



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL INDUCTION
LOG**

Company	CASTELLI EXPLORATION, INC.	Company	CASTELLI EXPLORATION, INC.
Well	JULIAN #4-5	Well	JULIAN #4-5
Field	WIL	Field	WIL
County	EDWARDS	County	EDWARDS
State	KANSAS	State	KANSAS
Location:	AP1 # : 15-047-21626-0000	Other Services	CDL/CNL/PE MEL
Permanent Datum	GROUND LEVEL	Elevation	2082
Log Measured From	KELLY BUSHING 8' A.G.L.	K.B.	2090
Drilling Measured From	KELLY BUSHING	D.F.	2088
		G.L.	2082
	SEC 5 TWP 25S RGE 16W		

Date	10/29/13
Run Number	ONE
Depth Driller	4510
Depth Logger	4510
Bottom Logged Interval	4508
Top Log Interval	00
Casing Driller	8 5/8"@290'
Casing Logger	298
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/48
pH / Fluid Loss	10.0/9.6
Source of Sample	FLOWLINE
Rim @ Meas. Temp	.700@80F
Rmf @ Meas. Temp	.525@80F
Rmc @ Meas. Temp	.840@80F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.463@121F
Time Circulation Stopped	2.5 HOURS
Time Logger on Bottom	9:45 A.M.
Maximum Recorded Temperature	121F
Equipment Number	4854
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	TOM CASTELLI
	RICK POPP

<<< Fold Here >>>

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

THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
BELPRE, KS., 3S. ON BLKTOP, W. INTO



MAIN SECTION

Database File: 011699pe.db
 Dataset Pathname: pass4.12
 Presentation Format: dil2
 Dataset Creation: Tue Oct 29 12:05:24 2013 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

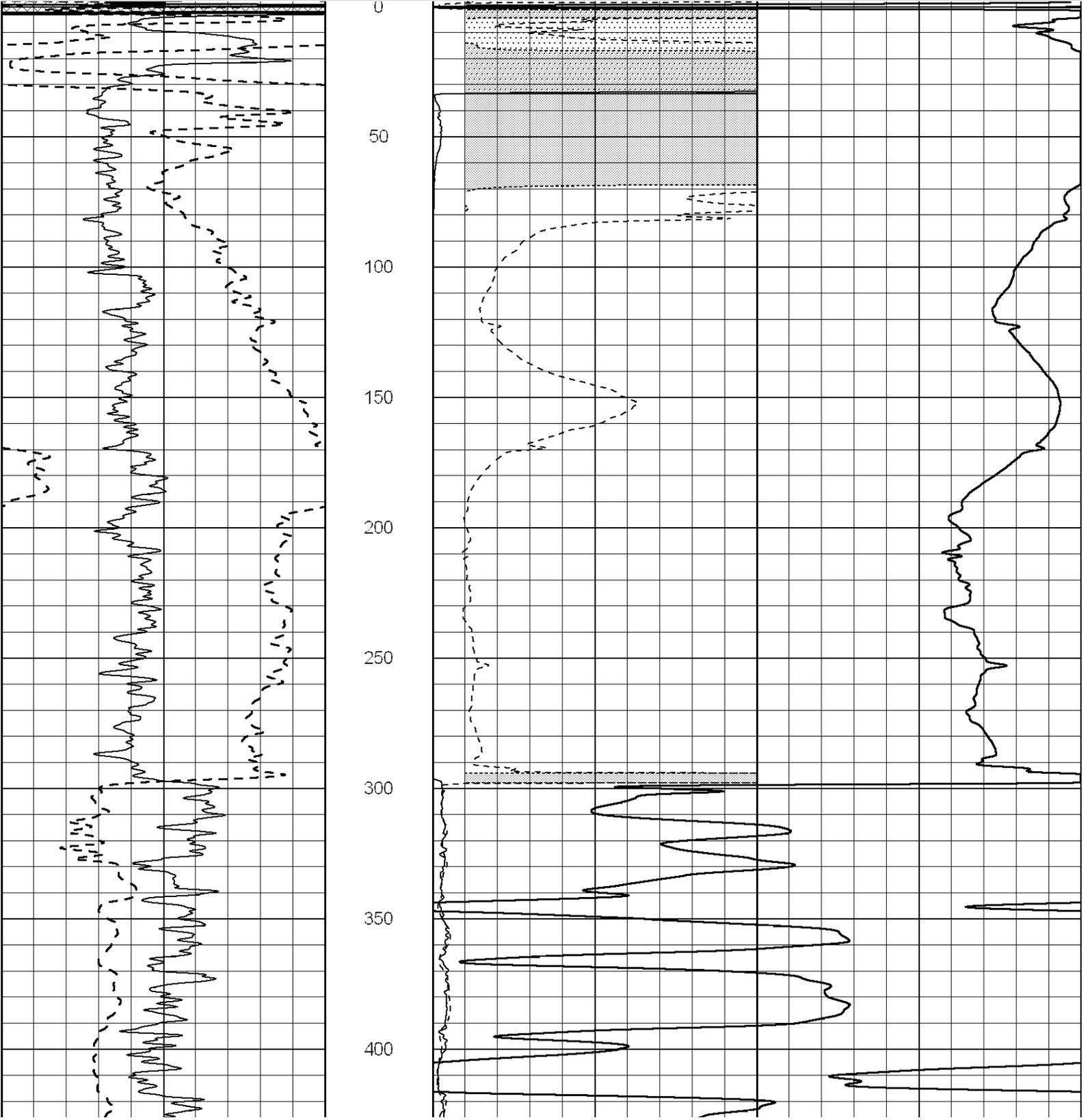
0	RLL3 (Ohm-m)	50
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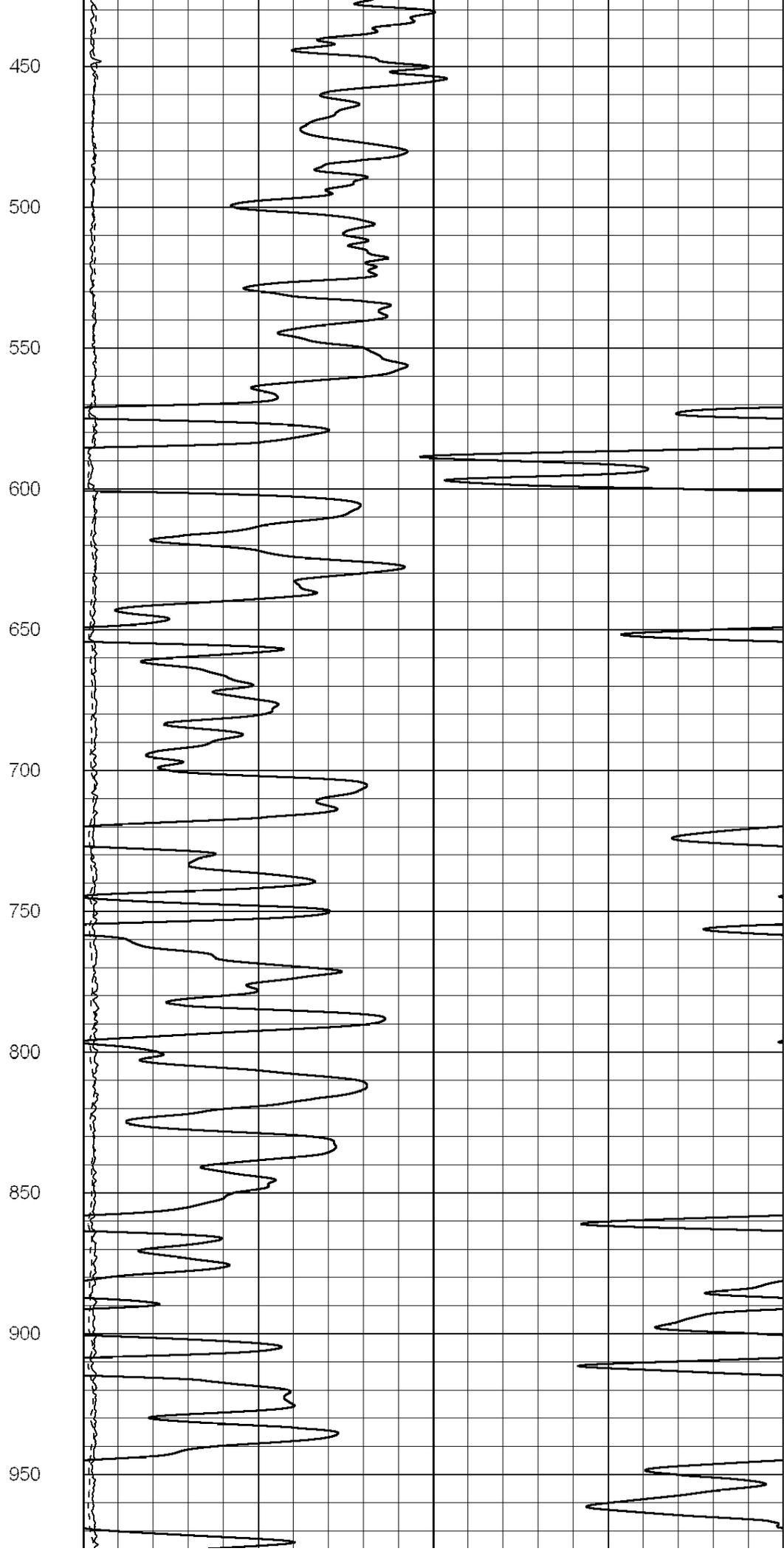
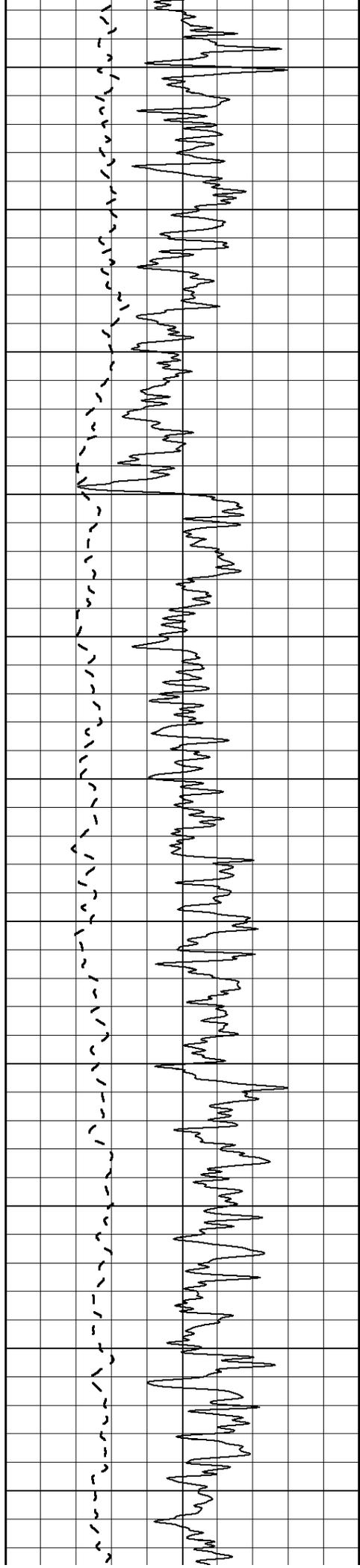
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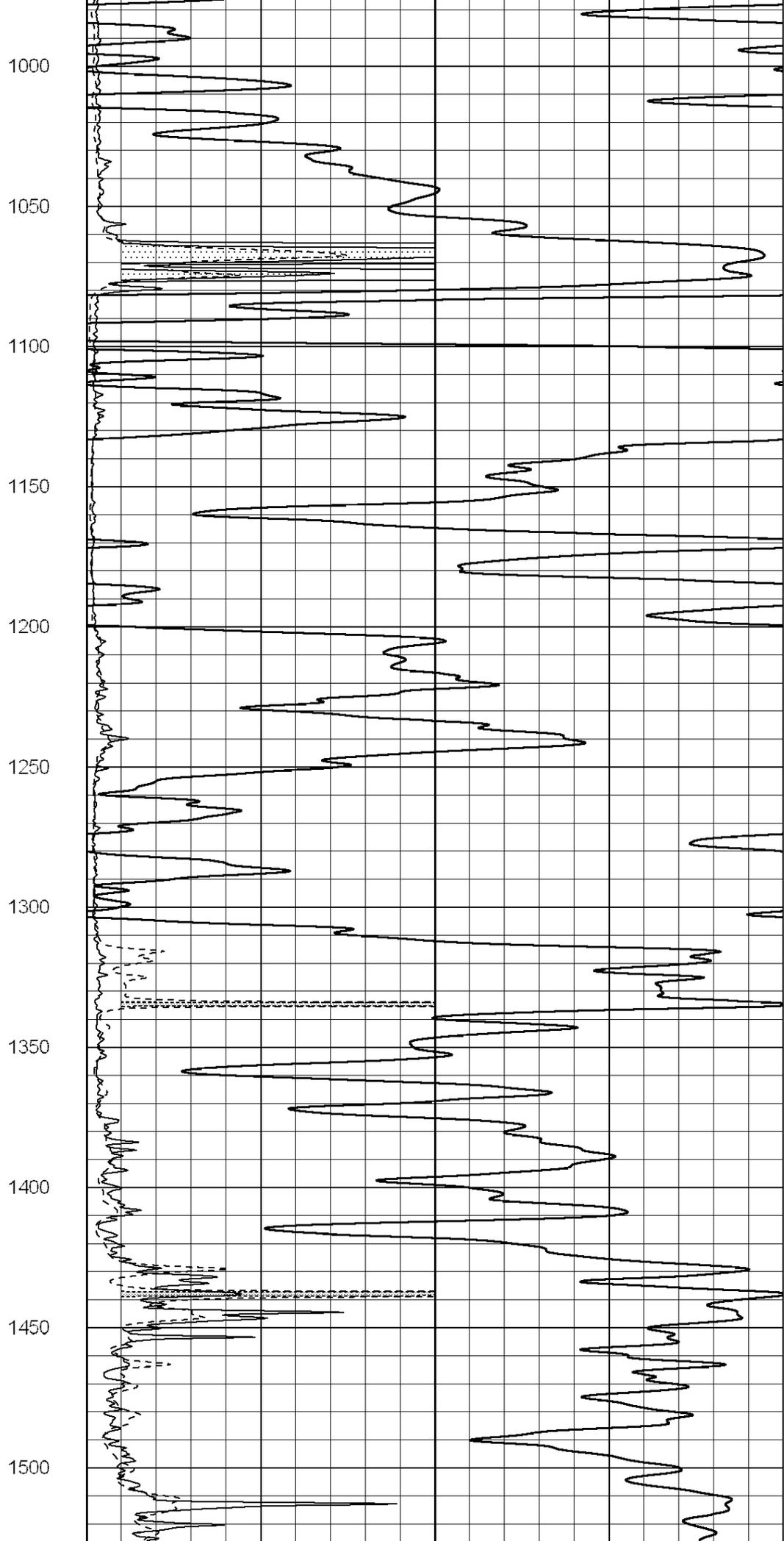
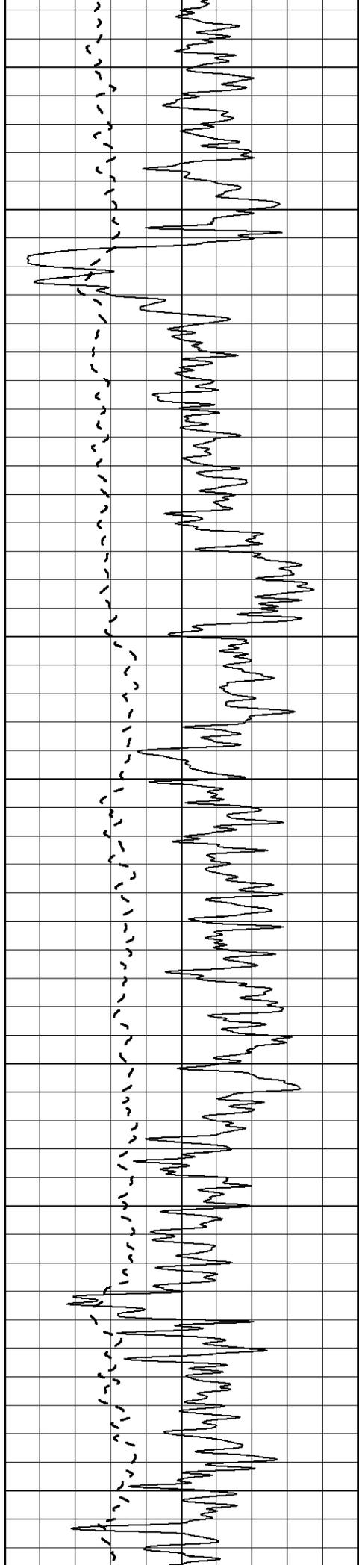
1000	CILD (mmho/m)	0
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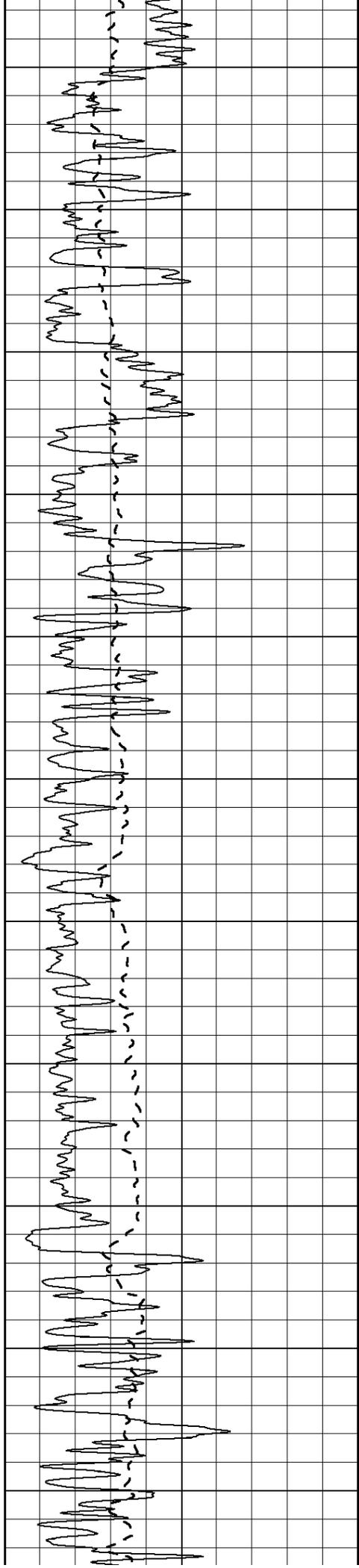
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50	RLL3 X10 (Ohm-m)	500
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1550

