



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

MICRO LOG

Company	RICHLAN DRILLING		
Well	RAHM #3		
Field	SCHABEN WEST		
County	NESS	State	KANSAS
Location:	API # : 15-135-25699-00-00 1640' FNL & 1170' FEL NW - NW - SE - NE		Other Services CNL/CDL/PE DIL/SON
Permanent Datum Log Measured From Drilling Measured From	SEC 22 TWP 19S RGE 22W GROUND LEVEL KELLY BUSHING 10' A.G.L. KELLY BUSHING	Elevation K.B. 2226 D.F. 2224 G.L. 2216	
Date	11-29-13		
Run Number	TWO		
Depth Driller	4483		
Depth Logger	4486		
Bottom Logged Interval	4468		
Top Log Interval	3550		
Casing Driller	8 5/8"@257'		
Casing Logger	254'		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 7,000 PPM	
Density / Viscosity	9.0/58		
pH / Fluid Loss	9.5/8.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.65@79F		
Rmf @ Meas. Temp	0.49@71F		
Rmc @ Meas. Temp	0.78@71F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	0.38@120F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	120F		
Equipment Number	860		
Location	HAYS, KANSAS		
Recorded By	IAN MABB		
Witnessed By	BOB SCHREIBER		

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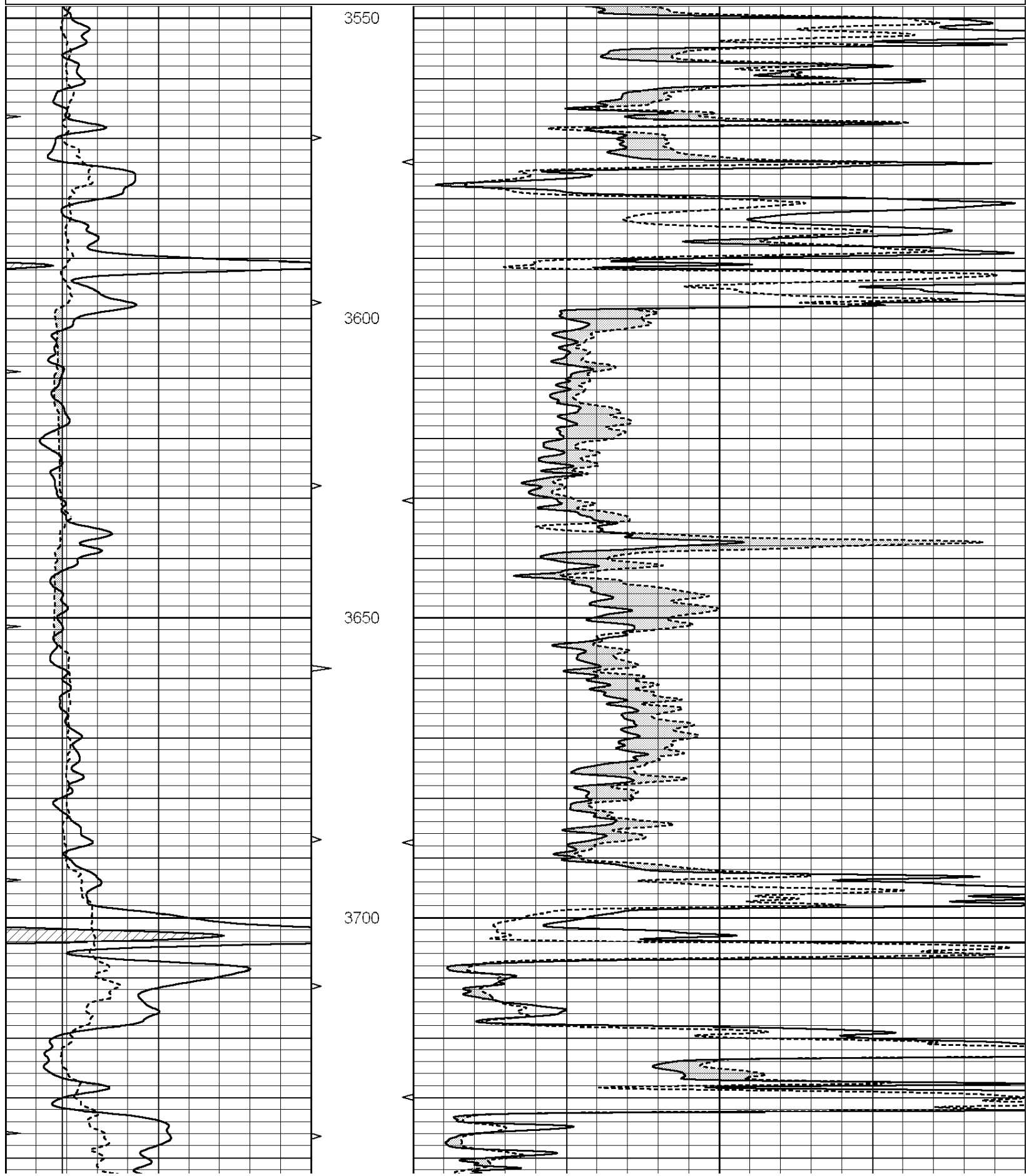
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

