



SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company	WOOLSEY OPERATING CO. LLC.		
Well	WILEY TRUST #2		
Field	STRANATHAN		
County	BARBER		
State	KANSAS		
Company	WOOLSEY OPERATING COMPANY, LLC.		
Well	WILEY TRUST #2		
Field	STRANATHAN		
County	BARBER		
State	KANSAS		
Location:	API # : 15-007-23505-0000		Other Services
	330' FNL & 2105' FWL		CDL/CNL/PE
	SEC 17 TWP 34S RGE 11W		Elevation
Permanent Datum	GROUND LEVEL	Elevation	1398
Log Measured From	KELLY BUSHING 10' A.G.L.		K.B. 1408
Drilling Measured From	KELLY BUSHING		D.F. 1406
			G.L. 1398
Date	2/24/10		
Run Number	CNE		
Depth Driller	4860		
Depth Logger	4860		
Bottom Logged Interval	4858		
Top Log Interval	00		
Casing Driller	8 5/8"@924'	10 3/4"@222'	
Casing Logger	920		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,500 PPM	
Density / Viscosity	8.9/48		
pH / Fluid Loss	9.5/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.700@82F		
Rmf @ Meas. Temp	.525@82F		
Rmc @ Meas. Temp	.840@82F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.463@124F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	6:00 A.M.		
Maximum Recorded Temperature	124F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	BILL KLAVER		

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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
MEDICINE LODGE, KS. (JUNCTION OF HWY 160 & 281) 13S. ON HWY 281 TO "SCOTT CANYON RD",
1 1/2 E., S. INTO



SUPERIOR
Hays,
Kansas

MAIN SECTION

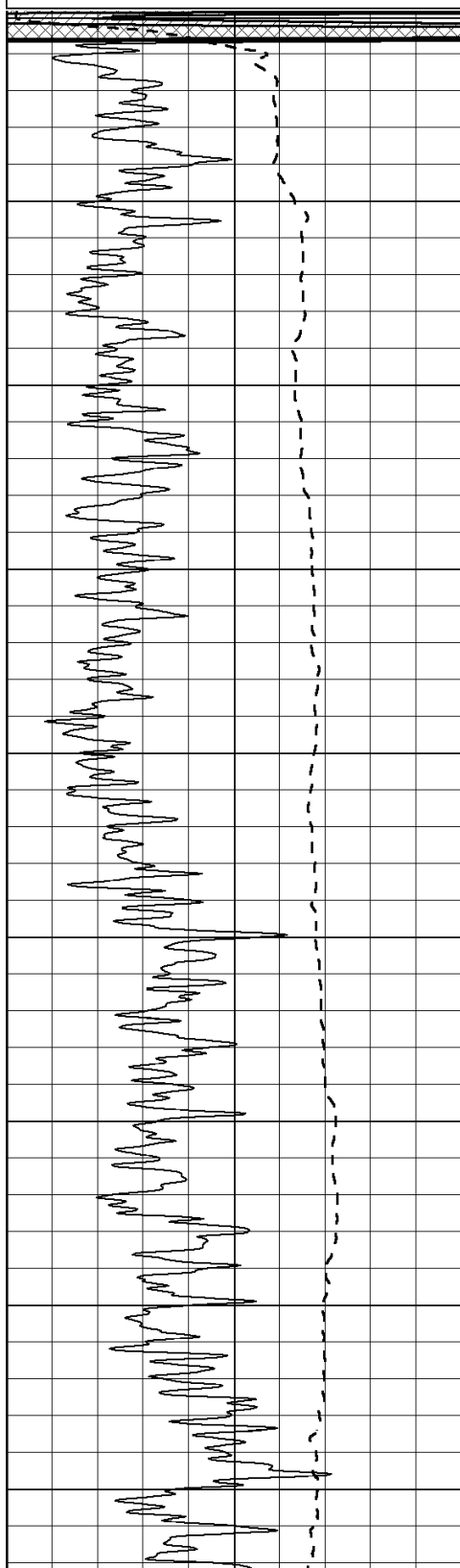
Database File: 004723pe.db
Dataset Pathname: pass3.4
Presentation Format: dil2
Dataset Creation: Wed Feb 24 08:26:51 2010 by Calc Open-Cased 060407
Charted by: Depth in Feet scaled 1:600

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

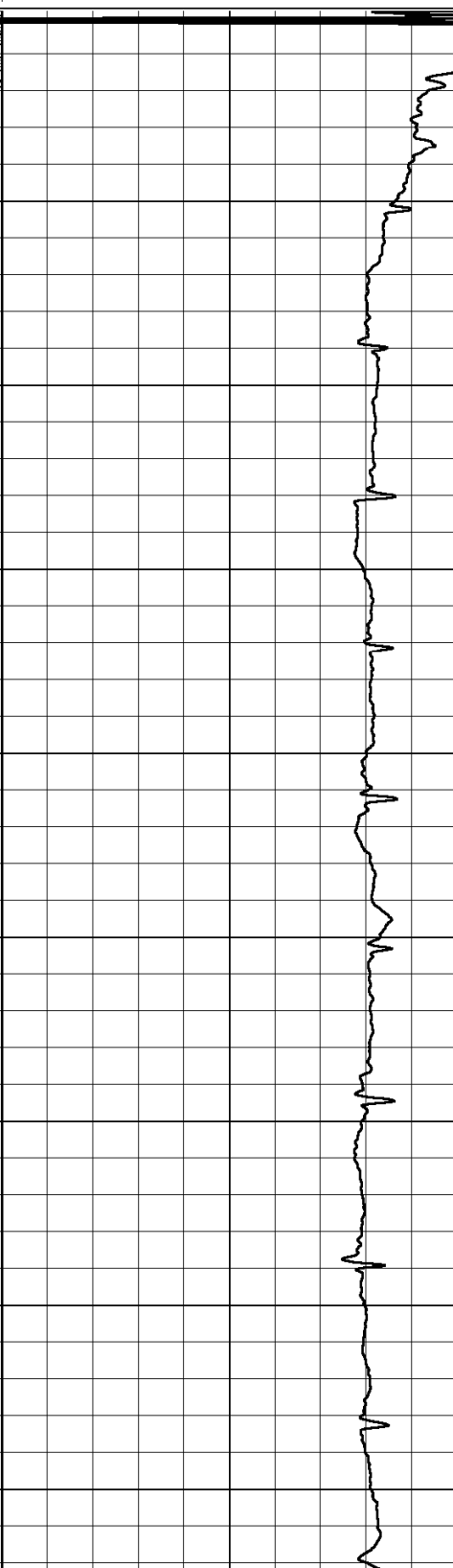
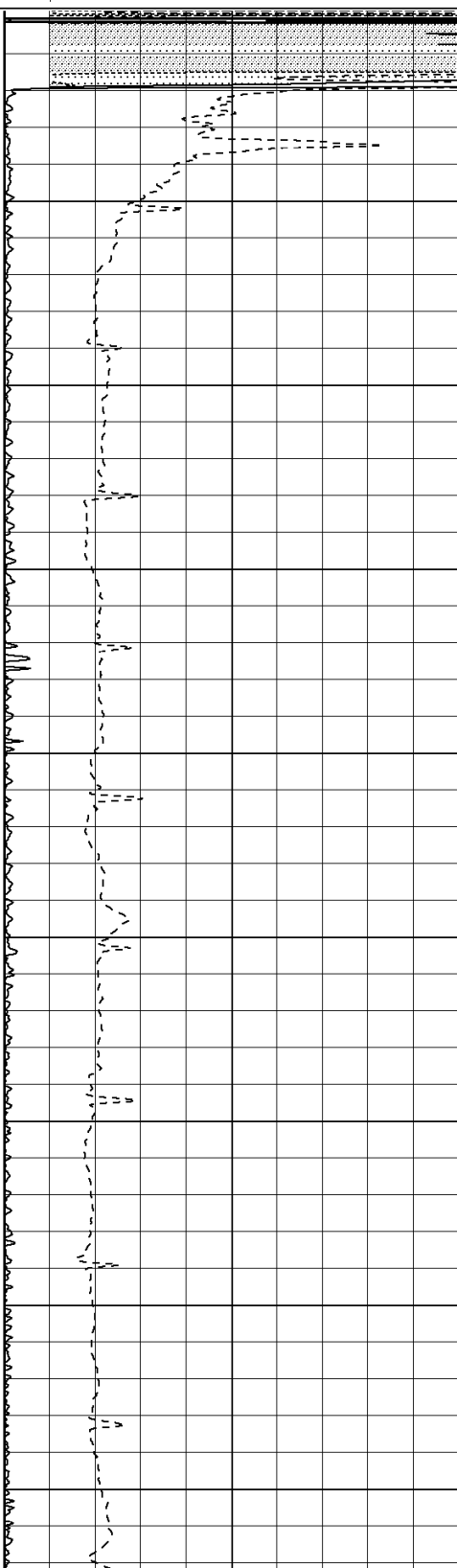
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50

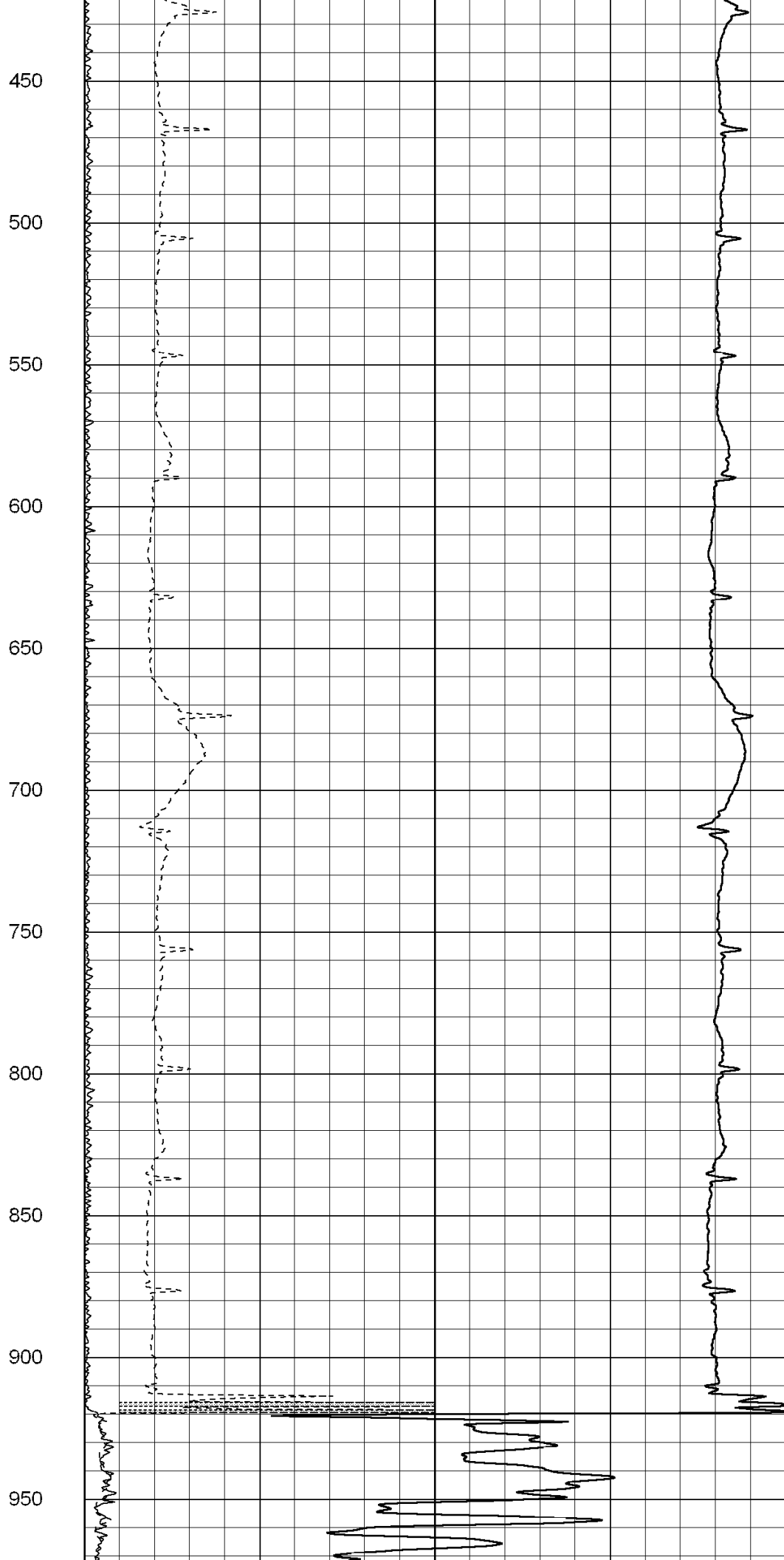
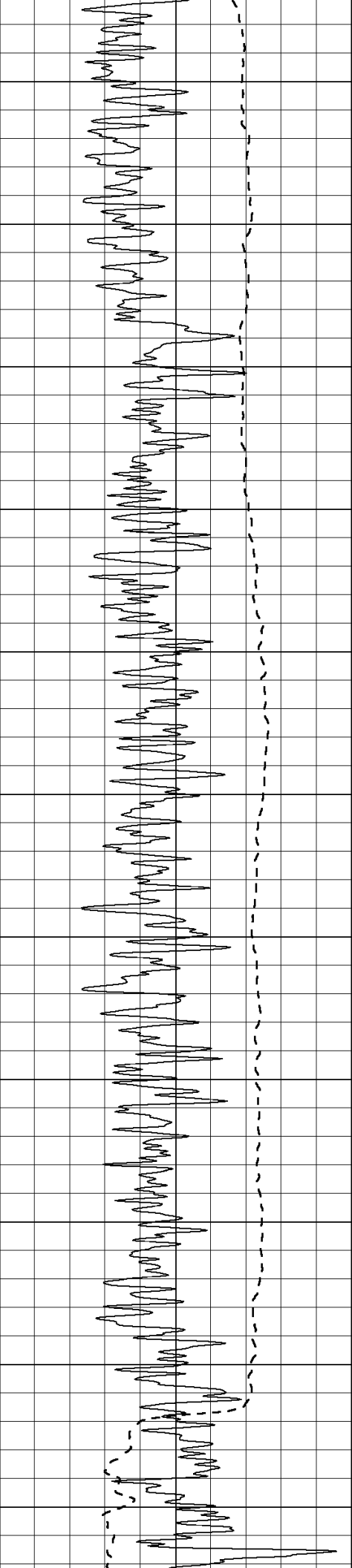
1000	CILD (mmho-m)	0
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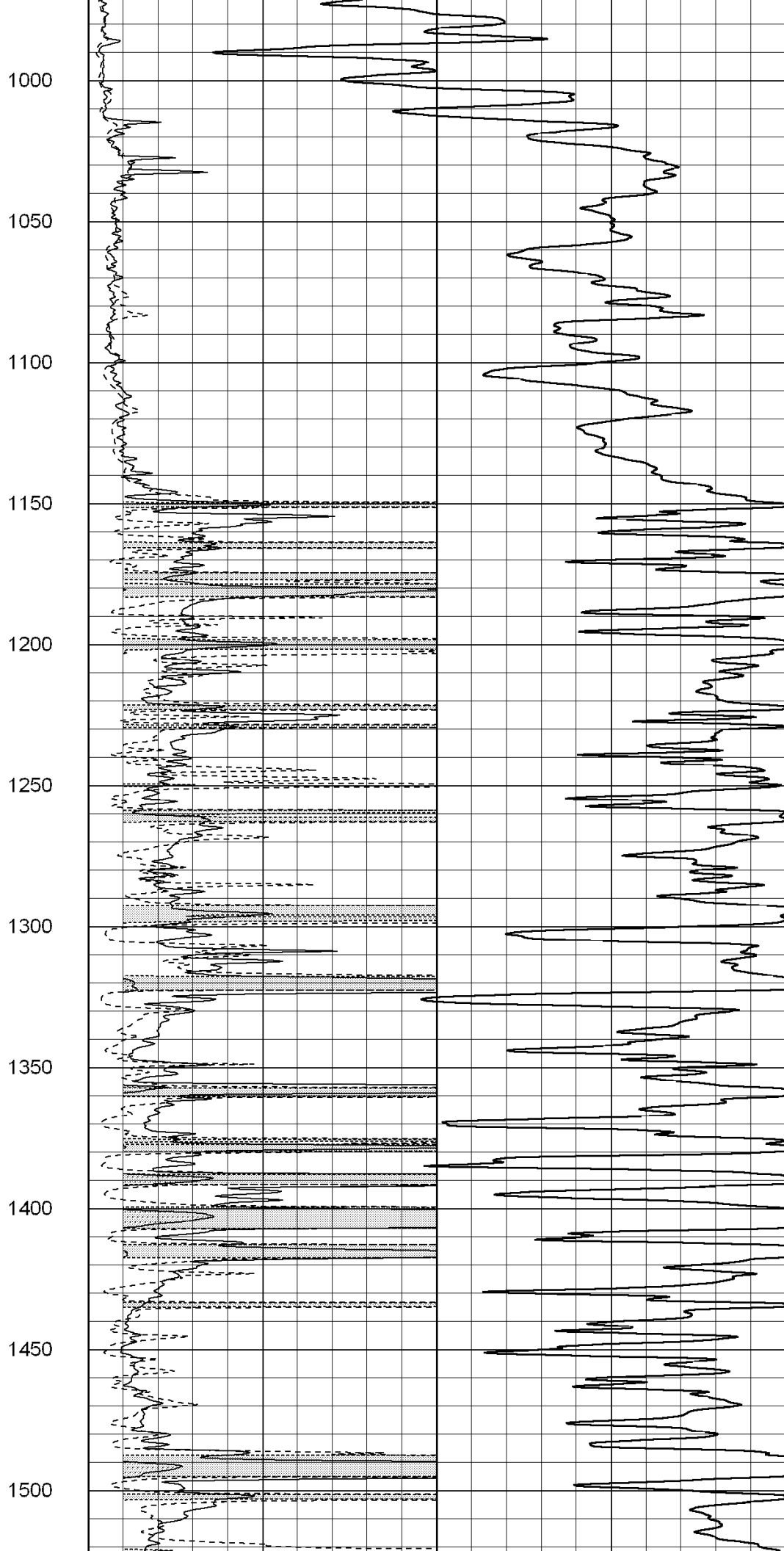
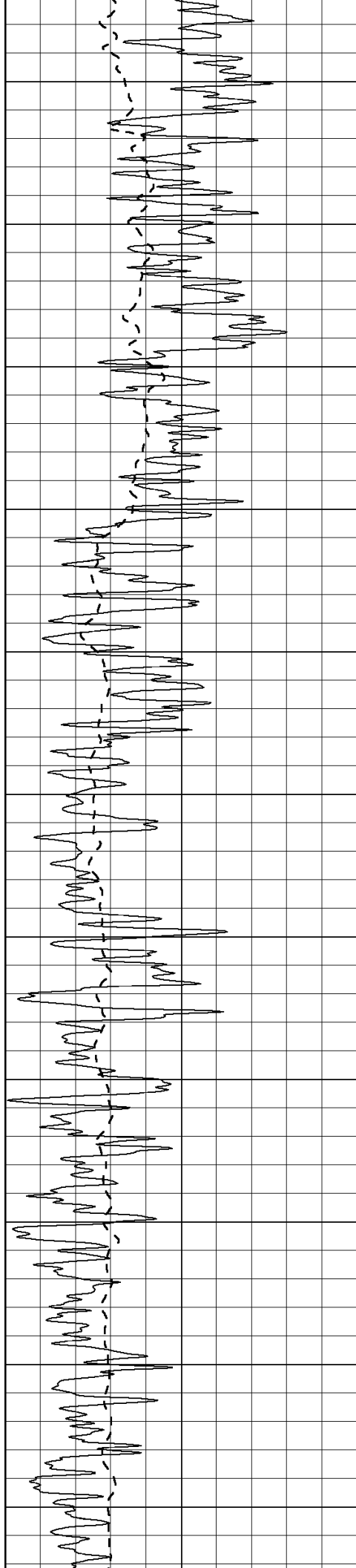
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

