



SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company	MAI OIL OPERATIONS, INC.		
Well	3 SISTERS #3		
Field	CLARA		
County	PRATT	State	KANSAS
Location:	APL # : 15-151-22383-0000		Other Services CDL/CNL/PE MEL/SONIC
Well	3 SISTERS #3		
Field	CLARA		
County	PRATT	State	KANSAS
Permanent Datum	GROUND LEVEL		Elevation 1964
Log Measured From	KELLY BUSHING 12' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Date	12/19/11		
Run Number	ONE		
Depth Driller	4625		
Depth Logger	4626		
Bottom Logged Interval	4624		
Top Log Interval	00		
Casing Driller	13 3/8"@285'		
Casing Logger	283		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 9,000 PPM	
Density / Viscosity	9.1/94		
pH / Fluid Loss	9.5/14.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.420@80F		
Rmt @ Meas. Temp	.315@80F		
Rmc @ Meas. Temp	.504@80F		
Source of Rmt / Rmc	MEASUREMENT		
Rm @ BHT	.275@122F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	8:30 A.M.		
Maximum Recorded Temperature	122F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KURT TALBOTT	ALLEN BANGERT	

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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

THANK YOU FOR USING SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS
COATS, KS., 1E., 3S., W. INTO



SUPERIOR
Hays,
Kansas

MAIN SECTION

Database File: 008126pe.db
Dataset Pathname: pass3.6
Presentation Format: dil2
Dataset Creation: Mon Dec 19 10:43:13 2011
Charted by: Depth in Feet scaled 1:600

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

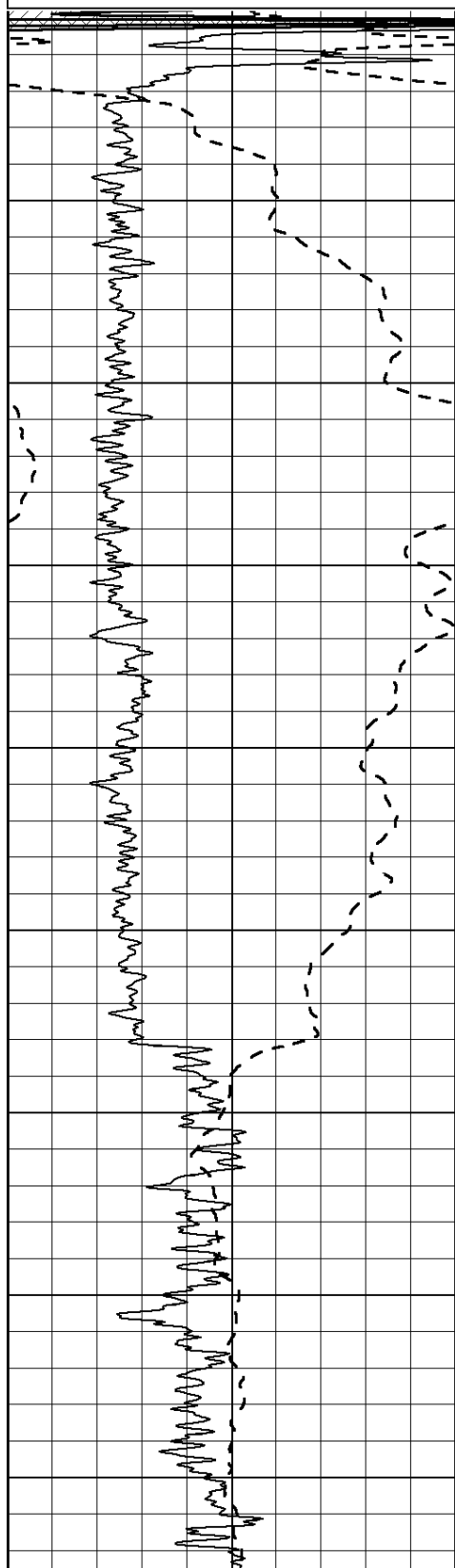
0	RLL3 (Ohm-m)	50
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0	RILD (Ohm-m)	50
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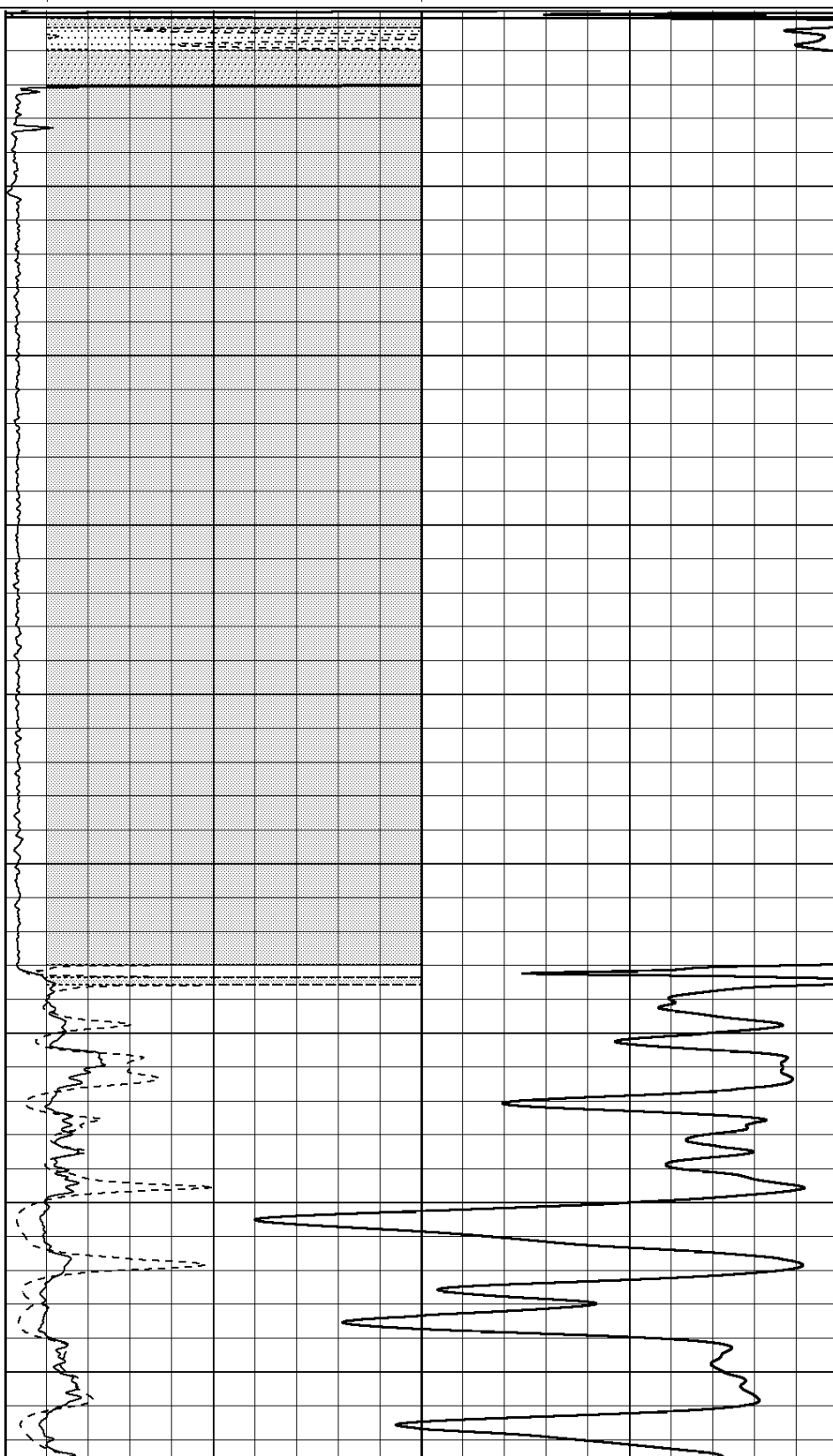
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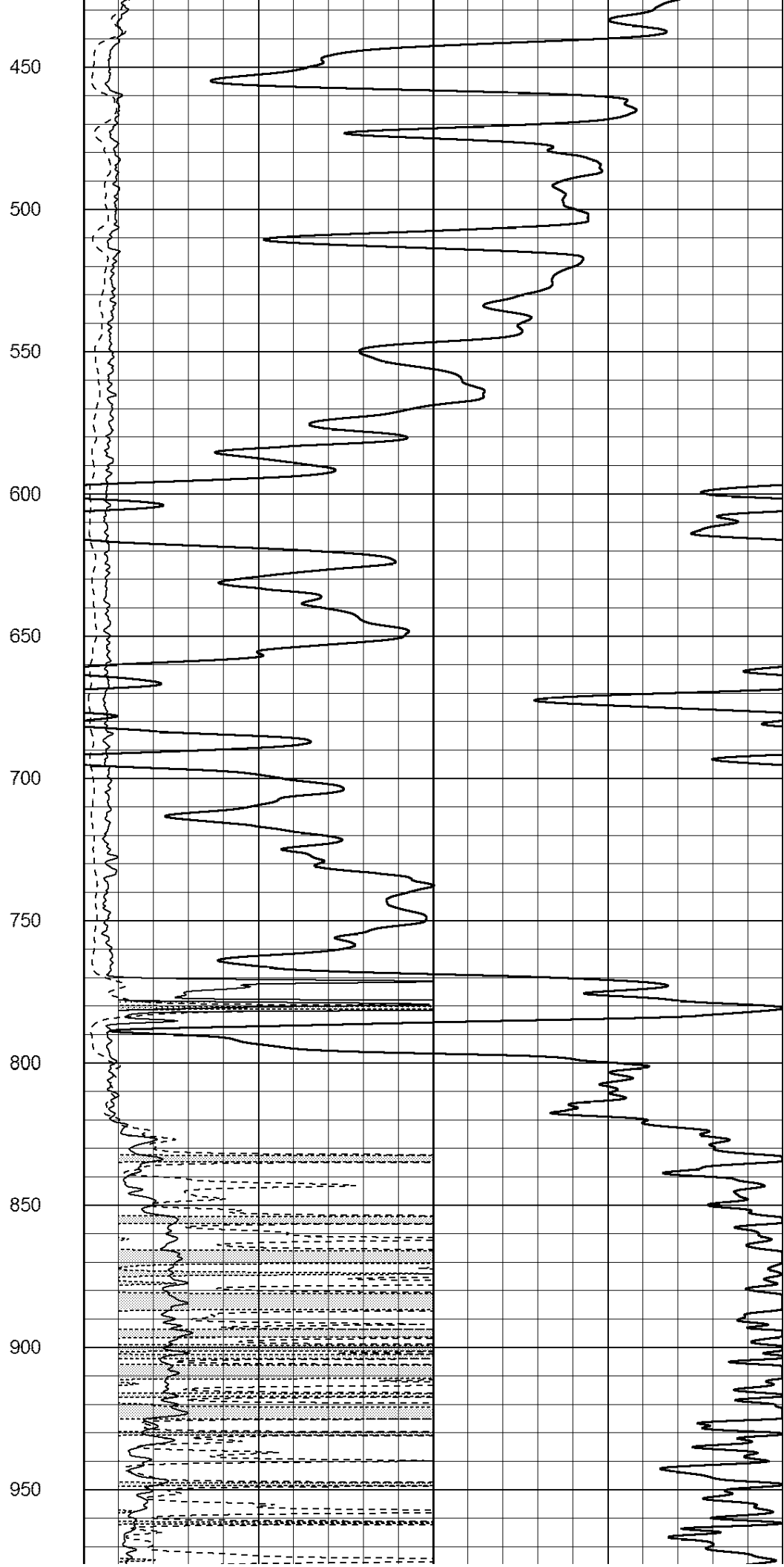
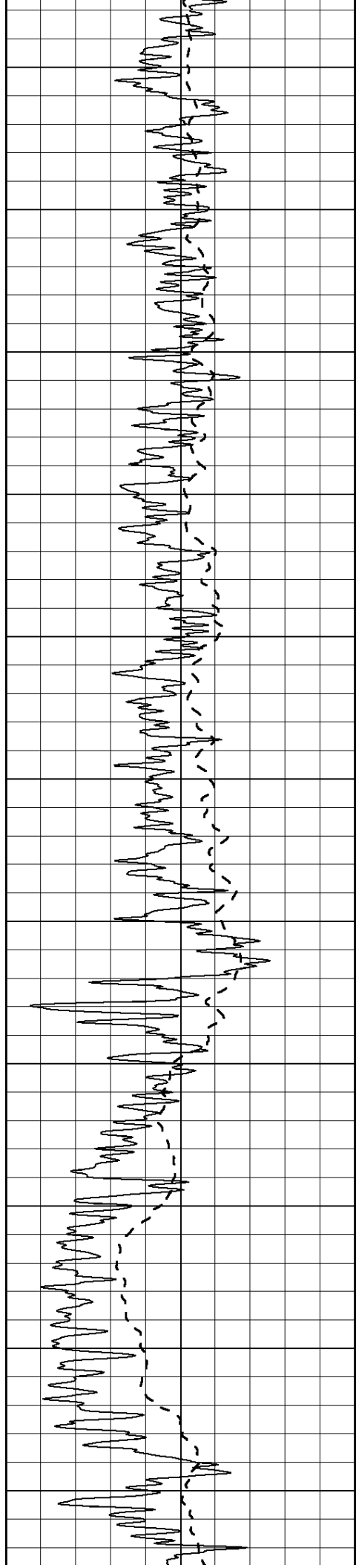
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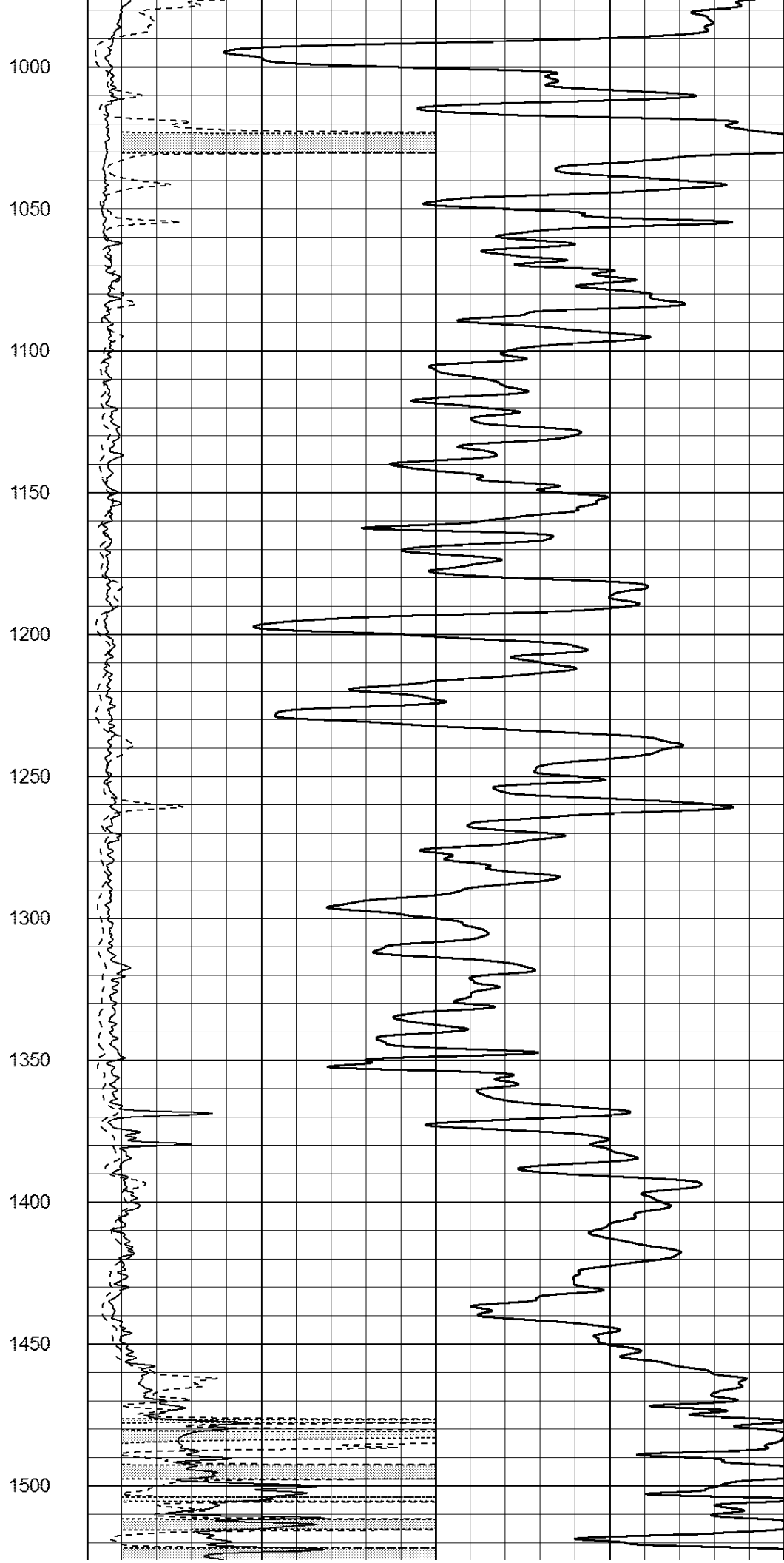
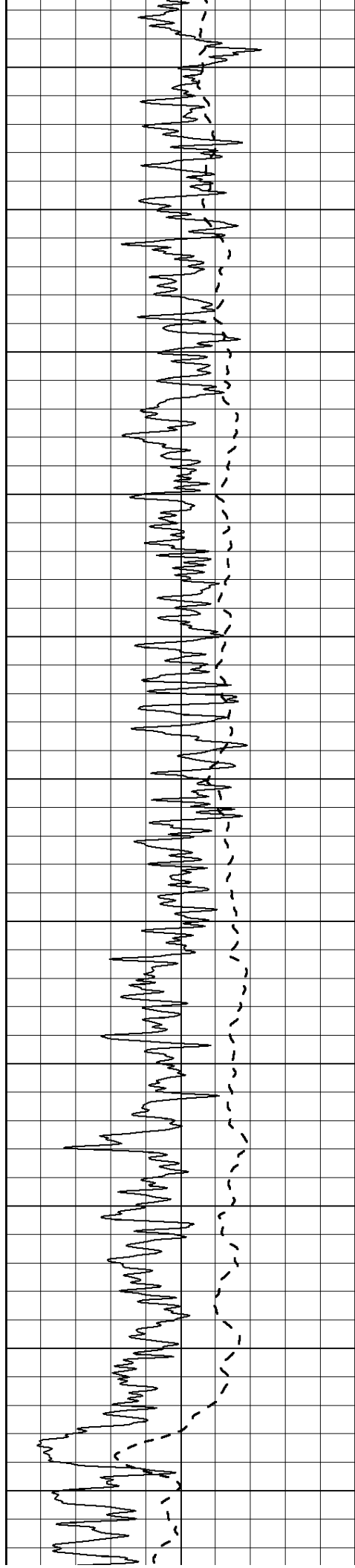
50	RLL3 X10 (Ohm-m)	500
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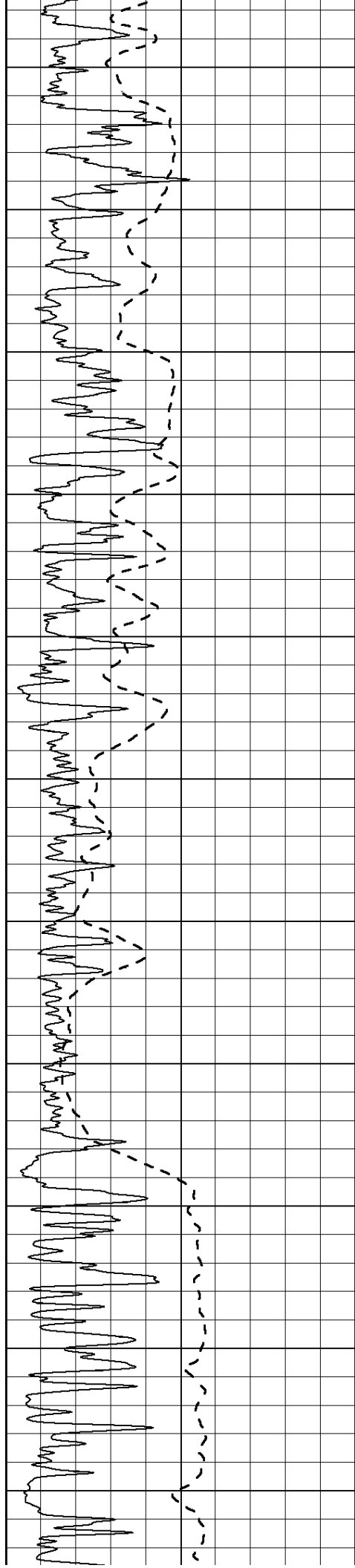


