



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

MICRO LOG

Company		MID-CONTINENT ENERGY OPERATING CO.	
Well	KALBACH UNIT #1-30		
Field	WILDCAT		
County	WICHITA	State	KANSAS
Location:		API # : 15-203-20230-0000 800' FSL & 2450' FEL	
SEC 30 TWP 16S RGE 36W		Other Services CDL/CNL DIL	
Permanent Datum	GROUND LEVEL	Elevation	3314
Log Measured From	KELLY BUSHING 10' A.G.L.	K.B. 3324 D.F. 3322 G.L. 3314	
Drilling Measured From	KELLY BUSHING		
Date	9/8/13		
Run Number	TWO		
Depth Driller	5000		
Depth Logger	4999		
Bottom Logged Interval	4997		
Top Log Interval	2400		
Casing Driller	8 5/8" @ 306'		
Casing Logger	305'		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 9500 PPM	
Density / Viscosity	9.2 / 60		
pH / Fluid Loss	10.0 / 7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.35 @ 94F		
Rmt @ Meas. Temp	0.26 @ 94F		
Rmc @ Meas. Temp	0.42 @ 94F		
Source of Rmt / Rmc	MEASUREMENT		
Rm @ BHT	0.26 @ 125F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	125F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF GRONEWEG		
Witnessed By	TOM PRONOLD		

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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.

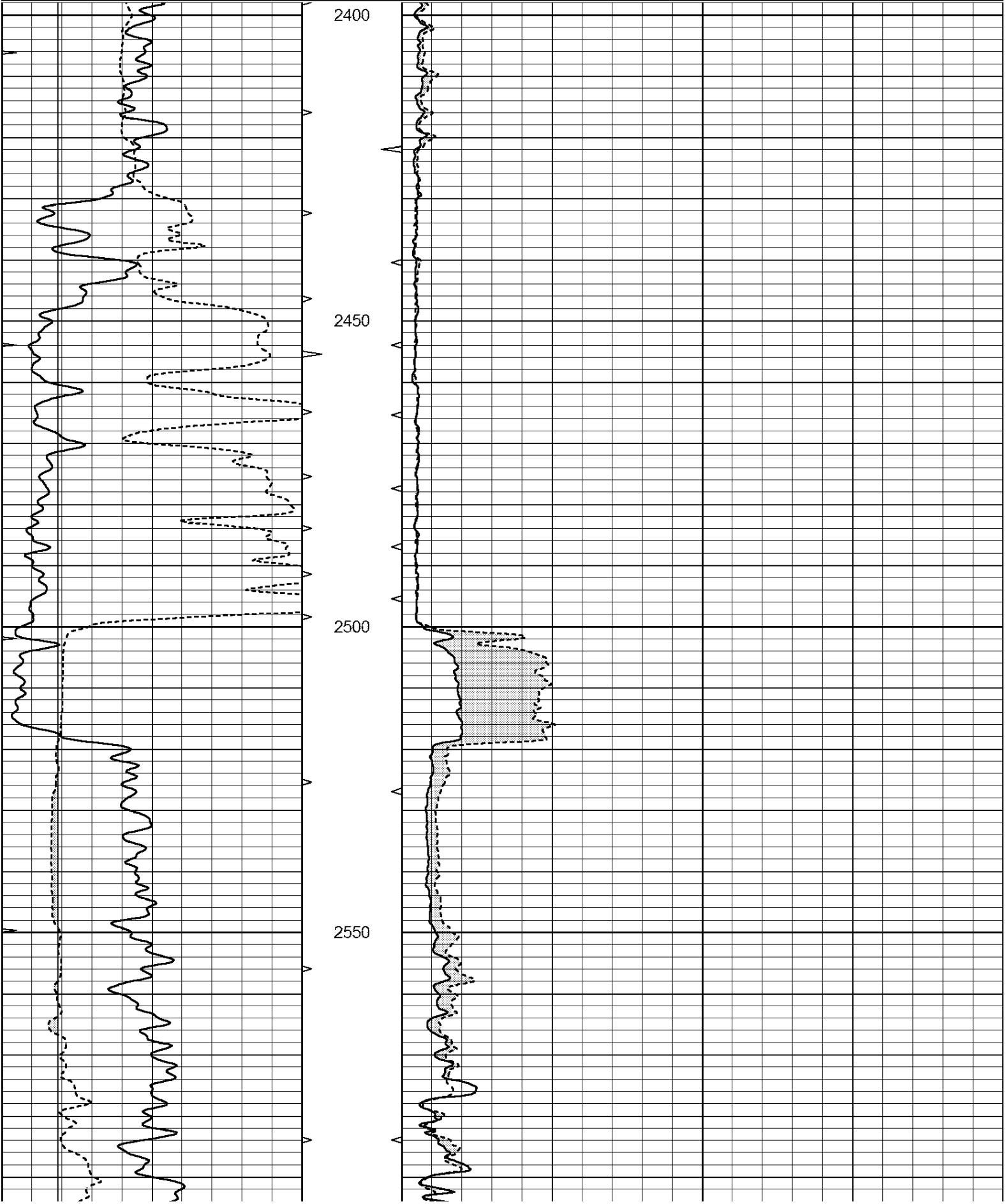
Comments

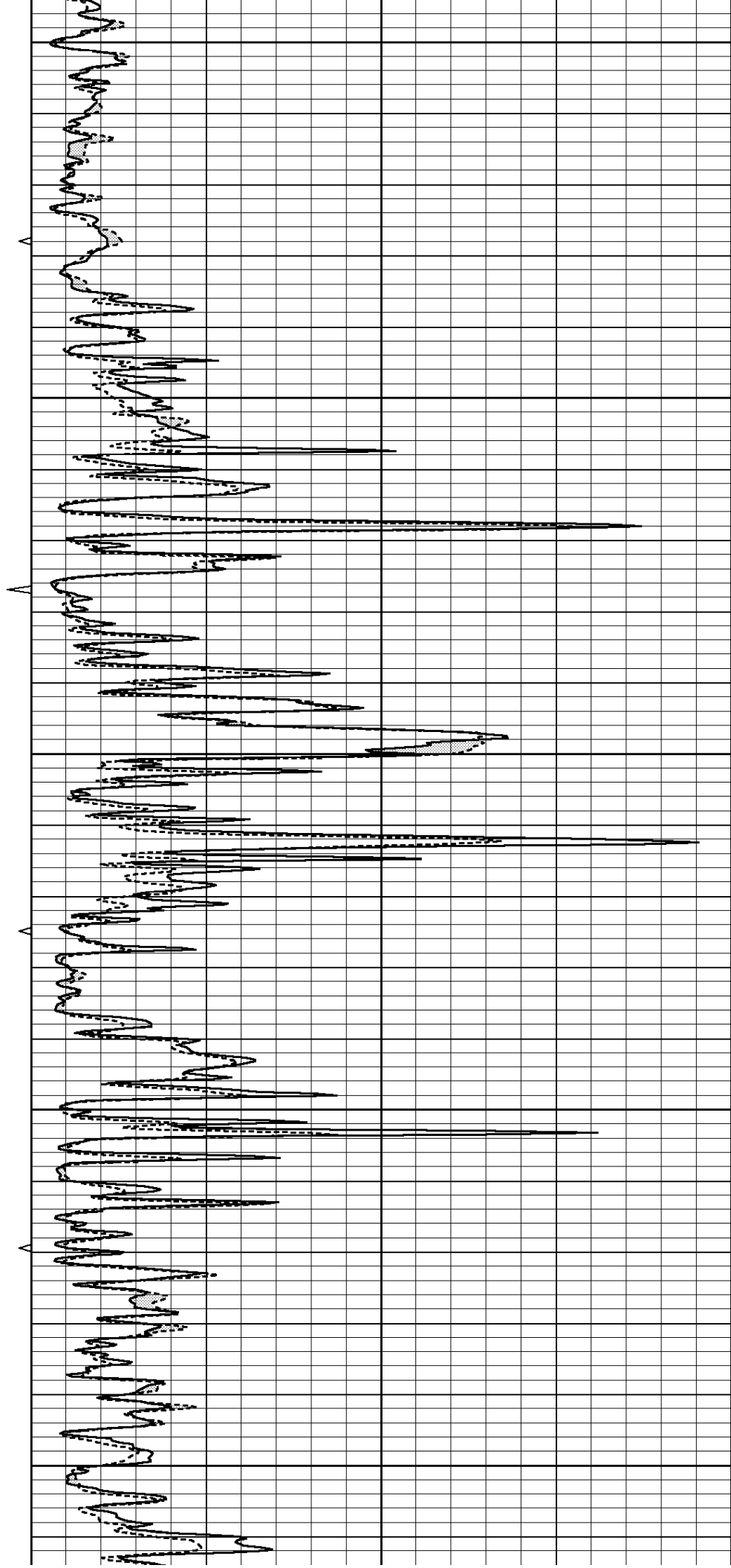
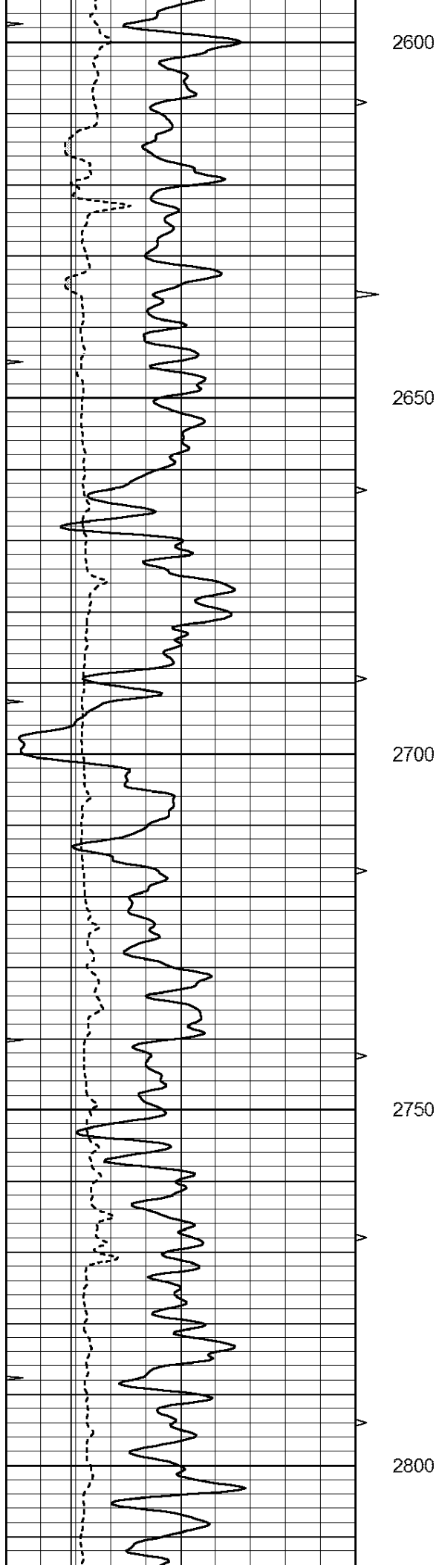
THANK YOU FOR USING NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS:
LEOTI, KS - 9 MILES NORTH TO COUNTY RD F - 1 1/2 MILES EAST - NORTH INTO

