



Cement Bond Log, C.C.L.
Gamma-Ray & V.D.L.

Pioneer Energy Services

Company	Anadarko Petroleum Corporation
Well	Crowder 38N-19HZ
Field	Wattenberg
County	Weld
State	Colorado

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Well	Crowder 38N-19HZ
Field	Wattenberg
County	Weld
	State
	Colorado

Location: Surface Location 554' FNL & 853' FEL SEC 18 TWP 2N RGE 65W	API #: 1512336/200000	Other Services
	None	Elevation
Permanent Datum Log Measured From Drilling Measured From	G.L. KB KB	Elevation 4952' KB, 4977' D.F. 4976' G.L. 4952'

Date	5-1-13
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Depth Driller	165553
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Depth Logger	6500
Bottom / Seafloor Interval	6568

Top Log Interval	surface
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Type Fluid	water
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May Recorded Temp	May Recorded Viscosity
11a	11a

Estimated Cement Top	106
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Time Logger on Bottom am

Equilibrium number	El Mora
1	

Recorded By	Nathan Biv
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Borehole Record

1	2	3	4
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[illegible]

Surface String		
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Production String	7"	
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Comments

S.O. # 2-2039110

E

N O O X S

W

WCR 39 & WCR 22 WEST 2 SOUTH INTO

THANK YOU FOR USING PIONEER ENERGY SERVICES

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
						

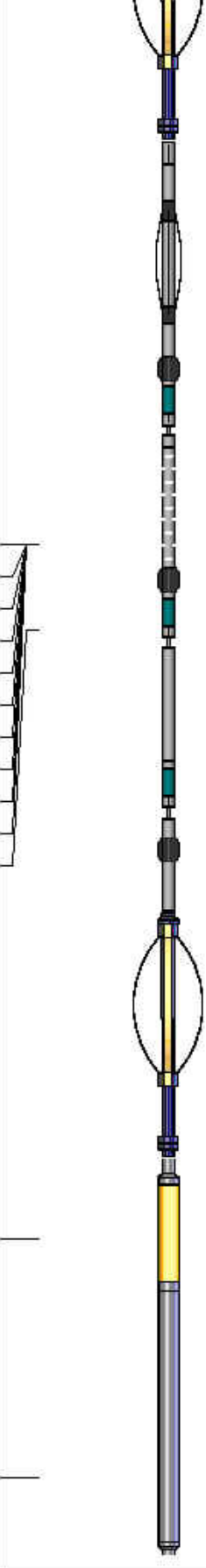
Tool Joint	Length (ft)	Weight (lb)	O.D. (in)	Notes
PTS275	2.83	2.75		
RBT-Probe (4.5040904) Prototype Probe Radial Bond Tool with Digital Telemetry	8.88	2.75	90.00	
PTS275	2.83	2.75		
CCL	3.63			
GR-Probe275 (030606)	4.54	2.75	57.00	
GR	0.89			
WVF3FT	11.63			
WVFCAL	11.63			
WVFS1	11.63			
WVFS2	11.63			
WVFS3	11.63			
WVFS4	11.63			
WVFS5	11.63			
WVFS6	11.63			
WVFS7	11.63			
WVFS8	11.63			
WVF5FT	10.63			

Dataset: 05123367200000_crowder_38_n_19hz_cbl.db: field/well/run1/pass8

Total Length: 19.08 ft

Total Weight: 147.00 lb

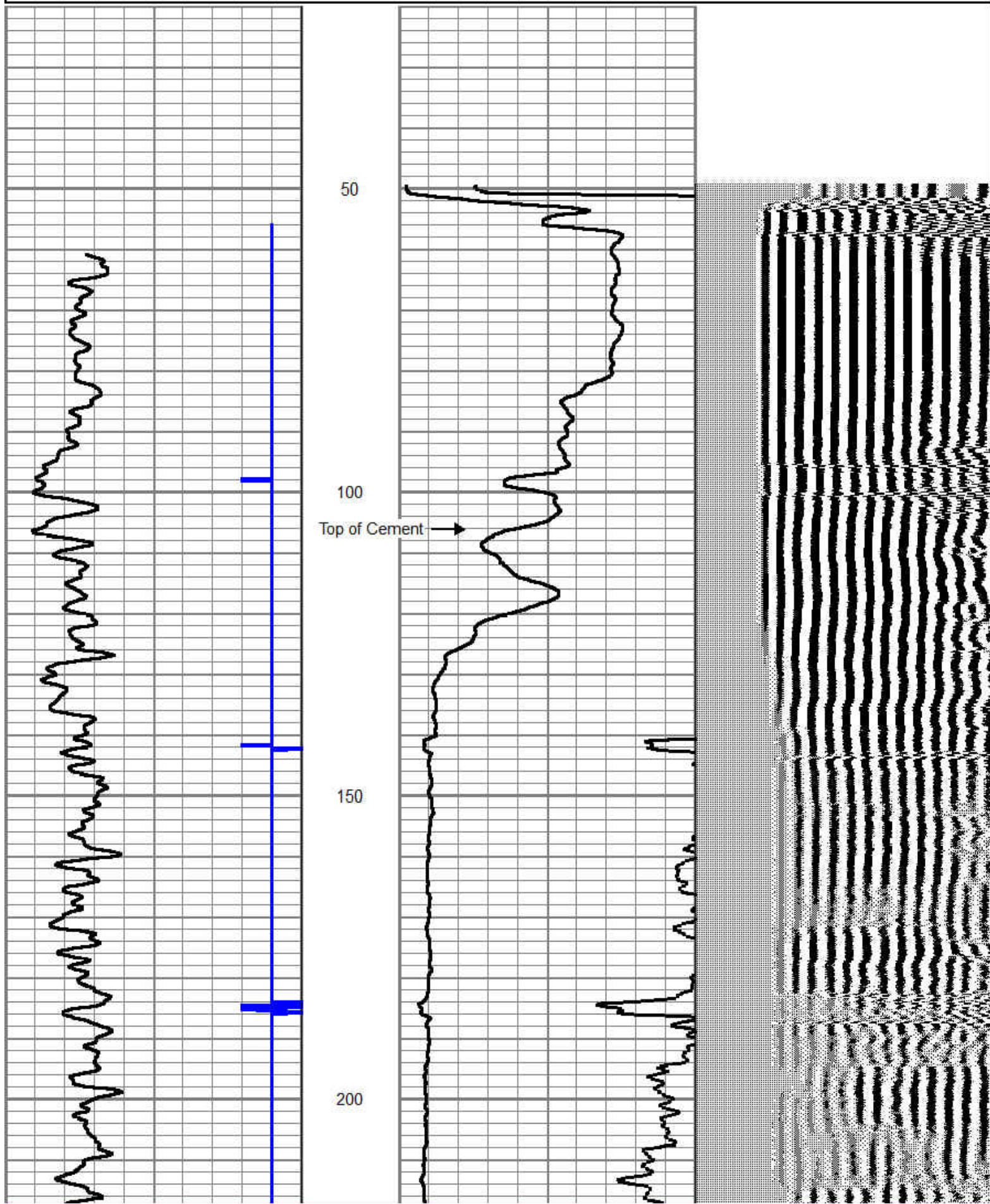
O.D.: 2.75 in

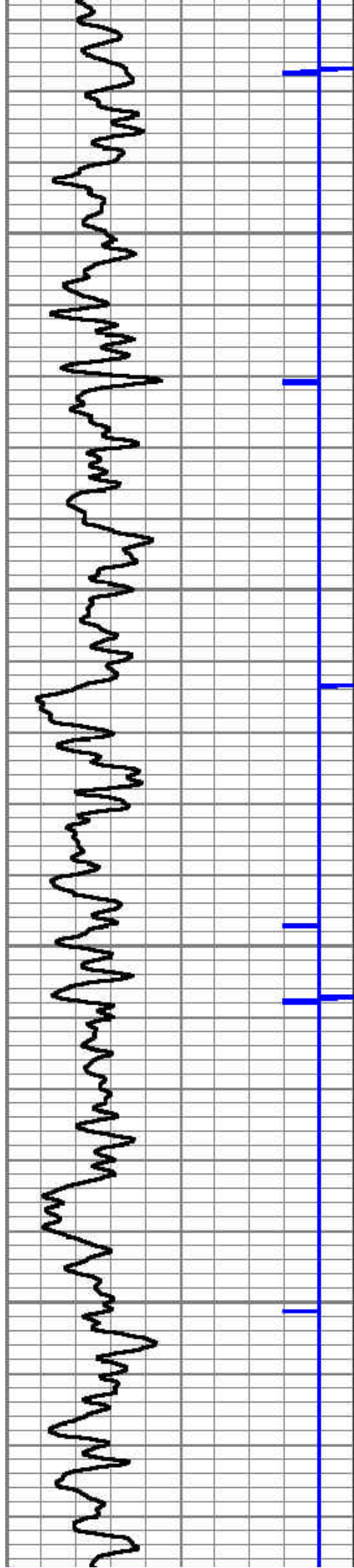


9	Collar Locator	-1
0	Gamma Ray (GAPI)	200

0	AMP AMPLITUDE (mV)	10
0	AMPLITUDE (mV)	100

200 VDL 1200



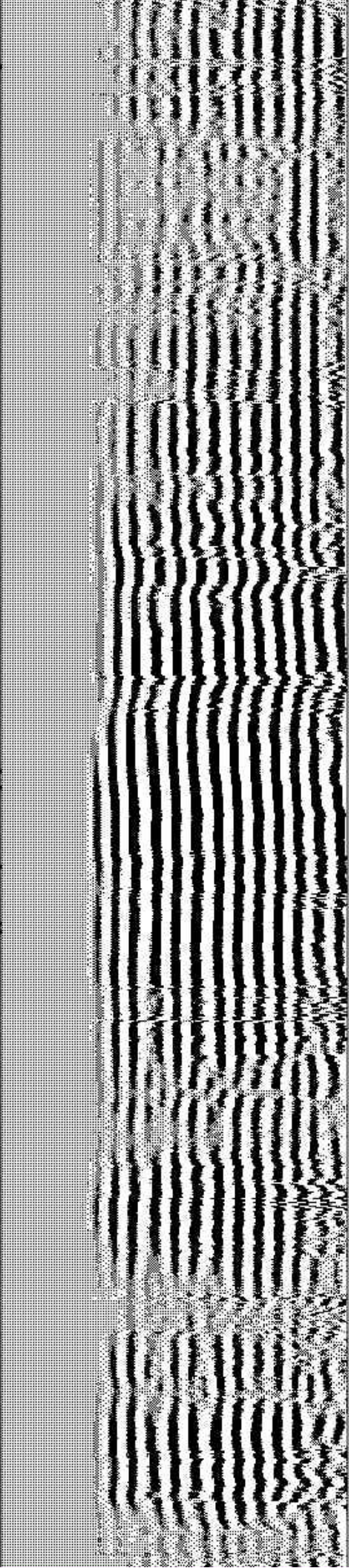
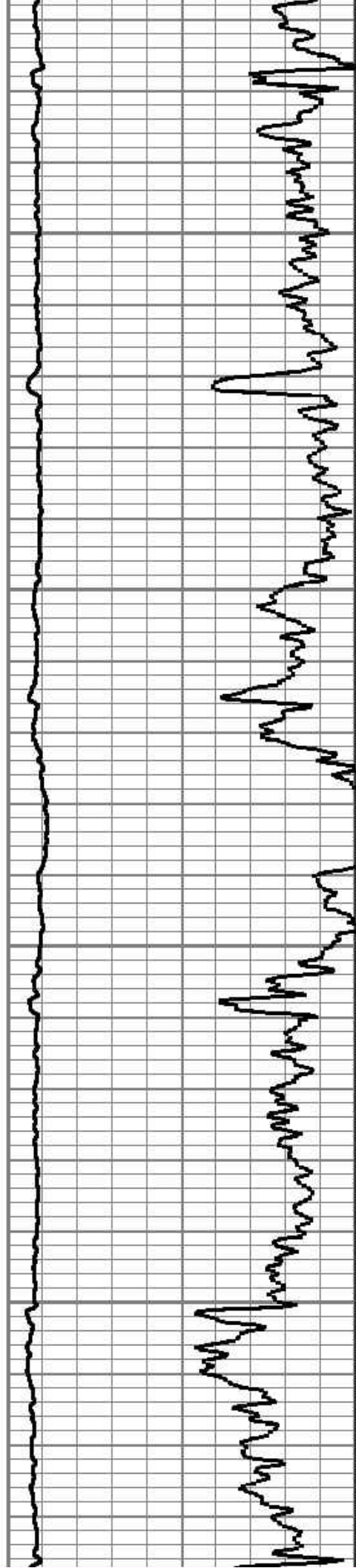


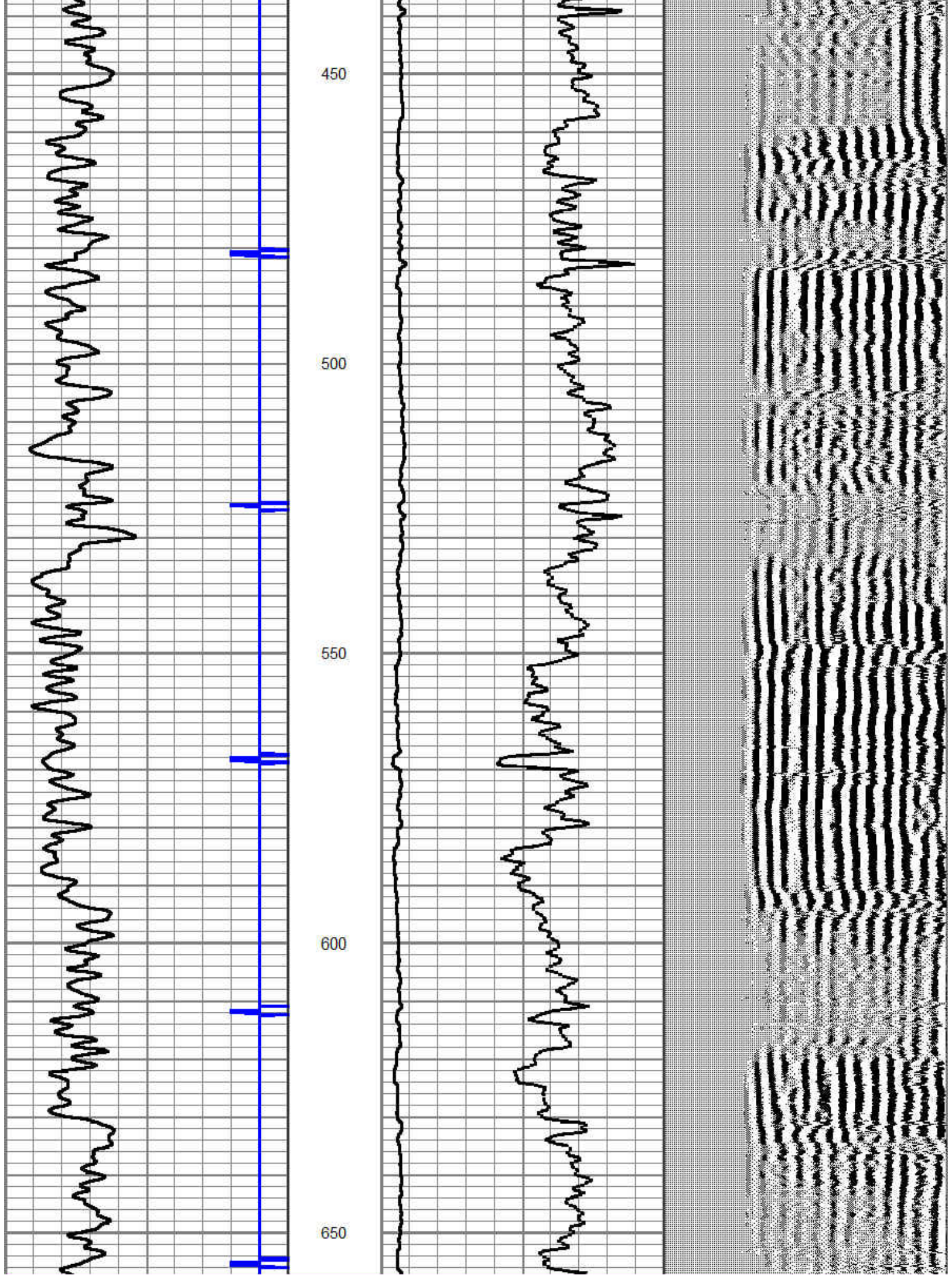
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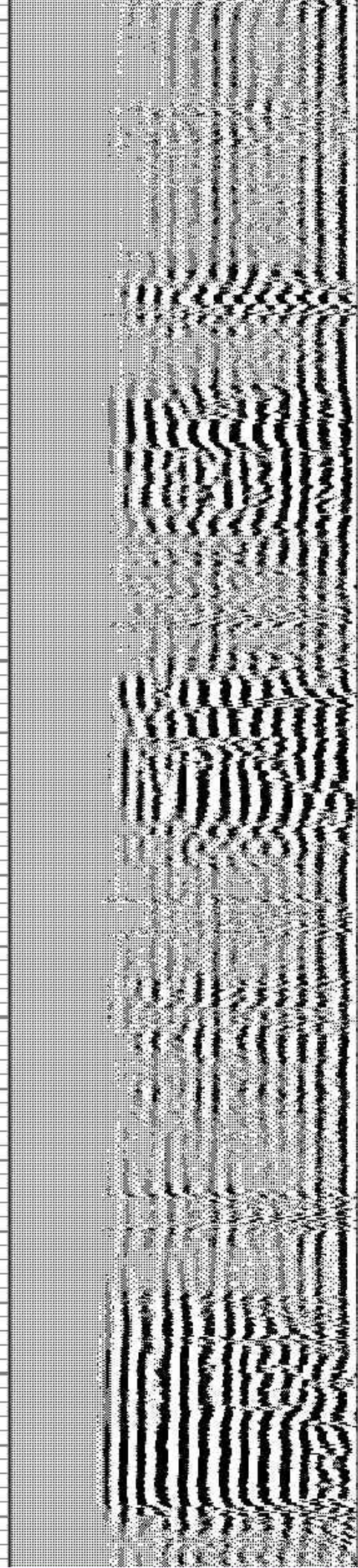
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350