1600

1650

1700

1750

1800

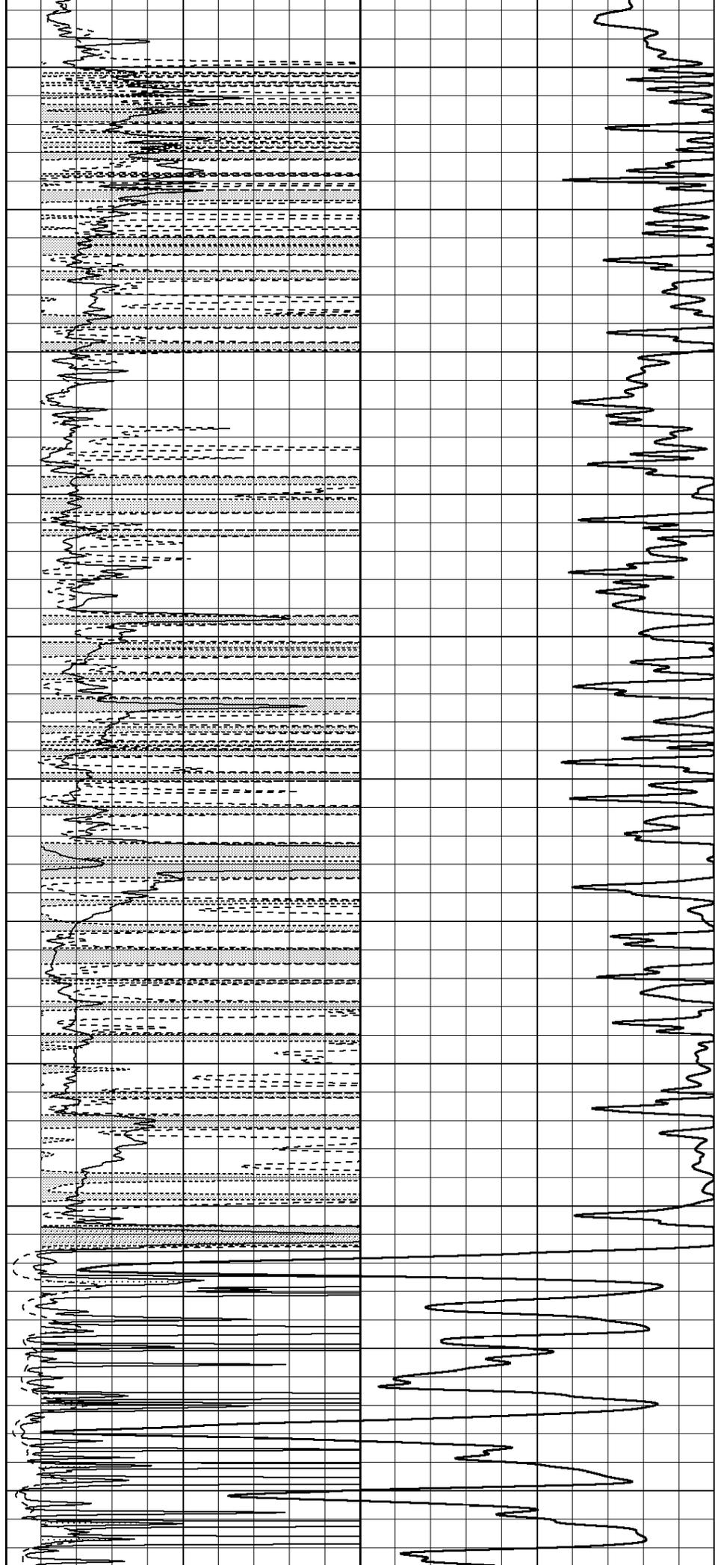
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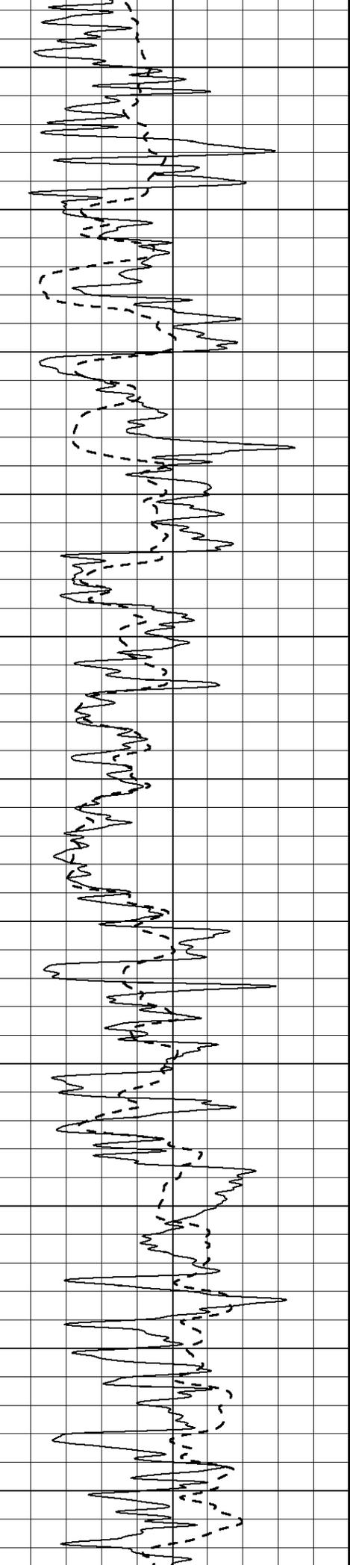
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1950

2000

2050





2100

2150

2200

2250

2300

2350

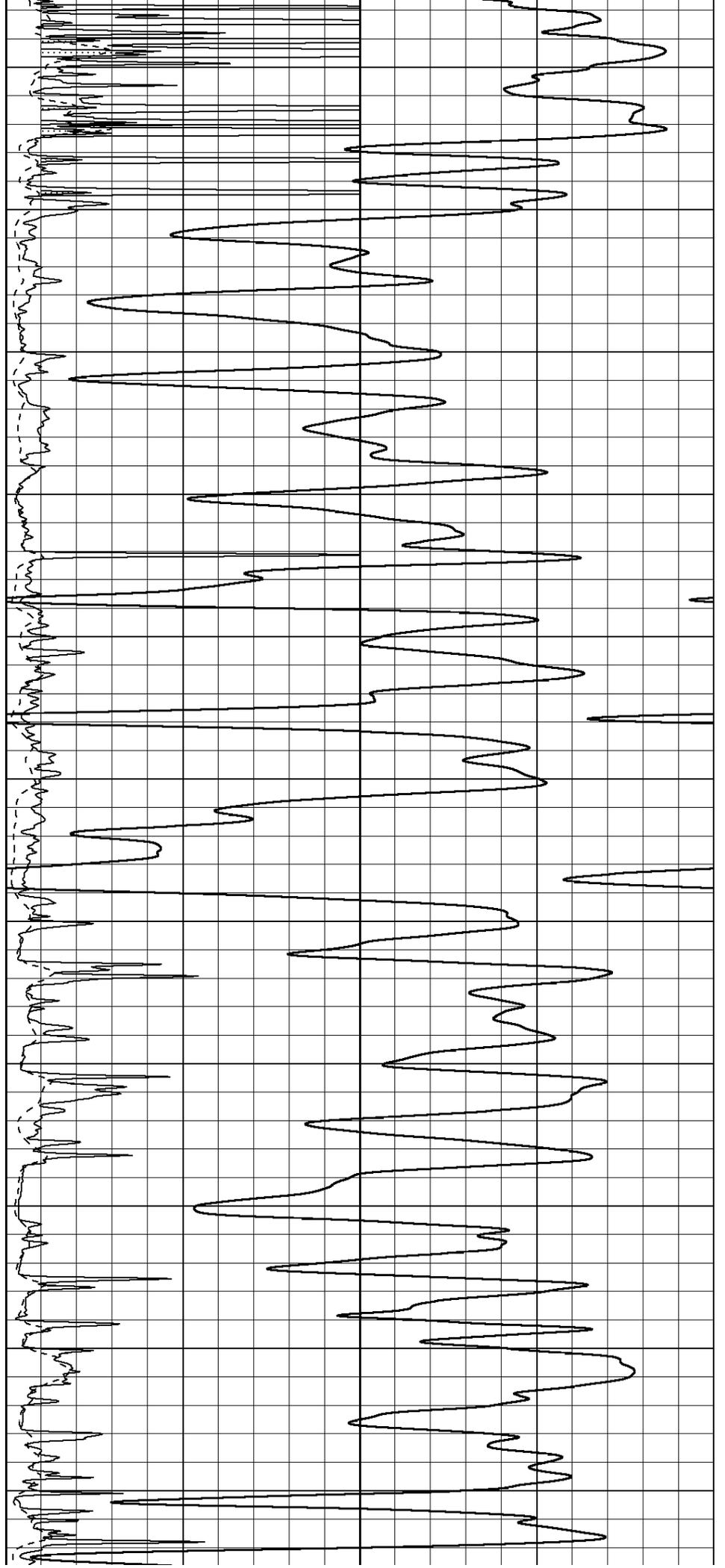
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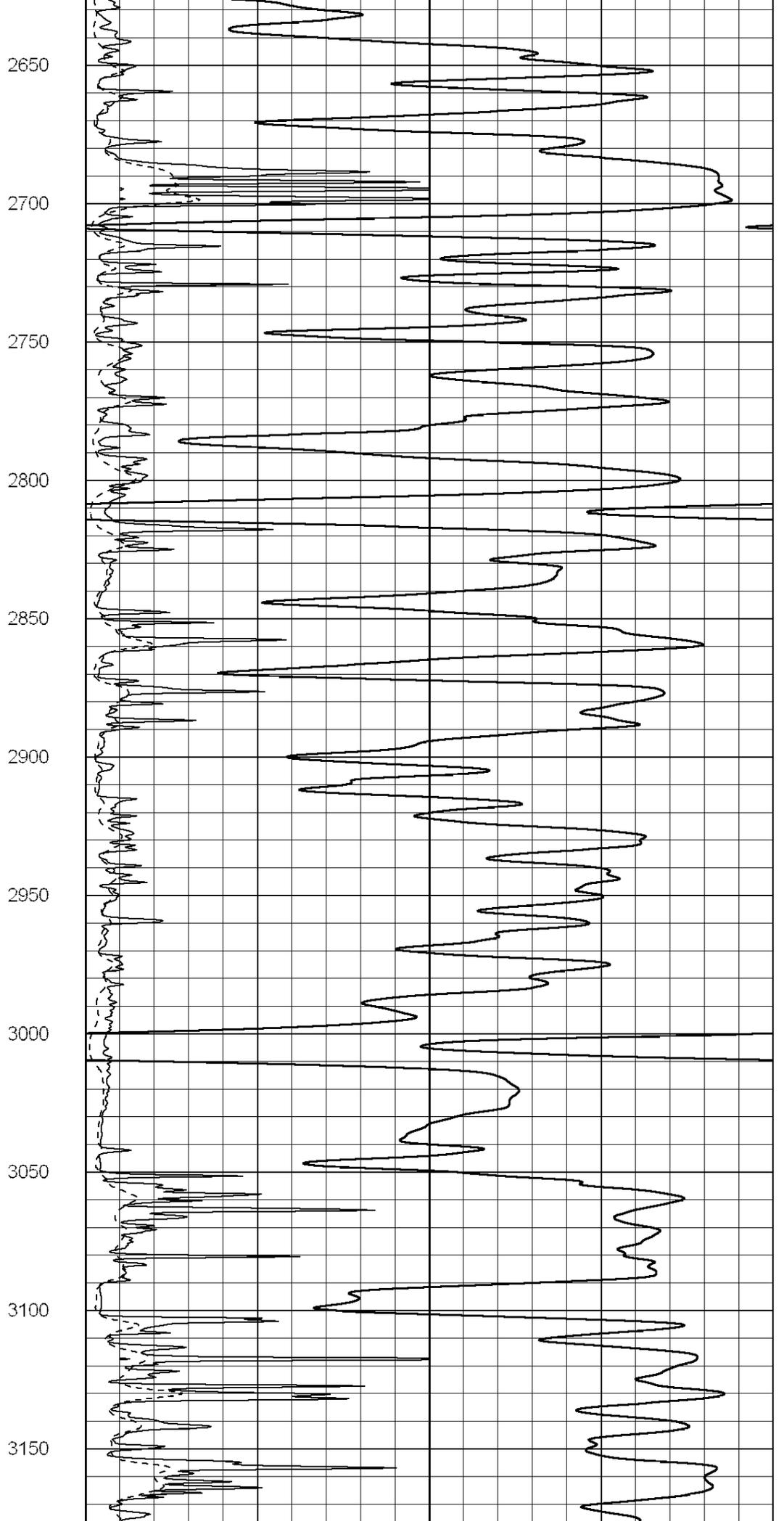
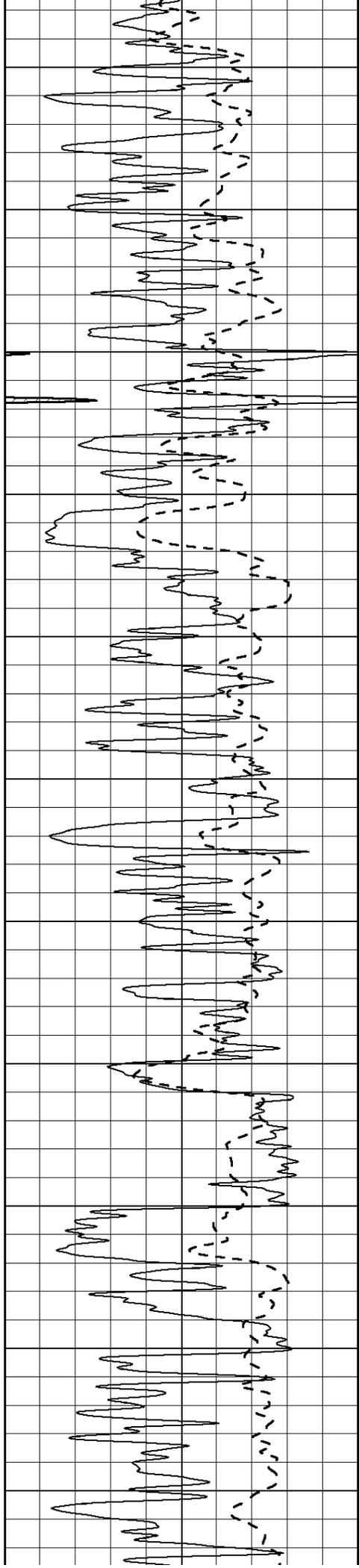
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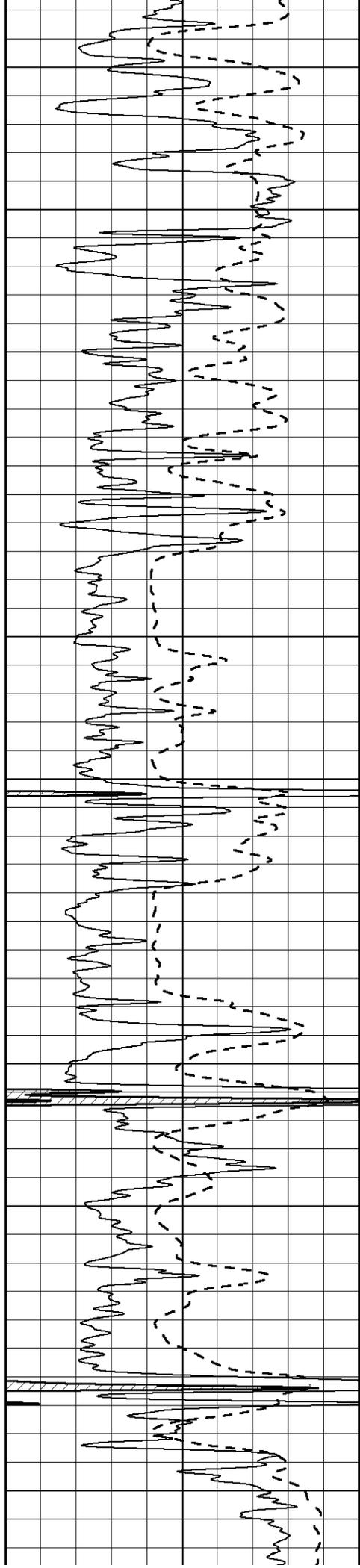
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2600