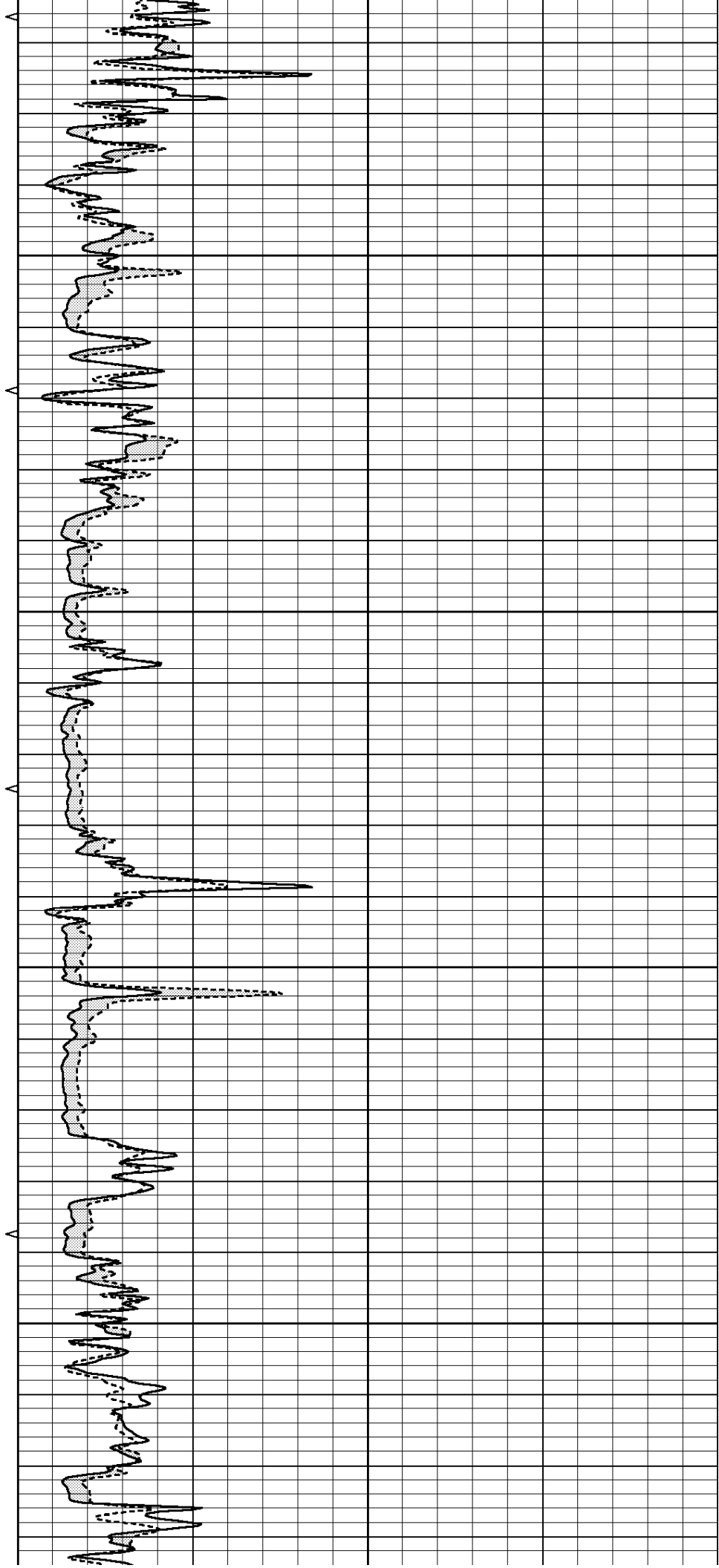
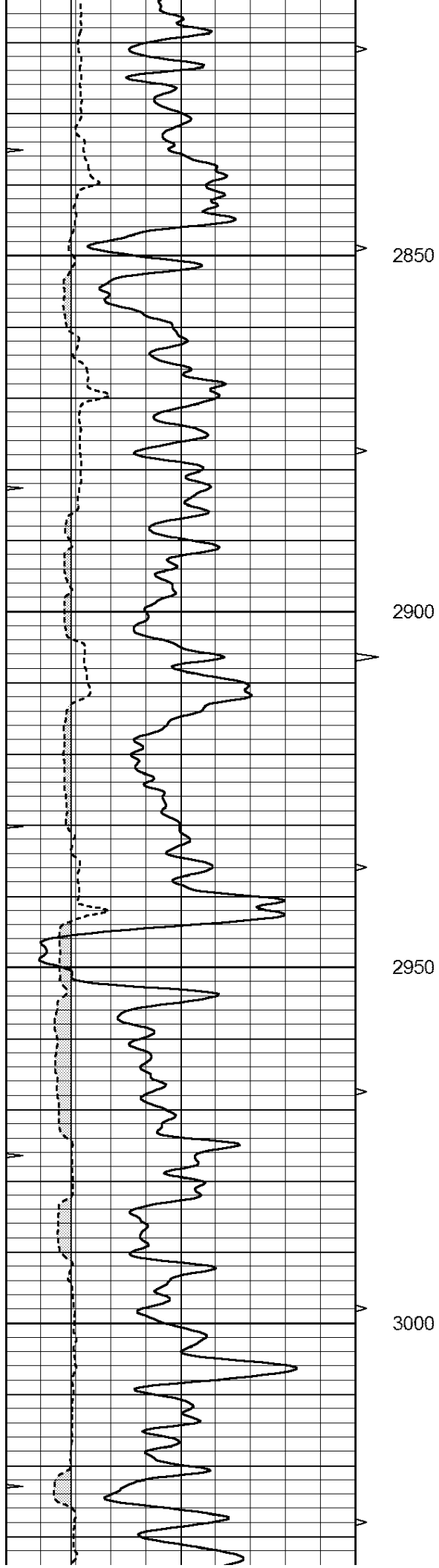
Database File: 011776ddn.db
Dataset Pathname: pass6.1
Presentation Format: _micro
Dataset Creation: Sun Sep 08 20:40:44 2013 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