400







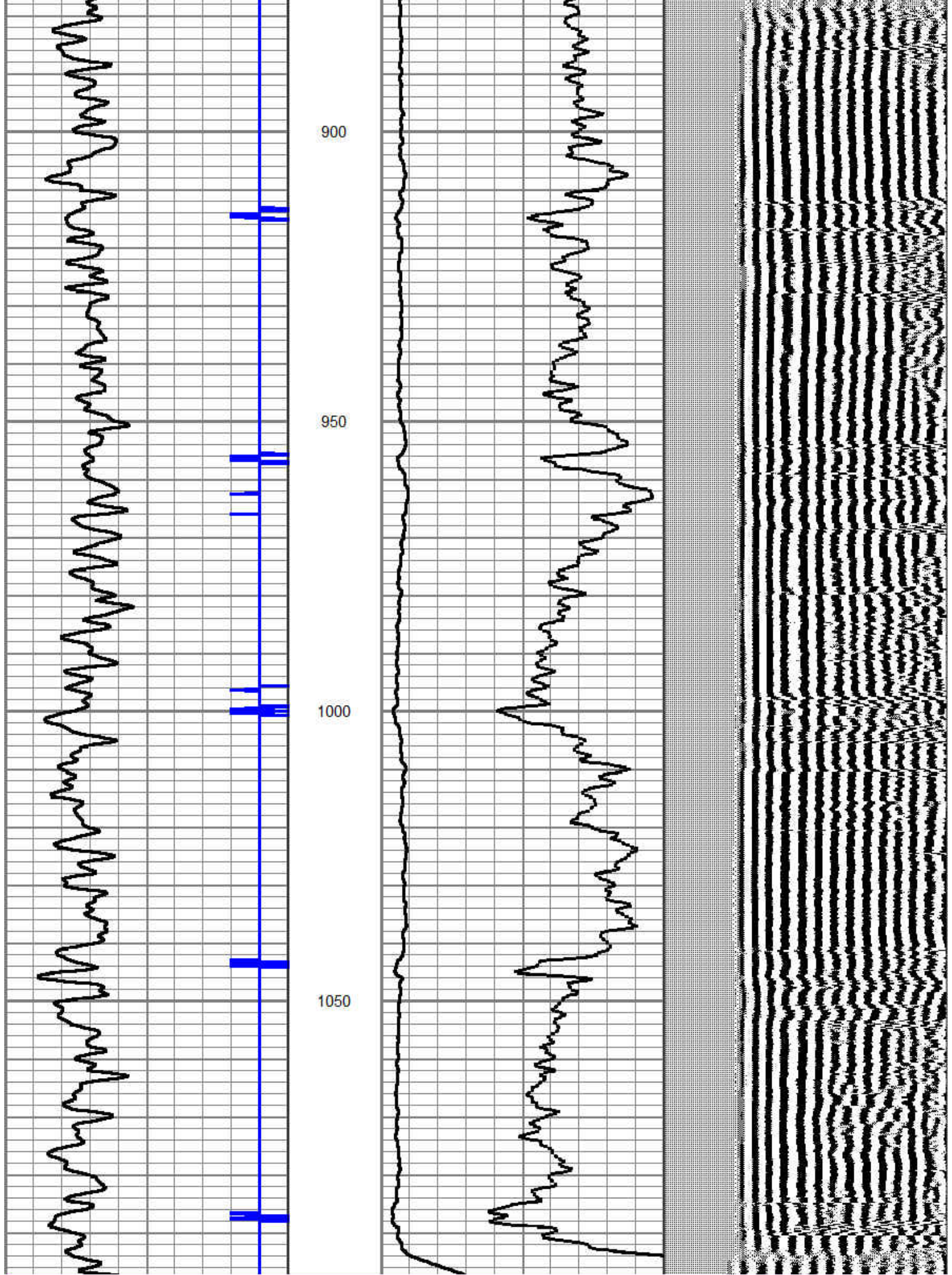
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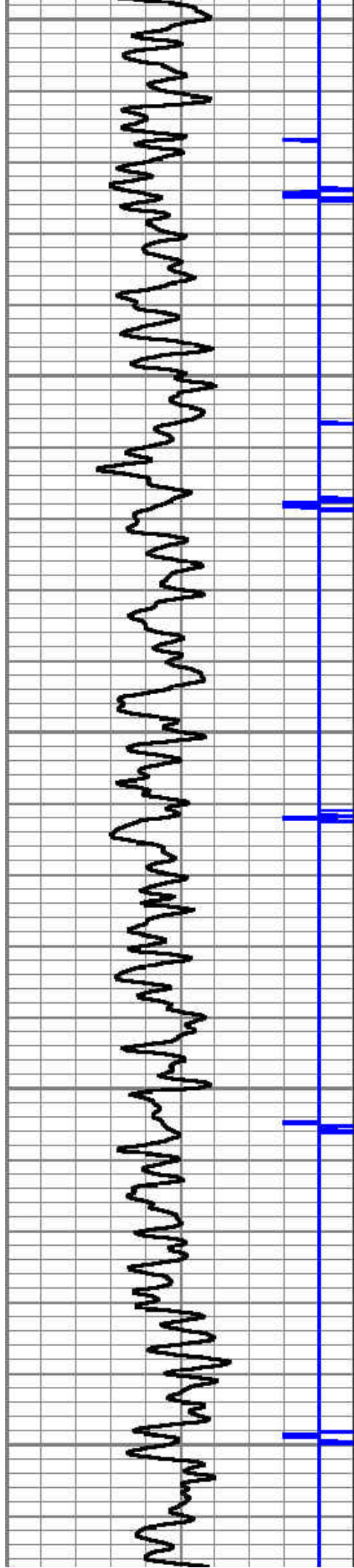
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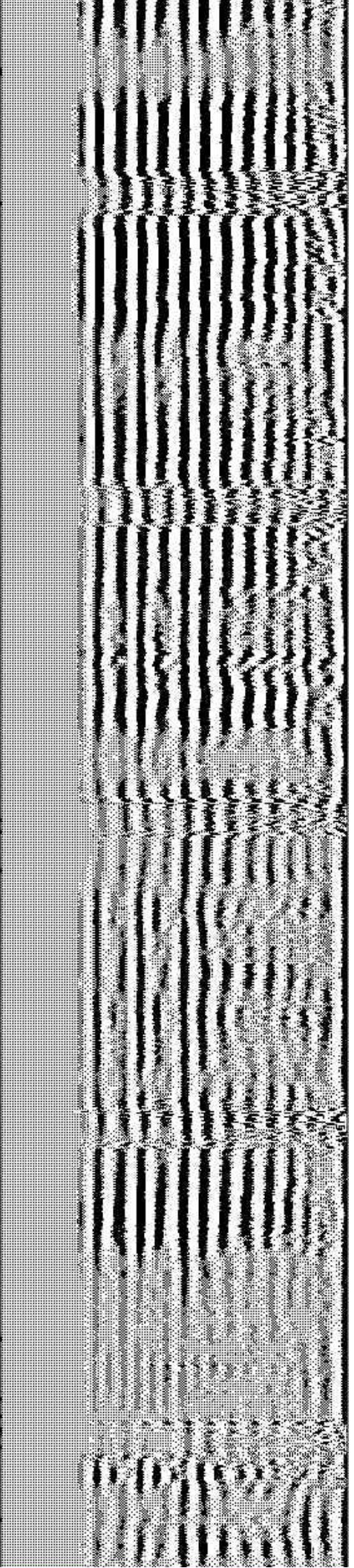
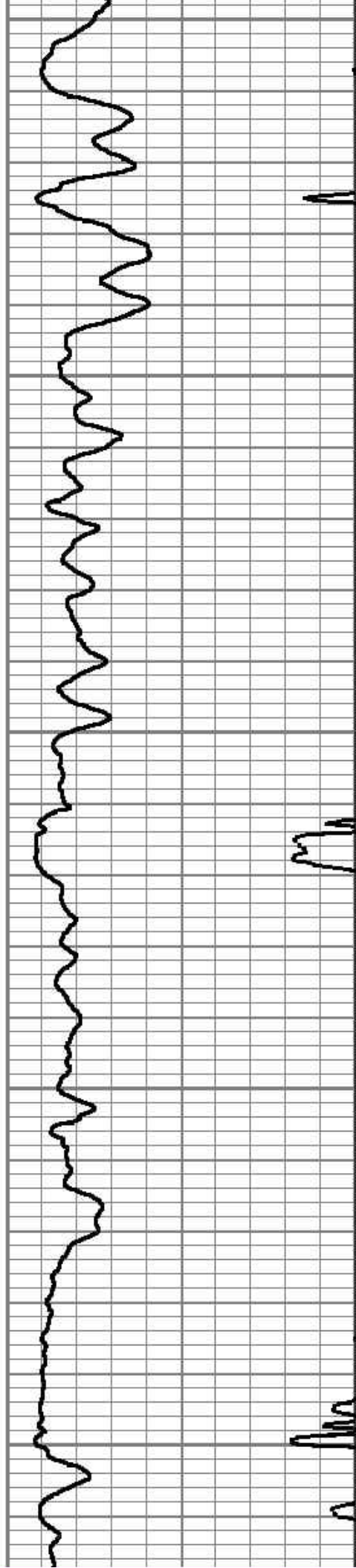
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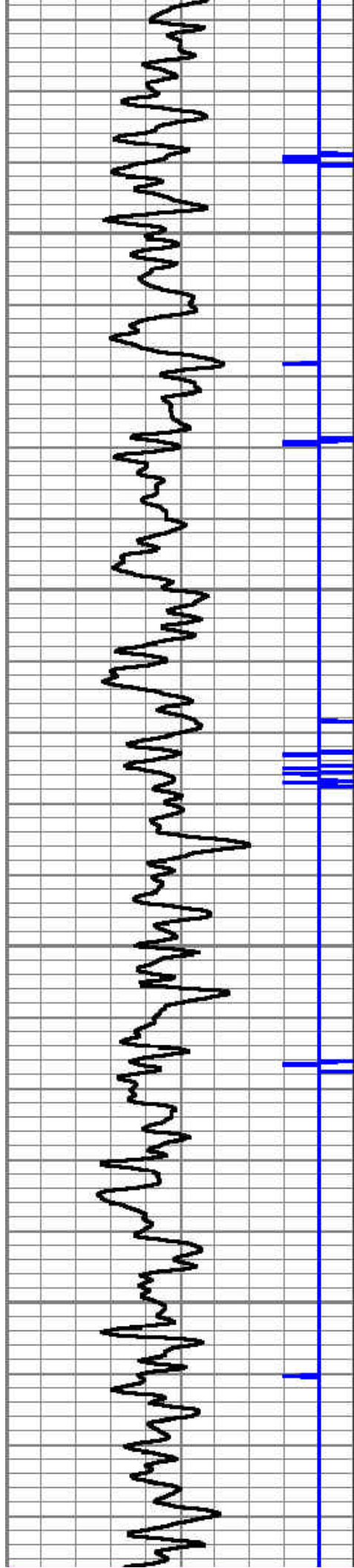
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1200

1250

1300



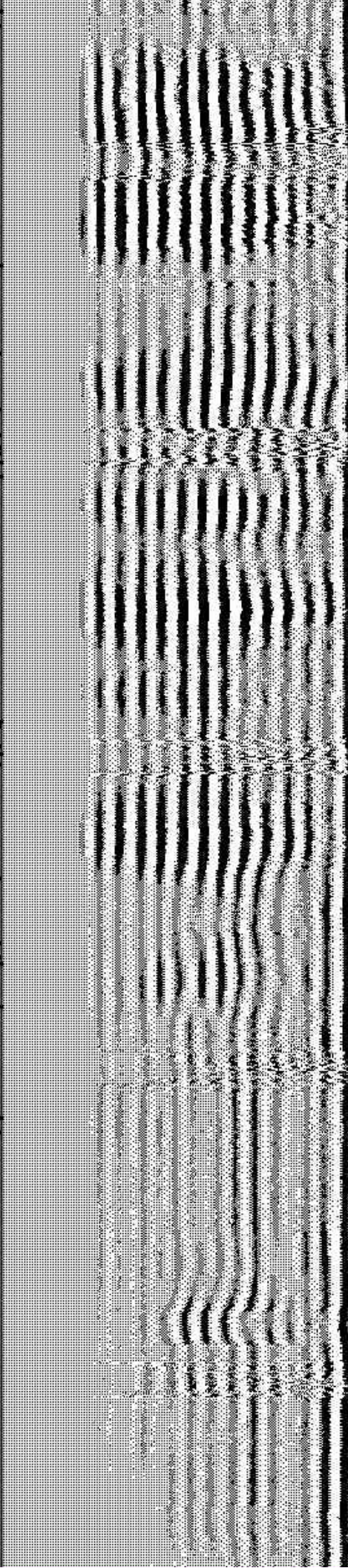
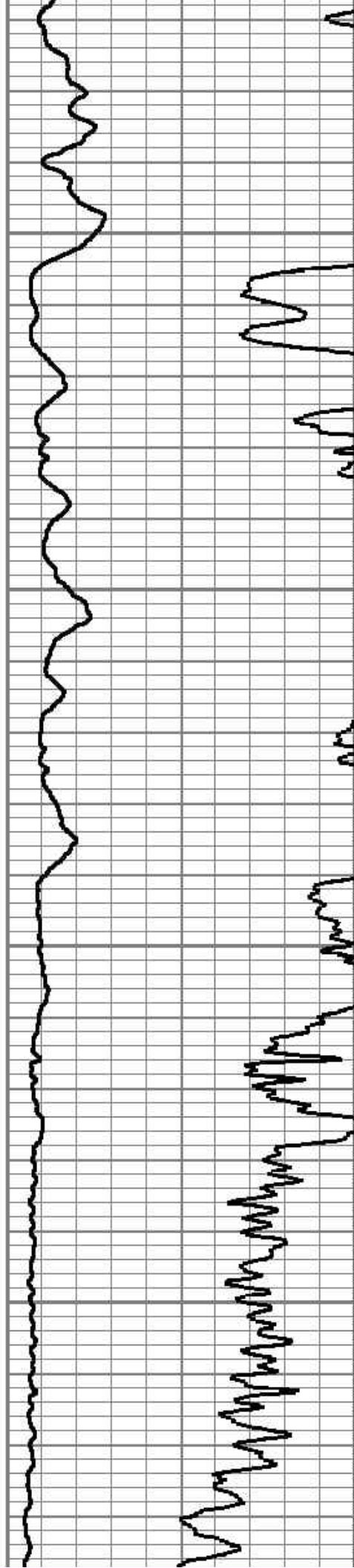


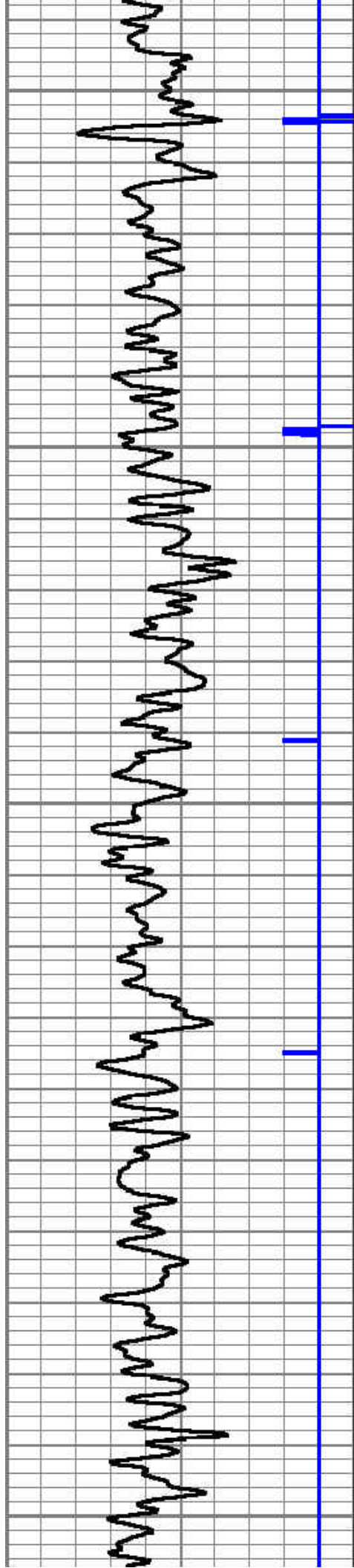
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1400

