



**SUPERIOR
Hays,
Kansas**

DUAL INDUCTION LOG

Company	LOTUS OPERATING, INC.		
Well	#5 TERWORT		
Field			
County	BARBER	State	KANSAS
Location:	API # : 15-007-23689		Other Services CDL/CNL/PE SONIC/MEL
SEC 34 TWP 34S RGE 12W		Elevation	
Permanent Datum	GROUND LEVEL	Elevation	1405
Log Measured From	KELLY BUSHING 13' A.G.L.	K.B.	1418
Drilling Measured From	KELLY BUSHING	D.F.	
		G.L.	1405
Date	5-22-11		
Run Number	ONE		
Depth Driller	5534		
Depth Logger	5535		
Bottom Logged Interval	5533		
Top Log Interval	00		
Casing Driller	265		
Casing Logger	264		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3 / 53		
pH / Fluid Loss	10.0 / 10.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.75 @ 88F		
Rmf @ Meas. Temp	0.56 @ 88F		
Rmc @ Meas. Temp	0.90 @ 88F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.510 @ 130F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	8:30 P.M.		
Maximum Recorded Temperature	130F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	TIM HELLMAN		

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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

SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: MEDICINE LODGE, S TO MM #7, 1W TO T IN THE ROAD, 1/8N, 1 3/4W, N INTO.



**SUPERIOR
Hays,
Kansas**

MAIN SECTION

Database File: 006924pdn.db
 Dataset Pathname: pass3A
 Presentation Format: dil2
 Dataset Creation: Sun May 22 23:22:43 2011
 Charted by: Depth in Feet scaled 1:600

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

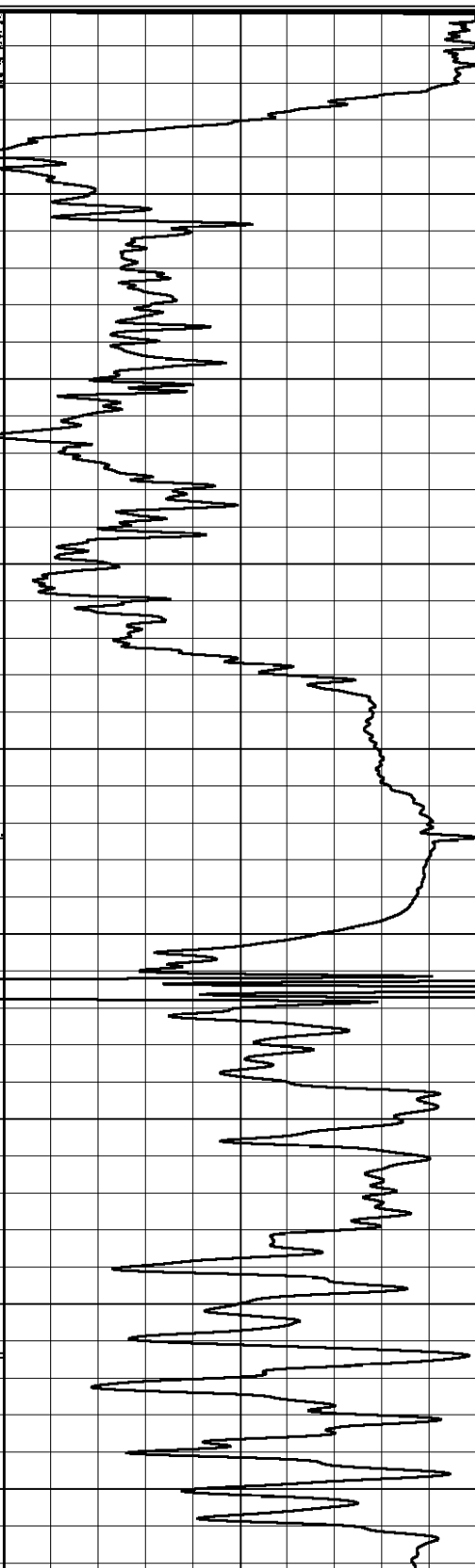
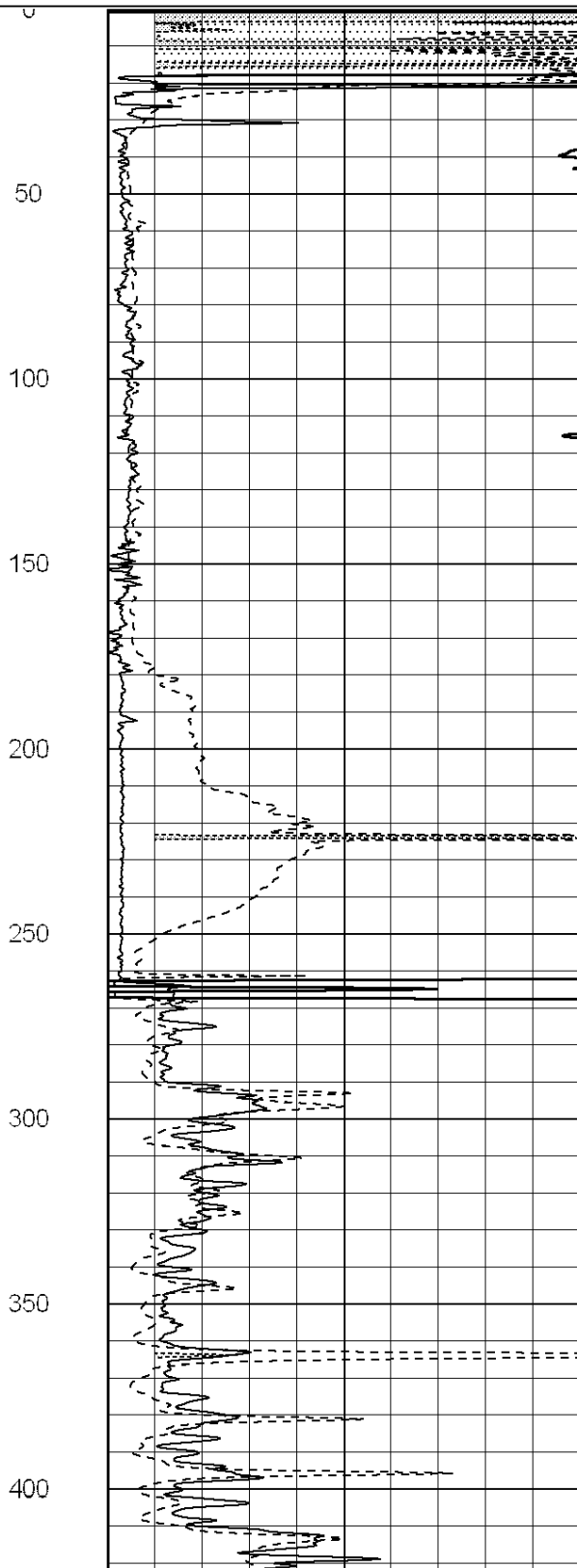
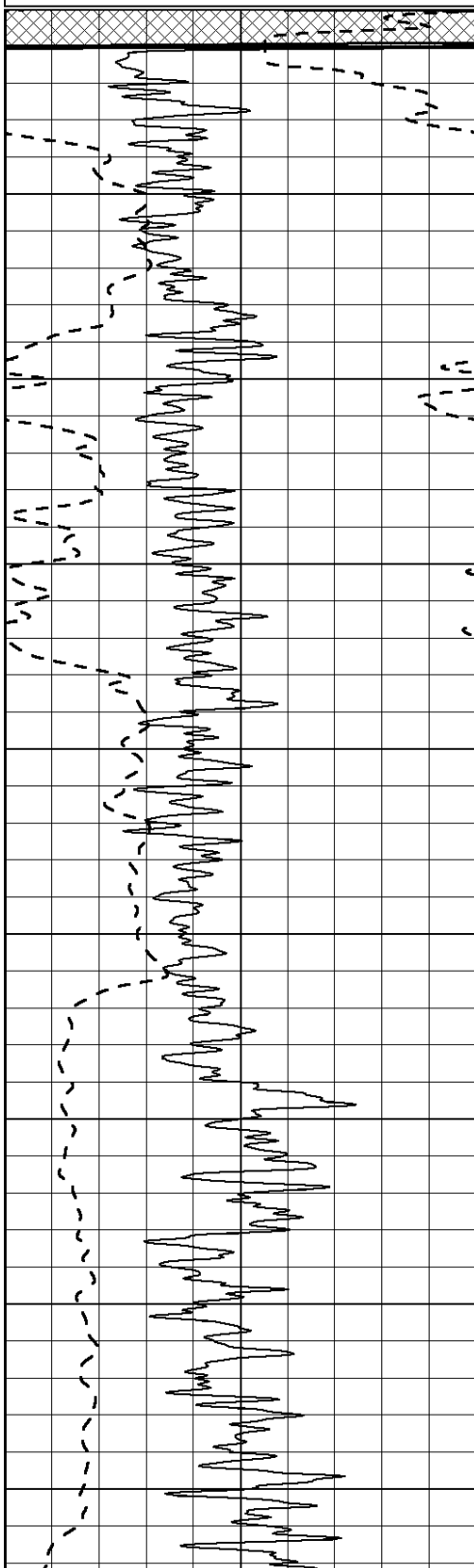
0	RLL3 (Ohm-m)	50
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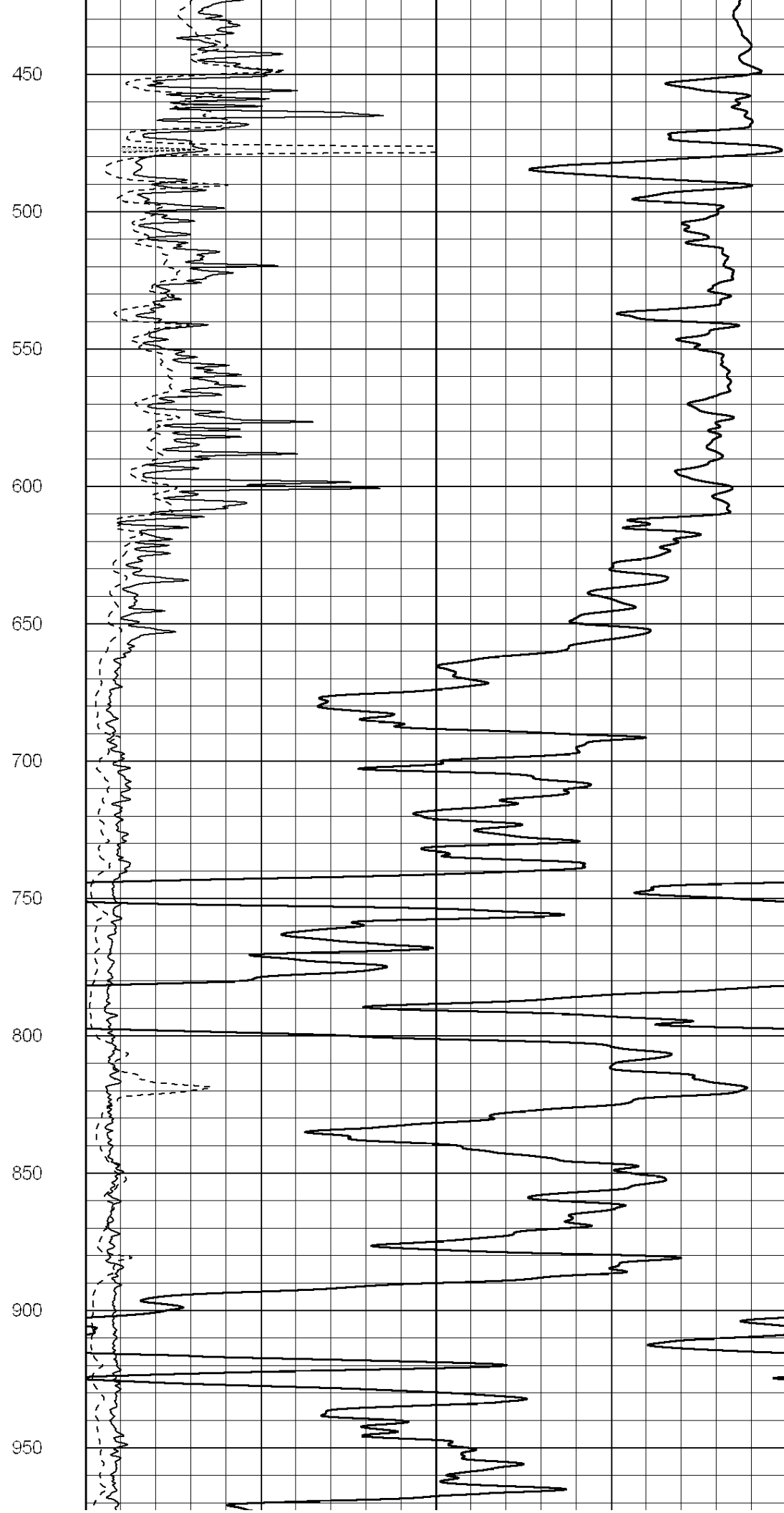
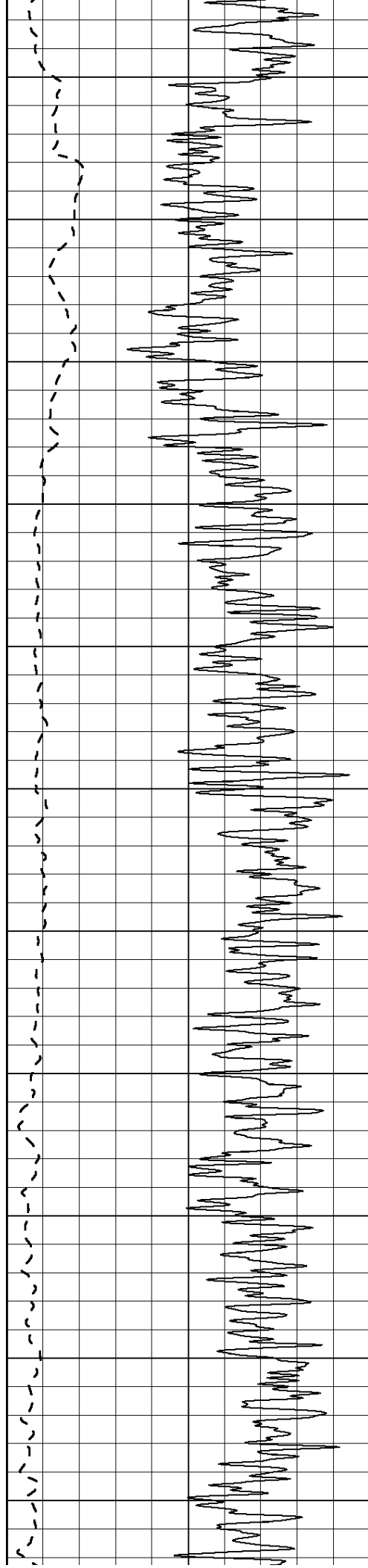
0	Deep Induction (Ohm-m)	50
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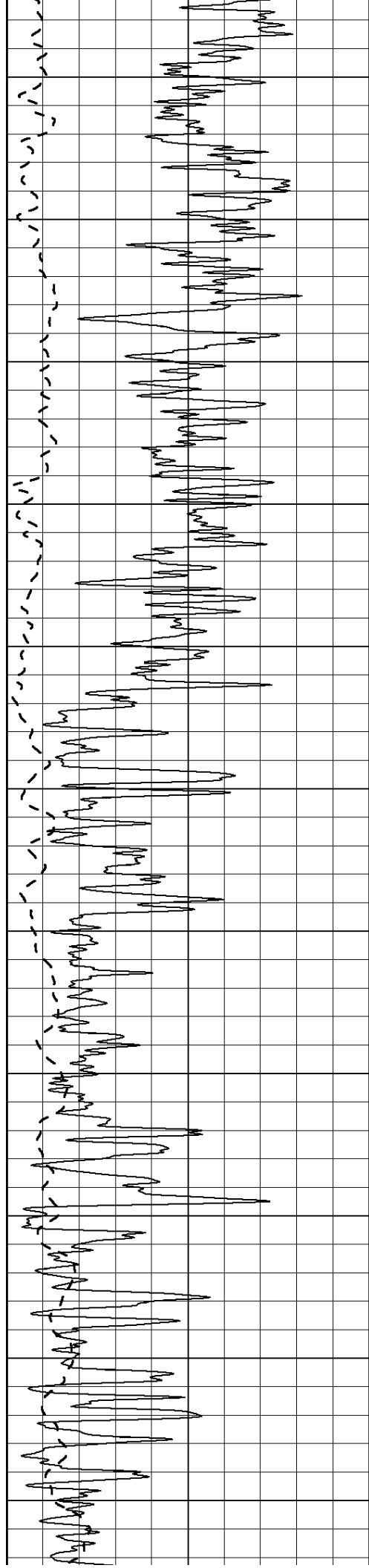
1000	CILD (mmho/m)	0
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50	RILD X10 (Ohm-m)	500
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50	RLL3 X10 (Ohm-m)	500
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1000