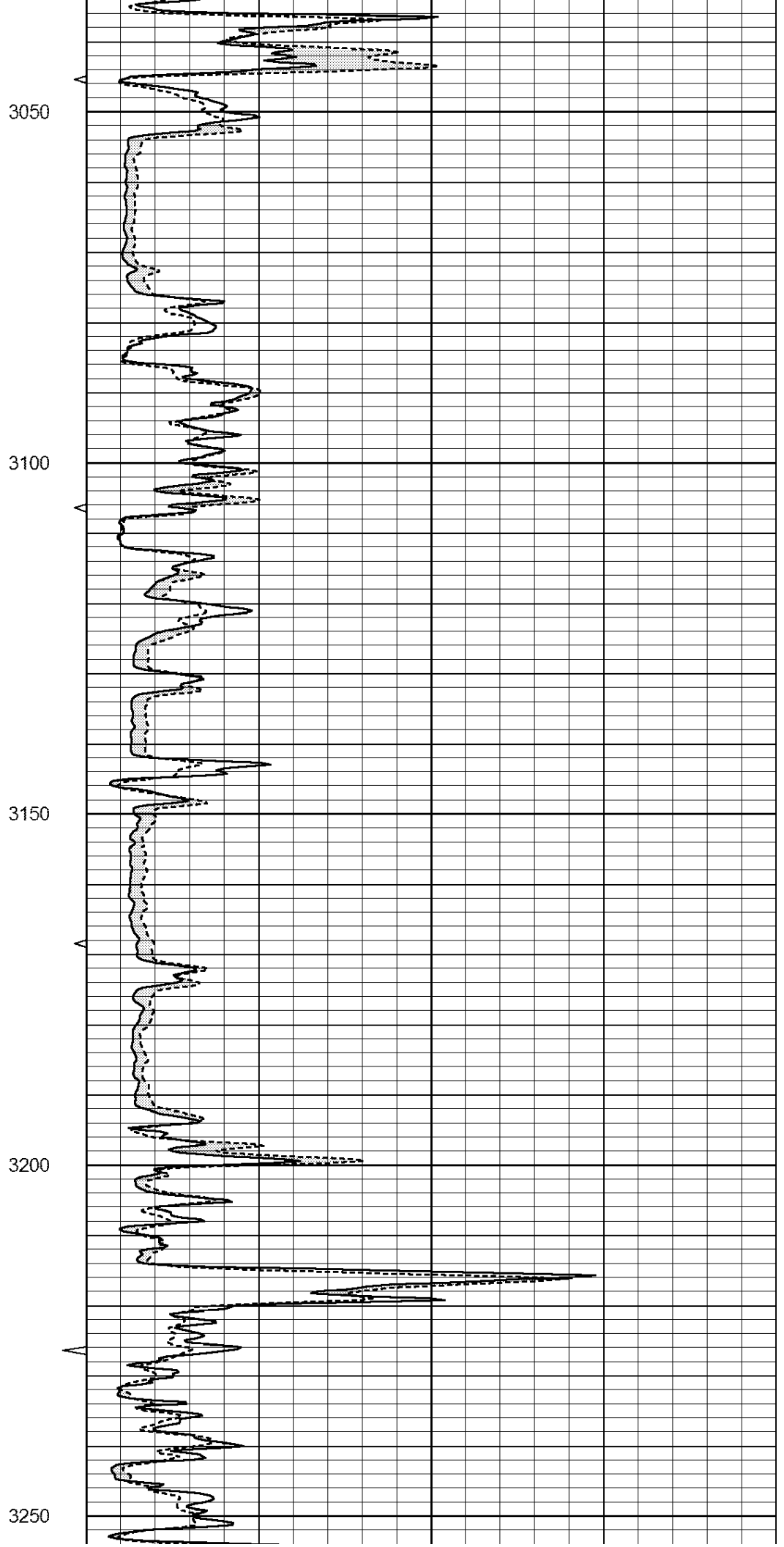
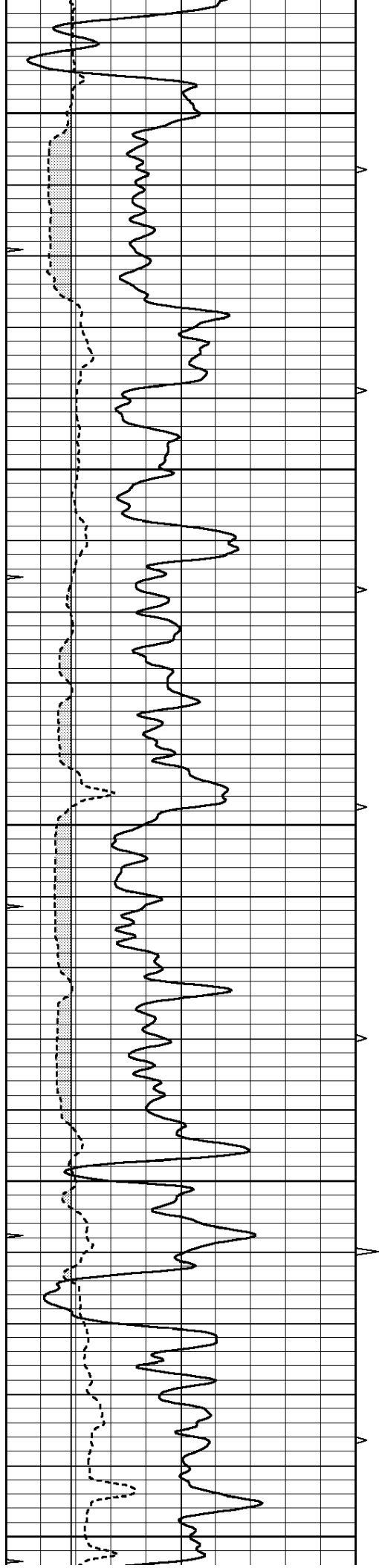
Charted by: _____			Depth in Feet scaled 1:2.10			
0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	40
6	CALIPER (in)	16		0	MEL2.0 (Ohm-m)	40

