



GAMMA RAY NEUTRON LOG

PIONEER
Pioneer Energy Services

Comp. PDC Energy Inc.
Well Snowmass #1C
Field Wattenberg
Co. Weld
State Colorado

Company **PDC Energy Inc.**
Well **Snowmass #1C**
Field **Wattenberg**
County **Weld** State **Colorado**

Location: API # : 05-123-44893

Other Services

NWNE 5
FNL: 88, FEL: 1832
SEC 5 TWP 5N RGE 64W

None

Permanent Datum GL Elevation 4634'
Log Measured From GL Above Perm. Datum
Drilling Measured From KB

Elevation
K.B. NA
D.F. NA
G.L. 4634'

Date of Service October 19, 2017

Run Number 1

Depth Driller or PBTD 14788'

Depth Logger 7160'

Bottom Log Interval 7158'

Top Log Interval 0'

Open Hole Size 8.5"

Type Fluid WBM

Fluid Level 22'

Fluid Density NA

Max. Recorded Temperature NA

Max. Wellhead Pressure 0 PSI

Wellhead Connection Open Ended

Estimated Cement Top NA

Unit Number P-38

Wireline Size 9/32"

Location Fort Morgan

Recorded By Lance Schubert

Witnessed By NA

Size

WT

Top

Bottom

9.625"

36#

20#

0'

0'

14788'

1600'

14788'

14788'

14788'

14788'

14788'

14788'

14788'

14788'

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14788'


14788'

14788'

14788'

14788'

Top - Bottom							
CMTTKCOR	CSTKCOR	SZCOR	CASED?	NPORSEL	CMNTTHCK	SRFTEMP	CASETHCK
On	On	On	Yes	Limestone	in 0	degF 0	in 0
CASEOD	PERFS	TDEPTH	BOTTEMP	BOREID			
in 5.5	0	ft 14788	degF 100	in 8.5			



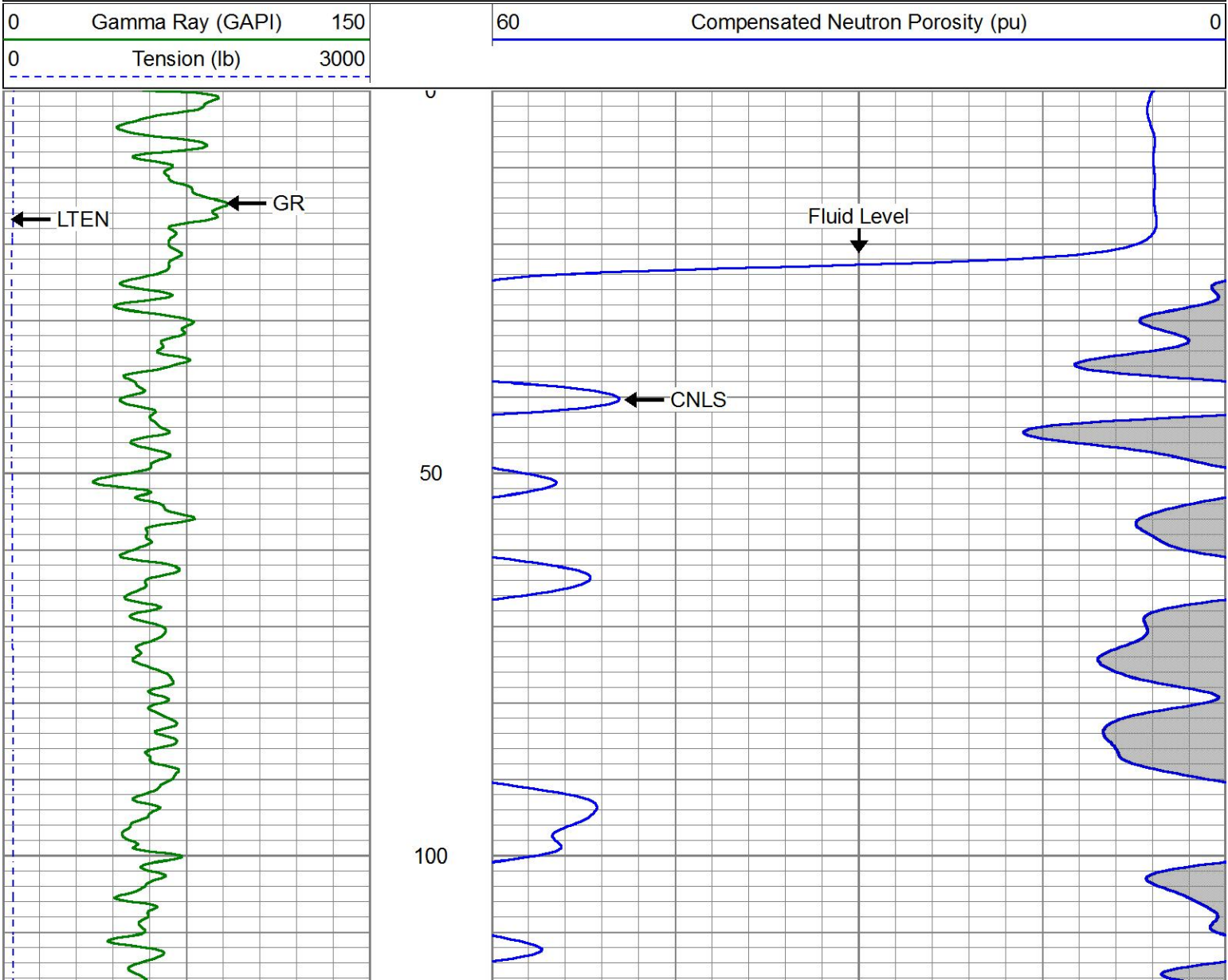
PIONEER

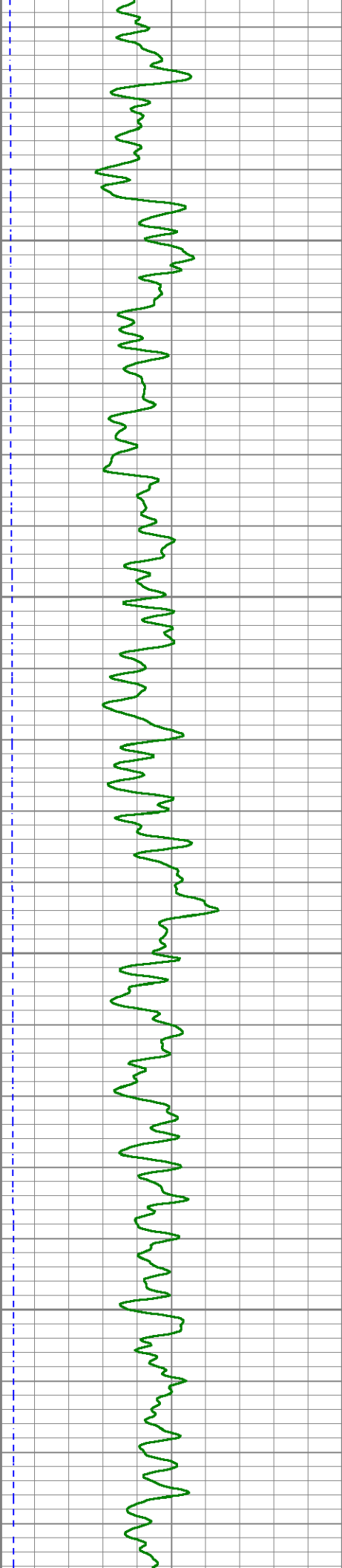
Pioneer Energy Services

Main Pass

Logged with 0 PSI

Database Filepdc_snowmass_cnt.db
Dataset Pathnamepass2
Presentation Formatpinr_cnl
Dataset CreationThu Oct 19 08:44:42 2017
Charted byDepth in Feet scaled 1:240



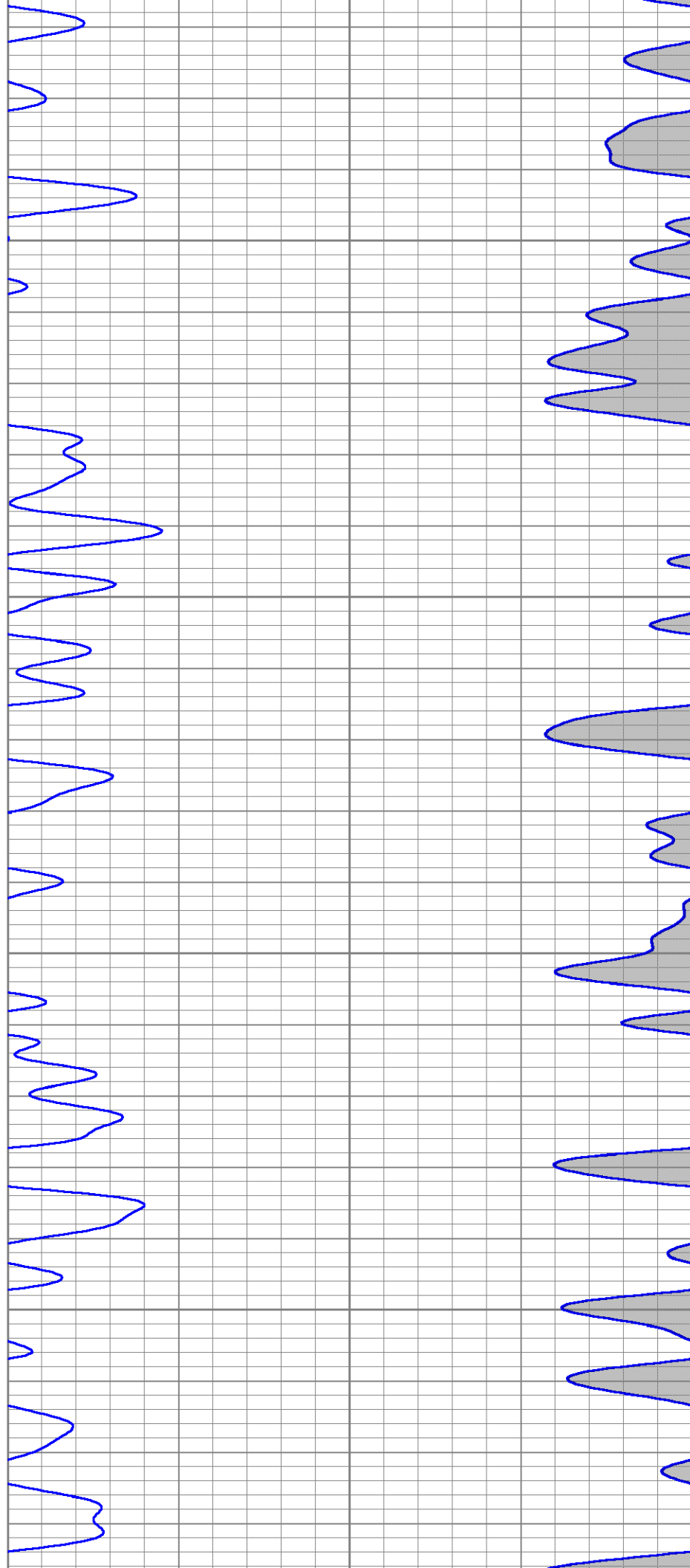


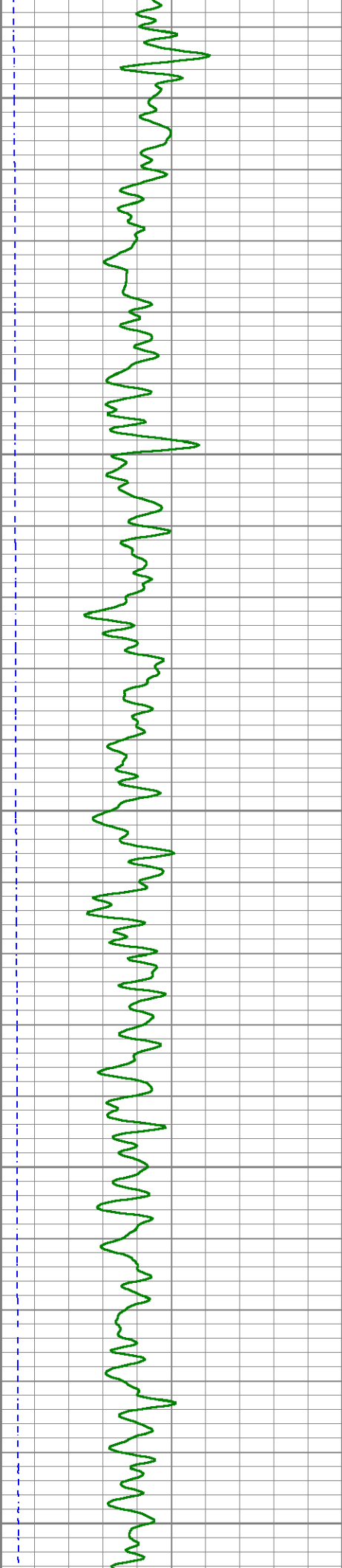
150

200

250

300





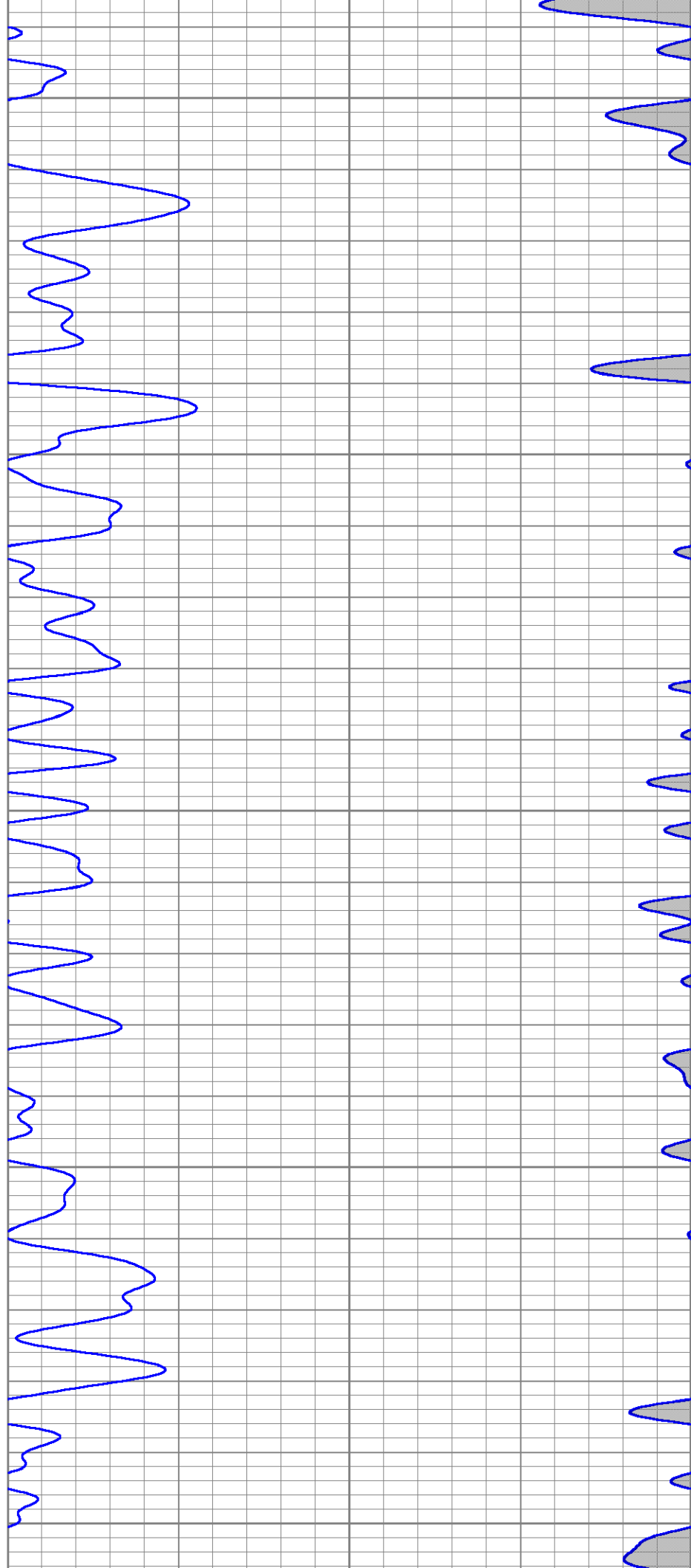
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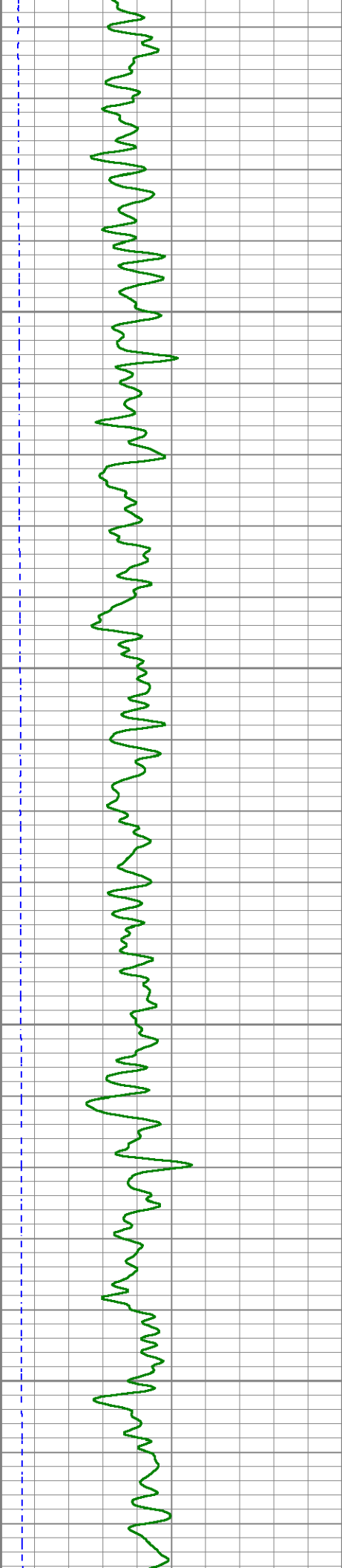
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450