0
50
100
150
200
250
300
350
400









1550

1600

1650

1700

1750

1800

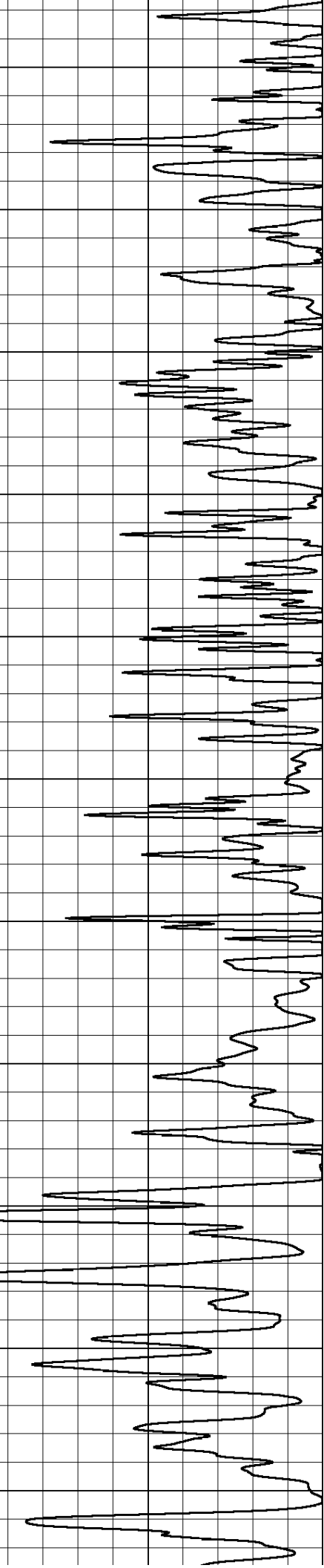
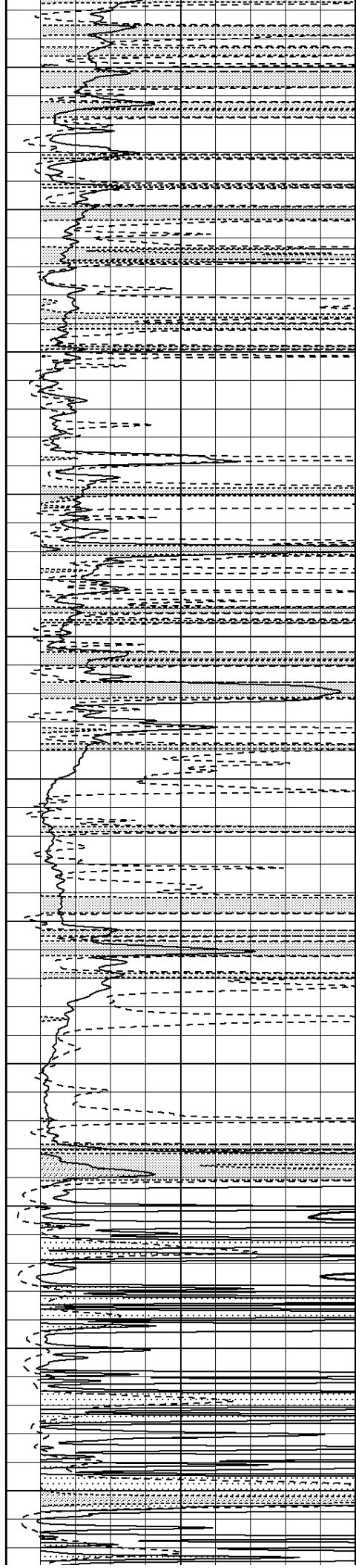
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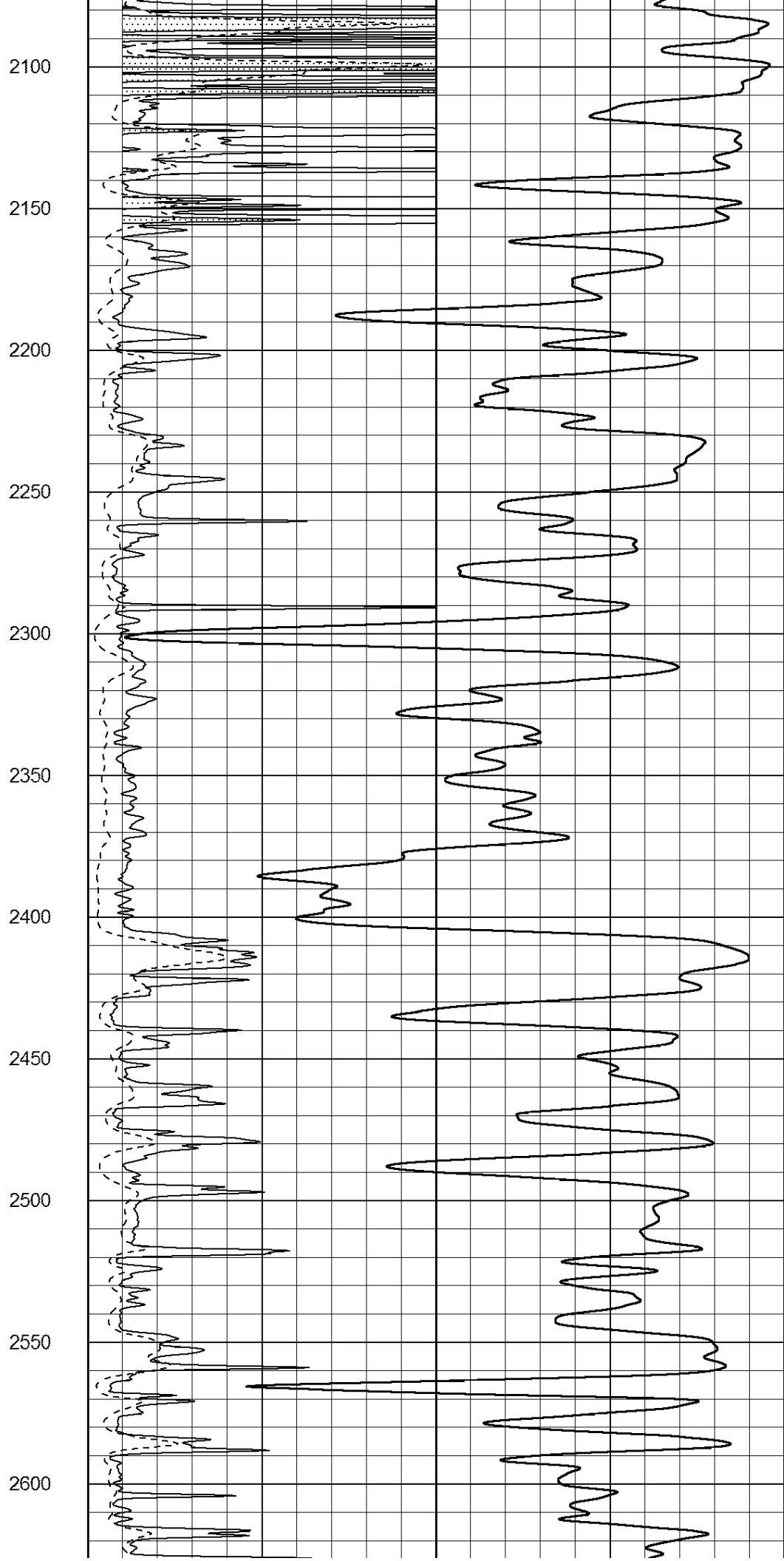
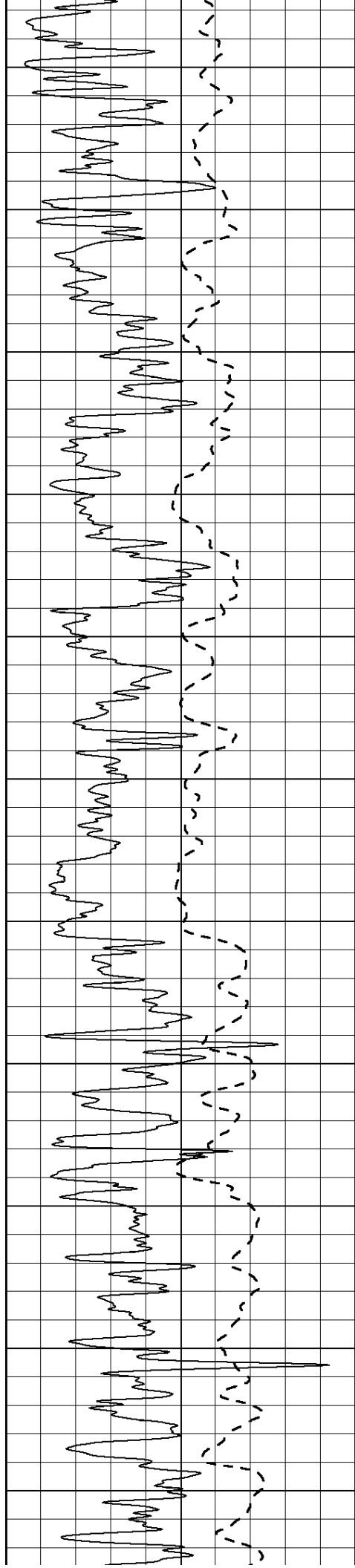
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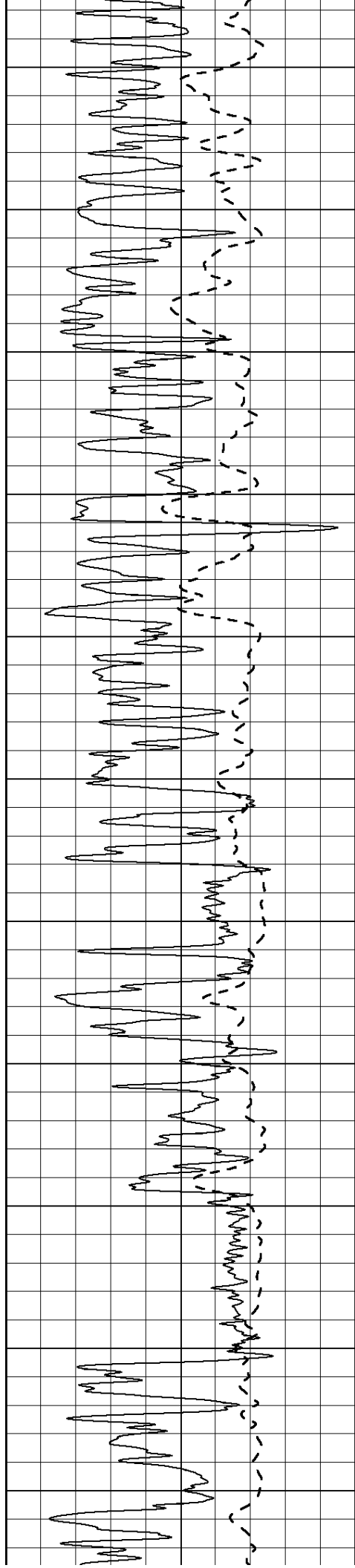
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2000