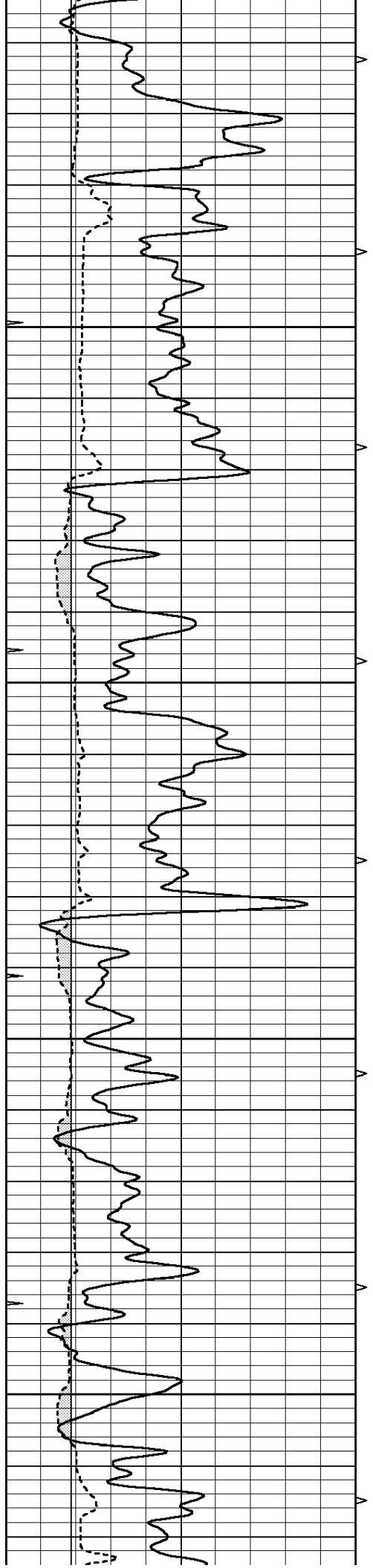
0	MINMK	20	TBHV			
			0 (ft3) 10			









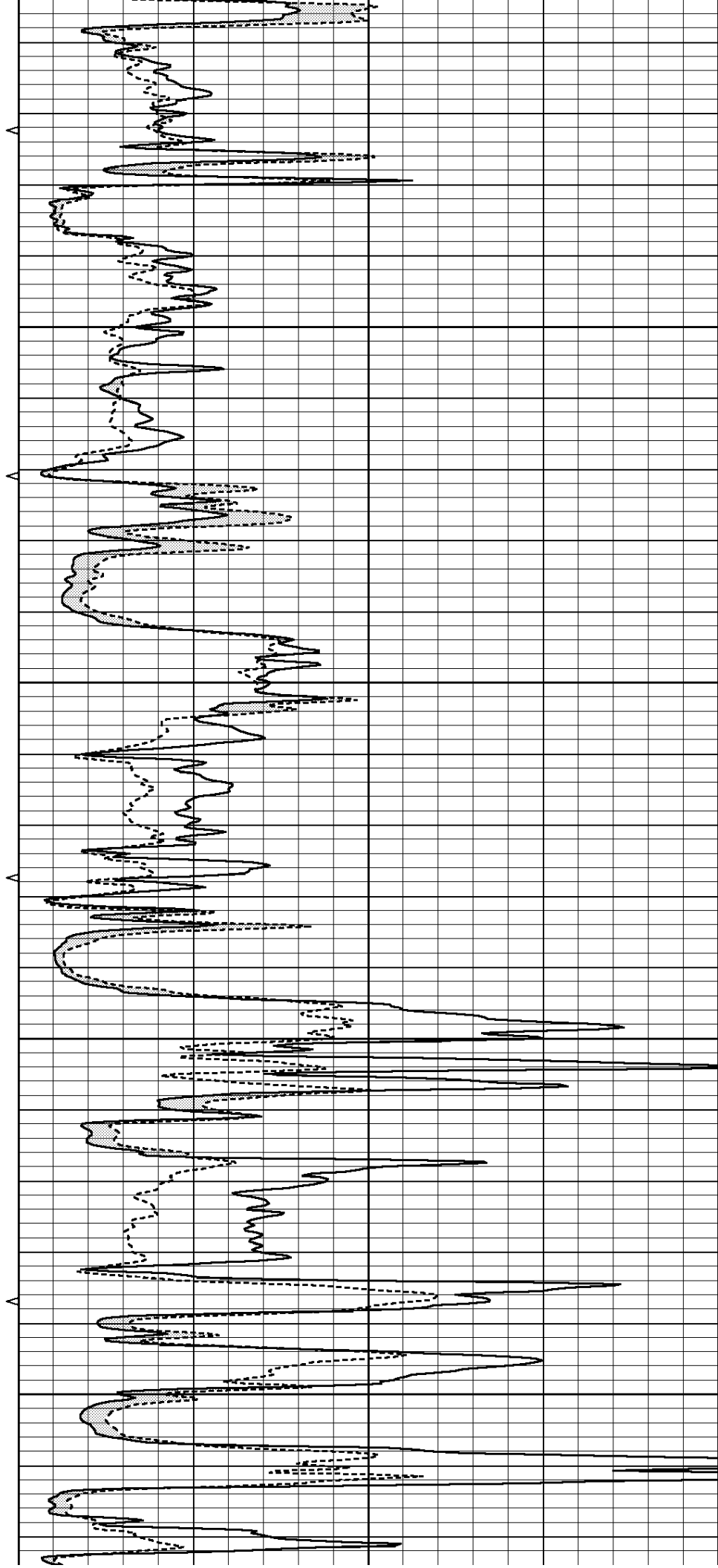


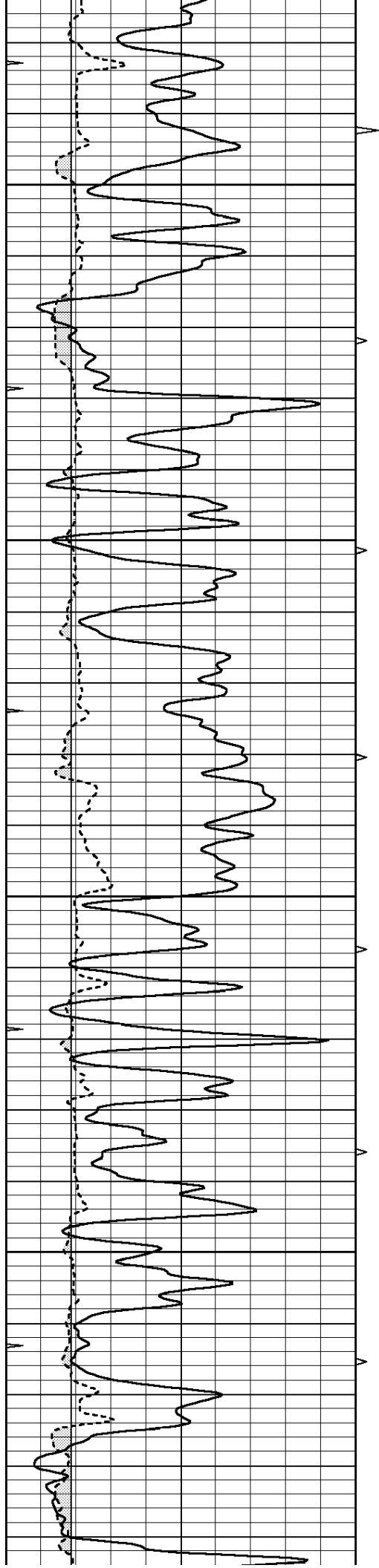
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3350

