



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company	WOOLSEY OPERATING COMPANY, LLC.		
Well	JAHAY #5		
Field	KOCHIA POOL		
County	BARBER	State	KANSAS
Location:	APL # : 15-007-23872-0000 1025' FSL & 2190' FWL NW - NE - SE - SW		Other Services CDL/CNL/PE
Permanent Datum	SEC 31 TWP 33S RGE 10W	Elevation	K.B. 1466 D.F. 1464 G.L. 1453
Log Measured From	GROUND LEVEL	Elevation	1453
Drilling Measured From	KELLY BUSHING 13' A.G.L. KELLY BUSHING		
Date	5/21/12		
Run Number	ONE		
Depth Driller	5145		
Depth Logger	5150		
Bottom Logged Interval	5148		
Top Log Interval	00		
Casing Driller	10 3/4" @ 217'		
Casing Logger	216		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 4000 PPM	
Density / Viscosity	9.2/45		
pH / Fluid Loss	10.0/9.6		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.75 @ 86F		
Rmf @ Meas. Temp	.56 @ 86F		
Rmc @ Meas. Temp	.90 @ 86F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.51 @ 126F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	126F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	SCOTT ALBERG		

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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 (785) 628-6395
DIRECTIONS
MEDICINE LODGE, KS. - 9 S. TO GERLANE RD. - 9 E. - N. INTO



SUPERIOR
Hays,
Kansas

MAIN SECTION

Database File: 009202pe.db
Dataset Pathname: pass3.2
Presentation Format: dil2
Dataset Creation: Tue May 22 00:20:38 2012 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:600

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

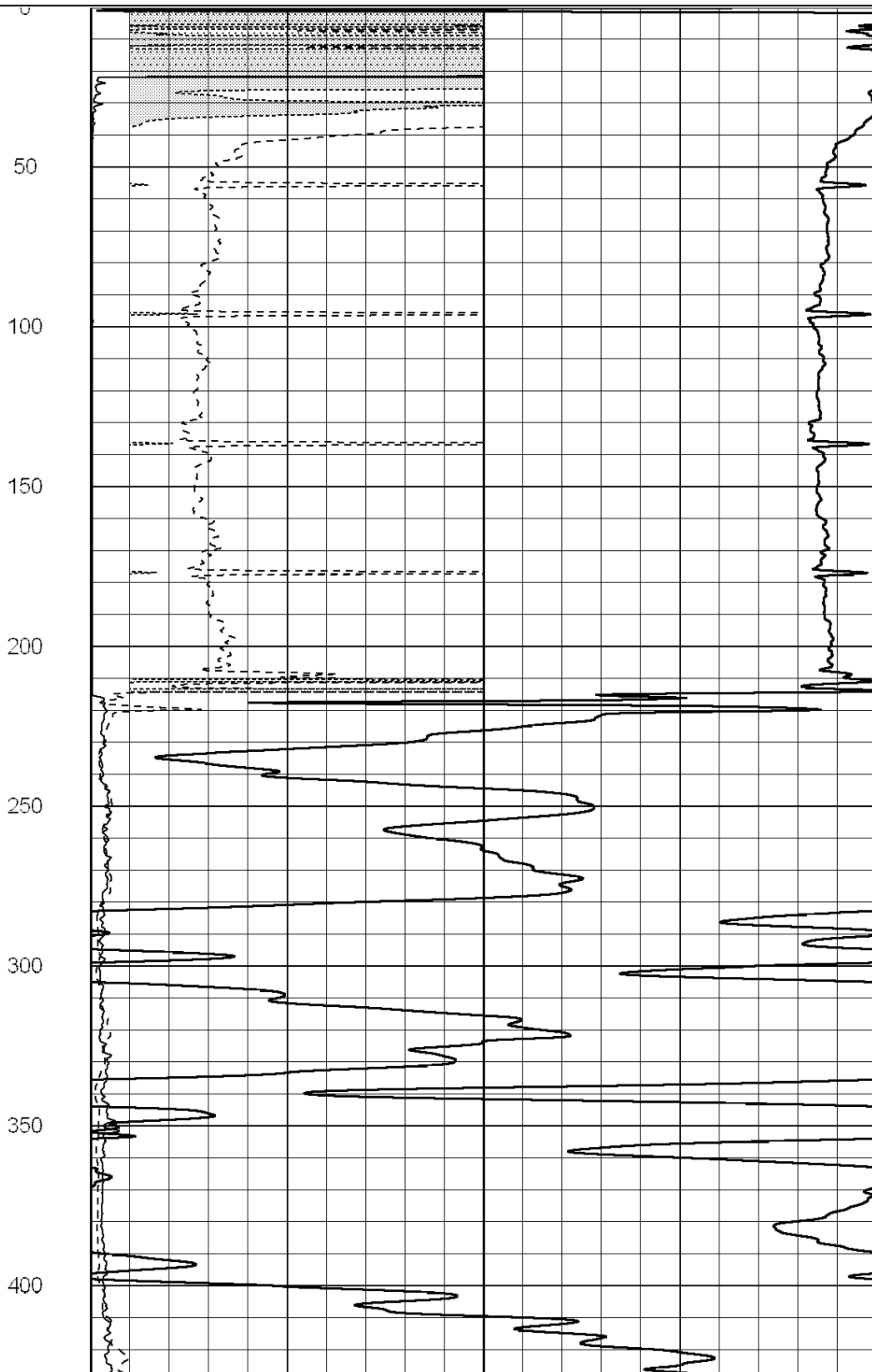
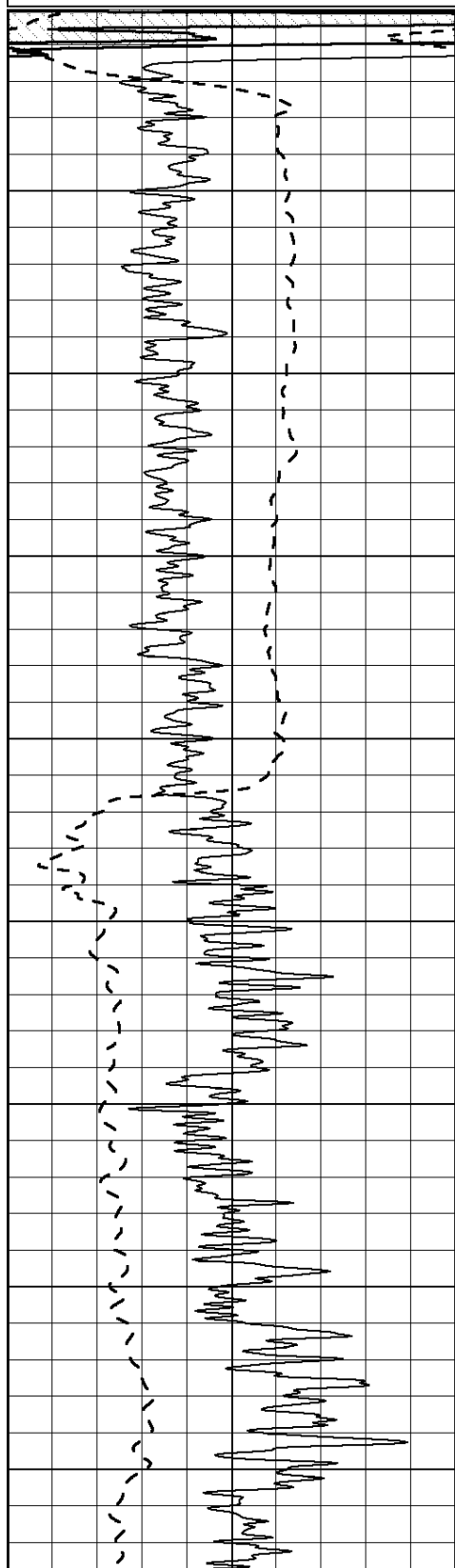
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0	Deep Induction (Ohm-m)	50
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1000	CILD (mmho/m)	0
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50	RILD X10 (Ohm-m)	500
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50	RLL3 X10 (Ohm-m)	500
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450

500

550

600

650

700

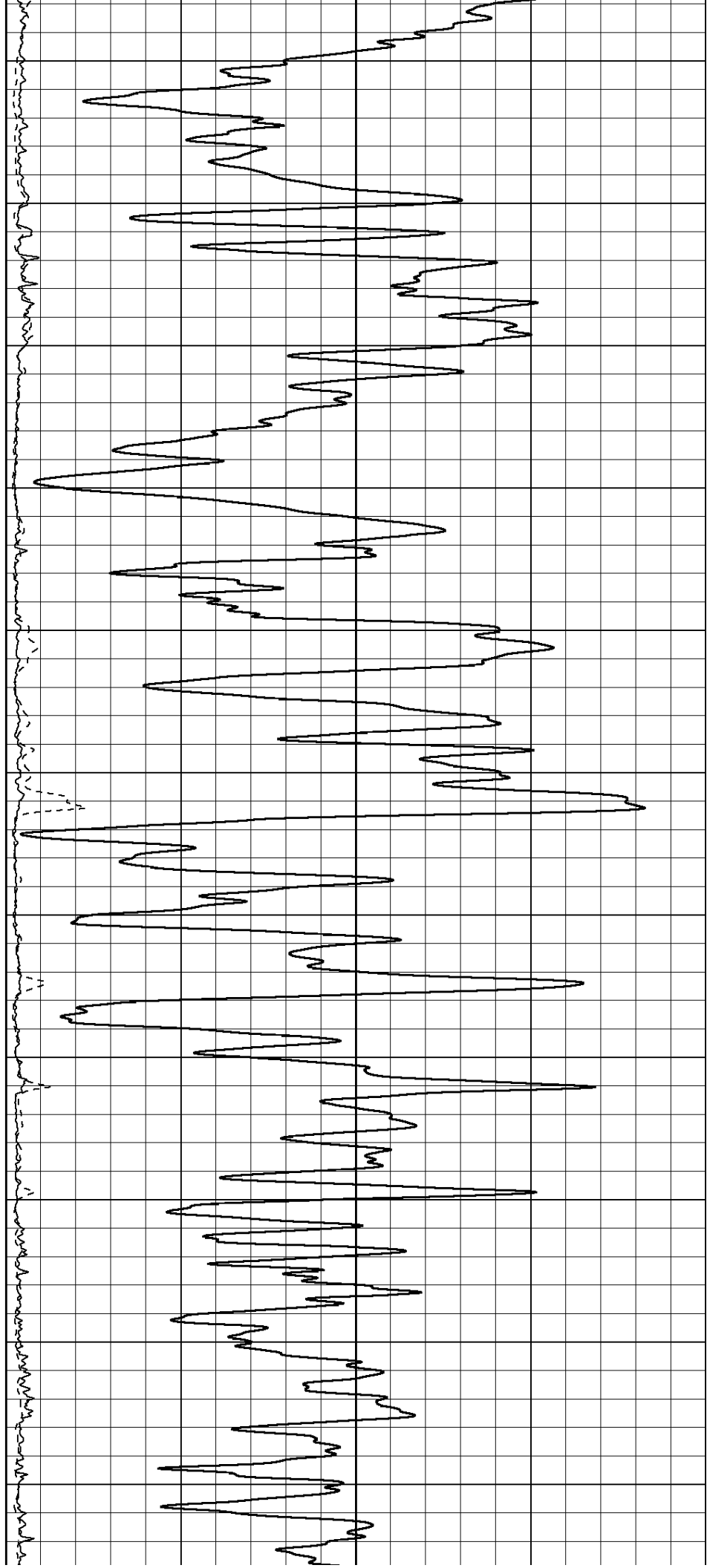
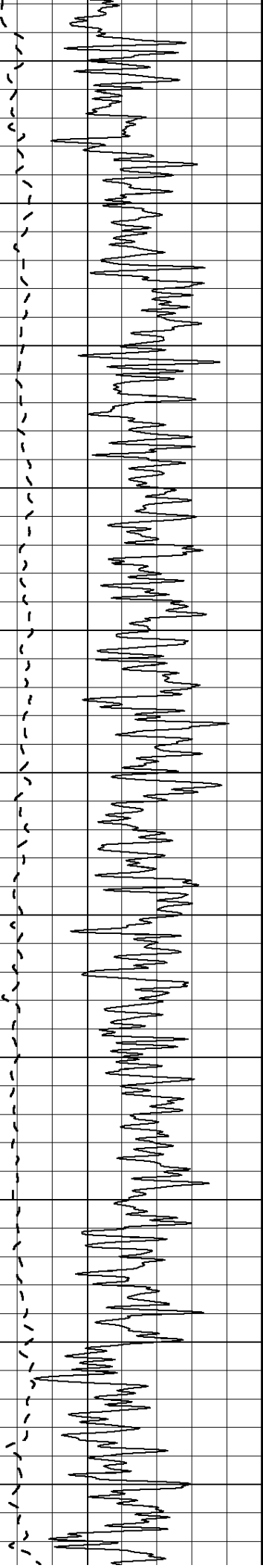
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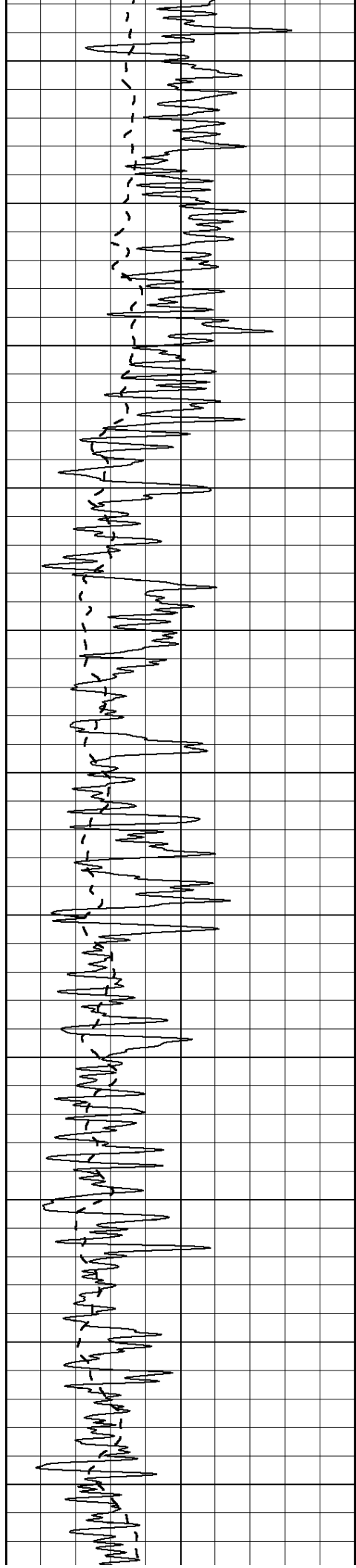
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850