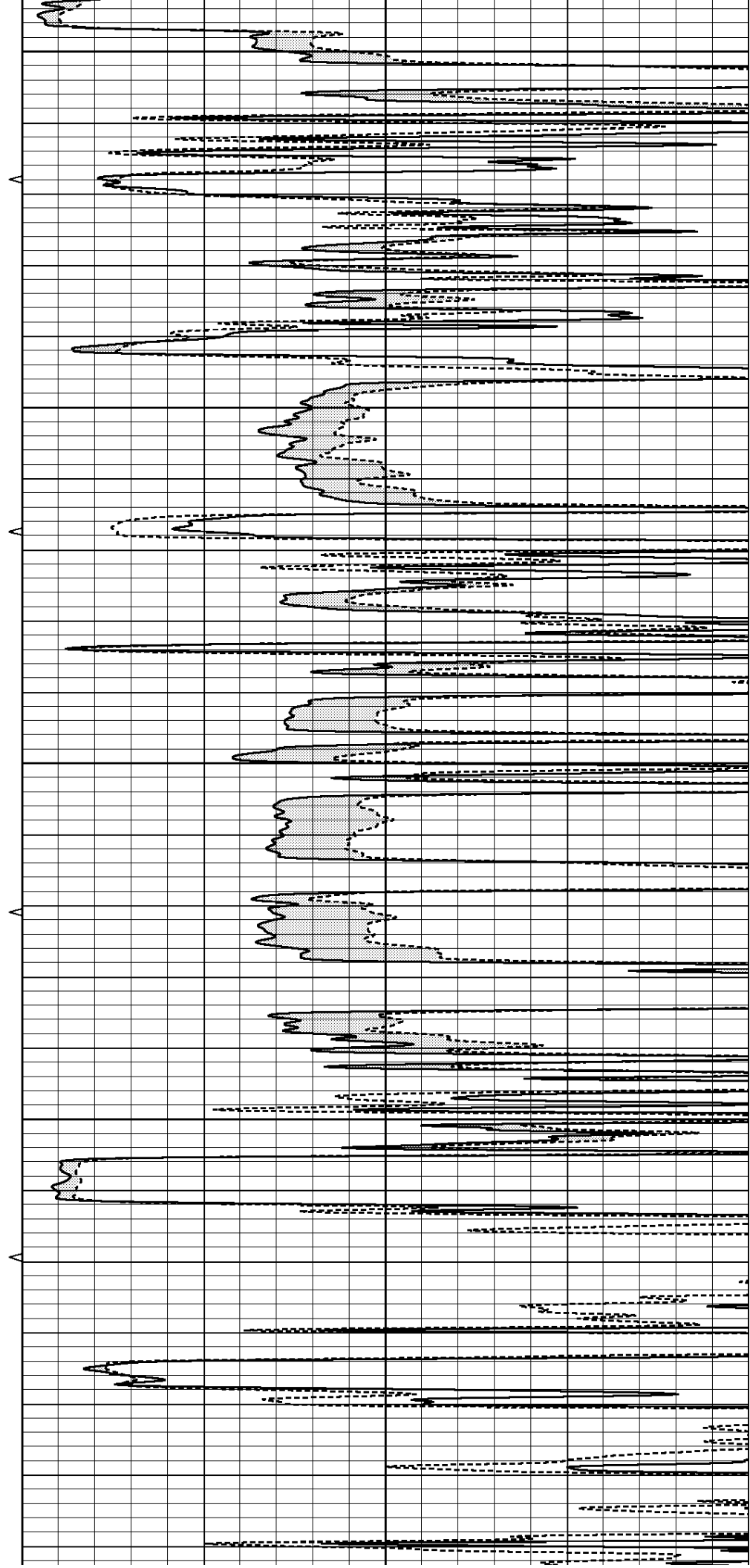
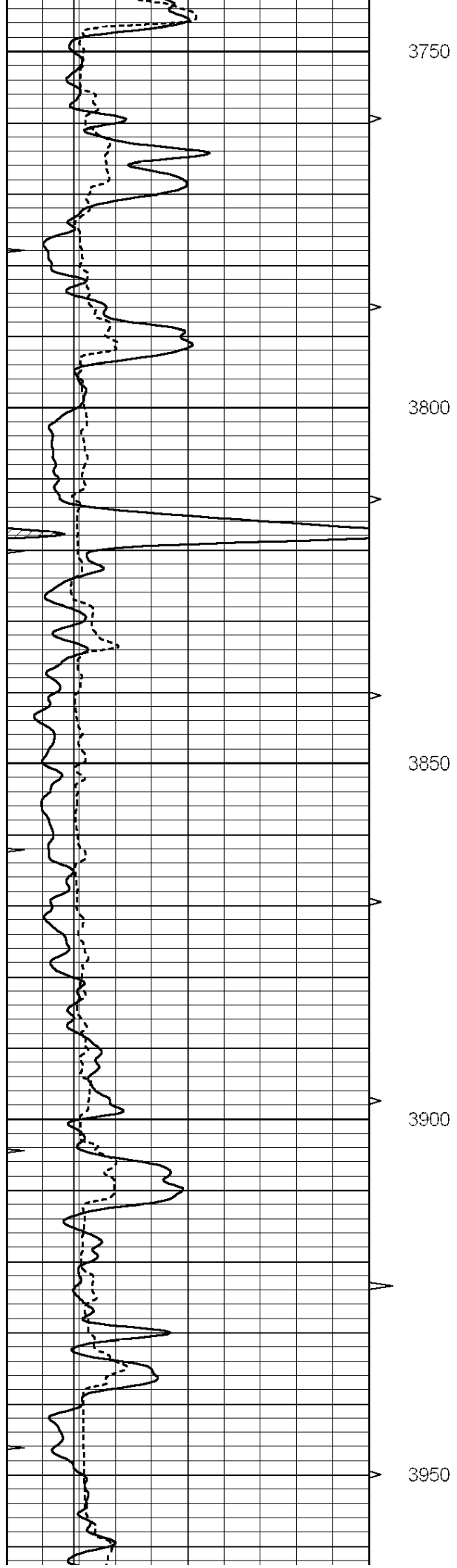
Comments

