



**COMPLETION
& PRODUCTION
SERVICES CO.**

**SONIC
LOG**

Company I.A. OPERATING, INC.
Well ARCHER #21-1
Field
County SHERIDAN State KANSAS

Company I.A. OPERATING, INC.
Well ARCHER #21-1
Field
County SHERIDAN
State KANSAS

Location: API #: 15-179-21328-0000
SEC 21 TWP 8S RGE 26W
2456' FSL & 545' FEL
NW - NE - NE - SE
Permanent Datum GROUND LEVEL Elevation 2483
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL
DIL
Elevation
K.B. 2491
D.F. 2489
G.L. 2483

Date	5/1/13		
Run Number	TWO		
Depth Driller	3925		
Depth Logger	3925		
Bottom Logged Interval	3915		
Top Log Interval	200		
Casing Driller	222		
Casing Logger	221		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3 / 66	CHLORIDES 1,000 PPM	
pH / Fluid Loss	9.5 / 7.4		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	1.40 @ 60F		
Rmf @ Meas. Temp	1.05 @ 60F		
Rmc @ Meas. Temp	1.68 @ 60F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	0.73 @ 115F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	115F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	JEFF GRONEWEG		
Witnessed By	TERRY McLEOD		

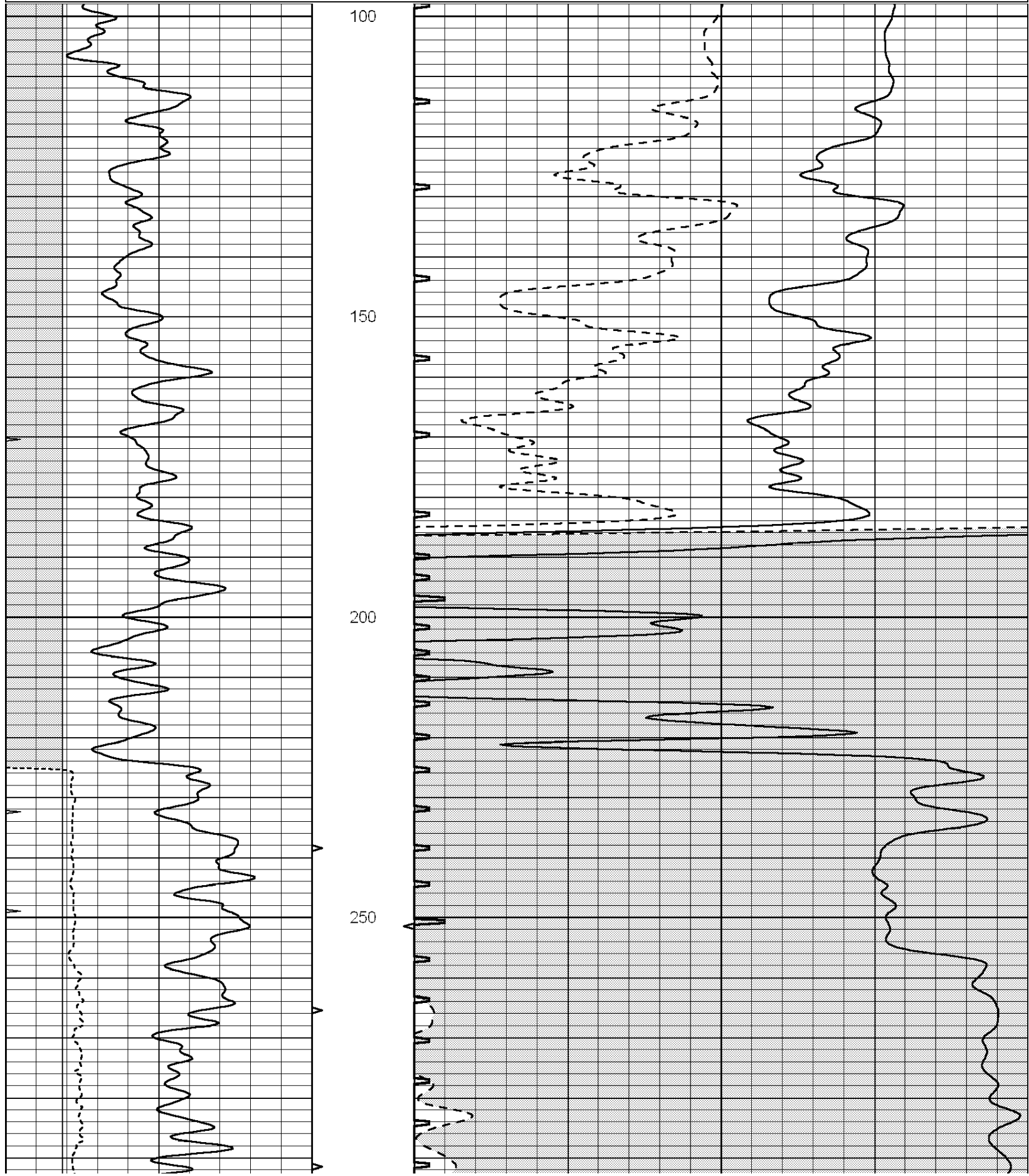
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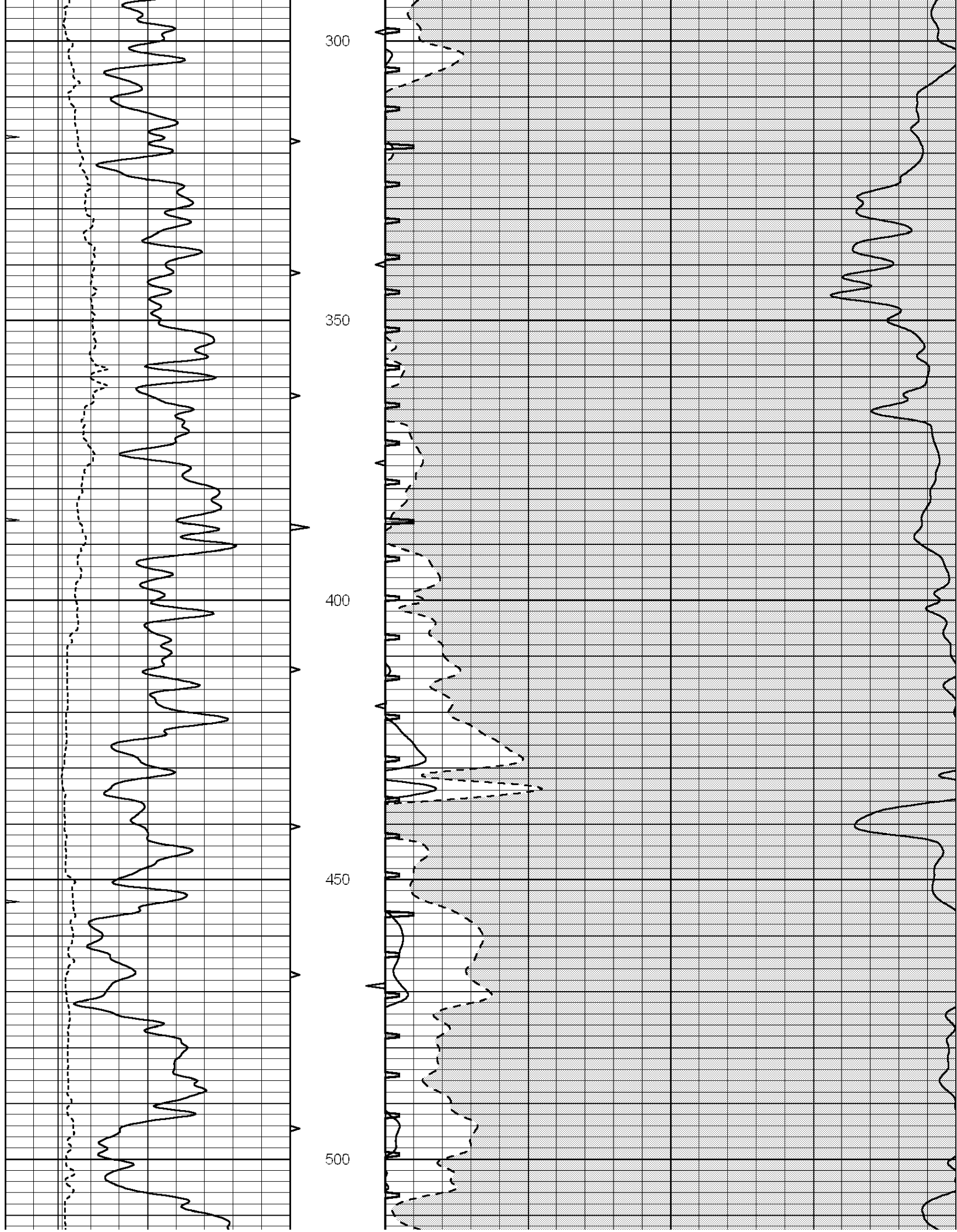
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

