



FILE NO:

COMPANY

WELL

TEP ROCKY MOUNTAIN LLC
YOUBERG SR 44-12

API NO:

FIELD

RULISON

05045232500000

COUNTY

GARFIELD

STATE COLORADO

Ver. 4.06

LOCATION:

SHL:1944FSL & 147FWL S 7 T 7S R 93W
BHL:1097FSL&511FEL S 12 T 7S R 94WOTHER SERVICES
RPM

SEC 12 TWP 7S RGE 94W

PERMANENT DATUM GL ELEVATION 7357 FT
LOG MEASURED FROM KB 24 FT ABOVE P.D.
DRILL. MEAS. FROM KBELEVATIONS:
KB 7381 FT
DF 7380 FT
GL 7357 FT

DATE 01-JAN-2017

RUN 1 TRIP 1

SERVICE ORDER US110702

DEPTH DRILLER 9636 FT

DEPTH LOGGER 9510 FT

BOTTOM LOGGED INTERVAL 9510 FT

TOP LOGGED INTERVAL 24 FT

TIME STARTED 10:00

TIME FINISHED 13:00

OPERATOR RIG TIME 3 HRS

TYPE OF FLUID IN HOLE WATER

FLUID DENSITY NA

FLUID SALINITY NA

FLUID LEVEL 55 FT

LOGGED CEMENT TOP SEE LOG

WELLHEAD PRESSURE 0 PSI

MAXIMUM HOLE DEVIATION NA

NOMINAL LOGGING SPEED 100 FMN

MAX. RECORDED TEMP. 250 DEGF

REFERENCE LOG NA

REFERENCE LOG DATE NA

EQUIP. NO. LOCATION HL-6670 WOODWARD

RECORDED BY M.MENTZER

WITNESSED BY MR. DUSTIN WELSH

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	9535 FT

CASING RECORD

SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN	-	-	0 FT	1124 FT
4.5 IN	-	-	0 FT	9535 FT

REMARKS

RUN 1 TRIP 1: *2 OPERATIONS IN WELL*

OPERATION 1: RAL/GR/CCL RUN CENTRALIZED

WELL LOGGED WITH 0 PSI ON WELLHEAD

BHT: 250 DEGF

SHORT JOINT: 5631' - 5653'

CREW: D.HUTCHISON, J.PENA, L.OHANDLEY, M.MENTZER

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	RAL	1426 XA	10154957	CENTRALIZED
1	1	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: Sun Jan 1 13:16:39 2017

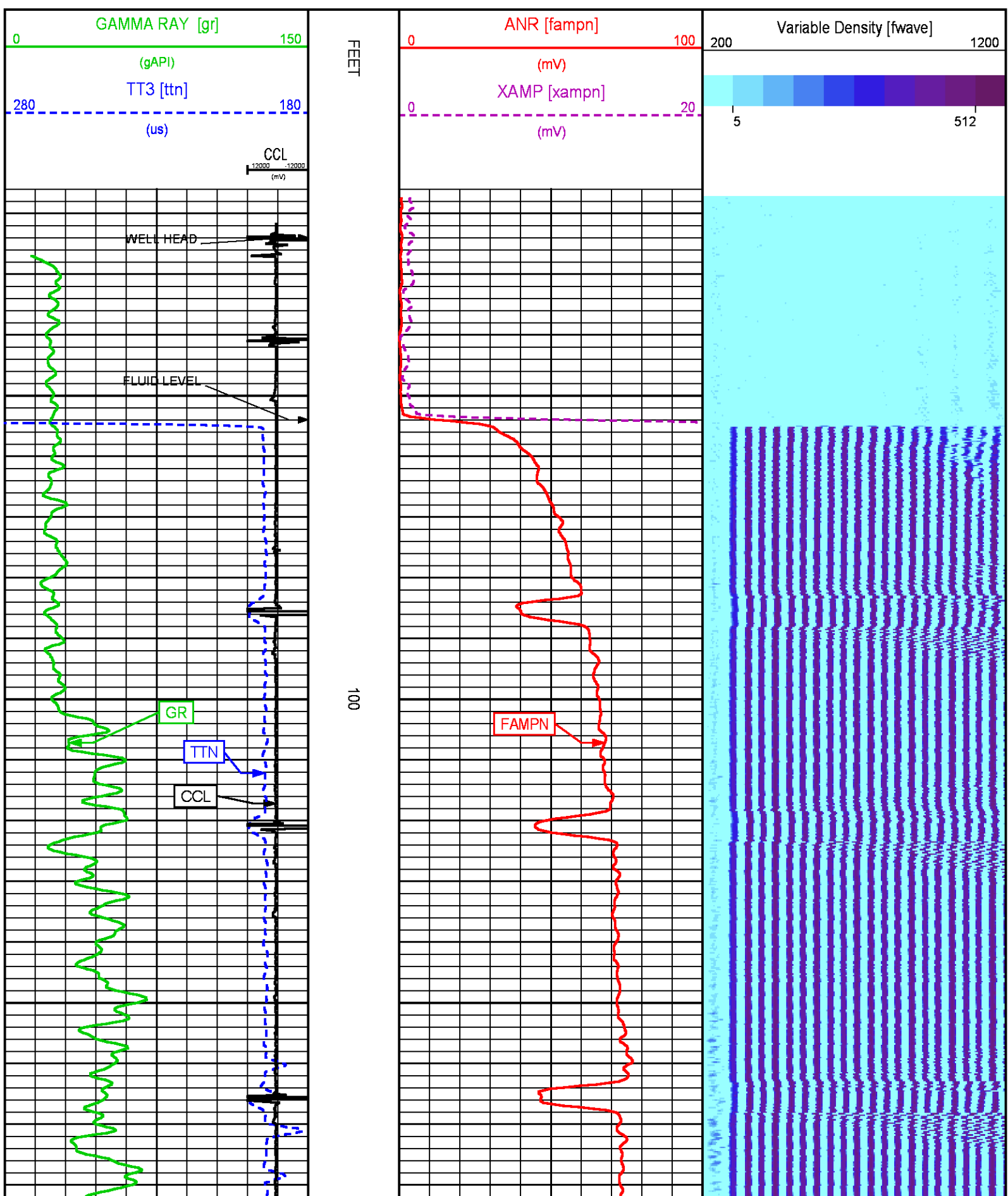
PARAMETER AND FILTER SUMMARY REPORT					
FILE: /dat1a/TEP_YOUBERG_SR_44_12/n012g02.prm LOGGING MODE: DEPTH DIRECTION: UP TOP DEPTH: 16.500 ft BOTTOM DEPTH: 9535.725 ft					
SYMMETRIC FILTER					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
AMPLITUDE	FILTER ()	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*)	179	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	"	"

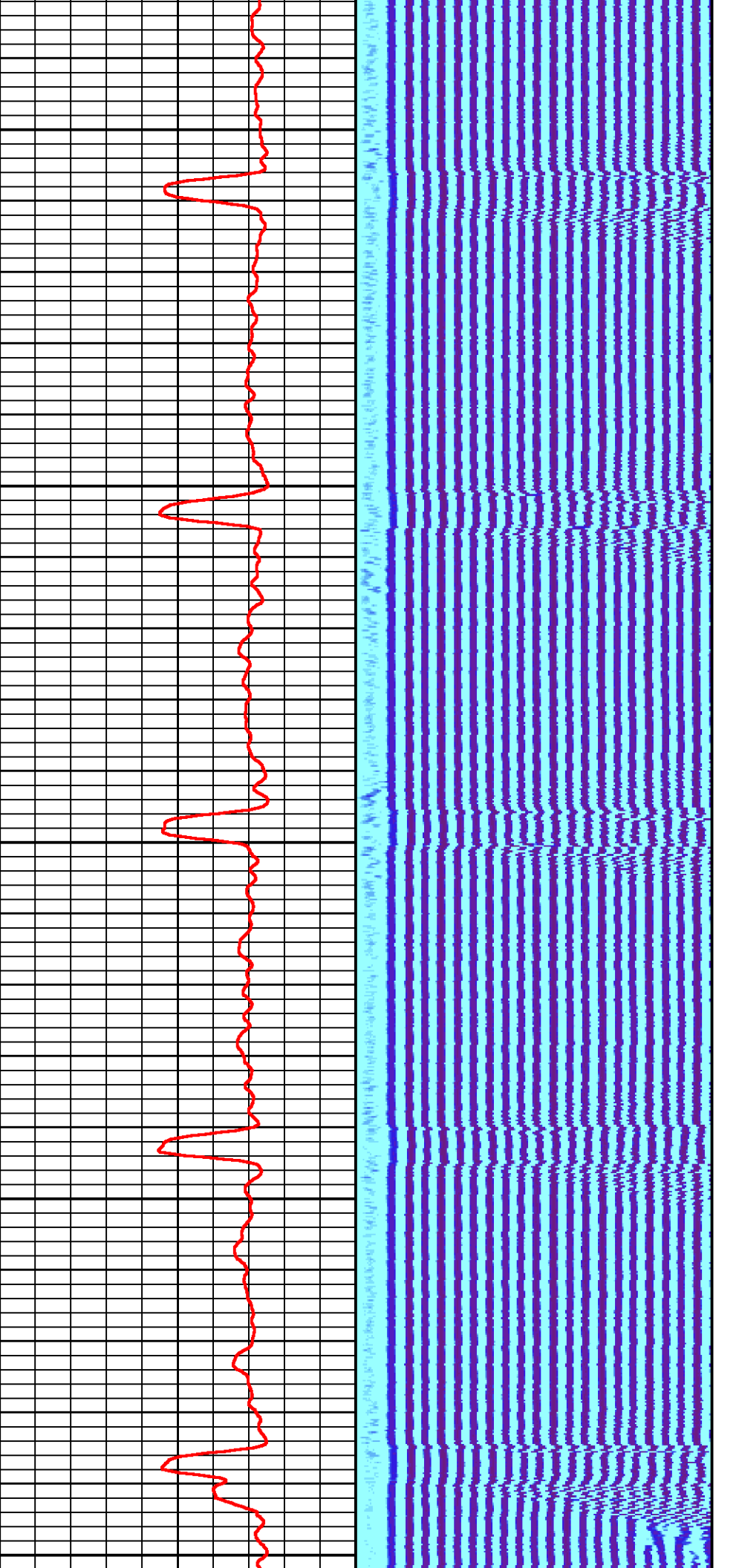
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Jan 1 10:37:21 2017	CASING COLLAR LOCATOR
F1:FAMPN	Jan 1 10:37:21 2017	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Jan 1 10:37:21 2017	FAR WAVE FORM
F1:GR	Jan 1 10:37:21 2017	GAMMA RAY
F1:TTN	Jan 1 10:37:21 2017	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Jan 1 10:37:21 2017	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:TERRA_ral_cbl+01-MAIN-RAL_MN-5.fvpdf [5"/100' Scale]
Plot Interval : 17.25 - 9545 Feet

Data File 1 : F1 : cpu100:/dat1a/TEP_YOUBERG_SR_44_12/RAL_MN.xtf
Created On : Jan 1 10:37:21 2017
Company : TEP ROCKY MOUNTAIN LLC
Well : YOUBERG SR 44-12
Field : RULISON
File Interval : 16.25 - 9546.5 Feet
OCT : n012g

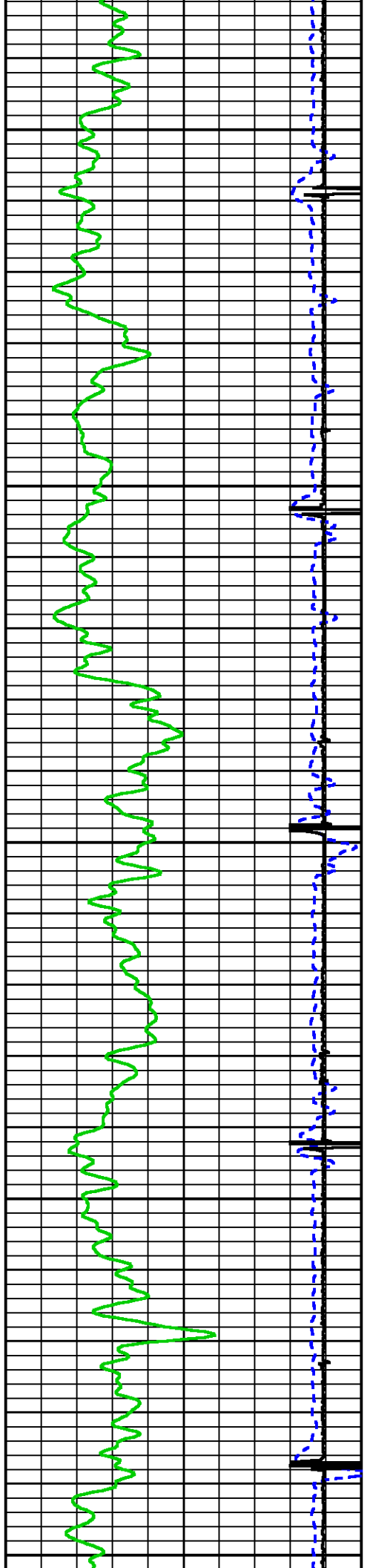


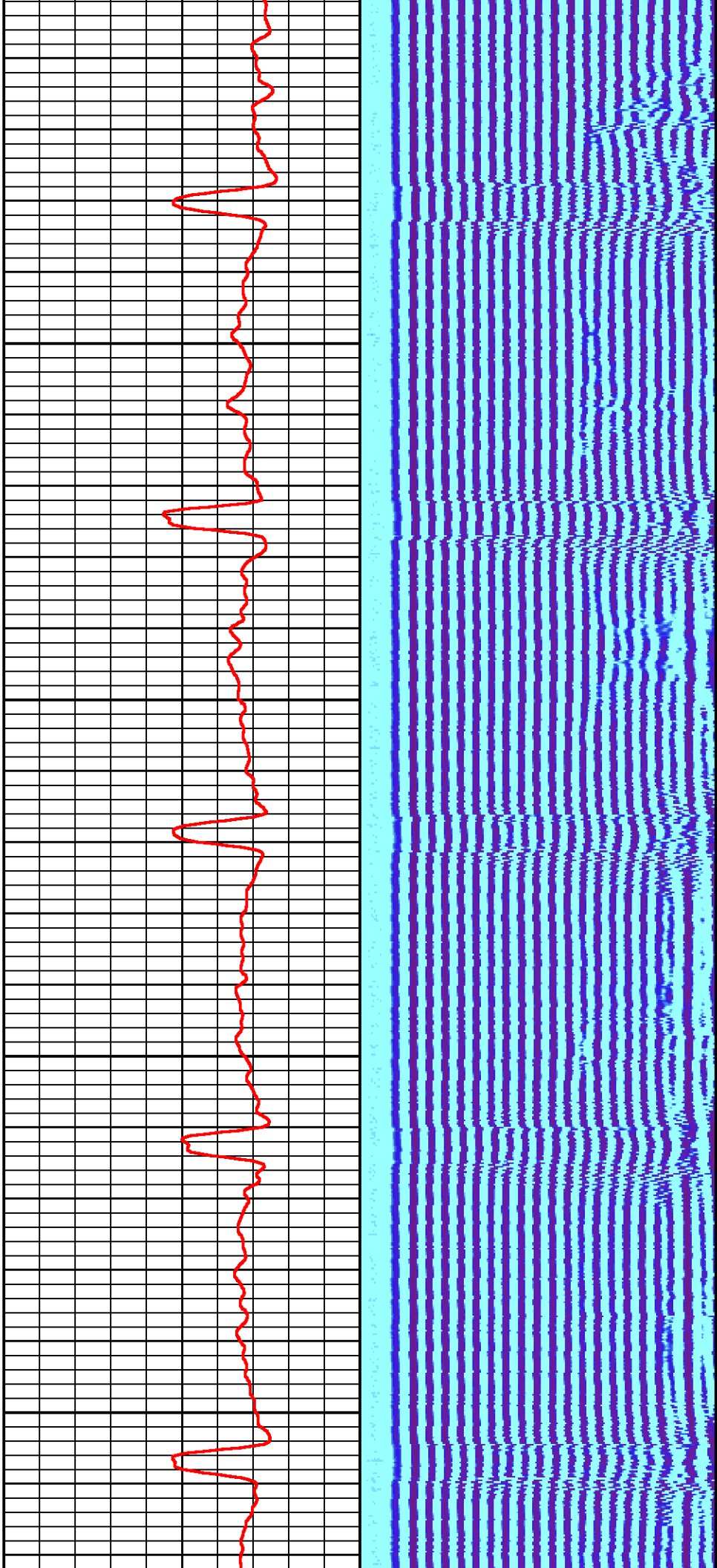


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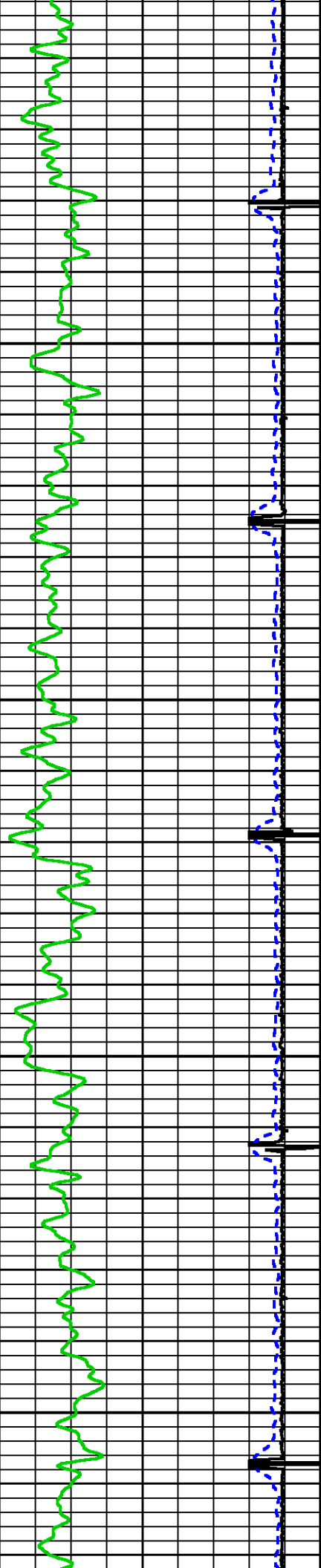
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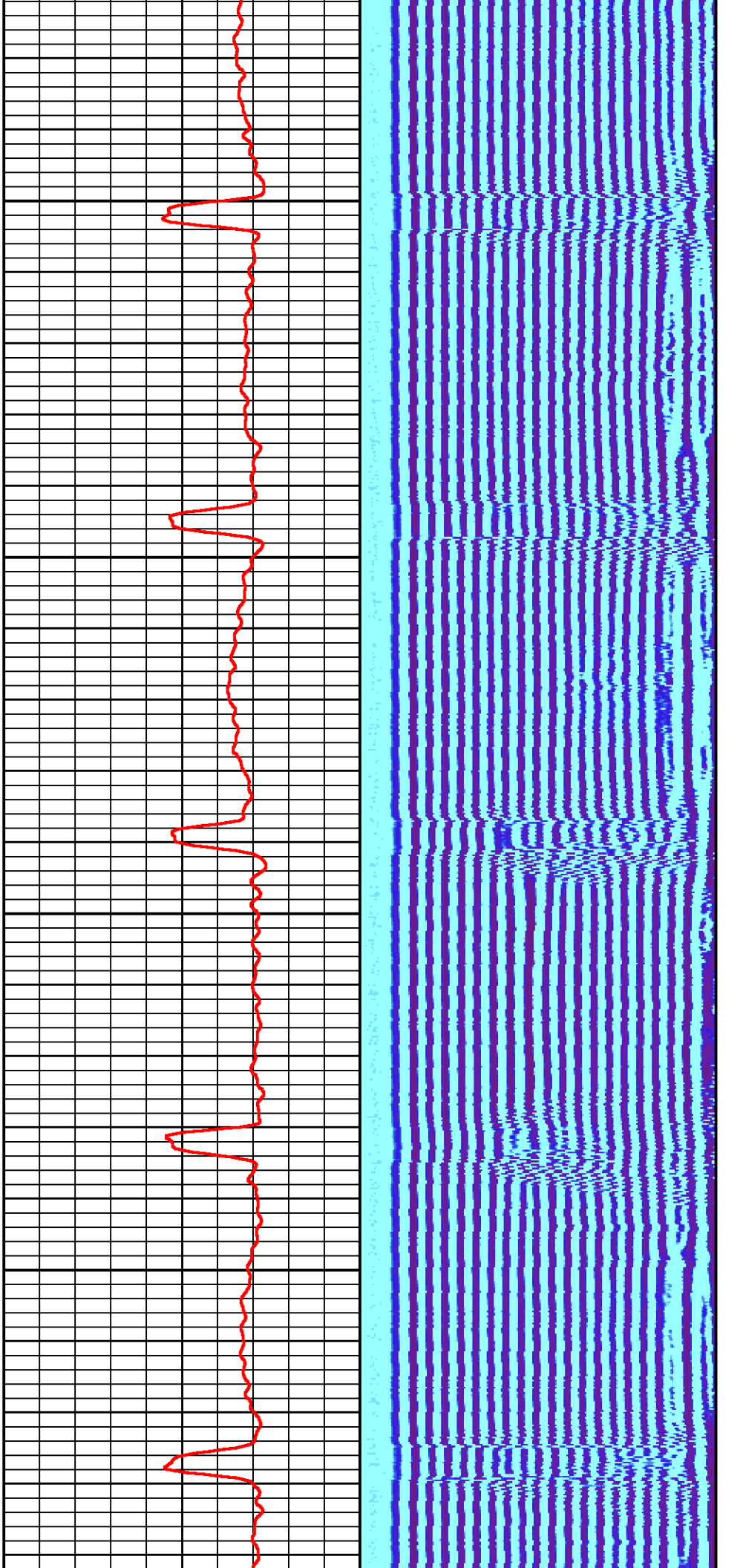




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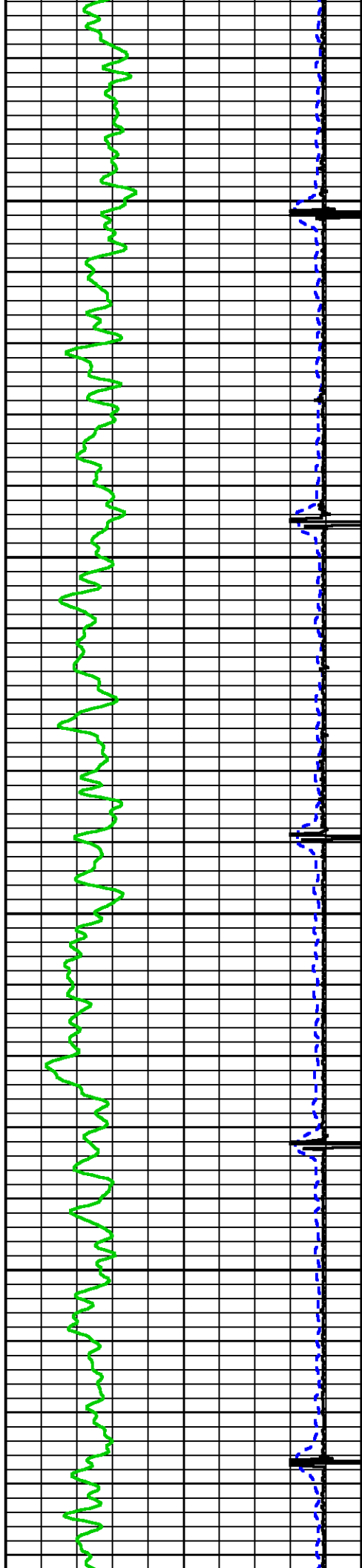
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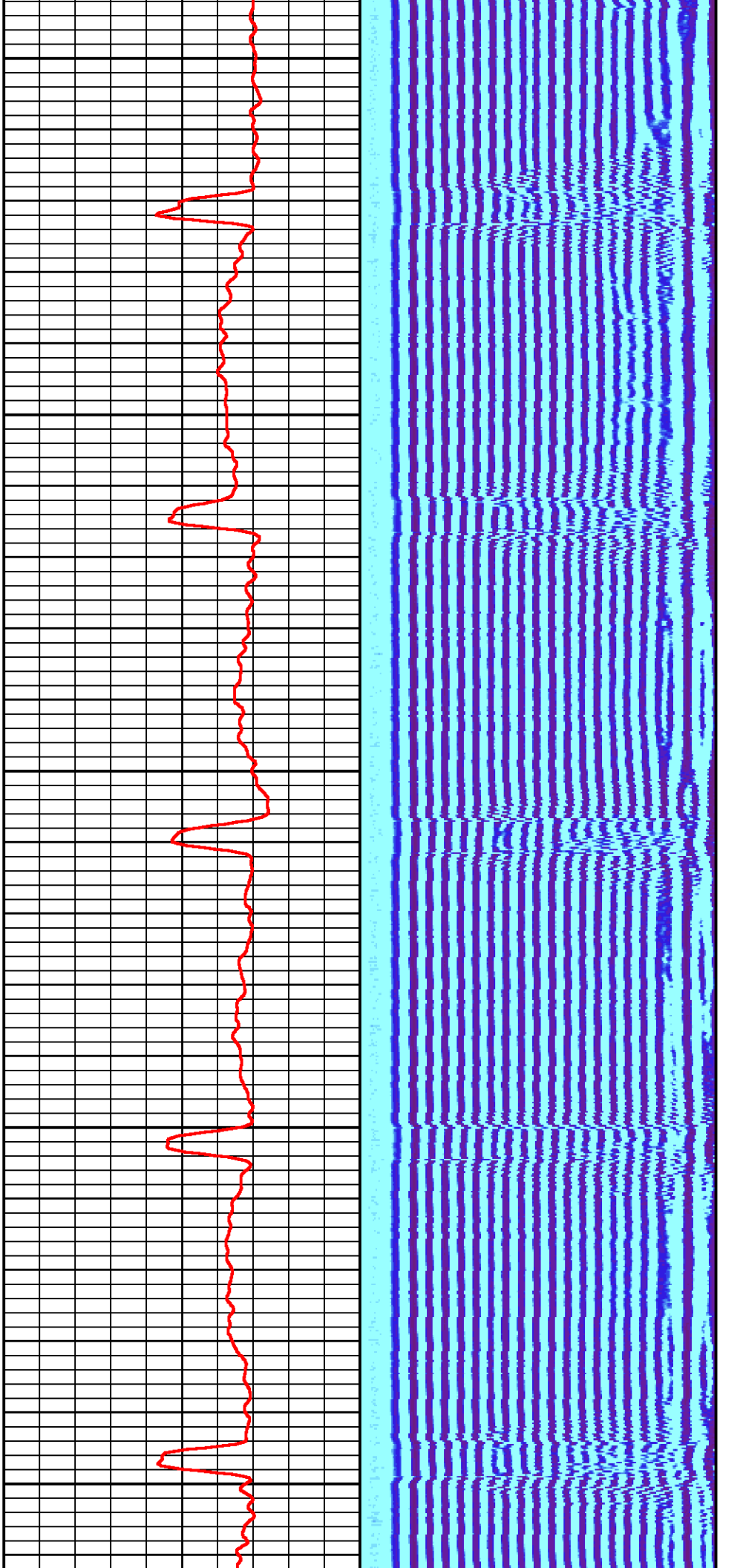