500

550



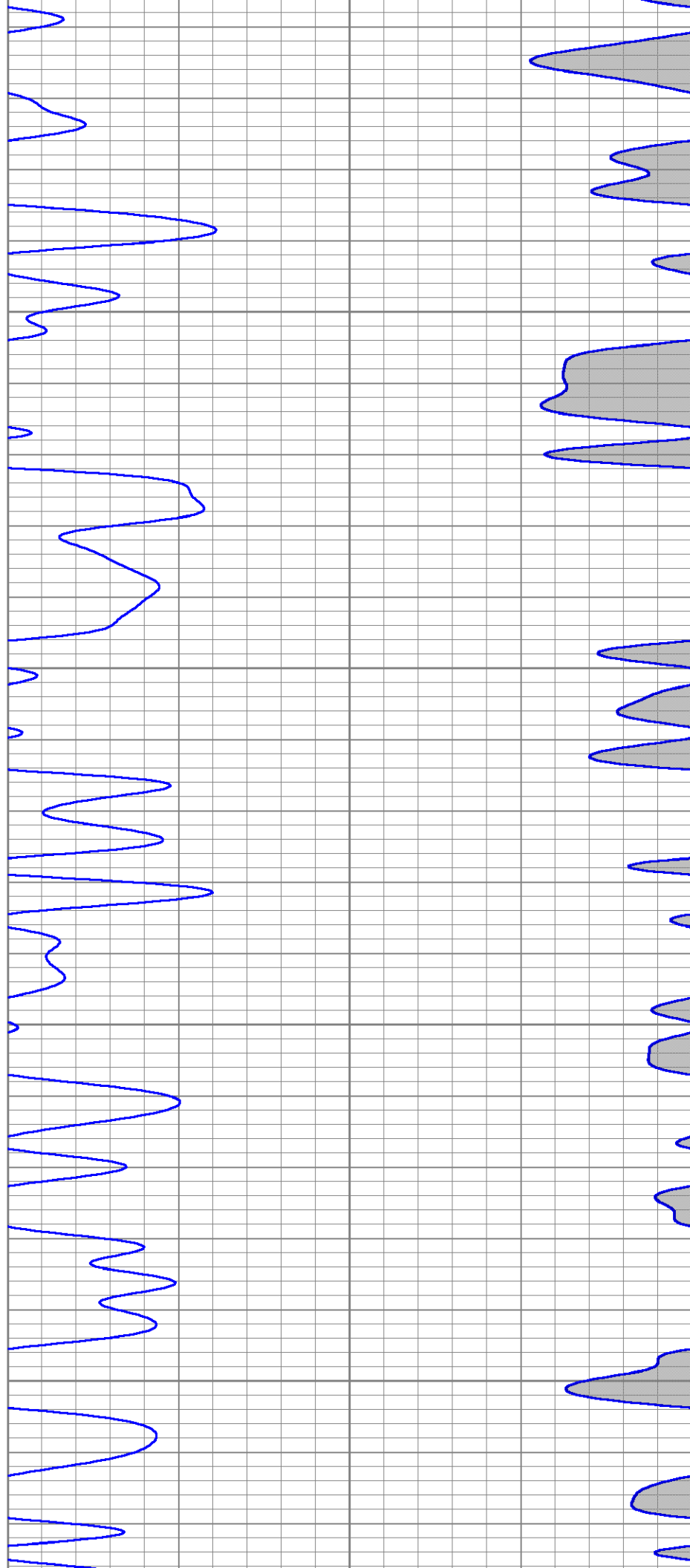


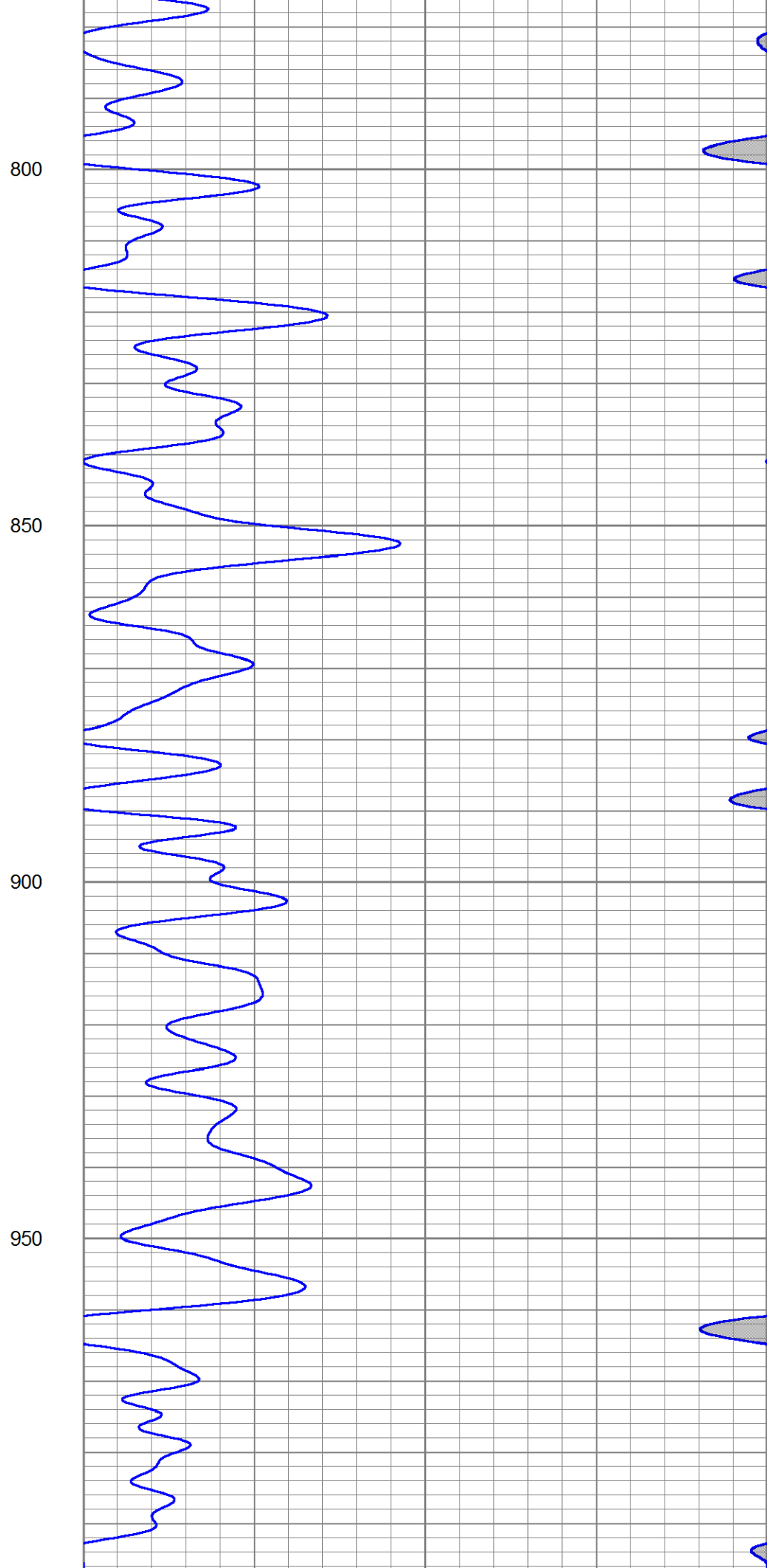
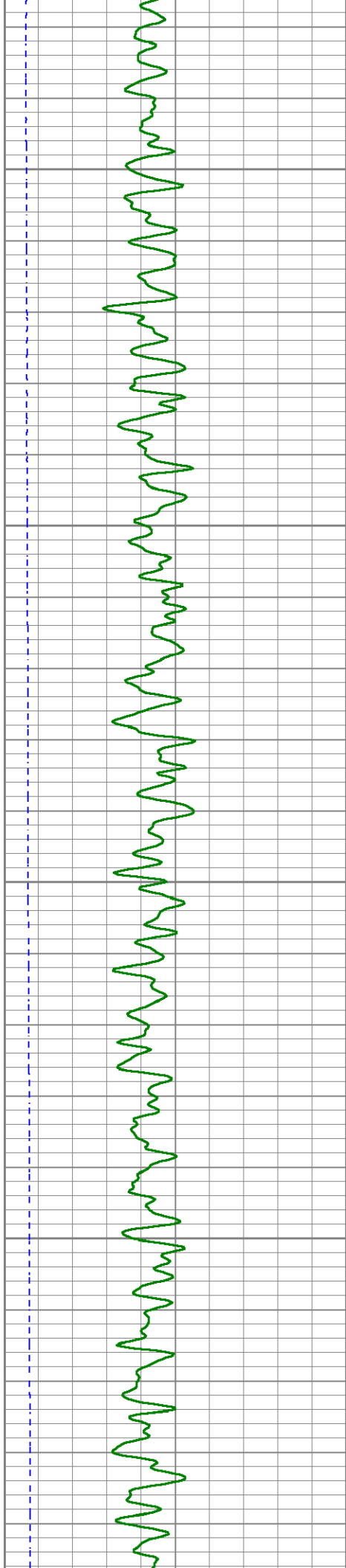
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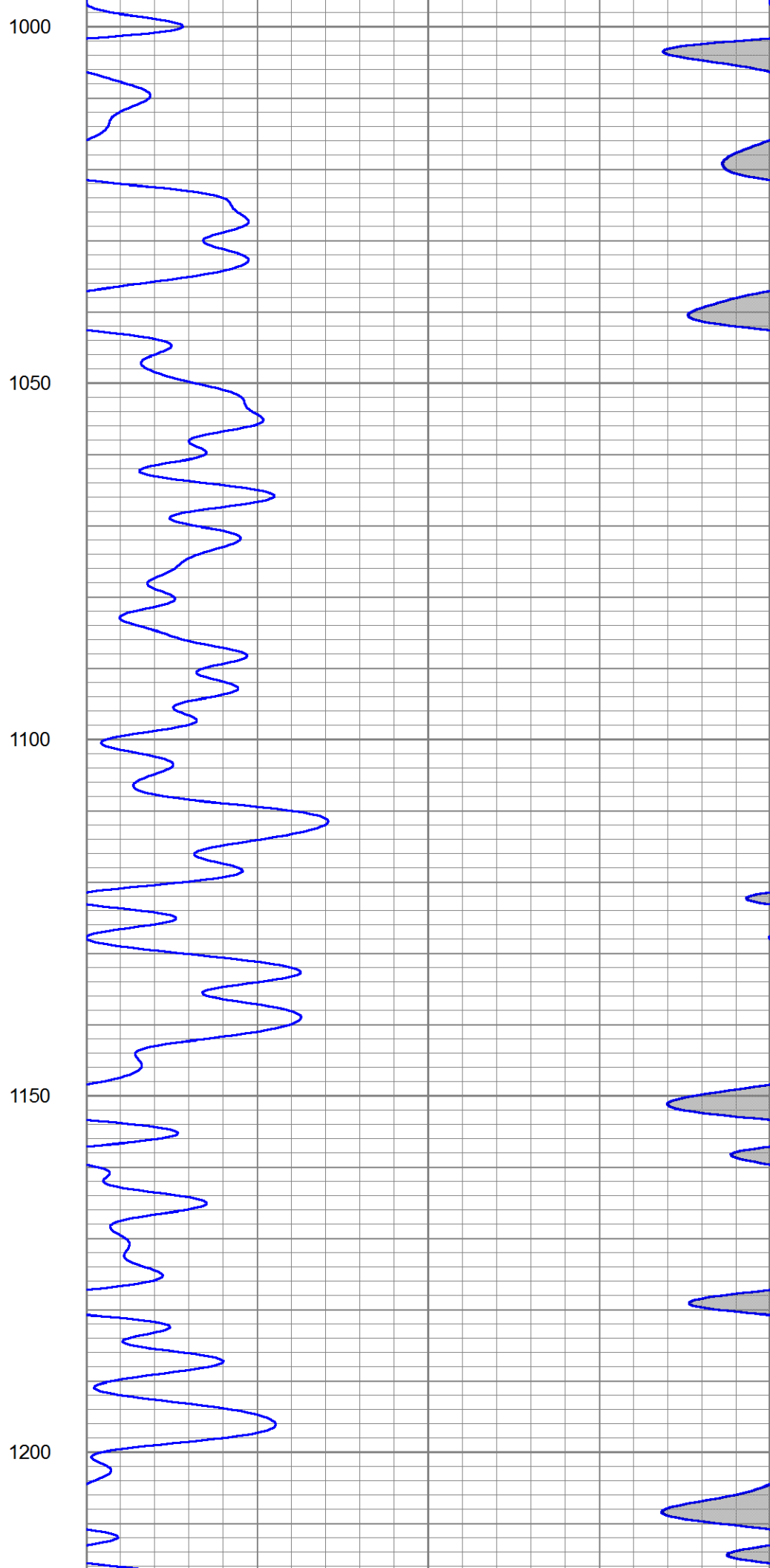
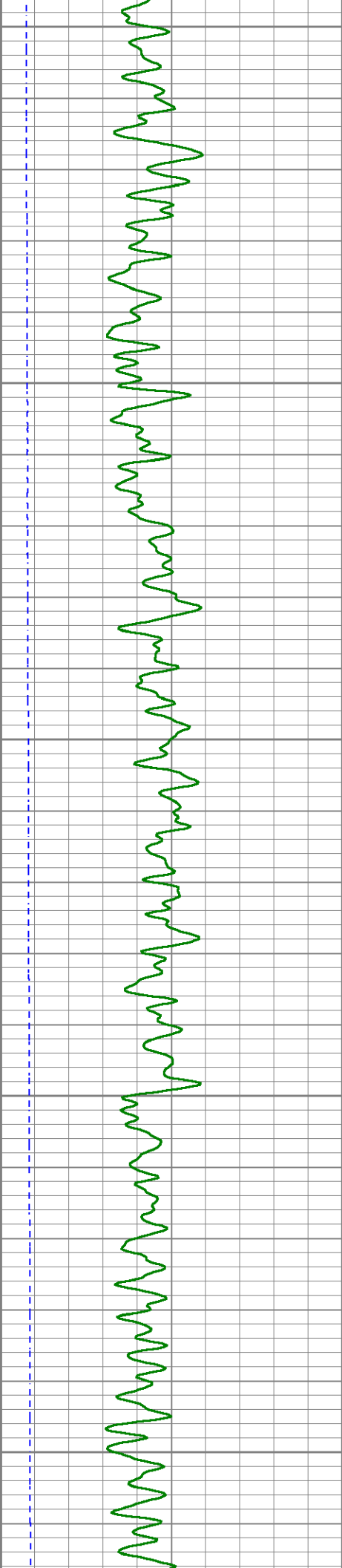
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700

750







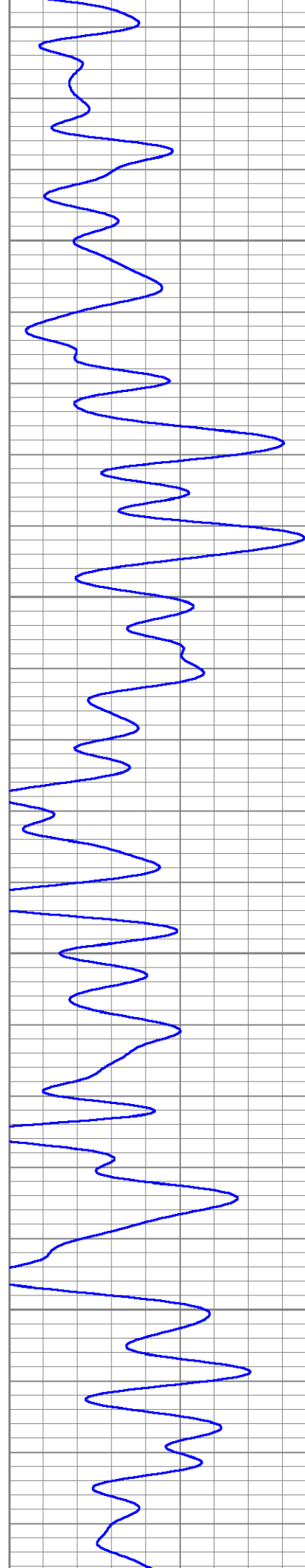


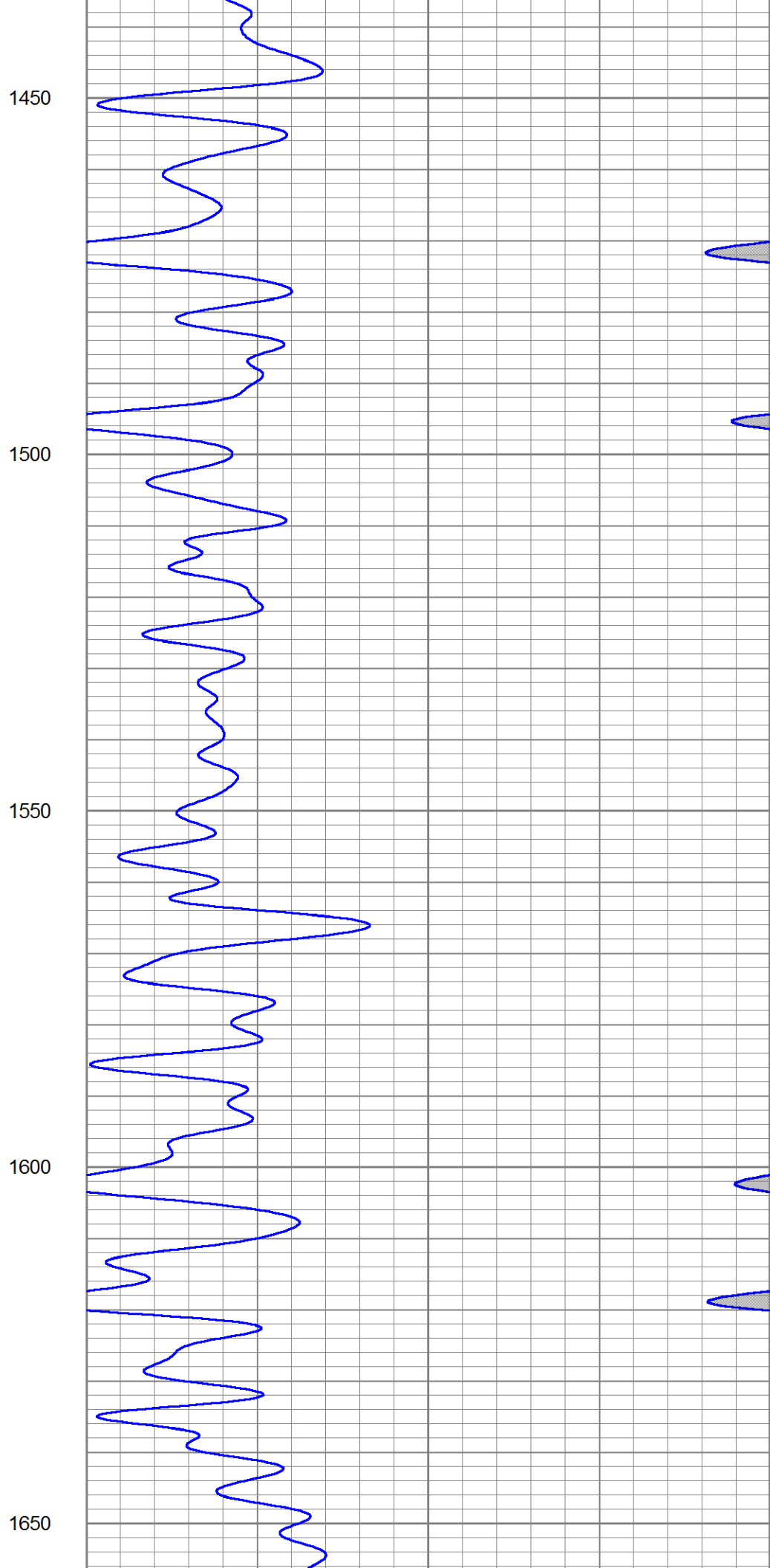
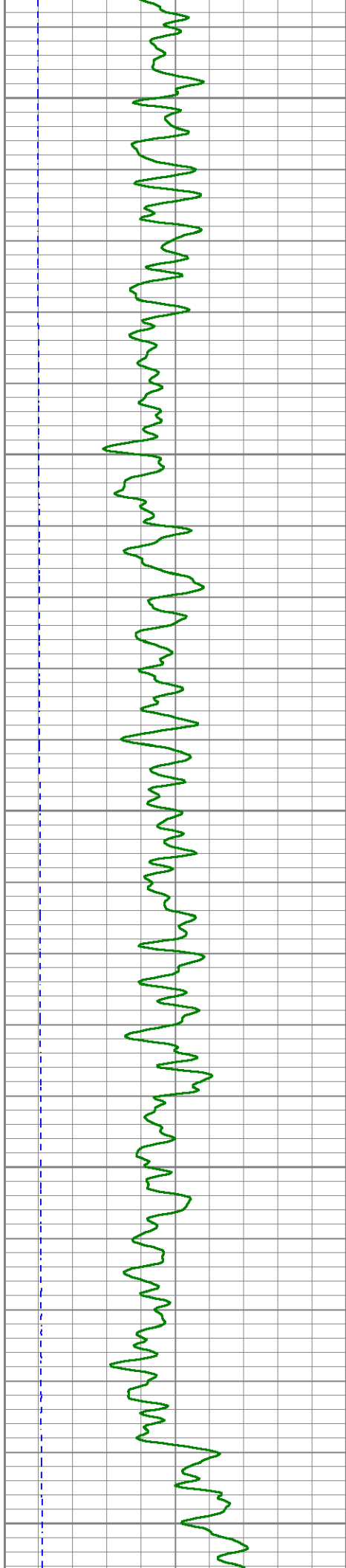
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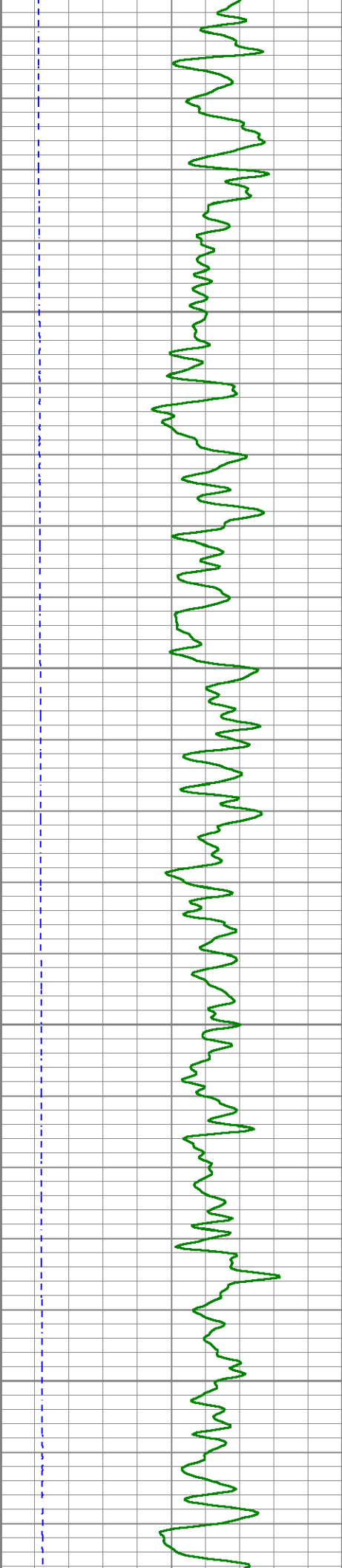
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1350

