



**SECTOR BOND**  
**GAMMA RAY / CCL LOG**

COMPANY URSA OPERATING  
COMPANY  
WELLBAT 32A-24-07-96

FIELD BATTLEMENT MESA  
CNTY GARFIELD STATE CO

COMPANY	URSA OPERATING COMPANY
WELL	BAT 32A-24-07-96
FIELD	BATTLEMENT MESA
COUNTY	GARFIELD

STATE OF COLORADO

**LOCATION:**

SHL: 1854'	FSL & 2039'	FWL
BHL: 1497'	FNL & 2019'	FEL
SEC.24	TWP.7S	RGE.

## SERVICES:

PERM. DATUM GROUND LEVEL	ELEV. 5182.5'
LOG MEASURED FROM K.B. 17 FT. ABOVE PERMANENT DATUM	
DRILLING MEASURED FROM K.B.	

ELEV.:K.B.	5199.5
D.F.	5199.5
G.L.	5182.5

DATE	10-MAR-2015
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**RUN NO.**

## DEPTH DRILLER

## DEPTH LOGGER

**BTM. LOG INTE**

## TOP LOG INTER

## OPEN HOLE SIZ

TYPE FLUID

DENS. VIS

MAX. REC. IEM

**ESI. CEMENT I**

TIME WELL REA  
TIME LOGGED OTIME LOGGER 0  
FOITD NOEQUIP. NO. \_\_\_\_\_  
LOCATION \_\_\_\_\_

# LOCAL ION DECOUPLED BY

**WITNESSED BY**

**WT INFL33LD BI**

DOI

FROM: _____	TO: _____
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[illegible]

— 100 —

[illegible]

## CASING RECORD

## SURFACE STRIN

**PROT. STRING**

**PROD. STRING**

**LINER**

Journal Pre-proof

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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: WFT CRANE #15045	Service Order # 113204463
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LOG WAS CORRELATED TO WEATHERFORD PULSED NEUTRON DECAY LOG DATED BHT 191 °F

## ALL LOGGED INTERVALS PER CUSTOMER REQUEST

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**Prints: 2**

**THANK YOU FOR CHOOSING WEATHERFORD WIRELINE SERVICES**

## EQUIPMENT DATA

[illegible]

DEPTH SCALE: 5":100'

PROCESSED VERSION: 2012.07.18.162"

113204463

FINISH DEPTH: 42.8 Feet DIRECTION: UP DATE: 03/10/2015 TIME: 18:13 MODE: ORIGINAL

CCL

-3600 Millivolts 400

GAMMA RAY

0 API 150

TRAVEL TIME 3FT

310 Microseconds 210

MAX ENERGY

0 mv 100

AVG ENERGY

0 mv 100

Tension

3' AMP X 5

0 mv 20

AMPLITUDE 3FT

0 mv 100

MIN ENERGY

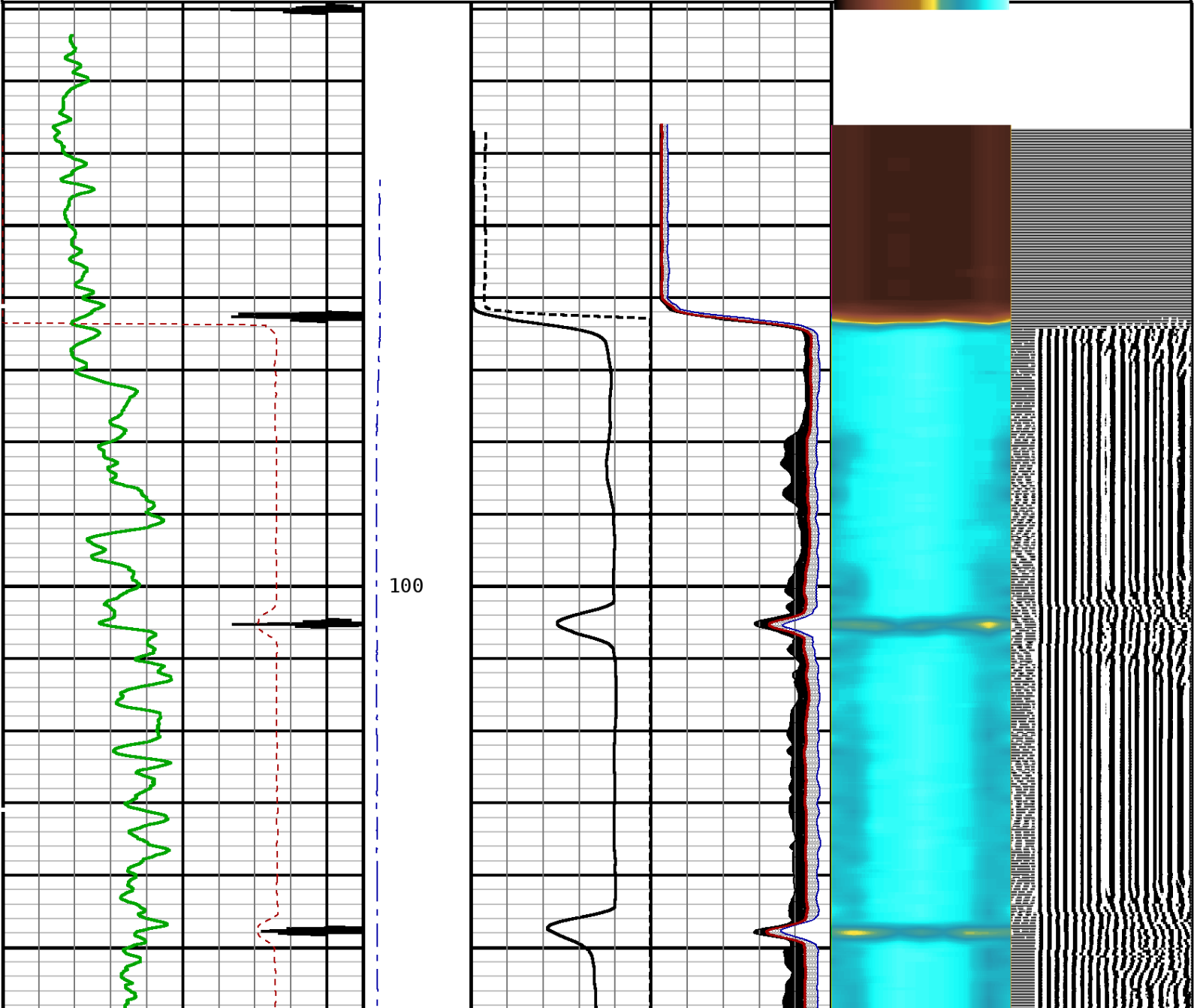
0 mv 100

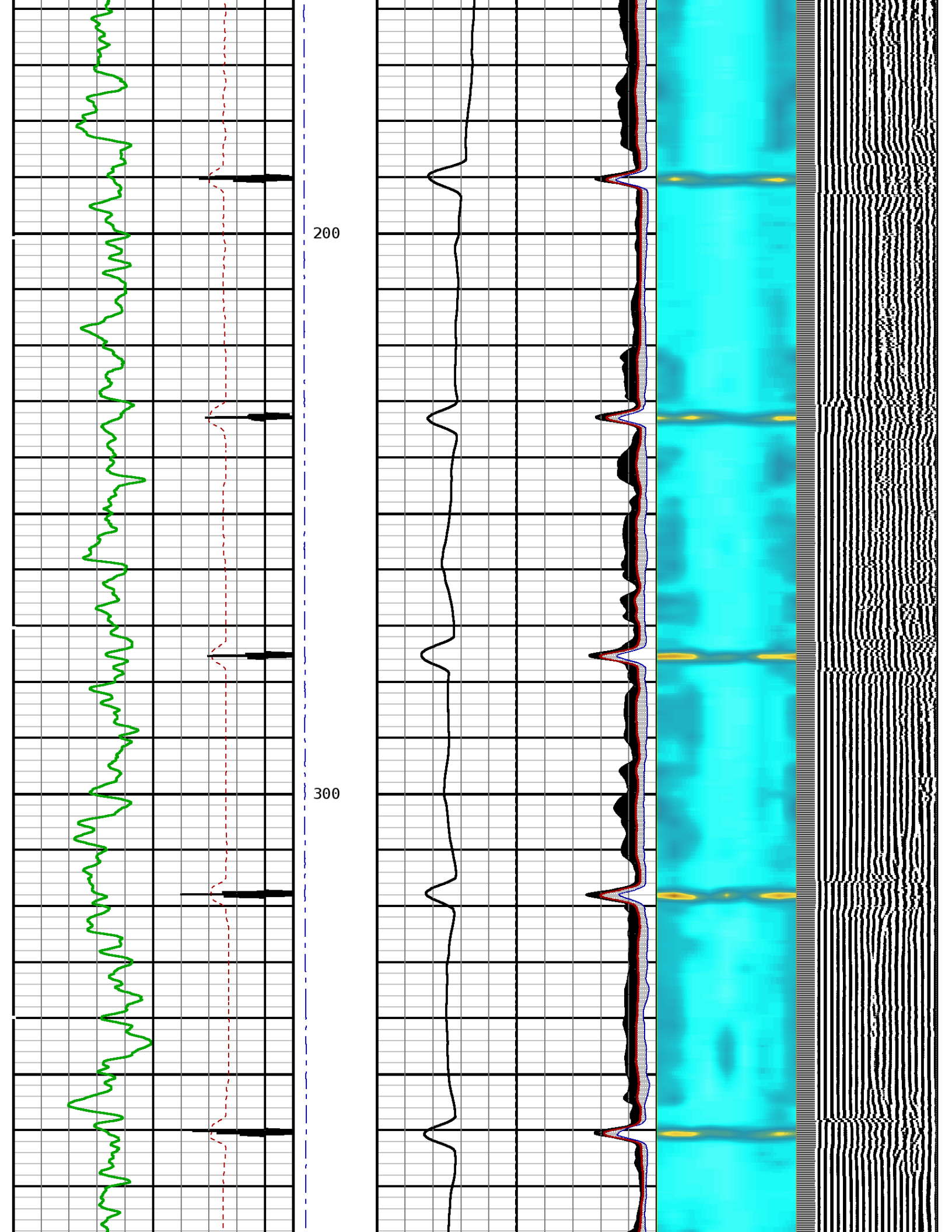
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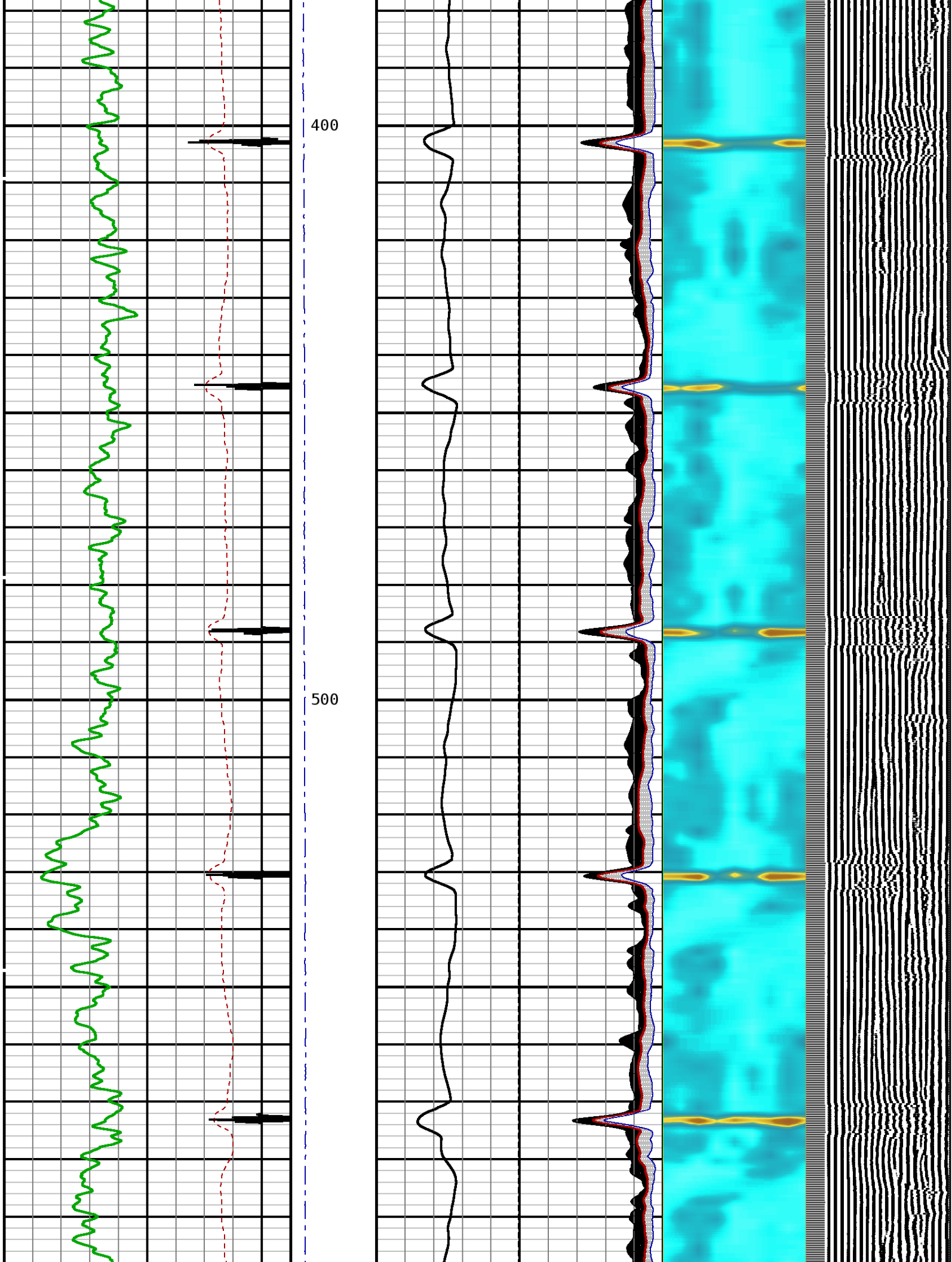
0 mv 80

VARIABLE DENSI

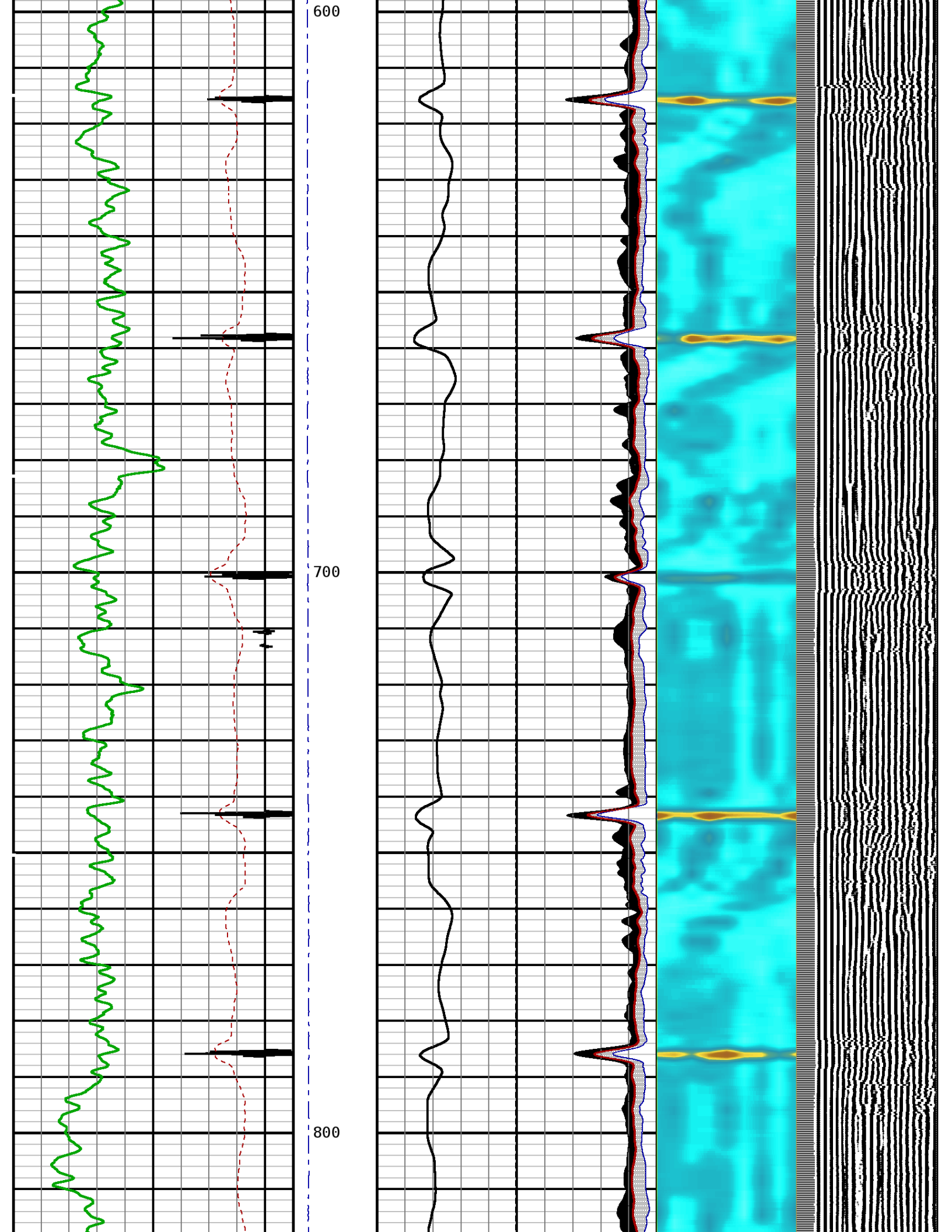
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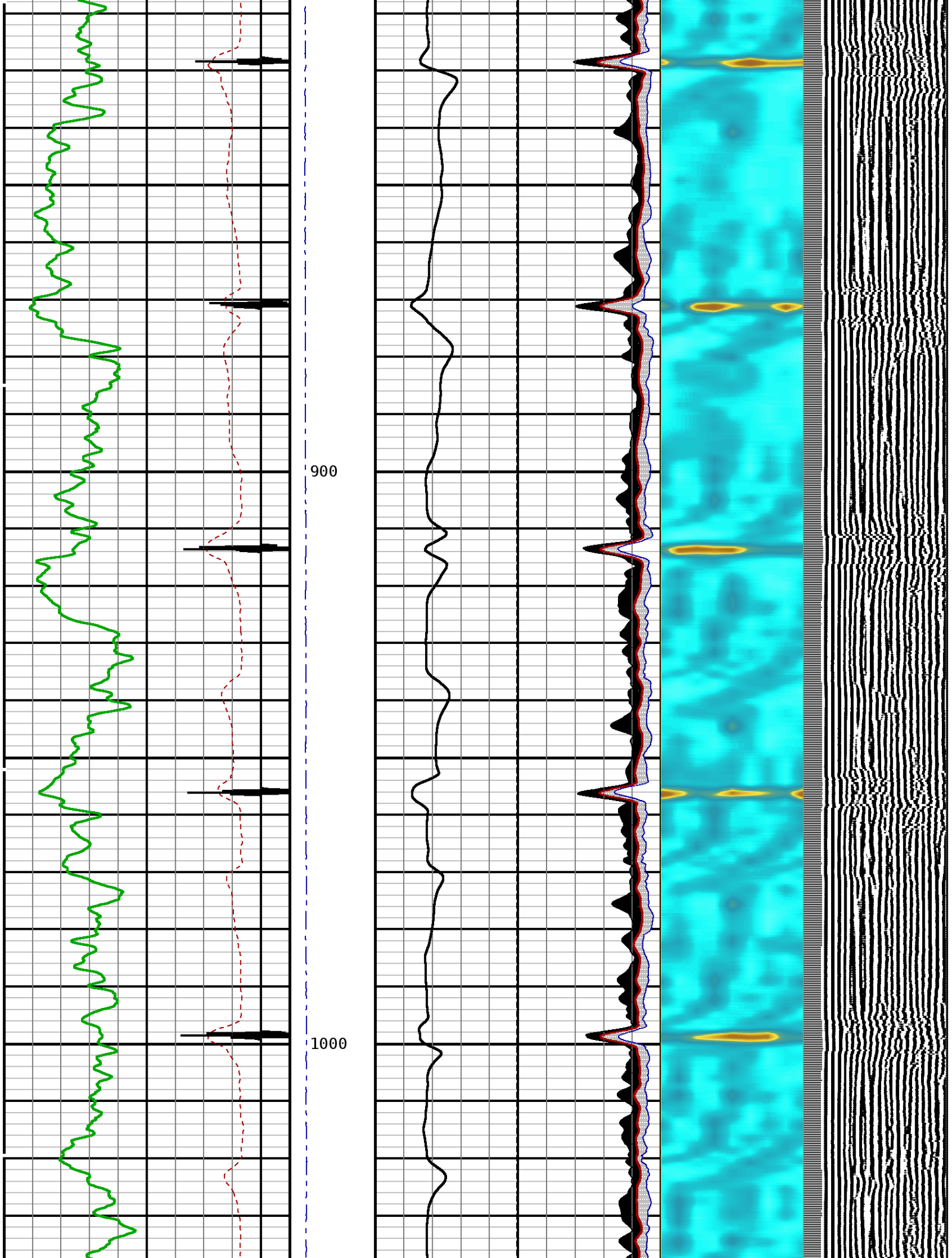