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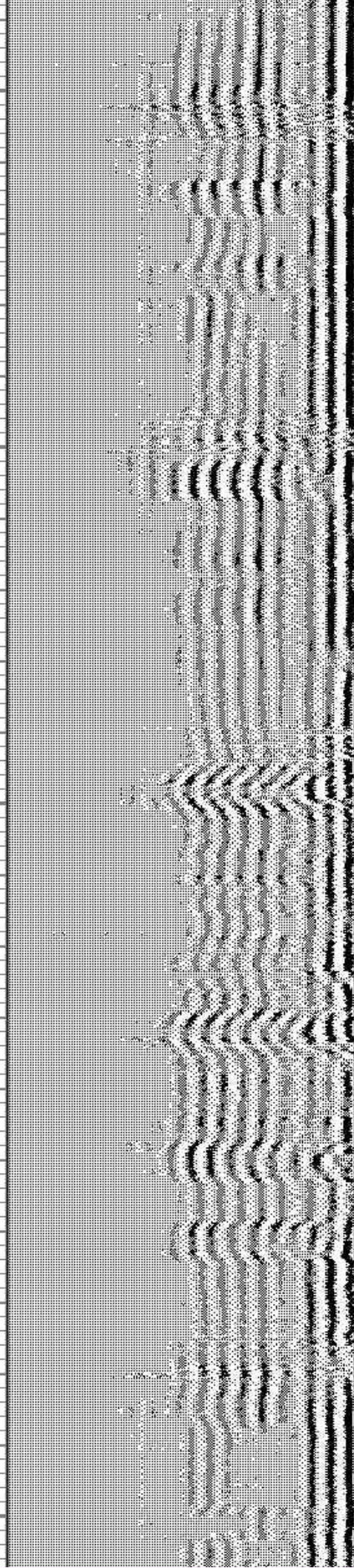
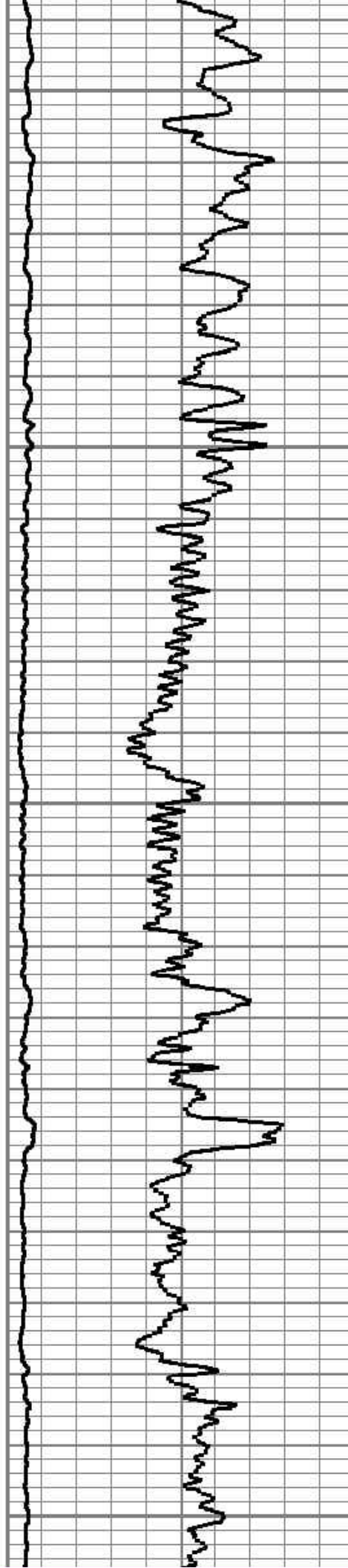
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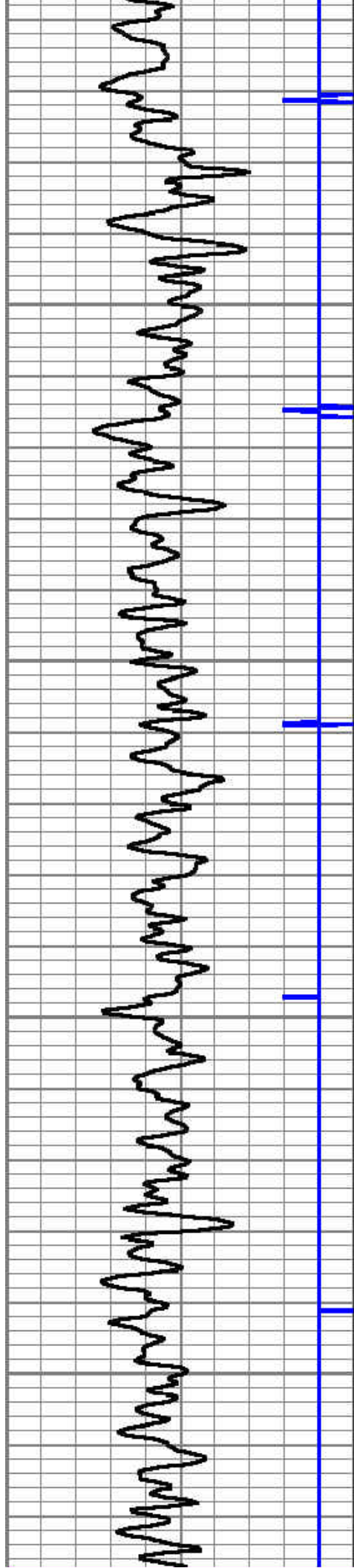
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1650

1700

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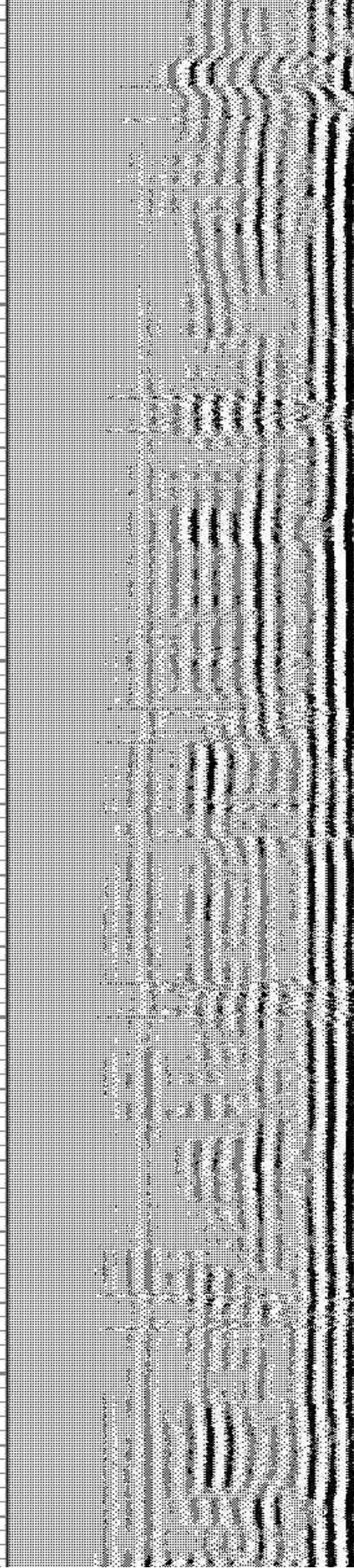
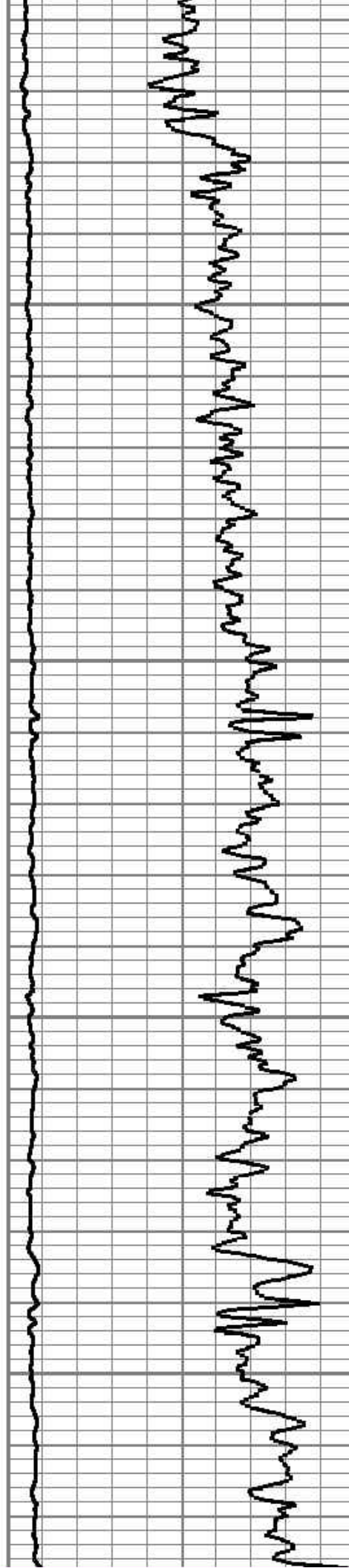


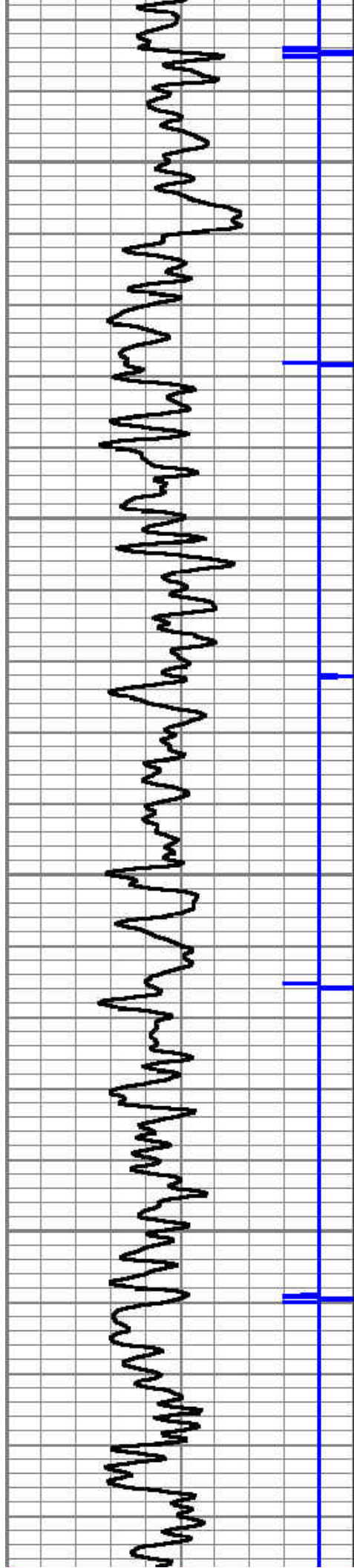
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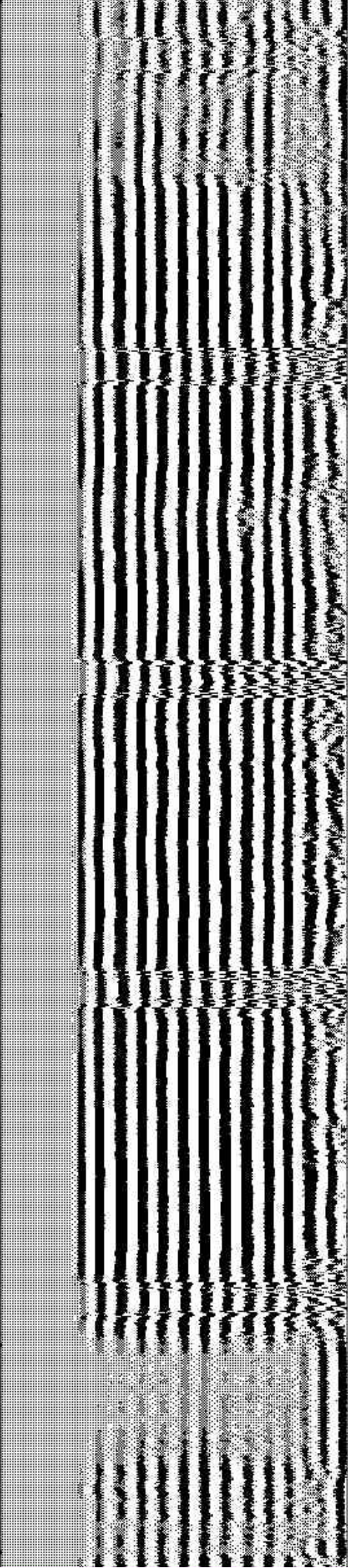
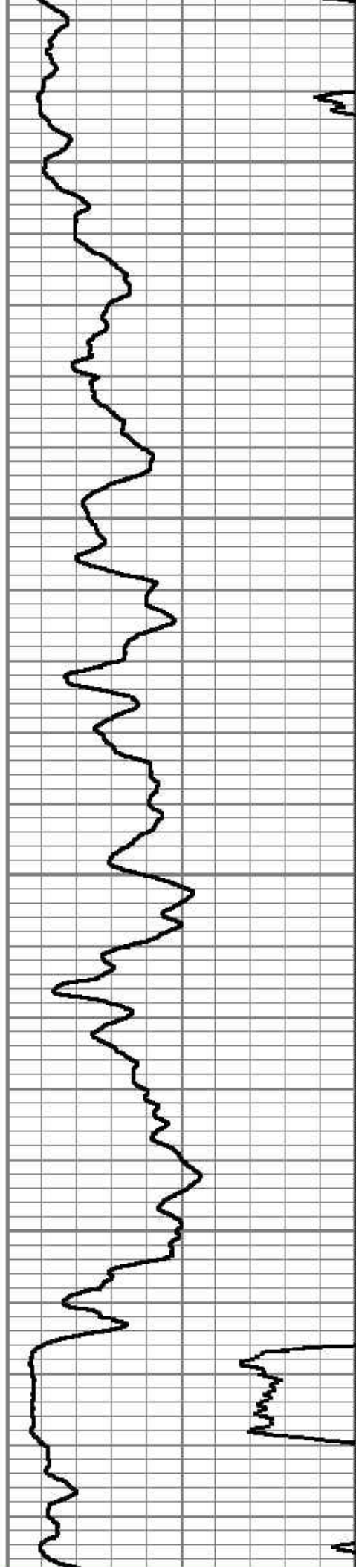


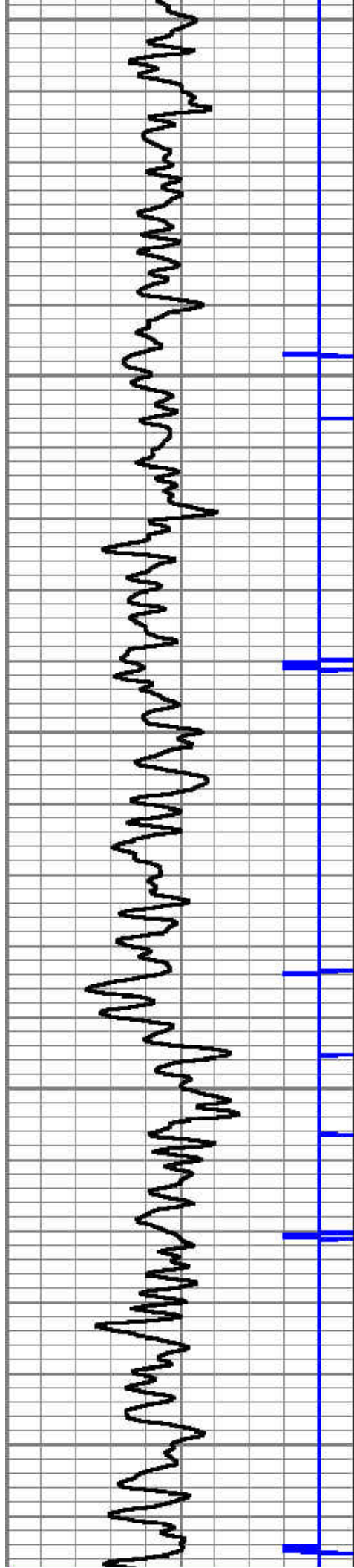
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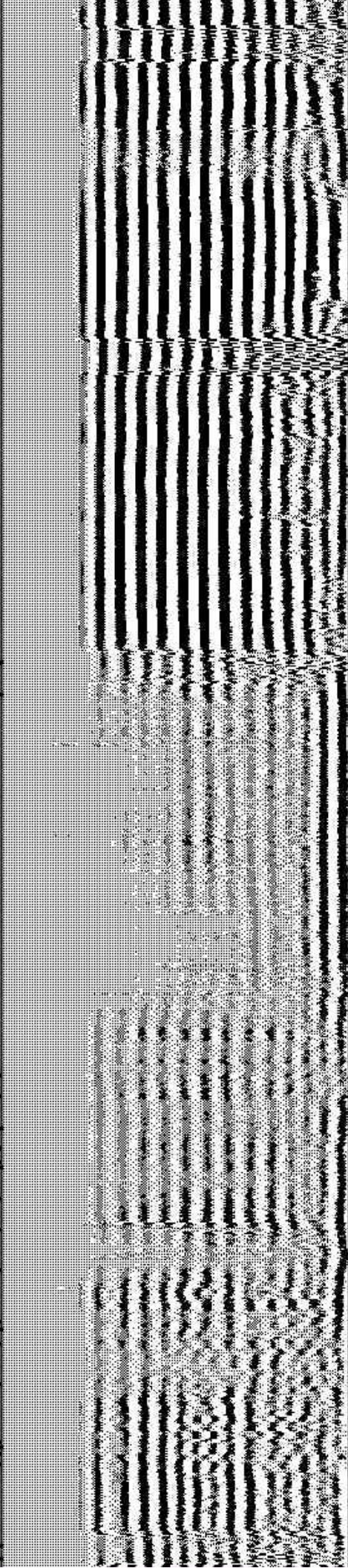
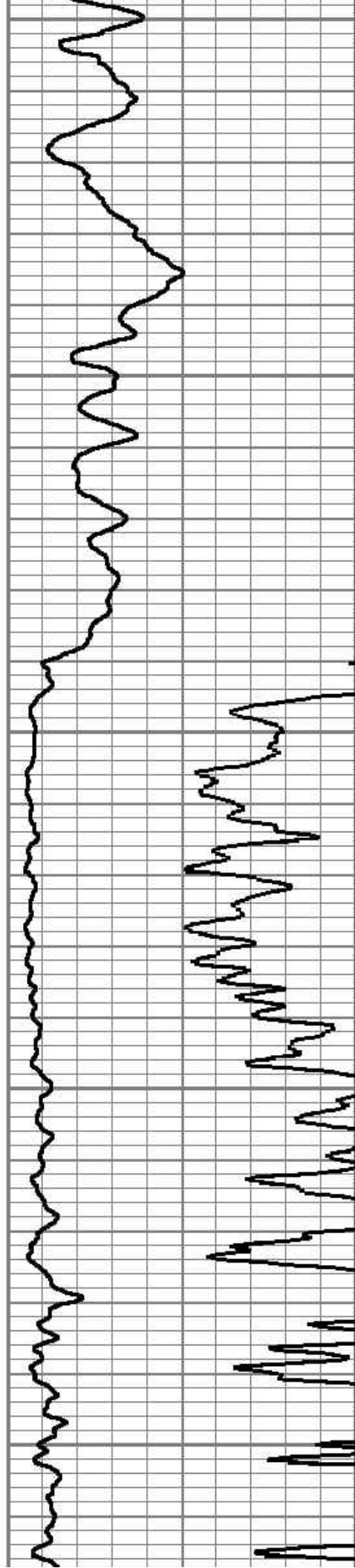
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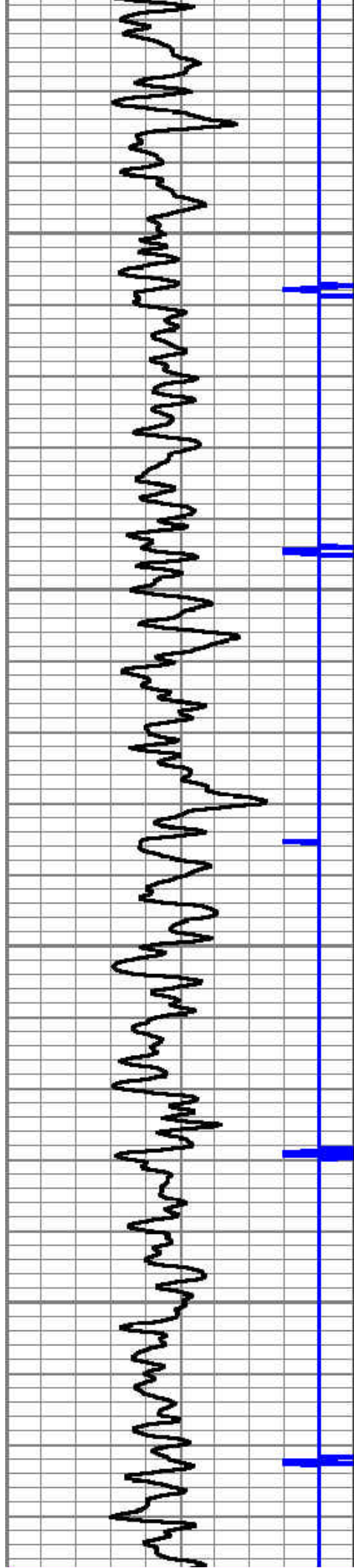
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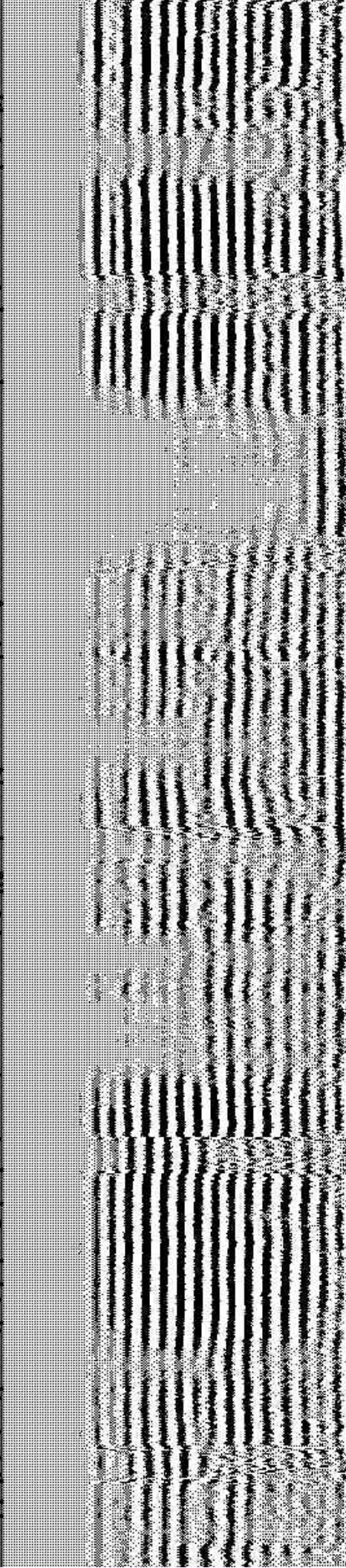
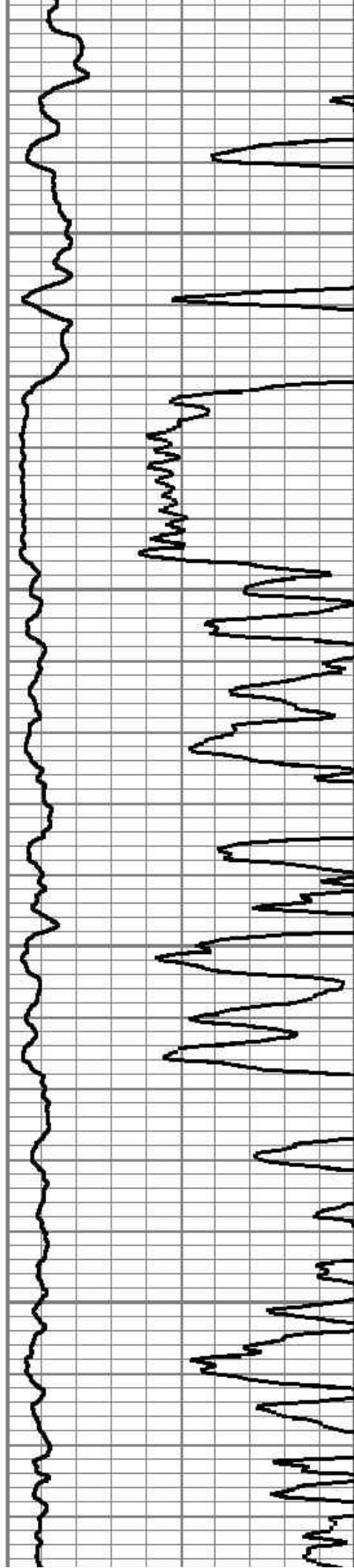


