



**Cement Bond  
Variable Density Log  
W/ Gamma Ray/CCL**

Company	Bonanza Creek Energy	Company	Bonanza Creek Energy
Well	State Seventy Holes K-O-3HNB	Well	State Seventy Holes K-O-3HNB
Field	Wattenberg	Field	Wattenberg
County	Weld	County	Weld
State	Colorado	State	Colorado
Location:	API # : 05-123-37946		Other Services
460' FNL & 2404' FEL		NONE	
SEC 4	TWP 4N	RGE 62W	
Permanent Datum	Ground Level	Elevation	4551'
Log Measured From	Kelly Bushing 15' APD		
Drilling Measured From	Kelly Bushing		
Elevation	K.B. 4566'	D.F. 4565'	G.L. 4551'
Date	17 October, 2013		
Run Number	1		
Depth Driller	10836'		
Depth Logger	6304'		
Bottom Logged Interval	6286'		
Top Log Interval	Surface		
Open Hole Size	8.75		
Type Fluid	Fresh Water		
Density / Viscosity	8.33		
Max. Recorded Temp.	N/A		
Estimated Cement Top	NA		
Time Well Ready	1200		
Time Logger on Bottom	1300		
Equipment Number	13033		
Location	Brighton		
Recorded By	R. Grissom		
Witnessed By	K. Dodge		
Borehole Record		Tubing Record	
Run Number	Bit	From	To
		Size	Weight
			From
			To
Casing Record	Size	Wgt/Ft	Top
Surface String	9.625"	36#	0
Prot. String	7"	26#	0
Production String	4.5"	11.6#	6364'
Liner			10909'

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Primary Log on this Well

Logged from 15' Kelly Bushing

Main Pass and Repeat Pass logged with 0 PSI

Your Crew for Today: T. Canfarelli, M. Bingaman

Thank You For using Allied Wireline Services

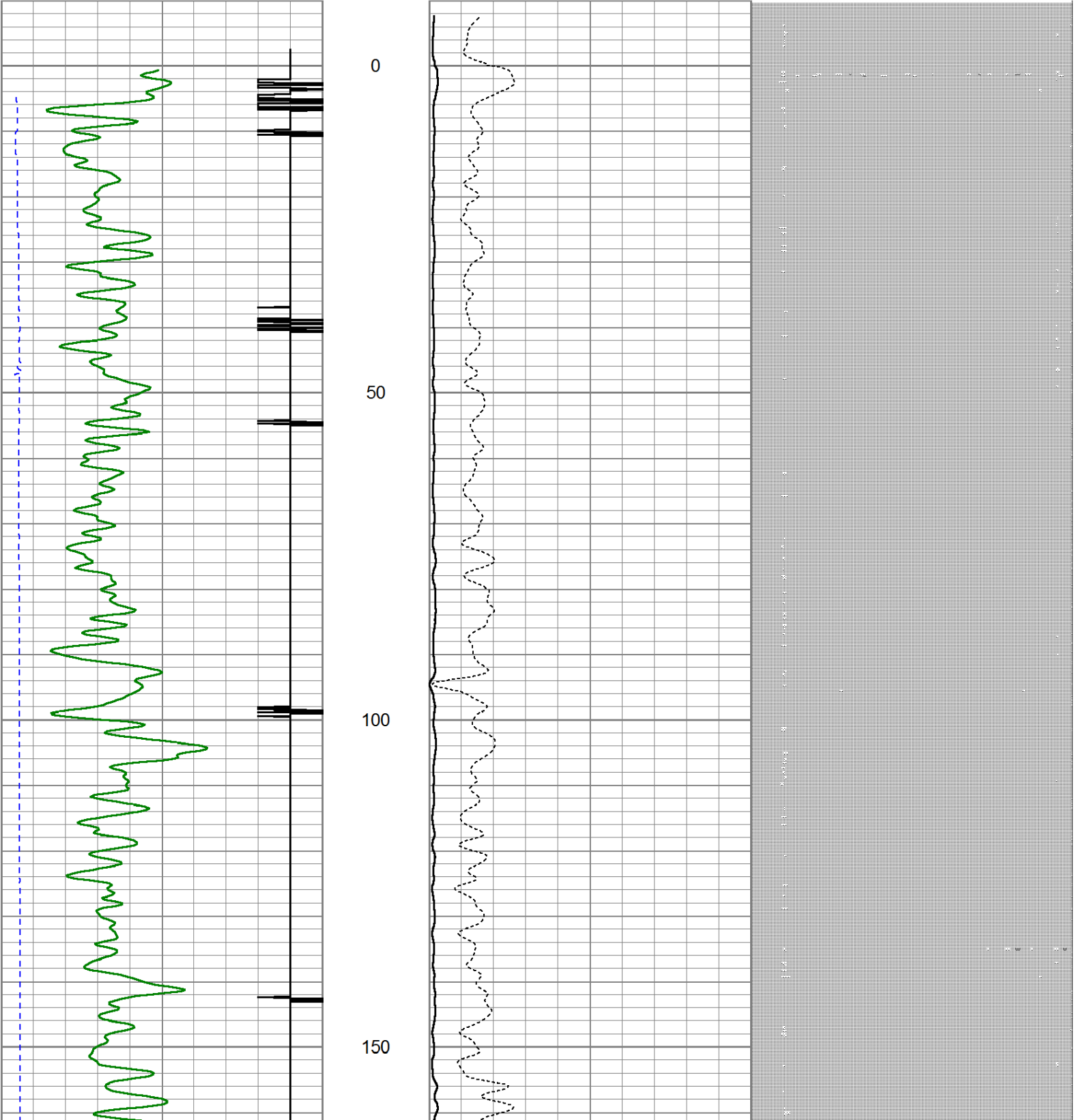
(303) 659-4609



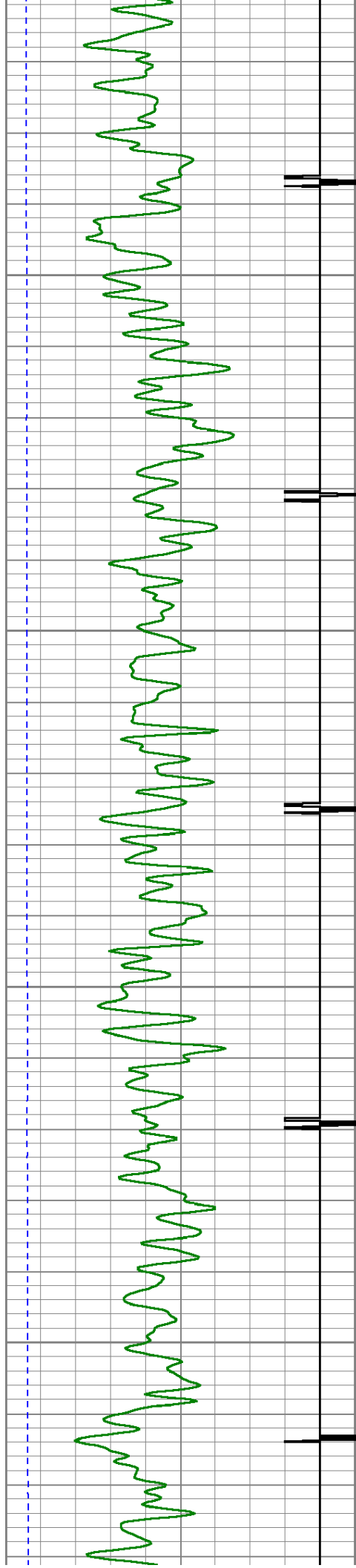
Main Pass (0 PSI)

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Dataset Pathname: pass9  
Presentation Format: cblprobe  
Dataset Creation: Thu Oct 17 13:41:43 2013 by Log 0  
Charted by: Depth in Feet scaled 1:240

400	Travel Time (usec)	200	0	Amplitude (mV)	100	200	Variable Density	1200
9	Casing Collar	-1	0	Amplified Amplitude (mV)	10			
0	Gamma Ray (GAPI)	150						
0	Line Tension (lb)	5000						





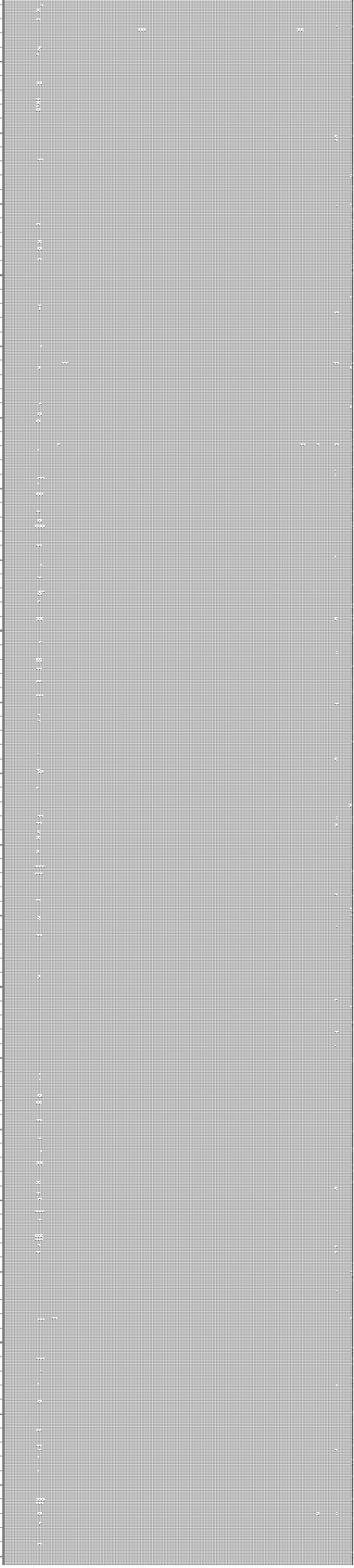
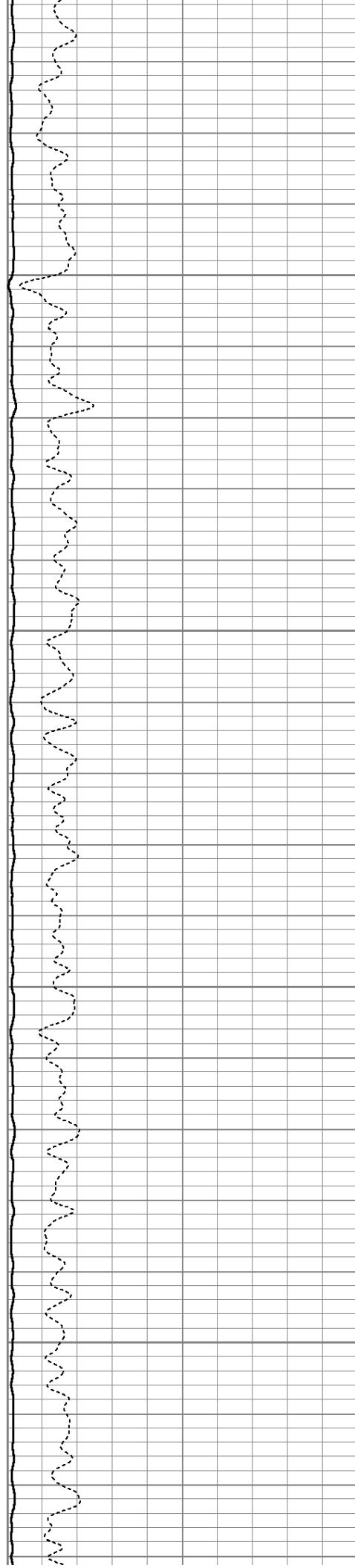


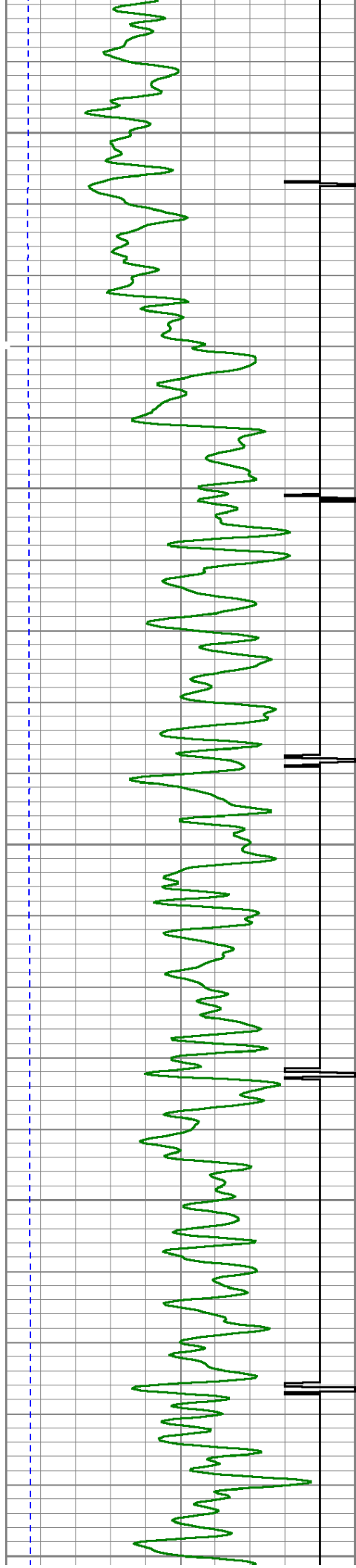
200

250

300

350





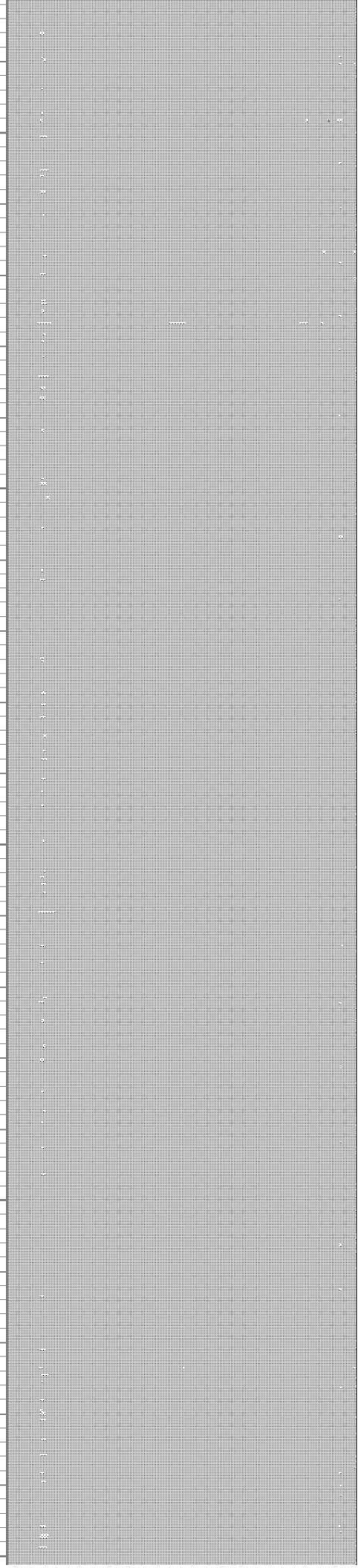
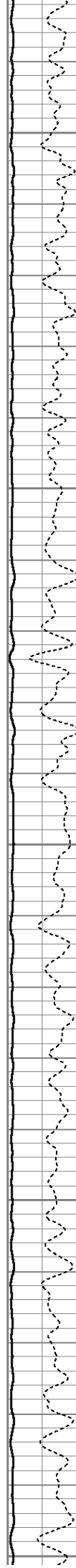
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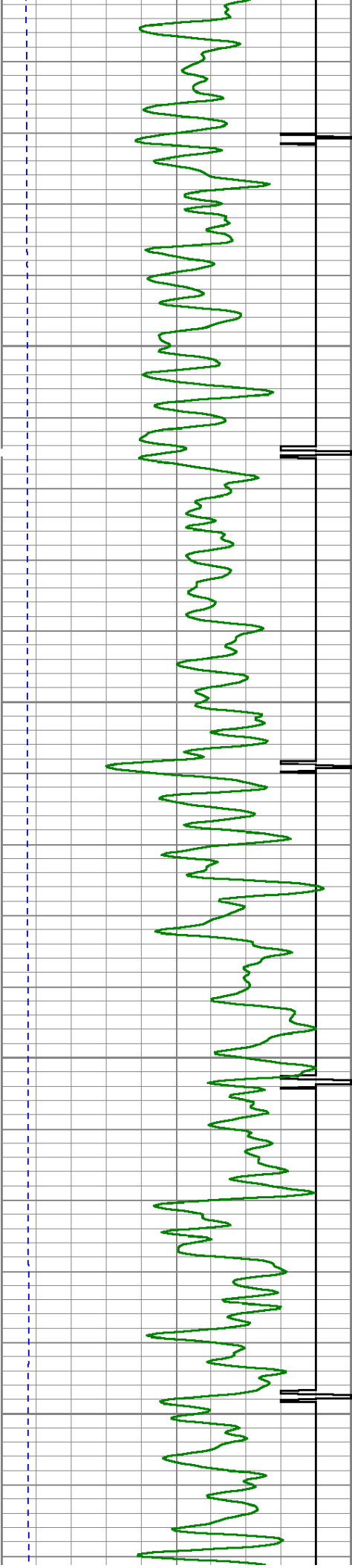
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550

600





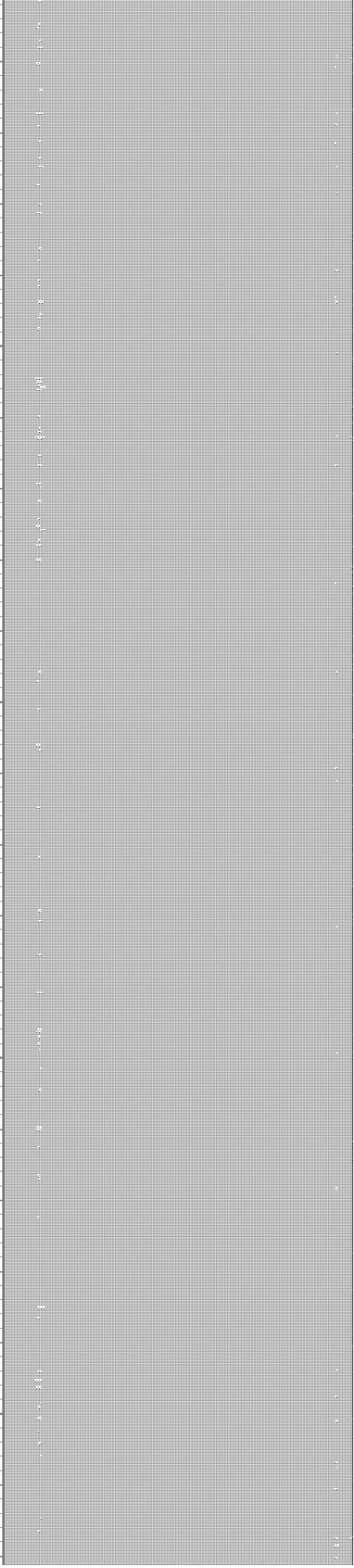
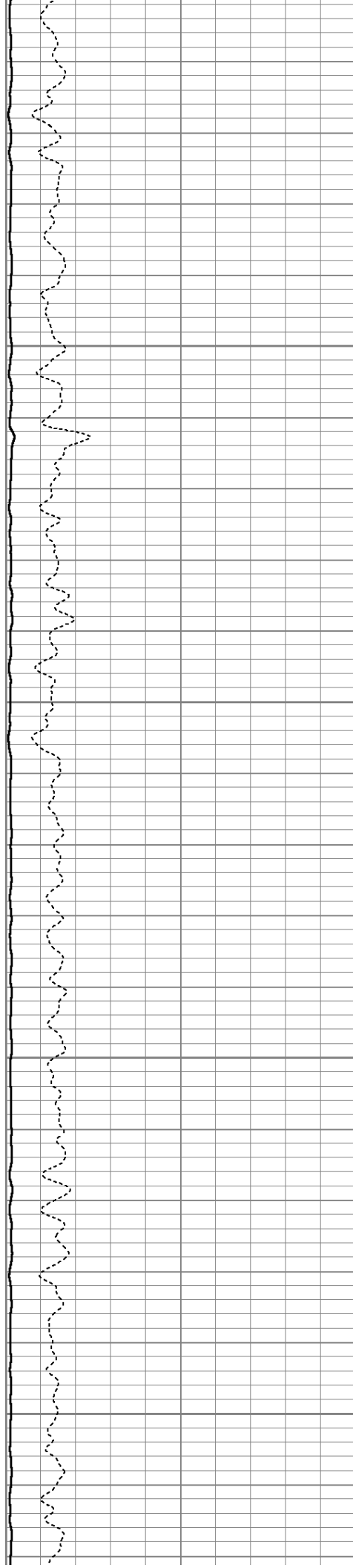