900

950





1000

1050

1100

1150

1200

1250

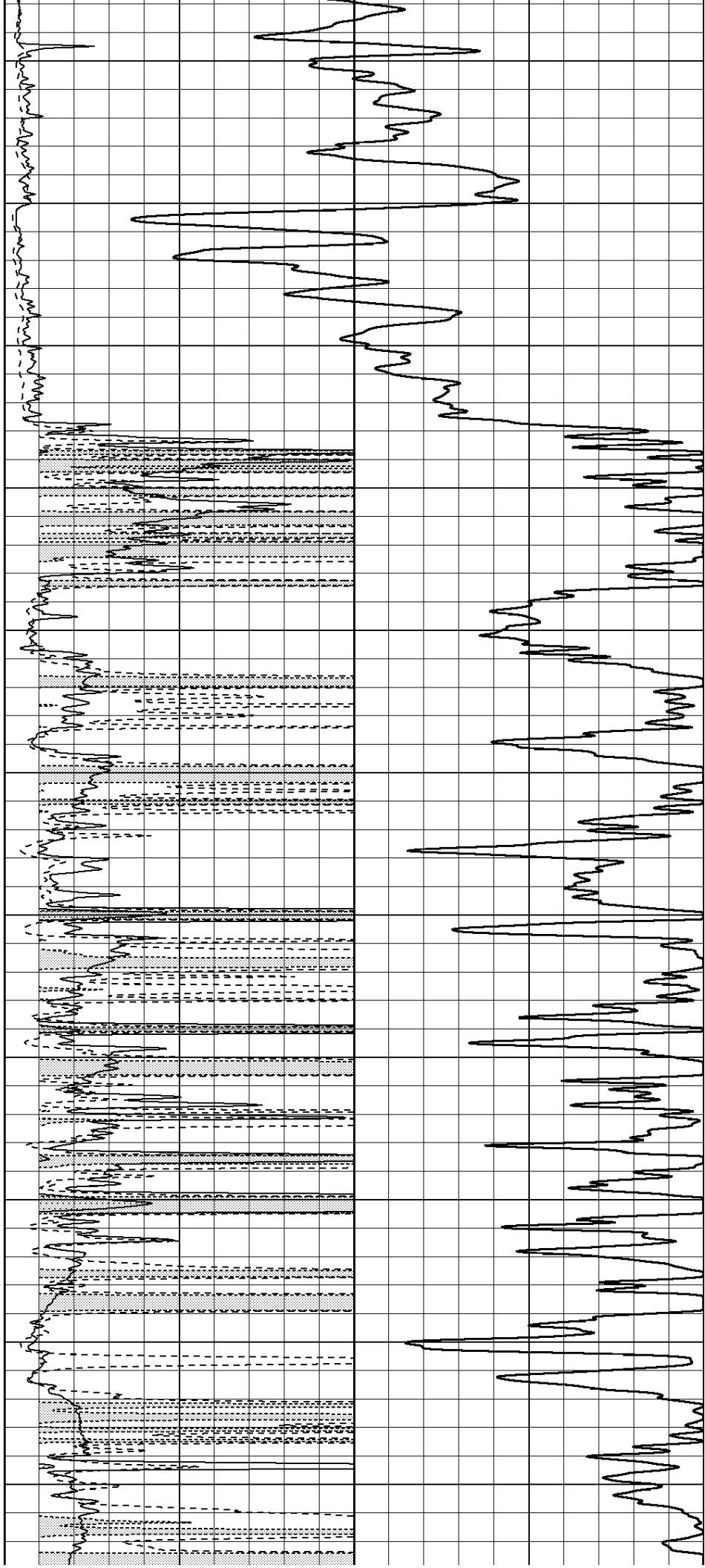
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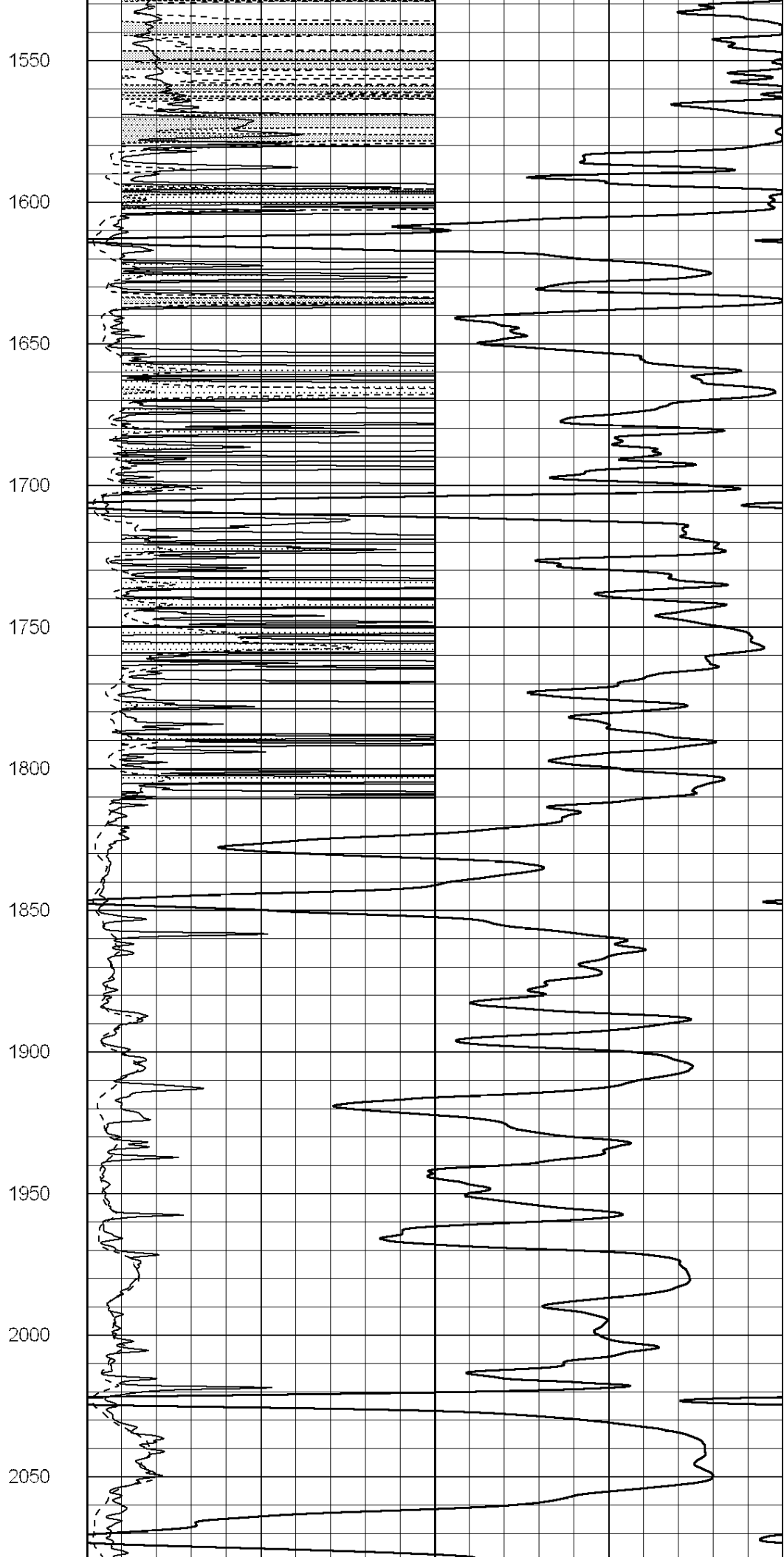
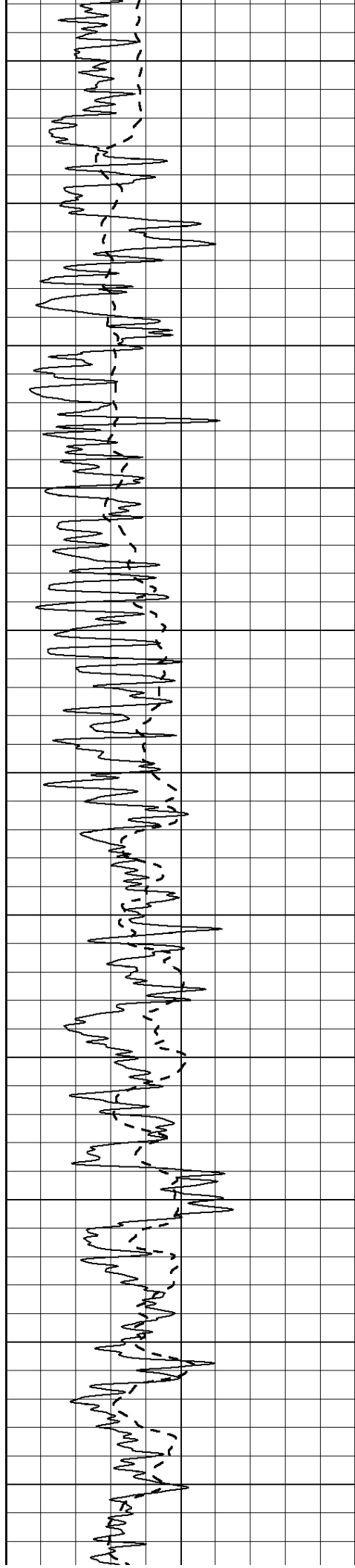
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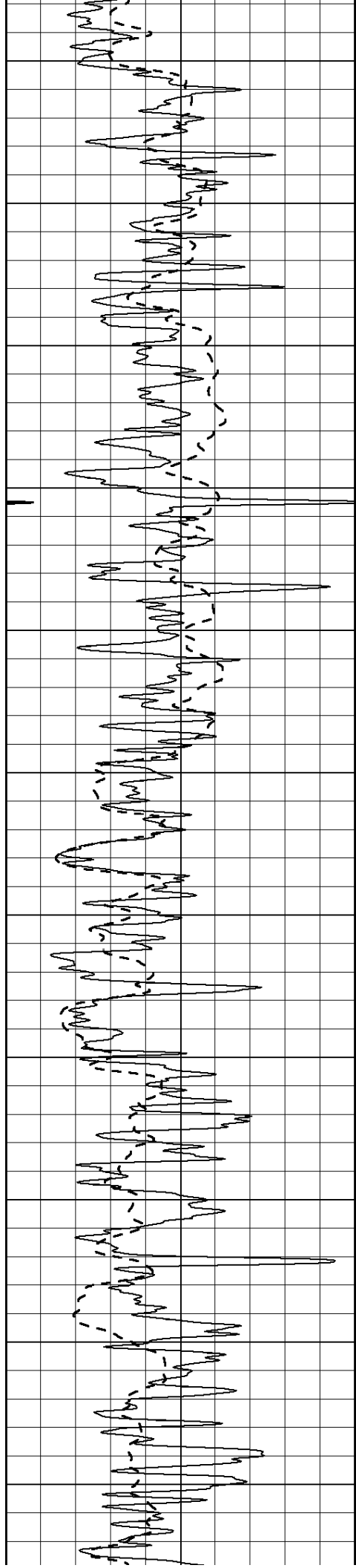
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2150

2200

2250

2300

2350

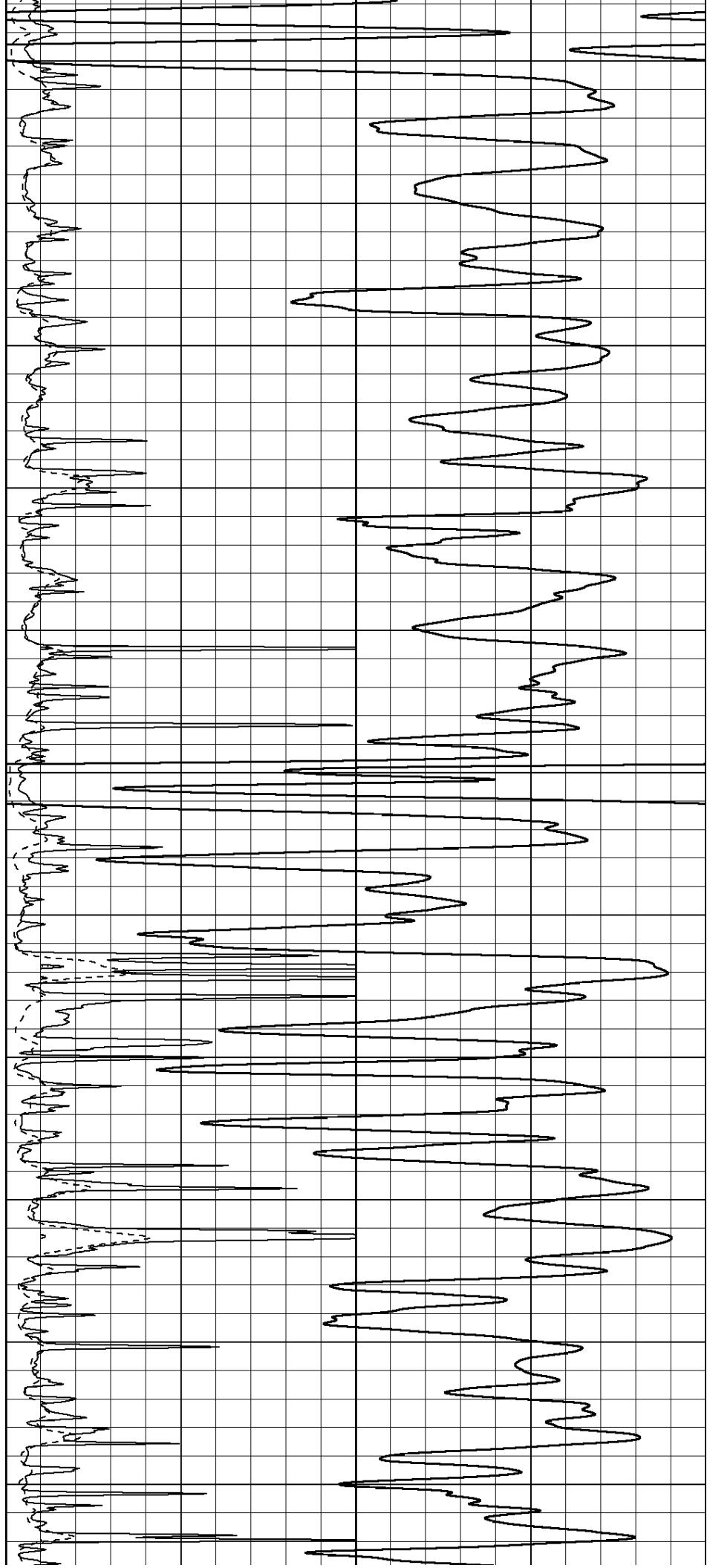
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2500

2550

2600



2650

2700

2750

2800

2850

2900

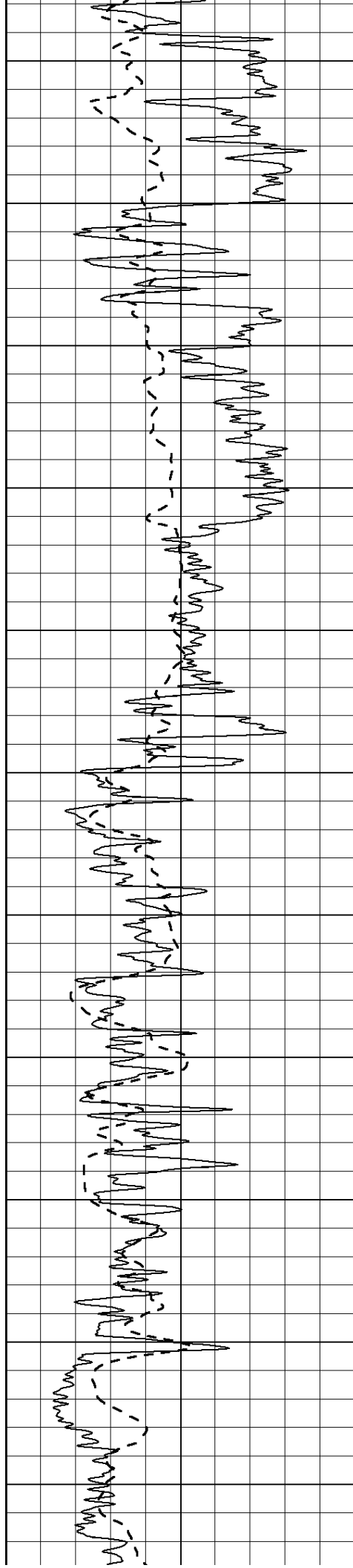
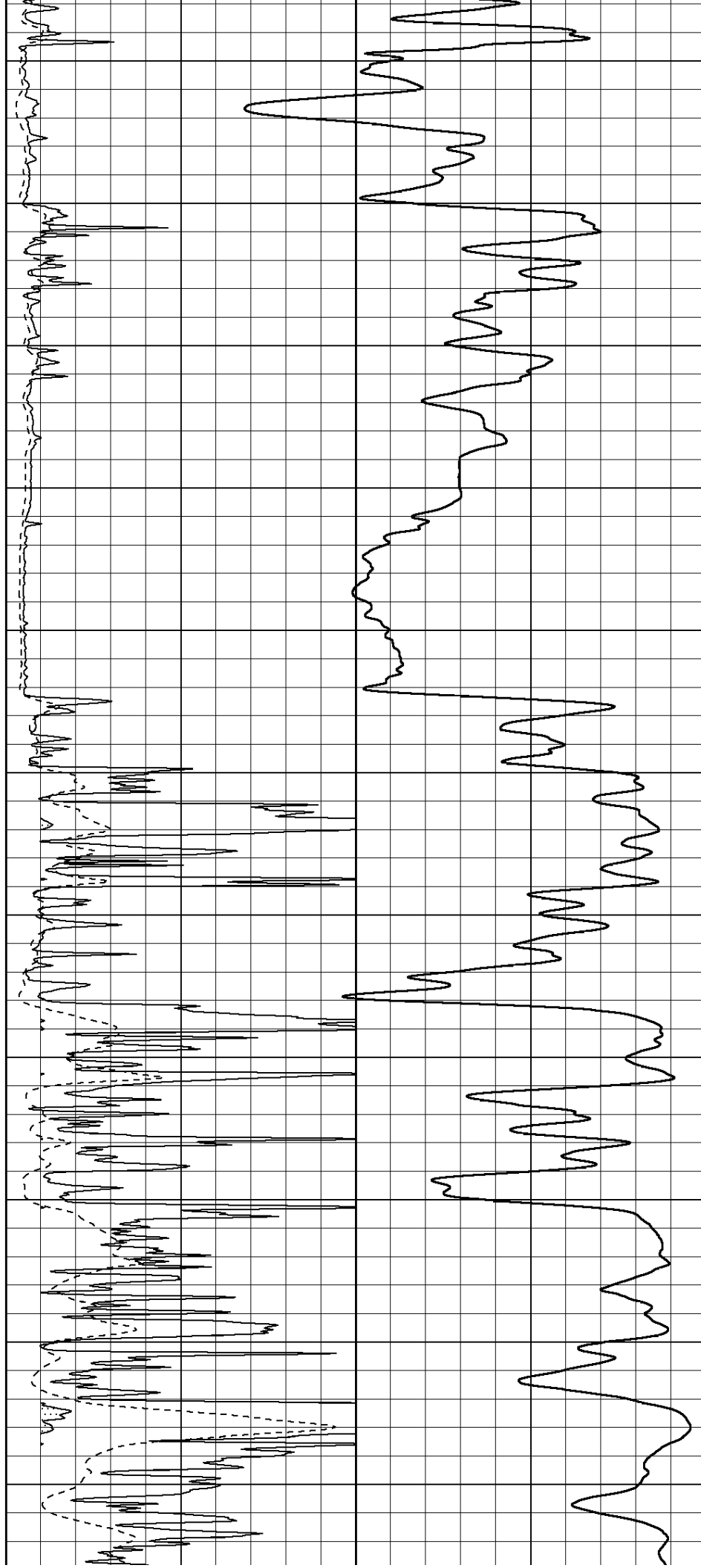
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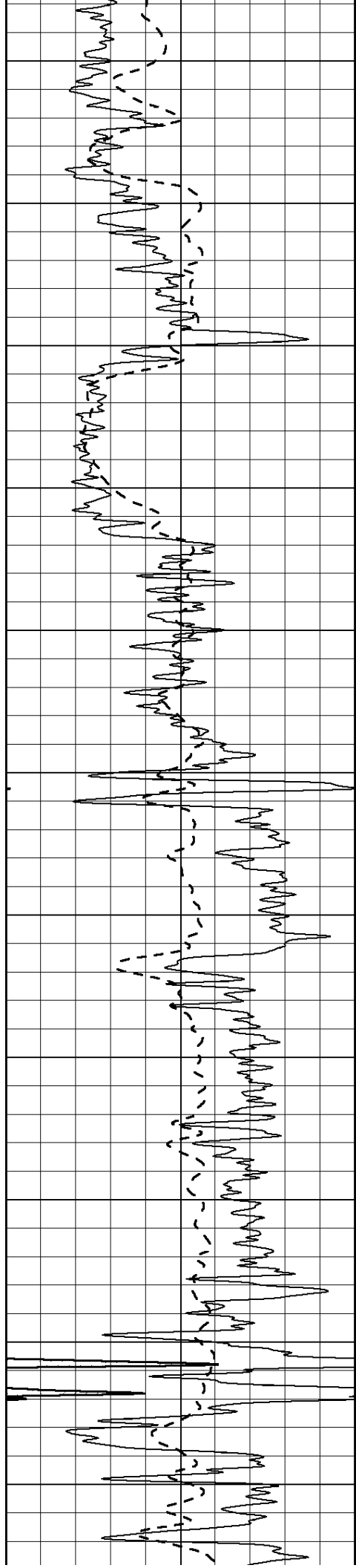
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3150