2050







2650

2700

2750

2800

2850

2900

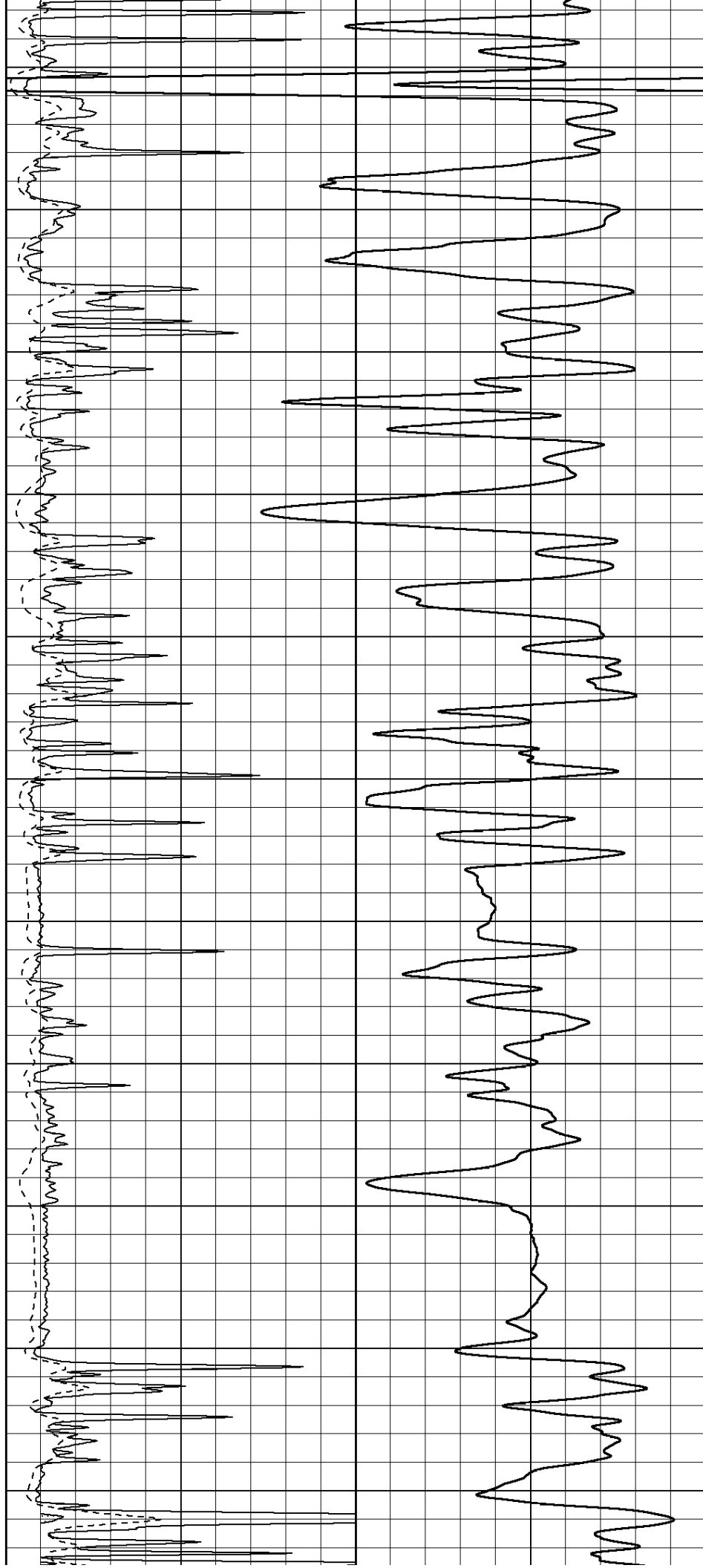
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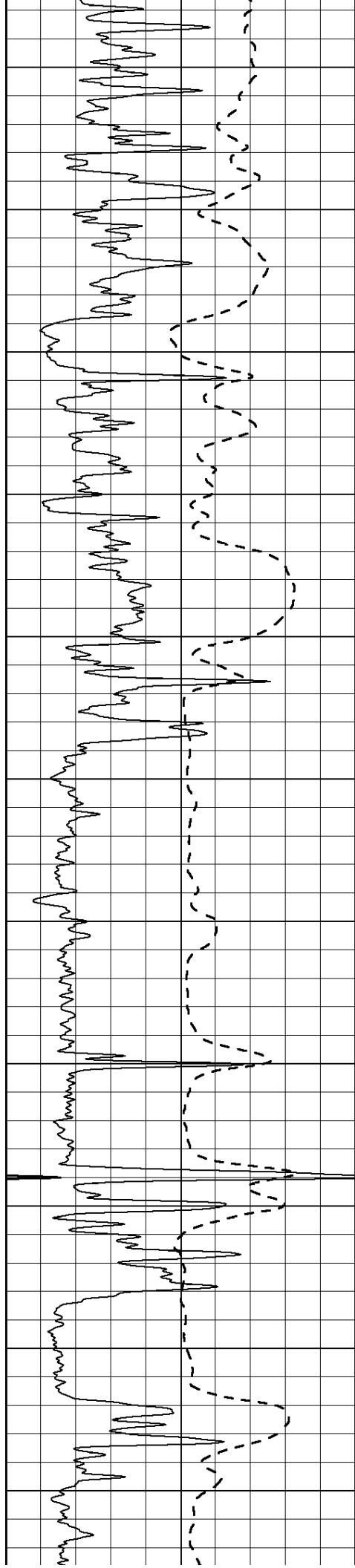
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3100

3150





3200

3250

3300

3350

3400

3450

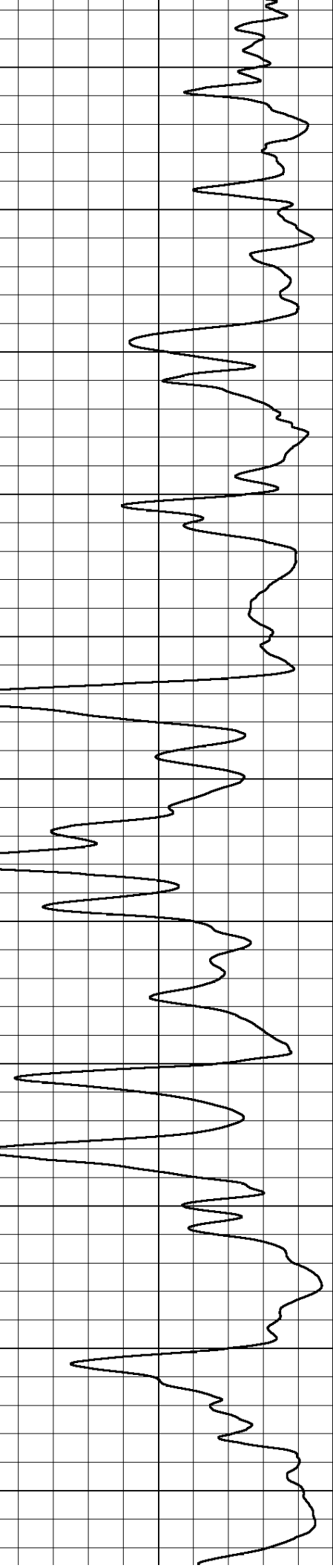
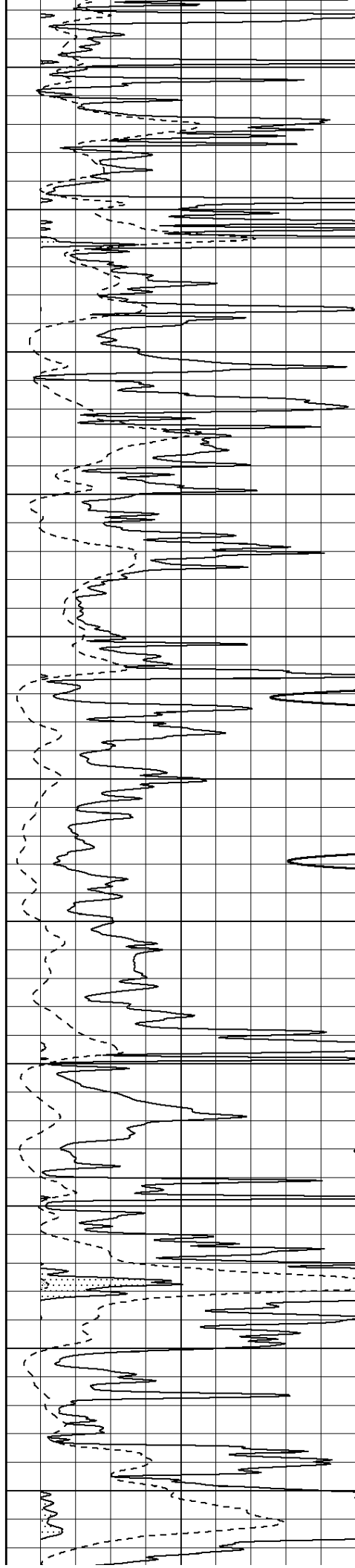
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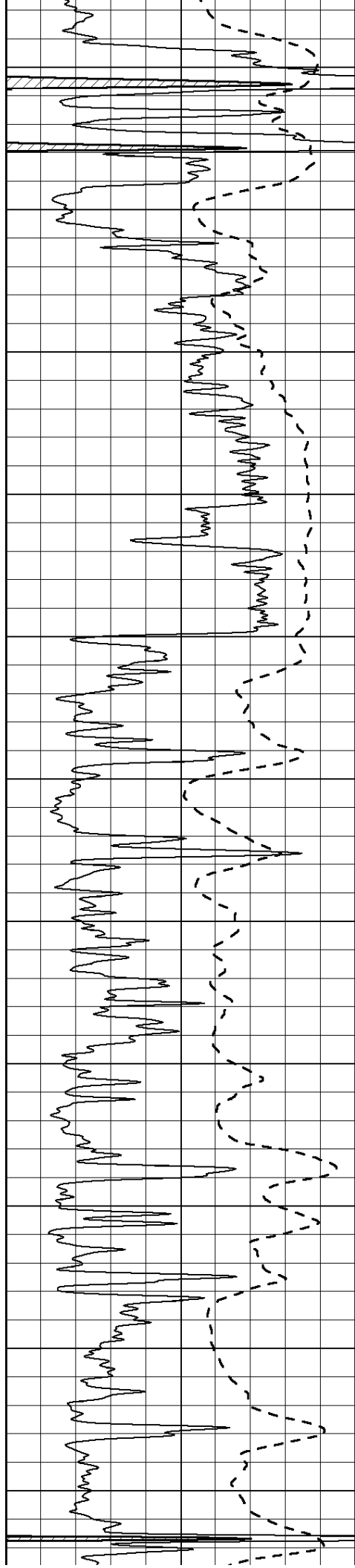
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3700





3750

3800

3850

3900

3950

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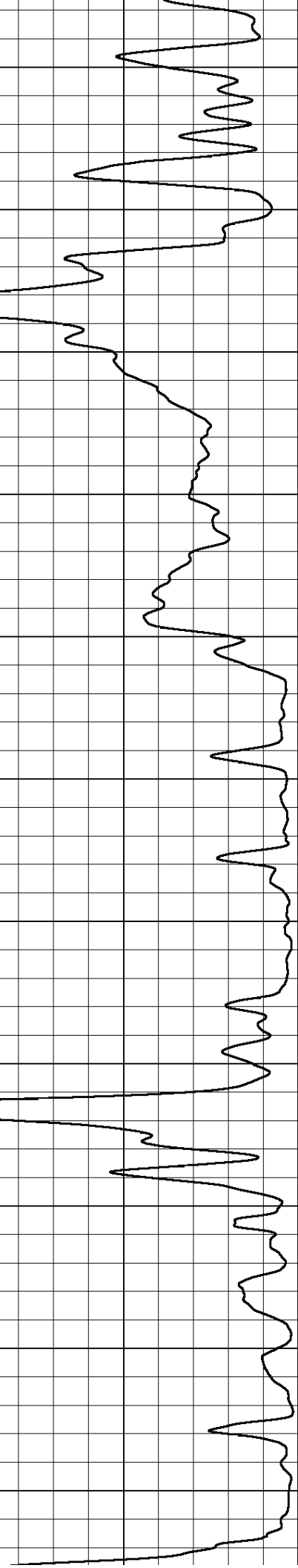
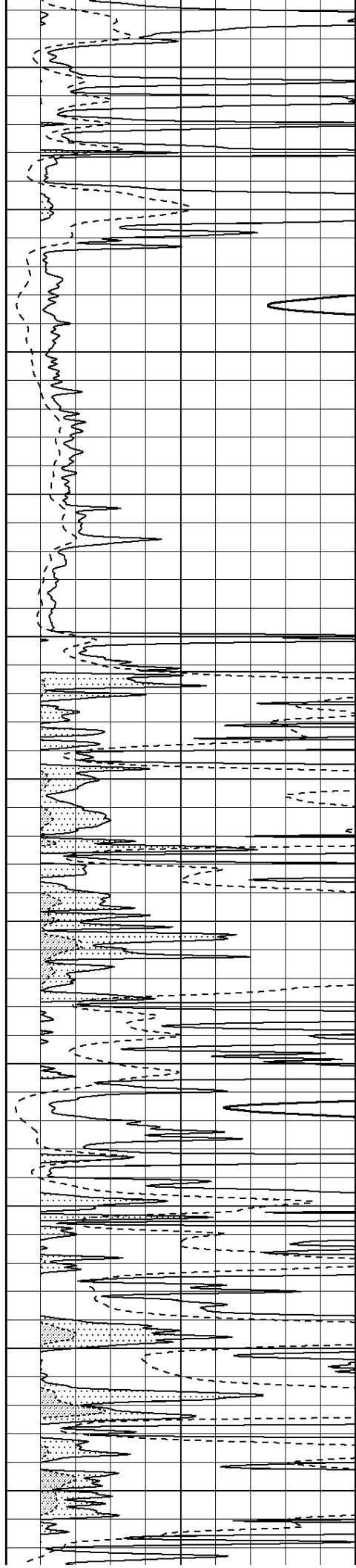
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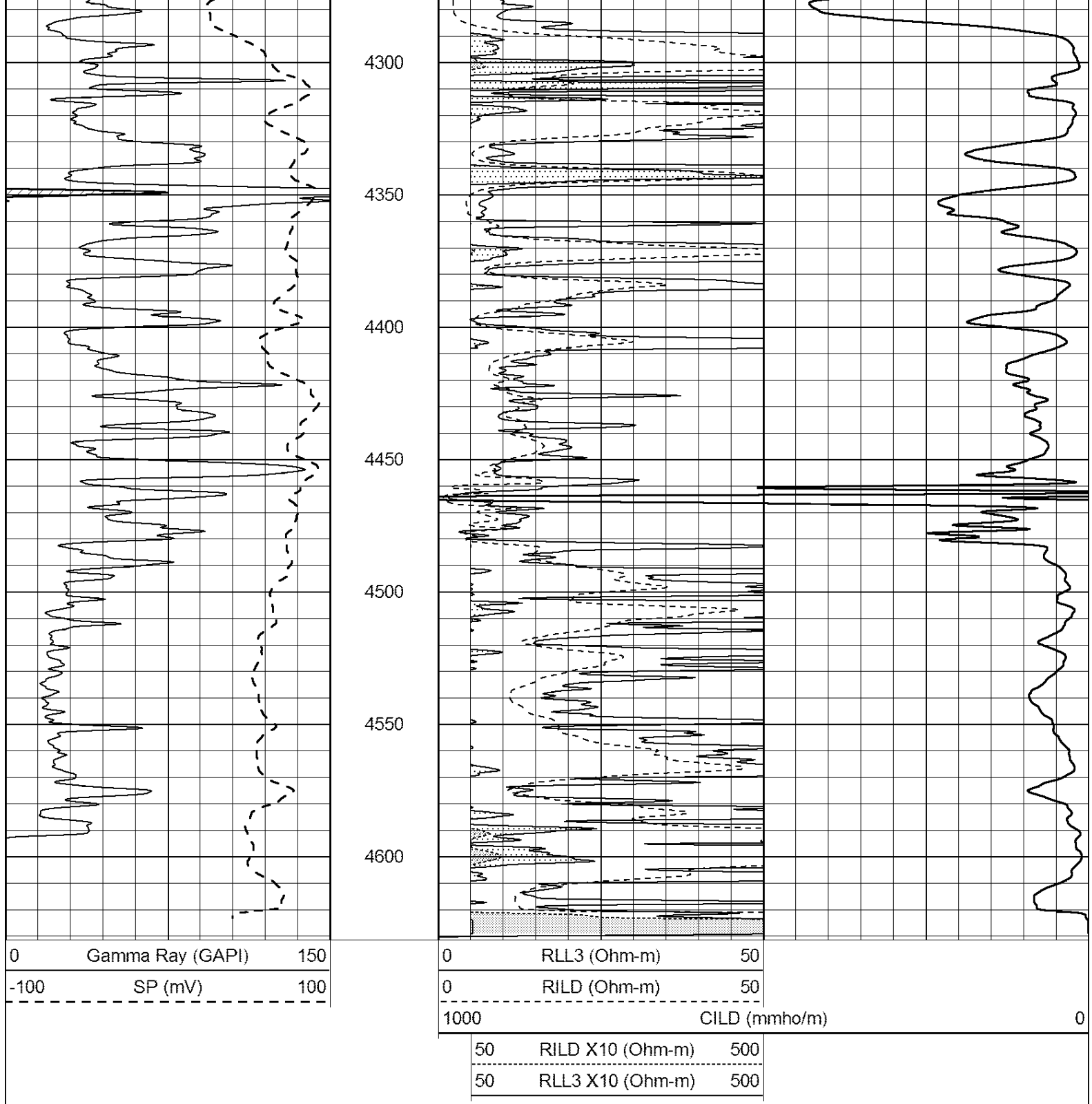
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4150