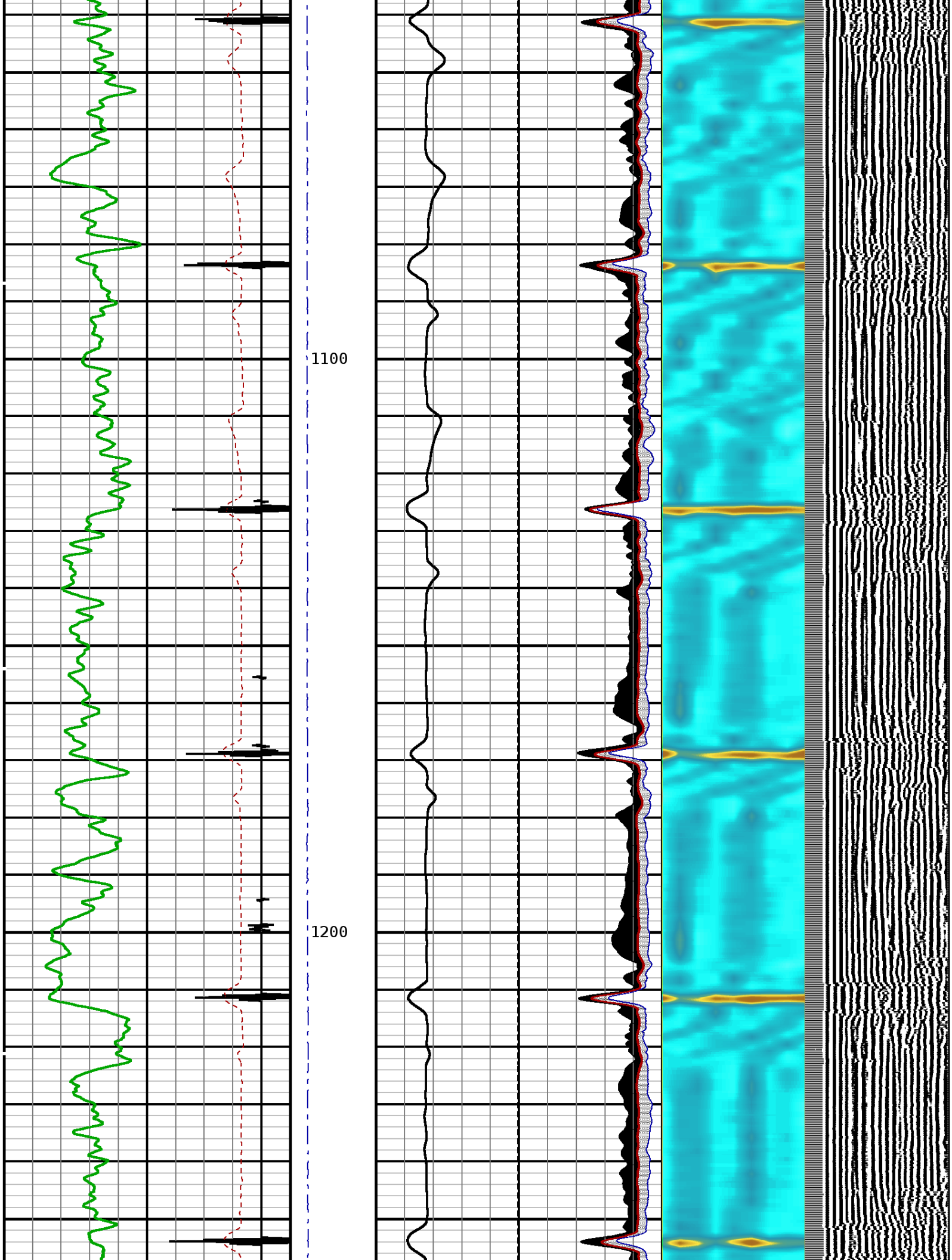


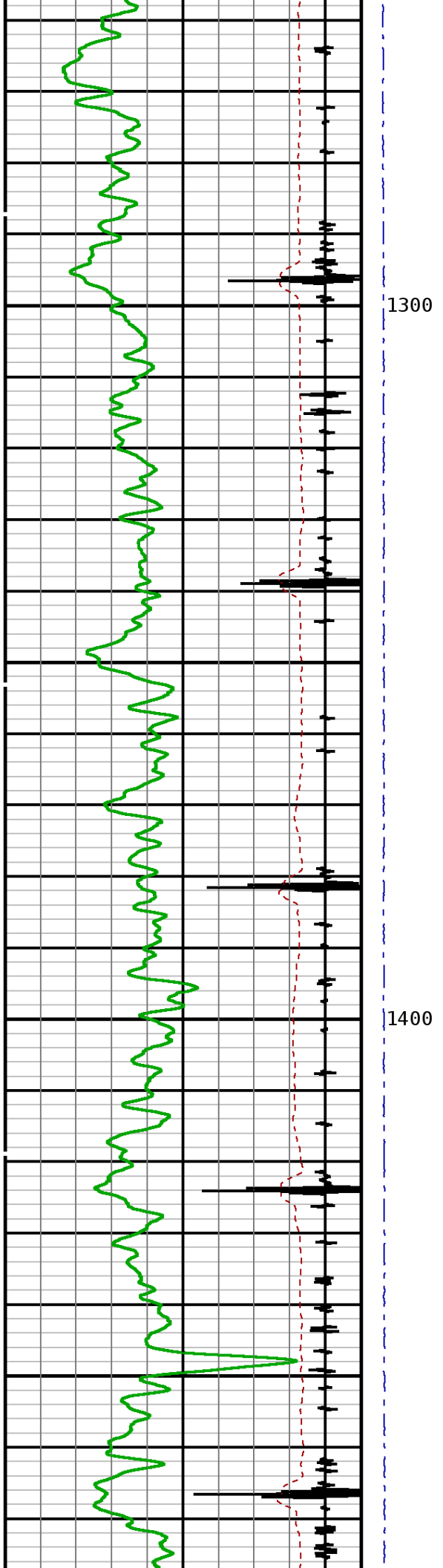
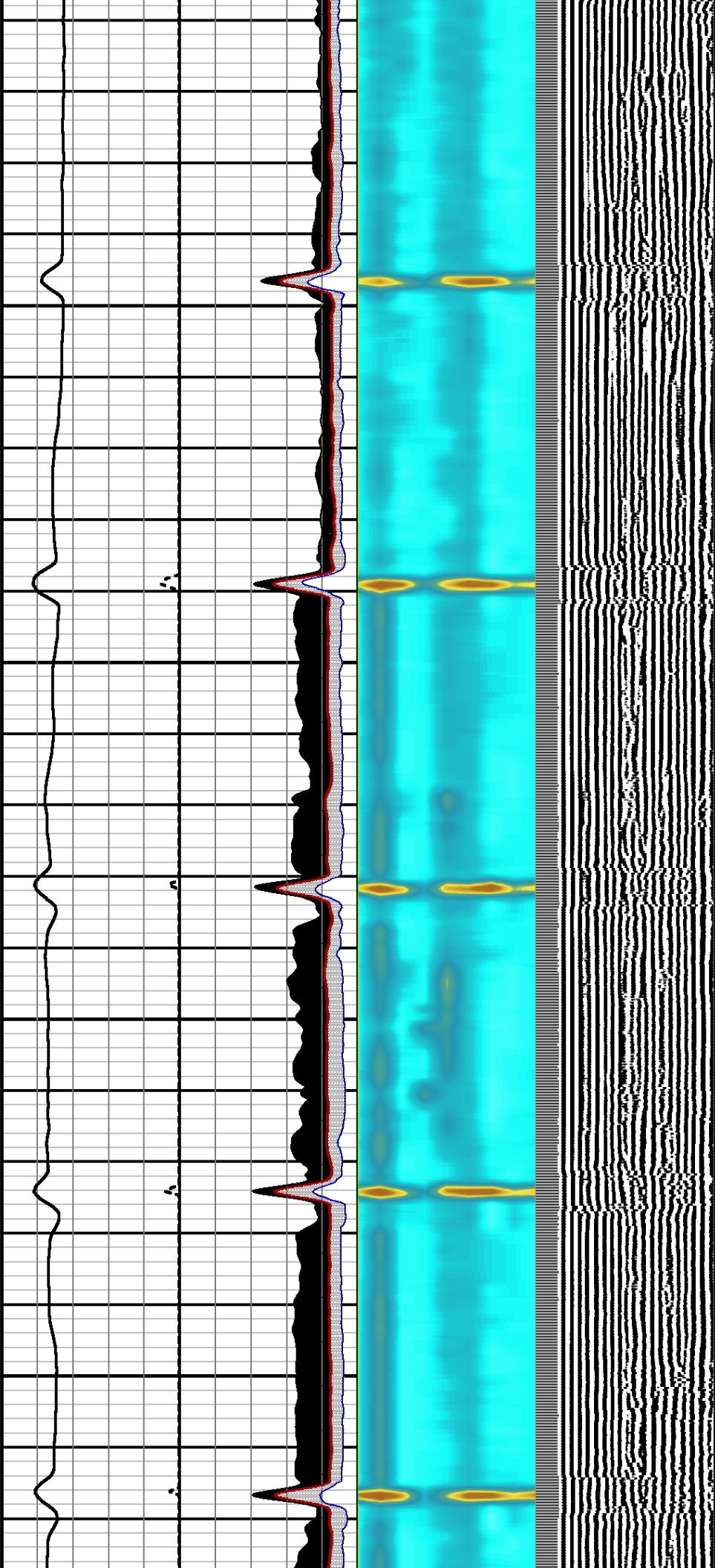




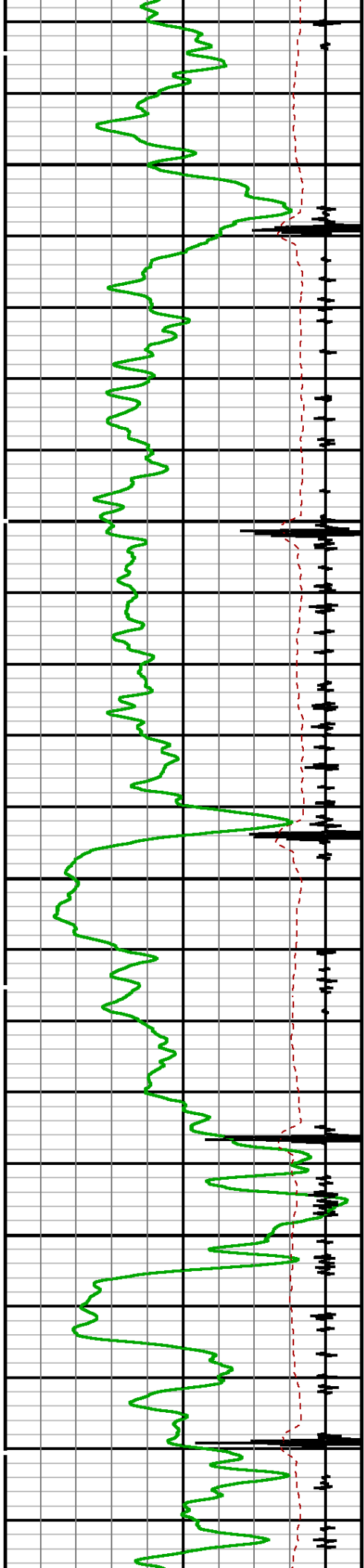






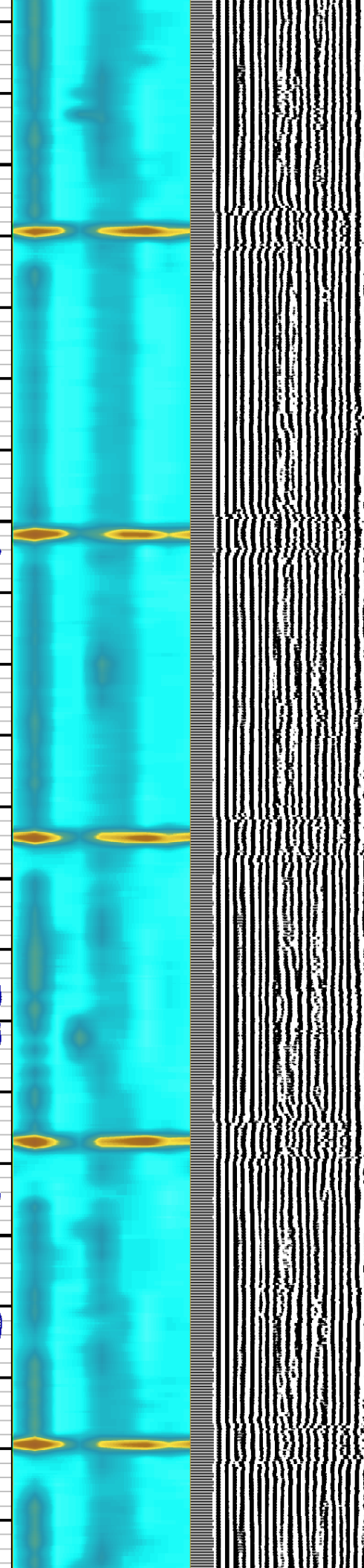
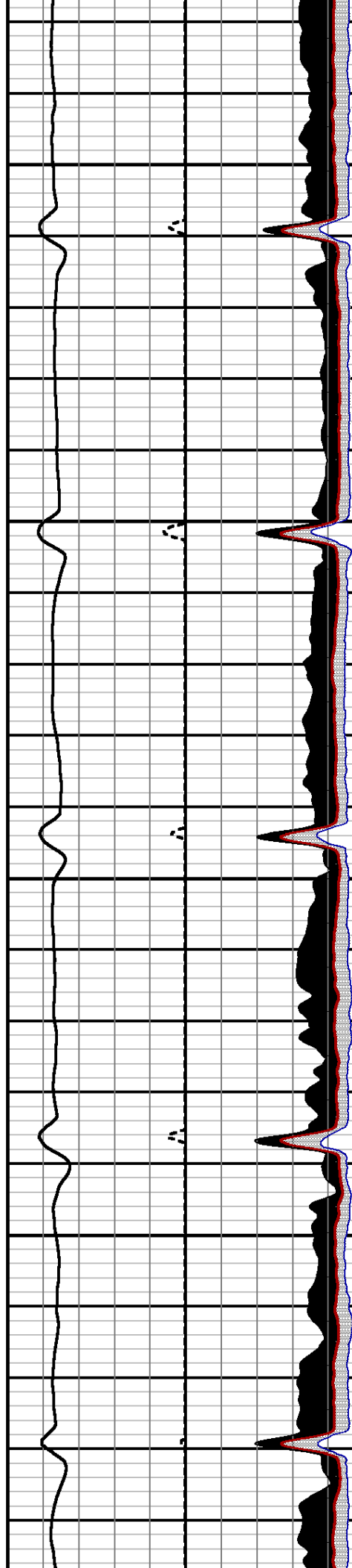


