



**COMPLETION
& PRODUCTION
SERVICES CO.**

SONIC LOG

Company	IA OPERATING, INC.	Company	IA OPERATING, INC.
Well	ARCHER #21-2	Well	ARCHER #21-2
Field	STUDLEY WEST	Field	STUDLEY WEST
County	SHERIDAN	County	SHERIDAN
State	KANSAS	State	KANSAS
Location:	API # : 15-179-21407-00-00 NW - NW - SE - NE 1518' FNL & 1076' FEL SEC 21 TWP 8S RGE 26W	Other Services CNL/CDL DIL/MEL	
Permanent Datum	GROUND LEVEL Elevation	Elevation	
Log Measured From	KELLY BUSHING 8' A.G.L	K.B. 2421 D.F. 2419 G.L. 2413	
Drilling Measured From	KELLY BUSHING		
Date	7-24-15		
Run Number	TWO		
Depth Driller	3880		
Depth Logger	3880		
Bottom Logged Interval	3870		
Top Log Interval	200		
Casing Driller	8 5/8 @ 241'		
Casing Logger	240'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 500 PPM	
Density / Viscosity	9.0/53		
pH / Fluid Loss	11.0/7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.95 @ 94F		
Rmf @ Meas. Temp	0.71 @ 94F		
Rmc @ Meas. Temp	1.14 @ 94F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	0.78 @ 115F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	115F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	IAN MABB		
Witnessed By	JEFF LAWLER		

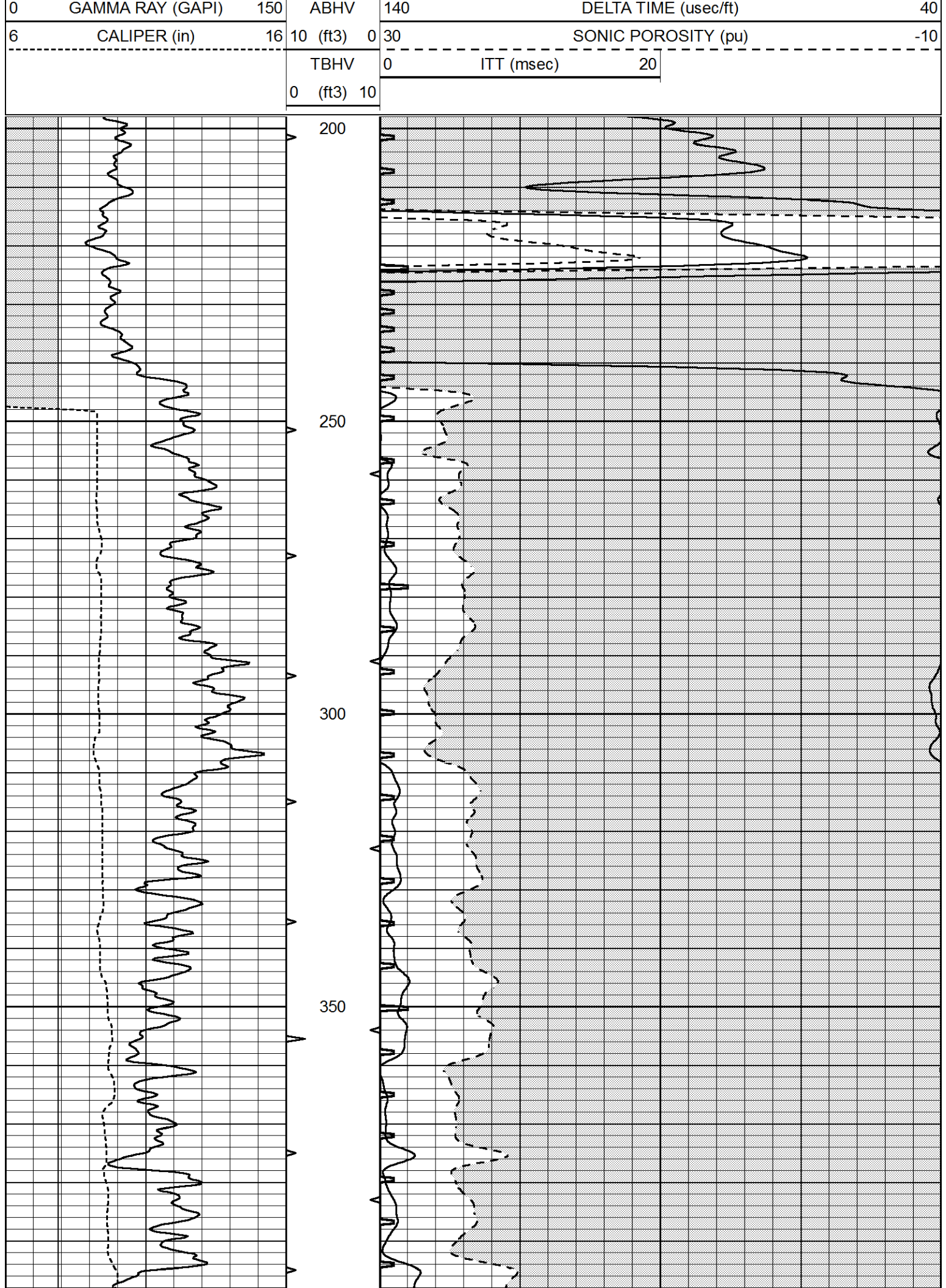
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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 NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS : STUDLEY, KS. - WEST TO 90 E - SOUTH 1/4 MILE FOLLOW EAST - AT THE FORK
VEER LEFT AND FOLLOW THROUGH THE CATTLE GUARD - KEEP VEERING LEFT FOR ABOUT 2
MILES TO THE RIG

Database File 26601ddn8.db
Dataset Pathname pass6.5
Presentation Format _slt
Dataset Creation Fri Jul 24 22:22:40 2015
Charted by Depth in Feet scaled 1:240



