



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**SONIC  
LOG**

Company MULL DRILLING COMPANY, INC.  
Well #1-23 BYRD  
Field PFAFF  
County NESS  
State KANSAS

Company MULL DRILLING COMPANY, INC.  
Well #1-23 BYRD  
Field PFAFF  
County NESS  
State KANSAS

Location: API # : 15-135-25758-0000  
1568' FNL & 1307' FEL  
SEC 23 TWP 19S RGE 23W  
Permanent Datum GROUND LEVEL Elevation 2212  
Log Measured From KELLY BUSHING 5' A.G.L.  
Drilling Measured From KELLY BUSHING  
Elevation  
K.B. 2217  
D.F. 2215  
G.L. 2212

Date	4/13/14
Run Number	TWO
Depth Driller	4450
Depth Logger	4454
Bottom Logged Interval	4446
Top Log Interval	200
Casing Driller	8 5/8"@214'
Casing Logger	214
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.4/58
pH / Fluid Loss	10.0/8.8
Source of Sample	FLOWLINE
Rim @ Meas. Temp	.500@78F
Rmf @ Meas. Temp	.375@78F
Rmc @ Meas. Temp	.600@78F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.325@120F
Time Circulation Stopped	4.5 HOURS
Time Logger on Bottom	3:00 P.M.
Maximum Recorded Temperature	120F
Equipment Number	4854
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	STEVE REED

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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**

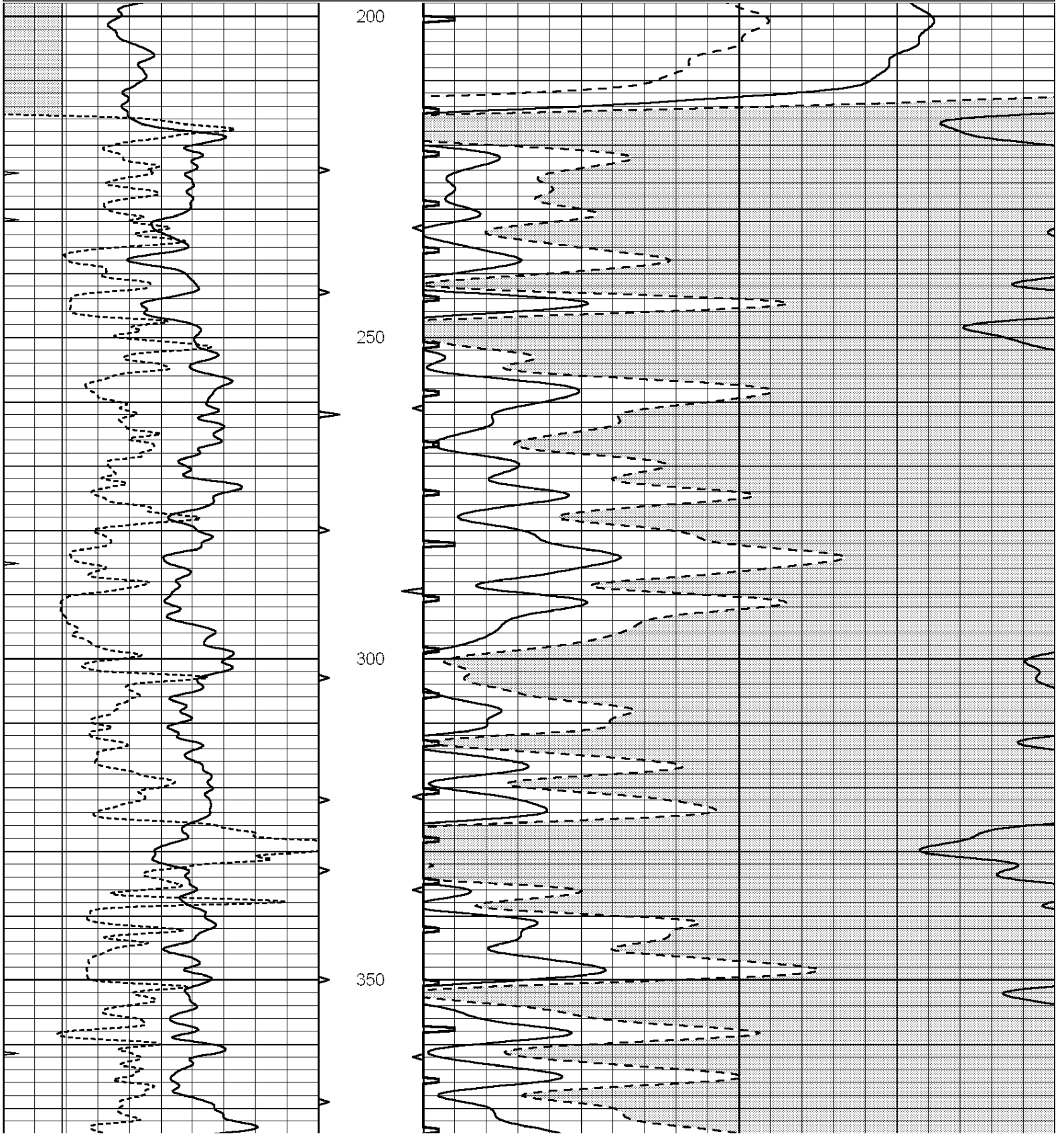
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
NESS CITY, KS., 5S. ON HWY 283 TO "RD. 80", 4E. TO "W RD.", 1/2N., W. INTO

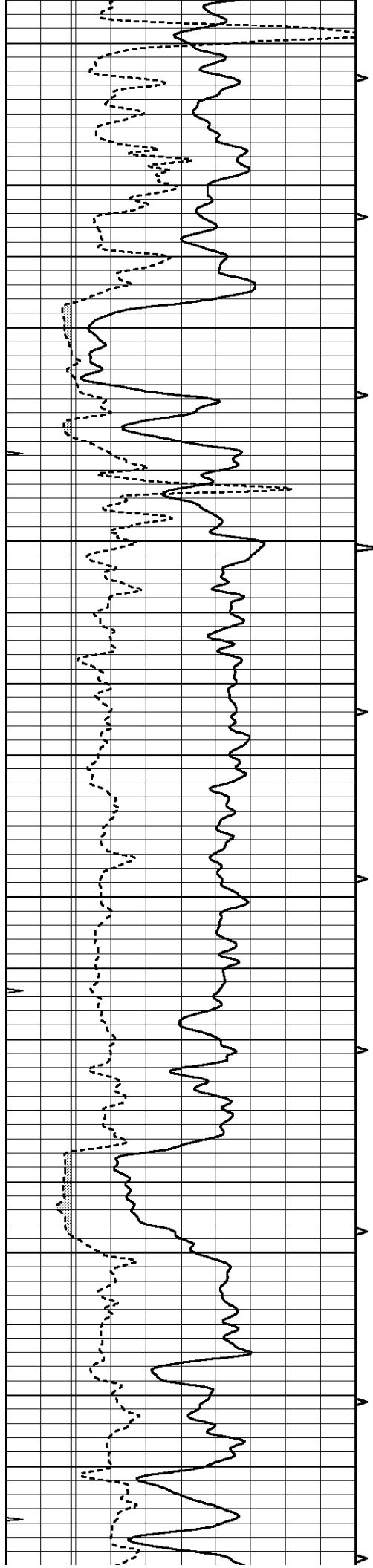


**MAIN SECTION**

Database File: 23808pe.db  
 Dataset Pathname: pass6.3  
 Presentation Format: slt  
 Dataset Creation: Sun Apr 13 18:54:48 2014 by Calc SOC 120430  
 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)
0	MINMK	20	TBHV	0	ITT (msec)	20
			0 (ft3)	10		



