



SUPERIOR
Hays,
Kansas

**DUAL INDUCTION
LOG**

Company DEUTSCH OIL COMPANY
Well SCHAFFER TRUST #1-6
Field WILDCAT
County HODGEMAN
State KANSAS

Company DEUTSCH OIL COMPANY
Well SCHAFFER TRUST #1-6
Field WILDCAT
County HODGEMAN State KANSAS

Location: API # : 15-083-21766-0000
450' FNL & 1220' FWL
SEC 6 TWP 24S RGE 23W
Permanent Datum GROUND LEVEL Elevation 2460
Log Measured From KELLY BUSHING 10' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL
MEL/SONIC
Elevation
K.B. 2470
D.F. 2468
G.L. 2460

Date	4/25/12		
Run Number	ONE		
Depth Driller	4900		
Depth Logger	4905		
Bottom Logged Interval	4903		
Top Log Interval	00	2500-2900	
Casing Driller	8 5/8"@264'		
Casing Logger	267		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,900 PPM	
Density / Viscosity	9.3/47		
pH / Fluid Loss	10.5/9.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.850@80F		
Rmt @ Meas. Temp	.636@80F		
Rmc @ Meas. Temp	1.02@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.548@124F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	11:00 A.M.		
Maximum Recorded Temperature	124F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KENT DEUTSCH		

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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
JETMORE, KS. (HWY 156 & 283) 6S. ON HWY 283, 1/2E., S. INTO



SUPERIOR
Hays,
Kansas

MAIN SECTION

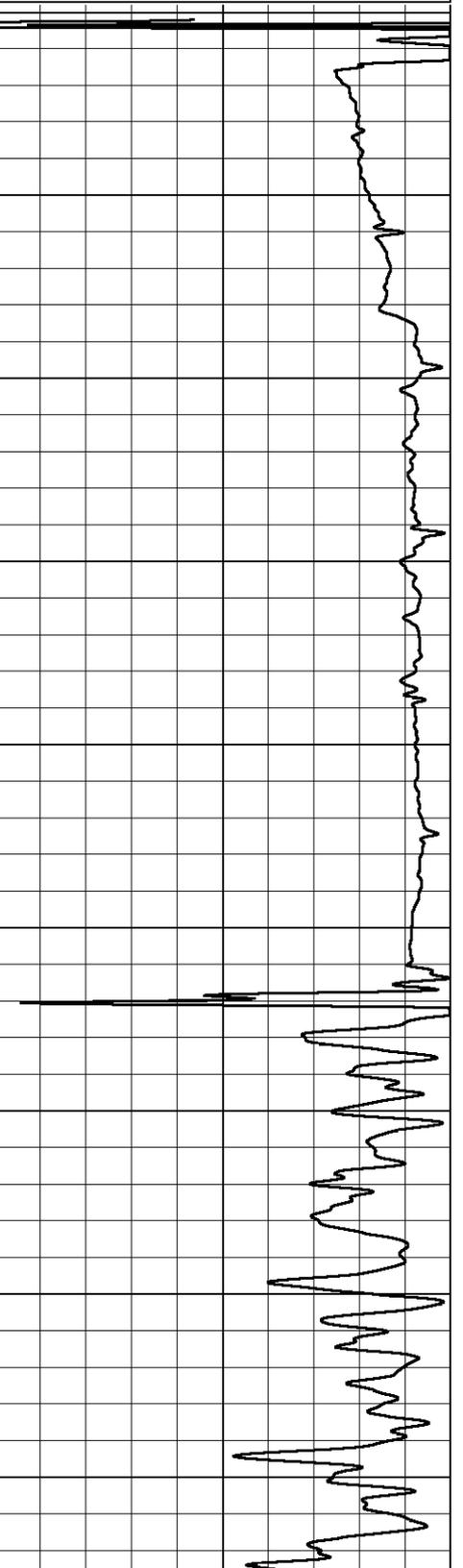
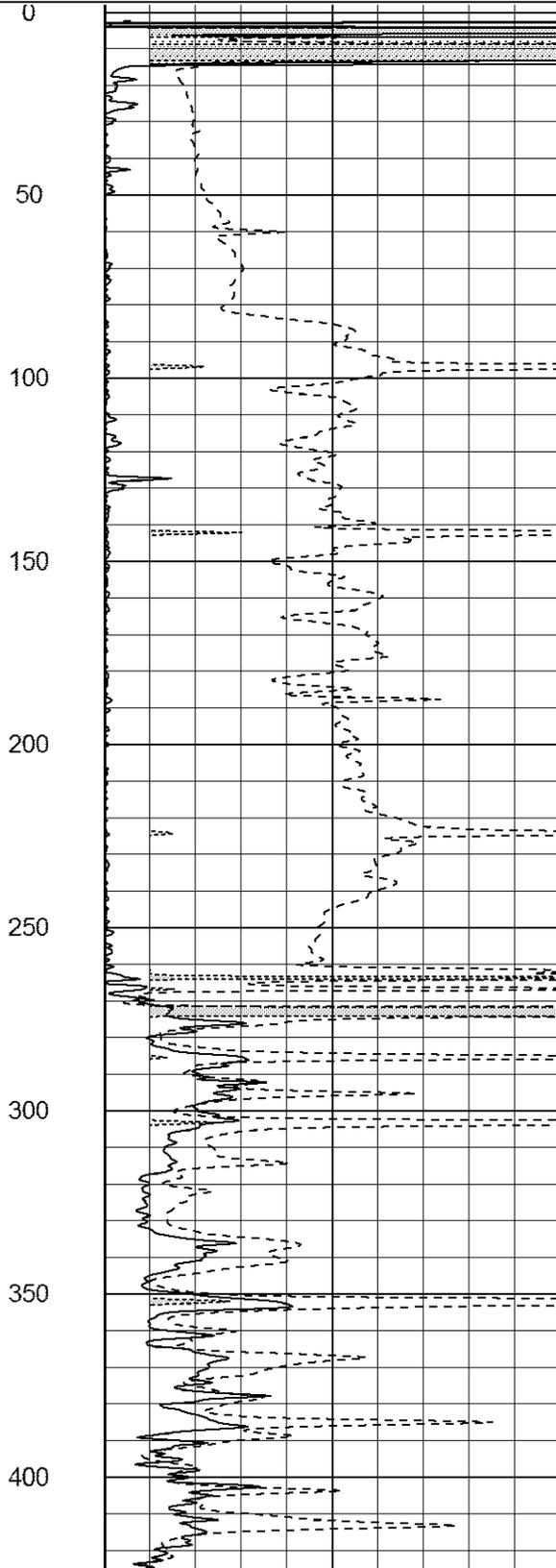
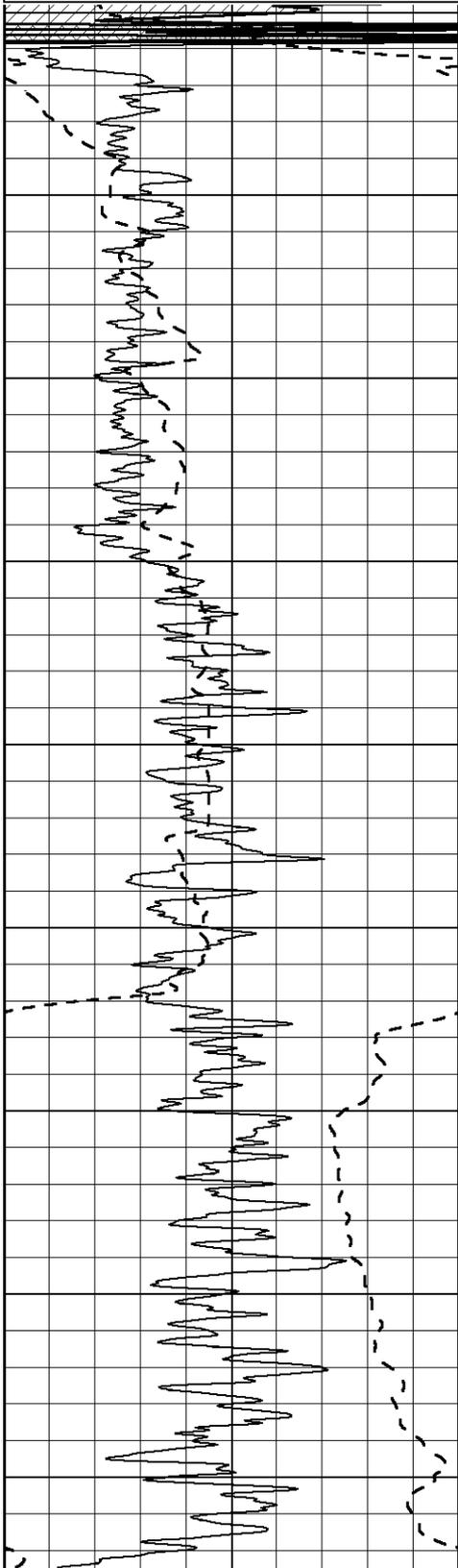
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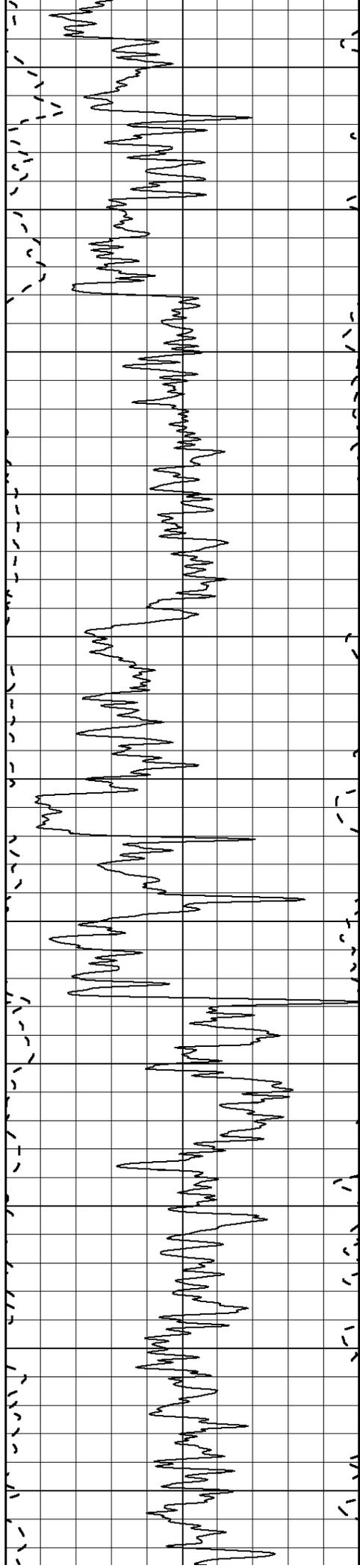
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-100	SP (mV)	100