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3350

3400

3450

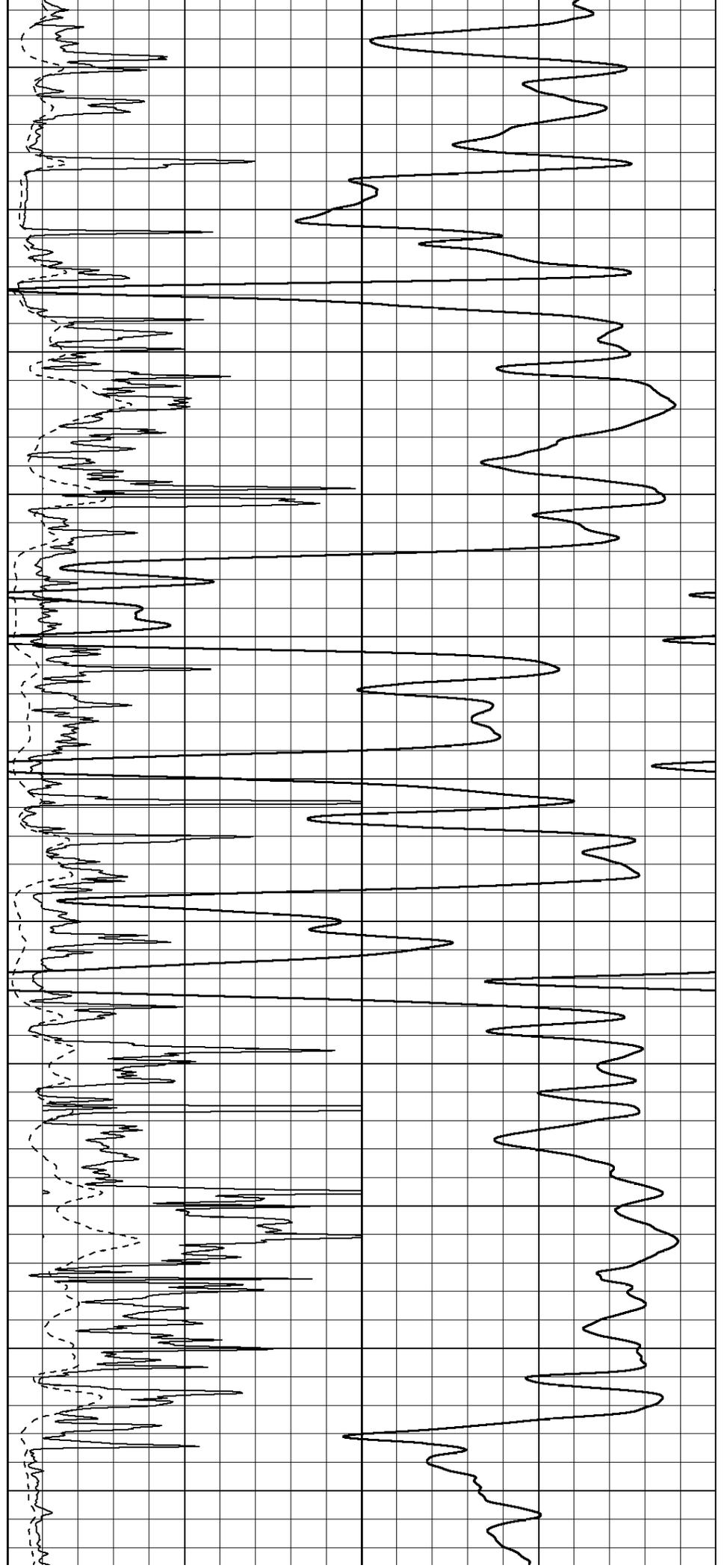
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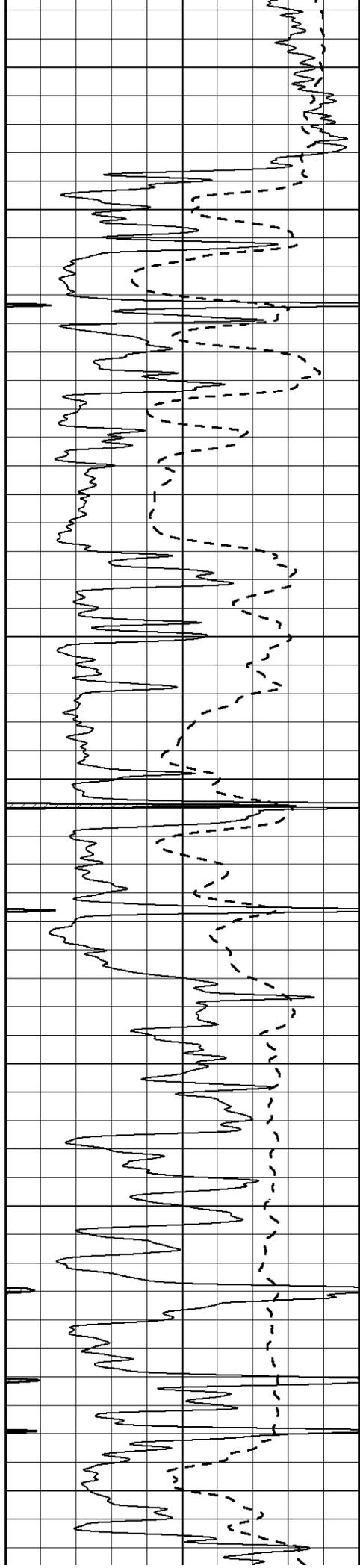
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3750

3800

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3900

3950

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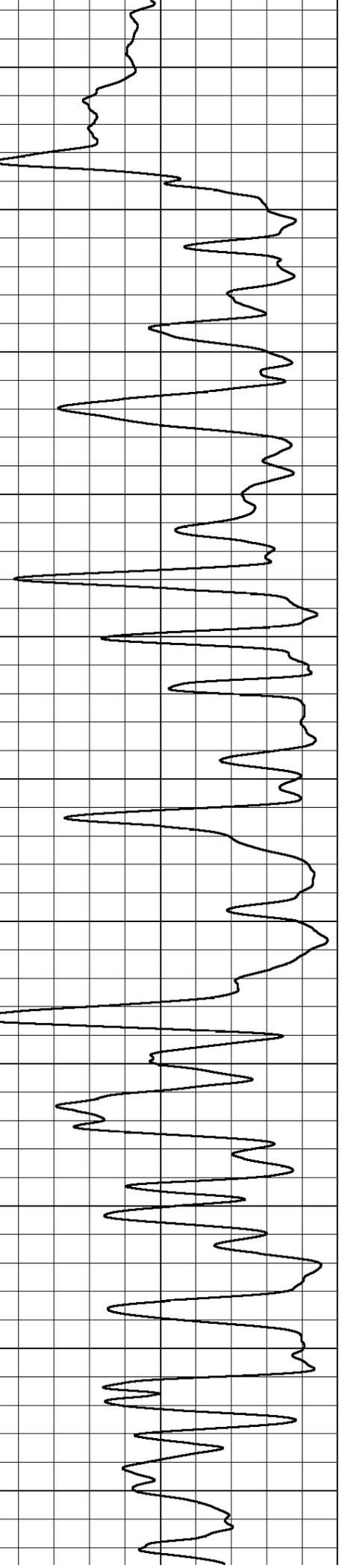
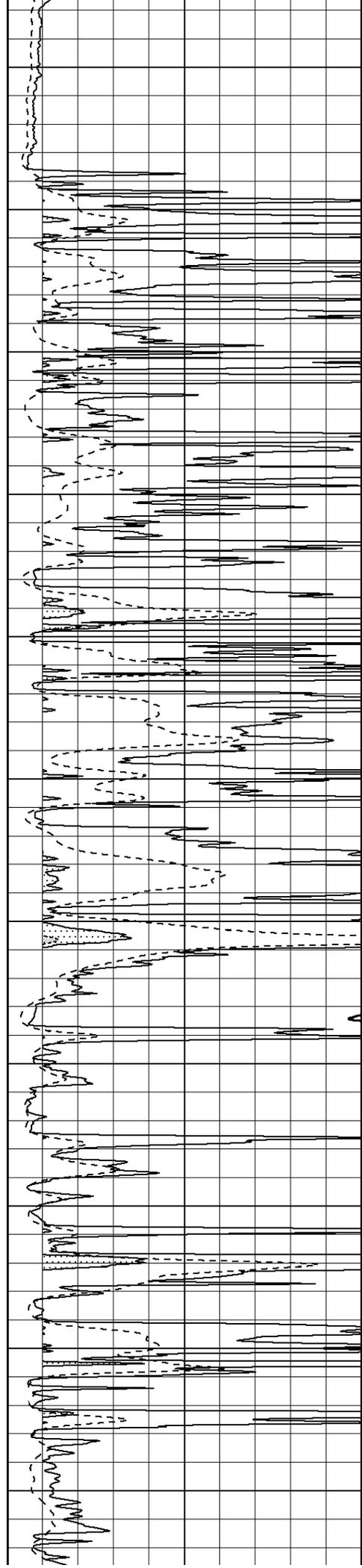
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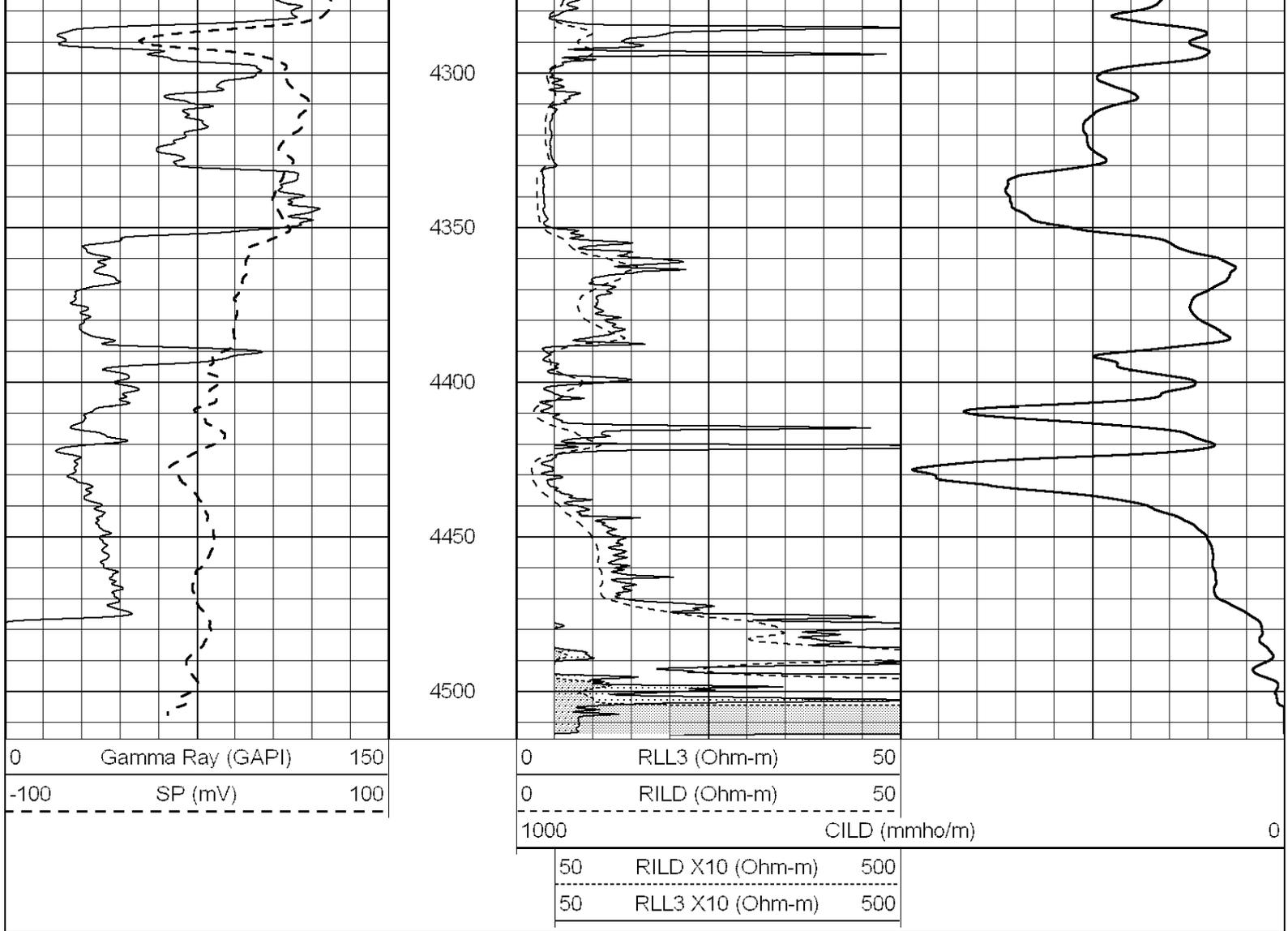
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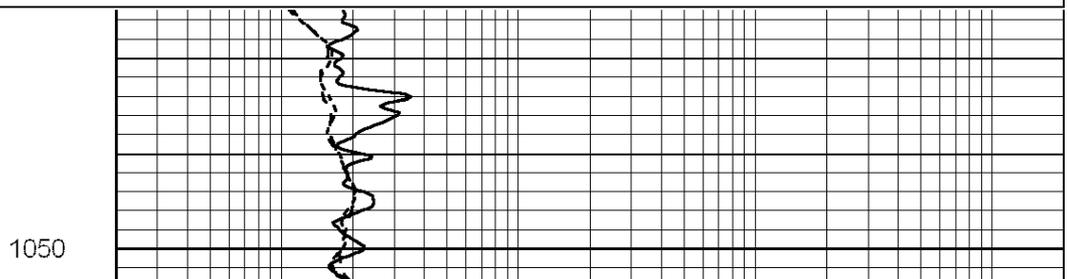
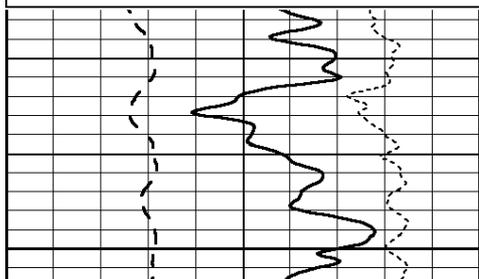


