



FILE NO: US624381	COMPANY FIRST LIBERTY ENERGY INC
API NO: 05105060190000	WELL BASIN #1 FIELD DEL NORTE COUNTY RIO GRANDE
Ver. 3.87 D&J RIG #1	LOCATION: NESE 59; T40N; RSE 1900' FSL 660 FEL LAT: 37.726122 LON: -106.425207 SEC 9 TWP 40N RGE SE
	OTHER SERVICES BOND LOG
PERMANENT DATUM LOG MEASURED FROM DRILL MEAS. FROM	ELEVATIONS: GL 8176 FT KB 8193.5 FT DF GL 8176 FT

DATE		07-MAR-2013		21-MAR-2013	
RUN	TRIP	2	1	3	1
SERVICE ORDER		624379		624381	
DEPTH DRILLER		4812 FT		9270 FT	
DEPTH LOGGER		4805 FT		9234 FT	
BOTTOM LOGGED INTERVAL		4802 FT		9220 FT	
TOP LOGGED INTERVAL		1200 FT		4780 FT	
CASING DRILLER		9.625 IN	② 1220 FT	7 IN	② 4797 FT
CASING LOGGER		1208 FT		4788 FT	
BIT SIZE		8.75 IN		6.125 IN	
TYPE OF FLUID IN HOLE		WBM		WBM	
DENSITY	VISCOSITY	8.9 LB/G	45 S	8.8 LB/G	40 S
PH	FLUID LOSS	9.0	8.8 C3	10	
SOURCE OF SAMPLE		FLOWLINE		FLOWLINE	
RM AT MEAS. TEMP.		2.35 OHMM	⑤ 57 DEGF	2.8 OHMM	⑤ 57 DEGF
RMF AT MEAS. TEMP.		1.76 OHMM	⑤ 52 DEGF	2.1 OHMM	⑤ 57 DEGF
RMC AT MEAS. TEMP.		2.93 OHMM	⑤ 52 DEGF	3.5 OHMM	⑤ 57 DEGF
SOURCE OF RMF	RMC	CALCULATED	CALCULATED	CALCULATED	CALCULATED
RM AT BHT		0.332 OHMM	② 140 DEGF	0.983 OHMM	② 221 DEGF
TIME SINCE CIRCULATION		8		7	
MAX. RECORDED TEMP.		145 DEGF		224 DEGF	
EQUIP. NO.	LOCATION	6685	GRAND JUNCT	6685	GRAND JUNCT
RECORDED BY		SMITH/PATTON		PATTON/SMITH	
WITNESSED BY		S. OSBORN/R. SAY		S. OSBORN/R. SAY	

DATE	02-MAR-2013			
RUN	TRIP	1	1	
SERVICE ORDER		US624377		
DEPTH DRILLER		1243 FT		
DEPTH LOGGER		1240 FT		
BOTTOM LOGGED INTERVAL		1237 FT		
TOP LOGGED INTERVAL		30 FT		
CASING DRILLER		16 IN	② 80 FT	
CASING LOGGER		74 FT		
BIT SIZE		12.25 IN		
TYPE OF FLUID IN HOLE		WBM		
DENSITY	VISCOSITY	9.9 LB/G	48 S	
PH	FLUID LOSS	9.9	12 C3	
SOURCE OF SAMPLE		FLOWLINE		
RM AT MEAS. TEMP.		3.3 OHMM	⑤ 55 DEGF	
RMF AT MEAS. TEMP.		2.48 OHMM	⑤ 50 DEGF	
RMC AT MEAS. TEMP.		4.3 OHMM	⑤ 50 DEGF	
SOURCE OF RMF	RMC	CALCULATED	CALCULATED	
RM AT BHT		2.065 OHMM	② 79 DEGF	
TIME SINCE CIRCULATION		6		
MAX. RECORDED TEMP.		79 DEGF		
EQUIP. NO.	LOCATION	6685	GRAND JUNCT	
RECORDED BY		SMITH/PATTON		
WITNESSED BY		S.OSBORN/R.SAY		

DATE				
RUN	TRIP			
SERVICE ORDER				
DEPTH DRILLER				
DEPTH LOGGER				
BOTTOM LOGGED INTERVAL				
TOP LOGGED INTERVAL				
CASING DRILLER			②	
CASING LOGGER				
BIT SIZE				
TYPE OF FLUID IN HOLE				
DENSITY	VISCOSITY			
PH	FLUID LOSS			
SOURCE OF SAMPLE				
RM AT MEAS. TEMP.			②	
RMF AT MEAS. TEMP.			②	
RMC AT MEAS. TEMP.			②	
SOURCE OF RMF	RMC			
RM AT BHT			②	
TIME SINCE CIRCULATION				
MAX. RECORDED TEMP.				
EQUIP. NO.	LOCATION			
RECORDED BY				
WITNESSED BY				

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE 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
12.25 IN	80 FT	1243 FT
8.75 IN	1220 FT	4812 FT
6.125 IN	4812 FT	9243 FT

CASING RECORD

SIZE	WEIGHT	GRADE	FROM	TO
16 IN	75 LB/F		0 FT	80 FT
9.625 IN	36 LB/F	J-55	0 FT	1220 FT
7 IN	23 LB/F		0 FT	4374 FT
7 IN	26 LB/F		4374 FT	4797 FT

REMARKS

RUN 2 TRIP 1 : HDIL ZDL CN GR RUN IN COMBINATION

BVOL/CVOL CALCULATED USING 7.00" PROPOSED CASING
CALIPER VERIFIED IN CASING

RUN 1 AND RUN 2 SPLICED AT 1230FT
CASING DEPTH FROM RUN 2 ANNOTATED ON LOG

CASING DEPTH FROM RUN 1 ANNOTATED ON LOG

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES
CREW: SMITH/PATTON/COATE/OLSON
RIG: D&J #1

RUN 3 TRIP 1 : HDIL ZDL CN GR RUN IN COMBINATION

BVOL/CVOL CALCULATED USING
CALIPER VERIFIED IN CASING

RUN 1 AND RUN 2 SPLICED AT 1230 FT
CASING DEPTHS FROM RUN 1 AND 2 ANNOTATED ON LOG

RIG LOST CIRCULATION AT 9070' TO 9270' APPROX 450 BBLS
MIXED LCM TO REGAIN CONTROL

COMMUNICATION FAILURE WITH TOOLS AT 7:40AM
PULLED OUT OF HOLE REPLACED TOOLS
REACHED DEPTH OF COMMUNICATION FAILURE AT 9:40AM

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES
CREW: PATTON/SMITH/COATE/OLSON
RIG: D&J #1

RUN 1 TRIP 1 :

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
0	0				
1	1	COMMON REMO	3514XB	10240730	FREE
1	1	GAMMA/ SL	1329XA	10203001	FREE
1	1	CN	2446XA	10202034	DECENTRALIZED
1	1	ZDL	2234XA	10211833	PAD DEVICE
1	1	KNUCKLE	3939XA	10185406	FREE
1	1	HDIL ELEC	1515EA	10318637	FREE
1	1	HDIL MANDRL	1515MA	10417303	FREE

1	1	SWVL	3944XD	10138308	FREE
1	1	TTRM	3981XA	10516527	FREE
2	1	TTMA	3980XA	10142233	FREE
2	1	TELE/GR	3518EG/EB	10411092	FREE
2	1	CN	2436XA	10137930	DECENTRALIZED
2	1	ZDL	2223XA	10102922	PAD DEVICE
2	1	DBL KNCKL	3930XA	10139400	FREE
2	1	HDIL	1530XA	10103013	FREE
3	1	TTMA	3514XA	10120299	FREE
3	1	GR	1329XA	10139870	FREE
3	1	CN	2446XA	10137930	DECENTRALIZED
3	1	ZDL	2223XA	10391895	PAD DEVICE
3	1	HDIL	1515MA	10103013	STOOD OFF

BOREHOLE PROFILE

ECLIPS 6.1wu2 PC-ECLIPS Rel 6.1w Update 2 Feb 15, 2012

Thu Mar 21 14:16:13 2013

Perplt

Cplot

Pdf_Cpp /main/16

Fileview 2.02

PARAMETER AND FILTER SUMMARY REPORT

File: D:\data\624381\m970a02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 8933.500 ft BOTTOM DEPTH: 9259.012 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER ()	medium (1)		TOP	BOTTOM
CALIPER	FILTER ()	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	7.000	ln	TOP	BOTTOM
BIT SIZE	BIT SIZE	6.125	ln	"	"

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Mar 21 10:31:56 2013	BIT SIZE
F1:BVOL	Mar 21 10:31:56 2013	BOREHOLE VOLUME
F1:CAL	Mar 21 10:31:56 2013	CALIPER
F1:CVOL	Mar 21 10:31:56 2013	CEMENT VOLUME
F1:GR	Mar 21 10:31:56 2013	GAMMA RAY
F1:TEN	Mar 21 10:31:56 2013	DIFFERENTIAL TENSION

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	CAL	18.13	GR	35.00	TEN	0.00

Project : NA
 User : pattfral
 Presentation : BHIRSH76R1-D:\data\624381\BHP.pdf [5"/100' Scale]

