



SECTOR BOND
GAMMA RAY / CCL LOG

COMPANY URSA OPERATING COMPANY	
WELL BAT 33A-24-07-96	
FIELD BATTLEMENT MESA	
CNTY GARFIELD	STATE CO
COMPANY URSA OPERATING COMPANY WELL BAT 33A-24-07-96 FIELD BATTLEMENT MESA COUNTY GARFIELD STATE COLORADO	
LOCATION:	OTHER SERVICES:
SEC.24 TWP.7S RGE96W	GR/JB PND

PERM. DATUM GROUND LEVEL				ELEV. 5160'		ELEV.: K.B. 5175.5	
LOG MEASURED FROM K.B. 15.5 FT. ABOVE PERMANENT DATUM						D.F.	
DRILLING MEASURED FROM K.B.						G.I. 5160'	
DATE	25-FEB-2014						
RUN NO.	ONE						
DEPTH DRILLER	6022'						
DEPTH LOGGER	6022'						
BTM. LOG INTERVAL	6018'						
TOP LOG INTERVAL	SURFACE						
OPEN HOLE SIZE	8.625"						
TYPE FLUID	WATER						
DENS.	VISC.	8.3	10.00				
MAX. REC. TEMP.	F	192 DEG. F.					
EST. CEMENT TOP	SEE LOG						
TIME WELL READY	R.O.A.						
TIME LOGGER ON BTM.	SEE LOG						
EQUIP. NO.	14068						
LOCATION	GRD. JUNCTION						
RECORDED BY	P. MAZUR						
WITNESSED BY	L. GRIEGER						
BOREHOLE RECORD				TUBING RECORD			
RUN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
CASING RECORD	SIZE	WT/FT	GRADE	TYPE JOINT	TOP	BOTTOM	
SURFACE STRING							
PROT. STRING							
PROD. STRING	4.5"	11.6	P-110		SURF.	T.D.	
LINER							

All interpretations of log data are opinions based on inferences from electrical or other measurements. We do not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation or recommendation made by any of our employees or agents.

REMARKS	Rig: CRANE #15062	Service Order # 80209541
WEATHERFORD SECTOR BOND LOG IS THE PRIMARY LOG FOR THIS WELL		
ALL LOGGED INTERVALS PER CUSTOMER REQUEST		

THANKS FOR USING WEATHERFORD WIRELINE SERVICES GRD. JUNCTION, CO (970)263-8501

EQUIPMENT DATA

Run No.	Tool Type	Tool No.	Other
ONE	CENA	220	
ONE	CTBA	323	
ONE	GRBA	317	
ONE	CENB	157	
ONE	SBTA	238	
ONE	CENA	216	
ONE	TEMP	002	

DEPTH SCALE: 5":100'

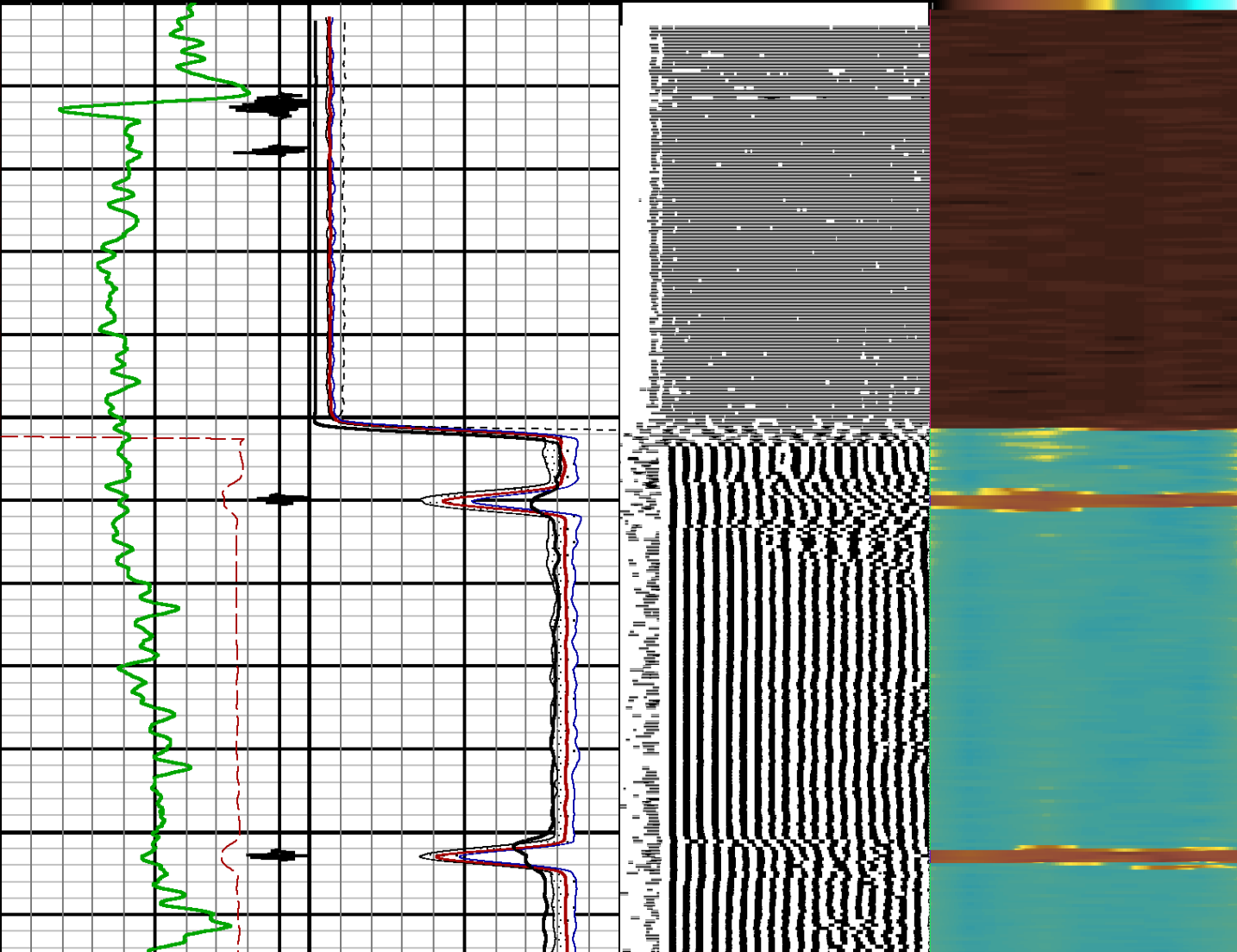
PROCESSED VERSION: 2012.07.18.162"

MAIN PASS

80209541 CBLMAIN

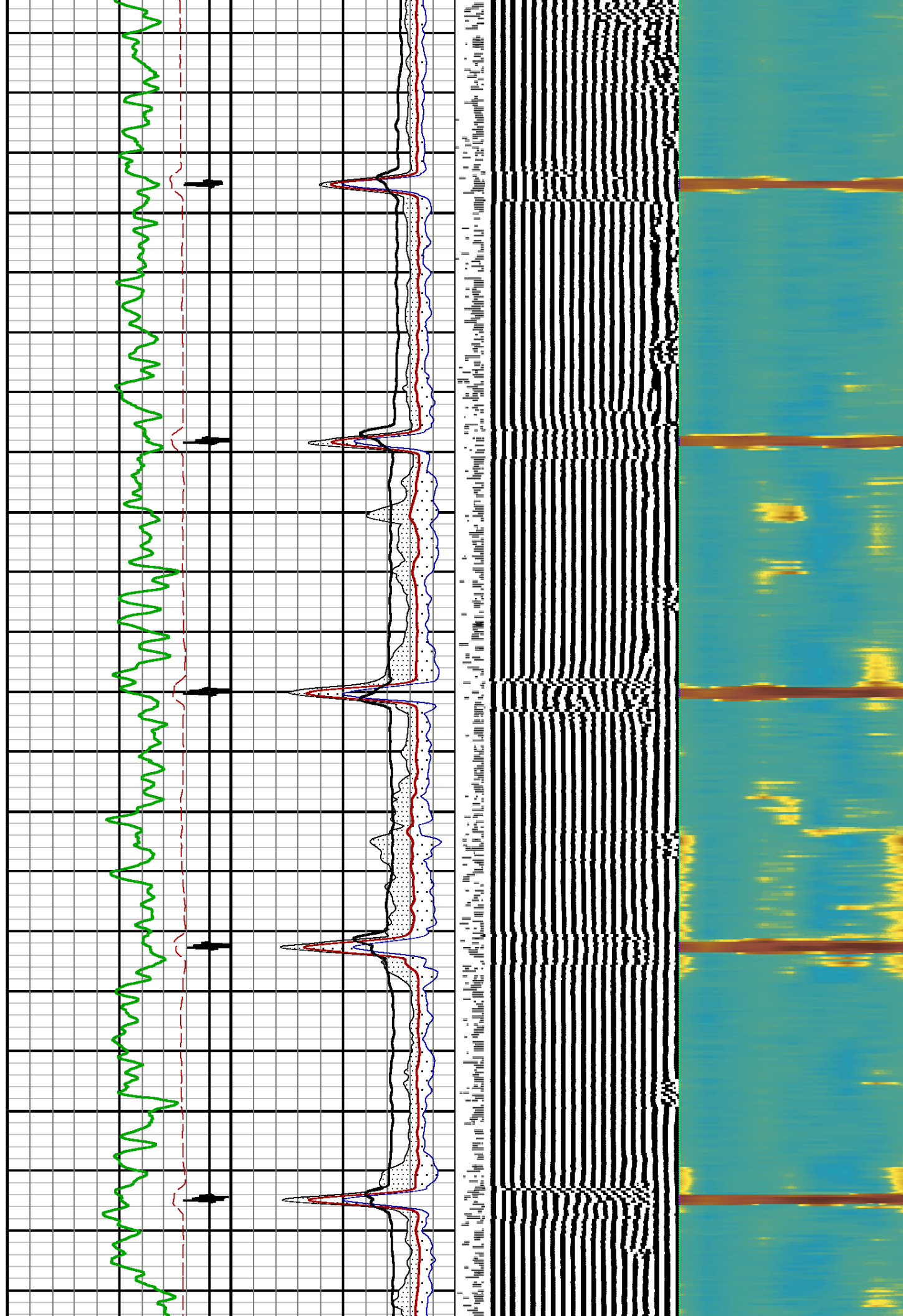
FINISH DEPTH: 8.5 Feet DIRECTION: UP DATE: 02/27/2014 TIME: 07:40 MODE: ORIGINAL

		AMP X 5			
		0 Millivolts 20			
		AMPLITUDE 3FT			
		0 Millivolts 100			
Collar Locator		MAX ENERGY			
-8000 Millivolts 800		0 Millivolts 100			
Gamma Ray		AVG ENERGY			
0 API 150		0 Millivolts 100			
Tension	TRAVEL TIME 3FT	MIN ENERGY		VARIABLE DENSITY 5FT	VARIABLE ENERGY
0 2000	318 Microseconds 218	0 Millivolts 100		200 Microseconds 1200	0 Millivolts 100



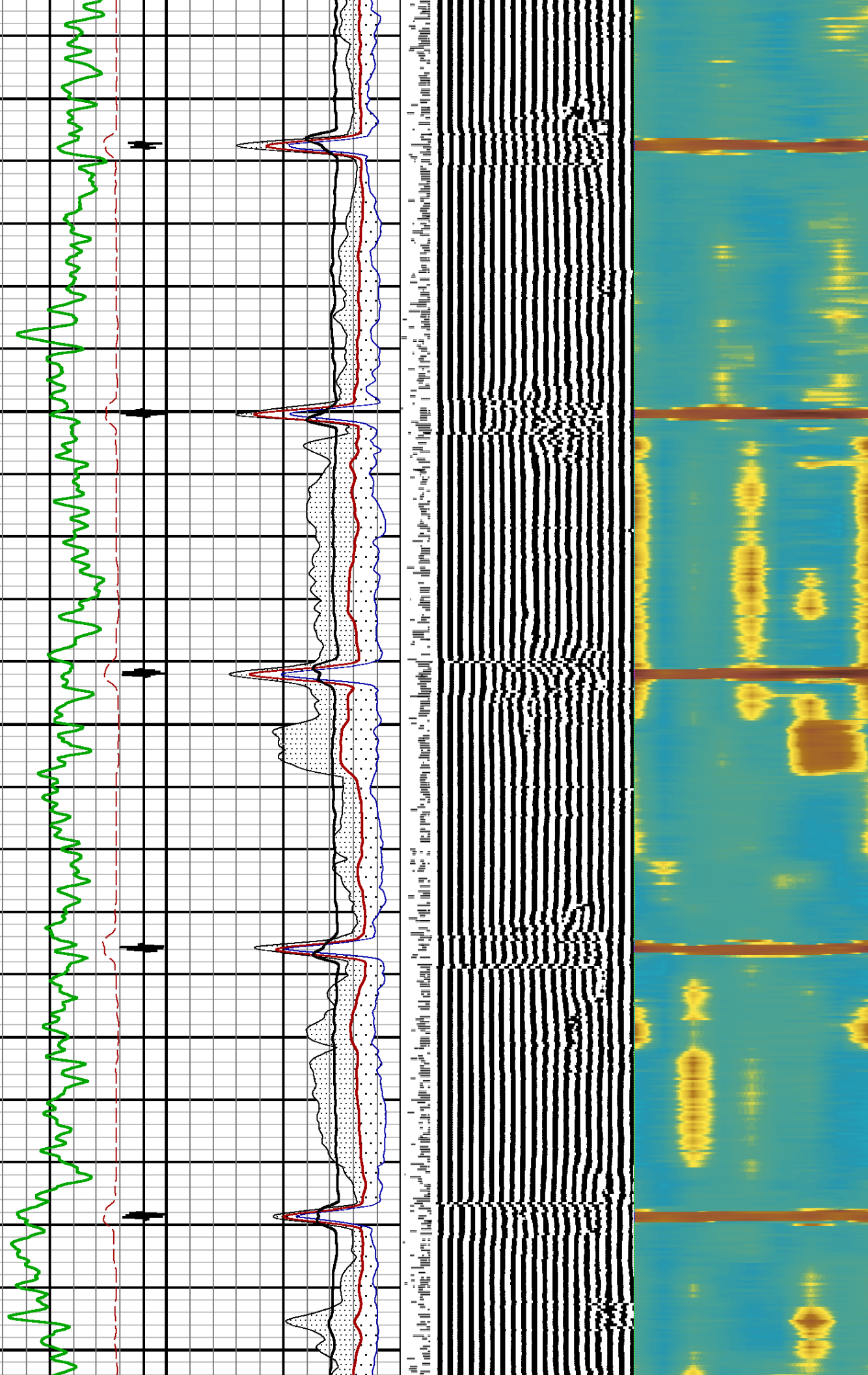
200

300



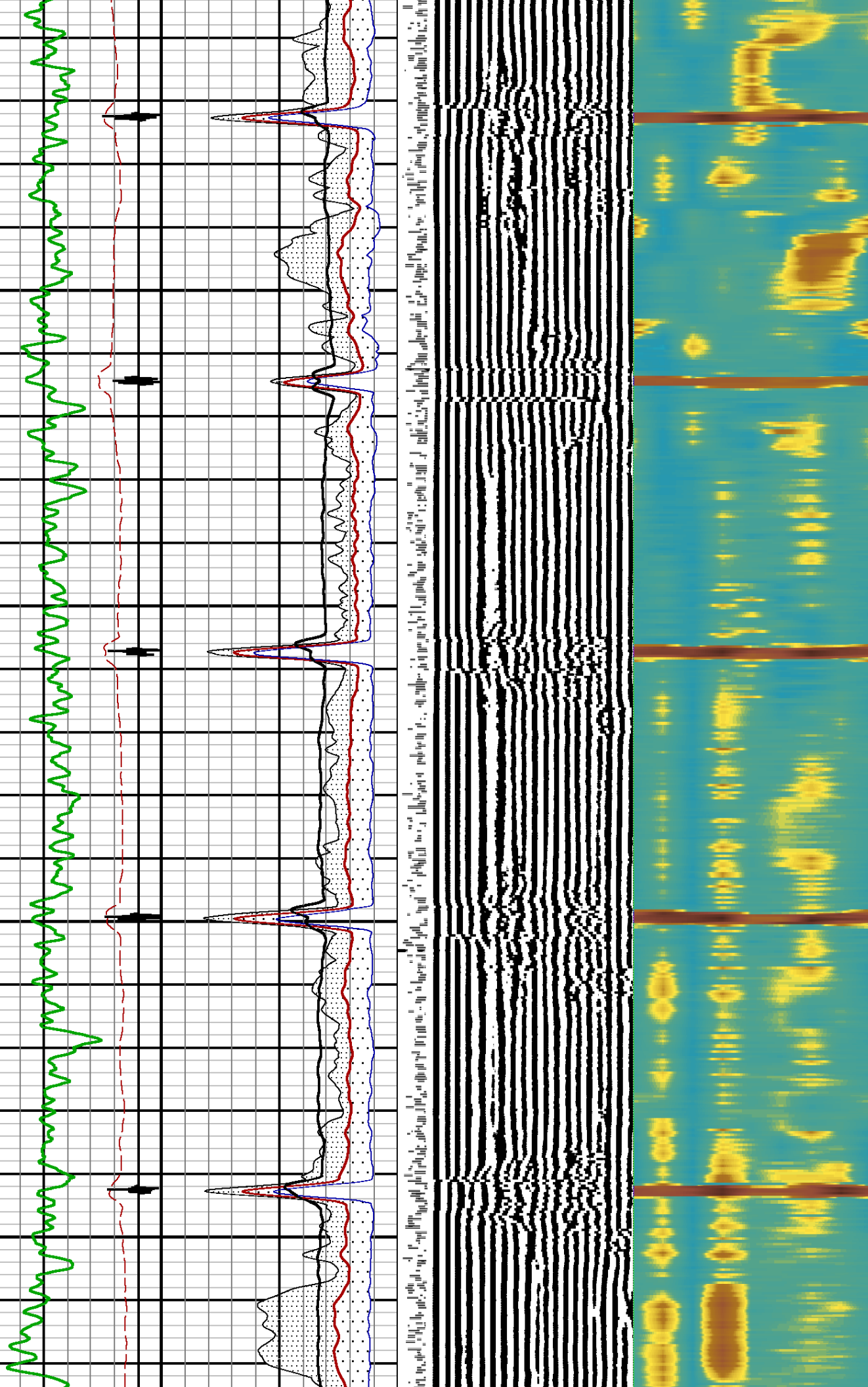
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500