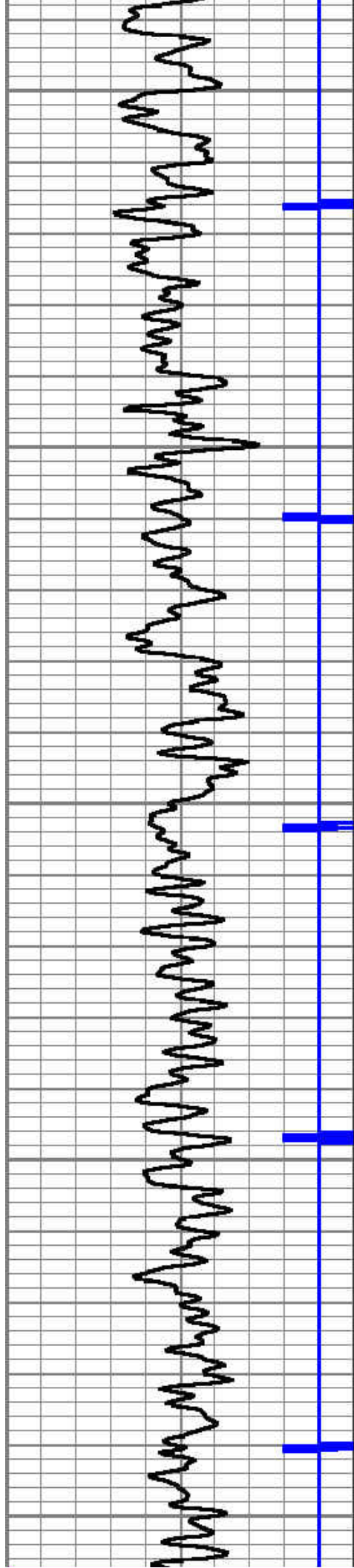
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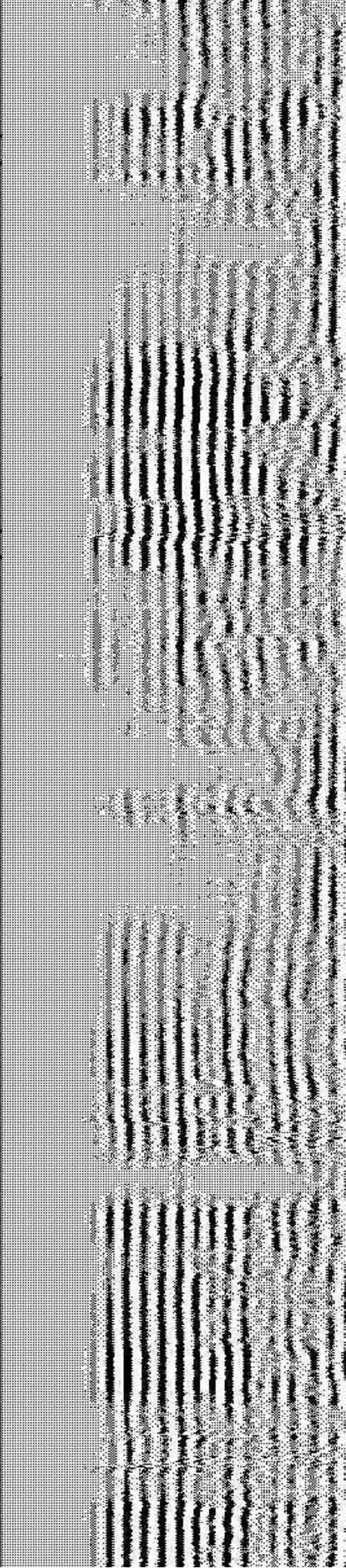
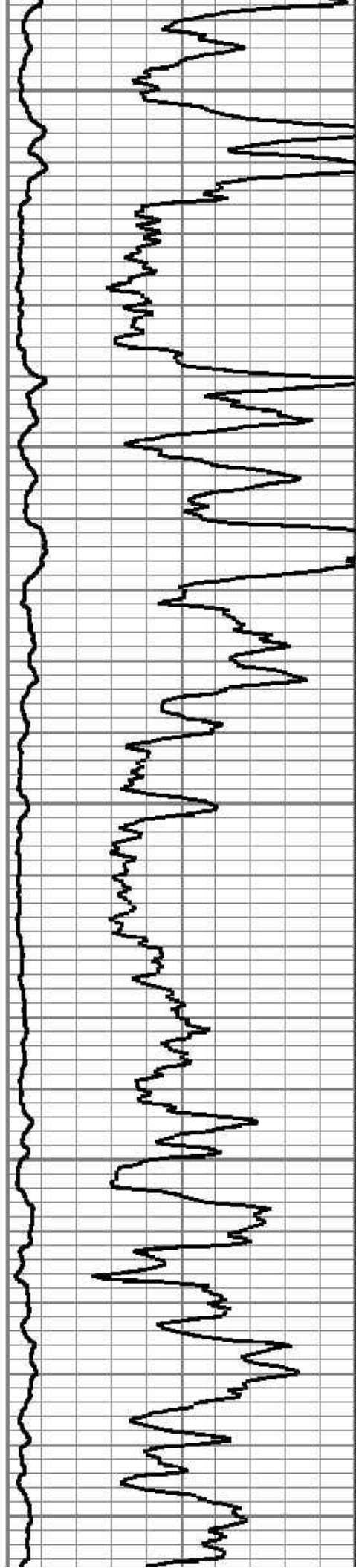
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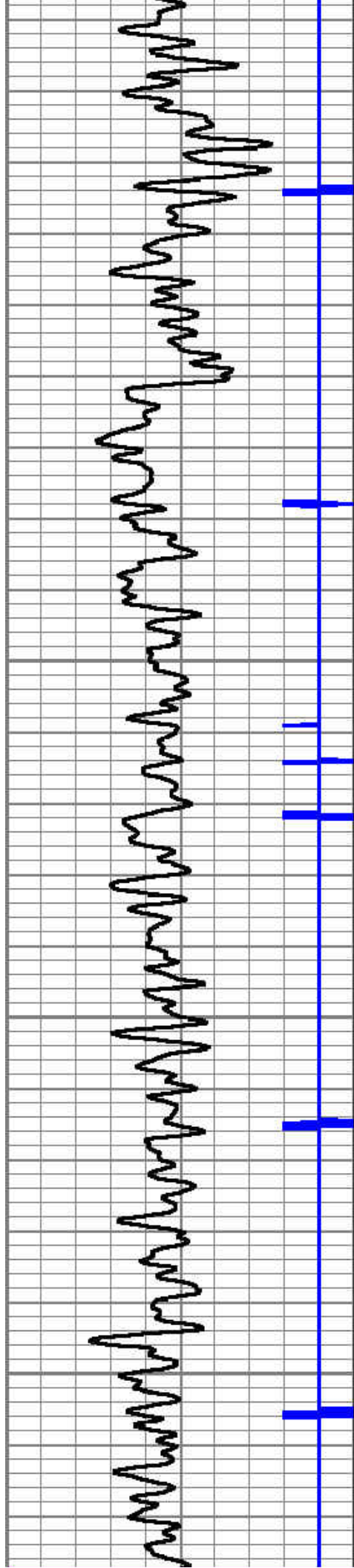
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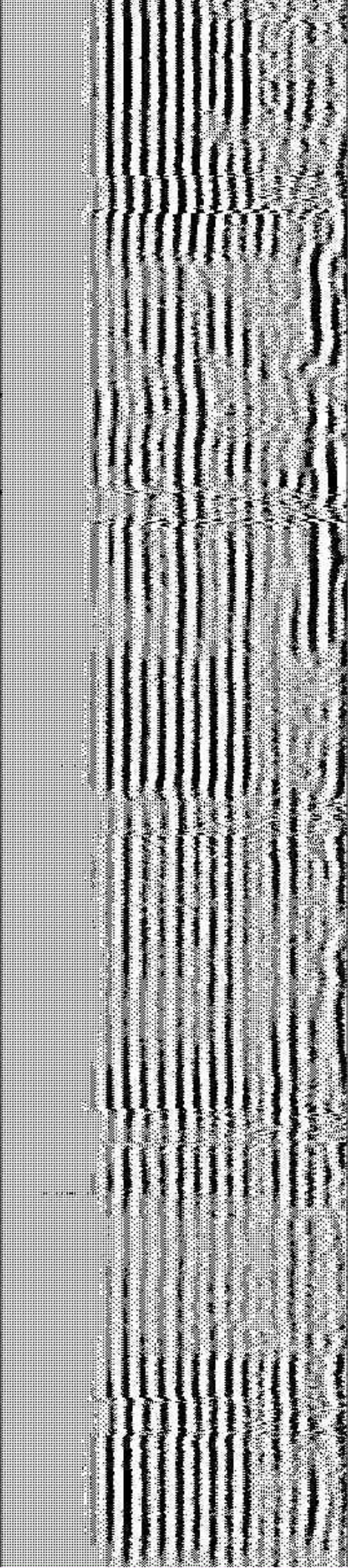
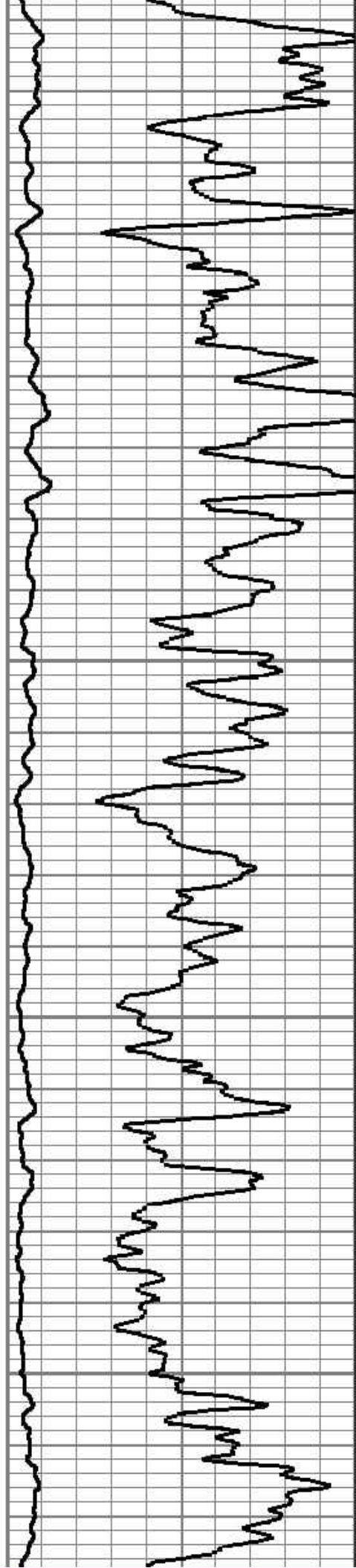


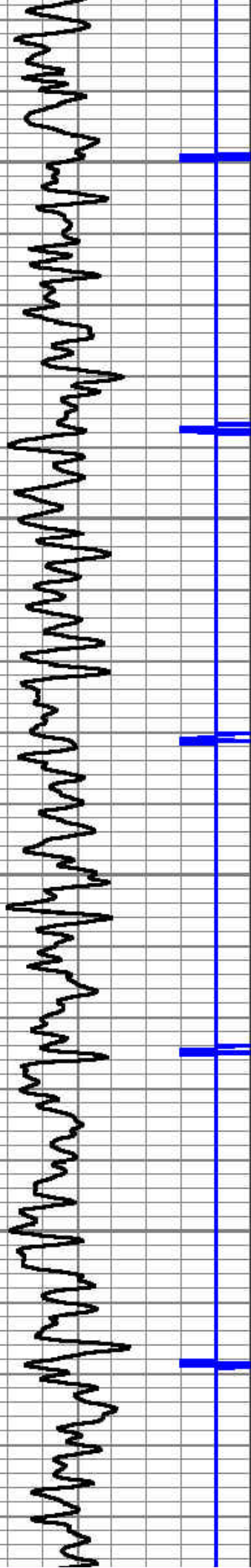
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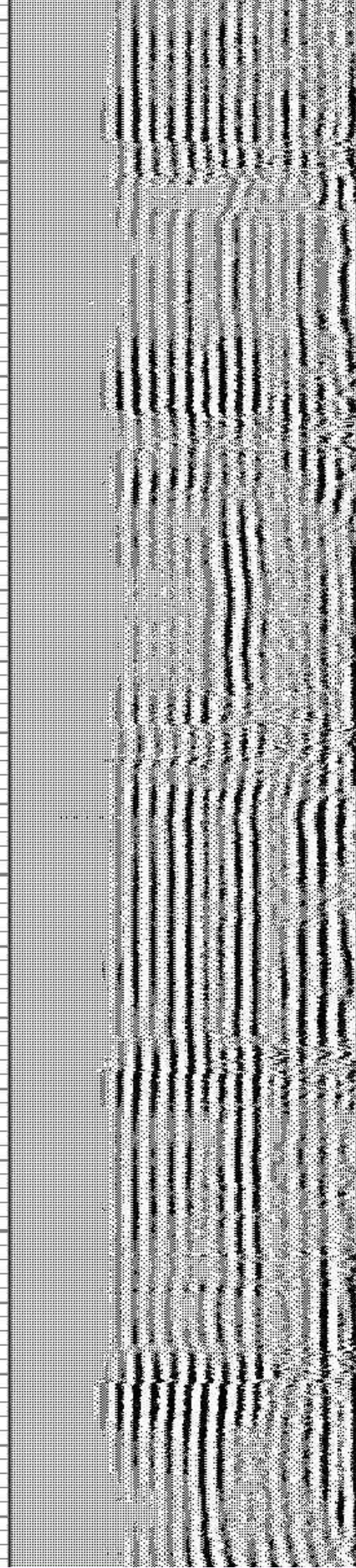
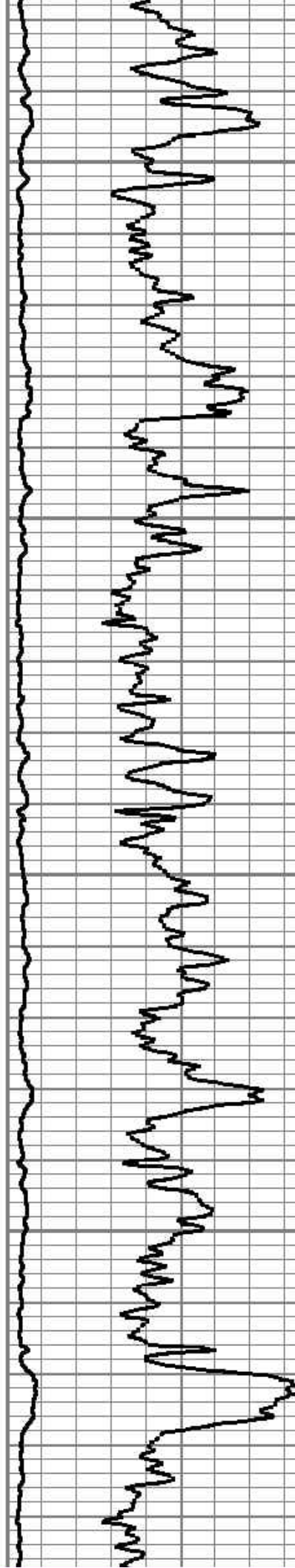