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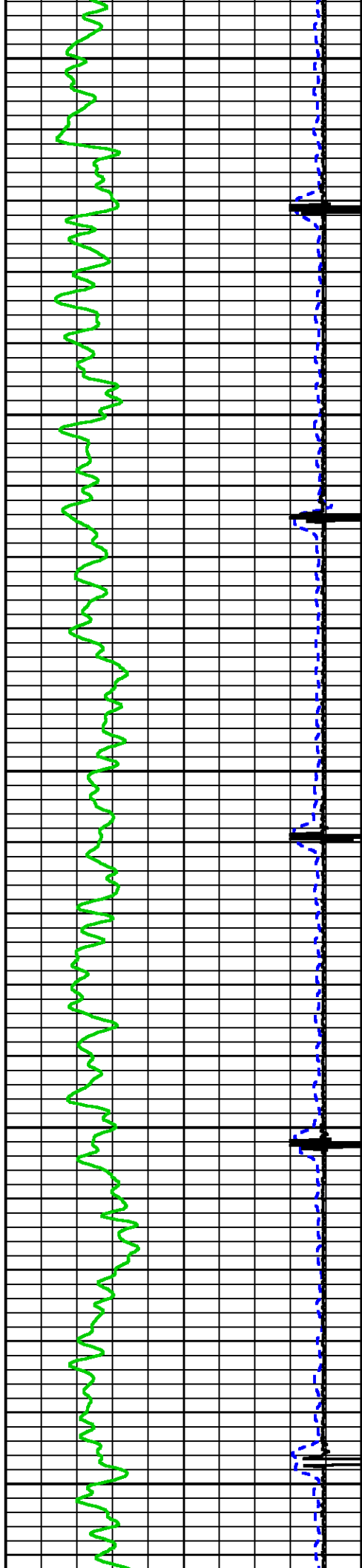
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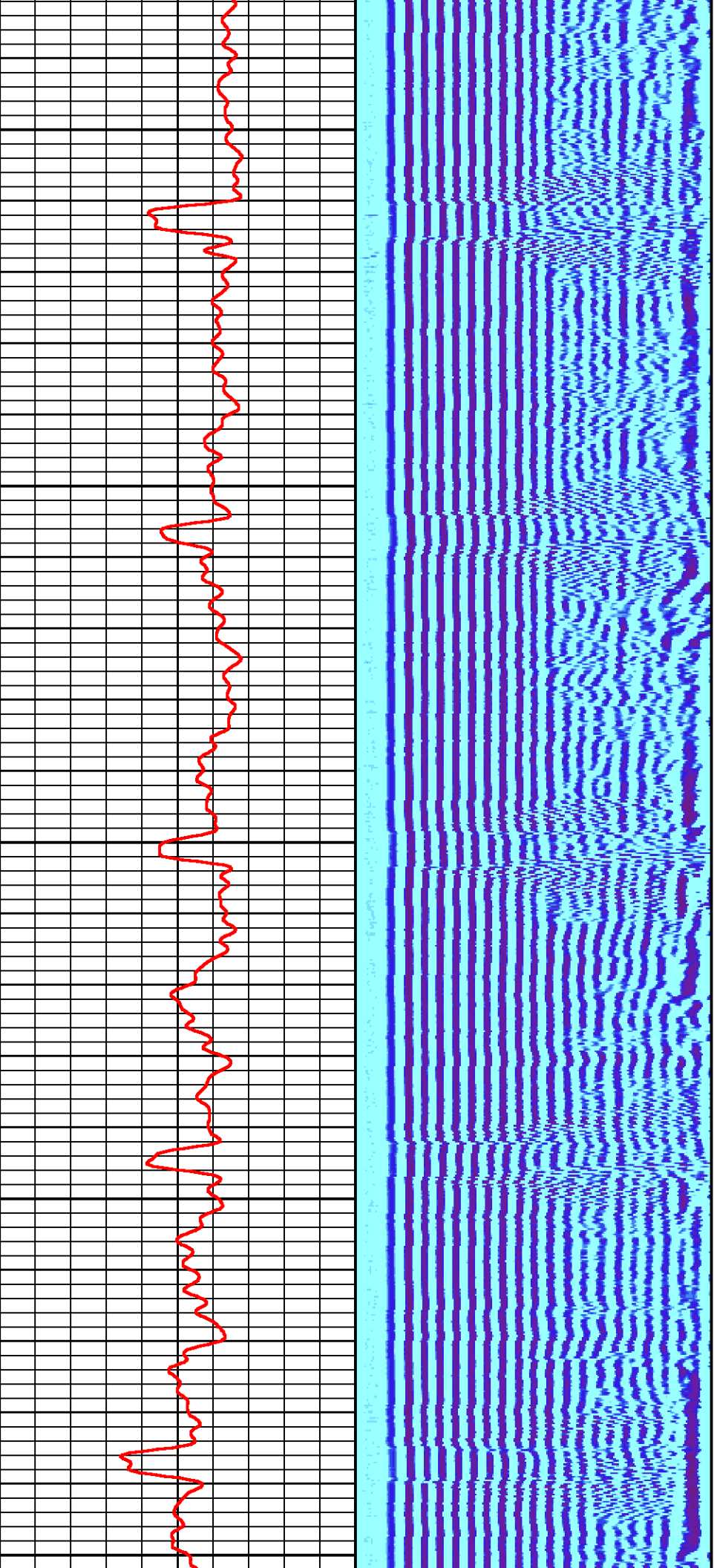




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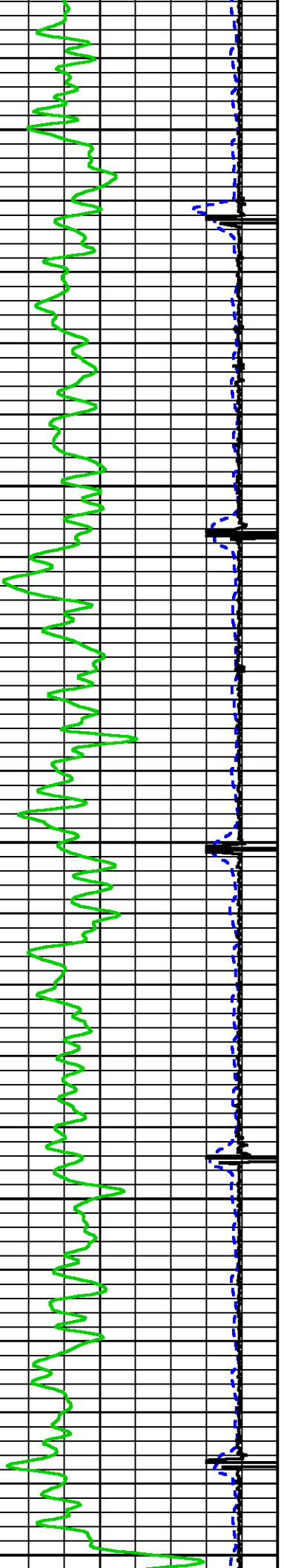


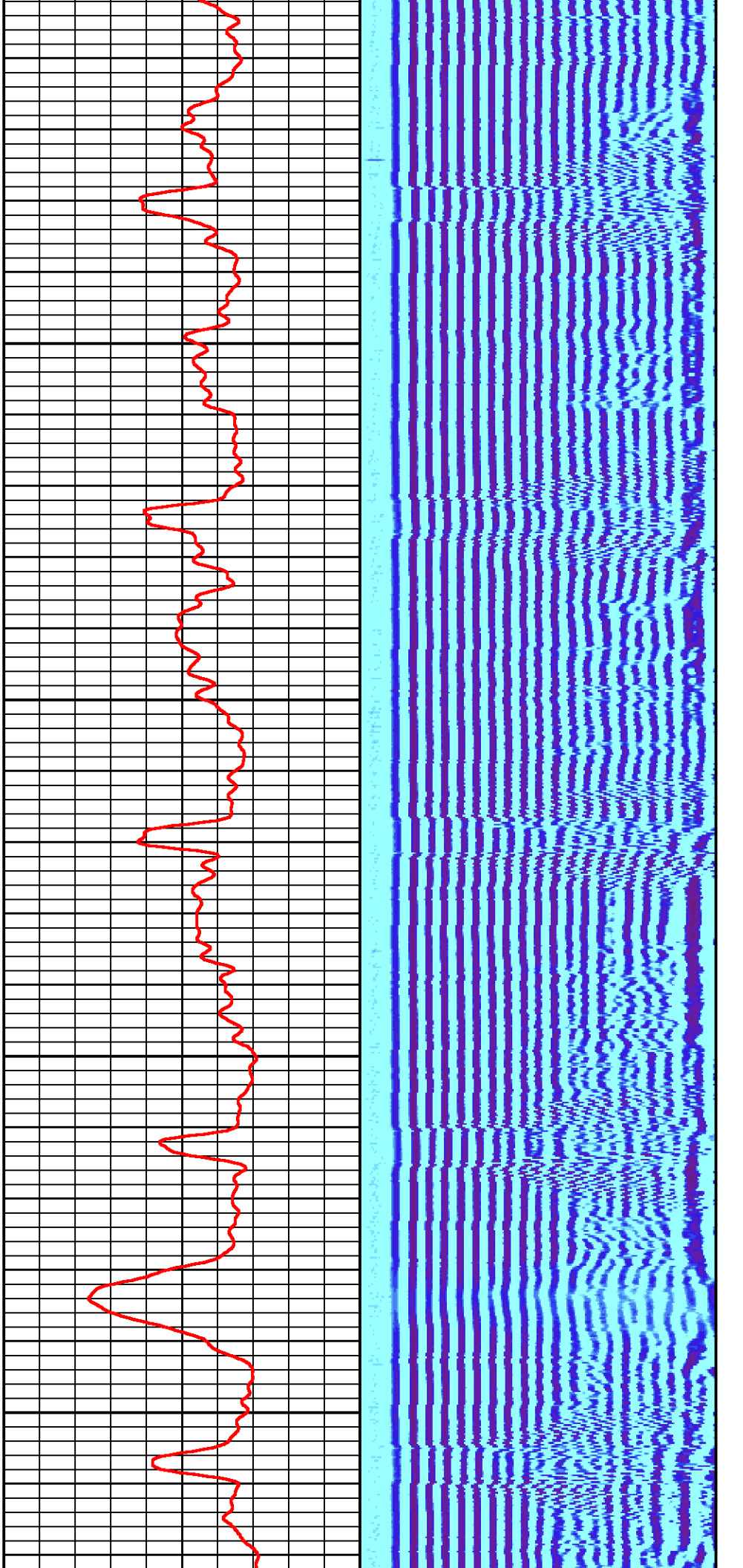


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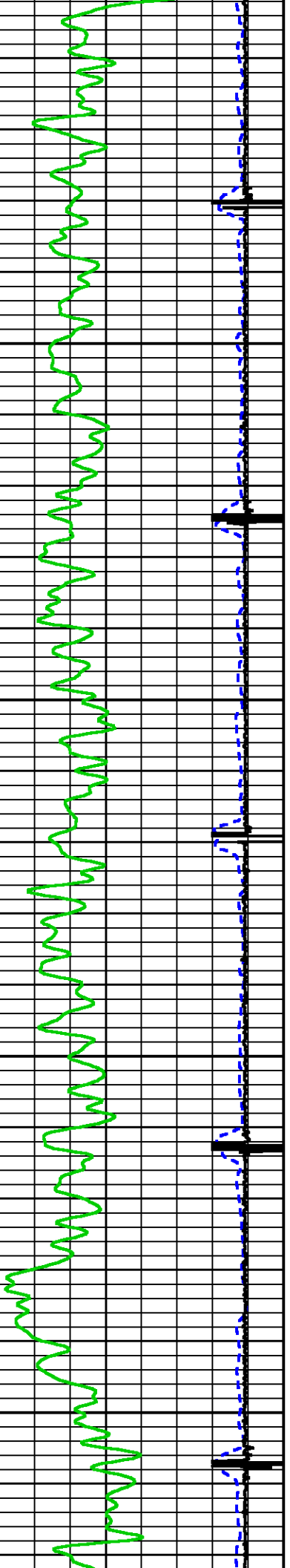
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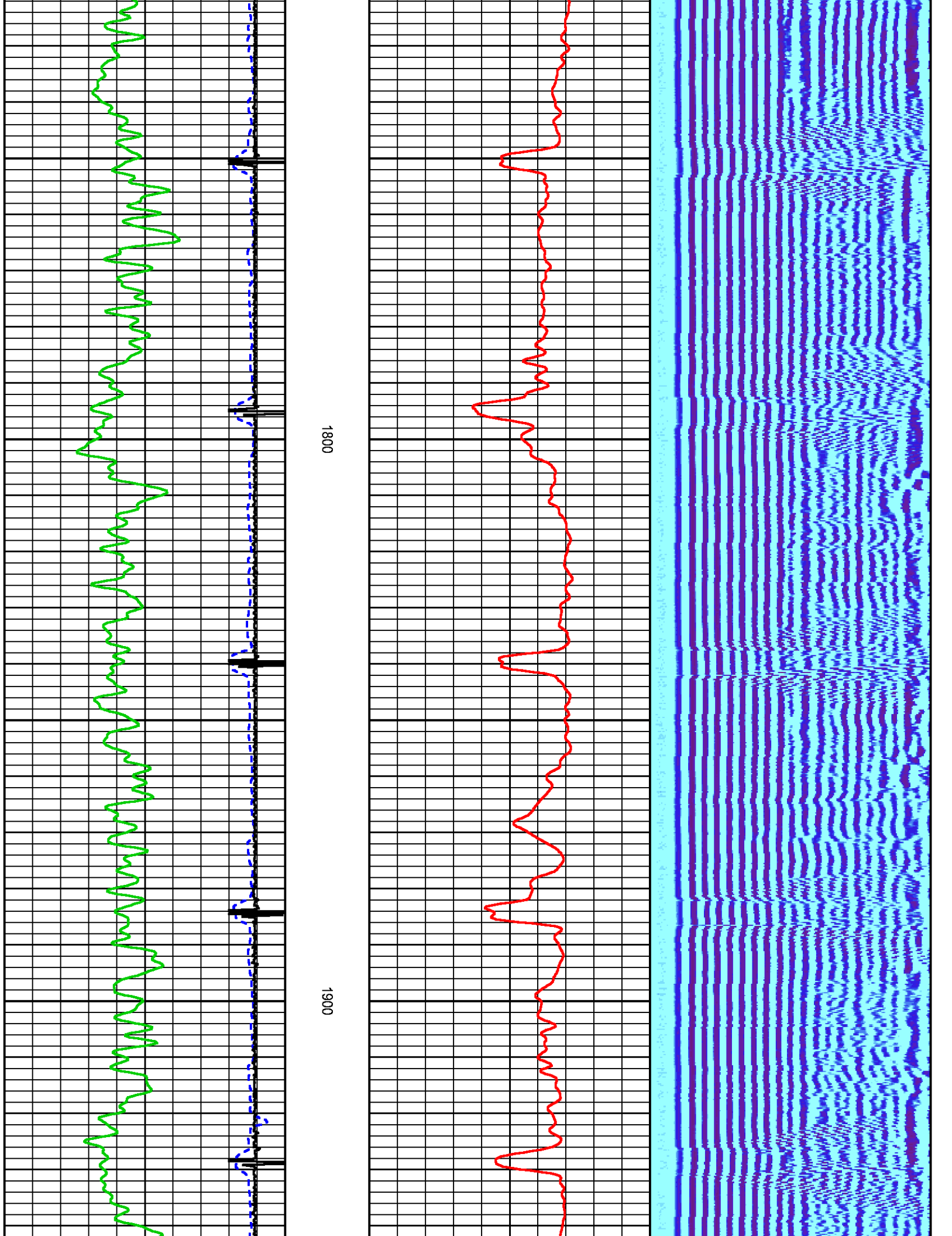


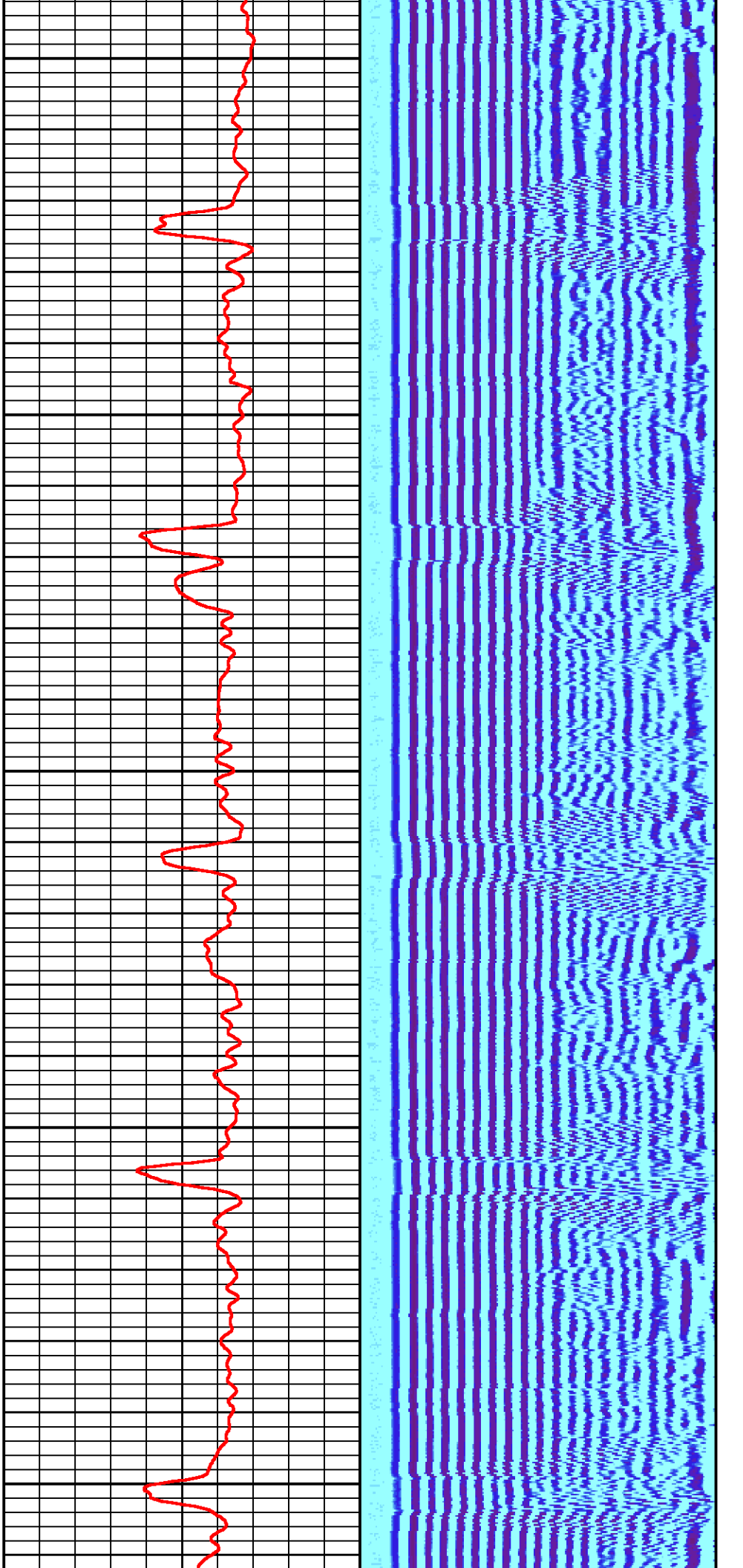


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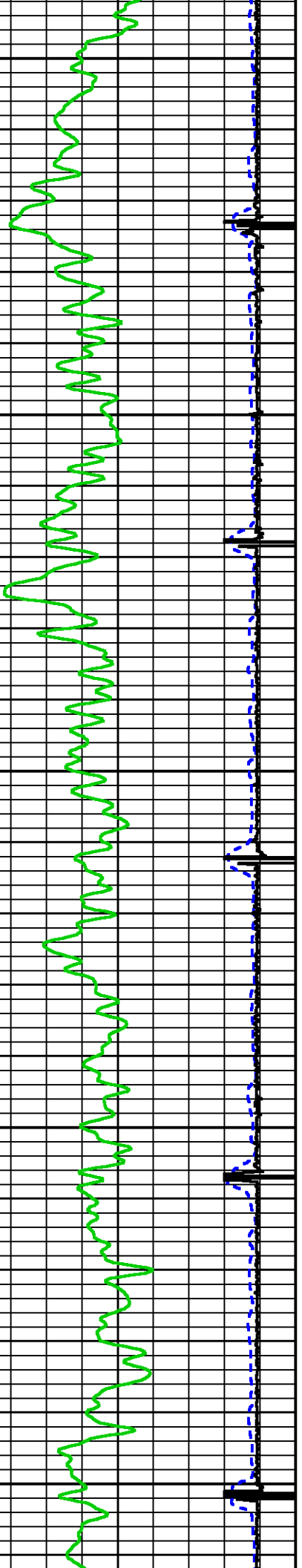


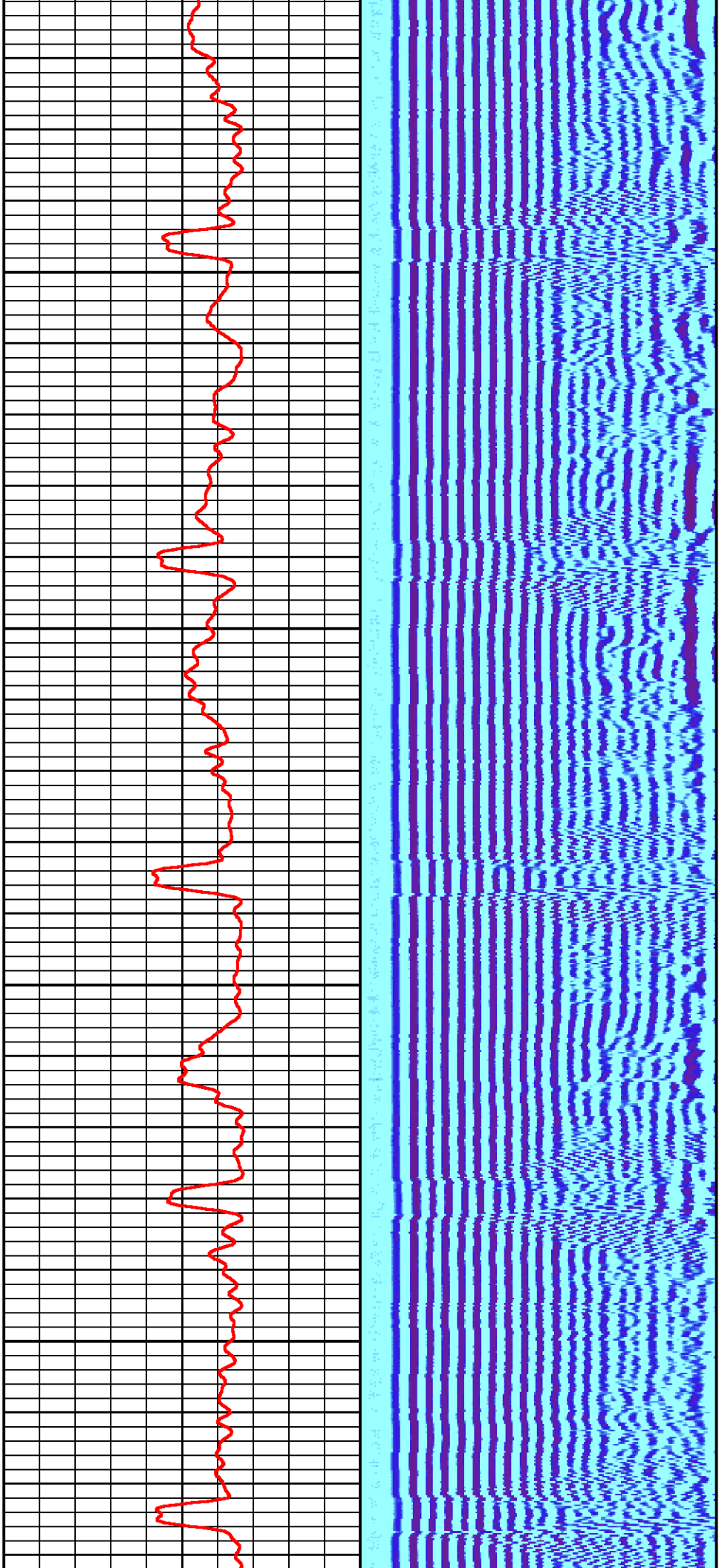




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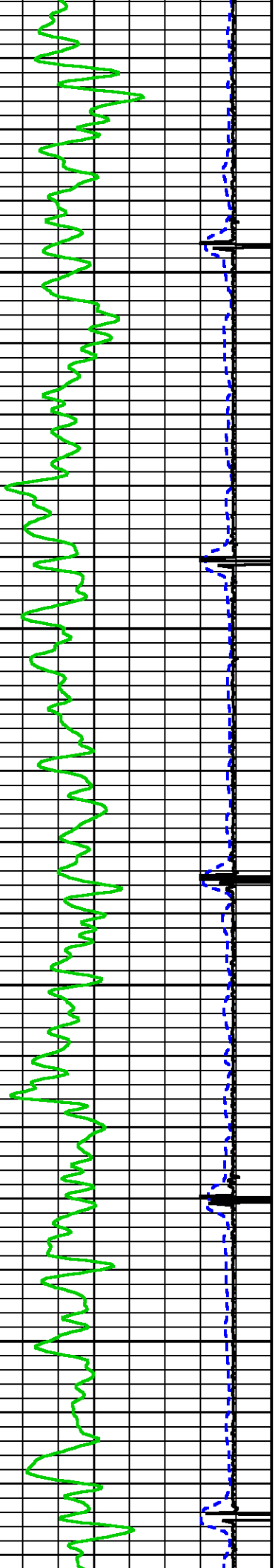
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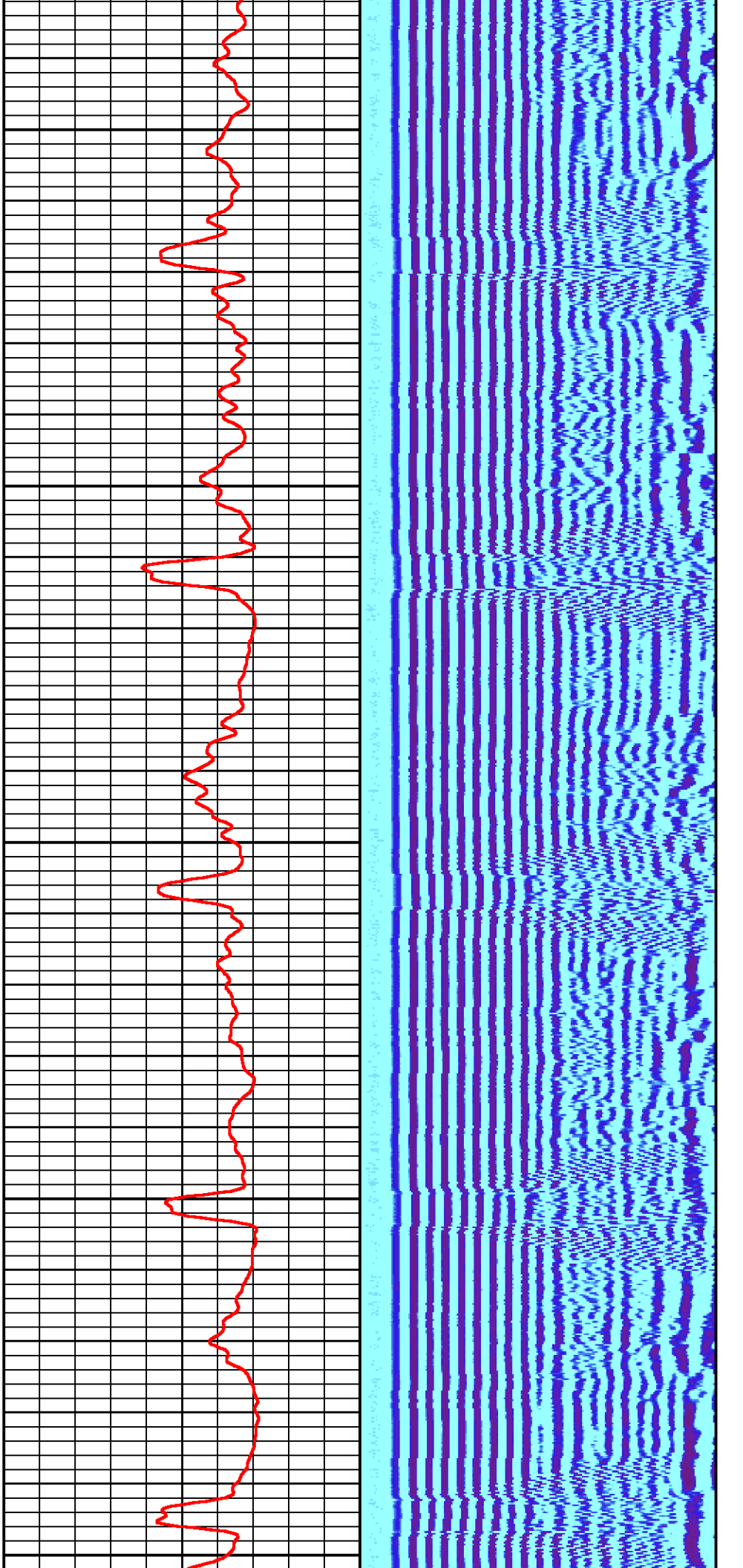




