



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company		TEP Rocky Mountain LLC	
Well		Federal WMC 312-20	
Field		Rulison	
County		Garfield	
State		Colorado	
Company		TEP Rocky Mountain LLC	
Well		Federal WMC 312-20	
Field		Rulison	
County		Garfield	
State		Colorado	
Location:		API # : 05-045-24486	
SEC 17 TWP 7S RGE 93W		Elevation	
Permanent Datum		Ground Level	
Log Measured From		Kelly Bushing	
Drilling Measured From		Kelly Bushing	
		Elevation	
		K.B. 8898 ft	
		D.F. 8898 FT	
		G.L. 8868 ft	
Date		15-DEC-2022	
Run Number		One	
Depth Driller		11268 FT	
Depth Logger		11159 FT	
Bottom Logged Interval		11159 FT	
Top Log Interval		Surface	
Open Hole Size		8.75"	
Type Fluid		Water	
Density / Viscosity		8.34 Lb/Gal	
Max. Recorded Temp.		263°F	
Estimated Cement Top		See Log	
Time Well Ready		ROA	
Time Logger on Bottom		10:30	
Equipment Number		8047	
Location		Grand Junction	
Recorded By		A. Ellsworth	
Witnessed By		S. Bungamer	
Run Number		Borehole Record	
Bit		From	
		To	
		Size	
		Weight	
		From	
		To	
Casing Record		Size	
Surface String		9-5/8"	
Prot. String		36	
Production String		4-1/2"	
Liner		11.6	
		Surface	
		11268 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 ran as per customer request  
Depth referenced to Kelly Bushing at 30 FT  
Marker joint logged from 6826 FT to 6835 FT  
  
Thank you for choosing The Wireline Group!

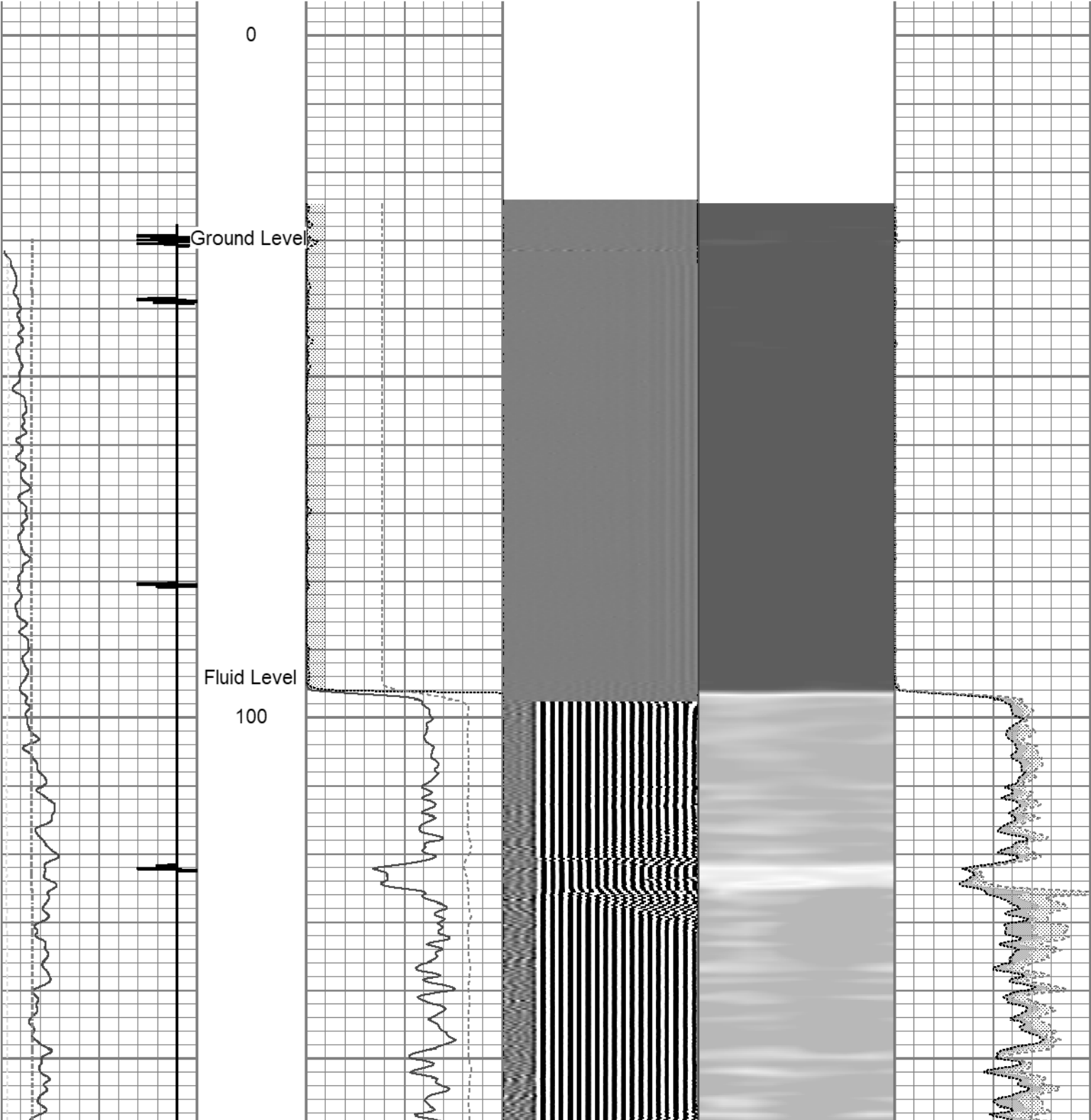


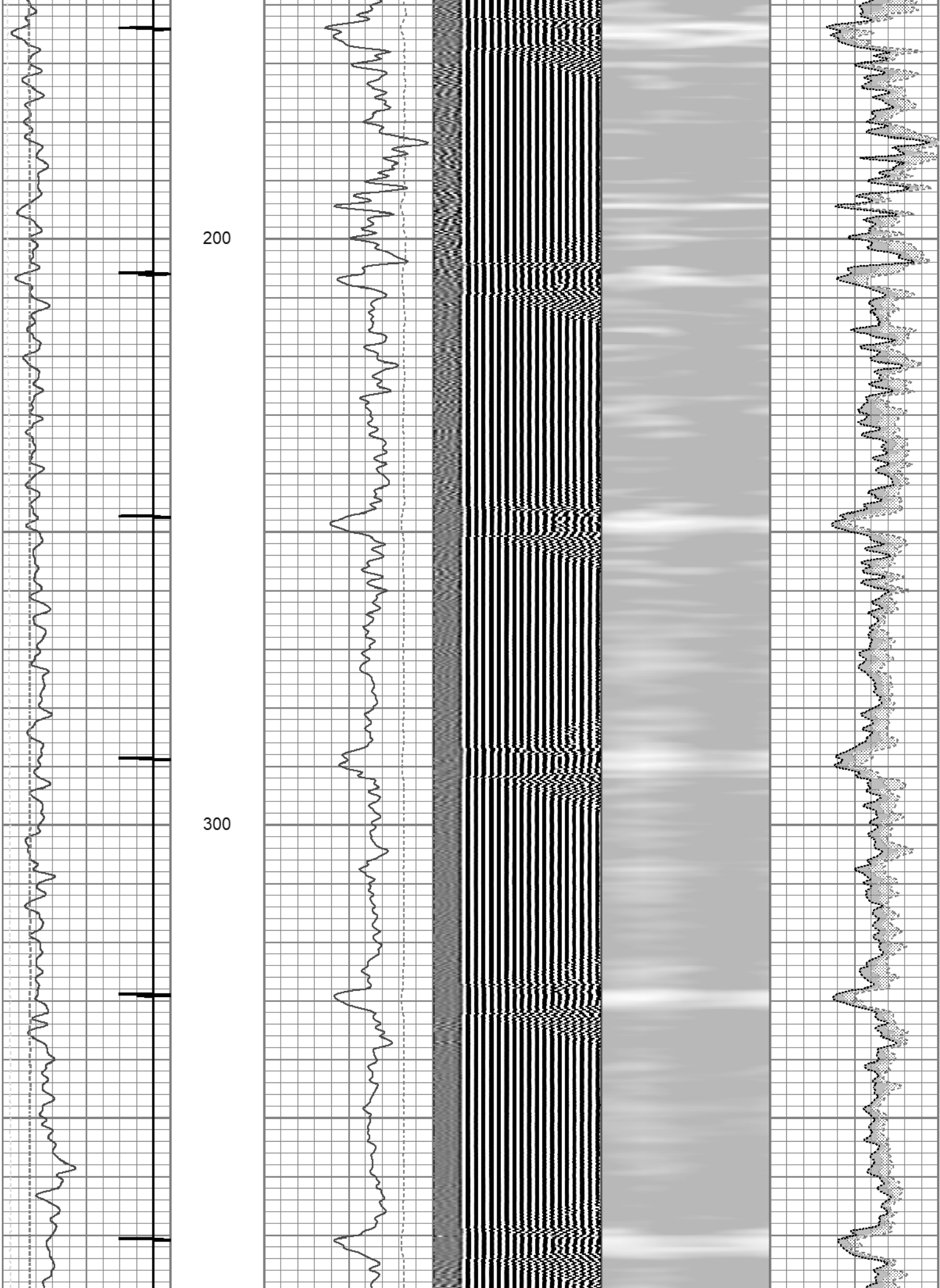
Main Pass 5" = 100'

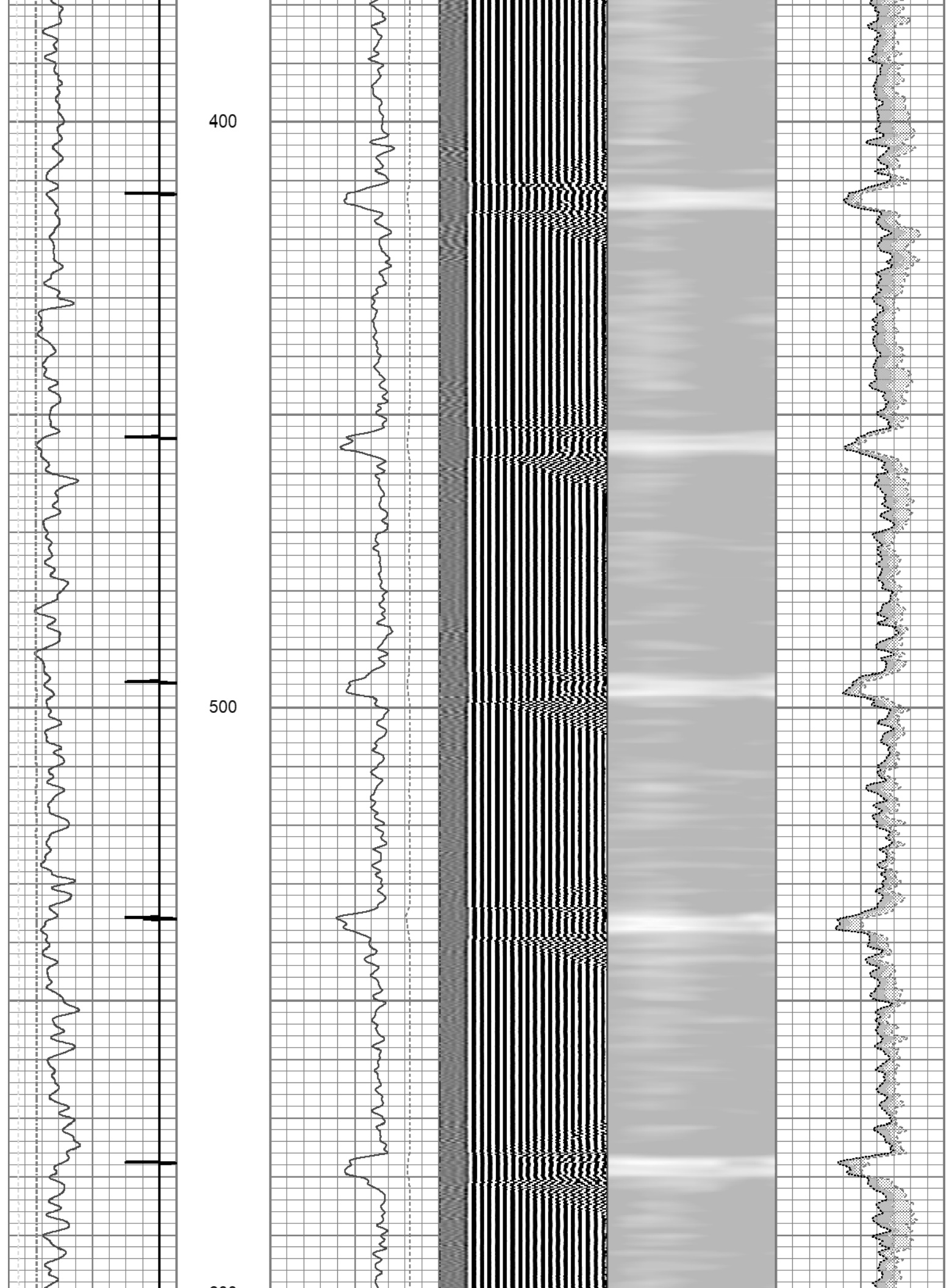
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Dataset Pathname  
Presentation Format  
Dataset Creation  
Charted by

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main  
twgrcbl  
Thu Dec 15 10:46:59 2022  
Depth in Feet scaled 1:240

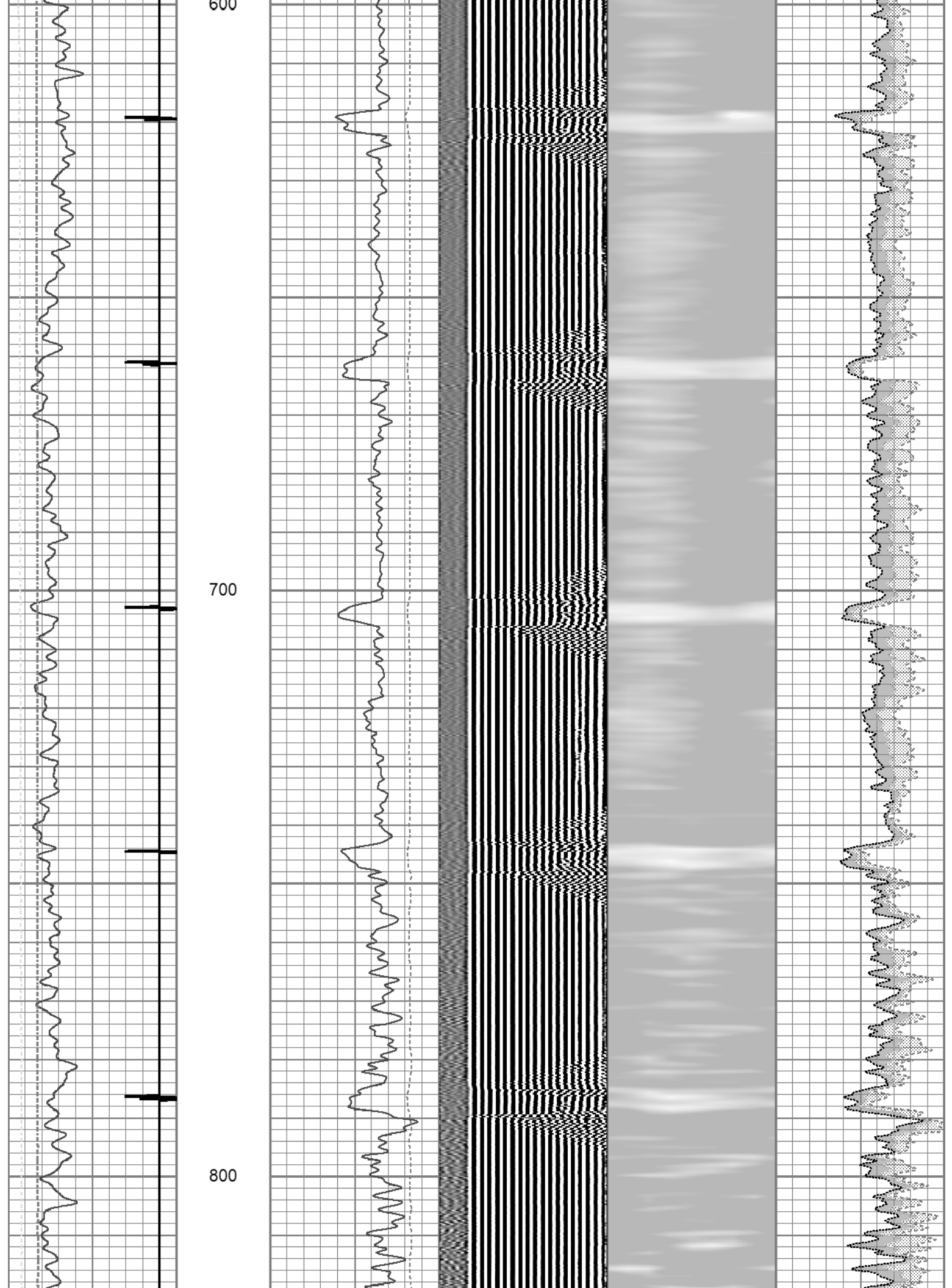
Gamma Ray		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200		0 (mV) 100	200 (usec) 1200		0 120
Line Tension		3' Amplitude x 5			Minimum Amplitude
0 (lb) 3000		0 (mV) 20			0 120
-9 CCL\$1 1		3' Travel Time			Maximum Amplitude
0 Temp (degF) 300		650 (usec) 150			0 120

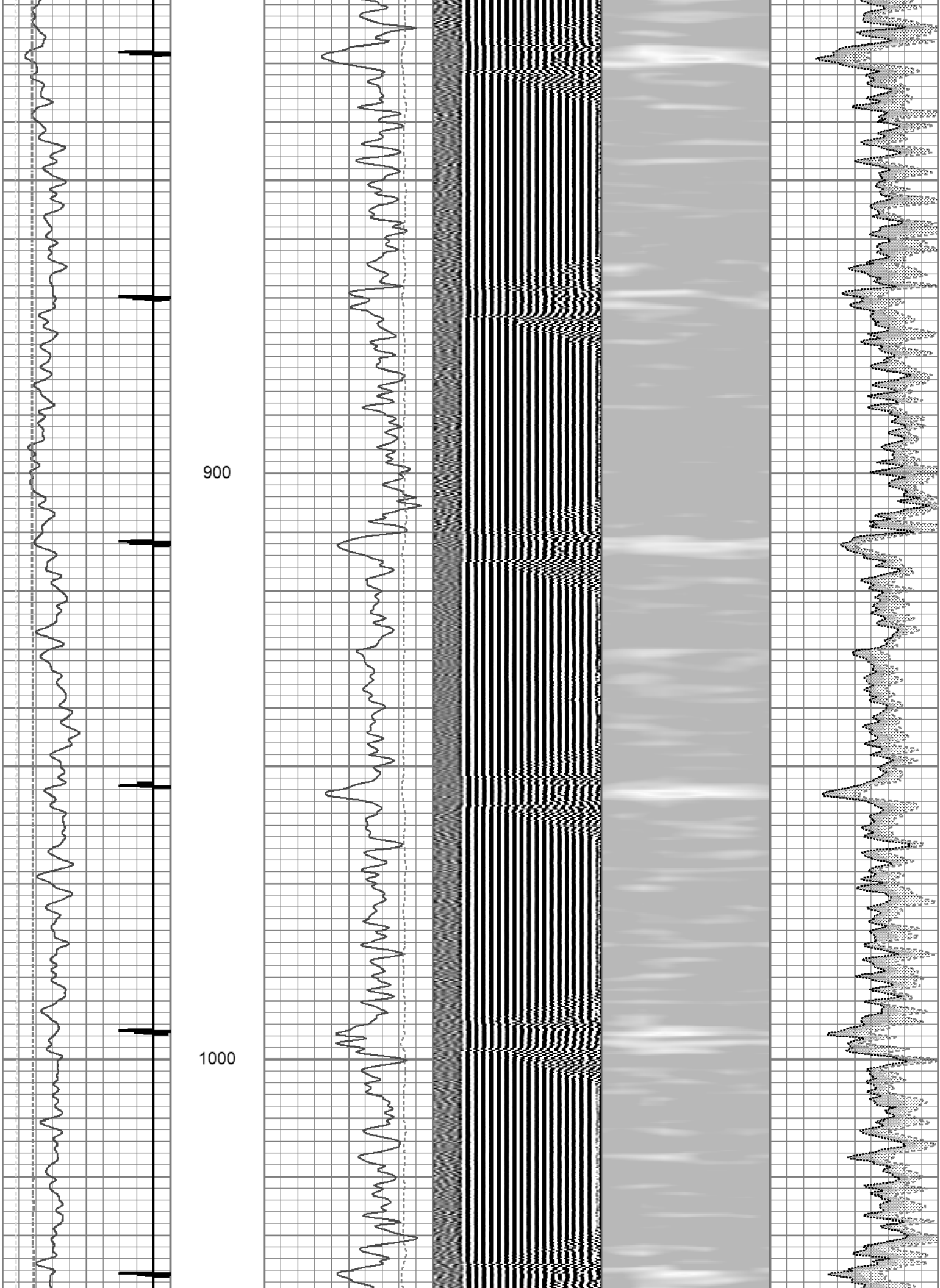


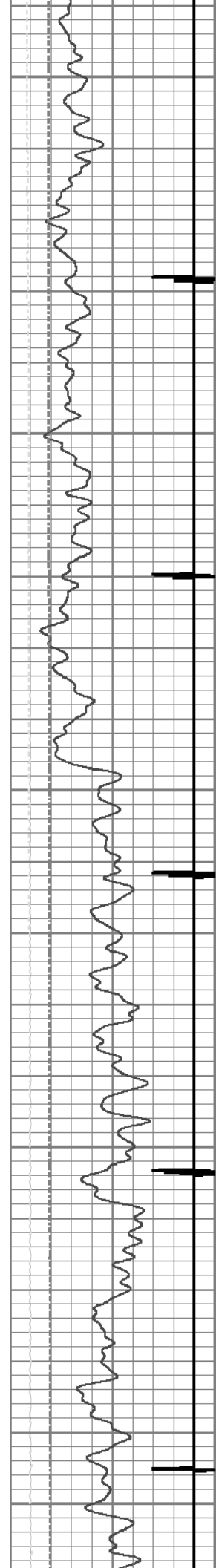






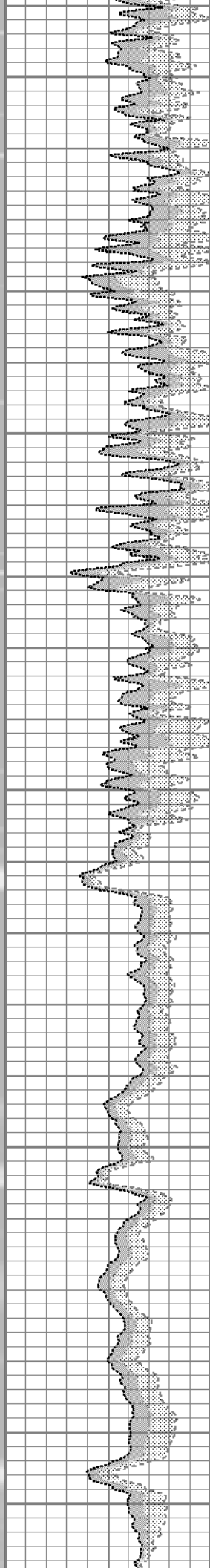
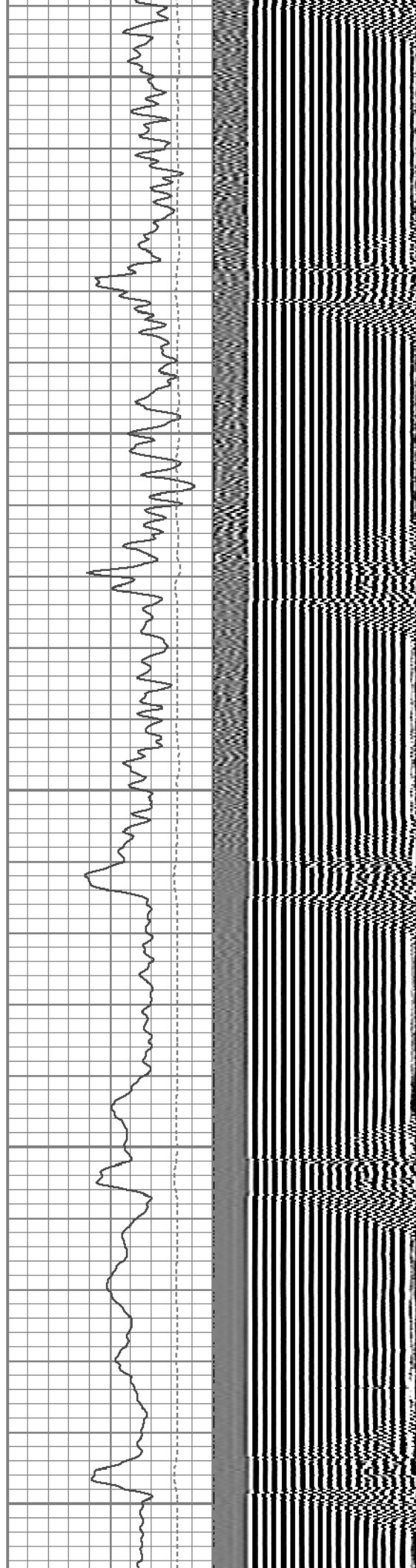