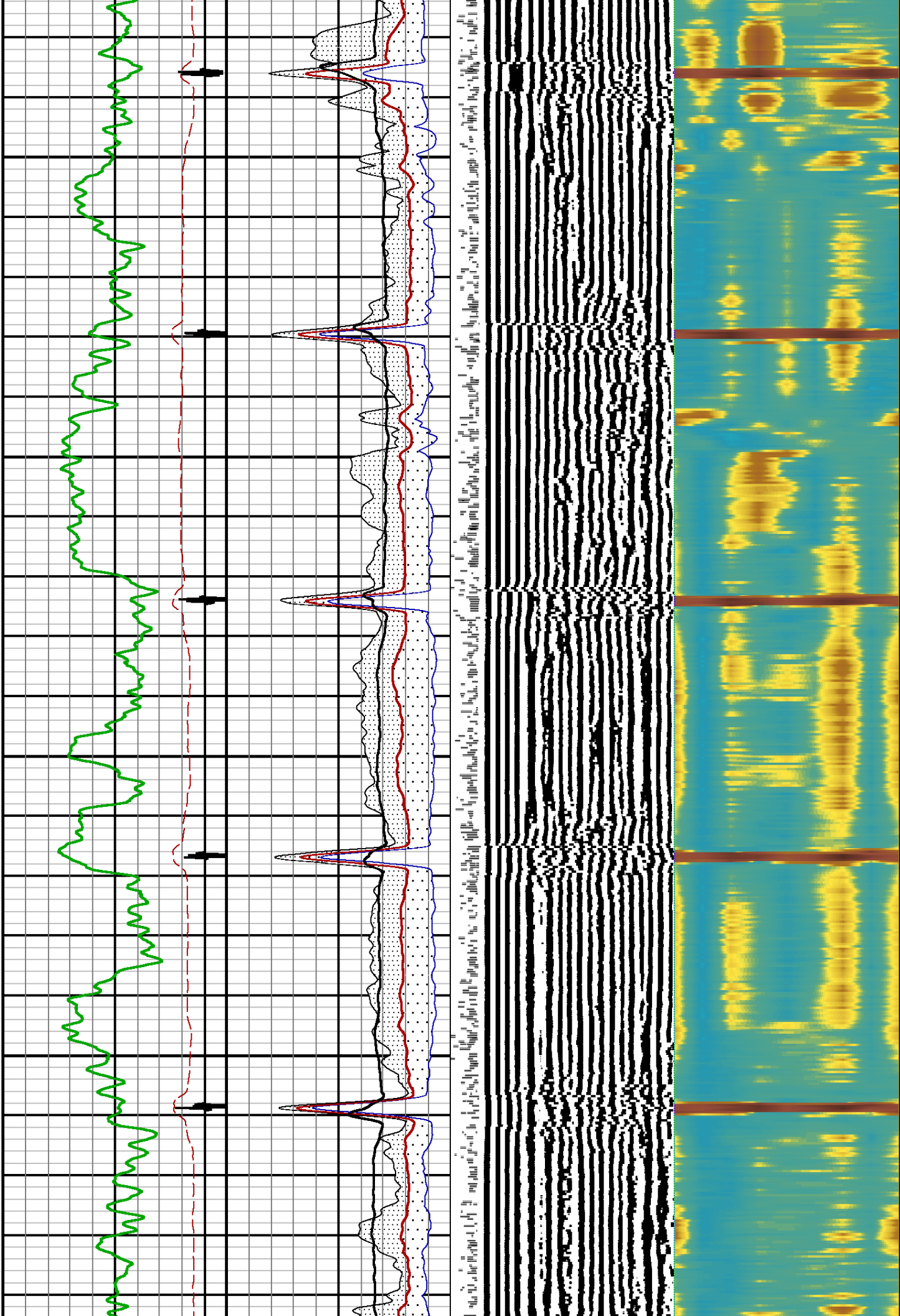
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700



800

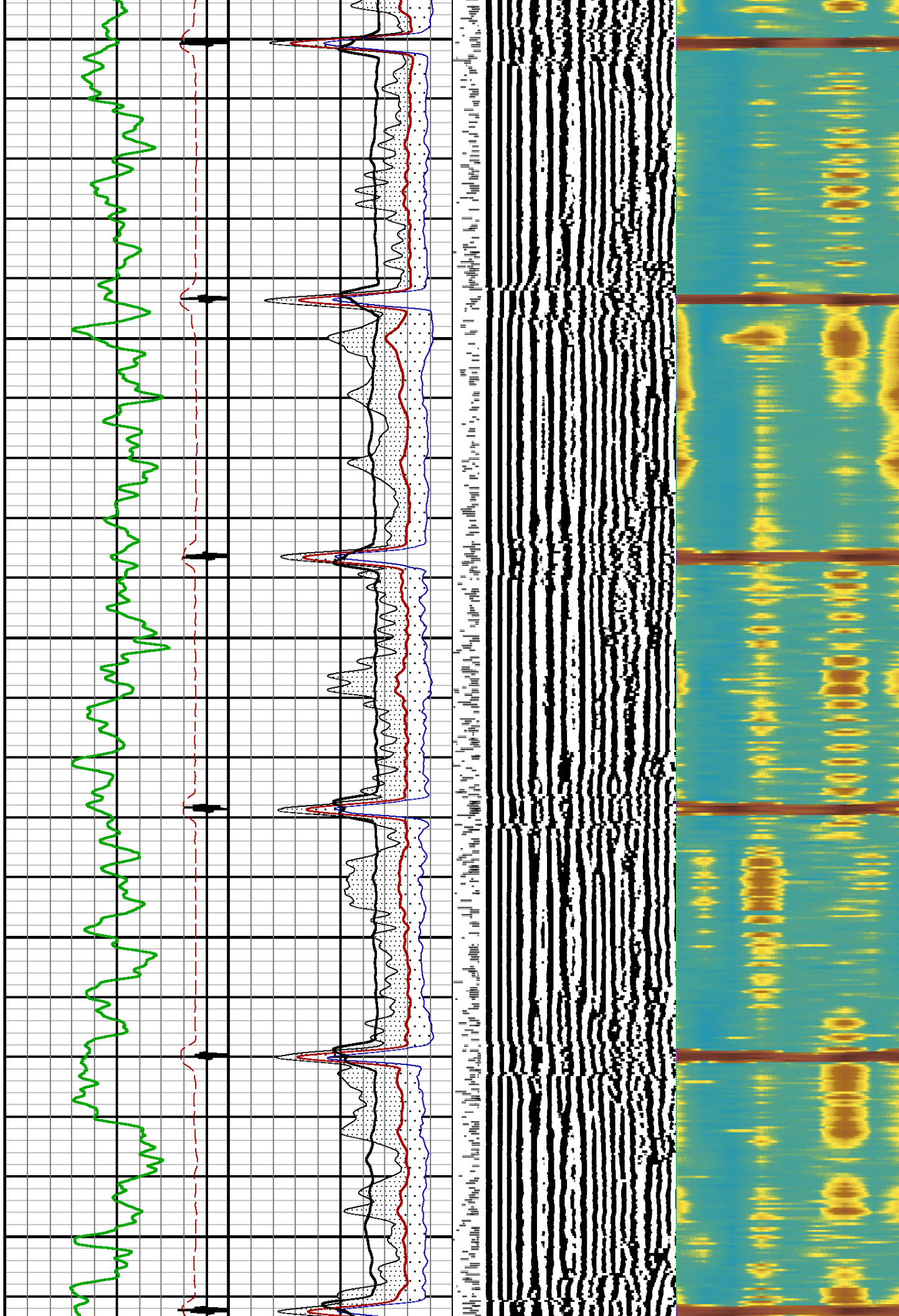
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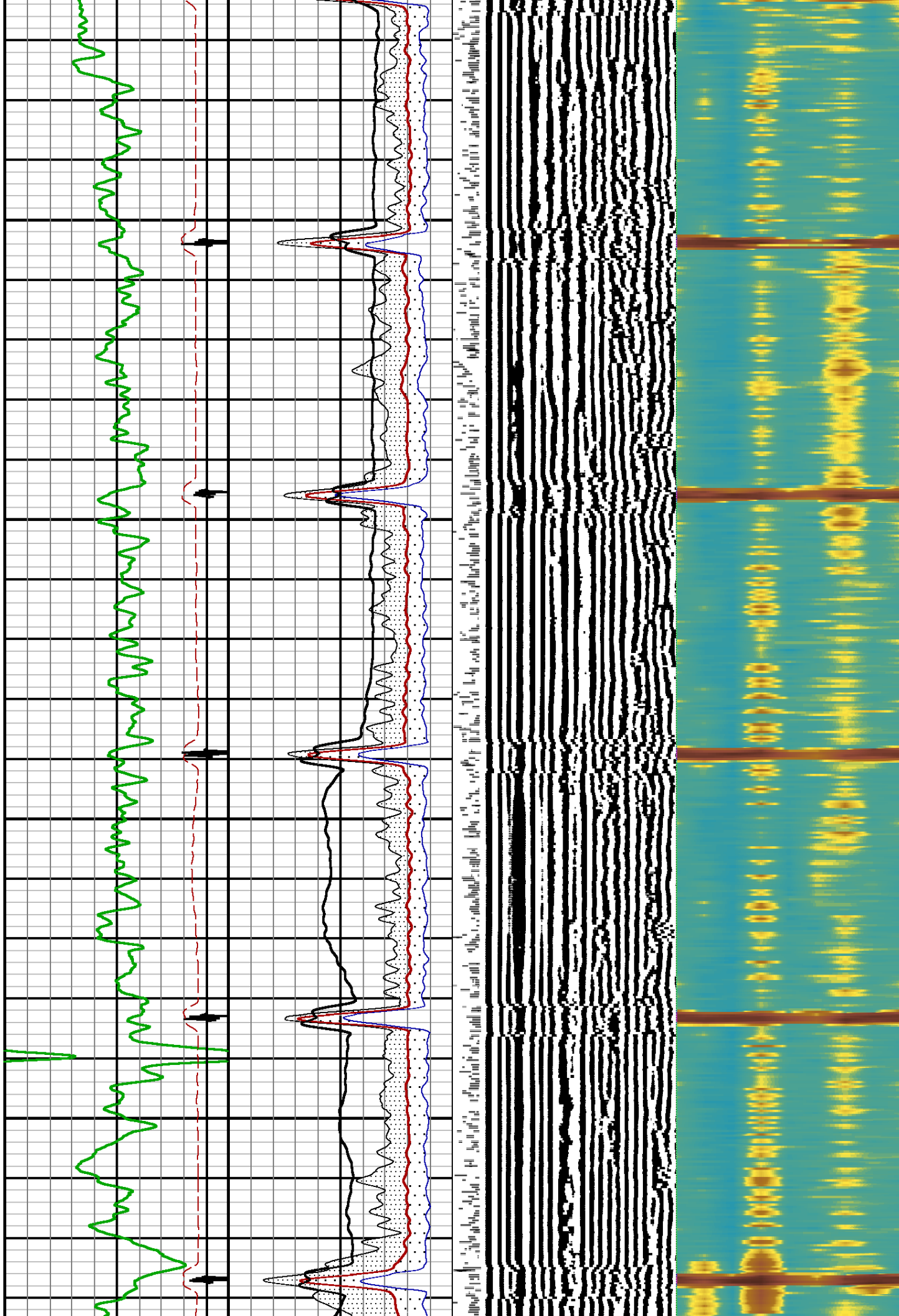
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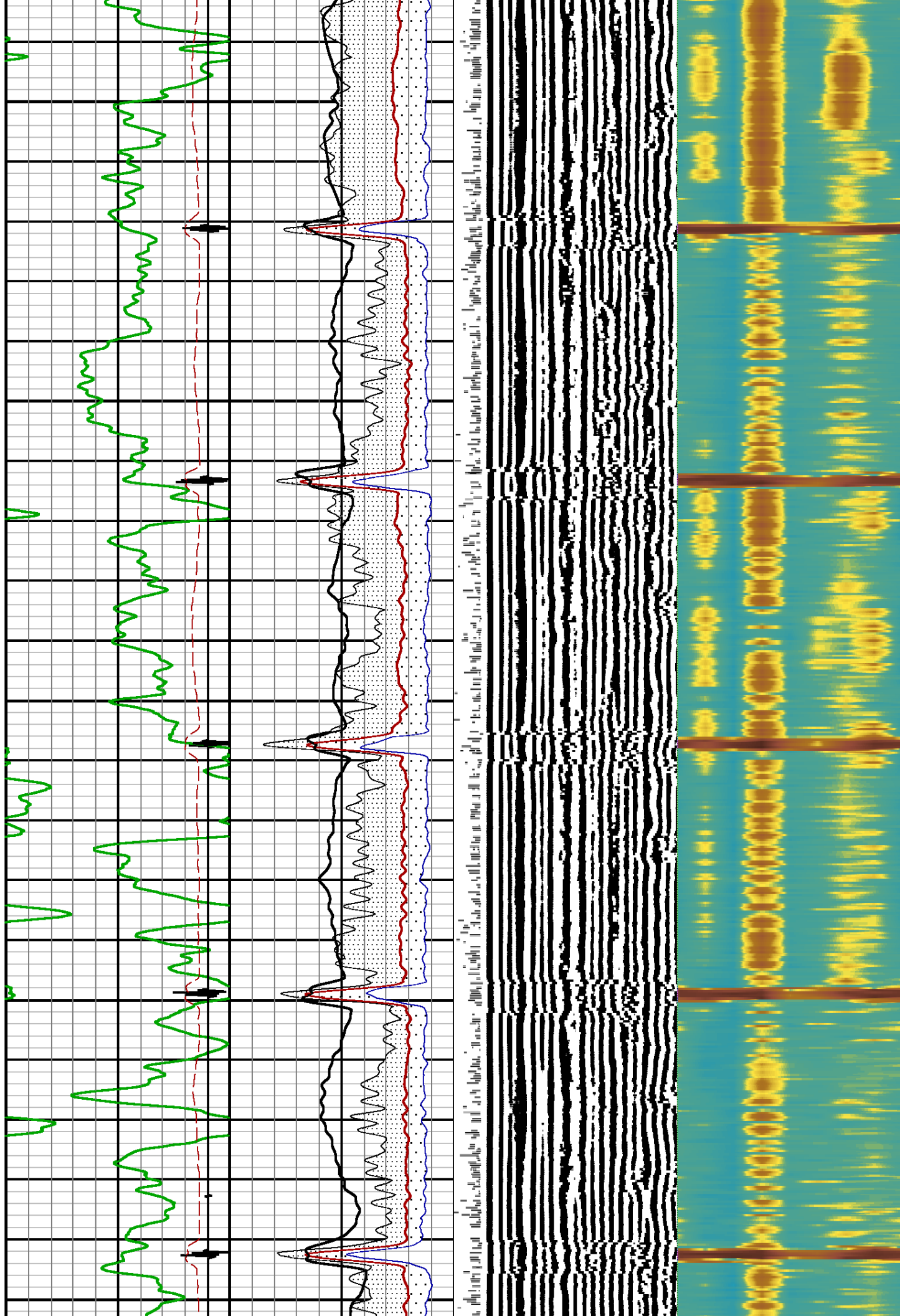
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1400