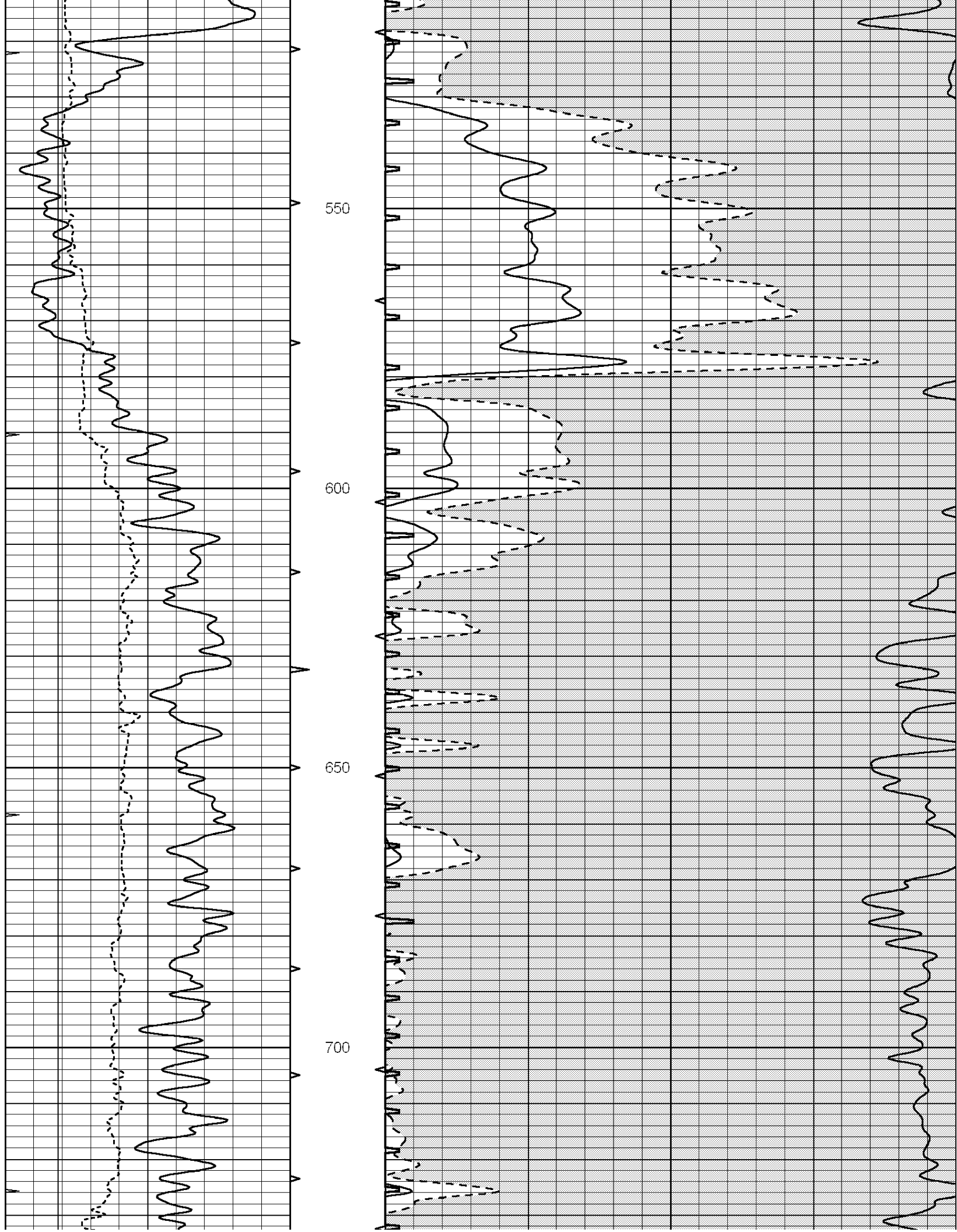
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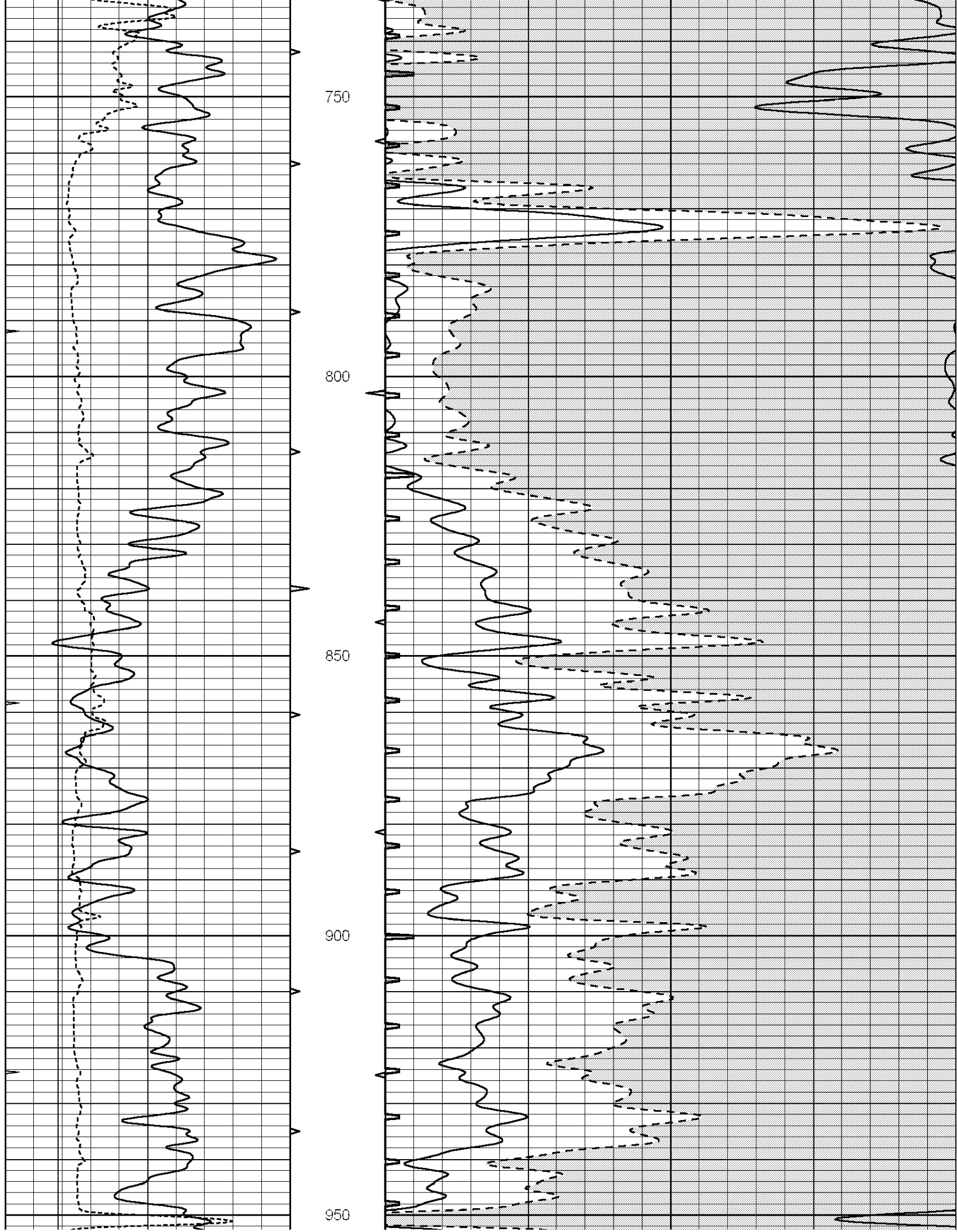
NABORS COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: HILL CITY, KS - WEST ON HWY 24 TO COUNTY LINE - 6 MILES WEST TO RD 90
.3 MILES SOUTH TO RD 10 - 1 MILE EAST TO RD 100 - TURN NORTHEAST ON DEAD END RD
EAST 1 MILE - SOUTH 1 MILE TO CATTLE GUARD - .2 MILES SOUTH TO NORTH SIDE OF CATTLE PEN
.7 MILES NORTH - EAST - SOUTH TO Y IN RD - TAKE Y .7 MILES NORTH - EAST TO GATE
.5 MILES NORTH TO LOCATION

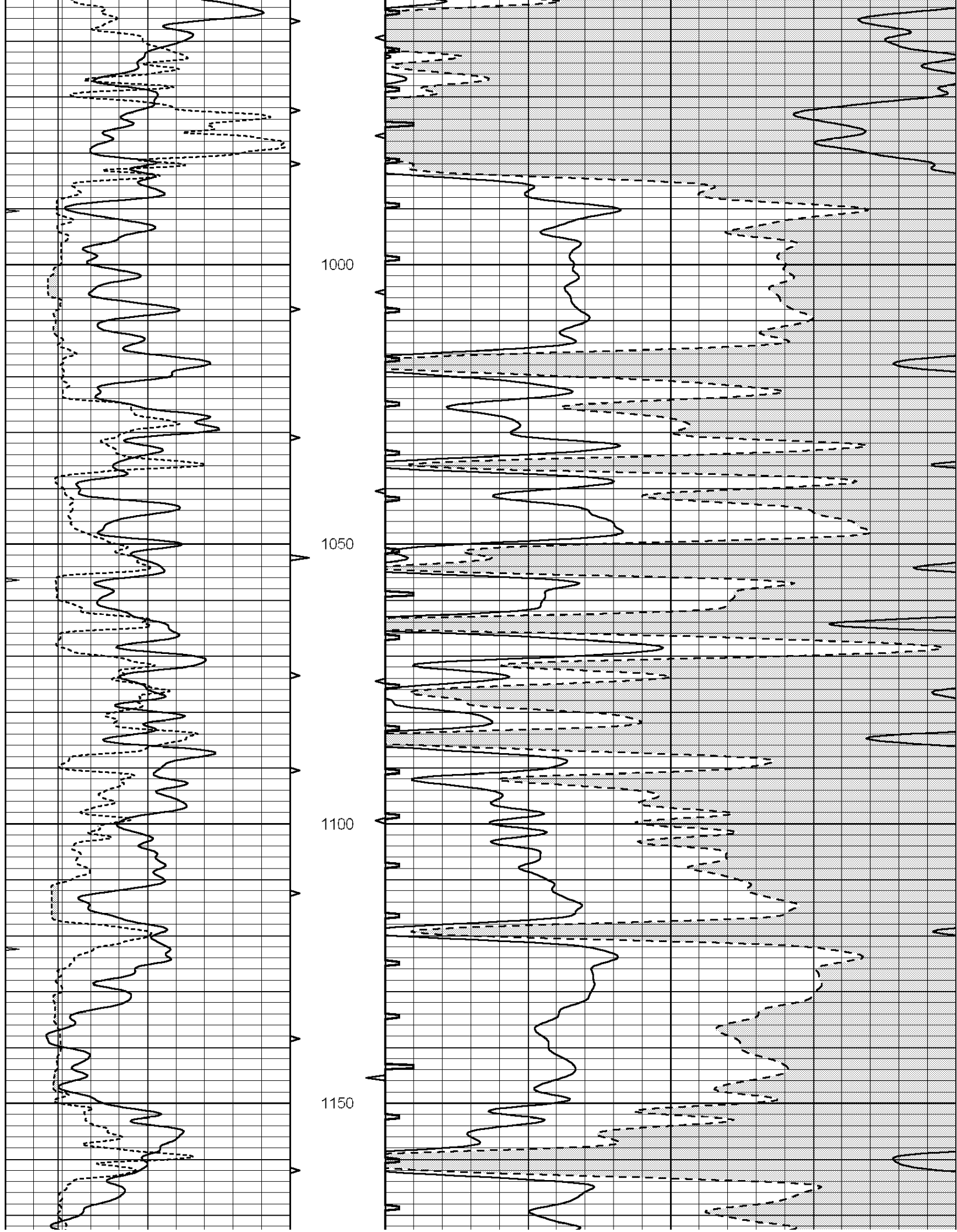
0	GAMMA RAY (GAPI)	150	ABHV	140	DELTA TIME (usec/ft)	40
6	MELCAL (in)	16	10 (ft3)	0 30	SONIC POROSITY (pu)	-10
0	MINMK	20	TBHV	0	ITT (msec)	20
			0 (ft3)	10		