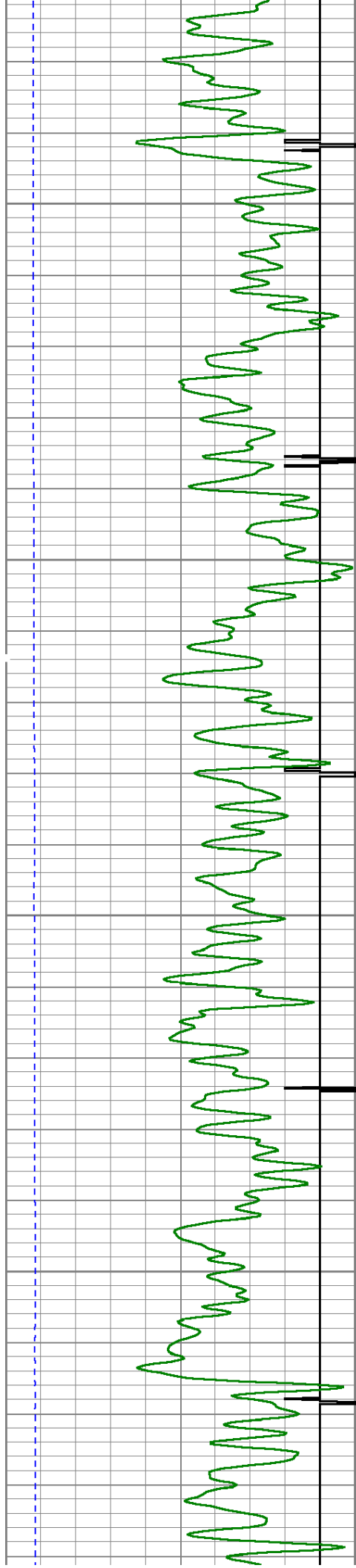
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700

750

800



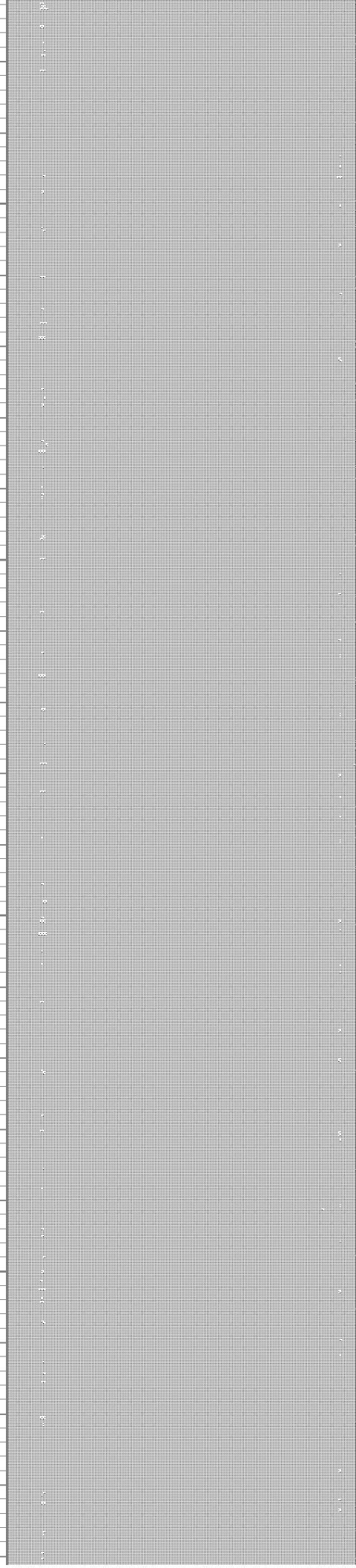
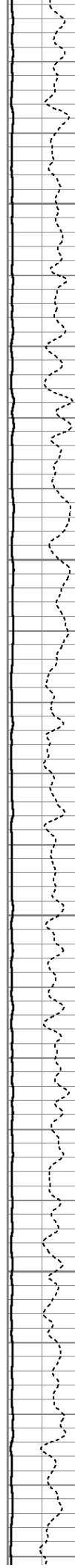


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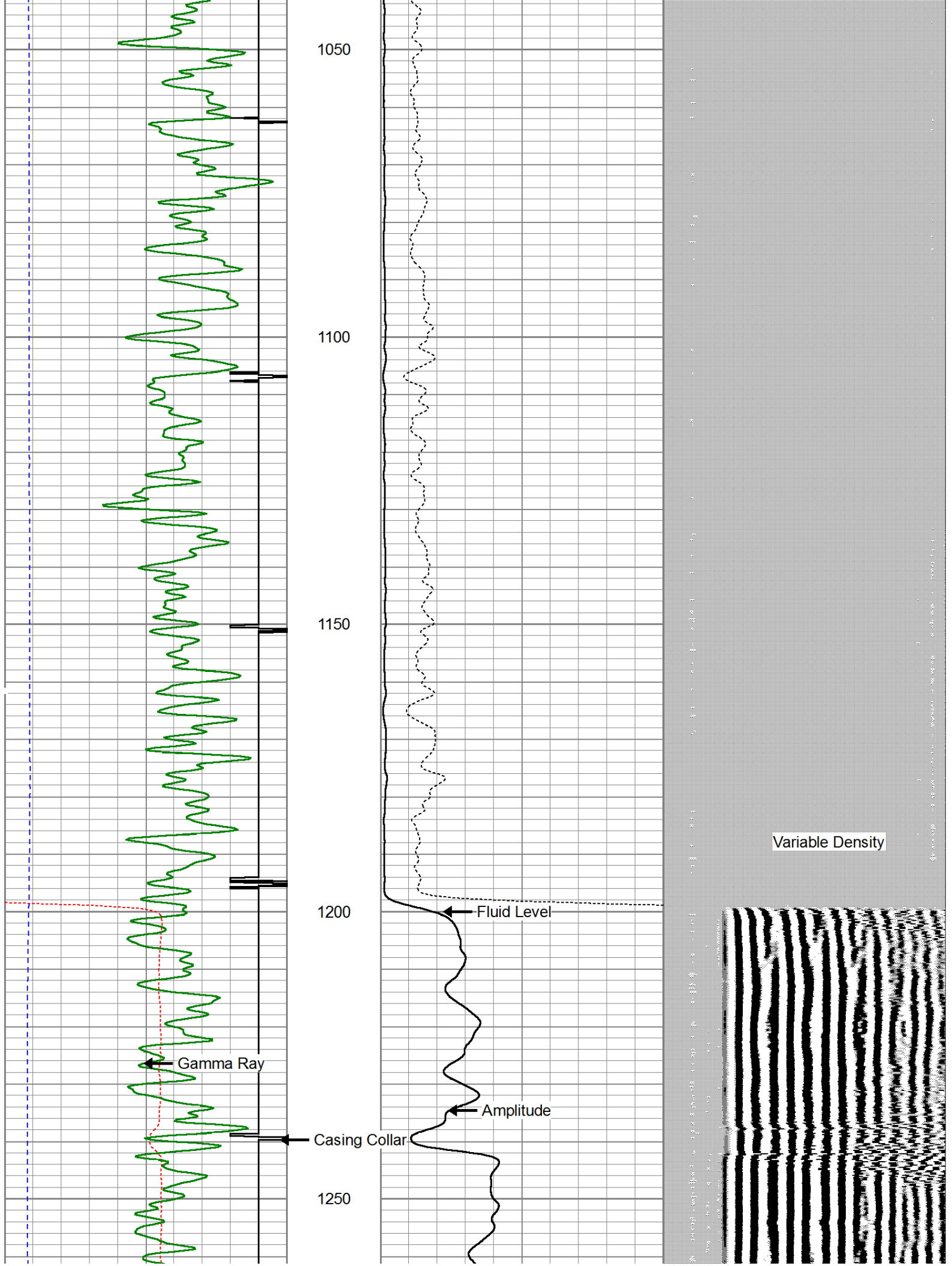
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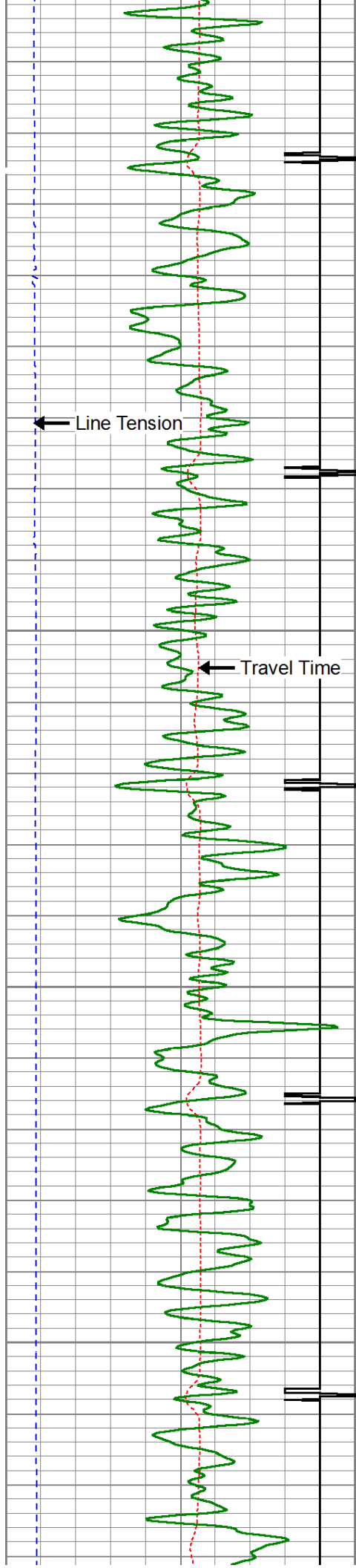
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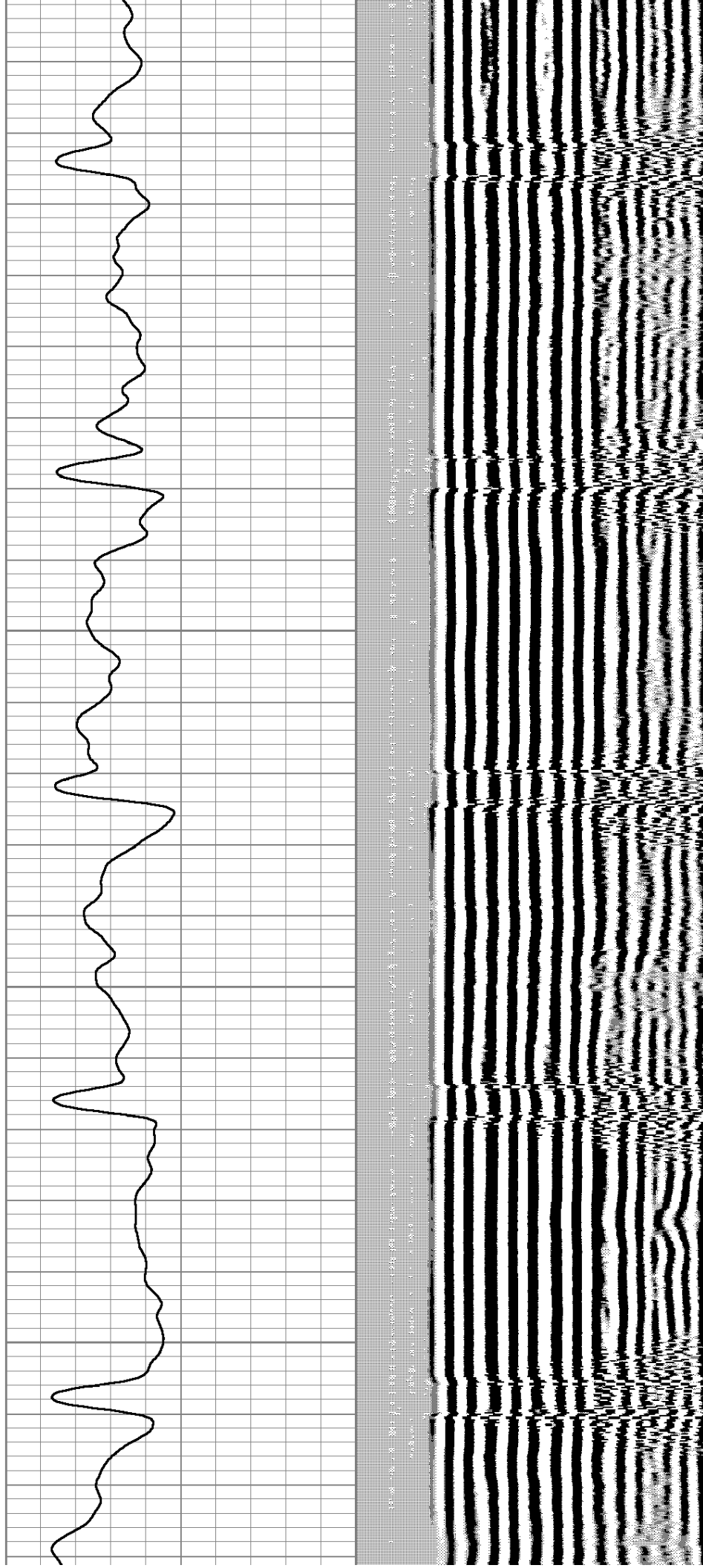


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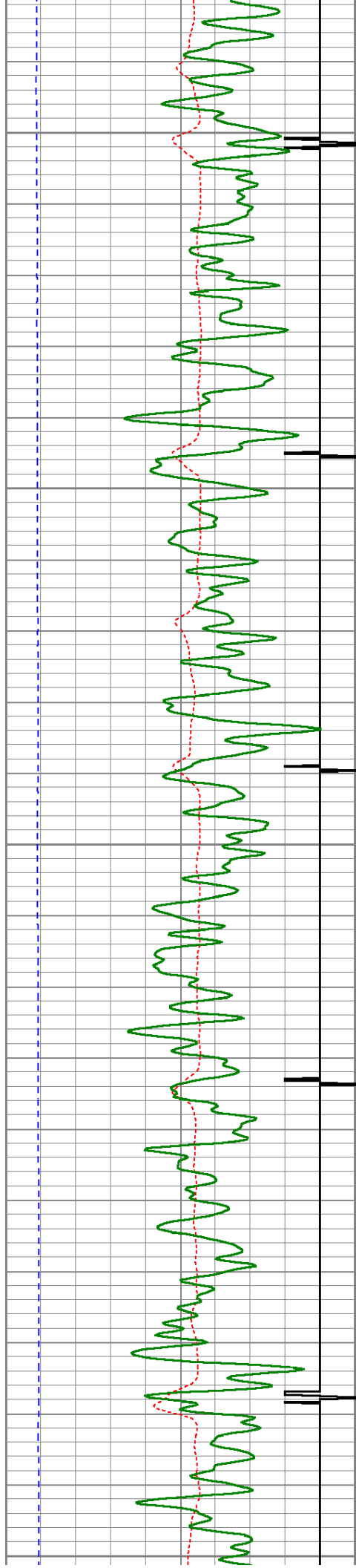
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1450







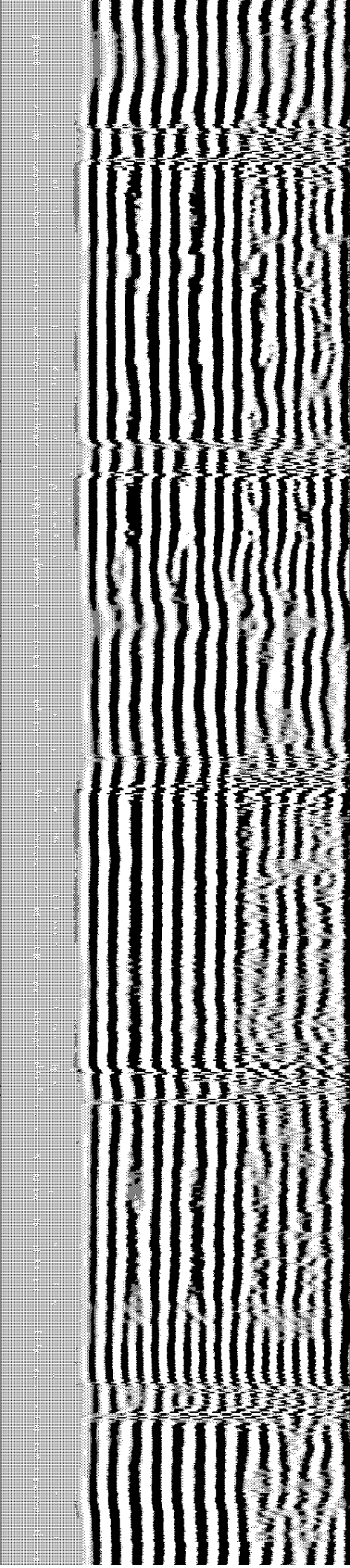
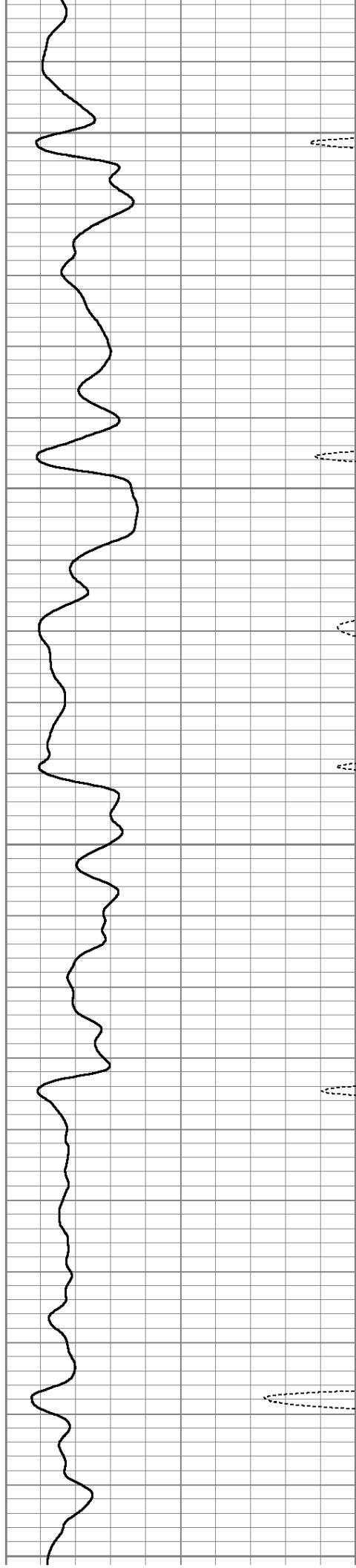
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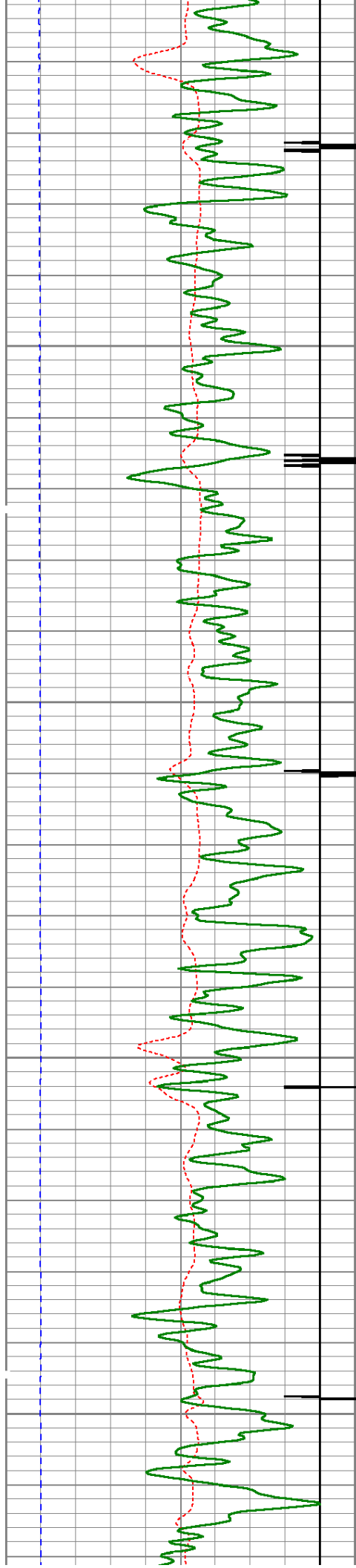
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1650