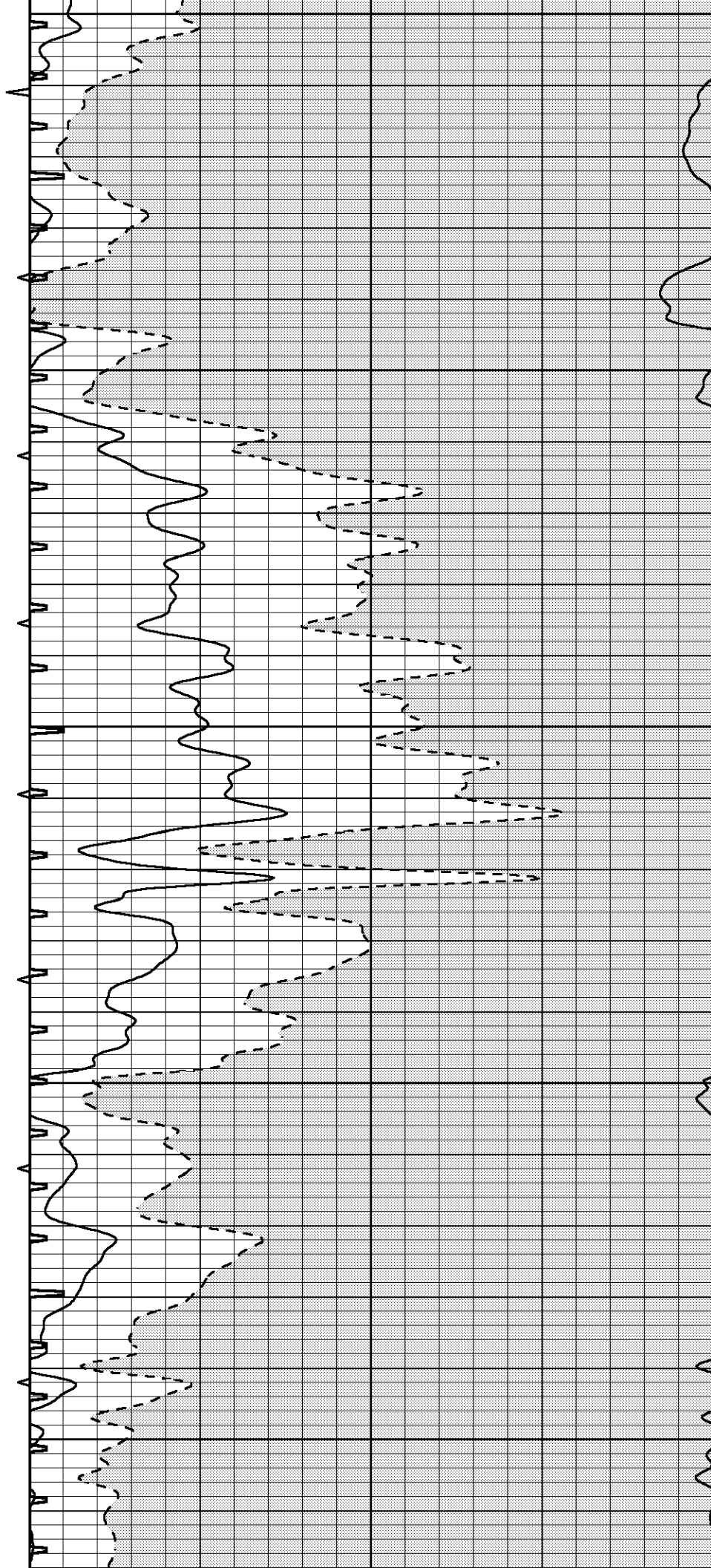
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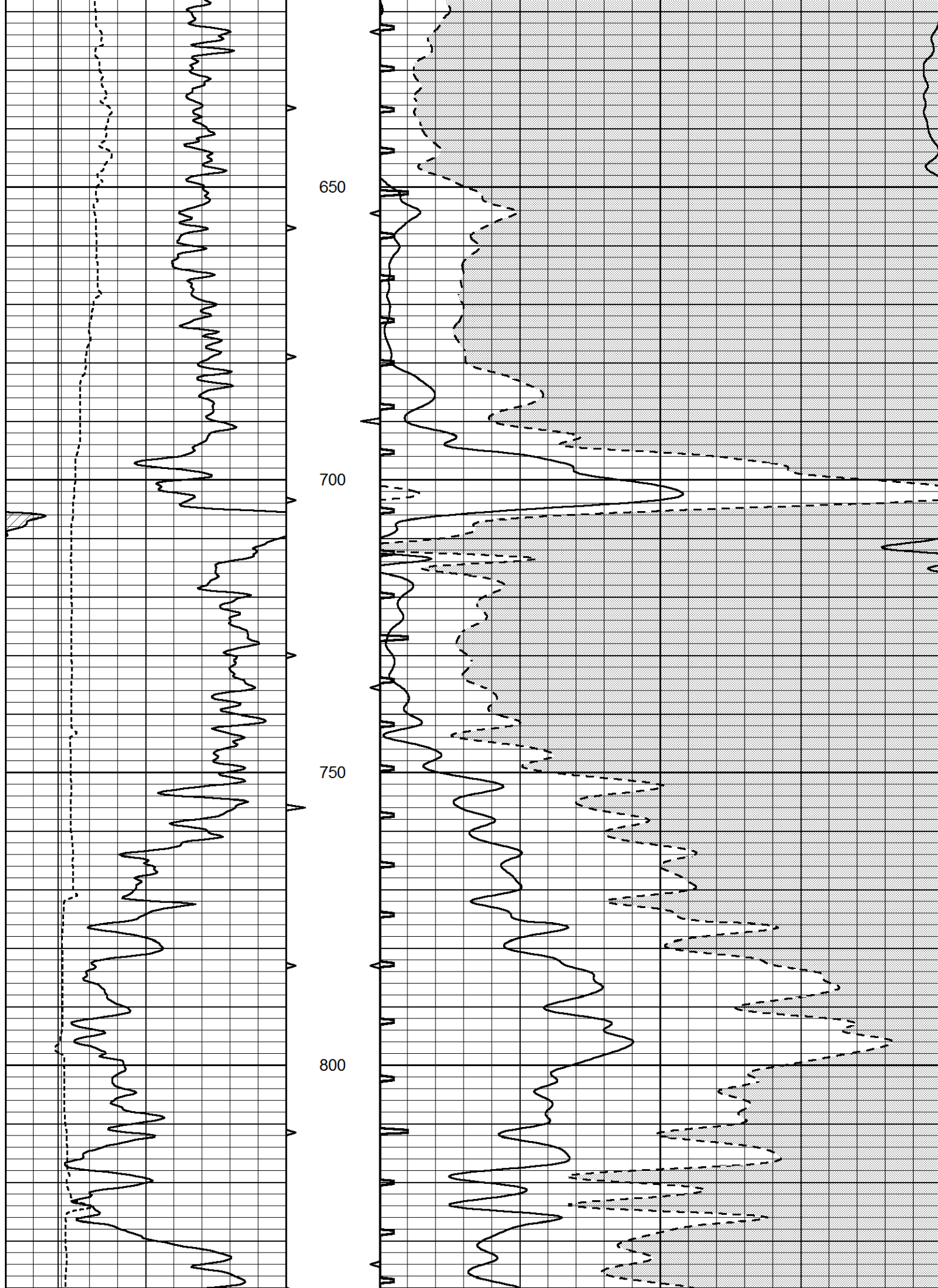
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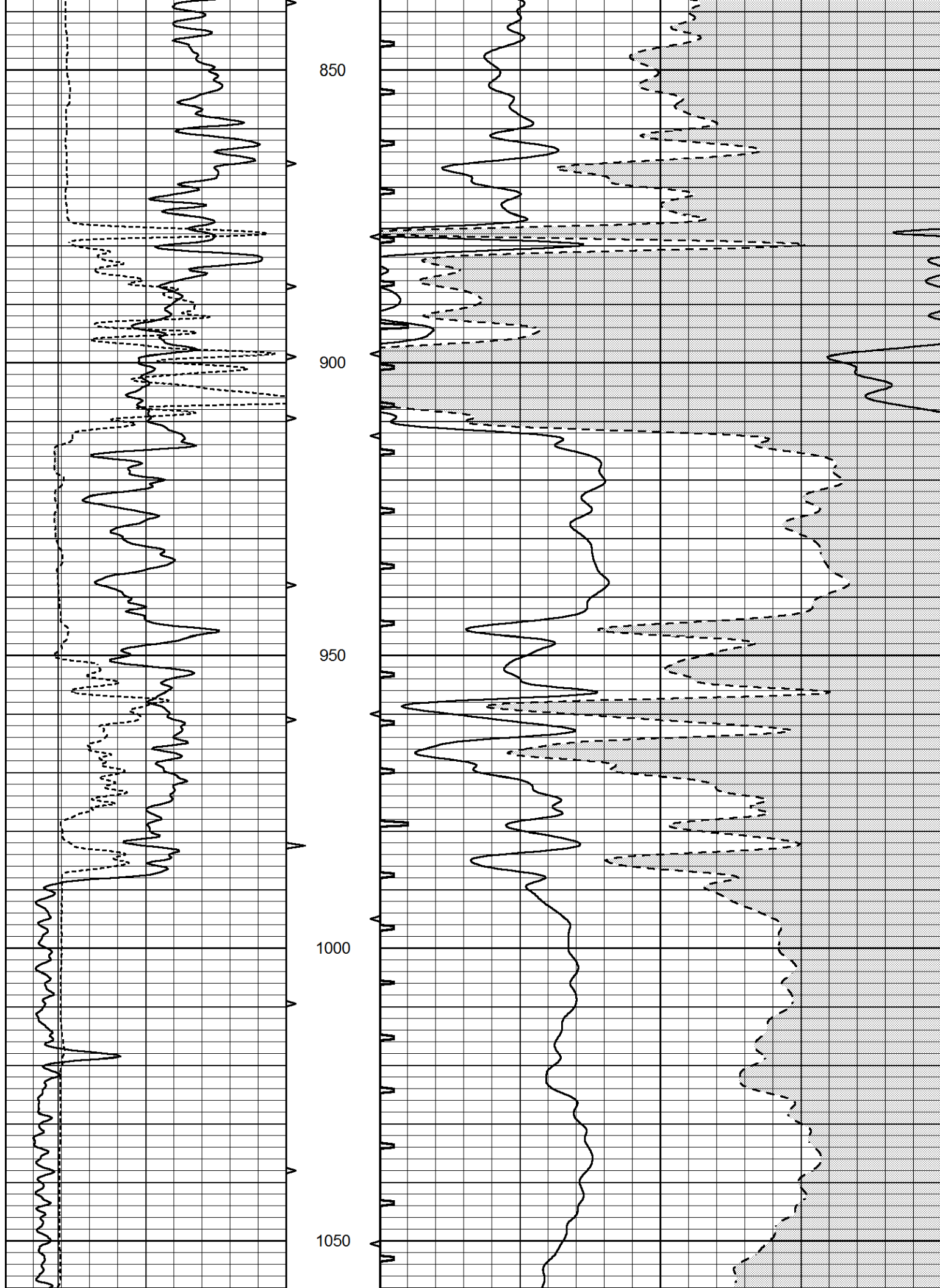
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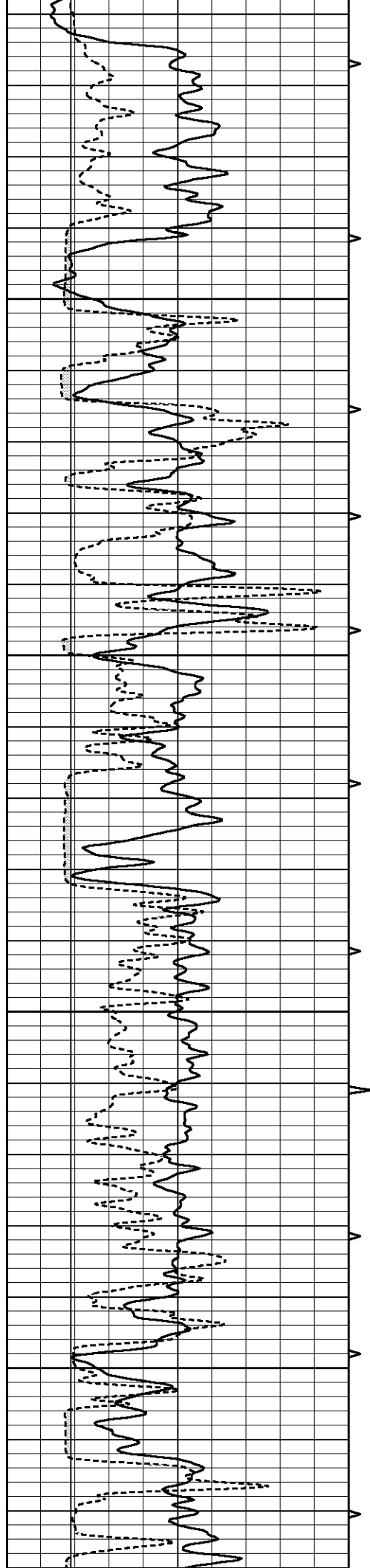
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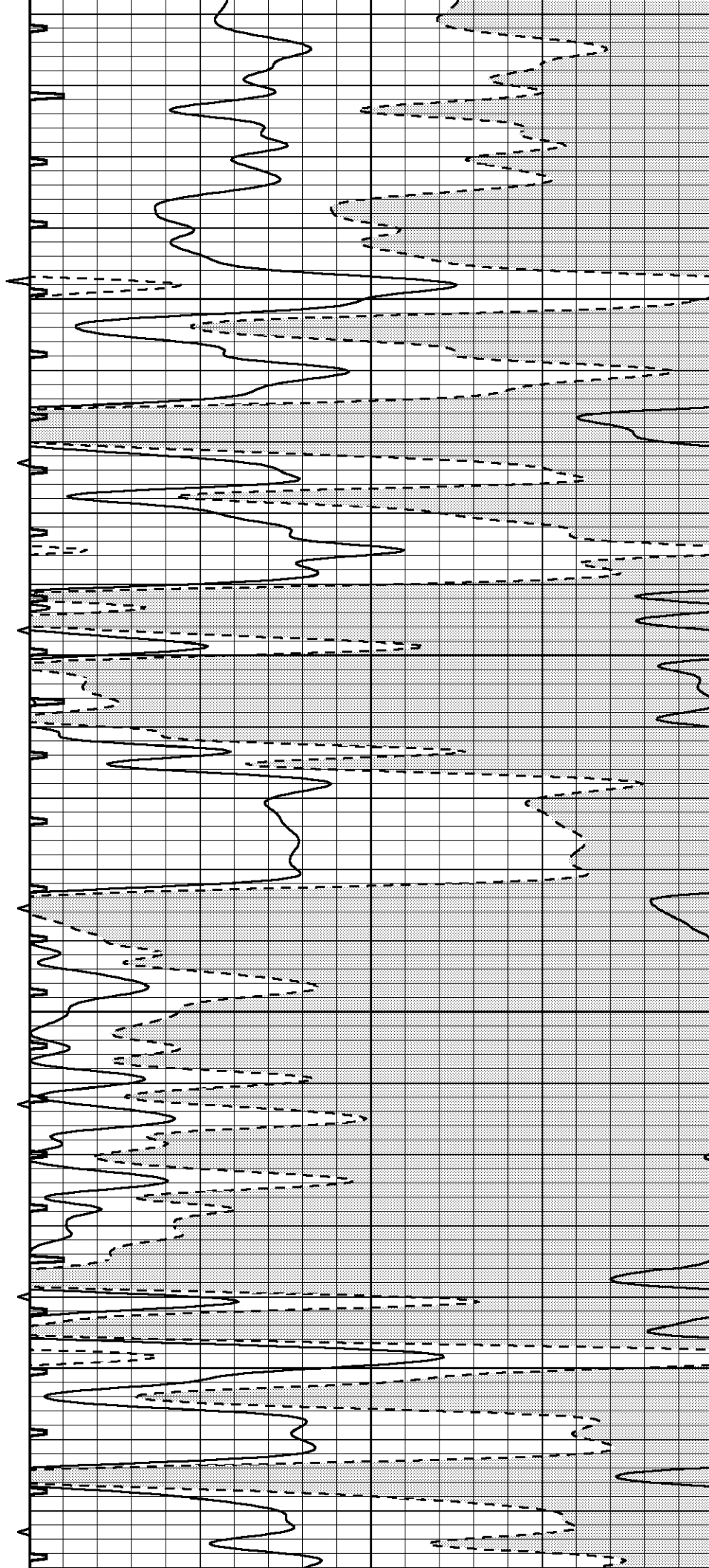