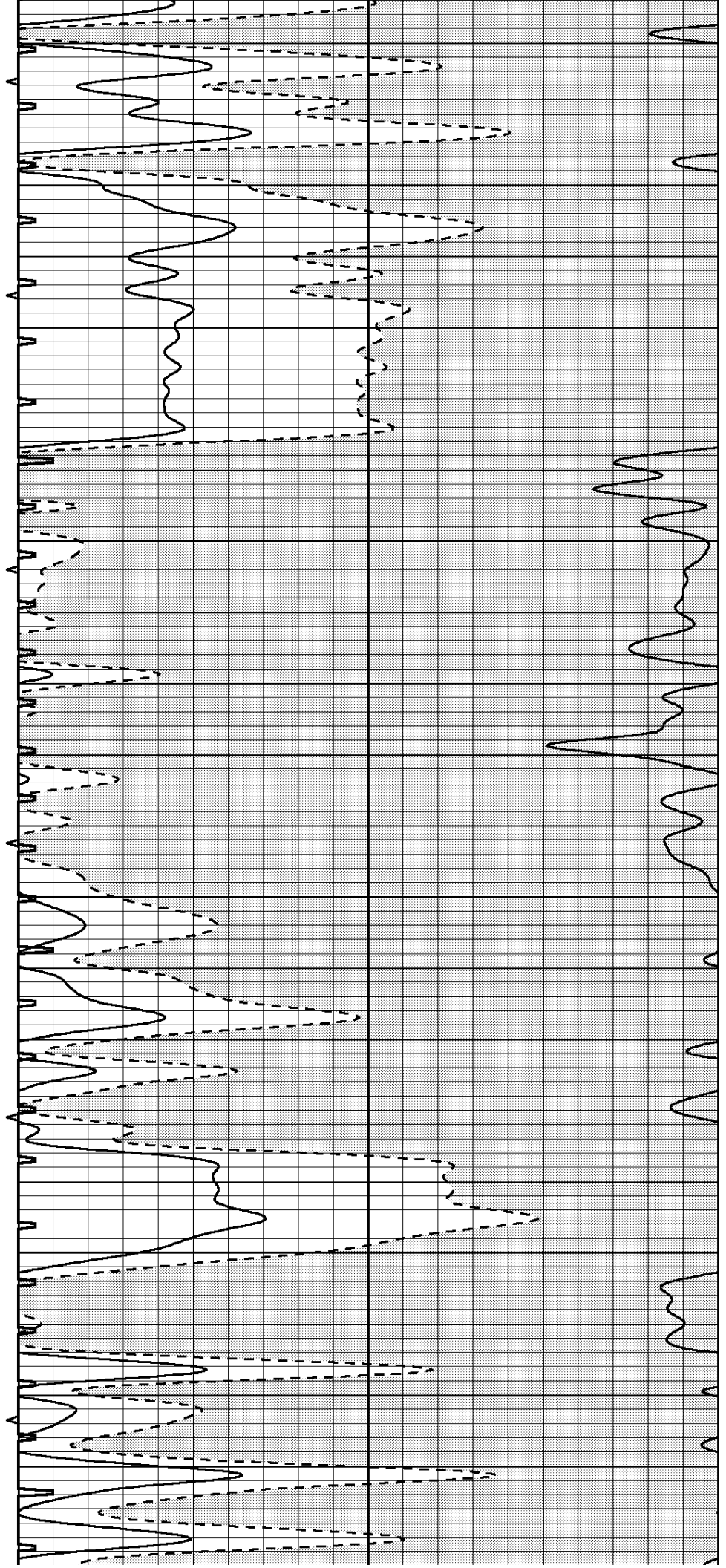


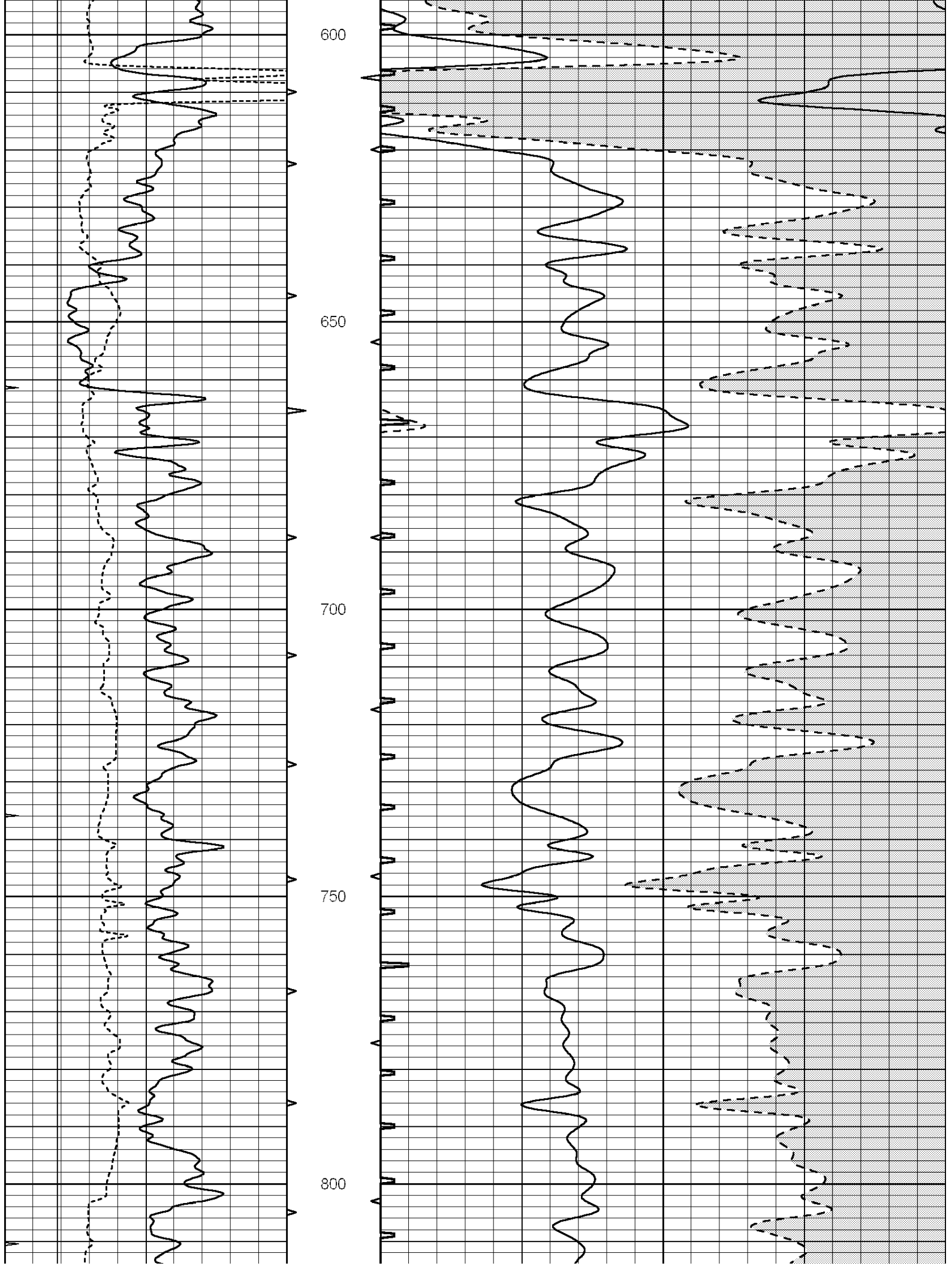
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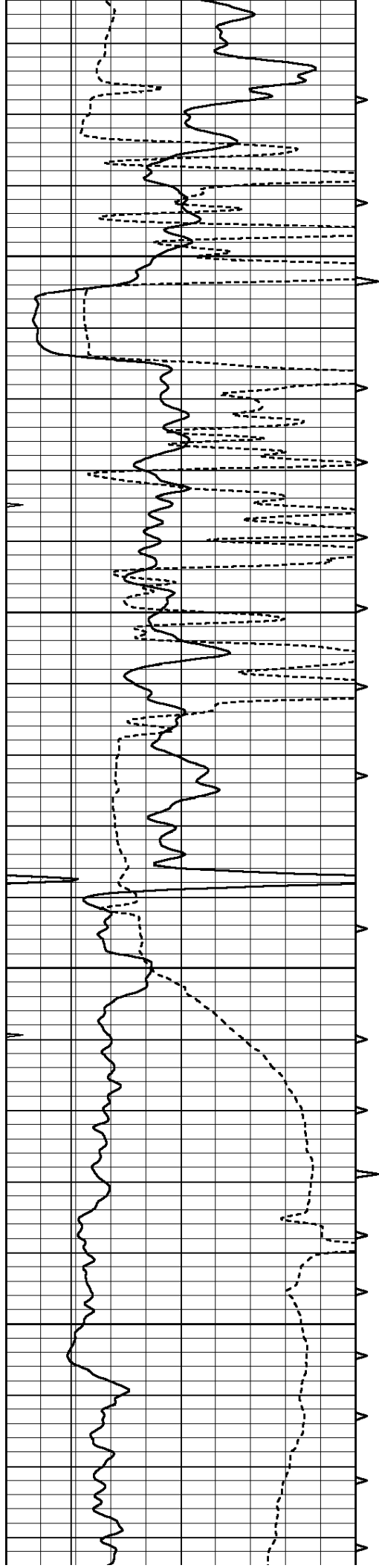
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500

