NABORS
COMPLETION & PRODUCTION SERVICES CO.

MICRO LOG

Company	MULL DRILLING COMPANY, INC.
Well	APC - CAROLE #2-13
Field	GOLDEN SPIKE
County	CHEYENNE State COLORADO

Location: API # : 05-017-07749-00

1980' FNL & 605' FWL

SEC 13 TWP 16S RGE 45W

Other Services
CDL/CNL/PE
DIL/SONIC

Permanent Datum	GROUND LEVEL	Elevation	4349
Log Measured From	KELLY BUSHING 11' A.G.L.		
Drilling Measured From	KELLY BUSHING		

Elevation
K.B. 4360
D.F. 4358
G.L. 4349

Company MULL DRILLING COMPANY, INC.
Well APC - CAROLE #2-13
Field GOLDEN SPIKE
County CHEYENNE
State COLORADO

Date	7/15/13		
Run Number	TWO		
Depth Driller	5585		
Depth Logger	5587		
Bottom Logged Interval	5565		
Top Log Interval	3800		
Casing Driller	8 5/8"@652'		
Casing Logger	650		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,000 PPM	
Density / Viscosity	9.3/62		
pH / Fluid Loss	10.0/9.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.650@80F		
Rmf @ Meas. Temp	.488@80F		
Rmc @ Meas. Temp	.780@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.400@130F		
Time Circulation Stopped	5.5 HOURS		
Time Logger on Bottom	2:15 A.M.		
Maximum Recorded Temperature	130F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	PHIL ASKEY		

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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
CHEYENNE WELLS, CO. 10S. ON HWY 385 TO "RD. G", 6 W., 2S., 1E. ON TRAIL, 1/2N.,E. AGAIN