1400





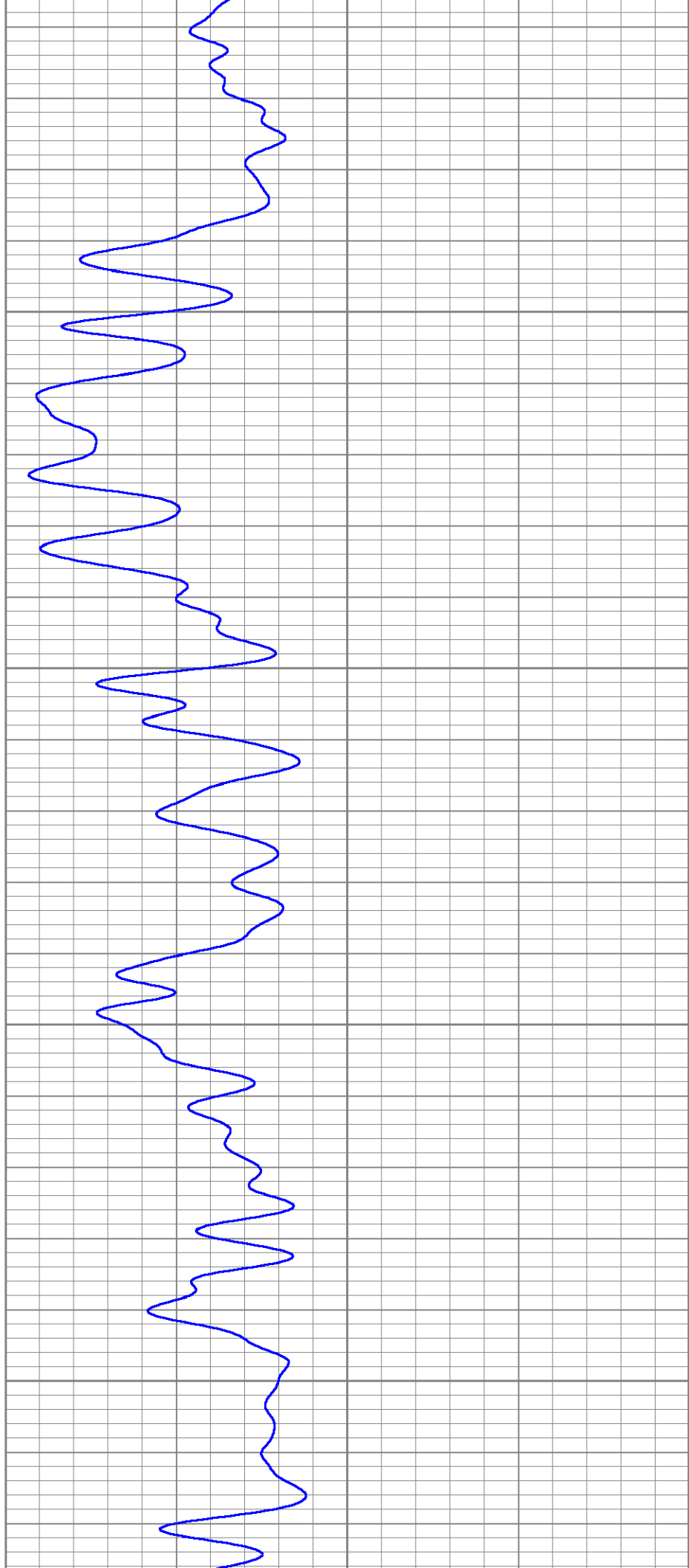


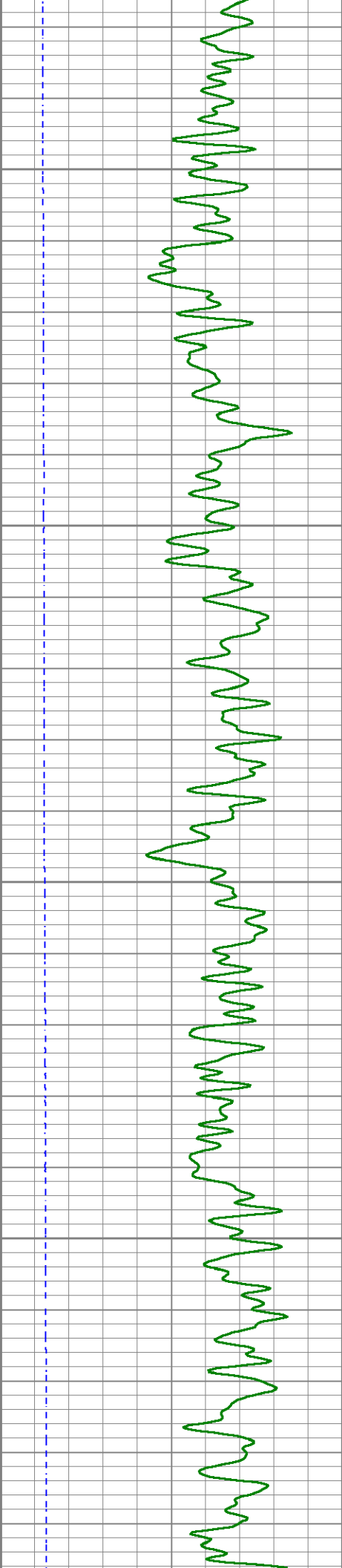
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1850



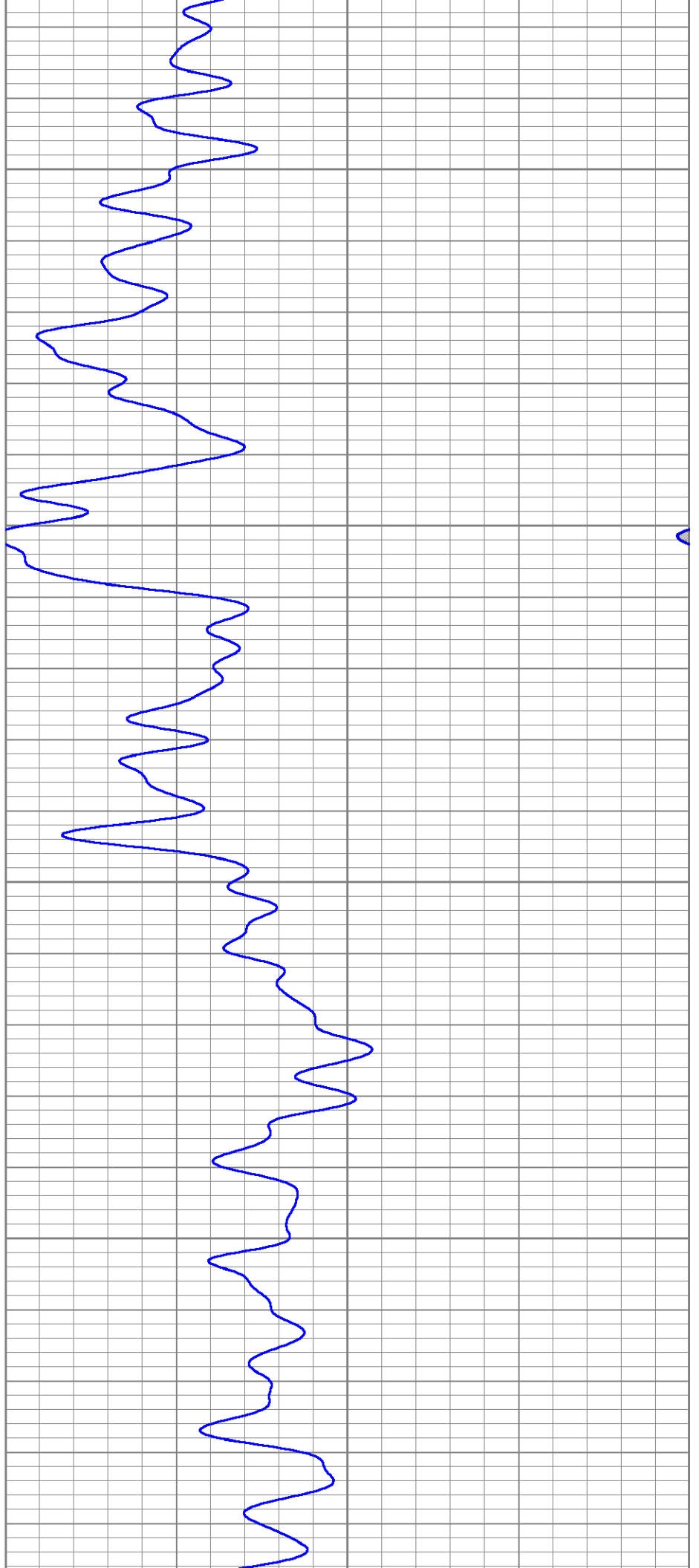


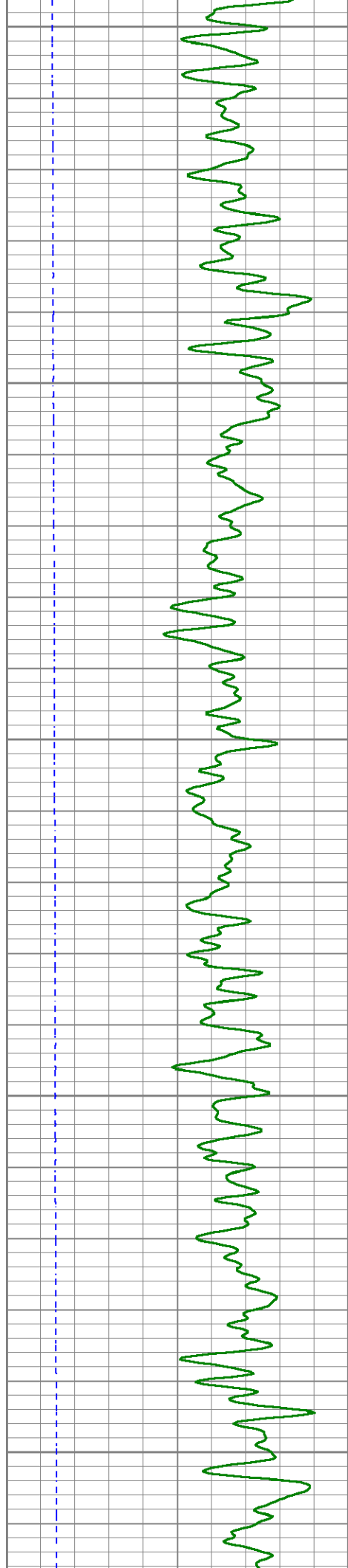
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2000

2050





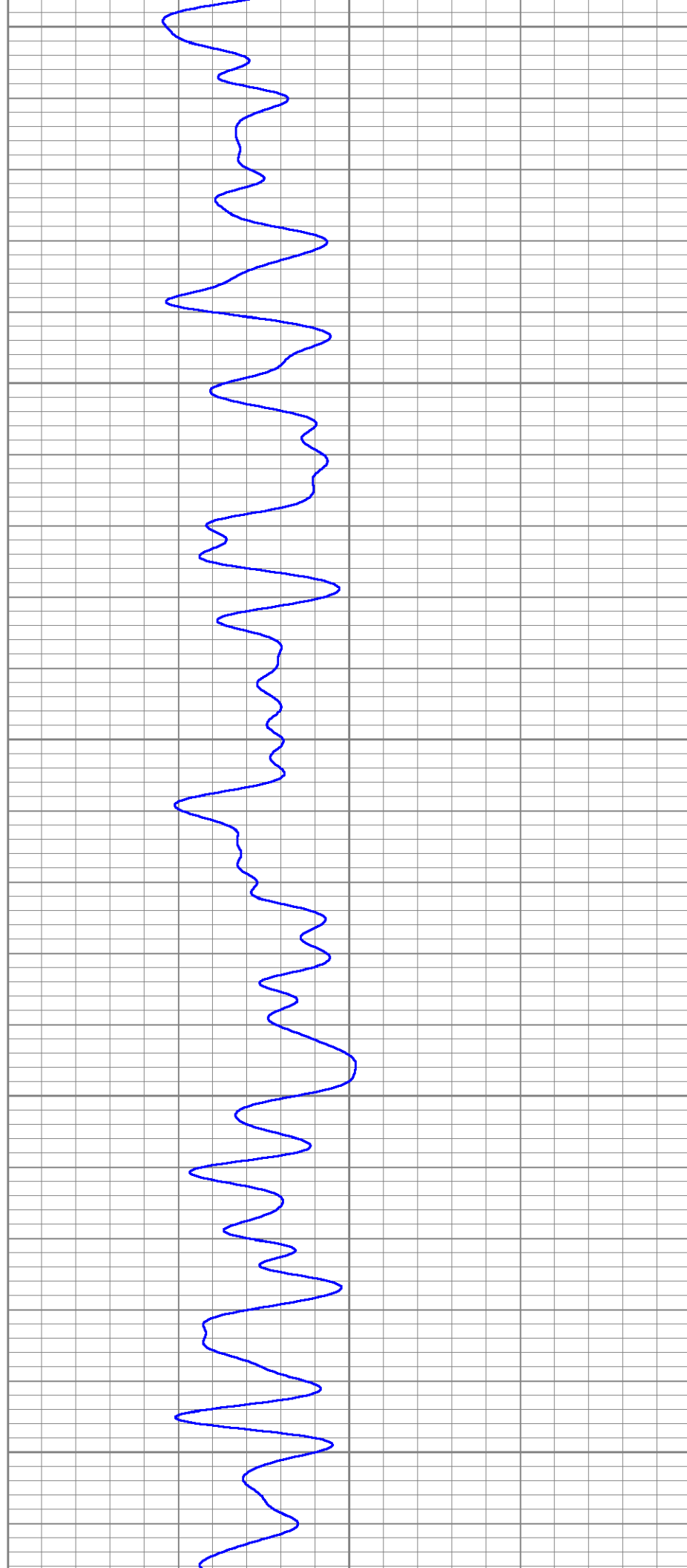
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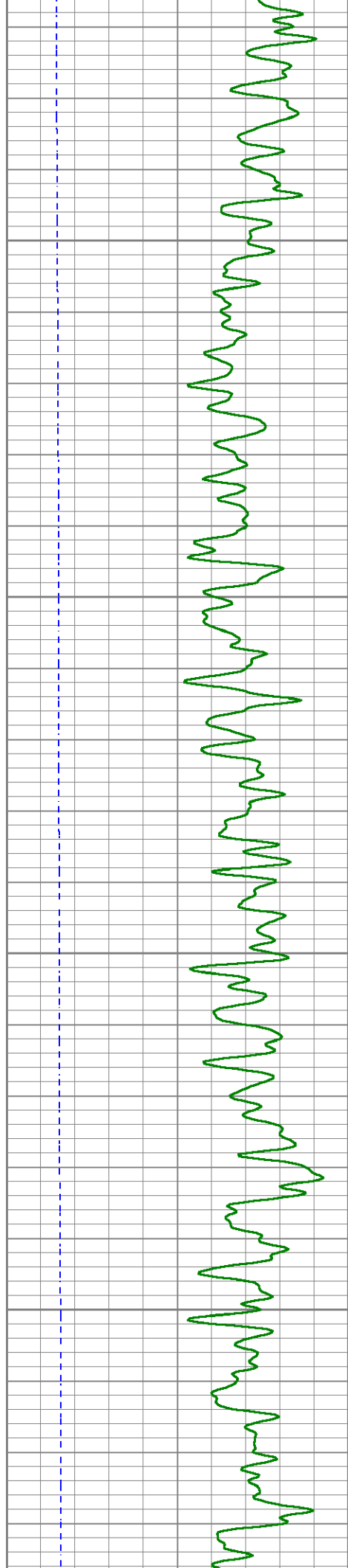
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2200

