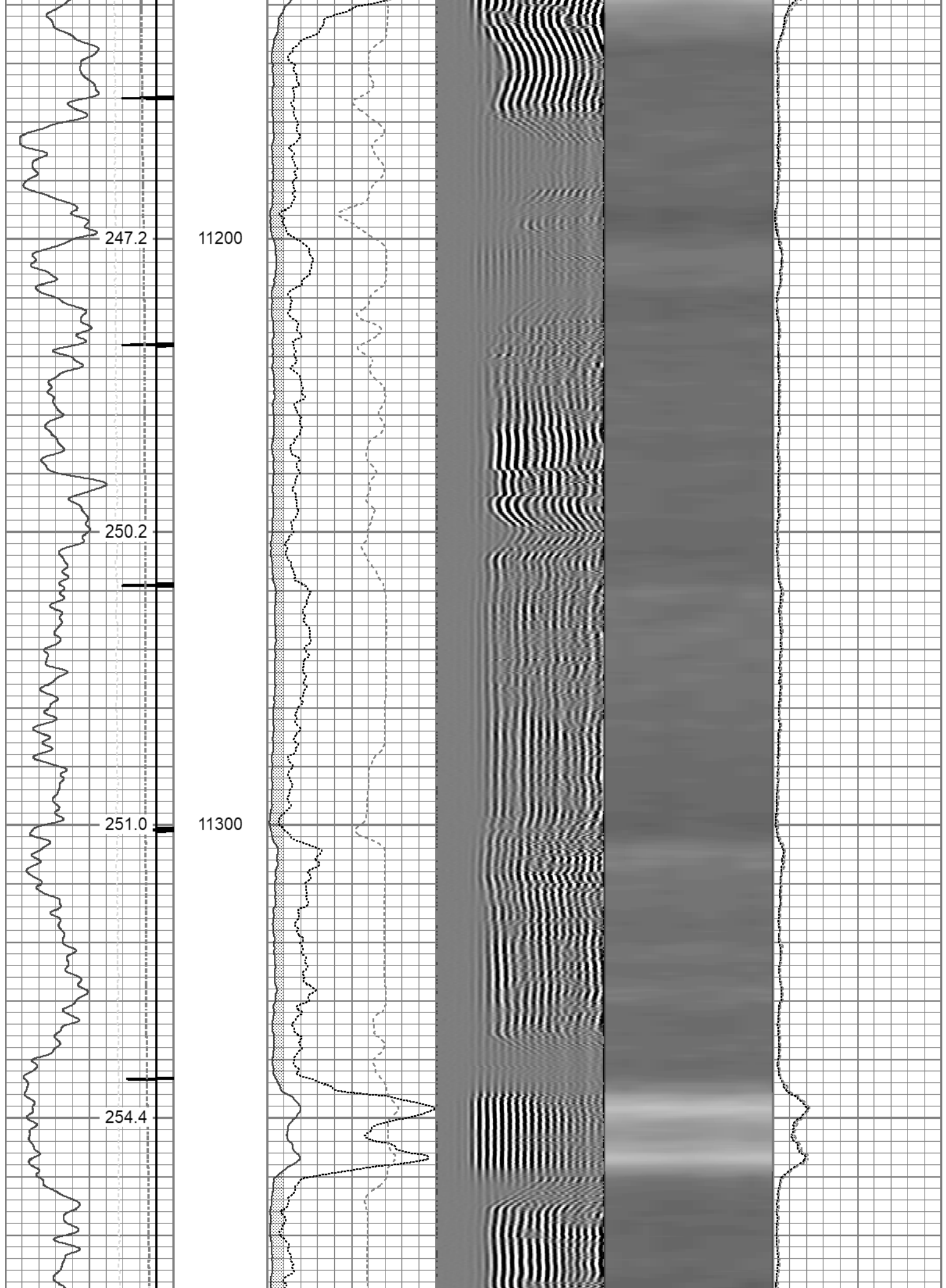


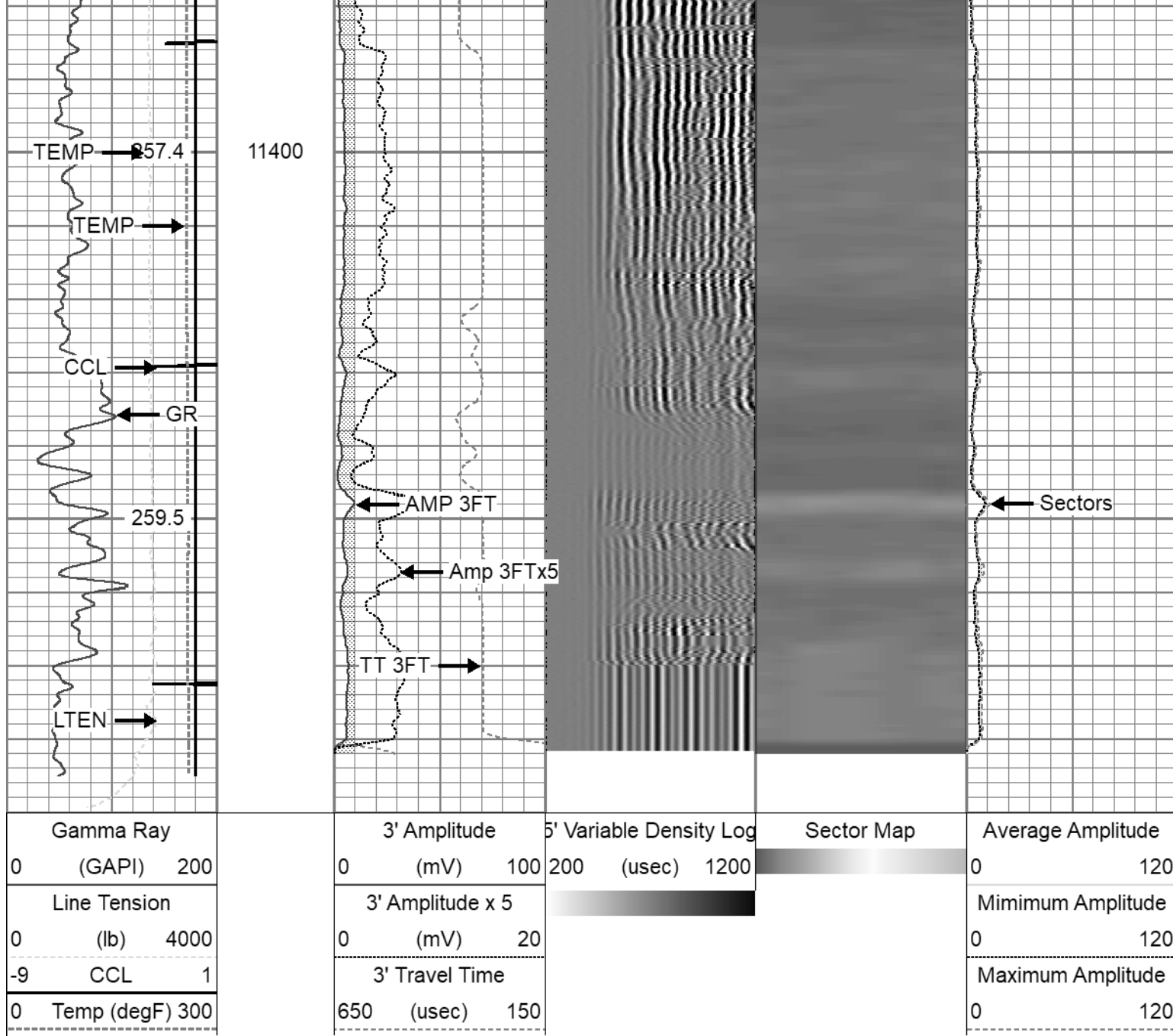










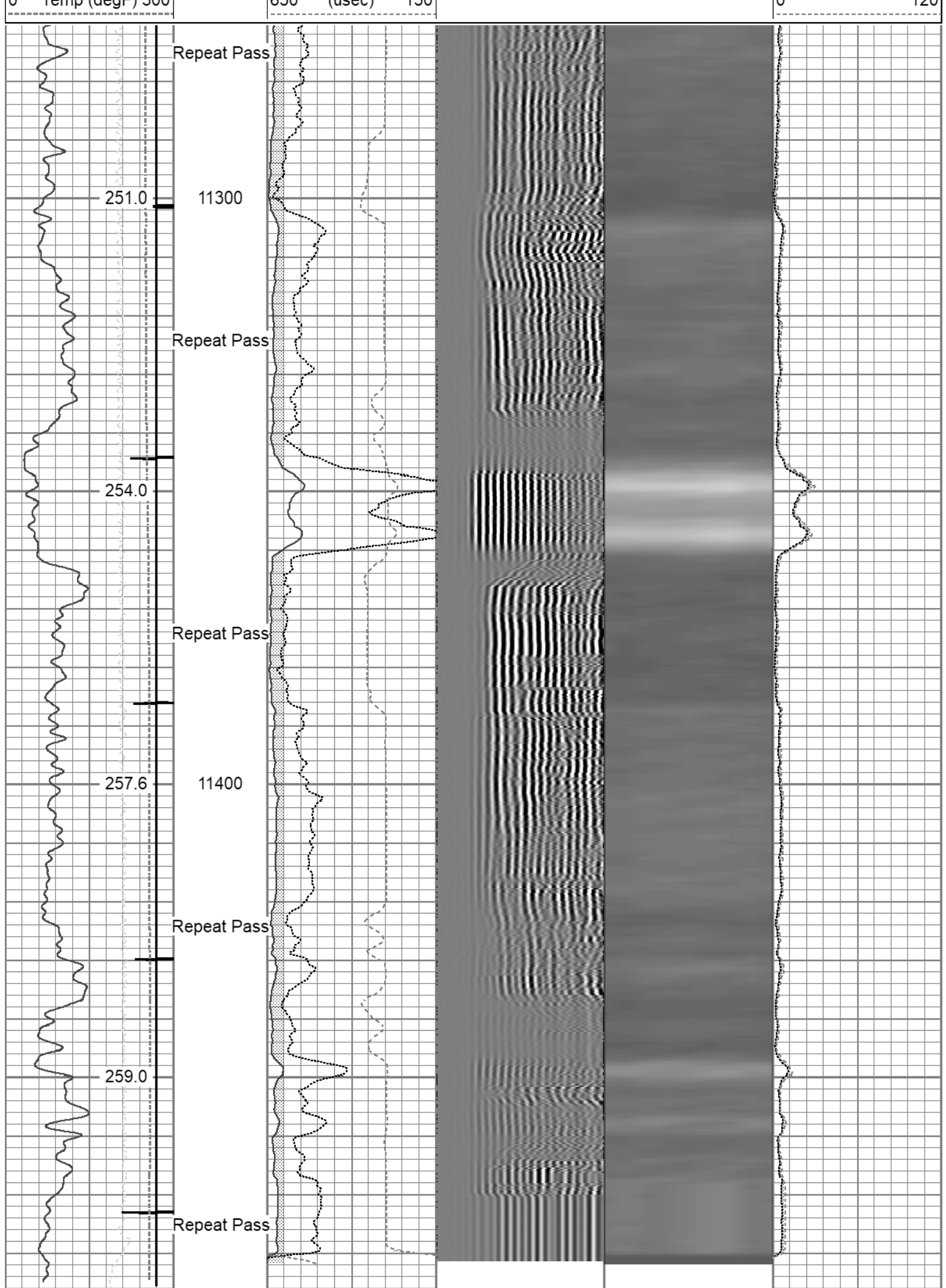




Repeat Pass 5" = 100'

Database File	tep_wmc fed 33-20_rcbl_1-2-2023.db
Dataset Pathname	repeat
Presentation Format	twgrcbl
Dataset Creation	Mon Jan 02 12:47:20 2023
Charted by	Depth in Feet scaled 1:240

Gamma Ray (GAPI)	3' Amplitude (mV)	5' Variable Density Log (usec)	Sector Map	Average Amplitude
0 200	0 100	200 1200		0 120
Line Tension (lb)	3' Amplitude x 5 (mV)			Minimum Amplitude
0 4000	0 20			0 120
-9 CCL 1	3' Travel Time (usec)			Maximum Amplitude
0 Temp (degF) 300	650 150			0 120



Gamma Ray			3' Amplitude		5' Variable Density Log		Sector Map		Average Amplitude	
0	(GAPI)	200	0	(mV)	100	200	(usec)	1200	0	120
Line Tension			3' Amplitude x 5						Minimum Amplitude	
0	(lb)	4000	0	(mV)	20			0		120
-9 CCL			3' Travel Time						Maximum Amplitude	
0	Temp (degF)	300	650	(usec)	150			0		120