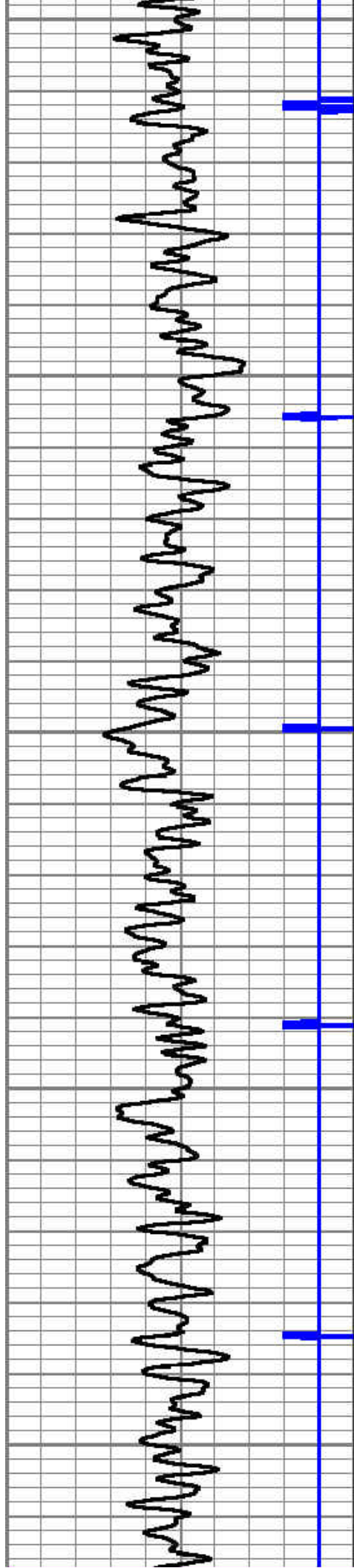
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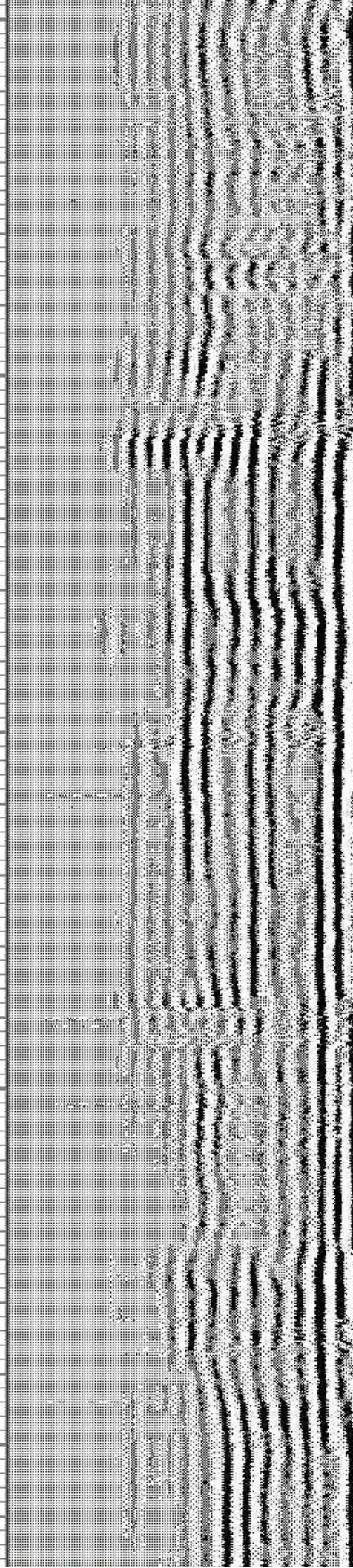
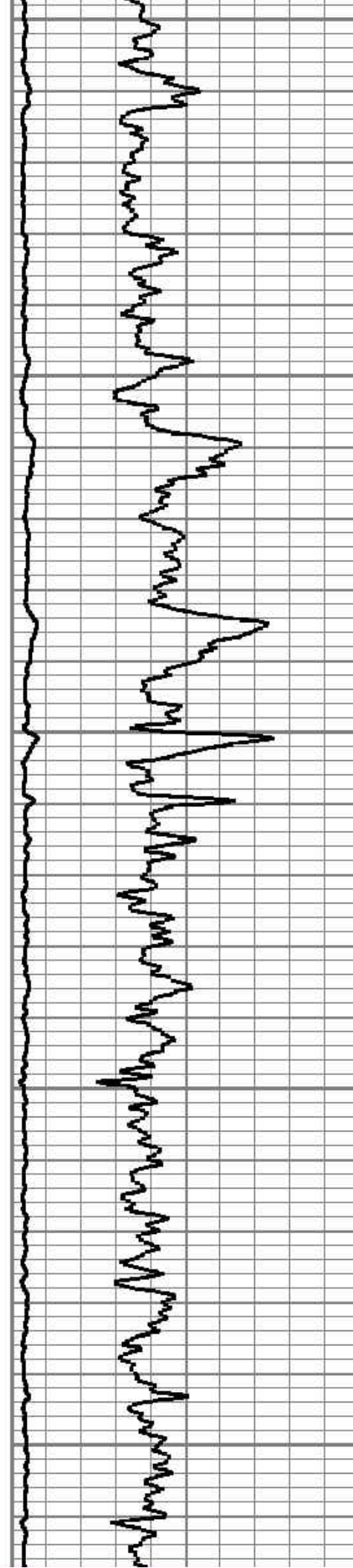
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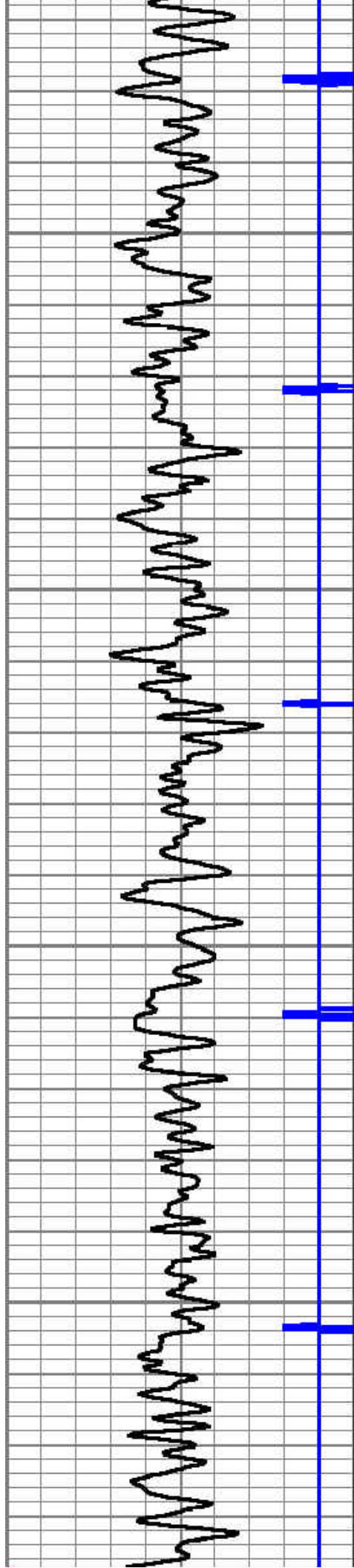
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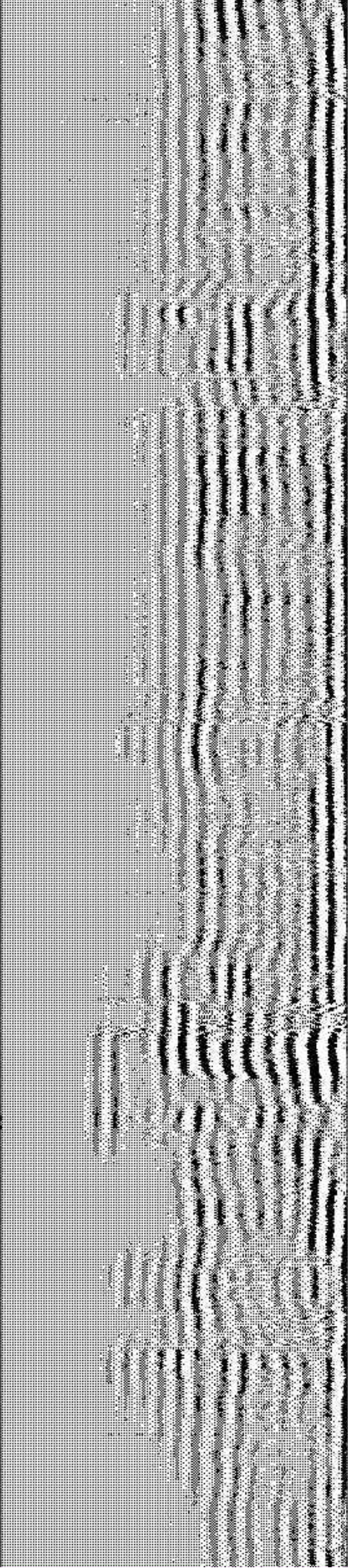
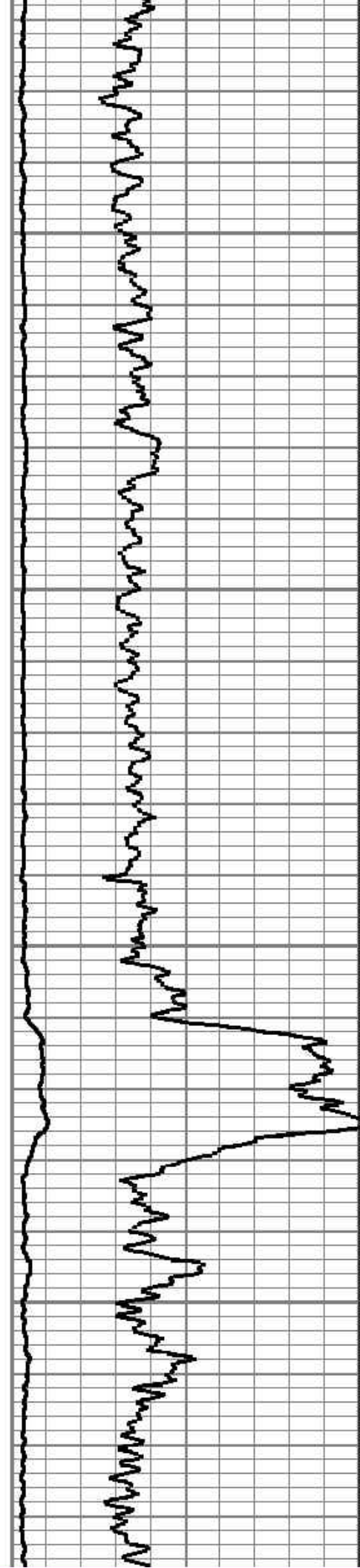


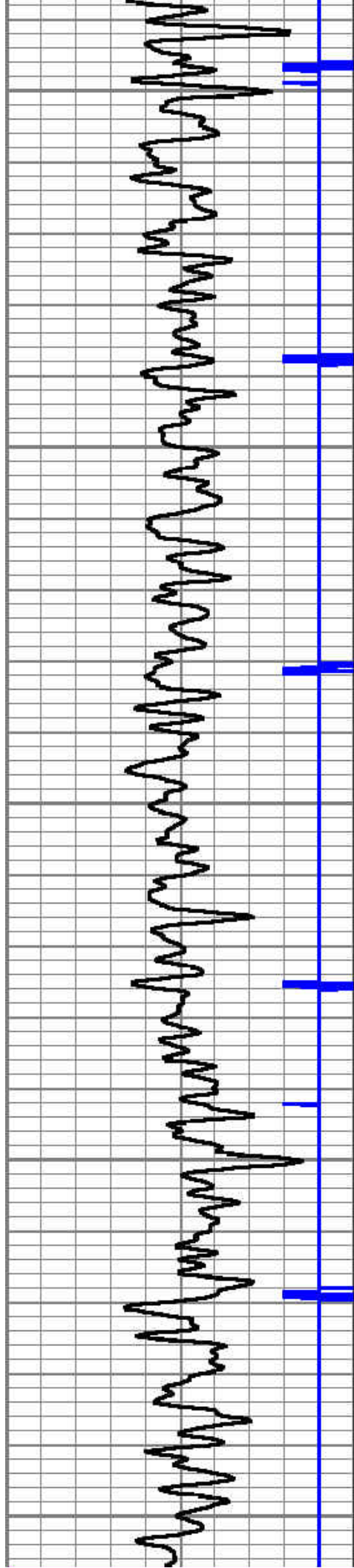
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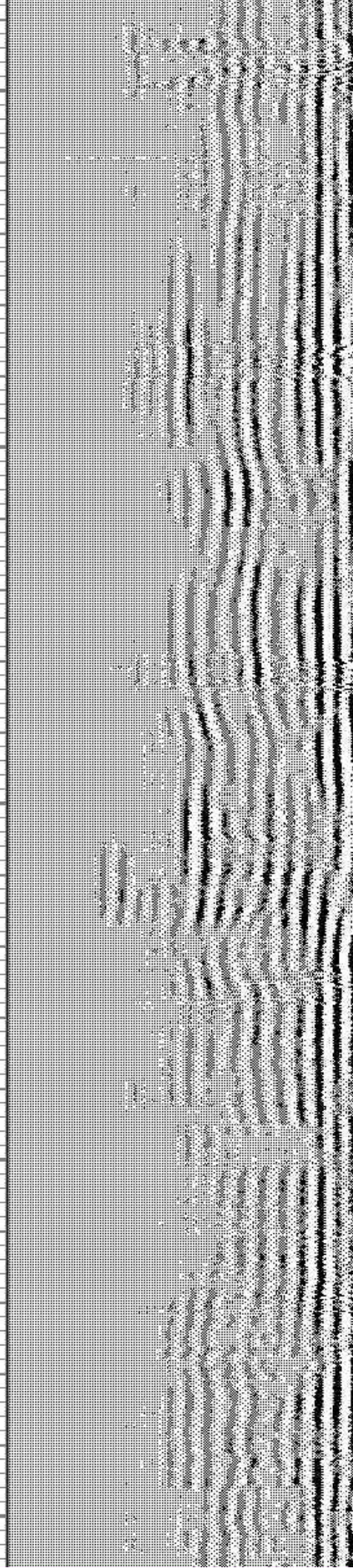
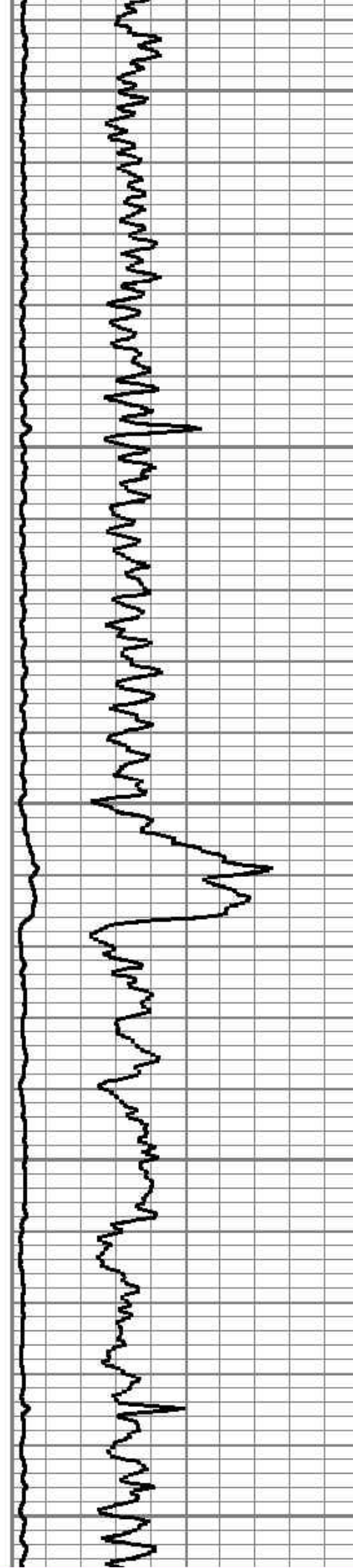
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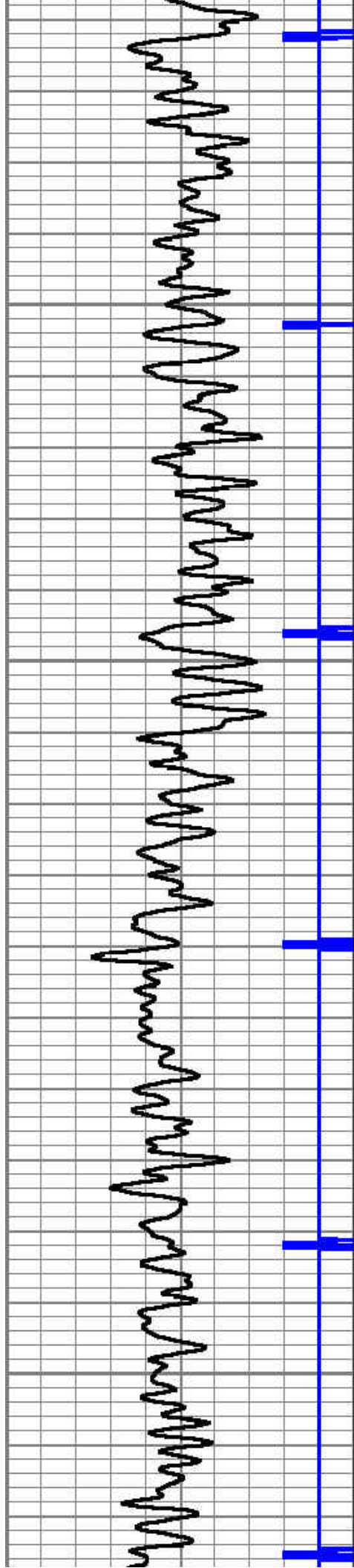
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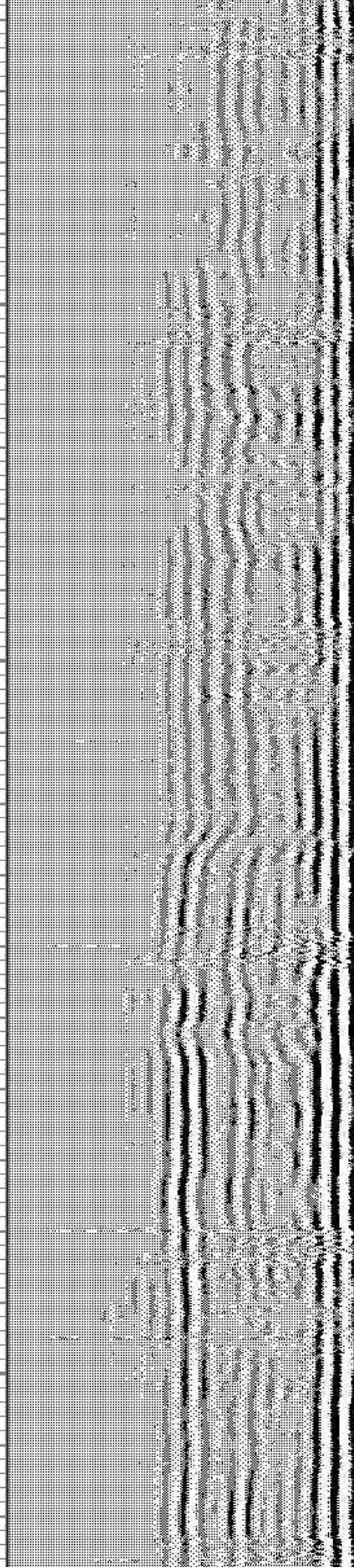
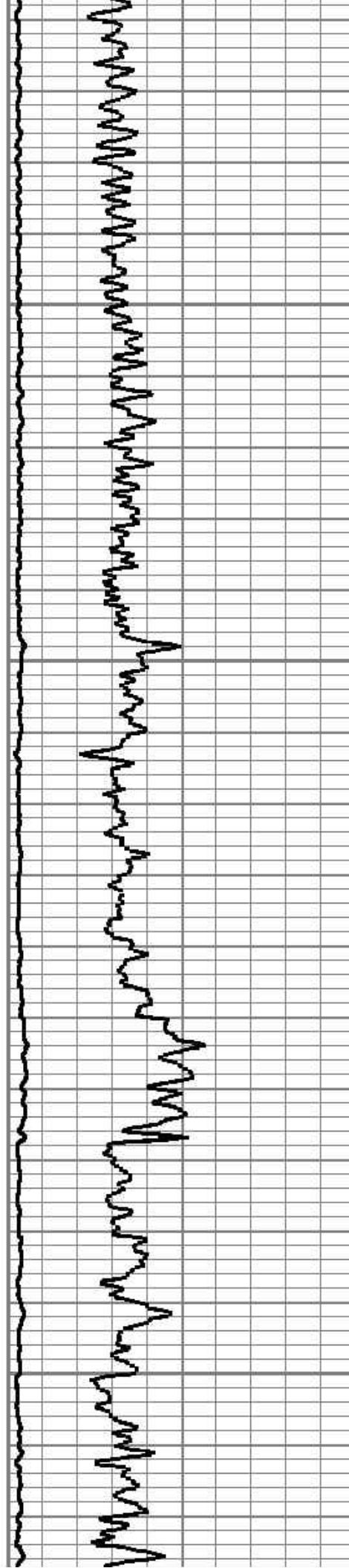