1050

1100

1150

1200

1250

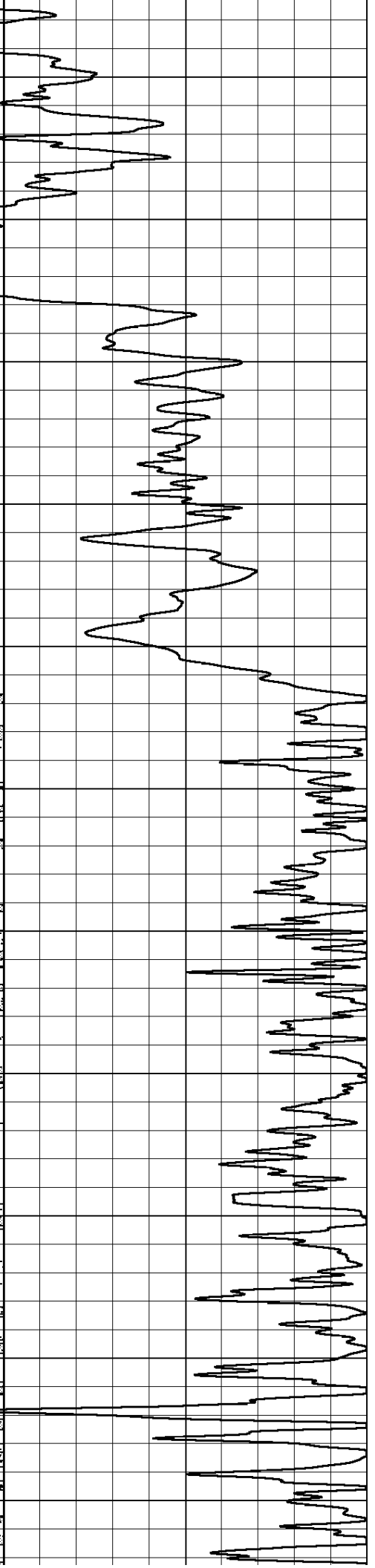
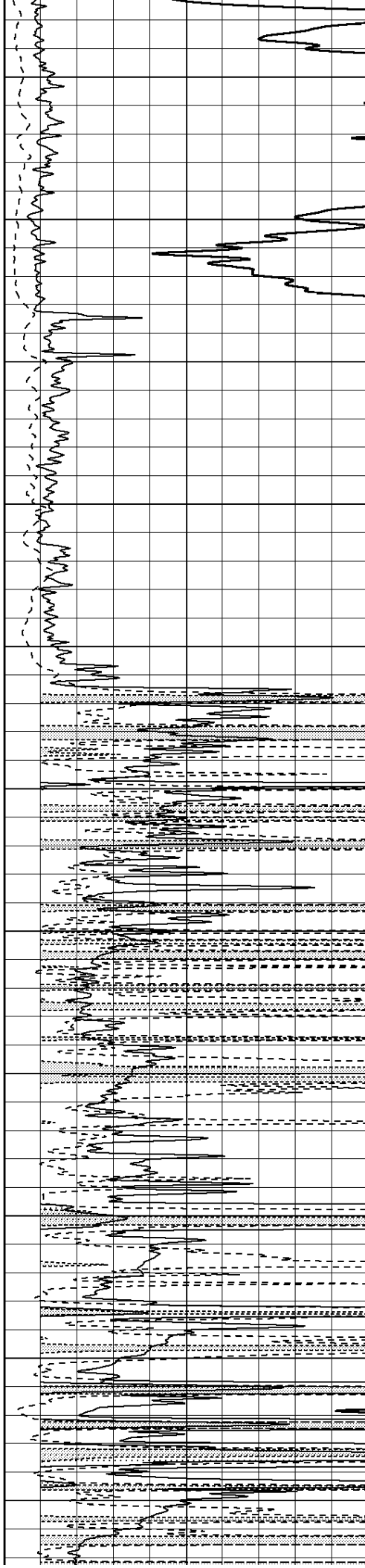
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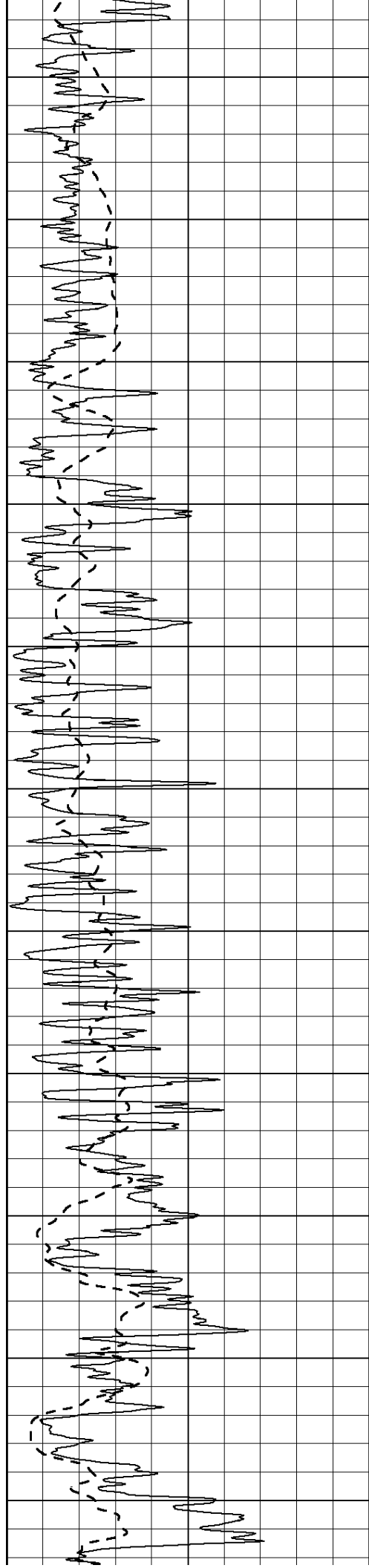
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1400

1450

1500





1550

1600

1650

1700

1750

1800

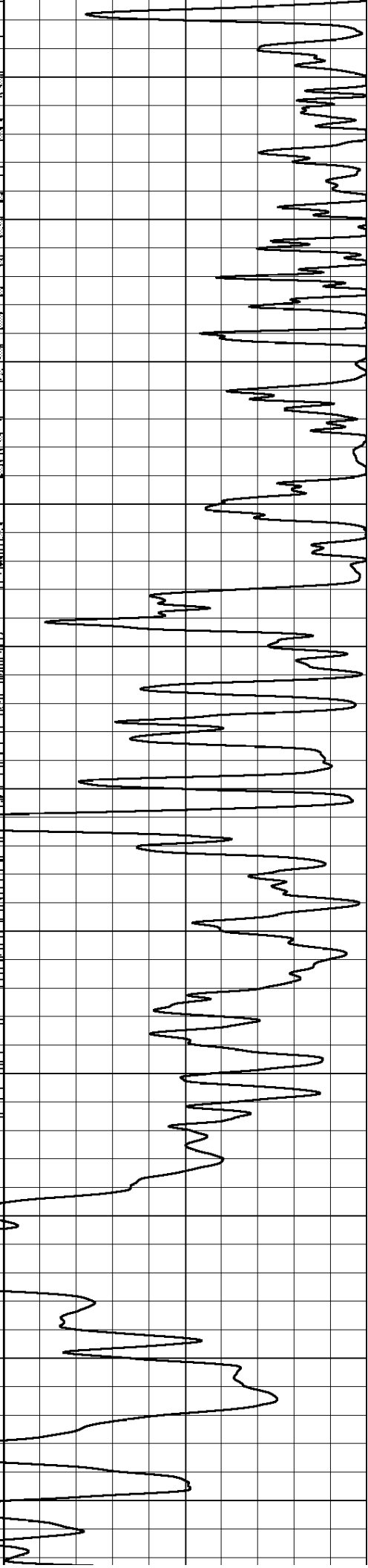
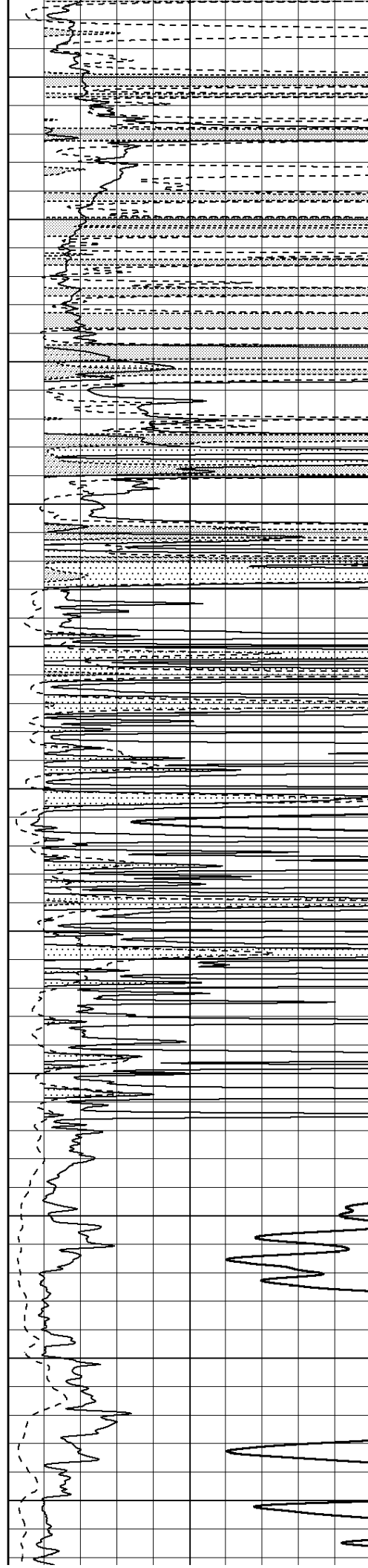
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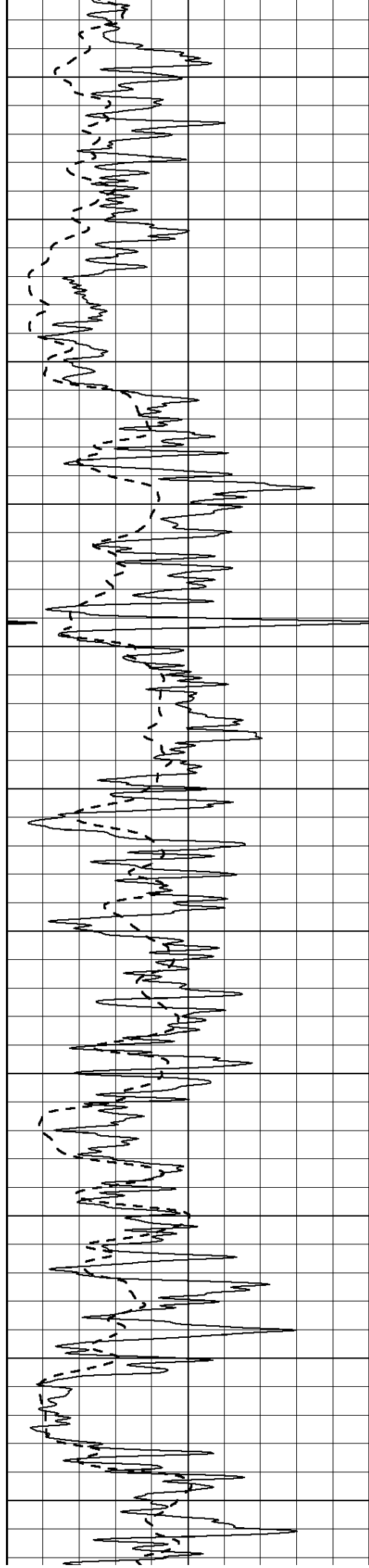
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1950

2000

2050





2100

2150

2200

2250

2300

2350

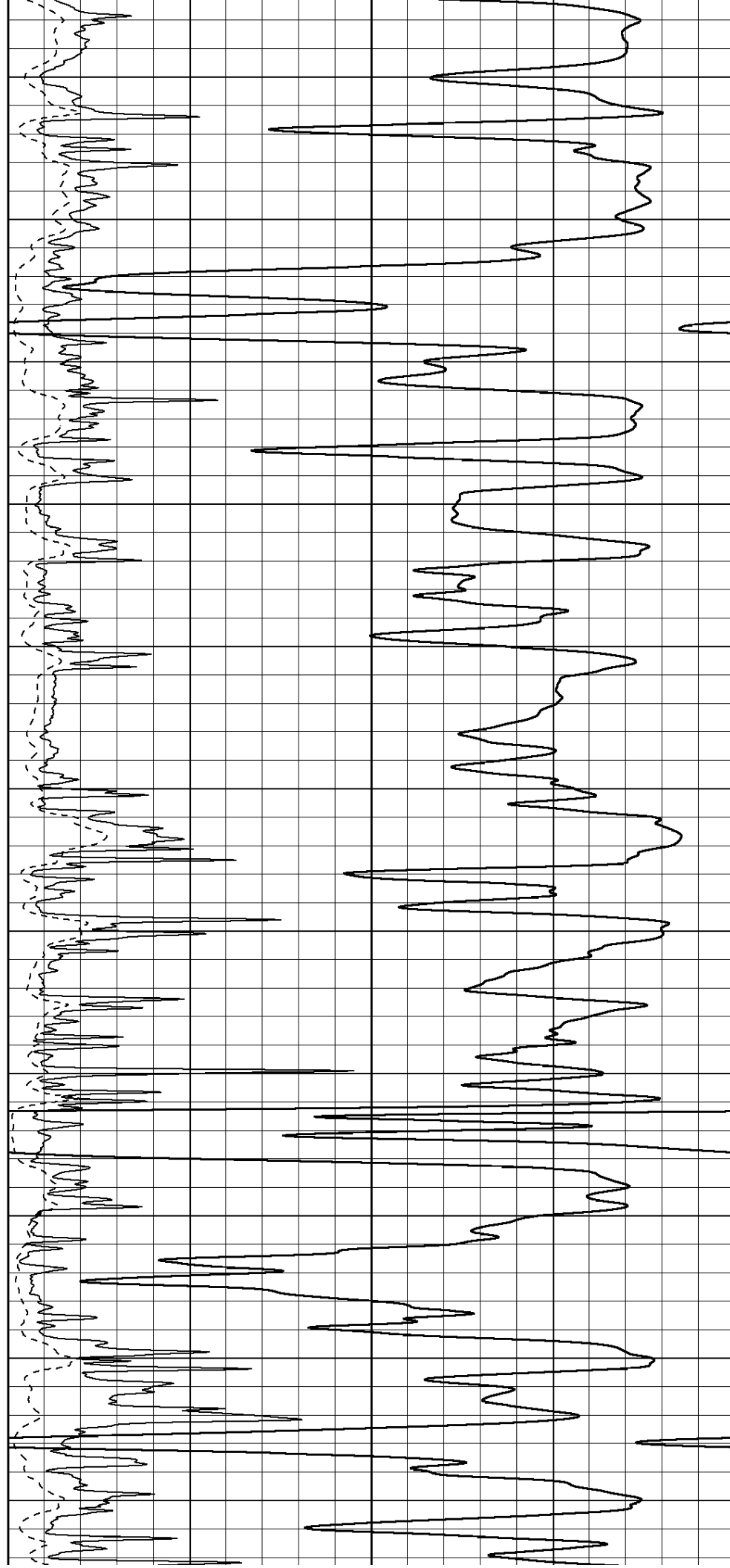
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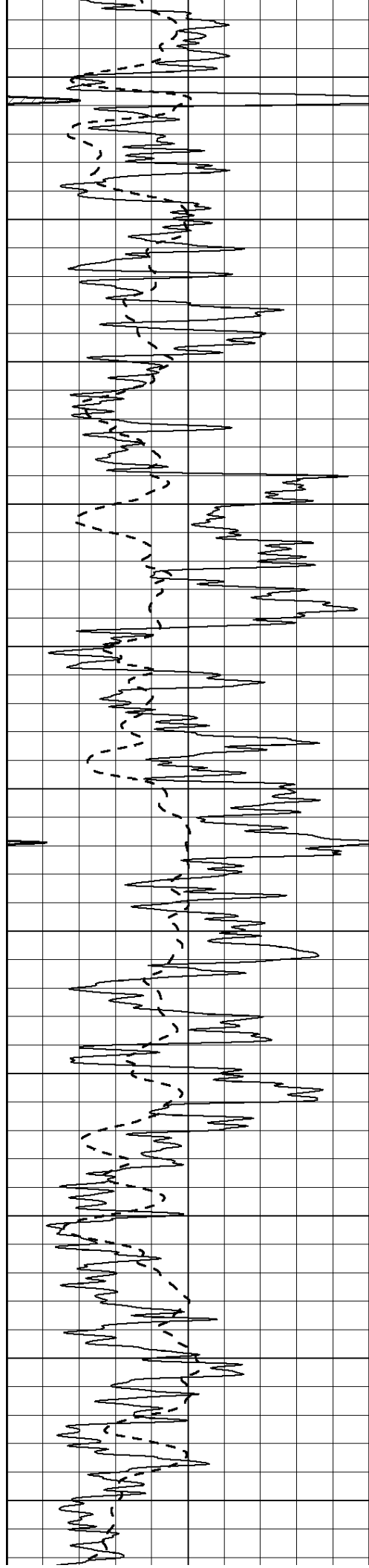
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2600