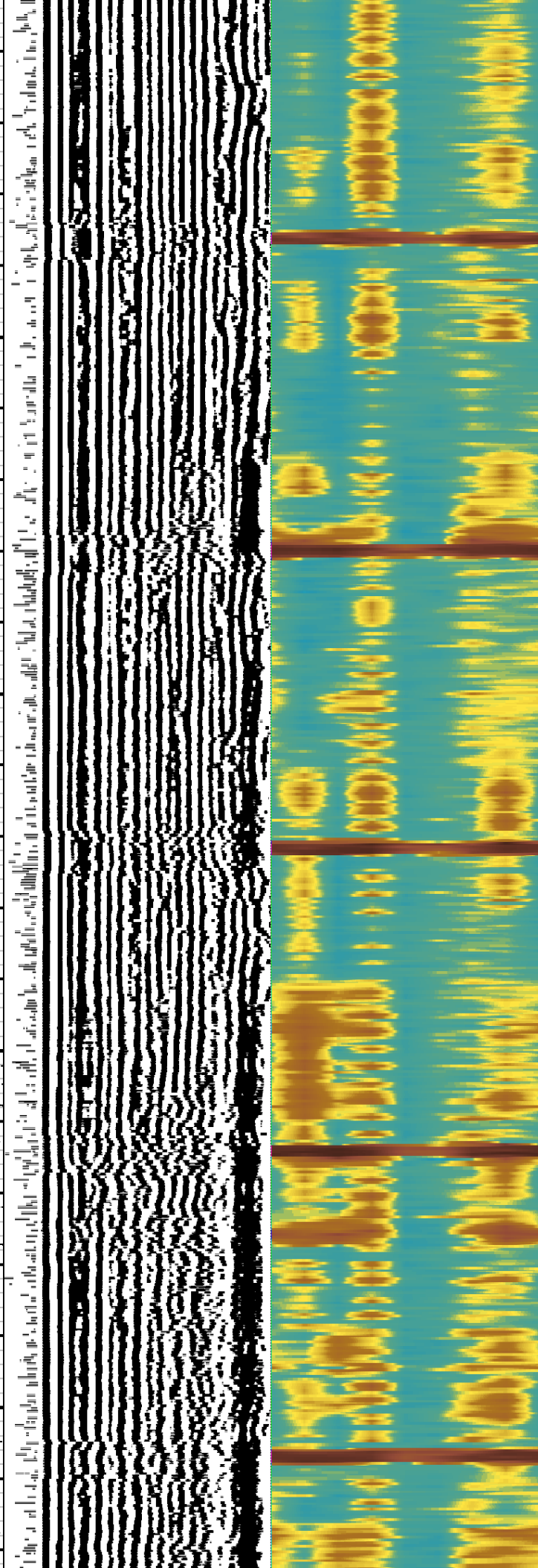
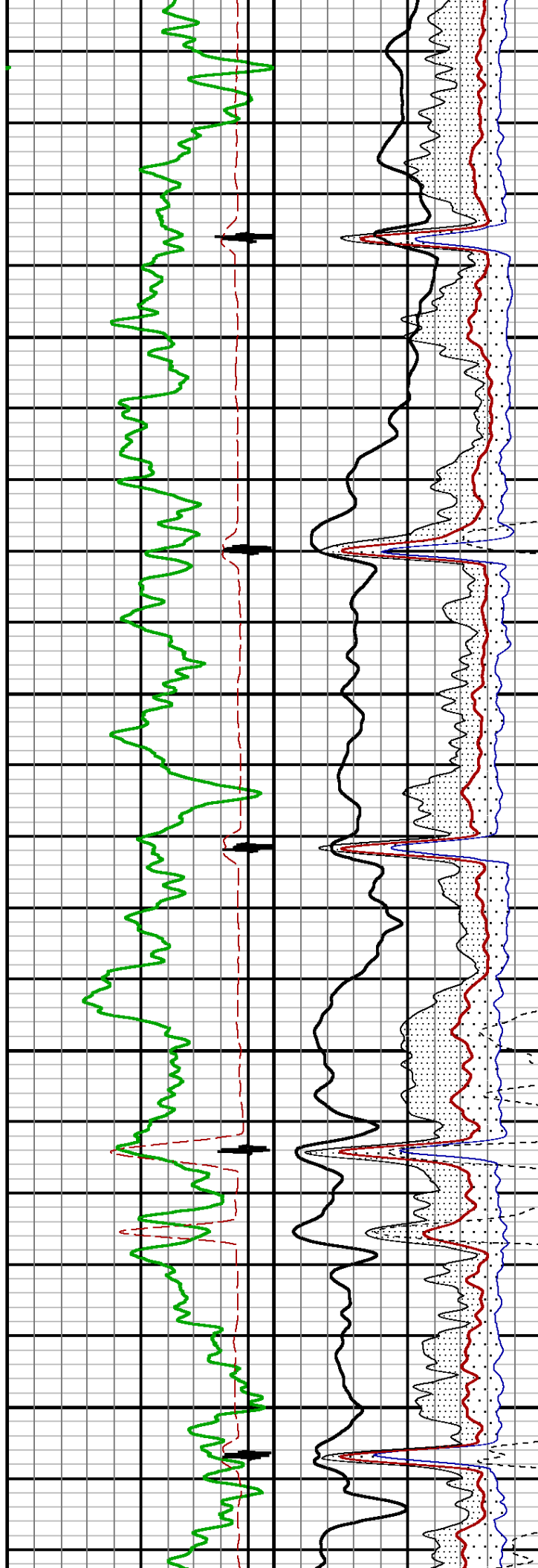
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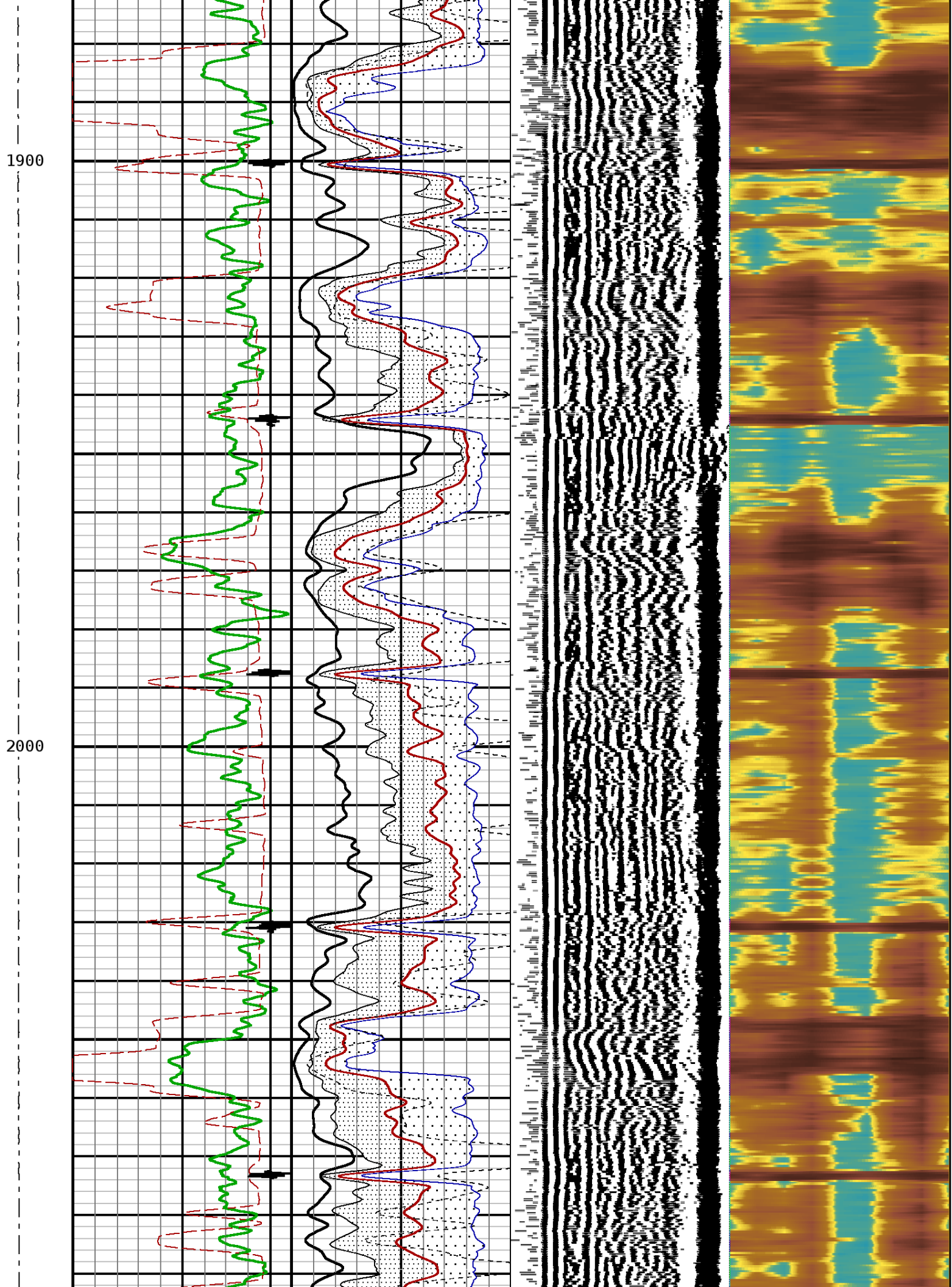
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1700