3400

3450



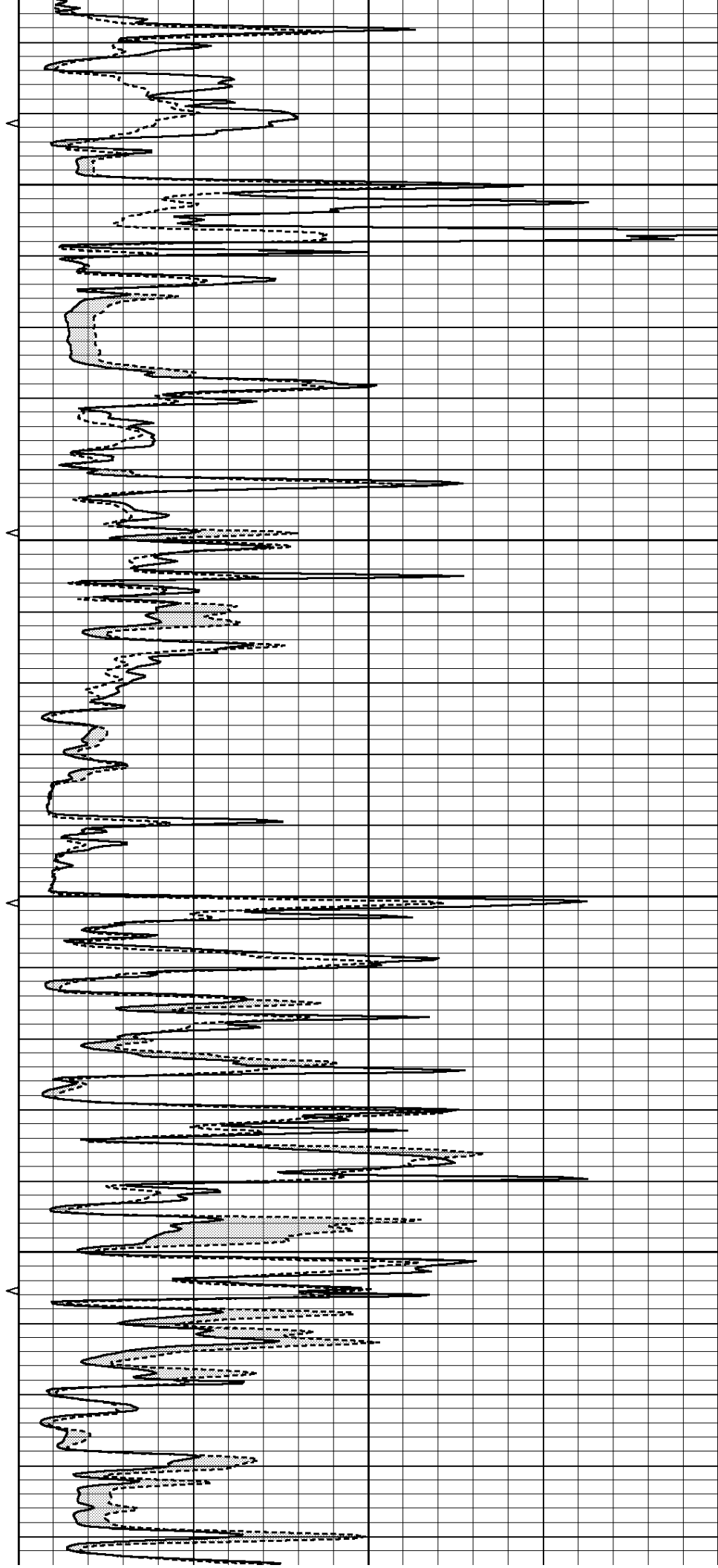


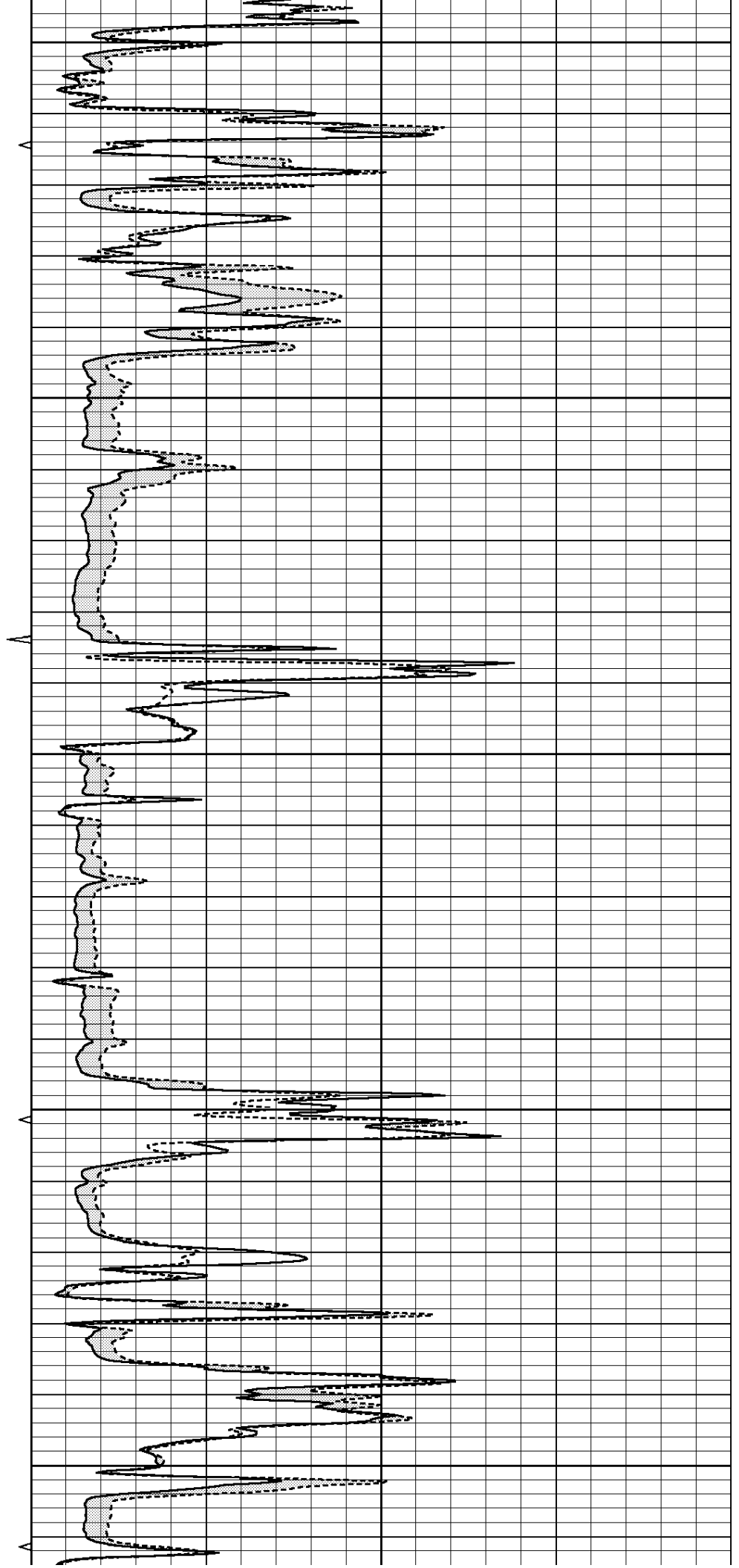
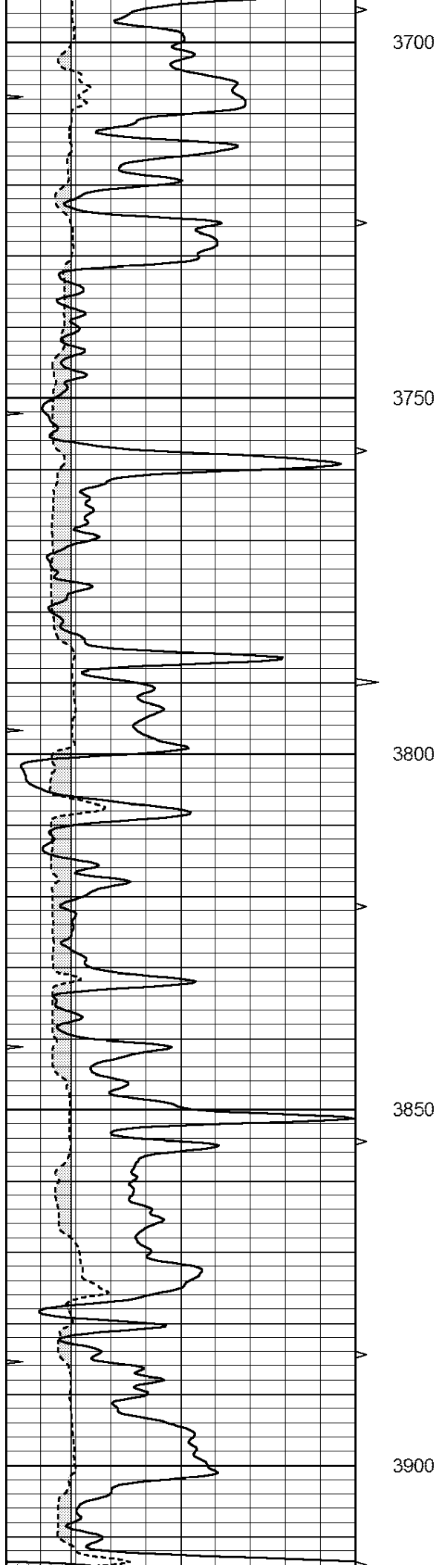
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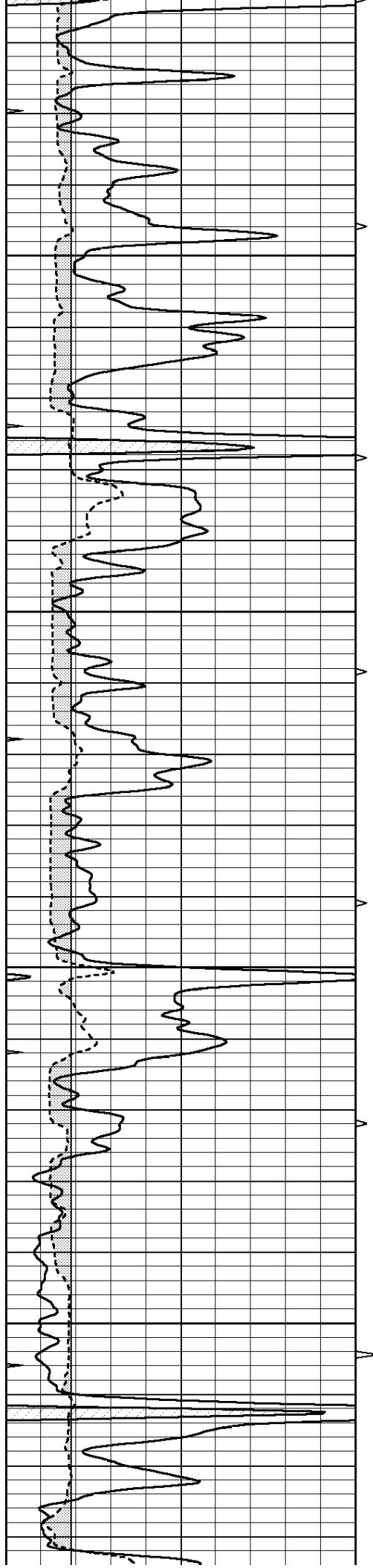
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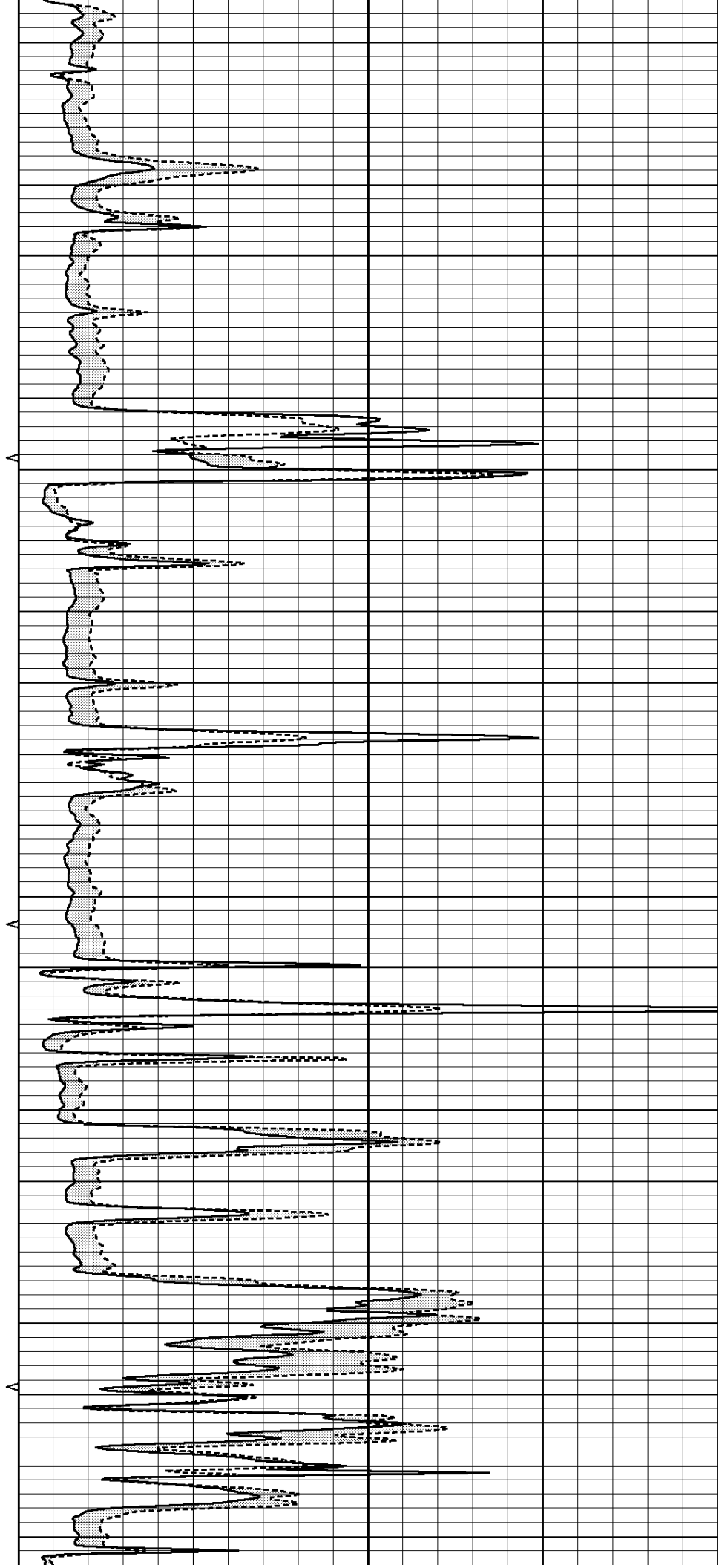