2650

2700

2750

2800

2850

2900

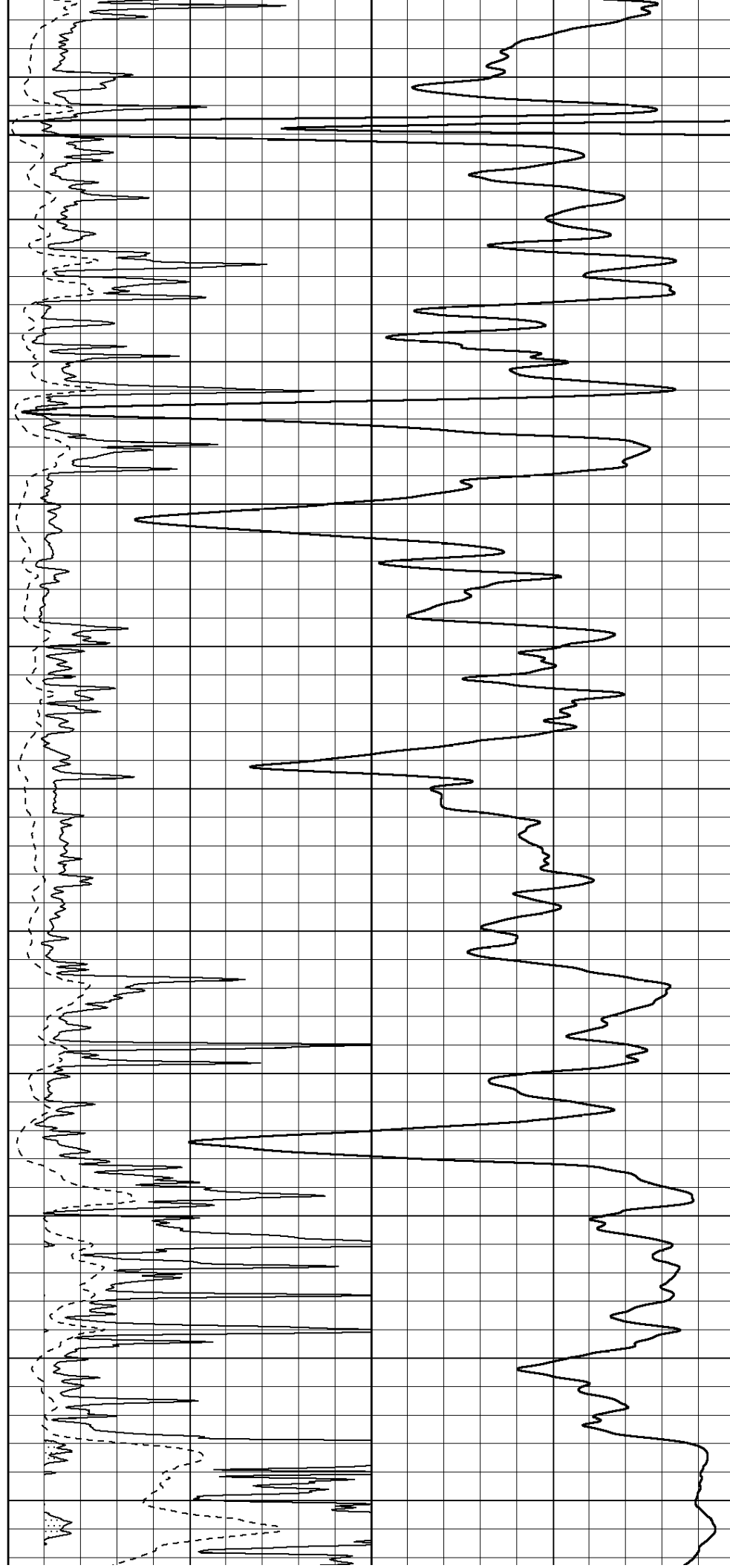
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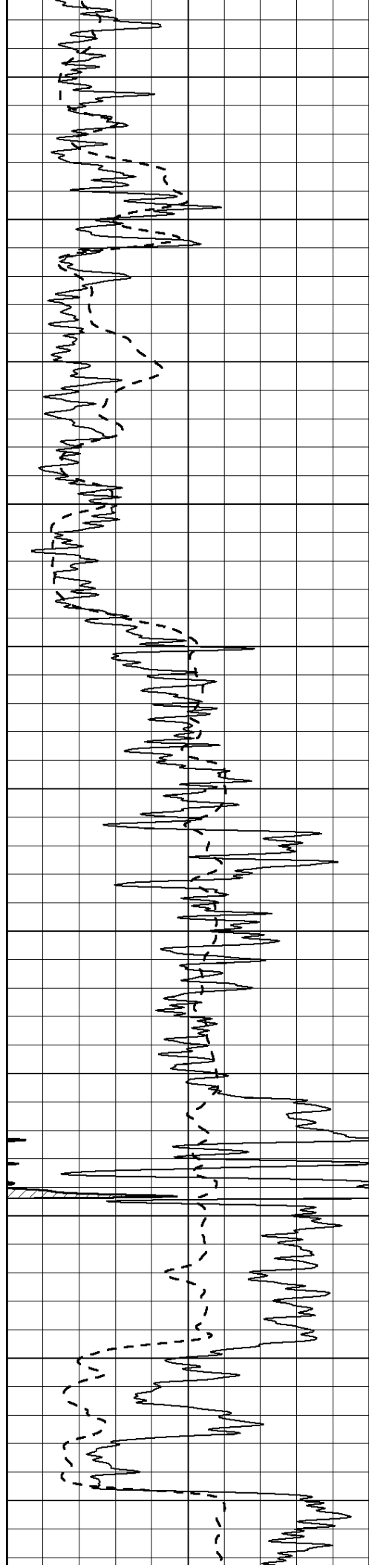
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3050

3100

3150





3200

3250

3300

3350

3400

3450

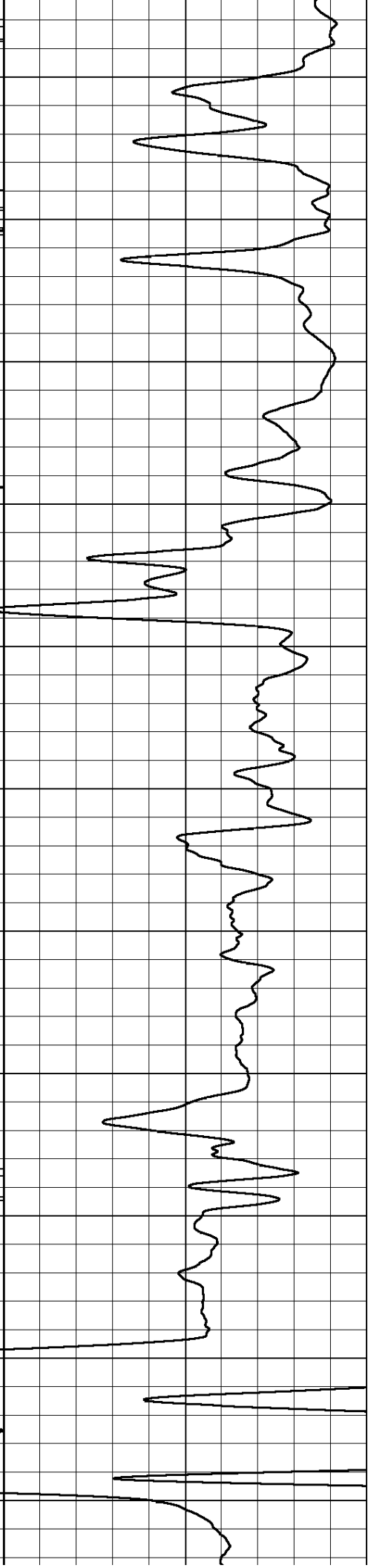
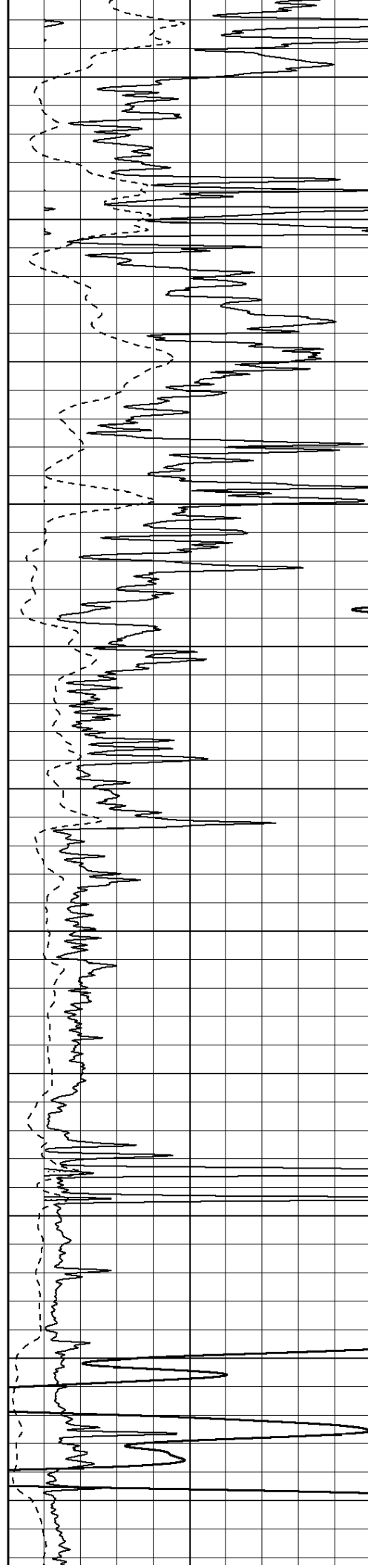
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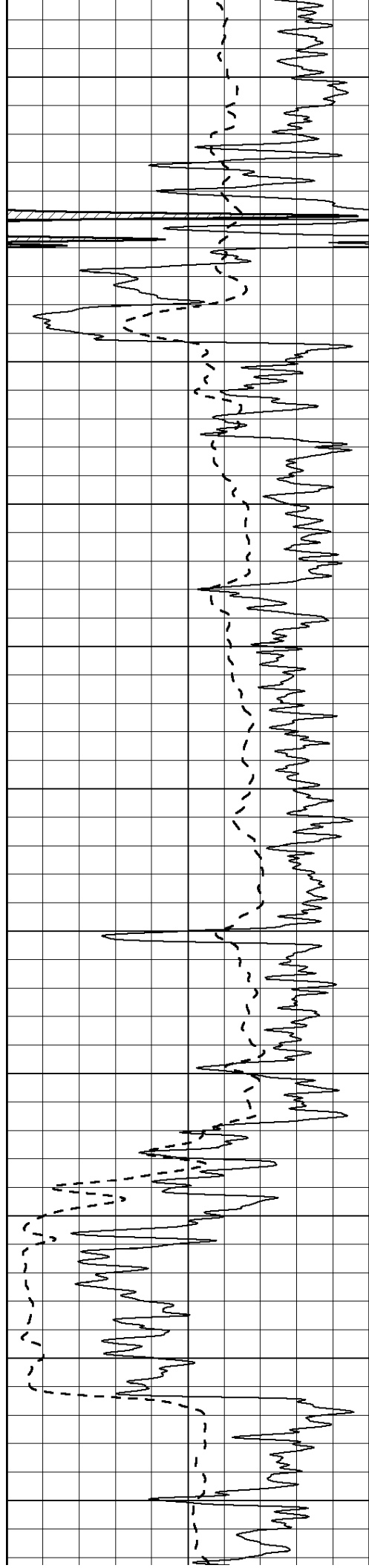
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3700





