



**SUPERIOR  
Hays,  
Kansas**

**DUAL  
INDUCTION  
LOG**

Company LOTUS OPERATING COMPANY, LLC.  
Well MOLZ "L" #4  
Field STRANATHAN  
County BARBER State KANSAS

Company LOTUS OPERATING COMPANY, LLC.  
Well MOLZ "L" #4  
Field STRANATHAN  
County BARBER  
State KANSAS

Location: API #: 15-007-23693  
3960' FSL & 1485' FEL  
SEC 1 TWP 35S RGE 12W  
Permanent Datum GROUND LEVEL Elevation 1417  
Log Measured From KELLY BUSHING 13' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
CDL/CNL/PE  
SONIC/MEL  
Elevation  
K.B. 1430  
D.F.  
G.L. 1417

Date	1-9-12
Run Number	ONE
Depth Driller	5540
Depth Logger	5536
Bottom Logged Interval	5534
Top Log Interval	00
Casing Driller	270
Casing Logger	270
Bit Size	7.875
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.4 / 50
pH / Fluid Loss	11.0 / 9.2
Source of Sample	FLOWLINE
Rim @ Meas. Temp	0.85 @ 74F
Rmf @ Meas. Temp	0.64 @ 74F
Rmc @ Meas. Temp	1.02 @ 74F
Source of Rmf / Rmc	MEASURED
Rim @ BHT	.480 @ 130F
Time Circulation Stopped	3 HOURS
Time Logger on Bottom	2:45 P.M.
Maximum Recorded Temperature	130F
Equipment Number	860
Location	HAYS, KS.
Recorded By	RUPP
Witnessed By	TIM HELLMAN

<<< 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

SUPERIOR WELL SERVICES  
785-628-6395  
THANK YOU FOR YOUR BUSINESS  
DIRECTIONS: MEDICINE LODGE, S TO DRIFTWOOD RD., 1/2W. S INTO.



**SUPERIOR  
Hays,  
Kansas**

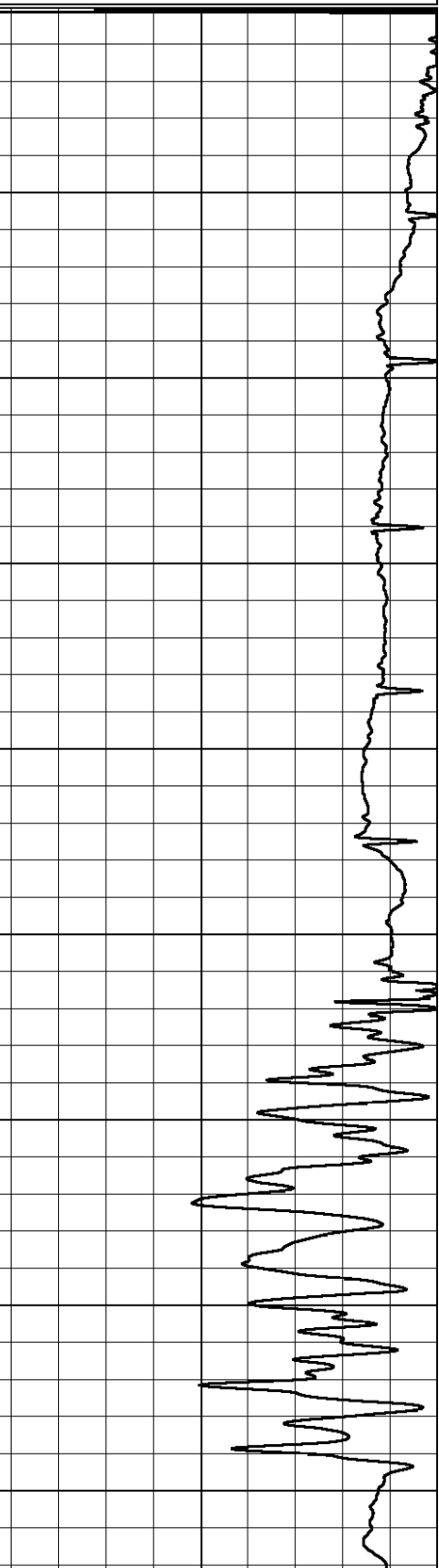
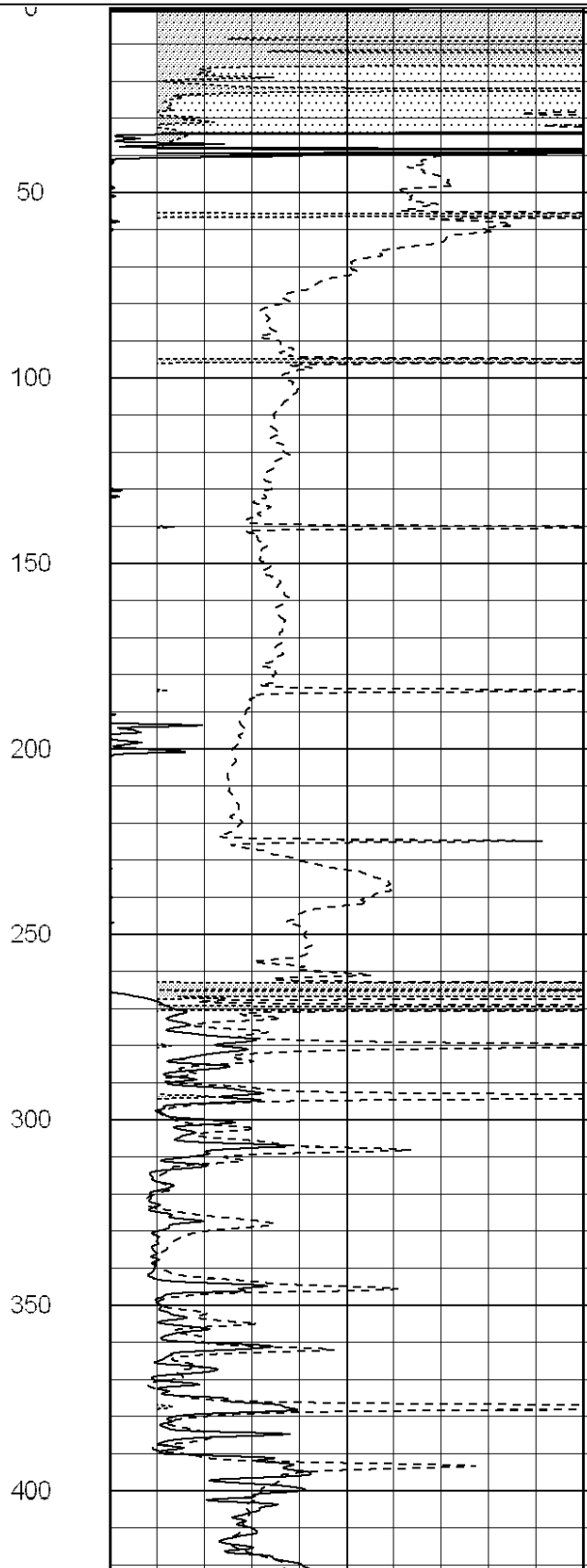
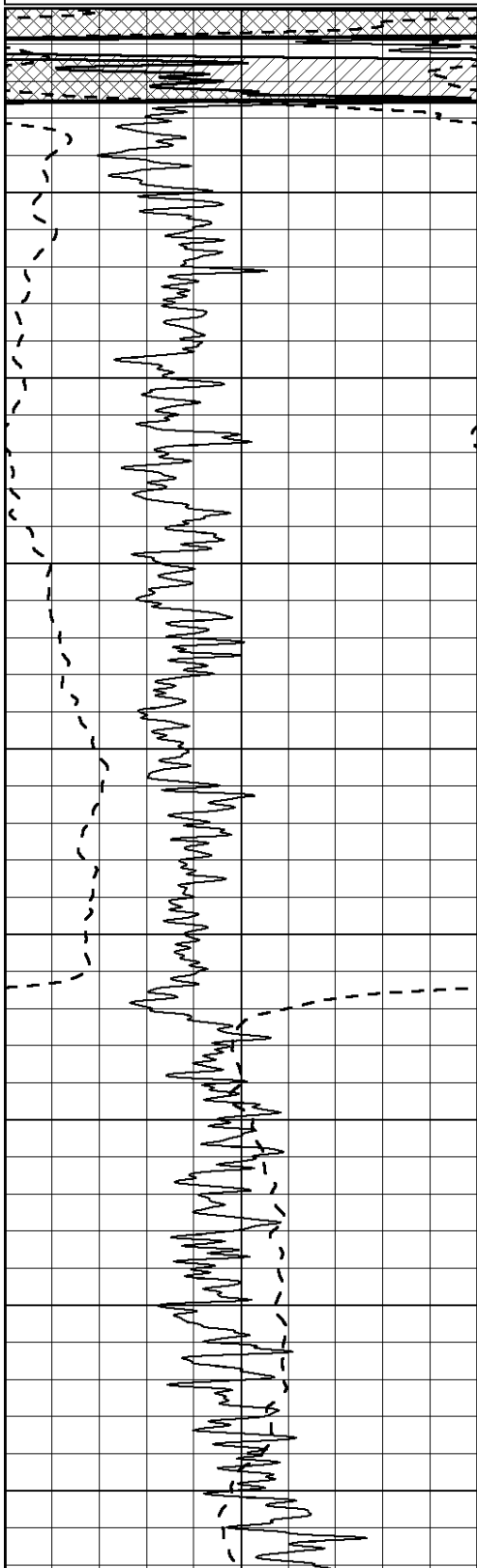
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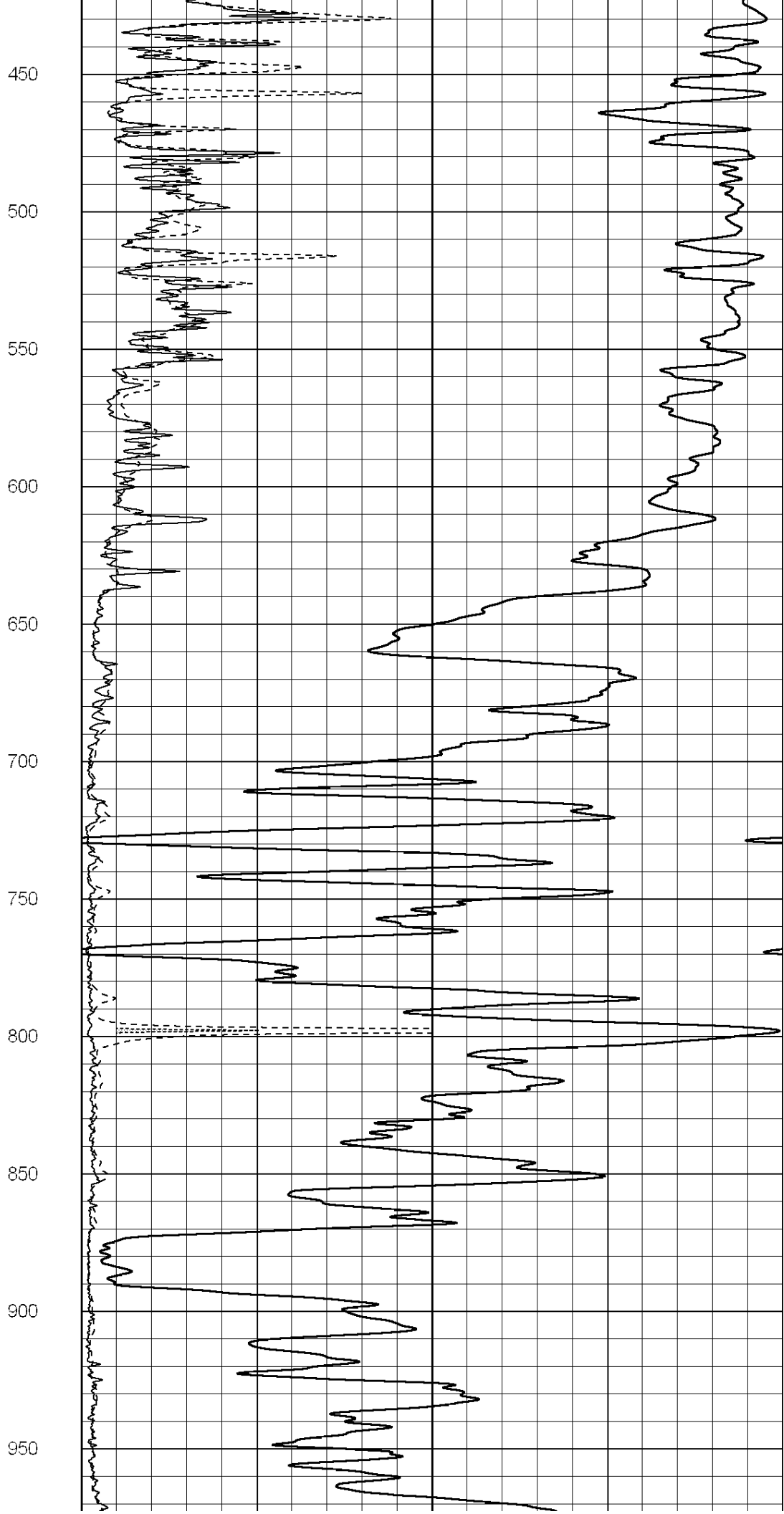
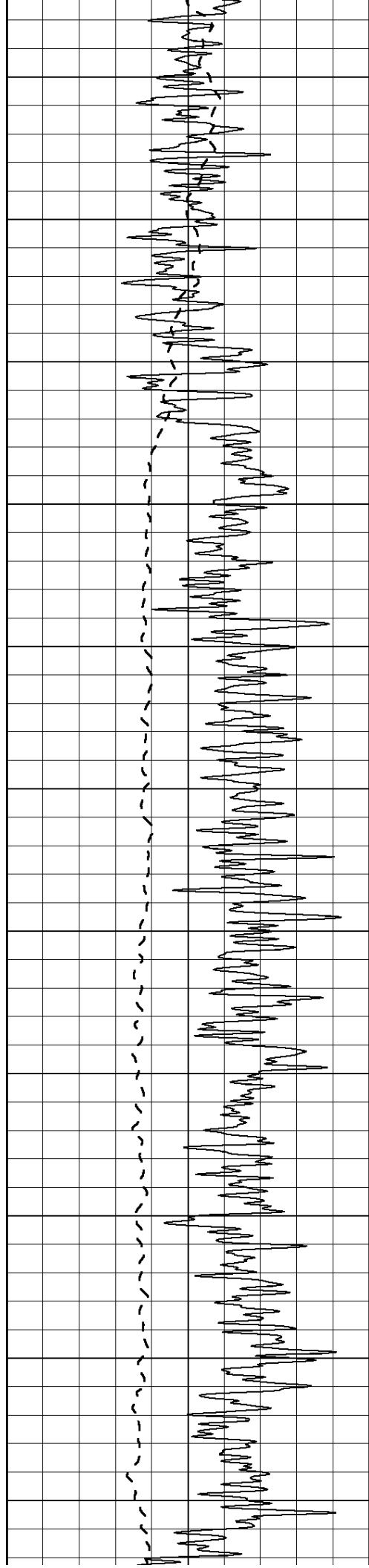
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 Presentation Format: dil2  
 Dataset Creation: Mon Jan 09 17:00:47 2012  
 Charted by: Depth in Feet scaled 1:600