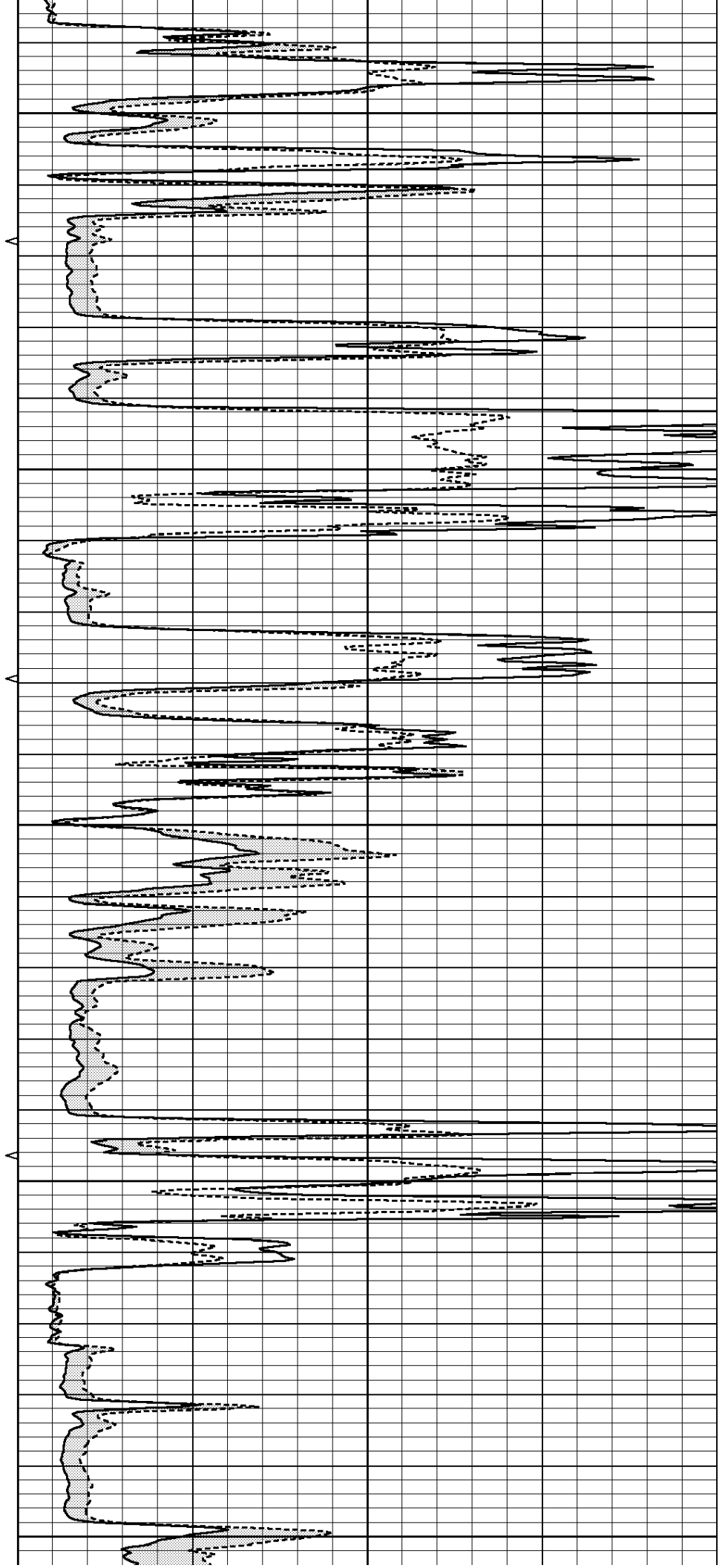
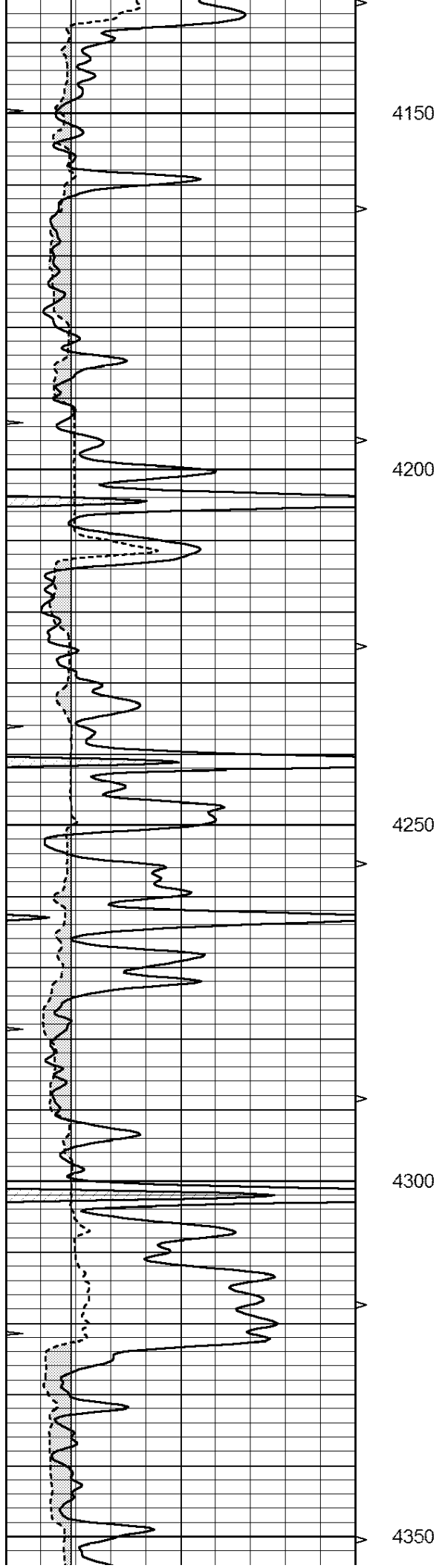
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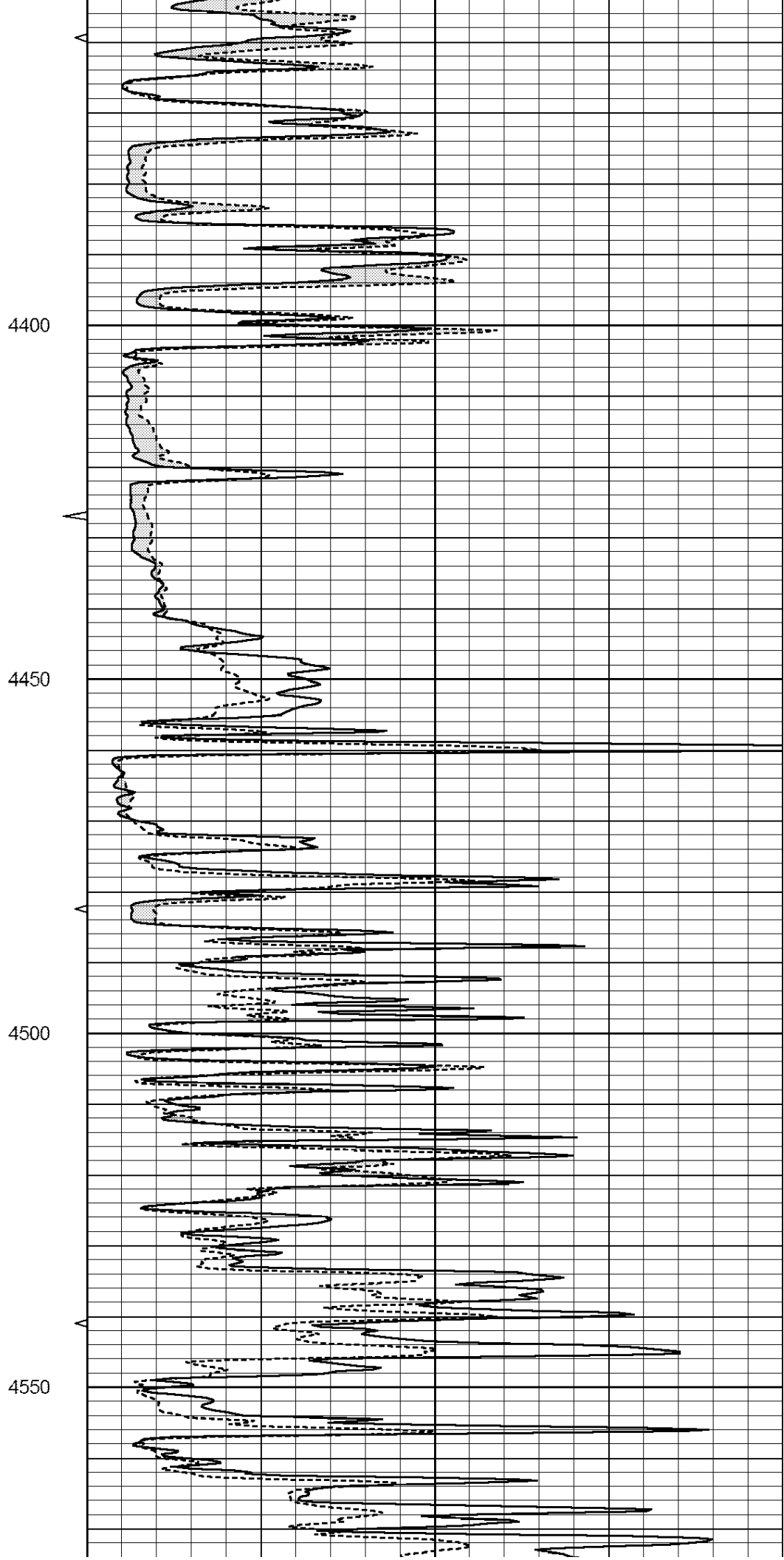
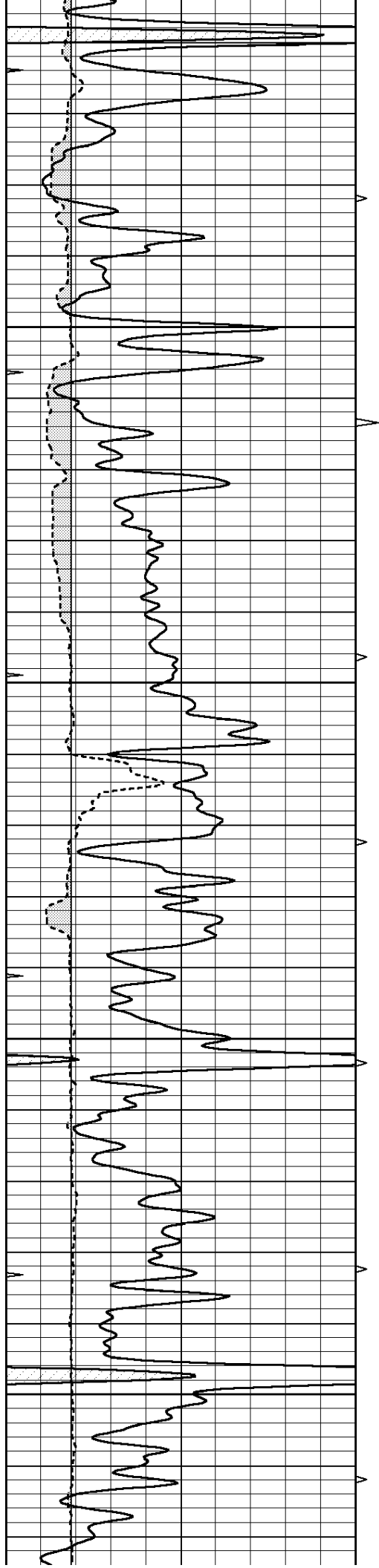
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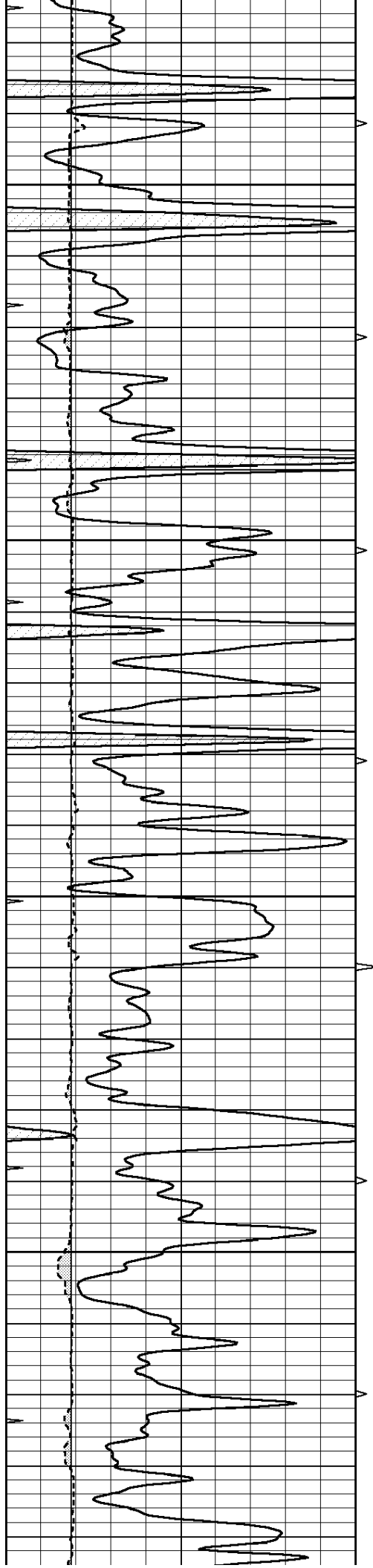
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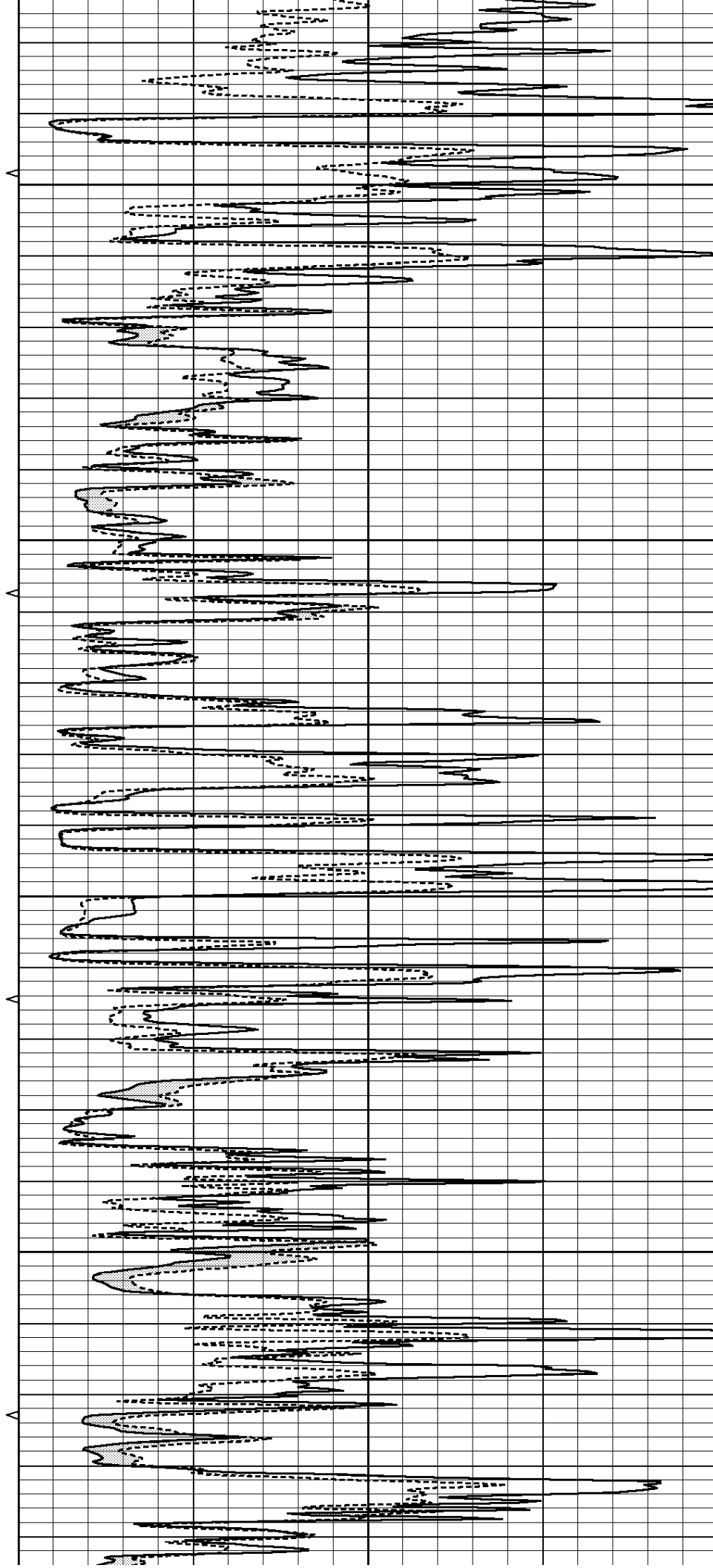