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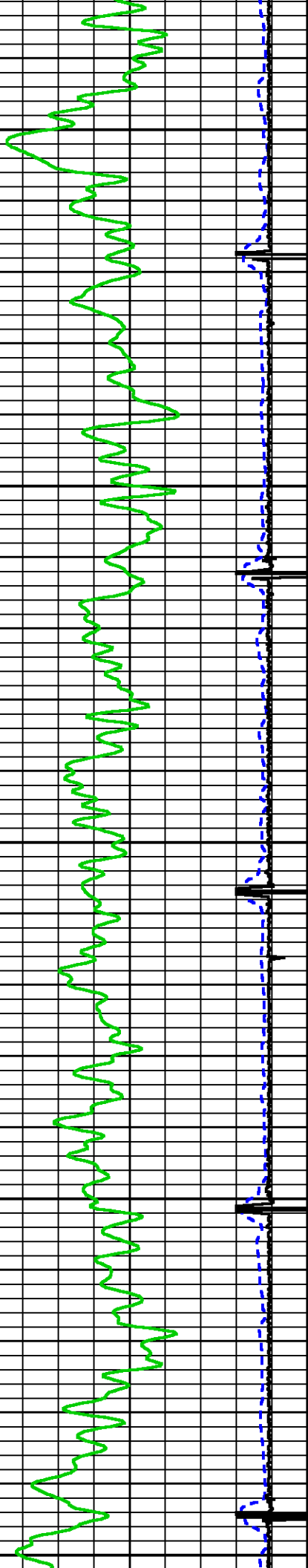


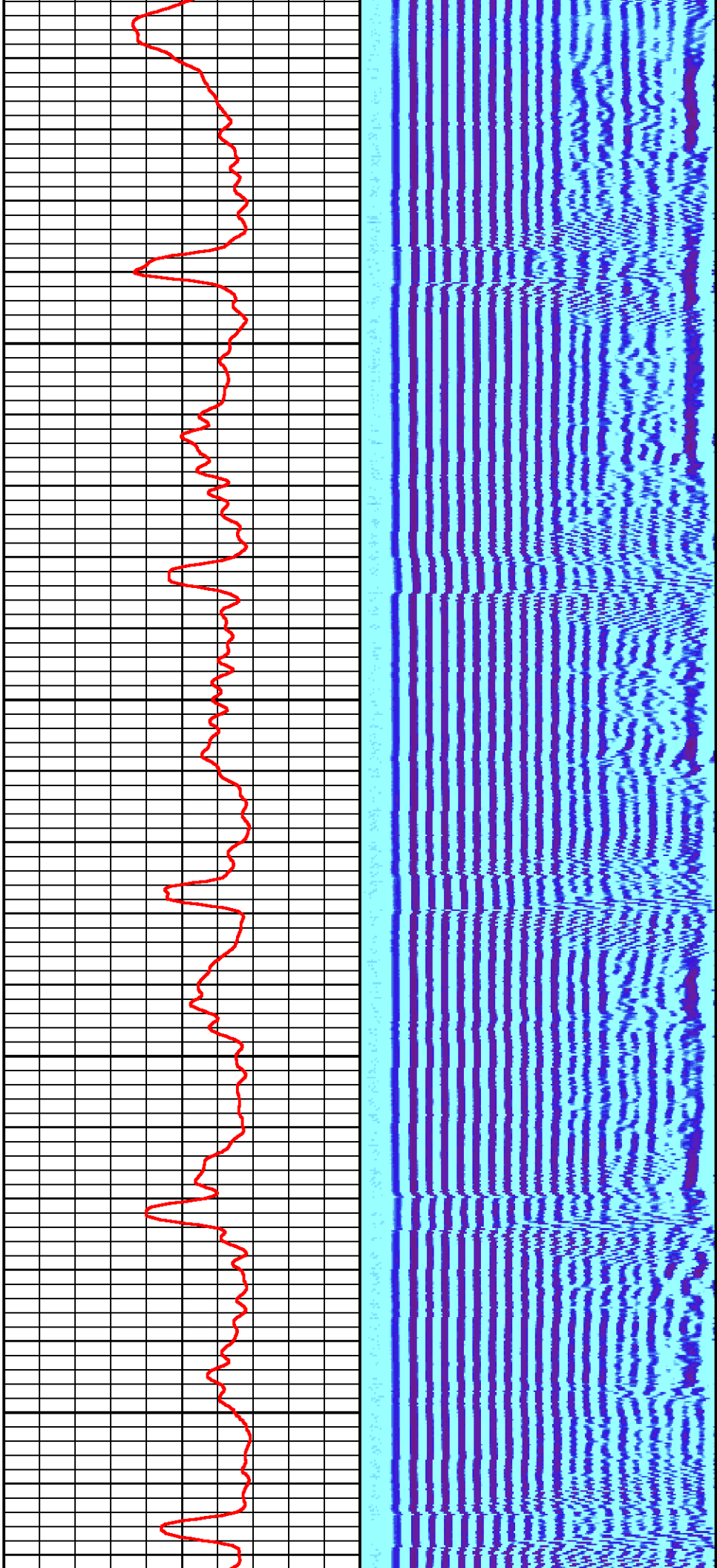


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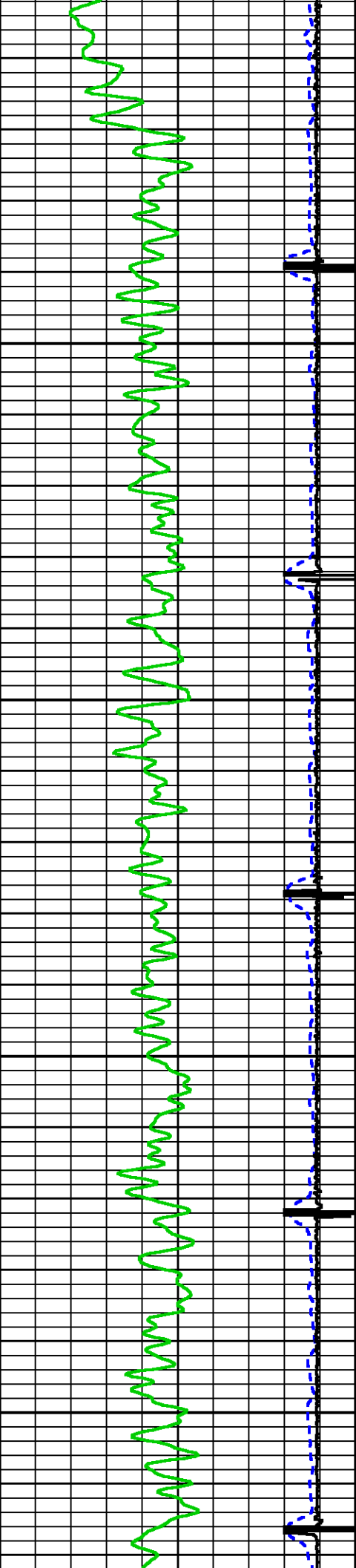
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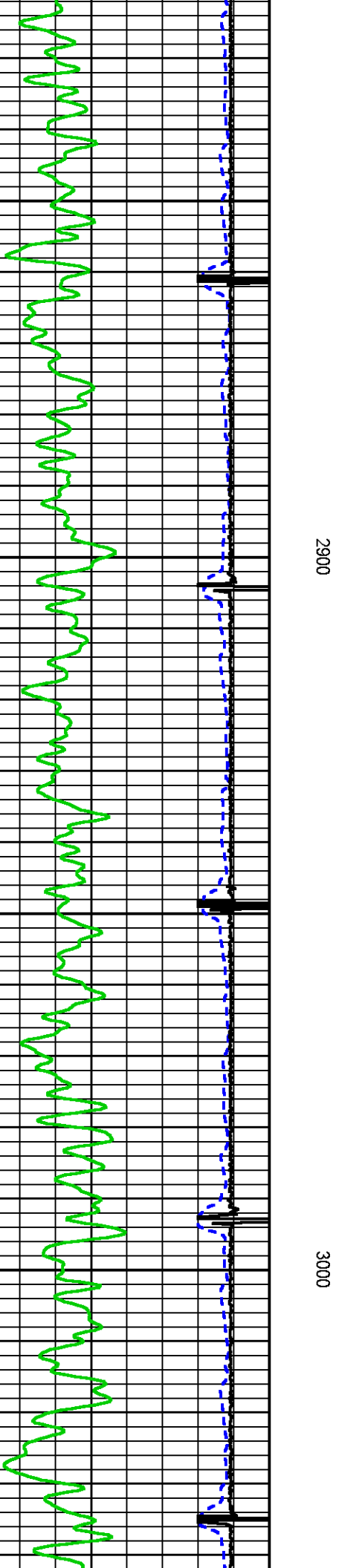
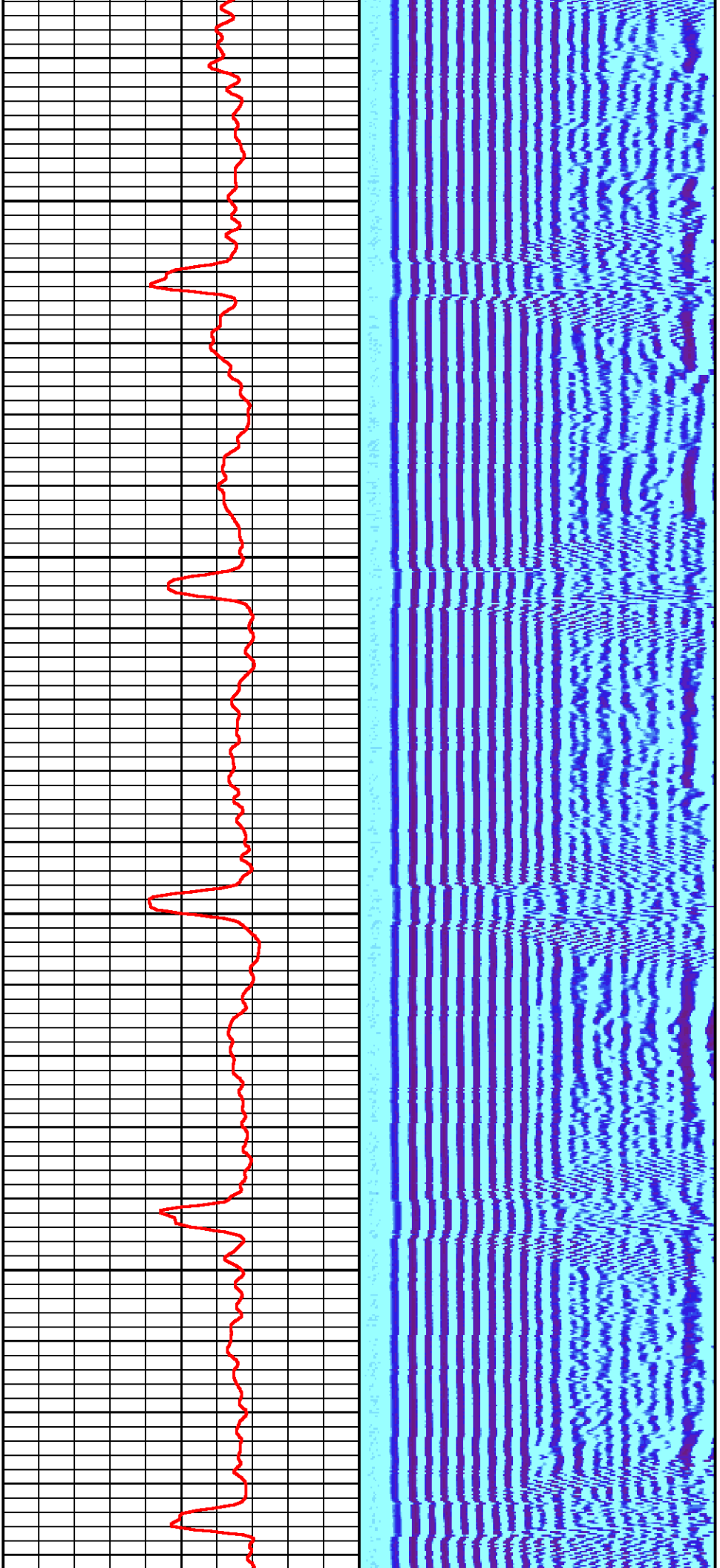


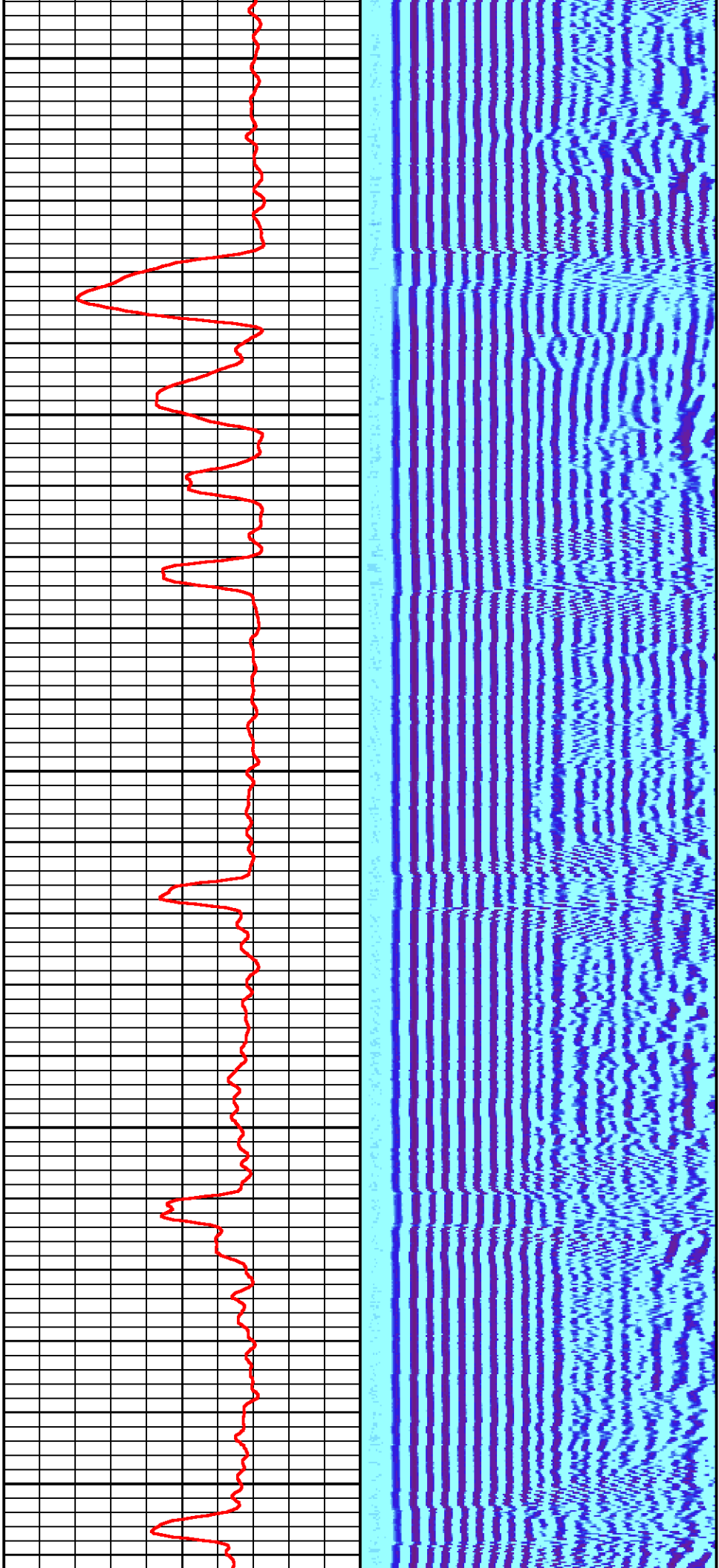


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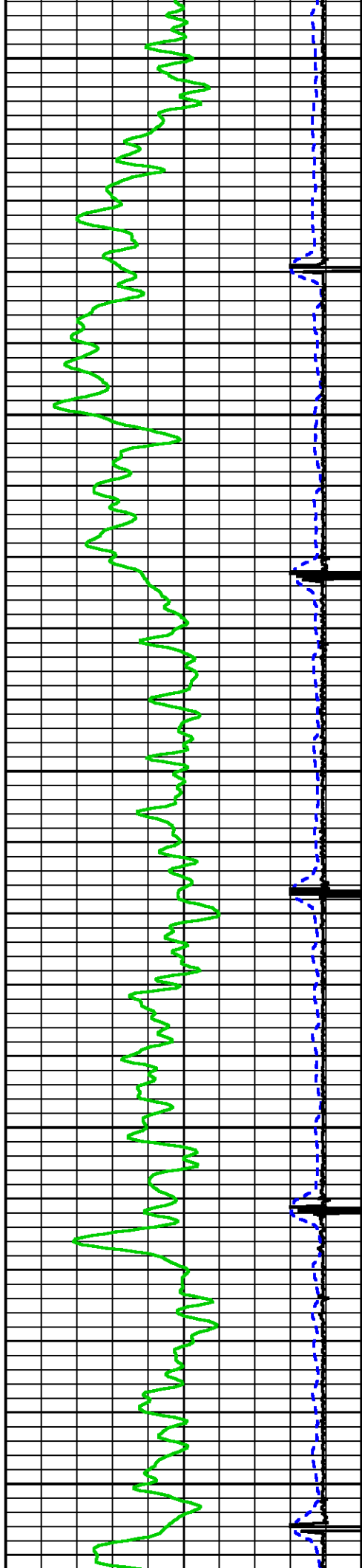


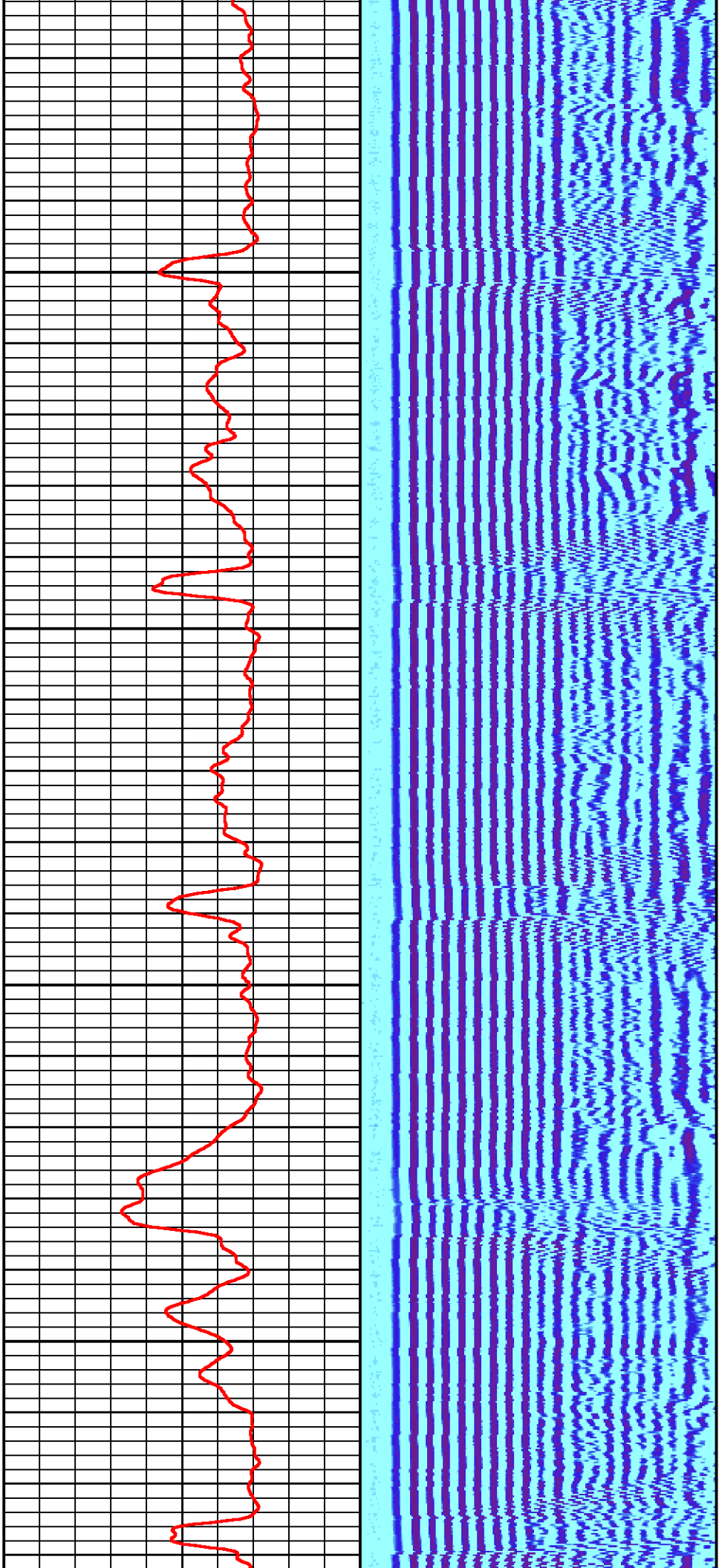




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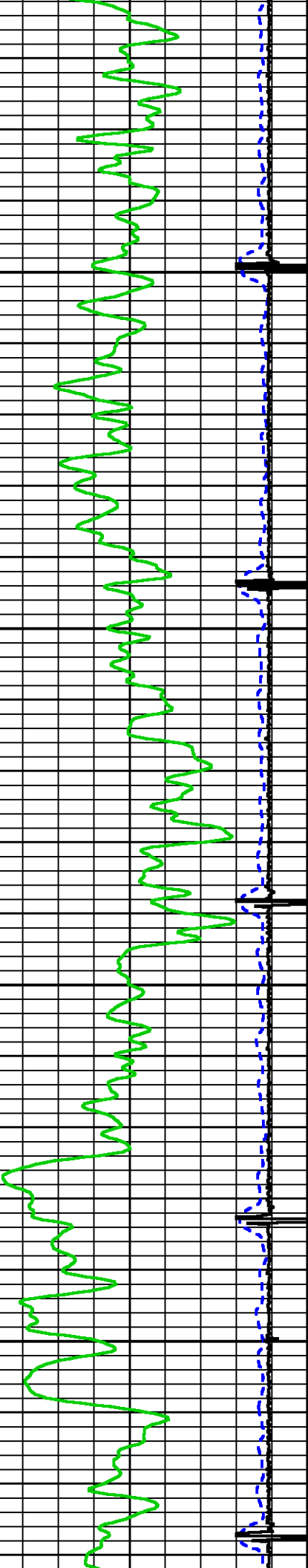
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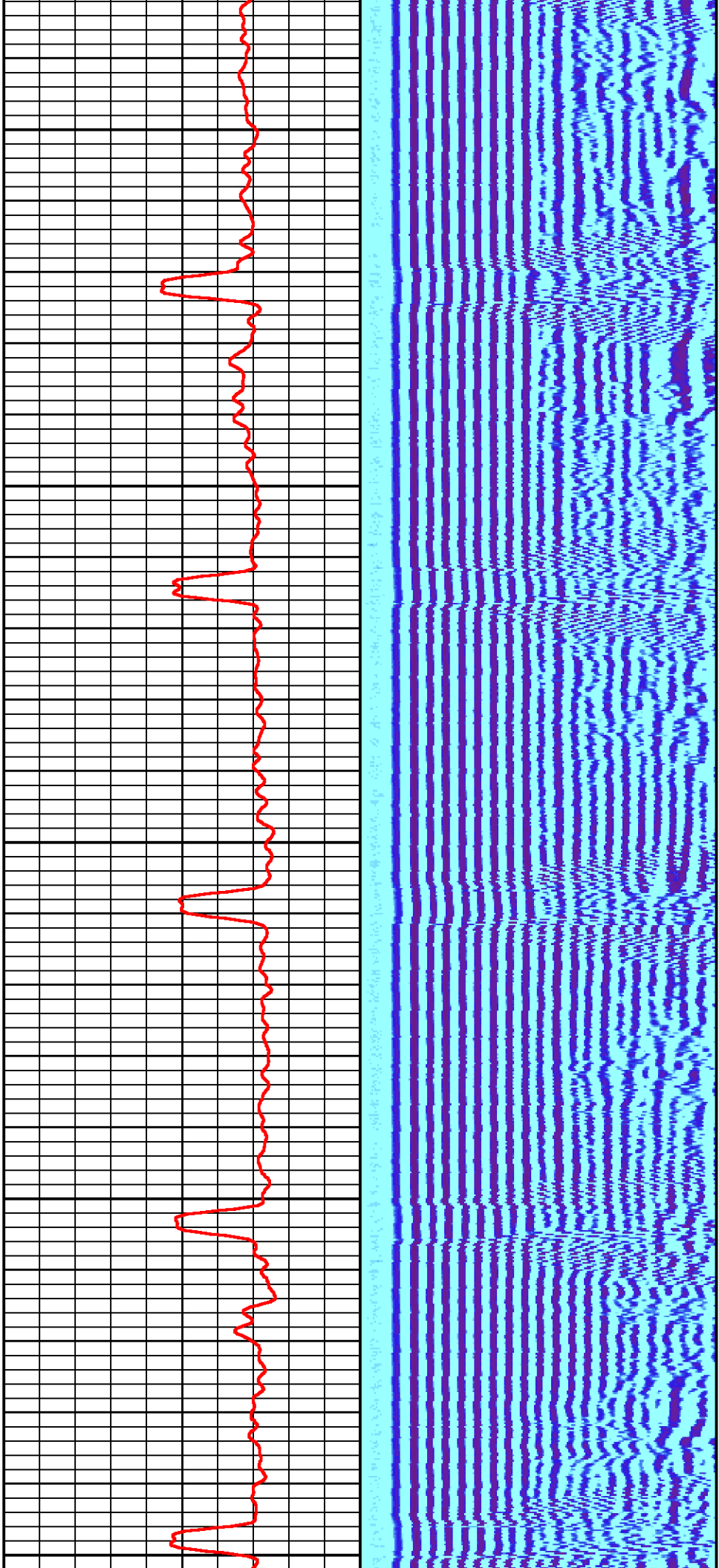




