



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company	MESSENGER PETROLEUM, INC.		
Well	THOM NO. 1		
Field	CHITWOOD		
County	PRATT	State	KANSAS
Location:	API # : 15-151-22403-00-00		Other Services CNL/CDL PE/MEI
SEC 27 TWP 28S RGE 12W		Elevation	
Permanent Datum	GROUND LEVEL	Elevation	1864
Log Measured From	KELLY BUSHING 9' A.G.L.	K.B.	1873
Drilling Measured From	KELLY BUSHING	D.F.	1871
		G.L.	1864
Date	12-15-2012		
Run Number	TWO		
Depth Driller	4594		
Depth Logger	4592		
Bottom Logged Interval	4590		
Top Log Interval	0		
Casing Driller	276		
Casing Logger	276		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3 / 44		
pH / Fluid Loss	8.5/10.4		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.75@68F		
Rmf @ Meas. Temp	.6@68F		
Rmc @ Meas. Temp	.9@68F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.42@121		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	11:30 A.M.		
Maximum Recorded Temperature	121		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	MIKE GARRISON		
Witnessed By	FRANK MIZE		

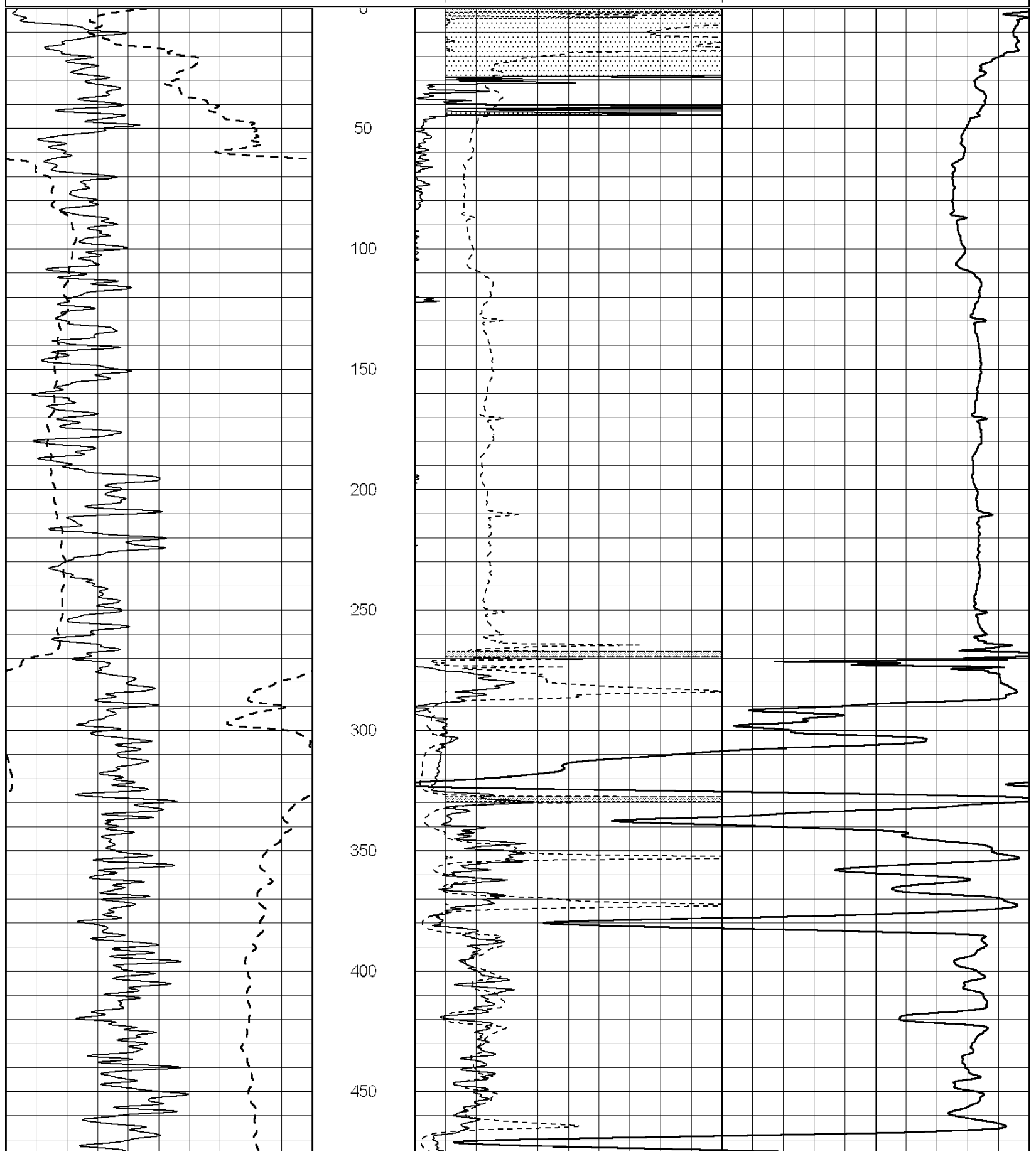
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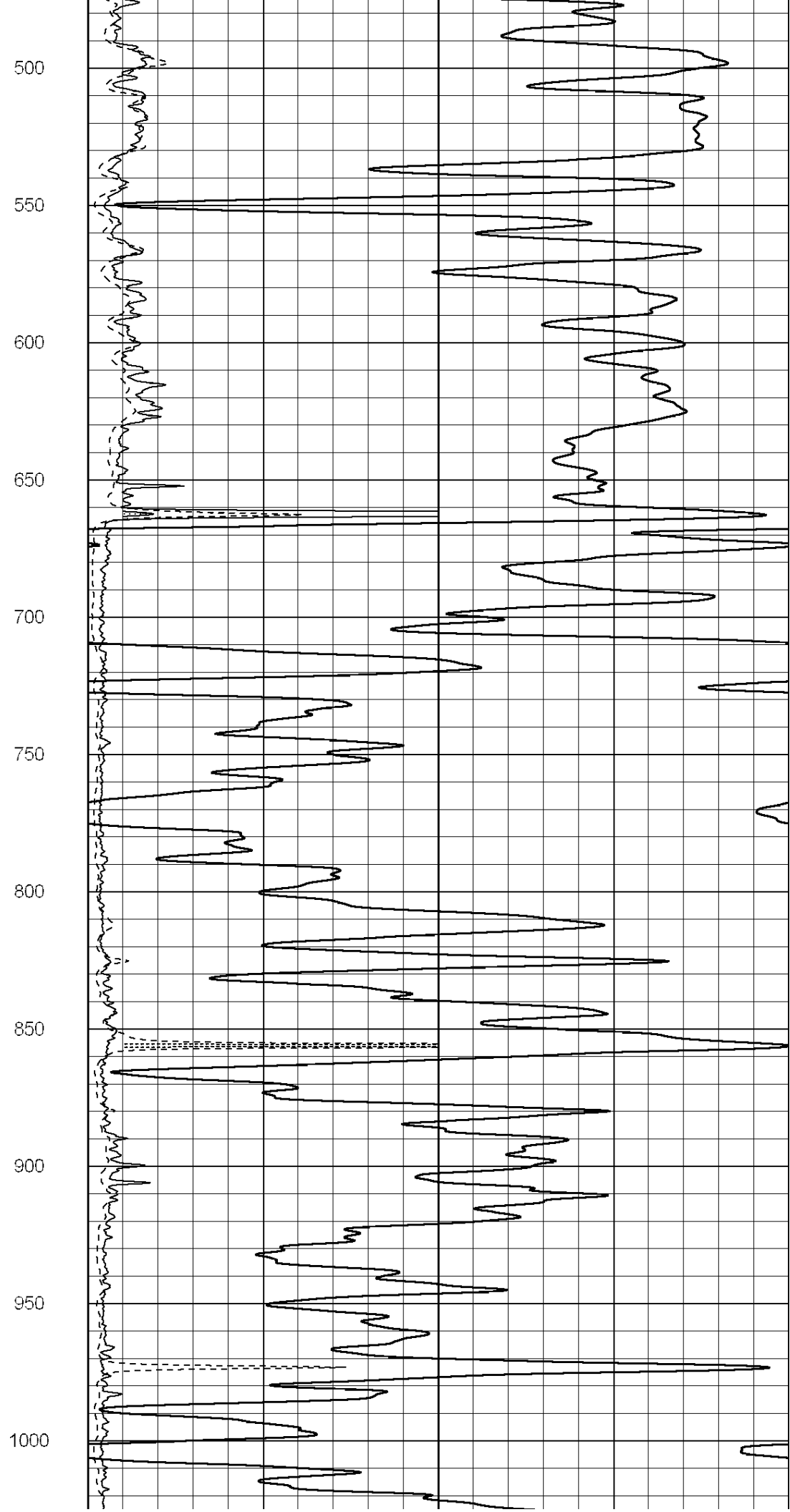
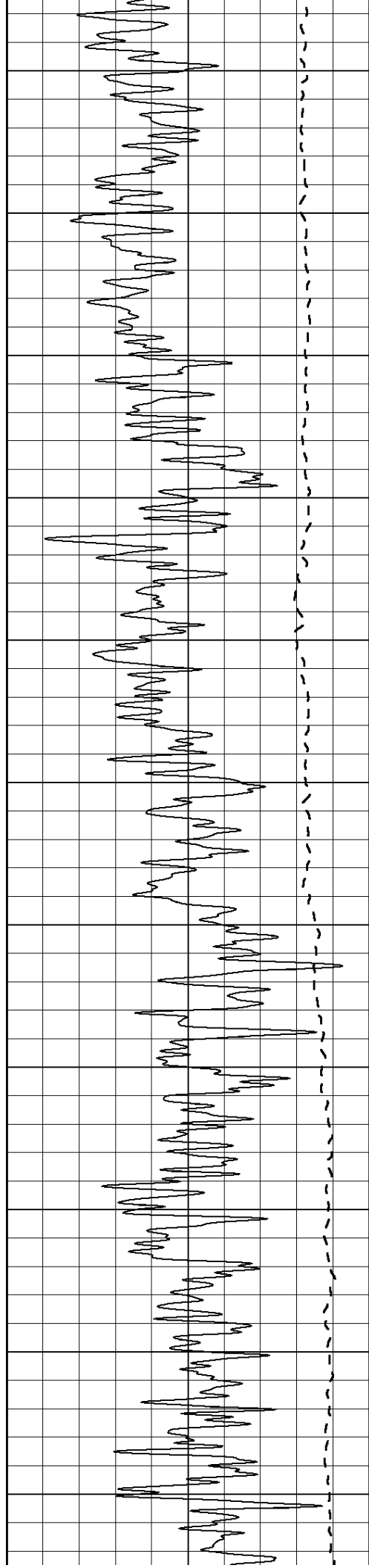
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

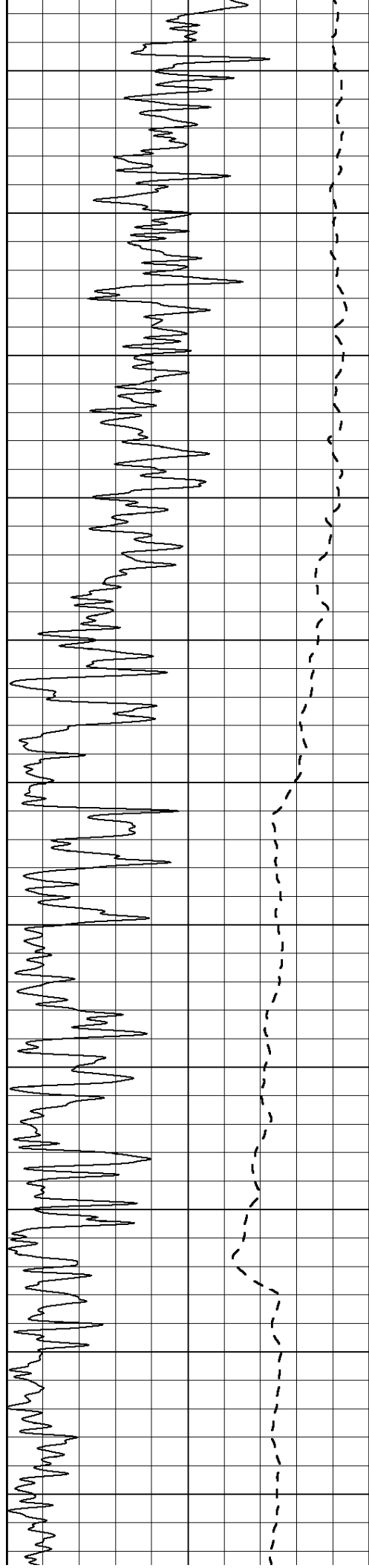
Comments

NABORS COMPLETION & PRODUCTION CO.
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS:PRATT KS, 5 EAST, 4 SOUTH, 1/4 WEST ,SOUTH INTO