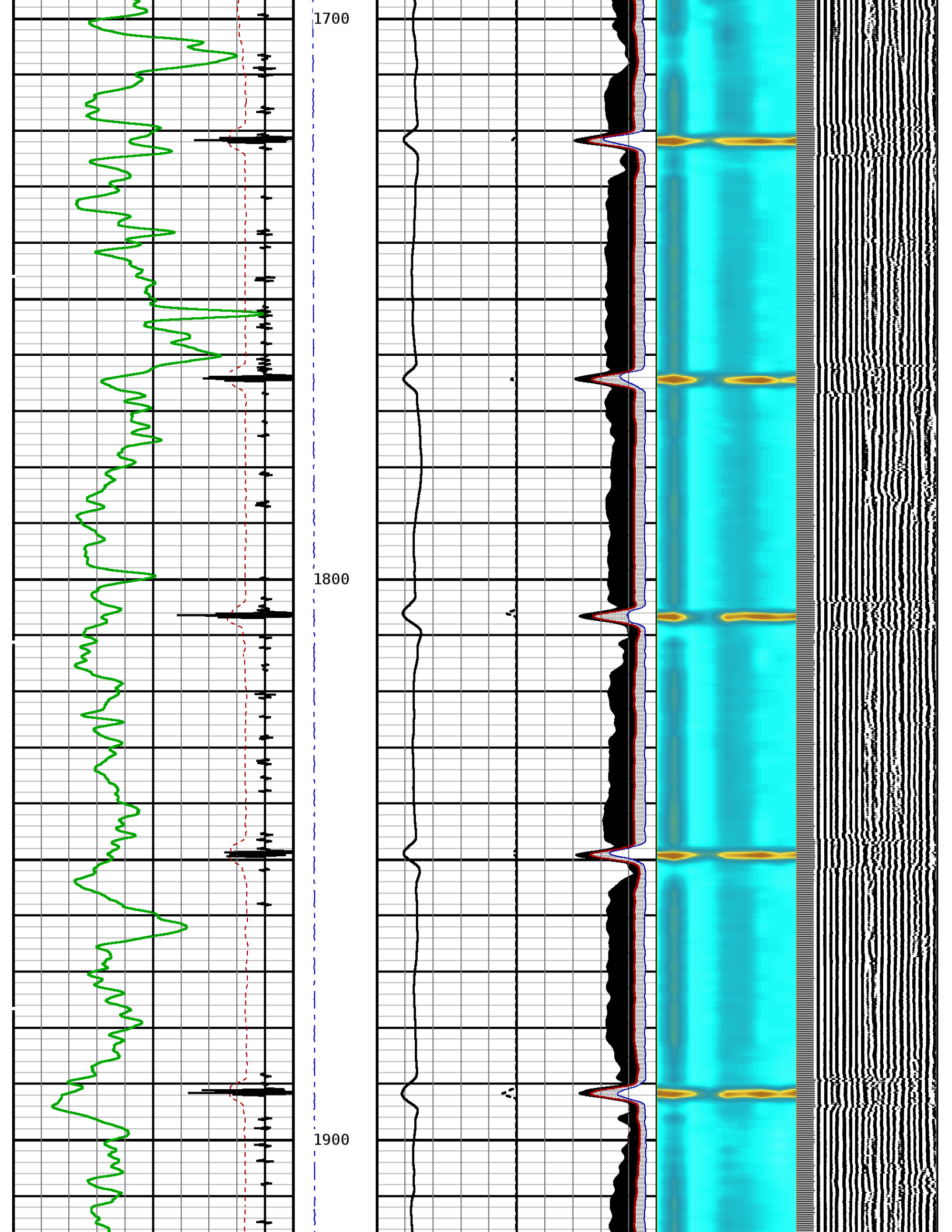


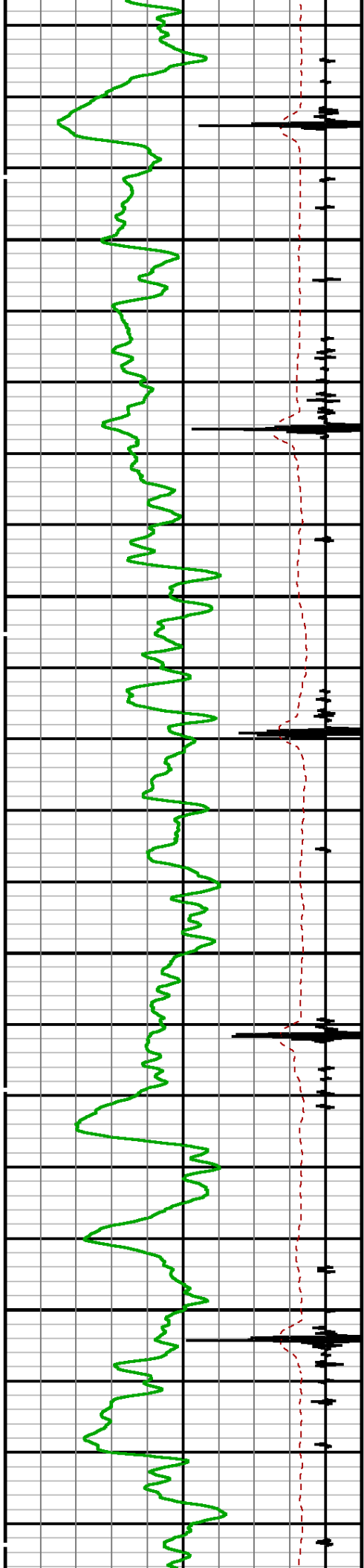


1500

1600

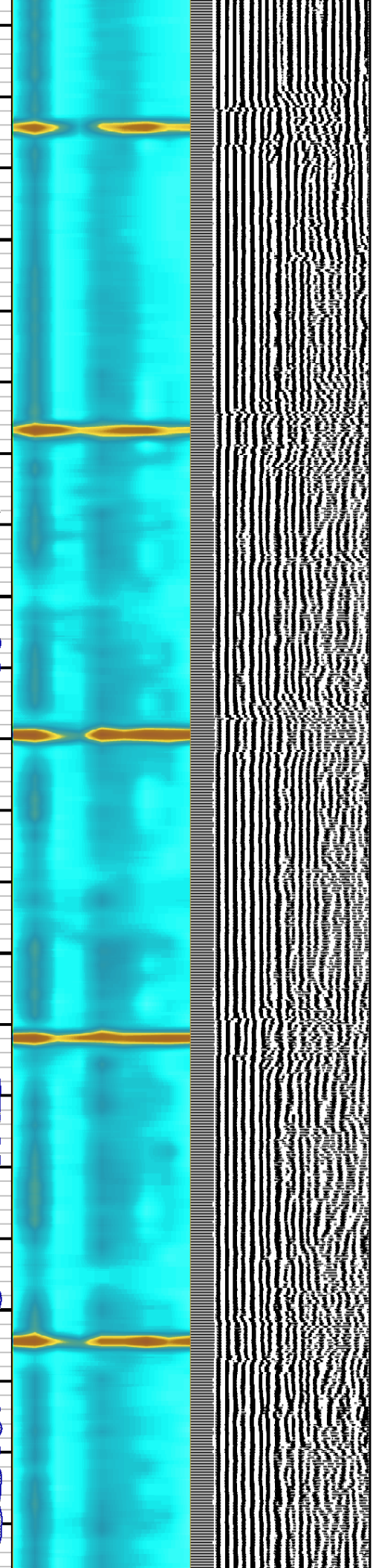
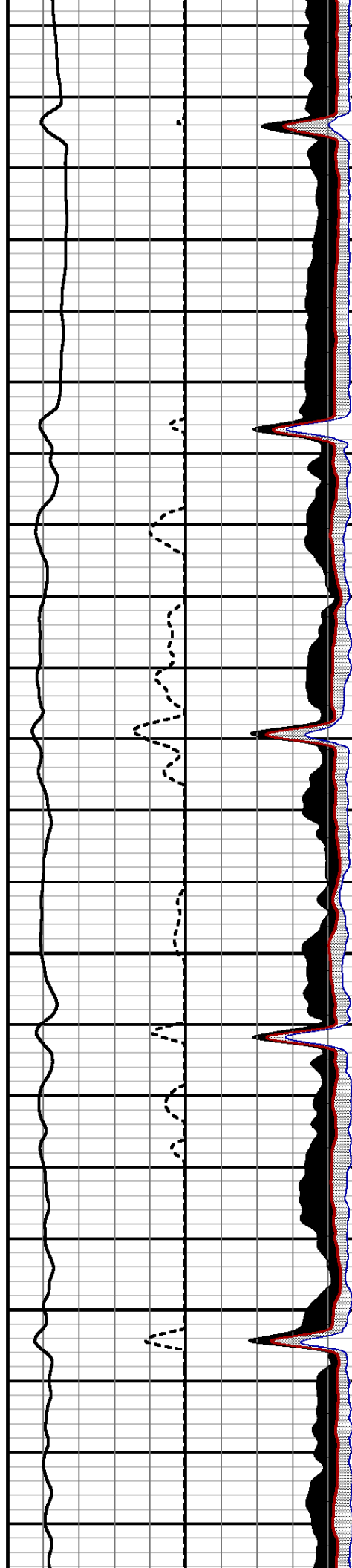




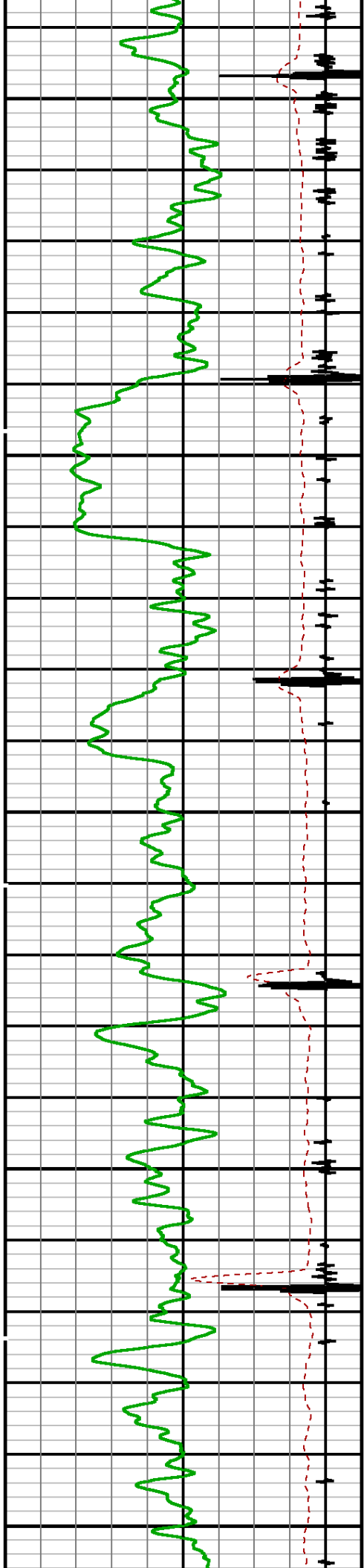


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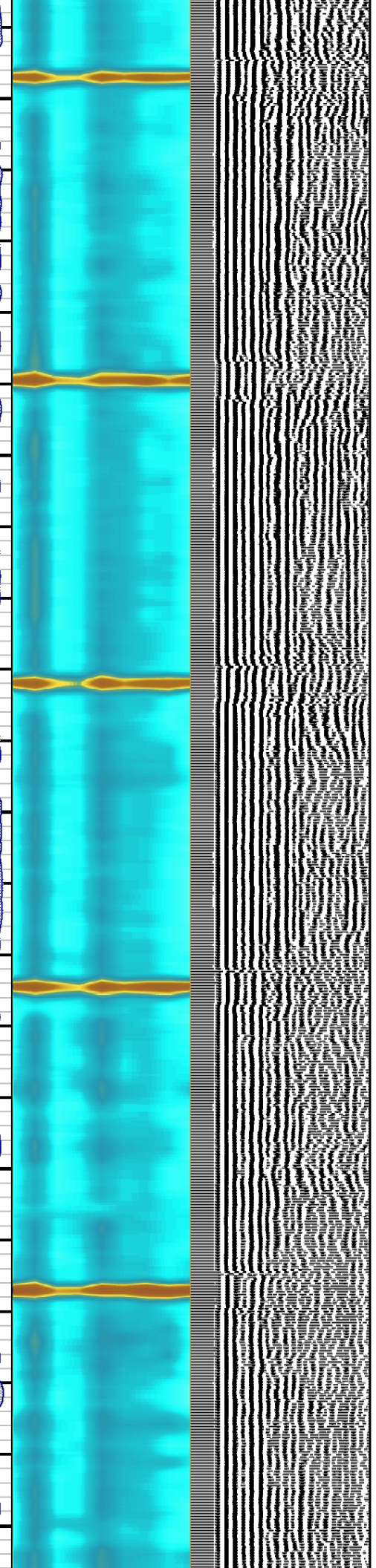
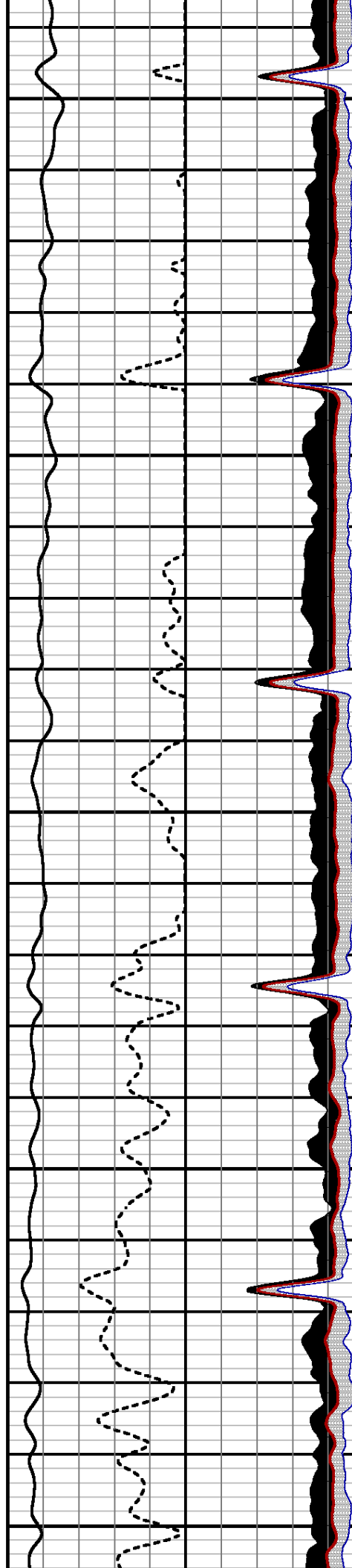