3200

3250

3300

3350

3400

3450

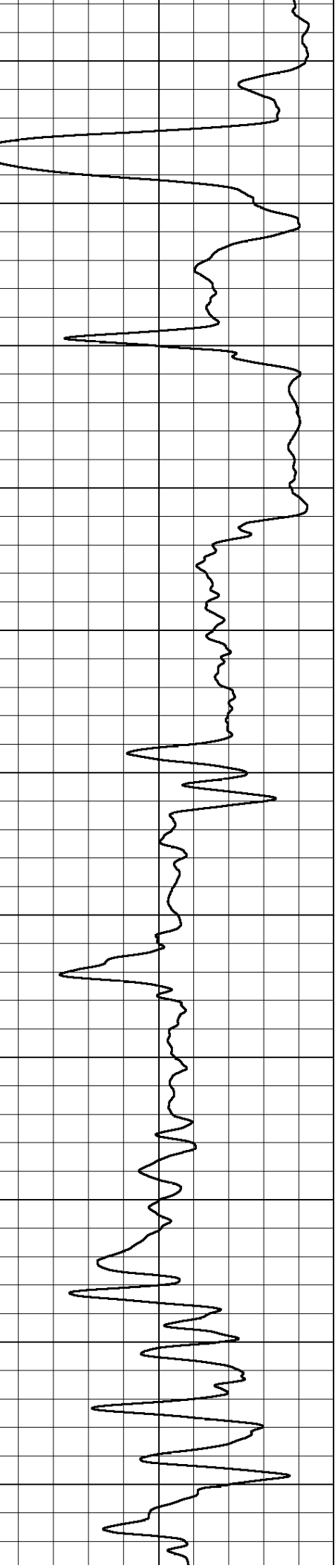
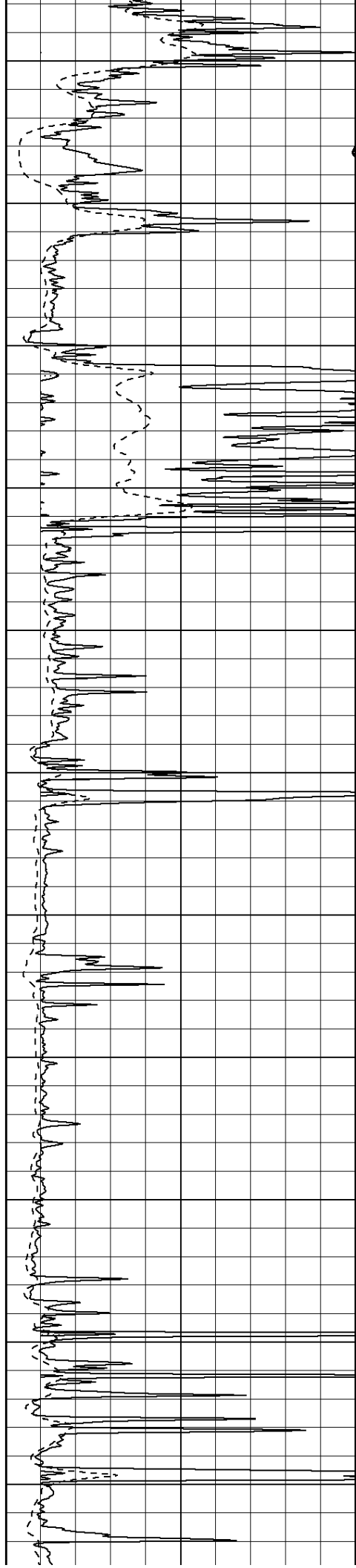
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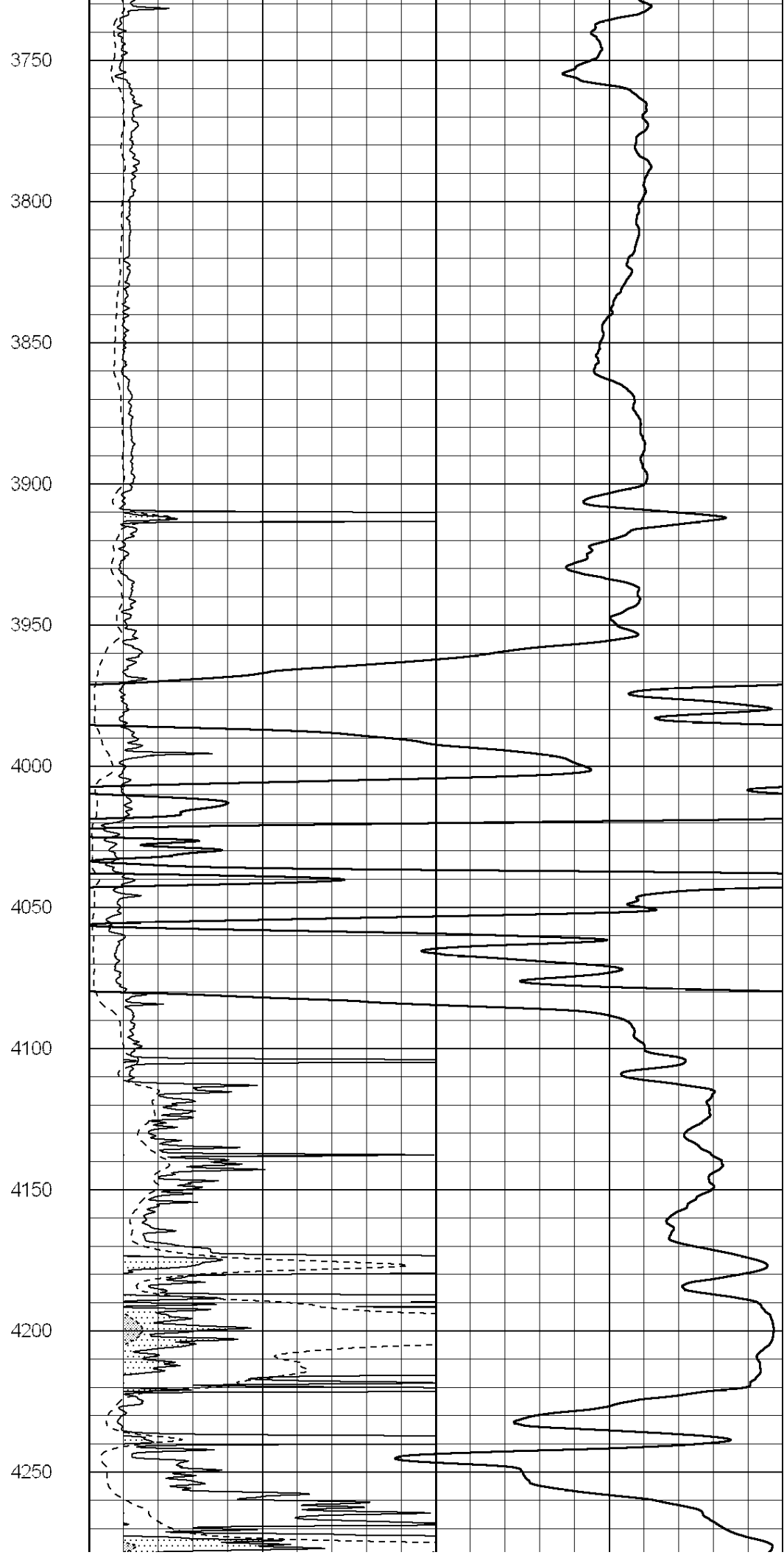
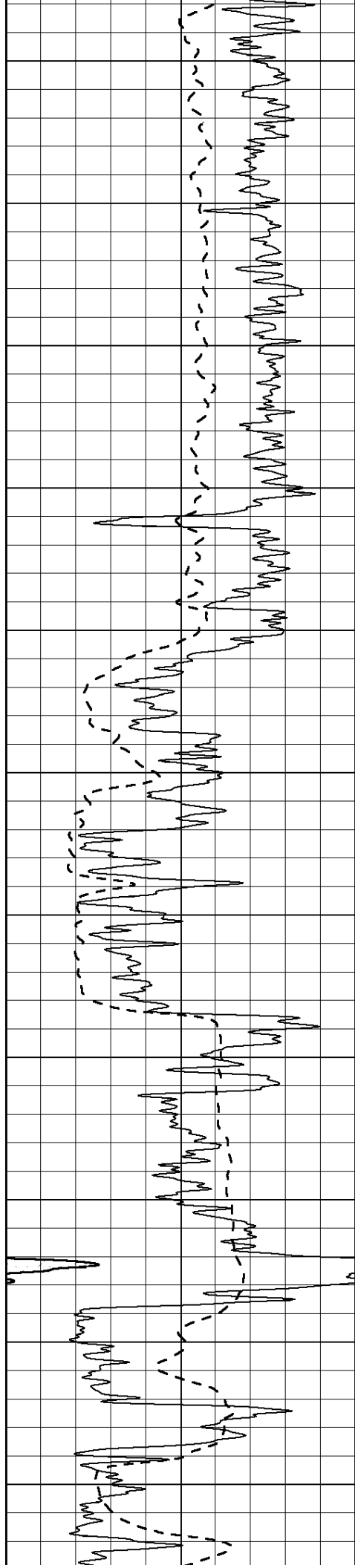
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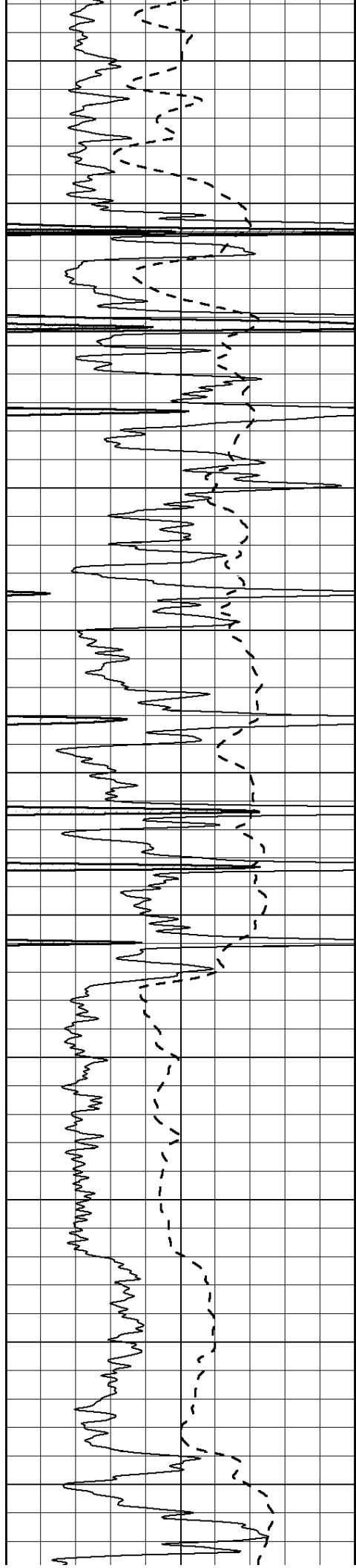
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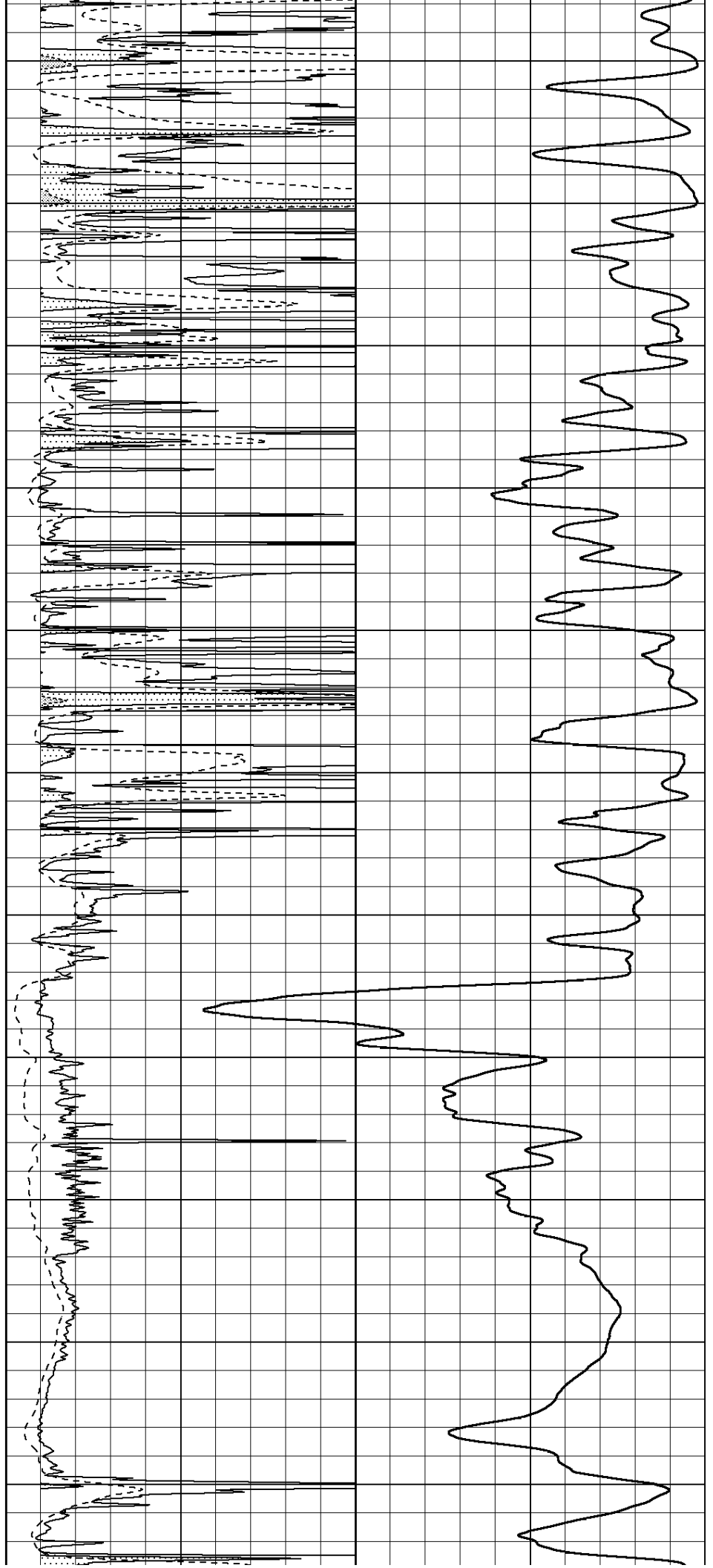
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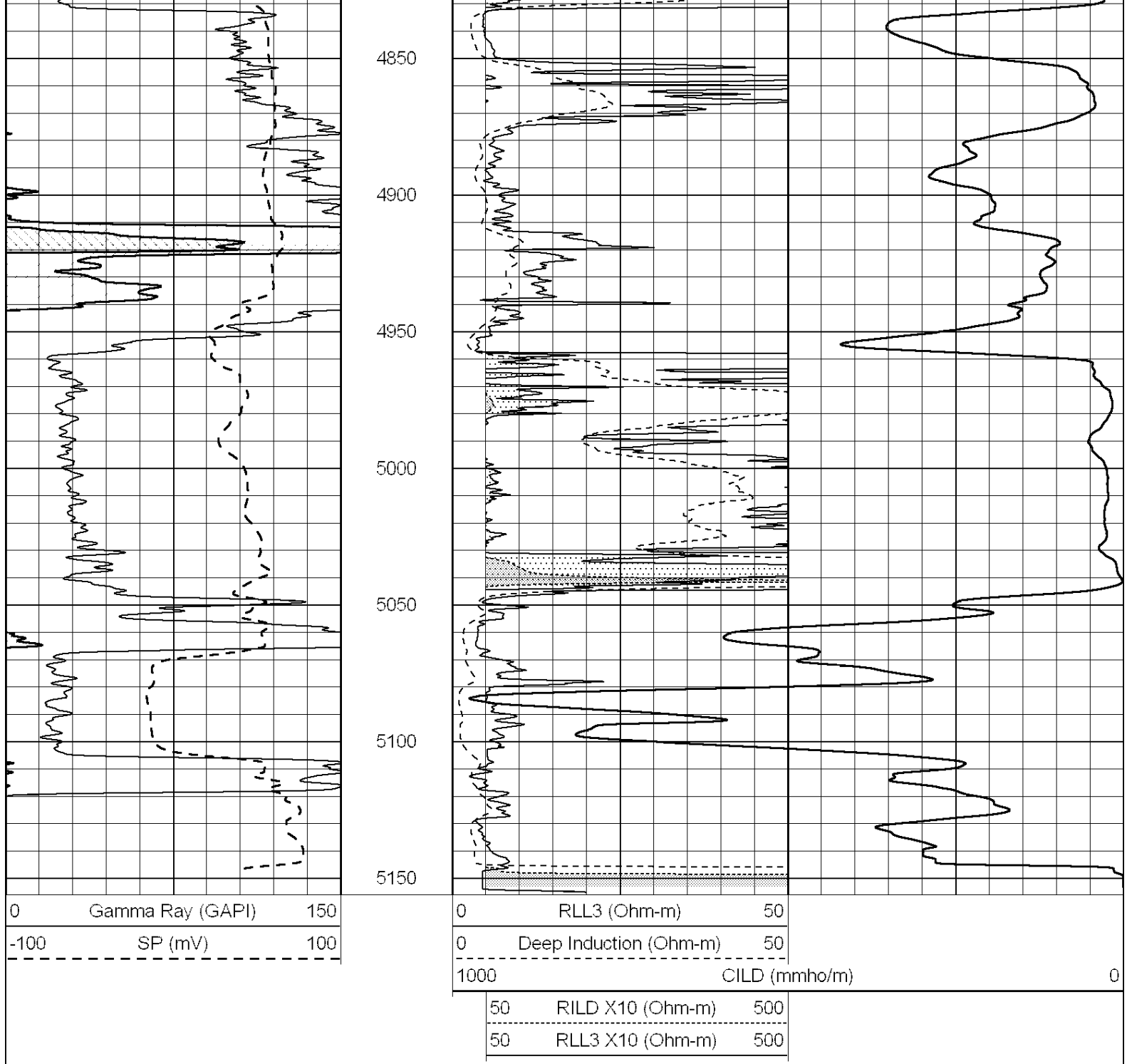
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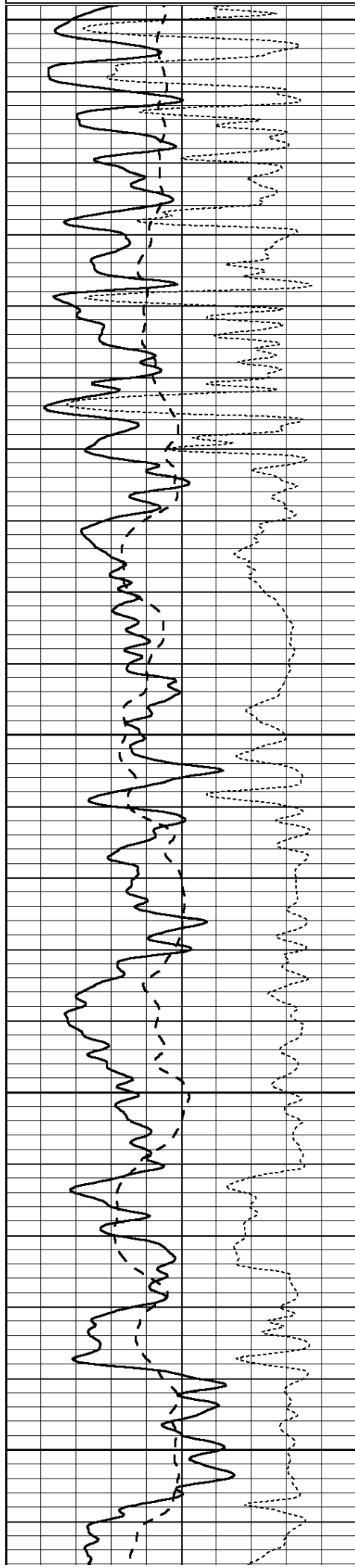
SUPERIOR
Hays,
Kansas