1800

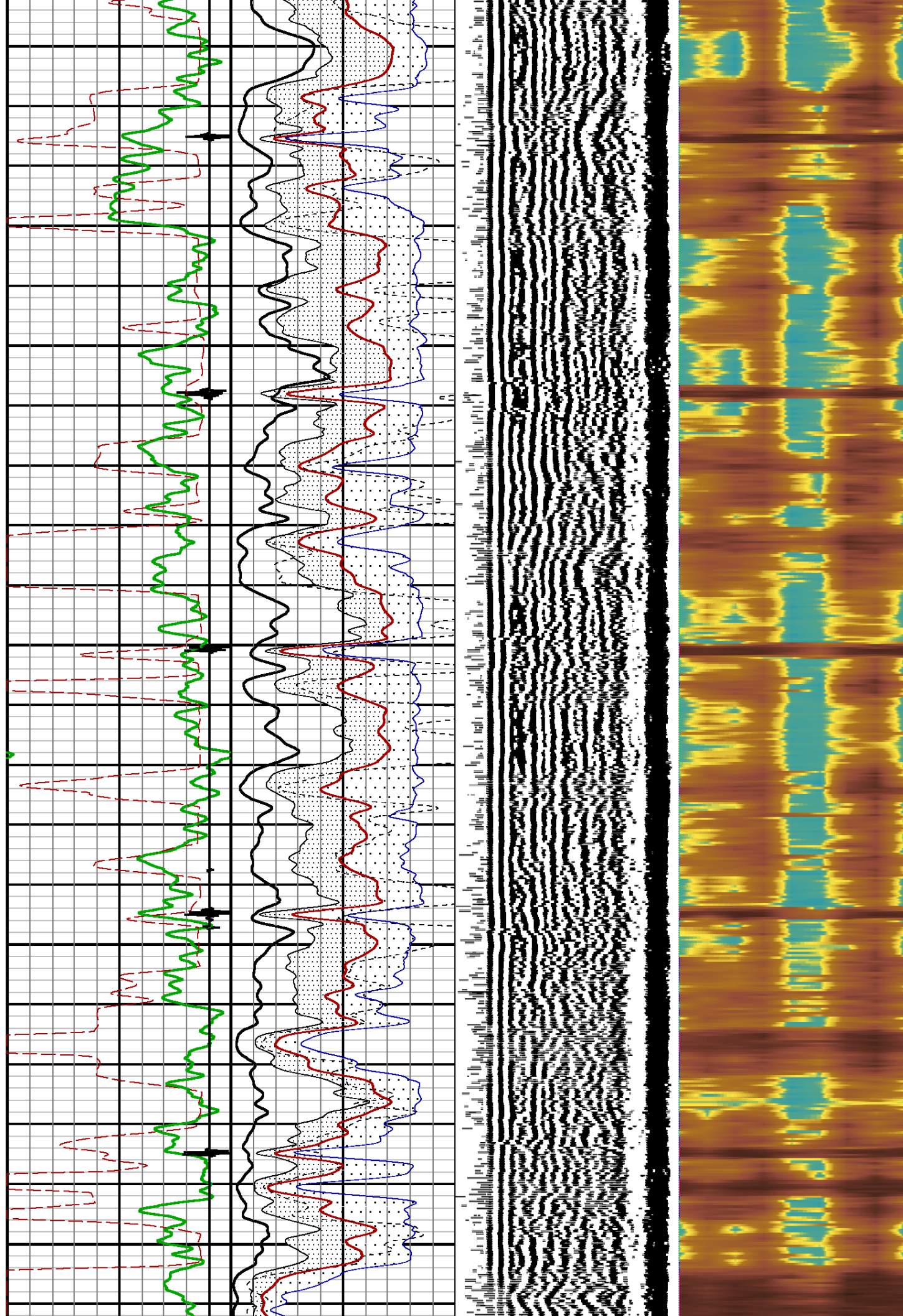




2100

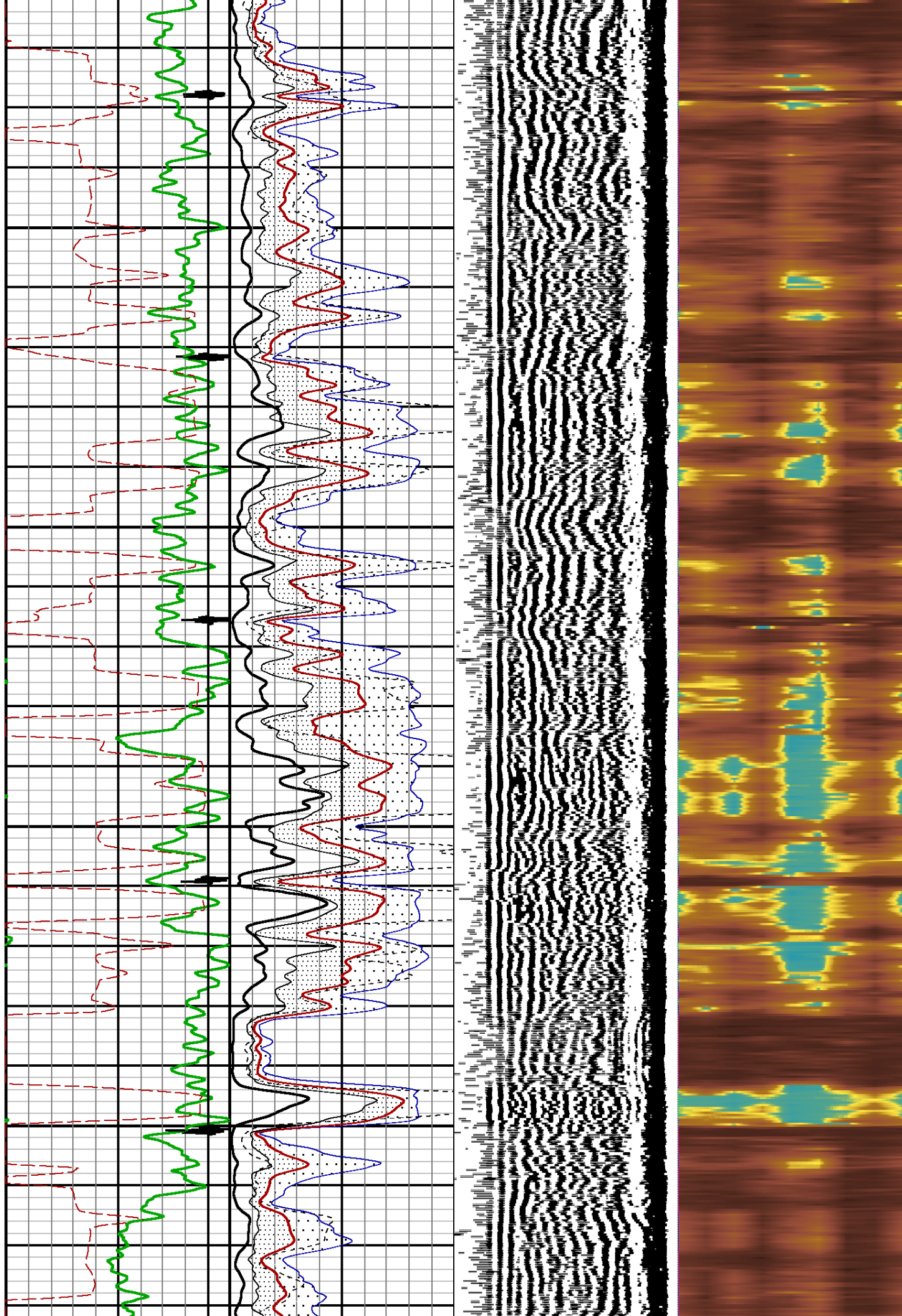
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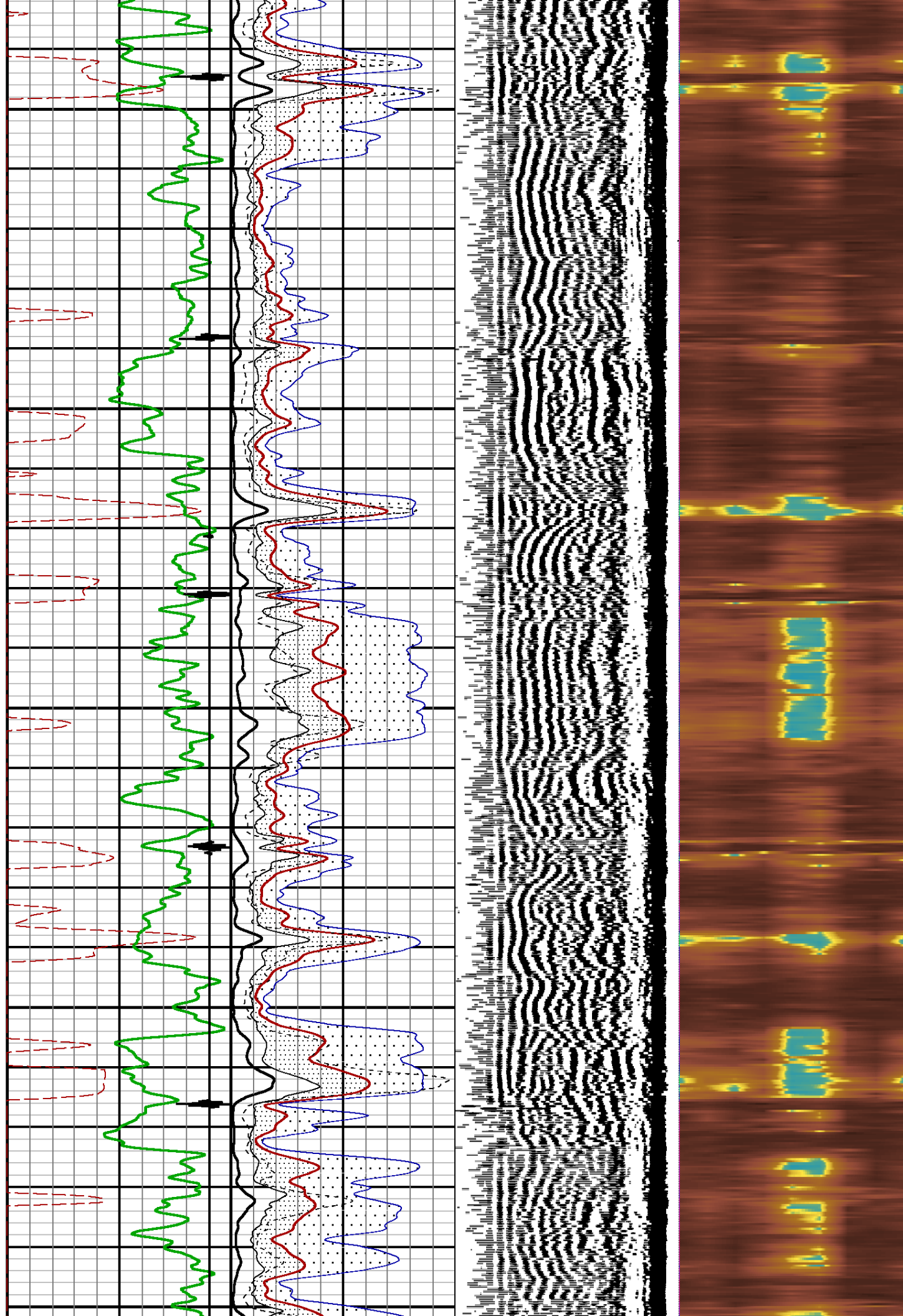
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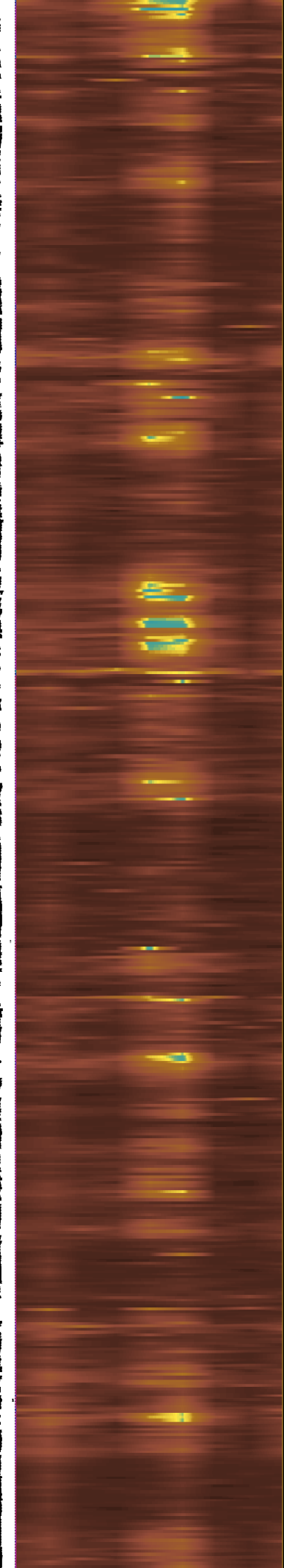
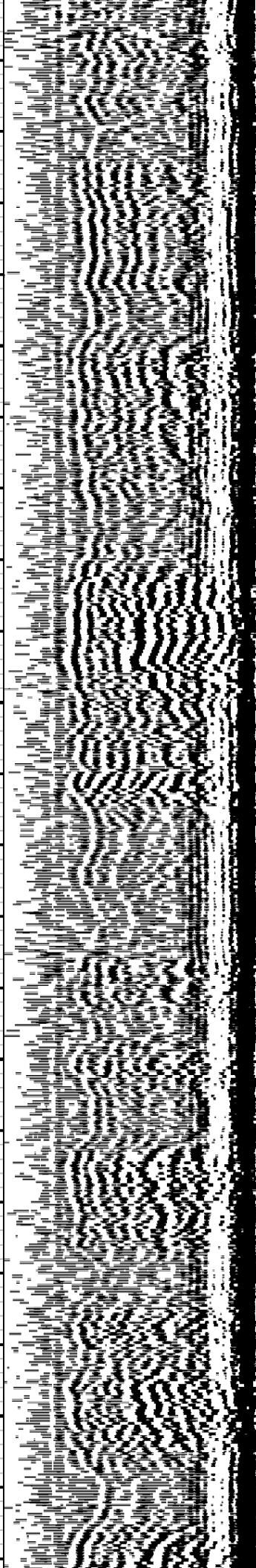
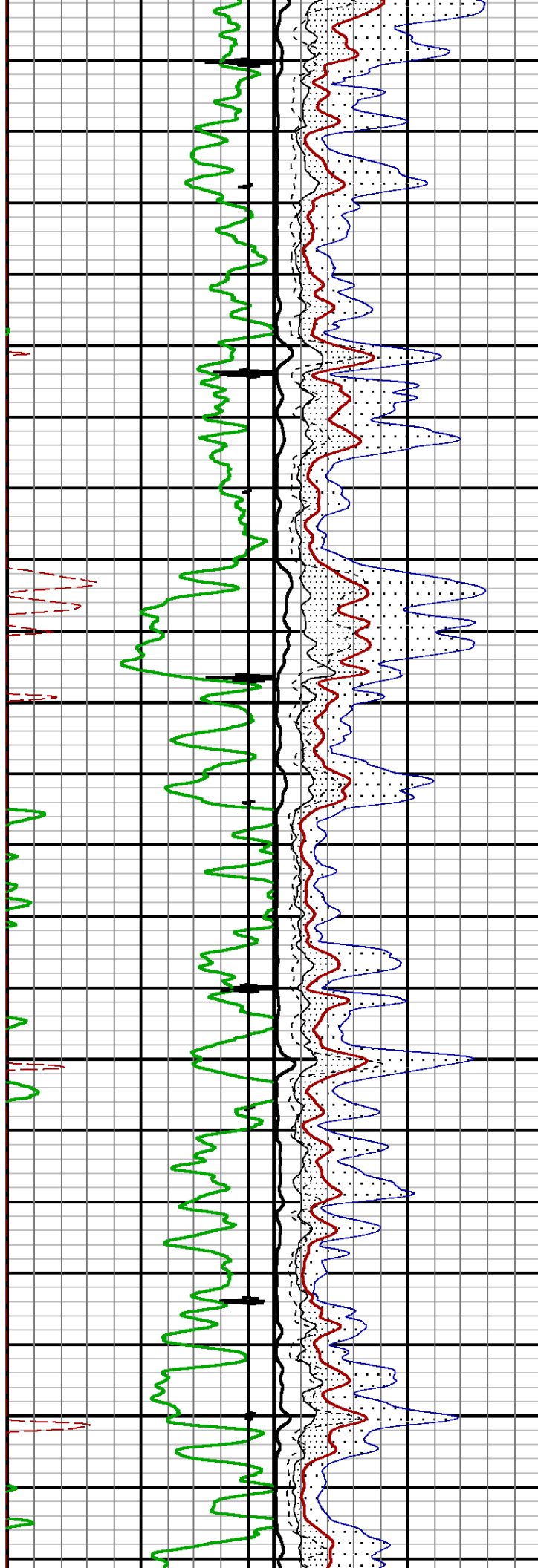
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2700