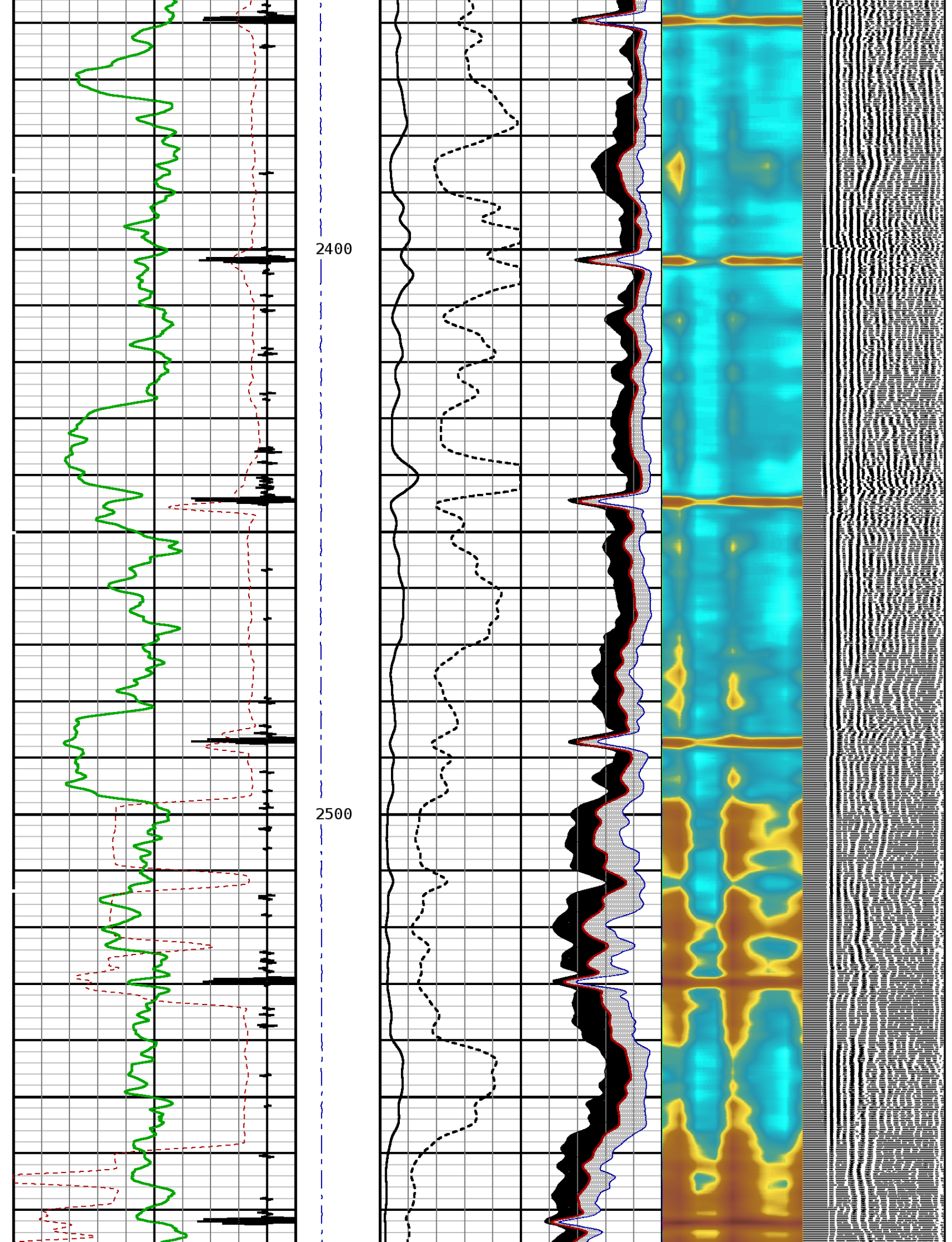


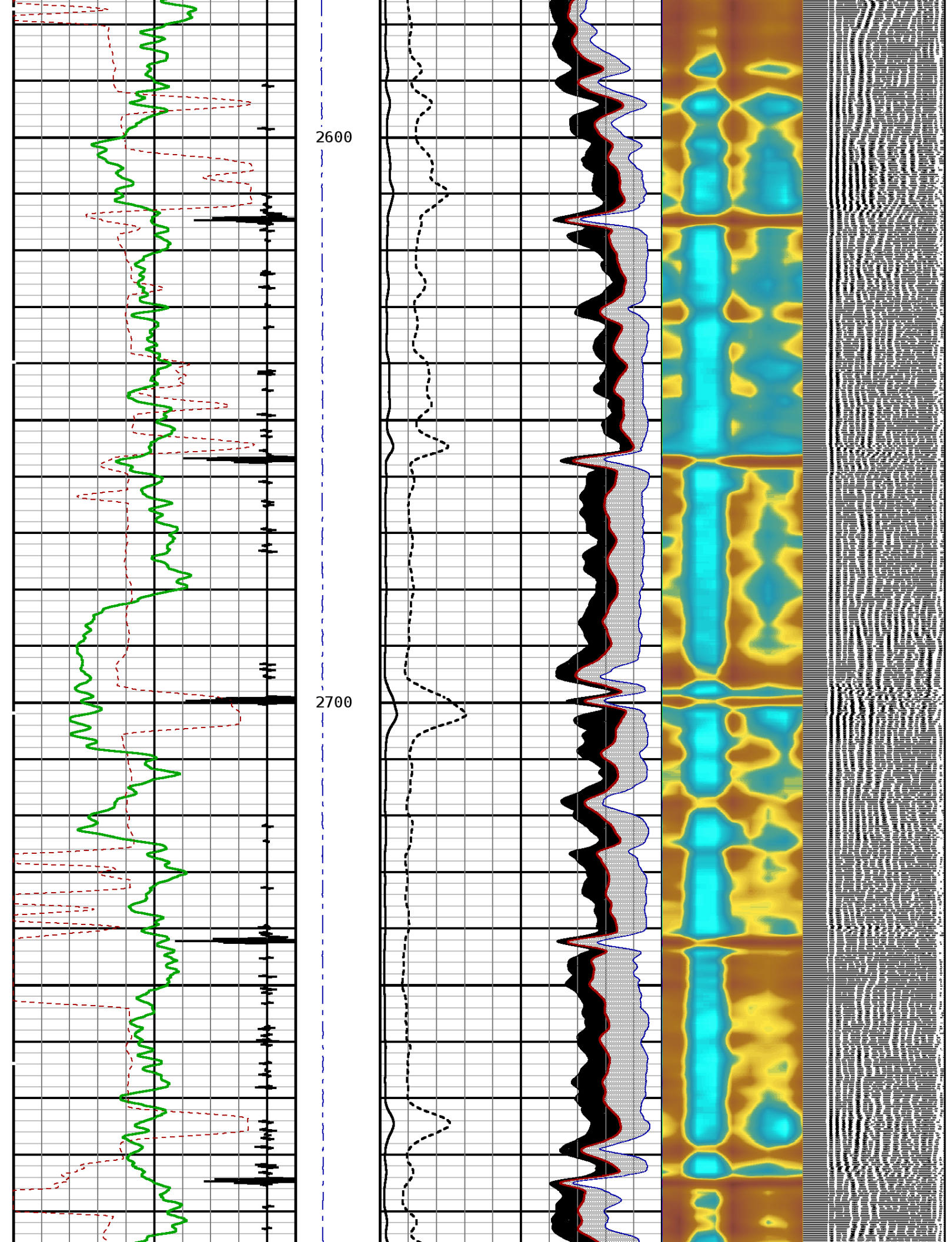


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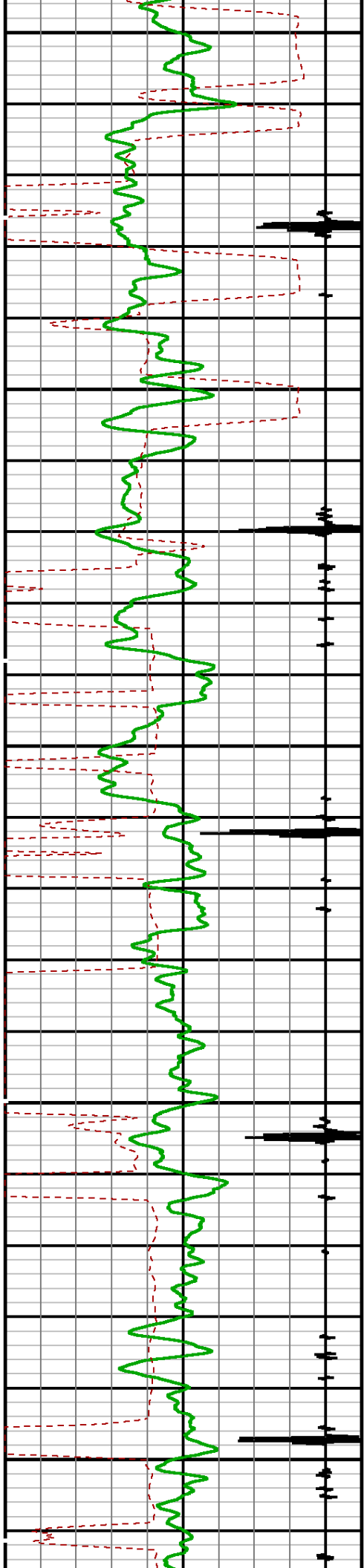
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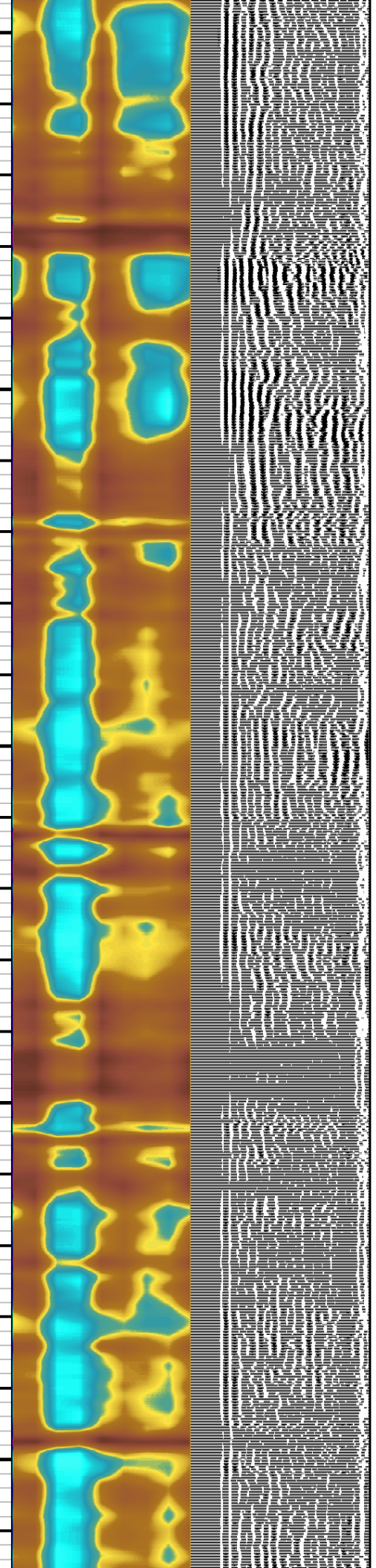
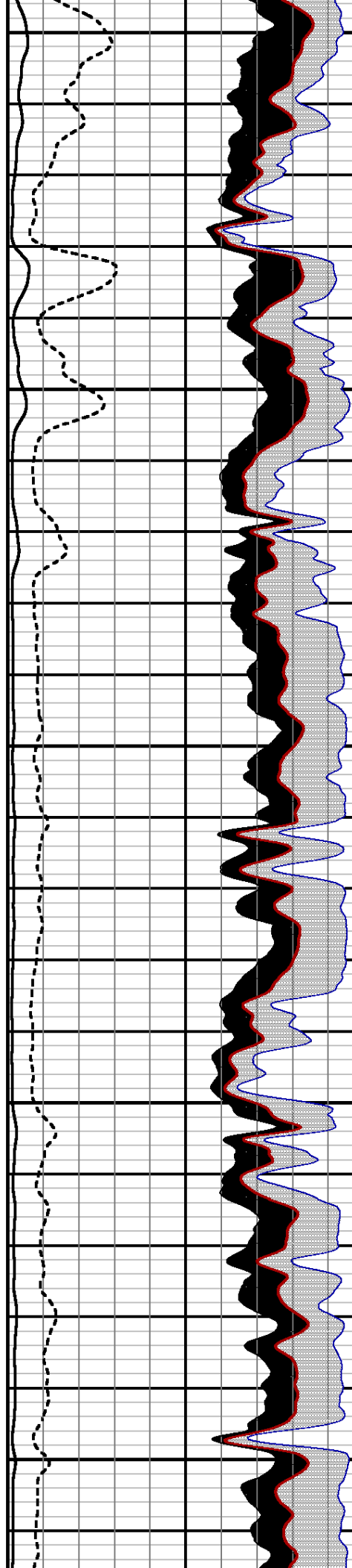


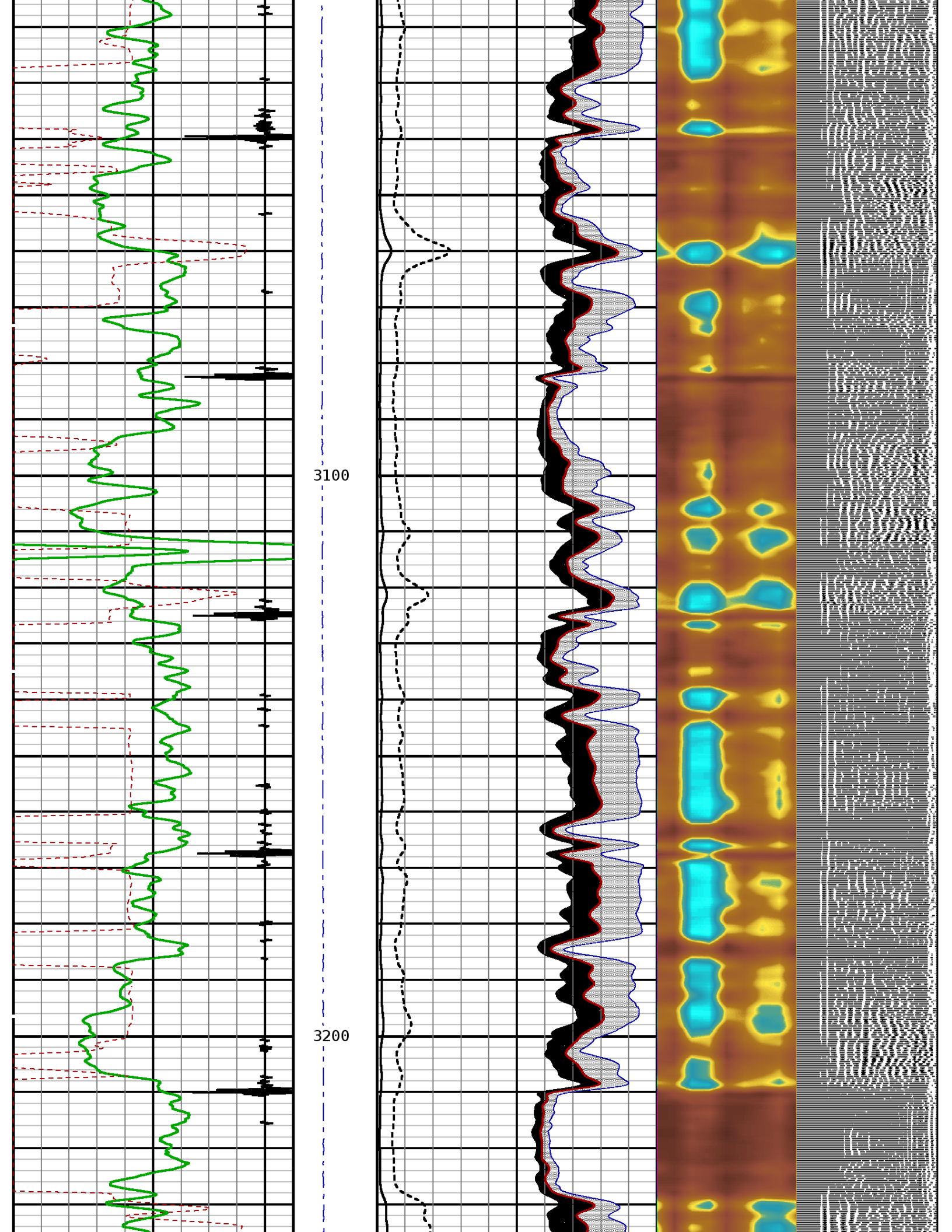


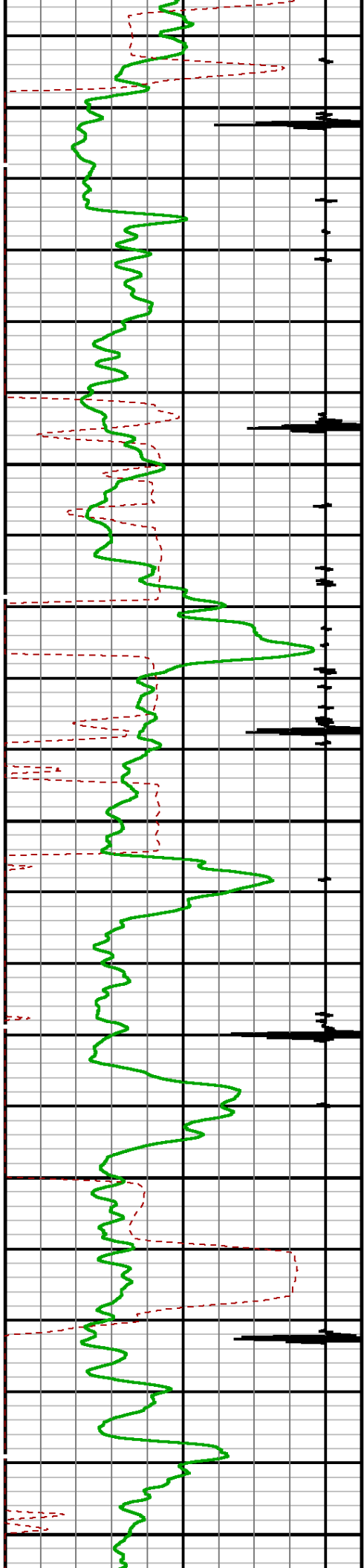
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2900

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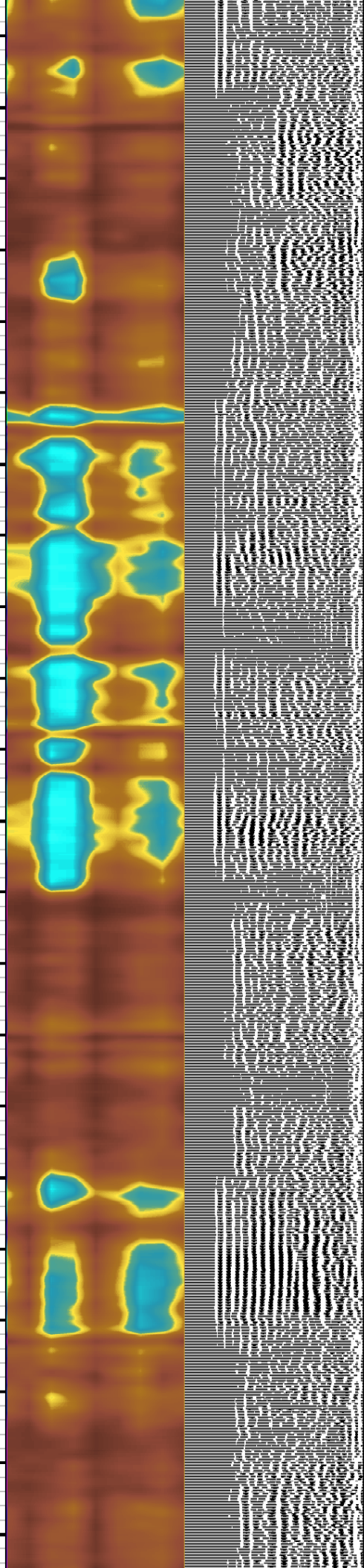
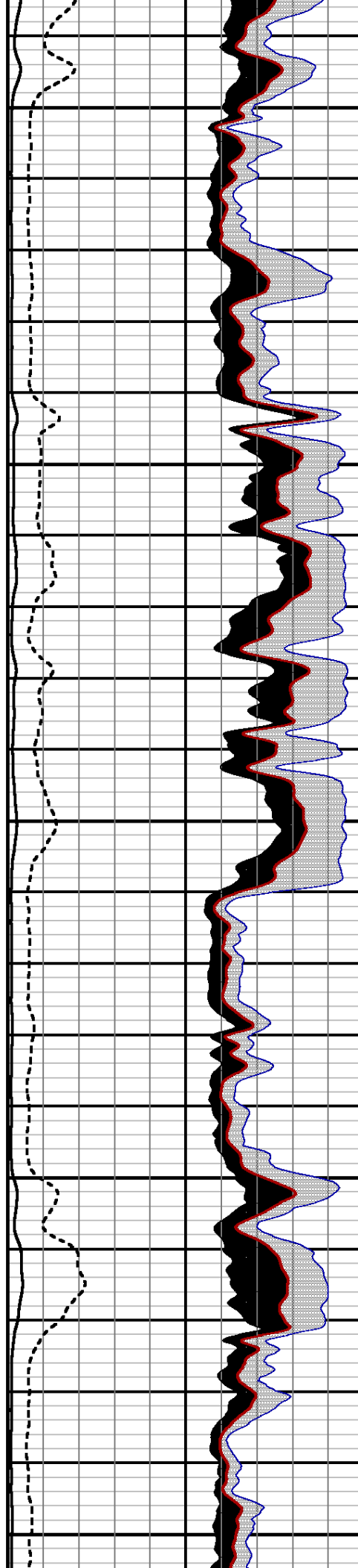