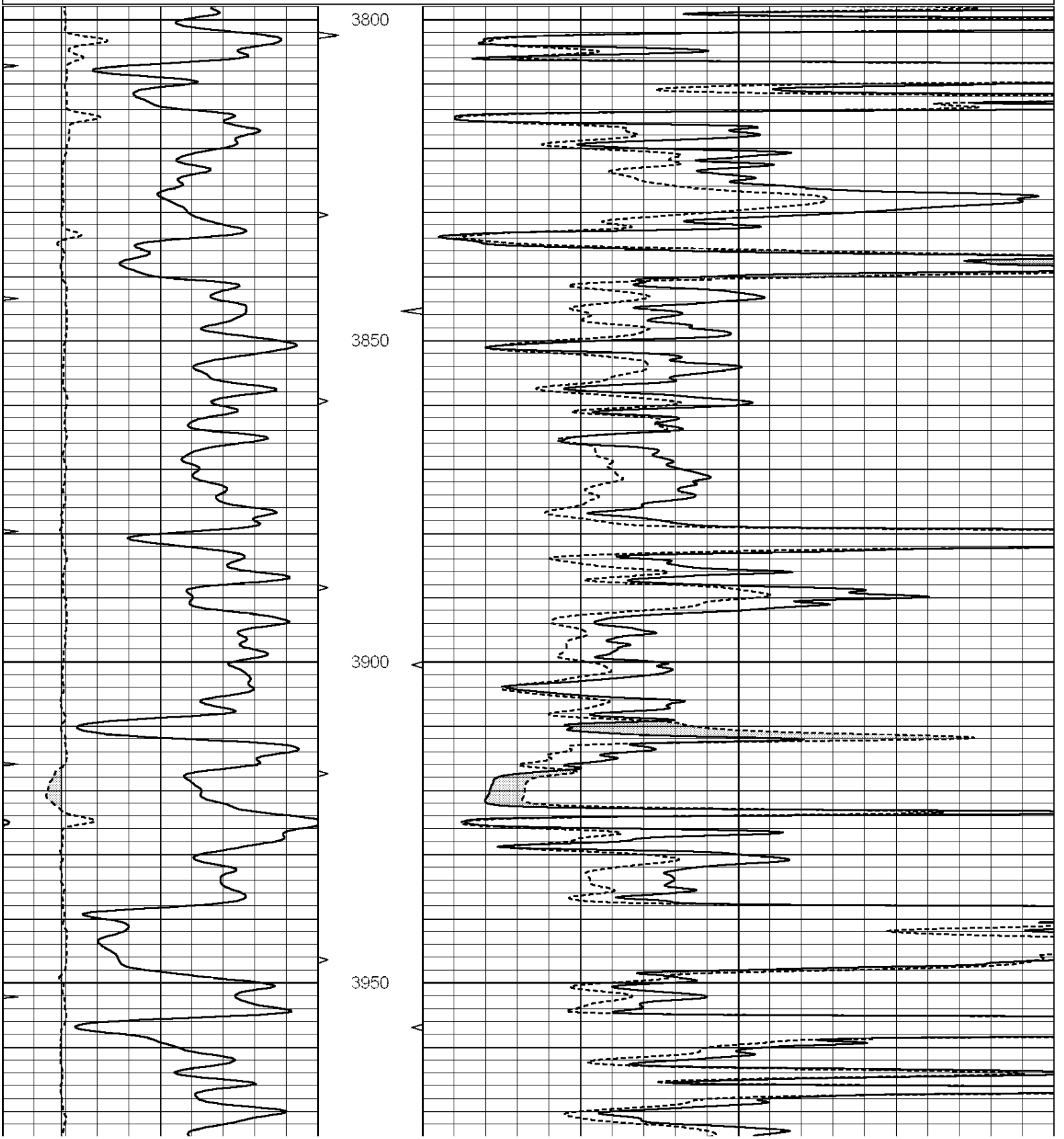
NABORS
COMPLETION & PRODUCTION

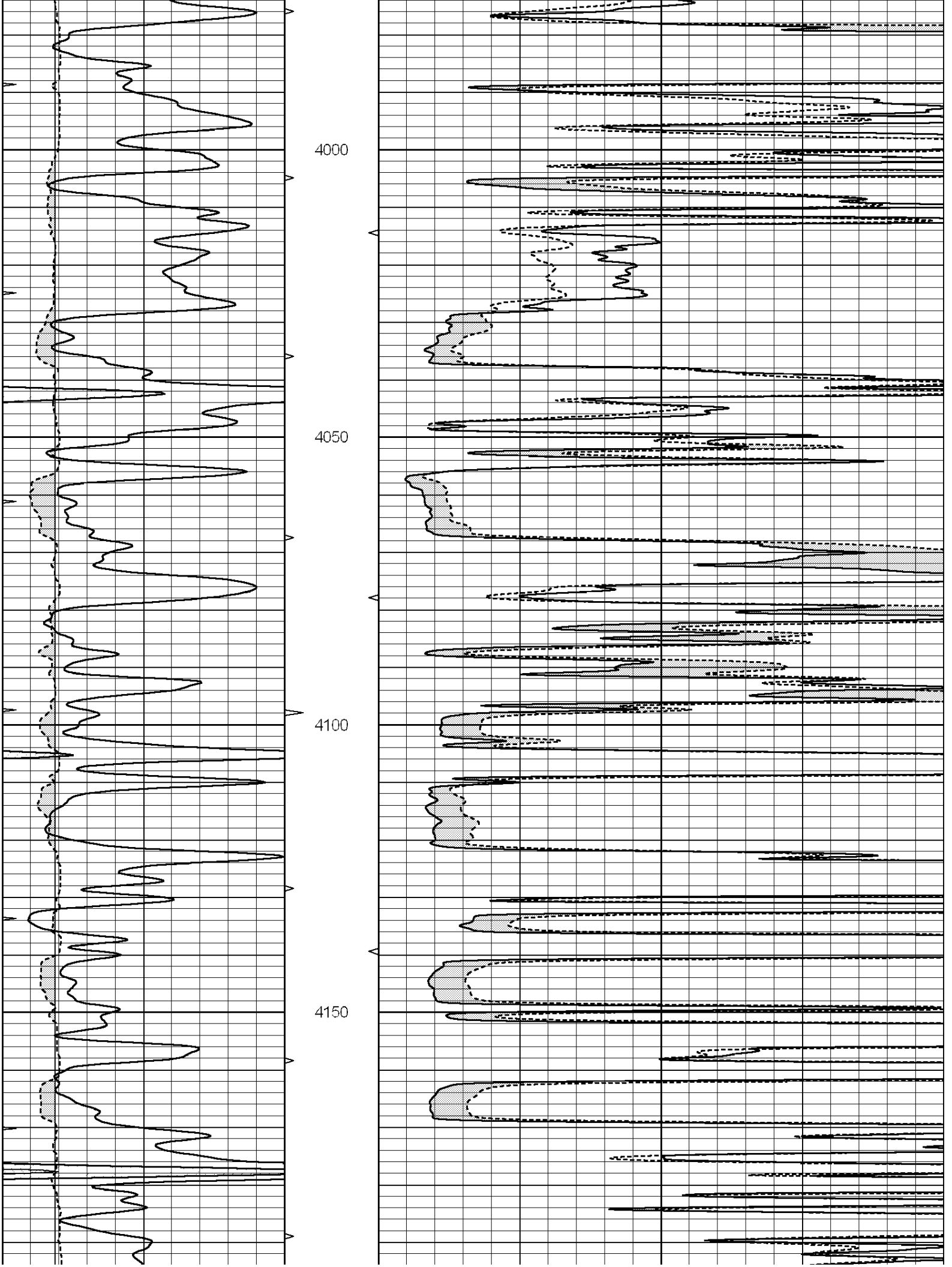
MAIN SECTION

SERVICES CO.

Database File:	011191pe.db
Dataset Pathname:	pass6.3
Presentation Format:	micro
Dataset Creation:	Tue Jul 16 06:19:55 2013
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		

