



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company	RITCHIE EXPLORATION, INC.		
Well	DERSTEIN 10BC #1		
Field			
County	FORD	State	KANSAS
Location:	API # : 15-057-20752-0000 1930' FNL & 550' FWL 50N & 110W OF SW - NW SEC 10 TWP 28S RGE 22W		Other Services CDL/CNL MEL/SON
Permanent Datum	GROUND LEVEL	Elevation	2380
Log Measured From	KELLY BUSHING 11' A.G.L.		
Drilling Measured From	KELLY BUSHING	Elevation	K.B. 2391 D.F. 2389 G.L. 2380
Date	10-6-11		
Run Number	ONE		
Depth Driller	5200		
Depth Logger	5201		
Bottom Logged Interval	5199		
Top Log Interval	0		
Casing Driller	370		
Casing Logger	368		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES: 6200ppm	
Density / Viscosity	9.1 / 53		
pH / Fluid Loss	10.5 / 8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.45 @ 78F		
Rmf @ Meas. Temp	0.34 @ 78F		
Rmc @ Meas. Temp	0.54 @ 78F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.28 @ 127F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	127F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	JEFF GRONEWEG		
Witnessed By	DAVE WILLIAMS		

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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.

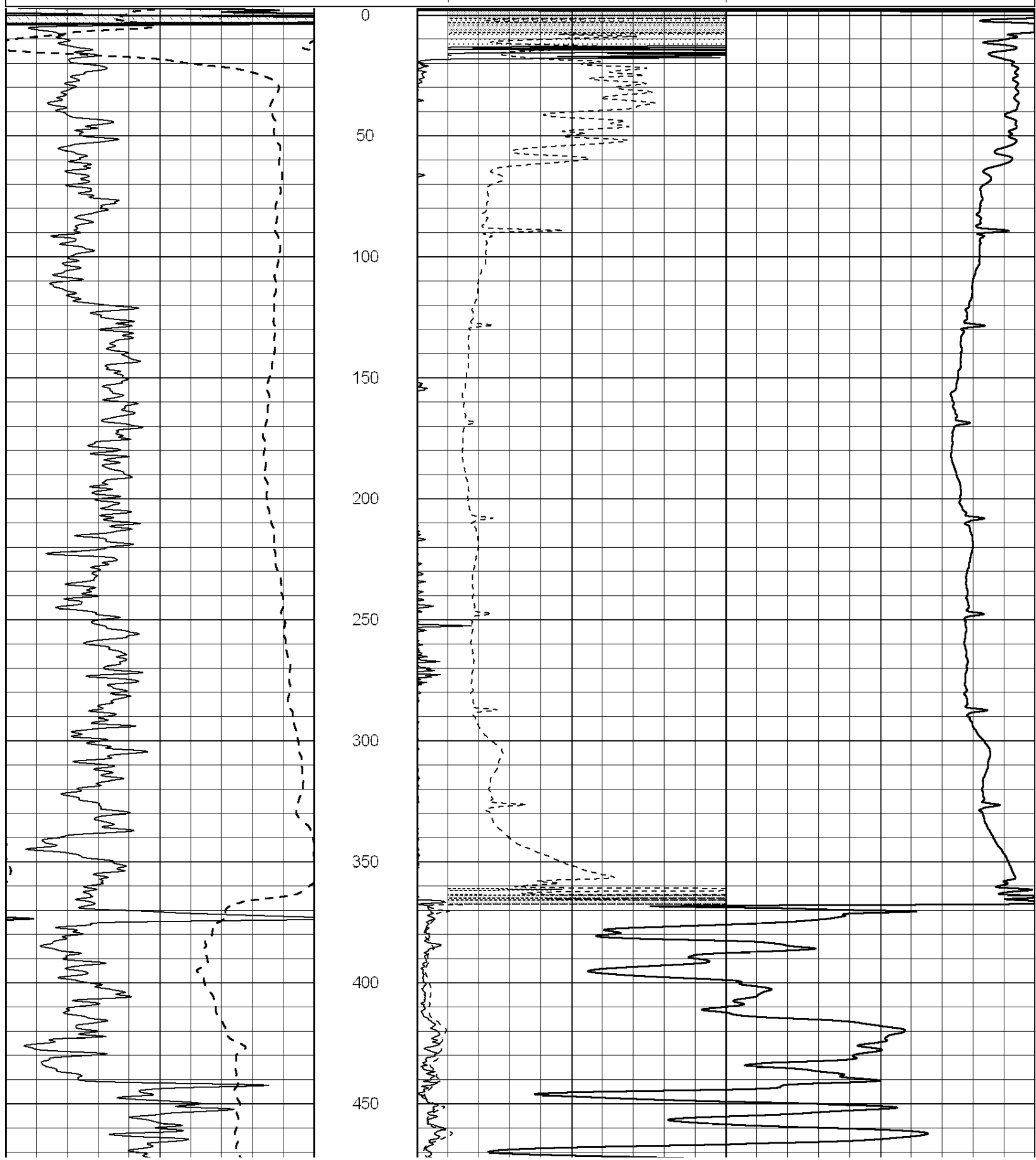
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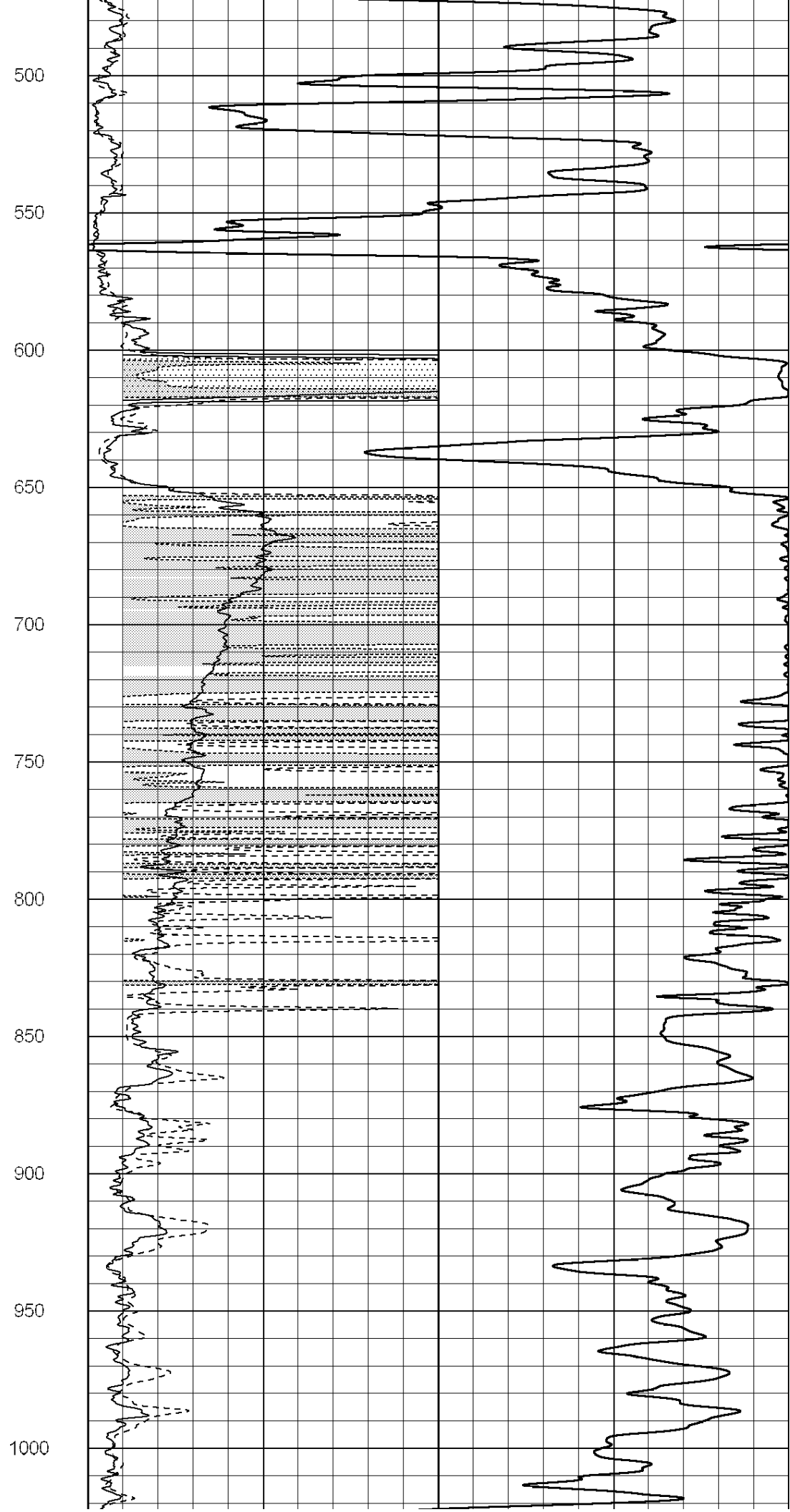
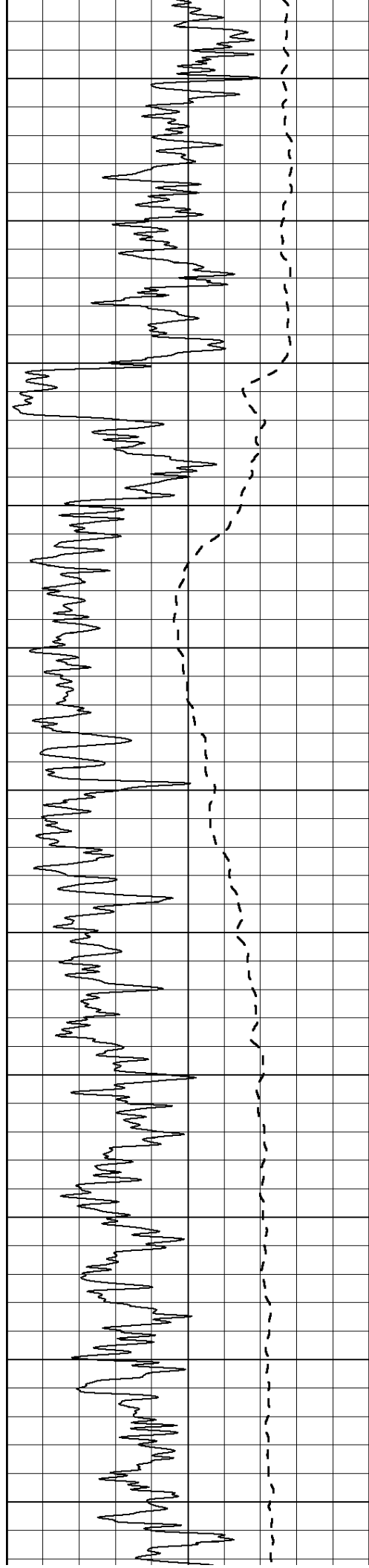
SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: FORD, KS - SOUTH ON HWY400 1/2 MILE TO TILLMAN RD.
1.3 MILES EAST - SOUTH INTO

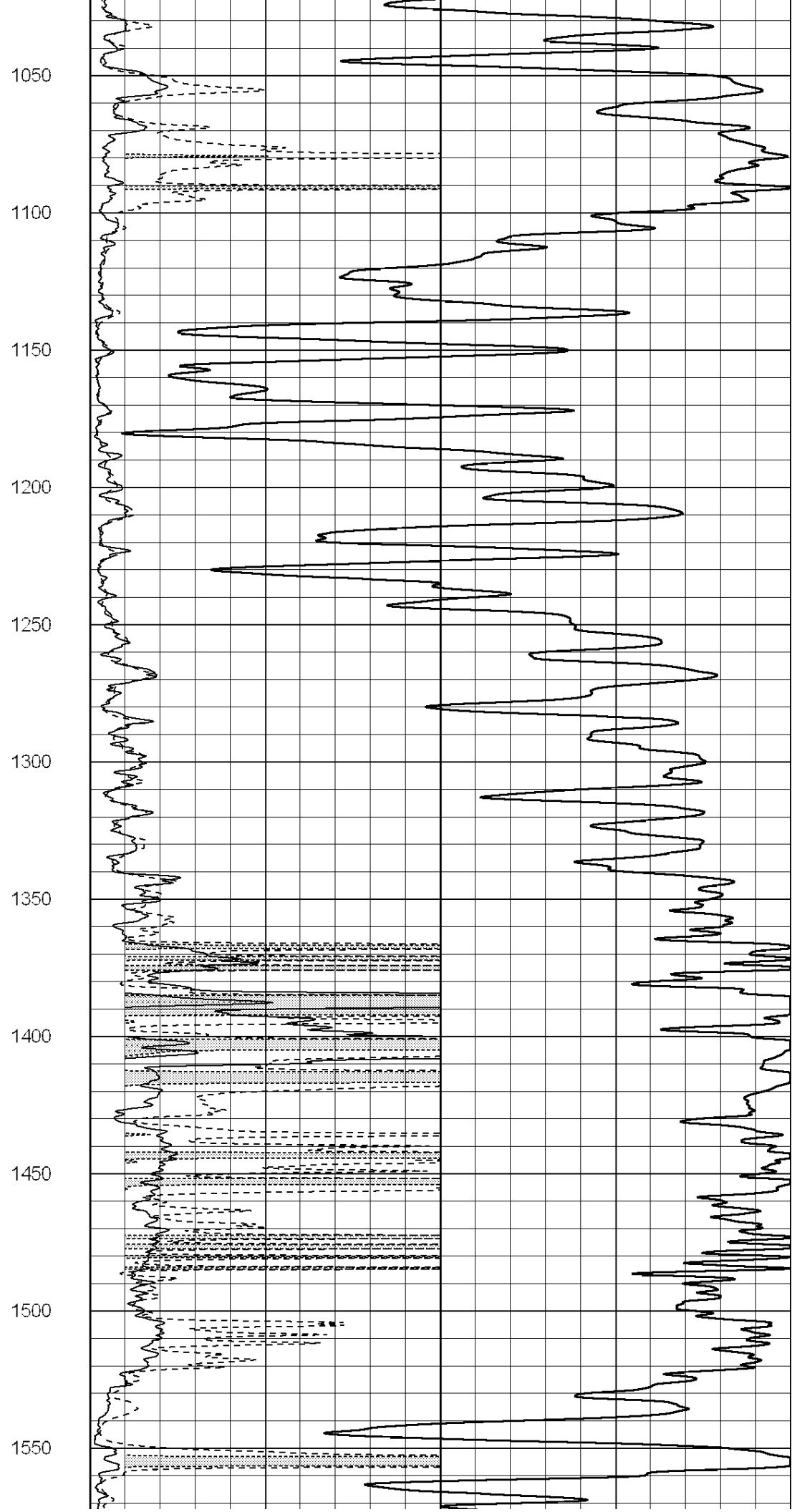
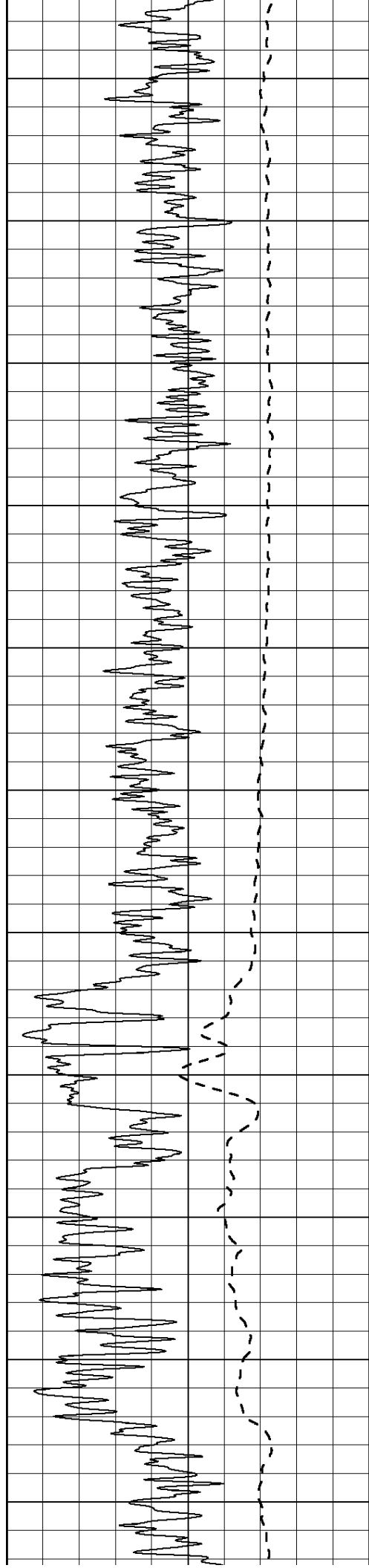
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