550





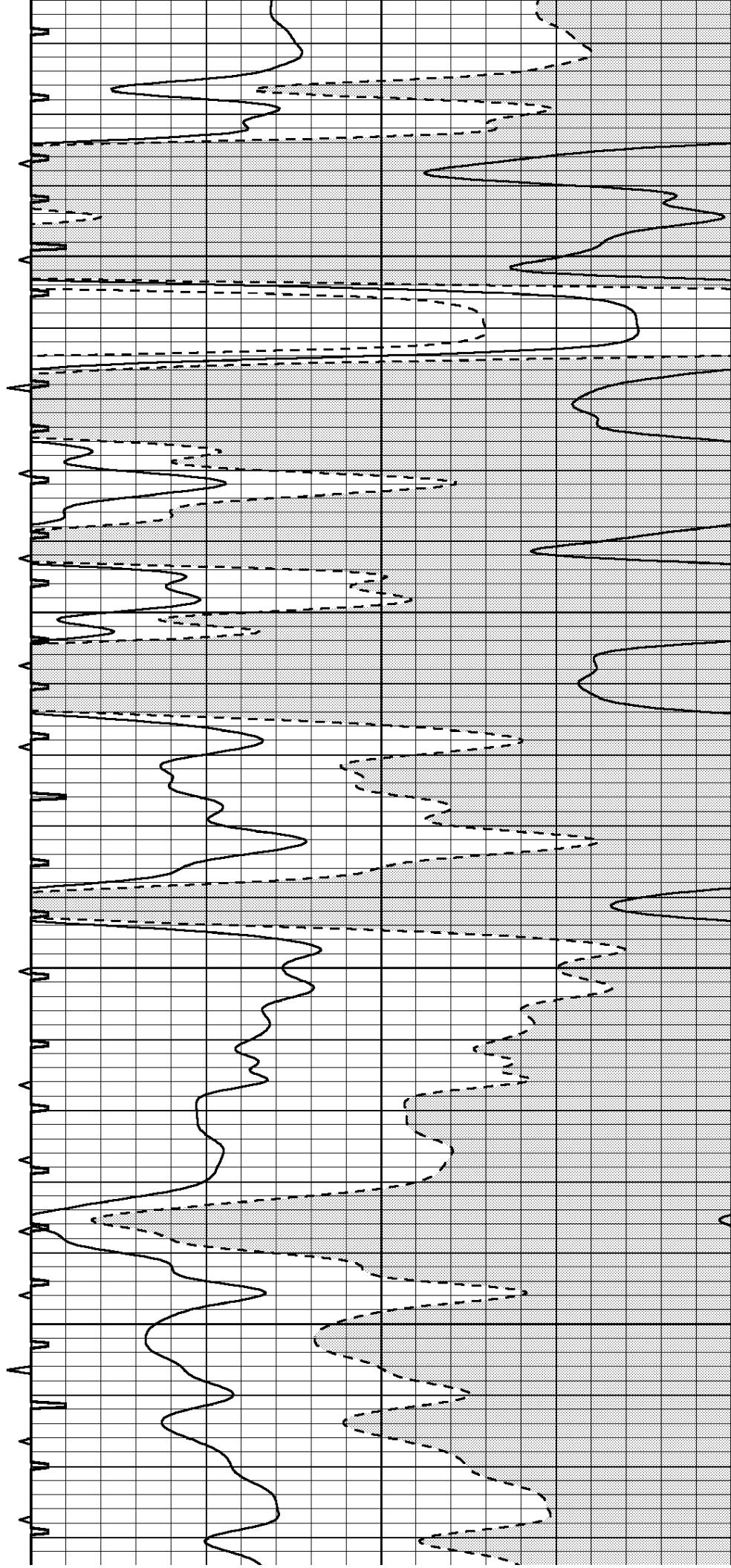


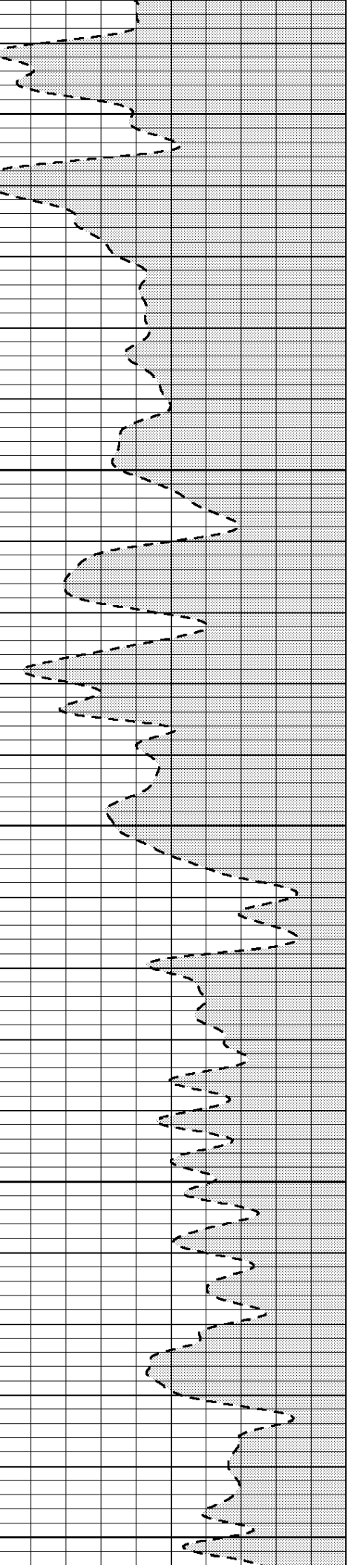
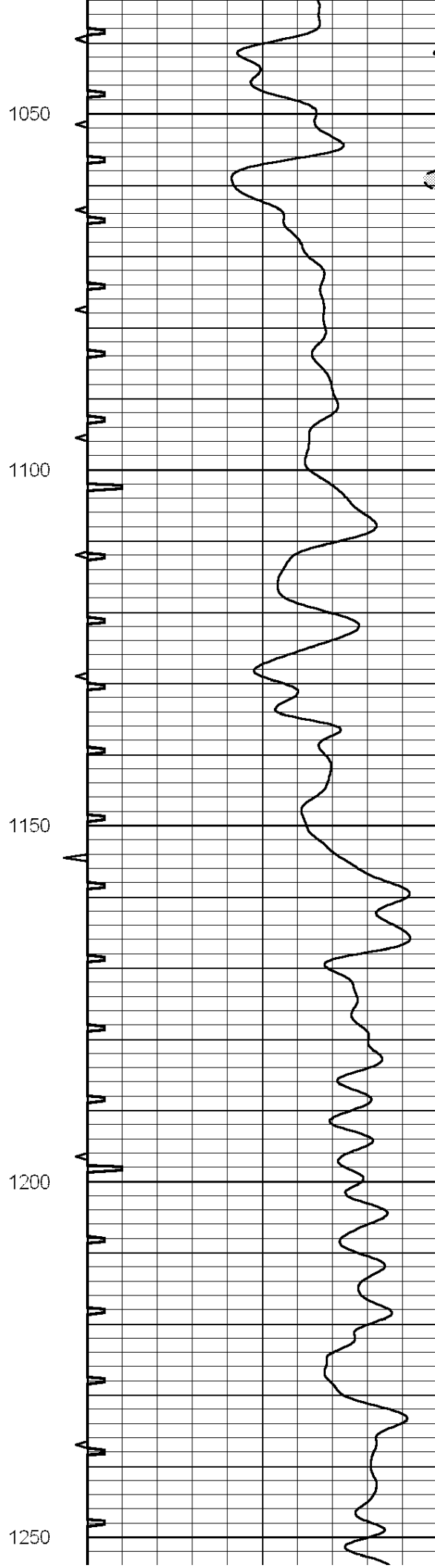
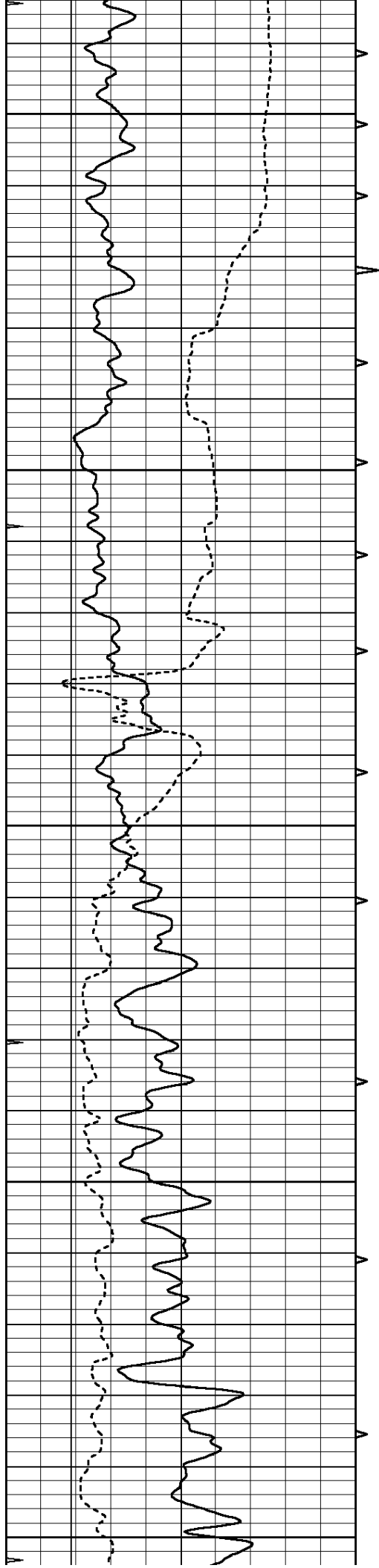
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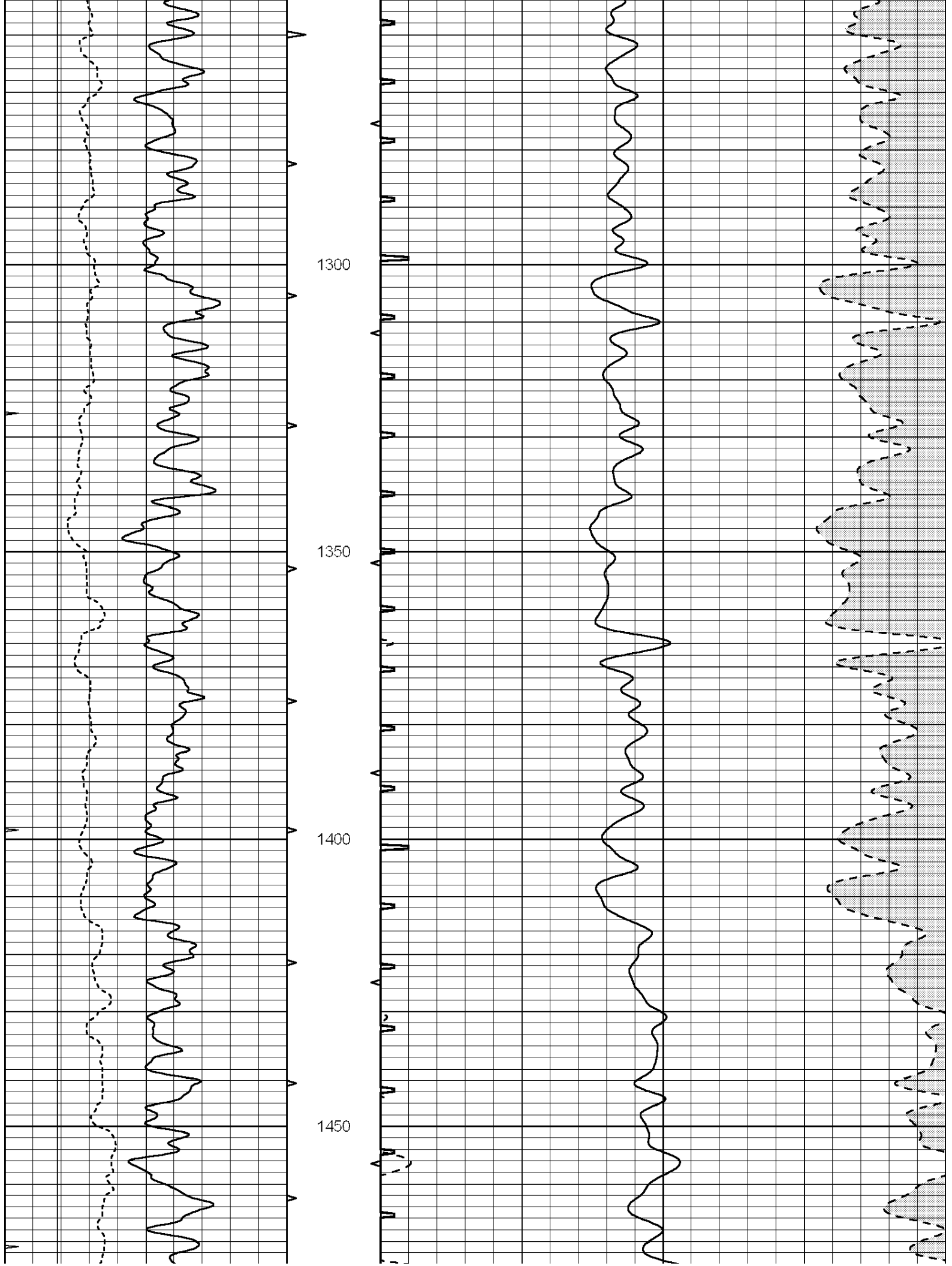
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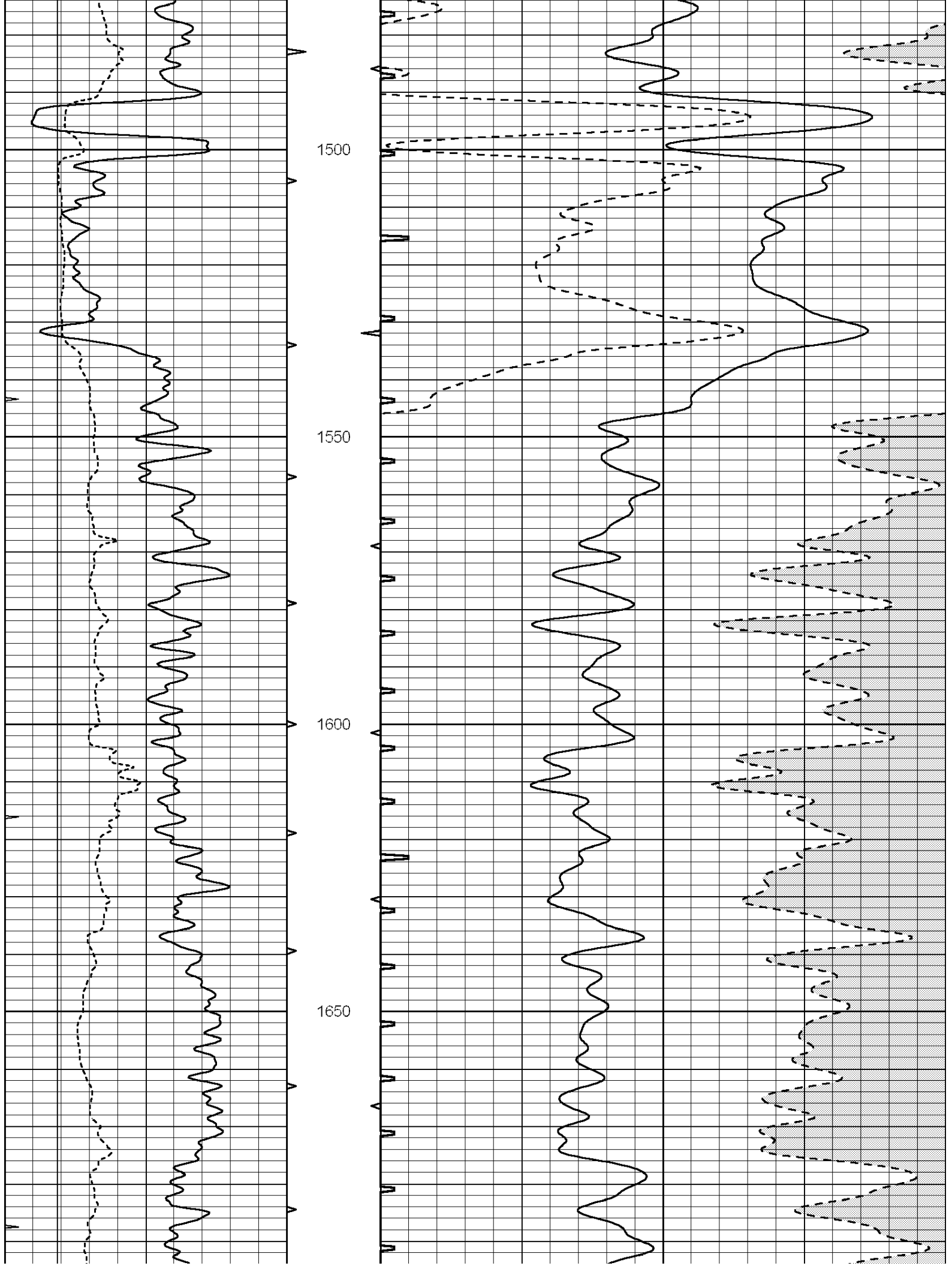
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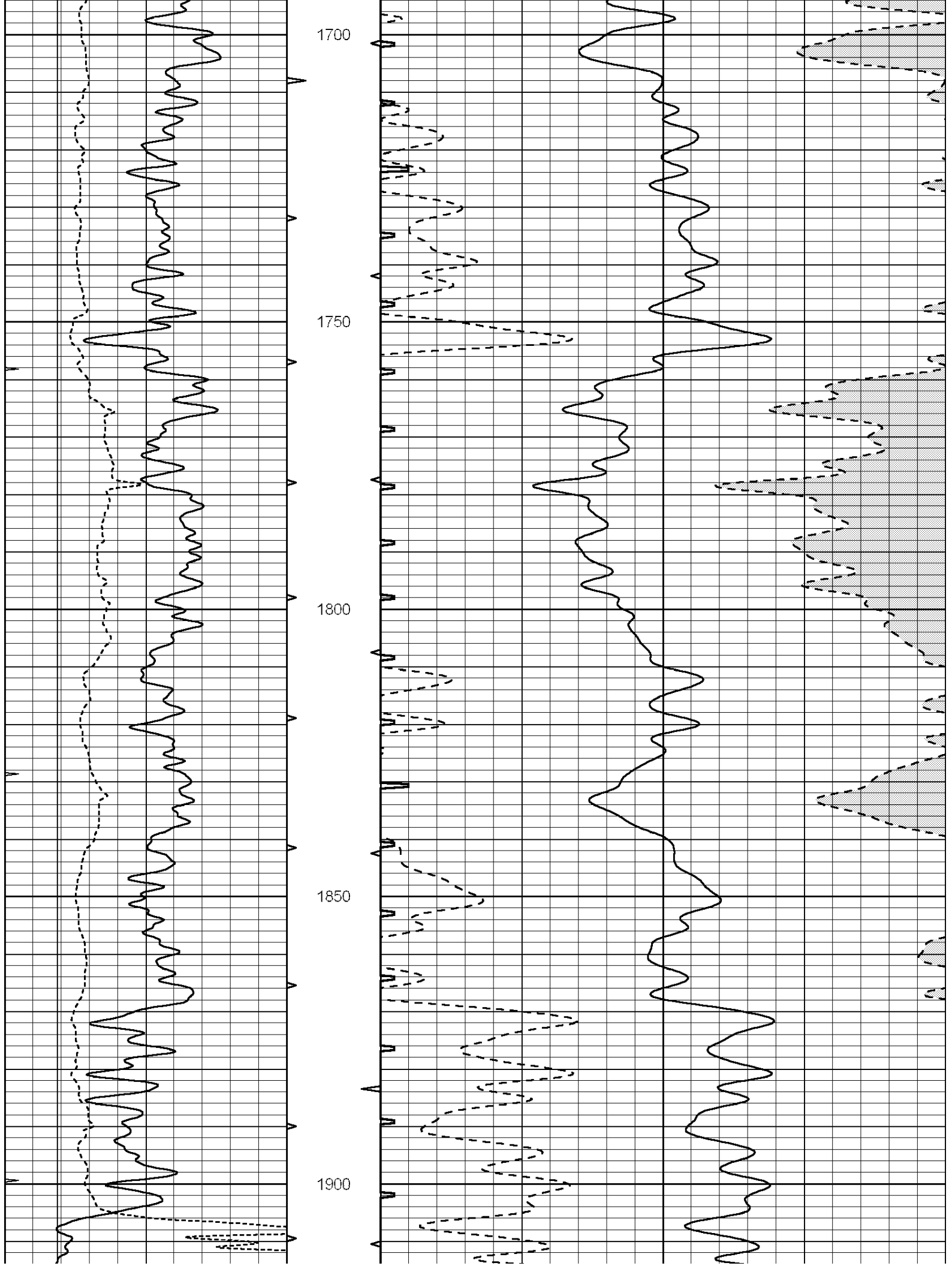
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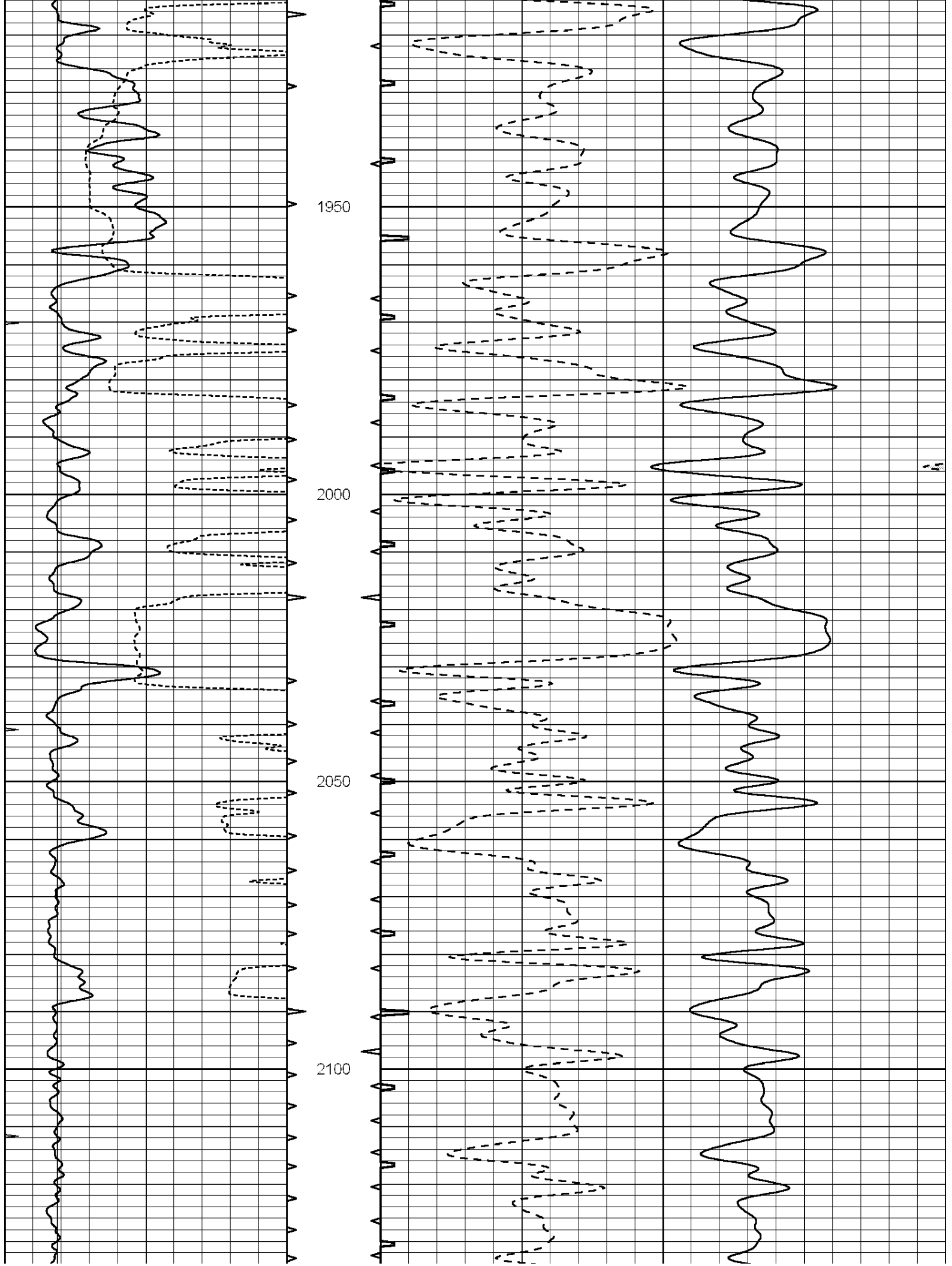


