

Company: Pine Ridge Oil & Gas LLC

Well: Surprise 12-54-36-6

Field: Long Shadow

County: Lincoln

State: Colorado

CEMENT BOND  
GAMMA RAY  
CASING COLLAR LOG

County: Lincoln	
Field: Long Shadow	
Location: 1698' FNL & 1384' FWL	
Well: Surprise 12-54-36-6	
Company: Pine Ridge Oil & Gas LLC	
LOCATION	
1698' FNL & 1384' FWL	Elev.: K.B. 4920.00 ft G.L. 4905.00 ft D.F.
Permanent Datum: _____	GROUND LEVEL _____
Log Measured From: _____	KELLY BUSHING _____
Drilling Measured From: _____	KELLY BUSHING _____
API Serial No. 05-073-06540-00	Section 36
	Township 12S
	Range 54W

	Run 1	Run 2	Run
Oil Density			
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation			
CEMENTING DATA			
Primary/Squeeze	Primary		
Casing String No			
Lead Cement Type			
Volume			
Density			
Water Loss			
Additives			
Tail Cement Type			
Volume			
Density			
Water Loss			
Additives			
Expected Cement Top			

Logging Date		8-Aug-2013	
Run Number	1		
Depth Driller	7151 ft		
Schlumberger Depth	7132 ft		
Bottom Log Interval	7124 ft		
Top Log Interval	1700 ft		
Casing Fluid Type	WATER		
Salinity			
Density	8.4 lbm/gal		
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size	7.875 in		
From			
To			
Casing/Tubing Size	5.500 in		
Weight	17 lbm/ft		
Grade			
From			
To			
Maximum Recorded Temperatures	187 degF		
Logger On Bottom	8-Aug-2013	Time	12:30
Unit Number	354	Location	FORT MORGAN
Recorded By	C MARCH		
Witnessed By	GARY OHLMAN		













Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Fluid Type			
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size			
From			
To			
Casing/Tubing Size			
Weight			
Grade			
From			
To			
Maximum Recorded Temperatures			
Logger On Bottom		Time	
Unit Number		Location	
Recorded By			
Witnessed By			

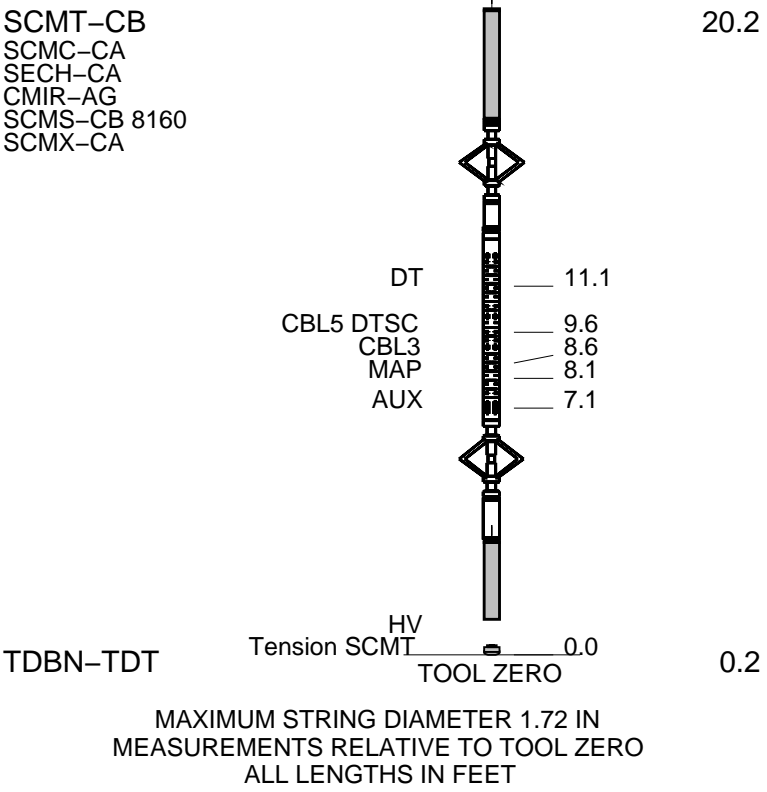


CREW: KOLMAN	
THANK YOU	

RUN 1 SERVICE ORDER #: C170-00107 PROGRAM VERSION: 19C2-270 FLUID LEVEL:			RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

[illegible]

SURFACE EQUIPMENT			
WITM-A			
PSC_16MHZ			
DOWNHOLE EQUIPMENT			
MH-22			53.3
MH-22			
Detail MT			
AH-38	TelStatus		51.7
	CTEM		
PSPT			51.5
PSC-A			
PSPT-A 1765			
PSTC-A			
PBMS-A	GR		47.8
10k_Sapphire_Mano			
RTD_Thermometer			
GR	Well_Temp		44.7
CCL	Manometer		44.6
PBMS	CCL		44.0
	PBMS PSTC		43.2
RST-C			43.2
RSCH-A			
RSC-E			
RSS-A 6655			
RSXH-A			
RSX-E			
	RSC-A Far		34.1
	RSC-A PNG		
	RSC-A Nea		
	RSX-A PNG		33.6



Schlumberger

MAIN PASS  
1000 PSI

MAXIS Field Log

Company: Pine Ridge Oil & Gas LLC

Well: Surprise 12-54-36-

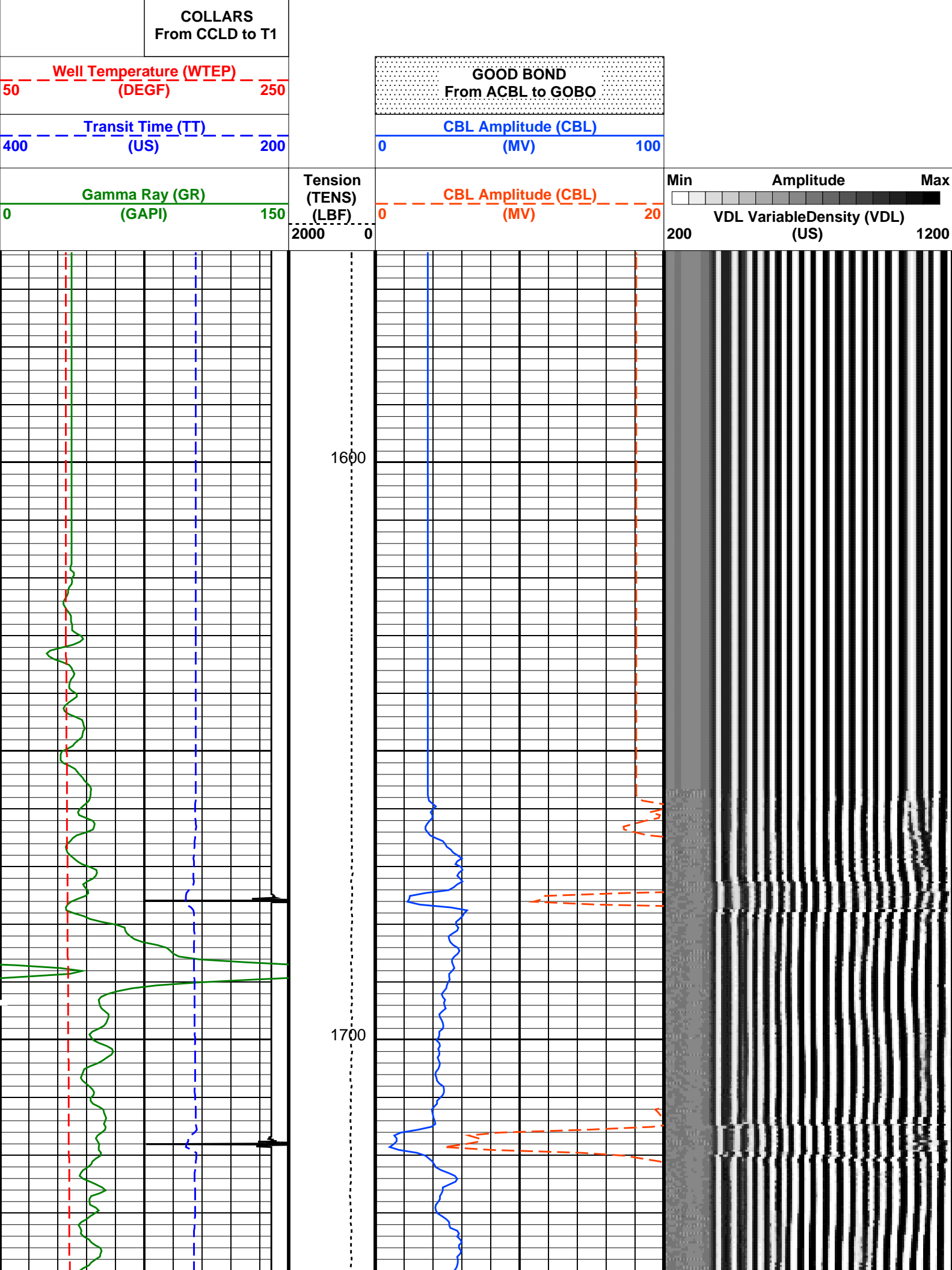
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Output DLIS Files						
DEFAULT	SCMT_RST_PSP_007PUP	FN:6	PRODUCER	08-Aug-2013 15:15	7139.5 FT	1563.0 FT
OP System Version: 19C2-270						
SCMT-CB	19C2-270	RST-C		19C2-270		
PSPT	19C2-270					
Changed Parameter Summary						
DLIS Name	New Value		Previous Value		Depth & Time	
ZCMT	2.84	MRAY	3.65	MRAY	4714.5 15:17:15	

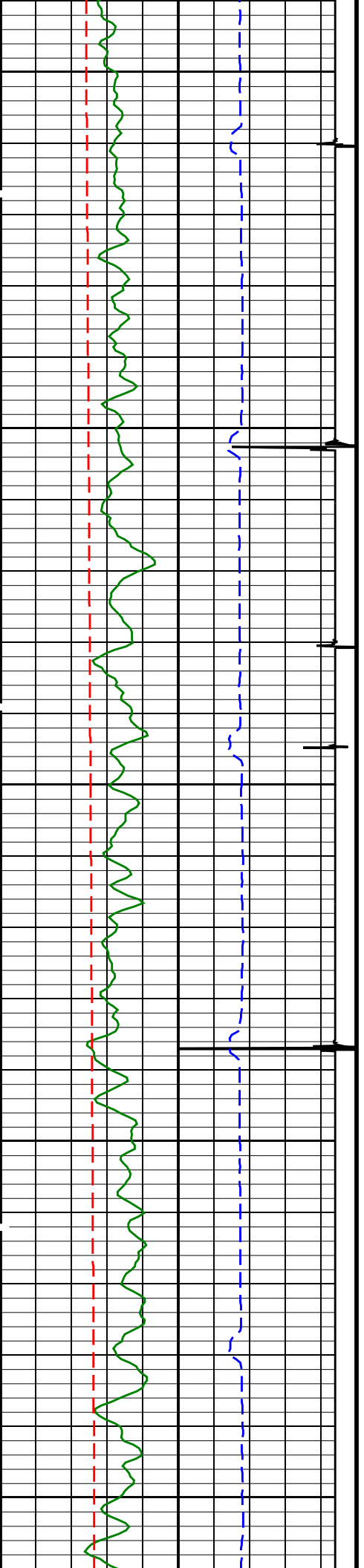
PIP SUMMARY

Time Mark Every 60 S

Discriminated CCL (CCLD)		
-3.5	(V)	0.5

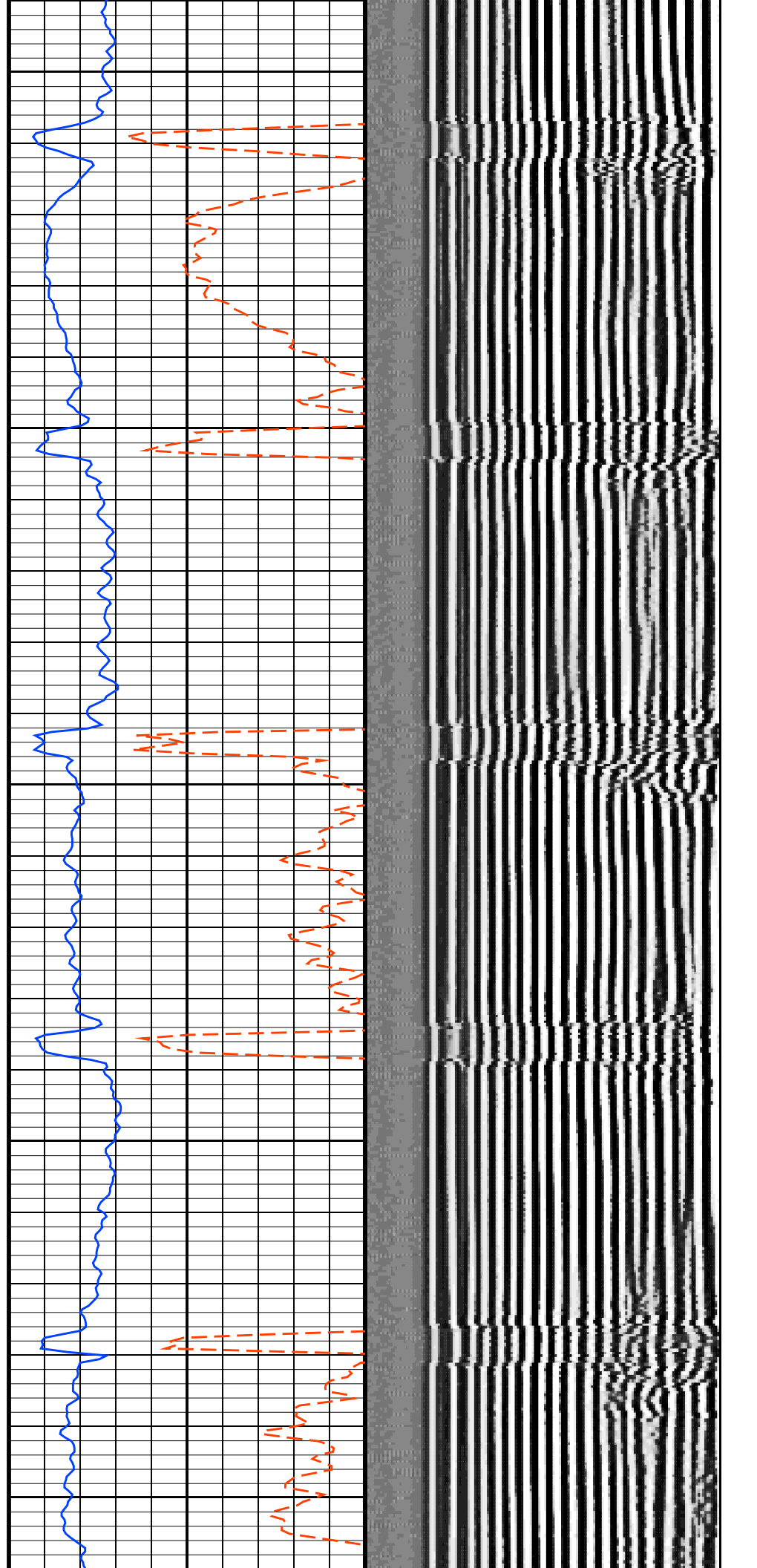


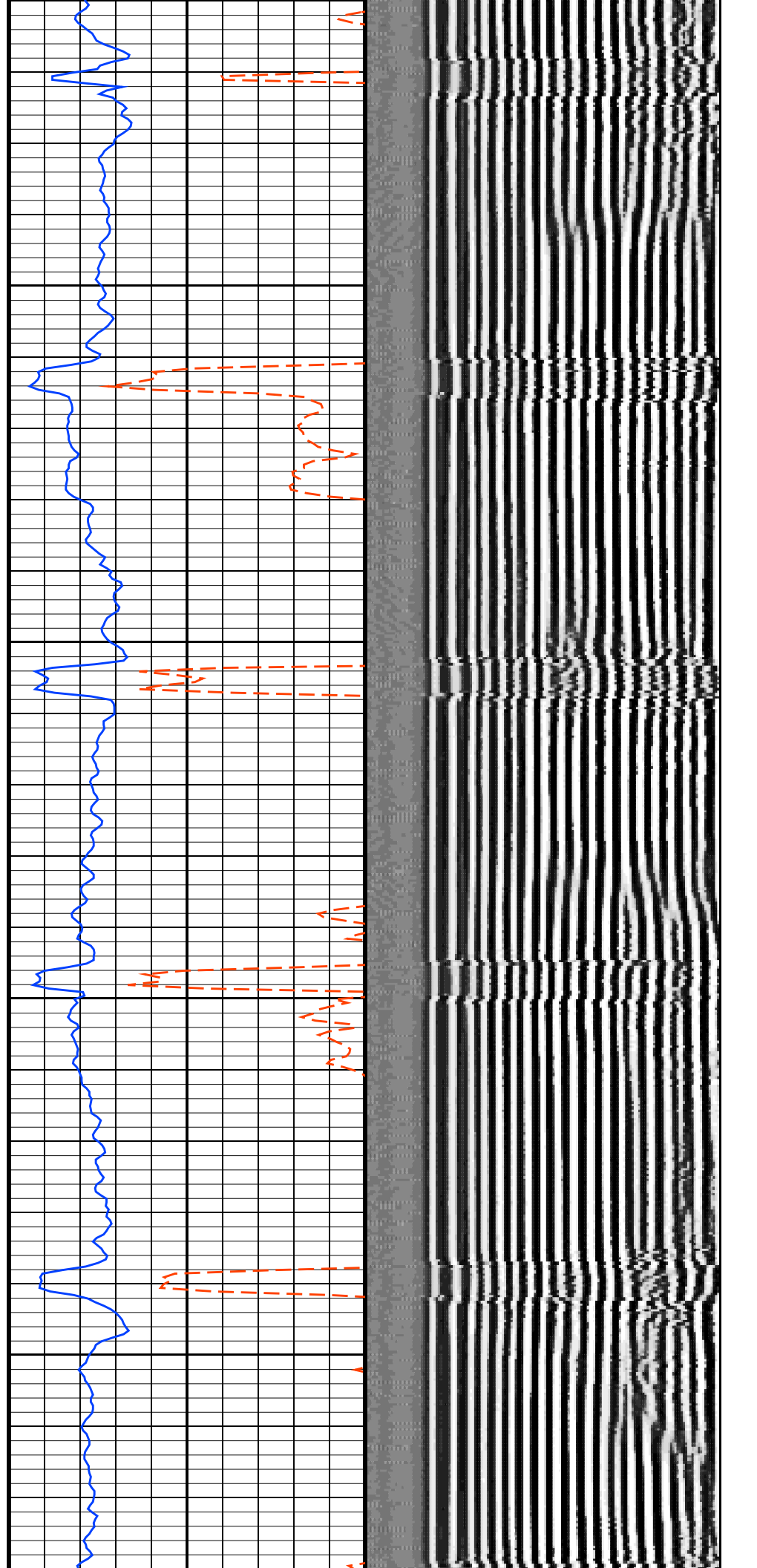
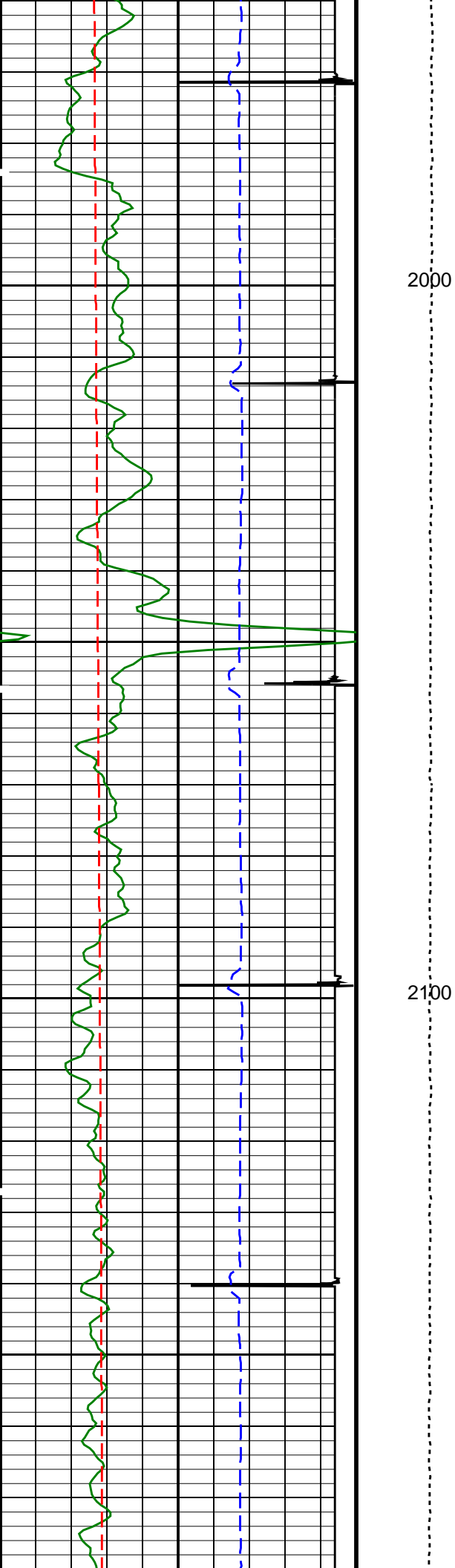