1700



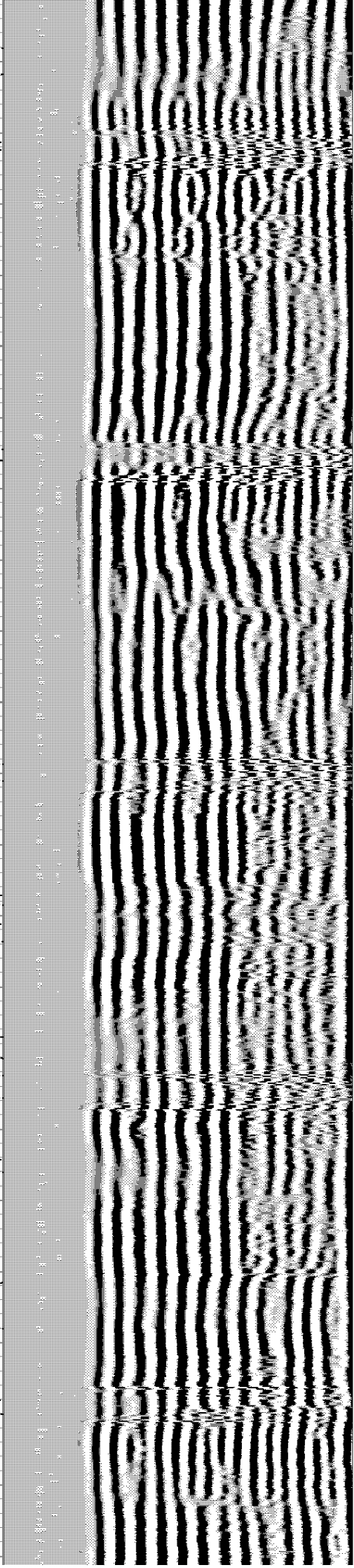
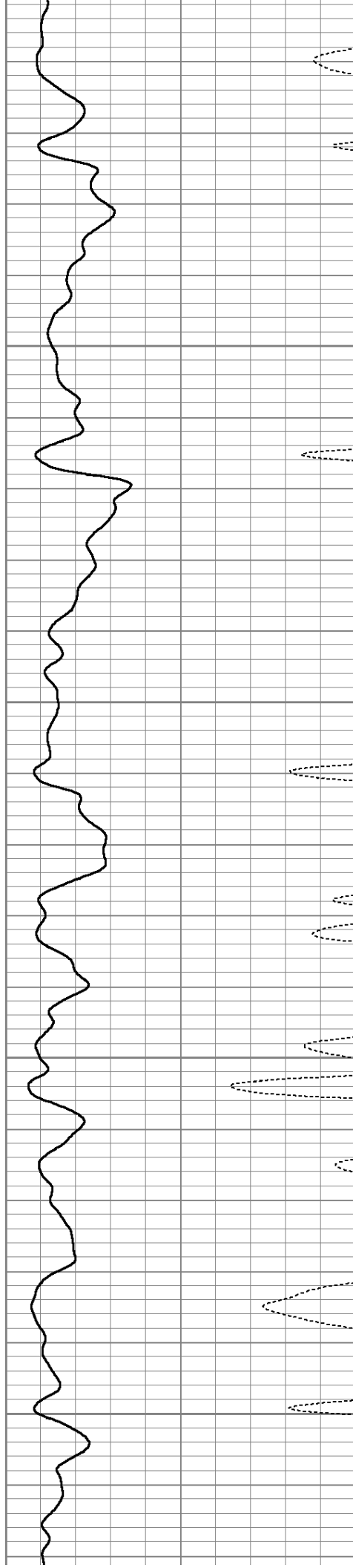


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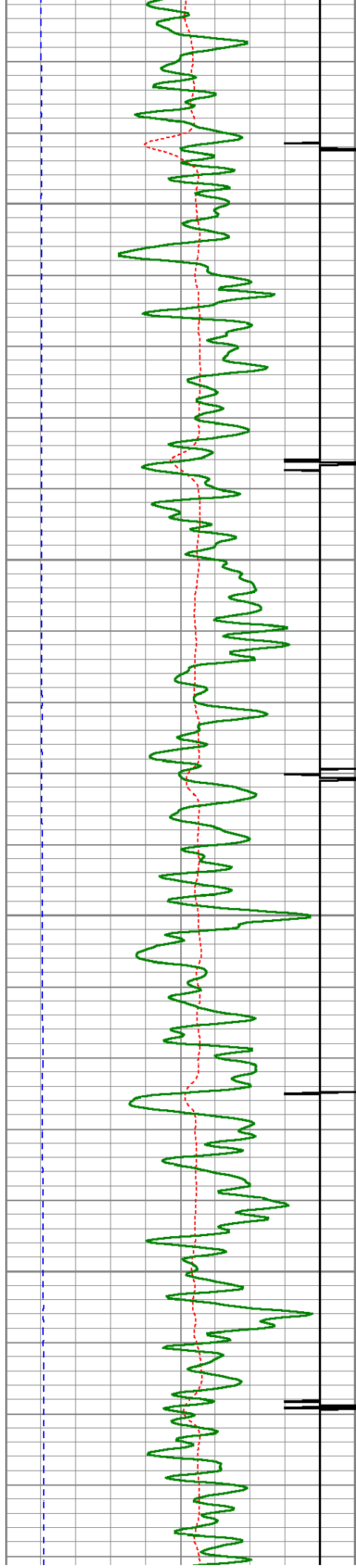
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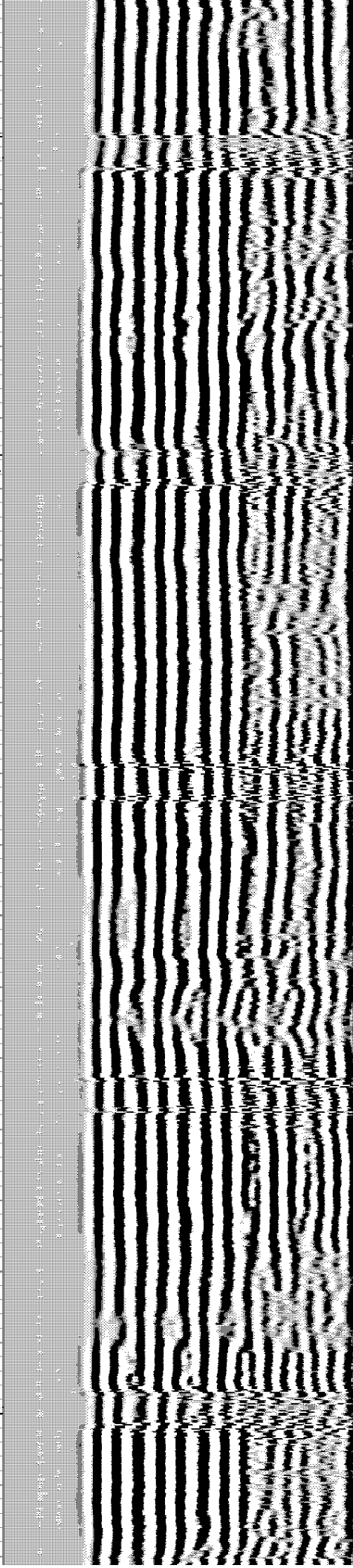
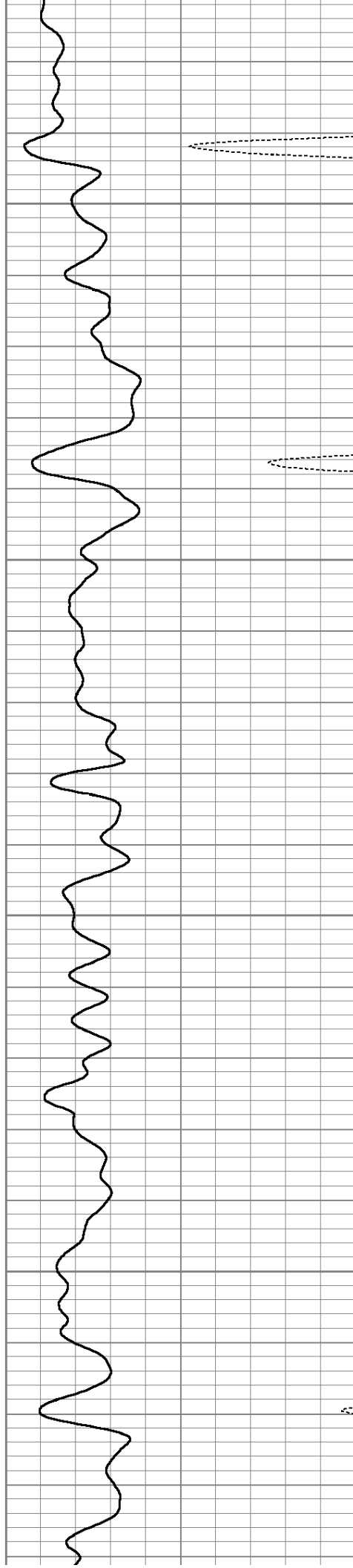


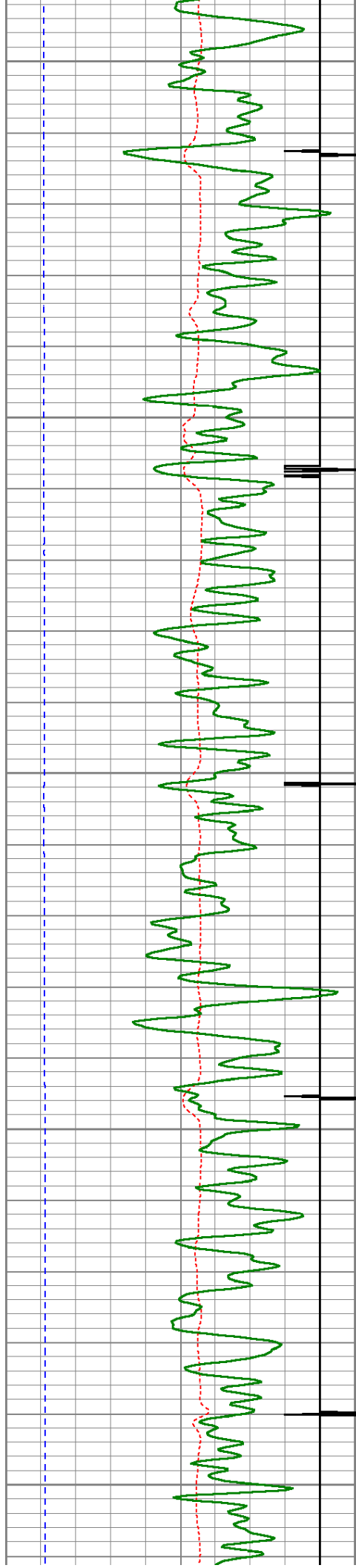
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2000

2050

2100





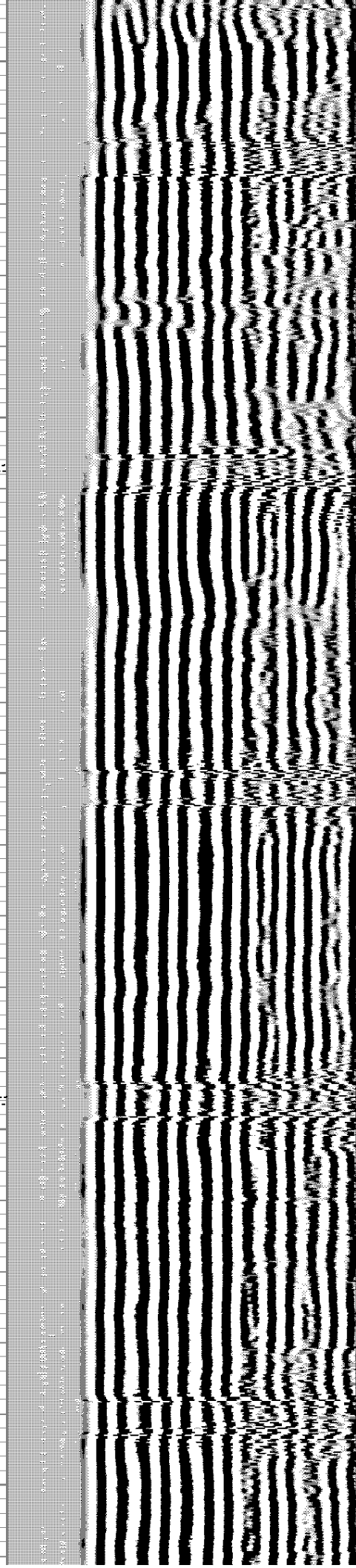
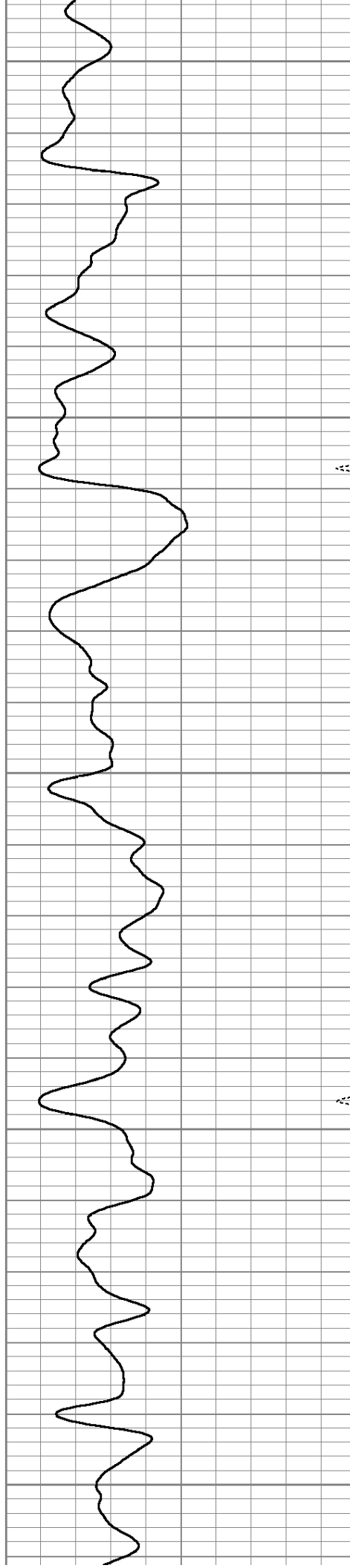
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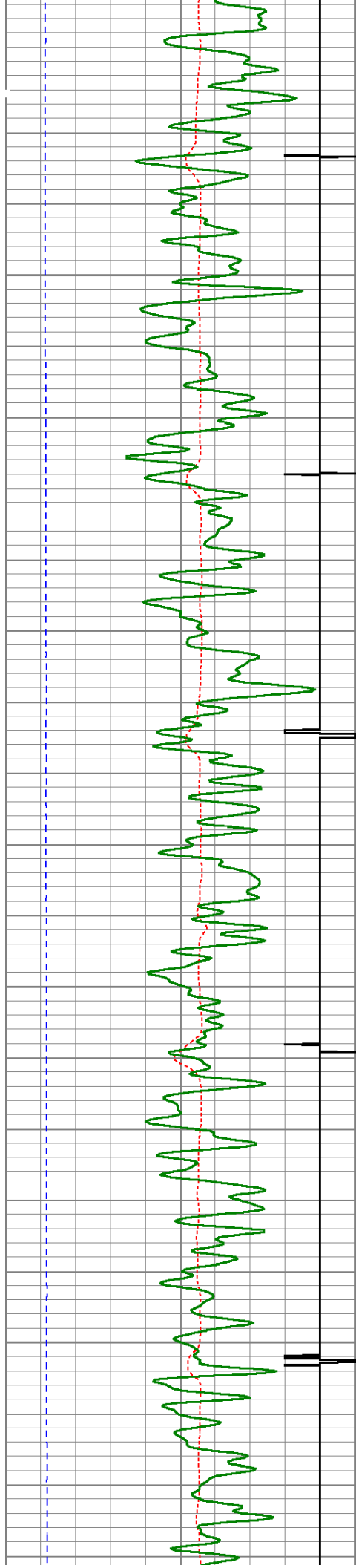
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2300

2350





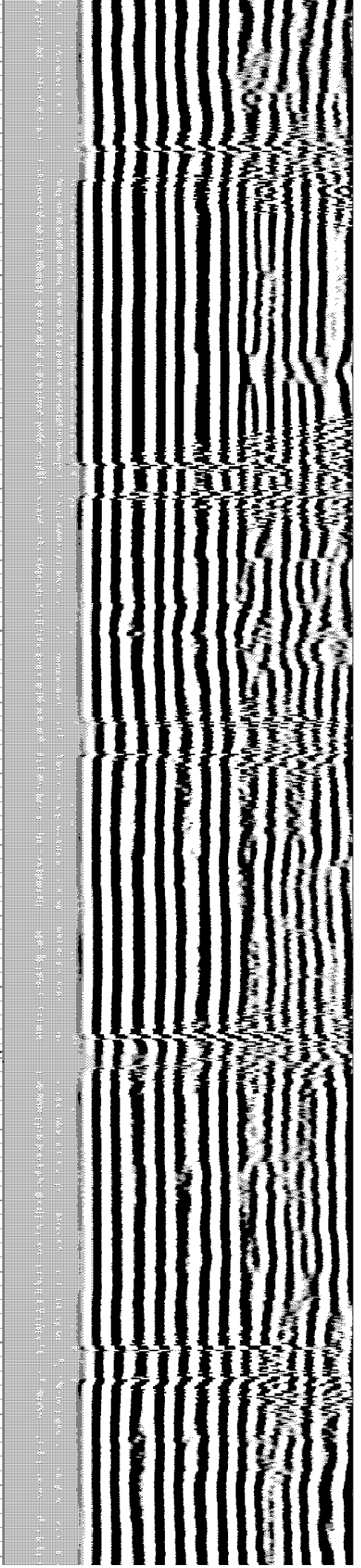
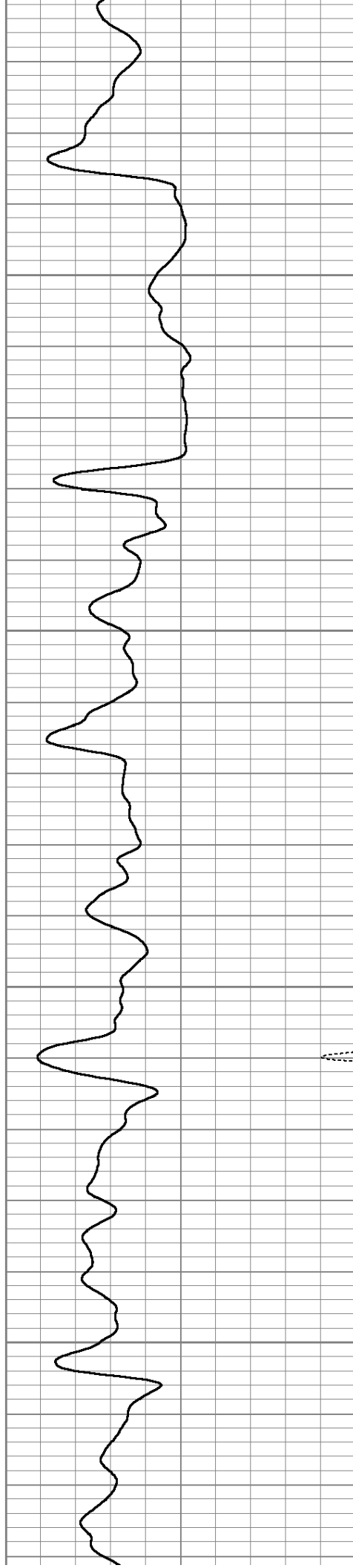


