



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

COMPANY URSA OPERATING  
COMPANY  
WELLBAT 34B-24-07-96

FIELD BATTLEMENT MESA  
CNTY GARFIELD STATE CO

COMPANY	URSA OPERATING COMPANY
WELL	BAT 34B-24-07-96
FIELD	BATTLEMENT MESA
COUNTY	GARFIELD

STATE COLORADO

**LOCATION:**

SEC.24	TWP.7S	RGE.
SHL: 1835'	FSL & 2056'	FWL
BHL: 1050'	FNL & 1966'	FEL

**OTHER 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.	ONE
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DEPTH DRILLER	6197'
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DEPTH LOGGER	5959'
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BTM. LOG INTERVAL	5953'
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TOP LOG INTERVAL	SURFACE
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OPEN HOLE SIZE	7.875
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TYPE FLUID	WATER
1	1
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3	3
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99	99
100	100

DENS.	VISC.	8.3
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MAX. REC. TEMP.	191 L
EST. CEMENT TON	

EST. CEMENT 10P	SEE L
TIME WELL READY	POA

TIME WELL READY	ROA
TIME LOGGED ON PTM	CEP

TIME LOGGER ON BLM.	SEE L
FOOTED NO	1A2A7

EQUIP. NO.	14247
LOCATION	CASPER

LOCAL ION	CASPE
RECORDED BY	D M

RECORDED BY	F. H.
WITNESSED BY	GE

**WILNCSLD BI L. GR**

BUNKER RECORD	
BIIN NO	EBOM

INVOICE NO.:	DTI	INVOICE
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[illegible][illegible][illegible]

CASING RECORD	SIZE	W
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SURFACE STRING	8.625"	
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PROT. STRING		
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PROD. STRING	4.5"	1
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LINER		
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11

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 # 113206870
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LOG WAS CORRELATED TO WEATHERFORD PULSED NEUTRON DECAY LOG DATED 11-MARCH-2015 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"

MAIN PASS

113206870 SBTMAIN

FINISH DEPTH: 41.3 Feet DIRECTION: UP DATE: 03/10/2015 TIME: 22:09 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

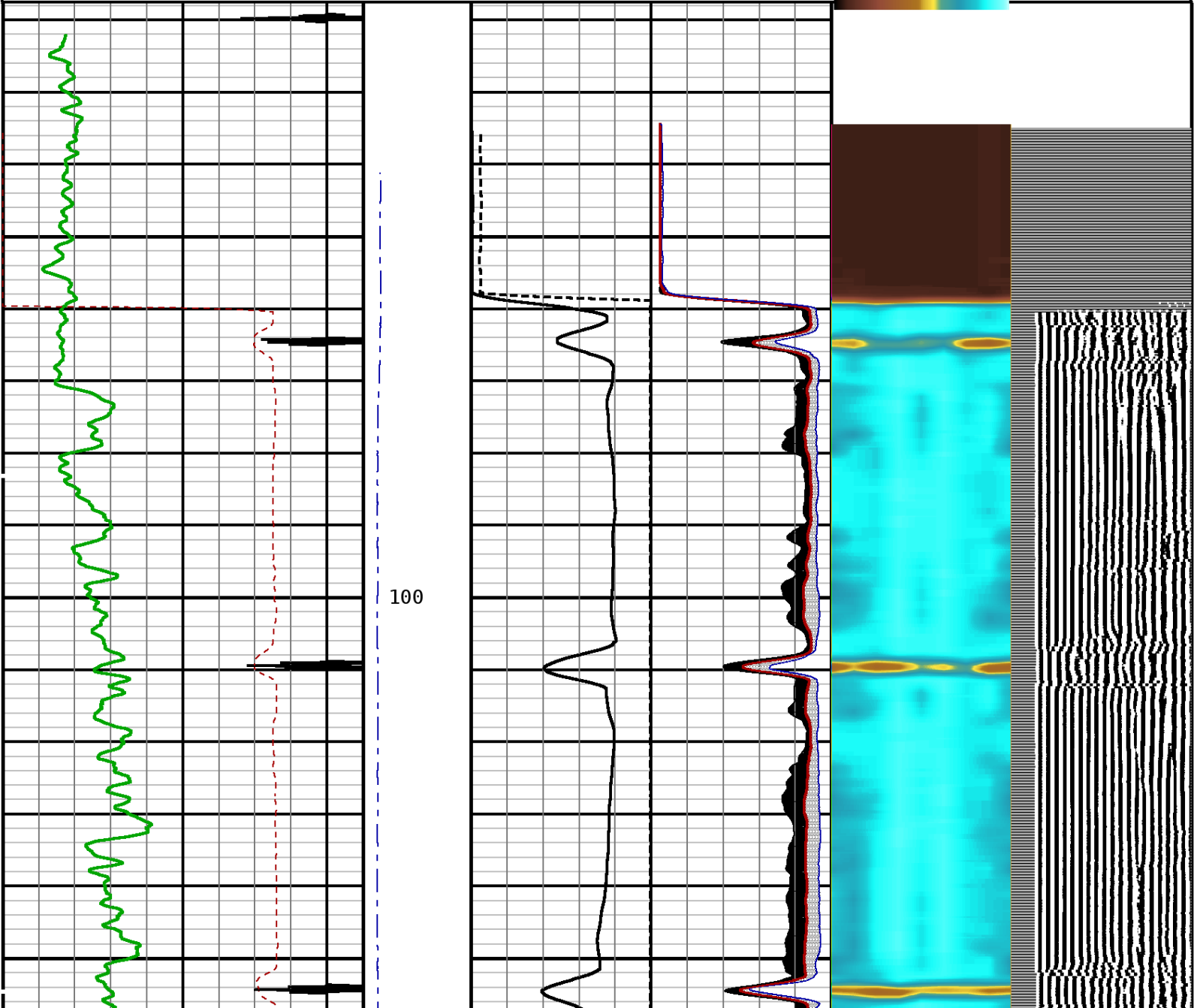
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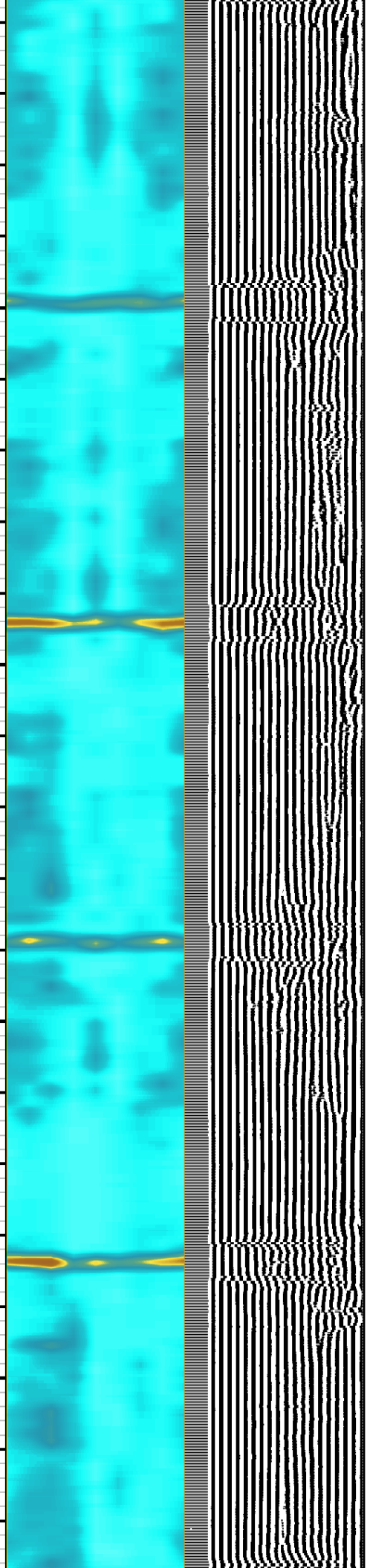
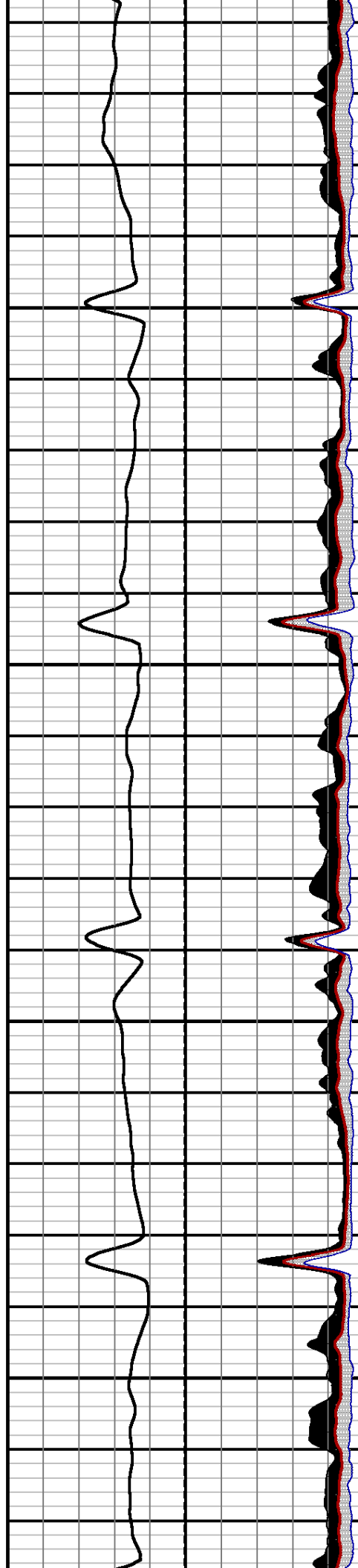
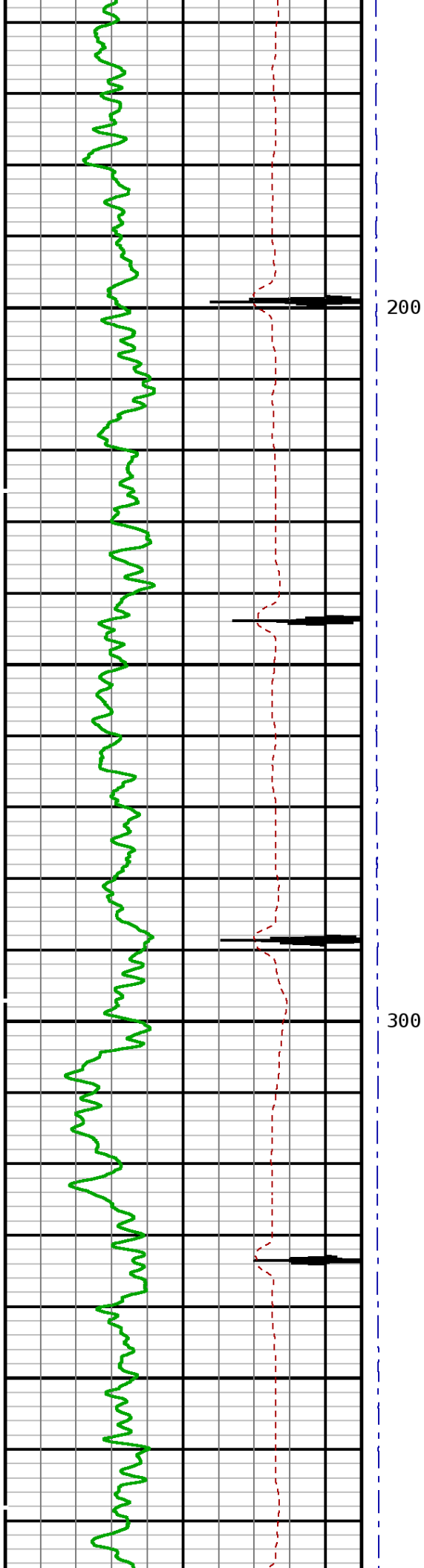
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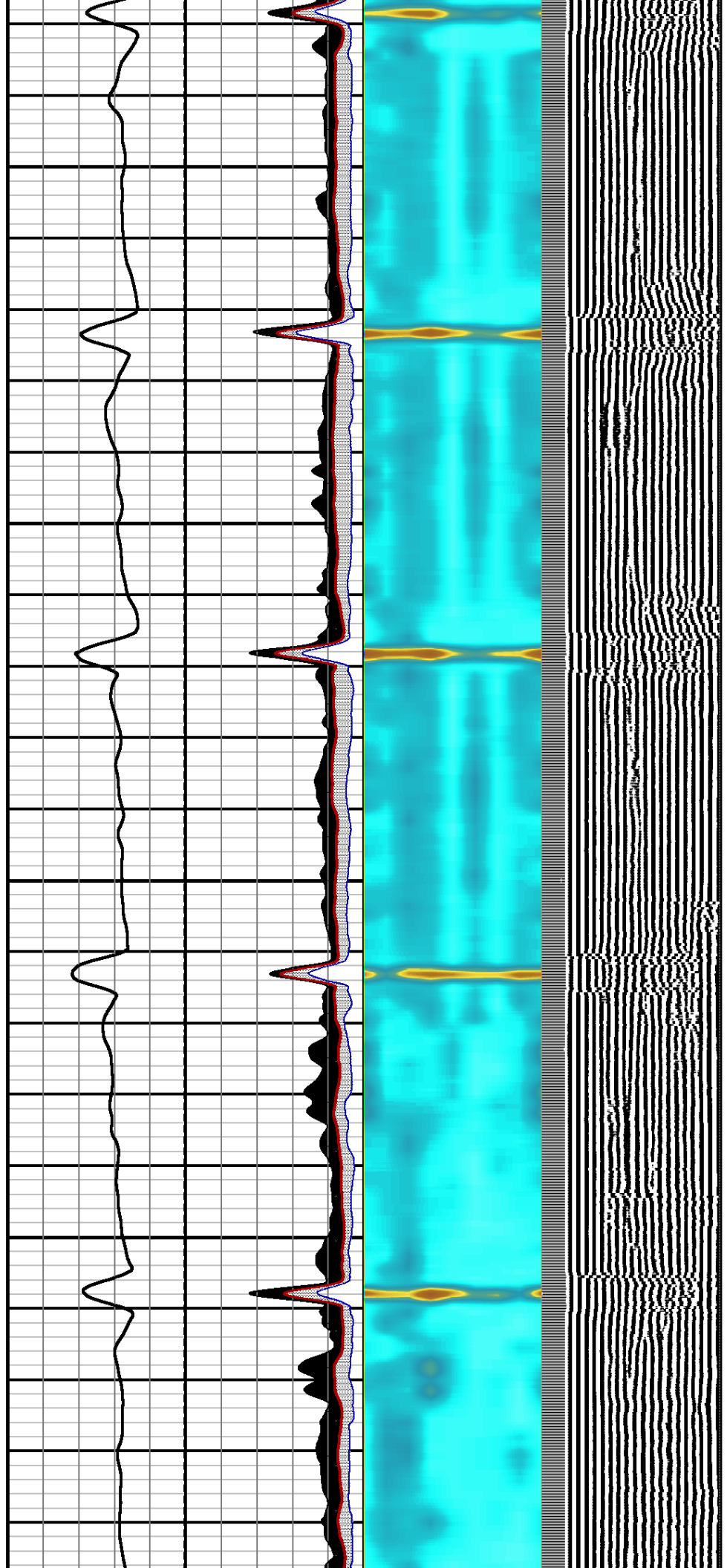
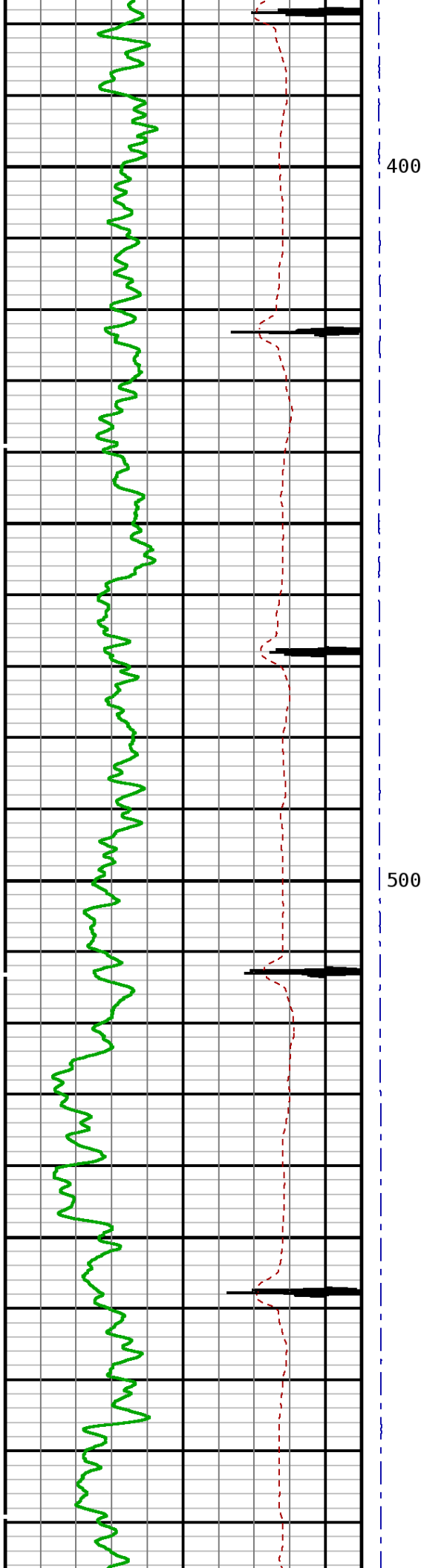
0 mv 80