0	Gamma Ray (GAPI)	150	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	







1050

1100

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1200

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1300

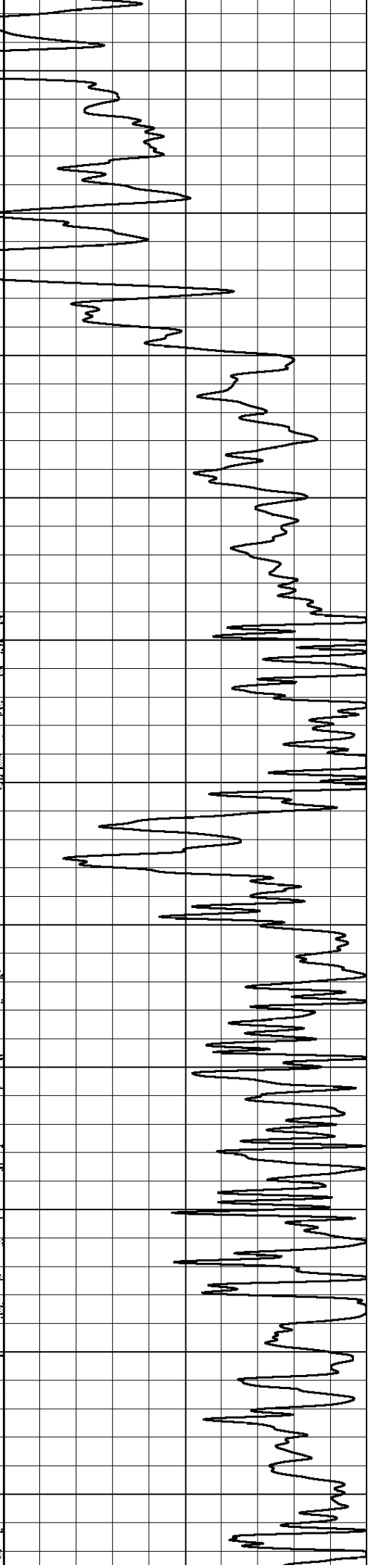
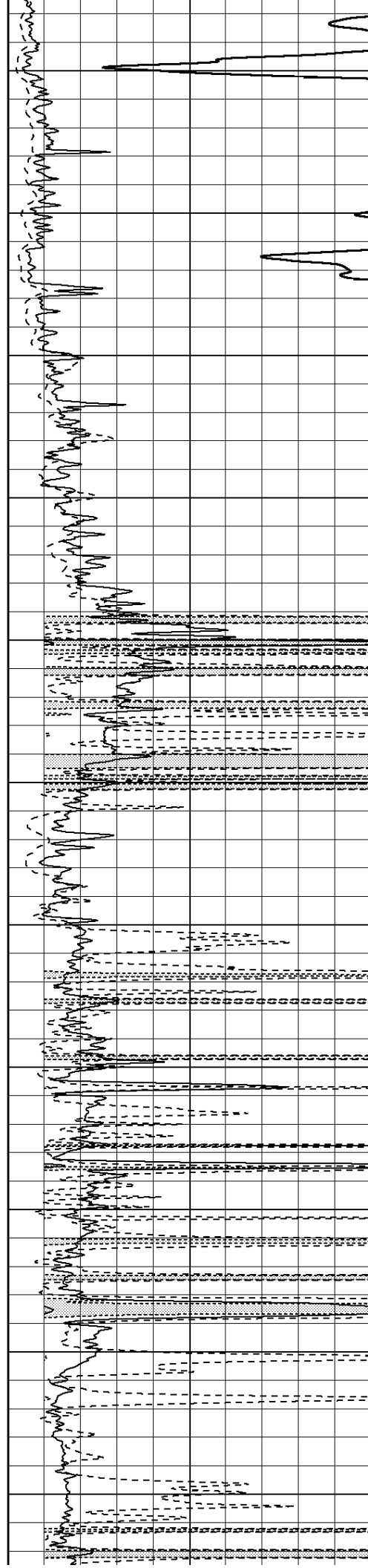
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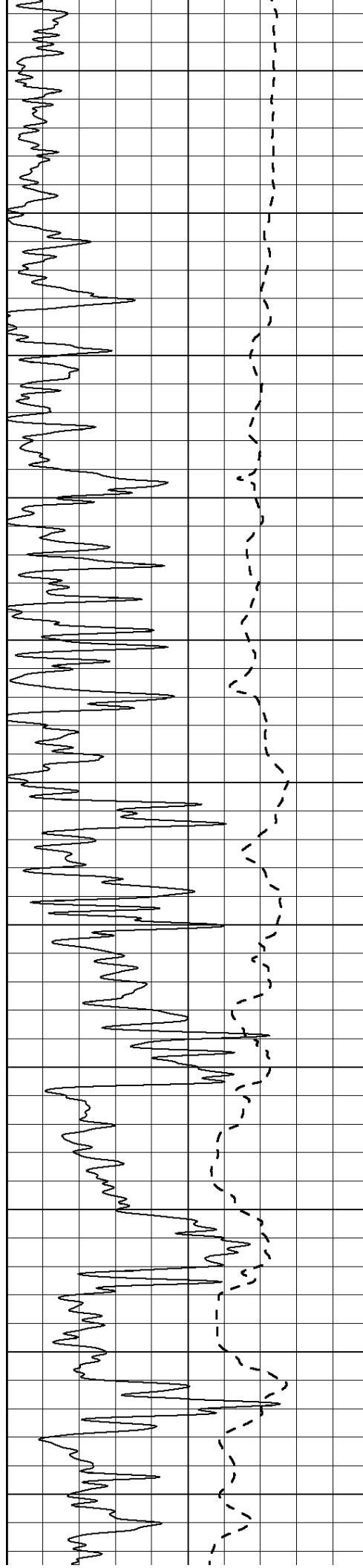
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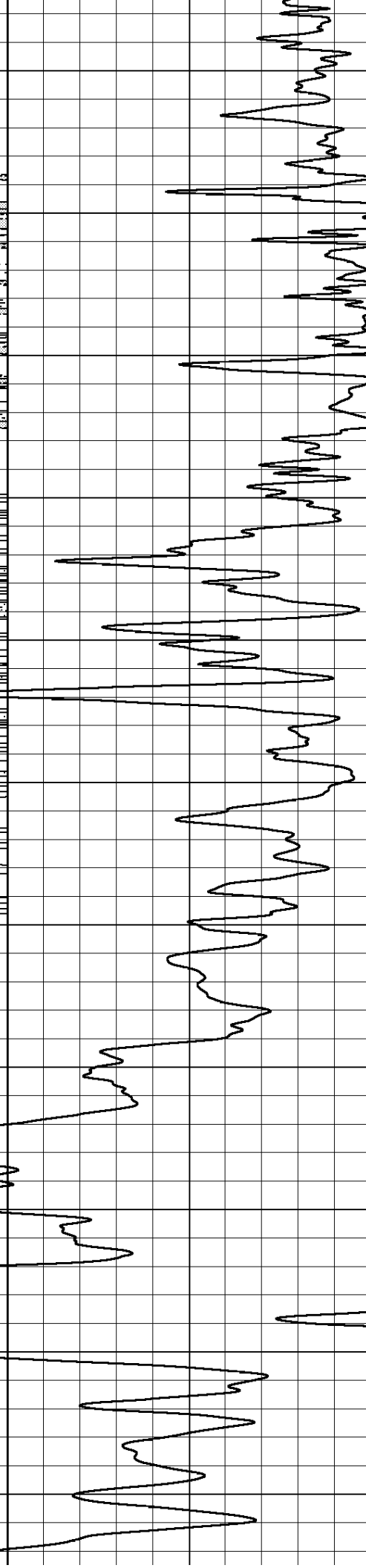
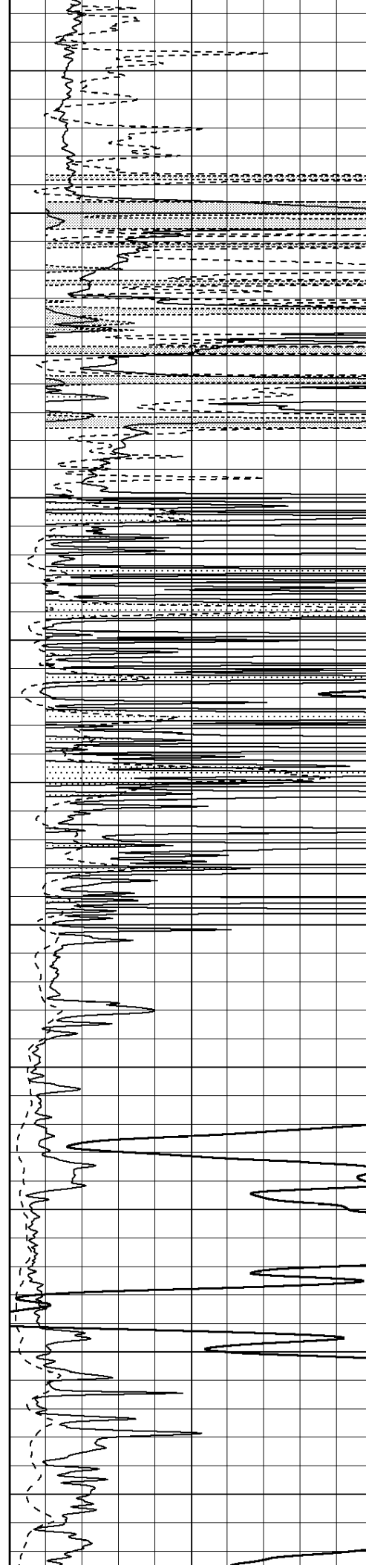
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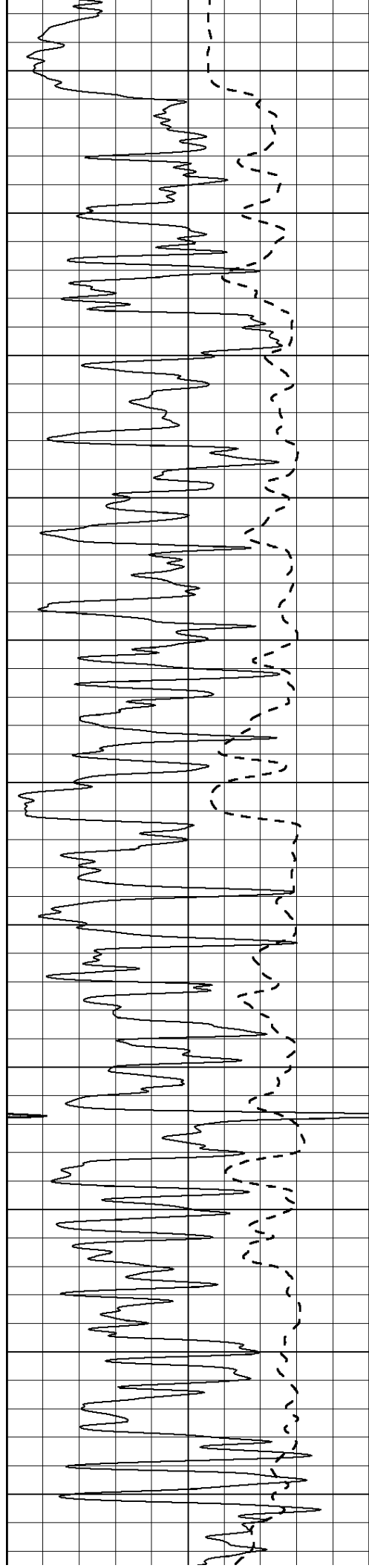
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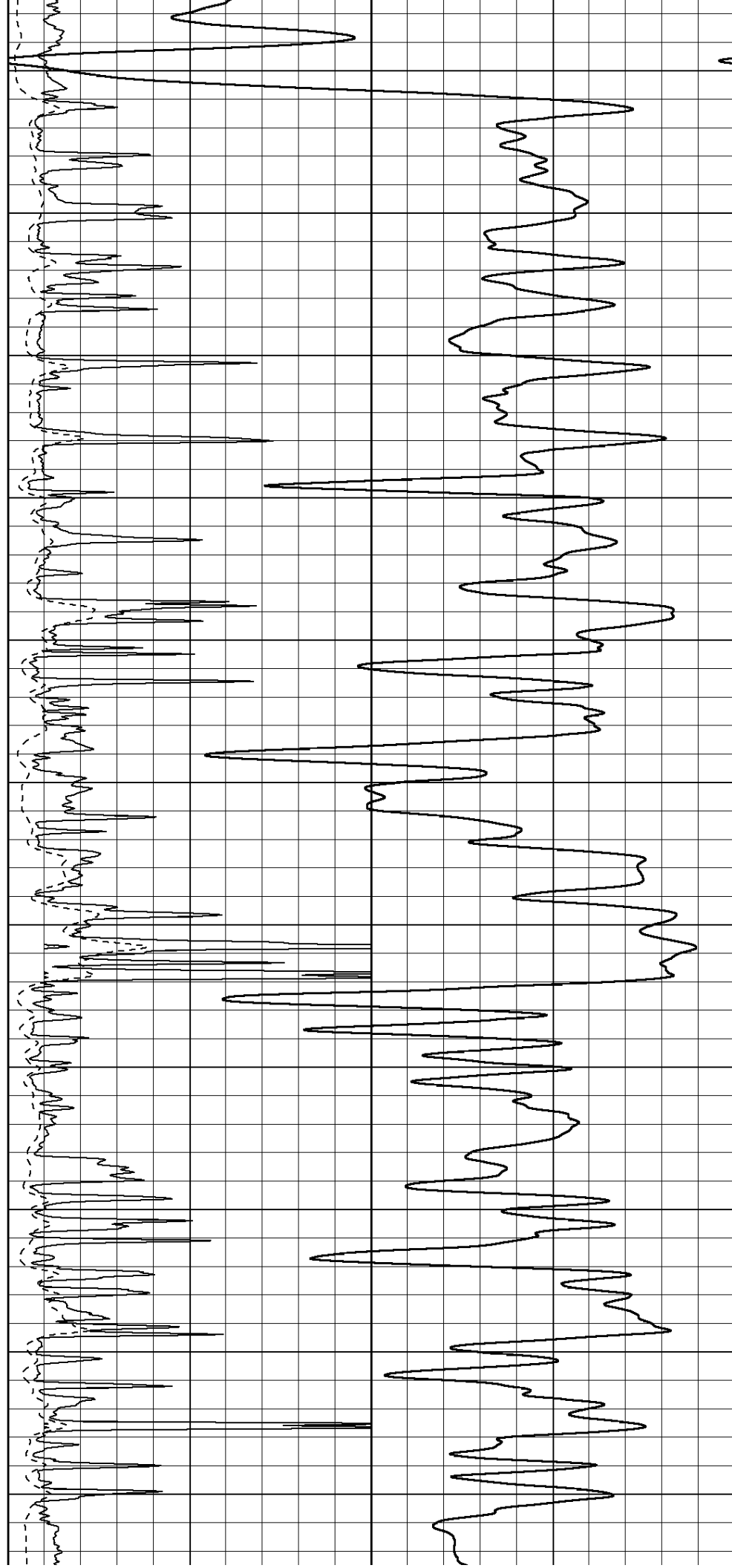
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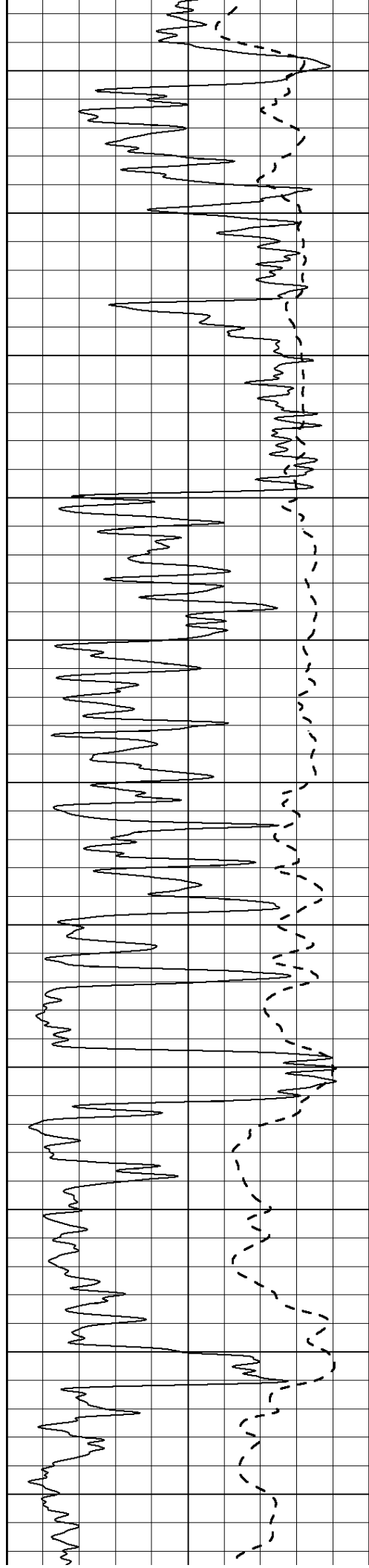
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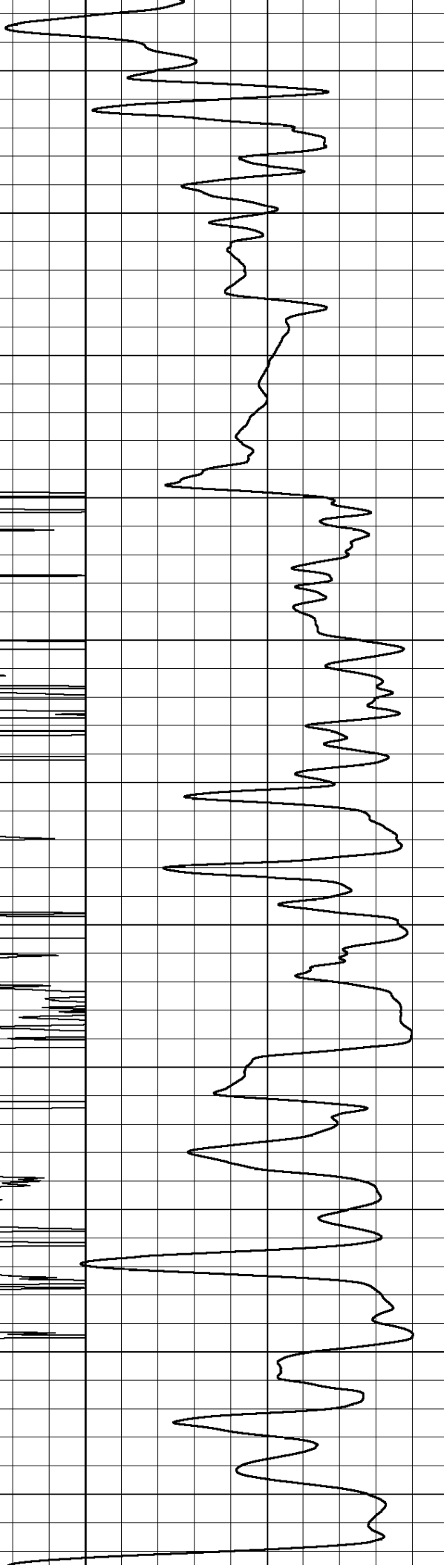