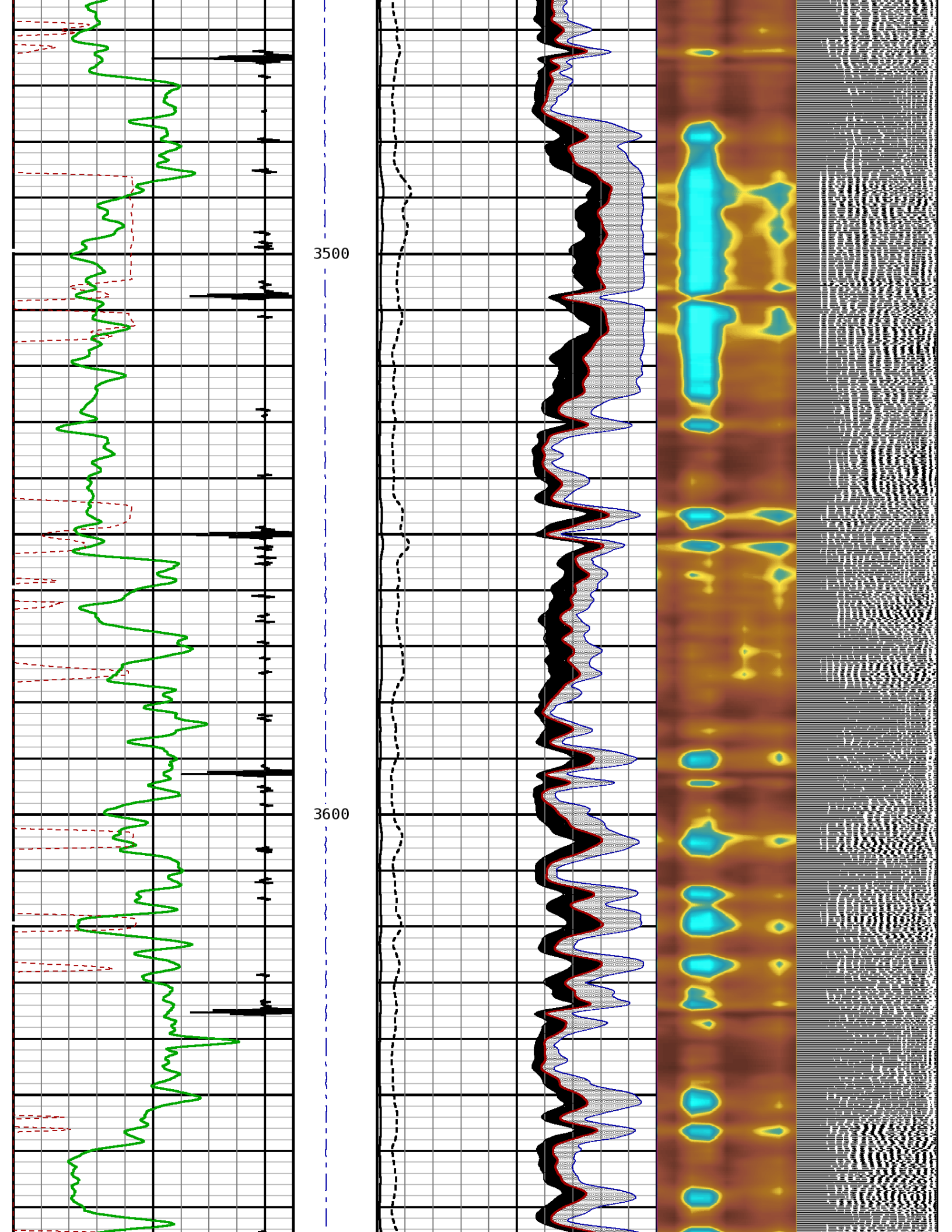


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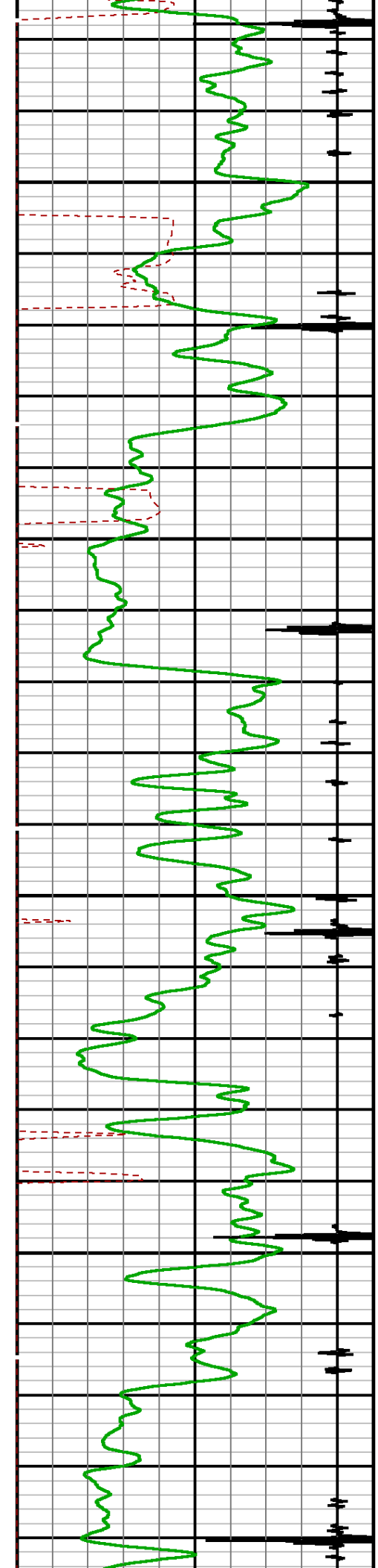
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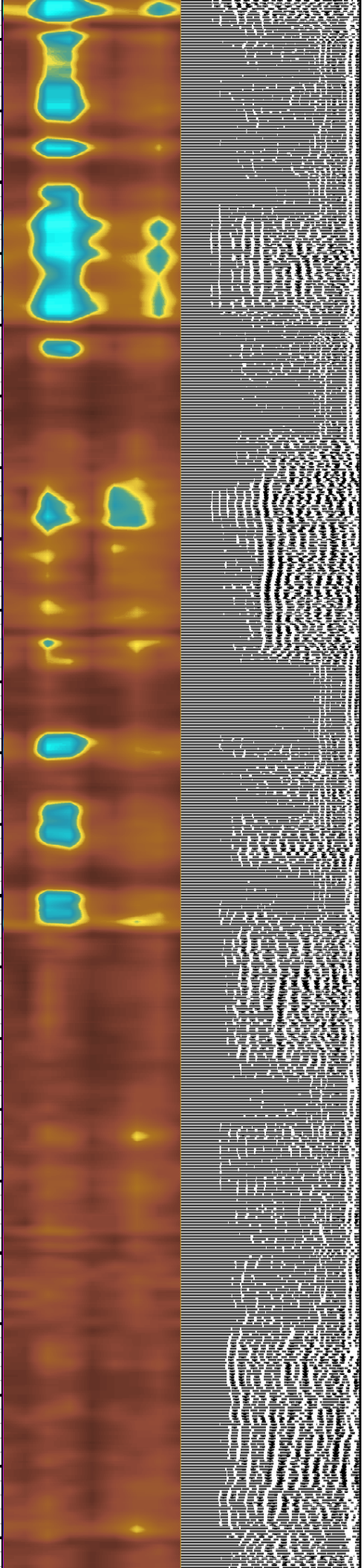
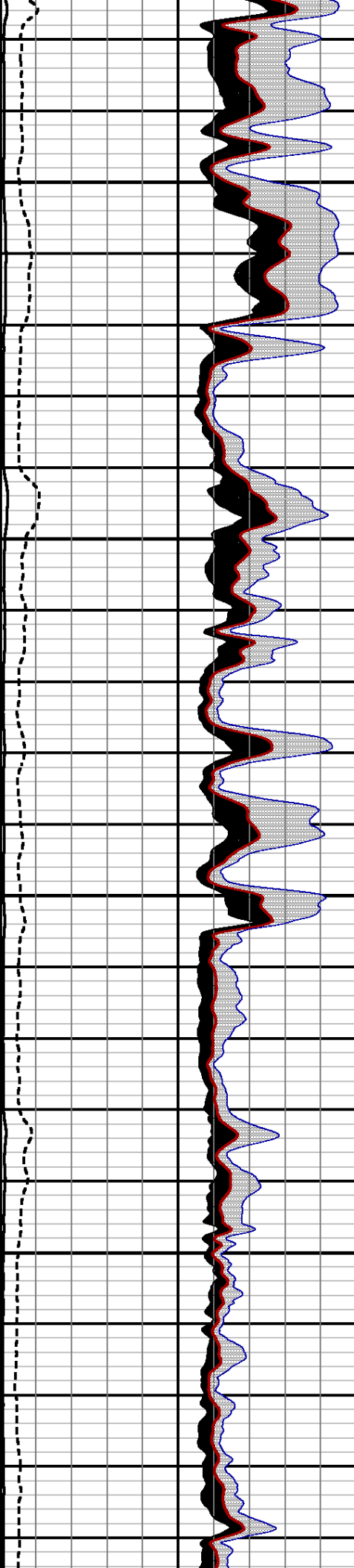


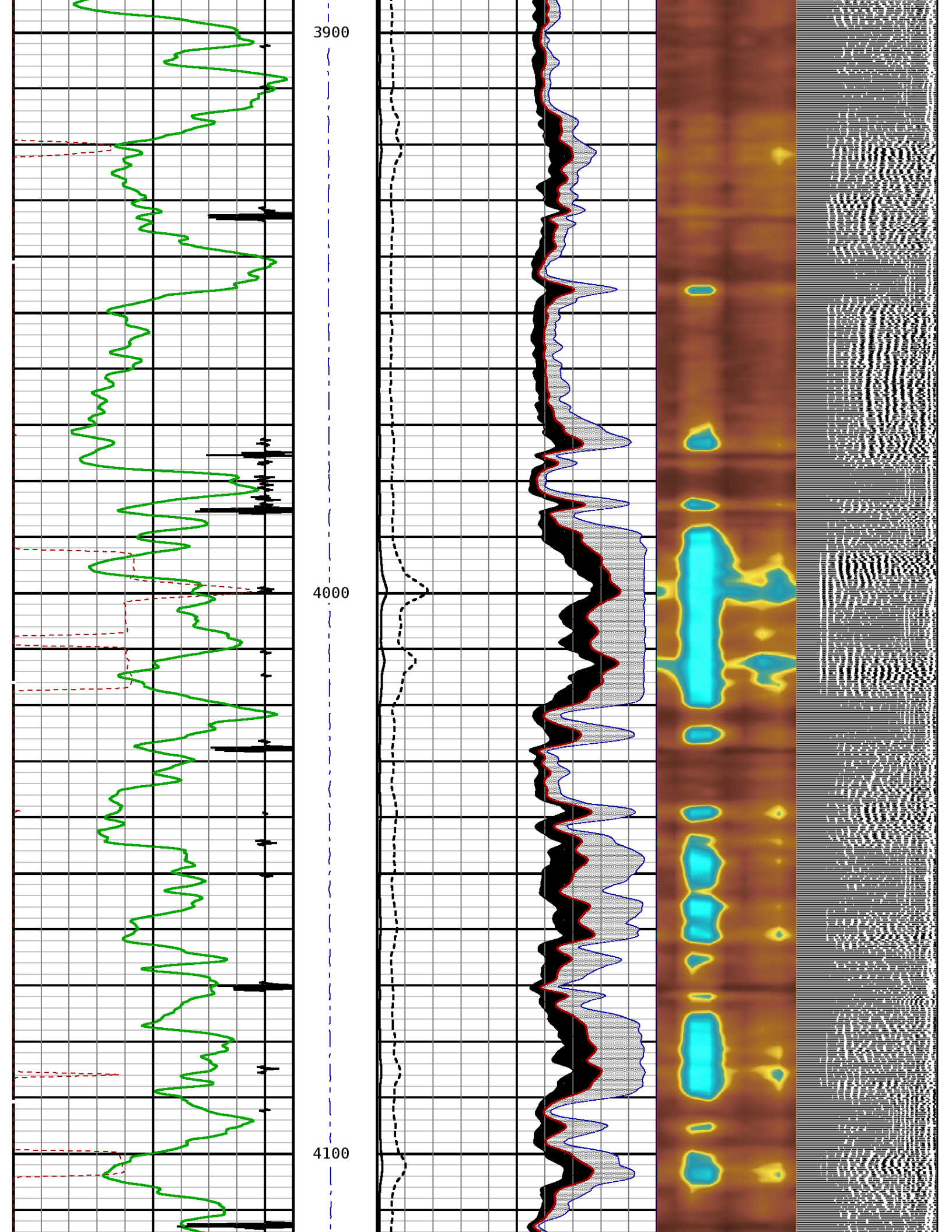


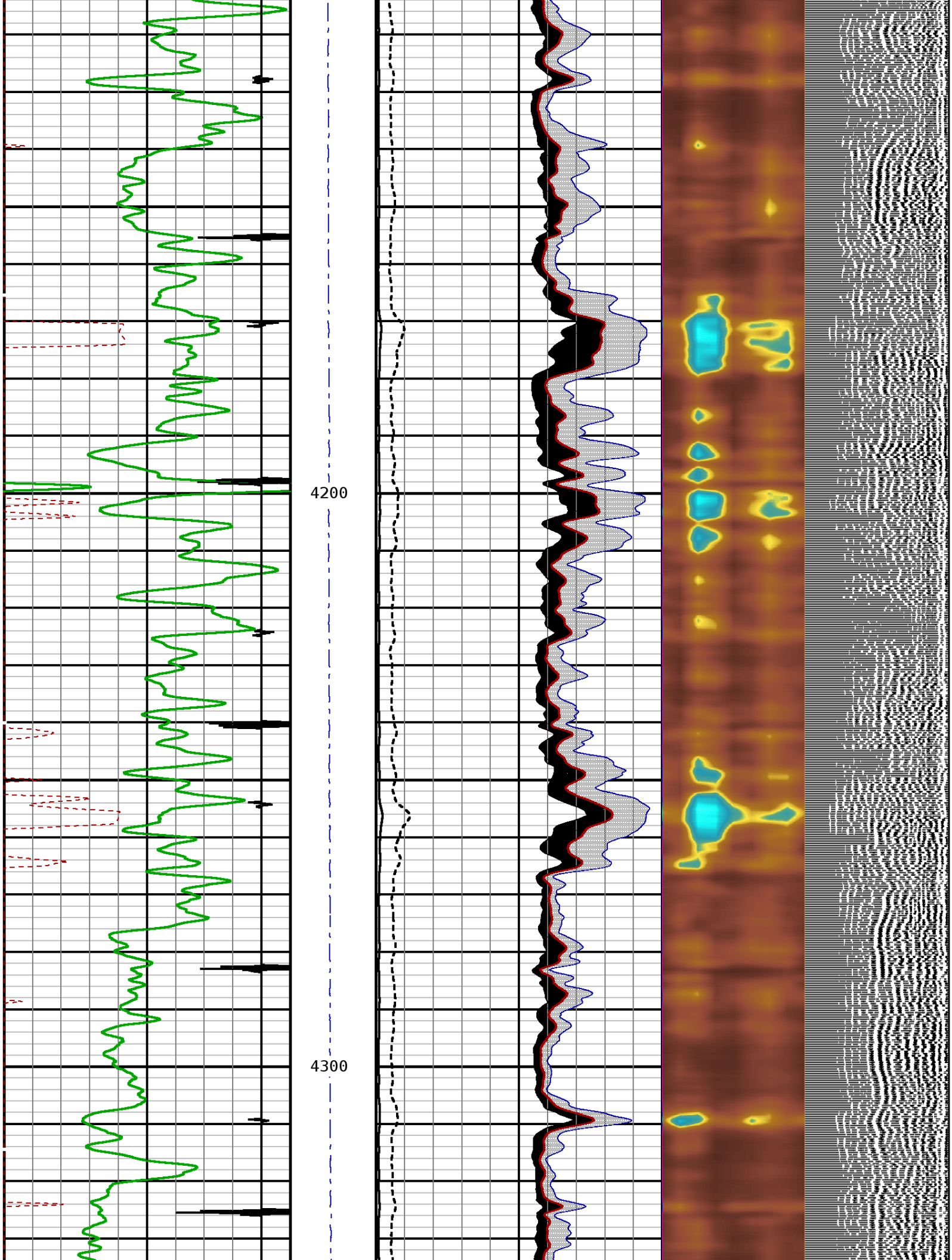


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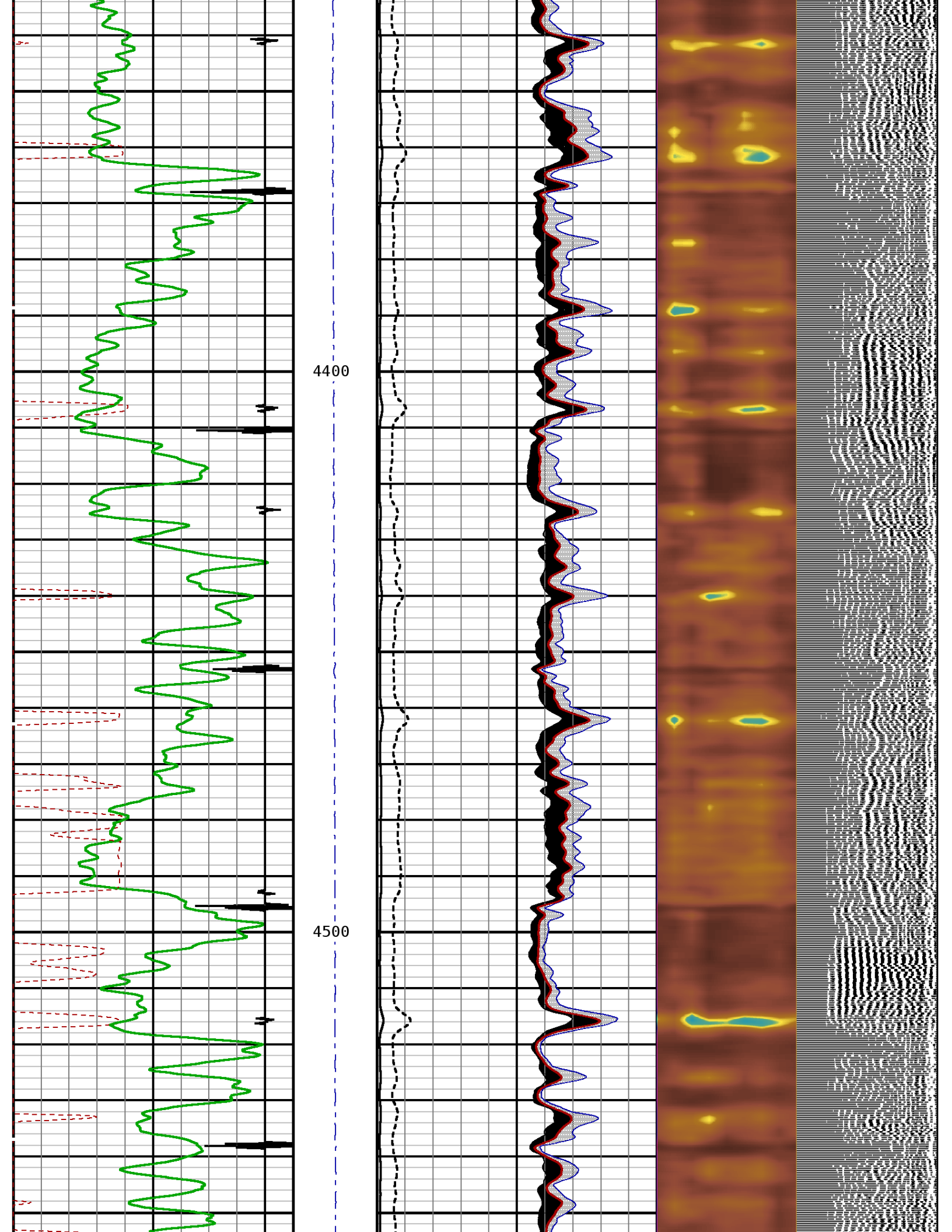
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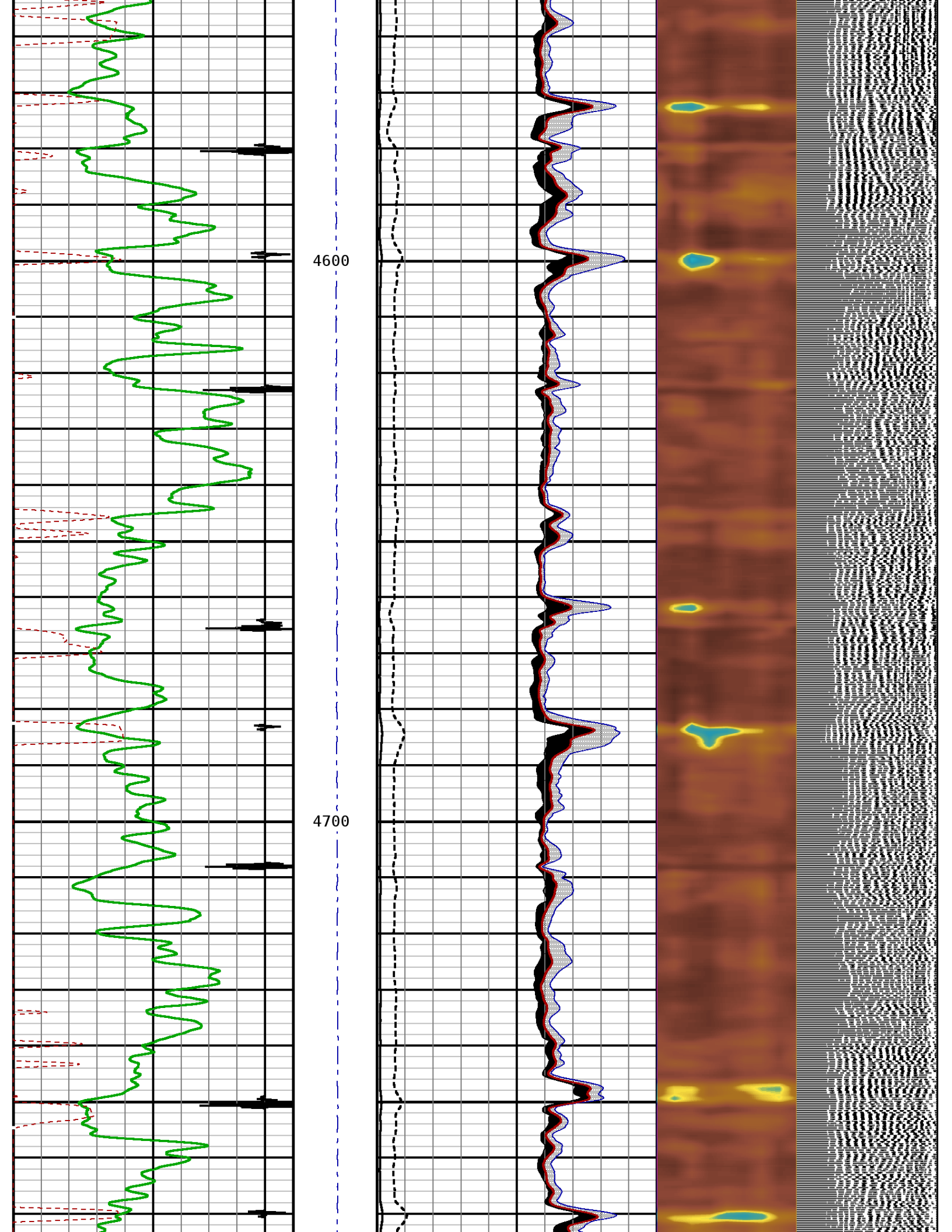