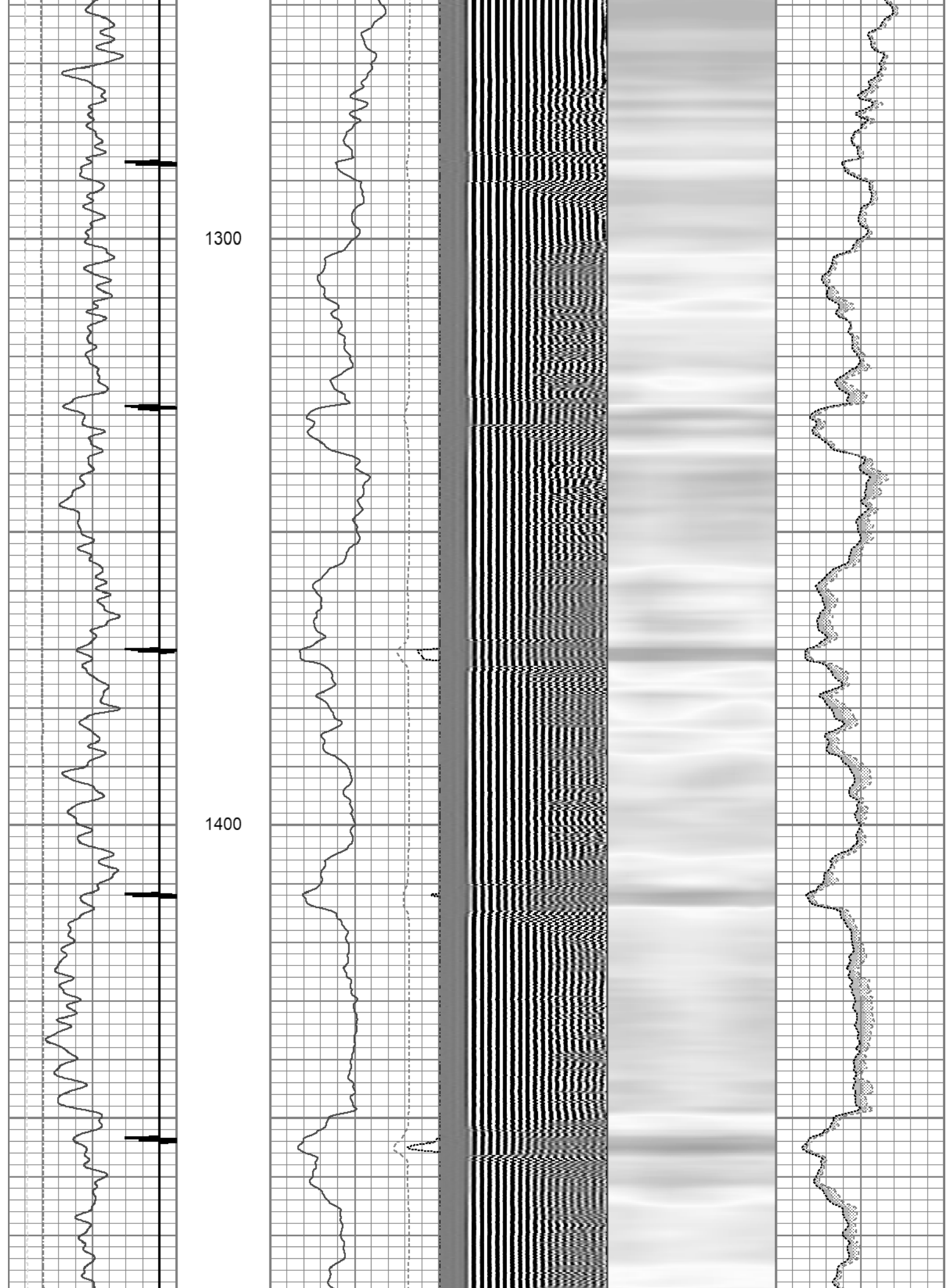


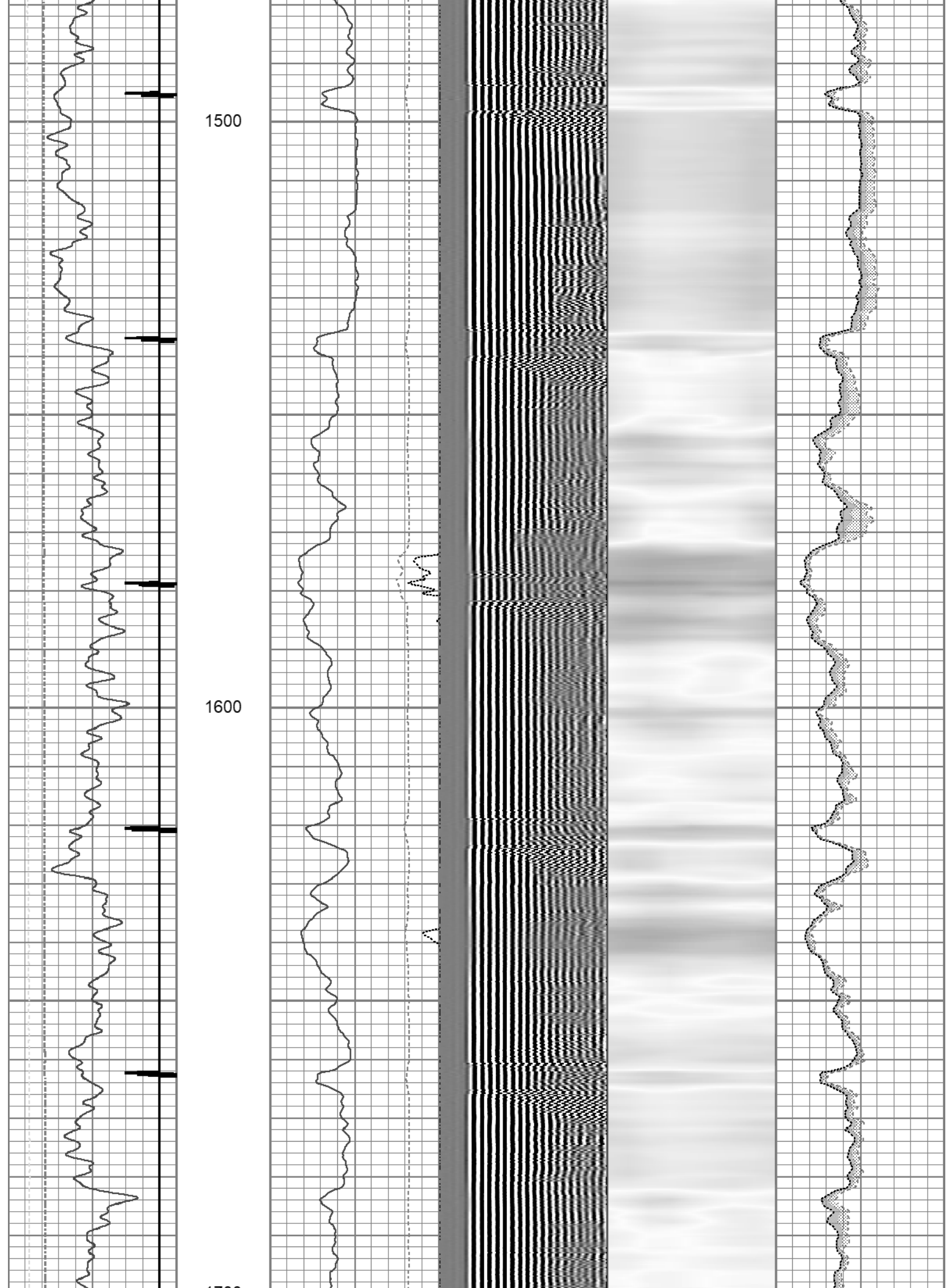


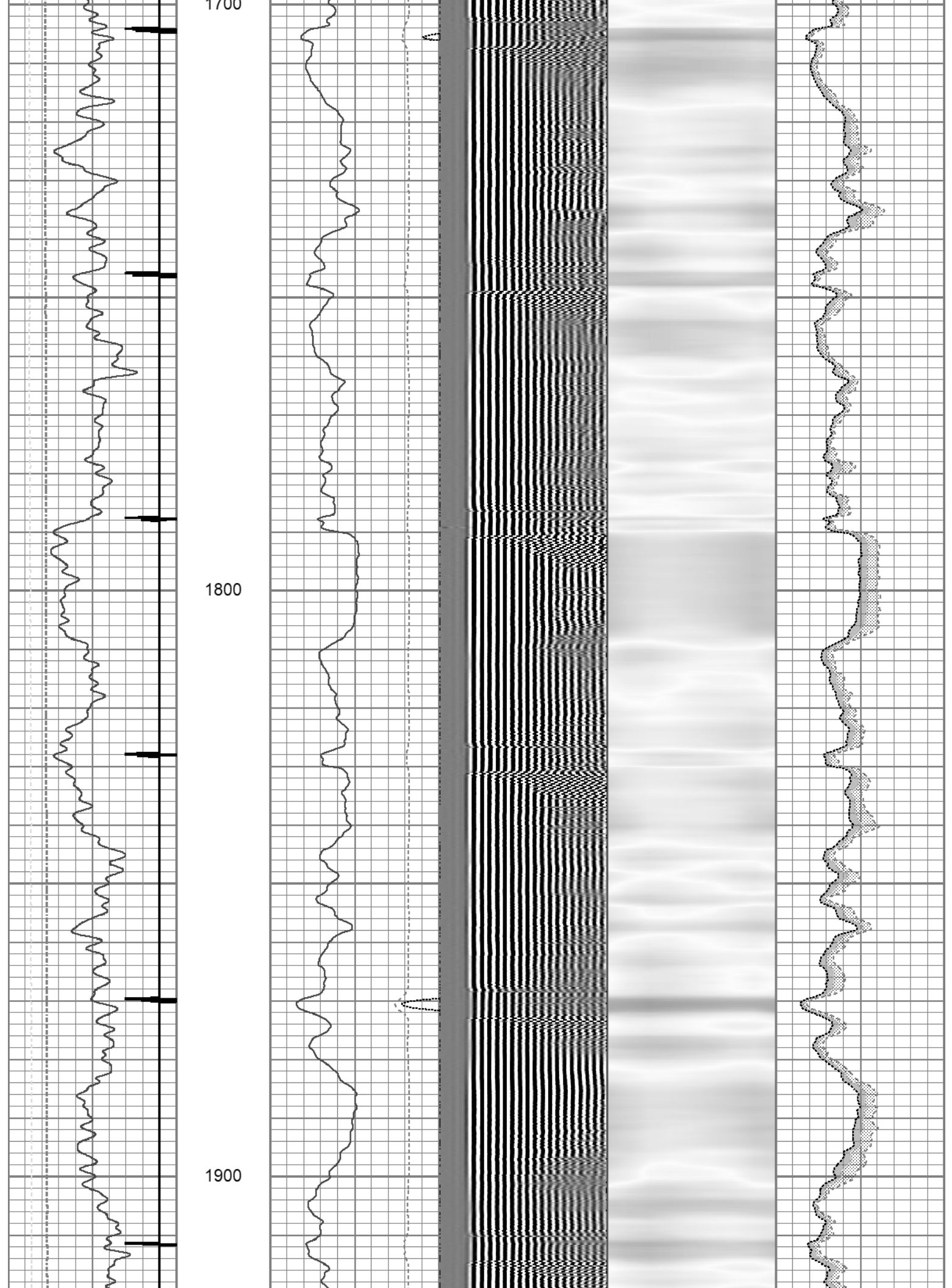
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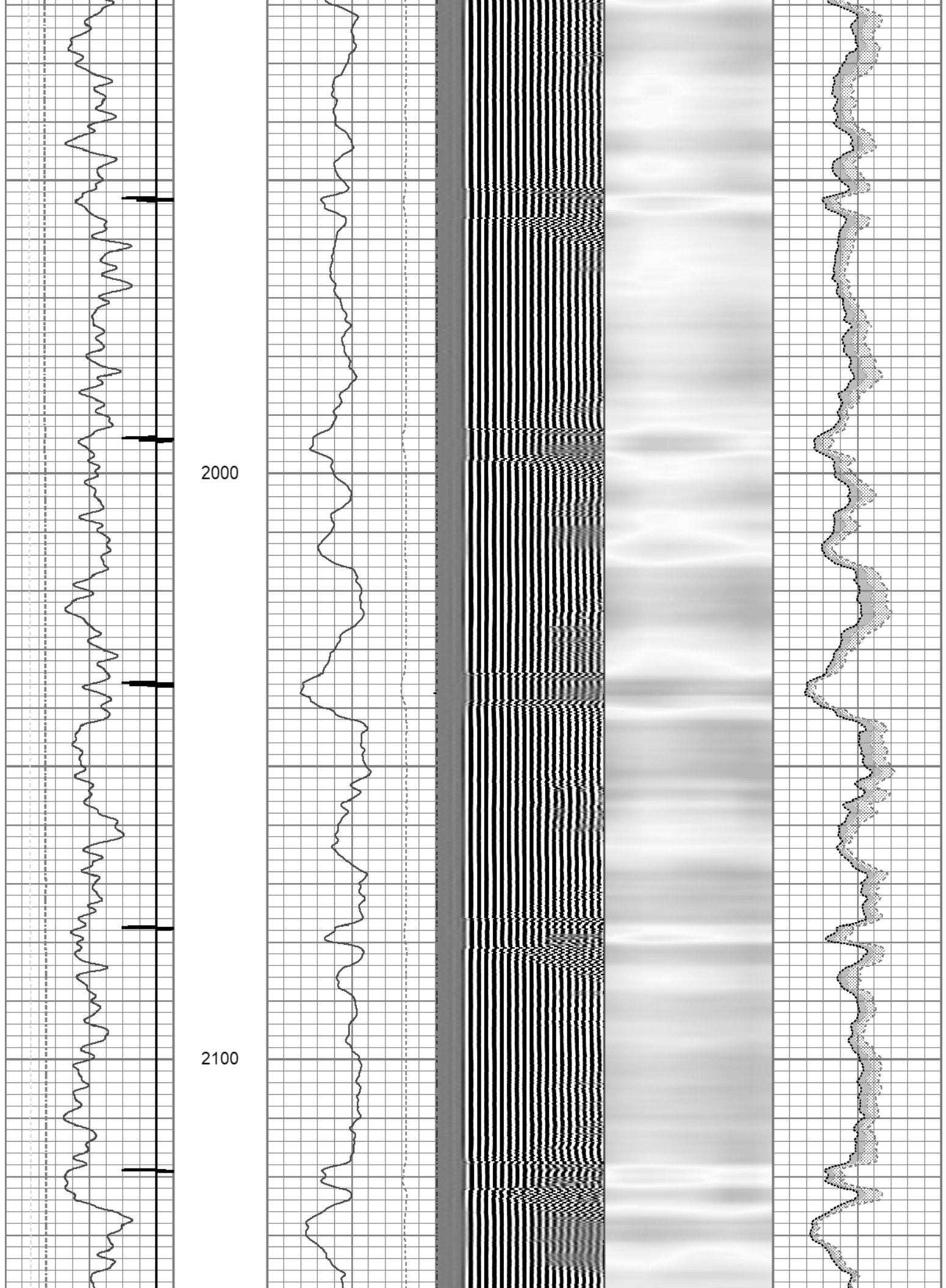
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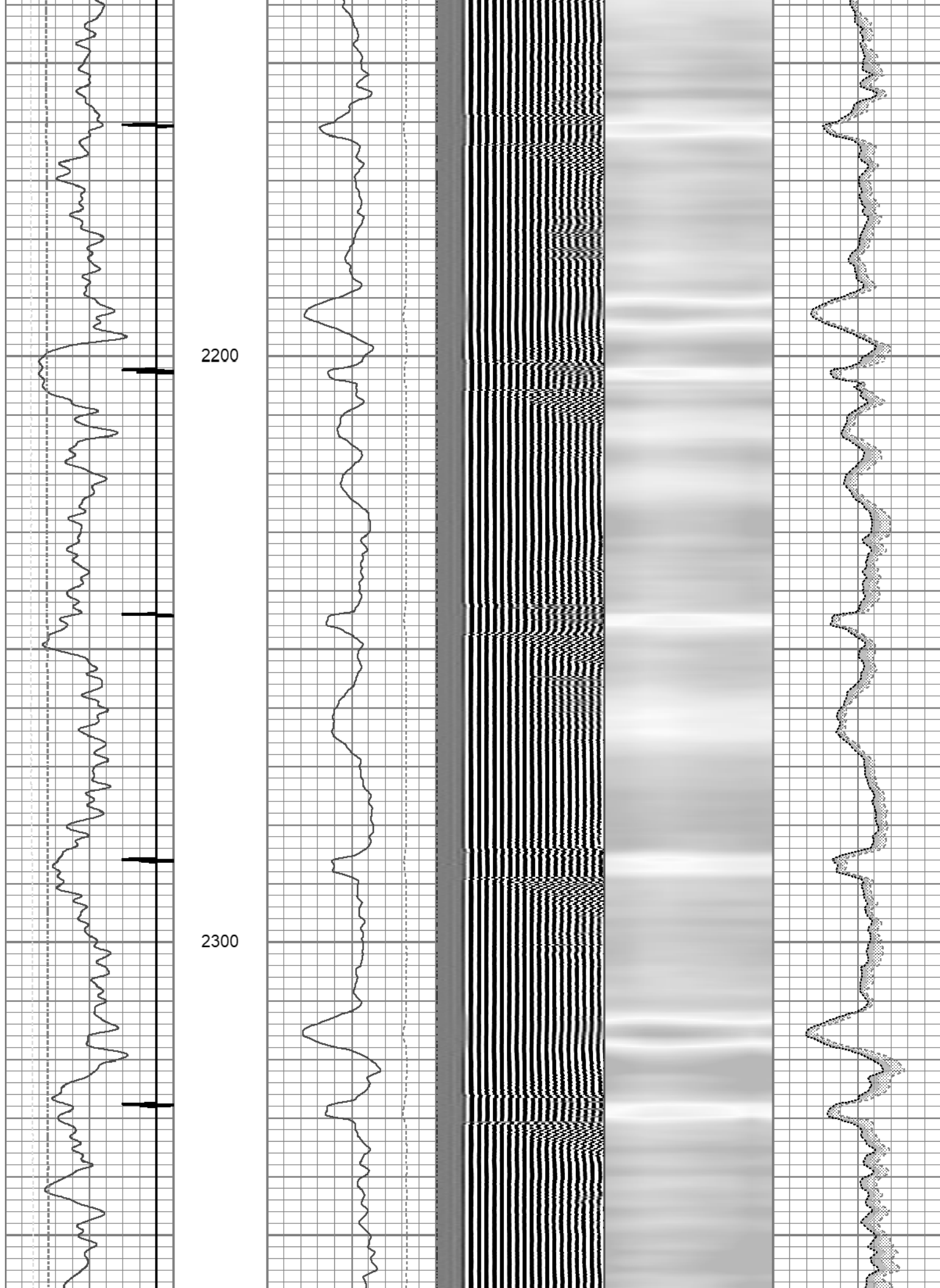






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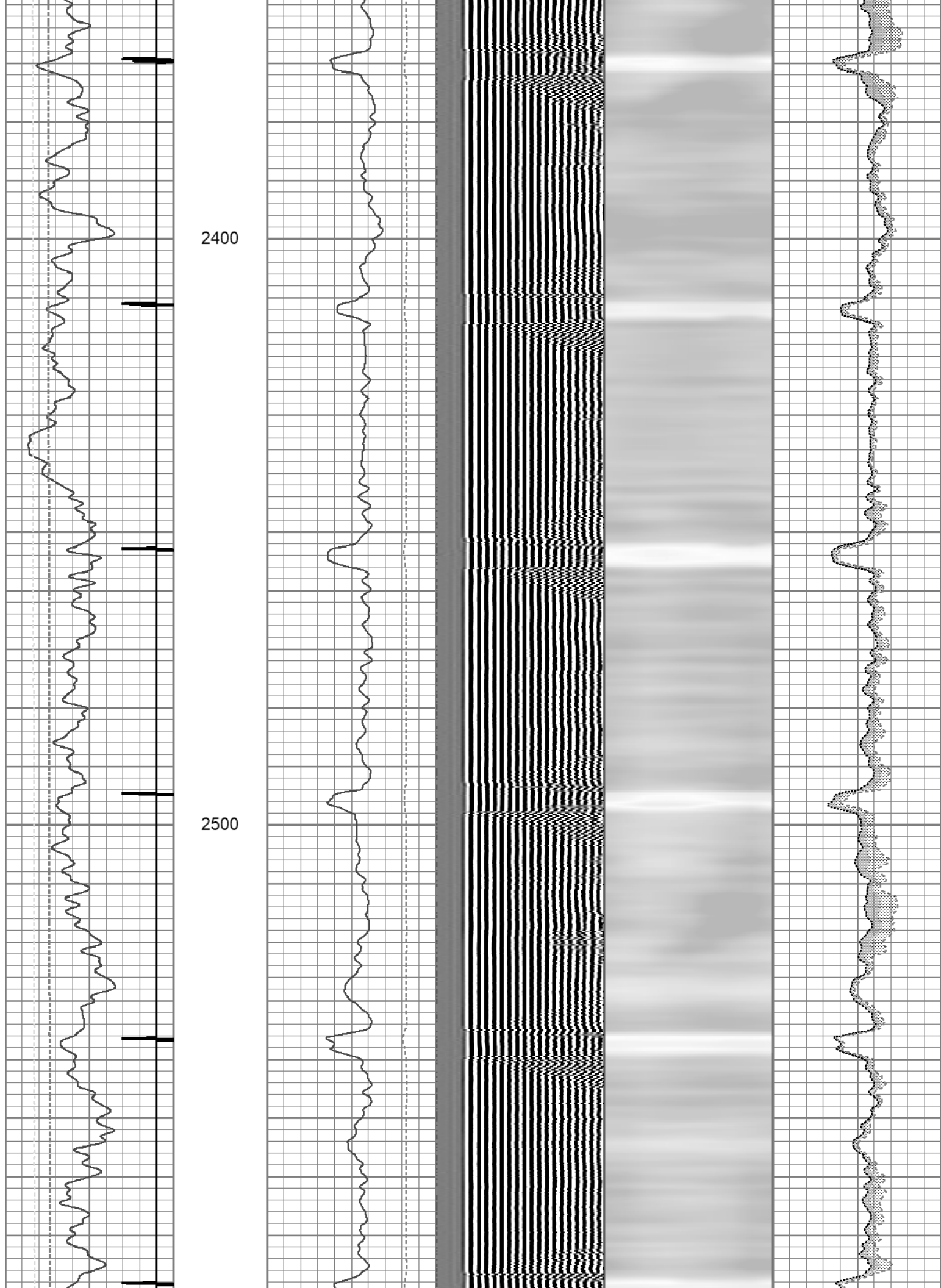
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2400

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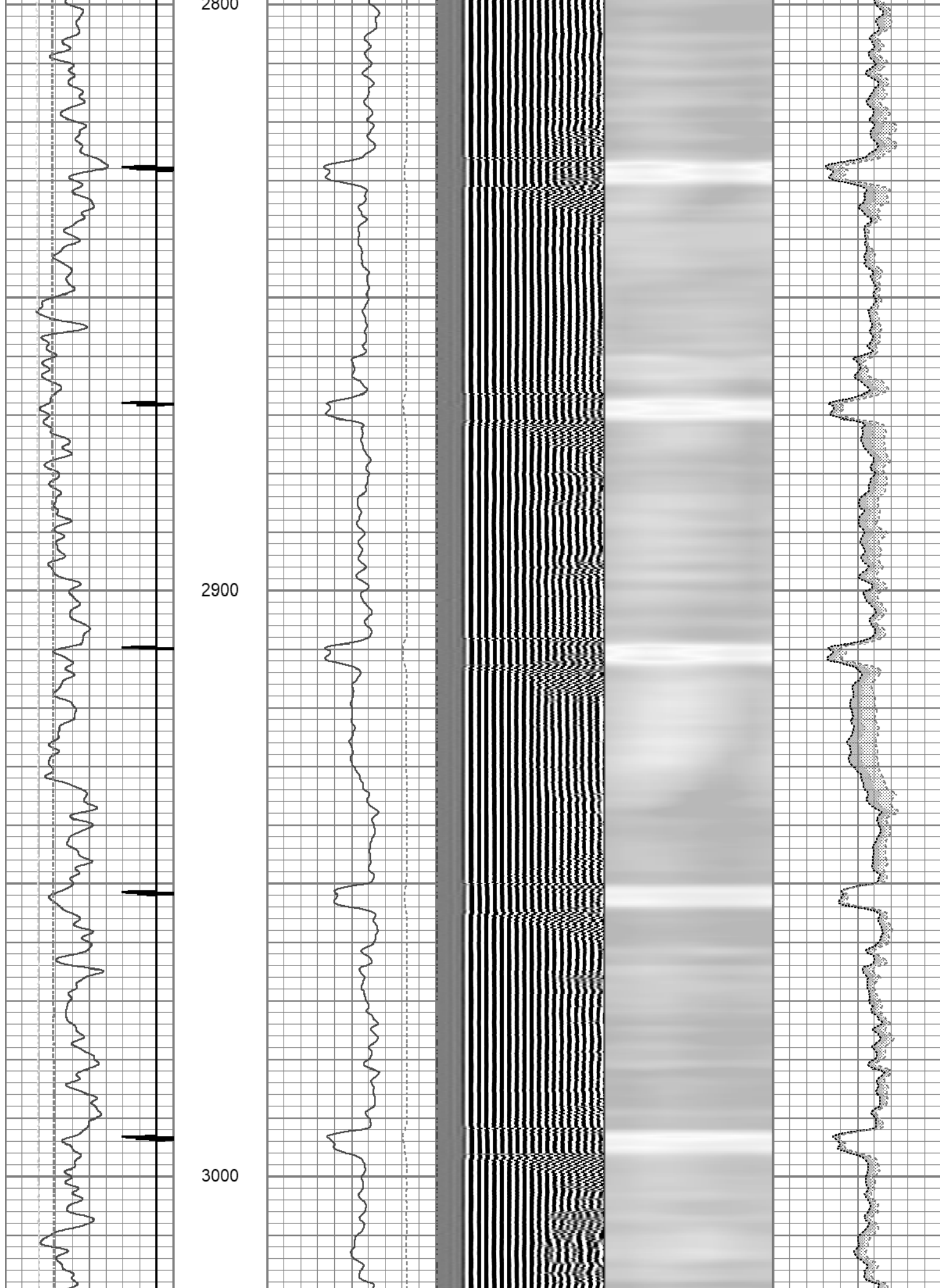