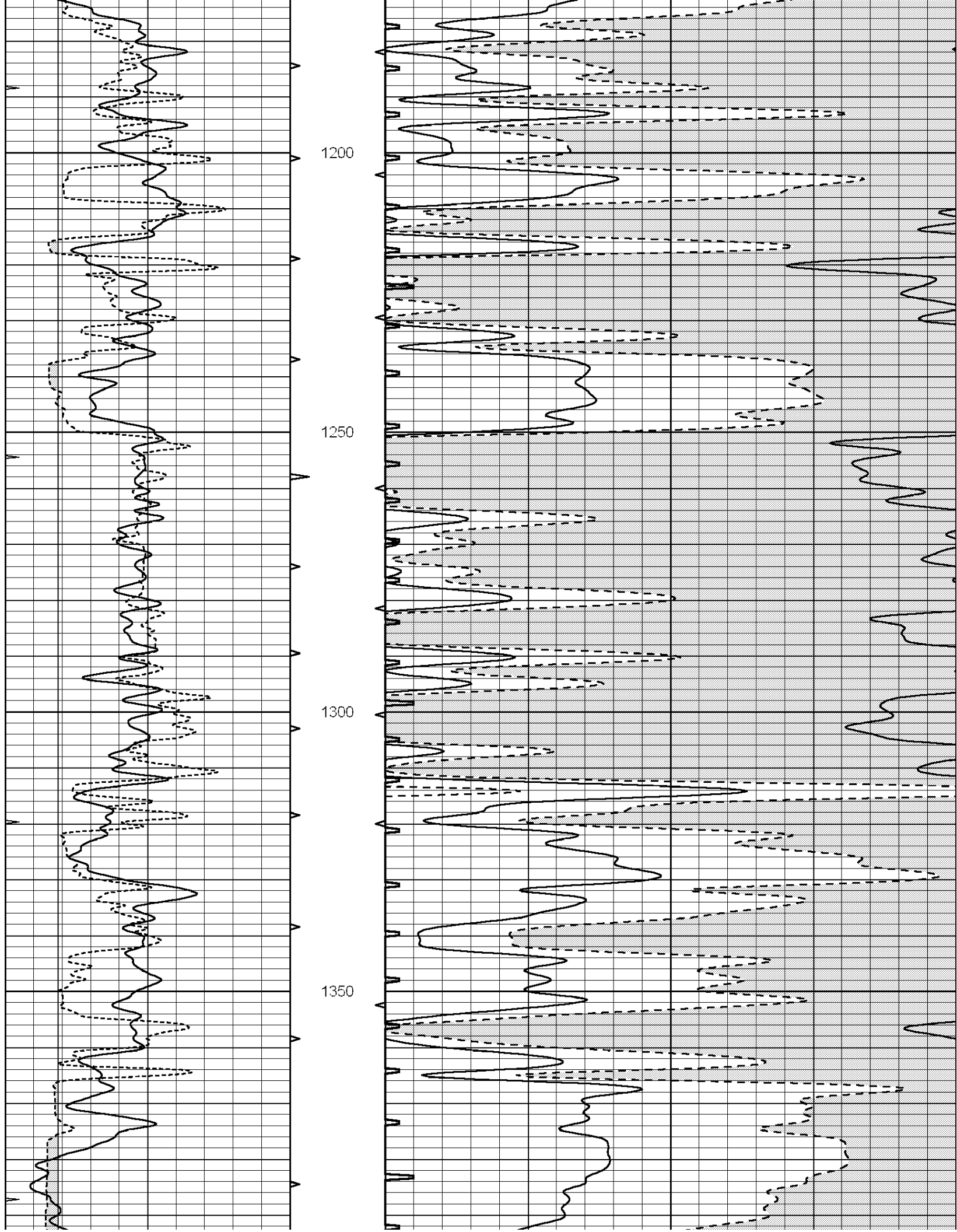


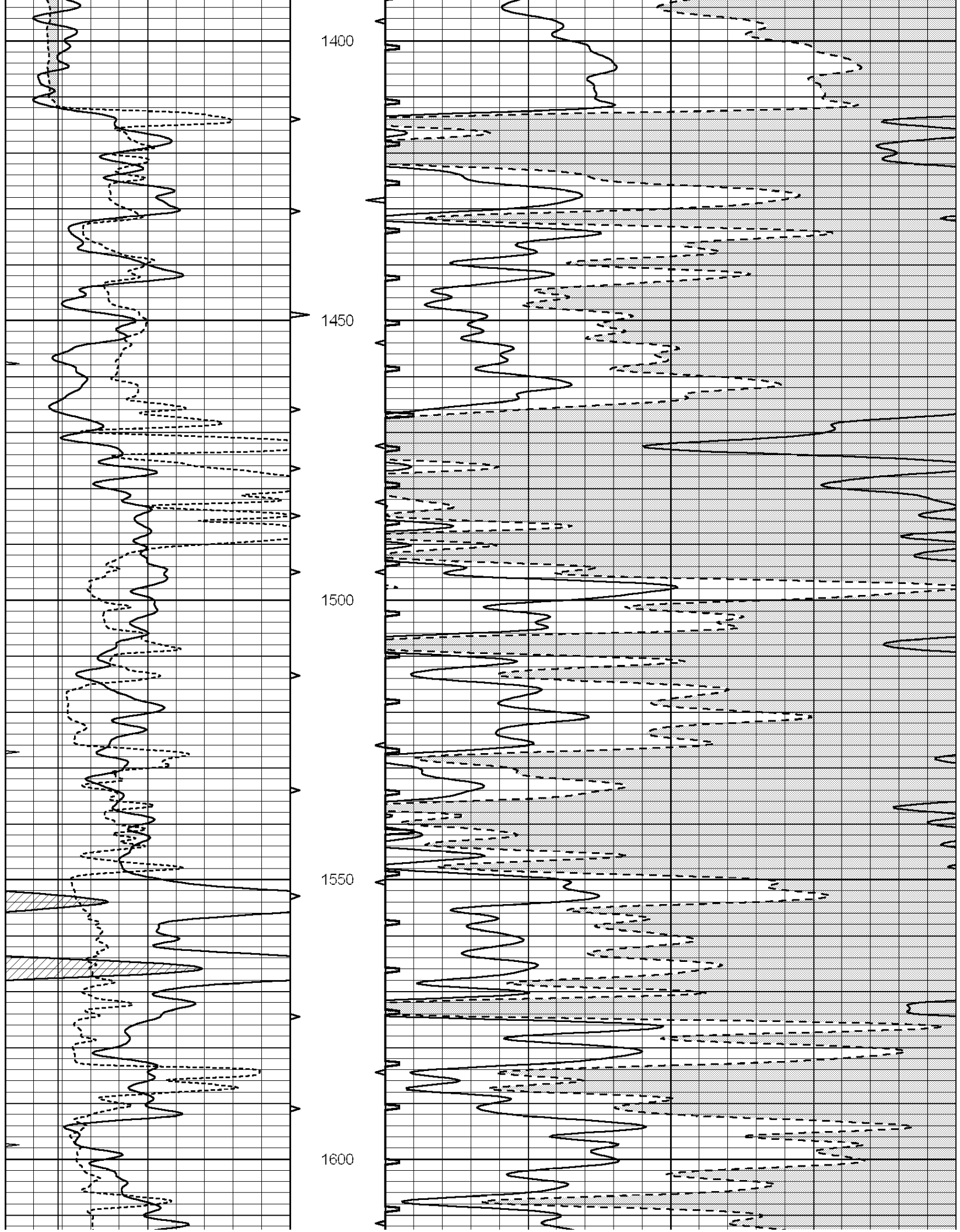


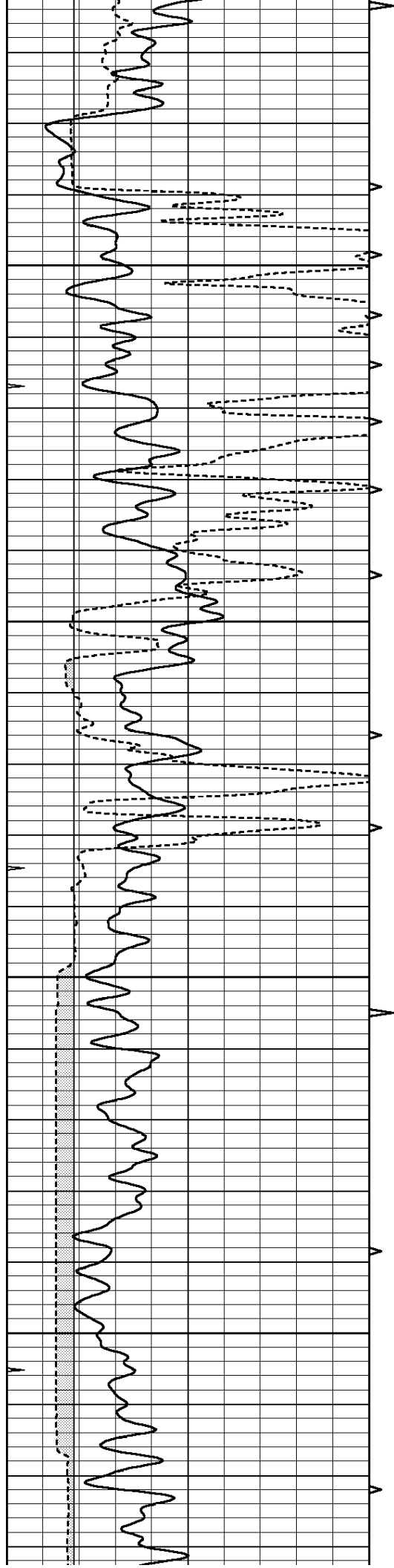










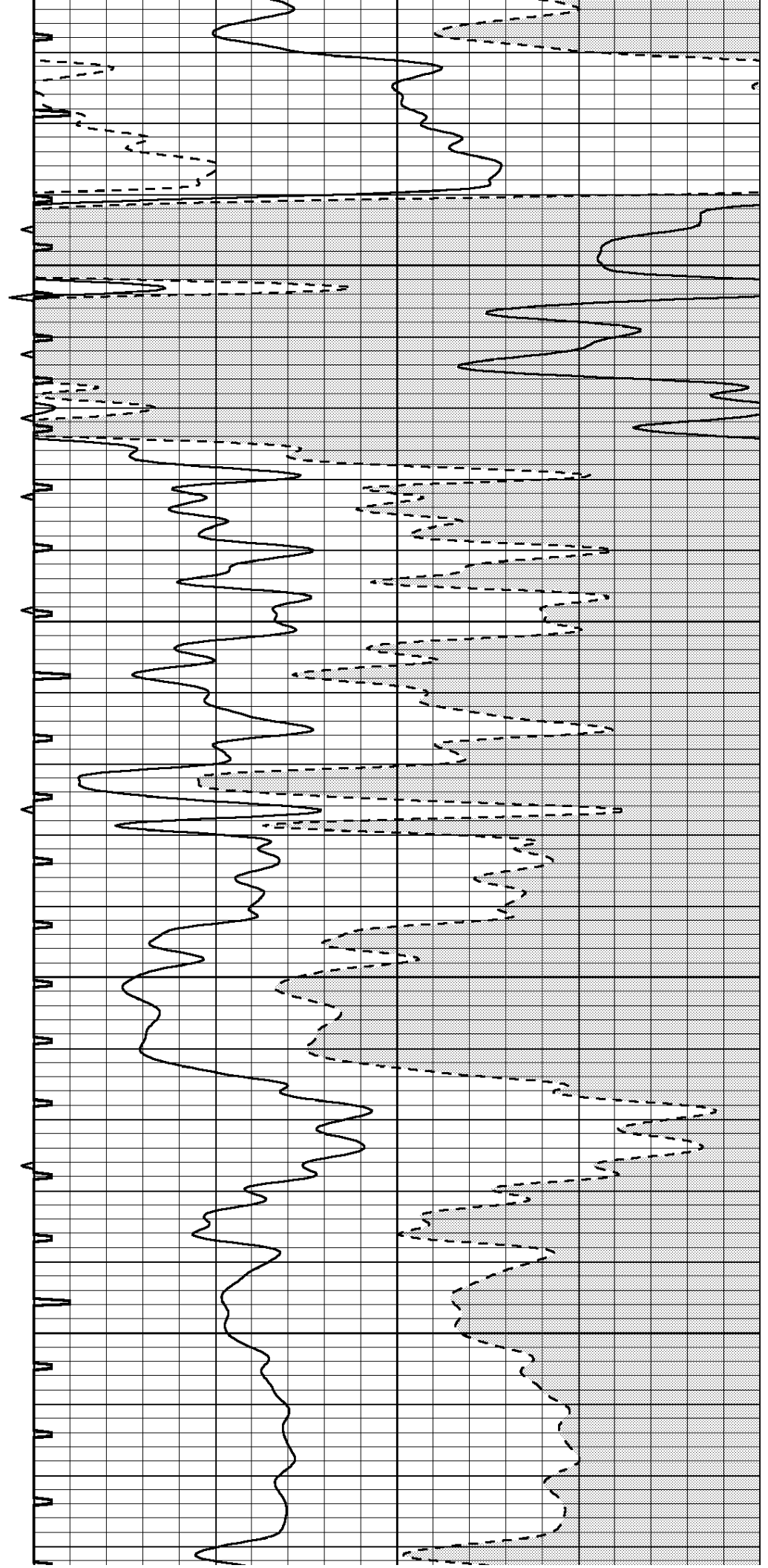