Plot Interval : 4565.5 - 9248.25 Feet

Data File 1 : F1 : BHI8SH76R1:D:\dat1a\624381\m970a04--MAIN.xtf

Created On : Mar 21 10:31:56 2013

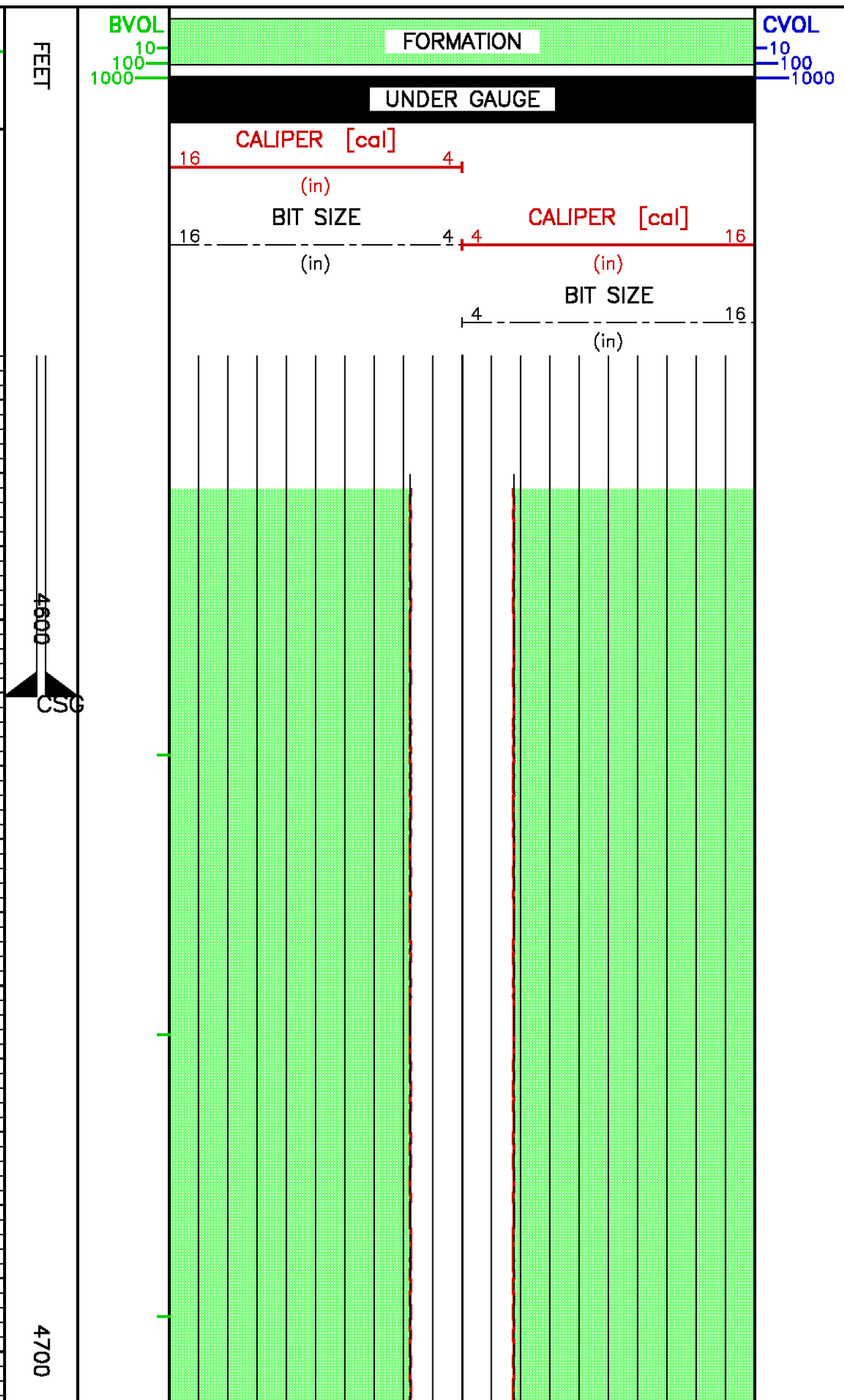
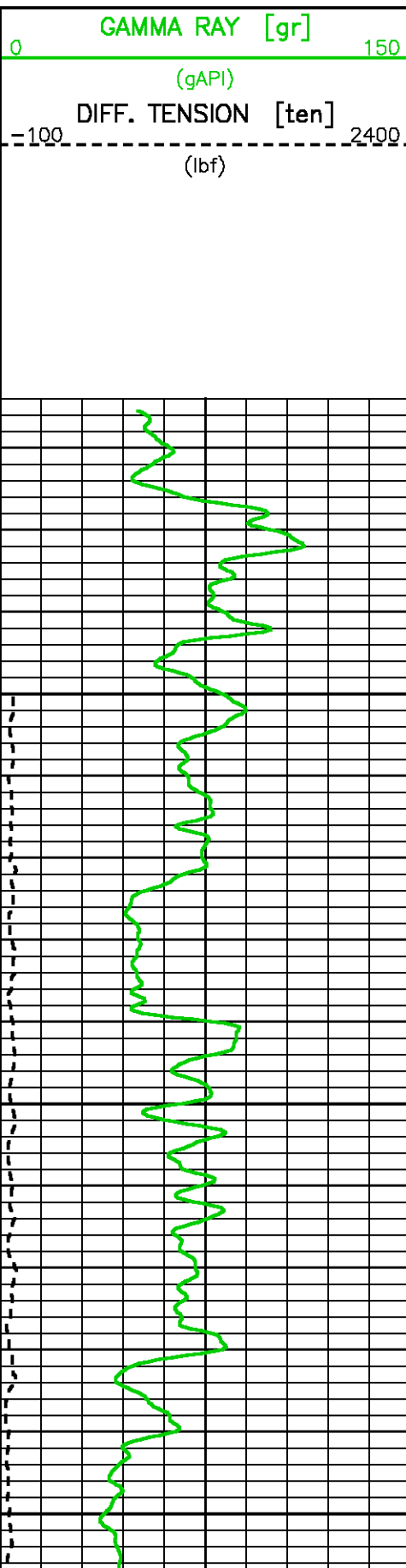
Company : FIRST LIBERTY ENERGY INC