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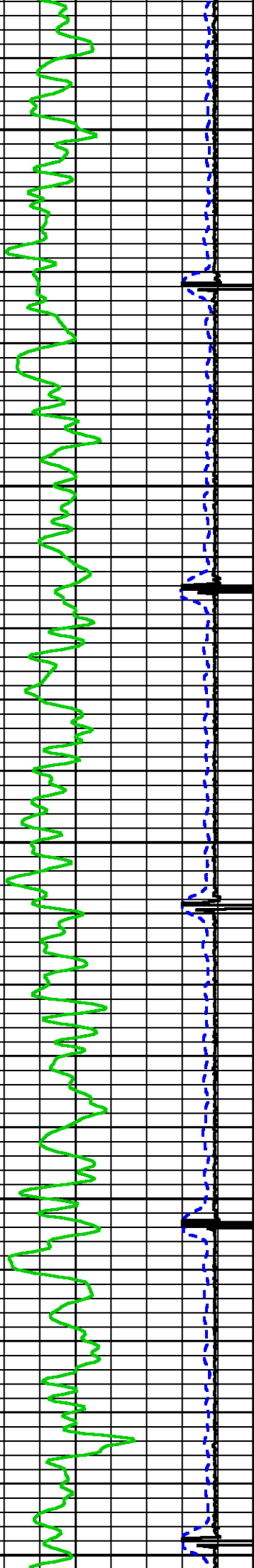


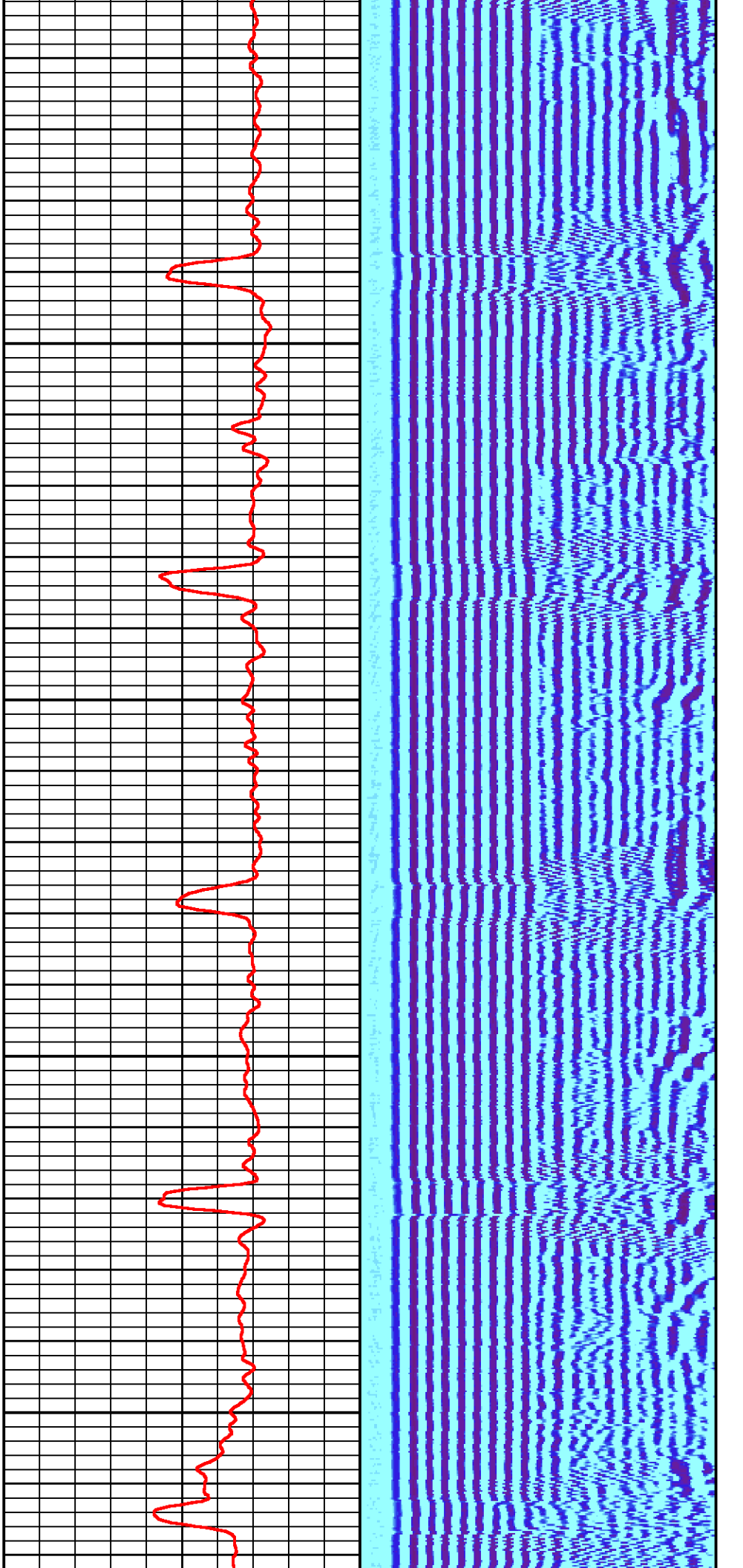


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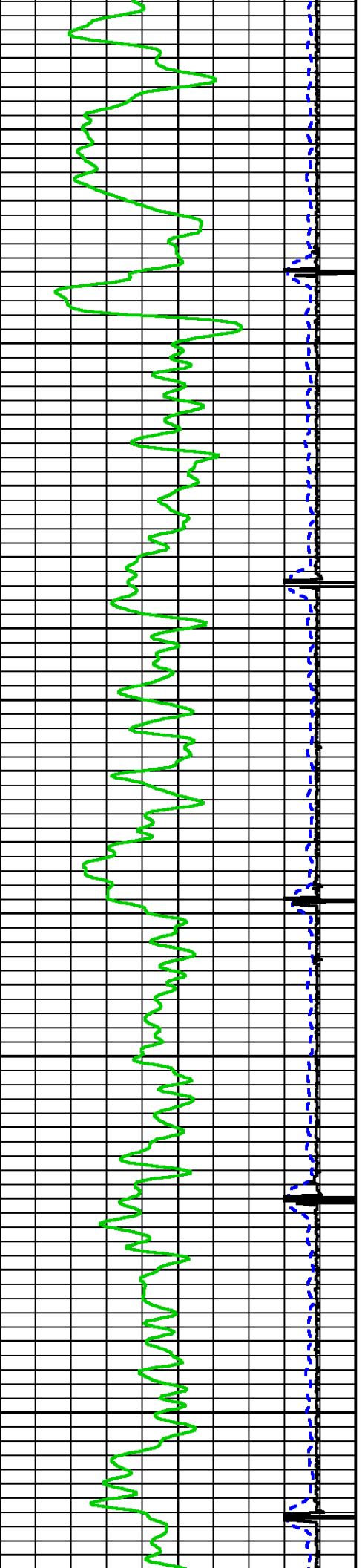
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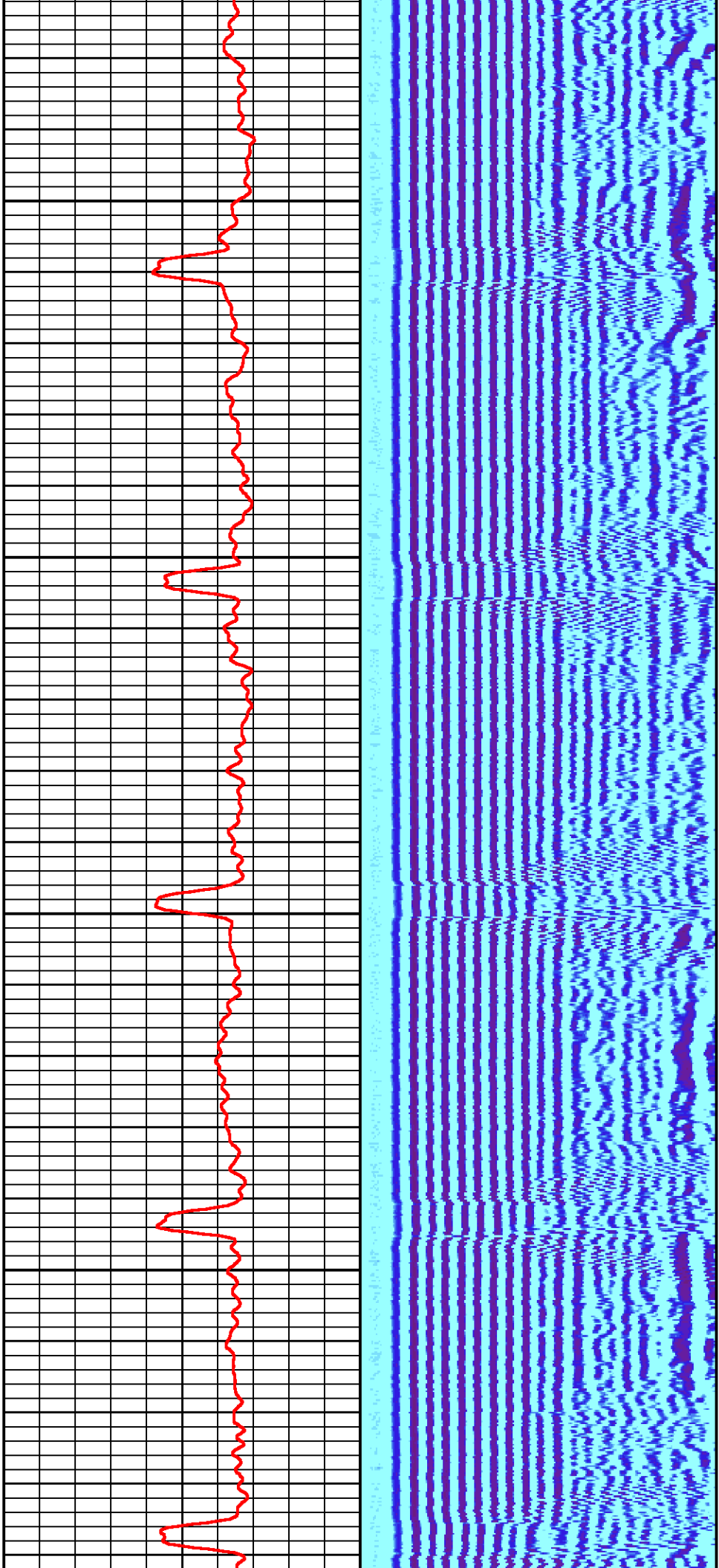




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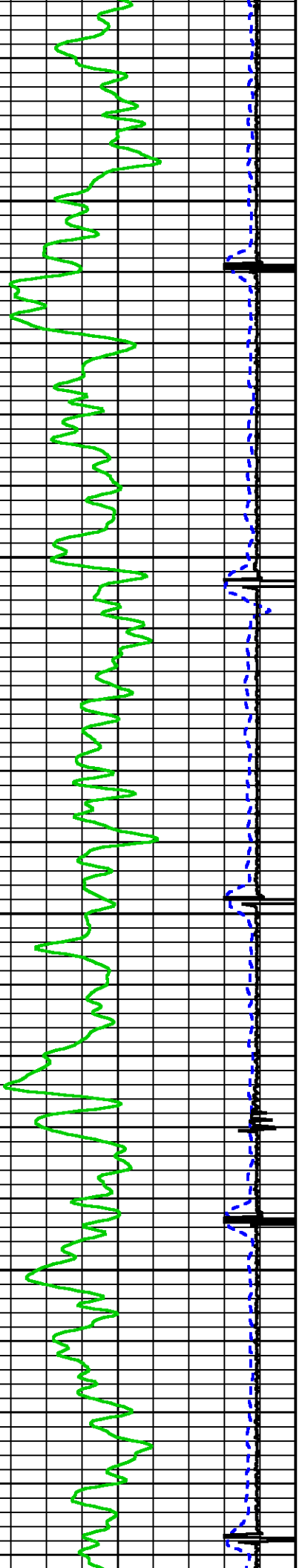
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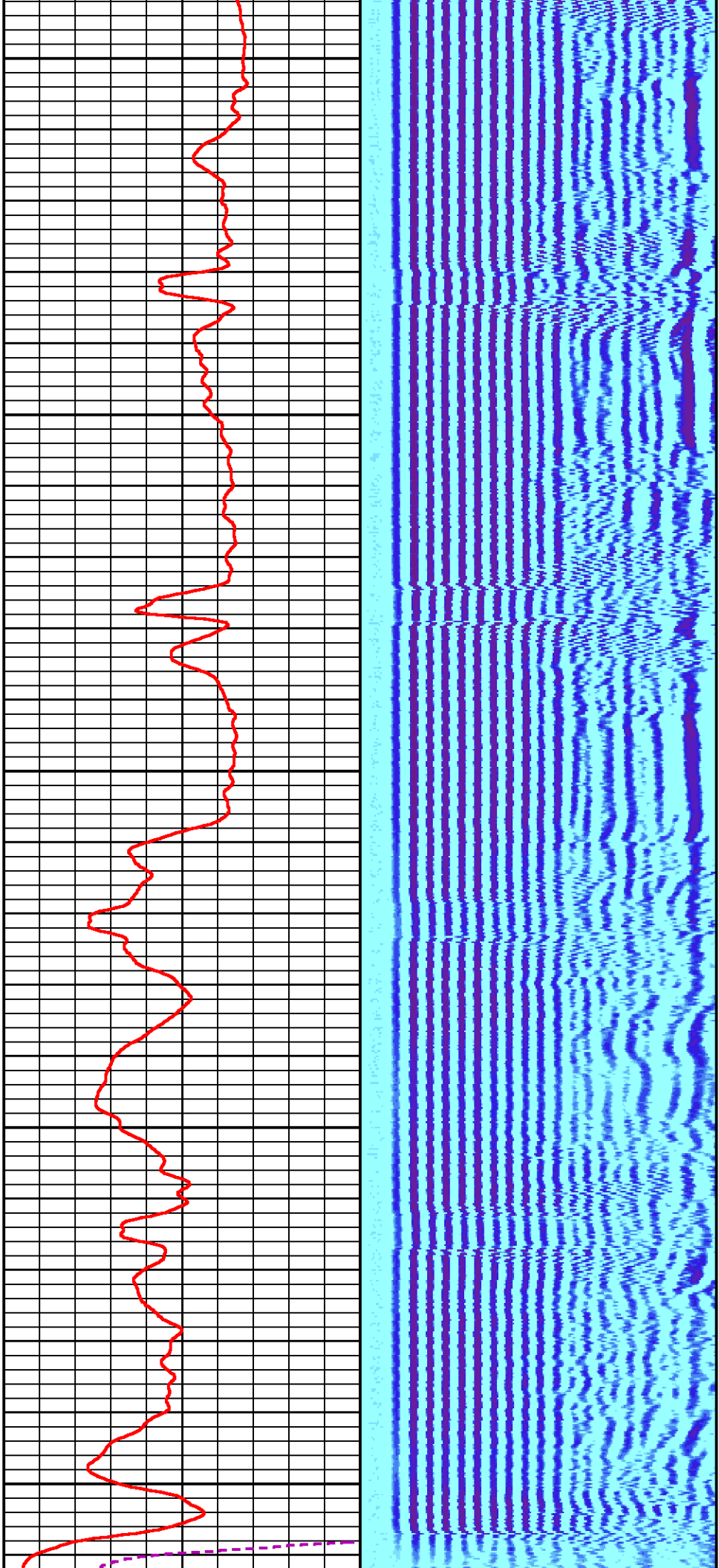




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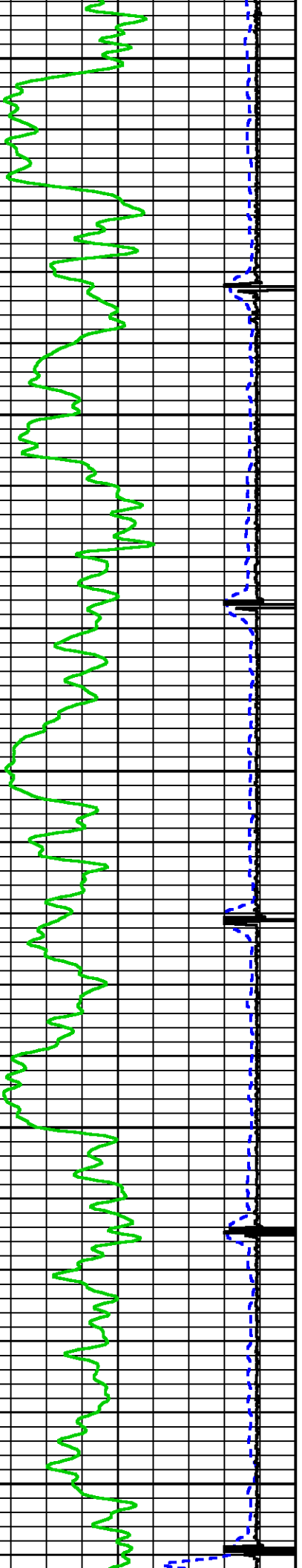
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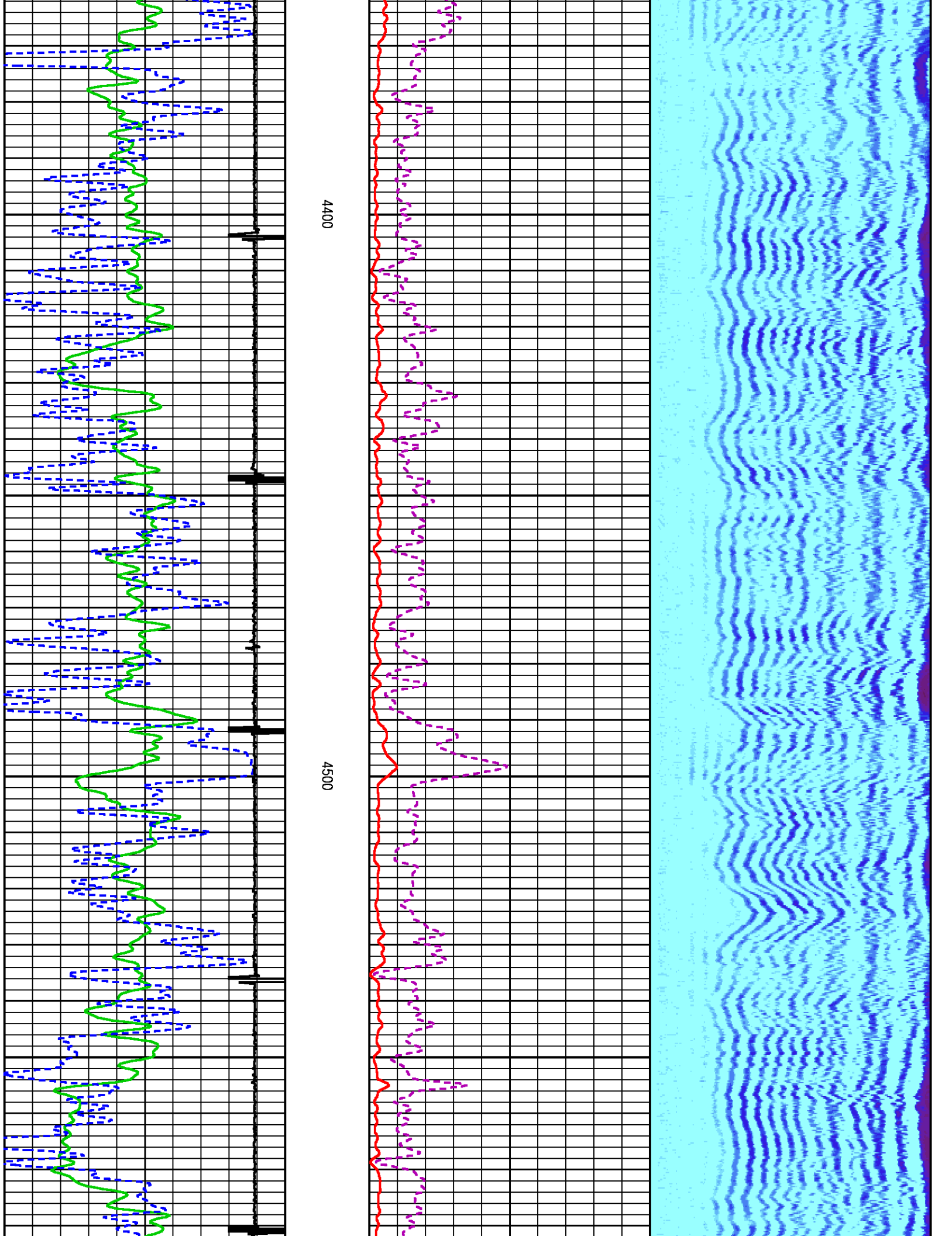