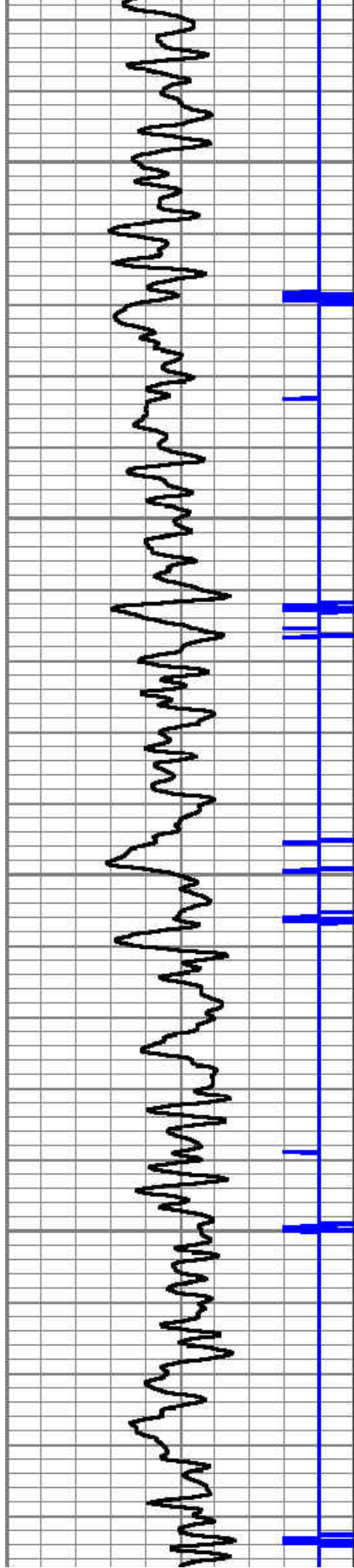
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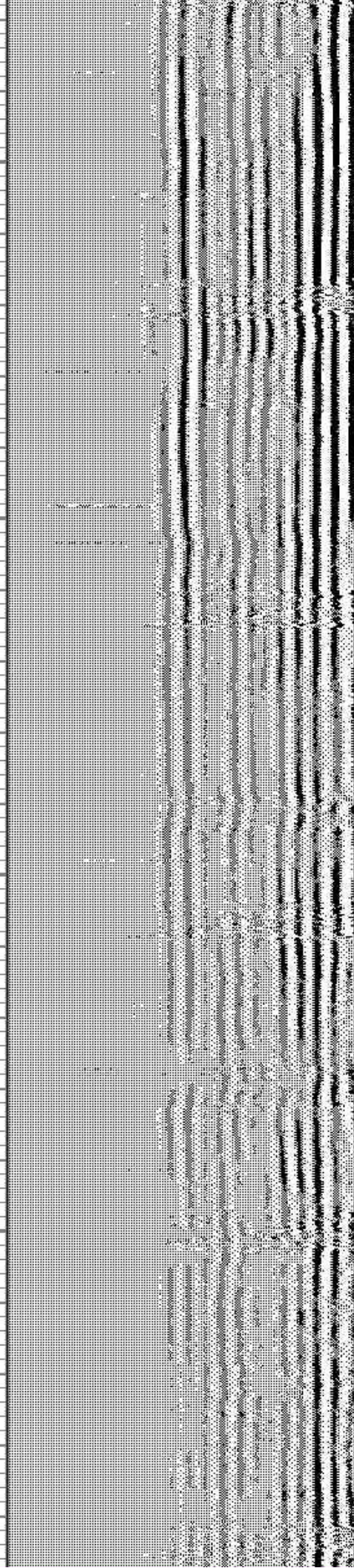
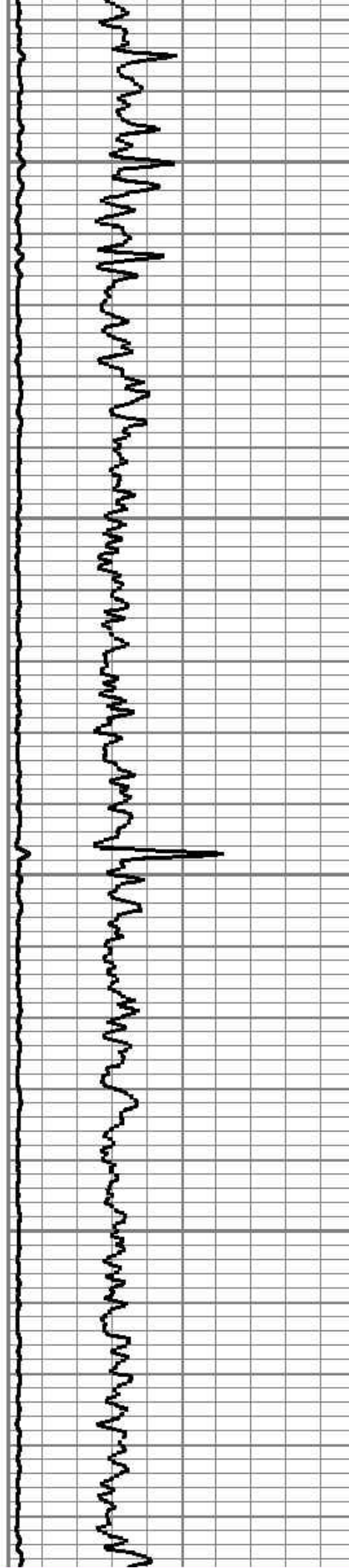


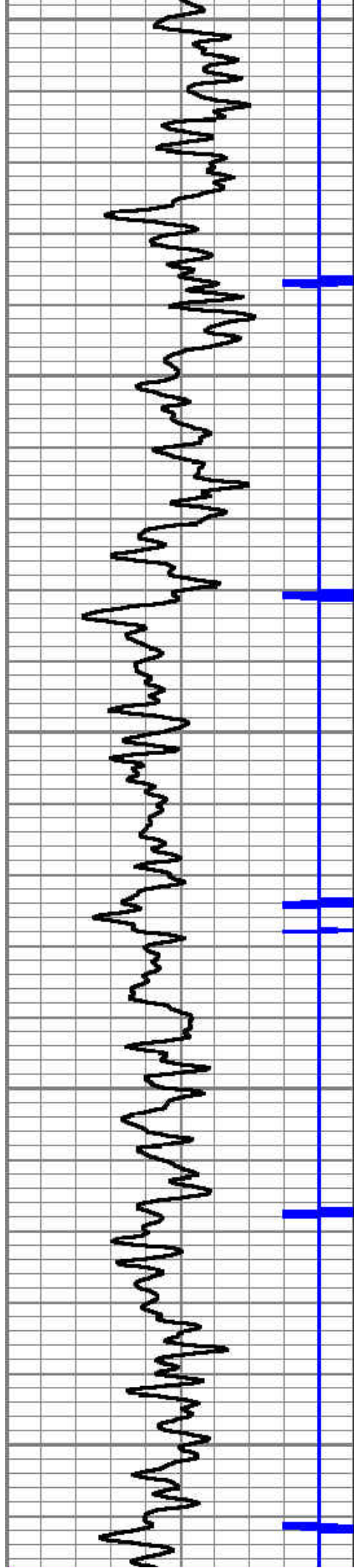
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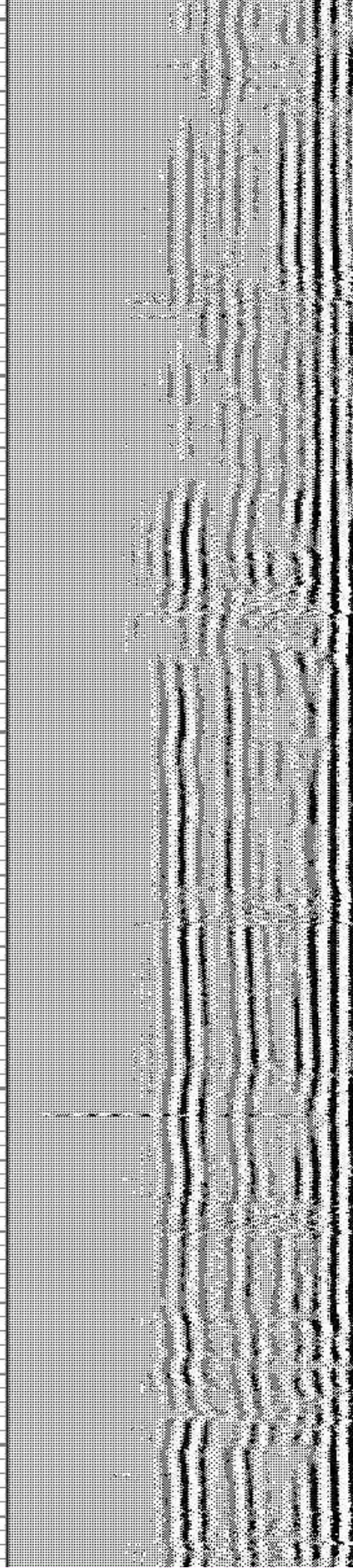
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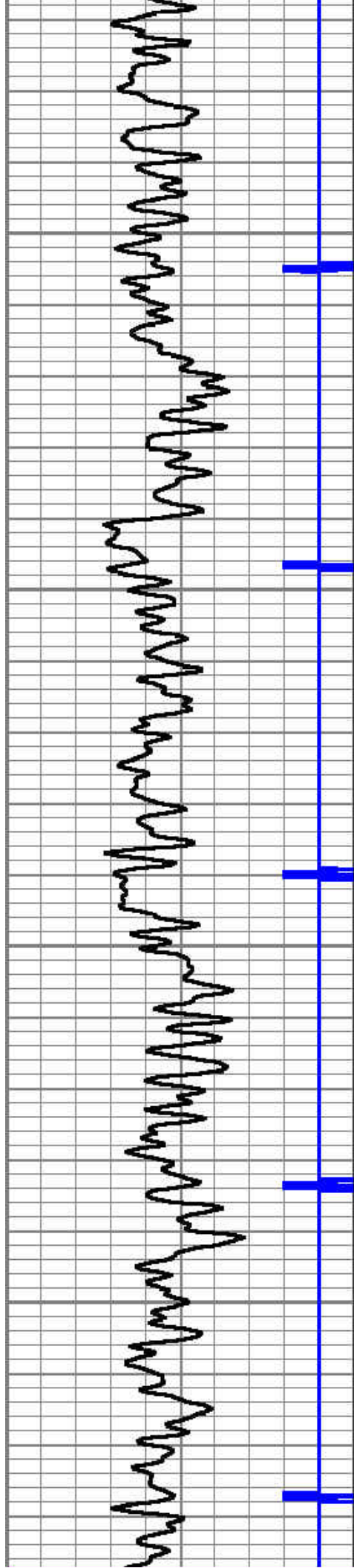
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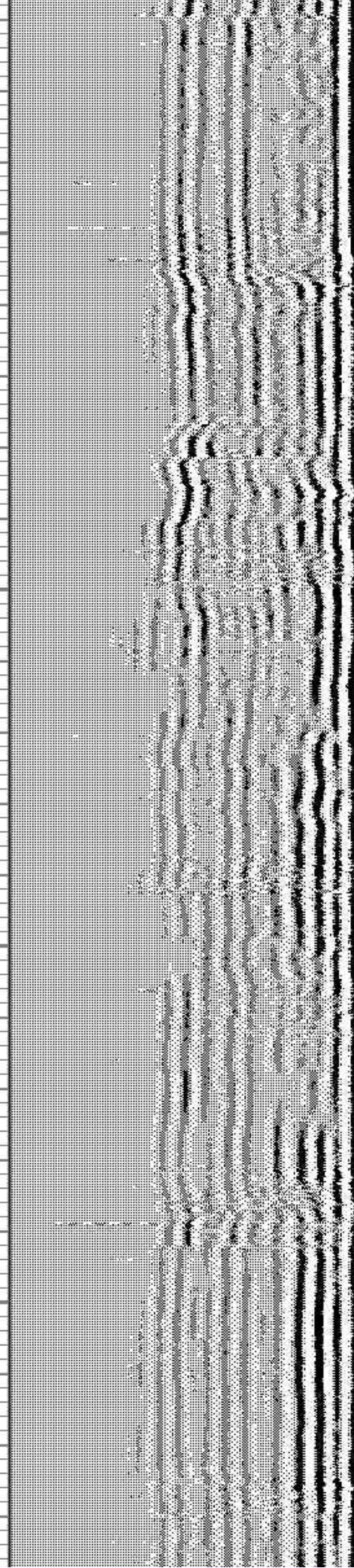
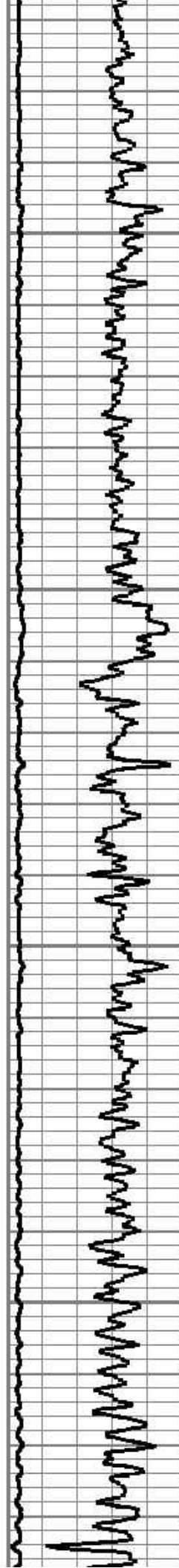