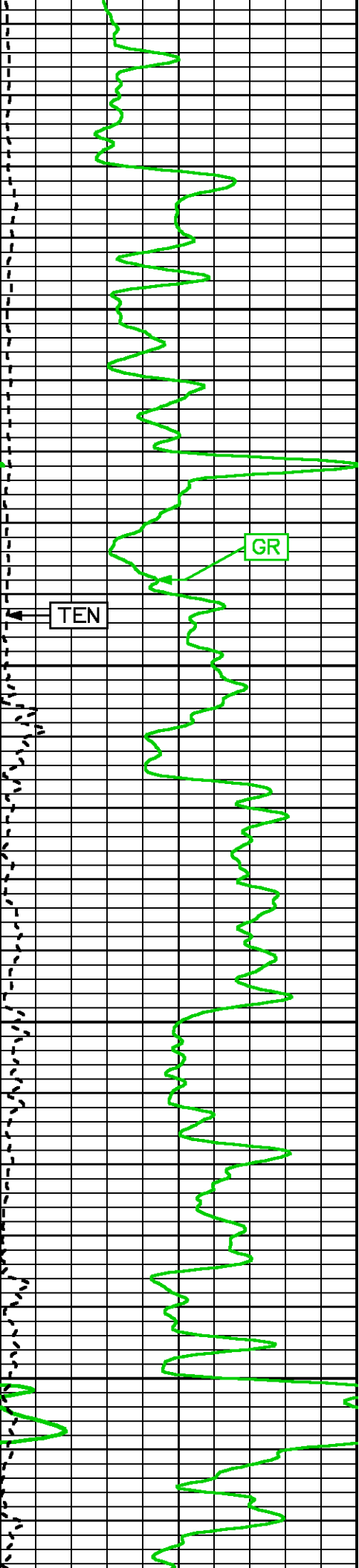
Well : BASIN #1

Field : DEL NORTE

File Interval : 0 - 9250 Feet

Oct : m970a





4800

4900

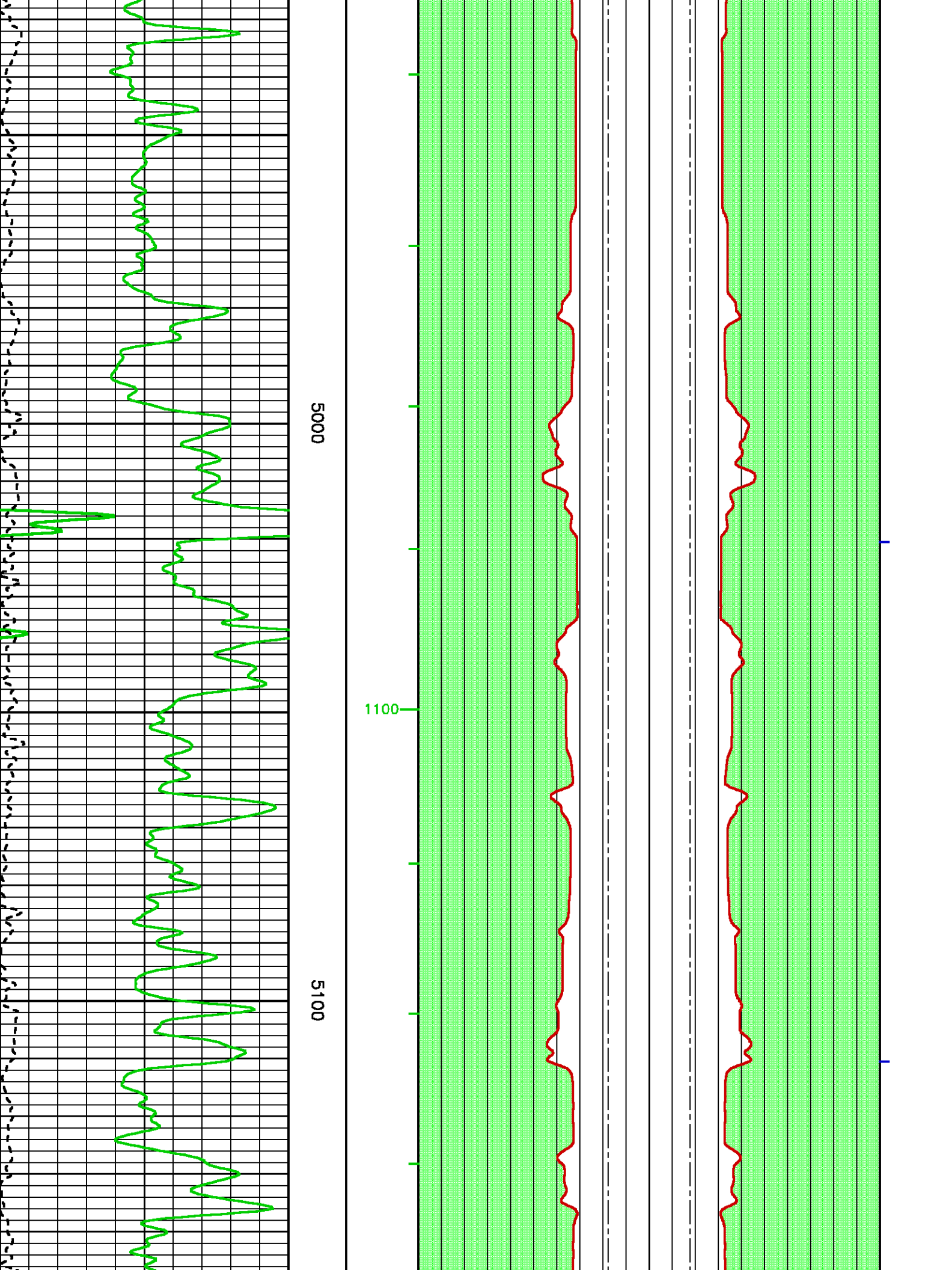
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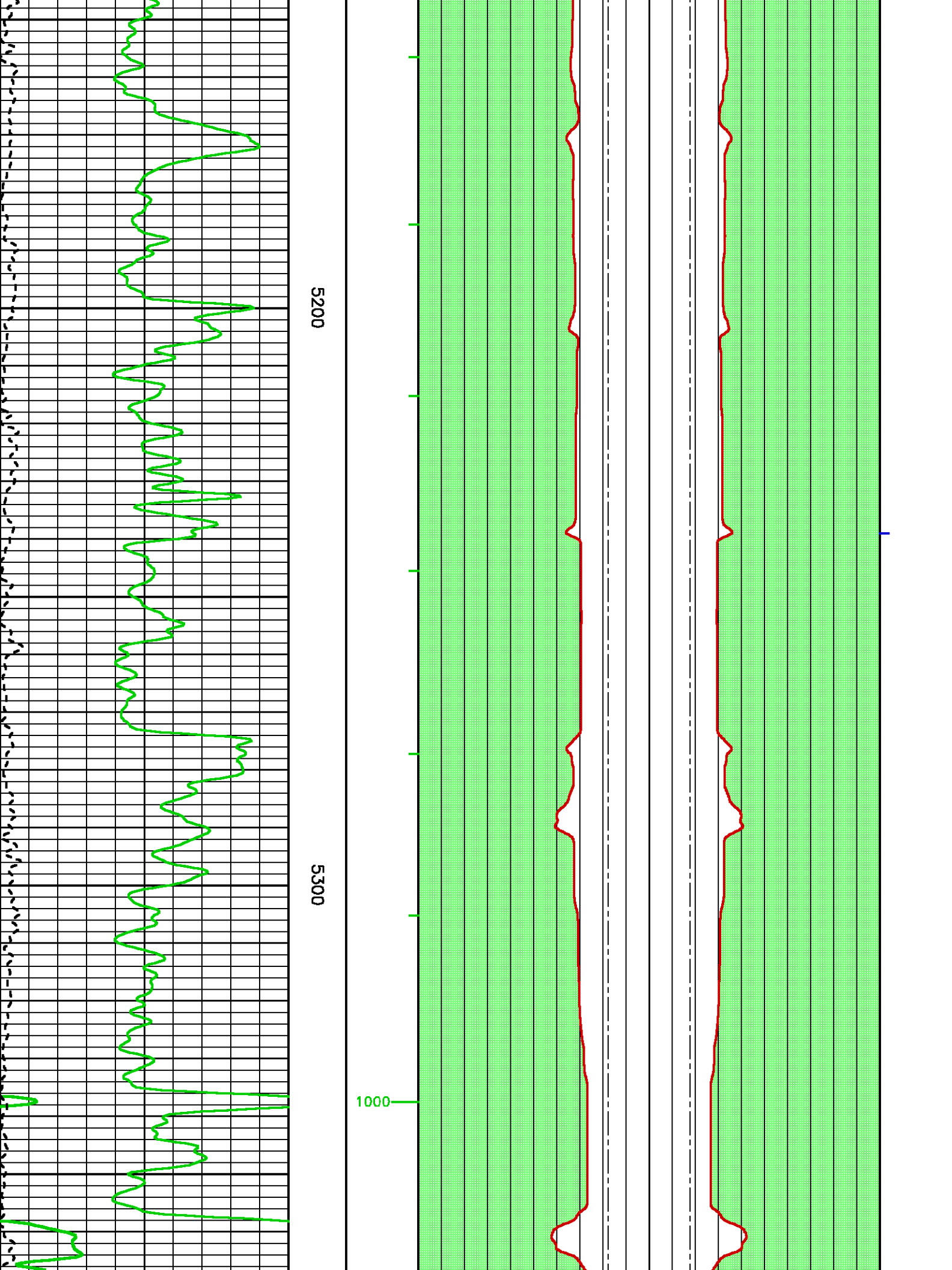
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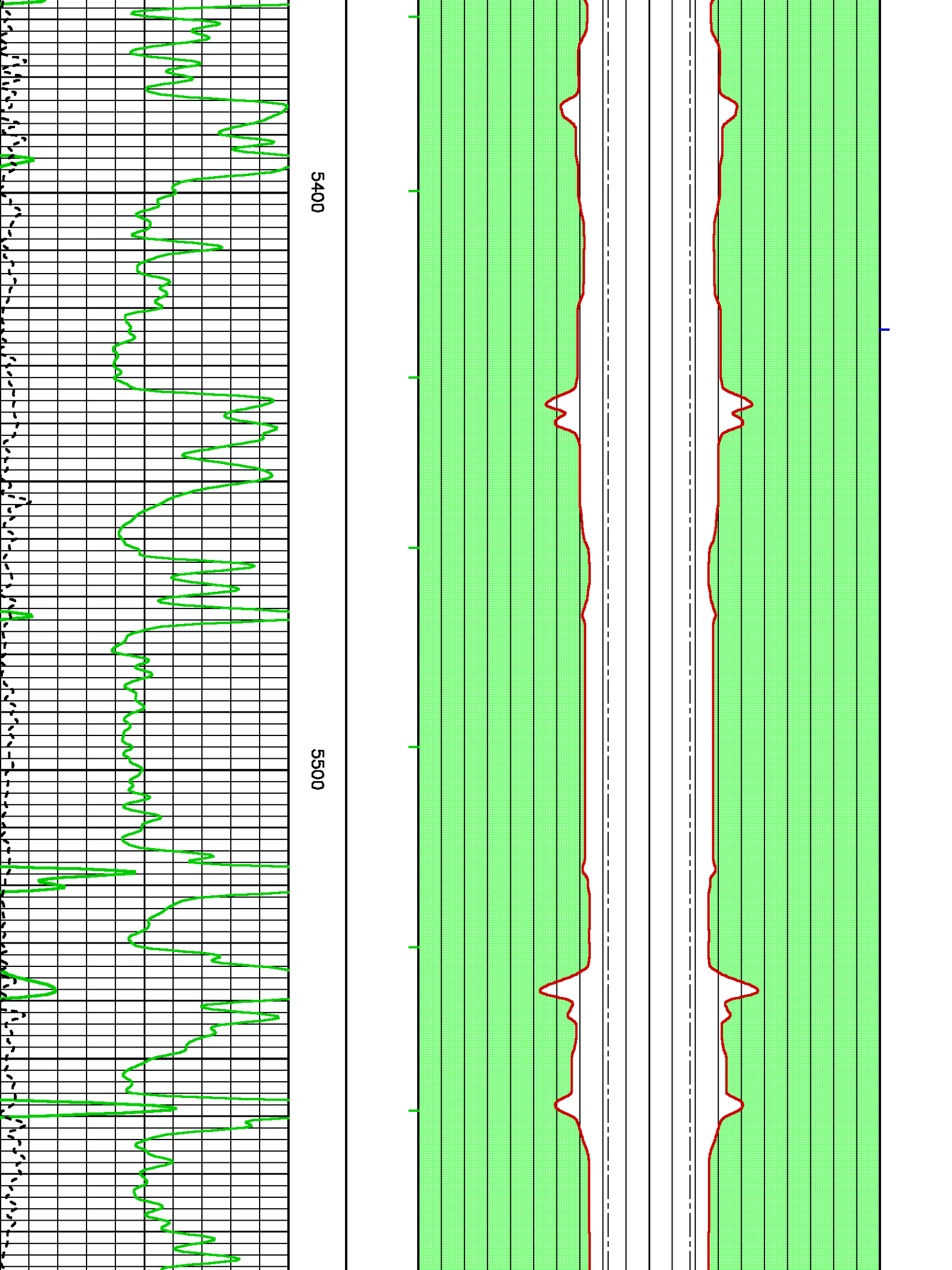
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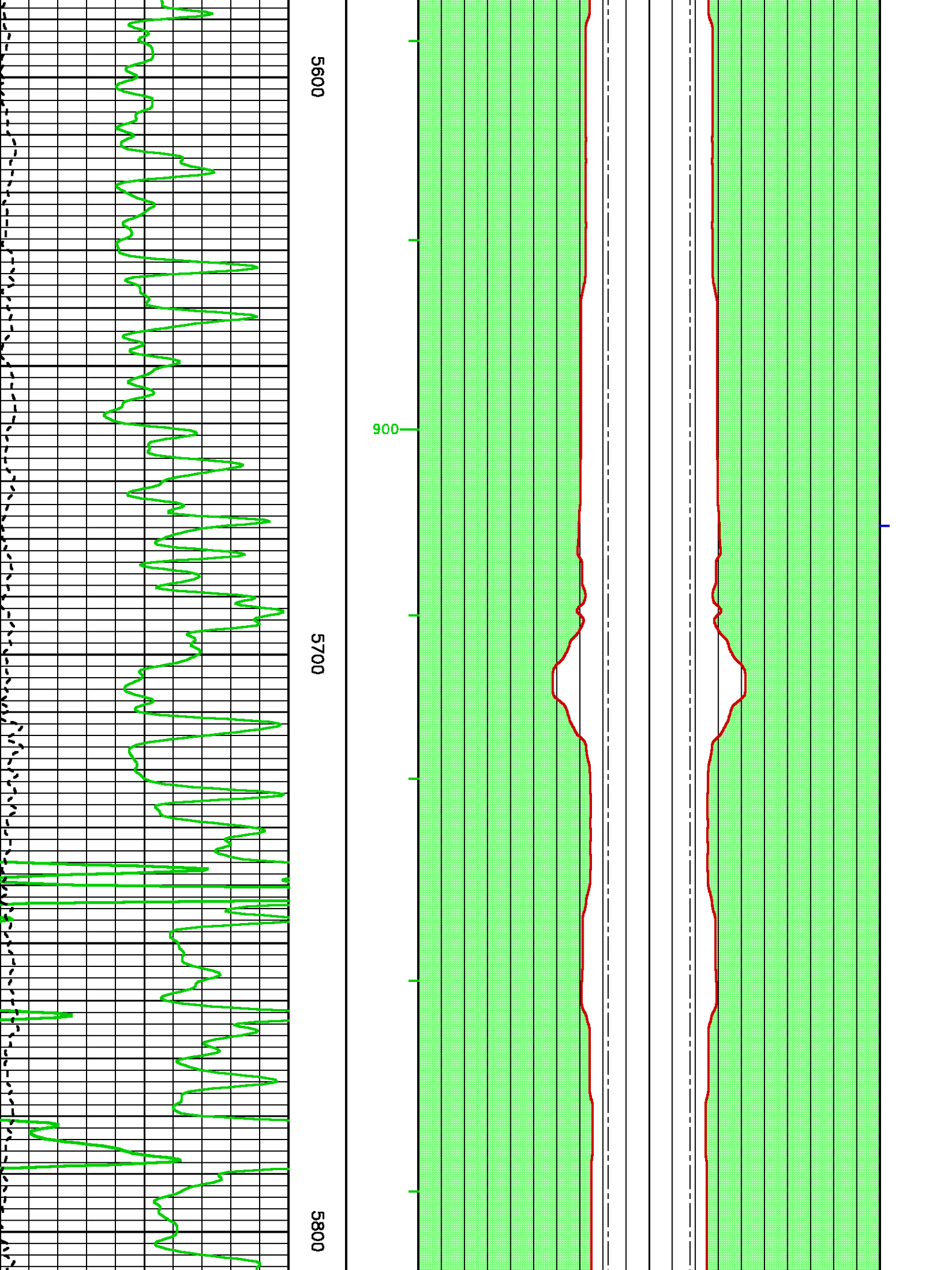
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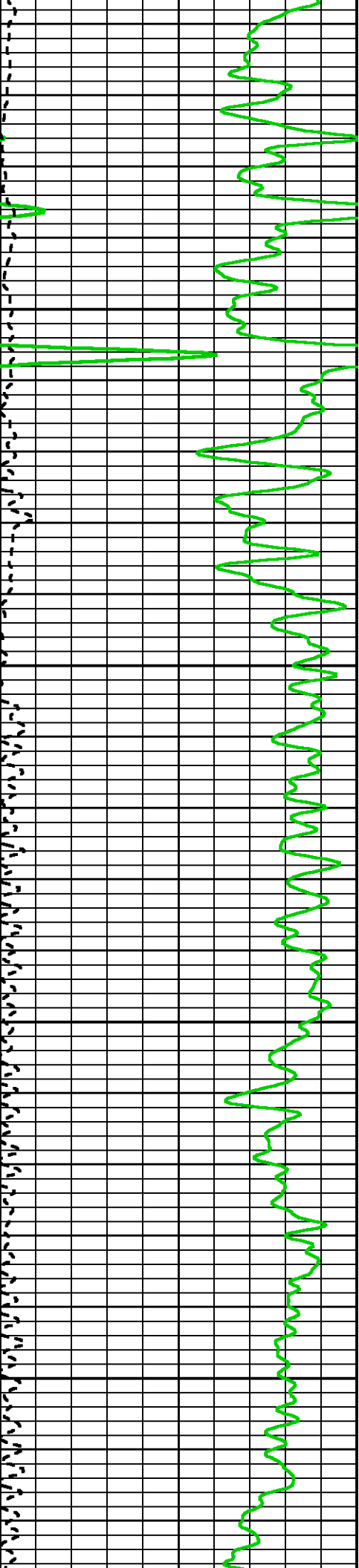
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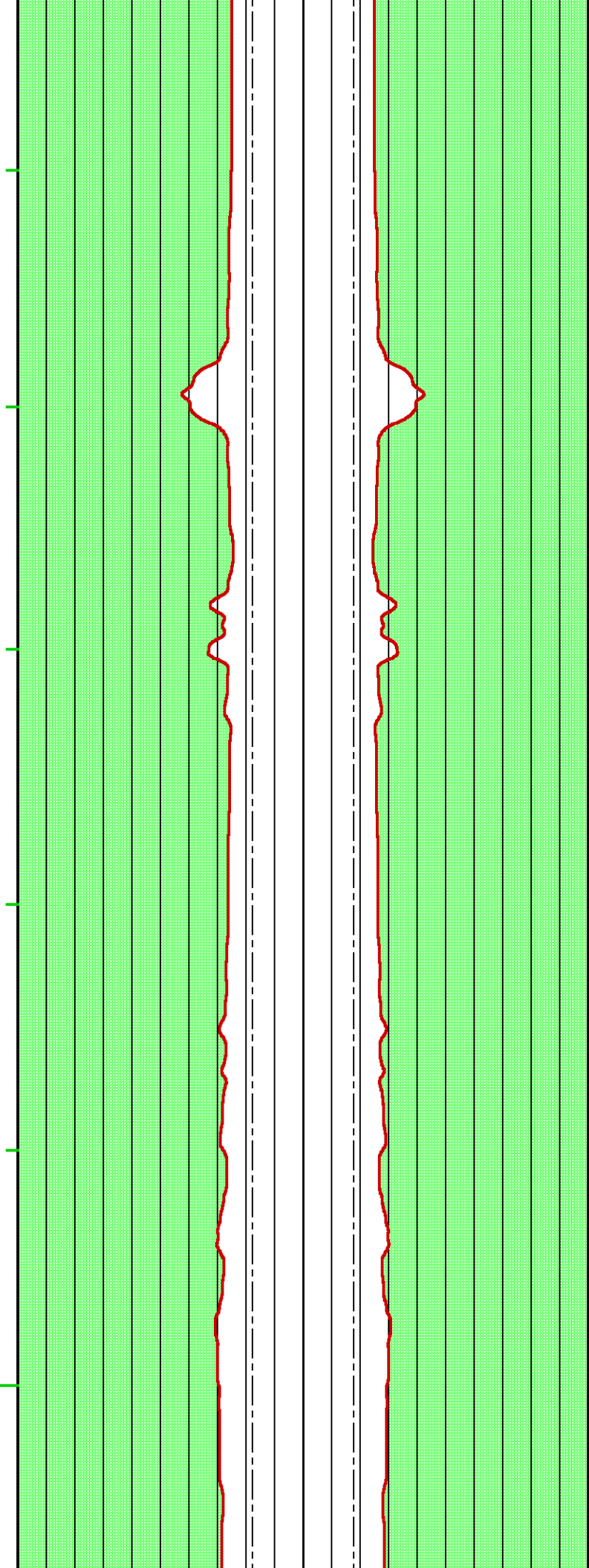