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

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





450

500

550

600

650

700

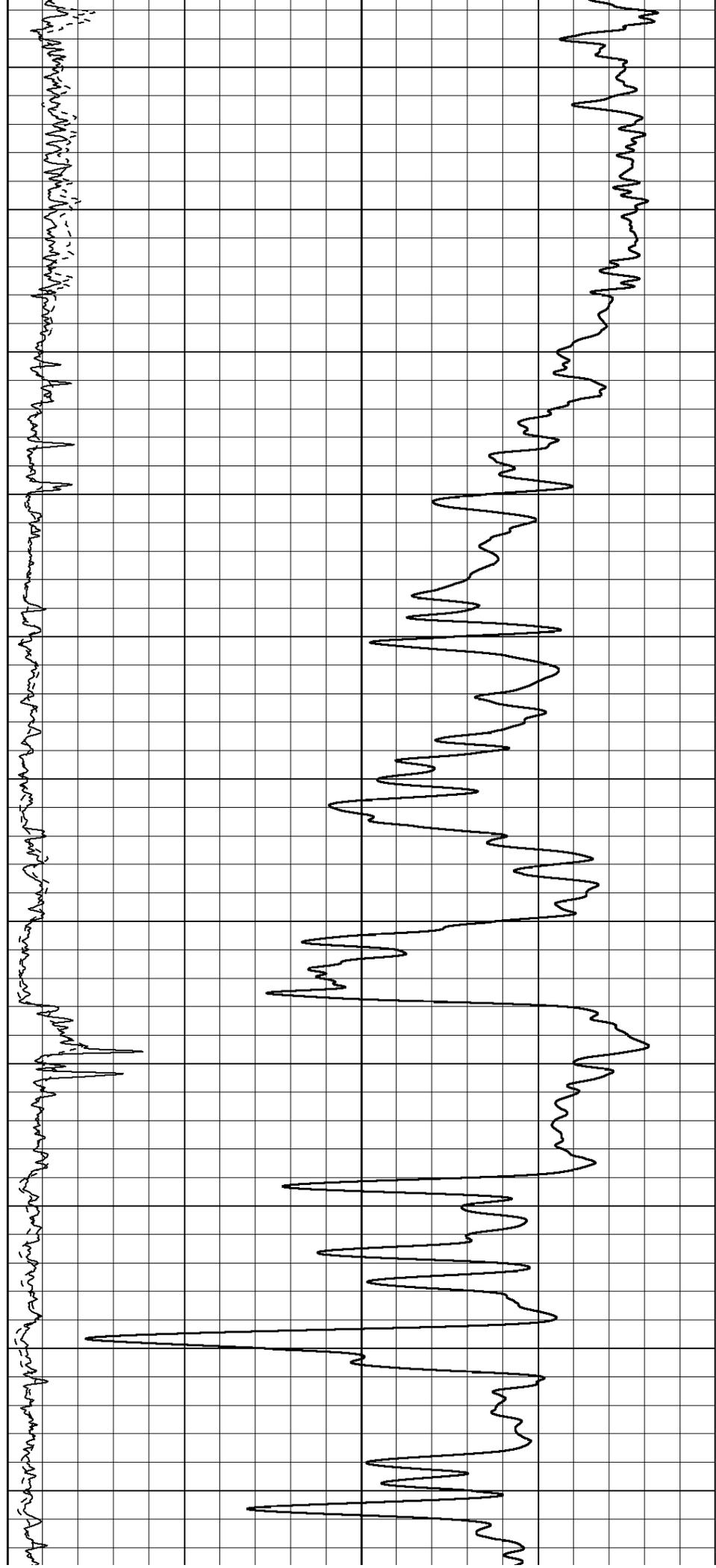
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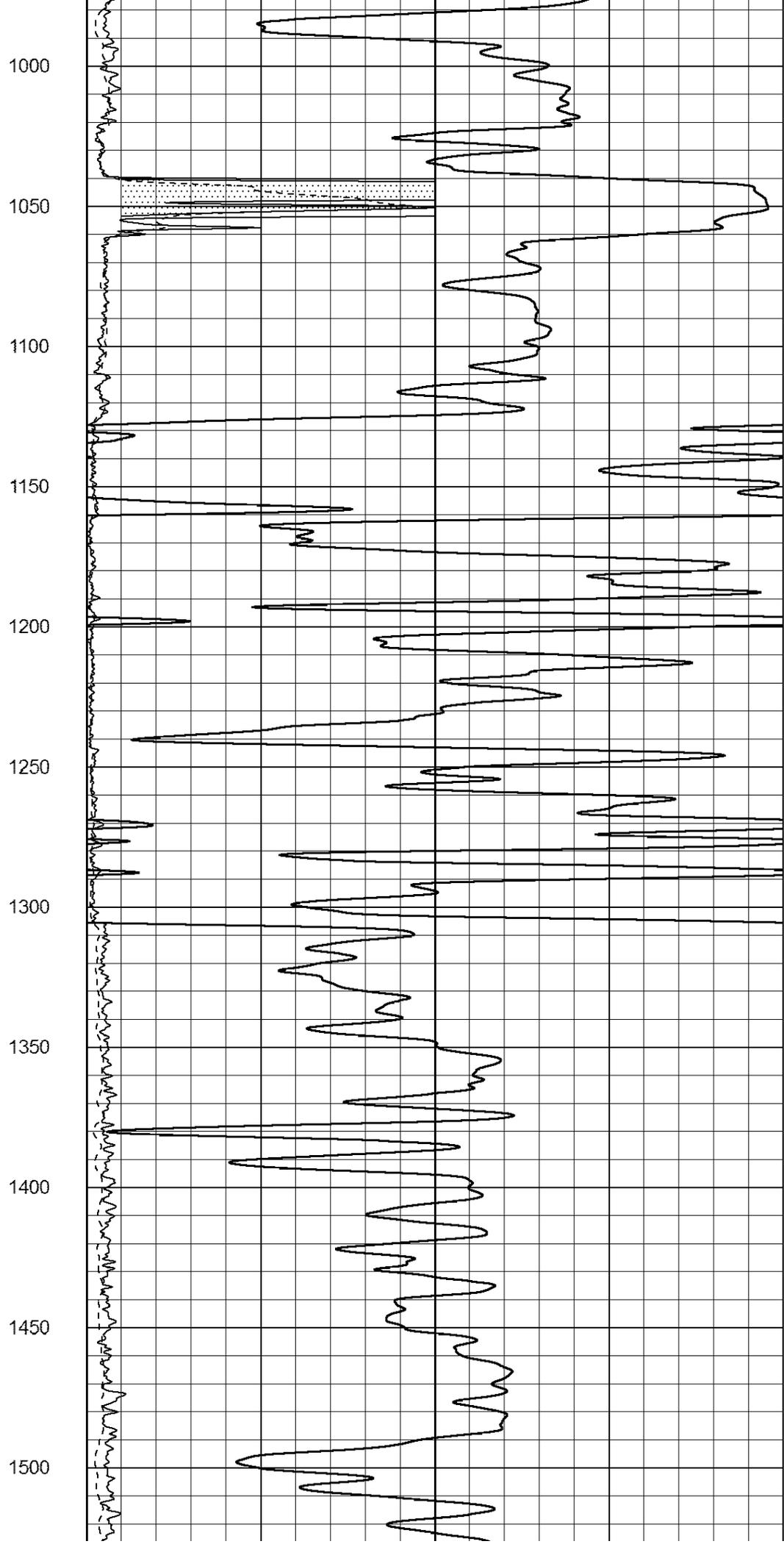
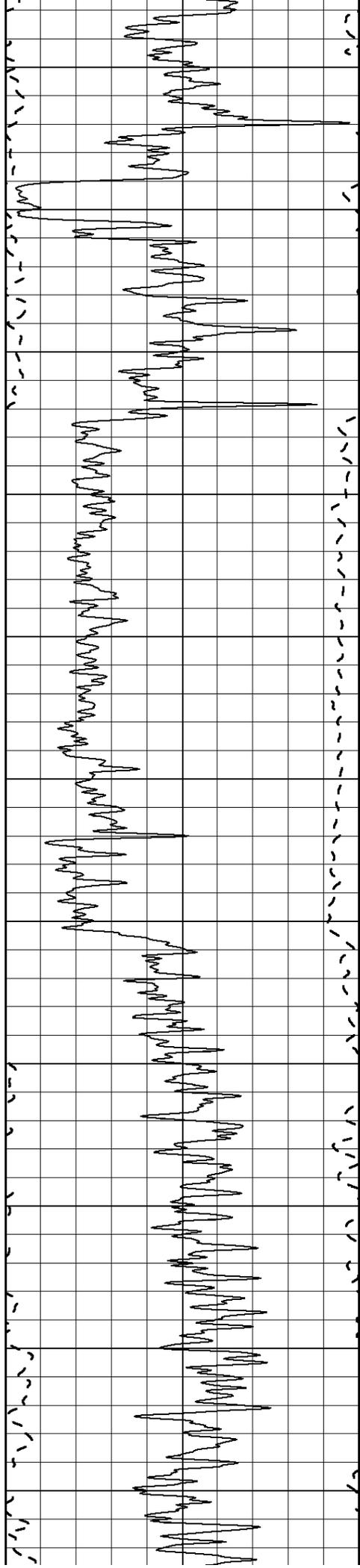
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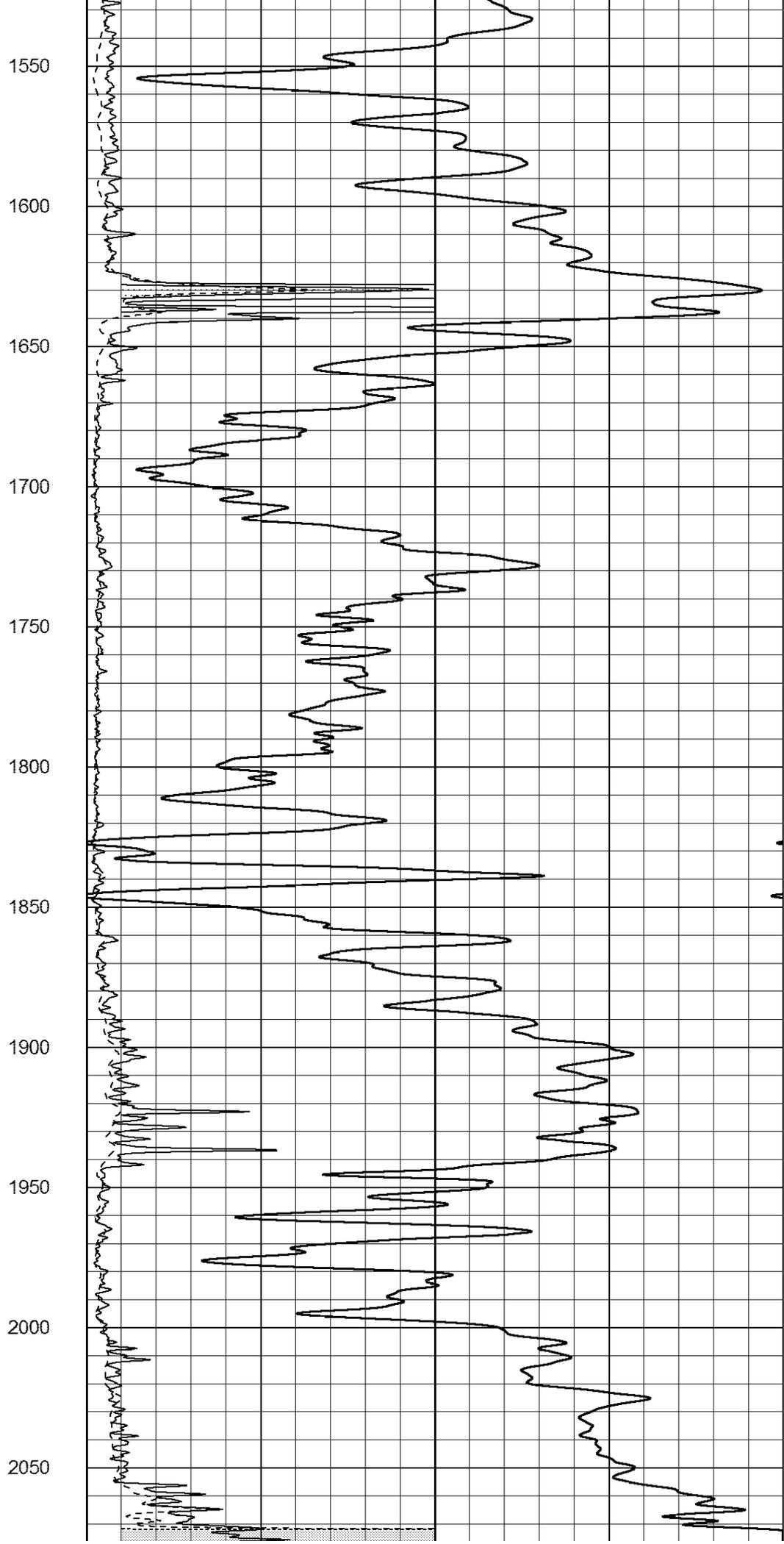
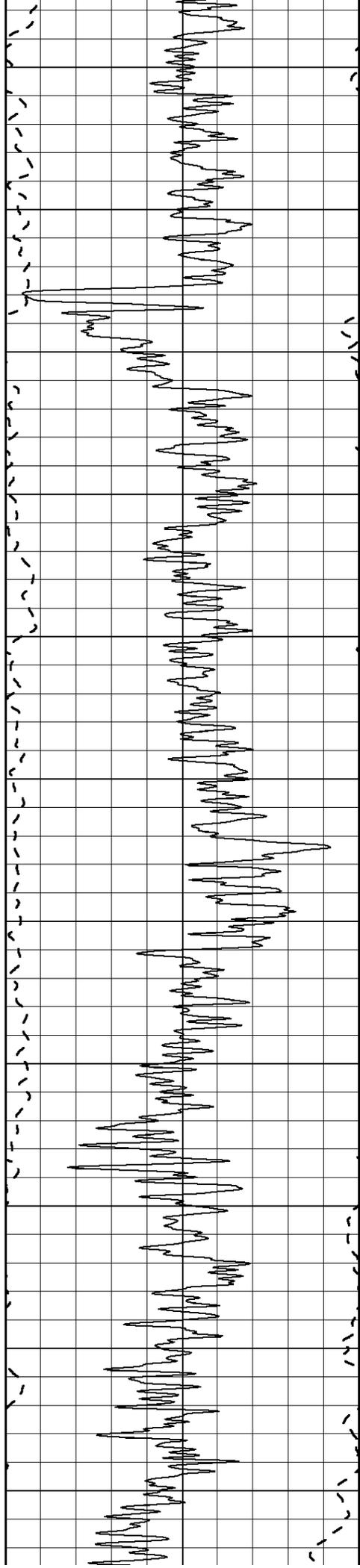
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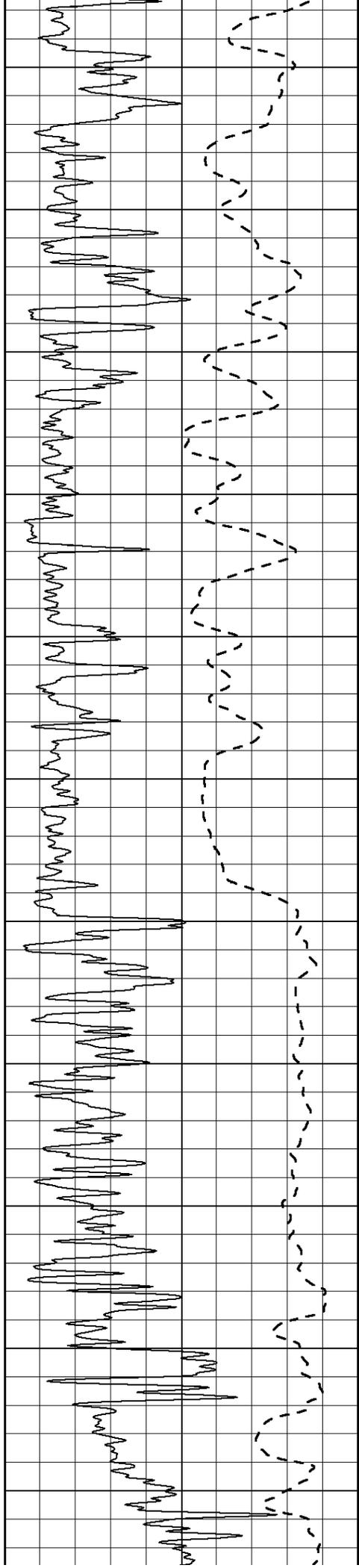
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950