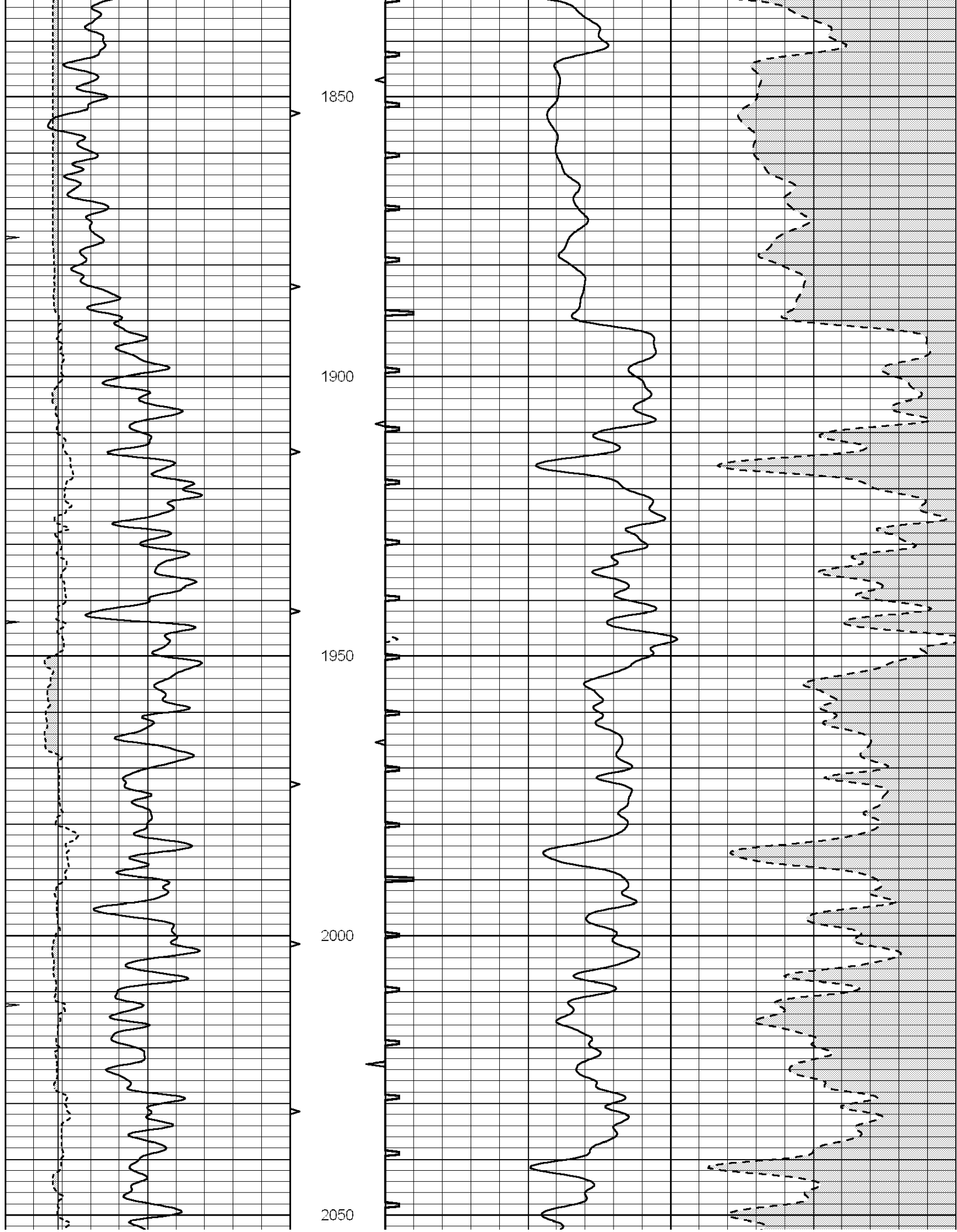
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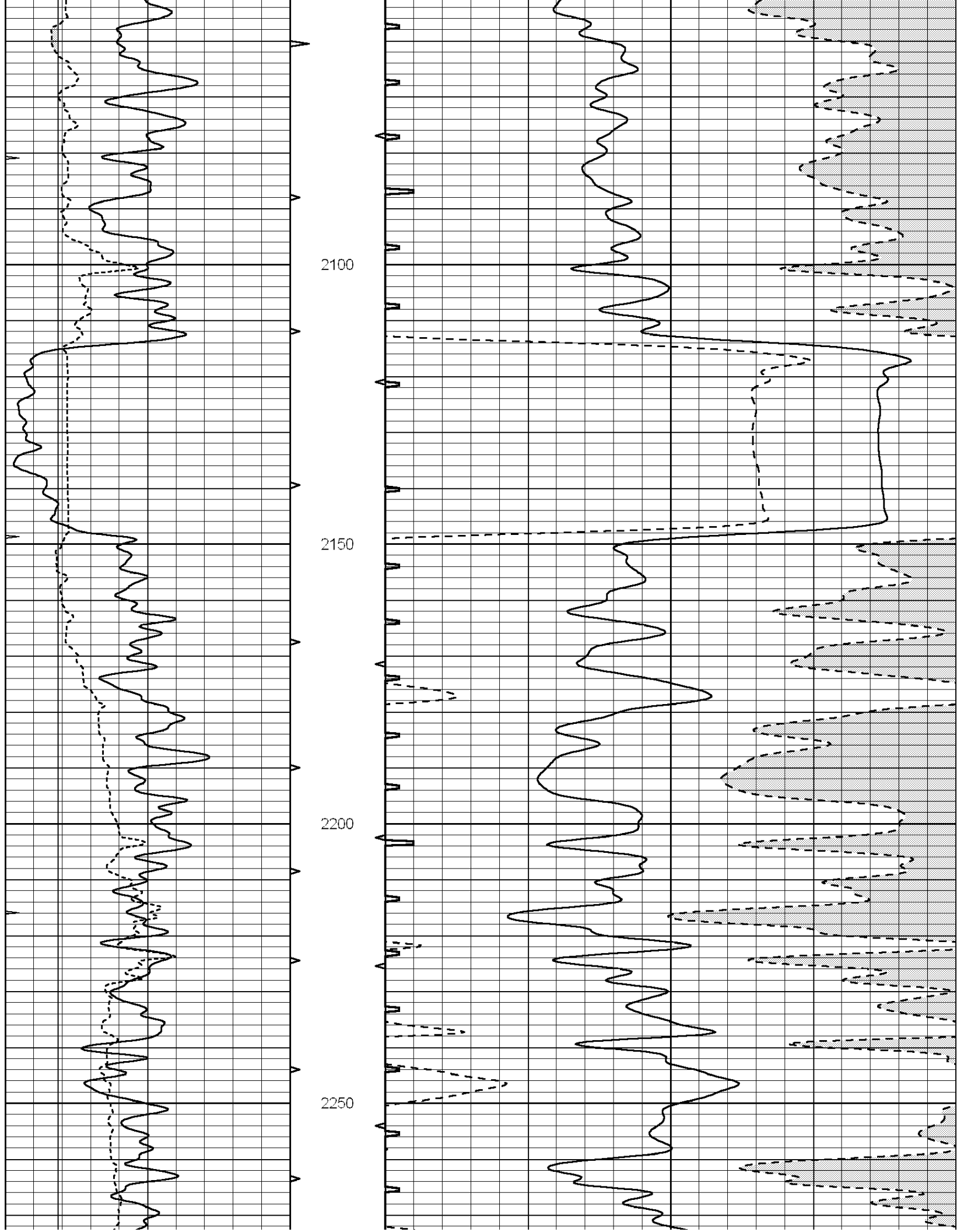
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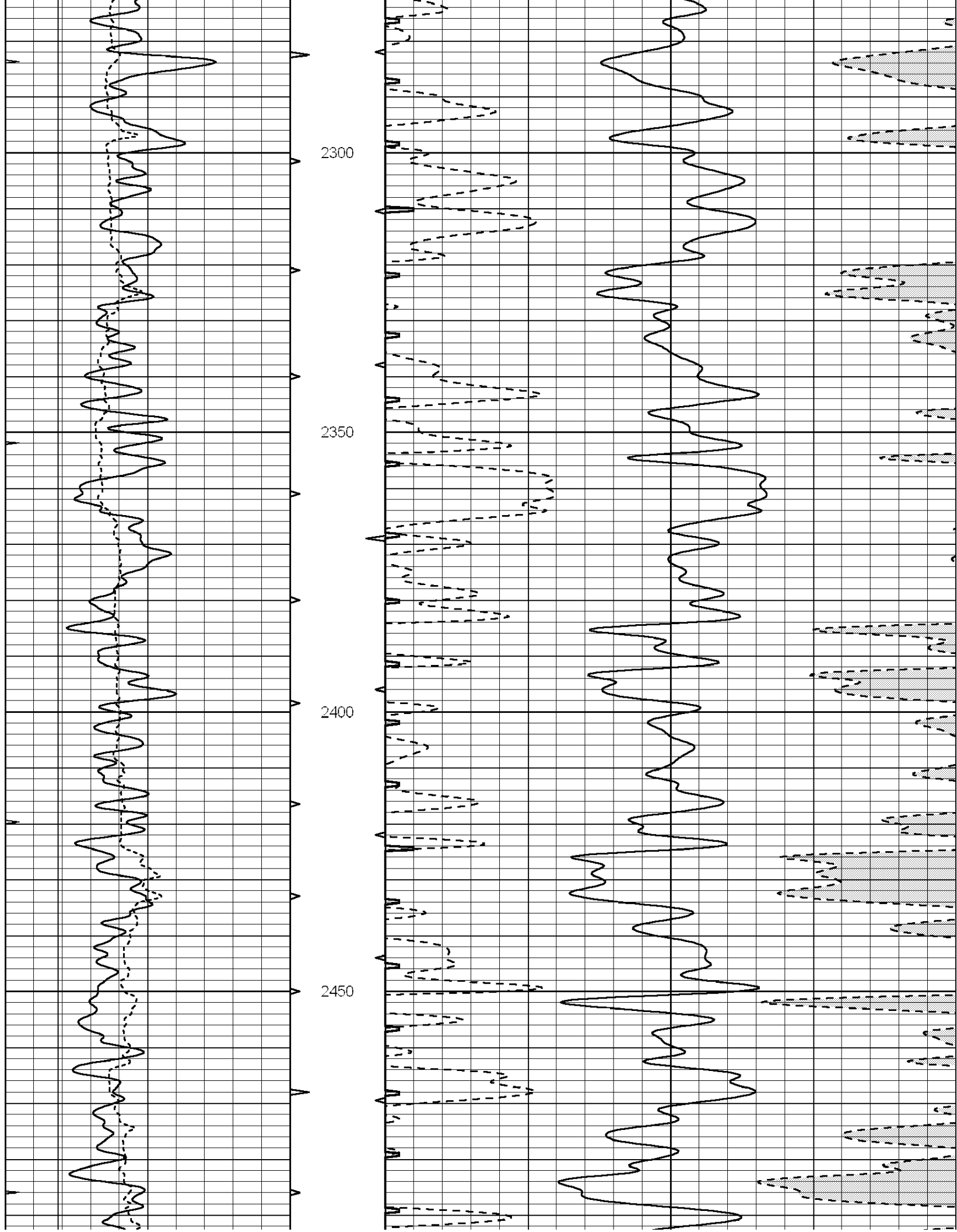