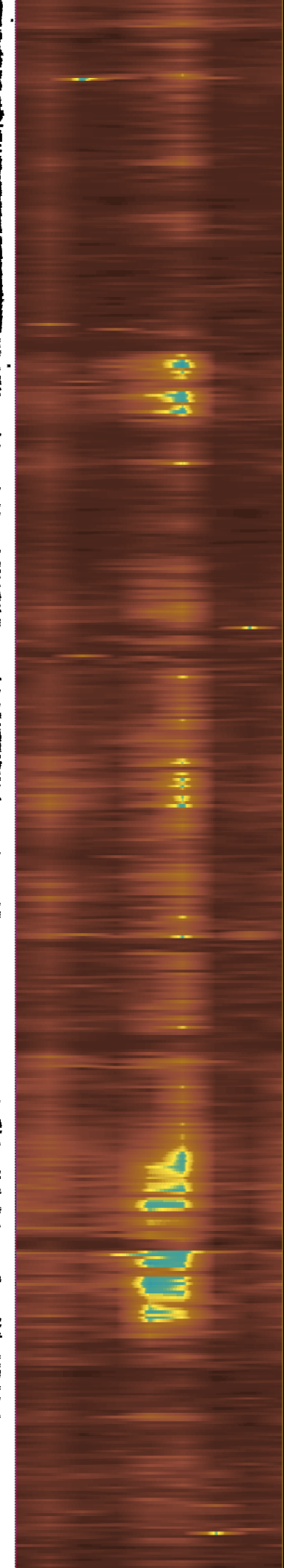
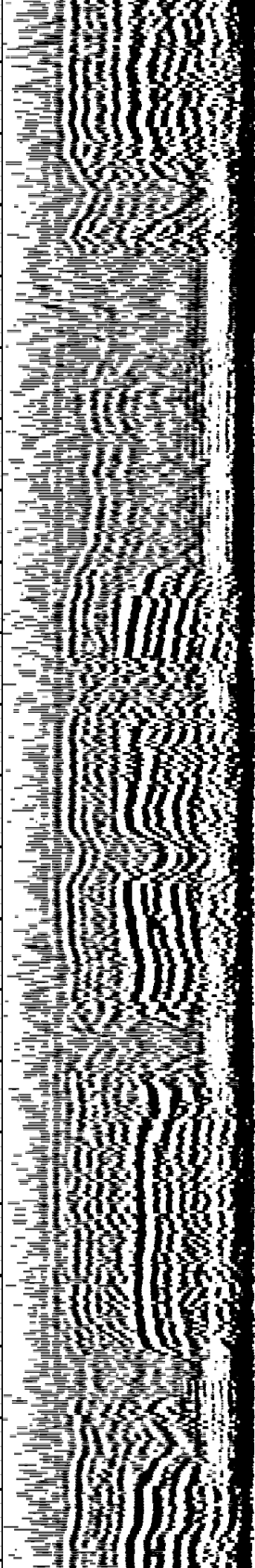
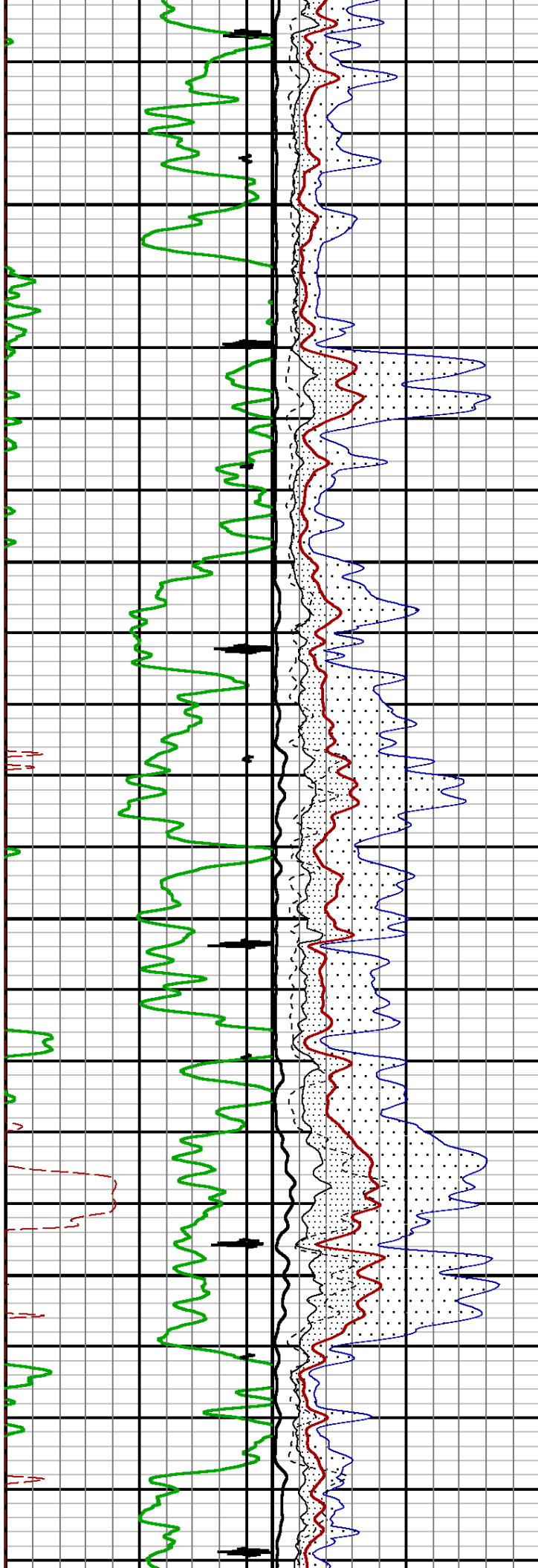
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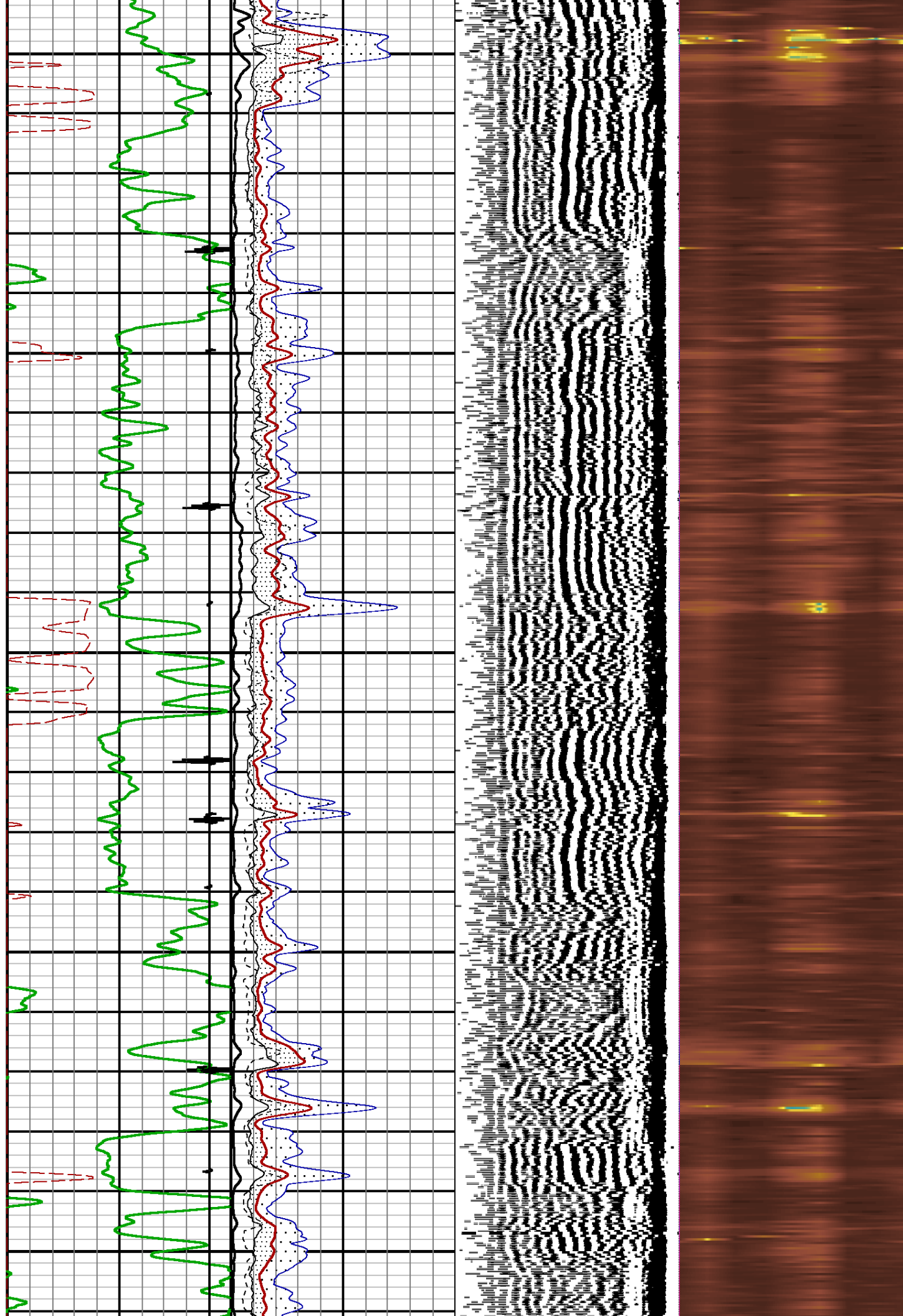
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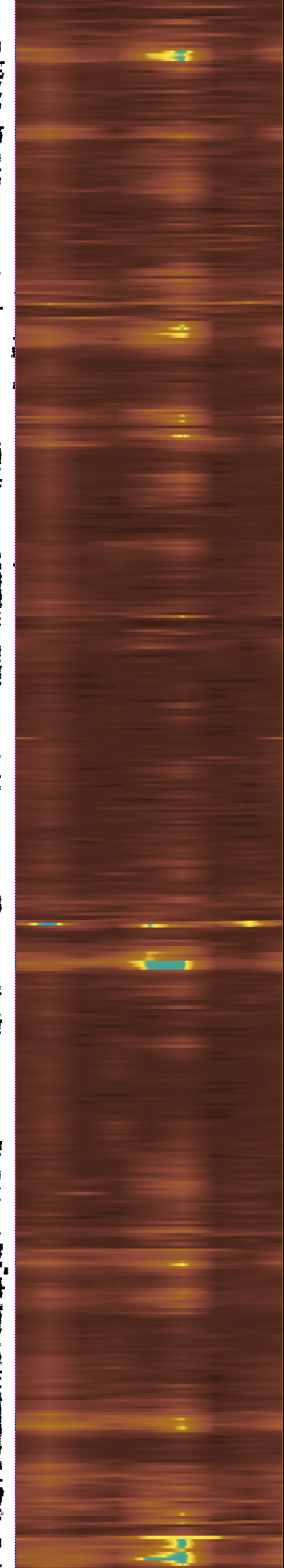
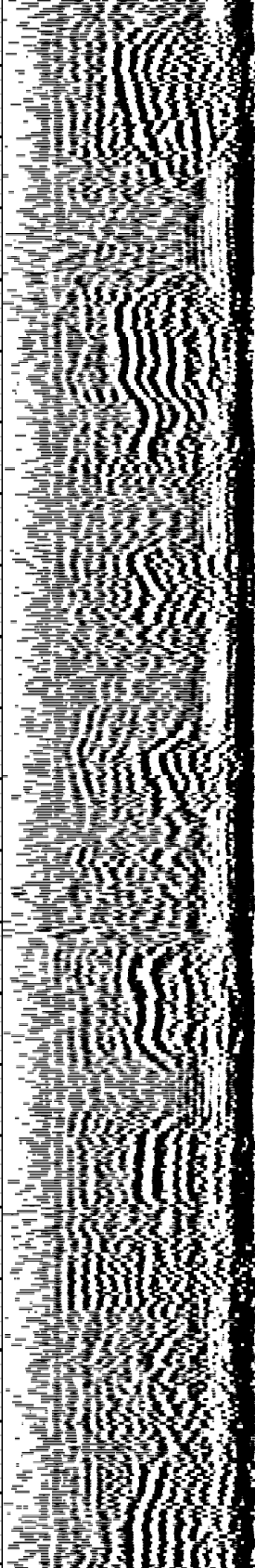
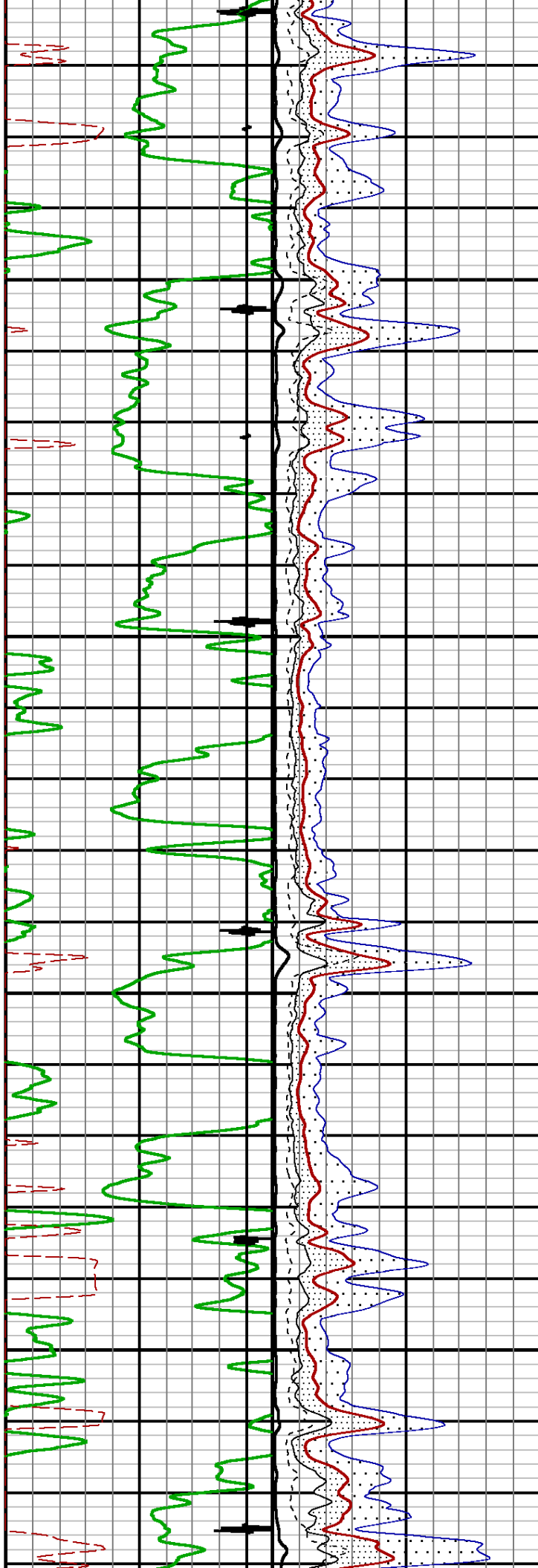
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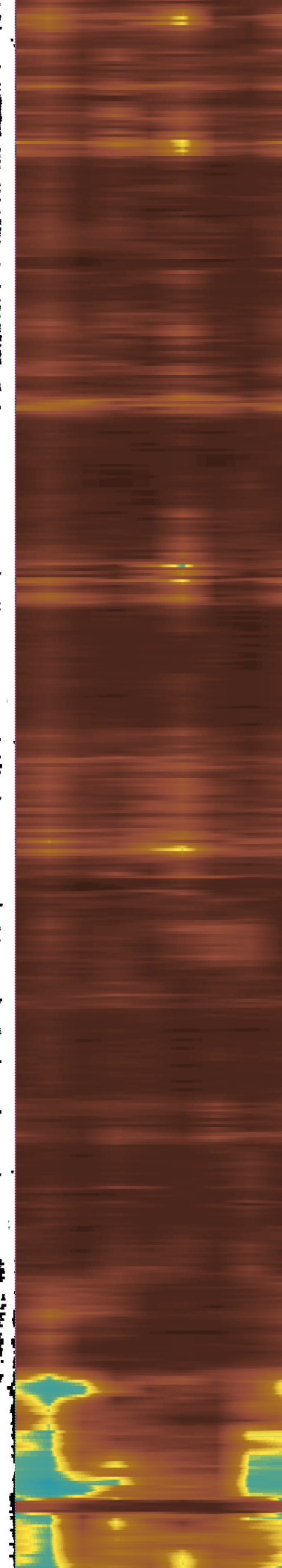
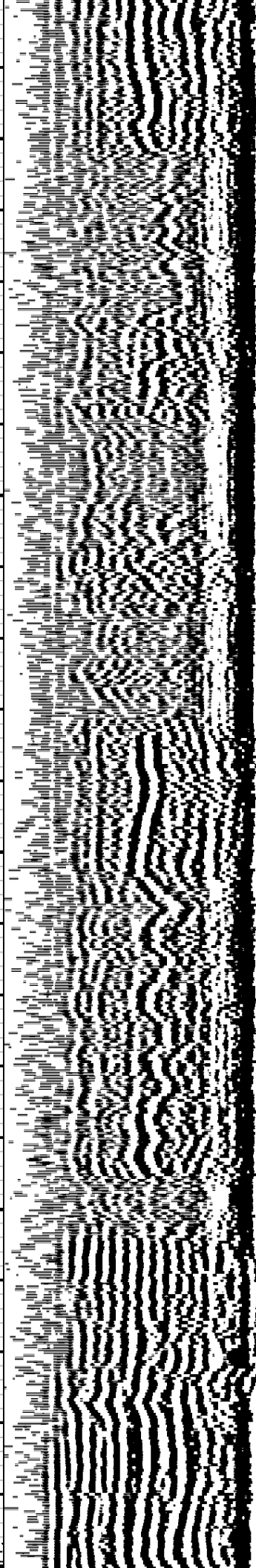
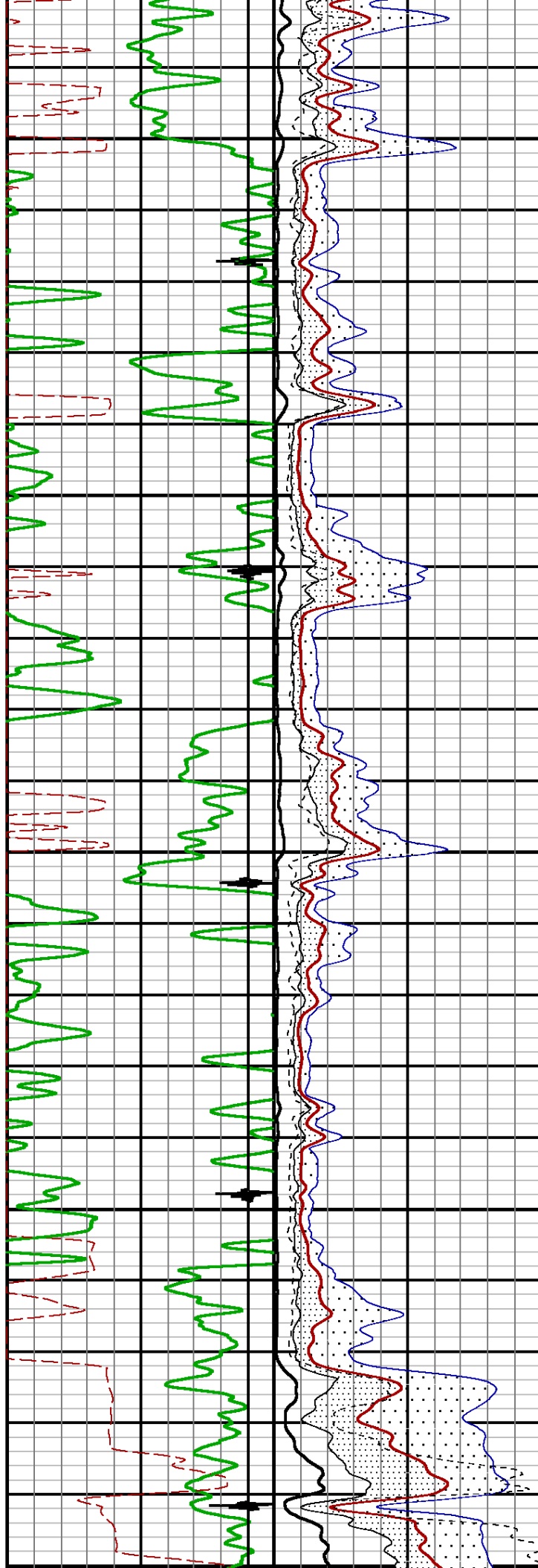
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3600