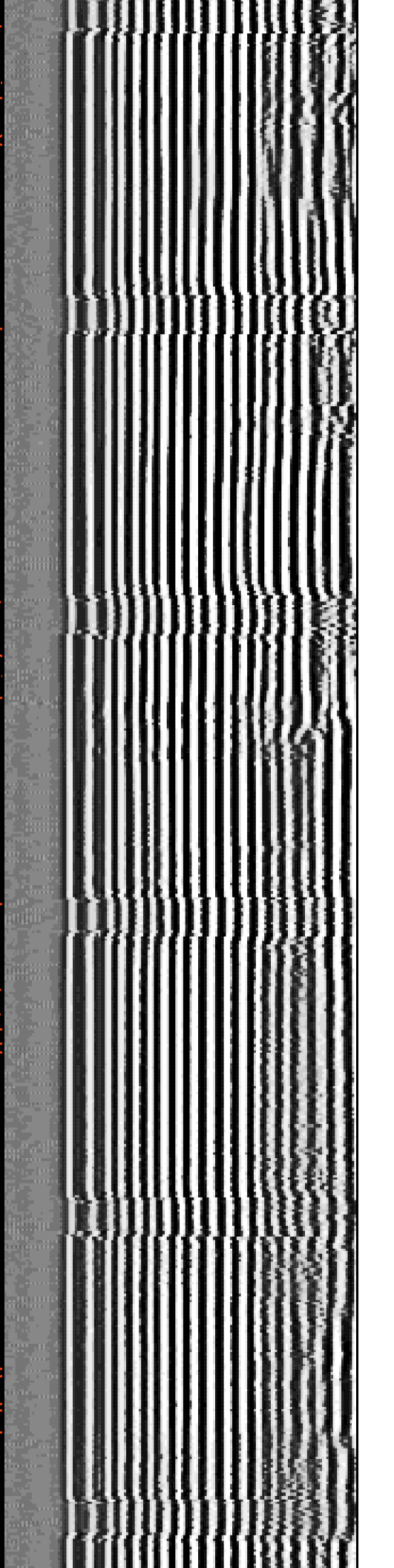
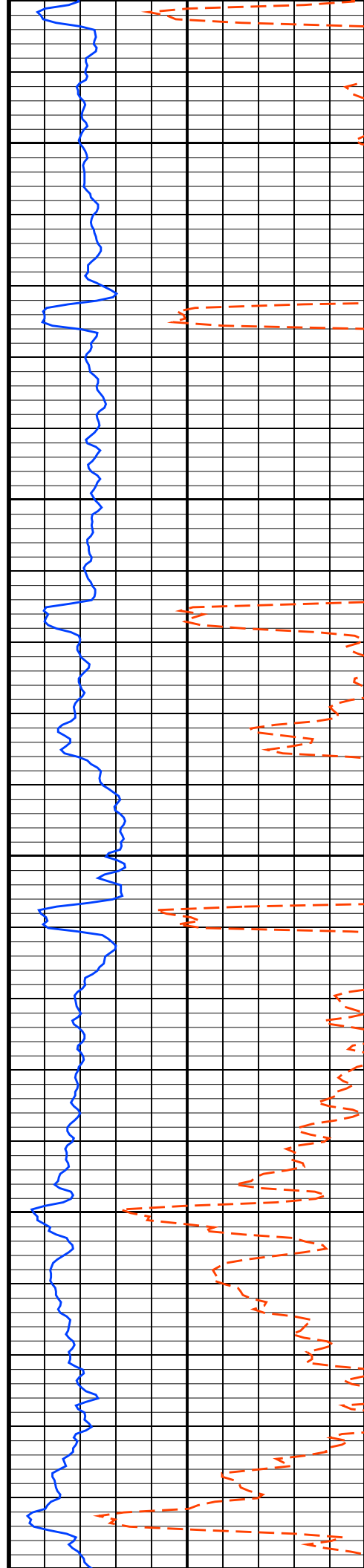
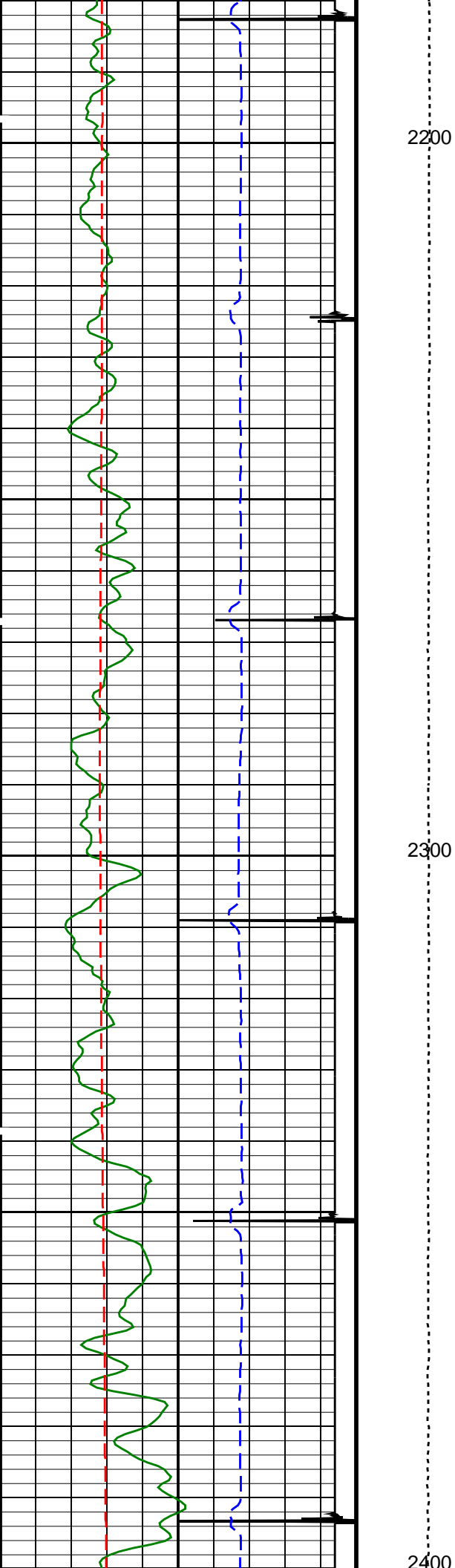


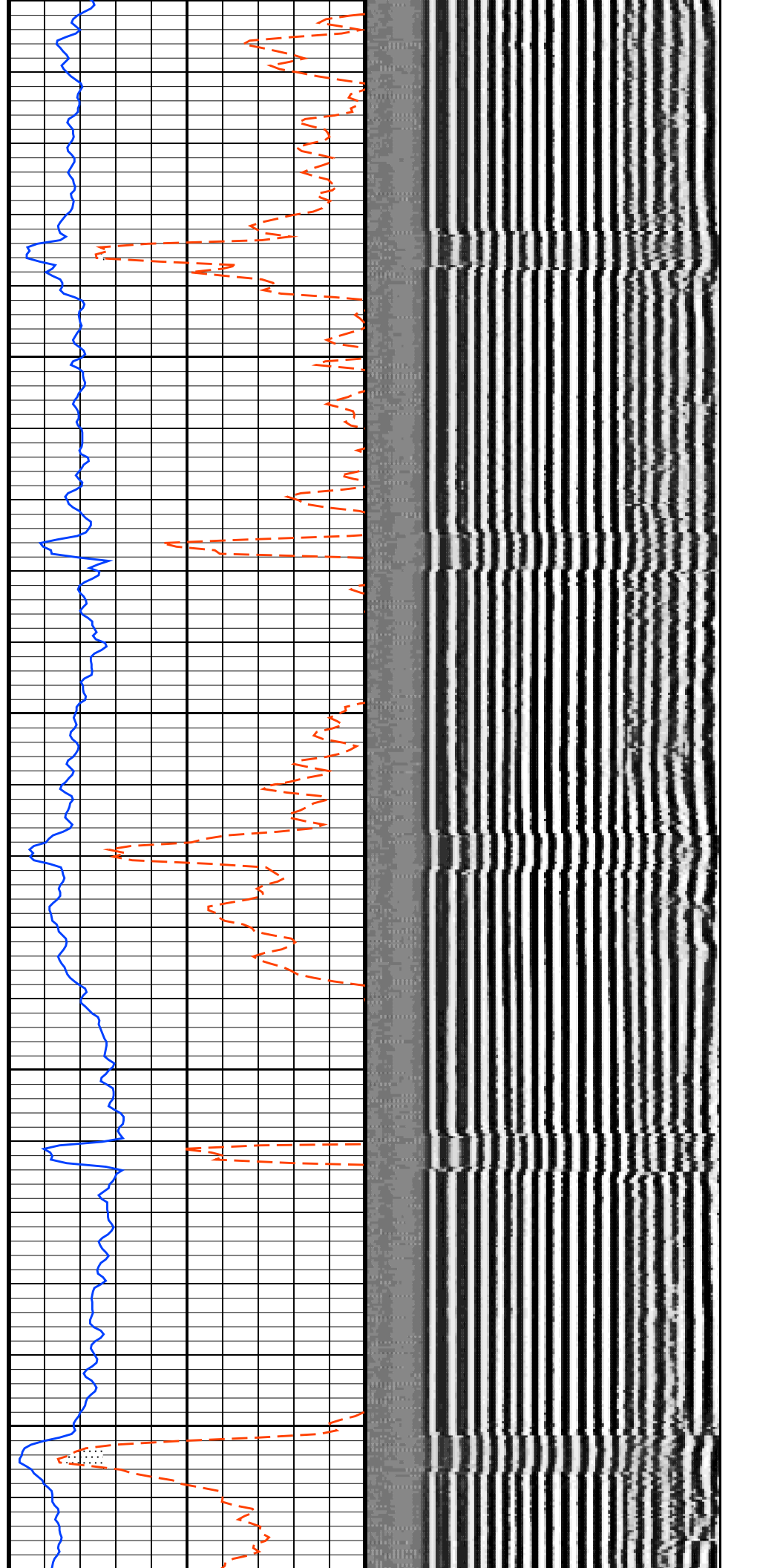
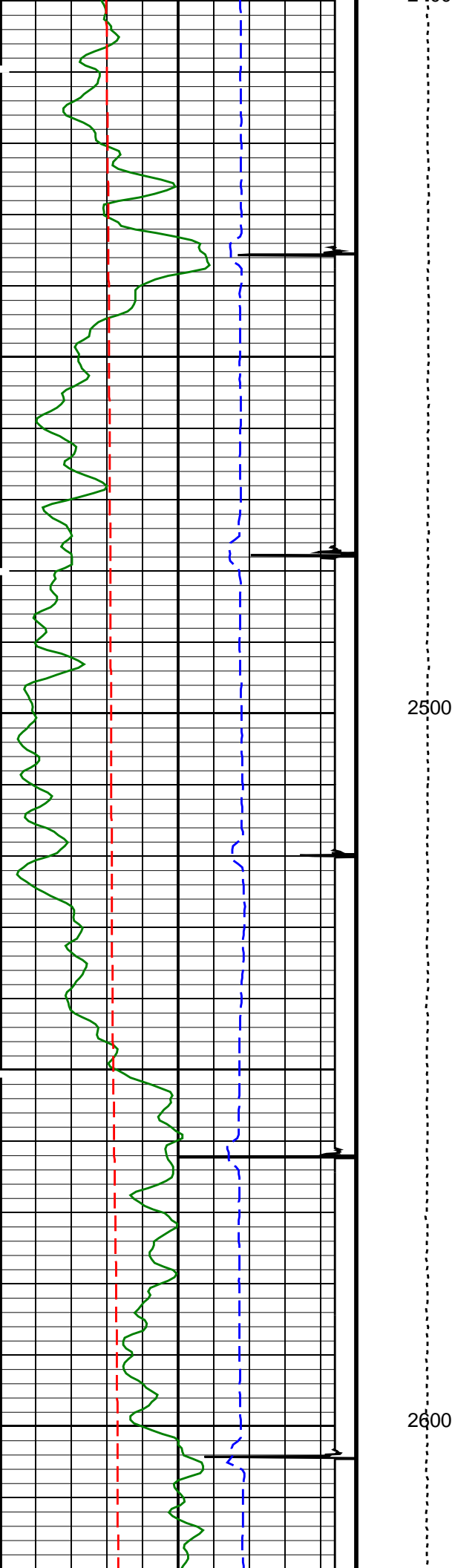
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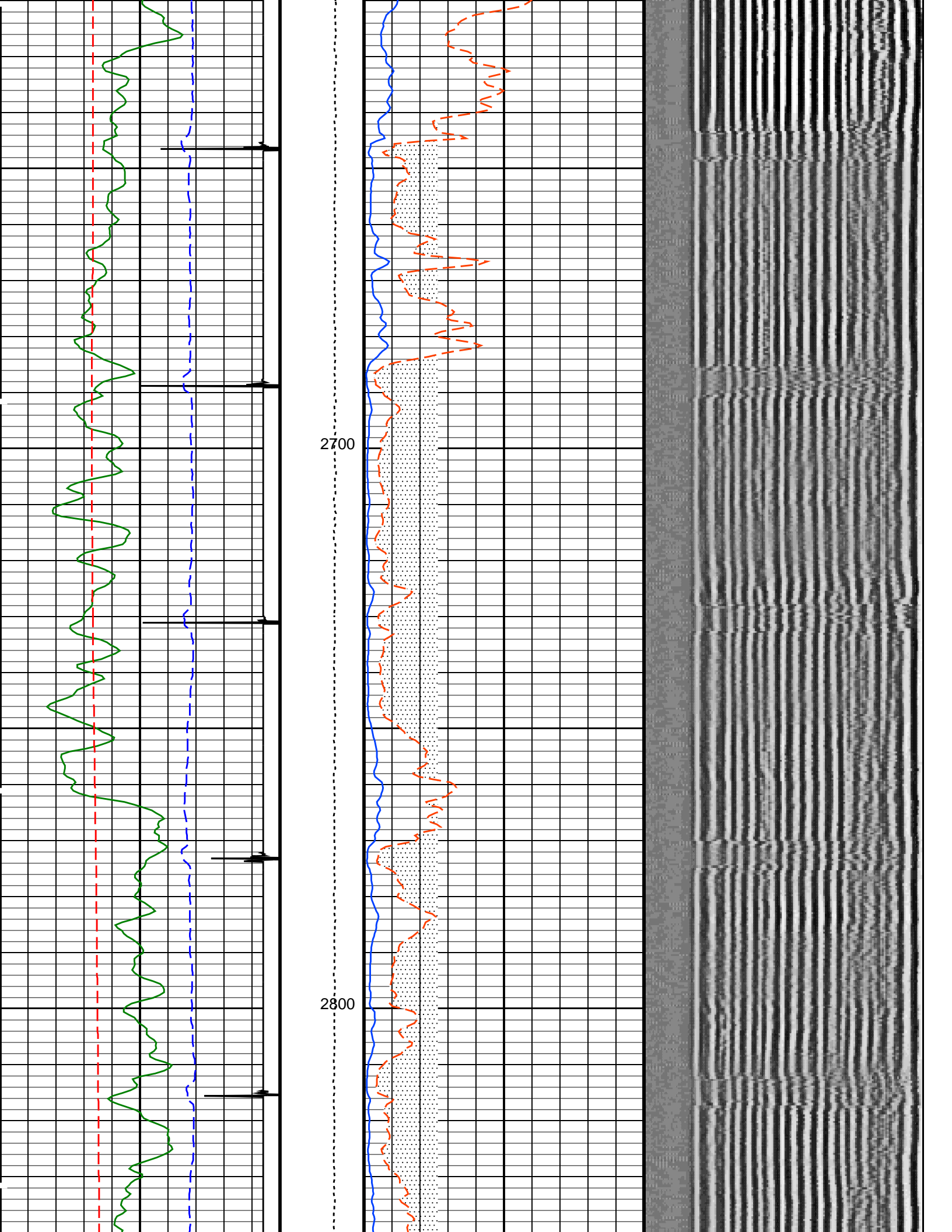


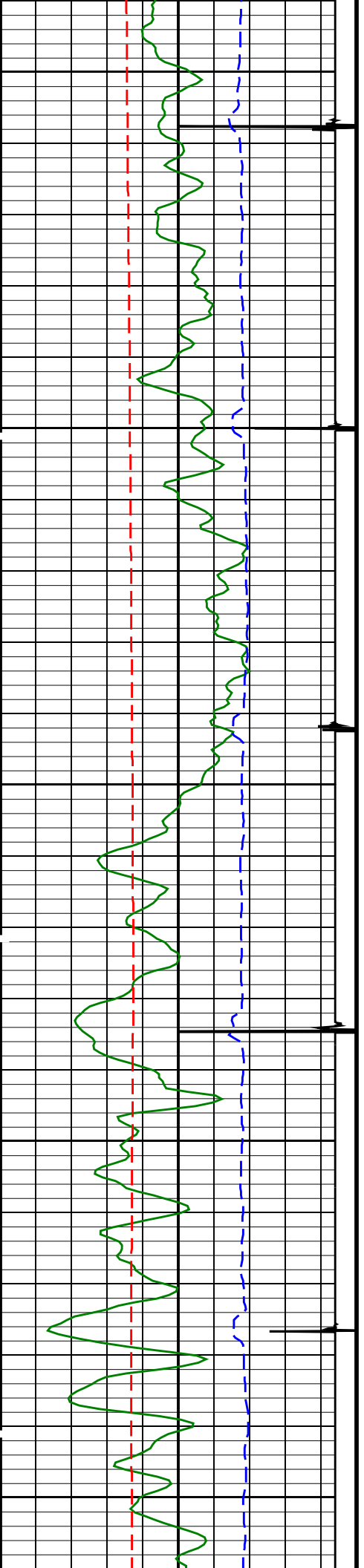






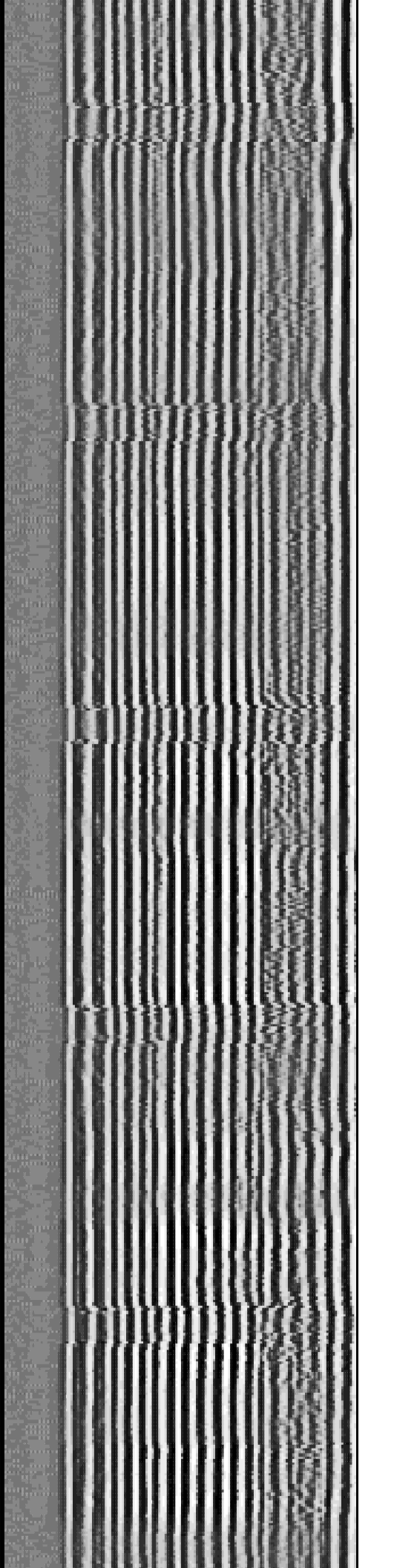
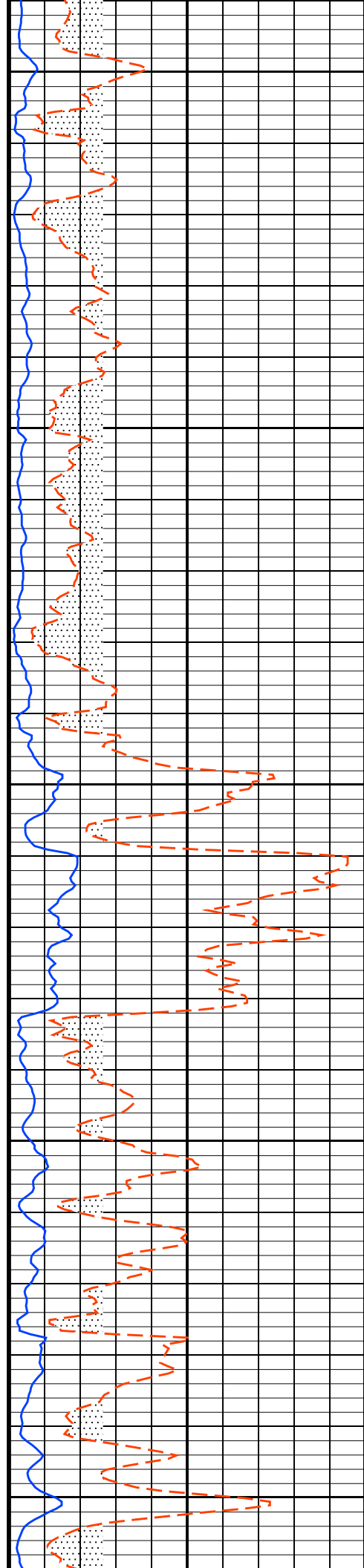


