



FILE NO:	COMPANY		TEP ROCKY MOUNTAIN LLC
API NO:	WELL		YUENBERG SR 444-12
05045232530000	FIELD		RULISON
	COUNTY		GARFIELD
	STATE		COLORADO
Ver. 4.06	LOCATION:		OTHER SERVICES
	SHL:1923FSL & 148FWL SEC7 T7S R93W		RPM
	BHL:427FSL & 254FEL SEC12 T7S R94W		
	SEC 12	TWP 7S	RGE 94W
PERMANENT DATUM	GL	ELEVATION	7357 FT
LOG MEASURED FROM	KB	24 FT	ABOVE P.D.
DRILL. MEAS. FROM	KB		
		ELEVATIONS:	KB 7381 FT
		DF	
		GL	7357 FT
DATE	16-DEC-2016		
RUN	TRIP	1	2
SERVICE ORDER	US110557		
DEPTH DRILLER	9680 FT		
DEPTH LOGGER	9705 FT		
BOTTOM LOGGED INTERVAL	9702 FT		
TOP LOGGED INTERVAL	24 FT		
TIME STARTED	6:00		
TIME FINISHED	9:00		
OPERATOR RIG TIME	3 HRS		
TYPE OF FLUID IN HOLE	WATER		
FLUID DENSITY	NA		
FLUID SALINITY	NA		
FLUID LEVEL	54 FT		
LOGGED CEMENT TOP	SEE LOG		
WELLHEAD PRESSURE	0 PSI		
MAXIMUM HOLE DEVIATION	NA		
NOMINAL LOGGING SPEED	100 F/MN		
MAX. RECORDED TEMP.	249 DEGF		
REFERENCE LOG	NA		
REFERENCE LOG DATE	NA		
EQUIP. NO.	LOCATION	HL-6670	WOODWARD
RECORDED BY	M. MENTZER		
WITNESSED BY	MR. COLE APPELEGATE		

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

BOREHOLE RECORD		
BIT SIZE	FROM	TO
13.5 IN	0 FT	1124 FT
8.75 IN	1124 FT	9680 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN	-	-	0 FT	1124 FT
4.5 IN	-	-	0 FT	9680 FT

REMARKS

RUN 1 TRIP 2: *2 OPERATIONS IN WELL*

OPERATION 2: RAL/GR/CCL RUN CENTRALIZED

WELL LOGGED WITH 0 PSI ON THE WELLHEAD

BHT: 249 DEGF

SHORT JOINT: 5689' - 5711'

CREW: D.HUTCHISON, K.NUTTER

EQUIPMENT DATA					
RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	2	RAL	1426 XA	10154957	CENTRALIZED
1	2	GR/CCL	1355 XA	12670180	CENTRALIZED

MAIN LOG 0 PSI

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1 Patches: 9

Plotted: Fri Dec 16 09:00:51 2016

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/TEP_YOUBERG_SR_444_12/n012g02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 21.000 ft BOTTOM DEPTH: 9718.084 ft

SYMMETRIC FILTER					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
AMPLITUDE	FILTER ()	medium (1)		"	"
TRAVEL TIME	FILTER ()	medium (1)		"	"

RAL CCL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CCL FLOOR	CCL FLOOR	0		TOP	BOTTOM

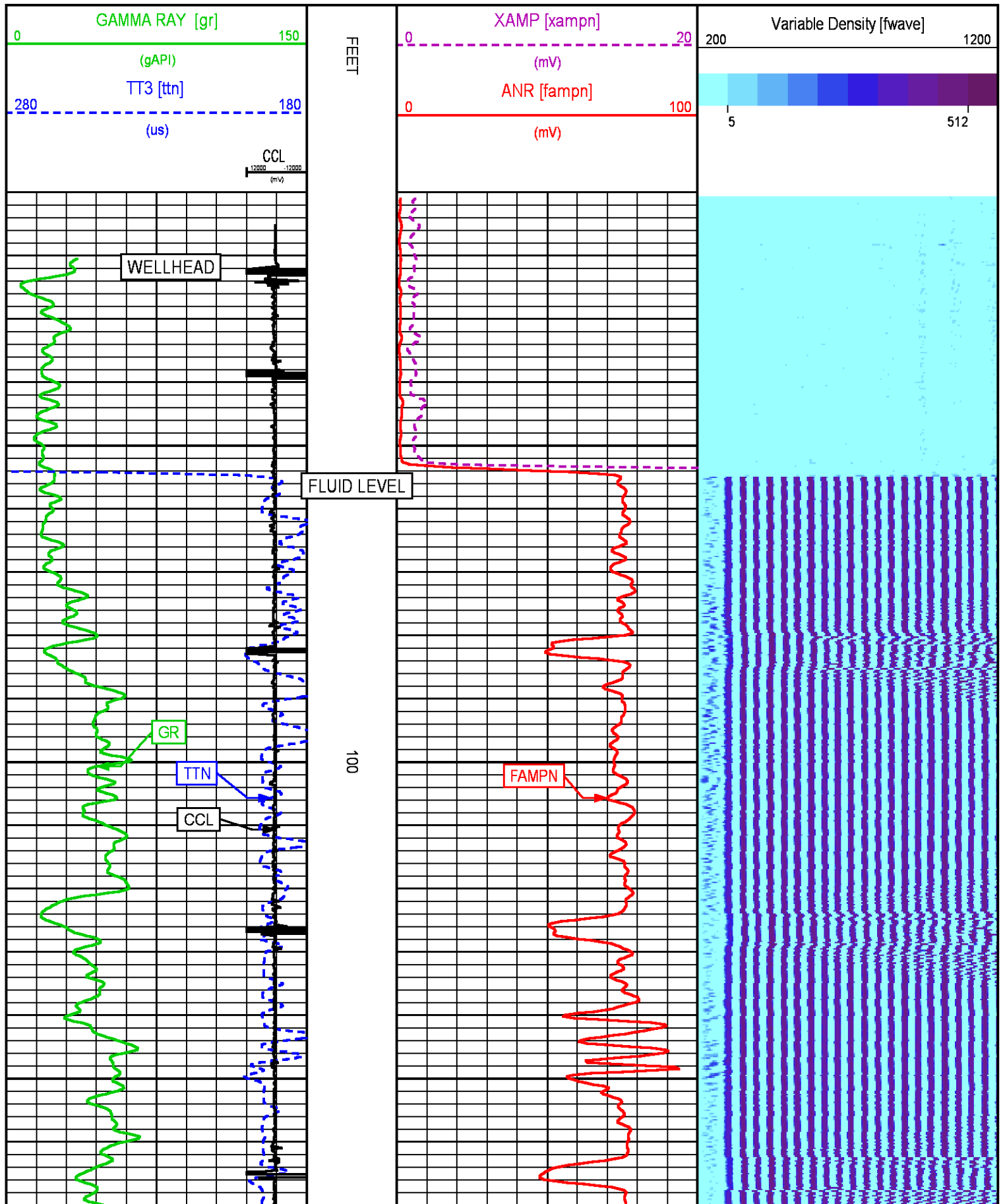
ANALOG RAL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
AMPLITUDE WINDOW (NEAR)	AMP WINDOW START (fgpn*)	180	us	TOP	BOTTOM
	AMP WINDOW LENGTH	25	us	"	"
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	160	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"
RAL TOOL DELAY	TOOL DELAY (strn*)	-75	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	125	us	"	"
	NOISE WINDOW LENGTH	25	us	"	"

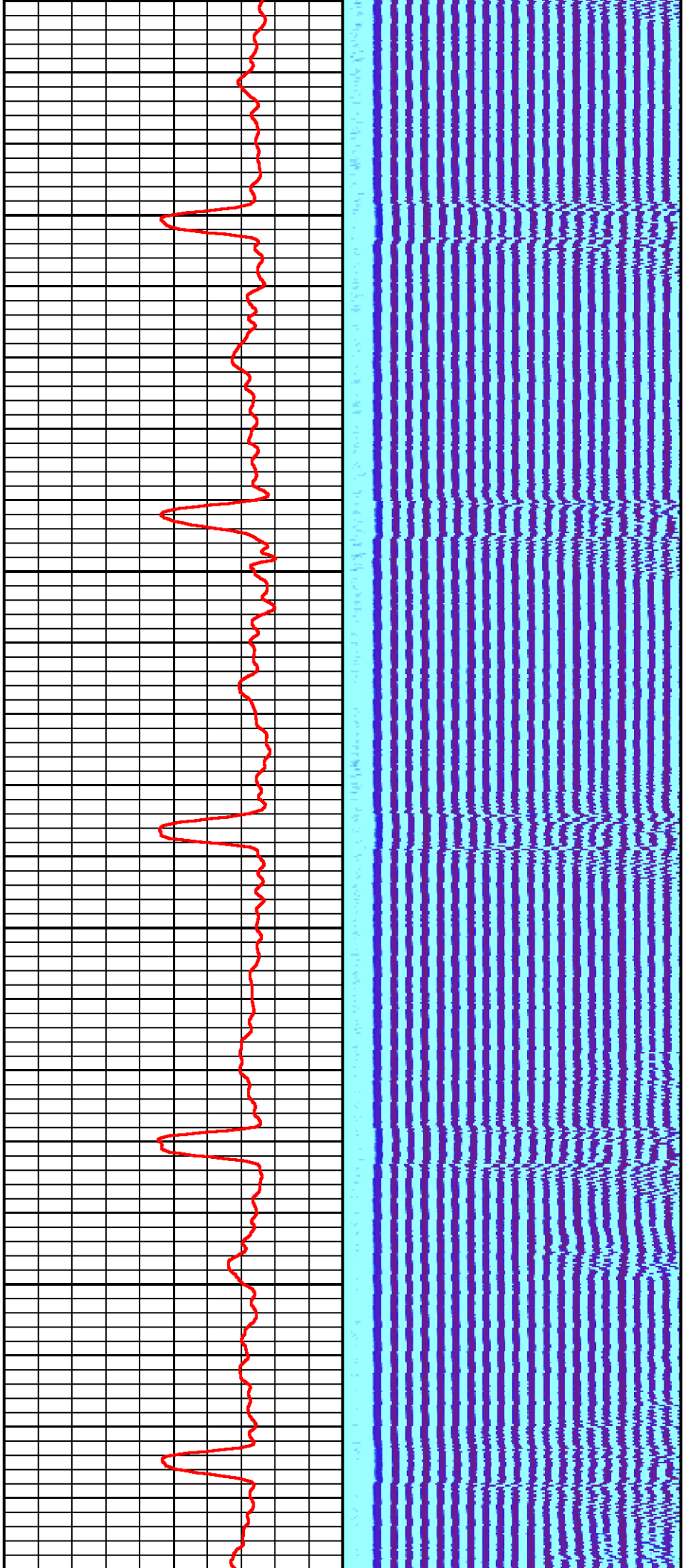
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Dec 16 06:24:25 2016	CASING COLLAR LOCATOR
F1:FAMPN	Dec 16 06:24:25 2016	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Dec 16 06:24:25 2016	FAR WAVE FORM
F1:GR	Dec 16 06:24:25 2016	GAMMA RAY
F1:TTN	Dec 16 06:24:25 2016	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Dec 16 06:24:25 2016	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	5.75	GR	1.75	XAMPN	11.25		
FAMPN	11.25	TTN	11.25				

Presentation : cpu100:ral_cbl+01-MAIN-RAL_MN-3.rvpdr [5 /100 Scale]
Plot Interval : 10.75 - 9716.5 Feet

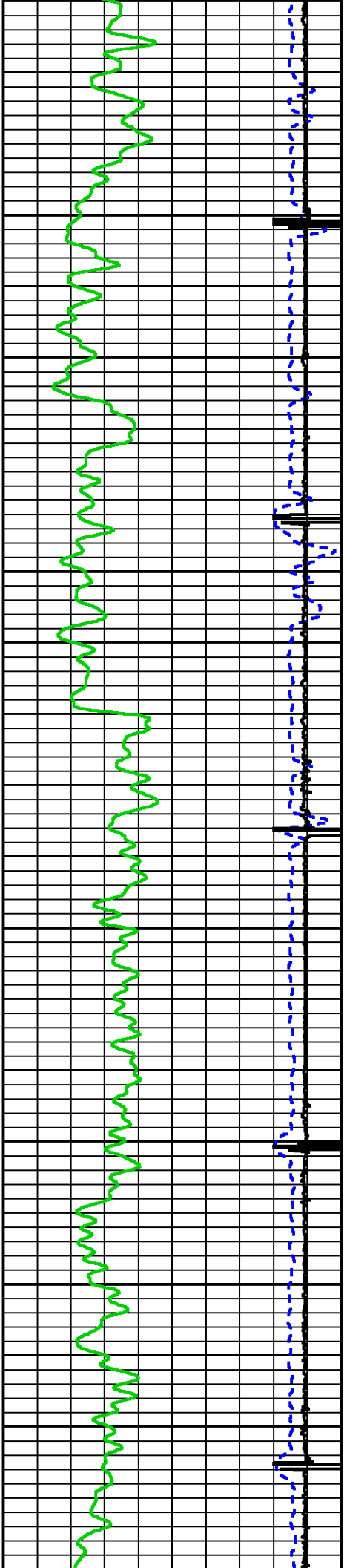
Data File 1 : F1 : cpu100:/dat1a/TEP_YOUBERG_SR_444_12/RAL_MN.xtf
Created On : Dec 16 06:24:25 2016
Company : TEP
Well : YOUBERG SR 444-12
Field : RULISON
File Interval : 9.75 - 9718 Feet
OCT : n012g

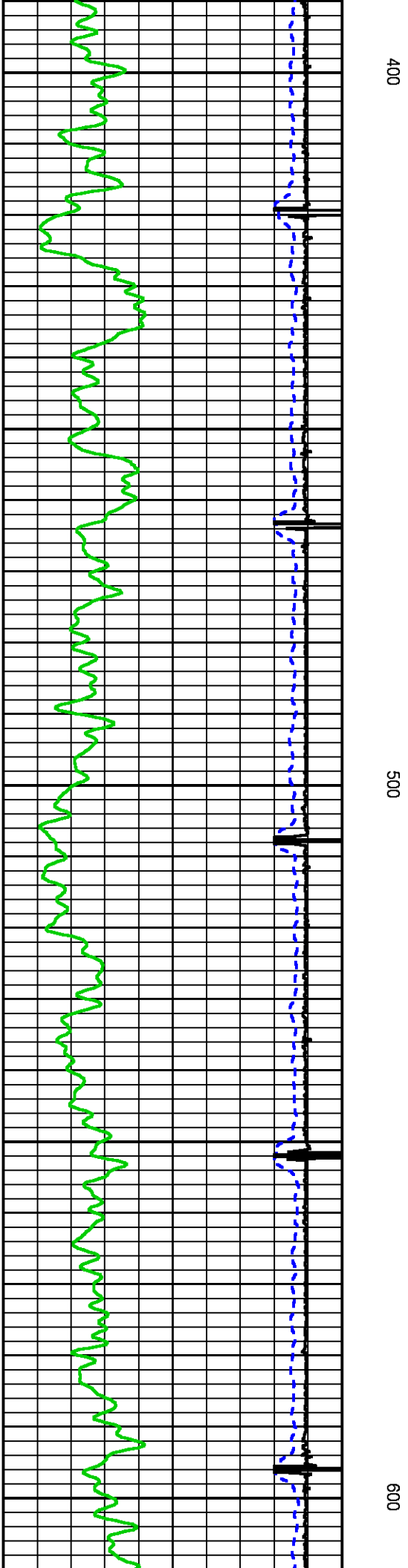
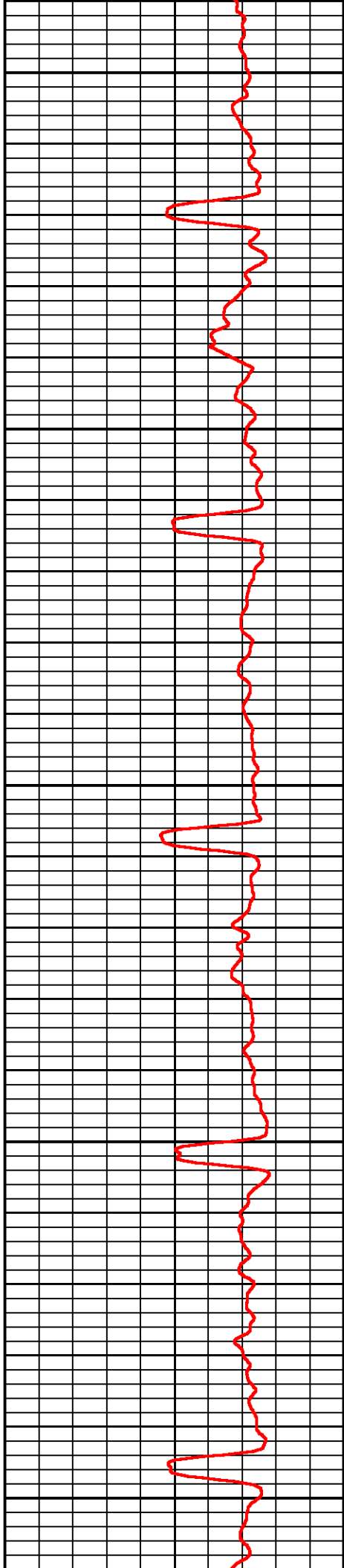
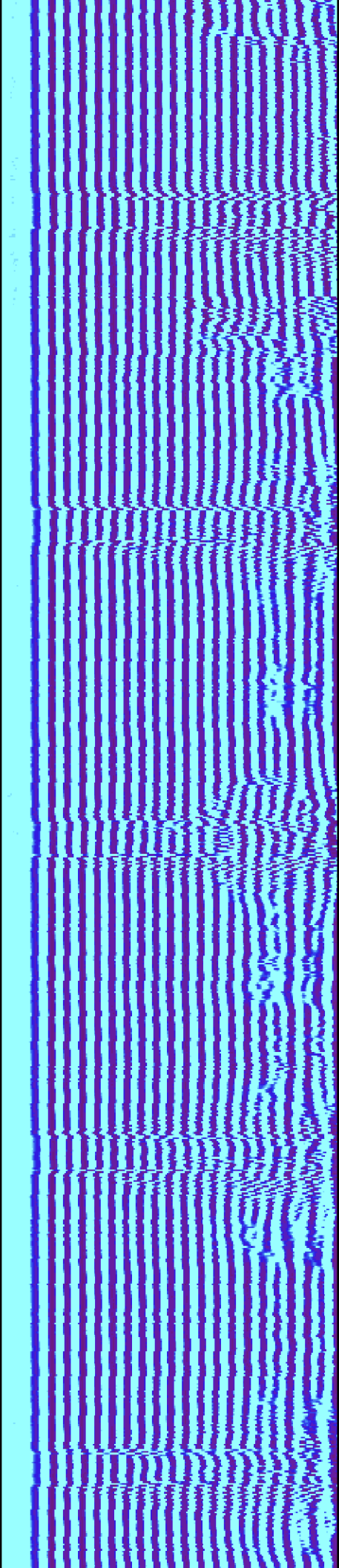


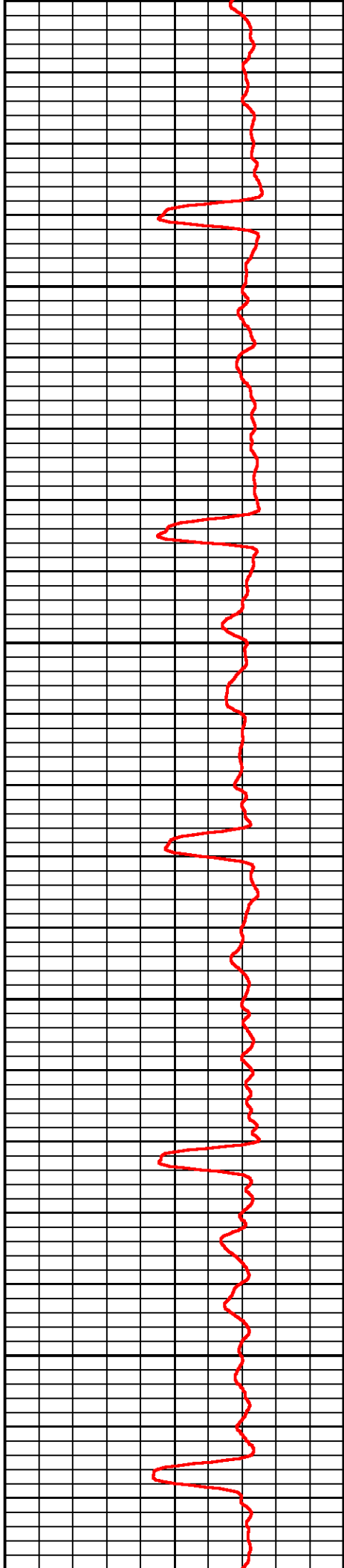
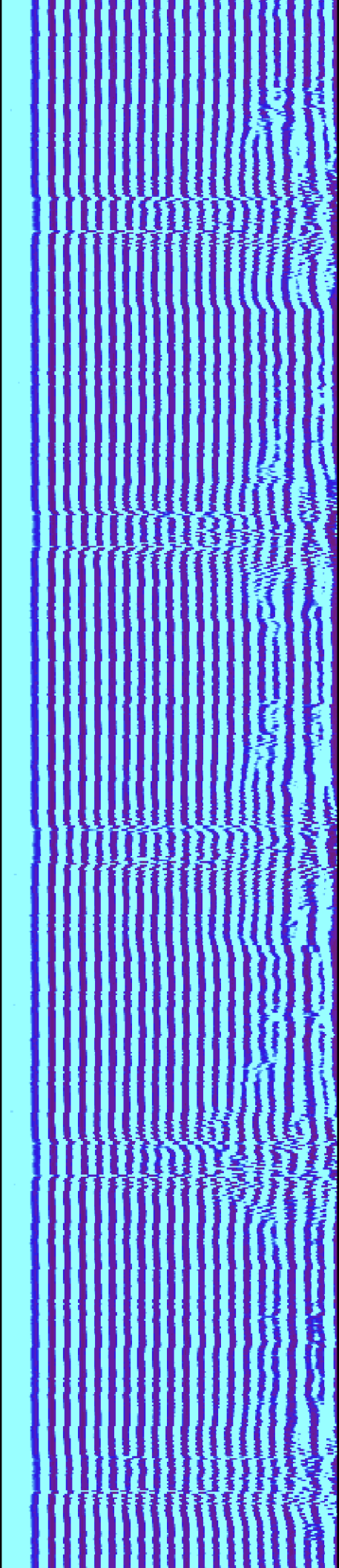


200

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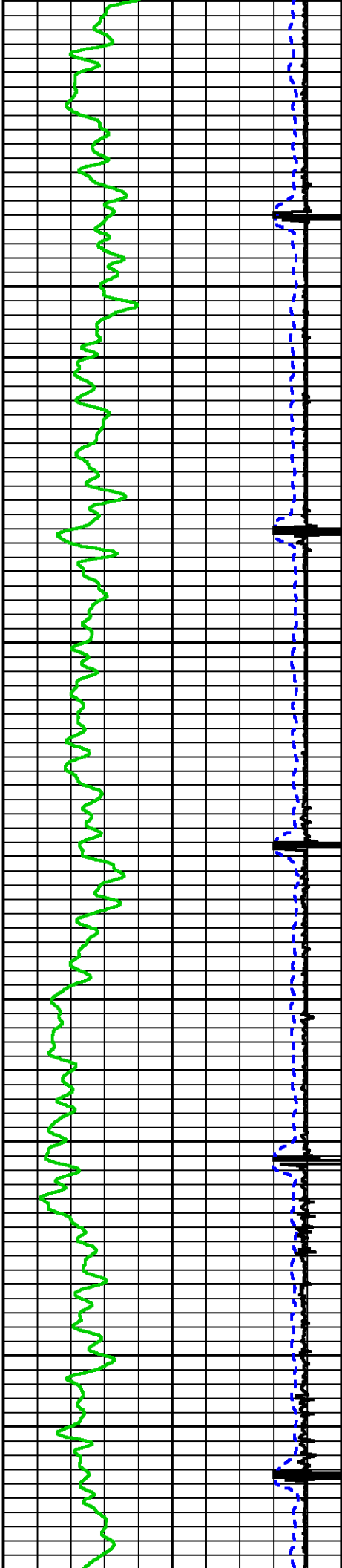


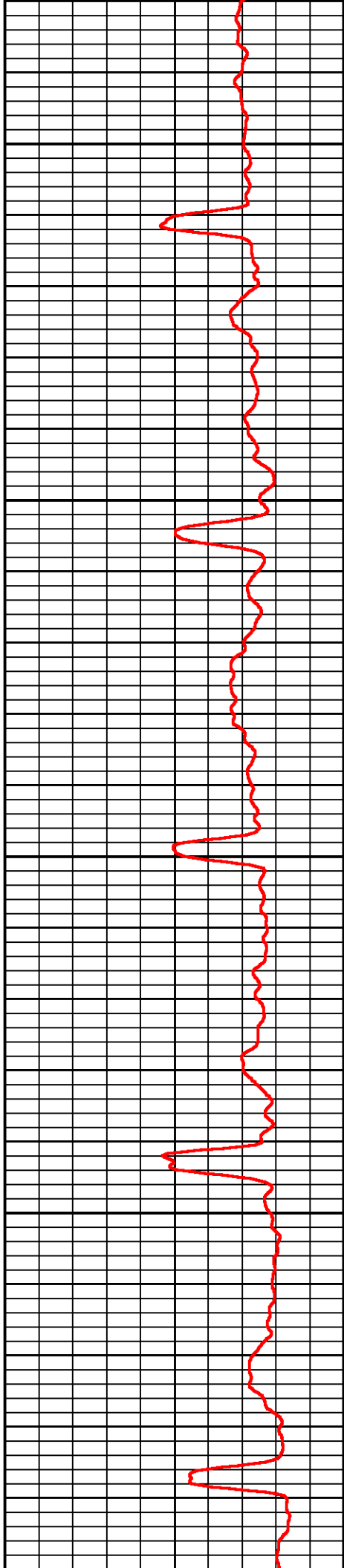
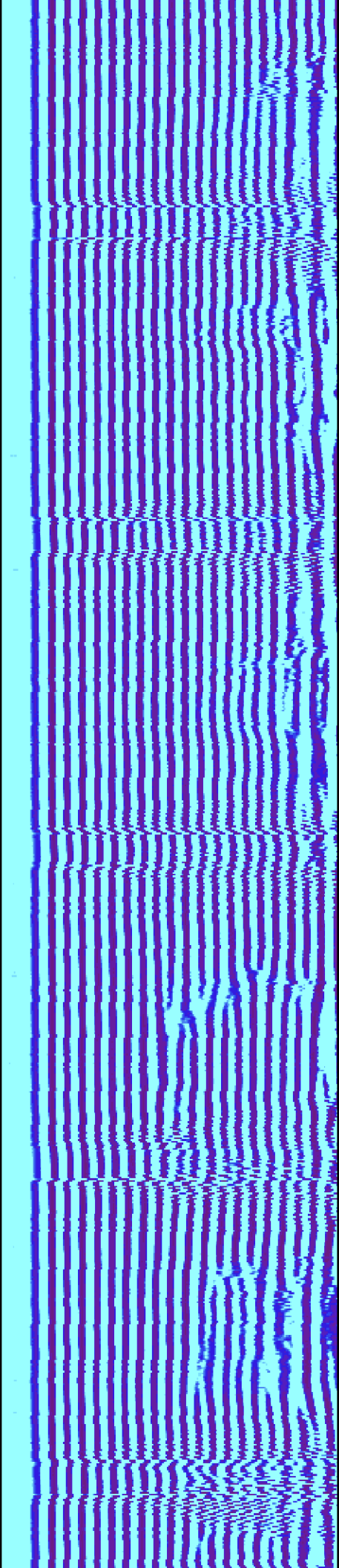




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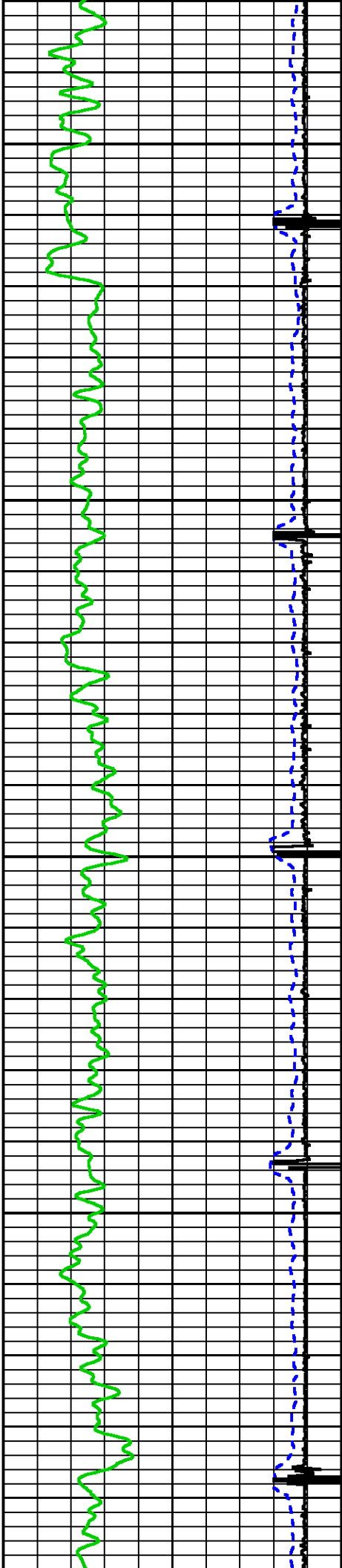
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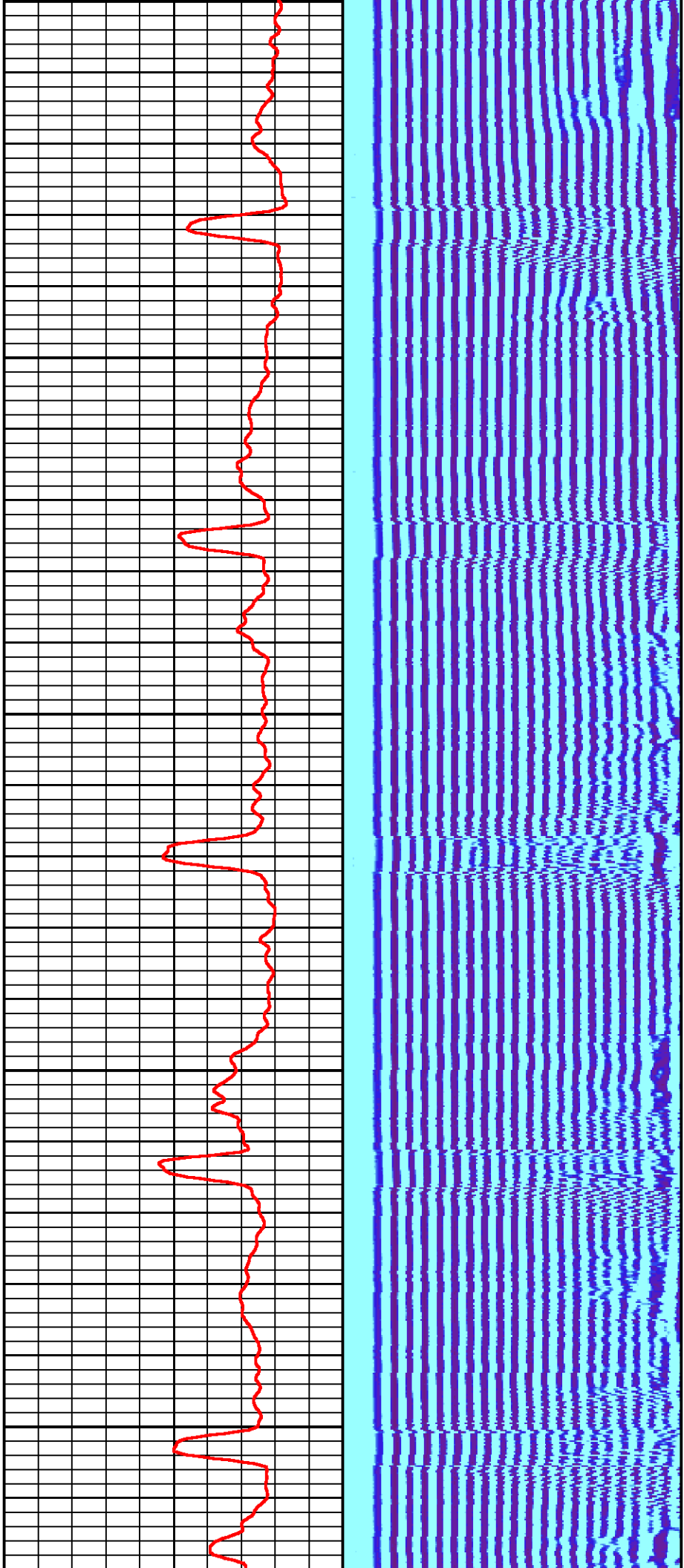