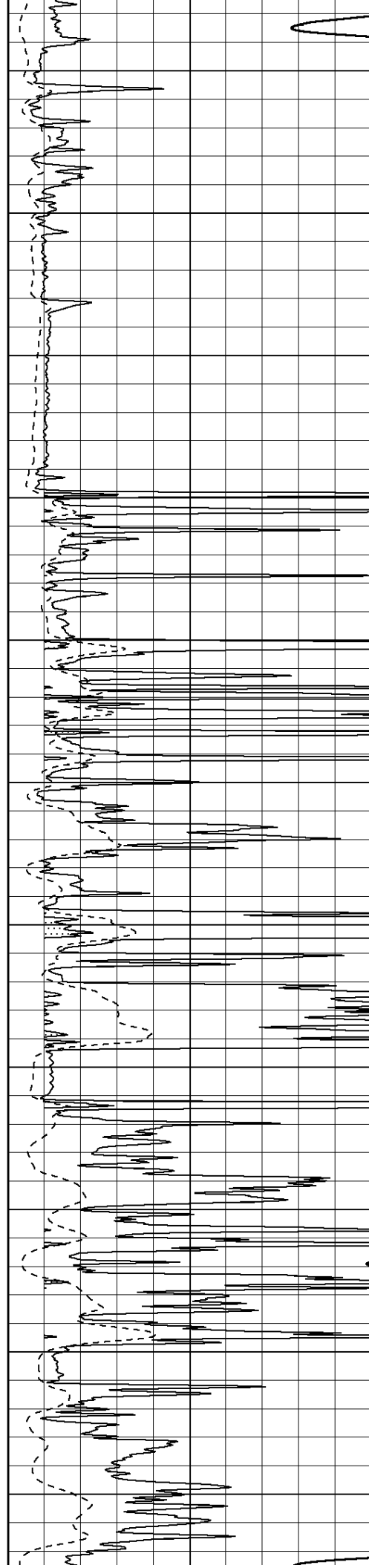
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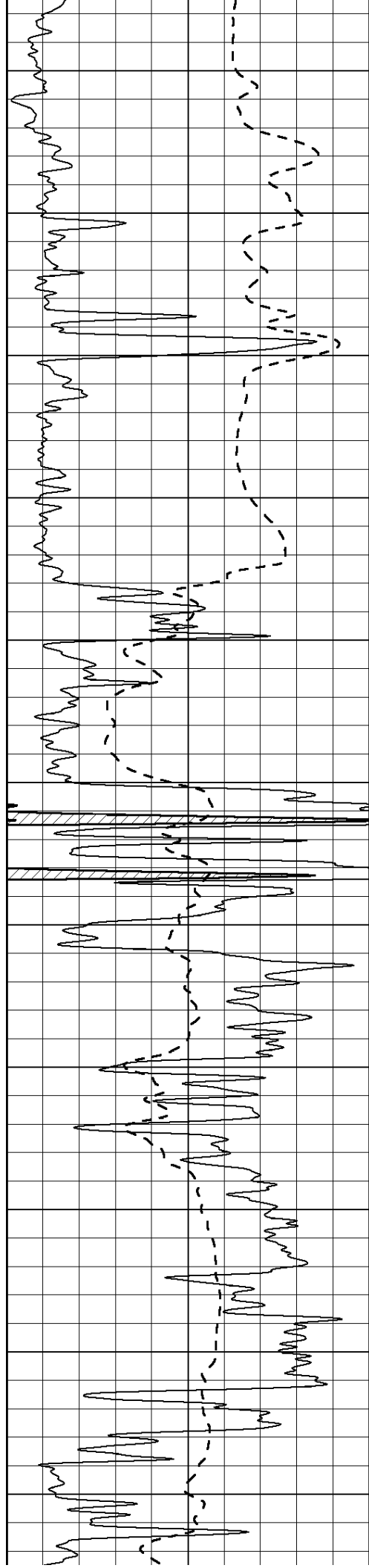
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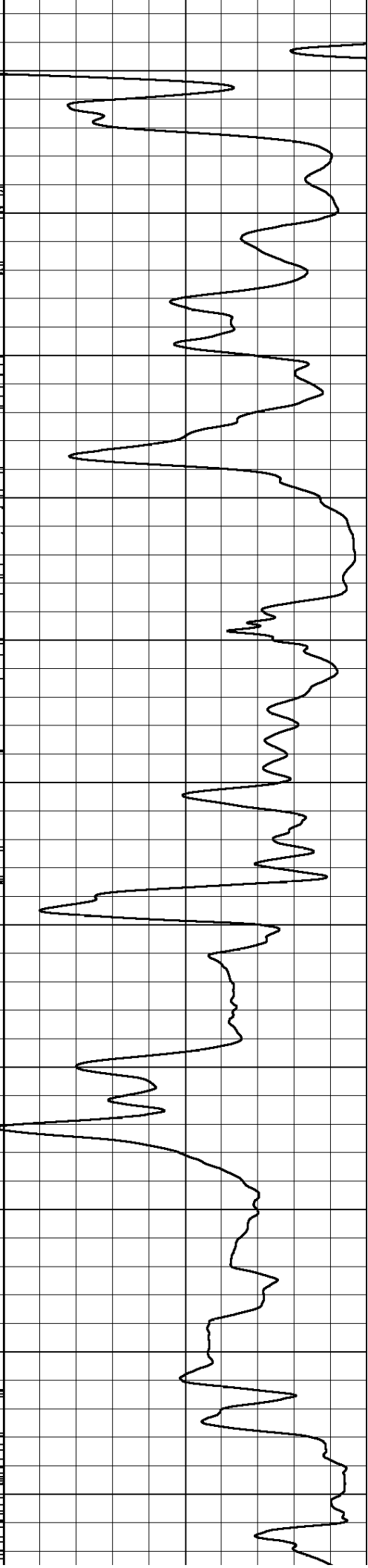
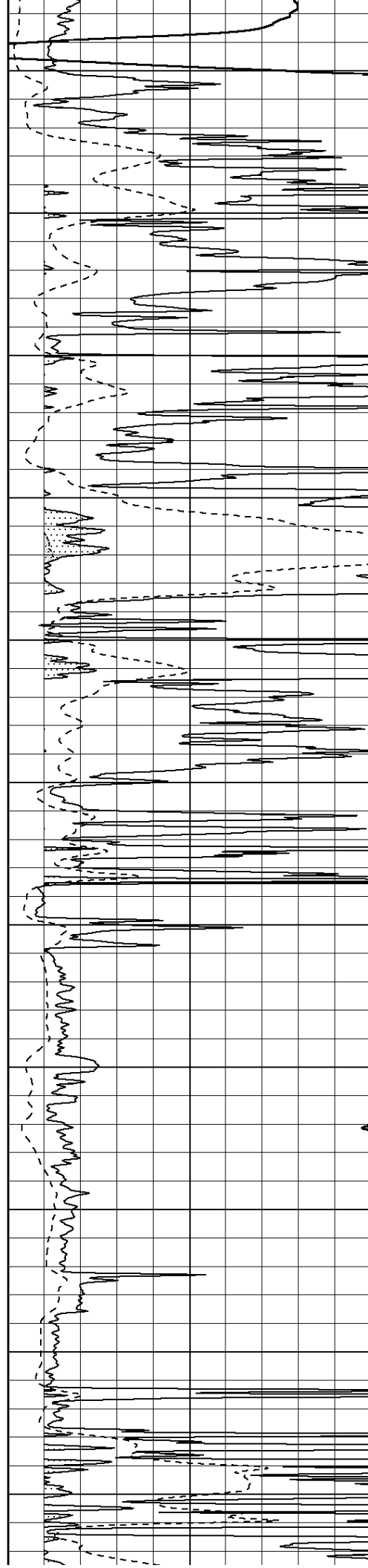
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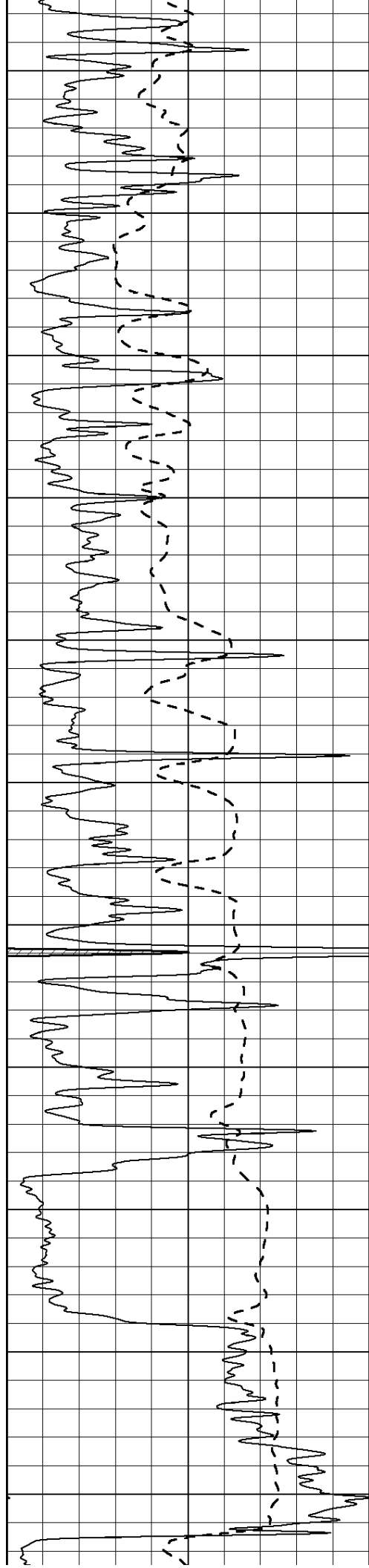
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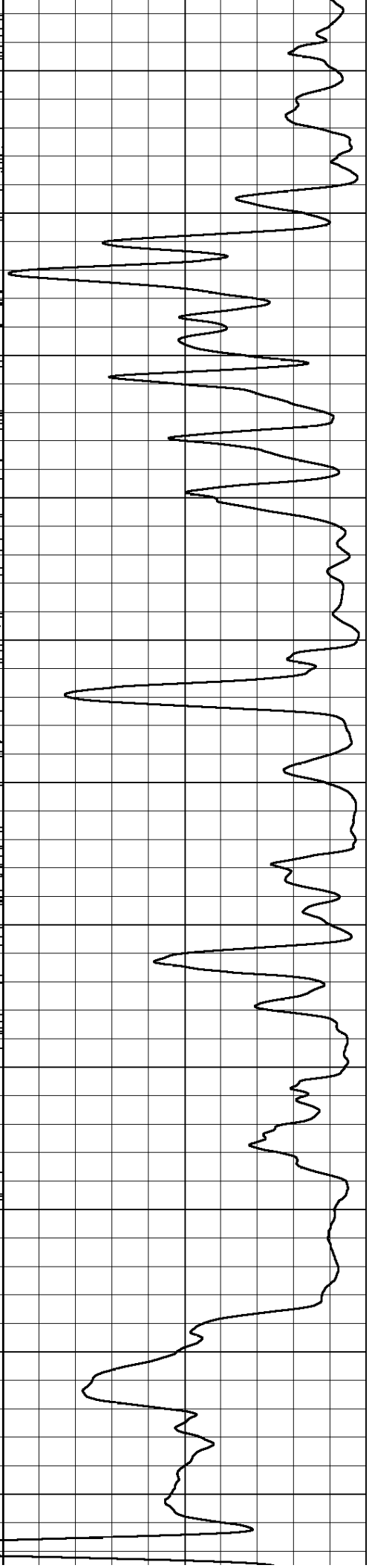
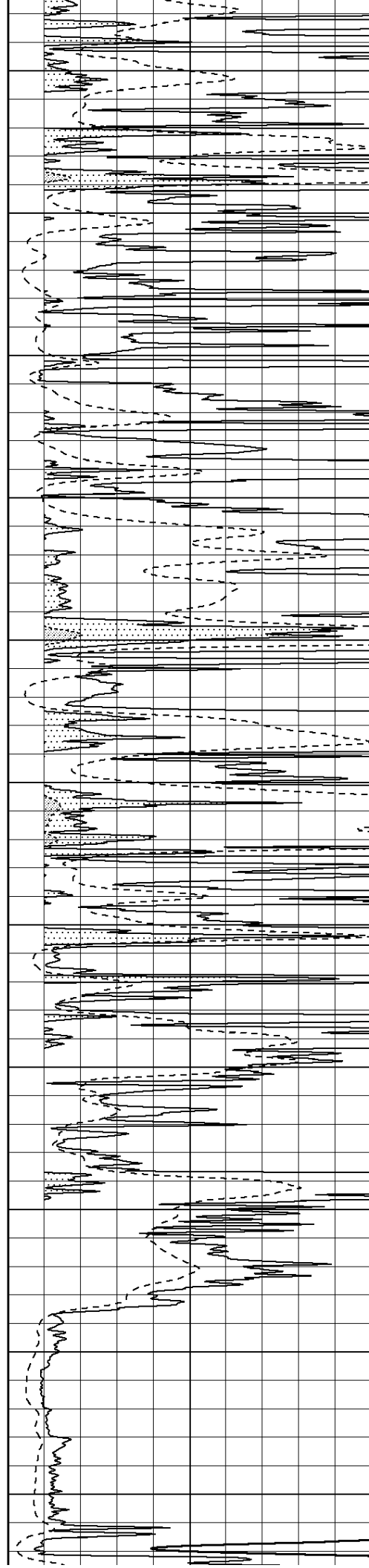
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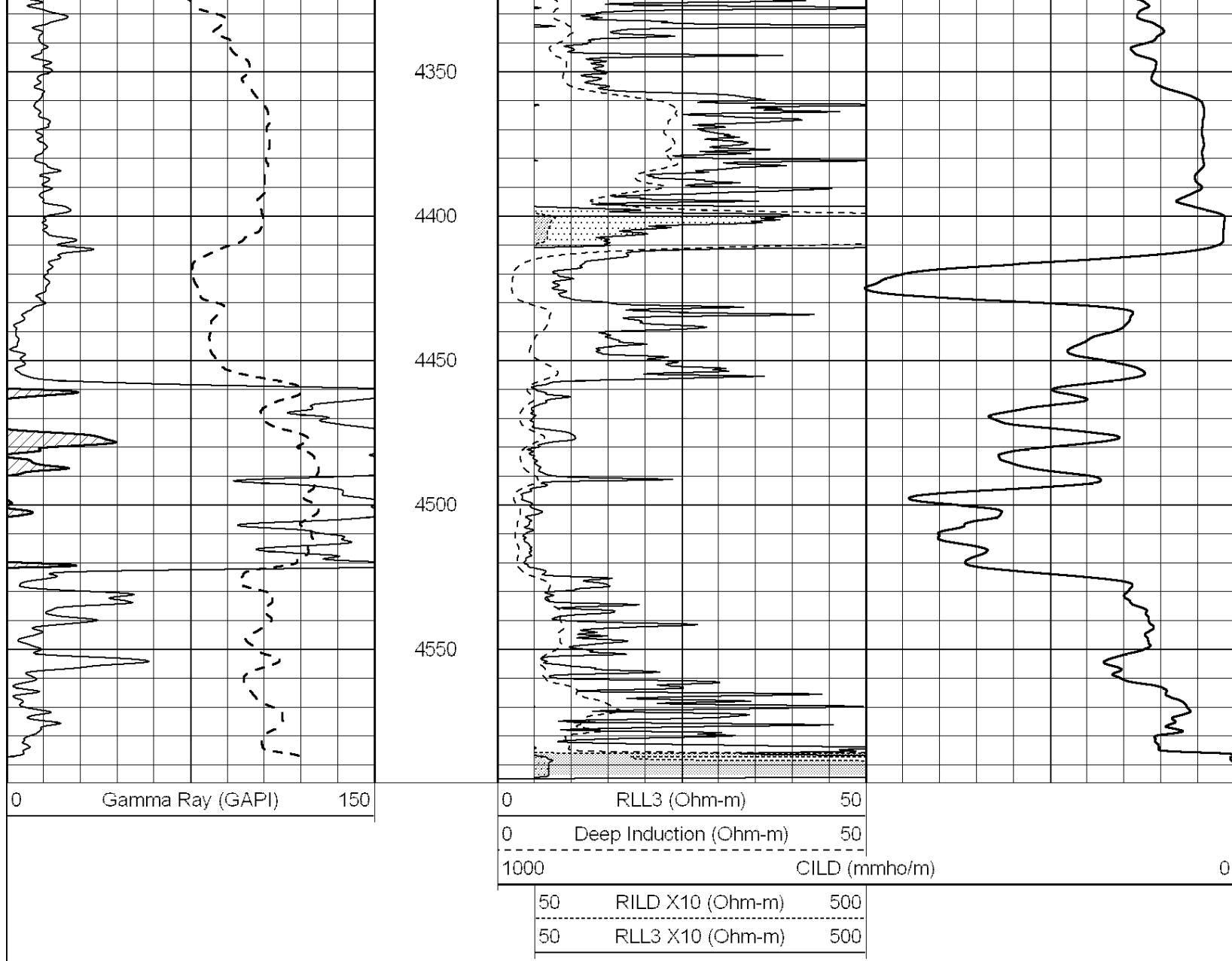
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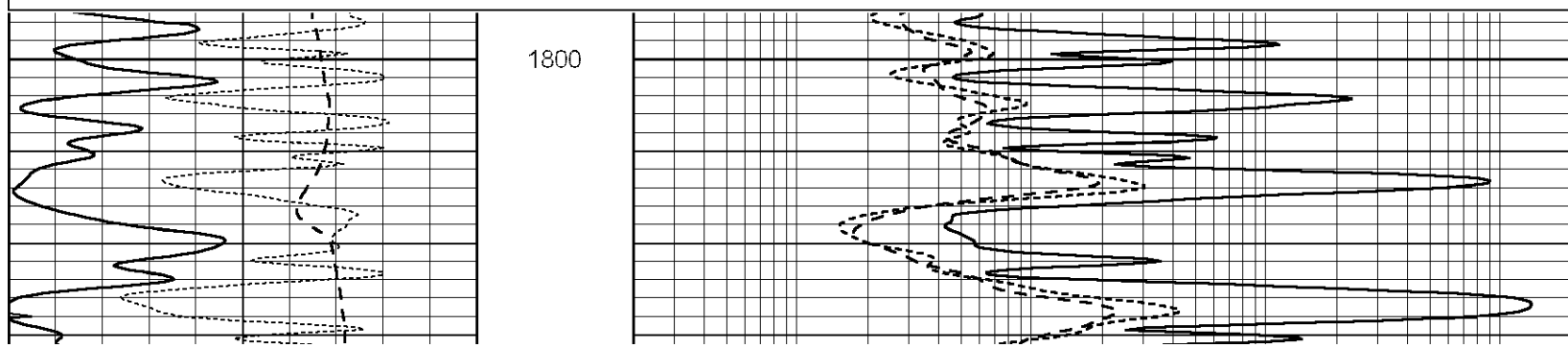
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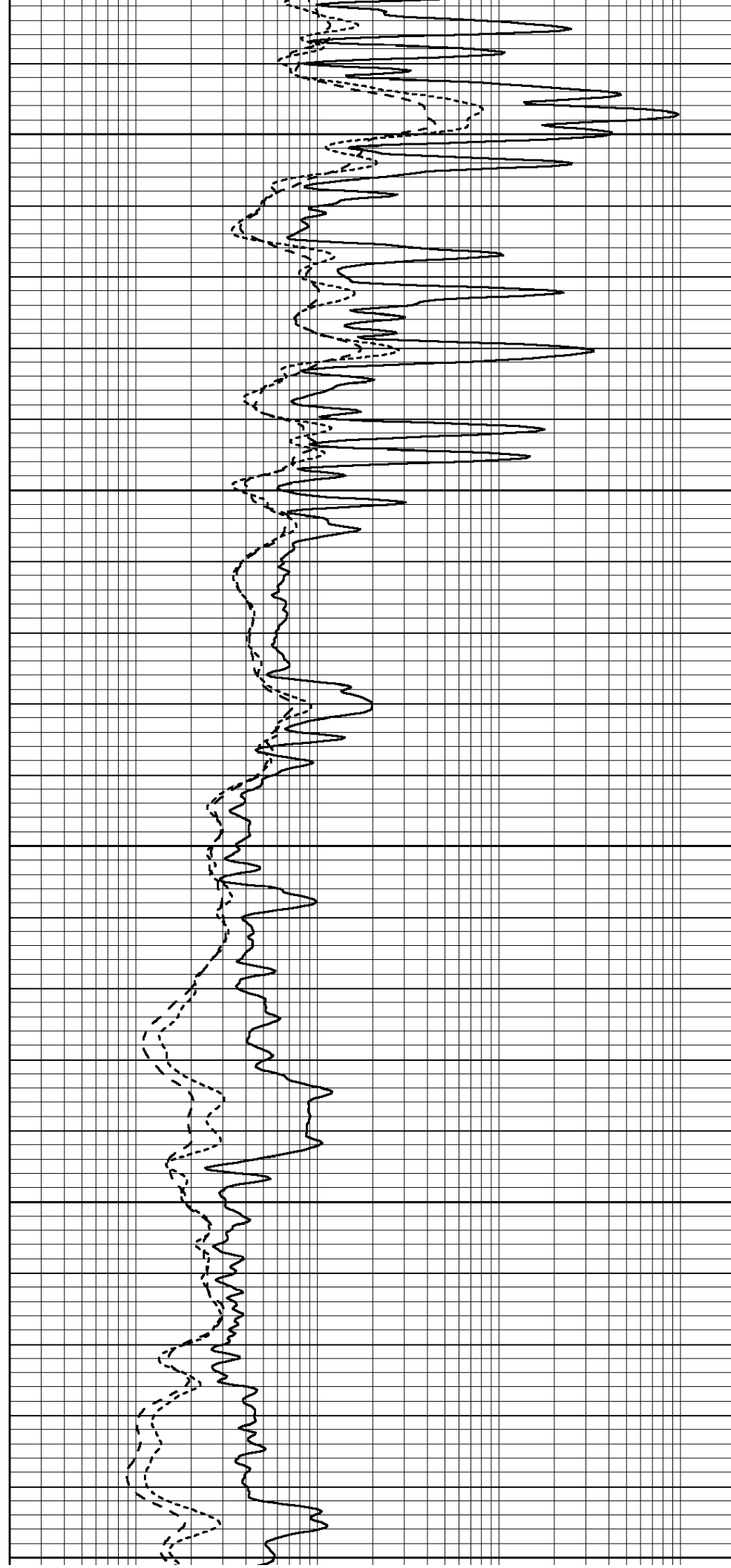
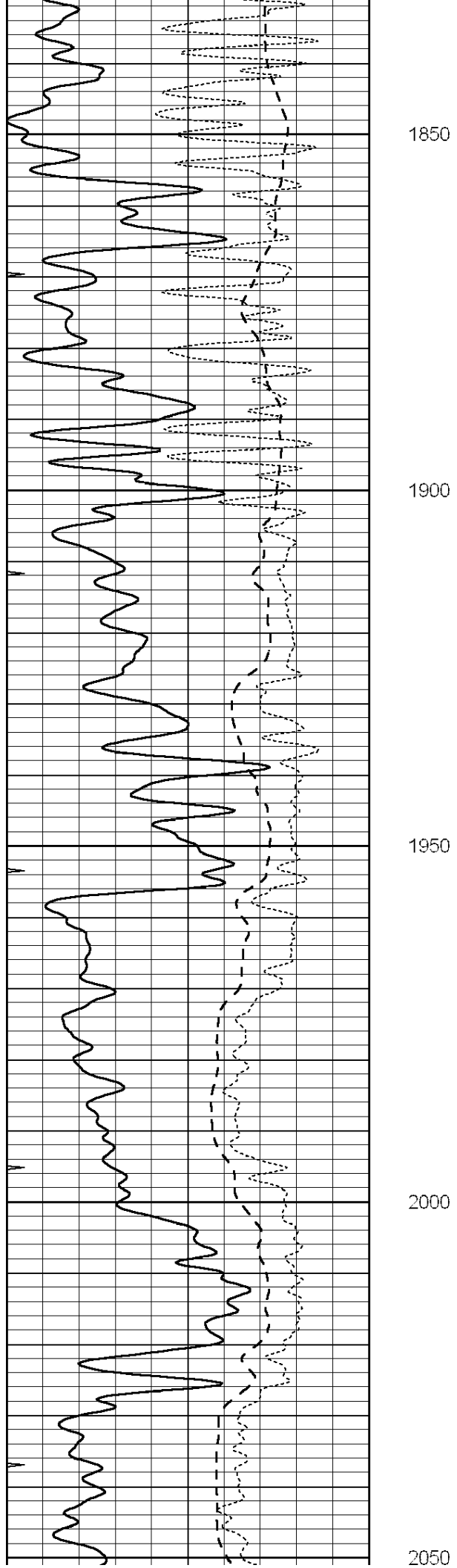


