



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC		Company TEP Rocky Mountain LLC	
Well	Federal WMC 13-20	Well	Federal WMC 13-20
Field	Rulison	Field	Rulison
County	Garfield	County	Garfield
State	Colorado	State	Colorado
Location:		API # : 05-045-24496	
SEC 17 TWP 7S RGE 93W		Other Services	
Permanent Datum	Ground Level	Elevation	8868 FT
Log Measured From	Kelly Bushing		K.B. 8898 FT
Drilling Measured From	Kelly Bushing		D.F. 8898 FT
			G.L. 8868 FT
Date	03-JAN-2023		
Run Number	One		
Depth Driller	11591 FT		
Depth Logger	11497 FT		
Bottom Logged Interval	11489 FT		
Top Log Interval	Surface		
Open Hole Size	8.75"		
Type Fluid	Water		
Density / Viscosity	8.34 Lb/Gal		
Max. Recorded Temp.	260 °F		
Estimated Cement Top	See Log		
Time Well Ready	ROA		
Time Logger on Bottom	8:00		
Equipment Number	8045		
Location	Grand Junction		
Recorded By	P. Edwards		
Witnessed By	D. Welsh		
Borehole Record		Tubing Record	
Run Number	Bit	From	To
		Size	Weight
			From
			To
Casing Record	Size	Wgt/Ft	Top
Surface String	9-5/8"	36	Surface
Prot. String			1133 FT
Production String	4-1/2"	11.6	Surface
Liner			11591 FT

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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 is correlated to 30' K.B.
Marker joint logged @ 7318 FT - 7328 FT
Log ran with 0 PSI at surface

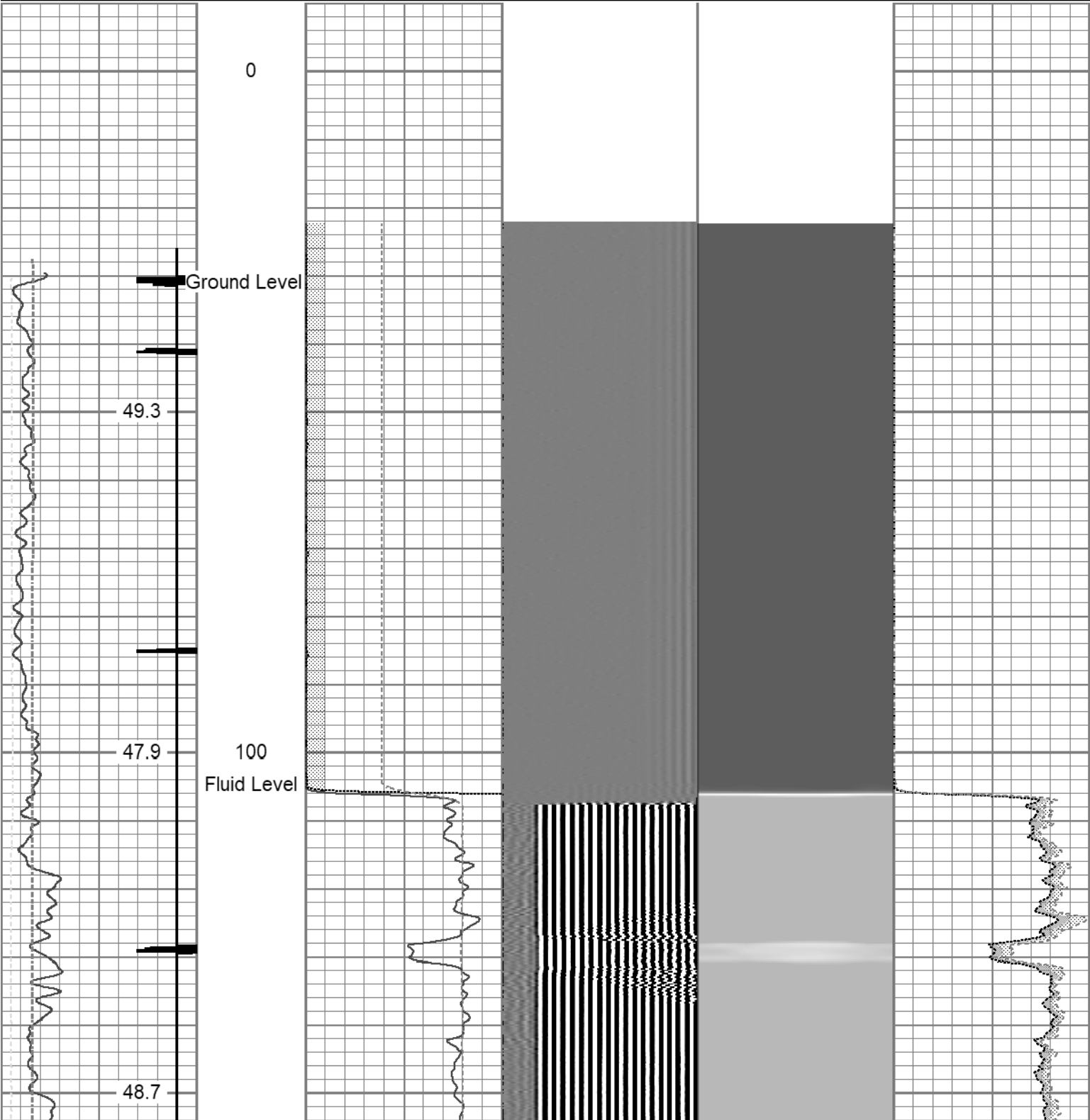
Thank you for choosing The Wireline Group!

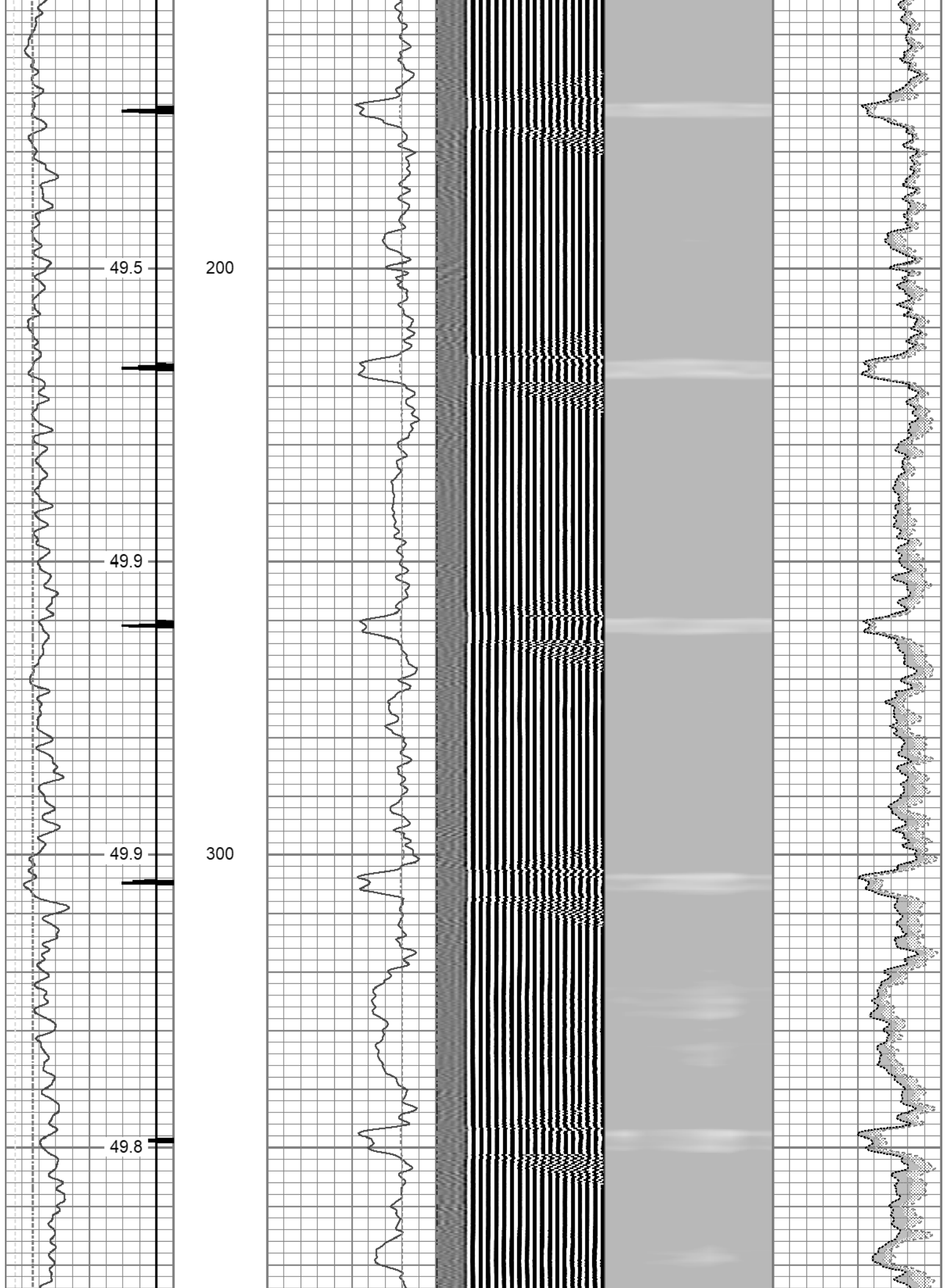


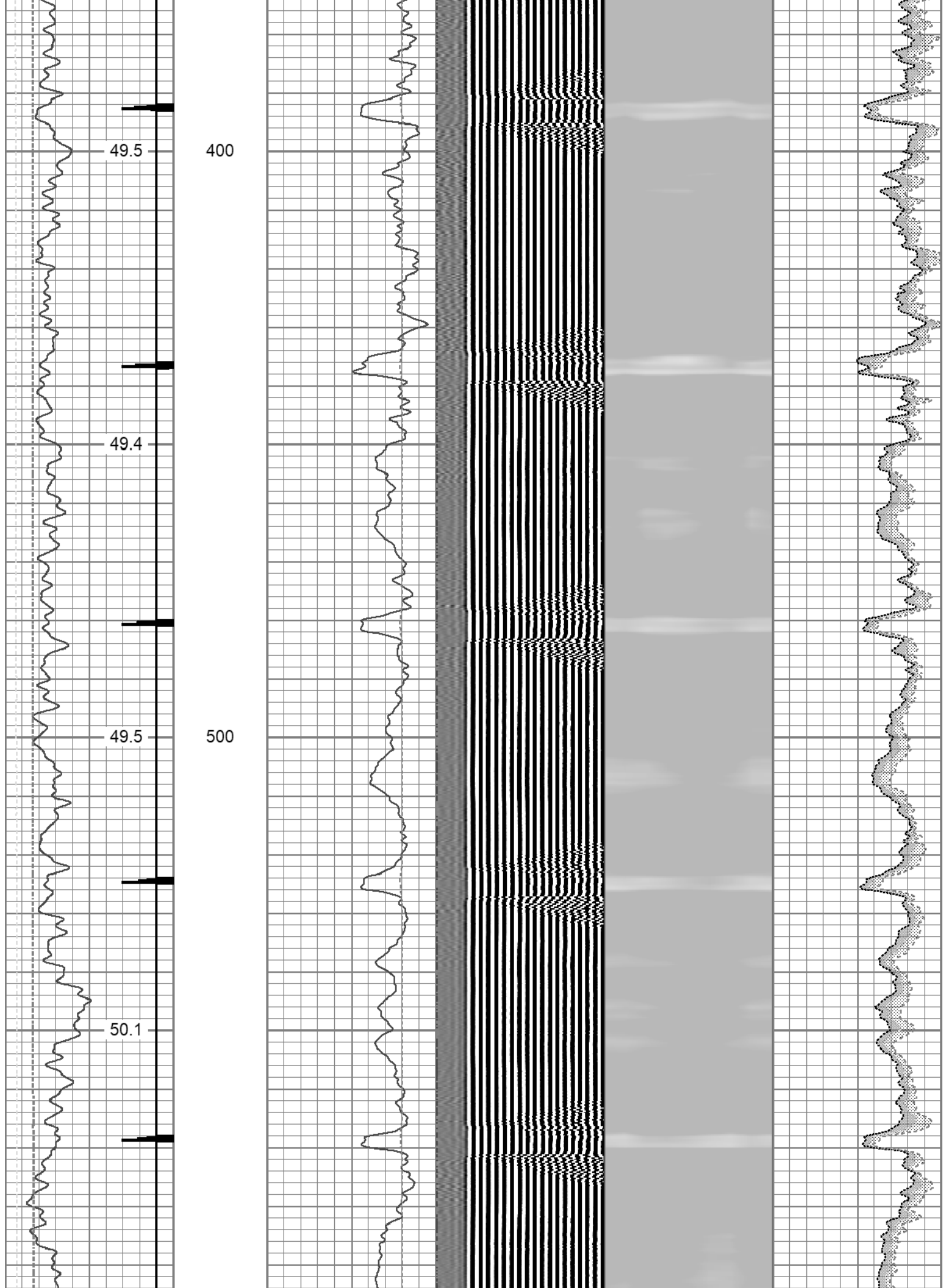
Main Pass 5" = 100'

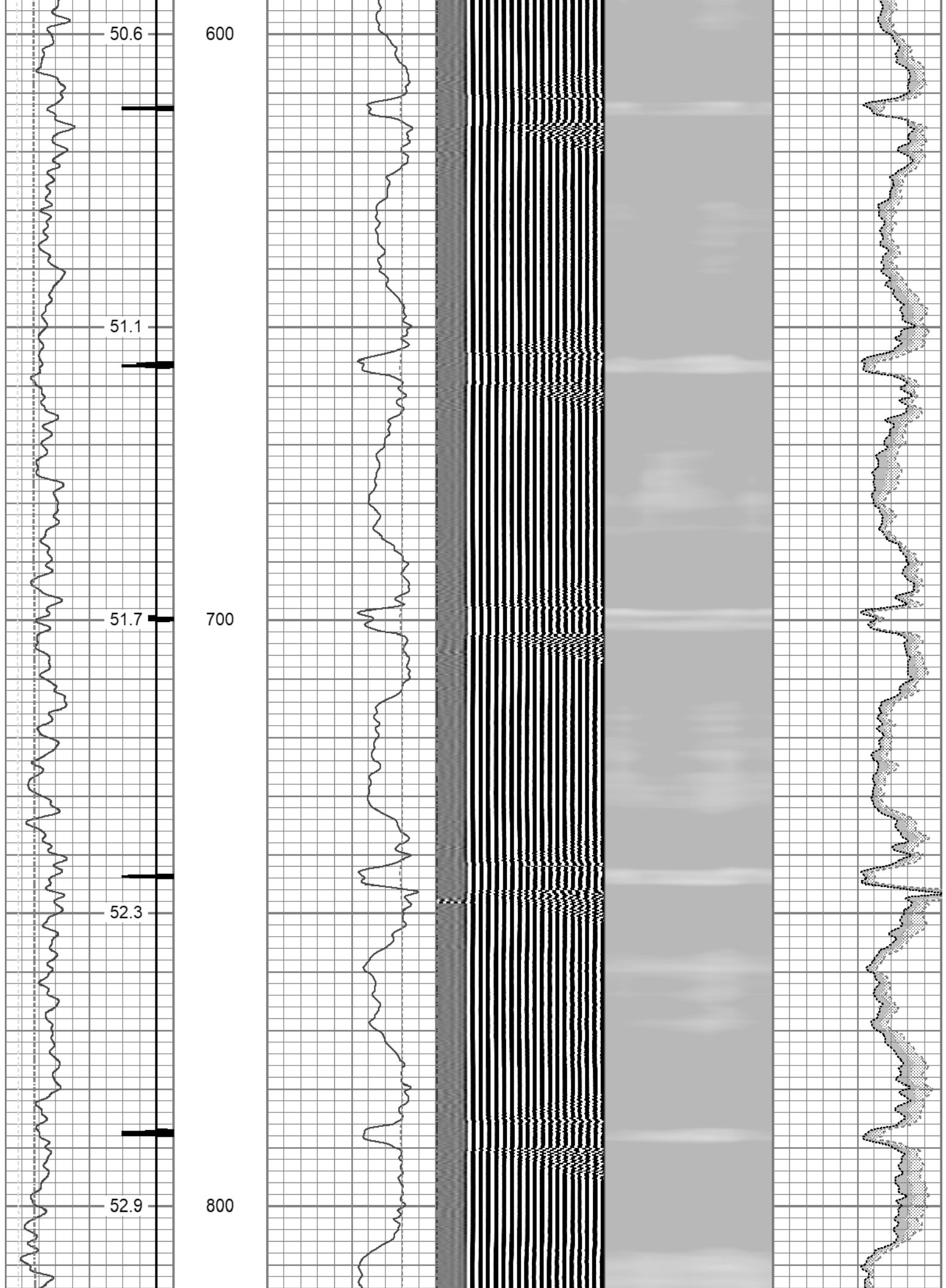
Database File	tep_wmc fed 13-20_rcbl_1-3-2023.db
Dataset Pathname	main
Presentation Format	twgrcbl
Dataset Creation	Tue Jan 03 08:04:41 2023
Charted by	Depth in Feet scaled 1:240

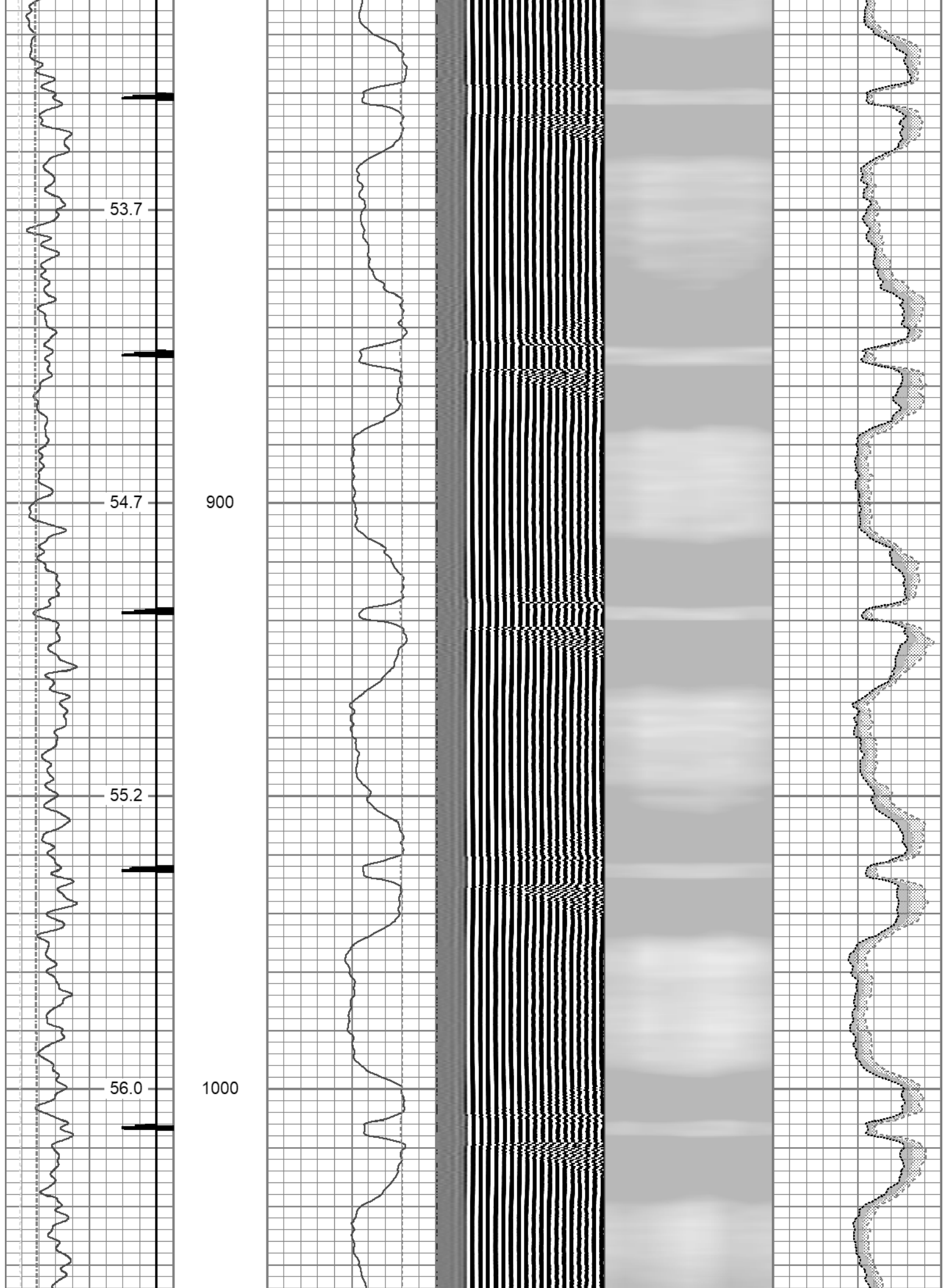
Gamma Ray		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200		0 (mV) 100	200 (usec) 1200		0 120
Line Tension		3' Amplitude x 5			Minimum Amplitude
0 (lb) 4000		0 (mV) 20			0 120
-9 CCL 1		3' Travel Time			Maximum Amplitude
0 Temp (degF) 300		650 (usec) 150			0 120