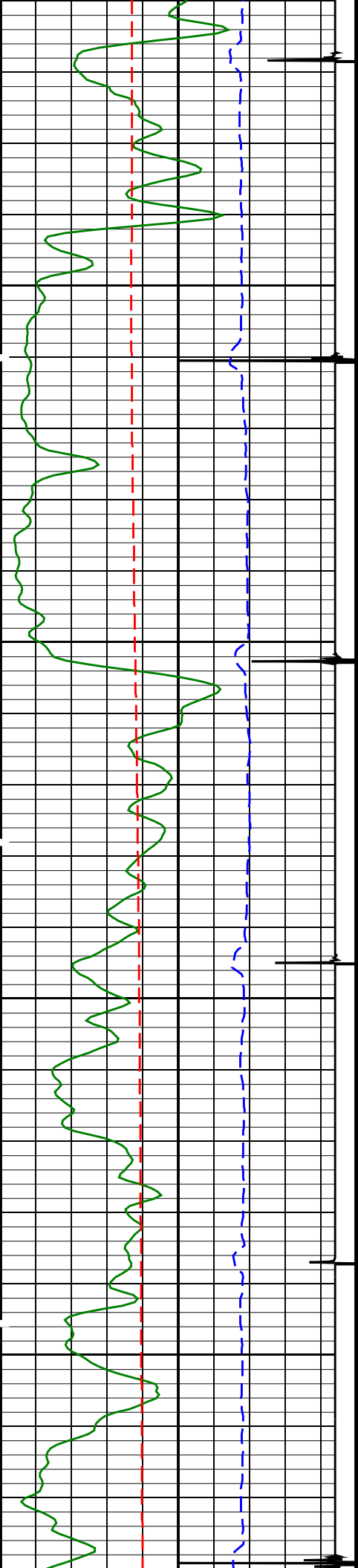




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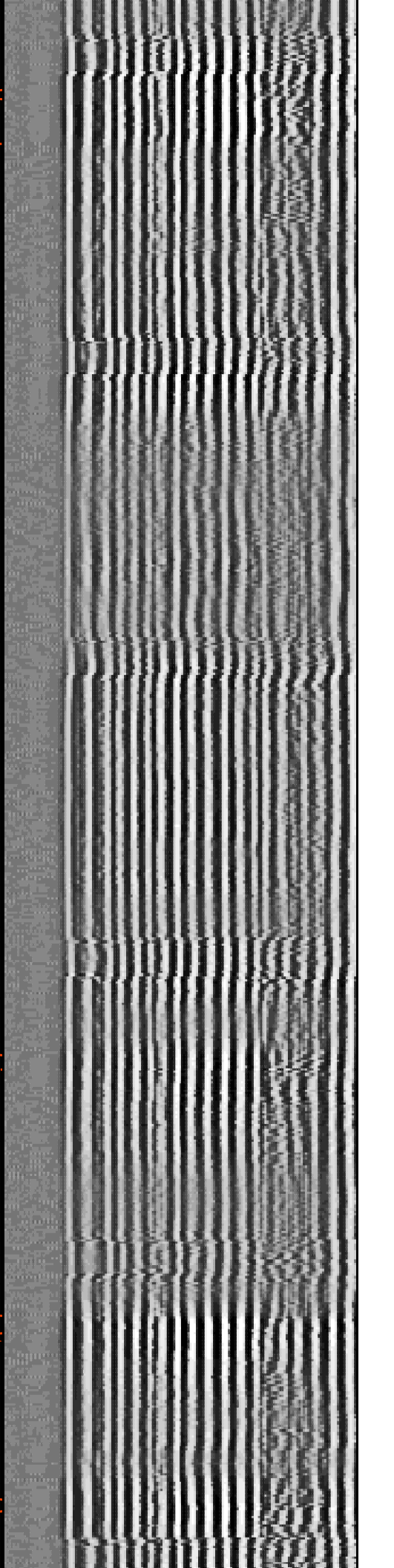
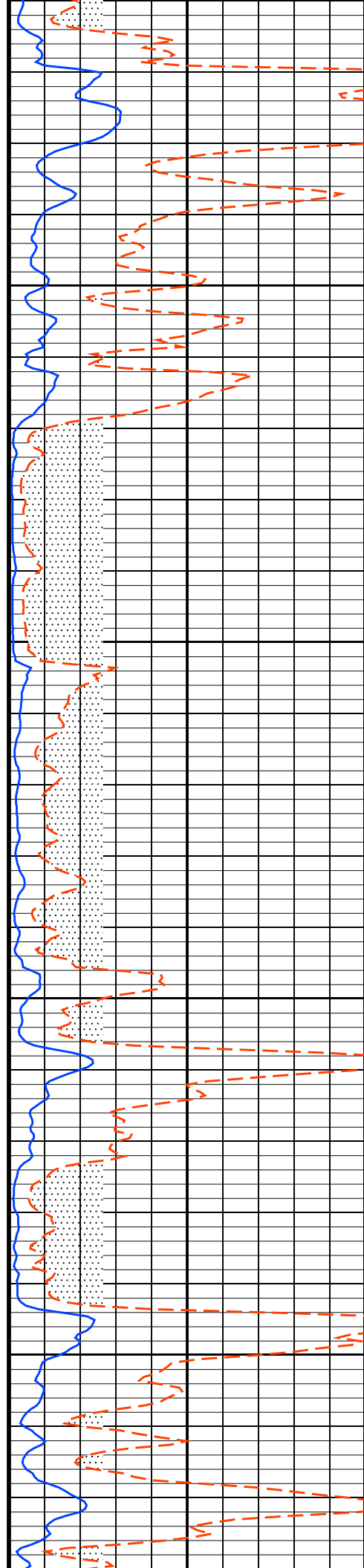
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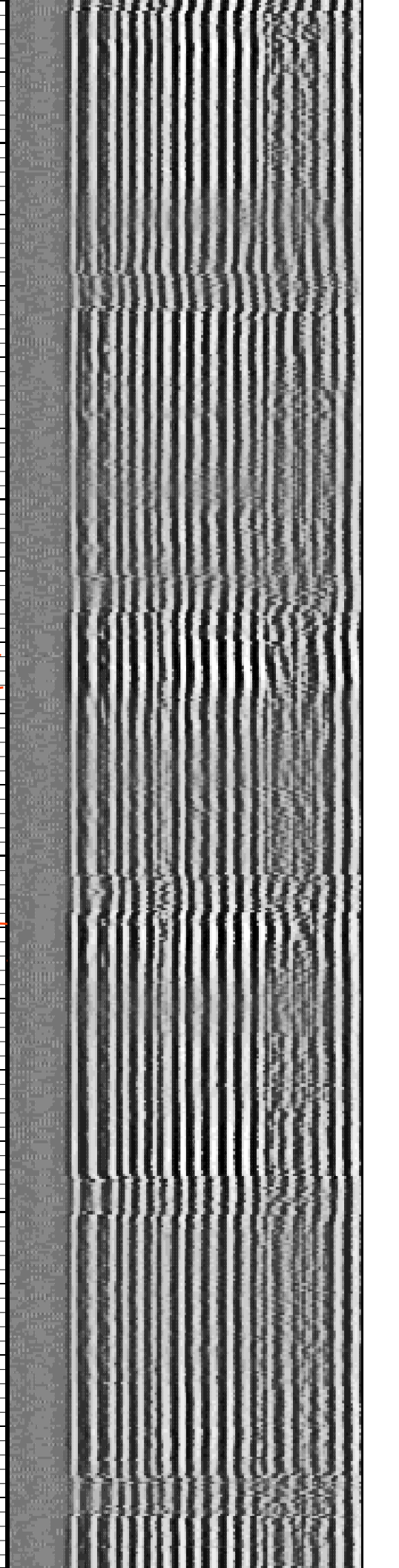
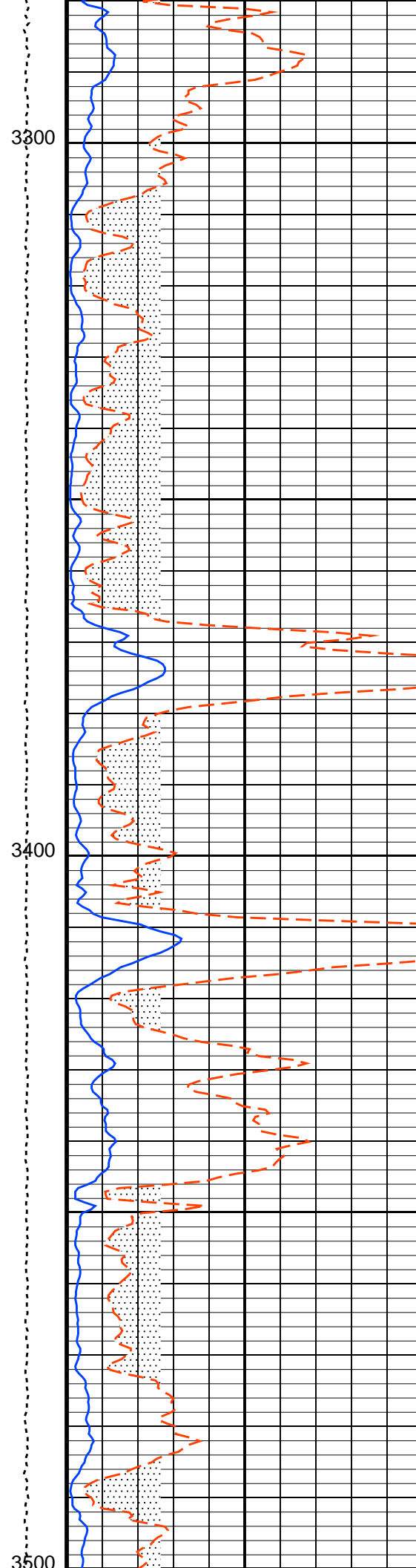
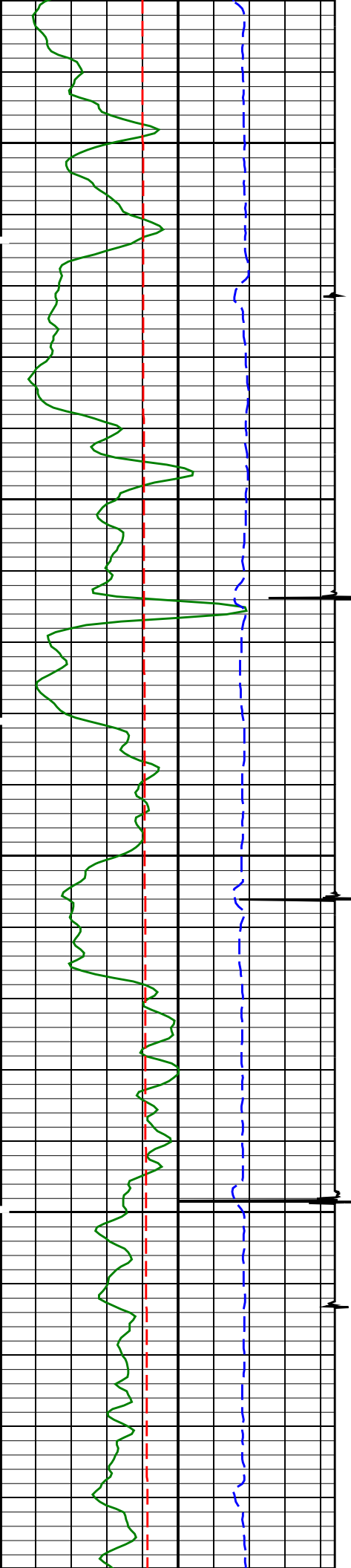


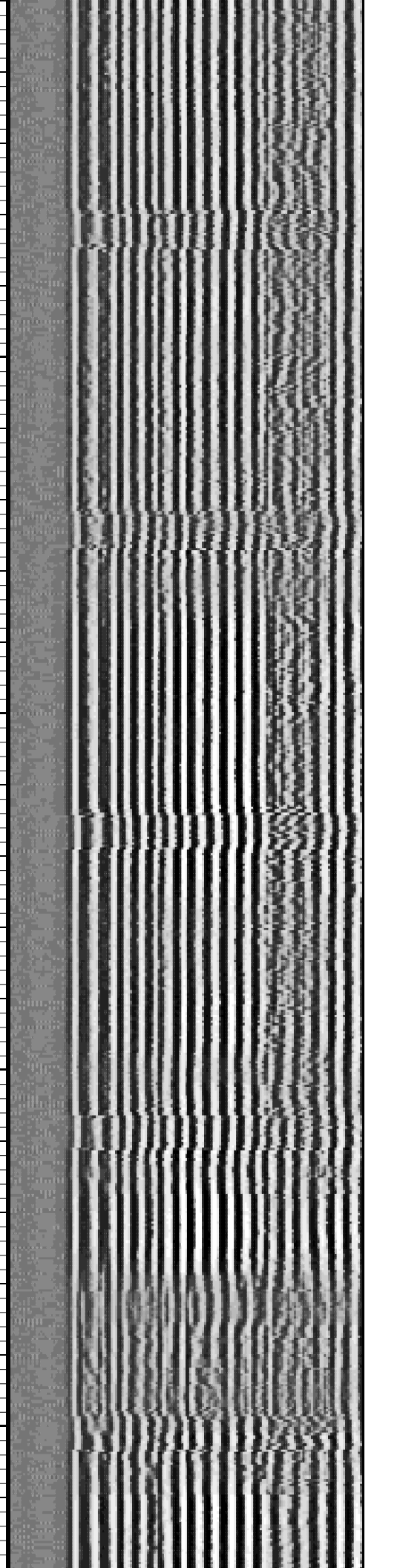
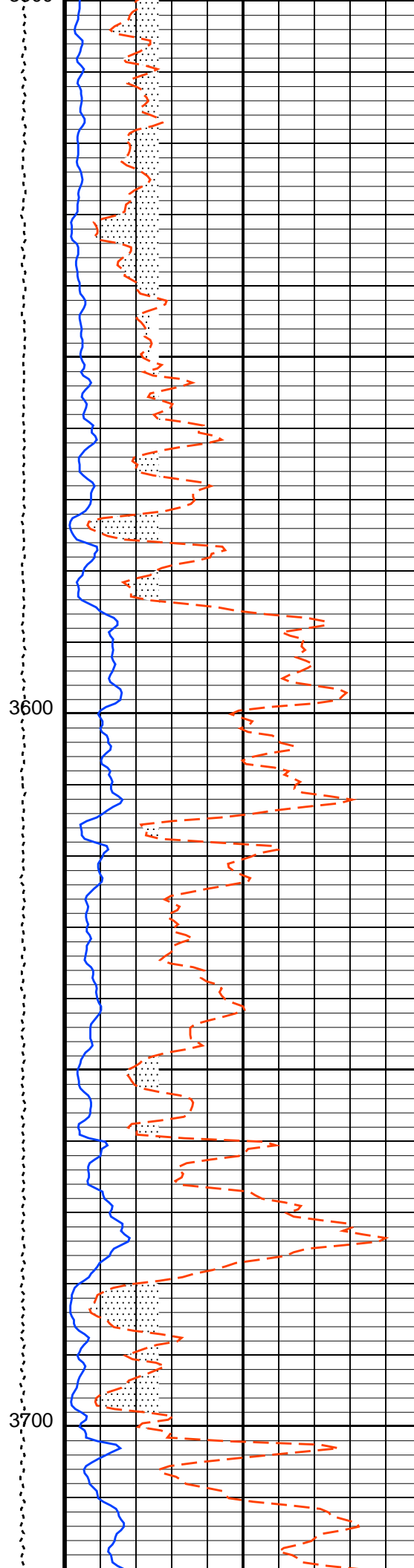
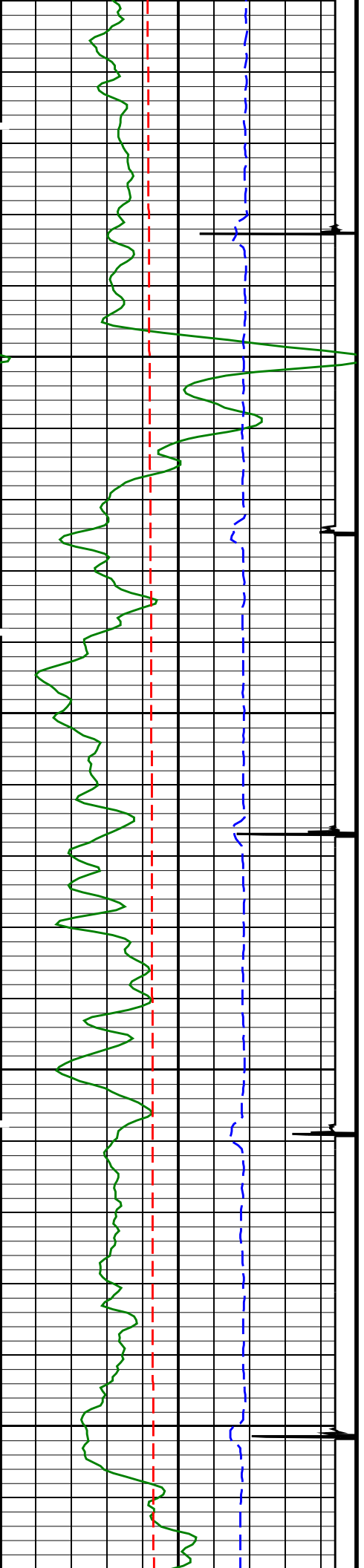
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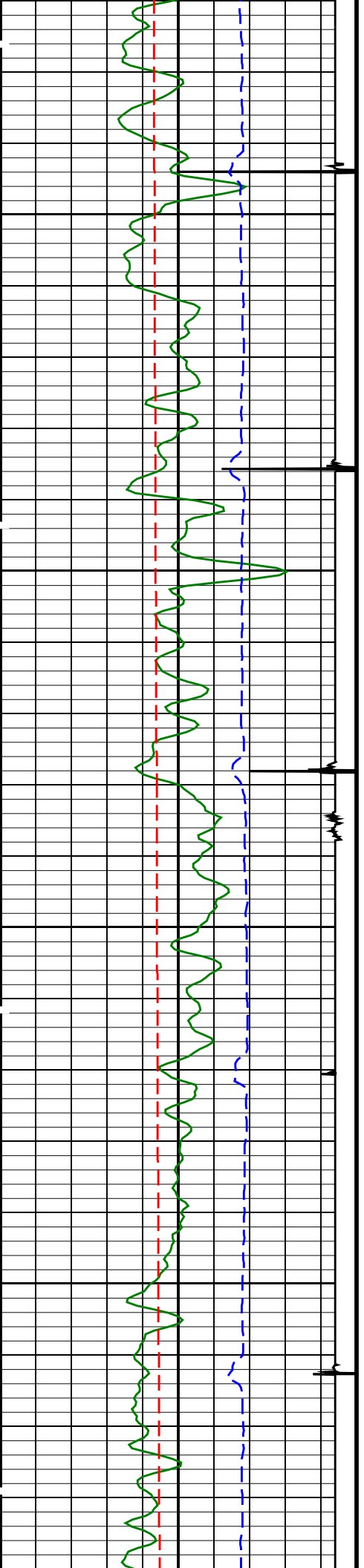
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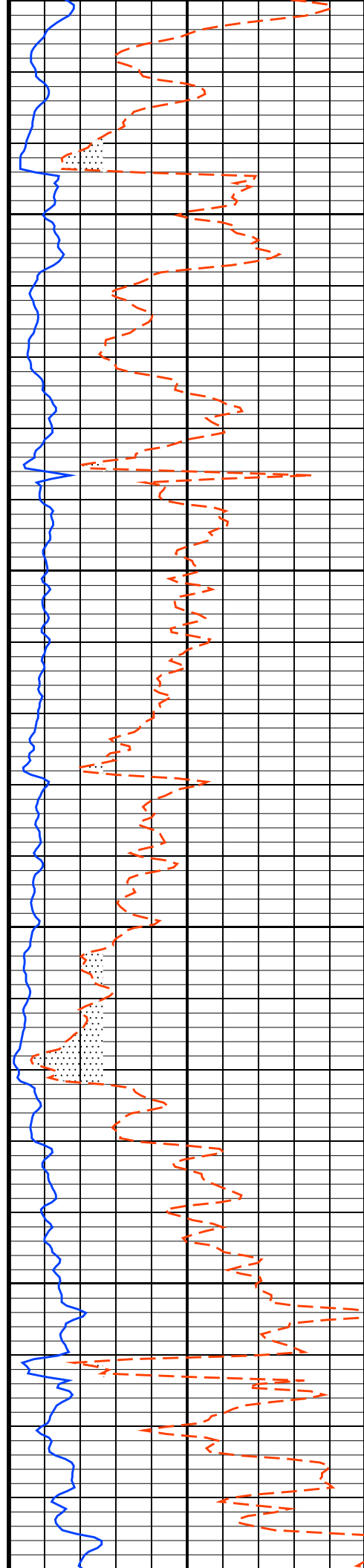