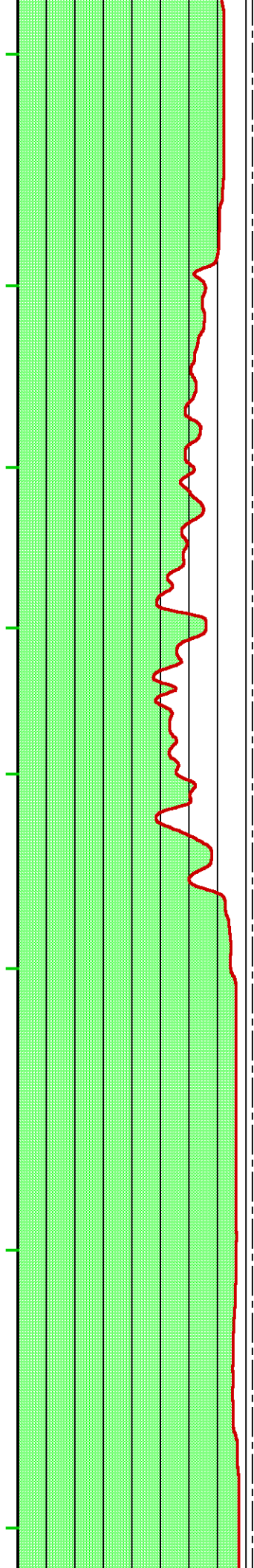
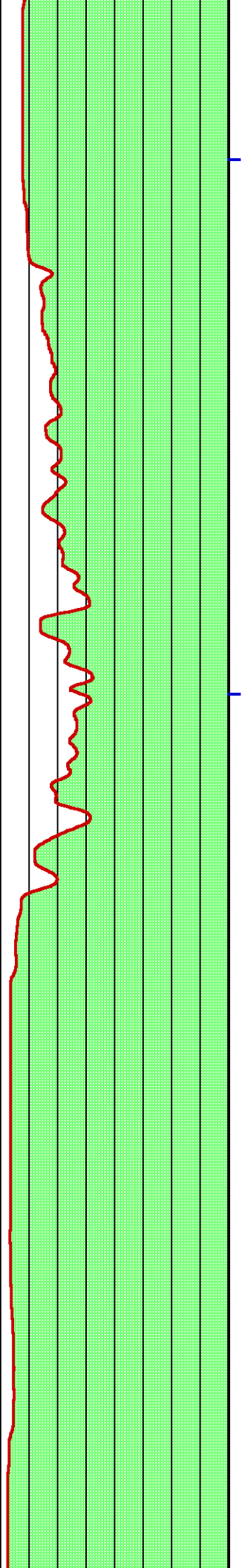


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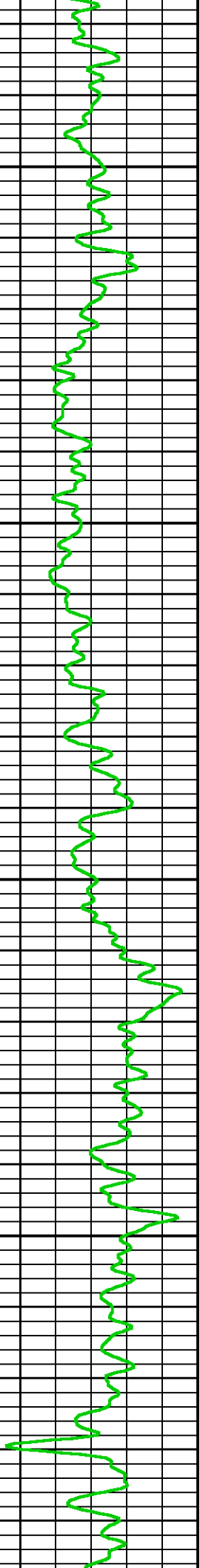
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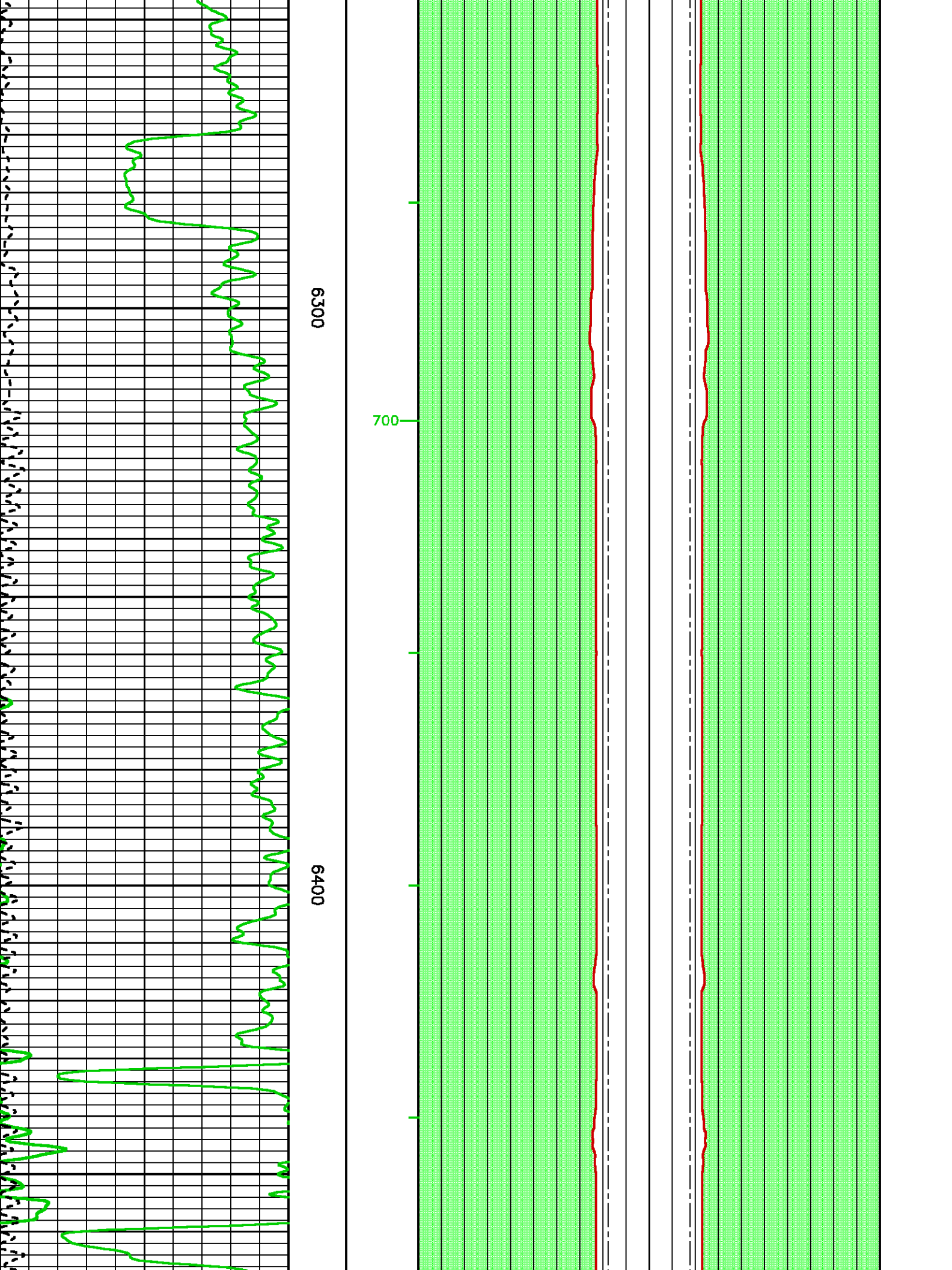