2100

2150

2200

2250

2300

2350

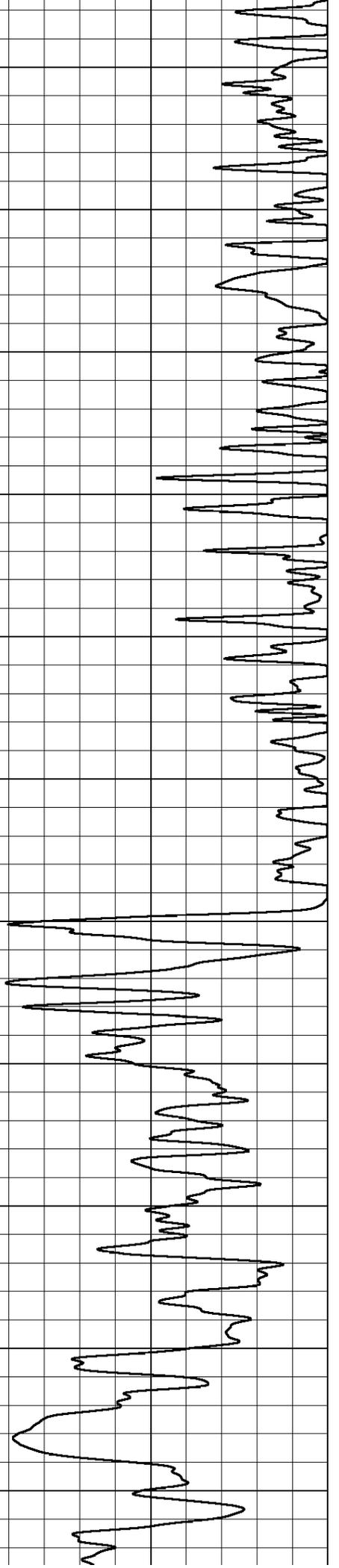
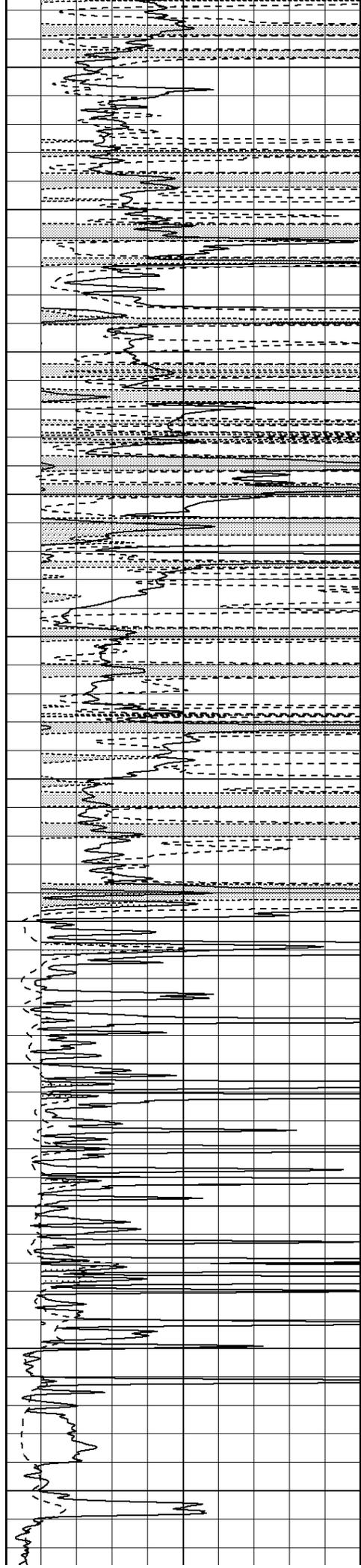
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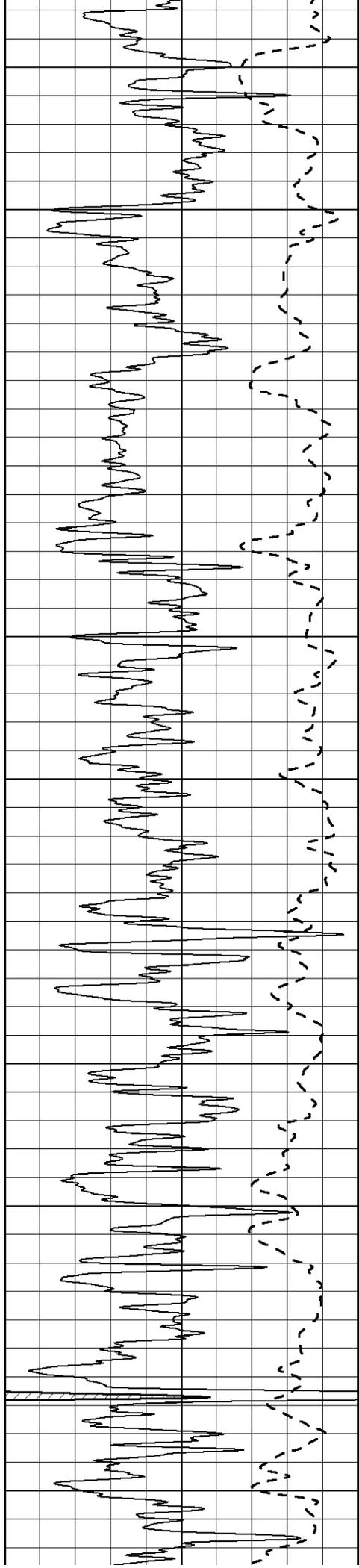
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2500

2550

2600





2650

2700

2750

2800

2850

2900

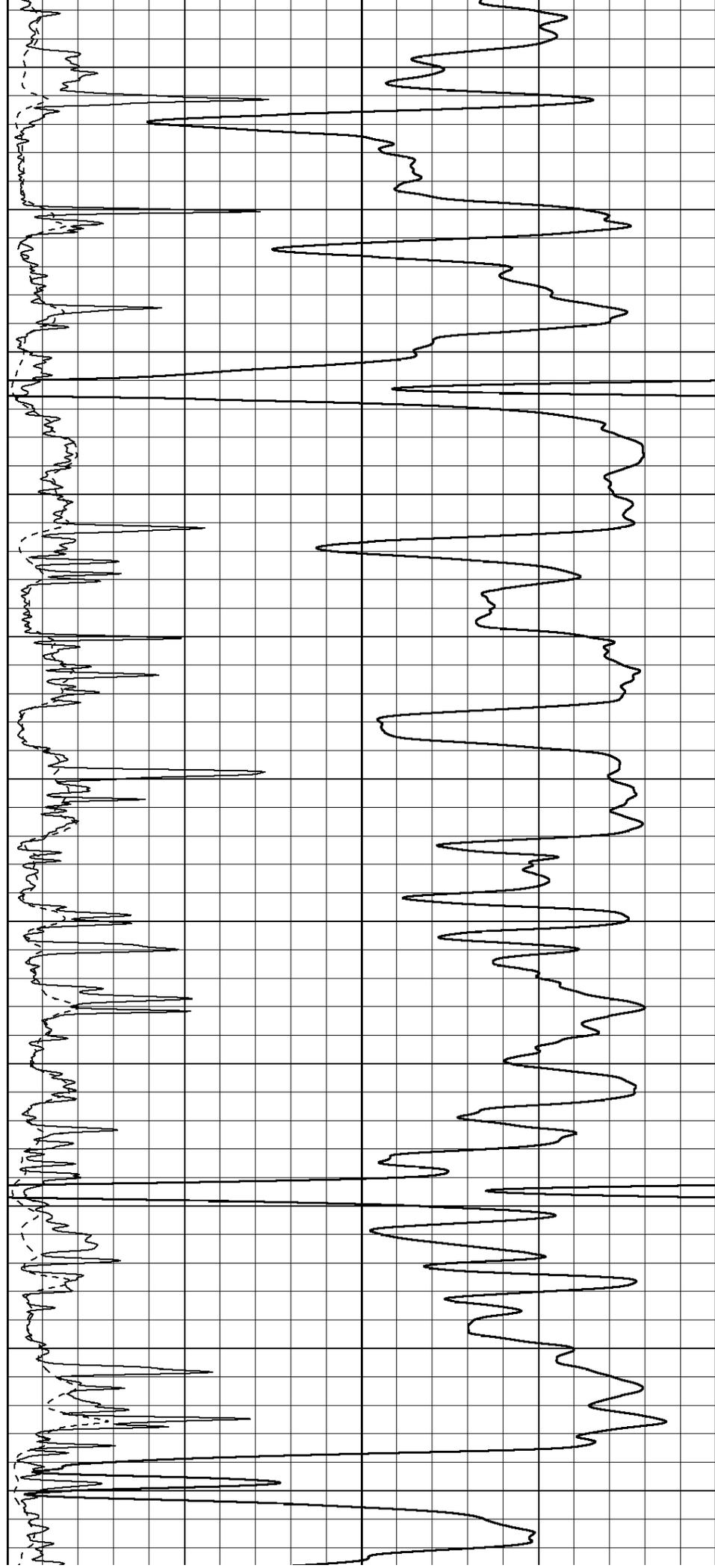
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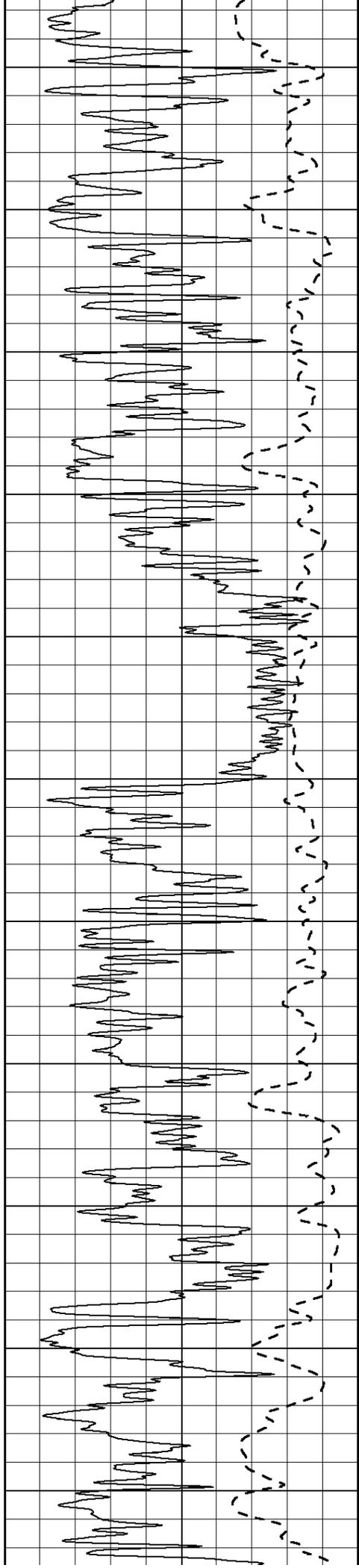
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3050