2250

2300



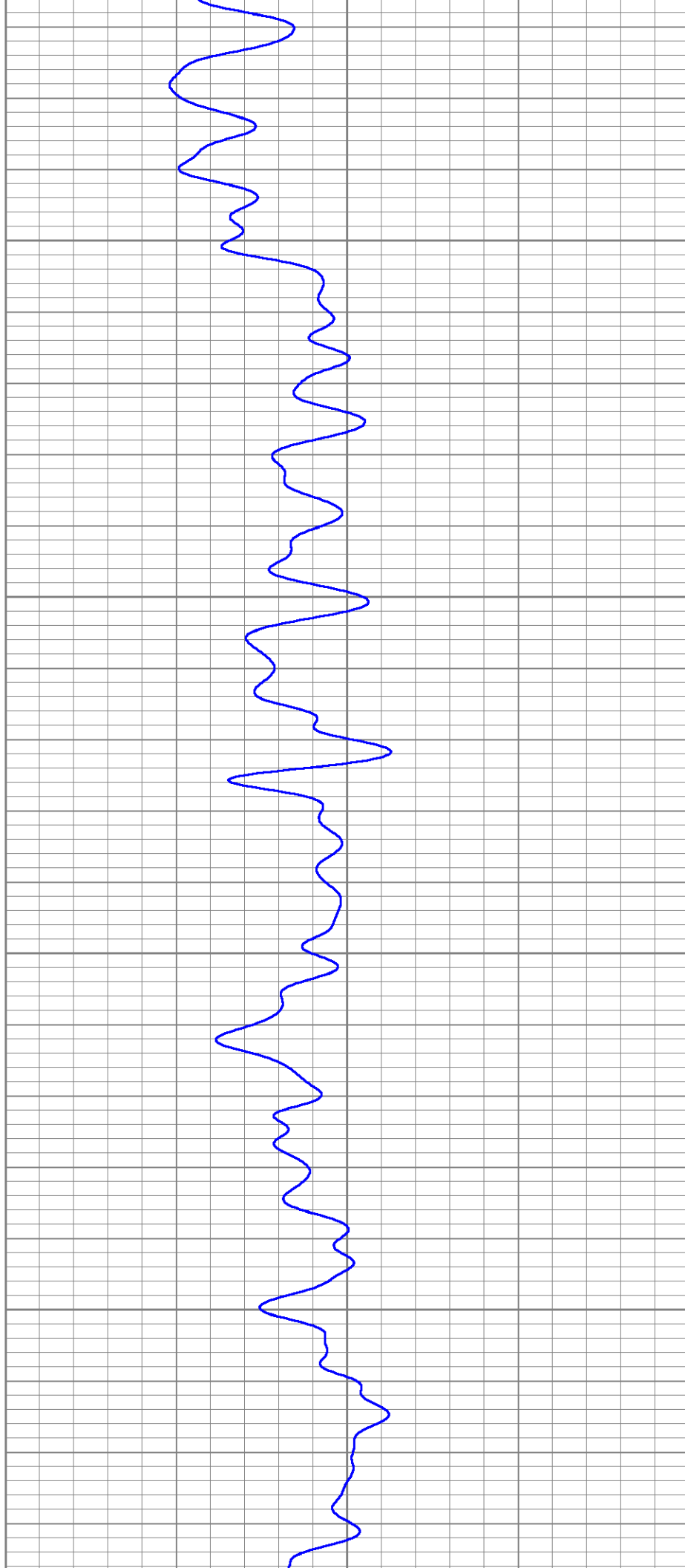


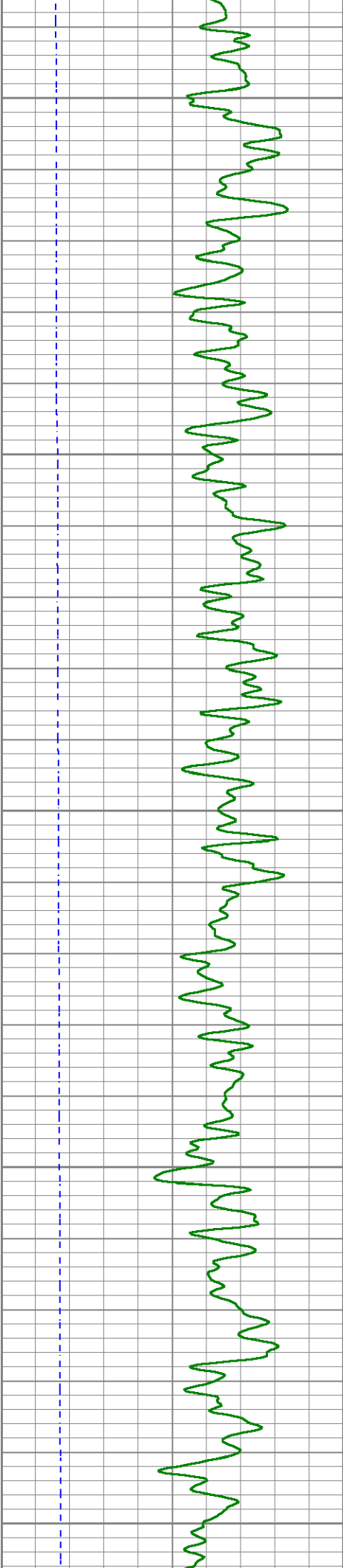
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2400

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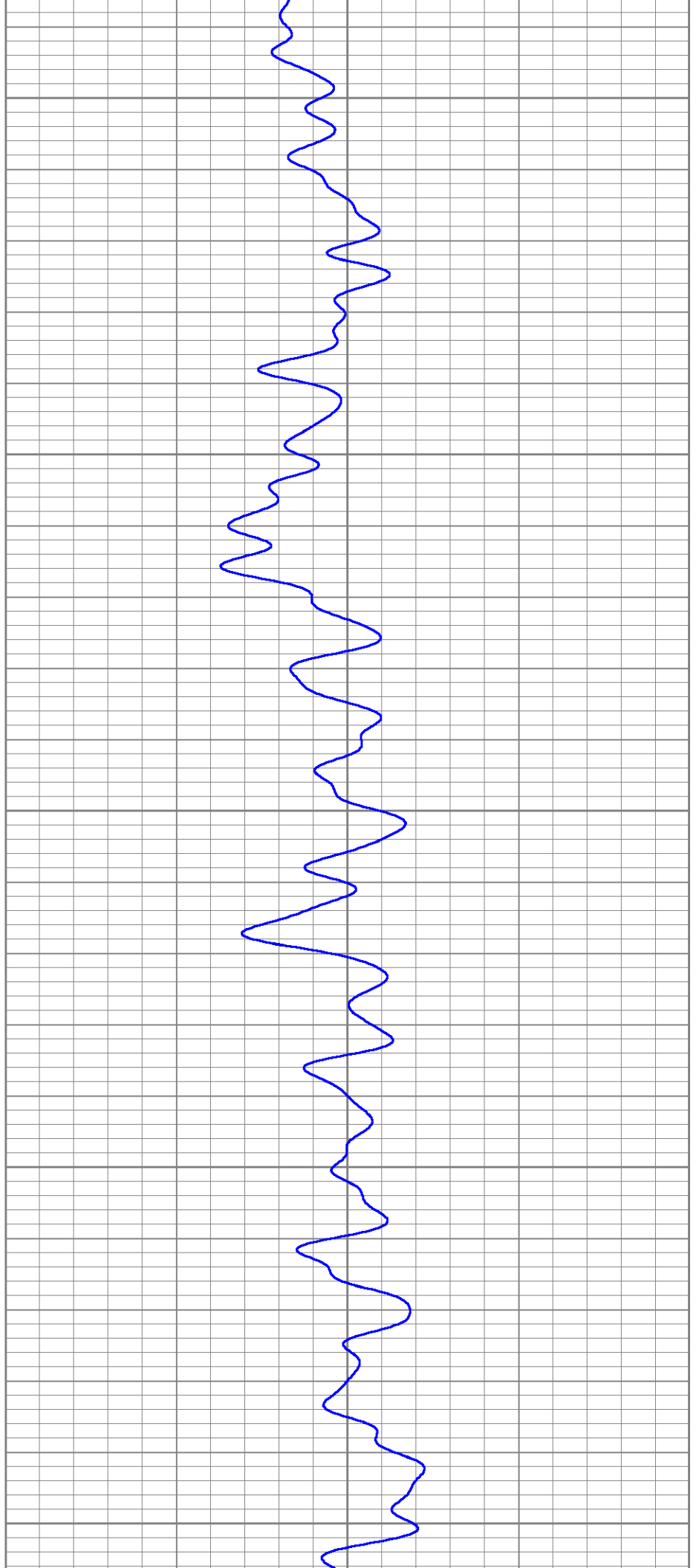
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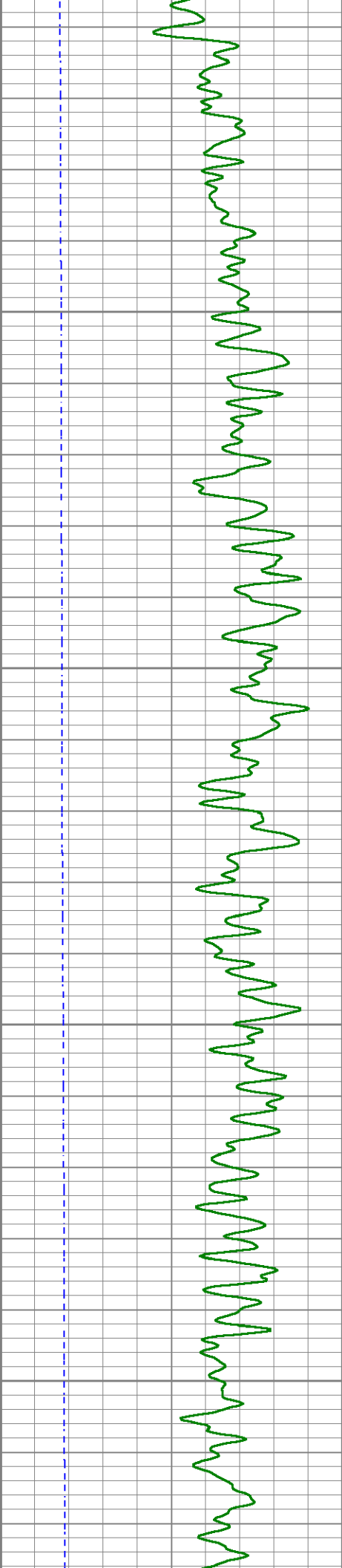
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2700

2750



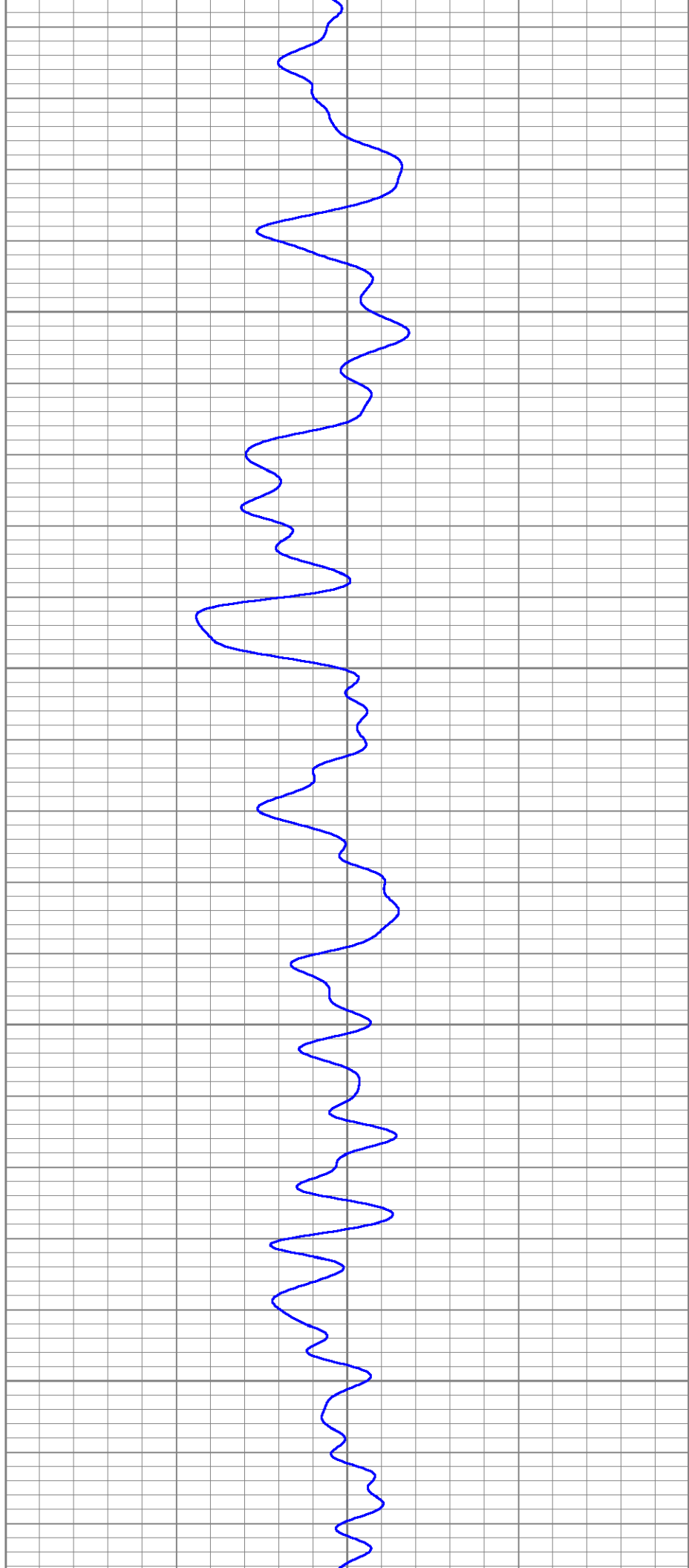


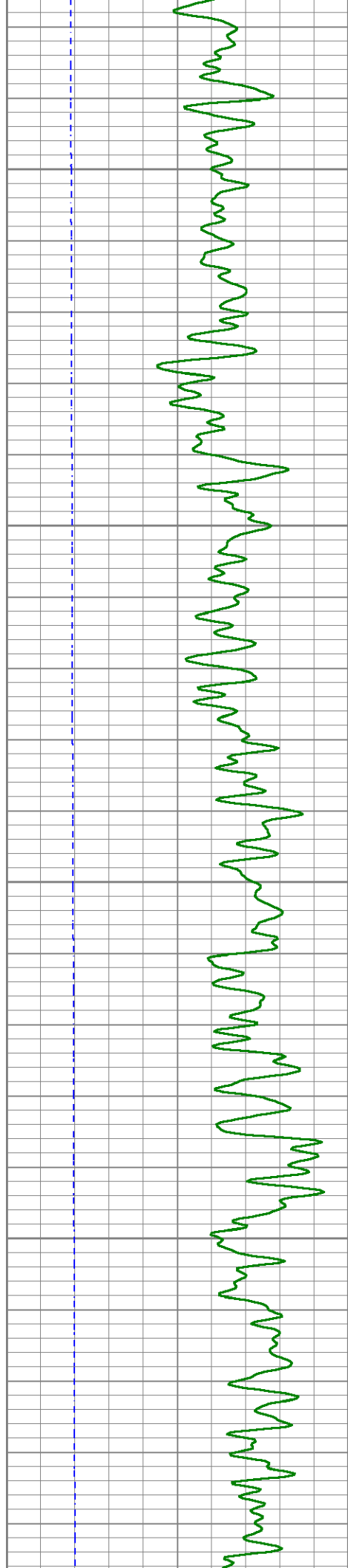
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2900