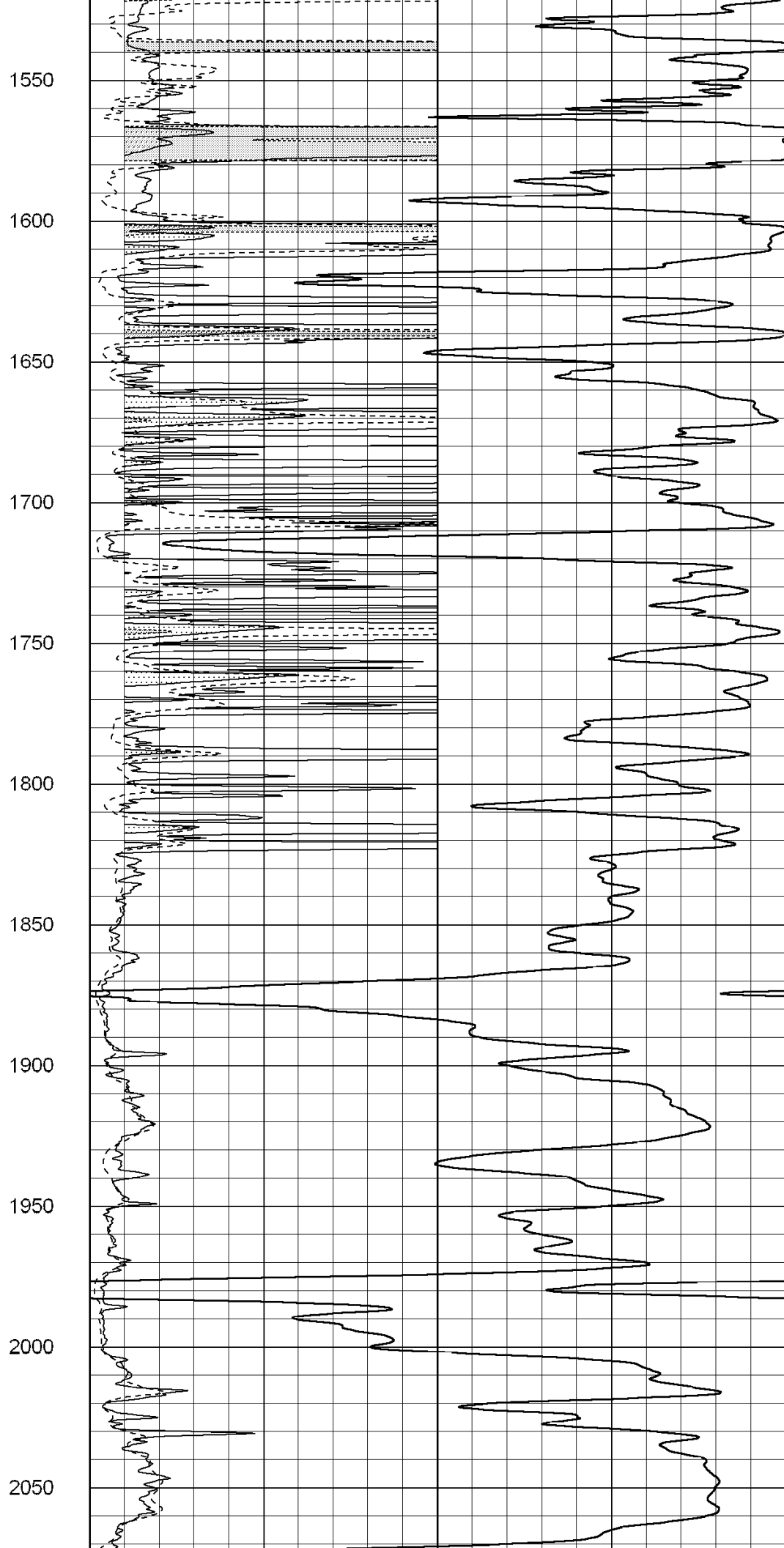
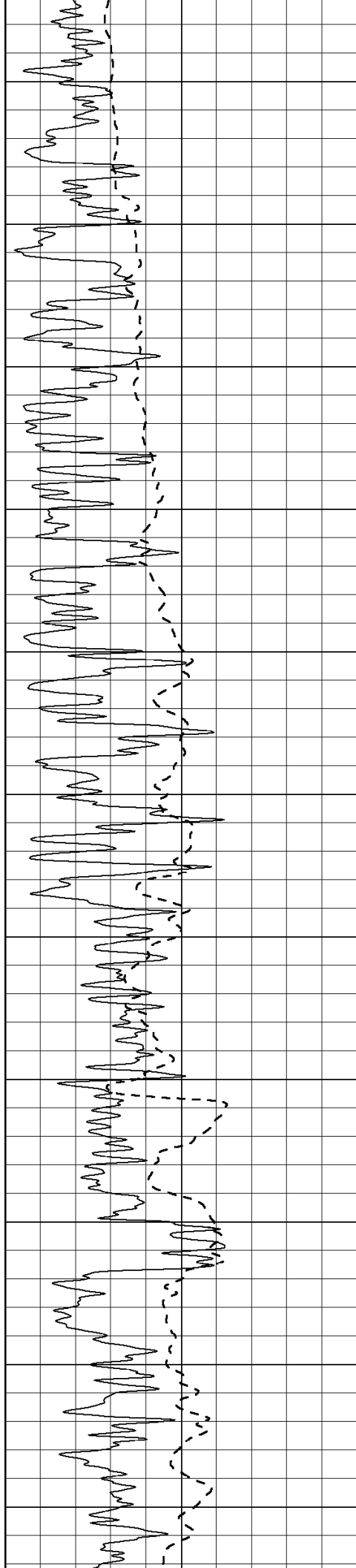


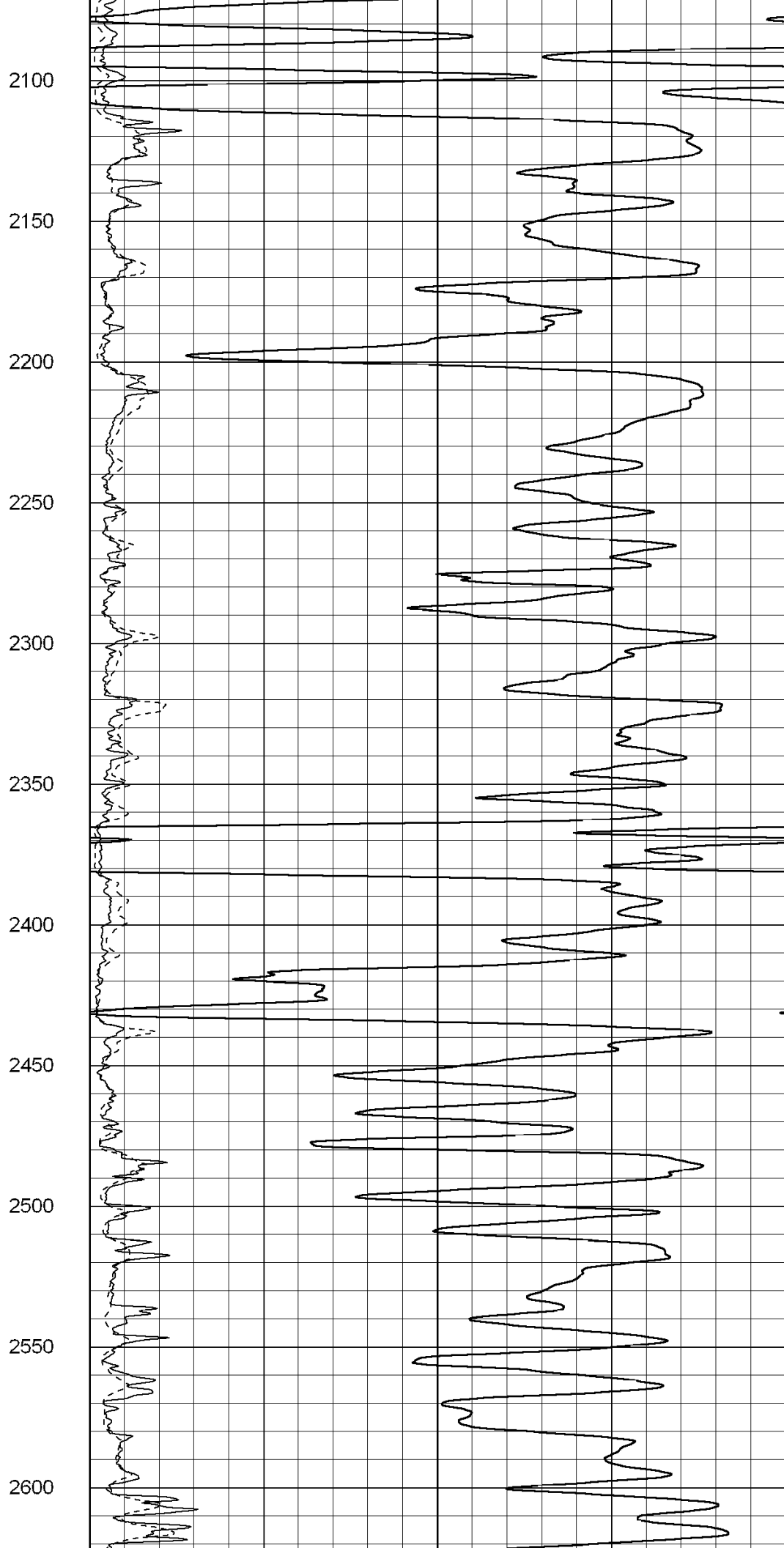
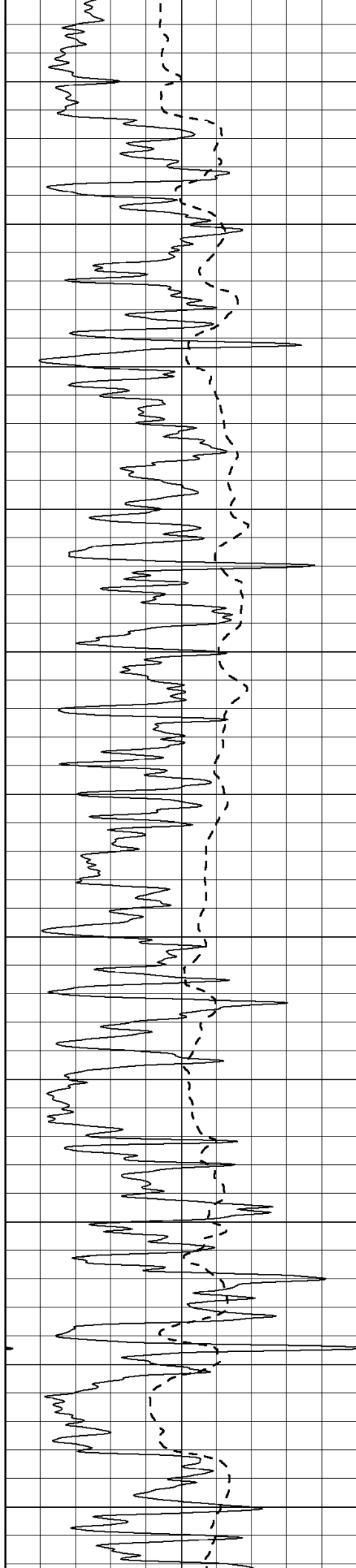
0
50
100
150
200
250
300
350
400

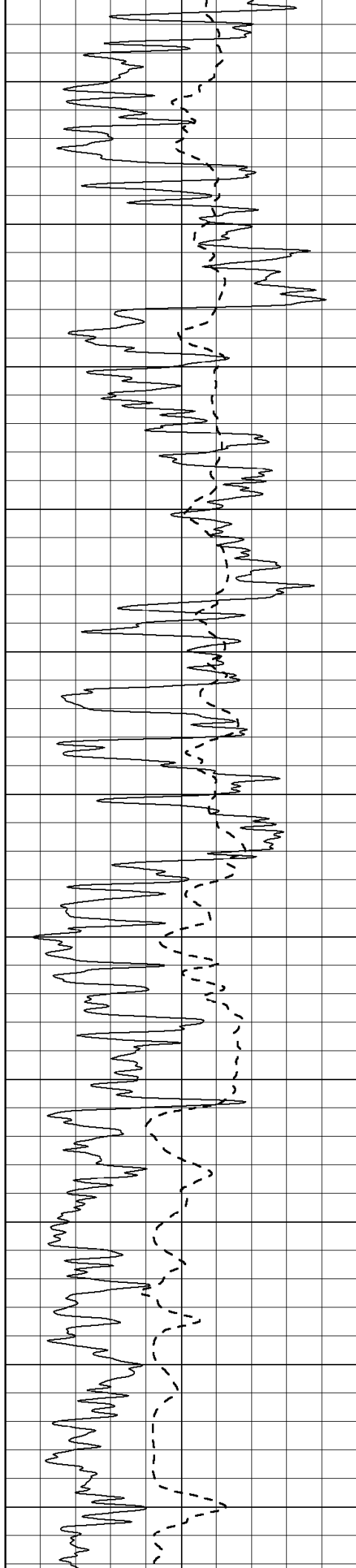












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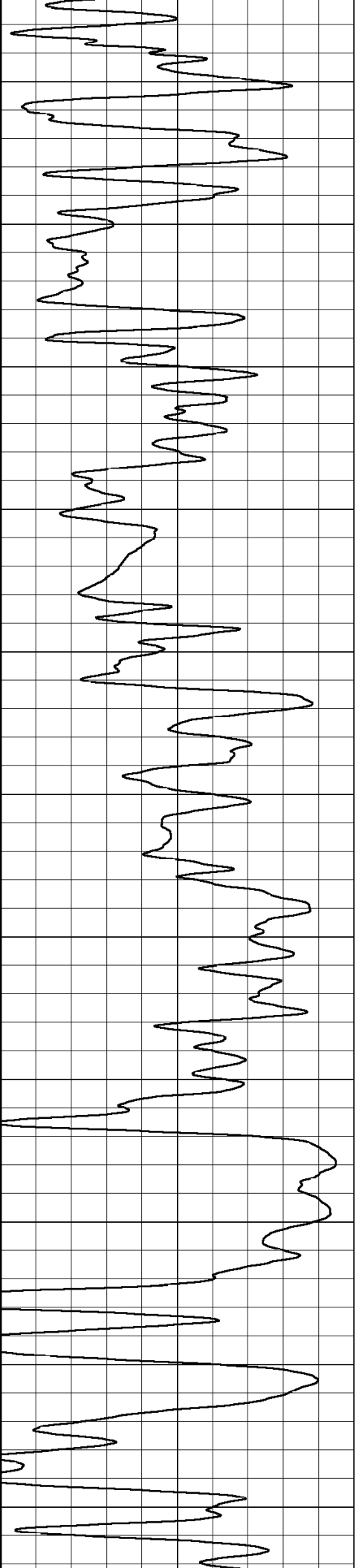
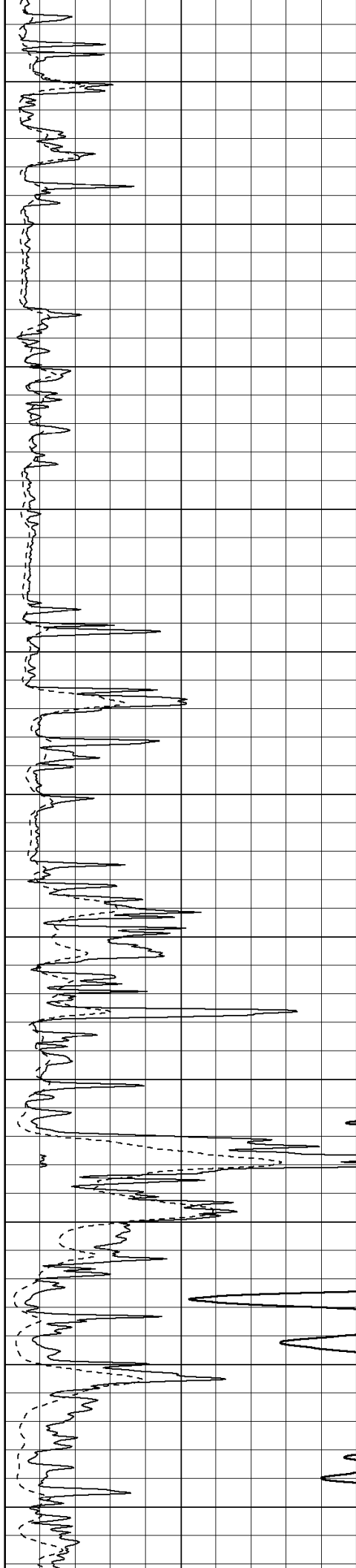
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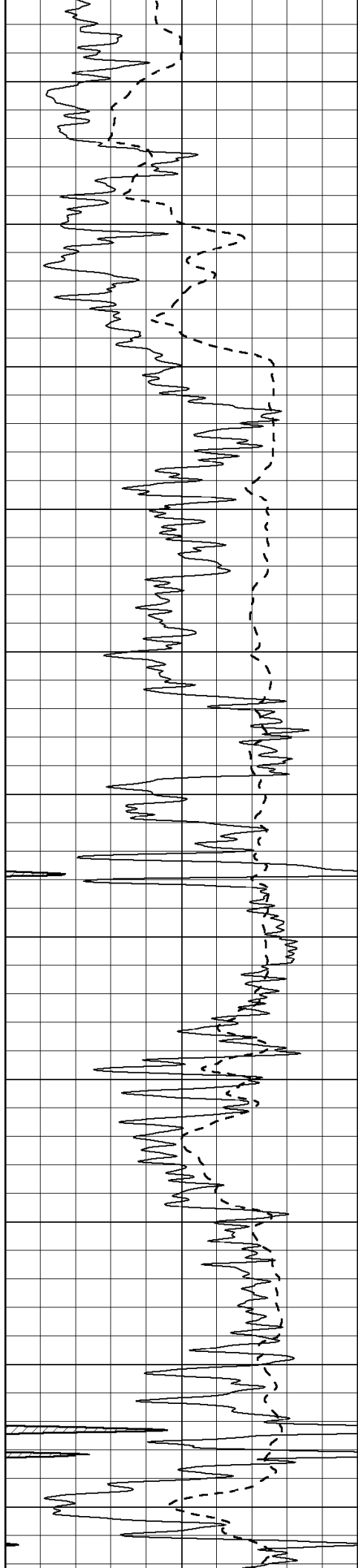
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3200