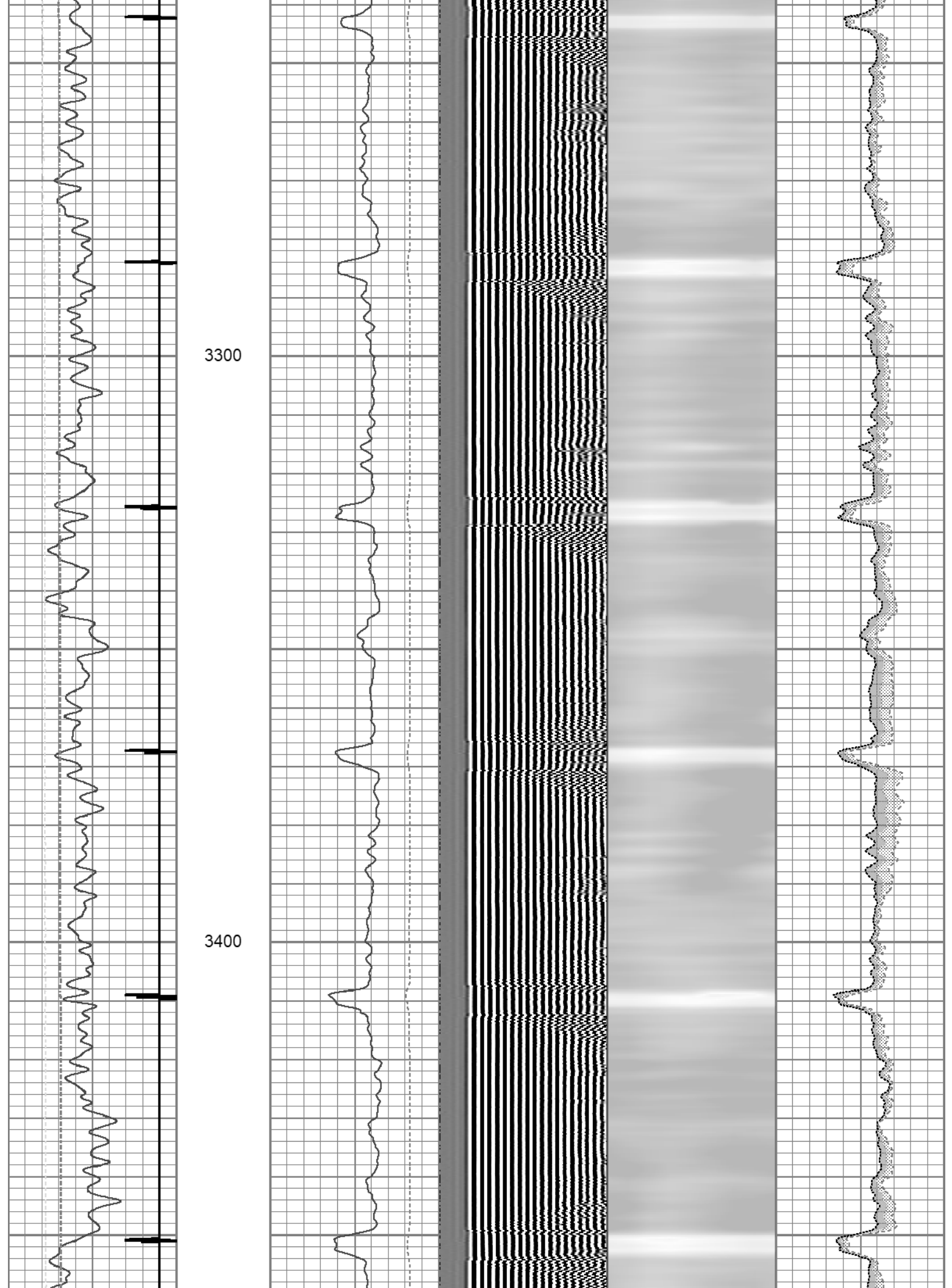
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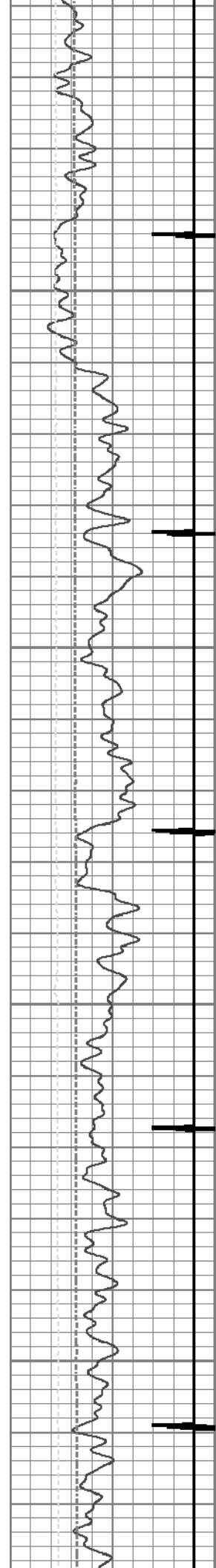
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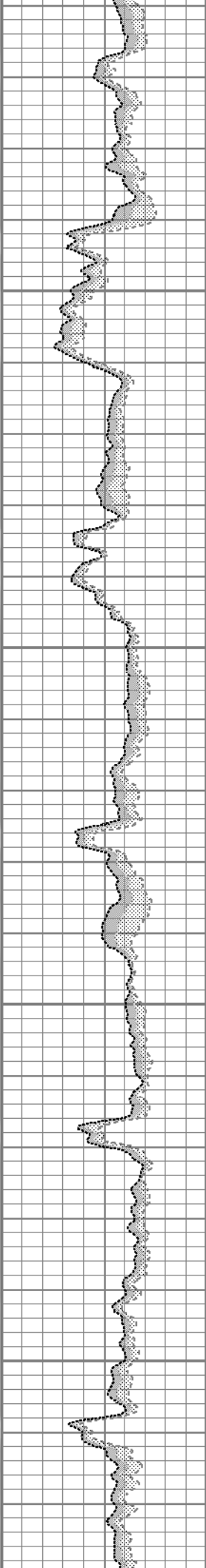
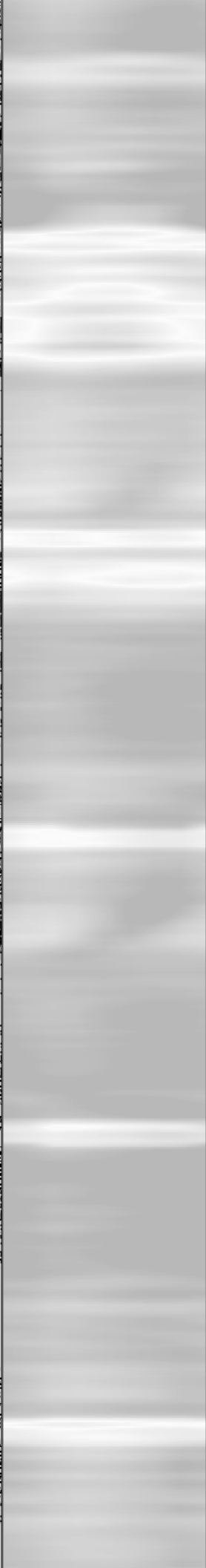
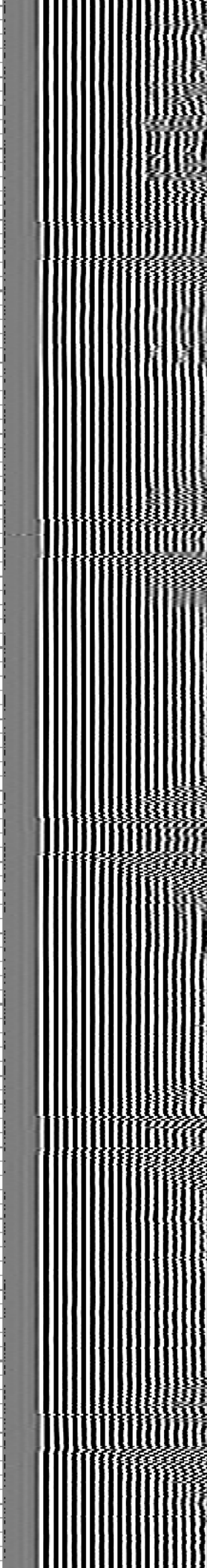
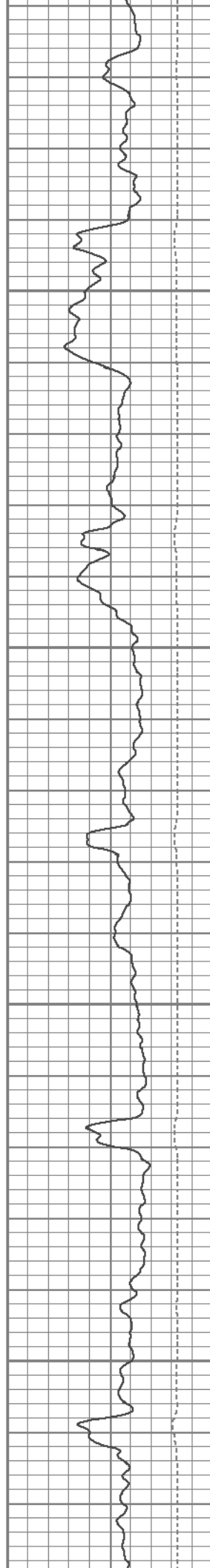


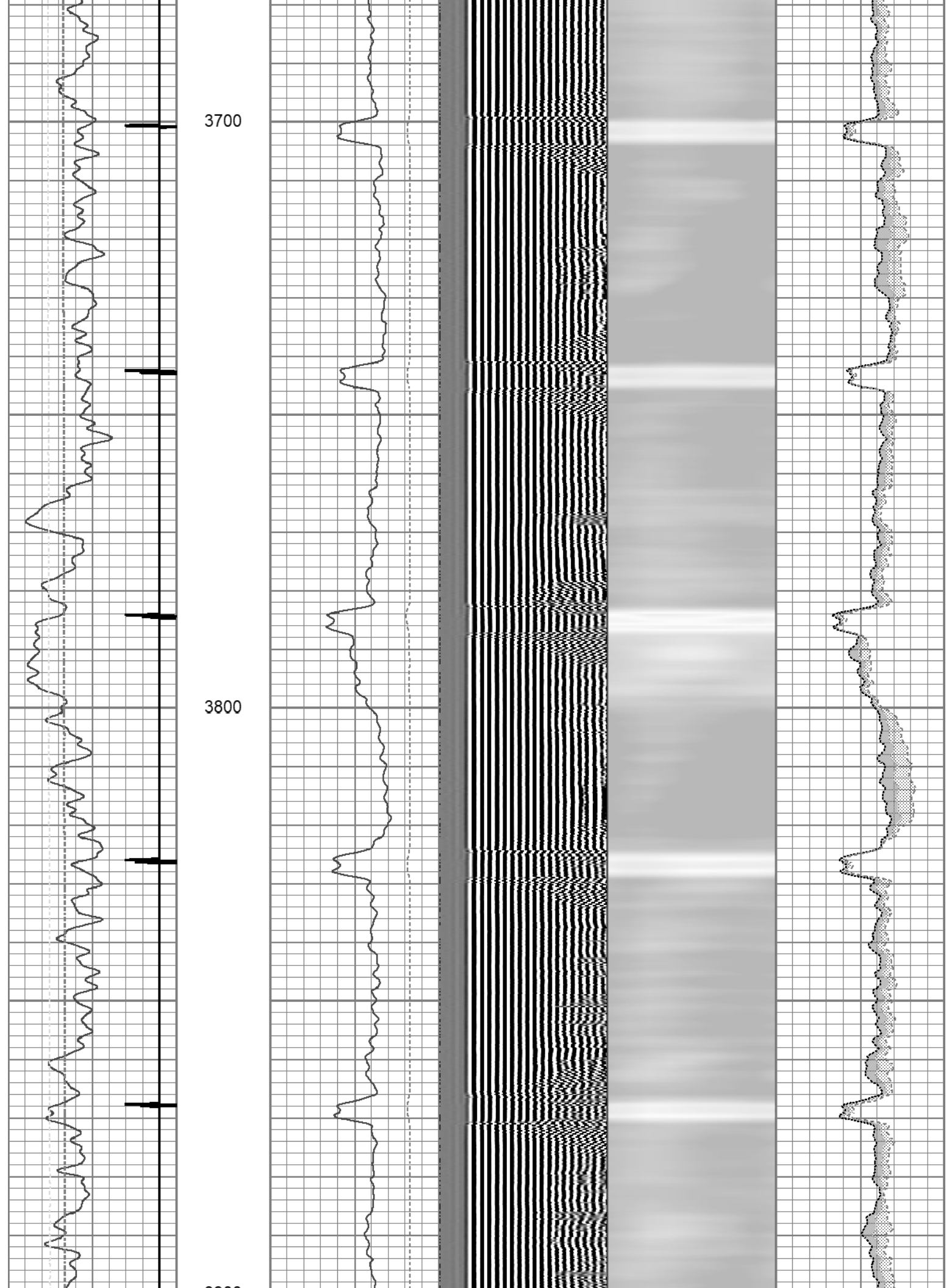




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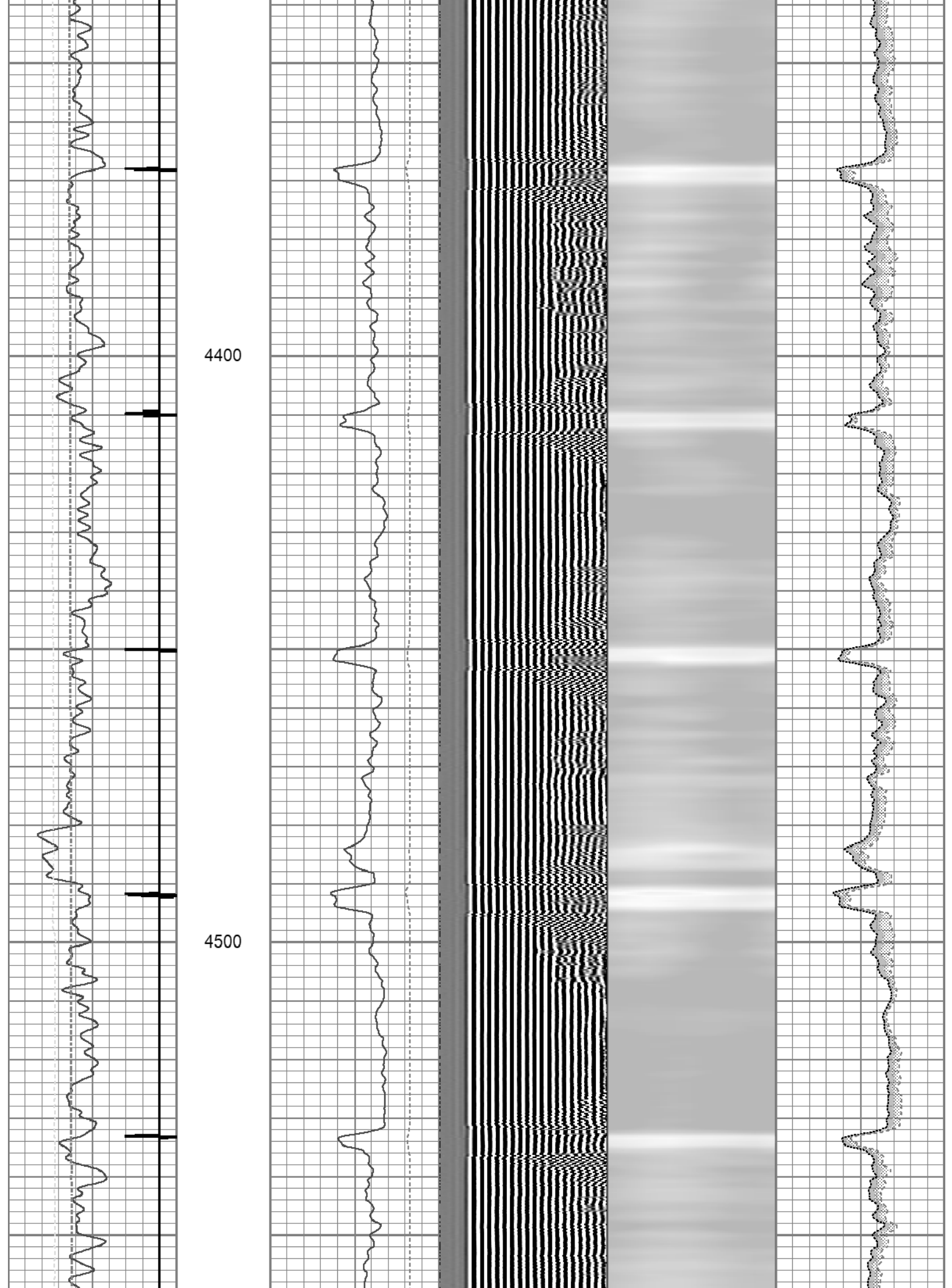
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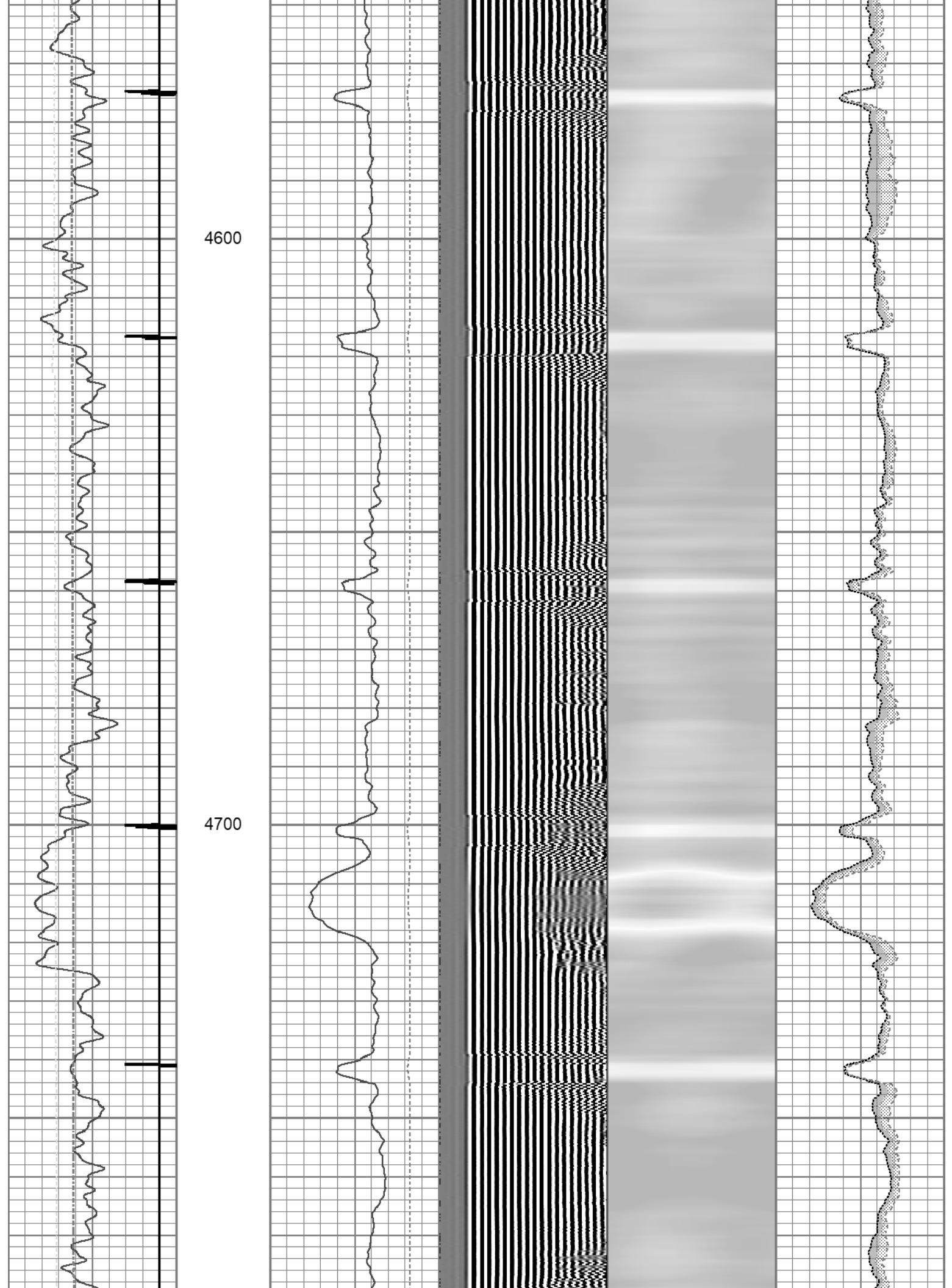
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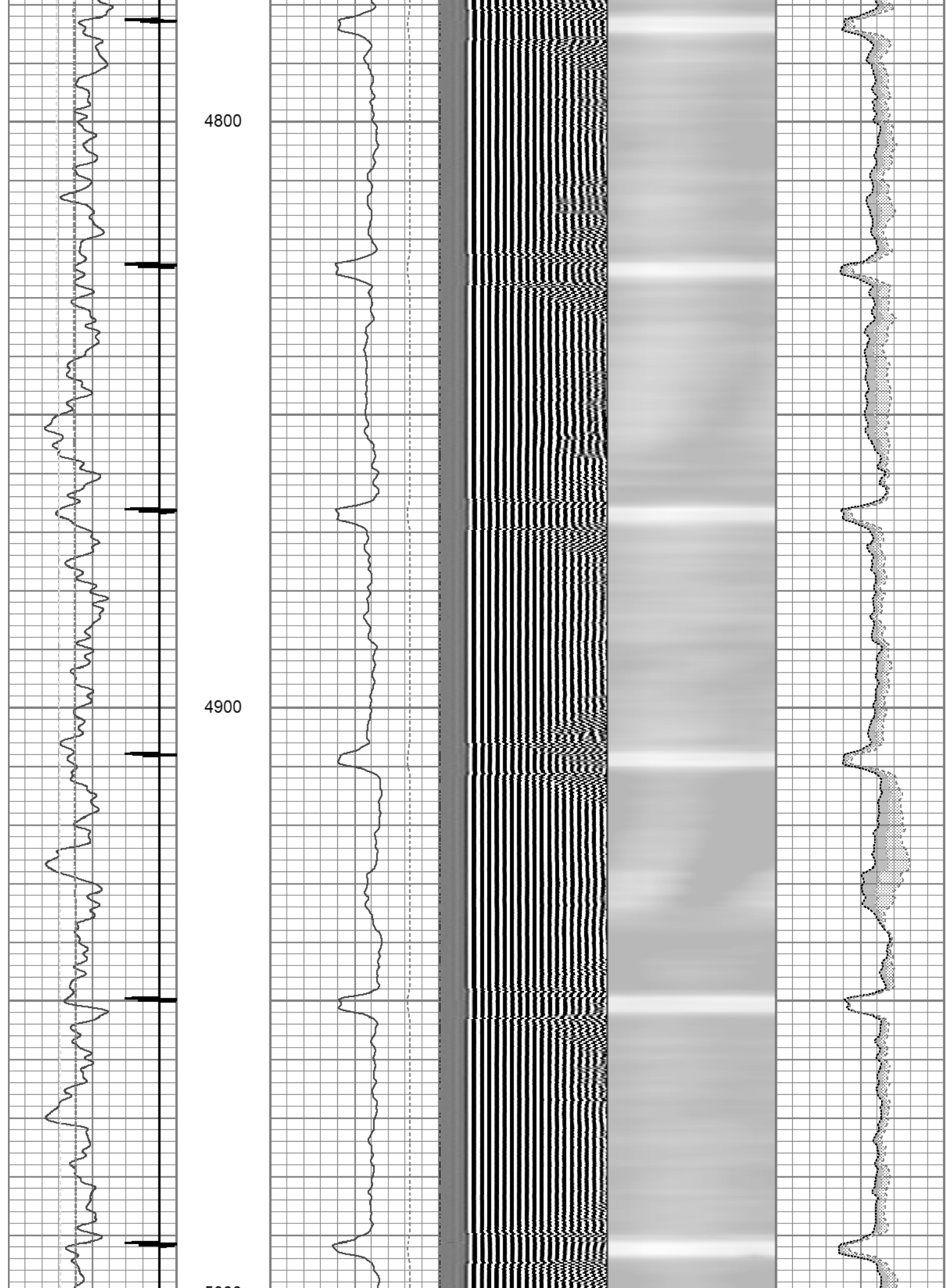