3100

3150





3200

3250

3300

3350

3400

3450

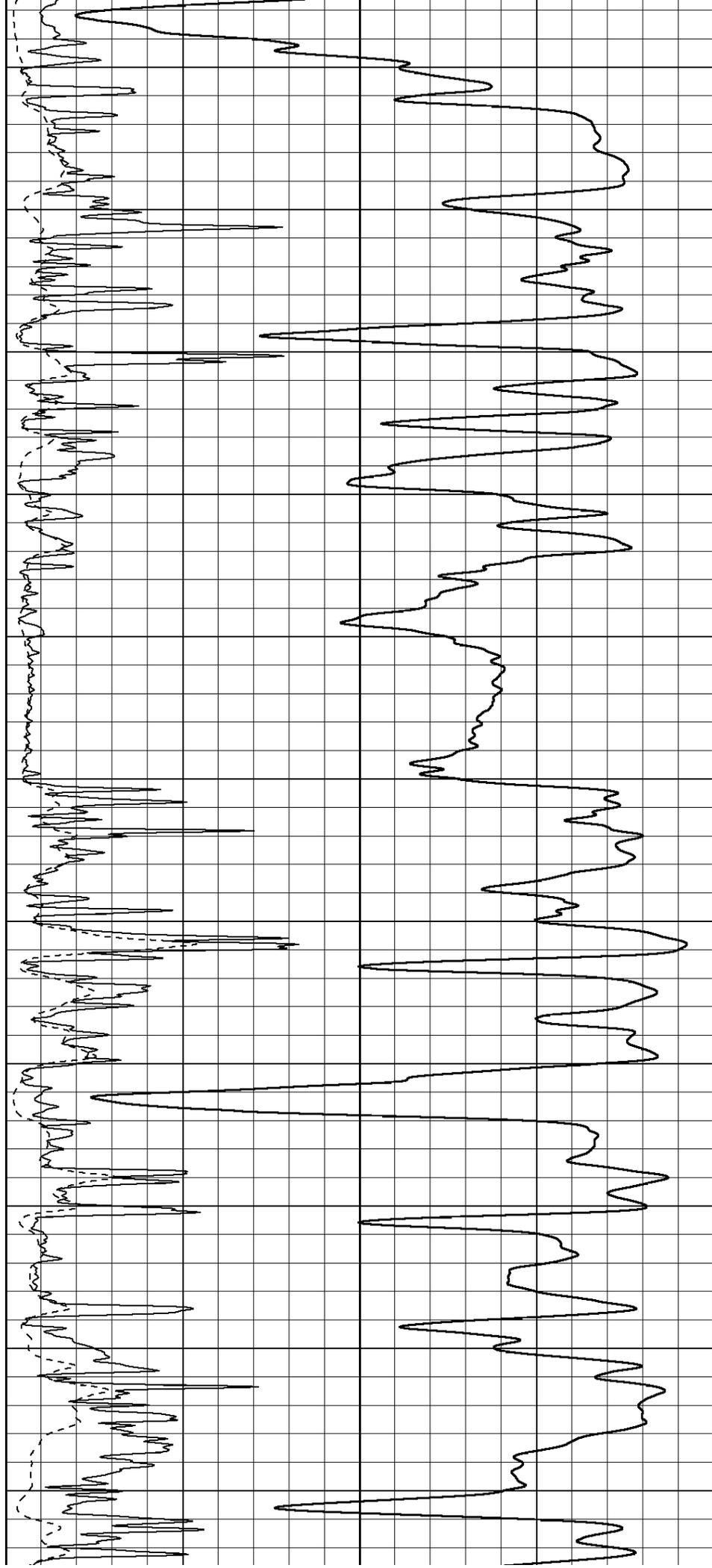
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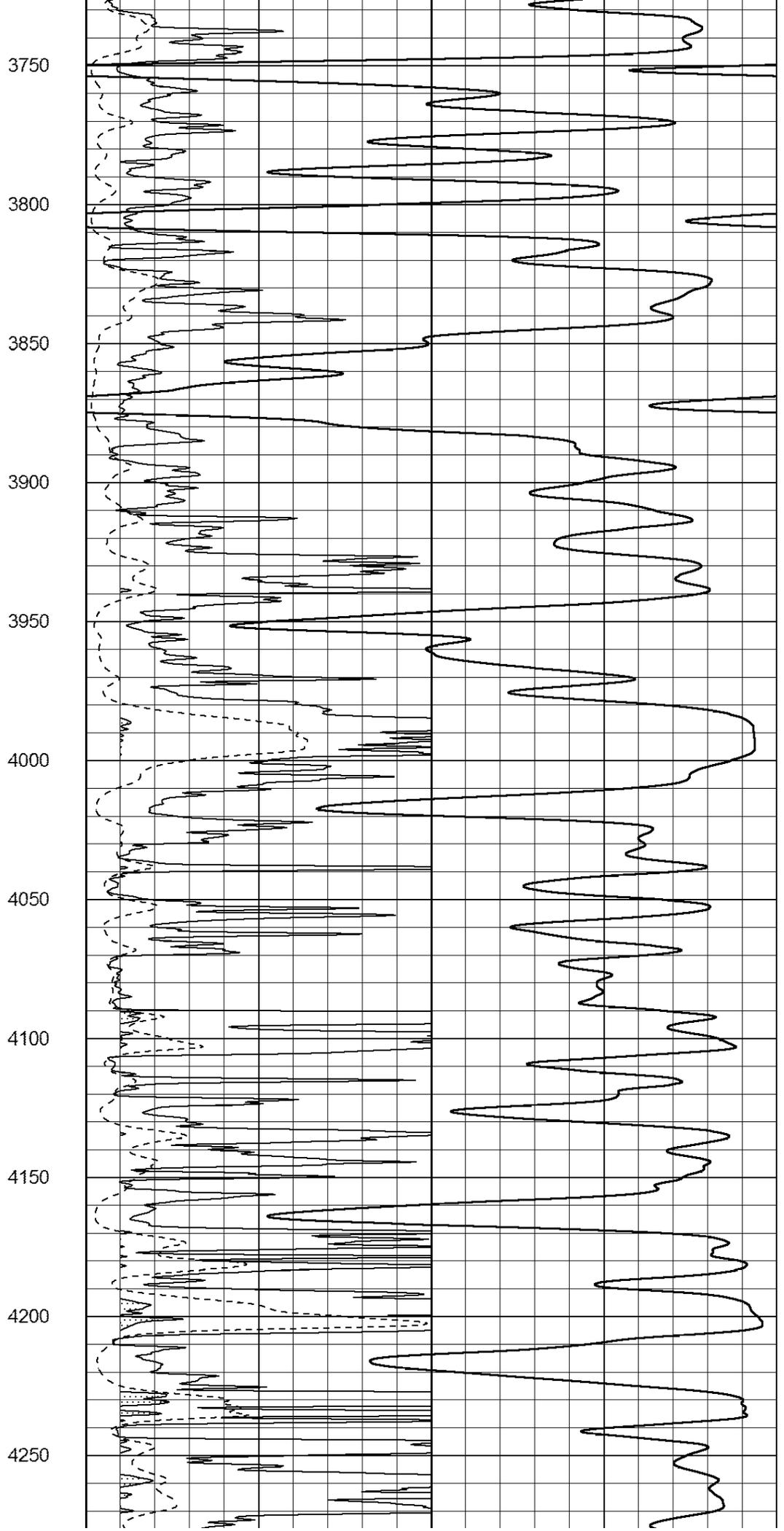
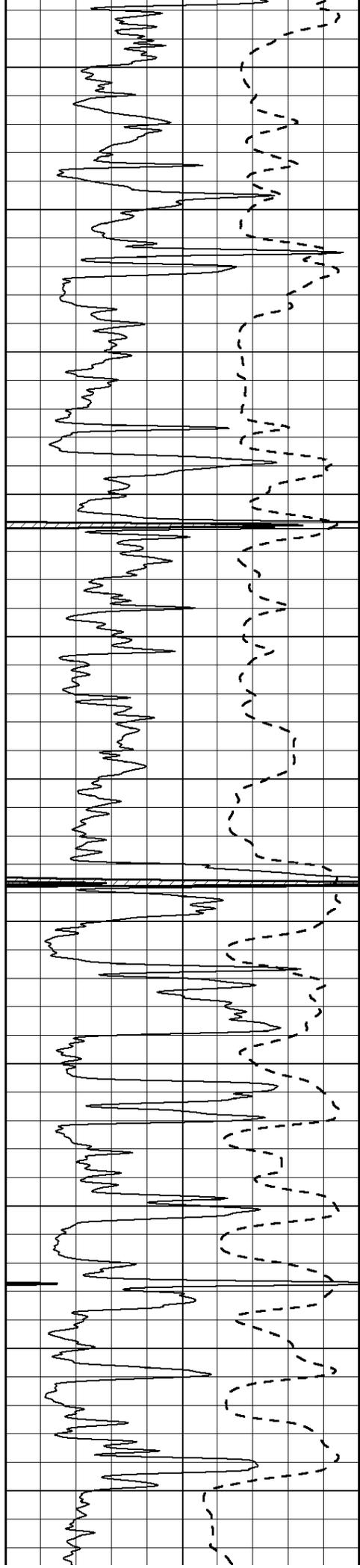
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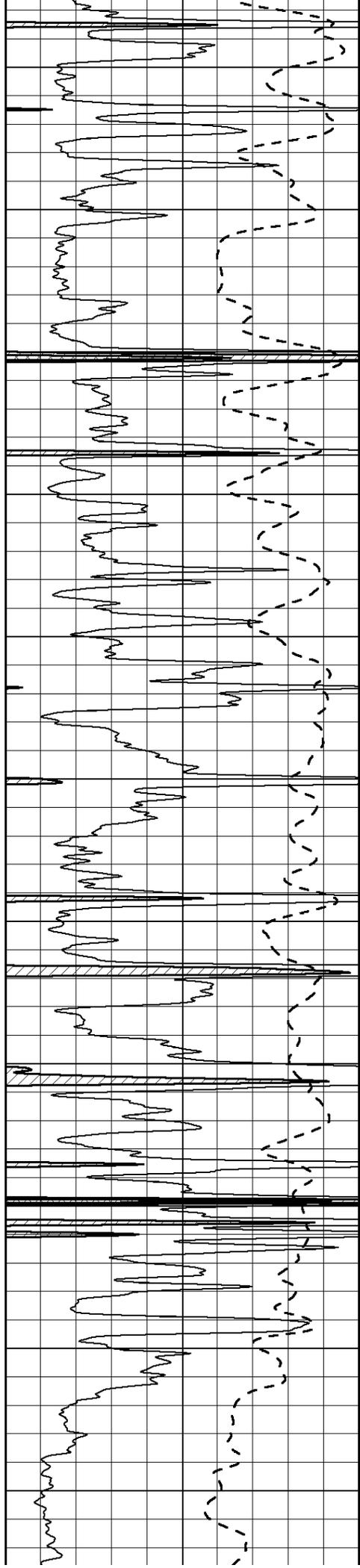
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3650

3700







4300

4350

4400

4450

4500

4550

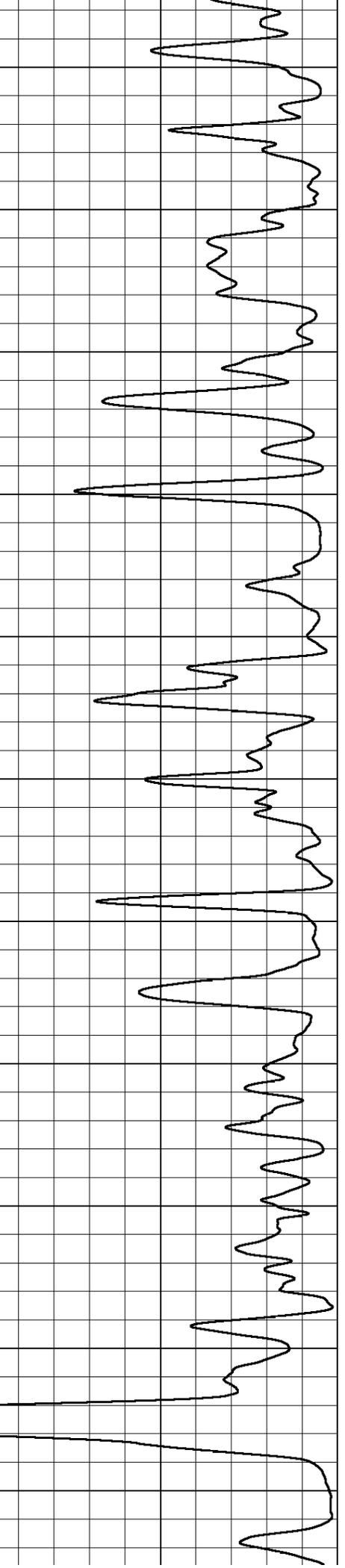
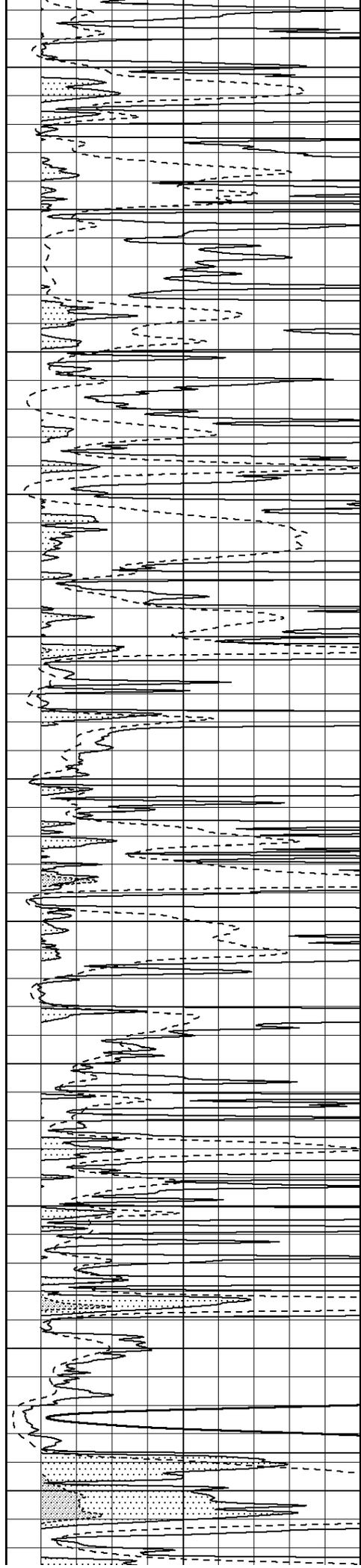
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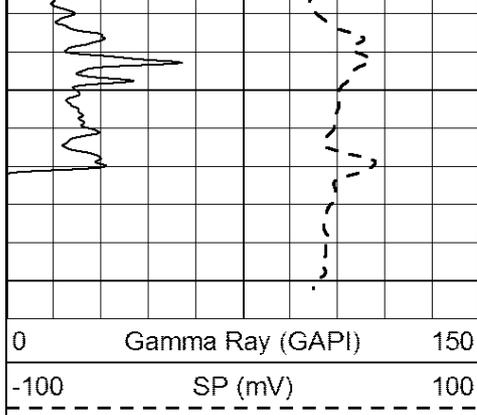
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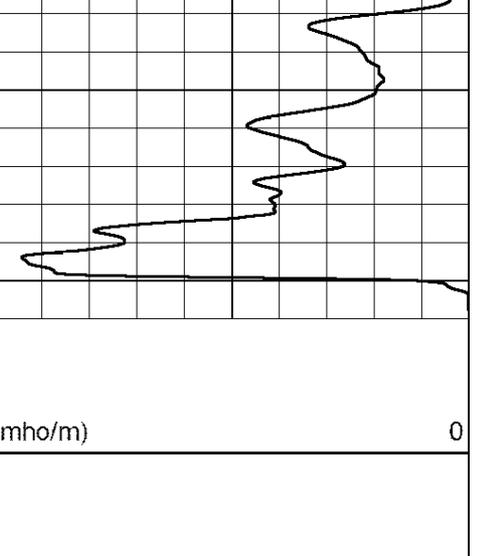
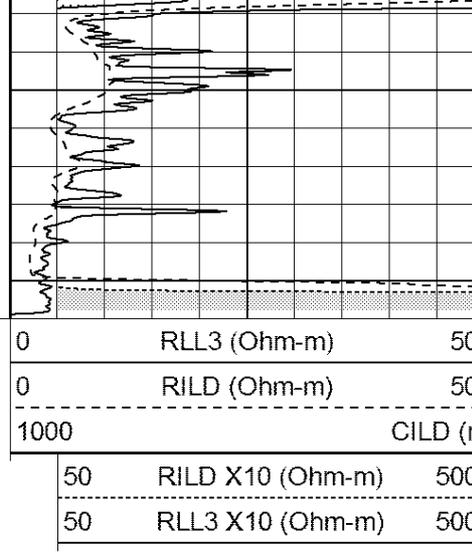
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4850
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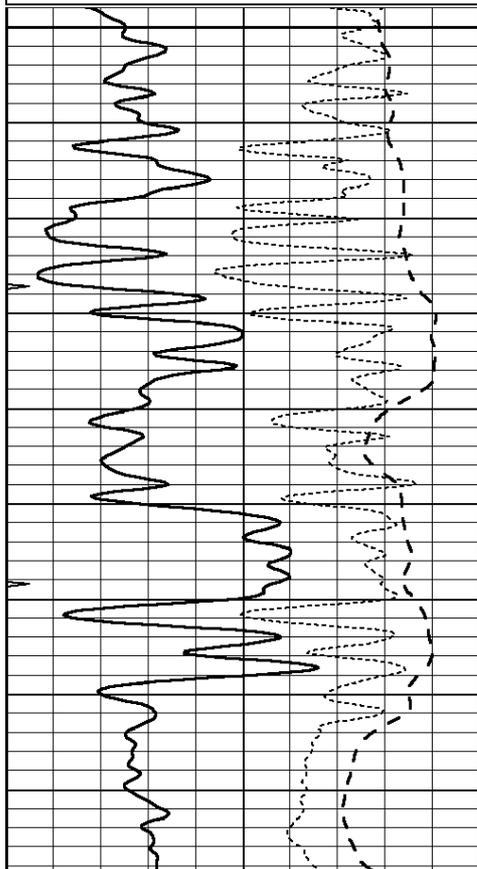
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UPPER SECTION