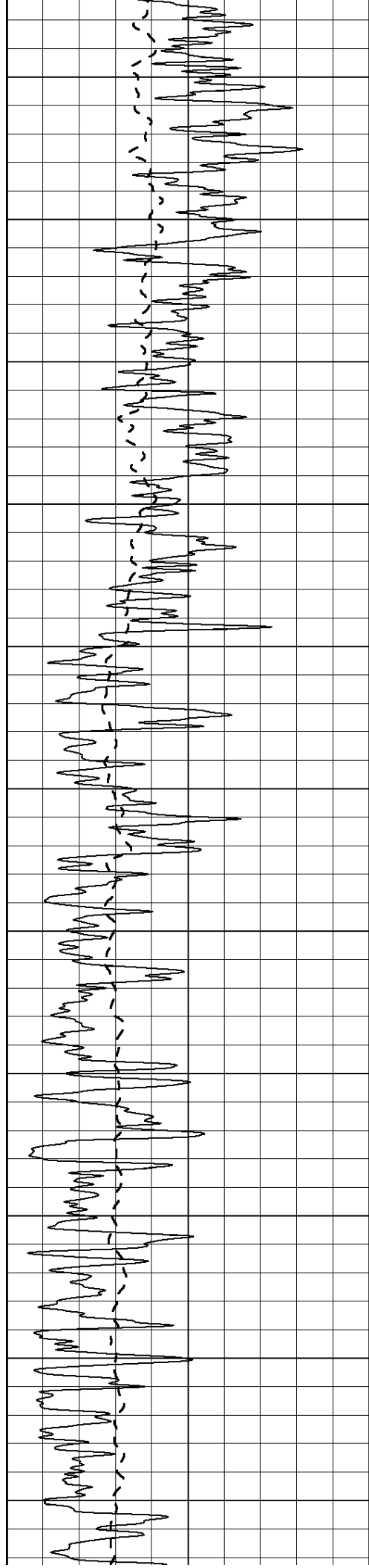
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-100	SP (mV)	100

0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50

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







1000

1050

1100

1150

1200

1250

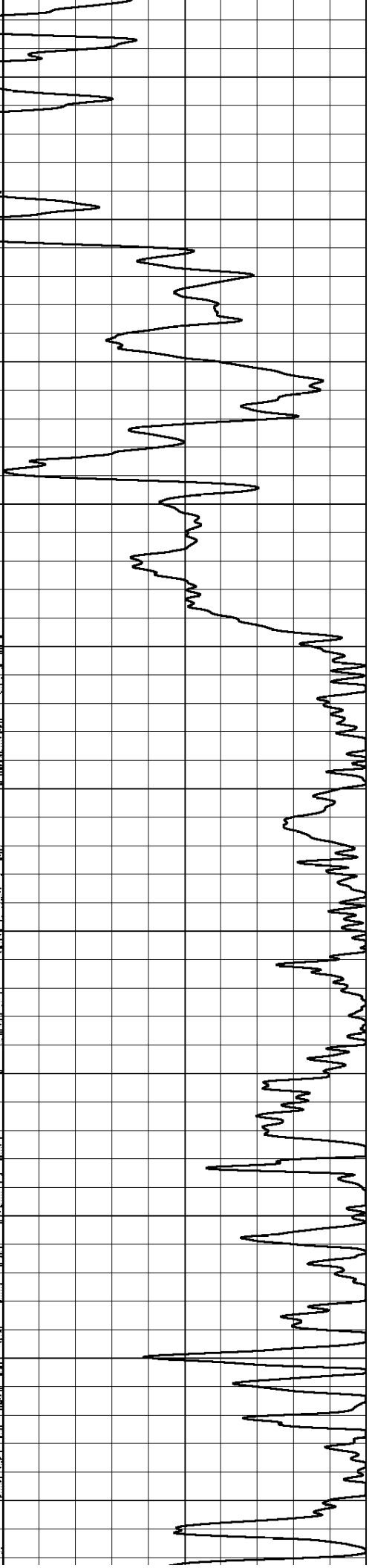
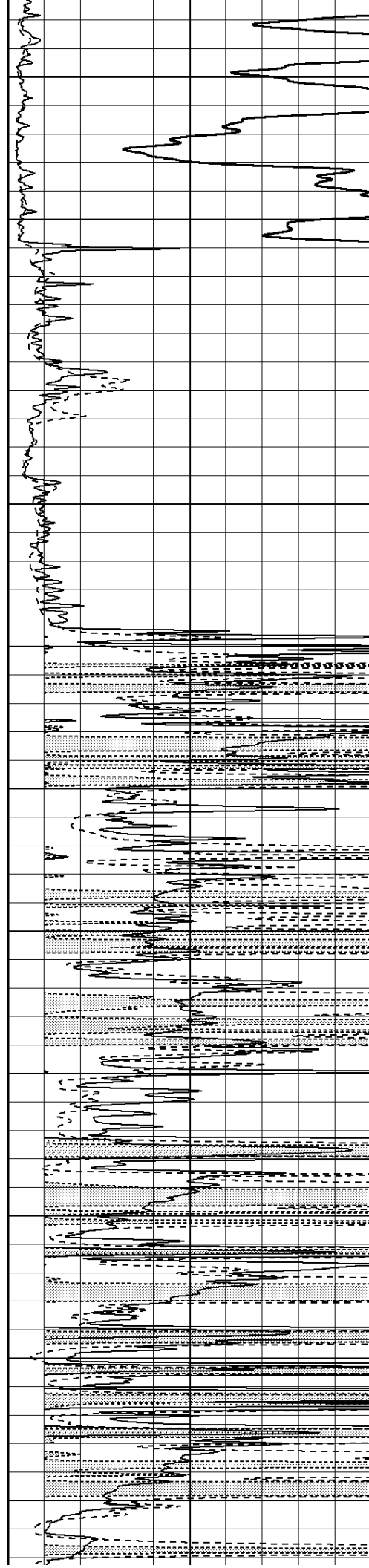
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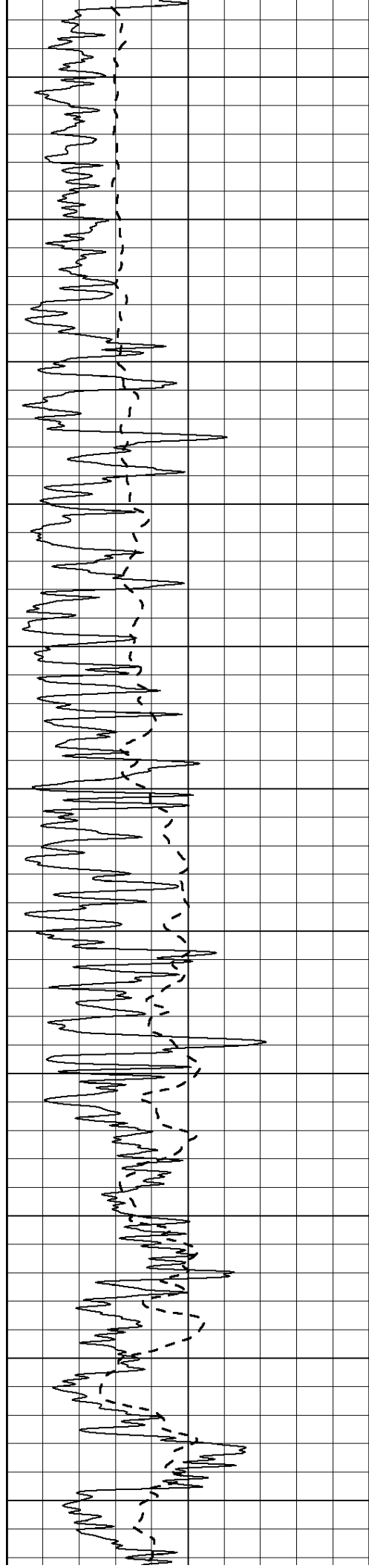
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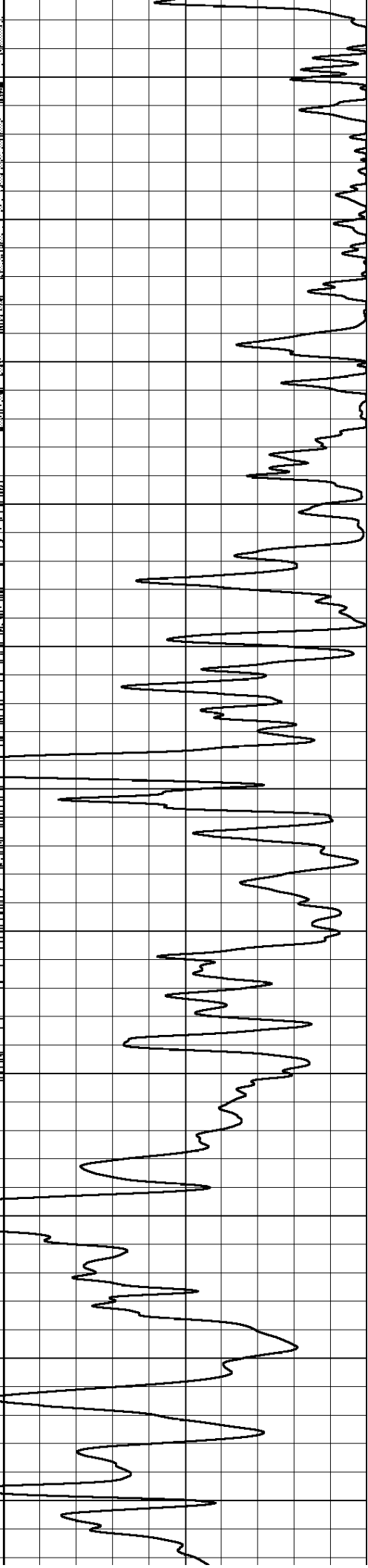
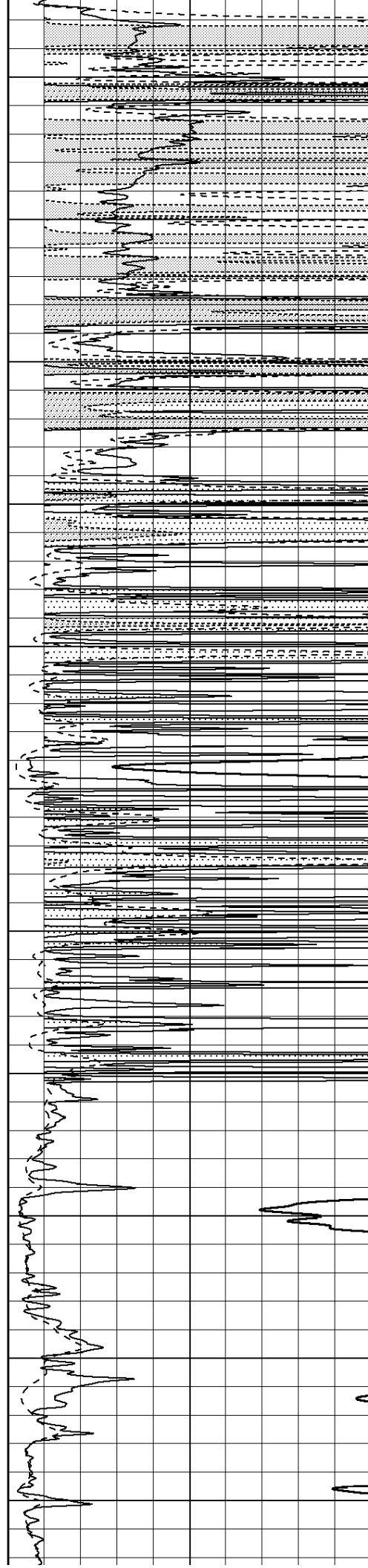
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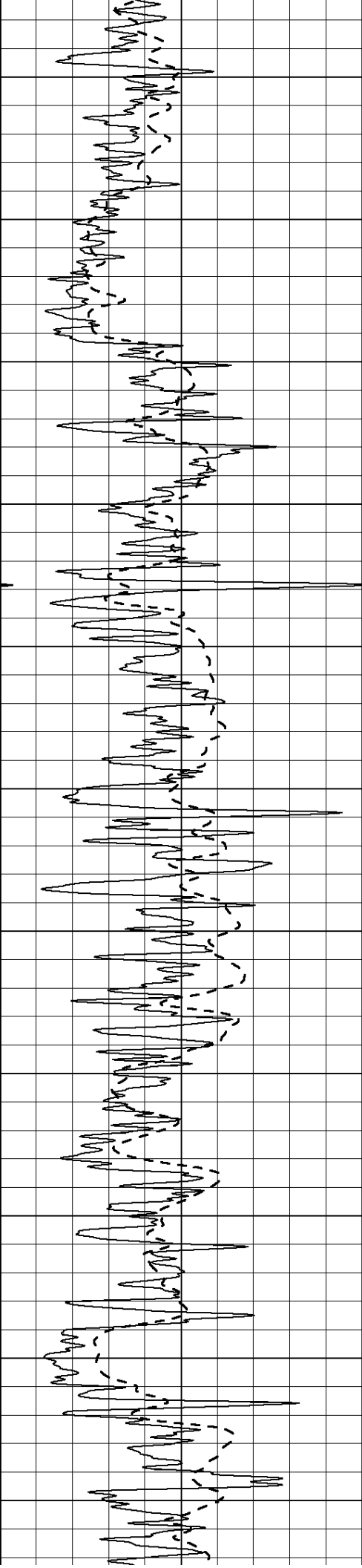
1500





1550  
1600  
1650  
1700  
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1800  
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1900  
1950  
2000  
2050