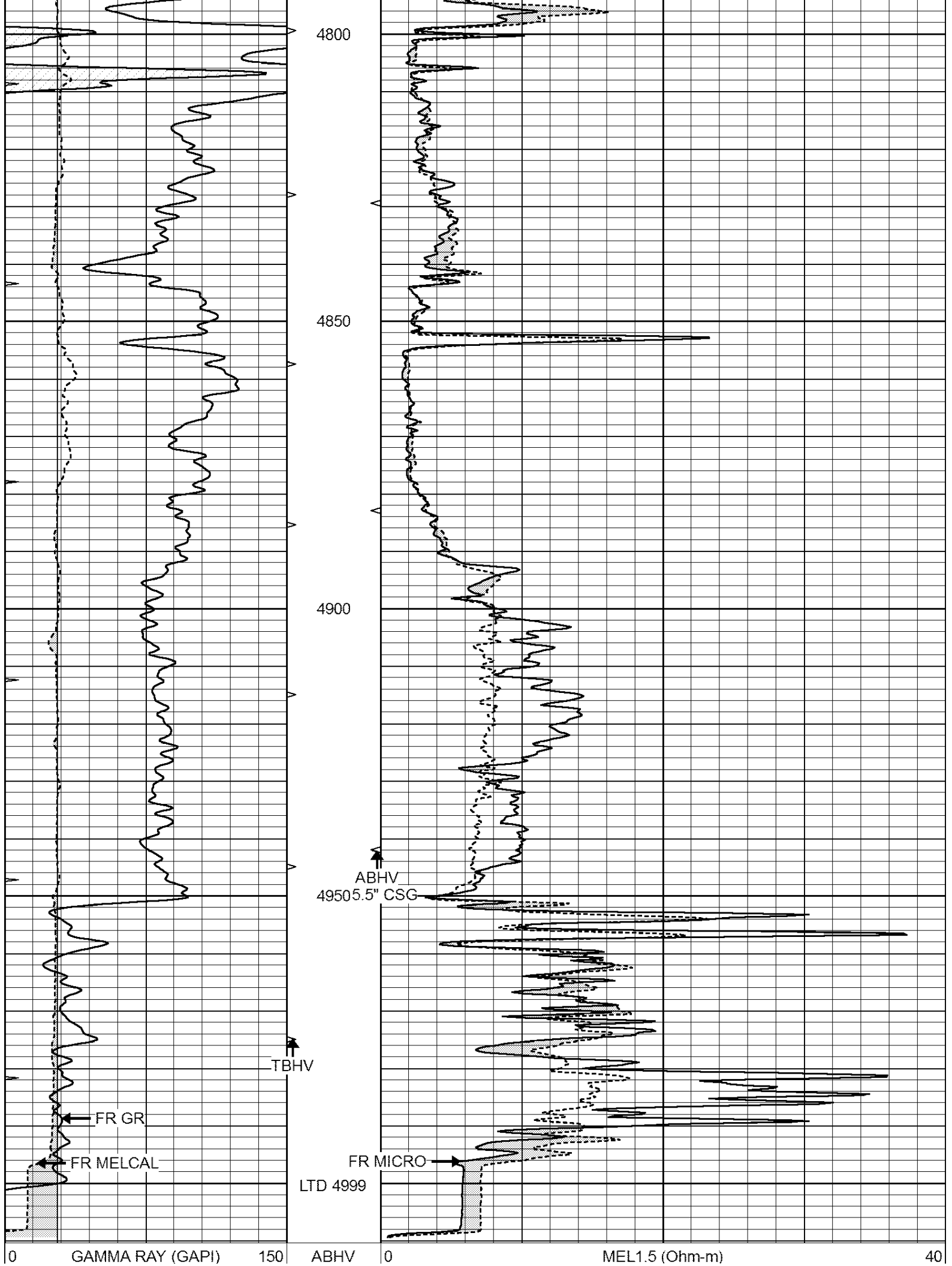
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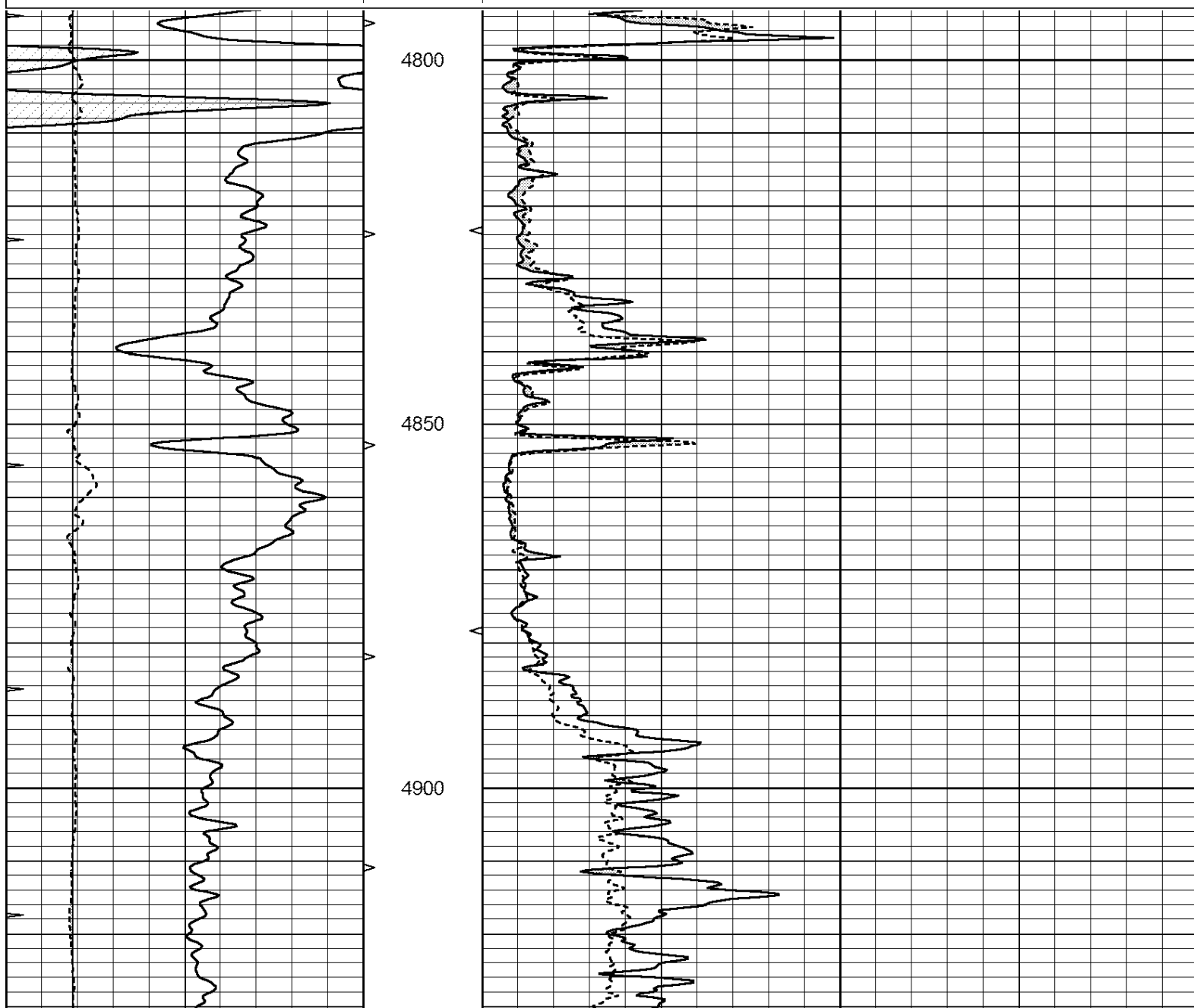
6	CALIPER (in)	16	10 (ft3)	0 0	MEL2.0 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		