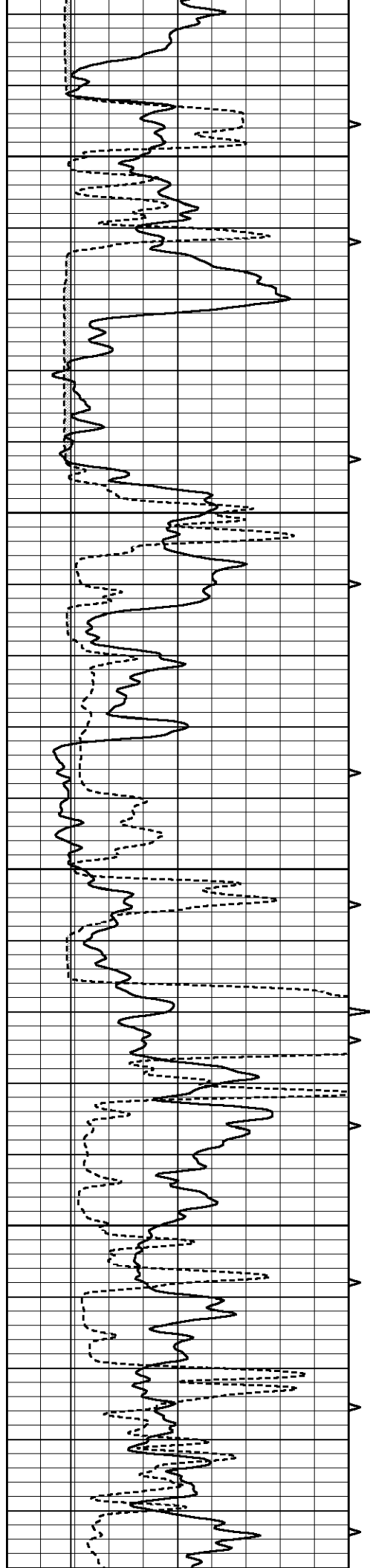
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1200