2100

2150

2200

2250

2300

2350

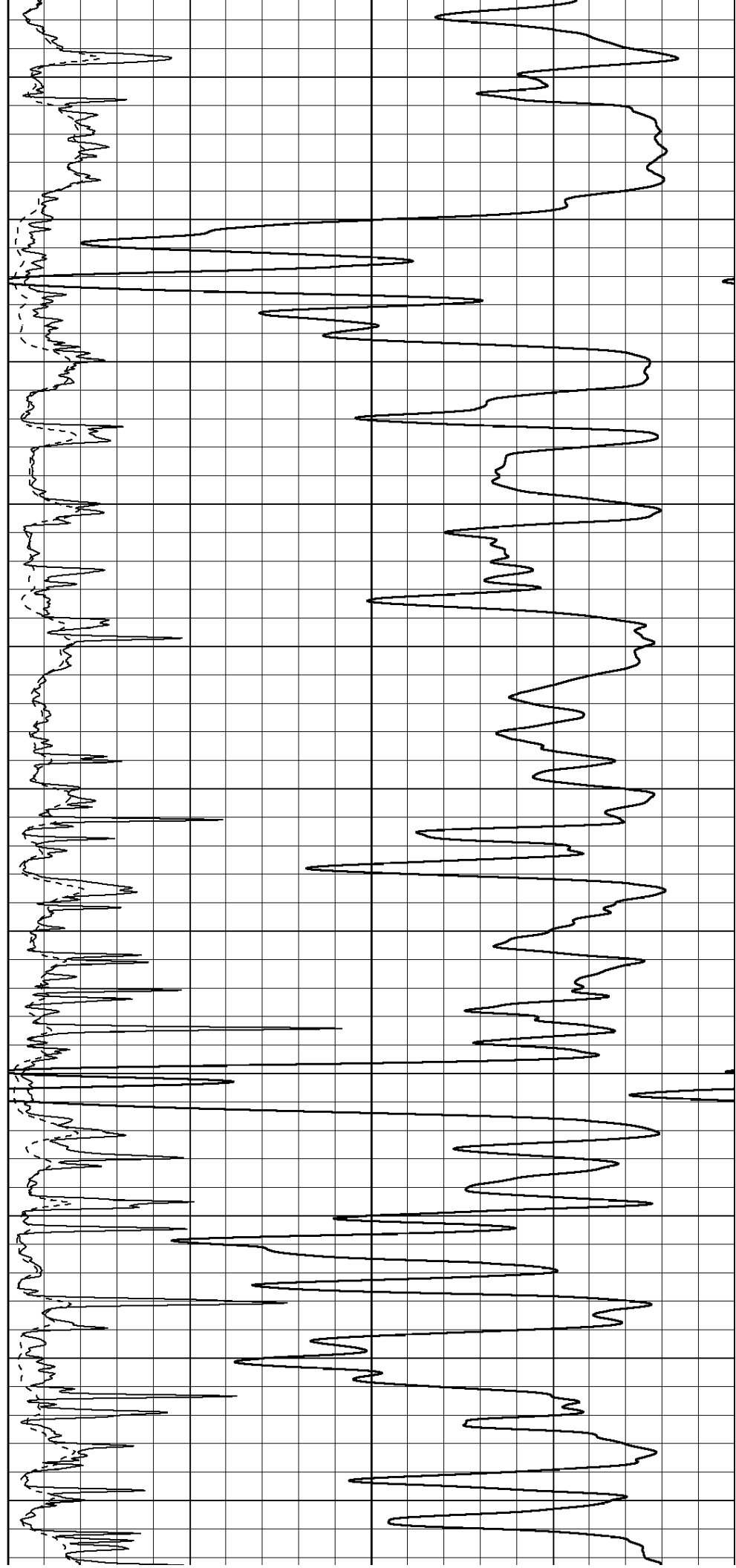
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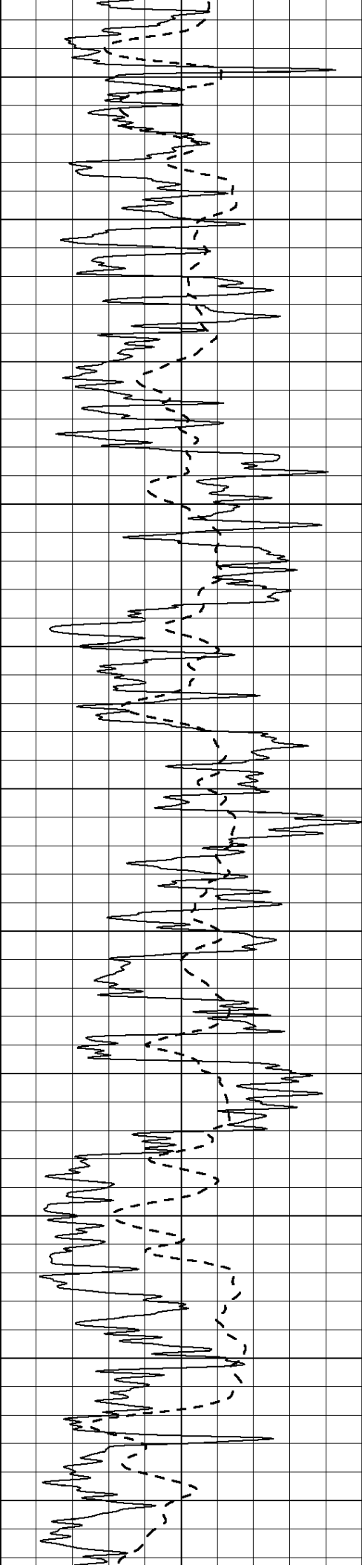
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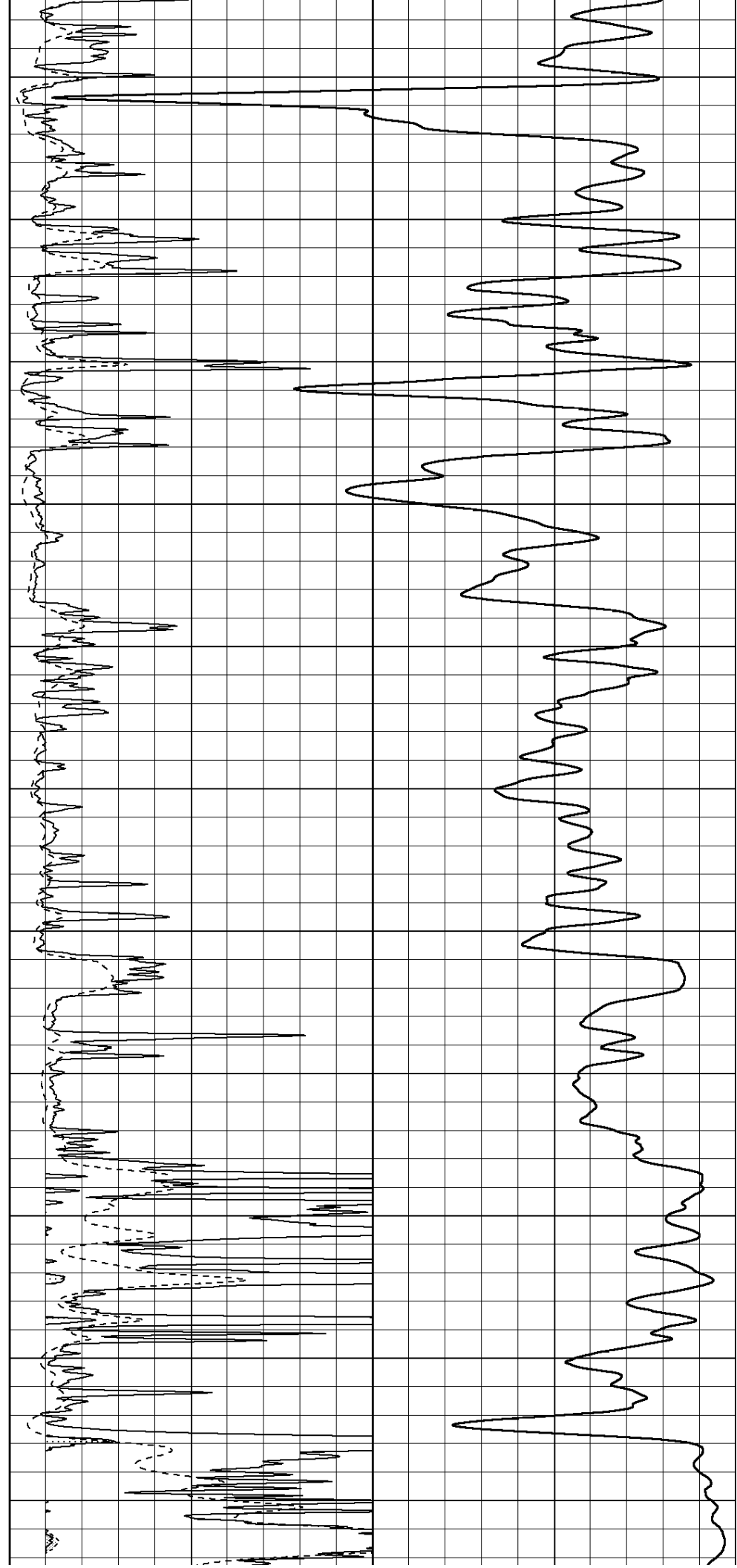
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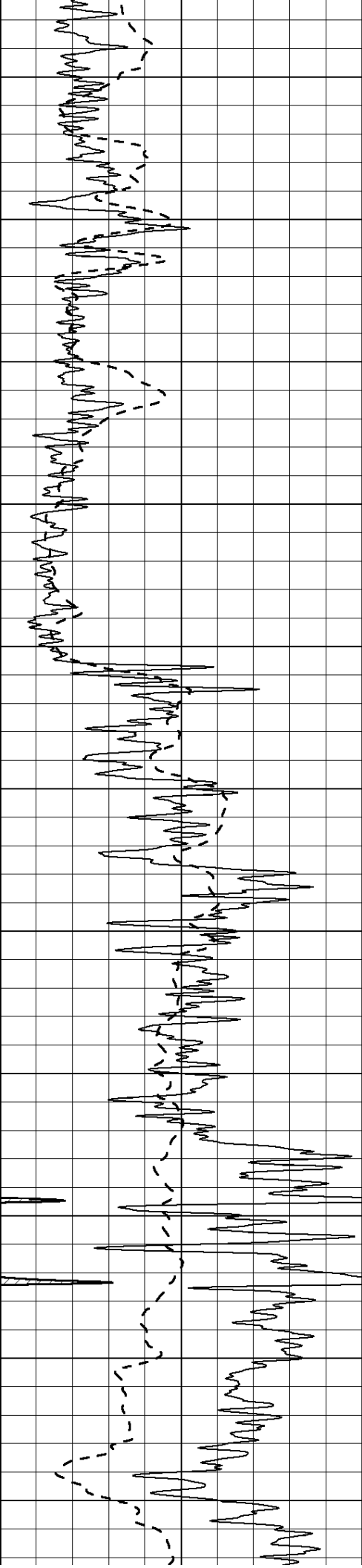
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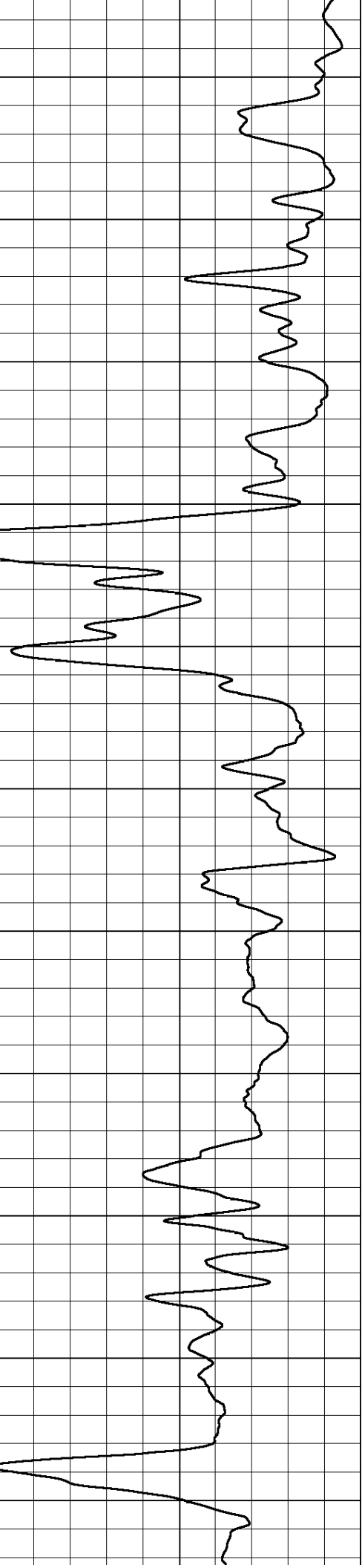
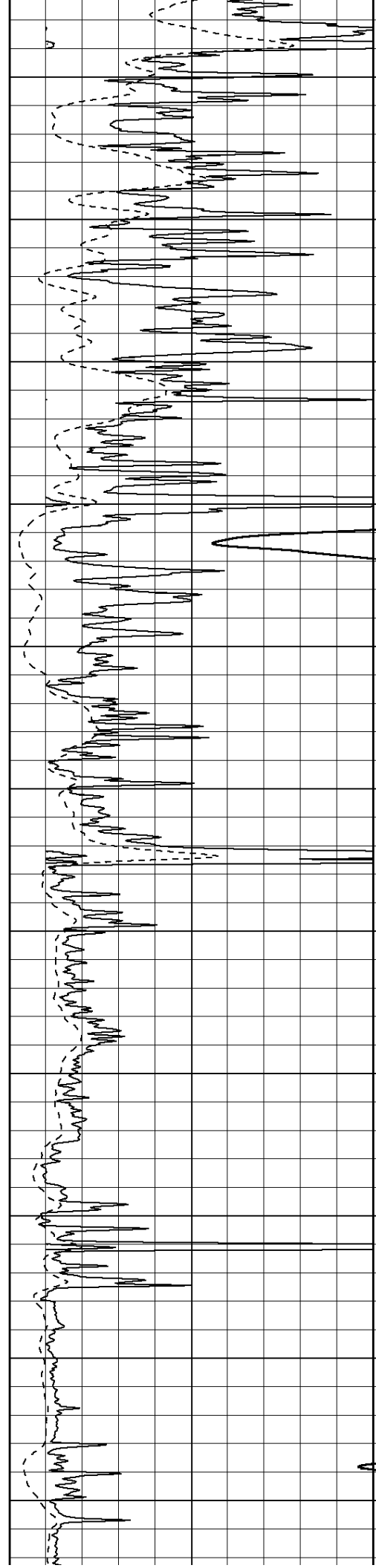


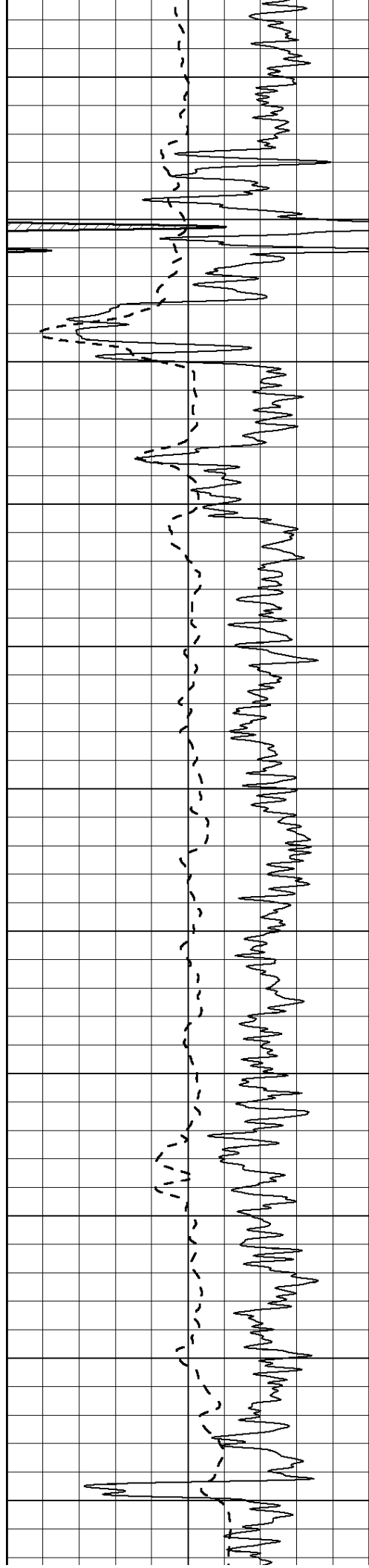
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3000  
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3100  
3150