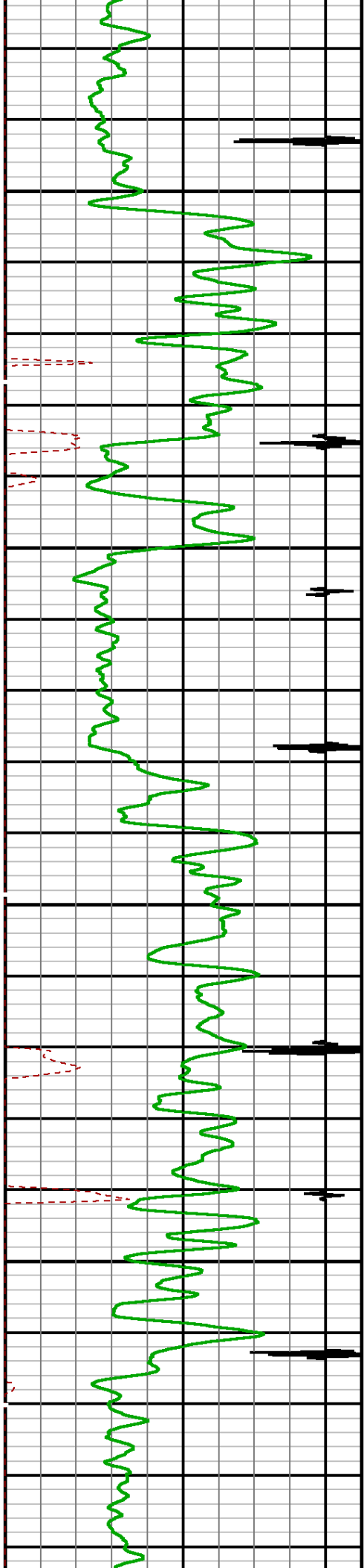






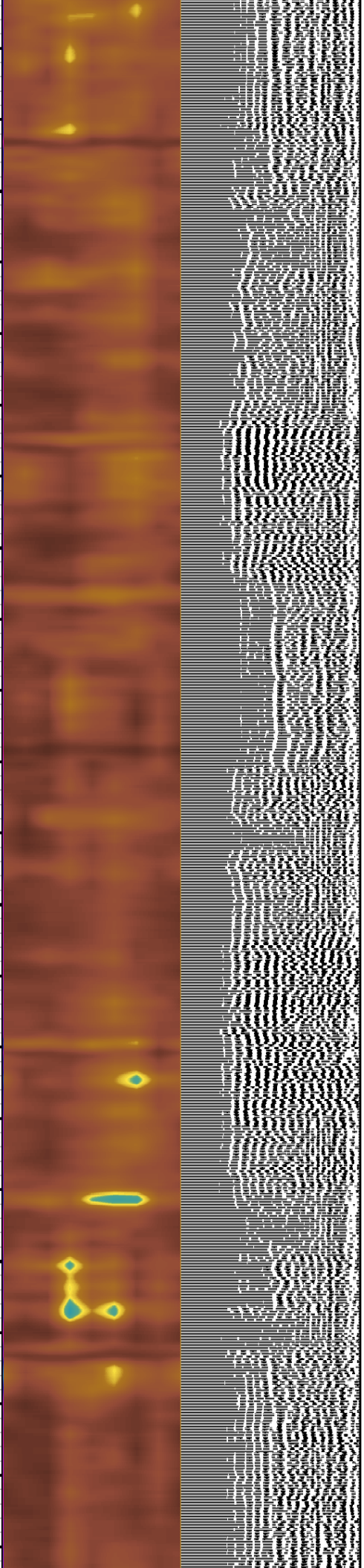
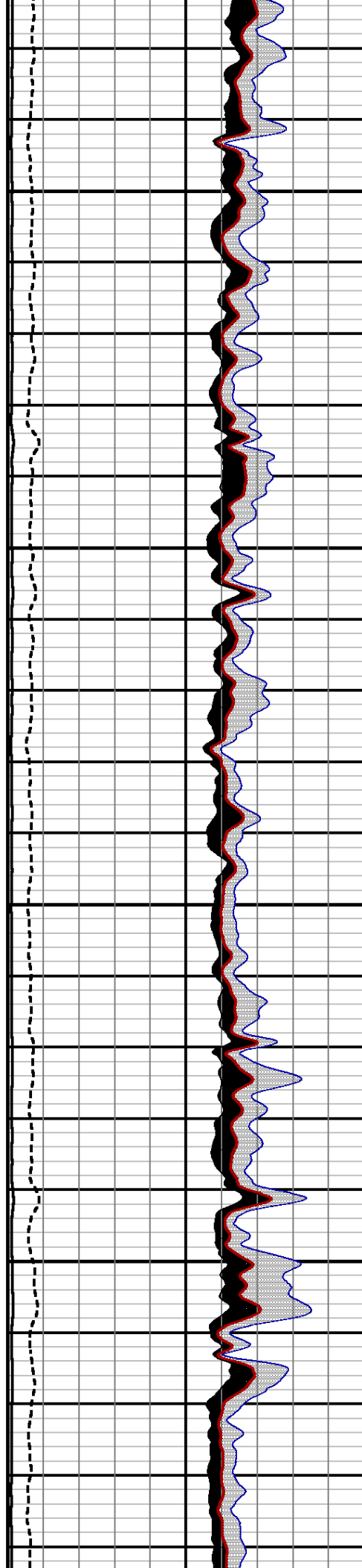




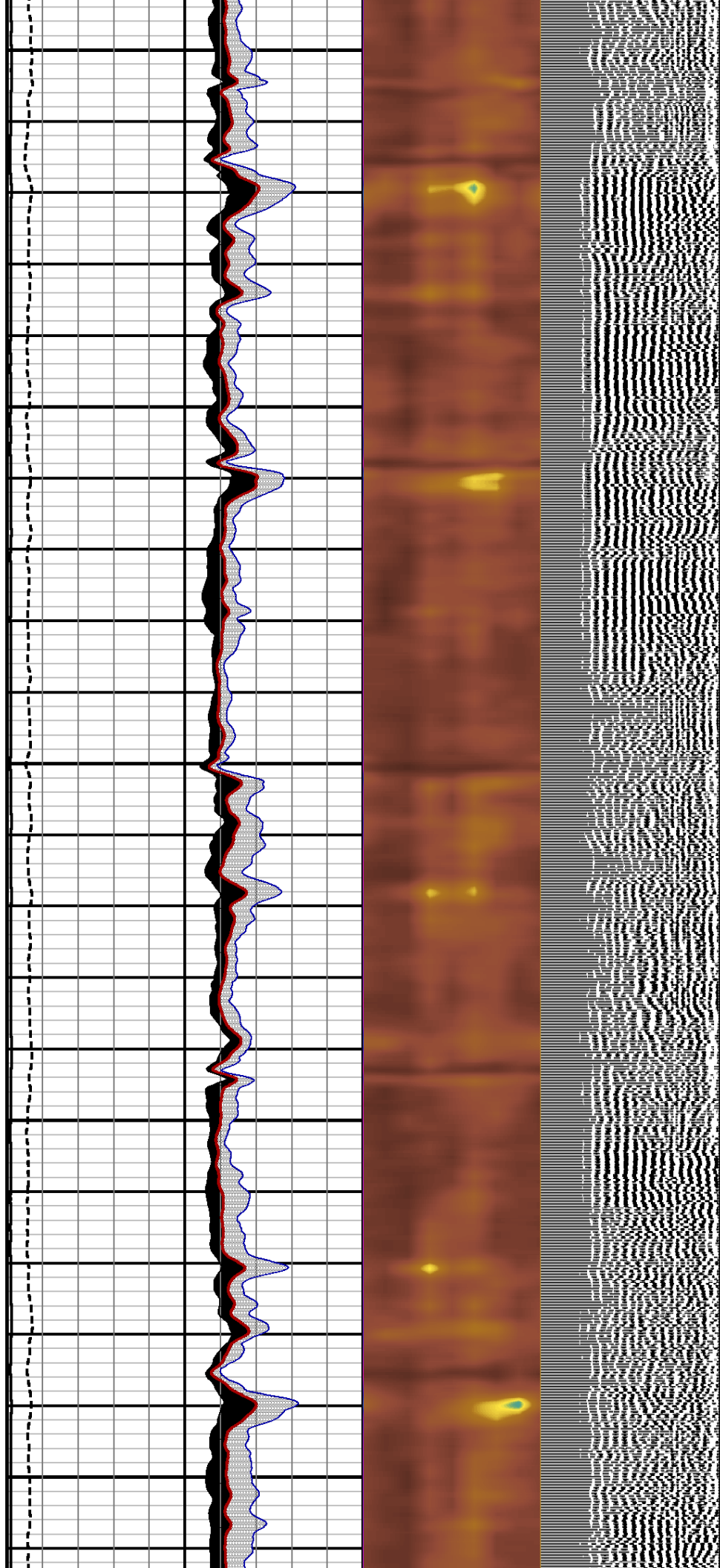
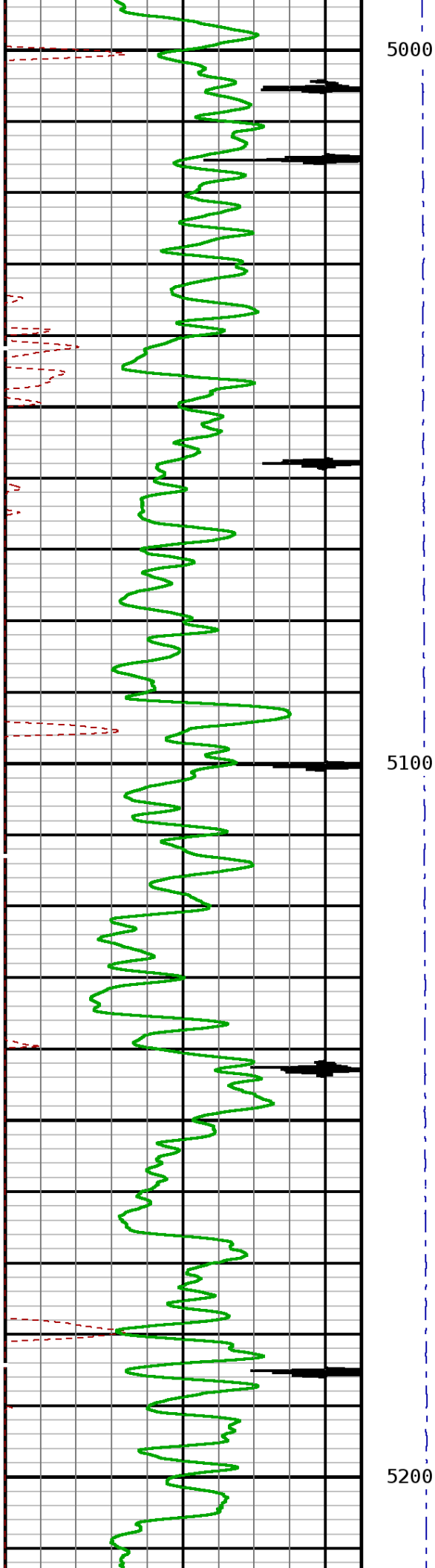


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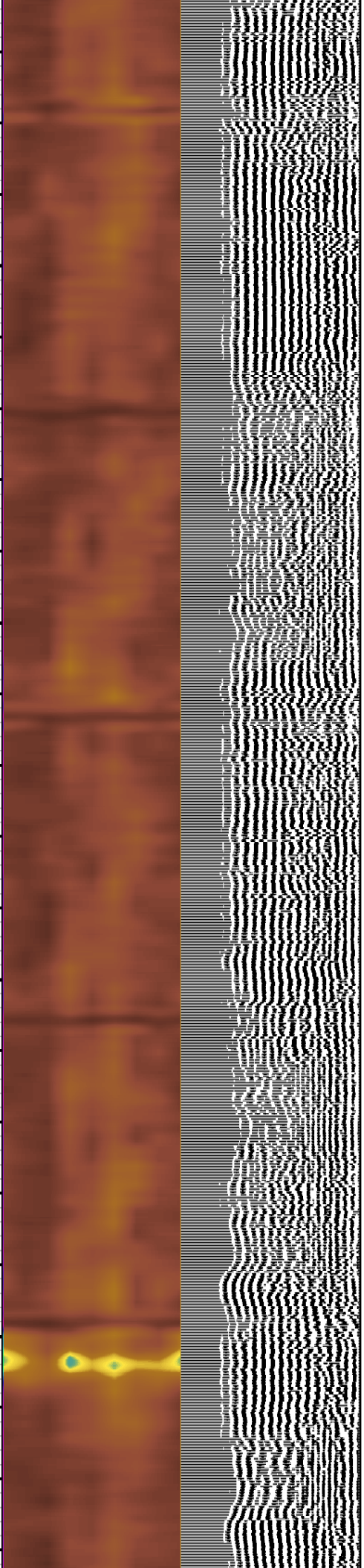
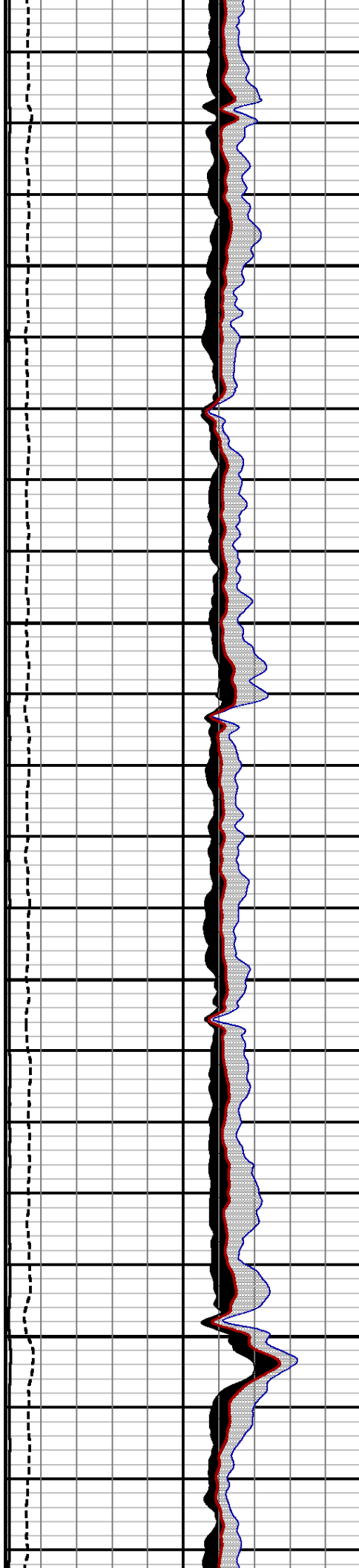
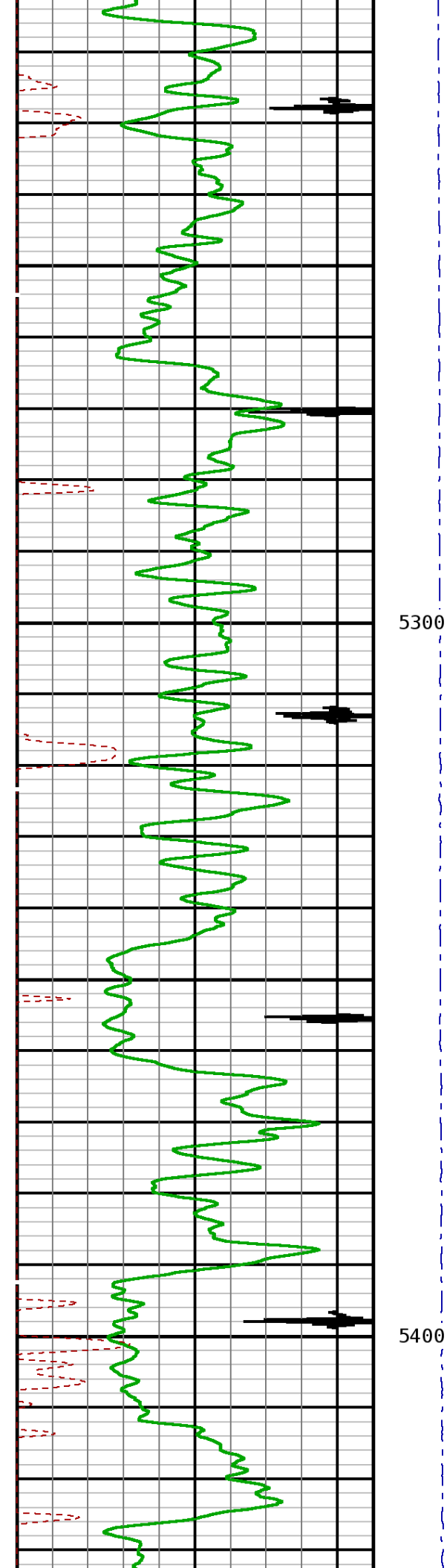
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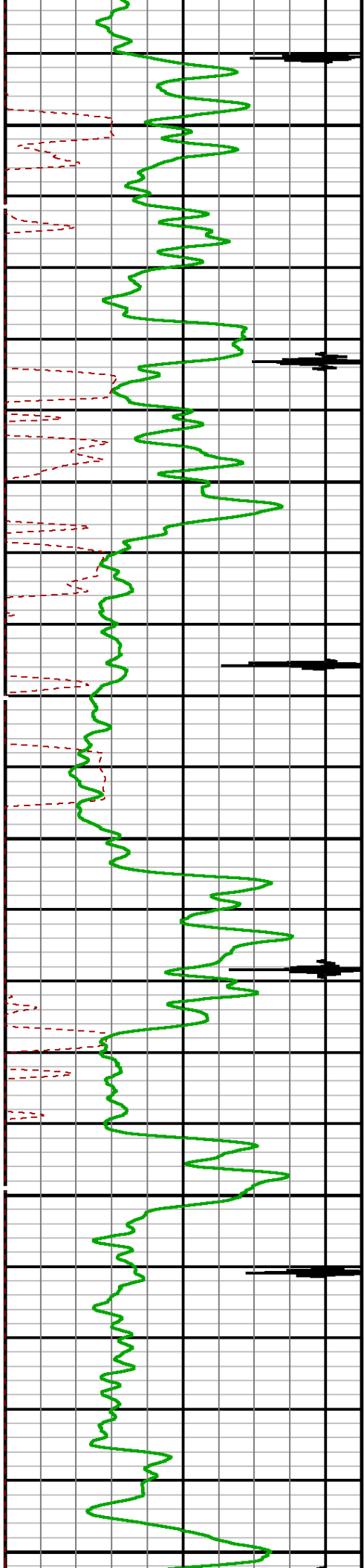