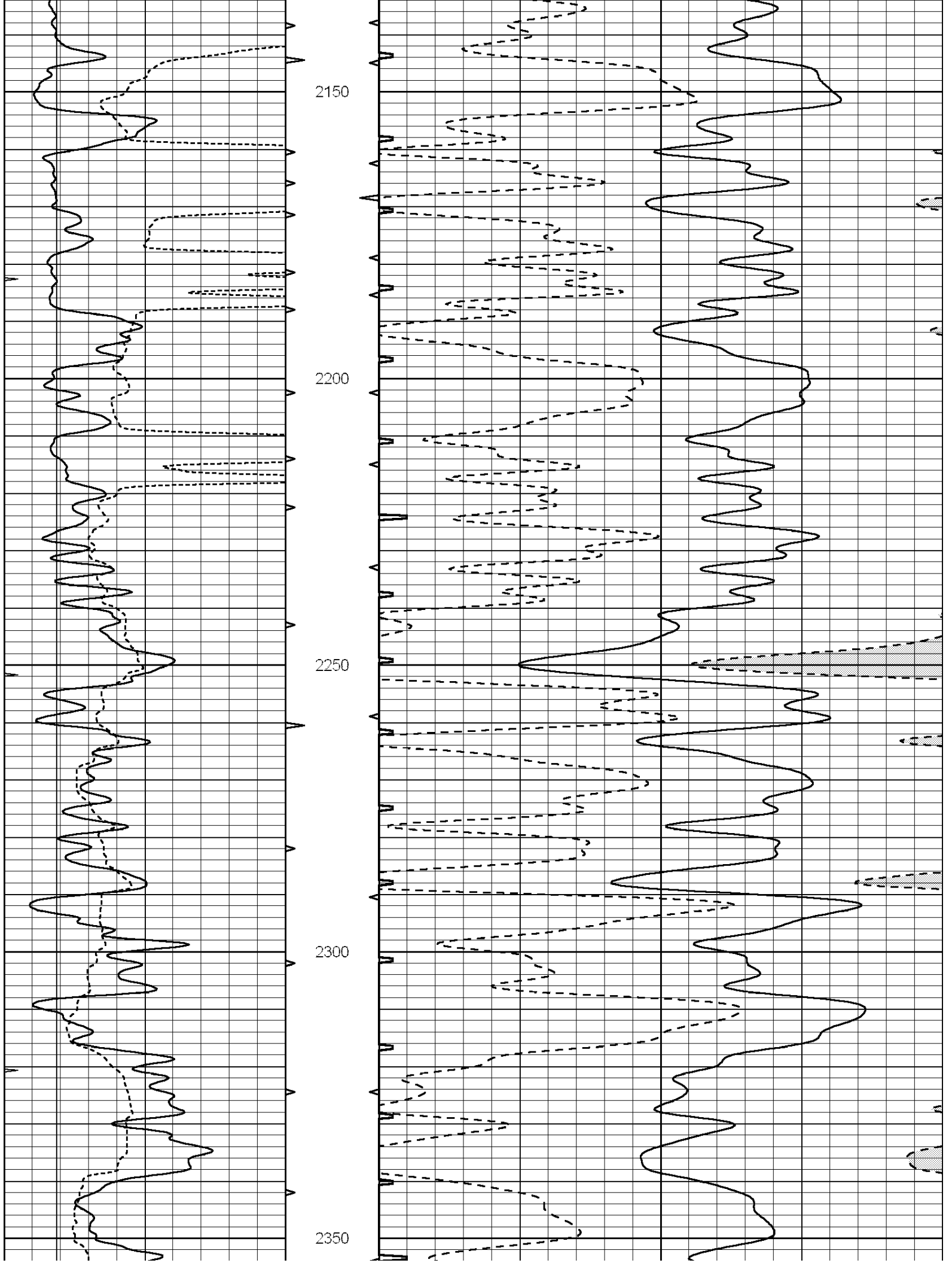


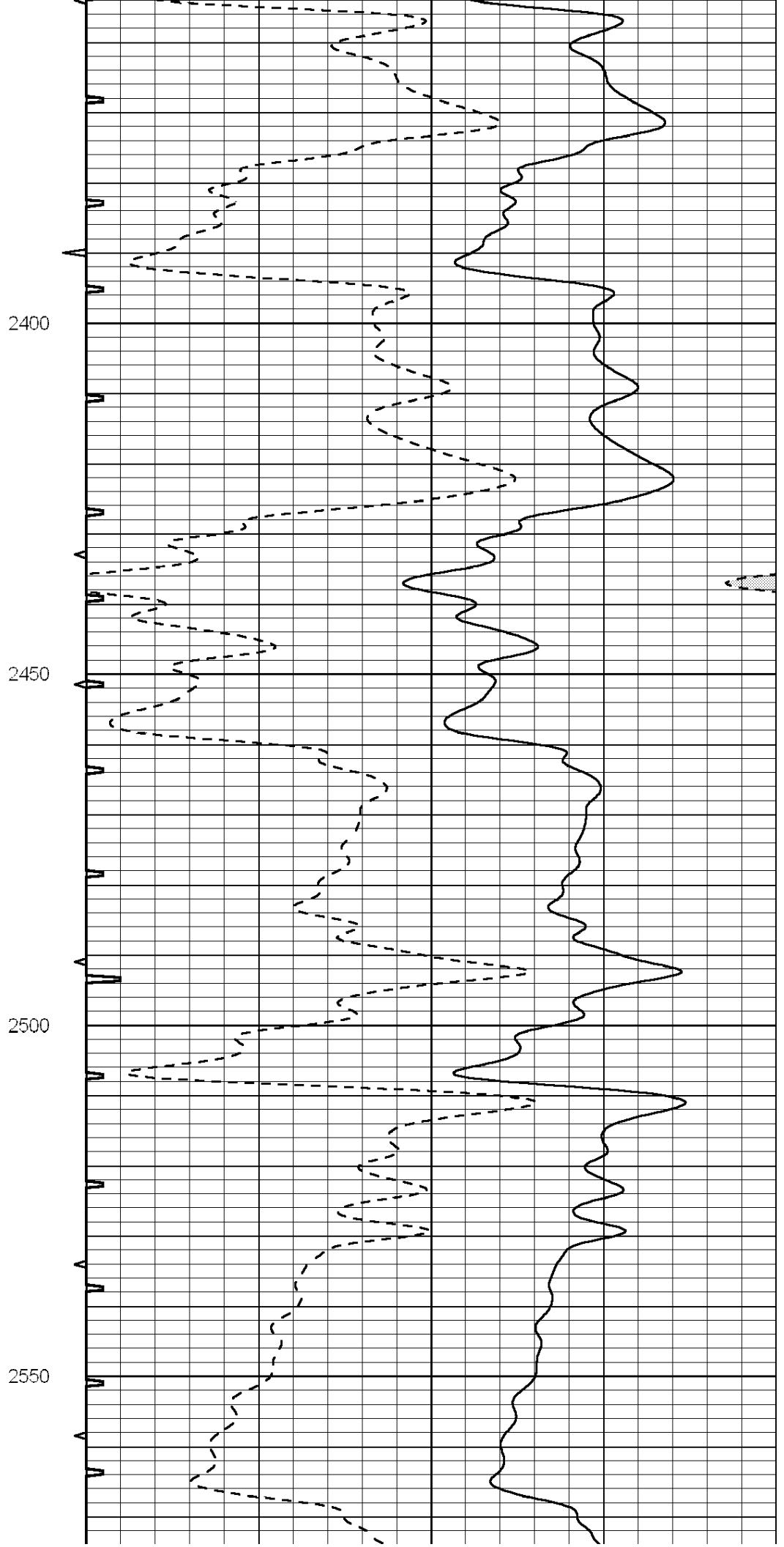
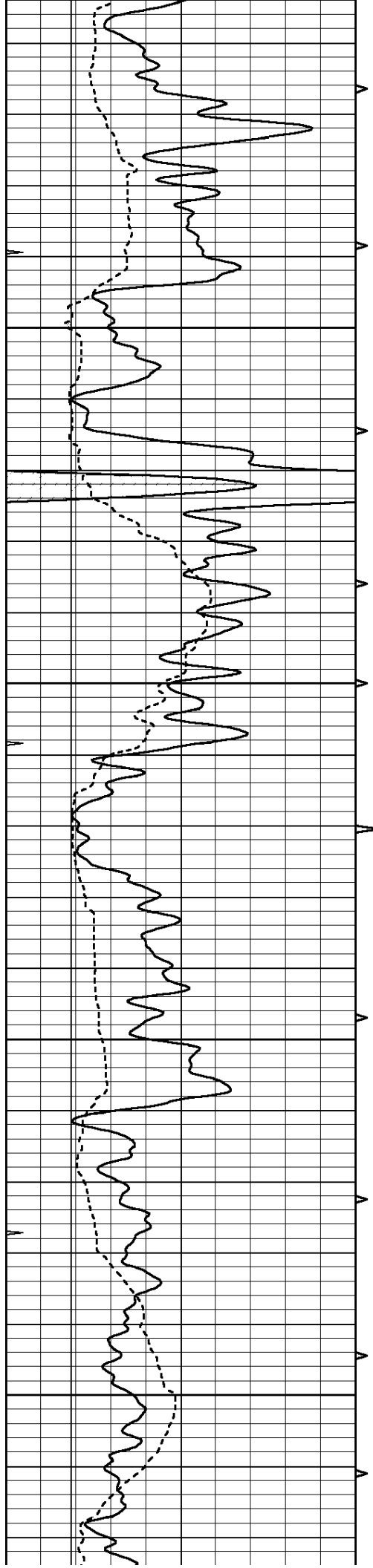