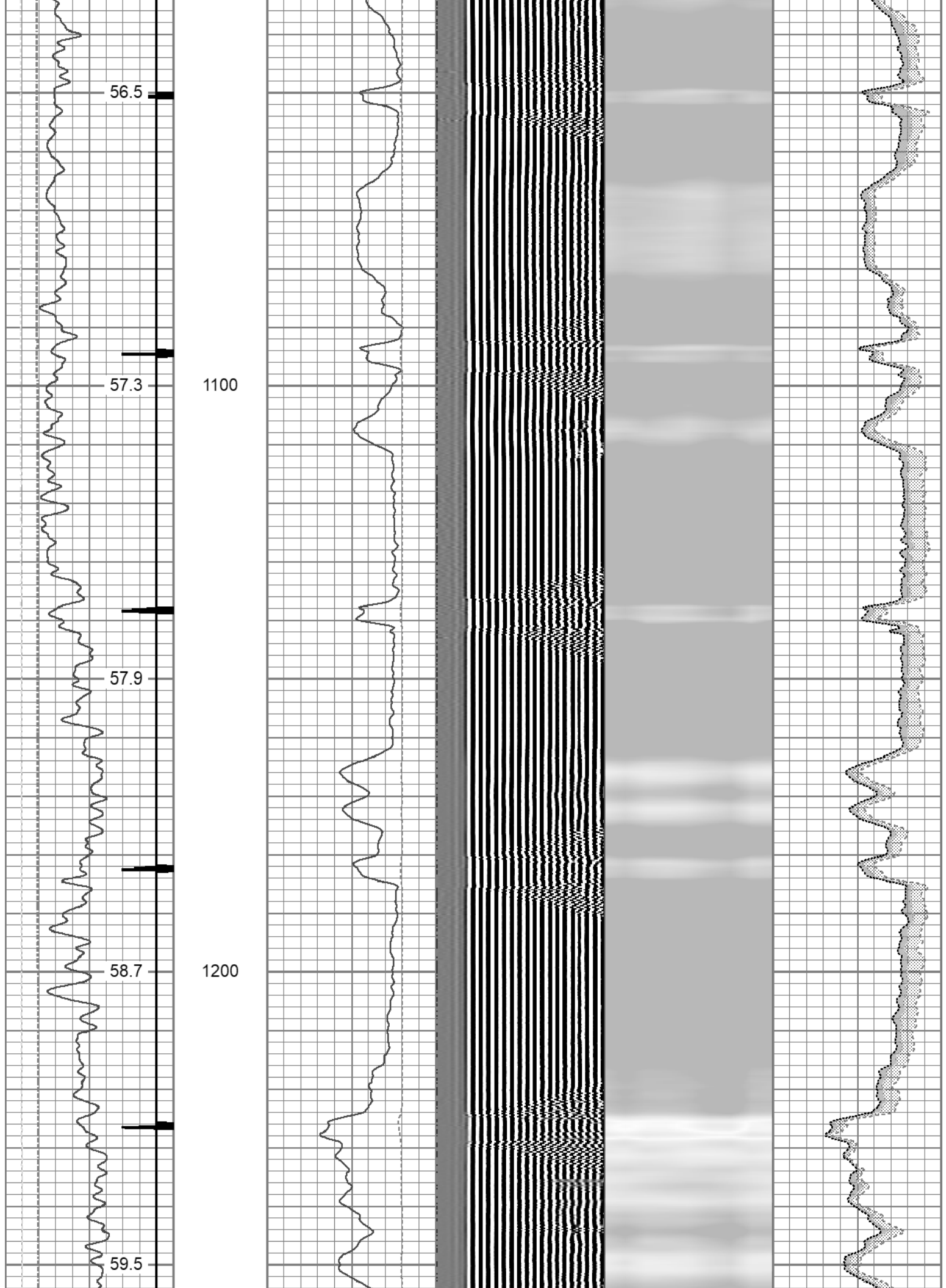


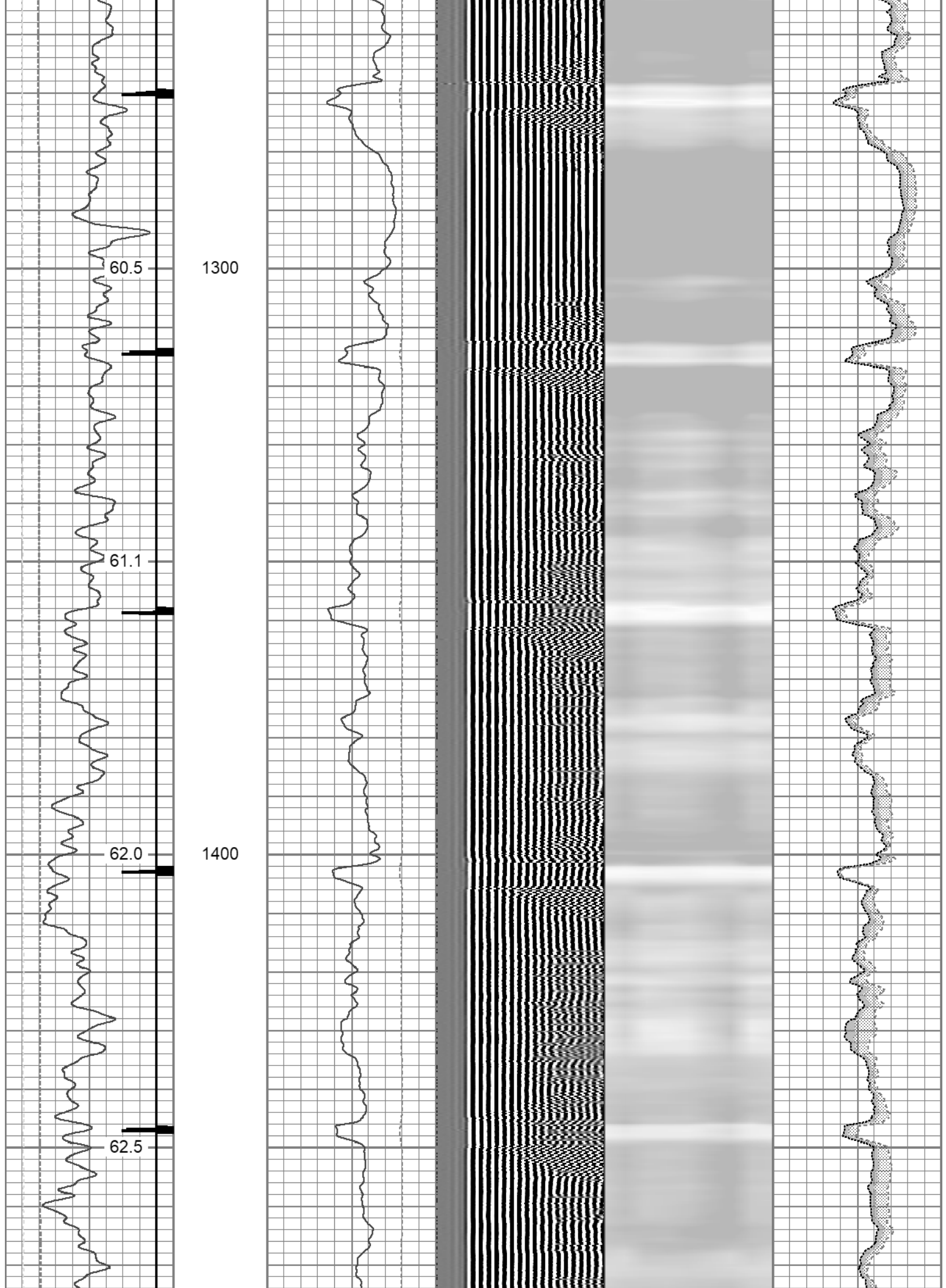


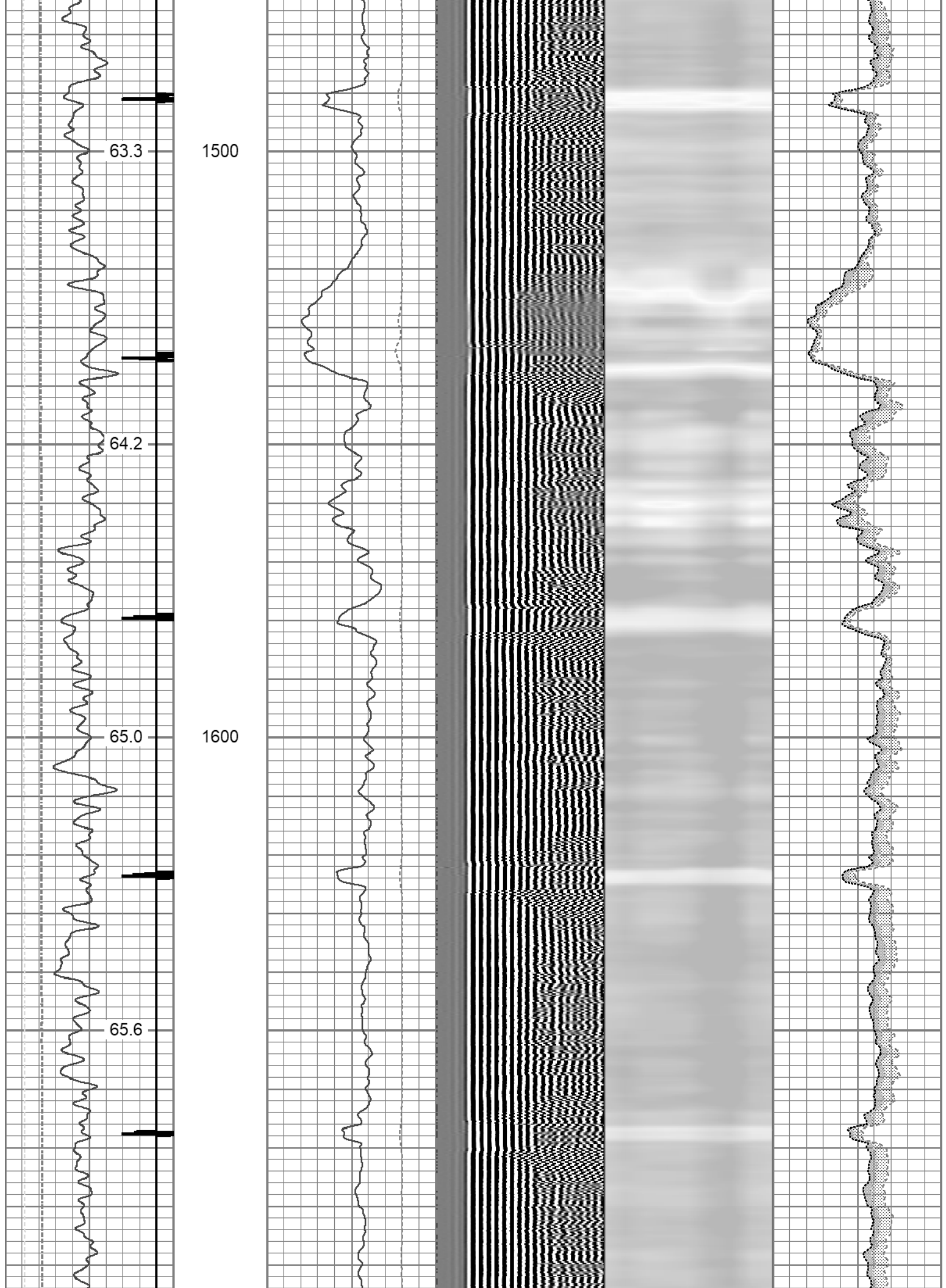


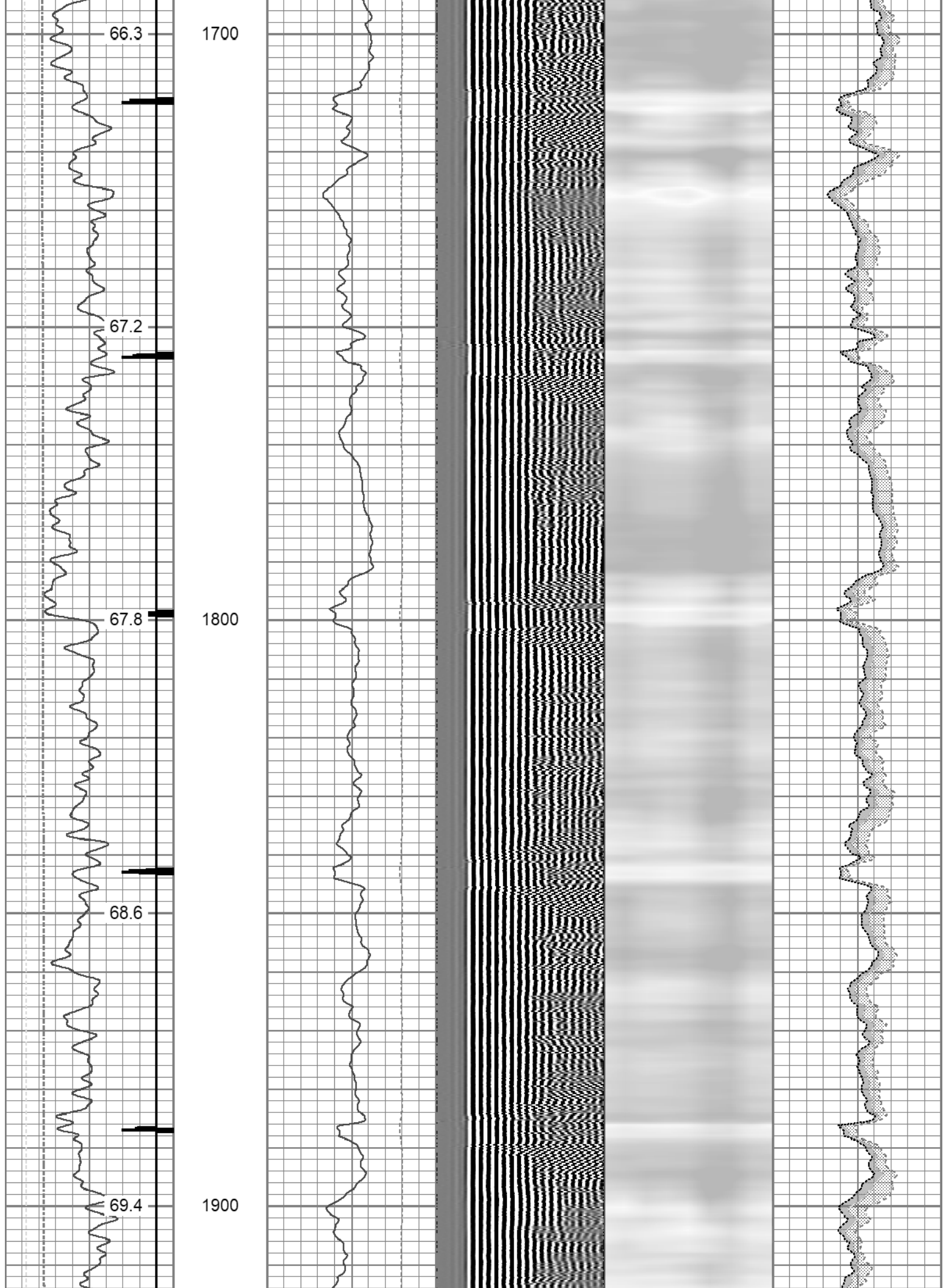


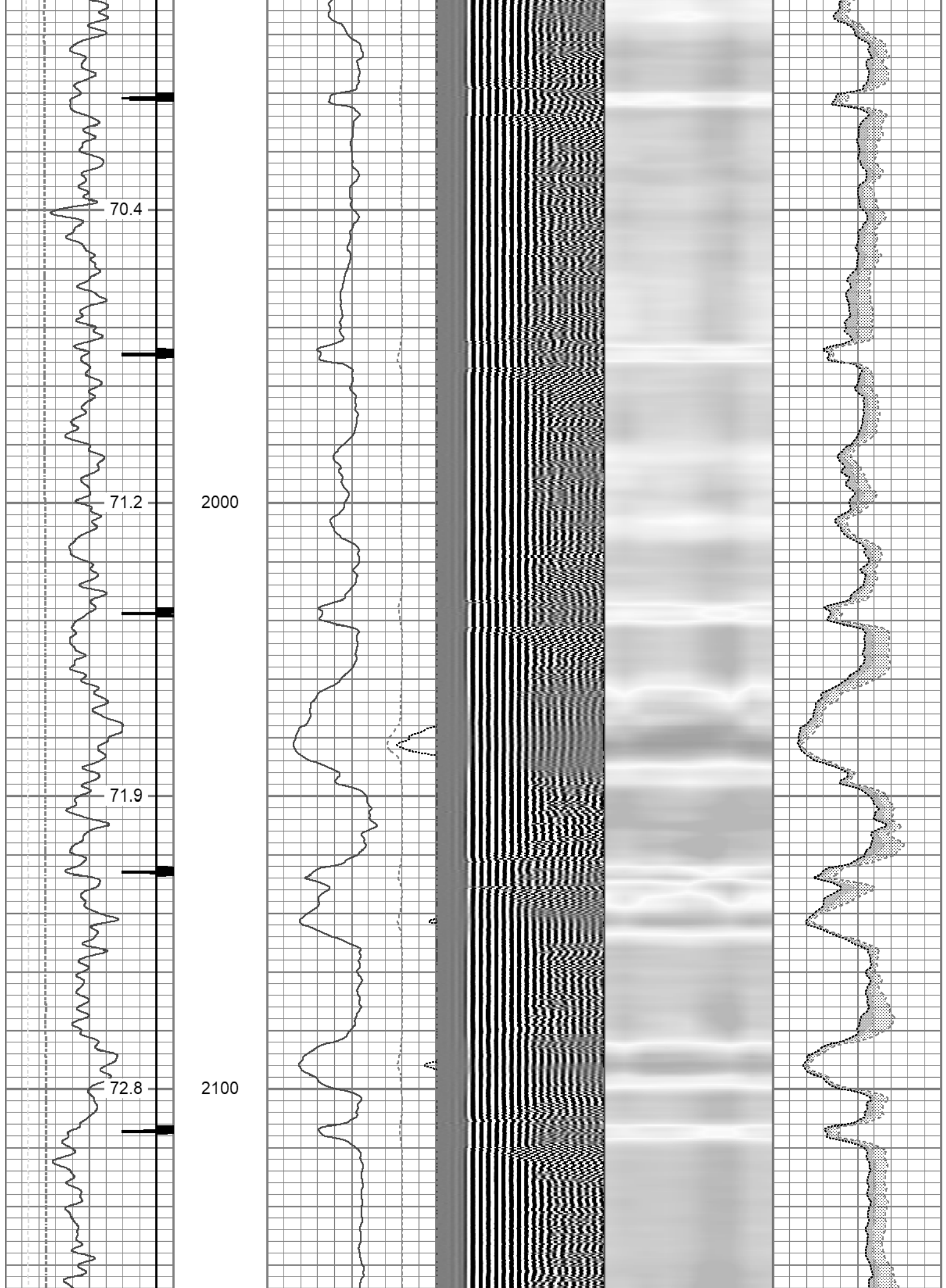


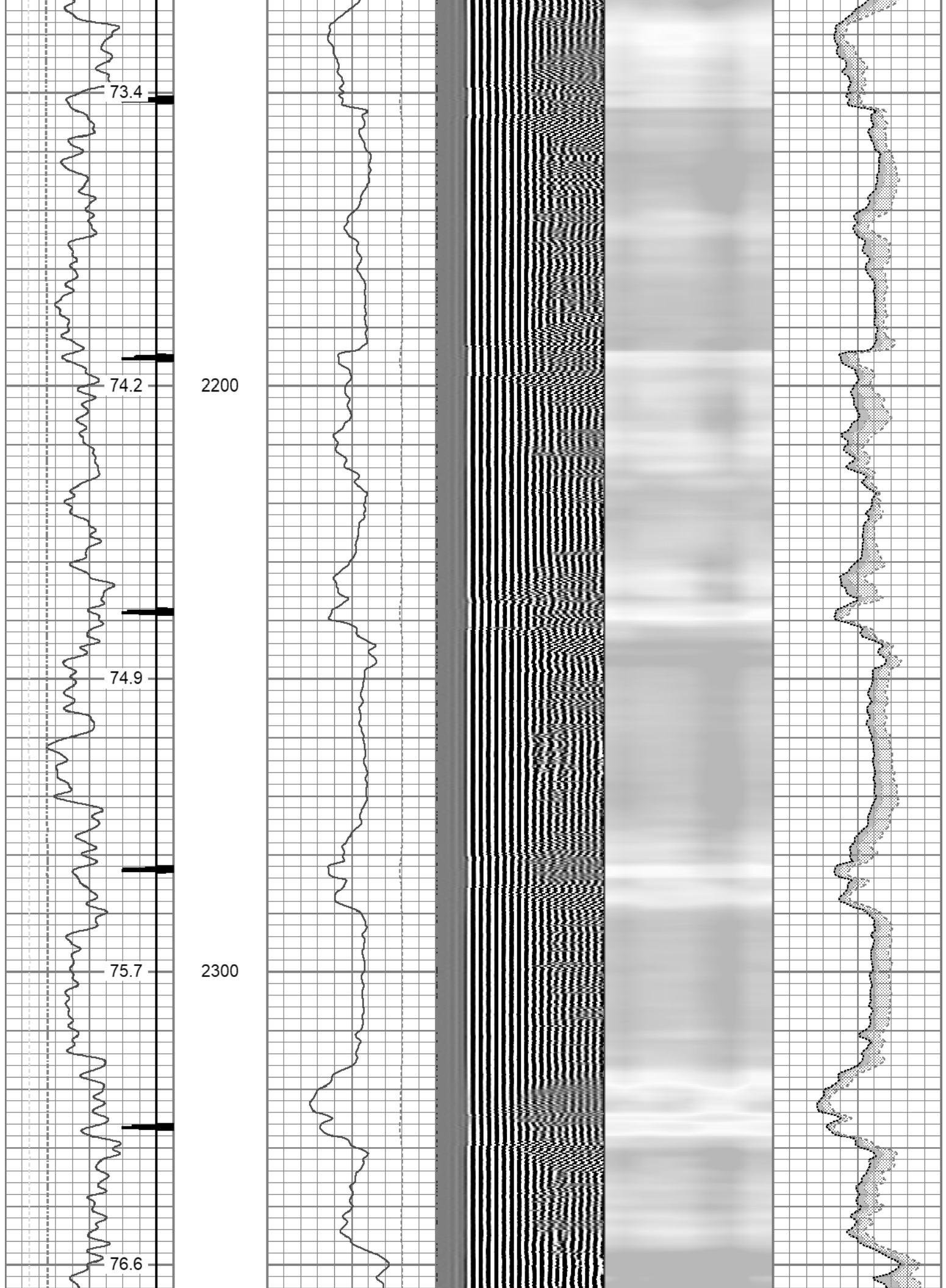




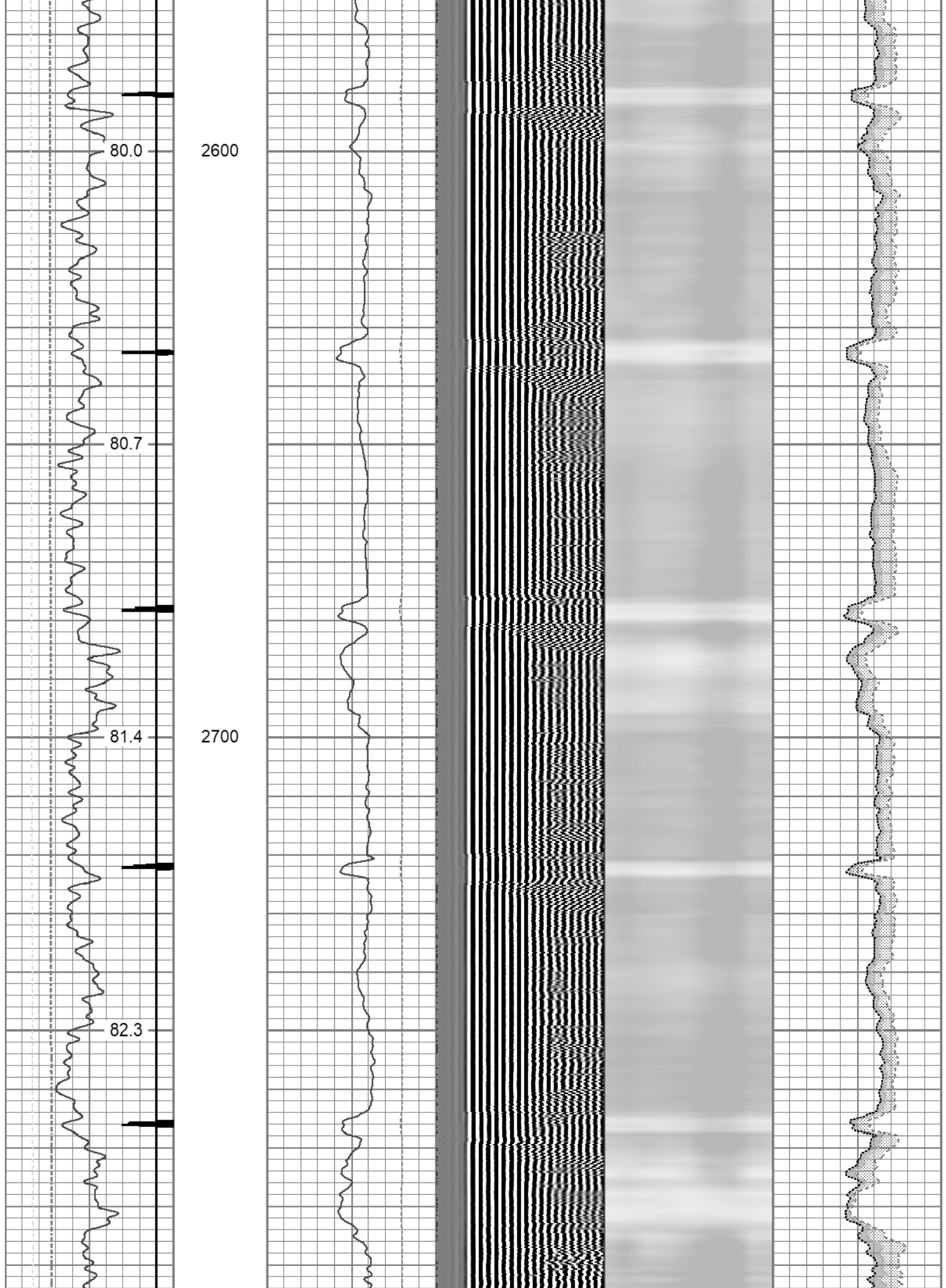


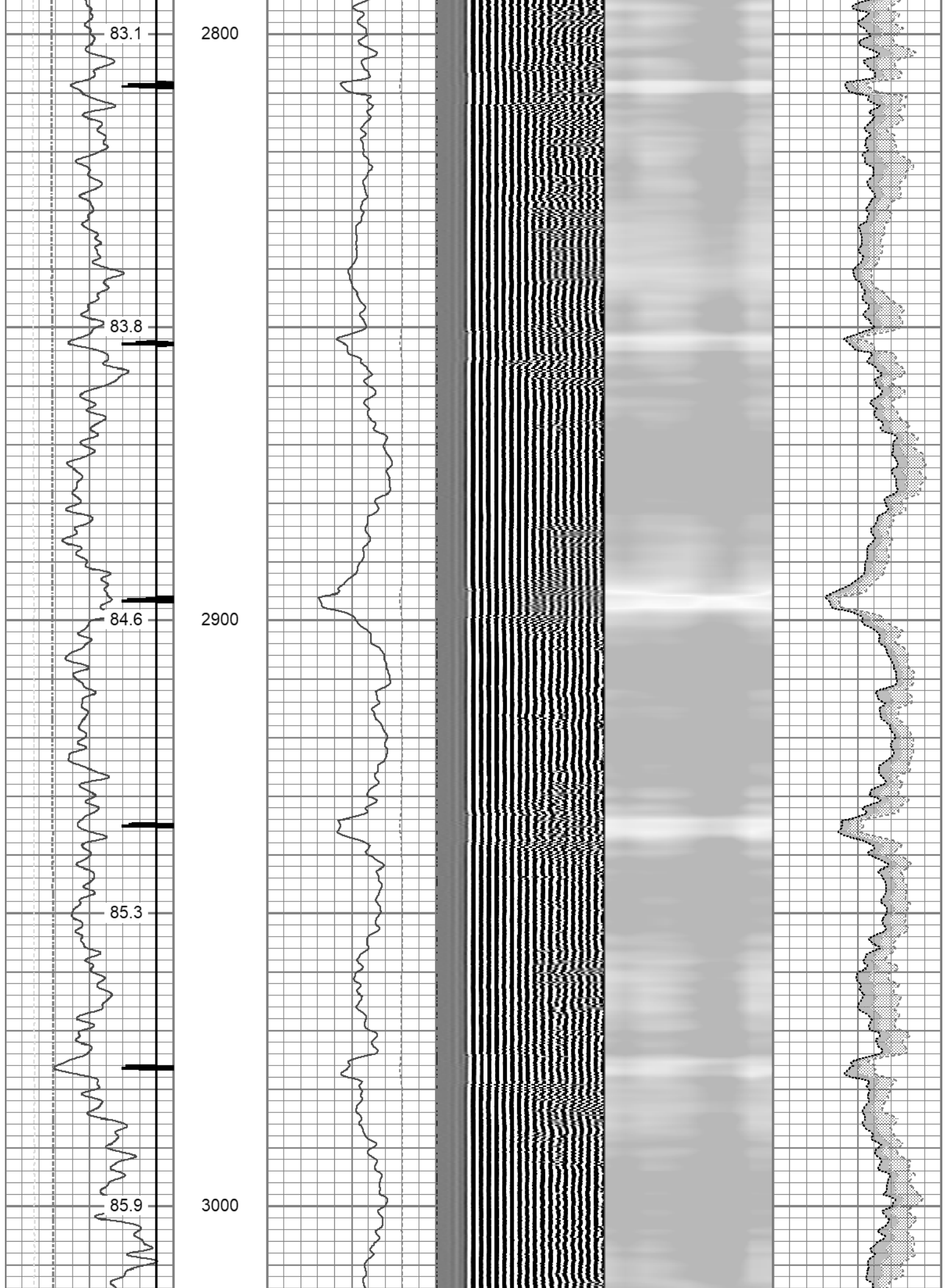


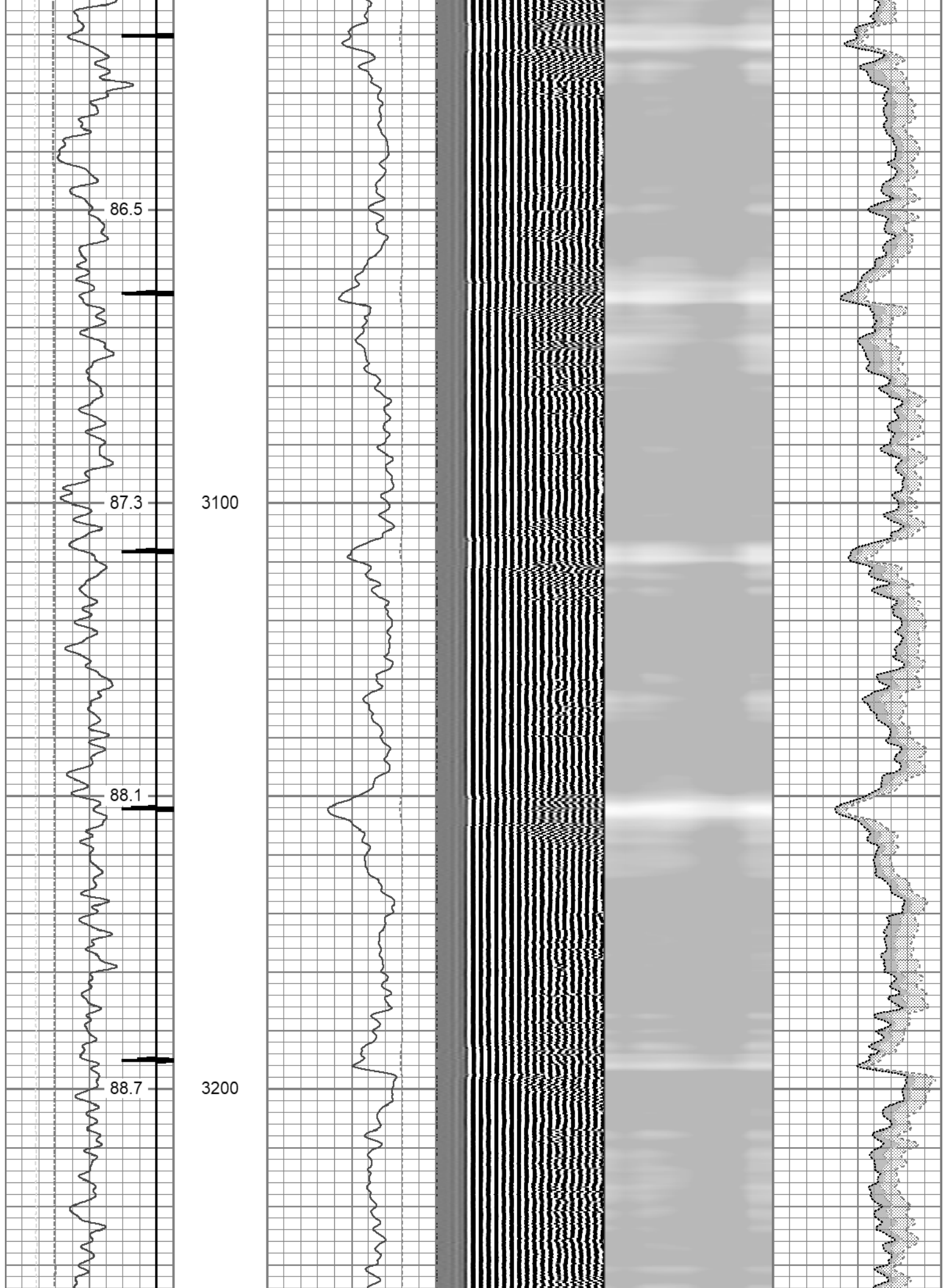








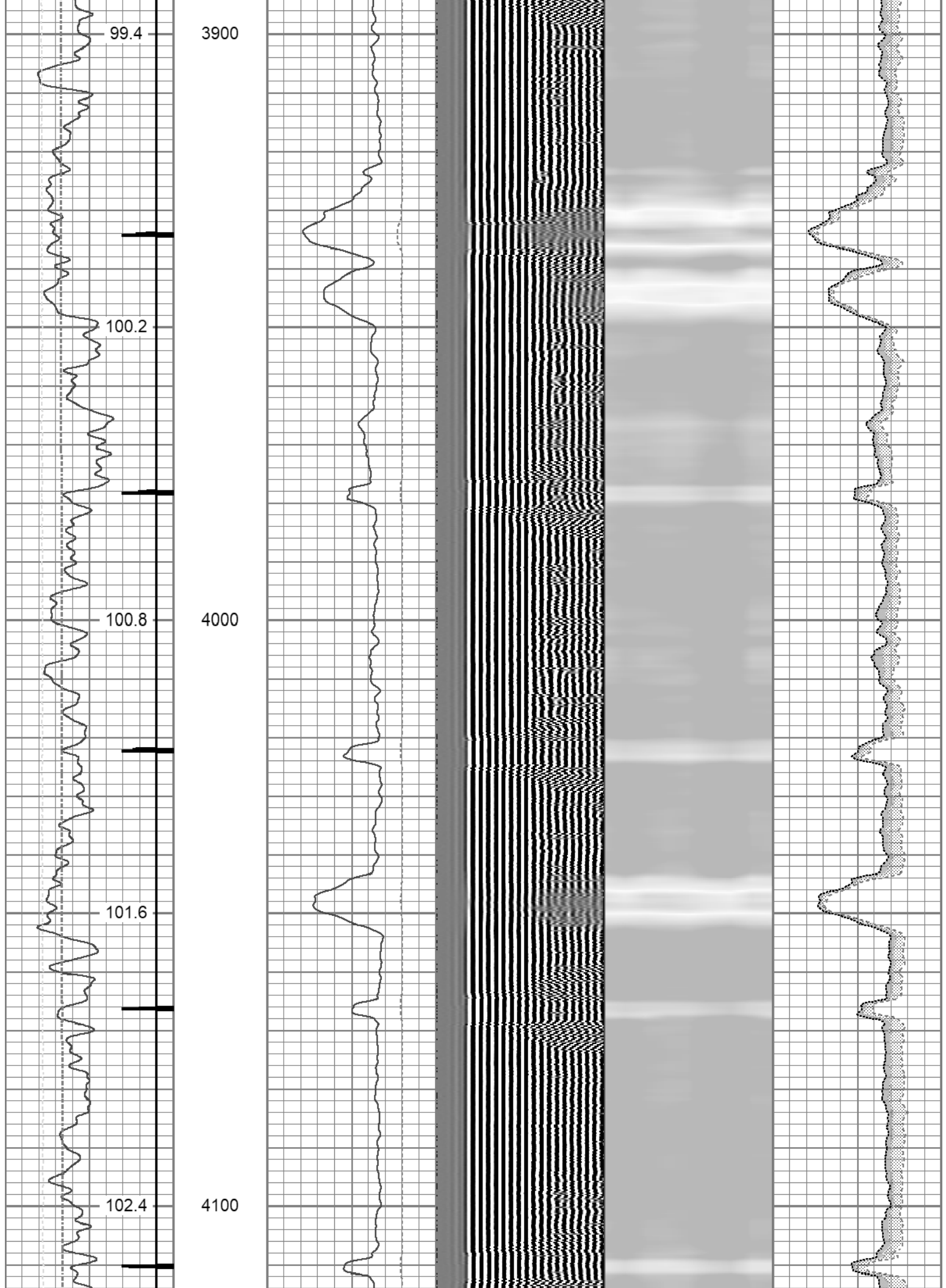




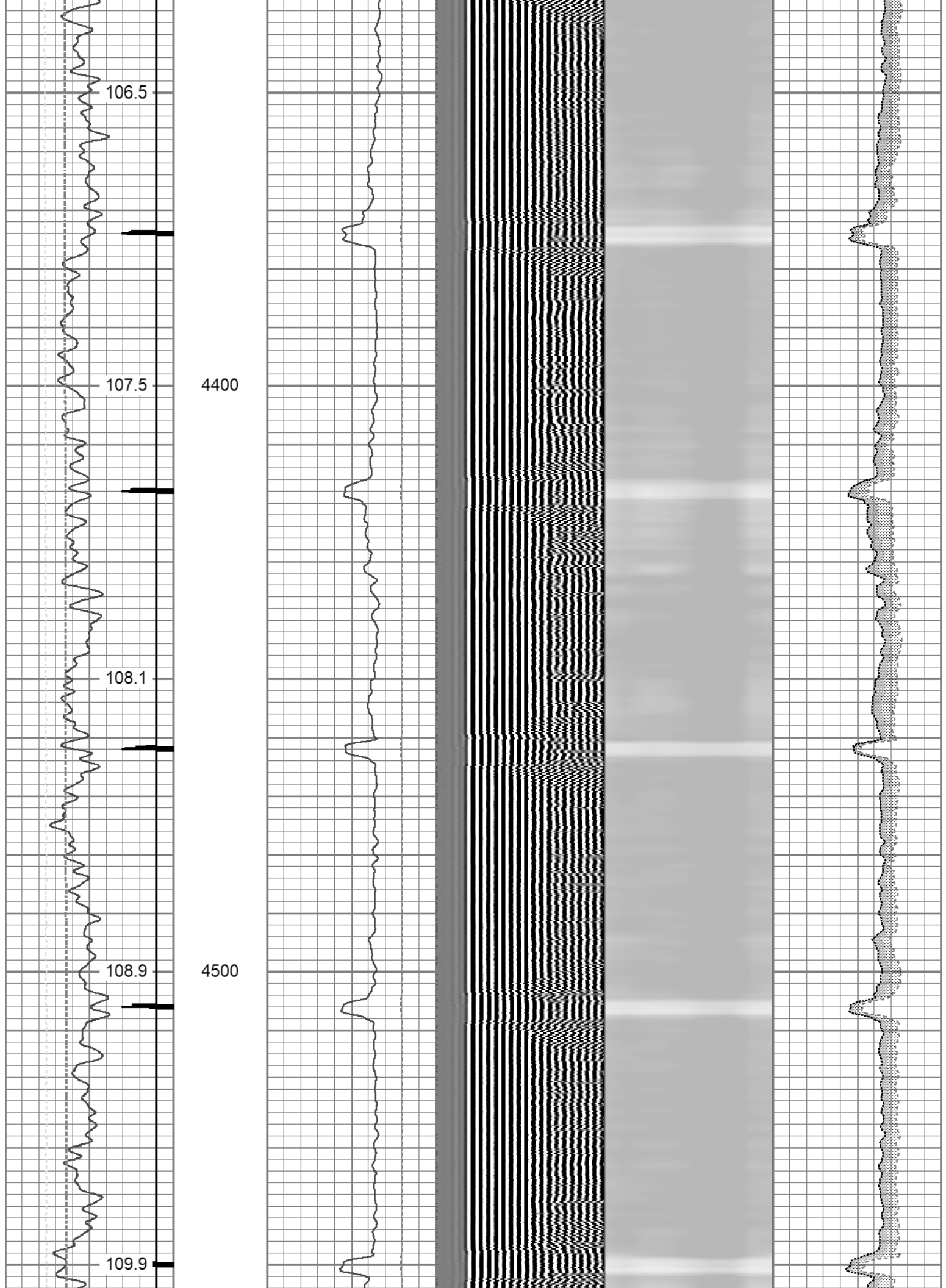


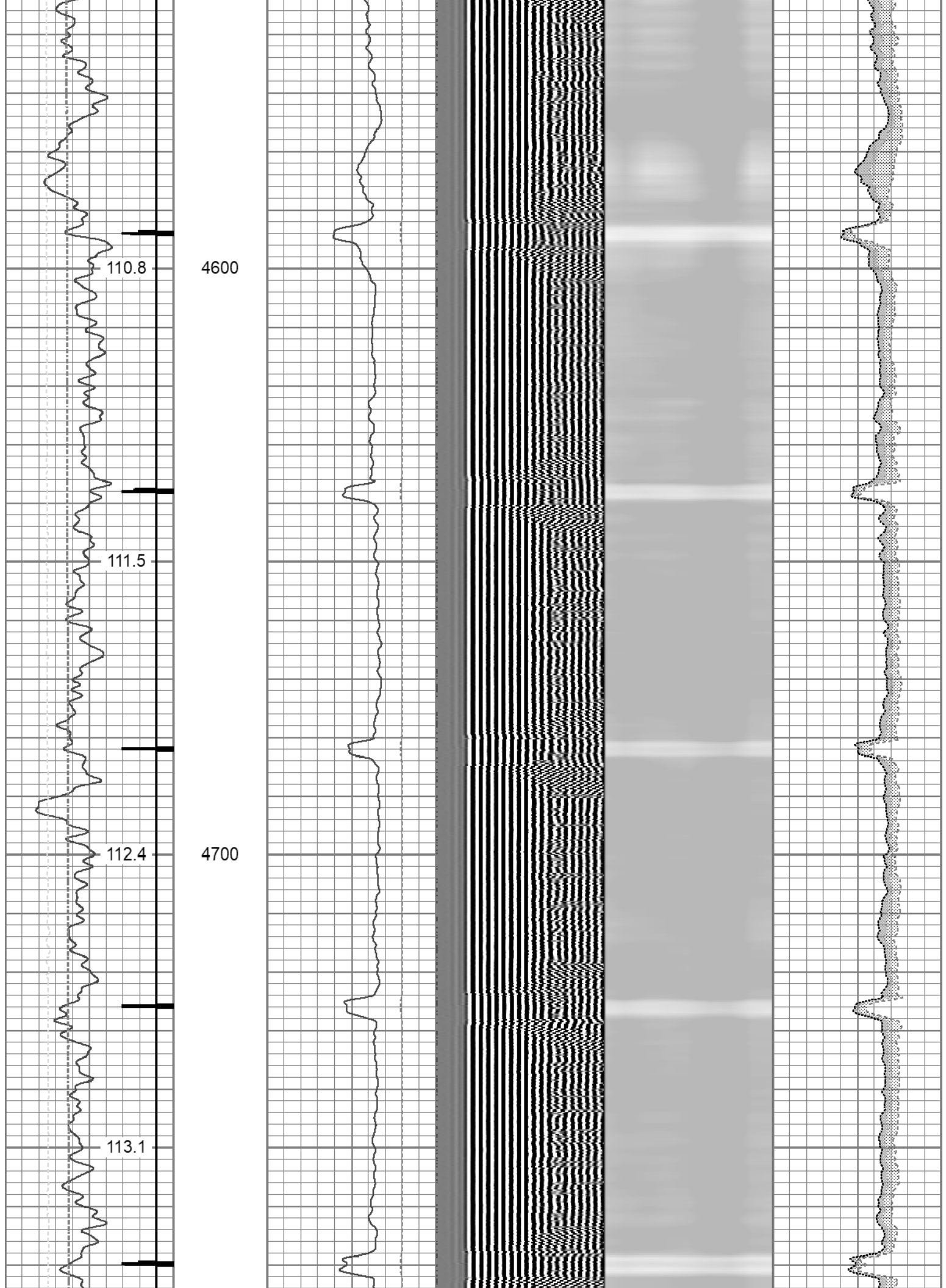