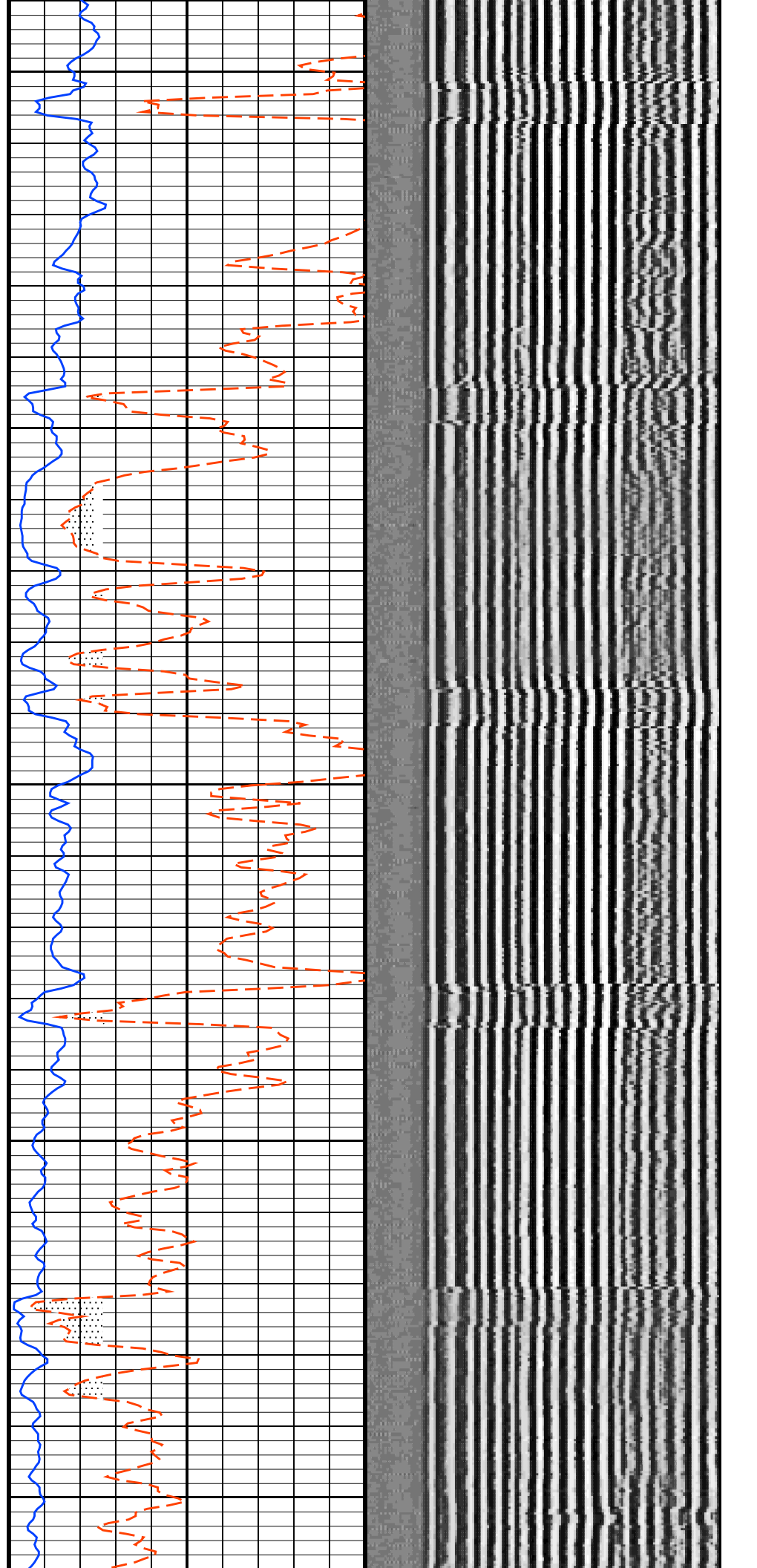
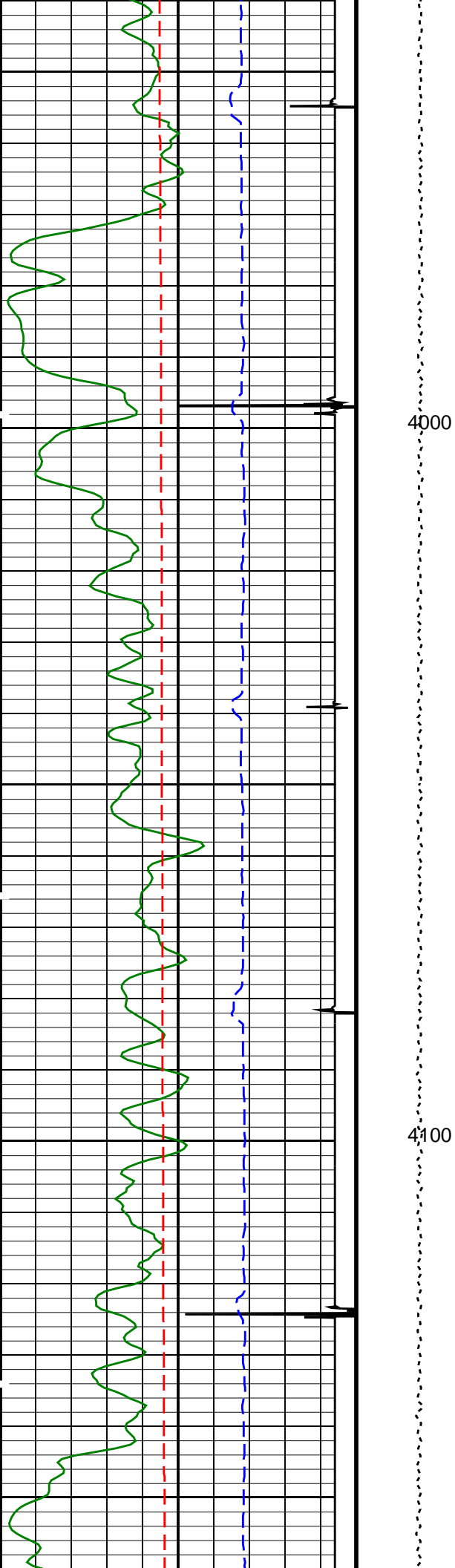




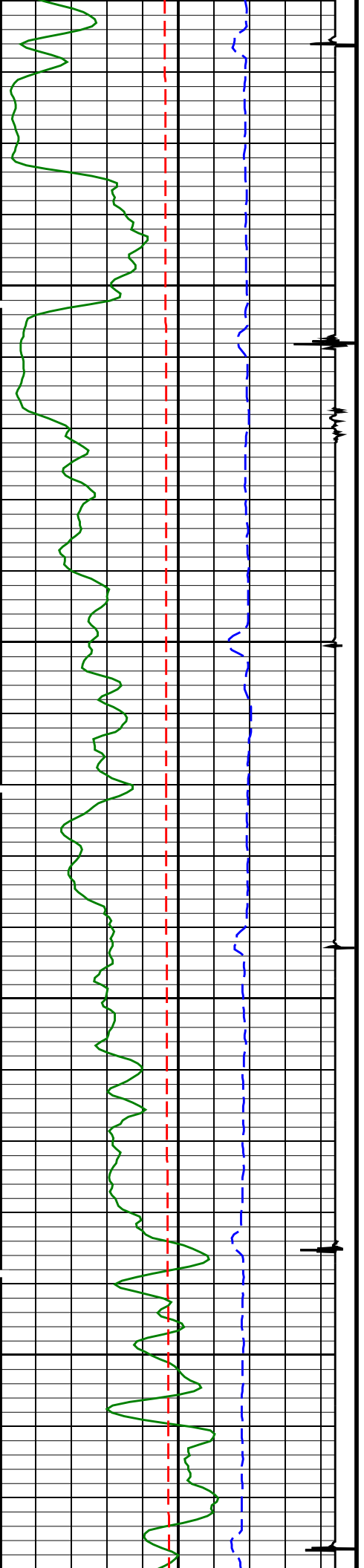
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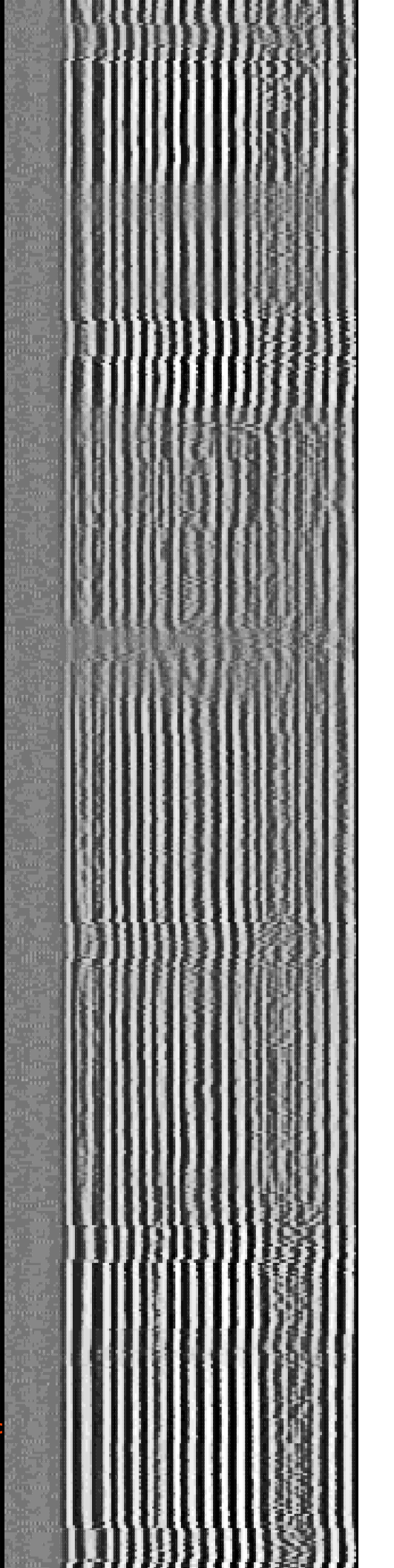
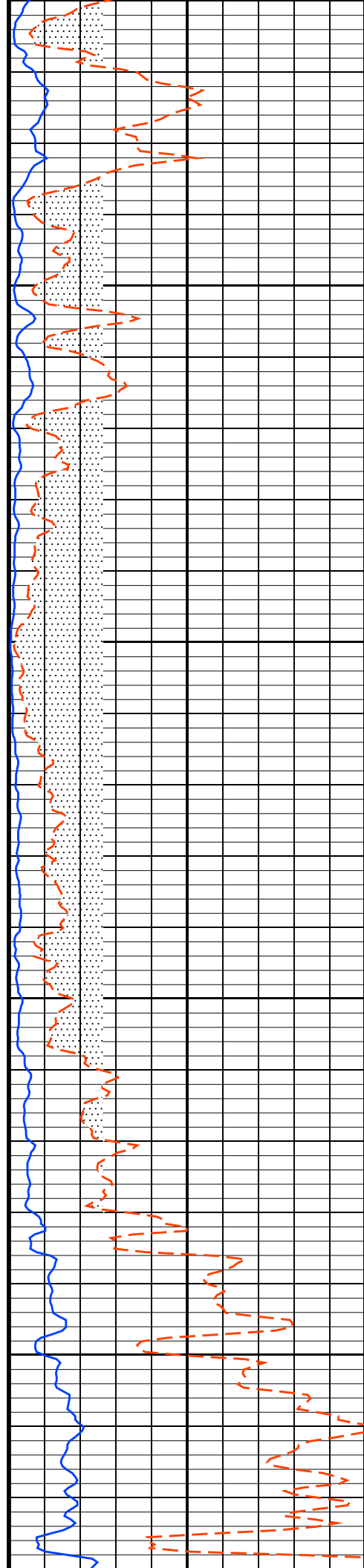


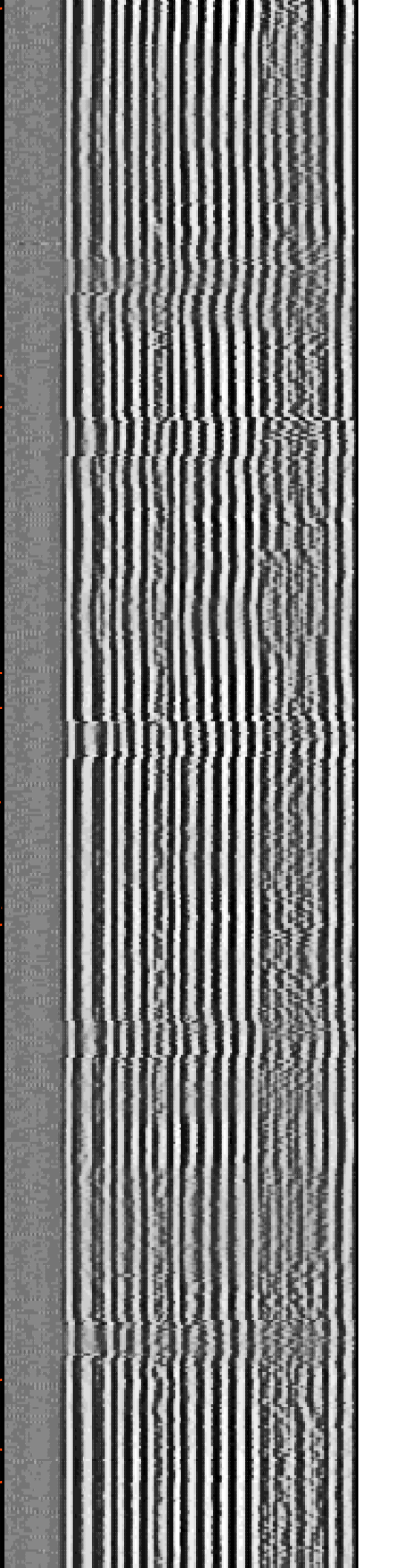
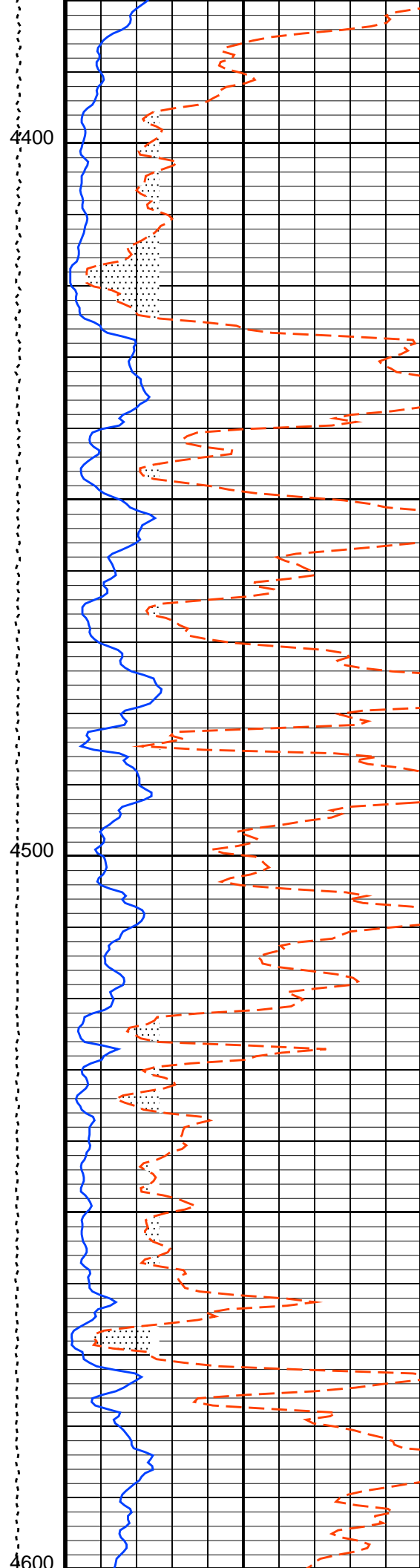
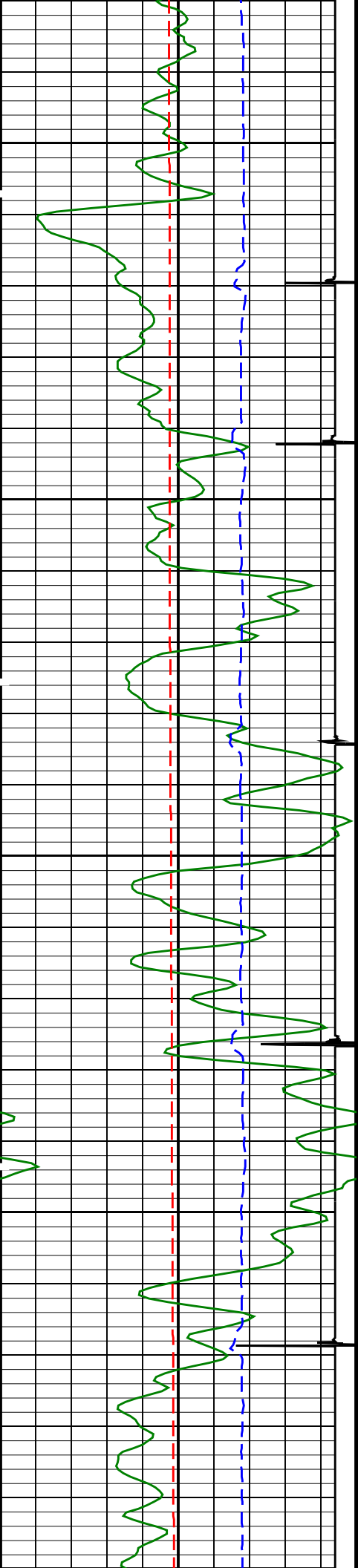