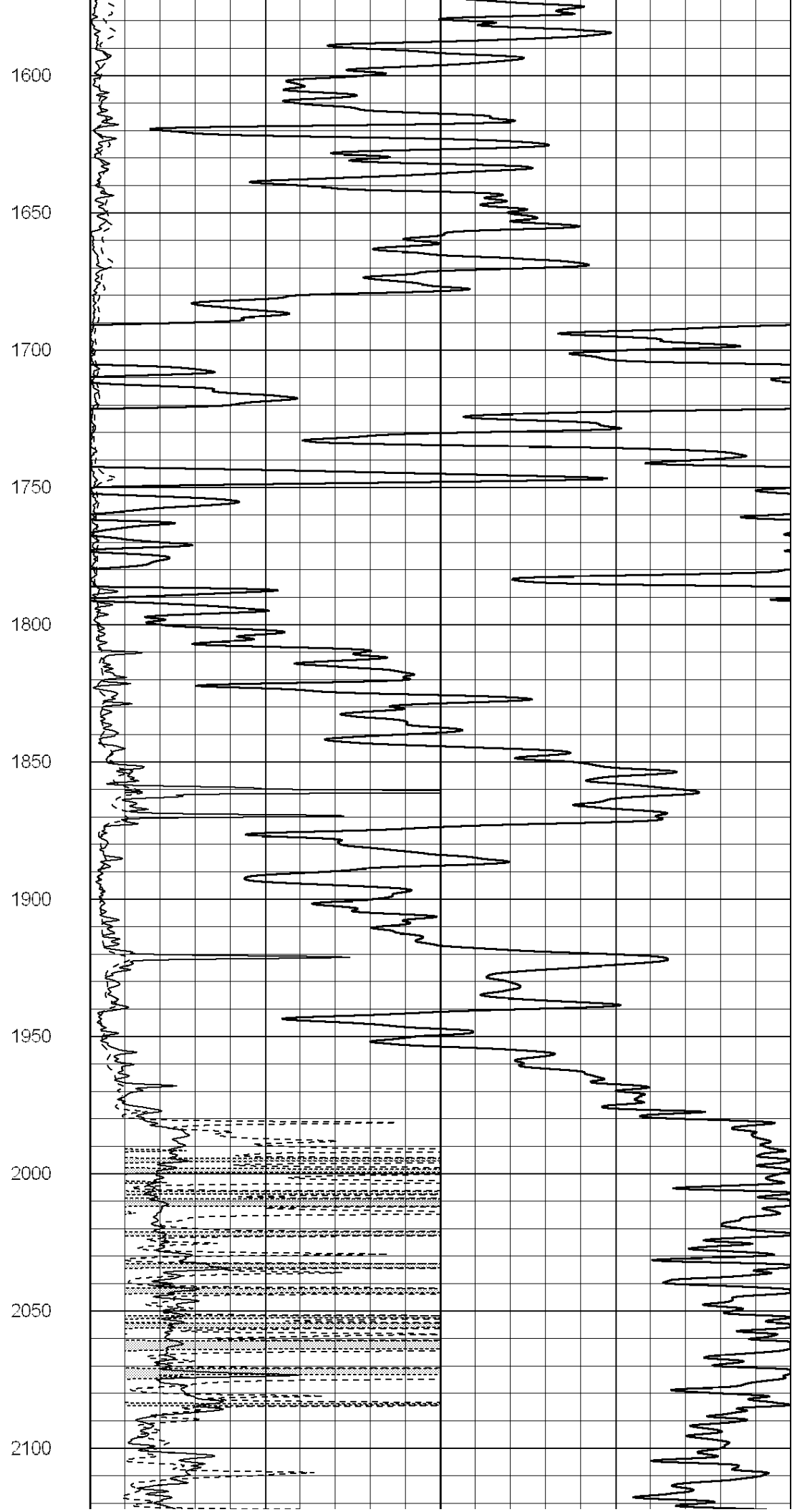
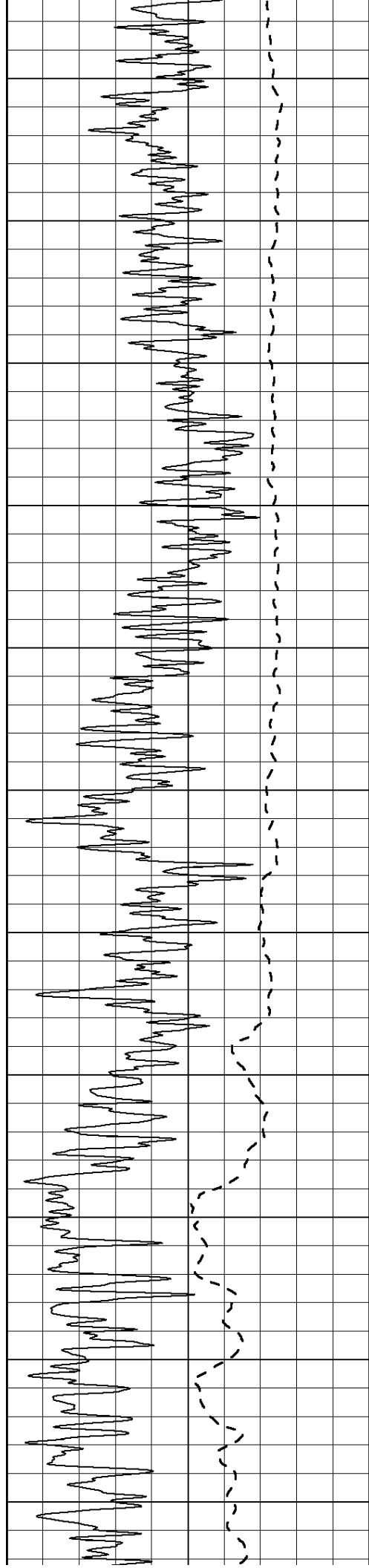
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50

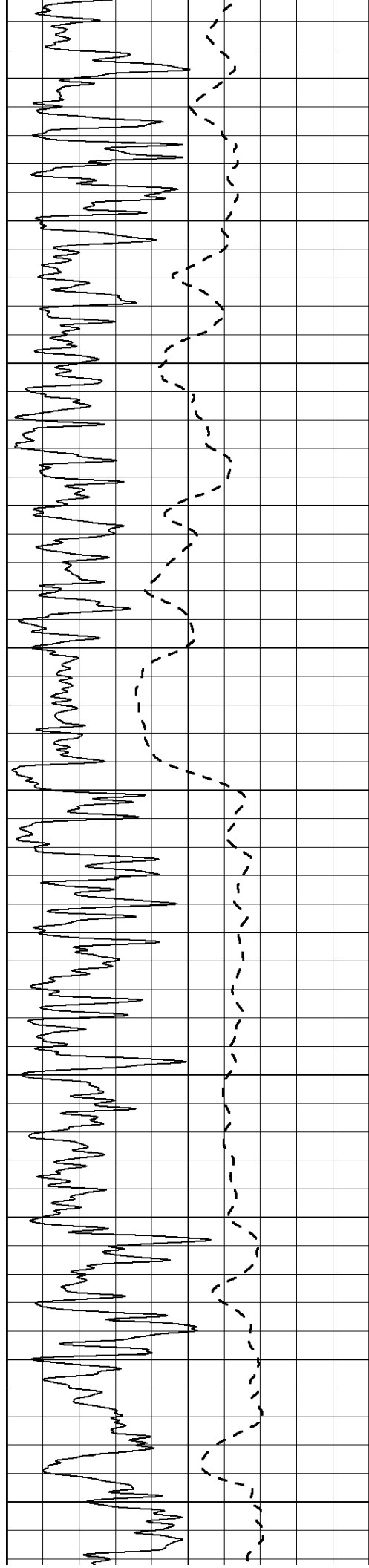
1000	CILD (mmho/m)	0
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500