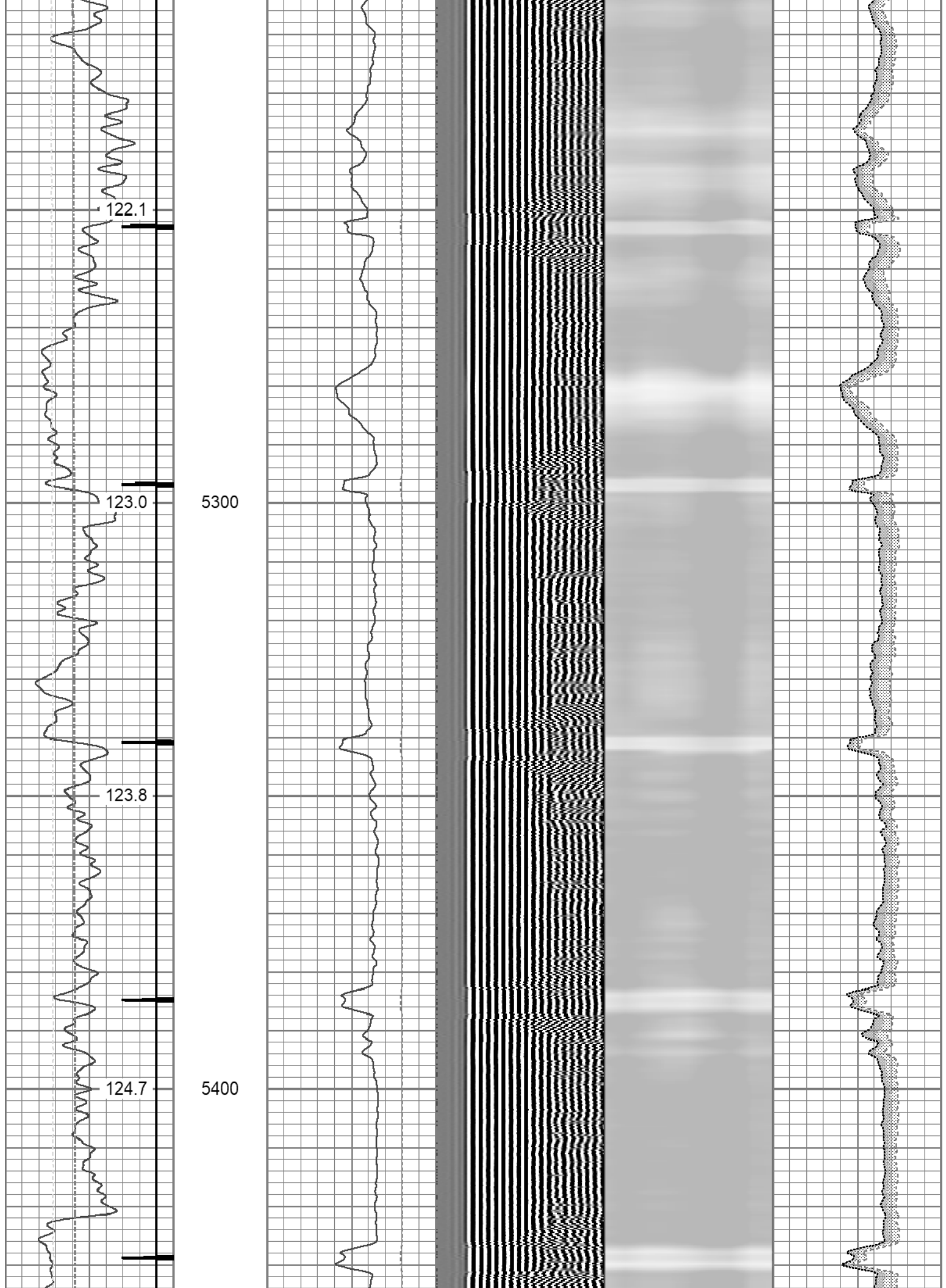


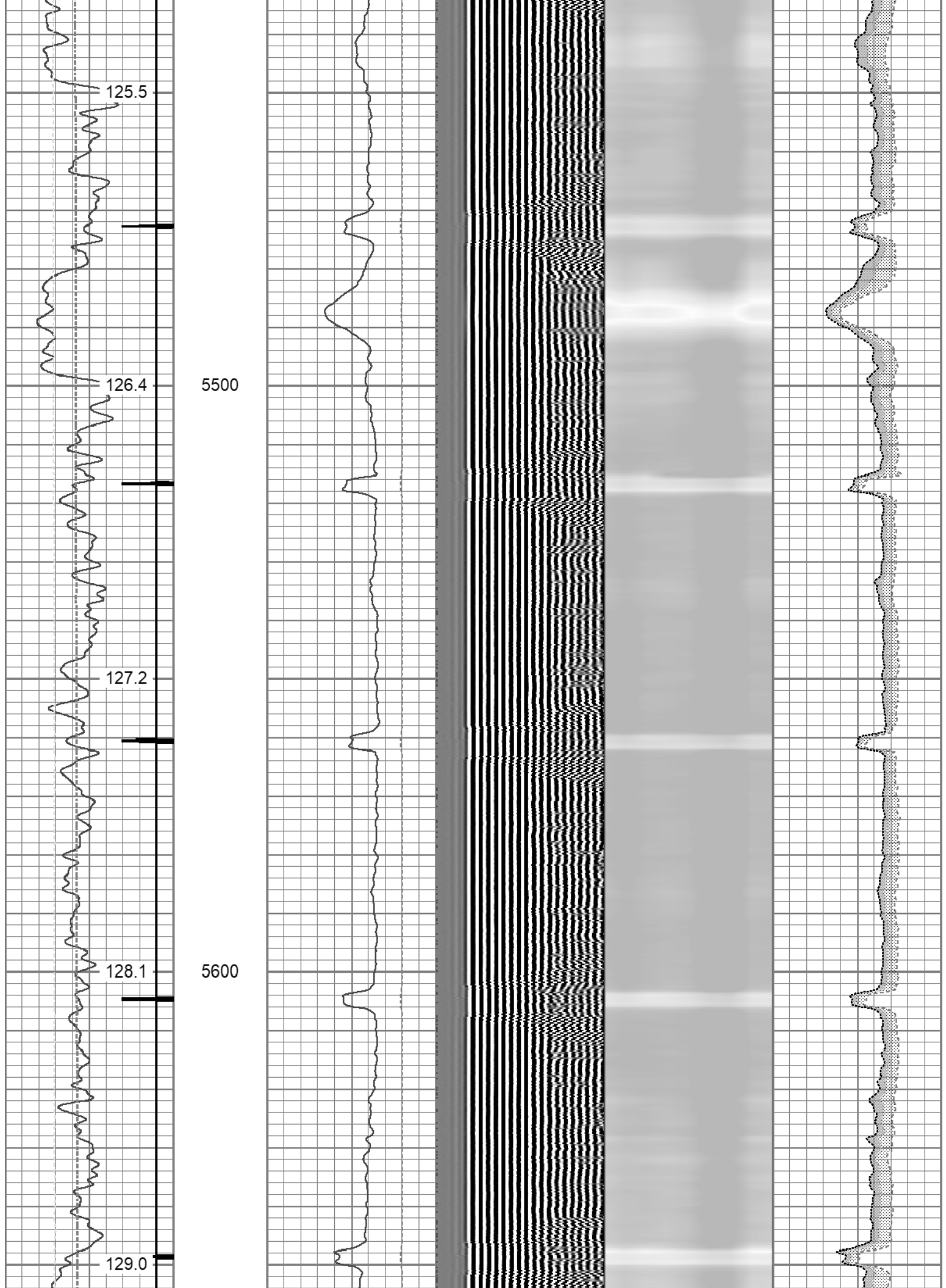


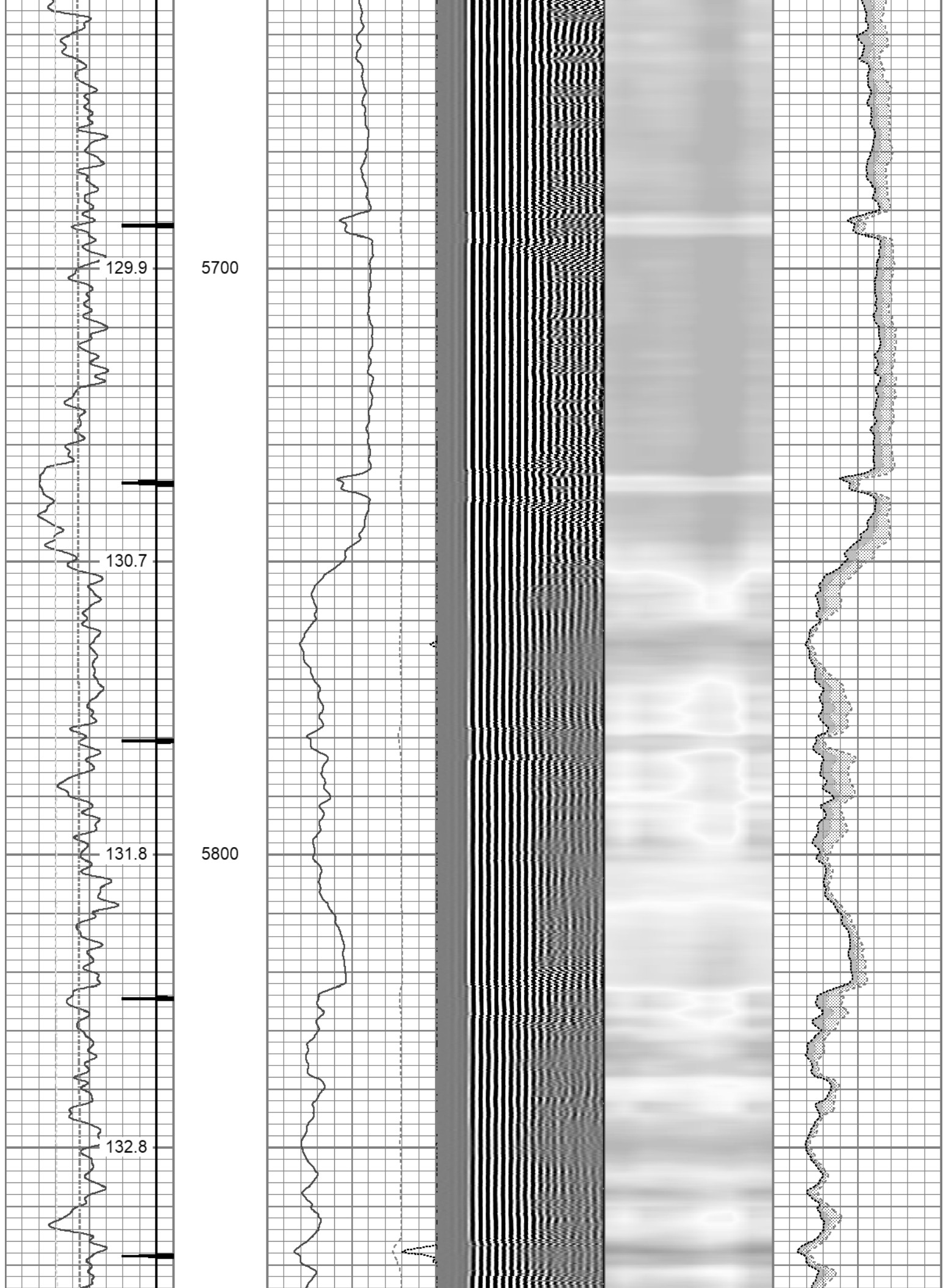


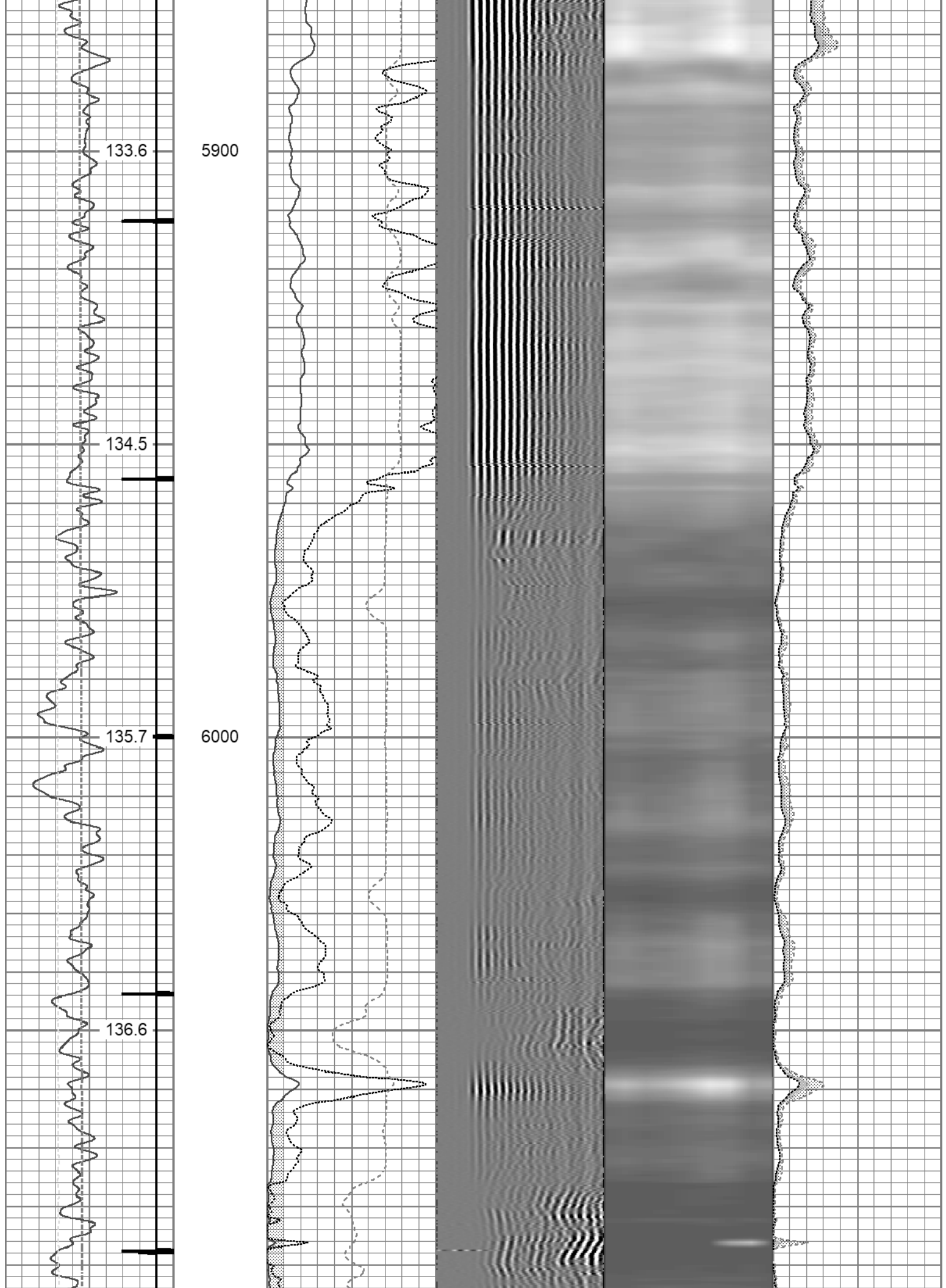


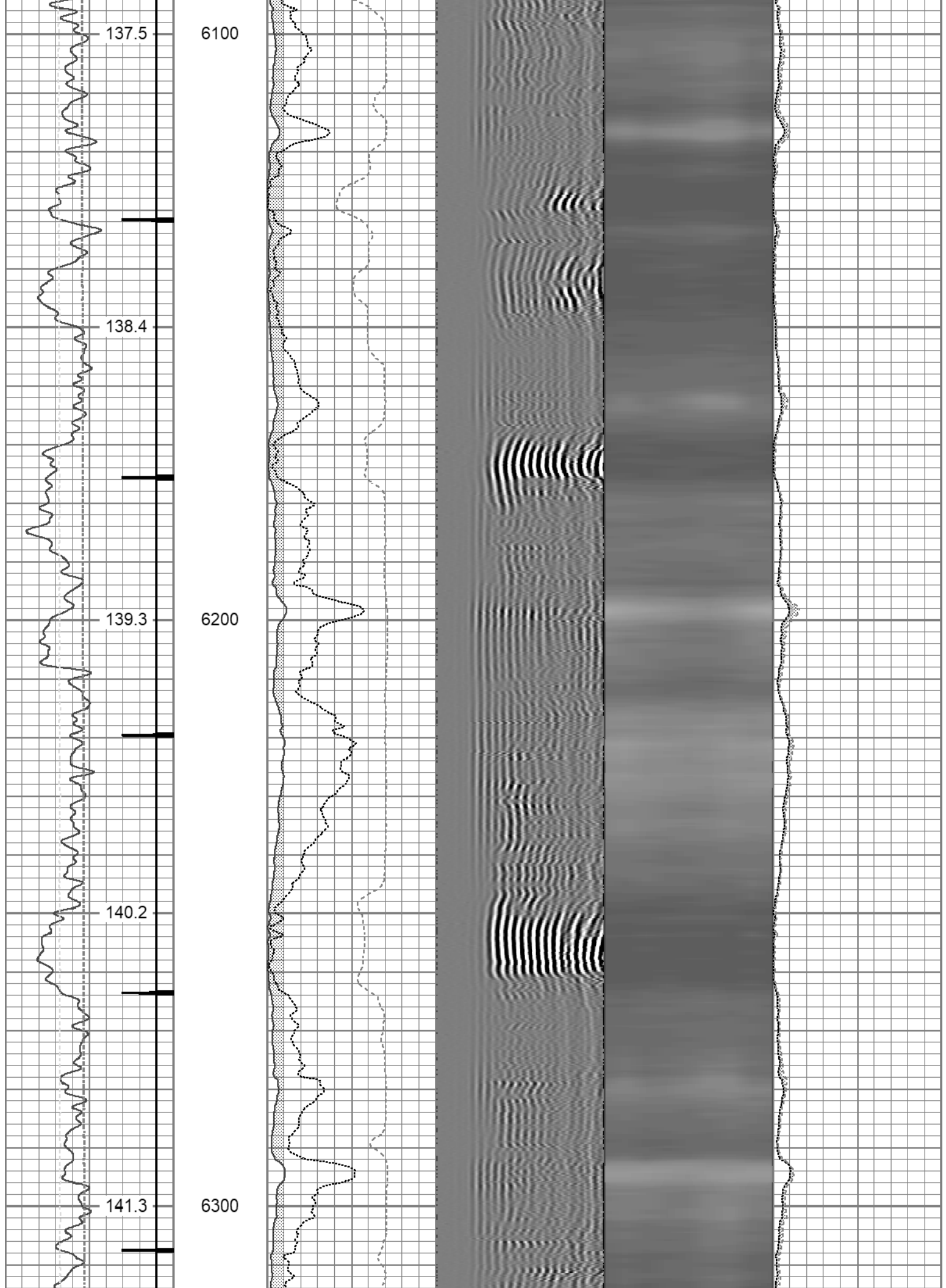


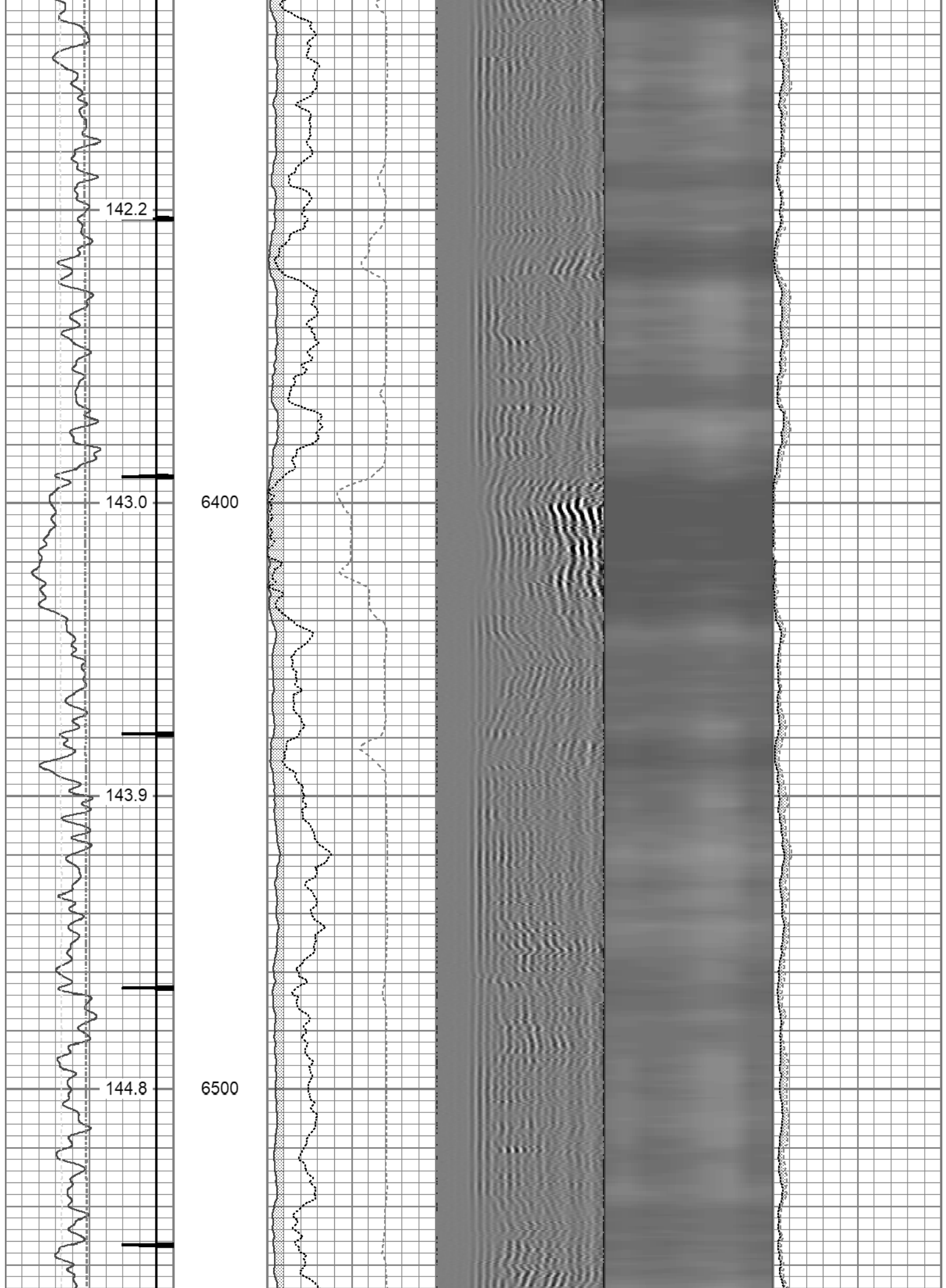


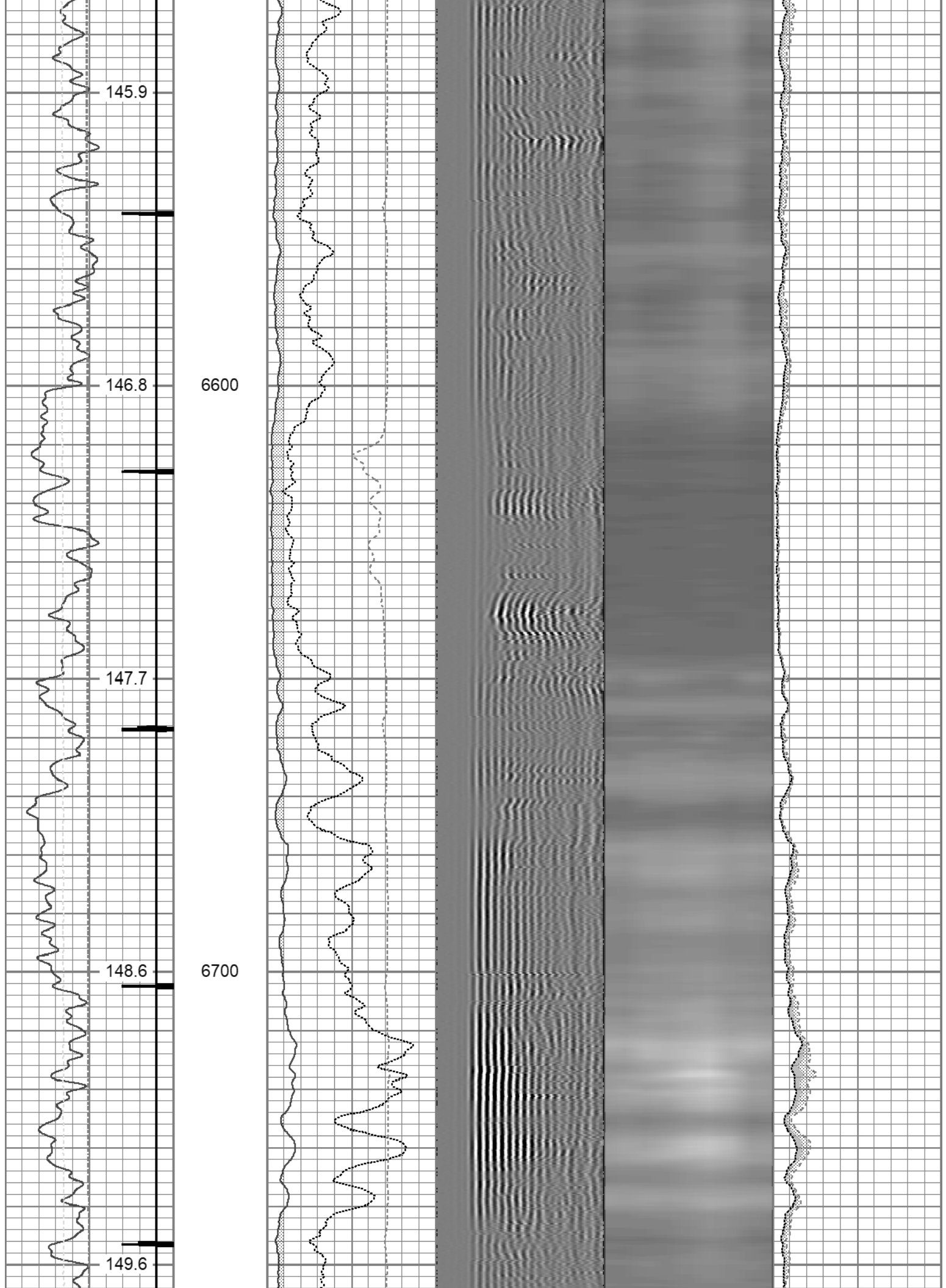


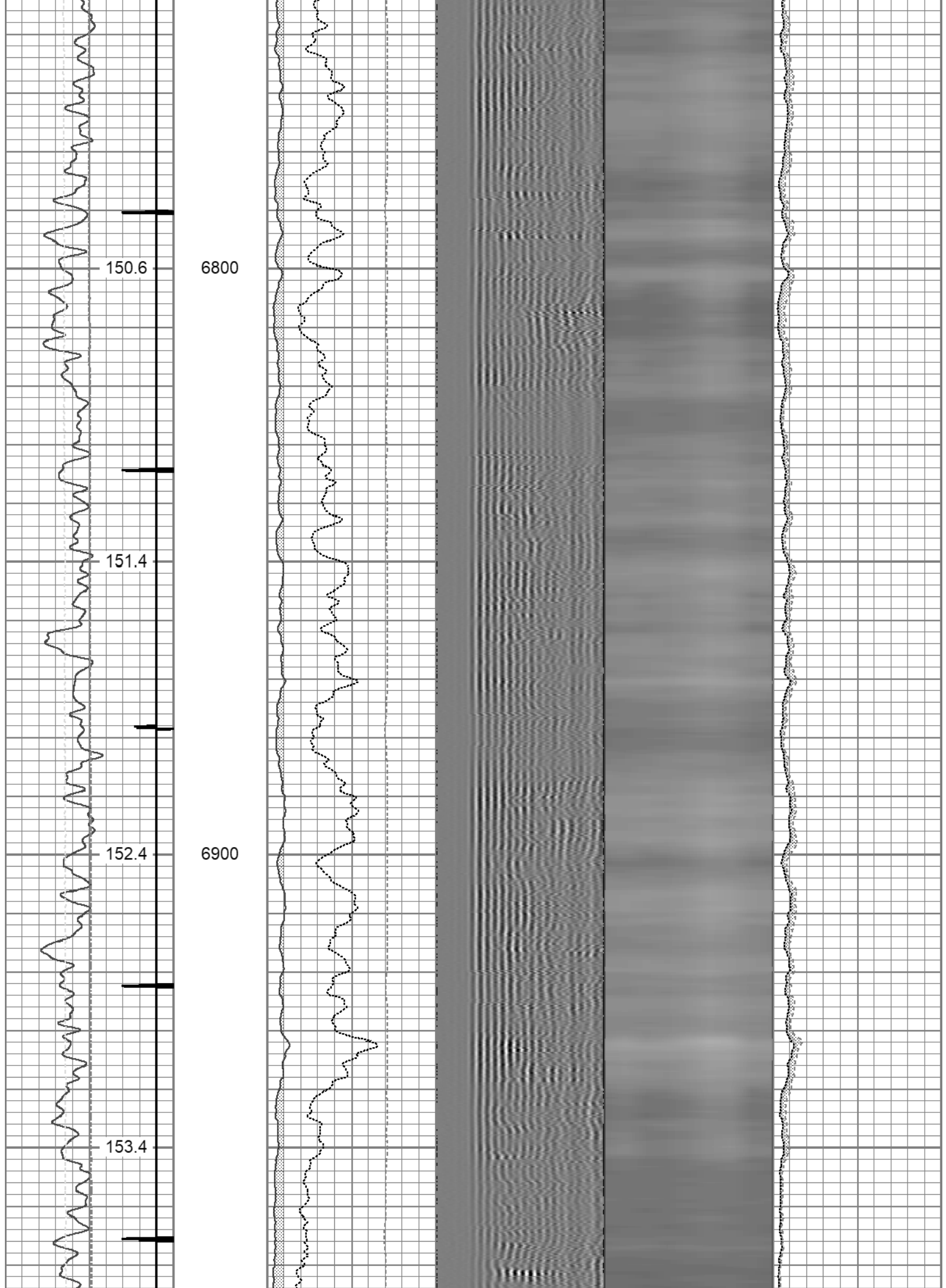


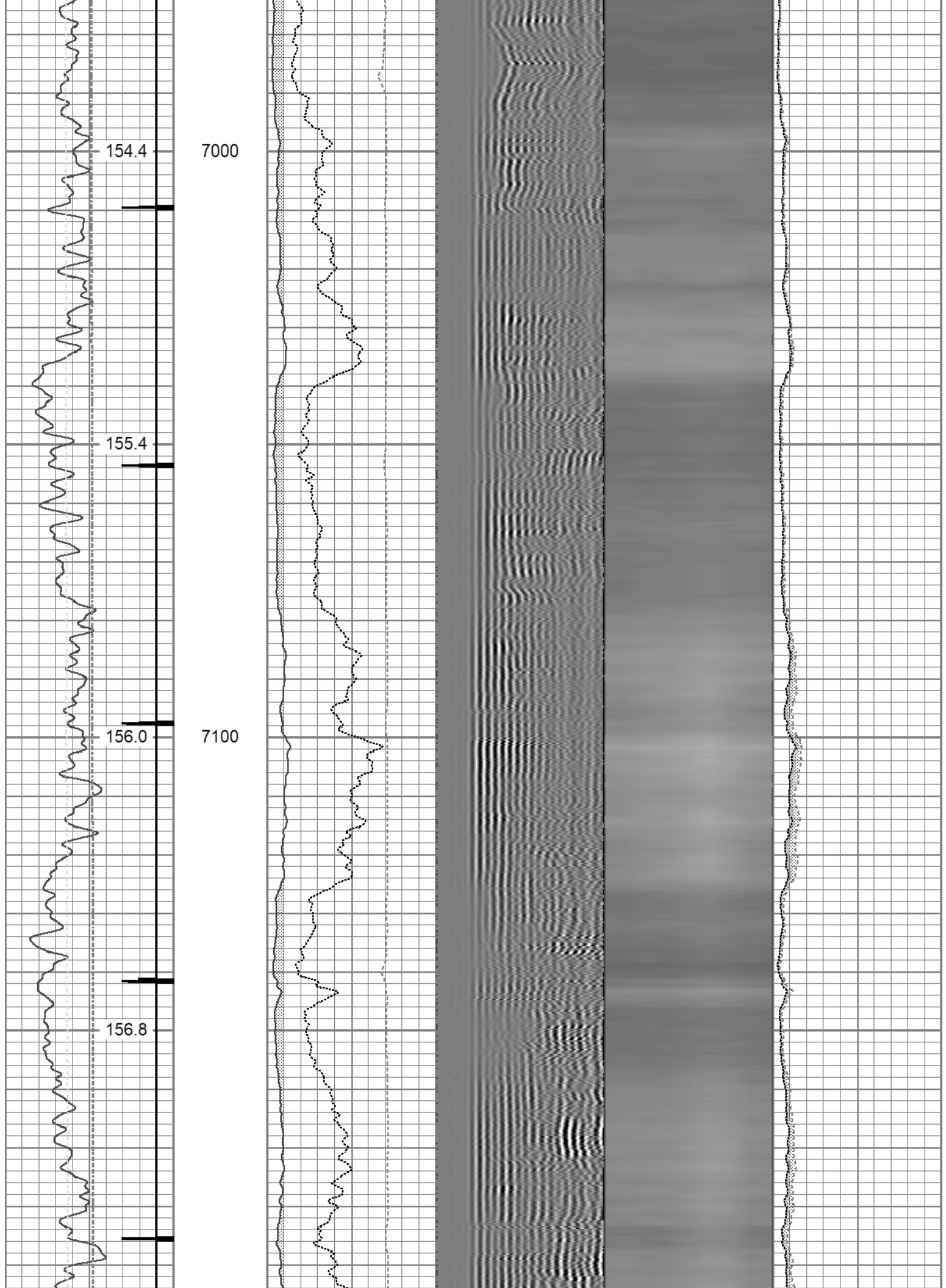


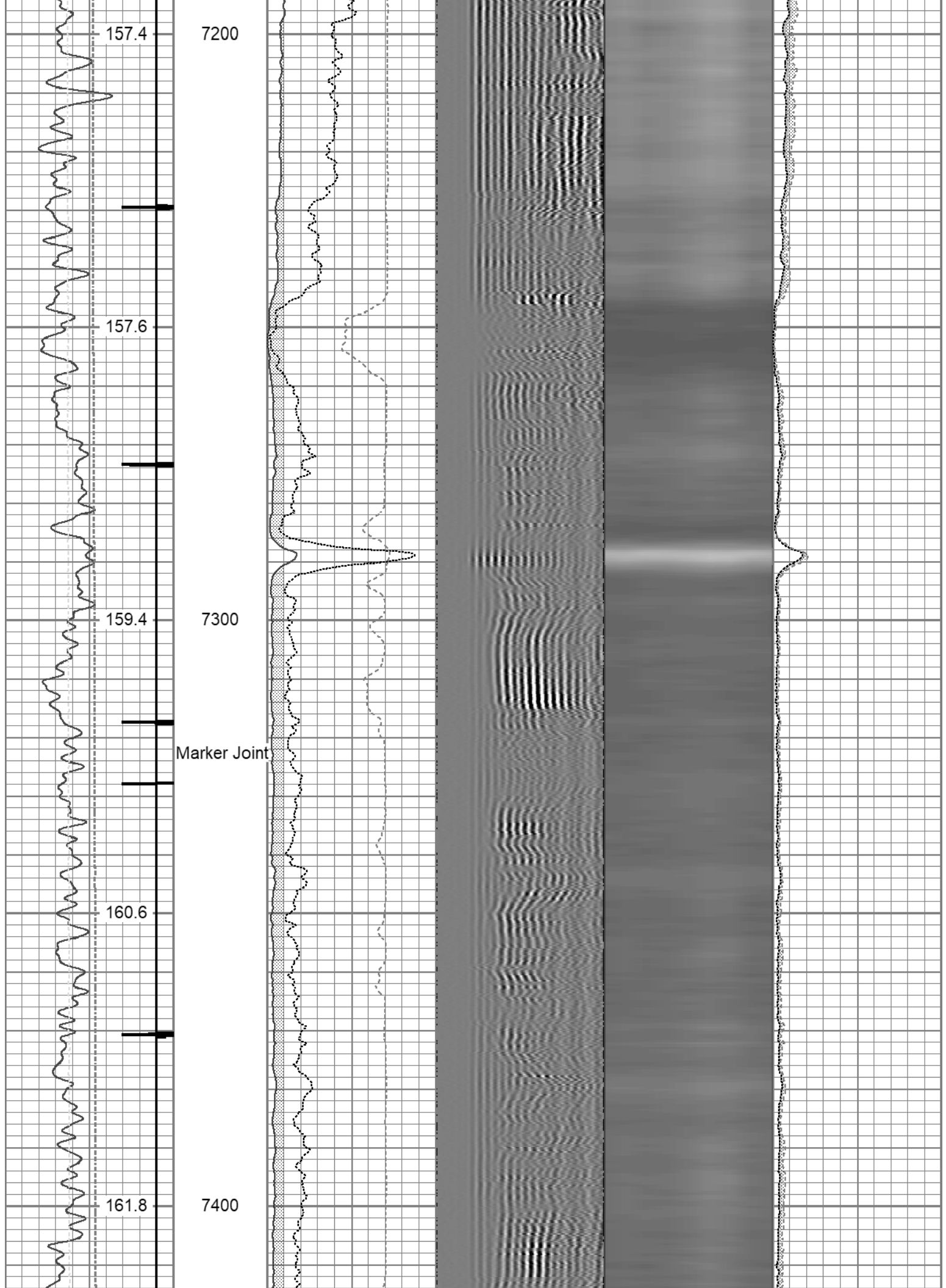


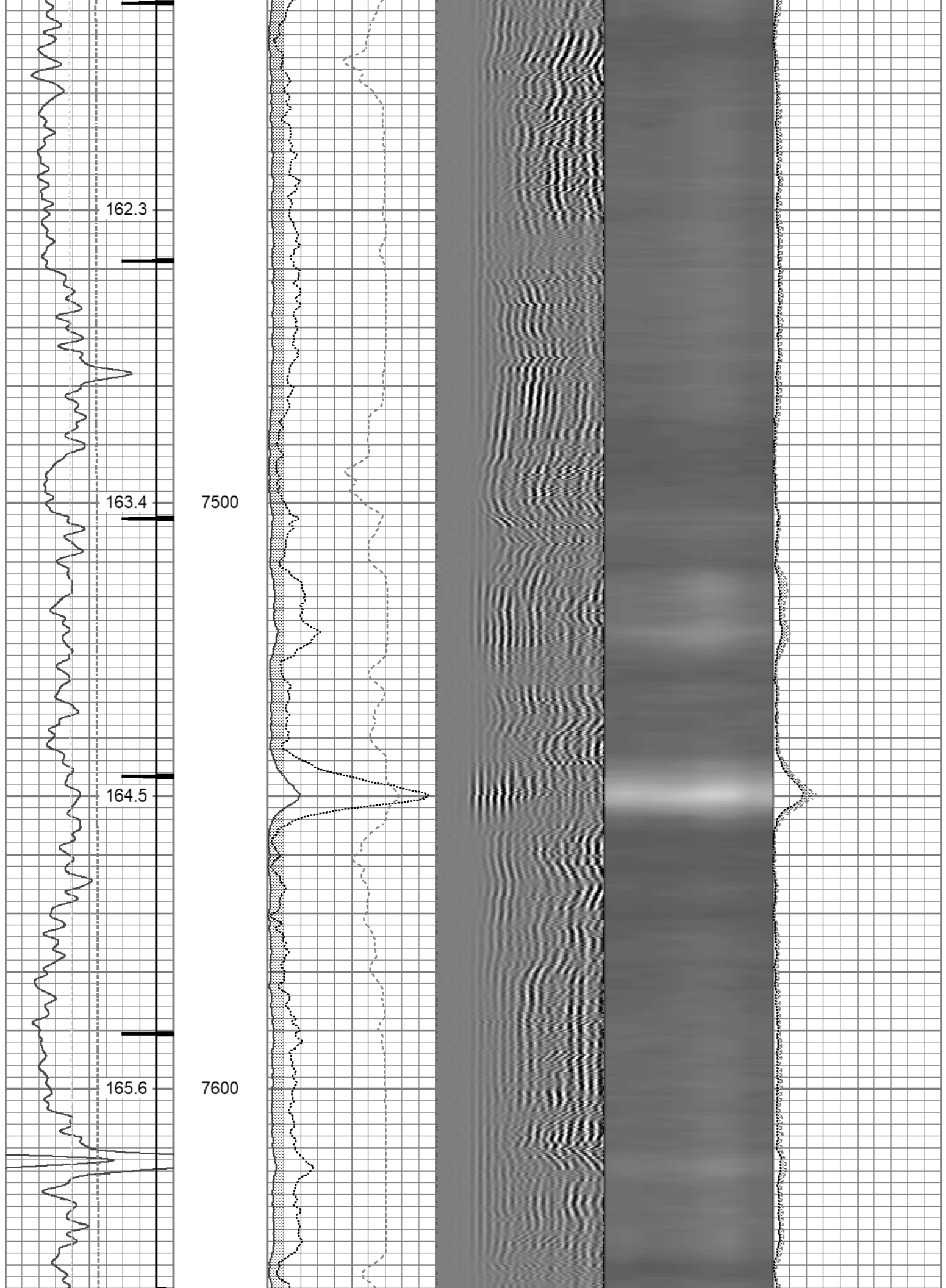


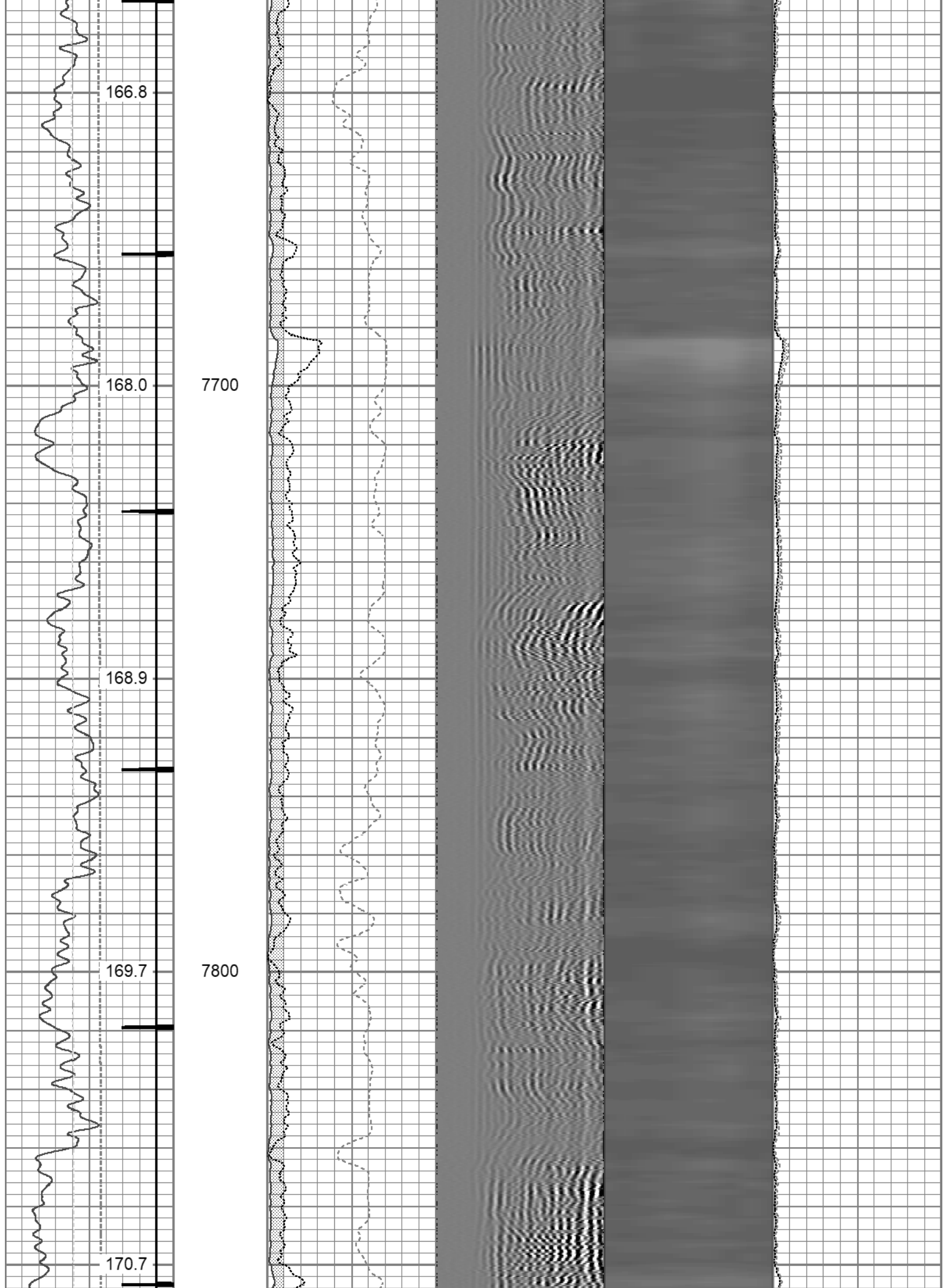


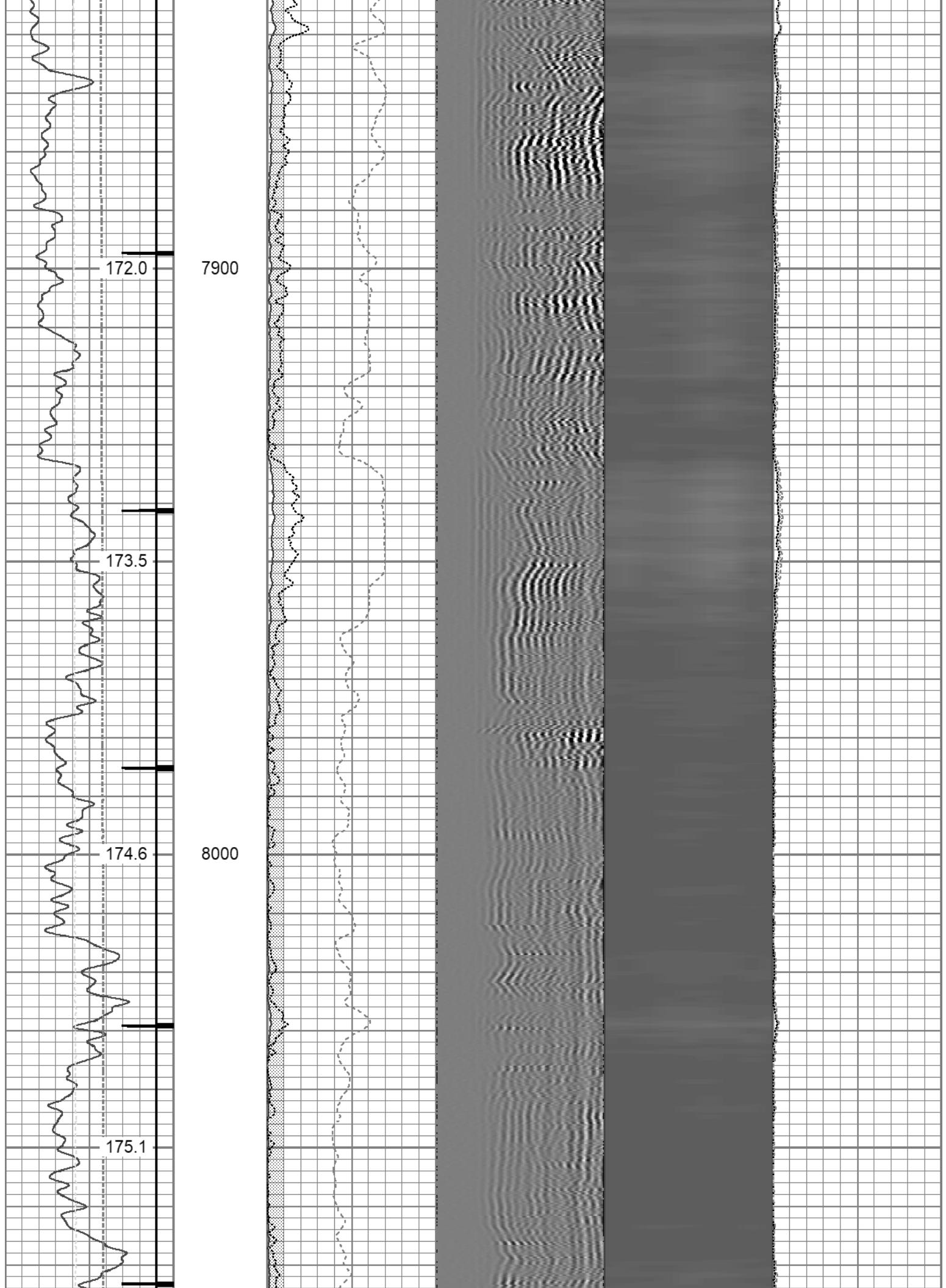