1250



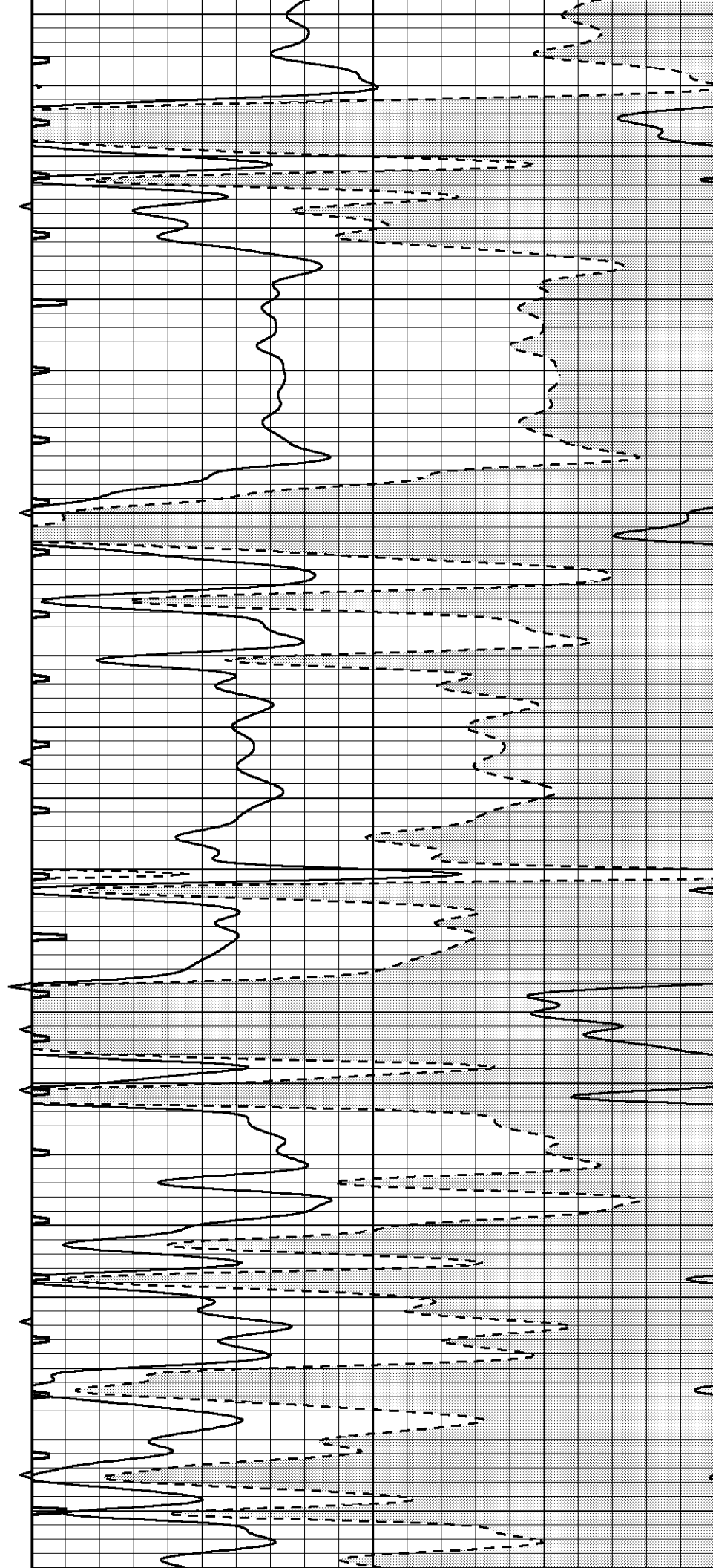


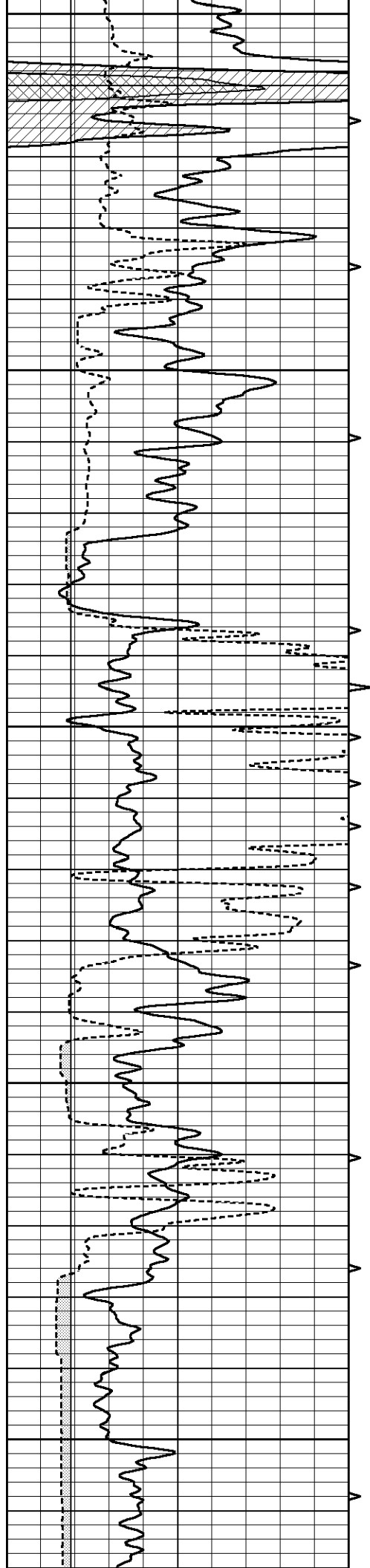
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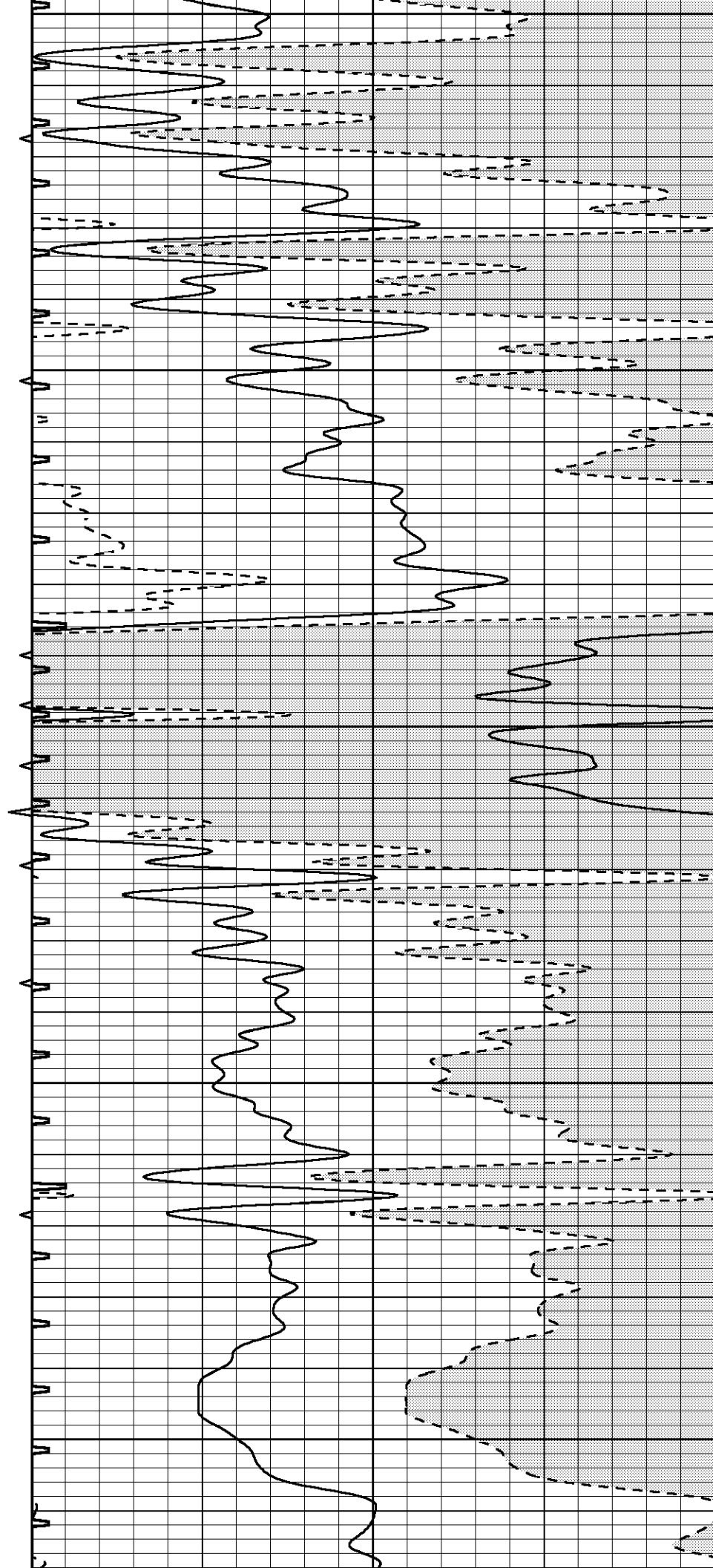
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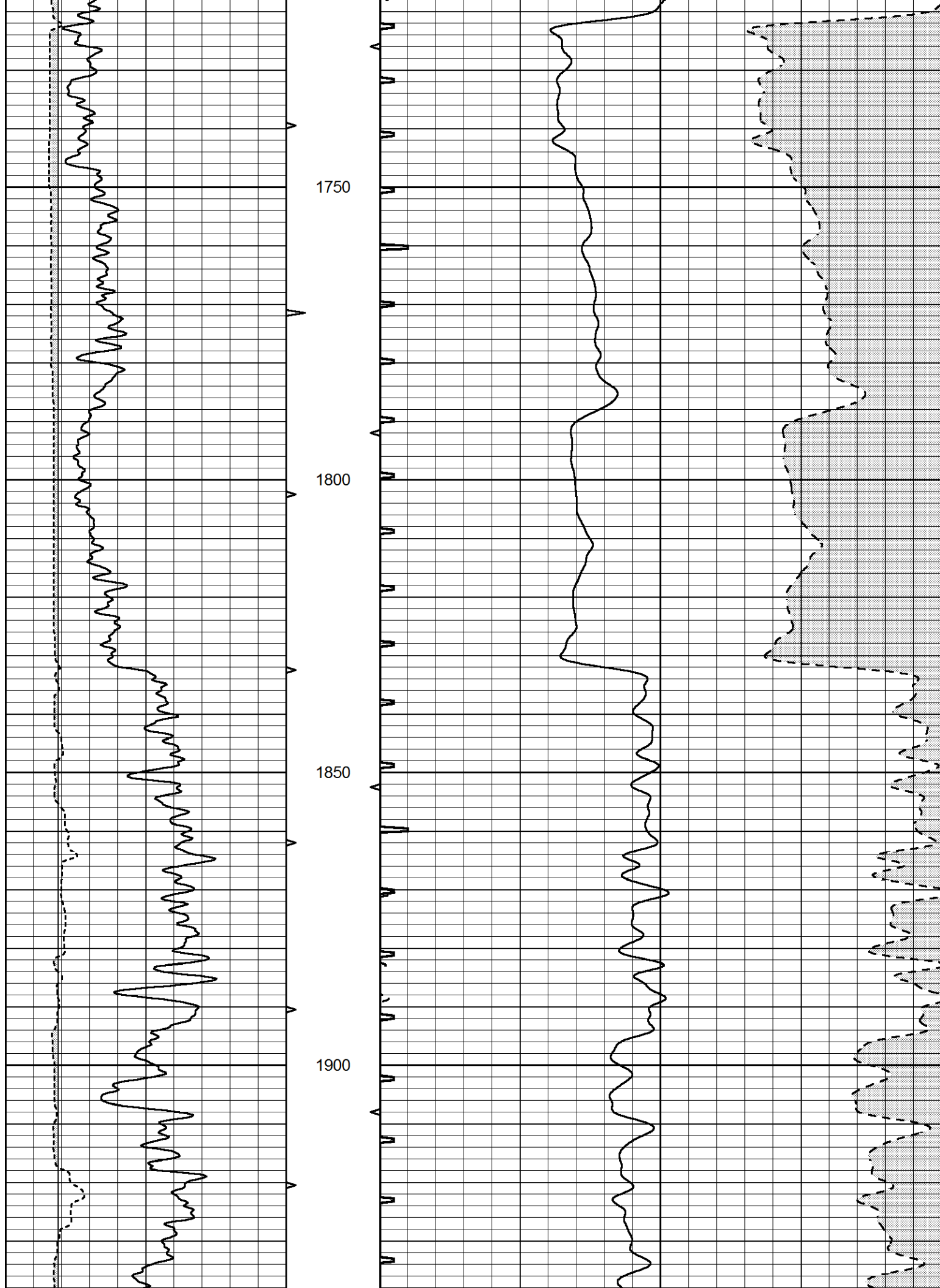
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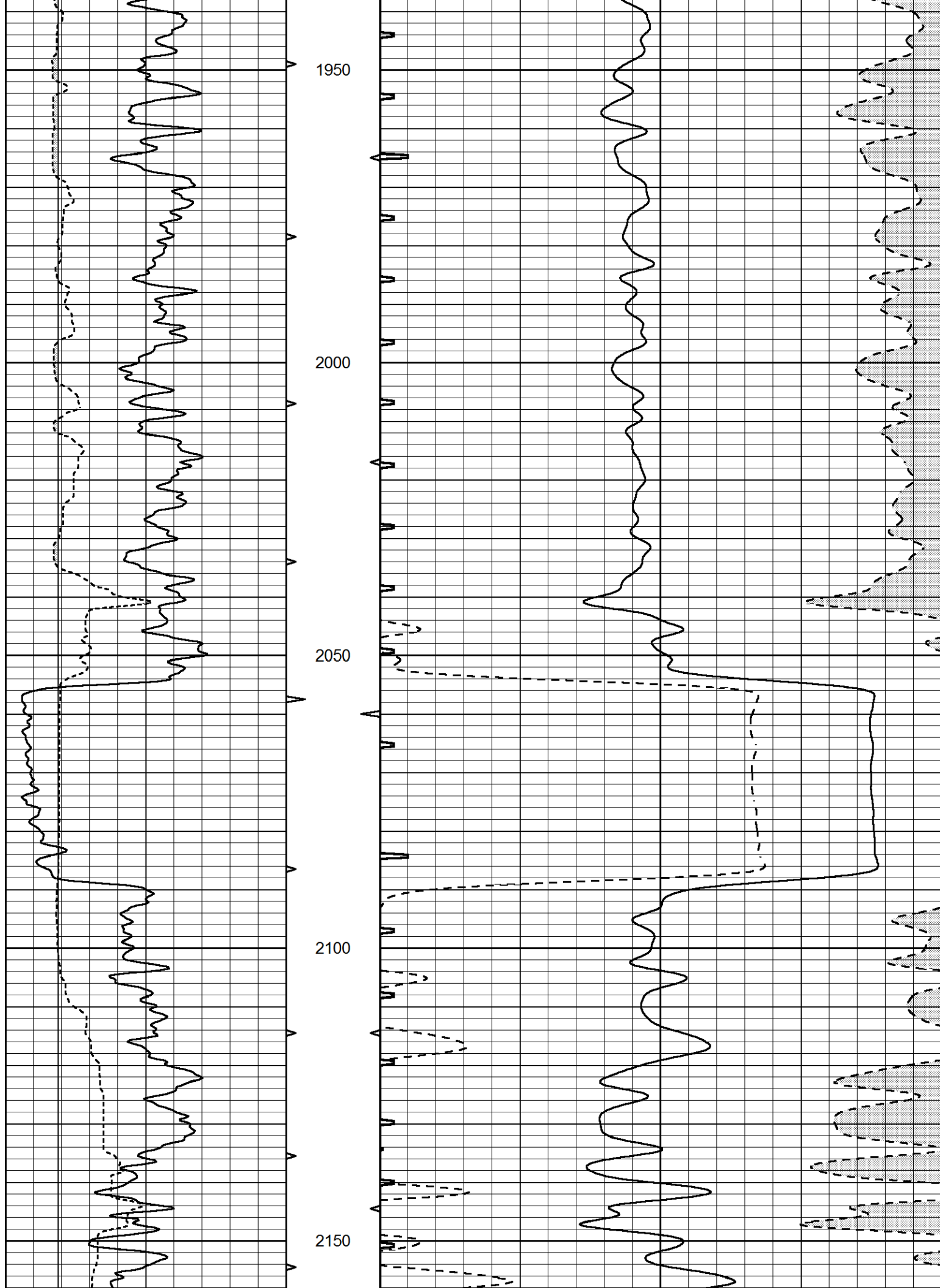