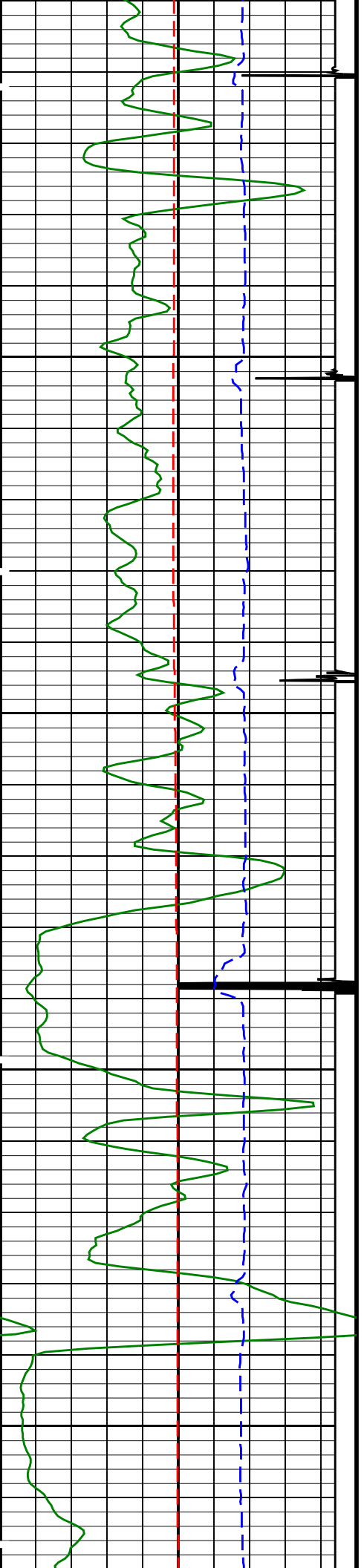


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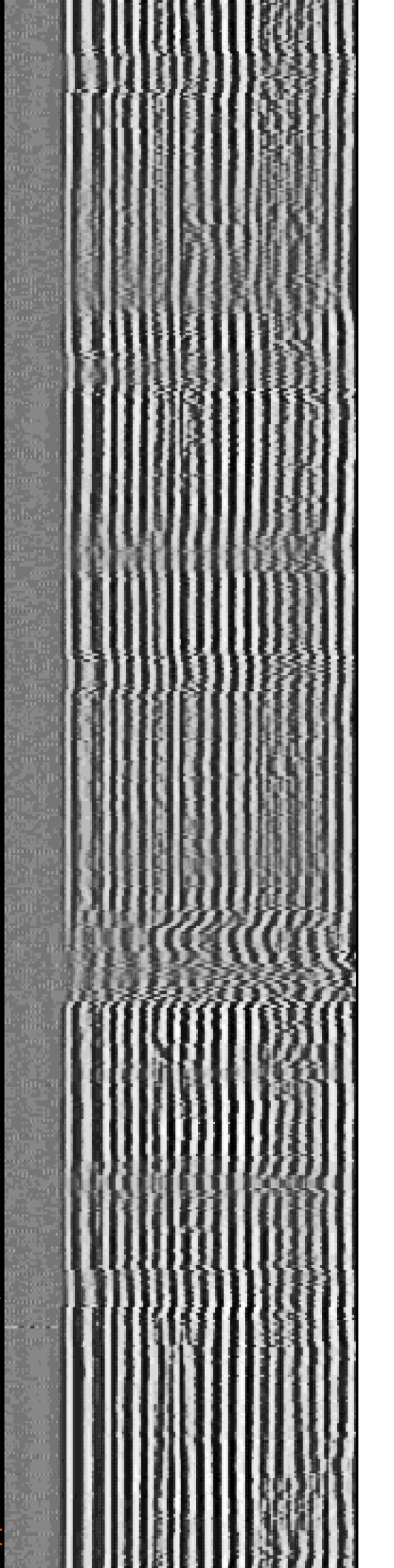
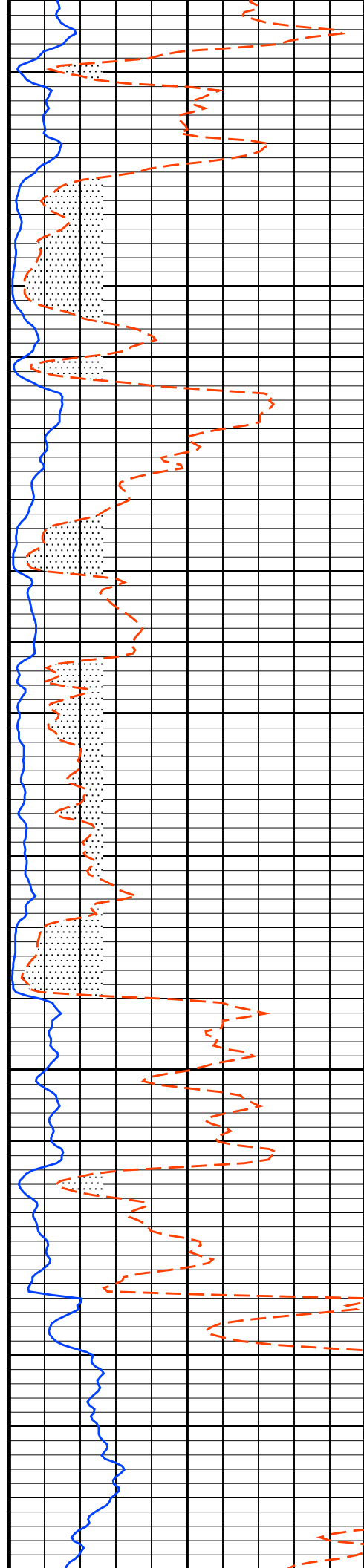
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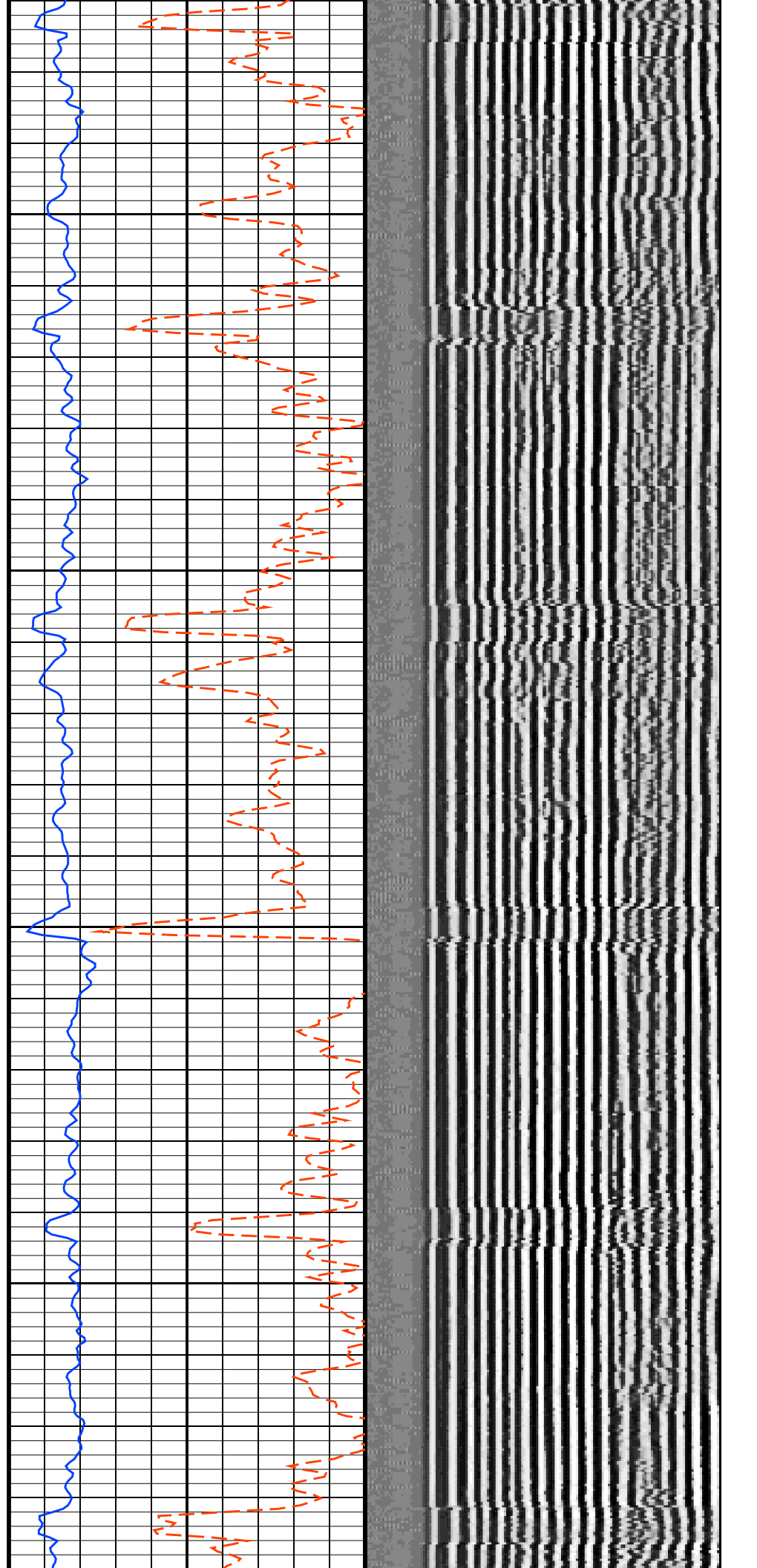
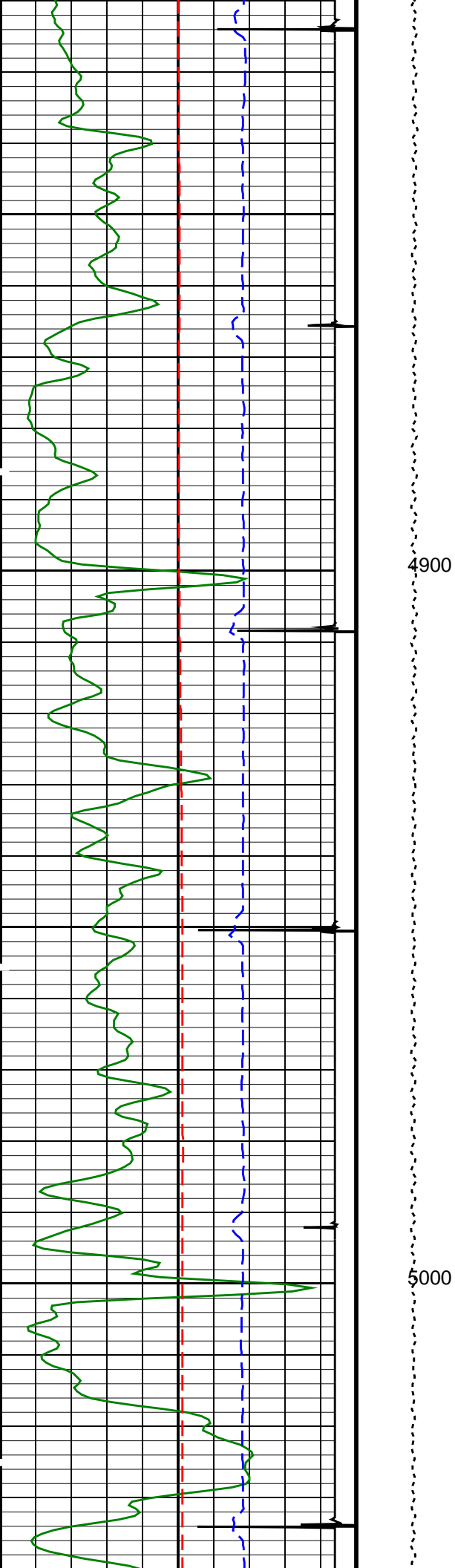




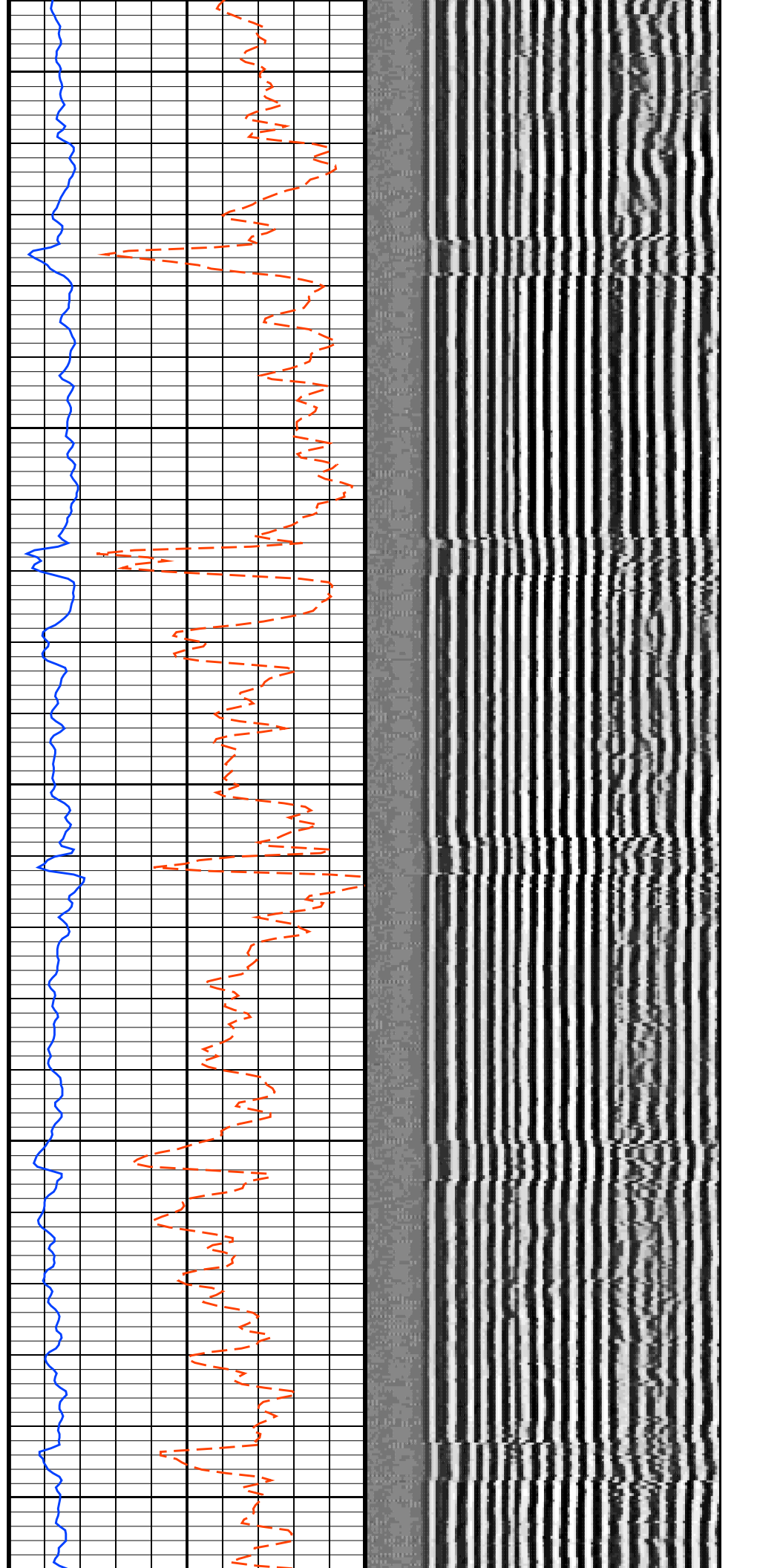
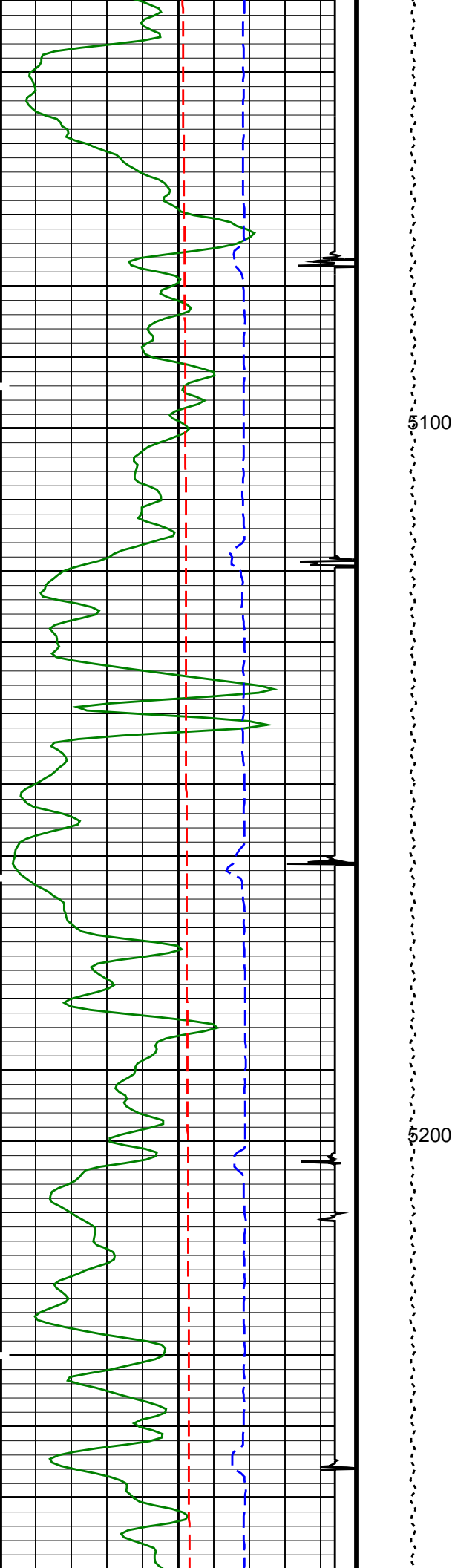