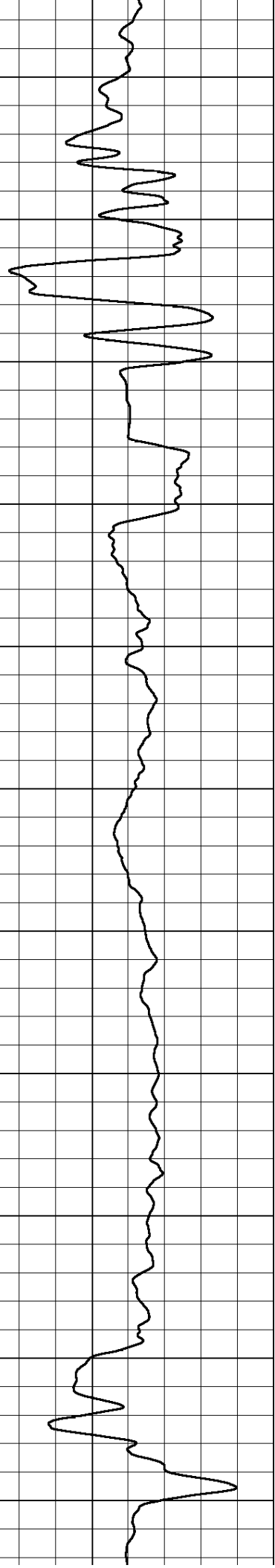
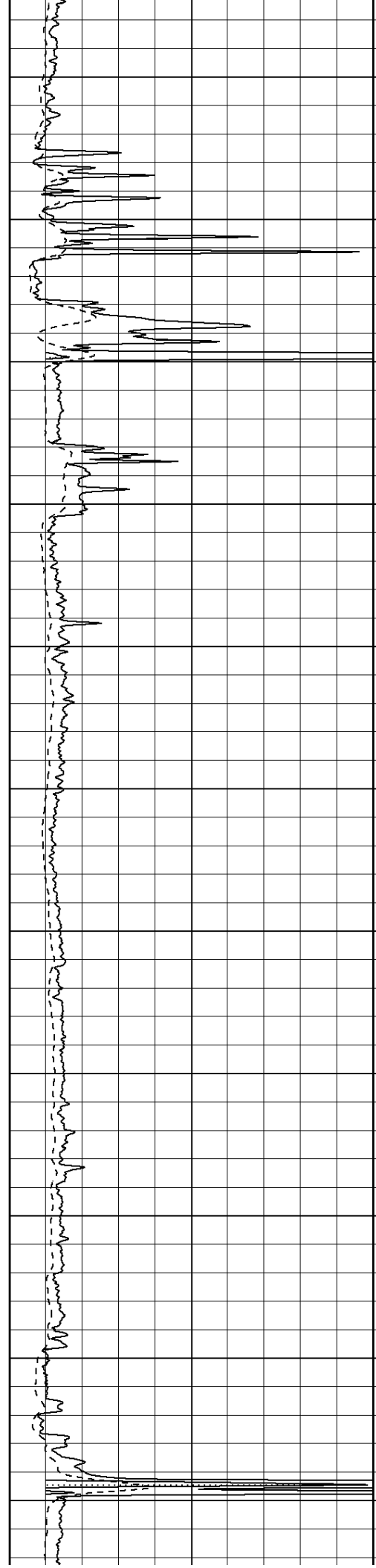


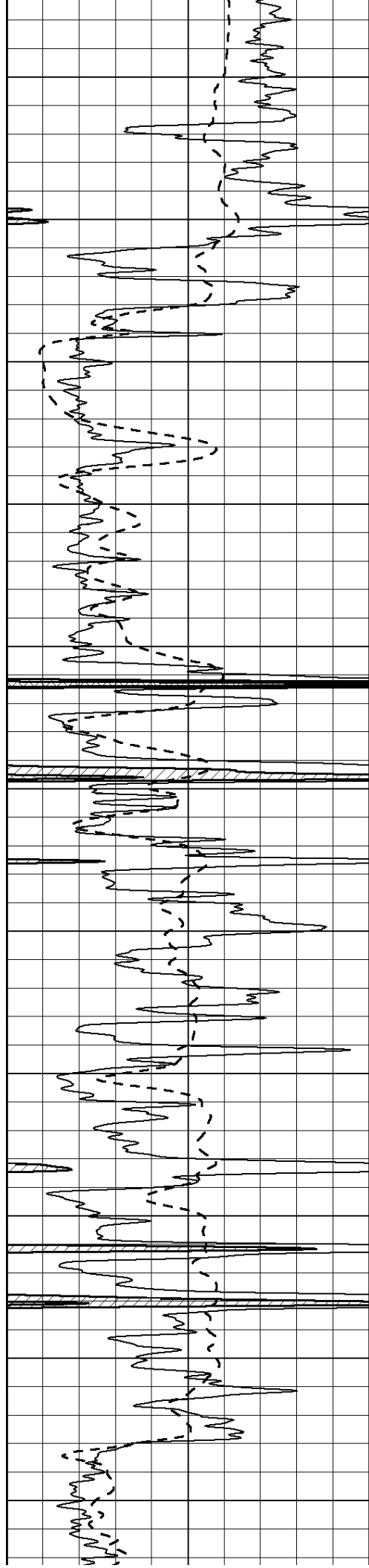
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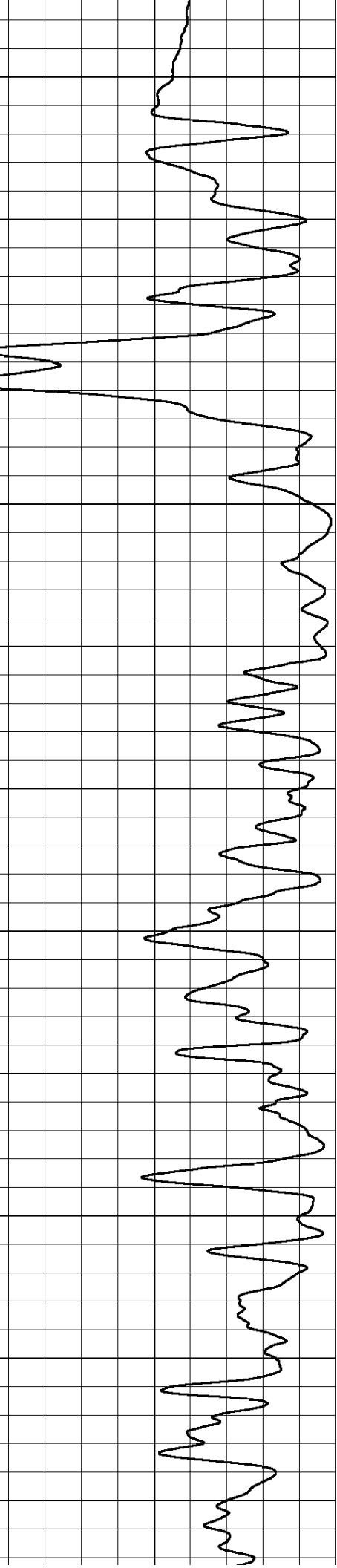
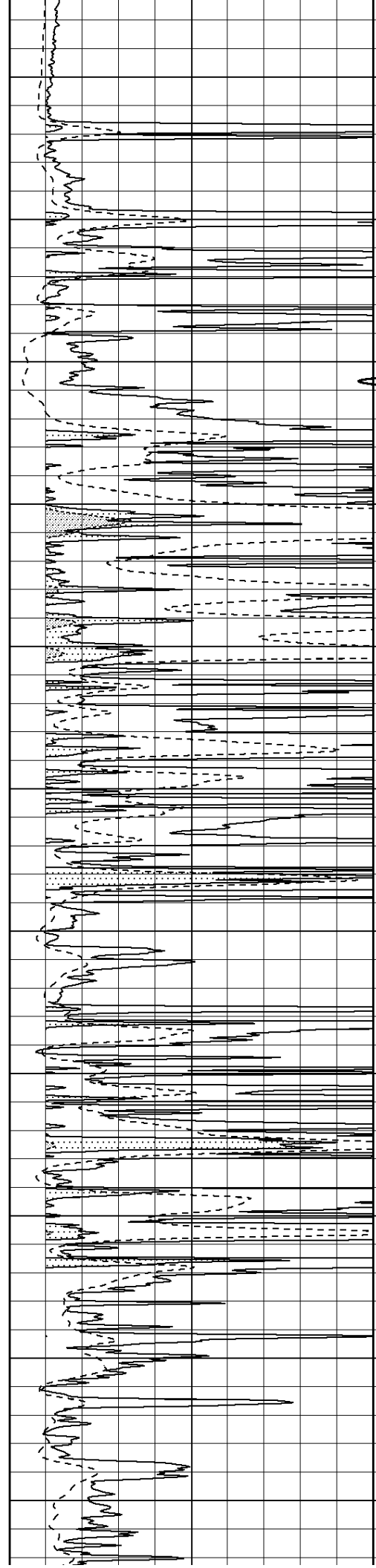


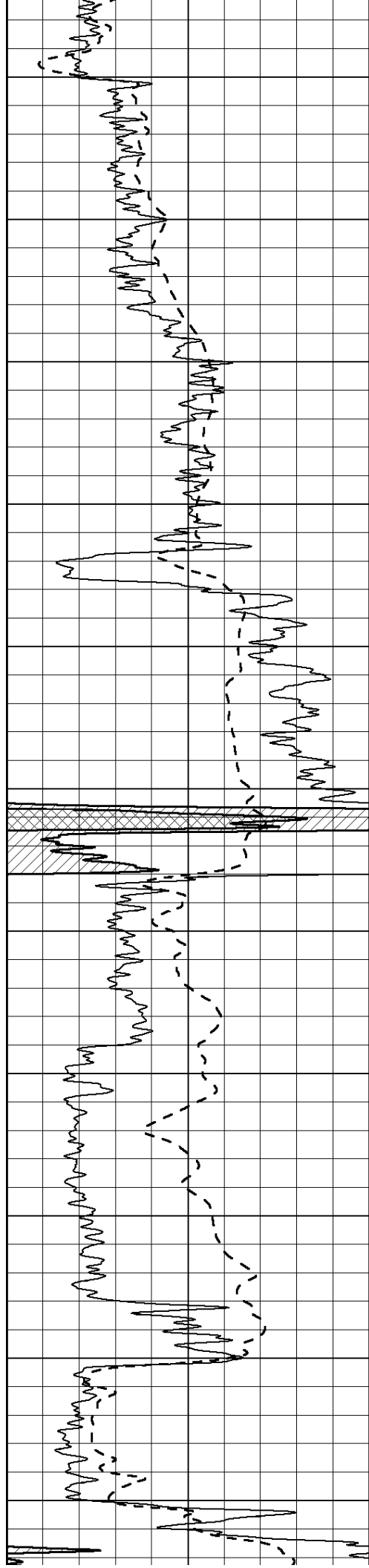
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3900  
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4000  
4050  
4100  
4150  
4200  
4250





4300  
4350  
4400  
4450  
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4600  
4650  
4700  
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4800





4850

4900

4950

5000

5050

5100

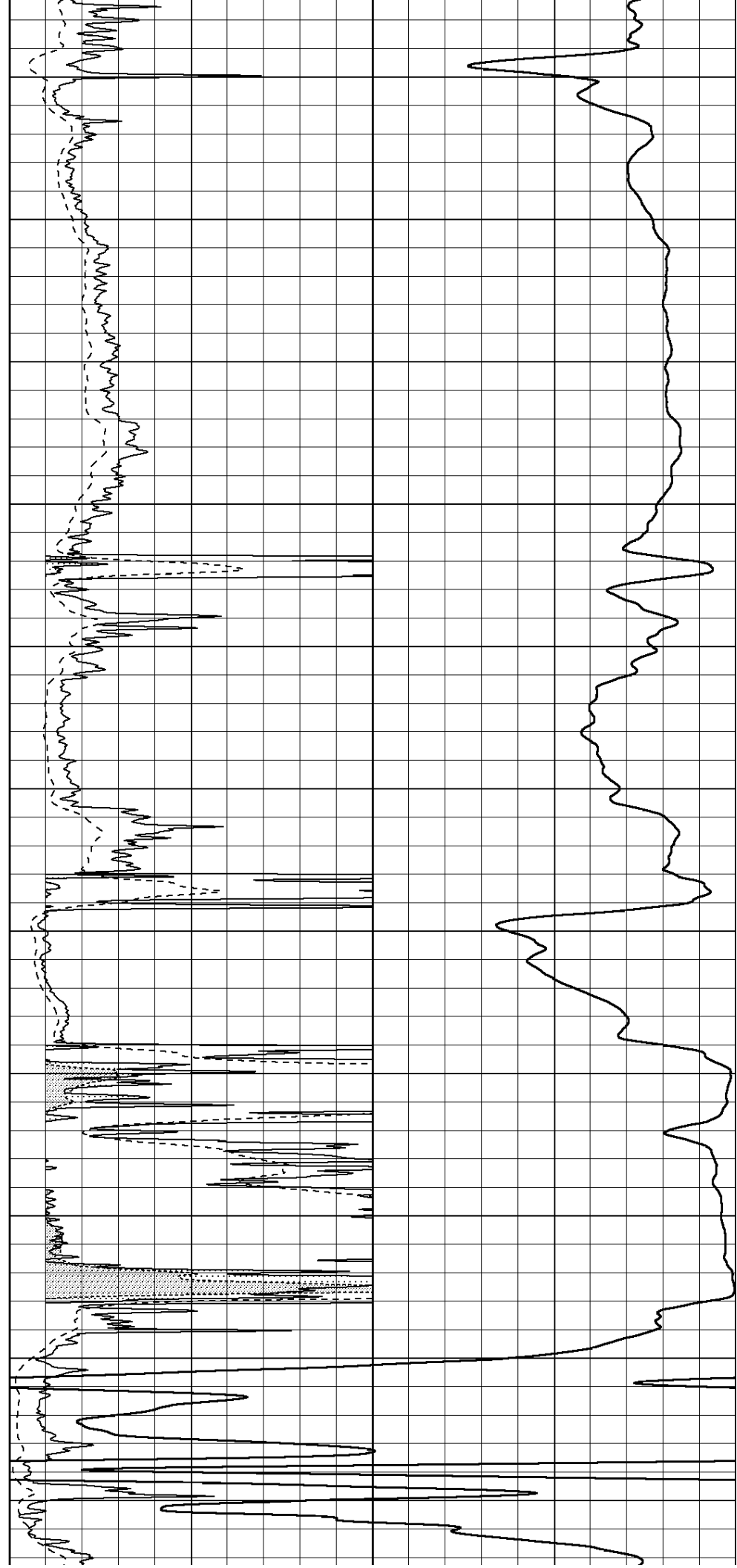
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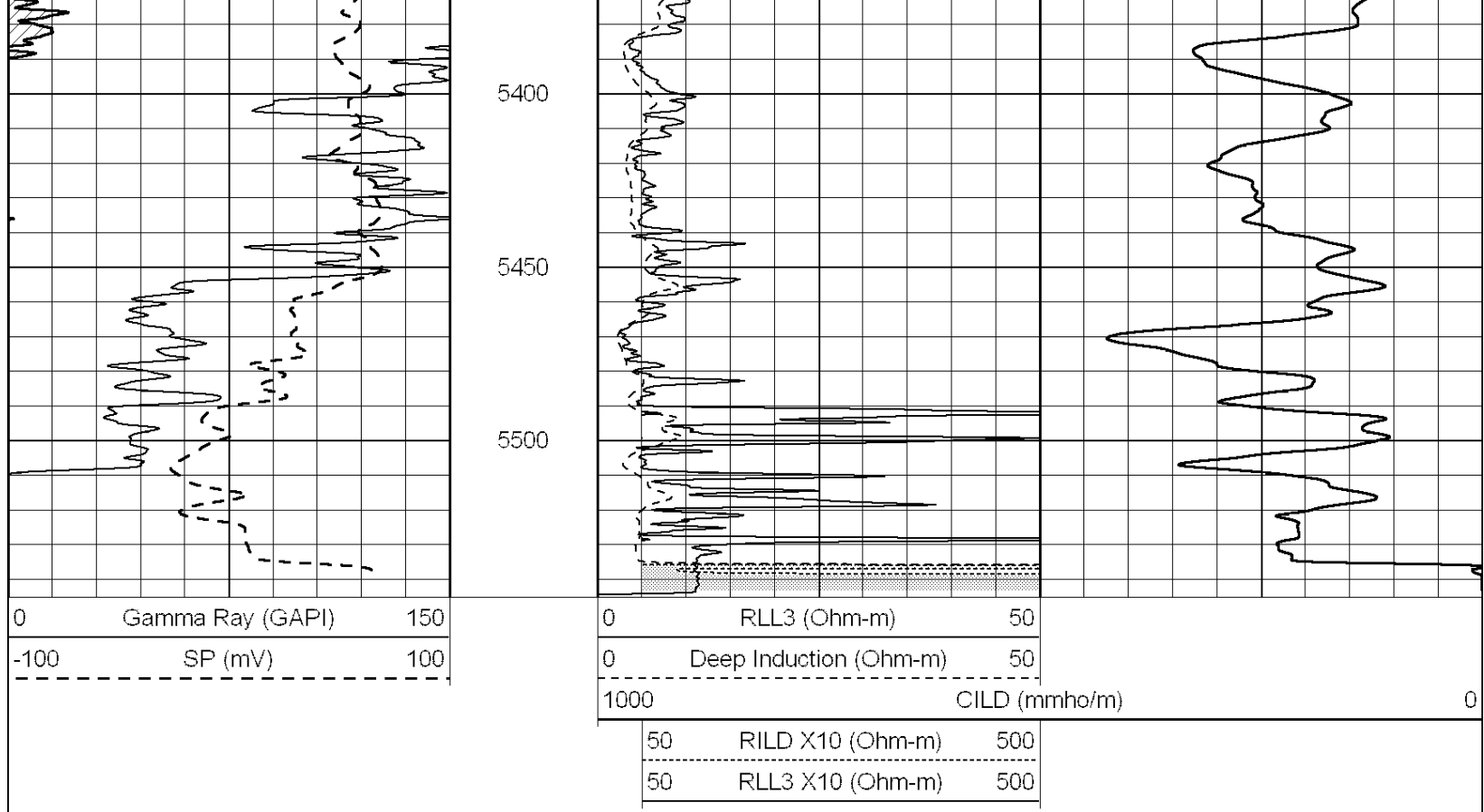
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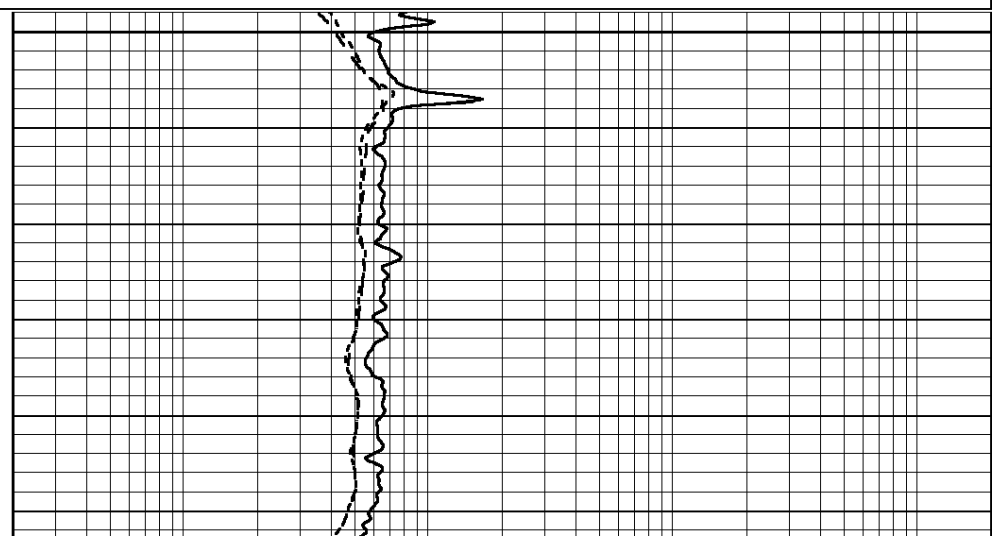
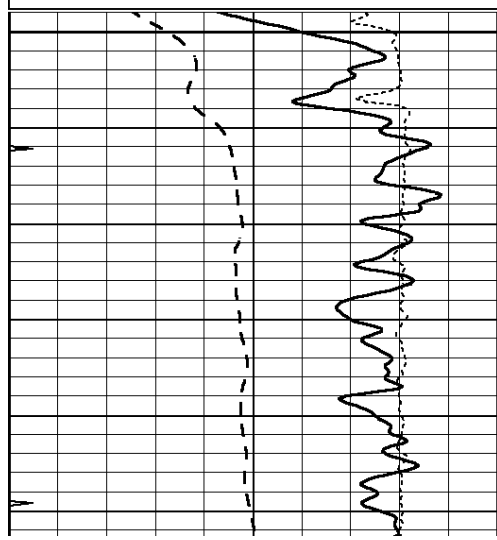