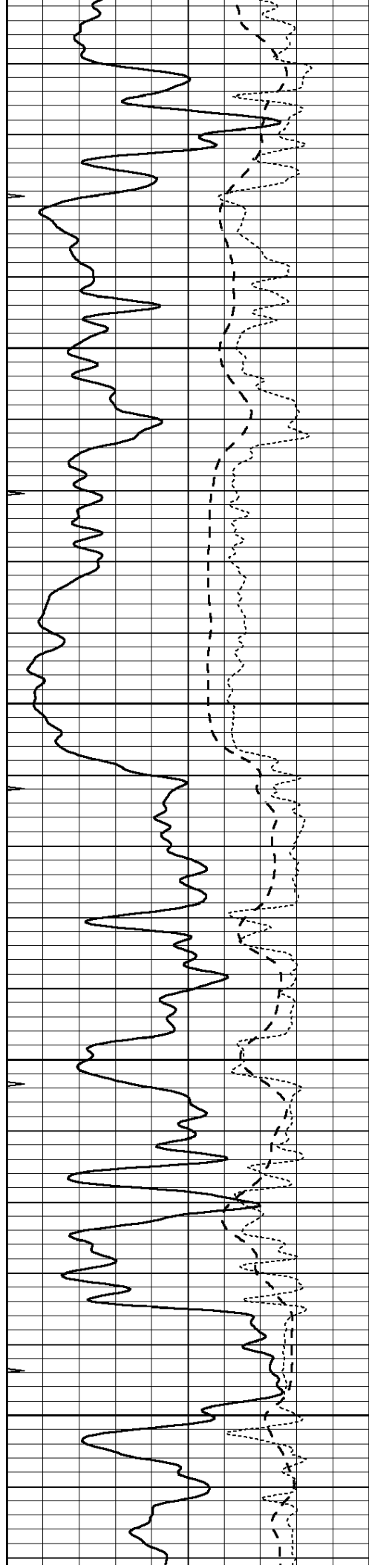


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 Dataset Pathname: pass8.2
 Presentation Format: dil
 Dataset Creation: Sat Dec 15 16:29:18 2012 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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			





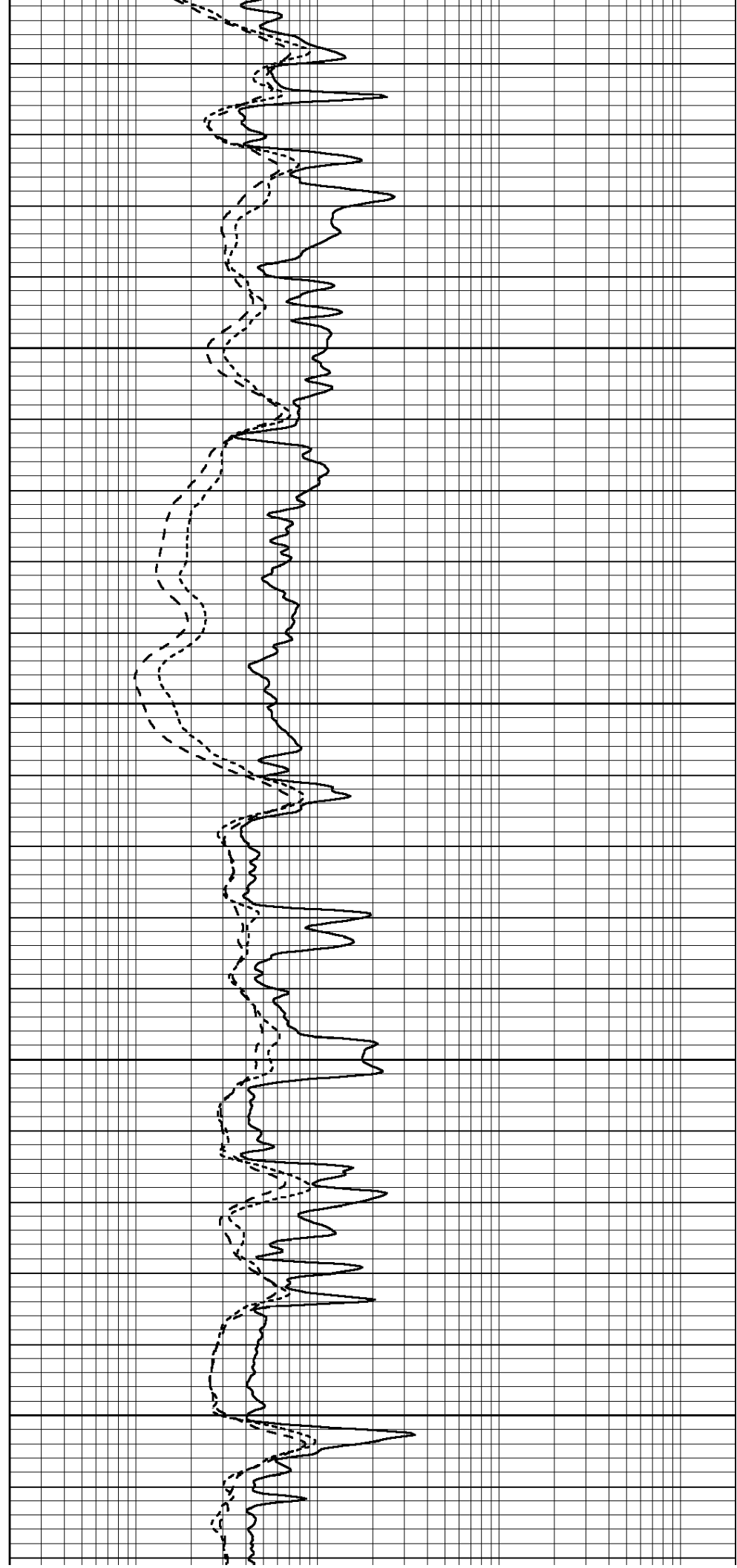


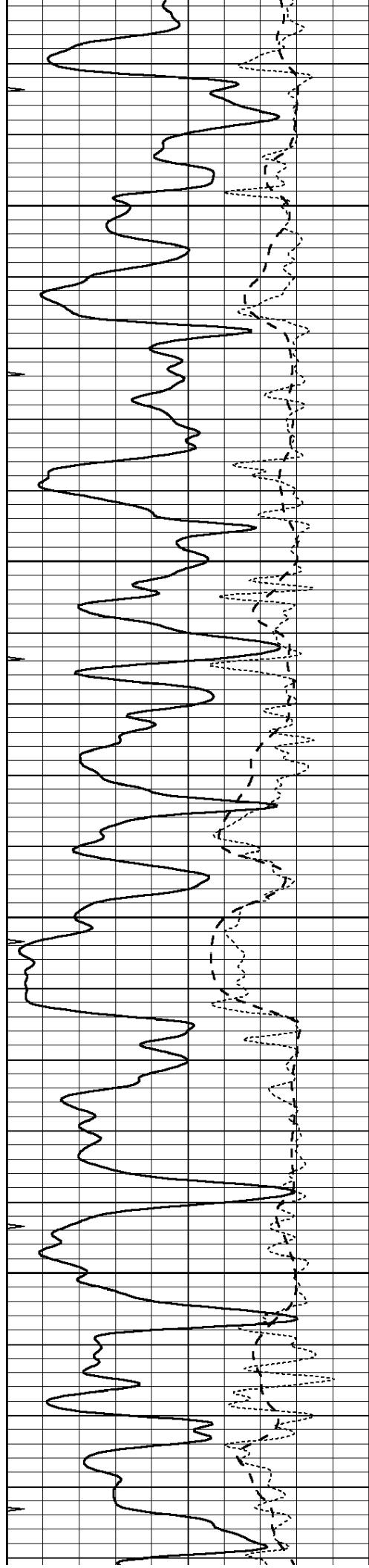
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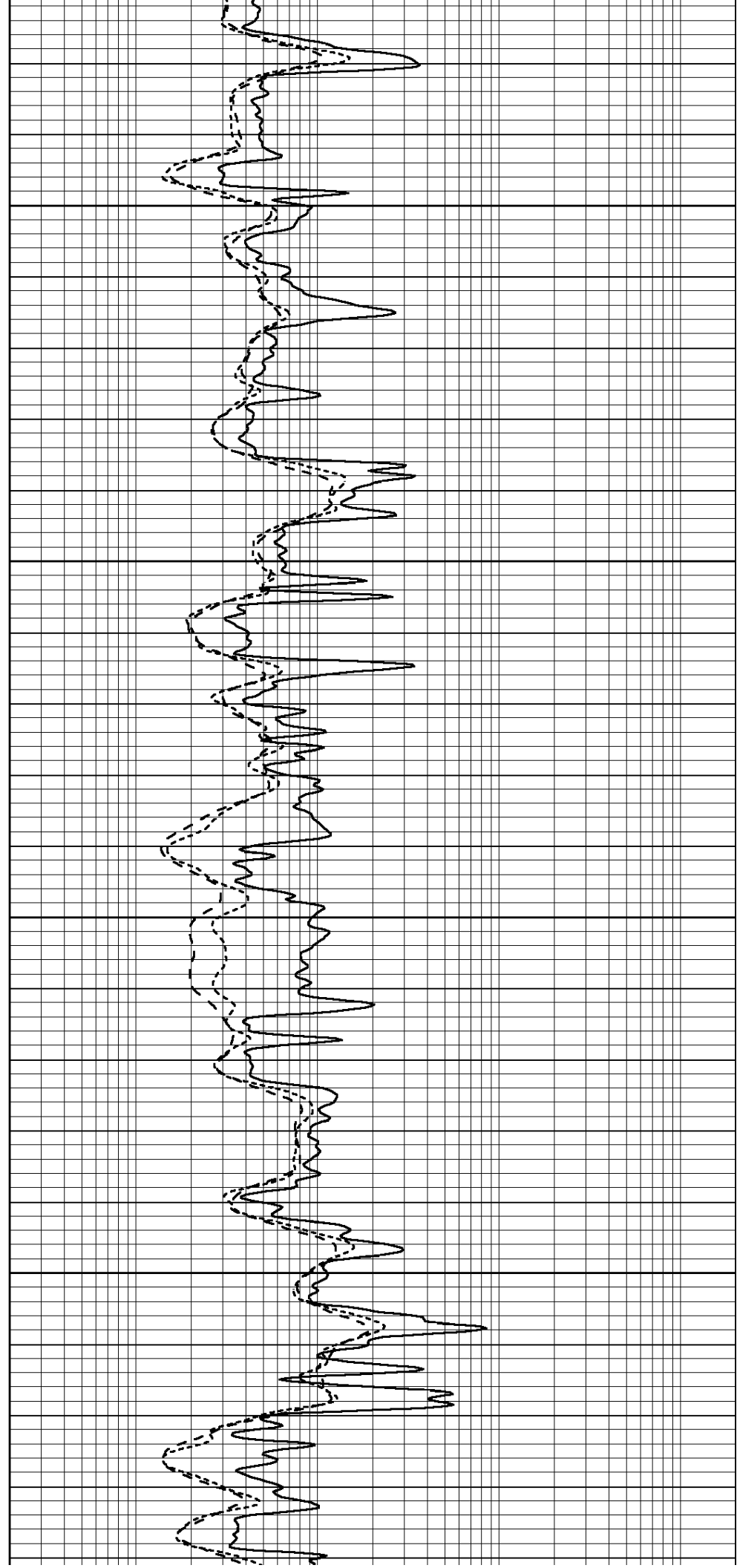