4200

4250





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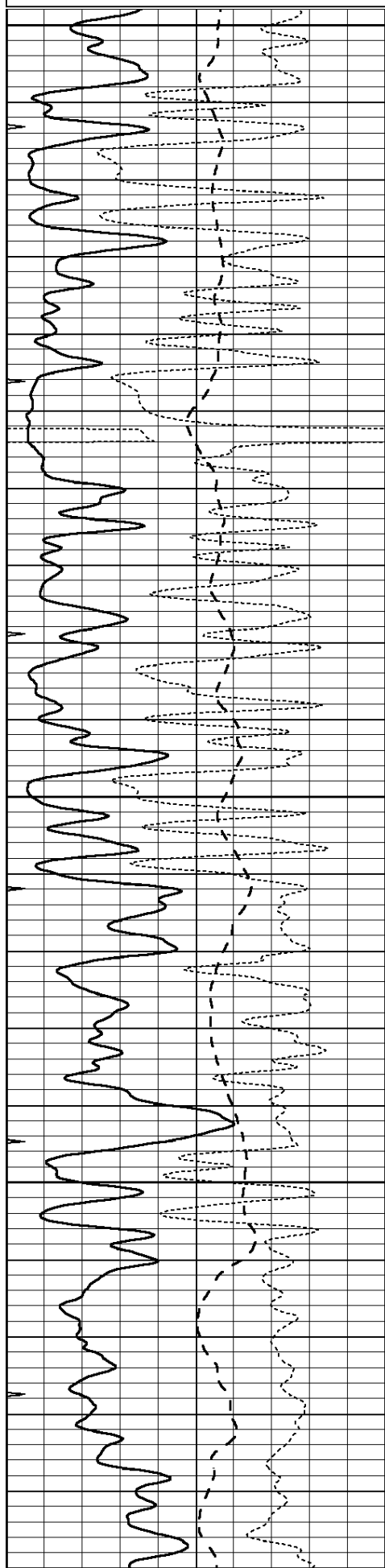
MAIN SECTION

Database File: 008126pe.db
 Dataset Pathname: pass3.6
 Presentation Format: dil
 Dataset Creation: Mon Dec 19 10:43:13 2011
 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	MINMK	20

0.2	MEDIUM INDUCTION (Ohm-m)	2000
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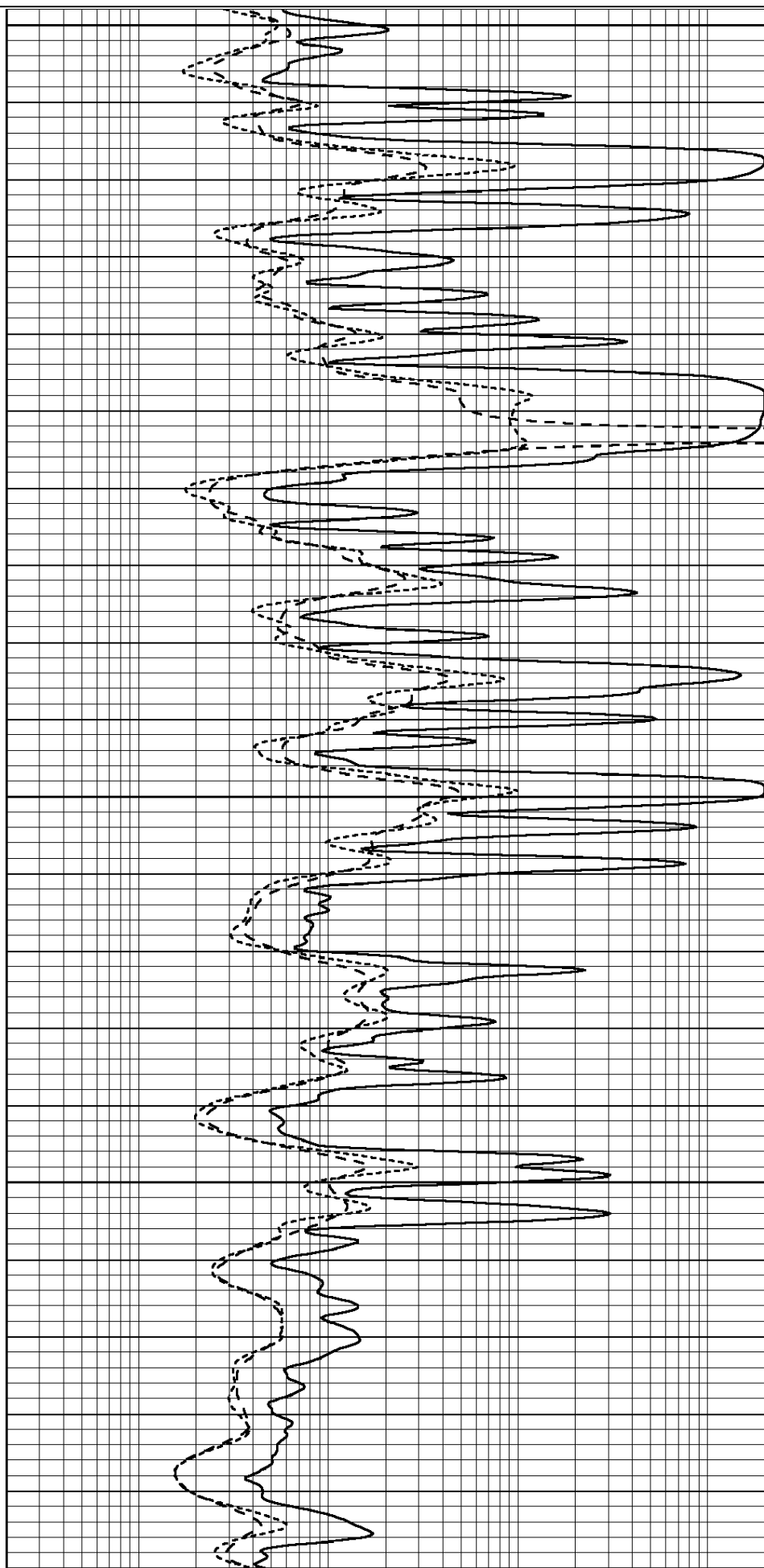
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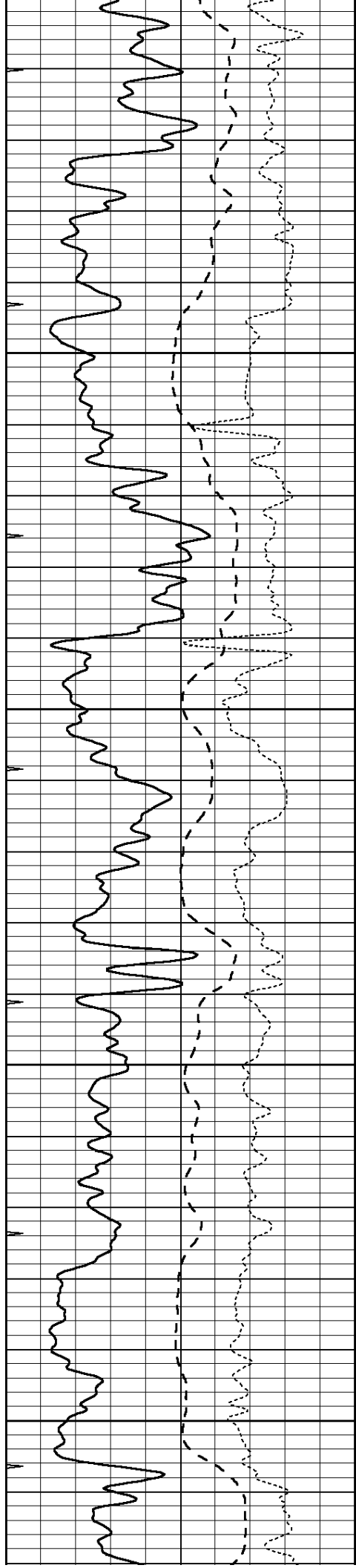
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2100

2150

2200





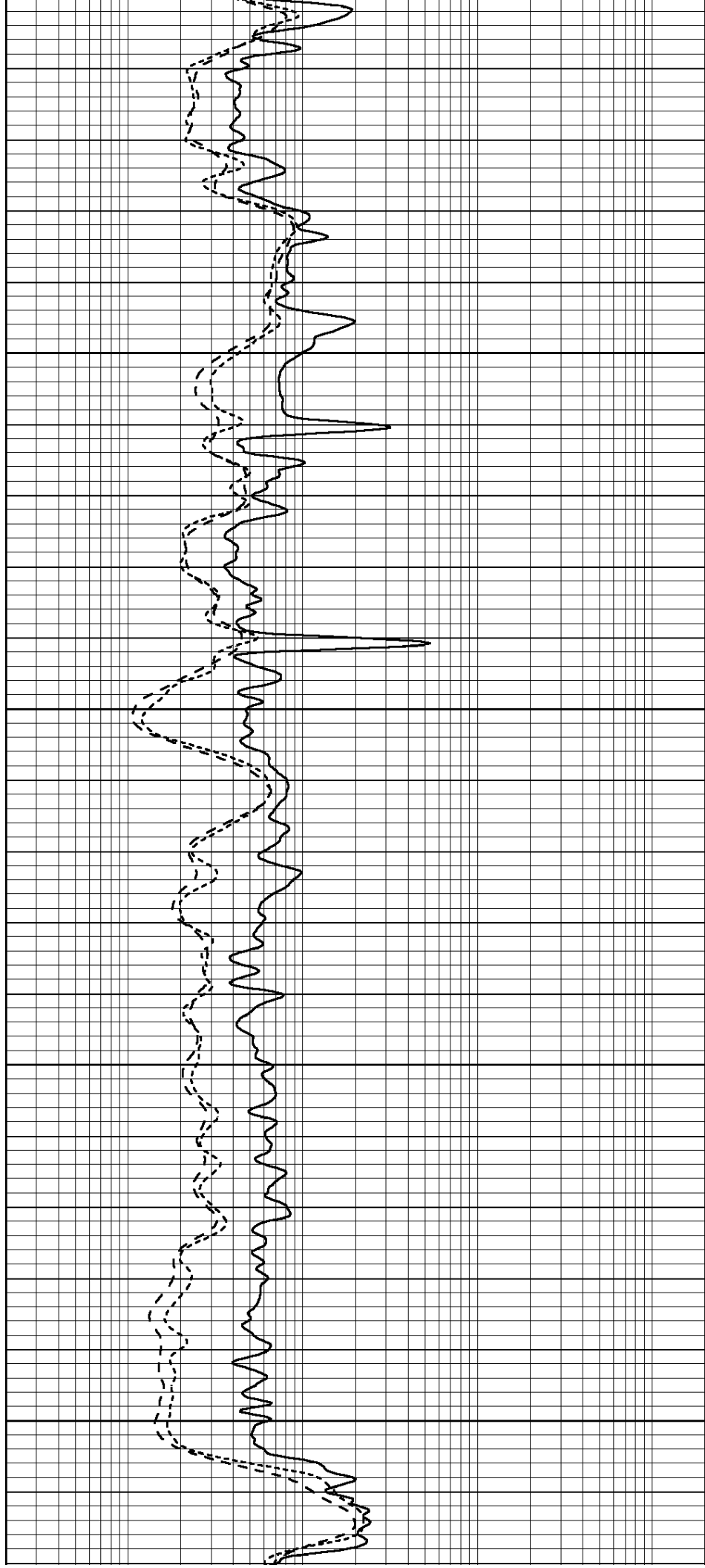
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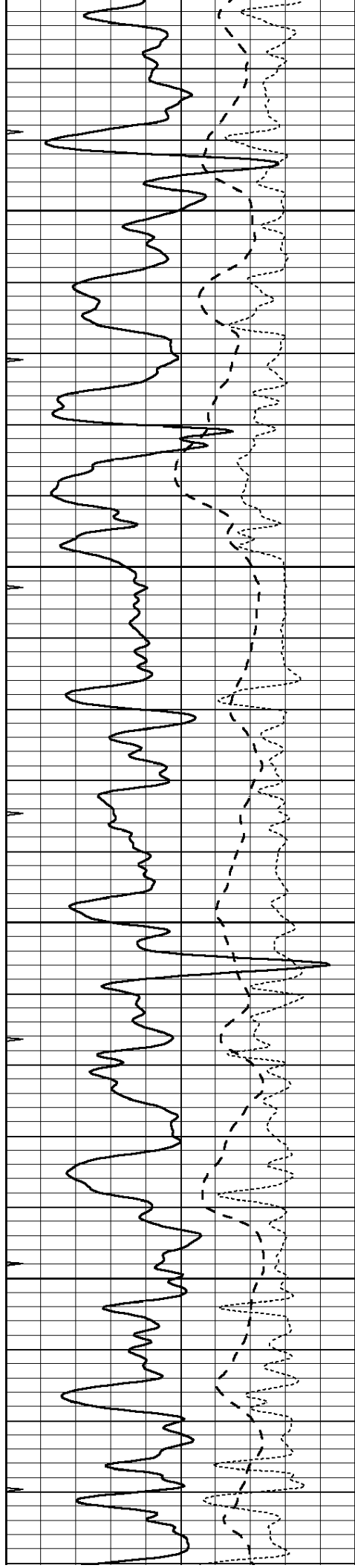
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2300