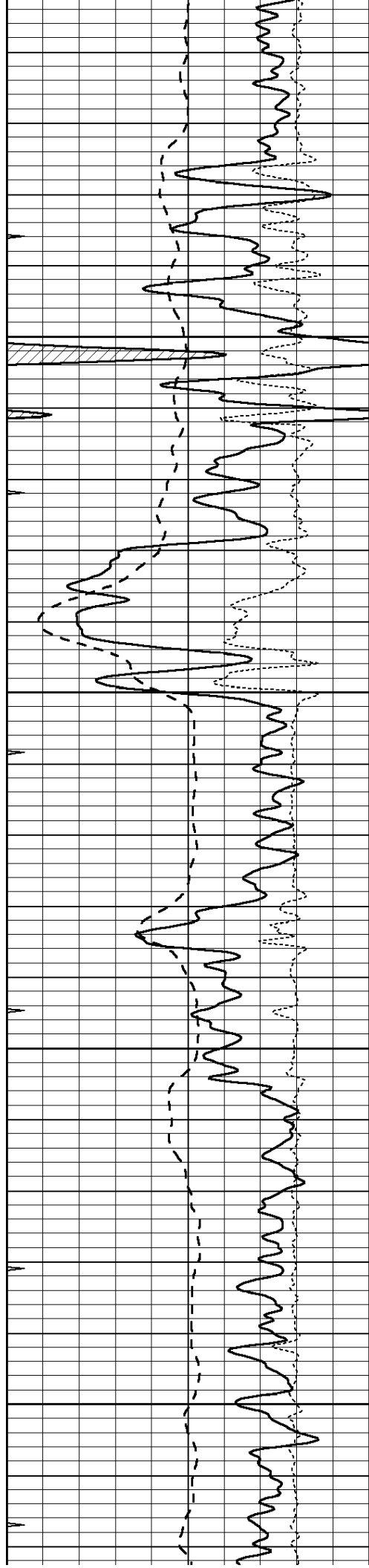
SUPERIOR  
Hays,  
Kansas

# MAIN SECTION

Database File: 008453pdm.db  
 Dataset Pathname: pass3.1A  
 Presentation Format: dil  
 Dataset Creation: Mon Jan 09 17:00:47 2012  
 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			



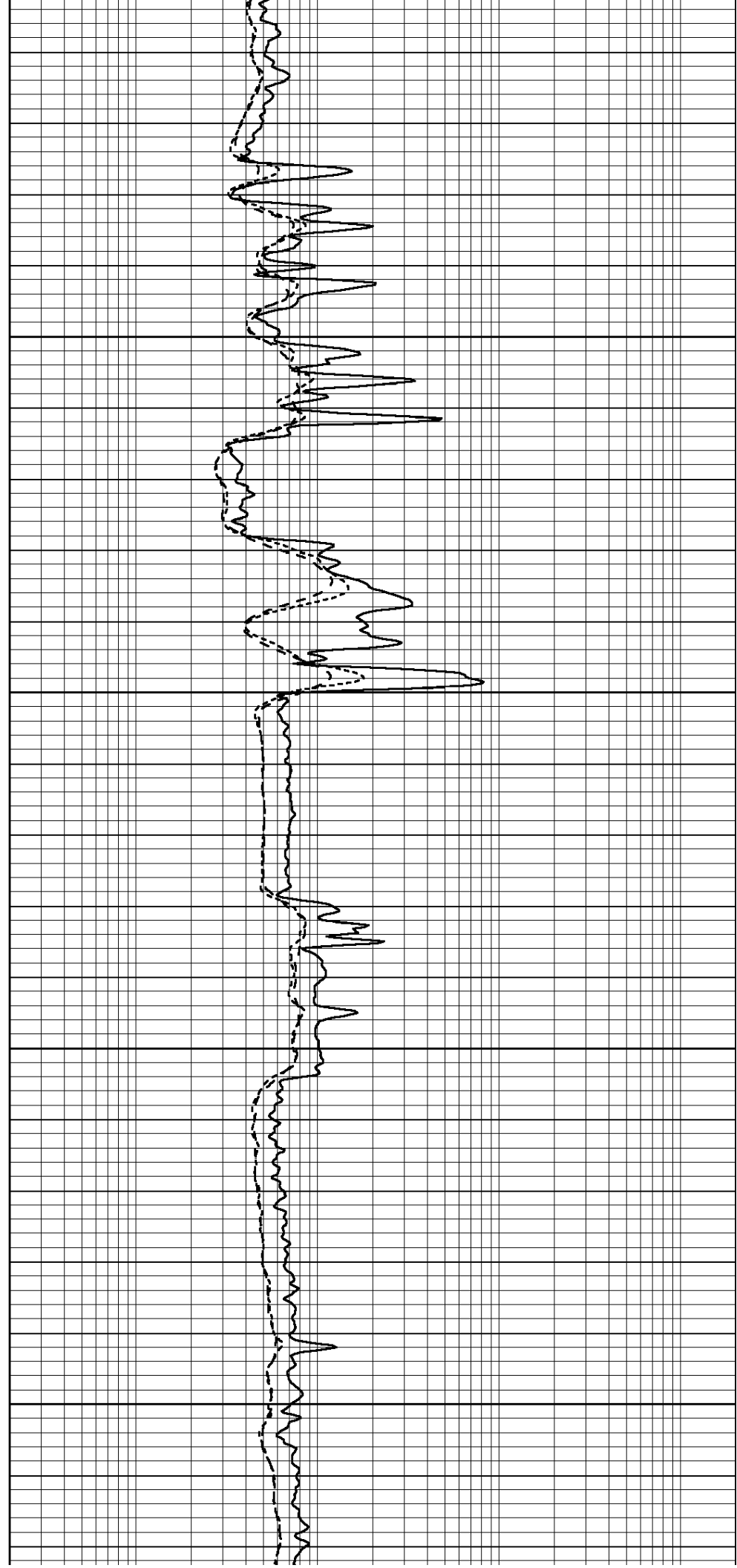


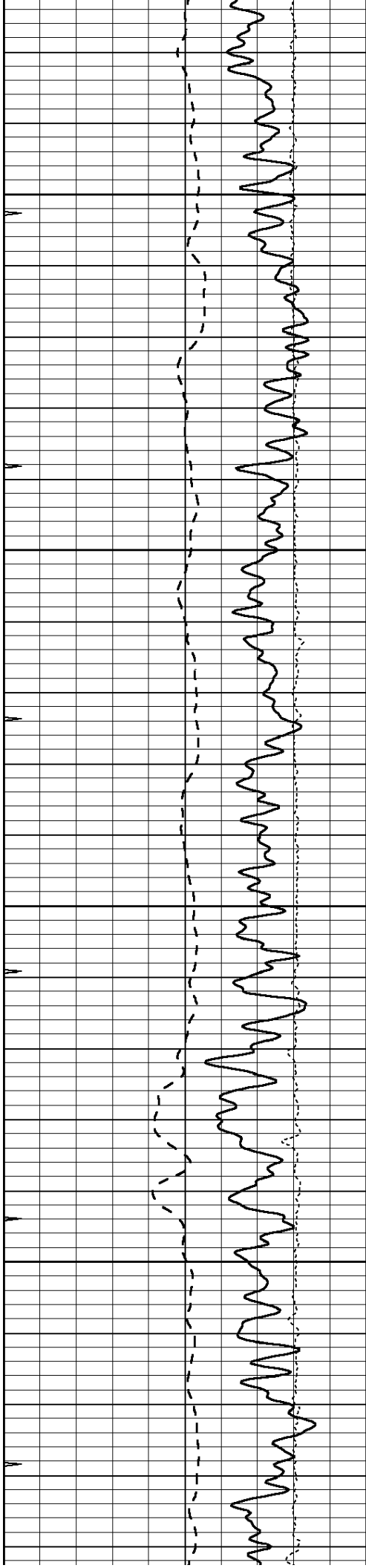
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3900

3950



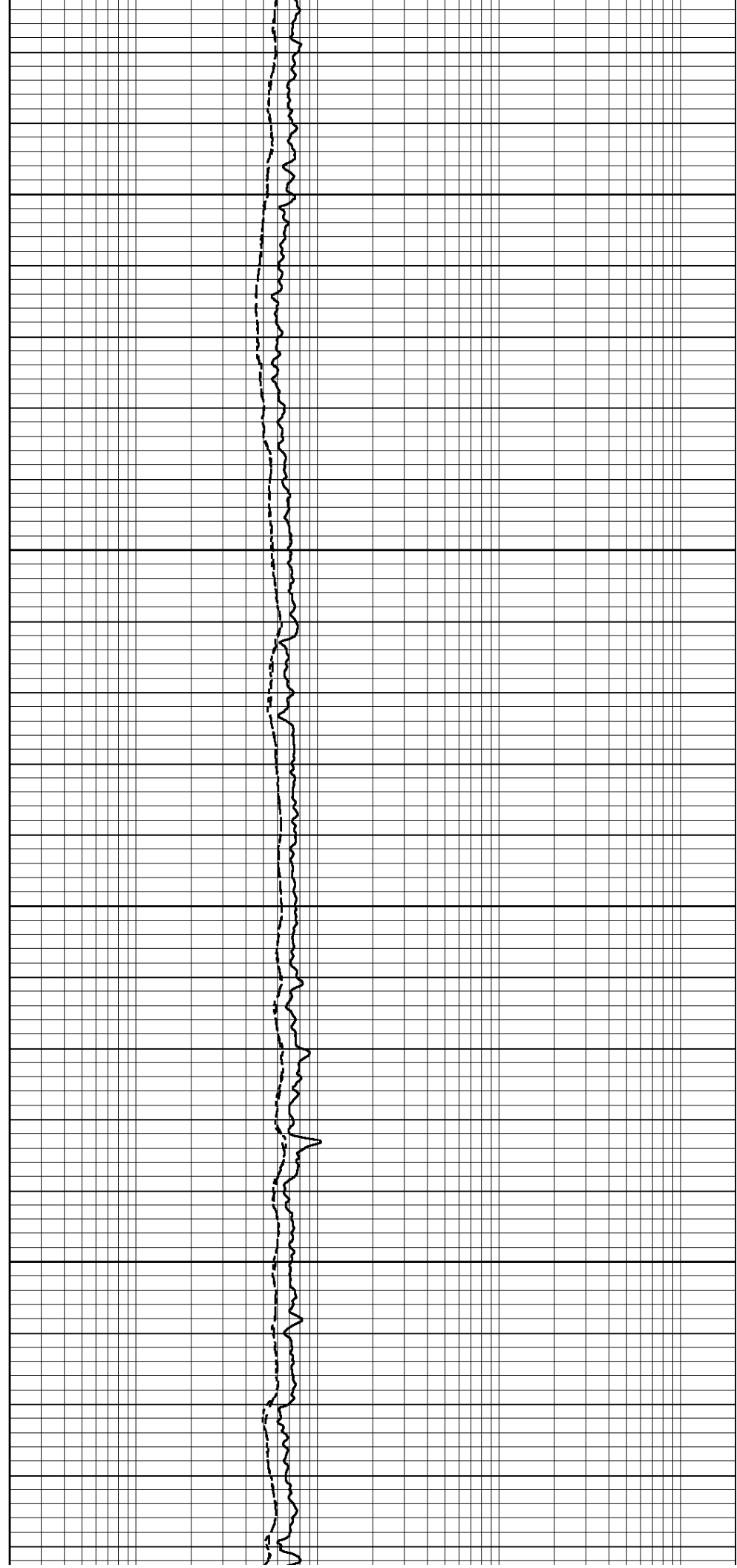


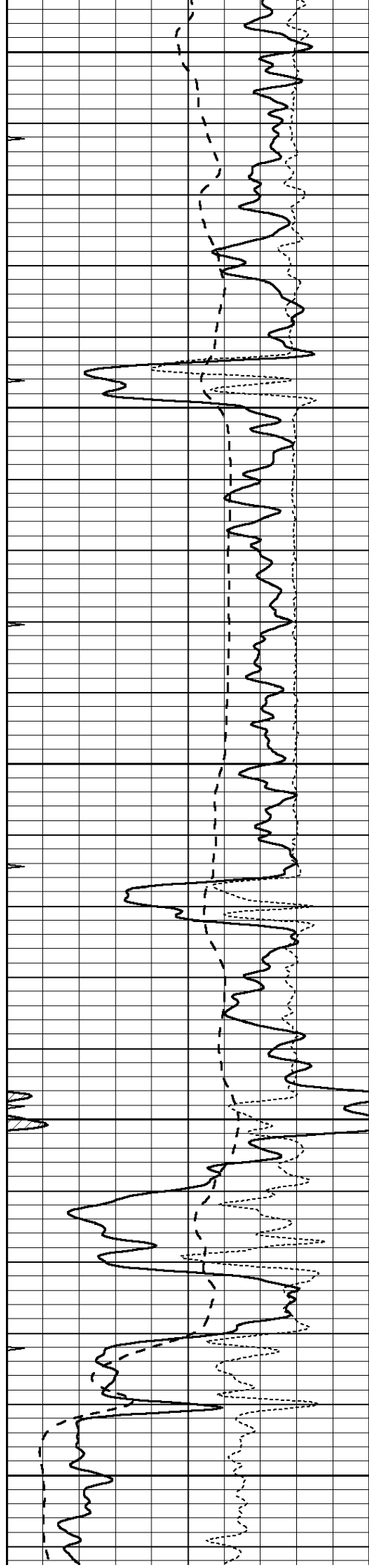
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4050