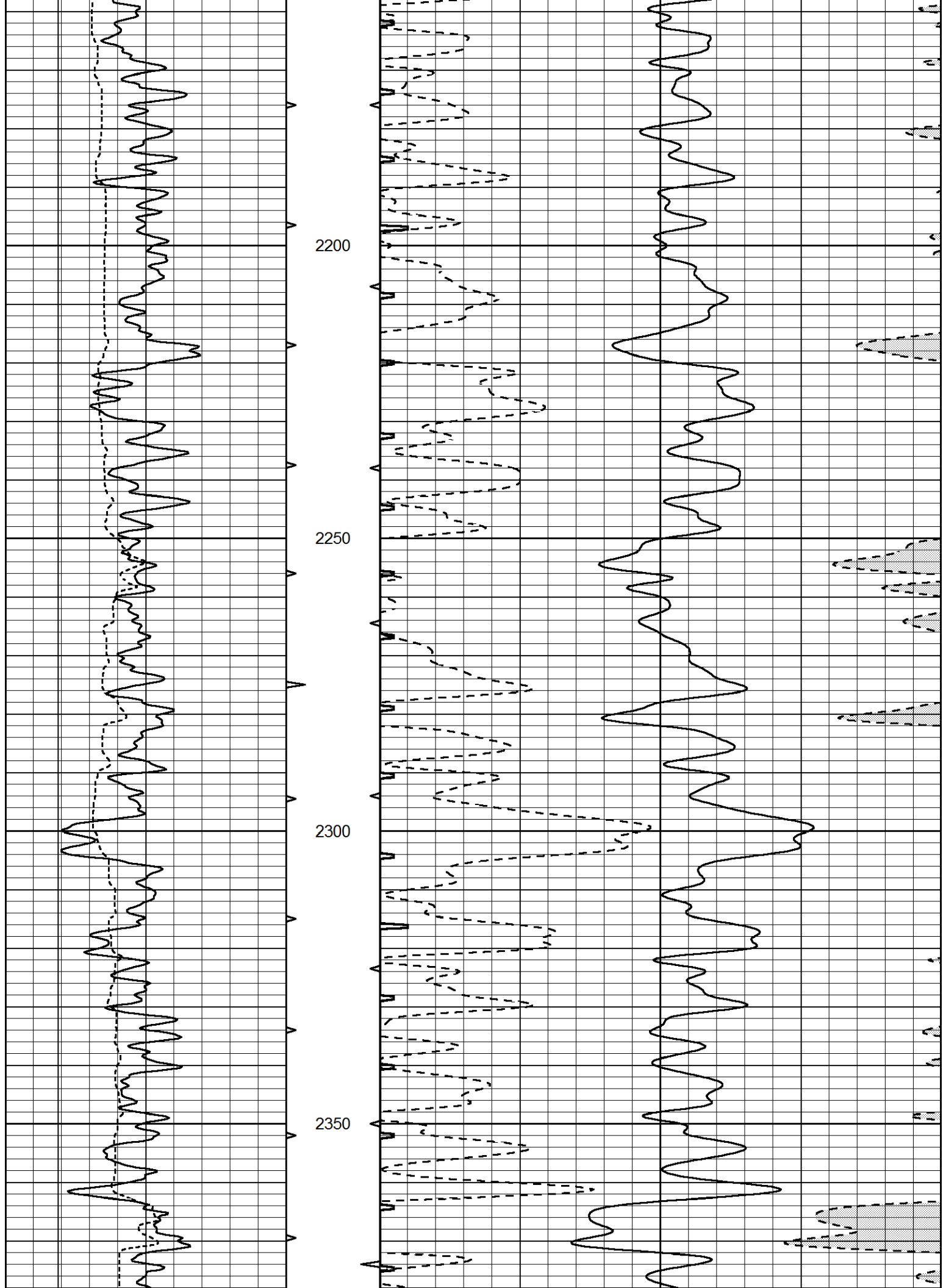


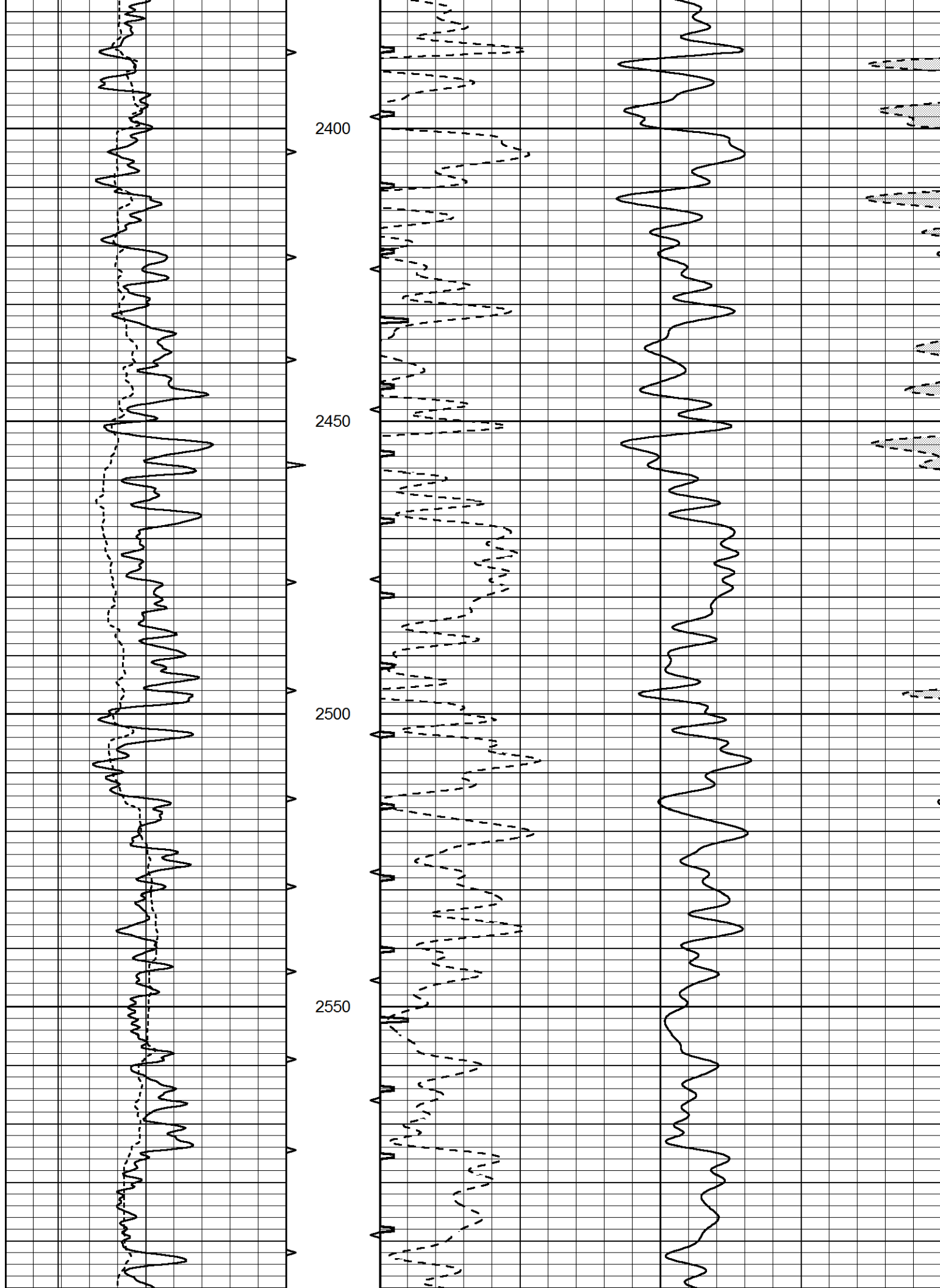
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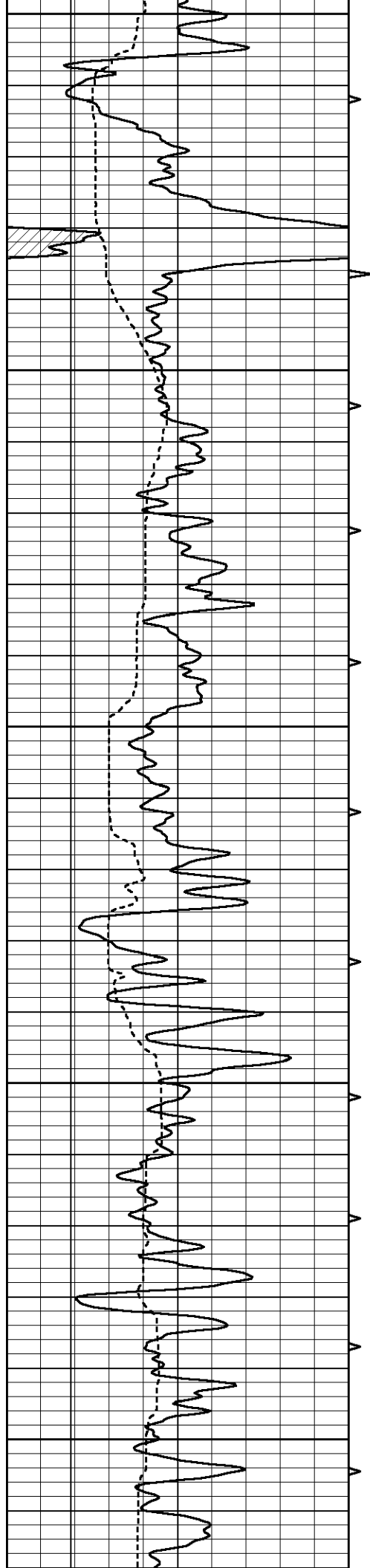