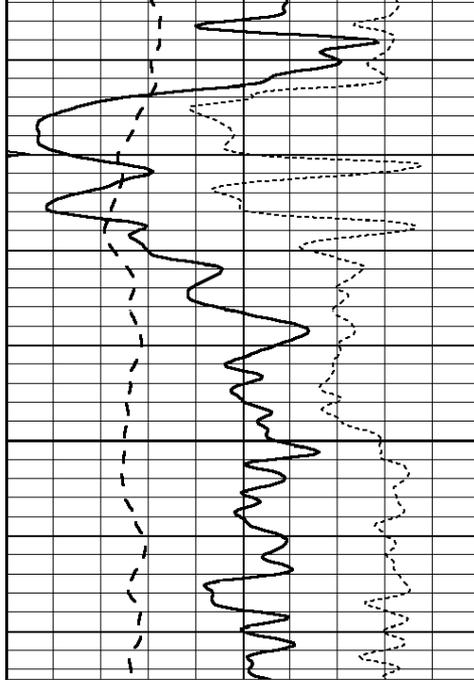


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 Charted by: Depth in Feet scaled 1:240

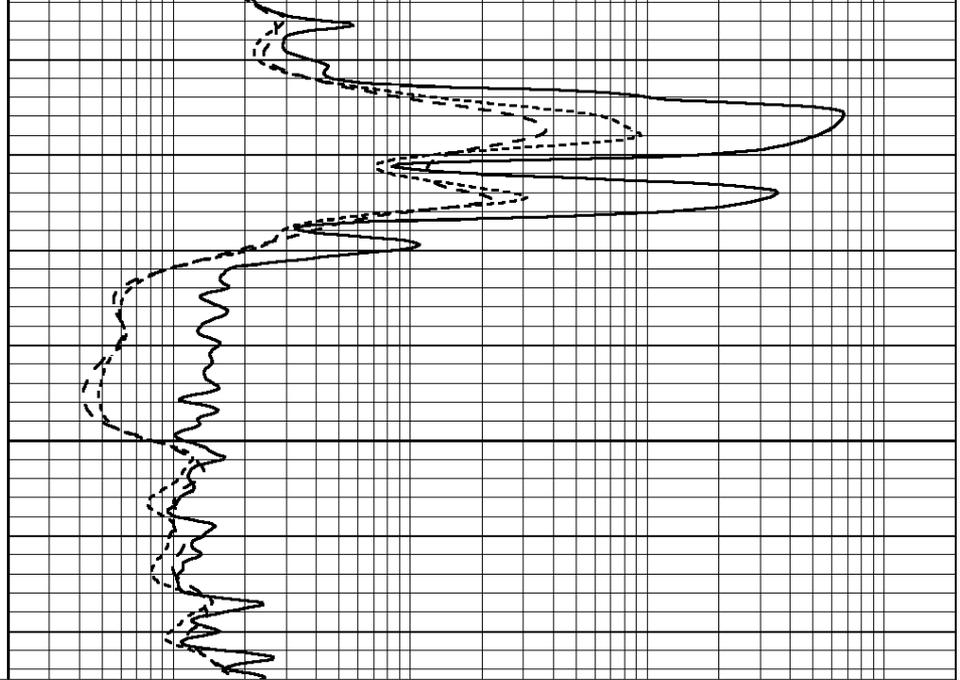
0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

1100



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

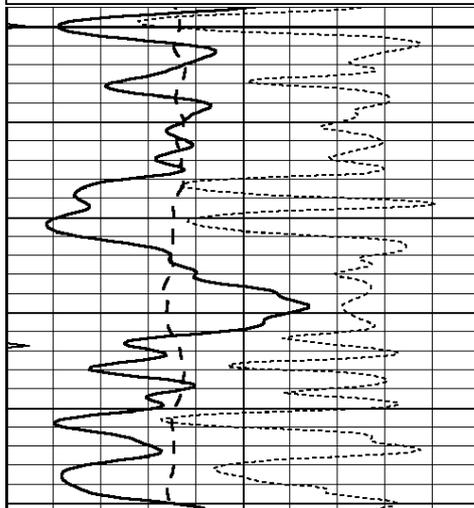


MAIN SECTION

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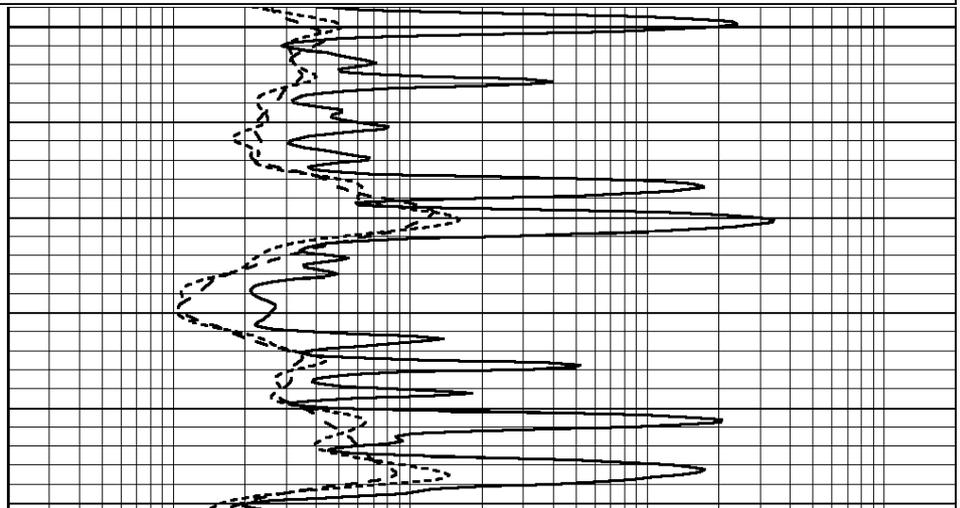
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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

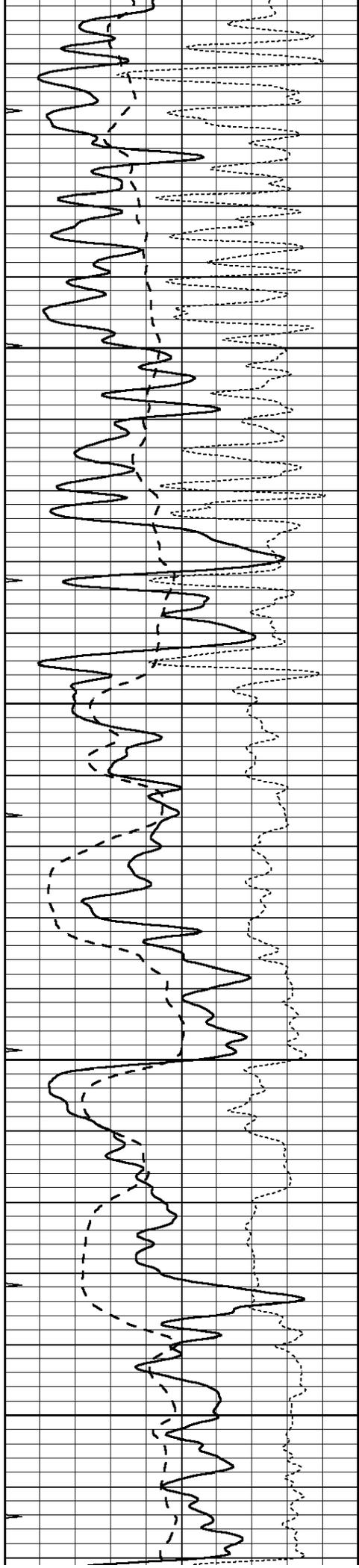
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



2000

2050



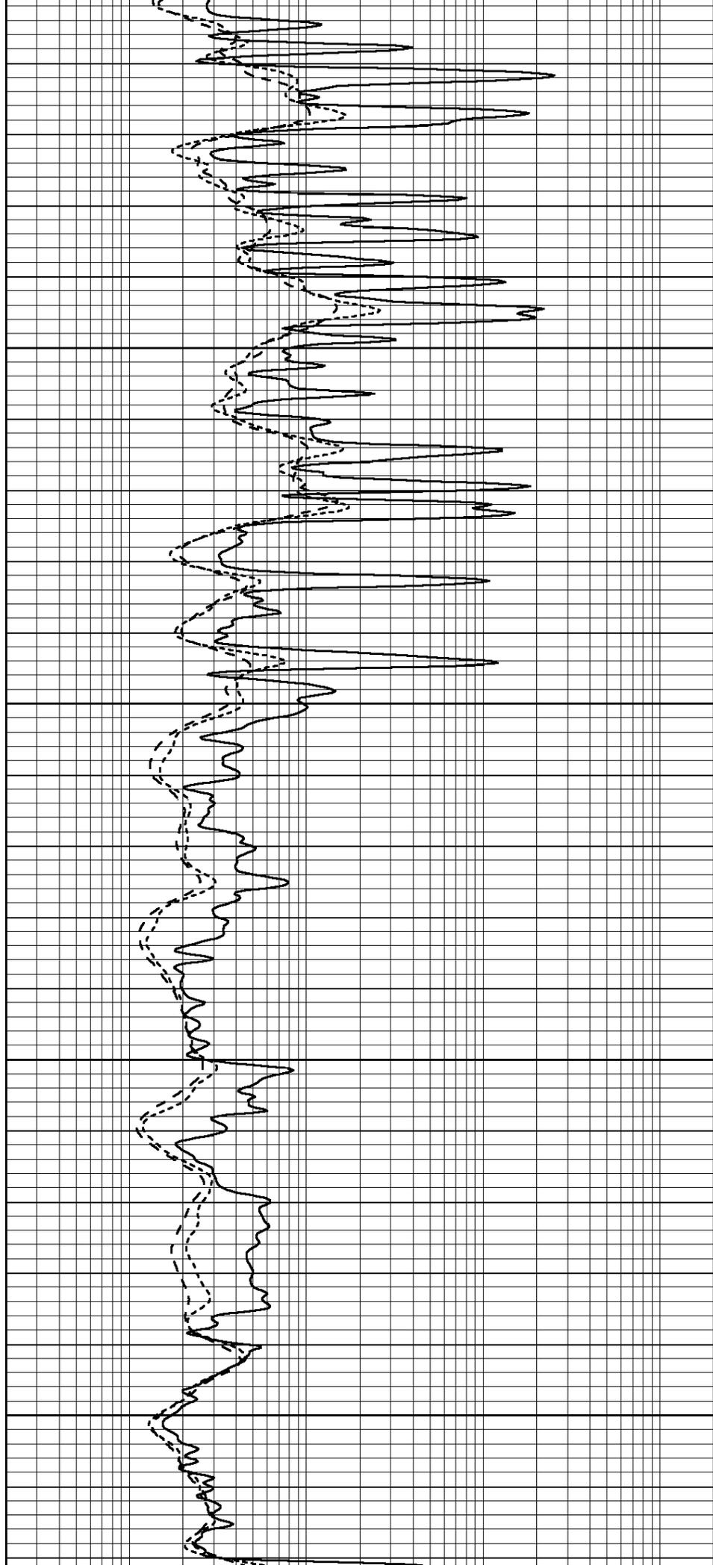


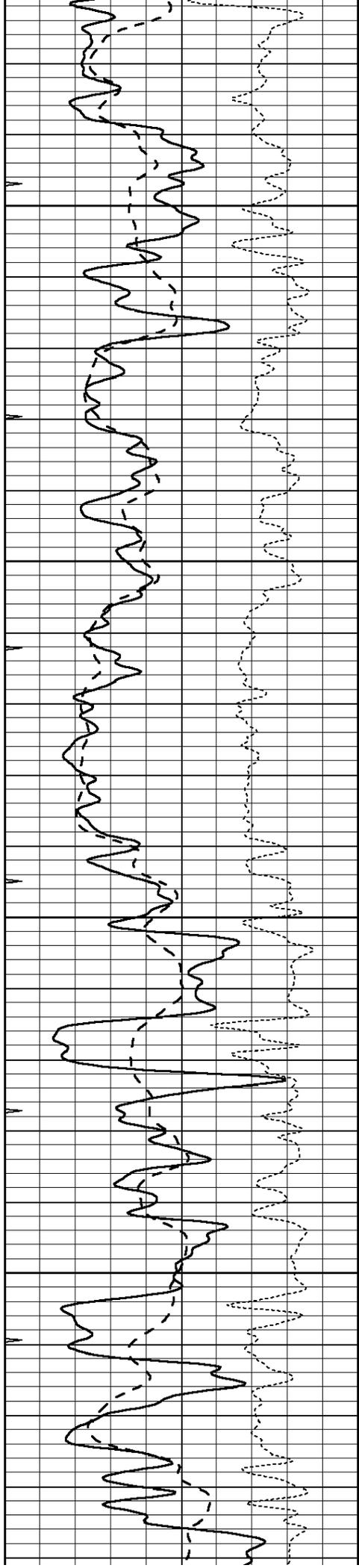
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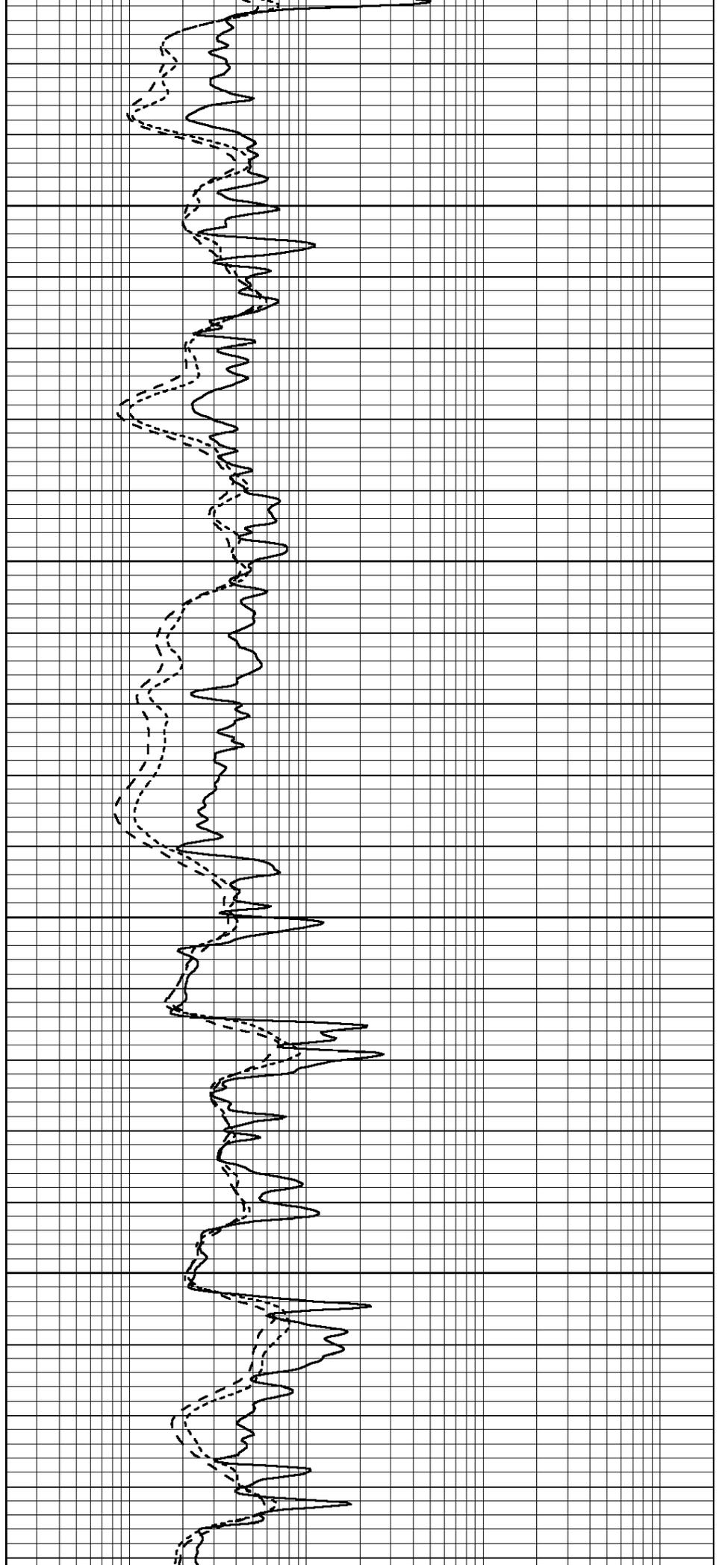