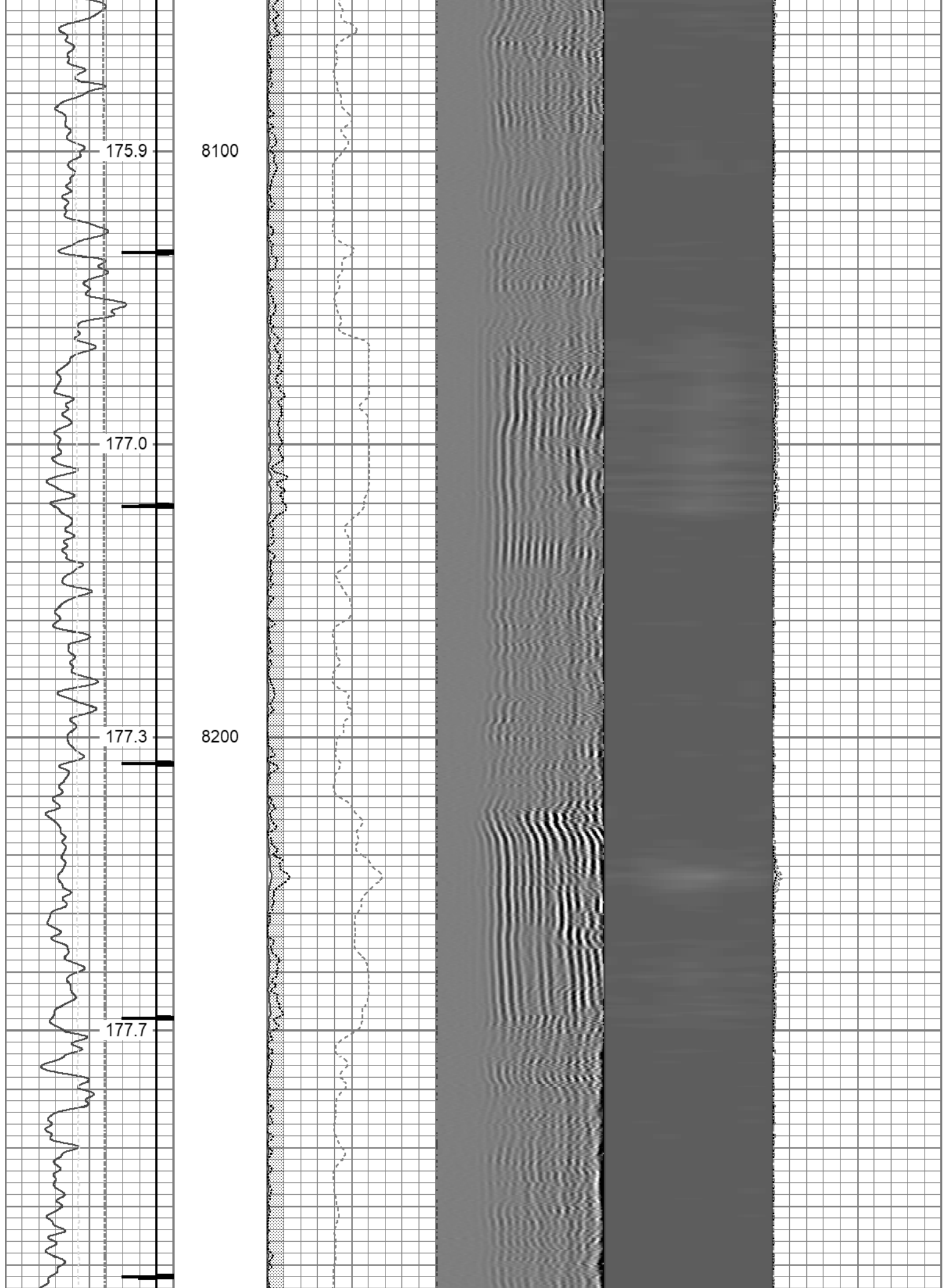


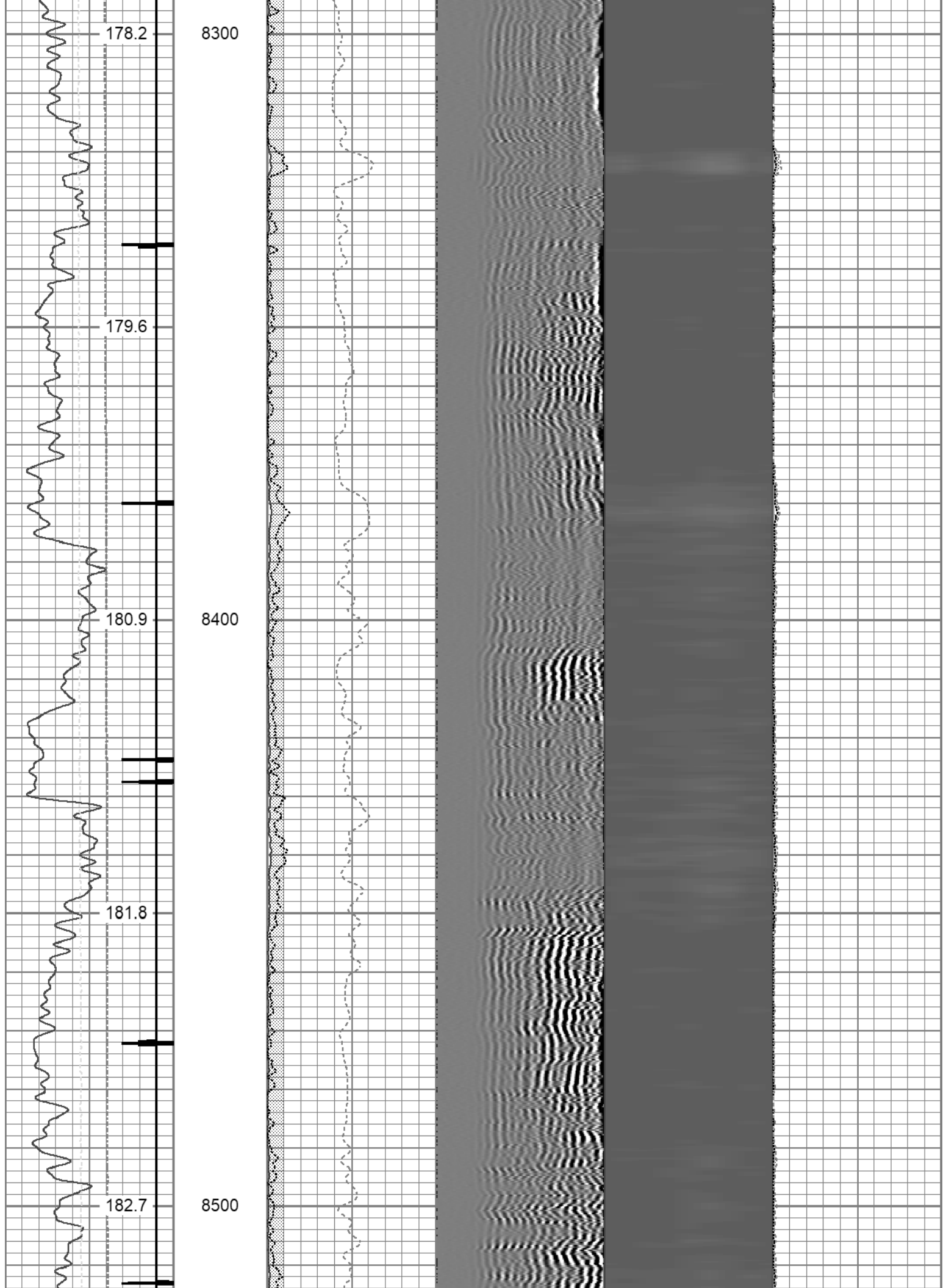


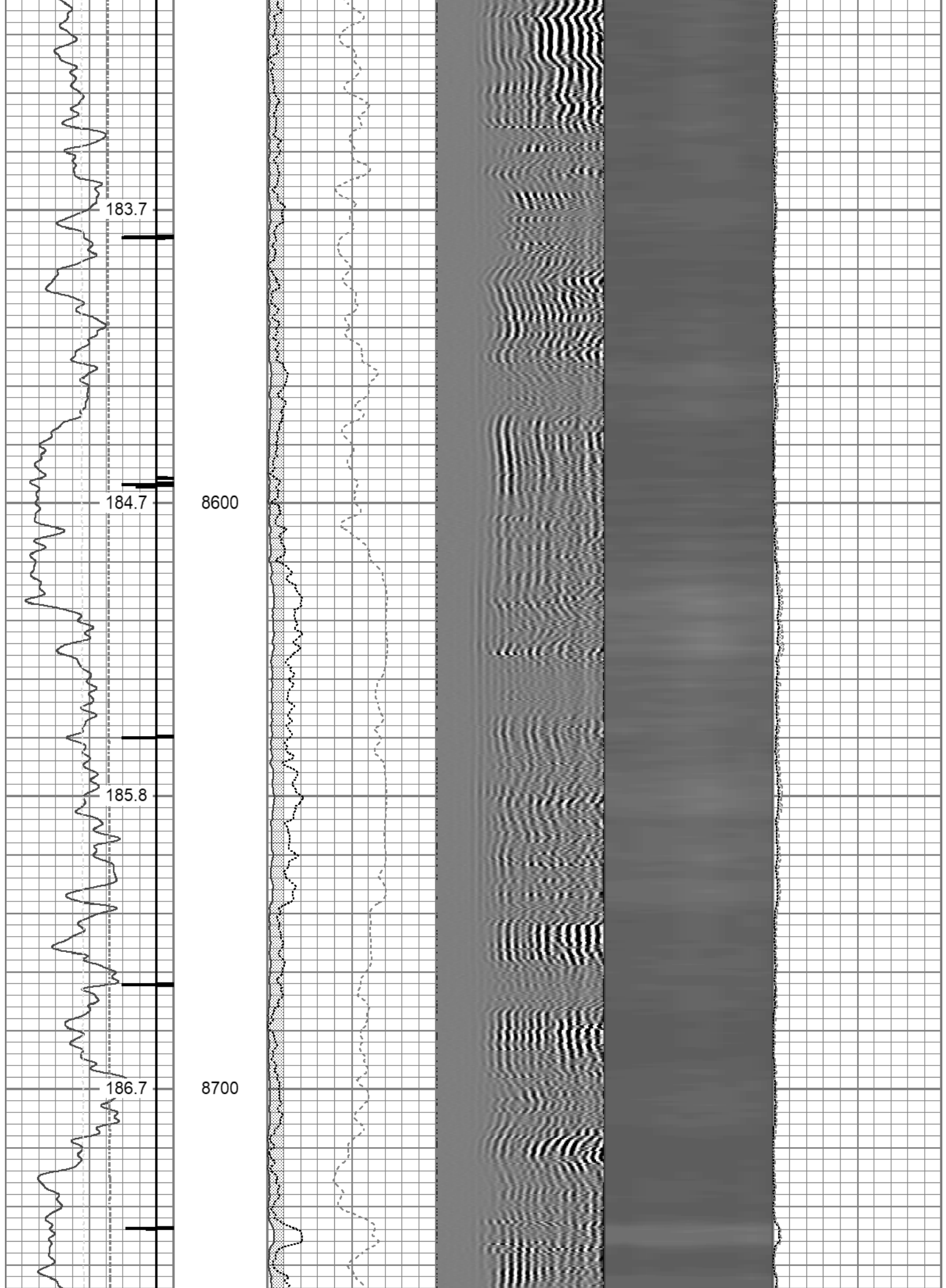


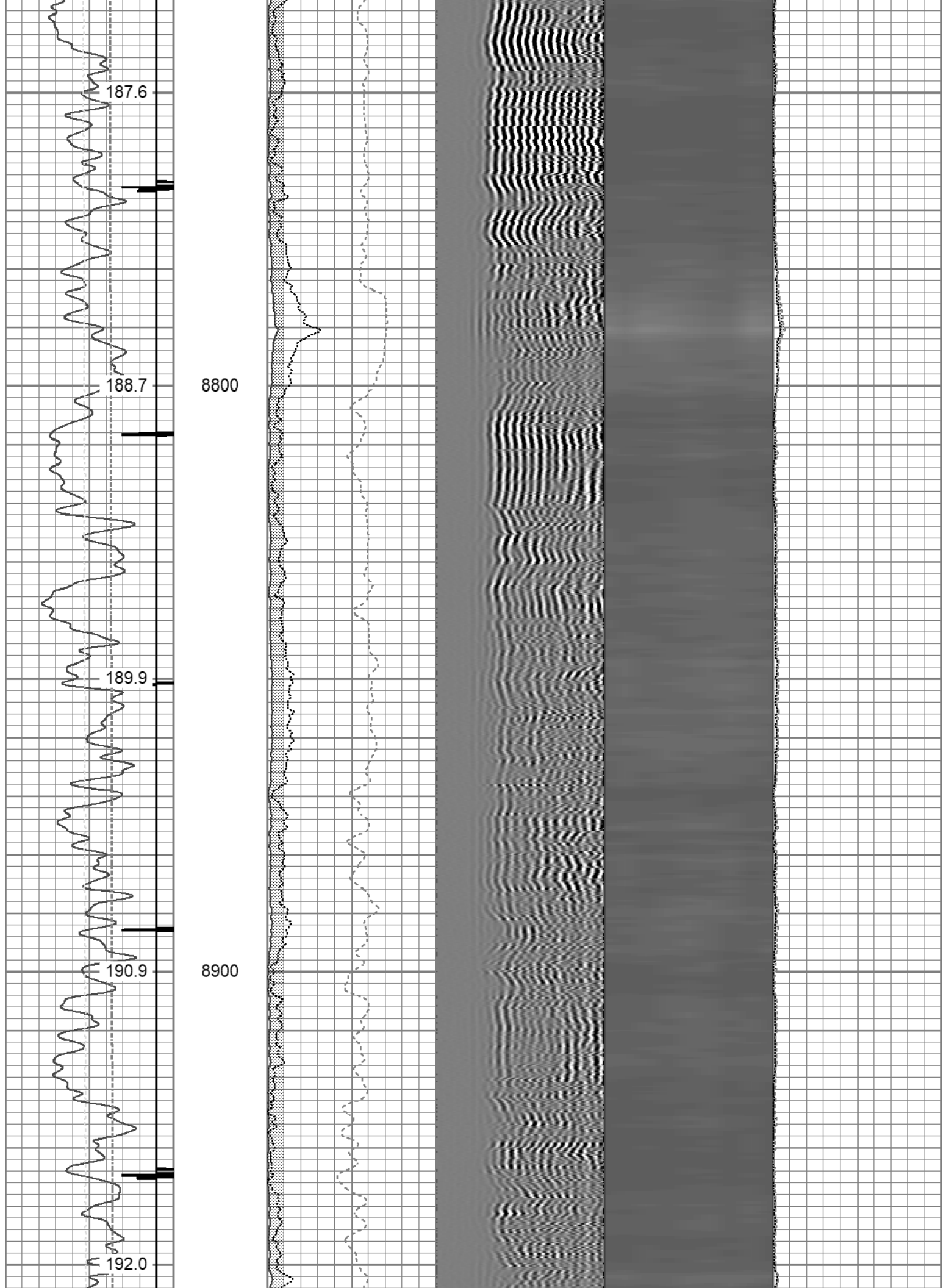


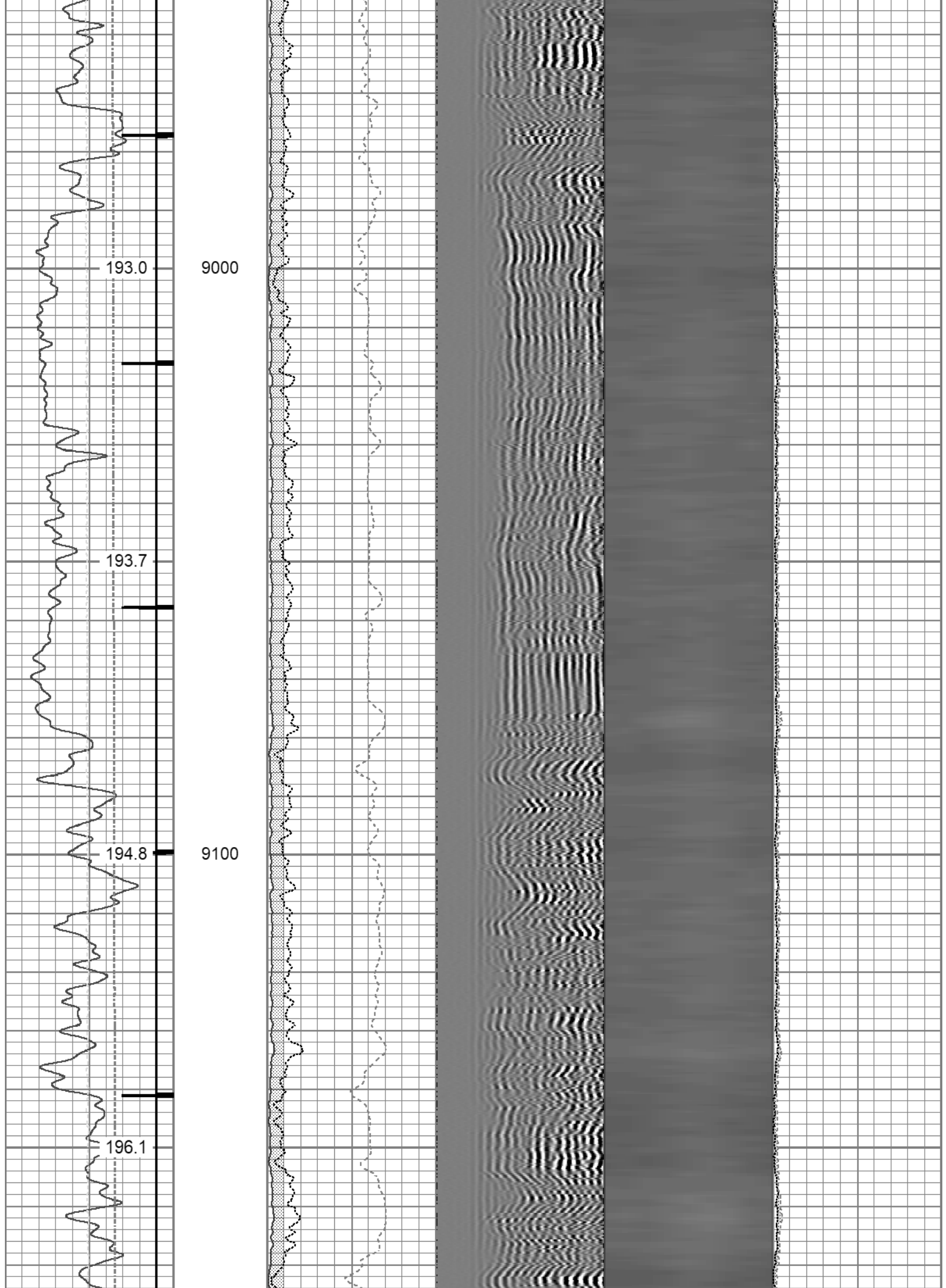


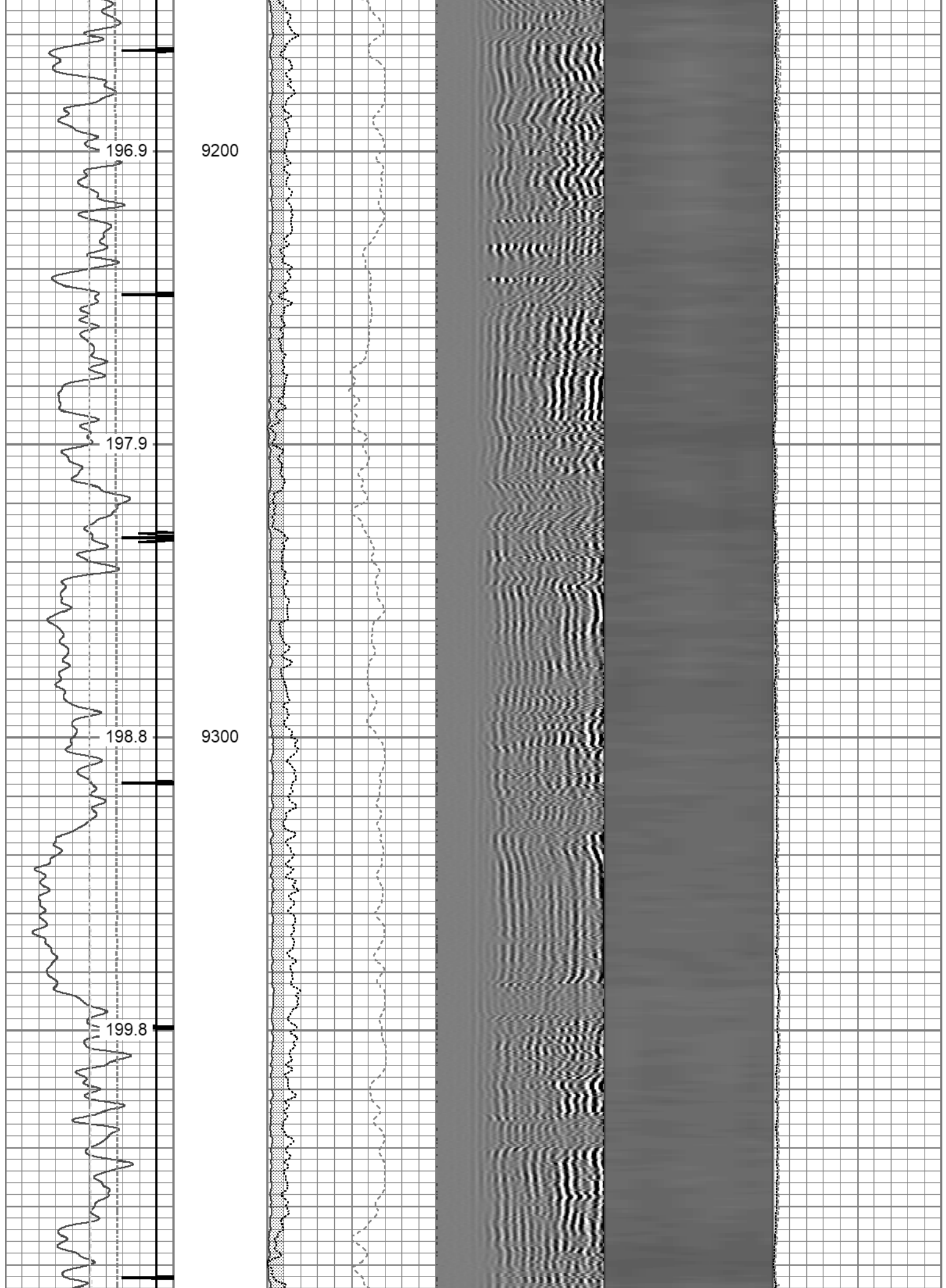


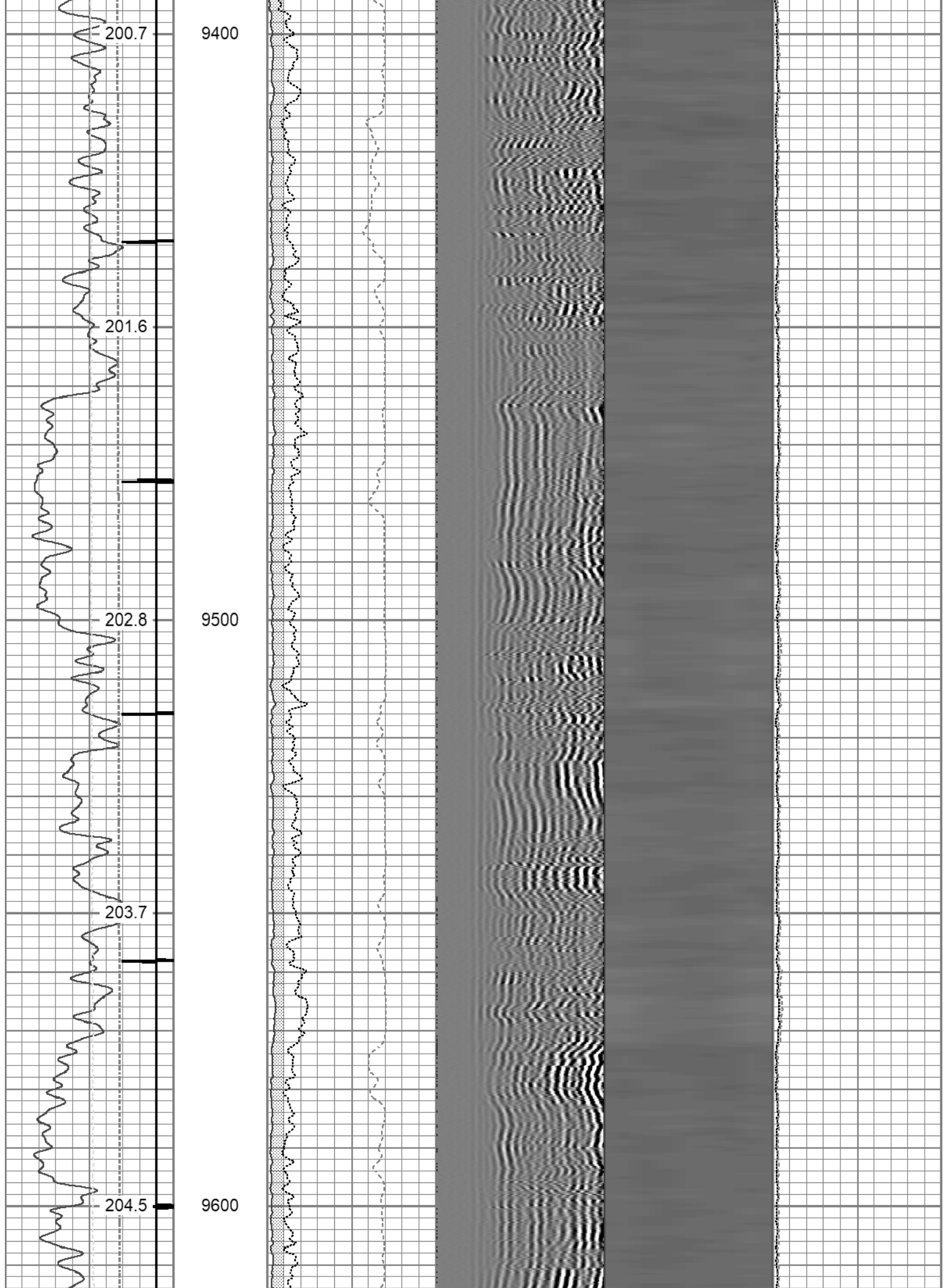


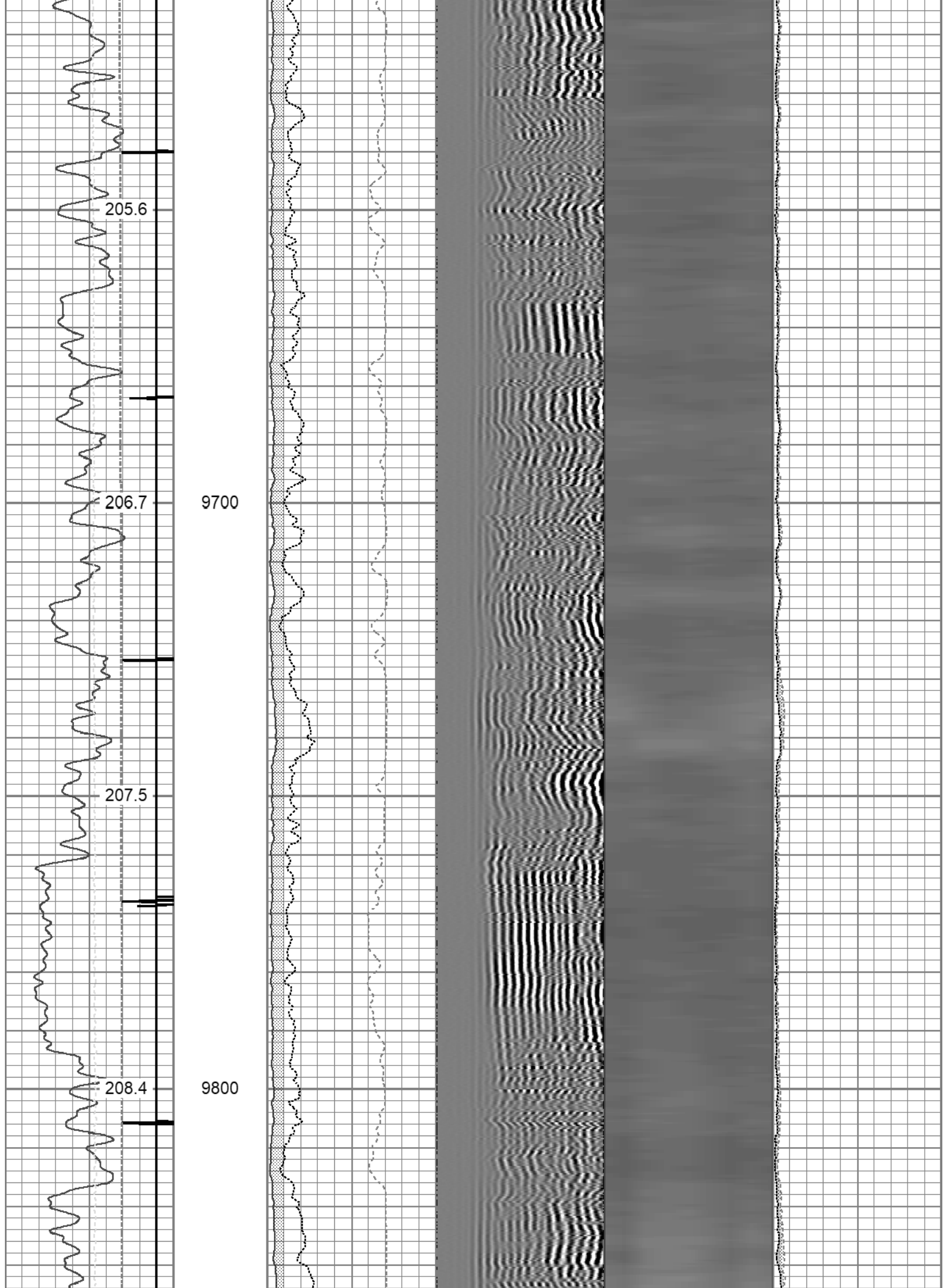


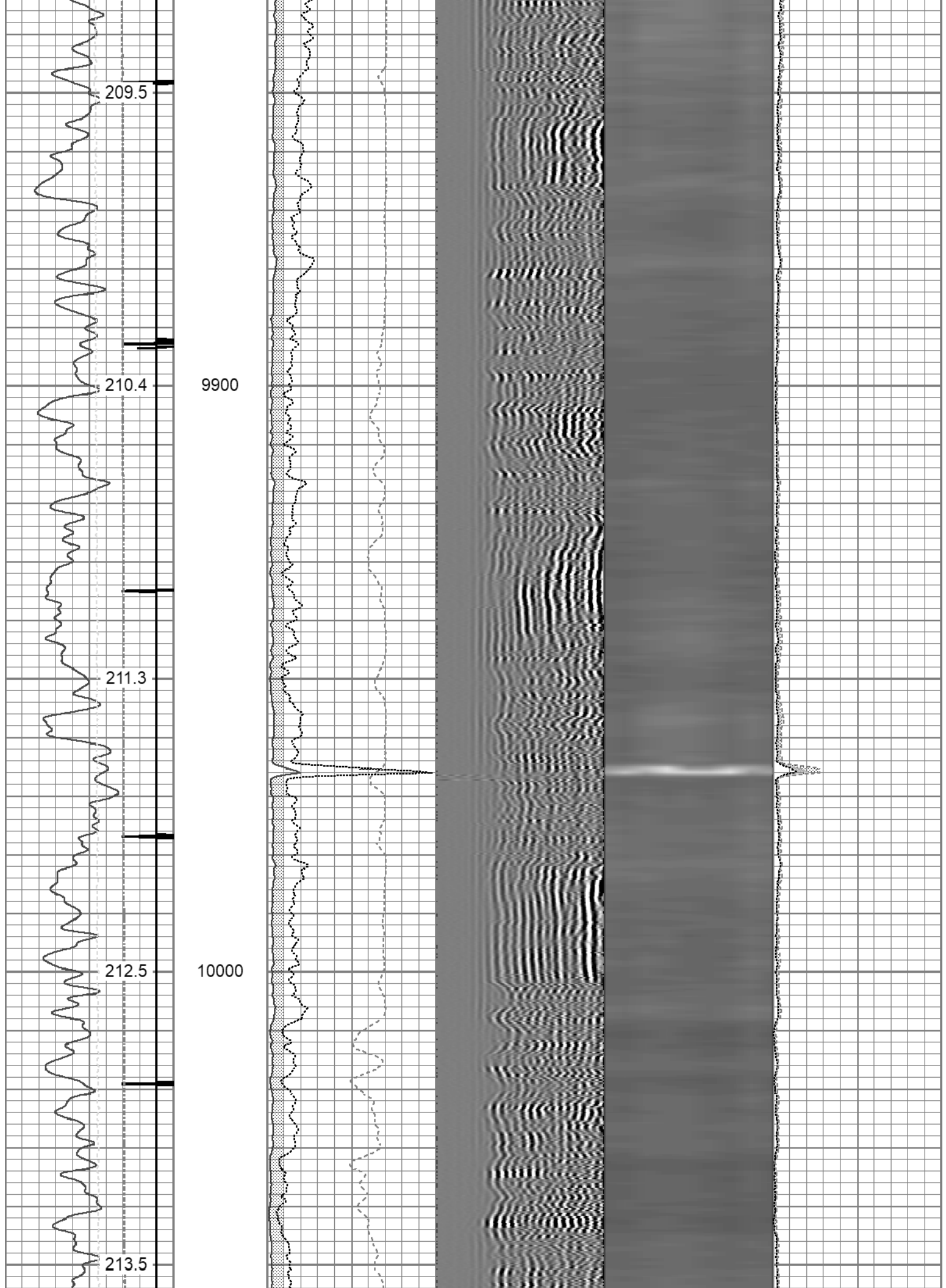


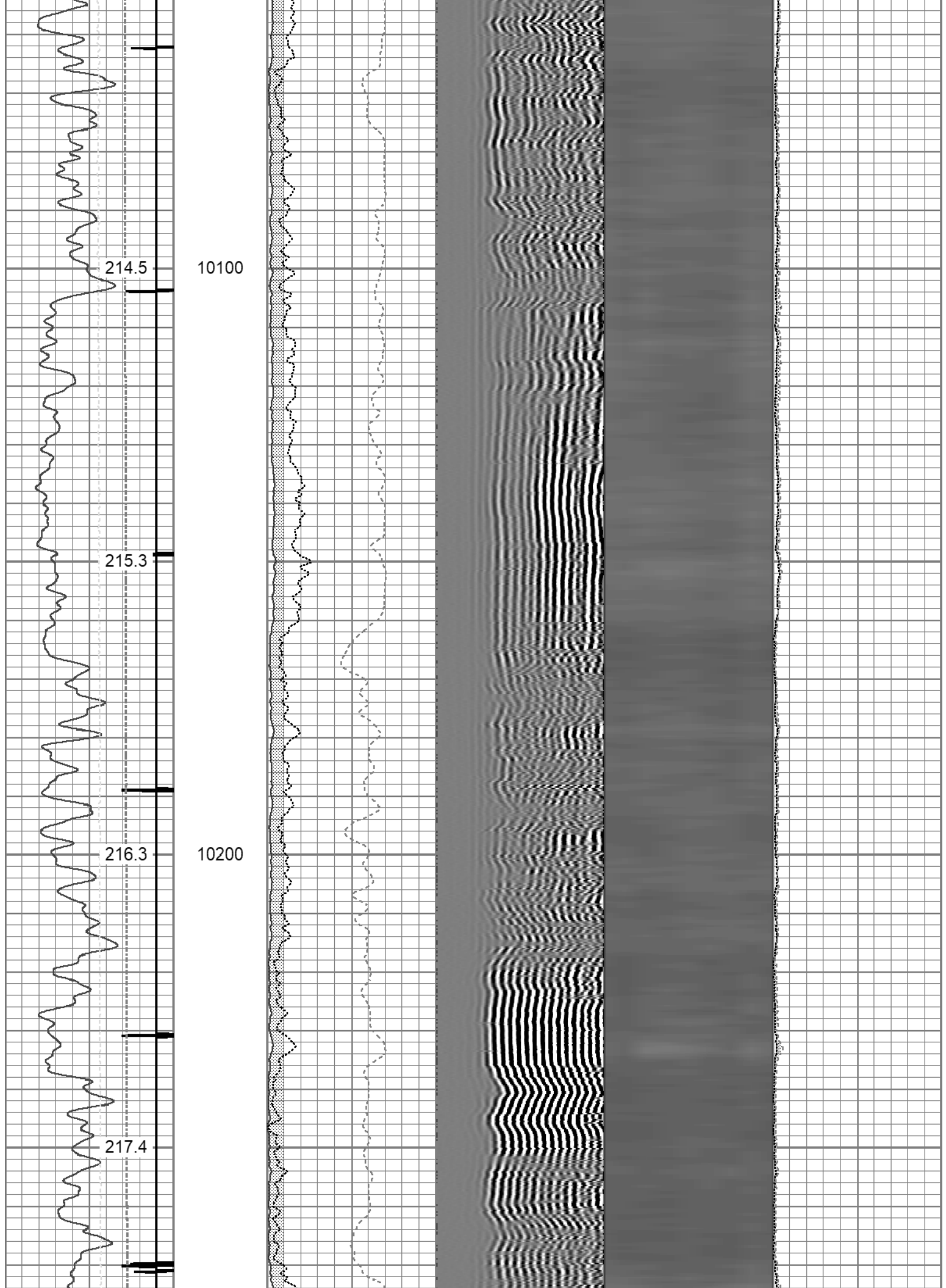


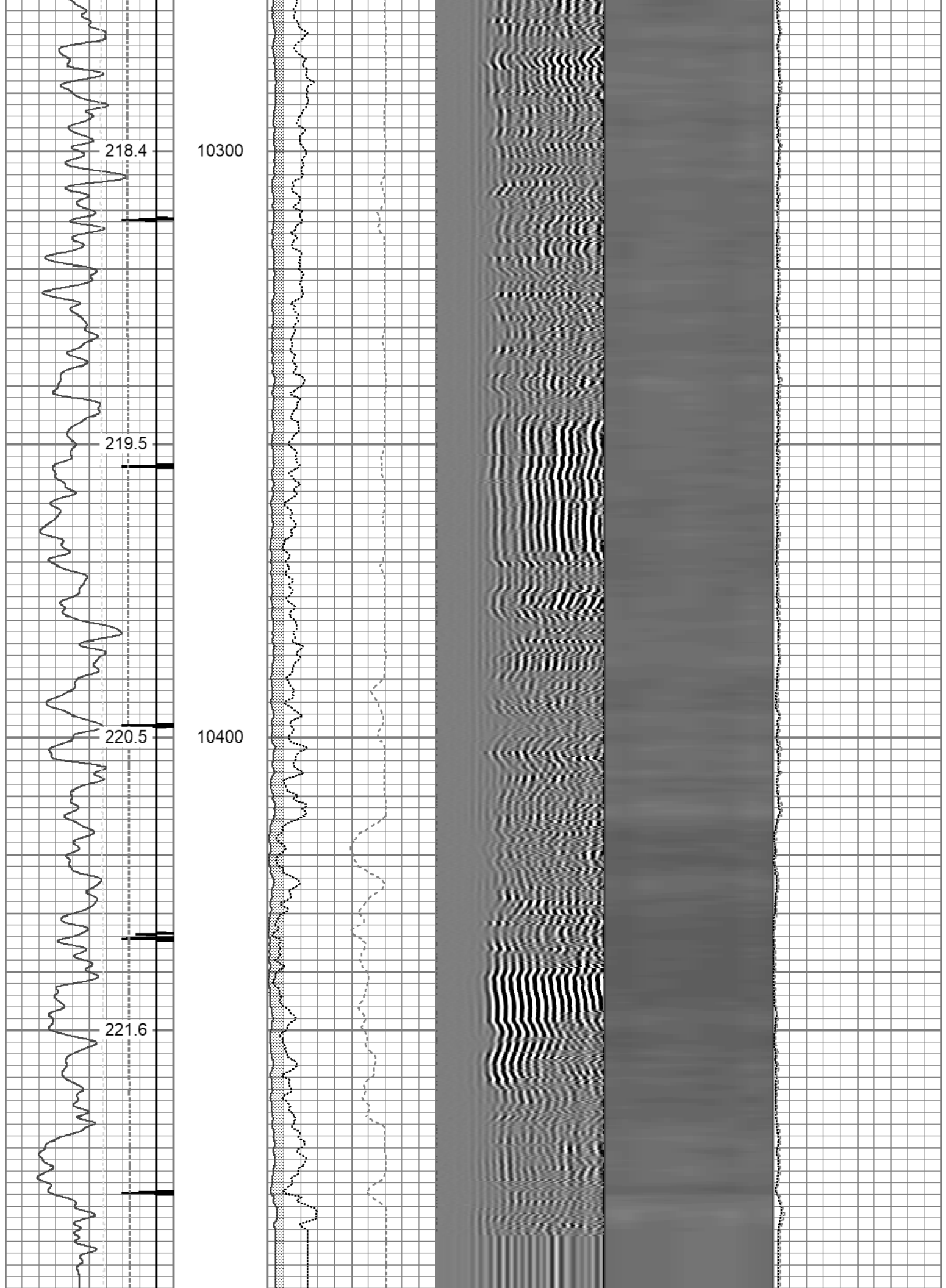


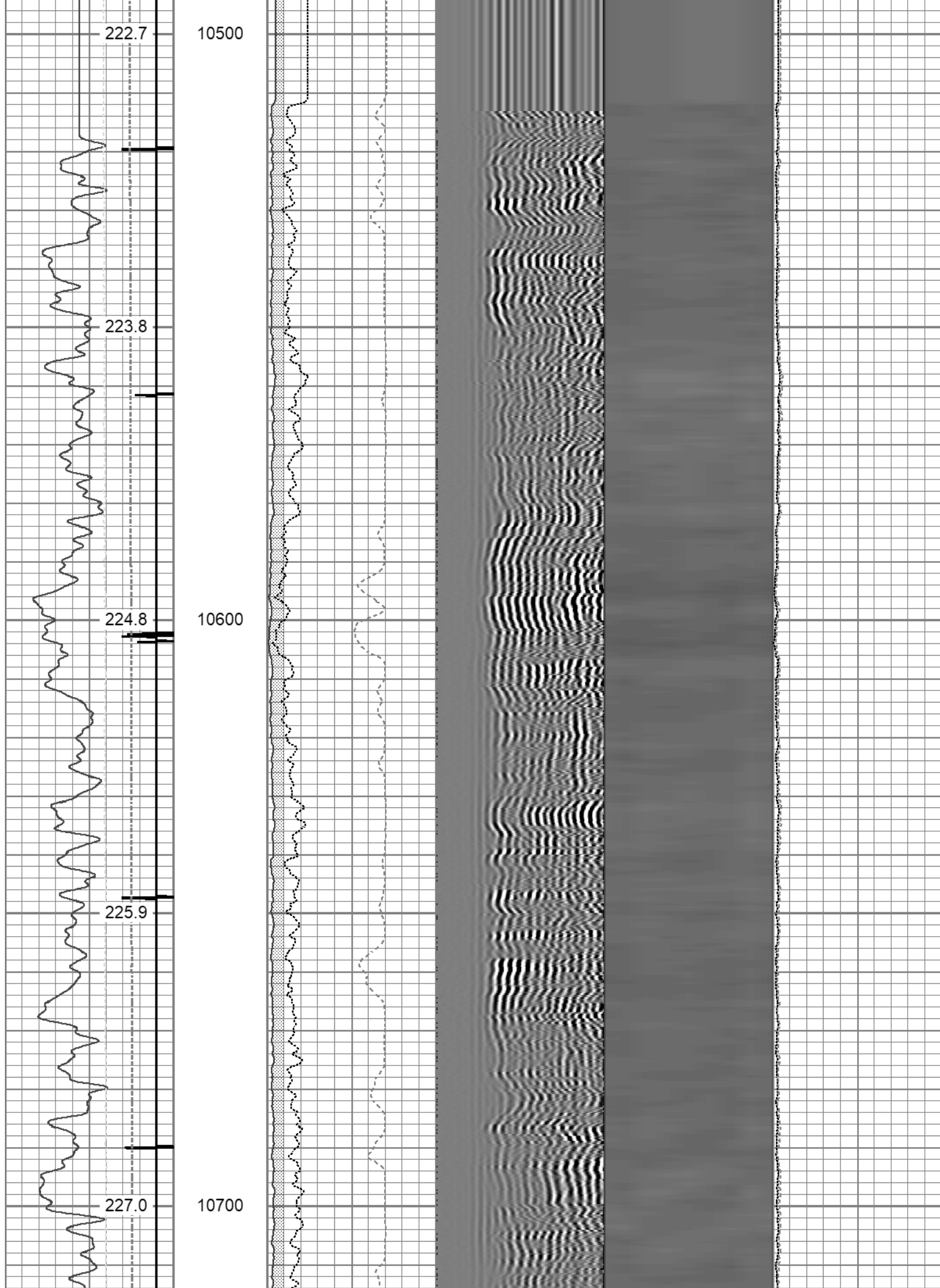


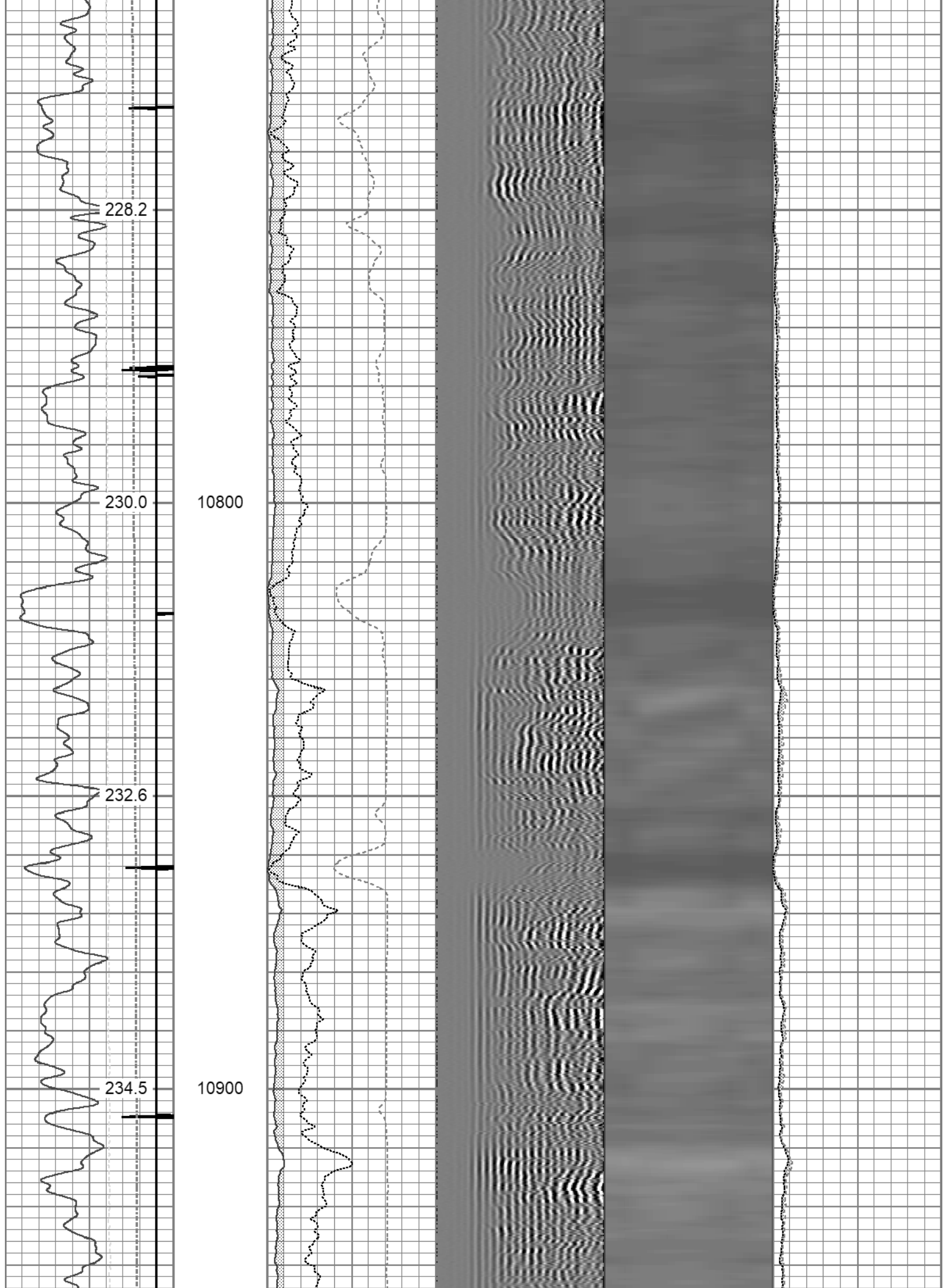