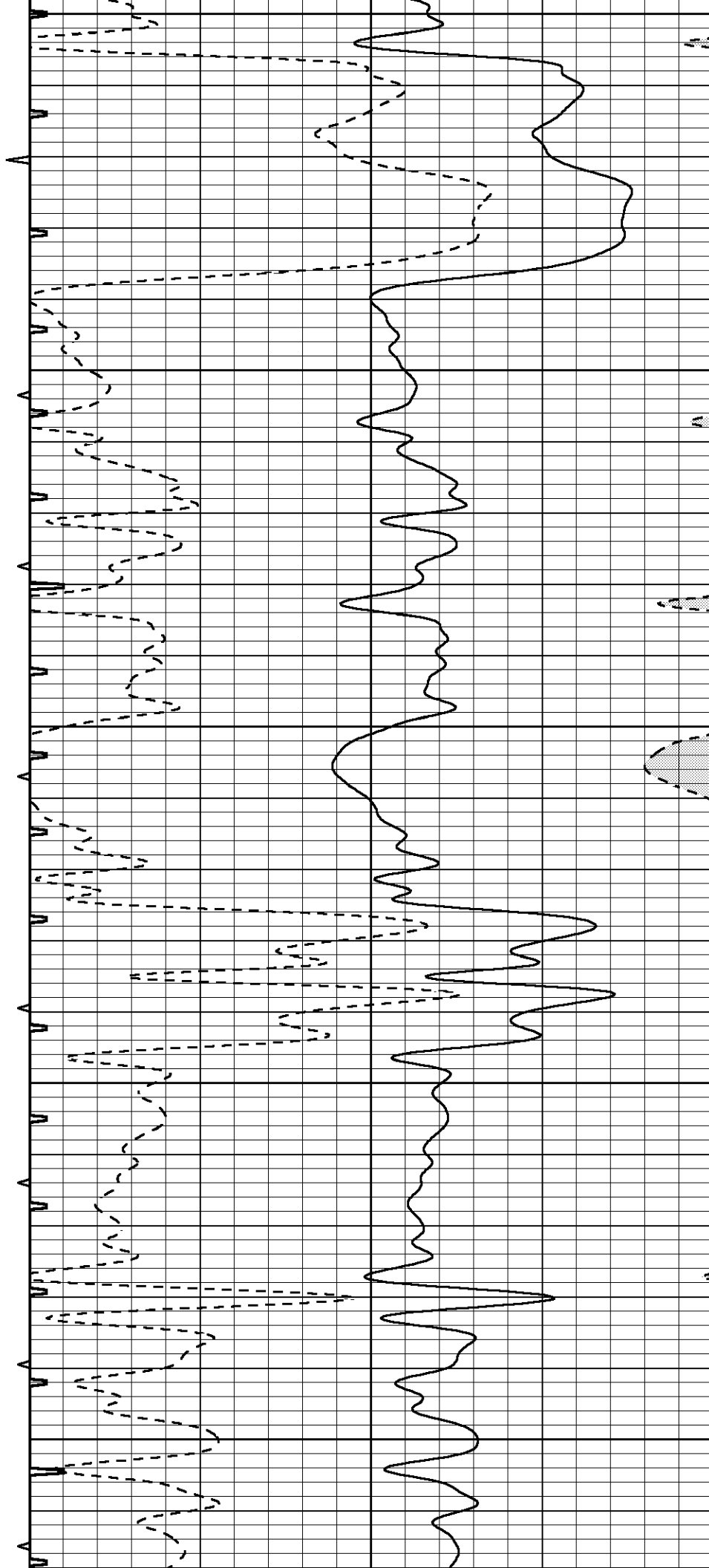
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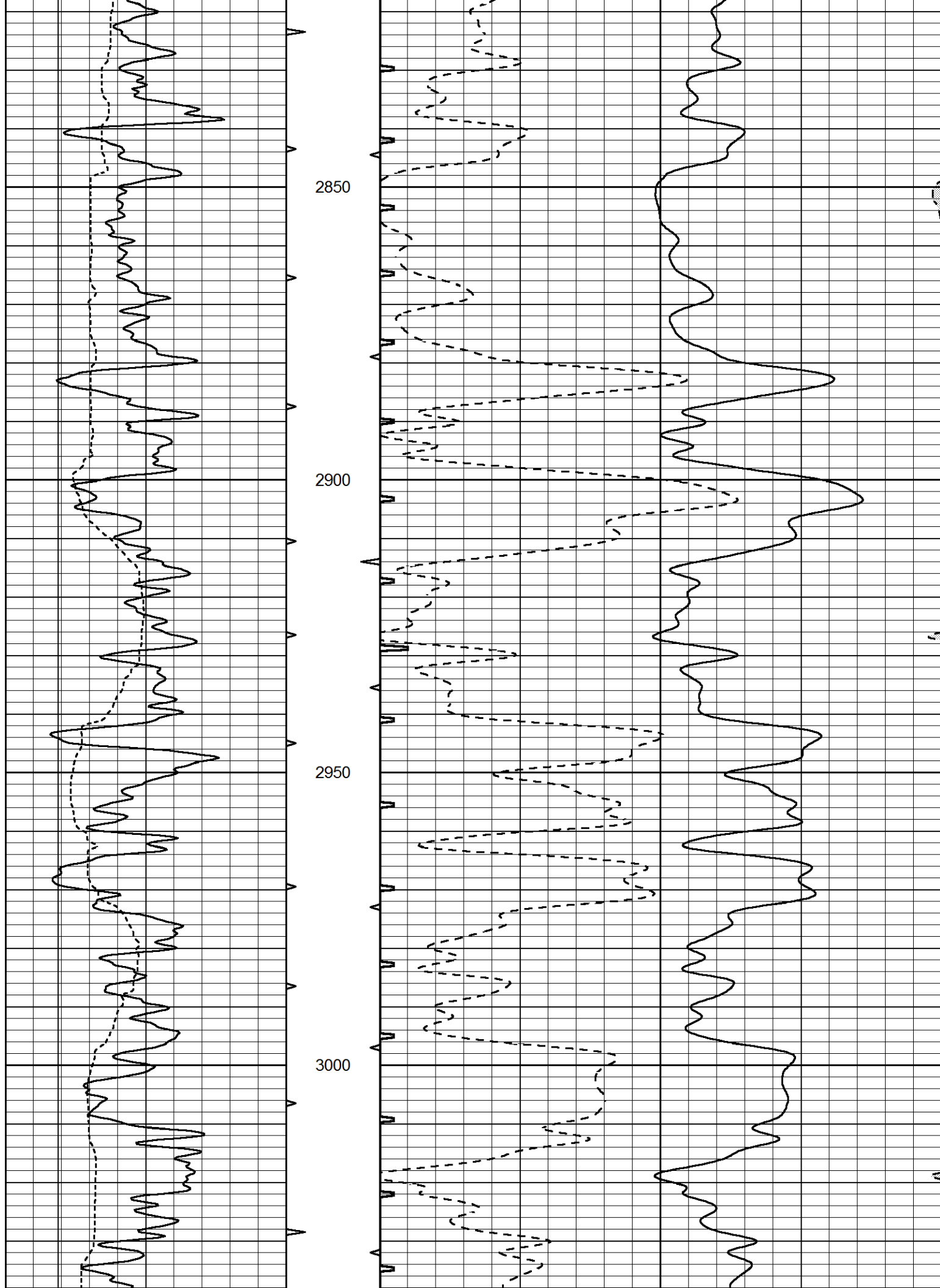
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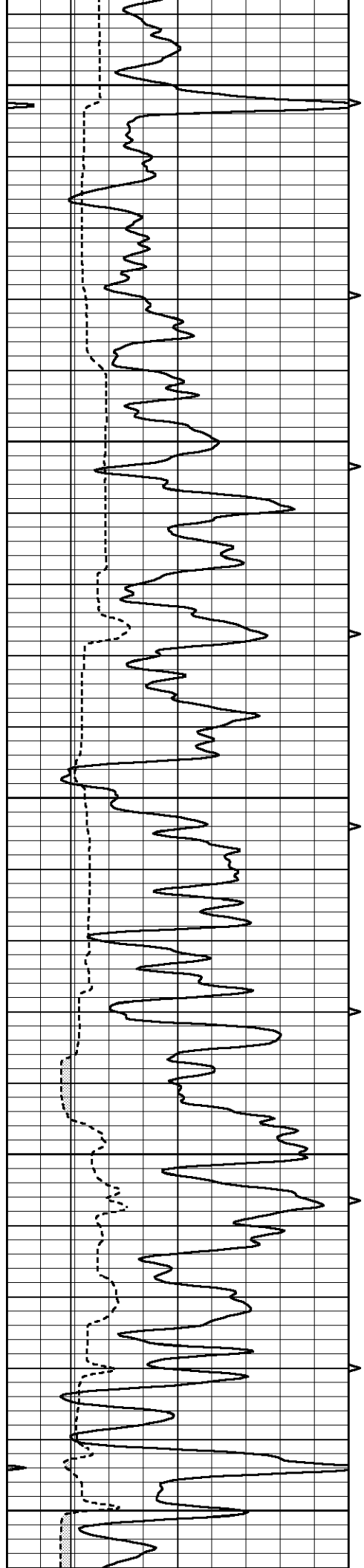
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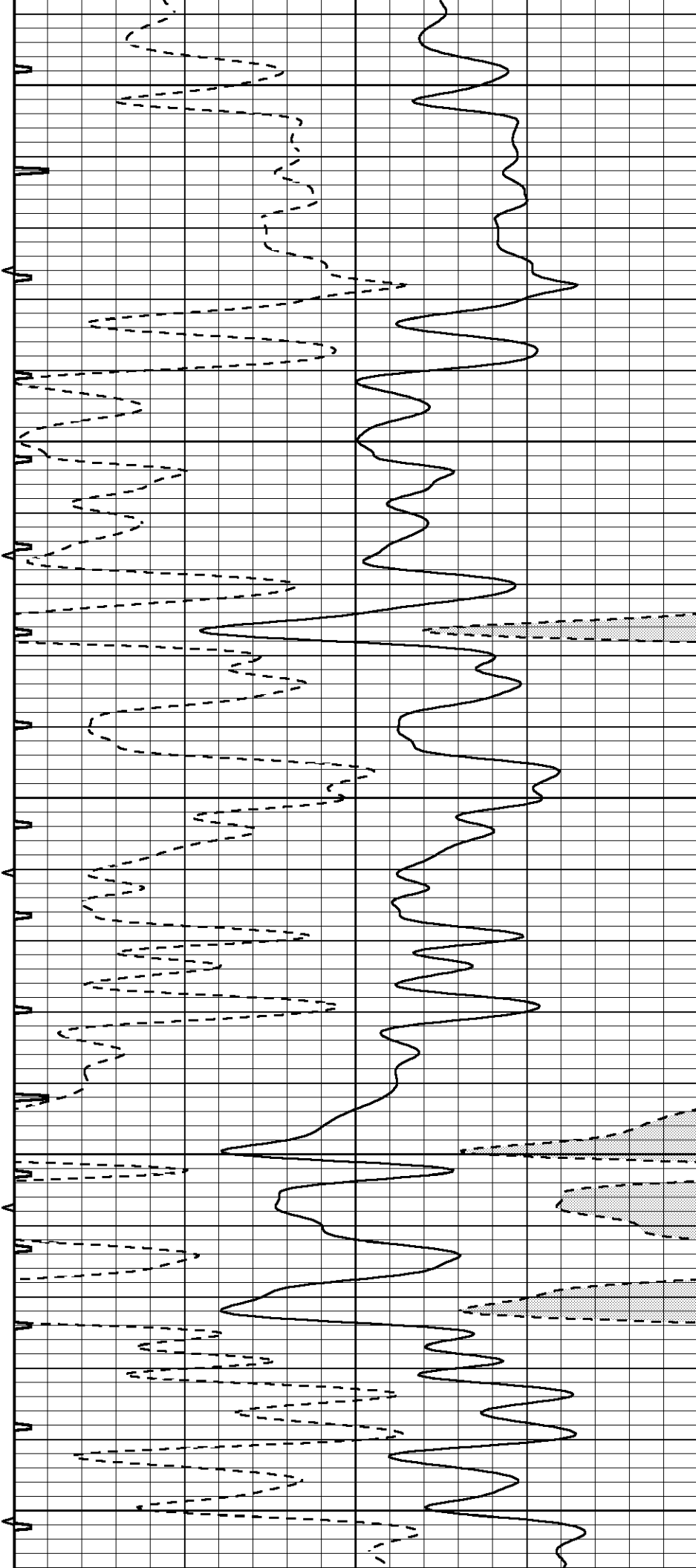
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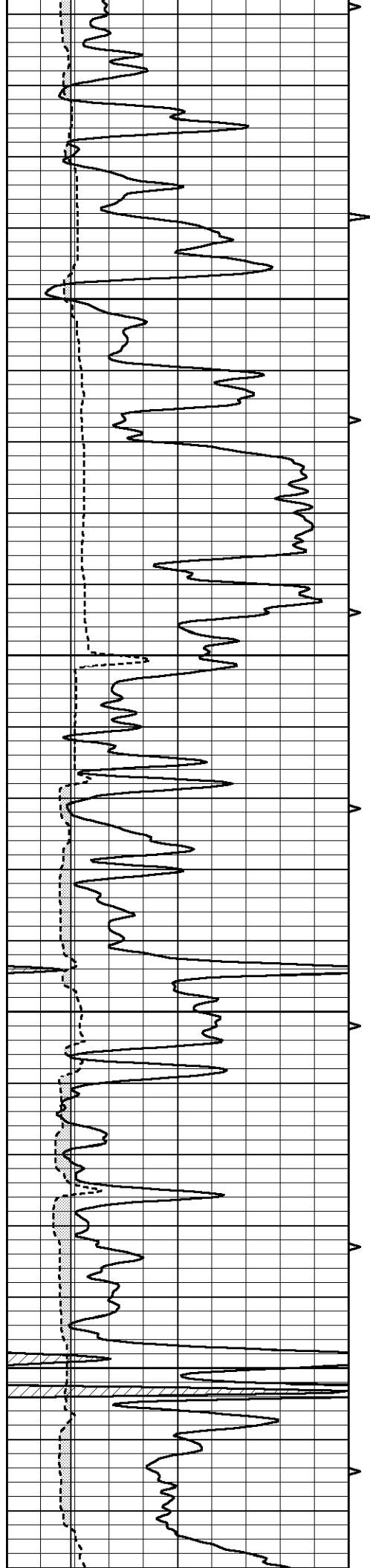
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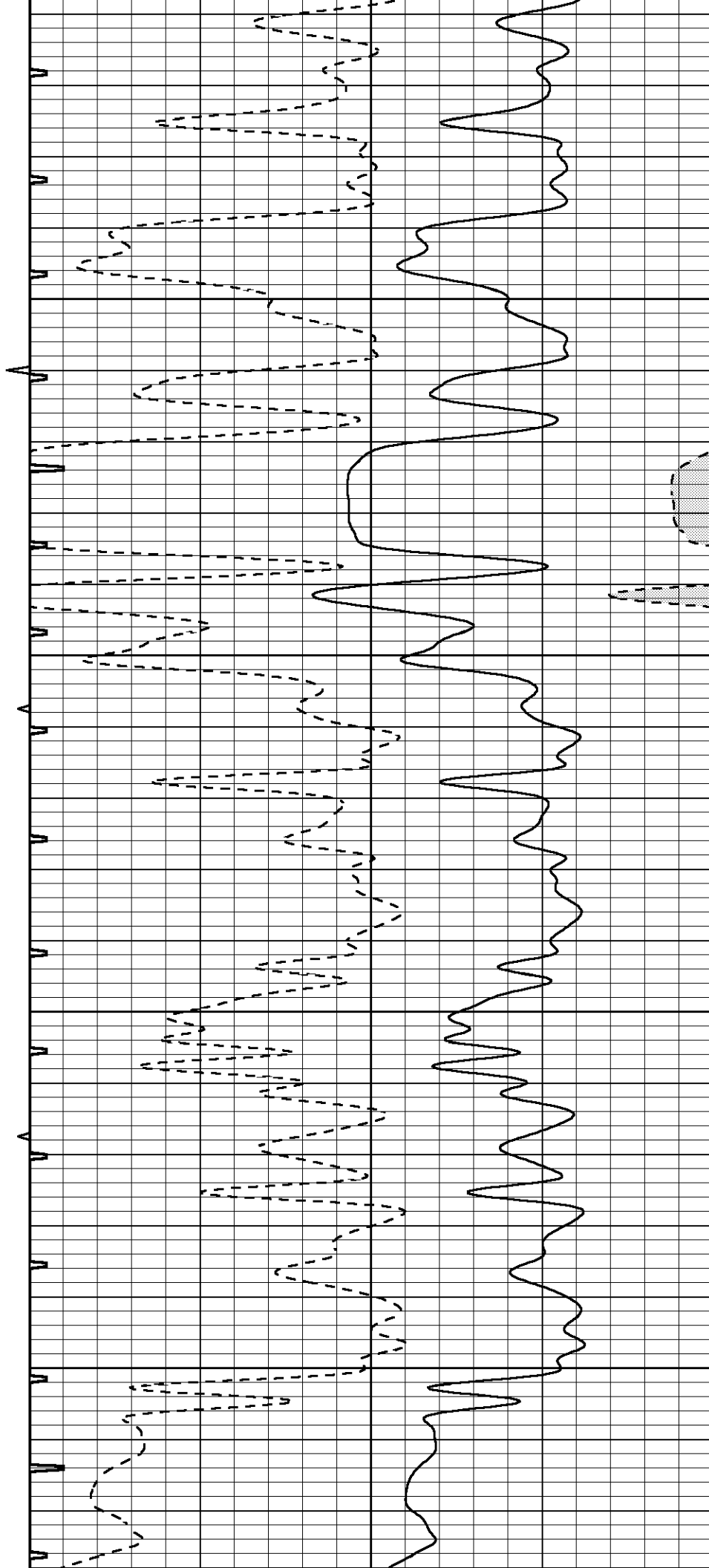