3750

3800

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3900

3950

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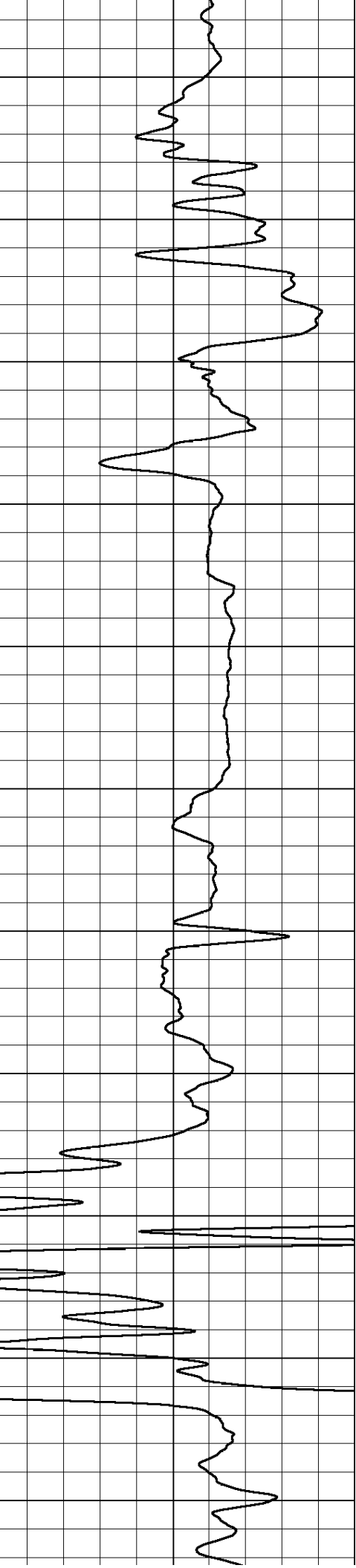
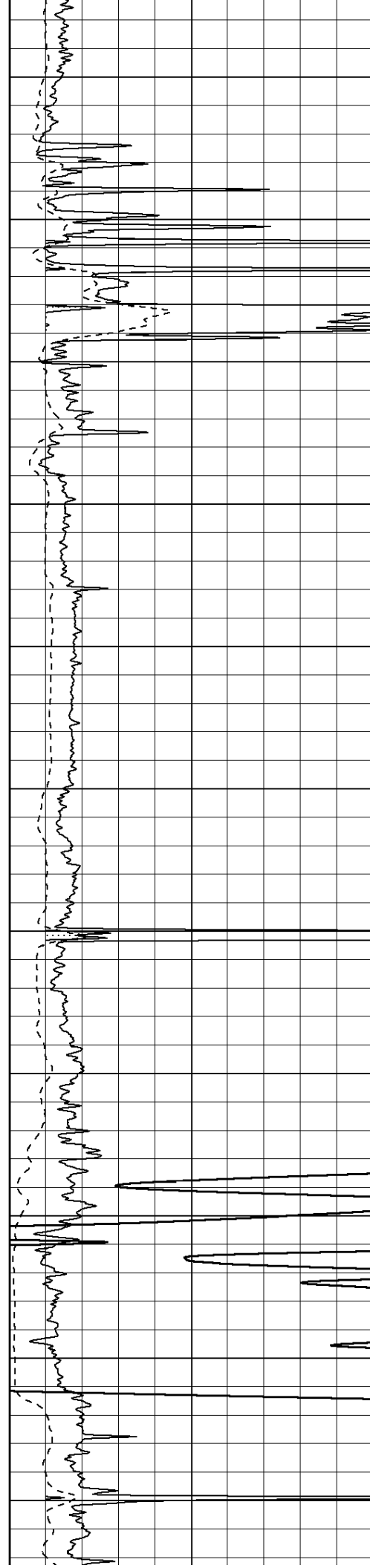
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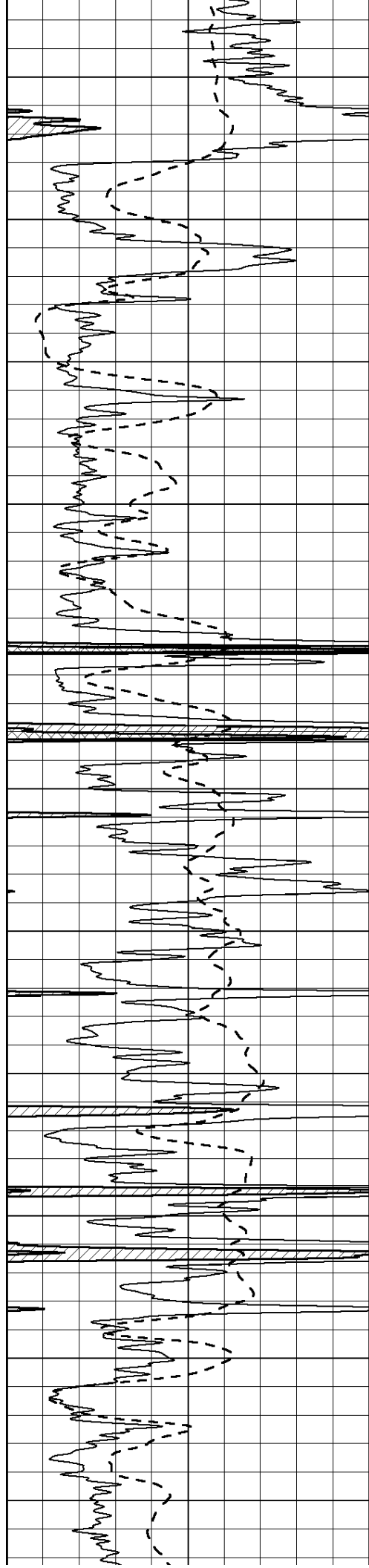
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4350

4400

4450

4500

4550

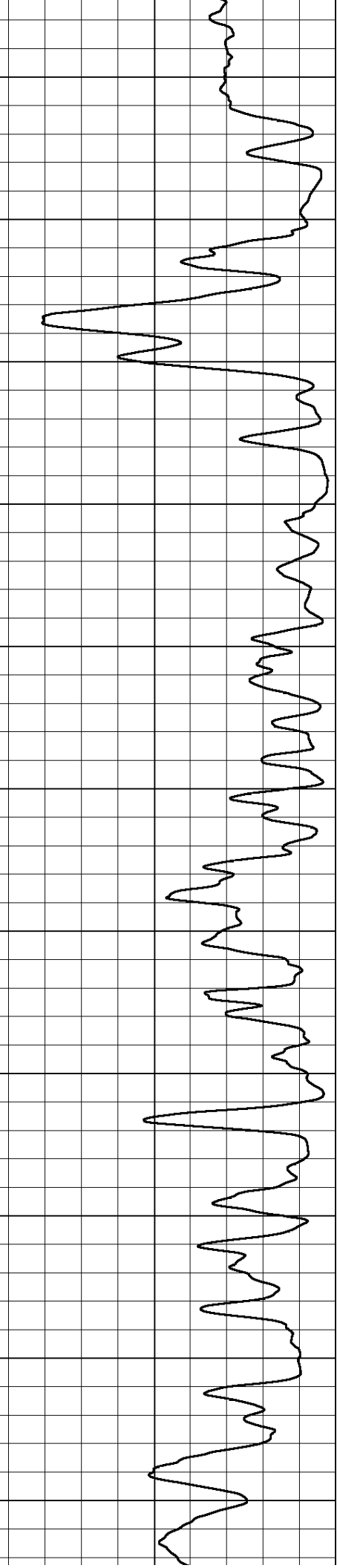
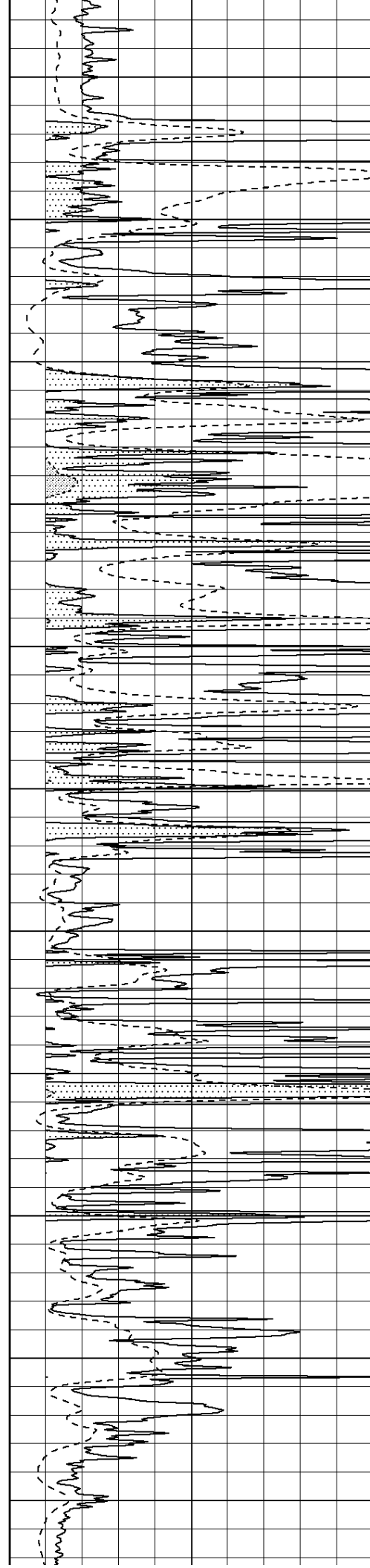
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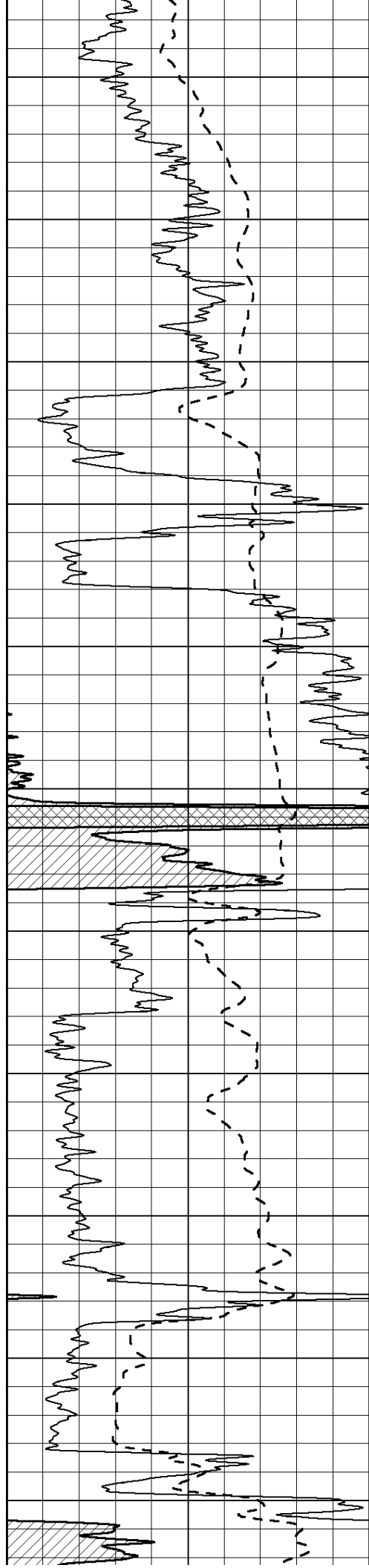
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4800





4850

4900

4950

5000

5050

5100

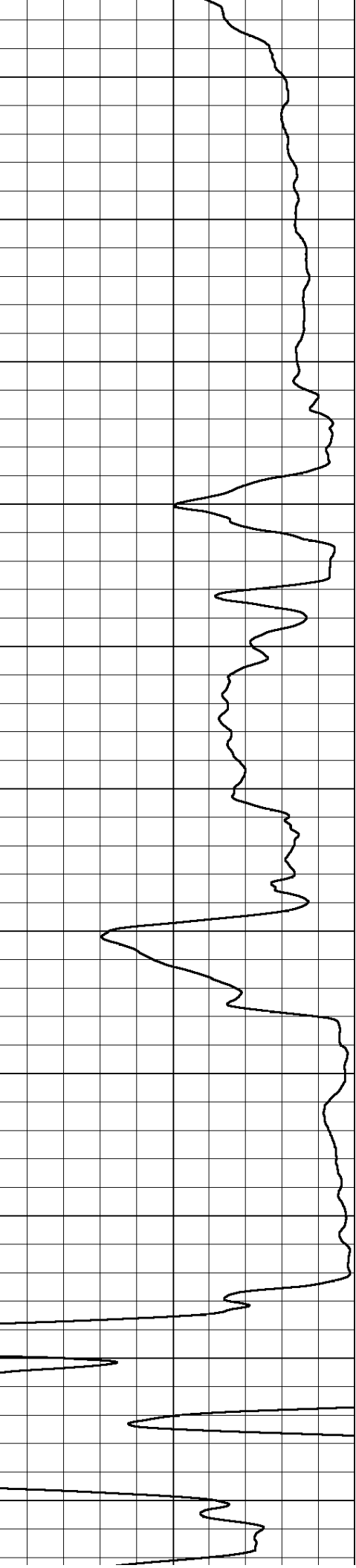
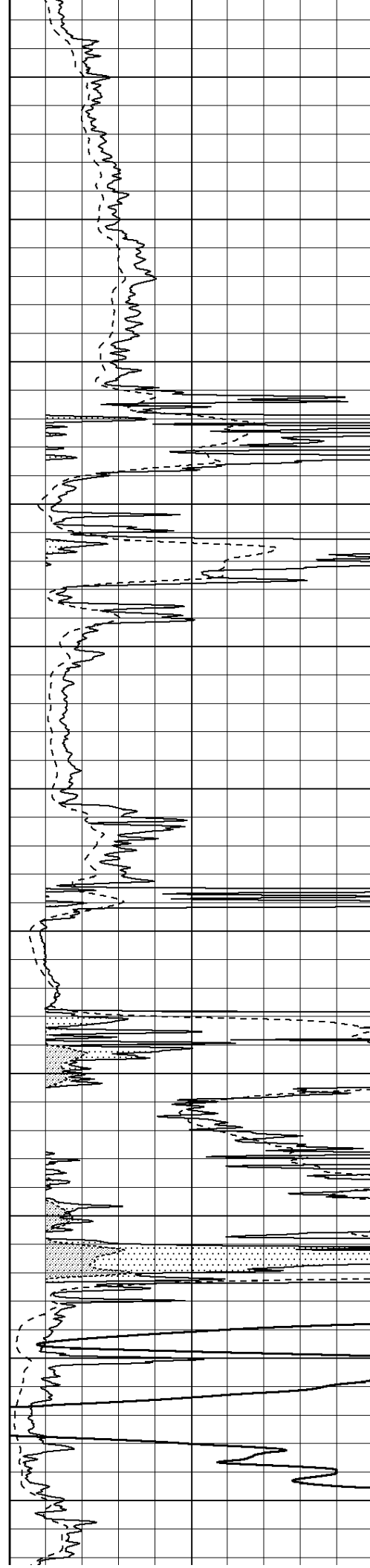
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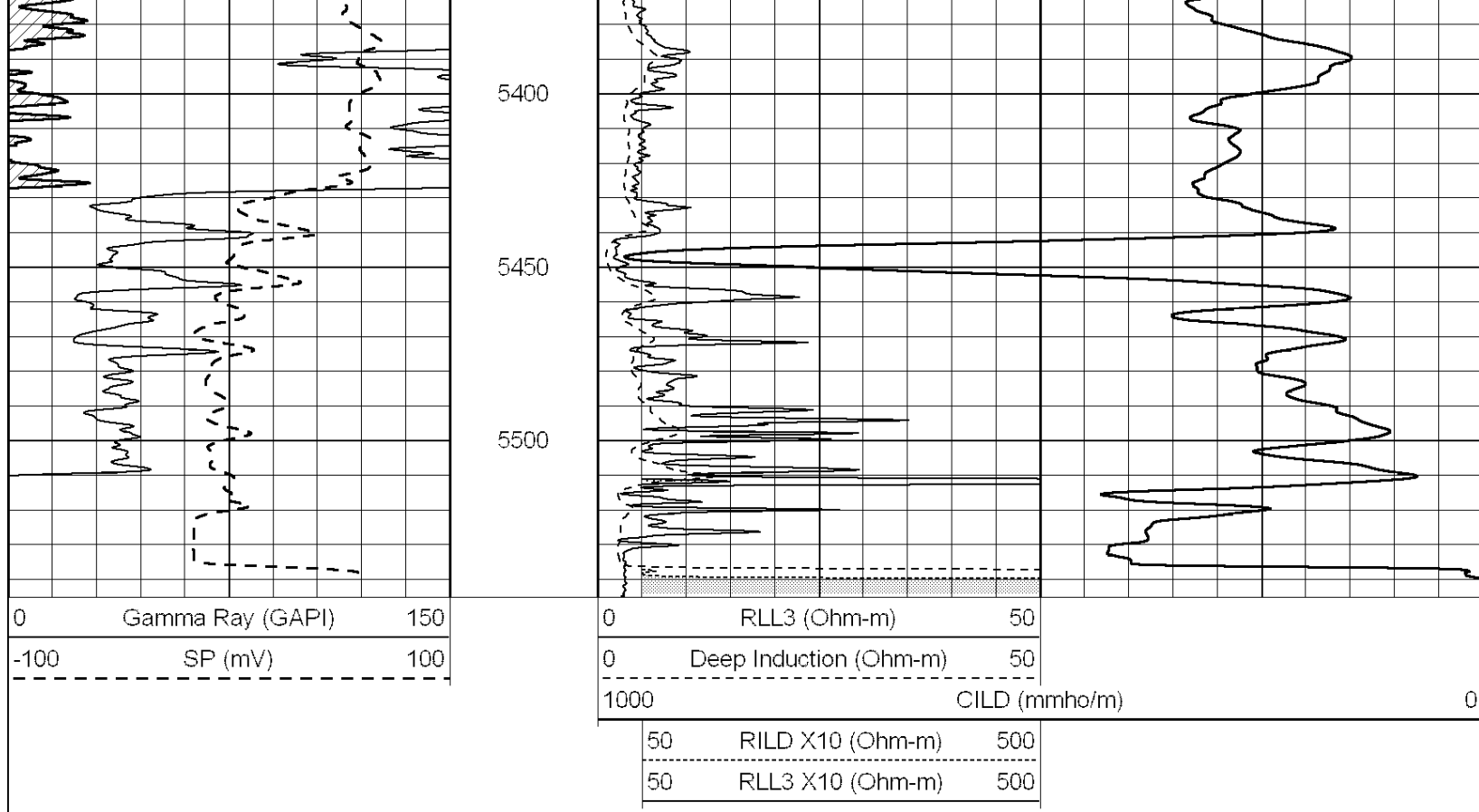
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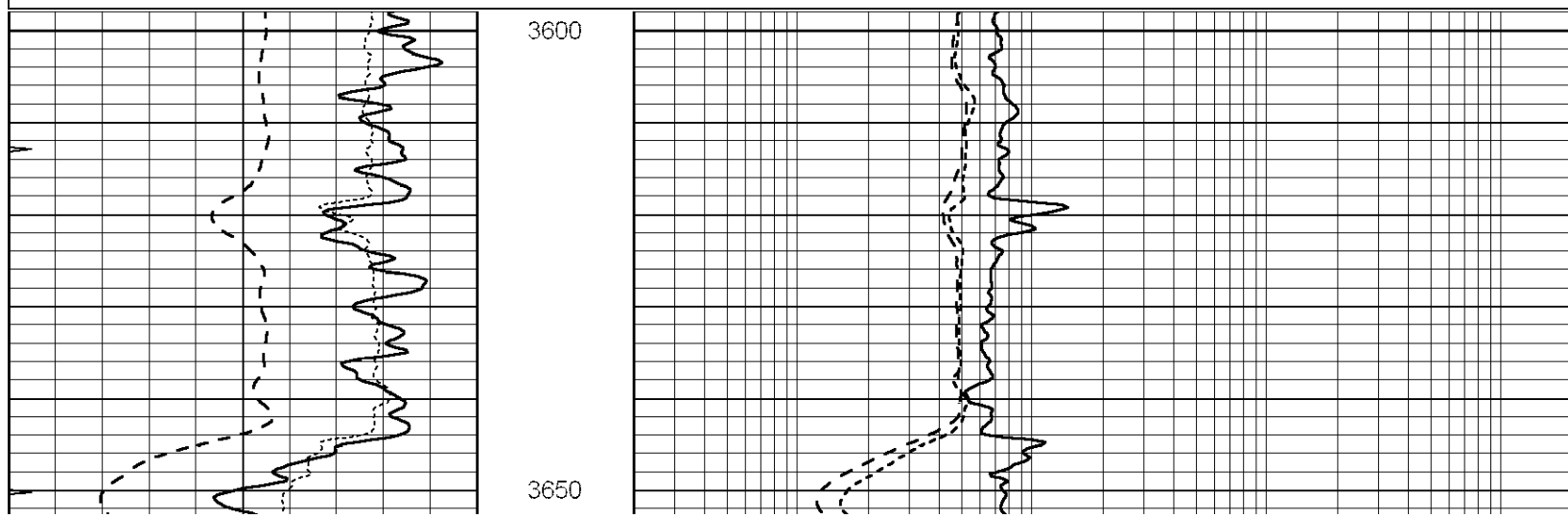