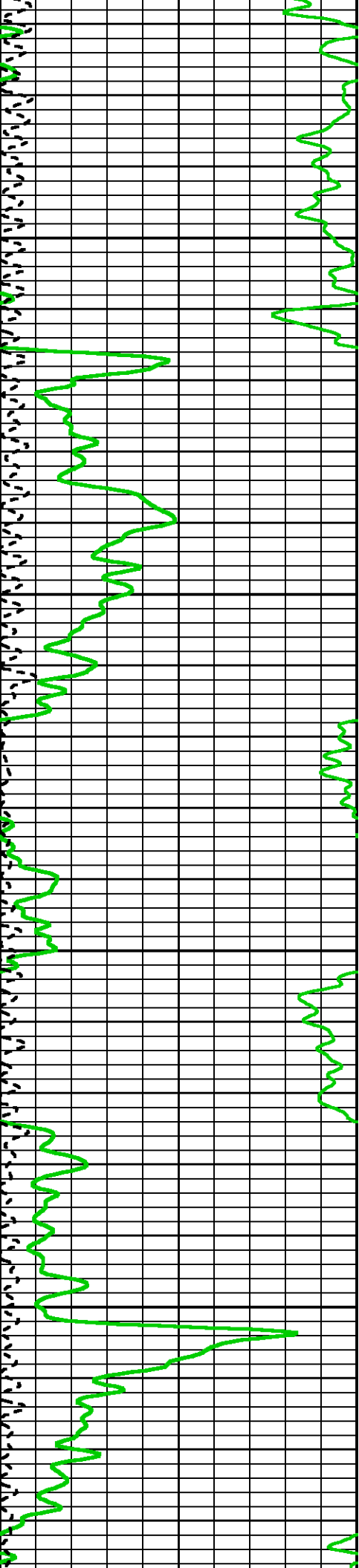


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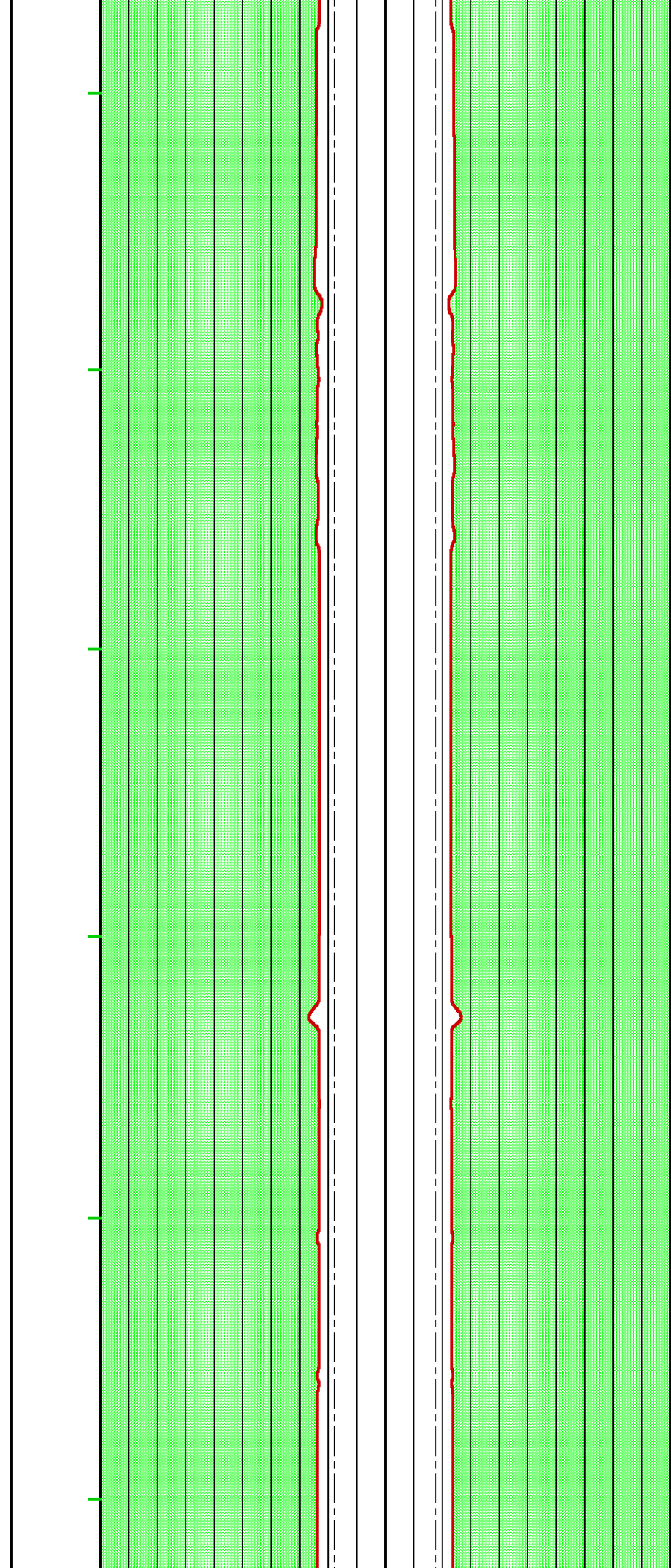