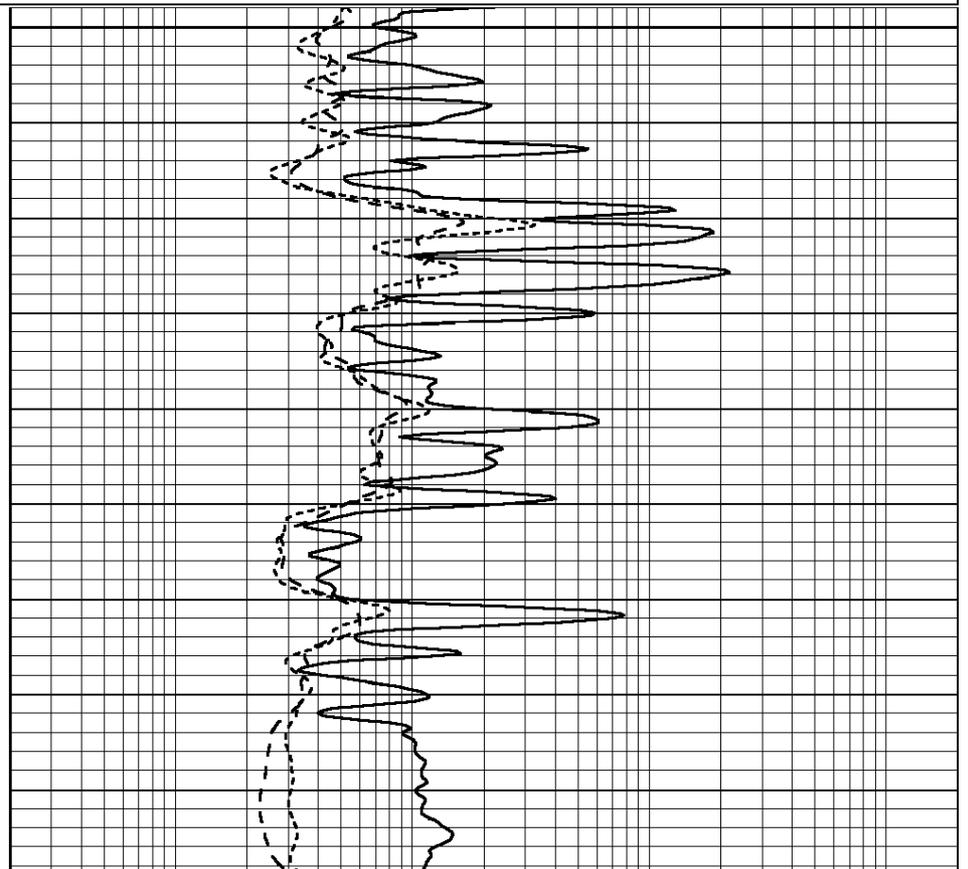
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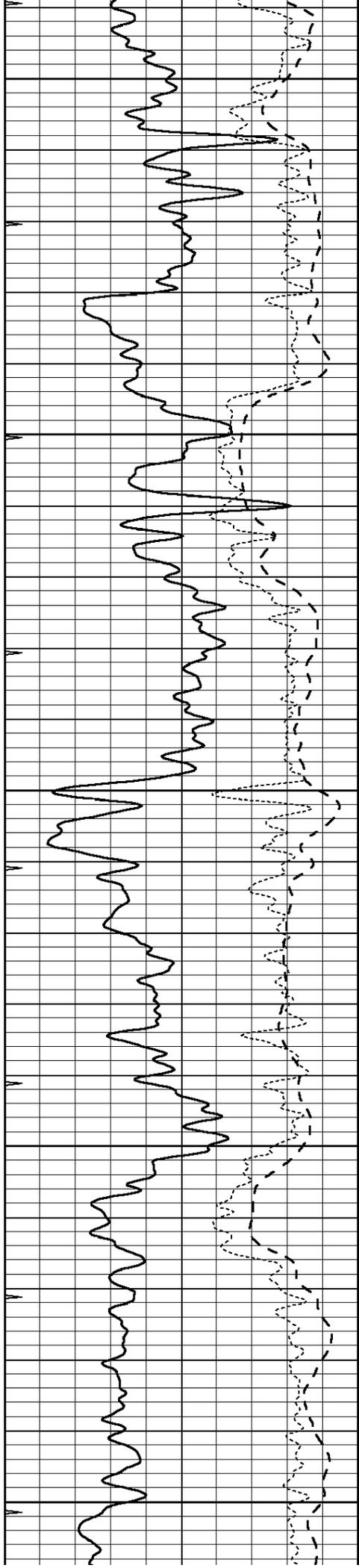
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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



2500
2550





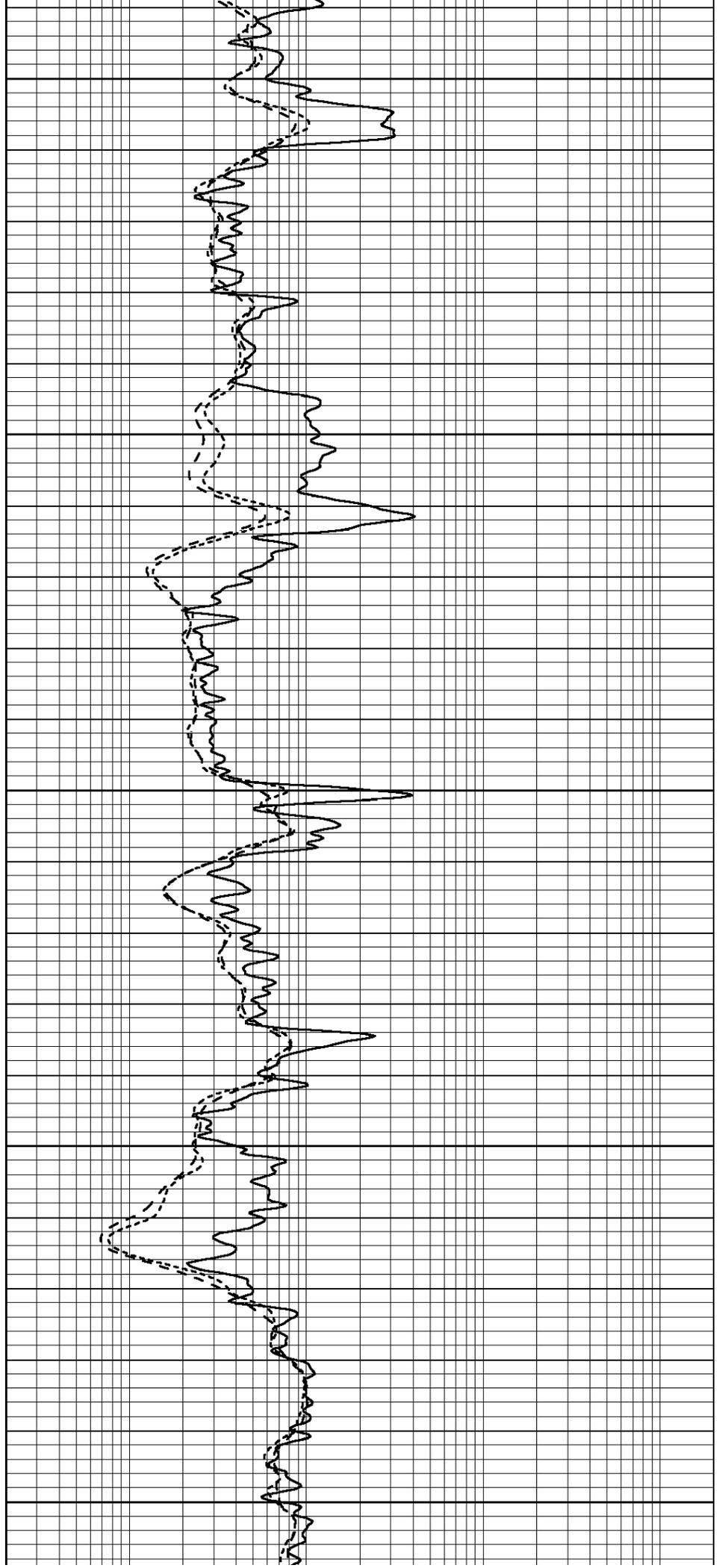
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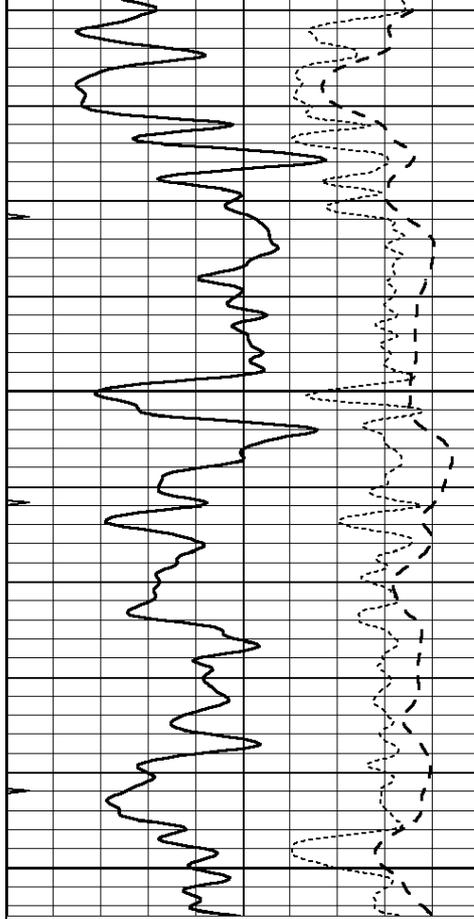
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2700