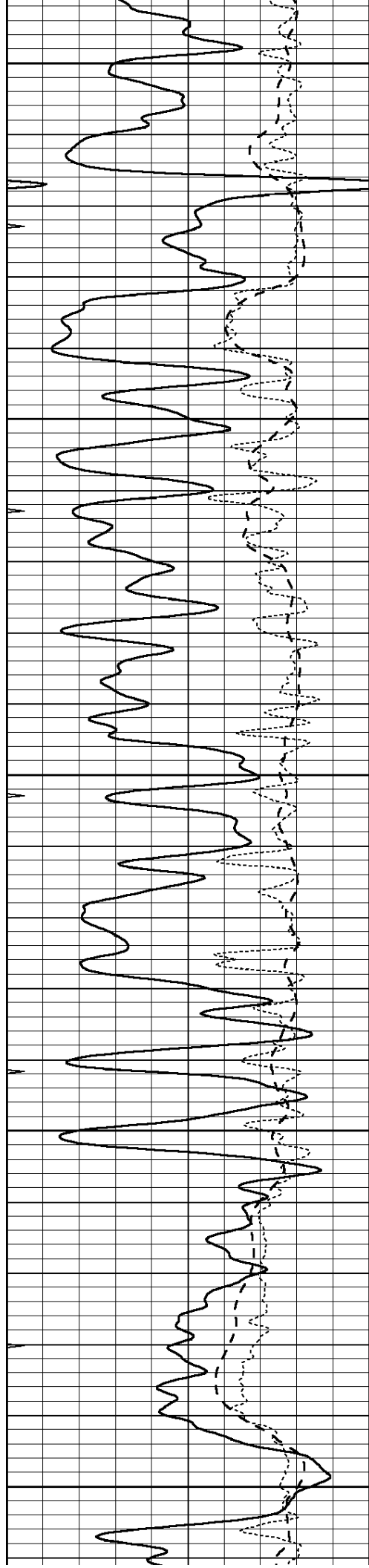
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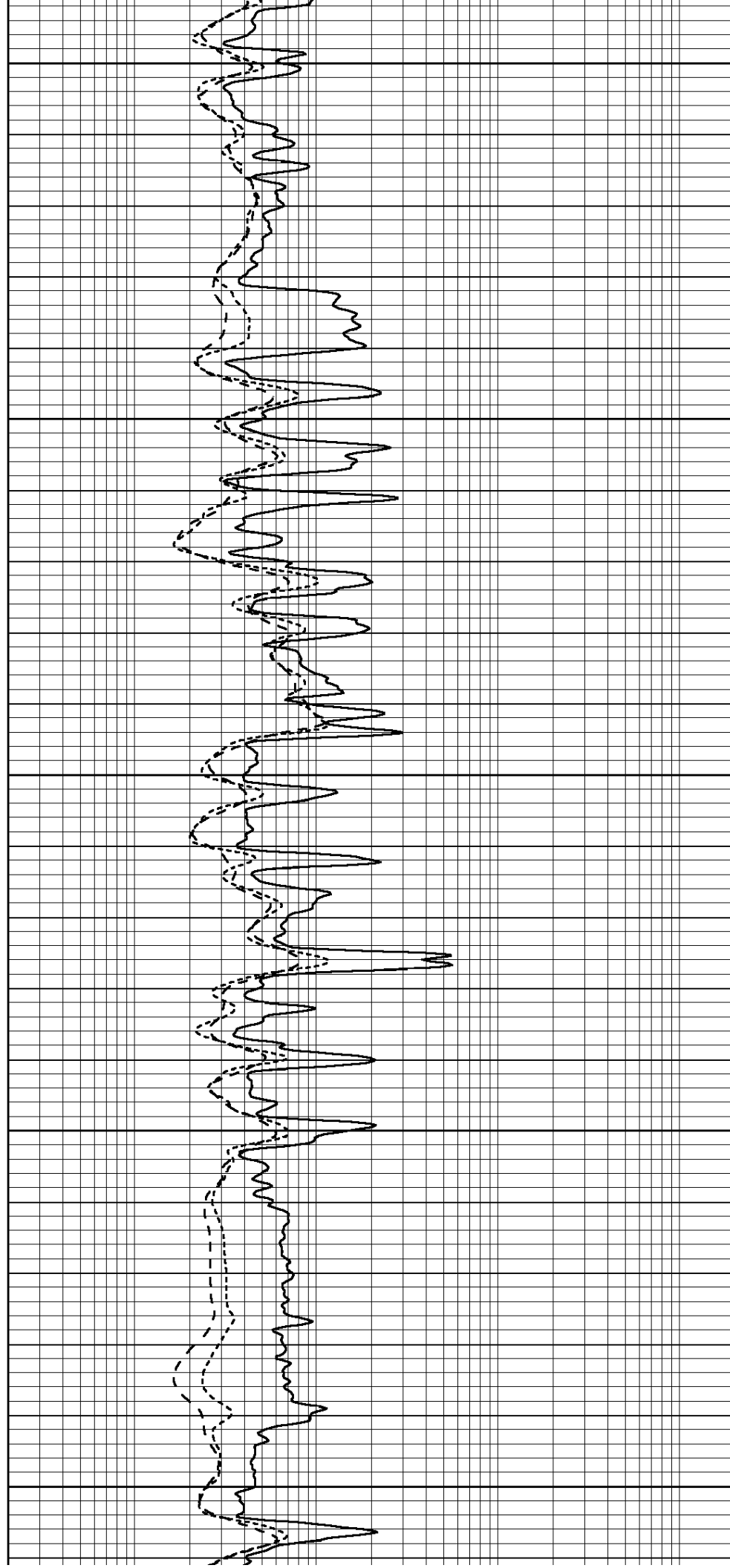
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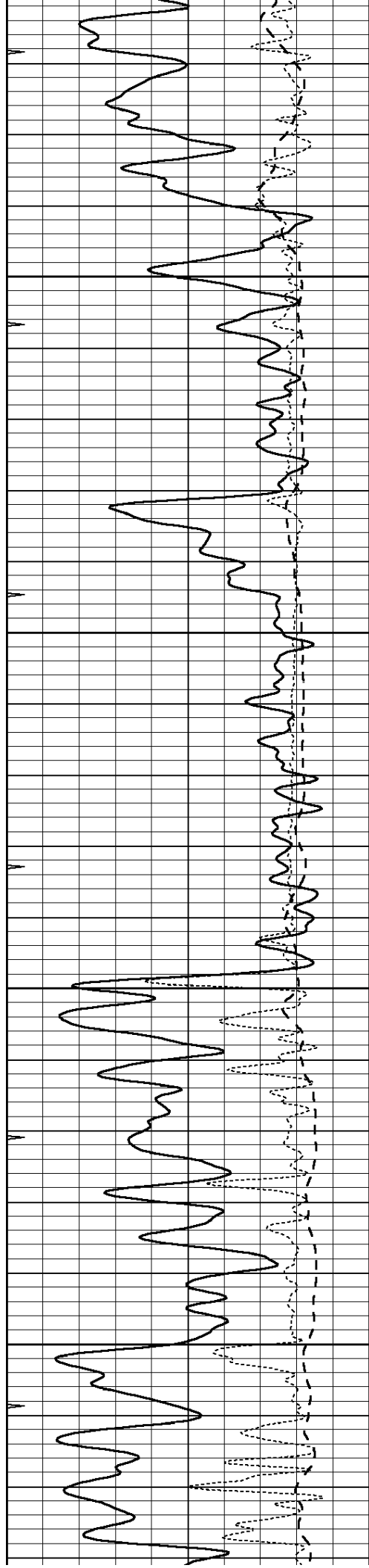
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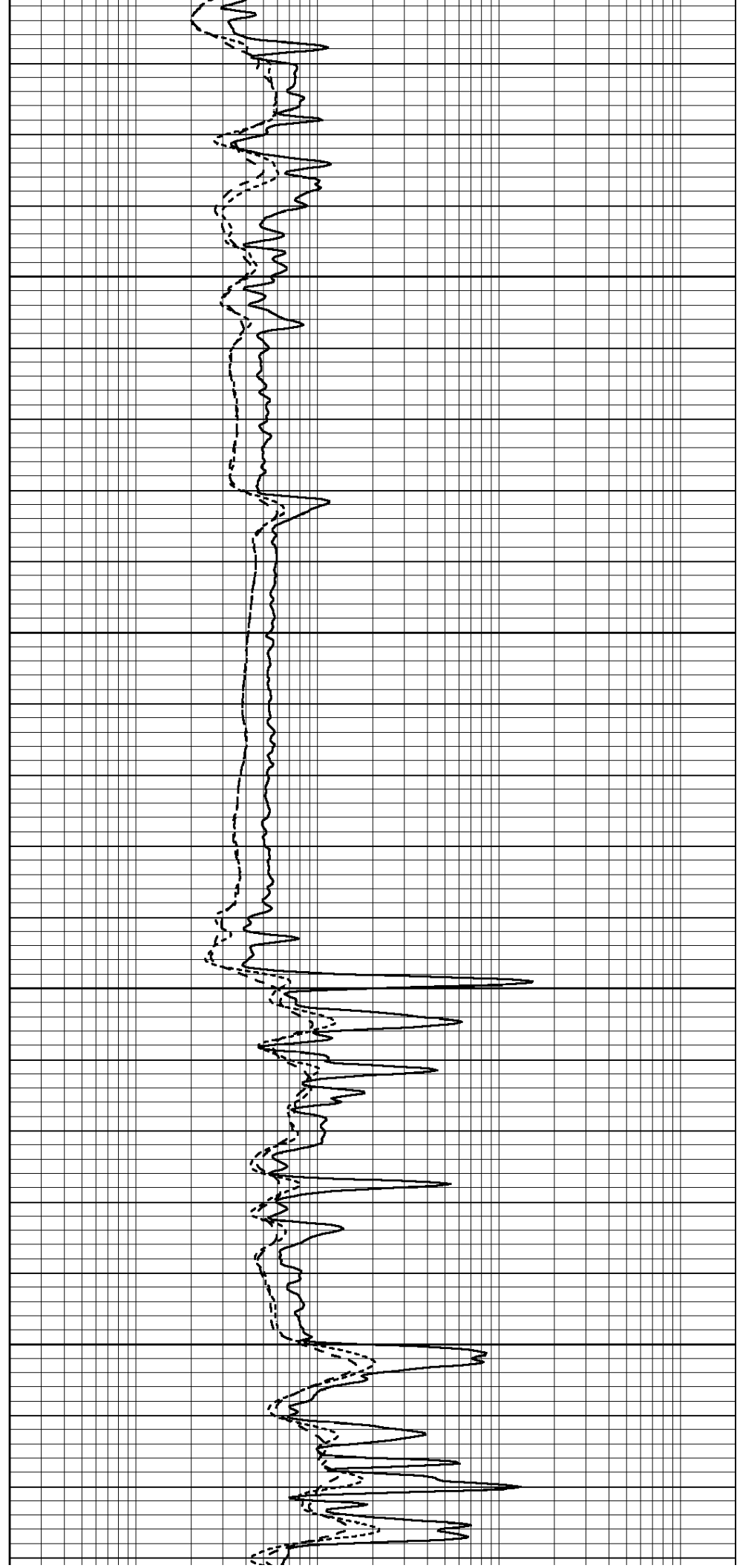