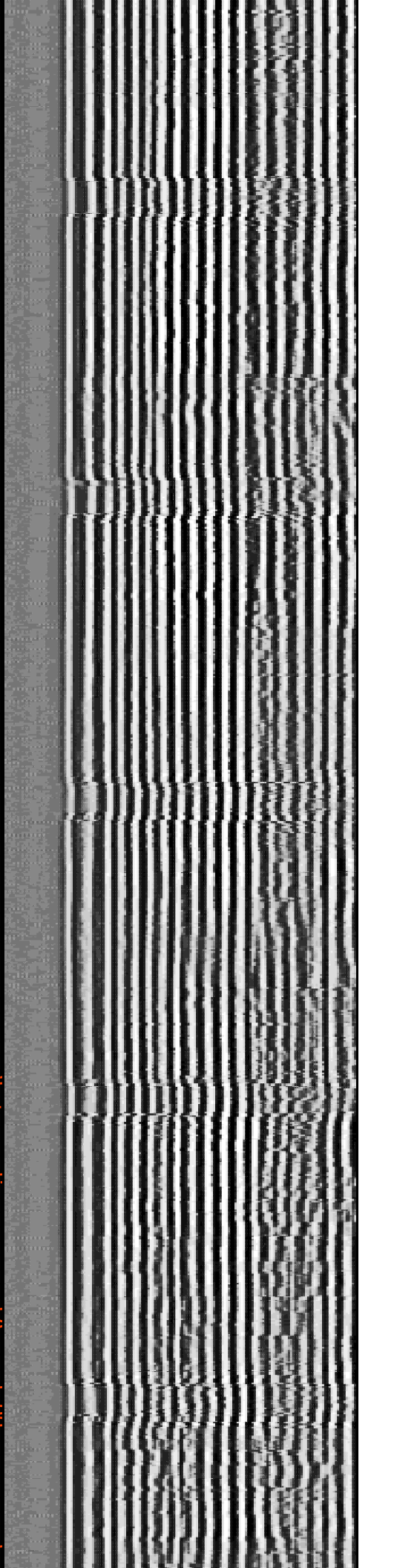
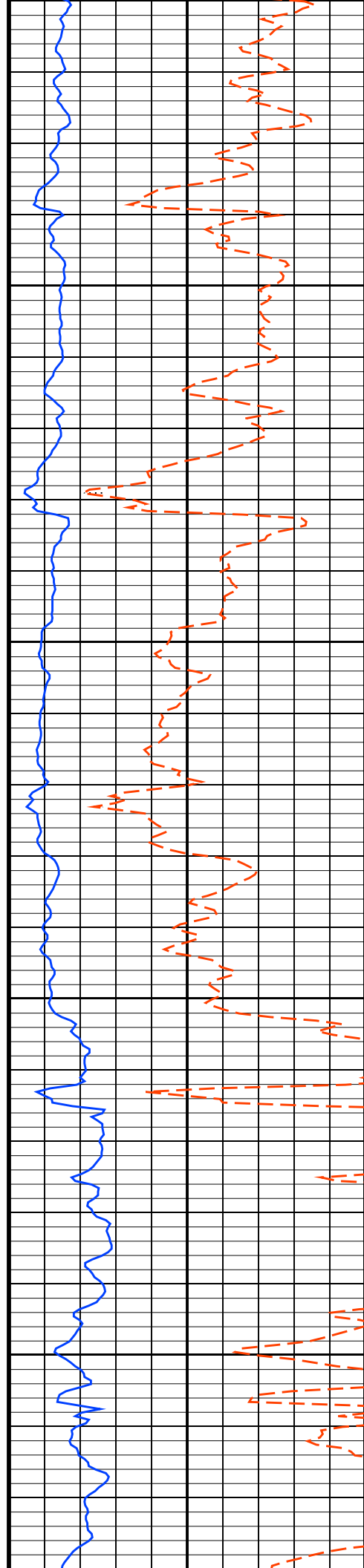
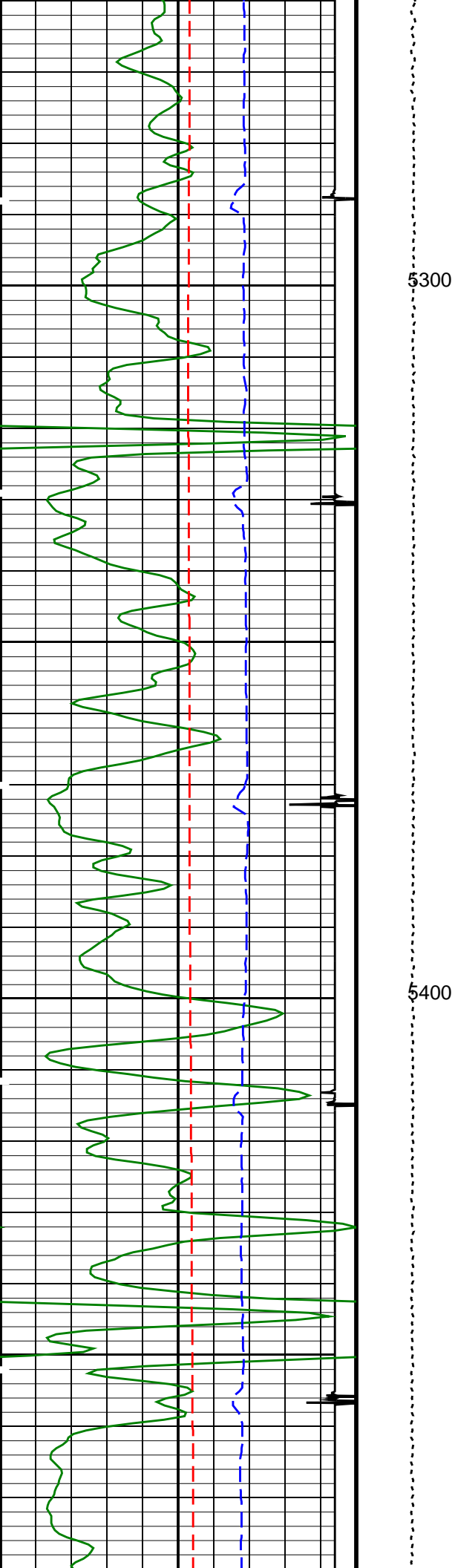
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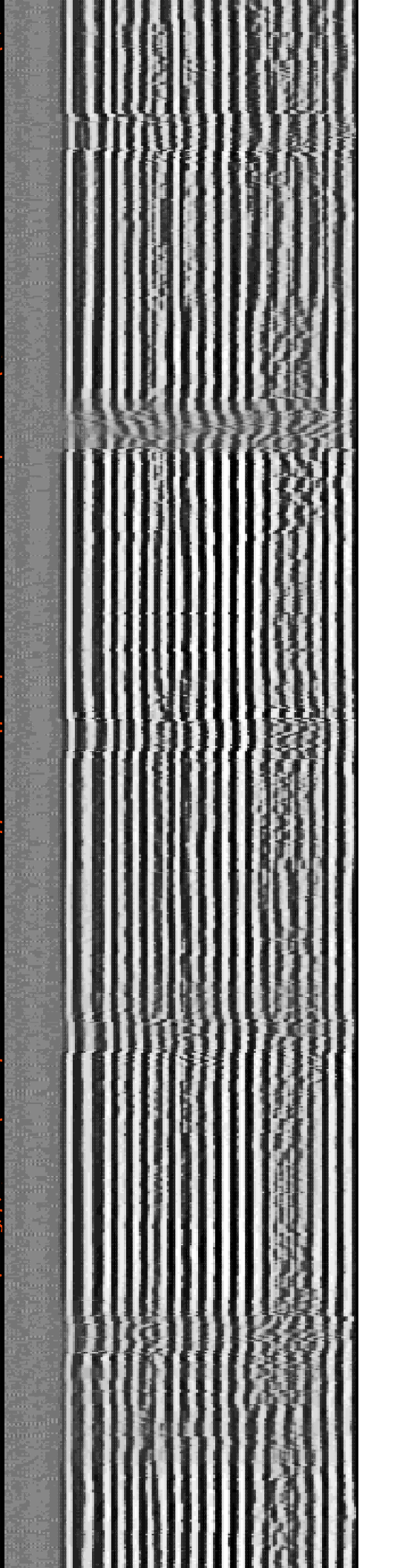
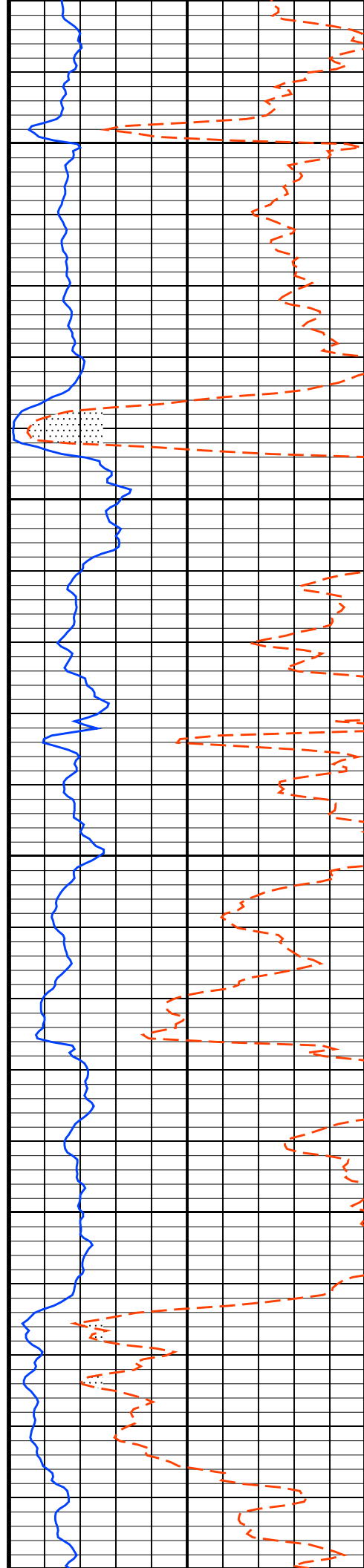
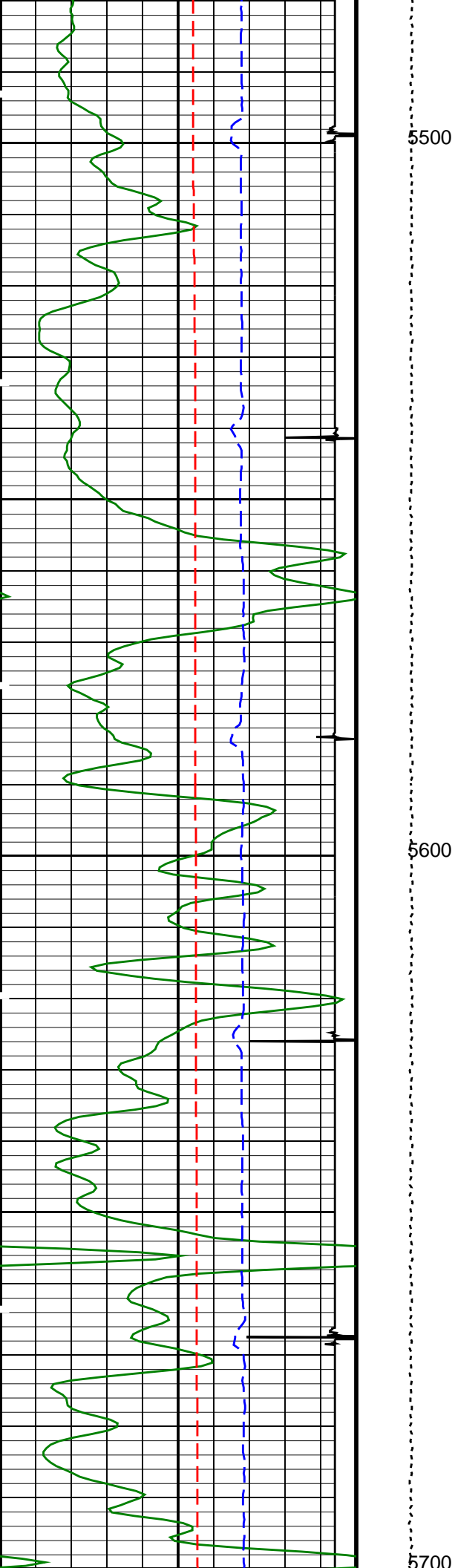


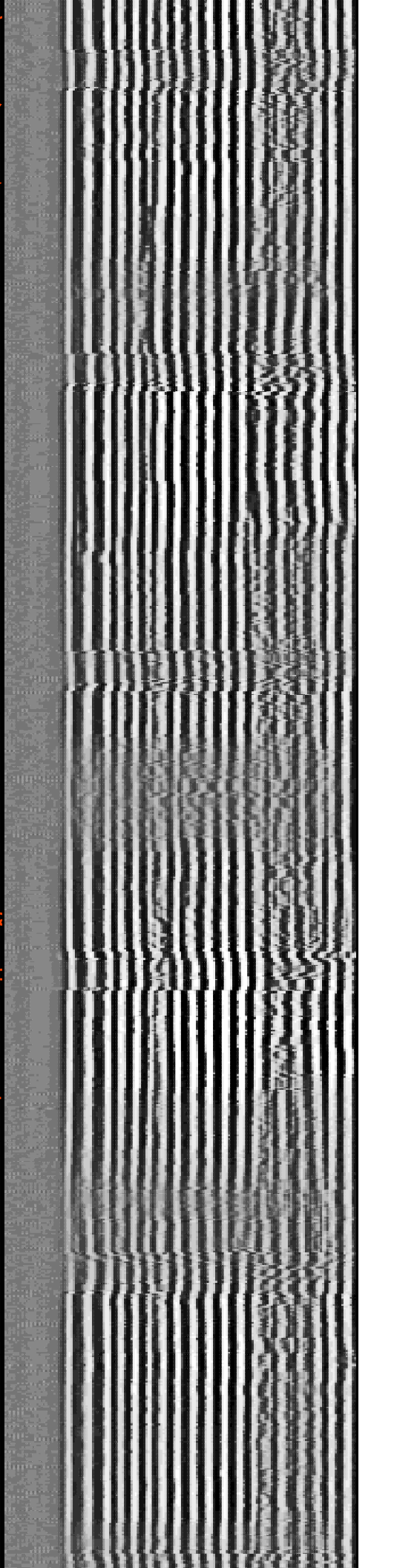
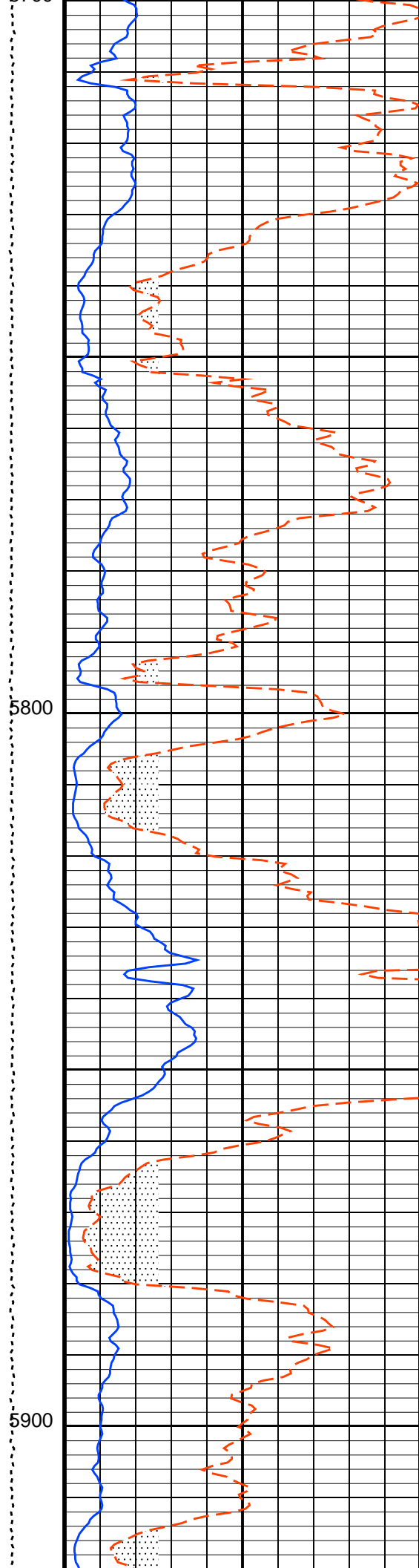
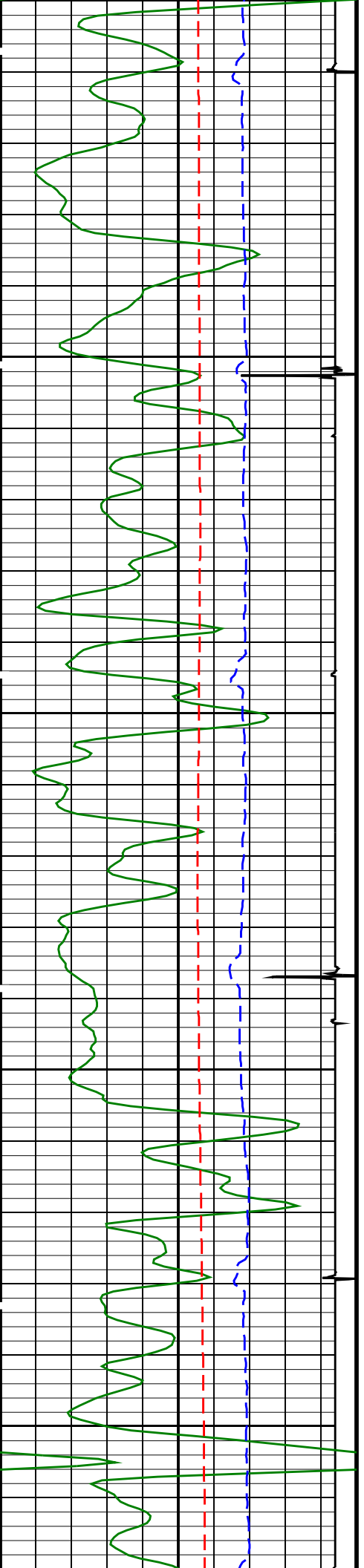




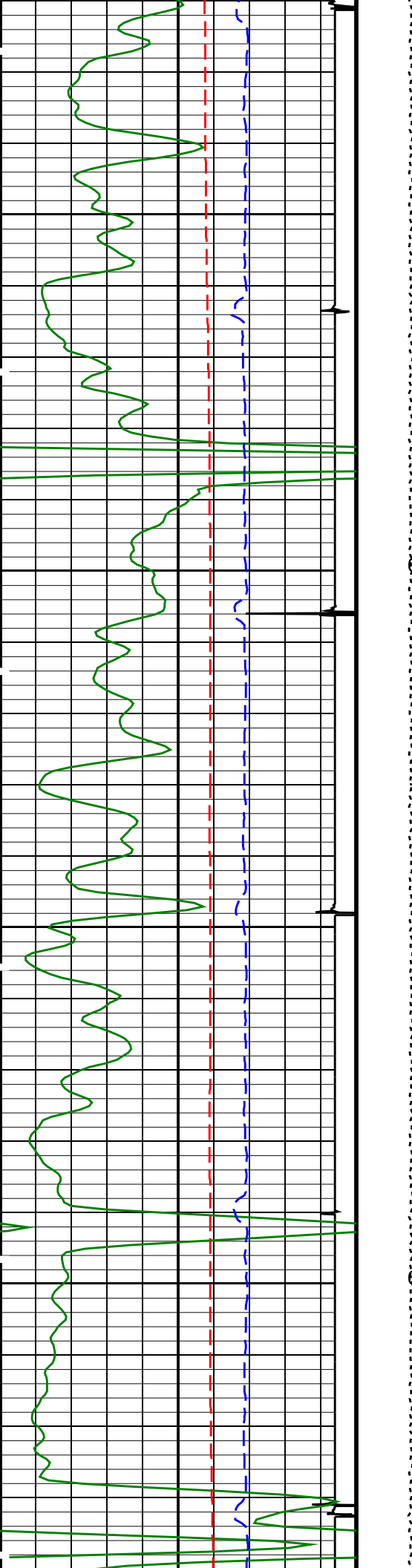






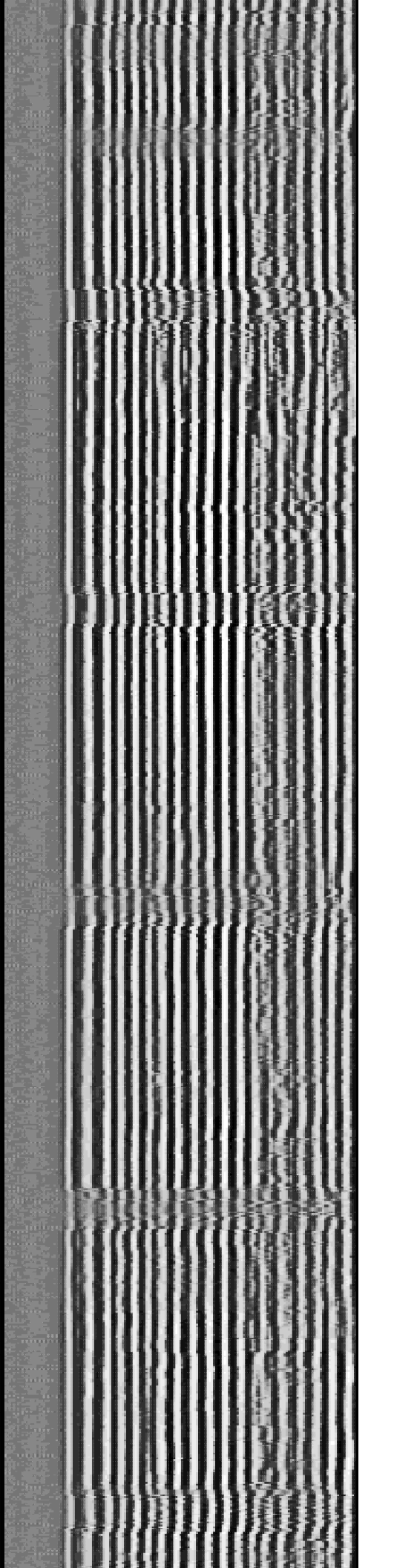
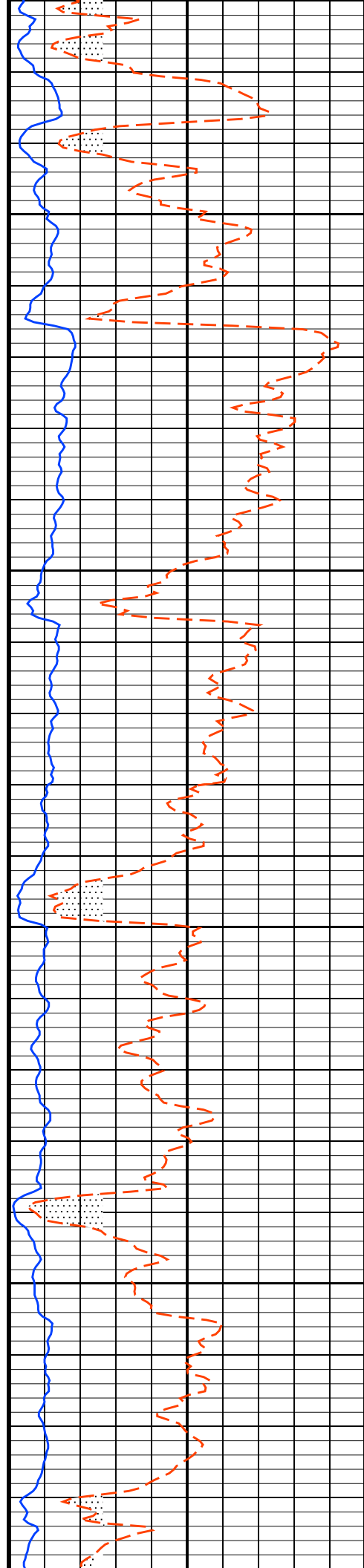