2750

2800

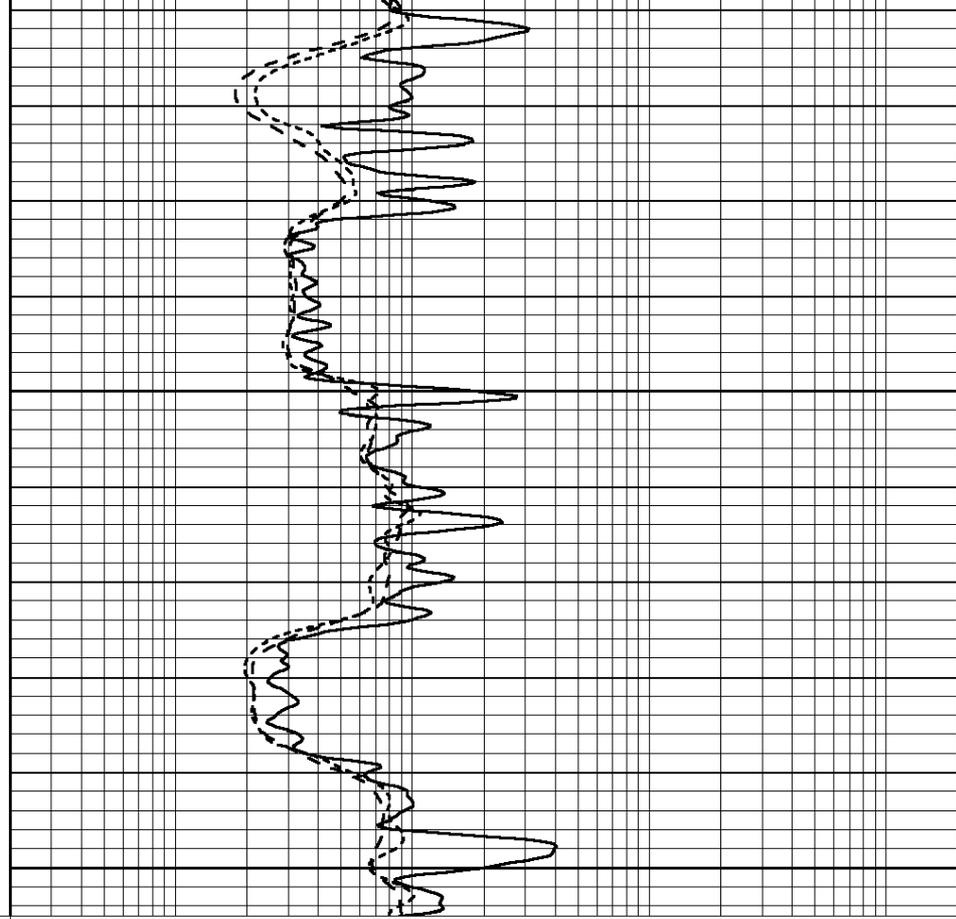




2850

2900

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



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MAIN SECTION

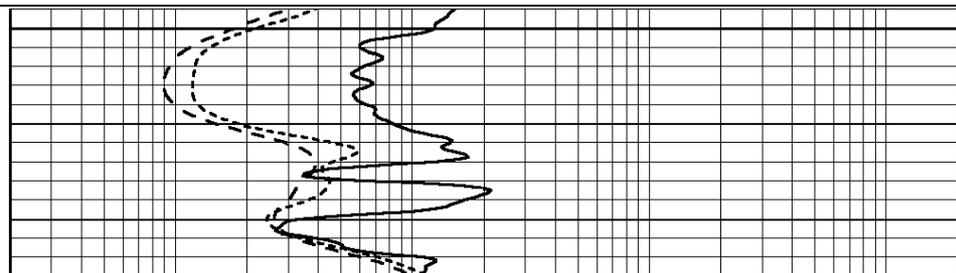
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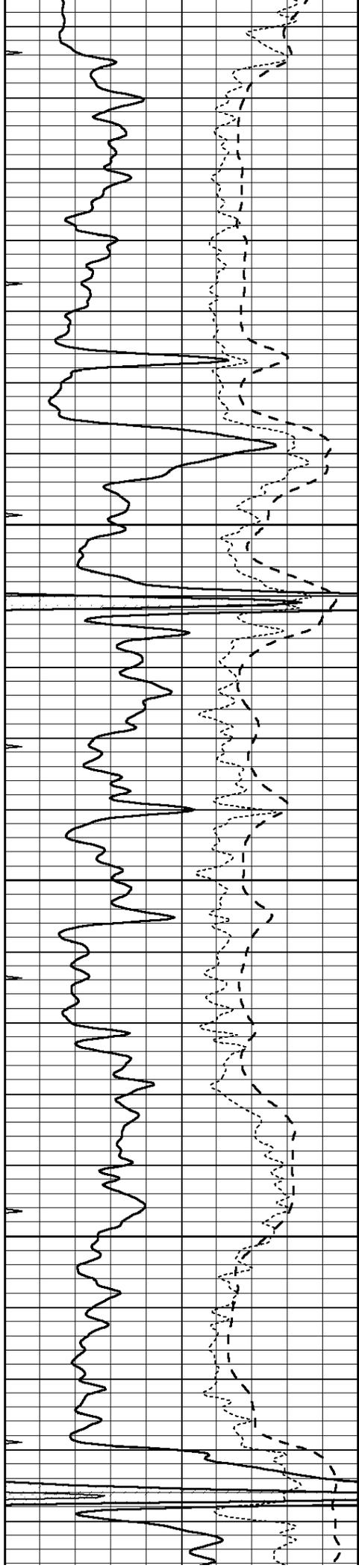
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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



3800



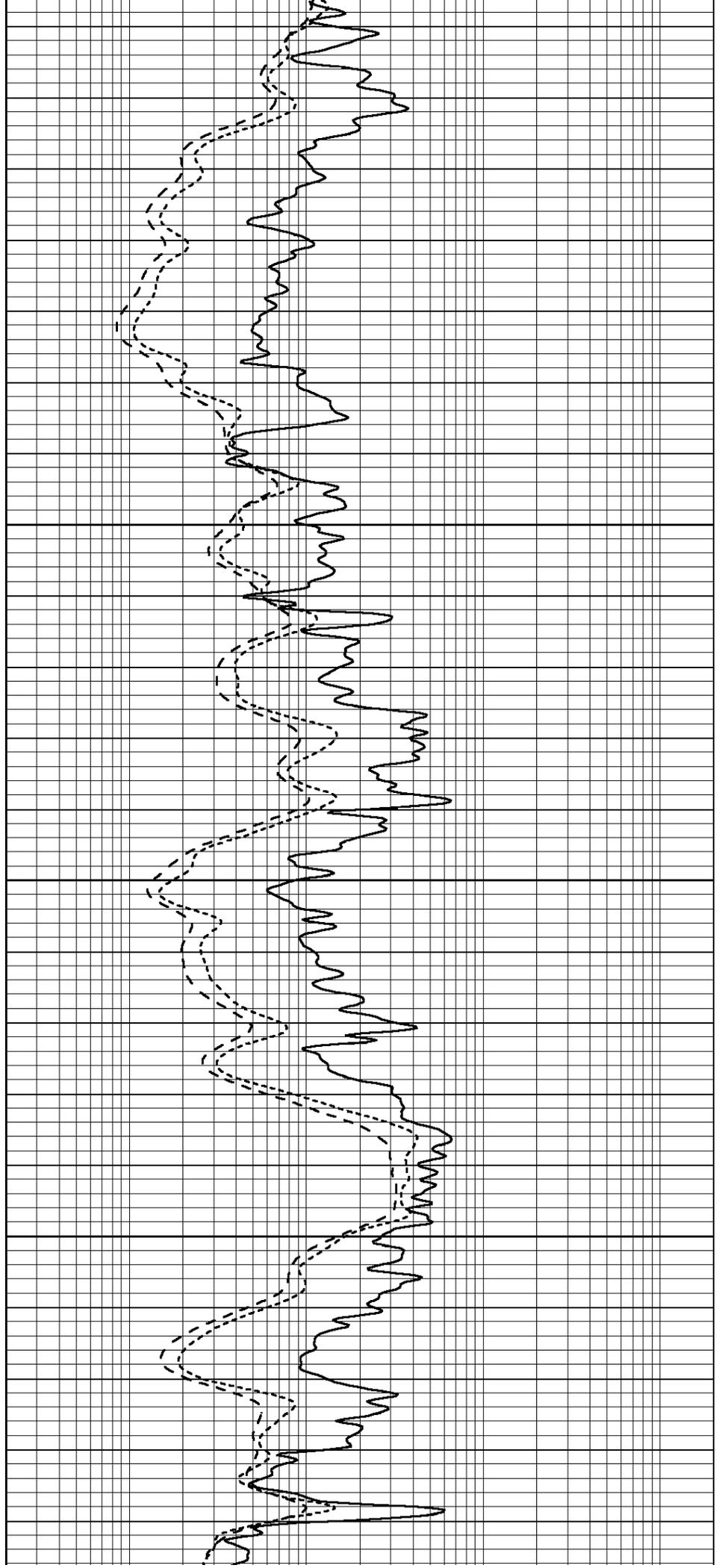


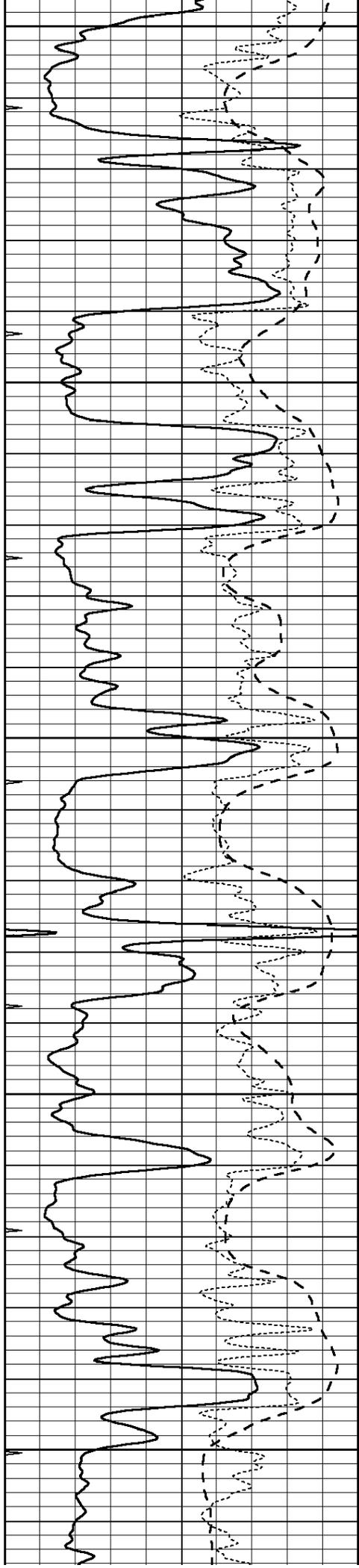
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3900

3950

4000





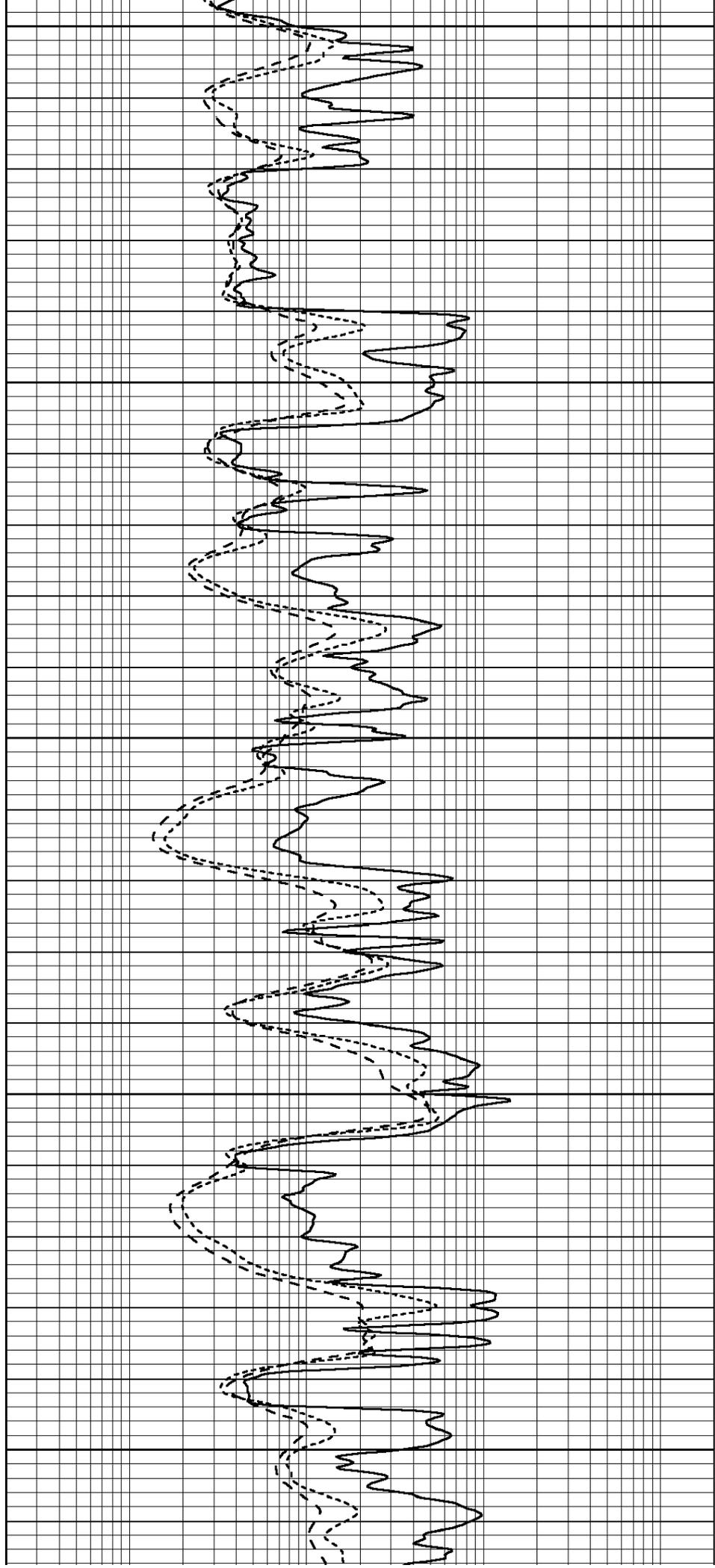
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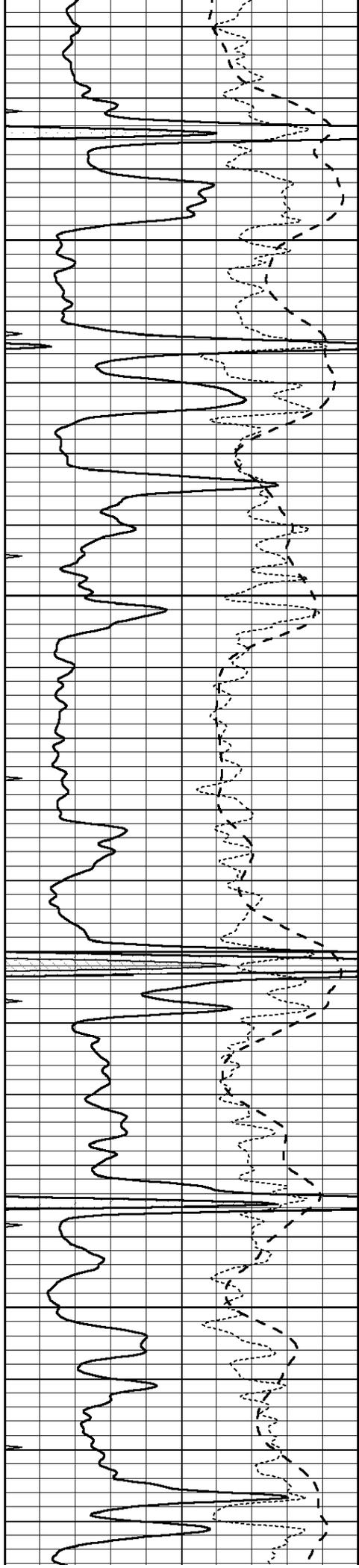
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4150