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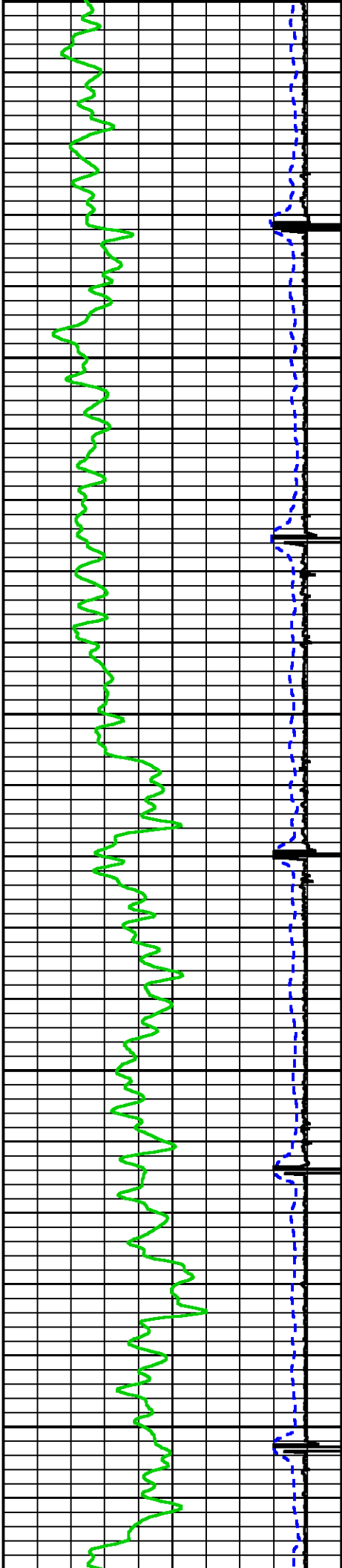
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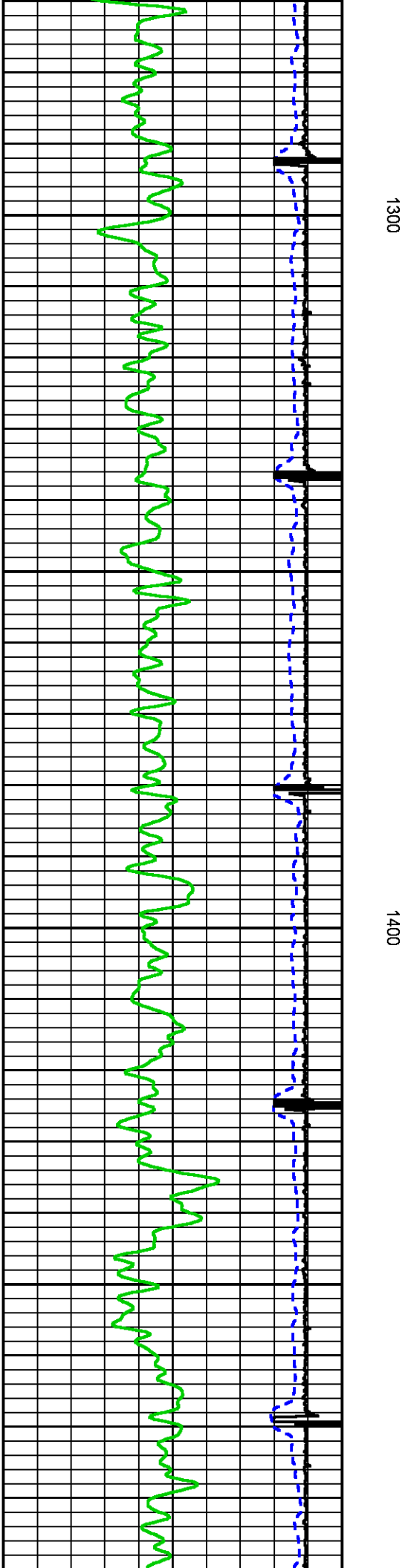
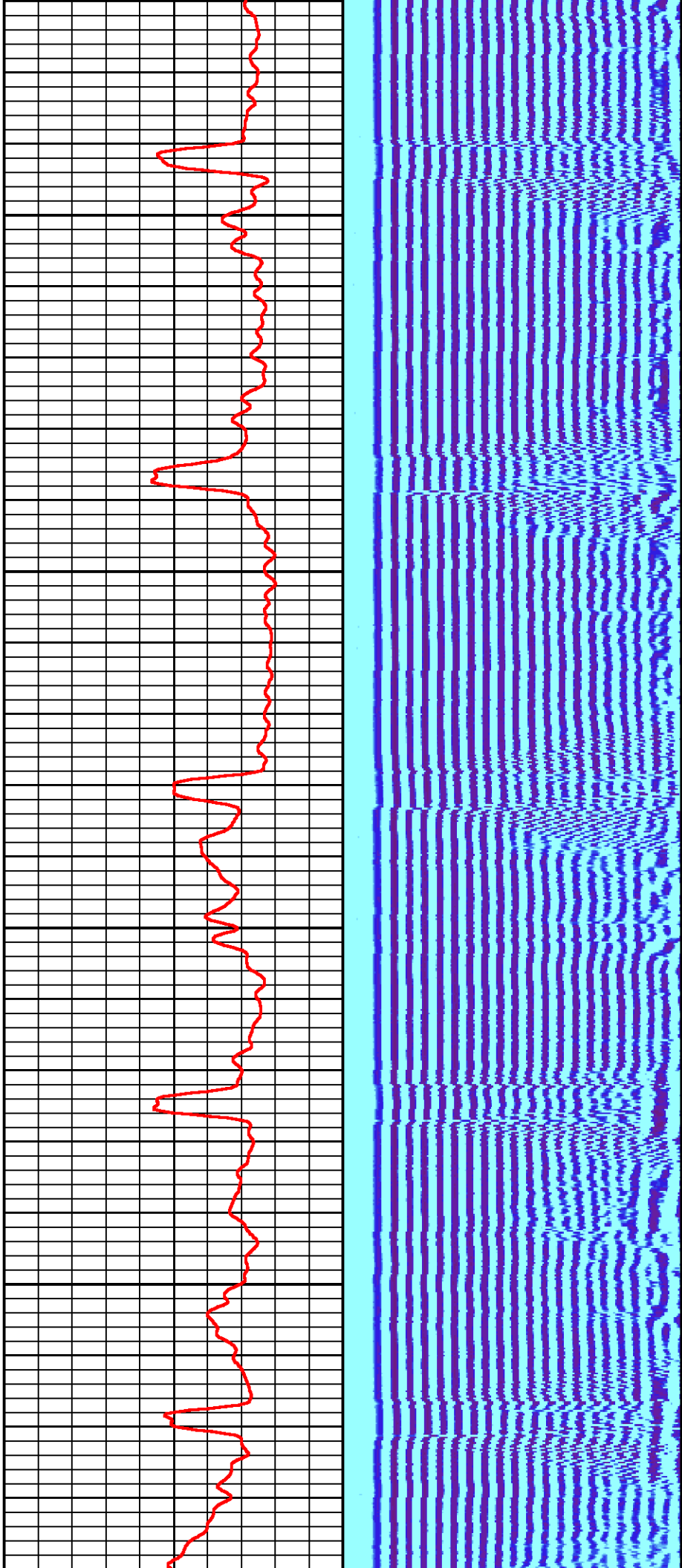


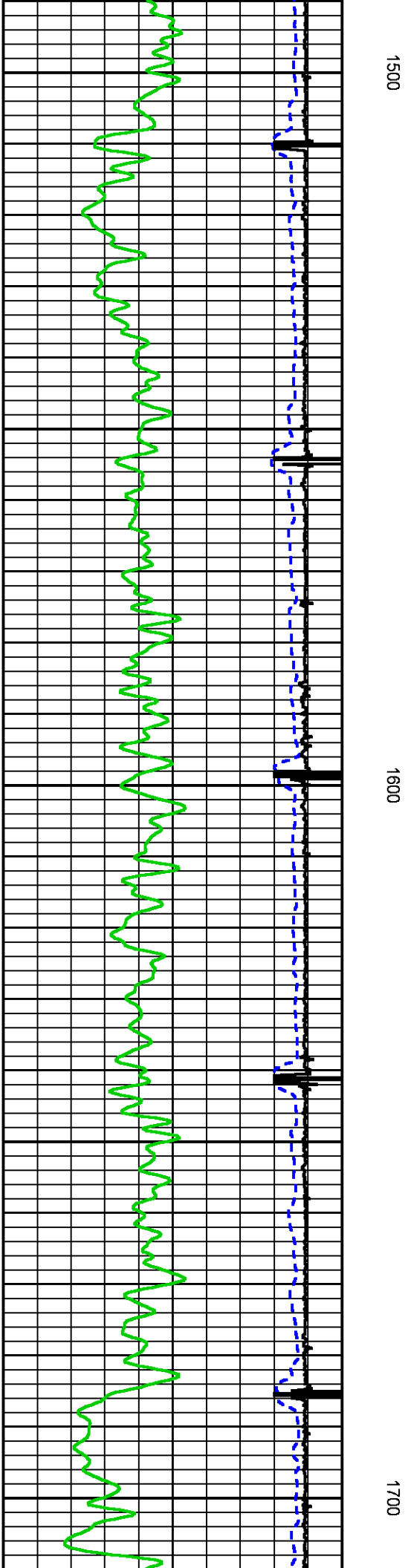
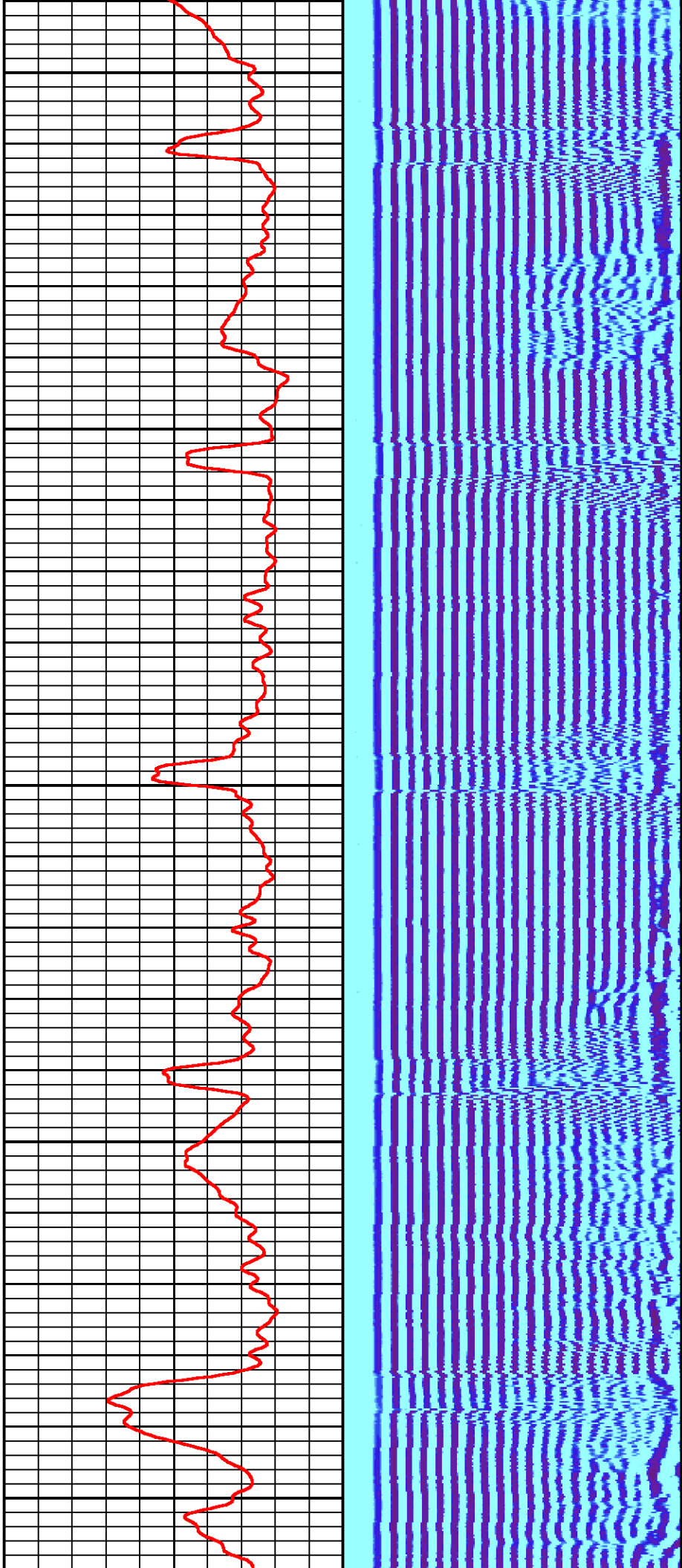


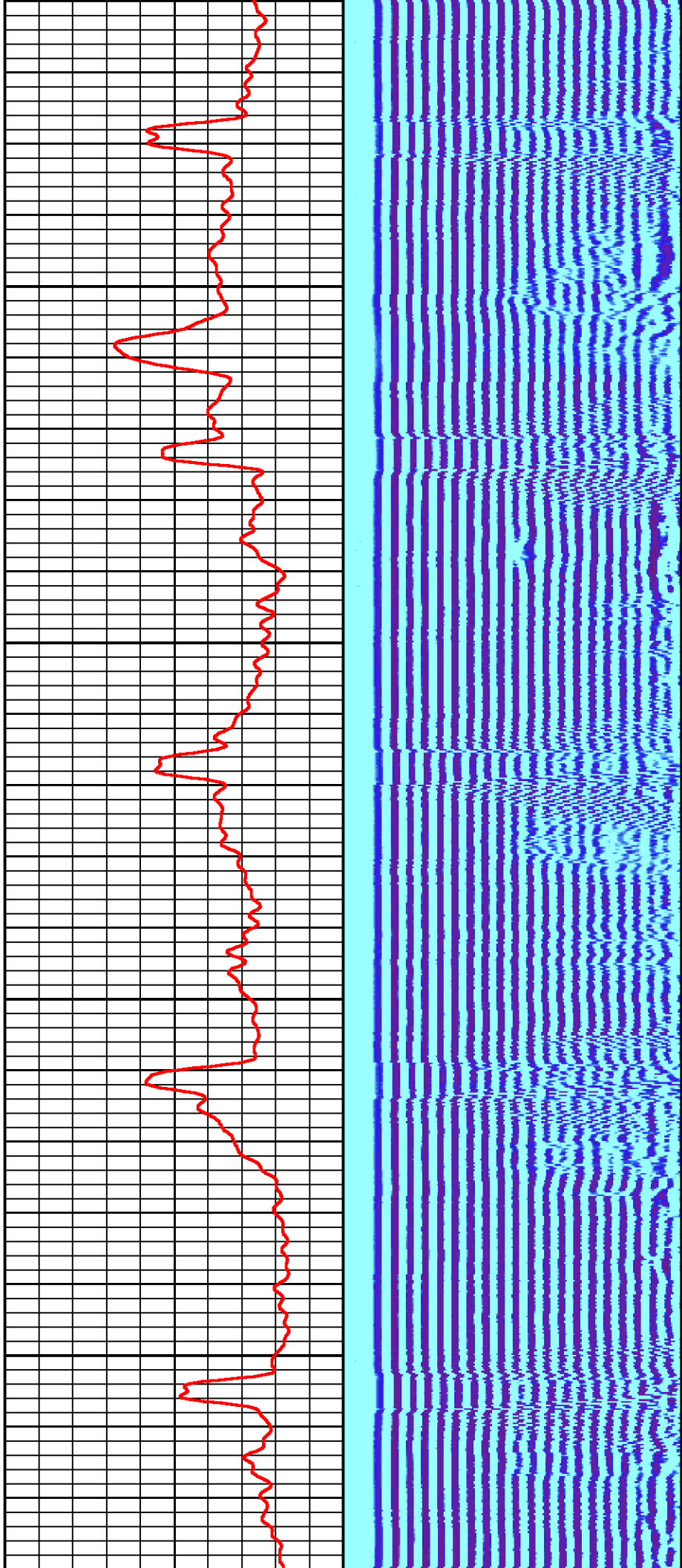
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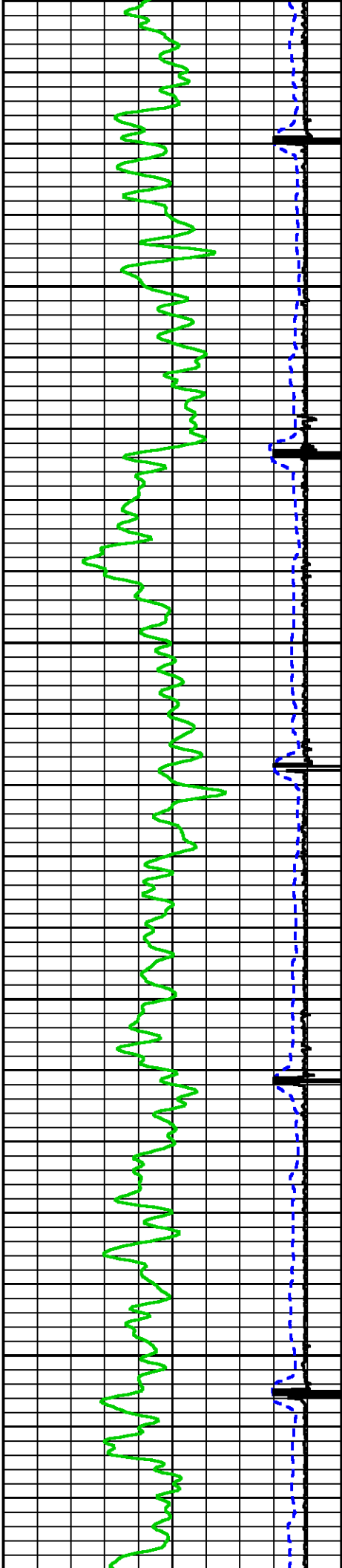


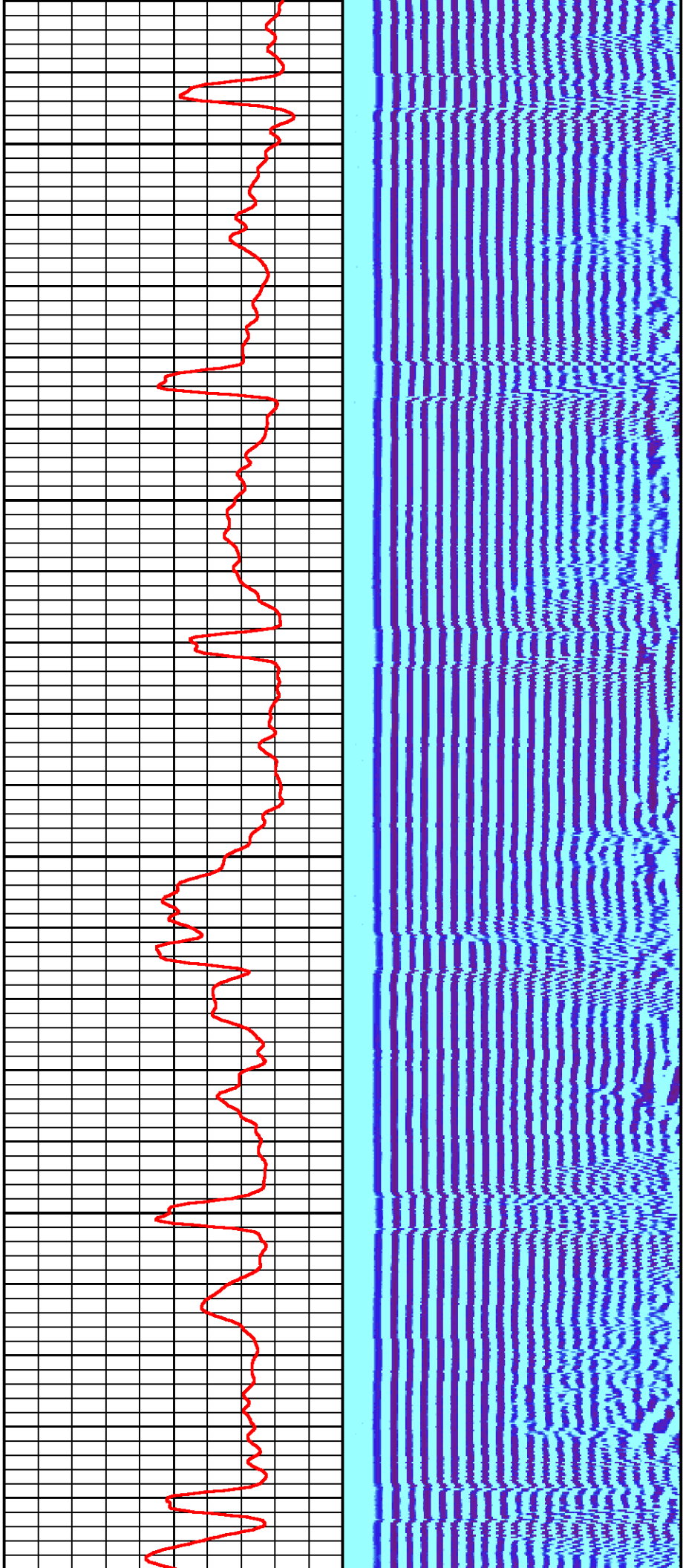




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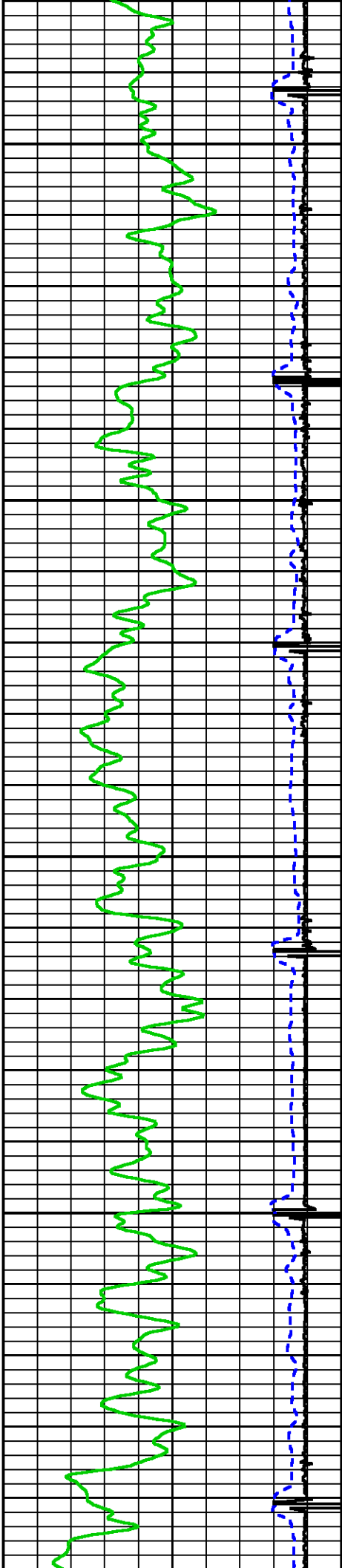
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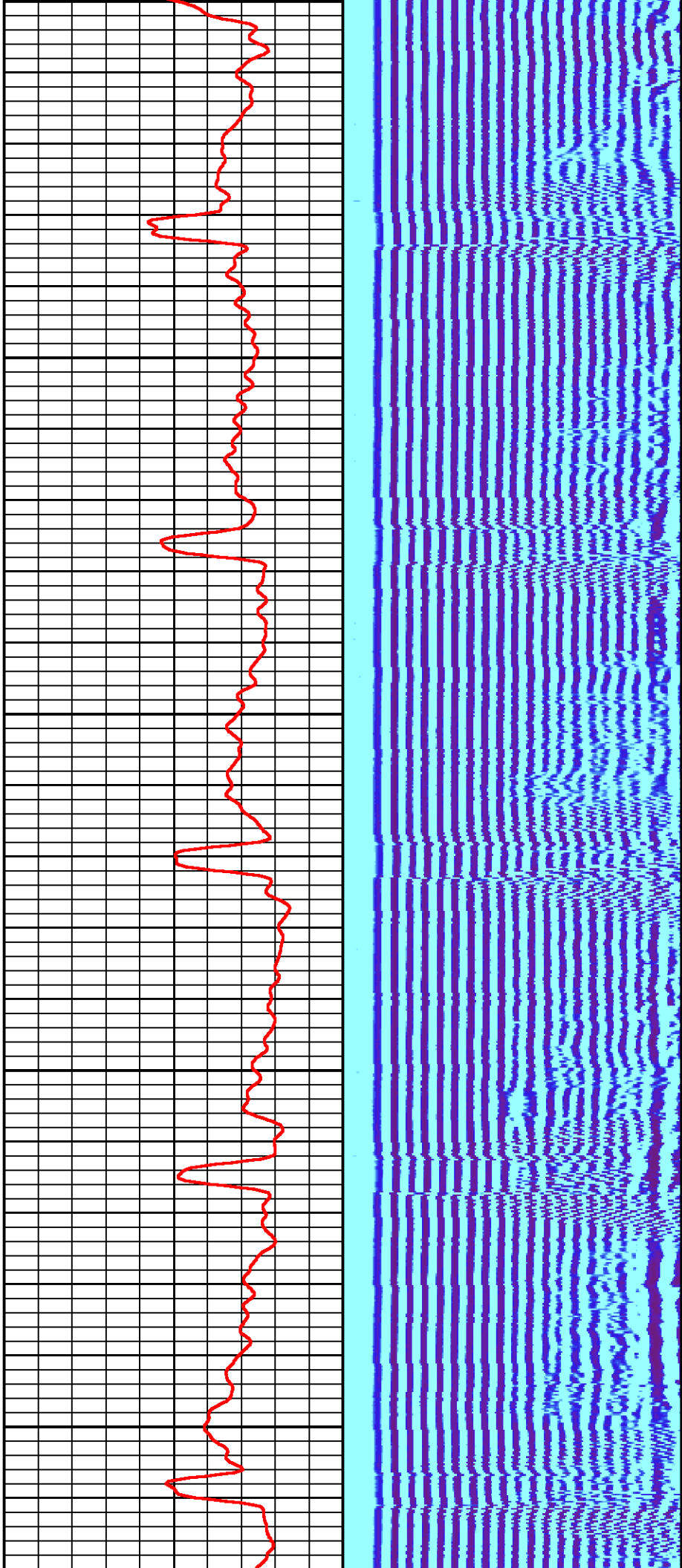




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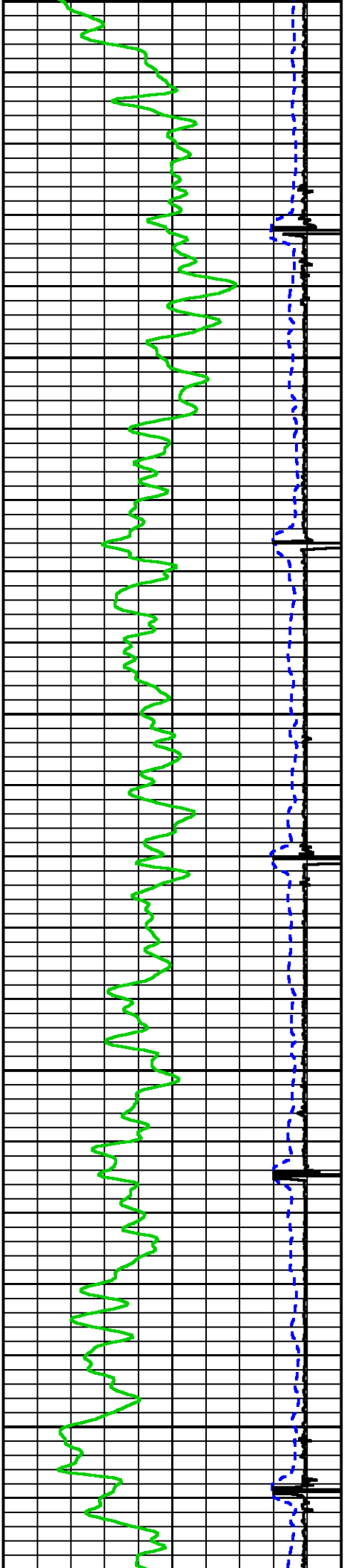
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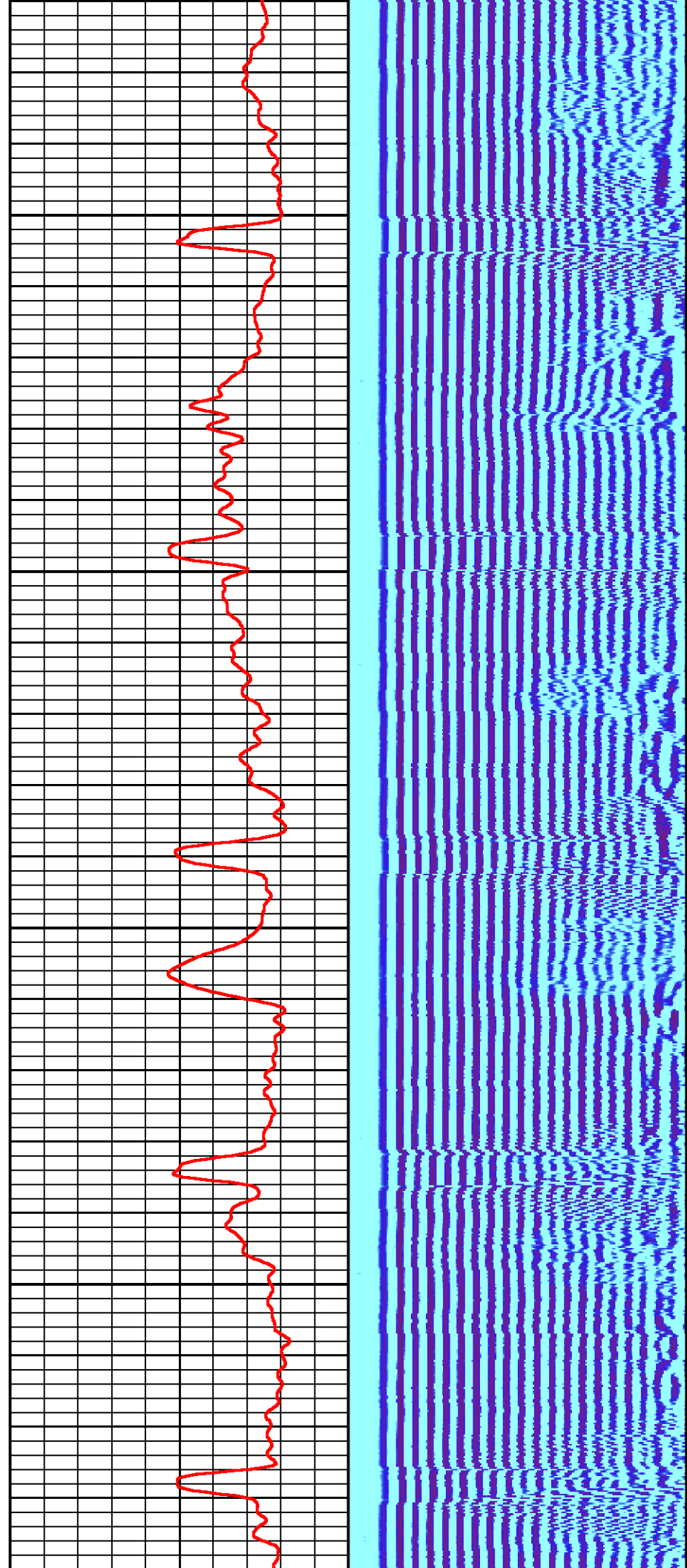