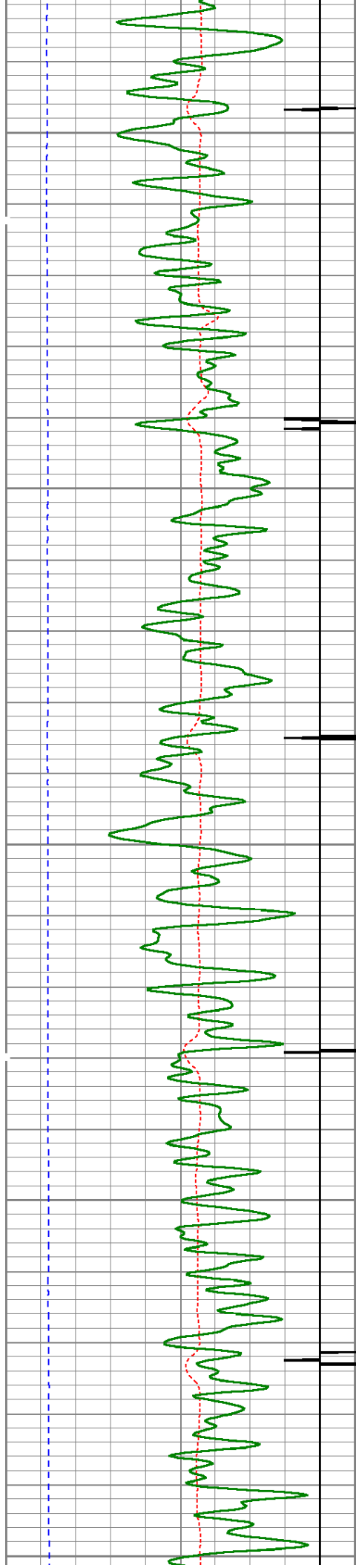
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2550





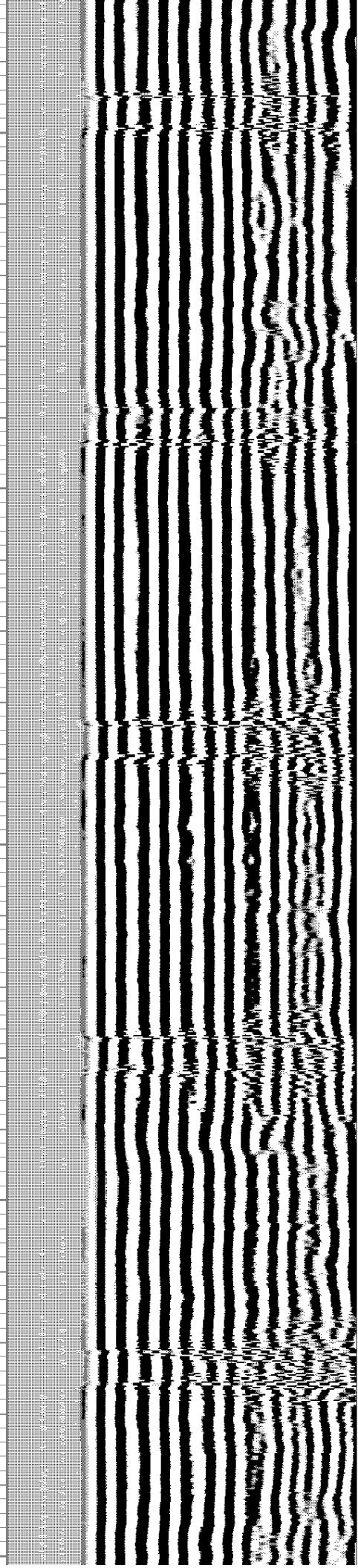
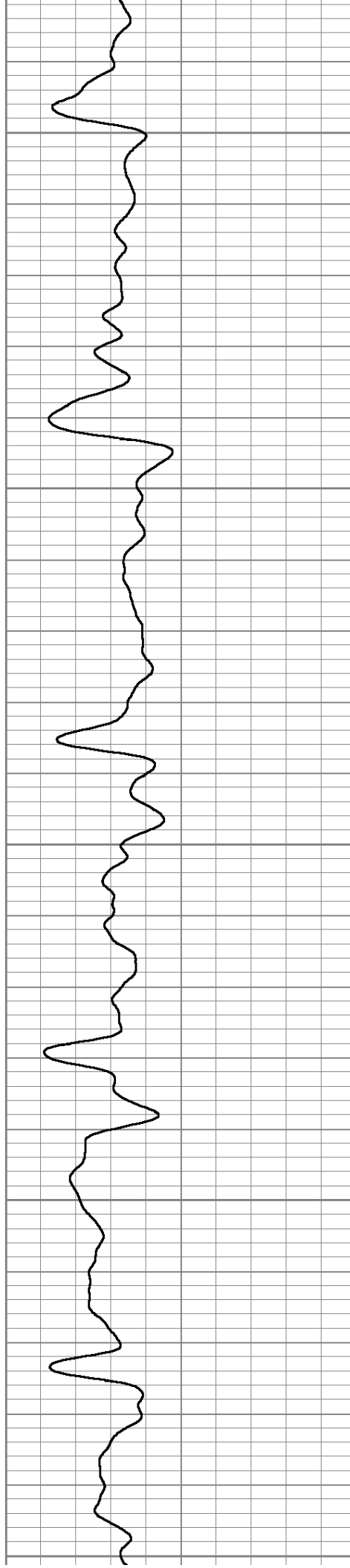
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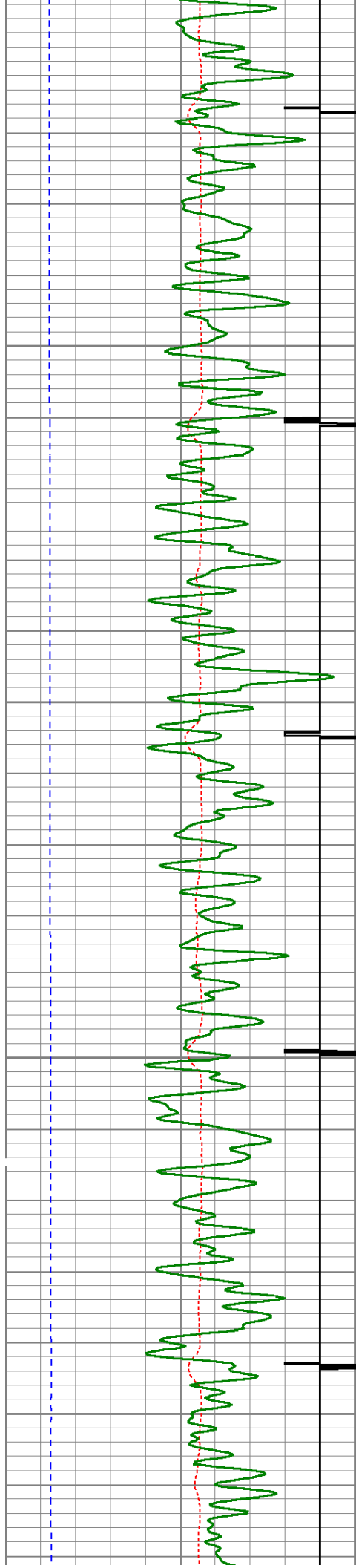
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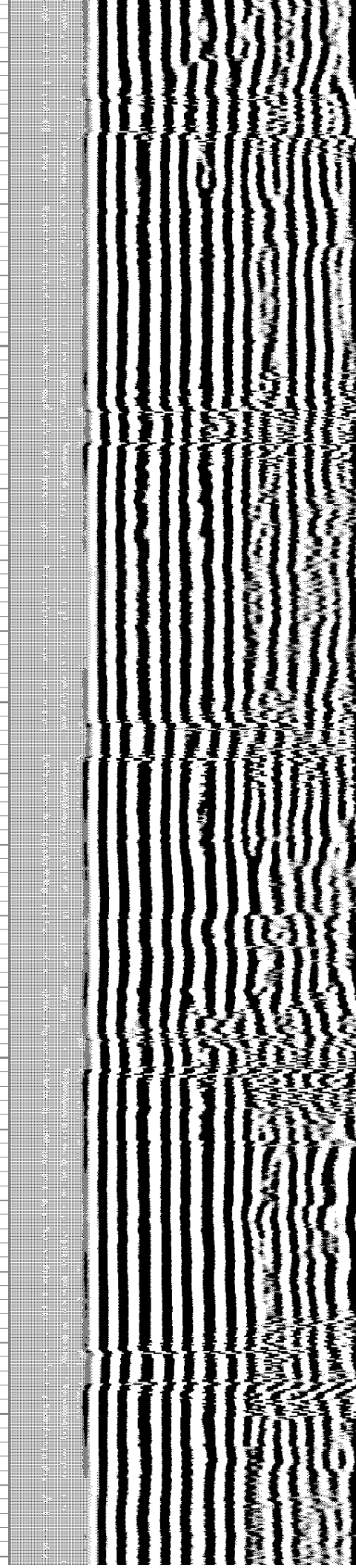
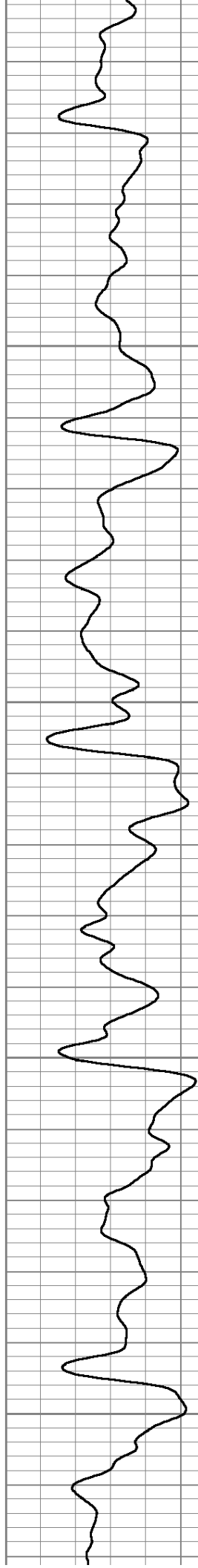


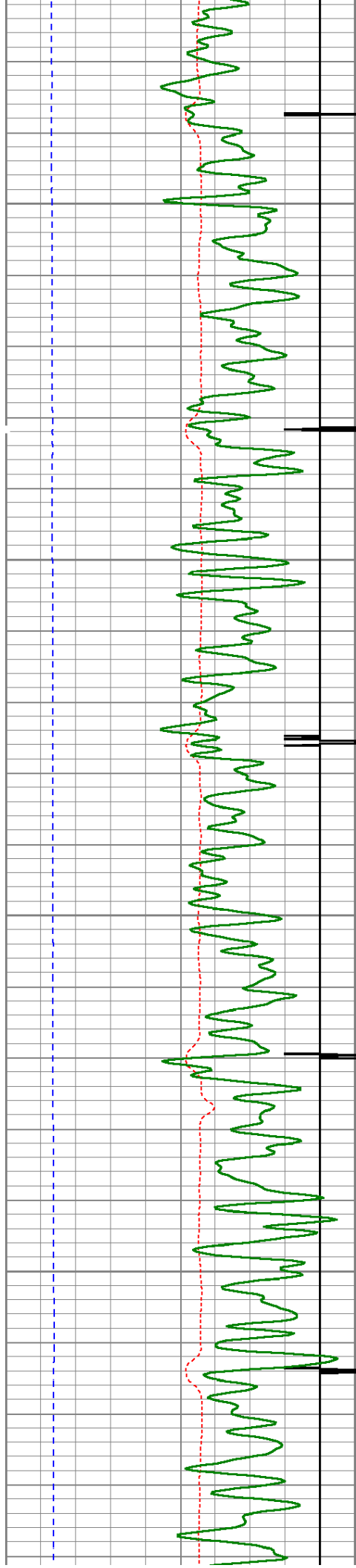
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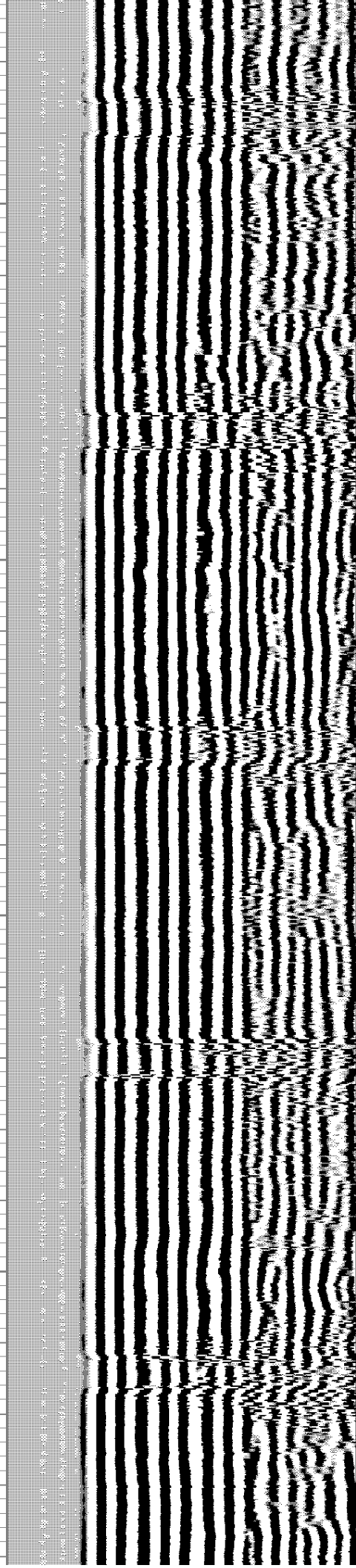
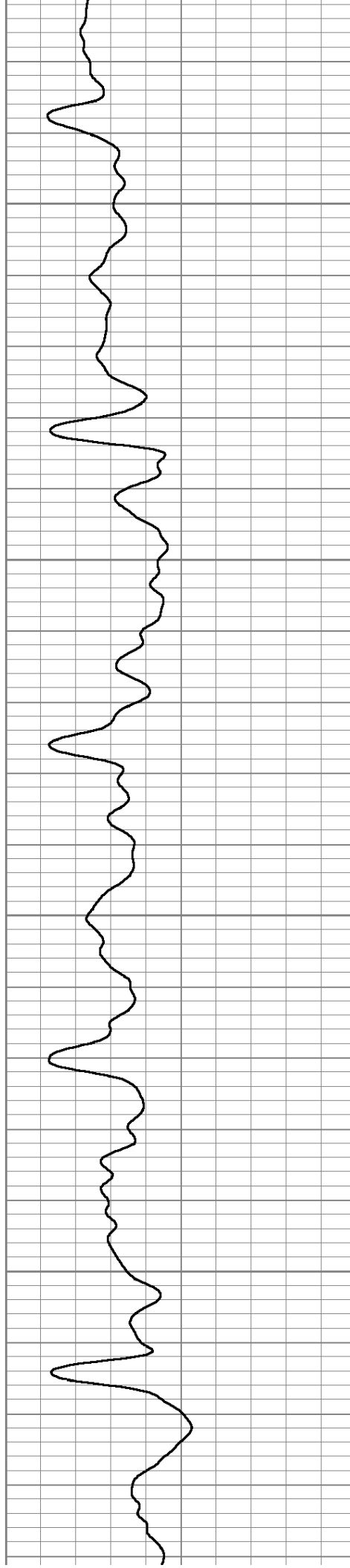


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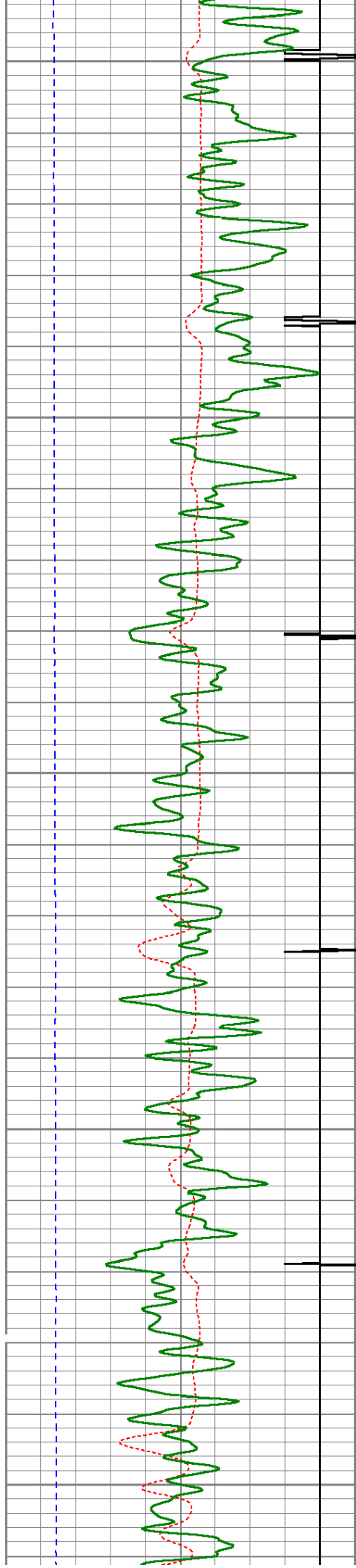
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3150

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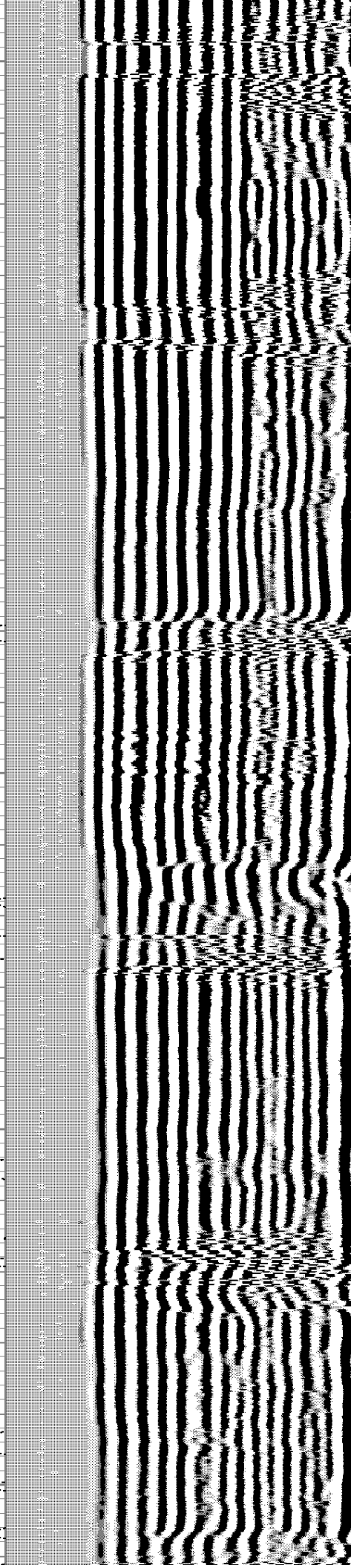
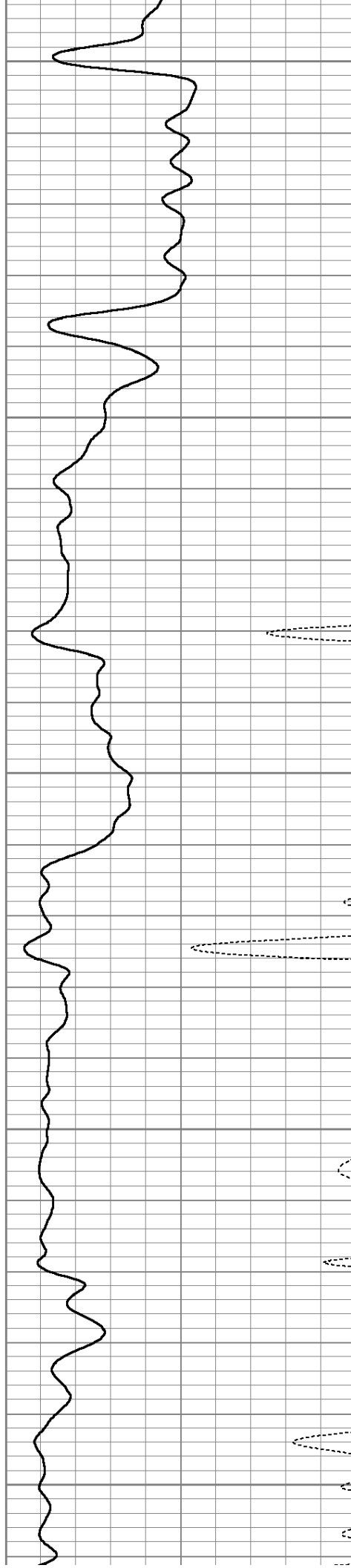
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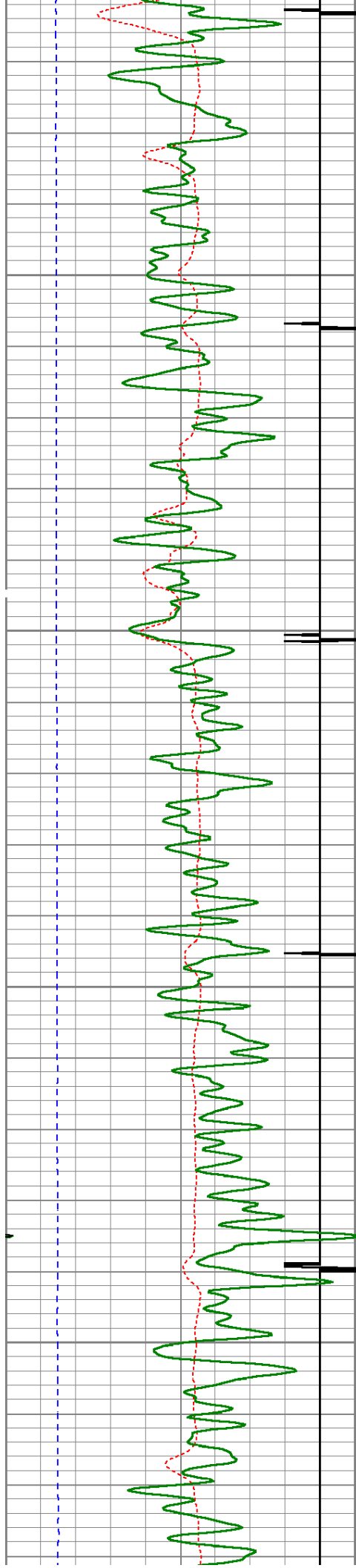
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3350