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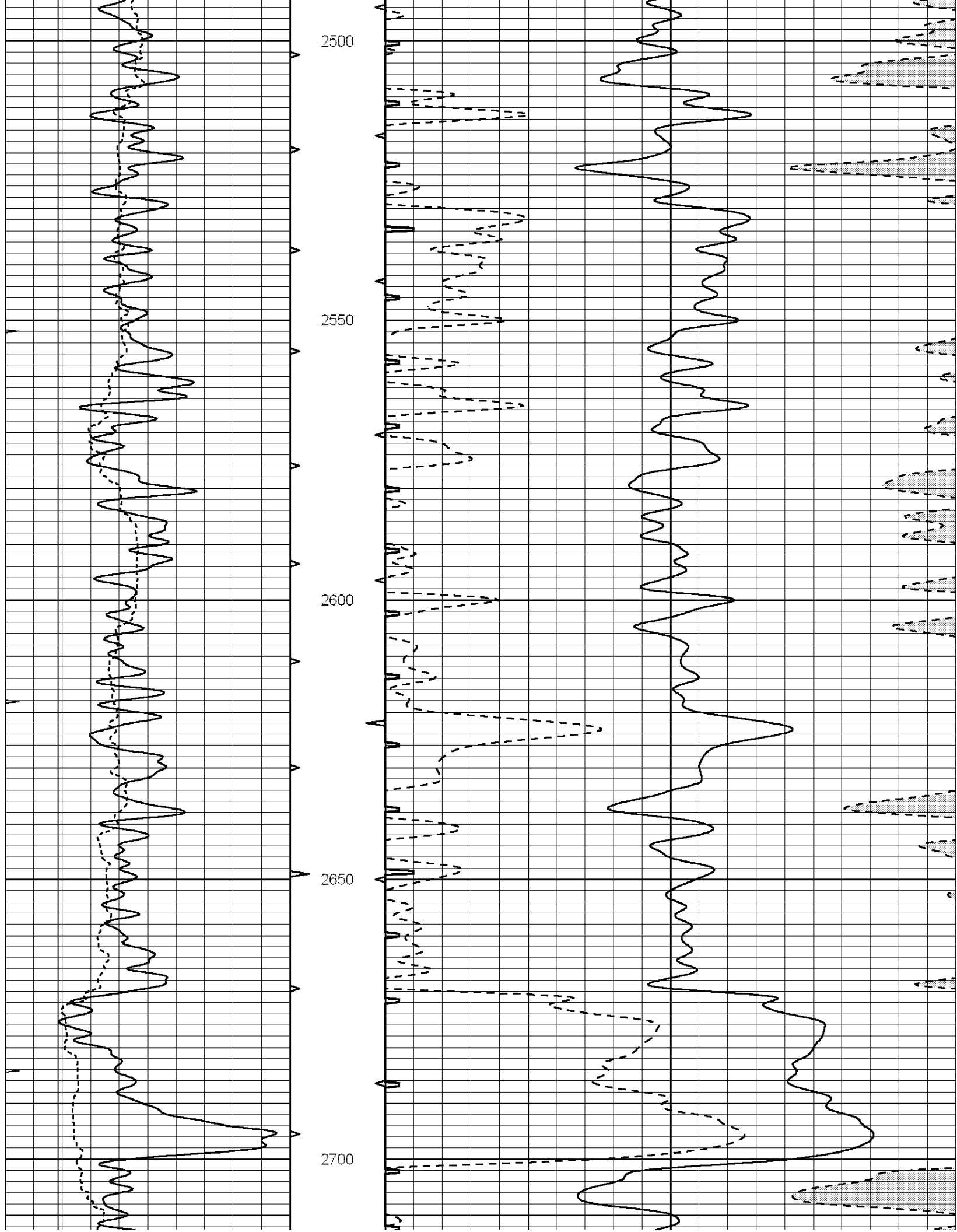
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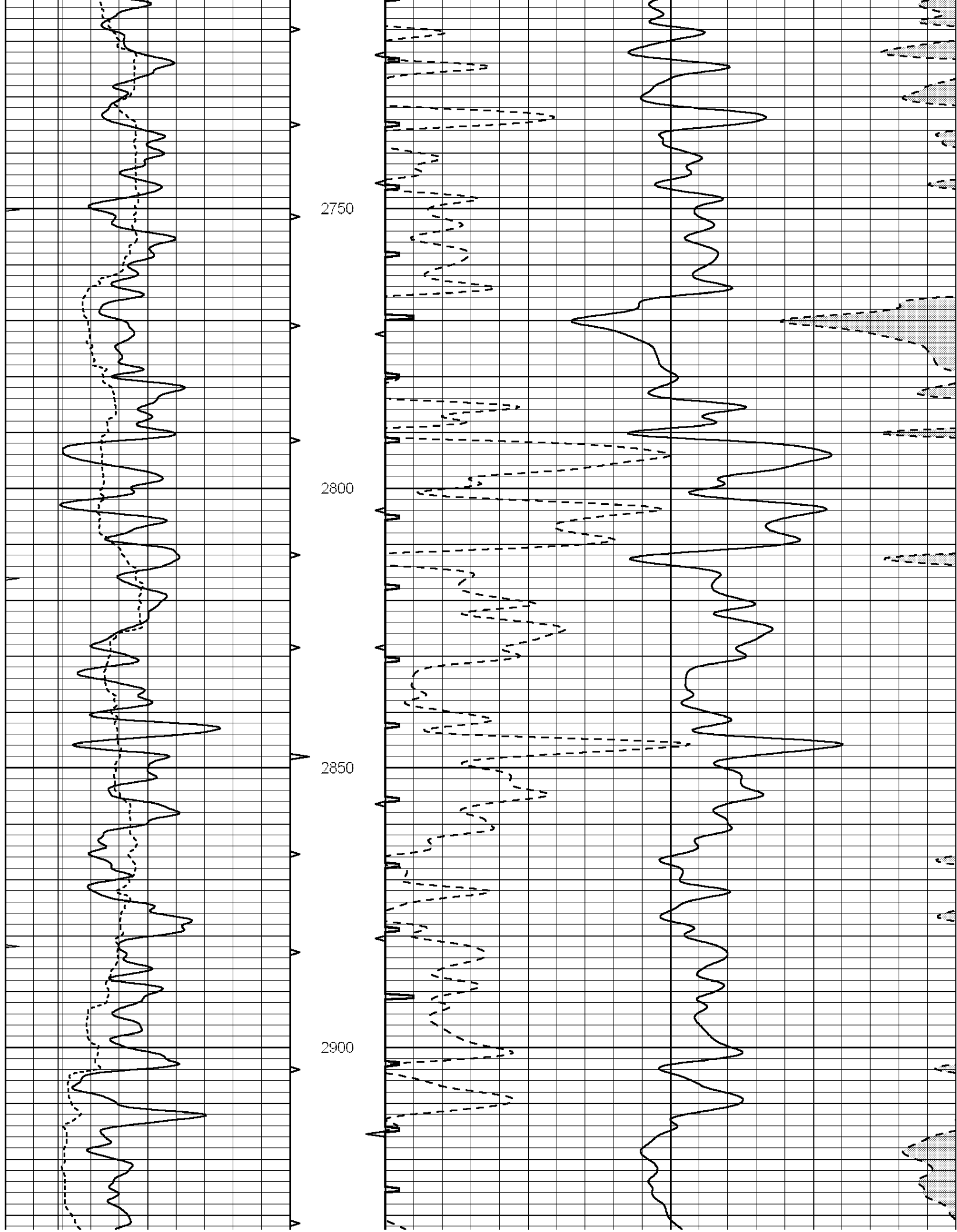