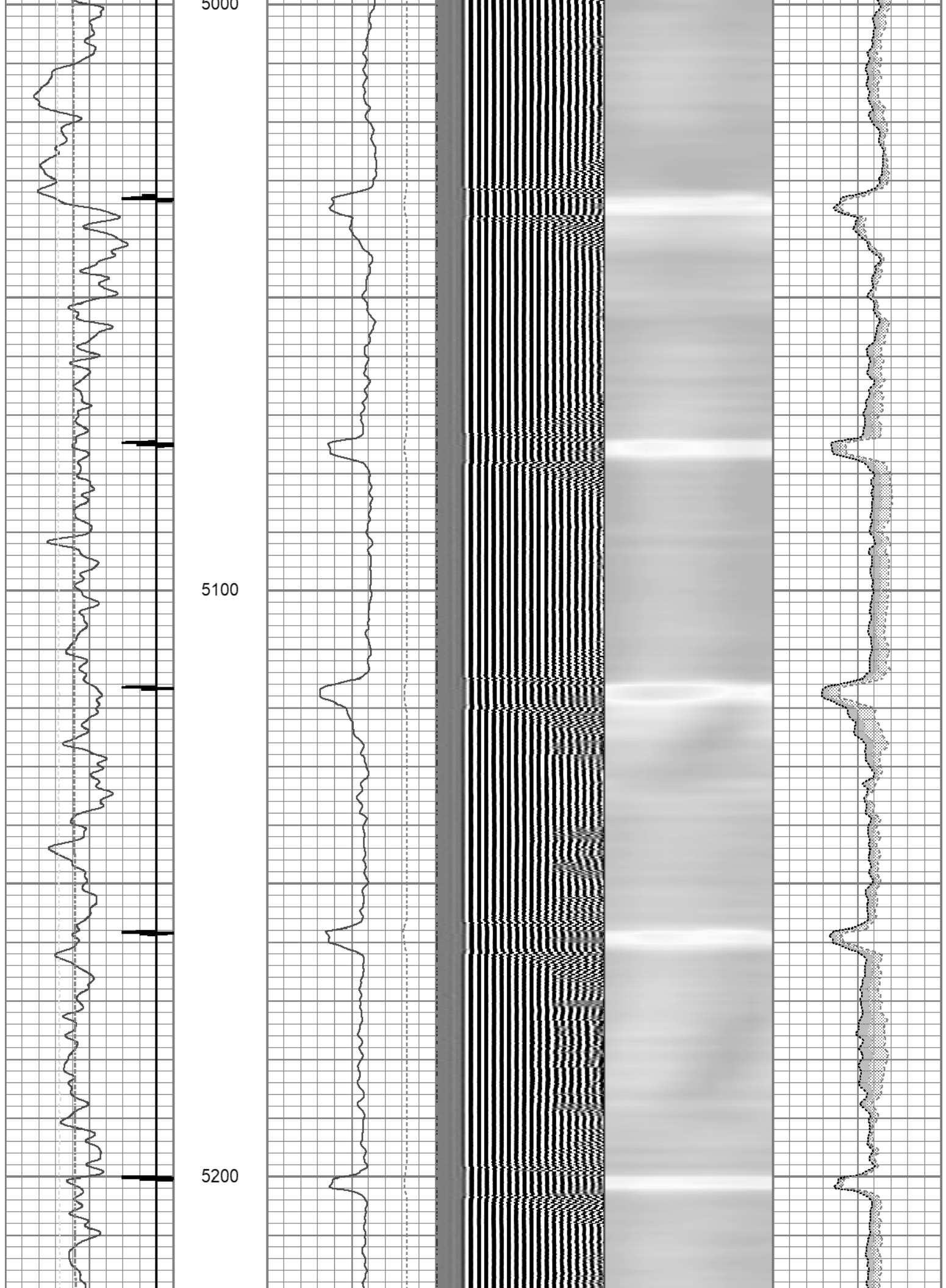




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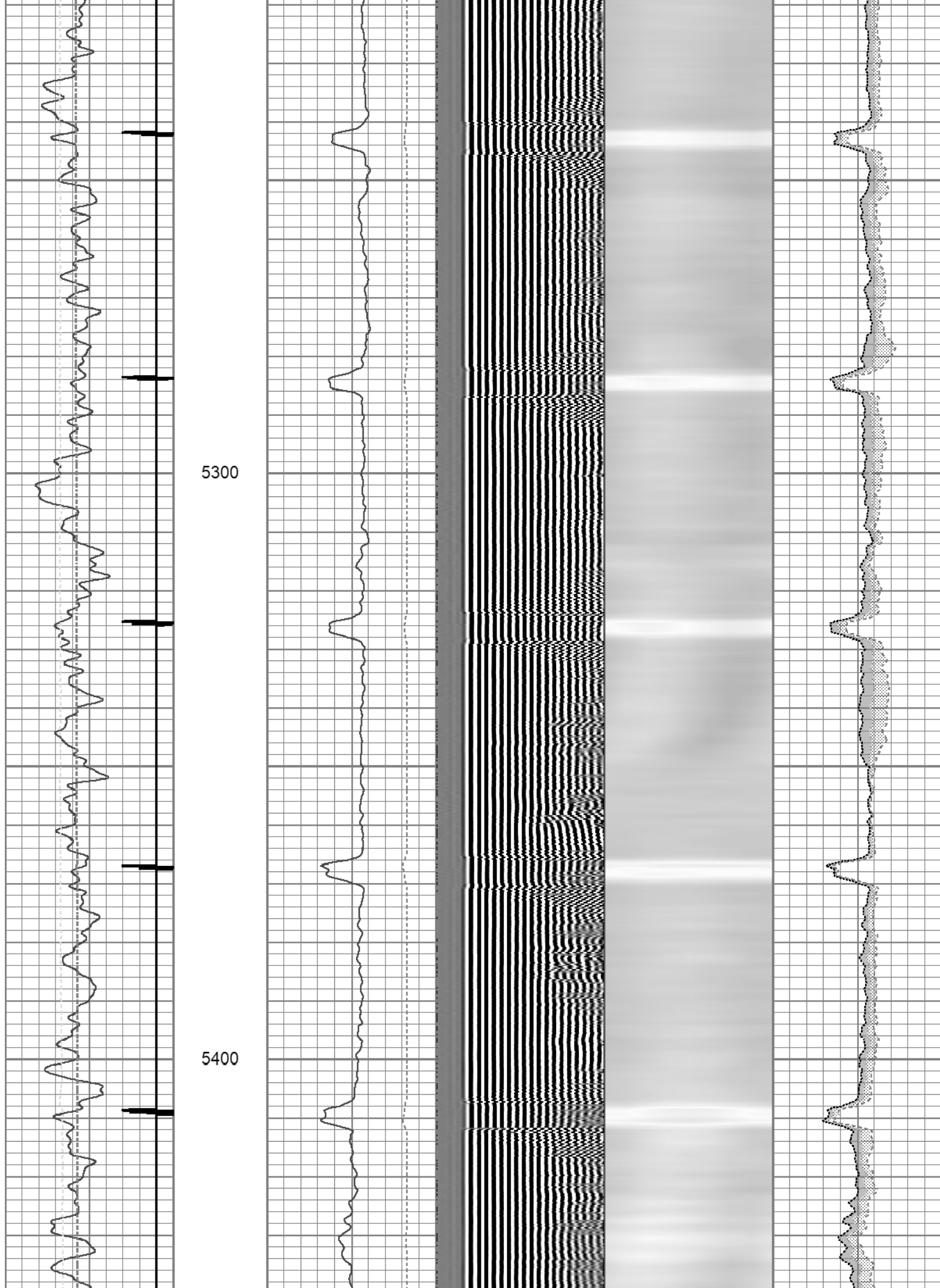
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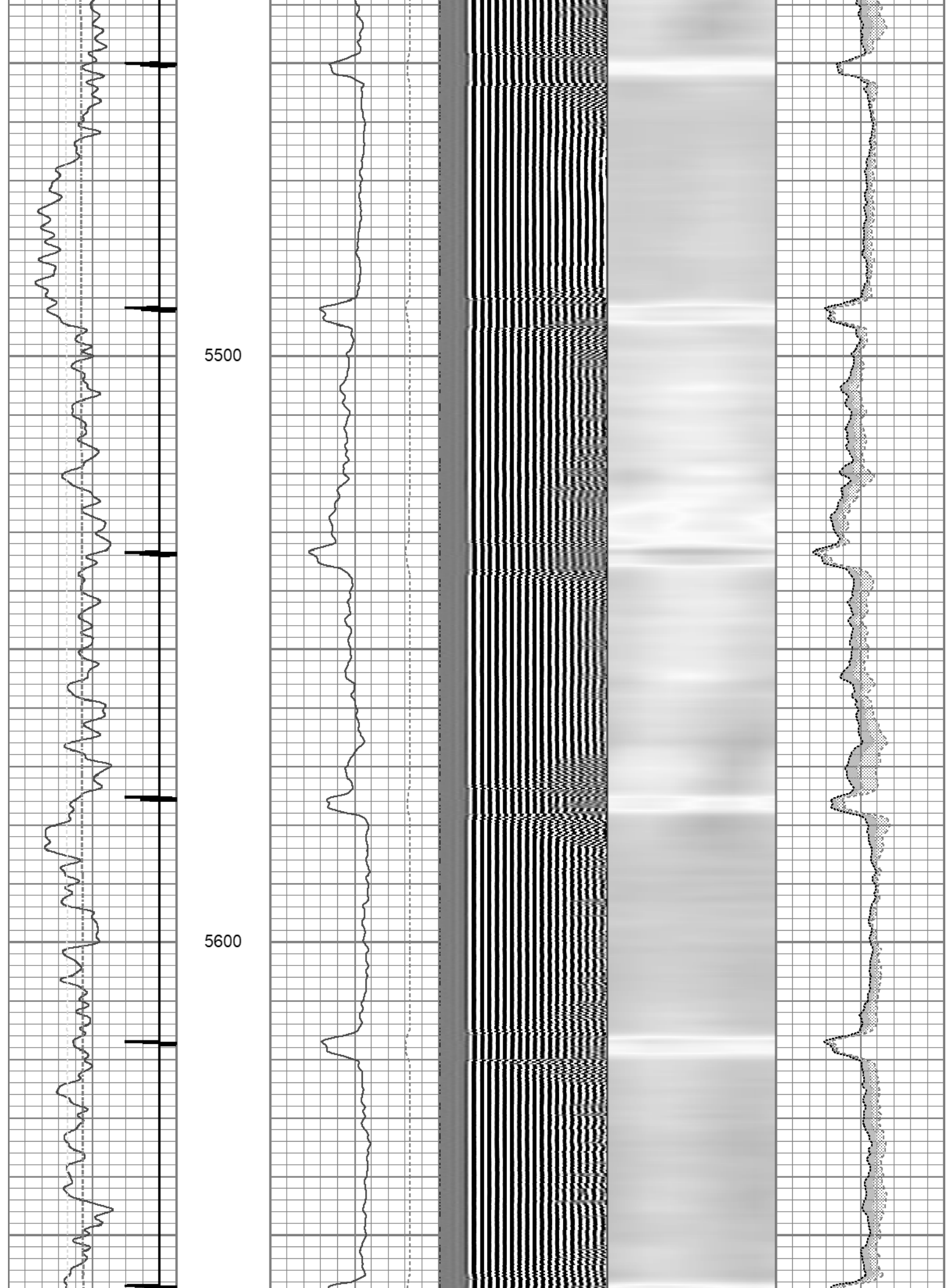
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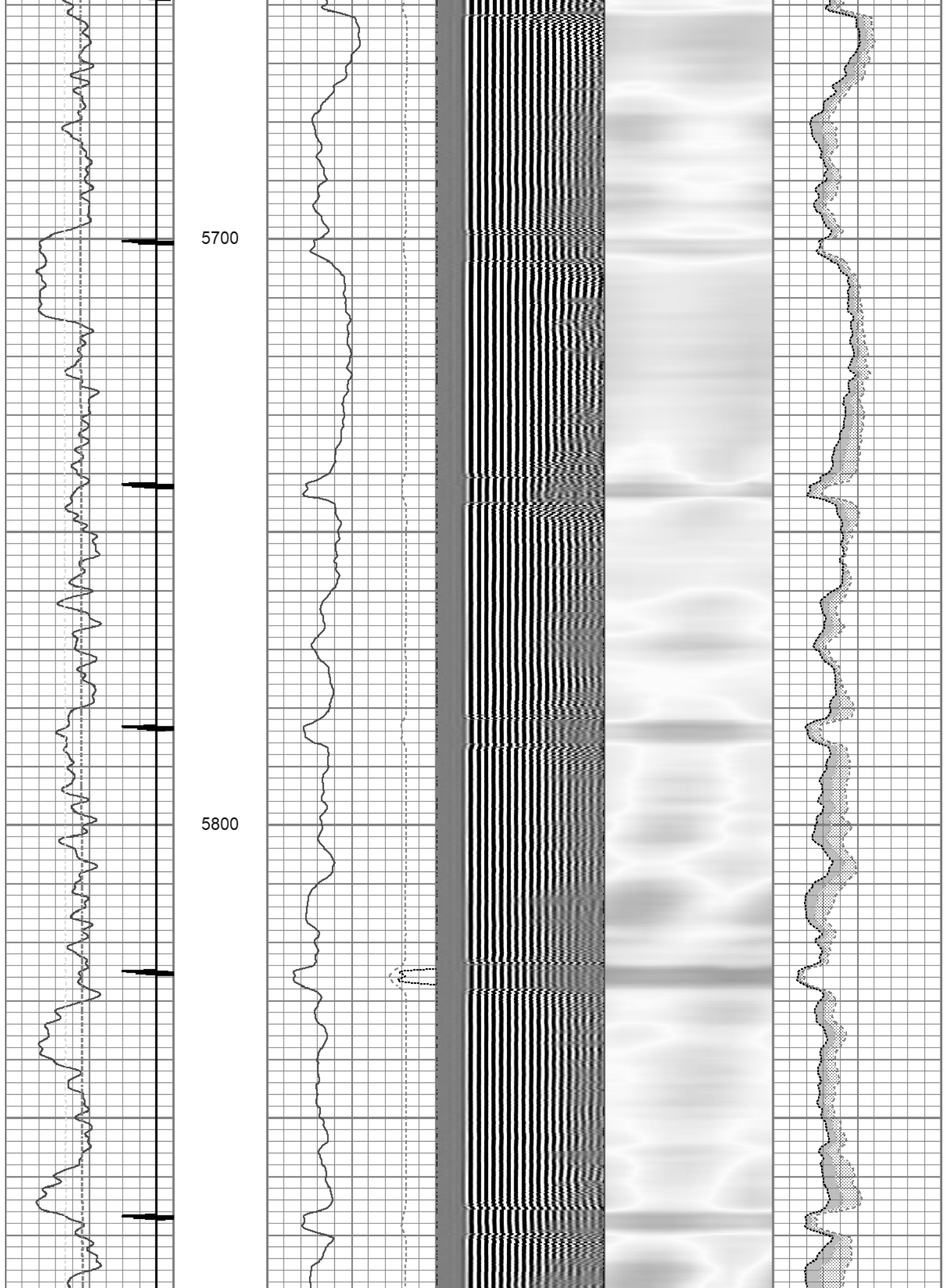


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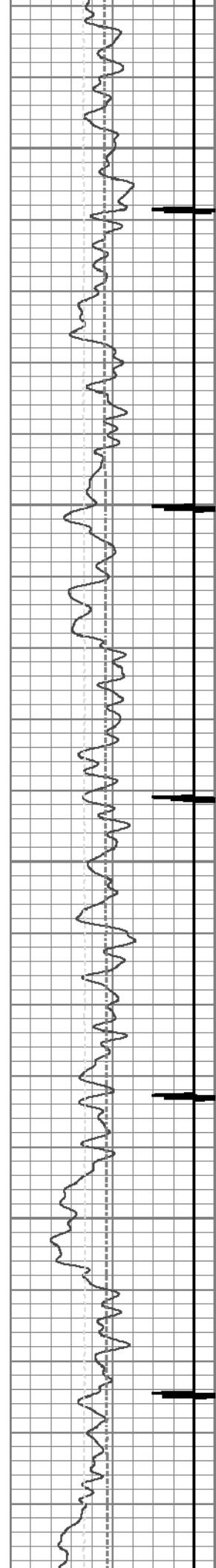
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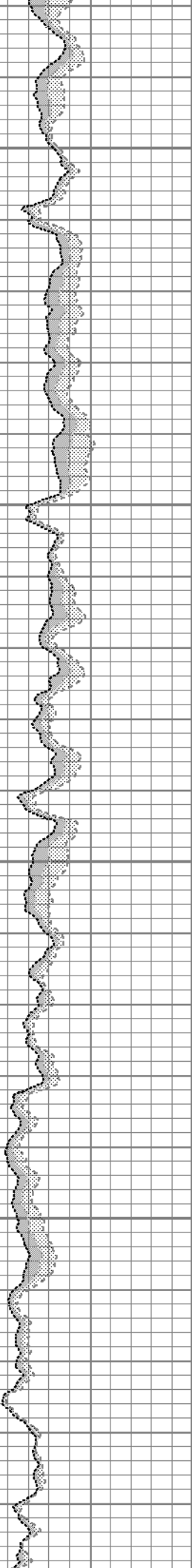
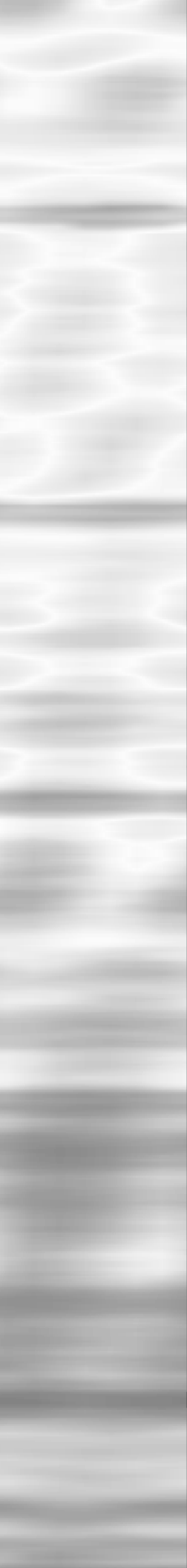
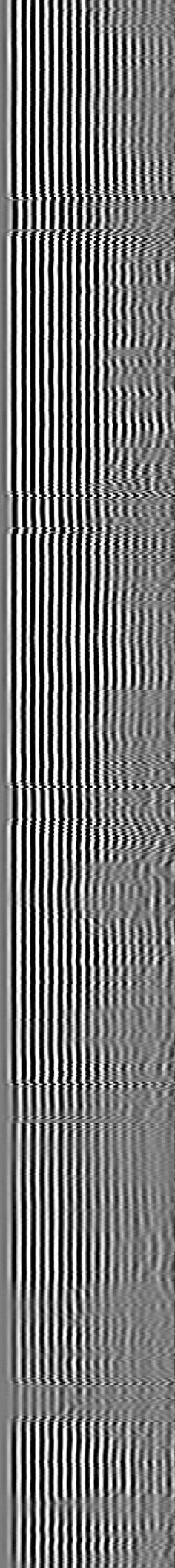
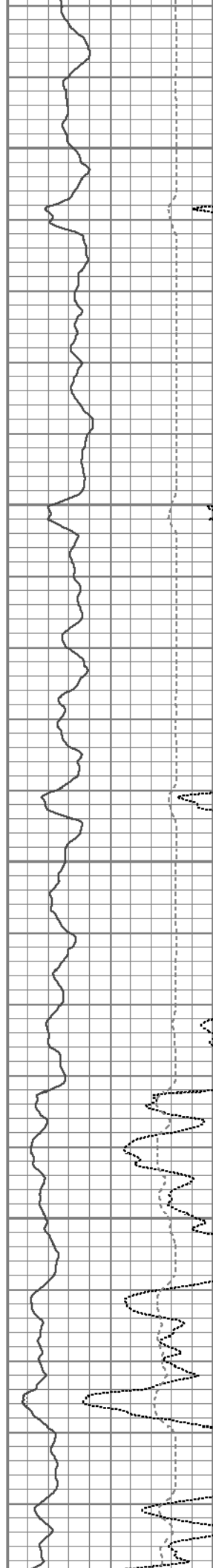






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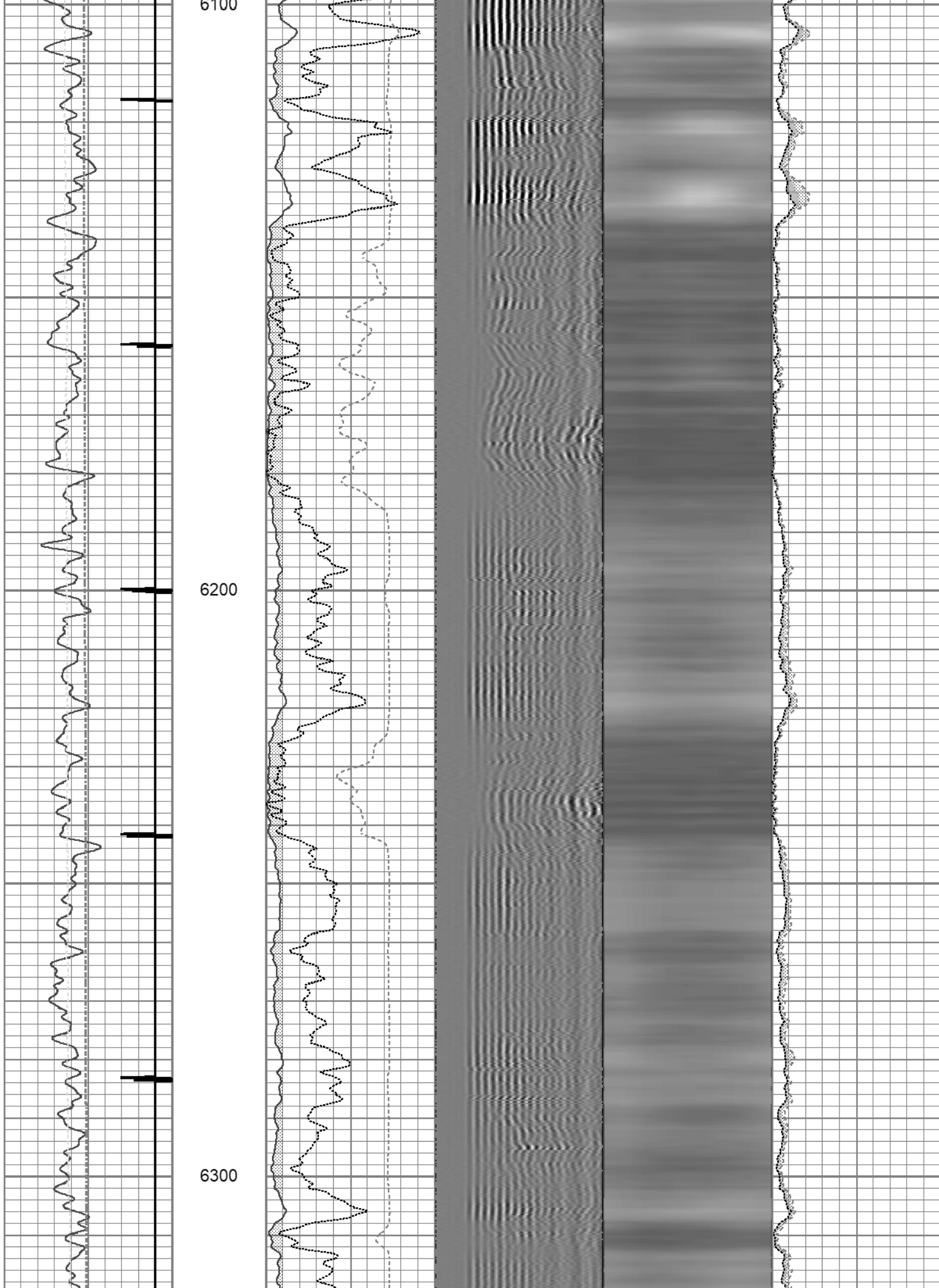
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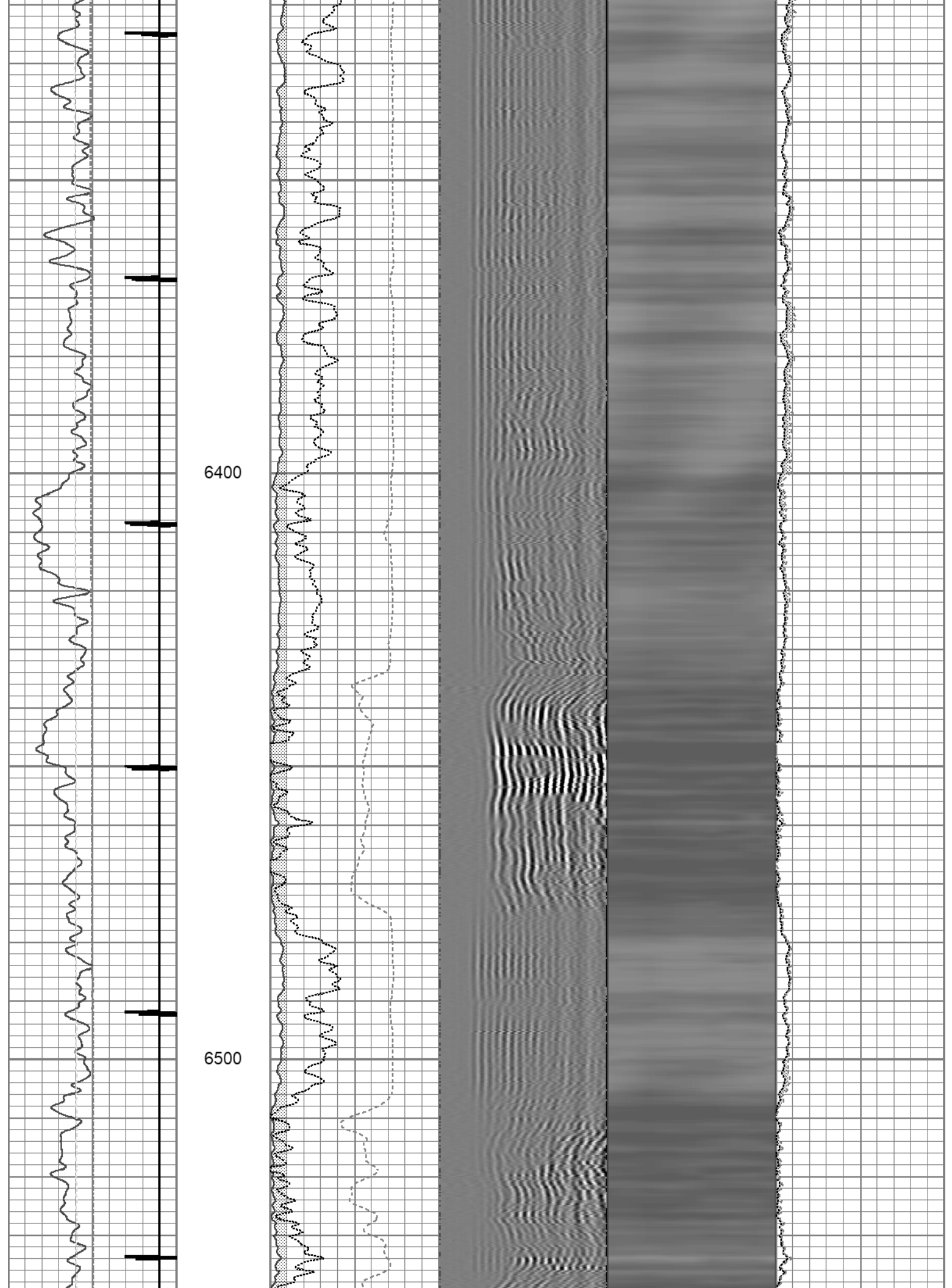