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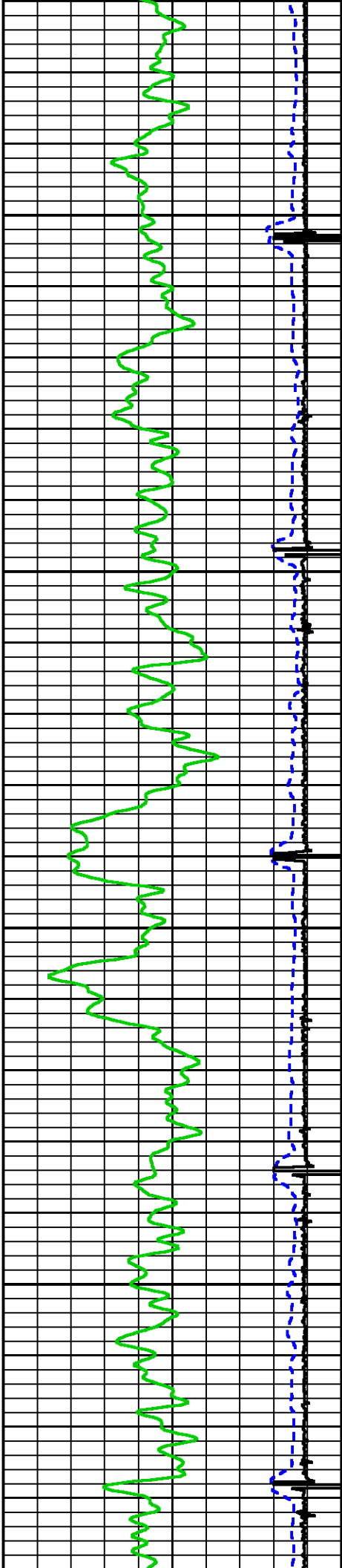
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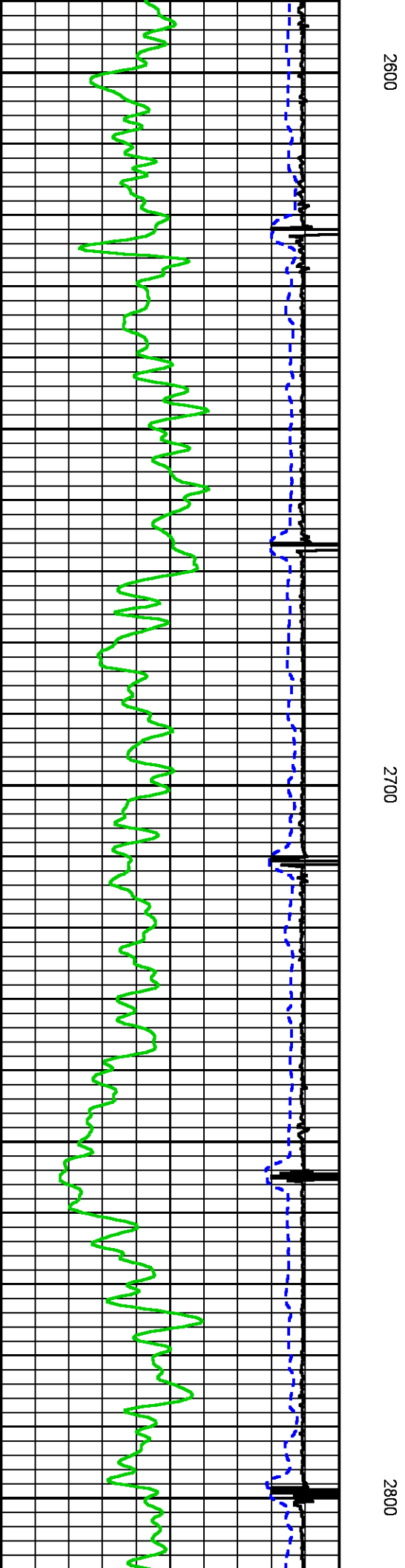
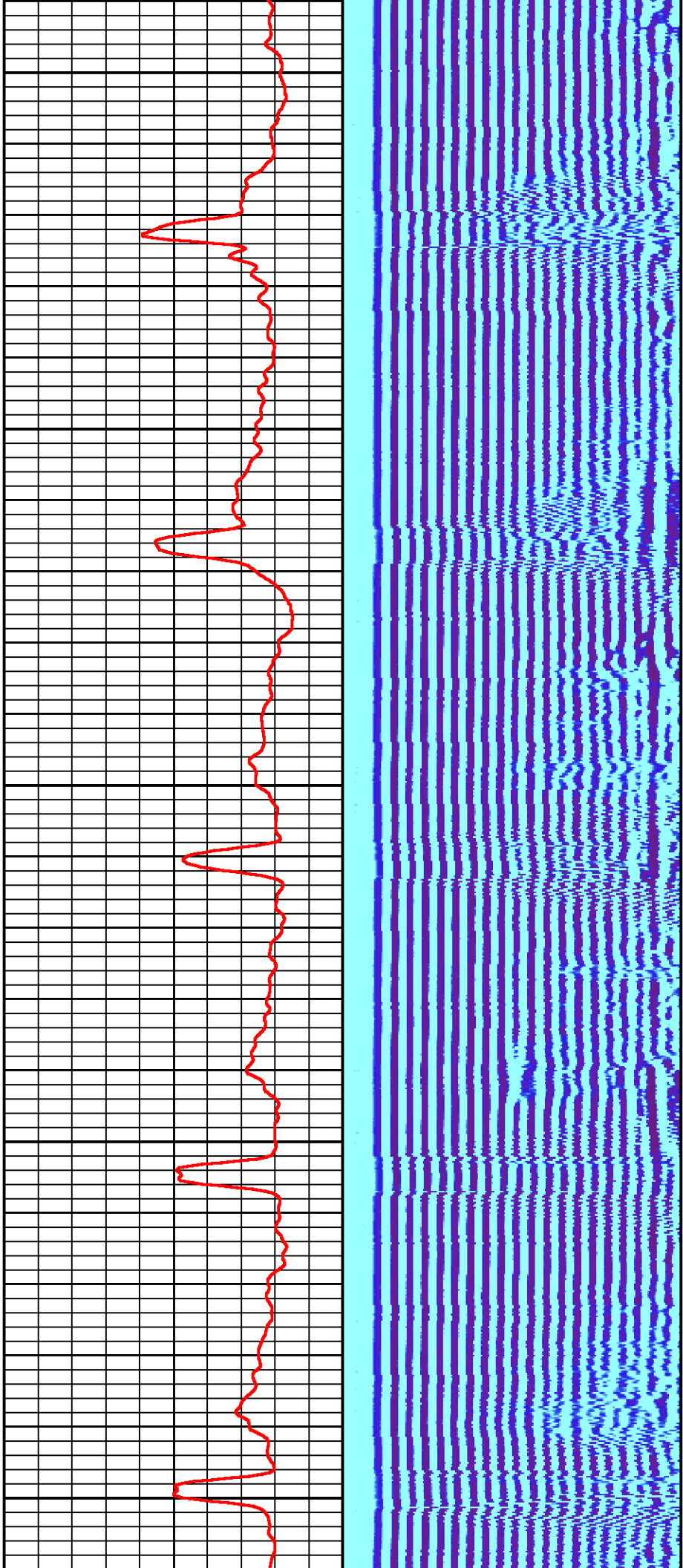


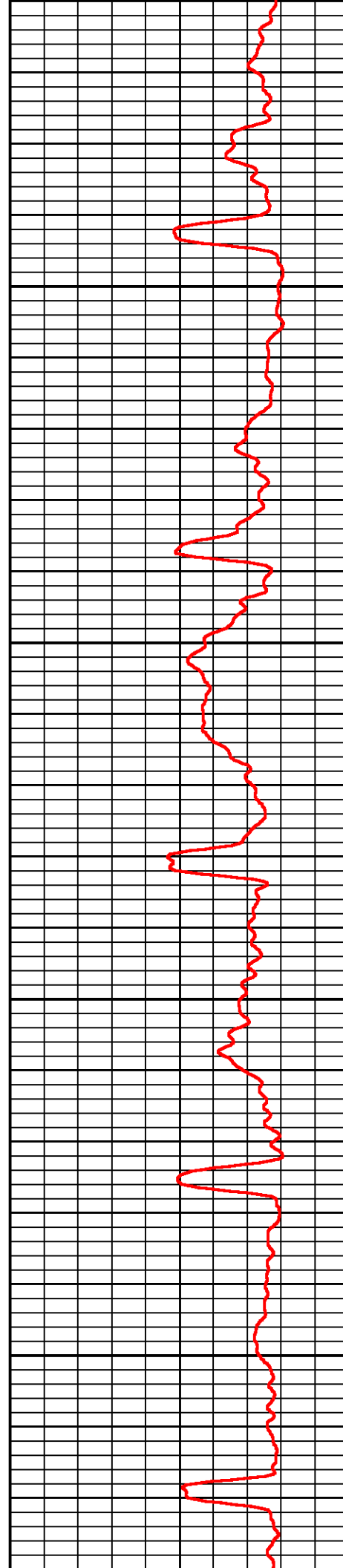
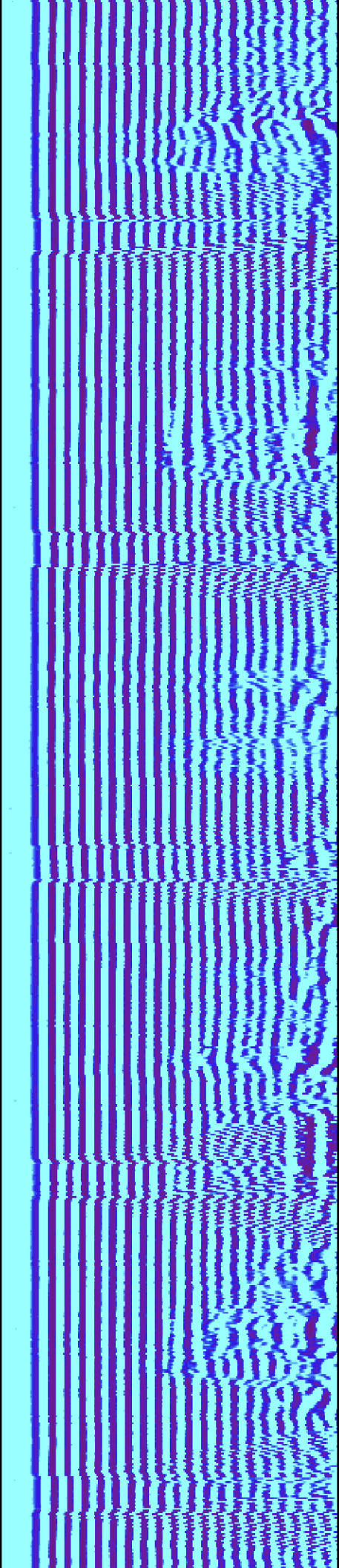


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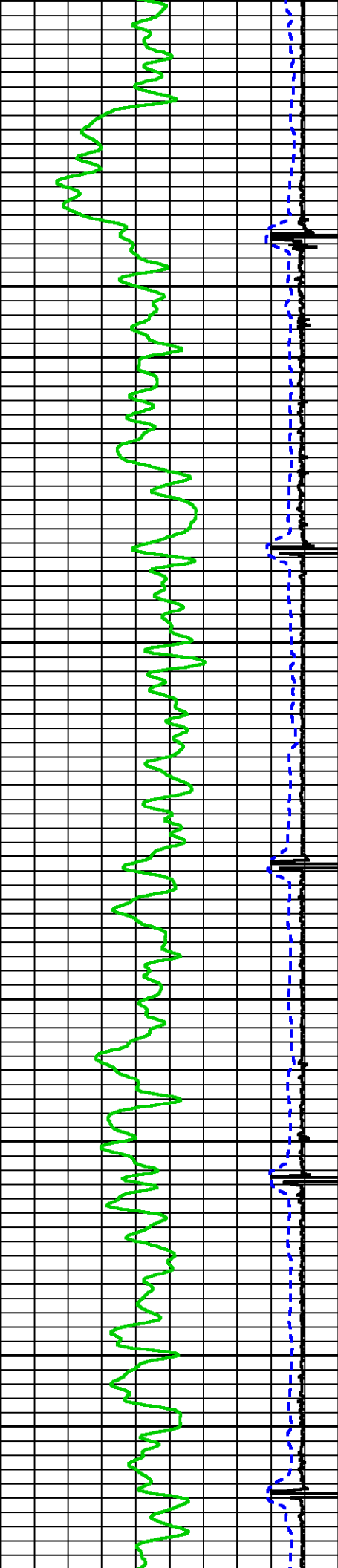


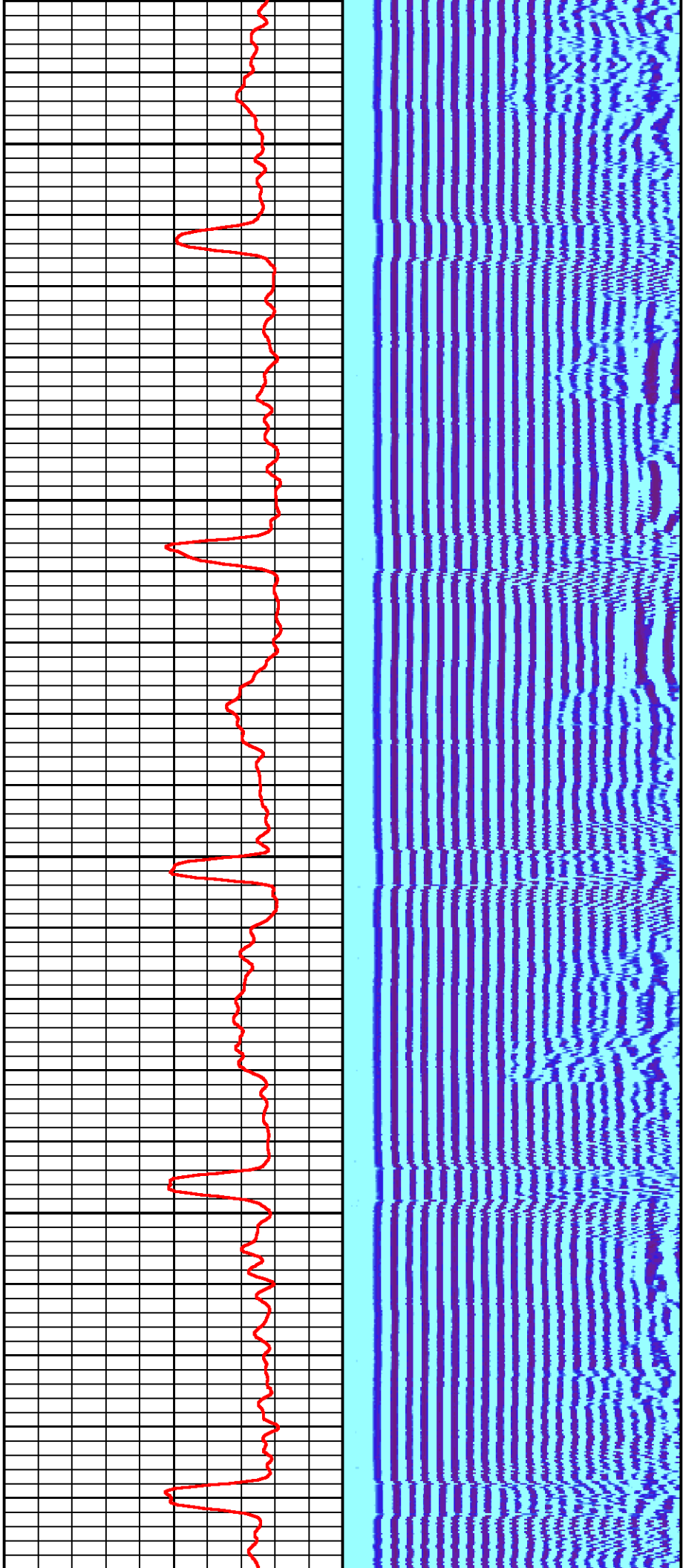




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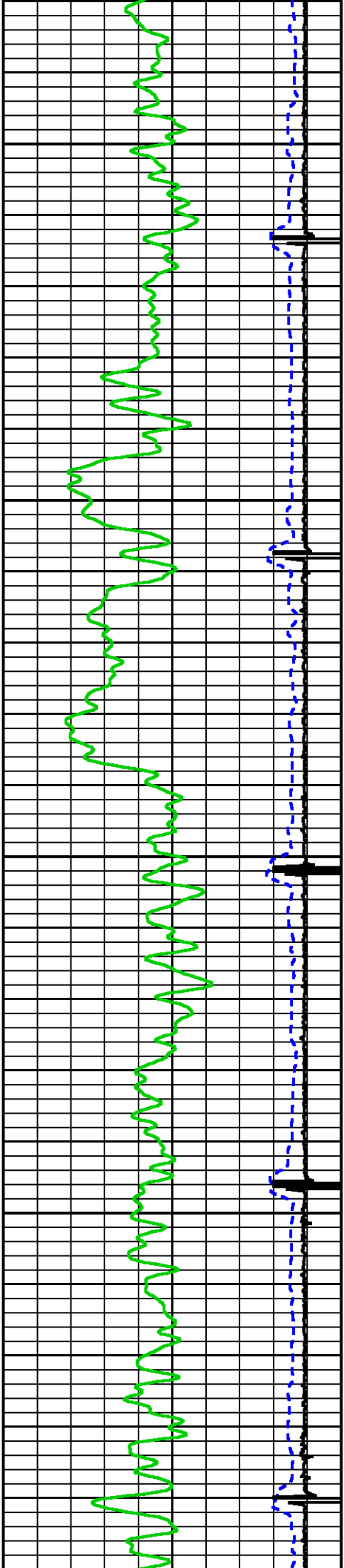
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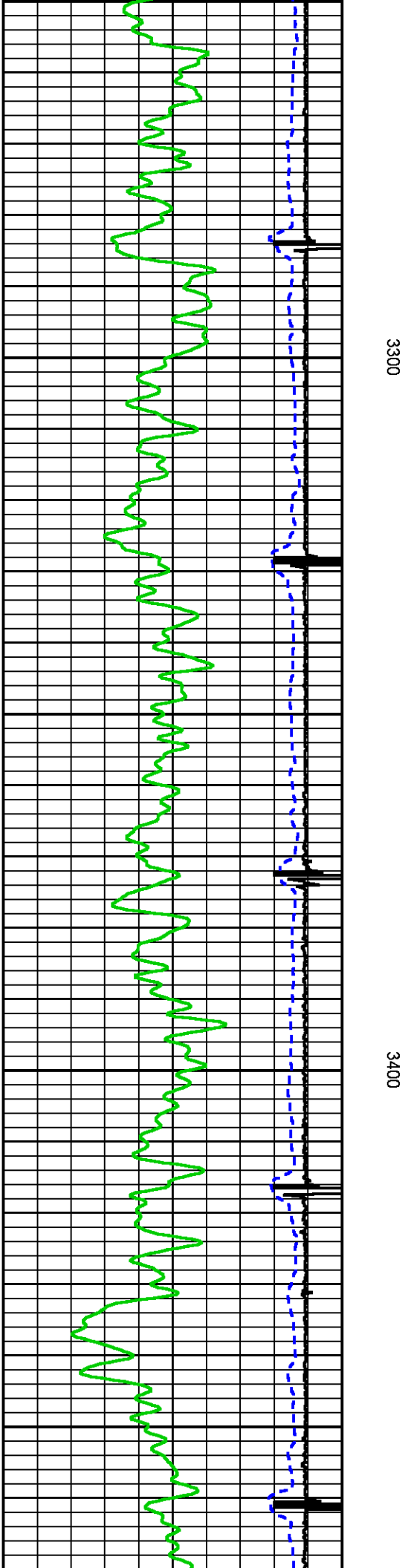
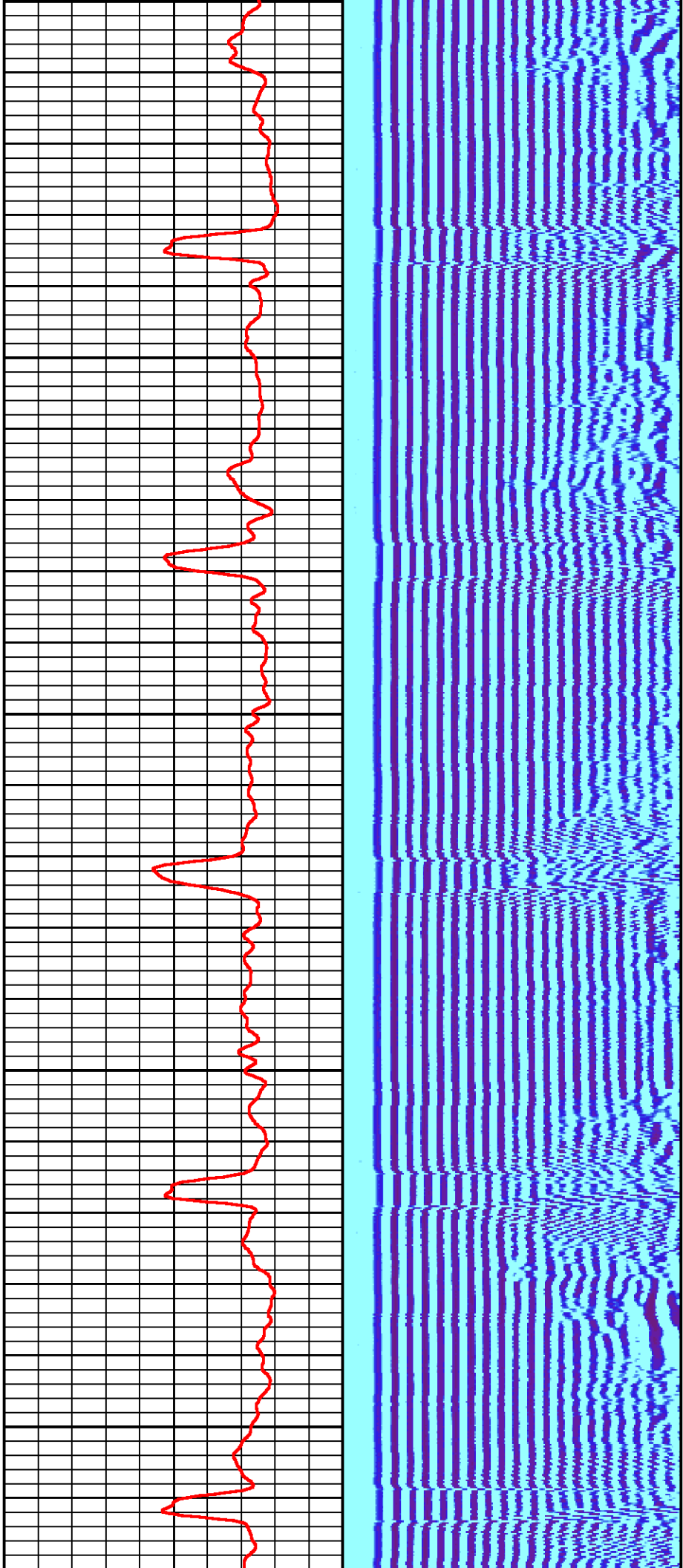


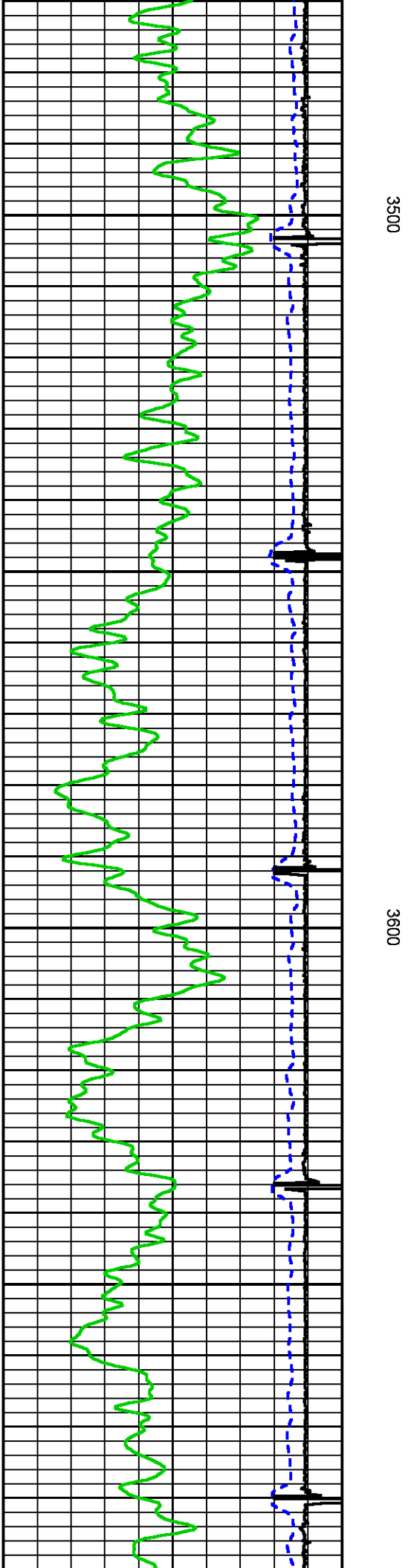
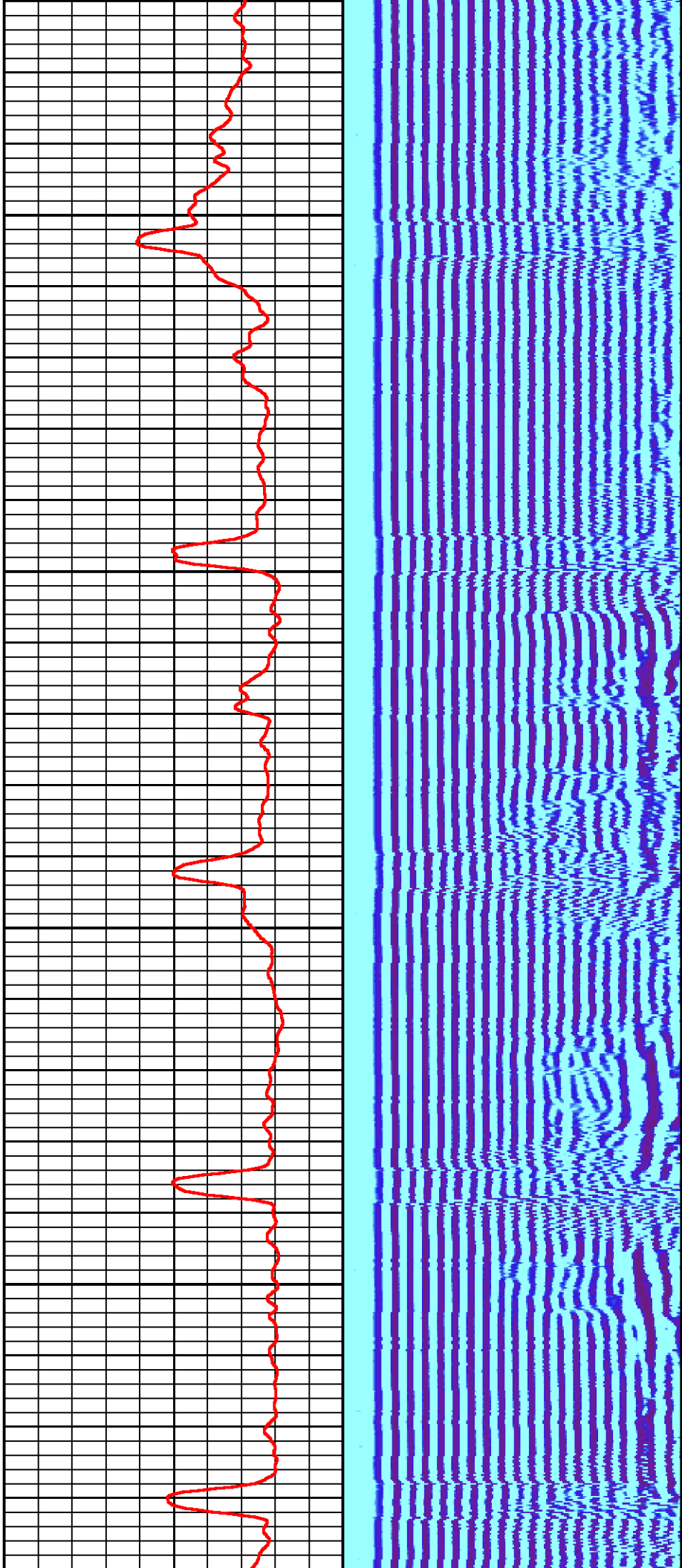