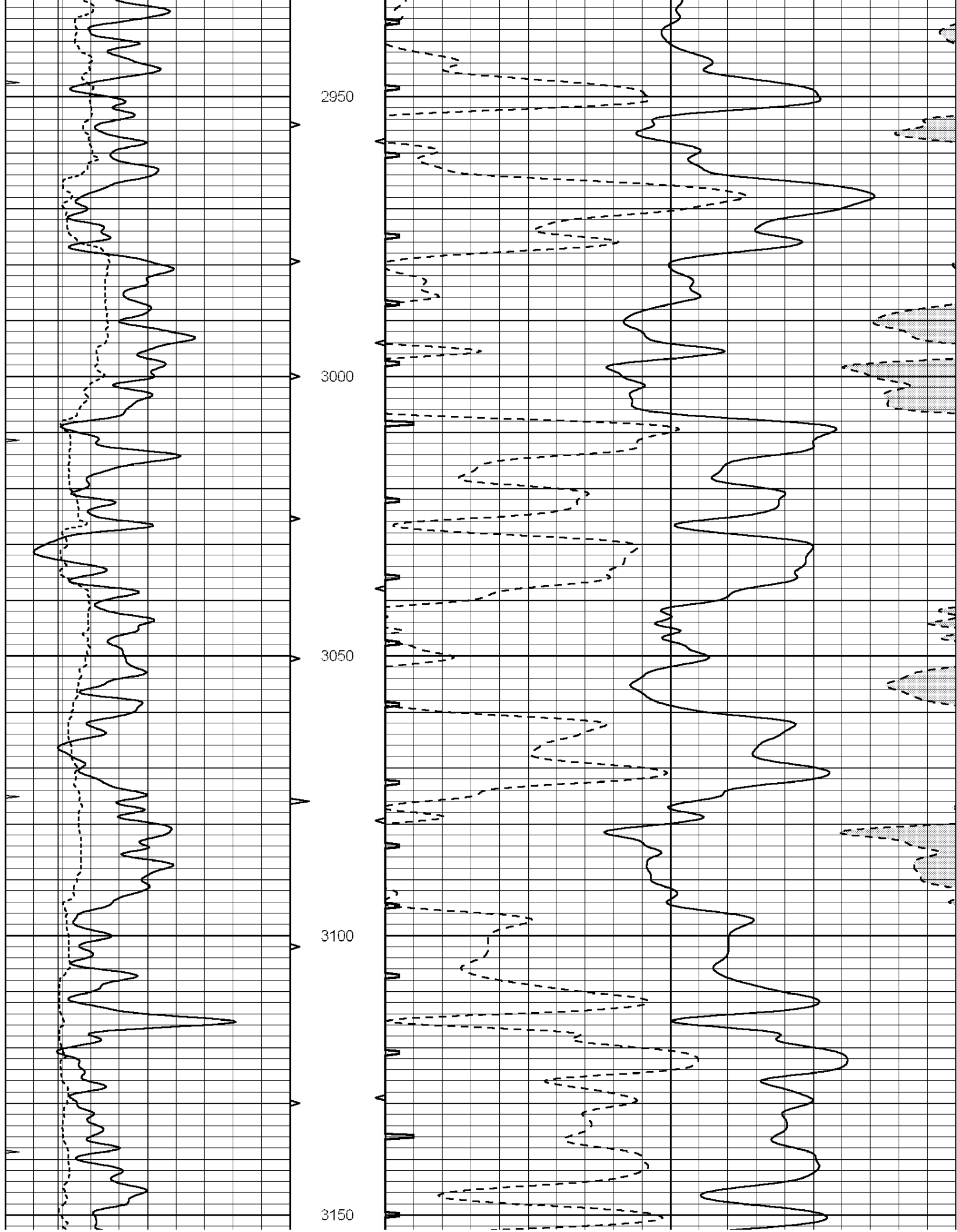


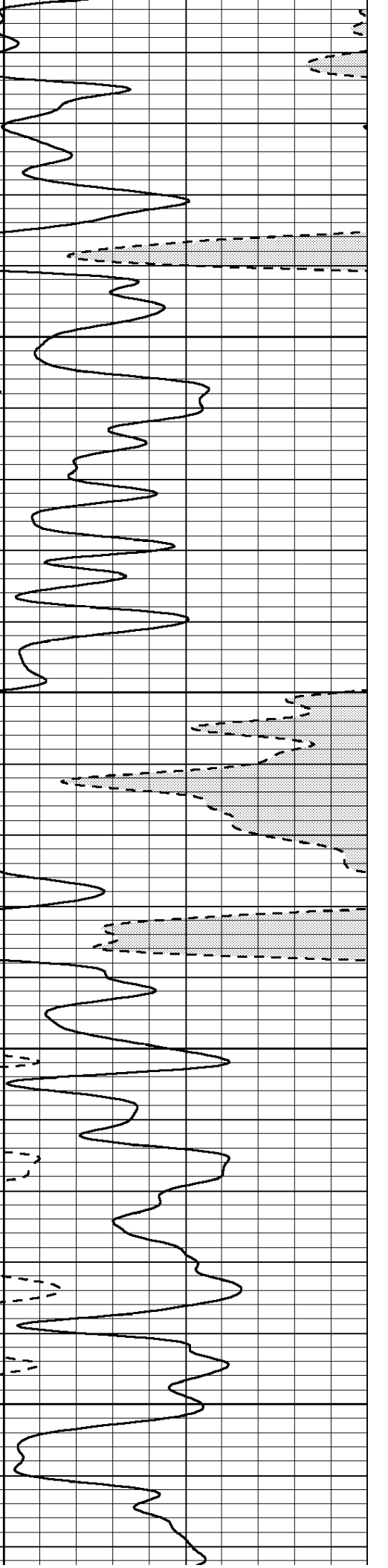
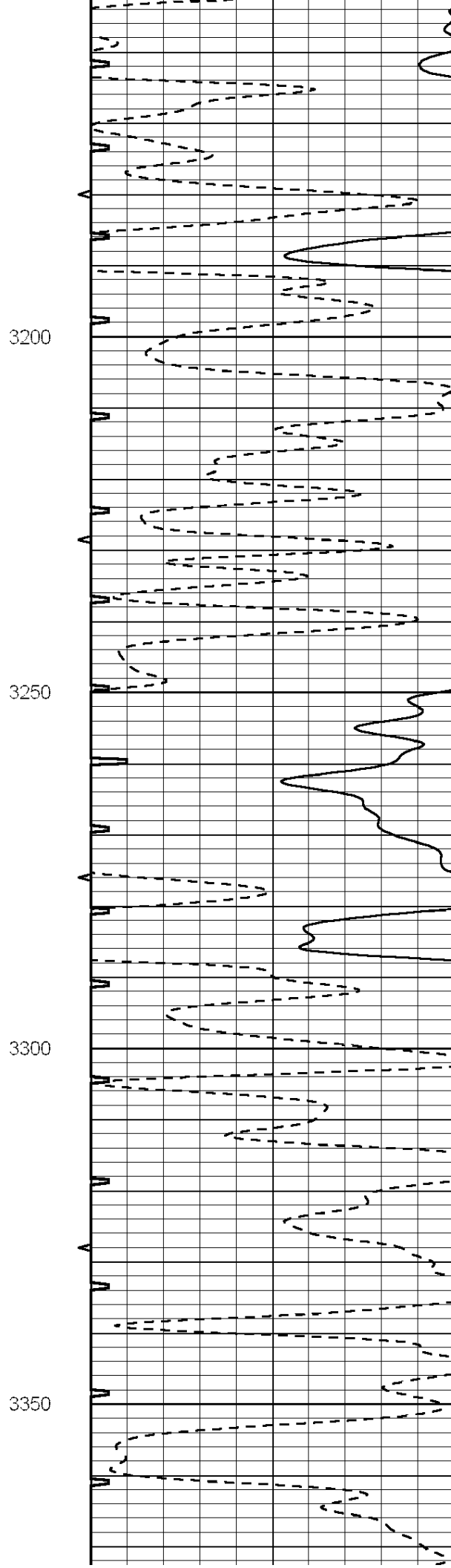
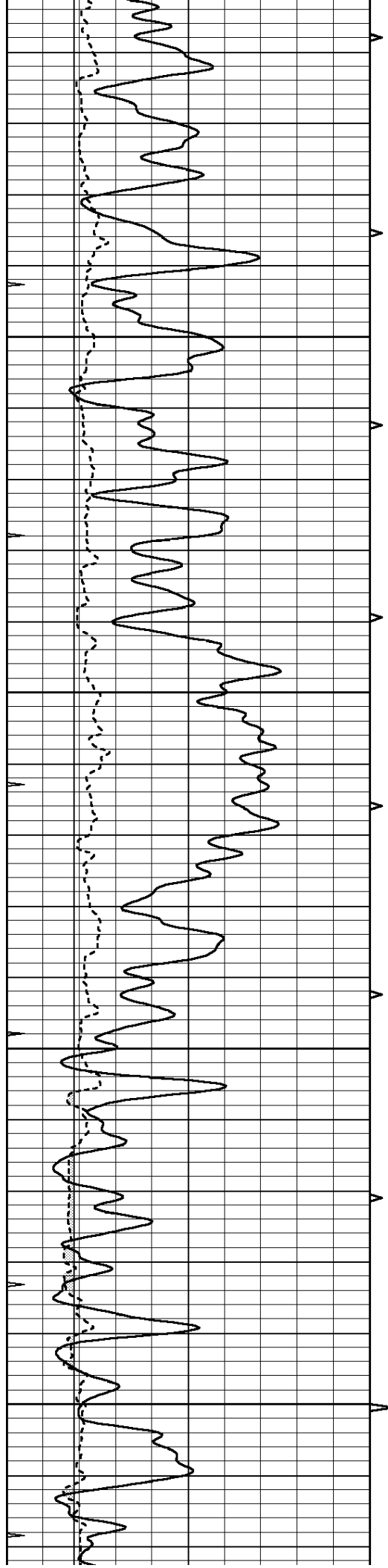