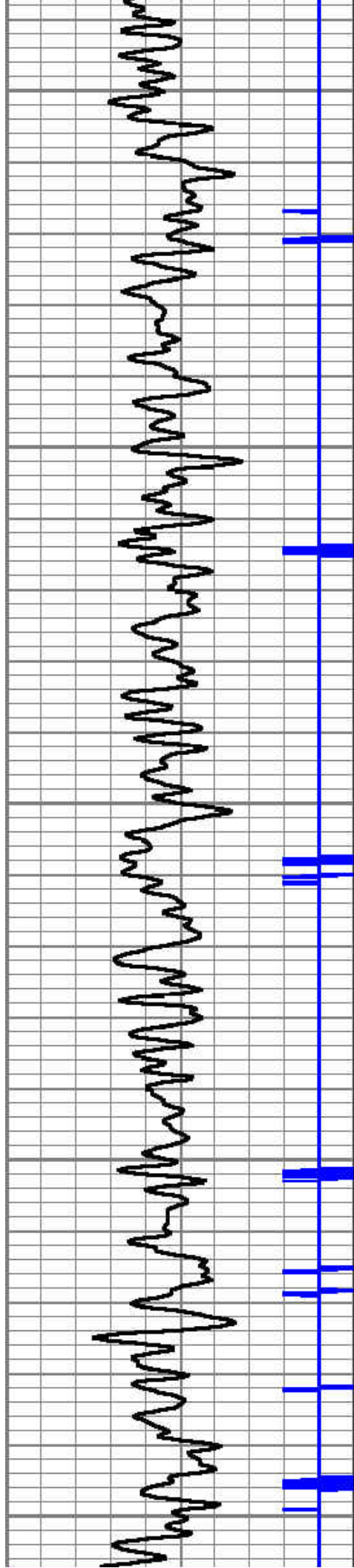
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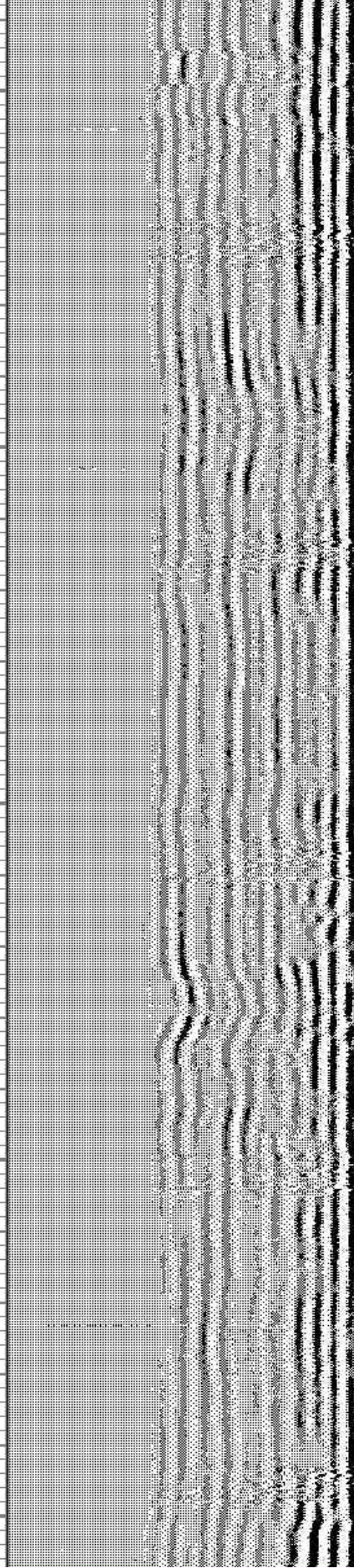
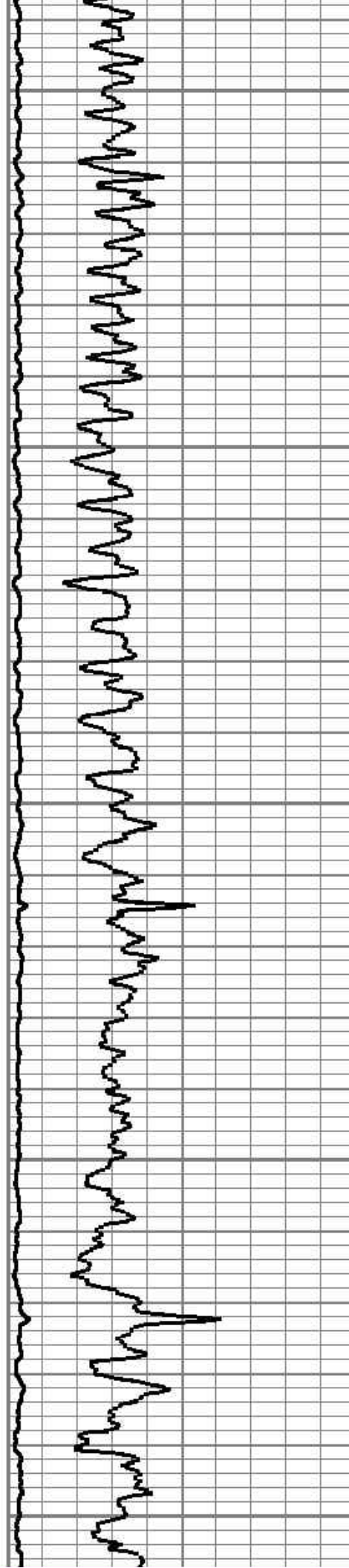
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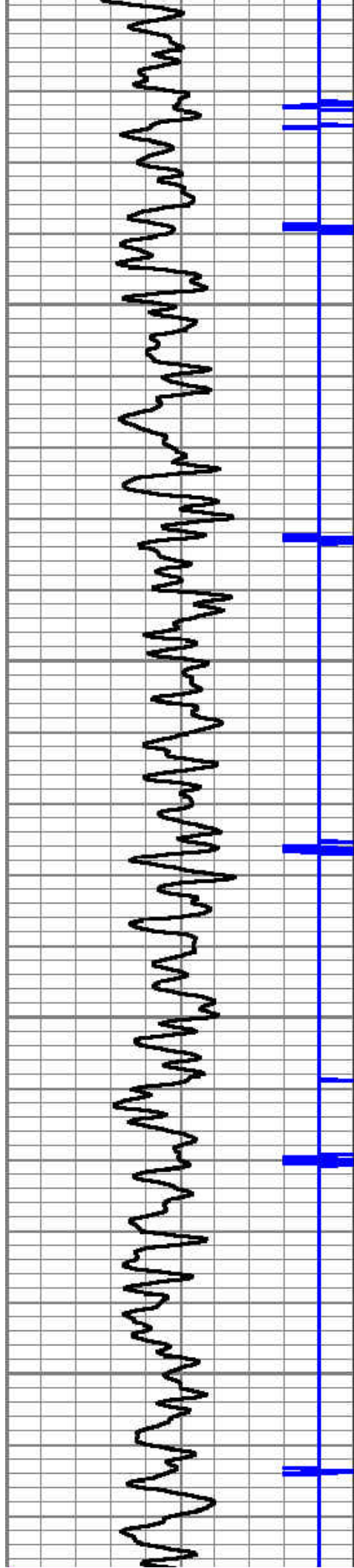
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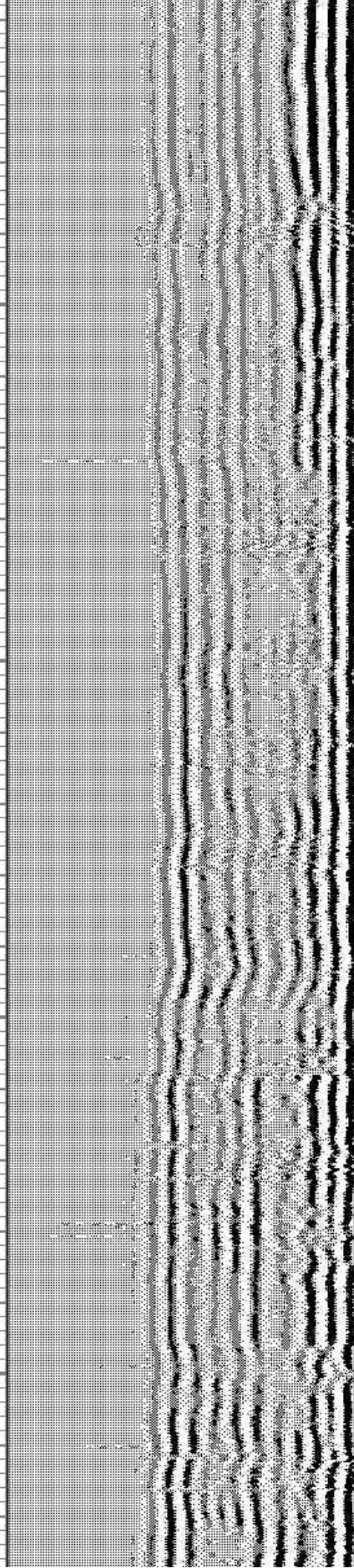
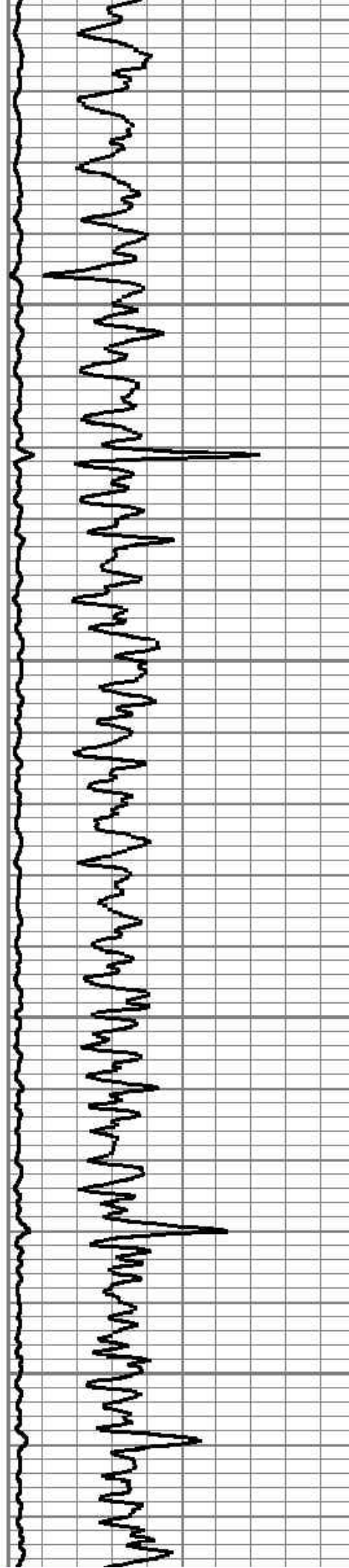


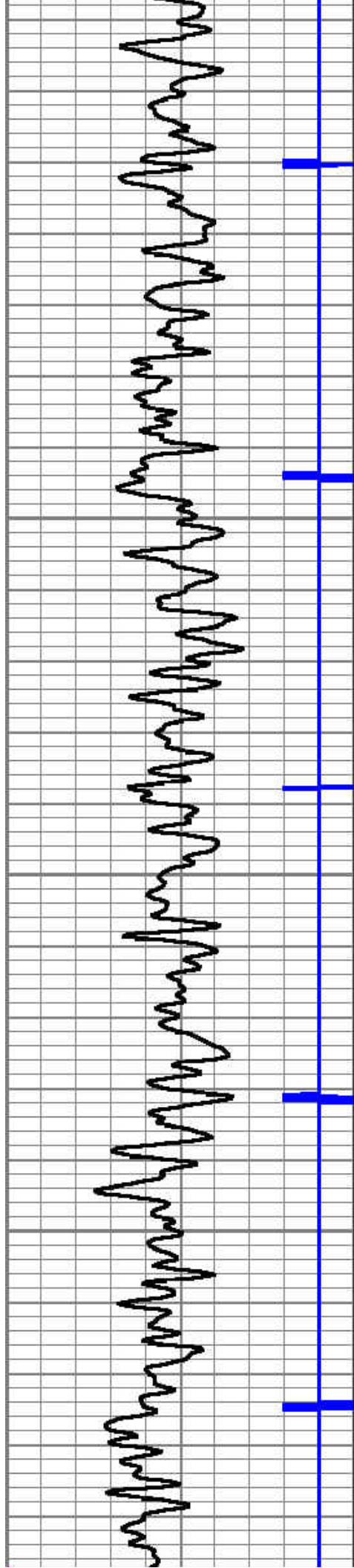
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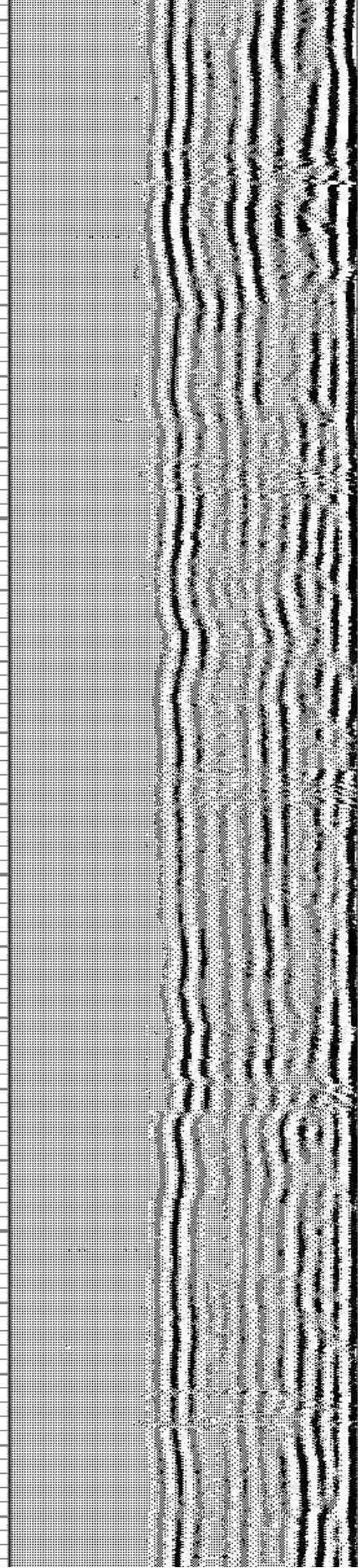
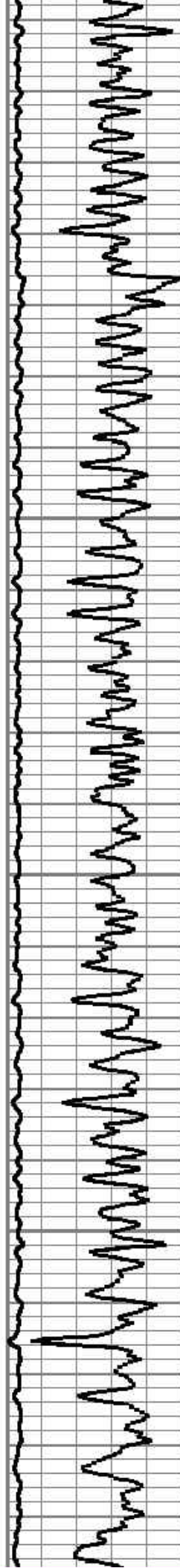