2950



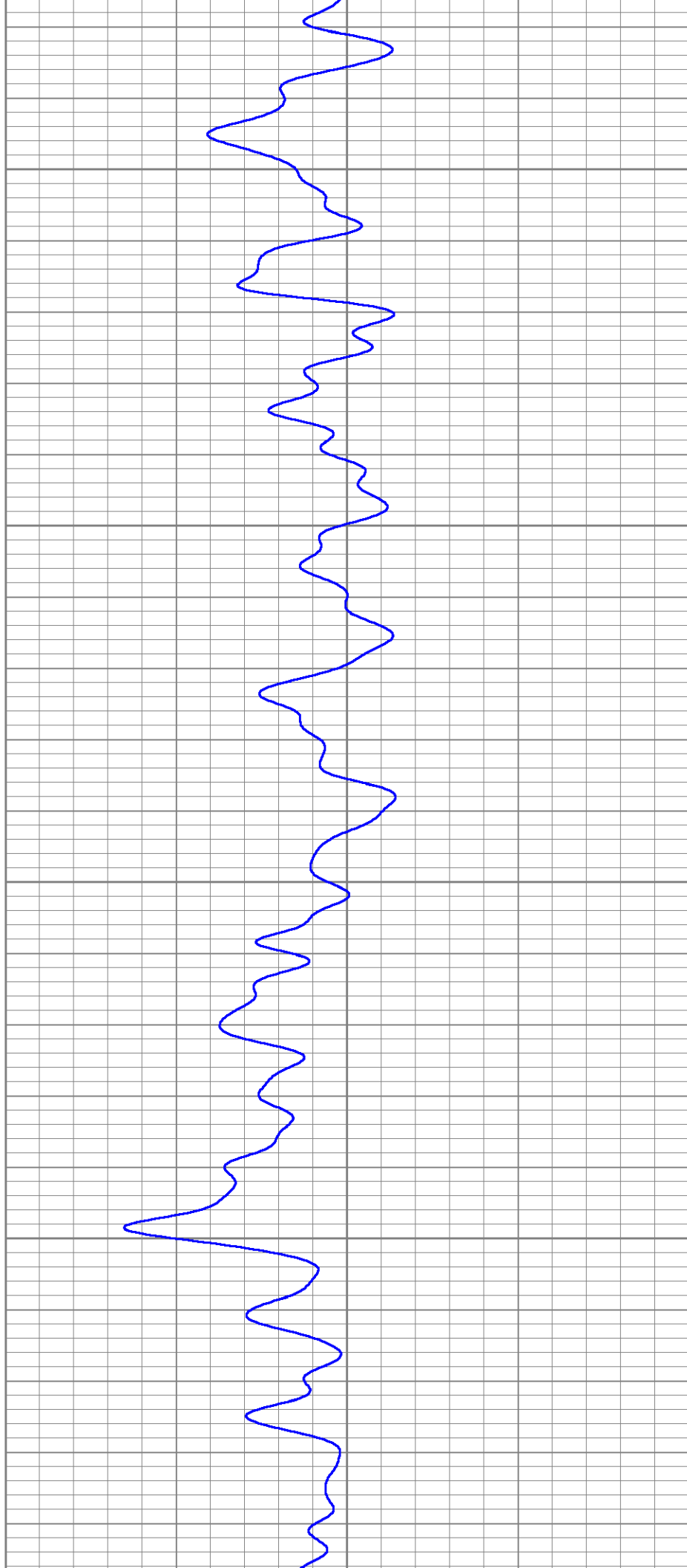


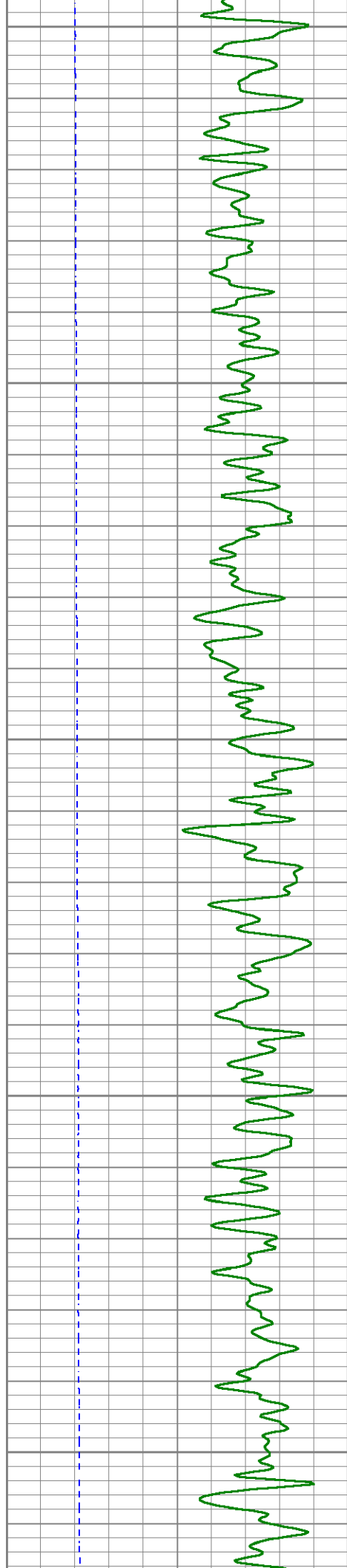
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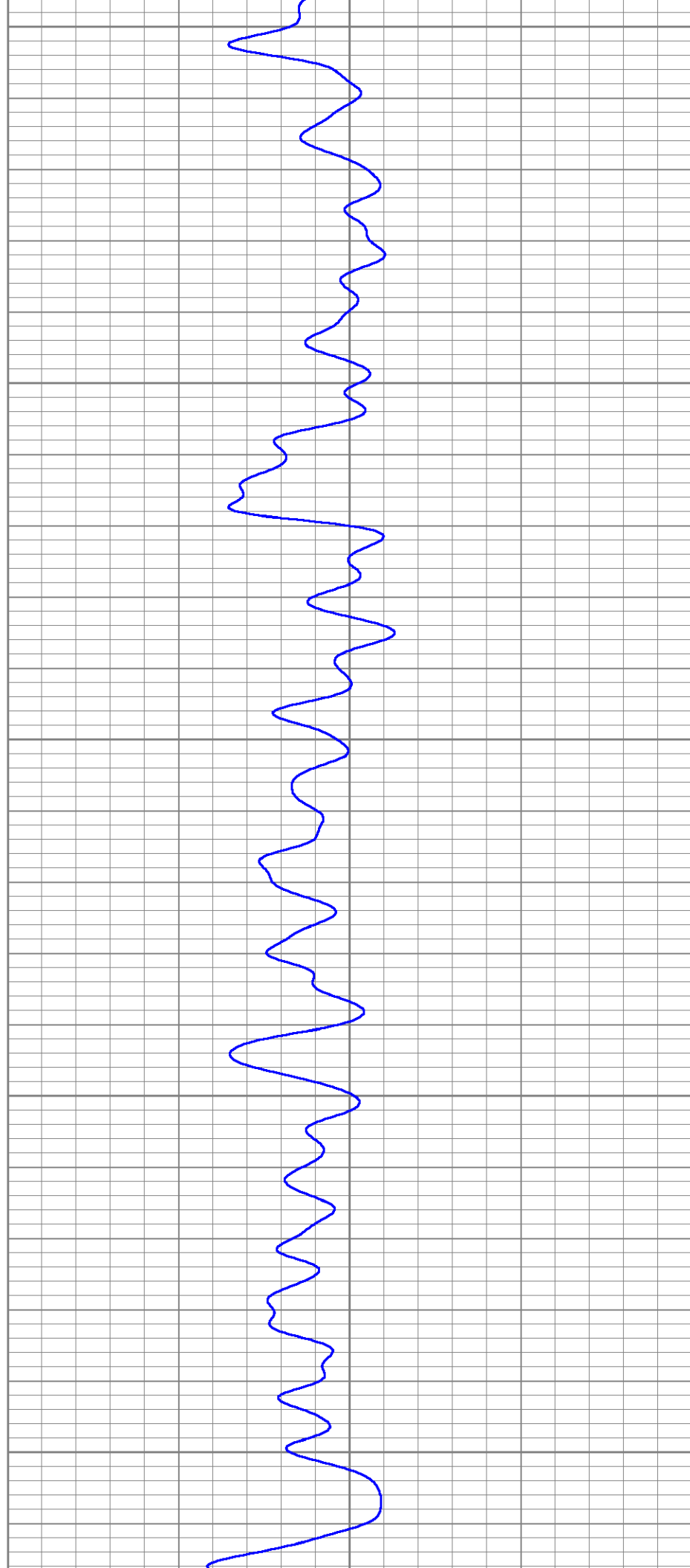
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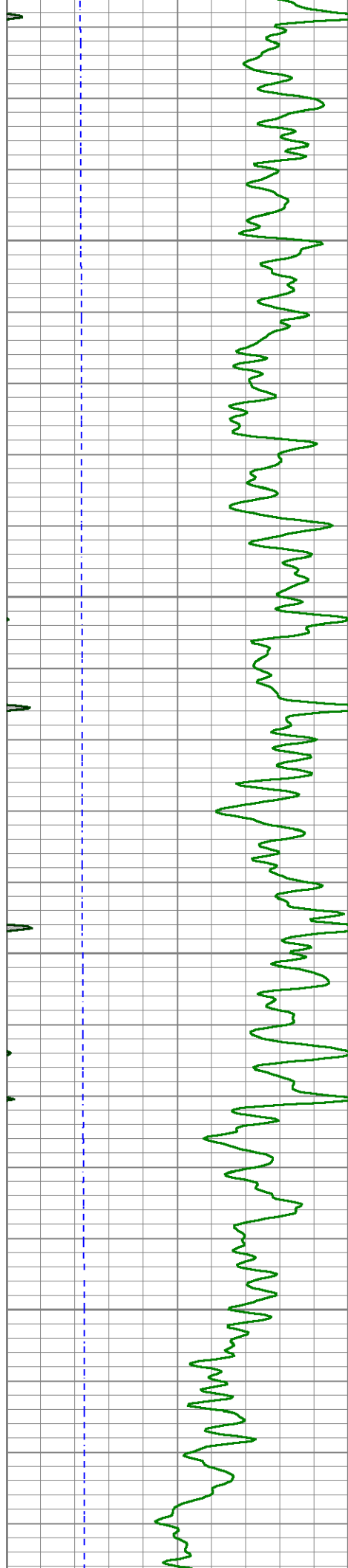
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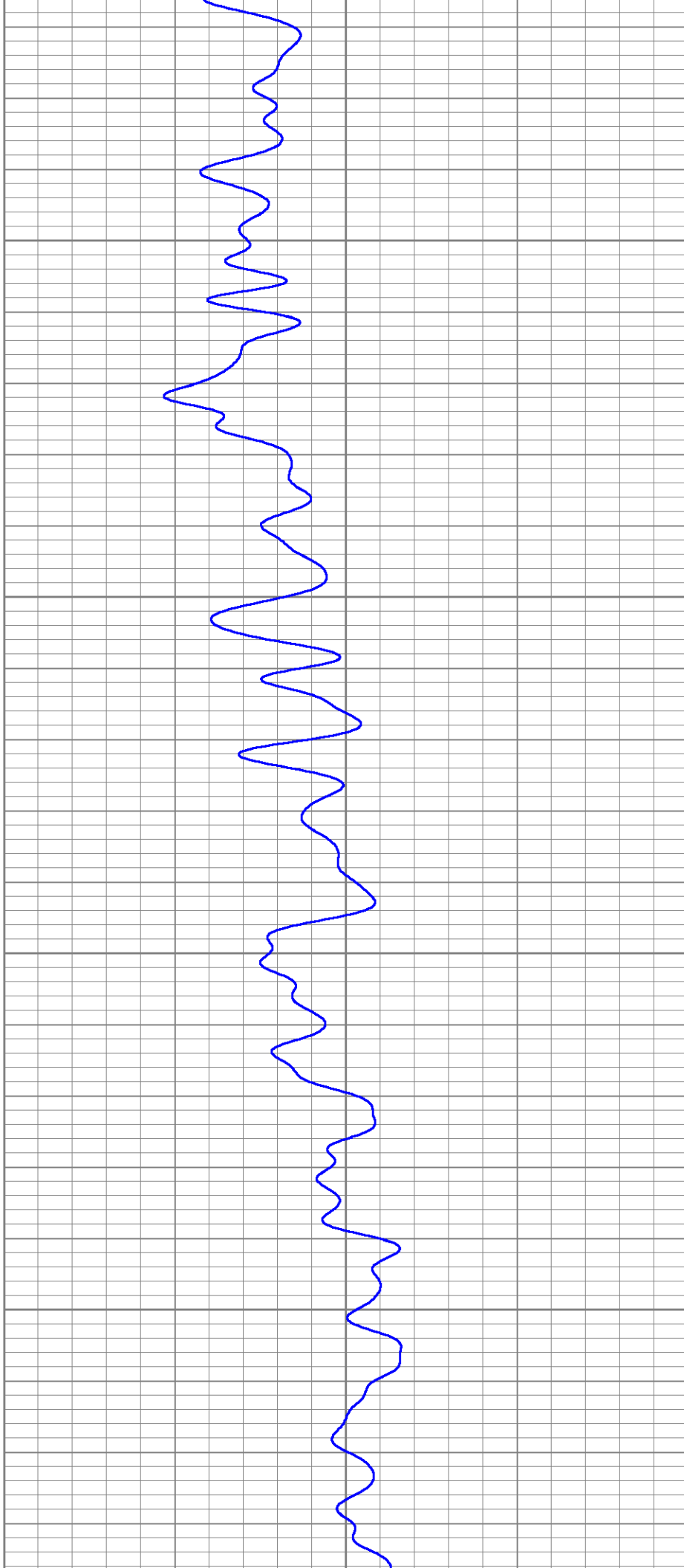


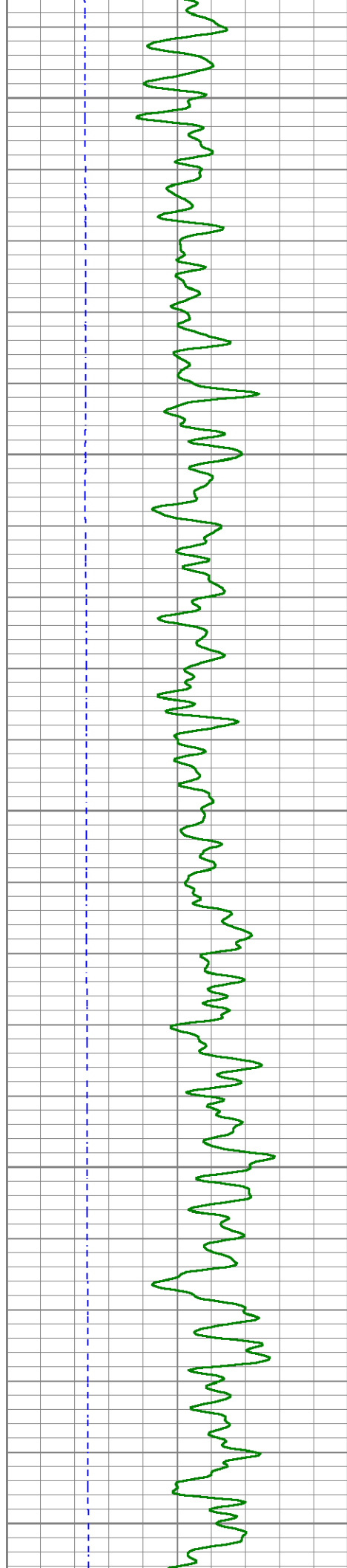
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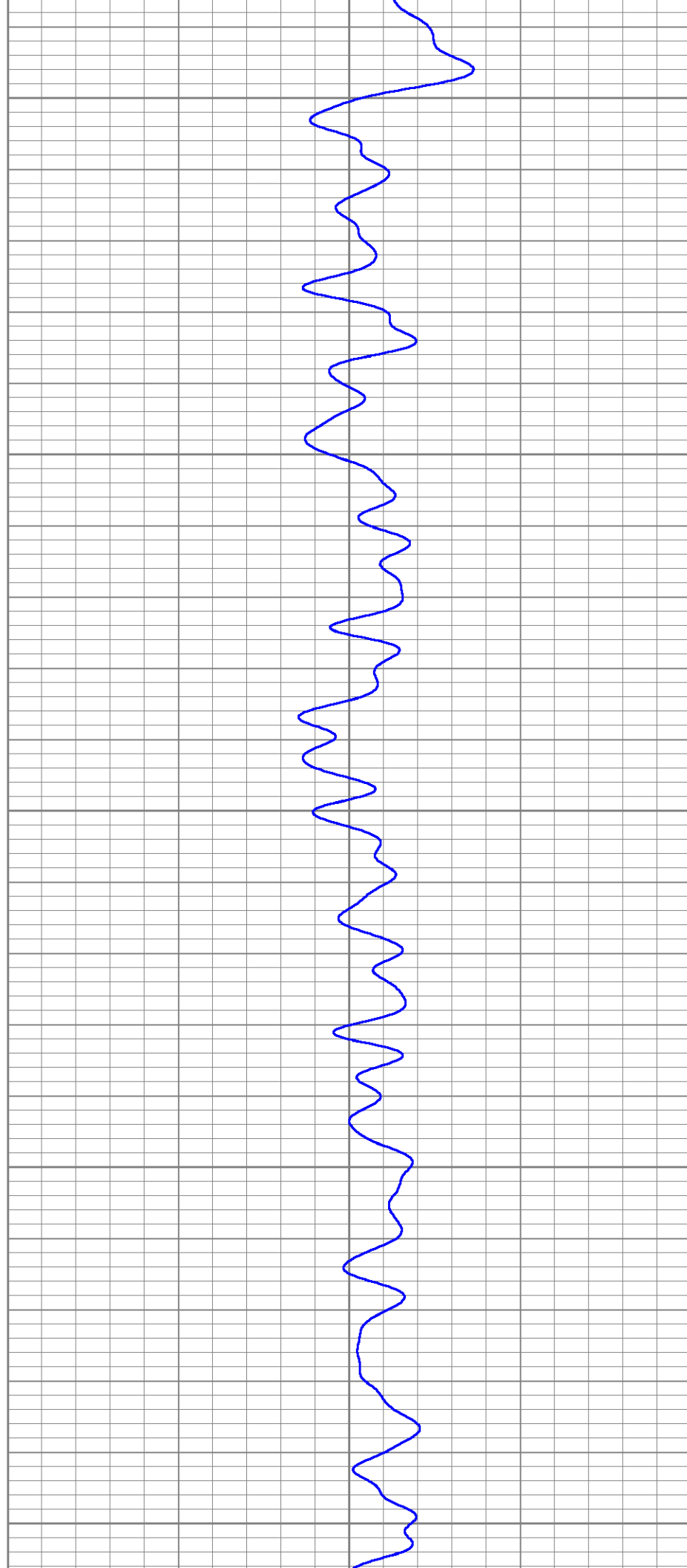
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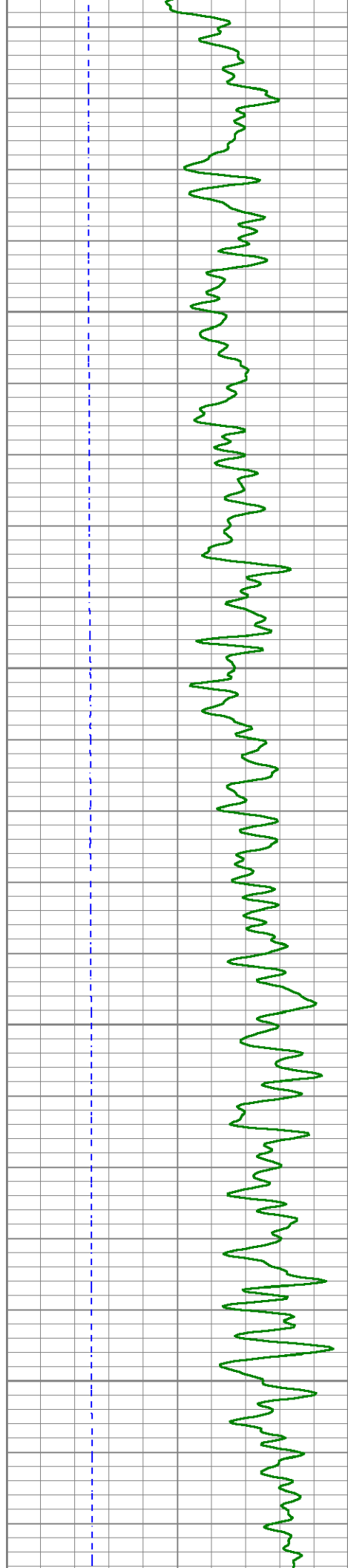
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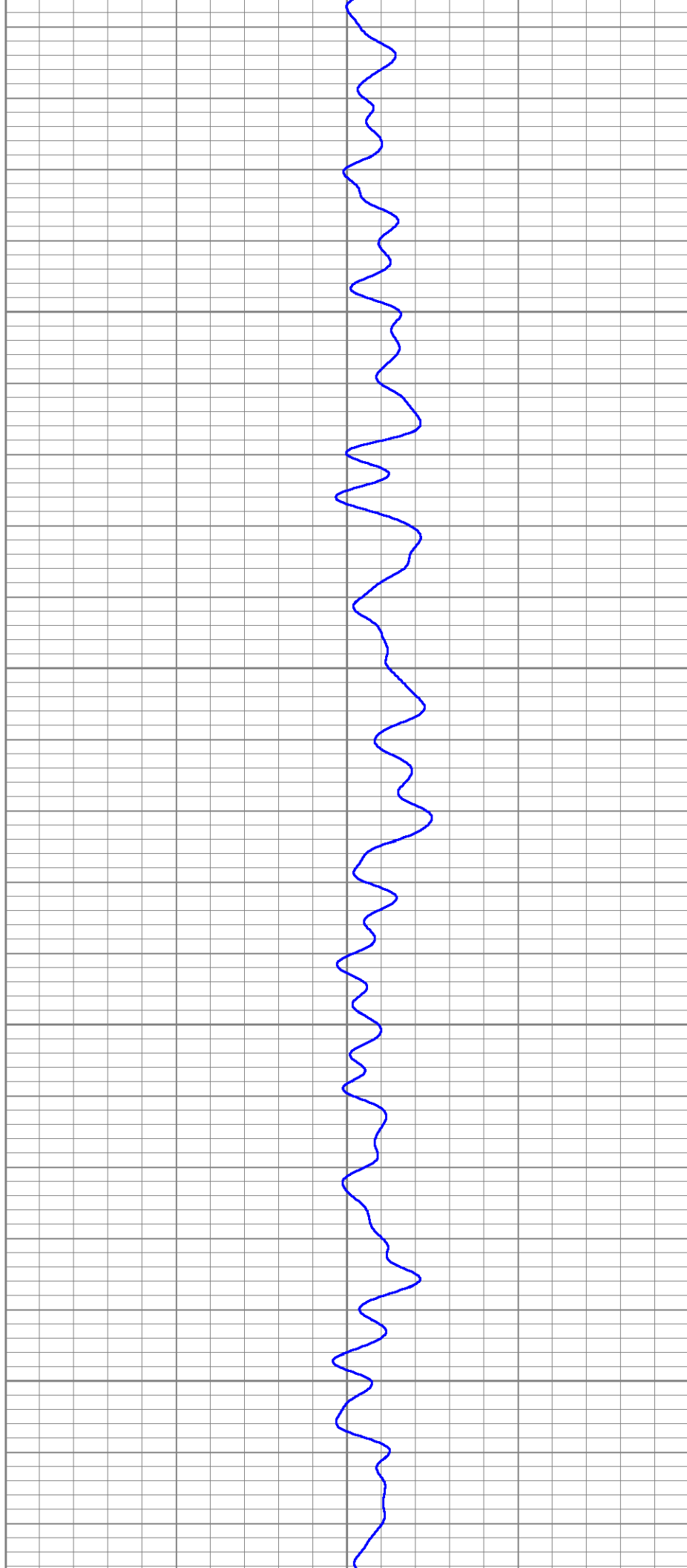