MAIN SECTION

Database File: 009202pe.db
Dataset Pathname: pass3.1
Presentation Format: _dil
Dataset Creation: Mon May 21 23:56:43 2012 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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

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



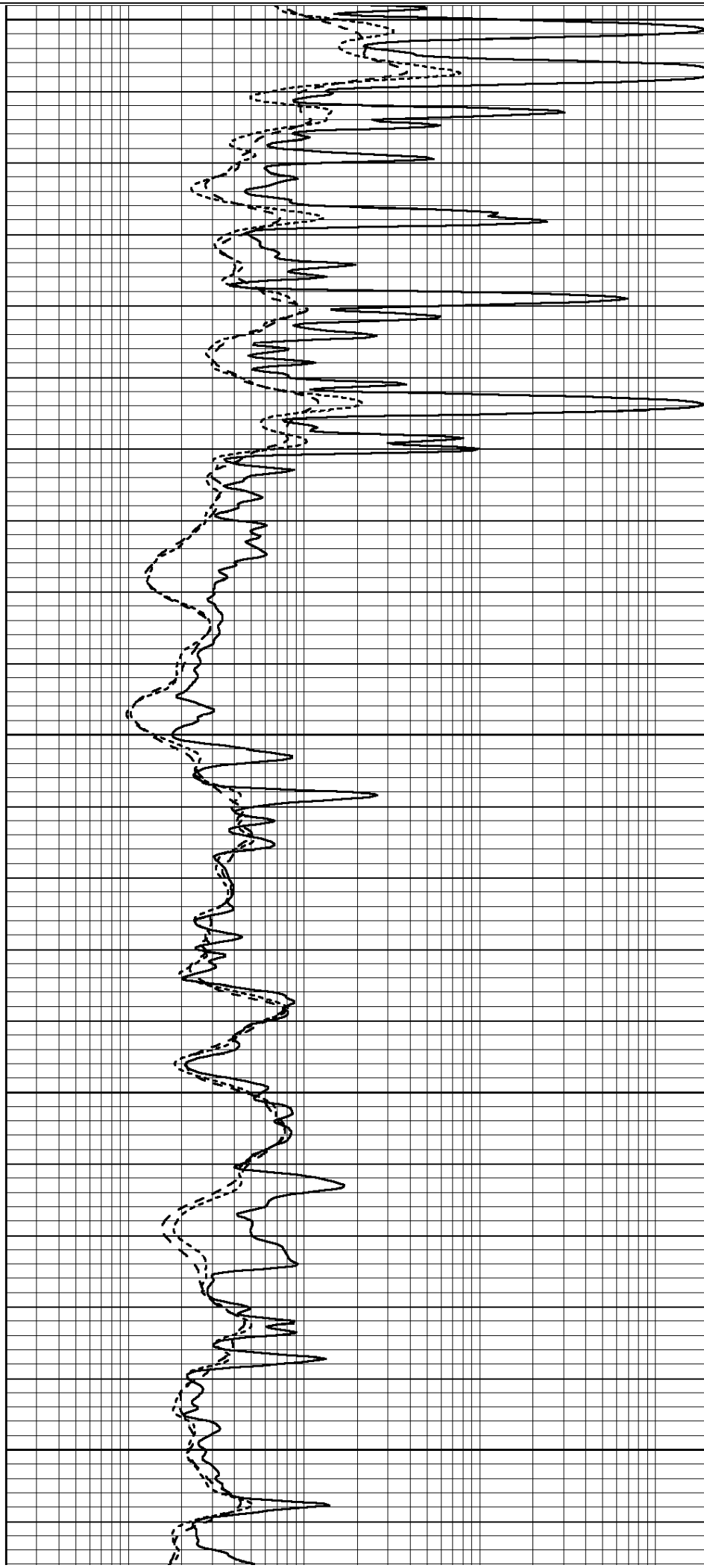
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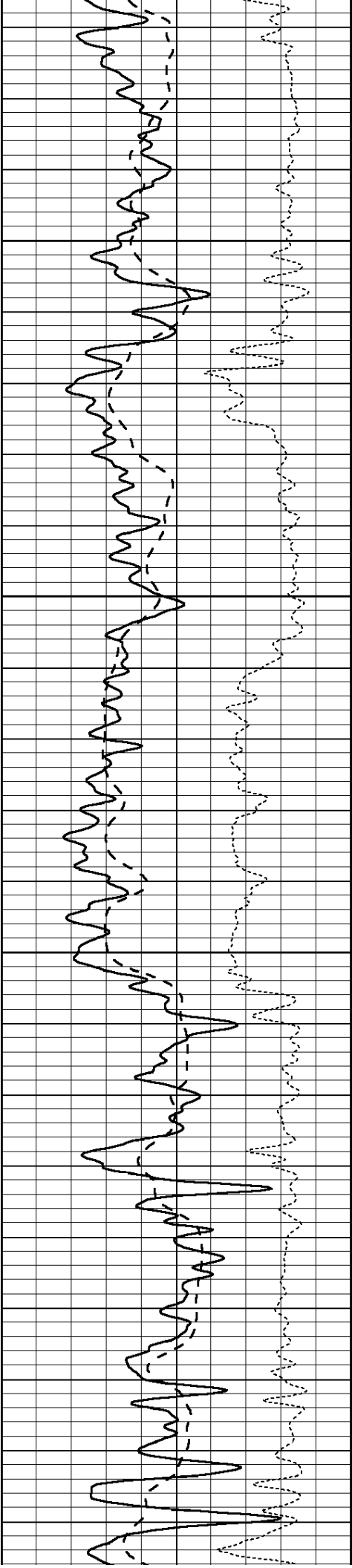
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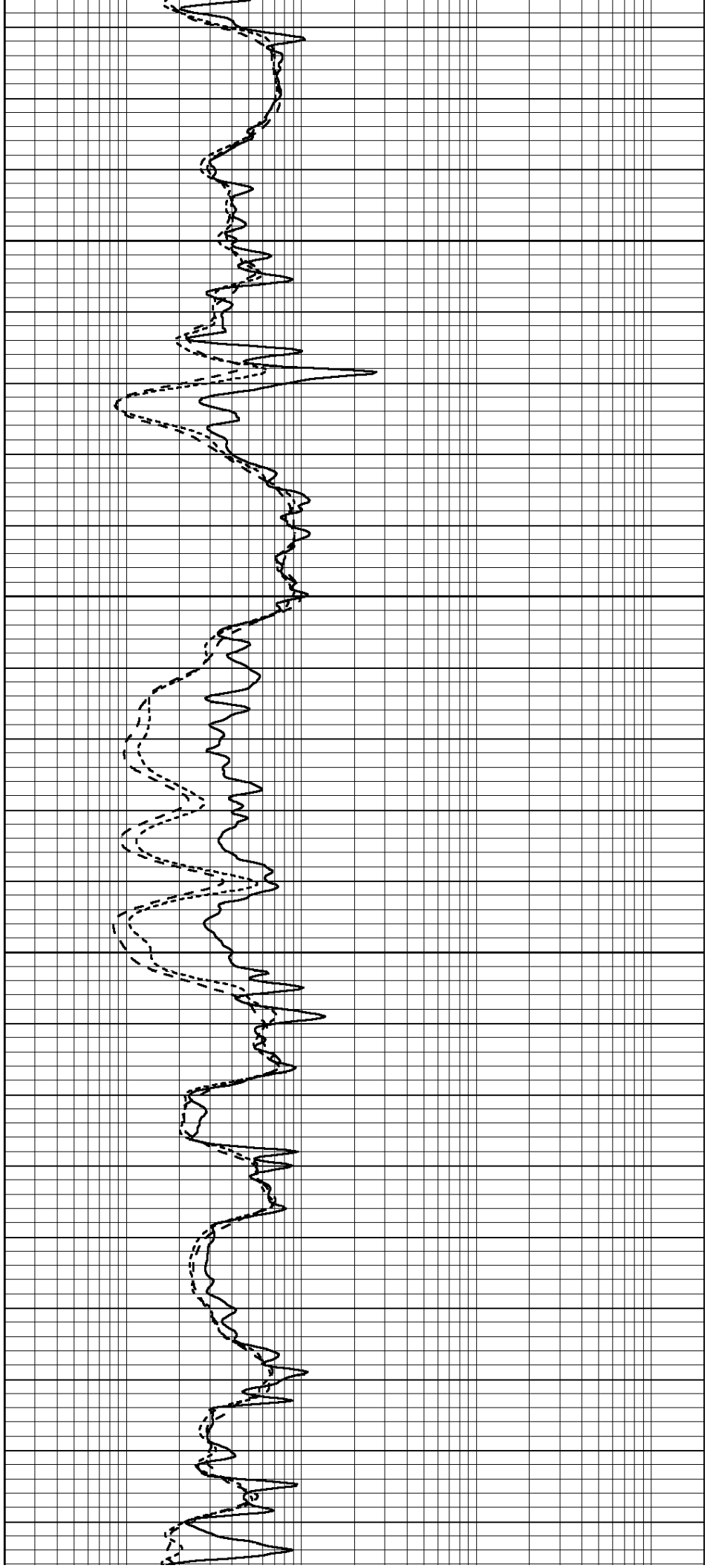


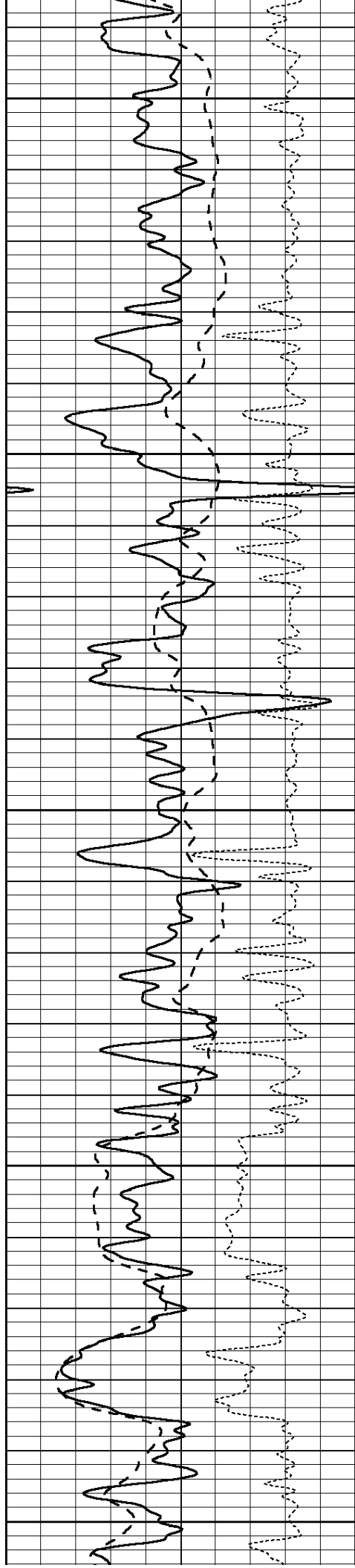
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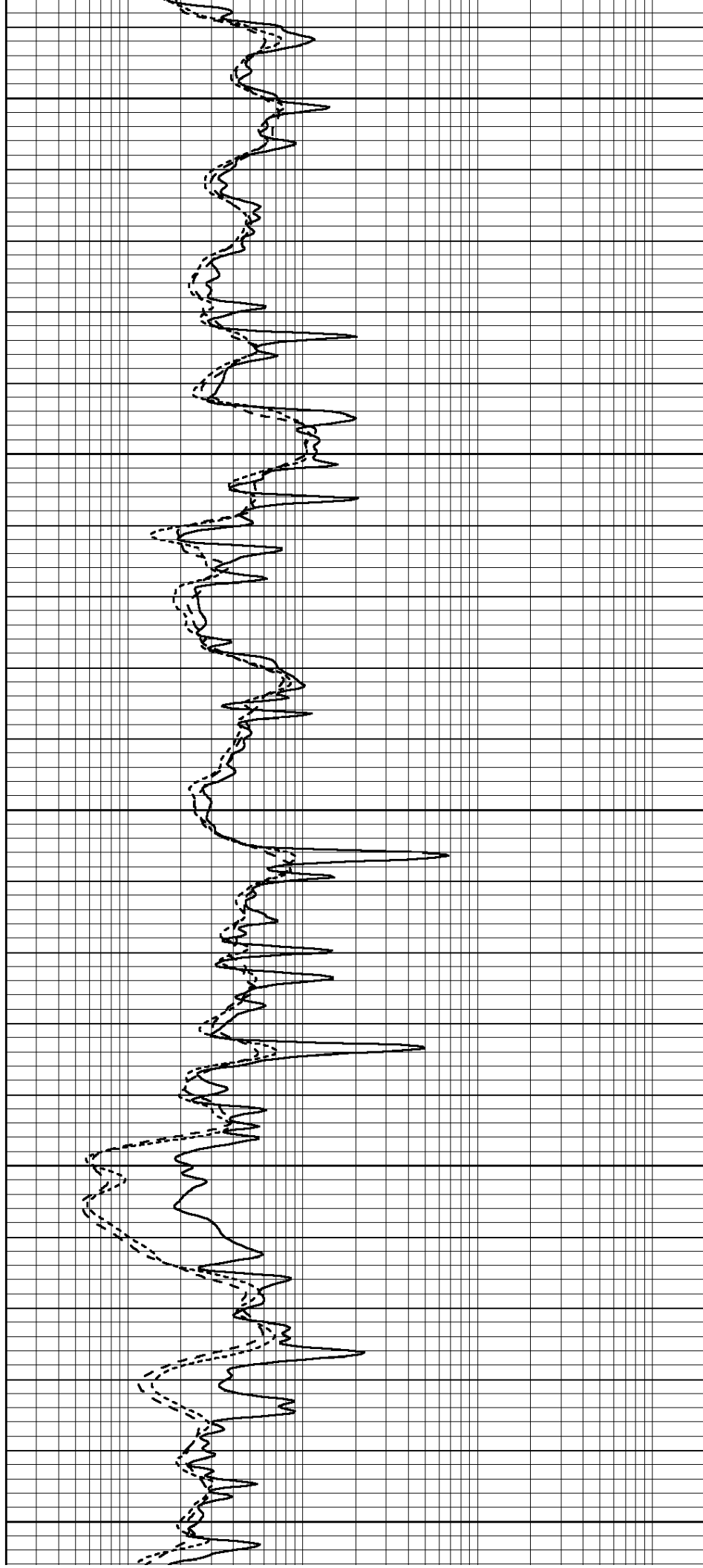
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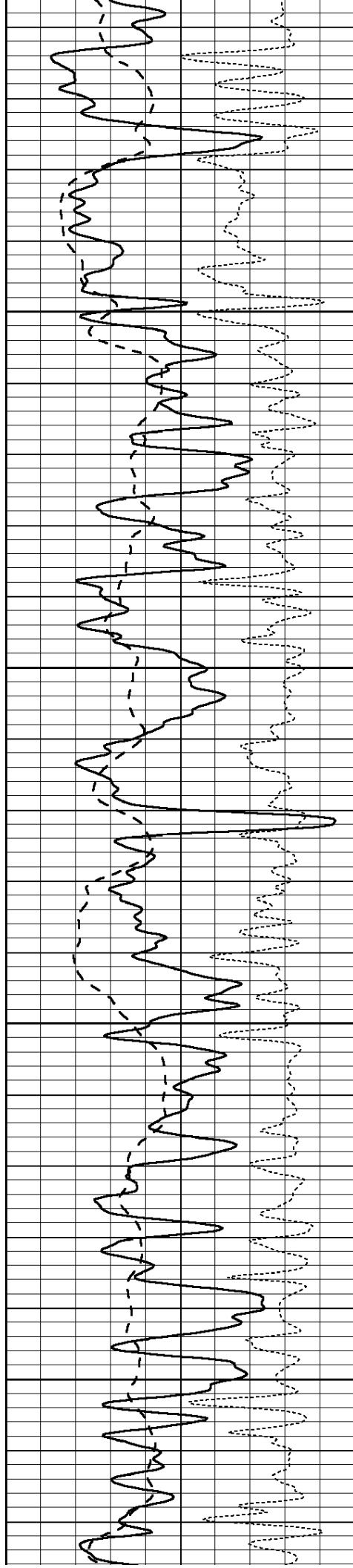
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2400