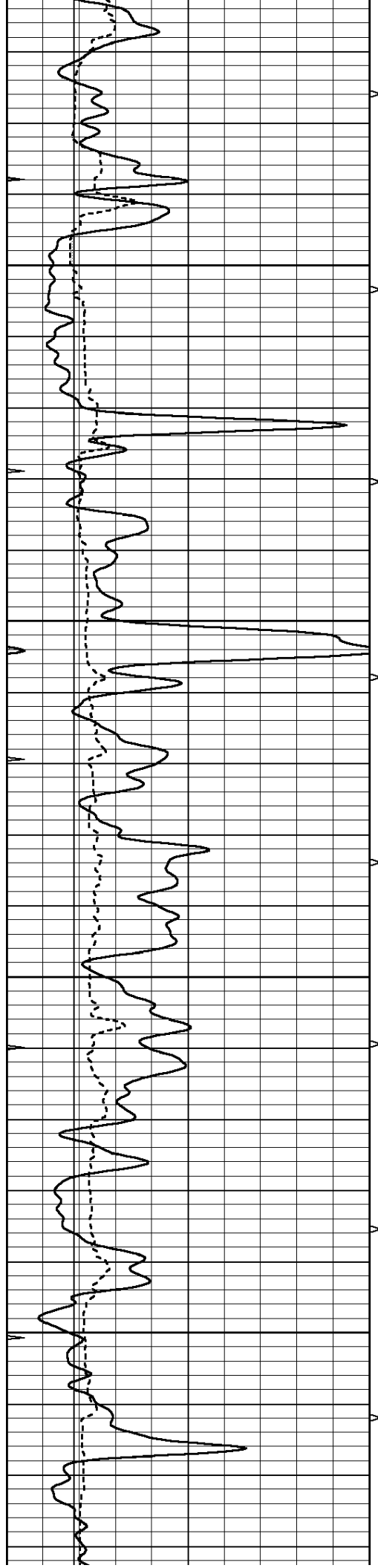
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
BAZINE, KS. - 2 WEST TO RD BB - SOUTH 4 MILES WEST INTO