4100

4150





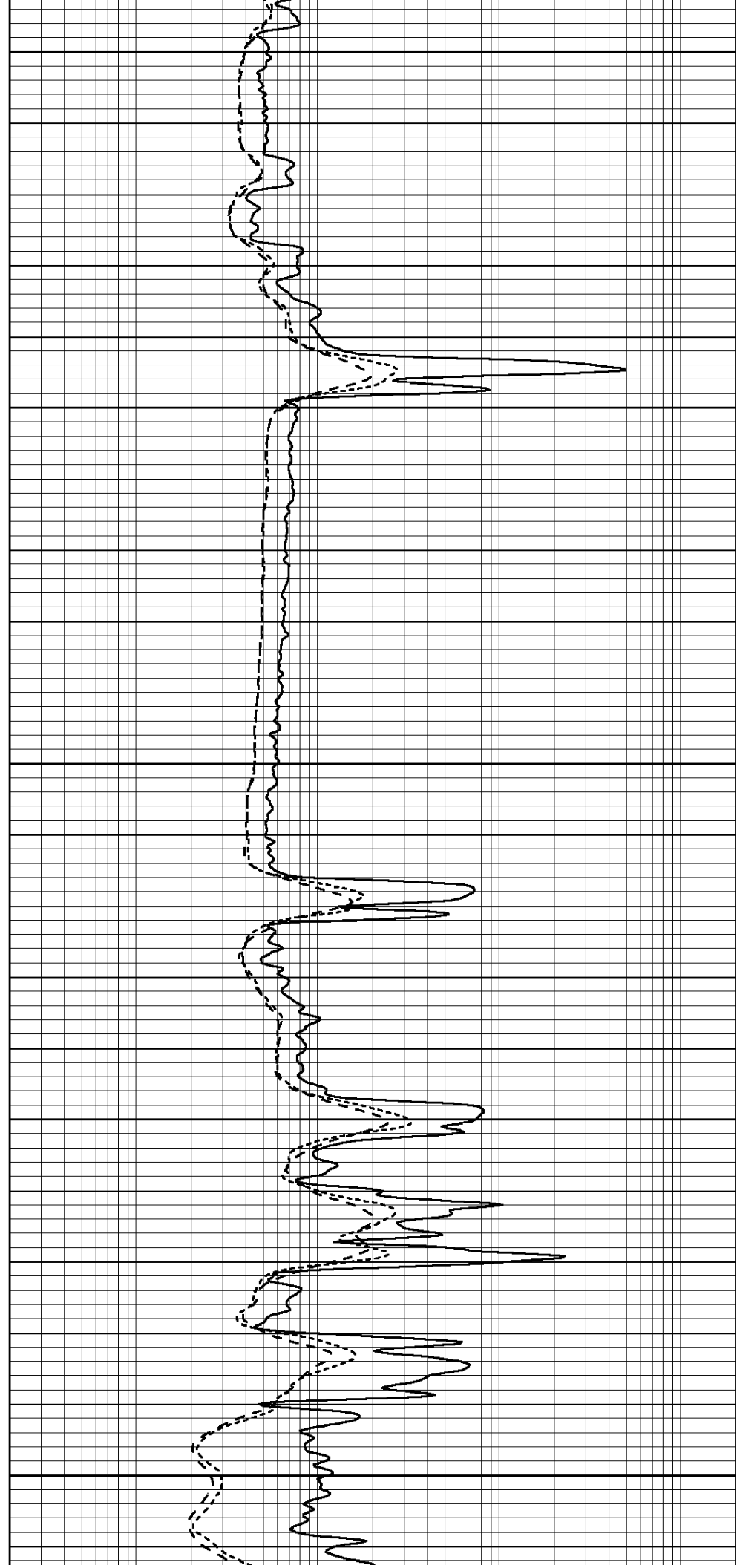
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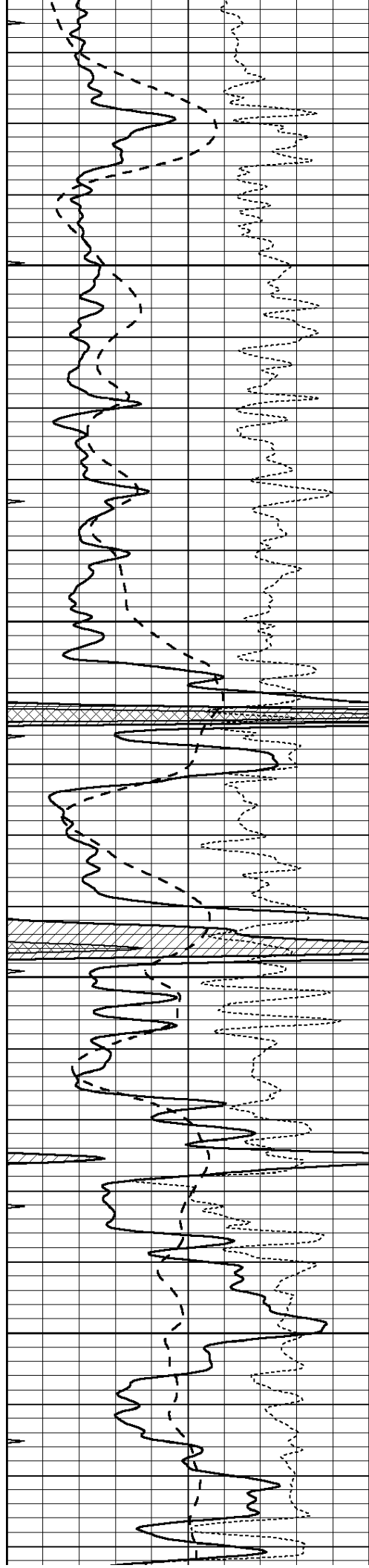
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4400



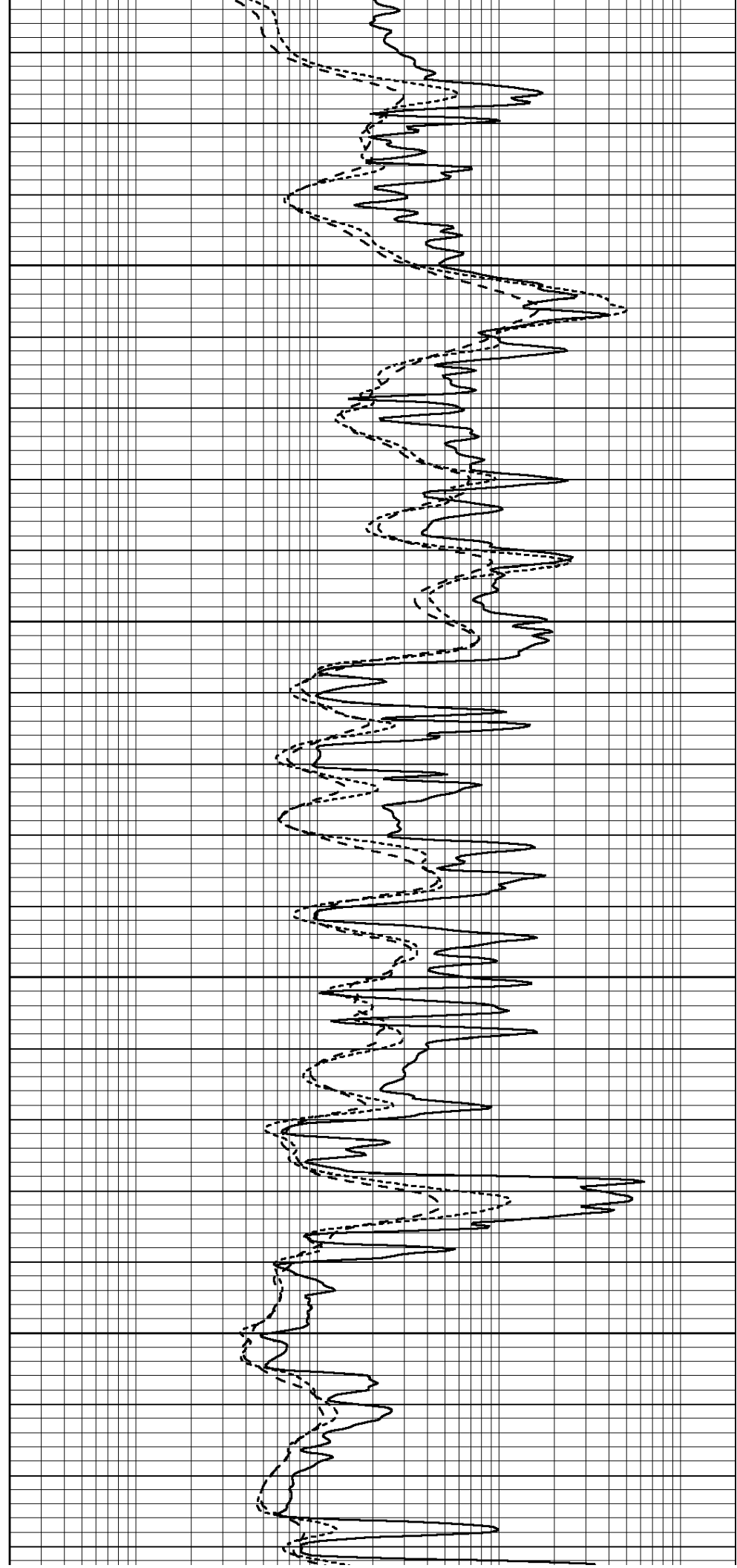


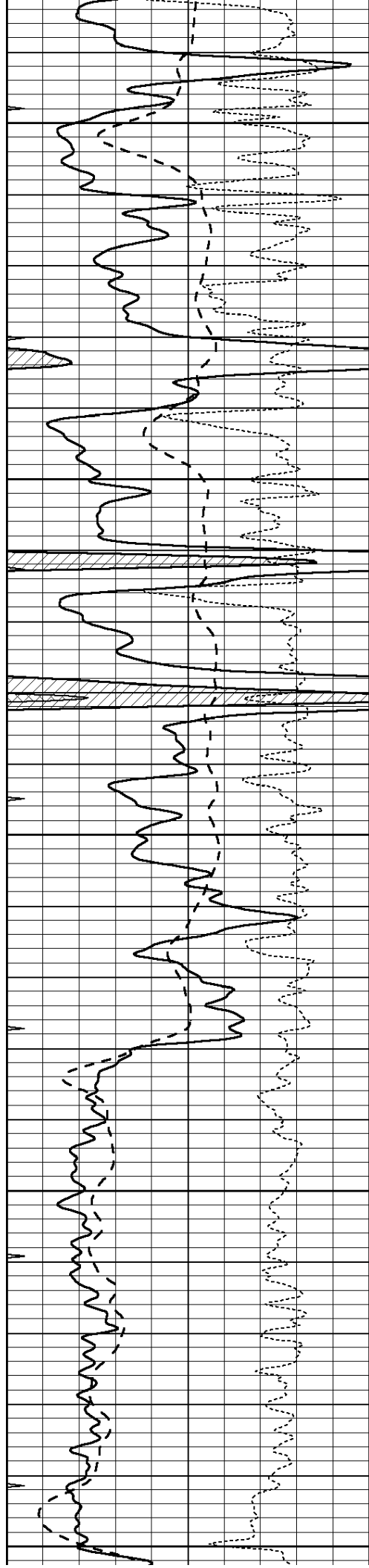
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4600