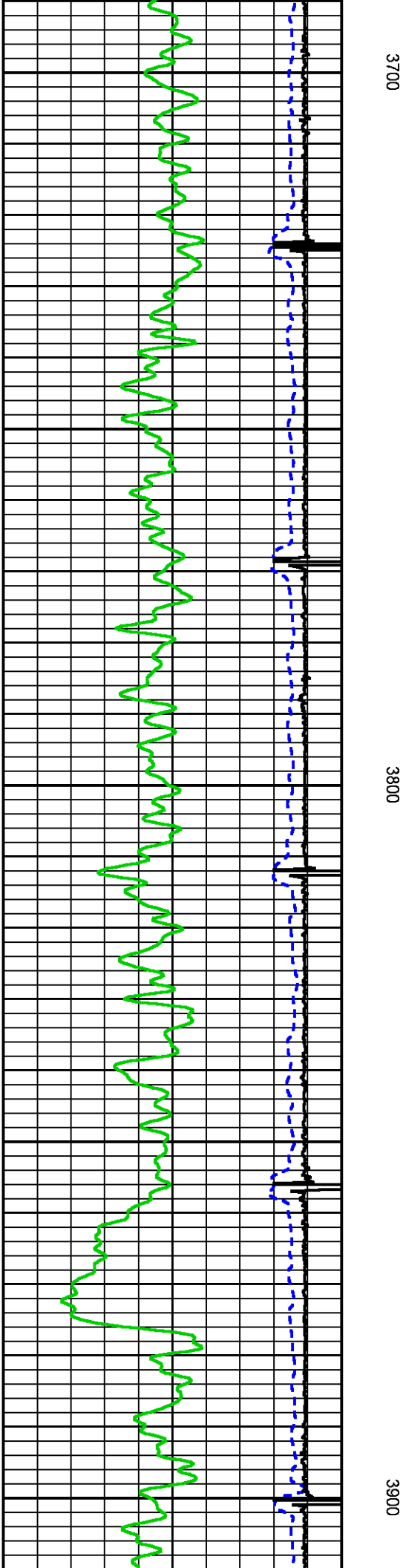
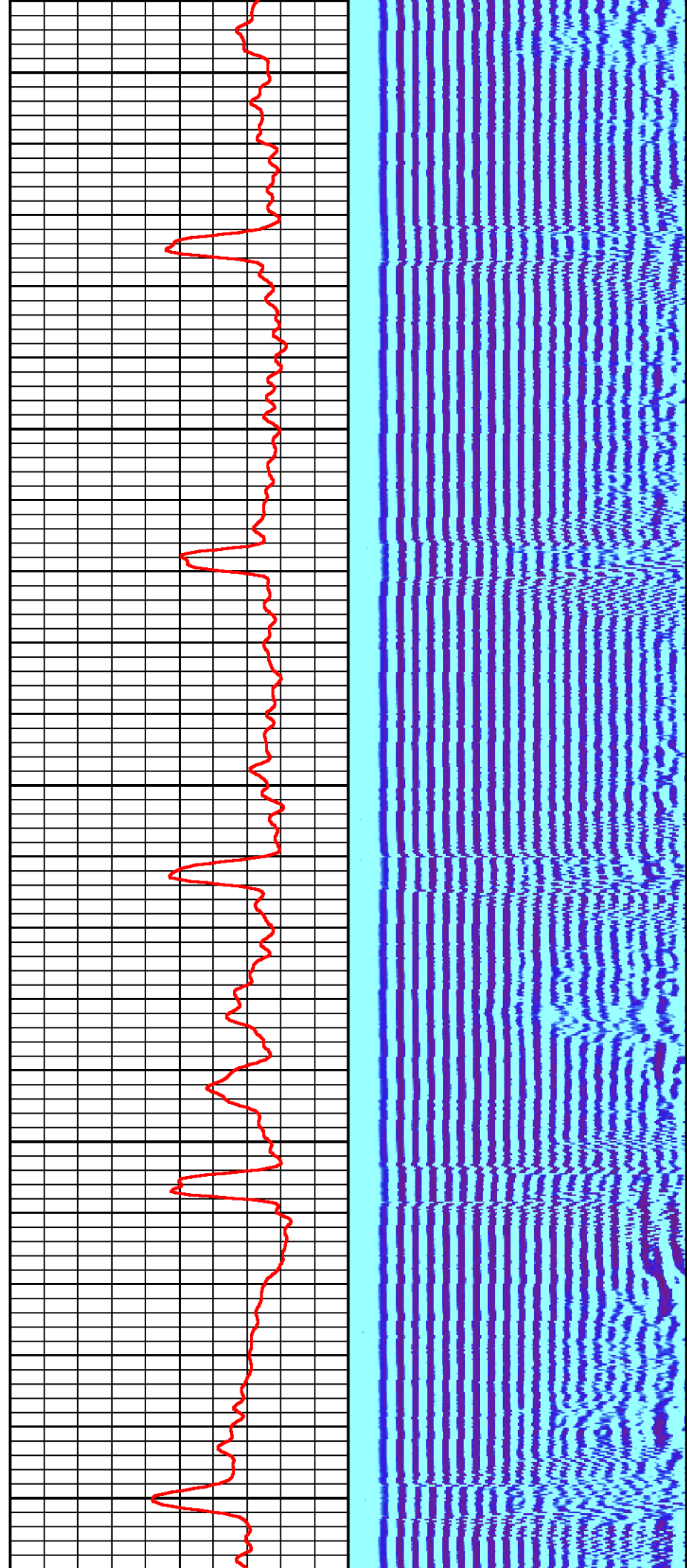
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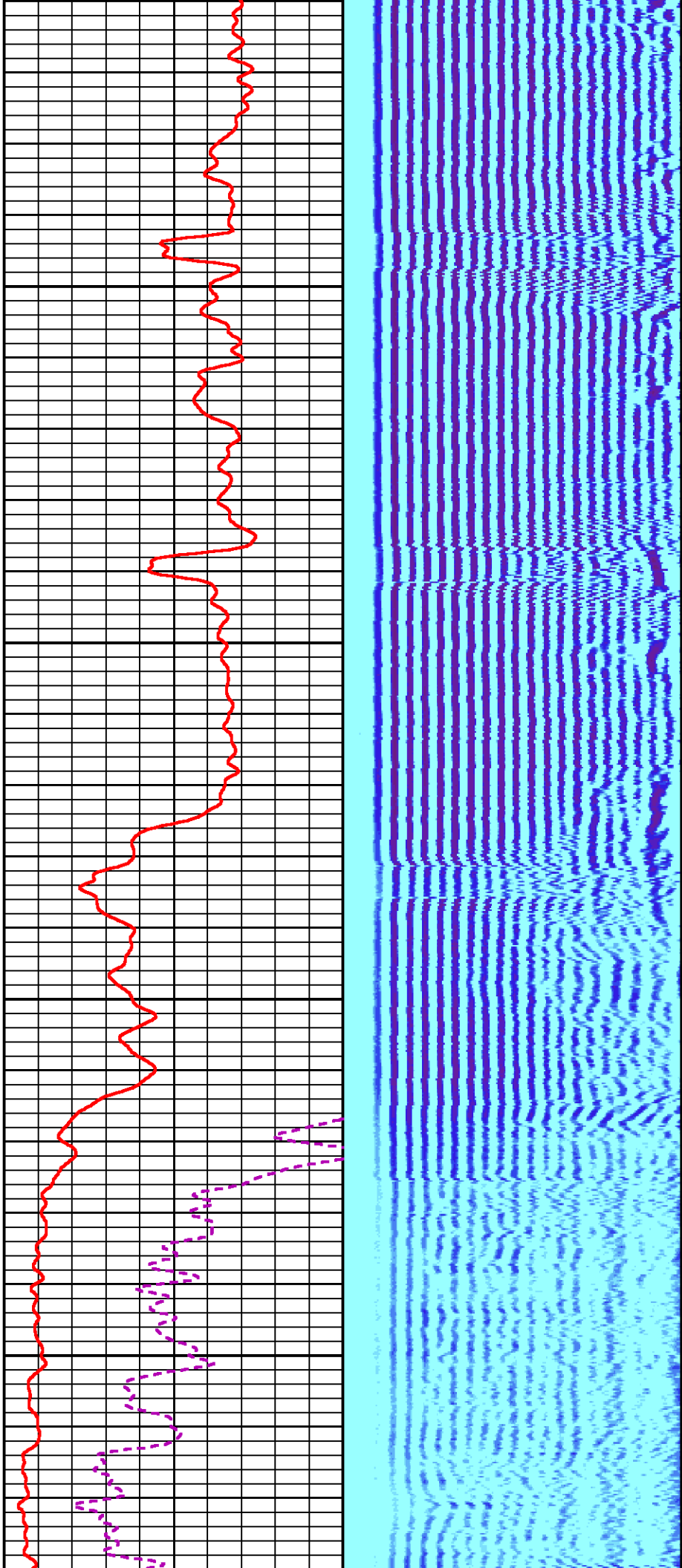
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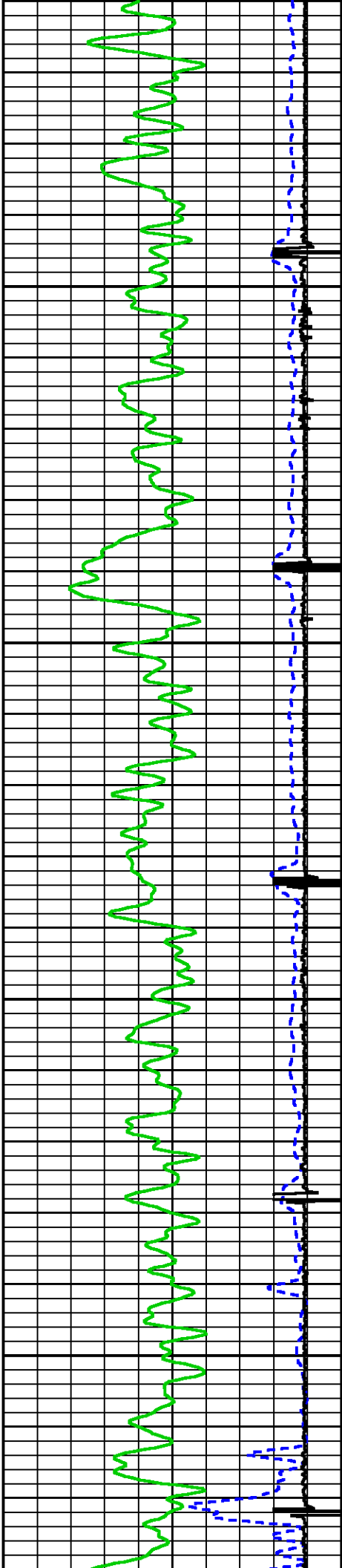


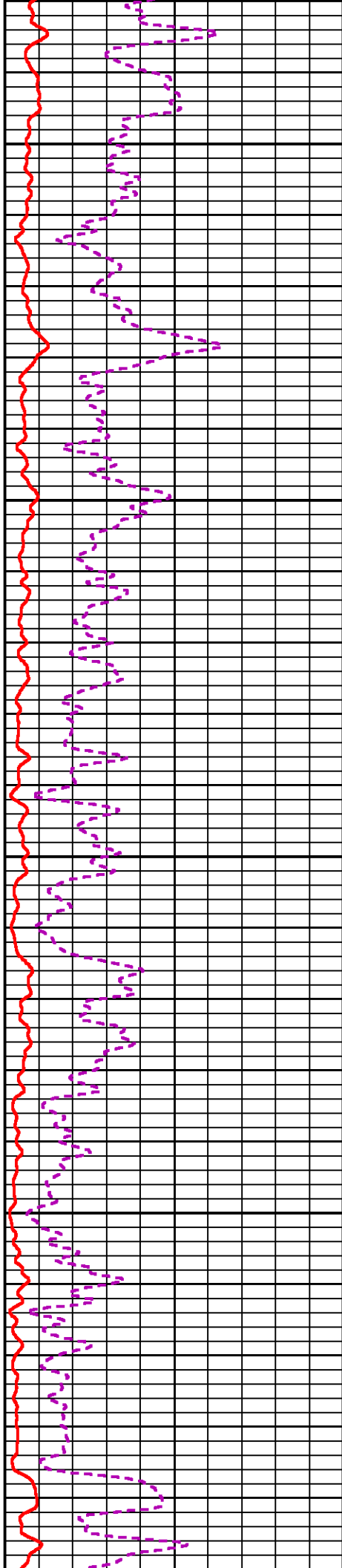
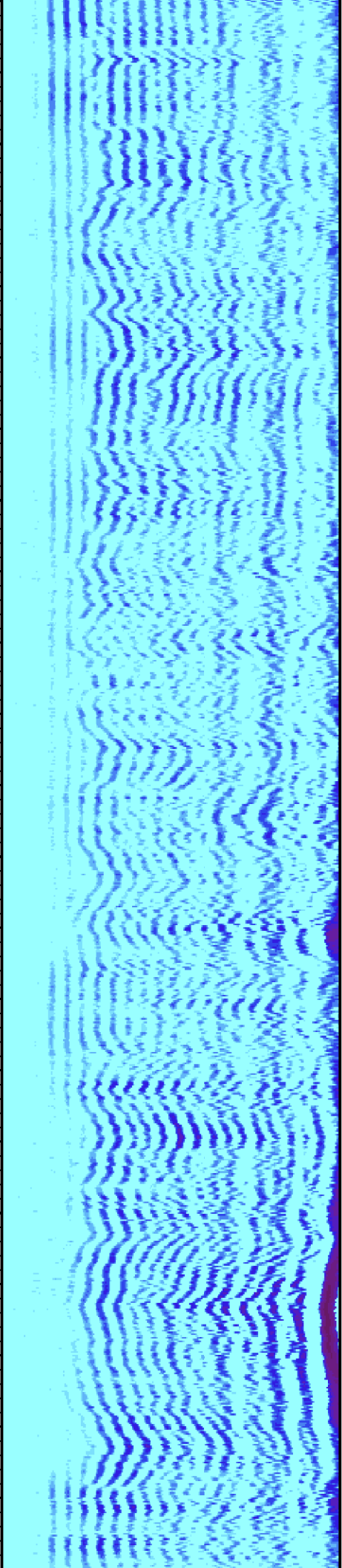




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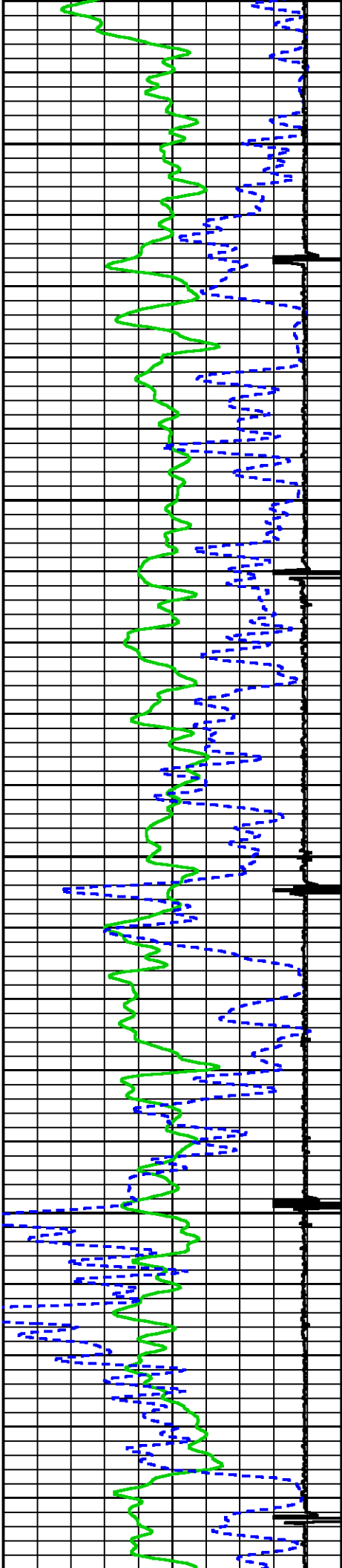
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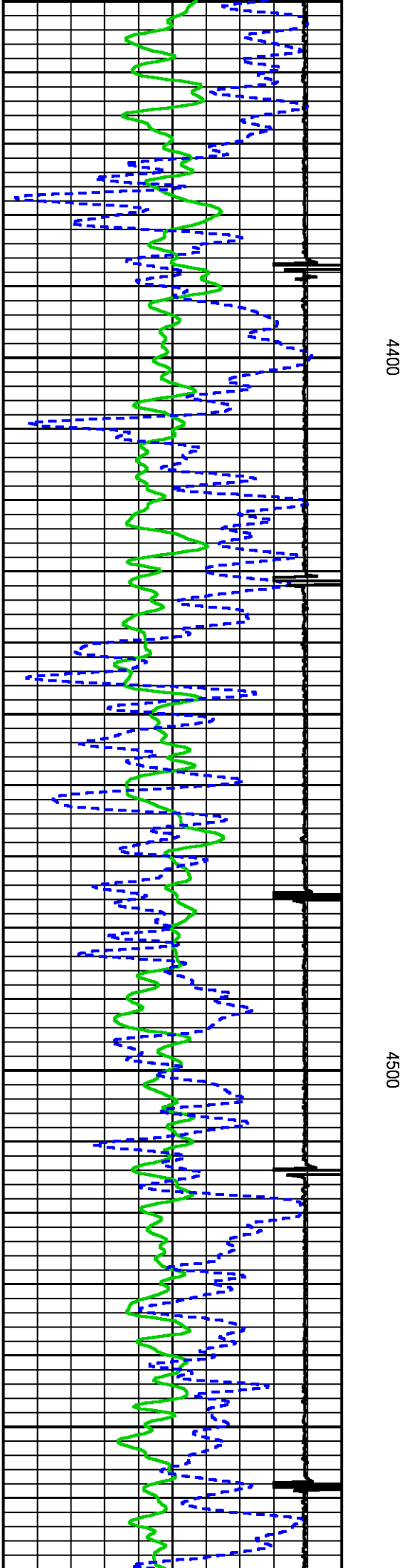
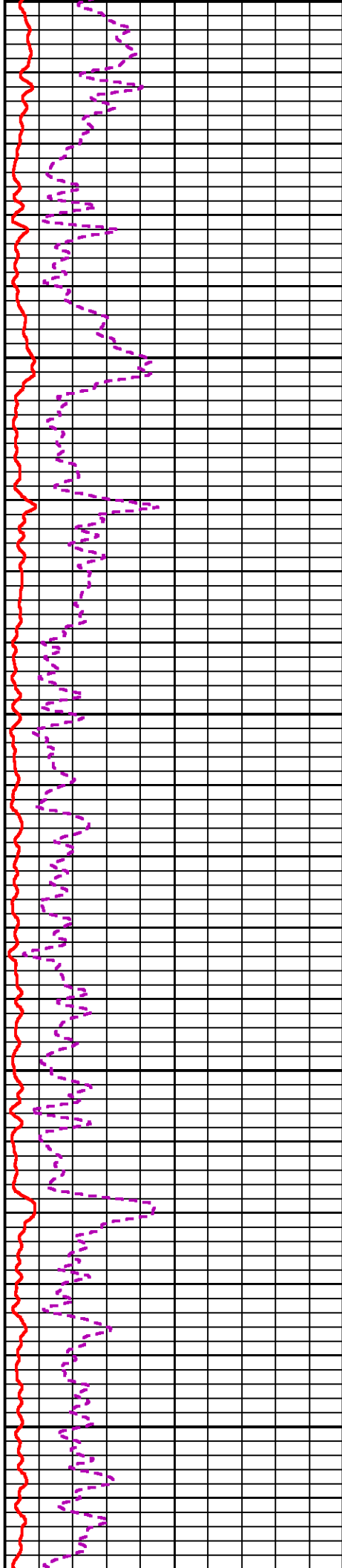
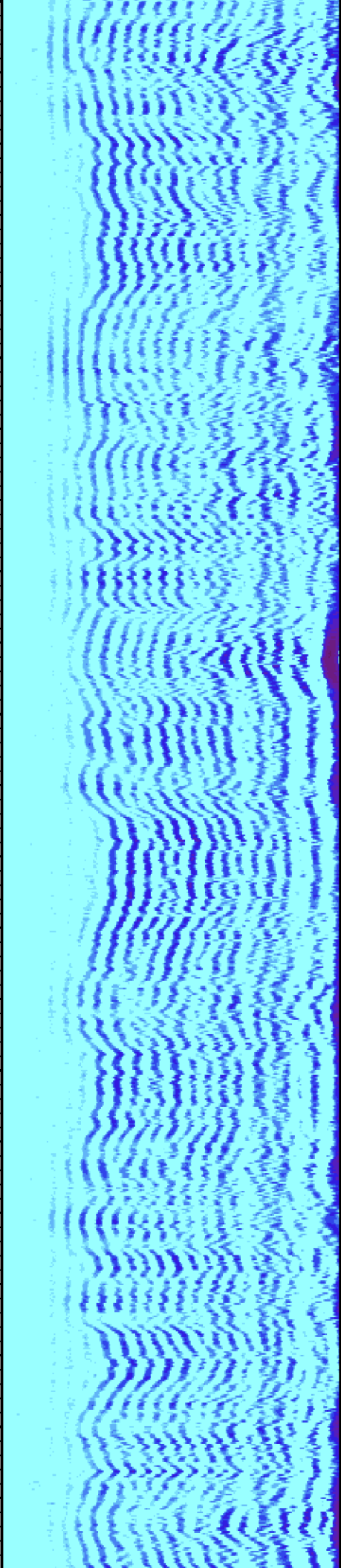


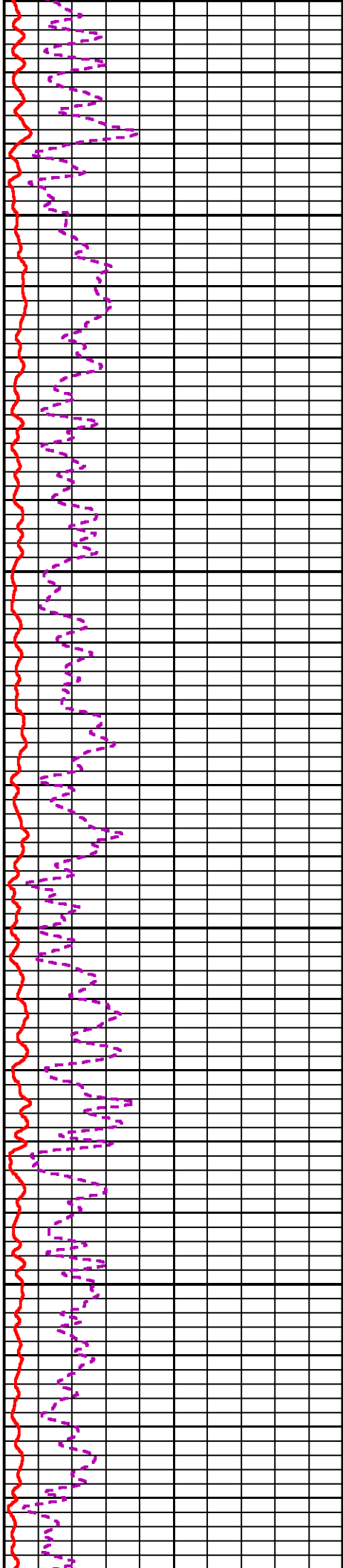
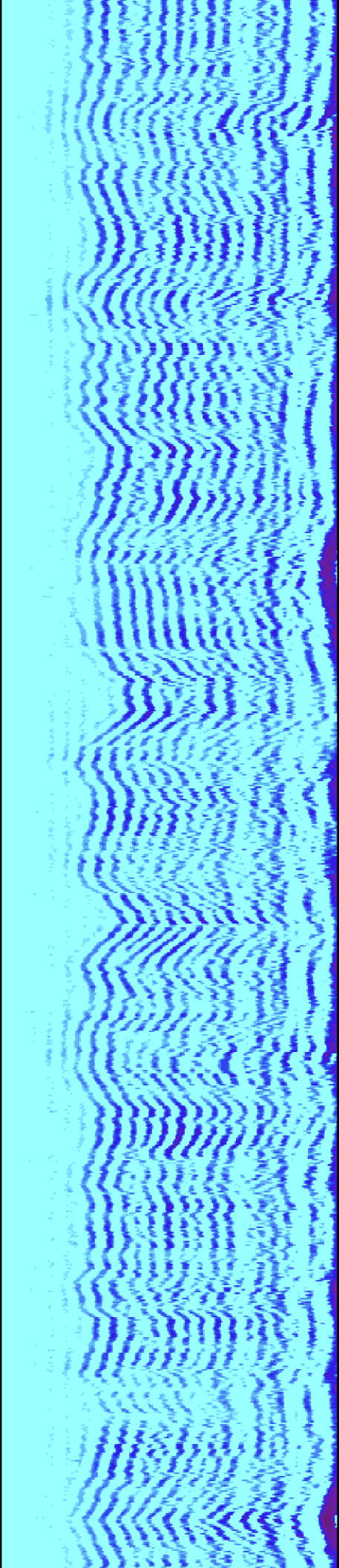


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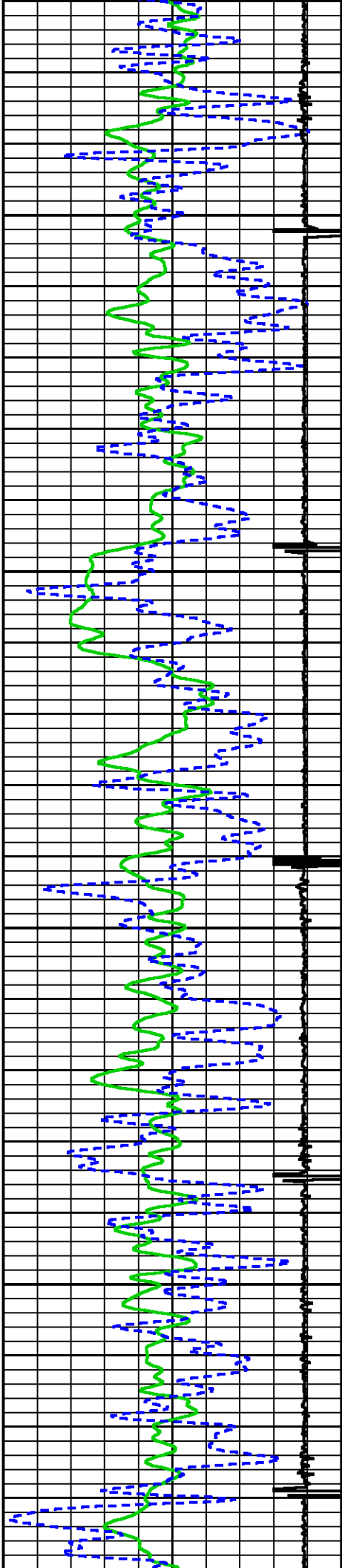


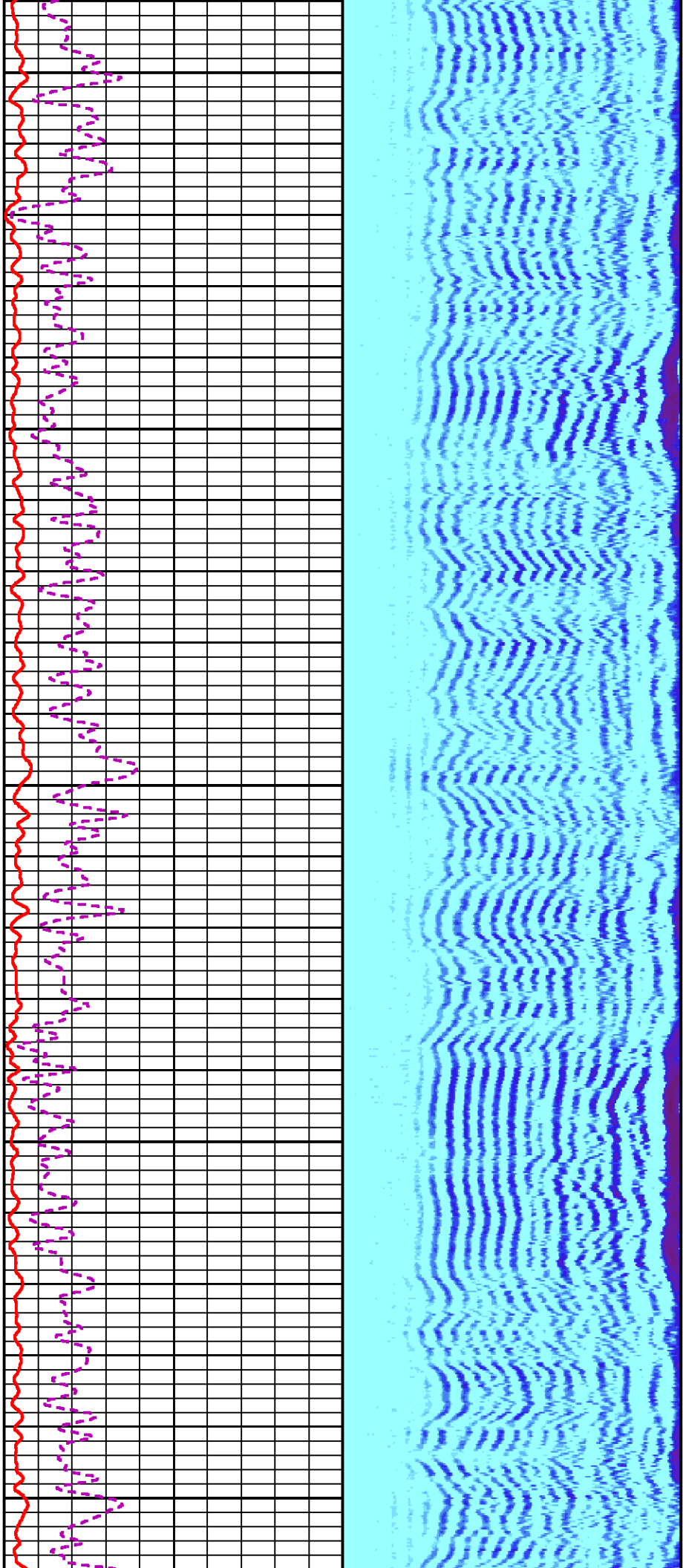




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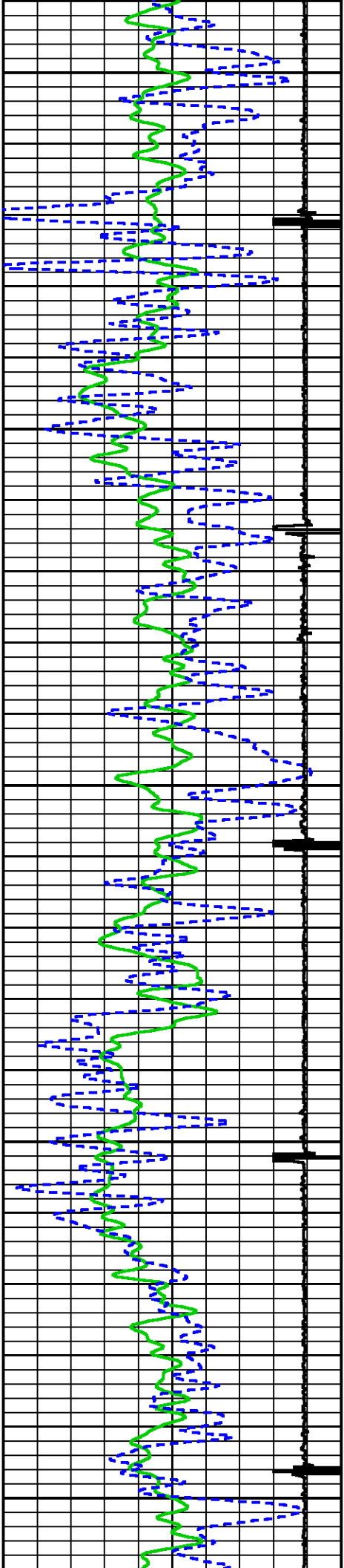