VARIABLE DENSI

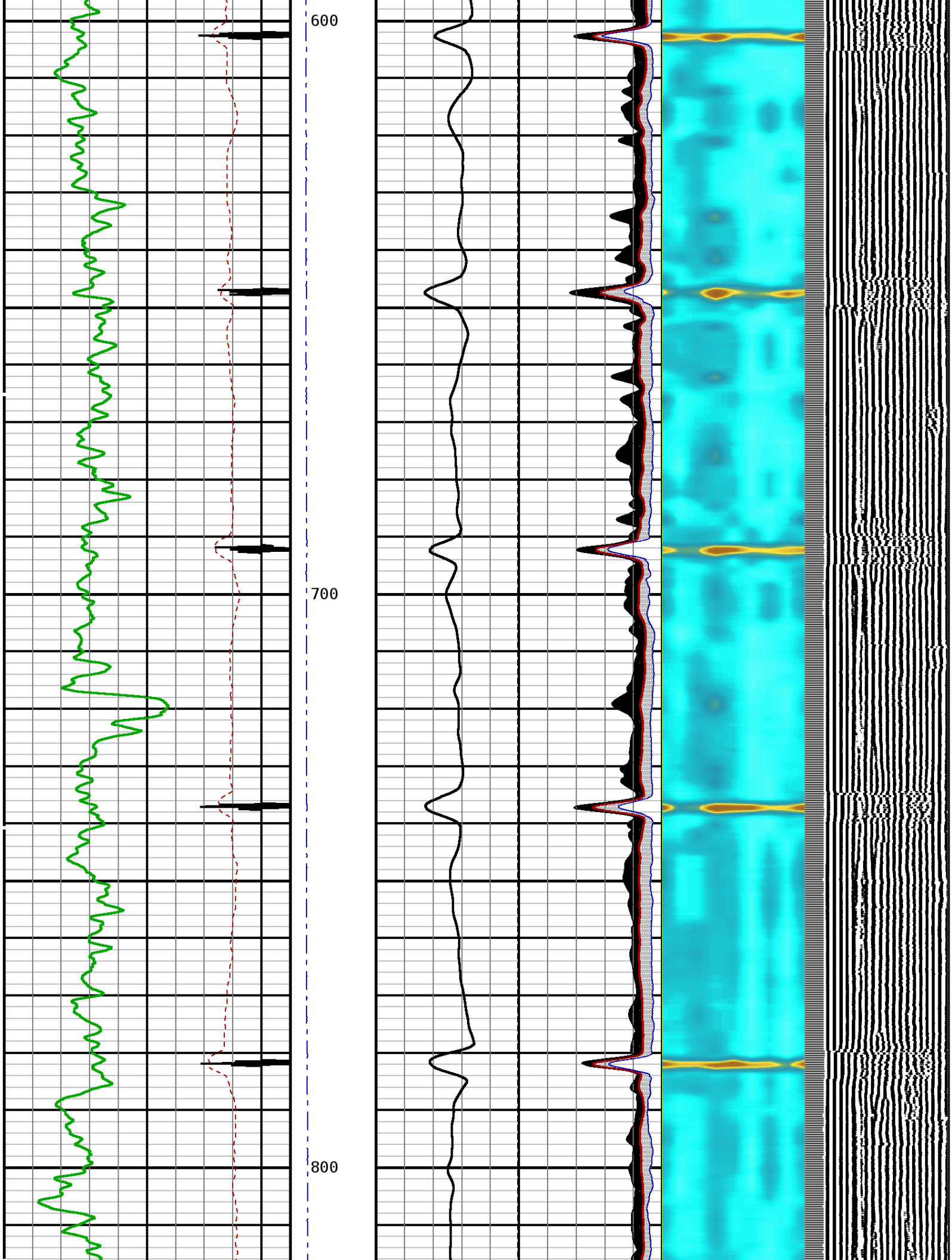
200 us 1200



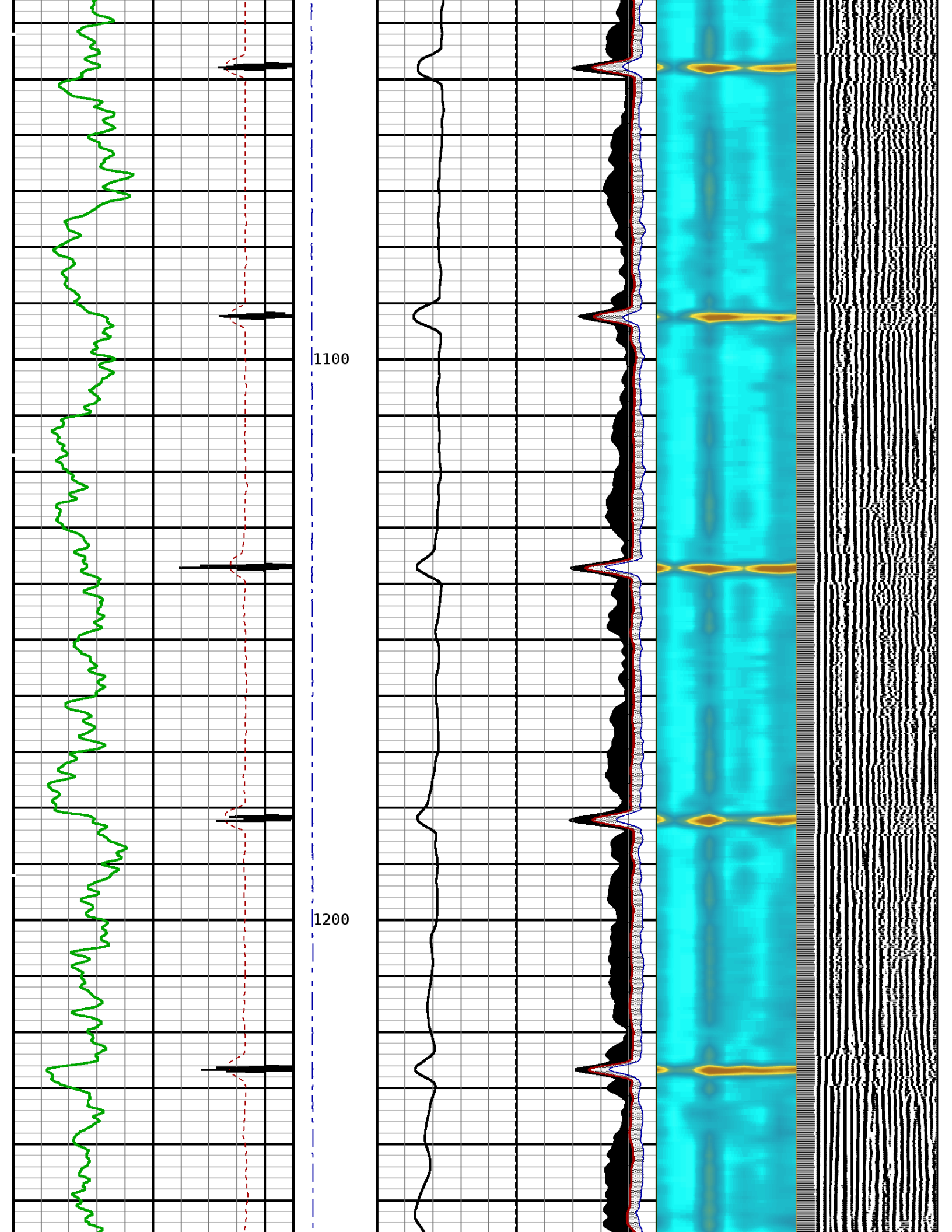


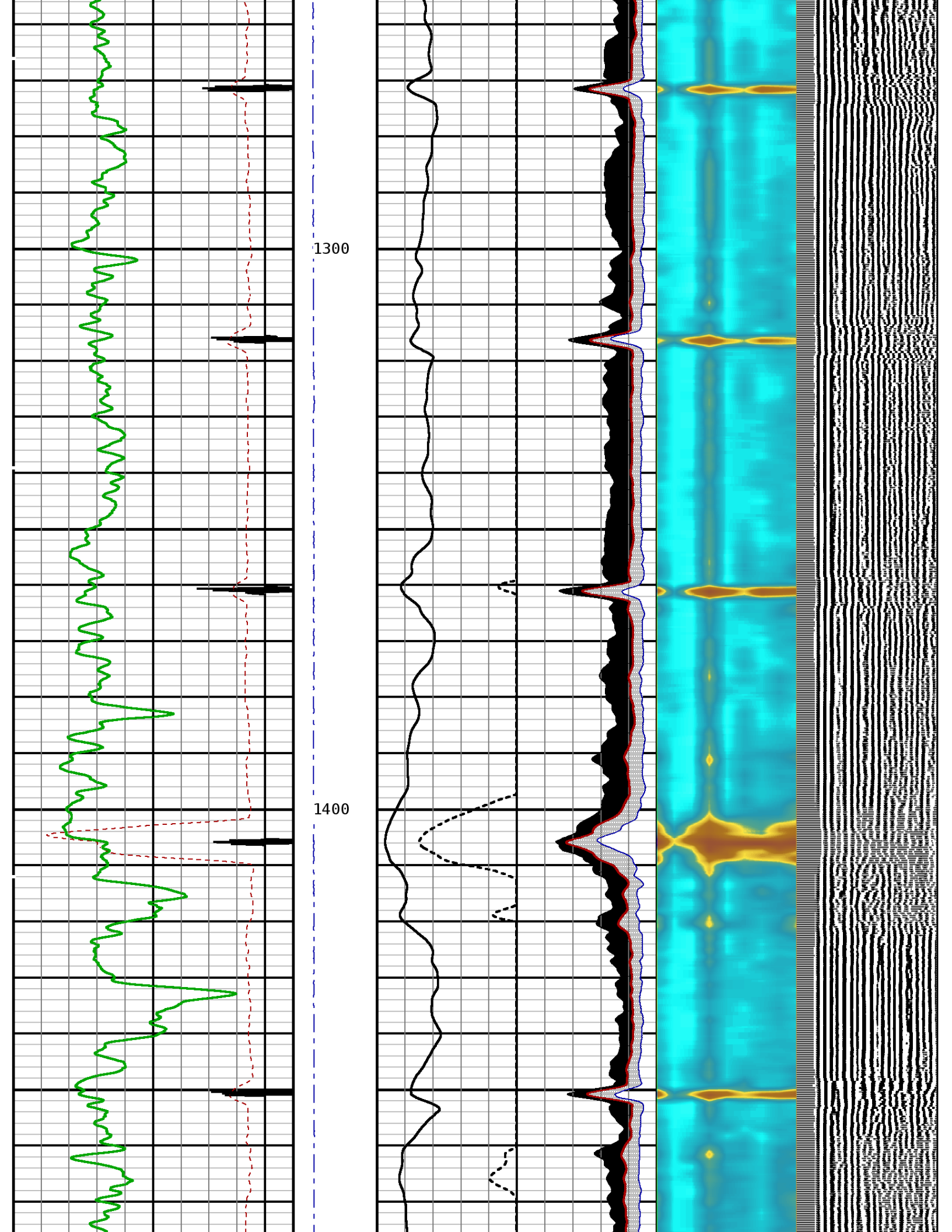




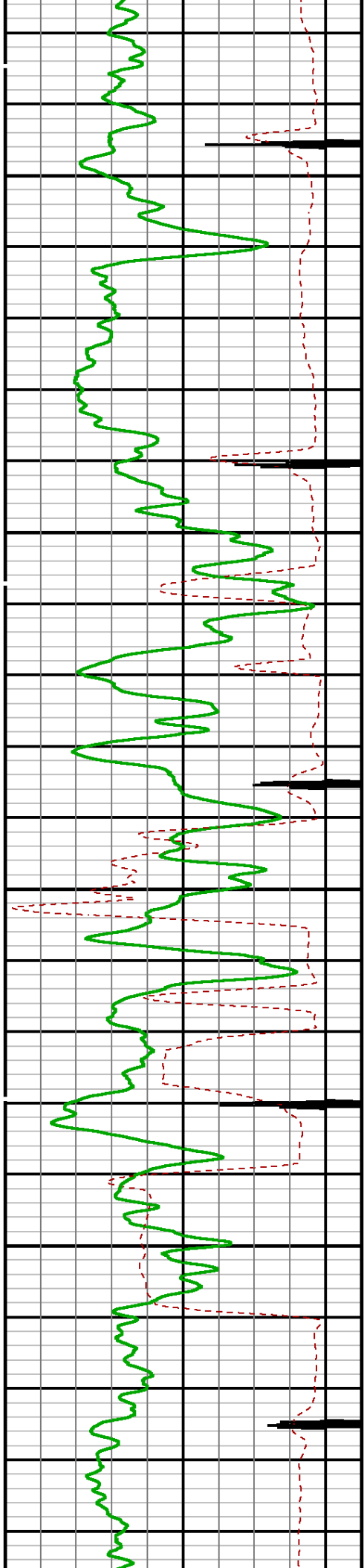






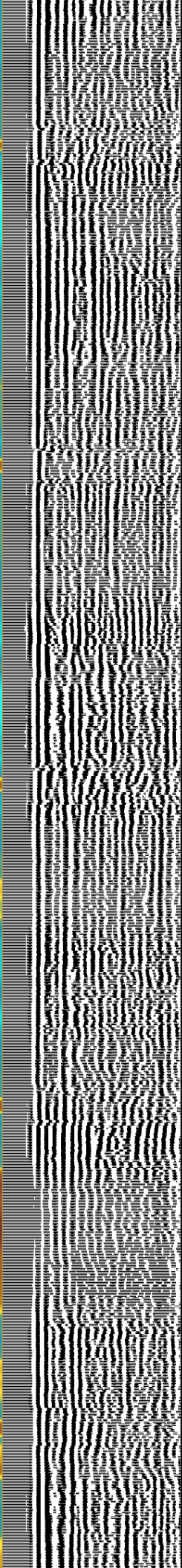
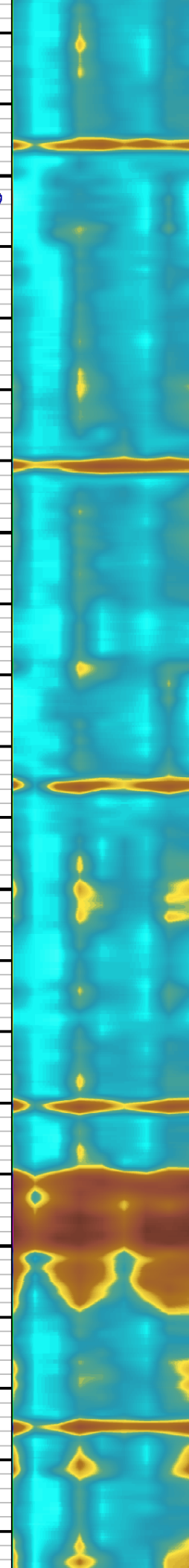
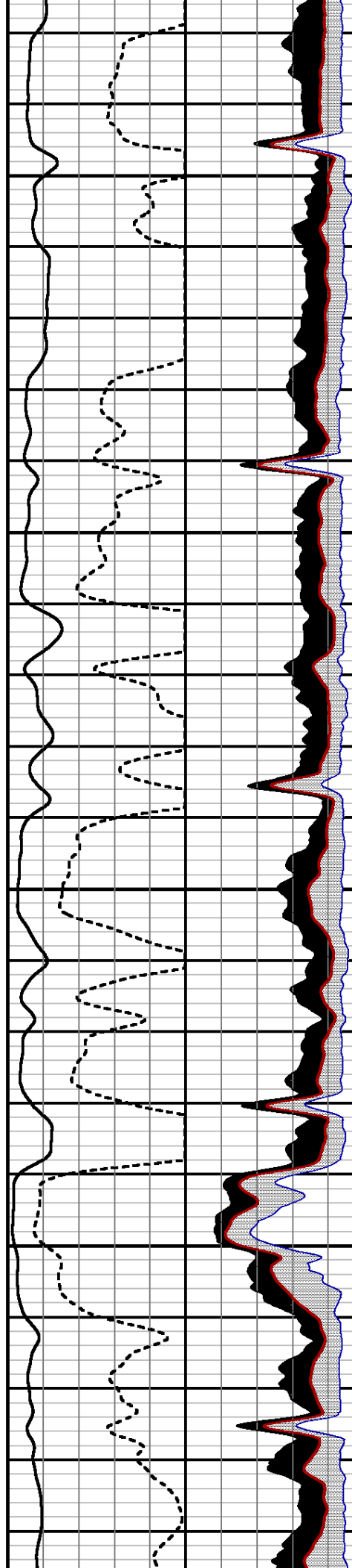