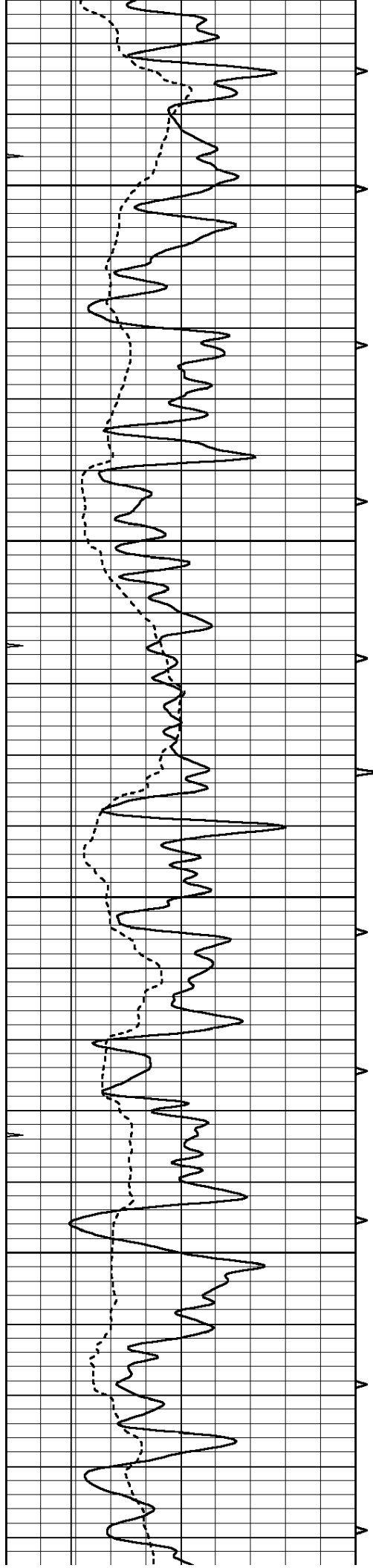










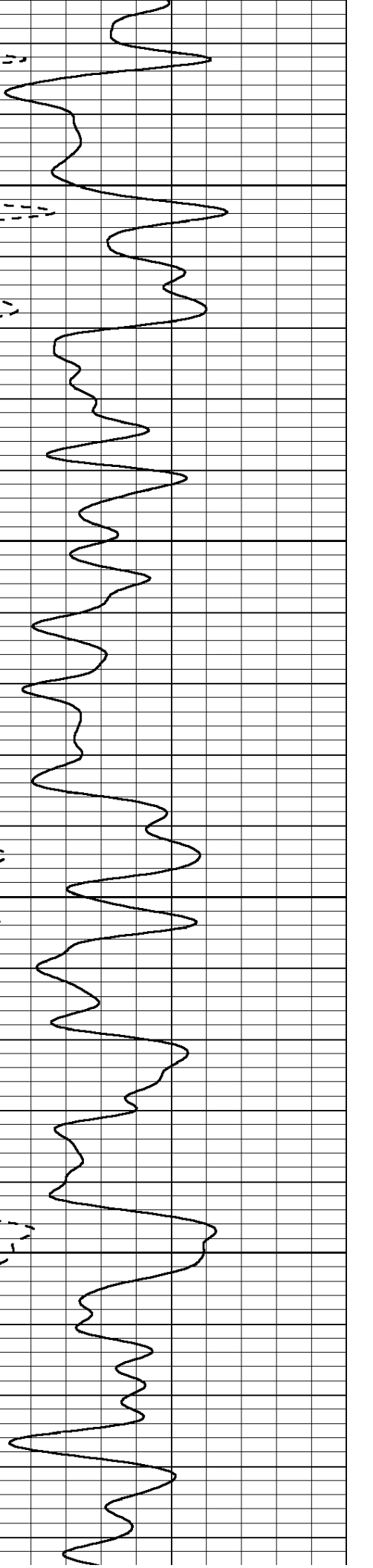
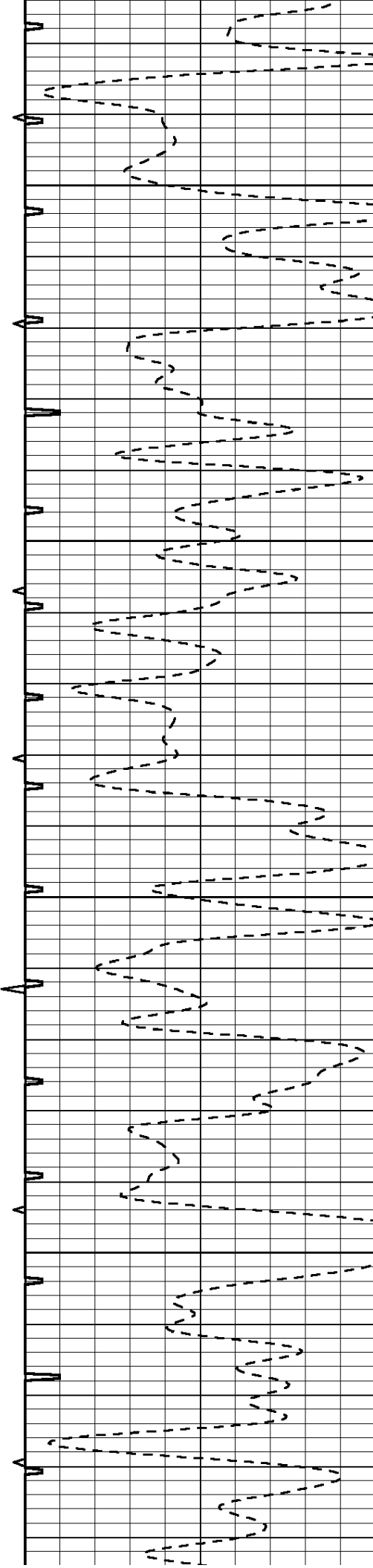