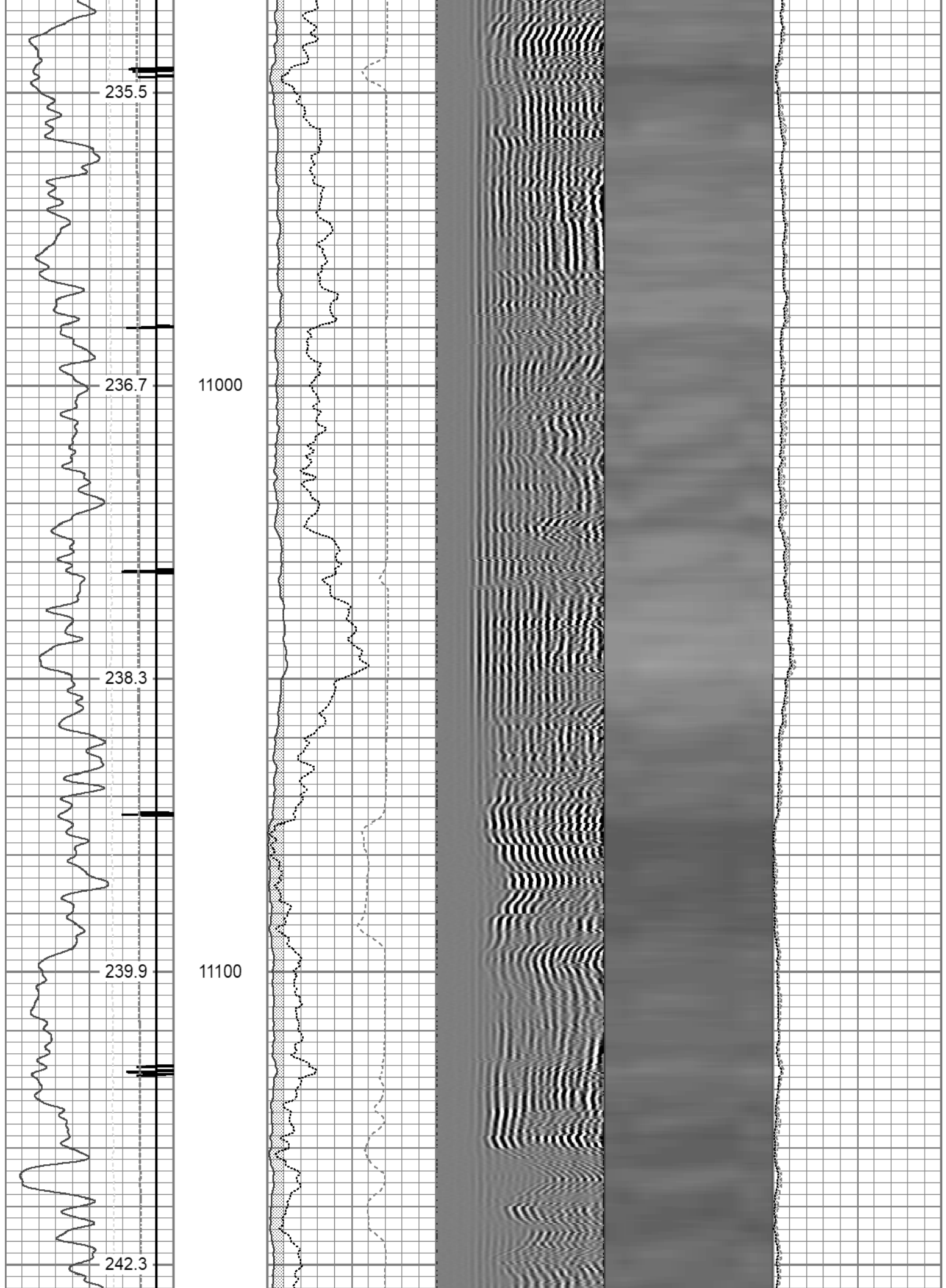


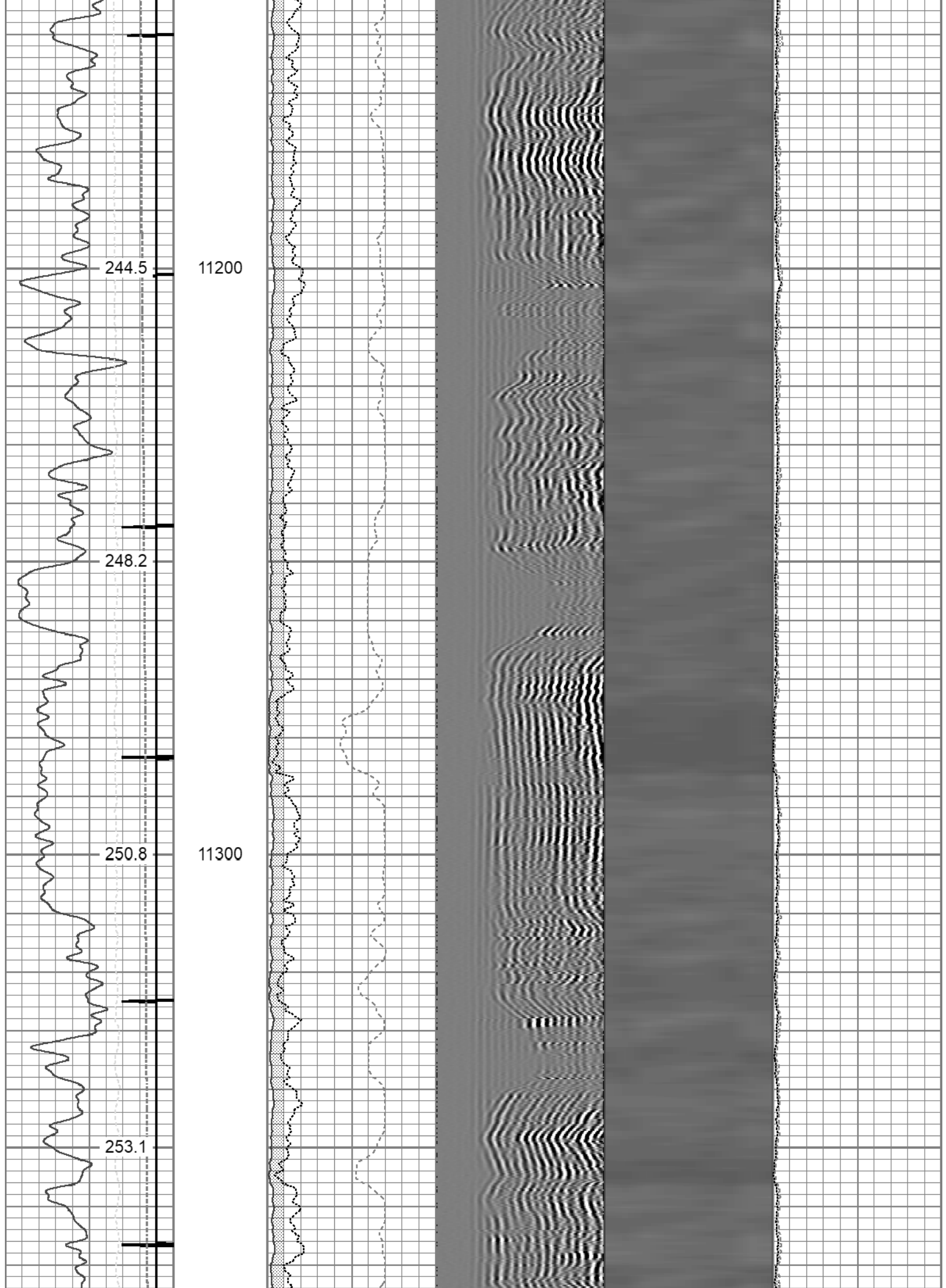


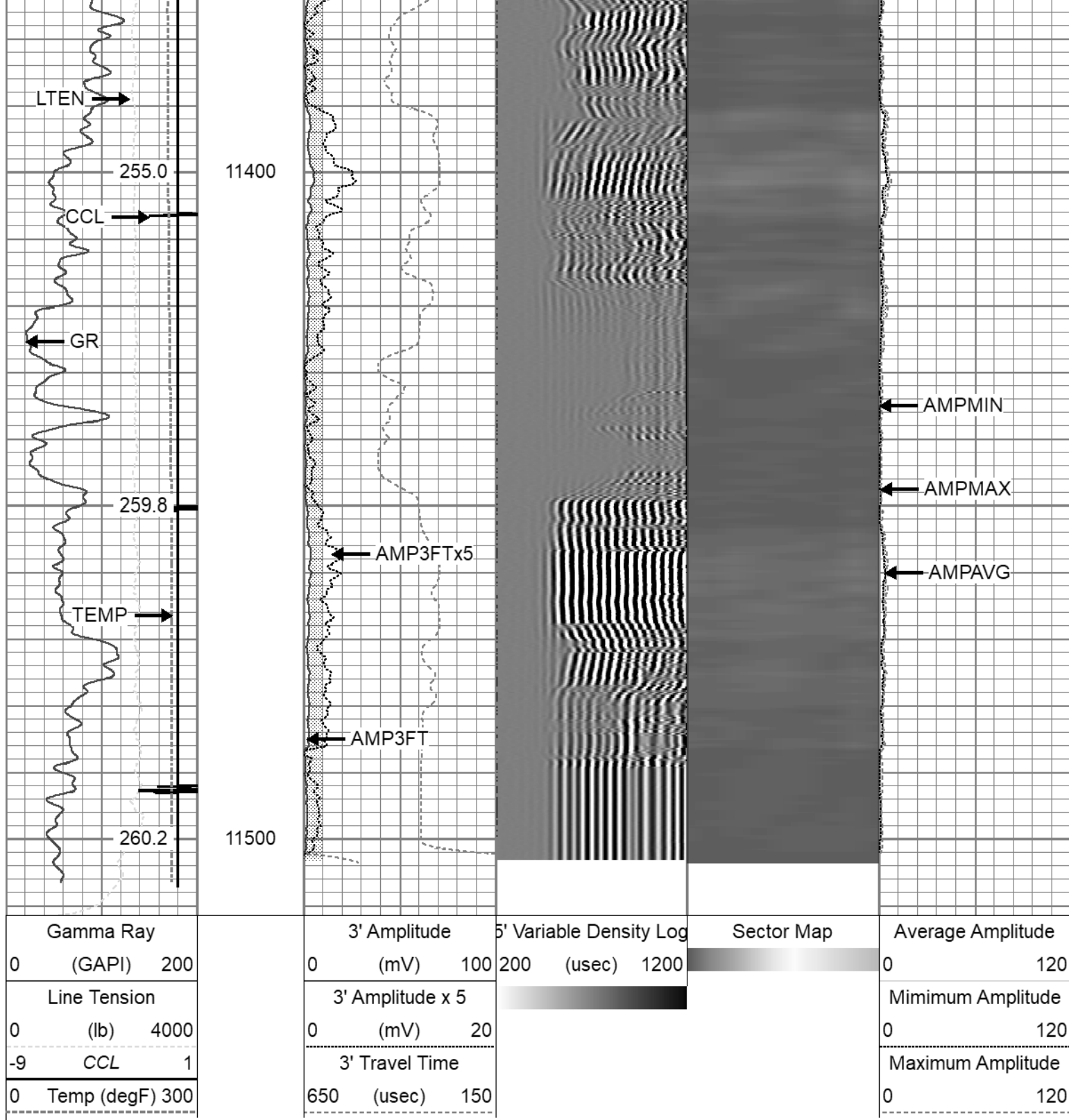








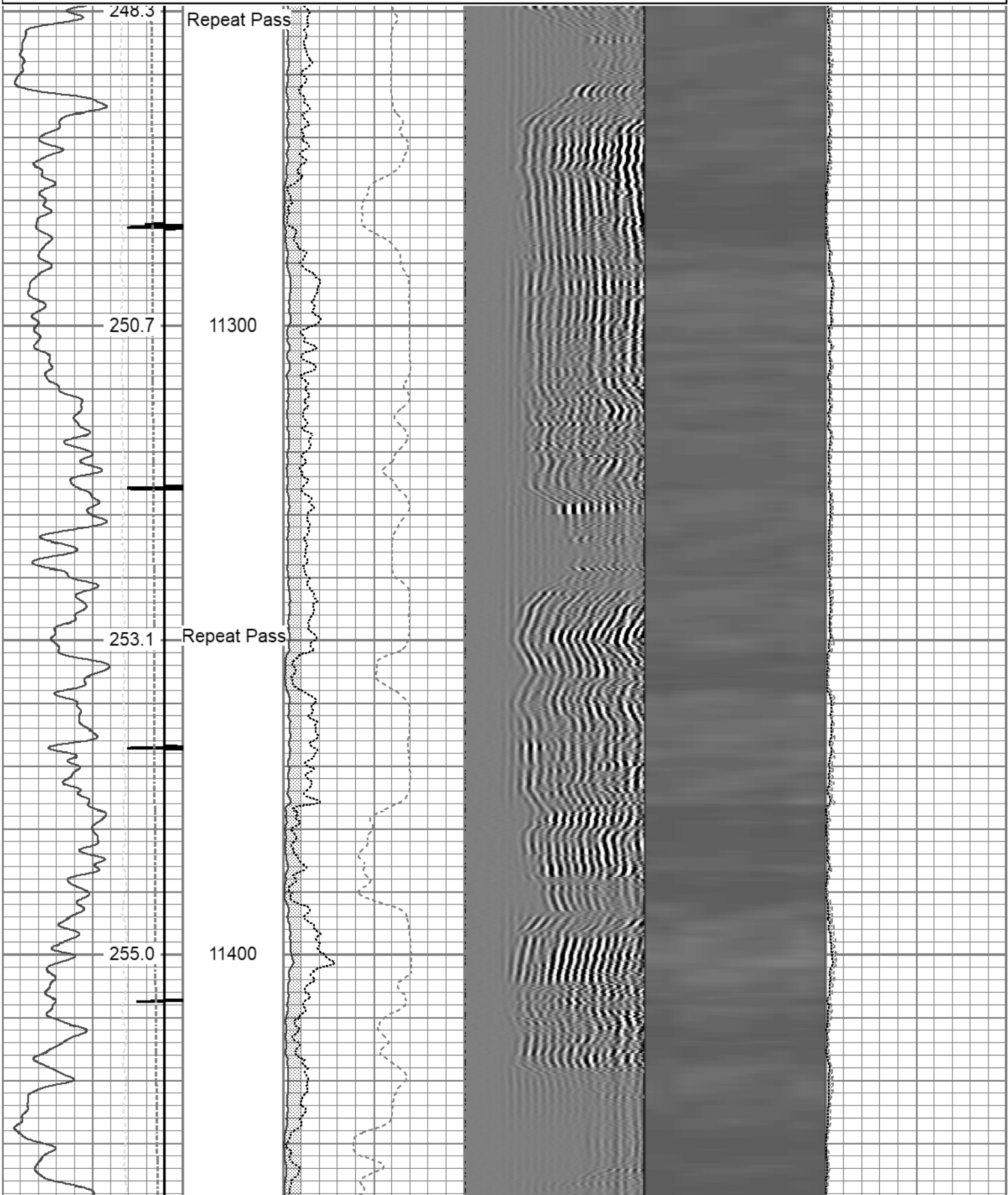


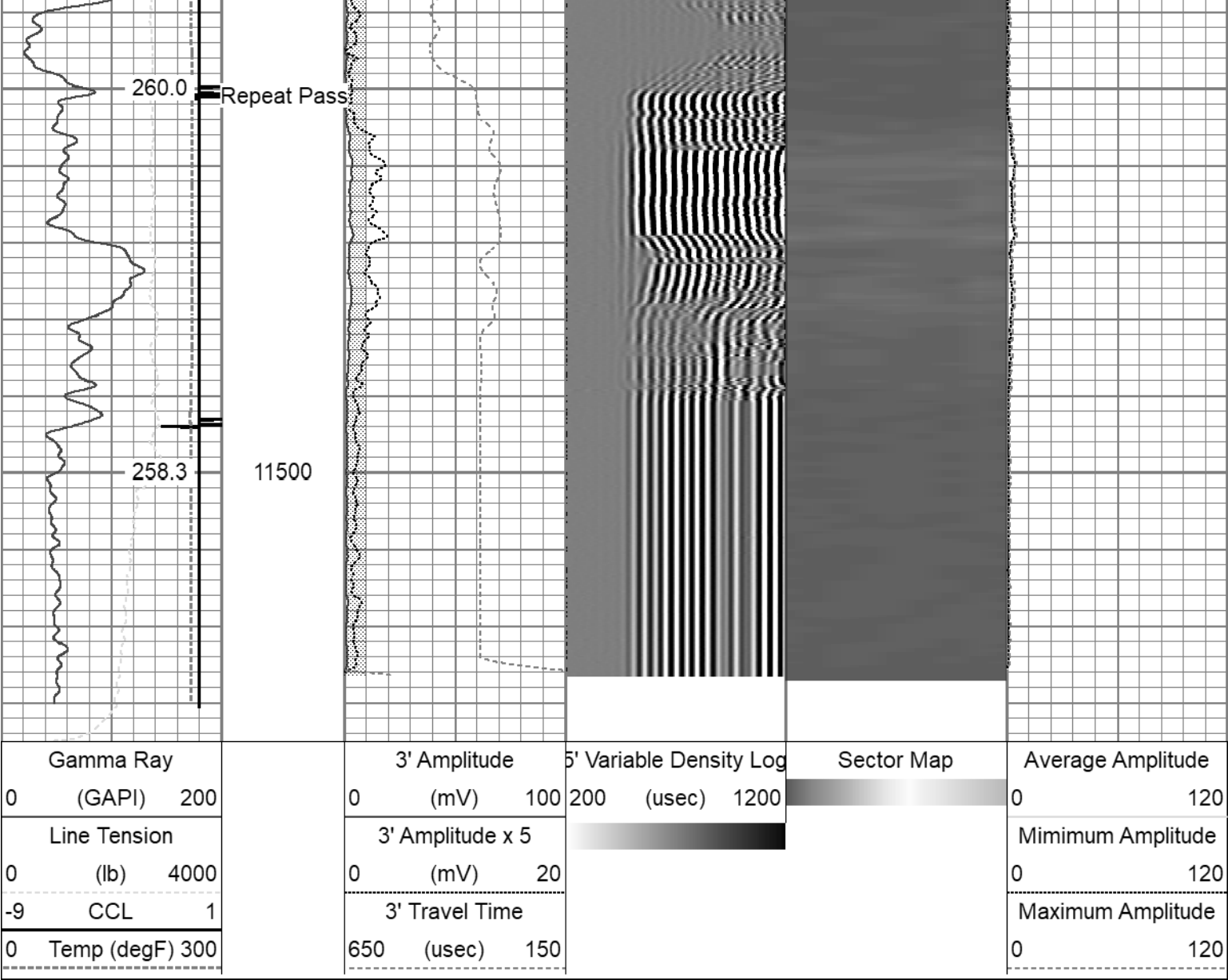


Repeat Pass 5" = 100'

Database File tep_wmc fed 13-20_rcbl_1-3-2023.db
 Dataset Pathname repeat
 Presentation Format twgrcbl
 Dataset Creation Tue Jan 03 07:58:10 2023
 Charted by 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
-9	CCL	1	3' Travel Time									Maximum Amplitude		
0	Temp (degF)	300	650	(usec)	150							0		120