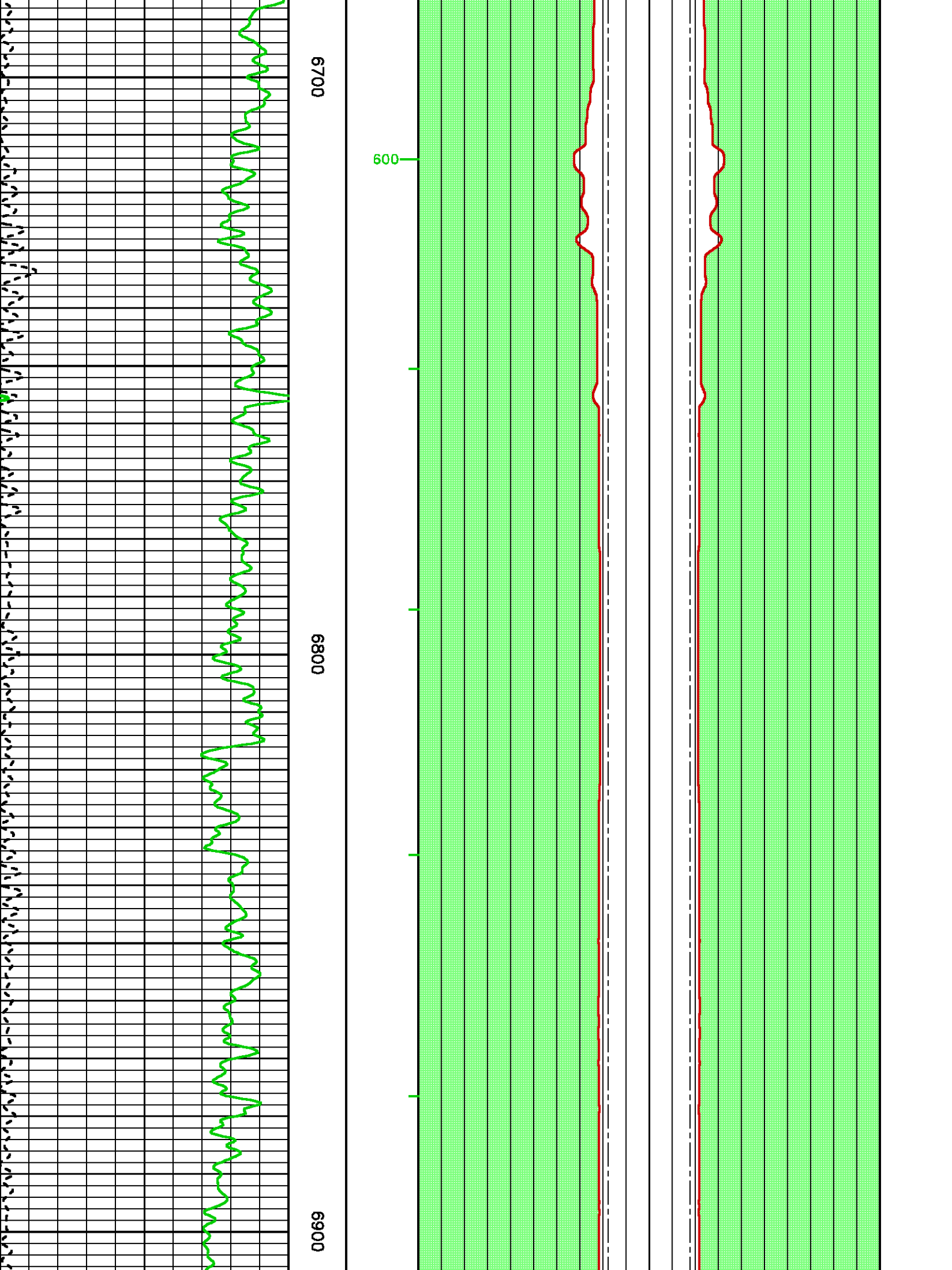


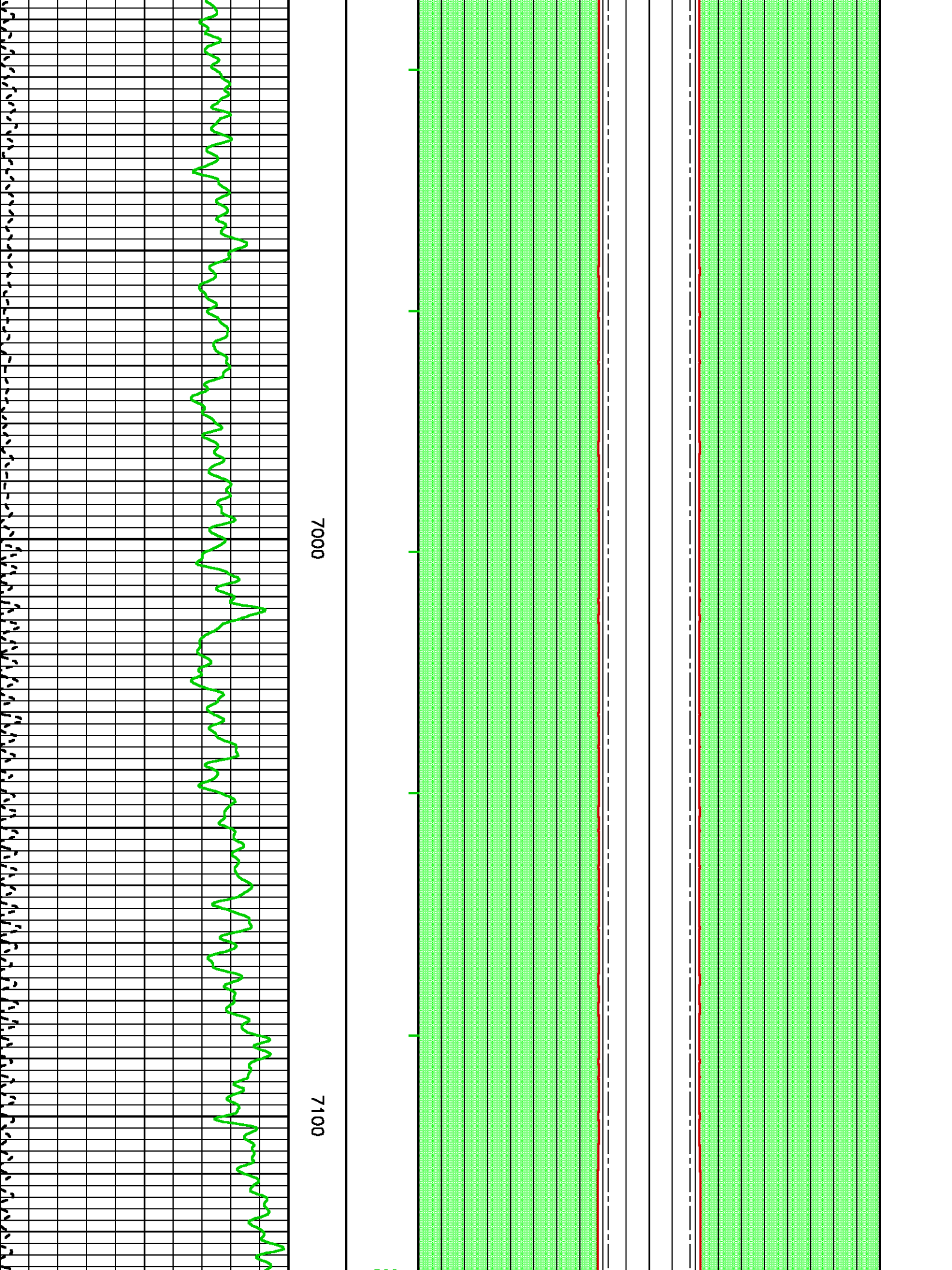


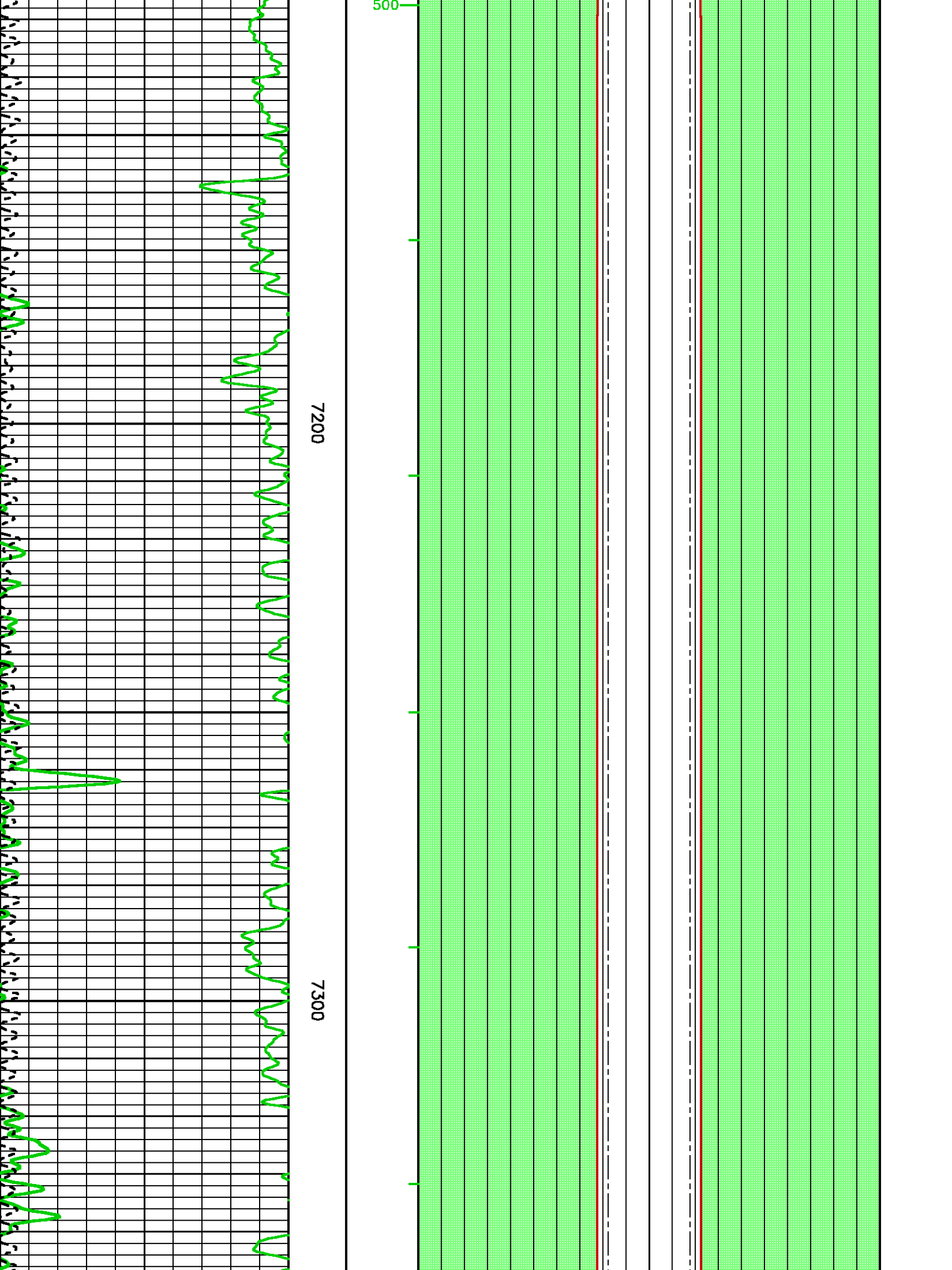
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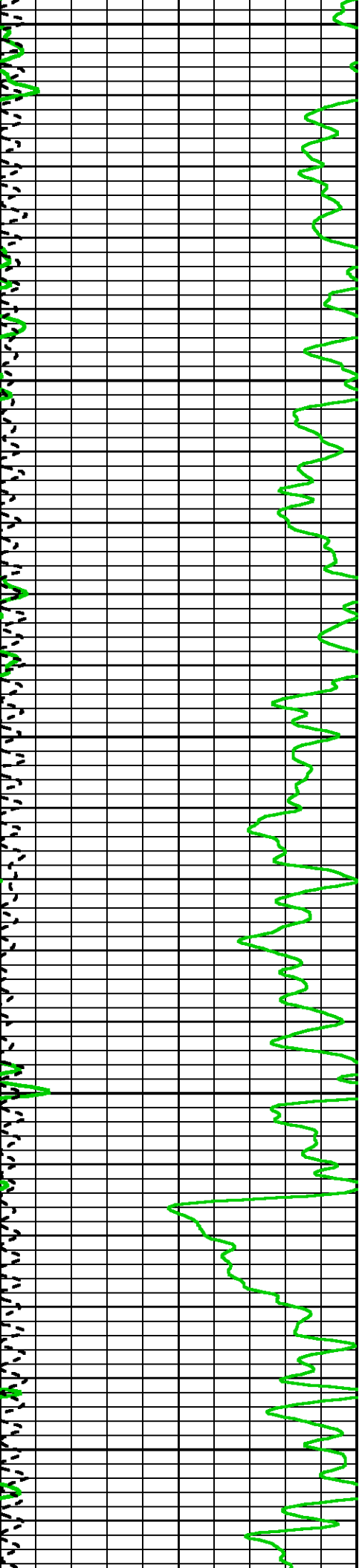
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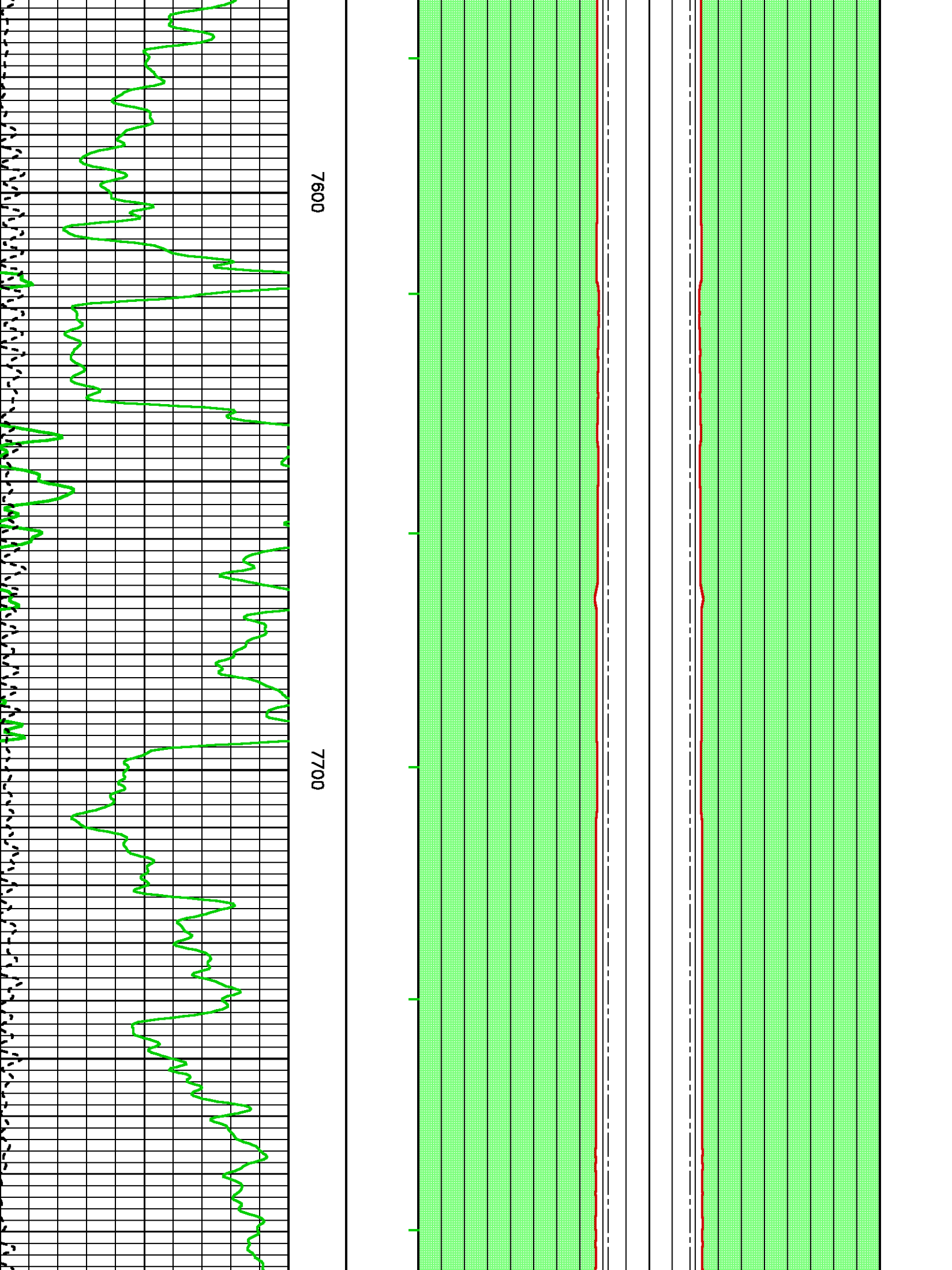