4200

4250



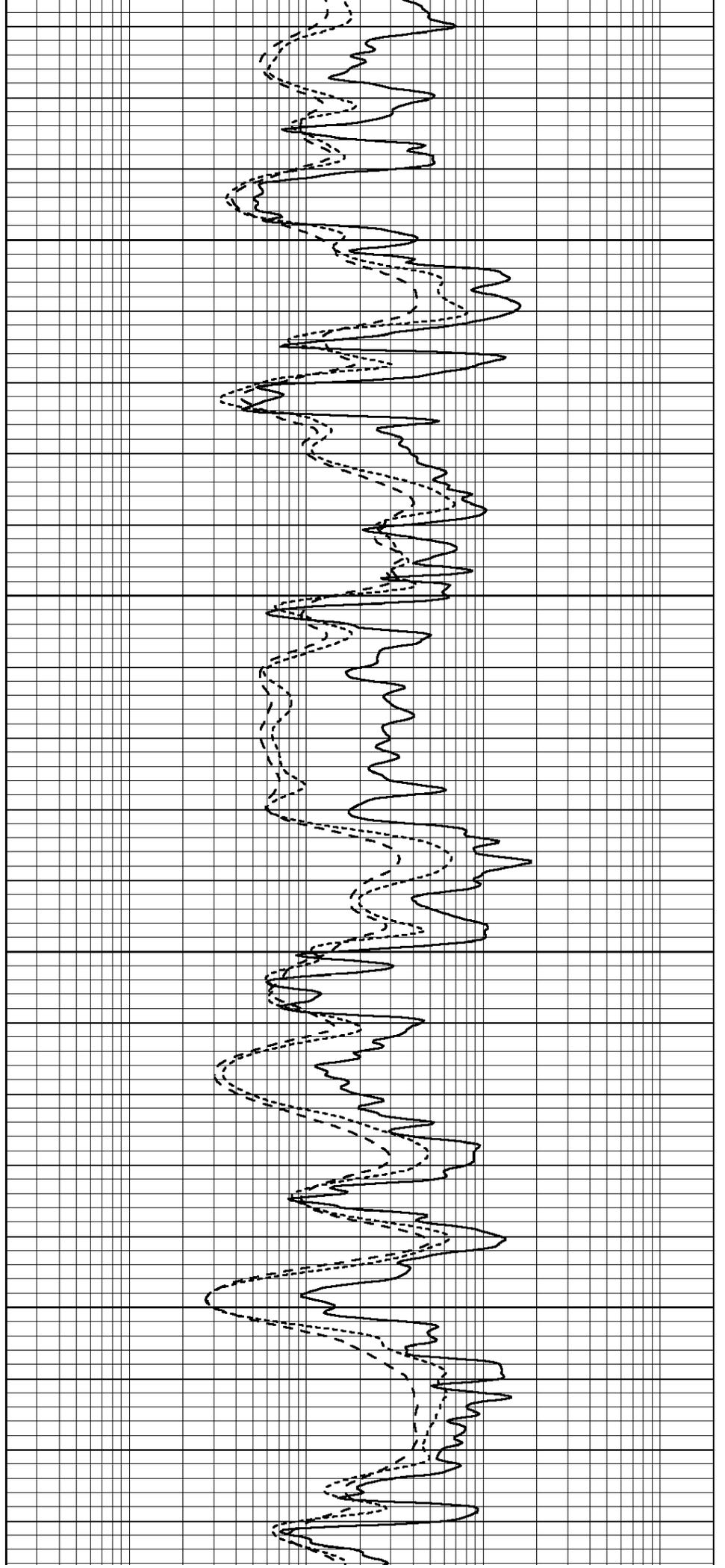


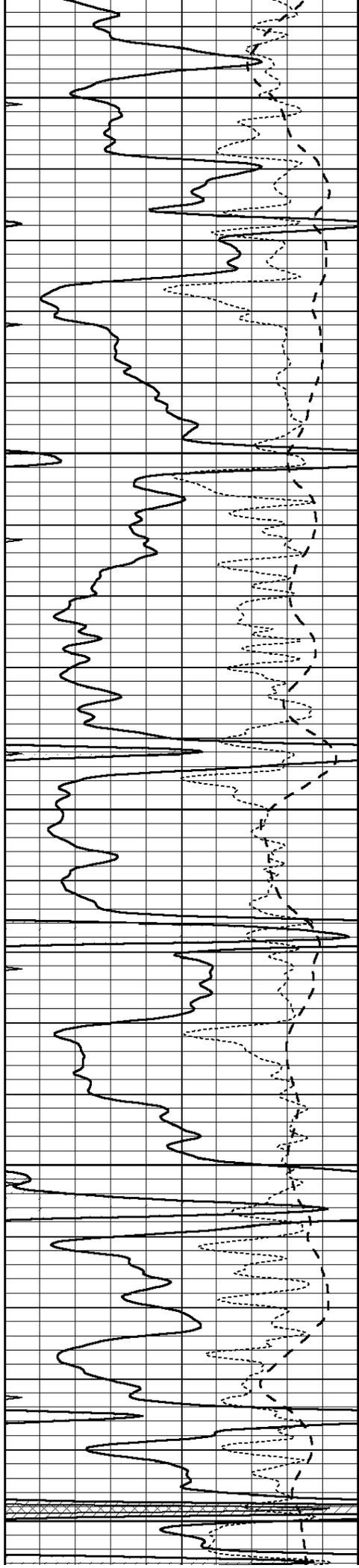
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4400

4450





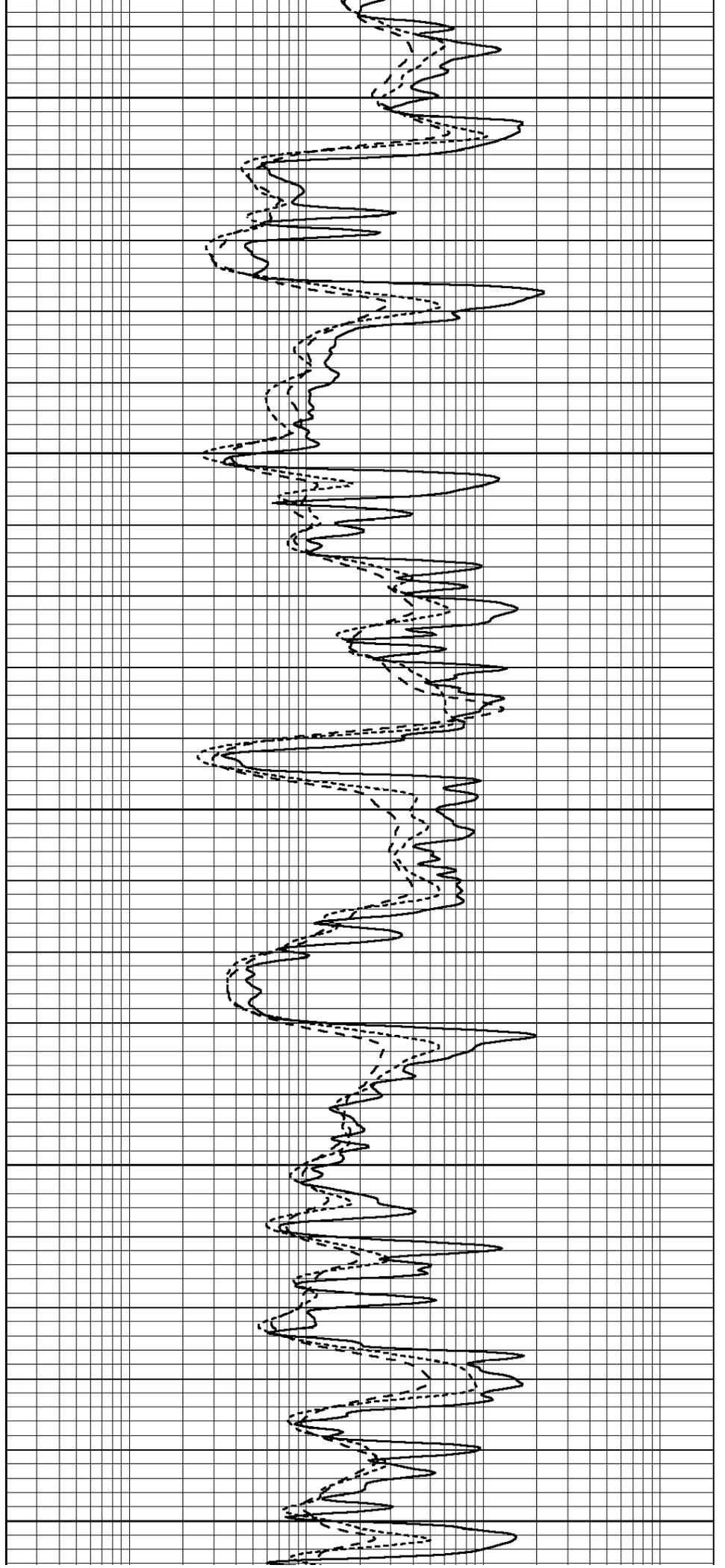
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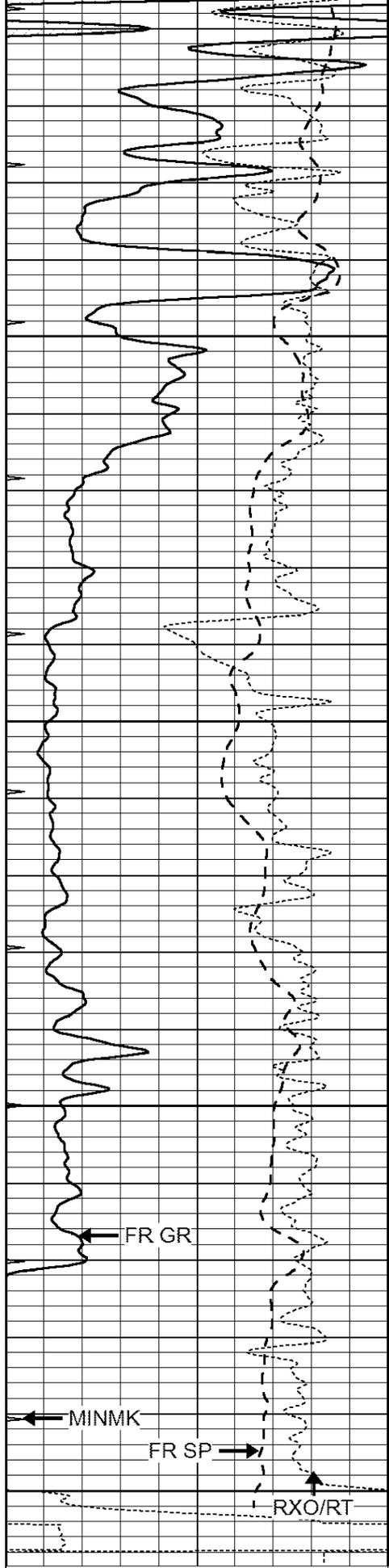
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4650