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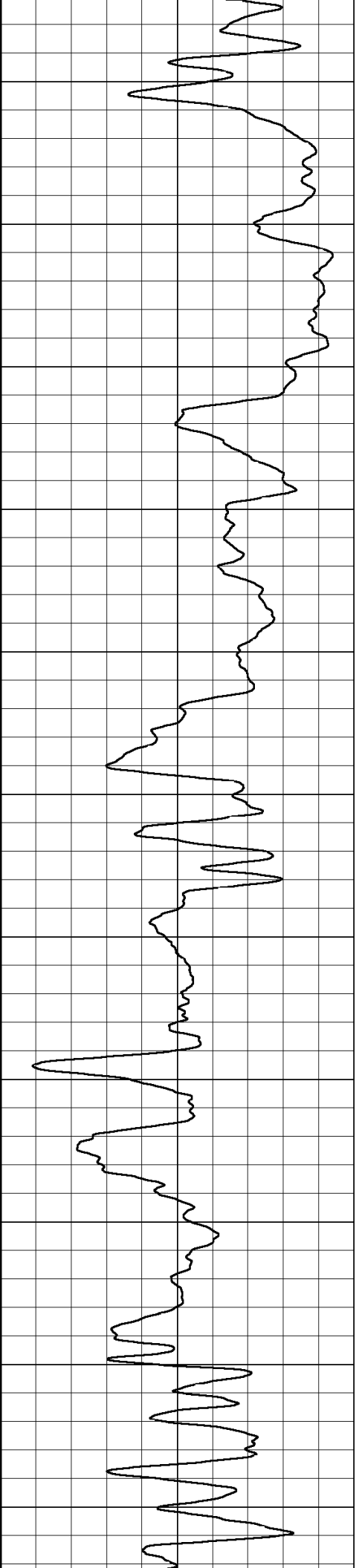
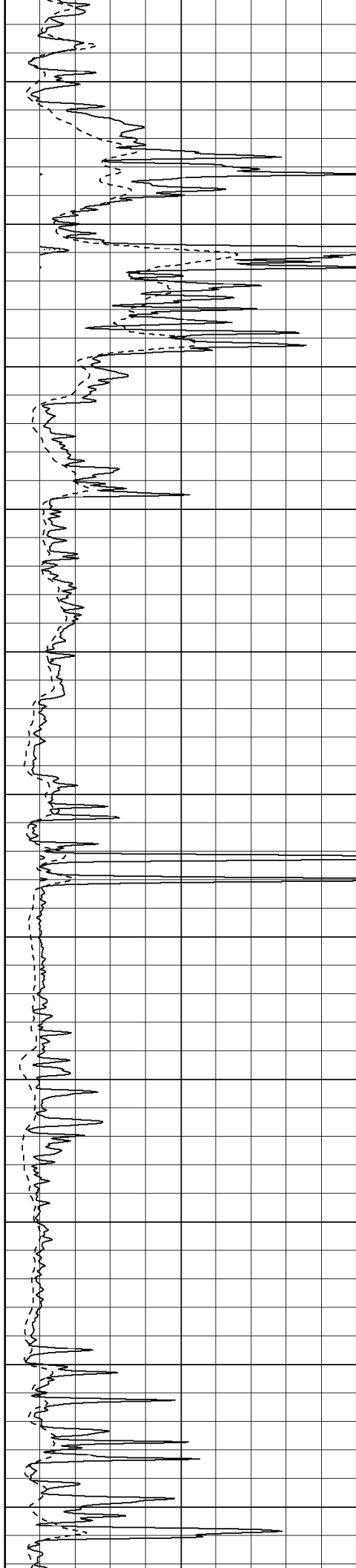
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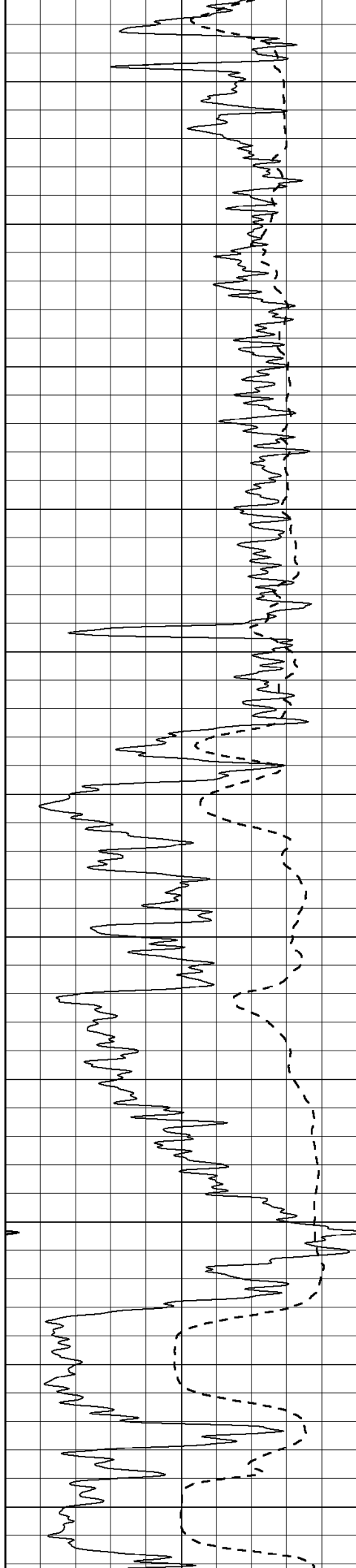
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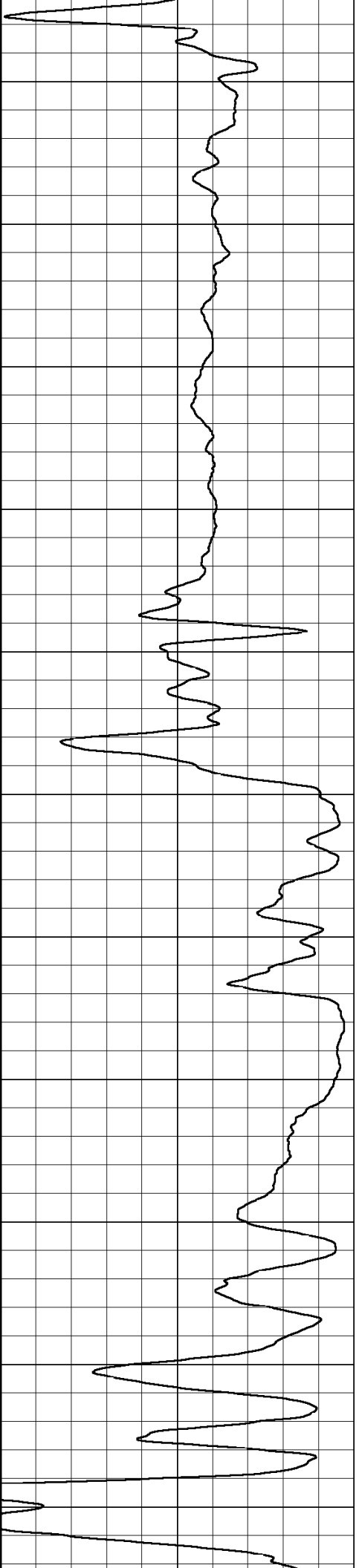
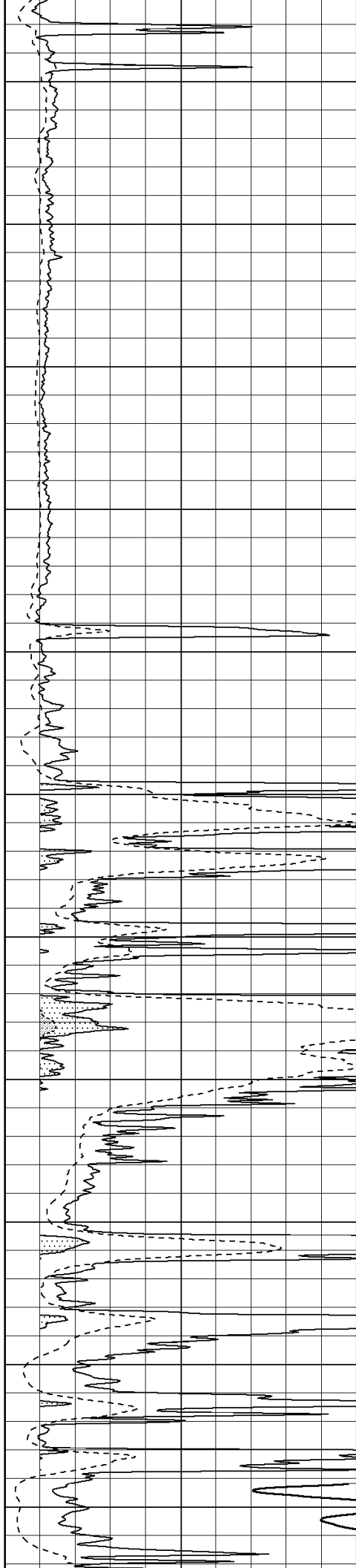
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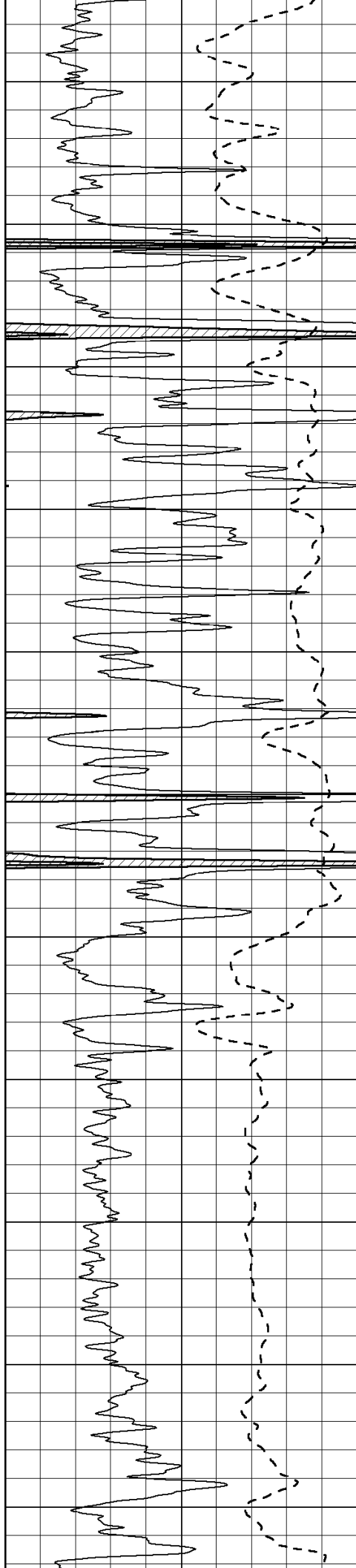
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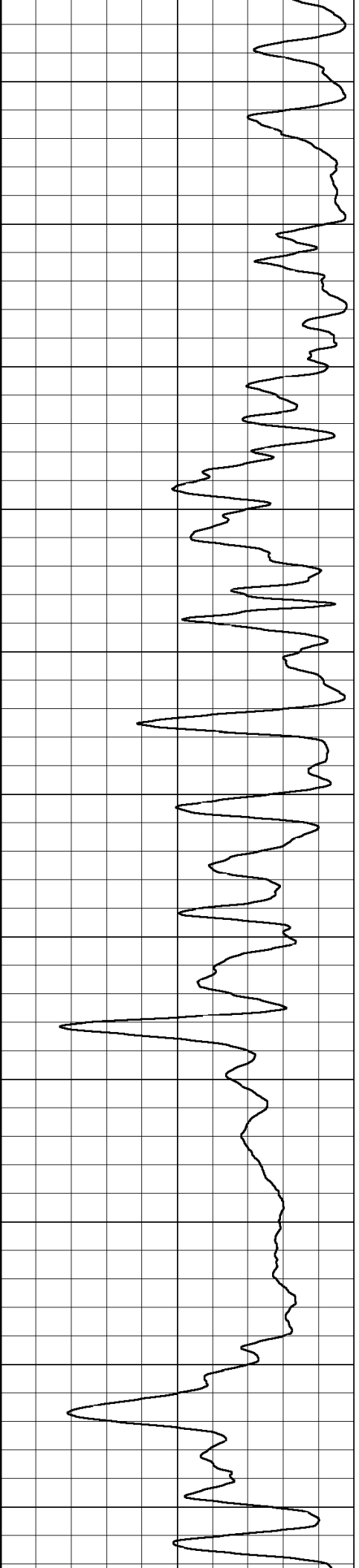
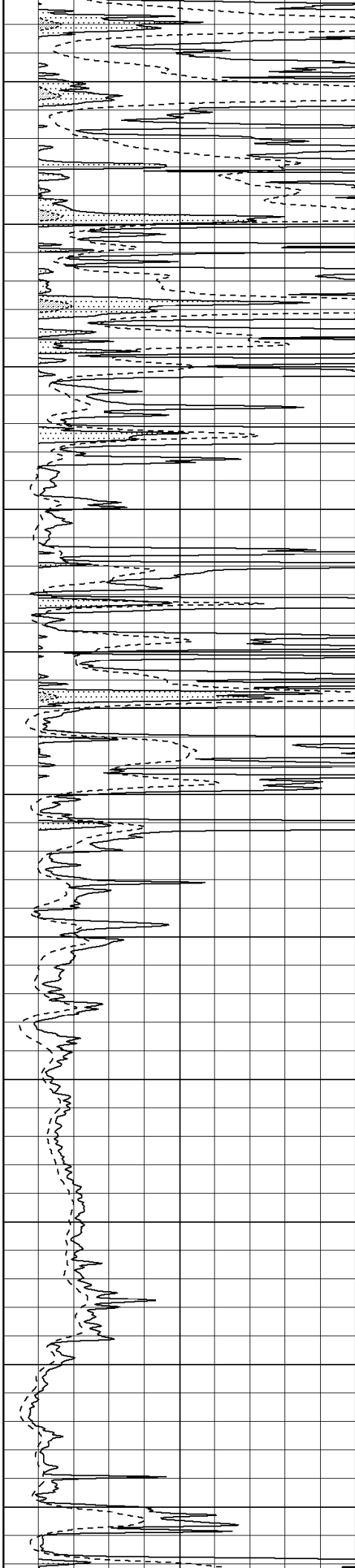
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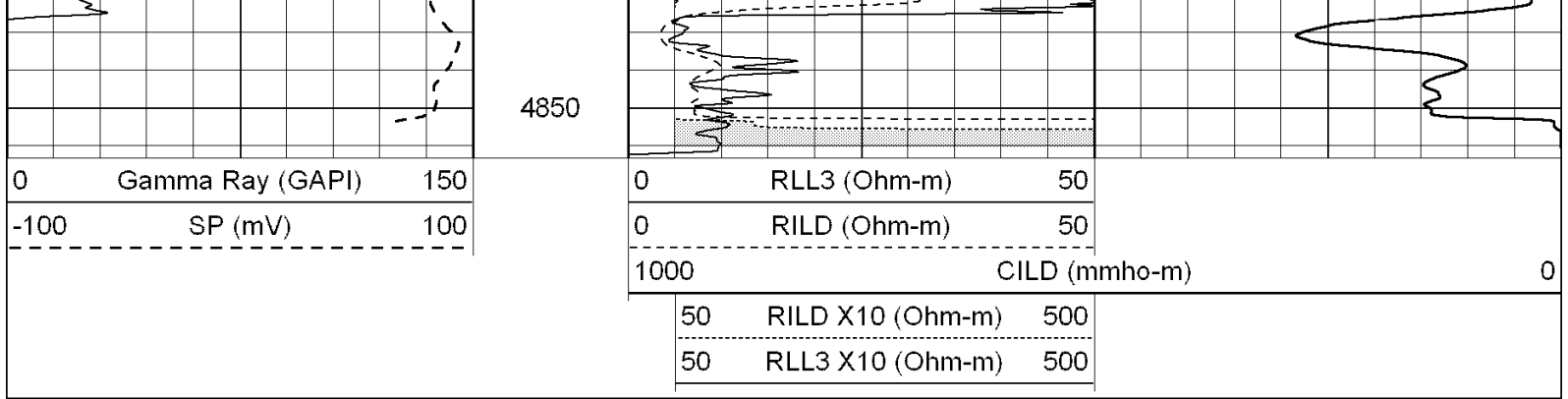
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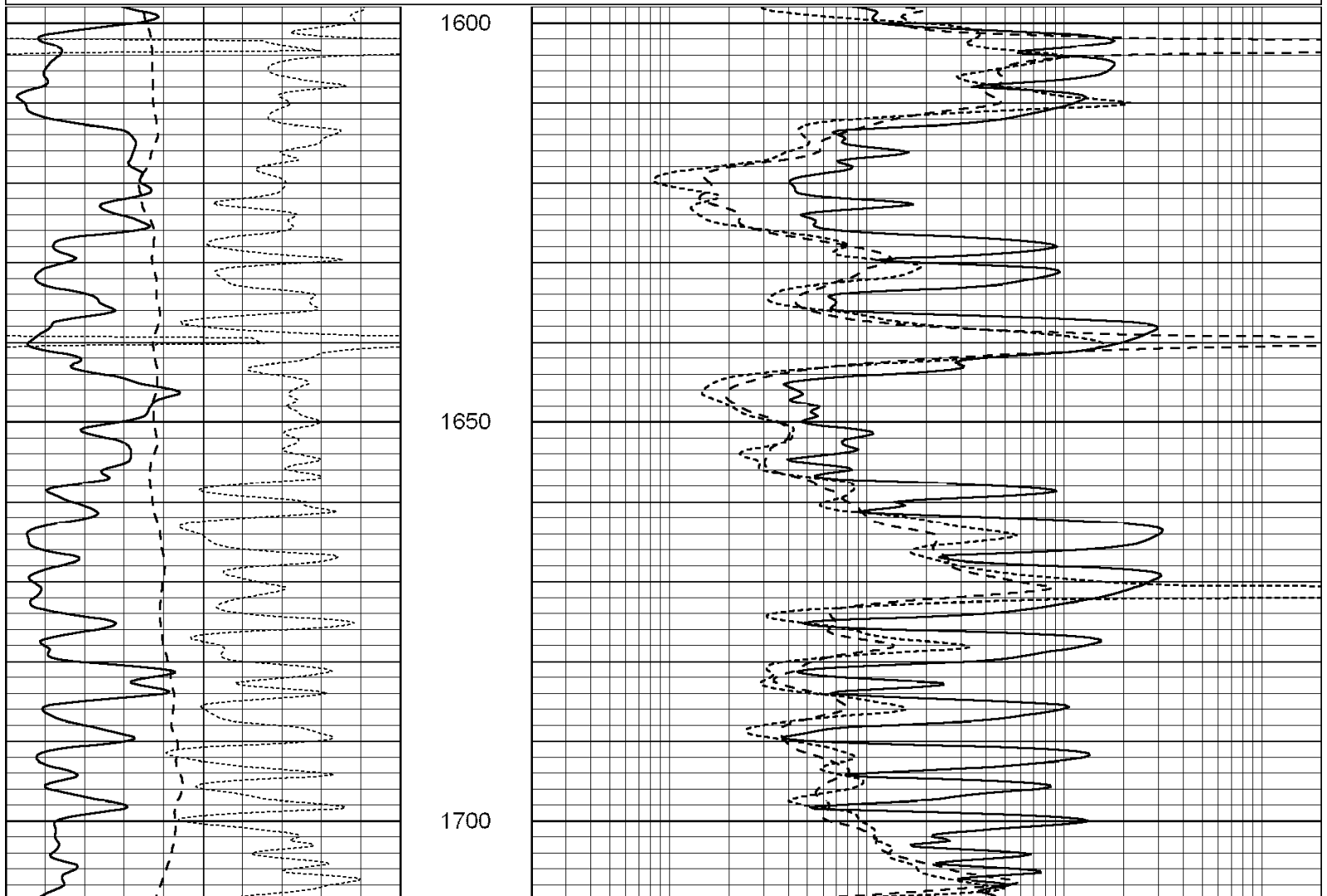