2350

2400



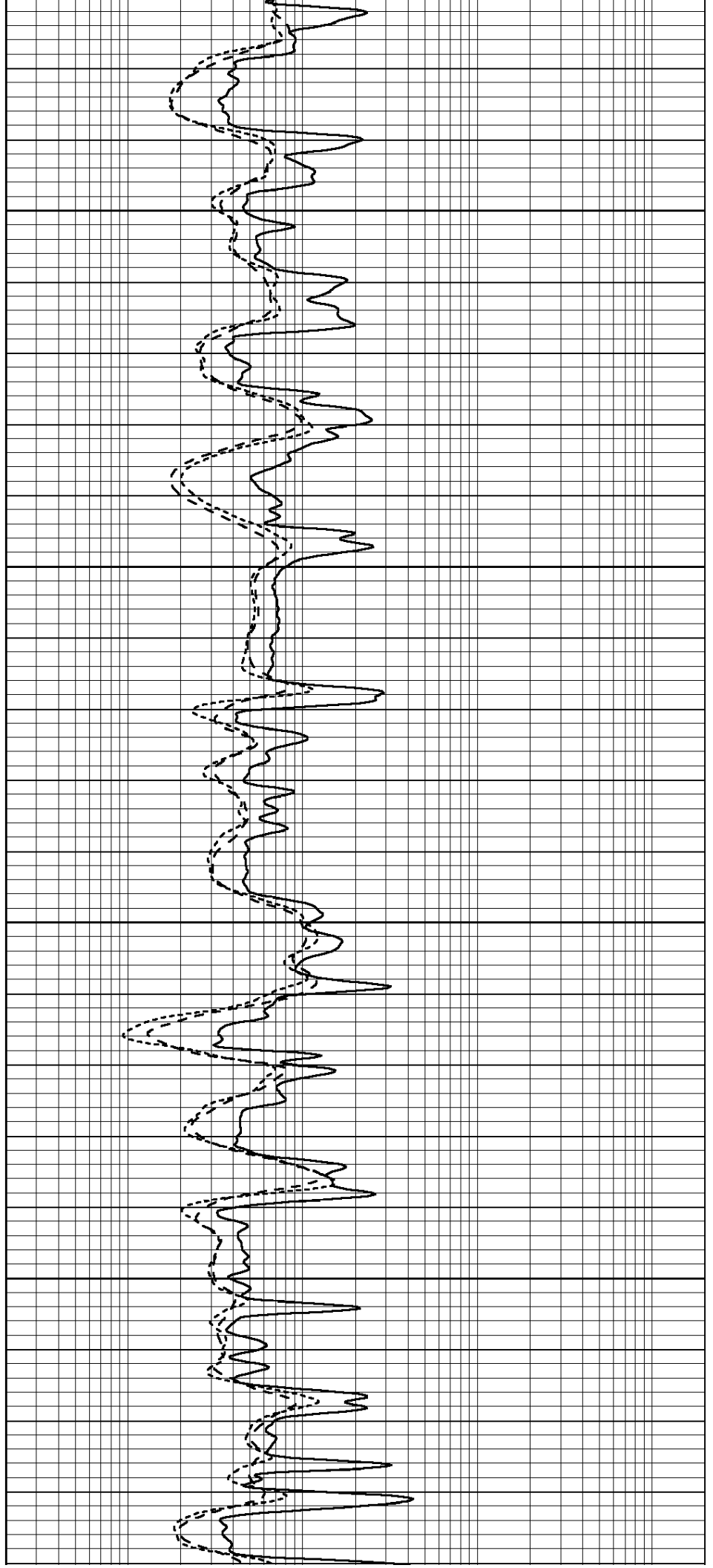


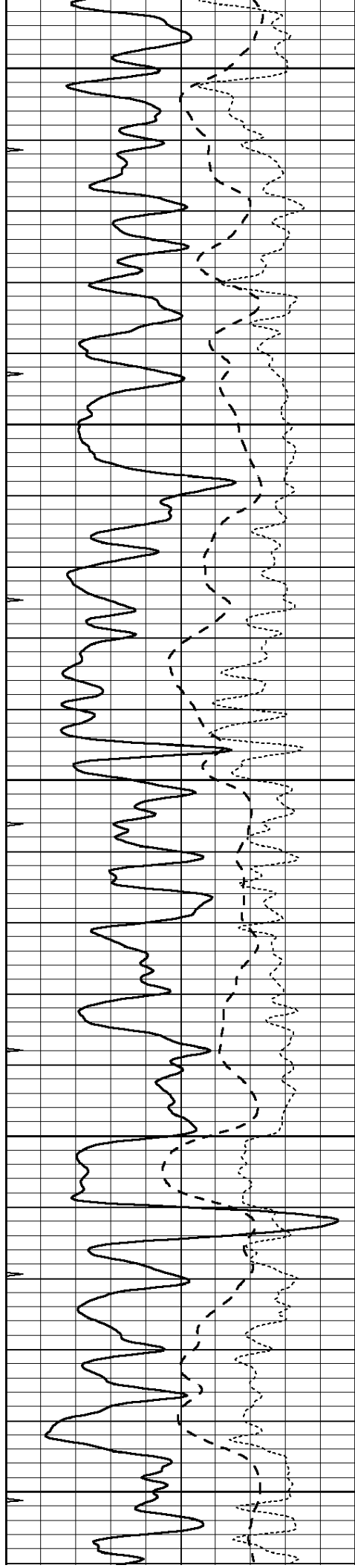
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2550

2600





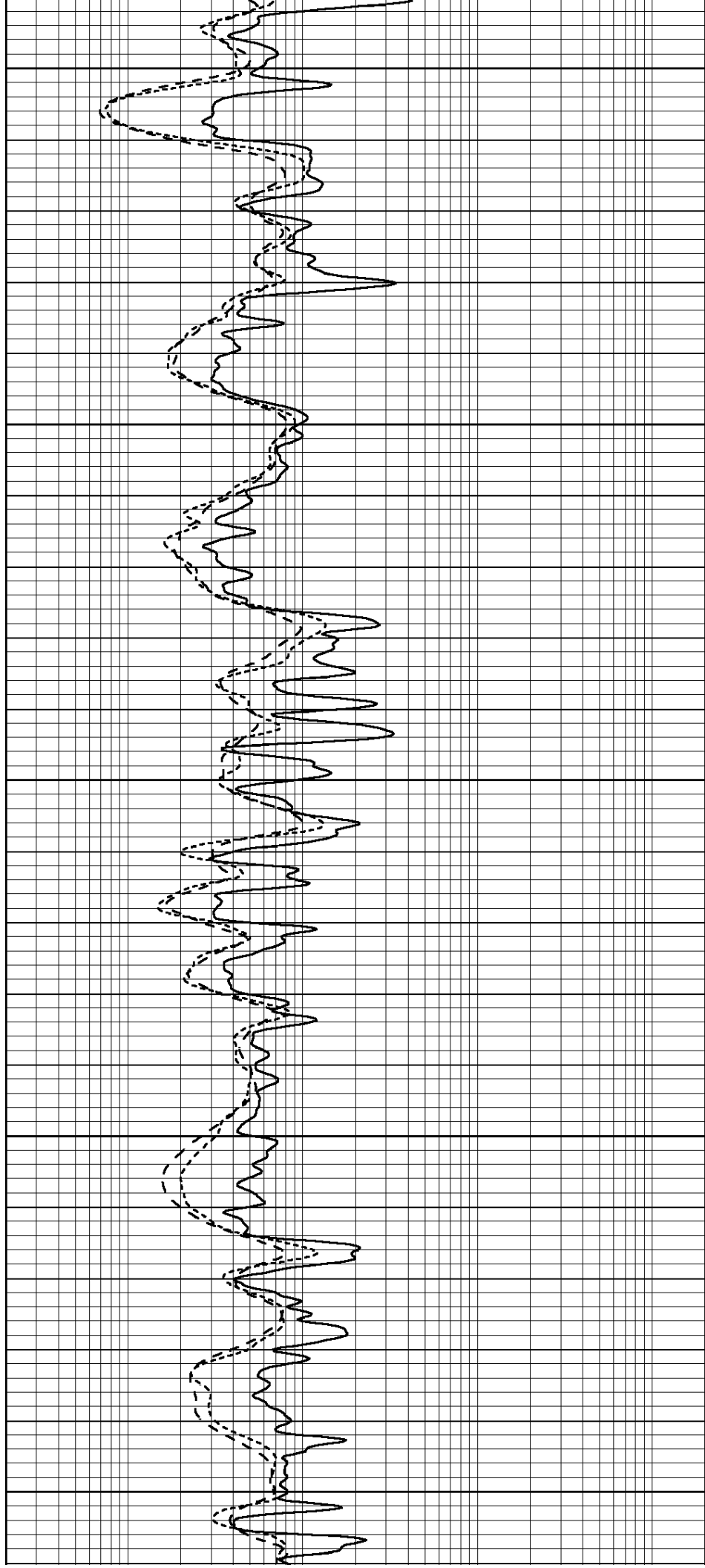
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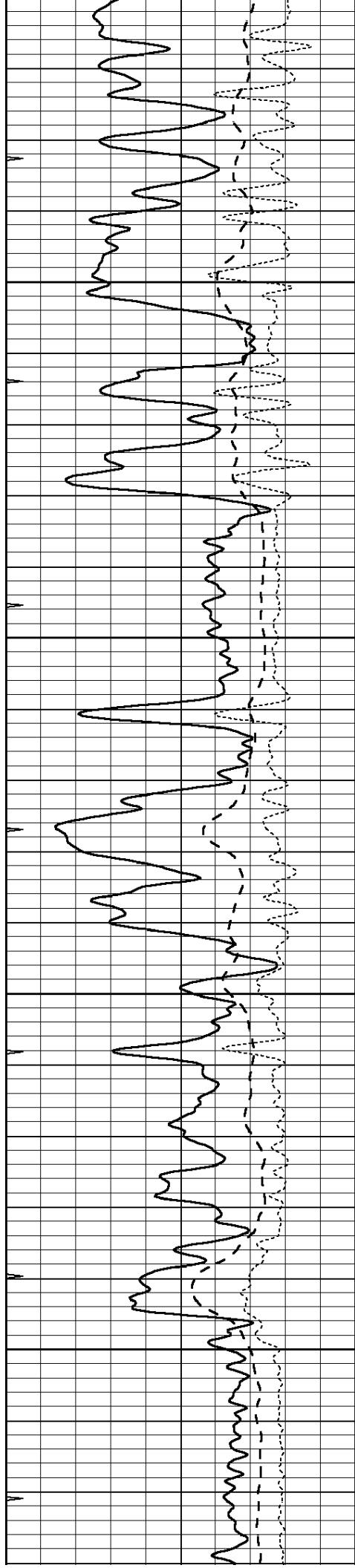
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2800

2850



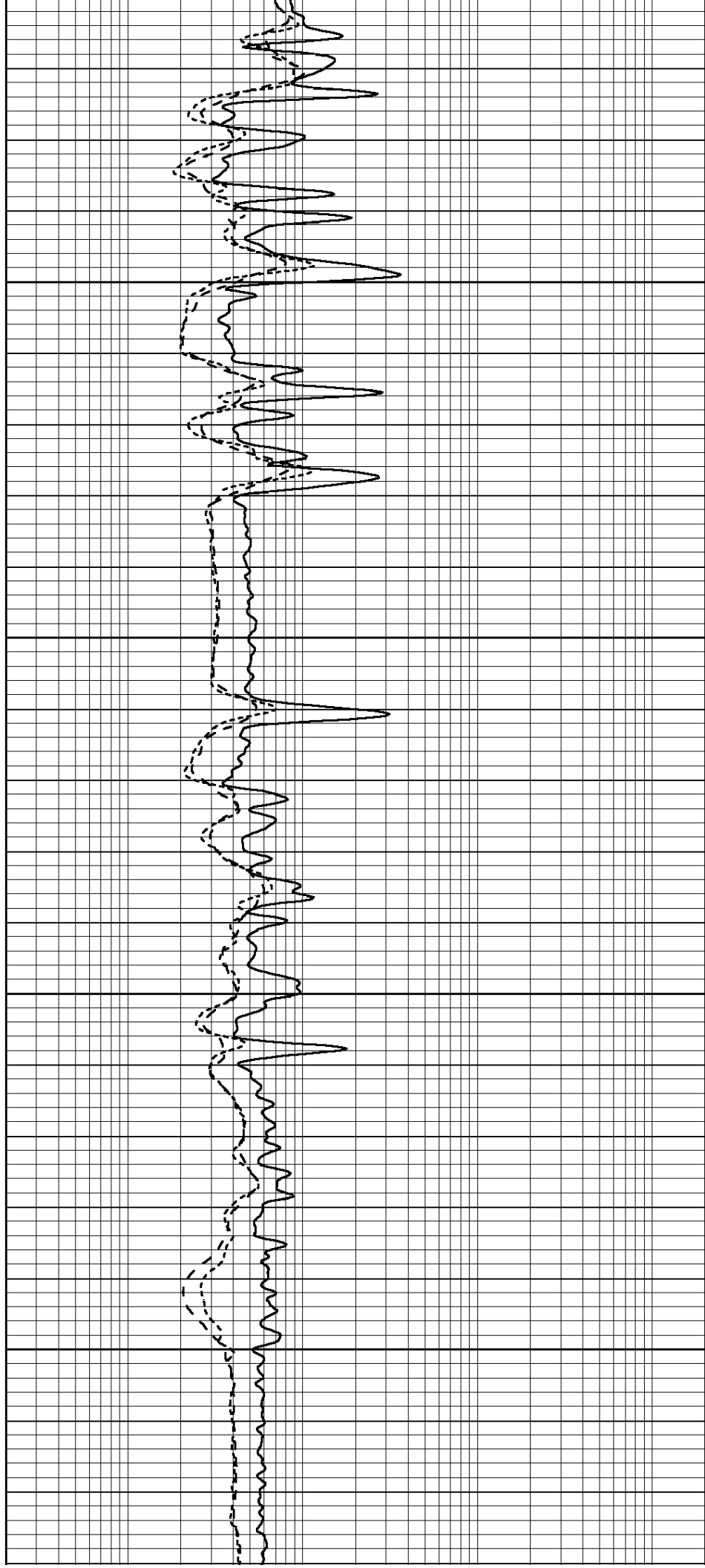


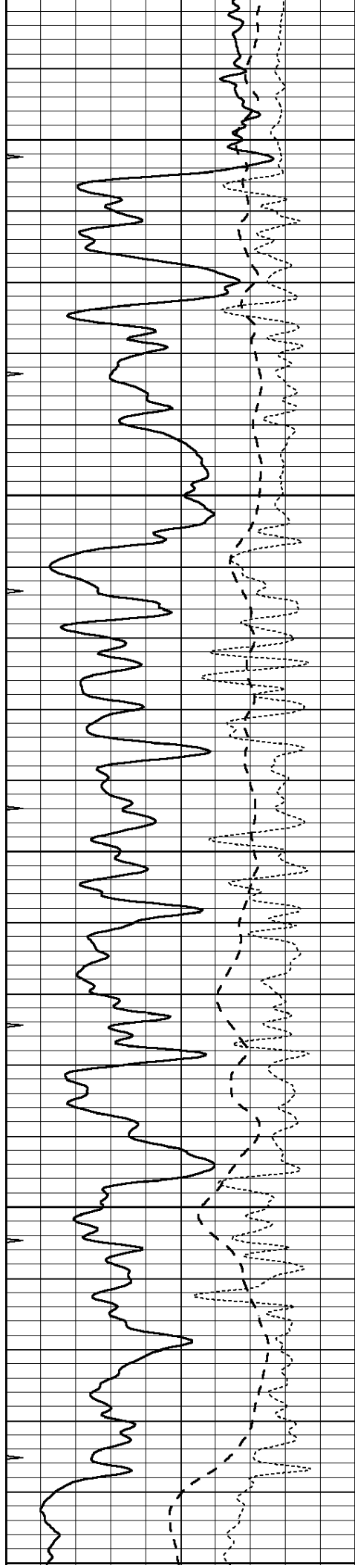
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2950