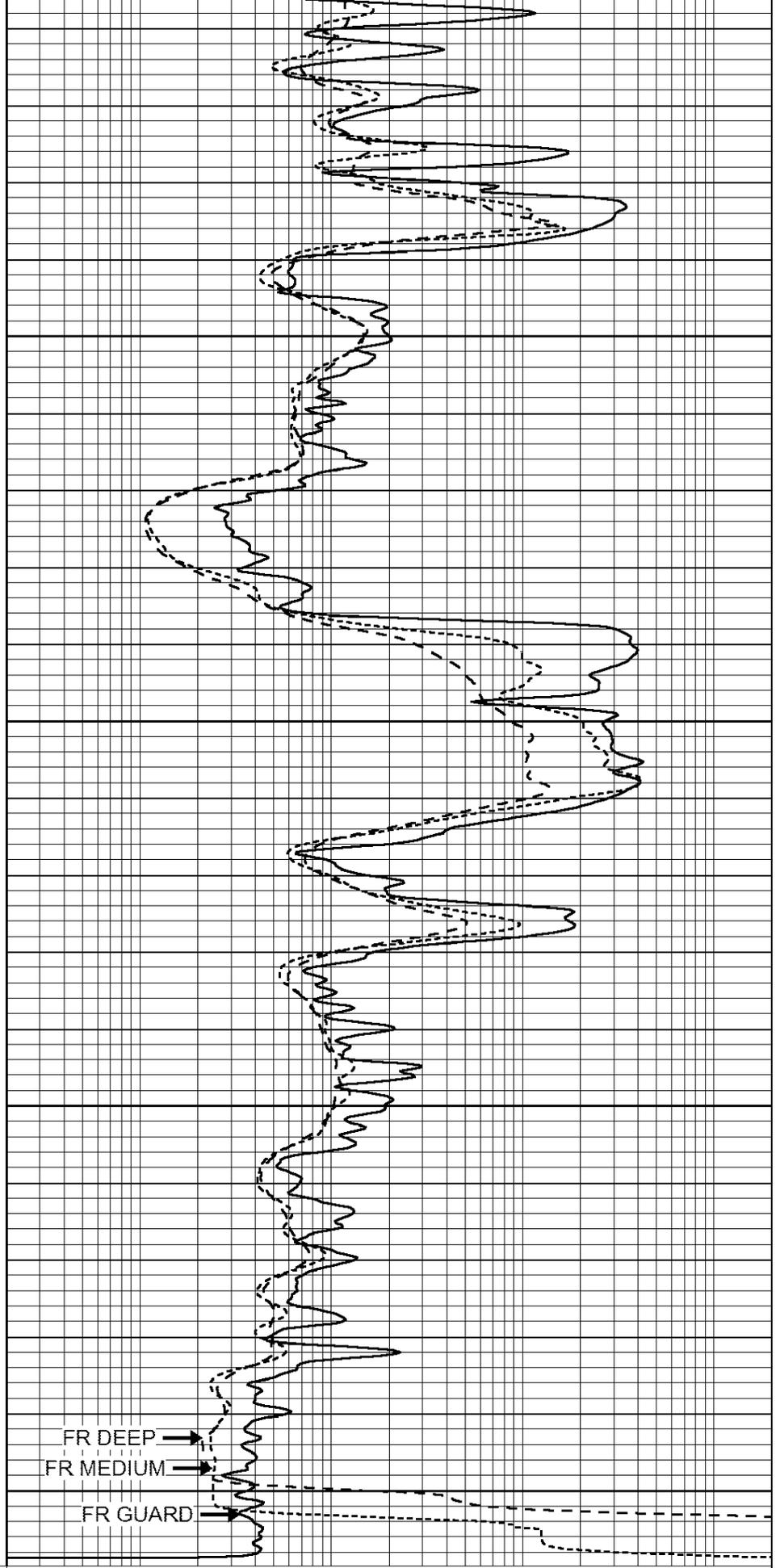
4700





4750
 4800
 4850
 4900
 LTD 4905

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



FR DEEP
 FR MEDIUM
 FR GUARD

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



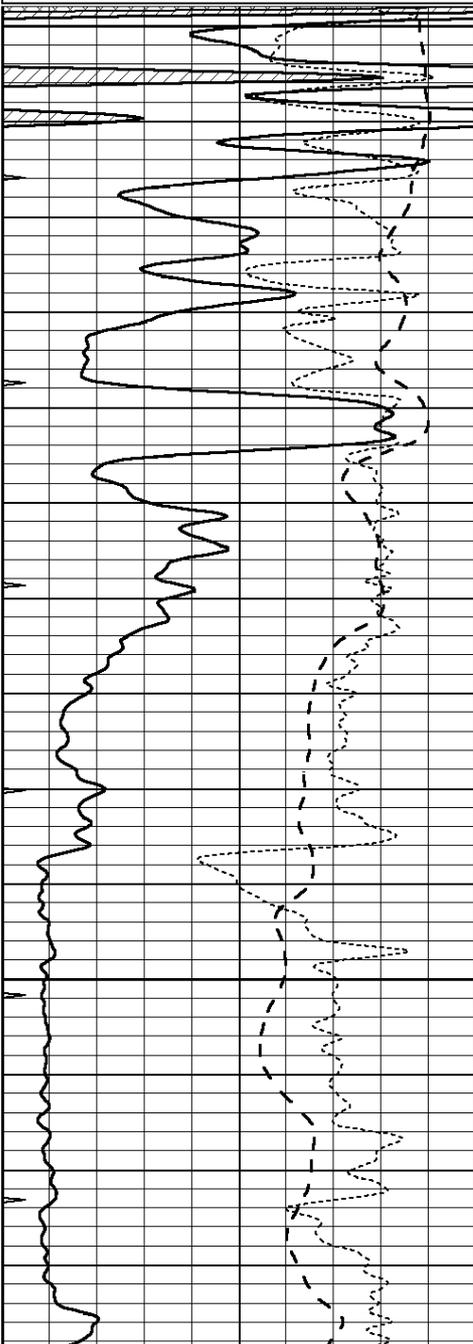
SUPERIOR
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Kansas

REPEAT SECTION

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Charted by: Depth in Feet scaled 1:240

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0	MINMK	20

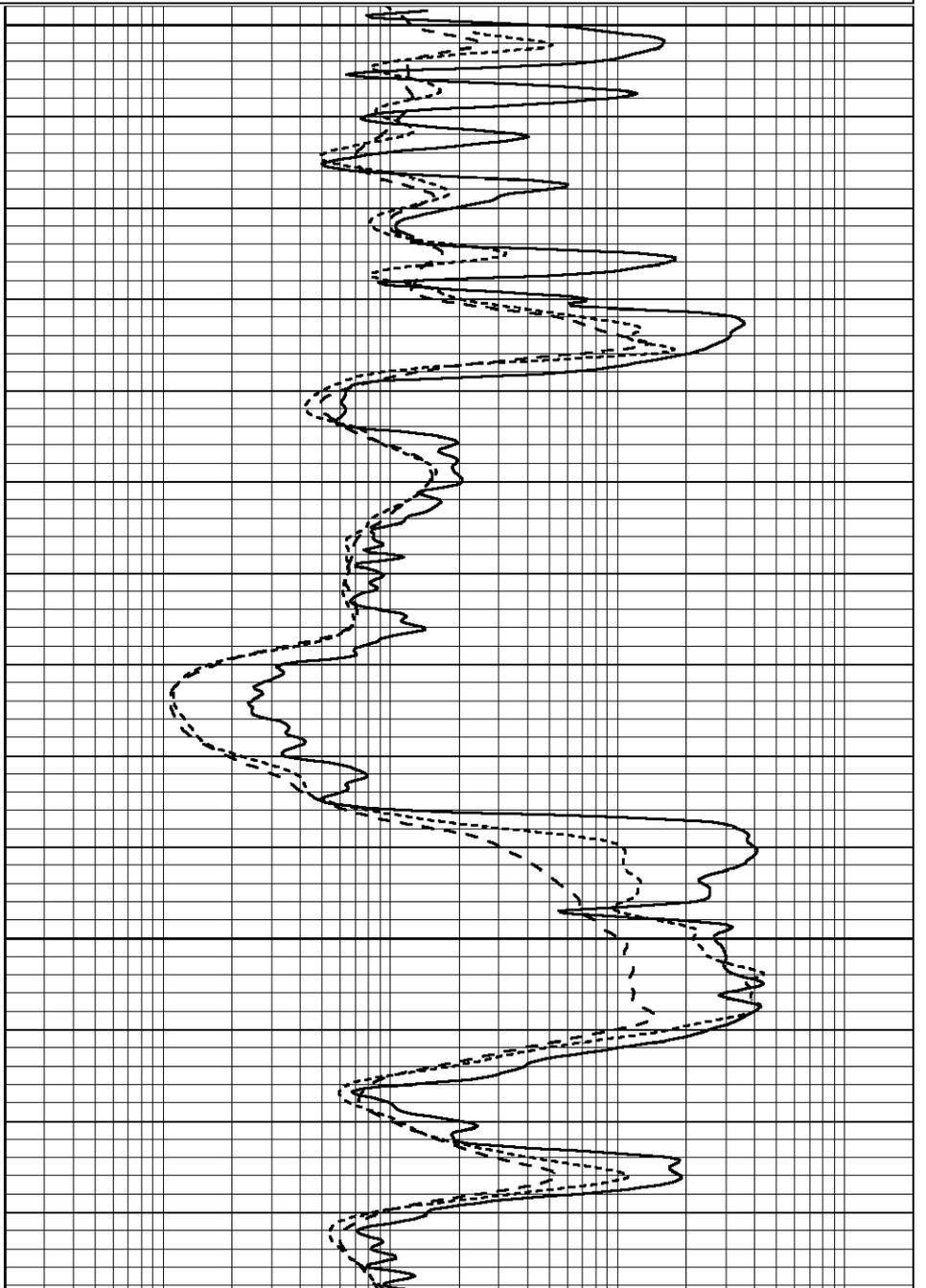
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0.2	MEDIUM INDUCTION (Ohm-m)	2000

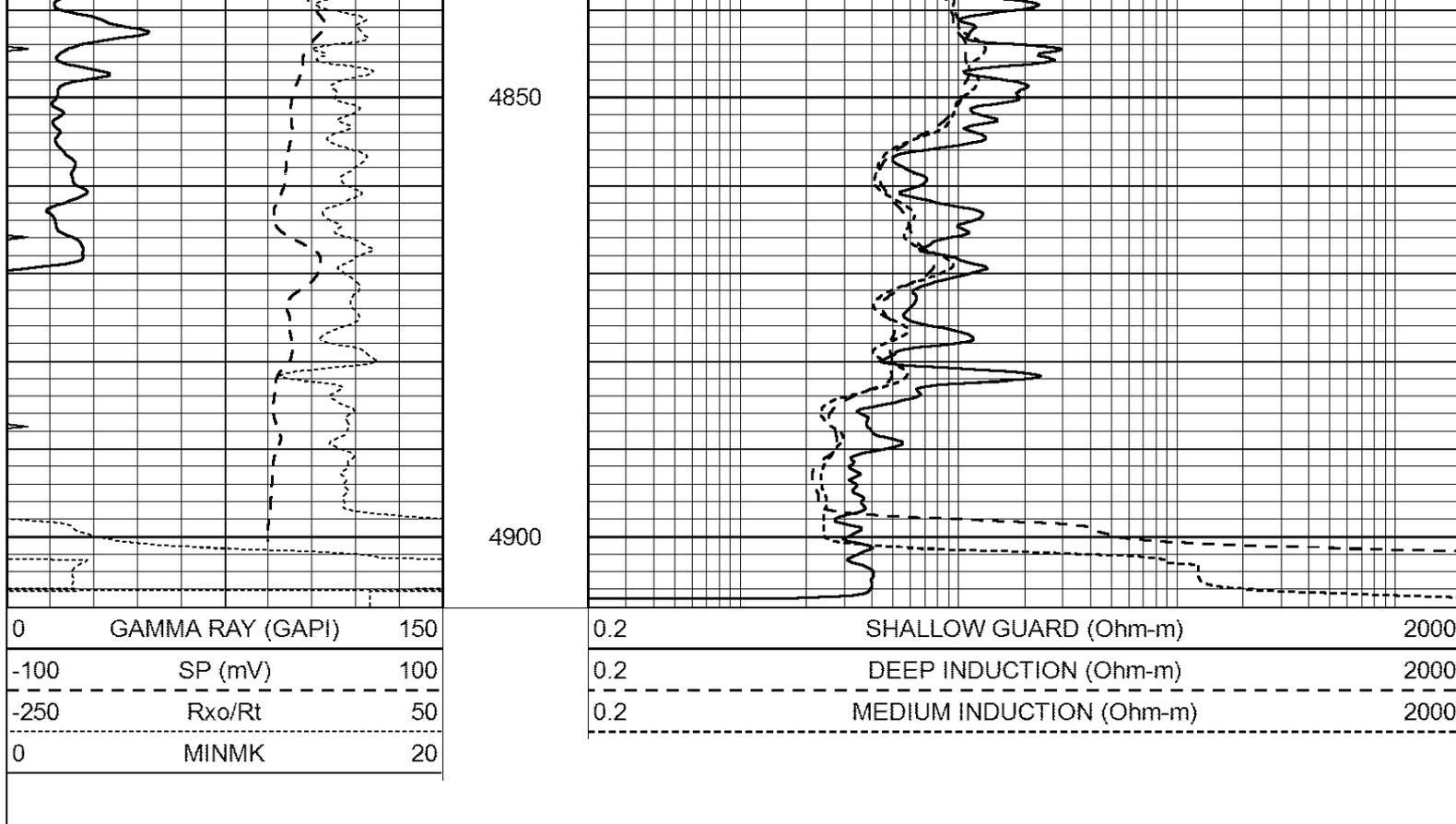


4700

4750

4800





Calibration Report

Database File: 408754ddn.db
 Dataset Pathname: pass3.10
 Dataset Creation: Wed Apr 25 12:49:53 2012 by Calc Open-Cased 110302

Dual Induction Calibration Report

Serial-Model: DIL4-GEAR
 Performed: Wed Apr 25 11:11:15 2012

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.008	0.666	V	0.000	400.000	mmho/m	570.000	2.000
Medium	-0.003	0.769	V	0.000	462.500	mmho/m	560.000	3.000
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: 003N Model: PRB
 Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2042.6	12312.8	4225.8	13758.4	cps
Window 2	1855.8	10134.7	3624.2	11113.1	cps
Window 3	1639.4	6760.2	2716.3	7260.3	cps
Window 4	466.4	469.2	466.1	476.5	cps
Long Space	0.0	8278.9	1768.4	9257.4	cps
Short Space	2.2	2377.3	1544.1	2574.2	cps
Rho		1.7100	2.5900	1.3800	g/cc
Rho			2.5700	1.5500	

Rib Angle : 44.4
Spine Angle : 74.4

Rib Slope : 0.979
Spine Slope : 3.577

Density/Spine Ratio : 0.549
Spine Intercept : -18.8

Caliper

Readings
Low Ref 2.0
High Ref 4.0
Gain: 3.7

Reference
7.5
15.0

Offset: 0.3

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 Apr 16 22:08:41 2012

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.3000 GAPI/cps