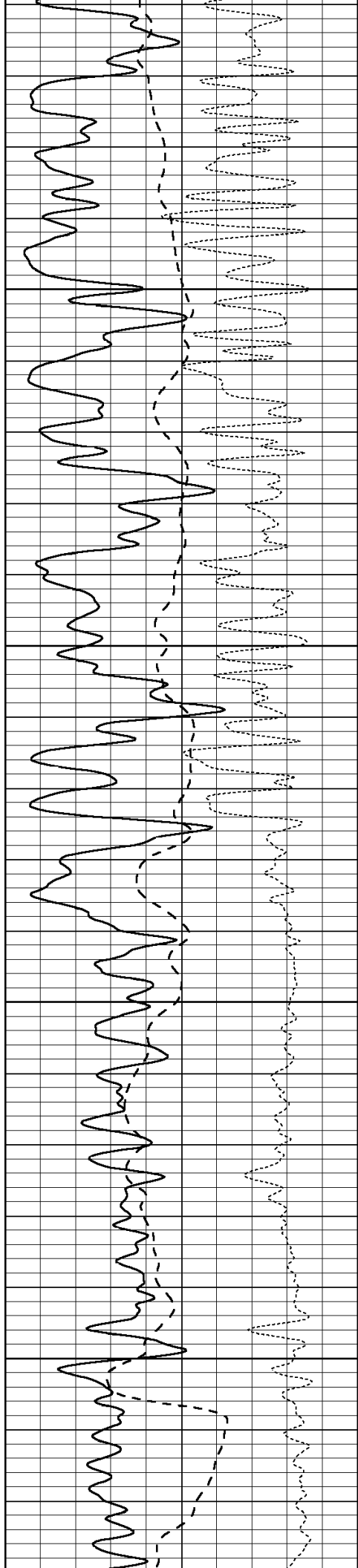
SUPERIOR
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MAIN SECTION

Database File: 004723pe.db
 Dataset Pathname: pass3.4
 Presentation Format: dil
 Dataset Creation: Wed Feb 24 08:26:51 2010 by Calc Open-Cased 060407
 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	0.2	MEDIUM INDUCTION (Ohm-m)	2000



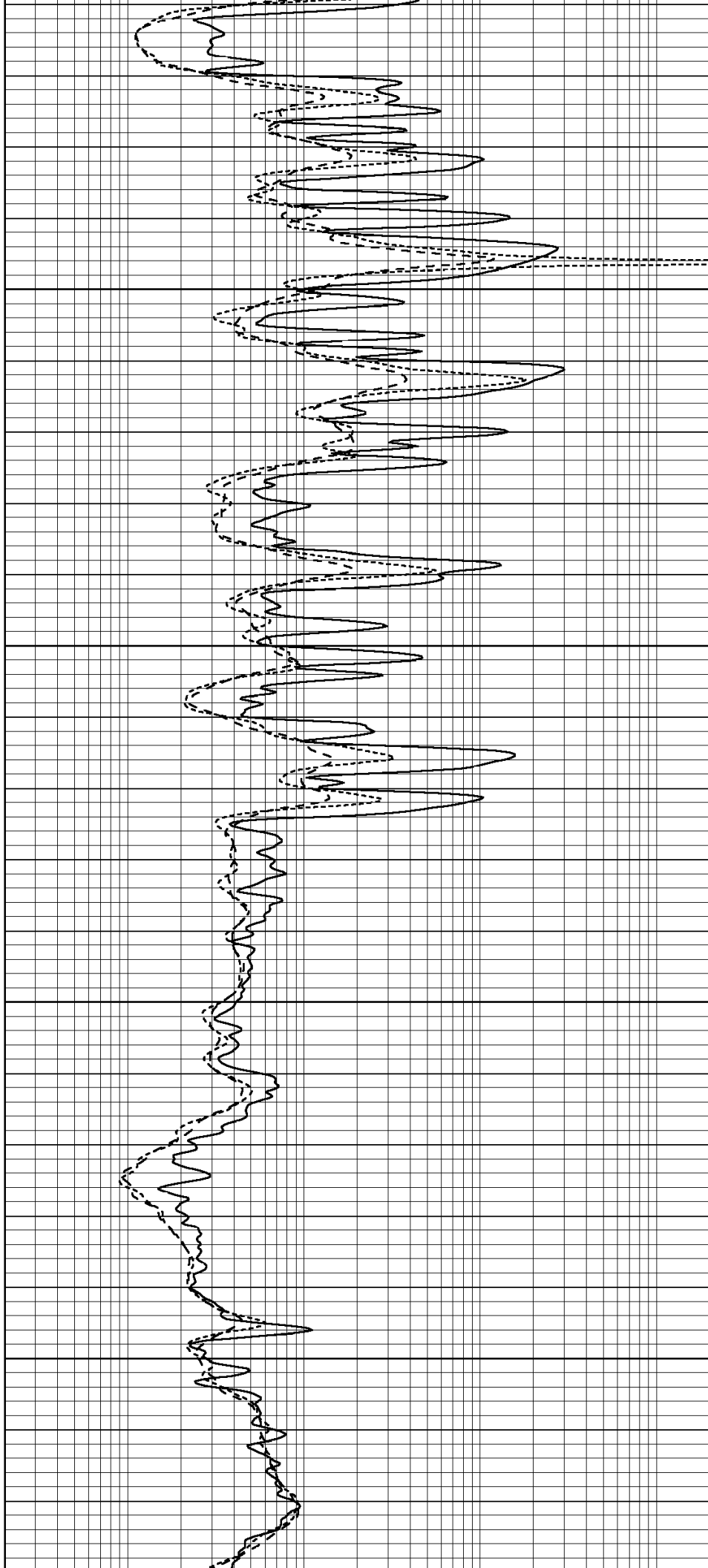


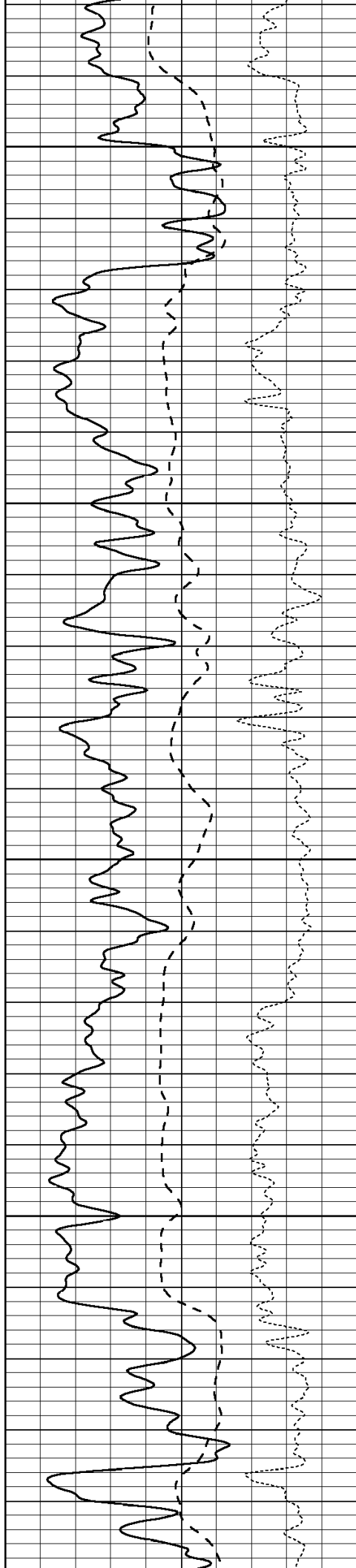
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1850

1900





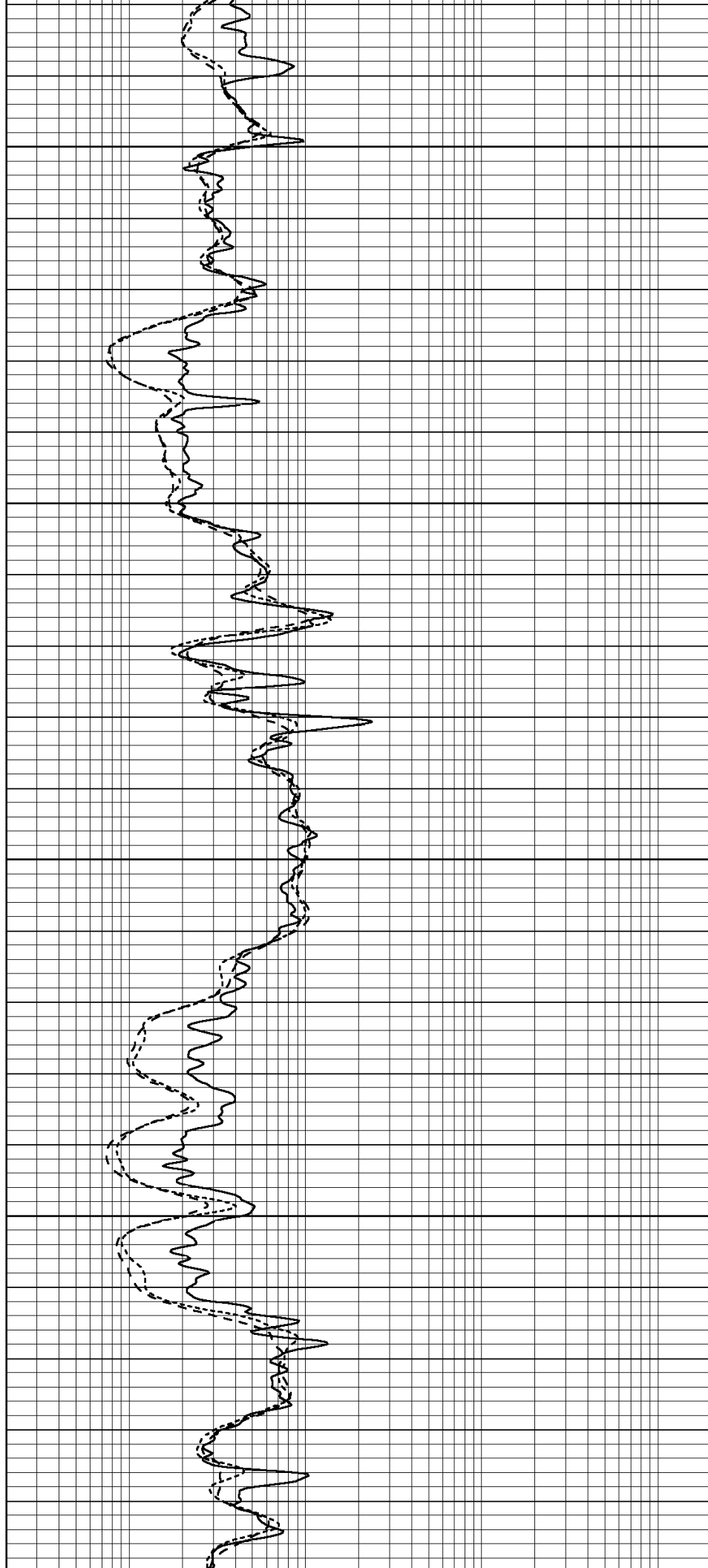
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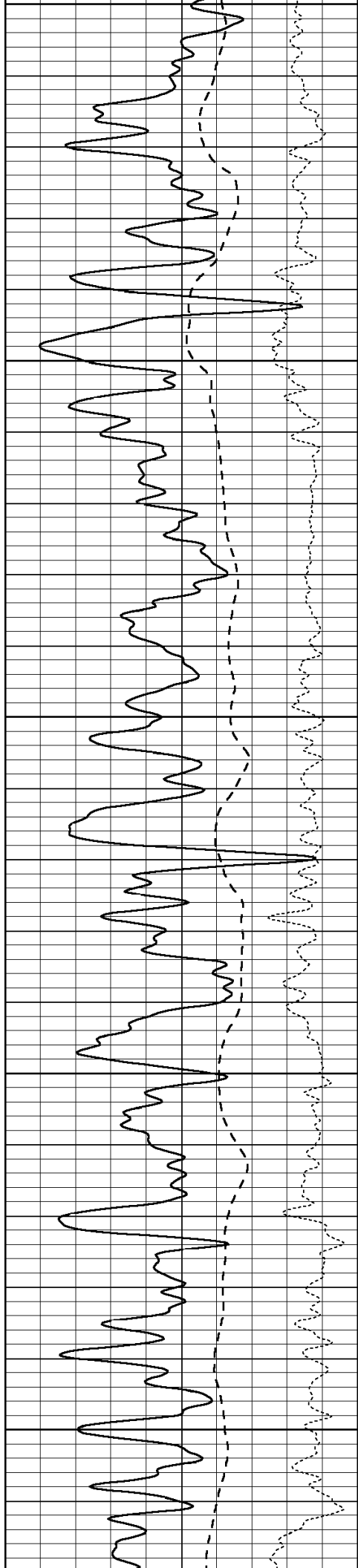
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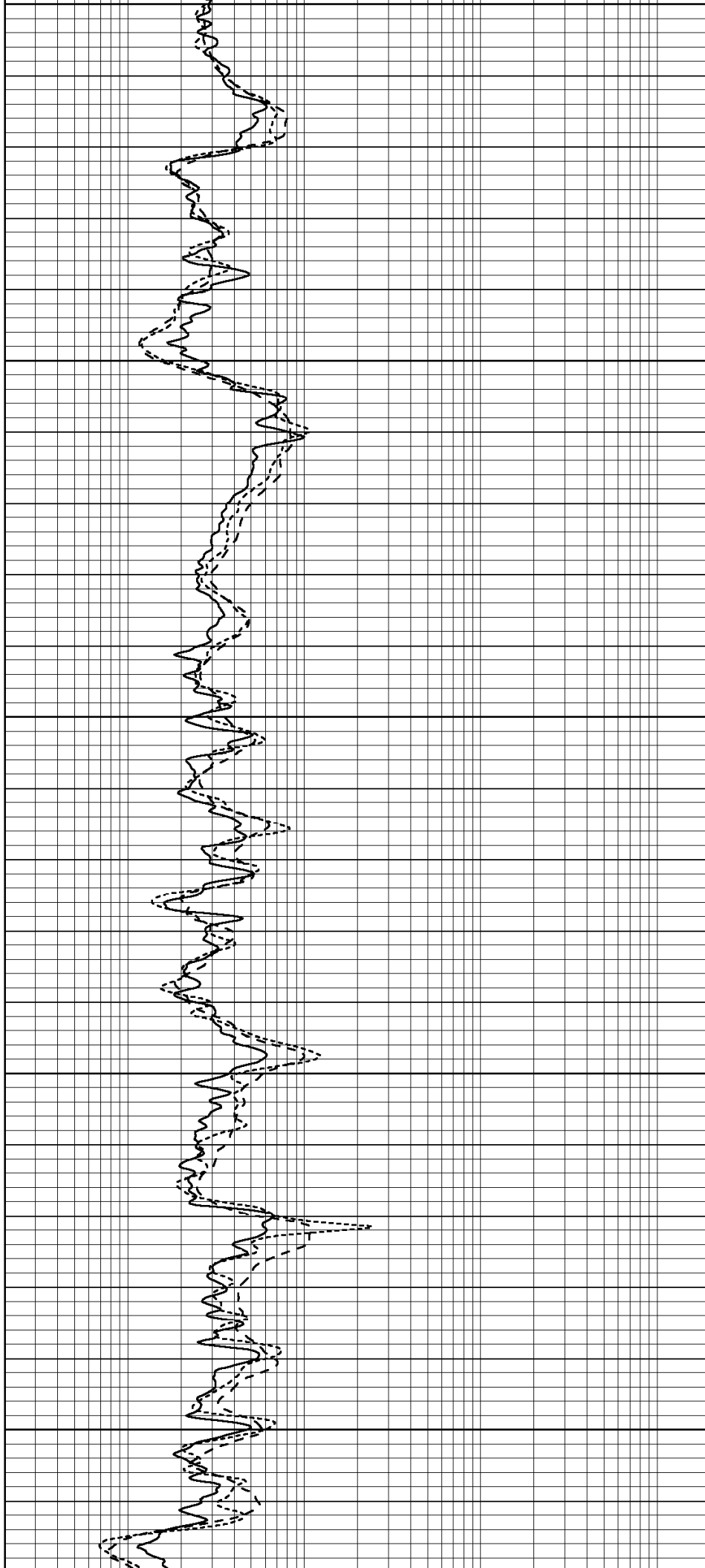
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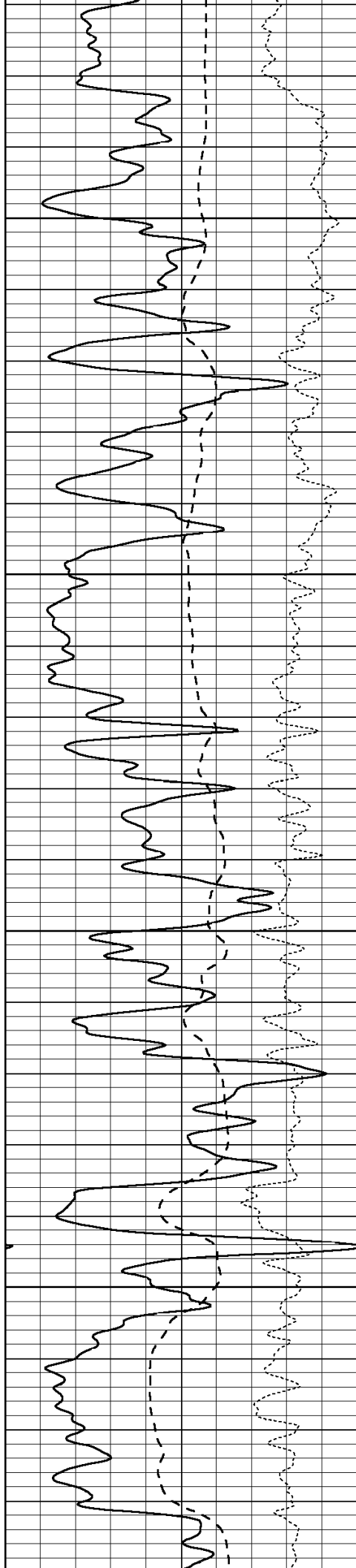
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2350