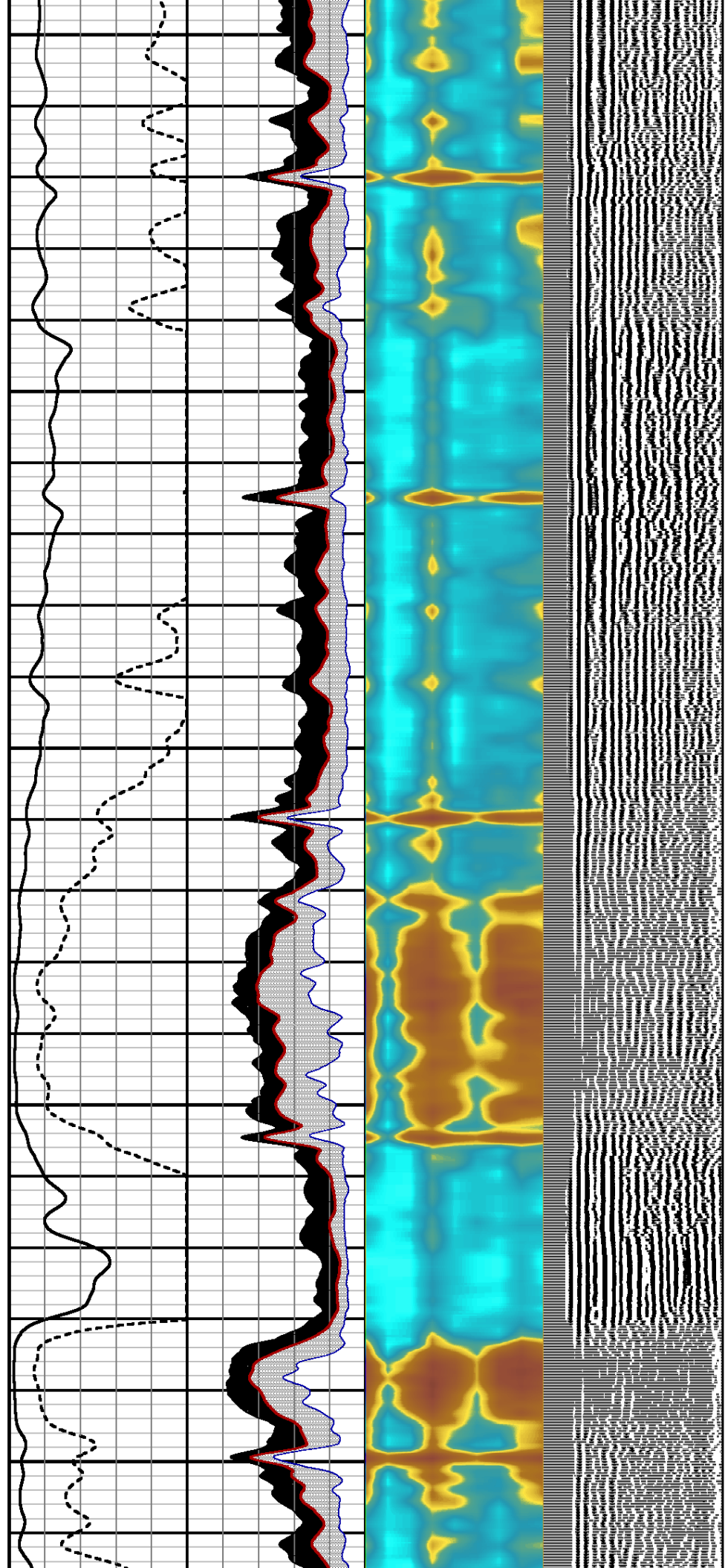
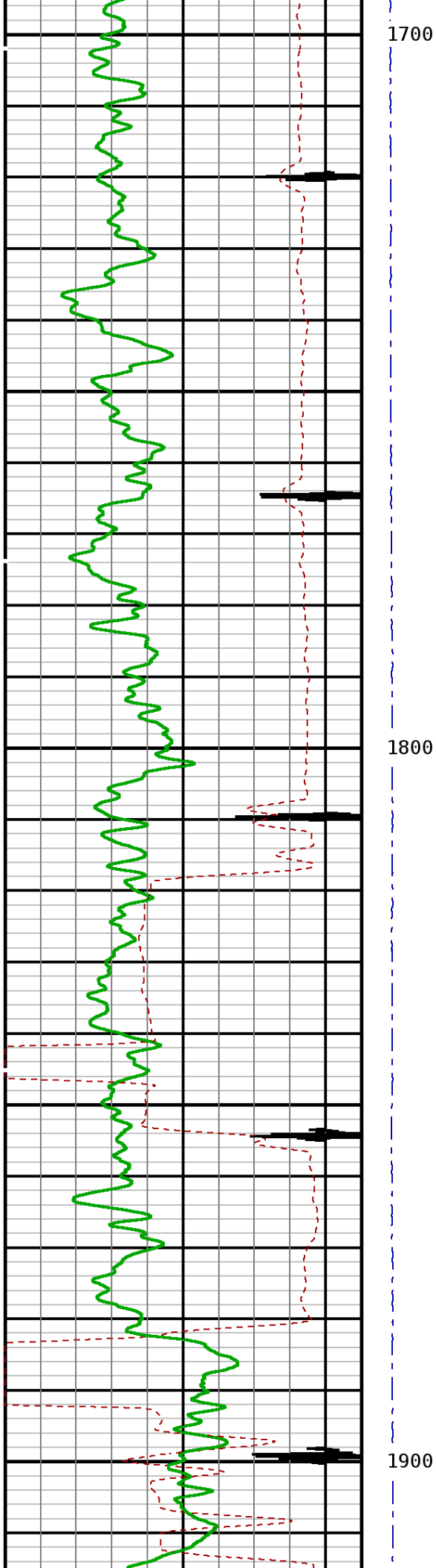




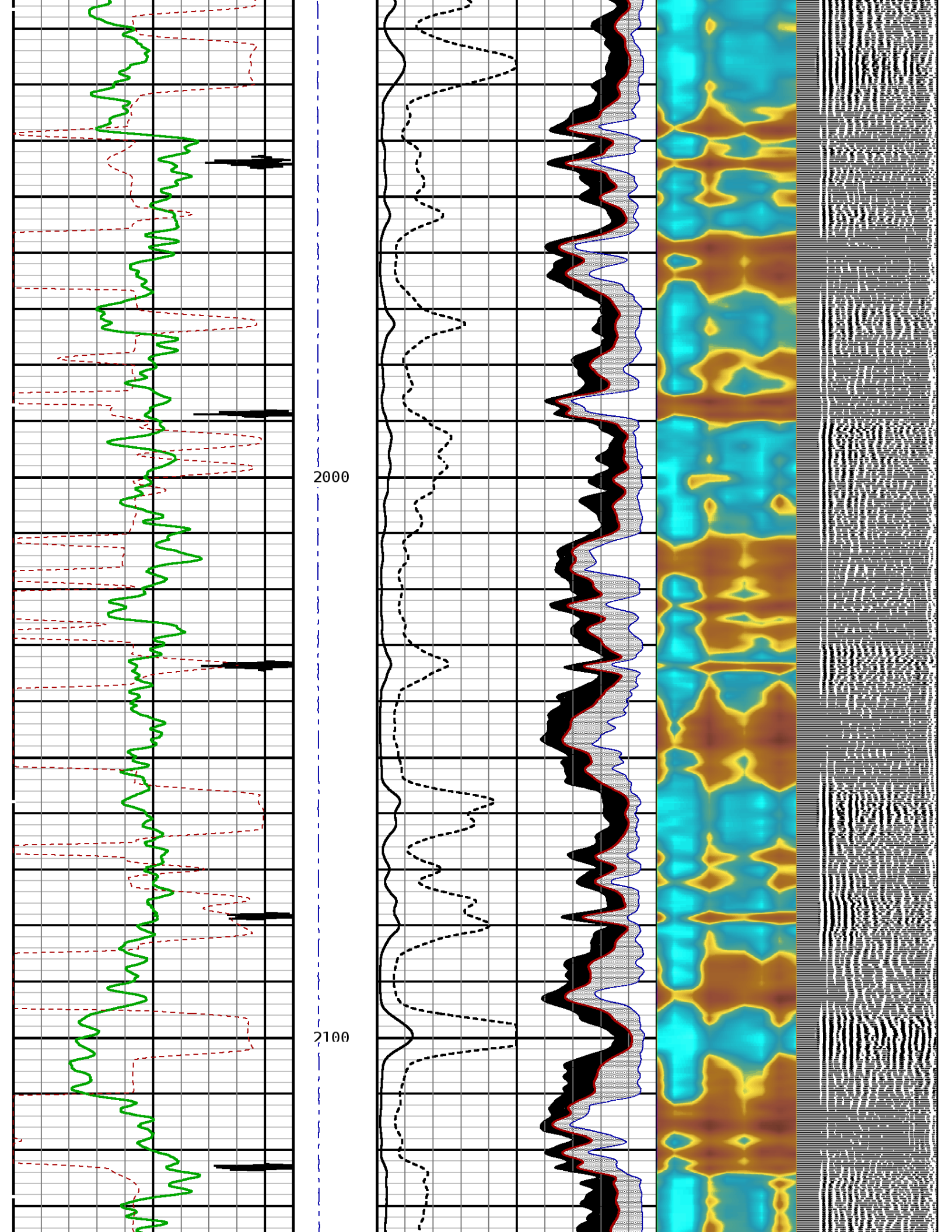
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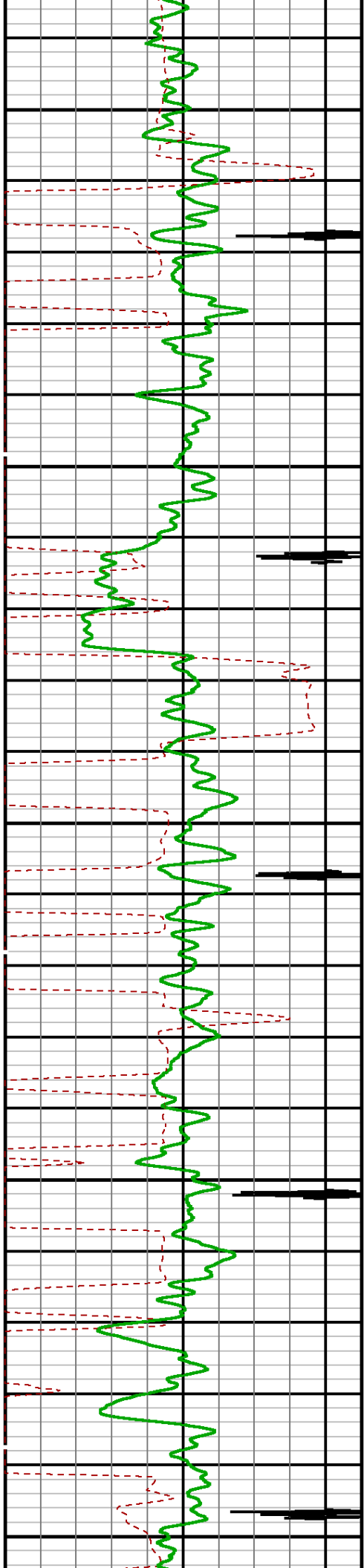






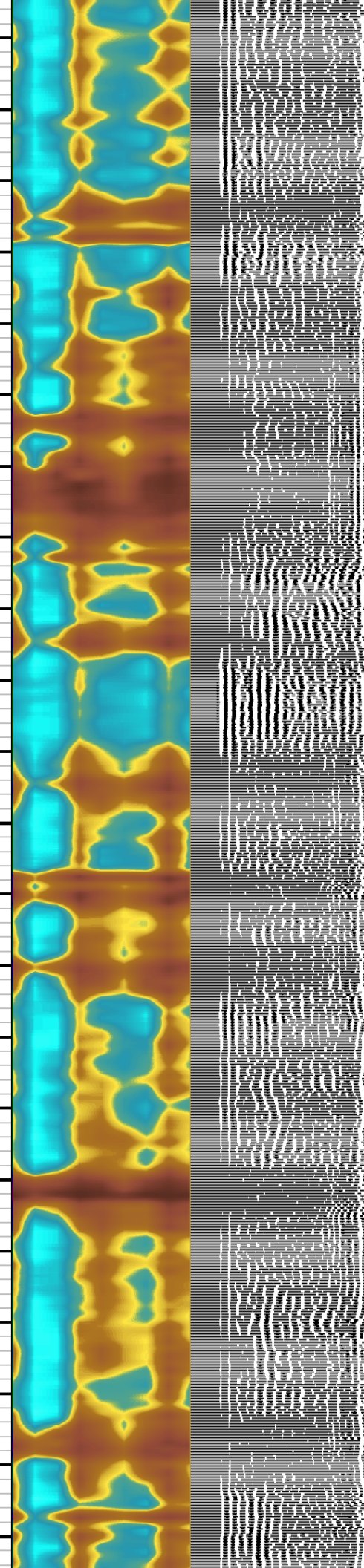
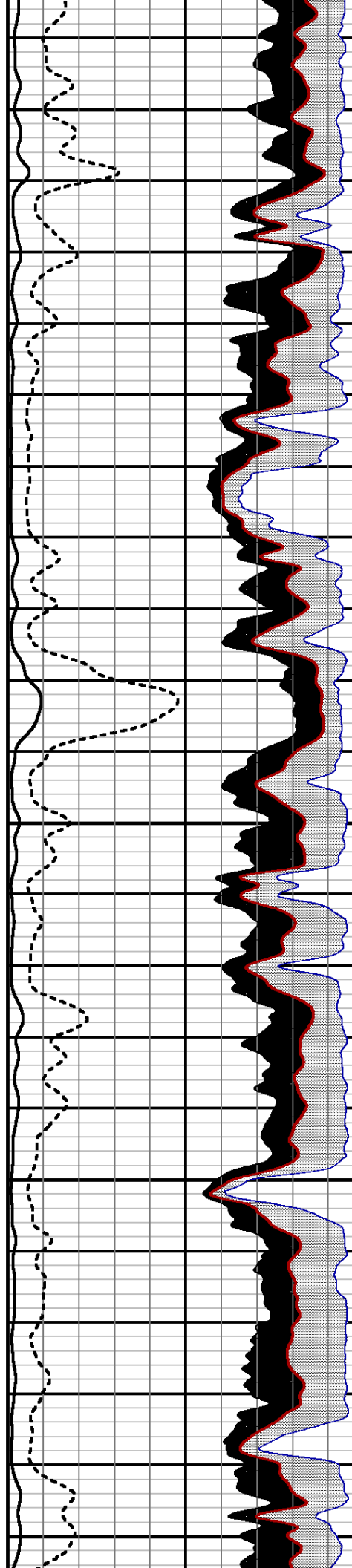