2150

2200

2250

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2400

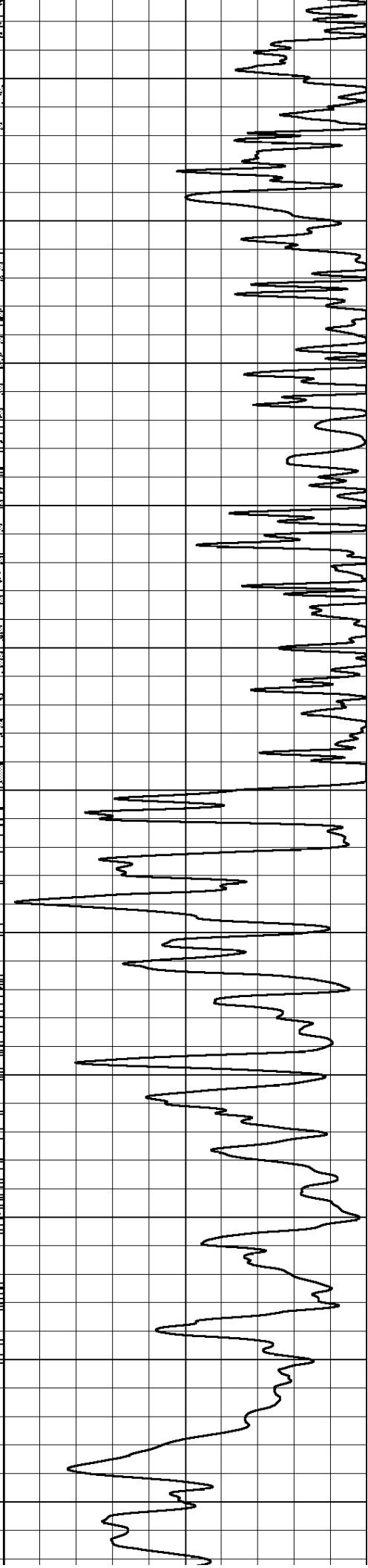
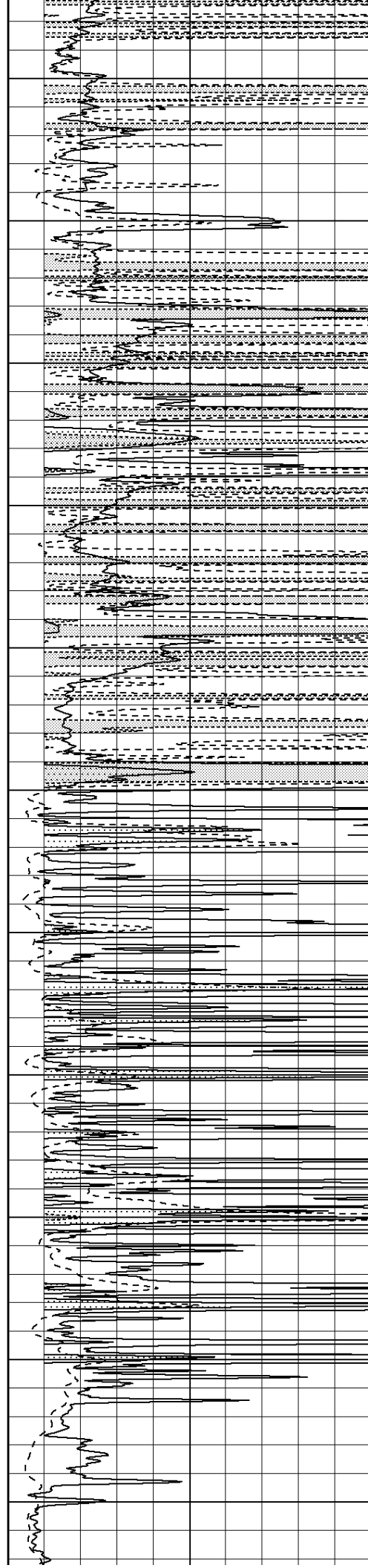
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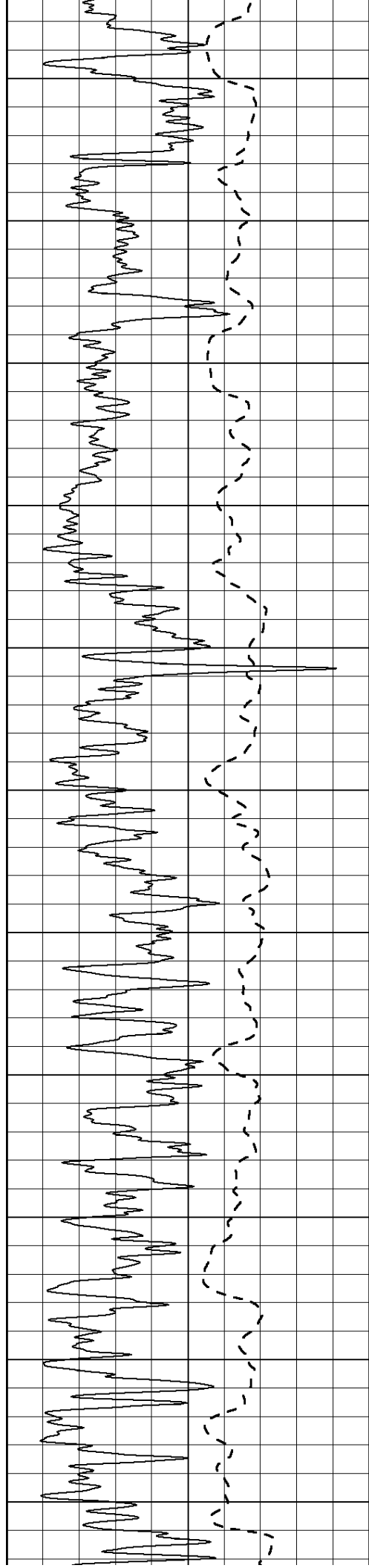
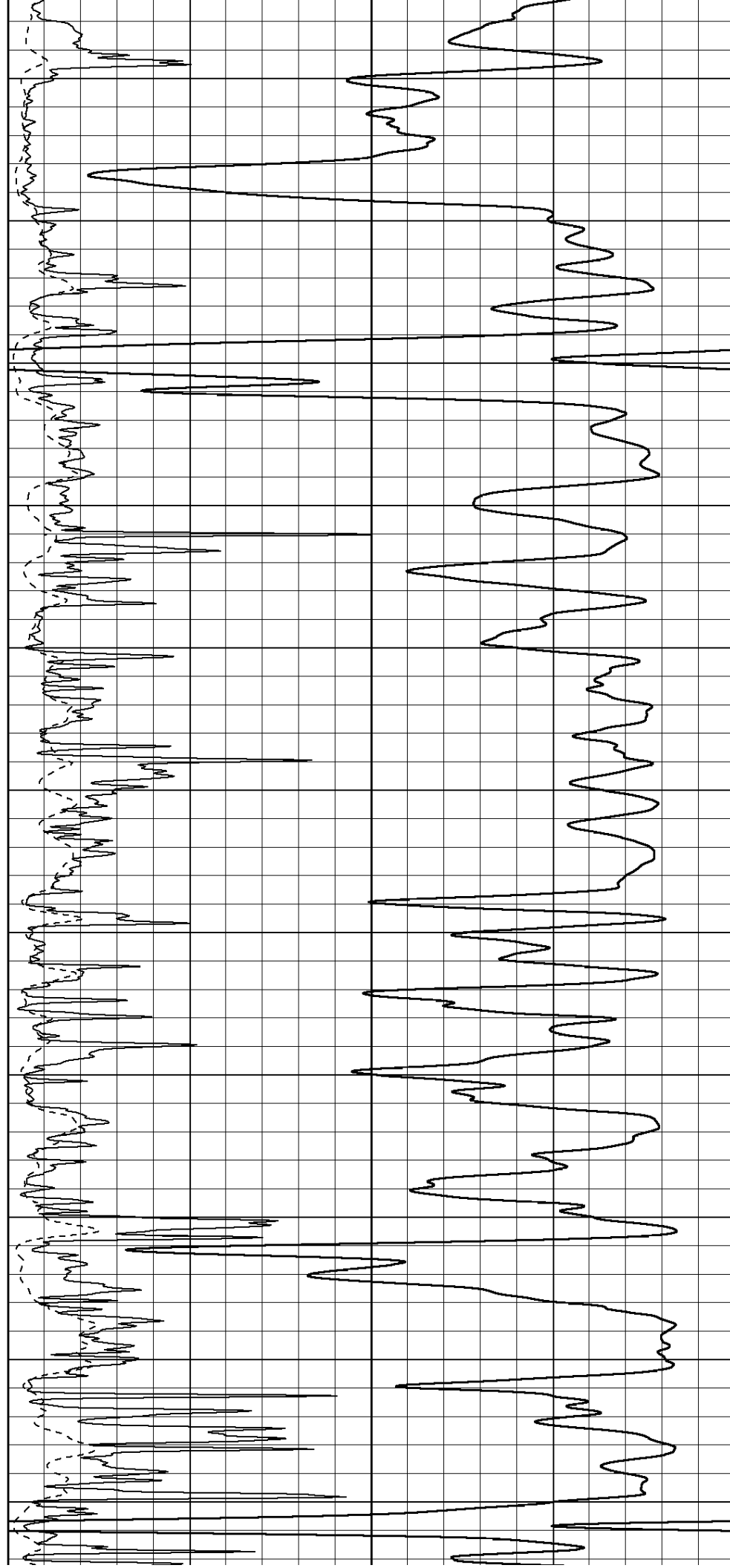
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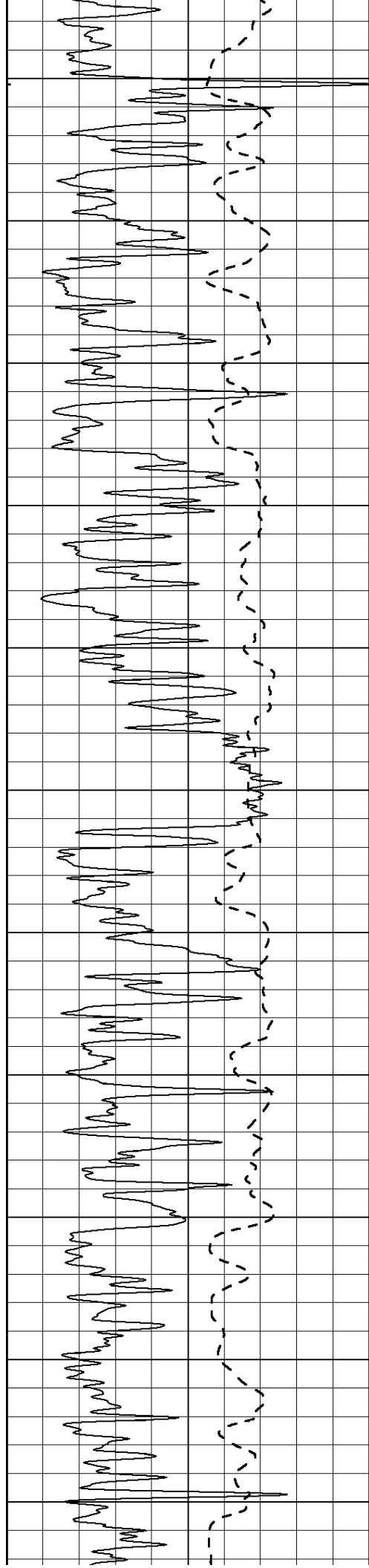
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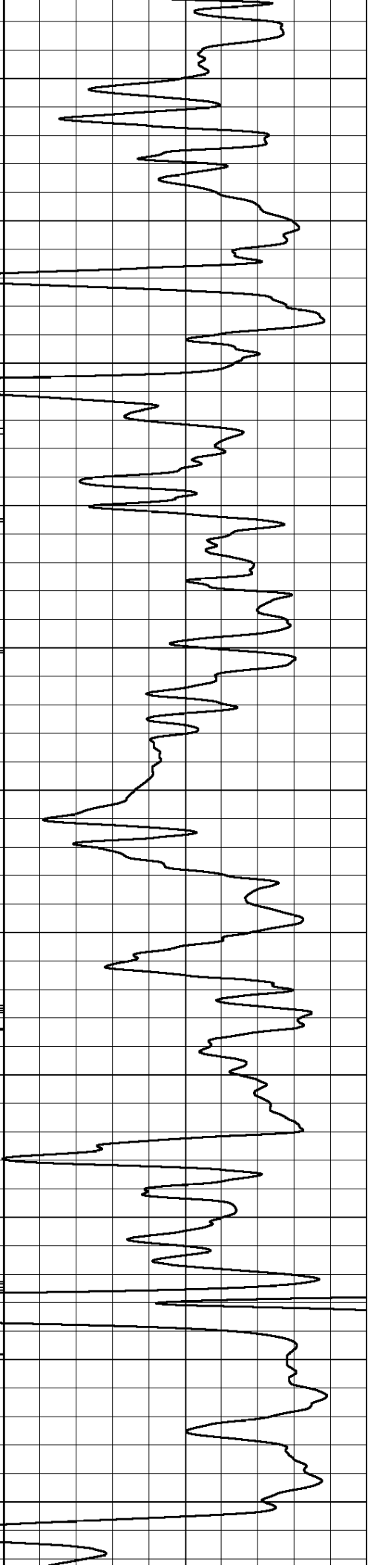
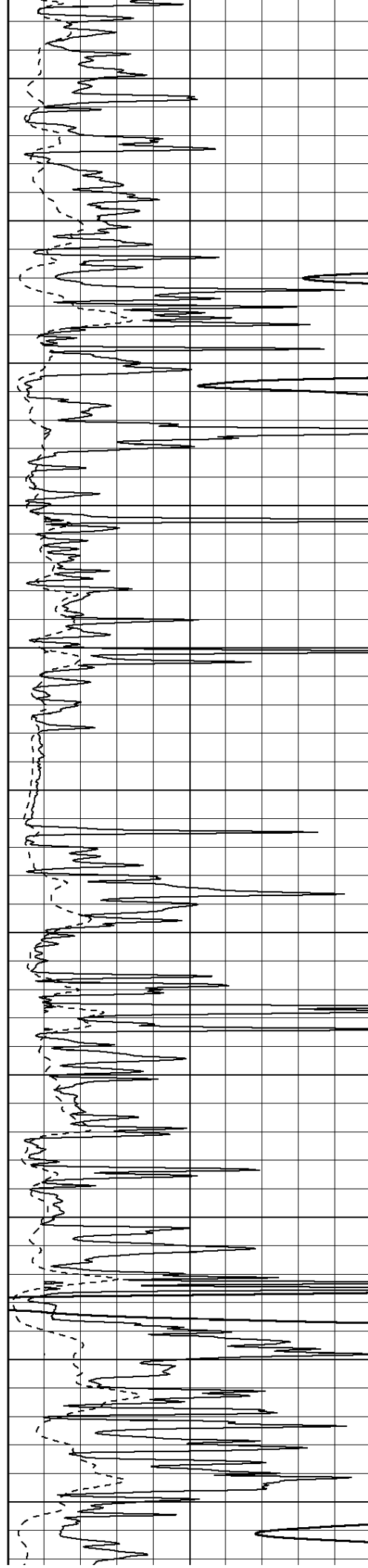
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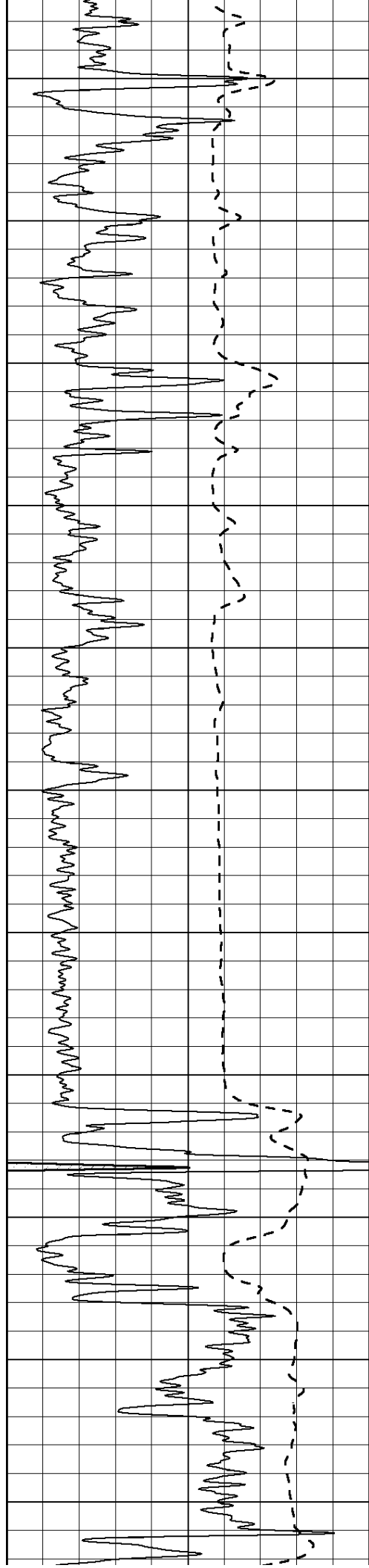
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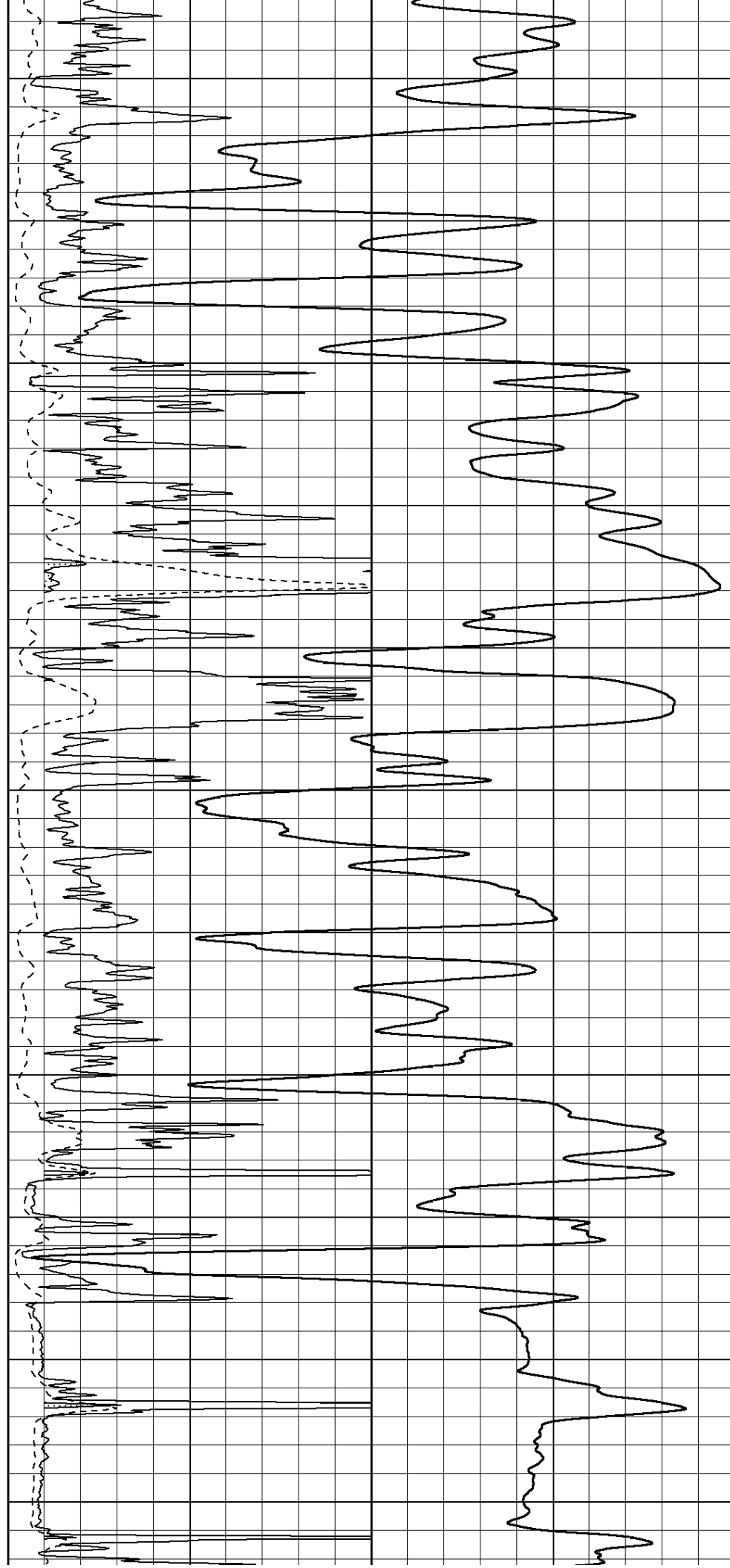
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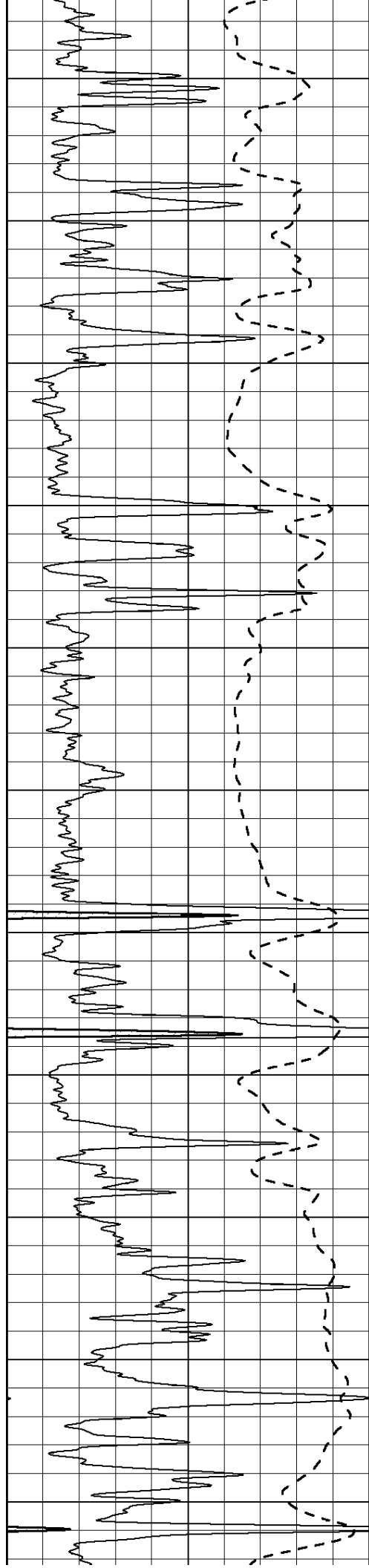
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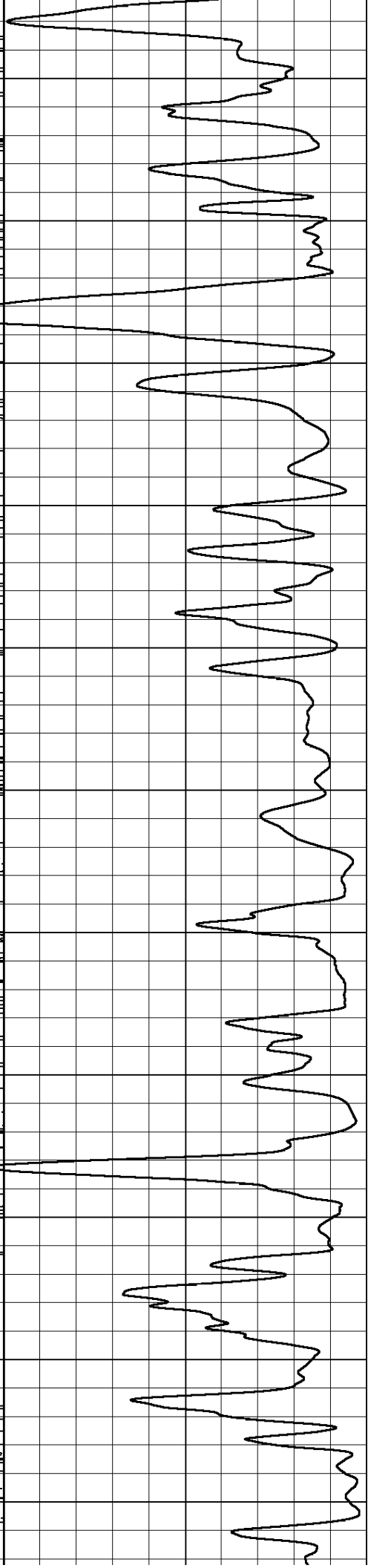
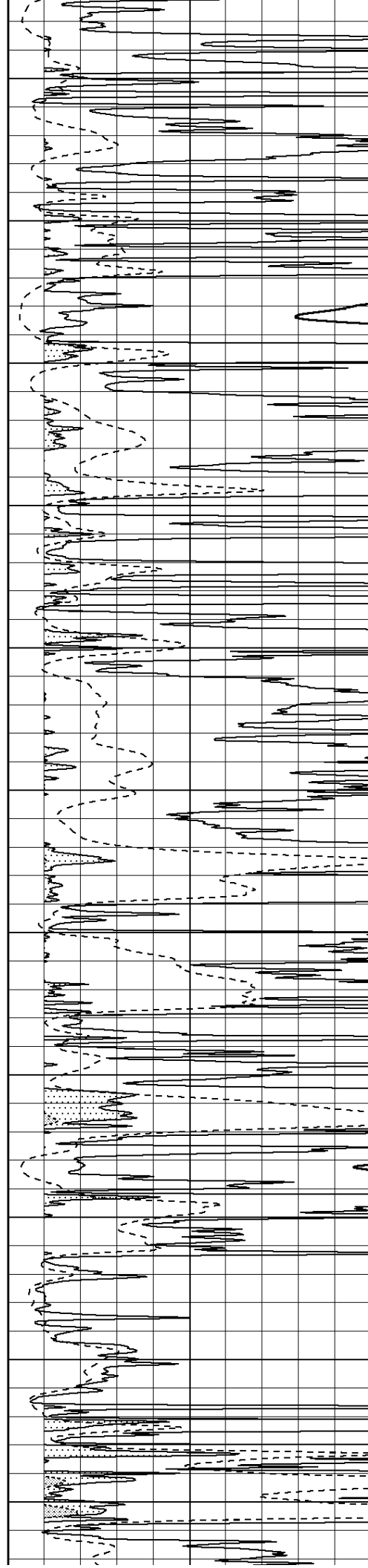
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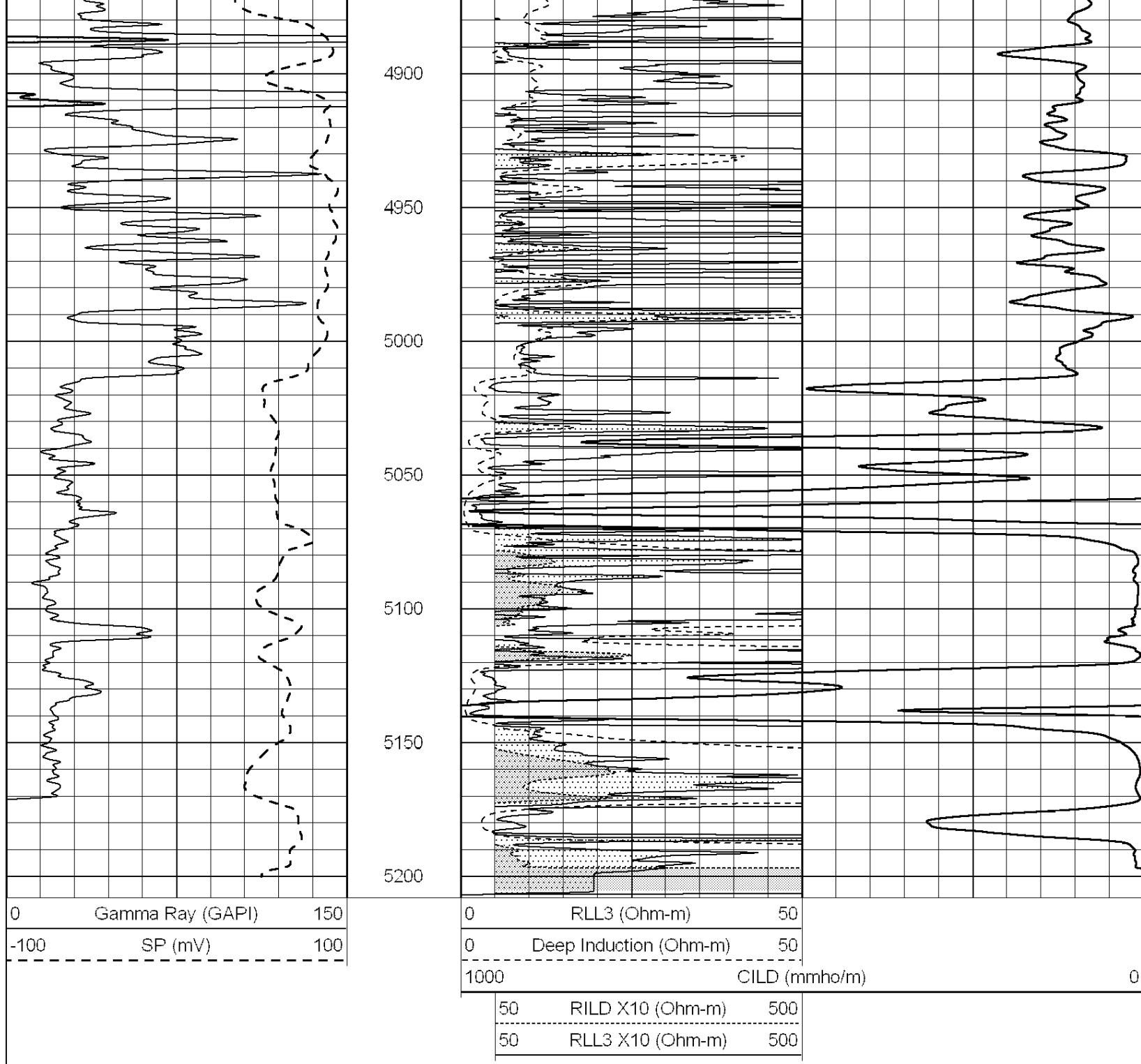
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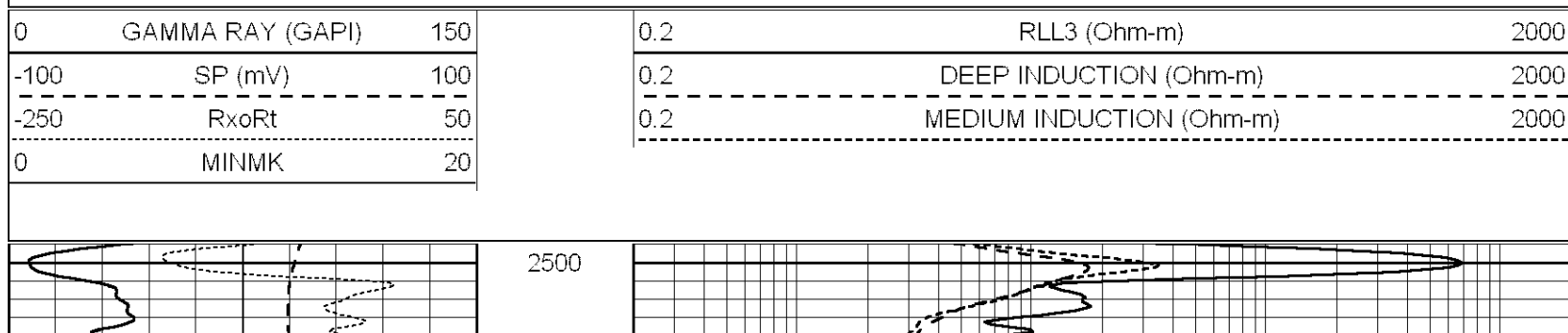
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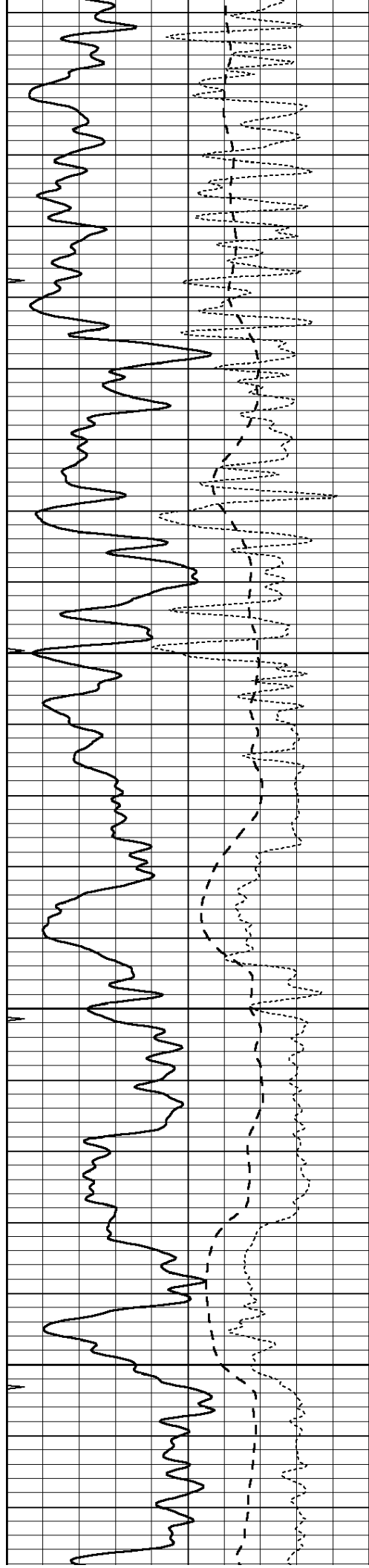
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Presentation Format: dil
Dataset Creation: Thu Oct 06 05:16:45 2011 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240