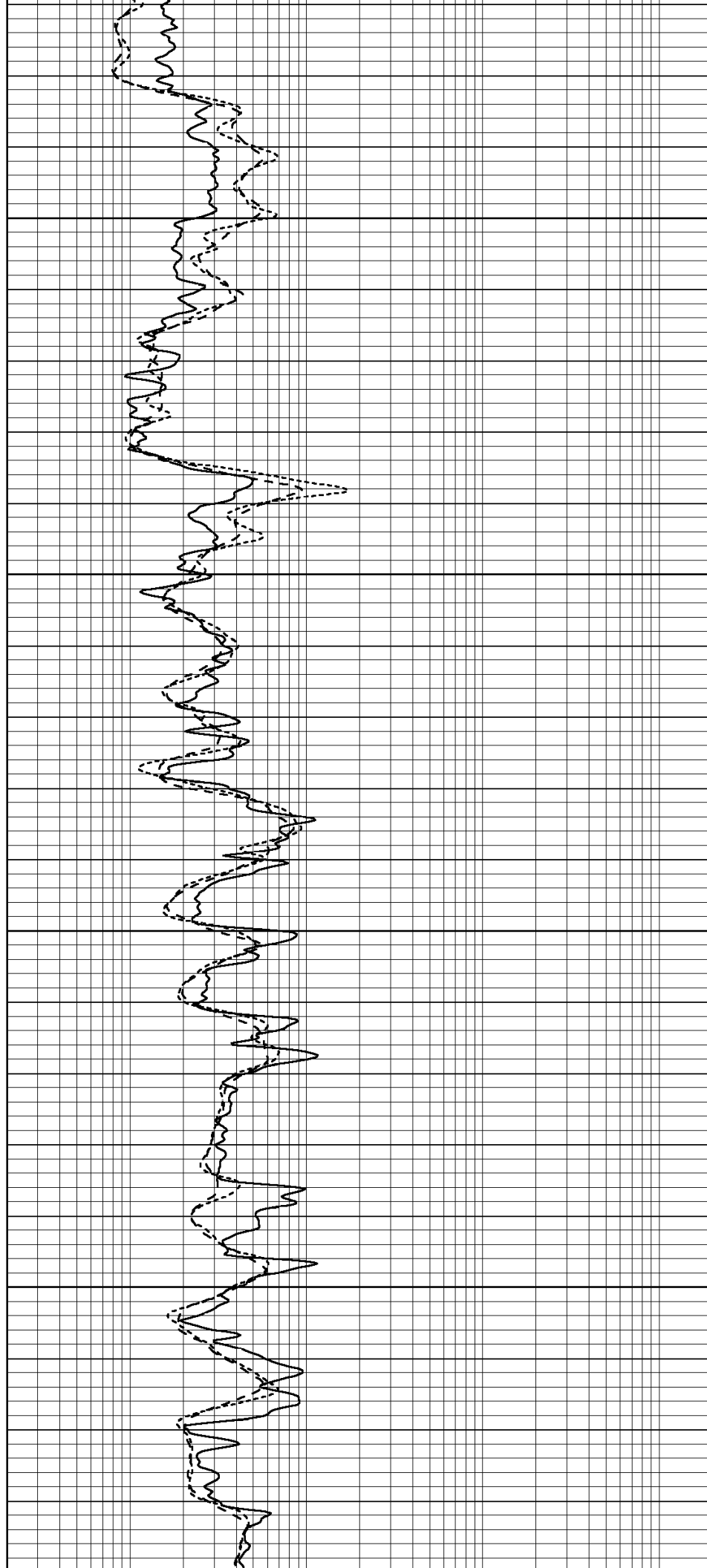


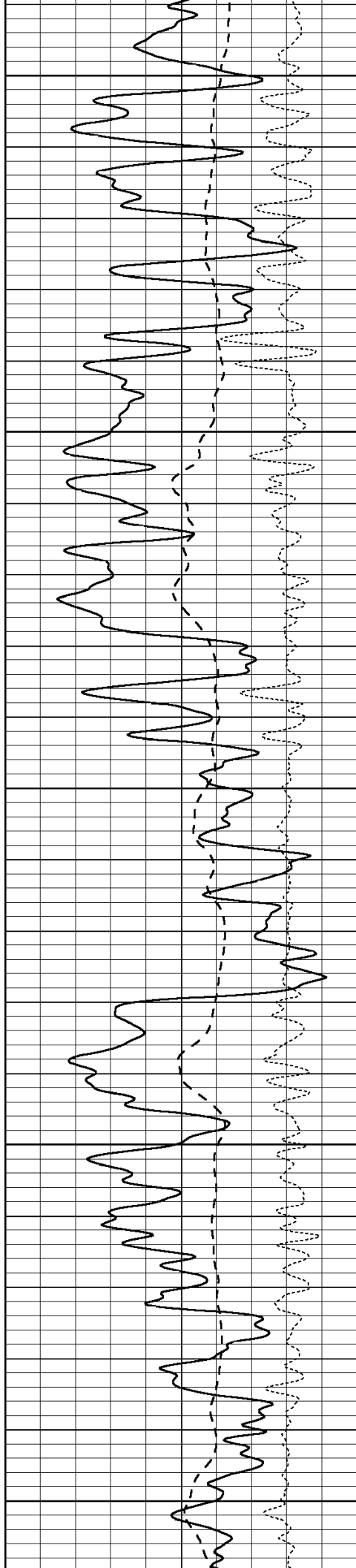
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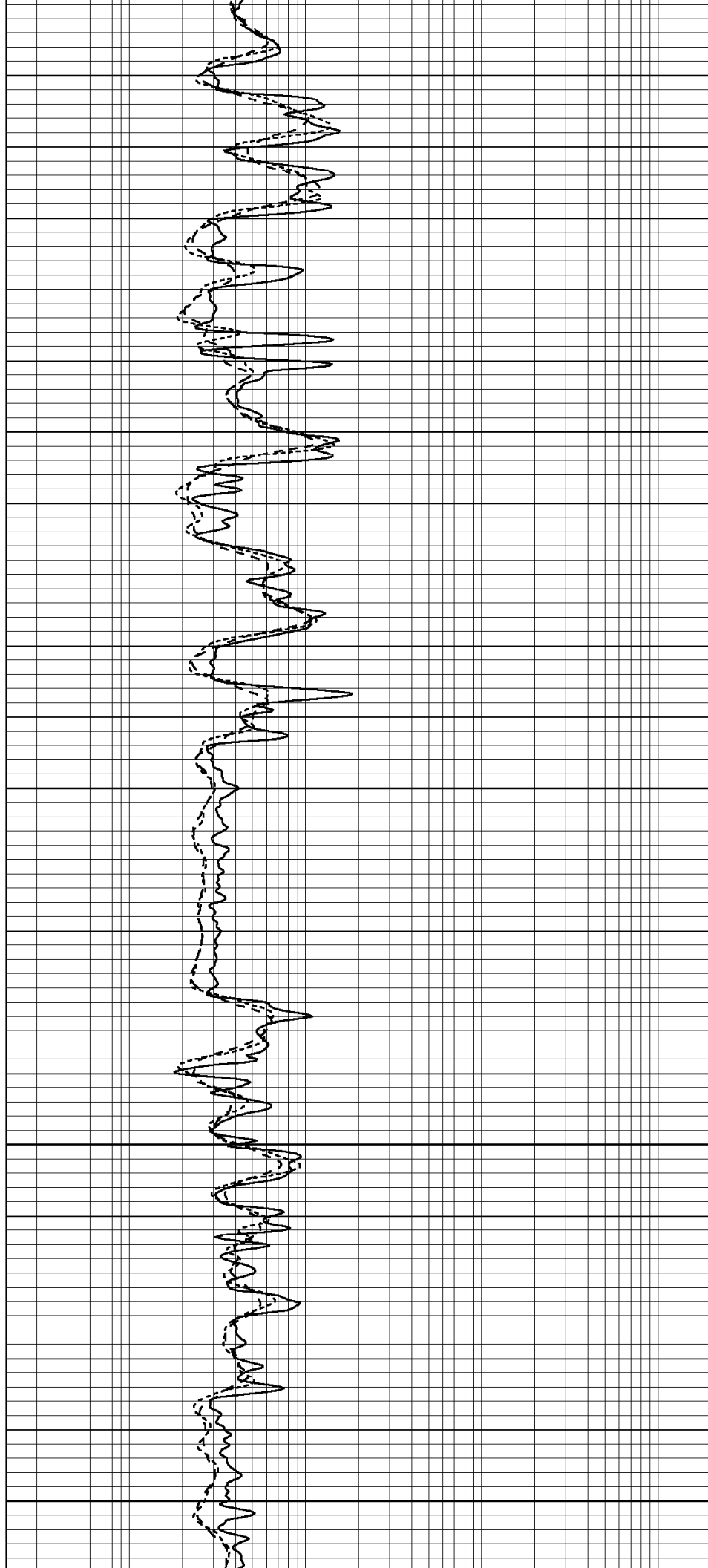
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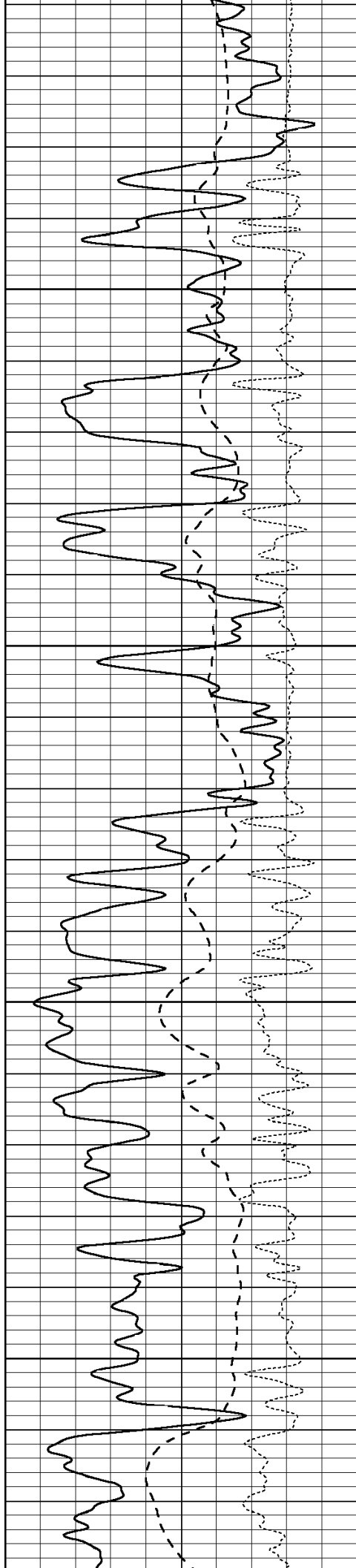
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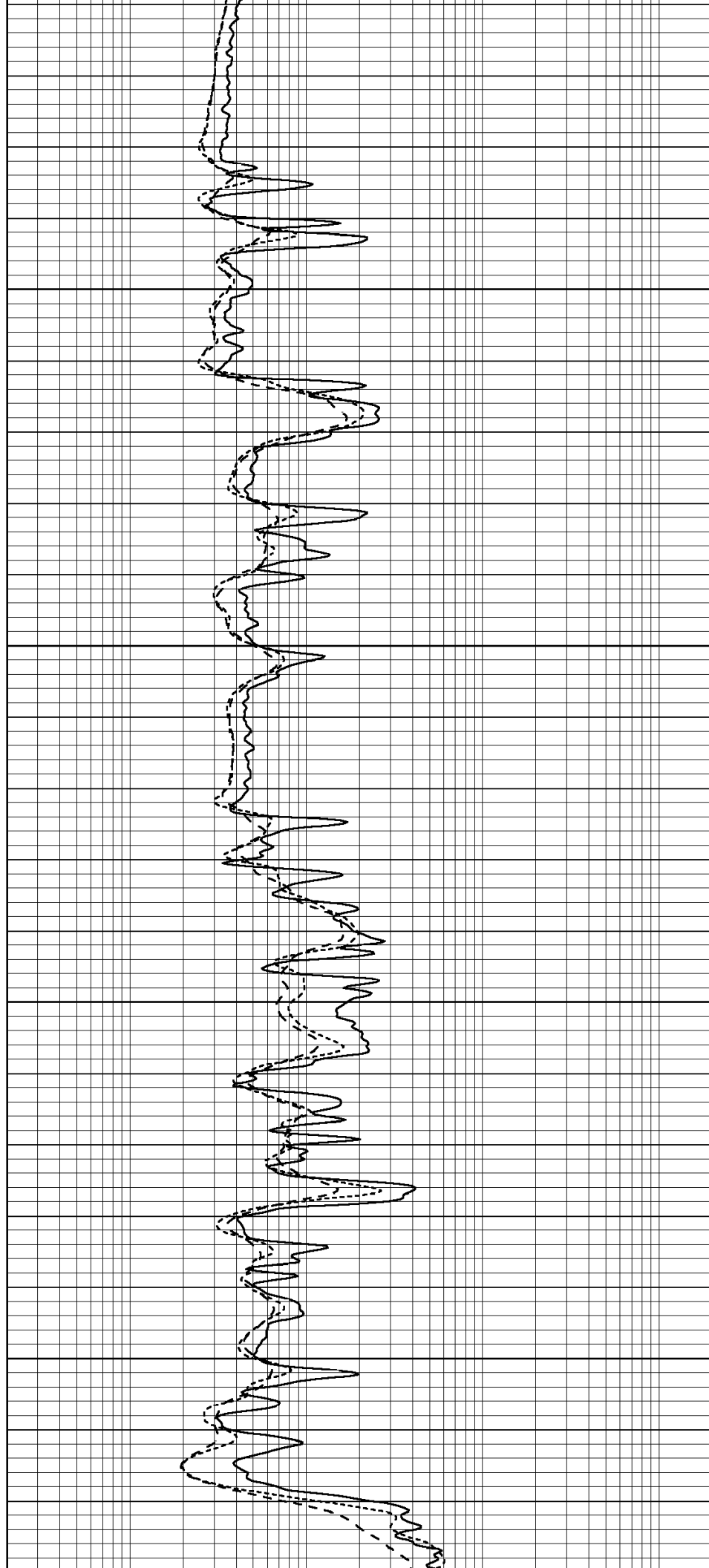