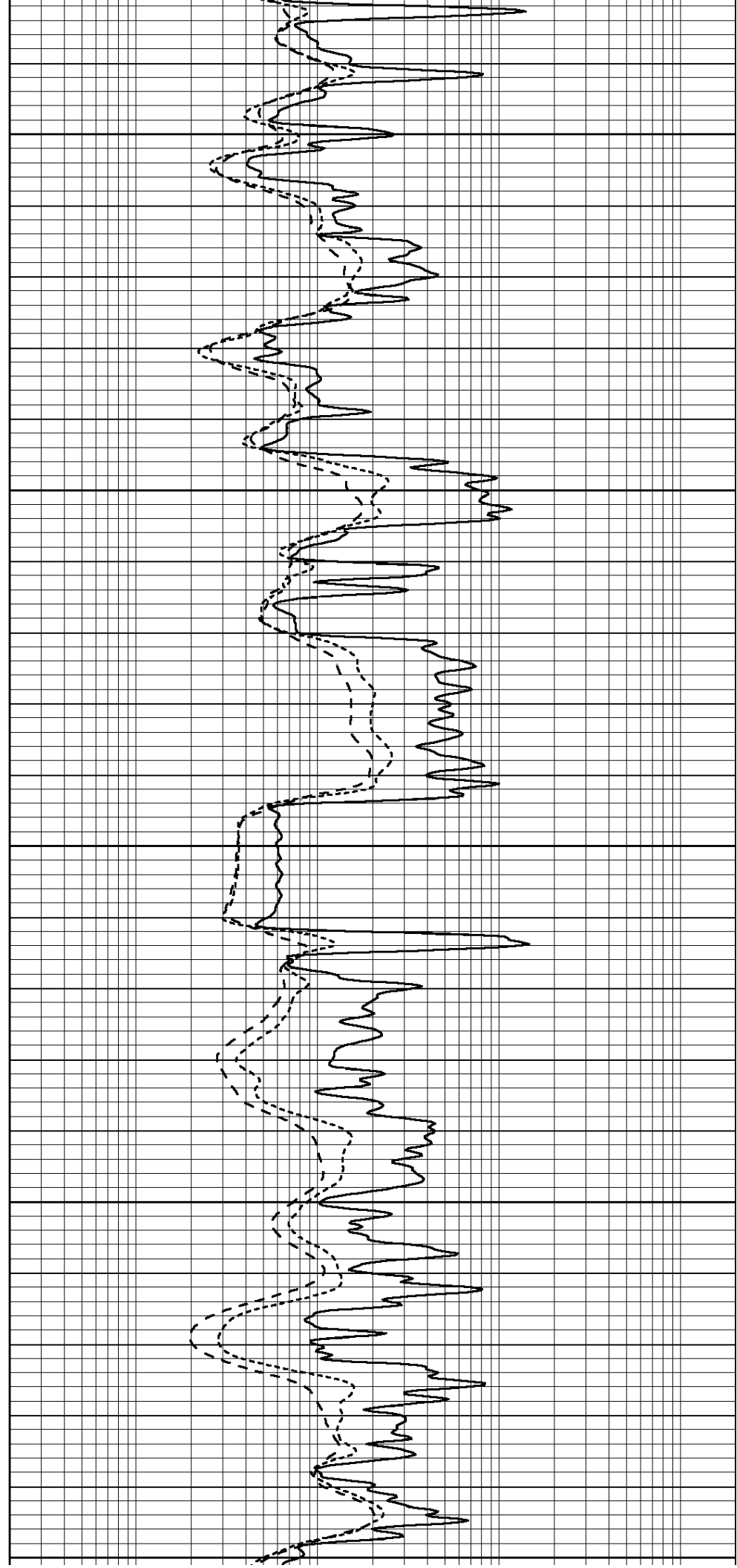
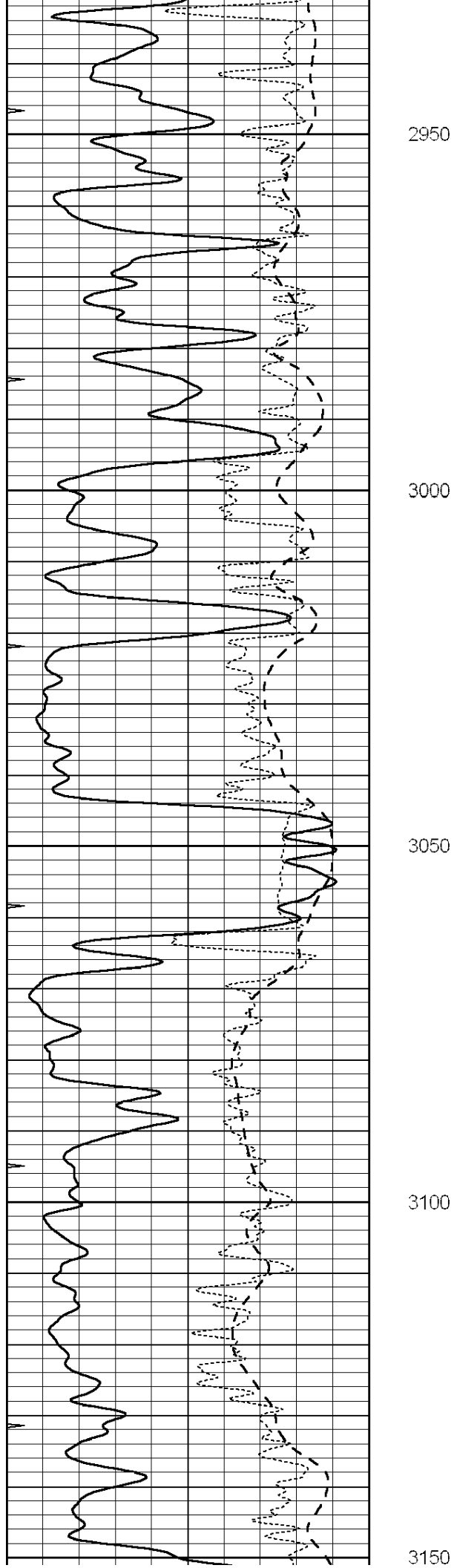
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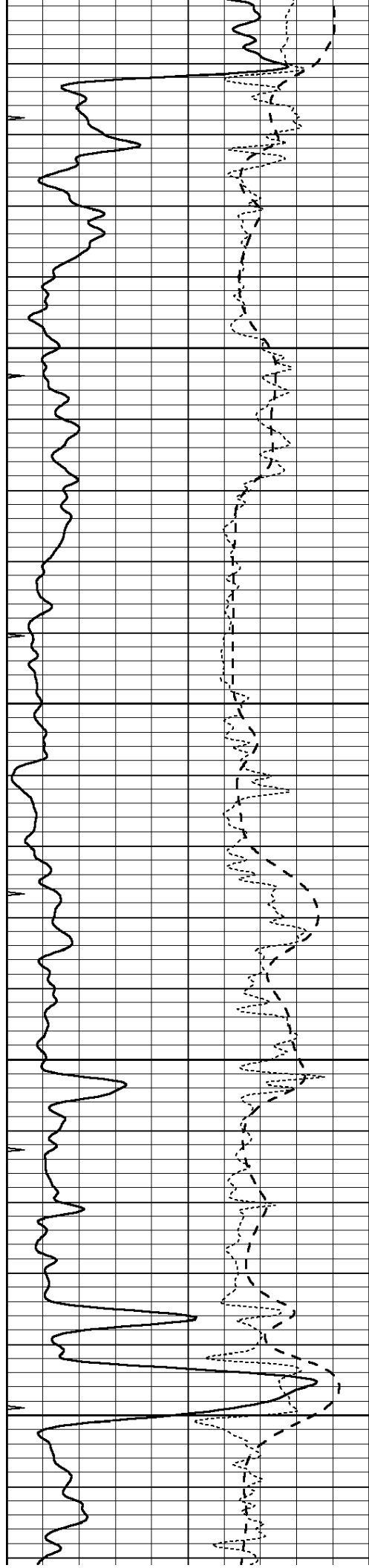
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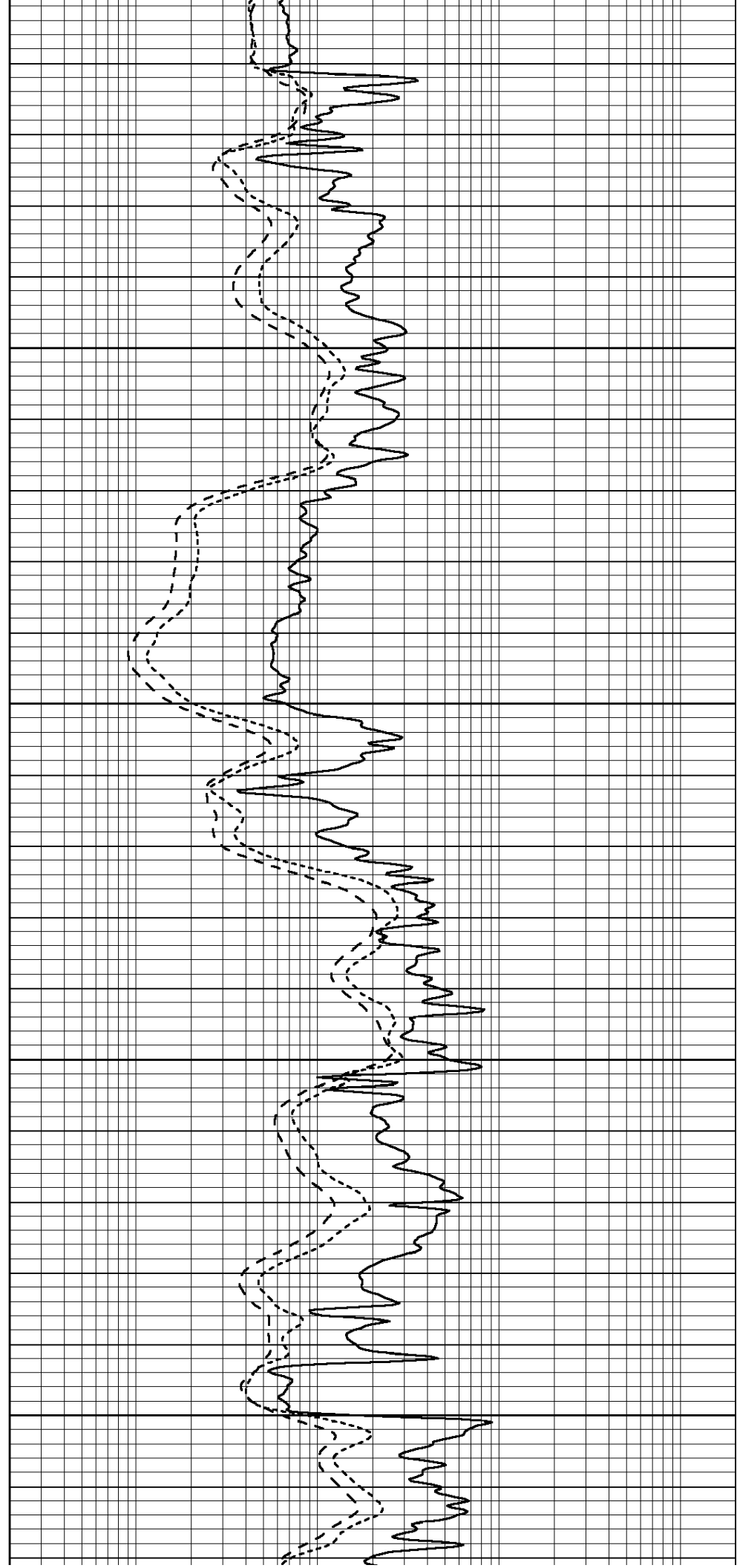


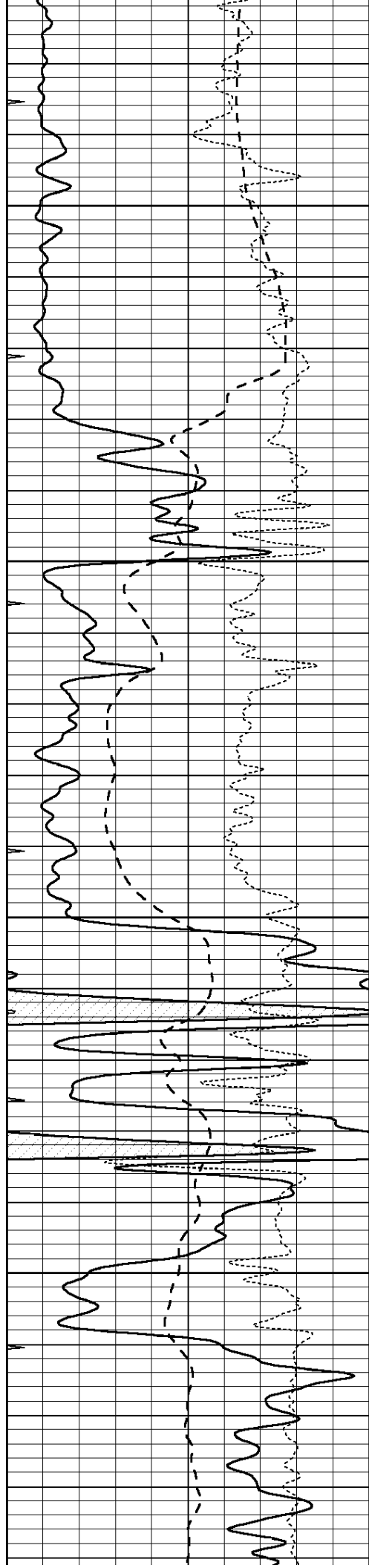
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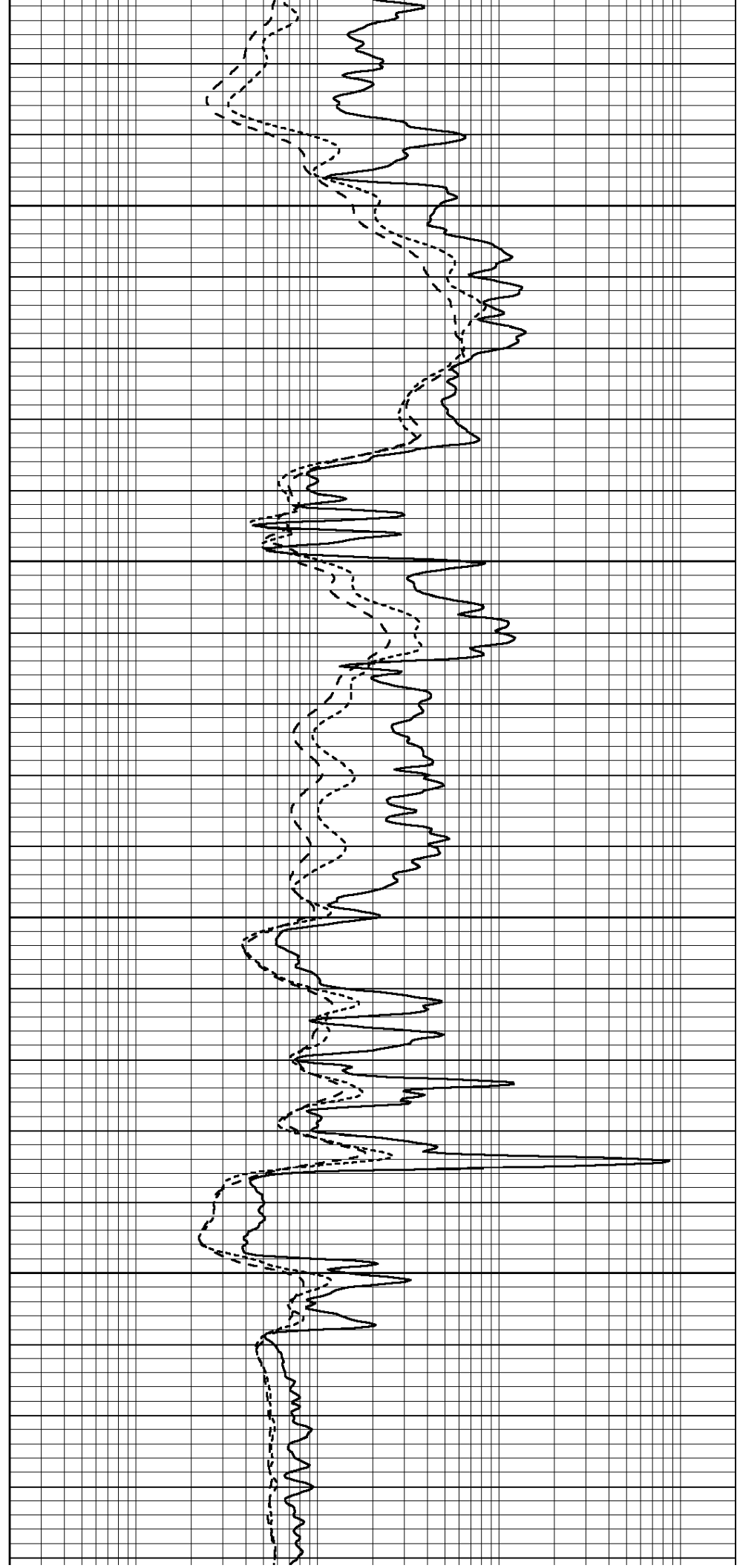