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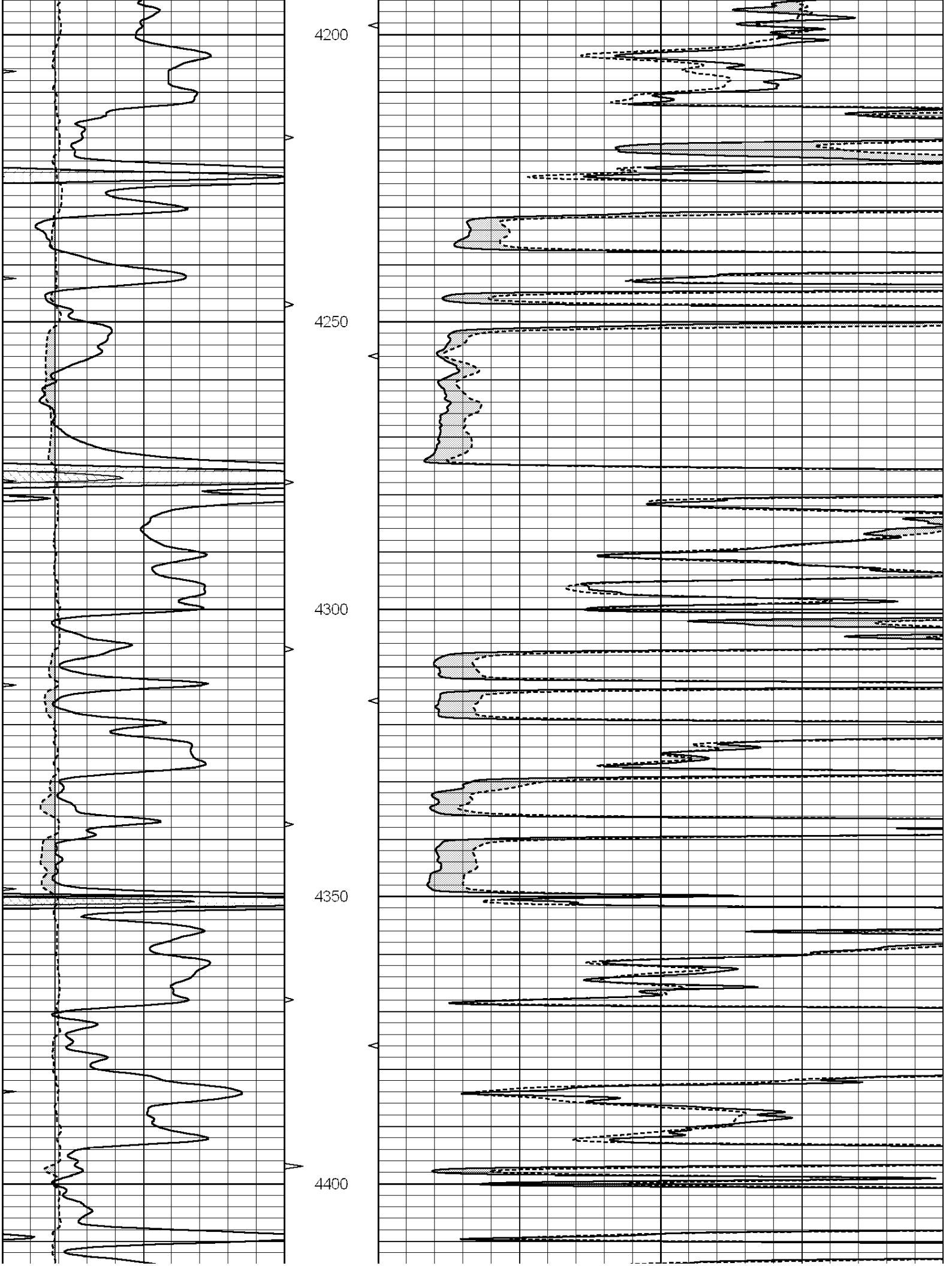
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