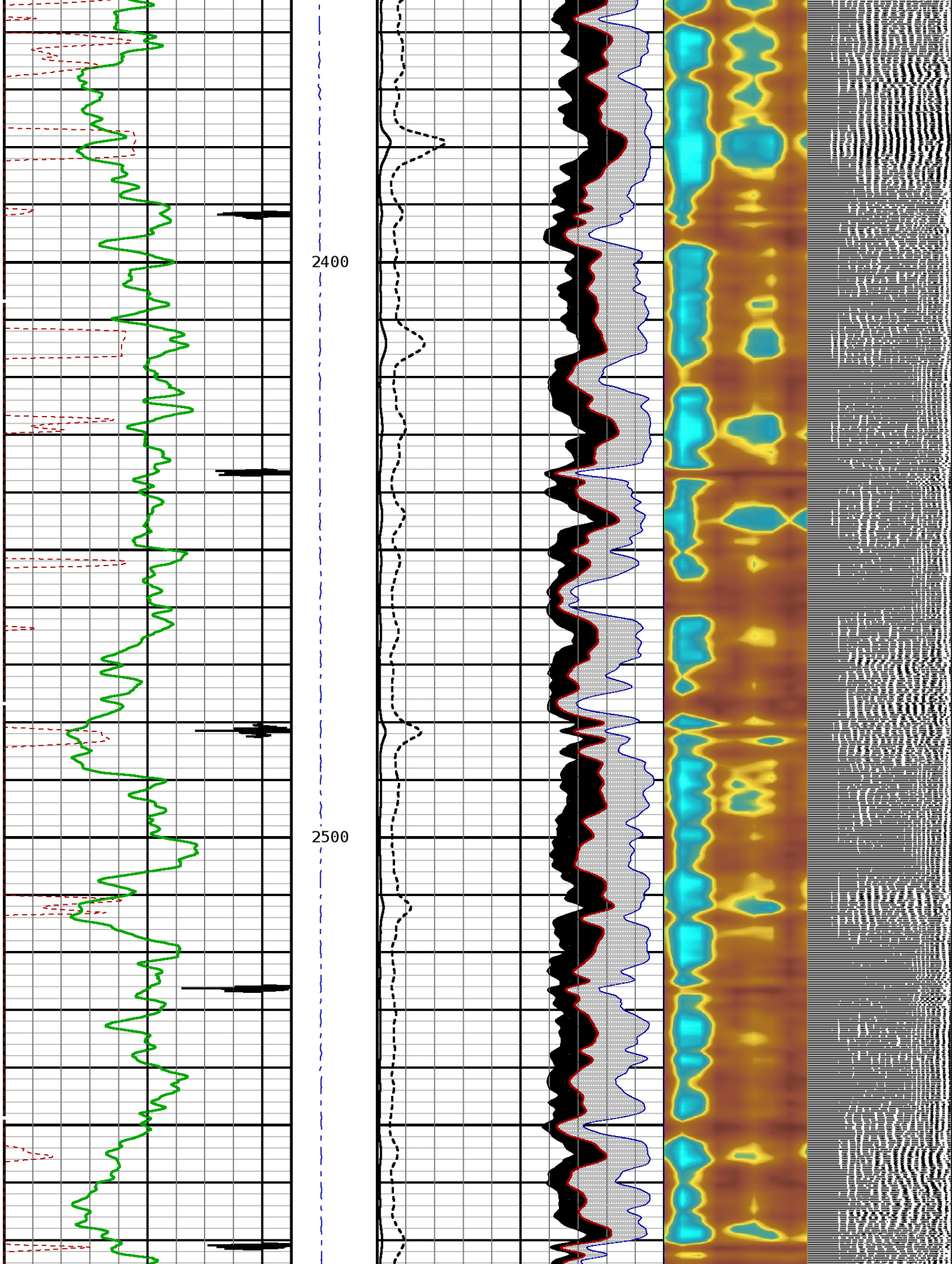




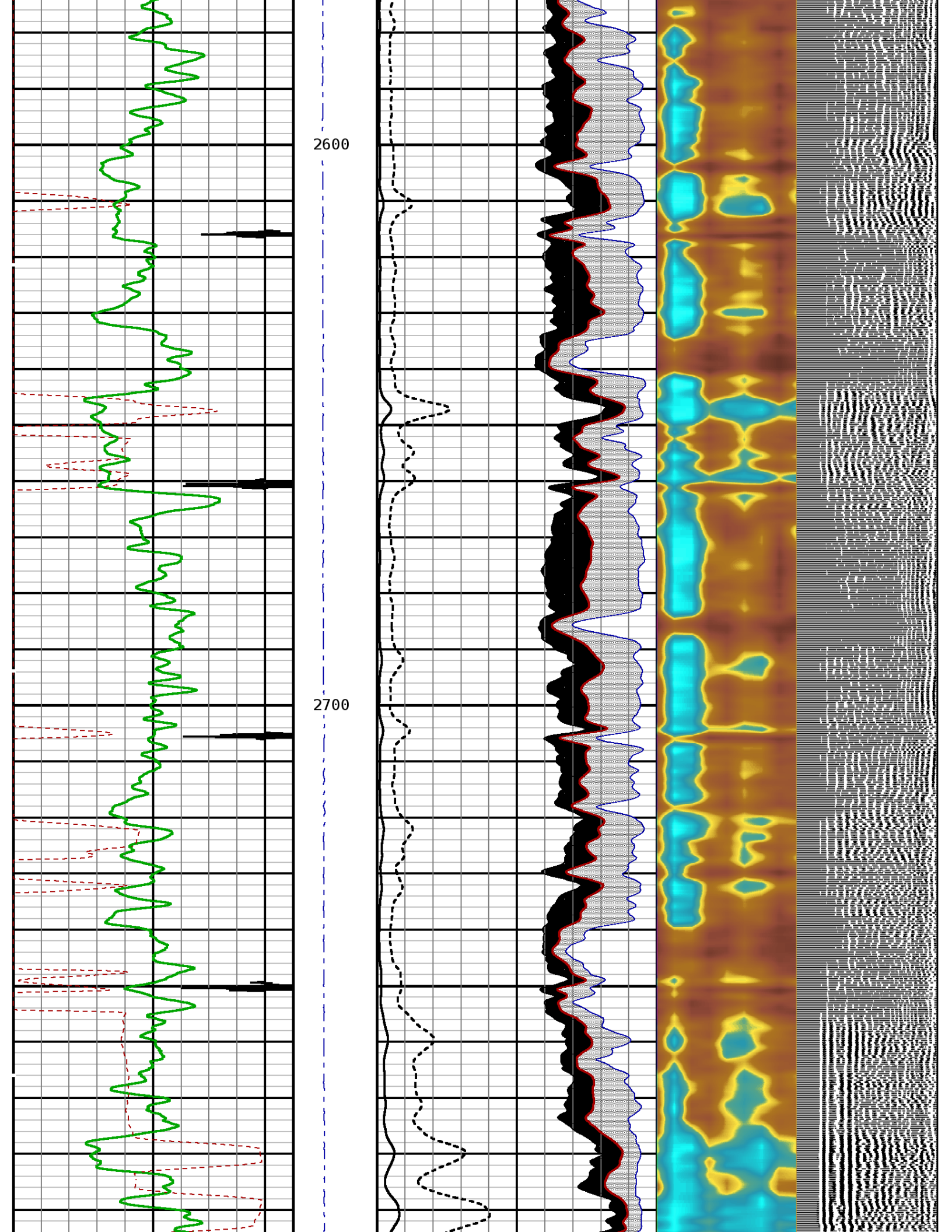
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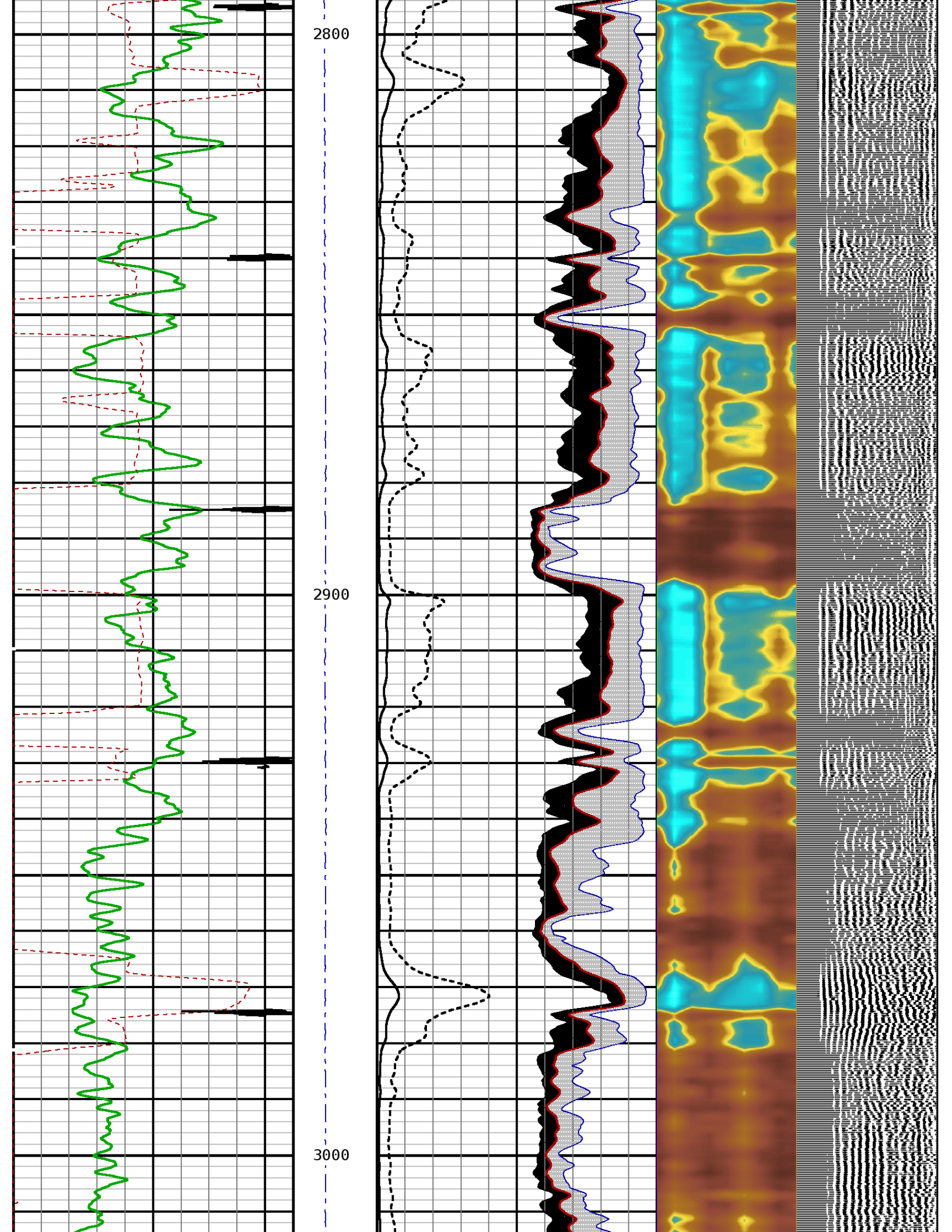
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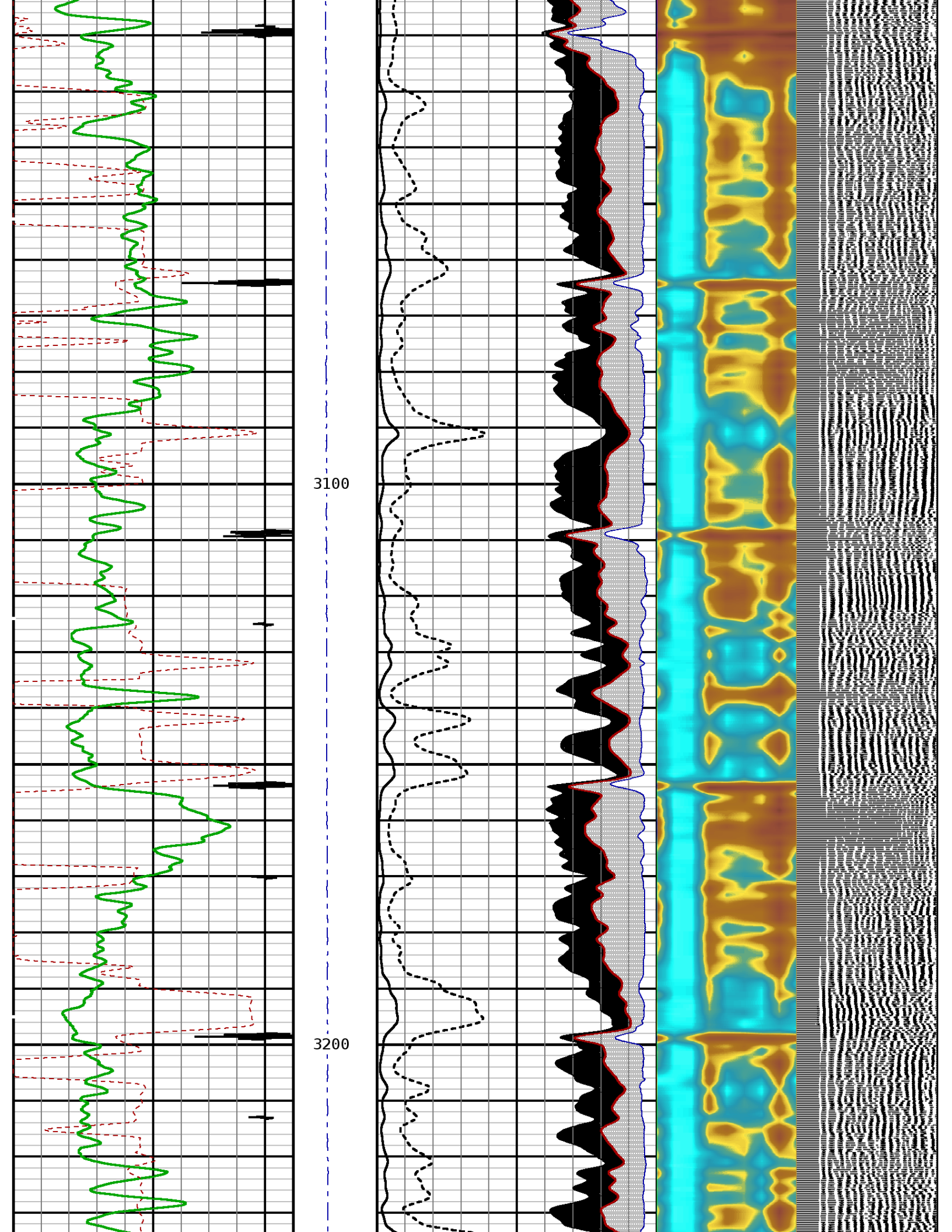


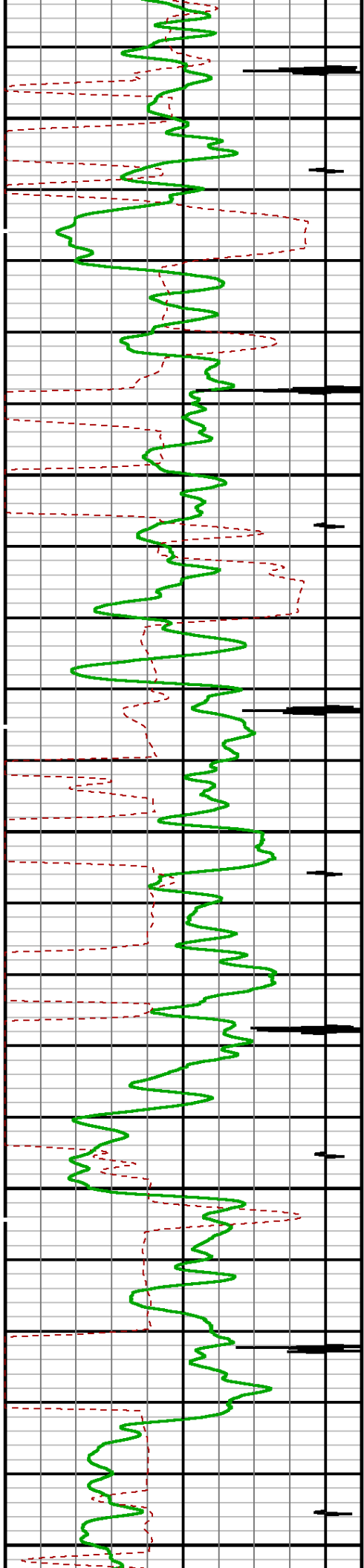






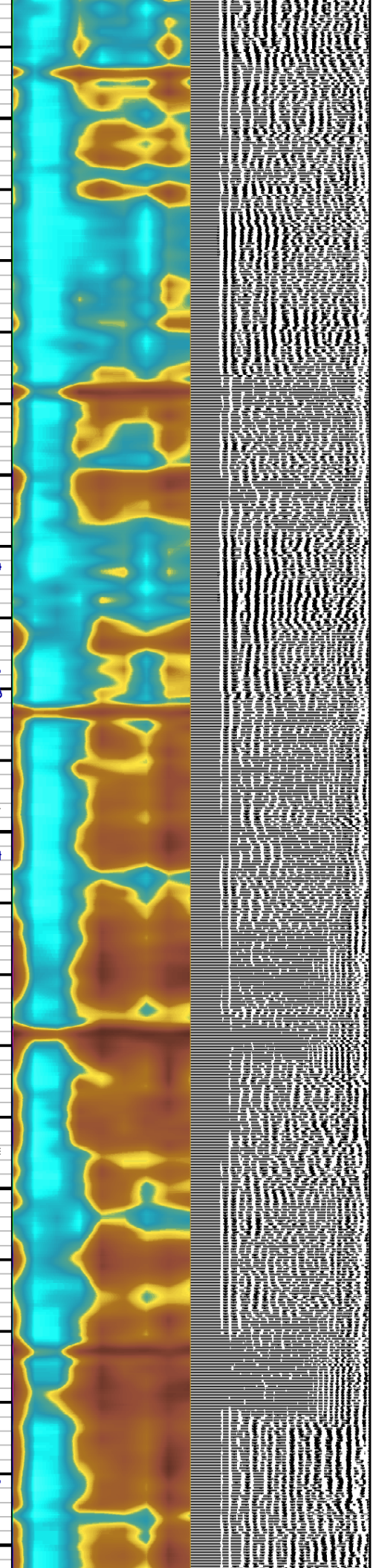
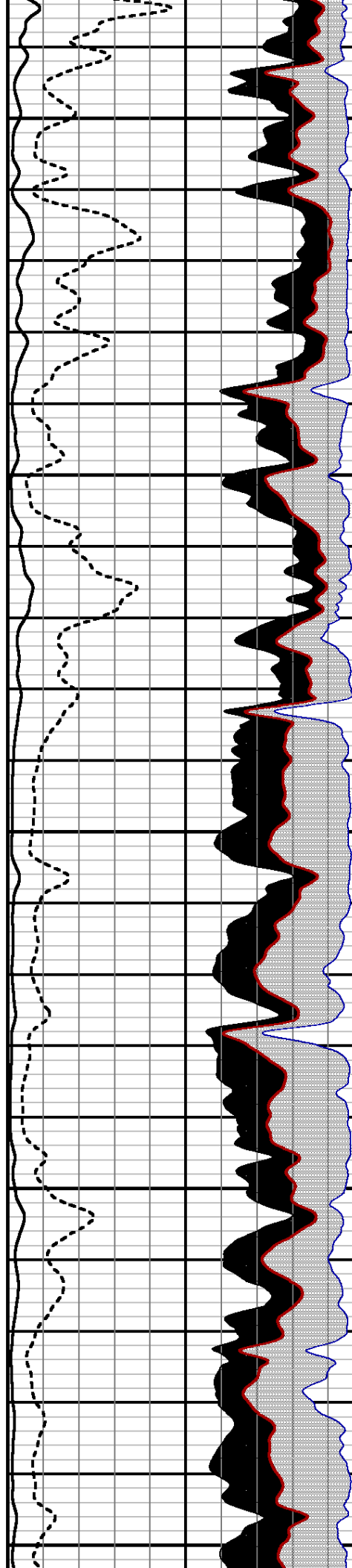