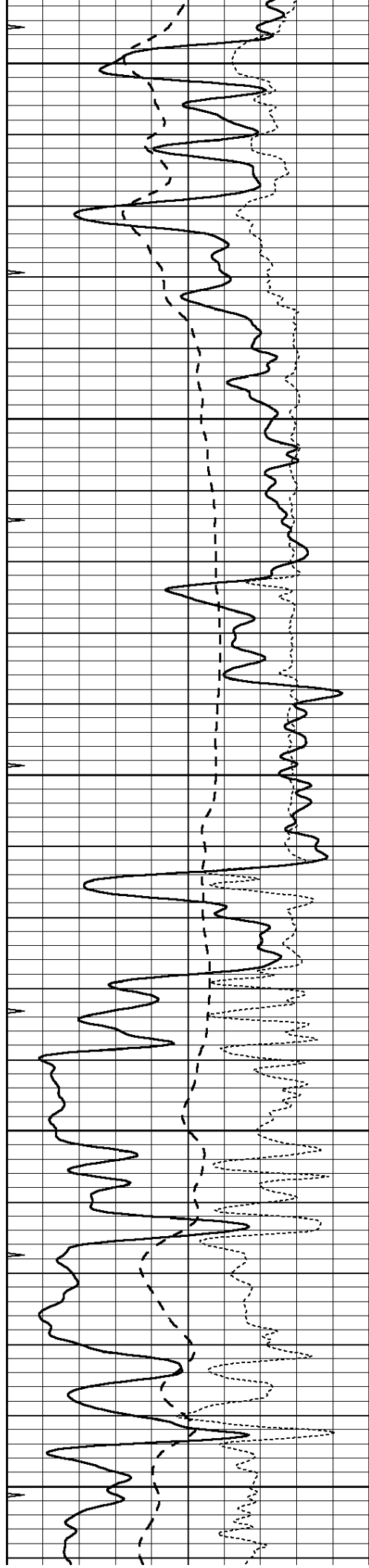
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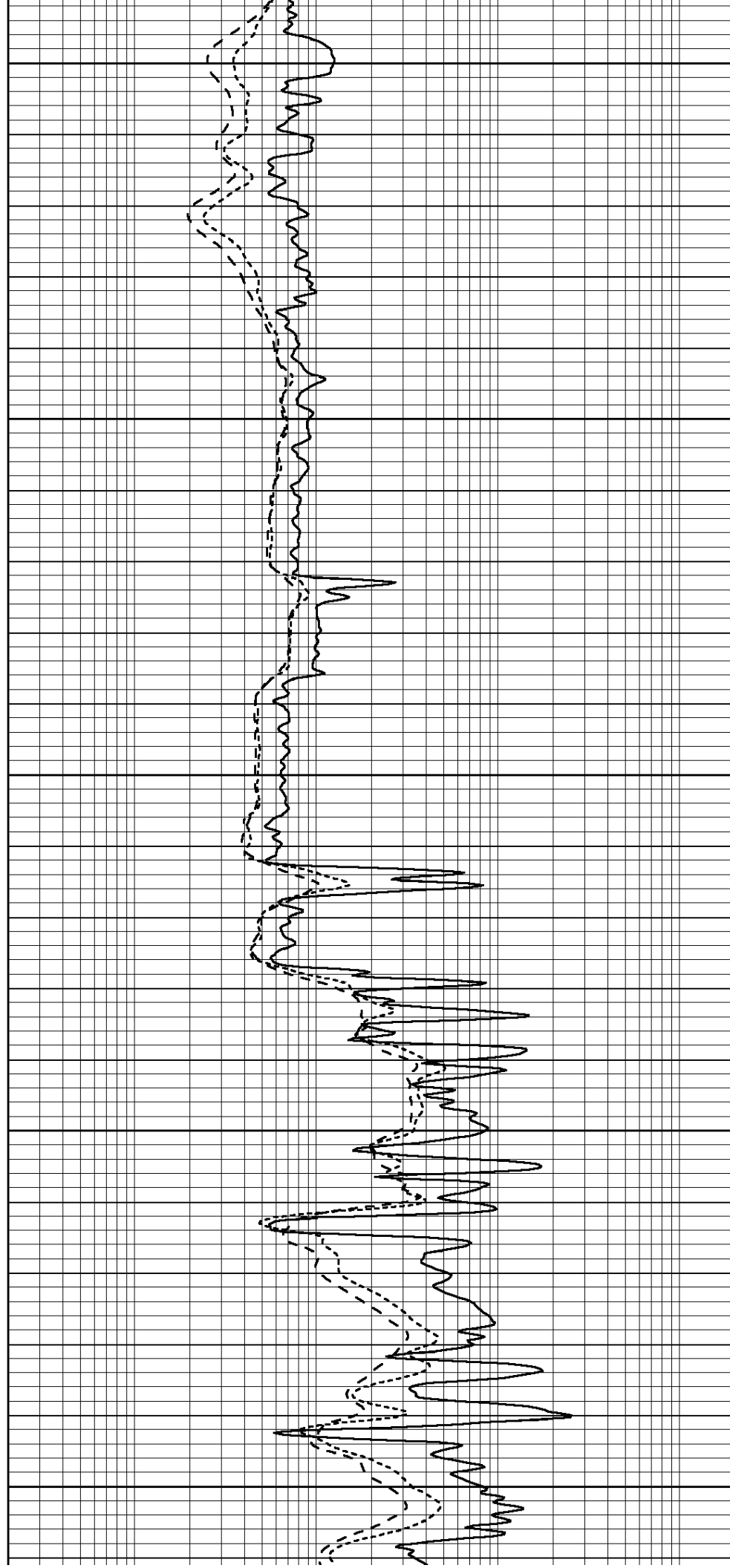
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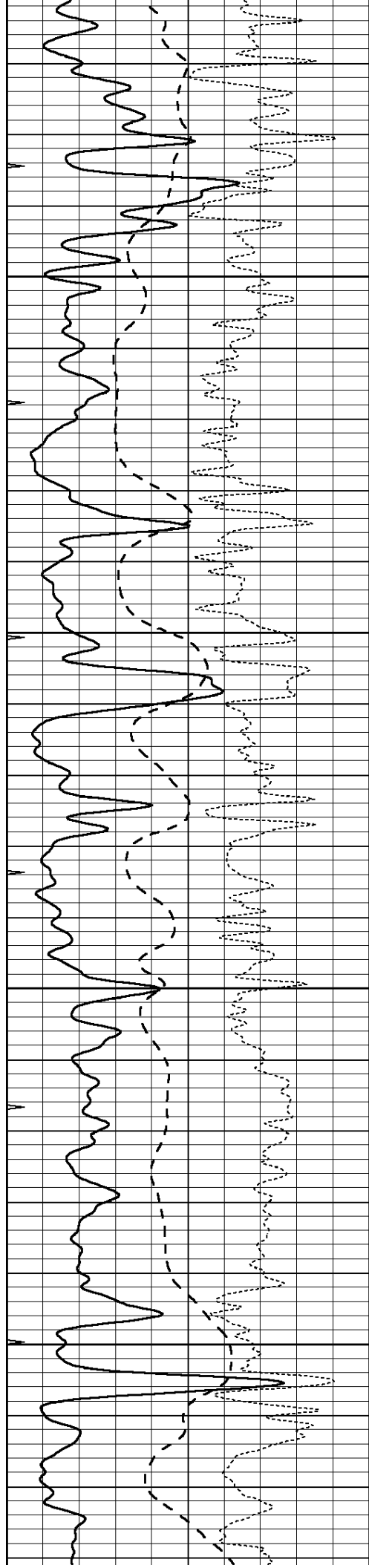
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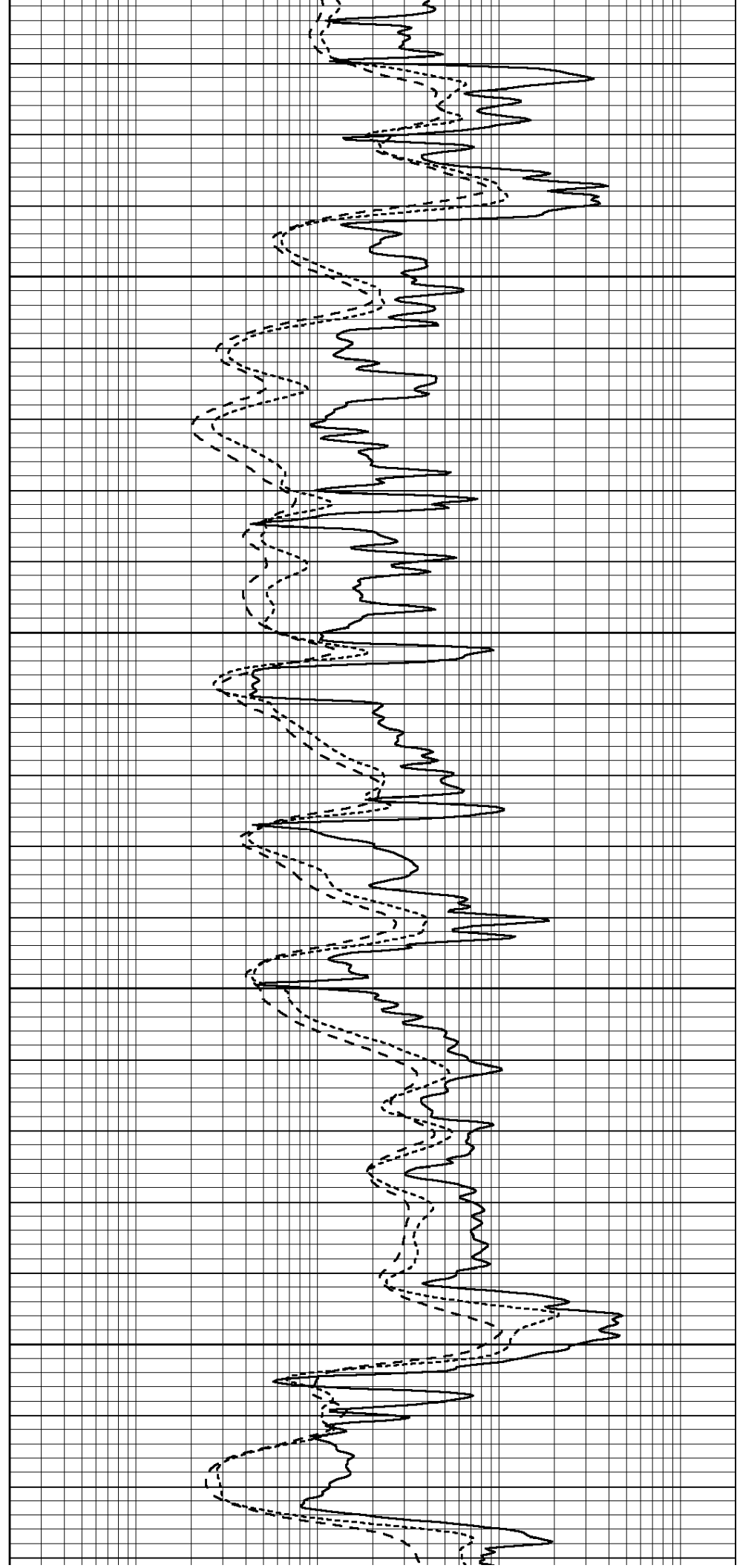


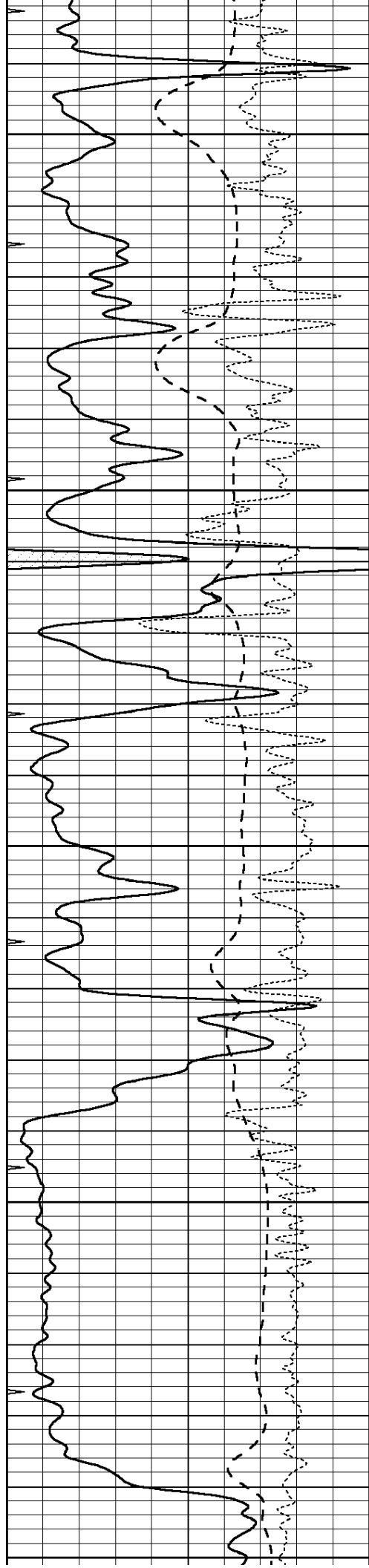
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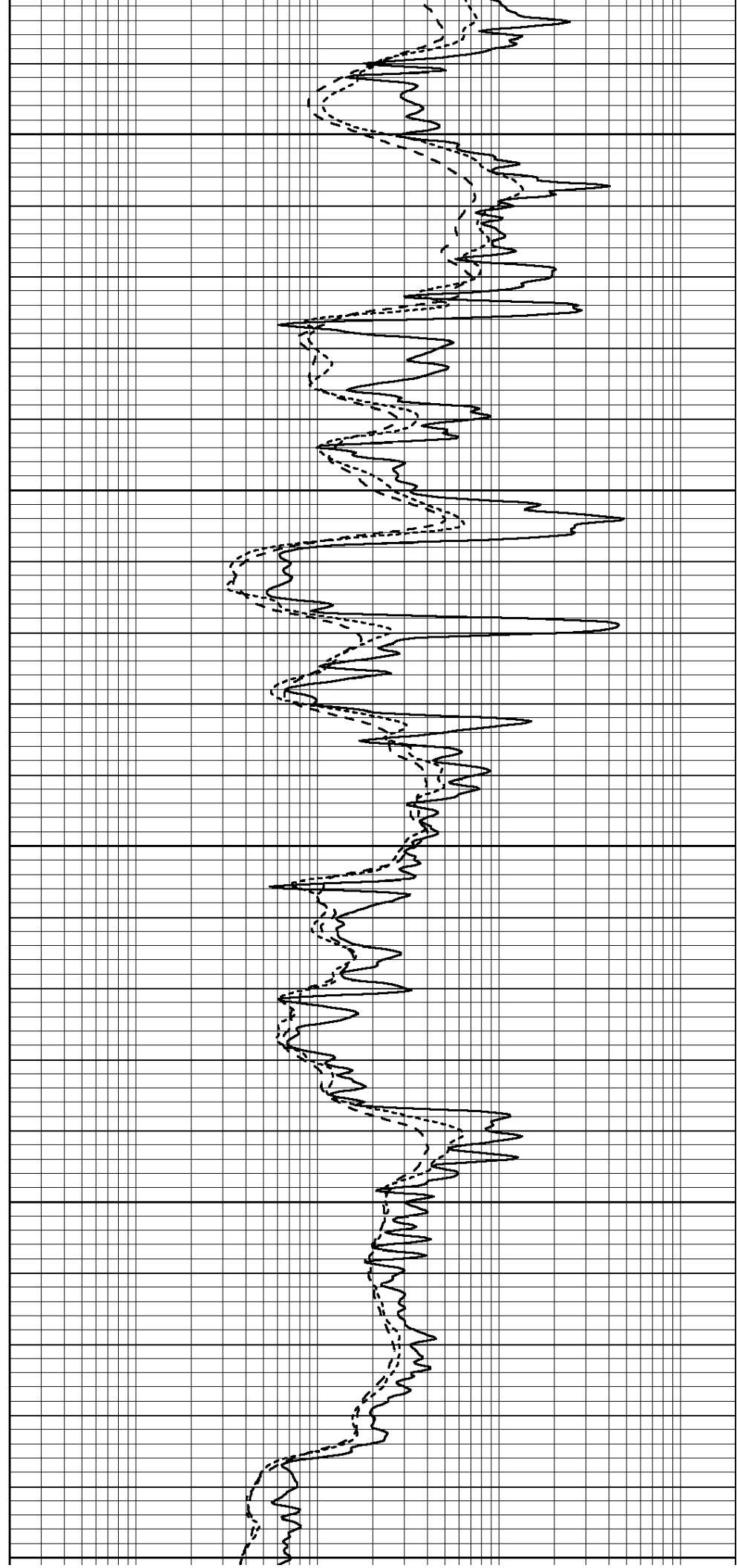
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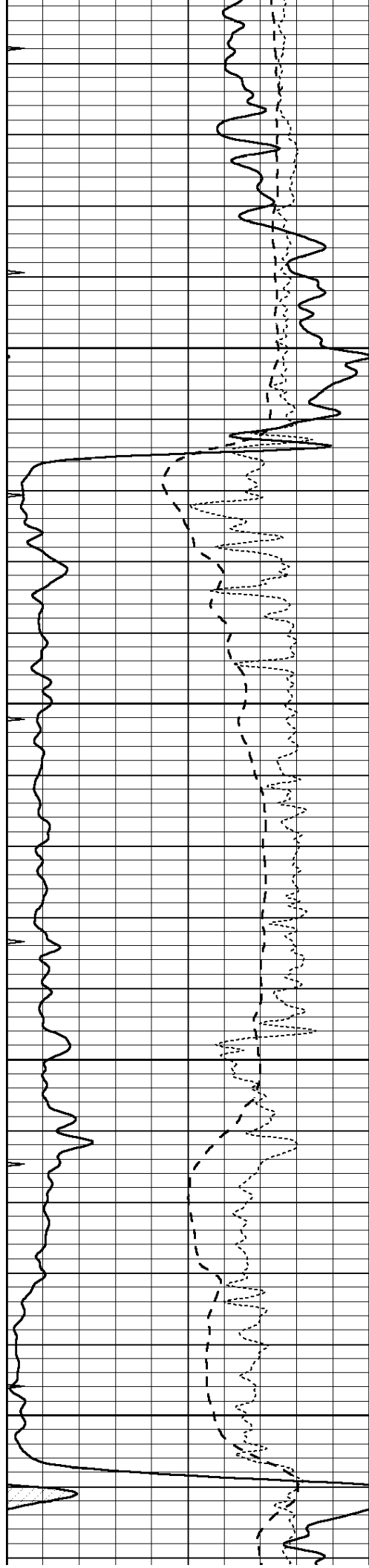
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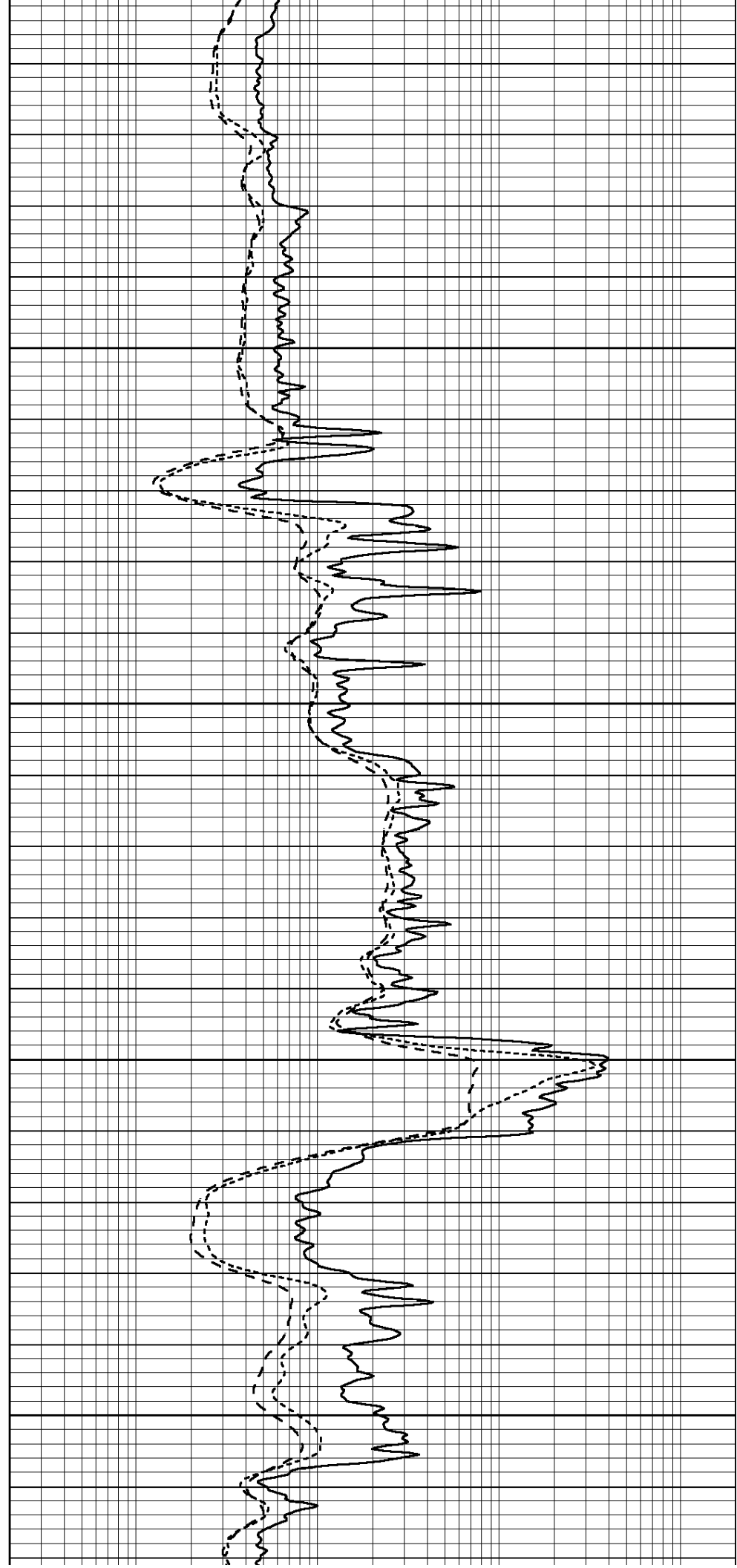