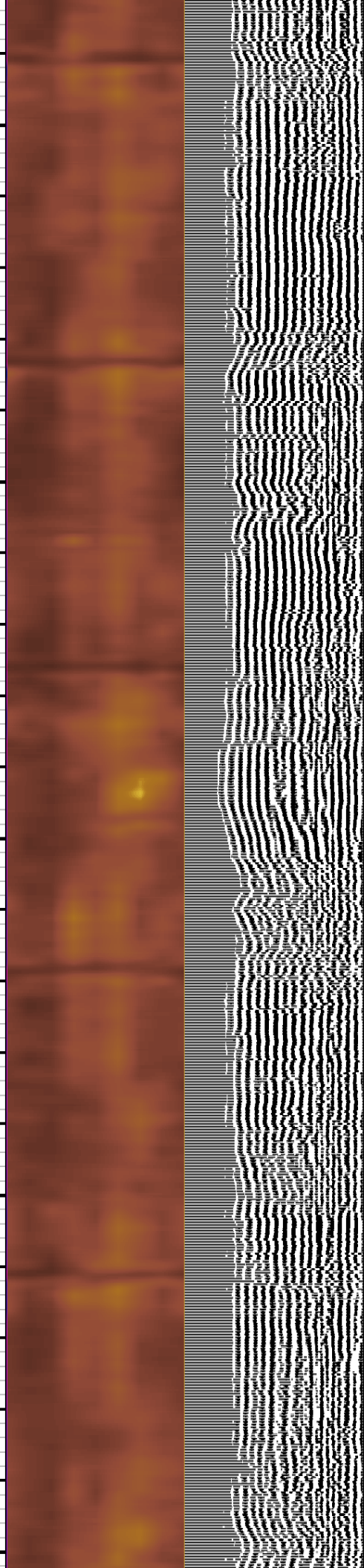
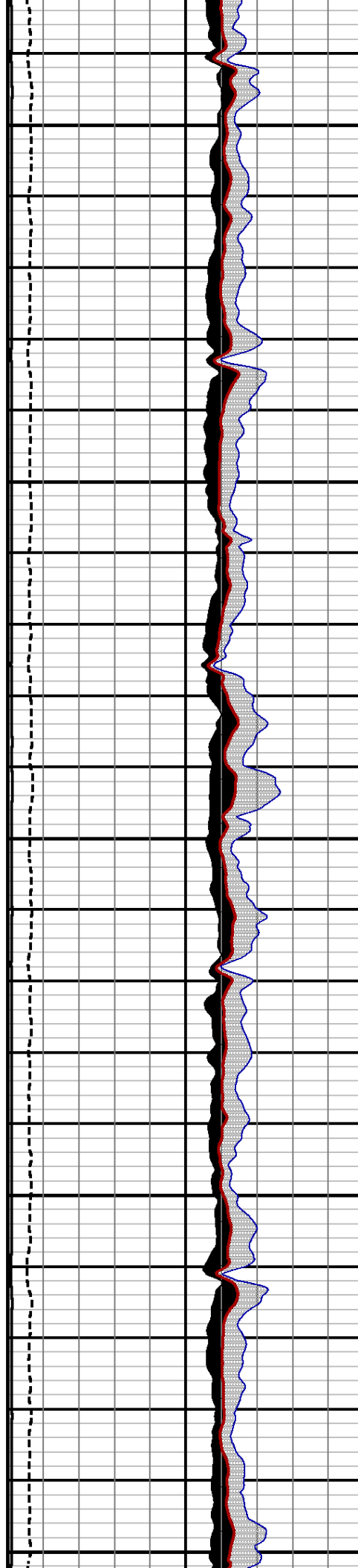


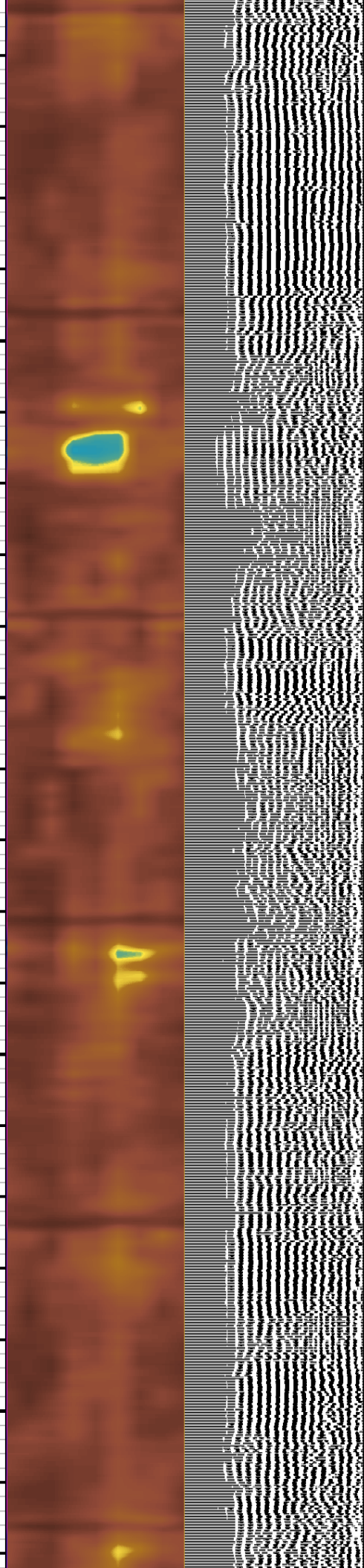
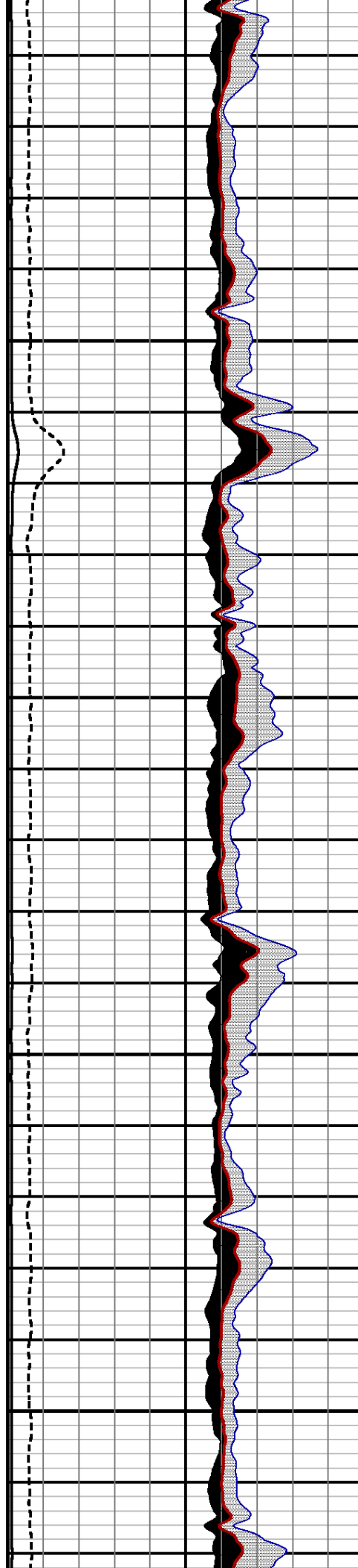
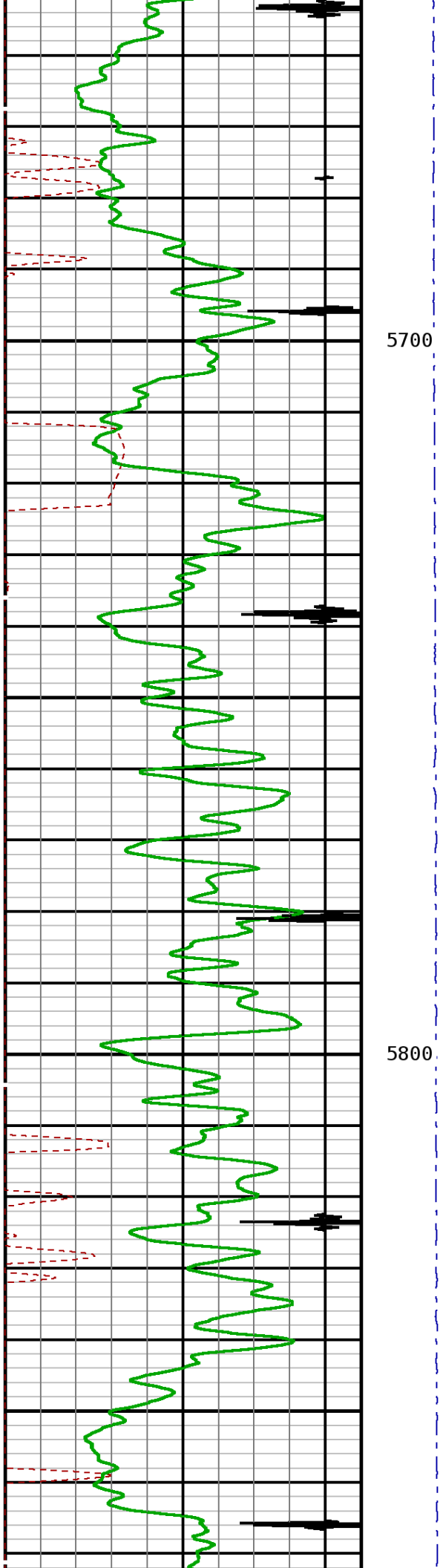




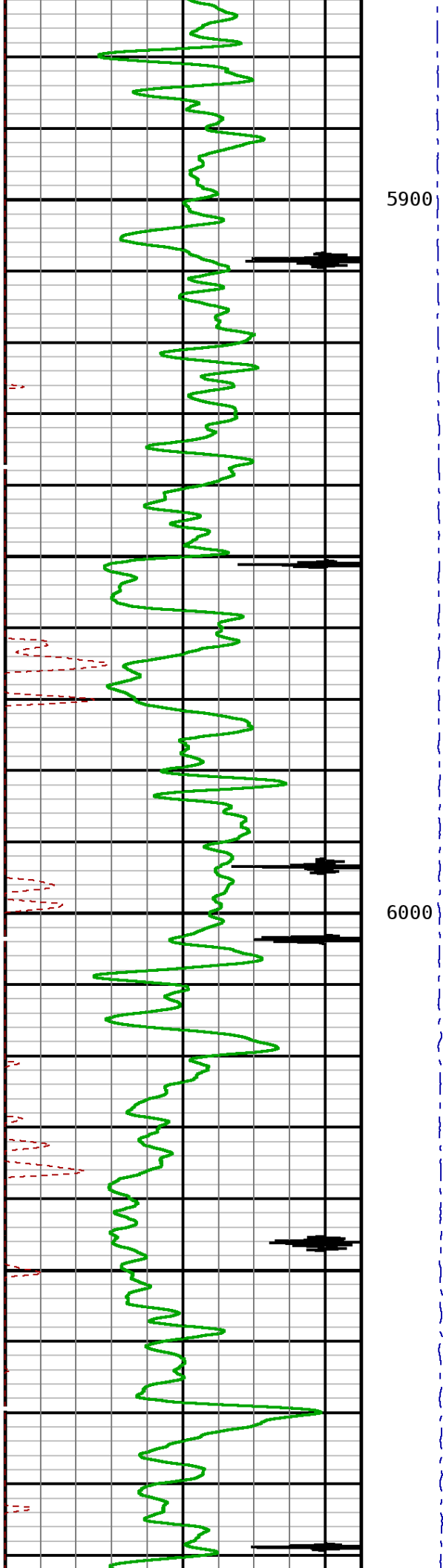
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5600



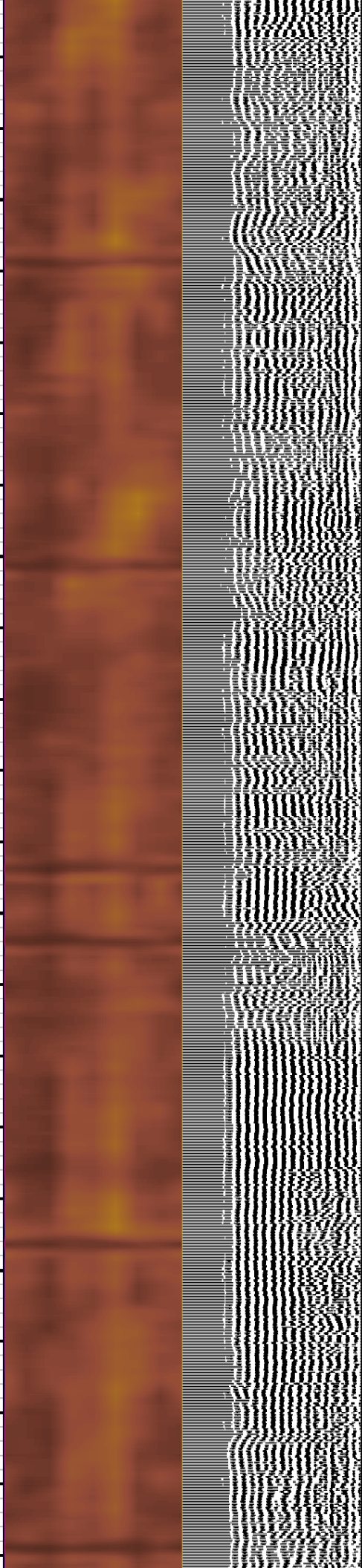
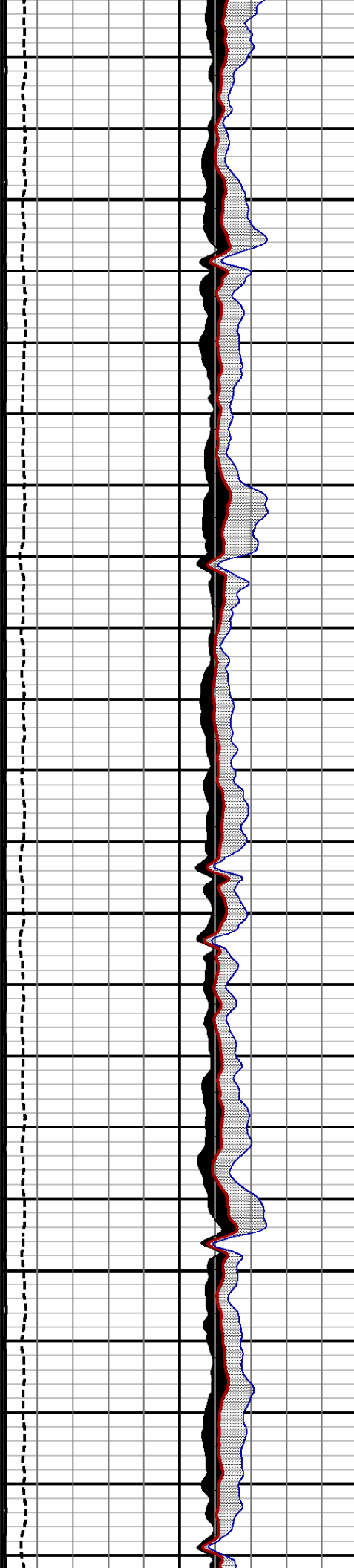