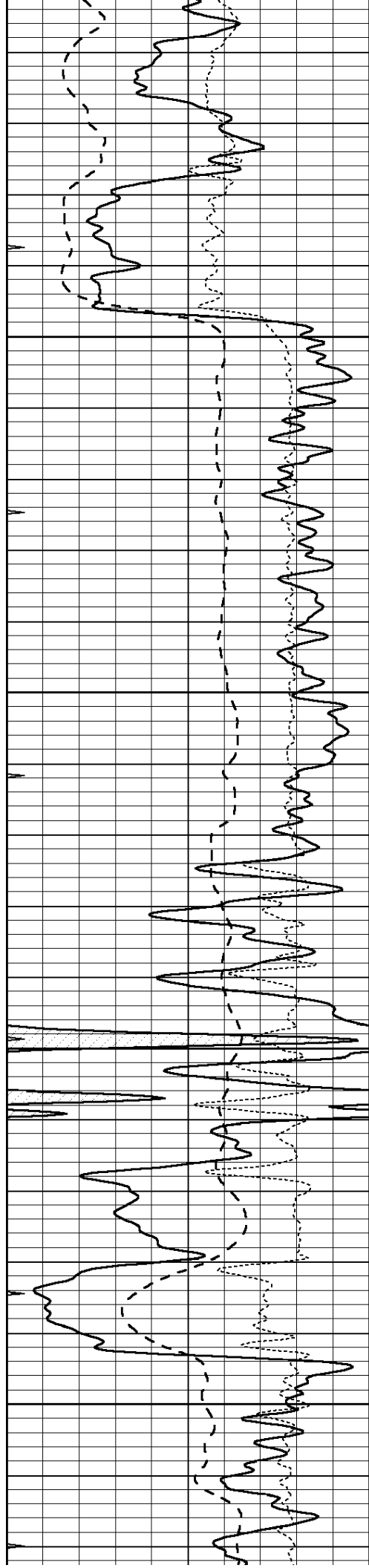
SUPERIOR
Hays,
Kansas

MAIN SECTION

Database File: 006924pdm.db
 Dataset Pathname: pass3.2
 Presentation Format: dil
 Dataset Creation: Sun May 22 23:51:45 2011
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	RLL3 (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	RxoRt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



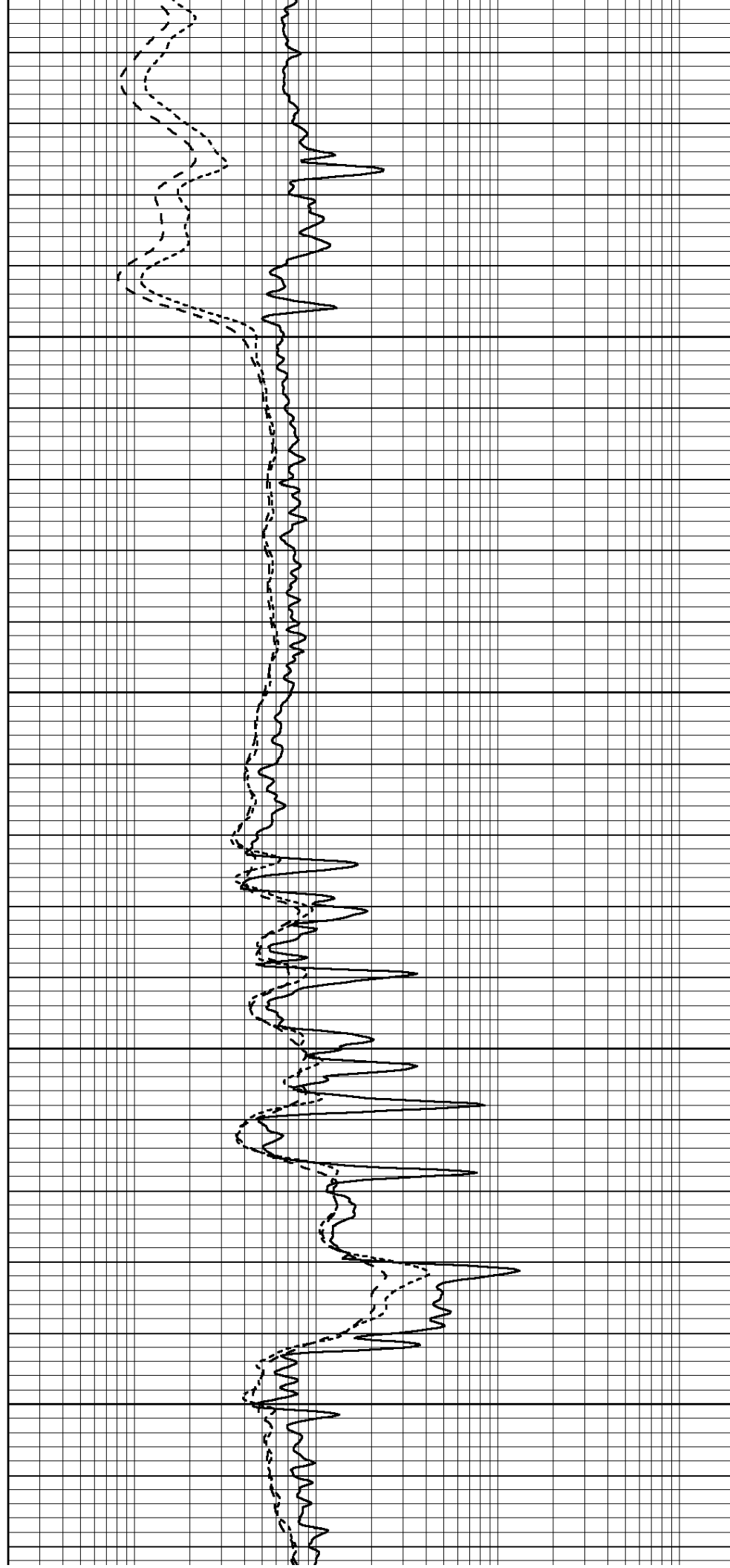


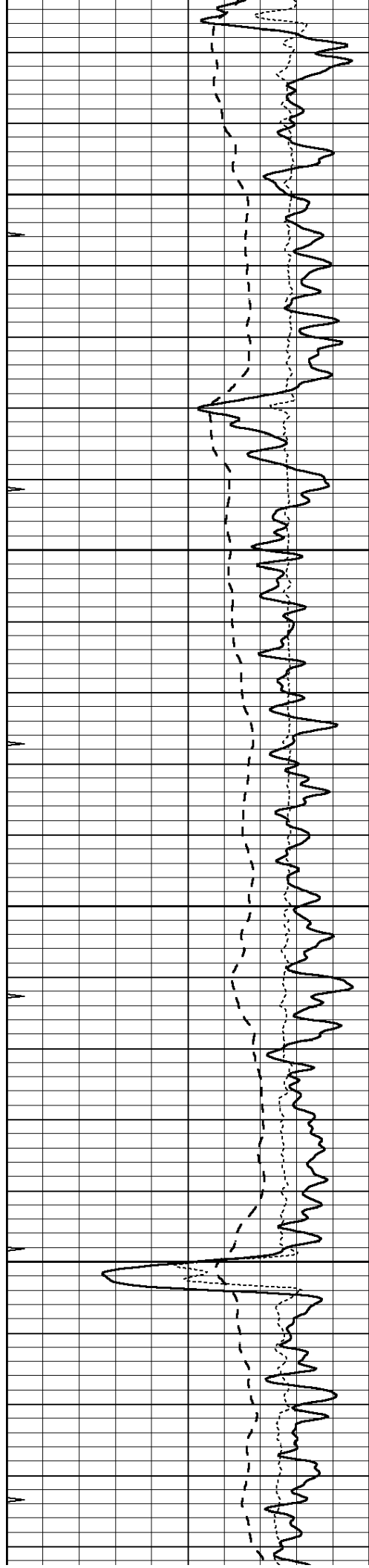
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3800

3850



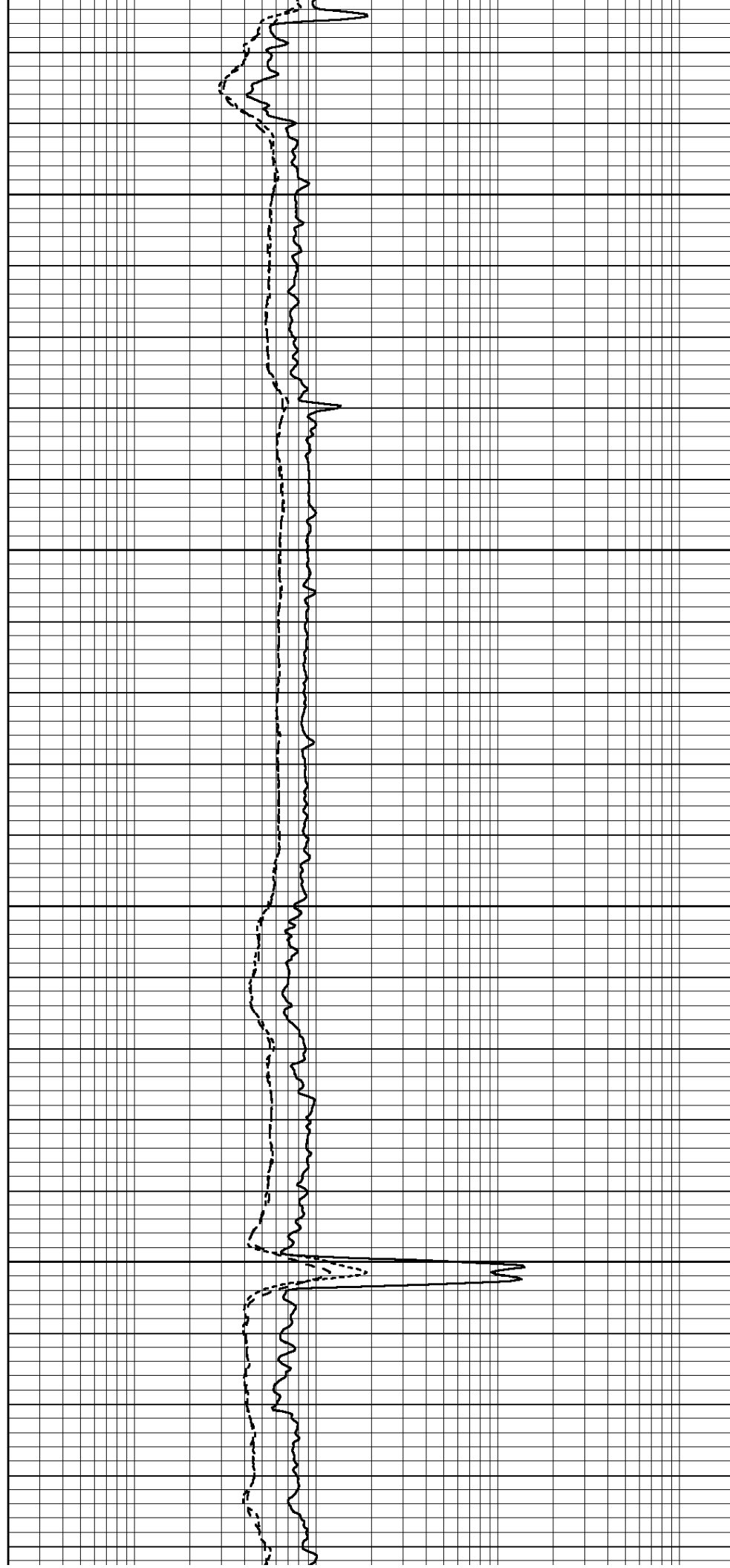


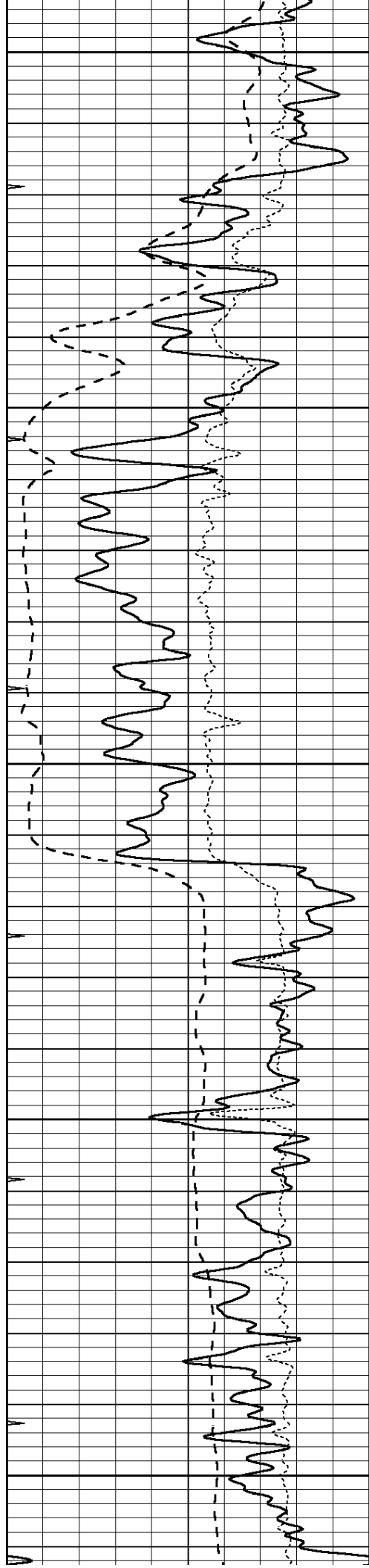
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4000