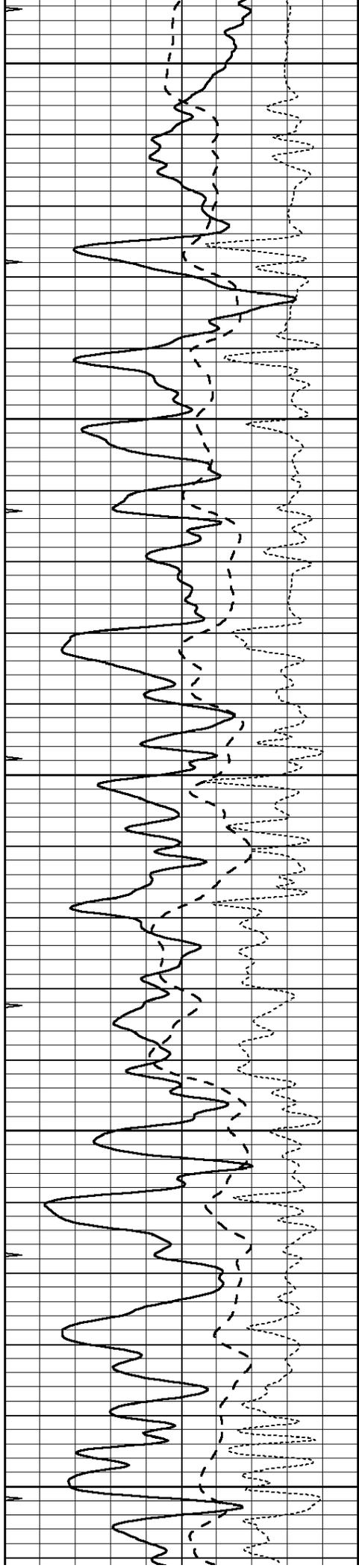
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2400

2450





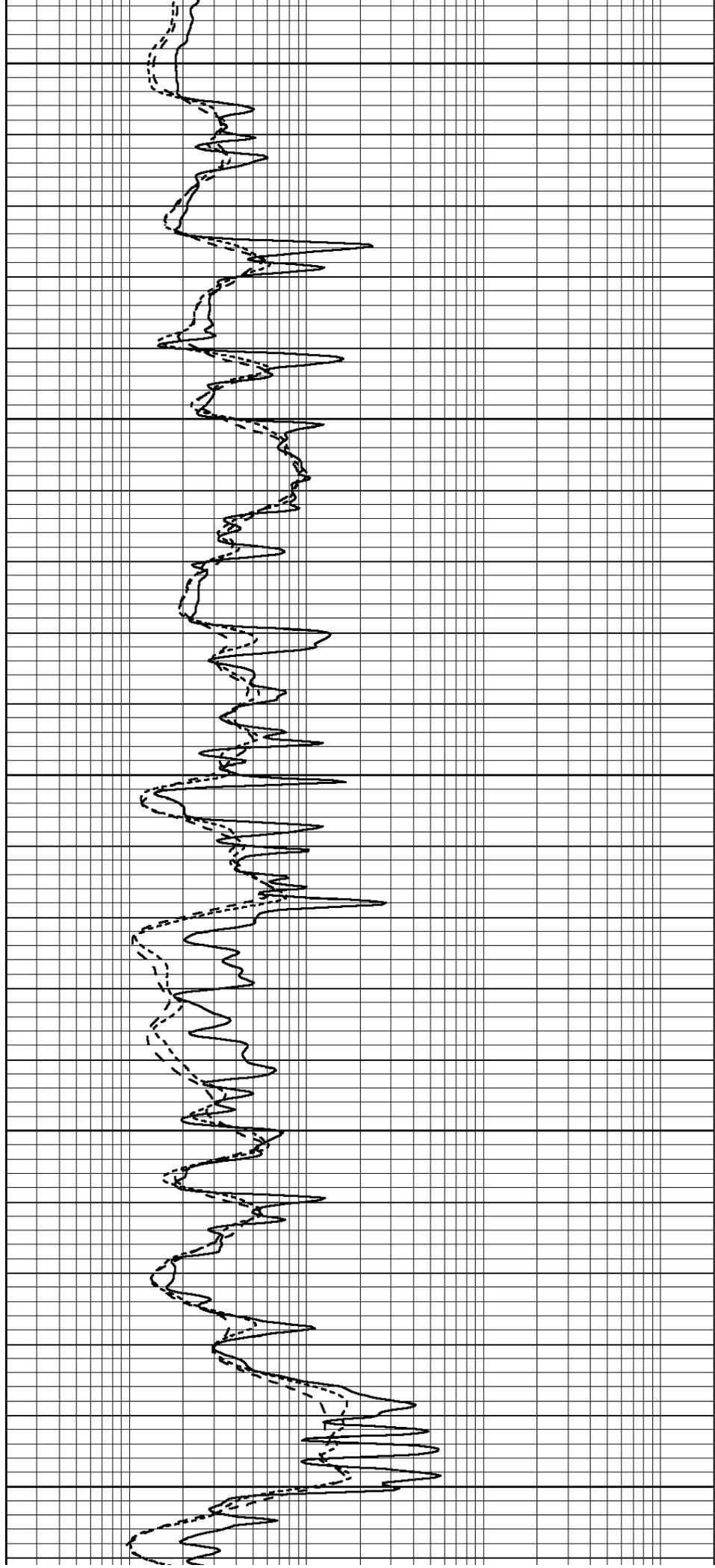
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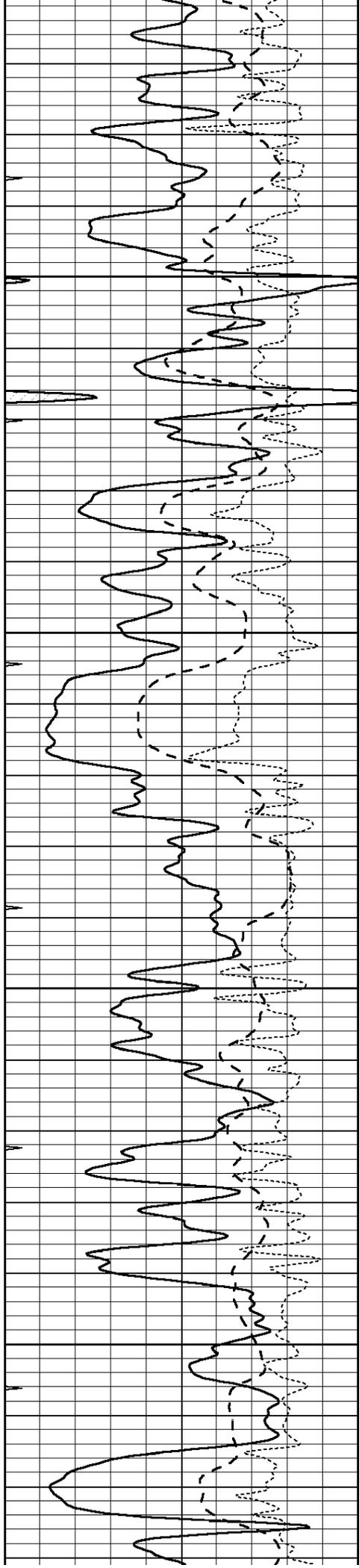
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2700



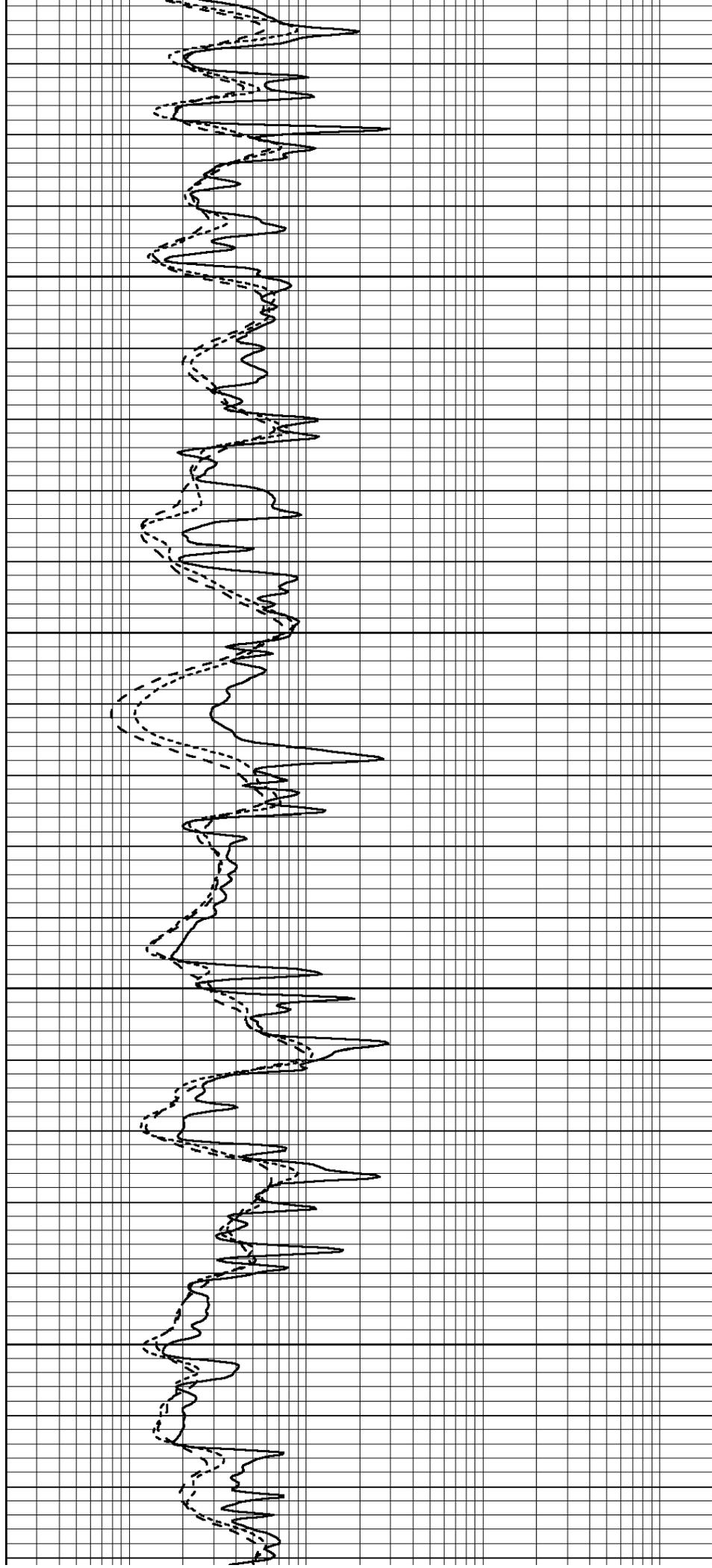


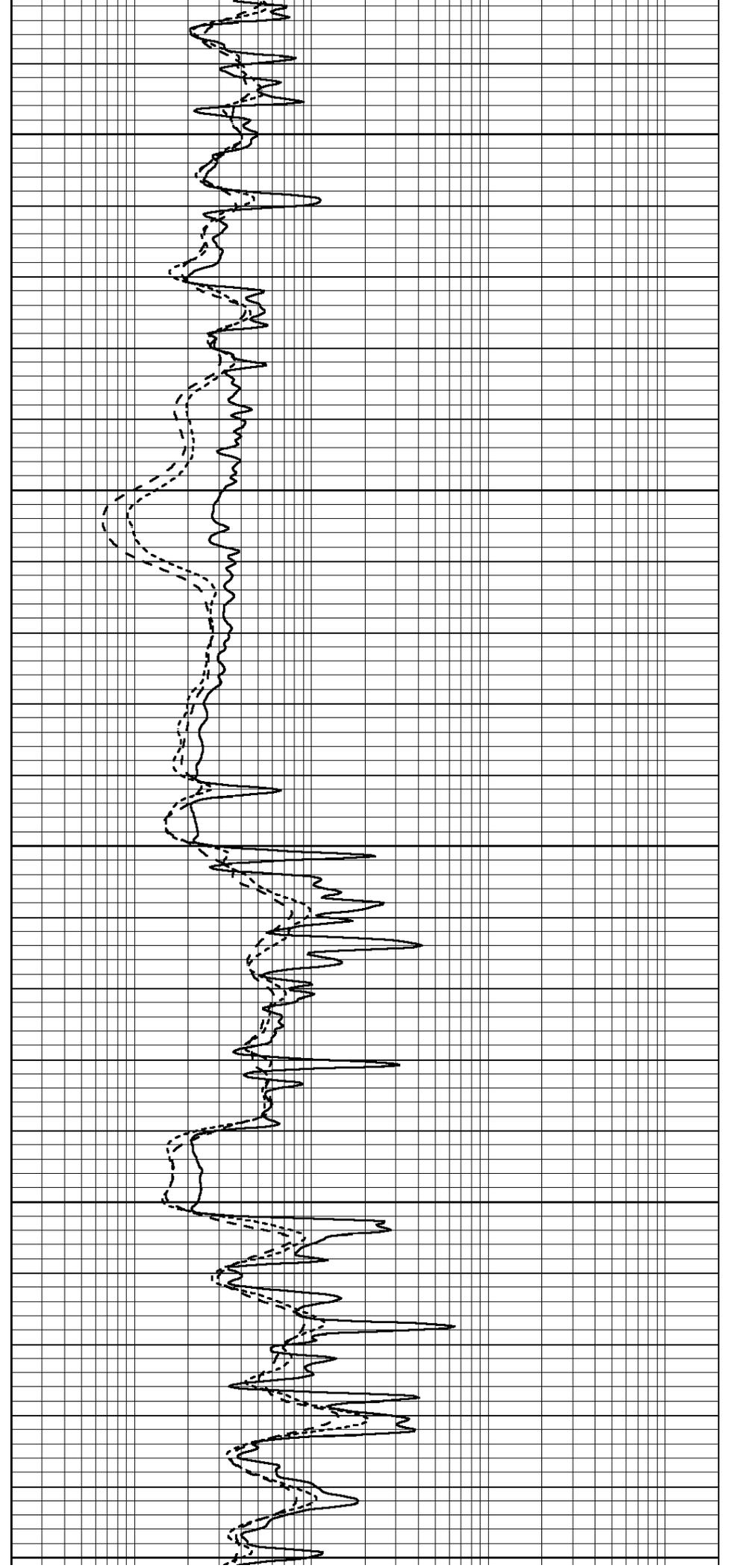
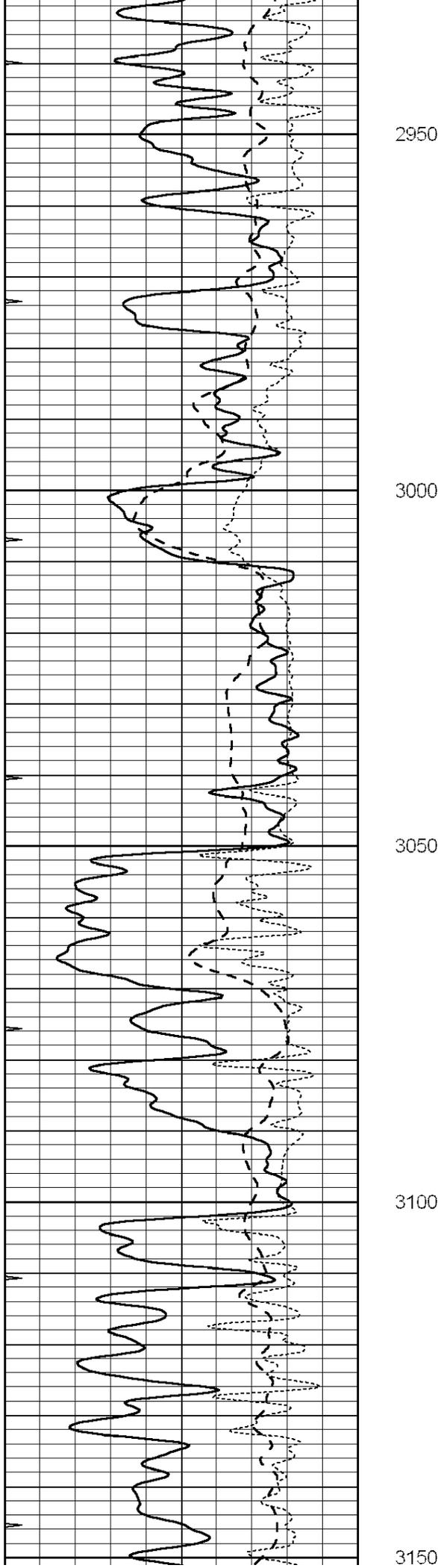
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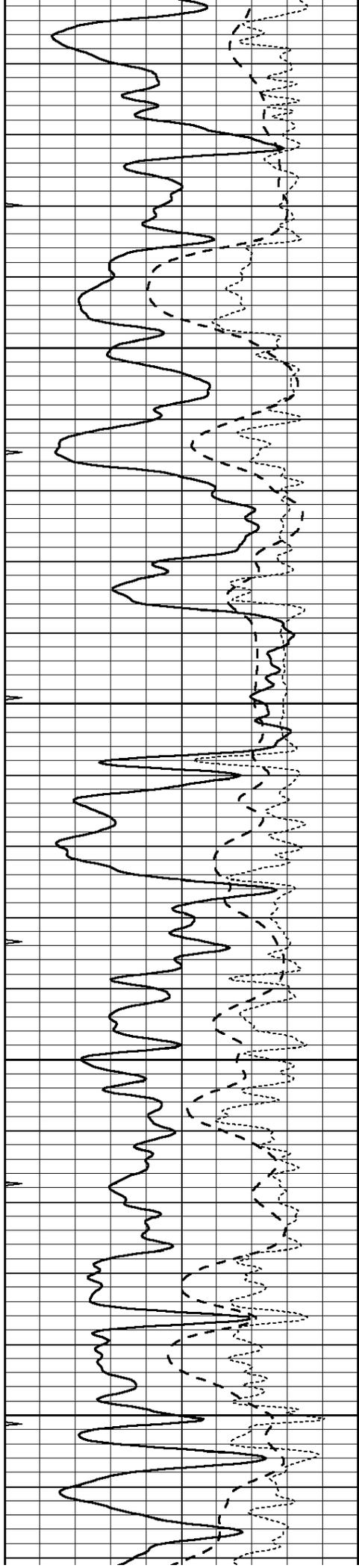
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2900