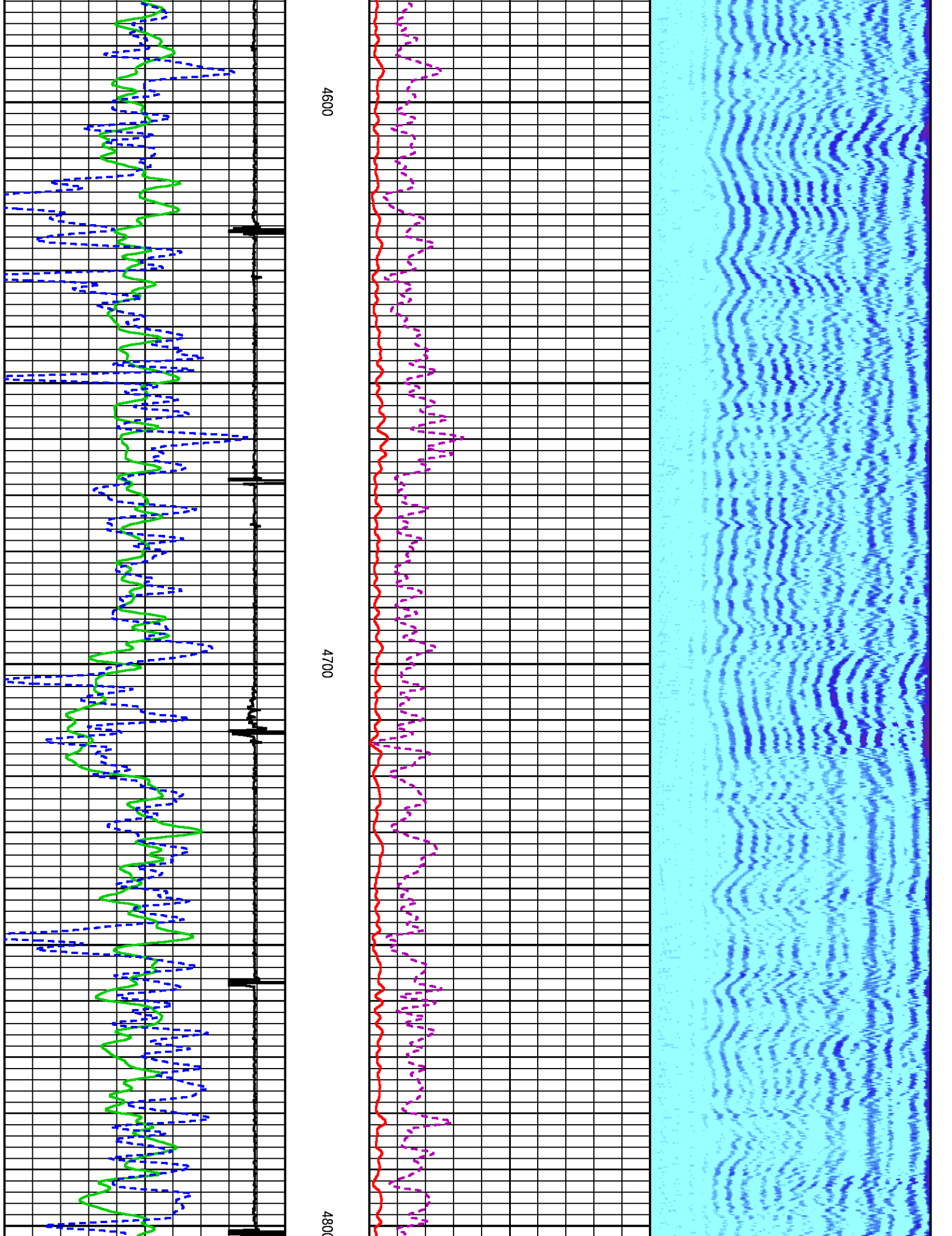


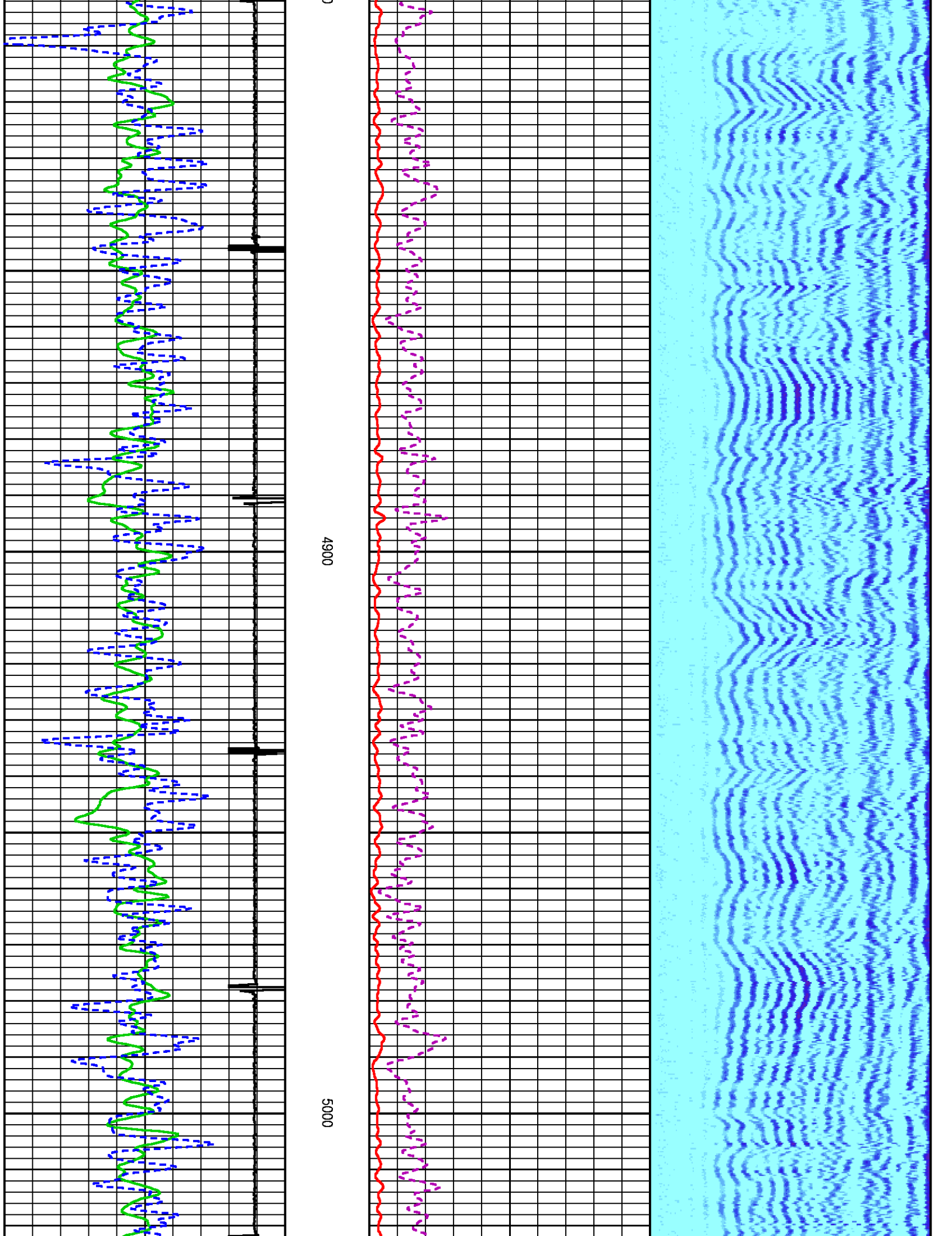
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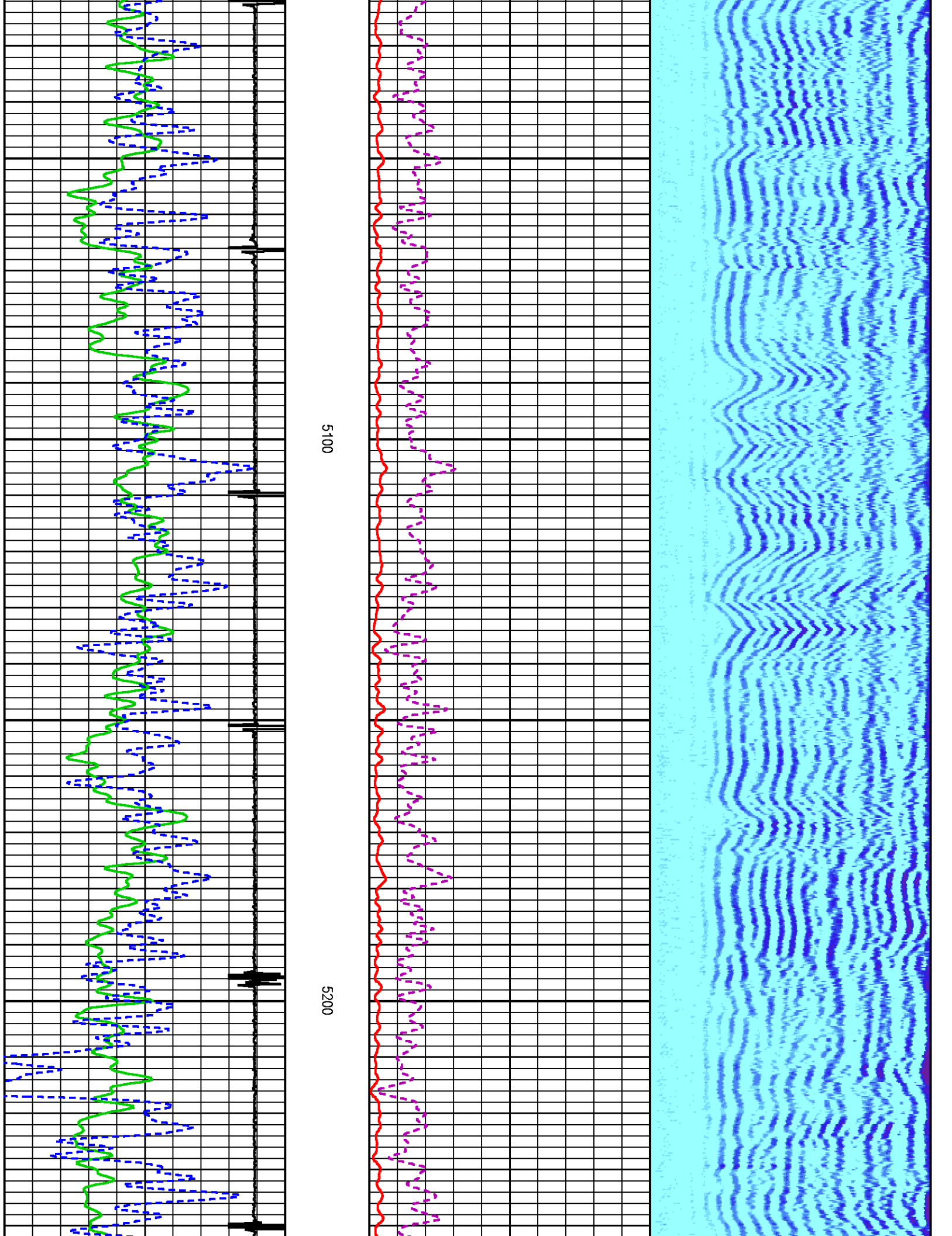
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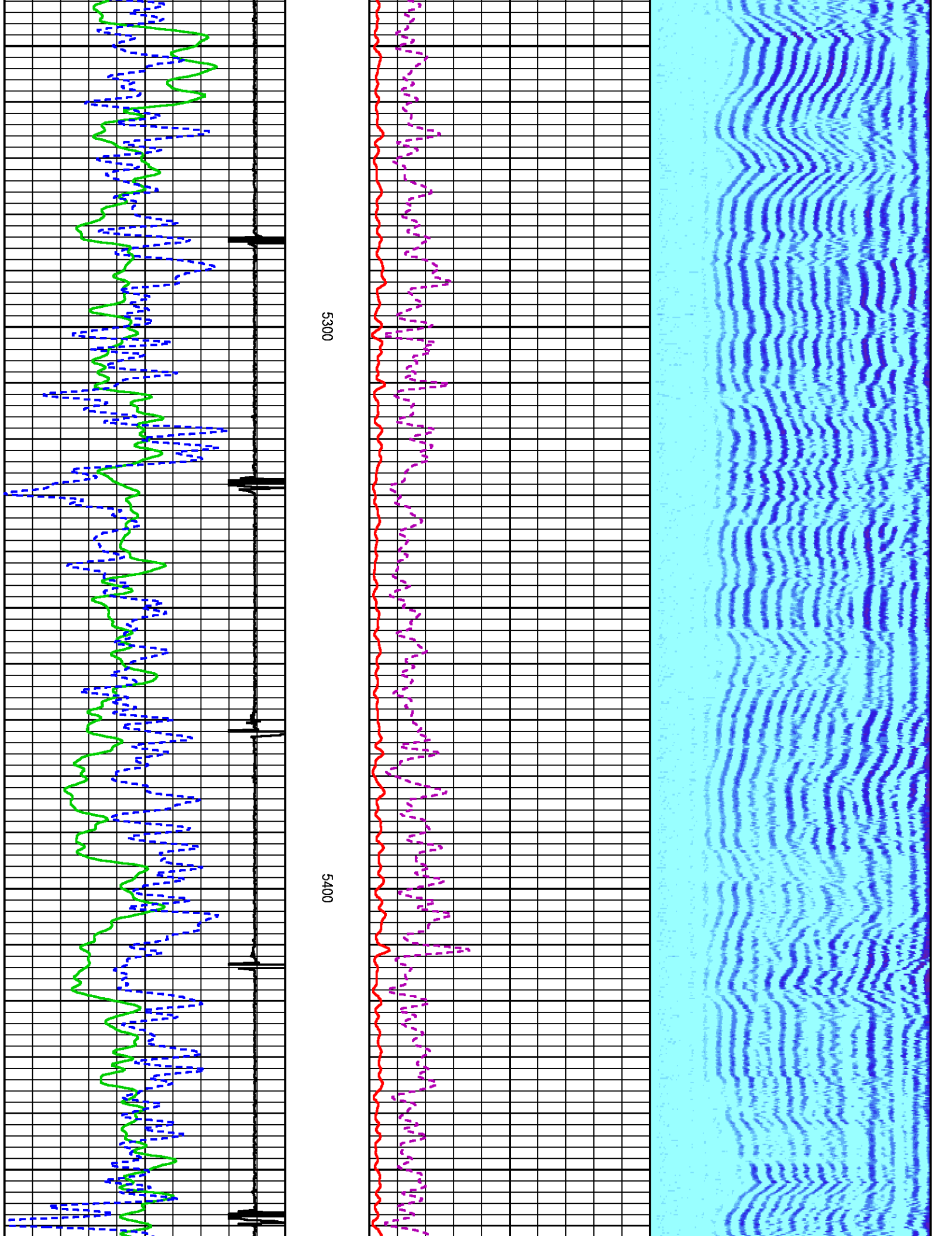


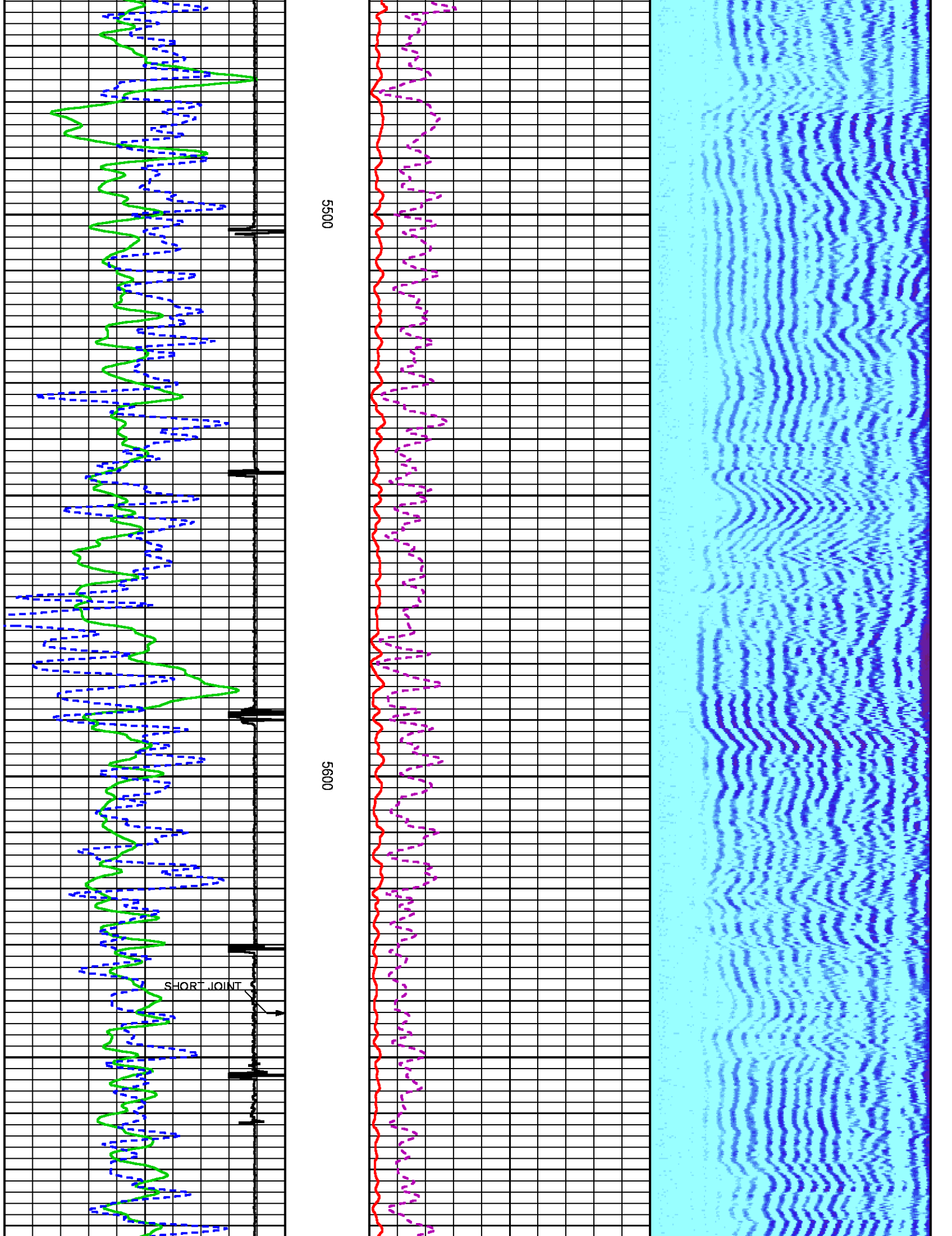








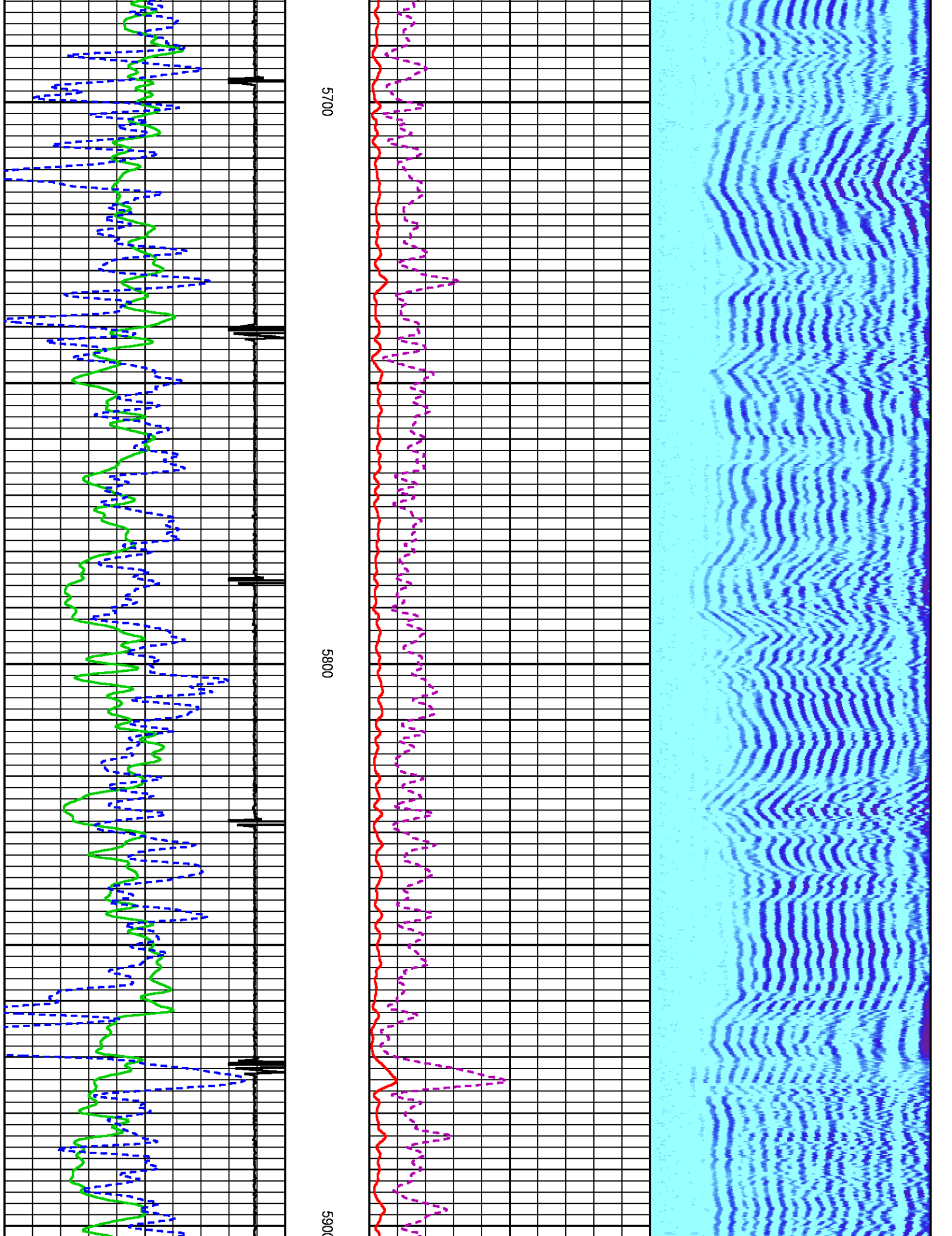


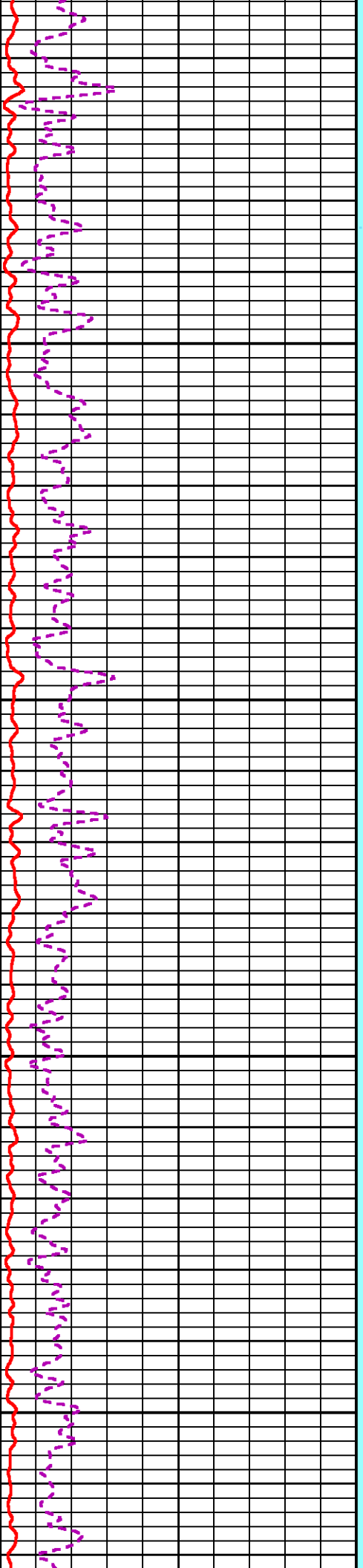
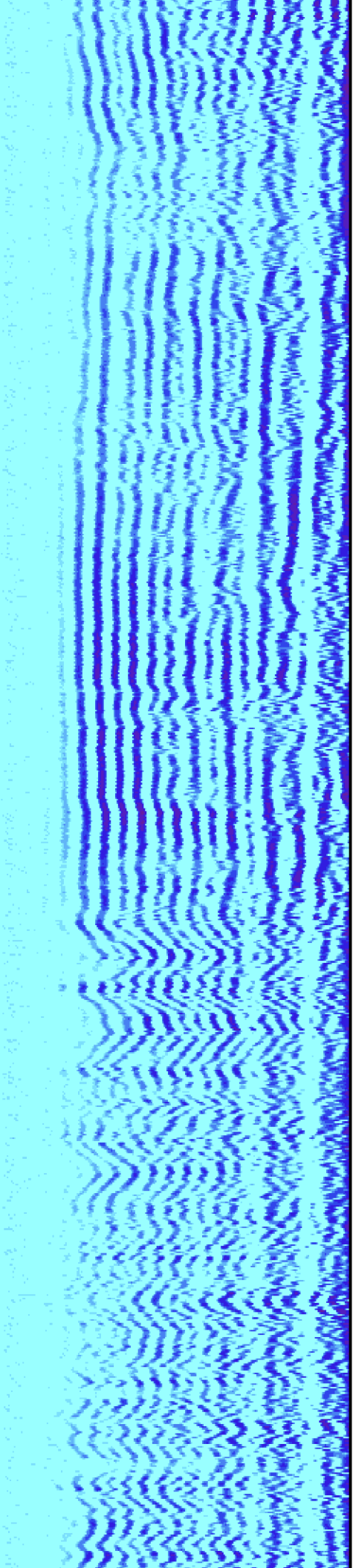


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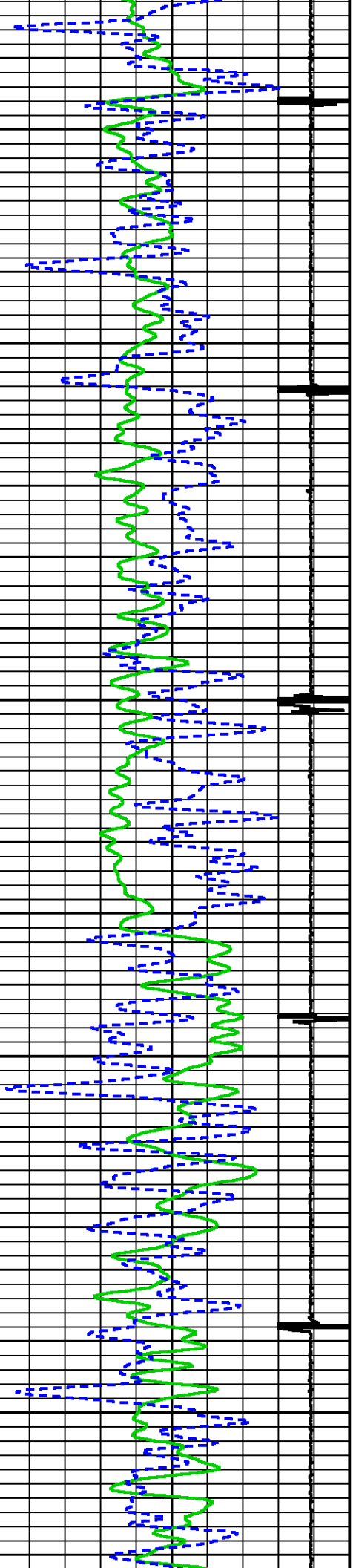
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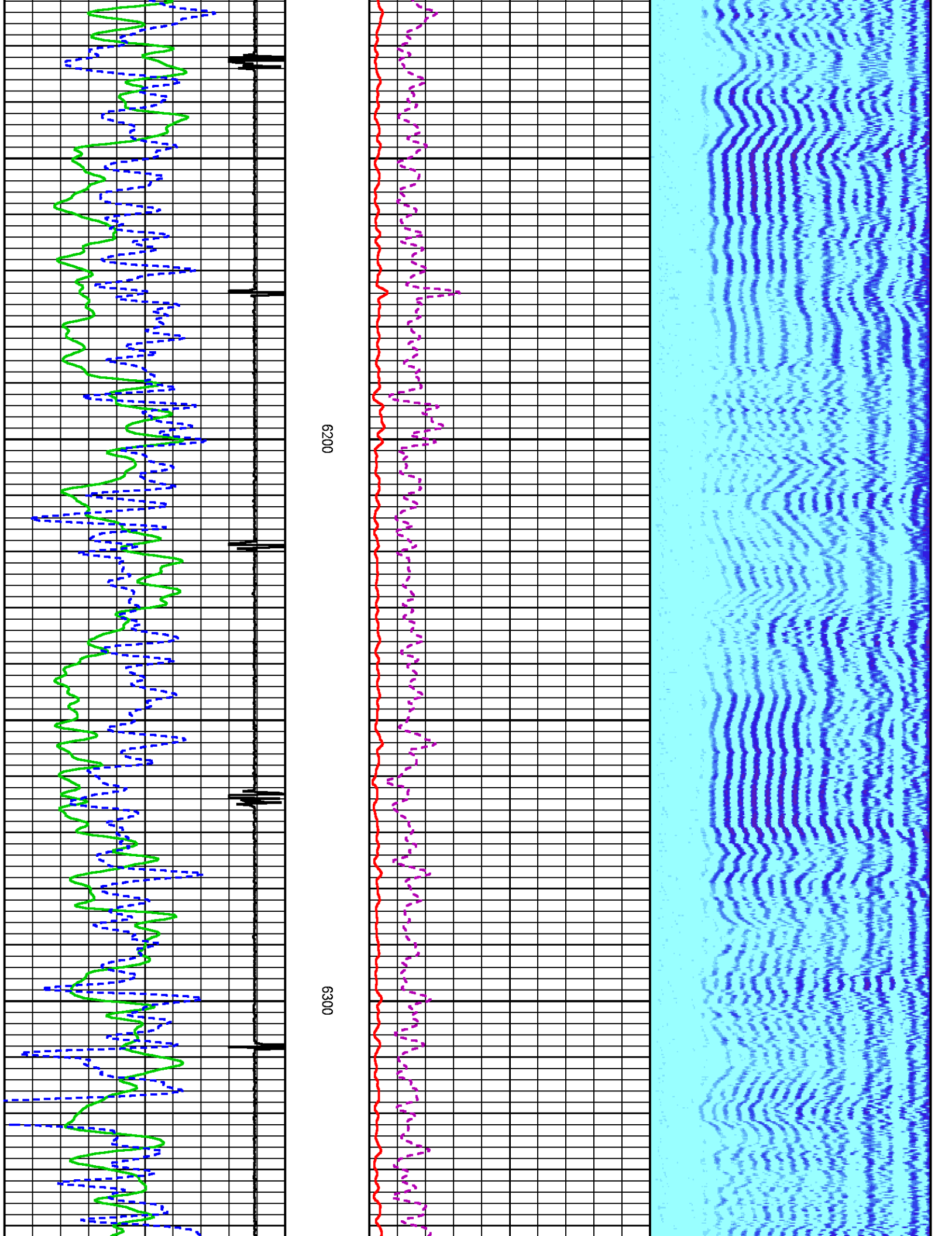