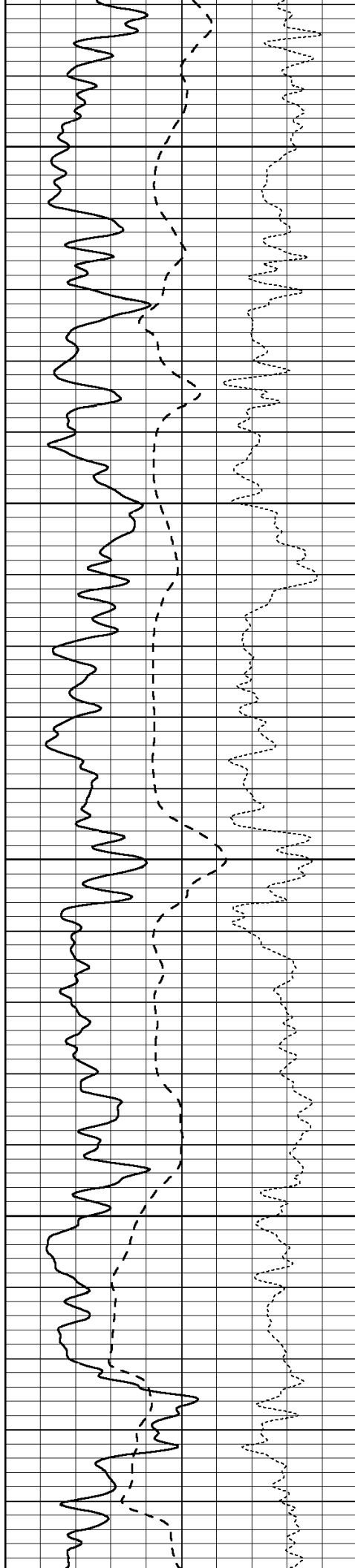
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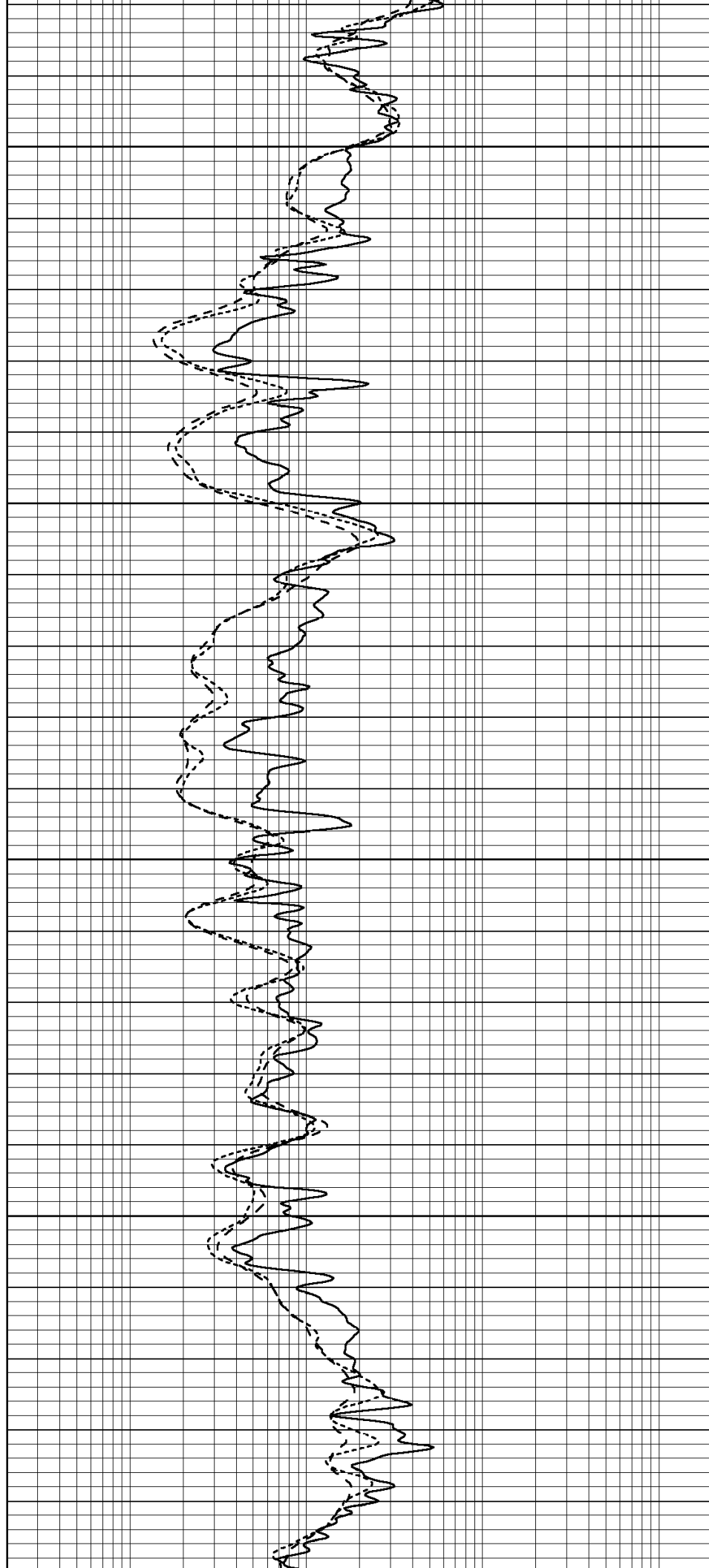
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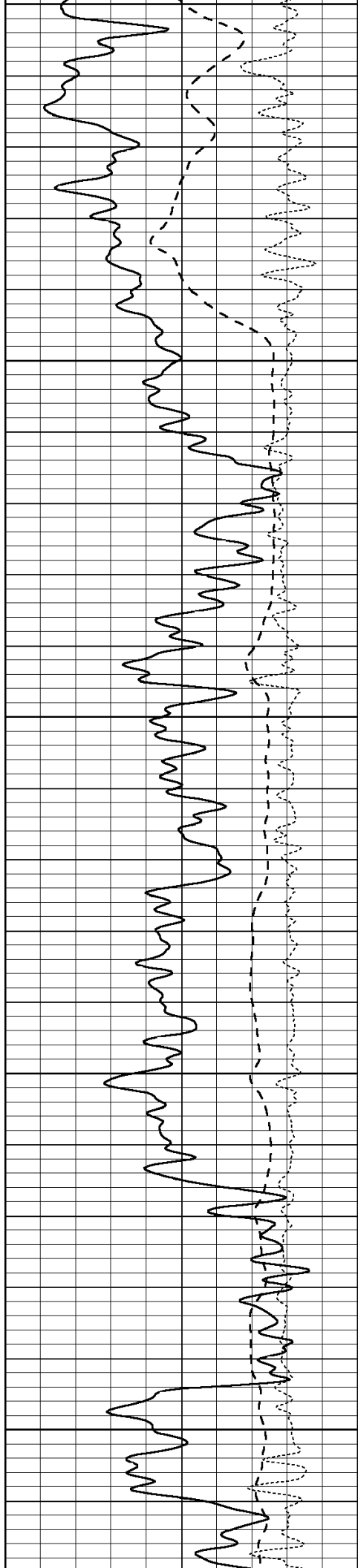
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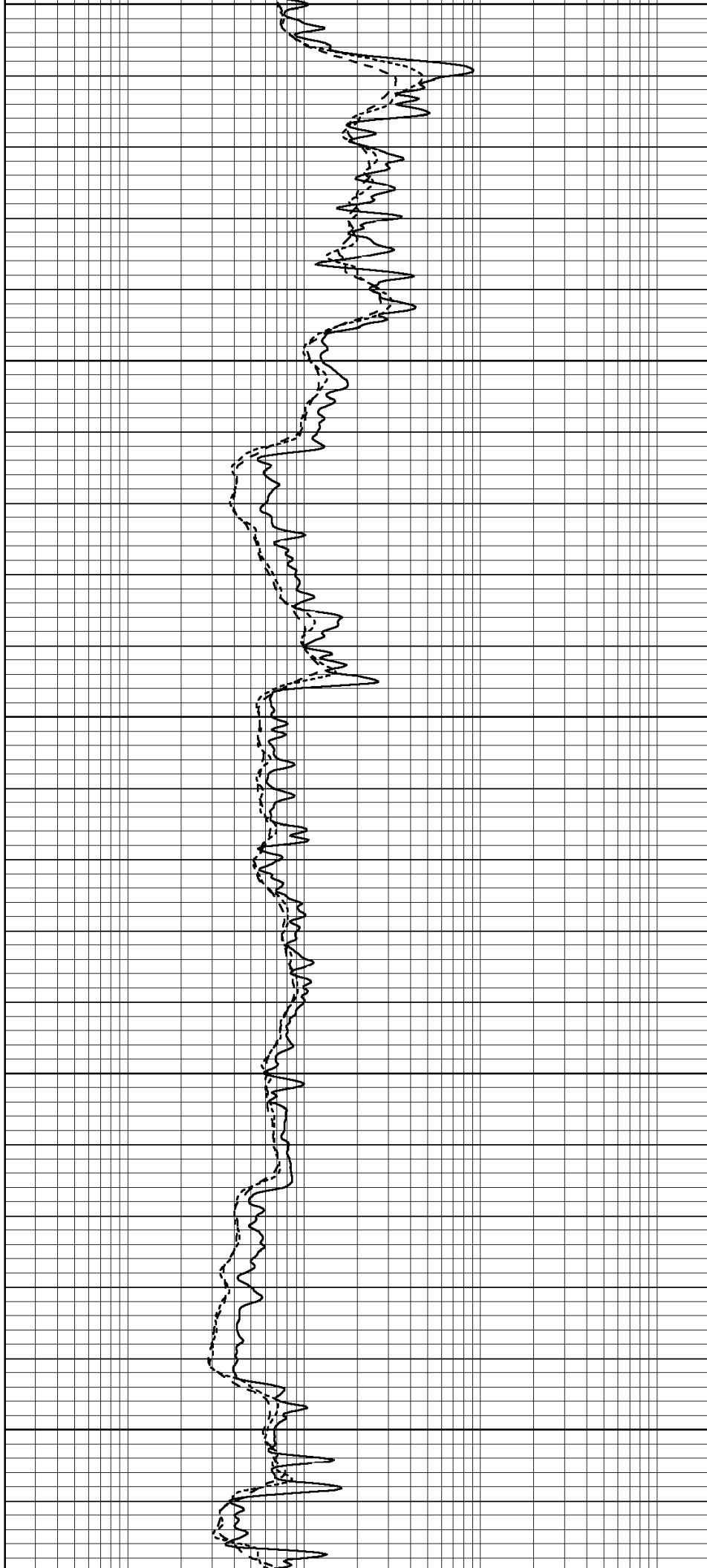
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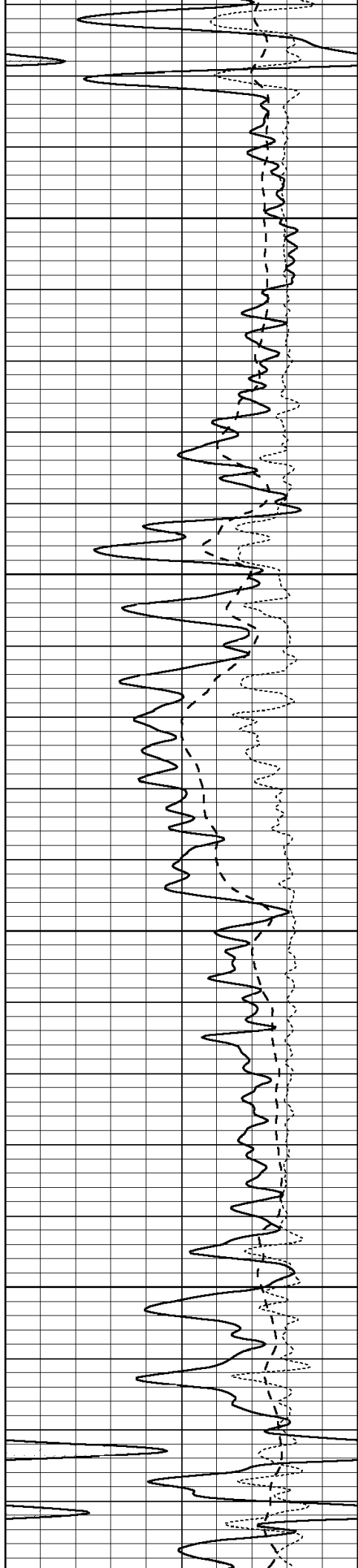
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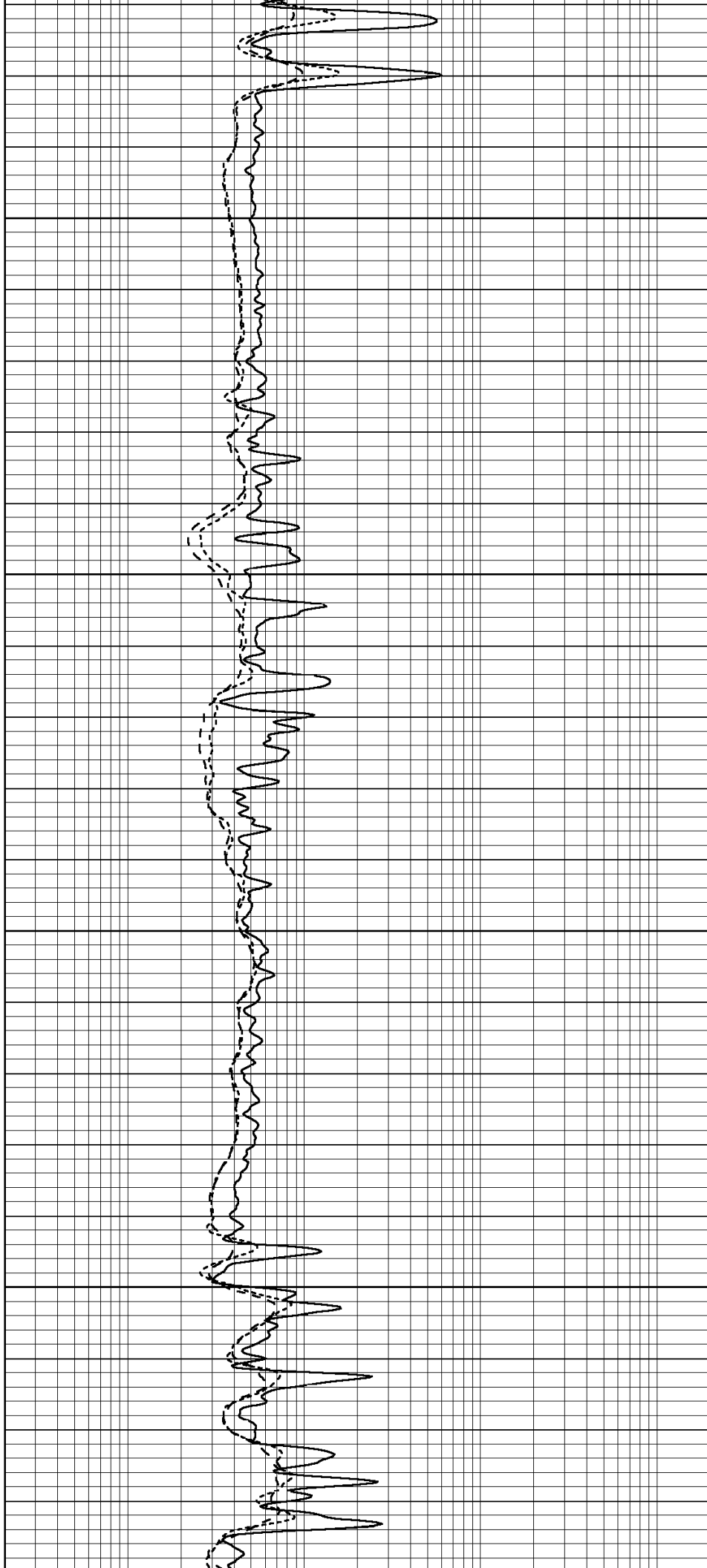


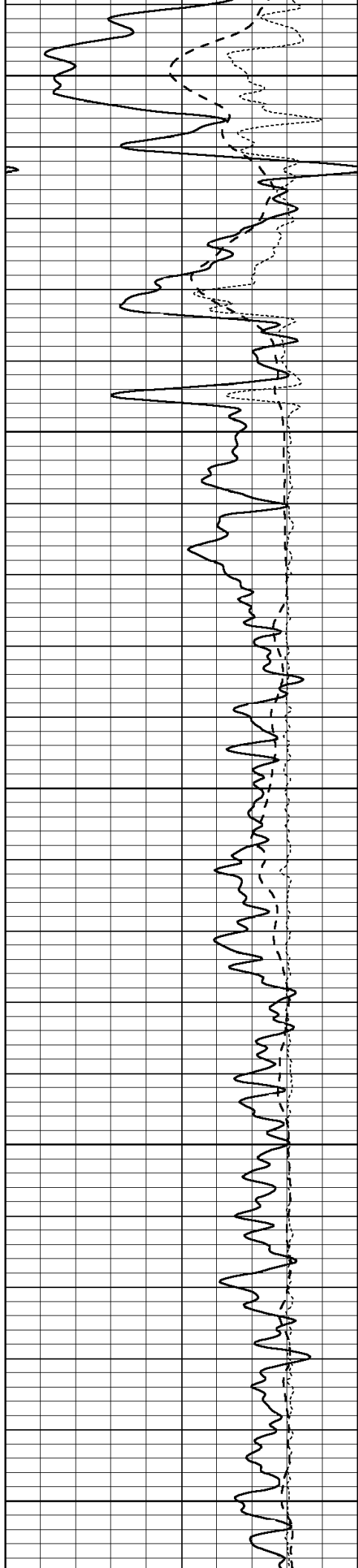
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3650





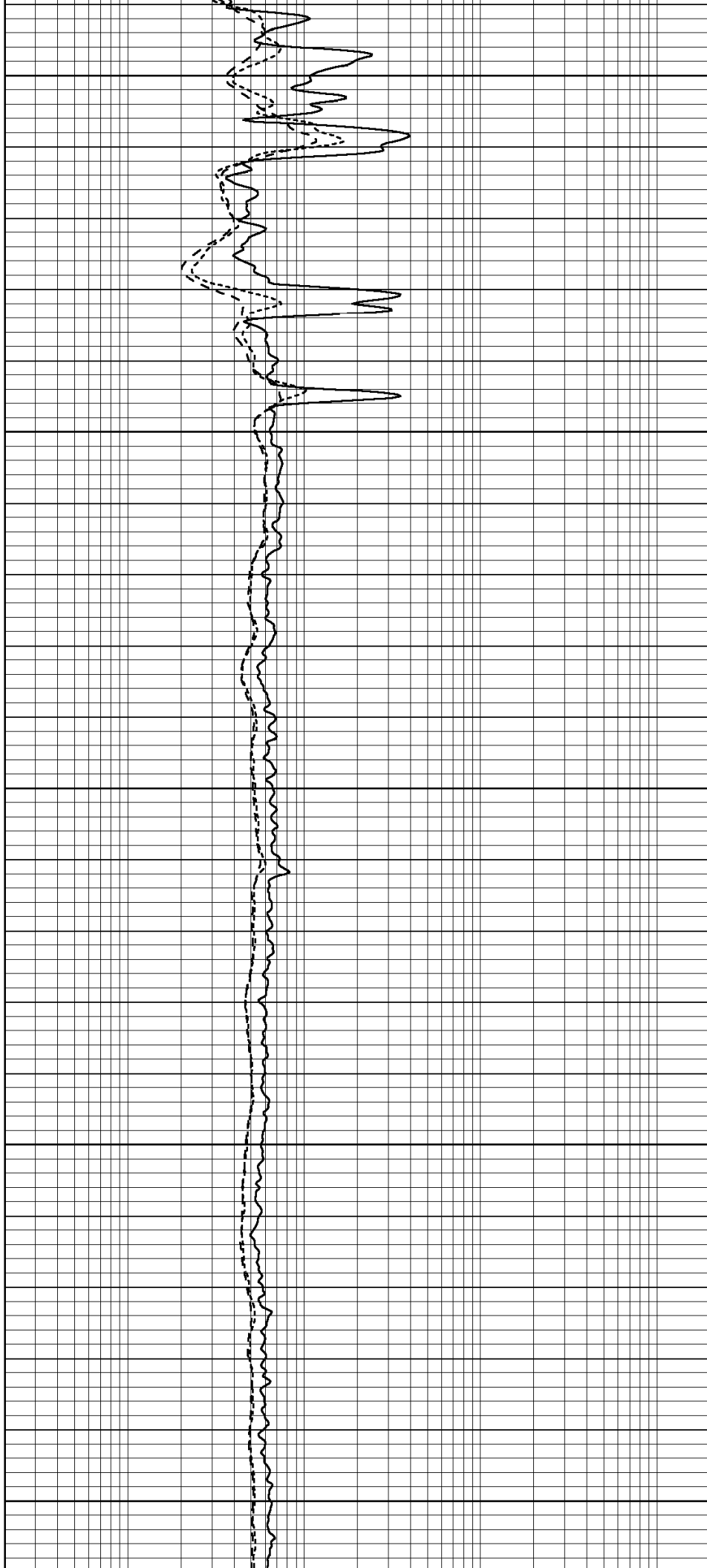
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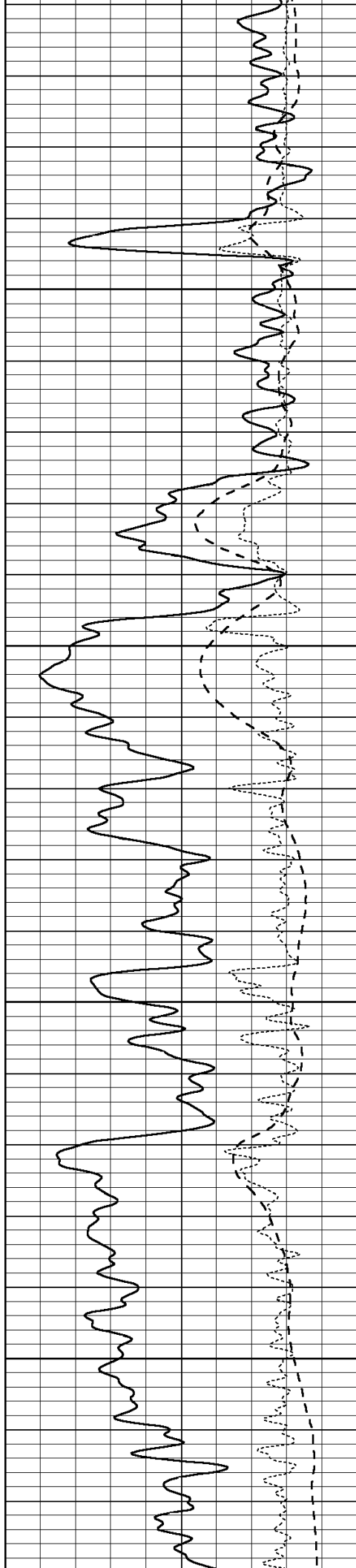
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3900