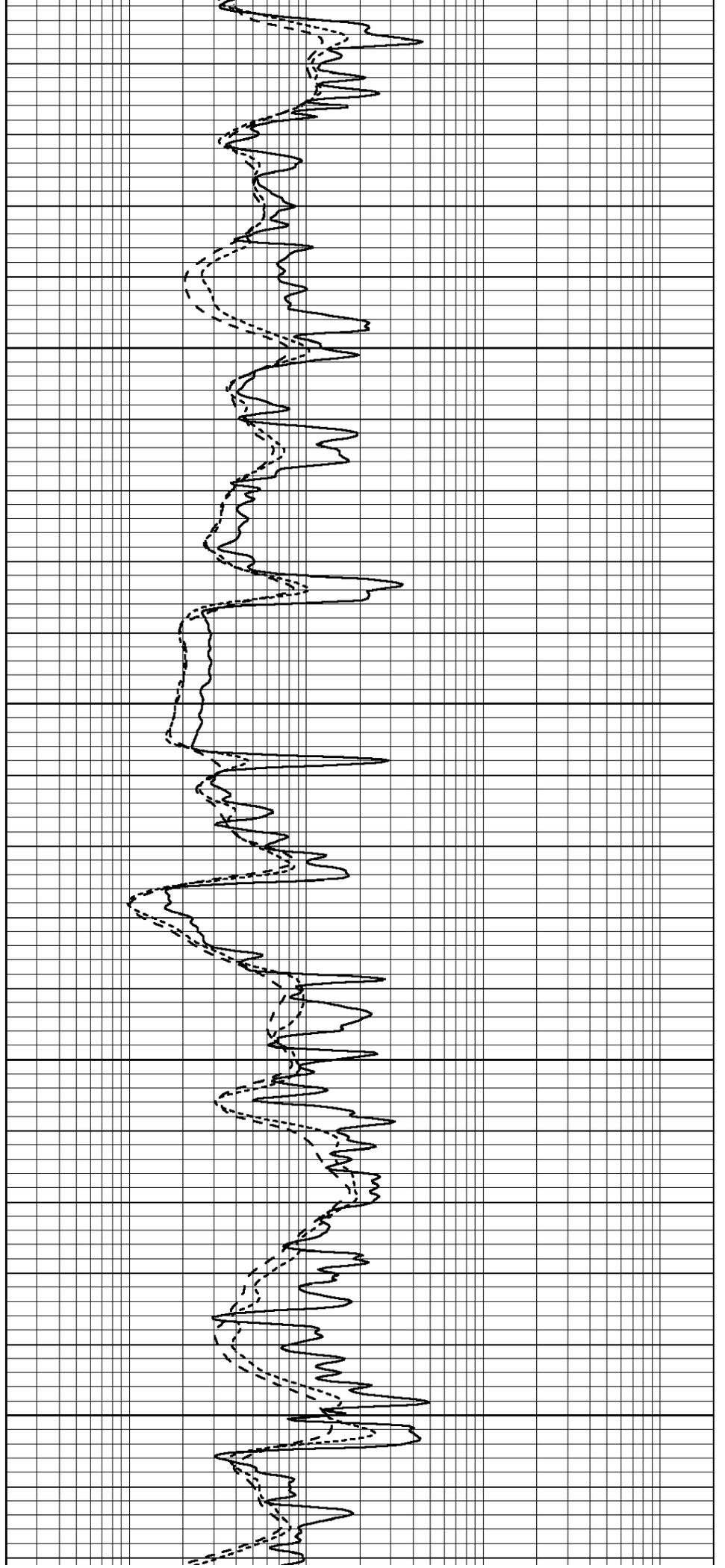


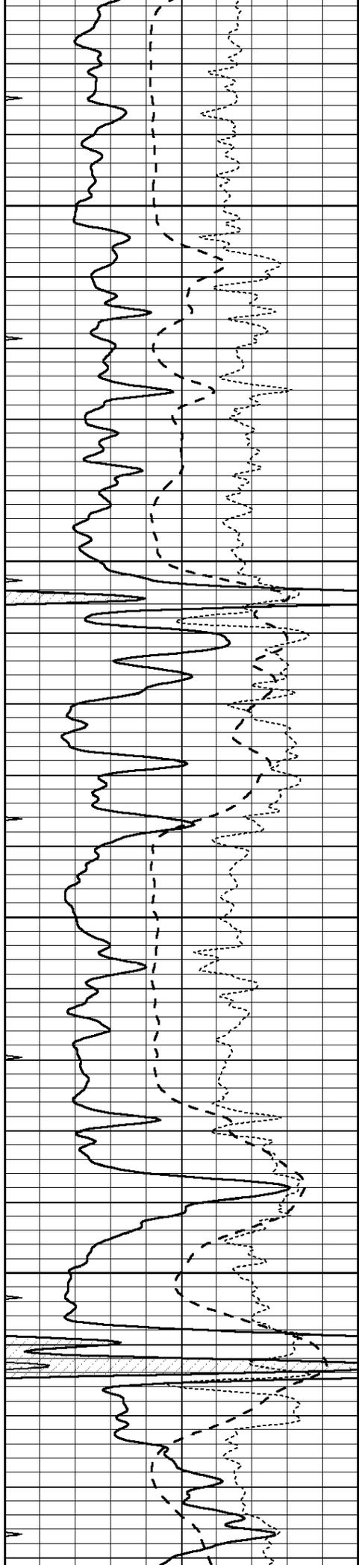
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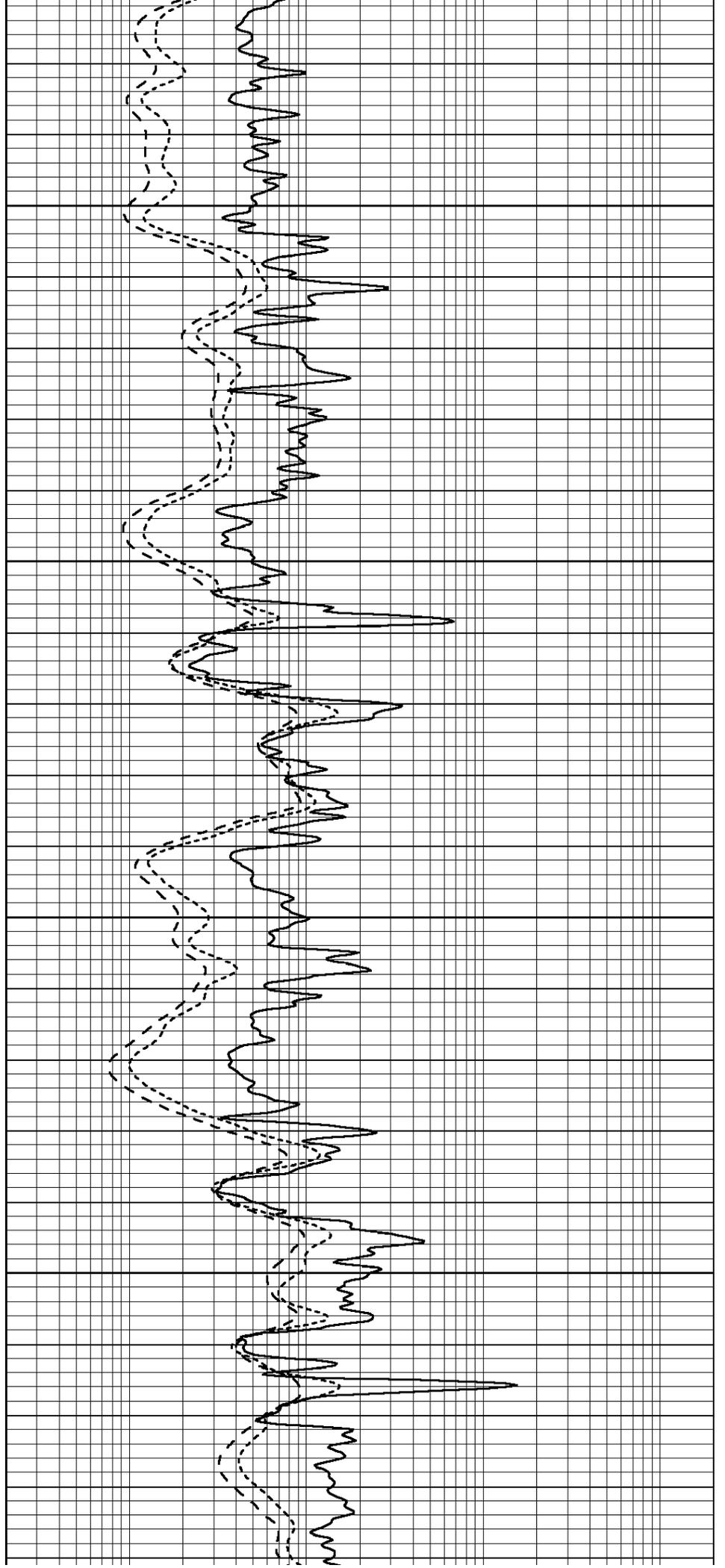


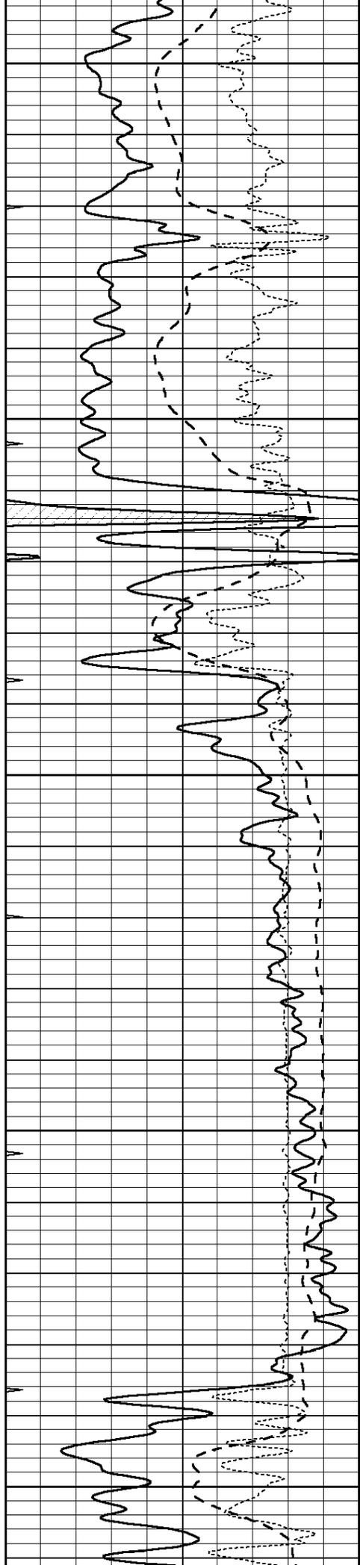
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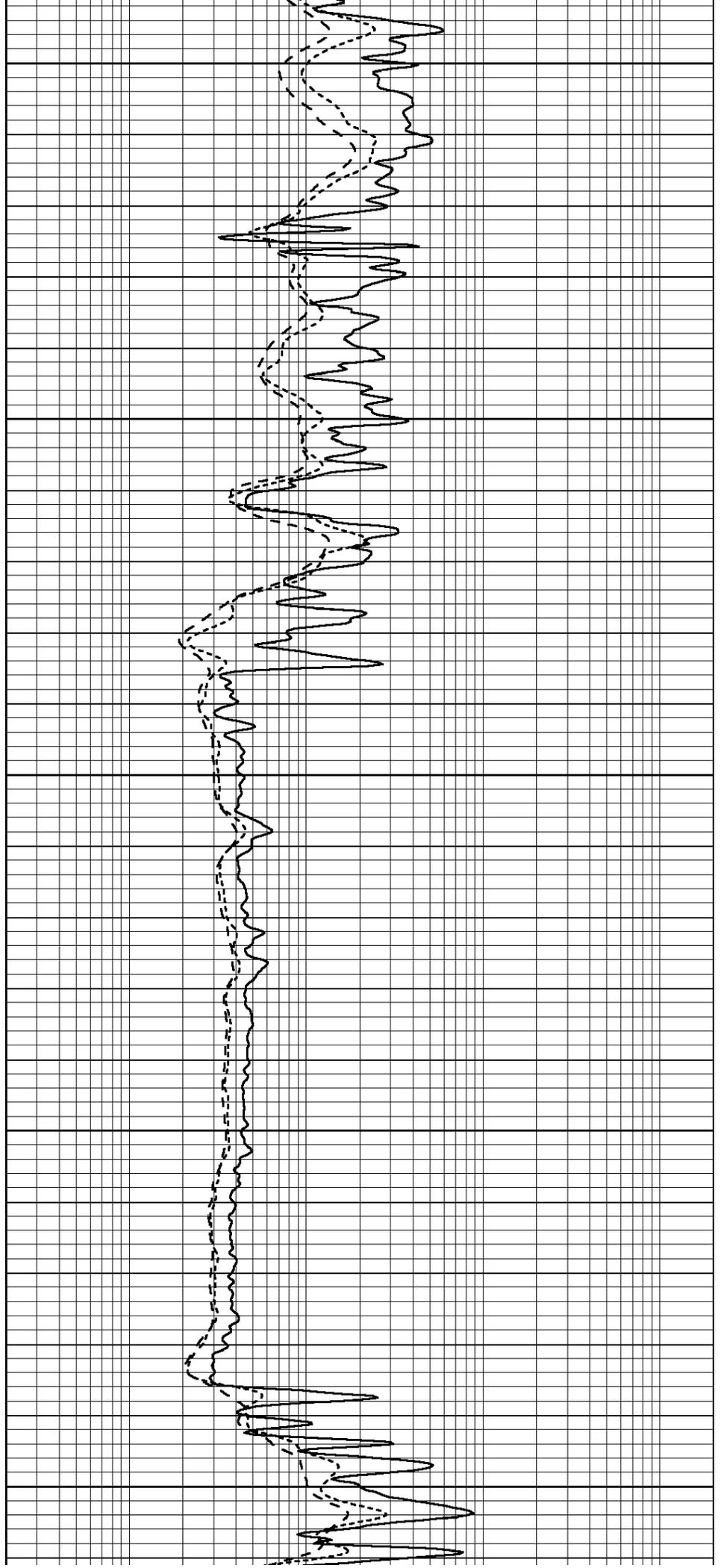
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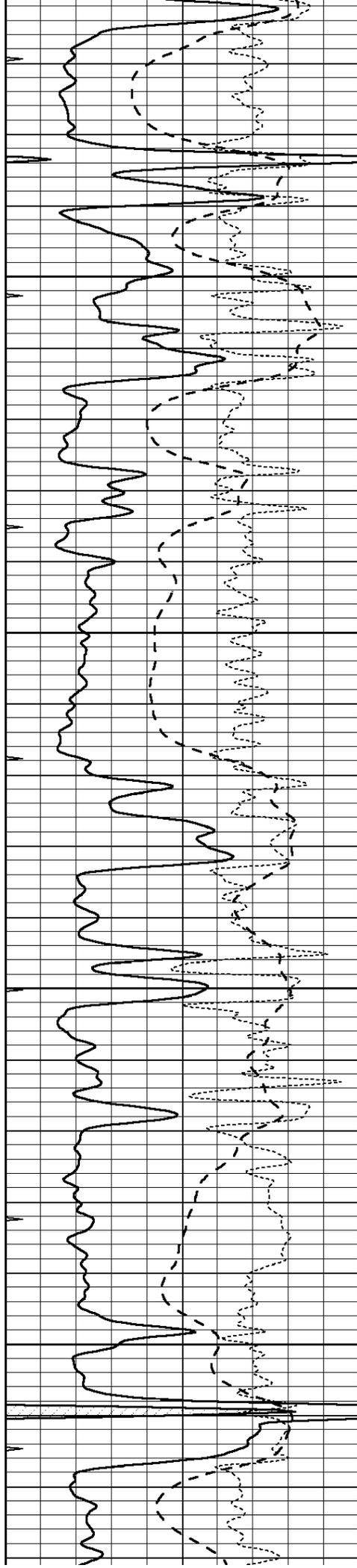
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3800