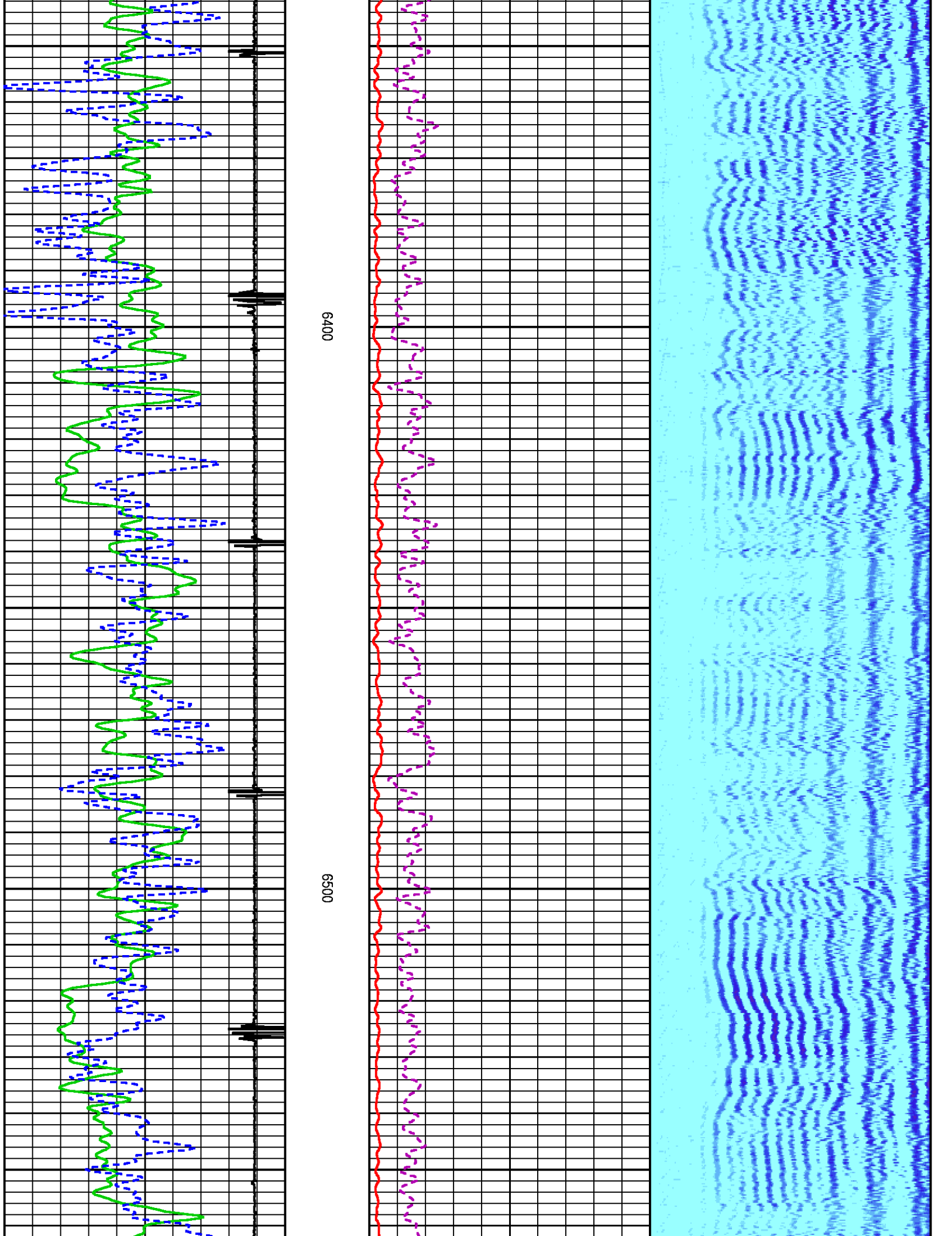


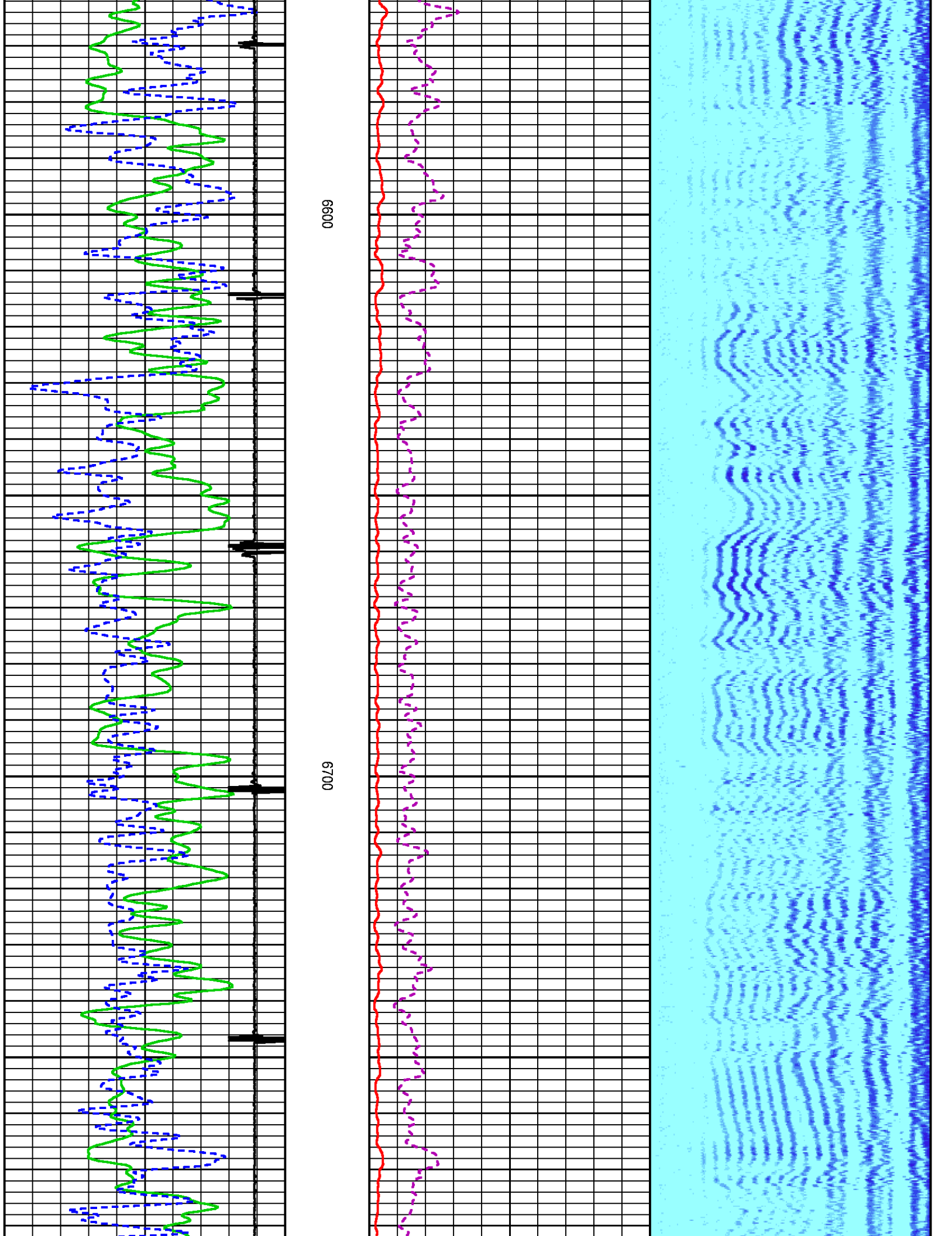
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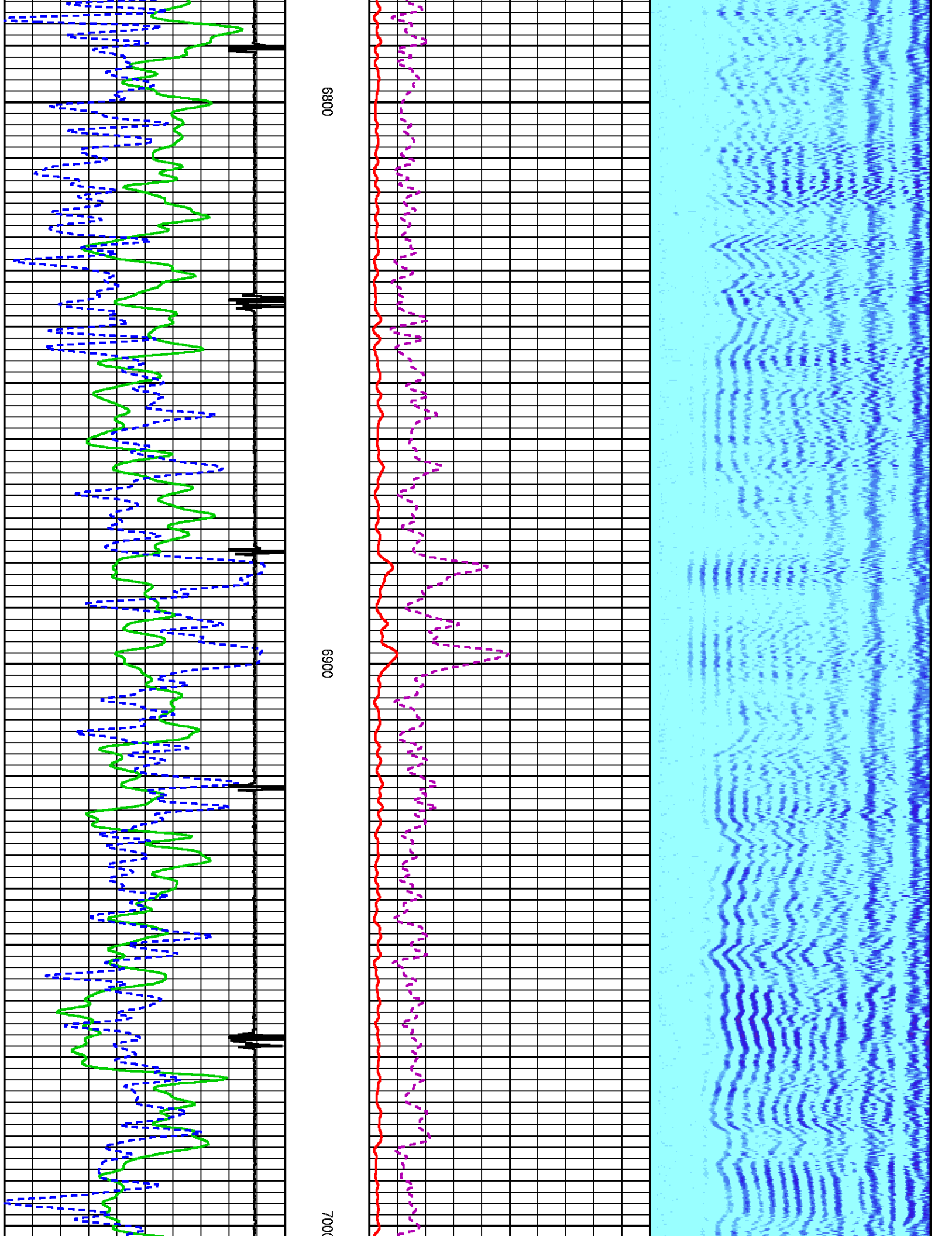
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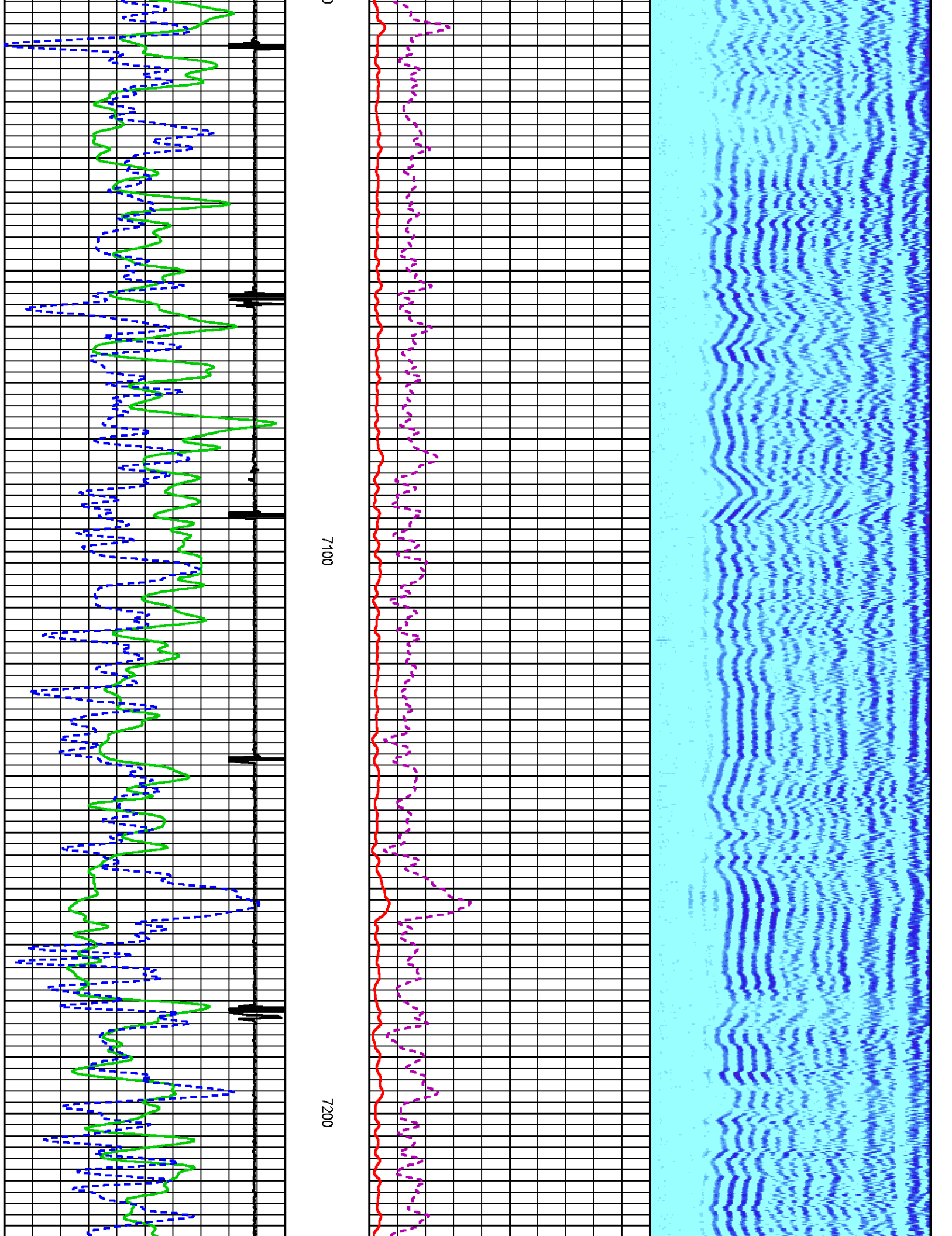


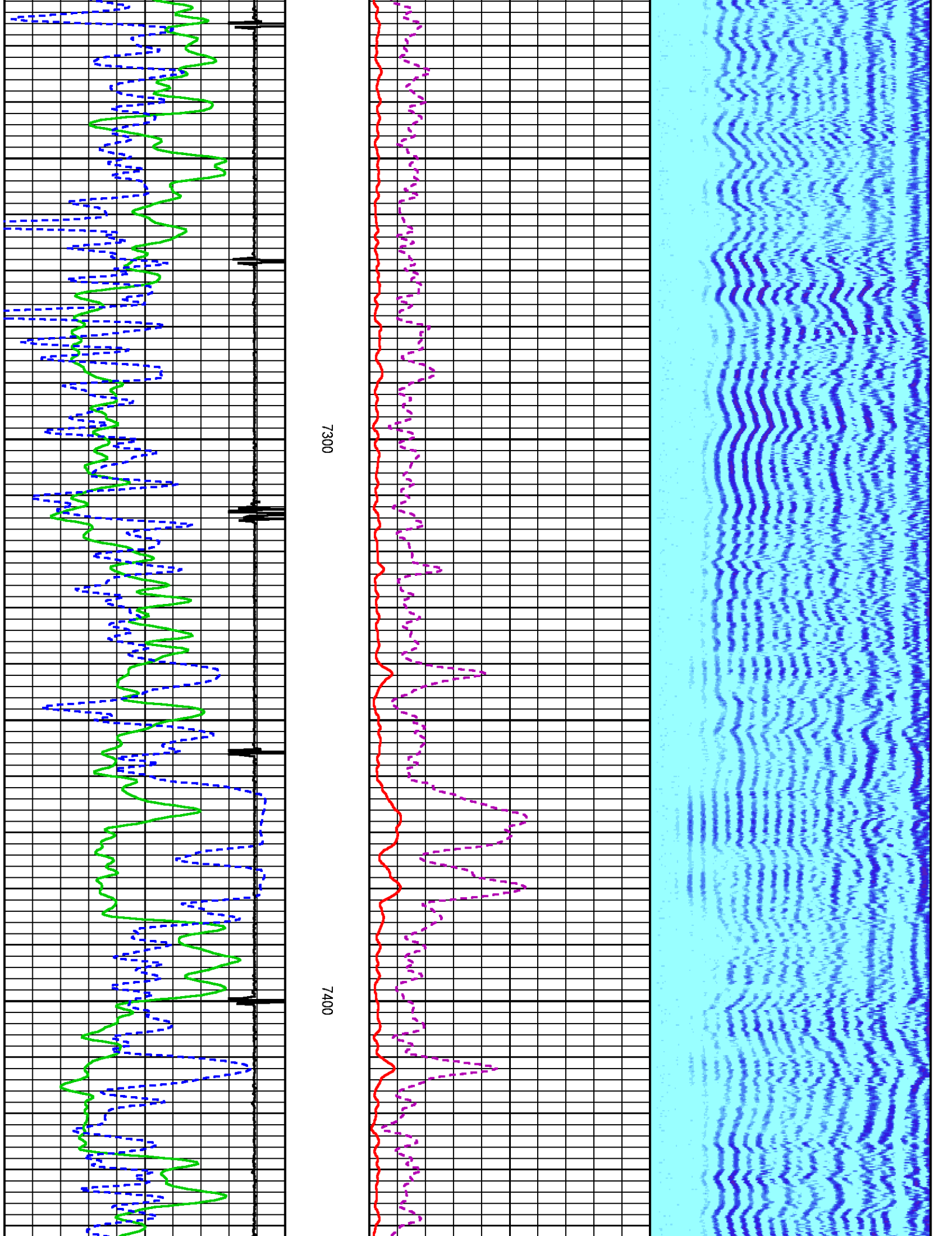


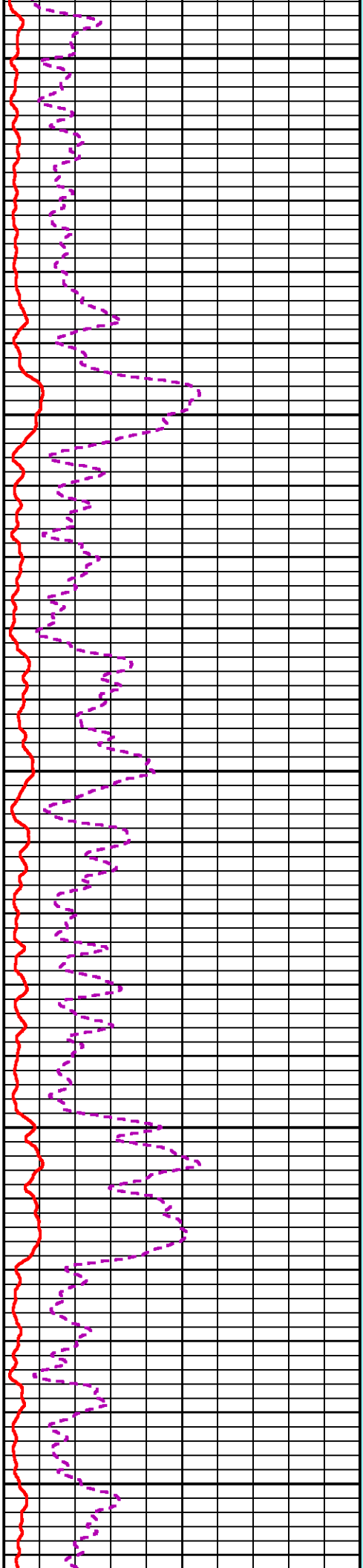
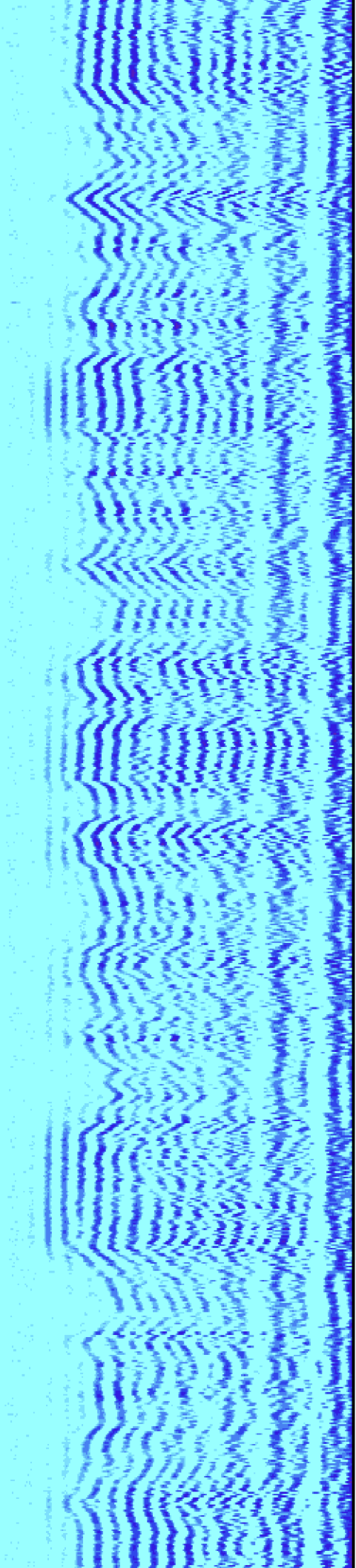






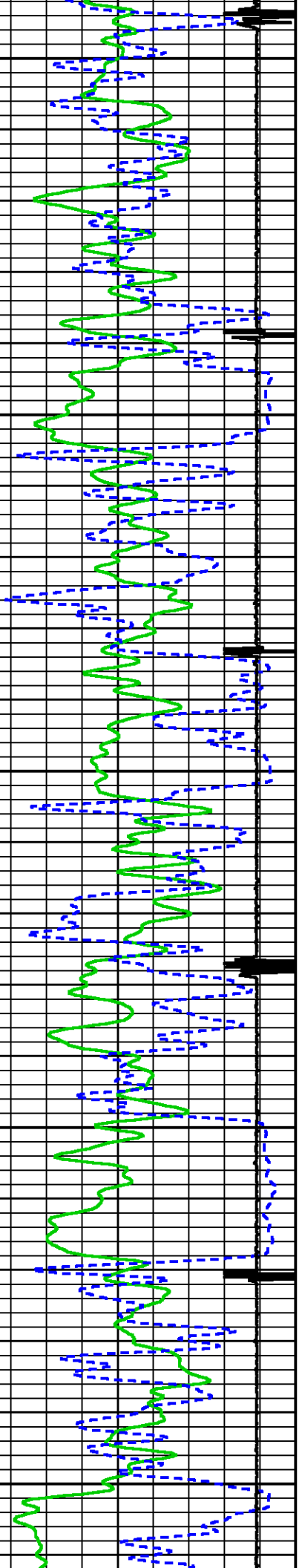


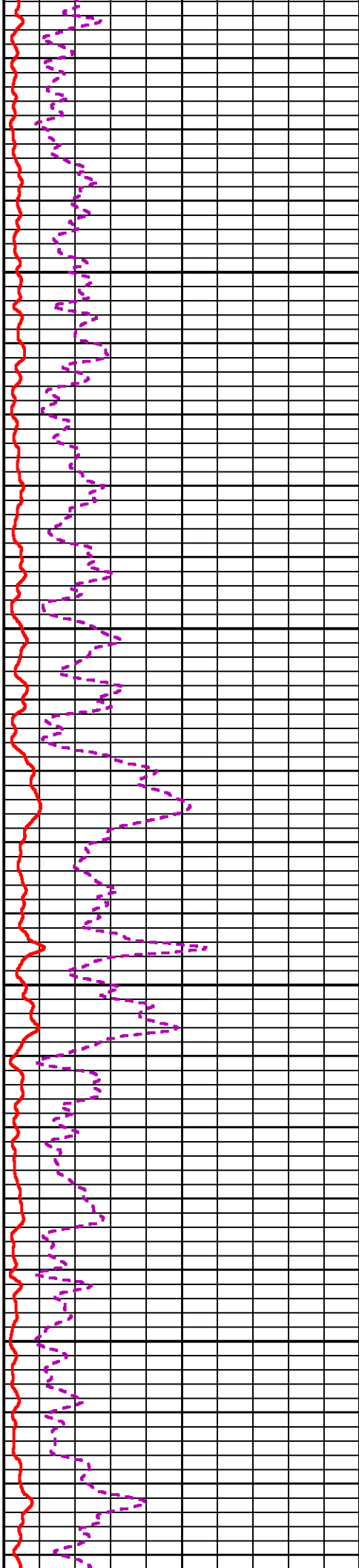
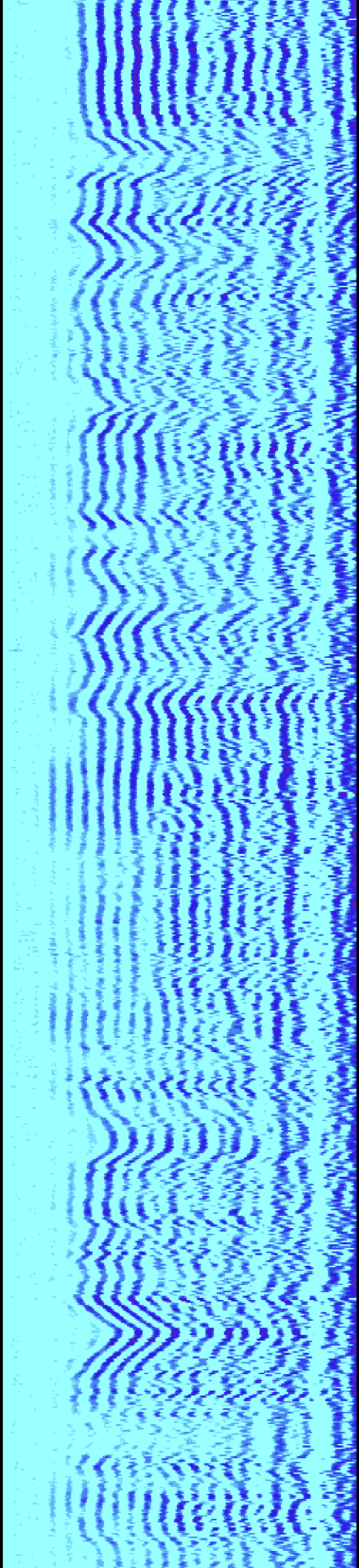