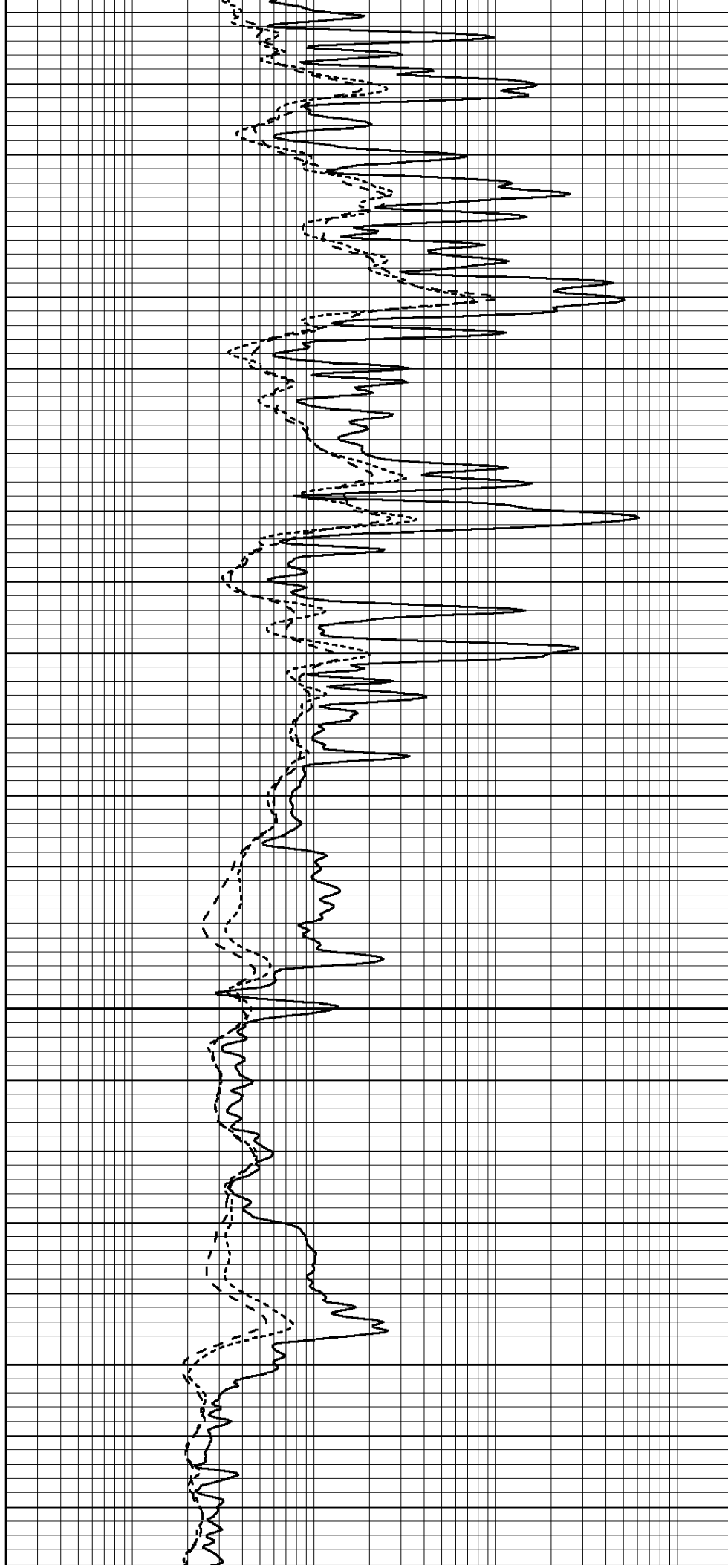


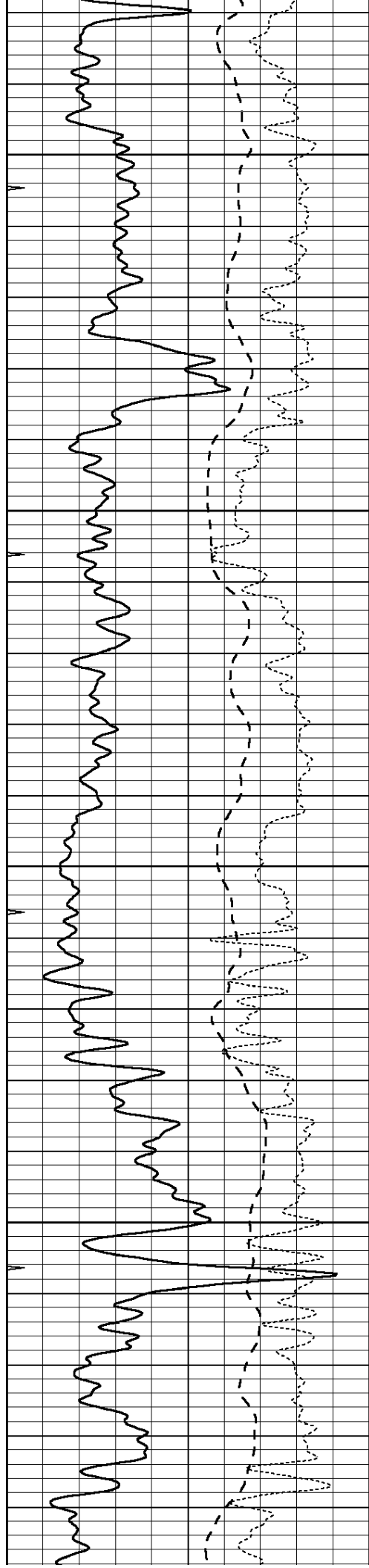
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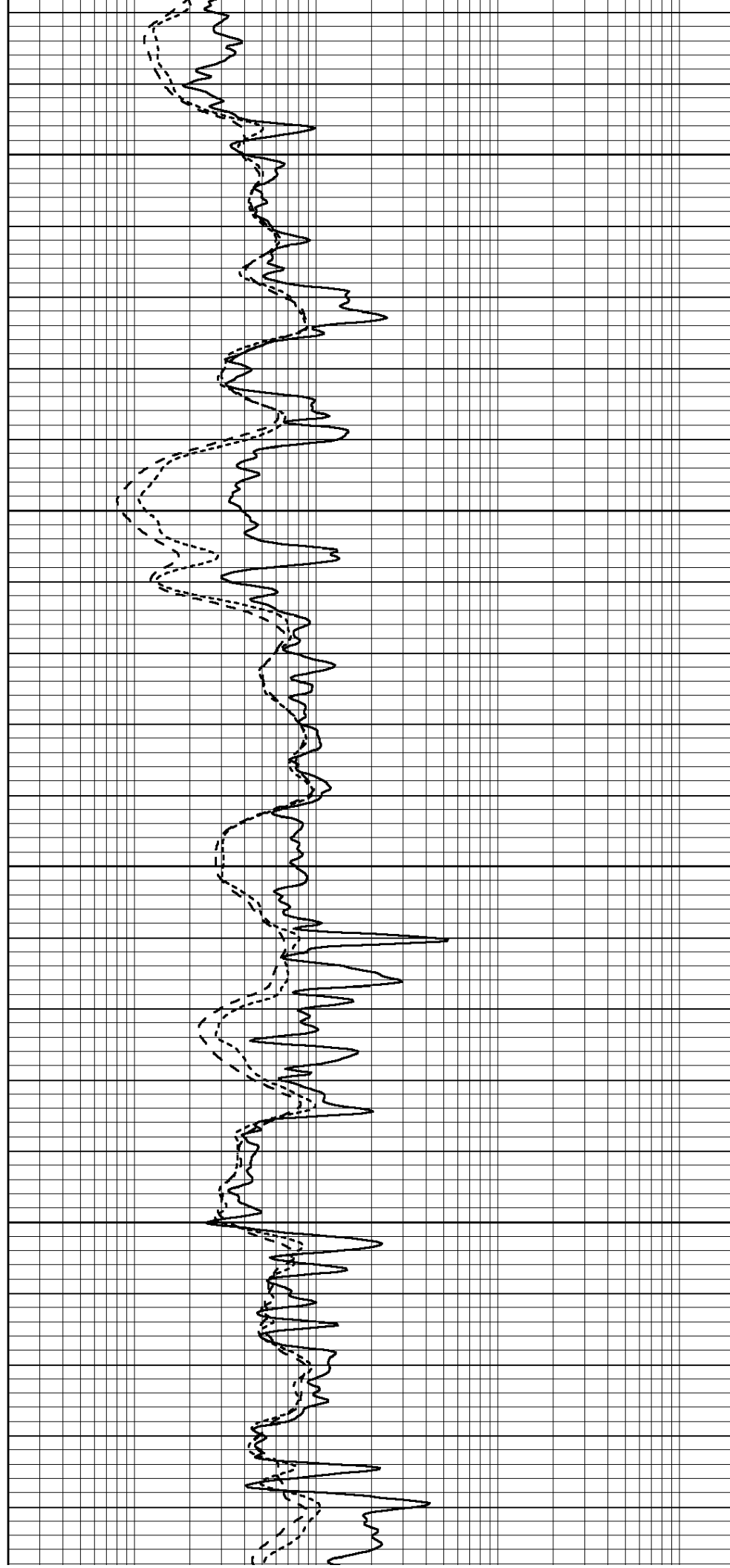