Calibration Report			
Database File	tep_wmc fed 13-20_rcbl_1-3-2023.db		
Dataset Pathname	main		
Dataset Creation	Tue Jan 03 08:04:41 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:	278.924	ft	

Master Calibration, performed Tue Jan 3 07:14:00 2023:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	0.511	0.000	81.196	147.744	-0.671
CAL	0.003	0.764				
5'	0.013	0.470	0.000	81.196	189.928	-2.321
SUM						
S1	0.005	0.516	0.000	100.000	185.992	-1.072
S2	0.007	0.547	0.000	100.000	179.809	-1.220
S3	0.004	0.492	0.000	100.000	179.337	-0.921
S4	0.005	0.532	0.000	100.000	175.506	-0.867
S5	0.004	0.528	0.000	100.000	172.552	-0.669
S6	0.005	0.528	0.000	100.000	172.189	-0.946
S7	0.006	0.551	0.000	100.000	176.780	-1.127
S8	0.004	0.486	0.000	100.000	186.883	-0.747

Internal Reference Calibration, performed (Not Performed):

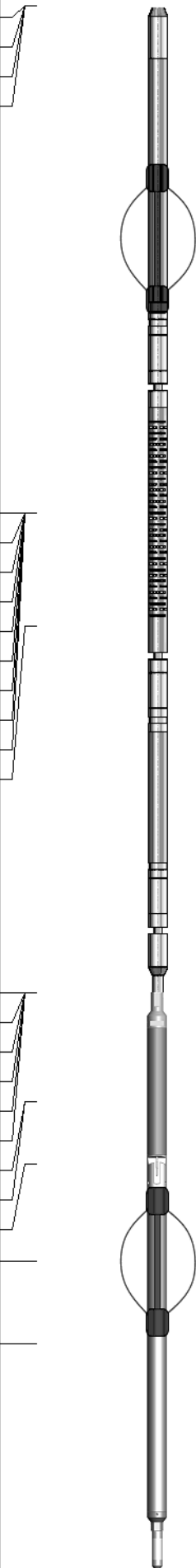

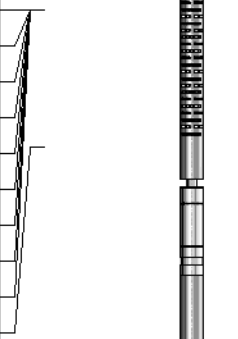

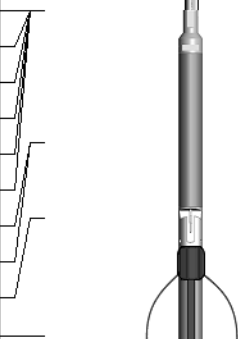

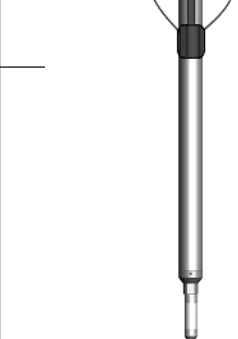

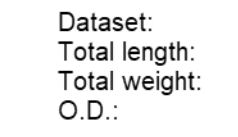
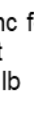
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.003	0.764	1.000	0.000


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				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						
WVF3FT	9.35						
WVF5FT	8.35						
RBT_ACCZ	5.10			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
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						
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

Company	TEP Rocky Mountain LLC		
Well	Federal WMC 13-20		
Field	Rulison		
County	Garfield	State	Colorado
		Radial Cement Bond Gamma Ray Casing Collar Log	