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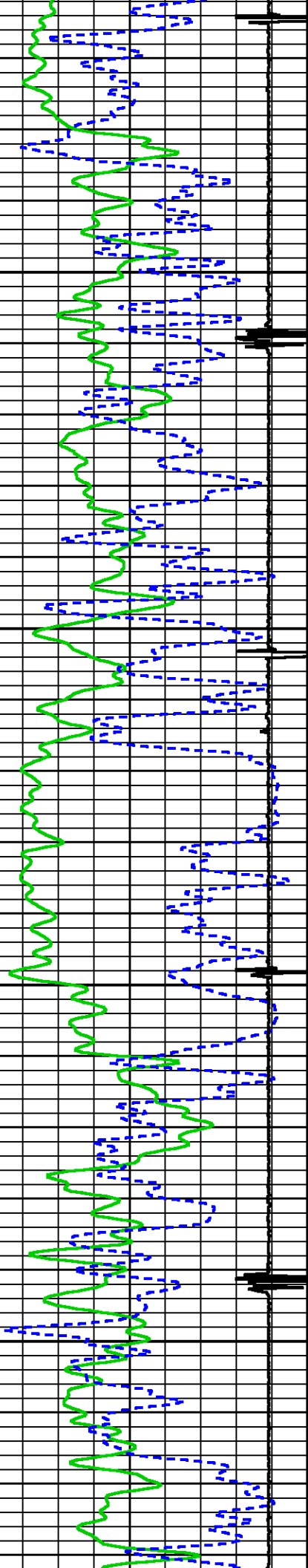
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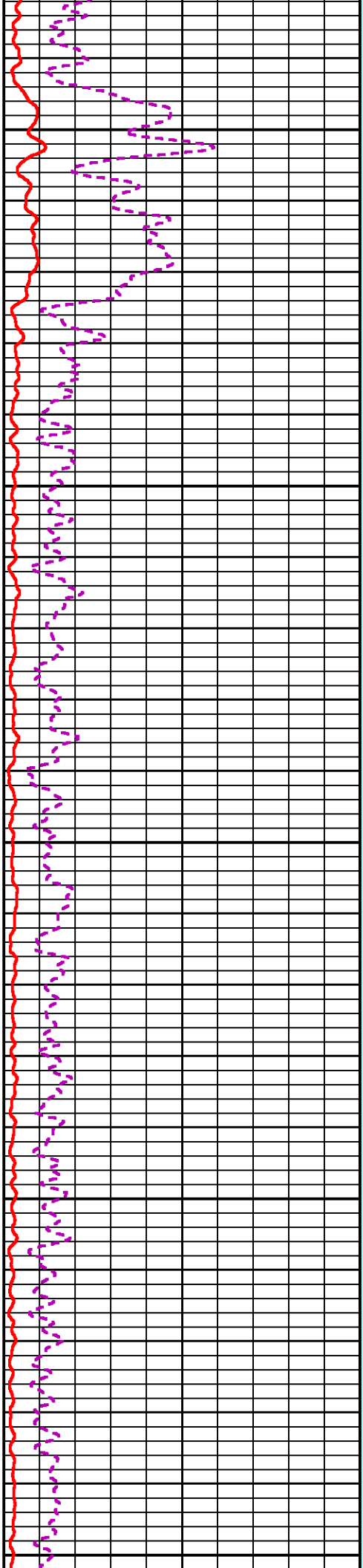
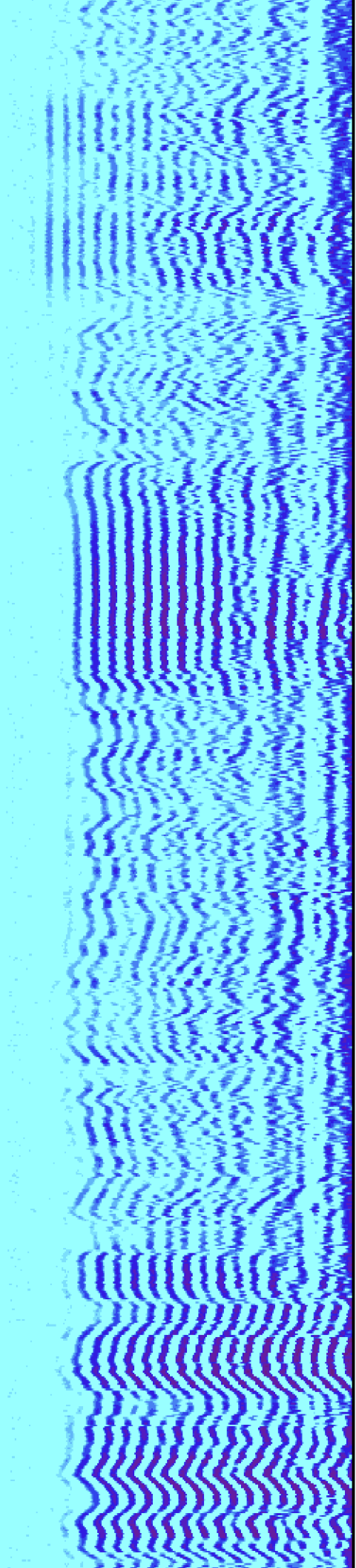




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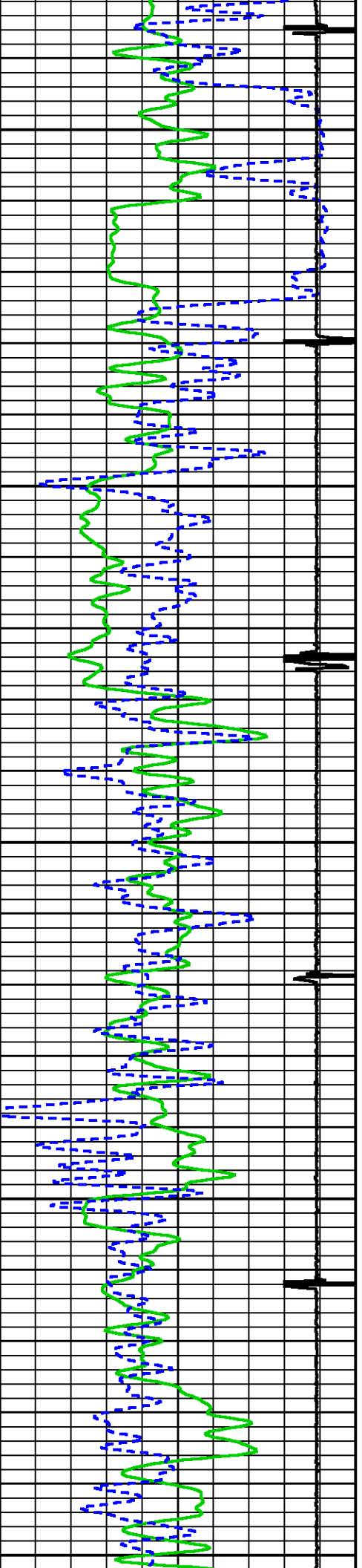


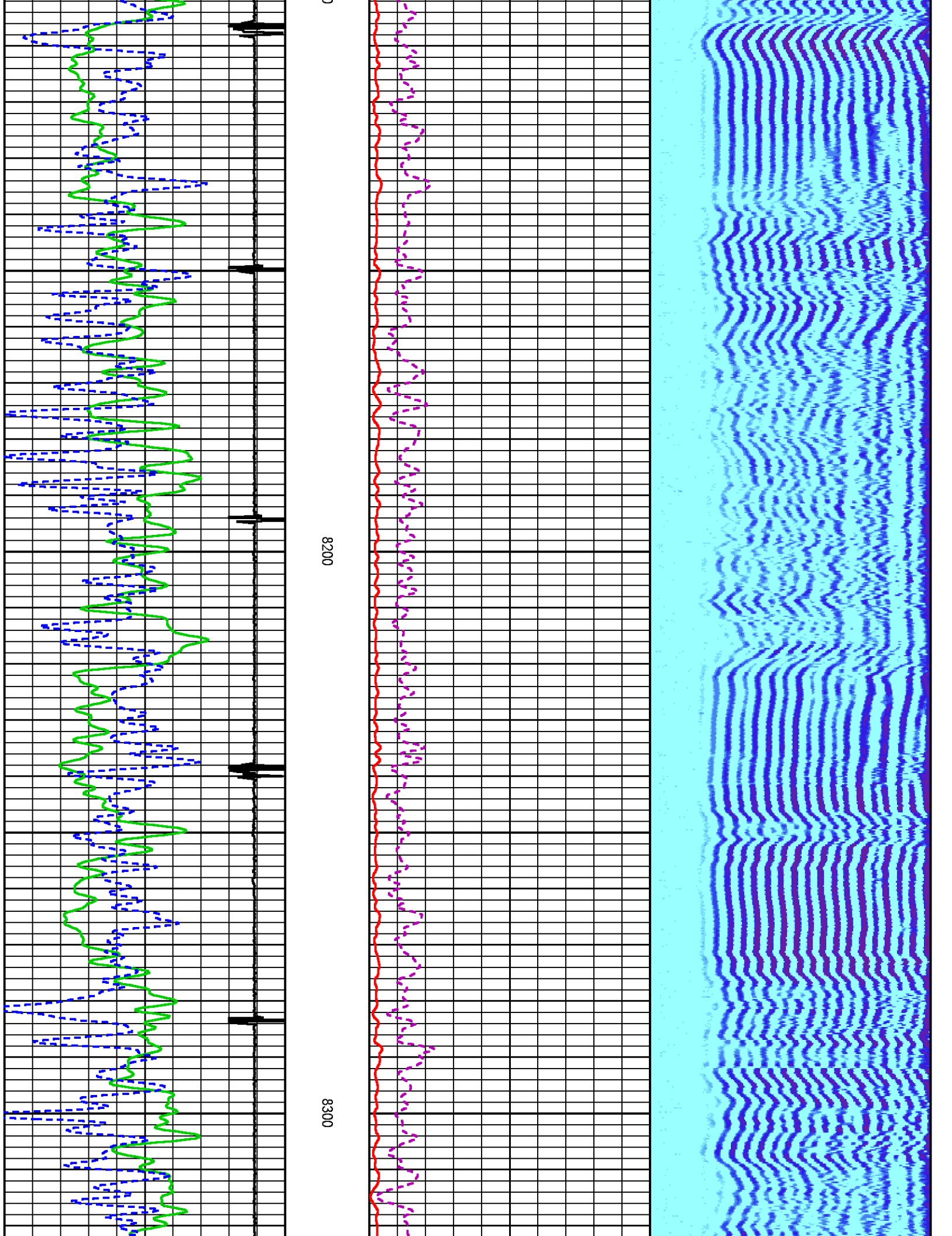


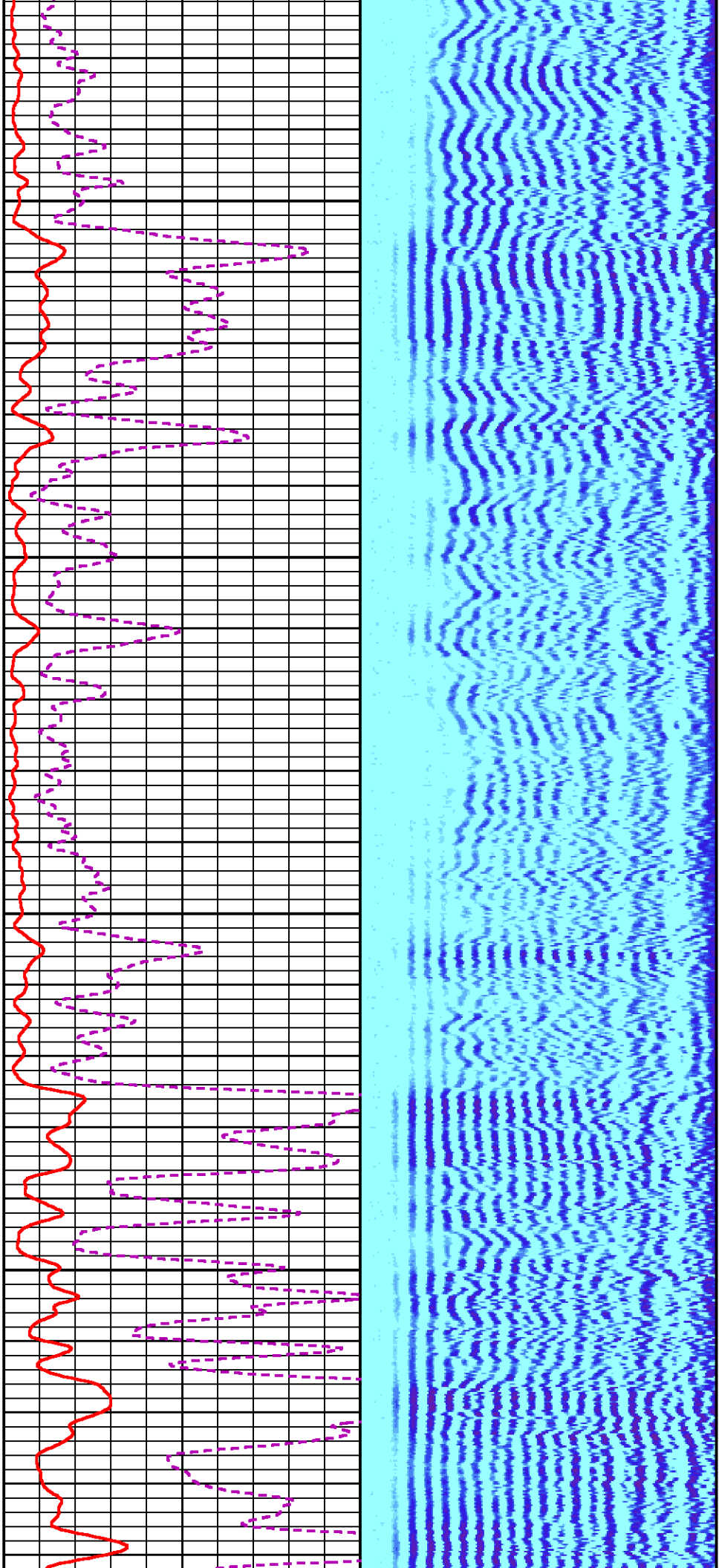
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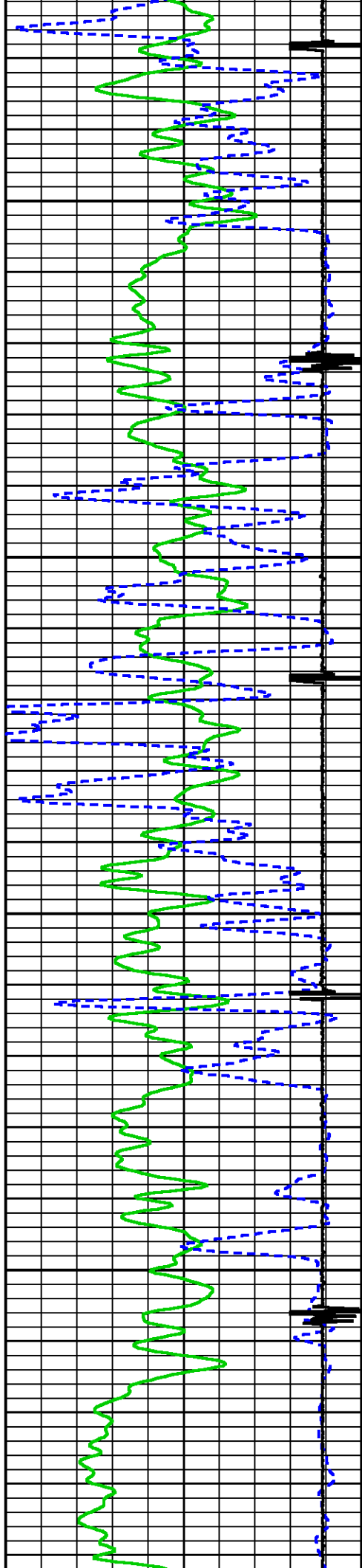


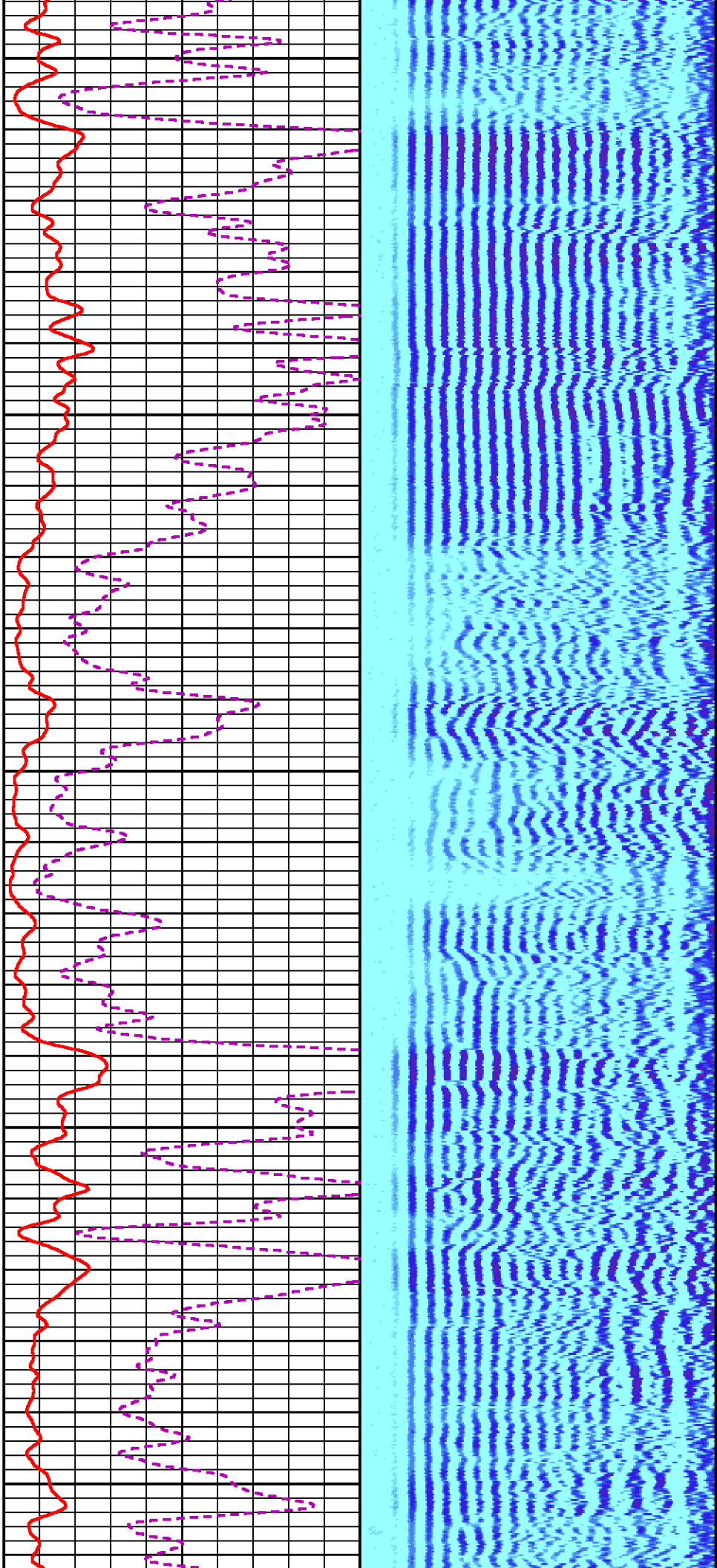




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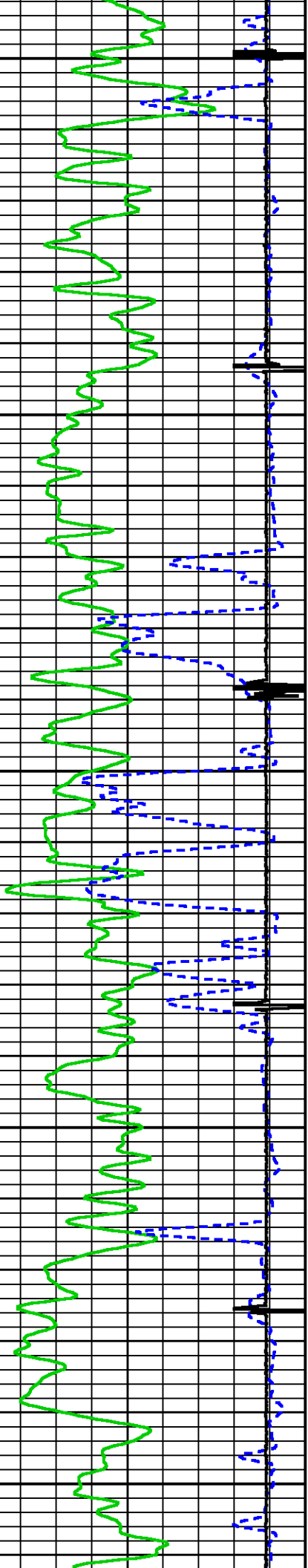
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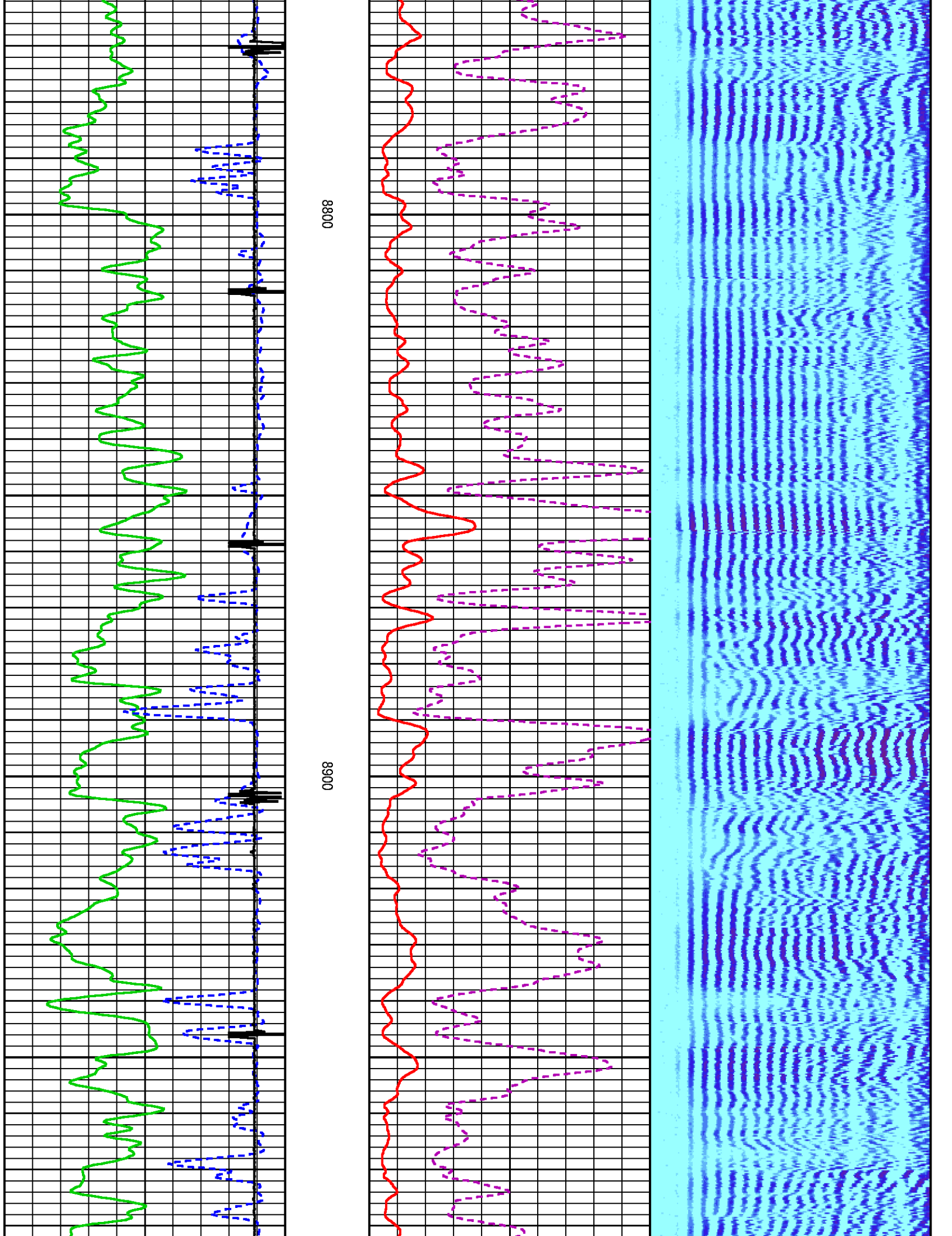


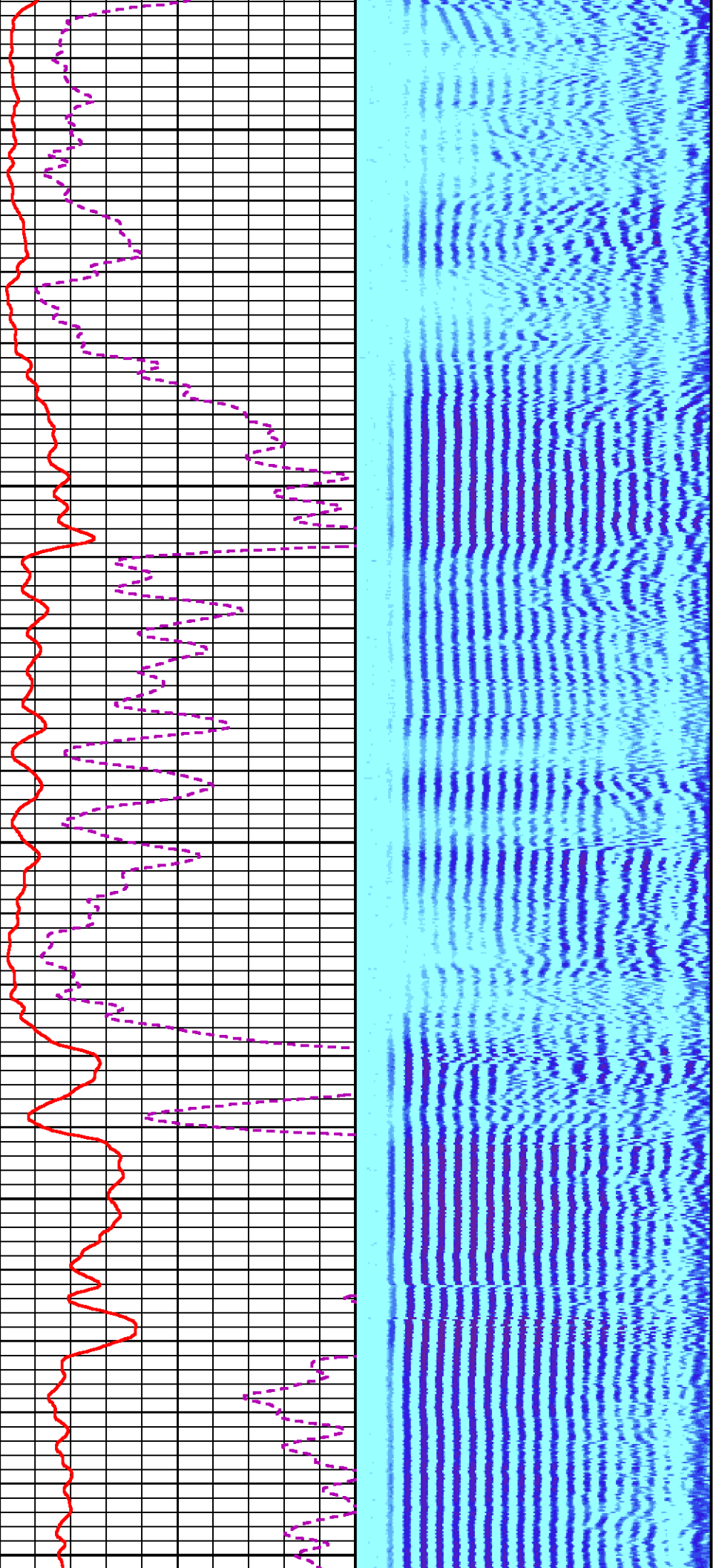


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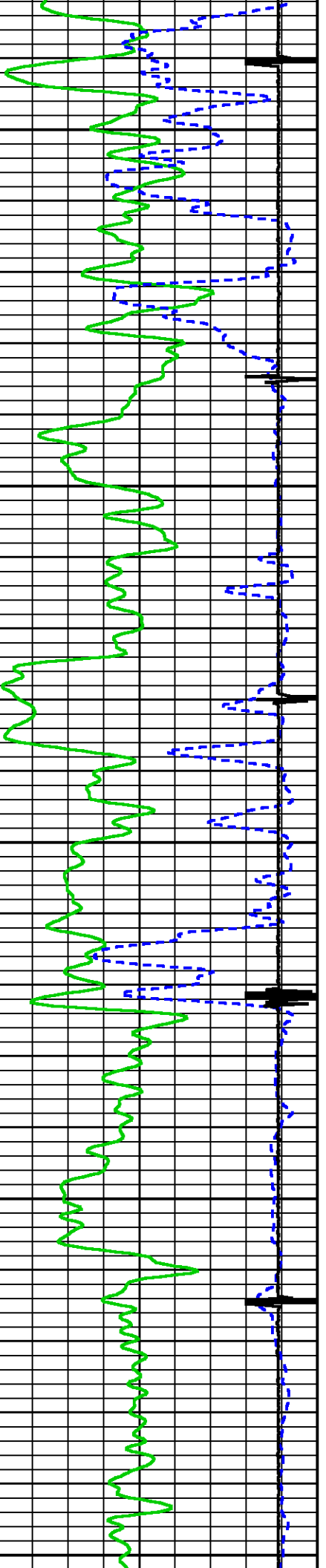