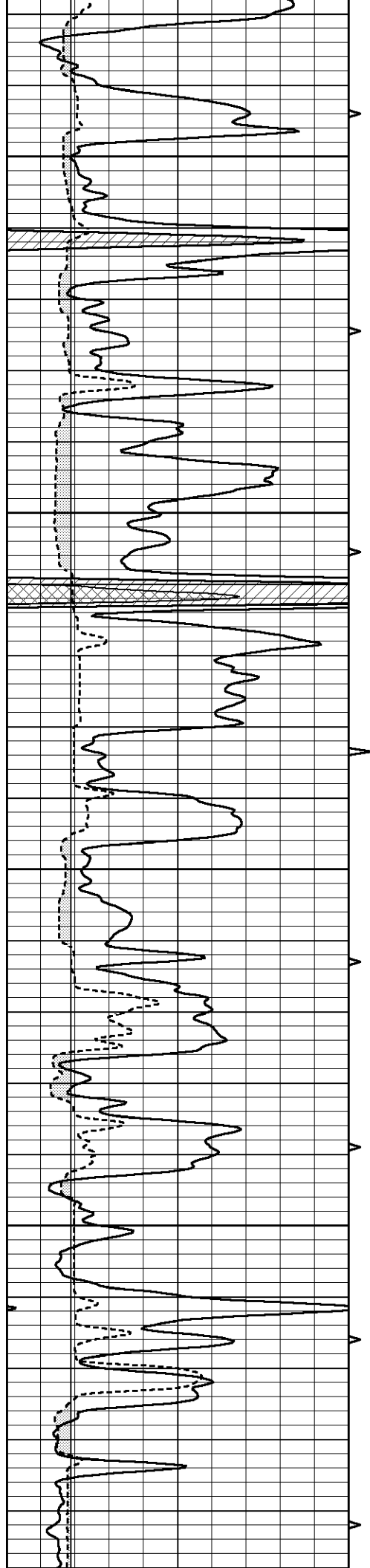
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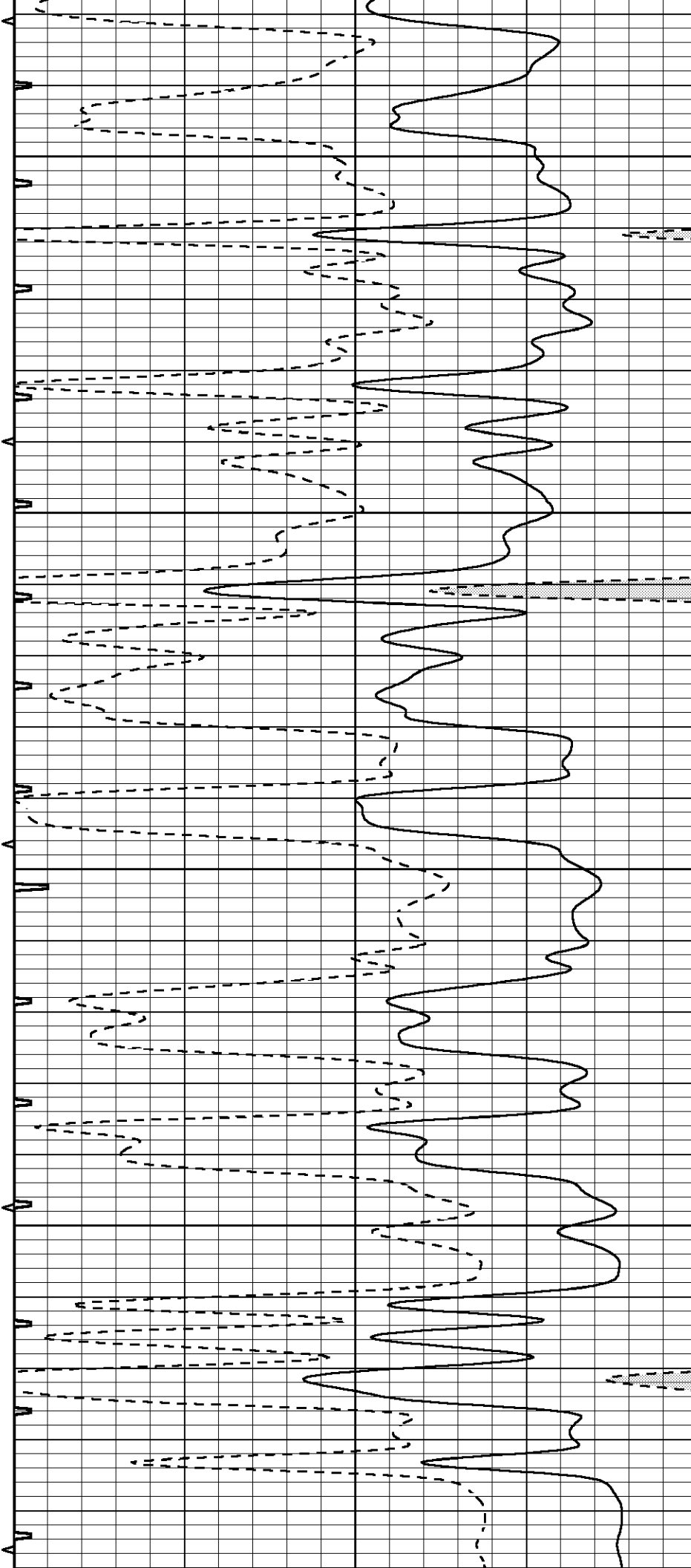