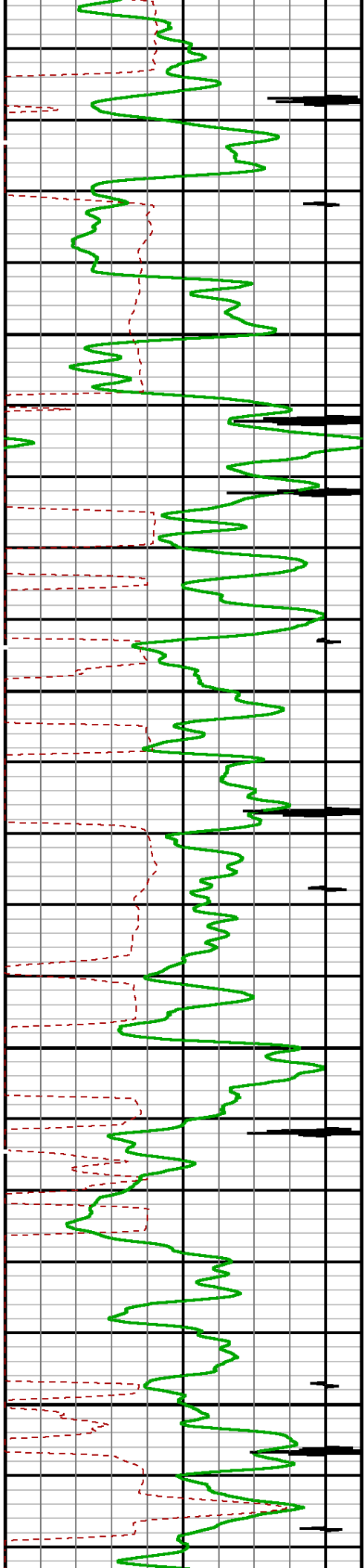


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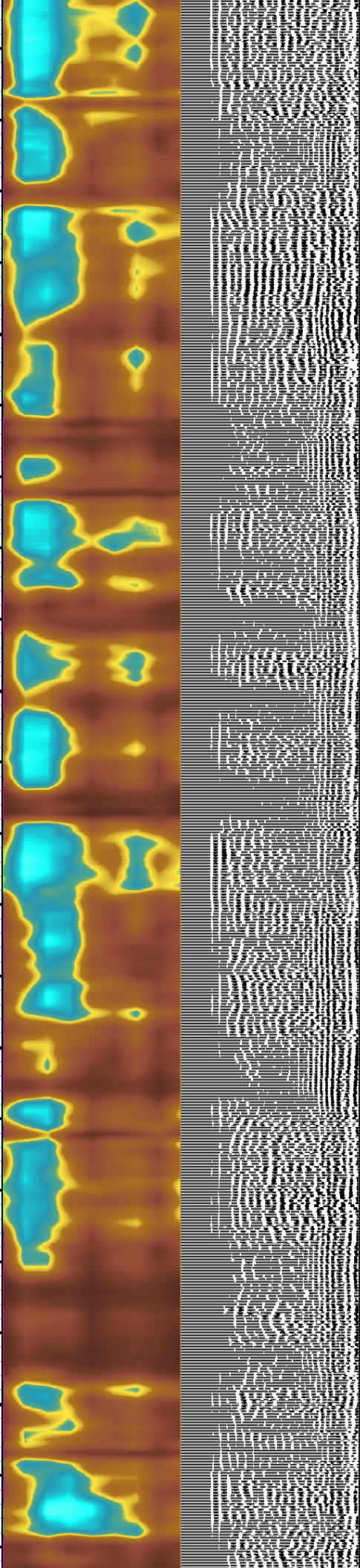
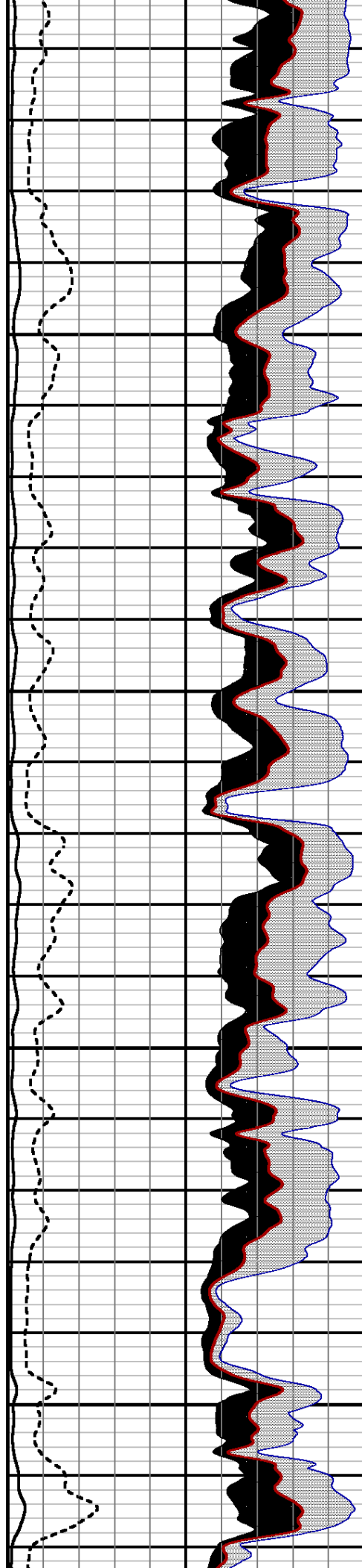




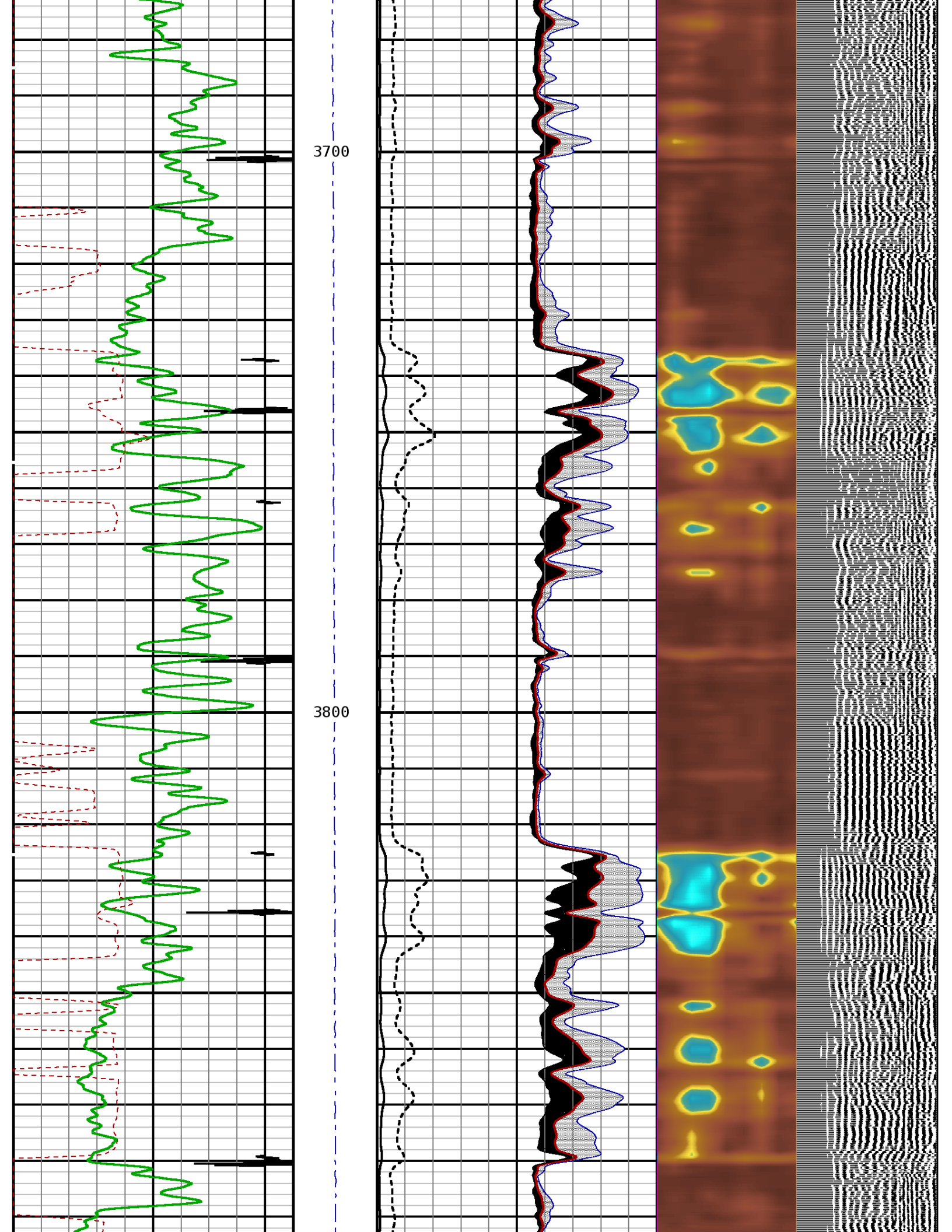


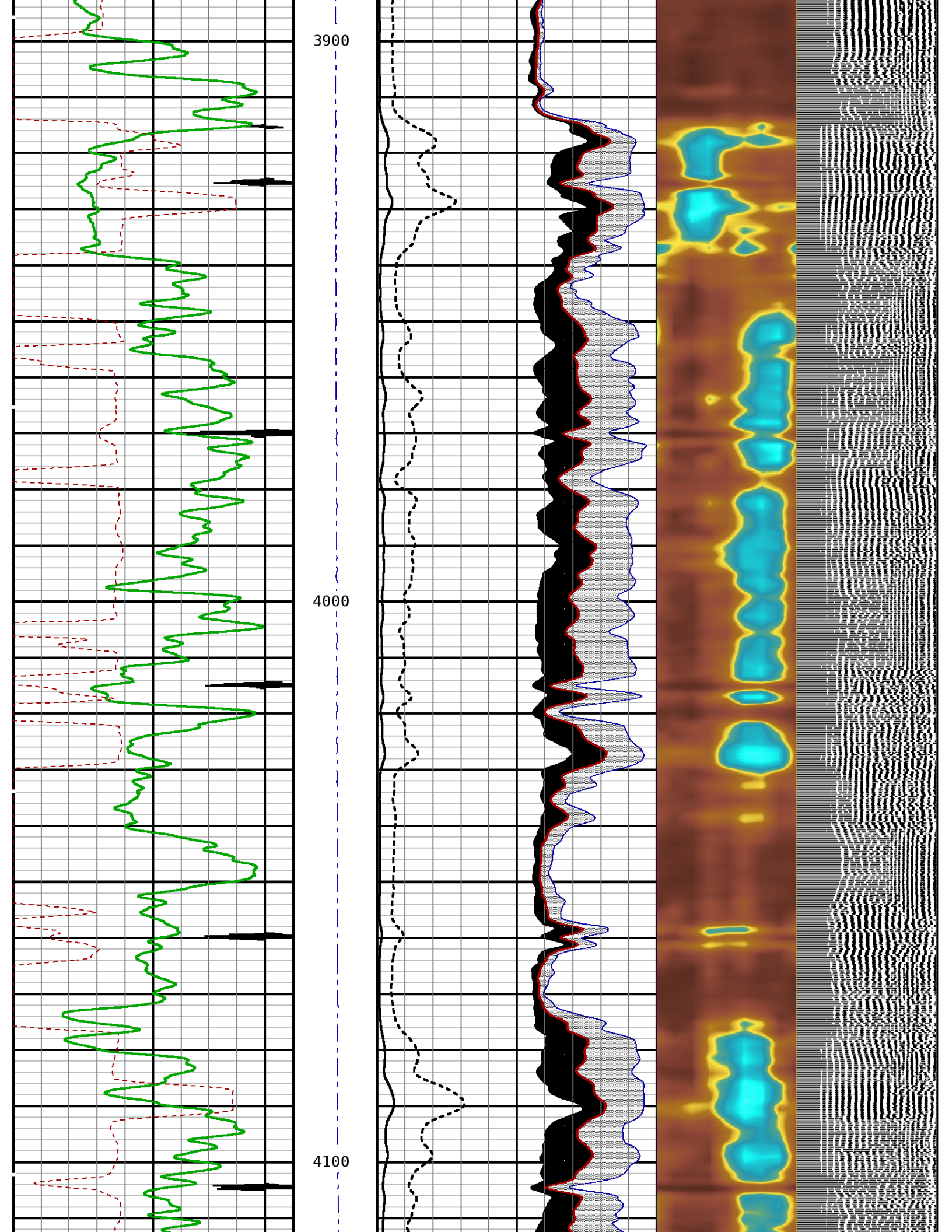
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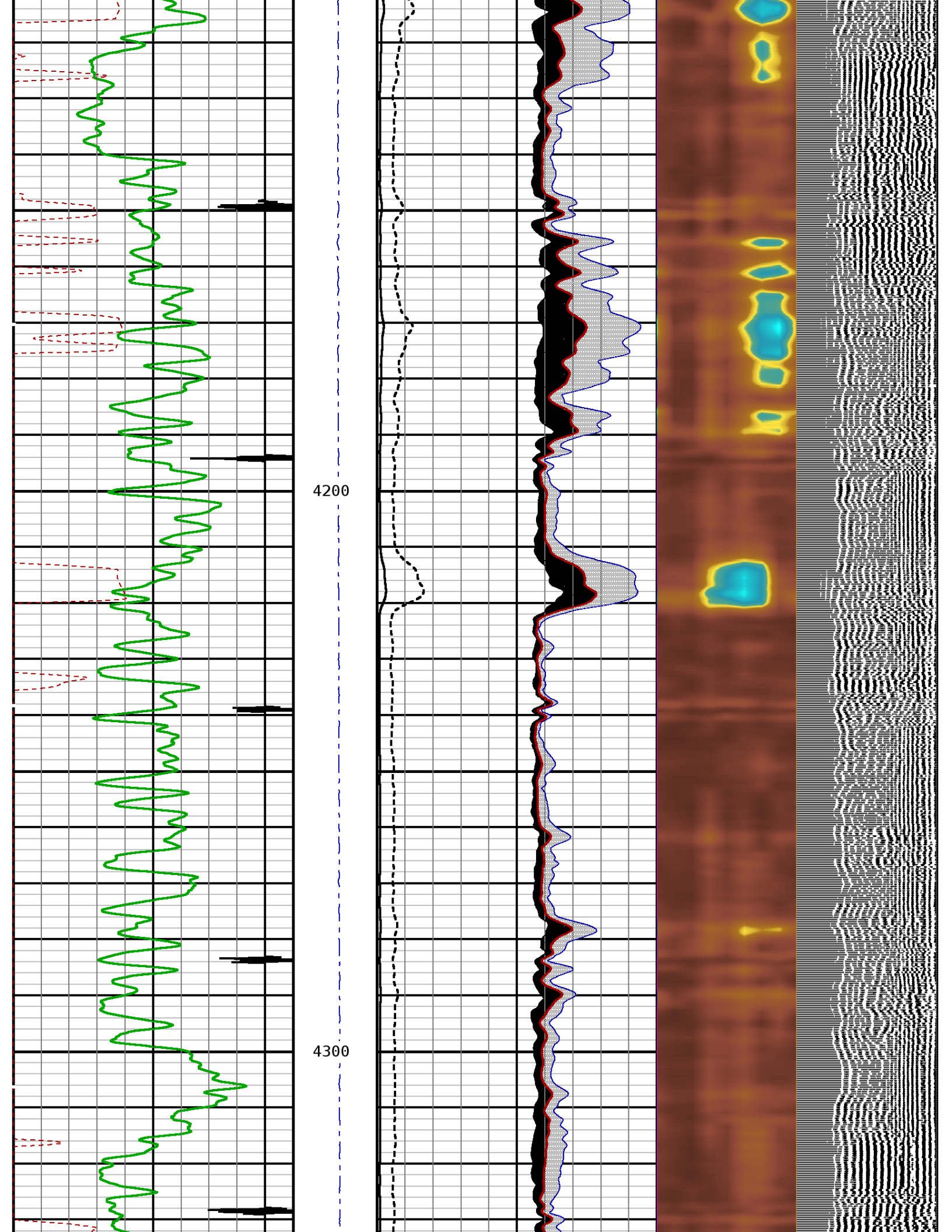
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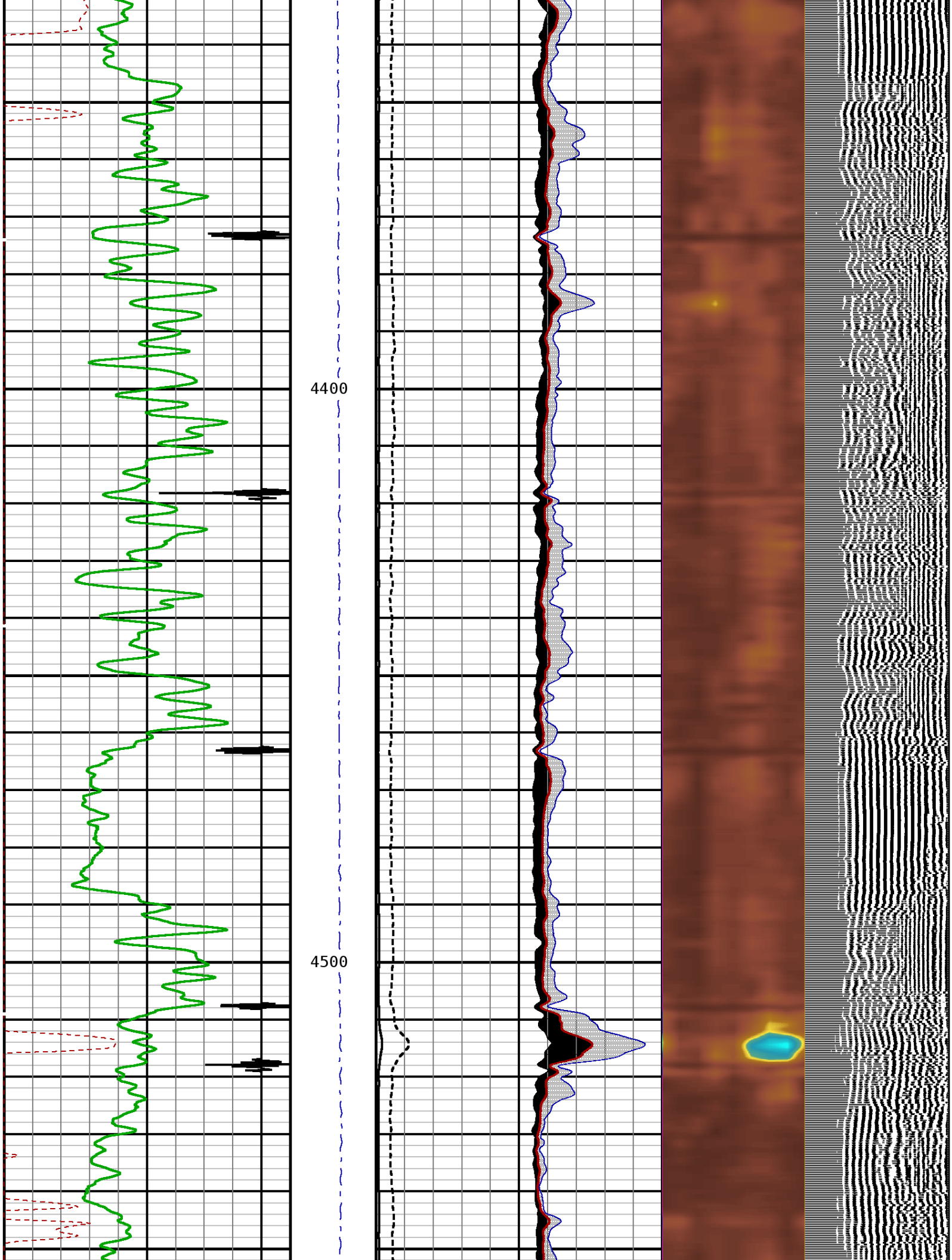