3000

3050





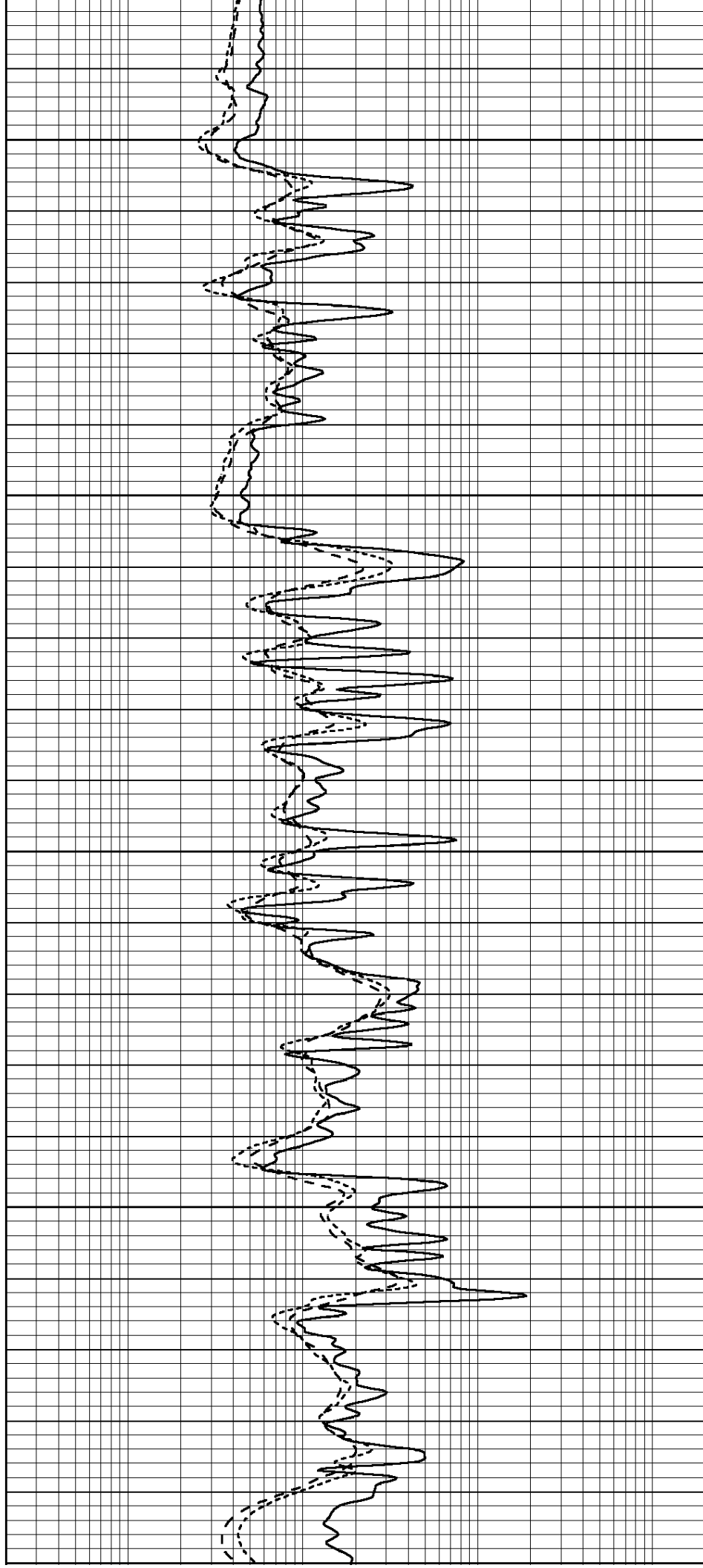
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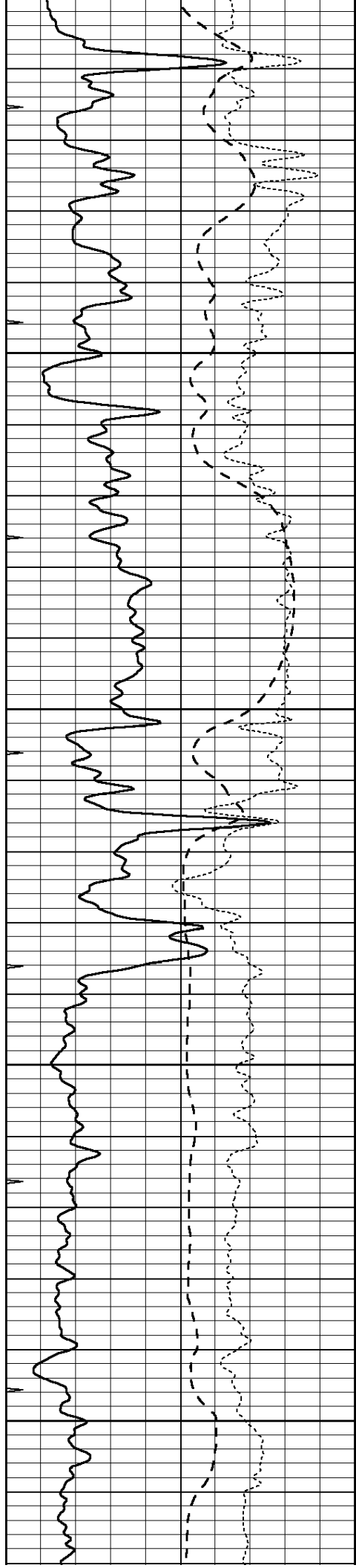
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3200

3250

3300



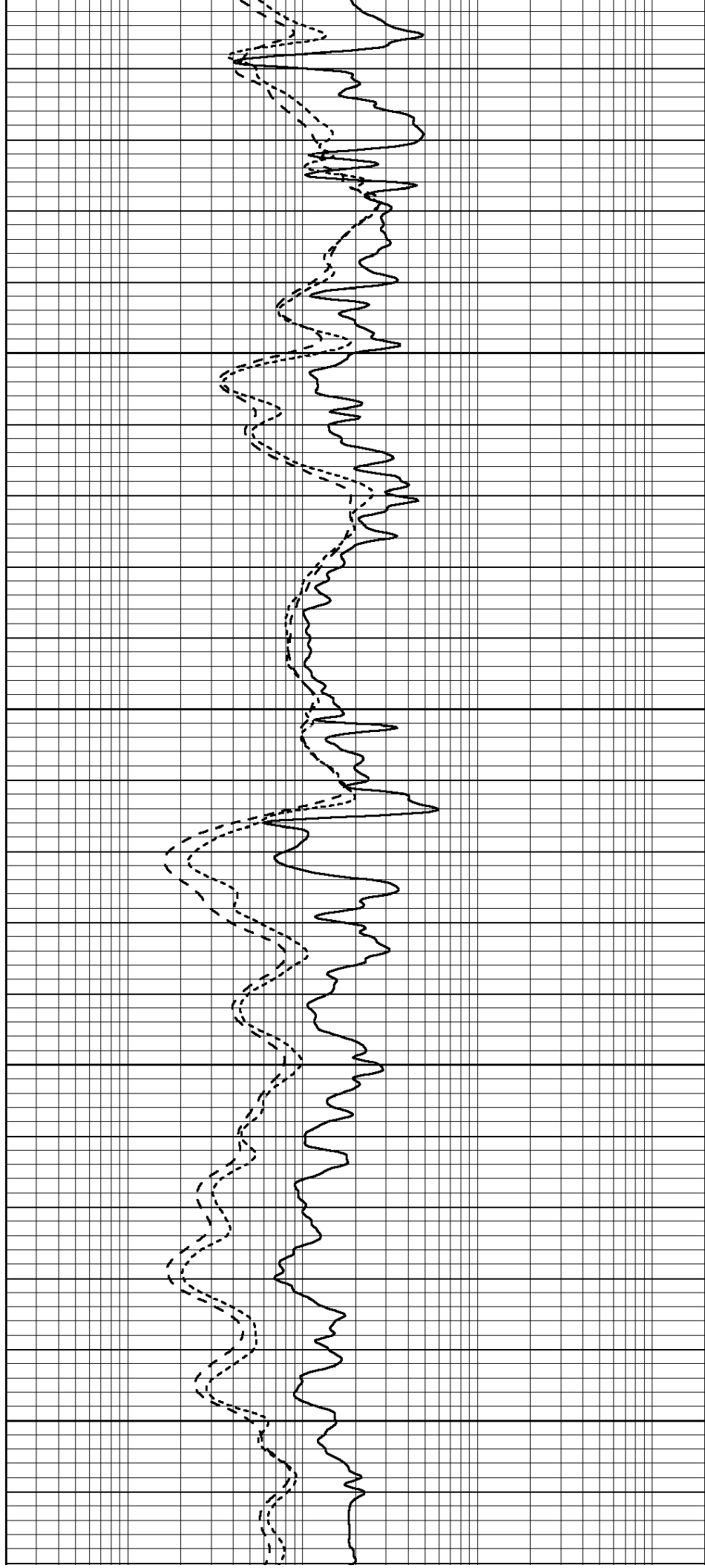


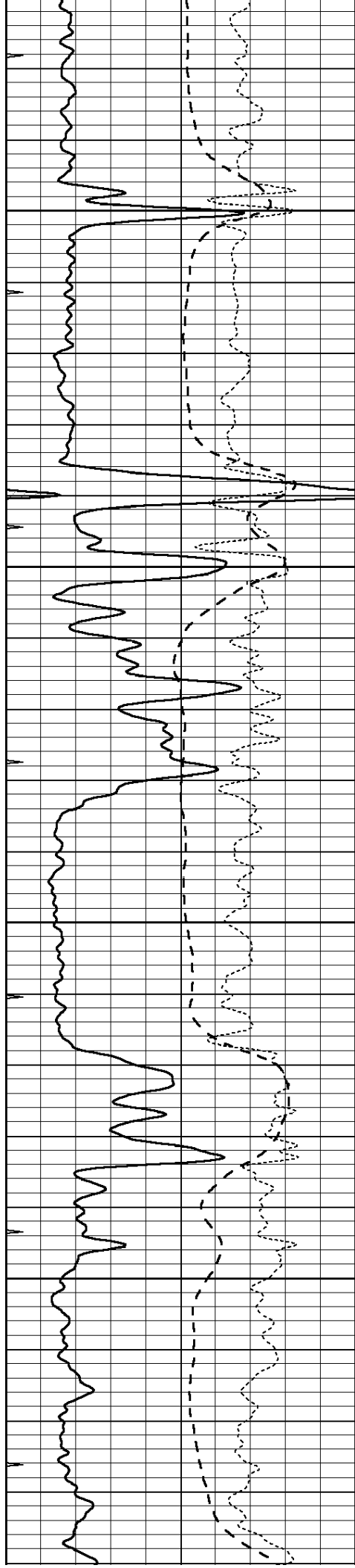
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3500