3400

3450



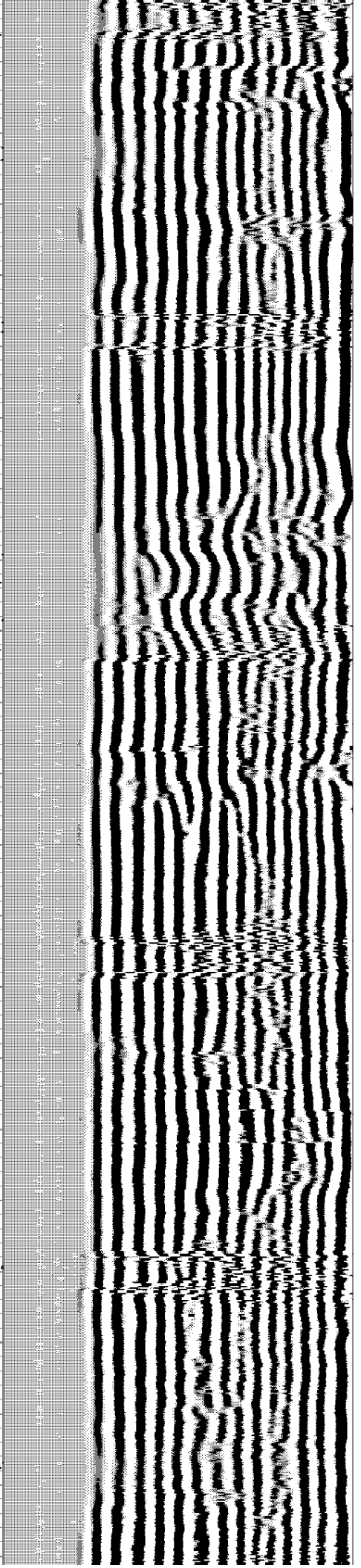
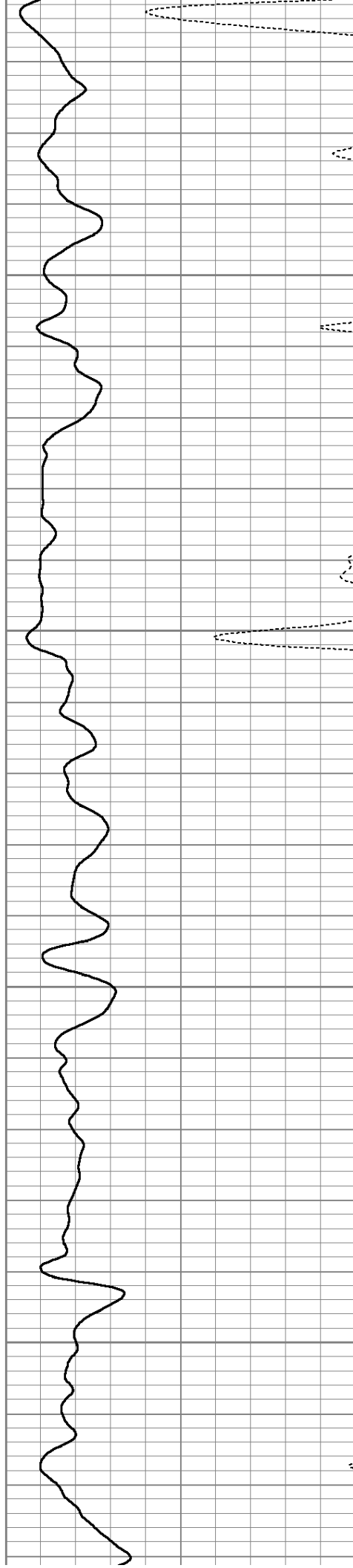


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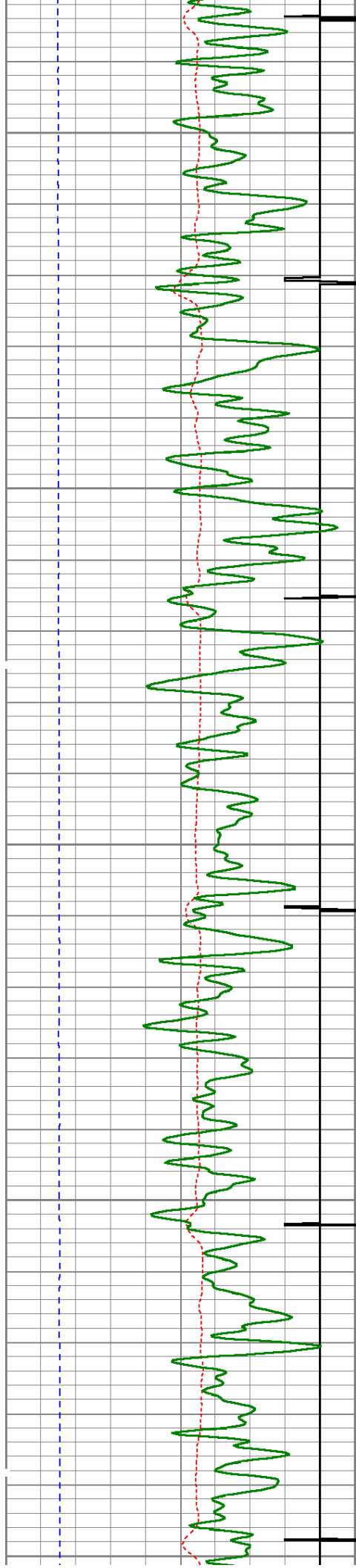
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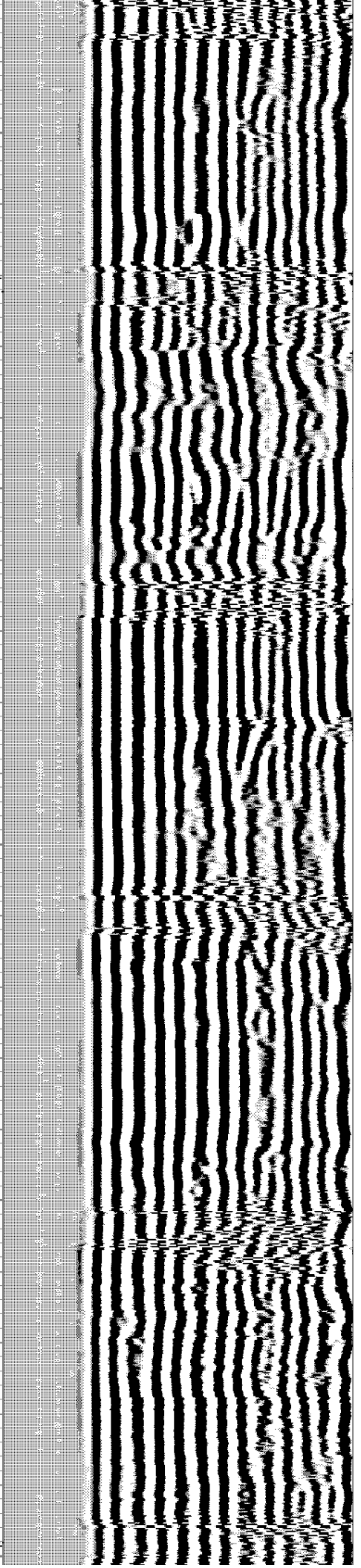
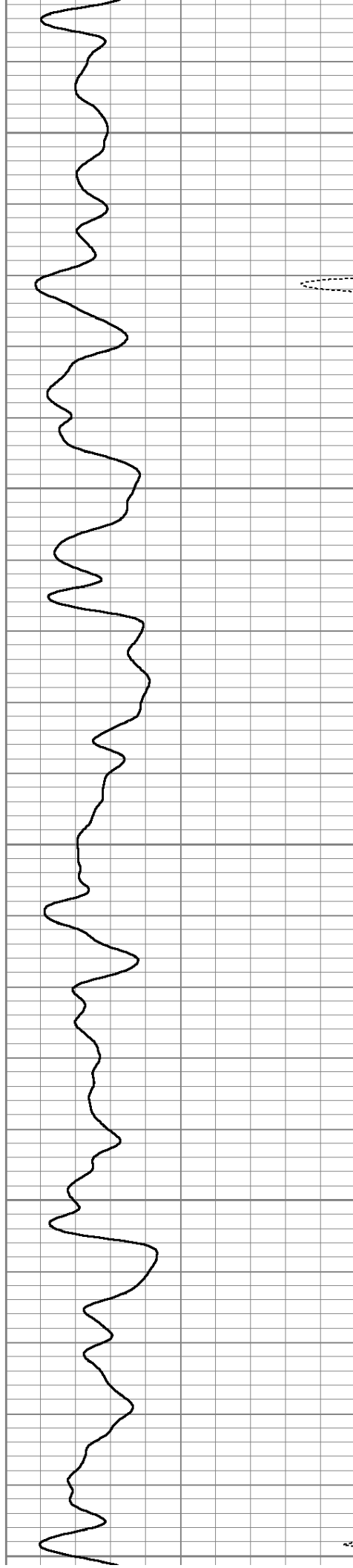
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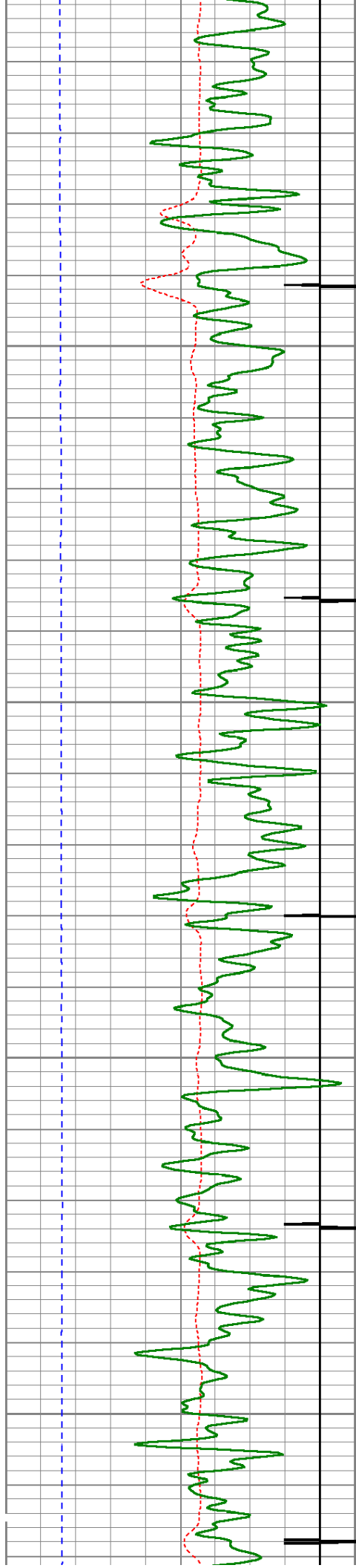
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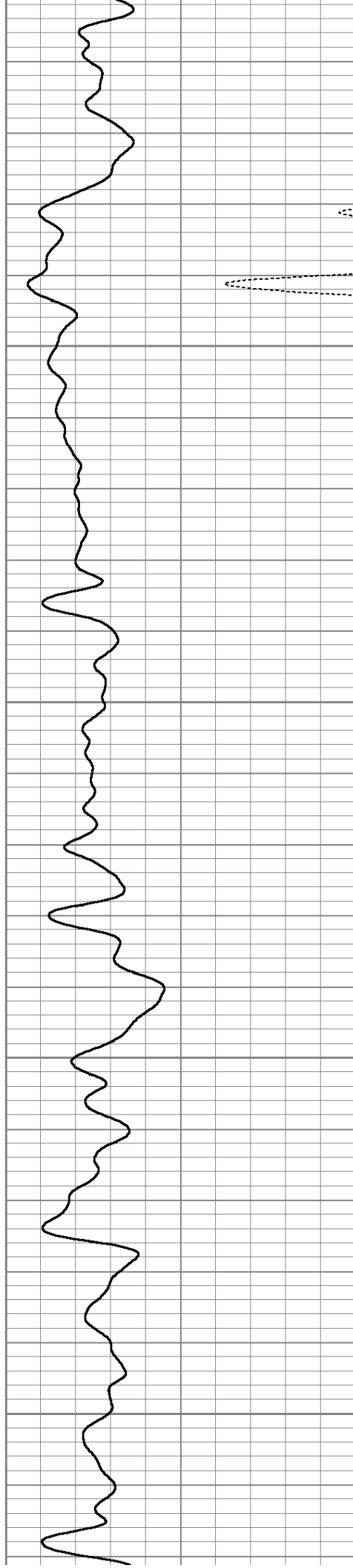


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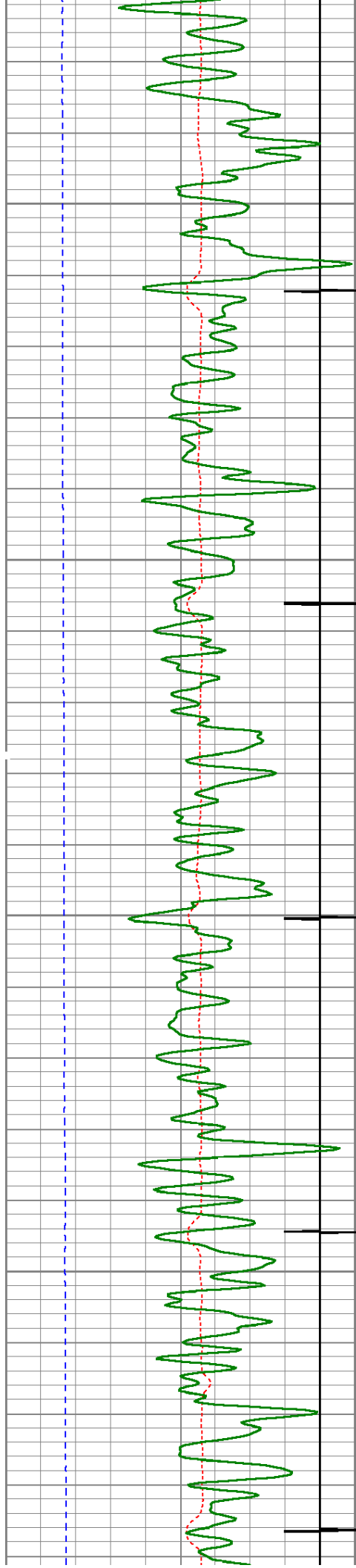
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4050

4100





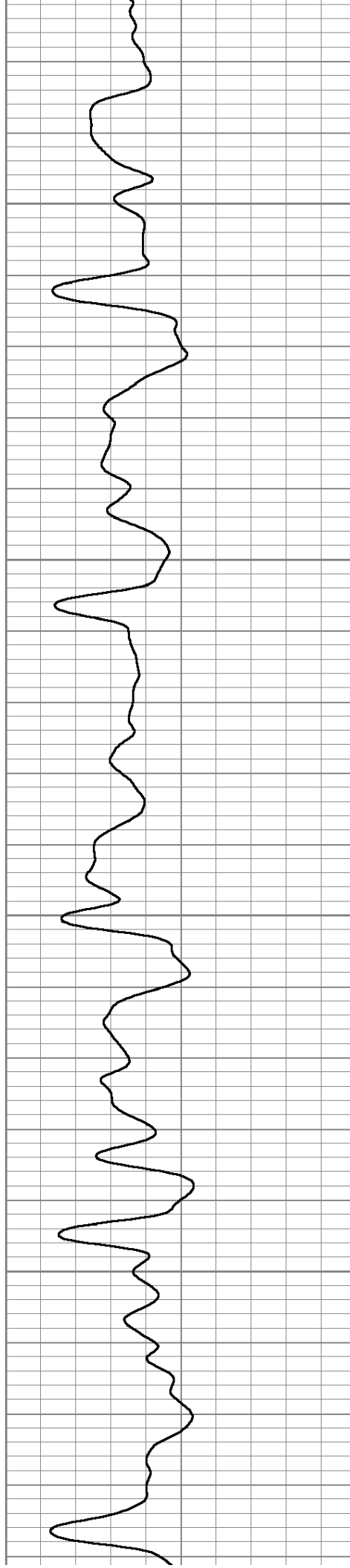


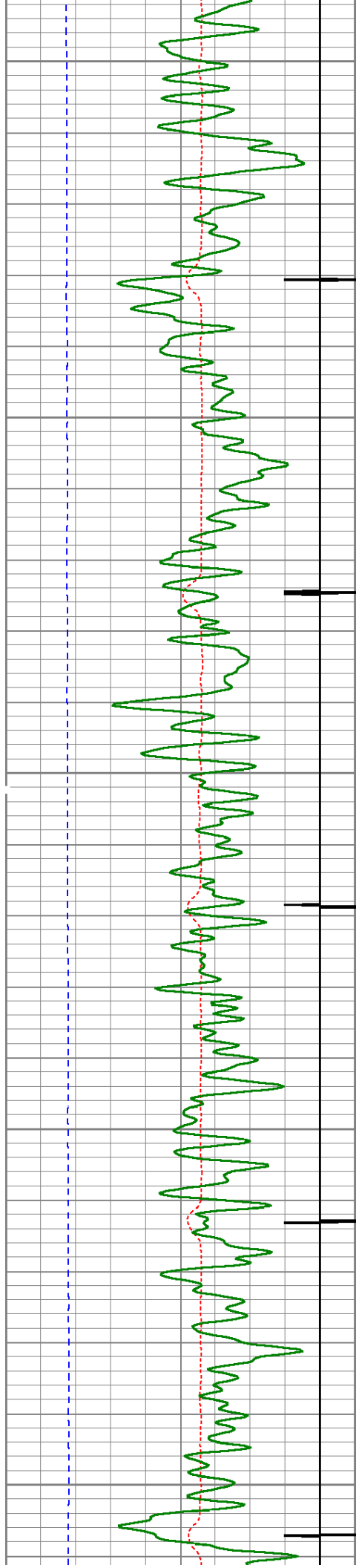
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4200