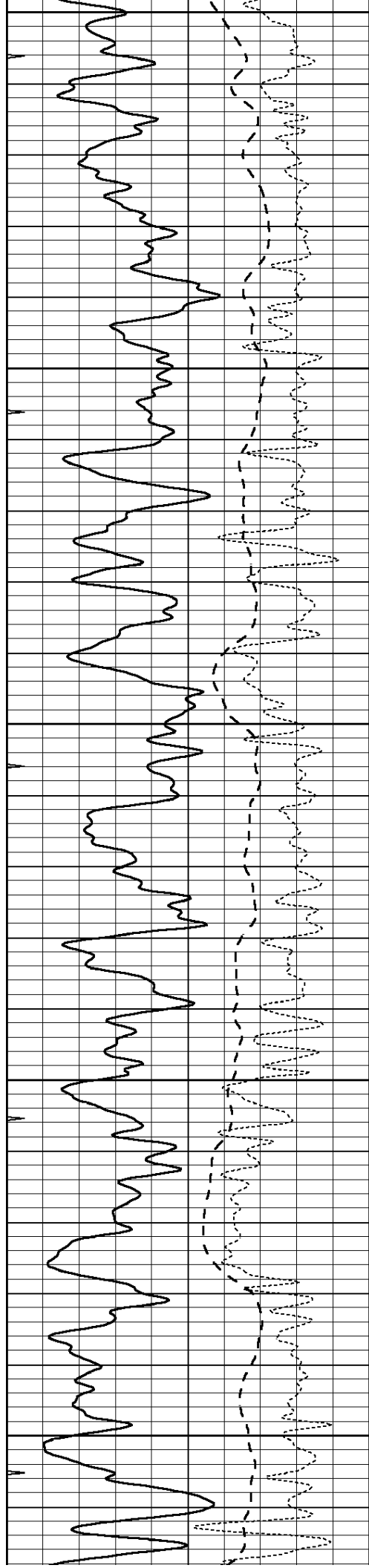
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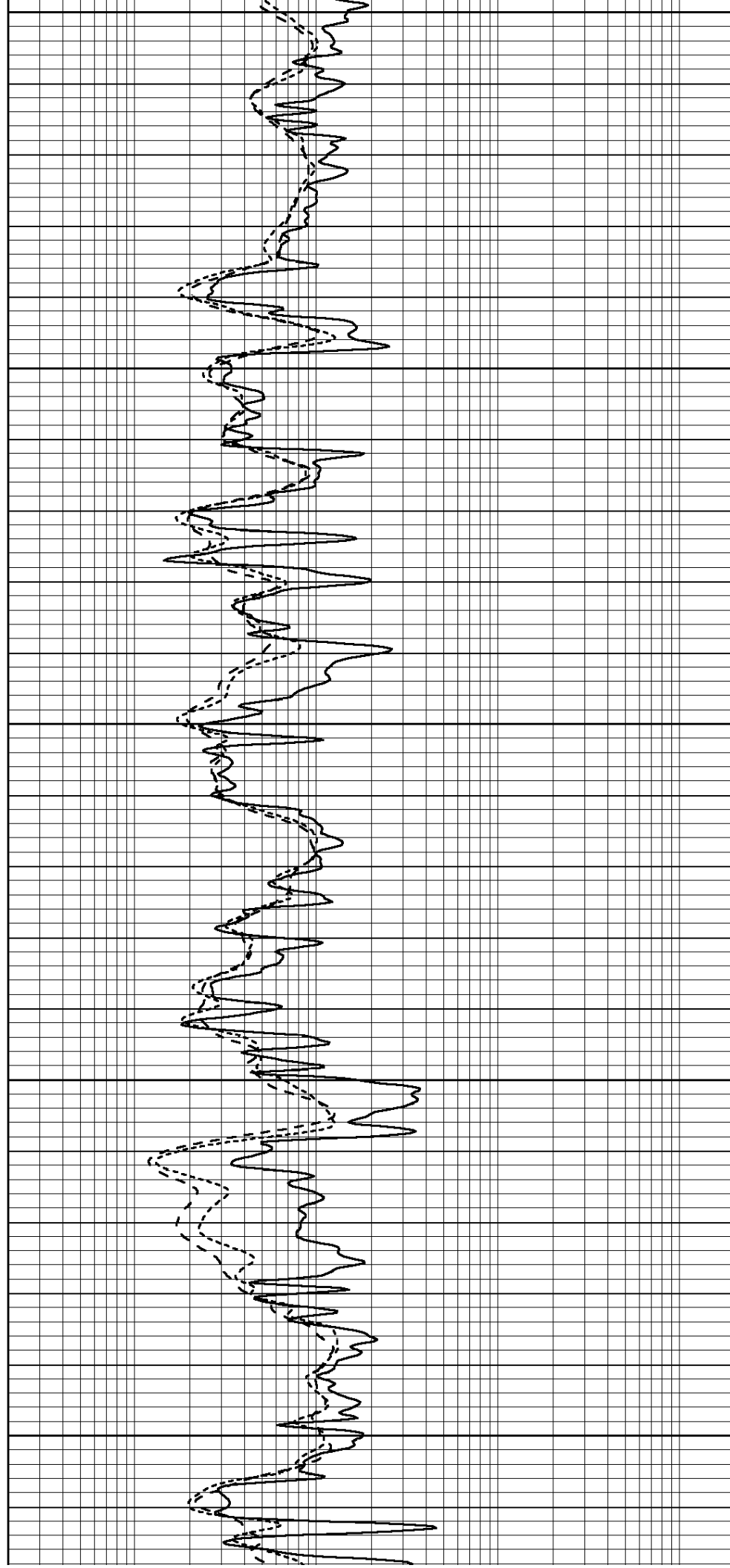
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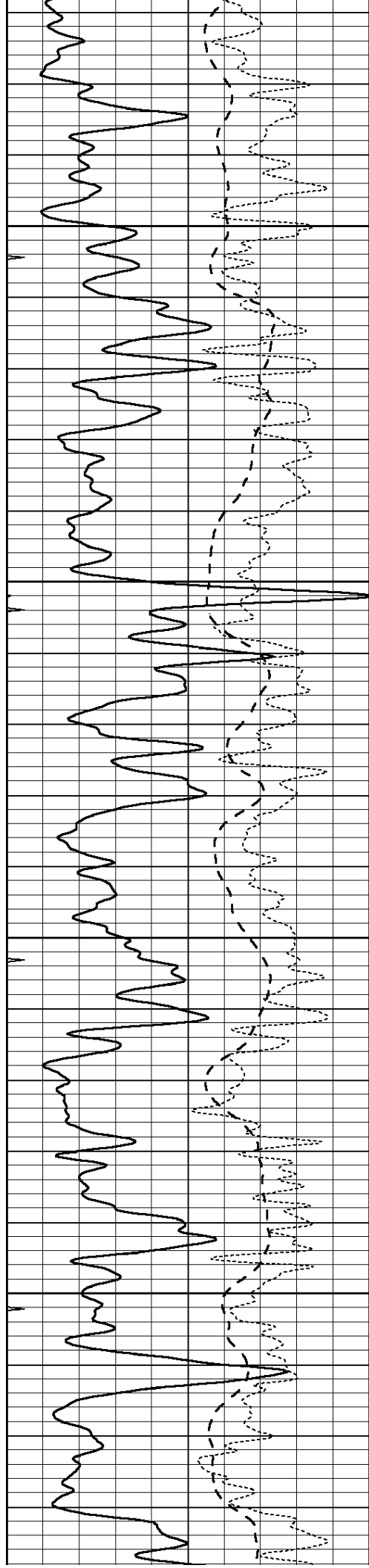
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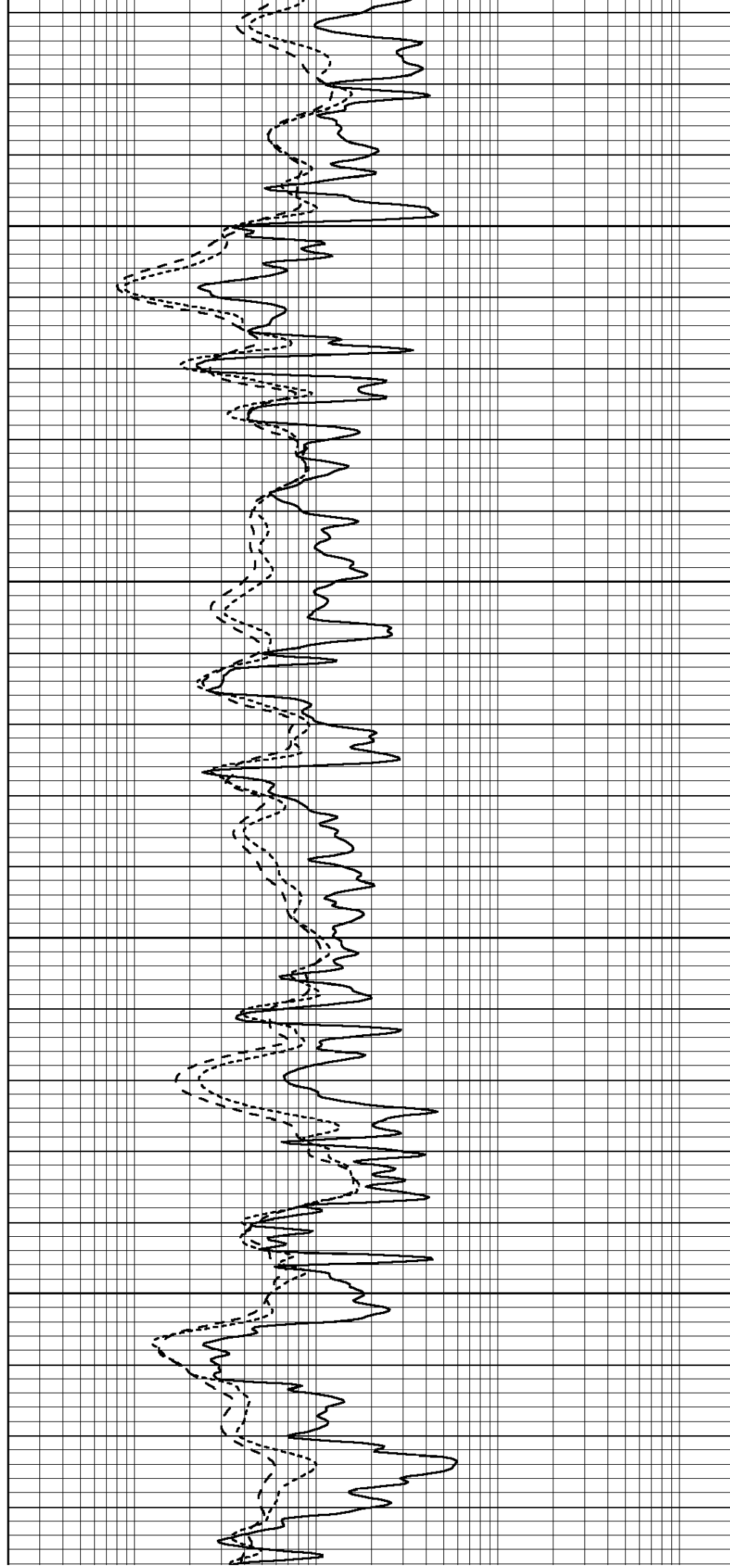


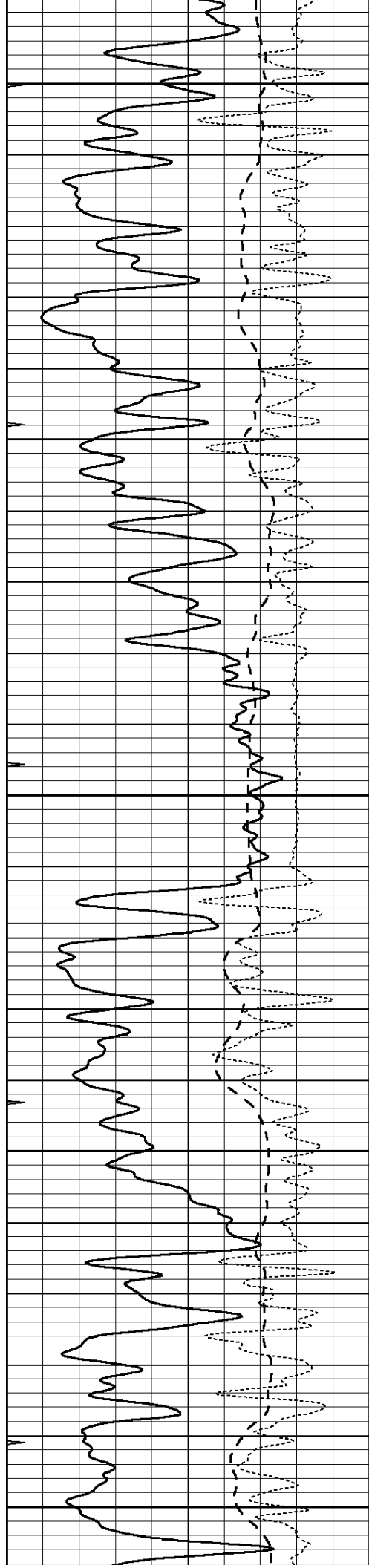
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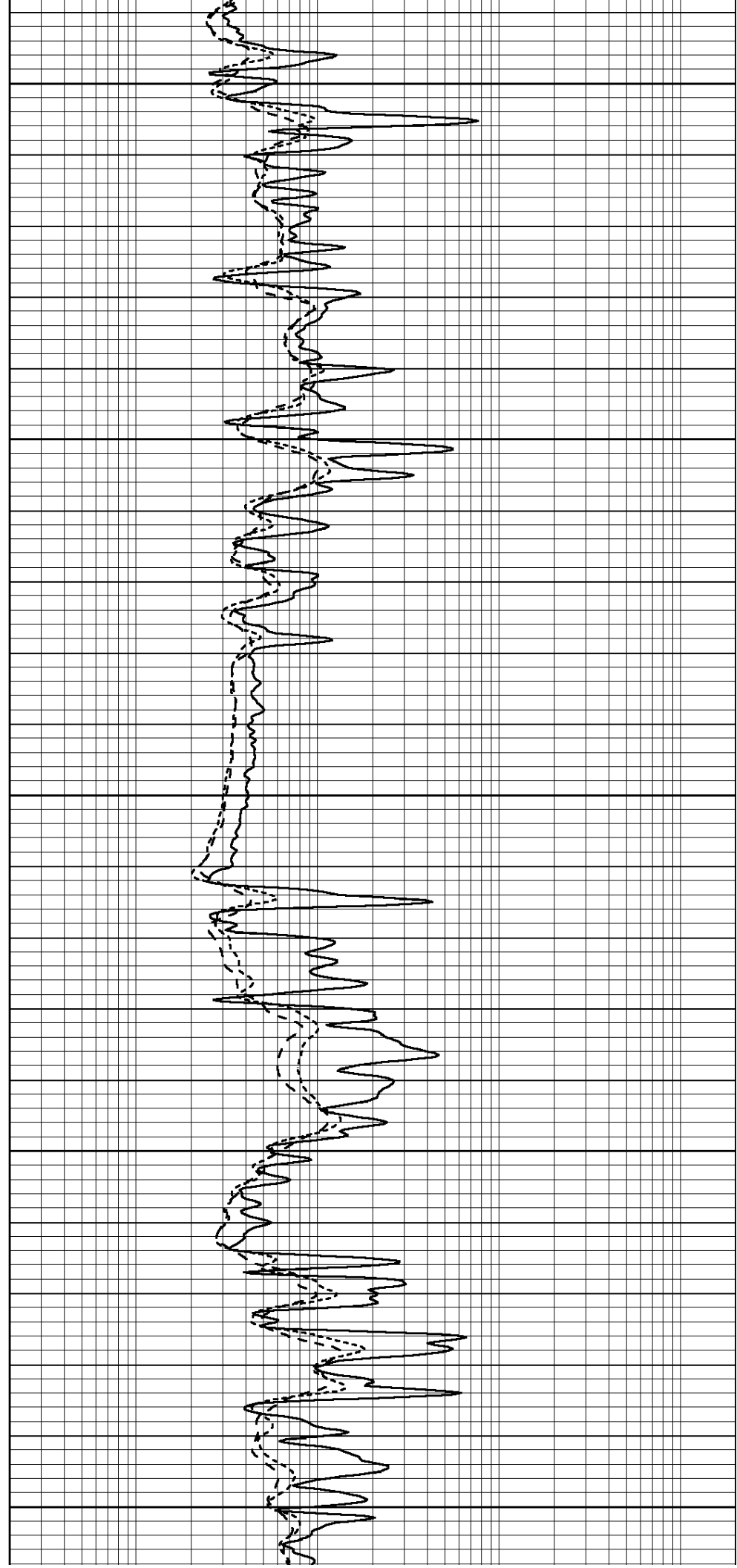
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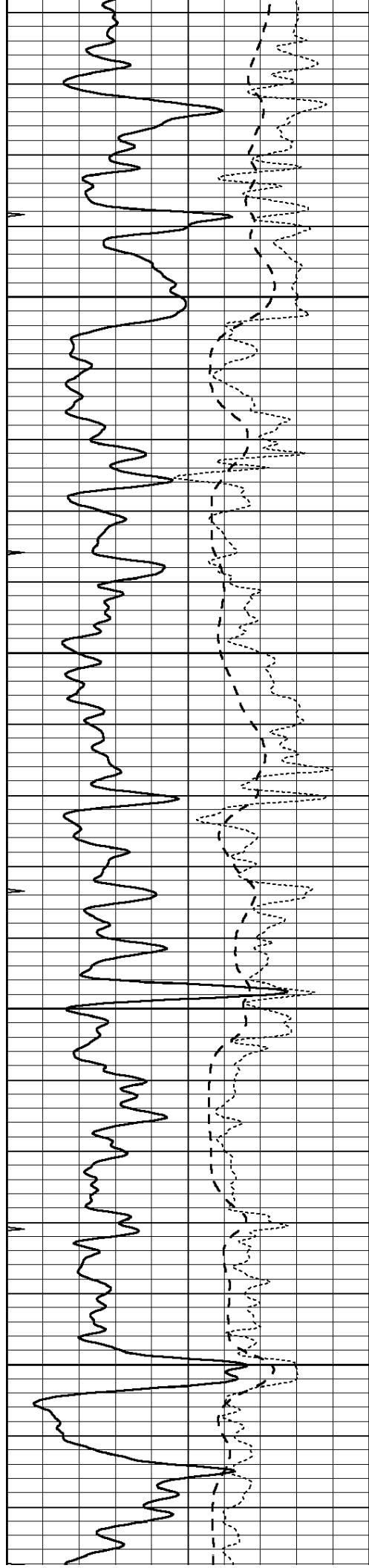
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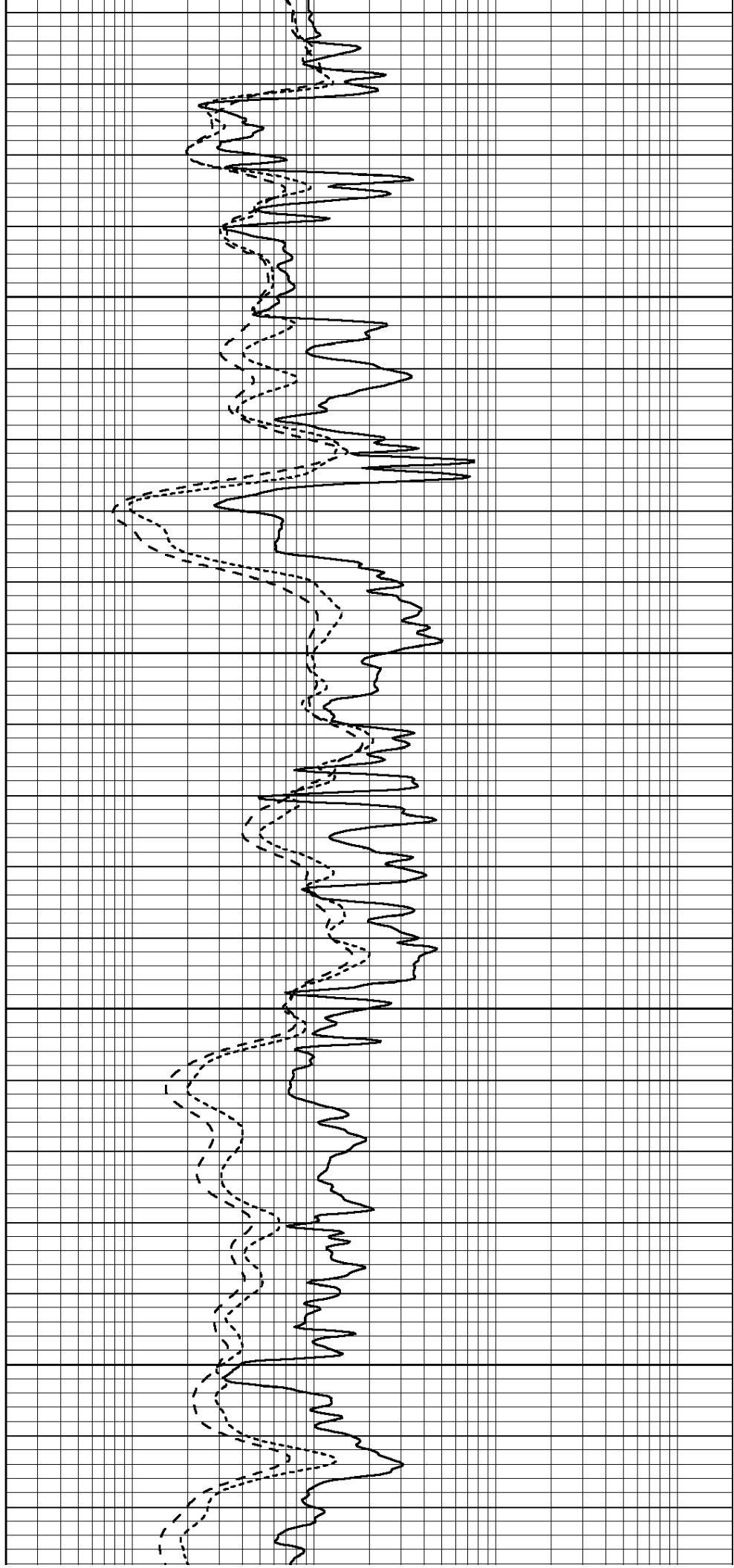