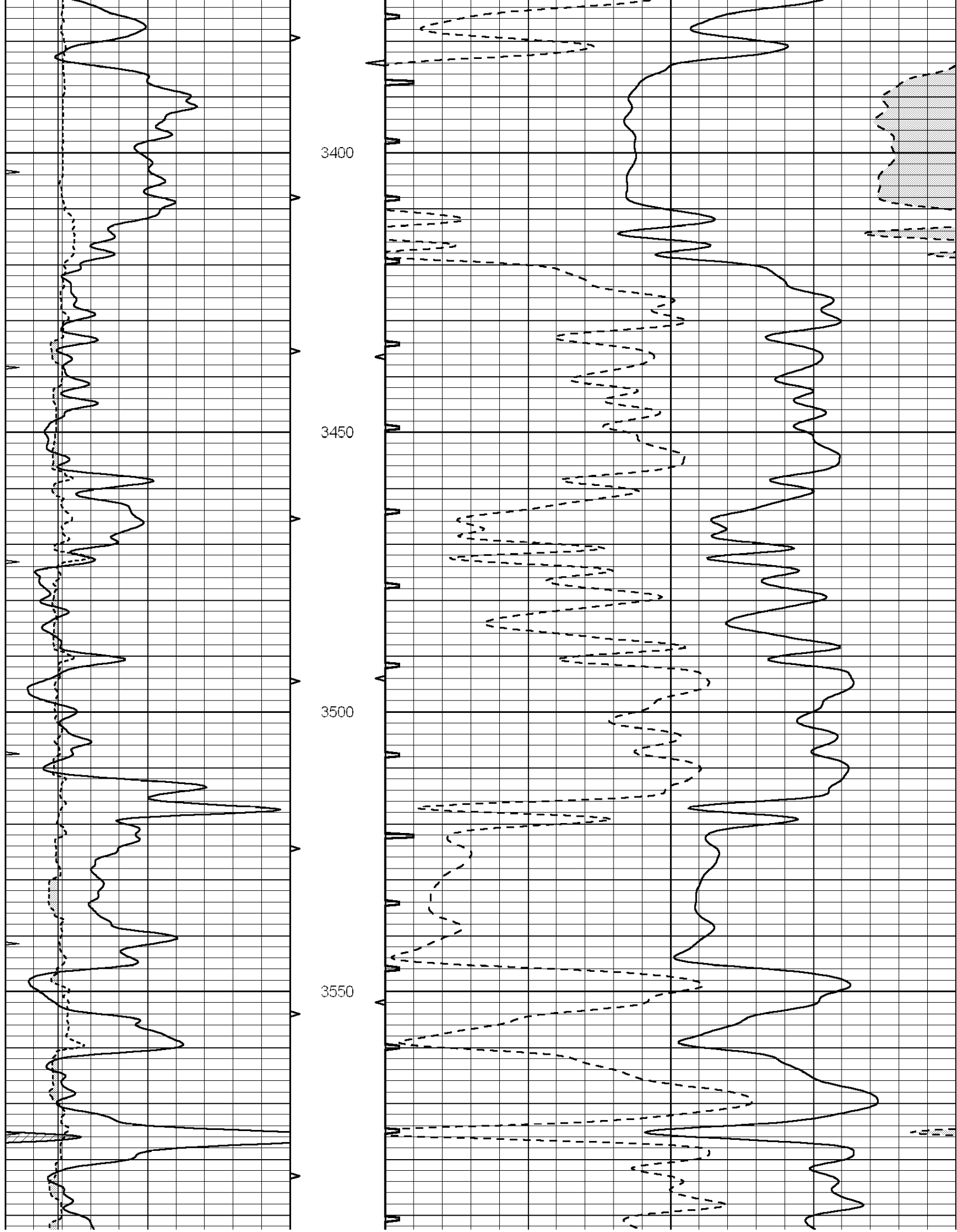


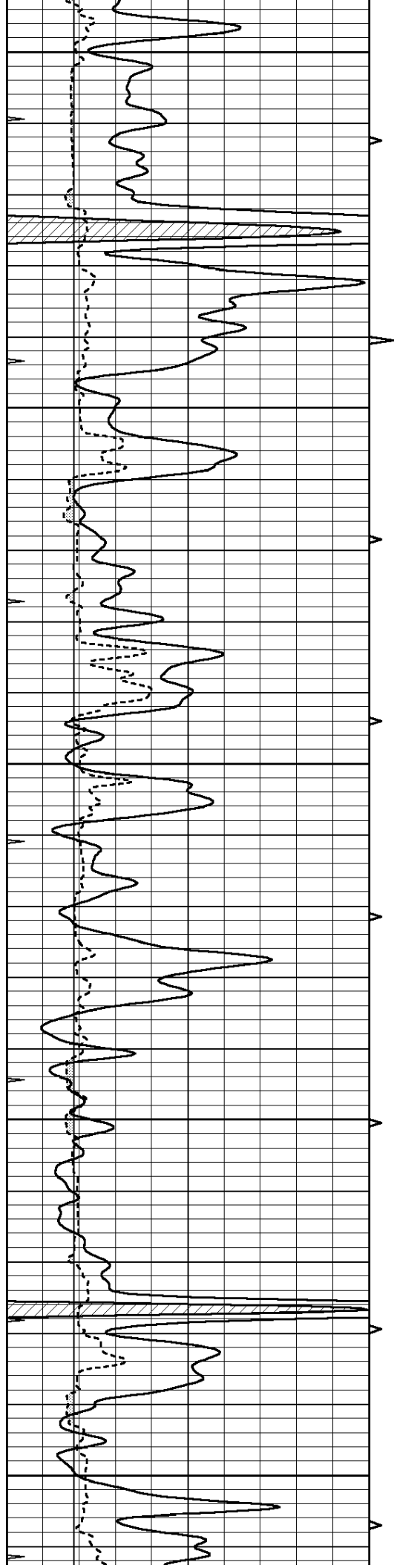












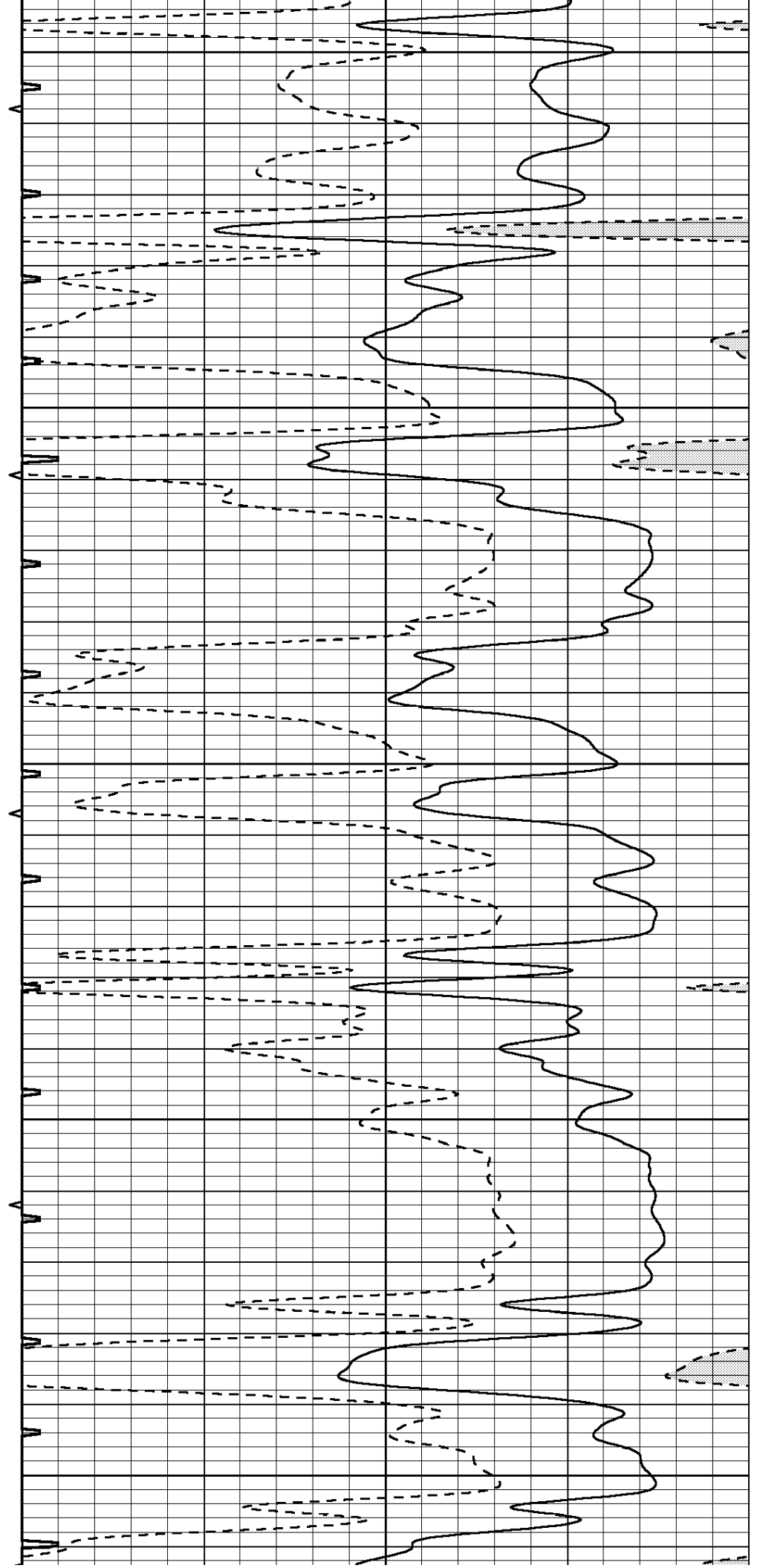
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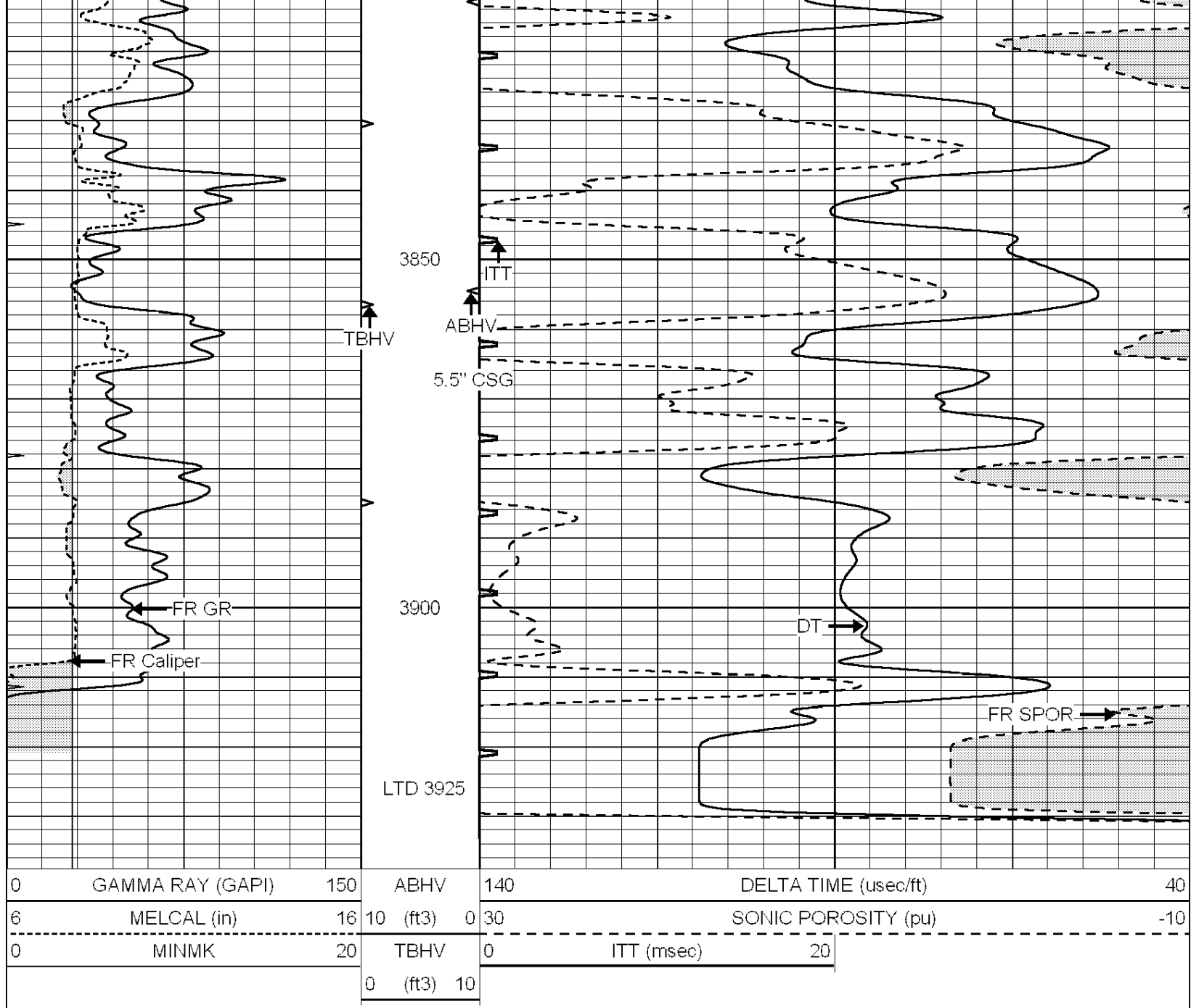
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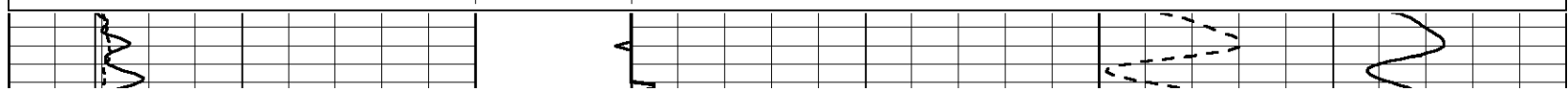


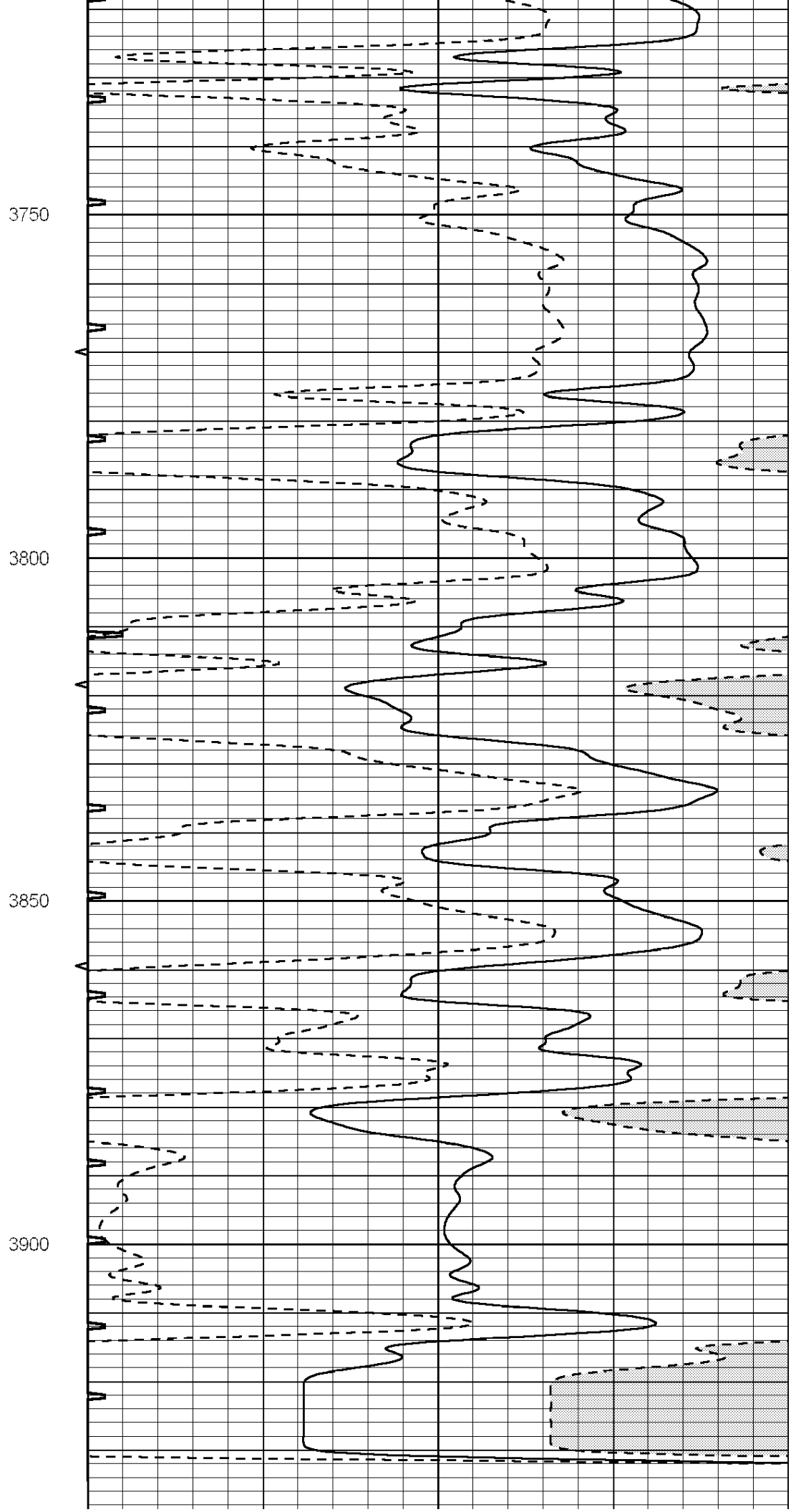