4250

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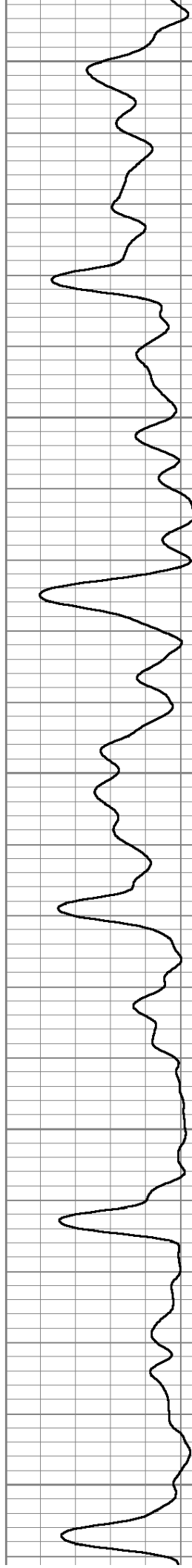
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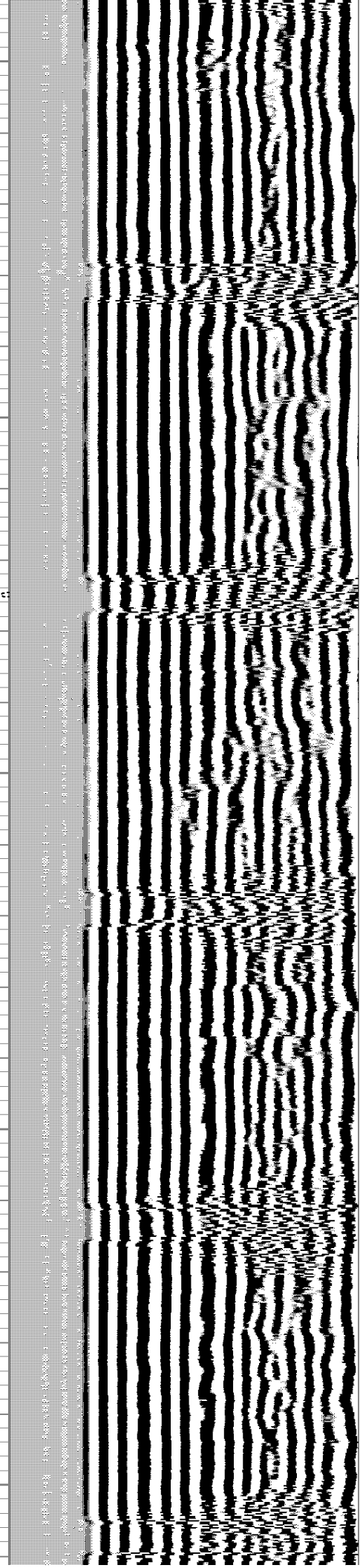
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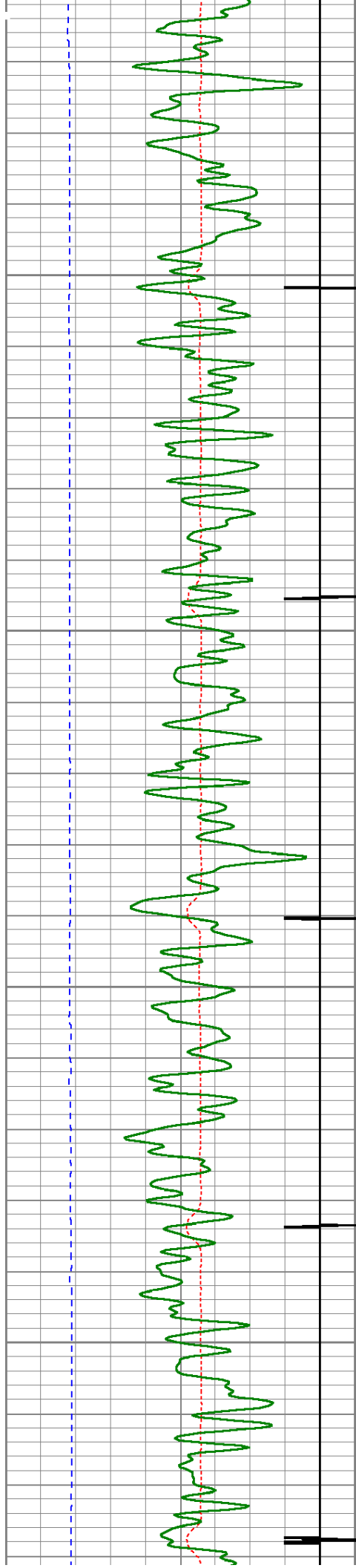
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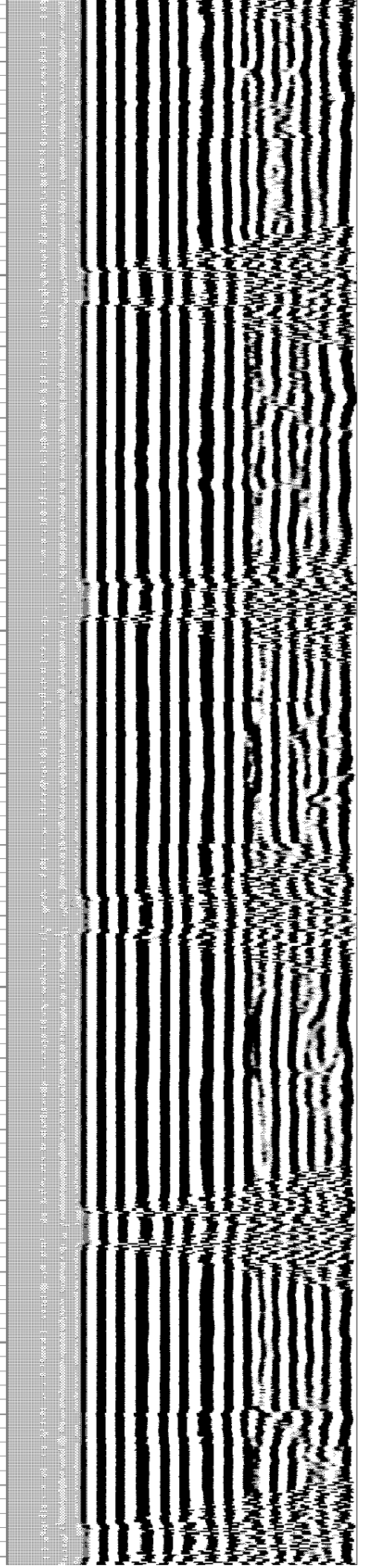
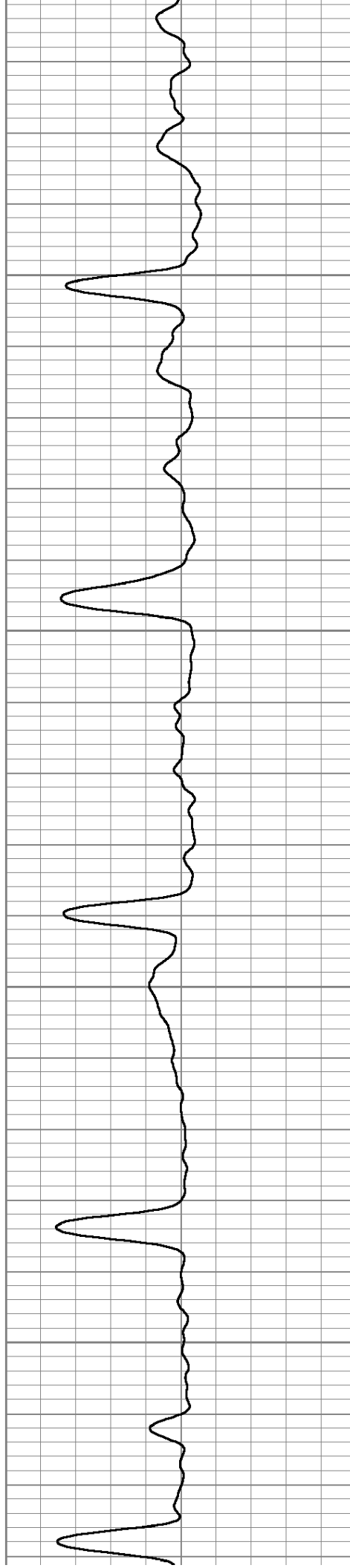


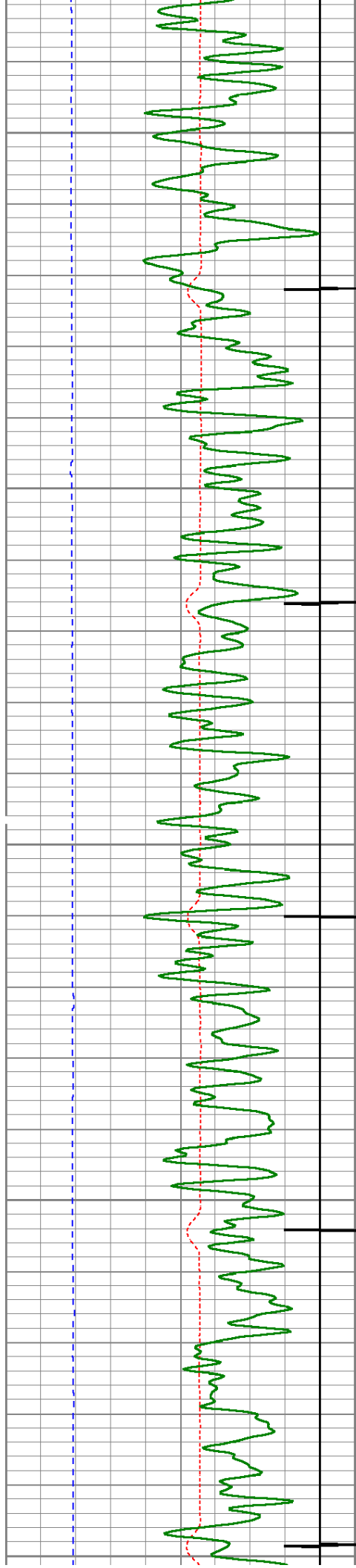
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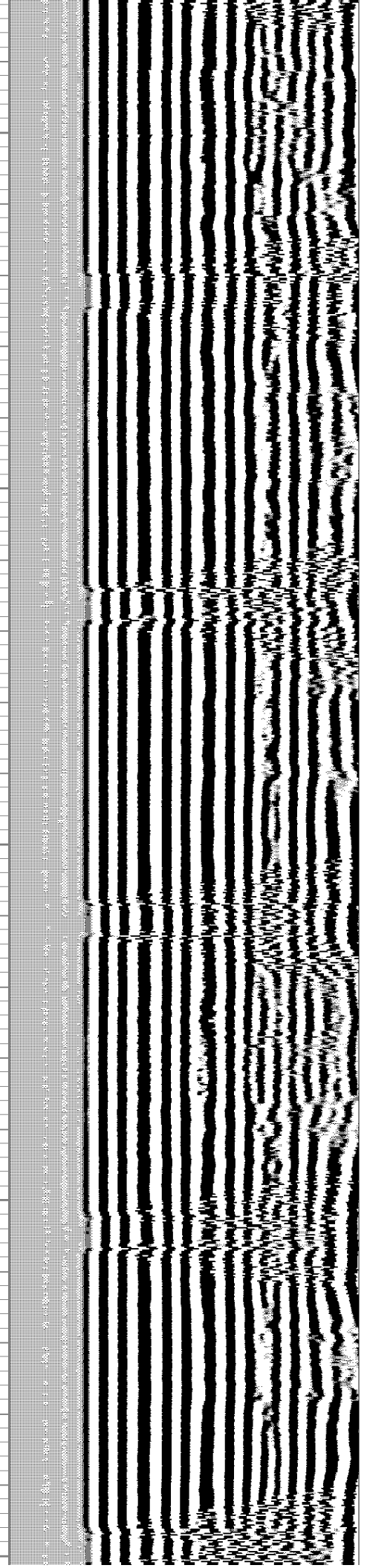
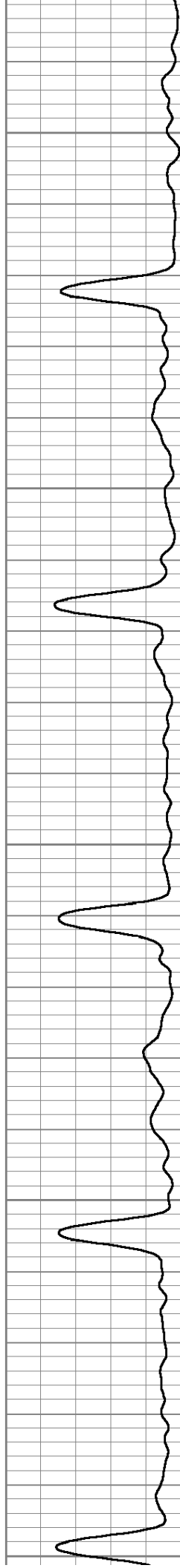
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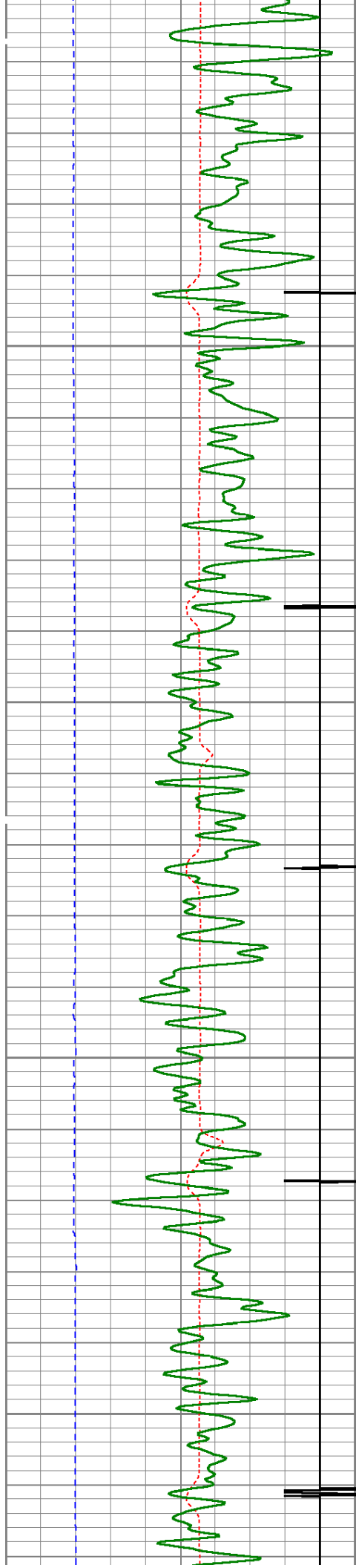
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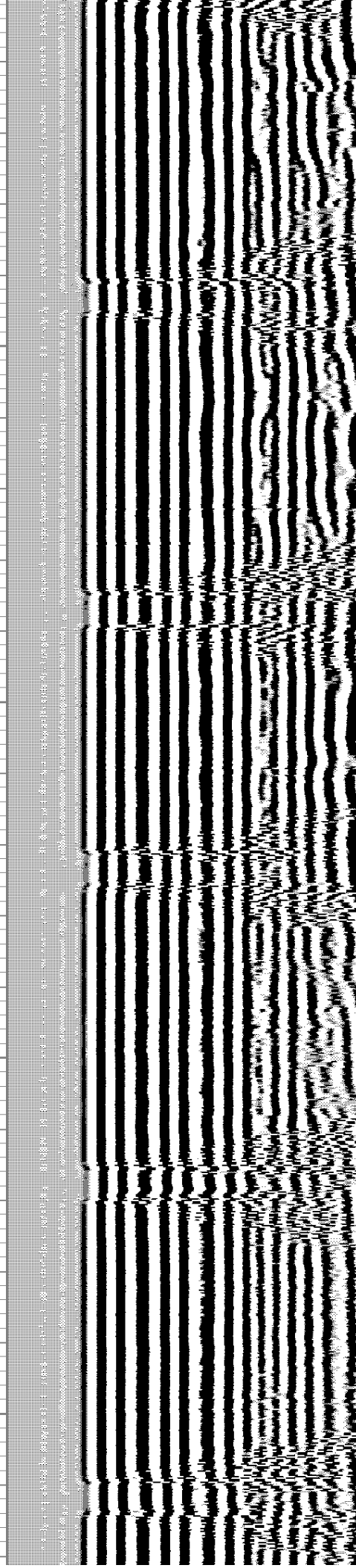
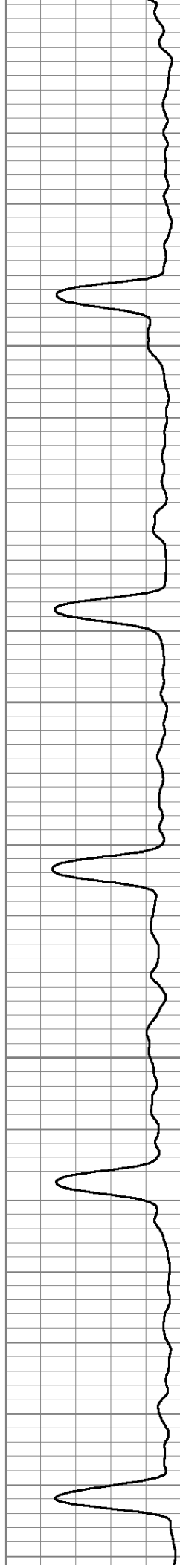


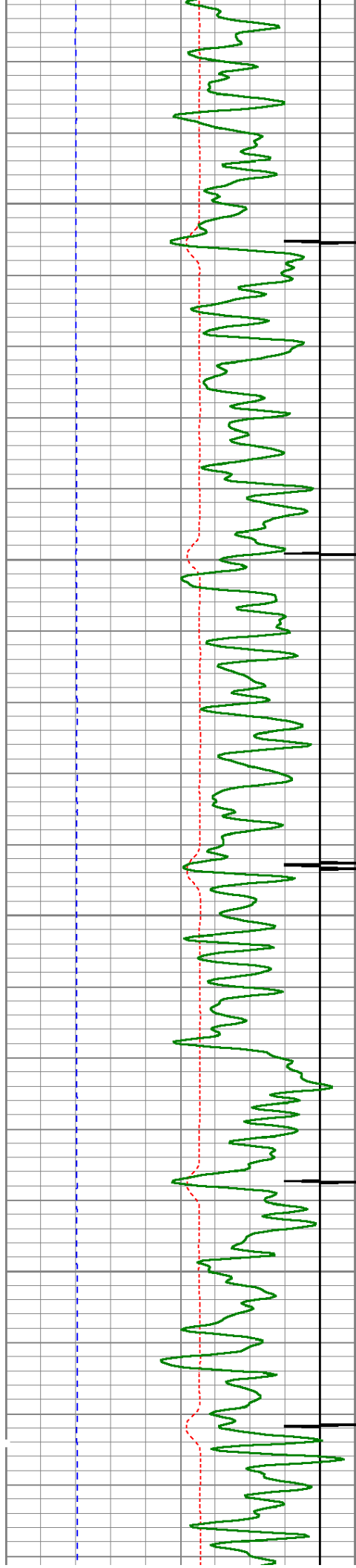
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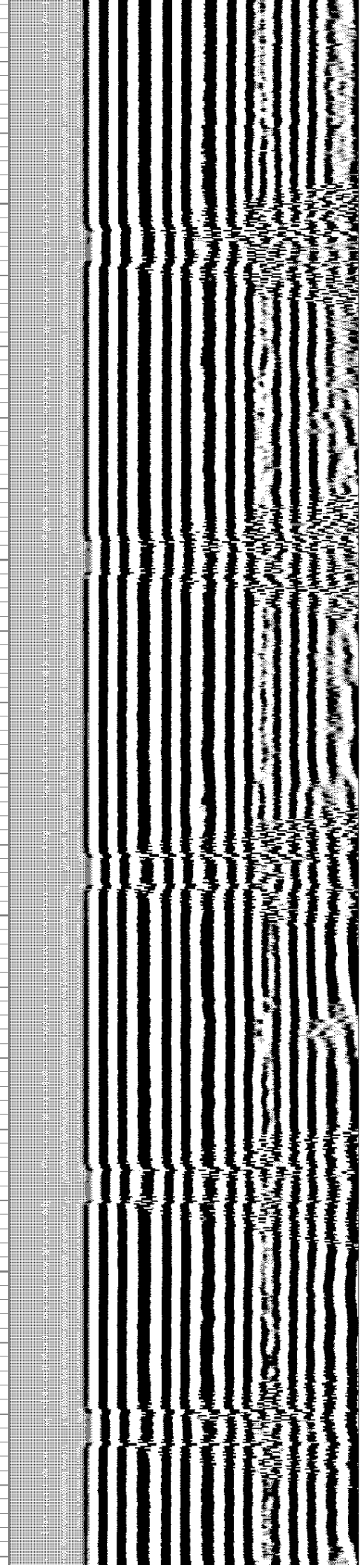
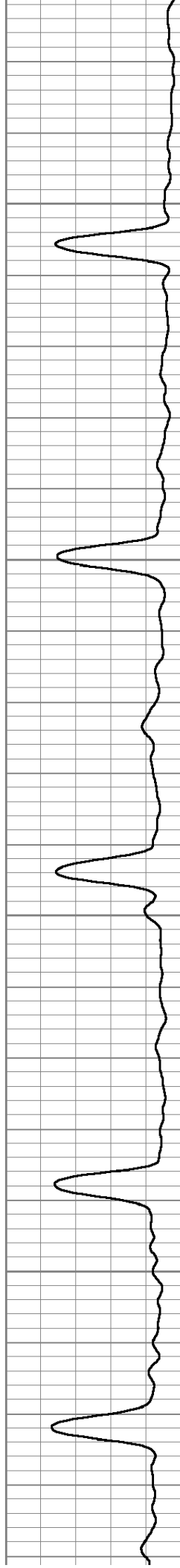