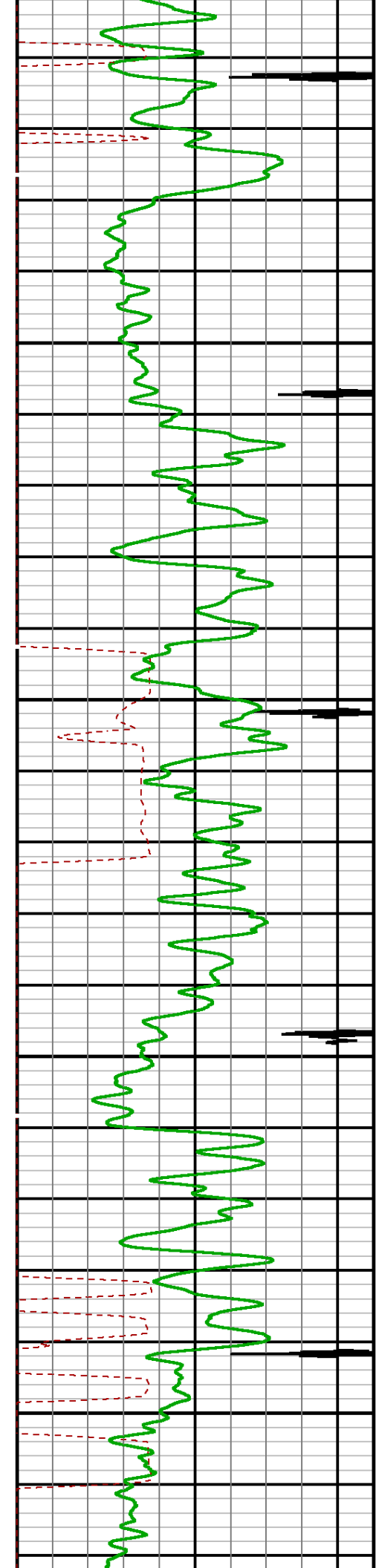






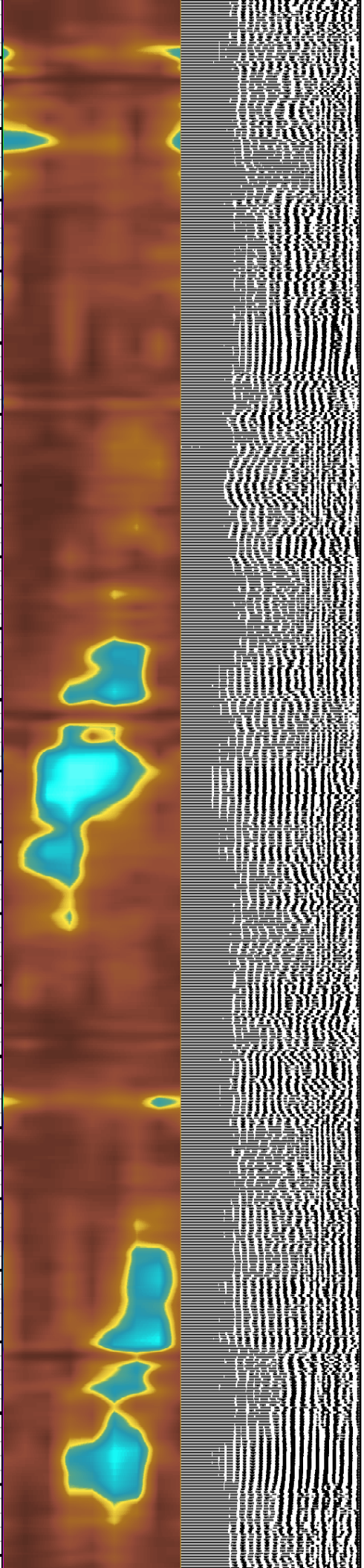
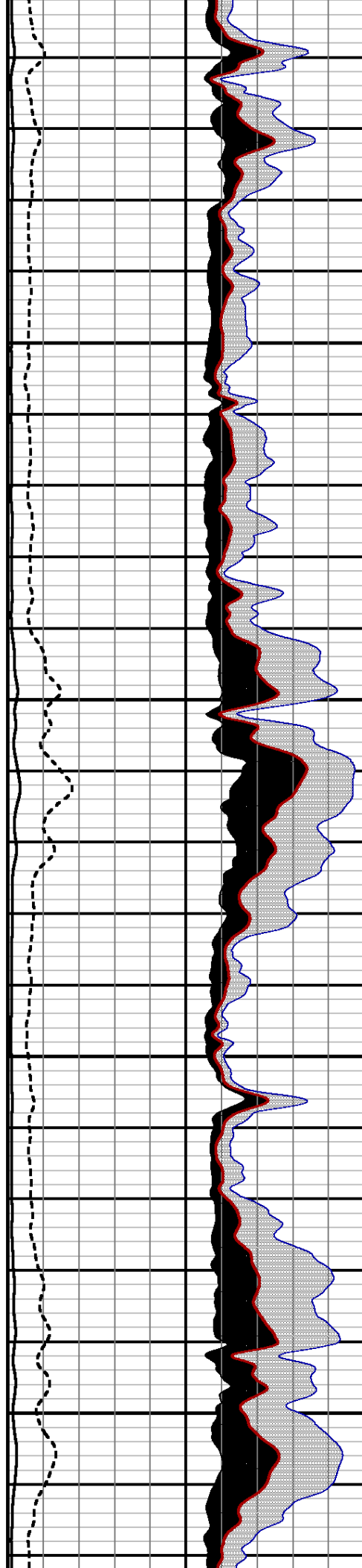


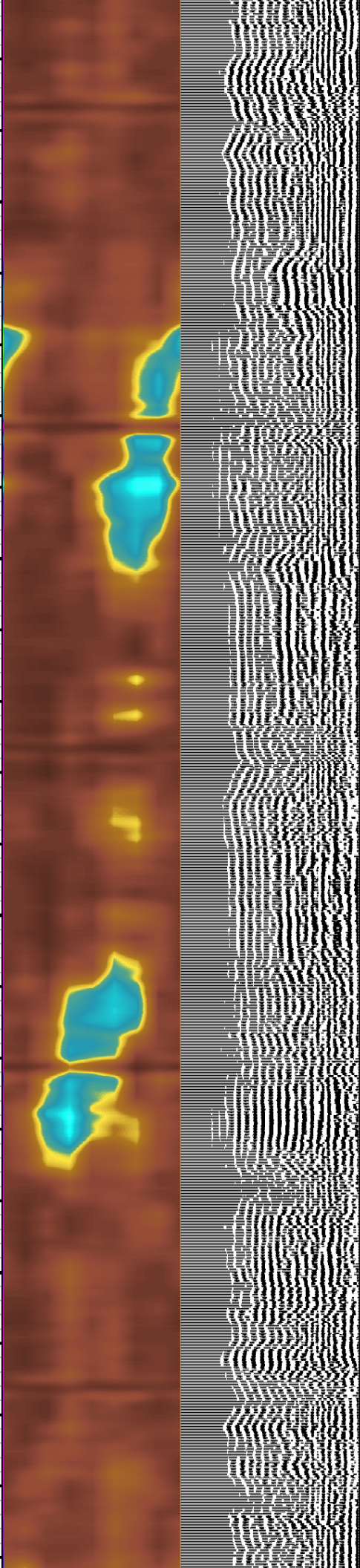
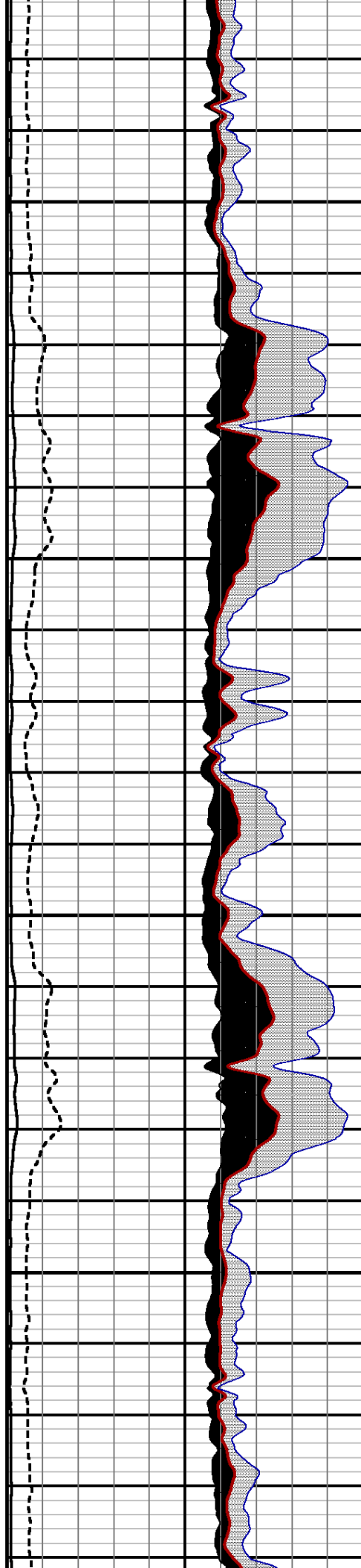
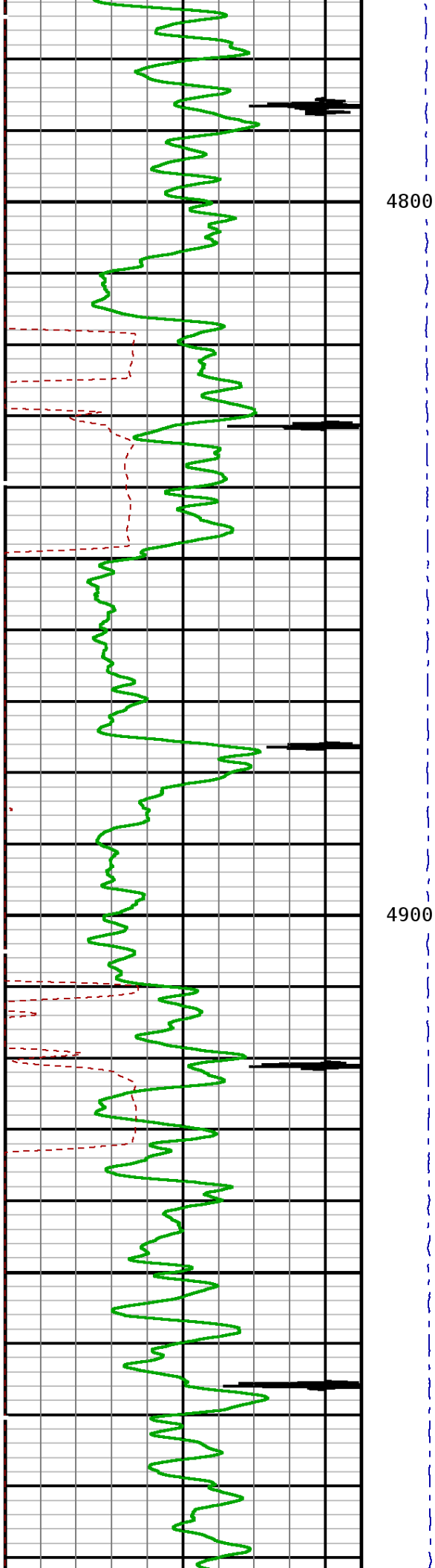