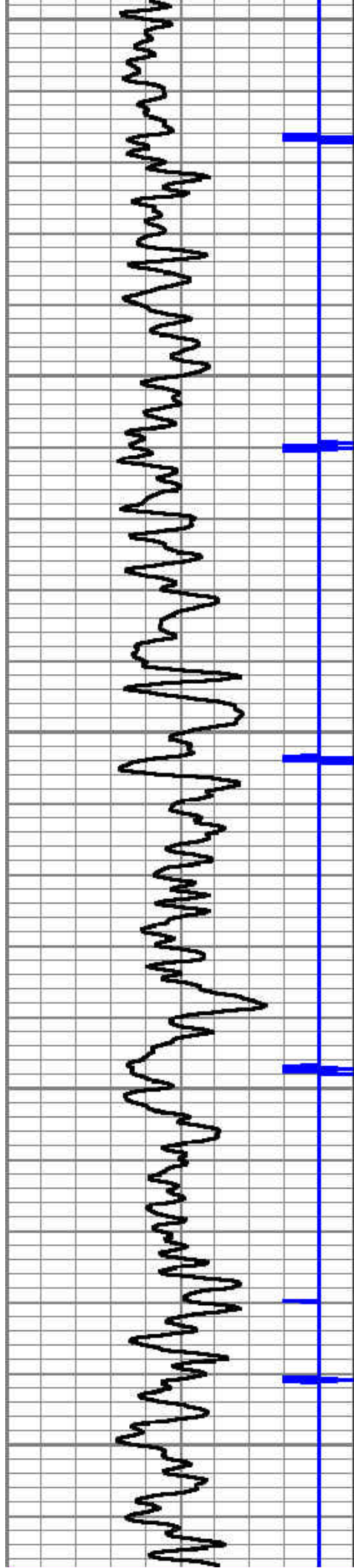
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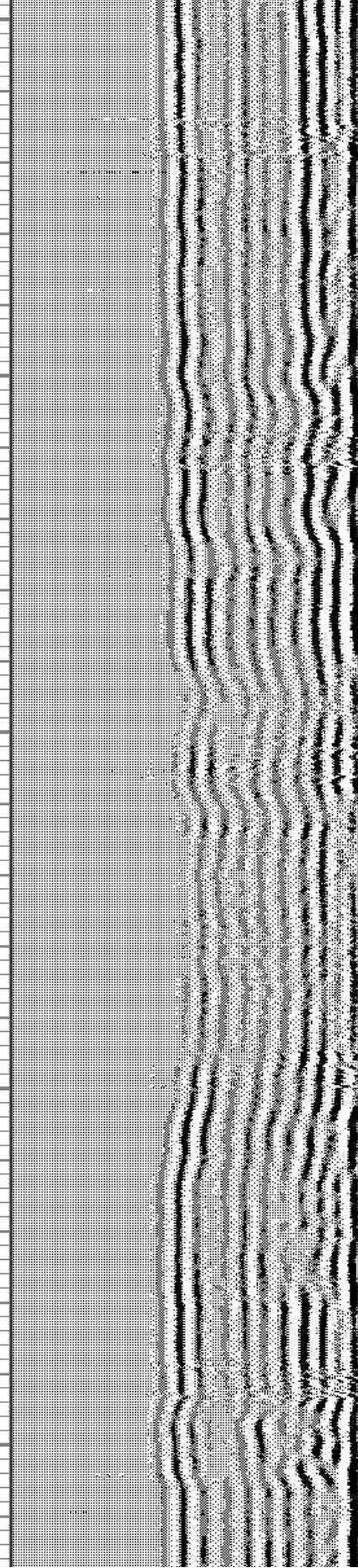
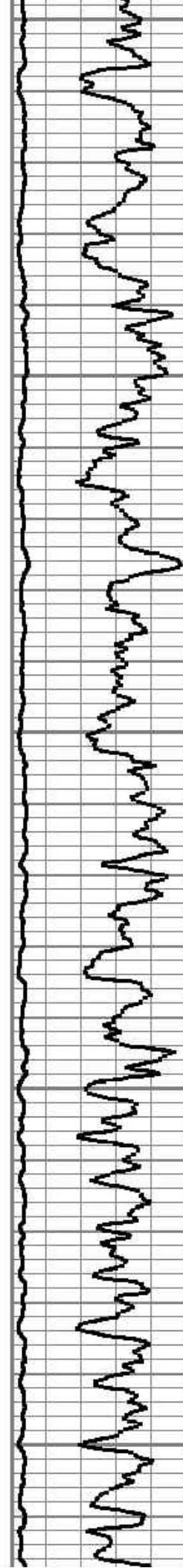
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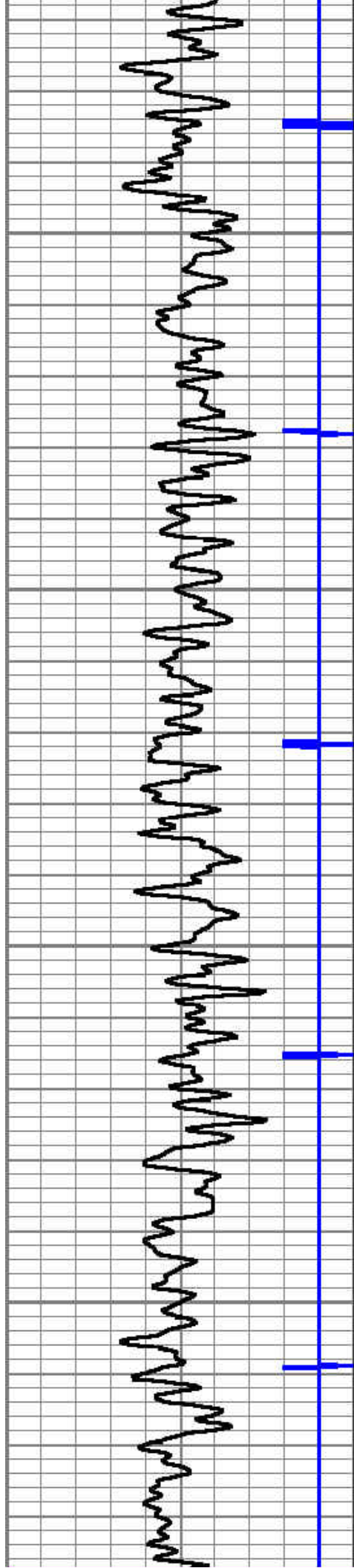
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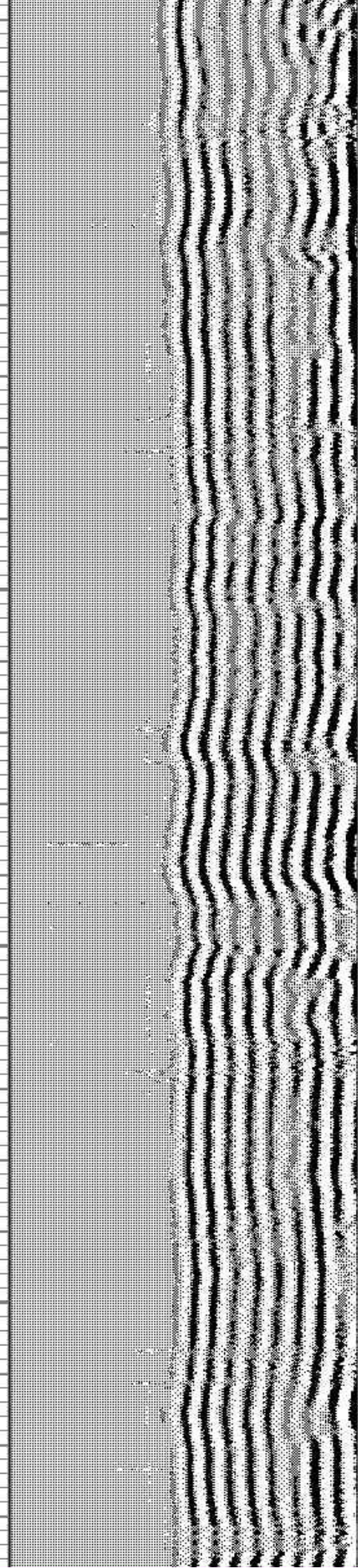
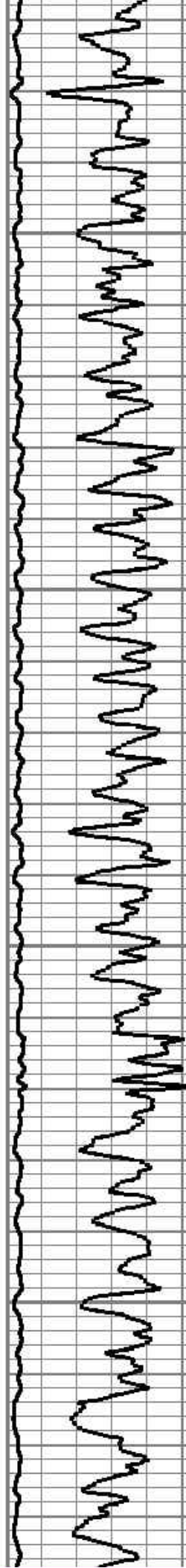


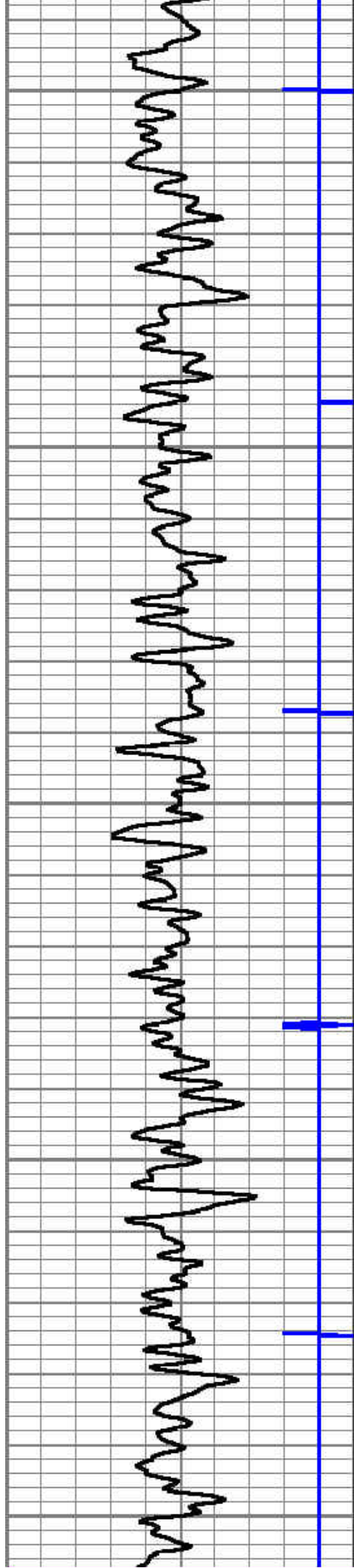
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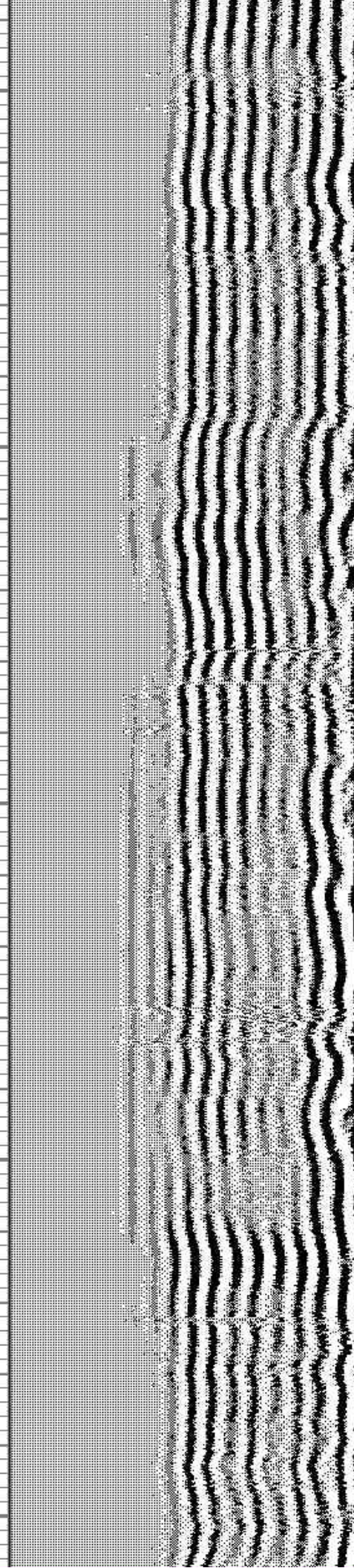
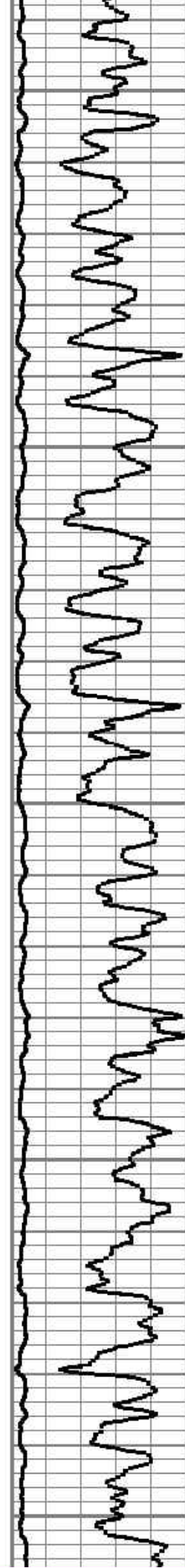
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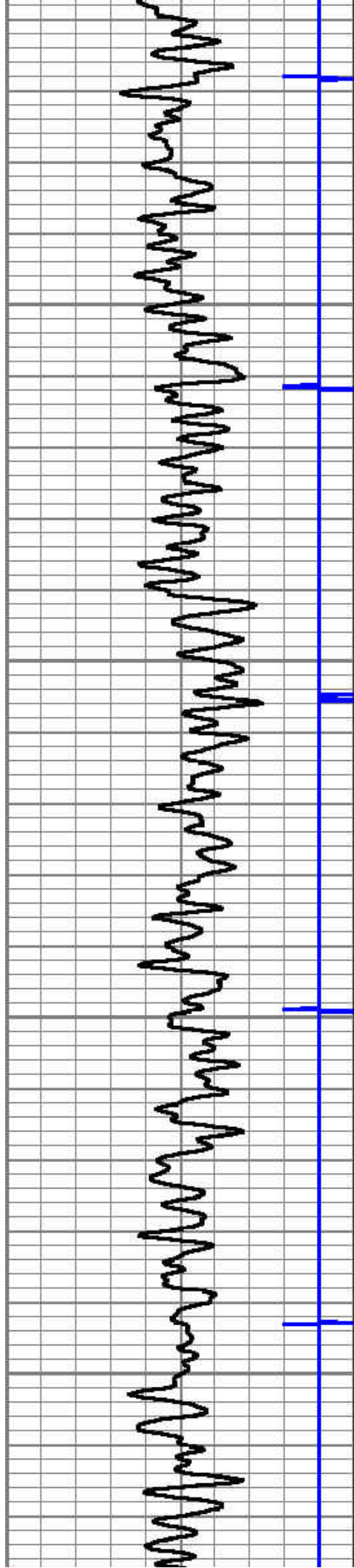
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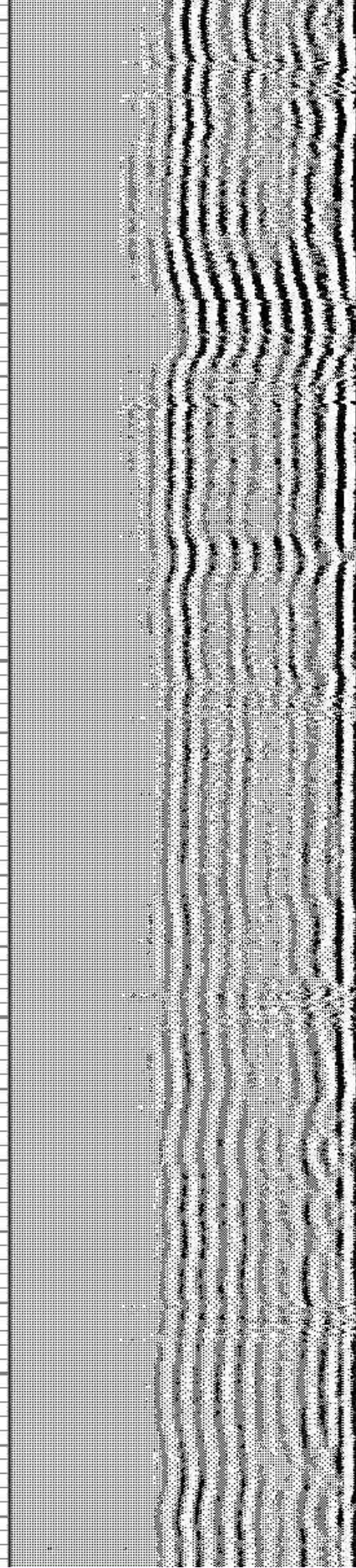
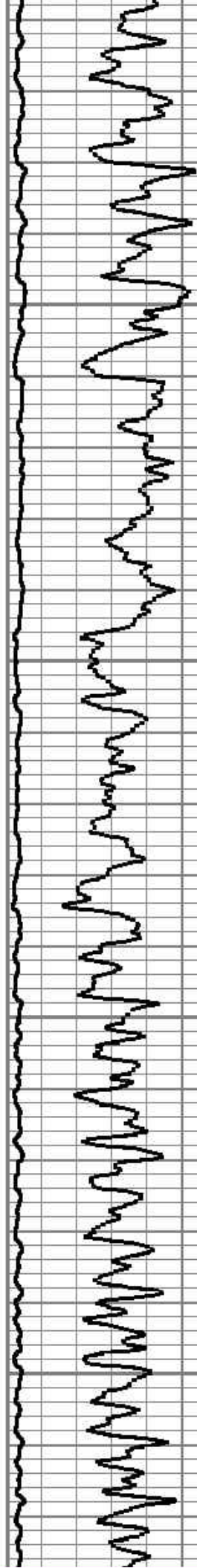


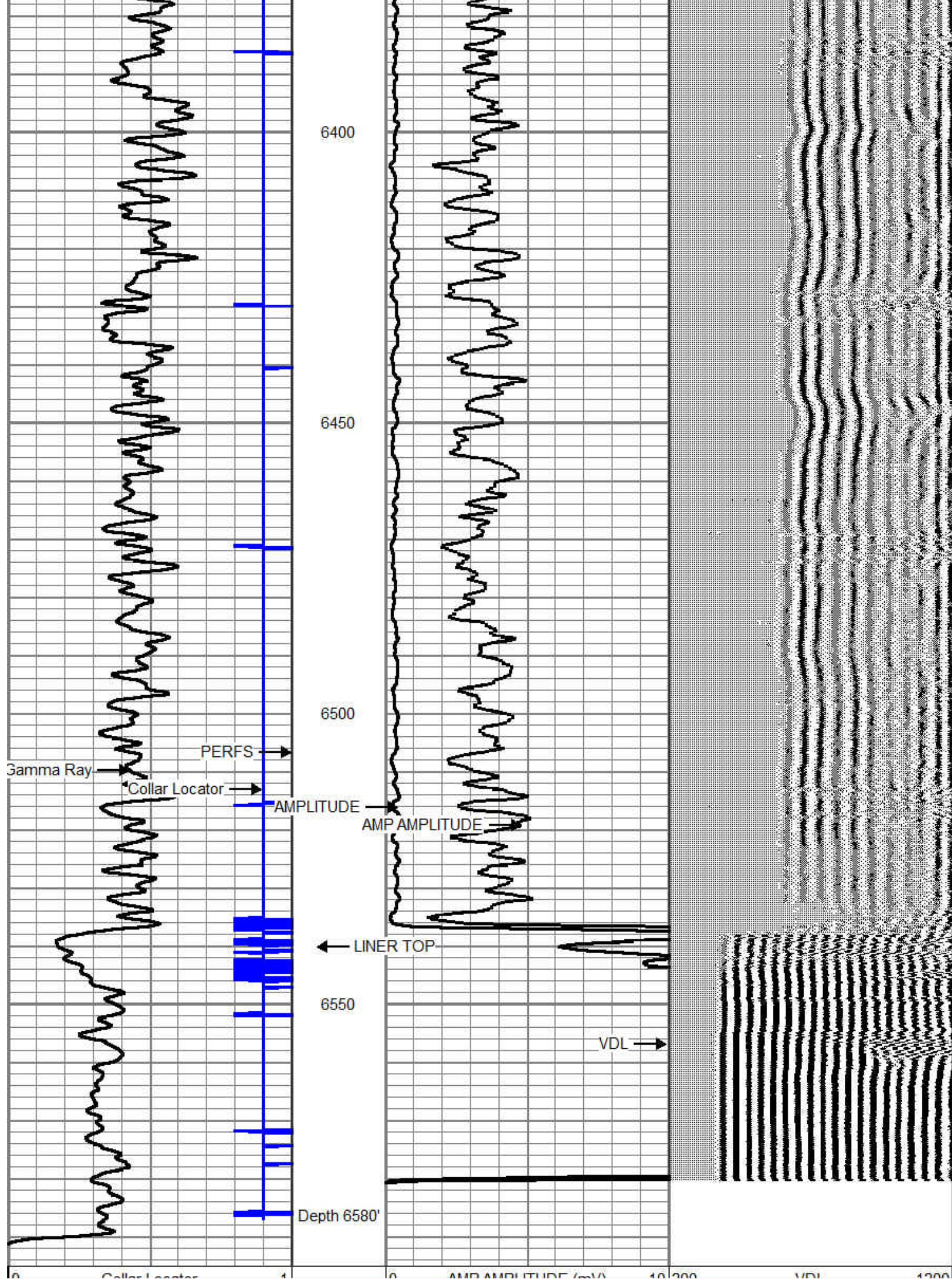
6200

6250

6300

6350





9	Coil Locator	-1
0	Gamma Ray (GAPI)	200

0	AMP AMPLITUDE (mV)	10
0	AMPLITUDE (mV)	100

200	VDE	1200
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