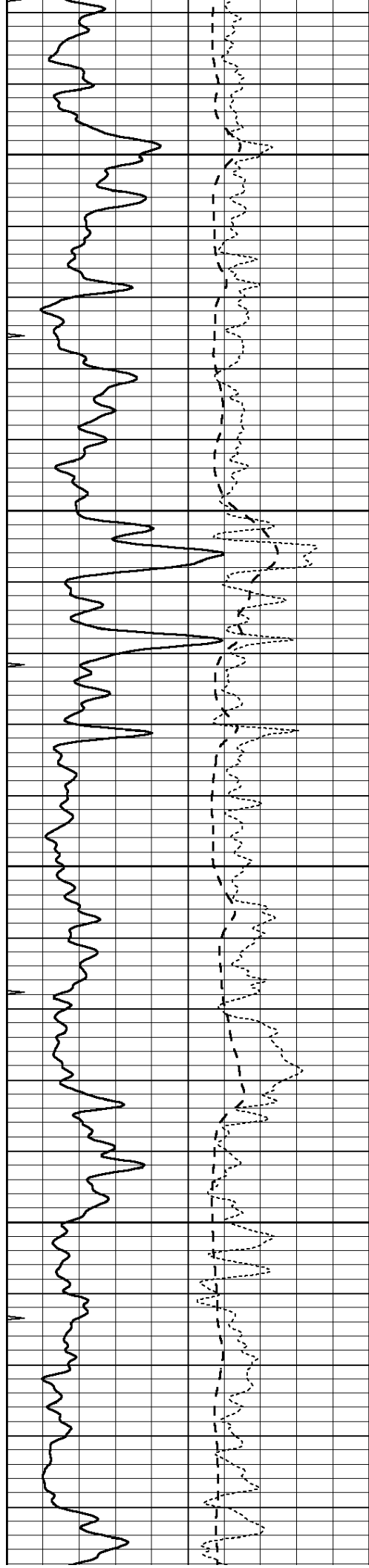
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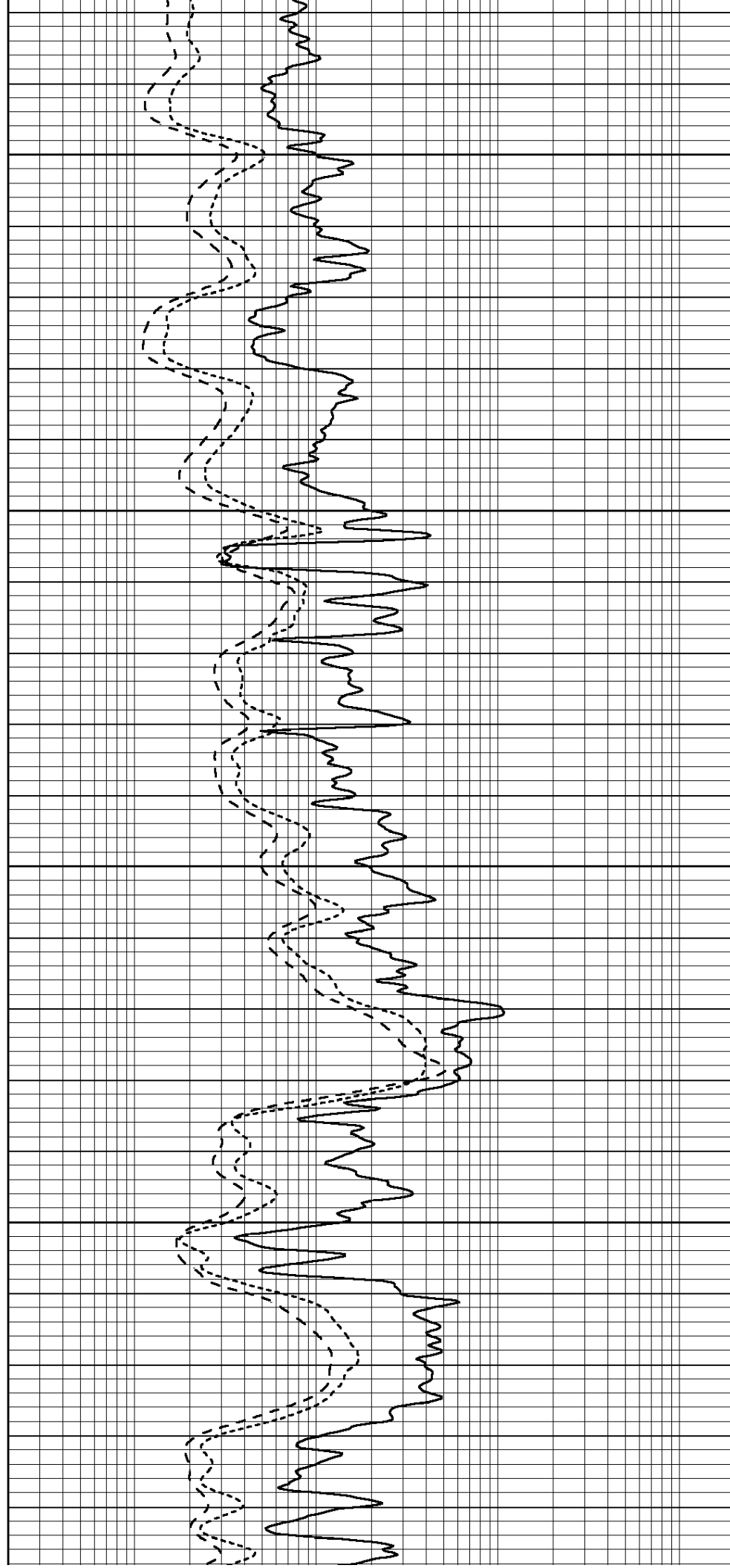


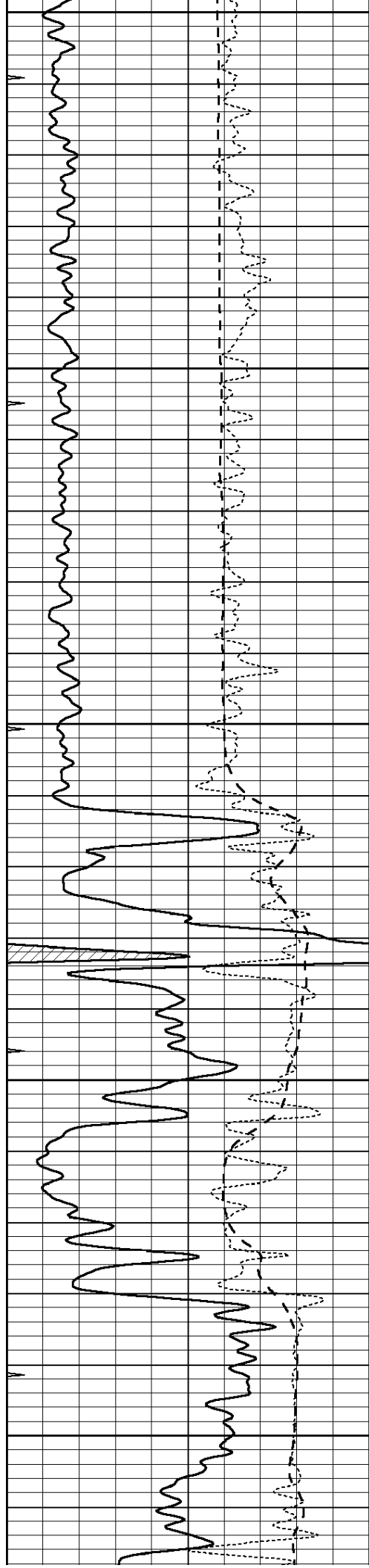
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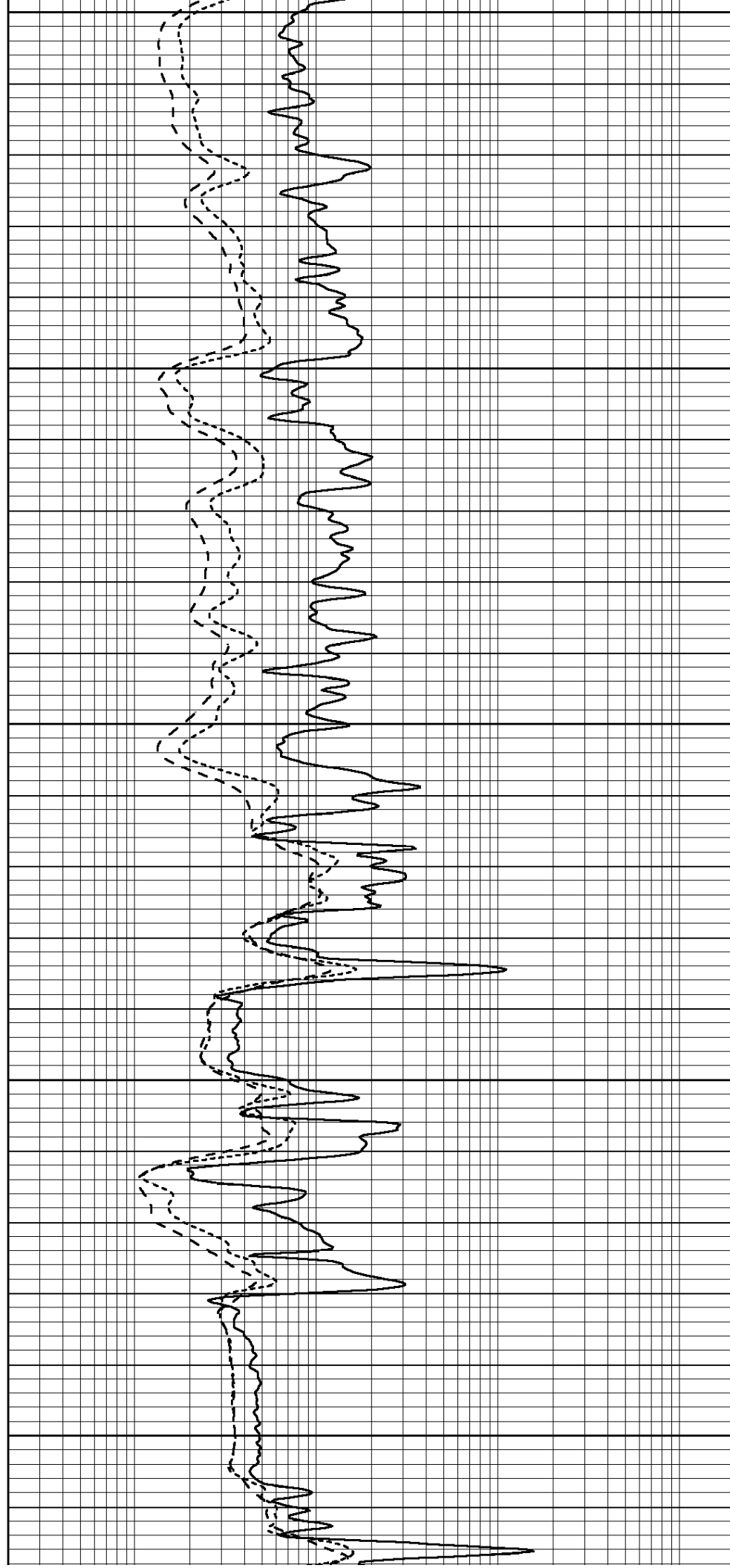
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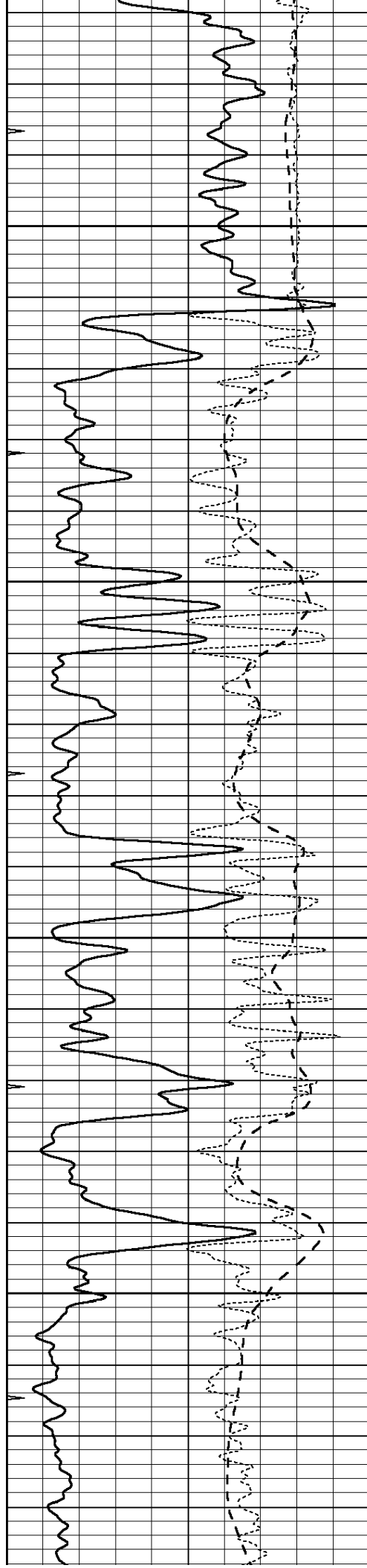
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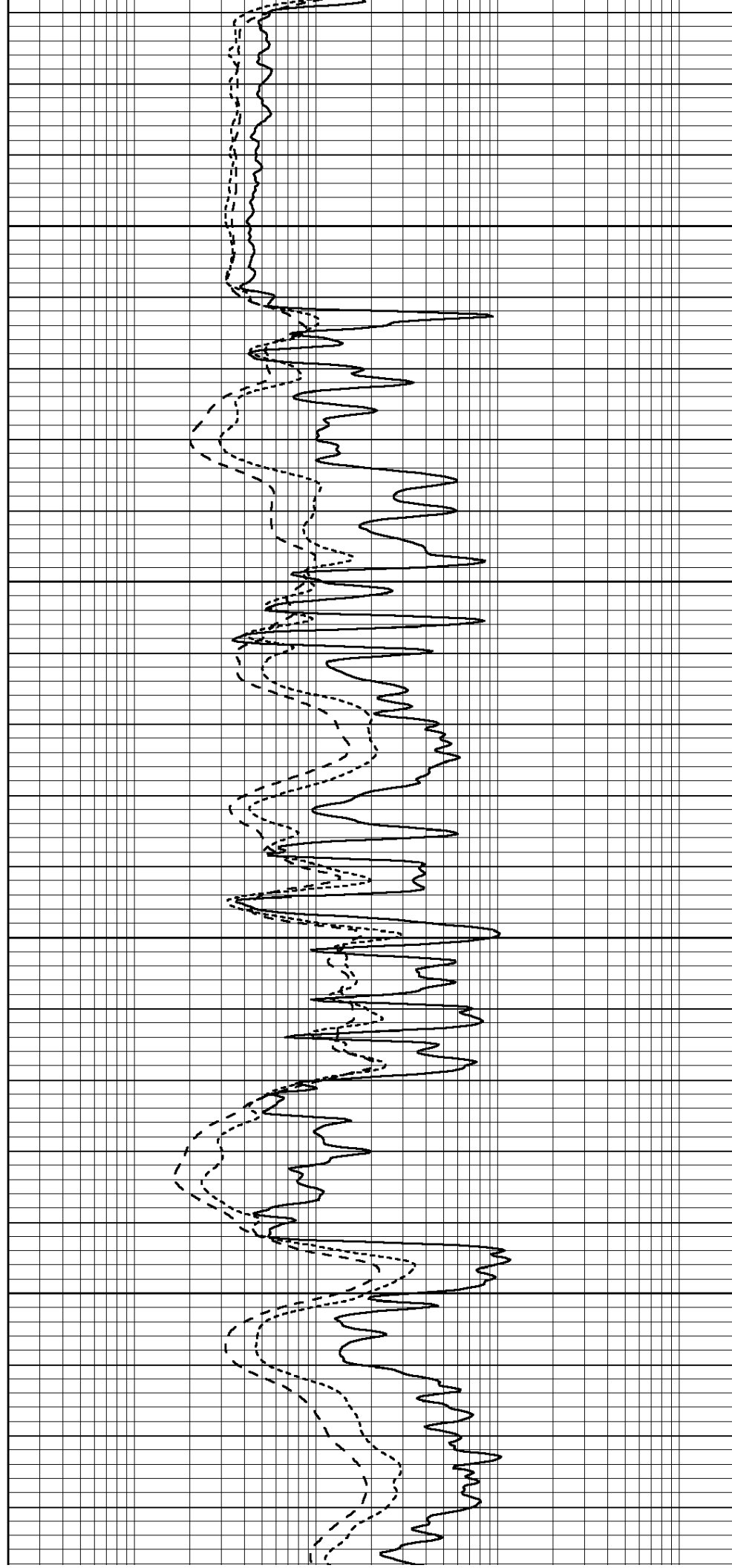