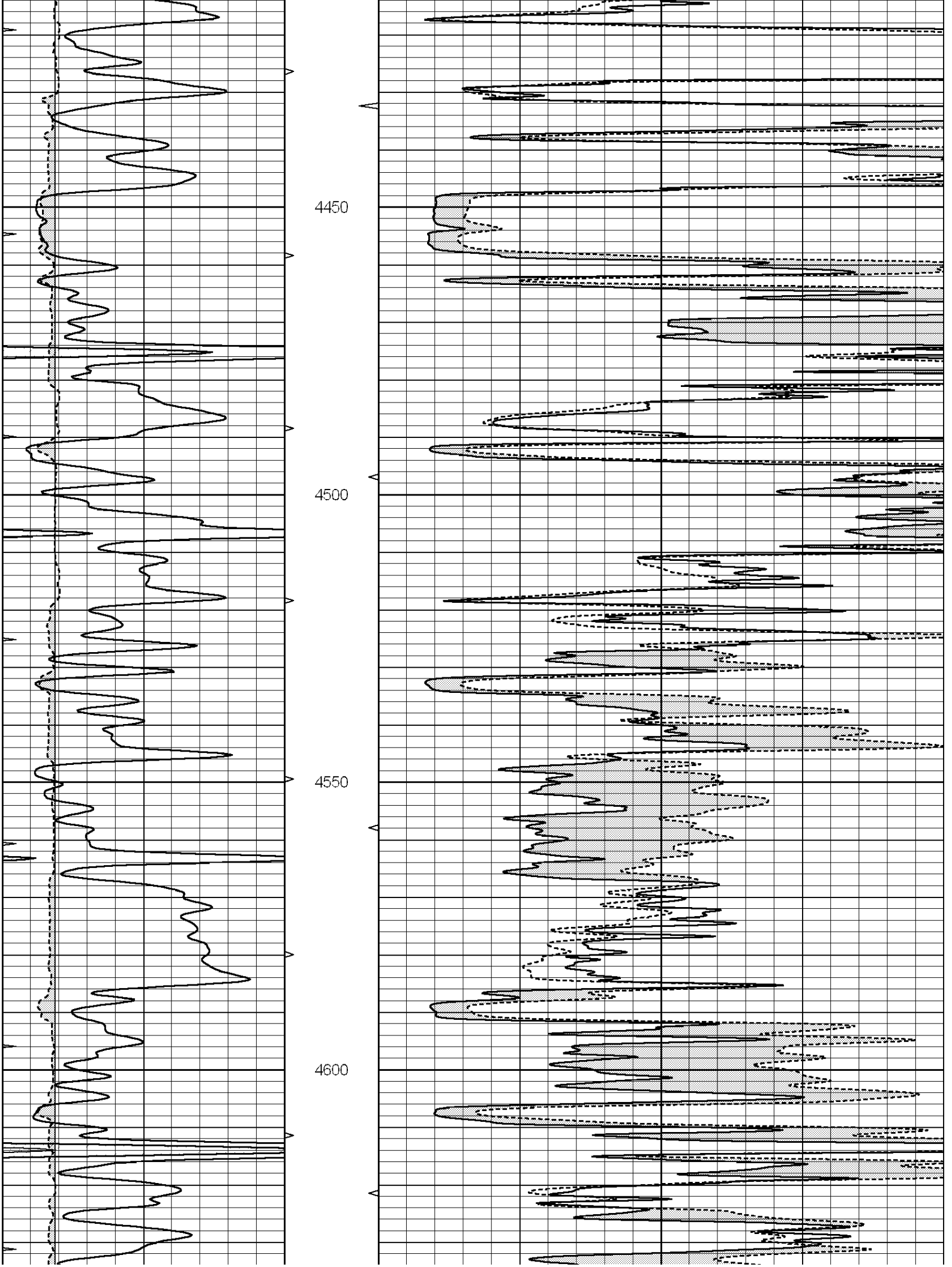
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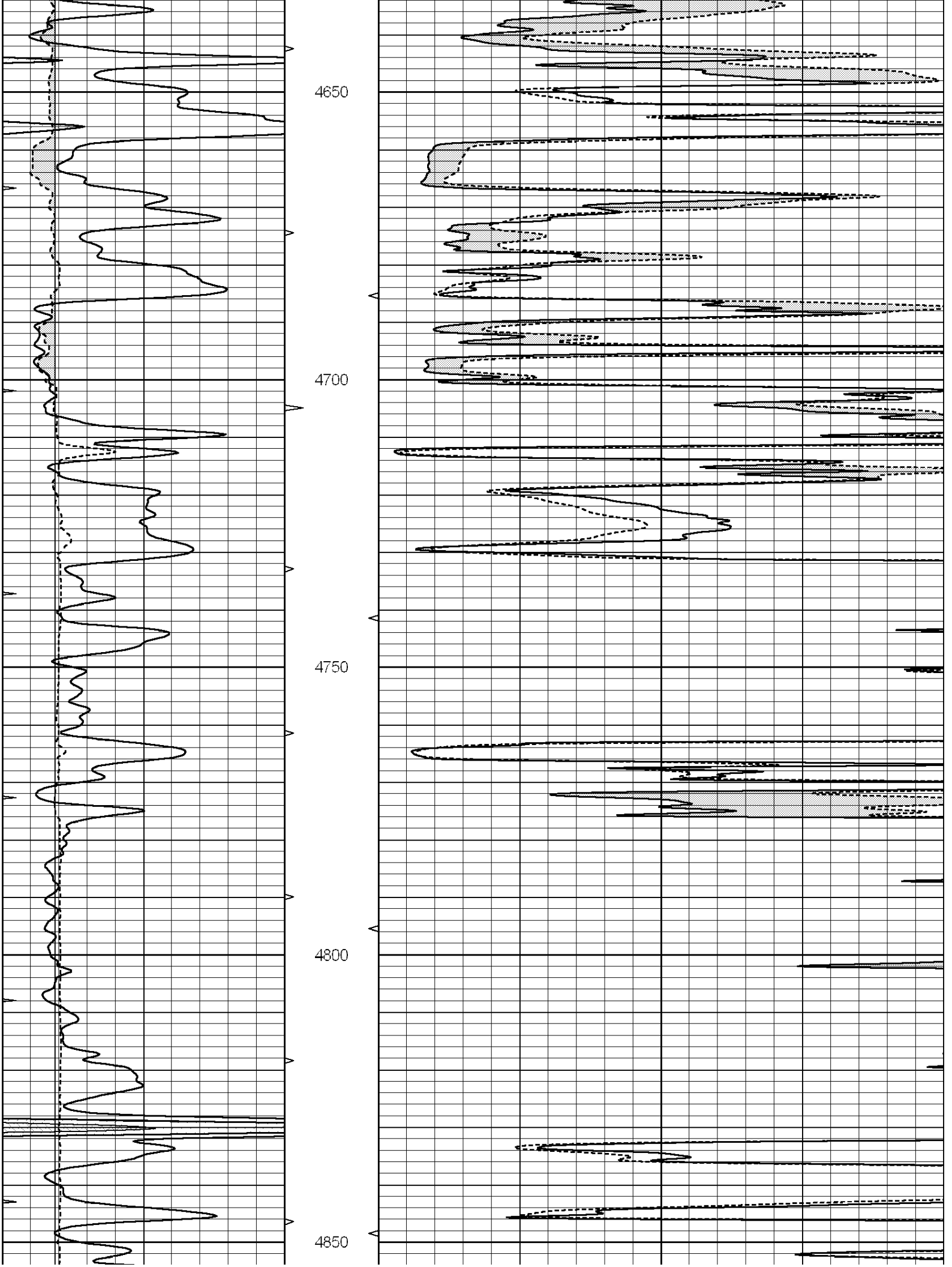