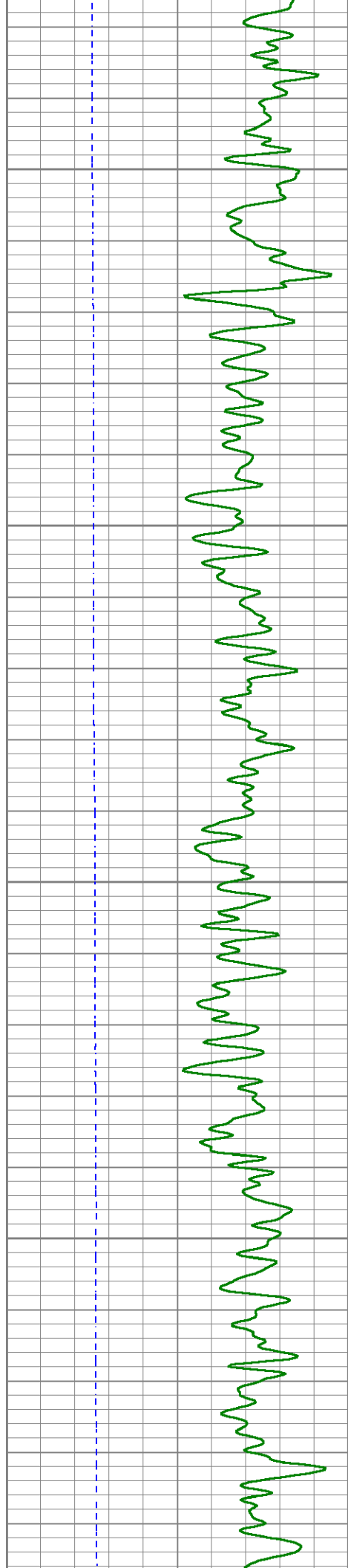
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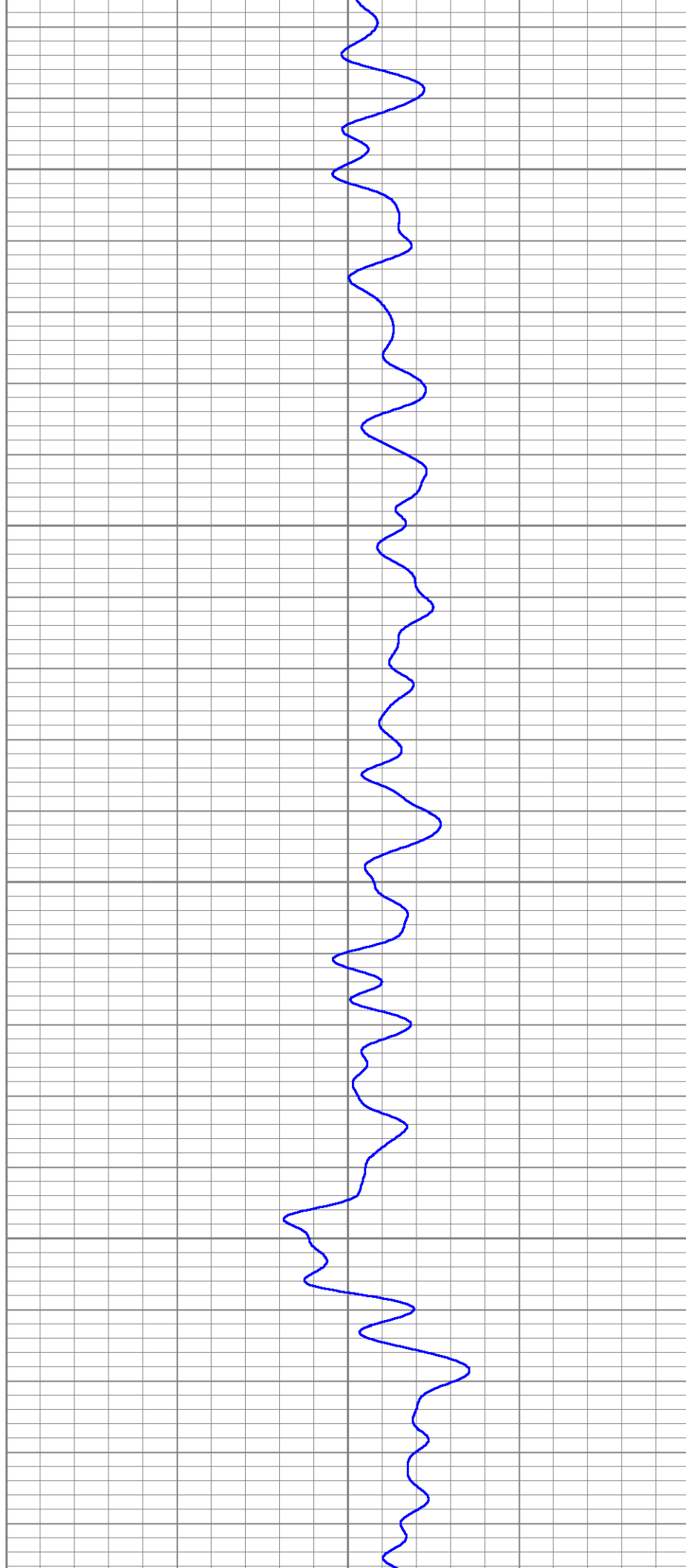


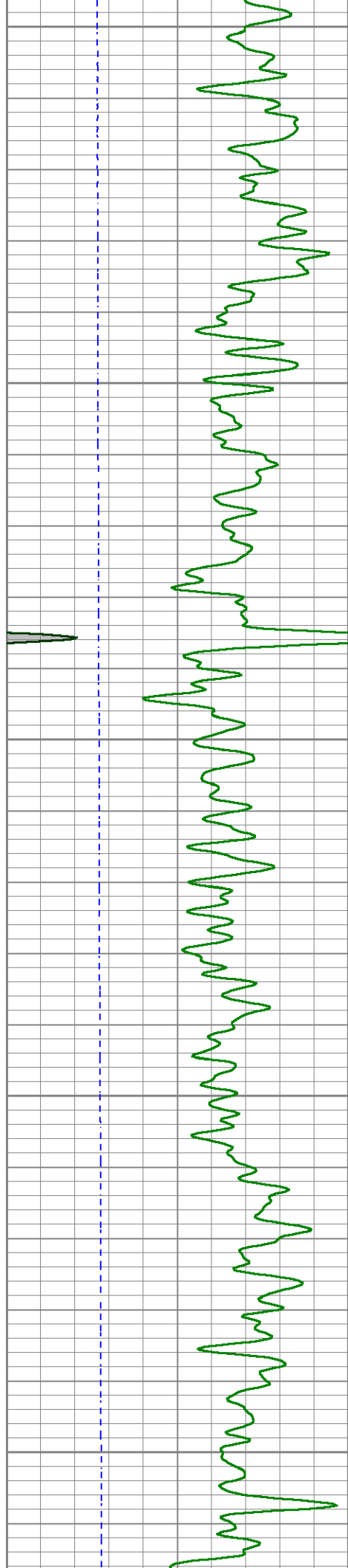
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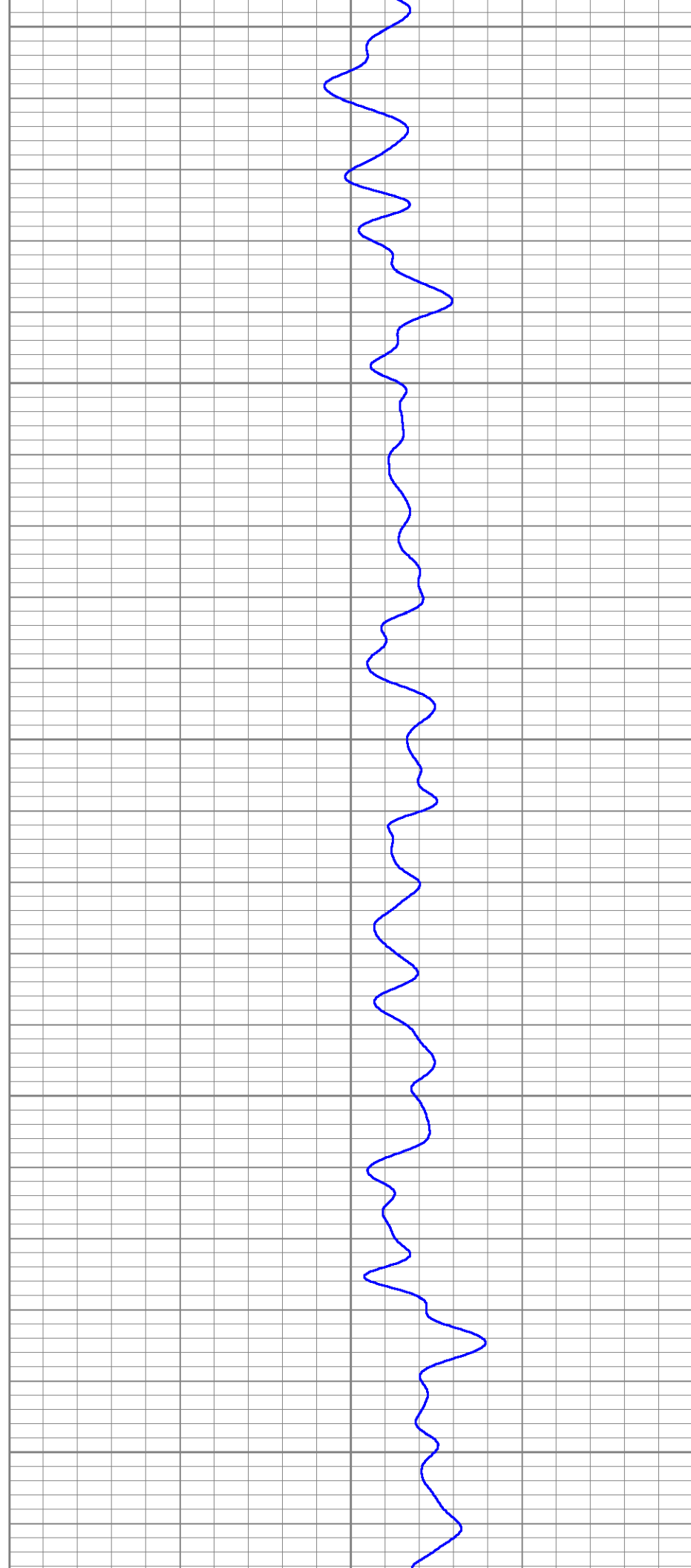
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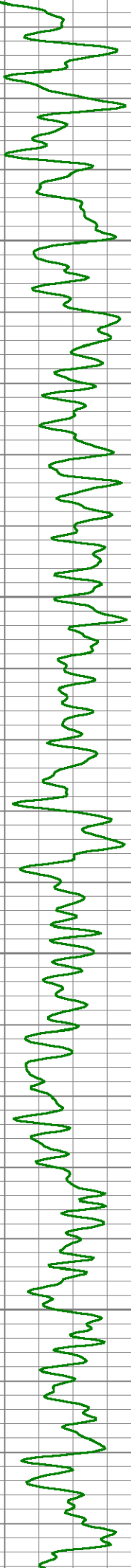
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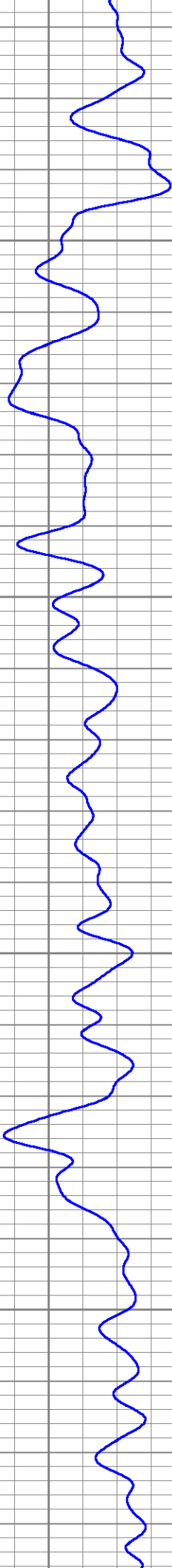


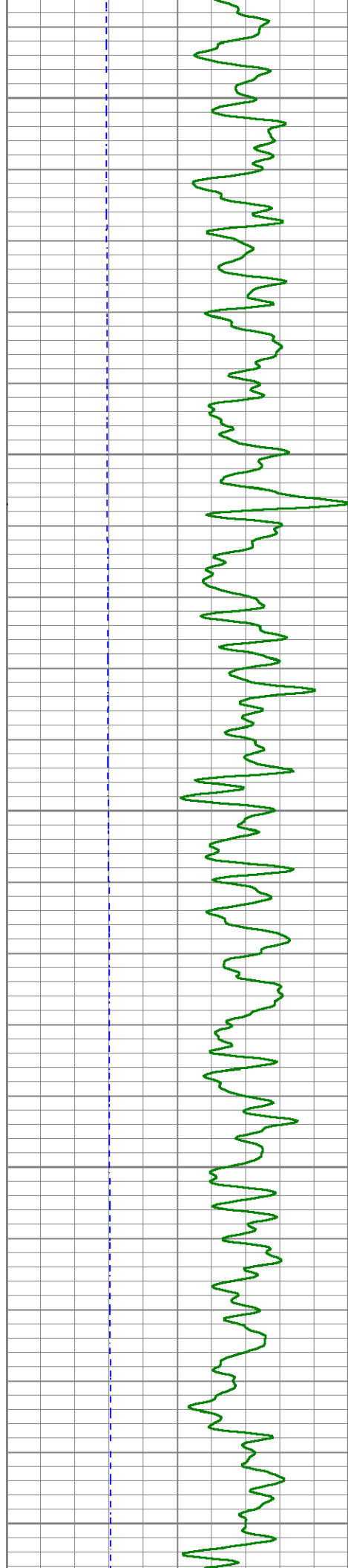
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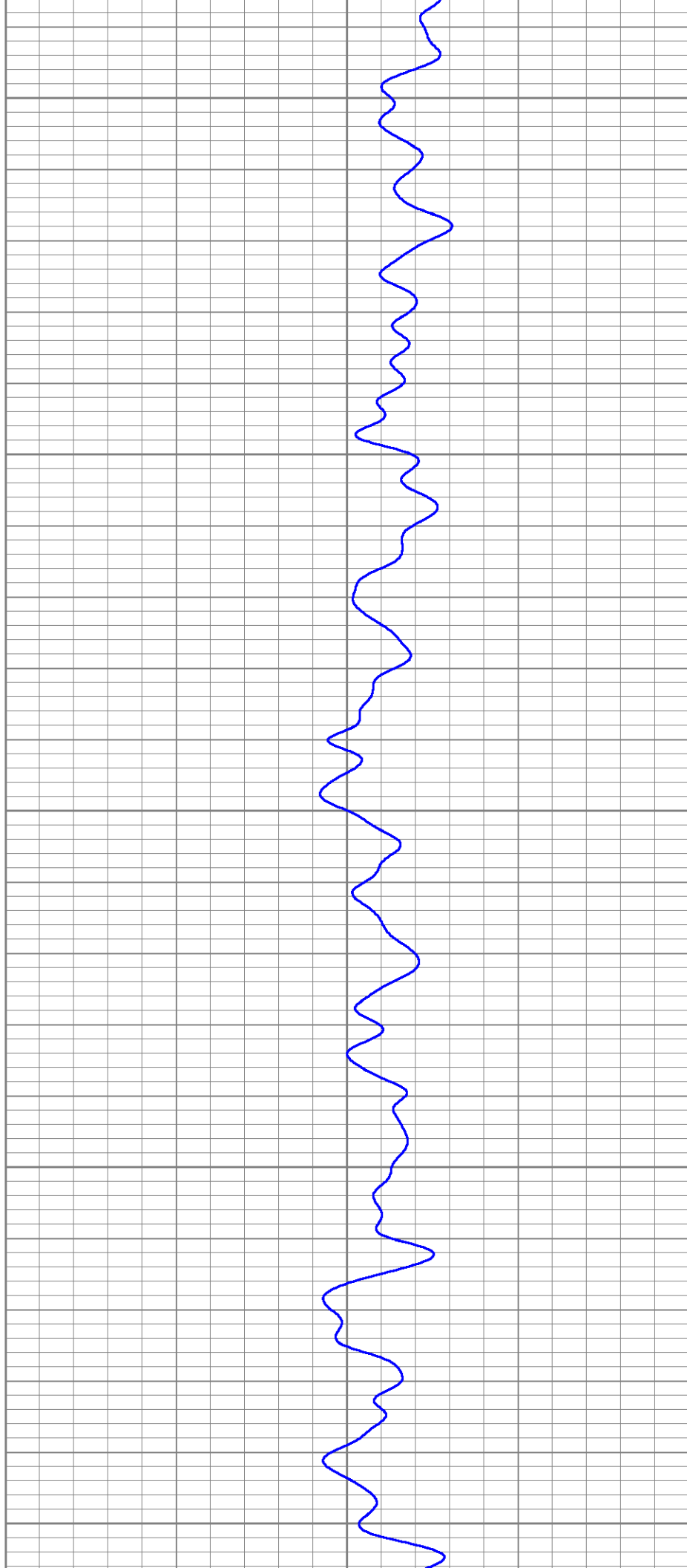
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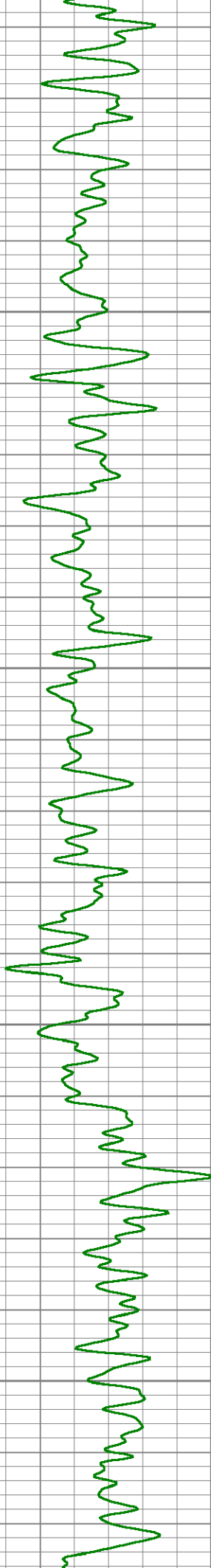
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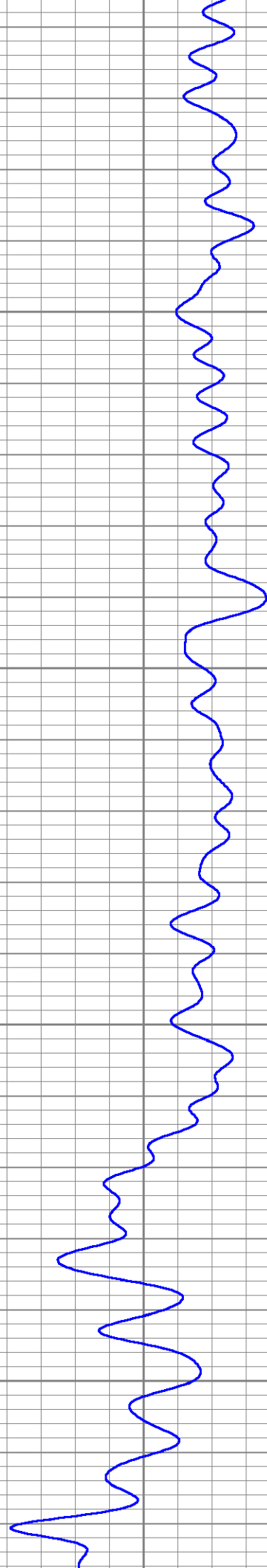


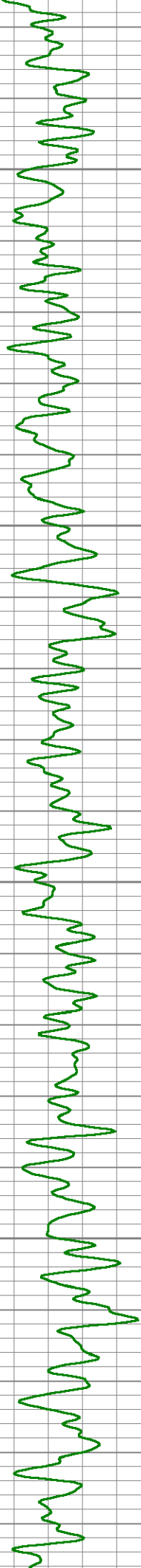
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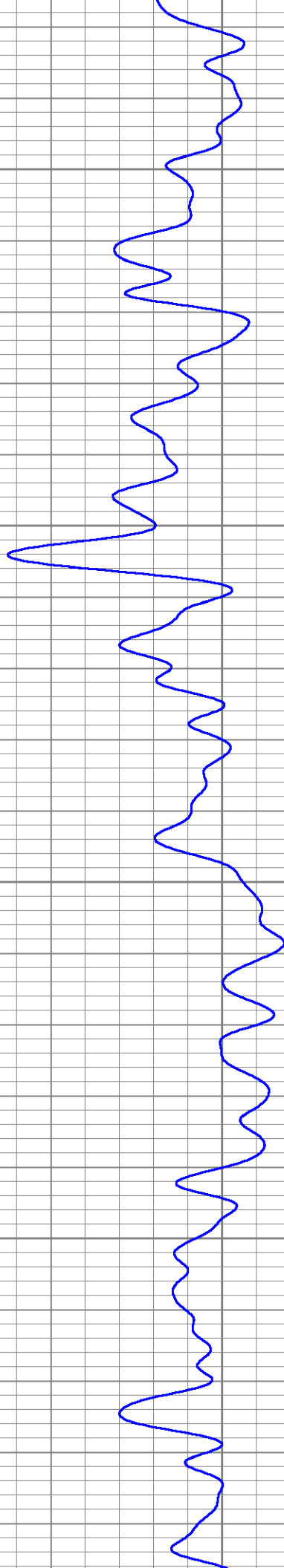