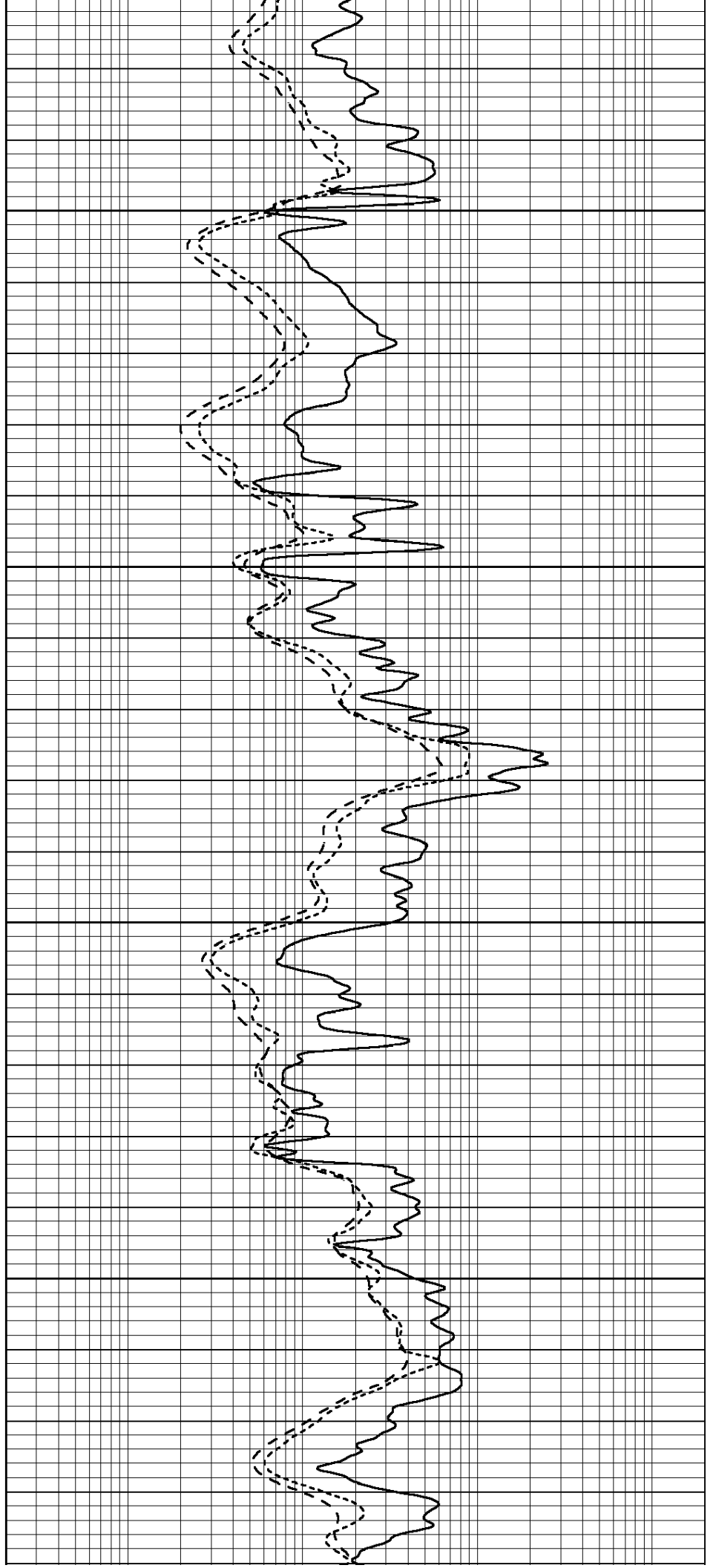


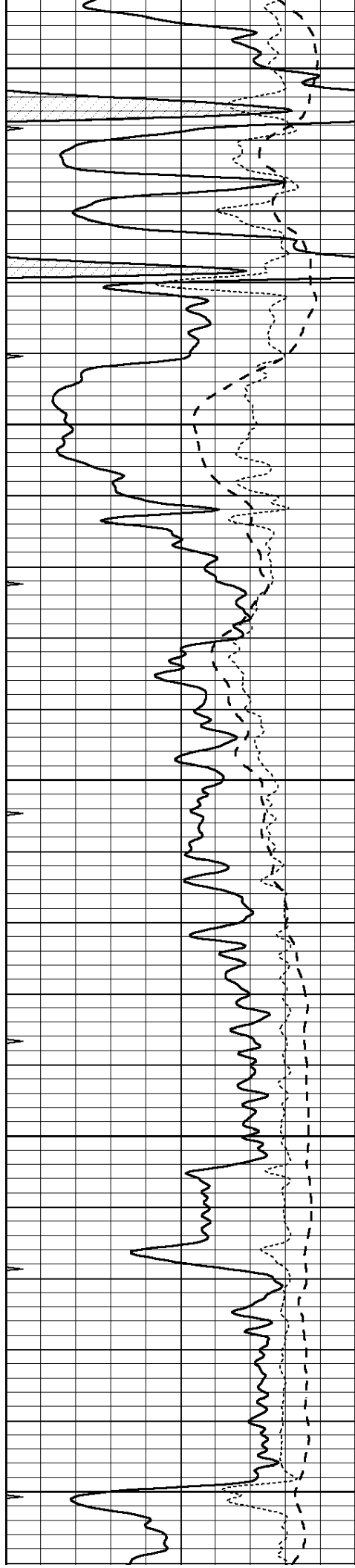
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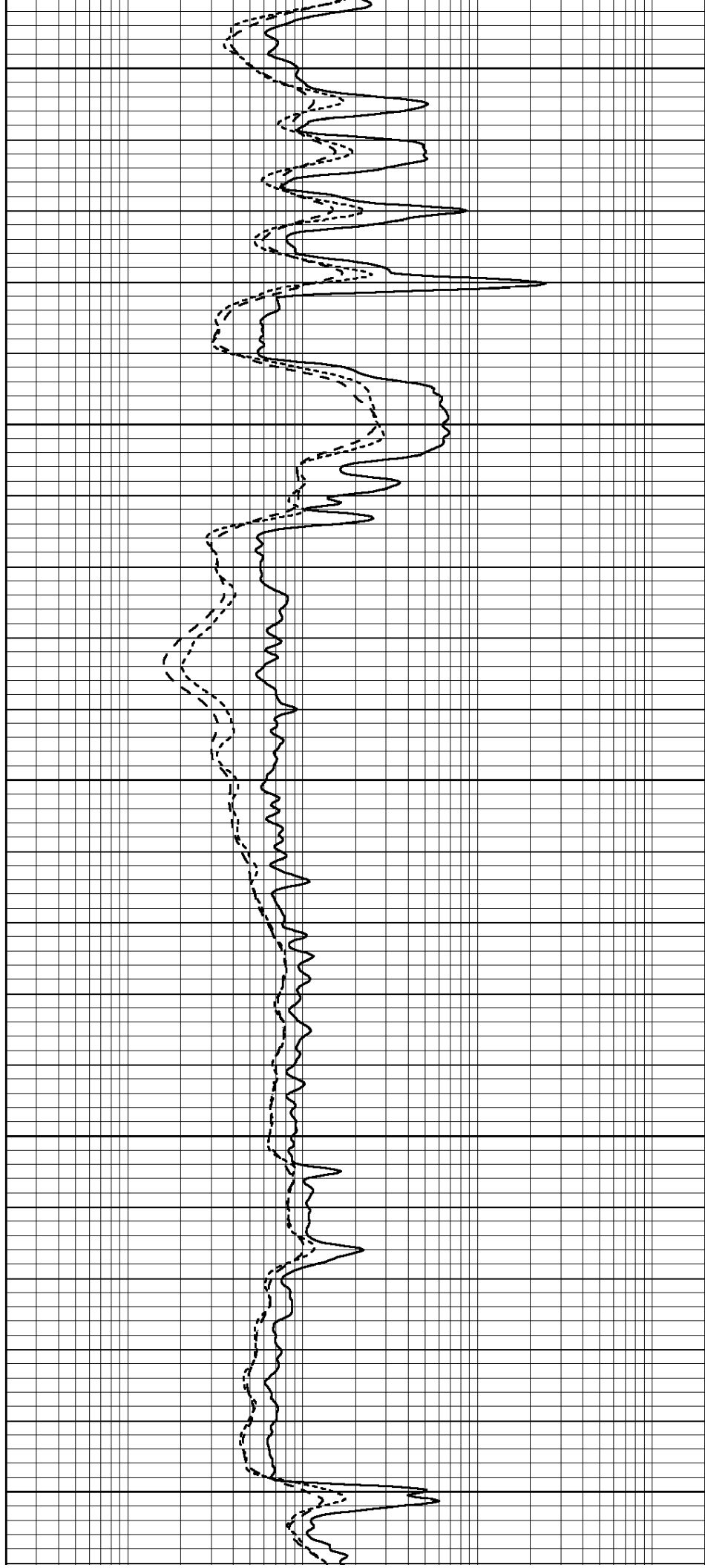
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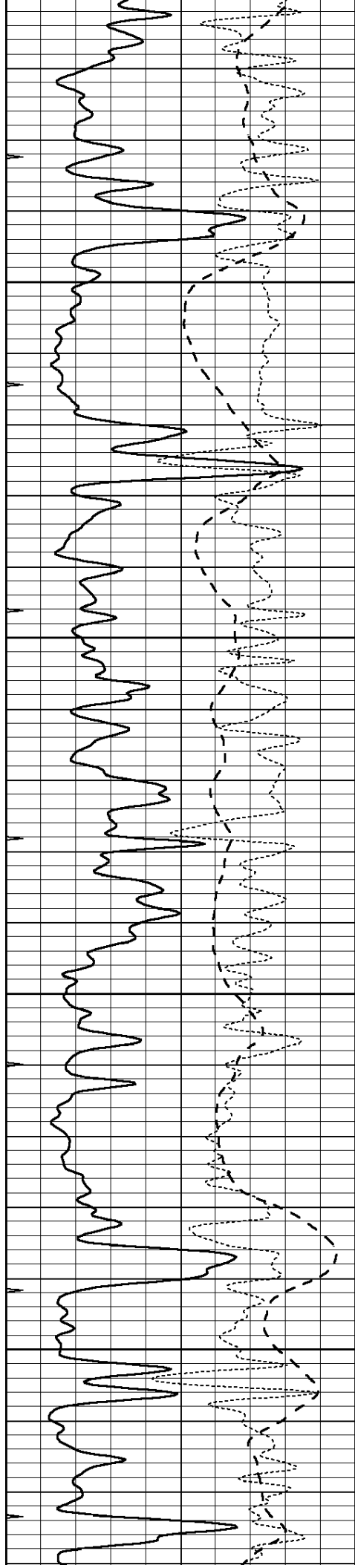
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3900

3950



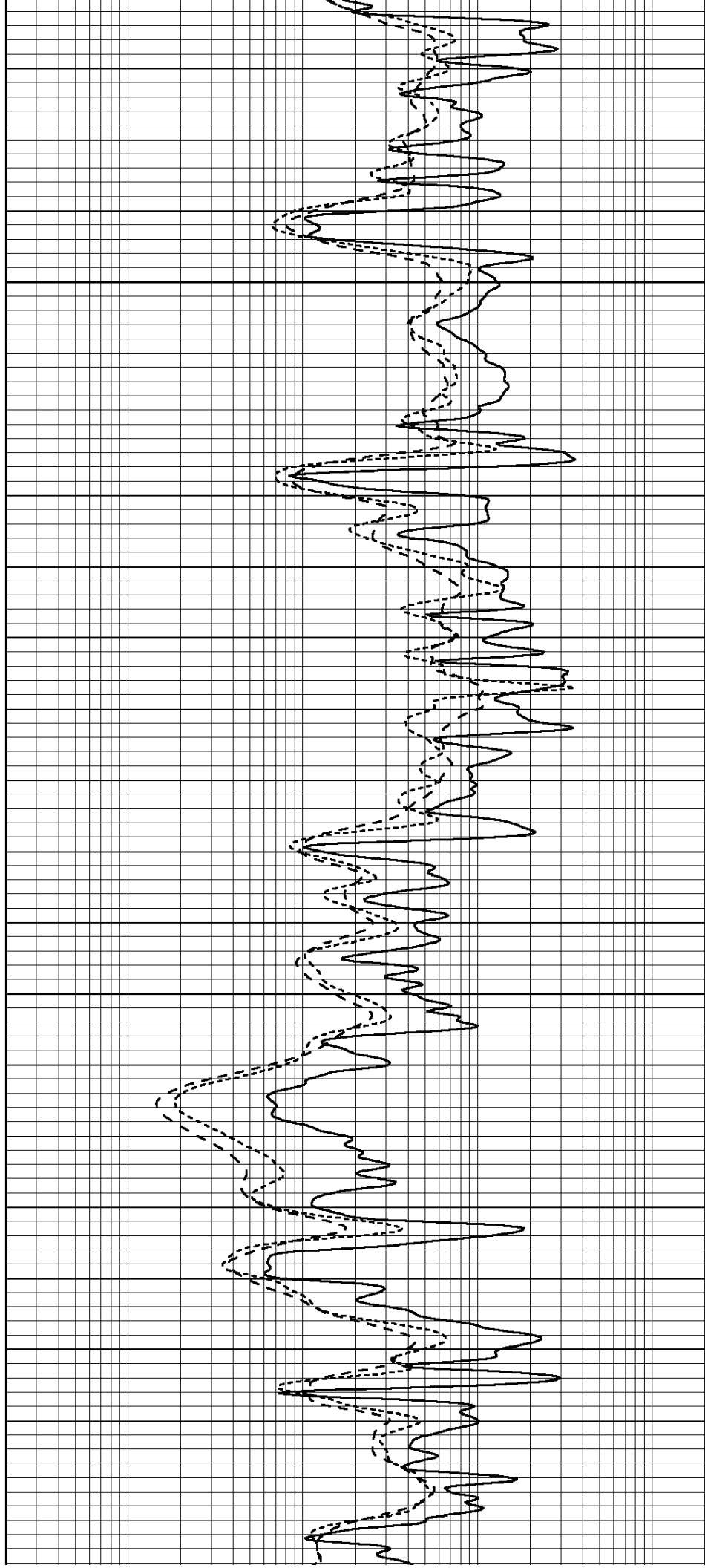


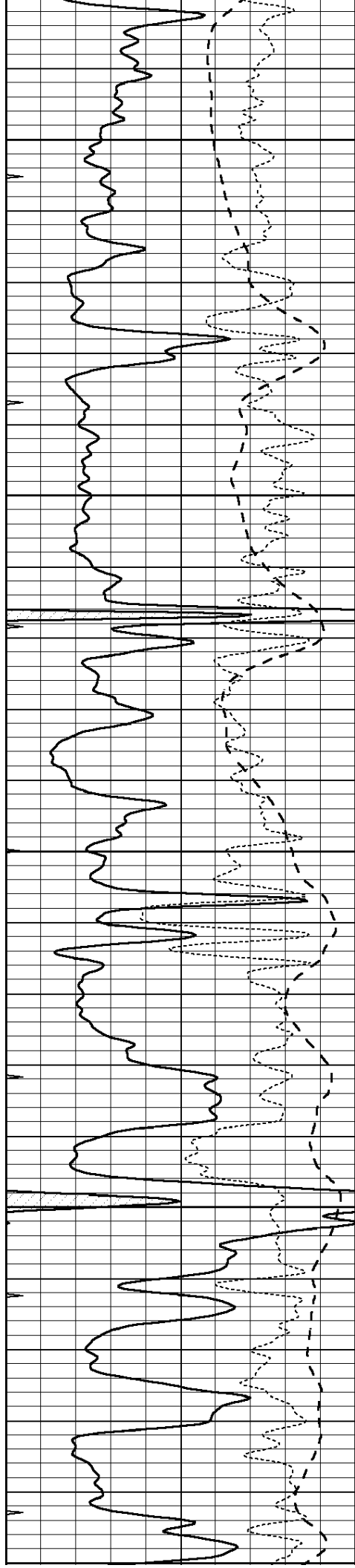
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4050