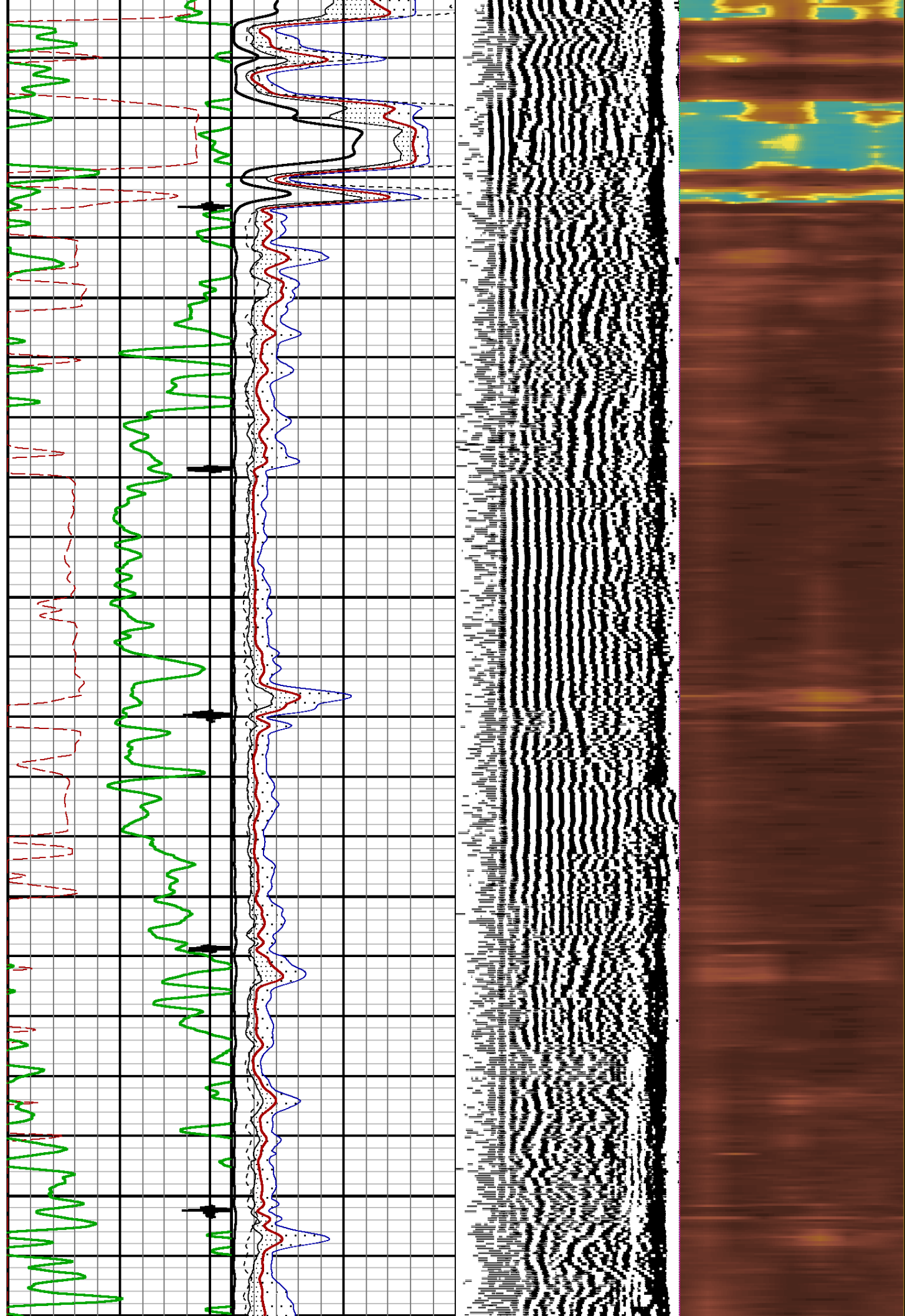
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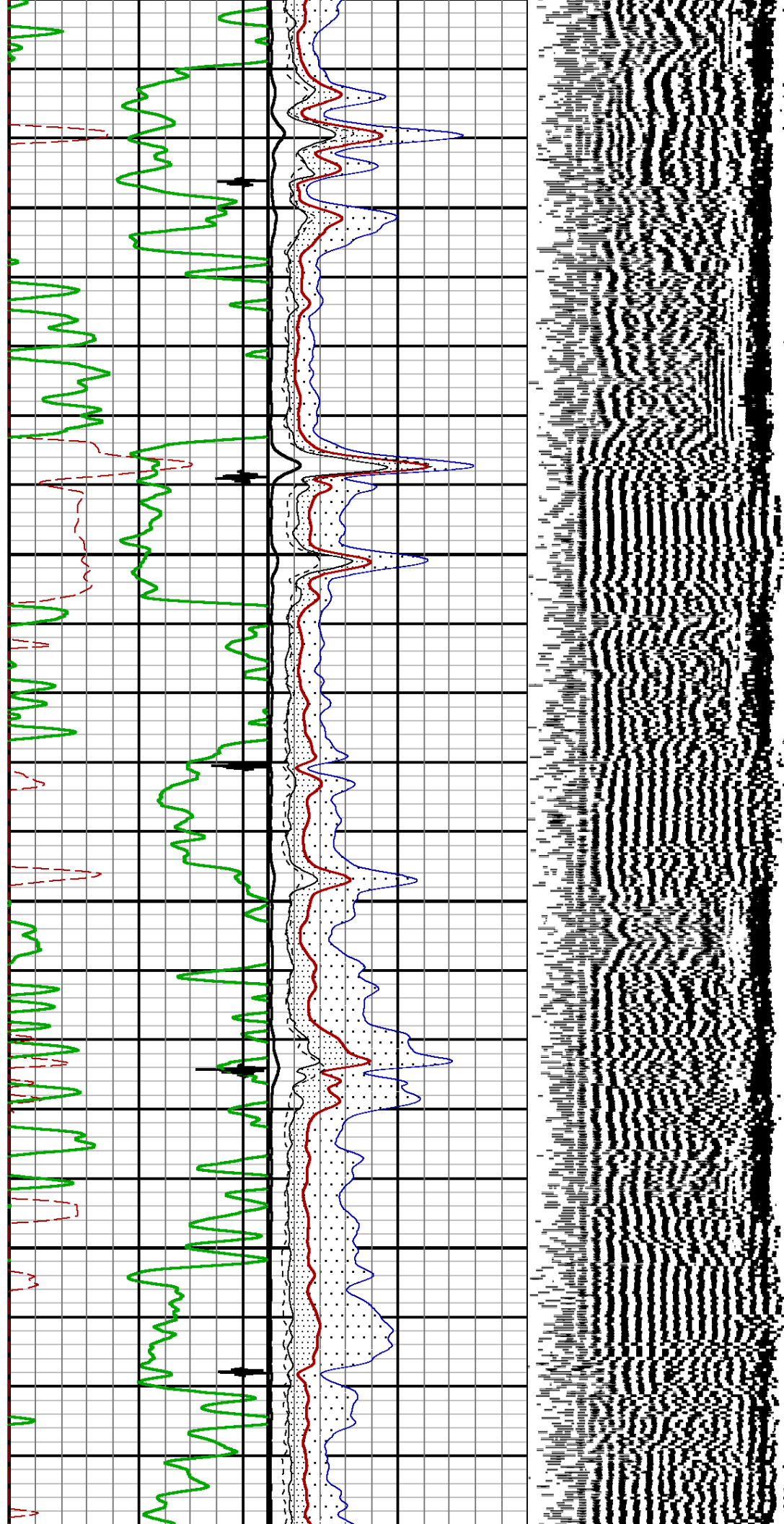
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4000



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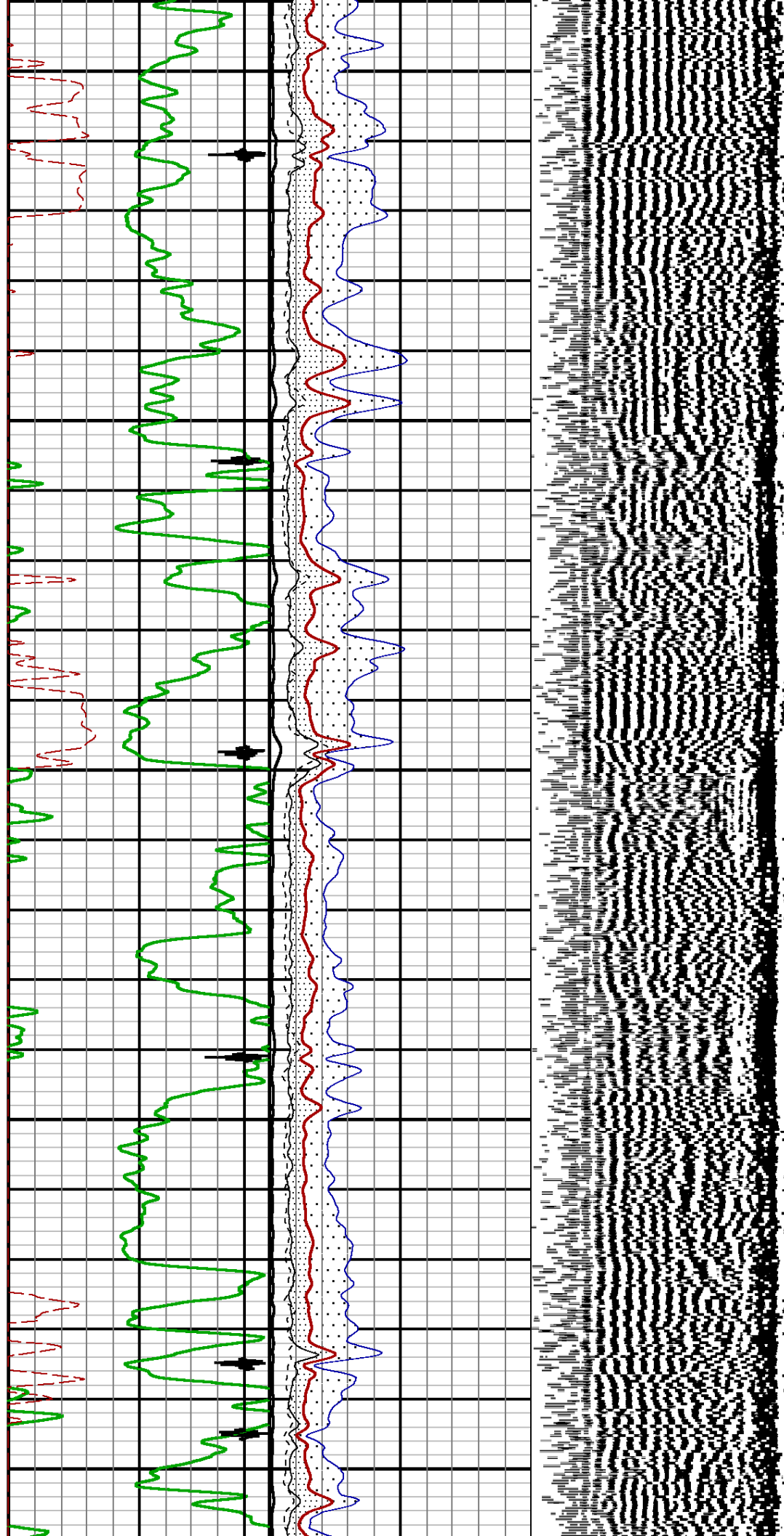
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4300

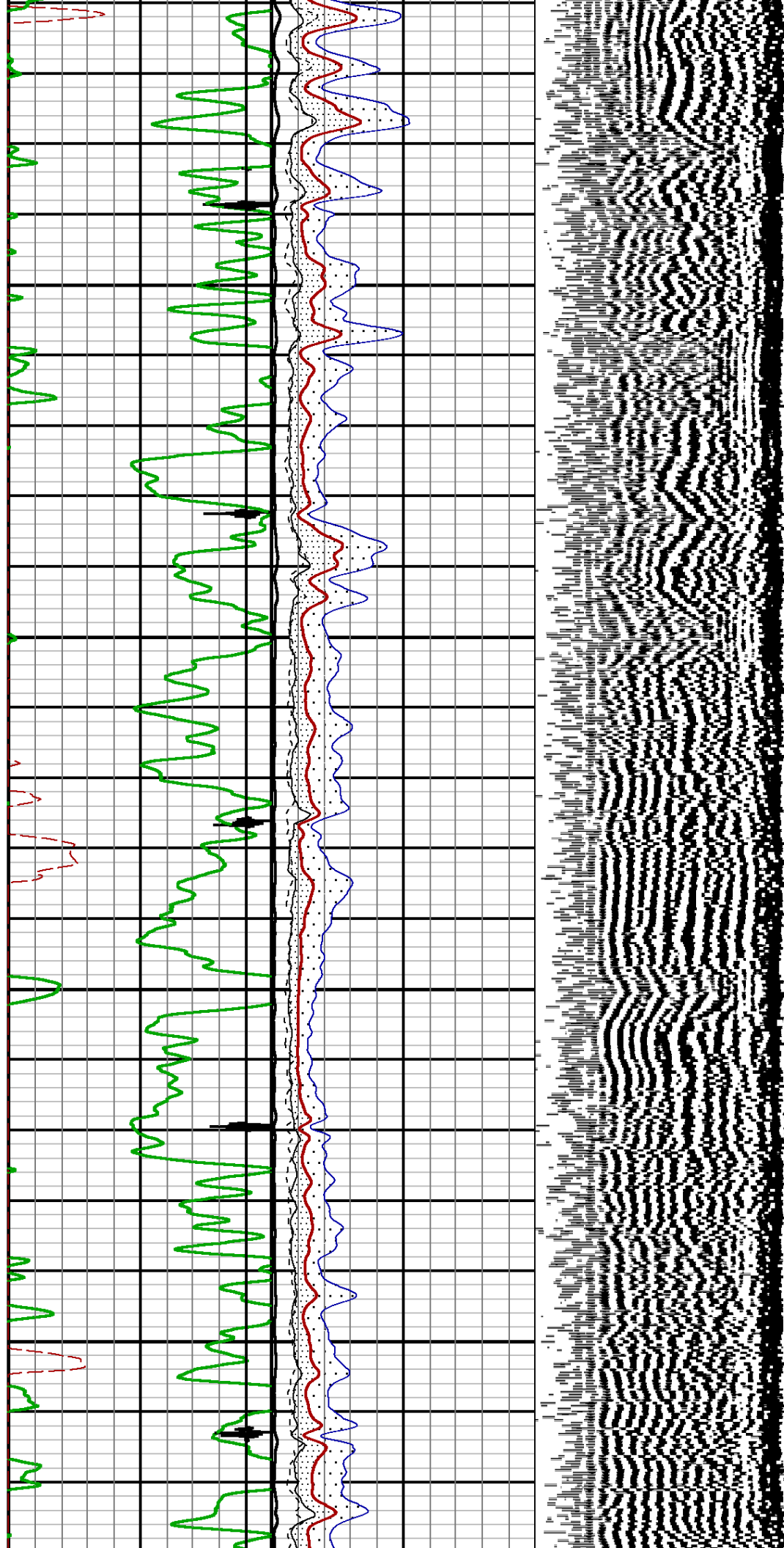
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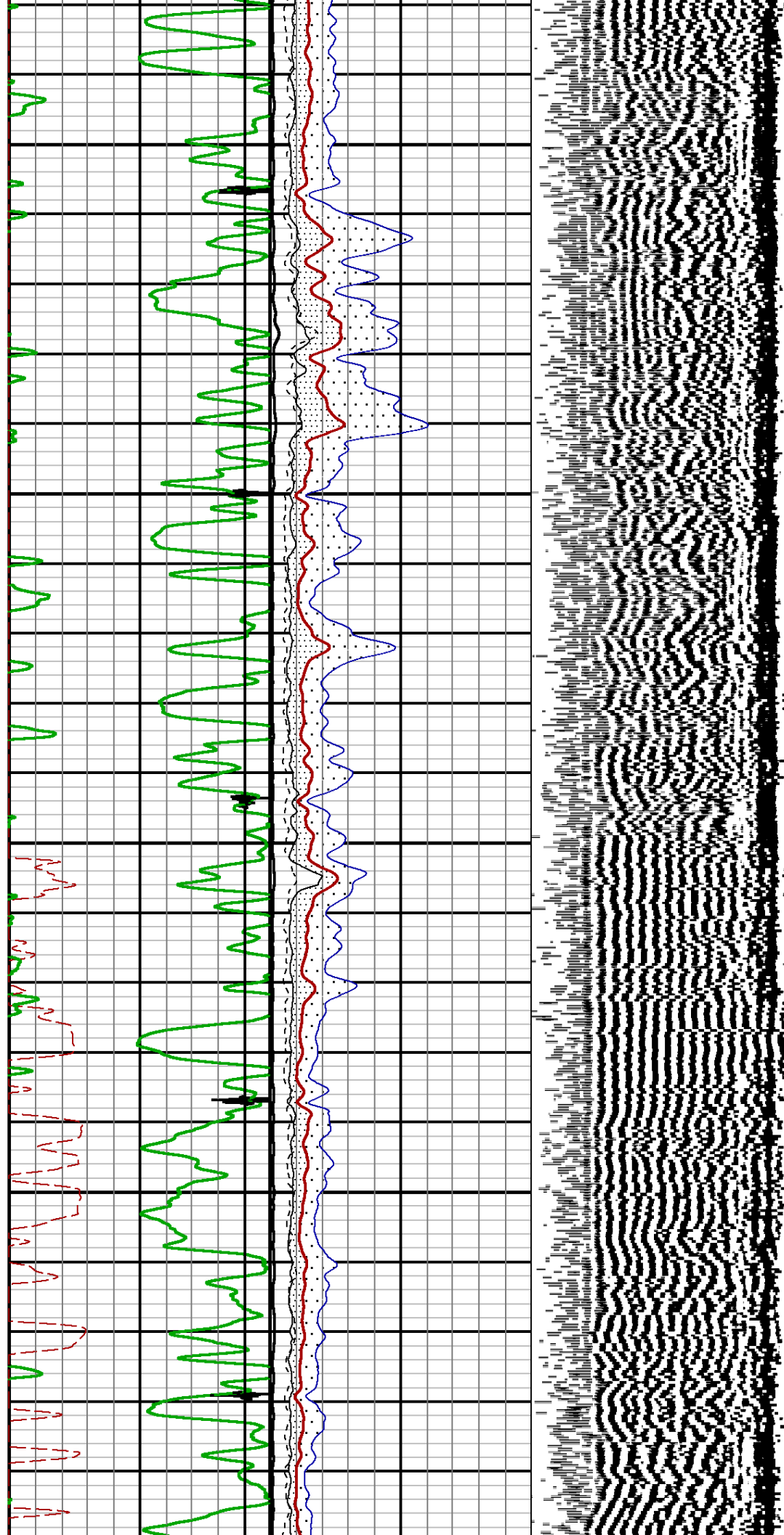
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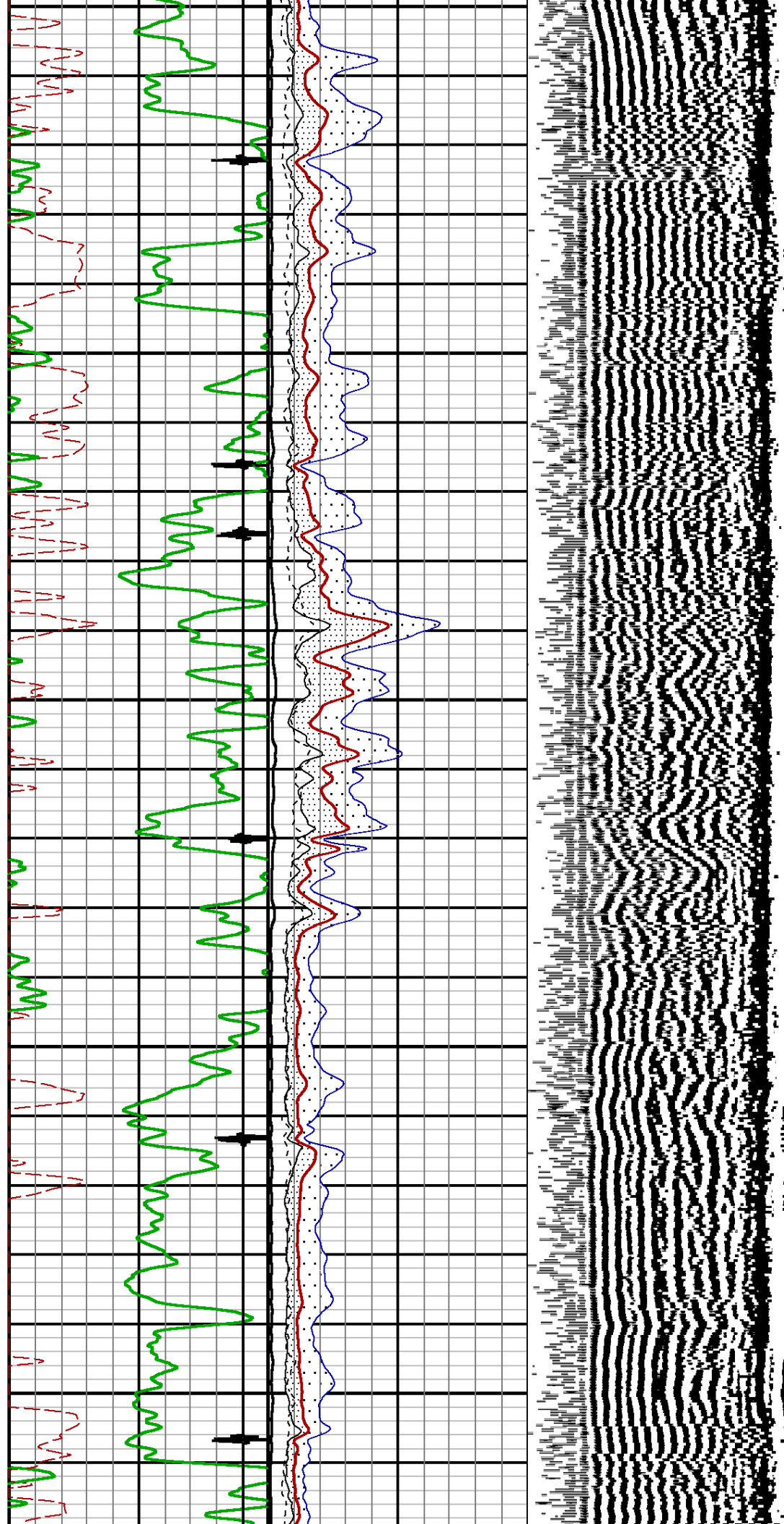
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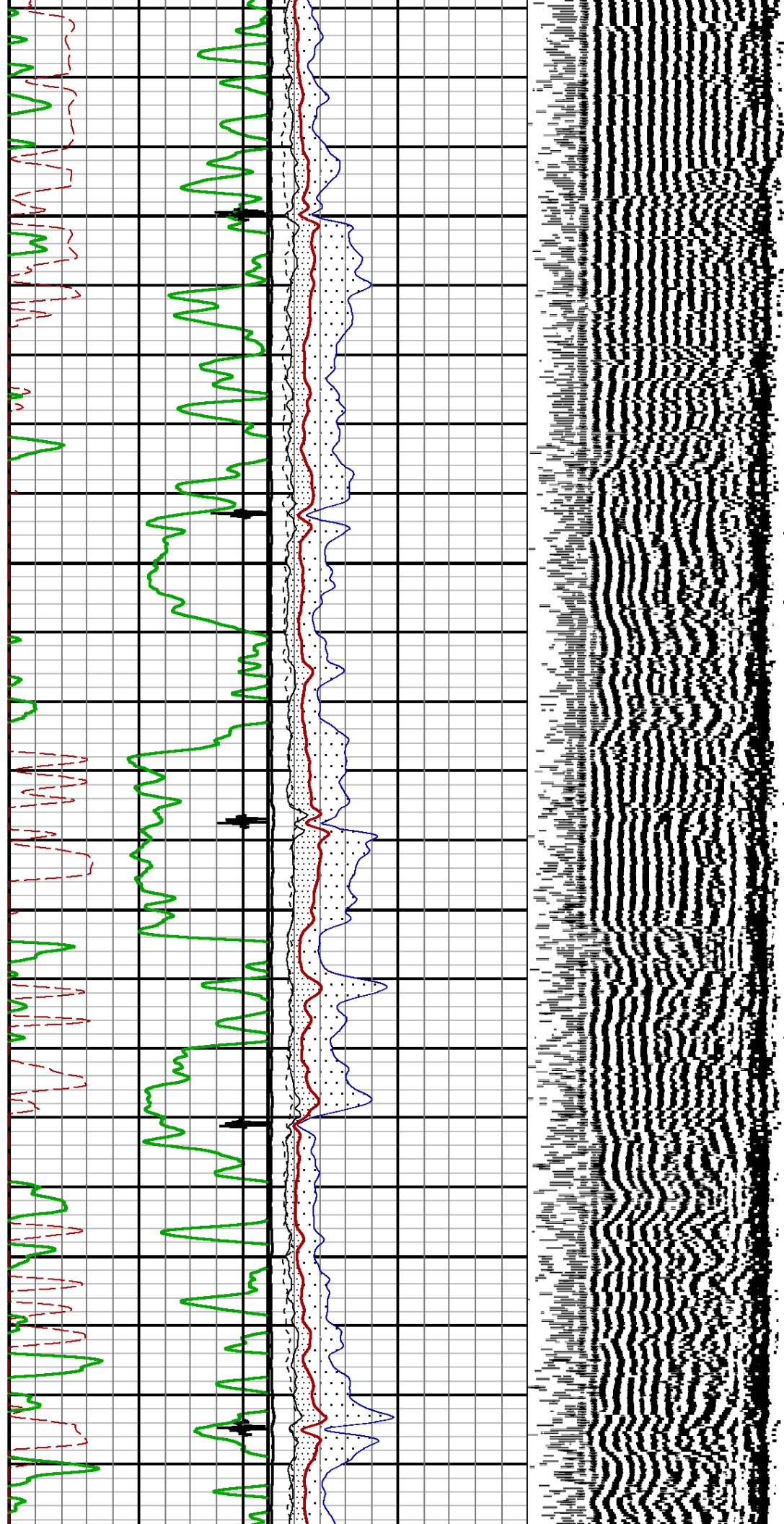
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5100