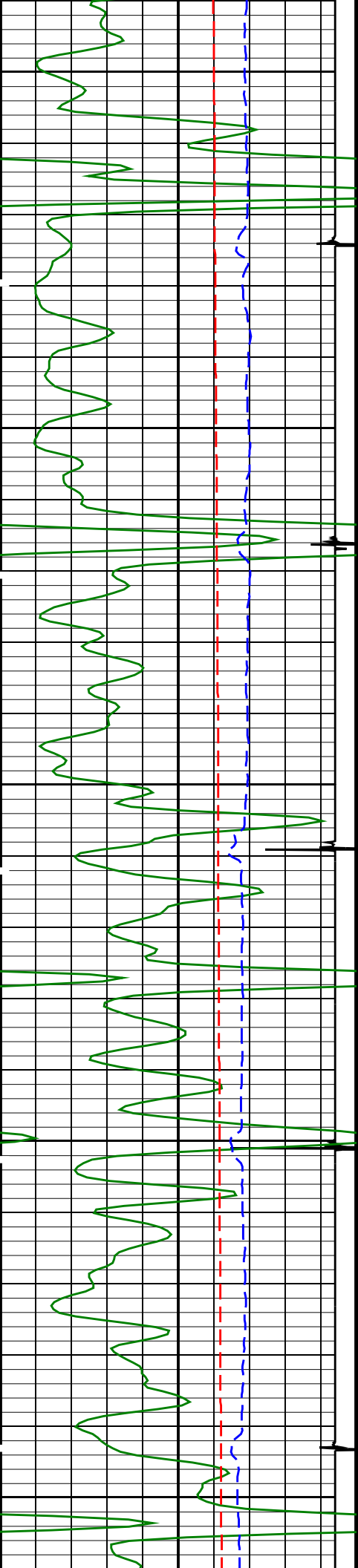




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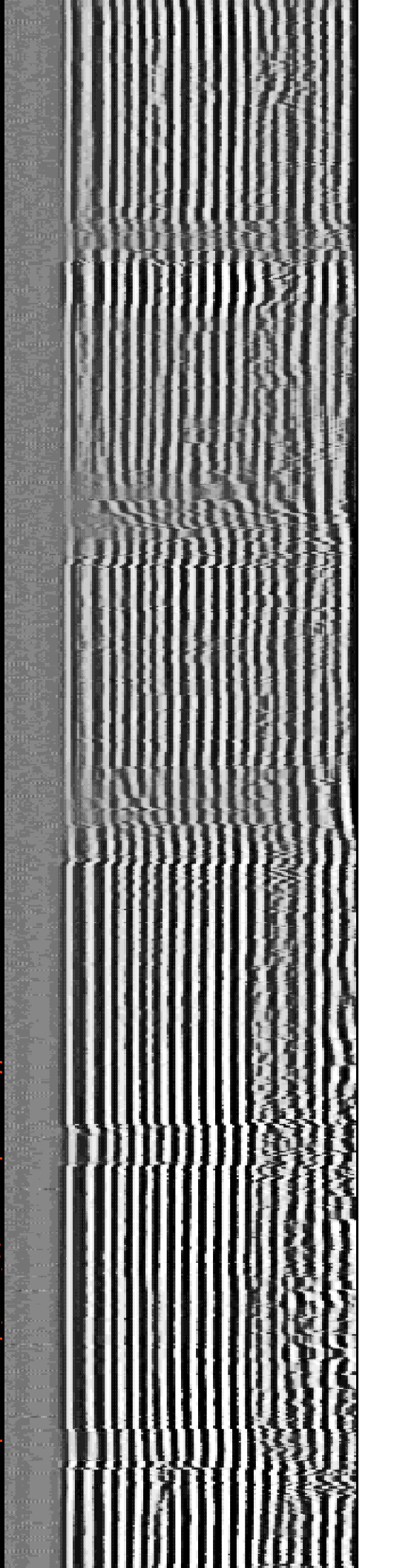
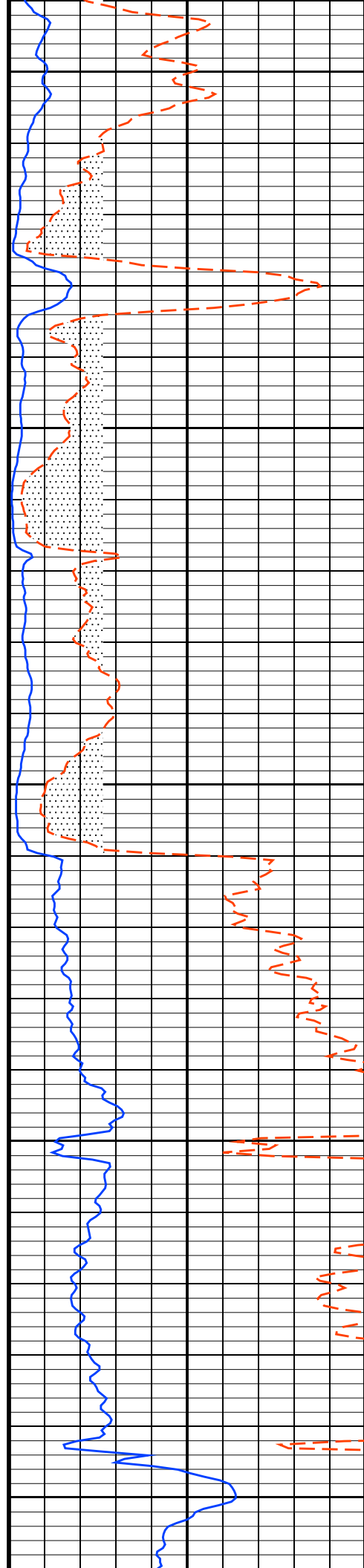
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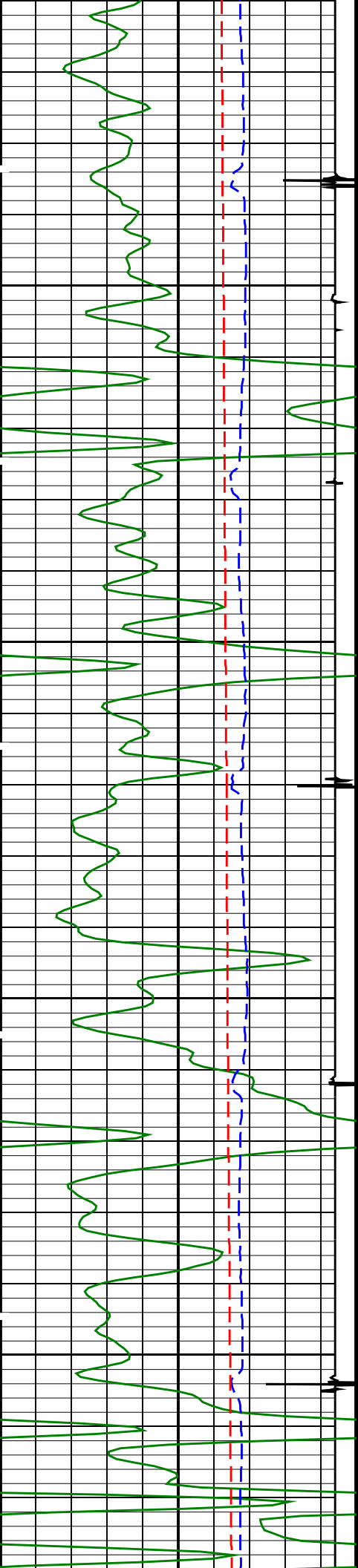




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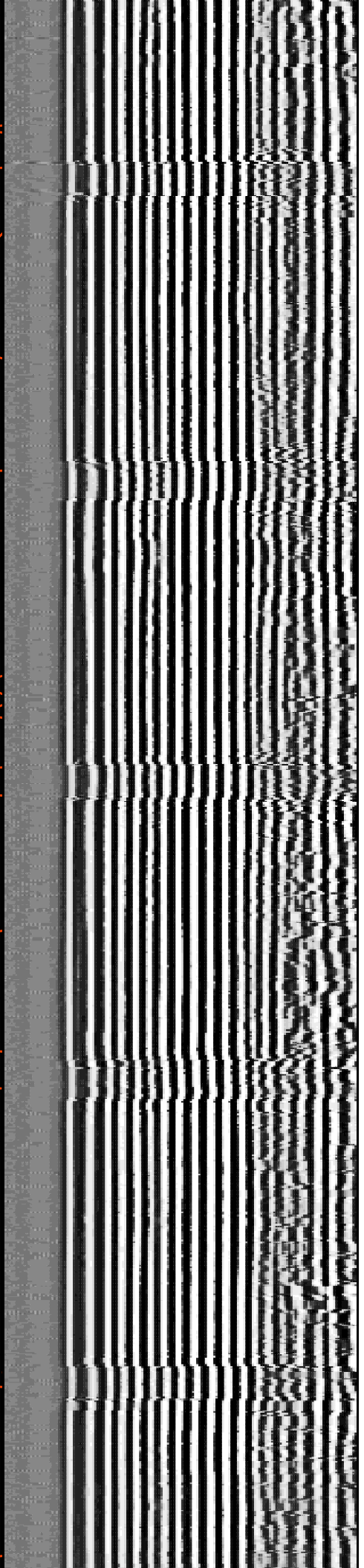
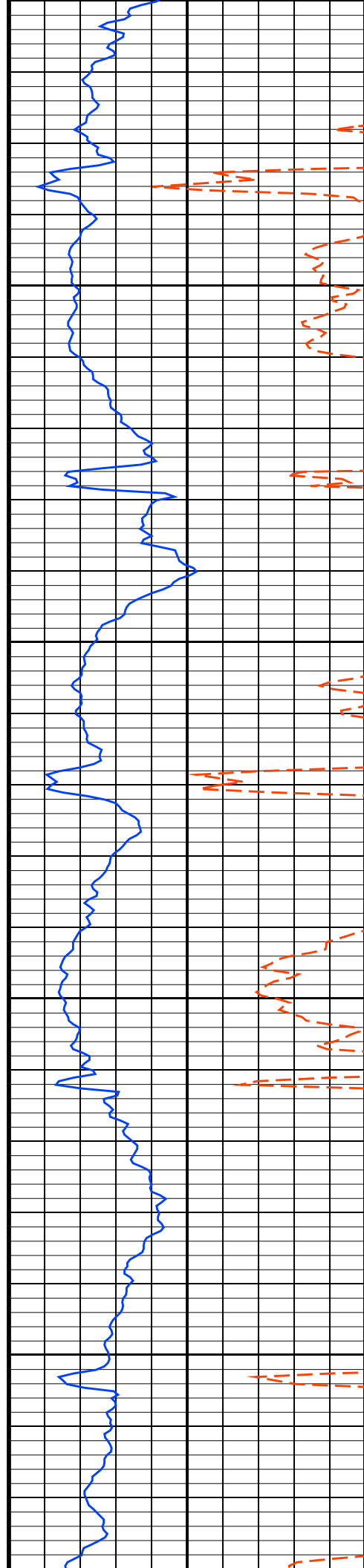
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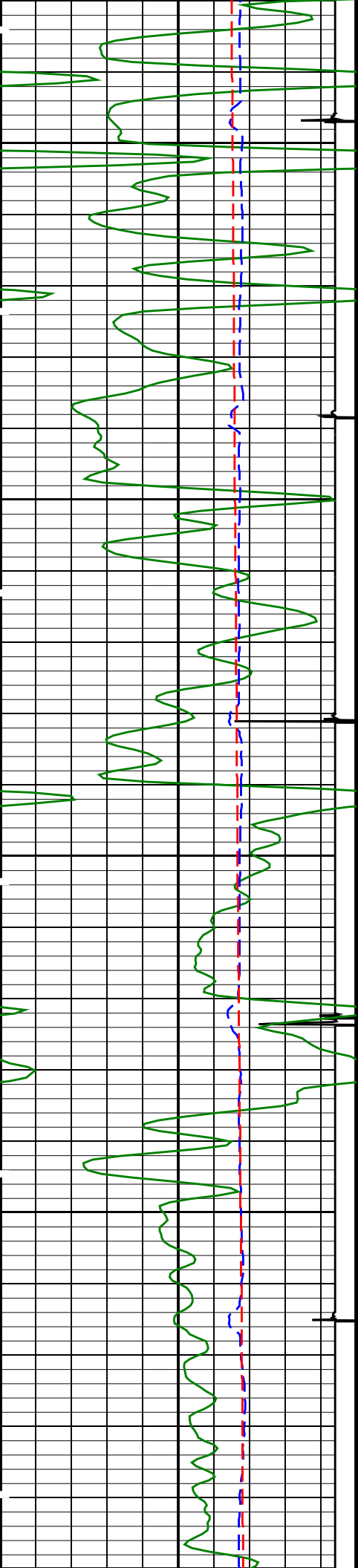




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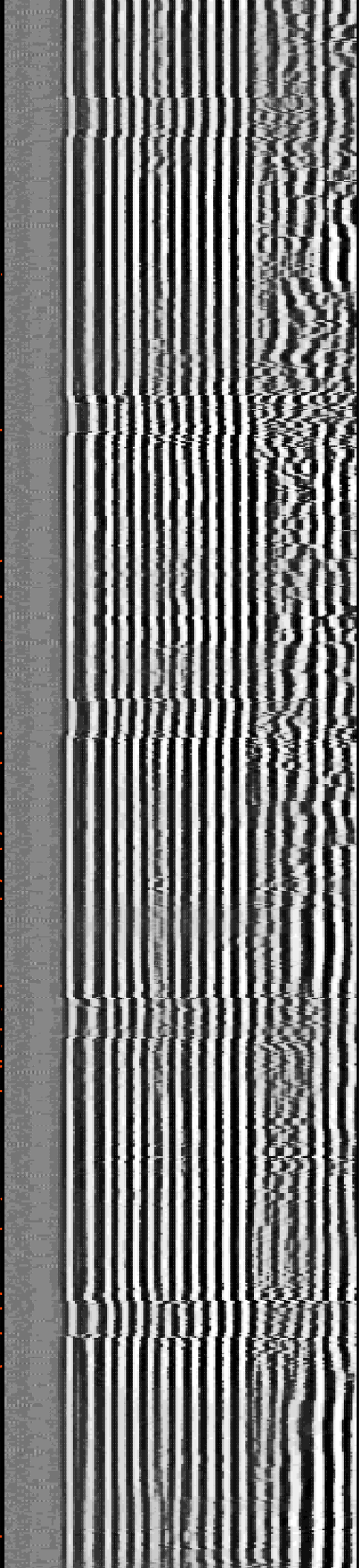
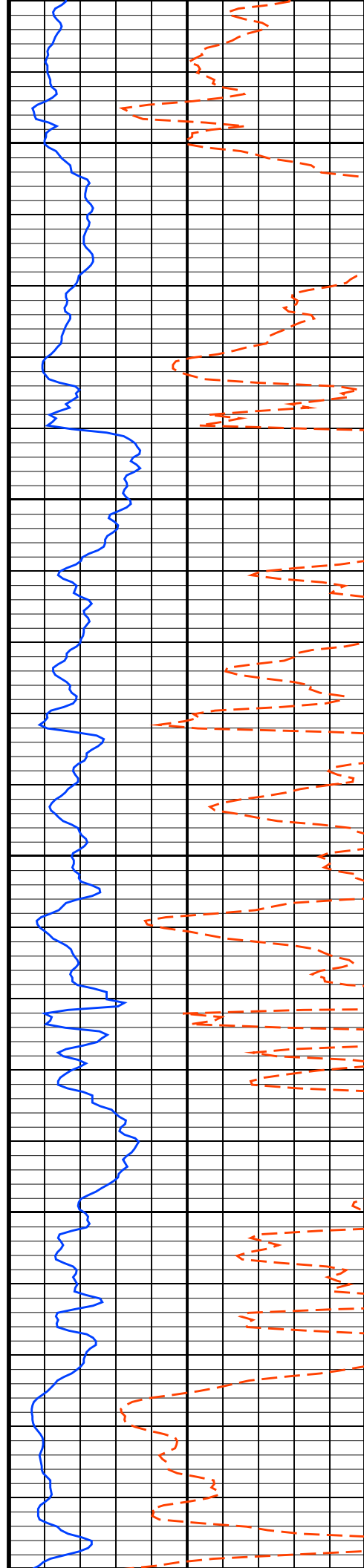




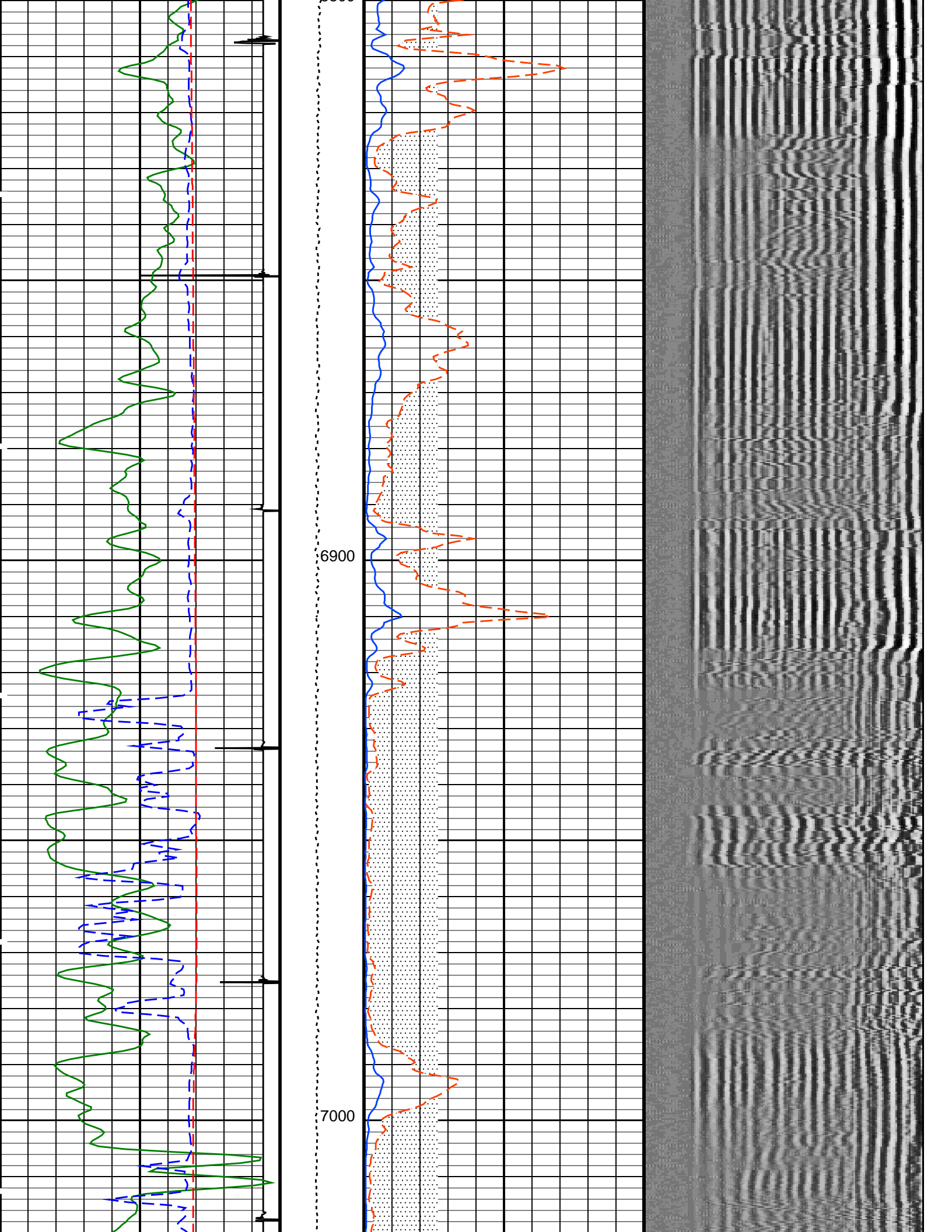
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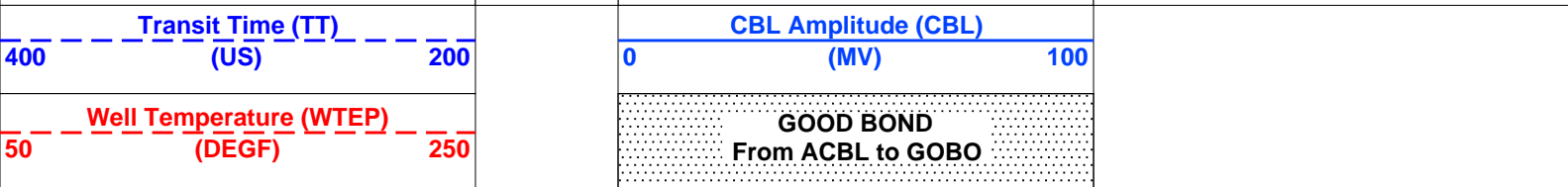
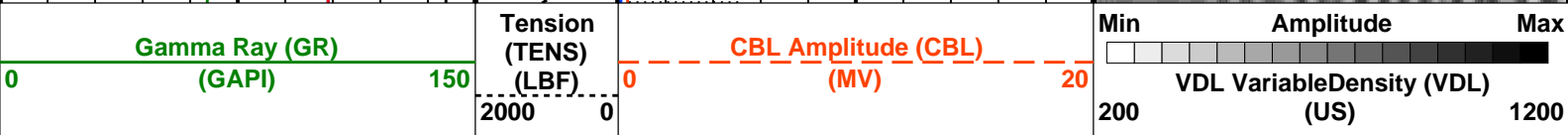
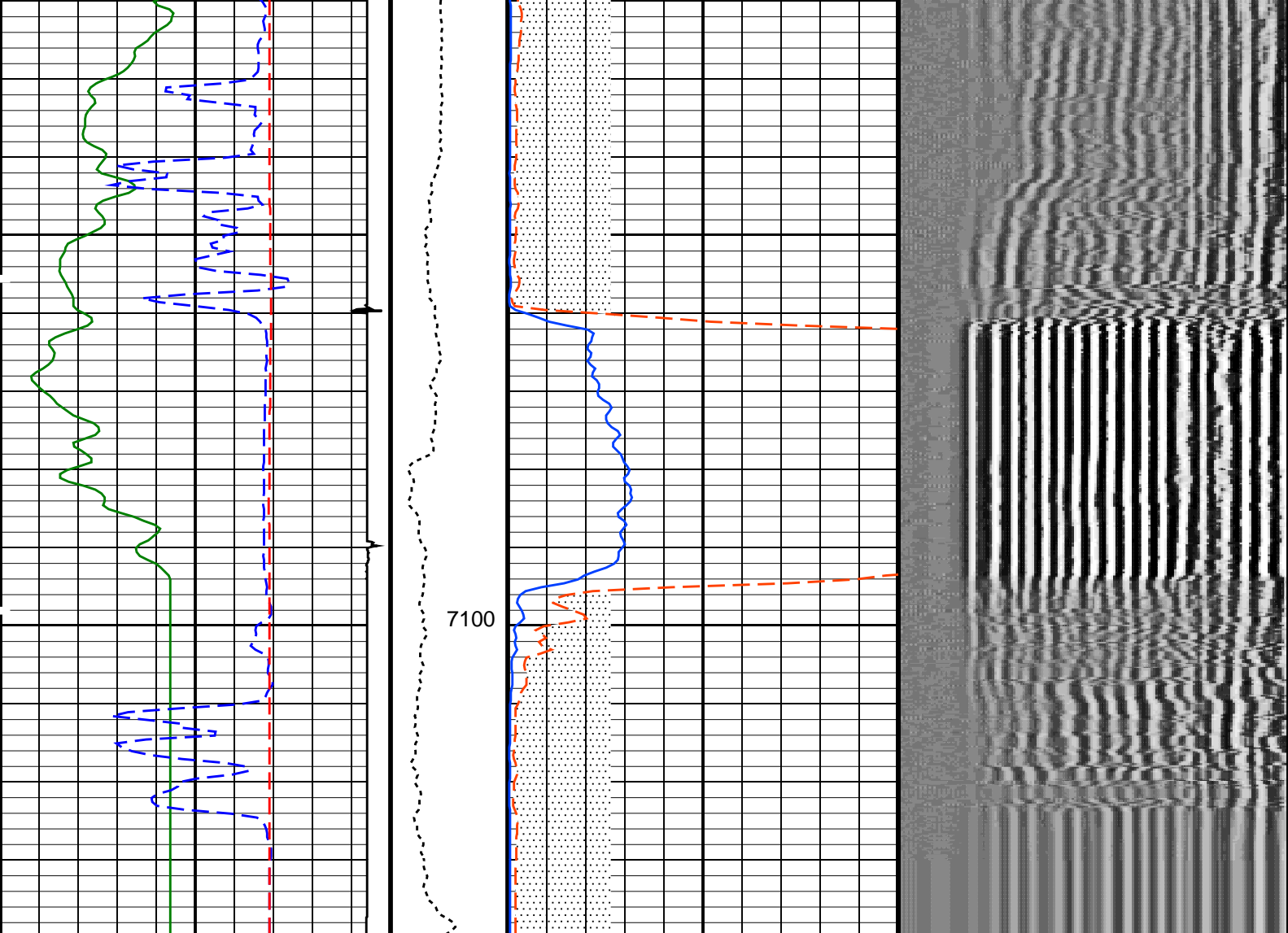
6700