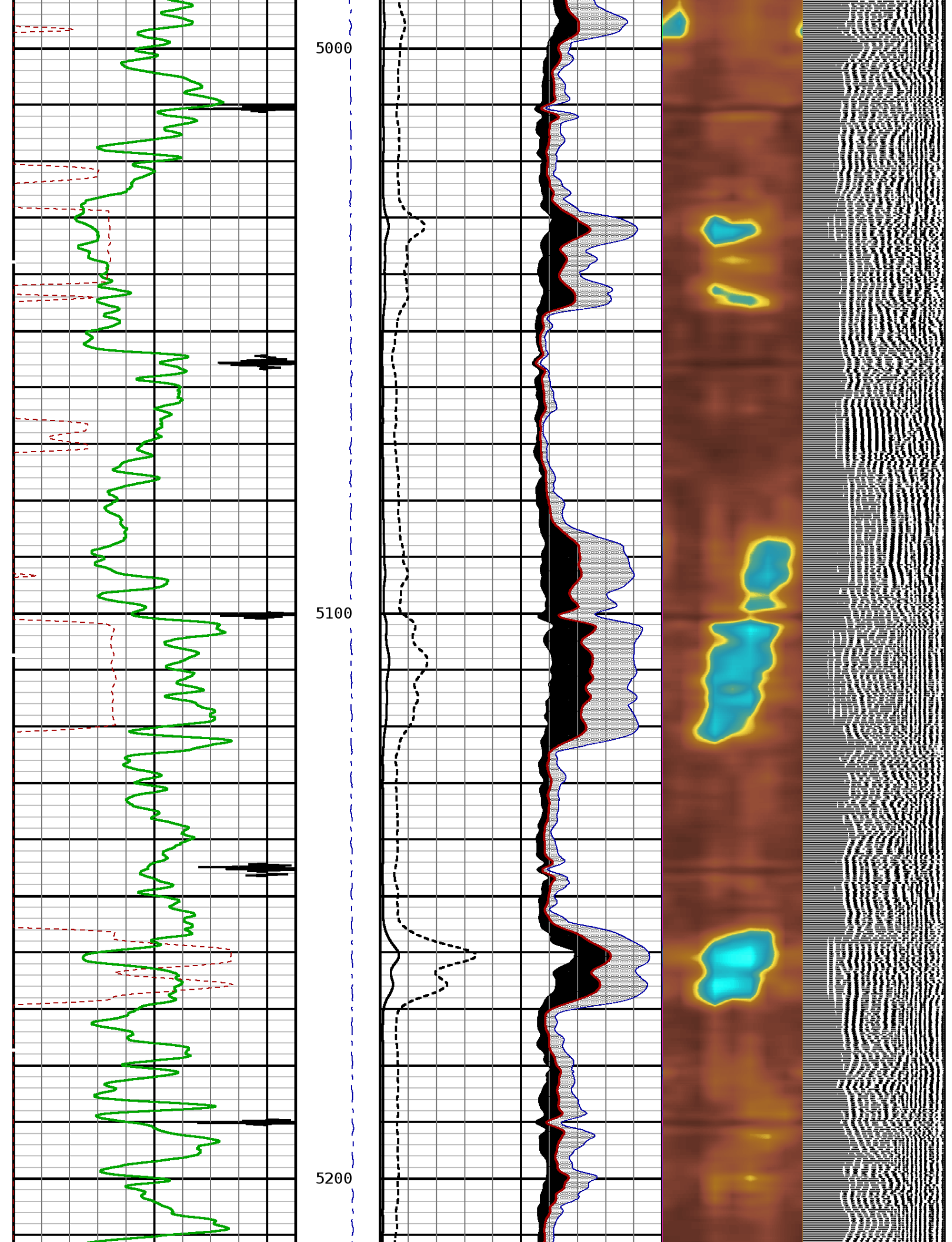
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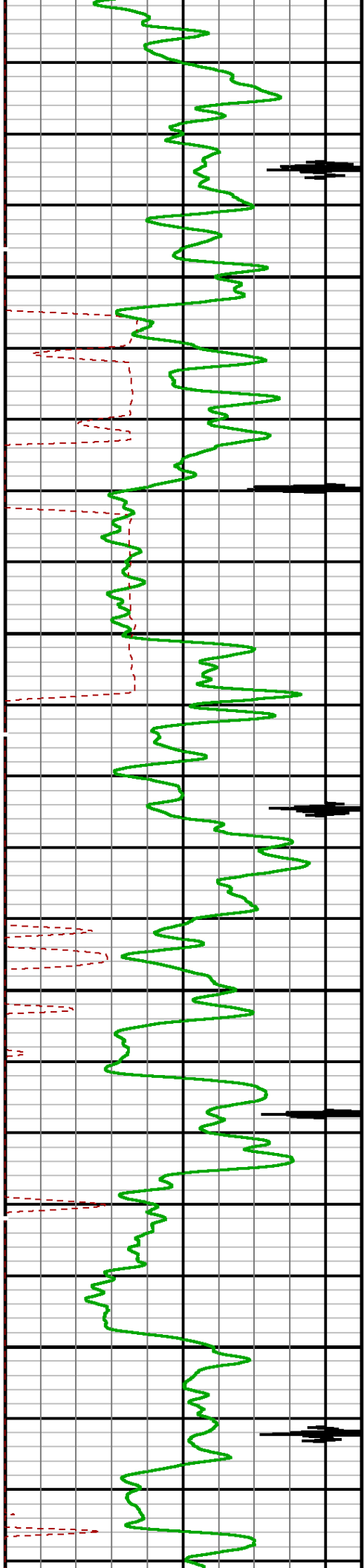






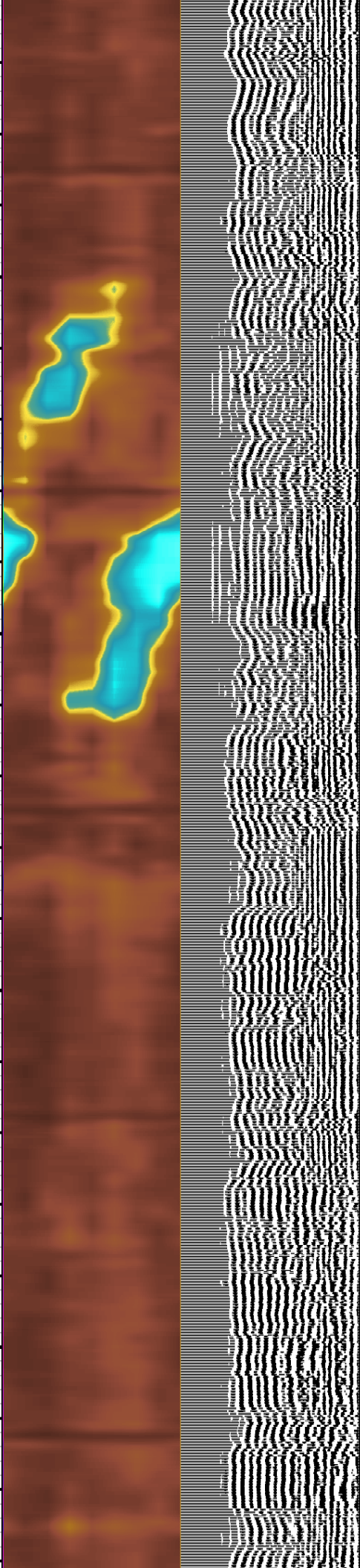
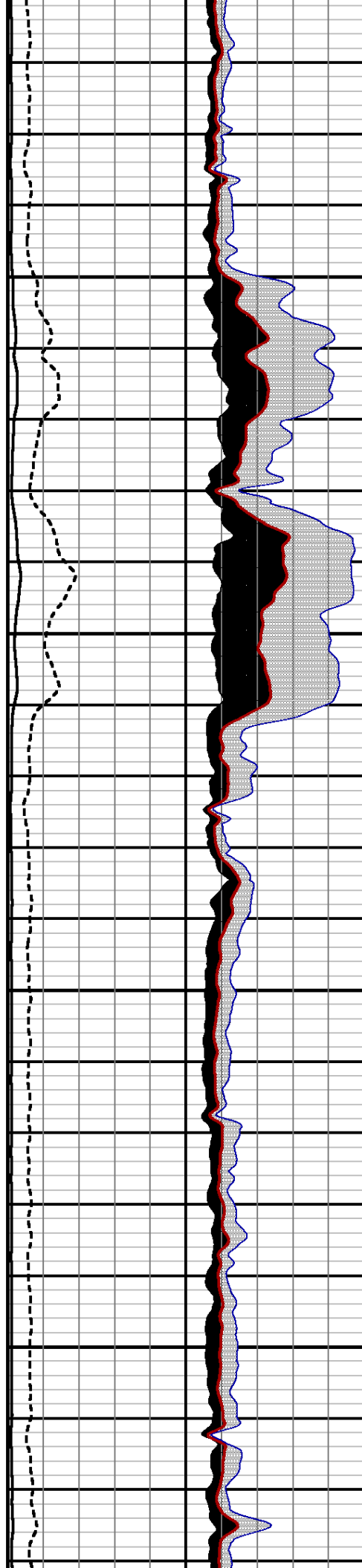


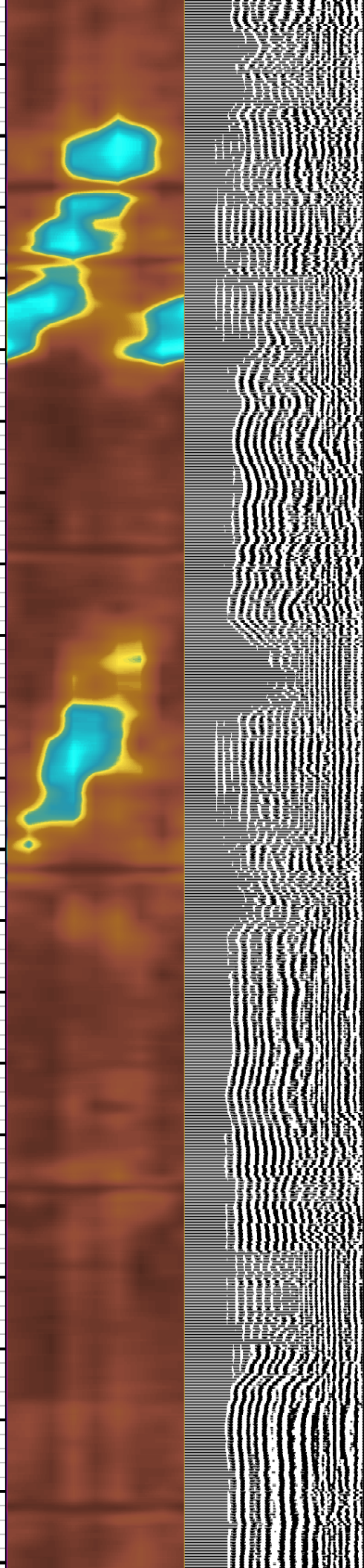
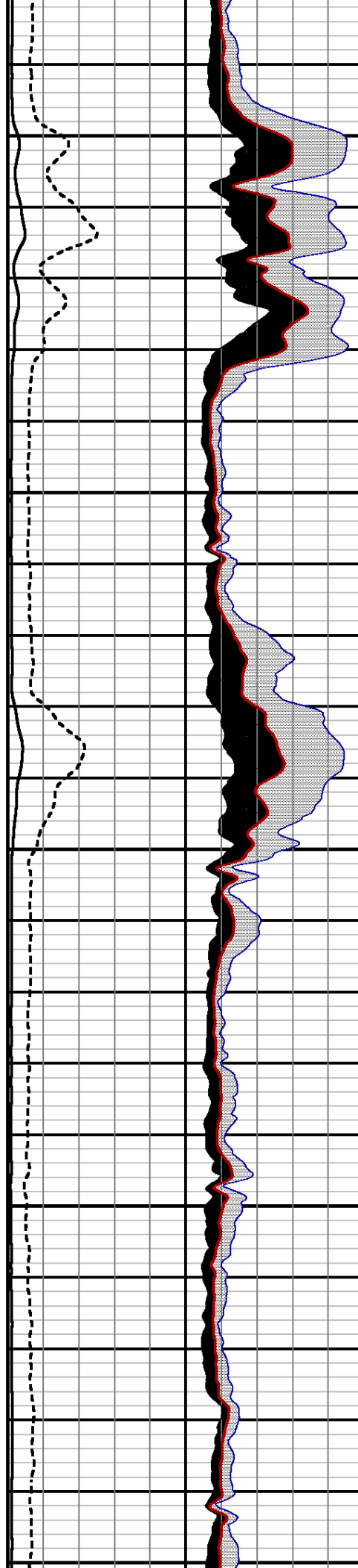
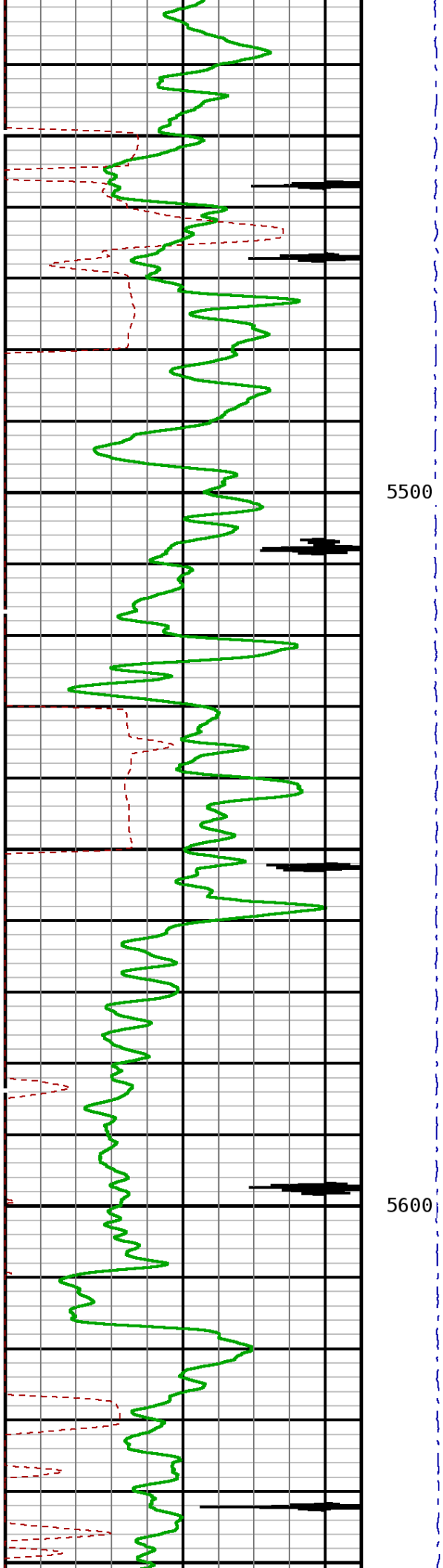


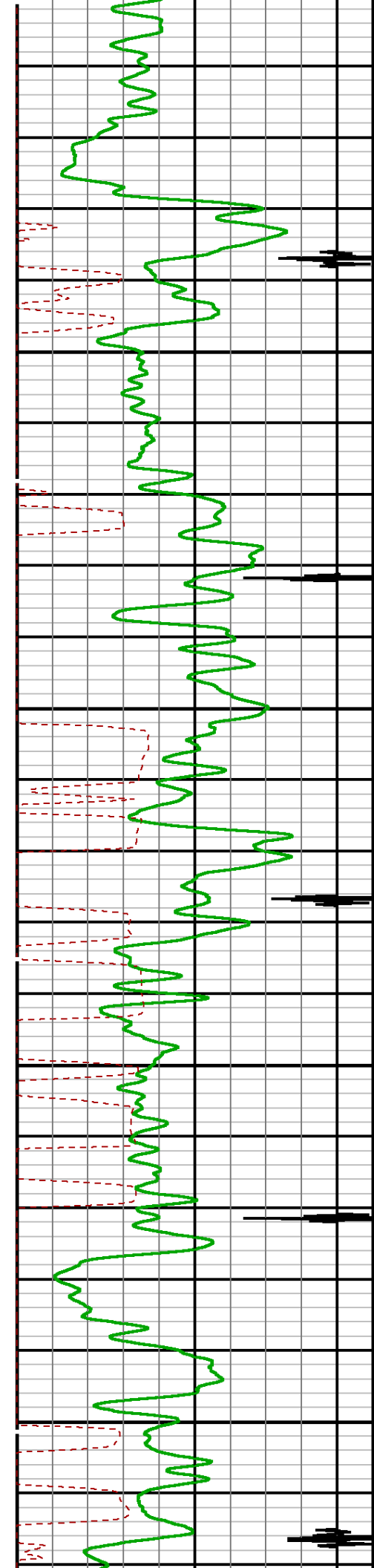


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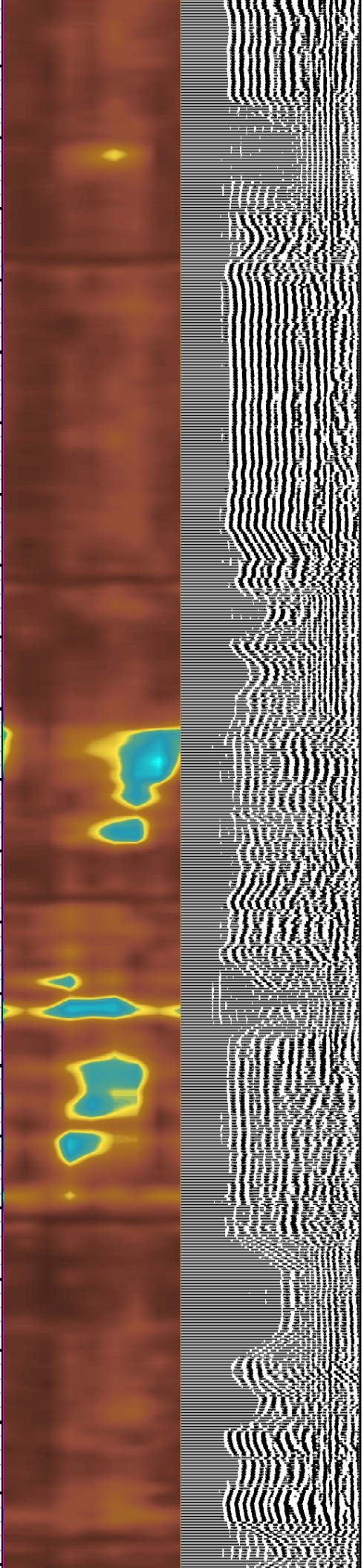
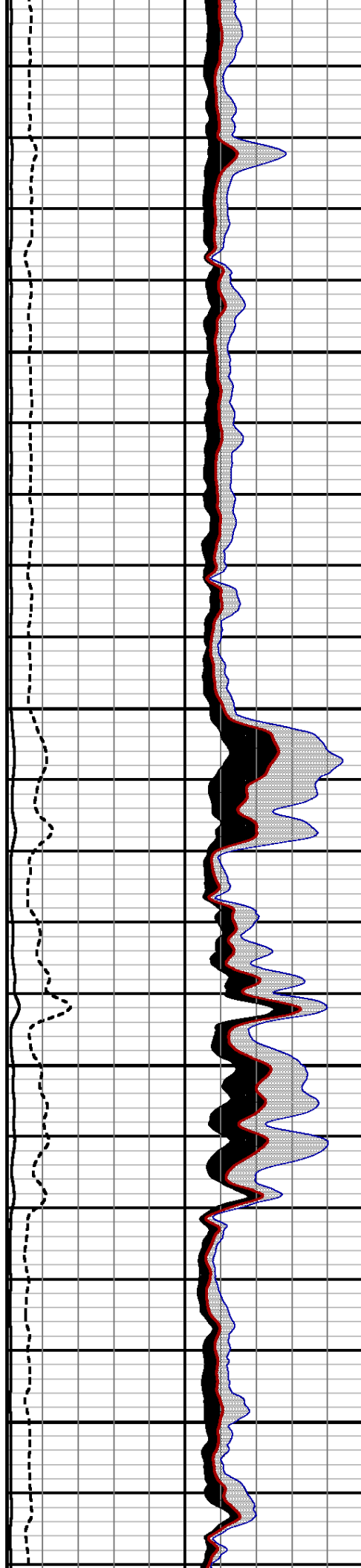