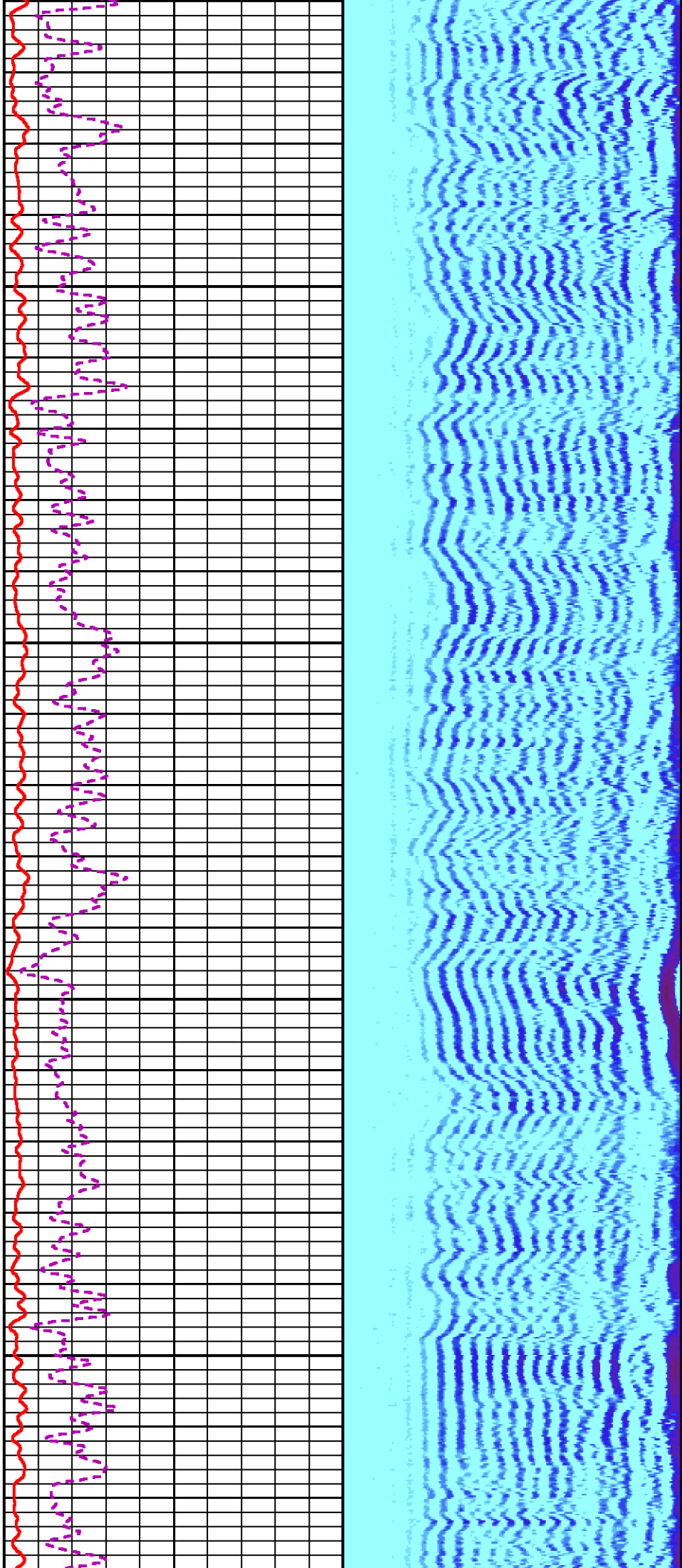


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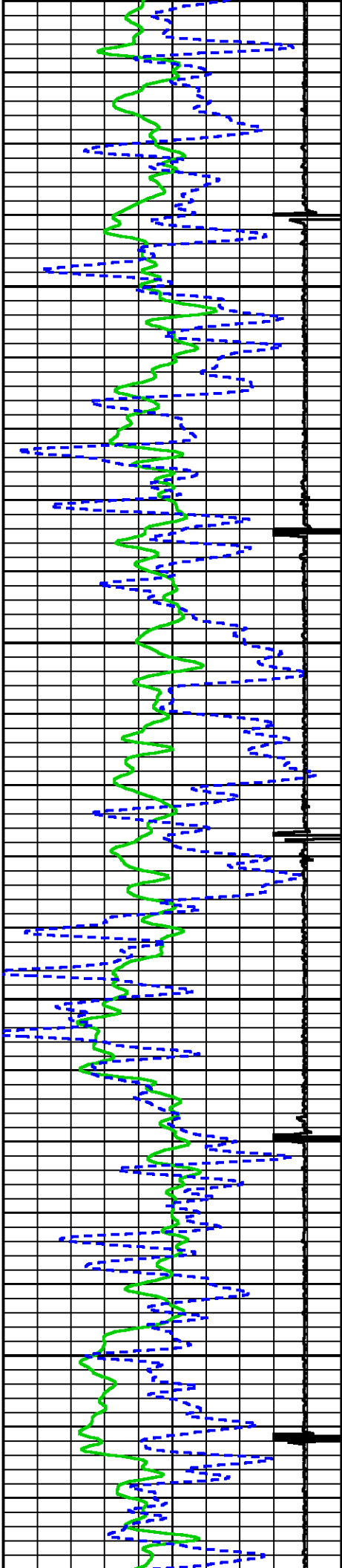
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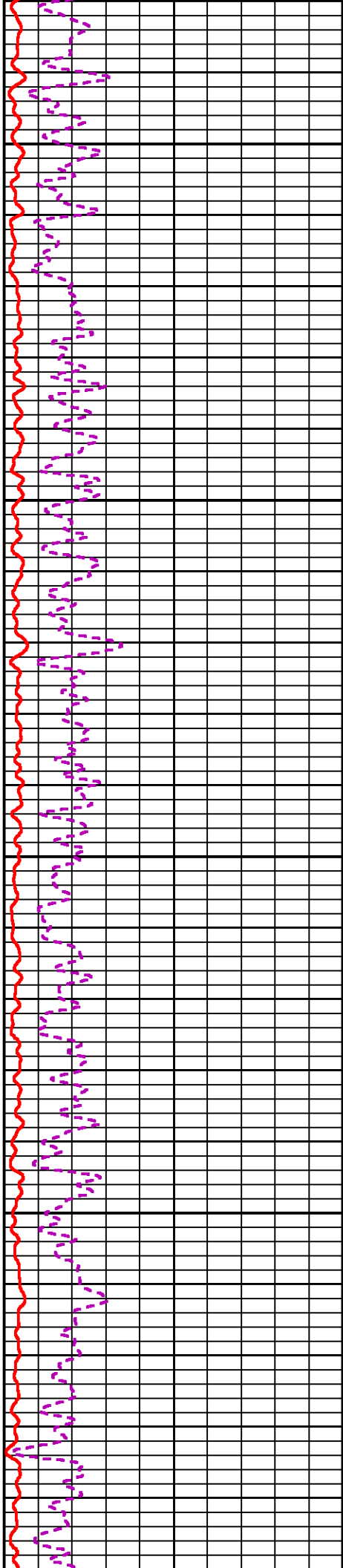
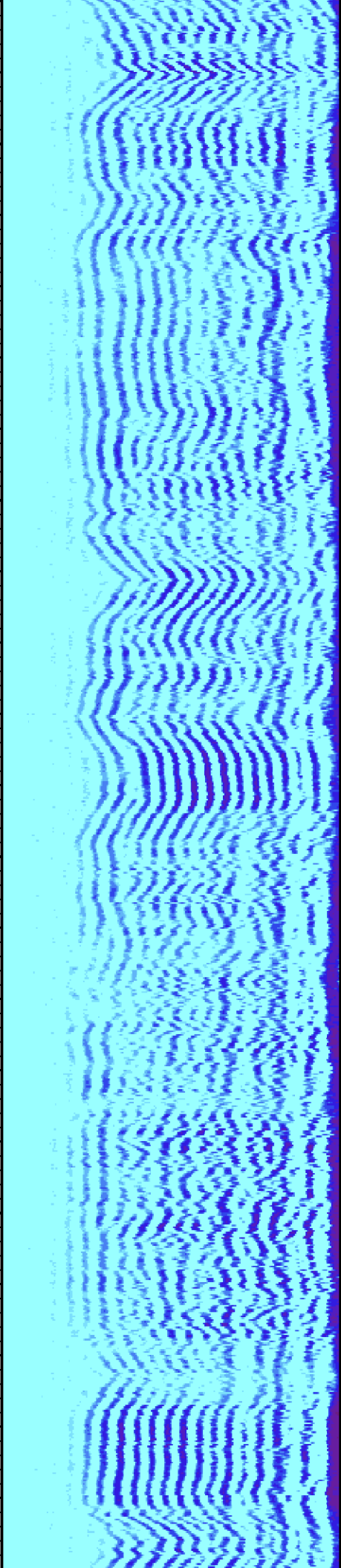




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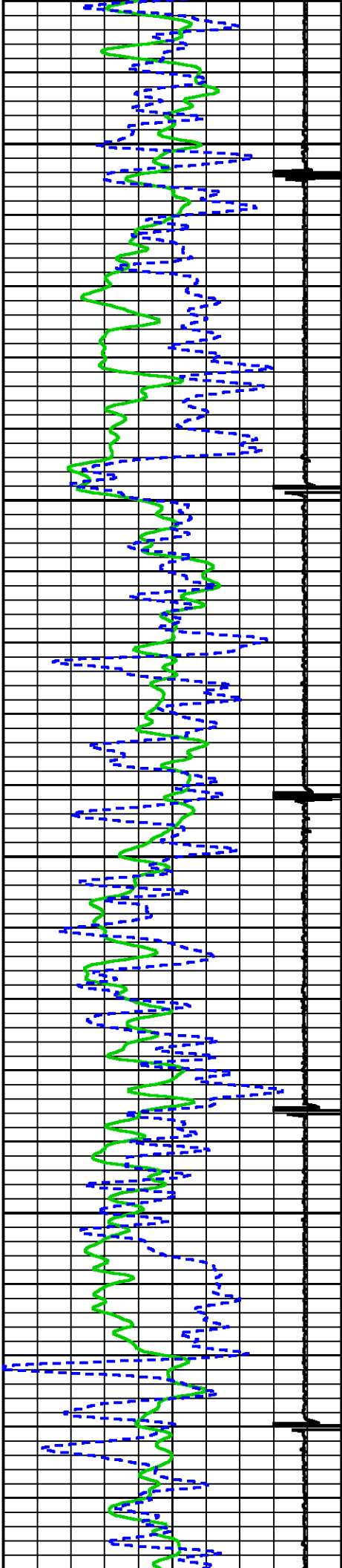
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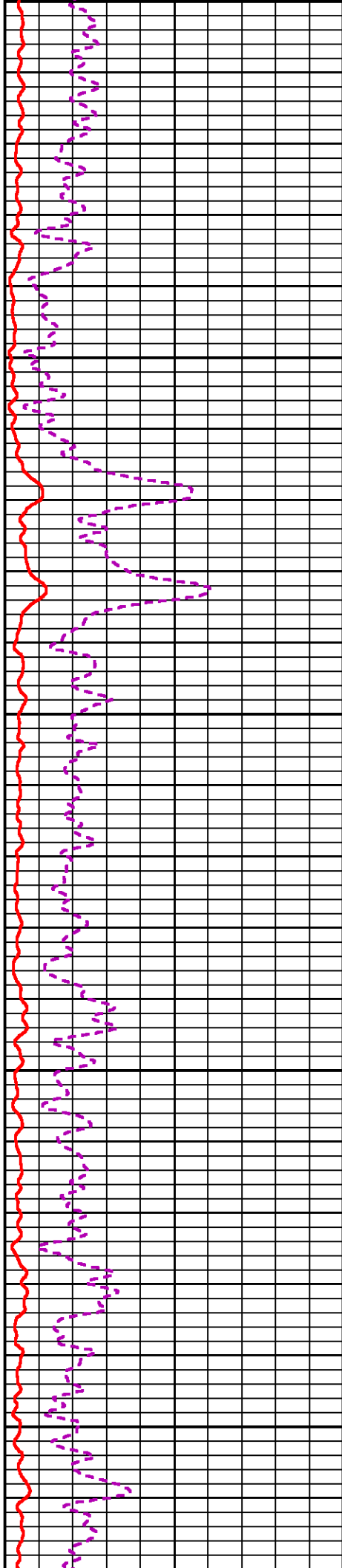
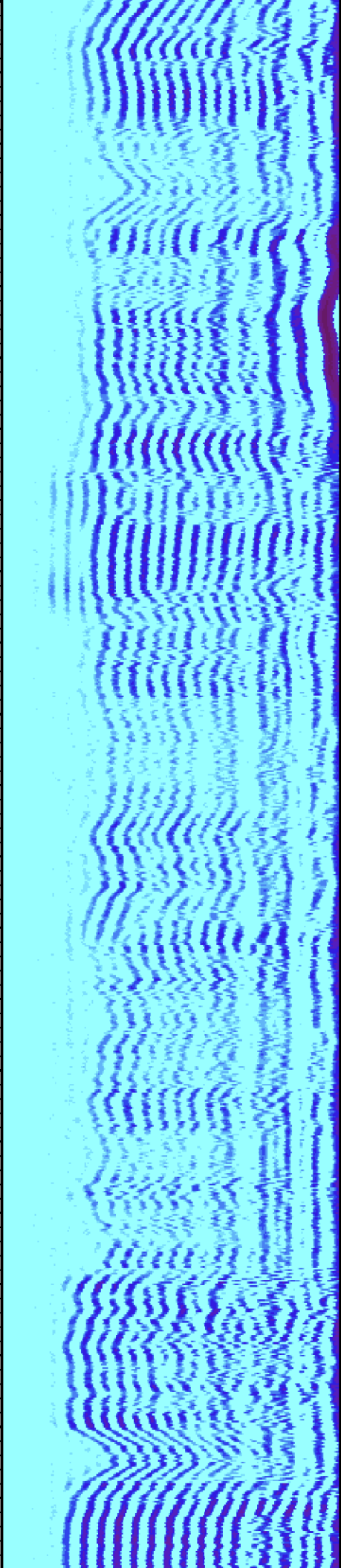




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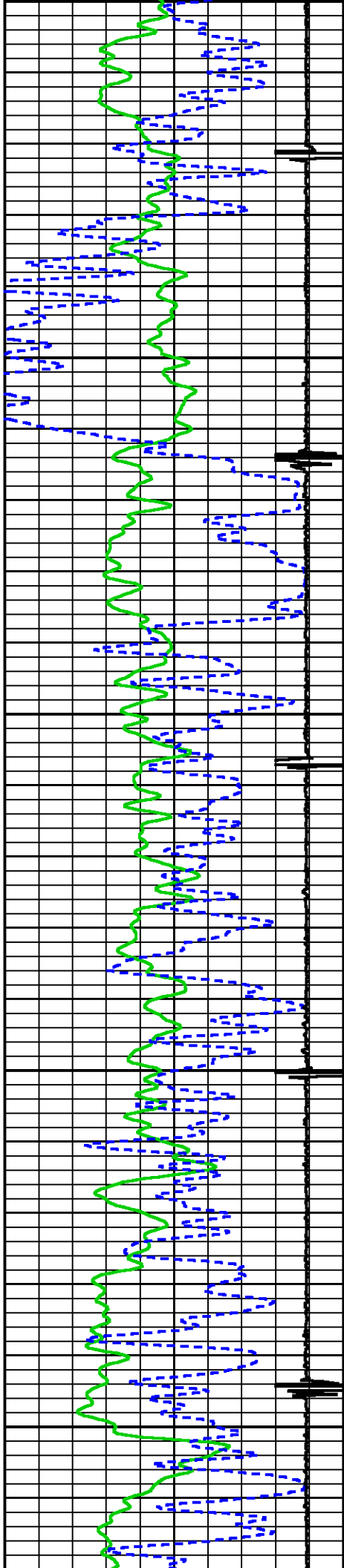
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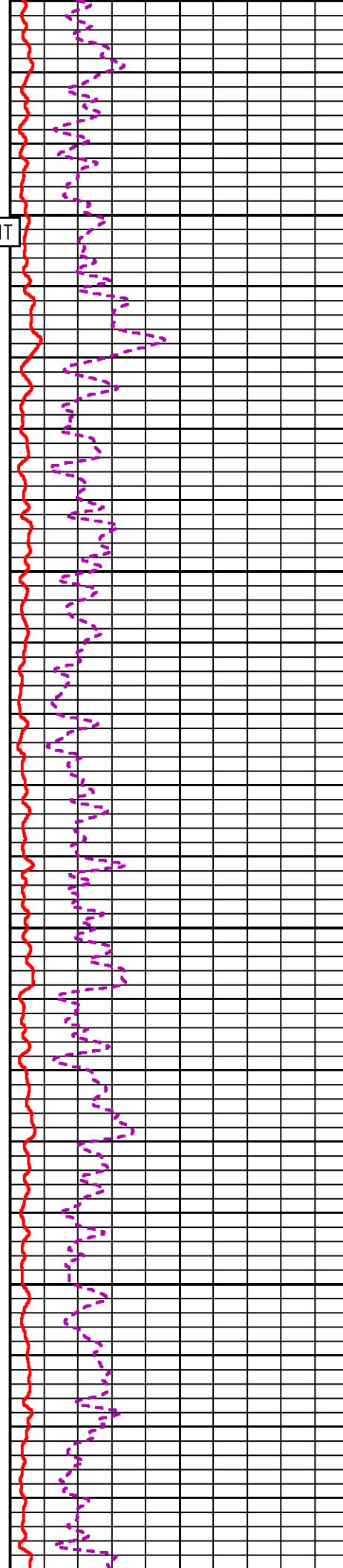
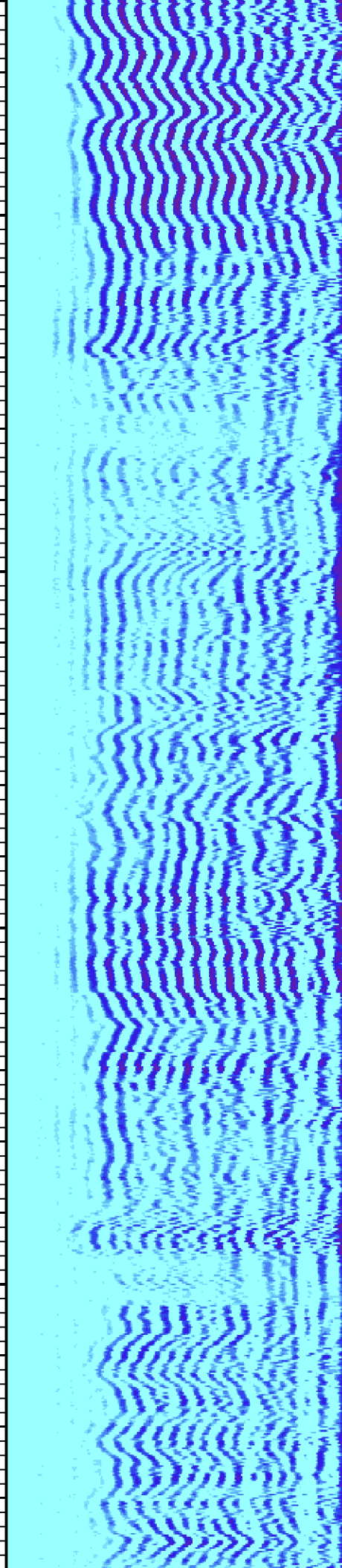




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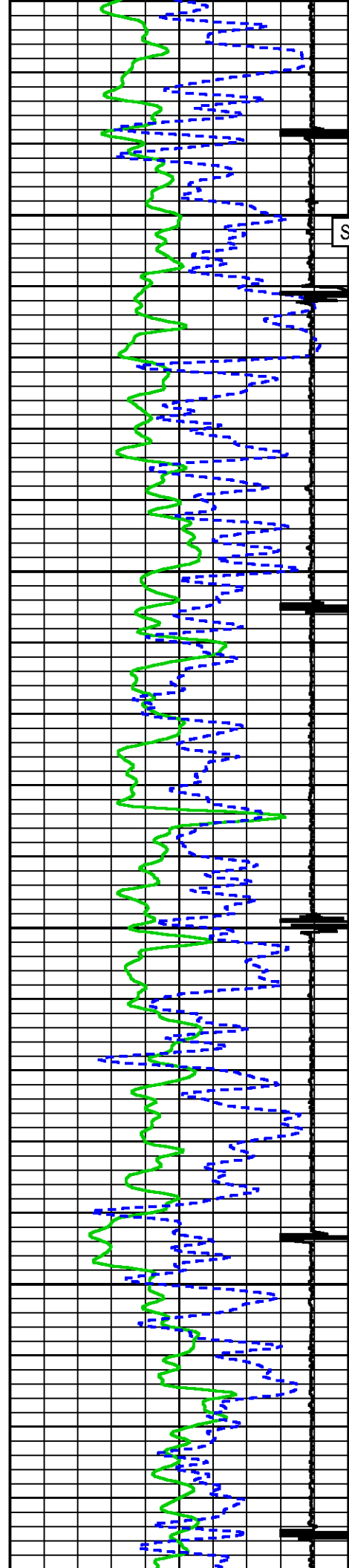
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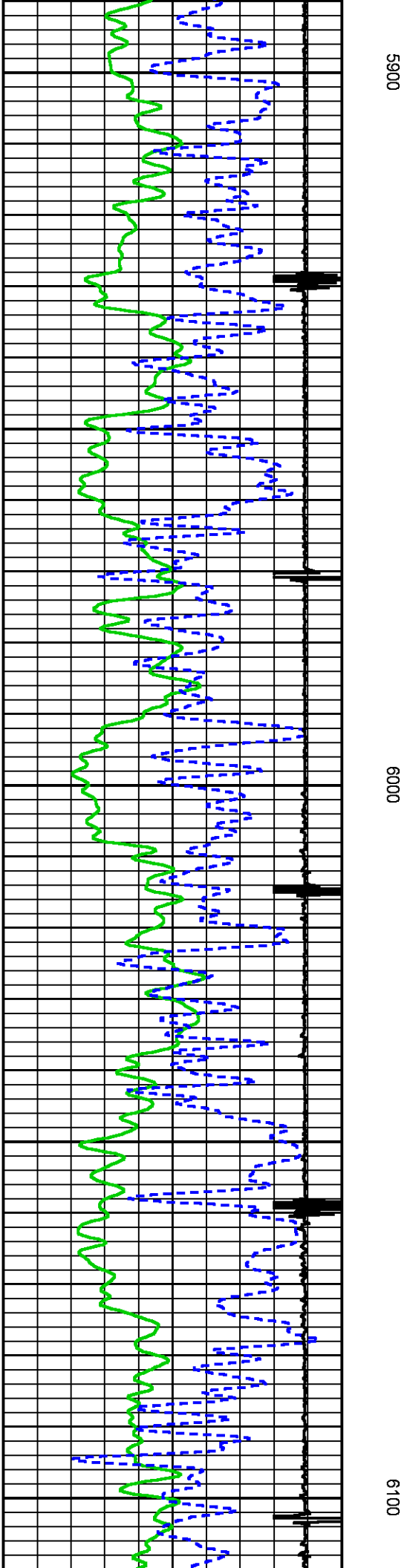
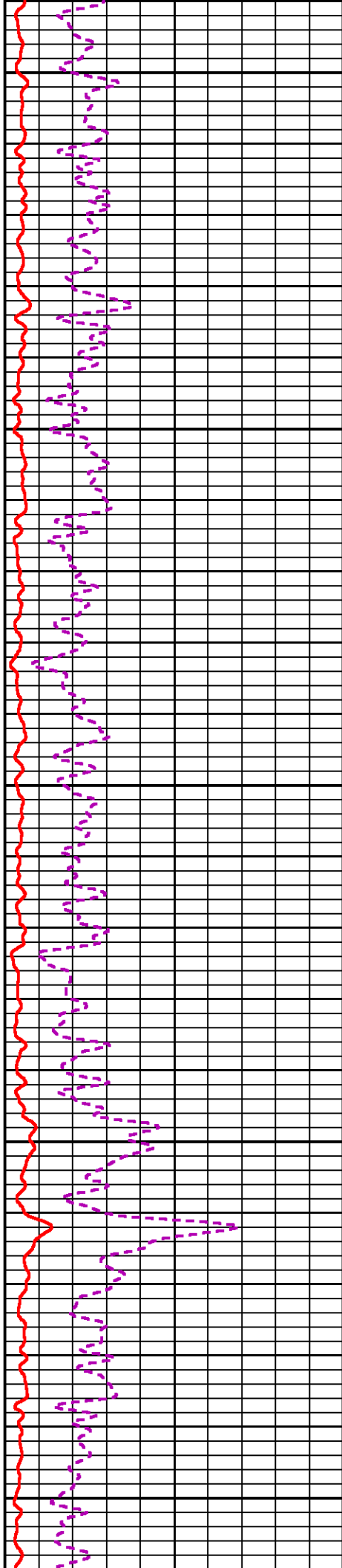
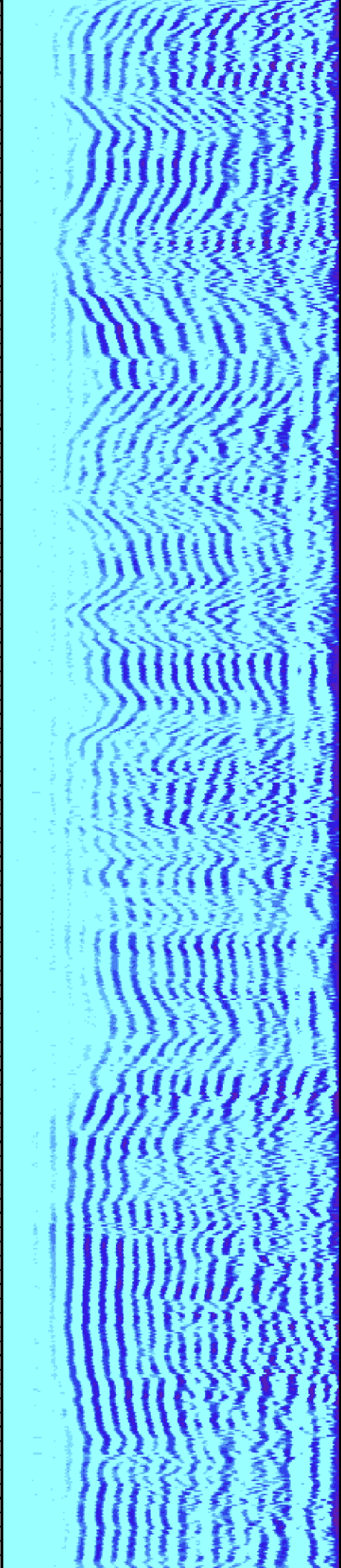




57
SHORT JOINT

5800

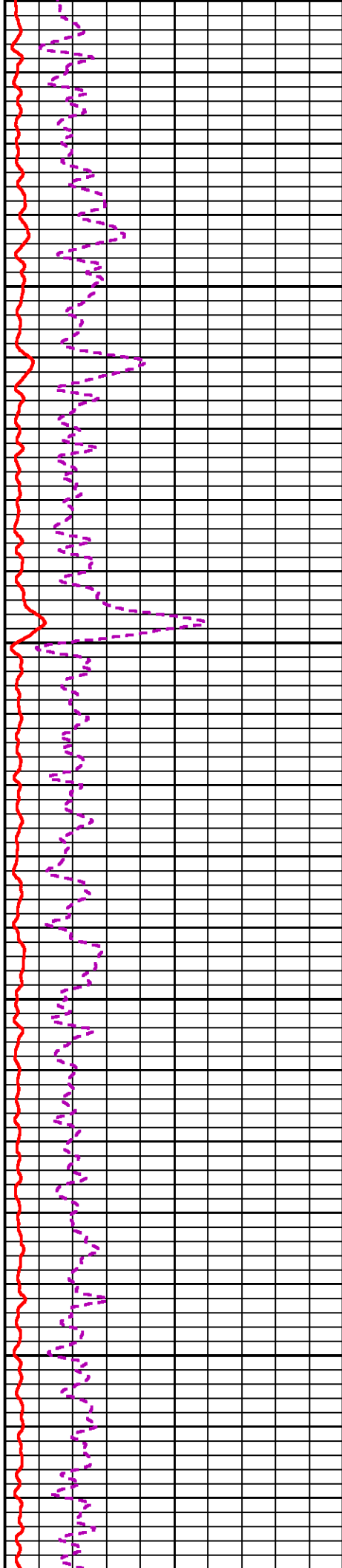
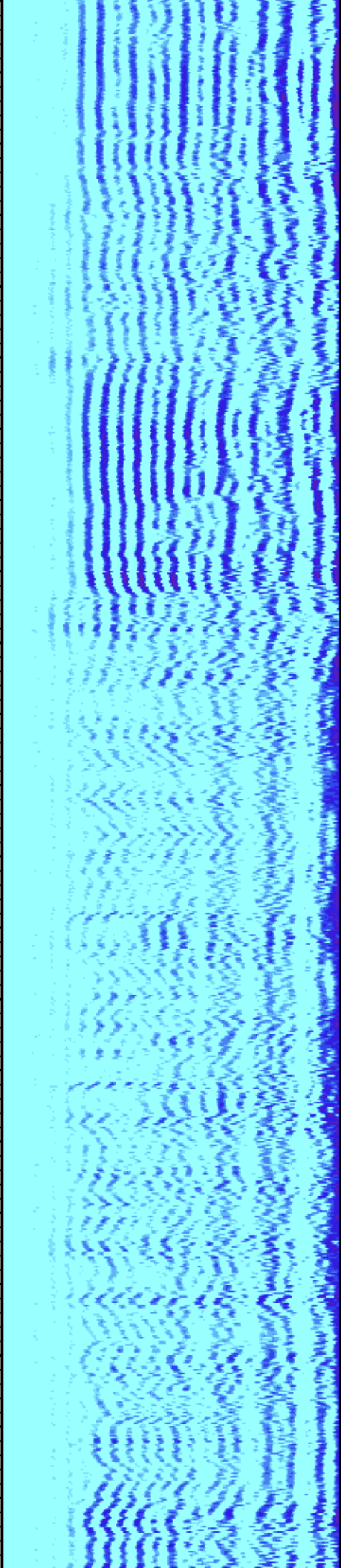