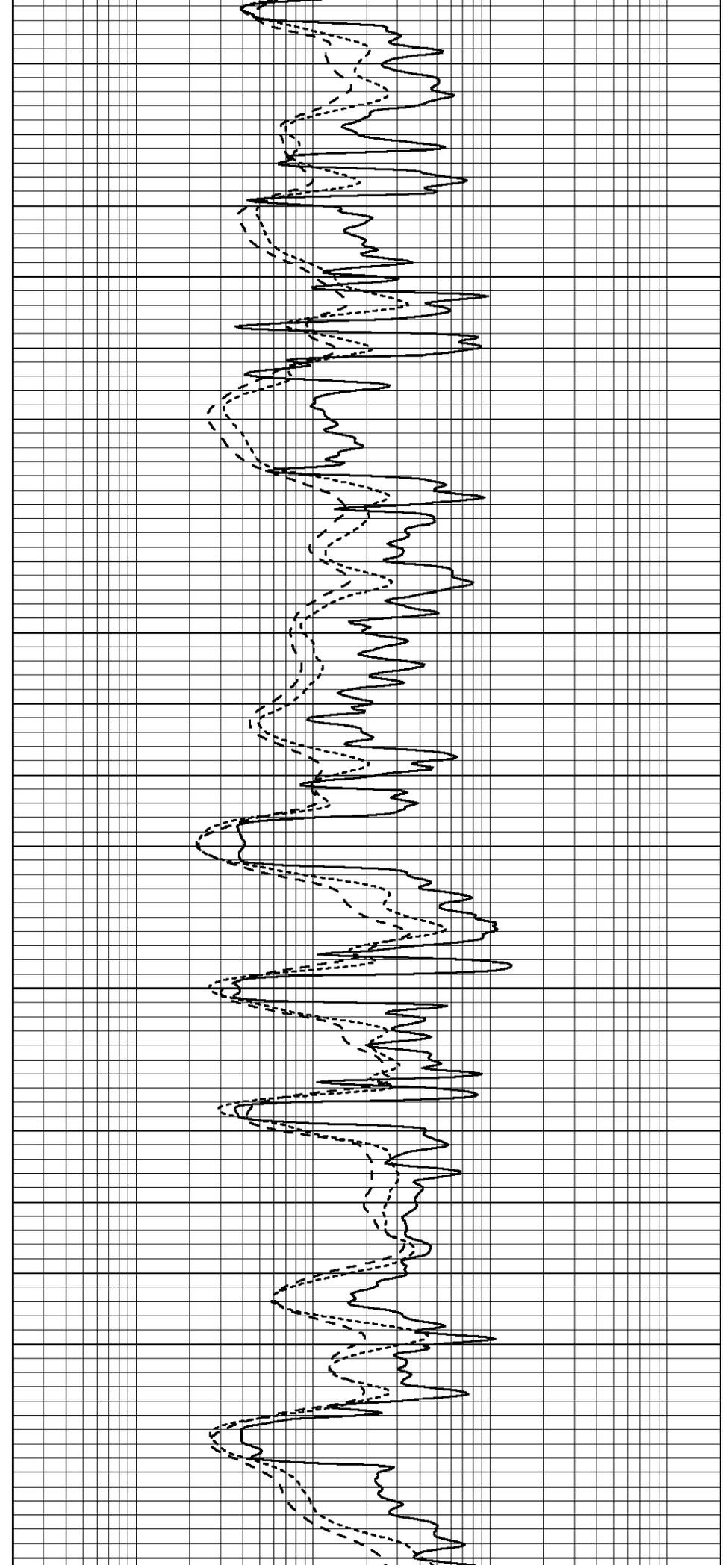


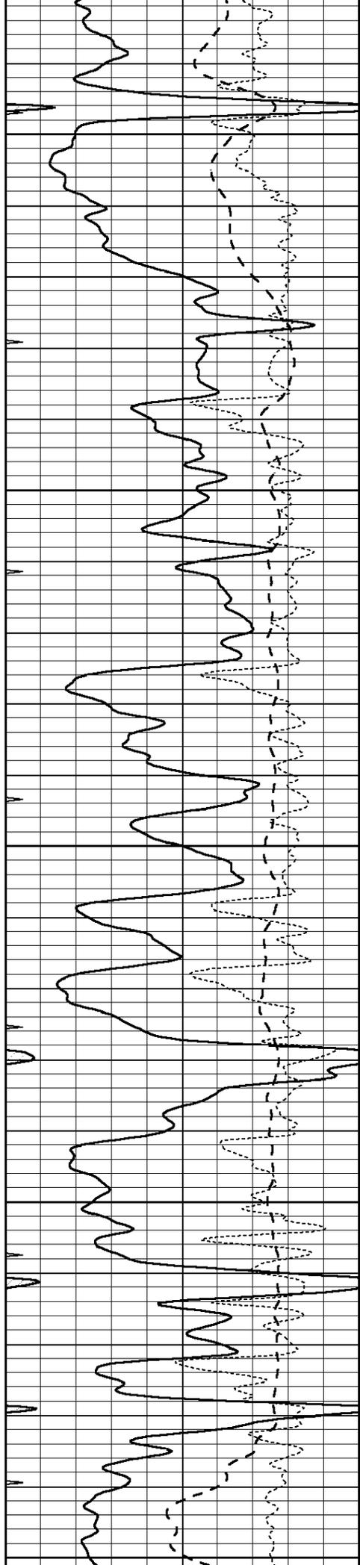
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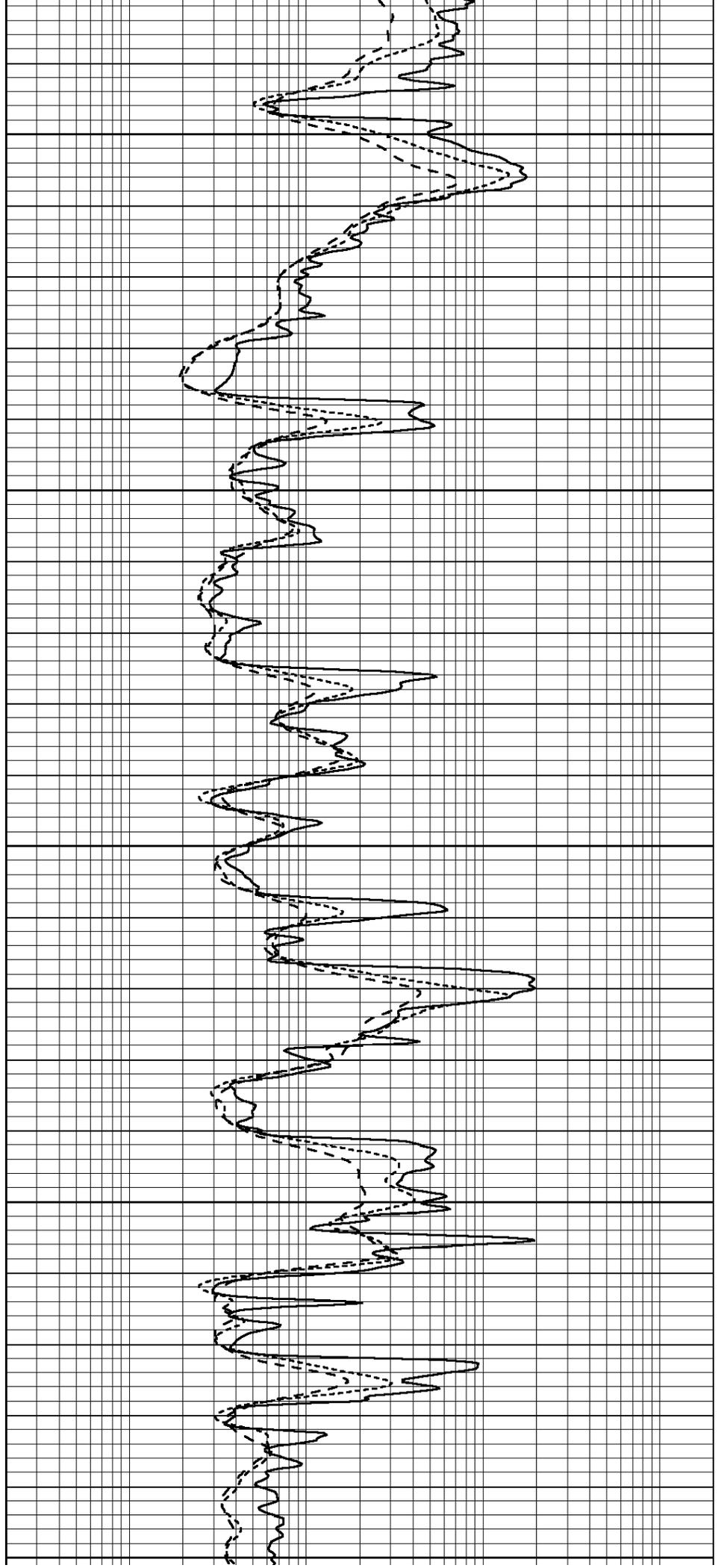
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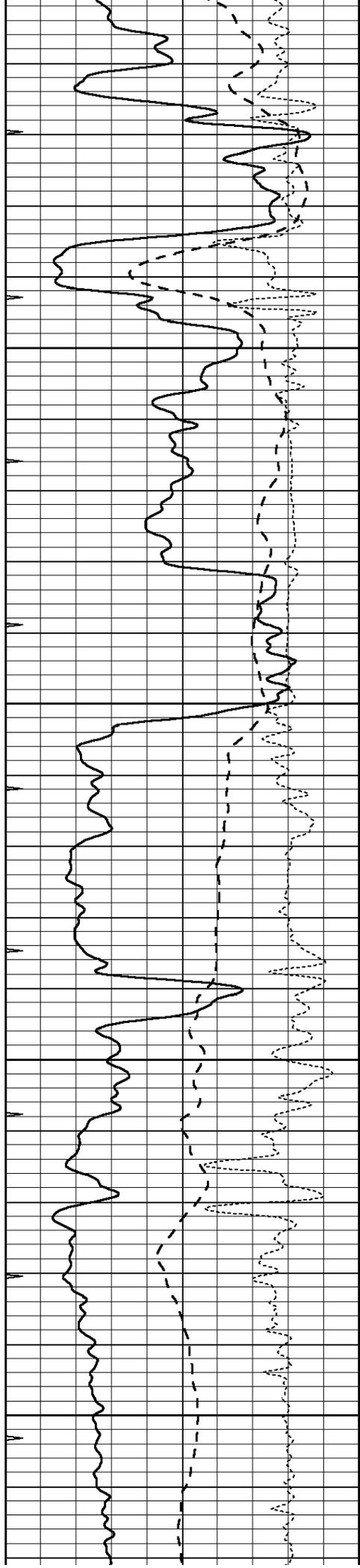
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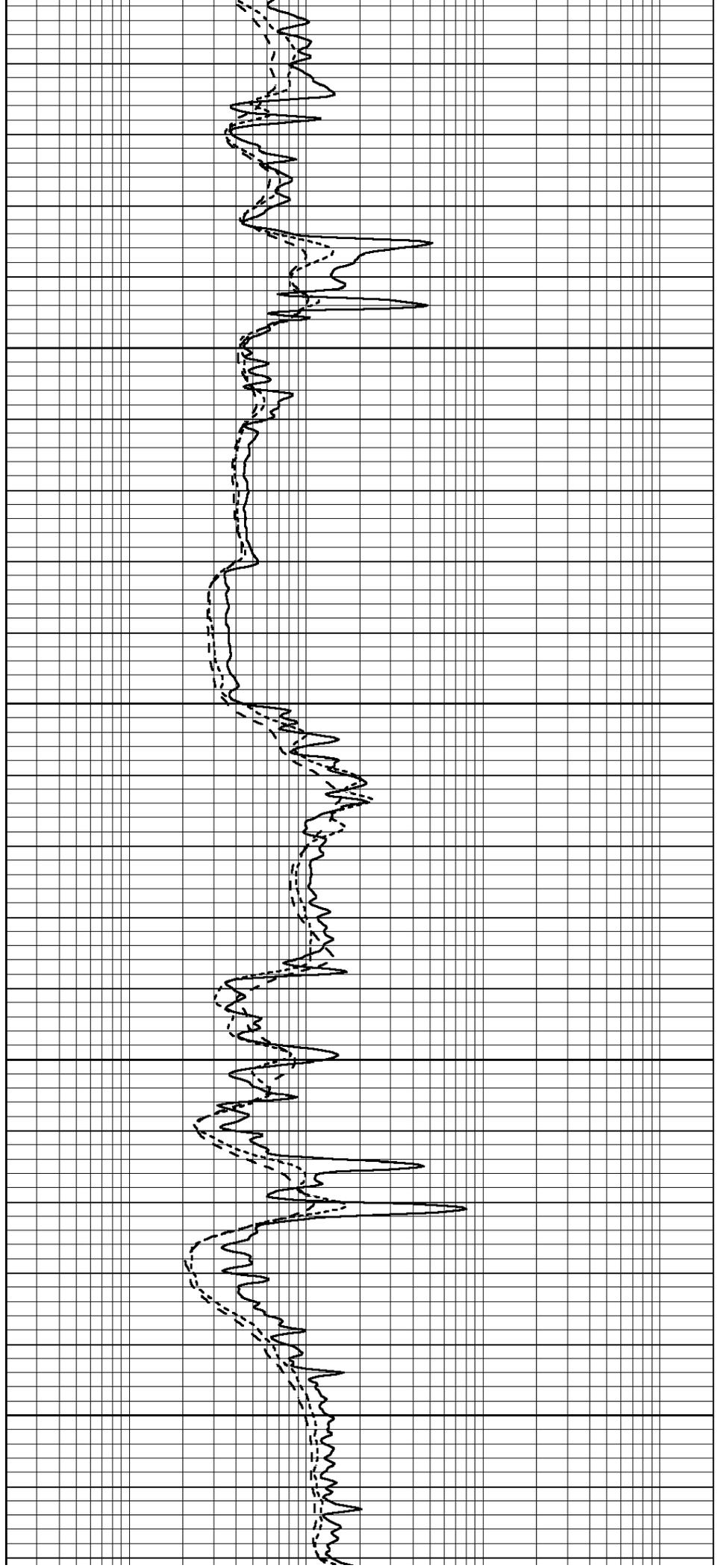