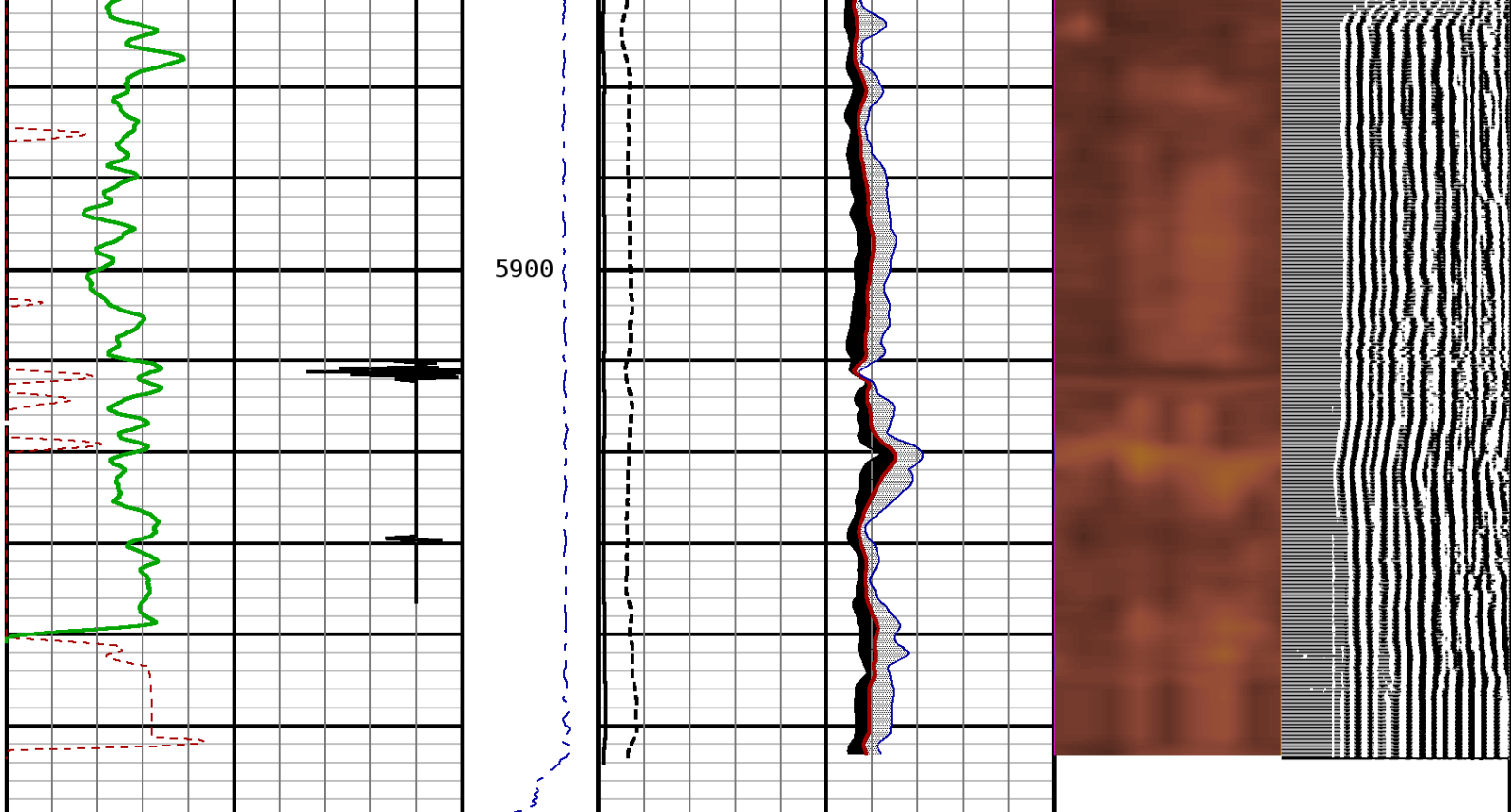


5700

5800







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

START DEPTH: 5960.0 DIRECTION: UP DATE: 03/10/2015 TIME: 22:06 MODE: ORIGINAL

113206870 SBTMAIN

**MAIN PASS**

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

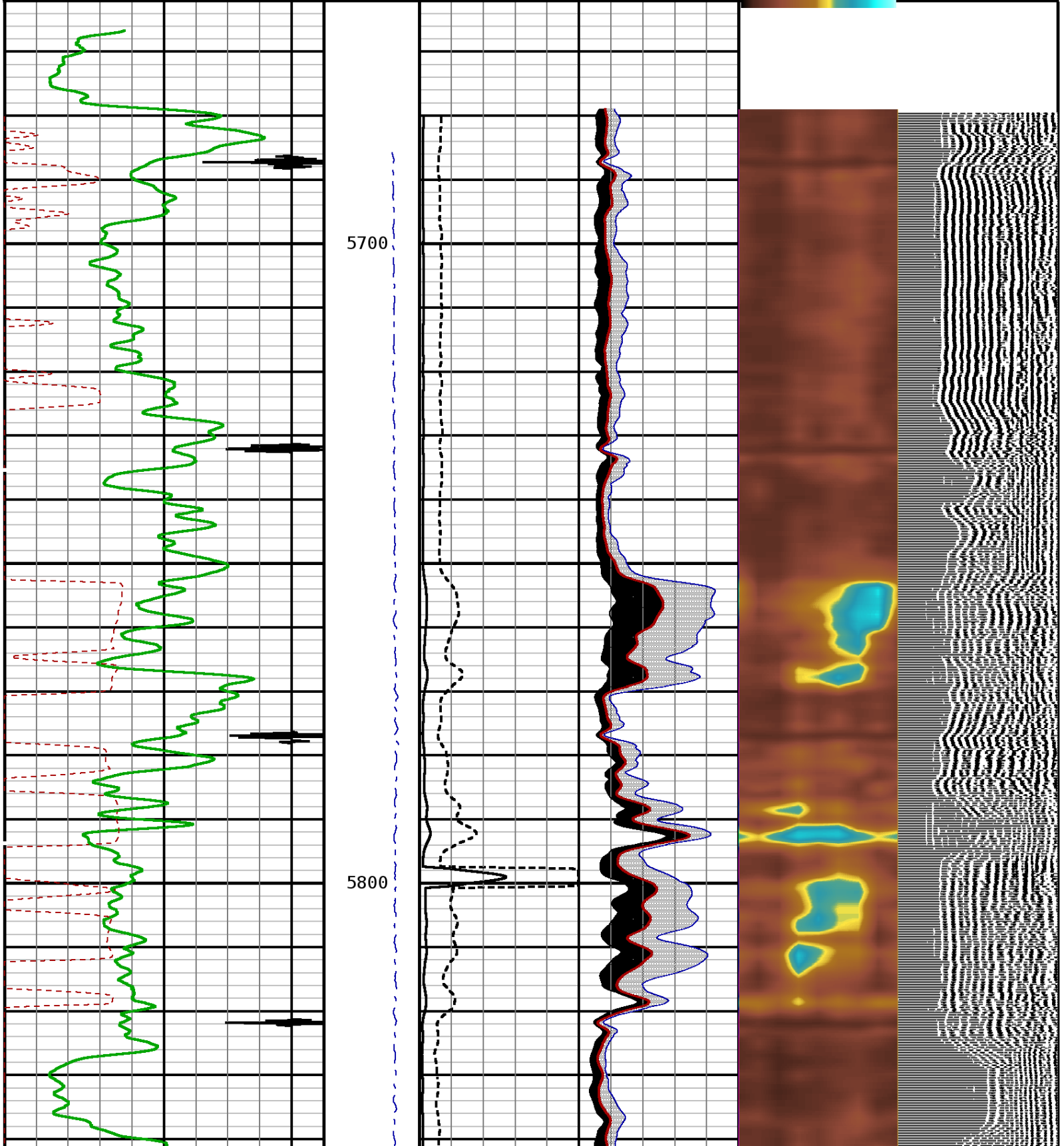
DEPTH SCALE: 5":100' PROCESSED VERSION: 2012.07.18.162"

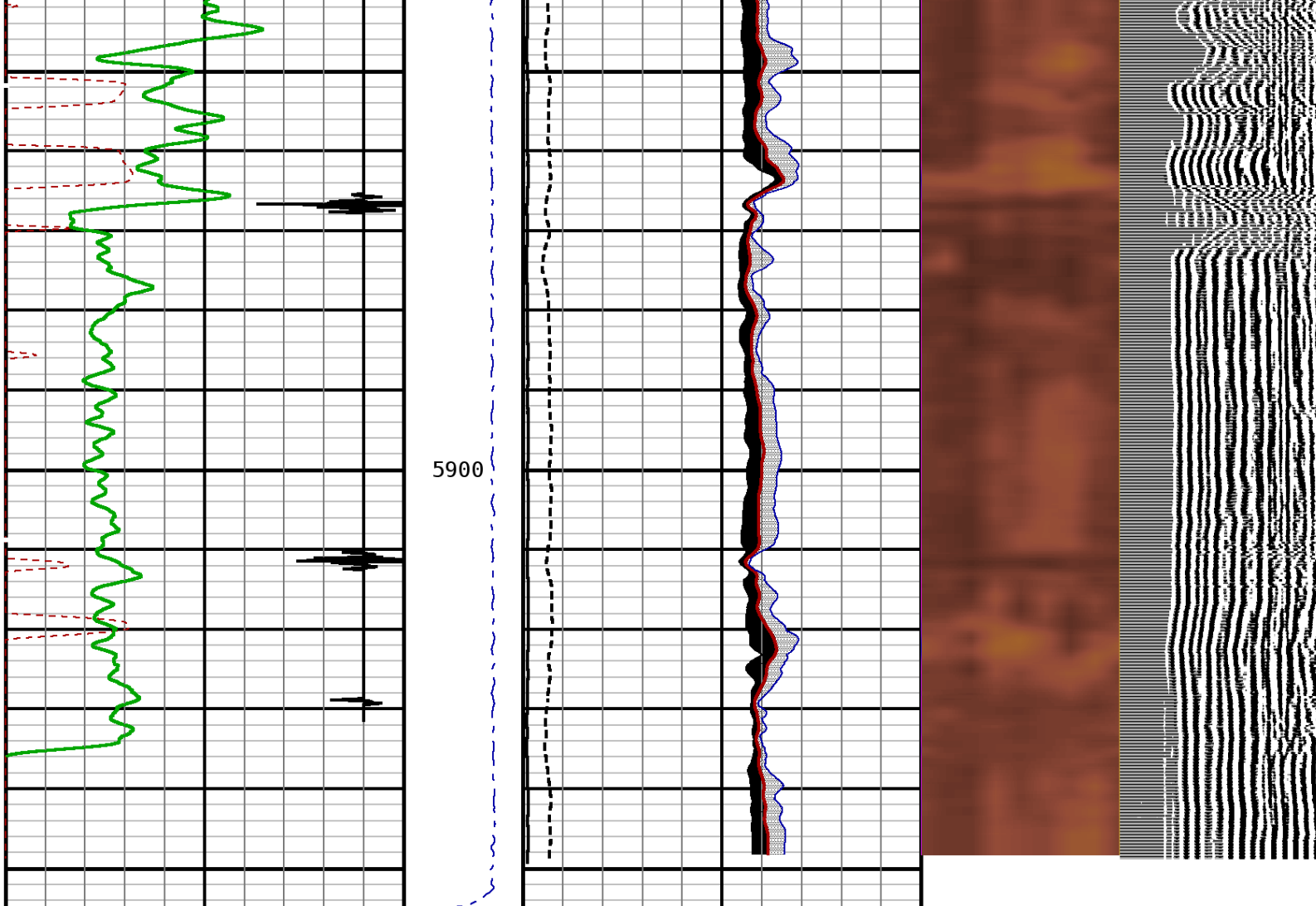
**REPEAT PASS**


113206870 SBTREPEAT

FINISH DEPTH: 5685.8 Feet DIRECTION: UP DATE: 03/10/2015 TIME: 22:13 MODE: ORIGINAL

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





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

START DEPTH: **5955.1**    DIRECTION: **UP**    DATE: **03/10/2015**    TIME: **22:13**    MODE: **ORIGINAL**  
 113206870 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**

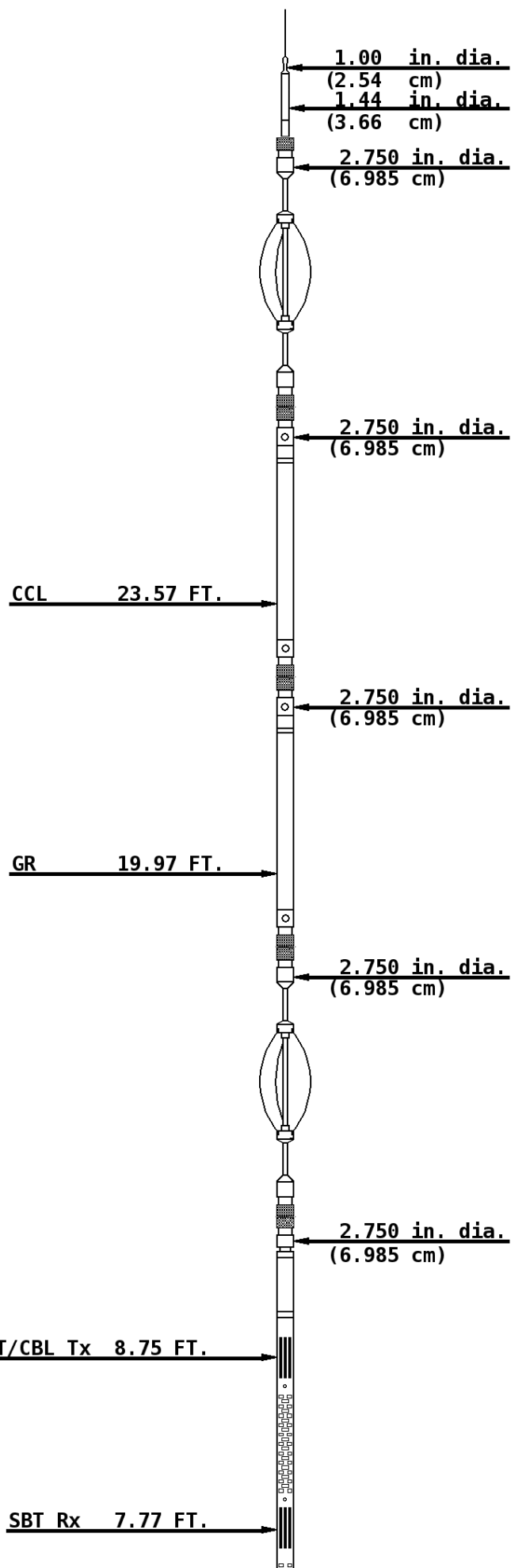
Weight 39.8 LBS.  
Length 4.71 FT.  
Max. Diameter 2.750 IN.

**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.





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 34B-24-07-96

FIELD BATTLEMENT MESA

COUNTY GARFIELD STATE COLORADO



**Weatherford®**