4100

4150





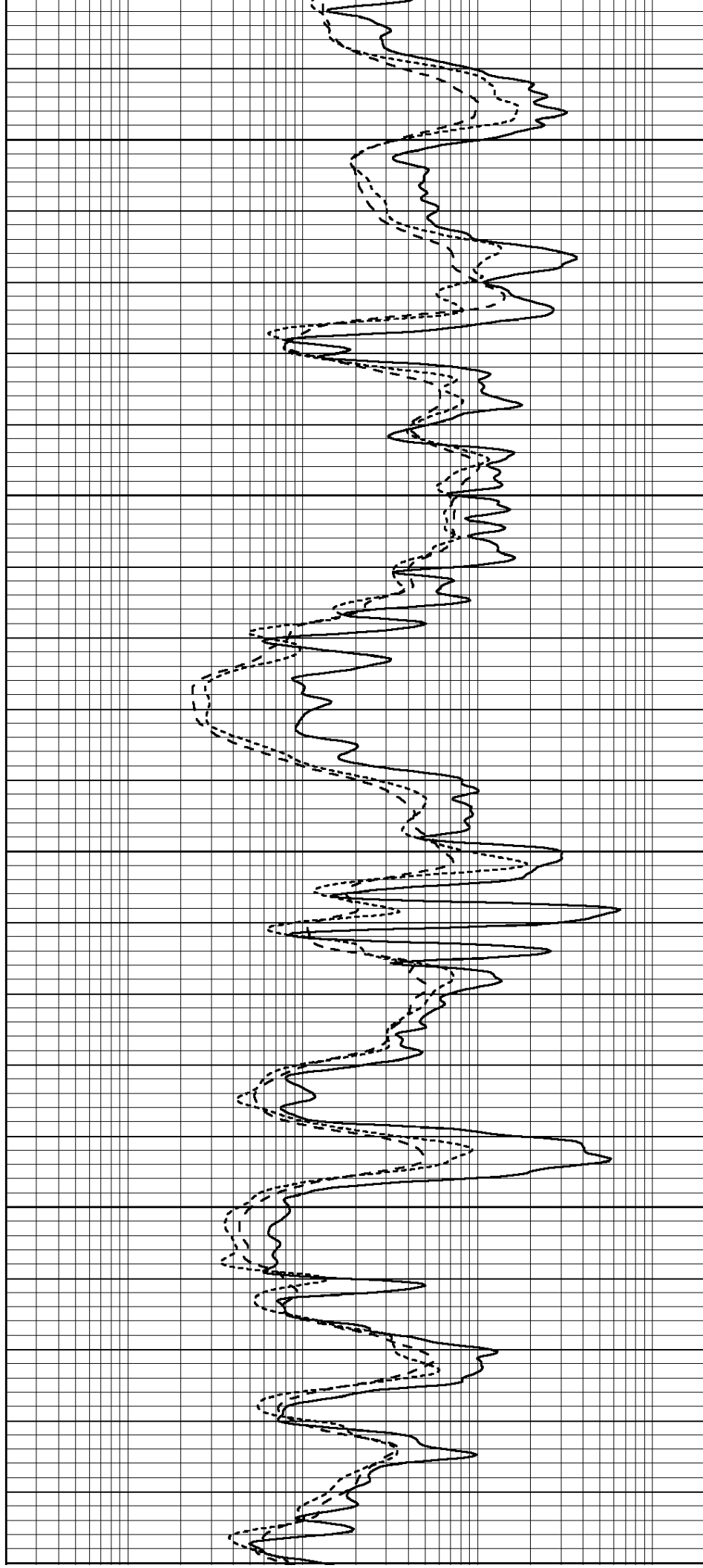
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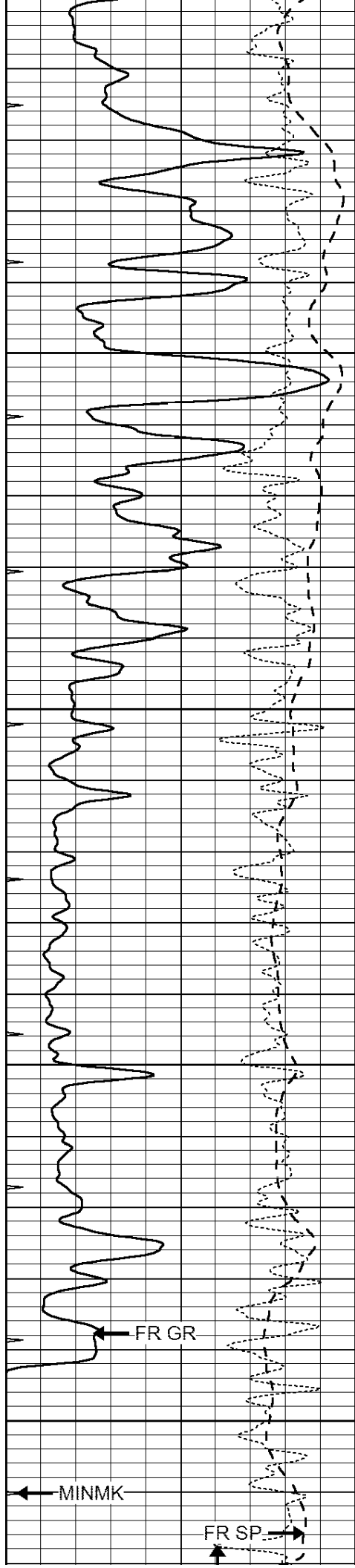
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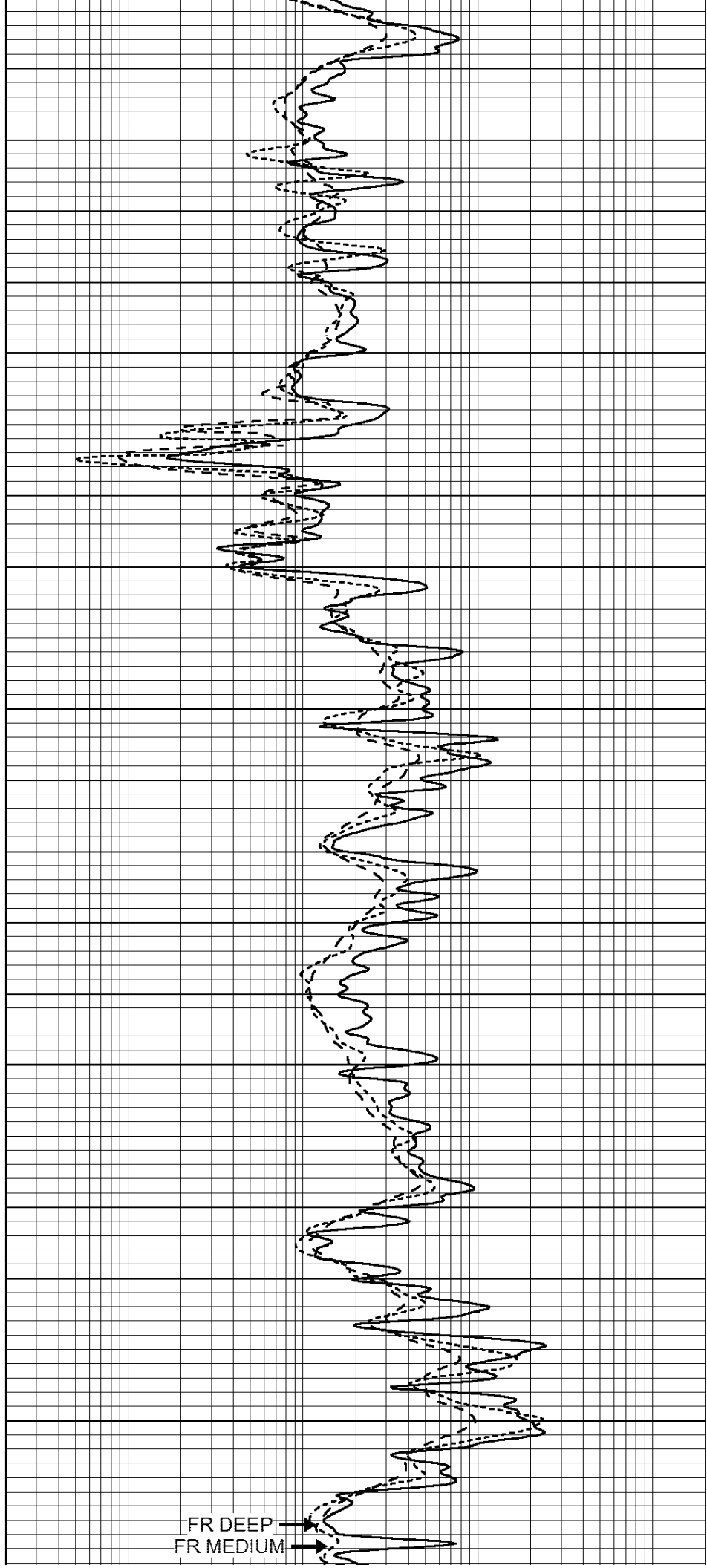
4350

4400





4400
4450
4500
4550
4600



FR DEEP
FR MEDIUM

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

LTD 4626

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



SUPERIOR

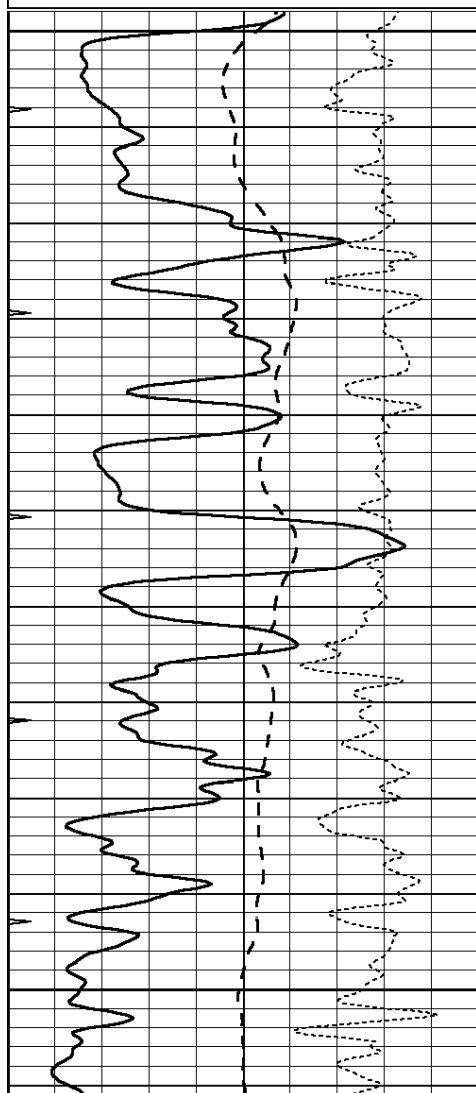
Hays,
Kansas

REPEAT SECTION

Database File: 008126pe.db
 Dataset Pathname: pass2.5
 Presentation Format: cil
 Dataset Creation: Mon Dec 19 08:50:40 2011
 Charted by: Depth in Feet scaled 1:240

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

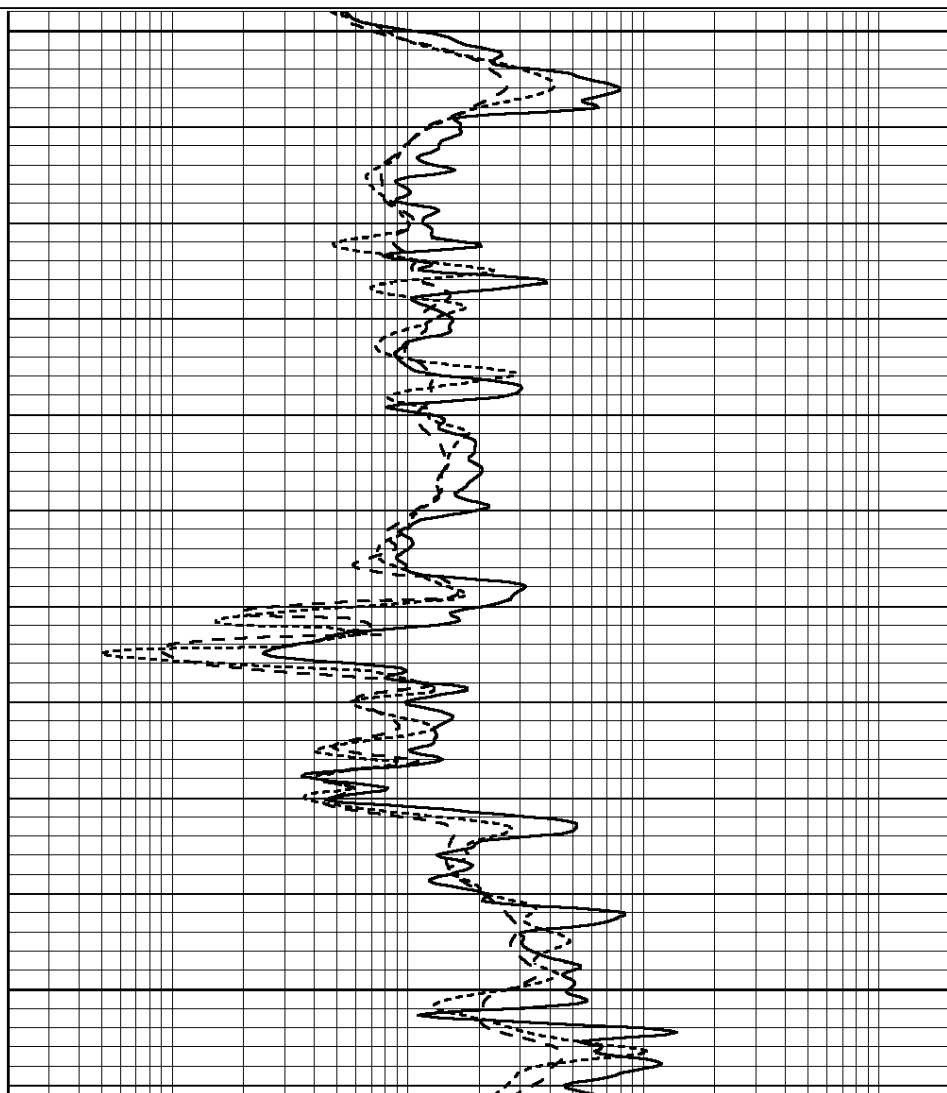
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

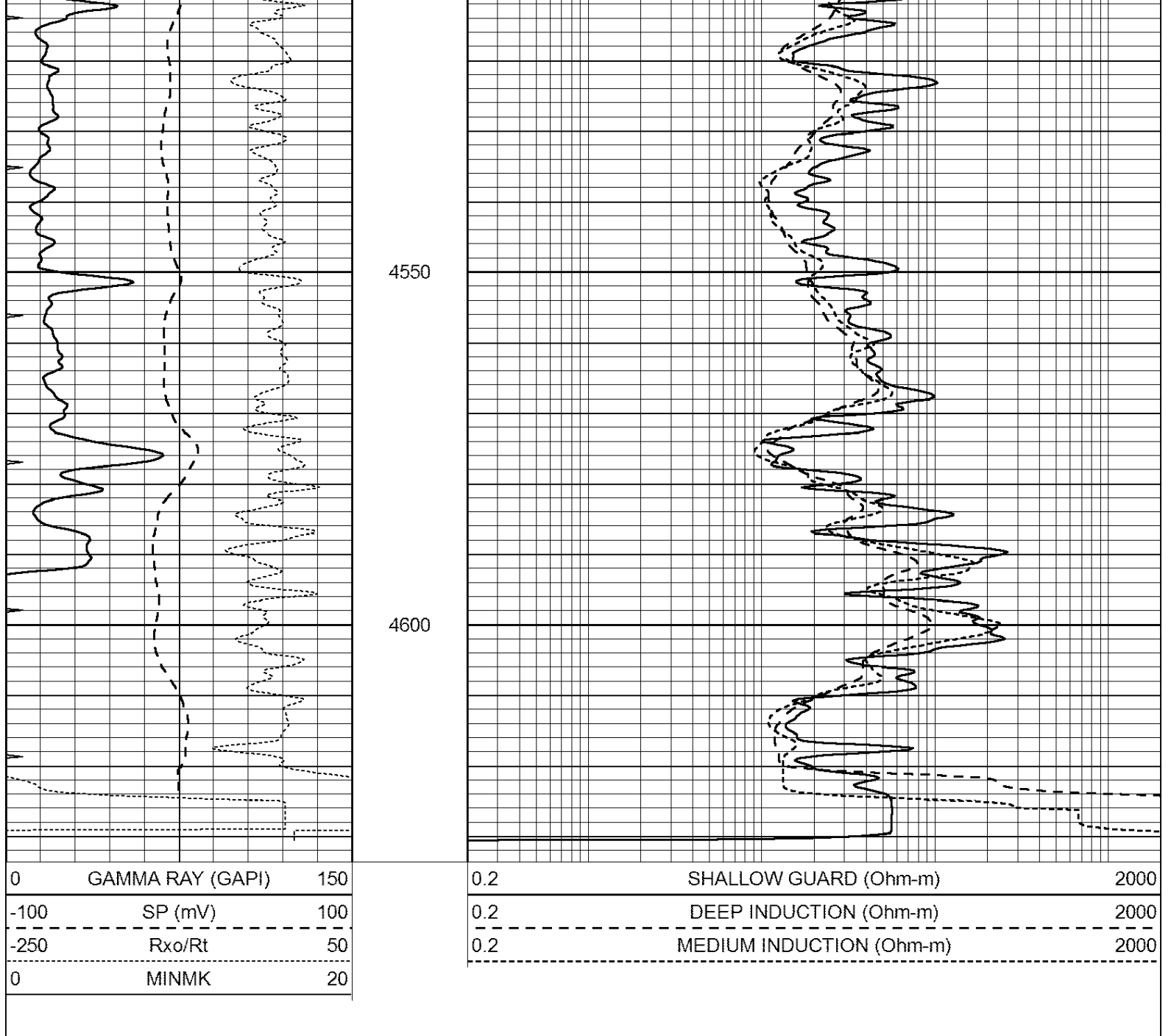


4400

4450

4500





Calibration Report								
Database File:		008126pe.db						
Dataset Pathname:		pass3.6						
Dataset Creation:		Mon Dec 19 10:43:13 2011						
Dual Induction Calibration Report								
Serial-Model: Performed:				DIL4-GEAR Mon Dec 19 09:34:15 2011				
Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.008	0.666	V	0.000	400.000	mmho/m	570.000	-4.000
Medium	-0.003	0.769	V	0.000	462.500	mmho/m	560.000	0.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.013	0.651	V	0.000	400.000	mmho/m	627.541	-8.365
Medium	0.020	0.754	V	0.000	462.500	mmho/m	630.311	-12.549

Litho Density Calibration Report
Serial: 006 Model: PRB
Performed Sun Aug 15 09:48:41 2010

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1686.6	11612.8	3932.0	12718.8	cps
Window 2	1531.4	9204.7	3267.8	9851.9	cps
Window 3	1198.3	4733.6	1952.5	4920.6	cps
Window 4	317.3	321.2	325.9	303.6	cps
Long Space	0.0	7673.3	1736.4	8320.4	cps
Short Space	1.7	2548.5	1657.2	2628.8	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 43.8	Rib Slope	: 0.961	Density/Spine Ratio	: 0.569
Spine Angle	: 73.8	Spine Slope	: 3.453	Spine Intercept	: -18.1

Caliper

	Readings	Reference	
Low Ref	4.0	8.3	
High Ref	5.9	15.0	
	Gain: 3.5		Offset: -5.5

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 Dec 19 06:06:38 2011

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.2600 GAPI/cps