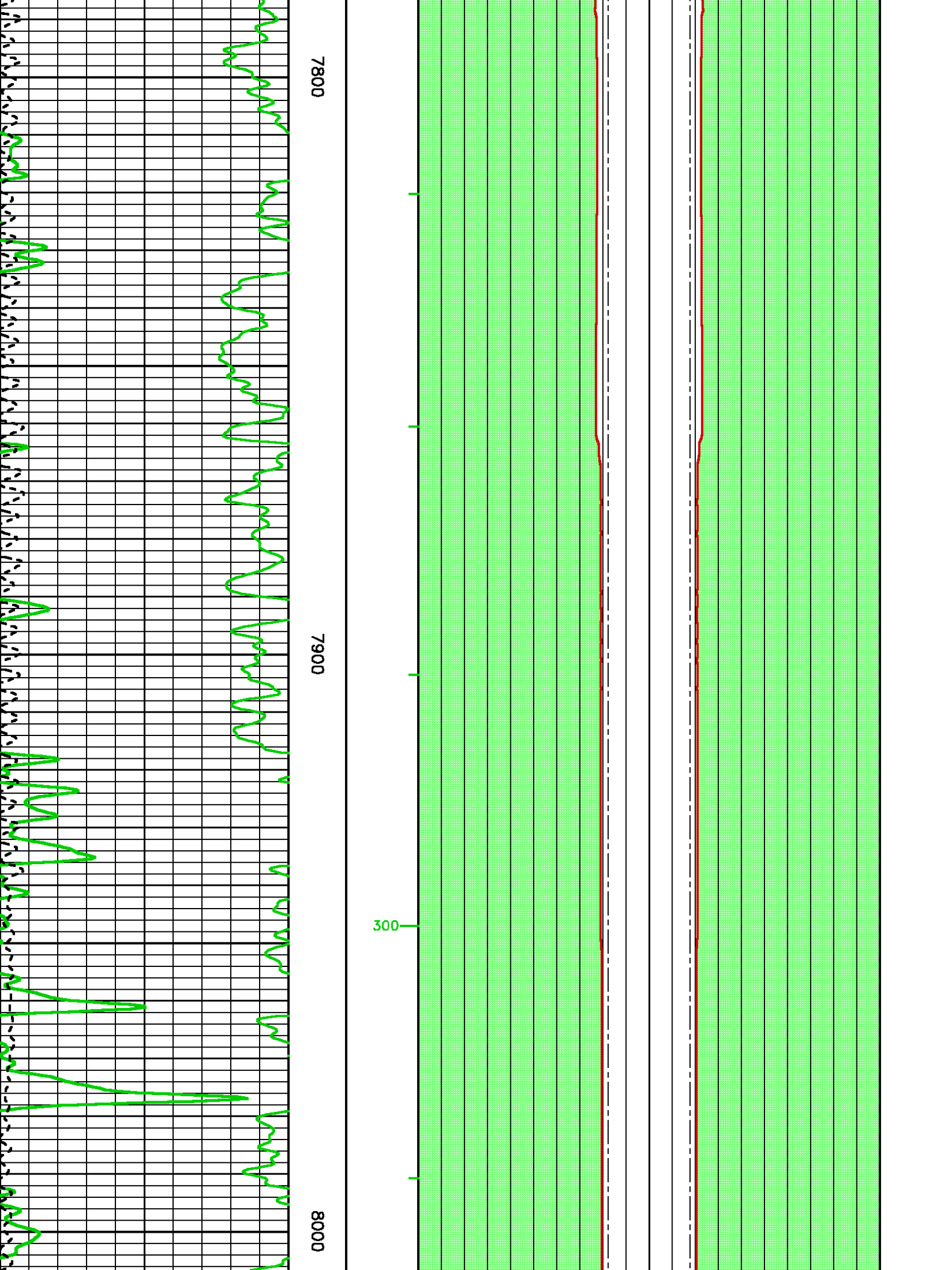


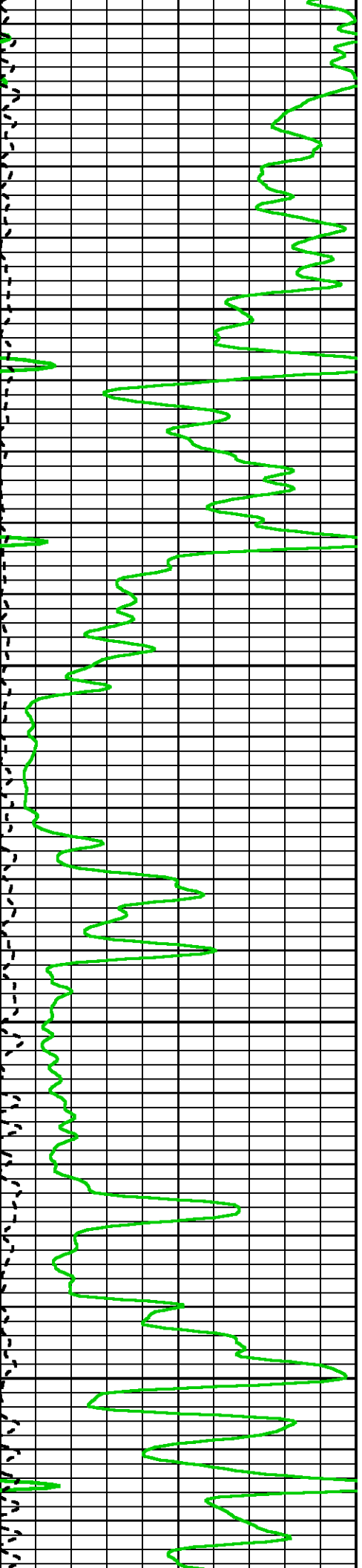
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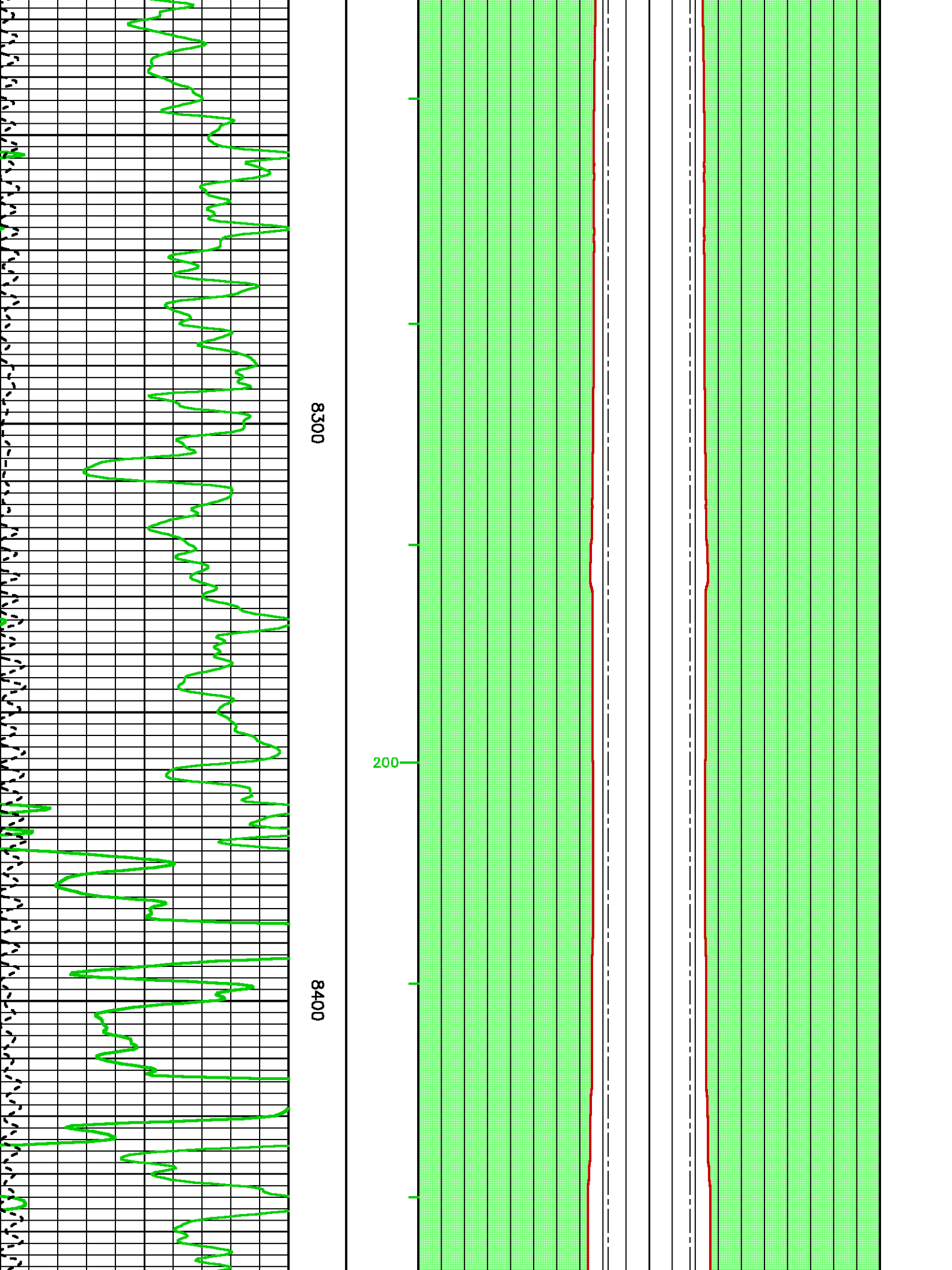


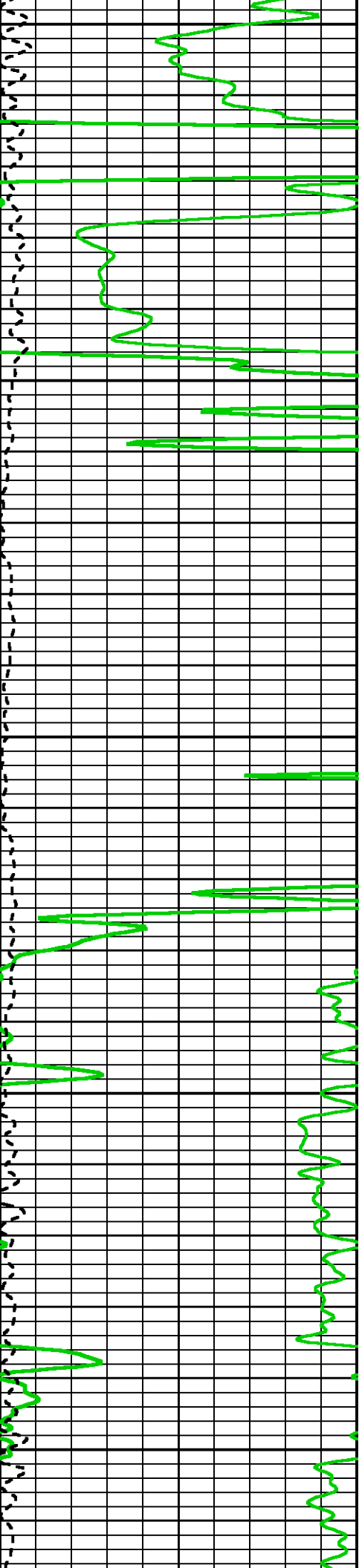




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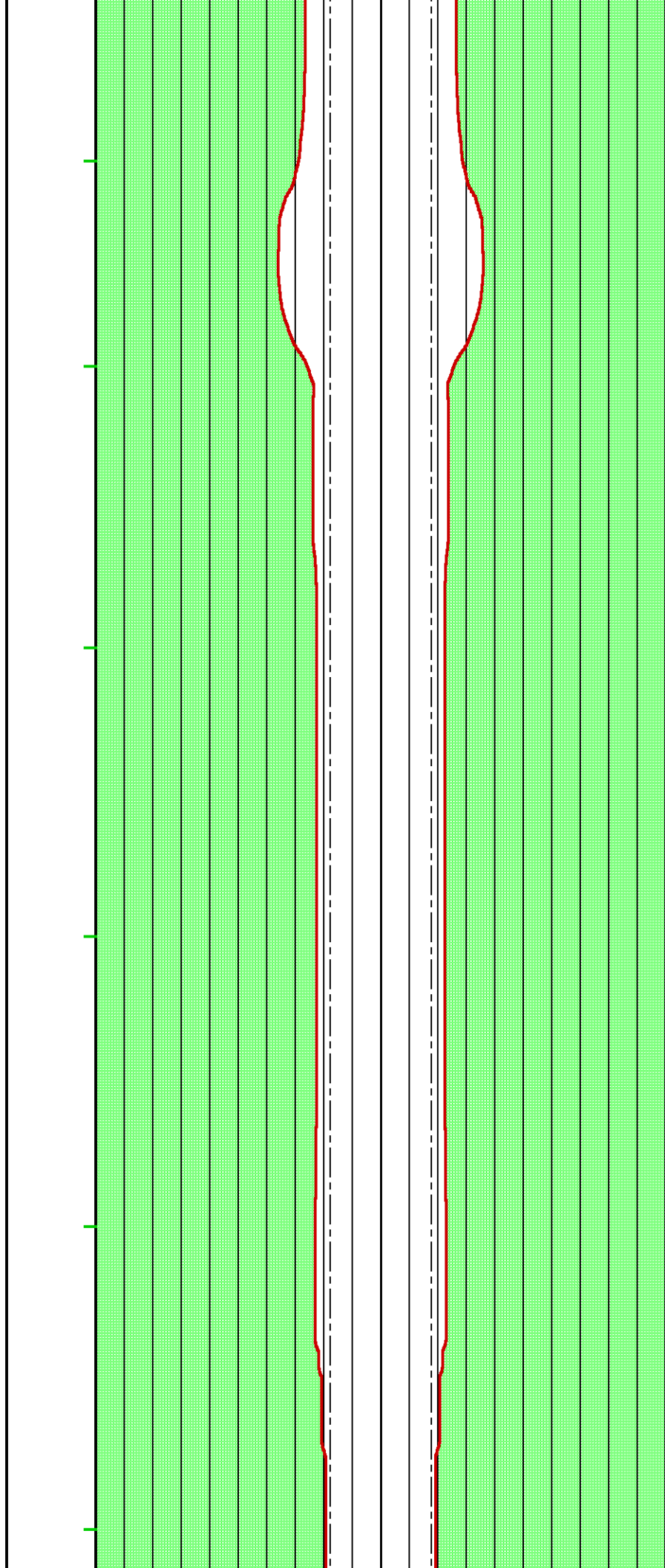
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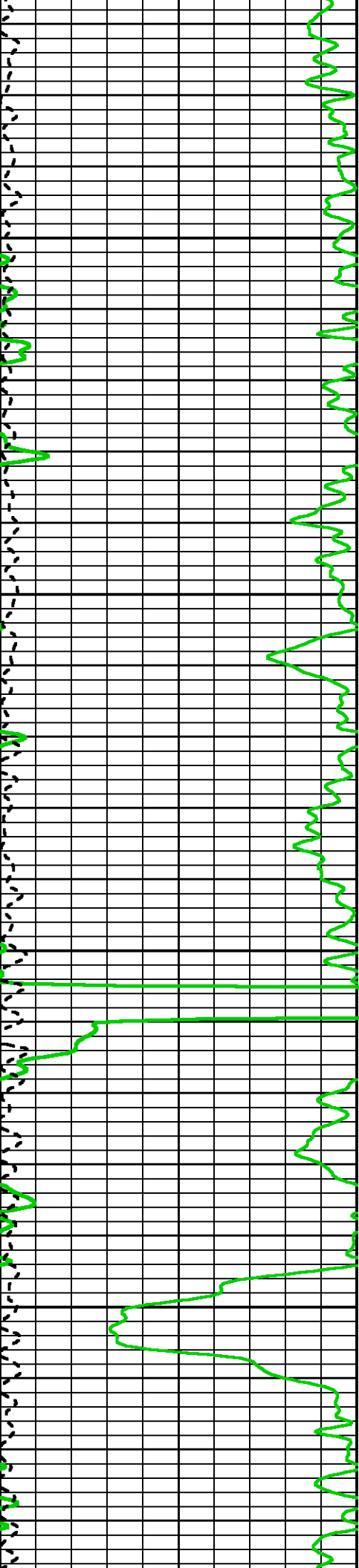