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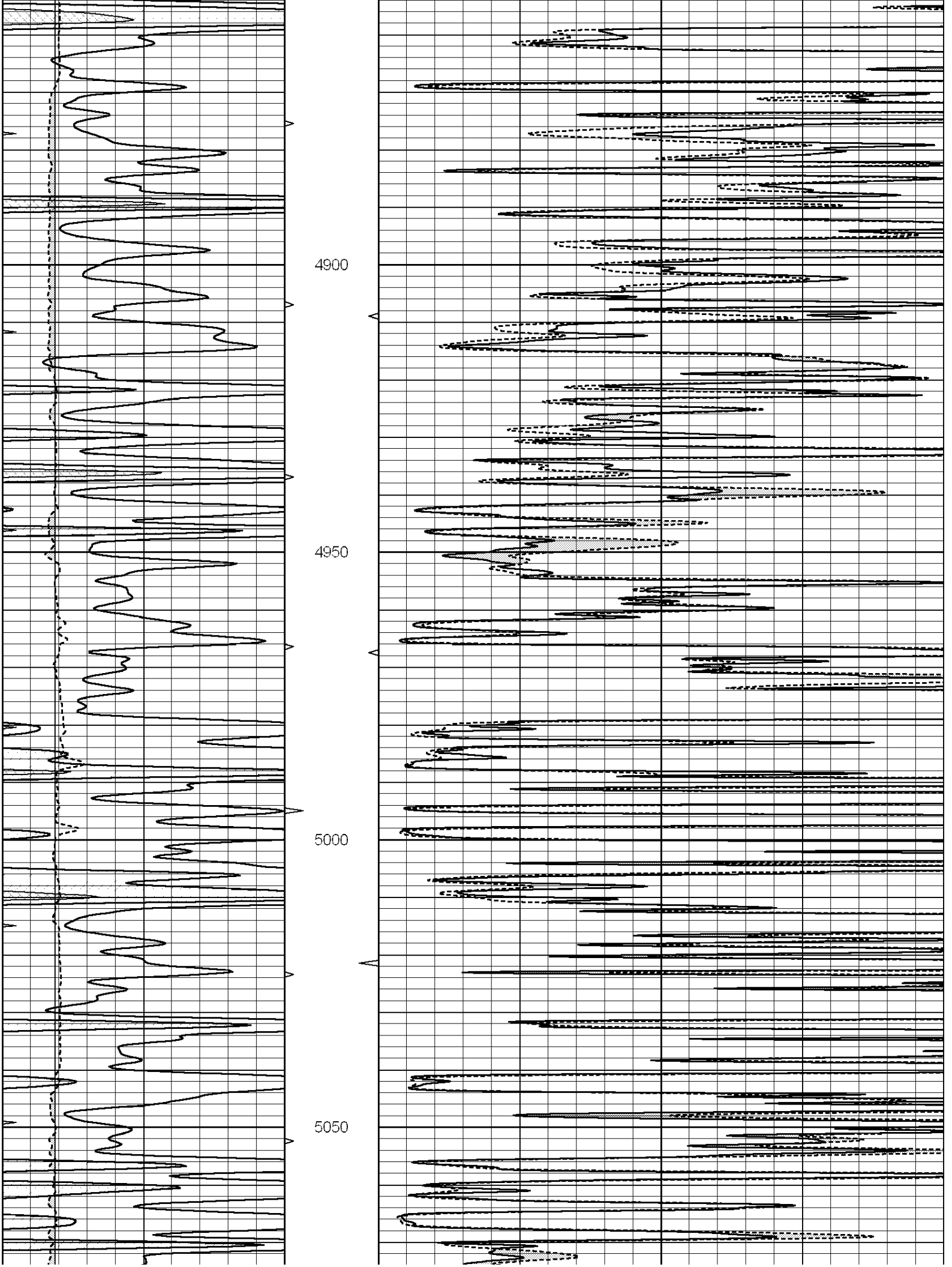
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