4050





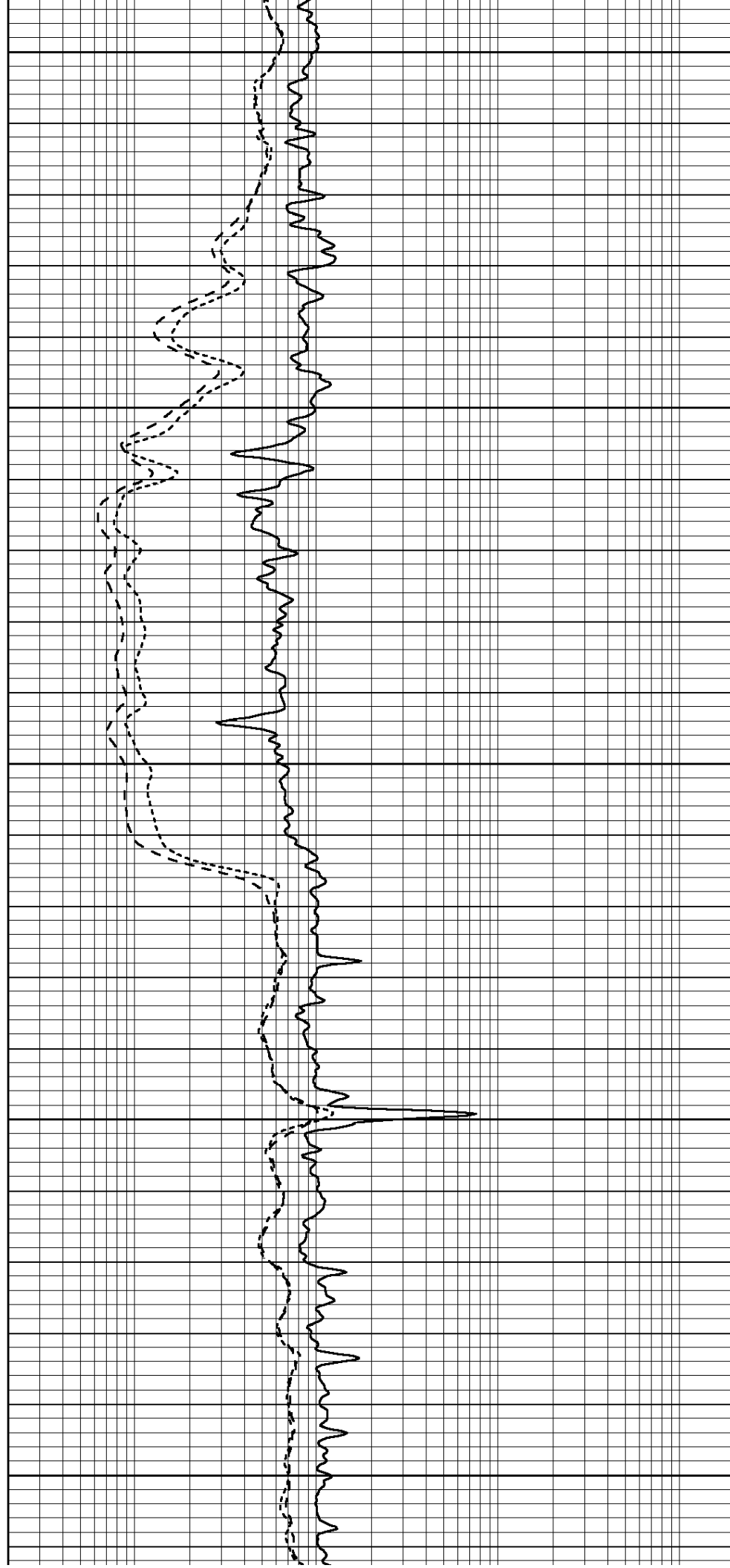
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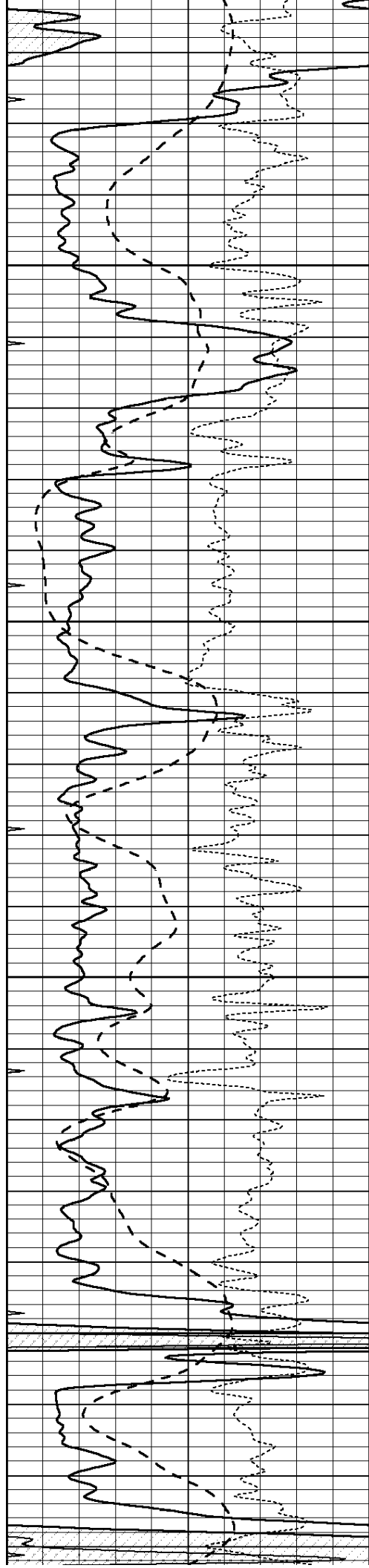
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4200

4250

4300



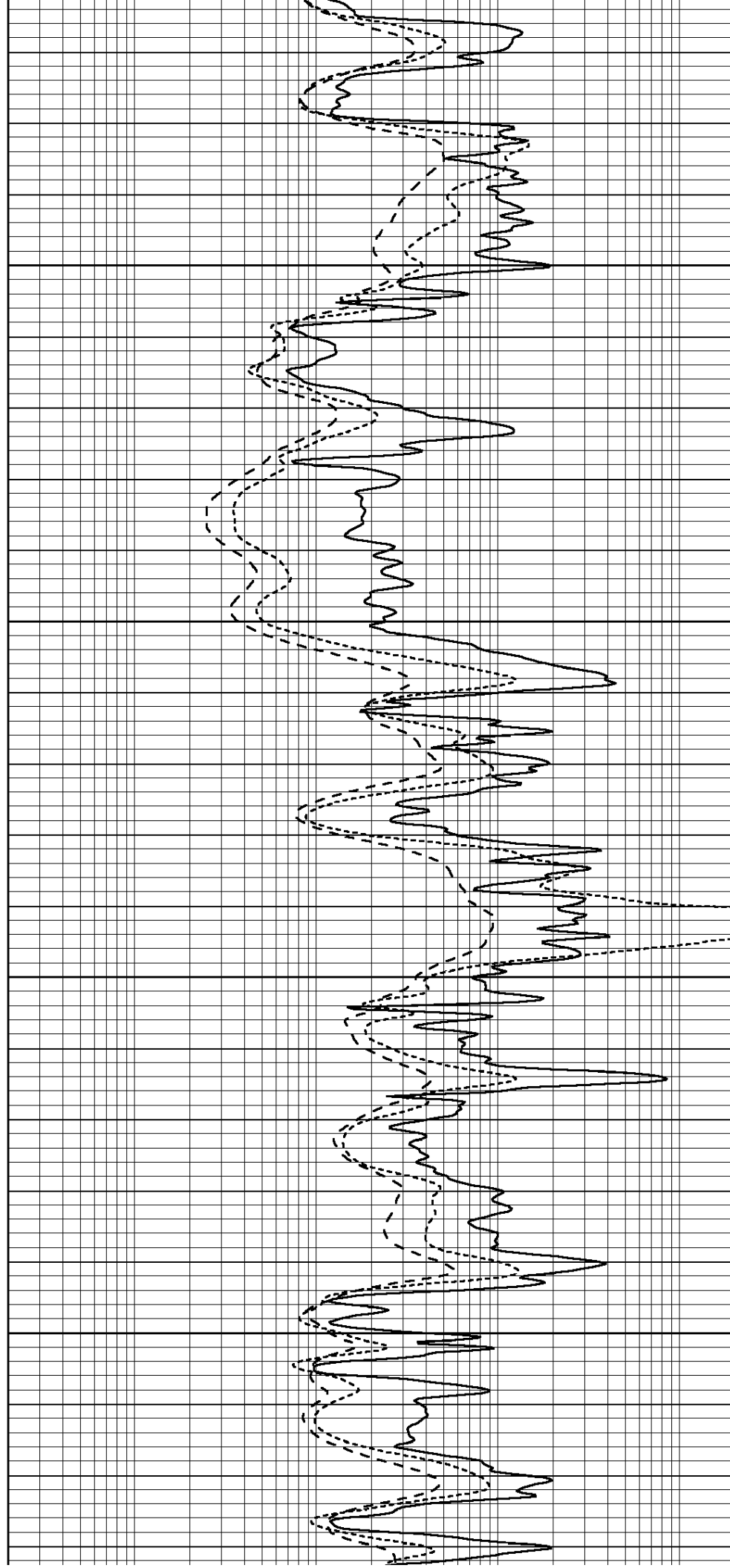


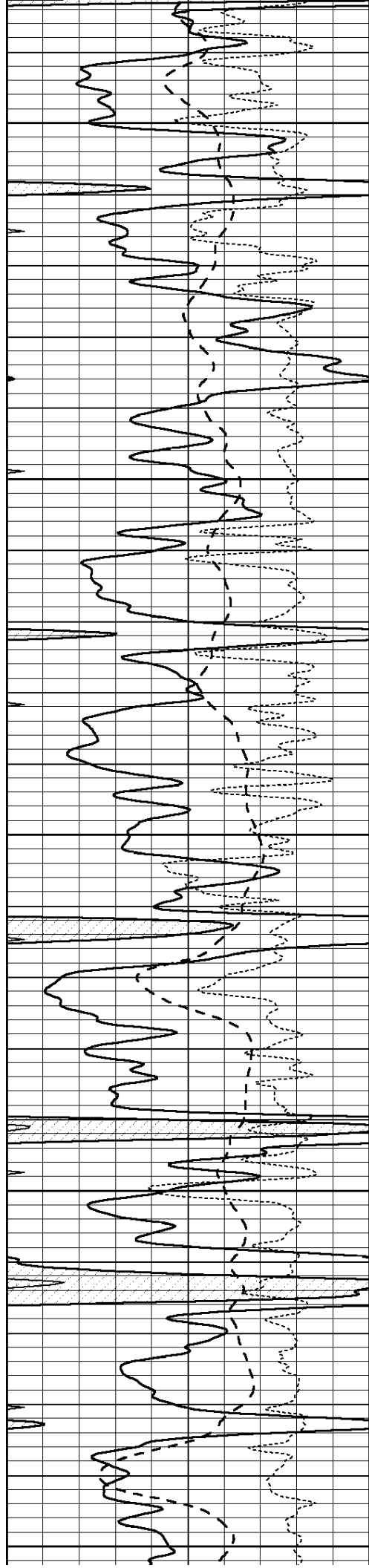
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4500