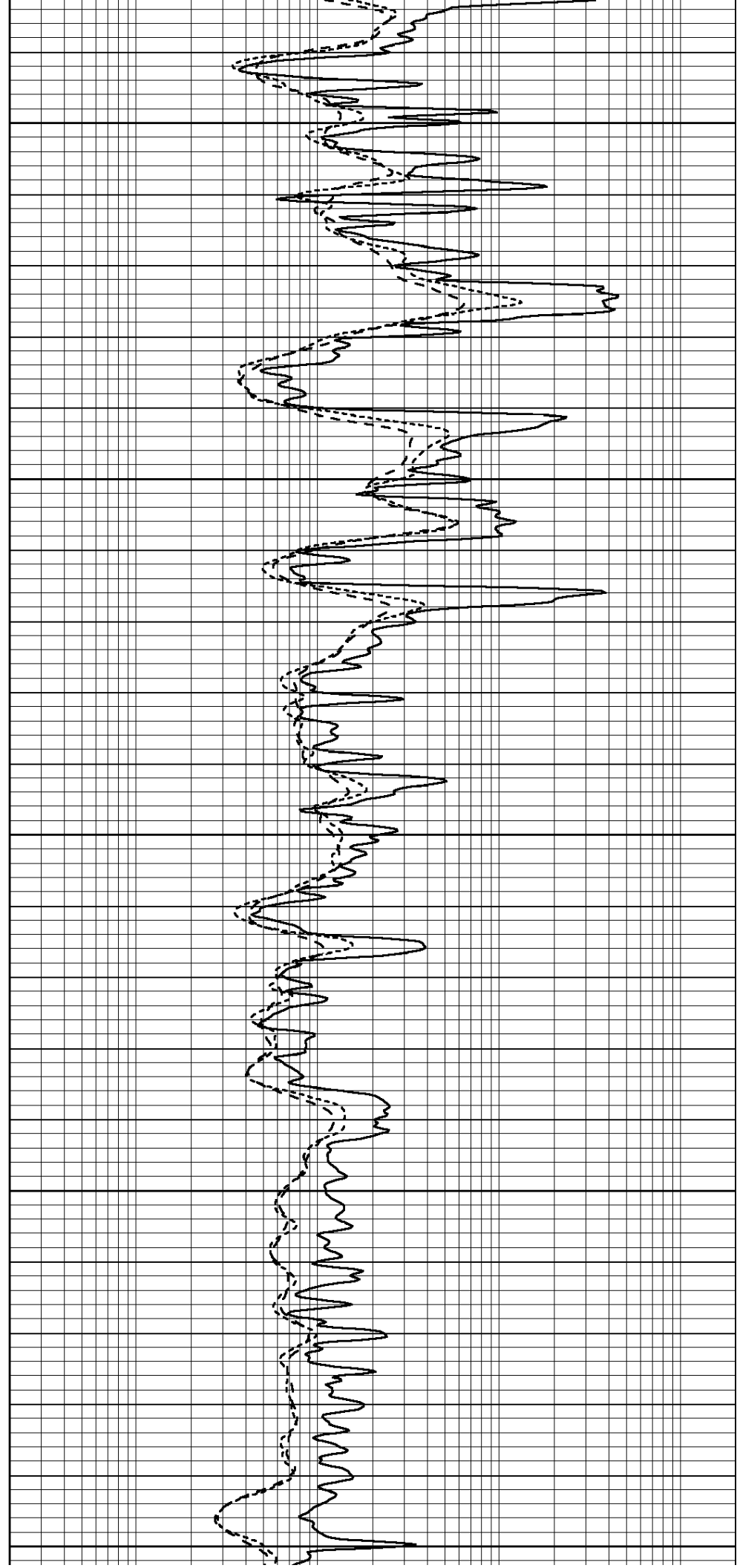
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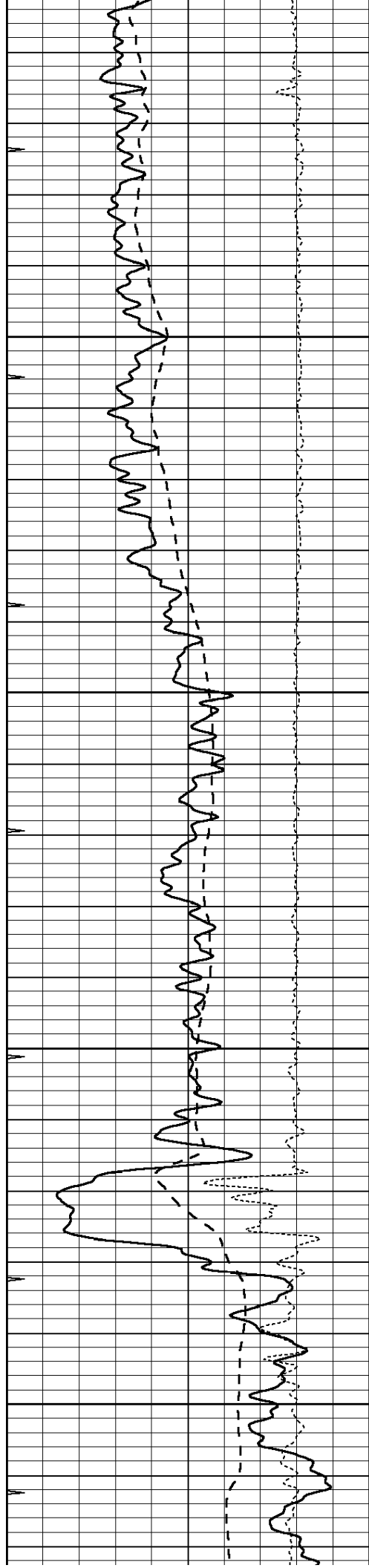
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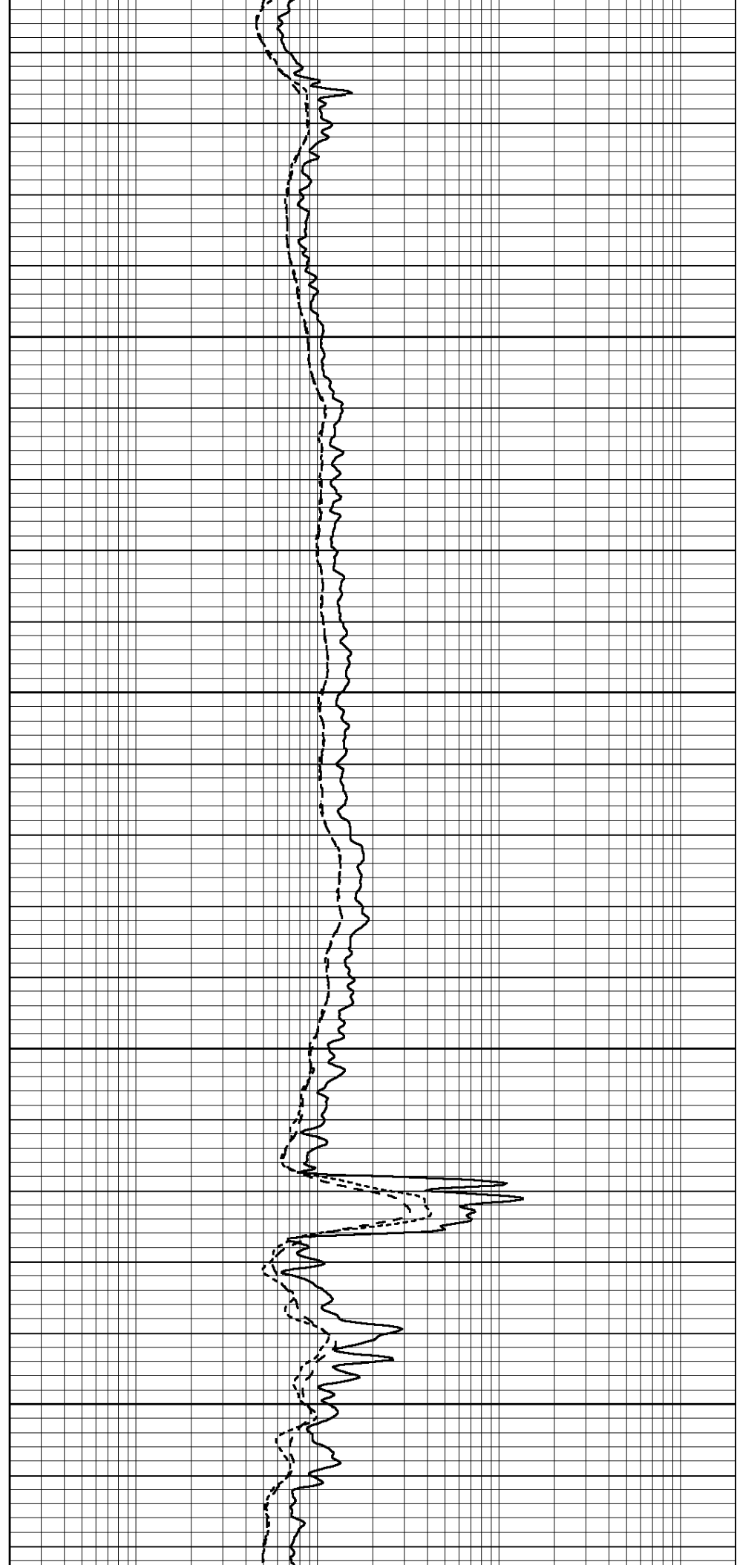


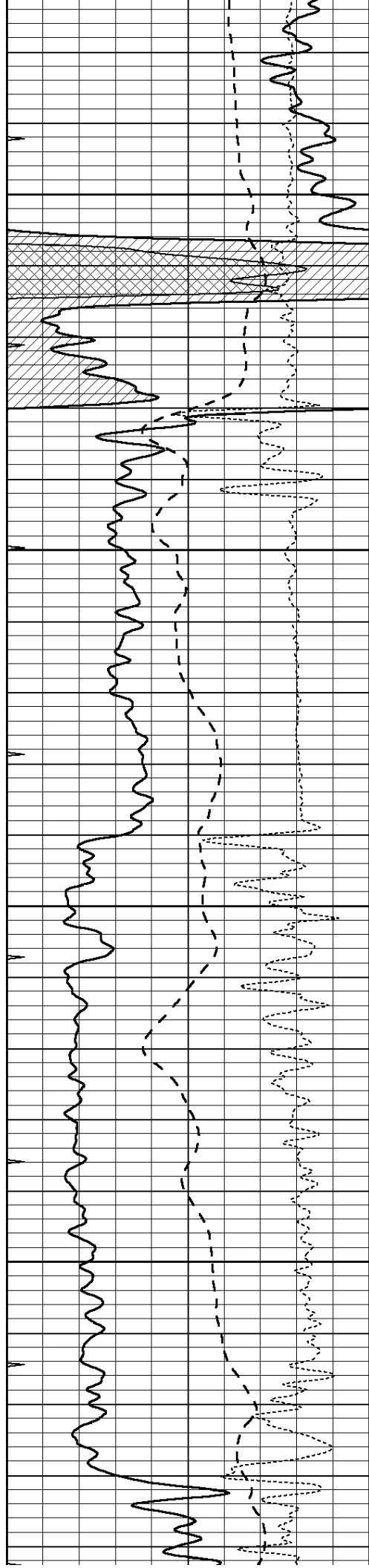
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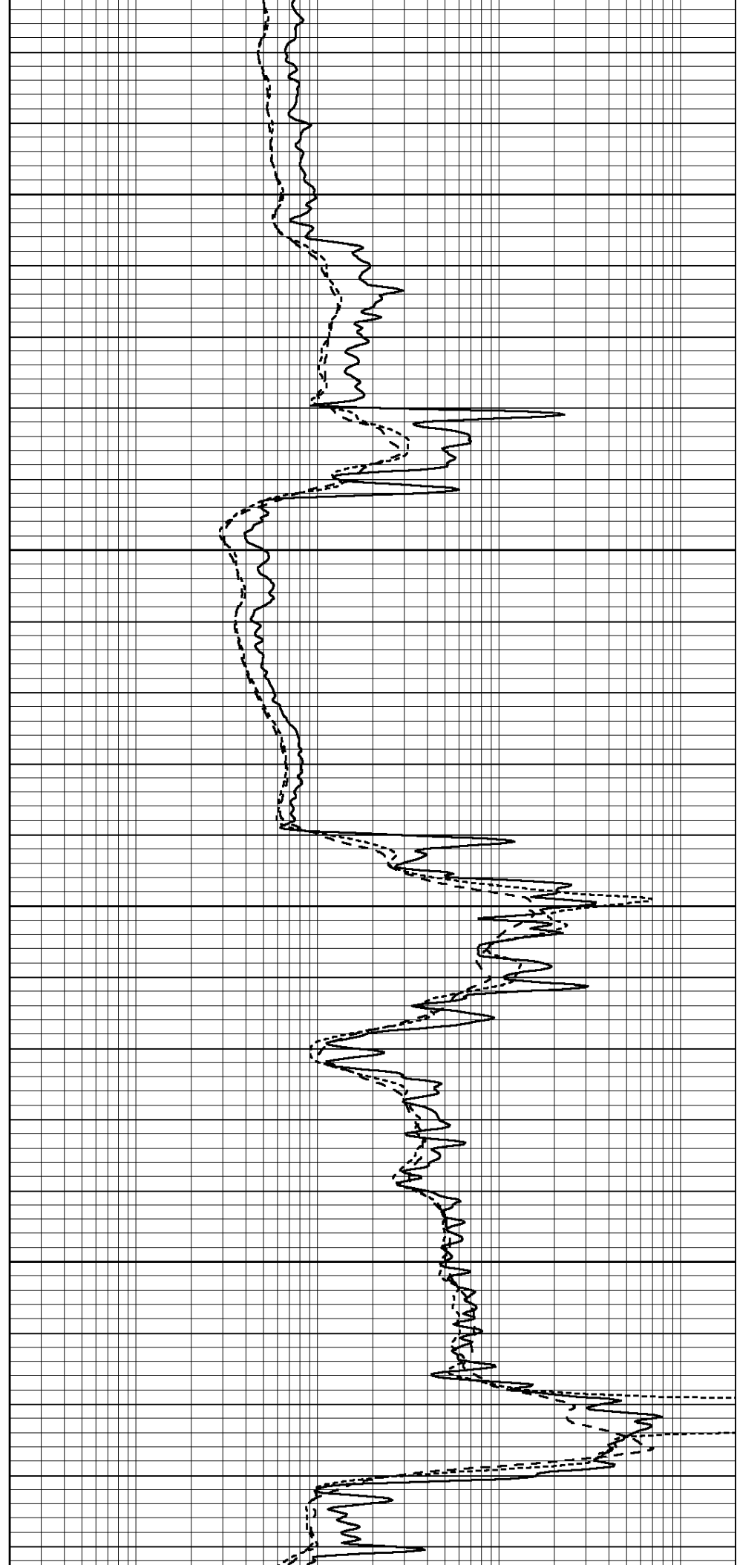