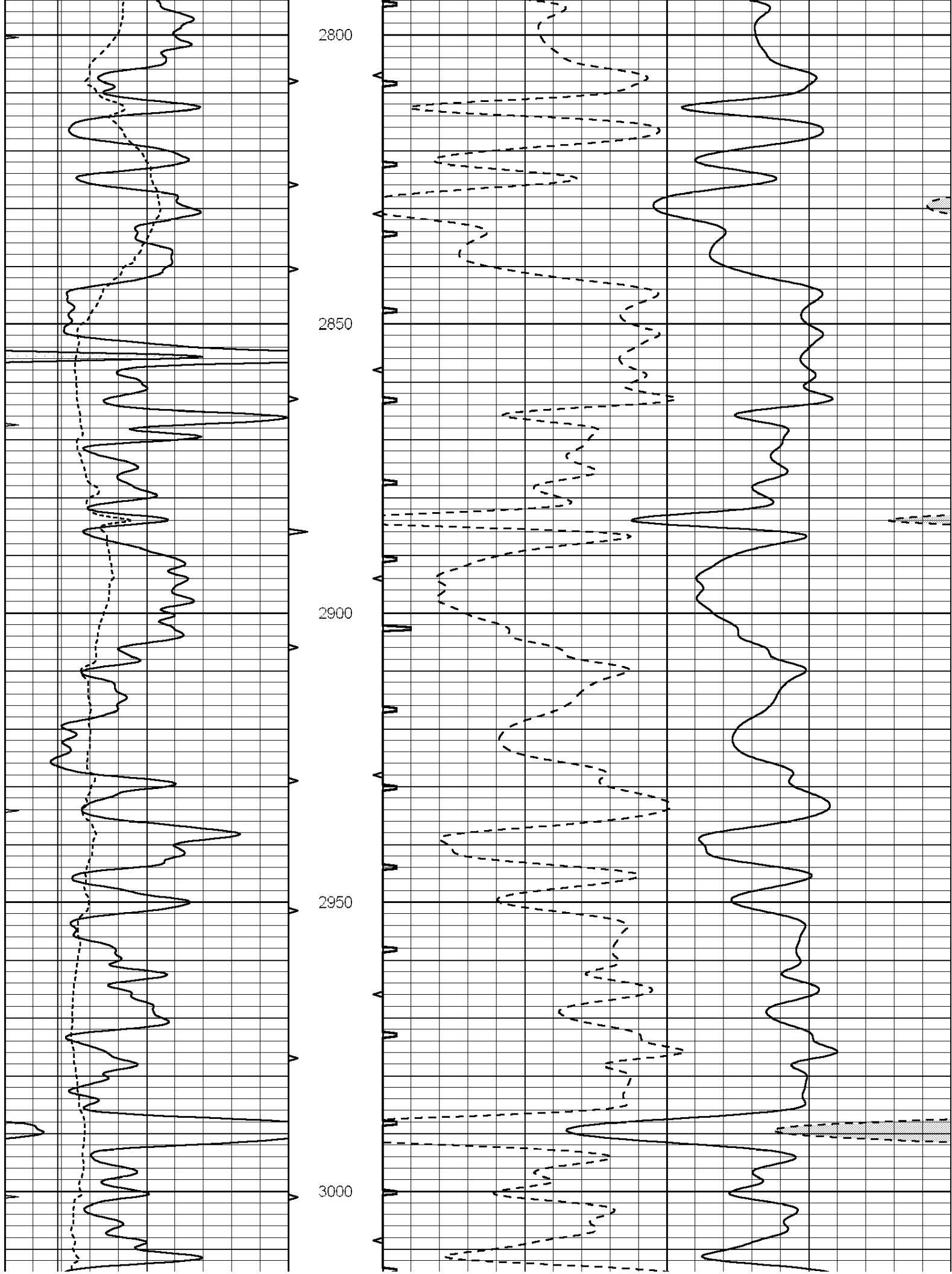
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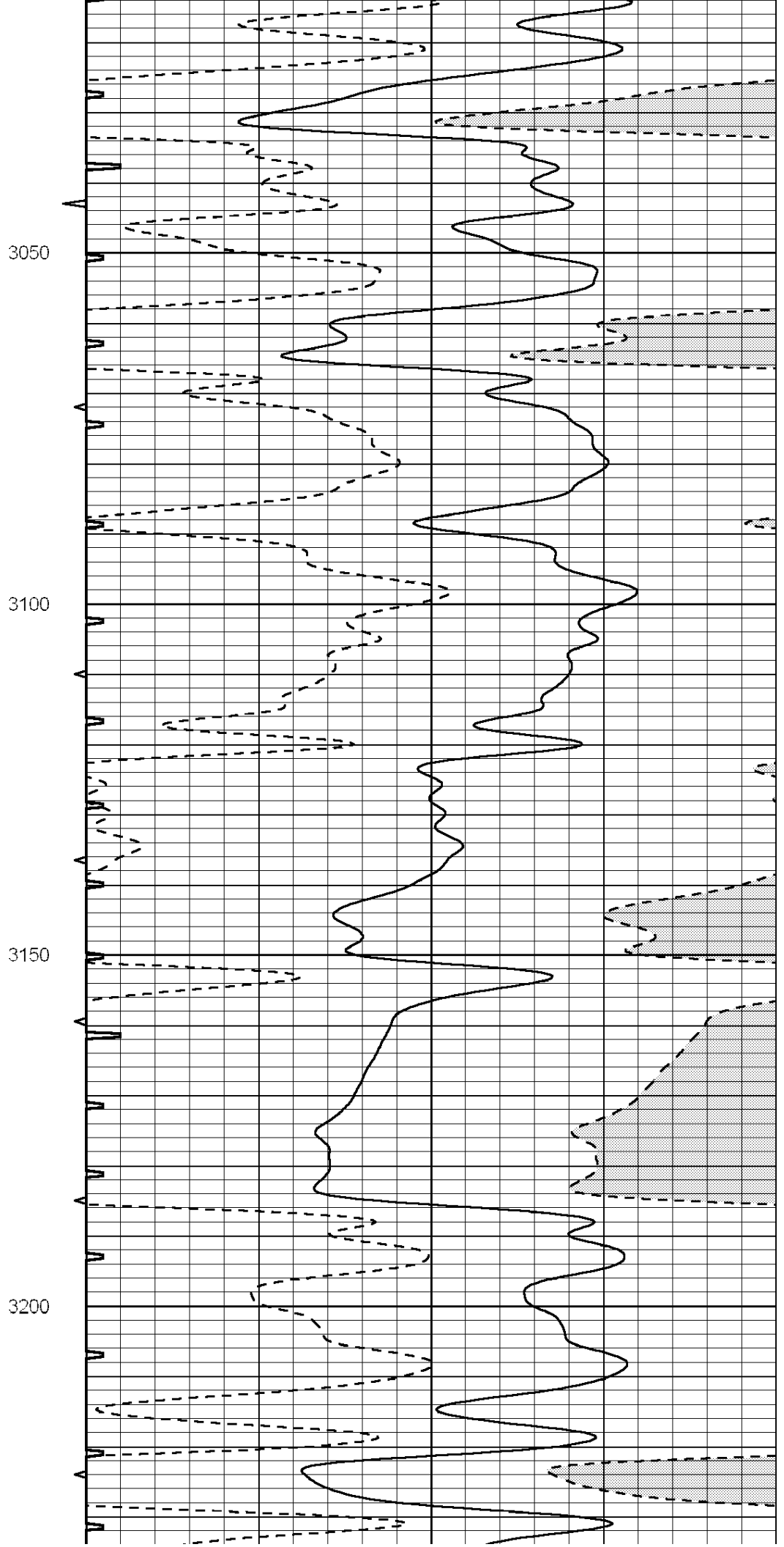
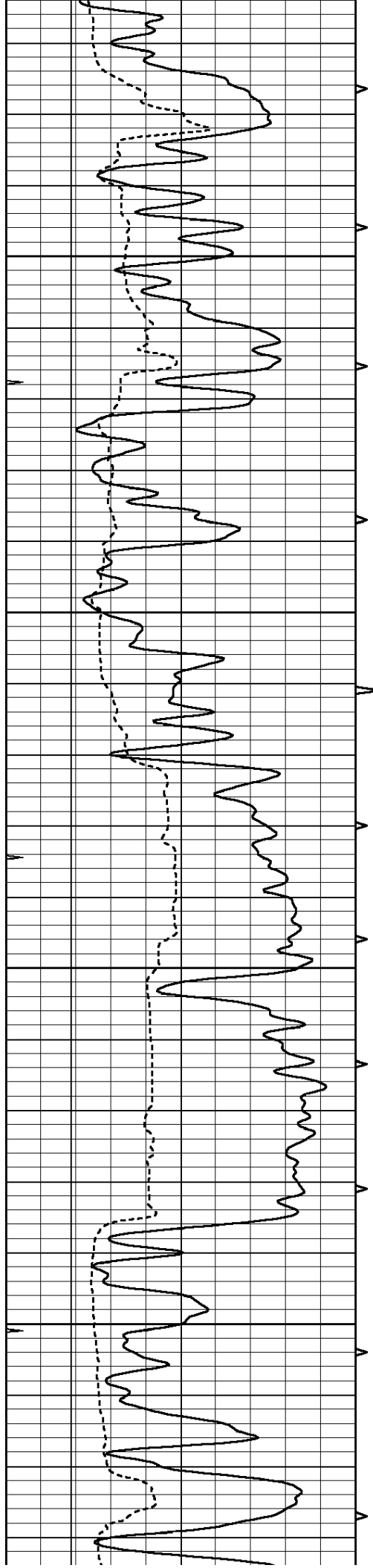
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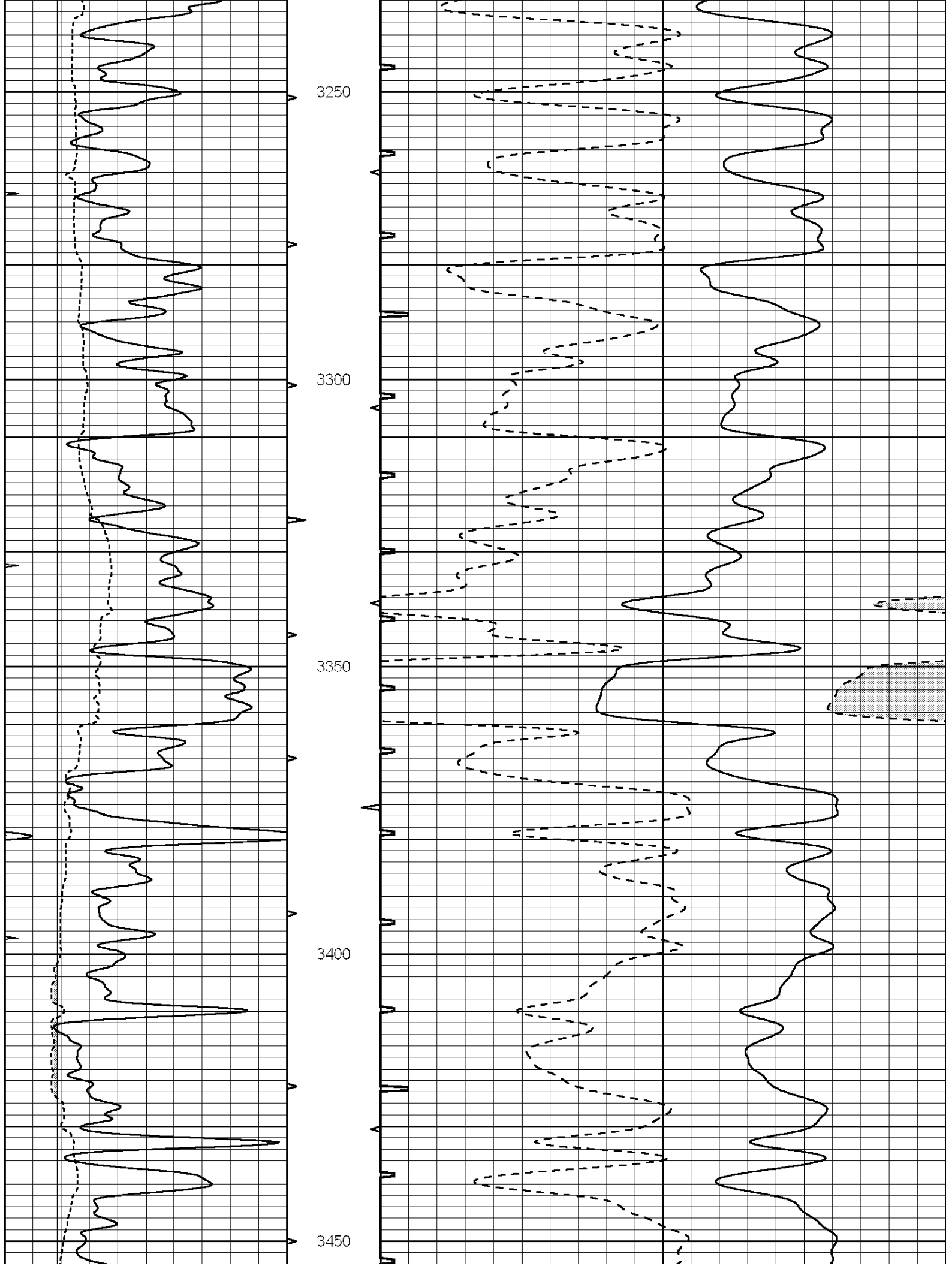
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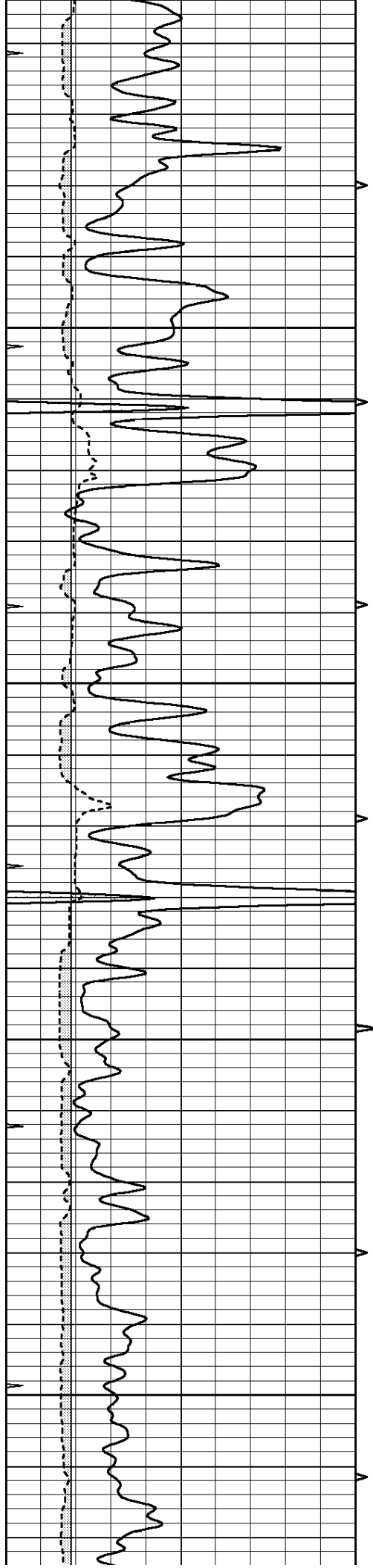
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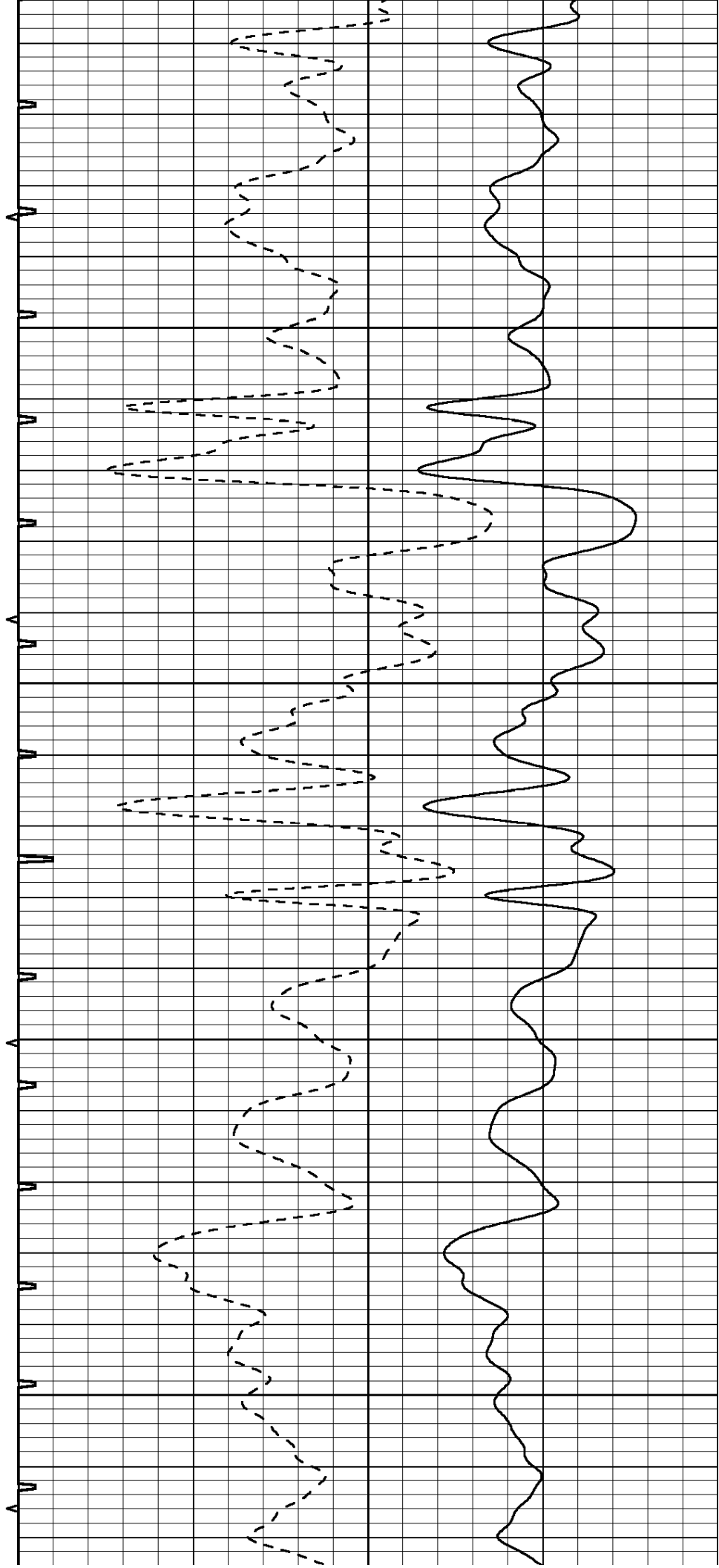