6800









COLLARS From CCLD to T1	
Discriminated CCL (CCLD)	
-3.5 (V)	0.5

#### PIP SUMMARY

Time Mark Every 60 S

#### Parameters

DLIS Name	Description	Value	
SCMT-CB: Slim Cement Mapping Tool, 1-11/16 OD			
BILI	Bond Index Level for Zone Isolation	0.8	
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	243.137	US
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20	MV
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK	
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	357.137	US
CB5T	SCMT CBL 5 ft Fixed Threshold Level	20	MV
CBLC	SCMT CBL 5 ft Fixed Threshold Level	20	MV

CBLG	CBL Gate Width	40	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	71	MV
CMCF	CBL Cement Type Compensation Factor	0.190638	
CMTc	SCMT Slow Channel Multiplexer Mode	SCAN	
CMTM	SCMT Operating Mode	LOG	
CSCS	SCMT Slow Channel Index	VCC	
CTHI	Casing Thickness	0.306128	IN
DTF	Delta-T Fluid	204.5	US/F
FATT	Acoustic Attenuation due to Fluid	0	DB/F
FCF	CBL Fluid Compensation Factor	1	
GOBO	Good Bond	2.61257	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	186.137	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	8.59858	DB/F
MCCF	MAP Cement Type Compensation Factor	0.348885	
MCI	Minimum Cemented Interval for Isolation	4.75	FT
MMSA	MAP Minimum Sonic Amplitude	7.2608	MV
MSA	Minimum Sonic Amplitude	1.14425	MV
PEDE	Peak Detection On/Off Switch in Playback	OFF	
VDLG	VDL Manual Gain	5	
ZCMT	Acoustic Impedance of Cement	3.65	MRAY
System and Miscellaneous			
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	17.00	LB/F
DFD	Drilling Fluid Density	8.40	LB/G
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	-50000	FT

Format: CBL\_VDL      Vertical Scale: 5" per 100'      Graphics File Created: 08-Aug-2013 15:15

## OP System Version: 19C2-270

SCMT-CB	19C2-270	RST-C	19C2-270
PSPT	19C2-270		

### Input DLIS Files

DEFAULT	SCMT_RST_PSP_006LUP	FN:5	PRODUCER	08-Aug-2013 13:17	7139.5 FT	1614.5 FT
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### Output DLIS Files

DEFAULT	SCMT_RST_PSP_007PUP	FN:6	PRODUCER	08-Aug-2013 15:15
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**Schlumberger**

**REPEAT PASS  
0 PSI**

MAXIS Field Log

Company: Pine Ridge Oil & Gas LLC      Well: Surprise 12-54-36-

### Input DLIS Files

DEFAULT	SCMT_RST_PSP_004LUP	FN:3	PRODUCER	08-Aug-2013 11:37	7138.5 FT	6784.2 FT
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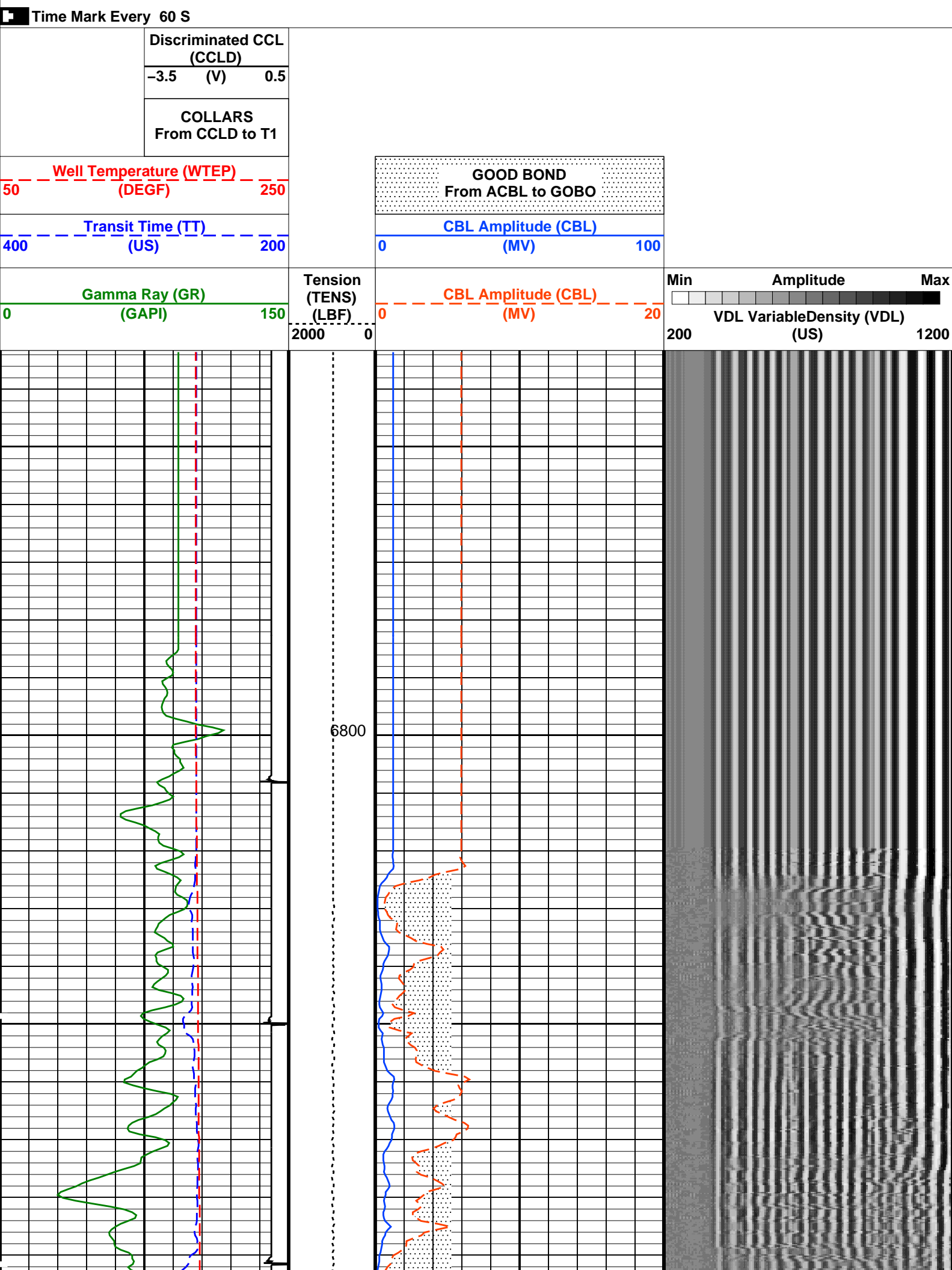
### Output DLIS Files

DEFAULT	SCMT_RST_PSP_012PUP	FN:11	PRODUCER	08-Aug-2013 15:40	7138.5 FT	6733.0 FT
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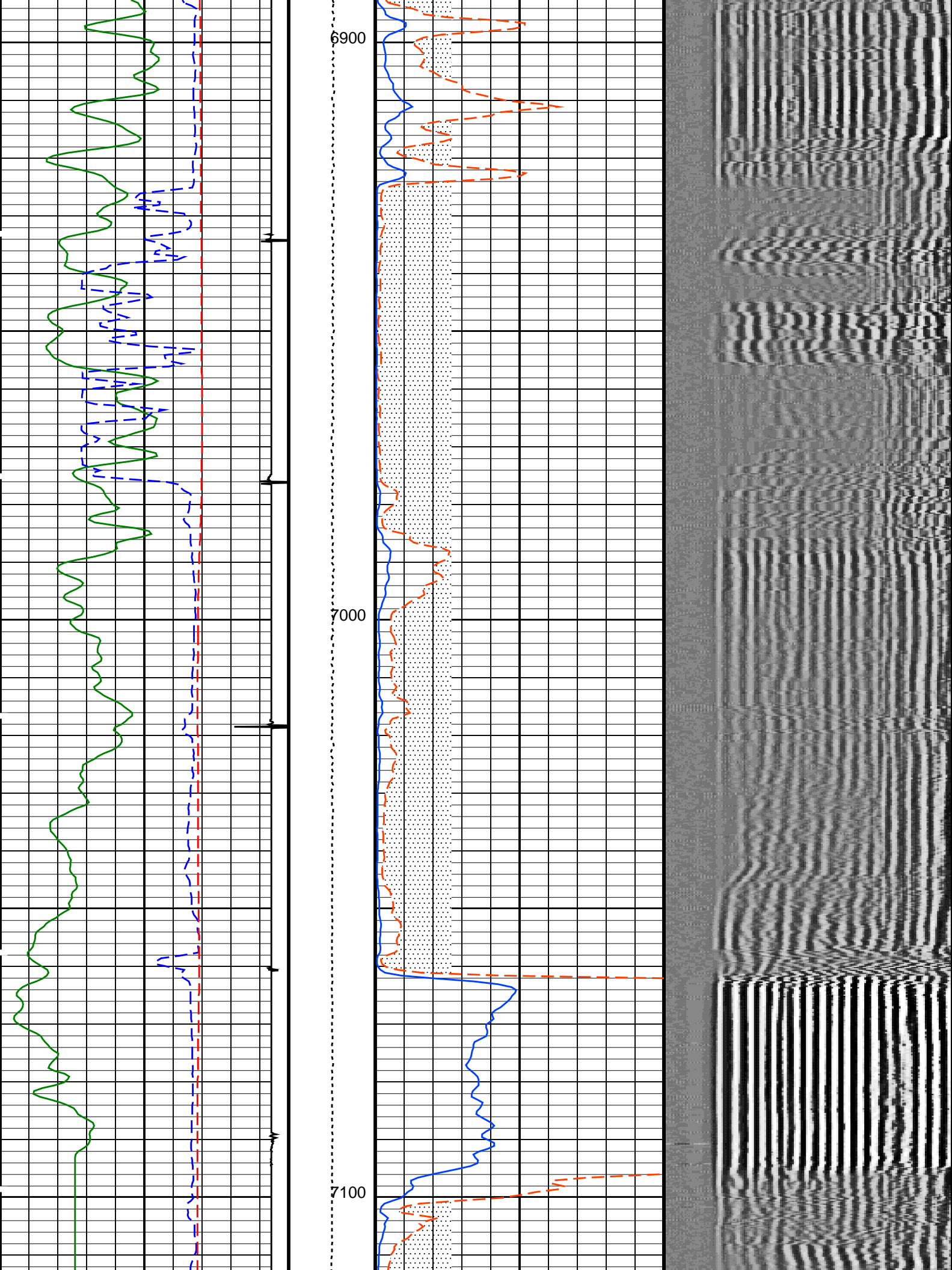
## OP System Version: 19C2-270

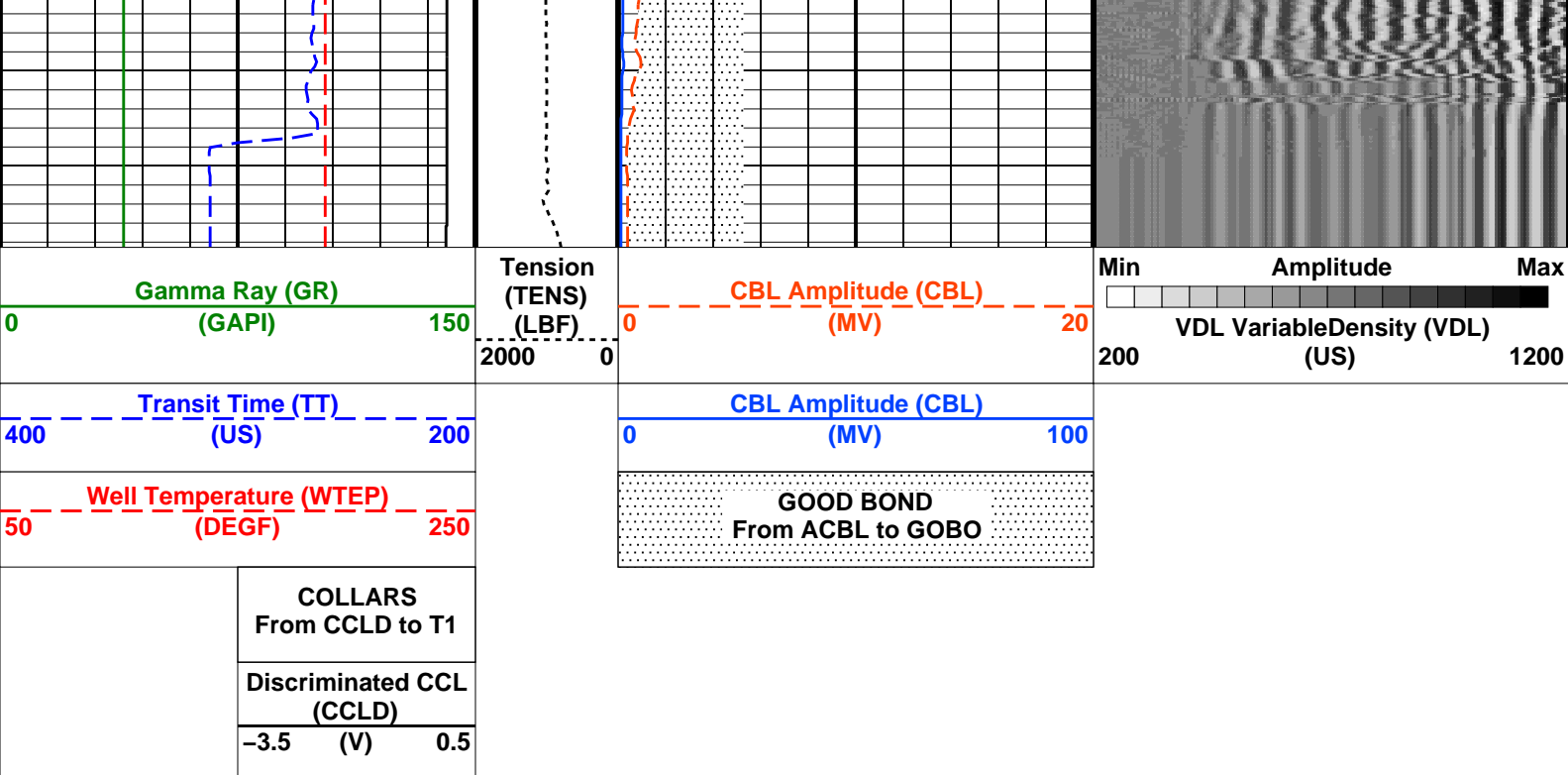
SCMT-CB	19C2-270	RST-C	19C2-270
PSPT	19C2-270		

PIP SUMMARY









### PIP SUMMARY

Time Mark Every 60 S

### Parameters

DLIS Name	Description	Value
SCMT-CB: Slim Cement Mapping Tool, 1-11/16 OD		
BILI	Bond Index Level for Zone Isolation	0.8
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	243.137 US
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20 MV
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	357.137 US
CB5T	SCMT CBL 5 ft Fixed Threshold Level	20 MV
CBLG	CBL Gate Width	40 US
CBRA	CBL LQC Reference Amplitude in Free Pipe	71 MV
CMCF	CBL Cement Type Compensation Factor	0.190638
CMTC	SCMT Slow Channel Multiplexer Mode	SCAN
CMTM	SCMT Operating Mode	LOG
CSCS	SCMT Slow Channel Index	VCC
CTHI	Casing Thickness	0.306128 IN
DTF	Delta-T Fluid	204.5 US/F
FATT	Acoustic Attenuation due to Fluid	0 DB/F
FCF	CBL Fluid Compensation Factor	1
GOBO	Good Bond	2.61257 MV
MAPD	SCMT MAP Peak Detection Mode	PEAK
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	186.137 US
MAPT	SCMT MAP Fixed Threshold Level	30 MV
MATT	Maximum Attenuation	8.59858 DB/F
MCCF	MAP Cement Type Compensation Factor	0.348885
MCI	Minimum Cemented Interval for Isolation	4.75 FT
MMSA	MAP Minimum Sonic Amplitude	7.2608 MV
MSA	Minimum Sonic Amplitude	1.14425 MV
PEDE	Peak Detection On/Off Switch in Playback	OFF
VDLG	VDL Manual Gain	5
ZCMT	Acoustic Impedance of Cement	3.65 MRAY
System and Miscellaneous		
CSIZ	Current Casing Size	5.500 IN
CWEI	Casing Weight	17.00 LB/F
DFD	Drilling Fluid Density	8.40 LB/G
DO	Depth Offset for Playback	0.0 FT
PP	Playback Processing	RECOMPUTE
TD	Total Depth	-50000 FT

Format: CBL\_VDL Vertical Scale: 5" per 100'

Graphics File Created: 08-Aug-2013 15:40

OP System Version: 19C2-270

## Input DLIS Files

DEFAULT	SCMT_RST_PSP_004LUP	FN:3	PRODUCER	08-Aug-2013 11:37	7138.5 FT	6784.2 FT
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## Output DLIS Files

DEFAULT	SCMT_RST_PSP_012PUP	FN:11	PRODUCER	08-Aug-2013 15:40
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Company: **Pine Ridge Oil & Gas LLC**

# Schlumberger

Well: **Surprise 12-54-36-6**

Field: **Long Shadow**

County: **Lincoln**

State: **Colorado**

## CEMENT BOND

# GAMMA RAY

# CASING COLLAR LOG