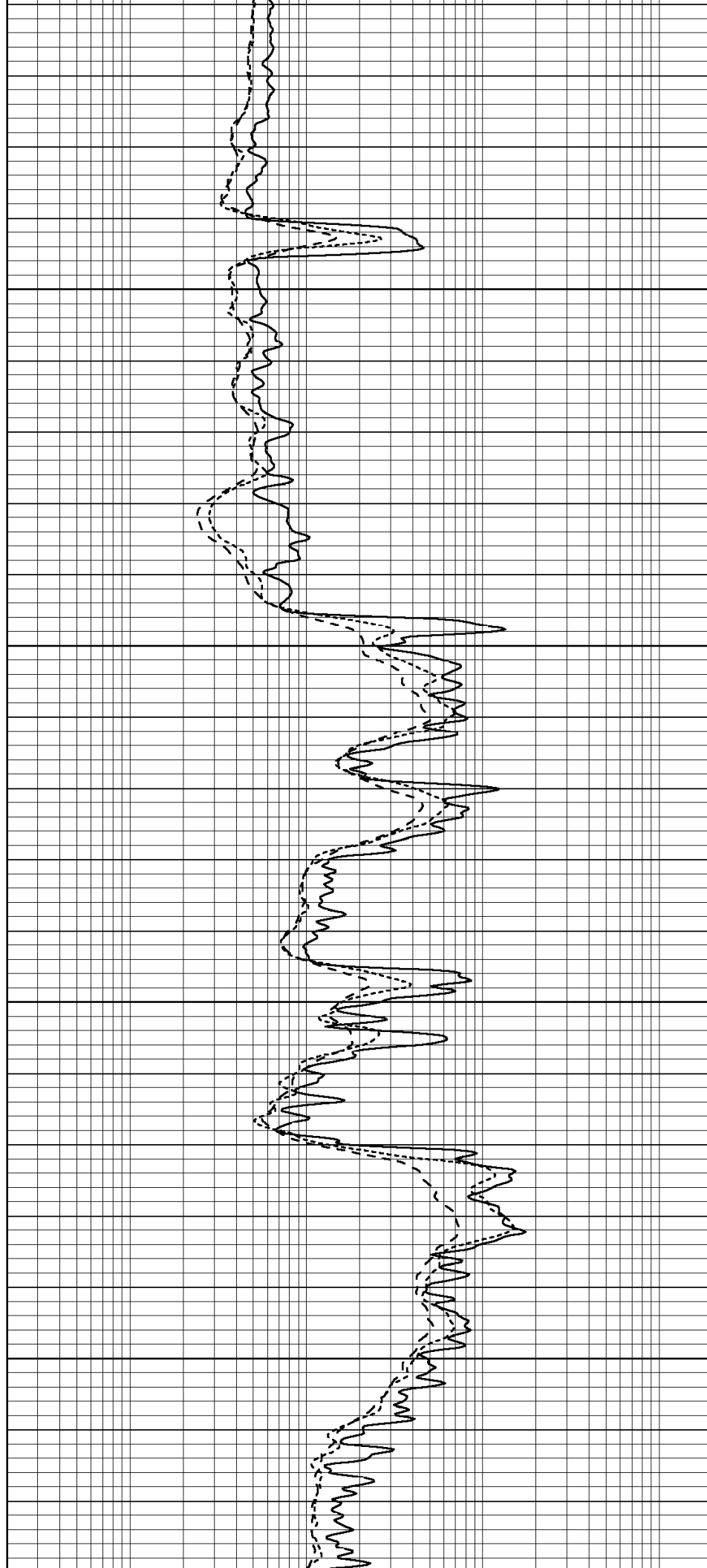


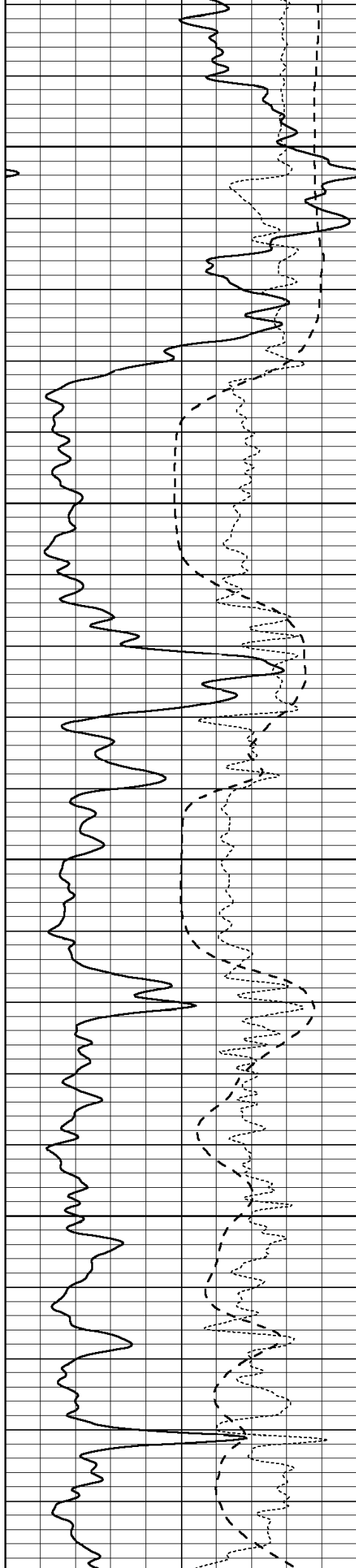
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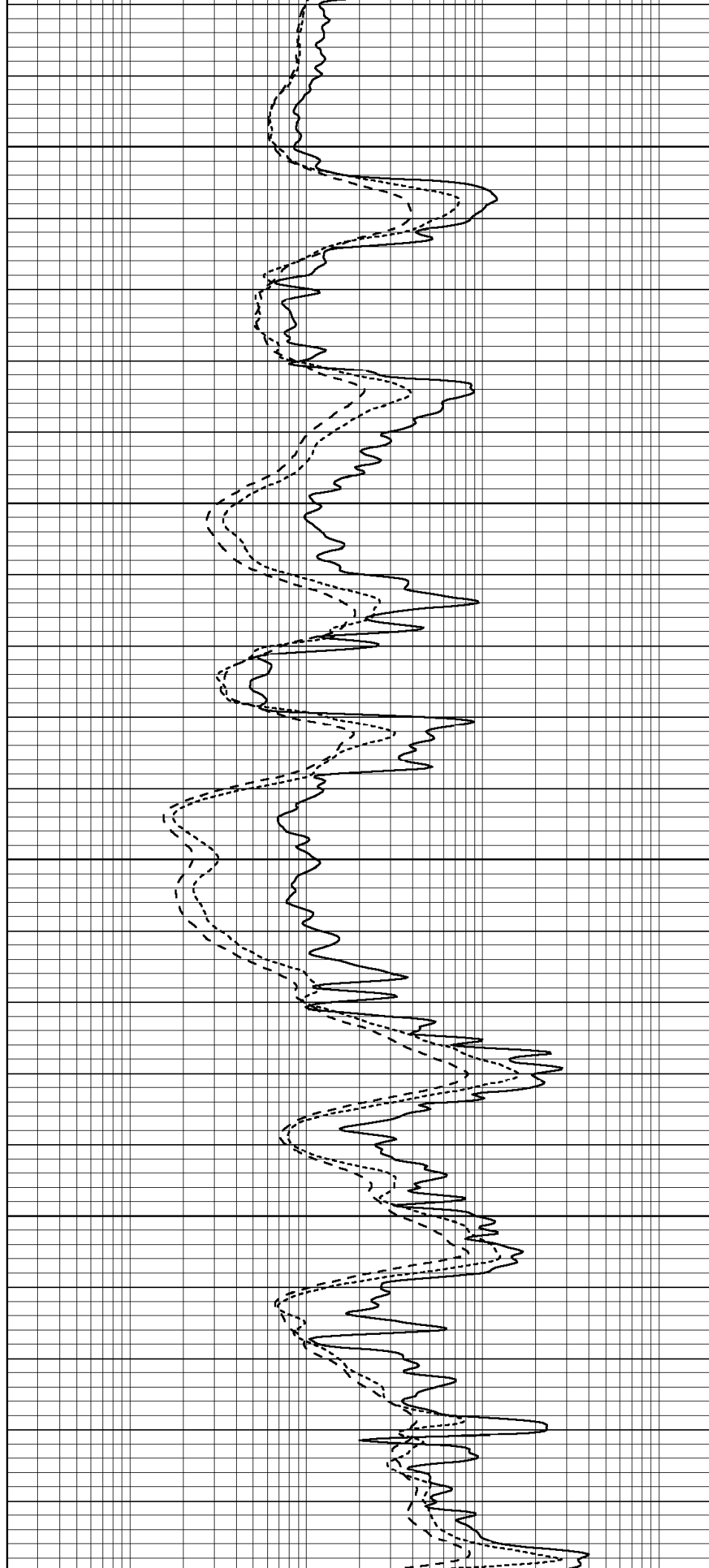
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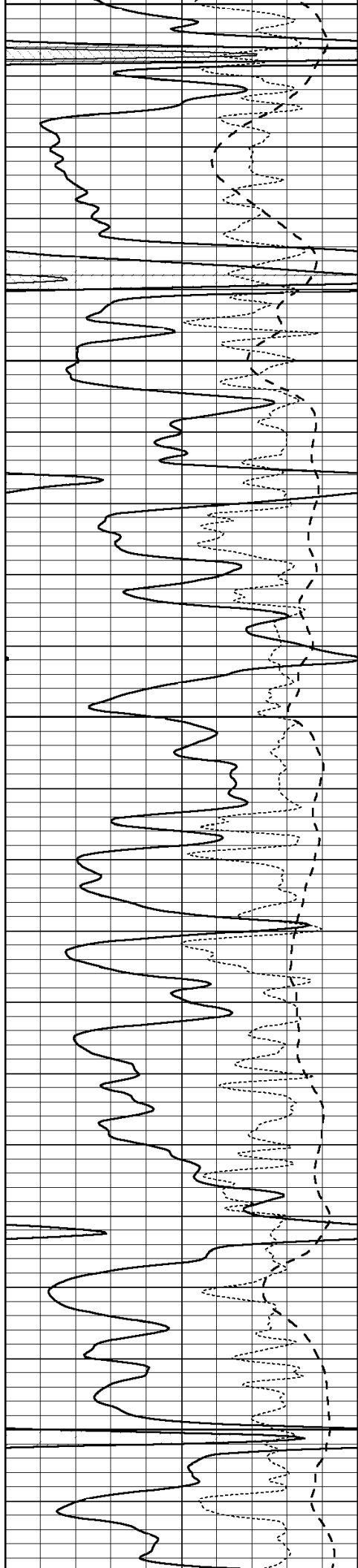
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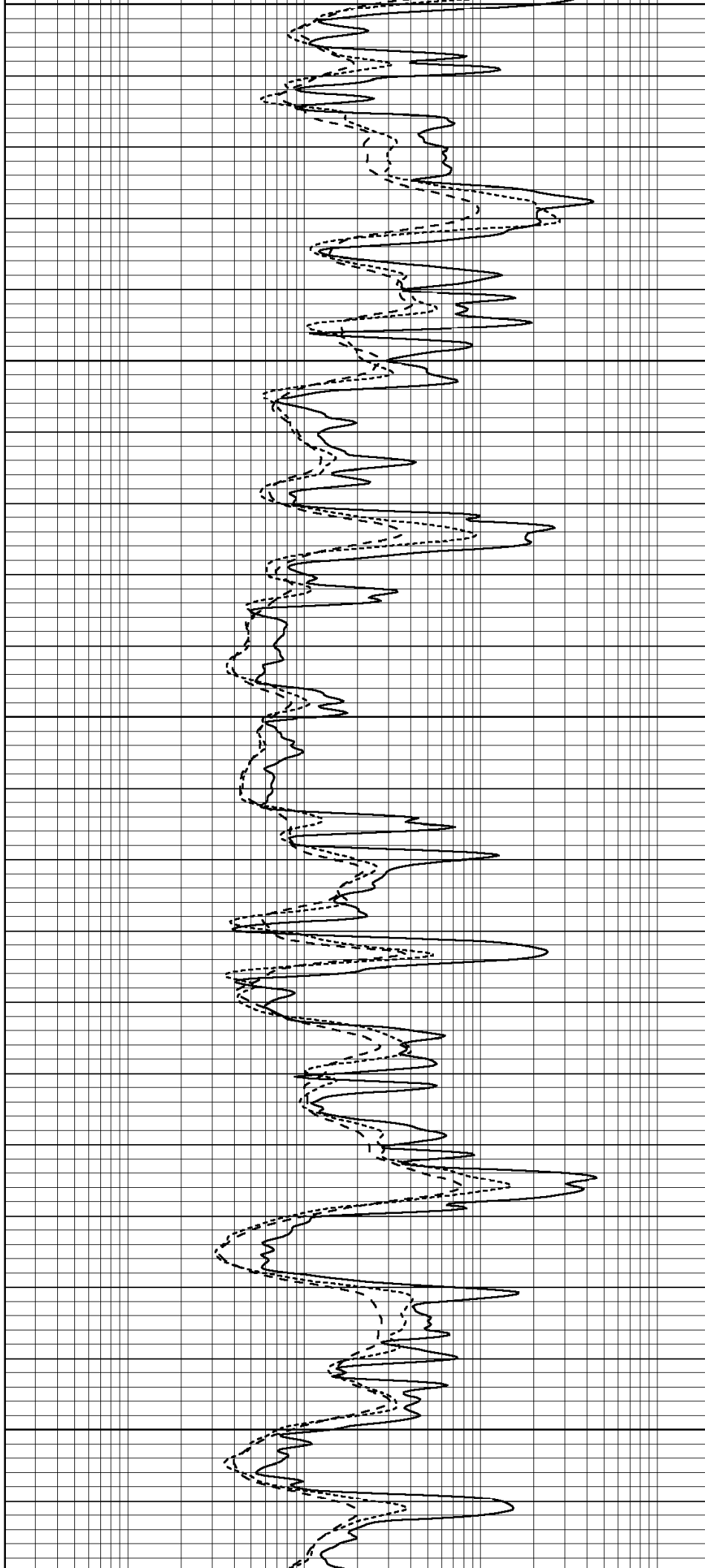
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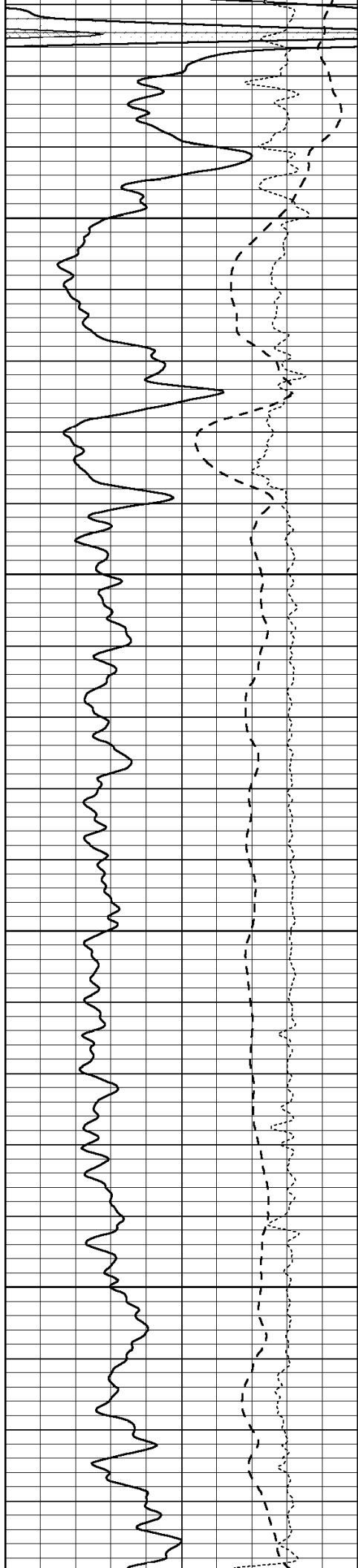
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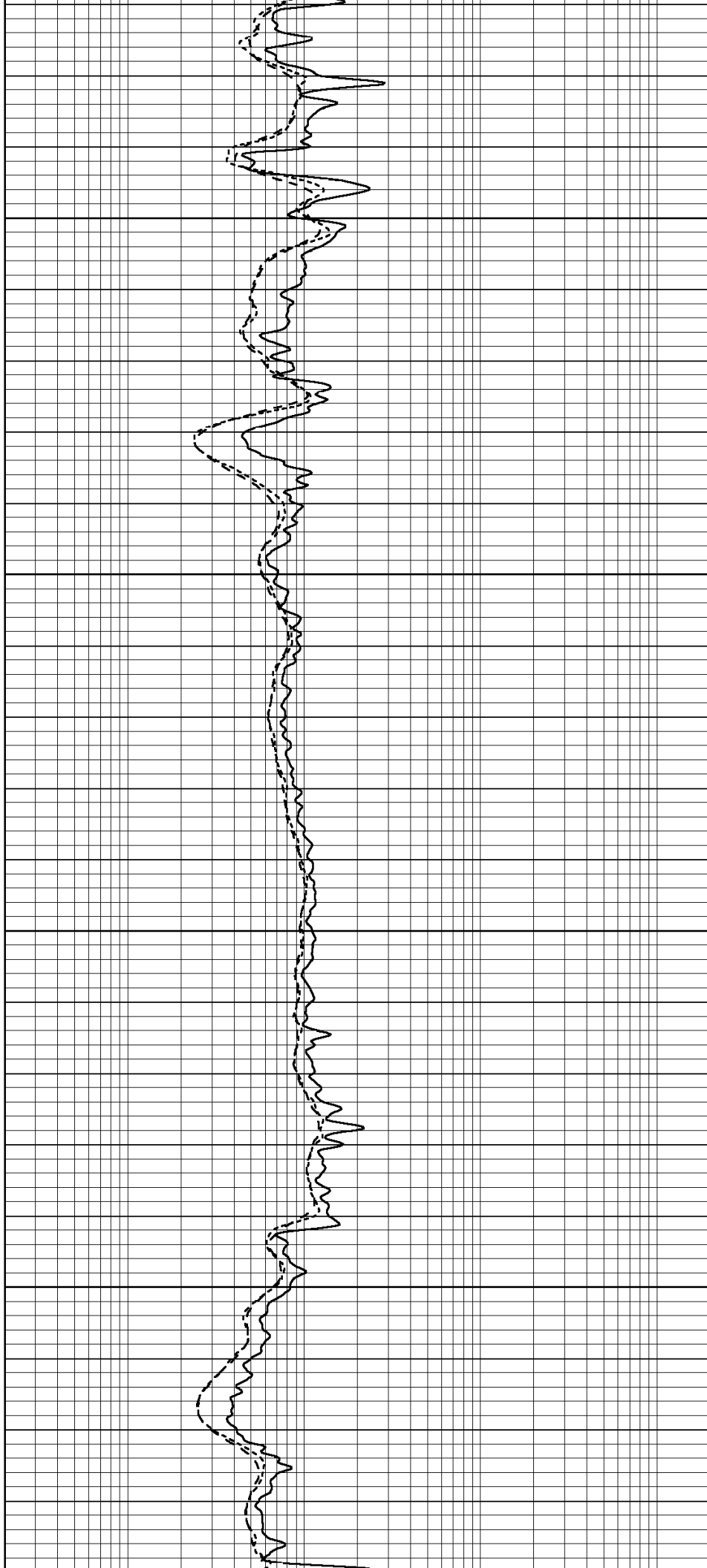