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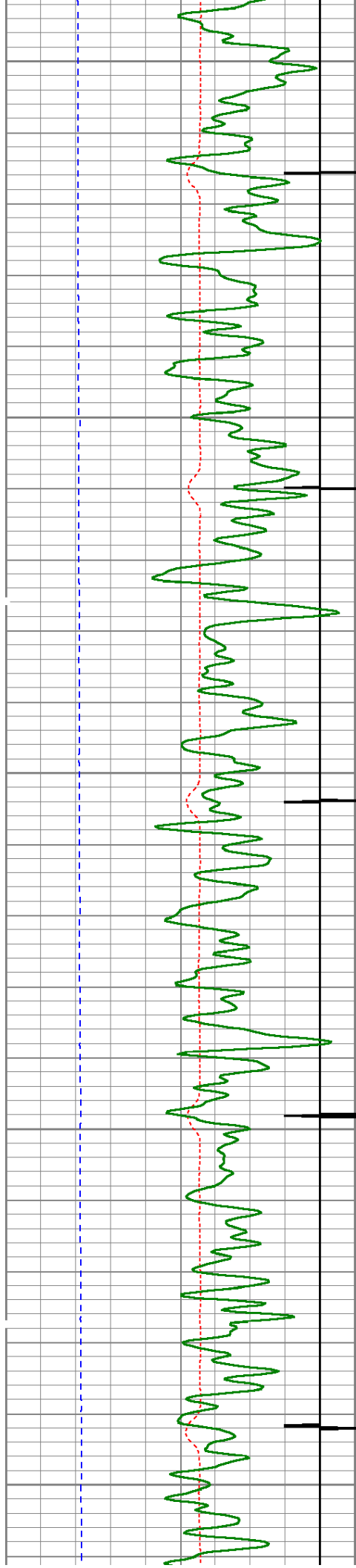
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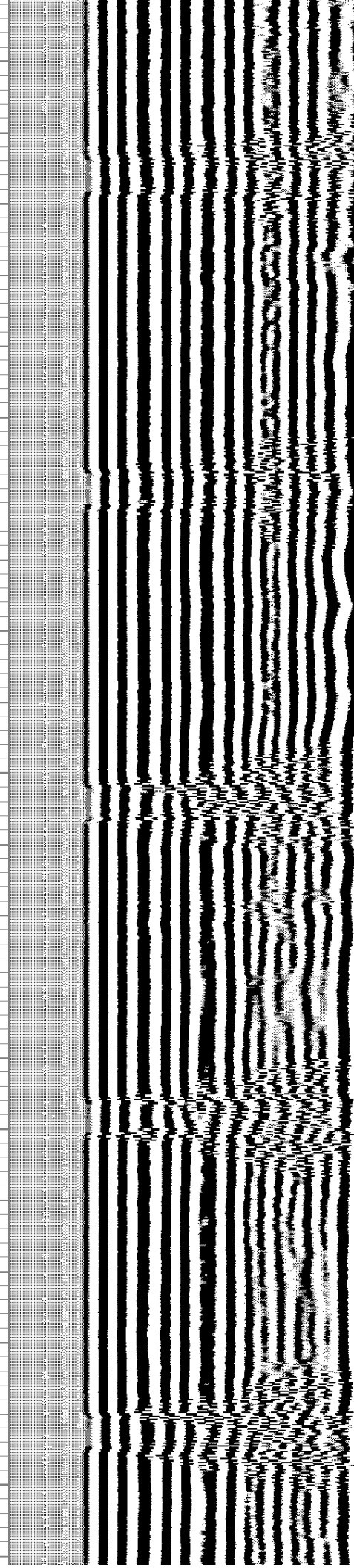
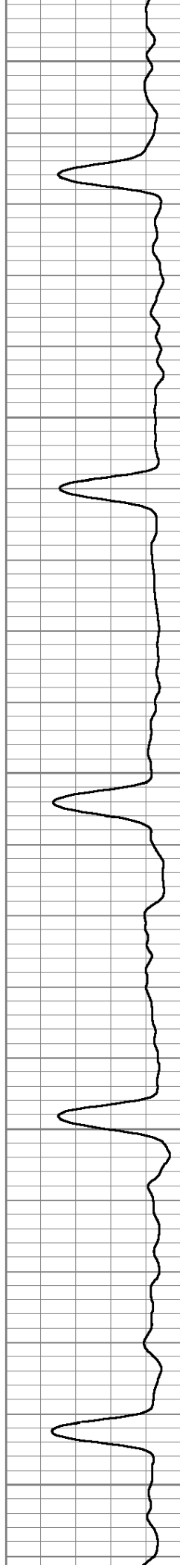
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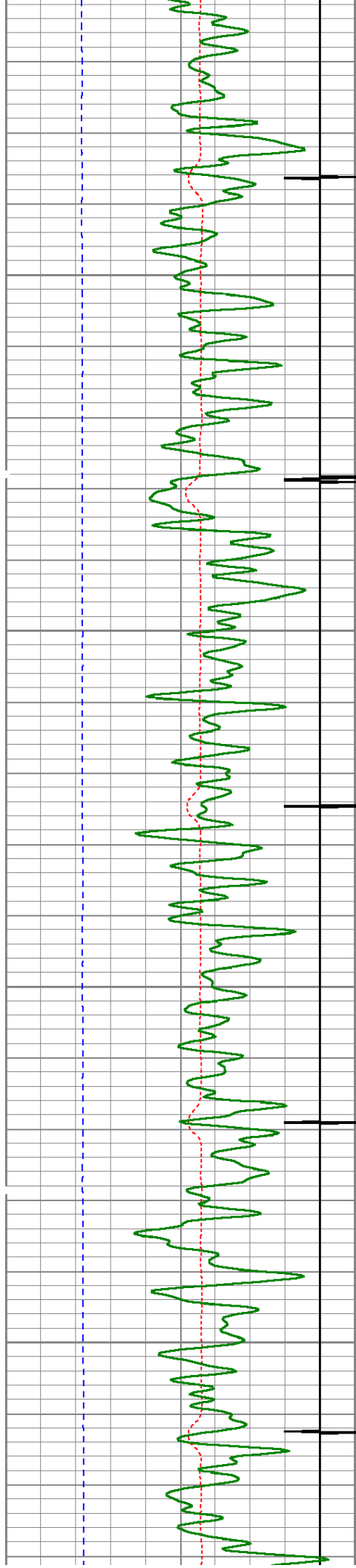
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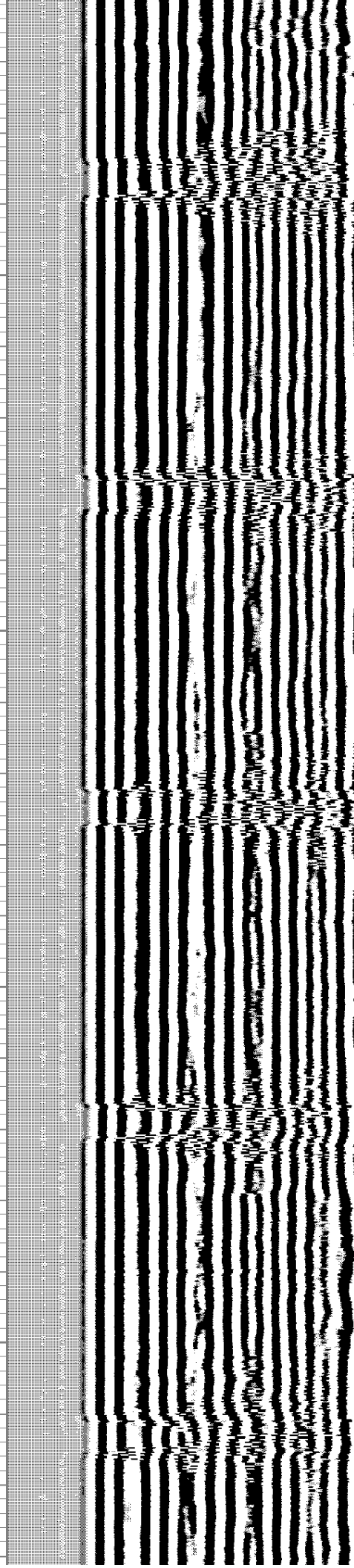
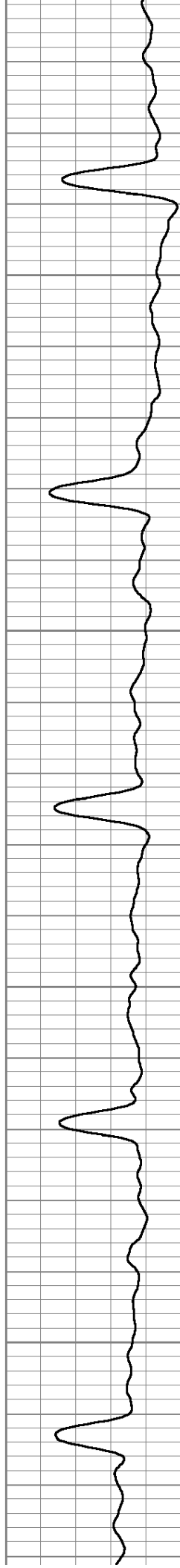


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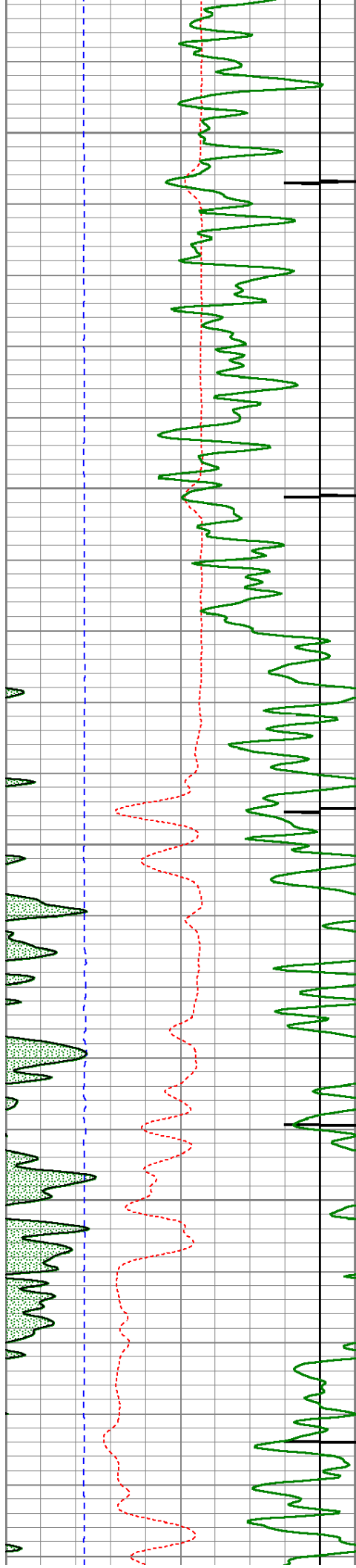
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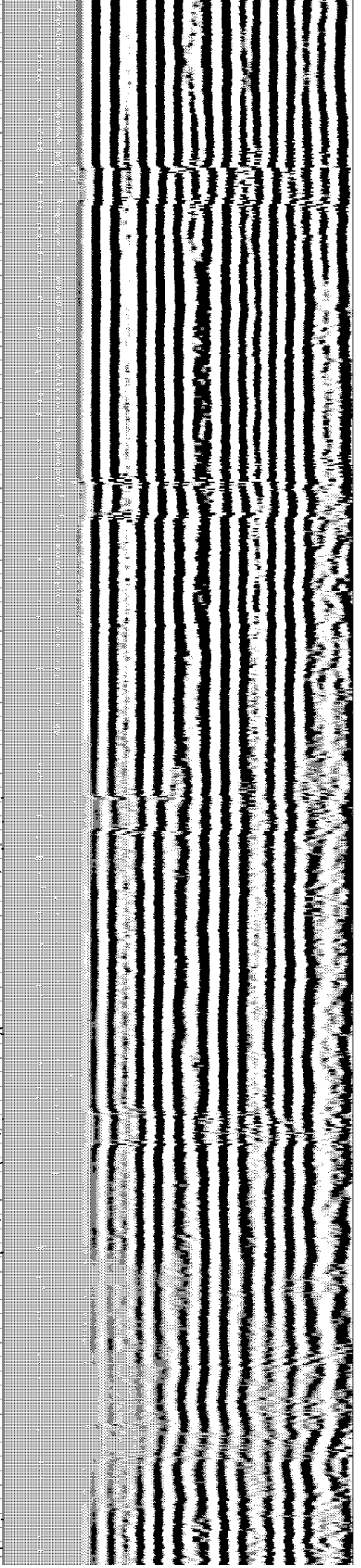
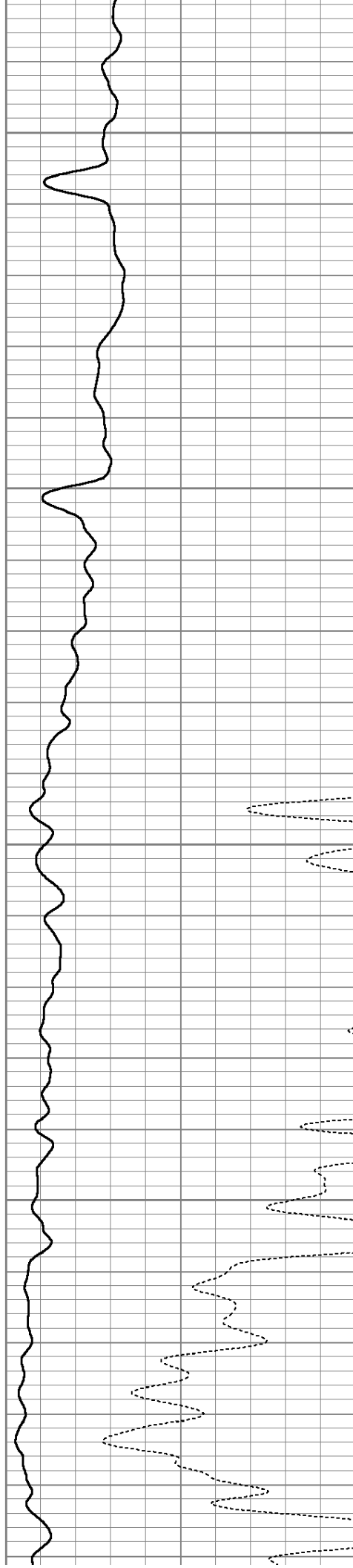
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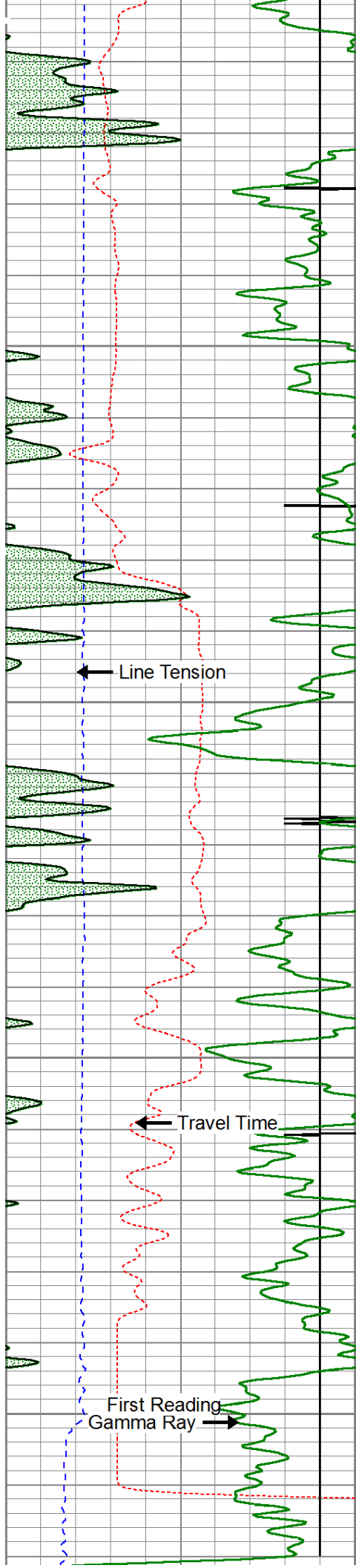
5950

6000

6050

6100





6150

Casing Collar

6200

6250

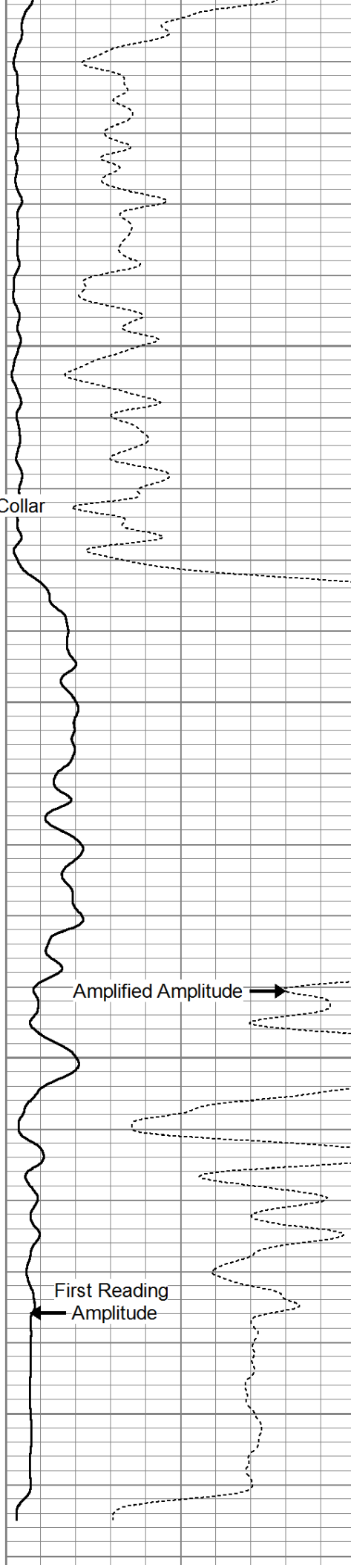
Travel Time

First Reading  
Gamma Ray

6300

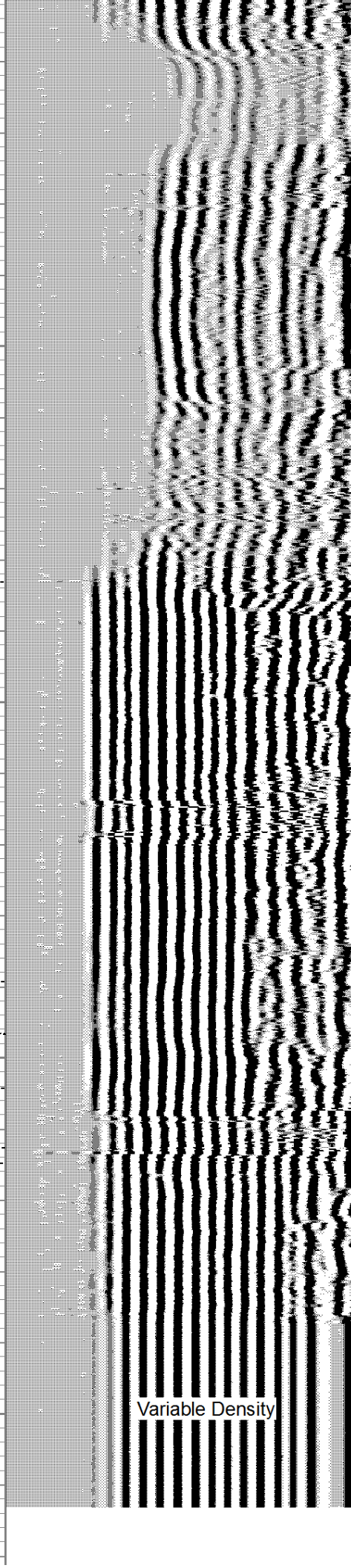
6304'