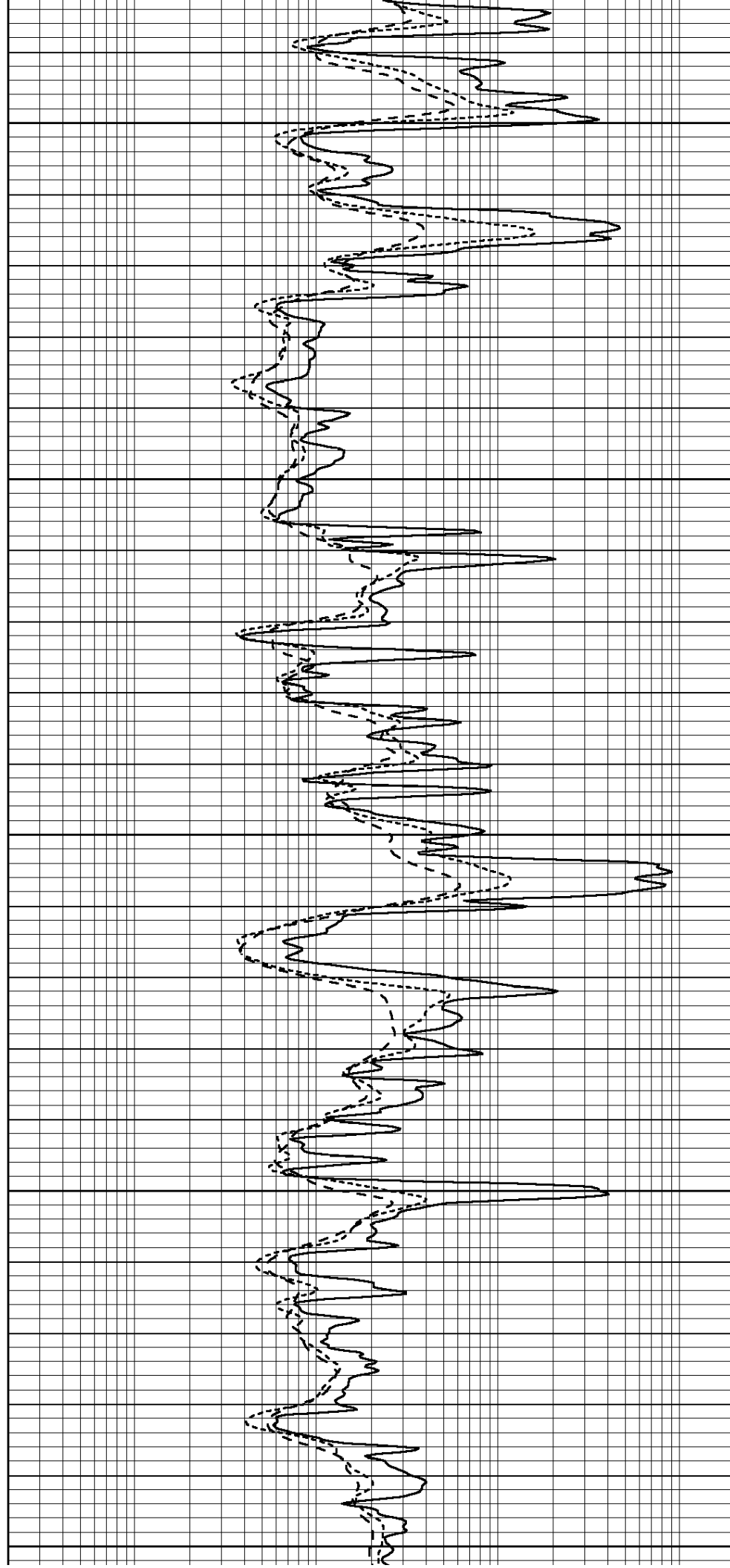
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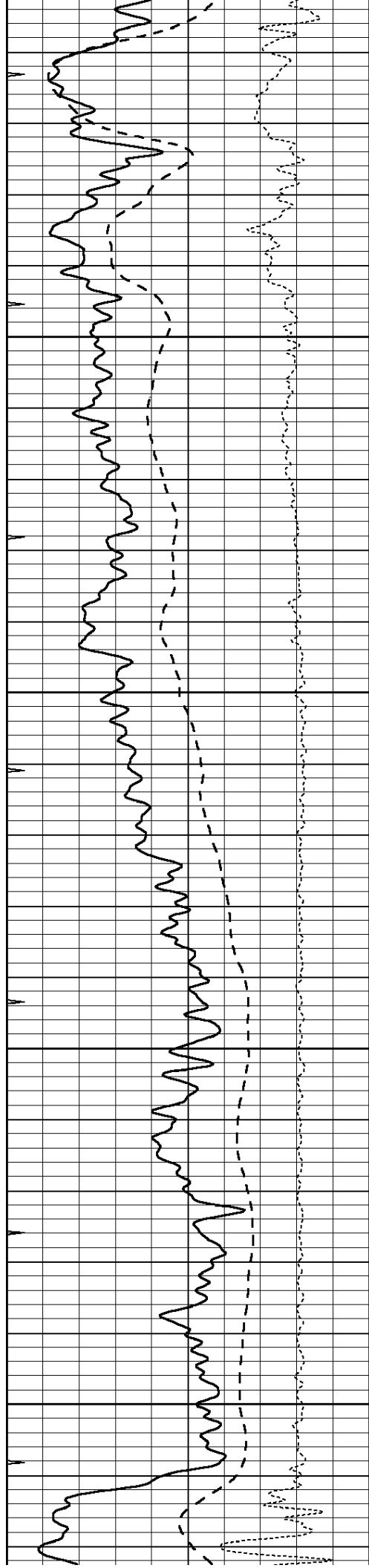
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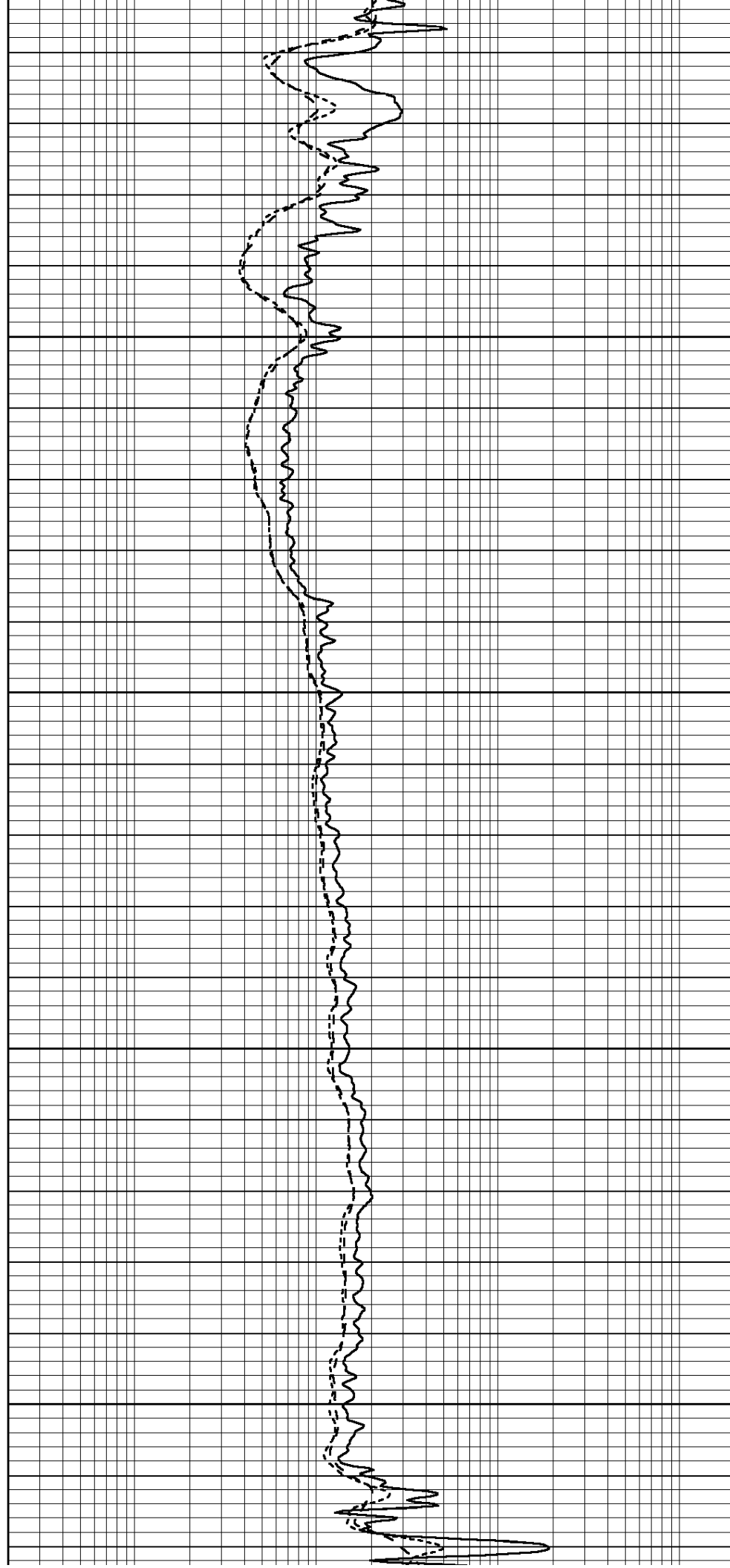


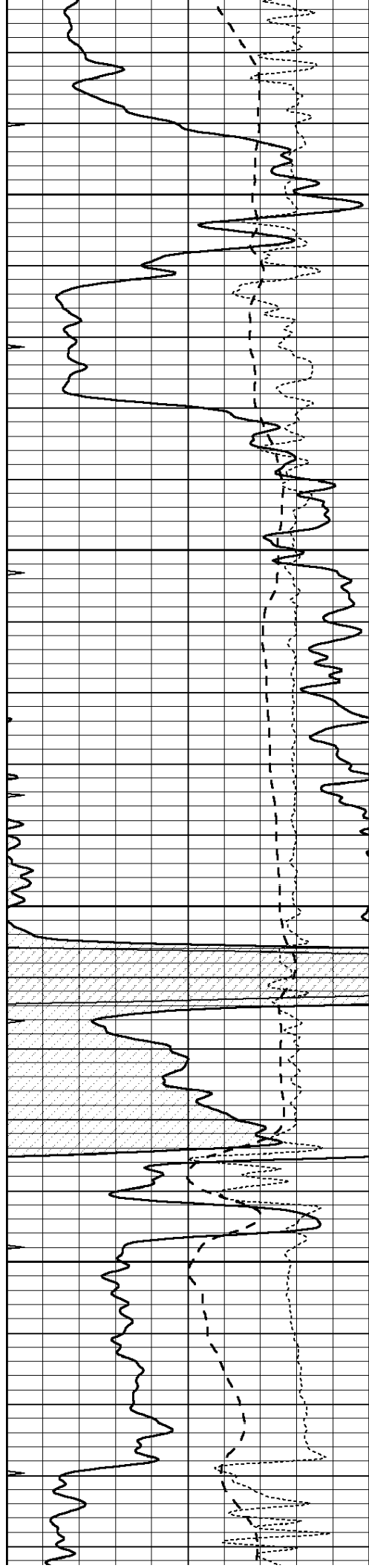
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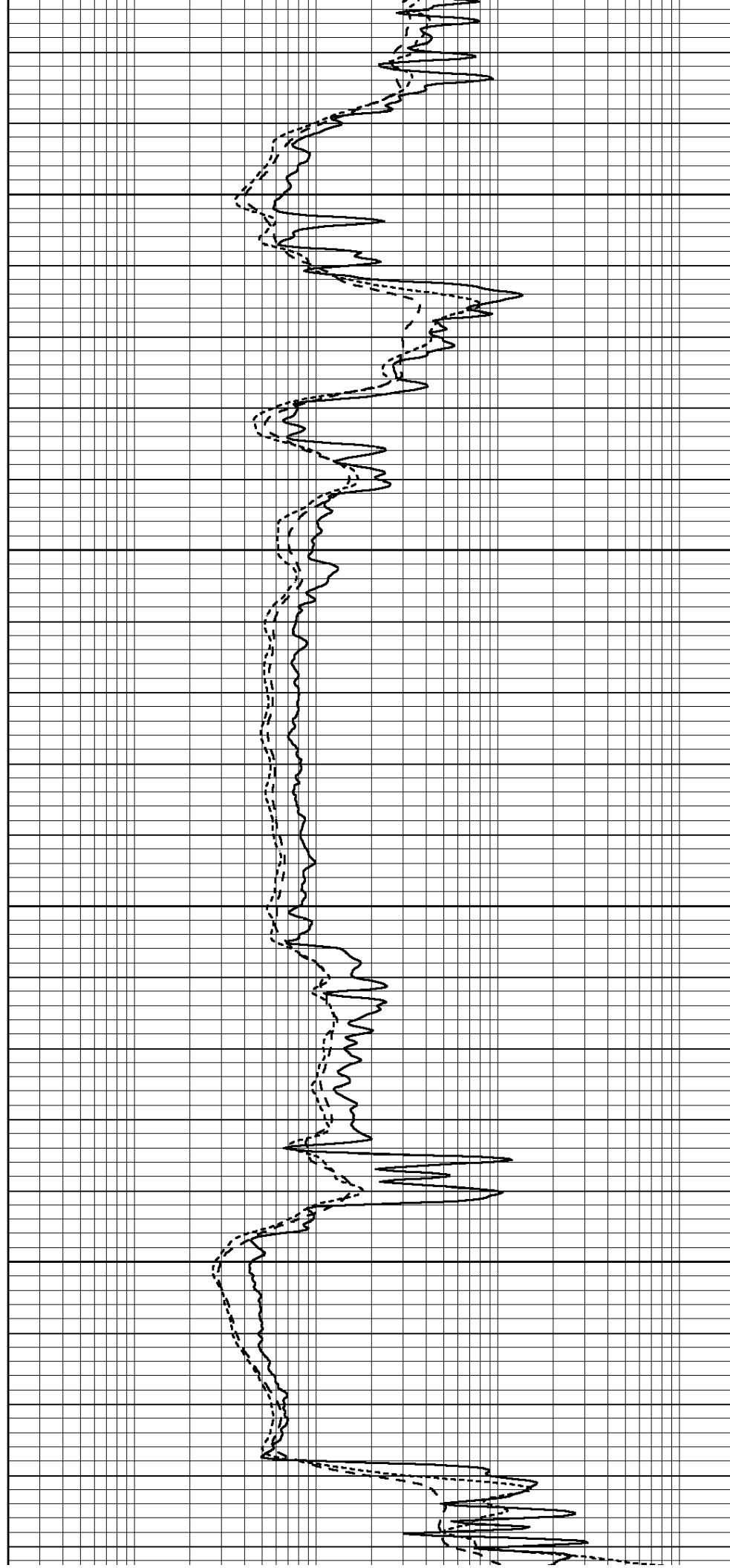


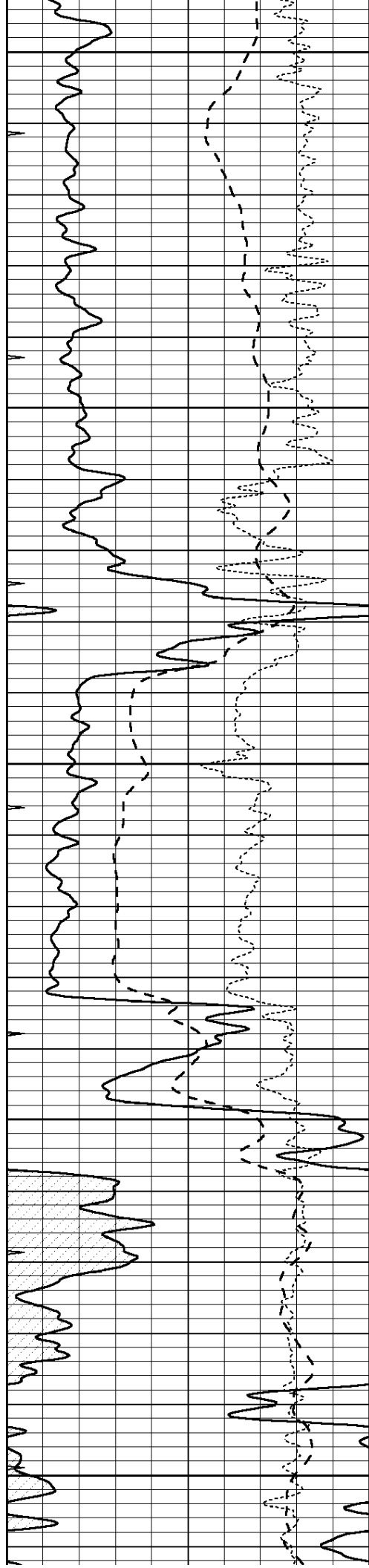
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5100