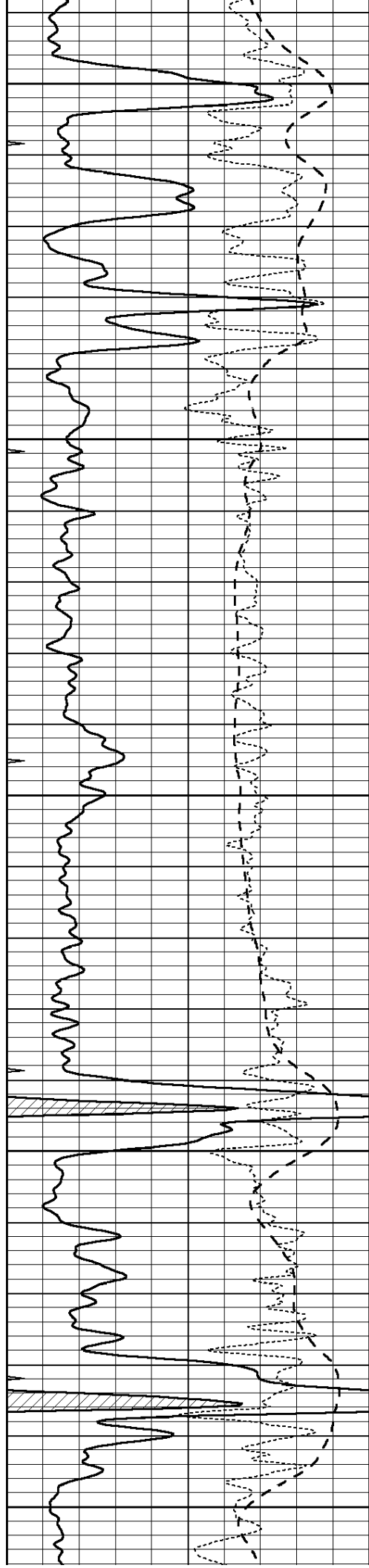
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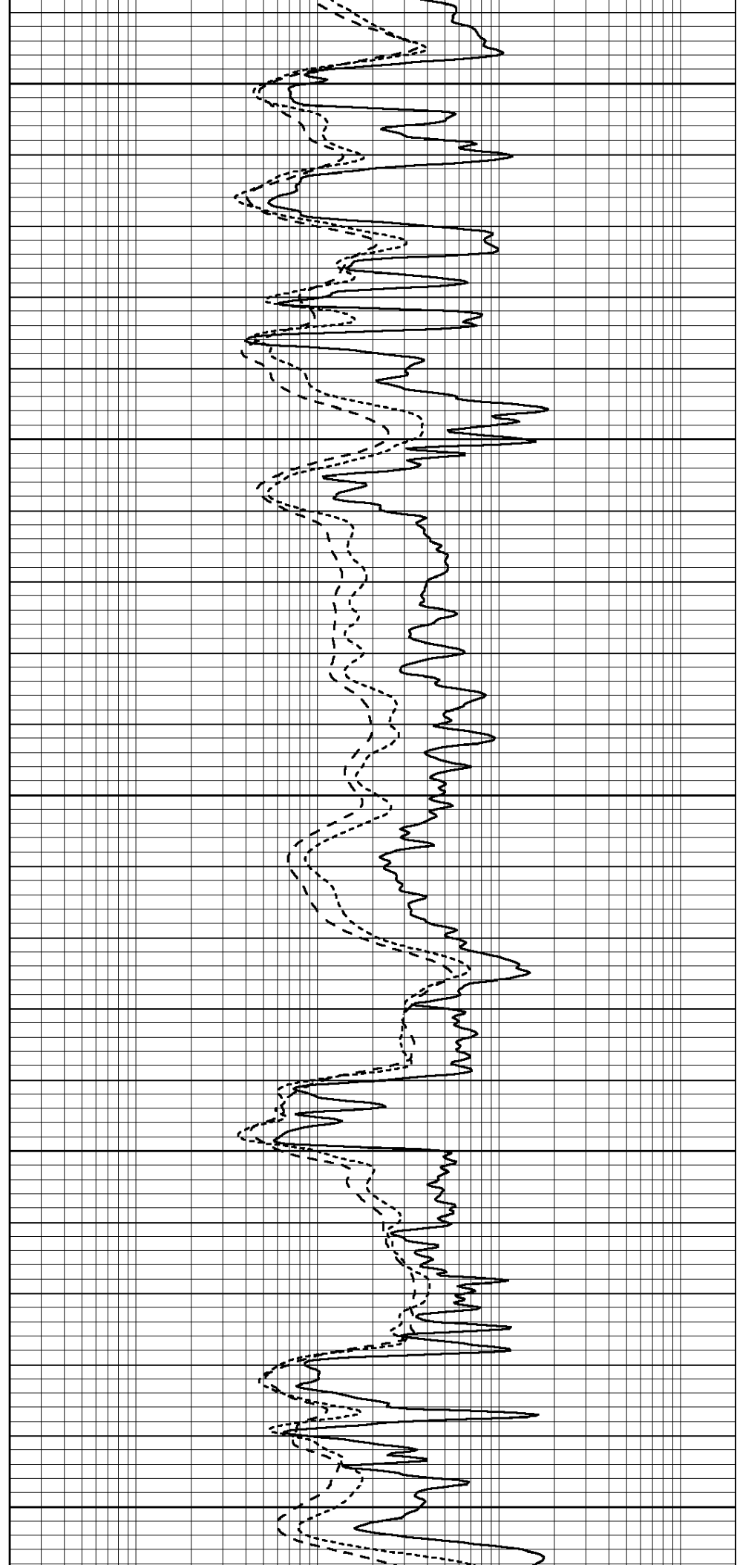
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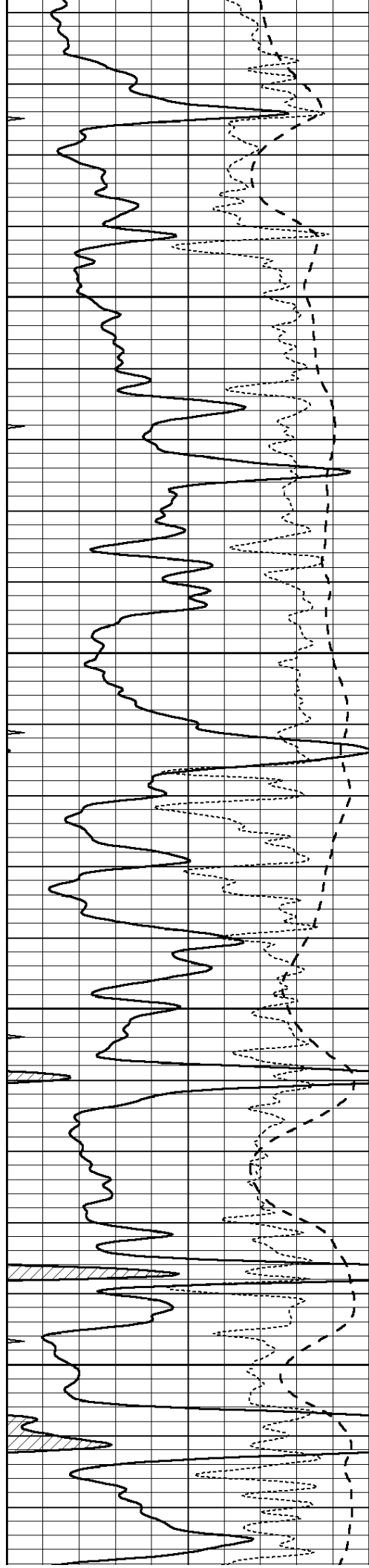
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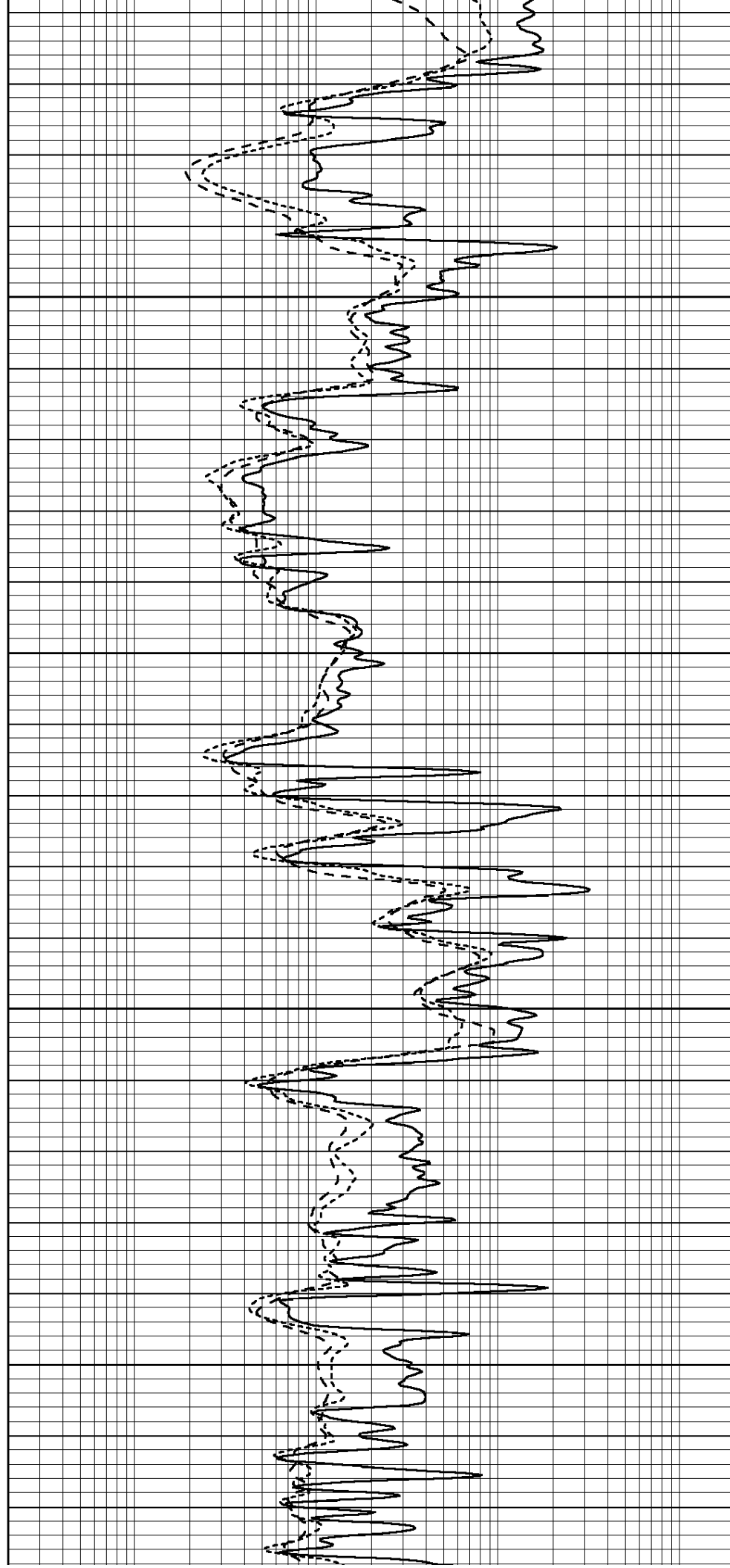