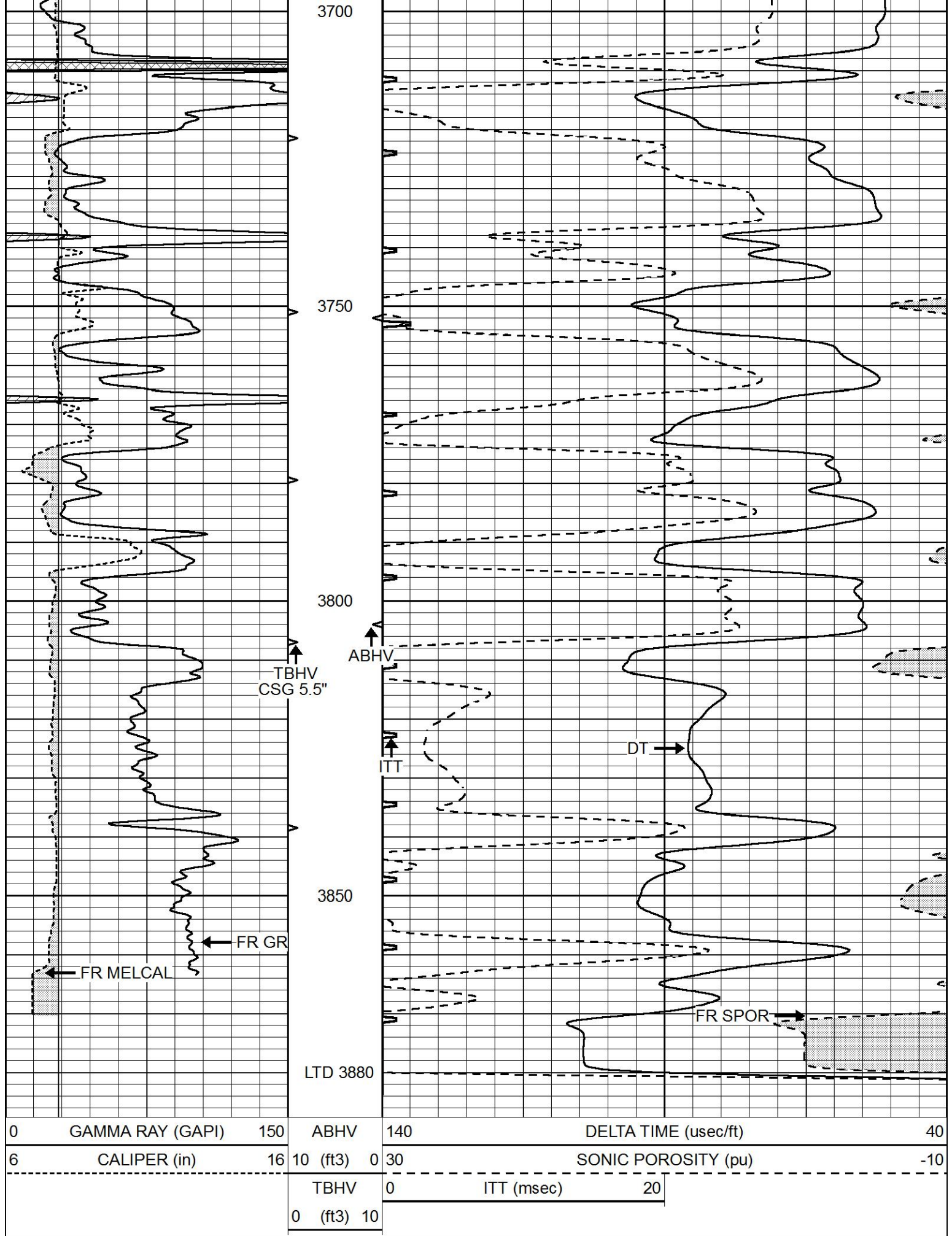
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REPEAT SECTION

Database File 26601ddn8.db
 Dataset Pathname pass5.1
 Presentation Format _slt
 Dataset Creation Fri Jul 24 21:45:55 2015
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	140	DELTA TIME (usec/ft)	40
6	CALIPER (in)	16	10 (ft3) 0	30	SONIC POROSITY (pu)	-10
			TBHV	0	ITT (msec)	20
			0 (ft3) 10			