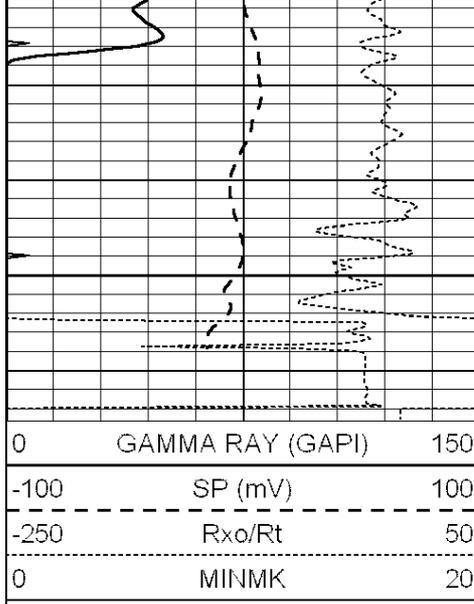
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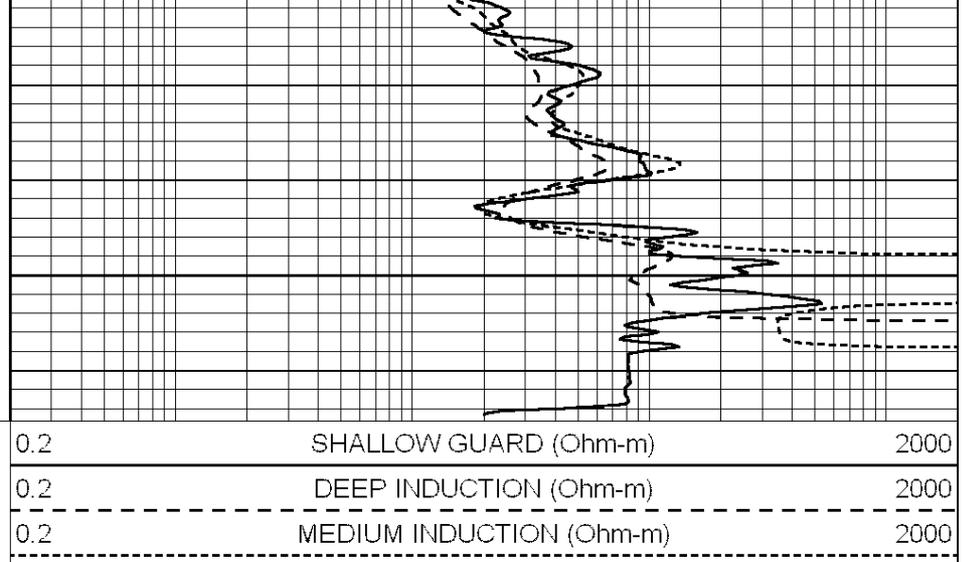
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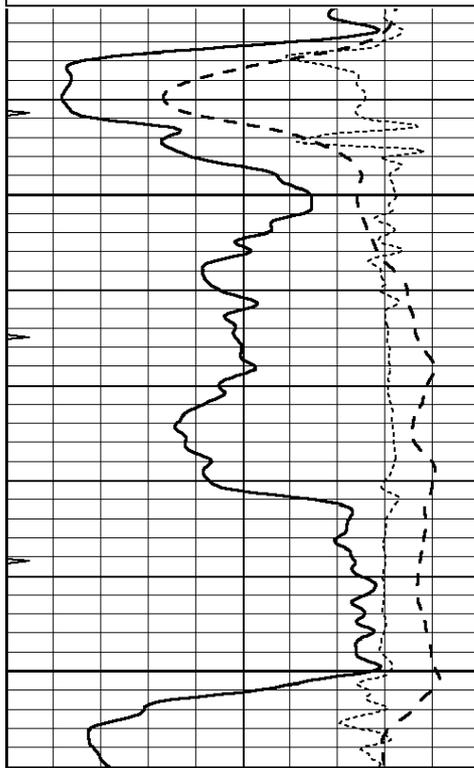
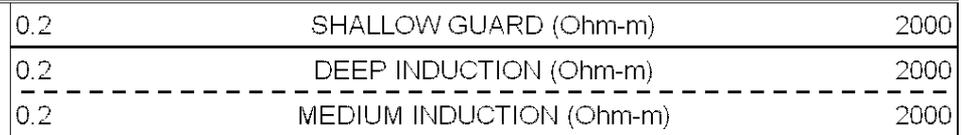
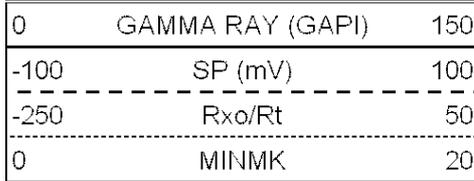


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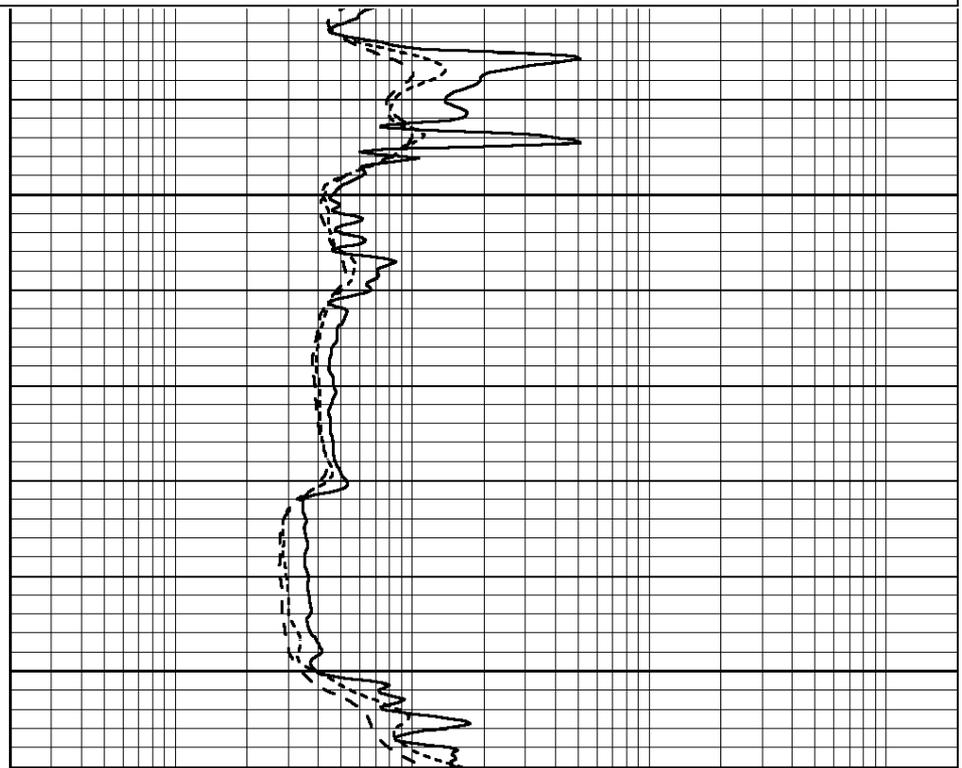
REPEAT SECTION

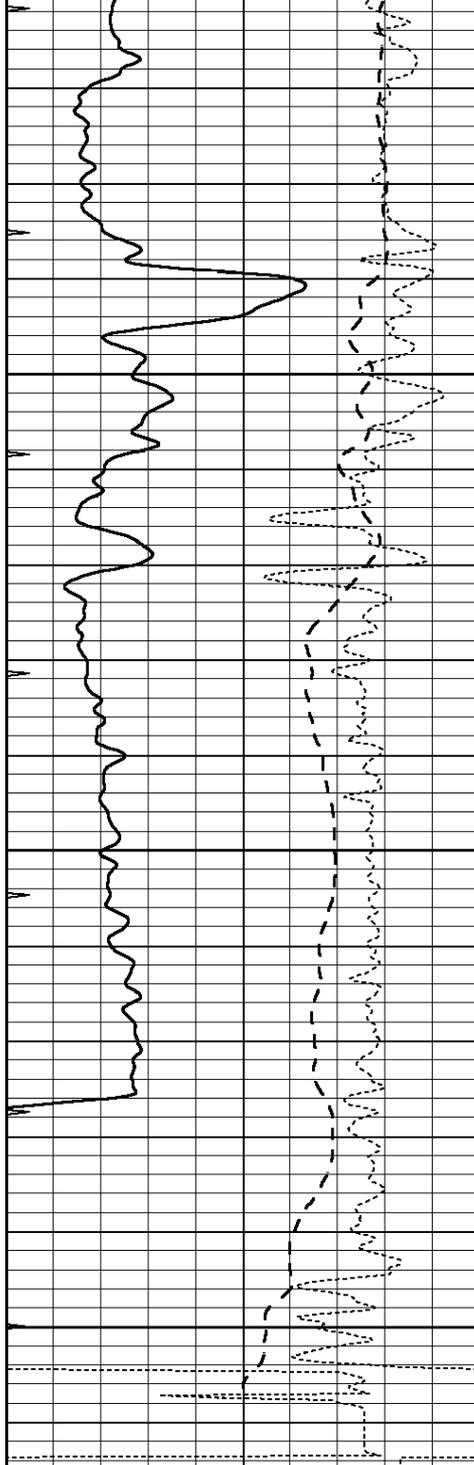
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 Charted by: Depth in Feet scaled 1:240



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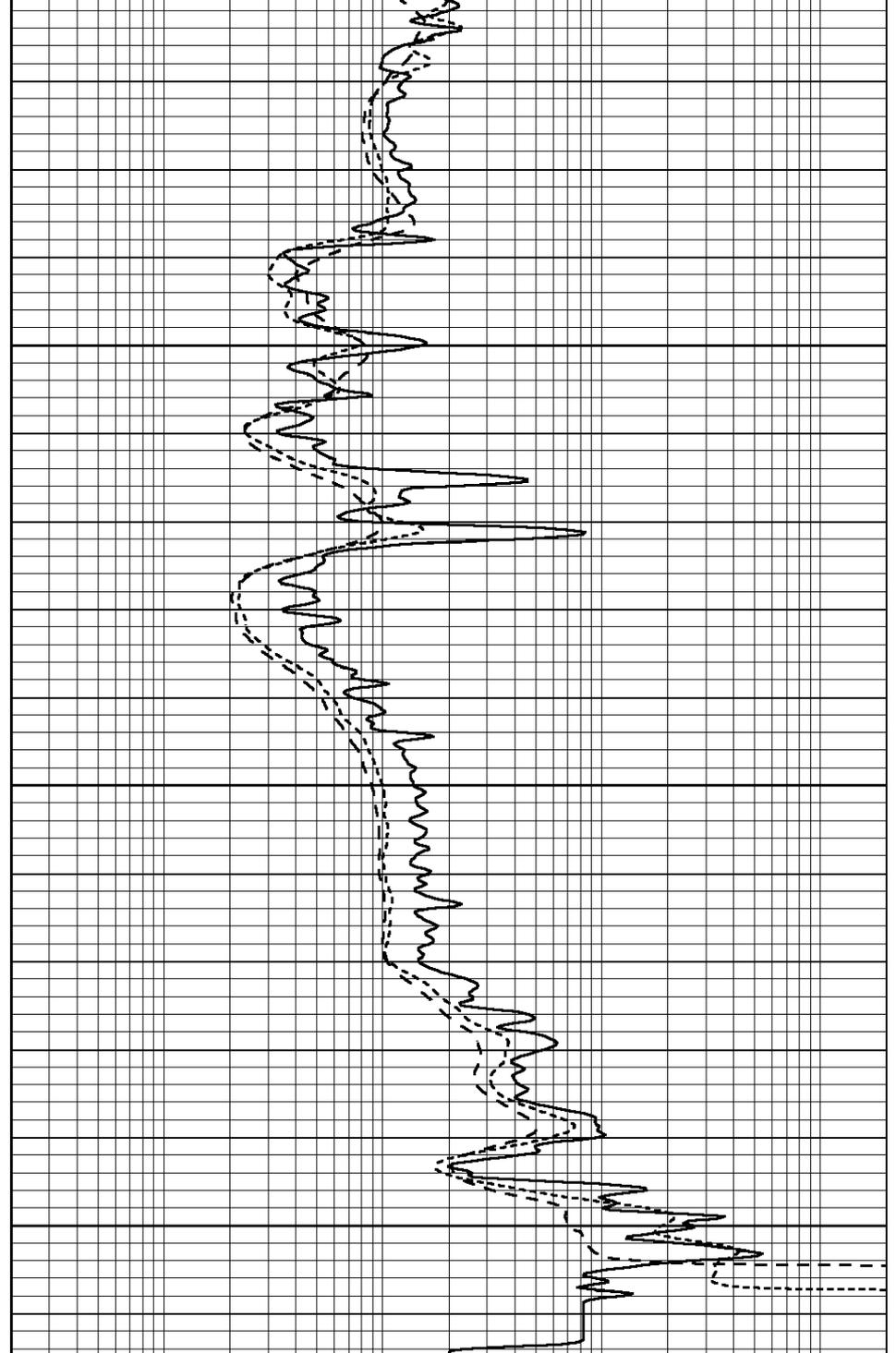


4400

4450

4500

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Calibration Report

Database File: 011699pe.db
 Dataset Pathname: pass4.12
 Dataset Creation: Tue Oct 29 12:05:24 2013 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model:	PROBE9-DILG
Surface Cal Performed:	Tue Oct 29 09:12:47 2013
Downhole Cal Performed:	Mon Jul 28 12:02:56 2008
After Survey Verification Performed:	Mon Jul 28 12:02:56 2008

Surface Calibration									
		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	650.000	-13.000	
Medium	0.039	0.728	V	0.000	464.000	mmho/m	640.000	-20.000	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256	
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102	

Downhole Calibration									
		Readings			References			Results	
		Zero	Cal		Zero	Cal	m'	b'	
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000	
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000	
LL3		7.500	V		1400.000	Ohm-m			
		0.000	V		20.000	Ohm-m			
		-7.200	V		4000.000	mmho-m			

After Survey Verification									
		Readings			Targets			Results	
		Zero	Cal		Zero	Cal	m'	b'	
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000	
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000	
LL3		1.000	Ohm-m		1.000	Ohm-m			
		0.000	Ohm-m		0.000	Ohm-m			
		1.000	mmho-m		1.000	mmho-m			

Litho Density Calibration Report
Serial: 004N Model: PRB

Master Calibration		Performed Mon Jun 03 09:36:56 2013						
		Background	Magnesium	Aluminum	Sandstone			
Window 1		1417.6	10391.4	3464.6	11537.5	cps		
Window 2		1295.0	8959.7	3050.1	9816.4	cps		
Window 3		1105.1	5464.2	2051.0	5838.8	cps		
Window 4		315.0	317.7	312.9	319.8	cps		
Long Space		0.0	7664.6	1755.0	8521.3	cps		
Short Space		1.8	1582.4	1040.8	1699.4	cps		
Rho			1.7100	2.5900	1.3800	g/cc		
Pe			0.0000	2.5700	1.5500			
Rib Angle	: 44.1	Rib Slope	: 0.970	Density/Spine Ratio	: 0.574			
Spine Angle	: 74.1	Spine Slope	: 3.519	Spine Intercept	: -17.0			

Before Survey Verification		Performed Wed Dec 31 18:00:00 1969						
Window 1		0.0	0.0	0.0	0.0	cps		
Window 2		0.0	0.0	0.0	0.0	cps		
Window 3		0.0	0.0	0.0	0.0	cps		
Window 4		0.0	0.0	0.0	0.0	cps		
Long Space		0.0	0.0	0.0	0.0	cps		
Short Space		0.0	0.0	0.0	0.0	cps		
Measured Rho			0.0000	0.0000	0.0000	g/cc		
Measured Correction			0.0000	0.0000	0.0000	g/cc		
Measured Pe				0.0000	0.0000			

After Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 070808
Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 070559
Tool Model: OPEN_GR
Performed: Mon Oct 21 18:53:38 2013

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.3000 GAPI/cps