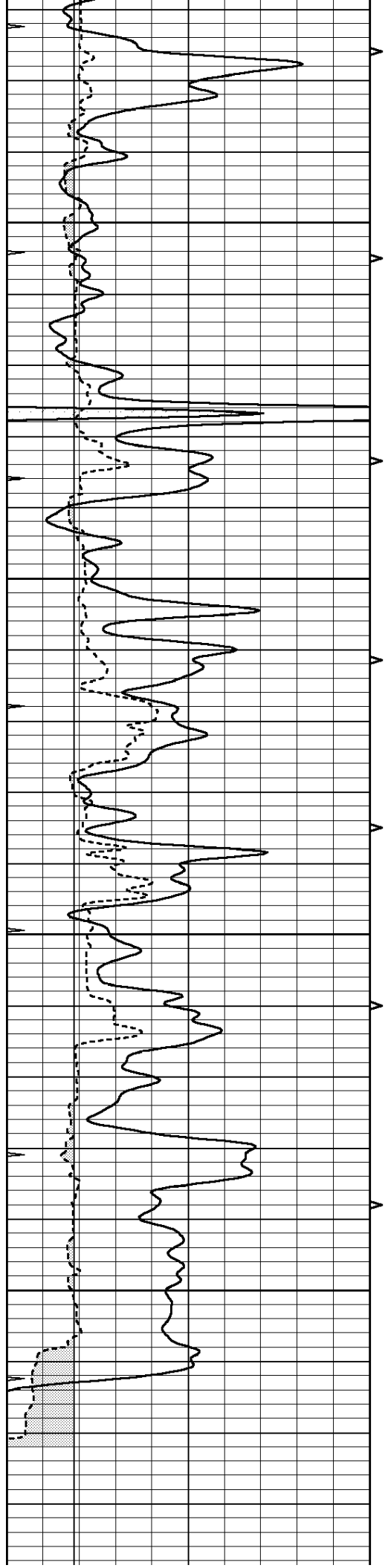


REPEAT SECTION

Database File: 010994ddn.db
 Dataset Pathname: pass6.1
 Presentation Format: _slt
 Dataset Creation: Thu May 02 02:47:43 2013 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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





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			0 (ft3) 10			