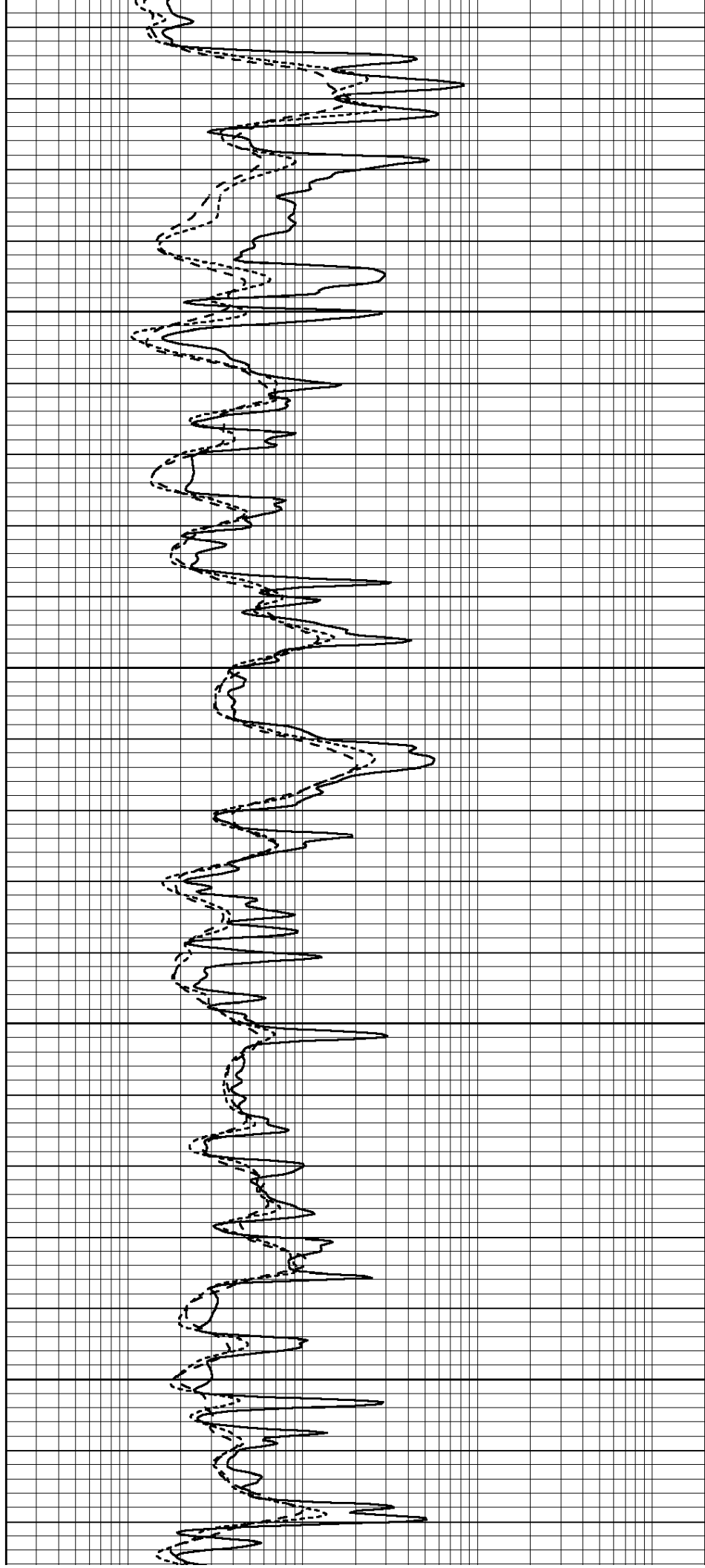


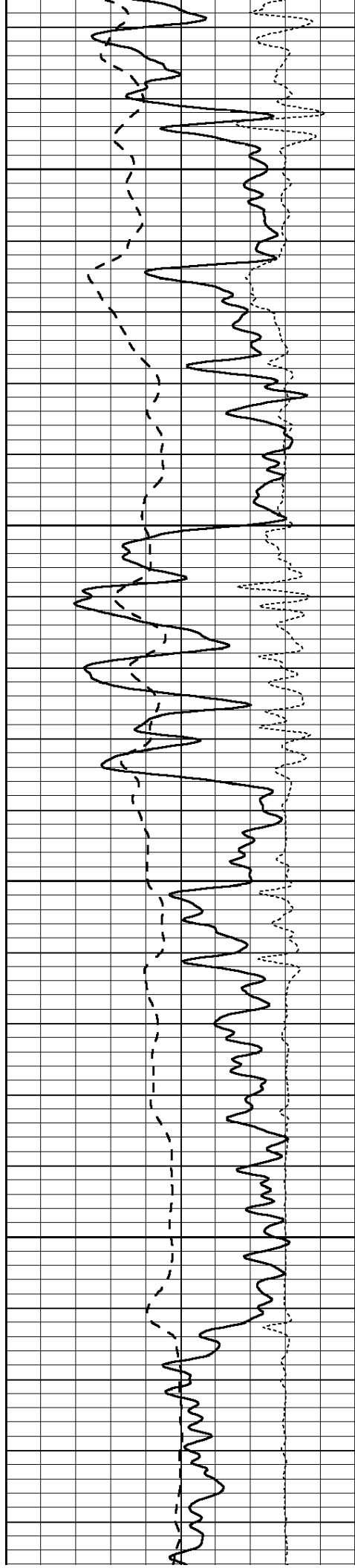
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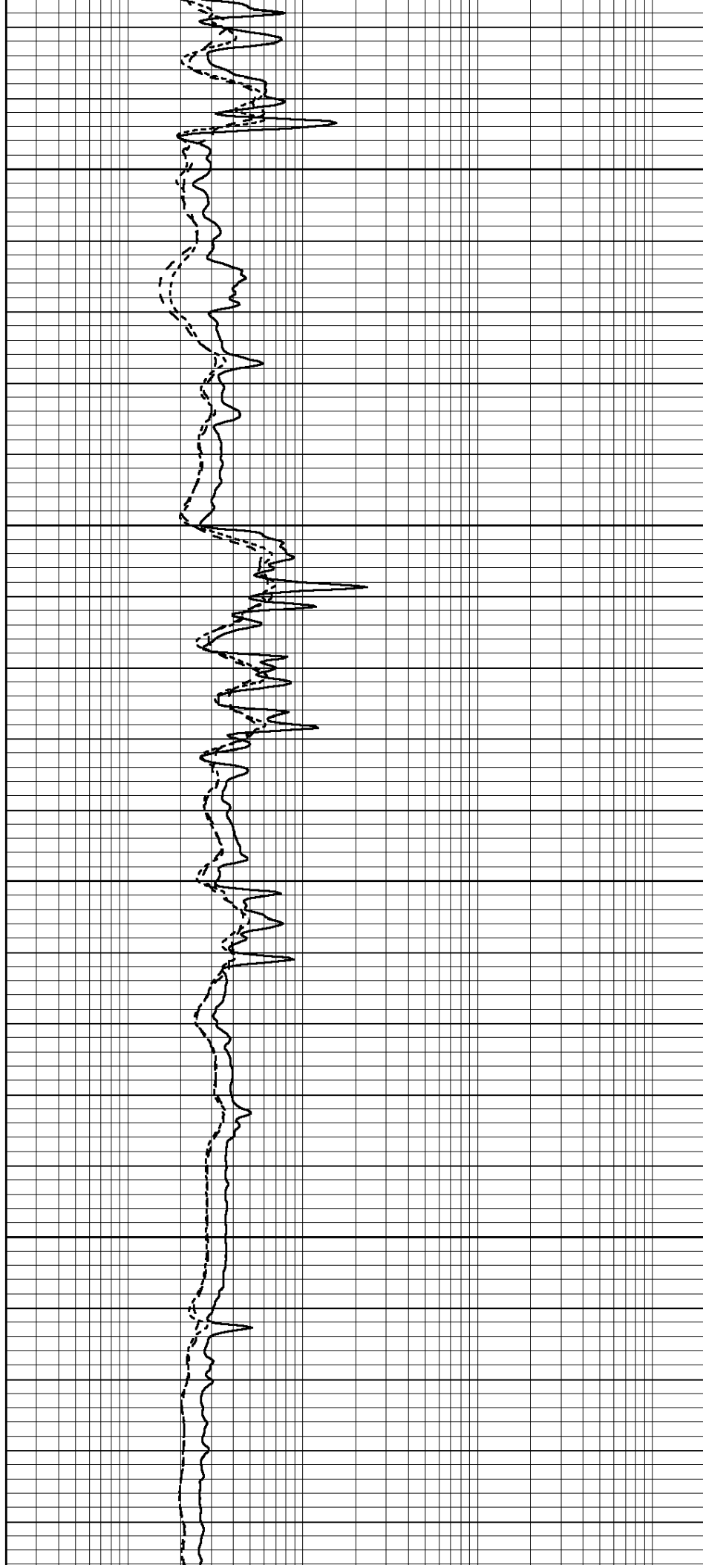


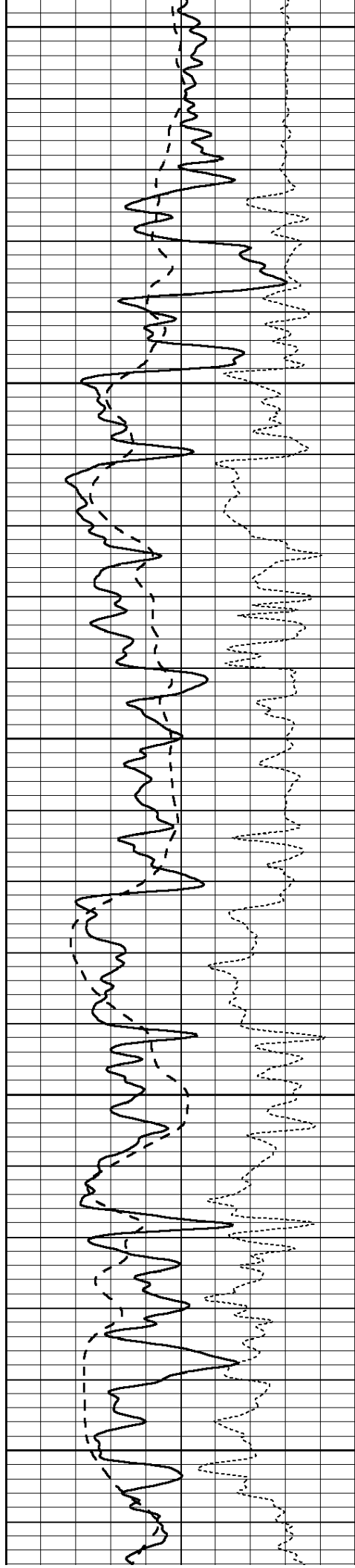
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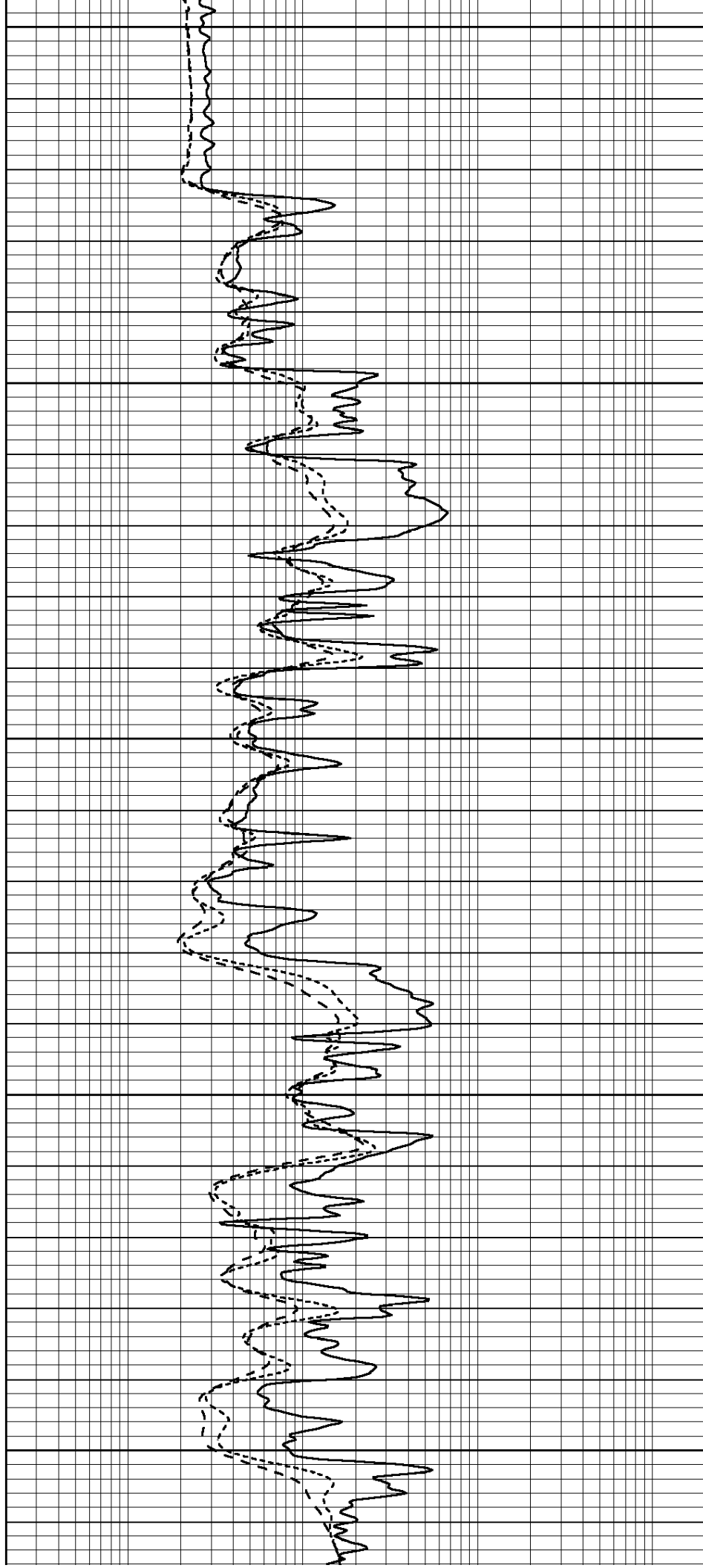
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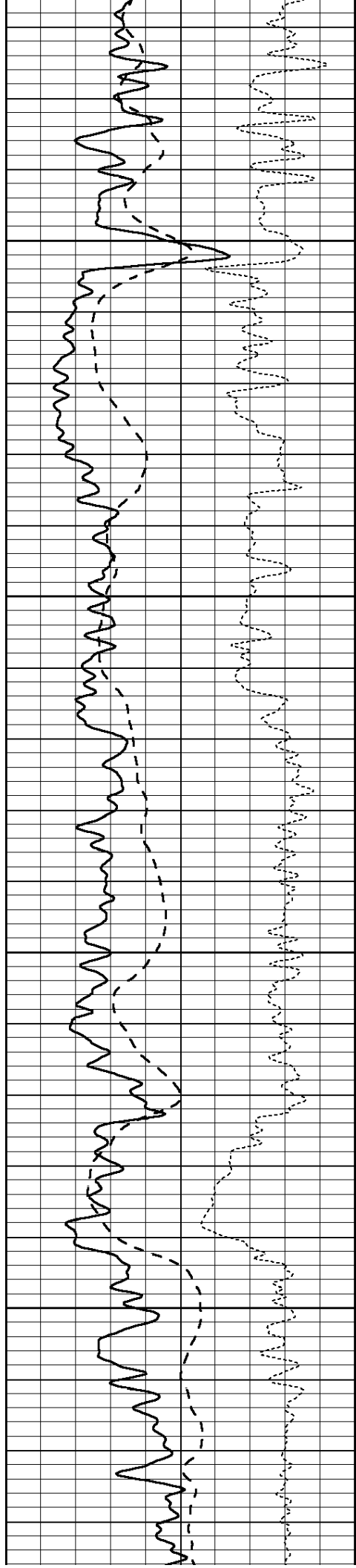
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3050