5200

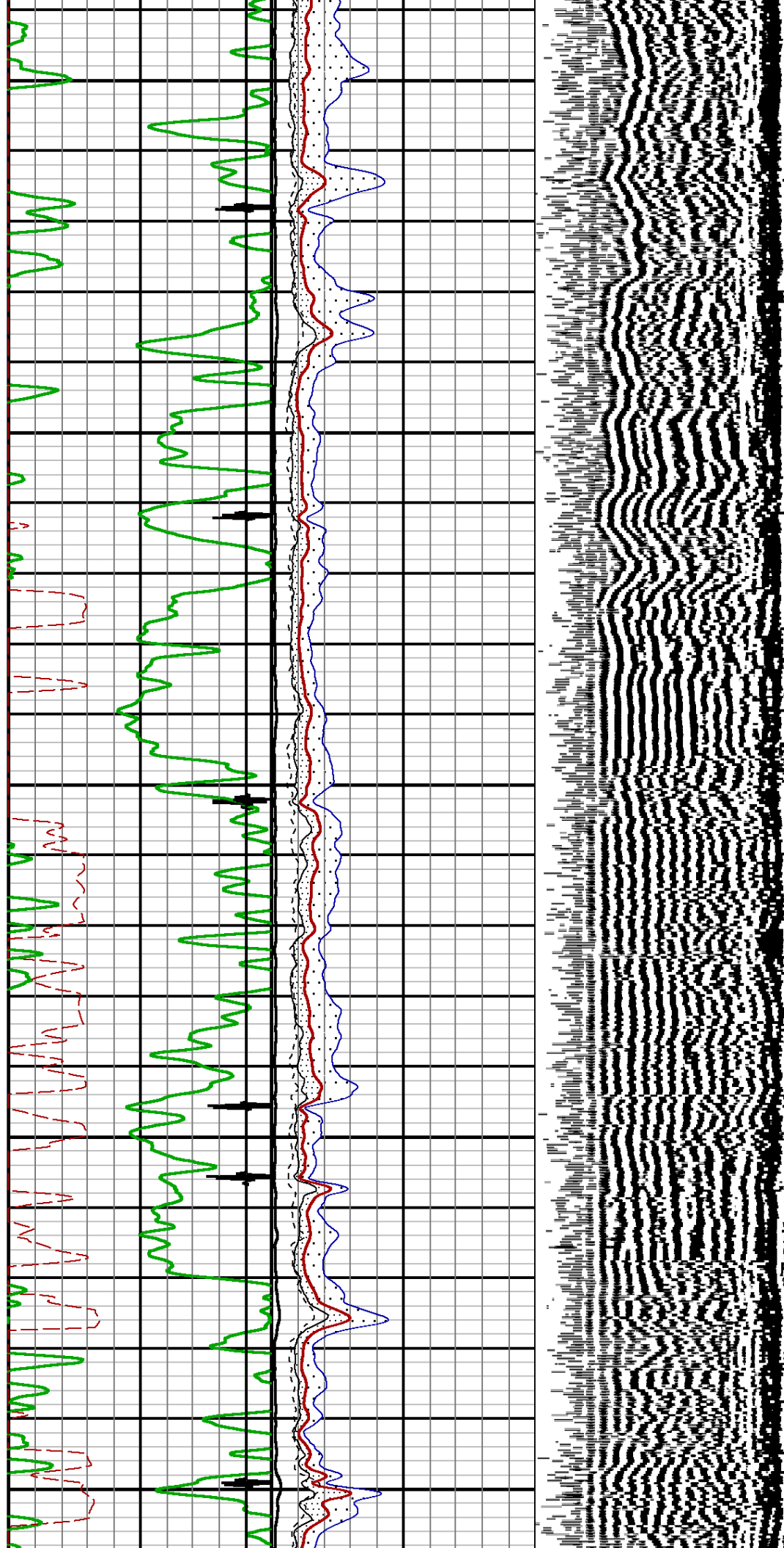
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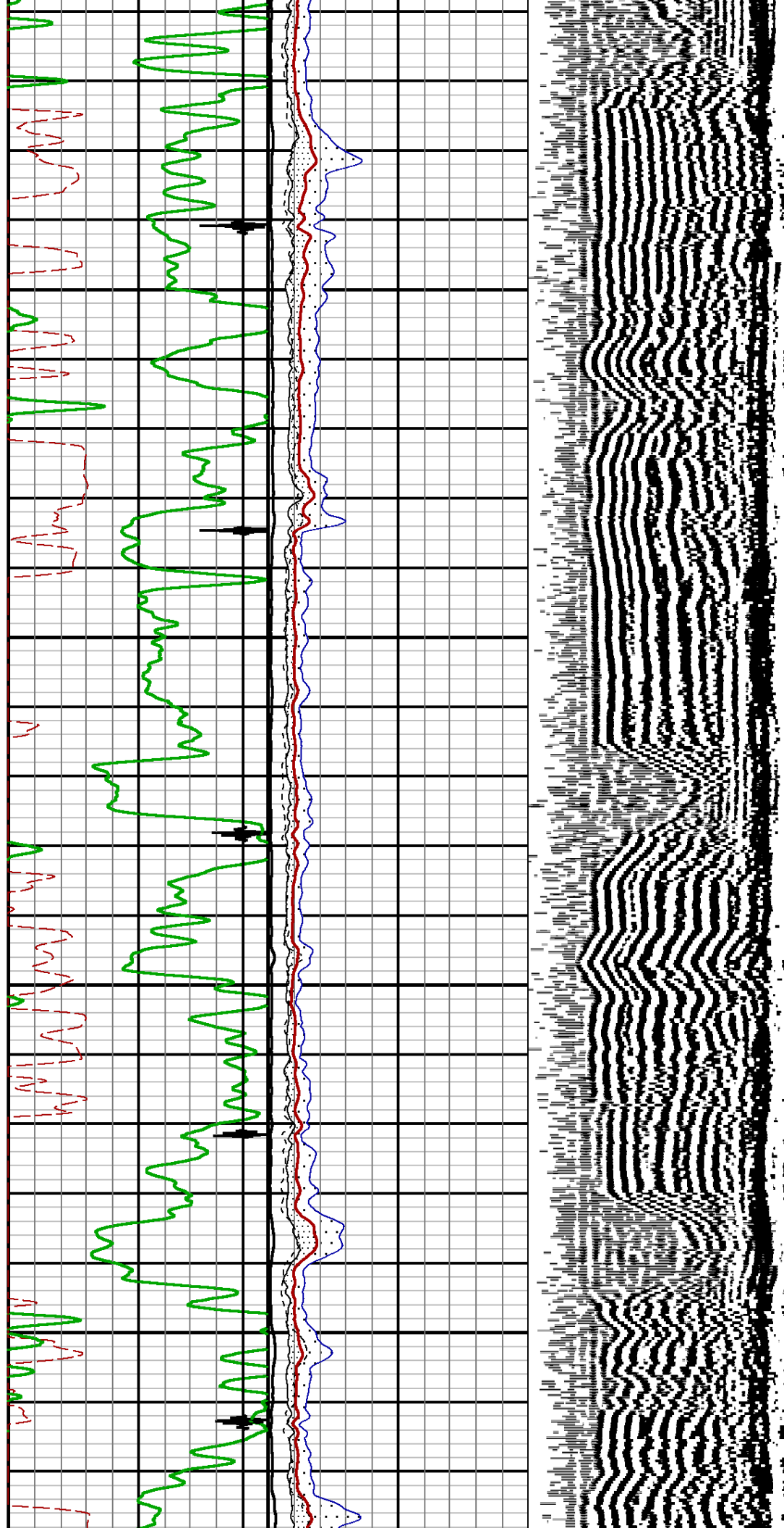
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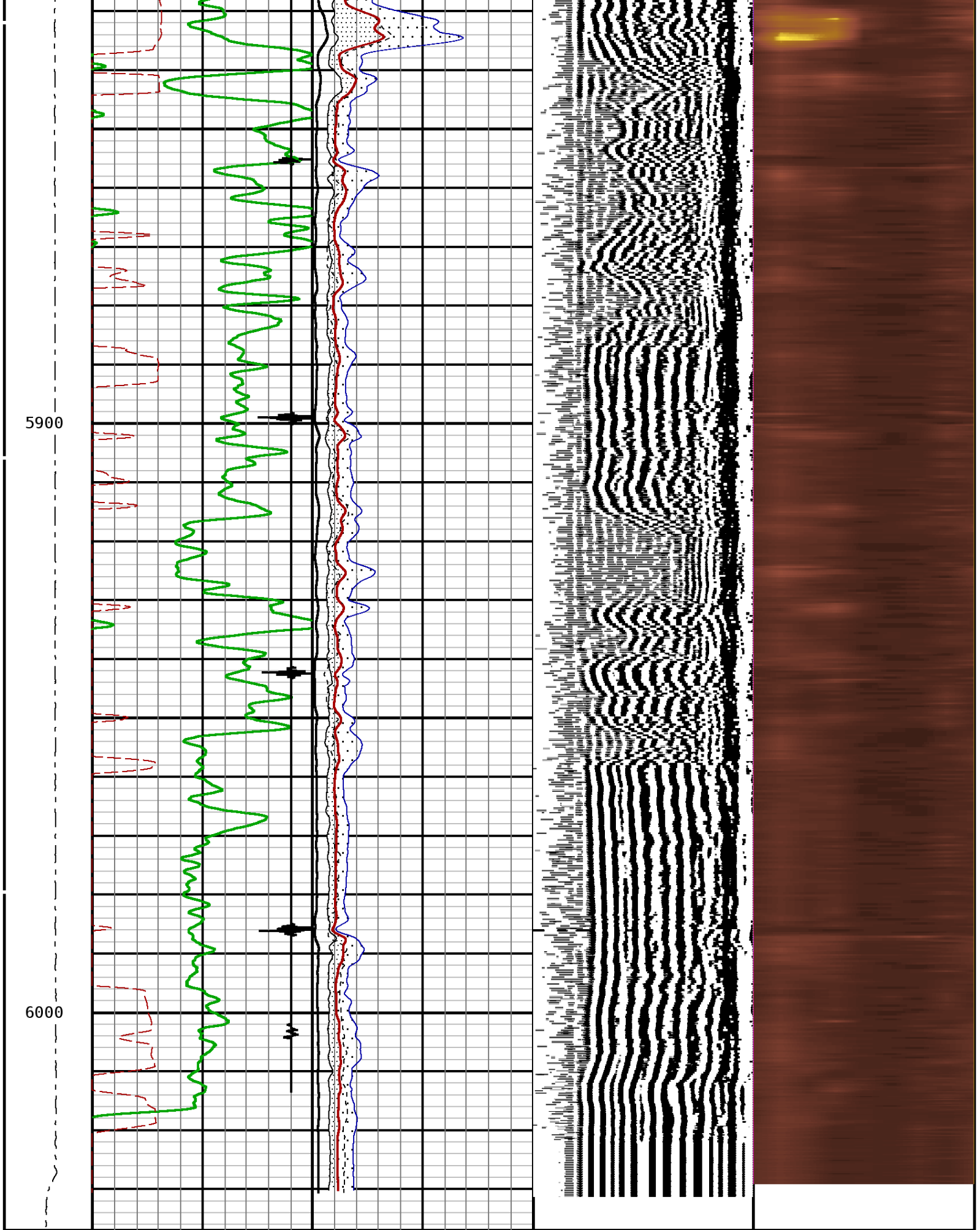
5600