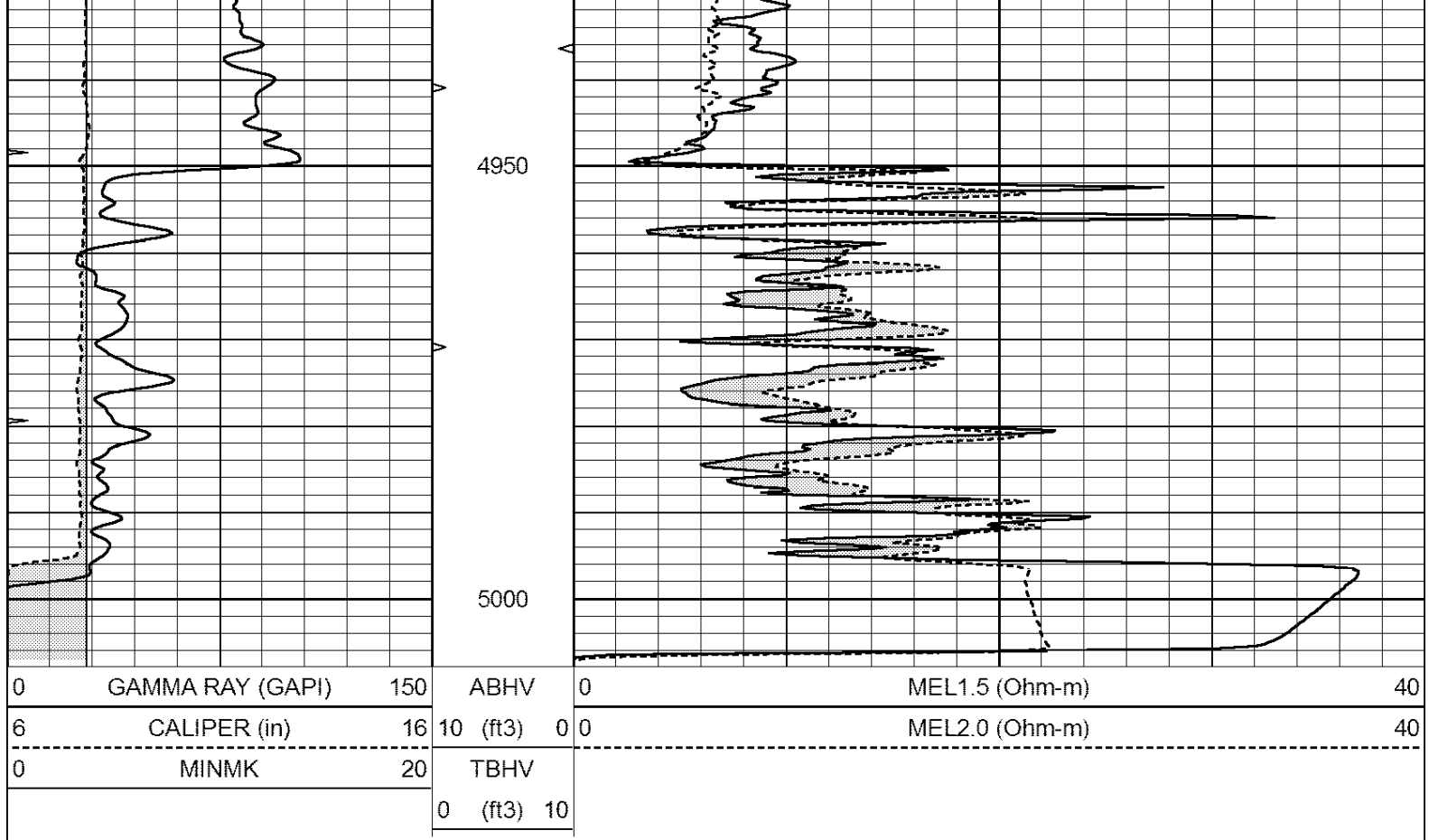


REPEAT SECTION

Database File: 011776ddn.db
 Dataset Pathname: pass5.3
 Presentation Format: _micro
 Dataset Creation: Sun Sep 08 19:38:14 2013 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	40
6	CALIPER (in)	16	10 (ft3)	0 0	MEL2.0 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		





Calibration Report			
Database File:	011776ddn.db		
Dataset Pathname:	pass6.1		
Dataset Creation:	Sun Sep 08 20:40:44 2013 by Calc Open-Cased 090629		
MICRO Calibration Report			
Serial Number:	MICRO6		
Tool Model:	PROBE		
Performed:	Sat Aug 10 00:21:37 2013		
Caliper Calibration:	Gain=5.542	Offset=-1.620	
	Low Cal	High Cal	
References	8.000	14.000	
Readings	1.431	2.513	
1.5" Calibration:	Gain=30.075	Offset=0.500	
	Low Cal	High Cal	
References	0.000	20.000	
Readings	0.004	1.196	
2" Calibration:	Gain=38.041	Offset=0.500	
	Low Cal	High Cal	
References	0.000	20.000	
Readings	0.006	0.913	
Gamma Ray Calibration Report			
Serial Number:	#8		
Tool Model:	OPEN		
Performed:	Tue Jun 18 19:34:11 2013		
Calibrator Value:	150.0	GAPI	

Background Reading:	0.0	cps
Calibrator Reading:	175.0	cps
Sensitivity:	0.8371	GAPI/cps