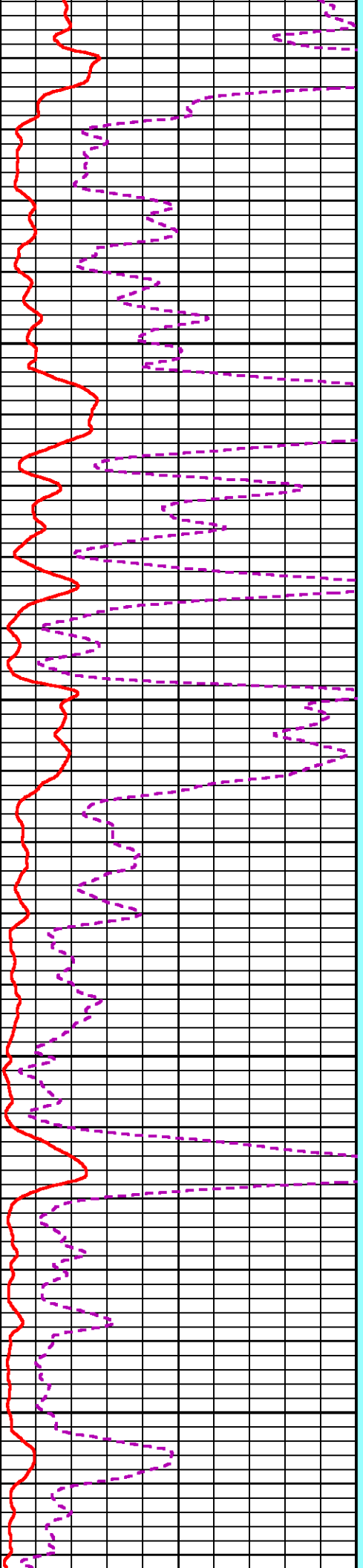
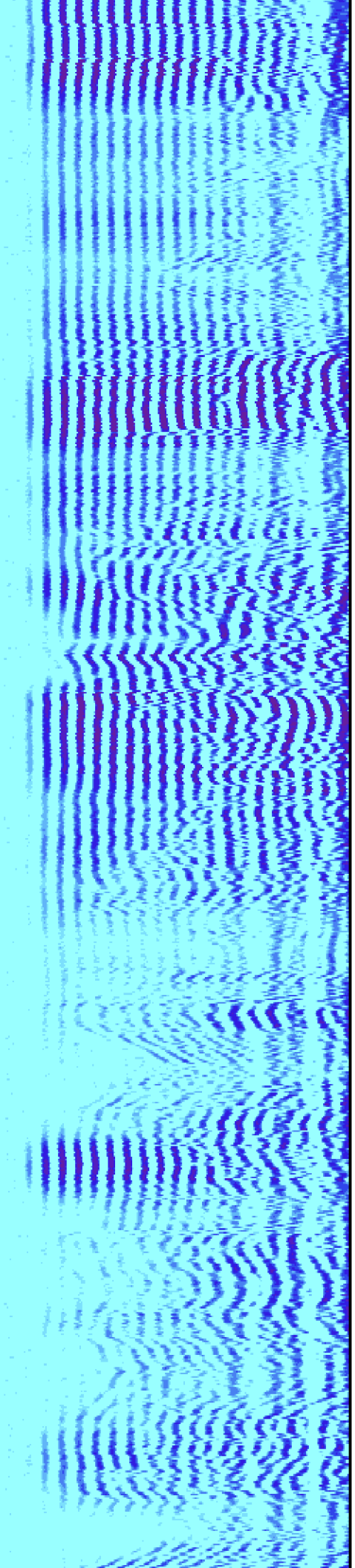


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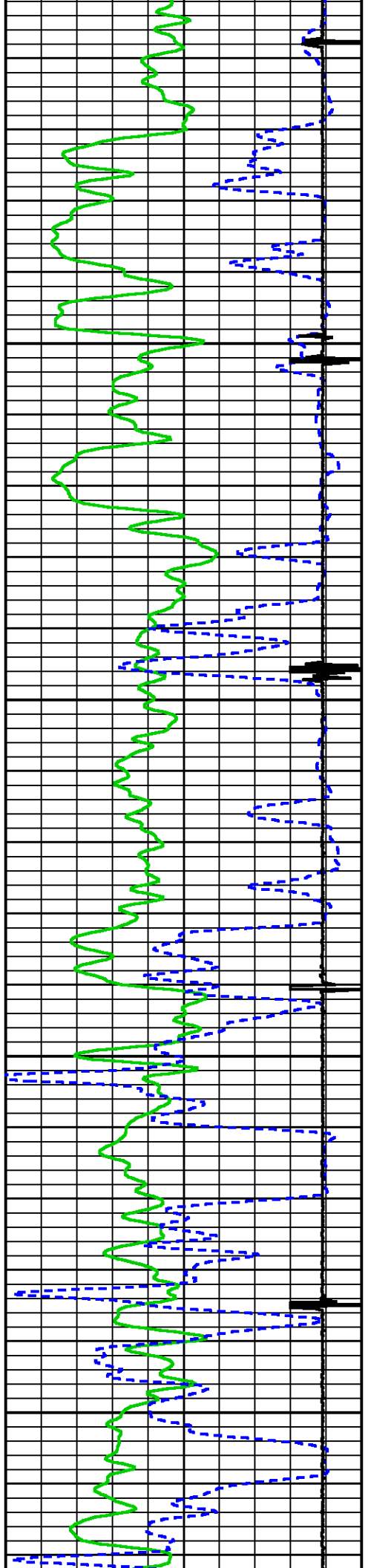
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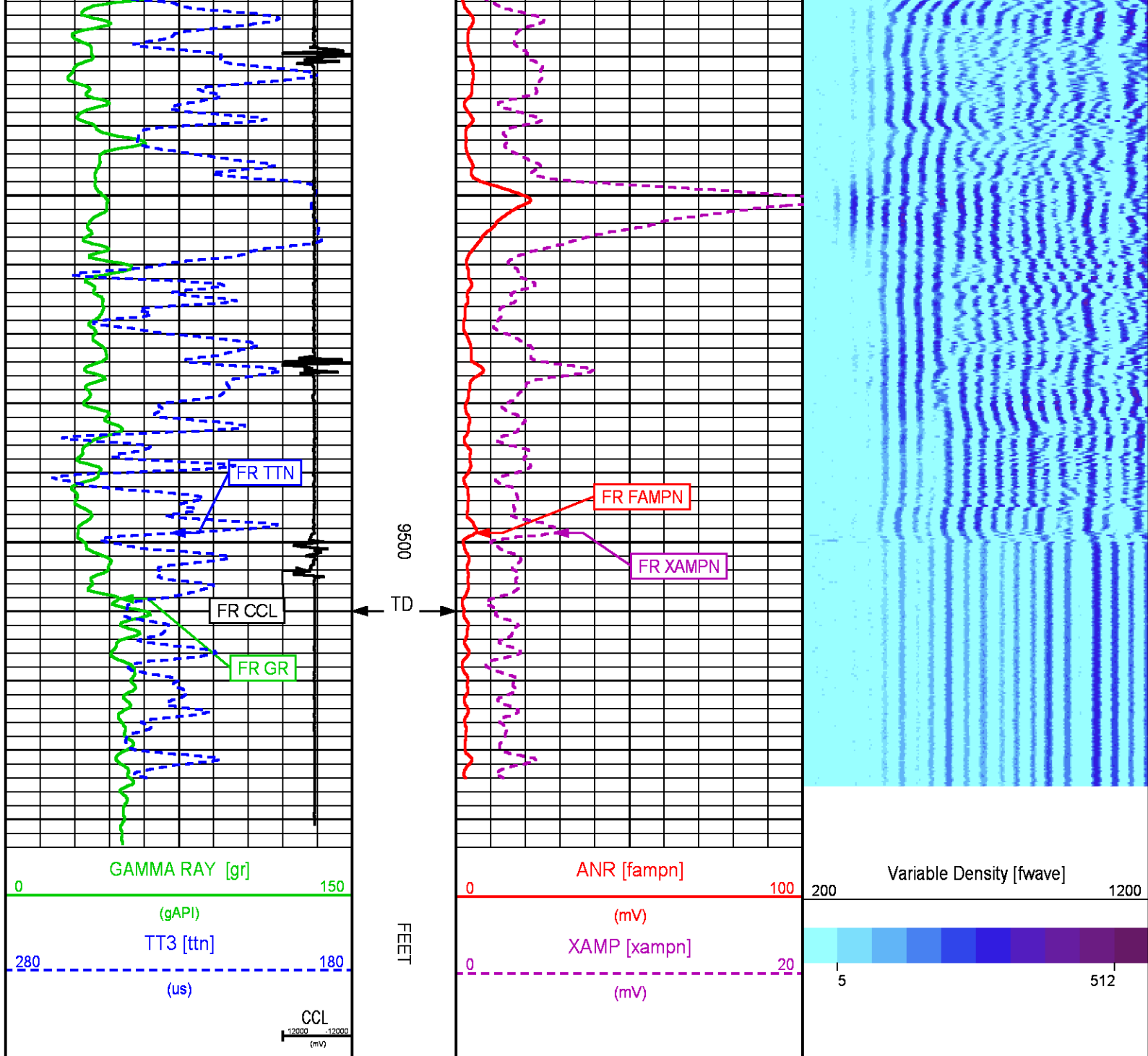




9300

9400





REPEAT 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: Sun Jan 1 12:10:44 2017

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/TEP_YOUBERG SR 44 12/n012g01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 9246.750 ft BOTTOM DEPTH: 9551.500 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*)	179	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	"	"

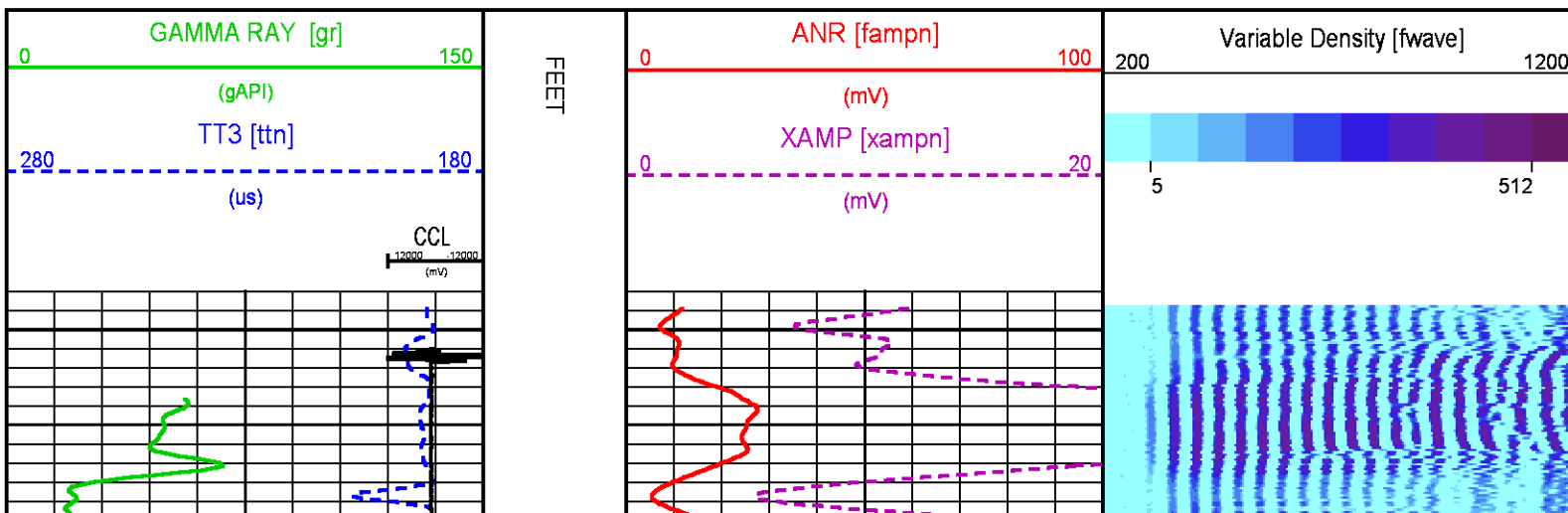
CURVE DESCRIPTION REPORT

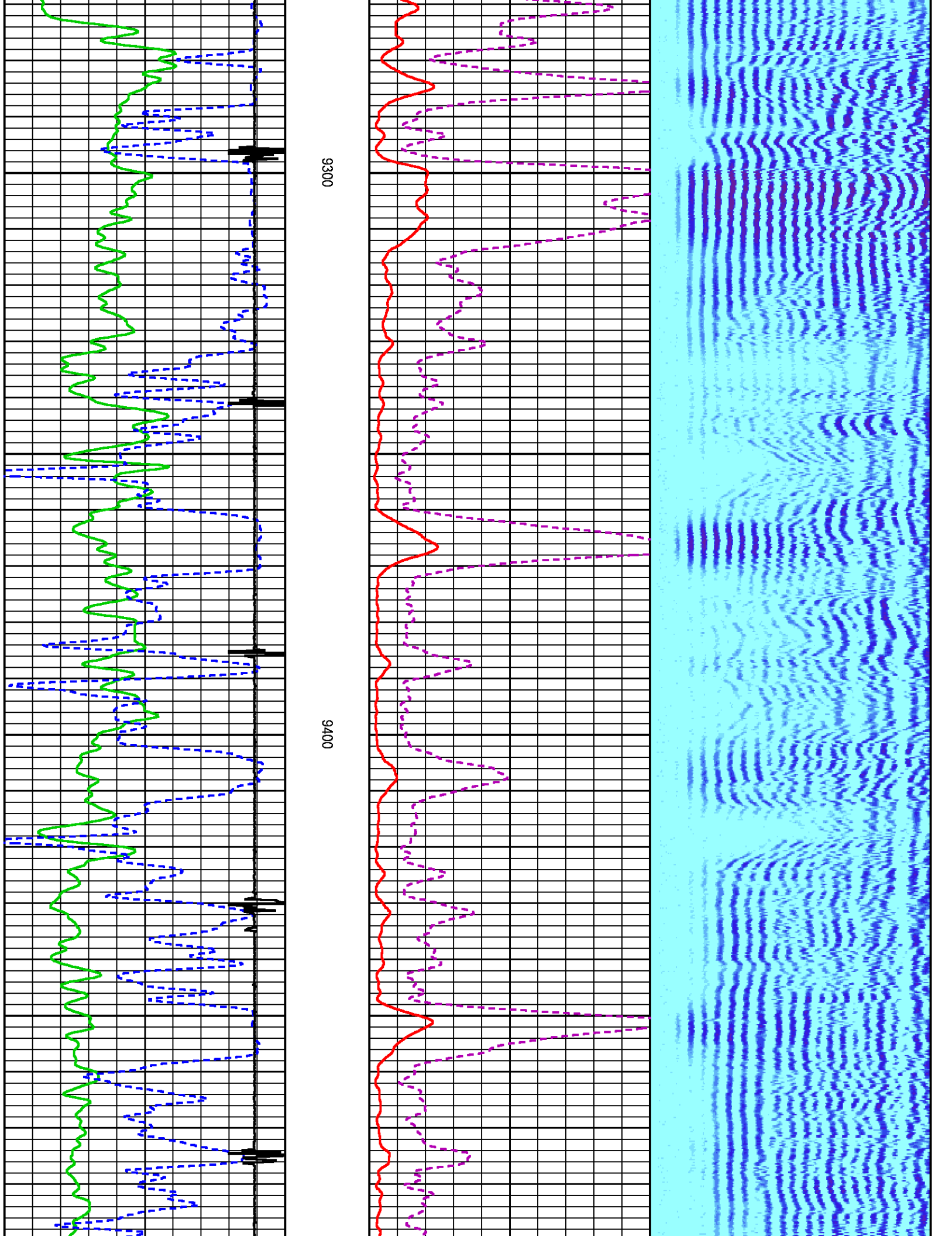
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Jan 1 10:29:57 2017	CASING COLLAR LOCATOR
F1:FAMPN	Jan 1 10:29:57 2017	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Jan 1 10:29:57 2017	FAR WAVE FORM
F1:GR	Jan 1 10:29:57 2017	GAMMA RAY
F1:TTN	Jan 1 10:29:57 2017	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Jan 1 10:29:57 2017	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

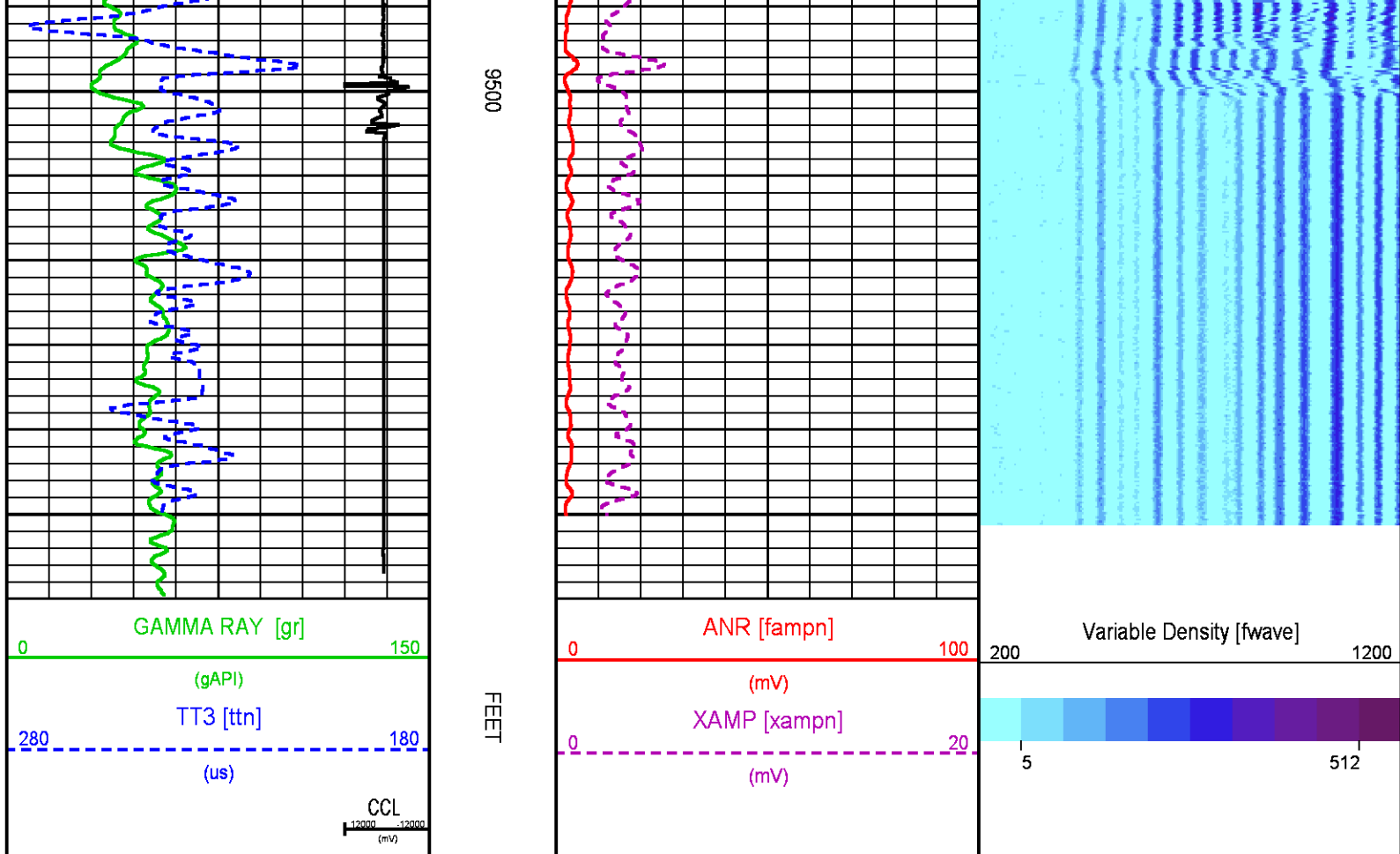
CURVE MEASURE POINT OFFSET

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:TERRA_ral_cbl+01-REPEAT-RAL_REP-5.fvpdf [5"/100' Scale]
Plot Interval	: 9236.5 - 9550 Feet
Data File 1	: F1 : cpu100:/dat1a/TEP_YOUBERG_SR_44_12/RAL_REP.xtf
Created On	: Jan 1 10:29:57 2017
Company	: TEP ROCKY MOUNTAIN LLC
Well	: YOUBERG SR 44-12
Field	: RULISON
File Interval	: 9235.5 - 9551.5 Feet
OCT	: n012g







CALIBRATION / VERIFICATION SUMMARY

Source File: \data\atEP_YOUBERG_SR_44_12h012g.tp1

RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA10154957

DATE/TIME PERFORMED: Sun Jan 1 09:31:14 2017

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	GAL
ZERO (mV)	1.91	2.69	2.64	2.57	2.42	2.51	2.36	2.50	2.50	6.46	0.00
AMP FLUID (mV)	88	88	89	89	89	87	86	86	87	119	92
TT (us)	212	212	211	211	212	212	212	212	213	319	212
M FACTOR	1.16	1.17	1.16	1.16	1.15	1.18	1.19	1.20	1.19	1.34	1.09

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA10154957

DATE/TIME PERFORMED: Sun Jan 1 09:32:48 2017

DAYS SINCE CAL: 0

UNIT #: 3880TA HL6670

CABLE #: 6670SM SL6670

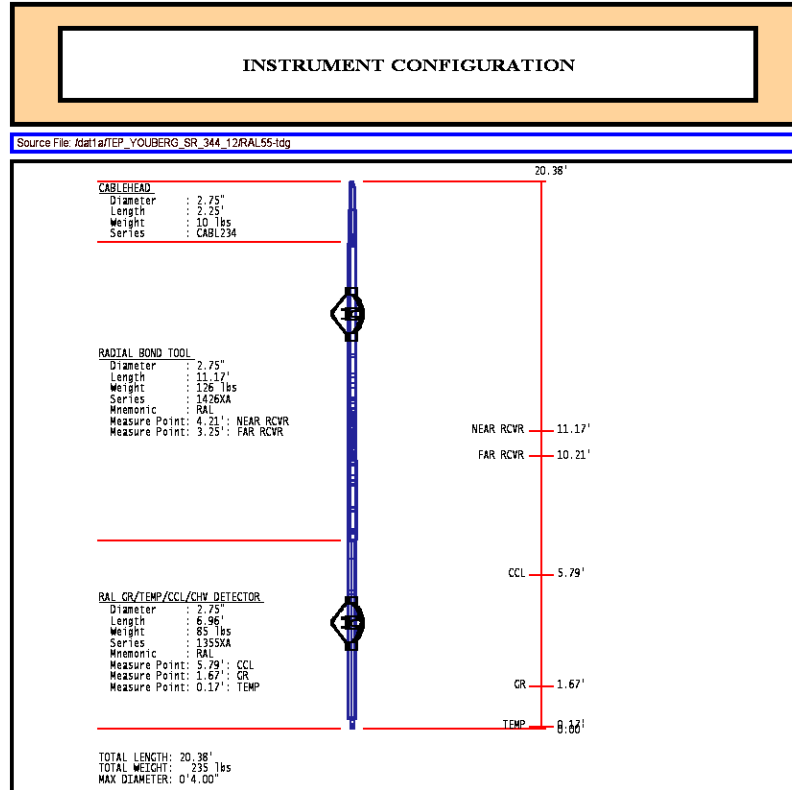
	NEAR (mV)	R1 (mV)	R2 (mV)	R3 (mV)	R4 (mV)	R5 (mV)	R6 (mV)	R7 (mV)	R8 (mV)	FAR (mV)	CAL (mV)
ZERO	0.99	0.17	0.44	0.70	0.47	0.66	0.58	0.17	0.62	2.09	0.03
AMP AIR	0.63	1.26	1.16	0.65	1.00	1.10	0.83	1.16	0.90	-0.41	99.84

SHOP	SHOP	WIRELINE
M FACTOR	A FACTOR	FACTOR
1.09	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	CALBRTR ON	CR DIFF	MULT	BACKGROUND	CALBRTR ON	CALBRTR
(cts)	(cts)	(cts/s)		(gAPI)	(gAPI)	(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	CALBRTR ON	MULT	BACKGROUND	CALBRTR ON	DIFF.	
(cts)	(cts)		(gAPI)	(gAPI)	(gAPI)	
GR 77.11	254.76	0.584	45.03	148.77	103.74	
					RCV 103.74	



	COMPANY <u>TEP ROCKY MOUNTAIN LLC</u> WELL <u>YOUBERG SR 44-12</u> FIELD <u>RULISON</u> COUNTY <u>GARFIELD</u> STATE <u>COLORADO</u>	FILE NO: _____ API NO: <u>05045232500000</u>	
	LOCATION: SHL:1944'FSL & 147'FWL S 7 T 7S R 93W BHL:1097'FSL&511'FEL S 12 T 7S R 94W SEC <u>12</u> TWP <u>7S</u> RGE <u>94W</u>	ELEVATIONS: KB 7381 FT DF 7380 FT GL 7357 FT	
	DATE <u>01-JAN-2017</u>		