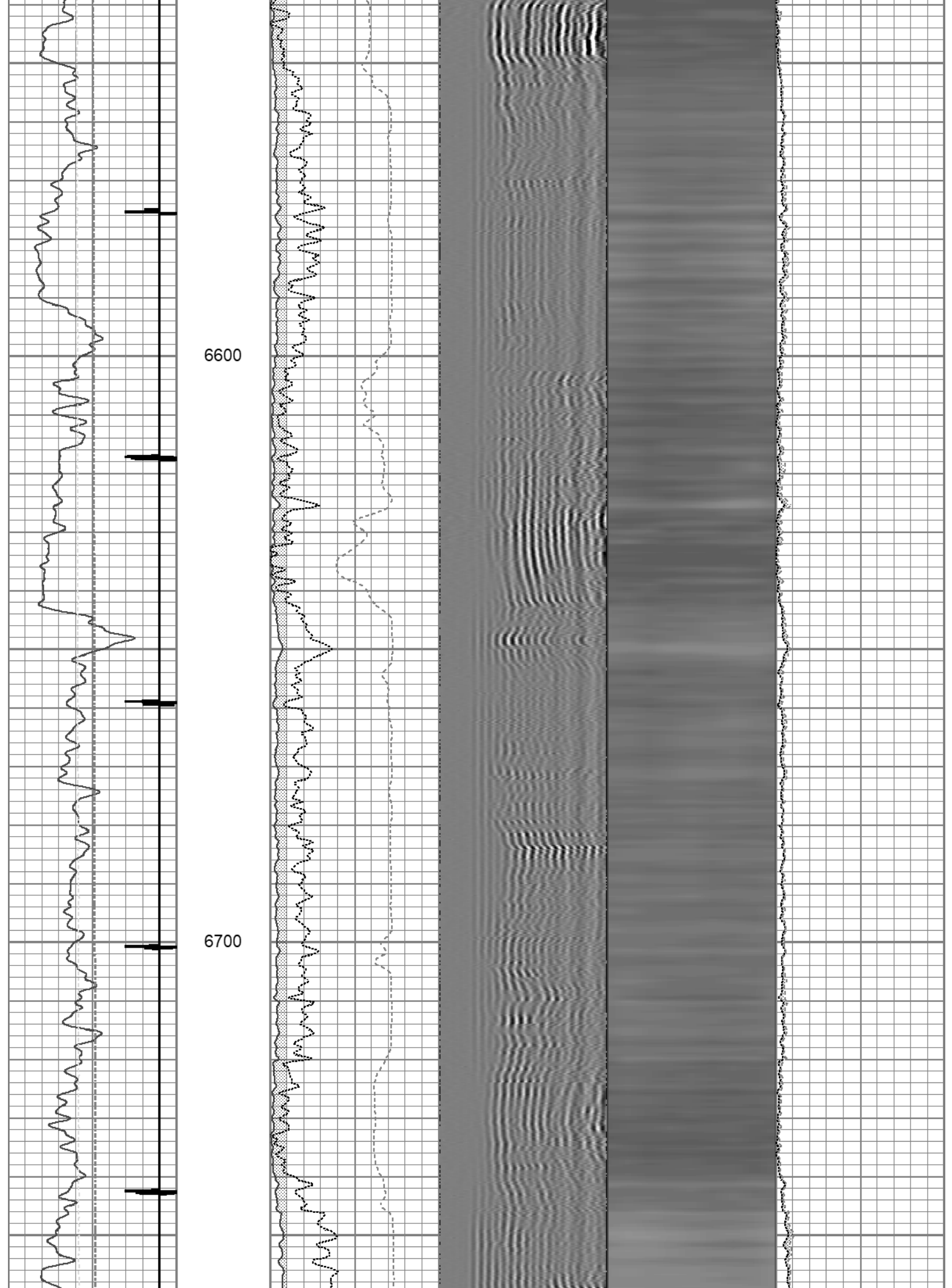
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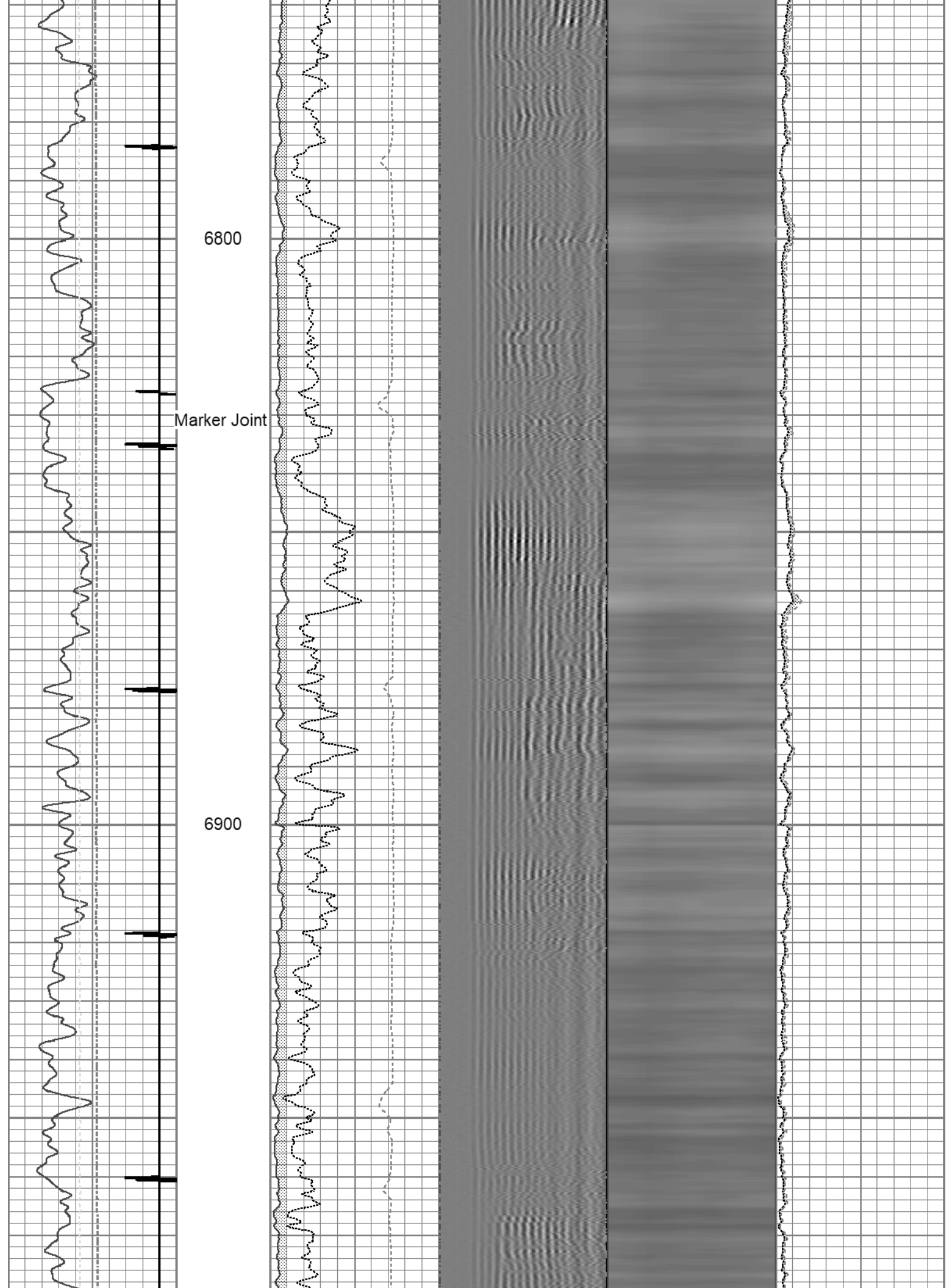
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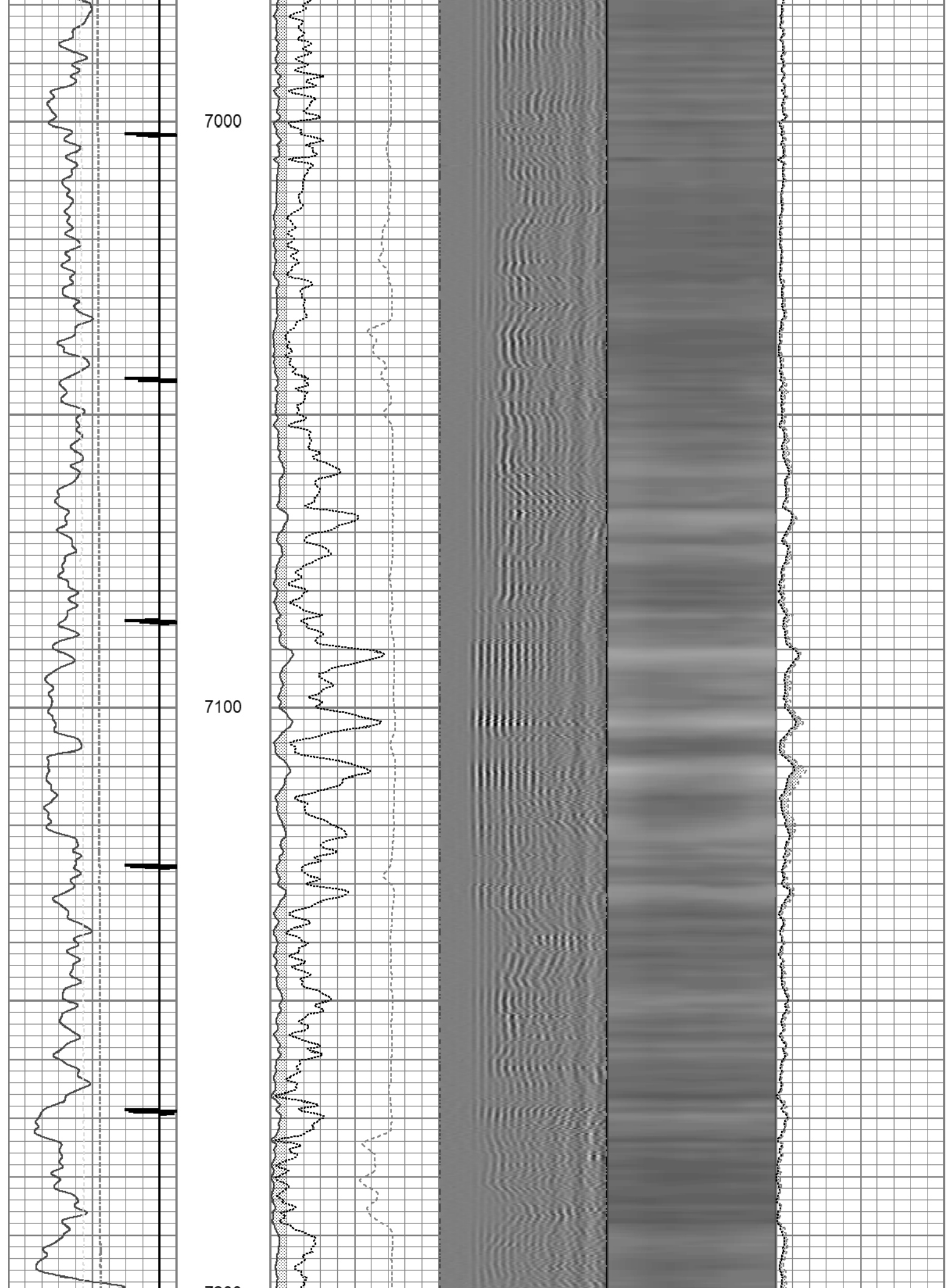
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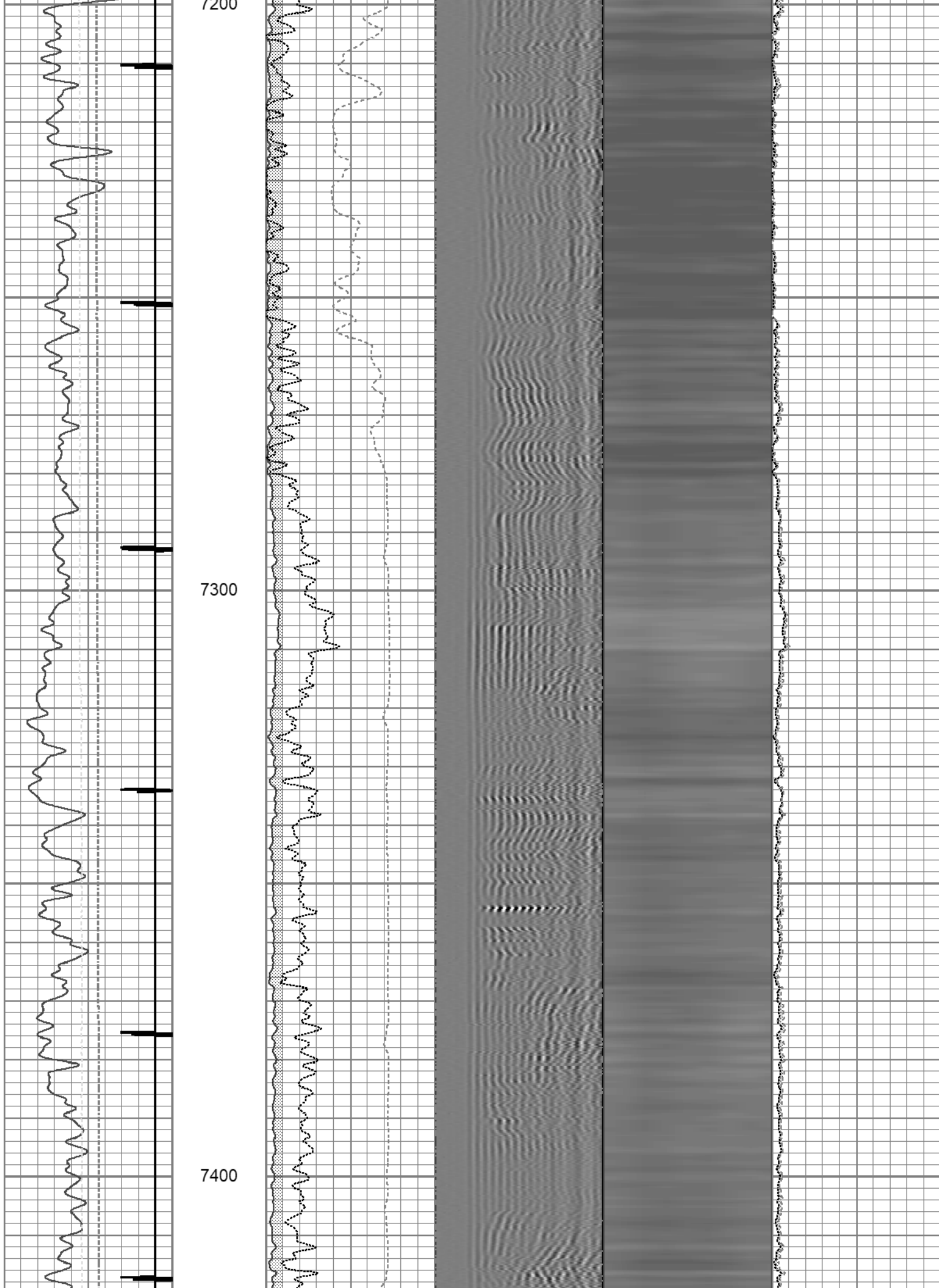


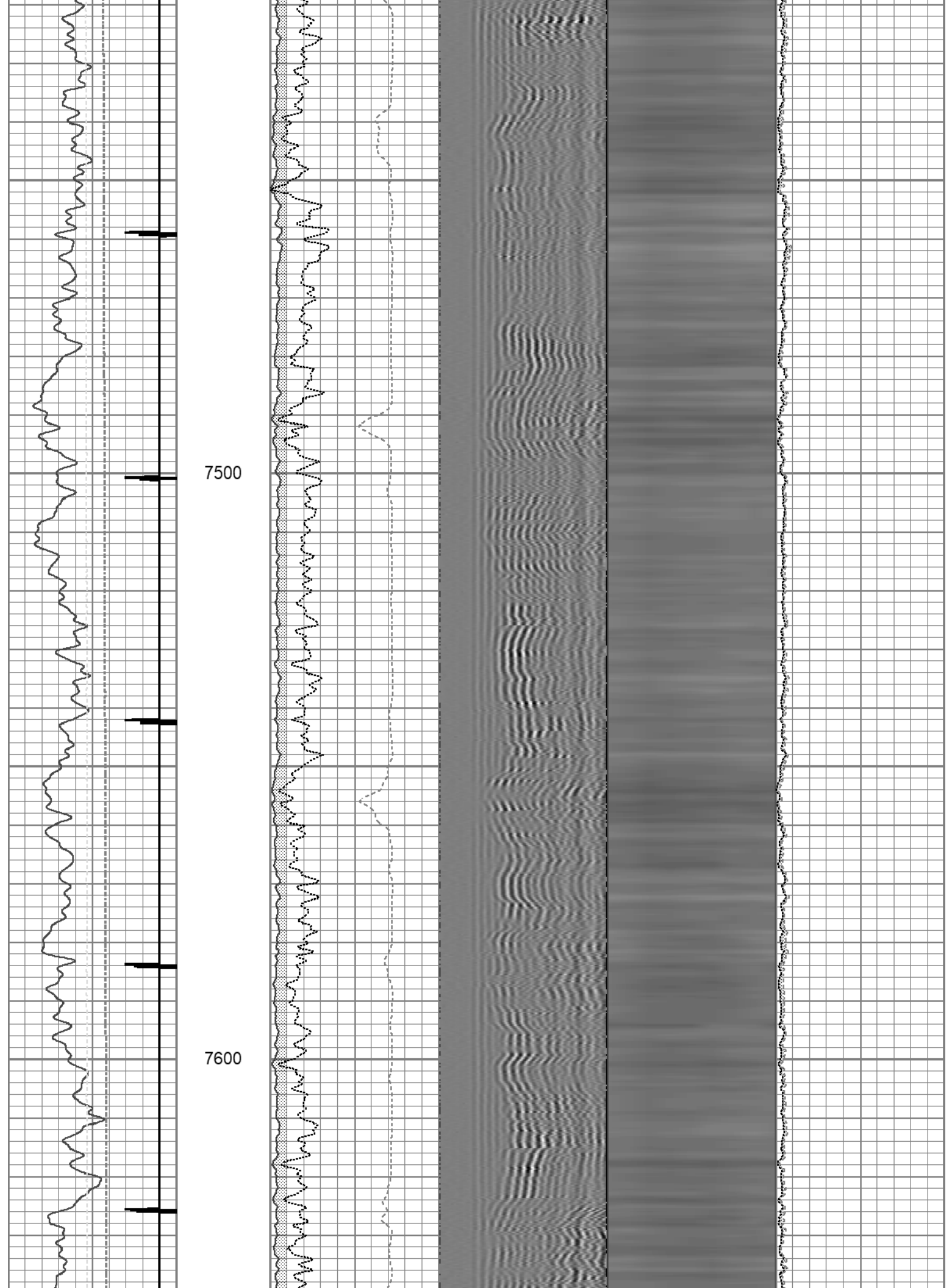


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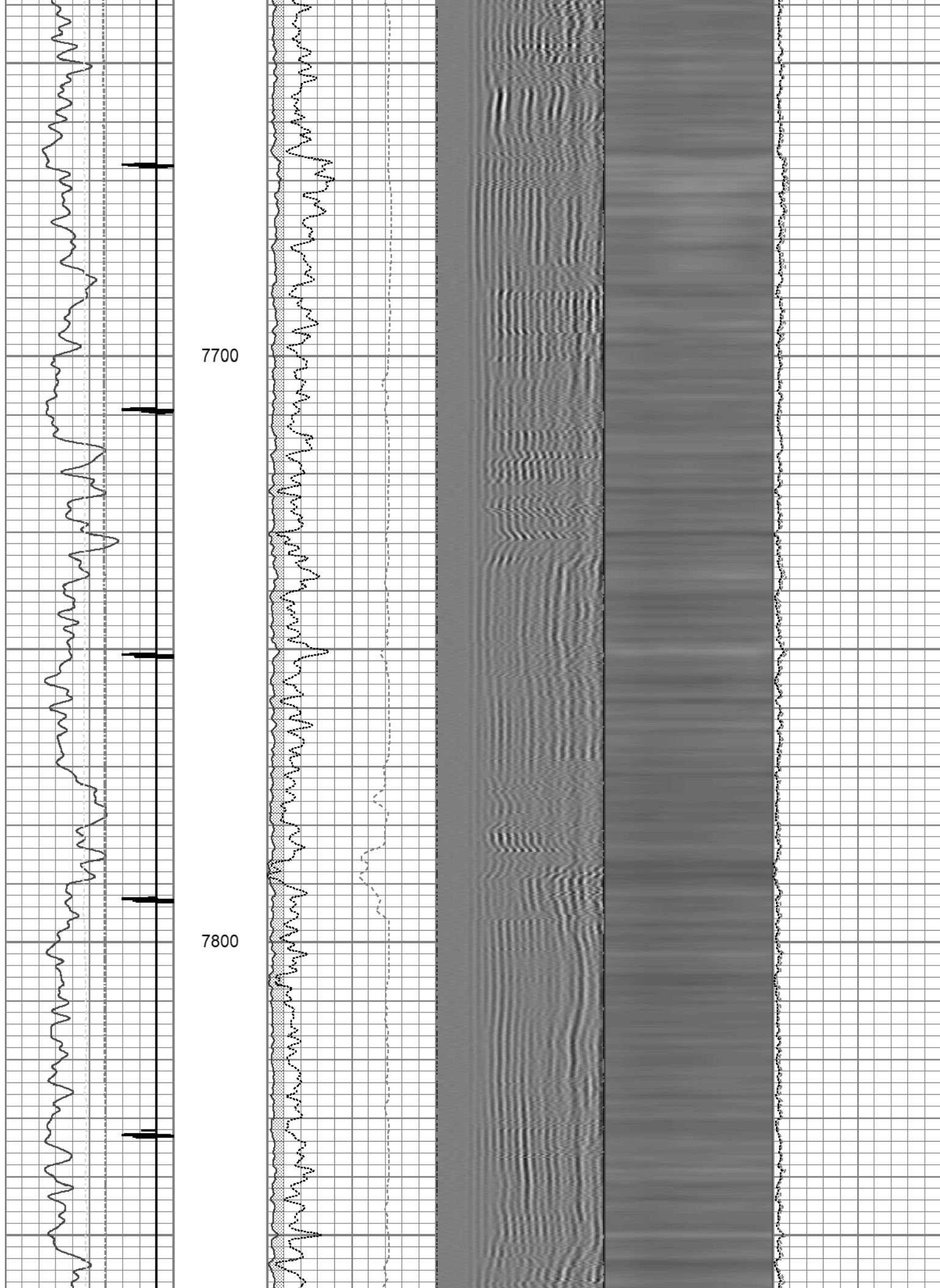