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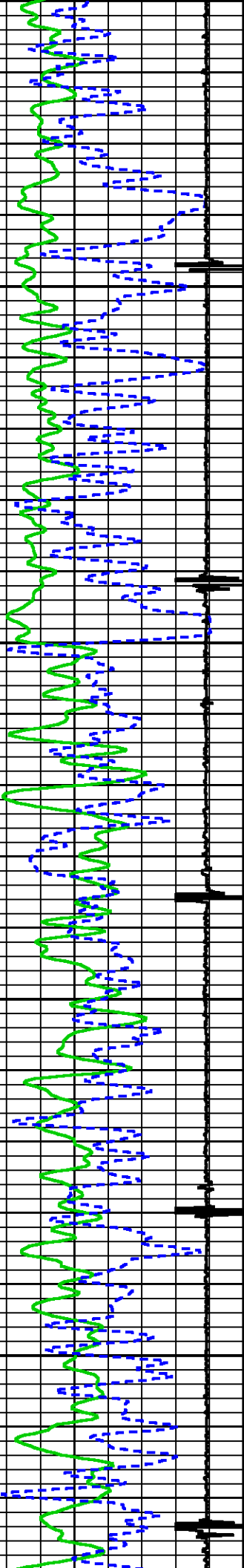
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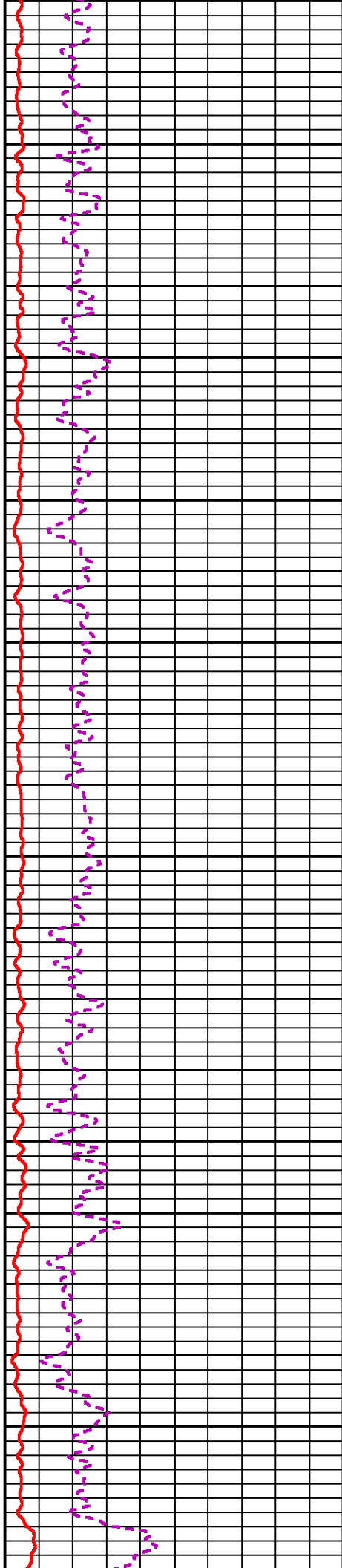
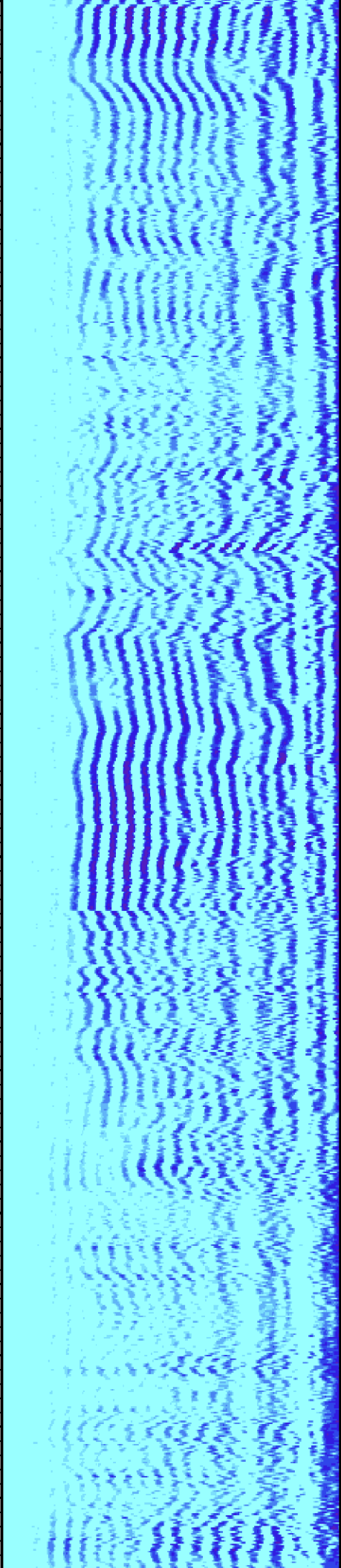
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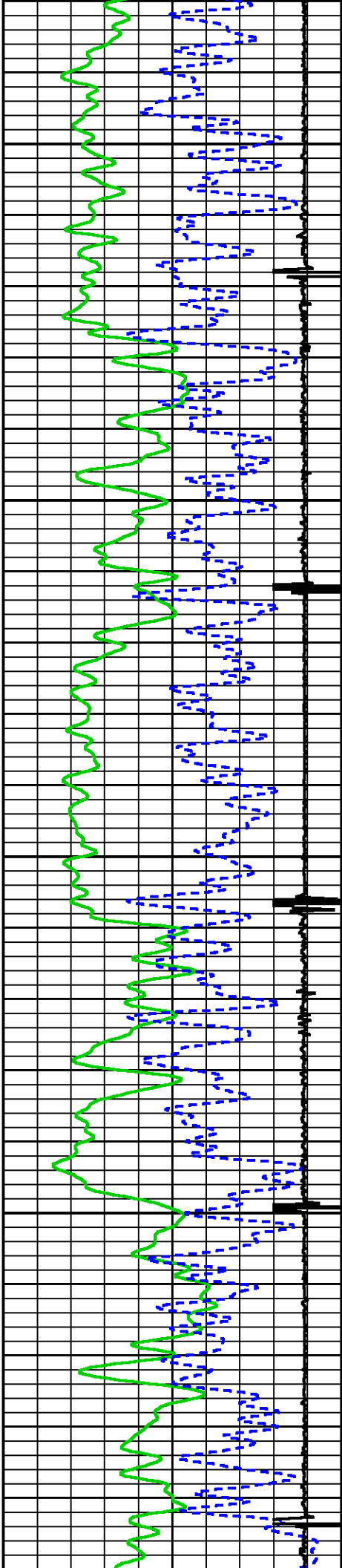
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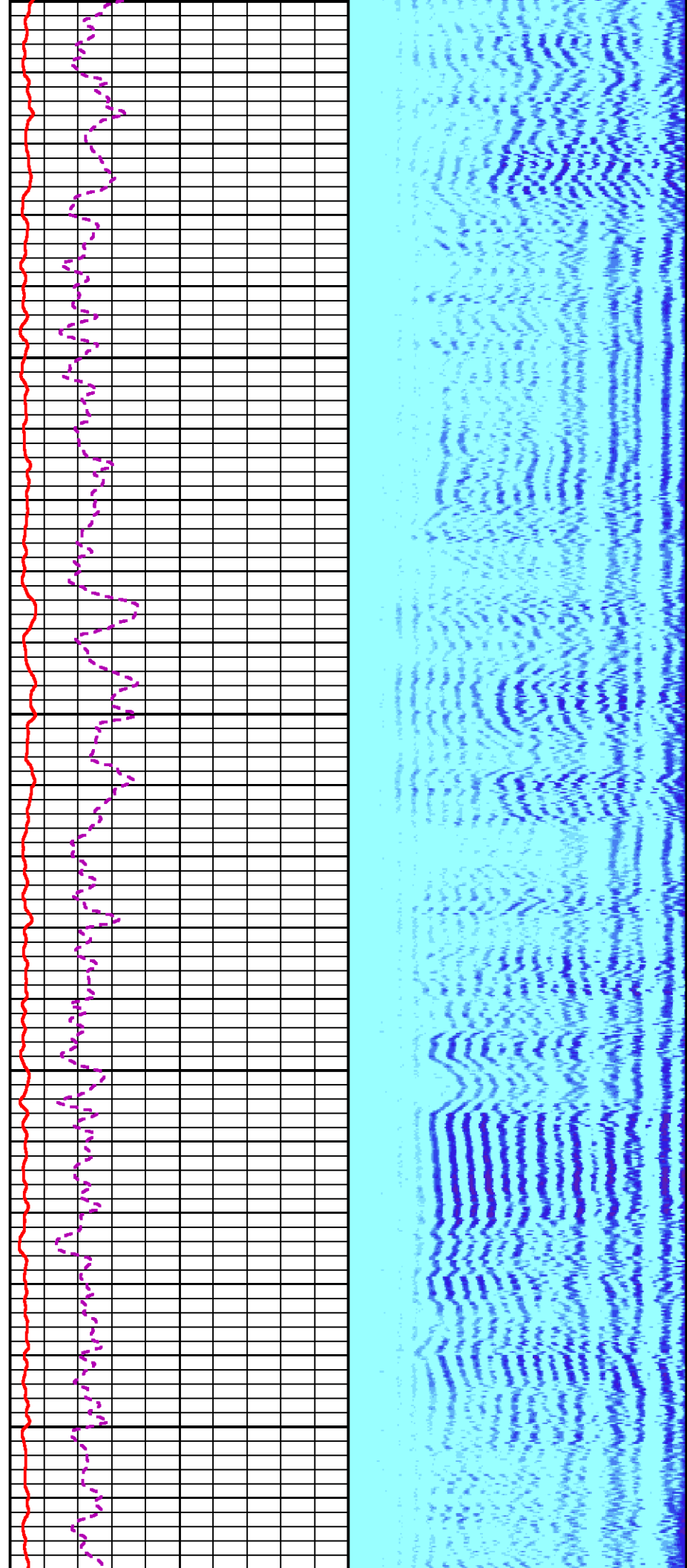




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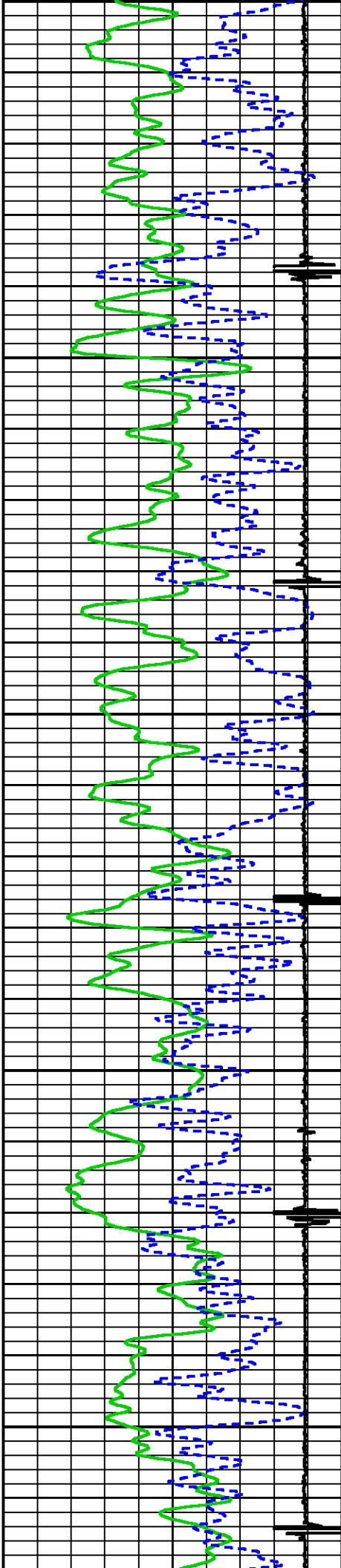
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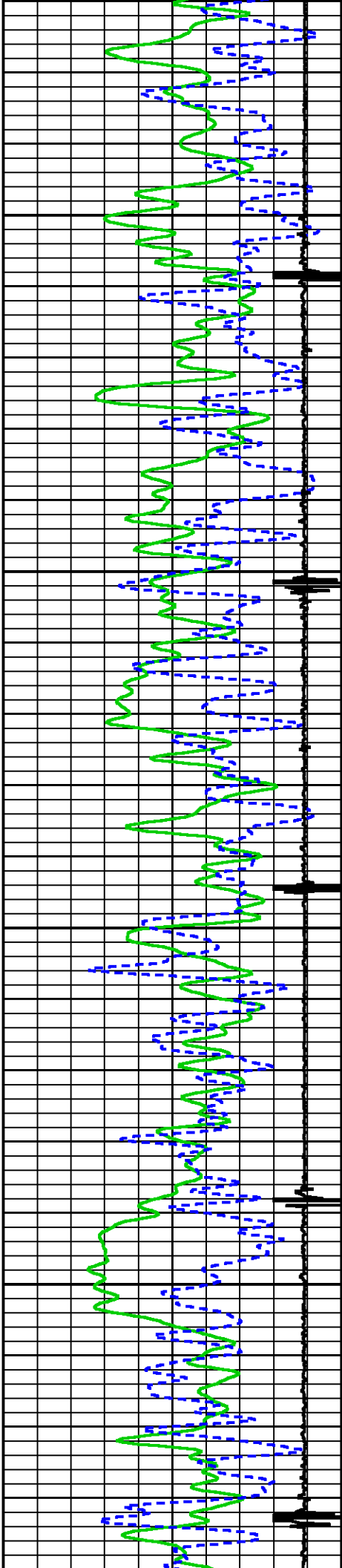




6600

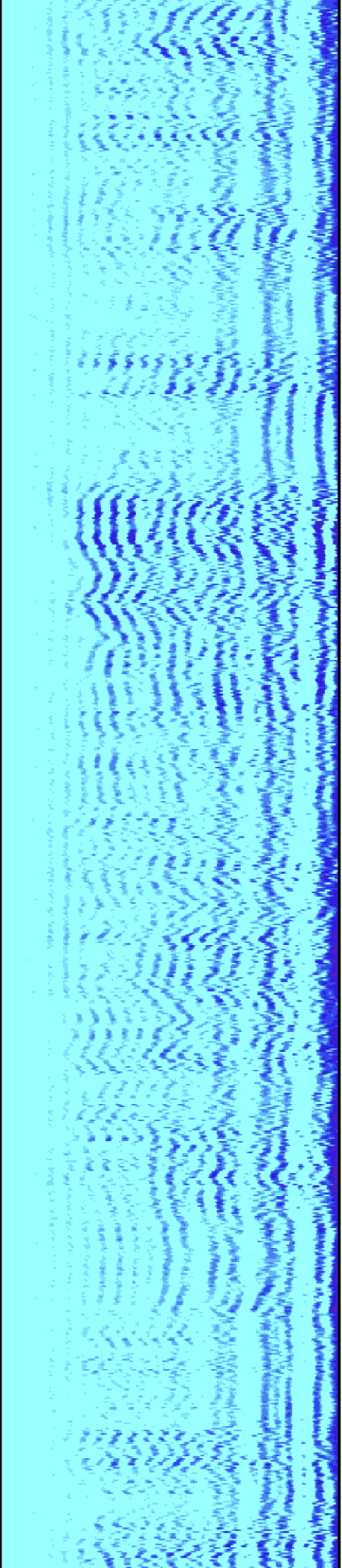
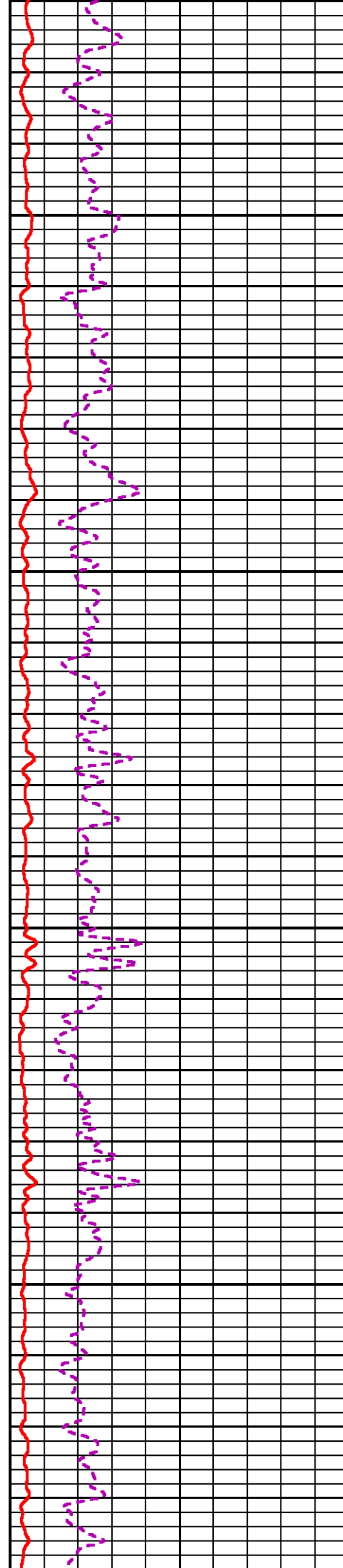
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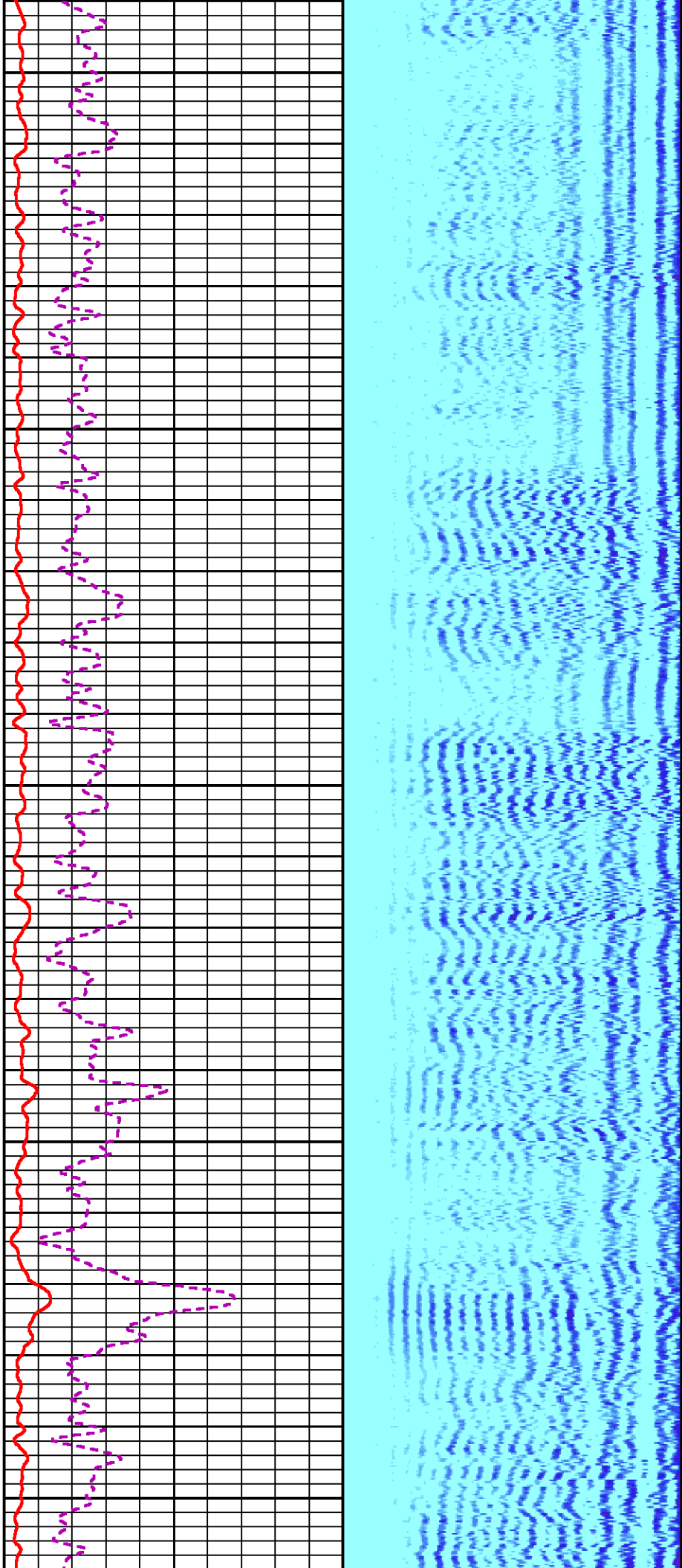




0069

0089

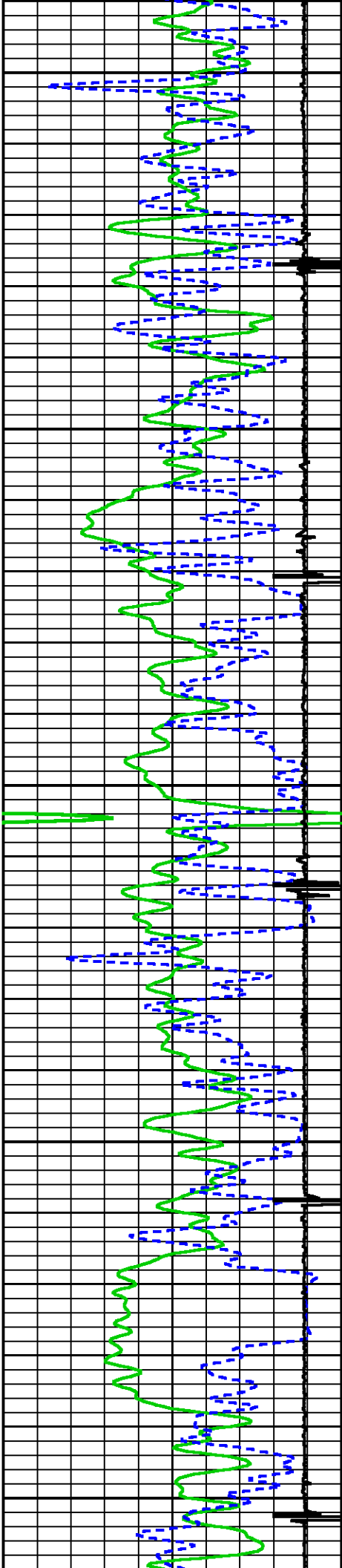


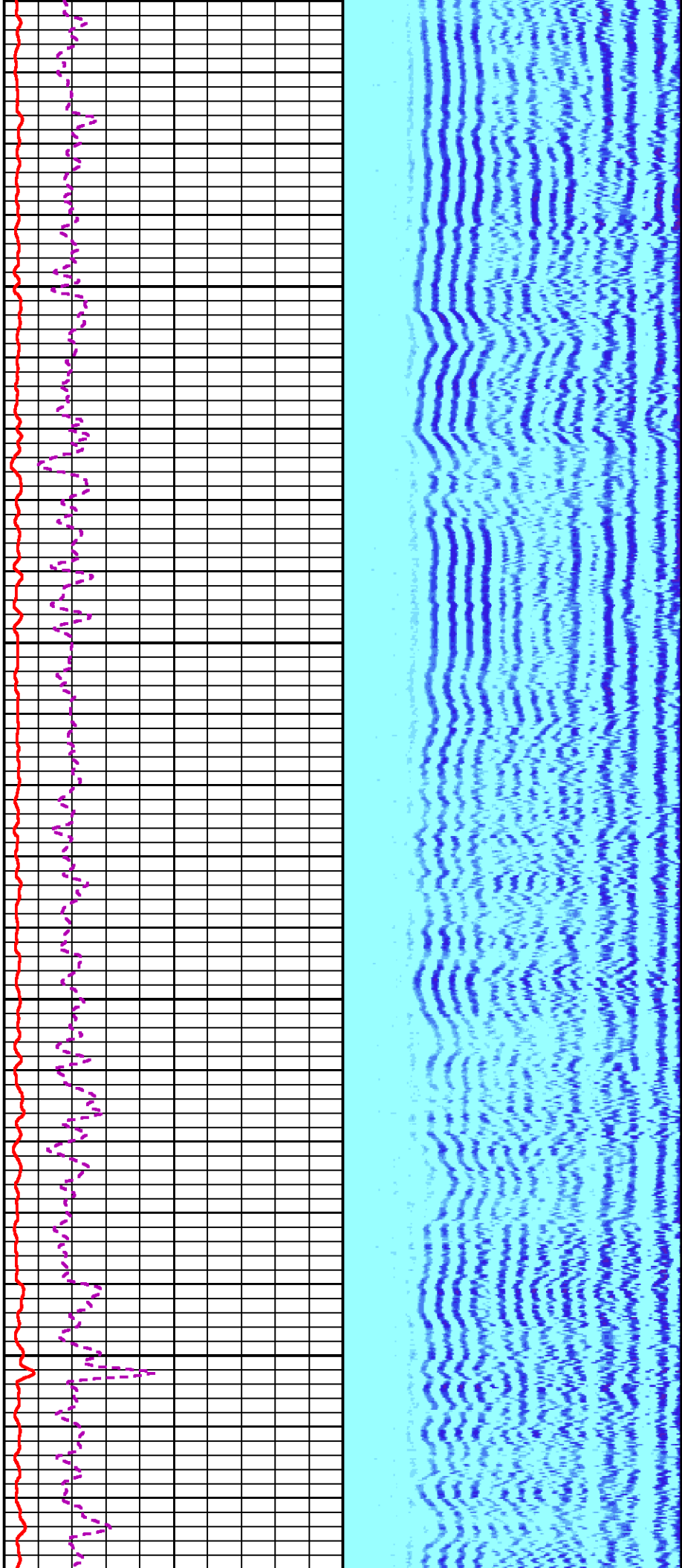


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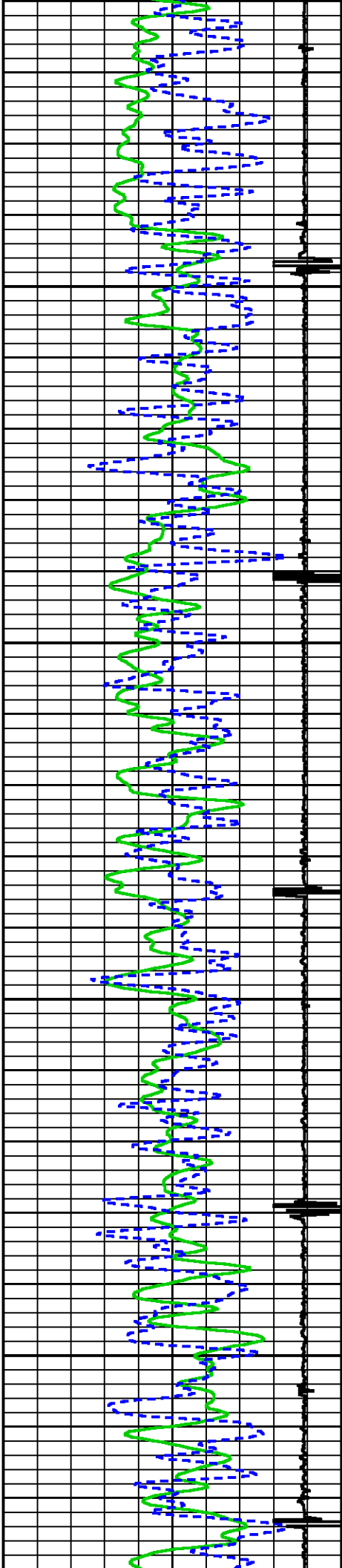
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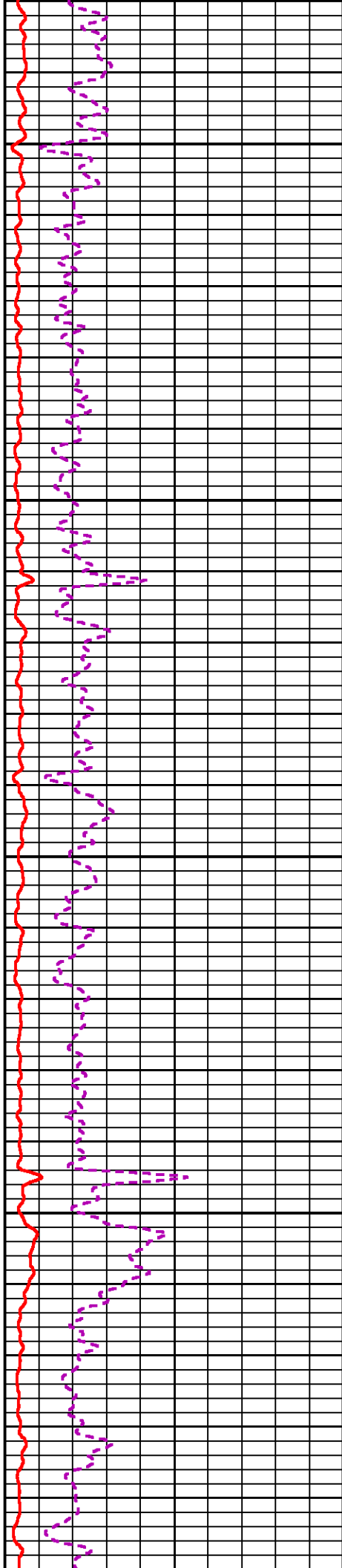
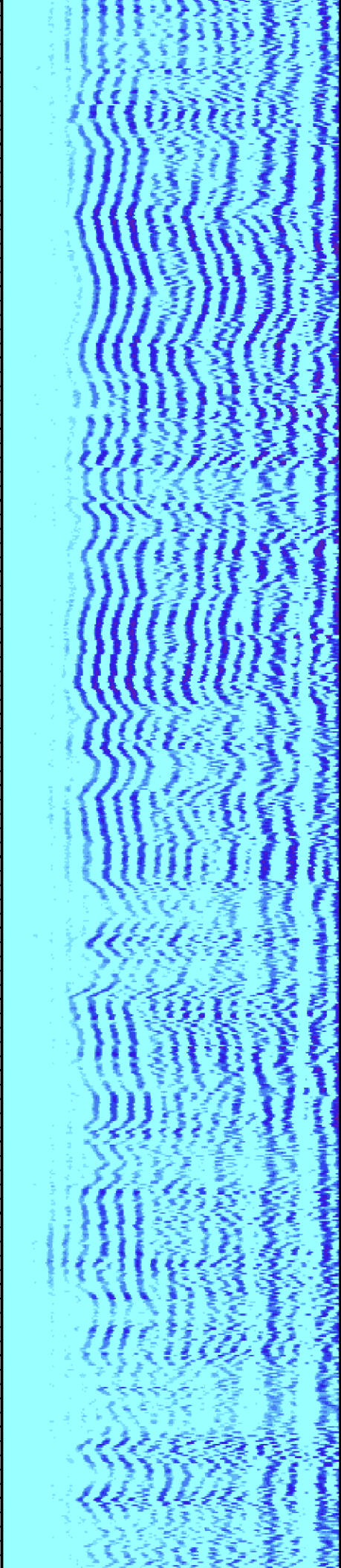