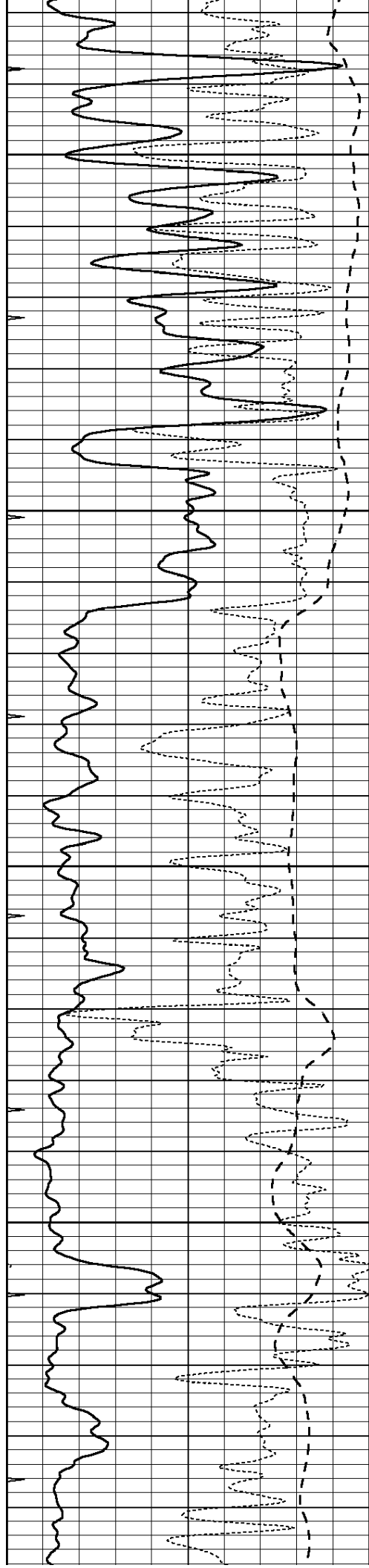
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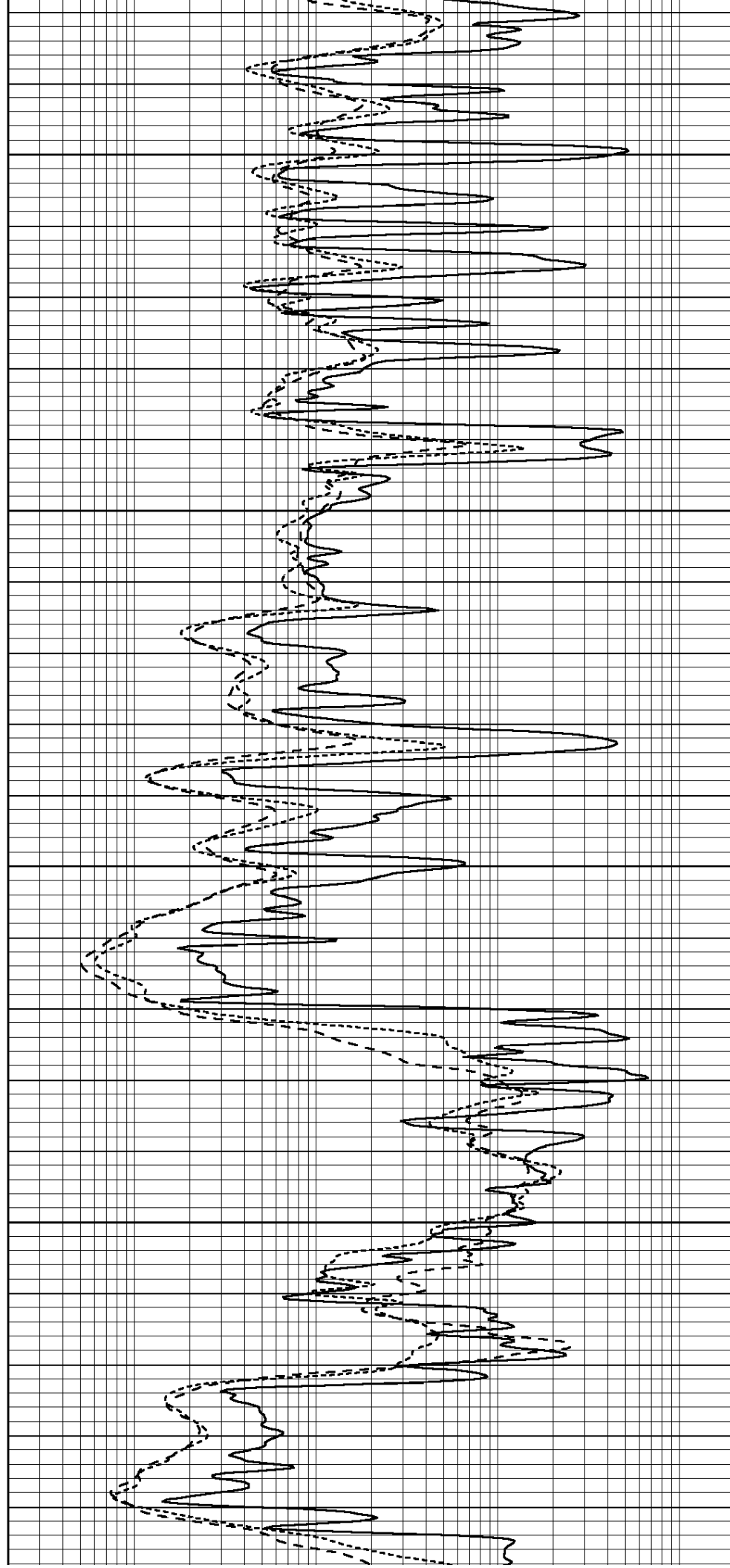


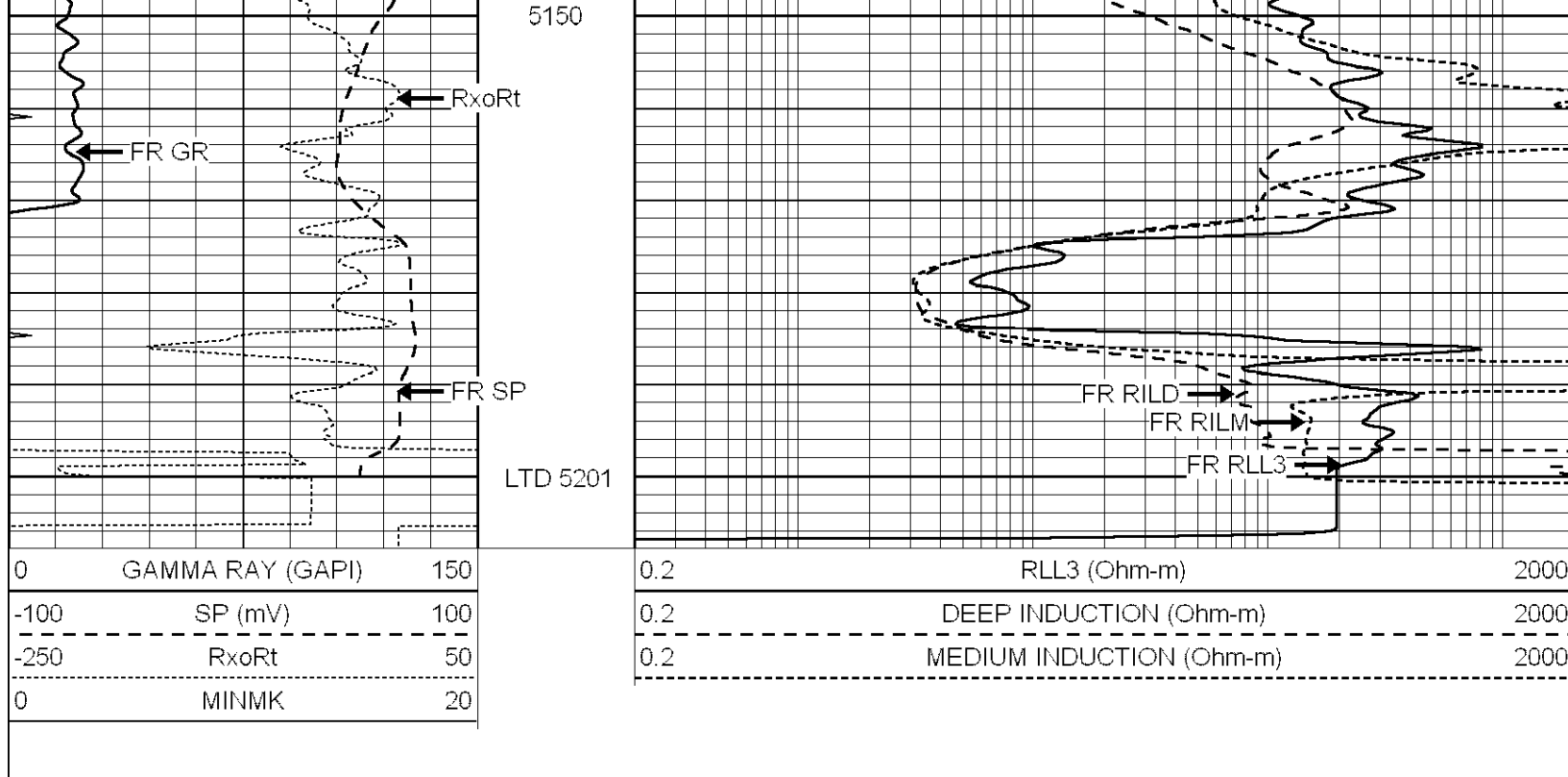
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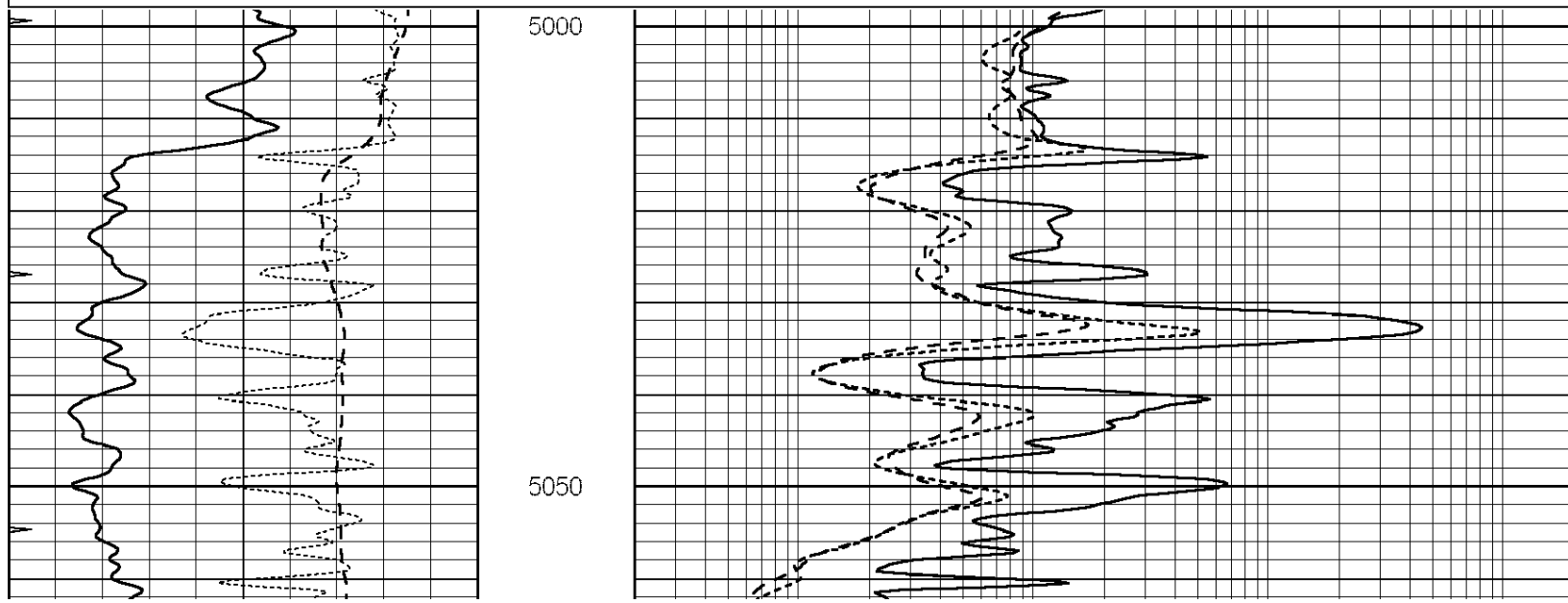
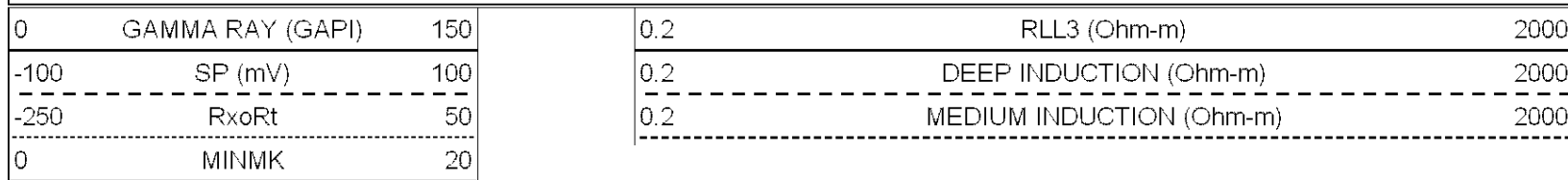


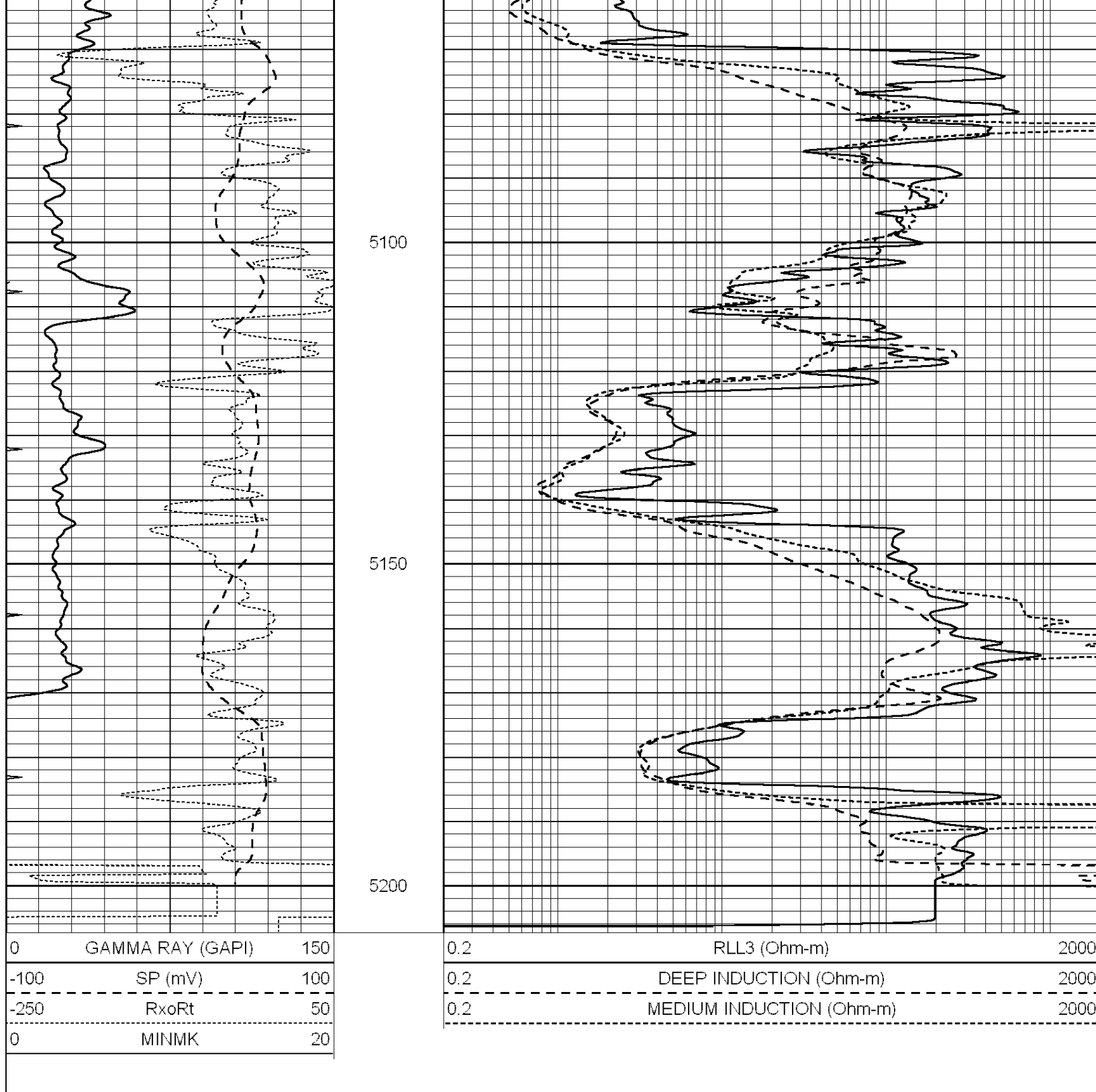


SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 007755ddn.db
 Dataset Pathname: pass2.3
 Presentation Format: dil
 Dataset Creation: Thu Oct 06 05:23:18 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240





Calibration Report							
Database File:		007755ddn.db					
Dataset Pathname:		pass3.5					
Dataset Creation:		Thu Oct 06 06:39:00 2011 by Calc Open-Cased 090629					
Dual Induction Calibration Report							
Serial-Model:		DIL5-GEAR					
Performed:		Tue Oct 04 16:34:29 2011					
Readings				References		Results	
Loop:	Air	Loop	Air	Loop	m	b	

Deep	0.004	0.654	V	0.000	400.000	mmho/m	540.000	-22.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	550.000	-20.000
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

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
 Source / Verifier: 147 / 147
 Master Calibration Performed: Tue Oct 04 16:10:13 2011

Master Calibration

	Density			Far Detector		Near Detector	
Magnesium	1.710	g/cc		1243.76		629.14	cps
Aluminum	2.590	g/cc		282.16		435.01	cps
Spine Angle = 76.03				Density/Spine Ratio = 0.576			
	Size			Reading			
Small Ring	9.10	in		3.44	V		
Large Ring	14.00	in		5.20	V		

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: Tue Oct 04 16:09:50 2011
 Calibrator Value: 1.0 GAPI
 Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps
 Sensitivity: 0.6700 GAPI/cps