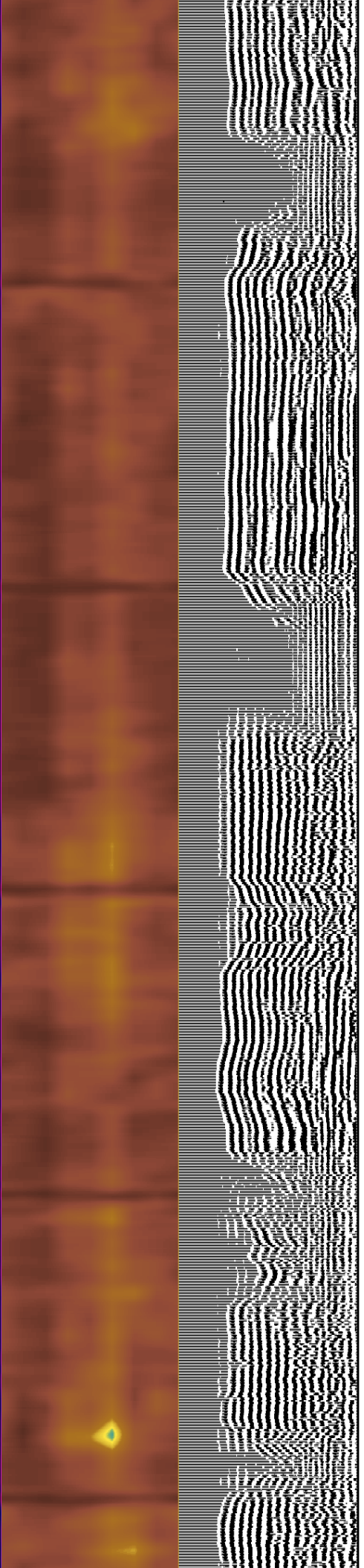
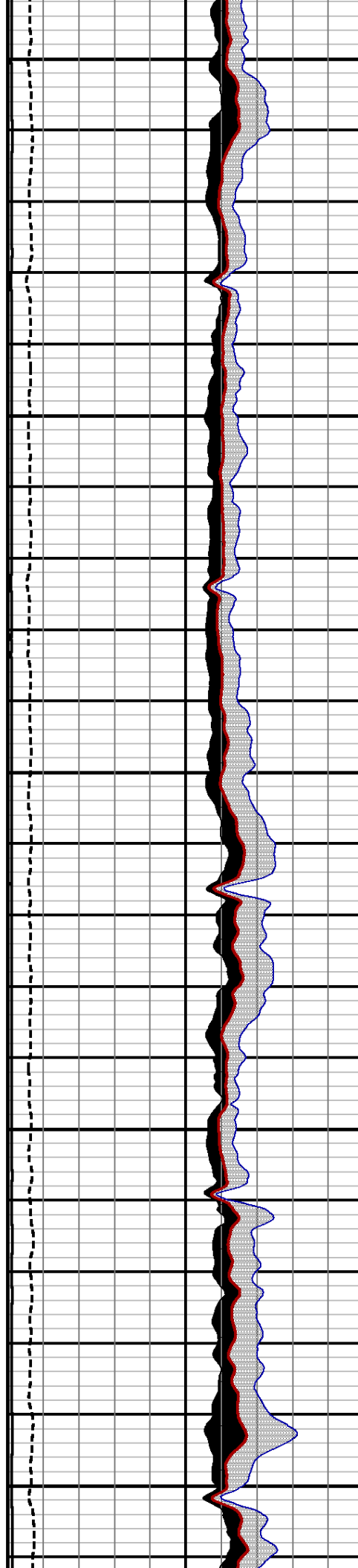
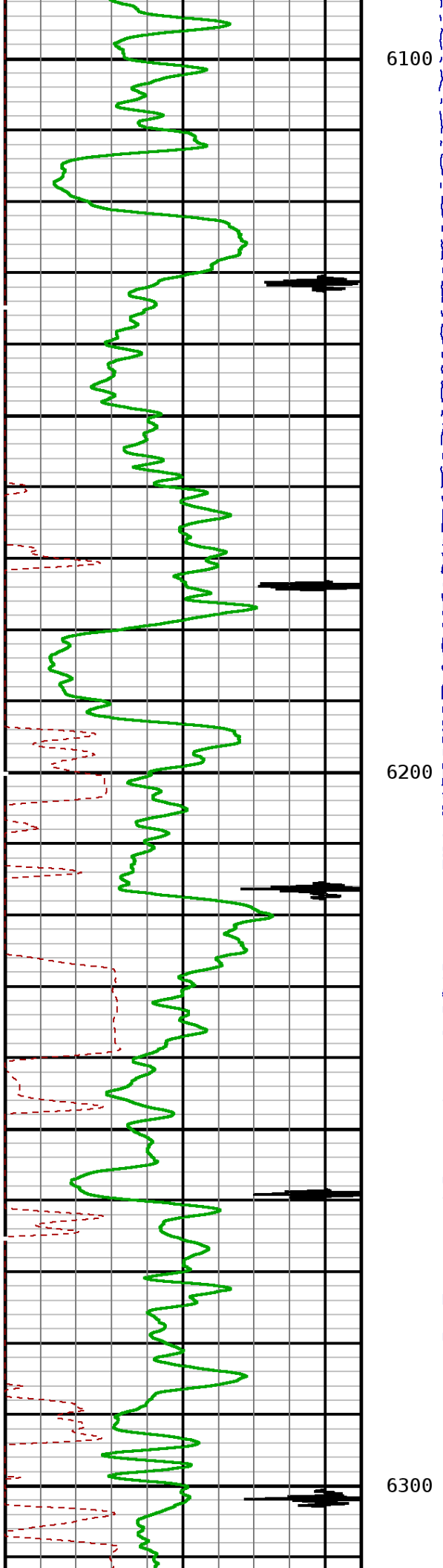


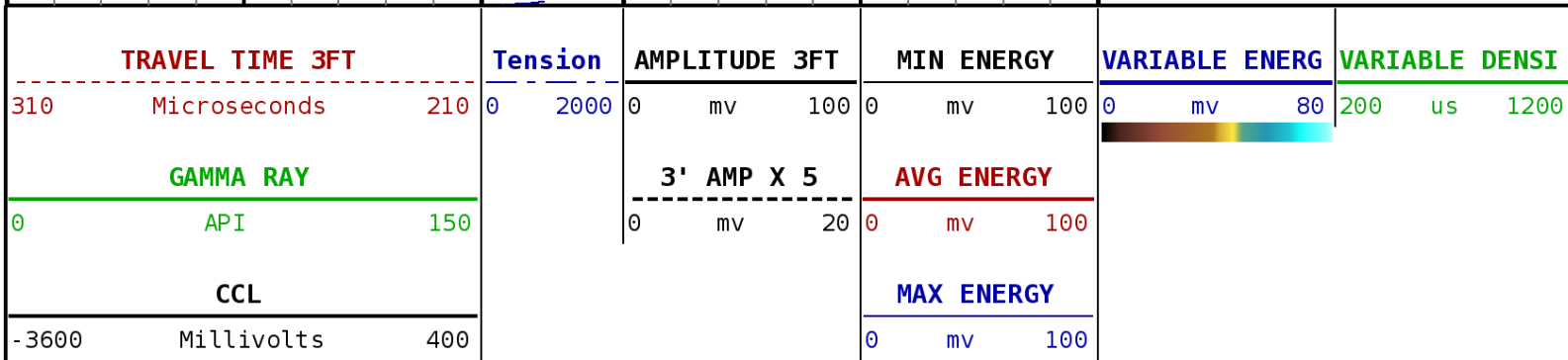


5900

6000







113204463

DEPTH SCALE: 5":100'

PROCESSED VERSION: 2012.07.18.162"

# REPEAT PASS

113204463 SBTREPEAT

FINISH DEPTH: 6236.0 Feet DIRECTION: UP DATE: 03/10/2015 TIME: 18:17 MODE: ORIGINAL

CCL

-3600 Millivolts 400

GAMMA RAY

0 API 150

TRAVEL TIME 3FT

310 Microseconds 210

MAX ENERGY

0 mv 100

AVG ENERGY

0 mv 100

MIN ENERGY

0 mv 100

Tension

0 2000

3' AMP X 5

0 mv 20

AMPLITUDE 3FT

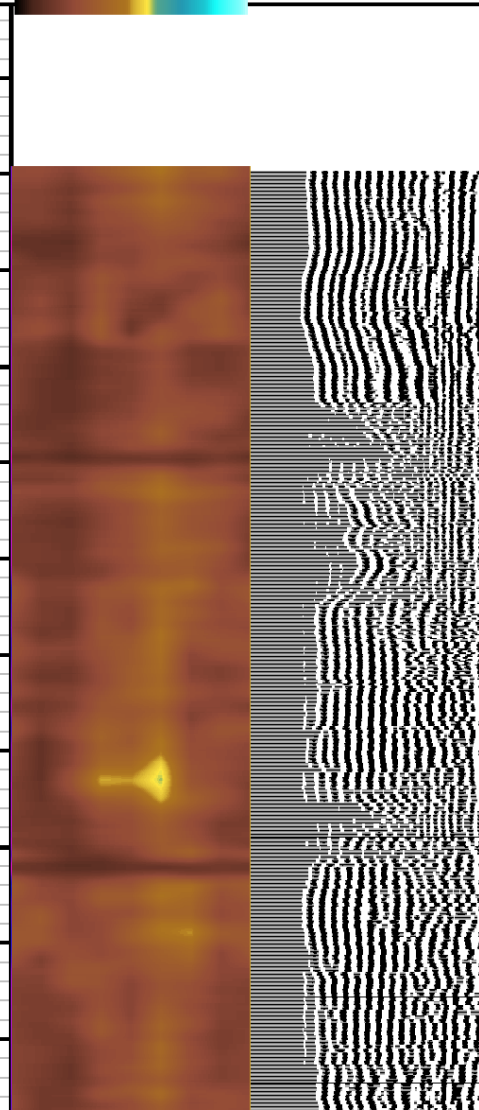
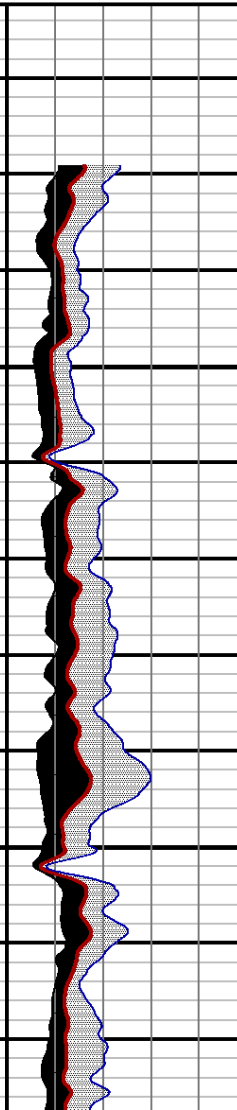
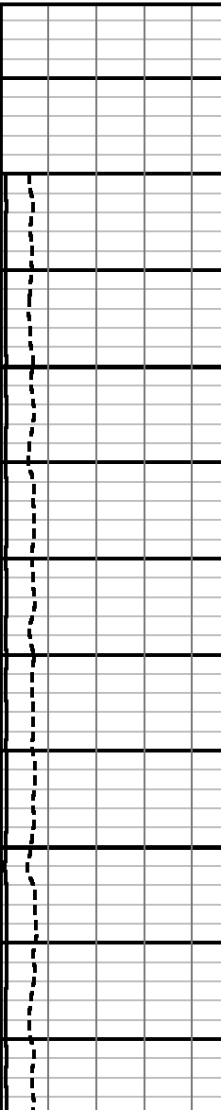
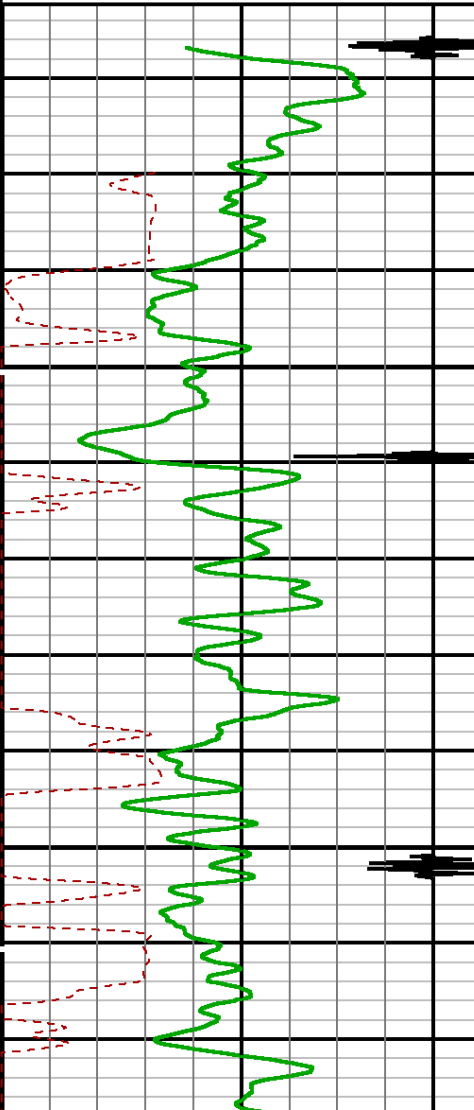
0 mv 100

VARIABLE ENERGY

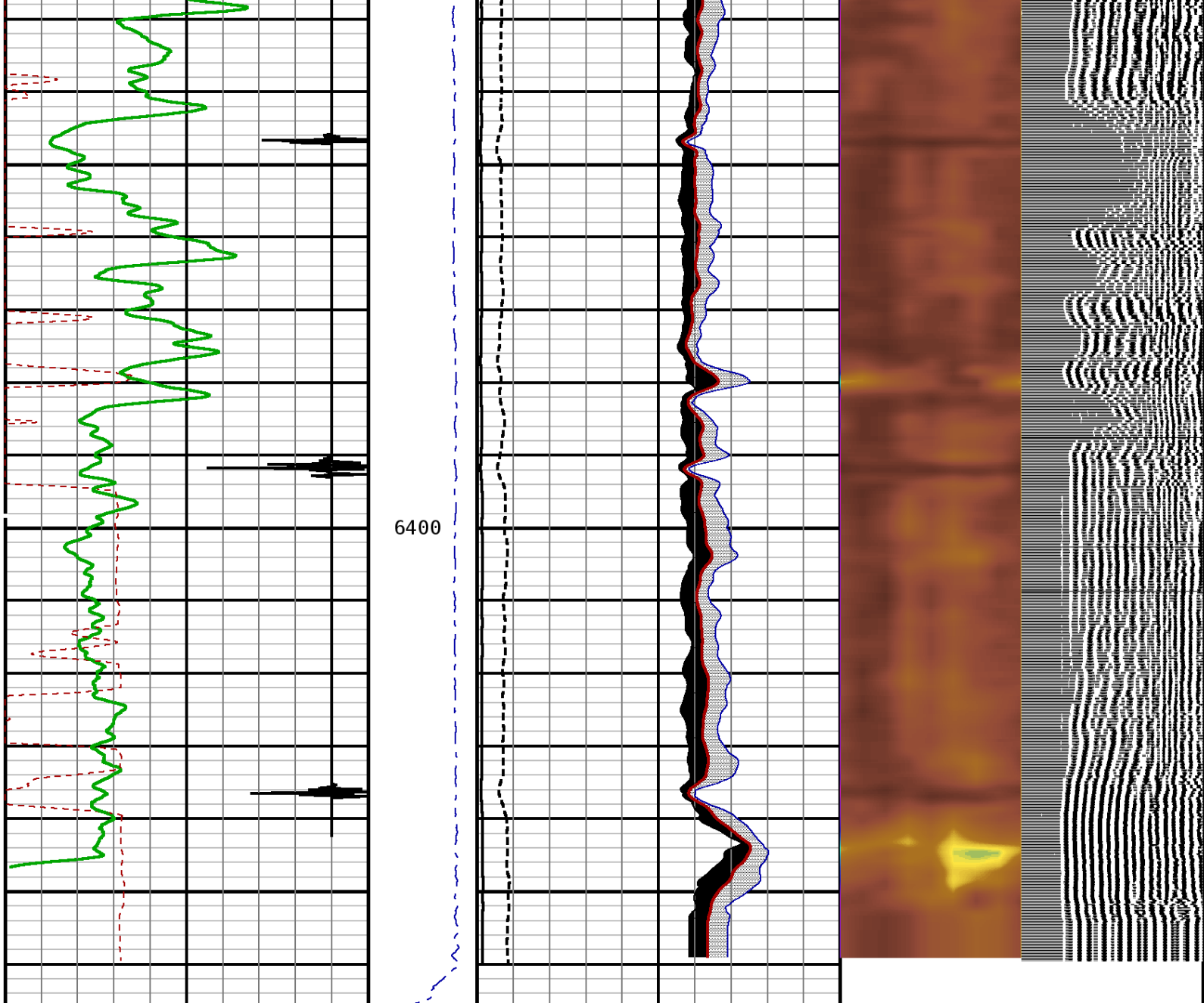
0 mv 80

VARIABLE DENSI

200 us 1200







TRAVEL TIME 3FT			Tension	AMPLITUDE 3FT		MIN ENERGY		VARIABLE ENERGY	VARIABLE DENSITY	
310	Microseconds	210	0 2000	0	mv 100	0	mv 100	0 mv 80	200	us 1200
GAMMA RAY			3' AMP X 5		AVG ENERGY					
0	API	150	0 mv 20		0	mv 100				
CCL					MAX ENERGY					
-3600	Millivolts	400			0	mv 100				

START DEPTH: 6465.9    DIRECTION: UP    DATE: 03/10/2015    TIME: 18:17    MODE: ORIGINAL

113204463 SBTREPEAT

REPEAT PASS

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

### 1 7/16 Adapter Head

Weight 2.2 LB.  
Length 2.54  
Max. Diameter 1.44 IN.

Total Stack Weight 223.0 LBS. in air  
Total Stack Length 27.83 FT.

### Slim Hole Centralizer

Weight 15 lbs  
Length 2.49 FT.  
Max. Diameter 2.750 IN.

### Collar Locator

Weight 39.8 LBS.  
Length 3.40 FT.  
Max. Diameter 2.75 IN.

### Slim Hole Gamma Ray

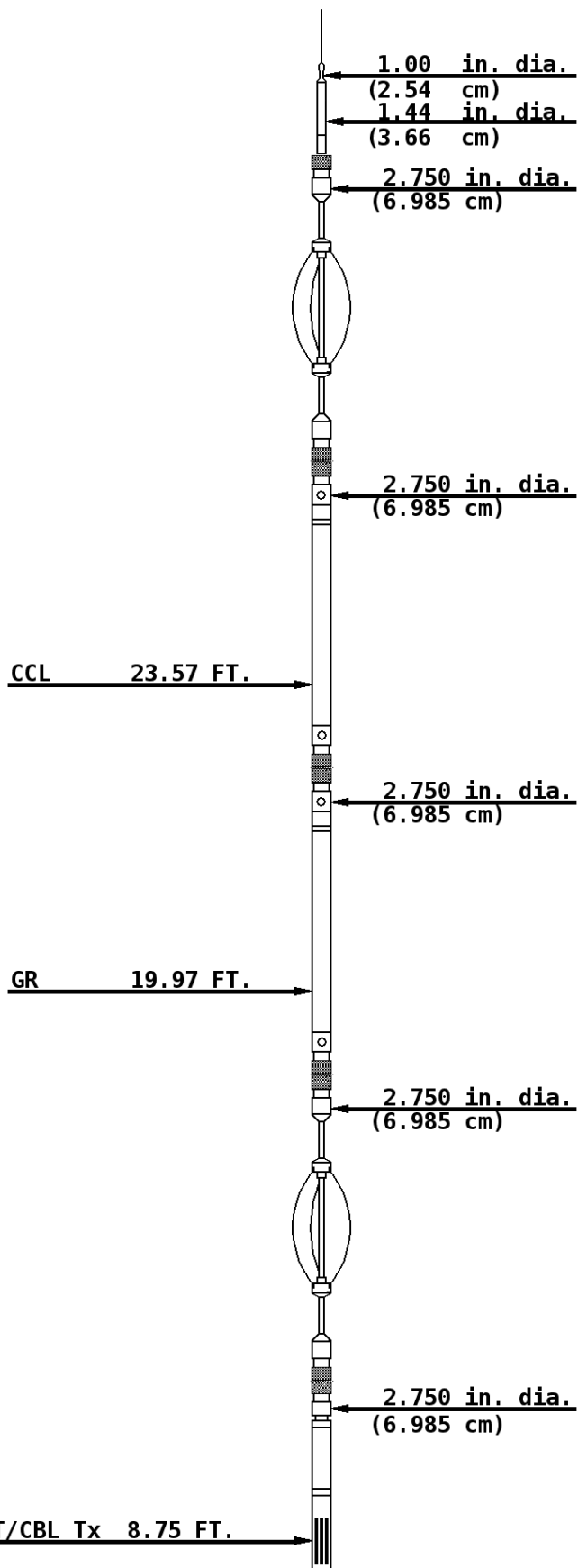
Weight 39.8 LBS.  
Length 4.71 FT.  
Max. Diameter 2.750 IN.

### Slim Hole Centralizer

Weight 22 LBS.  
Length 3.08 FT.  
Max. Diameter 2.750 IN.

### Sector Bond

Weight 89.2 LBS>  
Length 10.32 FT.



Max. Diameter 2.750 IN.

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 15.0 LBS.  
Length 2.82 FT.  
Max. Diameter 2.750 IN.

Tool Zero

COMPANY URSA OPERATING COMPANY

WELL BAT 32A-24-07-96

FIELD BATTLEMENT MESA

COUNTY GARFIELD

STATE COLORADO



**Weatherford®**