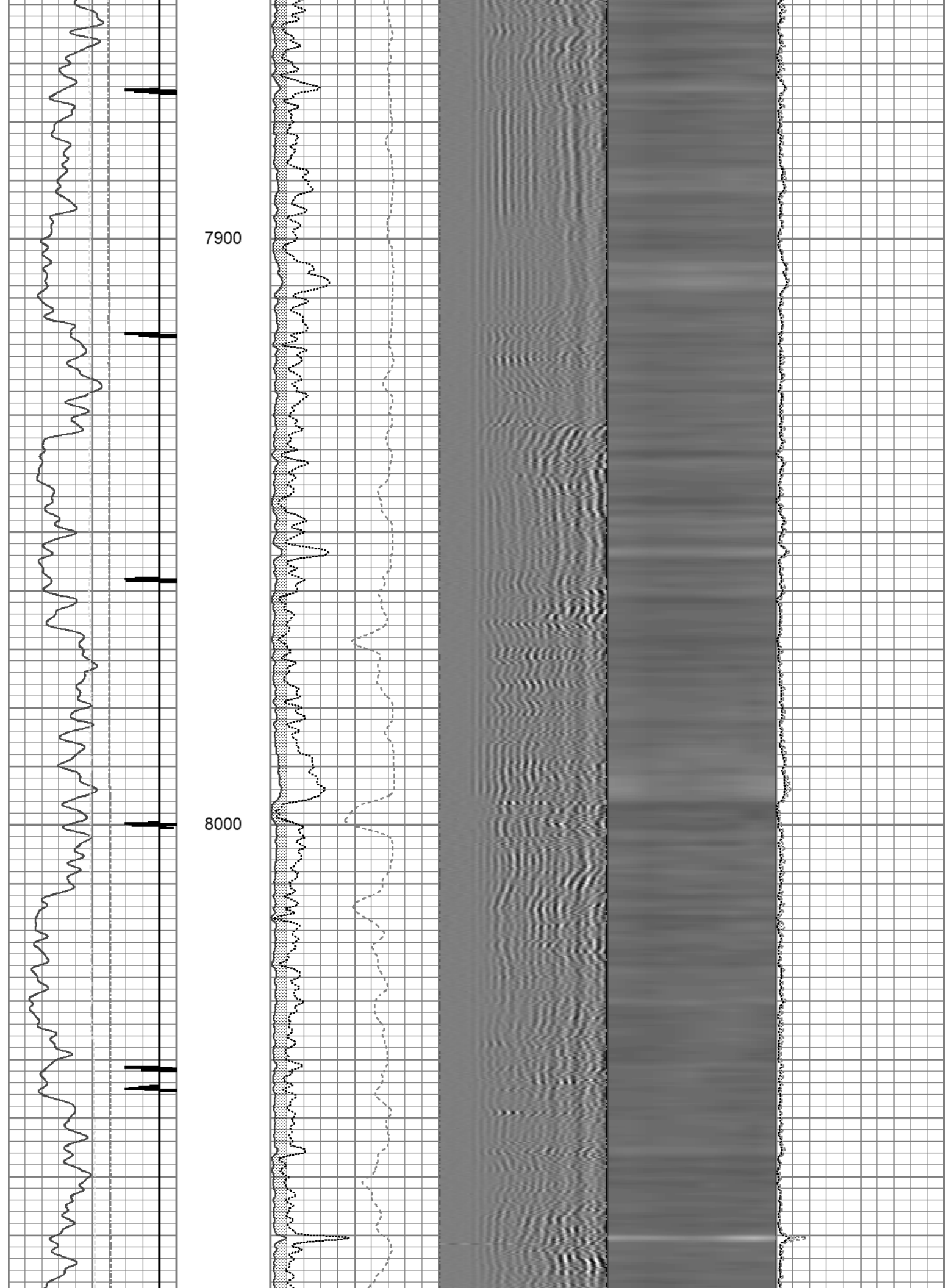




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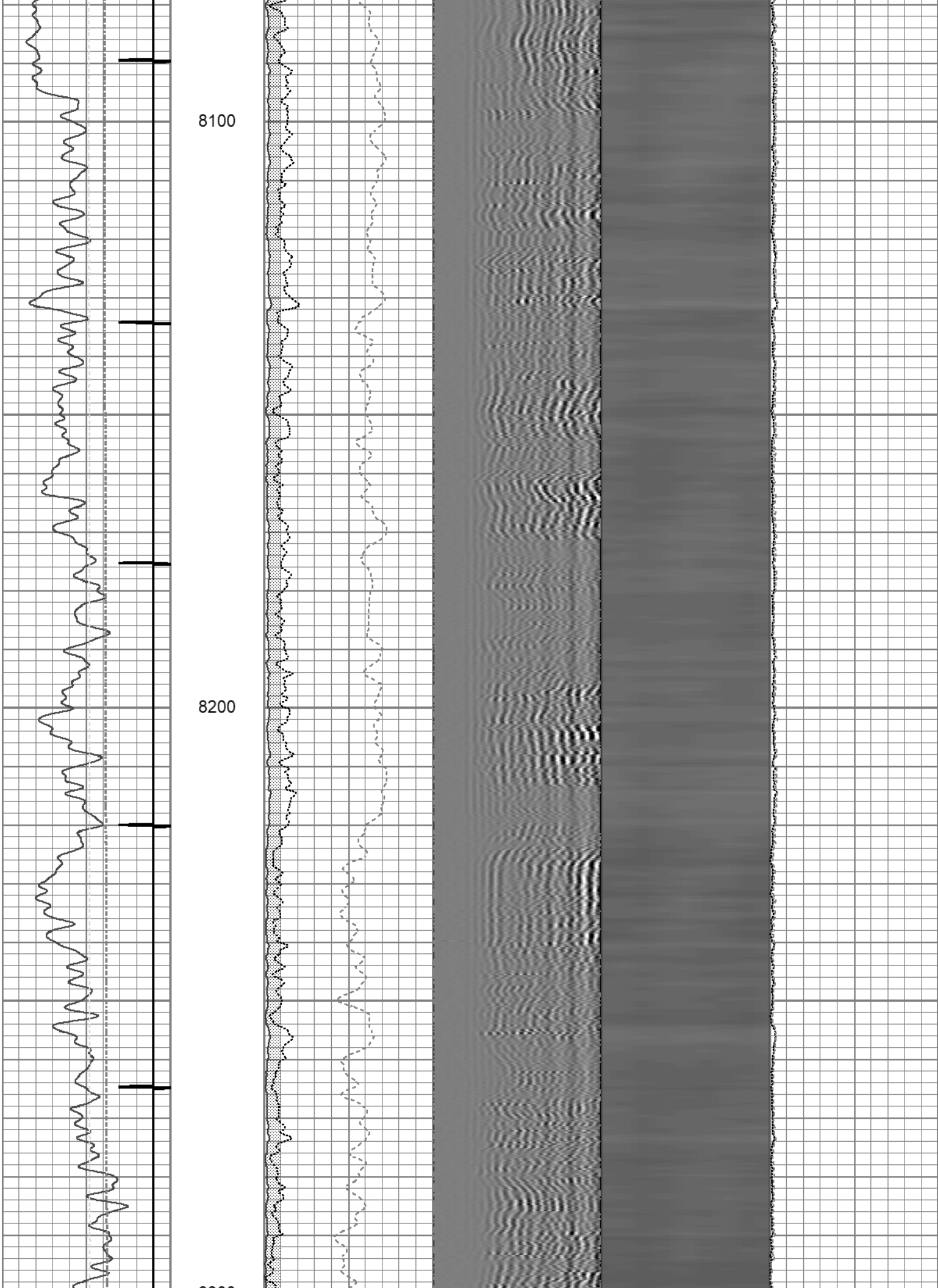




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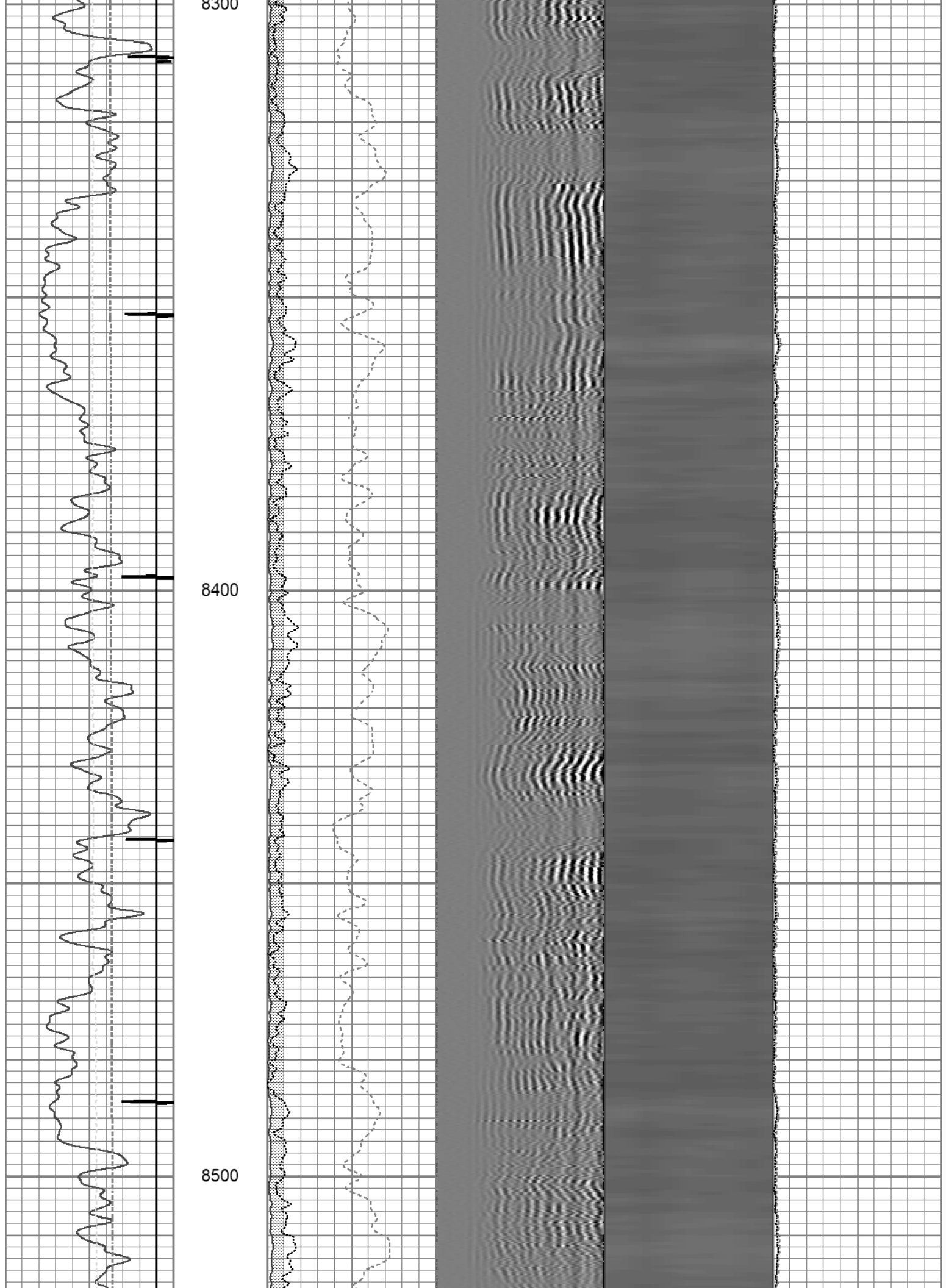
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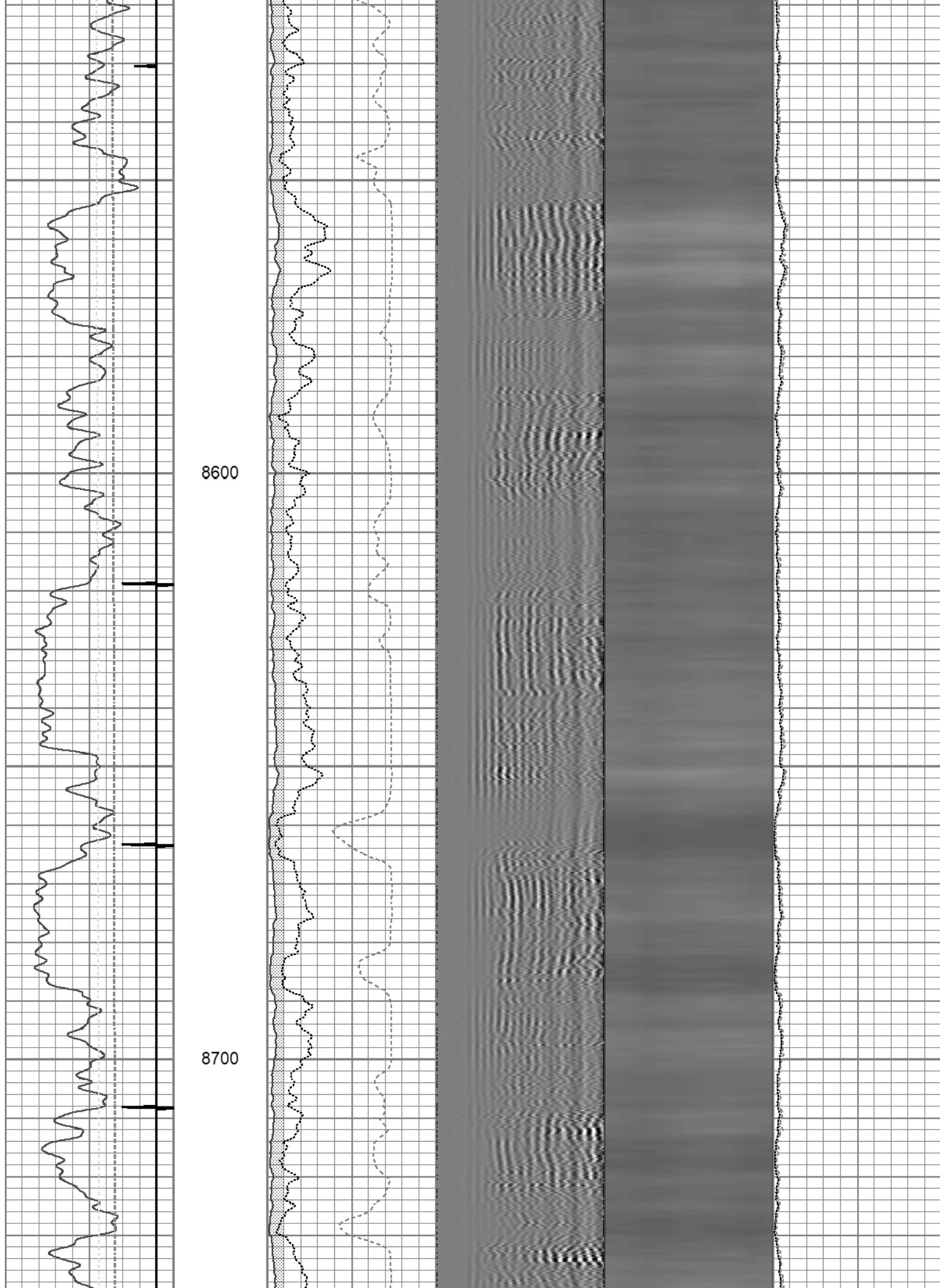
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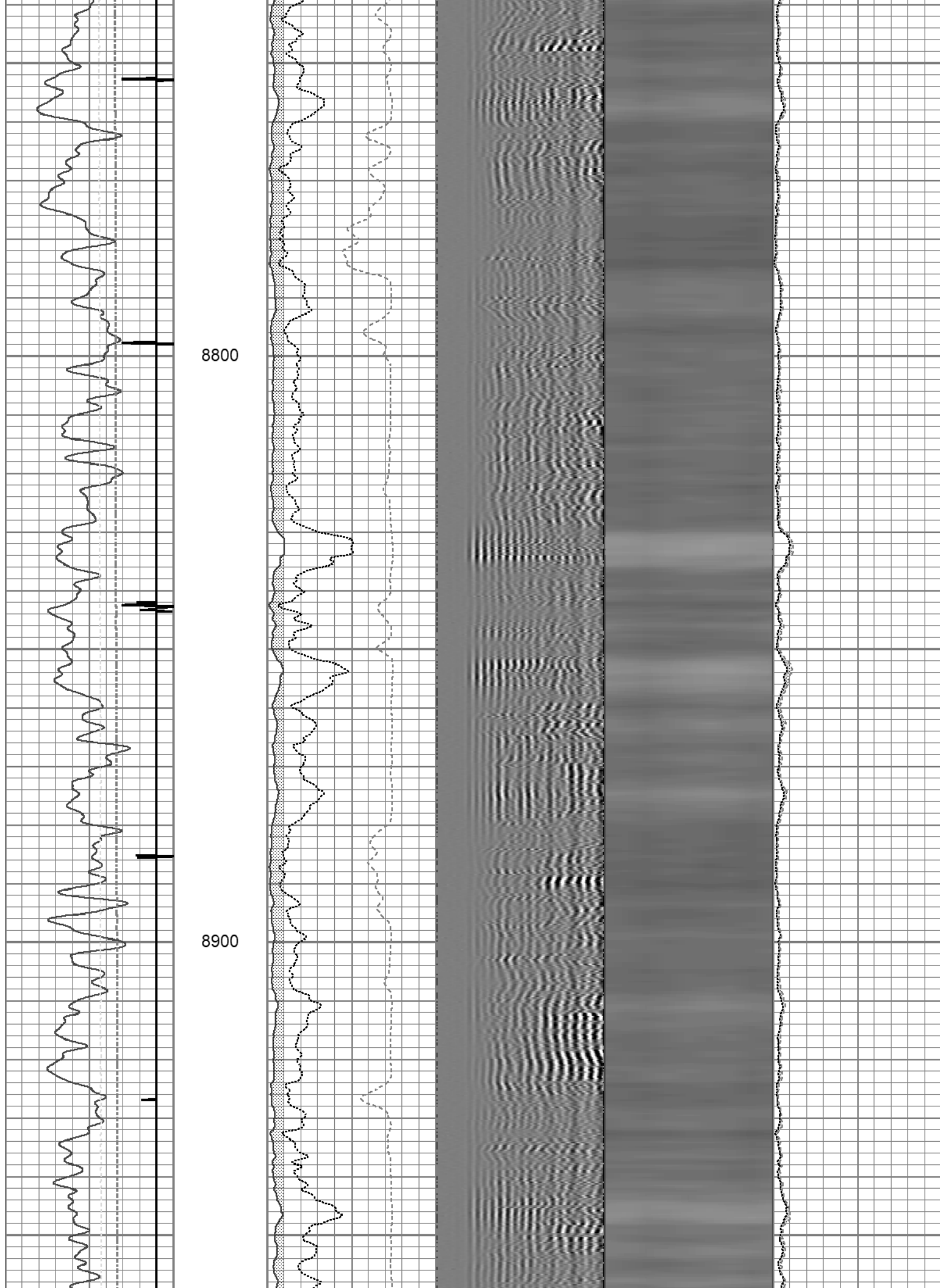
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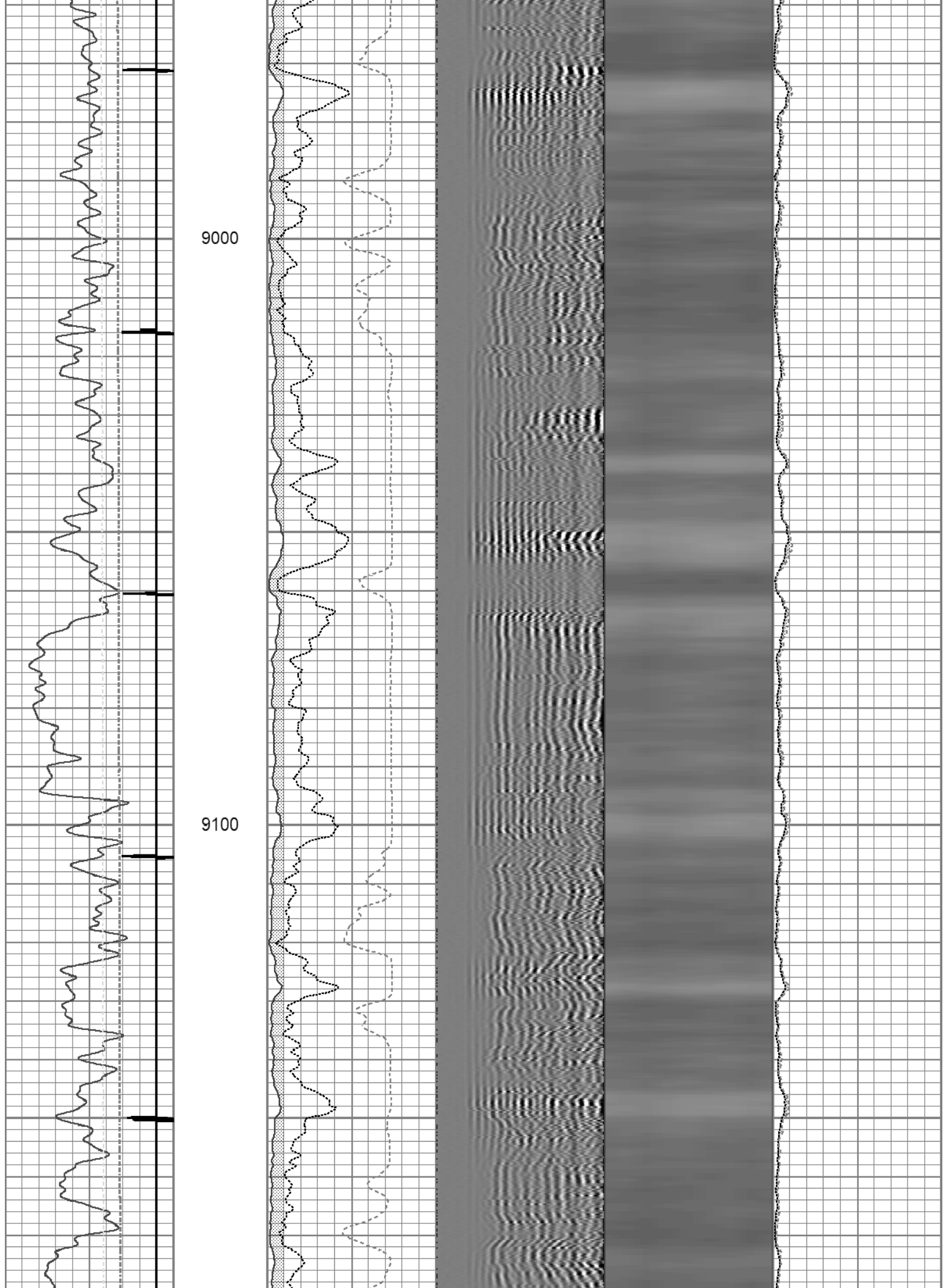
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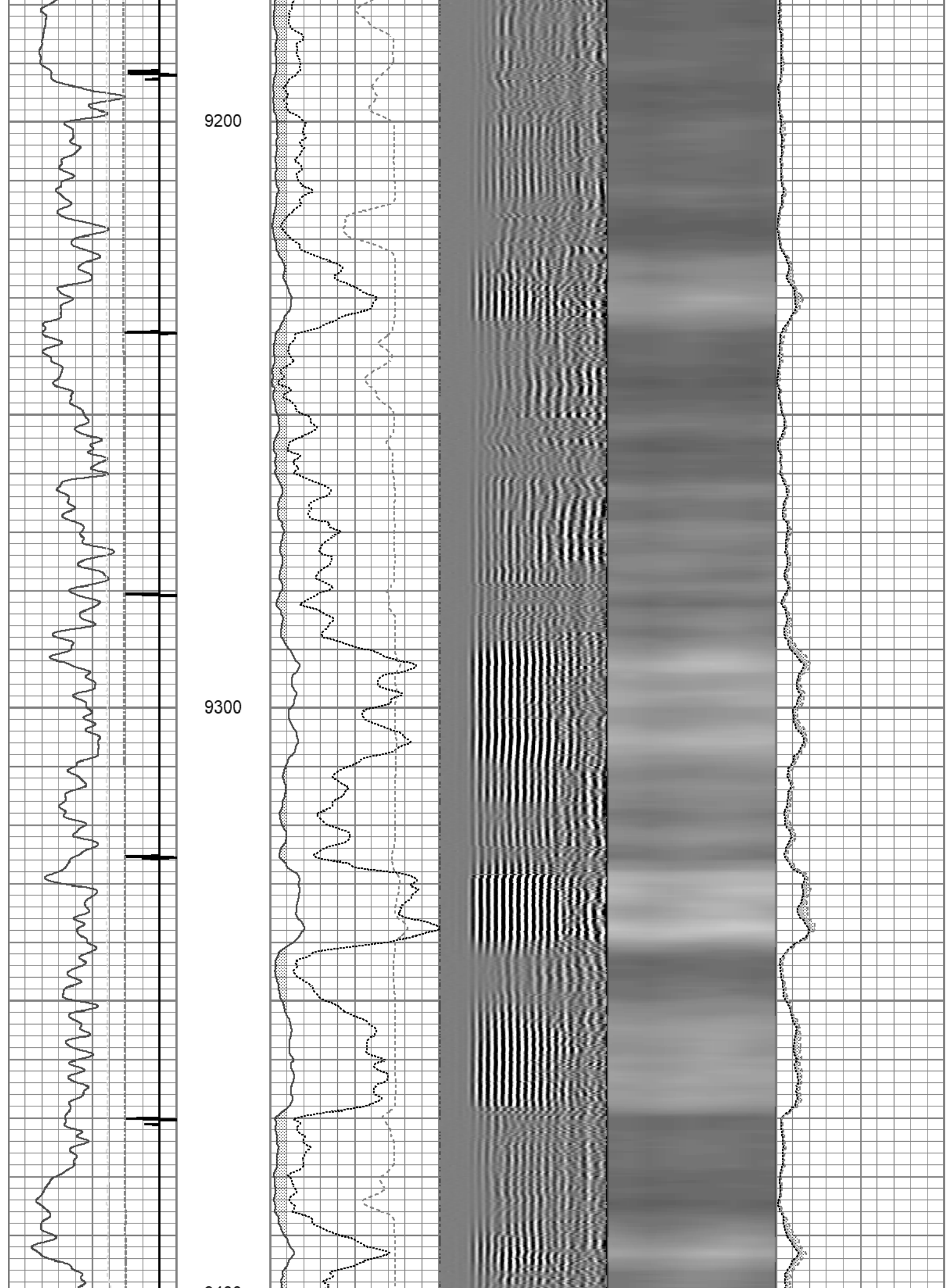