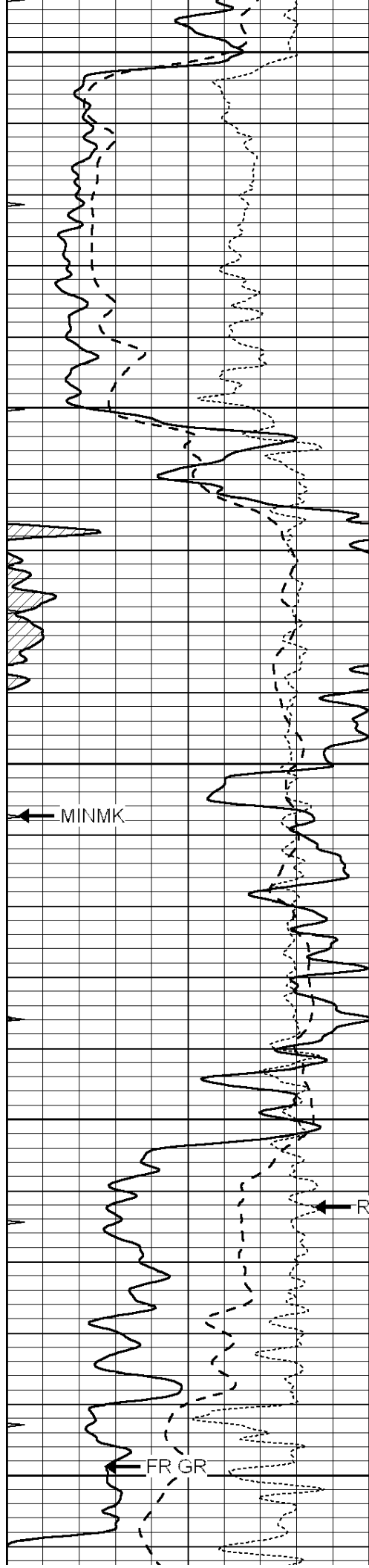
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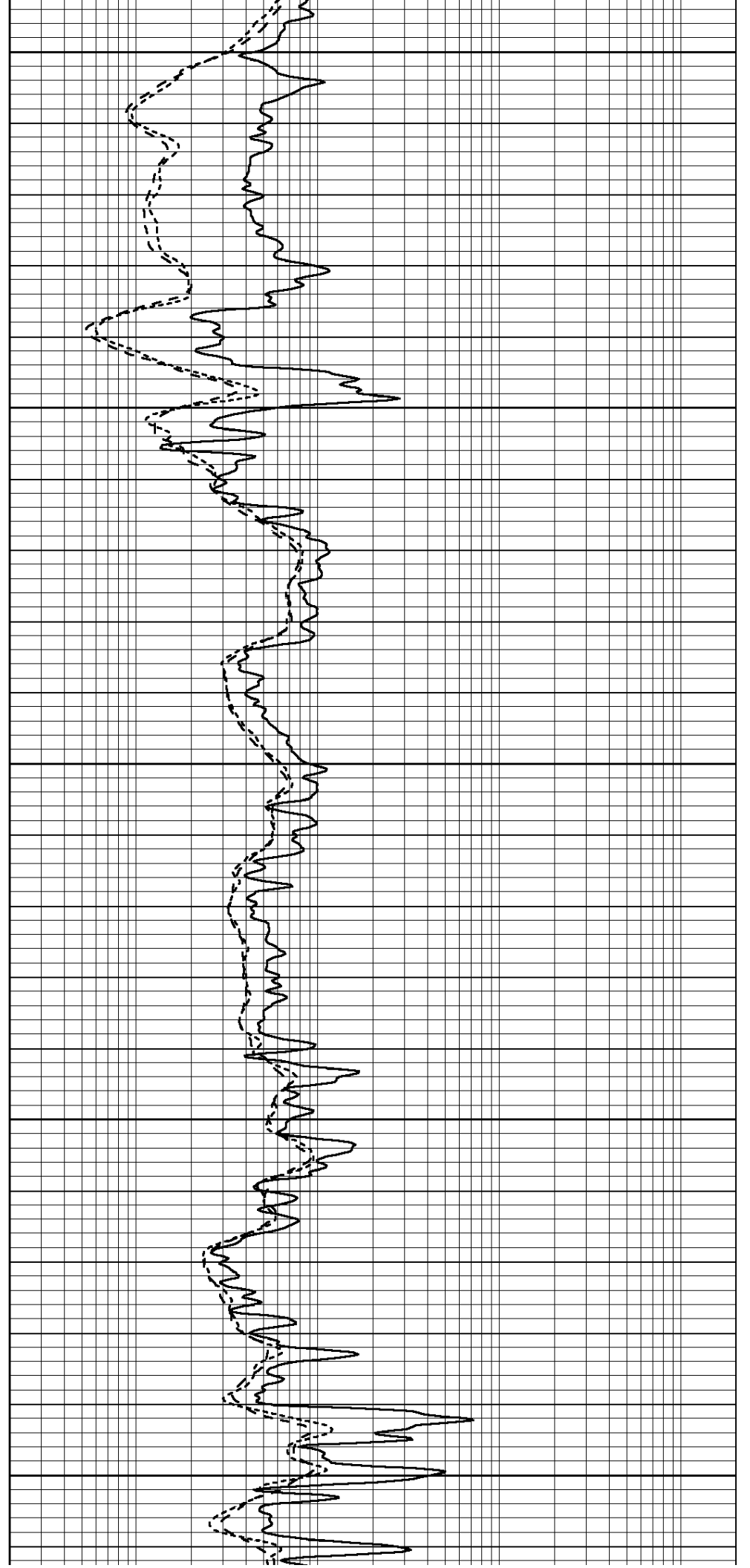
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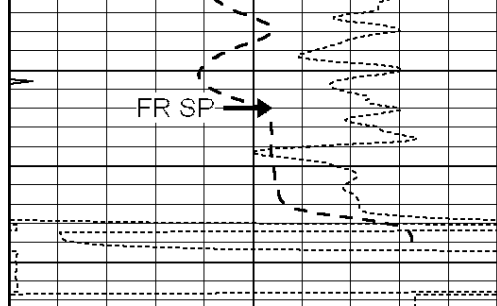
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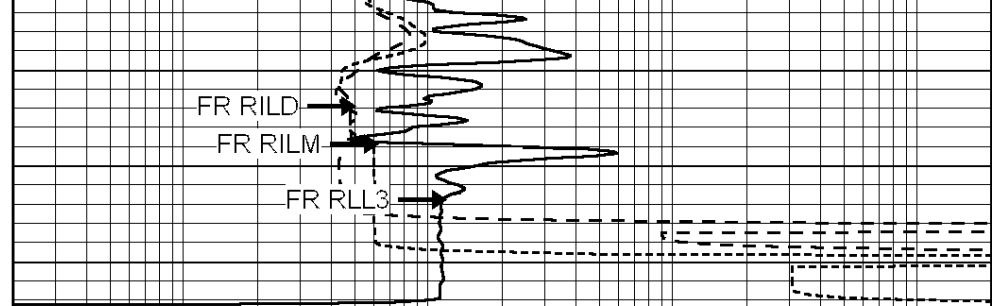
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0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

--- TD ---



0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



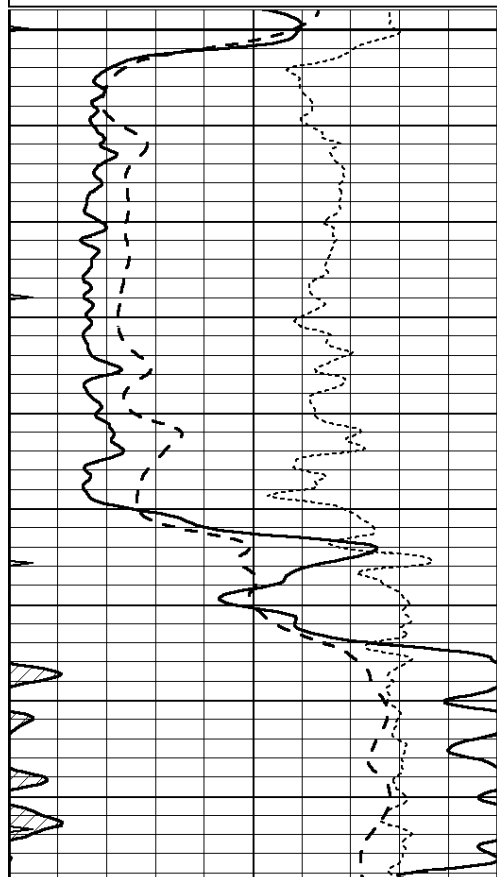
**SUPERIOR**  
Hays,  
Kansas

# REPEAT SECTION

Database File: 008453pdn.db  
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 Presentation Format: dil  
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 Charted by: Depth in Feet scaled 1:240

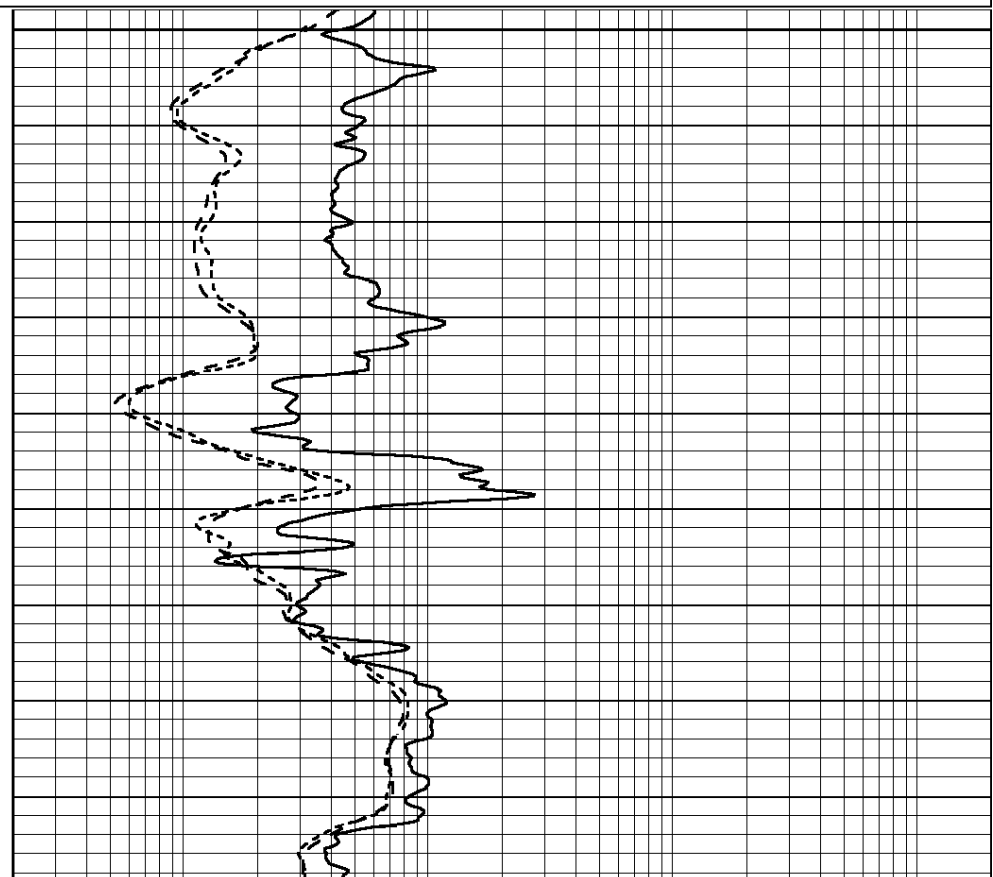
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-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

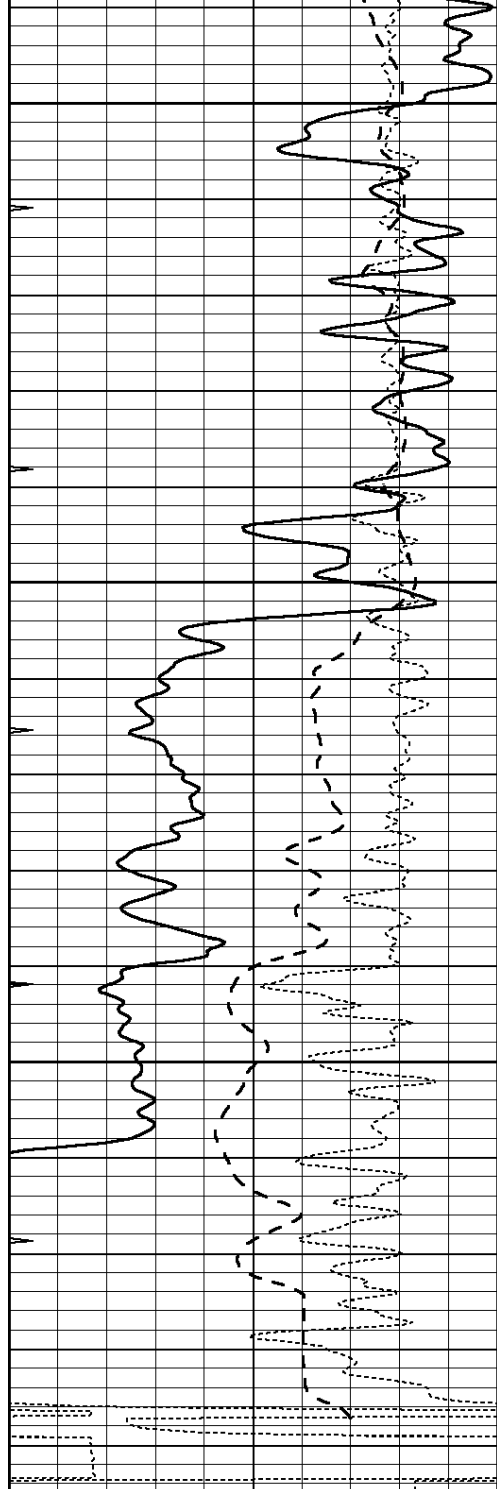
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



5300

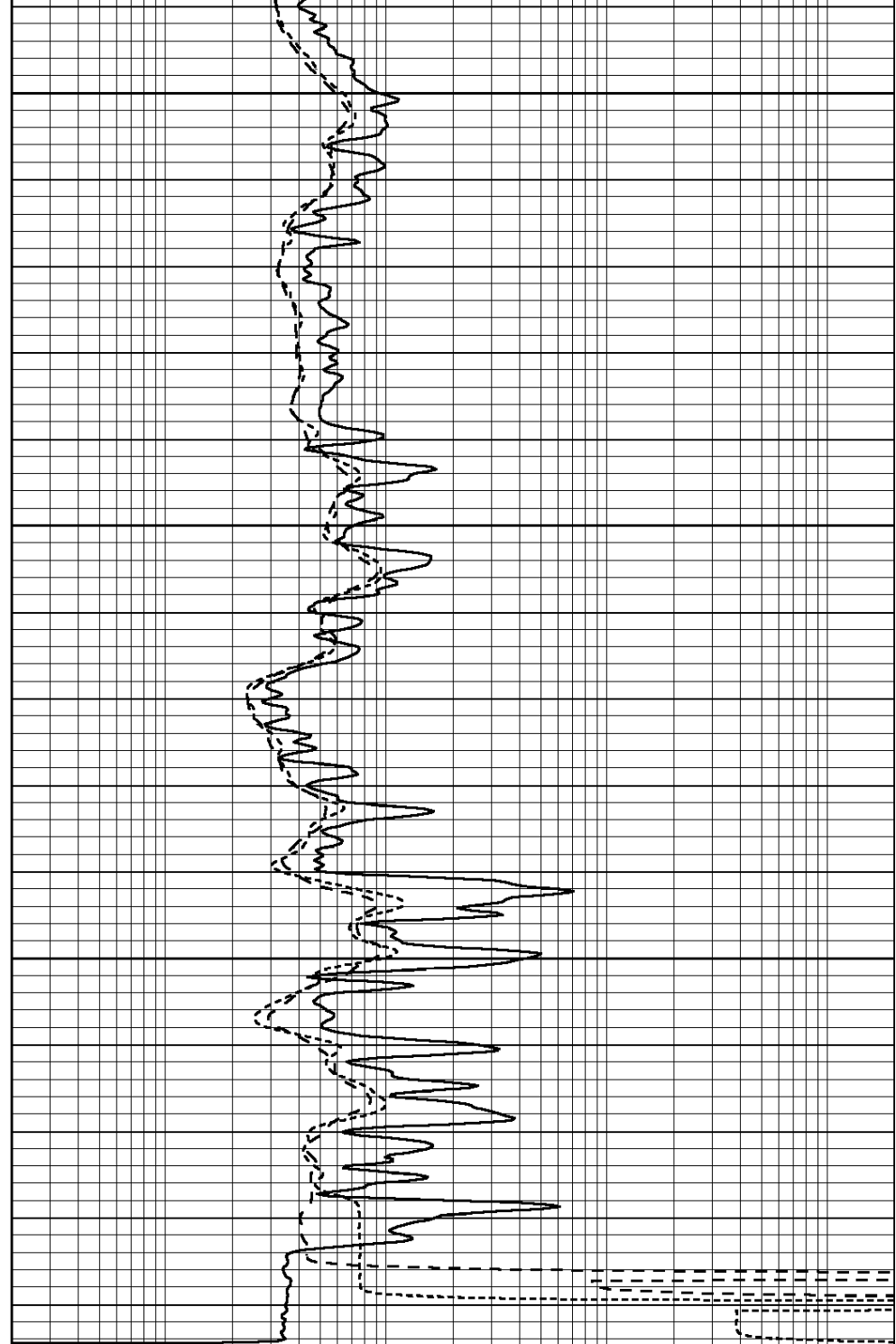
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5400  
5450  
5500

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20



0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Calibration Report

Database File: 008453pdm.db  
 Dataset Pathname: pass3.1A  
 Dataset Creation: Mon Jan 09 17:00:47 2012

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR  
 Performed: Mon Jan 09 14:20:30 2012

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	520.000	-18.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	550.000	-12.000
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	8.4	
High Ref	4.9	12.0	
	Gain: 3.2		Offset: -3.7

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: Mon Jan 09 14:52:08 2012

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
Calibrator Reading: 1.0 cps

Sensitivity: 0.6500 GAPI/cps