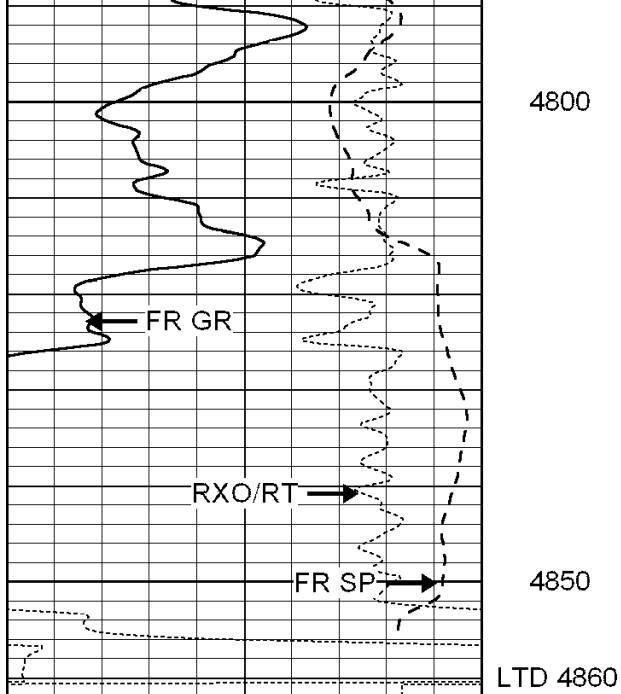
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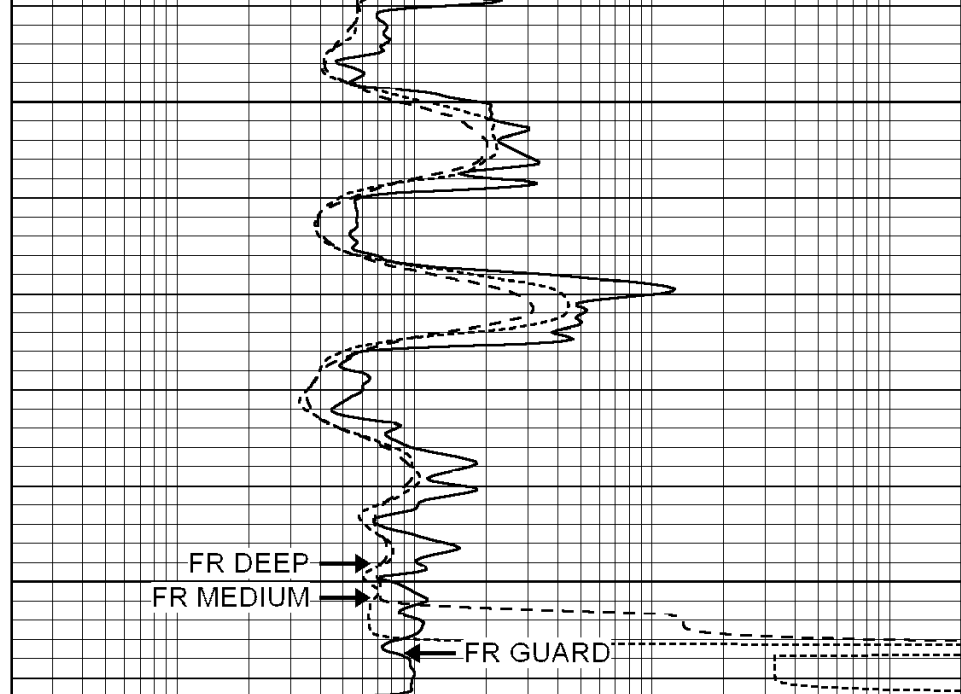
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4750





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



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



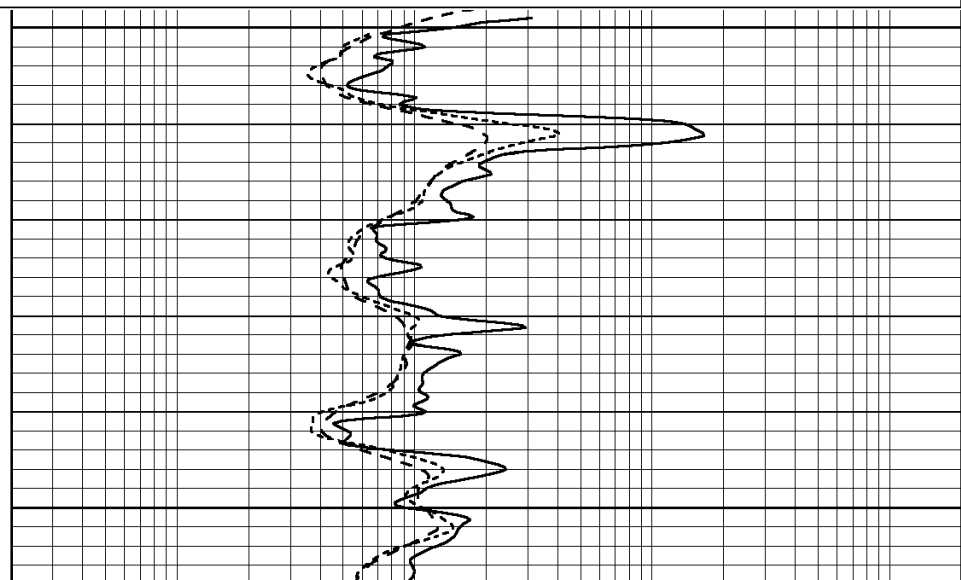
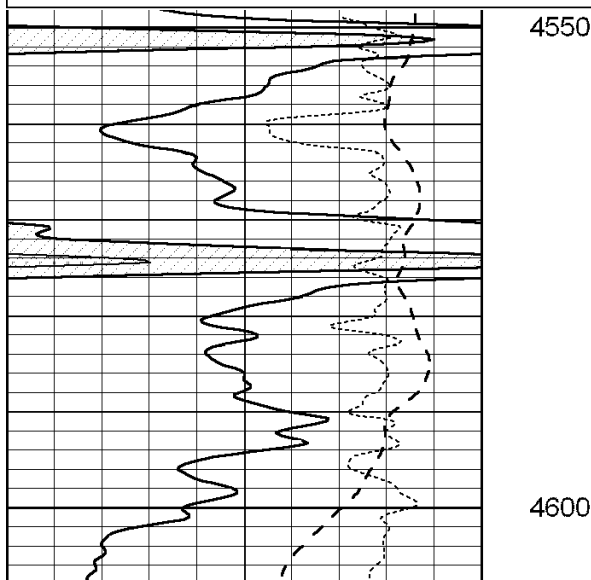
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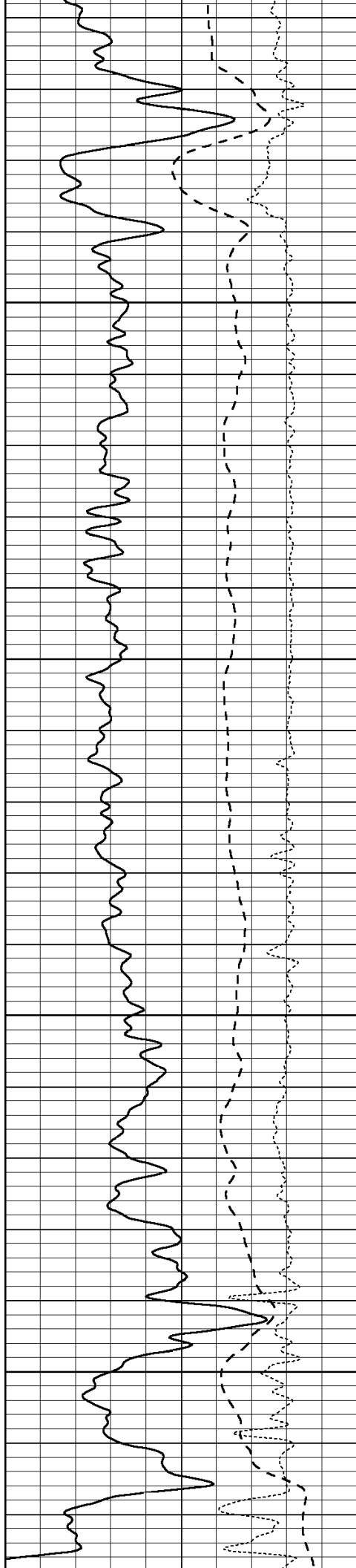
REPEAT SECTION

Database File: 004723pe.db
 Dataset Pathname: pass2.9
 Presentation Format: dil
 Dataset Creation: Wed Feb 24 06:54:13 2010 by Calc Open-Cased 060407
 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	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



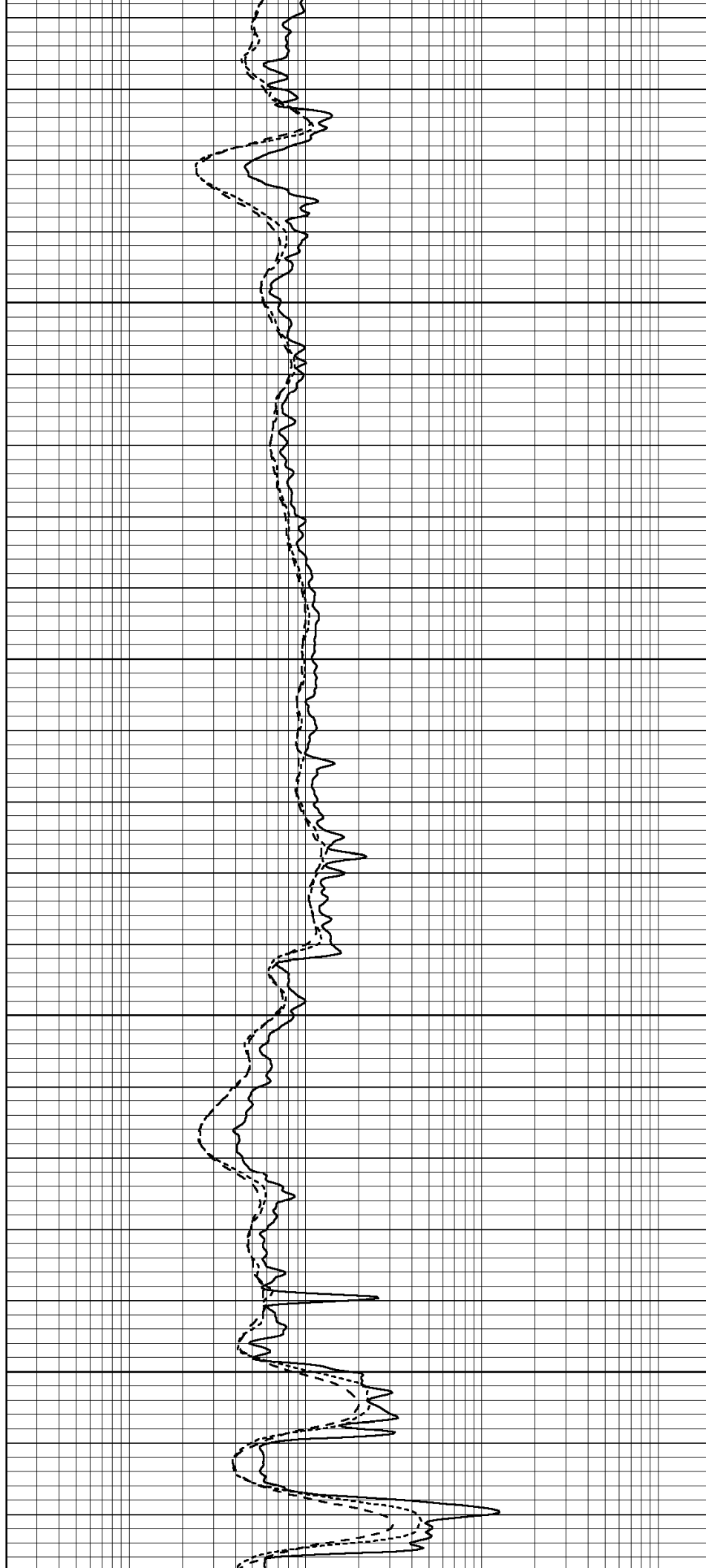


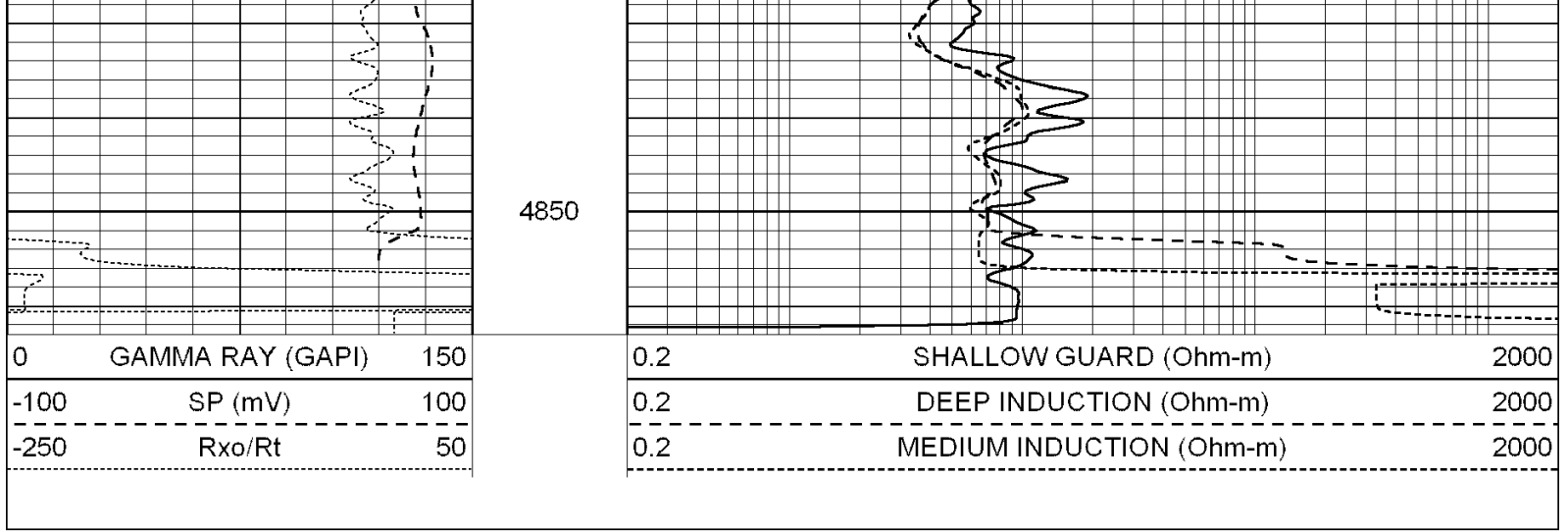
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Calibration Report									
Database File:		004723pe.db							
Dataset Pathname:		pass3.4							
Dataset Creation:		Wed Feb 24 08:26:51 2010 by Calc Open-Cased 060407							
Dual Induction Calibration Report									
Serial-Model: Performed:				DIL3-GEAR Wed Feb 24 05:49:01 2010					
Readings				References			Results		
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.011	0.656	V	0.000	400.000	mmho-m	640.000	0.000	
Medium	0.013	0.740	V	0.000	462.500	mmho-m	700.000	-13.000	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.002	0.645	V	0.000	400.000	mmho-m	622.059	-1.071	
Medium	0.007	0.740	V	0.000	462.500	mmho-m	631.393	-4.555	
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	
Pe				2.5700		1.5500			
Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio			: 0.549		
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept			: -18.8		
Caliper									
	Readings	Reference							
Low Ref	2.2	6.6							
High Ref	4.6	14.0							
	Gain: 3.1			Offset: -0.0					

Compensated Neutron Calibration Report						
		Serial Number:		NEU_3I		
		Tool Model:		G		
CALIBRATION						
Detector		Readings		Target		Normalization
Short Space		997.00	cps	1000.00	cps	1.0000
Long Space		986.00	cps	1000.00	cps	1.0000
Gamma Ray Calibration Report						
Serial Number:		GR3				
Tool Model:		OPEN				
Performed:		Wed Feb 24 05:48:31 2010				
Calibrator Value:		200.0	GAPI			
Background Reading:		3.0	cps			
Calibrator Reading:		186.0	cps			
Sensitivity:		0.6500	GAPI/cps			