Total Depth



Amplified Amplitude

First Reading  
Amplitude



Variable Density



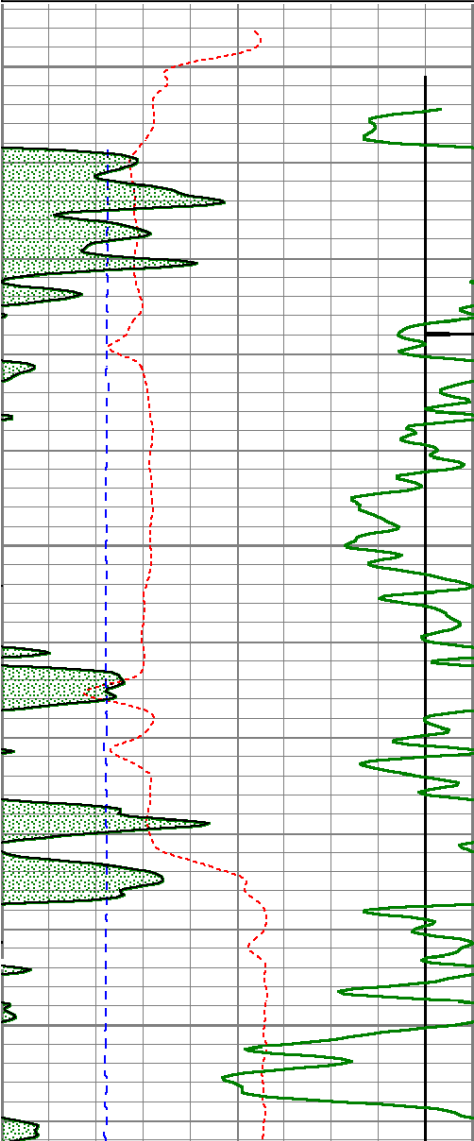
400	Travel Time (usec)	200	0	Amplitude (mV)	100	200	Variable Density	1200
9	Casing Collar	-1	0	Amplified Amplitude (mV)	10			
0	Gamma Ray (GAPI)	150						
0	Line Tension (lb)	5000						



# Repeat Pass (0 PSI)

Database File: bonanza creek state seventy holes k-o-3hnb\_cbl.db  
Dataset Pathname: pass8  
Presentation Format: cblprobe  
Dataset Creation: Thu Oct 17 13:36:14 2013 by Log 0  
Charted by: Depth in Feet scaled 1:240

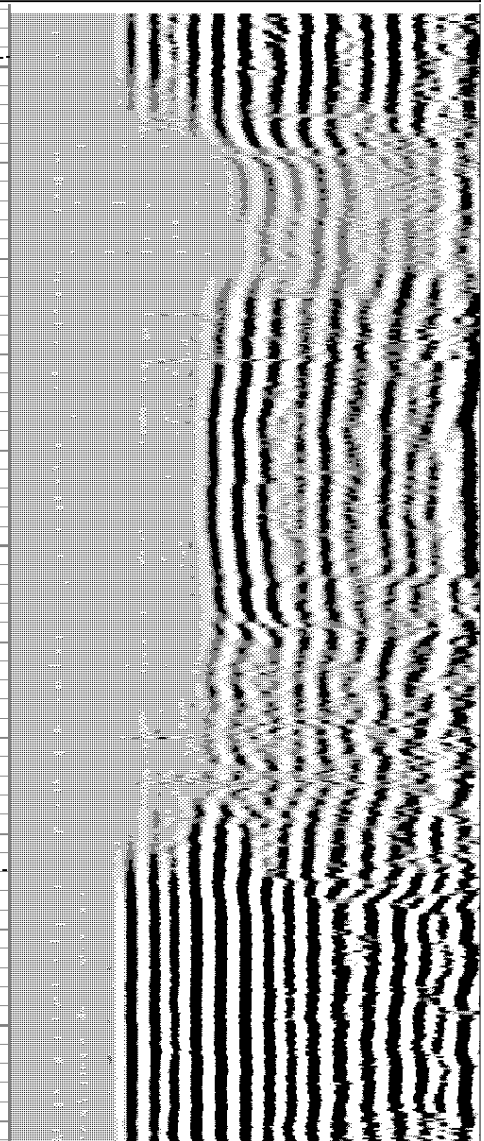
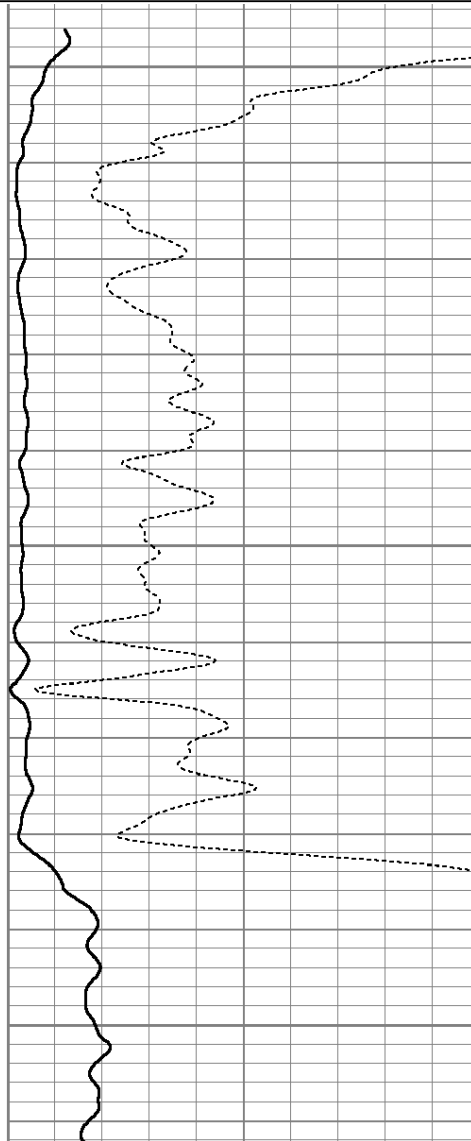
400	Travel Time (usec)	200	0	Amplitude (mV)	100	200	Variable Density	1200
9	Casing Collar	-1	0	Amplified Amplitude (mV)	10			
0	Gamma Ray (GAPI)	150						
0	Line Tension (lb)	5000						

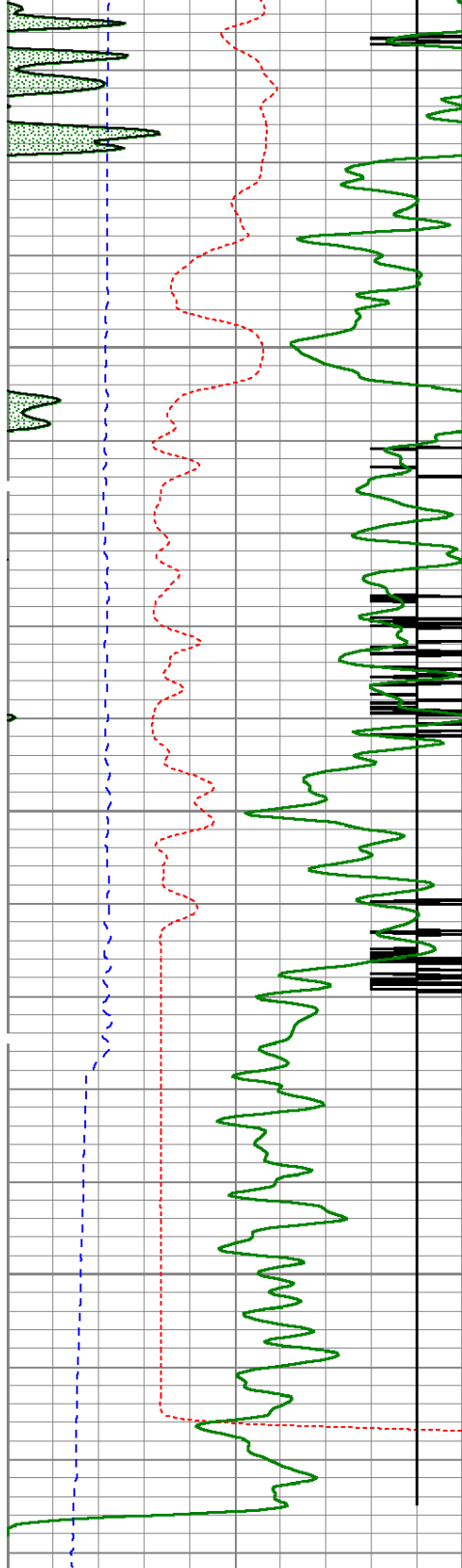


6100

6150

6200



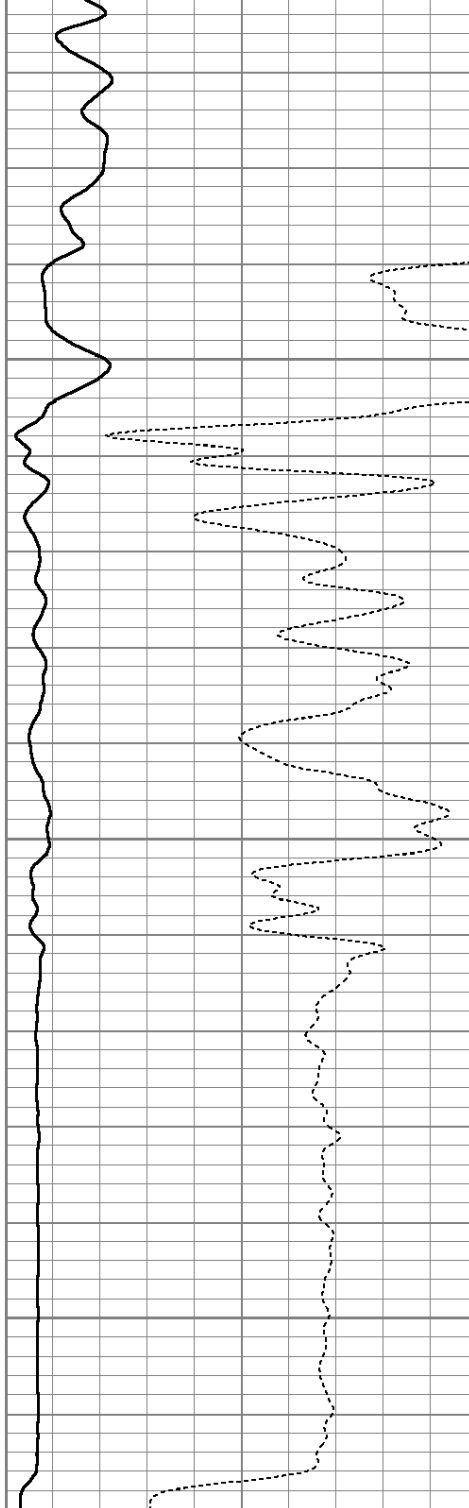


400	Travel Time (usec)	200
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
0	Line Tension (lb)	5000

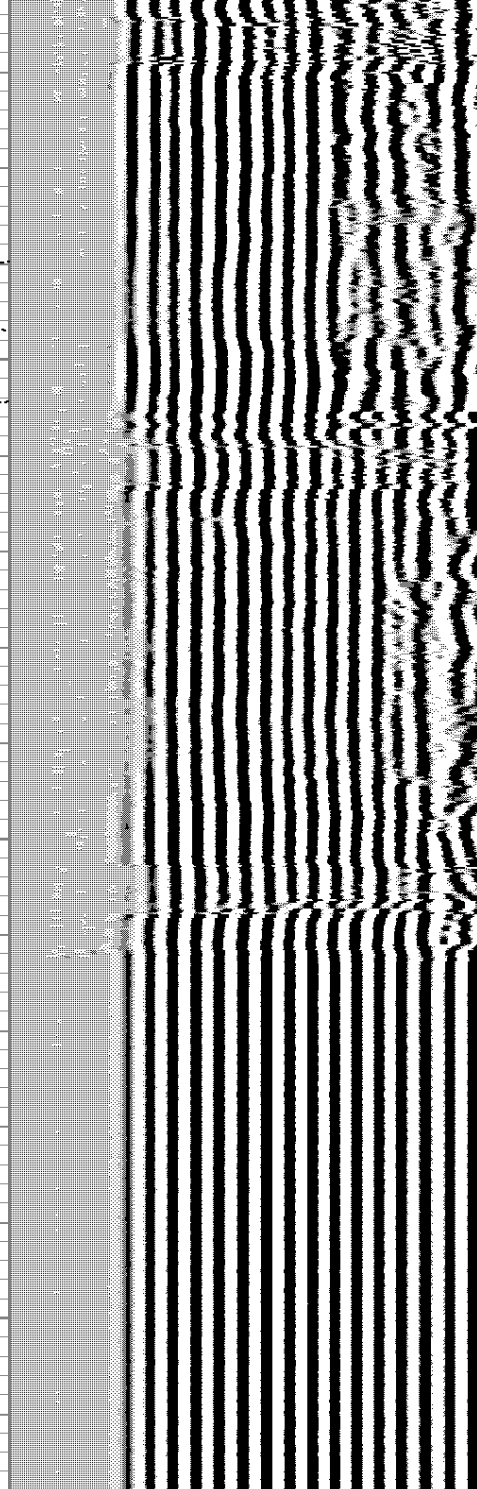
6250

6300

6350



0	Amplitude (mV)	100
0	Amplified Amplitude (mV)	10



200	Variable Density	1200
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# Calibration Report

Database File: bonanza creek state seventy holes k-o-3hnb\_cbl.db  
 Dataset Pathname: pass9  
 Dataset Creation: Thu Oct 17 13:41:43 2013 by Log 0



Serial Number:	110108-Dig	
Tool Model:	Probe275	
Performed:	Mon Jul 01 16:56:15 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8500	GAPI/cps

#### Temperature Calibration Report

Serial Number:	110108-Dig	
Tool Model:	Probe275	
Performed:	Sun Jun 13 13:33:21 1993	
	Reference	Reading
Low Reference:	0.00 degF	0.00 cps
High Reference:	1.00 degF	1.00 cps
Gain:	1.00	
Offset:	0.00	
Delta Spacing	2	

#### Segmented Cement Bond Log Calibration Report

Serial Number:	111107	
Tool Model:	Probe	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	765.935	ft

Master Calibration, performed Thu Oct 17 09:26:44 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.024	0.690	1.000	62.165	85.620	3.072
CAL	-0.035	1.277				
5'	-0.021	0.580	1.000	62.165	101.803	3.096
SUM						
S1	-0.015	0.760	0.000	100.000	128.967	1.987
S2	-0.010	0.791	0.000	100.000	124.811	1.220
S3	-0.019	0.776	0.000	100.000	125.746	2.441
S4	-0.017	0.747	0.000	100.000	130.879	2.249
S5	-0.018	0.686	0.000	100.000	142.084	2.487
S6	-0.018	0.629	0.000	100.000	154.522	2.777
S7	-0.019	0.594	0.000	100.000	163.109	3.092
S8	-0.019	0.608	0.000	100.000	159.511	2.962

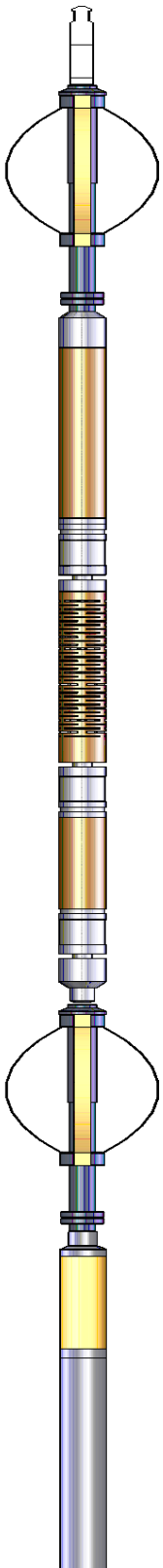
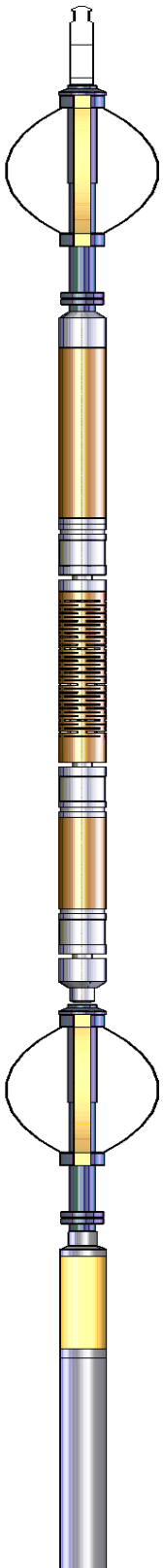
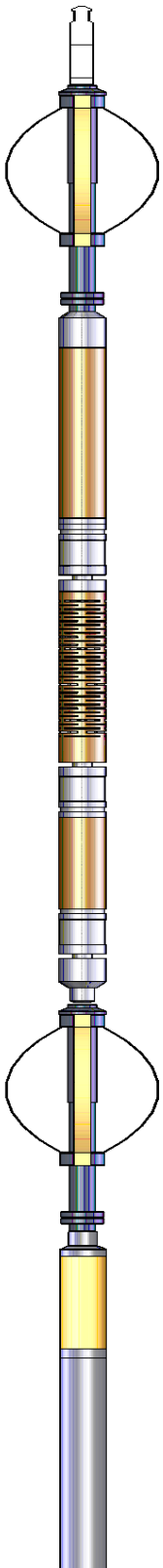
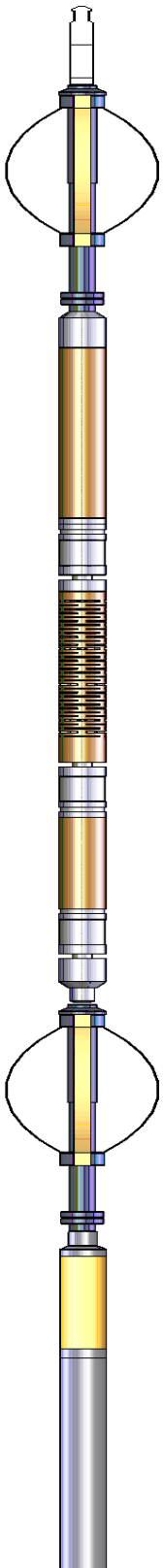
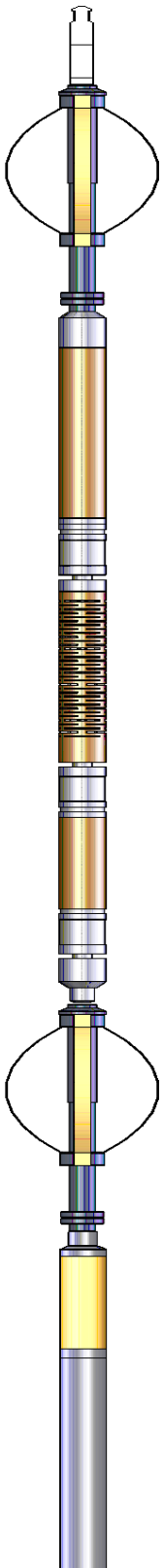
Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.035	1.277	1.000	0.000

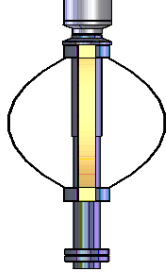
Air Zero Calibration, performed Thu Oct 17 08:50:08 2013:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset

	Zero	Zero	Onset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			Titan Cable_head	1.00	1.44	10.00
			Probe275 2.75" Centralizer	2.88	2.75	20.00
WVF3FT	14.72		RBT-Probe (111107) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
WVFCAL	14.72					
WVFS1	14.72					
WVFS2	14.72					
WVFS3	14.72					
WVFS4	14.72					
WVFS5	14.72					
WVFS6	14.72					
WVFS7	14.72					
WVFS8	14.72					
WVF5FT	13.72		Probe275 2.75" Centralizer	2.88	2.75	20.00
CCL	6.75					
TEMP	5.88					
GR	5.42		GR-Probe275 (110108-Dig) Probe 2 3/4" Logging Gamma Ray	4.78	2.75	57.00





Probe275  
2.75" Centralizer

2.88

2.75

20.00

Dataset:	bonanza creek state seventy holes k-o-3hnb_cbl.db: field/well/run1/pass9
Total Length:	23.16 ft
Total Weight:	217.00 lb
O.D.	2.75 in