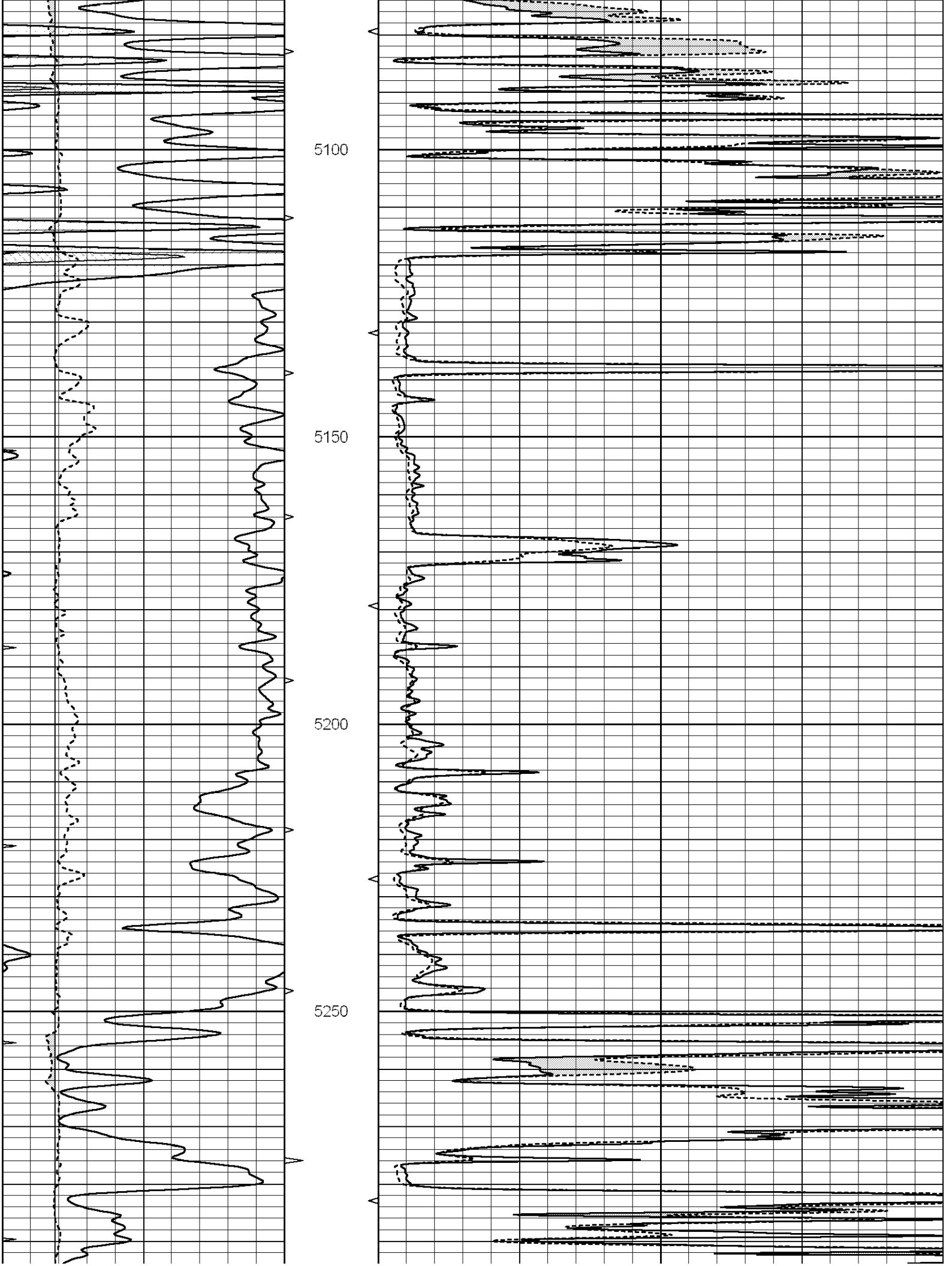
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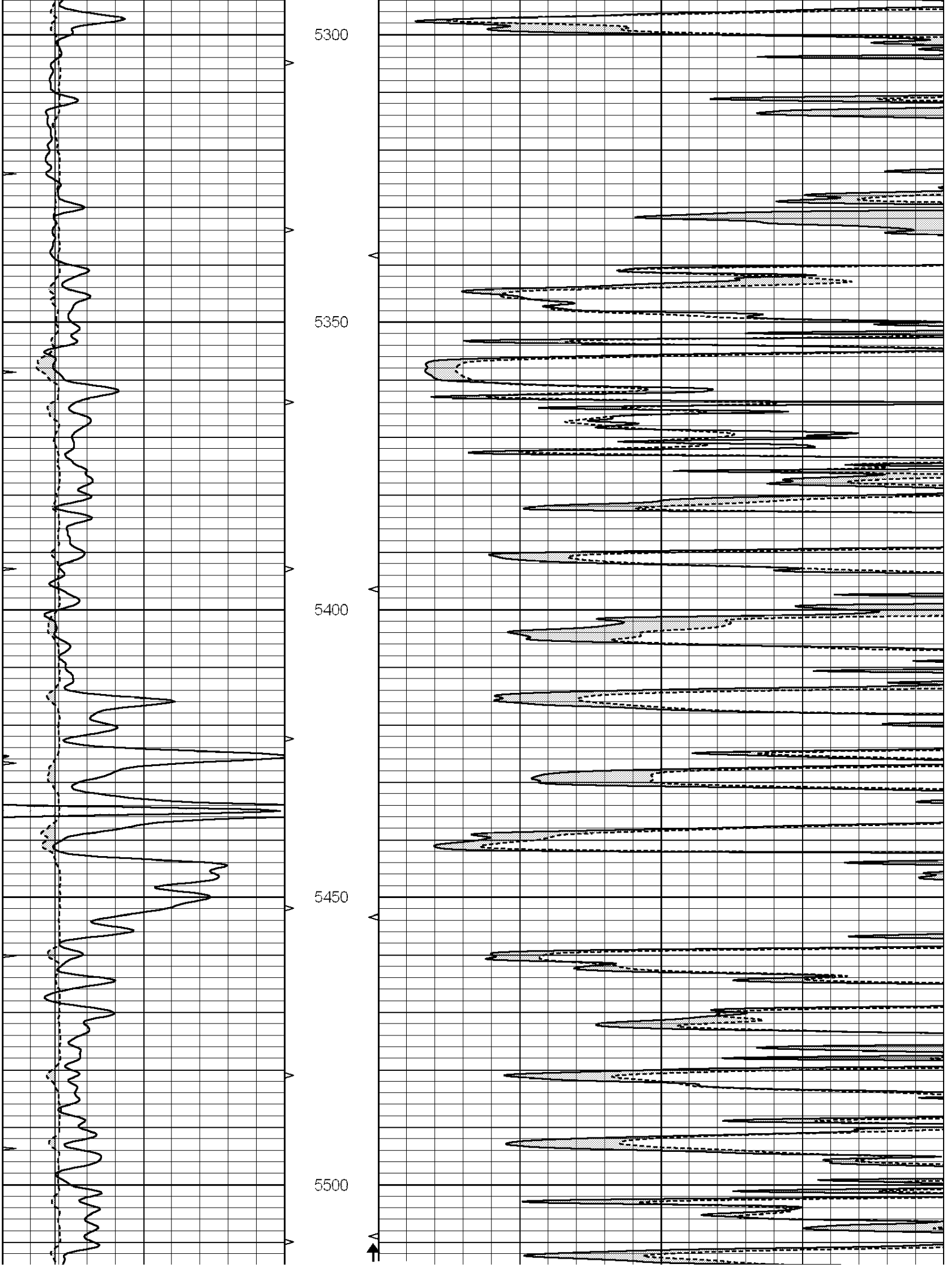
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