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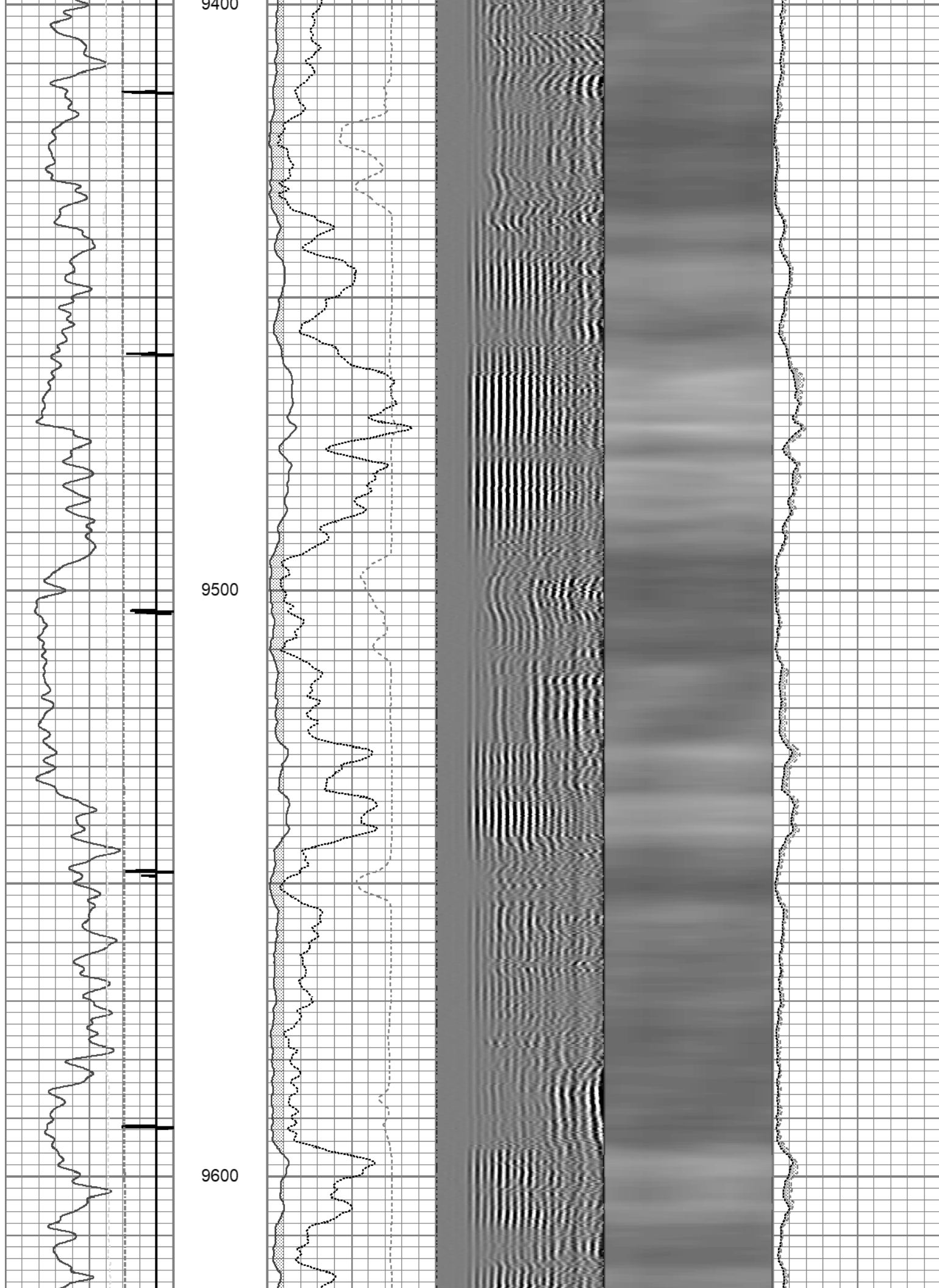




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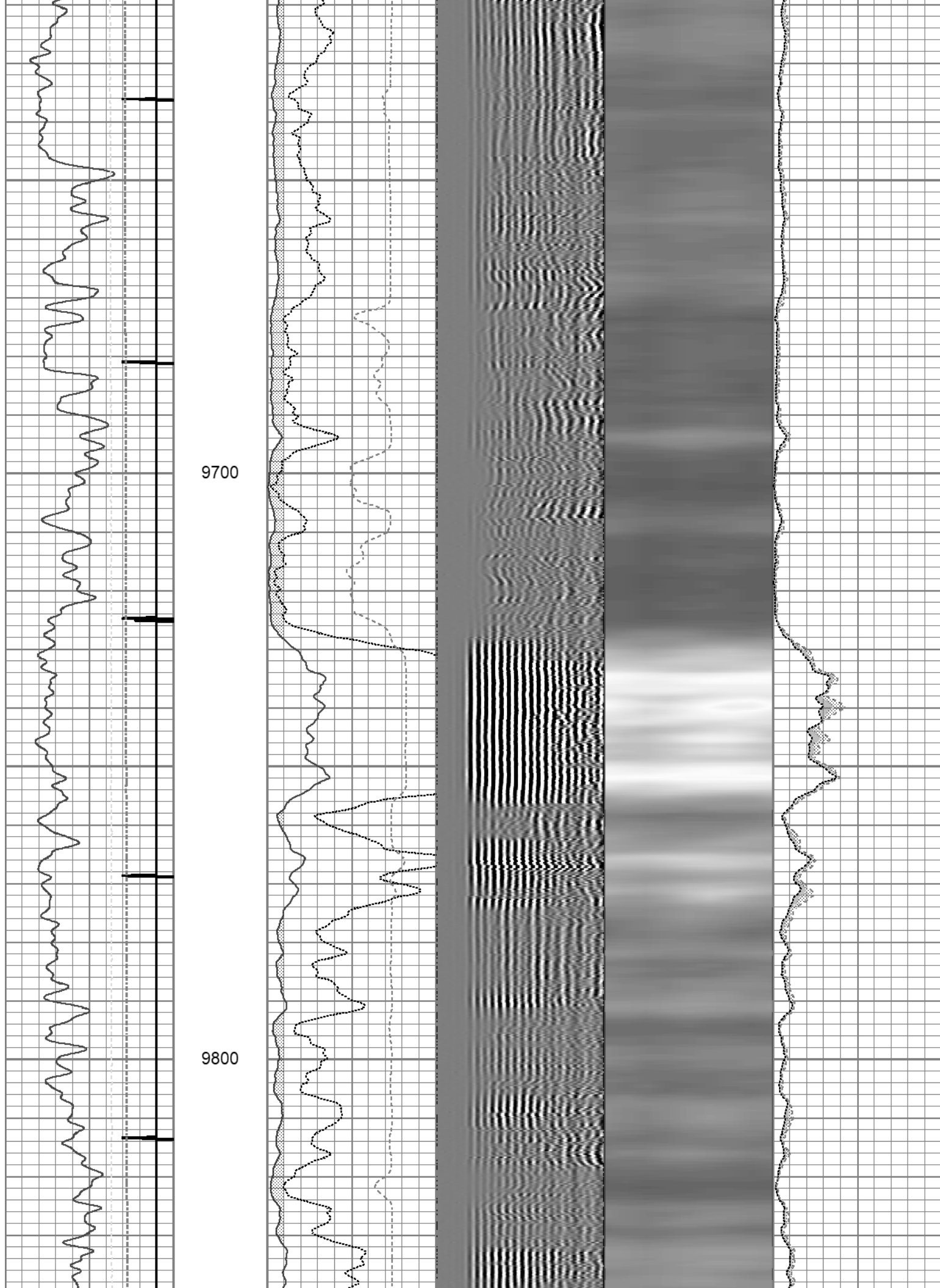
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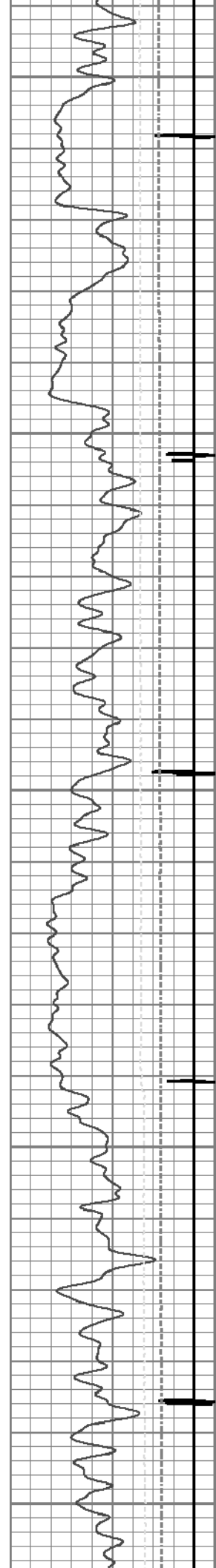
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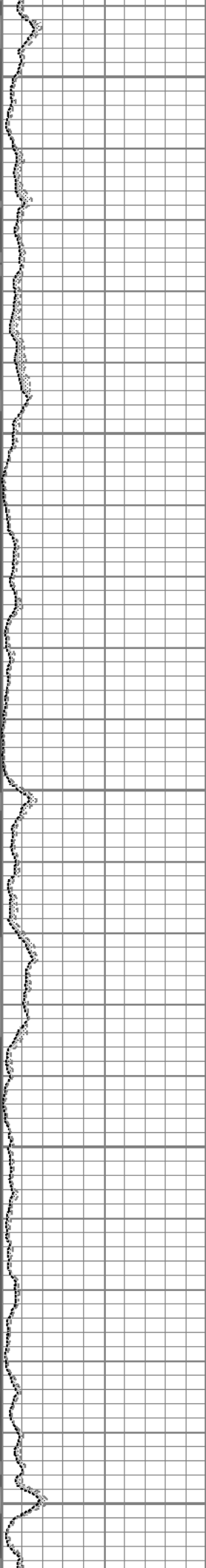
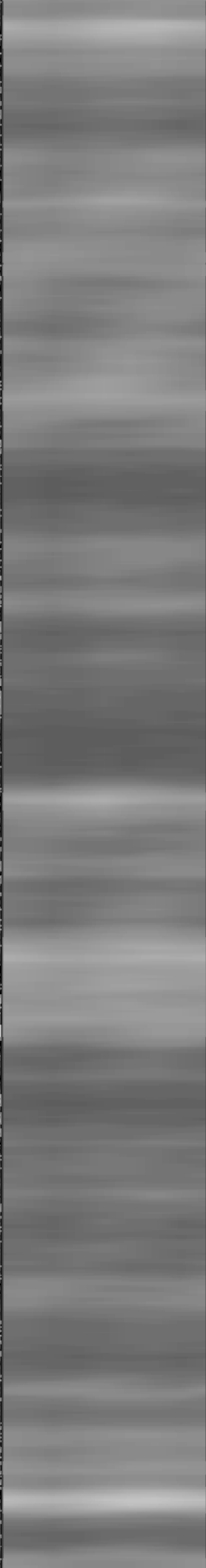
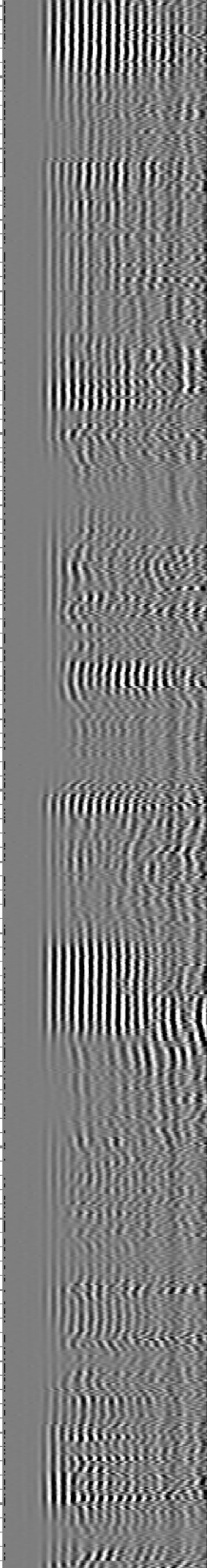
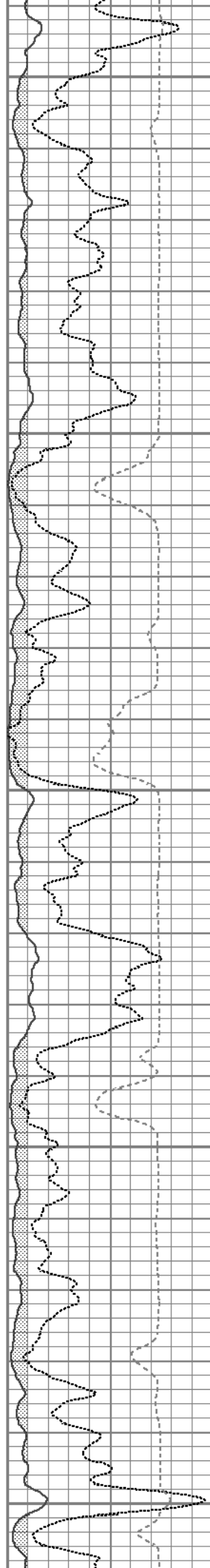
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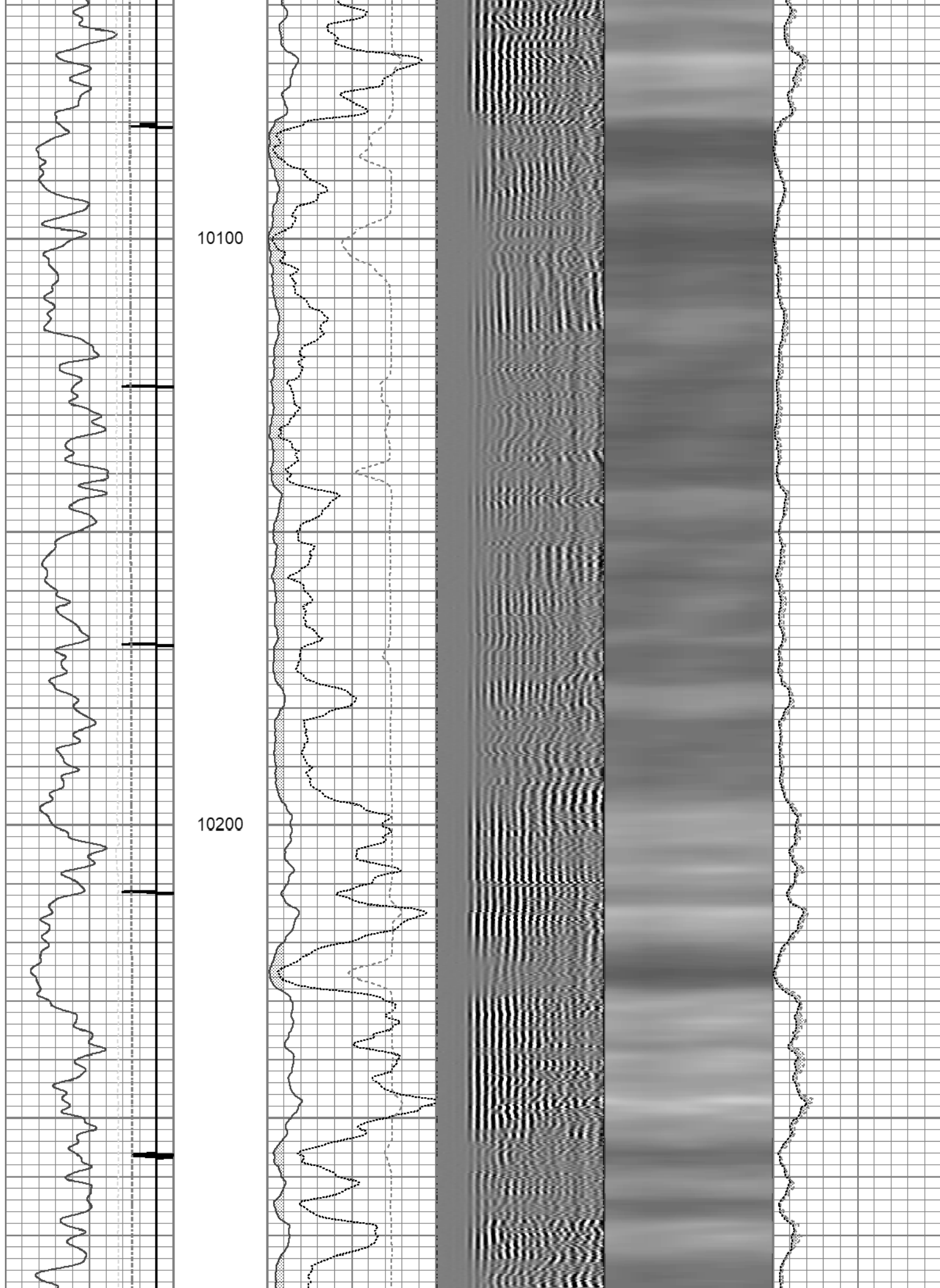
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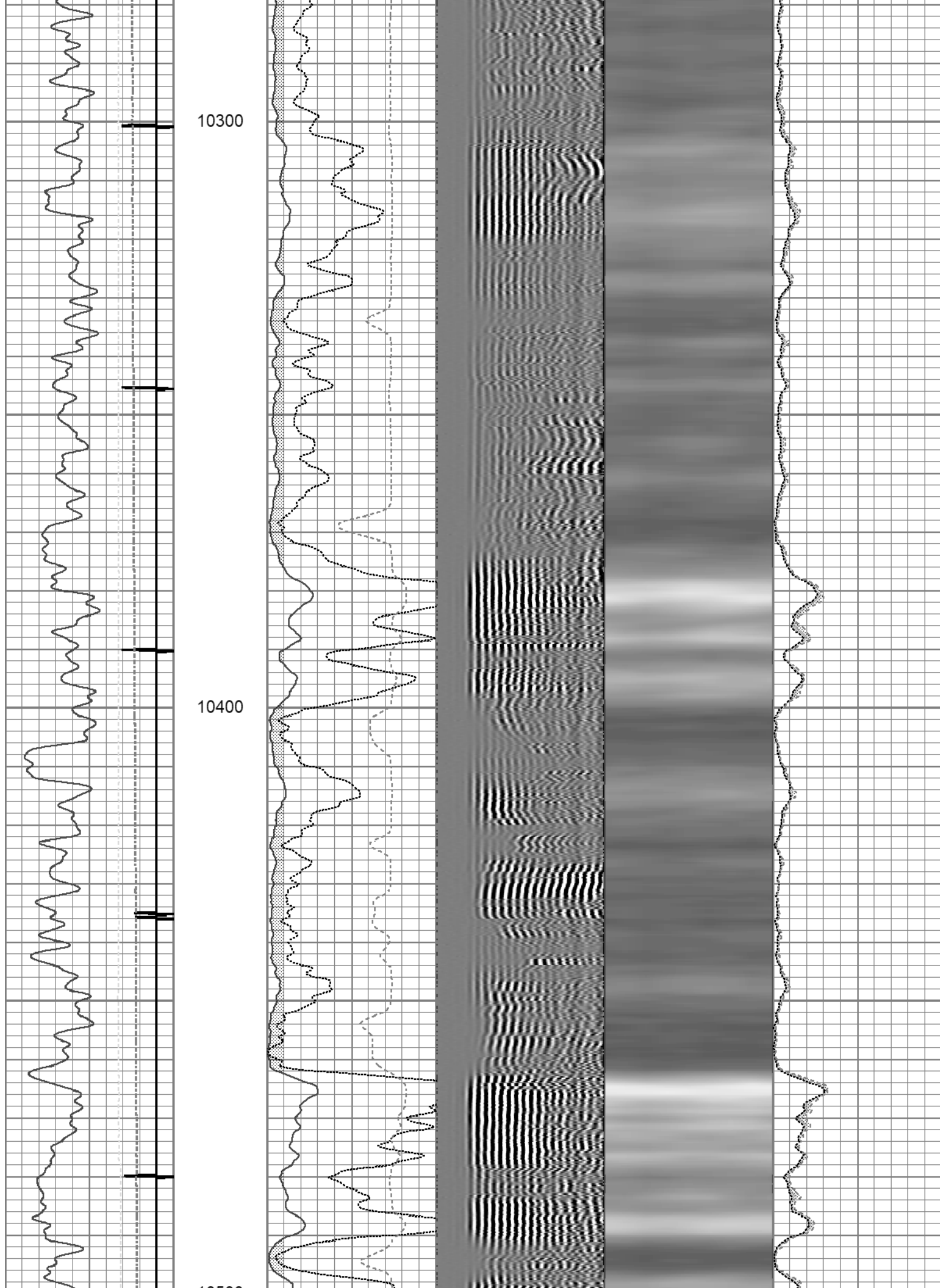
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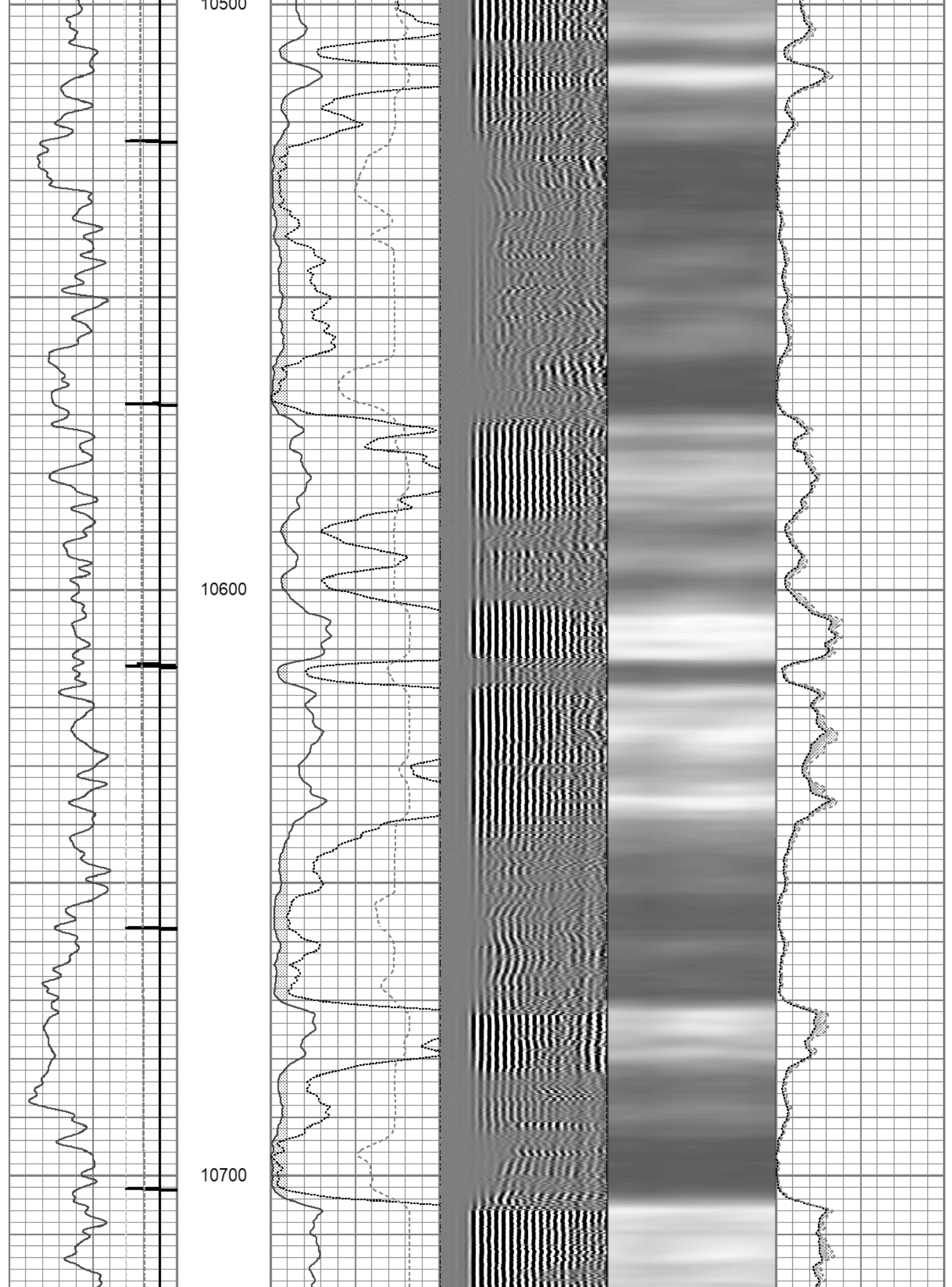