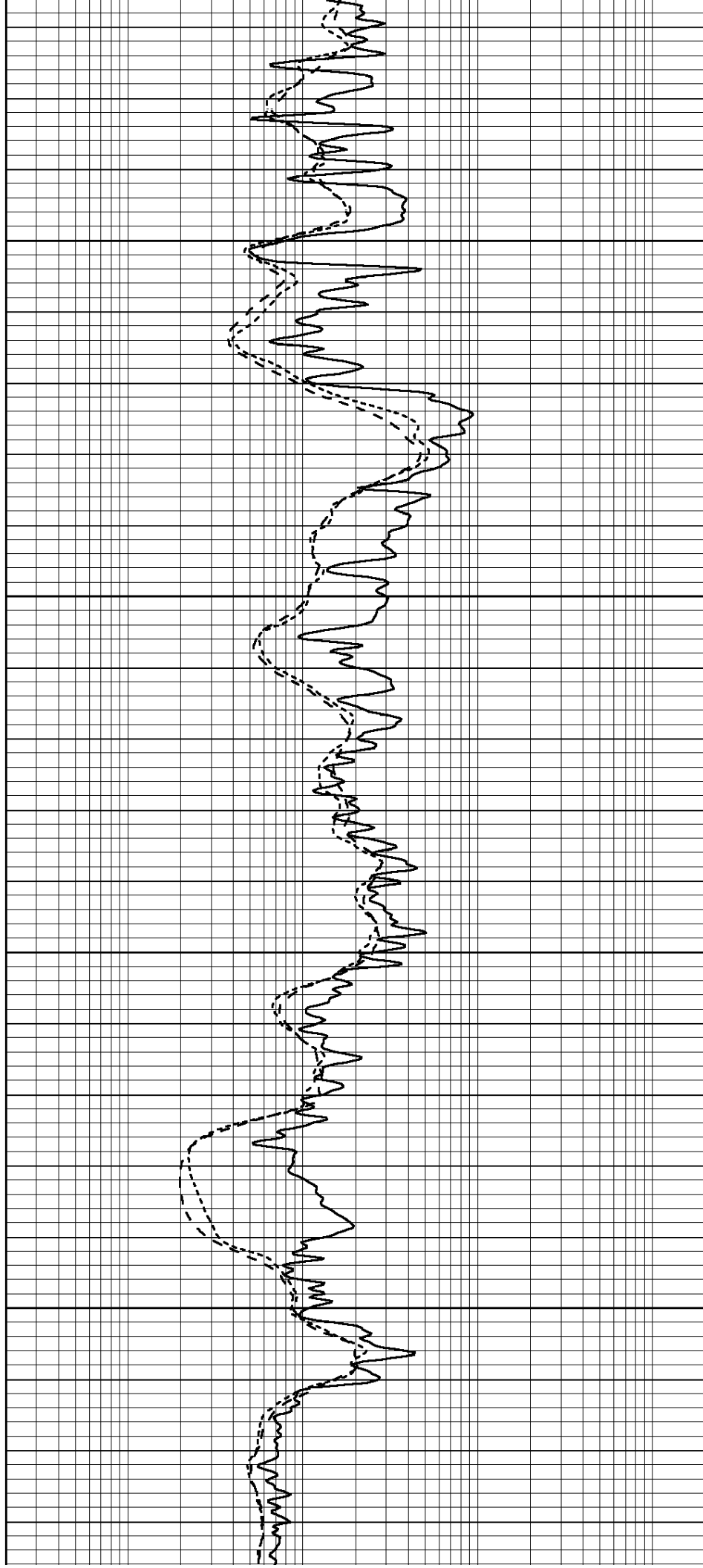


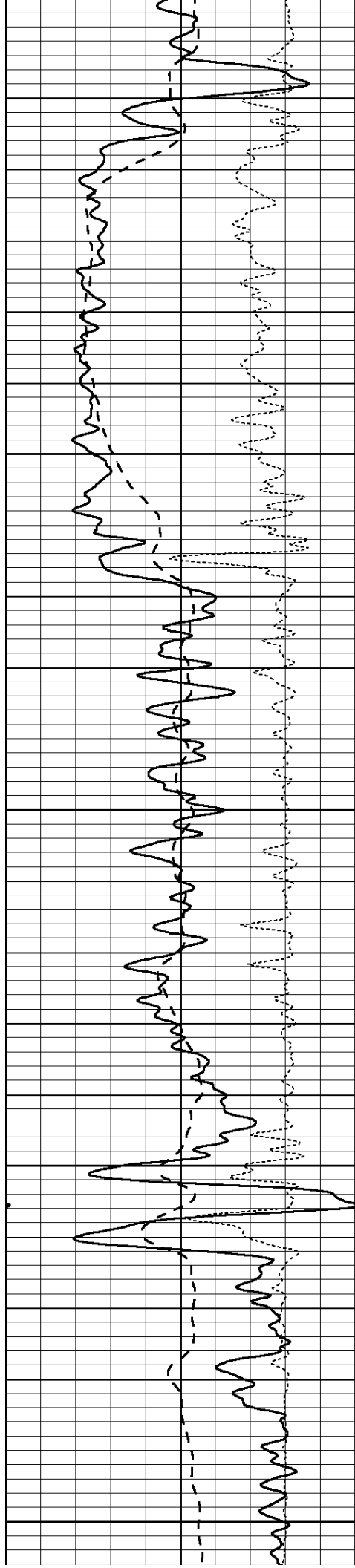
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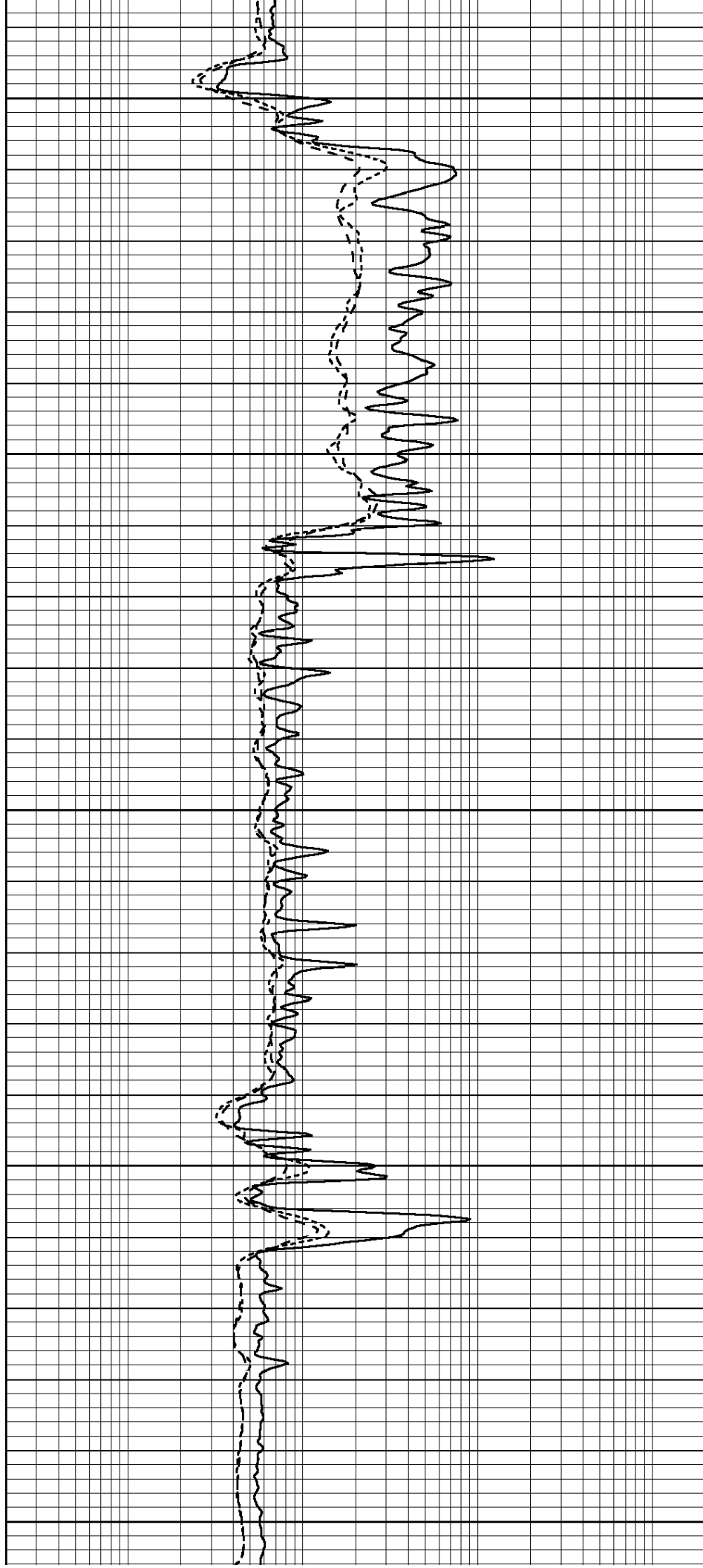
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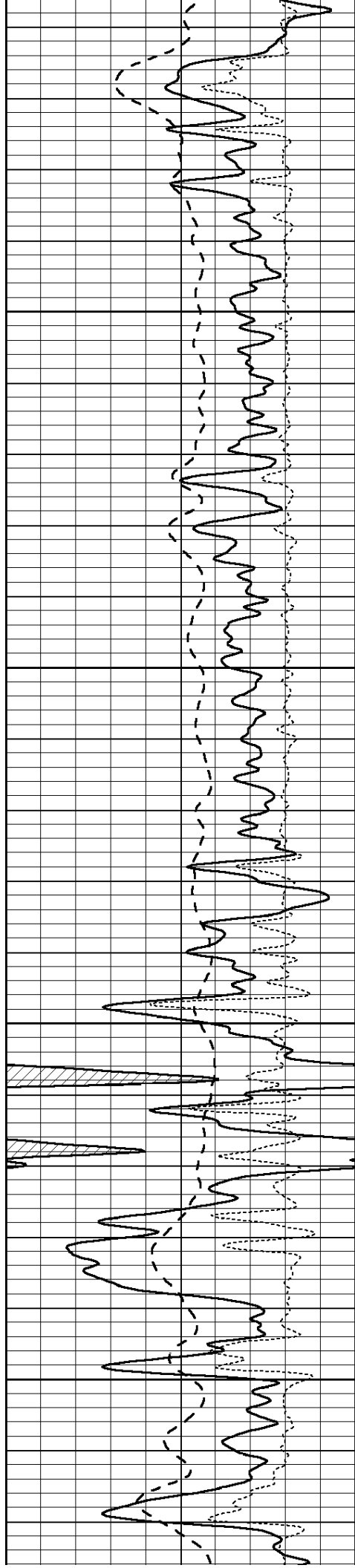
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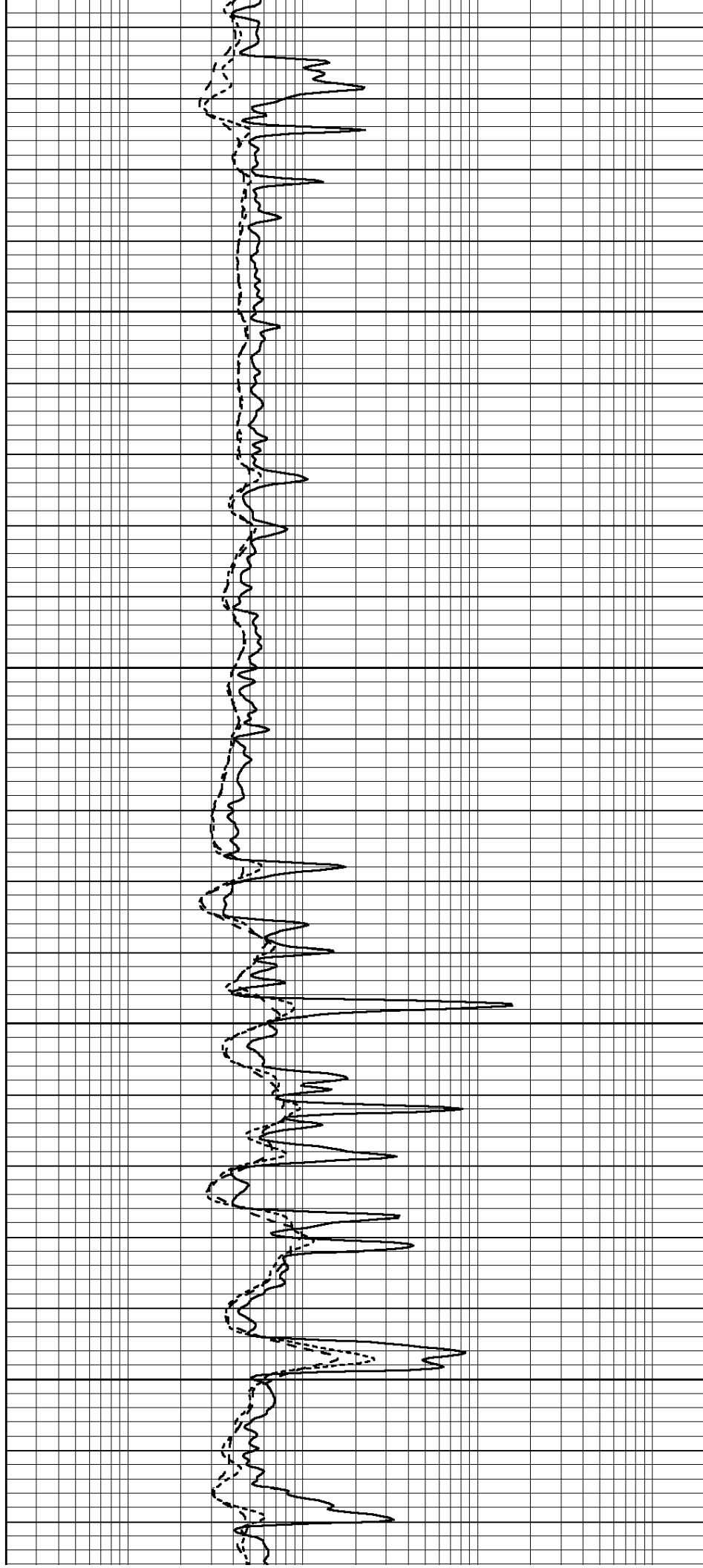


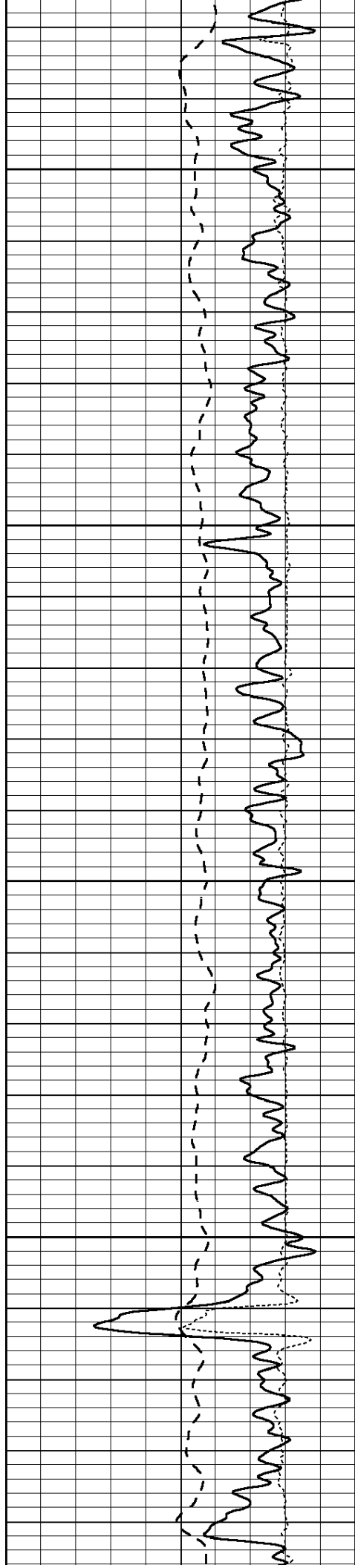
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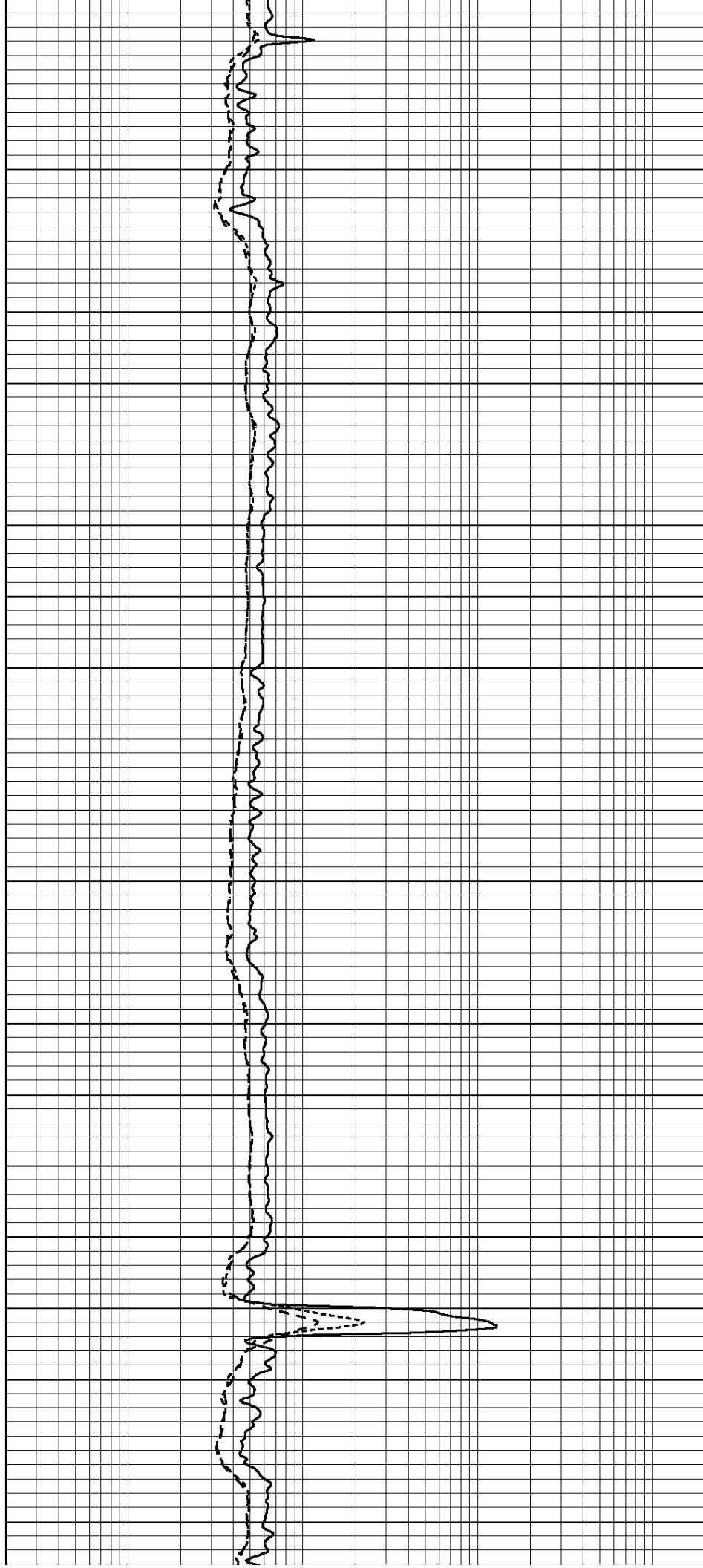