5700

5800





Tension		TRAVEL TIME 3FT		MIN ENERGY		VARIABLE DENSITY 5FT		VARIABLE ENERGY	
0	2000	318	Microseconds 218	0	Millivolts 100	200	Microseconds 1200	0	Millivolts 100

2000	318	Microseconds	218	0	Millivolts	100	200	Microseconds	1200	0	Millivolts	100
Gamma Ray				AVG ENERGY								
0	API		150	0	Millivolts		100					
Collar Locator				MAX ENERGY								
-8000	Millivolts		800	0	Millivolts		100					
				AMPLITUDE 3FT								
				0	Millivolts		100					
				AMP X 5								
				0	Millivolts		20					

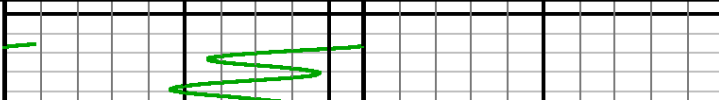
START DEPTH: 6037.0	DIRECTION: UP	DATE: 02/27/2014	TIME: 07:36	MODE: ORIGINAL
80209541 CBLMAIN				

MAIN PASS				
DEPTH SCALE: 5":100'	LOGGED VERSION: 2012.07.18.162"			

DEPTH SCALE: 5":100'	PROCESSED VERSION: 2012.07.18.162"
REPEAT PASS	

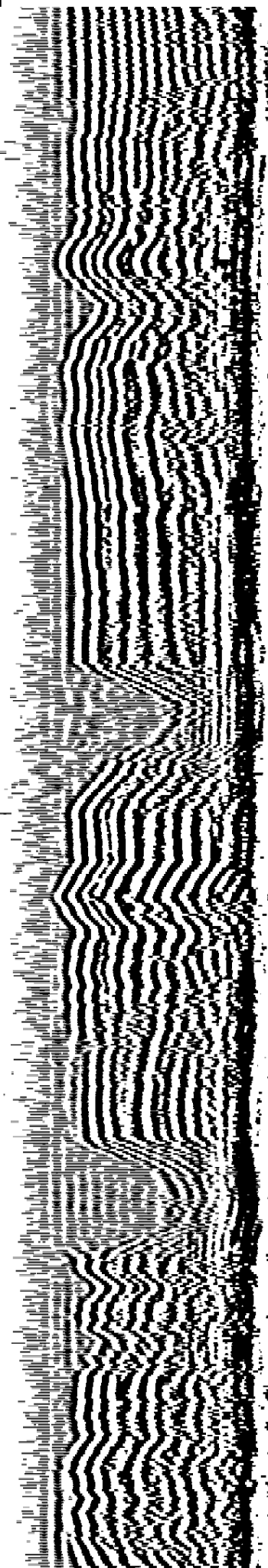
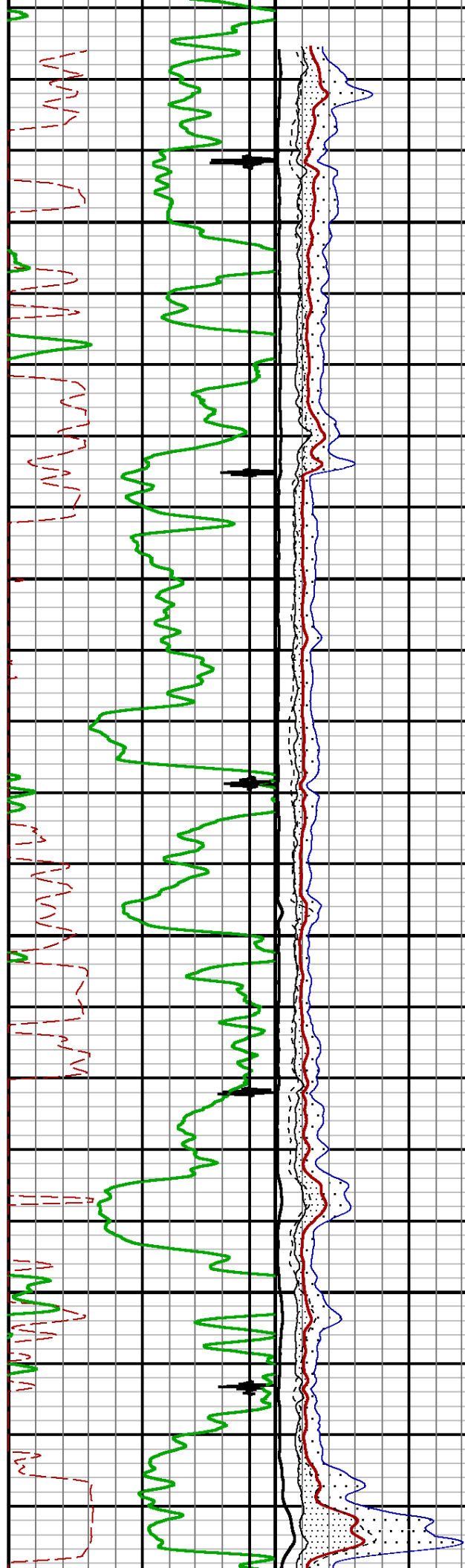
80209541 CBLREPEAT										
FINISH DEPTH:	5632.2	Feet	DIRECTION:	UP	DATE:	02/27/2014	TIME:	07:43	MODE:	ORIGINAL

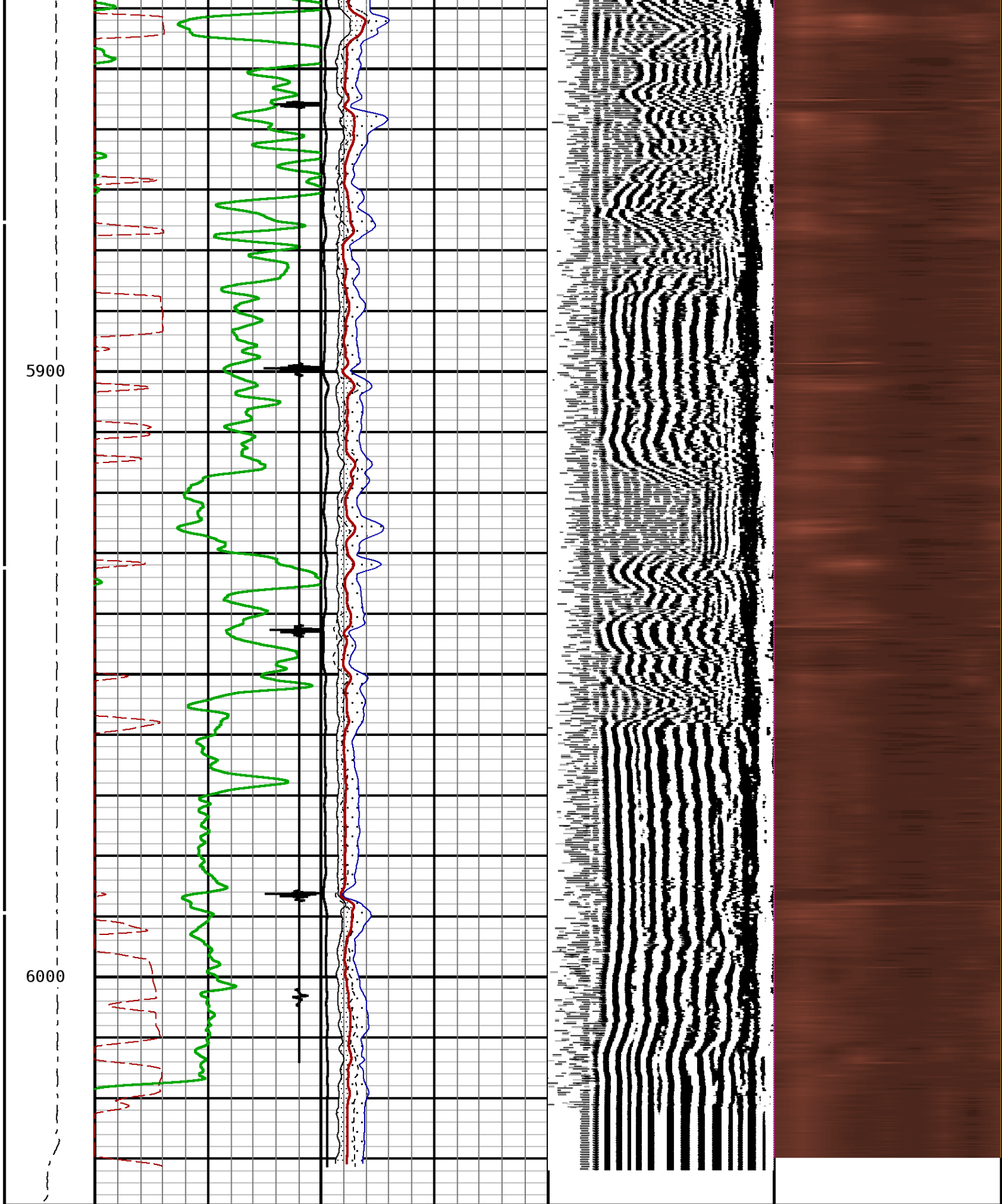
				AMP X 5									
				0	Millivolts	20							
				AMPLITUDE 3FT									
				0	Millivolts	100							
Collar Locator				MAX ENERGY									
-8000	Millivolts		800	0	Millivolts		100						
Gamma Ray				AVG ENERGY									
0	API		150	0	Millivolts		100						
				MIN ENERGY		VARIABLE DENSITY 5FT		VARIABLE ENERGY					
Tension	TRAVEL TIME 3FT												
0	2000	318	Microseconds	218	0	Millivolts	100	200	Microseconds	1200	0	Millivolts	100



5700

5800





Tension	TRAVEL TIME 3FT	MIN ENERGY	VARIABLE DENSITY 5FT	VARIABLE ENERGY
0 2000	318 Microseconds 218	0 Millivolts 100	200 Microseconds 1200	0 Millivolts 100
	Gamma Ray	AVG ENERGY		

0	API	150	0	Millivolts	100
Collar Locator			MAX ENERGY		
-8000	Millivolts	800	0	Millivolts	100
			AMPLITUDE 3FT		
			0	Millivolts	100
			AMP X 5		
			0	Millivolts	20

START DEPTH: 6037.7 DIRECTION: UP DATE: 02/27/2014 TIME: 07:43 MODE: ORIGINAL

80209541 CBLREPEAT

REPEAT PASS

DEPTH SCALE: 5":100' LOGGED VERSION: 2012.07.18.162"

02/24/14	11:50	557.7 F	Ver	162R 2.0b	Job	80212865
Sector Bond Before Calibration						
Tool Type	SBT-AA	Serial No	sbta237			
Sensor	Description	Standard	Measured			
AMP 3FT	ZERO	1.00	1.30			
	PLUS	81.00	2119.40			
AMP 5FT	ZERO	5.00	2.60			
	PLUS	95.00	3002.30			
1 SECTOR AMP	ZERO	5.00	73.70			
	PLUS	95.00	1813.80			
2 SECTOR AMP	ZERO	5.00	36.90			
	PLUS	95.00	1806.40			
3 SECTOR AMP	ZERO	5.00	92.50			
	PLUS	95.00	1848.80			
4 SECTOR AMP	ZERO	5.00	71.00			
	PLUS	95.00	2510.30			
5 SECTOR AMP	ZERO	5.00	71.30			
	PLUS	95.00	1942.90			
6 SECTOR AMP	ZERO	5.00	58.40			
	PLUS	95.00	2100.10			

7 SECTOR AMP	ZERO	5.00	53.90
	PLUS	95.00	2304.70
8 SECTOR AMP	ZERO	5.00	47.30
	PLUS	95.00	2176.80

Cased Hole Cablehead

Weight 2.2 lb
Length 1.02 ft
Max. Diameter 1.685 in

Total Stack Weight 219.2 lb in air
Total Stack Length 27.85 ft

Slim Hole Centralizer

Weight 11.9 lb
Length 2.49 ft
Max. Diameter 2.717 in

Collar Locator

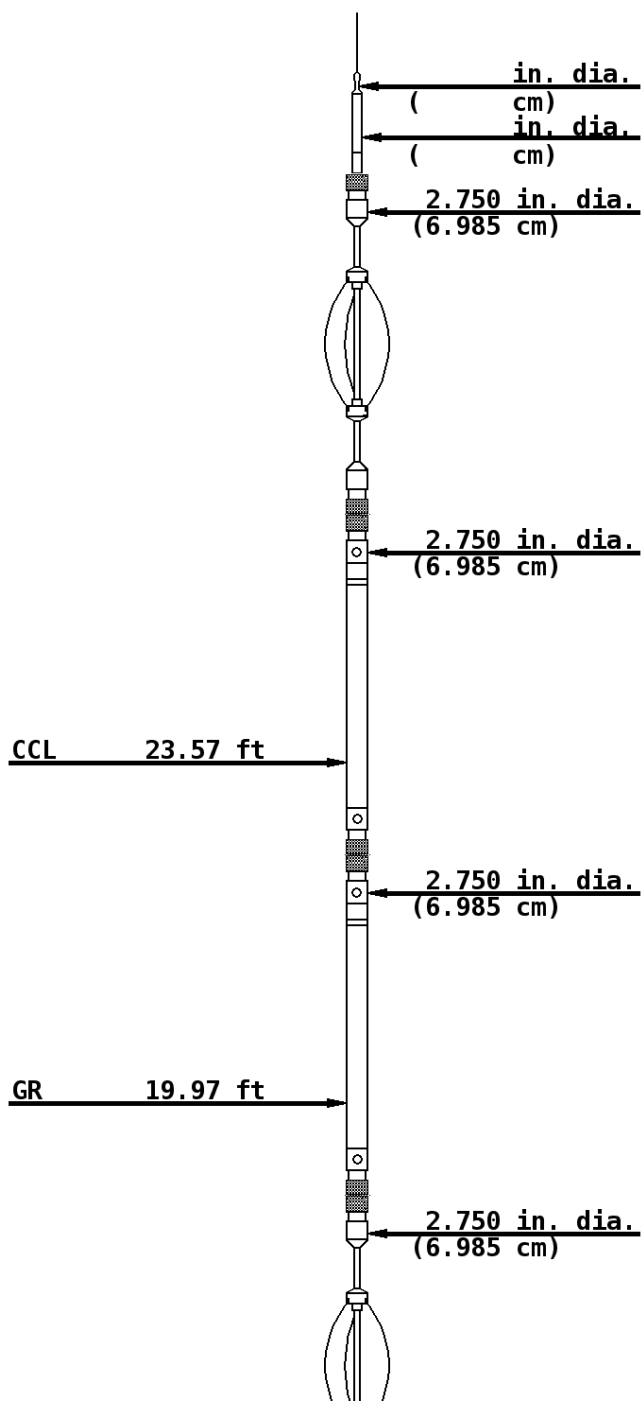
Weight 39.8 lb
Length 3.40 ft
Max. Diameter 2.717 in

Slim Hole Gamma Ray

Weight 39.8 lb
Length 4.71 ft
Max. Diameter 2.717 in

Slim Hole Centralizer

Weight 23.8 lb
Length 3.08 ft



Max. Diameter 2.717 in

Sector Bond

Weight 89.8 lb
Length 10.32 ft
Max. Diameter 2.717 in

SBT/CBL Tx

SBT Rx 7.77 ft

3' Rx 7.28 ft

5' Rx 6.28 ft

2.750 in. dia.
(6.985 cm)

Slim Hole Centralizer

Weight 11.9 lb
Length 2.82 ft
Max. Diameter 2.717 in

2.750 in. dia.
(6.985 cm)

COMPANY URSA OPERATING COMPANY

WELL BAT 33A-24-07-96

FIELD BATTLEMENT MESA

COUNTY GARFIELD

STATE COLORADO



Weatherford®