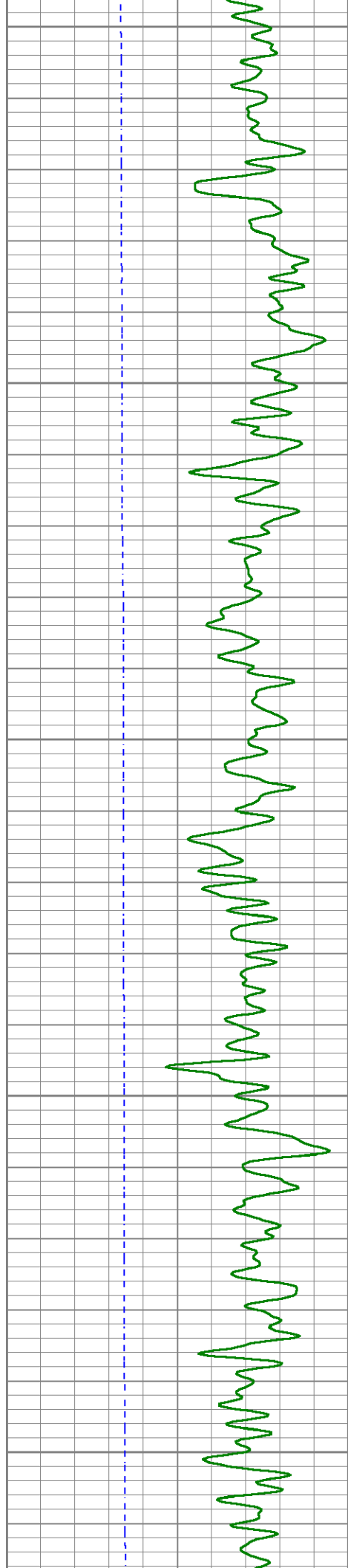
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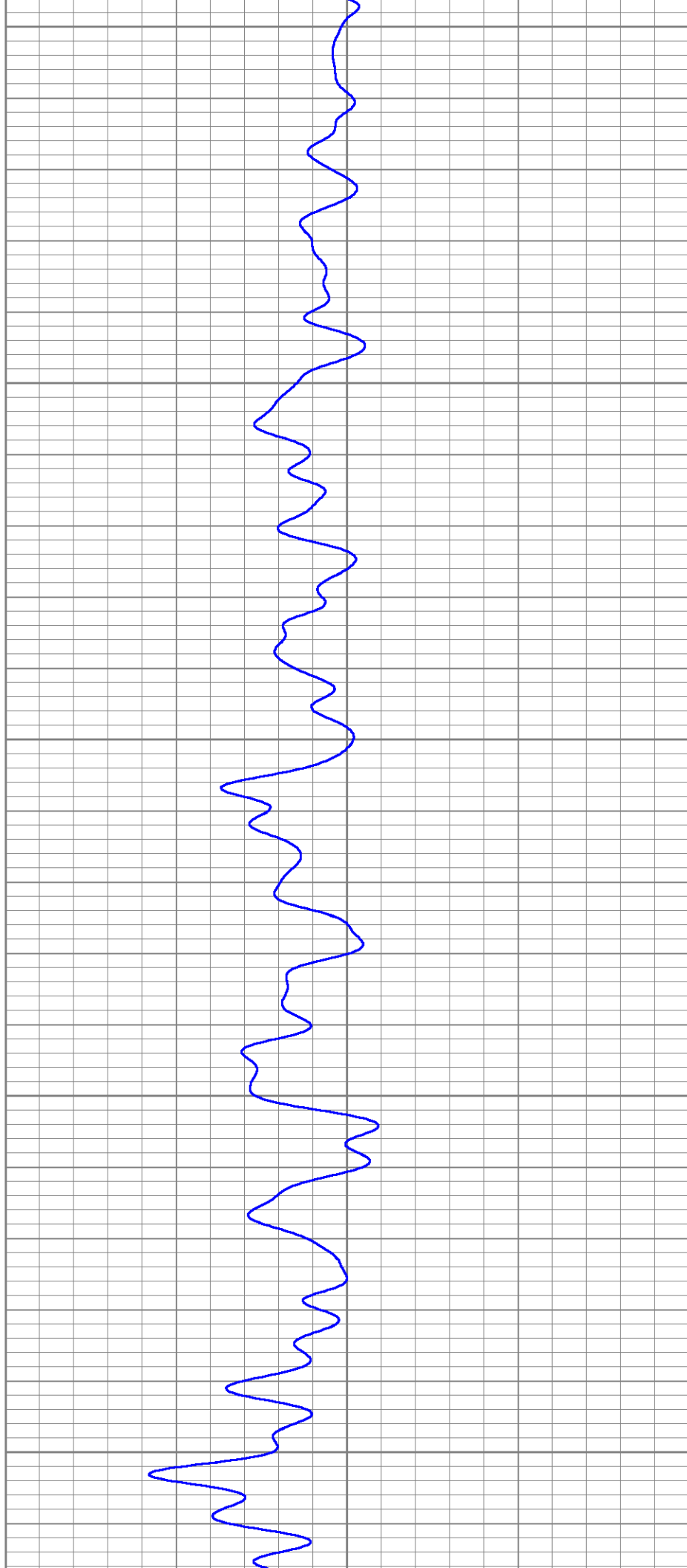
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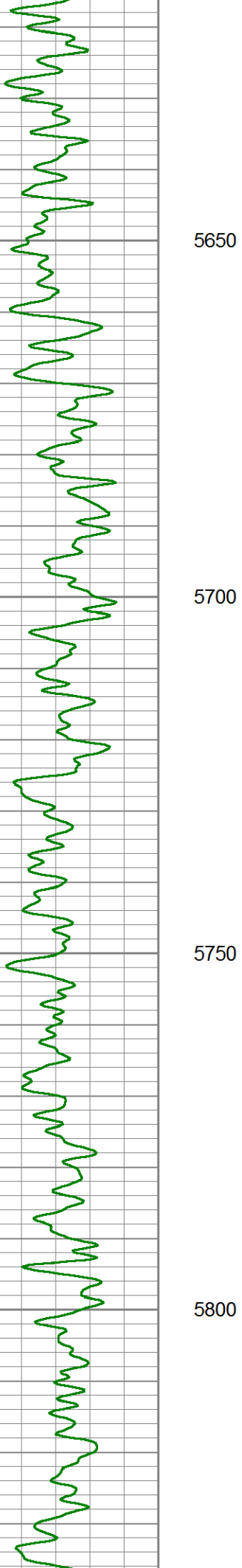
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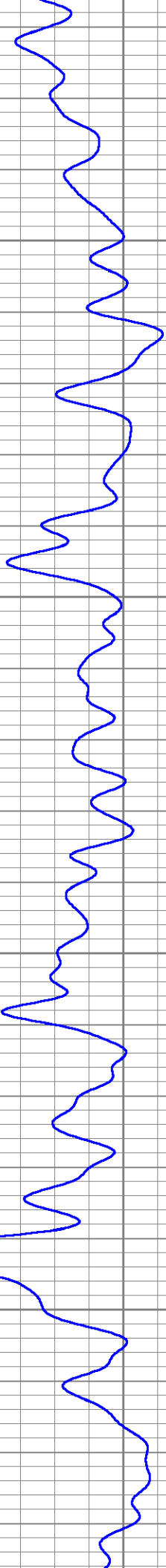


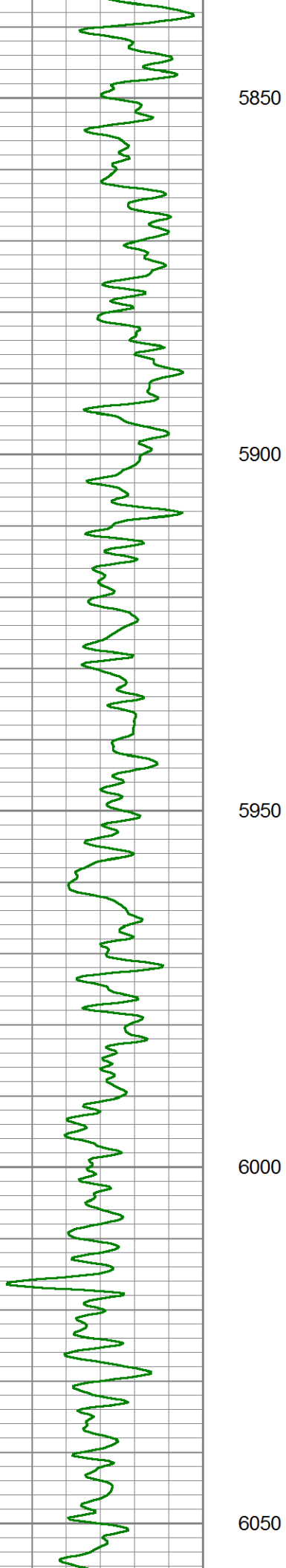
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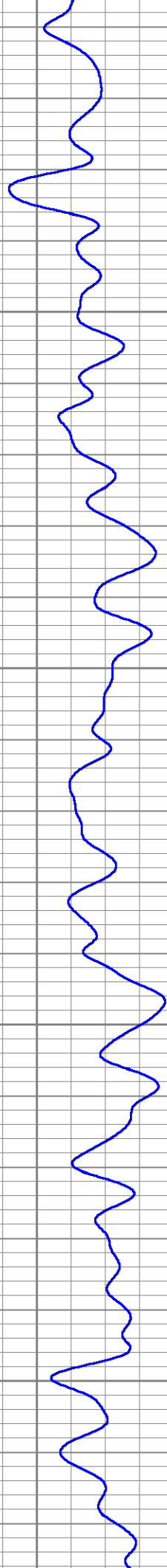


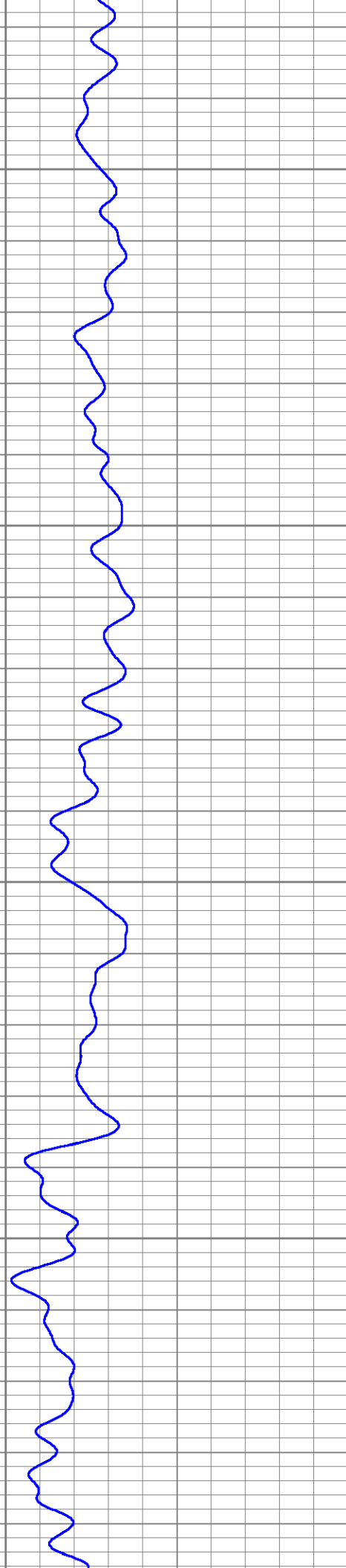
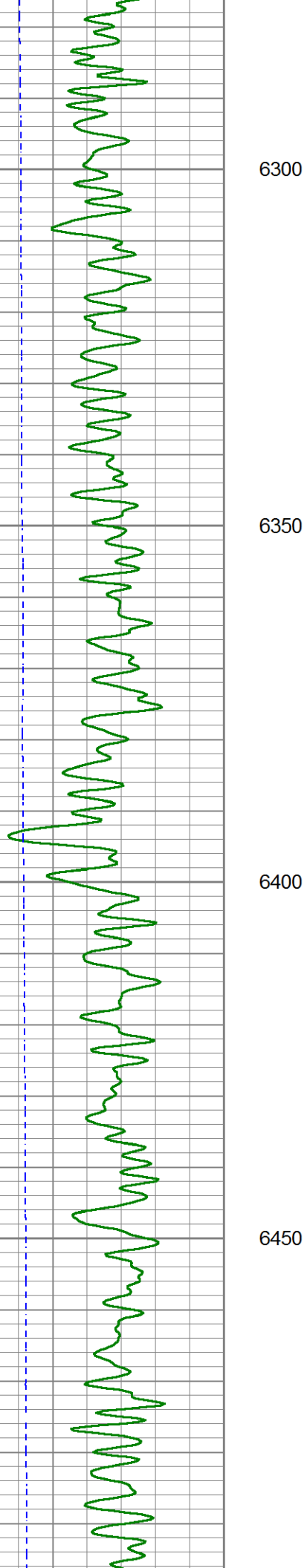
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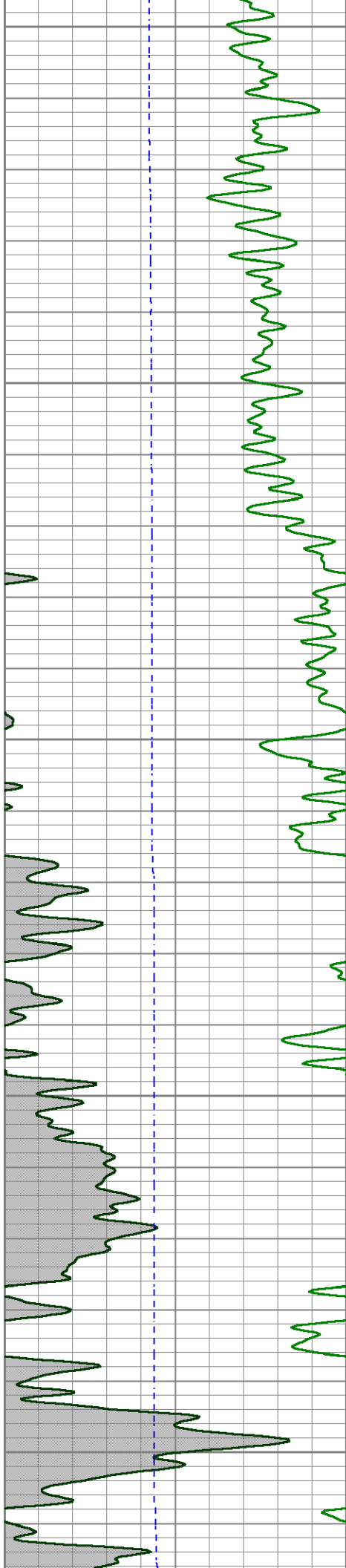
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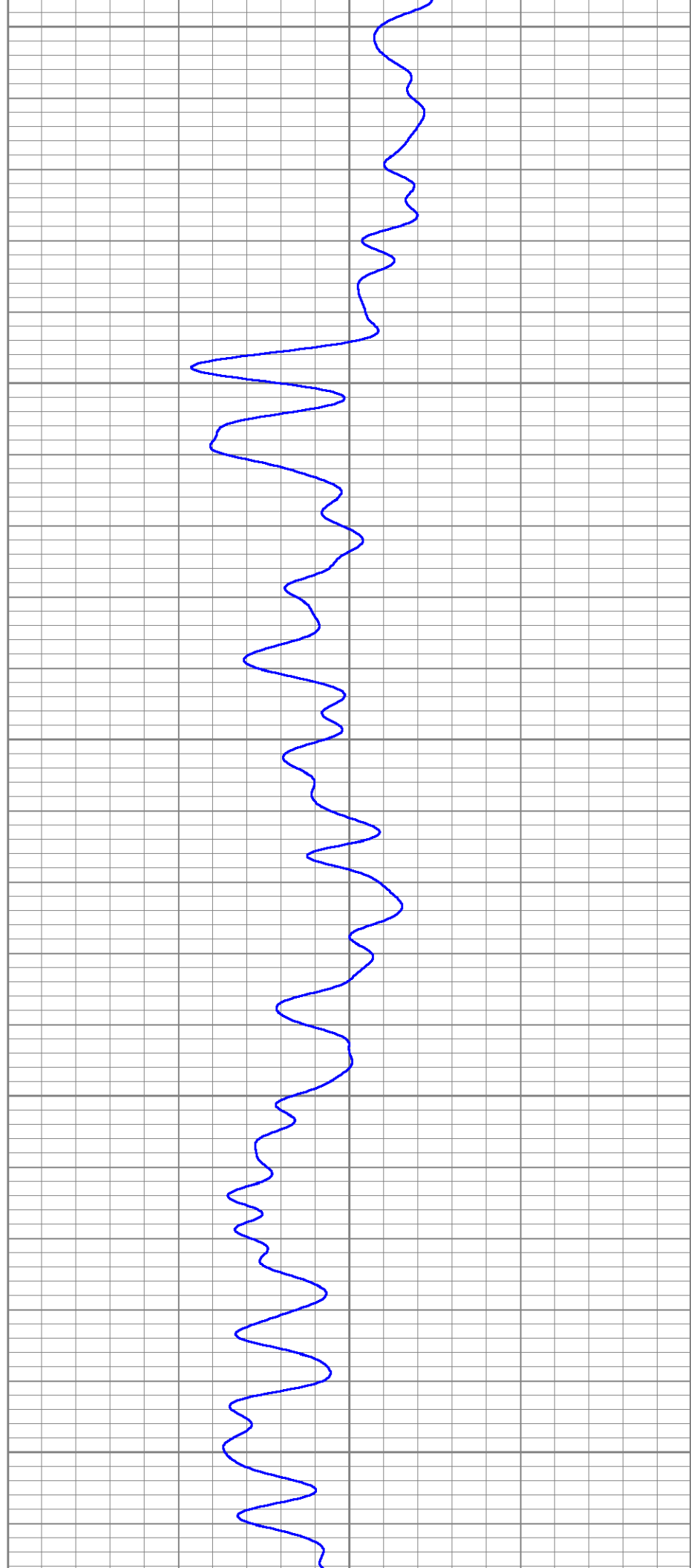
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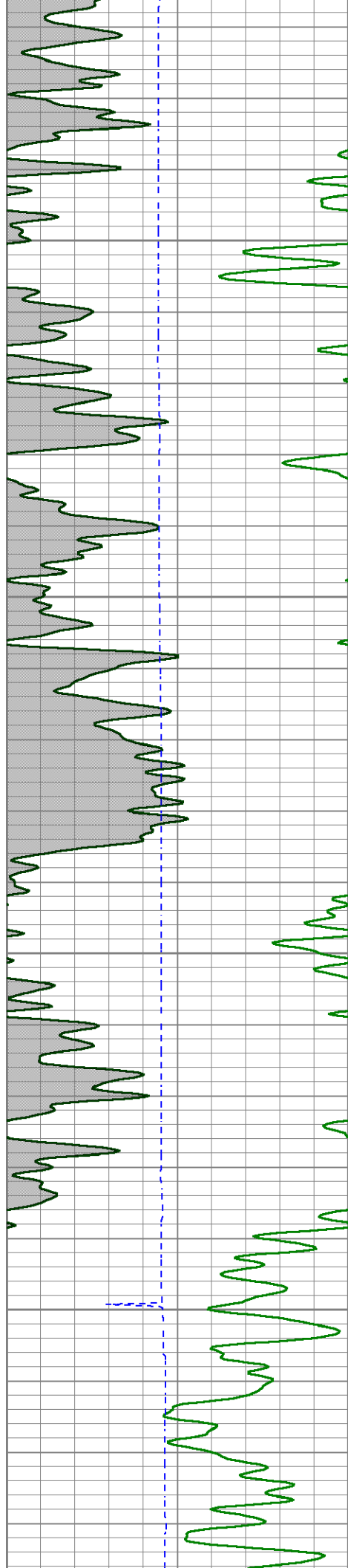
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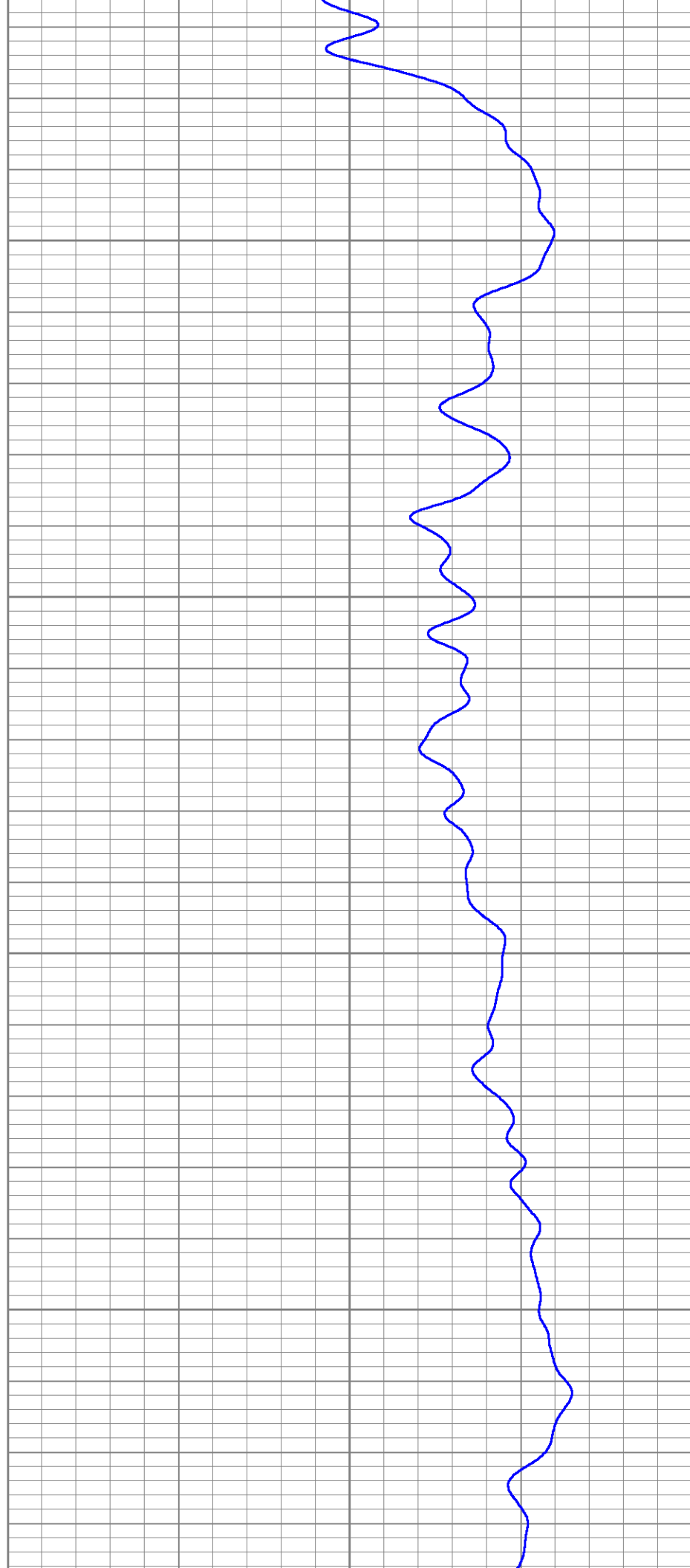