5150





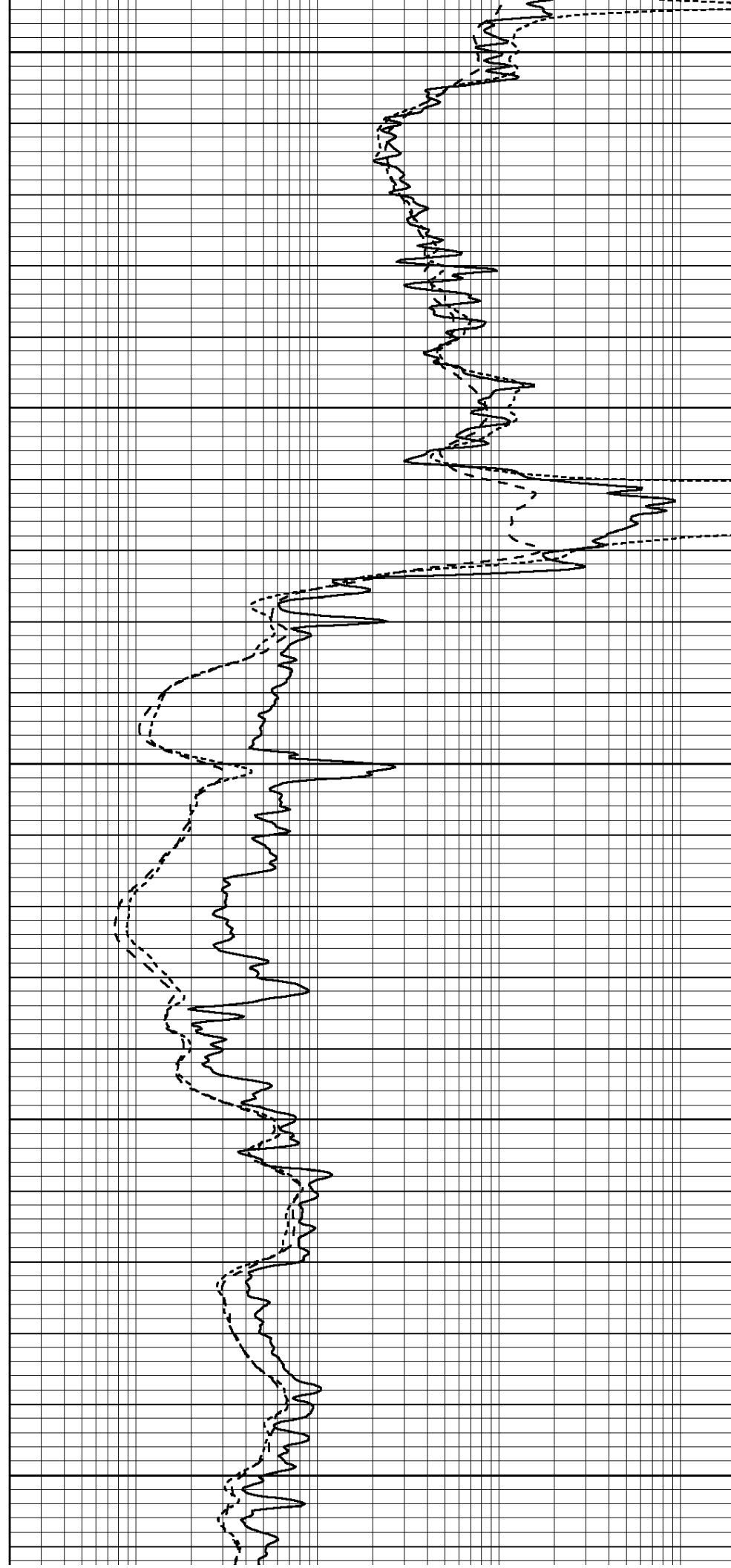
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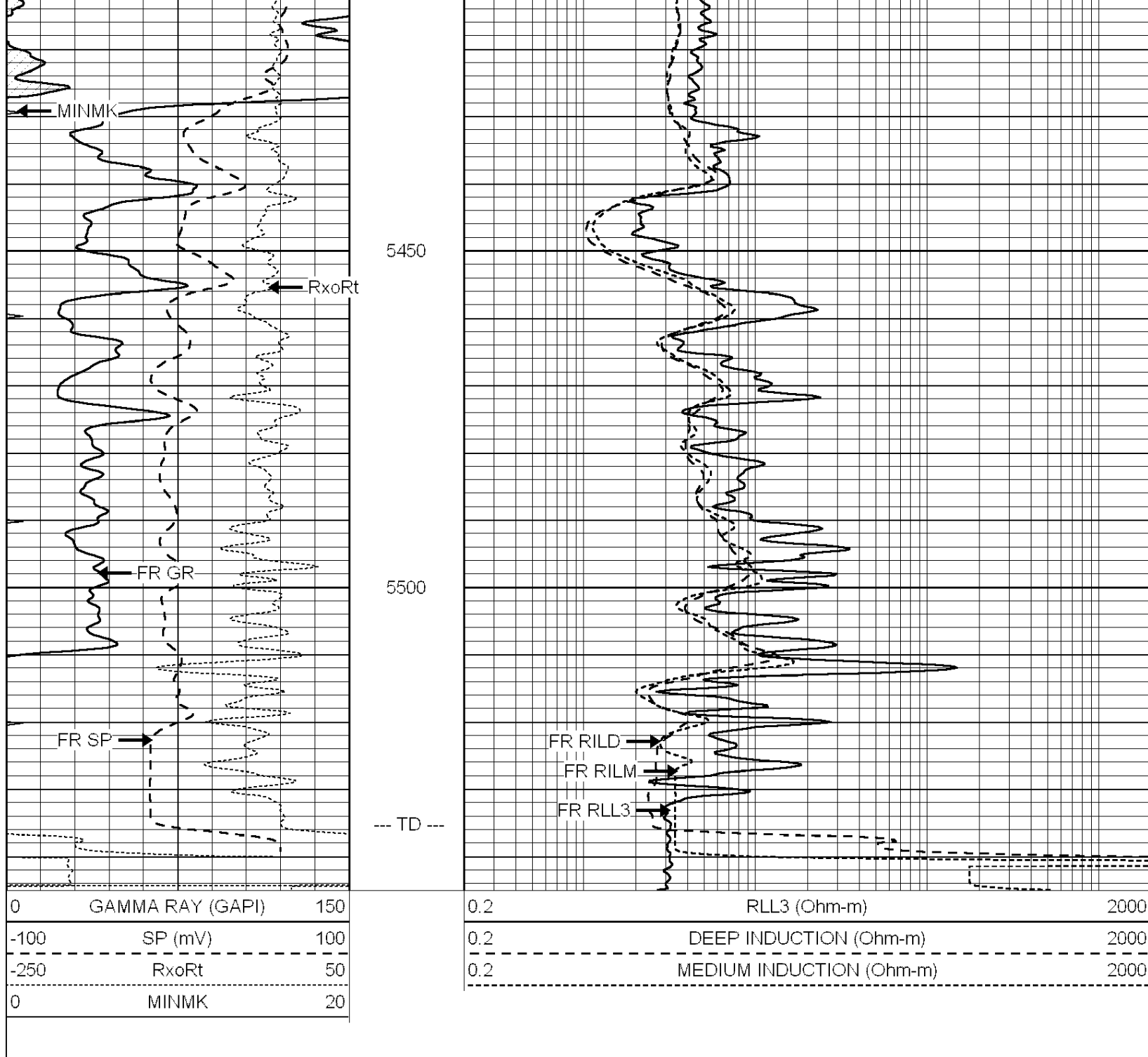
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5300

5350

5400



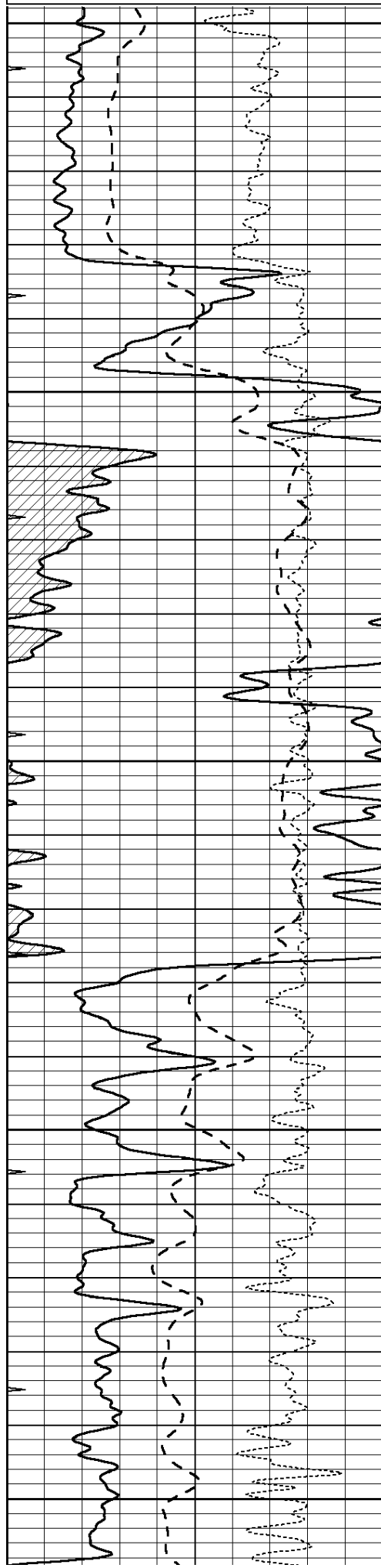


SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 006924pdn.db
 Dataset Pathname: pass2A
 Presentation Format: dil
 Dataset Creation: Sun May 22 23:34:36 2011
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	RLL3 (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	RxoRt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



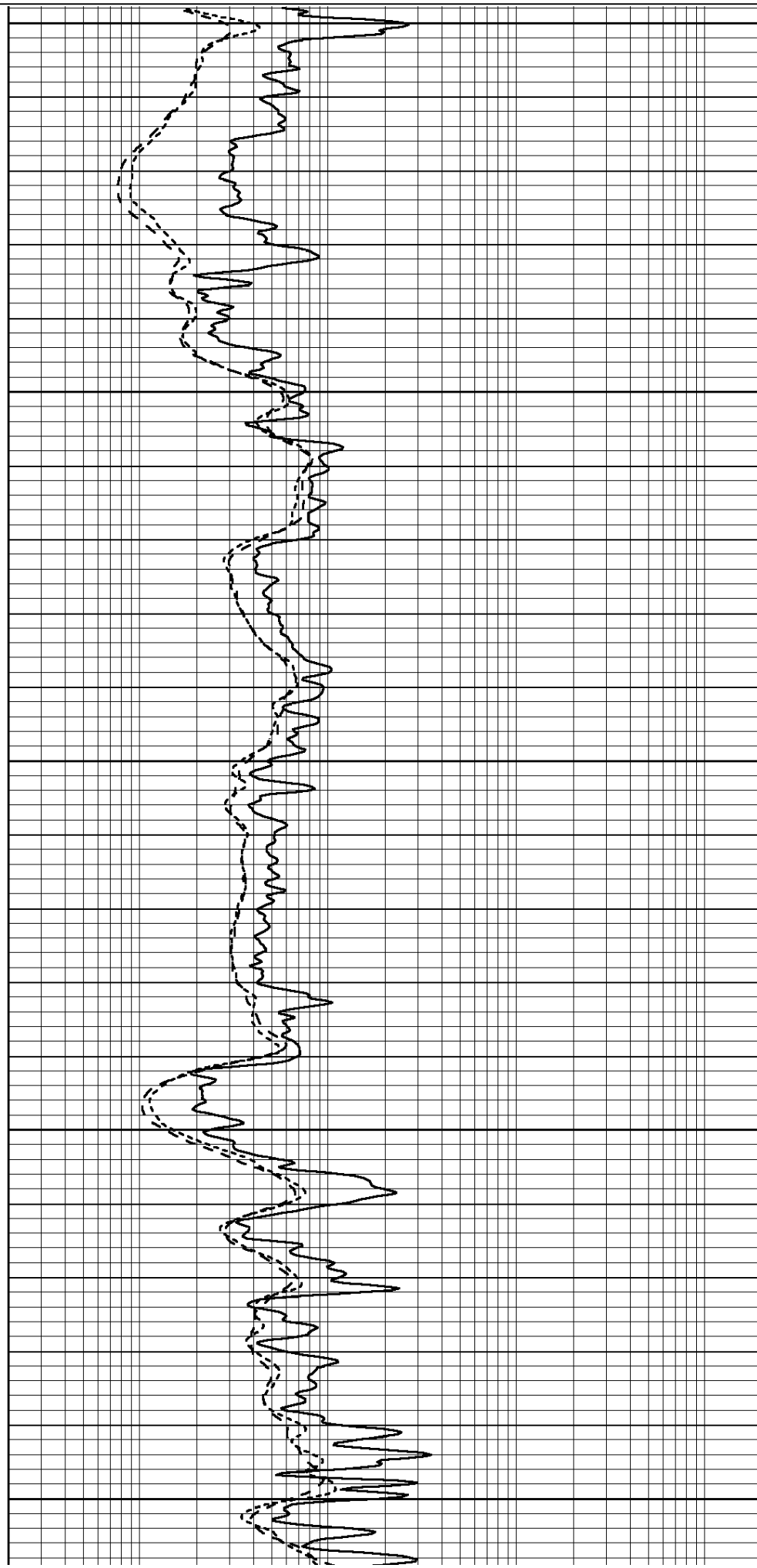
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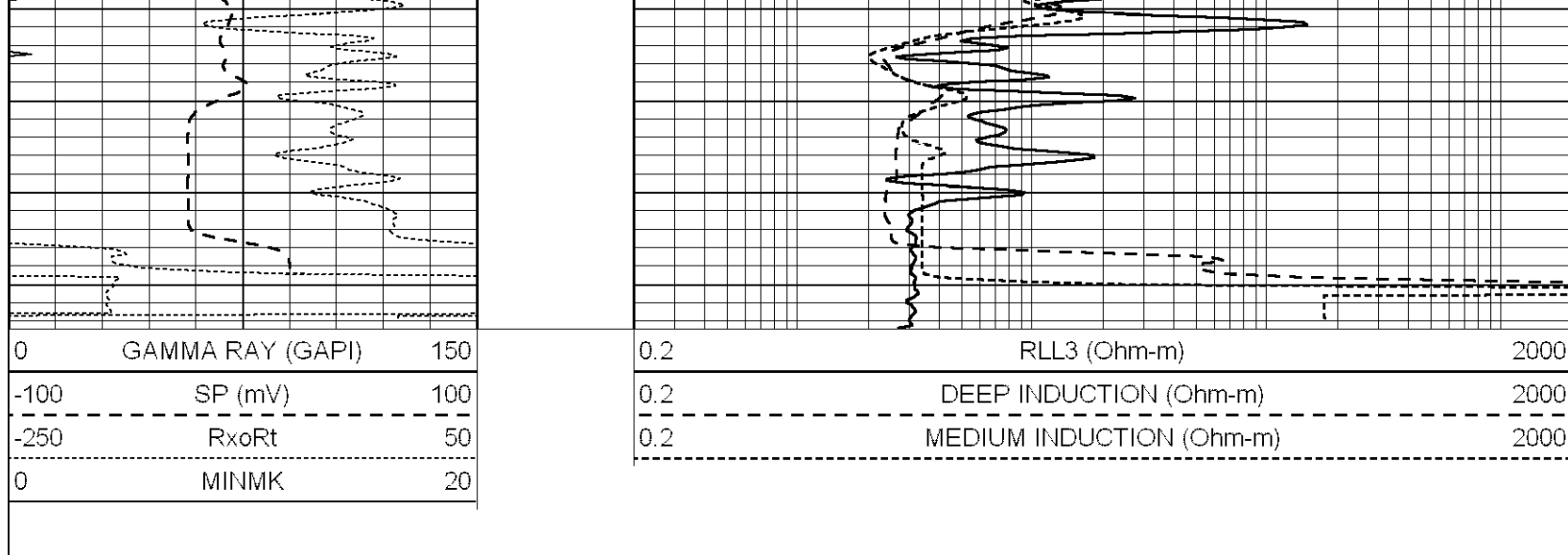
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5400

5450

5500





Calibration Report

Database File: 006924pdm.db
 Dataset Pathname: pass3A
 Dataset Creation: Sun May 22 23:22:43 2011

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
 Performed: Sun May 22 21:55:12 2011

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	610.000	-4.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	480.000	-16.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.006	0.655	V	0.000	400.000	mmho/m	615.668	-3.483
Medium	0.010	0.747	V	0.000	462.500	mmho/m	627.607	-6.064

Litho Density Calibration Report

Serial: 002 Model: PRB
 Performed Tue Jul 03 11:12:28 2007

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1059.5	9172.0	2859.6	10210.6	cps
Window 2	976.0	7793.2	2486.1	8515.6	cps
Window 3	689.8	2930.5	1159.0	3096.2	cps
Window 4	231.9	237.2	231.1	234.0	cps
Long Space	0.0	6817.1	1510.1	7539.6	cps
Short Space	1.6	1758.1	1188.6	1898.8	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 45.4	Rib Slope	: 1.015	Density/Spine Ratio	: 0.569
Spine Angle	: 75.4	Spine Slope	: 3.850	Spine Intercept	: -19.9

Caliper

	Readings	Reference
Low Ref	3.8	8.8
High Ref	5.9	14.0
Gain:	2.4	

Offset: -0.4

Compensated Neutron Calibration Report						
		Serial Number:		NUE_2I		
		Tool Model:		G		
CALIBRATION						
Detector		Readings		Target		Normalization
Short Space		1.00	cps	1.00	cps	1.0000
Long Space		1.00	cps	1.00	cps	1.0000
Gamma Ray Calibration Report						
Serial Number:		GR5				
Tool Model:		OPEN				
Performed:		Sun May 22 21:06:30 2011				
Calibrator Value:		1.0	GAPI			
Background Reading:		0.0	cps			
Calibrator Reading:		1.0	cps			
Sensitivity:		0.6500	GAPI/cps			