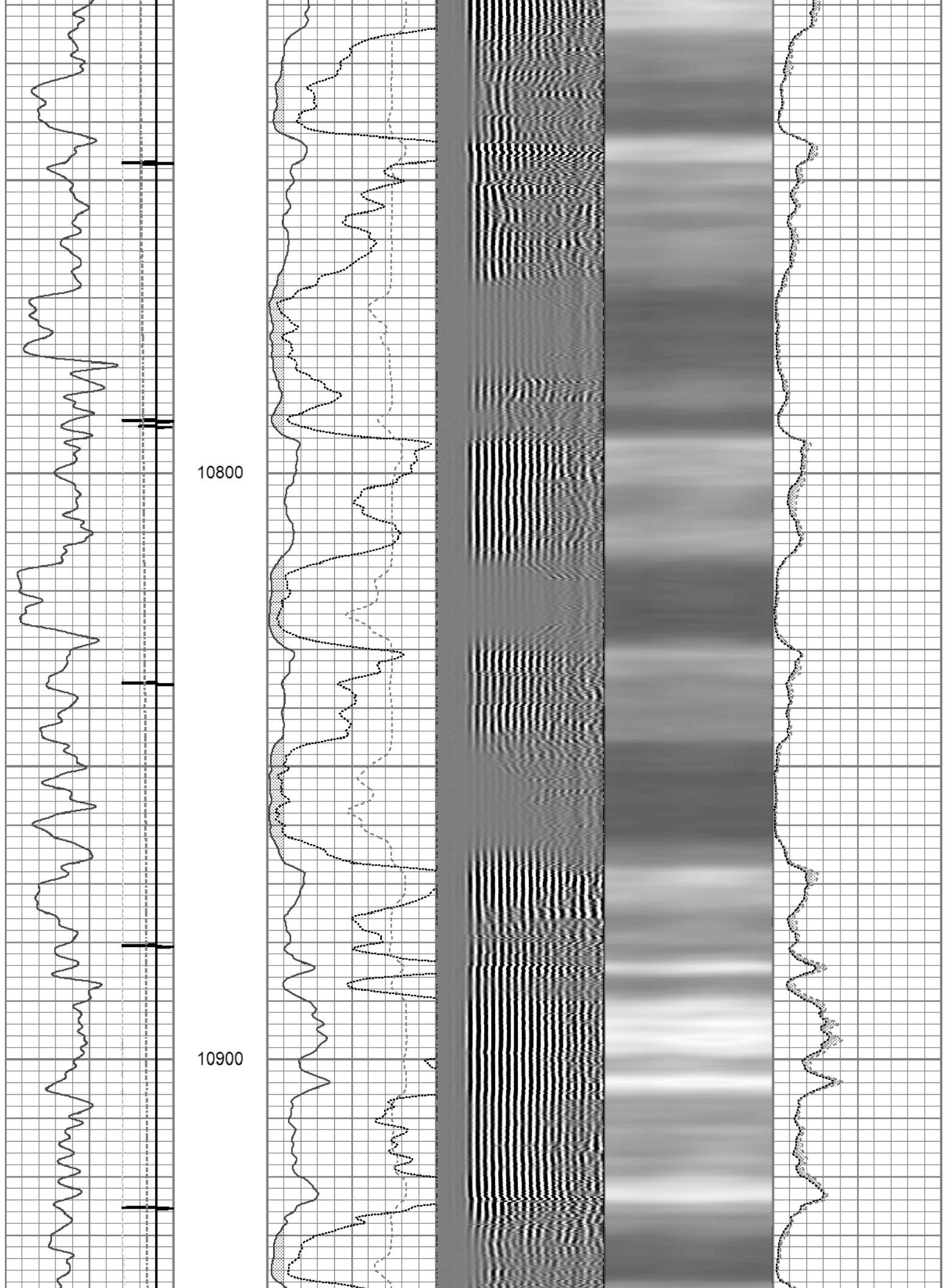
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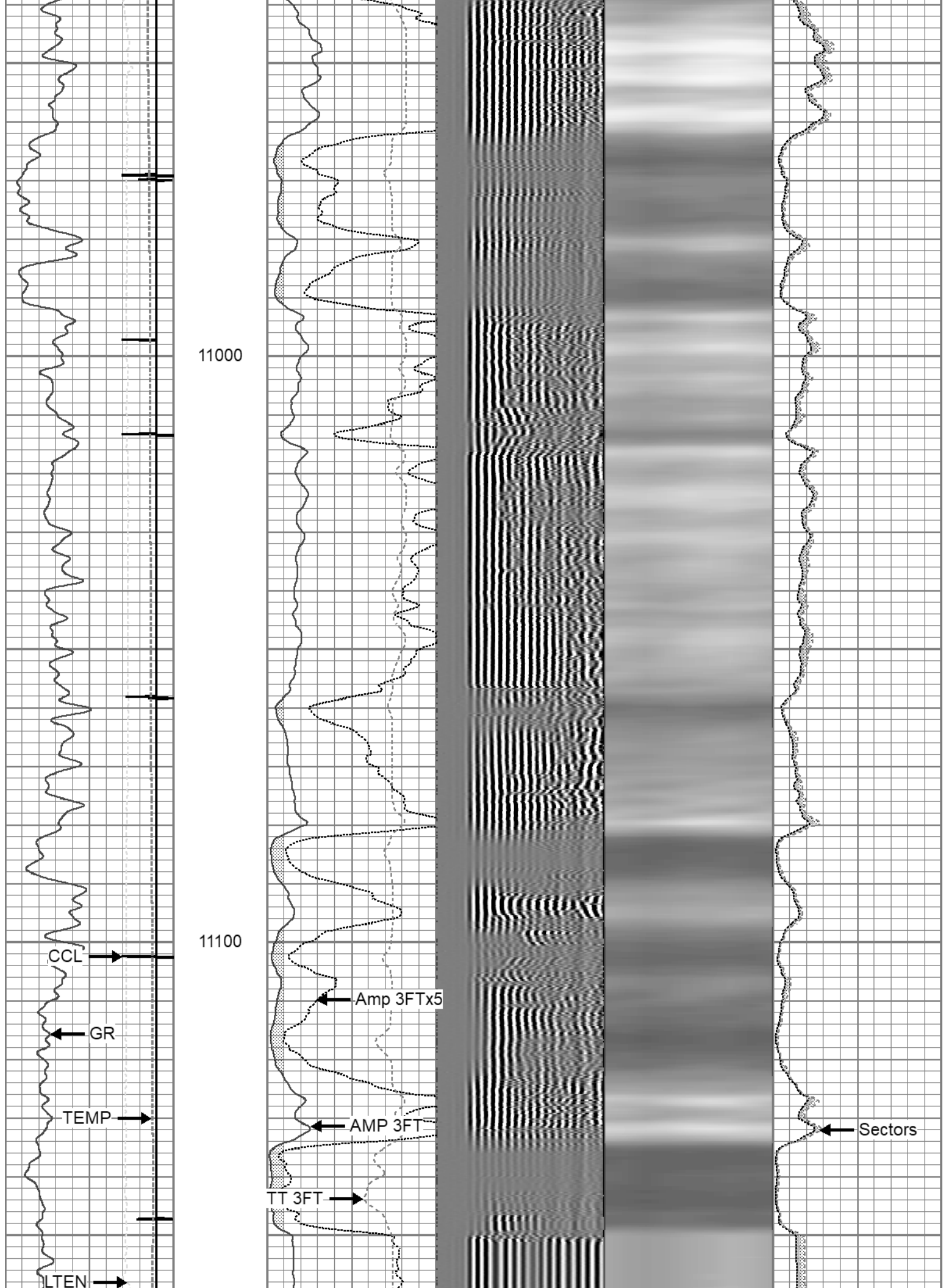
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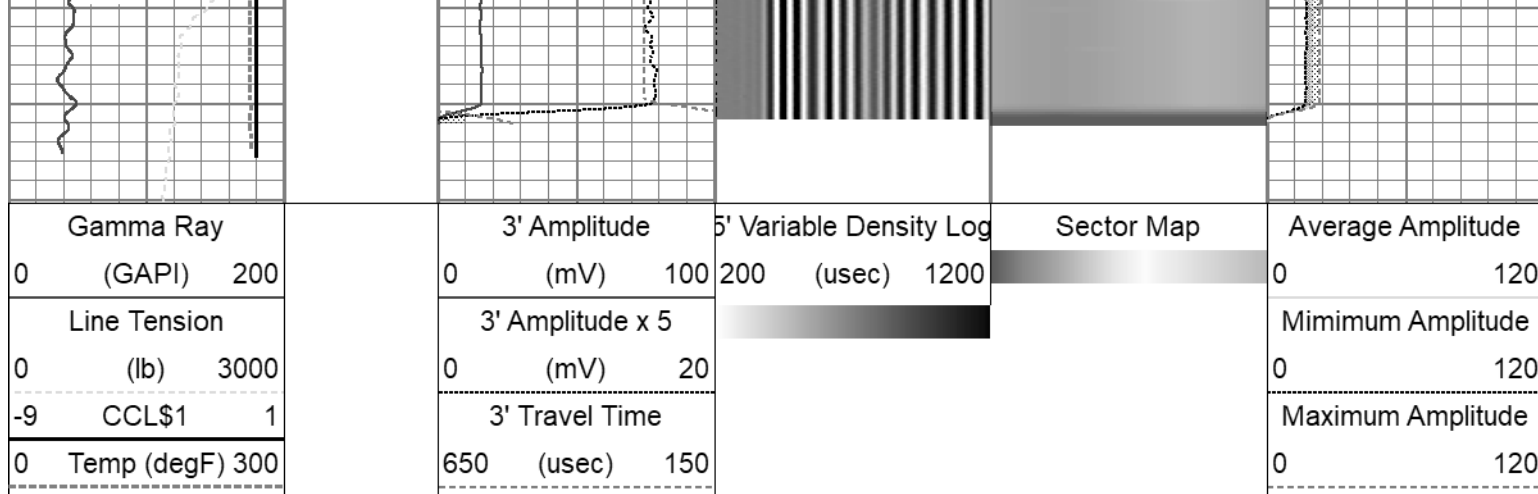






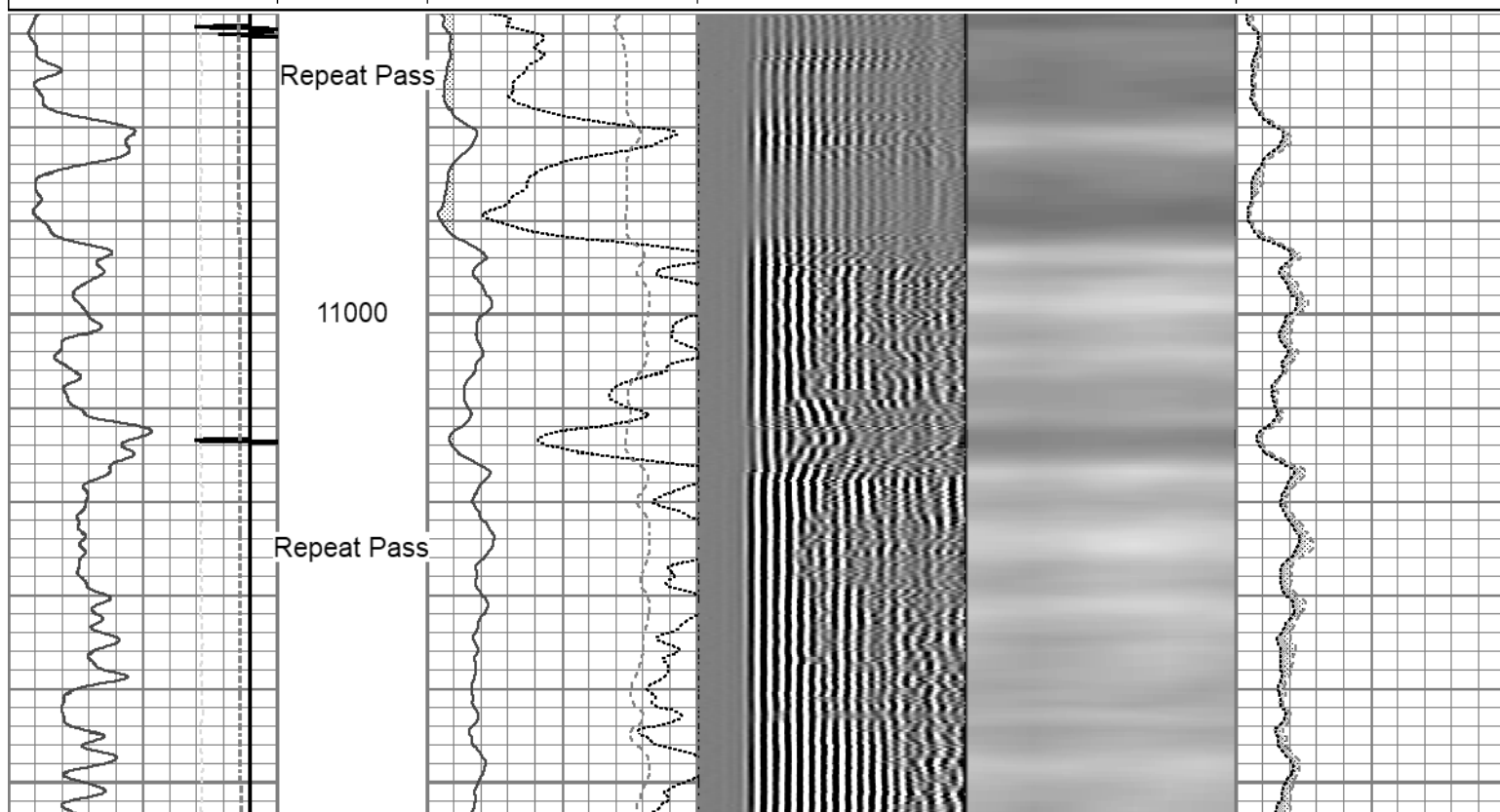
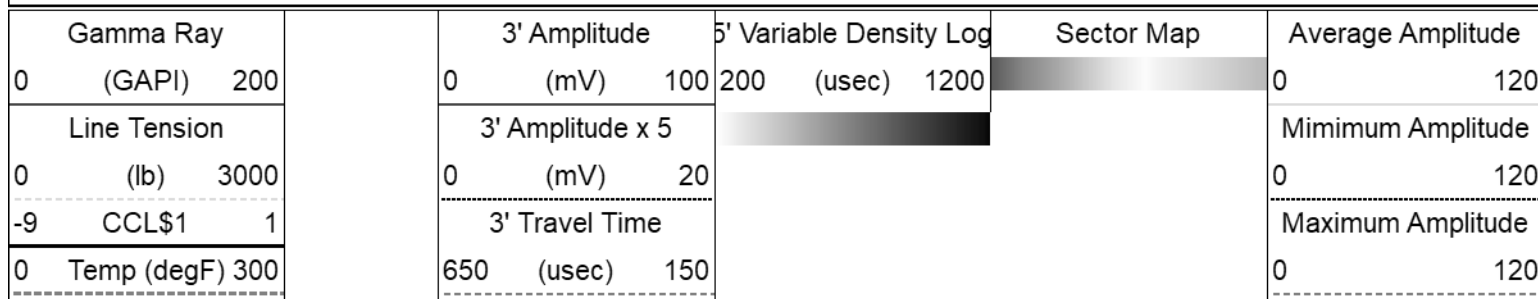


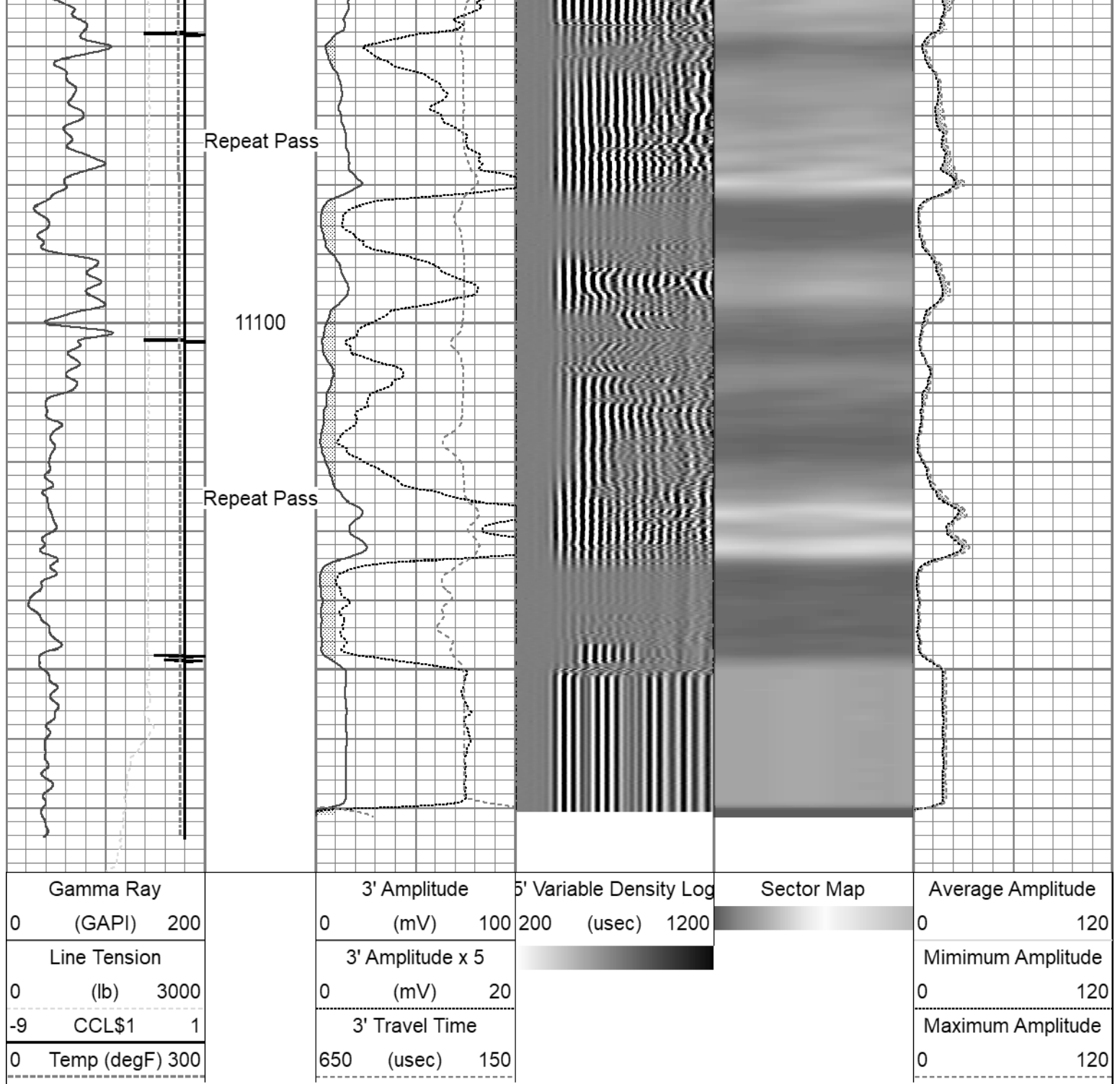




Repeat Pass 5" = 100'

Database File	tep_fed wmc 312-20_rcbl_12-15-2022.db
Dataset Pathname	repeat
Presentation Format	twgrcbl
Dataset Creation	Thu Dec 15 10:42:12 2022
Charted by	Depth in Feet scaled 1:240





Calibration Report			
Database File	tep_fed wmc 312-20_rcbl_12-15-2022.db		
Dataset Pathname	main		
Dataset Creation	Thu Dec 15 10:46:59 2022		
Gamma Ray Calibration Report			
Serial Number:	110255		
Tool Model:	GCTacc_6-Pin-Base		
Performed:	Thu Sep 22 15:12:49 2022		
Calibrator Value:	165.0	GAPI	
Background Reading:	72.3	cps	
Calibrator Reading:	300.9	cps	
Sensitivity:	0.7216	GAPI/cps	

Inclinometer Calibration Report					
Performed:	Thu Sep 22 15:14:31 2022				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-910.00	1566.00	-1.00	1.00	gee
Y Accelerometer	-989.00	1748.00	-1.00	1.00	gee
Z Accelerometer	1.02	-895.47	0.00	1.00	gee

Segmented Cement Bond Log Calibration Report					
Serial Number:	FW1311-19				
Tool Model:	Probe275acc				
Calibration Casing Diameter:	4.500	in			
Calibration Depth:	30.000	ft			

Master Calibration, performed Wed Dec 14 13:15:02 2022:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	0.732	0.000	81.196	144.976	-0.413
CAL	0.004	0.754				
5'	0.005	0.670	0.000	81.196	158.560	-0.579
SUM						
S1	0.005	0.758	0.000	100.000	172.680	-0.650
S2	0.005	0.757	0.000	100.000	172.810	-0.646
S3	0.005	0.755	0.000	100.000	173.170	-0.626
S4	0.005	0.739	0.000	100.000	177.230	-0.692
S5	0.004	0.726	0.000	100.000	180.110	-0.565
S6	0.004	0.726	0.000	100.000	180.104	-0.565
S7	0.004	0.731	0.000	100.000	178.920	-0.590
S8	0.005	0.736	0.000	100.000	177.790	-0.648

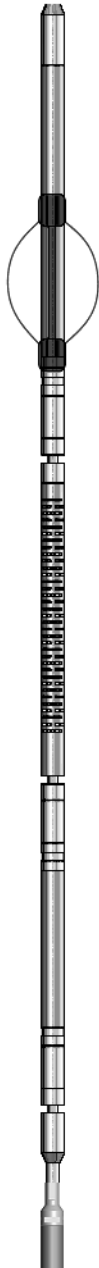
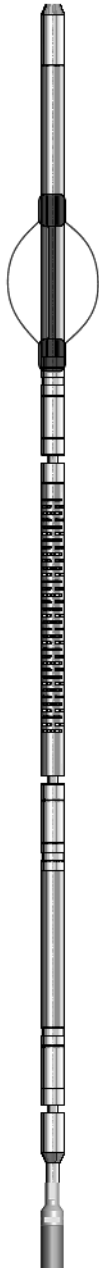
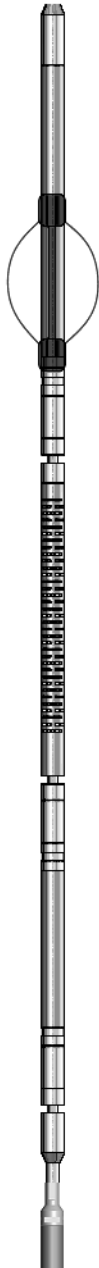
Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.004	0.754	1.000	0.000

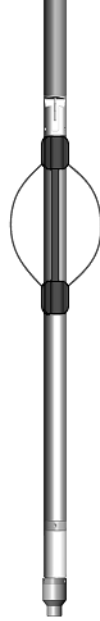





Air Zero Calibration, performed Wed Dec 14 10:52:19 2022:						
	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.004		0.000		-0.000	
5'	0.005		0.000		0.000	
SUM						
S1	0.005		0.000		0.000	
S2	0.004		0.000		0.000	


S2	0.004	0.000	0.000
S3	0.005	0.000	-0.000
S4	0.005	0.000	-0.000
S5	0.004	0.000	-0.000
S6	0.004	0.000	0.000
S7	0.004	0.000	-0.000
S8	0.005	0.000	-0.000

### Inclinometer Calibration Report

Performed:	Thu Jul 28 15:55:38 2022				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-914.00	901.00	-1.00	1.00	gee
Y Accelerometer	-903.00	898.00	-1.00	1.00	gee
Z Accelerometer	3.47	893.02	0.00	1.00	gee

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GCT_FMWR	14.03		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	14.03					
RBT_Status	14.03					
Error_Ct	14.03					
WVFS8	9.53		RBT8acc-Probe275acc (FW1311-19) 2.75" Radial Corrosion with accelerometer	8.75	2.75	110.00
WVFS7	9.53					
WVFS6	9.53					
WVFS5	9.53					
WVFS4	9.53					
WVFS3	9.53					
WVFS2	9.53					
WVFS1	9.53					
WVF3FT	9.53					
WVF5FT	8.53					
GCT_HV	5.67					
RBT_ACCZ	5.28					
RBT_ACCY	5.28					
RBT_ACCX	5.28					

WVFSYNC	5.28			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	
WVFCAL	5.28							
CCL\$2	4.68							
CCL\$1	4.68							
GCT_TEMP	3.79							
GR	2.99							
GCT_IntTemp	1.95			GCacc-GCTacc_6-Pin-Base (110255) Probe 2.75" Gamma Ray - CCL w/ Temp and 6 Pin Bottom	5.00	2.75		
GCT_ACCZ	0.28							
GCT_ACCY	0.28							
GCT_ACCX	0.28							
				Probe ADPT-6P-GO Probe 2-3/4" 6-Pin Top to GO Bottom Adaptor Sub	0.28	2.75	2.00	
Dataset:		tep_fed wmc 312-20_rcbl_12-15-2022.db: field/well/run1/main						
Total length:		14.03 ft						
Total weight:		132.00 lb						
O.D.:		3.25 in						

Company	TEP Rocky Mountain LLC				
Well	Federal WMC 312-20				
Field	Rulison				
County	Garfield	State	Colorado		
		Radial Cement Bond			
		Gamma Ray			
		Casing Collar Log			