Calibration Report						
Database File	tep_wmc fed 33-20_rcbl_1-2-2023.db					
Dataset Pathname	main					
Dataset Creation	Mon Jan 02 12:53:52 2023					
Gamma Ray Calibration Report						
Serial Number:	FW1311-93					
Tool Model:	GCT275-0000					
Performed:	Thu Dec 29 18:15:38 2022					
Calibrator Value:	168.0	GAPI				
Background Reading:	69.0	cps				
Calibrator Reading:	299.3	cps				
Sensitivity:	0.7294	GAPI/cps				
Segmented Cement Bond Log Calibration Report						
Serial Number:	FW1312-30					
Tool Model:	Probe275acc					
Calibration Casing Diameter:	4.500	in				
Calibration Depth:	288.269	ft				
Master Calibration, performed Mon Jan 2 12:03:52 2023:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	0.496	0.000	81.196	164.962	-0.691
CAL	0.003	0.758				
5'	0.013	0.390	0.000	81.196	215.129	-2.810
SUM						
S1	0.005	0.529	0.000	100.000	191.098	-1.045
S2	0.007	0.514	0.000	100.000	197.027	-1.299
S3	0.004	0.522	0.000	100.000	193.171	-0.868
S4	0.005	0.520	0.000	100.000	193.893	-0.888
S5	0.004	0.520	0.000	100.000	193.637	-0.678
S6	0.005	0.492	0.000	100.000	205.205	-1.015
S7	0.006	0.478	0.000	100.000	211.734	-1.300
S8	0.004	0.515	0.000	100.000	195.686	-0.705

Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.750	1.000	0.000

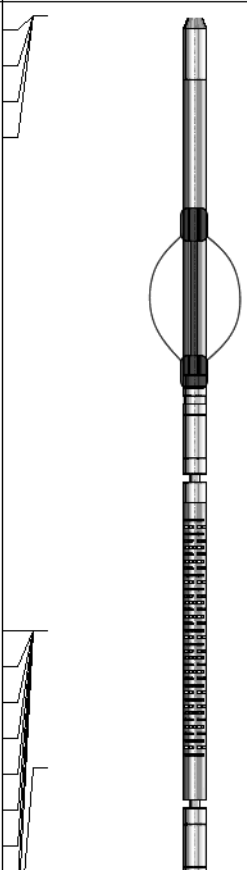
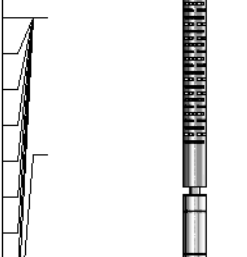
CAL 0.000 0.000 0.003 0.758 1.000 0.000

Air Zero Calibration, performed Mon Jan 2 11:33:52 2023:

	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

Inclinometer Calibration Report

Performed:	Thu Jul 28 15:46:49 2022				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-931.00	904.00	-1.00	1.00	gee
Y Accelerometer	-899.00	884.00	-1.00	1.00	gee
Z Accelerometer	1.47	886.18	0.00	1.00	gee

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GCT_FMWR	13.85		SO BS CENT-2750-4500 Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer	1.33	3.25	10.00
mSec_Count	13.85					
RBT_Status	13.85					
Error_Ct	13.85					
WVFS8	9.35		RBT8acc-Probe275acc (FW1312-30) 2.75" Radial Corrosion with accelerometer	8.75	2.75	110.00
WVFS7	9.35					
WVFS6	9.35					
WVFS5	9.35					
WVFS4	9.35					
WVFS3	9.35					
WVFS2	9.35					

WVFS1	9.35					
WVFS3FT	9.35					
WVFS5FT	8.35					
RBT_ACCZ	5.10					
RBT_ACCY	5.10					
RBT_ACCX	5.10					
GCT_HV	5.10					
WVFSYNC	5.10					
WVFCAL	5.10					
CCL\$2	4.14					
CCL\$1	4.14					
GCT_Temp	3.59					
GR	2.72		SO BS CENT-2750-4500 Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer	1.33	3.25	10.00
GCT_IntTemp	2.00		GC-GCT275-0000 (FW1311-93) Probe 2.75" Gamma Ray - CCL w/ Temp	4.77	2.75	55.00
			Plug-FA108-0000 1.38" Bull Plug	0.33	1.38	1.00

Dataset: tep_wmc fed 33-20_rcbl_1-2-2023.db: field/well/run1/main

Total length: 13.85 ft

Total weight: 186.00 lb

O.D.: 3.25 in