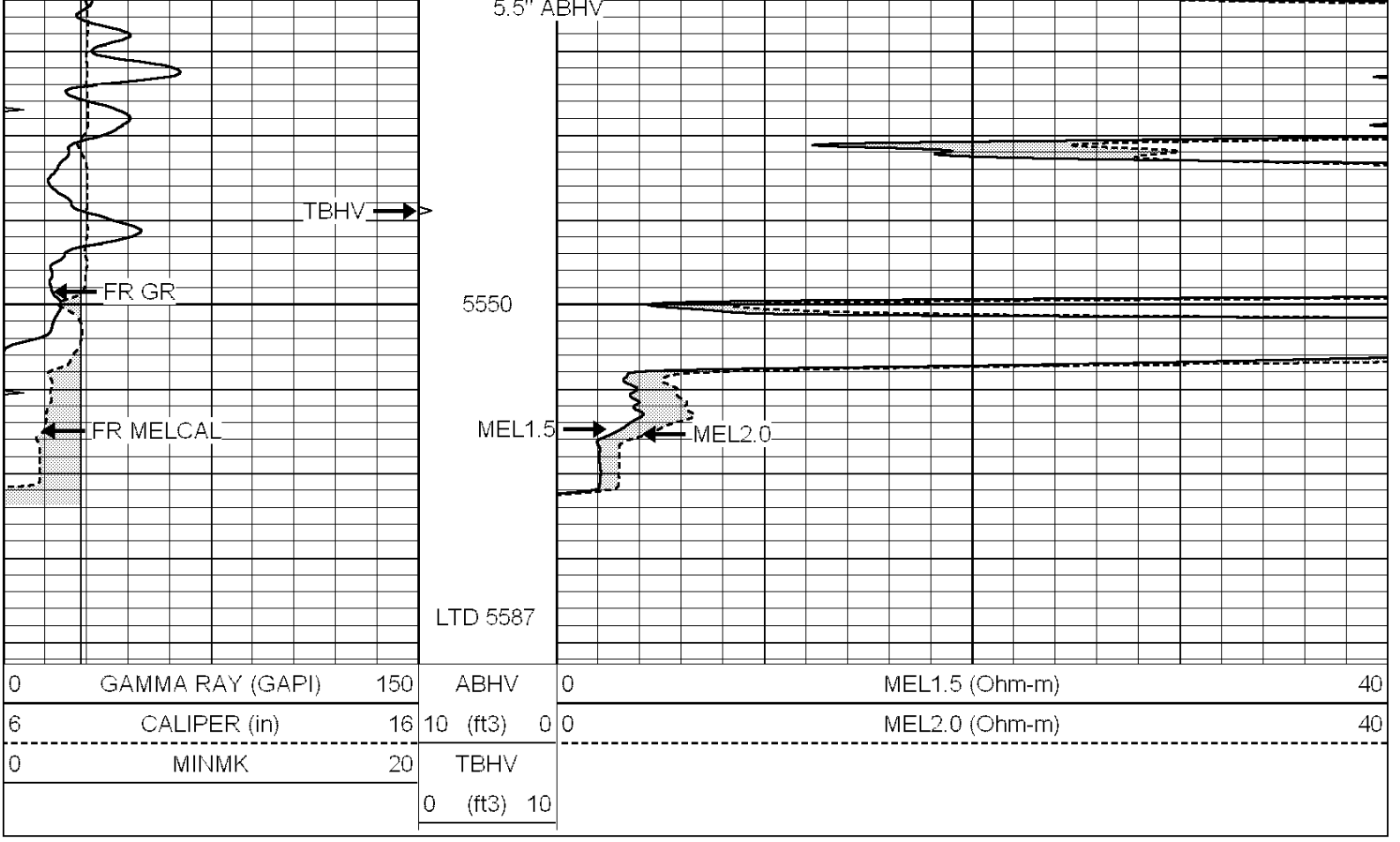
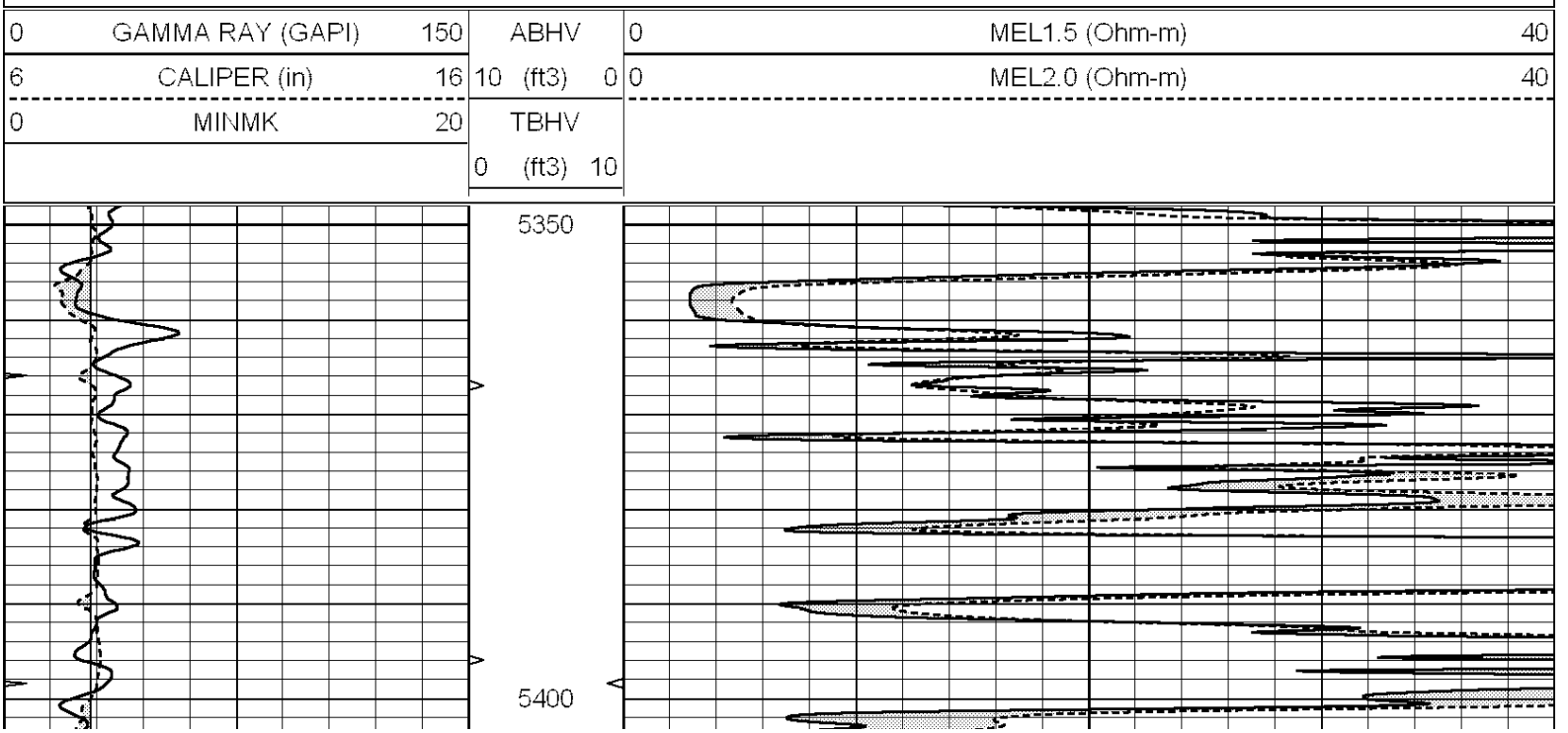
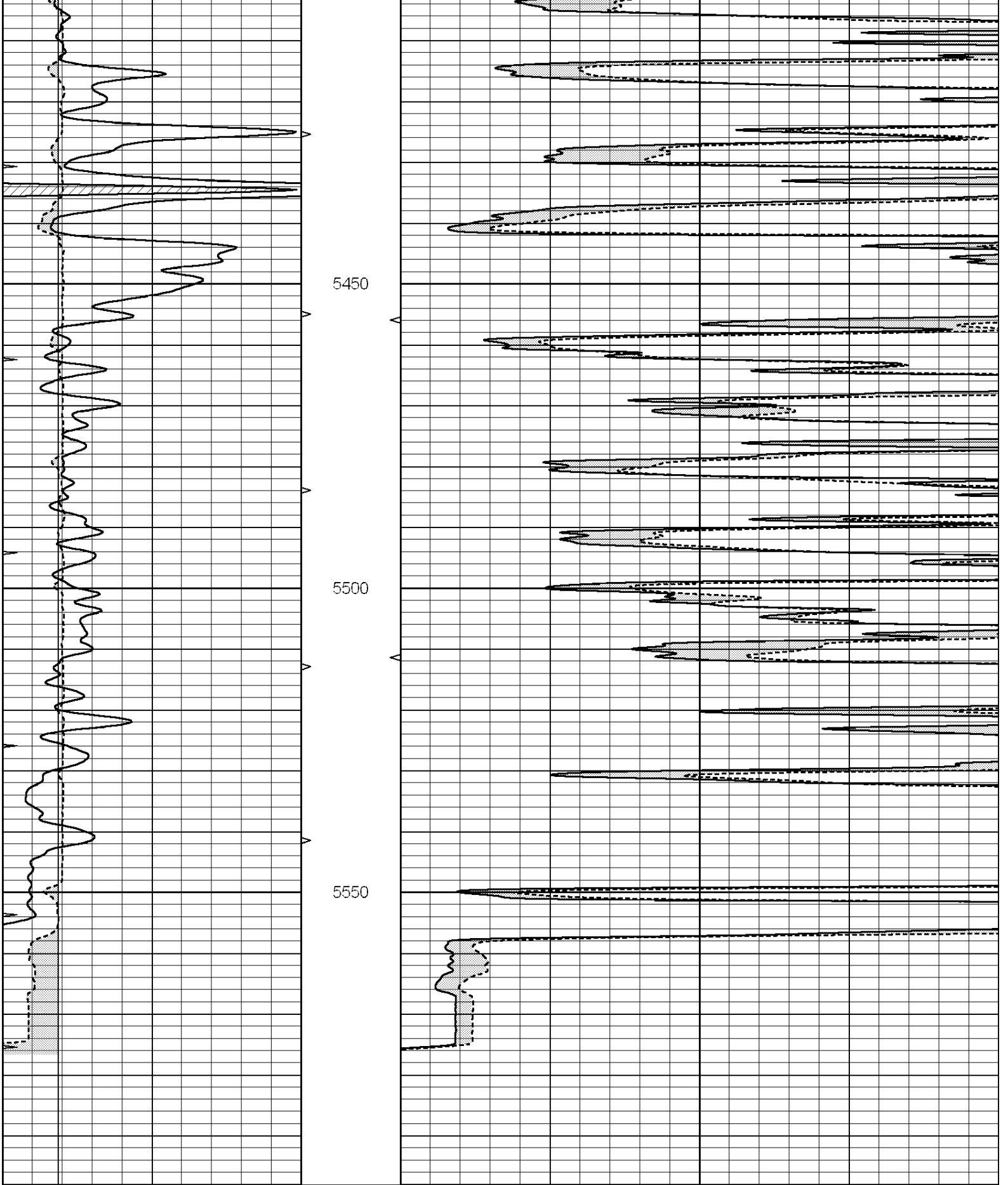