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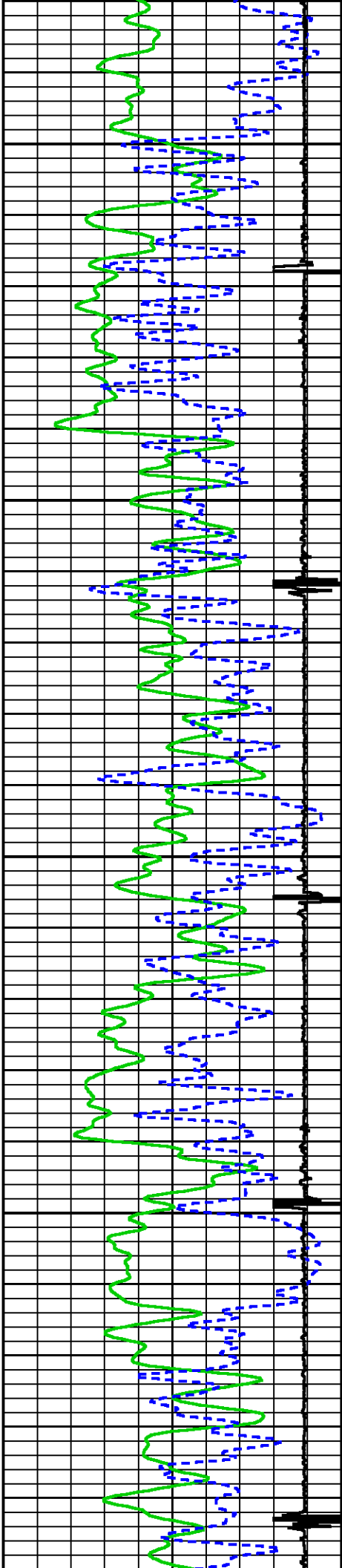
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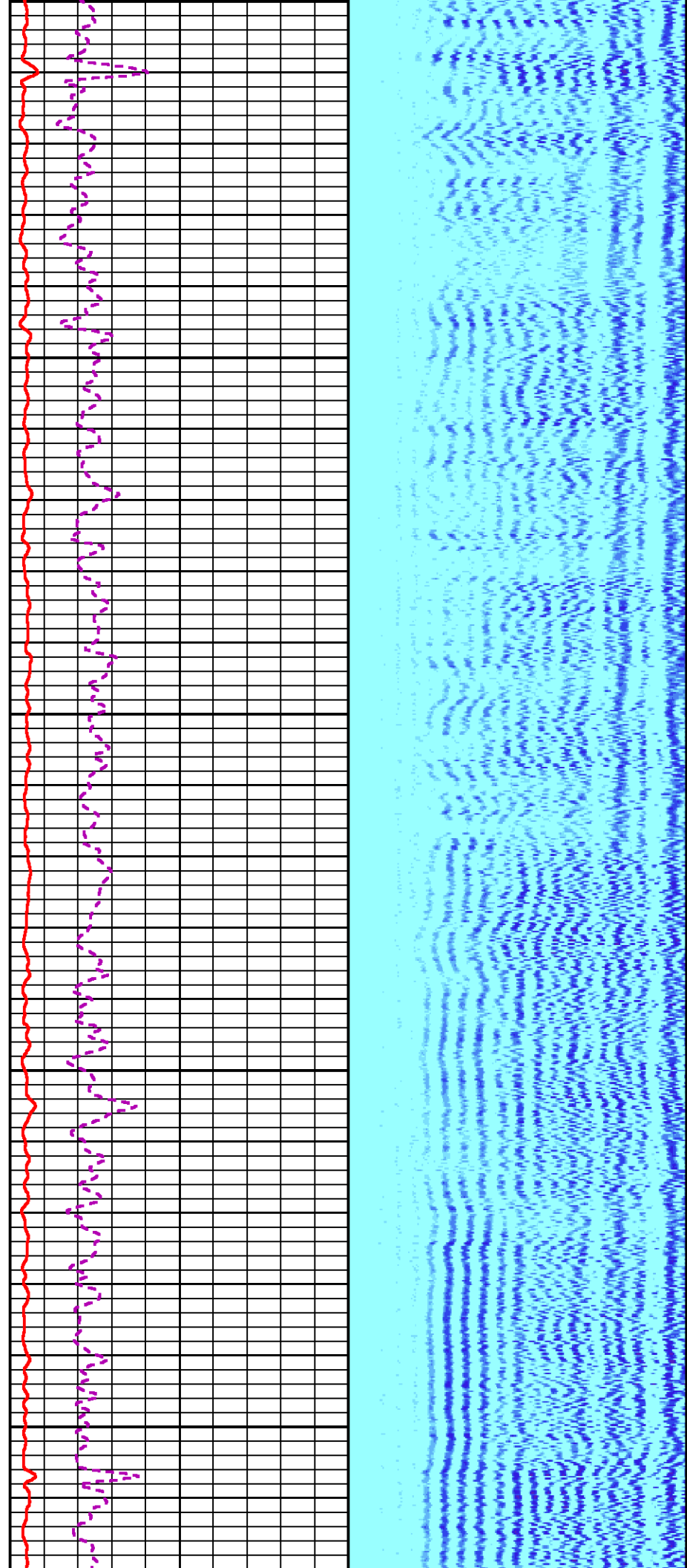




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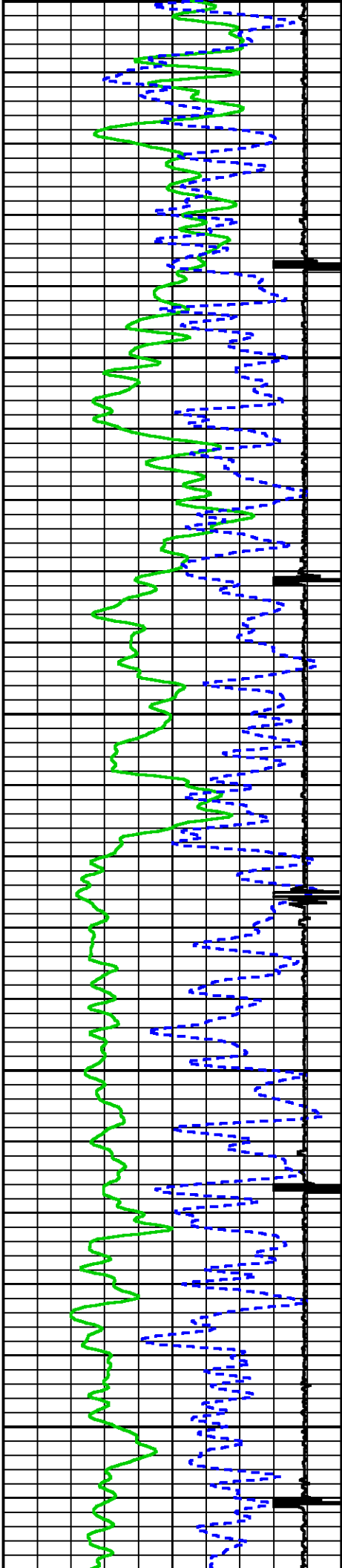
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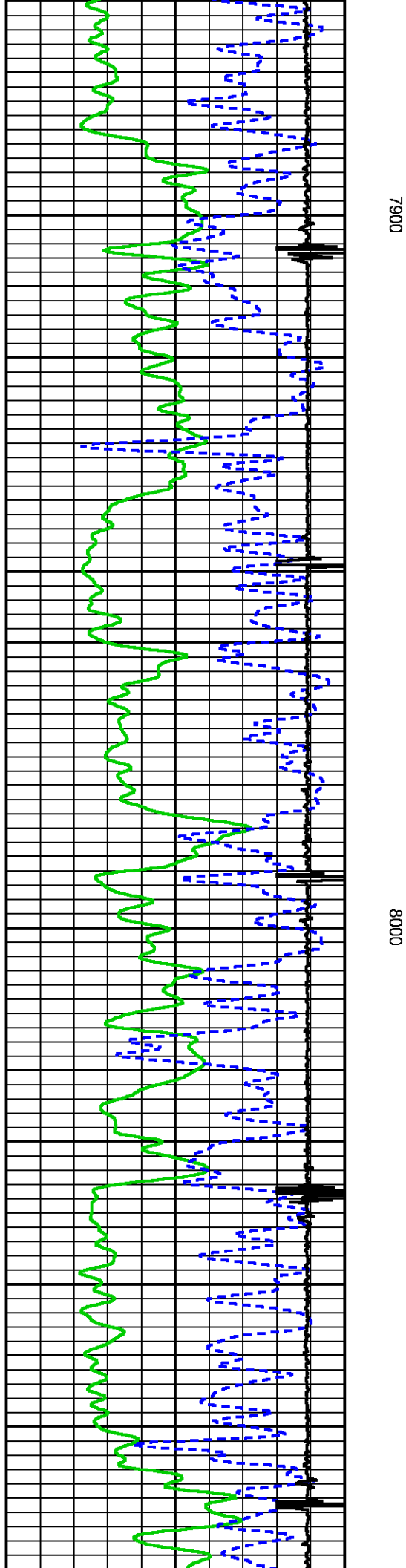
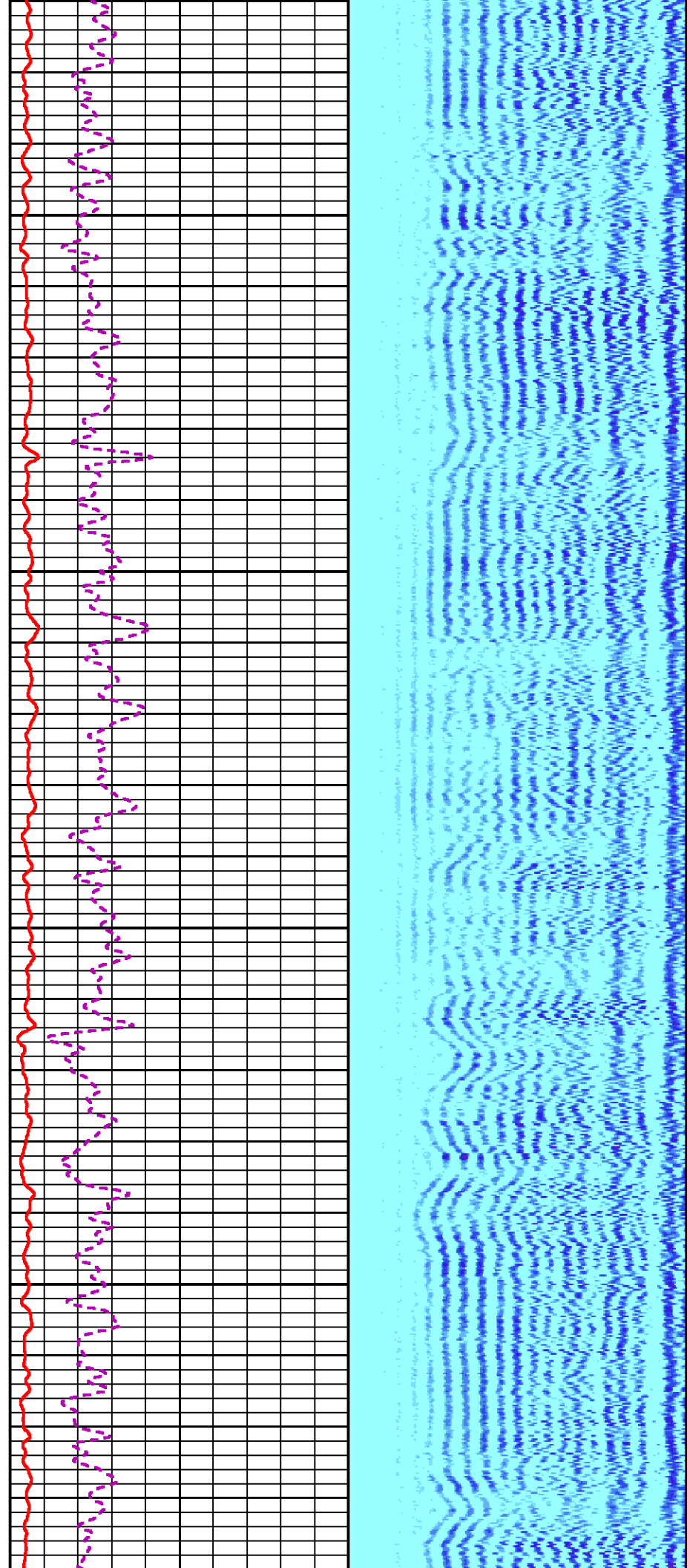


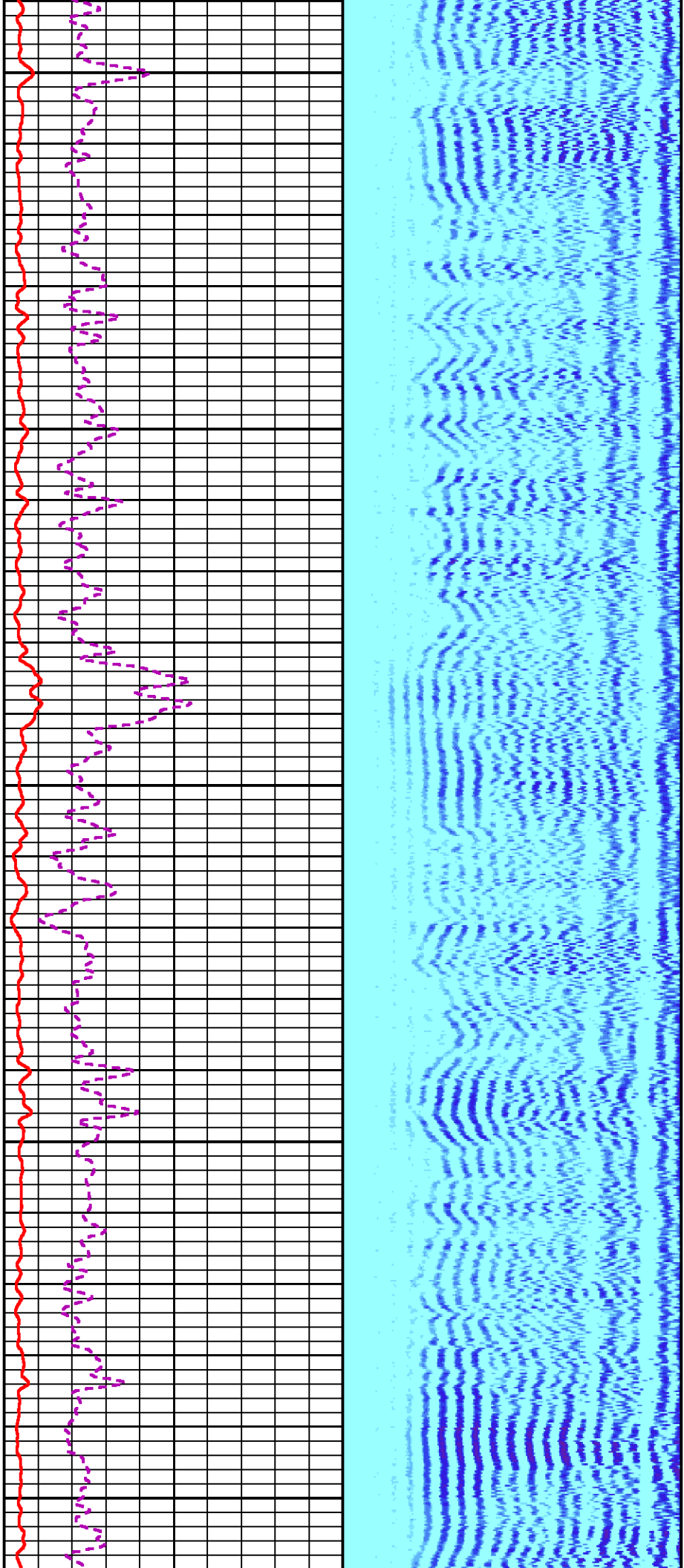


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7800



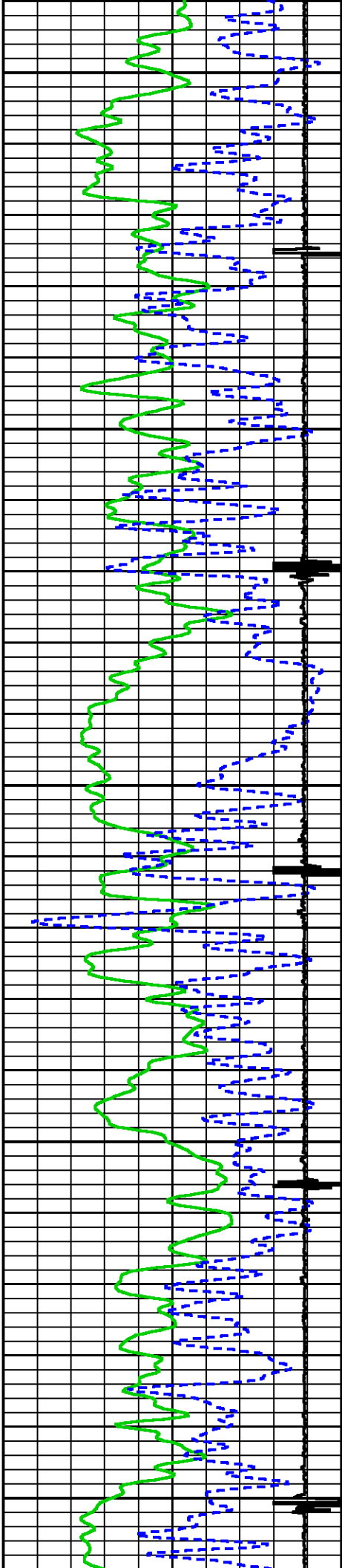


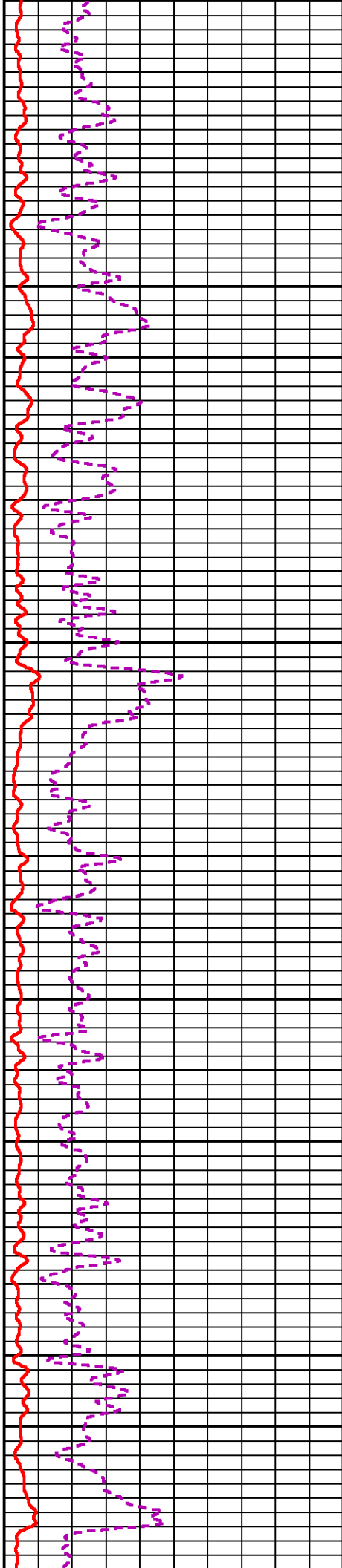
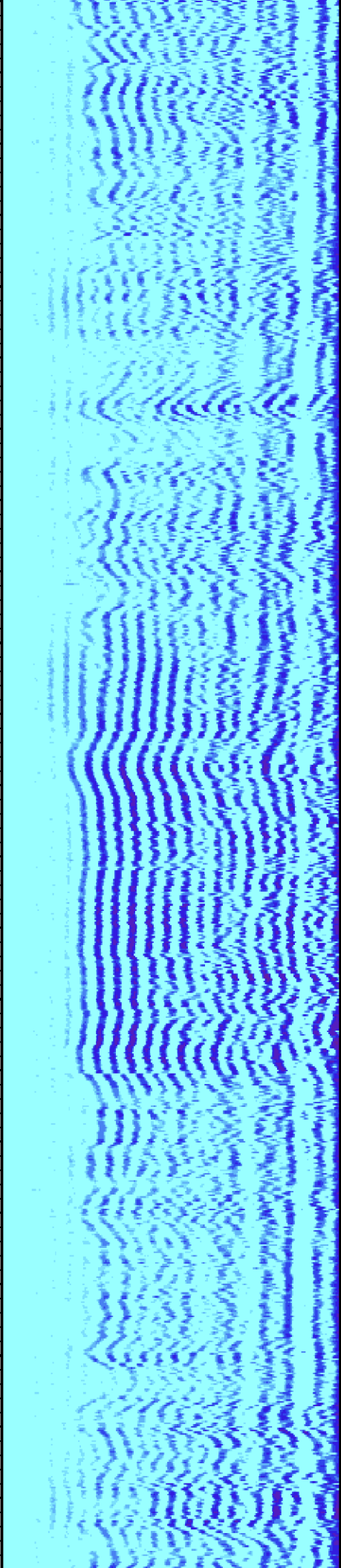


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8200

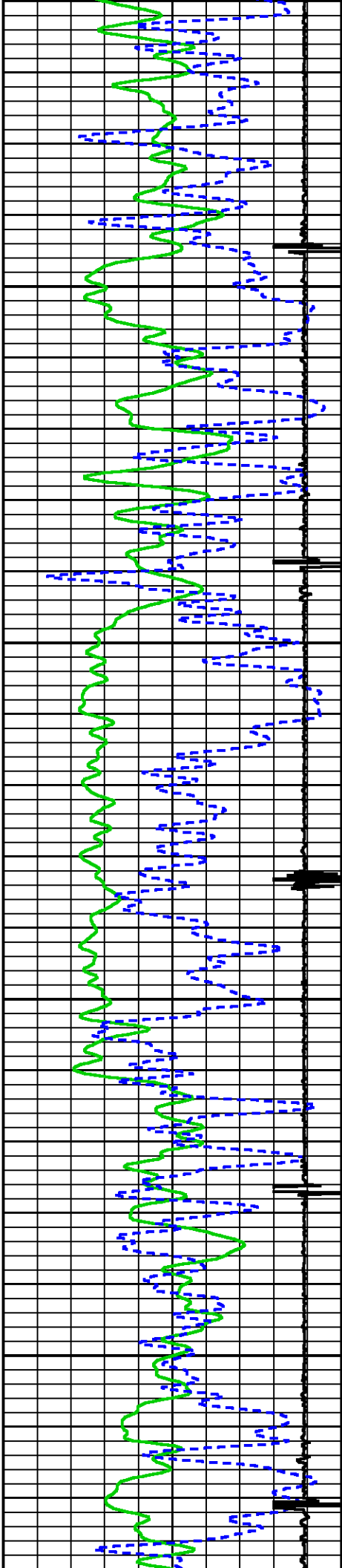
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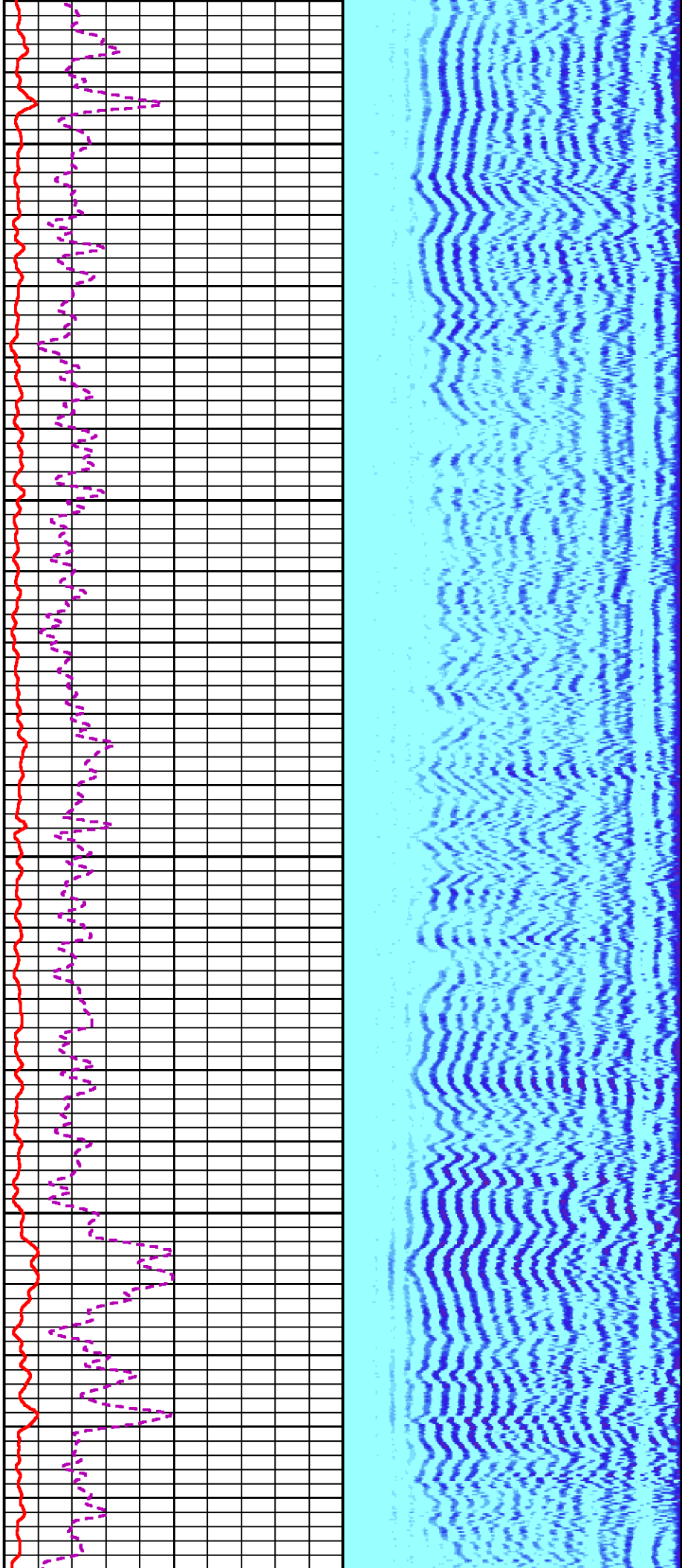




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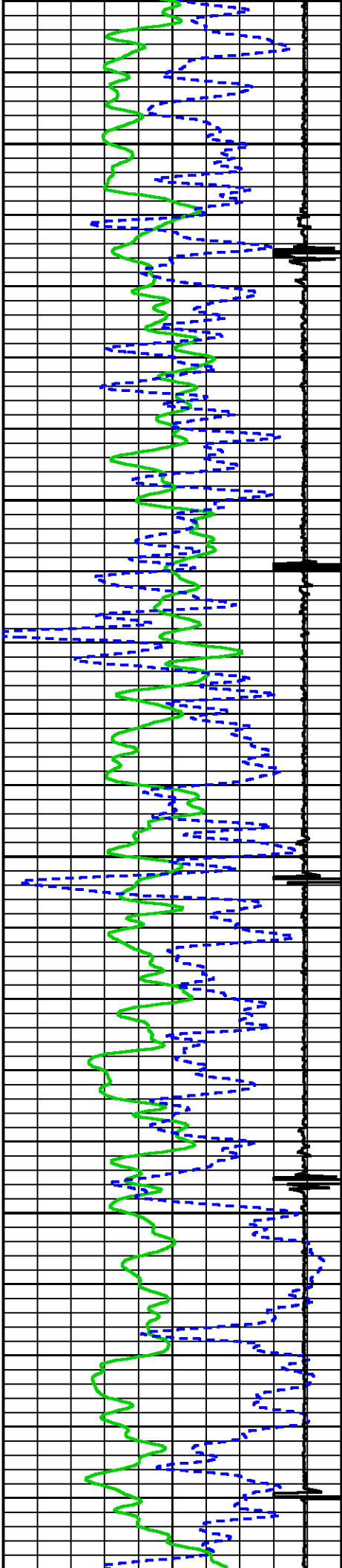
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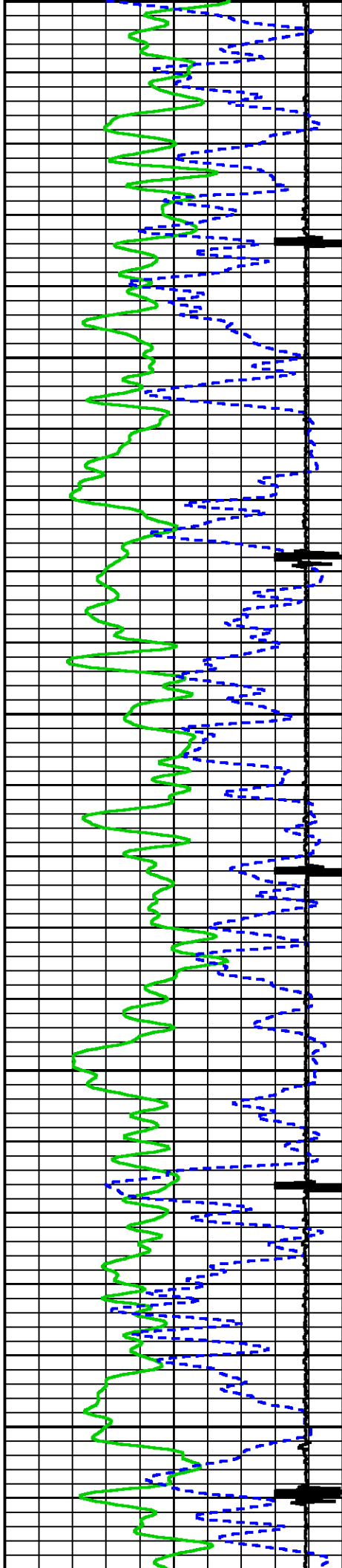