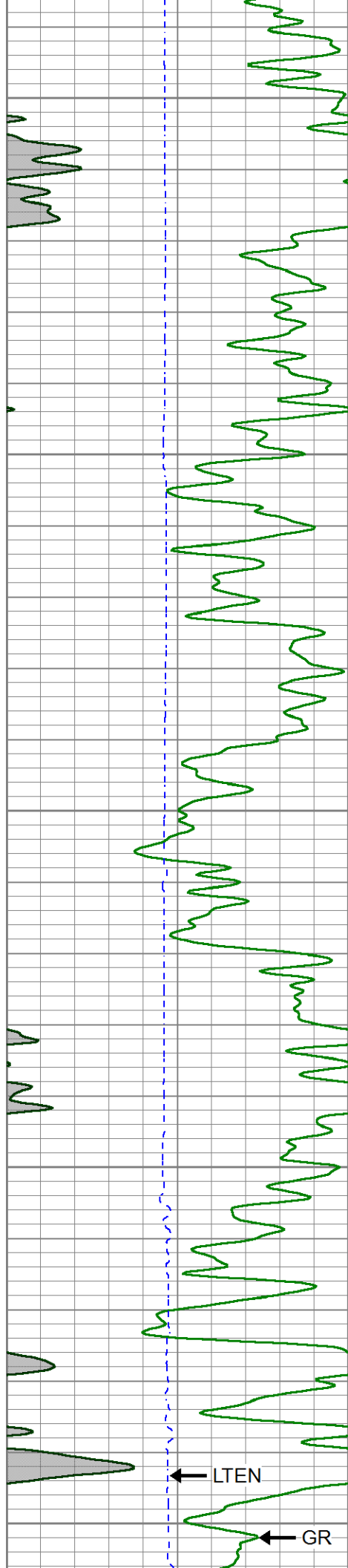
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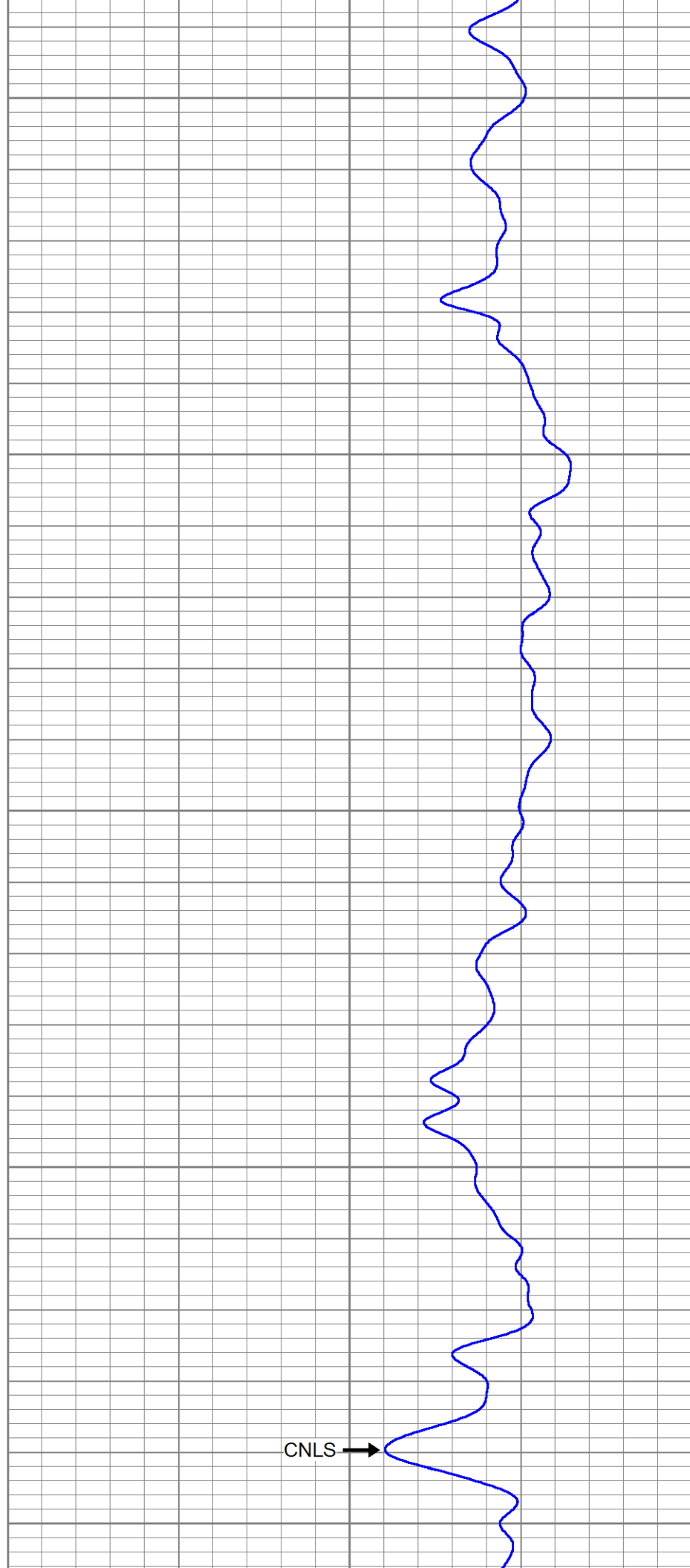
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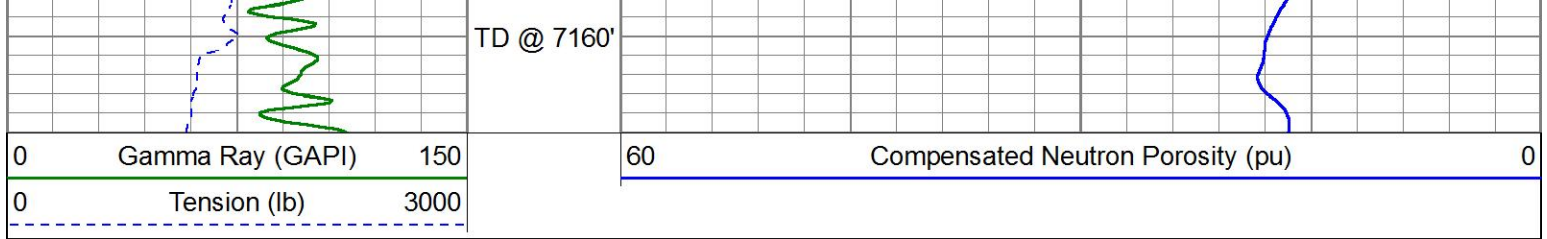
← LTEN


← GR

7150



CNLS →



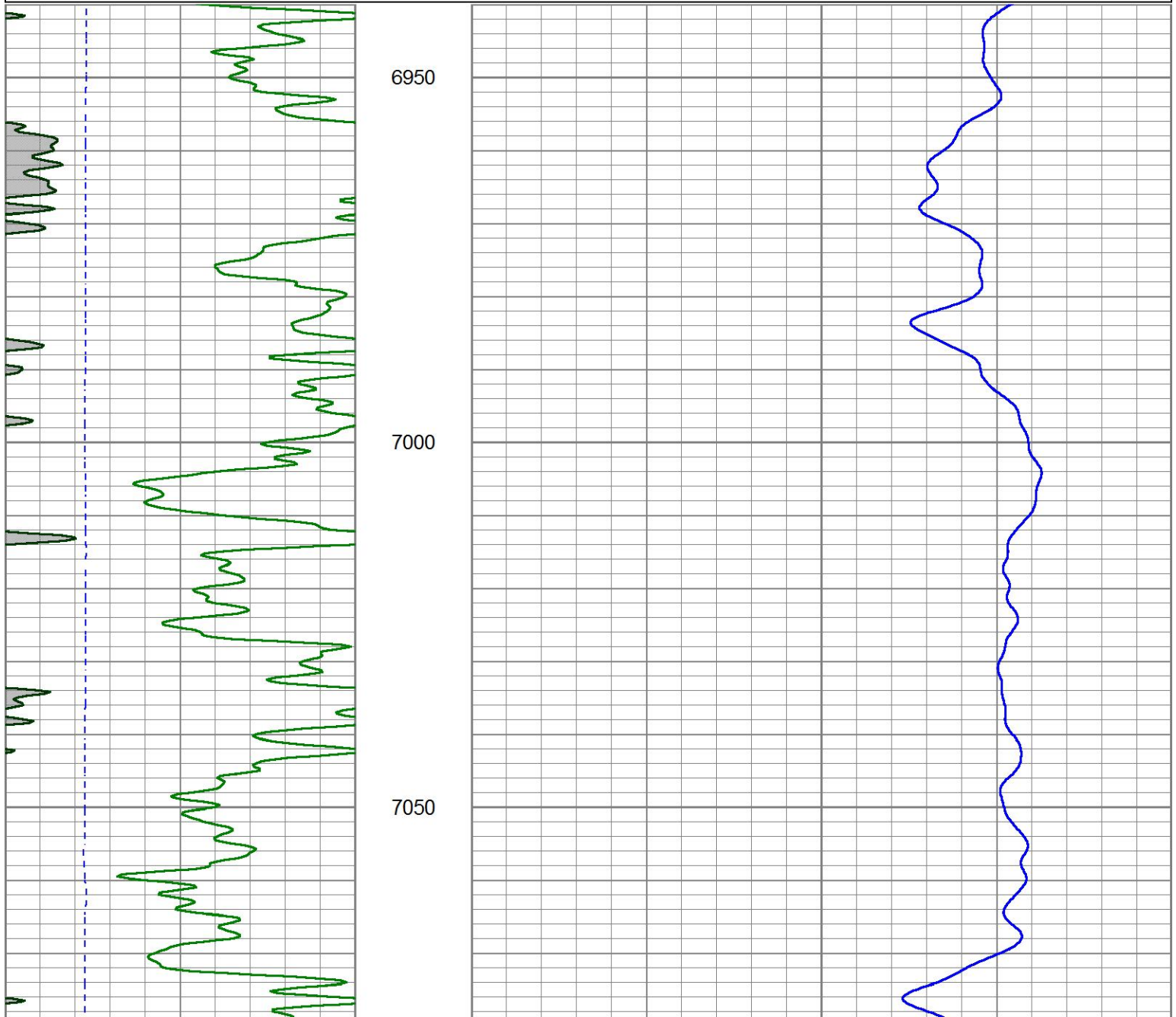
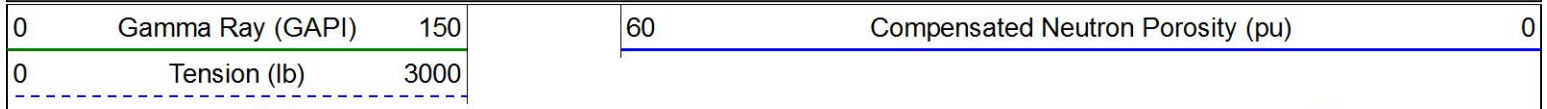


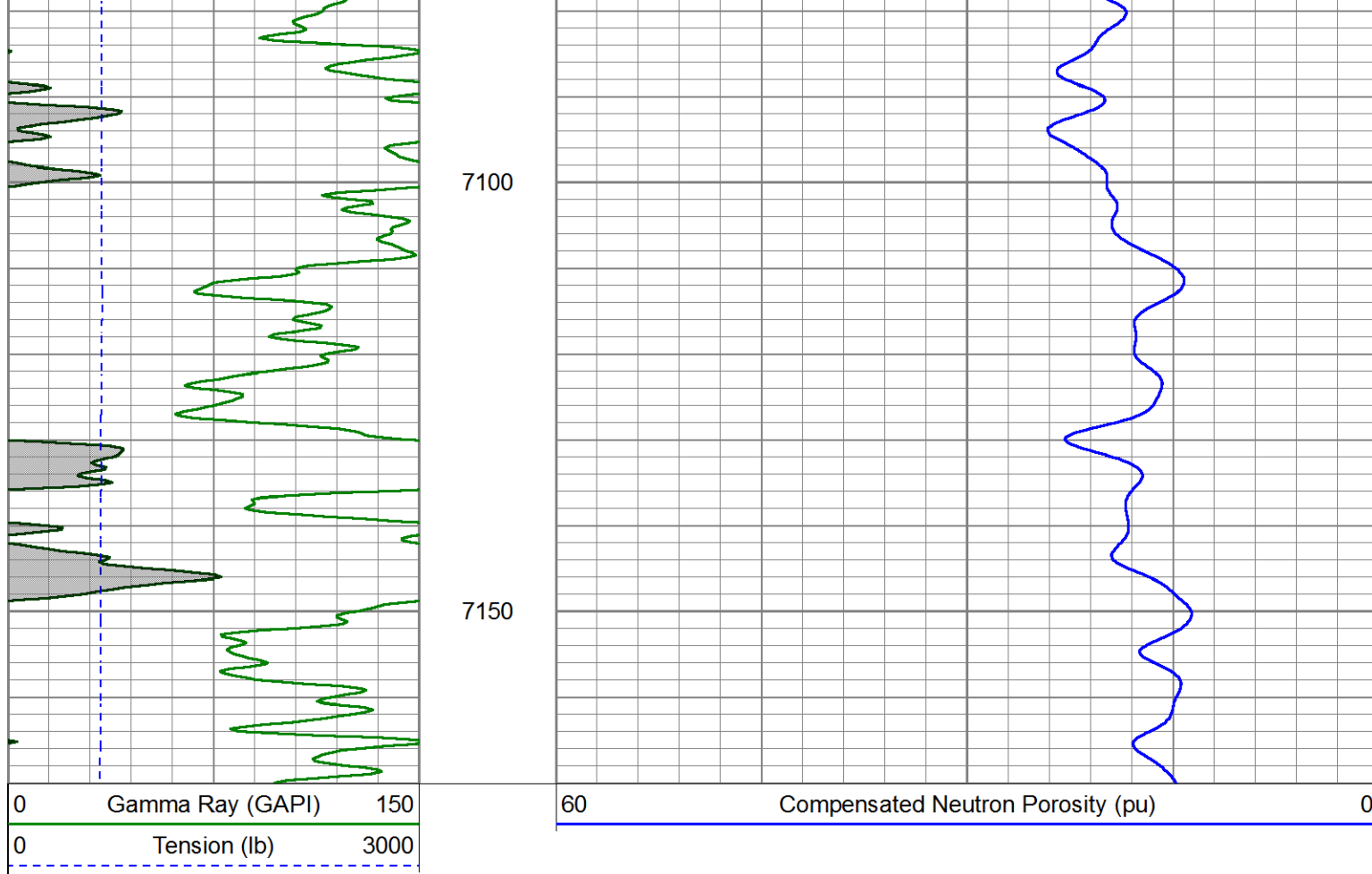
PIONEER
Pioneer Energy Services

Repeat Pass

Logged with 0 PSI

Database File	pdc_snowmass_cnt.db
Dataset Pathname	pass1
Presentation Format	pinr_cnl
Dataset Creation	Thu Oct 19 08:04:01 2017
Charted by	Depth in Feet scaled 1:240





Calibration Report						
Database File	pdc_snowmass_cnt.db					
Dataset Pathname	pass2					
Dataset Creation	Thu Oct 19 08:44:42 2017					
Compensated Neutron Calibration Report						
Serial Number:			120508			
Tool Model:			275BL			
CALIBRATION		Wed Oct 18 16:03:35 2017				
Detector		Readings		Target		Normalization
Short Space		4420.07	cps	0.00	cps	1.0000
Long Space		780.48	cps	0.00	cps	1.0000
PRE-SURVEY VERIFICATION						
Detector		Readings		Measured		Target
1)	Short Space	cps		pu		pu
	Long Space	cps		pu		
2)	Short Space	cps		pu		
	Long Space	cps		pu		
3)	Short Space	cps		pu		
	Long Space	cps		pu		
POST-SURVEY VERIFICATION						
Detector		Readings		Measured		Target
1)	Short Space	cps		pu		

1)	Short Space Long Space	cps cps	pu pu
2)	Short Space Long Space	cps cps	pu pu
3)	Short Space Long Space	cps cps	pu pu

Gamma Ray Calibration Report

Serial Number:	FW1406-4		
Tool Model:	275 Probe Dig		
Performed:	Wed Oct 18 12:46:55 2017		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	1.0000	GAPI/cps	



Company	PDC Energy Inc.
Well	Snowmass #1C
Field	Wattenberg
County	Weld
State	Colorado