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3900





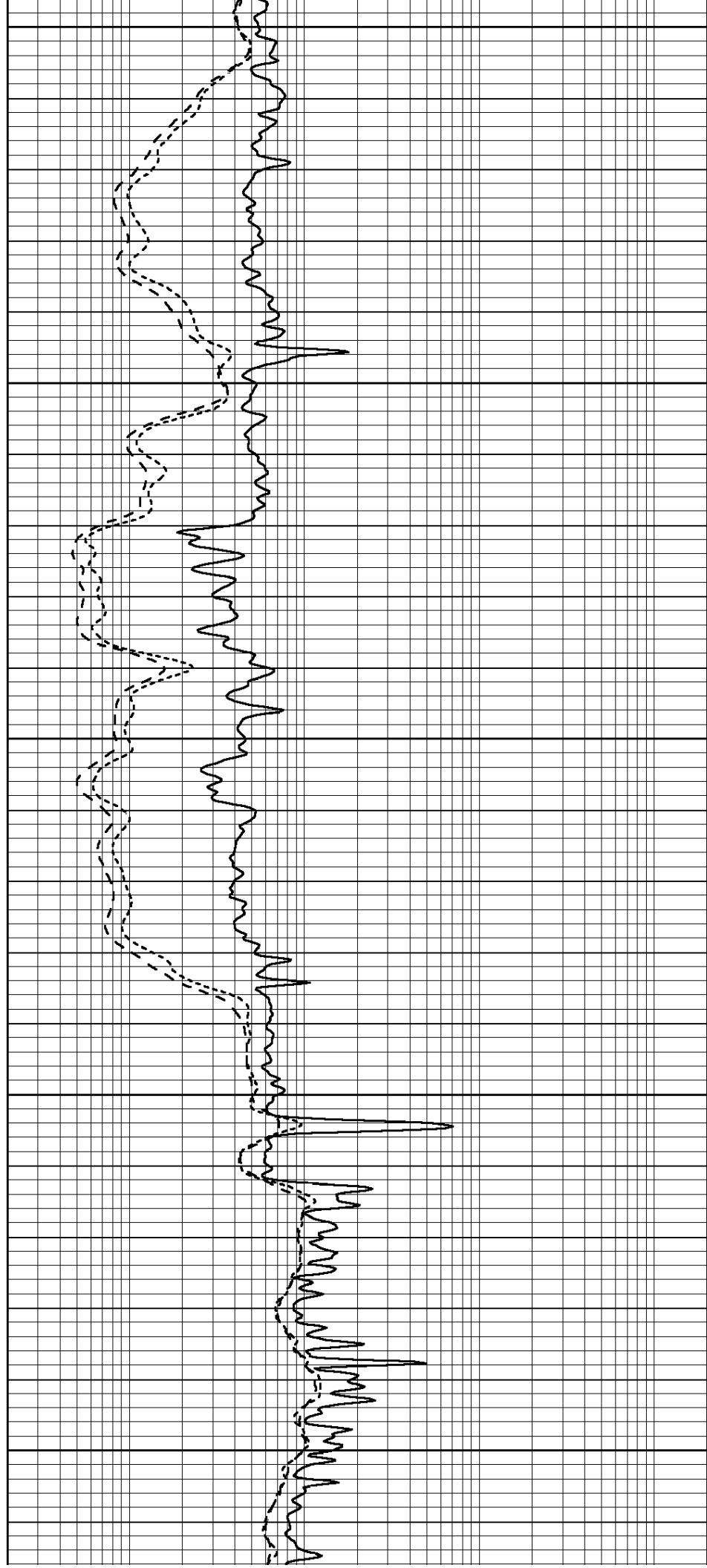
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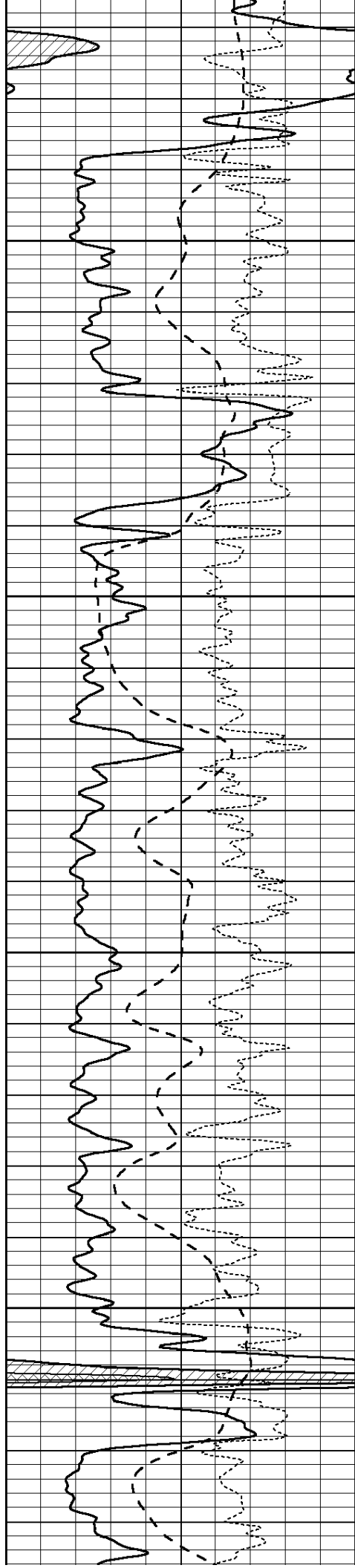
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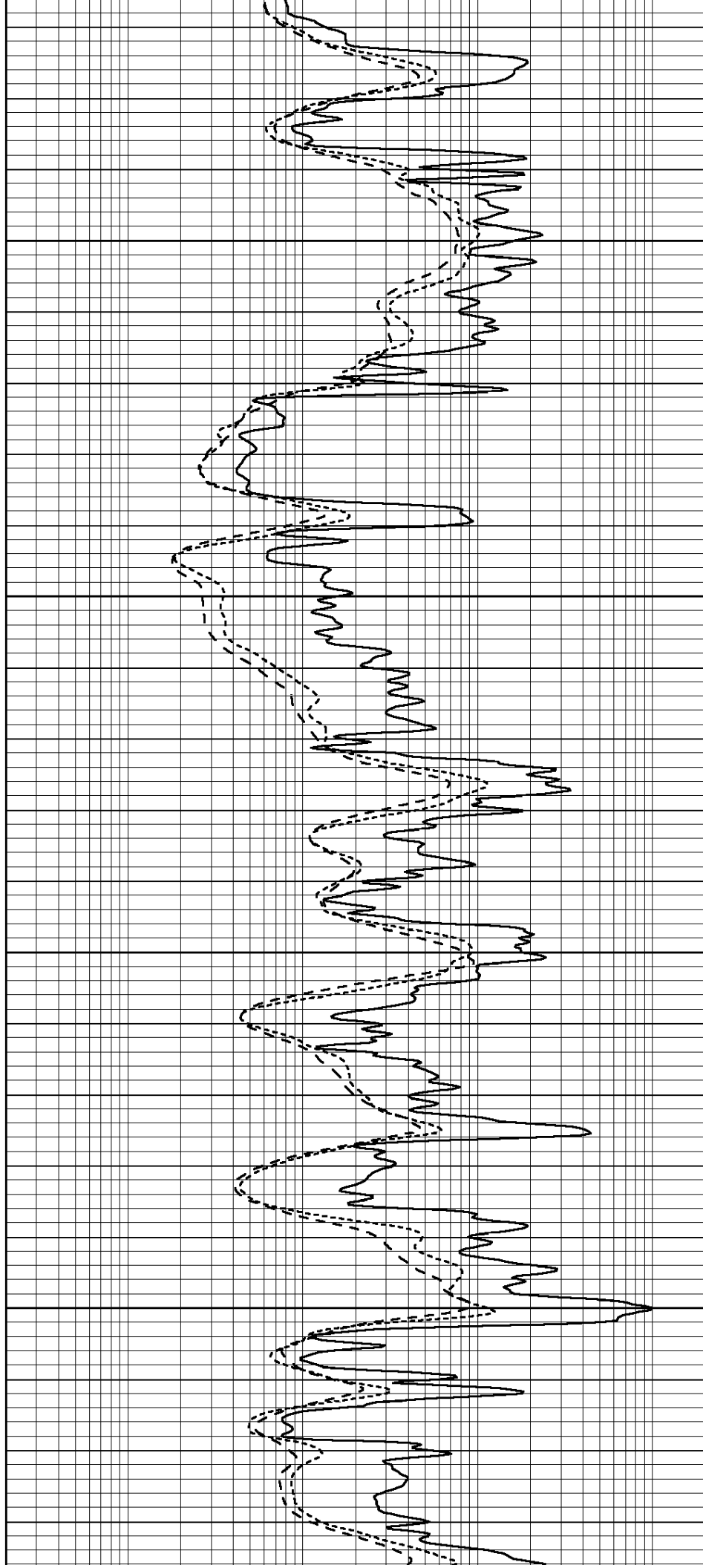


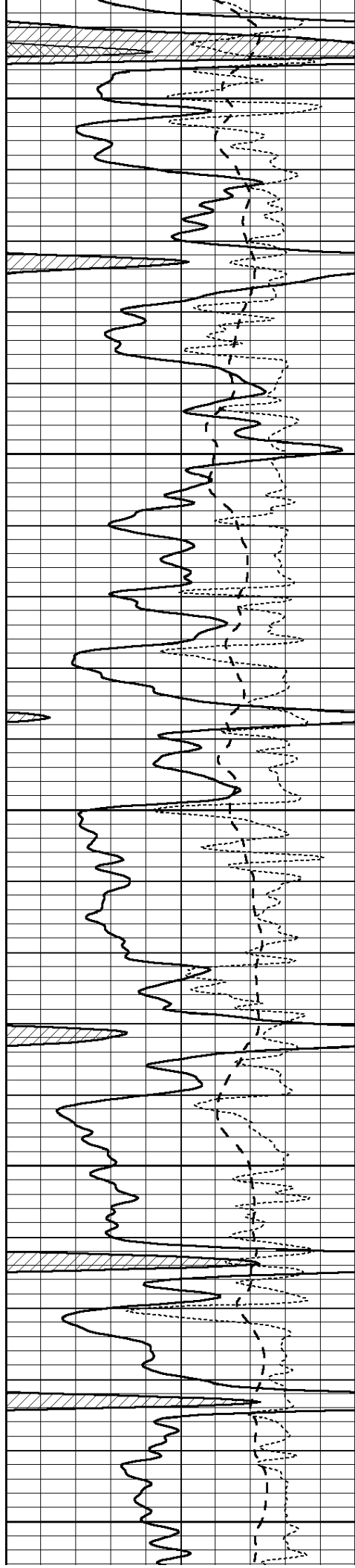
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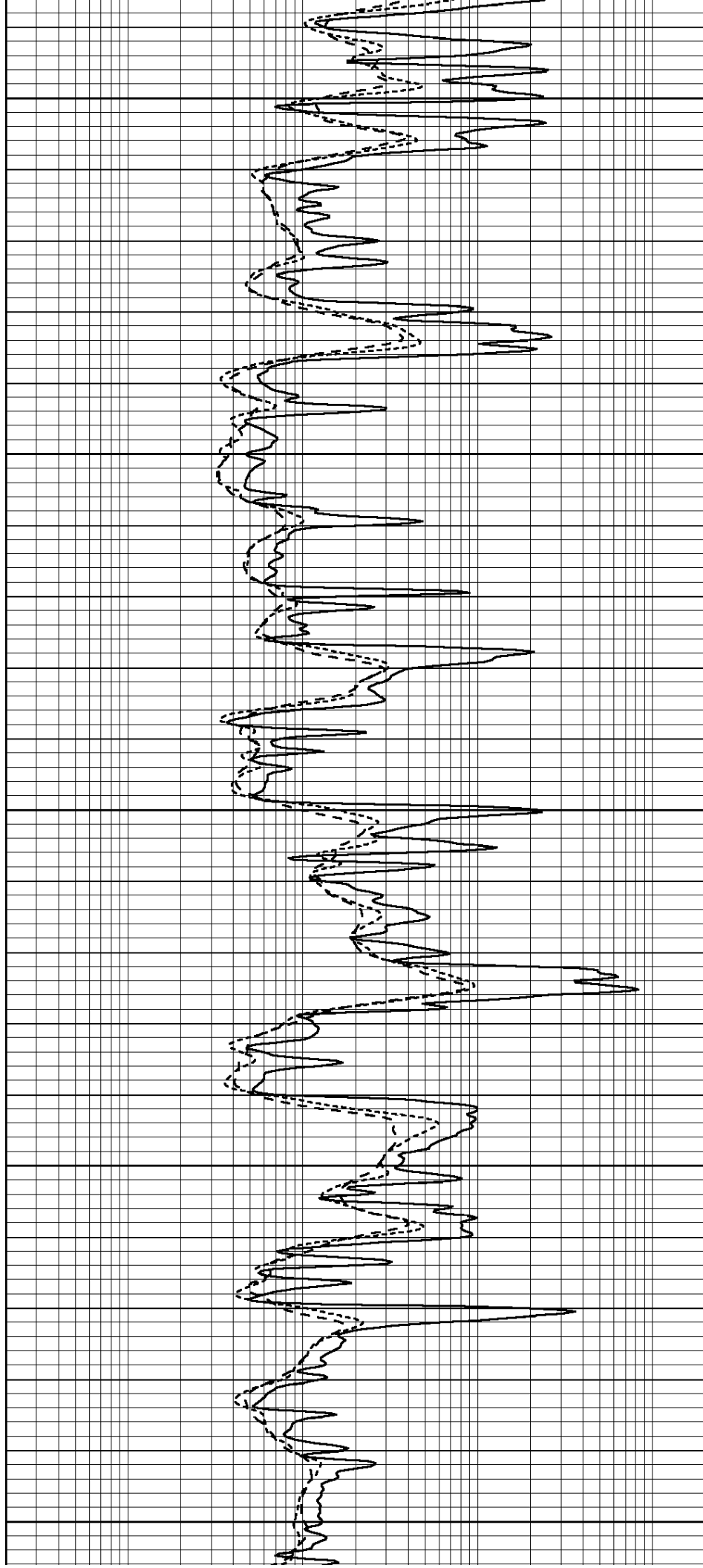
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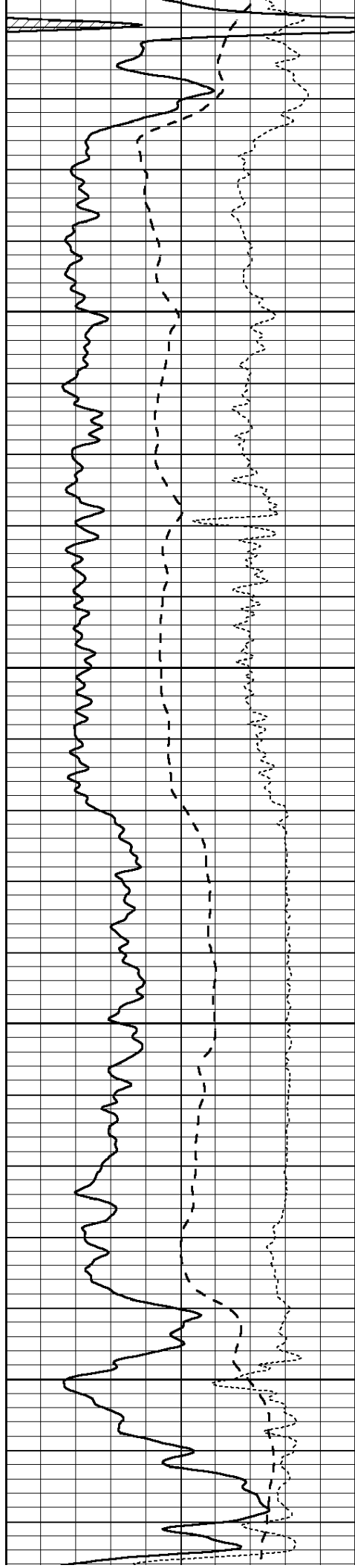
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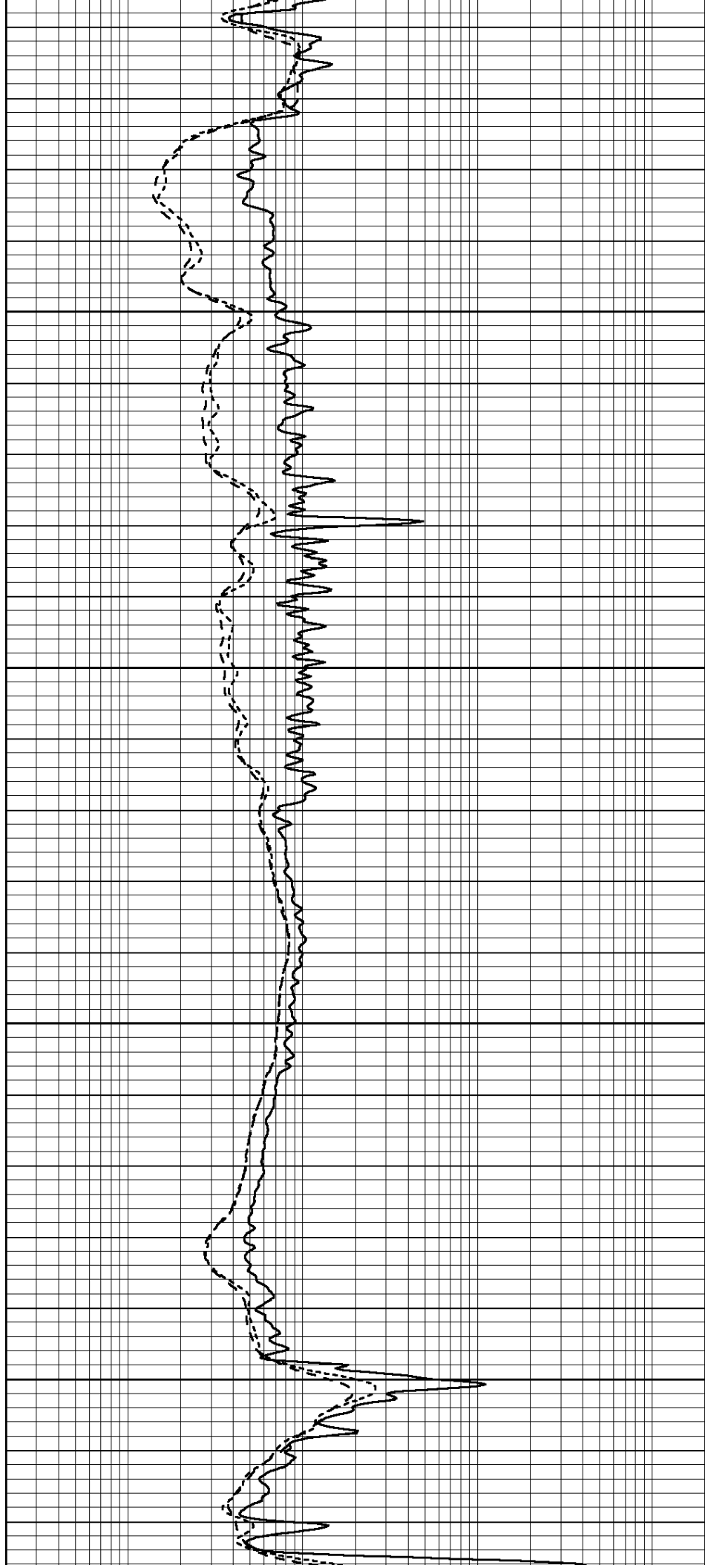