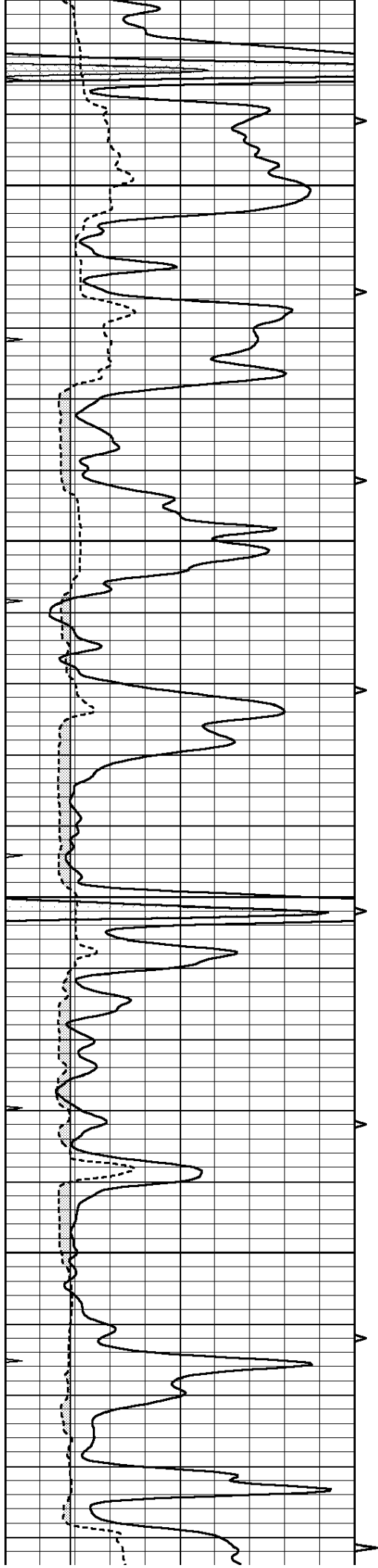
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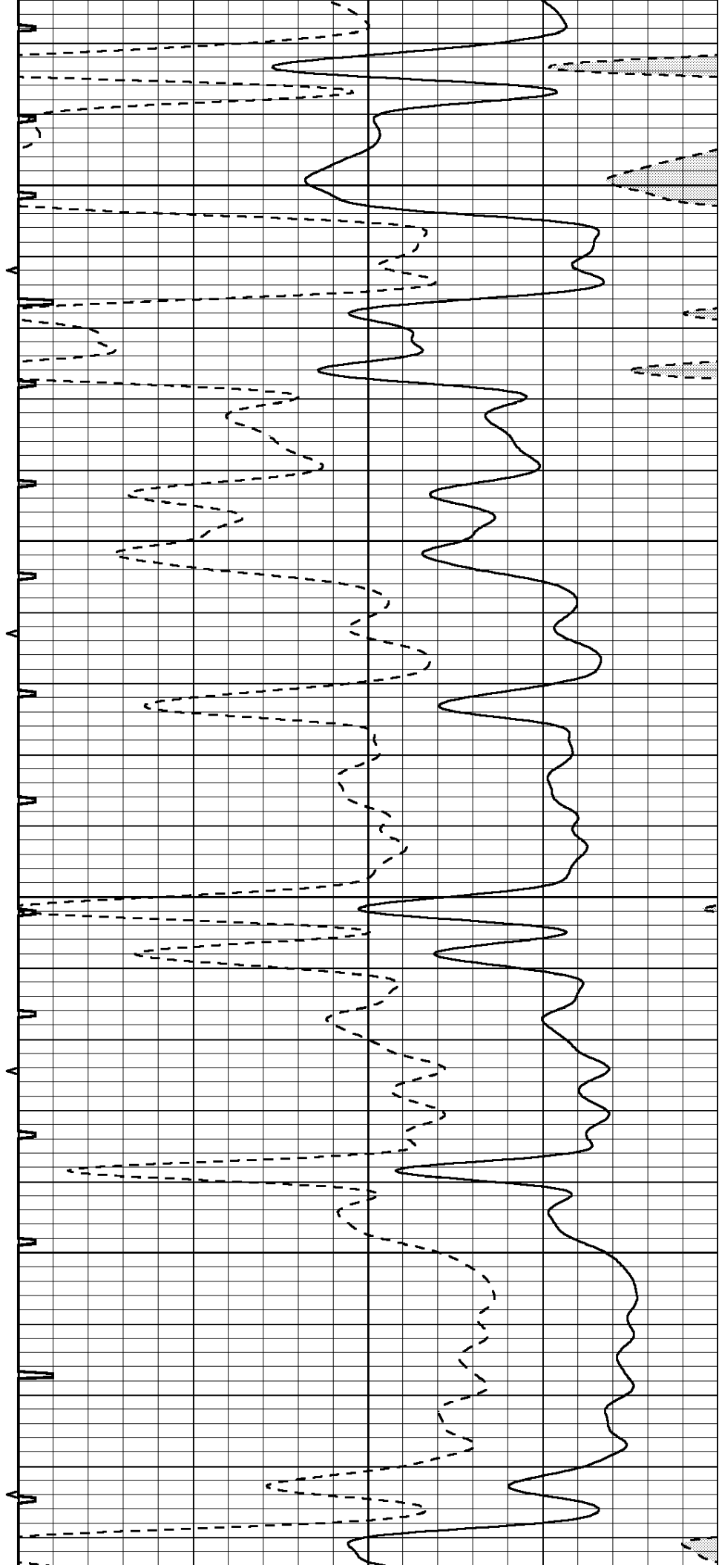