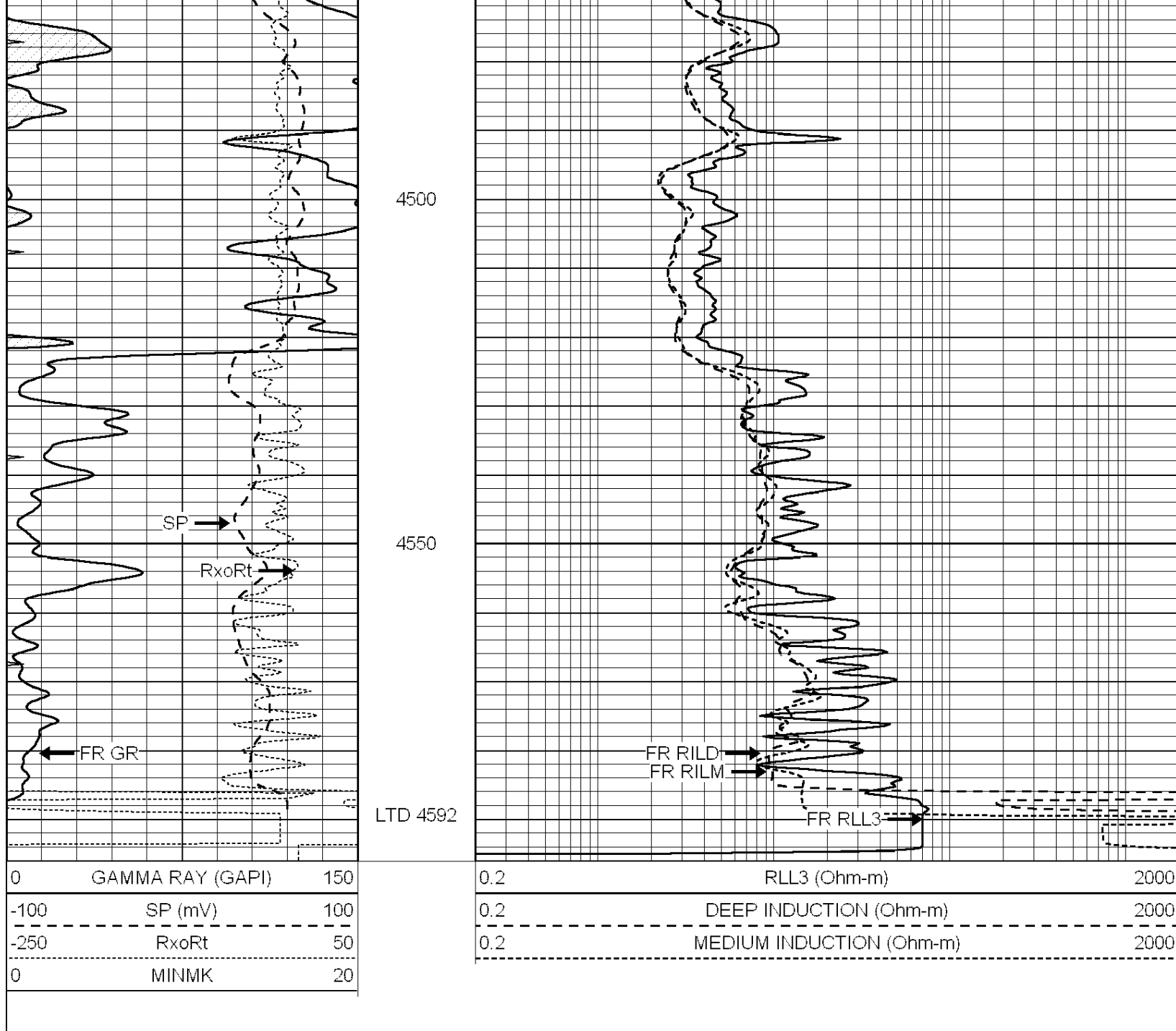
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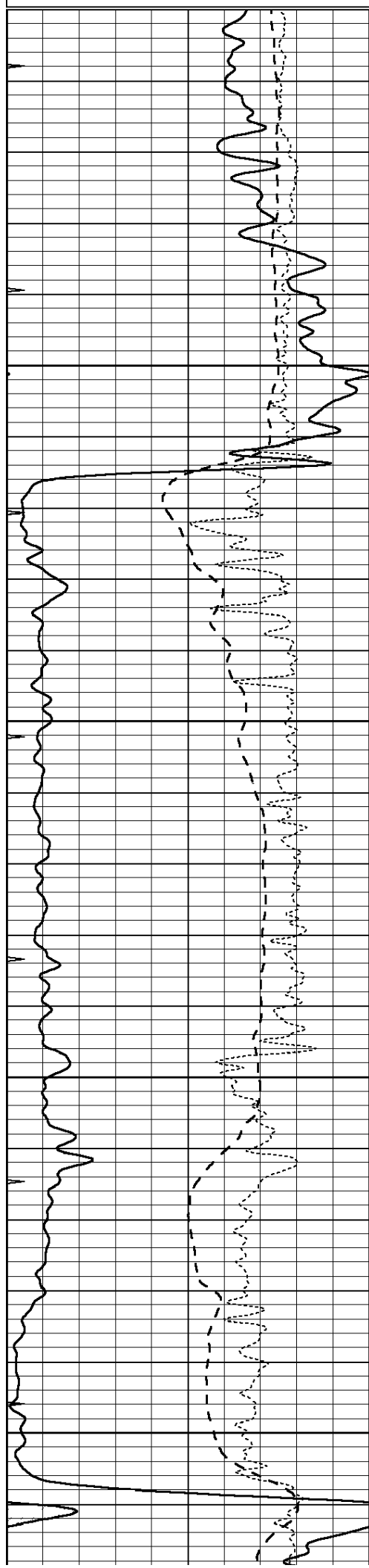




REPEAT SECTION

Database File: 010164dildnpe.db
 Dataset Pathname: pass7.15
 Presentation Format: dil
 Dataset Creation: Sat Dec 15 15:07:37 2012 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	RxoRt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



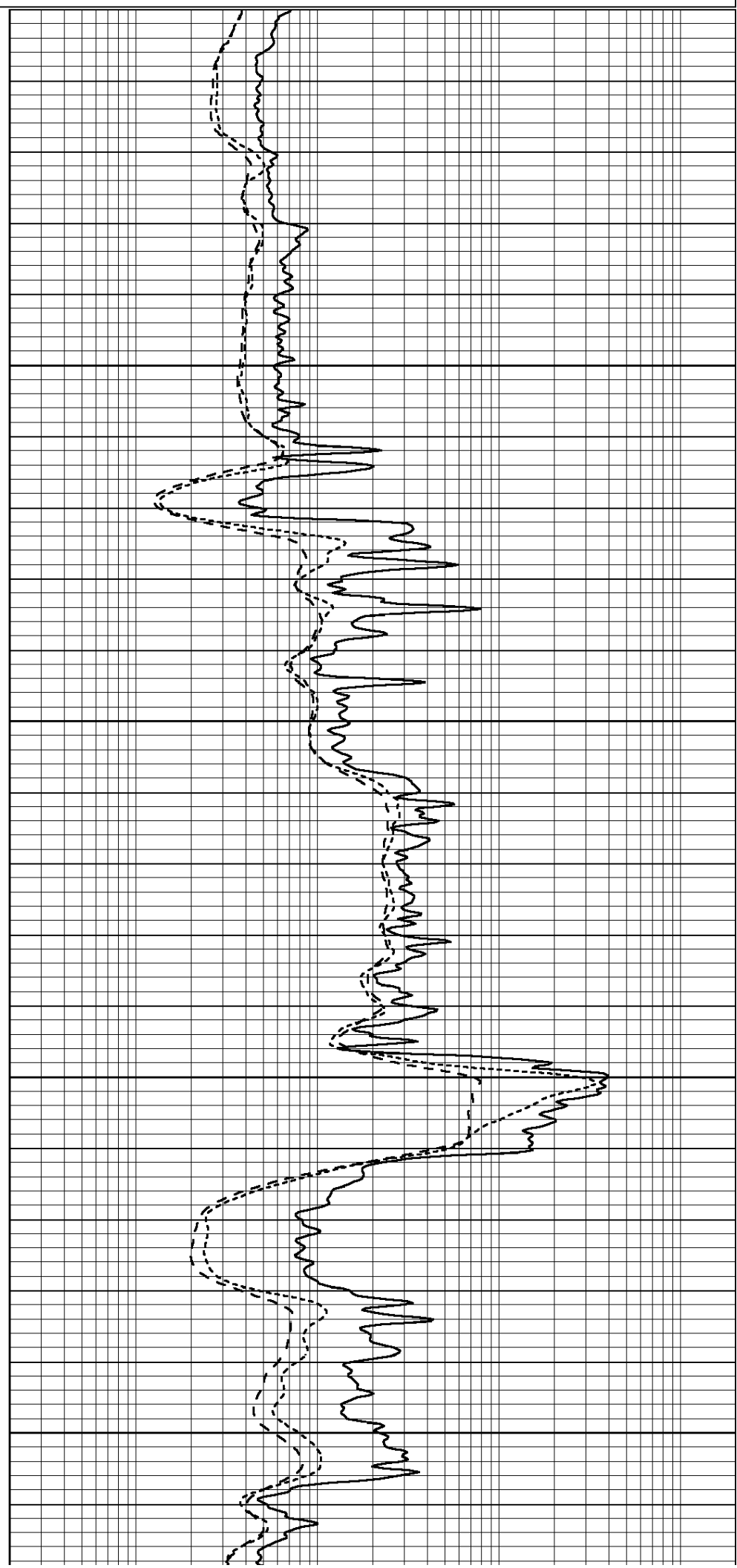
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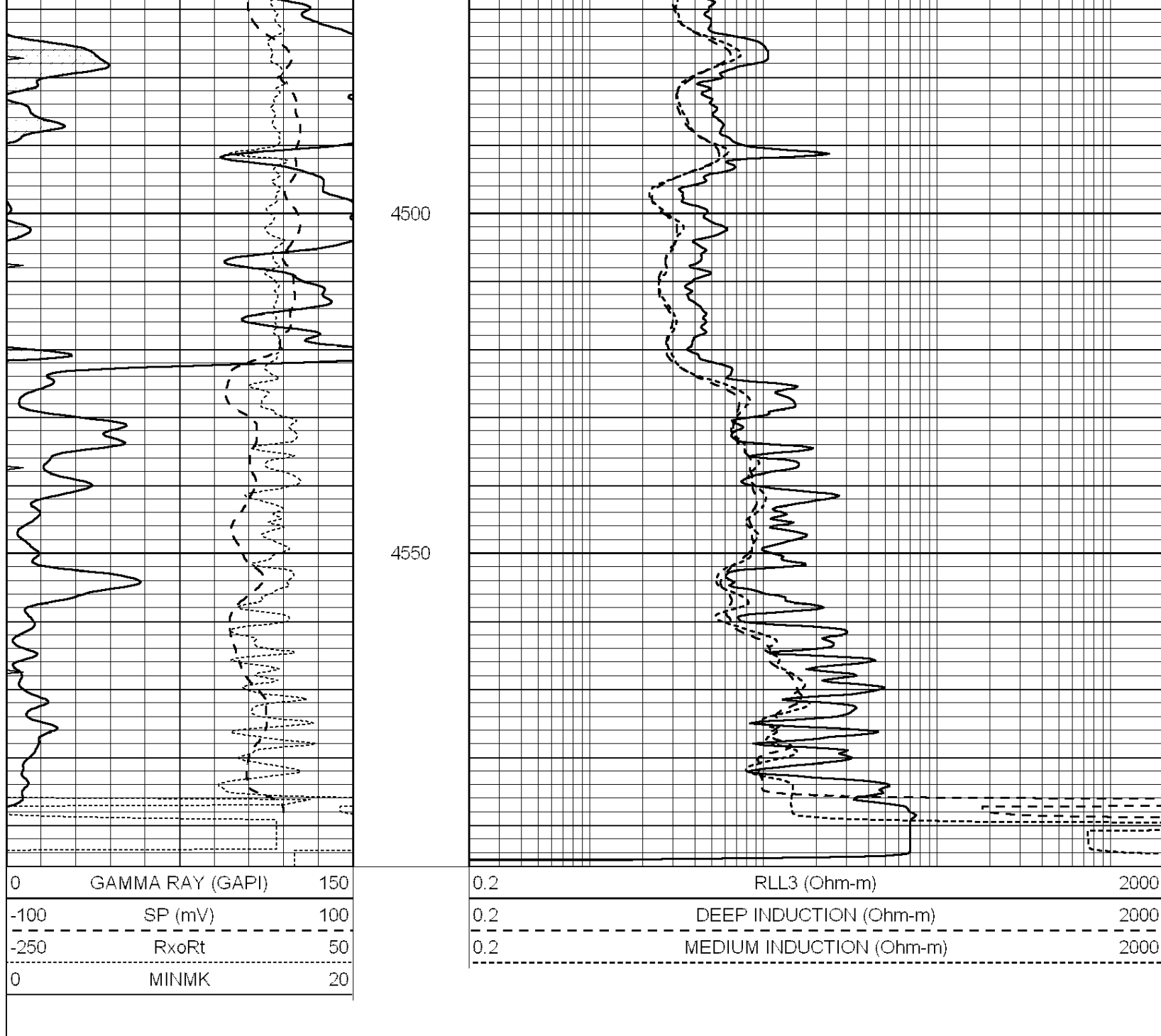
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Calibration Report								
Database File:		010164dildnpe.db						
Dataset Pathname:		pass8.2						
Dataset Creation:		Sat Dec 15 16:29:18 2012 by Calc Open-Cased 090629						
Dual Induction Calibration Report								
Serial-Model:		DIL5-GEAR						
Performed:		Thu Dec 13 16:41:19 2012						
Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	470.000	-13.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	490.000	-8.000
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 Mon Apr 02 17:56:53 2012								
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Litho Density Calibration								
	Background		Magnesium		Aluminum		Sandstone	
Window 1	872.3		7266.3		2292.6		7931.5	
Window 2	822.9		5957.5		1958.0		6389.6	
Window 3	670.4		3219.9		1211.9		3388.2	
Window 4	201.6		201.1		202.3		204.6	
Long Space	0.0		5134.6		1135.0		5566.6	
Short Space	1.1		994.2		674.4		1059.2	
Rho			1.7100		2.5960		1.3800	
Pe					2.5700		1.5500	
Rib Angle	: 45.6		Rib Slope	: 1.020		Density/Spine Ratio		: 0.569
Spine Angle	: 75.6		Spine Slope	: 3.888		Spine Intercept		: -18.3

Caliper								
	Readings		Reference					
Low Ref	4.3		8.4					
High Ref	6.1		14.0					
	Gain: 3.0		Offset: -4.4					

Compensated Neutron Calibration Report								
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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								
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Serial Number:			GR5					
Tool Model:			OPEN					
Performed:			Thu Dec 13 17:42:20 2012					
Calibrator Value:			1.0	GAPI				
Background Reading:			0.0	cps				
Calibrator Reading:			1.0	cps				
Sensitivity:			0.6500	GAPI/cps				