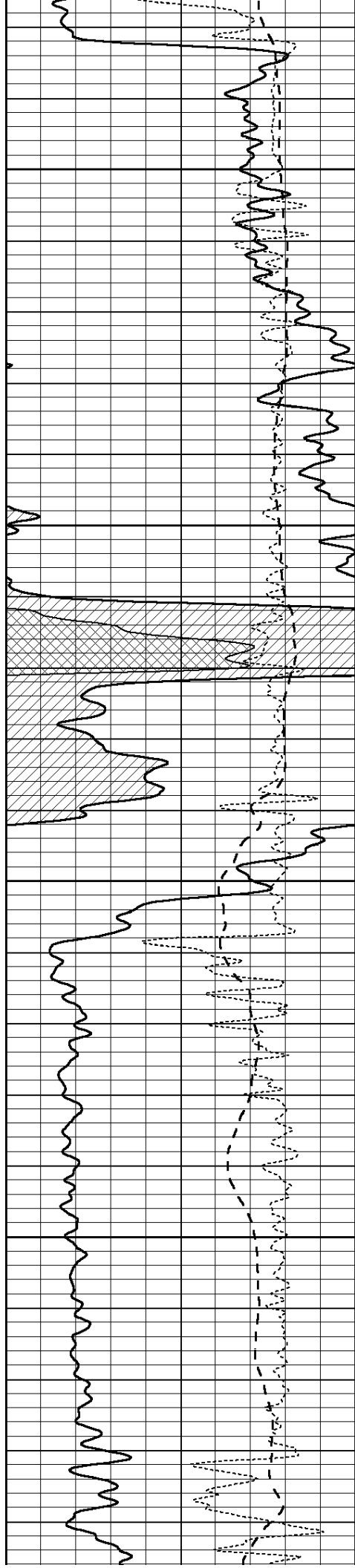
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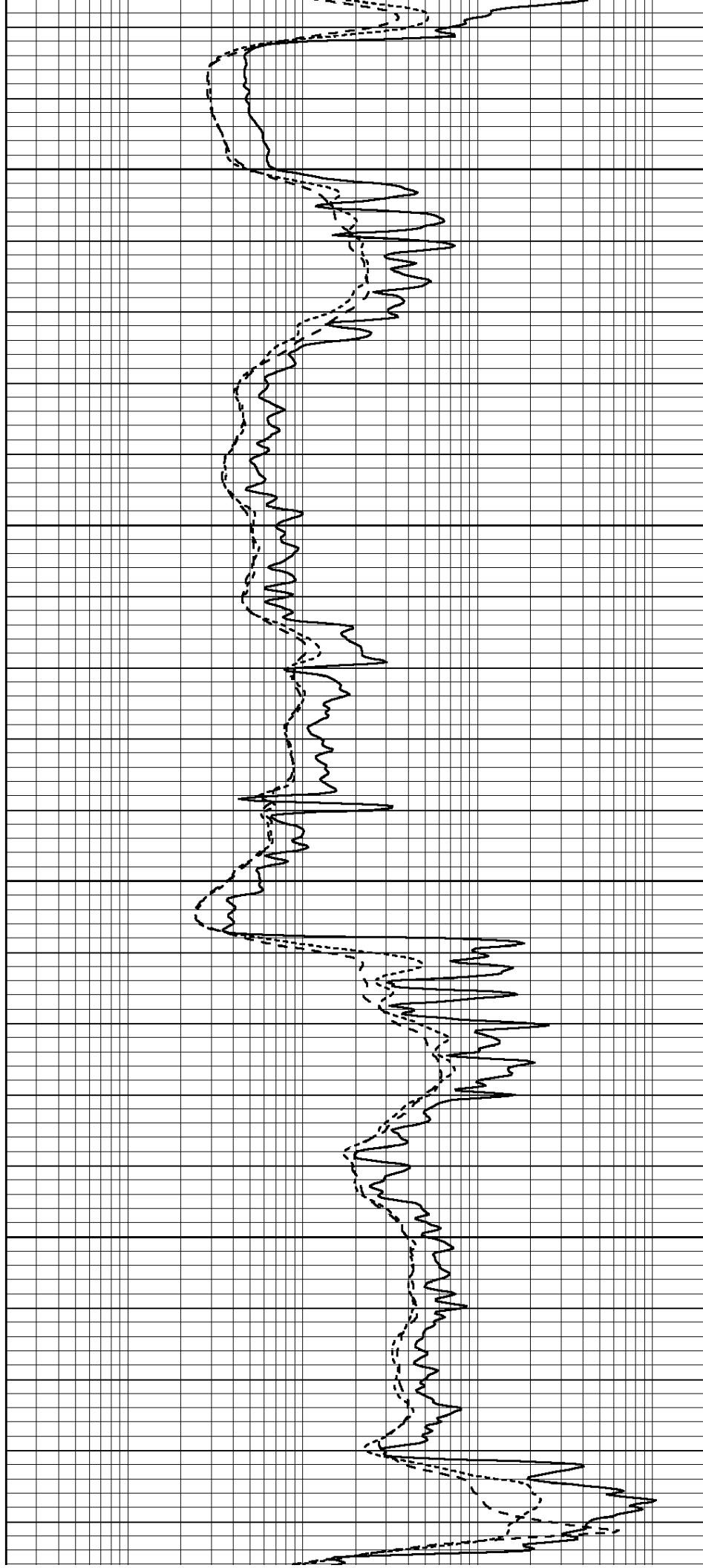


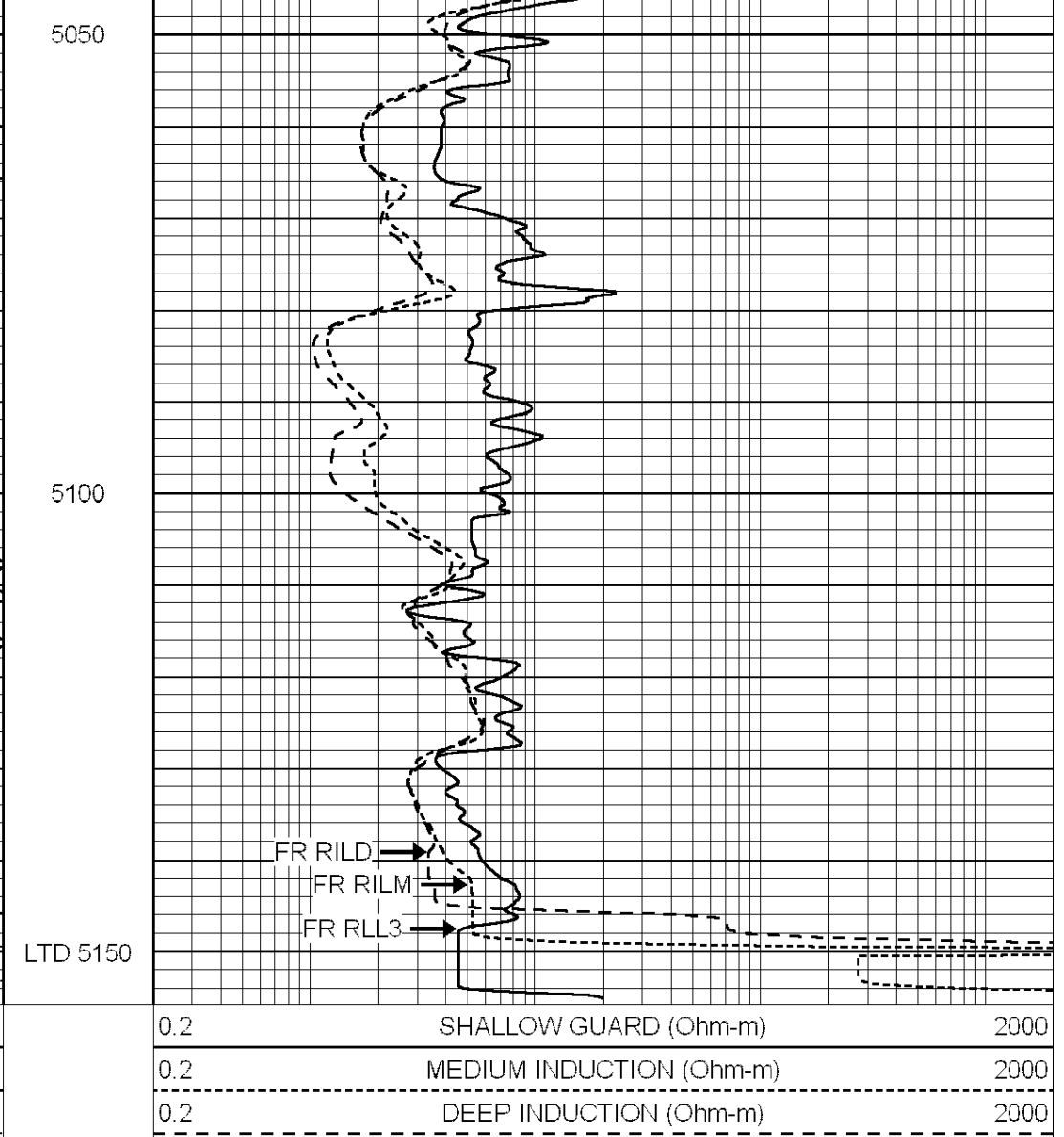
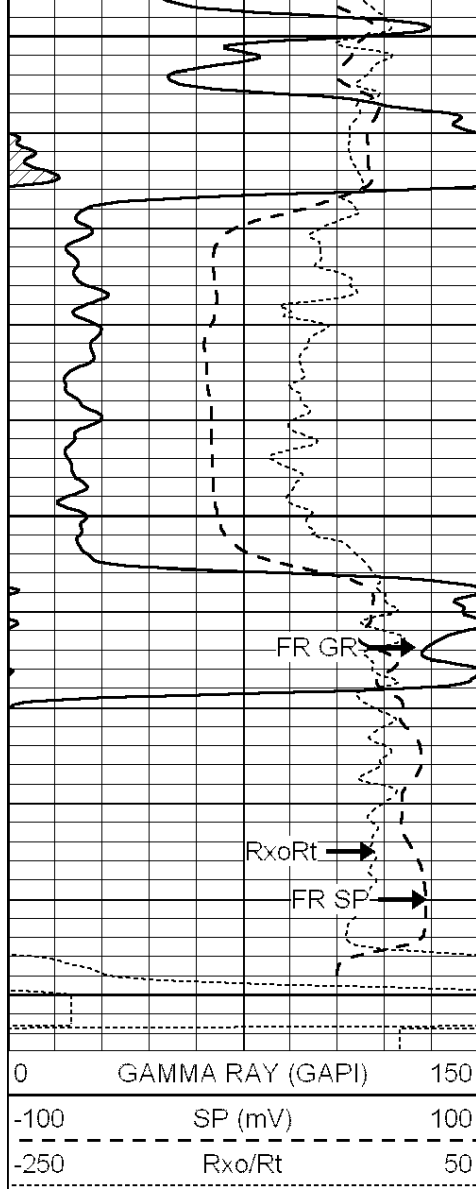
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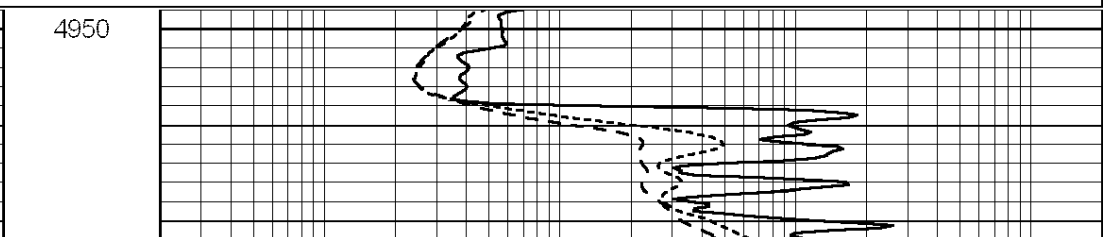
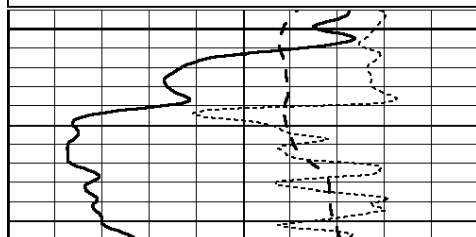
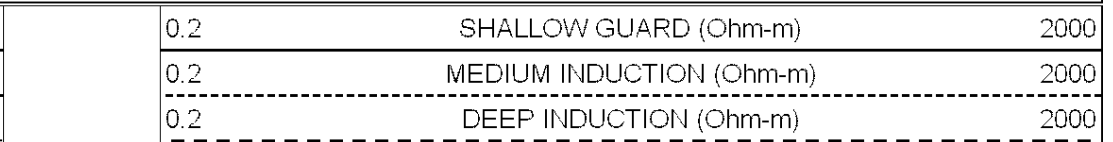
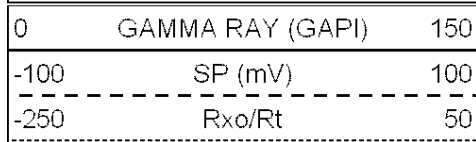


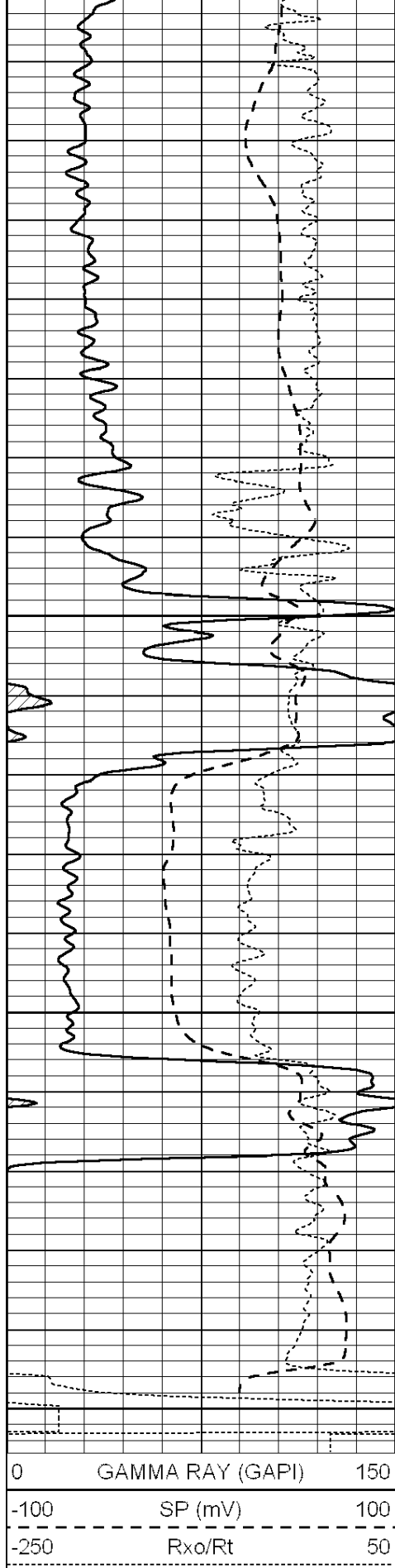


SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 009202pe.db
 Dataset Pathname: pass2.1
 Presentation Format: _dil
 Dataset Creation: Mon May 21 22:58:27 2012 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240





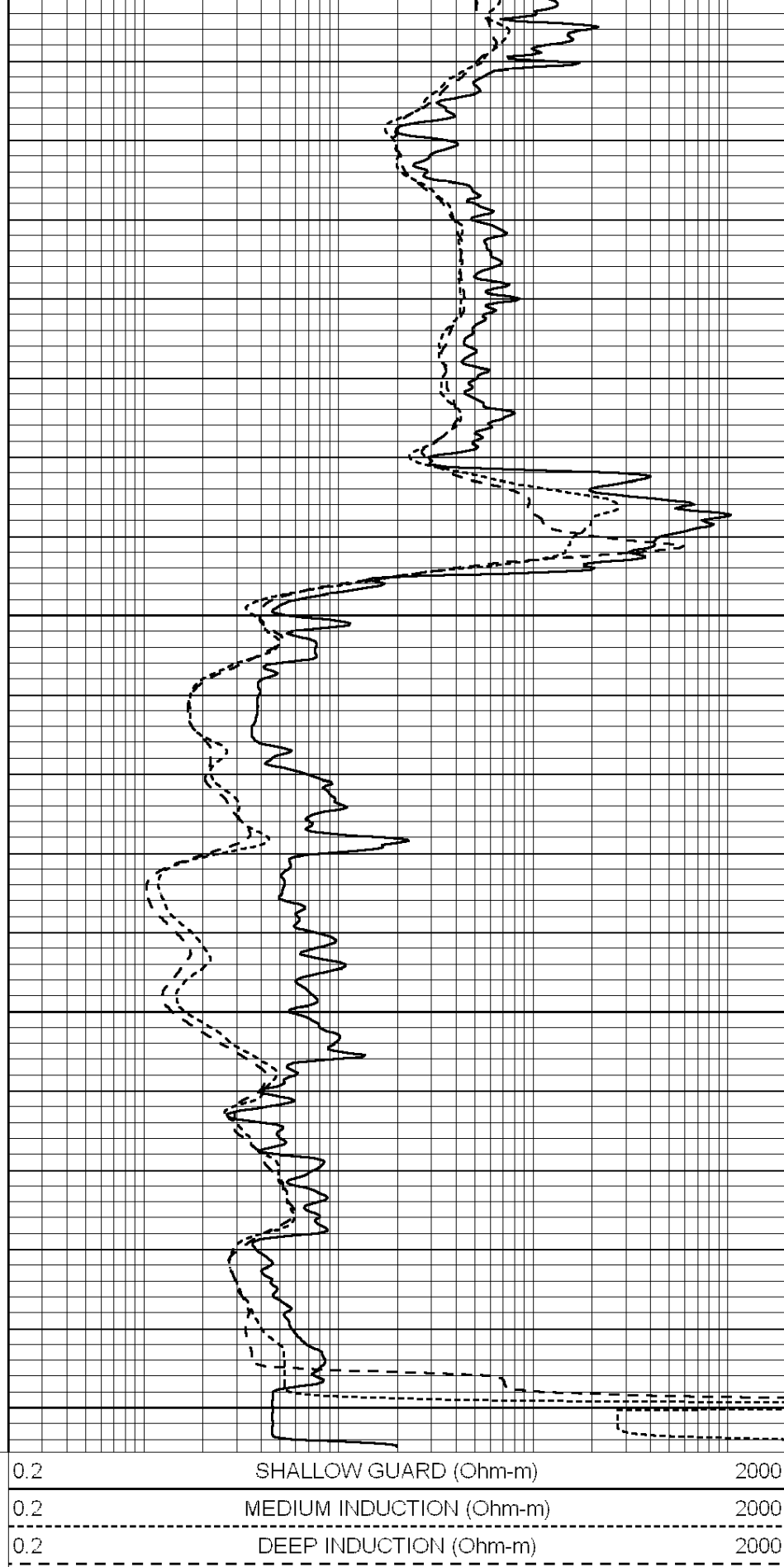
5000

5050

5100

5150

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



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

Calibration Report

Database File: 009202pe.db
Dataset Pathname: pass2.1

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Fri Aug 01 06:33:19 2008
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	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: 001 Model: PRB
 Performed Thu Sep 17 09:57:21 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2056.0	9796.8	3673.1	10821.3	cps
Window 2	1920.0	8541.1	3303.5	9307.2	cps
Window 3	1563.1	4735.7	2212.8	5017.5	cps
Window 4	466.0	466.1	465.6	471.5	cps
Long Space	0.0	6621.1	1383.5	7387.2	cps
Short Space	2.5	2361.7	1523.2	2534.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 44.4	Rib Slope	: 0.978	Density/Spine Ratio	: 0.541
Spine Angle	: 74.4	Spine Slope	: 3.570	Spine Intercept	: -18.9

Caliper

	Readings	Reference
Low Ref	3.1	8.4
High Ref	4.3	14.3

Gain: 4.6

Offset: 7.8

Compensated Neutron Calibration Report

Serial Number: 6I
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: #8
Tool Model: OPEN
Performed: Mon Jun 13 16:56:43 2011

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 175.0 cps

Sensitivity: 0.8371 GAPI/cps