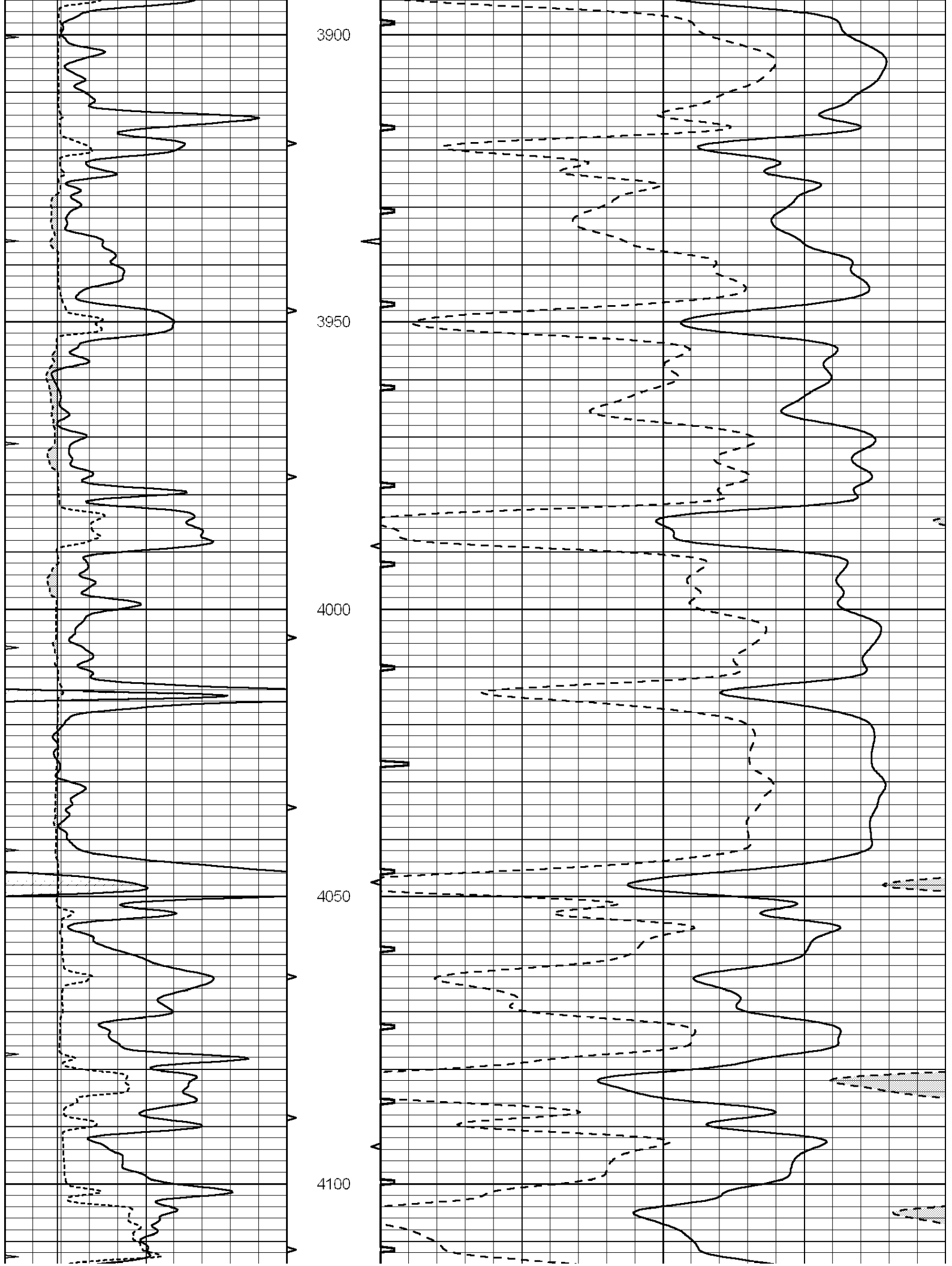
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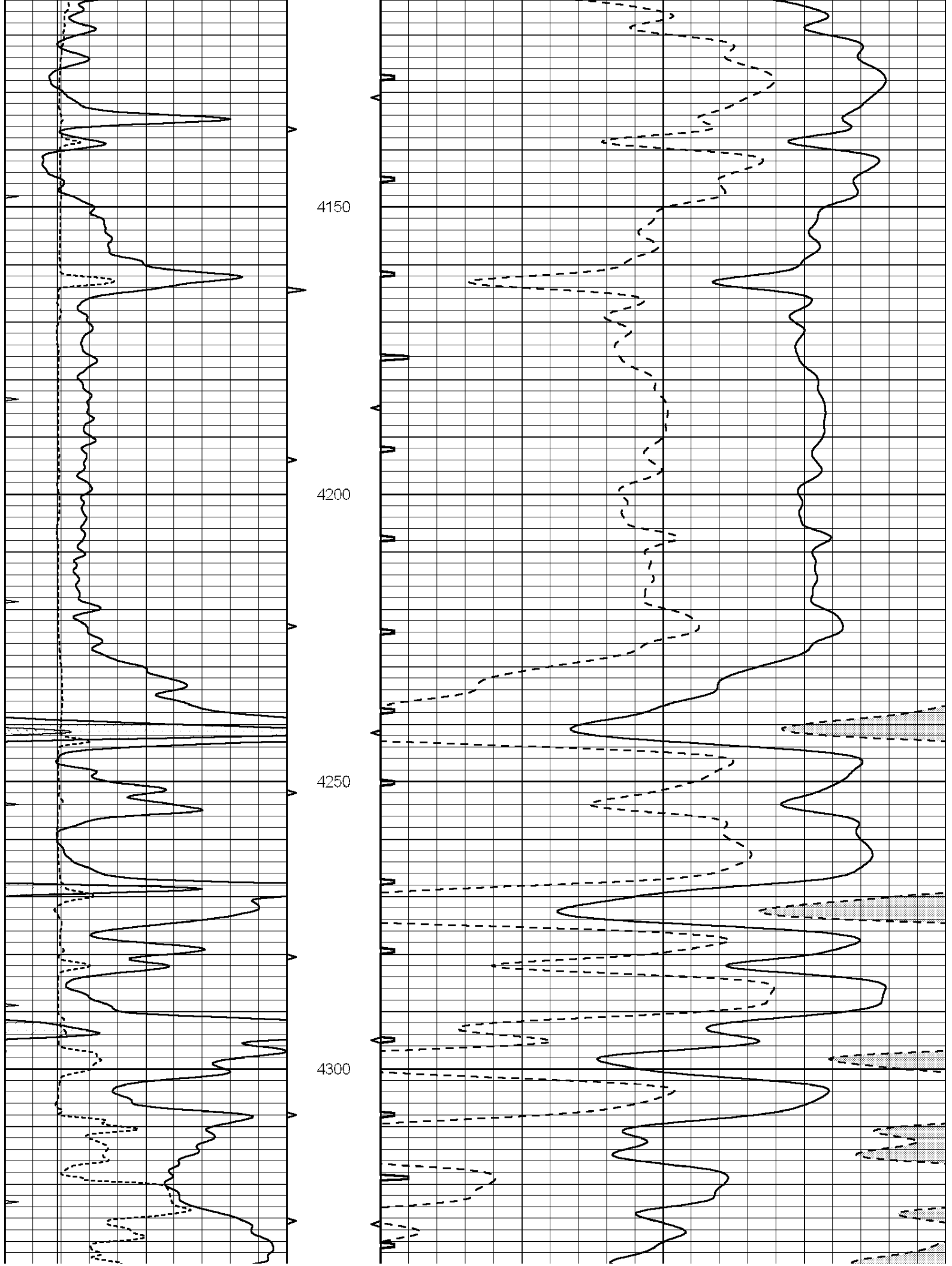
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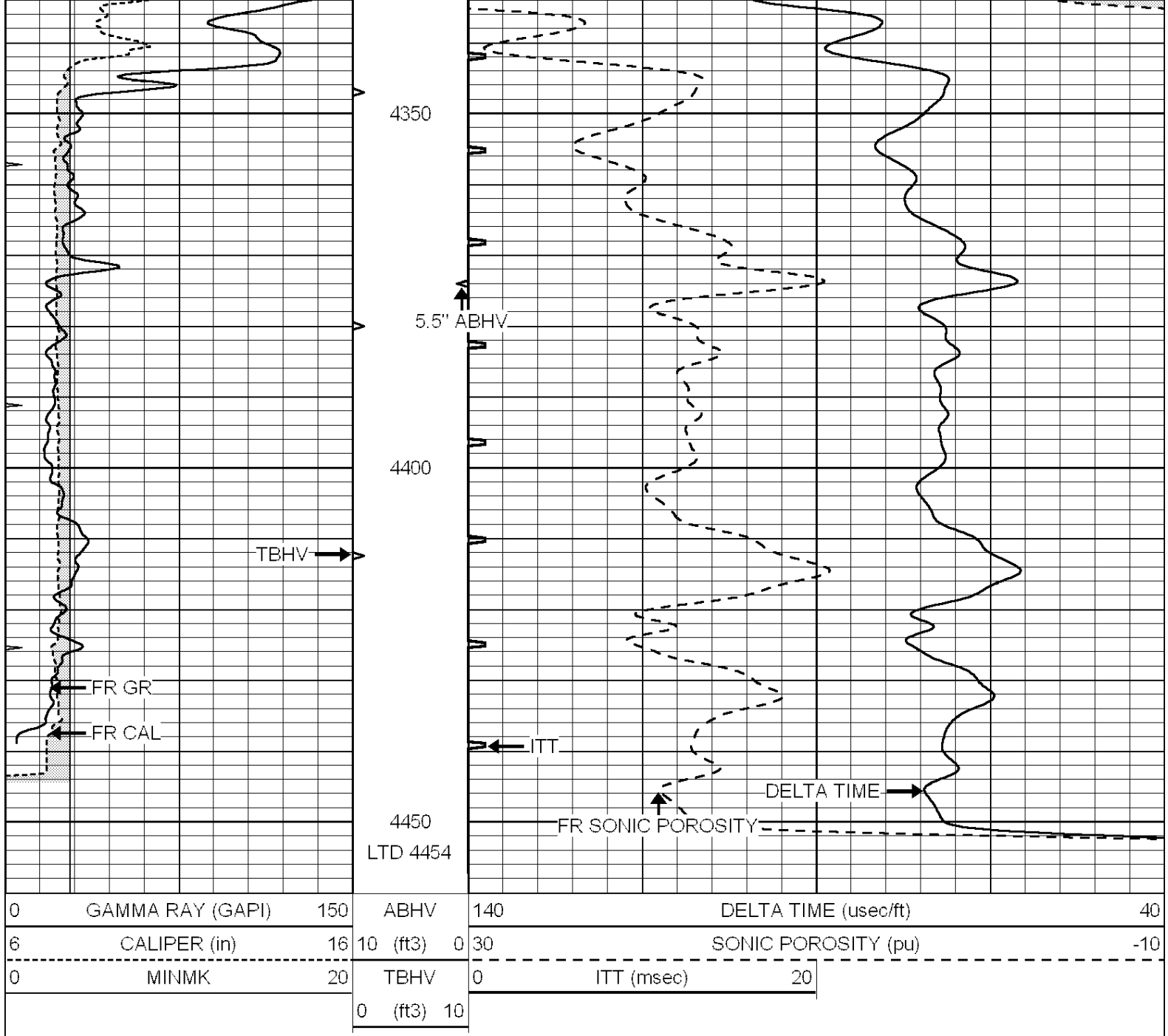
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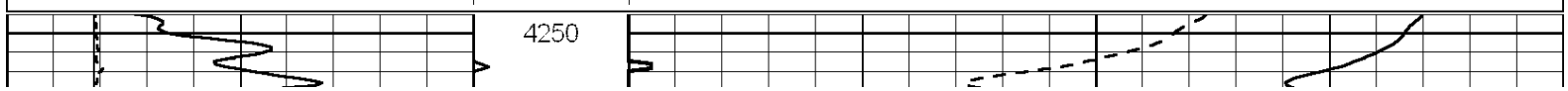


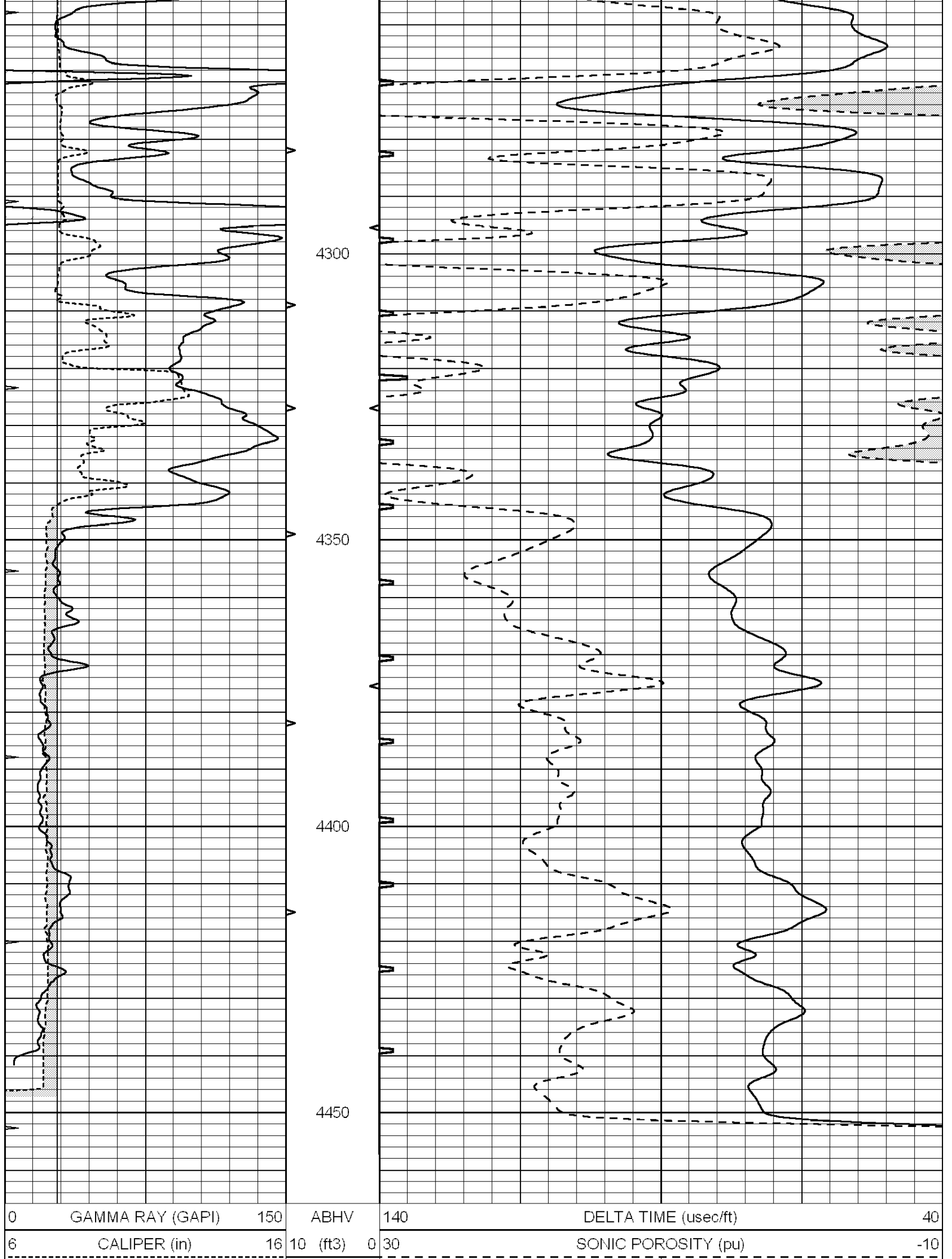


# REPEAT SECTION

Database File: 23808pe.db  
 Dataset Pathname: pass5.4  
 Presentation Format: slt  
 Dataset Creation: Sun Apr 13 19:06:43 2014  
 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
0	MINMK	20	TBHV	0	ITT (msec)	20	
			0 (ft3)	10			





0	MINMK	20	TBHV	0	ITT (msec)	20
			0 (ft3) 10			