NABORS
COMPLETION & PRODUCTION SERVICES CO.

REPEAT SECTION

Database File:	011191pe.db
Dataset Pathname:	pass5.2
Presentation Format:	micro
Dataset Creation:	Tue Jul 16 05:21:15 2013
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: 011191pe.db
Dataset Pathname: pass6.3
Dataset Creation: Tue Jul 16 06:19:55 2013

MICRO Calibration Report

Serial Number:	MICRO5	
Tool Model:	PROBE	
Performed:	Thu Jul 11 16:32:51 2013	

Caliper Calibration:	Gain=3.605	Offset=-6.802
	Low Cal	High Cal
References	8.000	15.000
Readings	4.106	6.048

1.5" Calibration:	Gain=42.000	Offset=-1.000
	Low Cal	High Cal
References	0.000	20.000
Readings	0.015	1.005

2" Calibration:	Gain=52.000	Offset=-1.300
	Low Cal	High Cal
References	0.000	20.000
Readings	0.009	0.910

Gamma Ray Calibration Report

Serial Number:	GR3	
Tool Model:	OPEN	
Performed:	Thu Jul 11 16:32:58 2013	
Calibrator Value:	200.0	GAPI
Background Reading:	3.0	cps
Calibrator Reading:	186.0	cps
Sensitivity:	2.0000	GAPI/cps