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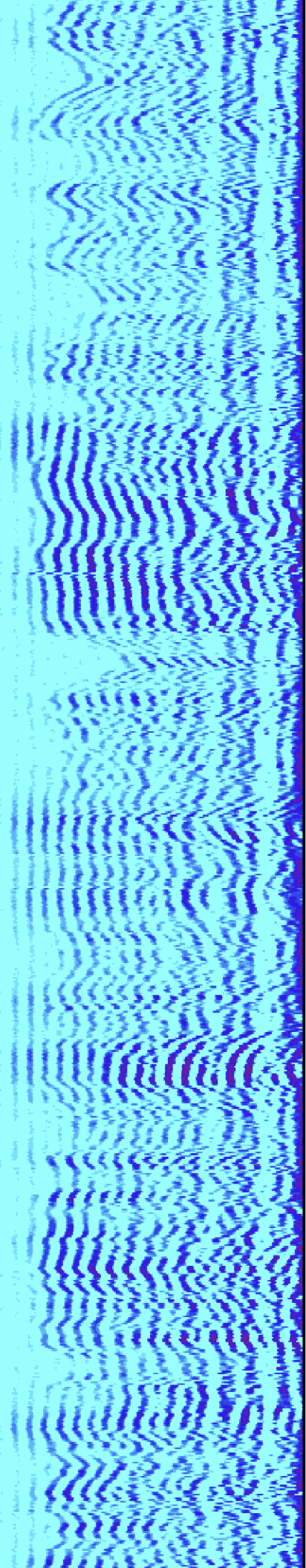
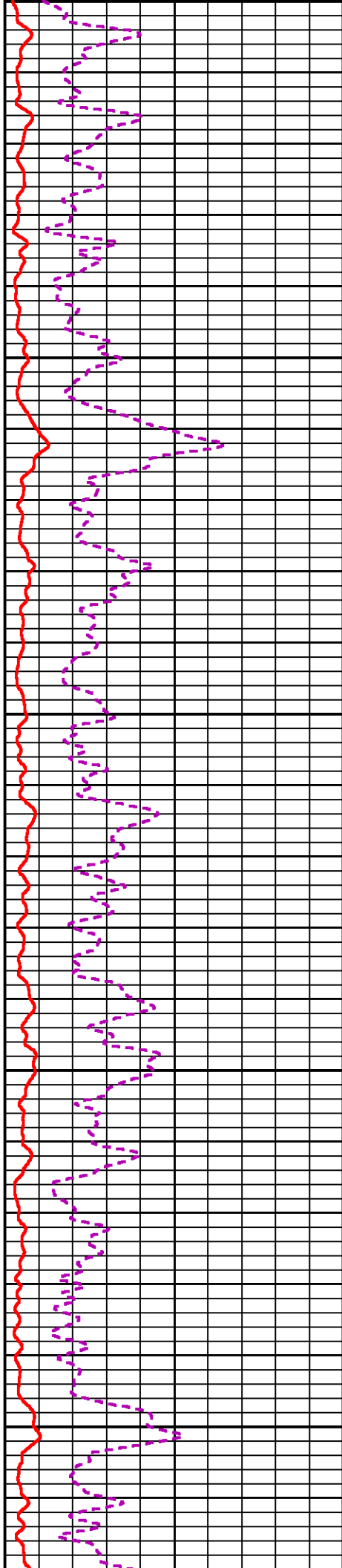
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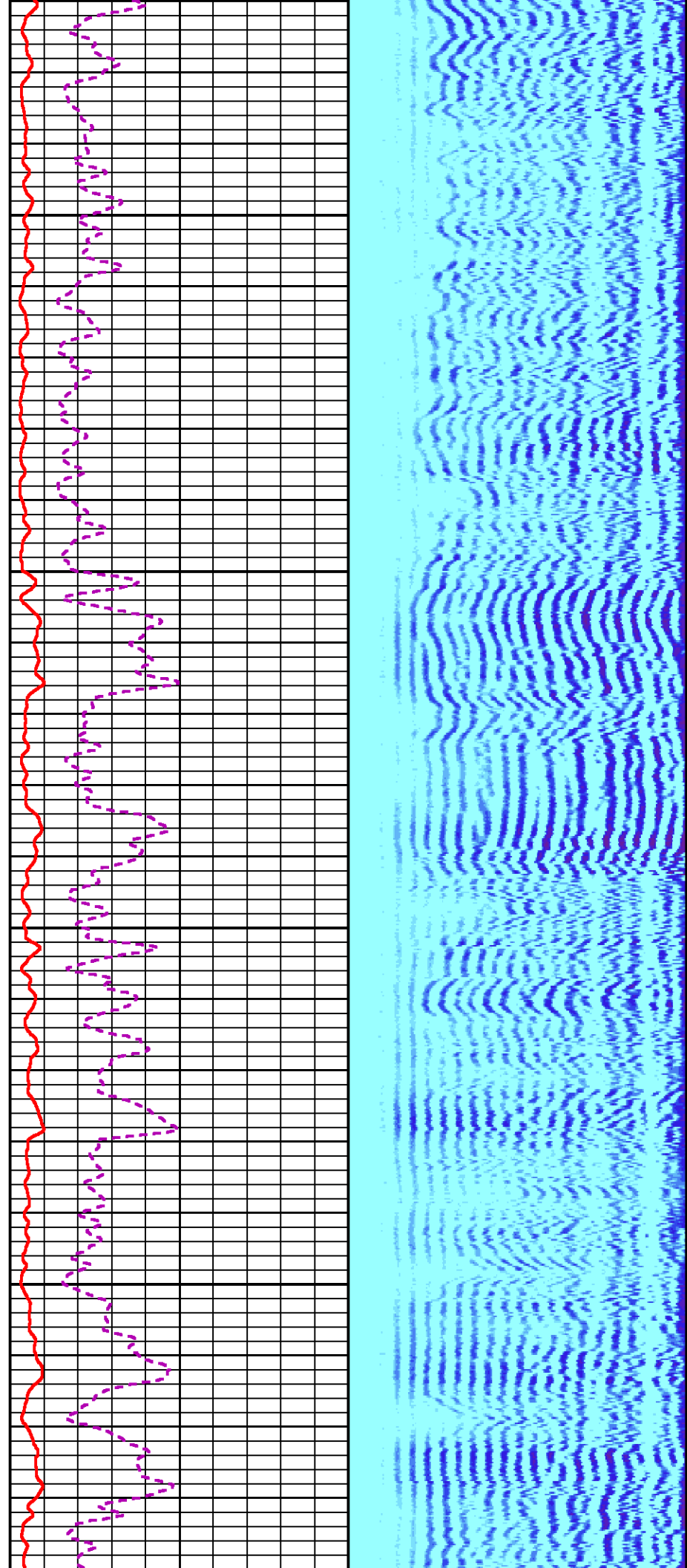




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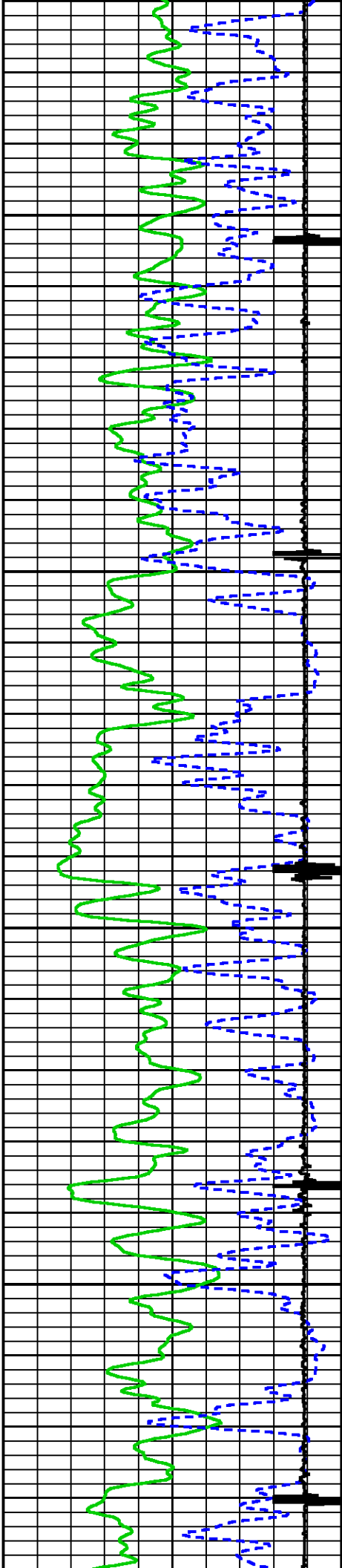
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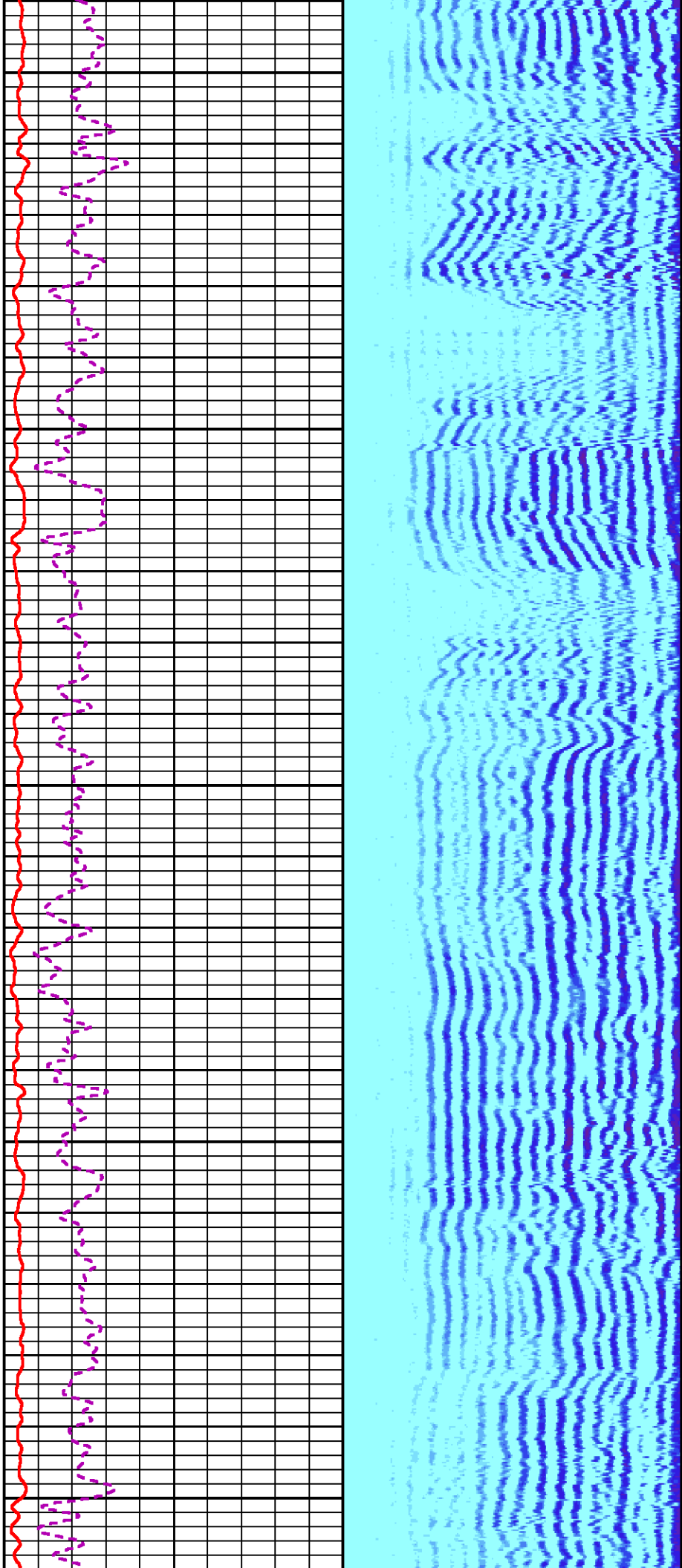




9000

9100

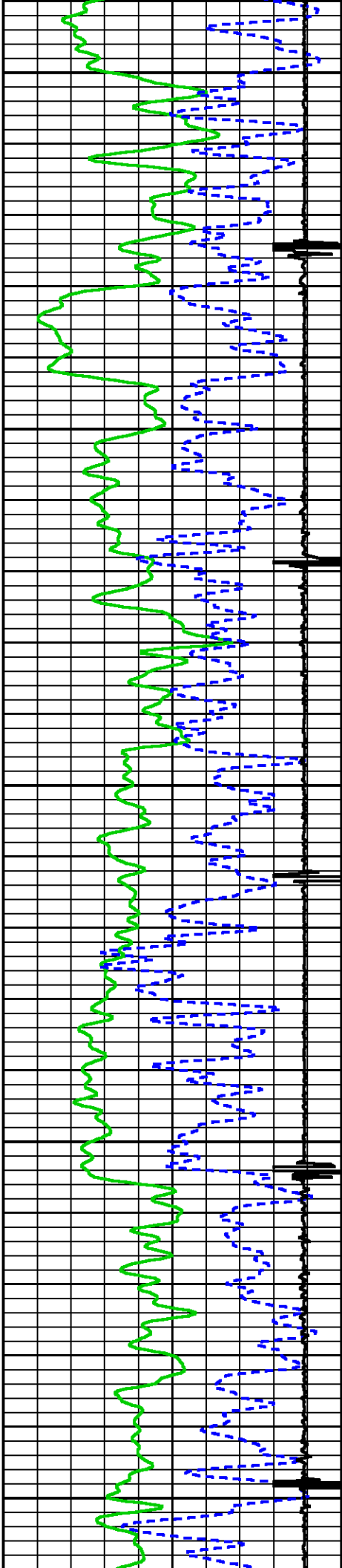


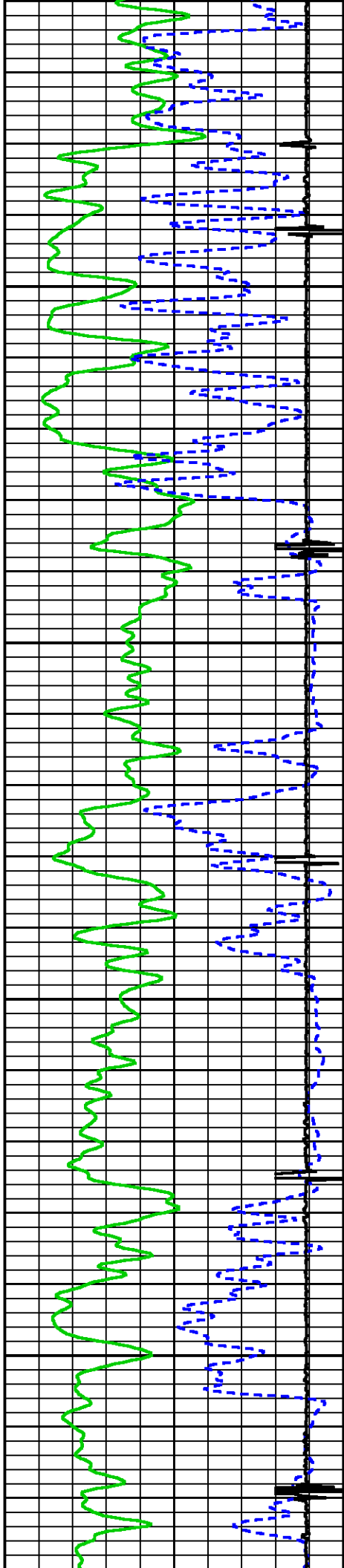


9200

9300

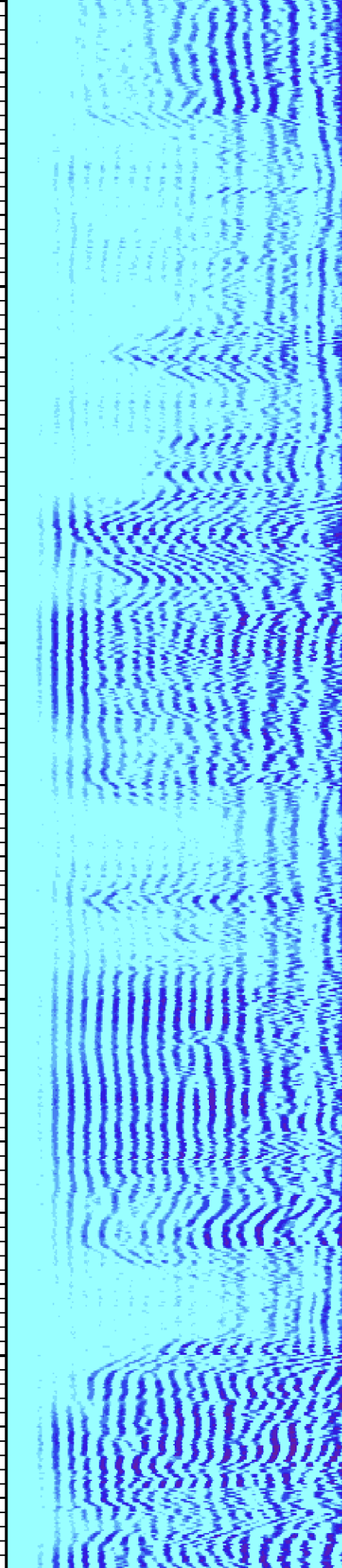
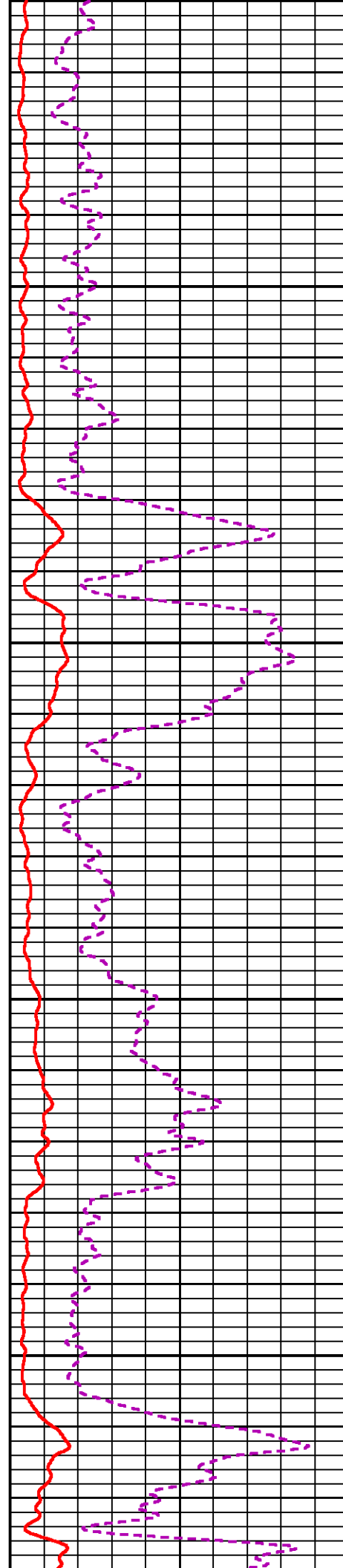
9400





9500

0096

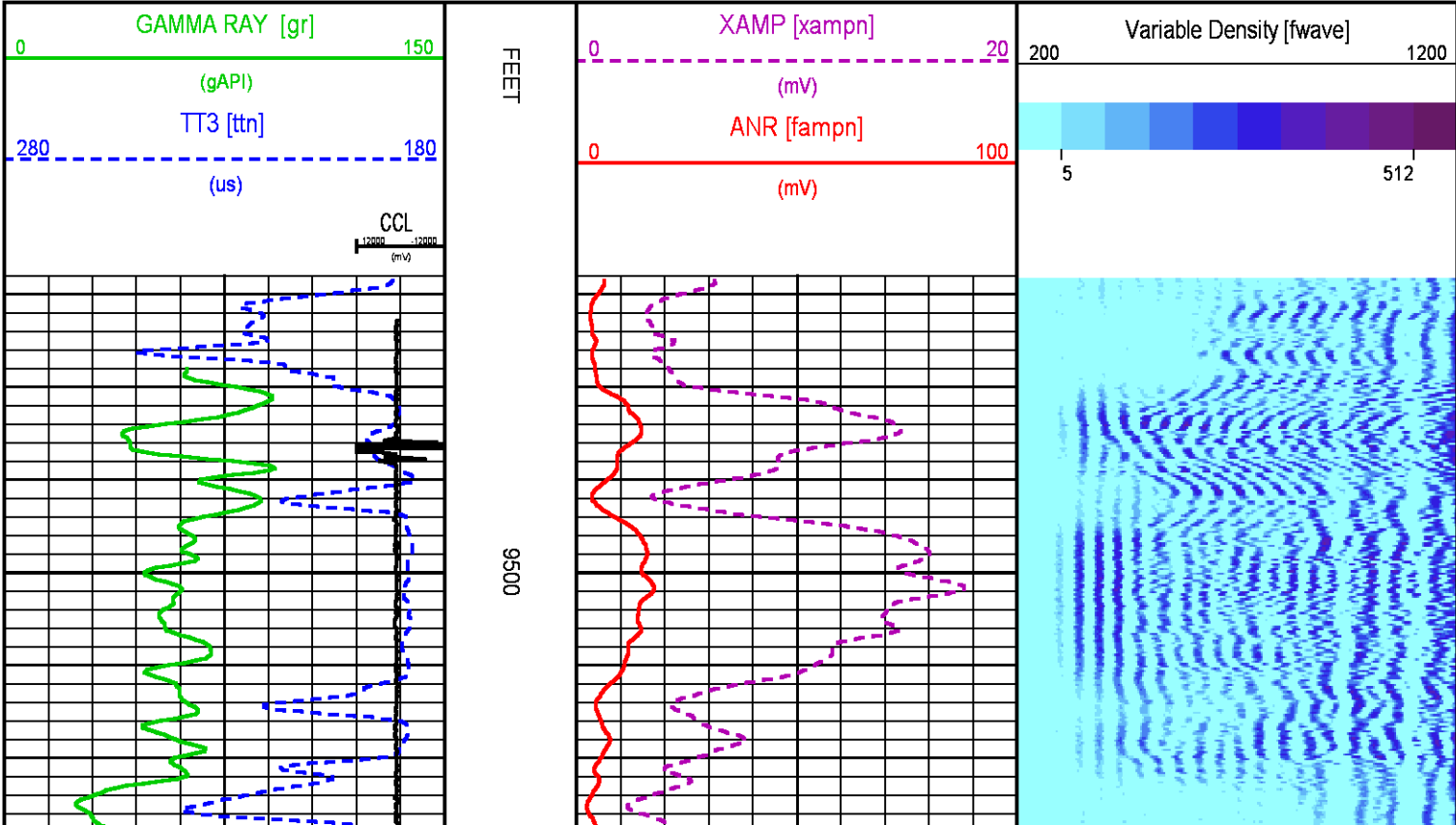


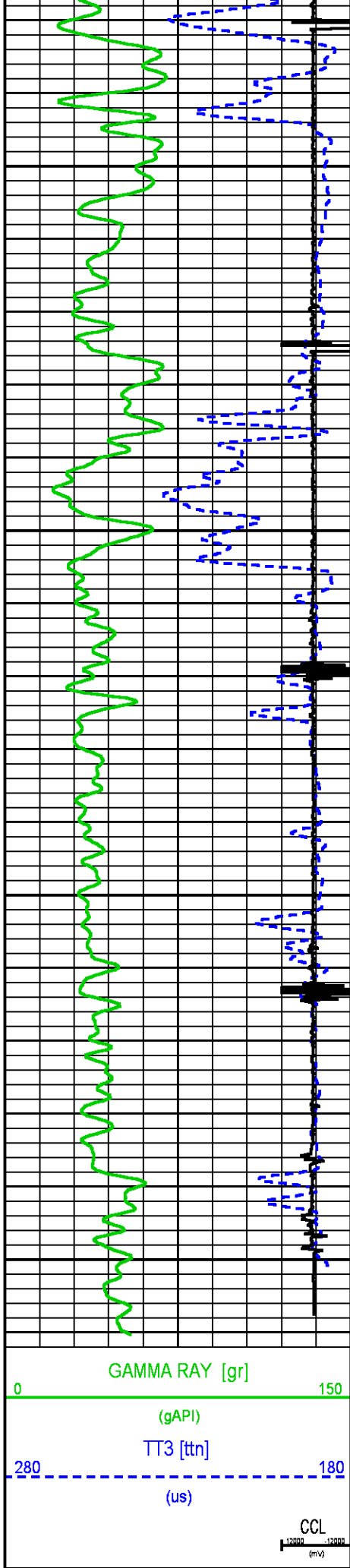
CCL FLOOR	CCL FLOOR	0	TOP	BOTTOM
ANALOG RAL PROCESSING				
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
AMPLITUDE WINDOW (NEAR)	AMP WINDOW START (fgpn*)	180	us	TOP
	AMP WINDOW LENGTH	25	us	BOTTOM
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	160	us	"
	TT WINDOW LENGTH	500	us	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"
RAL TOOL DELAY	TOOL DELAY (strn*)	-75	us	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	125	us	"
	NOISE WINDOW LENGTH	25	us	"

CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Dec 16 06:17:53 2016	CASING COLLAR LOCATOR
F1:FAMPN	Dec 16 06:17:53 2016	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Dec 16 06:17:53 2016	FAR WAVE FORM
F1:GR	Dec 16 06:17:53 2016	GAMMA RAY
F1:TTN	Dec 16 06:17:53 2016	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Dec 16 06:17:53 2016	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	5.75	GR	1.75	XAMPN	11.25		
FAMPN	11.25	TTN	11.25				

Presentation	: cpu100:ral_cbl+01-REPEAT-RAL_RPT-5.fvpdf [5"/100' Scale]
Plot Interval	: 9468.25 - 9711.75 Feet
Data File 1	: F1 : cpu100:/dat1a/TEP_YOUBERG_SR_444_12/RAL_RPT.xtf
Created On	: Dec 16 06:17:53 2016
Company	: TEP
Well	: YOUBERG SR 444-12
Field	: RULISON
File Interval	: 9467.25 - 9713.25 Feet
OCT	: n012g

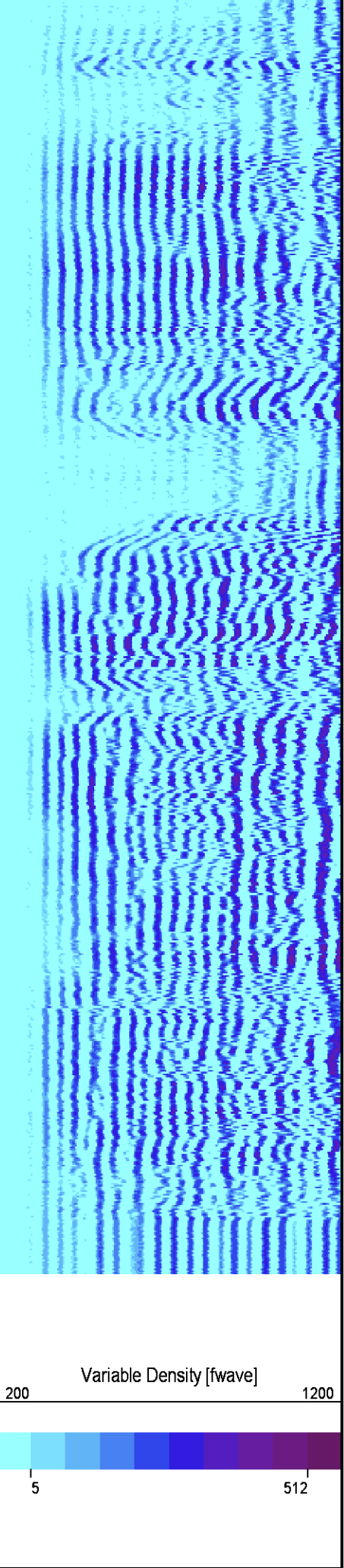
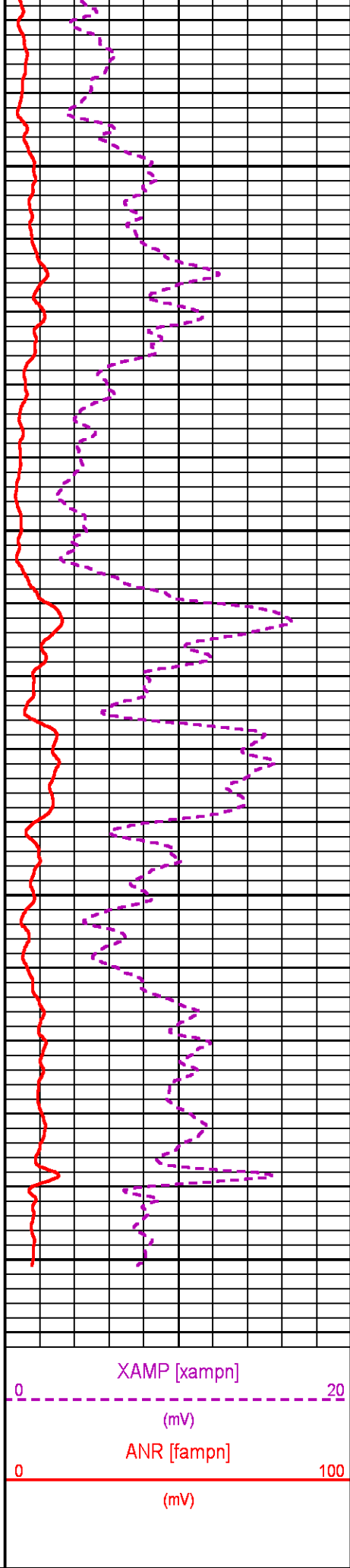




9600

9700

FEET



CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/TEP_YOUBERG_SR_444_12/n012g1p1

RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 10154957		DATE/TIME PERFORMED: Fri Dec 16 05:36:58 2016	
UNIT #: 3880TA HL6670			
	NEAR (mV)	RADIAL (mV)	FAR (mV)
TARGETS	100.00	100.00	150.00
	NEAR	R1	R2
	R3	R4	R5
	R6	R7	R8
	FAR	CAL	
ZERO (mV)	1.88	2.79	2.53
	2.59	2.40	2.45
	2.32	2.42	2.33
	6.30	0.03	
AMP FLUID (mV)	86	85	85
	86	86	84
	83	83	84
	115	89	
TT (us)	213	212	212
	212	212	212
	212	212	213
	320	212	
M FACTOR	1.20	1.22	1.21
	1.20	1.22	1.24
	1.24	1.23	1.38
	1.13		

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10154957		DATE/TIME PERFORMED: Fri Dec 16 05:38:26 2016		DAYS SINCE CAL: 0		
UNIT #: 3880TA HL6670		CABLE #: 6670SM SMALL6670				
	NEAR (mV)	R1 (mV)	R2 (mV)	R3 (mV)	R4 (mV)	
	R5 (mV)	R6 (mV)	R7 (mV)	R8 (mV)	FAR (mV)	
	CAL (mV)					
ZERO	-0.22	-0.99	-0.96	-0.91	-1.04	
	-0.82	-1.10	-1.00	-0.90	-0.84	
	0.03					
AMP AIR	1.76	2.51	2.05	1.97	2.07	
	2.04	2.41	2.43	2.43	2.41	
	99.97					
	SHOP M FACTOR	SHOP A FACTOR	WIRELINE FACTOR			
	1.13	0.00	1.00			

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 12670180		DATE/TIME PERFORMED: Tue Nov 15 11:53:22 2016	
UNIT #: 3880TA HL6670		CALB JIG #: 4702NK DA_228	
	BACKGROUND (cts)	CALBRTR ON (cts)	GR DIFF (cts/s)
	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)
	CALBRTR (gAPI)		
GR	75.82	247.07	171.2
	0.584	44.28	144.28
	100		

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1355XA 12670180		DATE/TIME PERFORMED: Tue Nov 15 11:54:47 2016	
UNIT #: 3880TA HL6670		VERI JIG #: 4702NK DA_228	
	BACKGROUND (cts)	CALBRTR ON (cts)	MULT
	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	77.11	254.76	0.584
	45.03	148.77	103.74
	90.00	110.00	

INSTRUMENT CONFIGURATION

Source File: /dat1a/TEP_YOUBERG_SR_444_12/n012g~tdg

CABLEHEAD

Diameter : 2.75"
Length : 2.25"
Weight : 10 lbs
Series : CABL234



20.38'

RADIAL BOND TOOL

Diameter : 2.75"
Length : 11.17'
Weight : 126 lbs
Series : 1426XA
Mnemonic : RAL
Measure Point: 4.21': NEAR RCVR
Measure Point: 3.25': FAR RCVR

NEAR RCVR 11.17'

FAR RCVR 10.21'

RAL GR/TEMP/CCL/CHV DETECTOR

Diameter : 2.75"
Length : 6.96'
Weight : 85 lbs
Series : 1355XA
Mnemonic : RAL
Measure Point: 5.79': CCL
Measure Point: 1.67': GR
Measure Point: 0.17': TEMP

CCL 5.79'

GR 1.67'

TEMP 0.17'

TOTAL LENGTH: 20.38'
TOTAL WEIGHT: 235 lbs
MAX DIAMETER: 0'4.00"



COMPANY **TEP ROCKY MOUNTAIN LLC**
WELL **YOUNBERG SR 444-12**
FIELD **RULISON**
COUNTY **GARFIELD** STATE **COLORADO**

FILE NO:

API NO:

05045232530000

LOCATION:

SHL:1923'FSL & 148'FWL SEC7 T7S R93W
BHL:427'FSL & 254'FEL SEC12 T7S R94W

SEC **12** TWP **7S** RGE **94W**

ELEVATIONS:

KB 7381 FT

DF

GL 7357 FT

DATE **16-DEC-2016**