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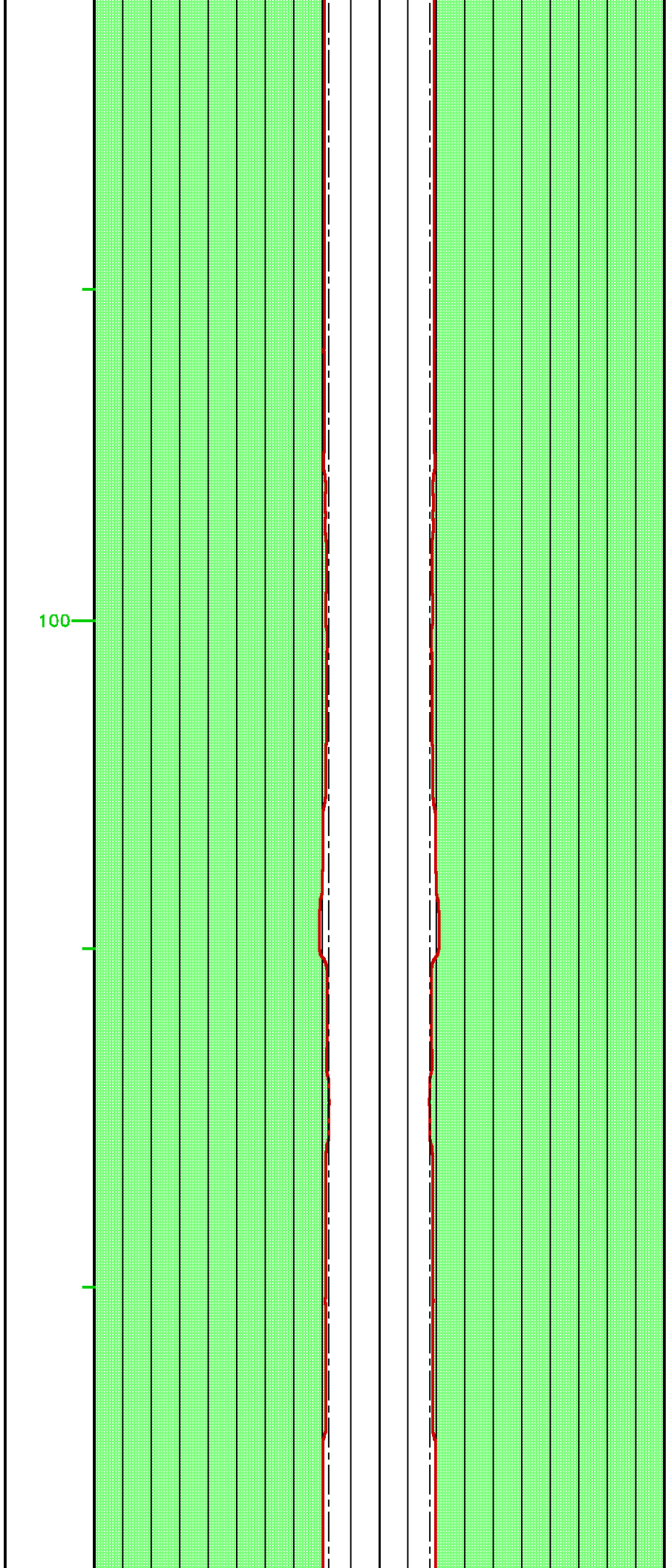


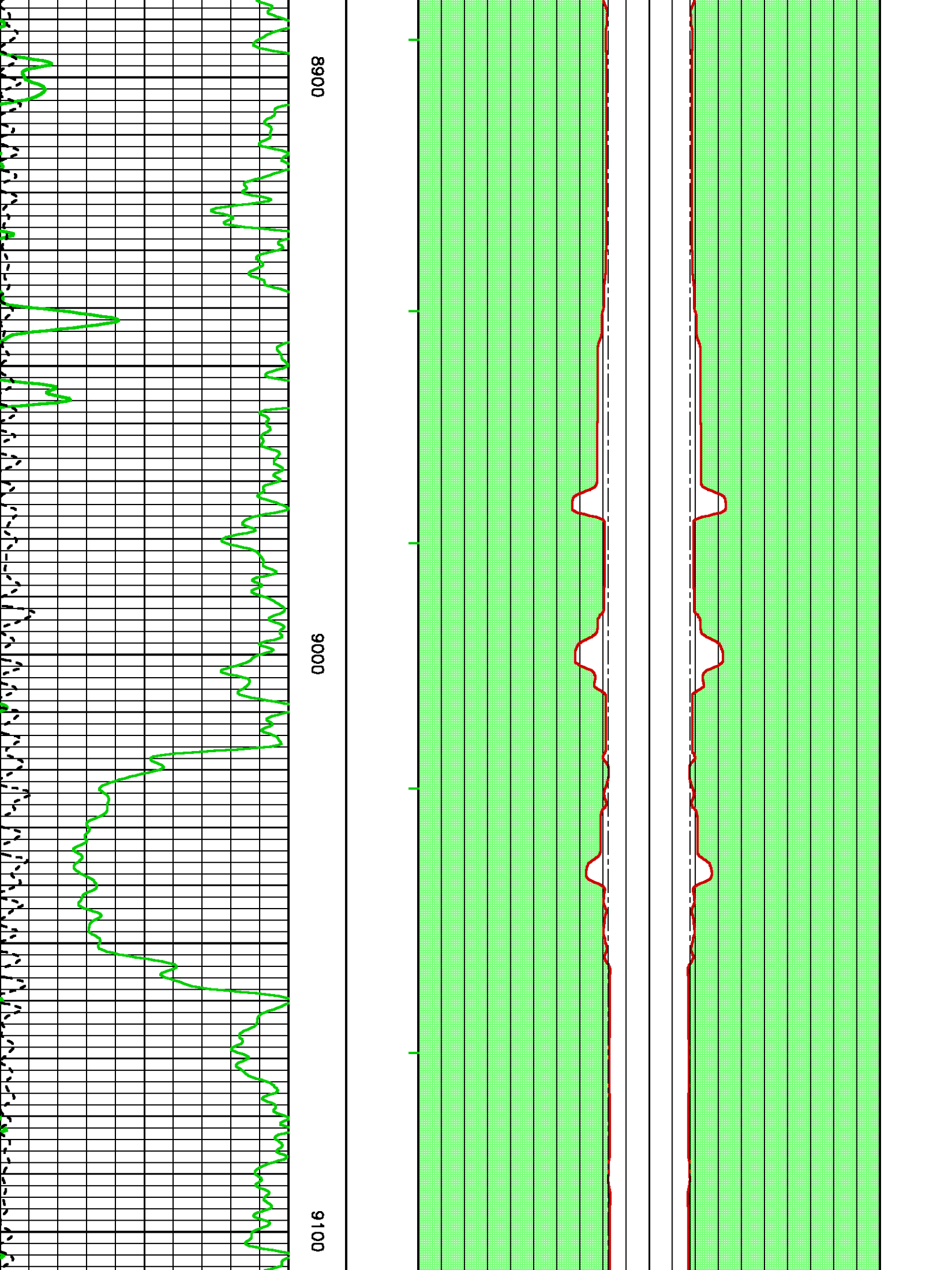


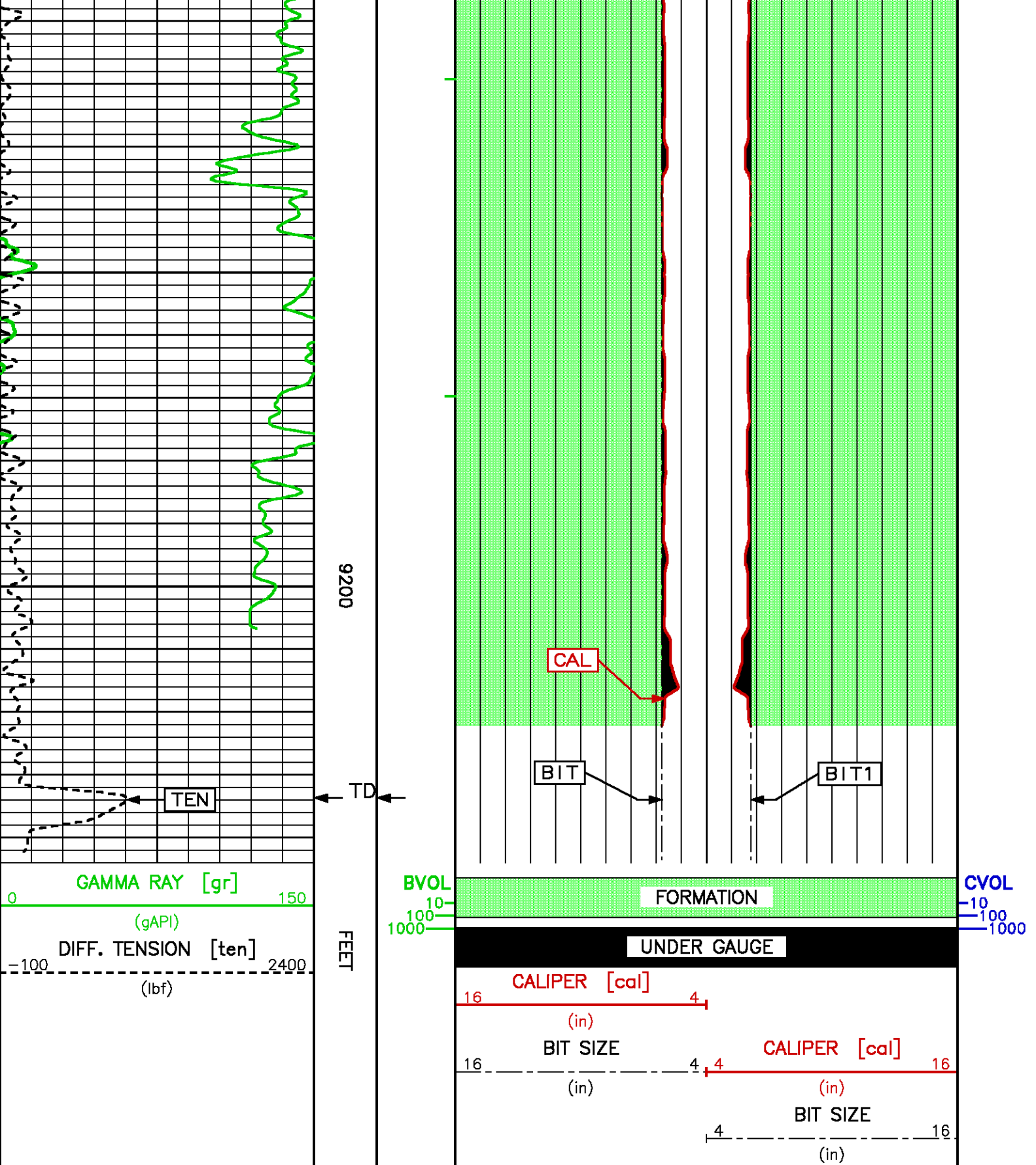
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8800

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COMPANY
WELL
FIELD
COUNTY

FIRST LIBERTY ENERGY INC
BASIN #1
DEL NORTE
RIO GRANDE

STATE CO

LOCATION:

ELEVATIONS:

FILE NO:

US624381

API NO:

05105060190000

D&J RIG #1



NESE 59; T40N; RSE
1900' FSL 660 FEL
LAT: 37.726122 LON; -106.425207
SEC 9 TWP 40N RGE 5E

KB 8193.5 FT
DF
GL 8176 FT

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