0	GAMMA RAY (GAPI)	150
6	MELCAL (in)	16
0	MINMK	20

0	MEL1.5 (Ohm-m)	40
0	MEL2.0 (Ohm-m)	40





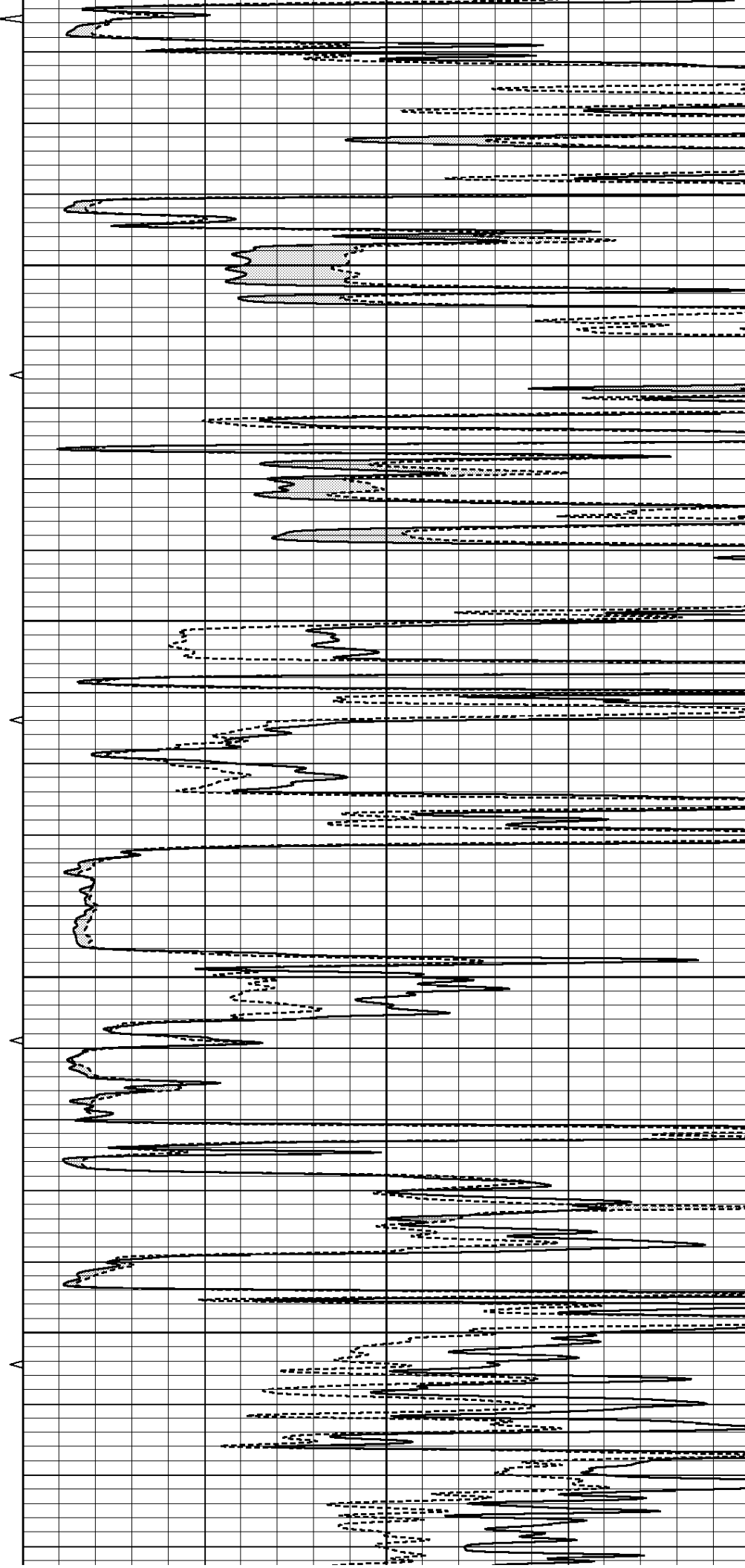


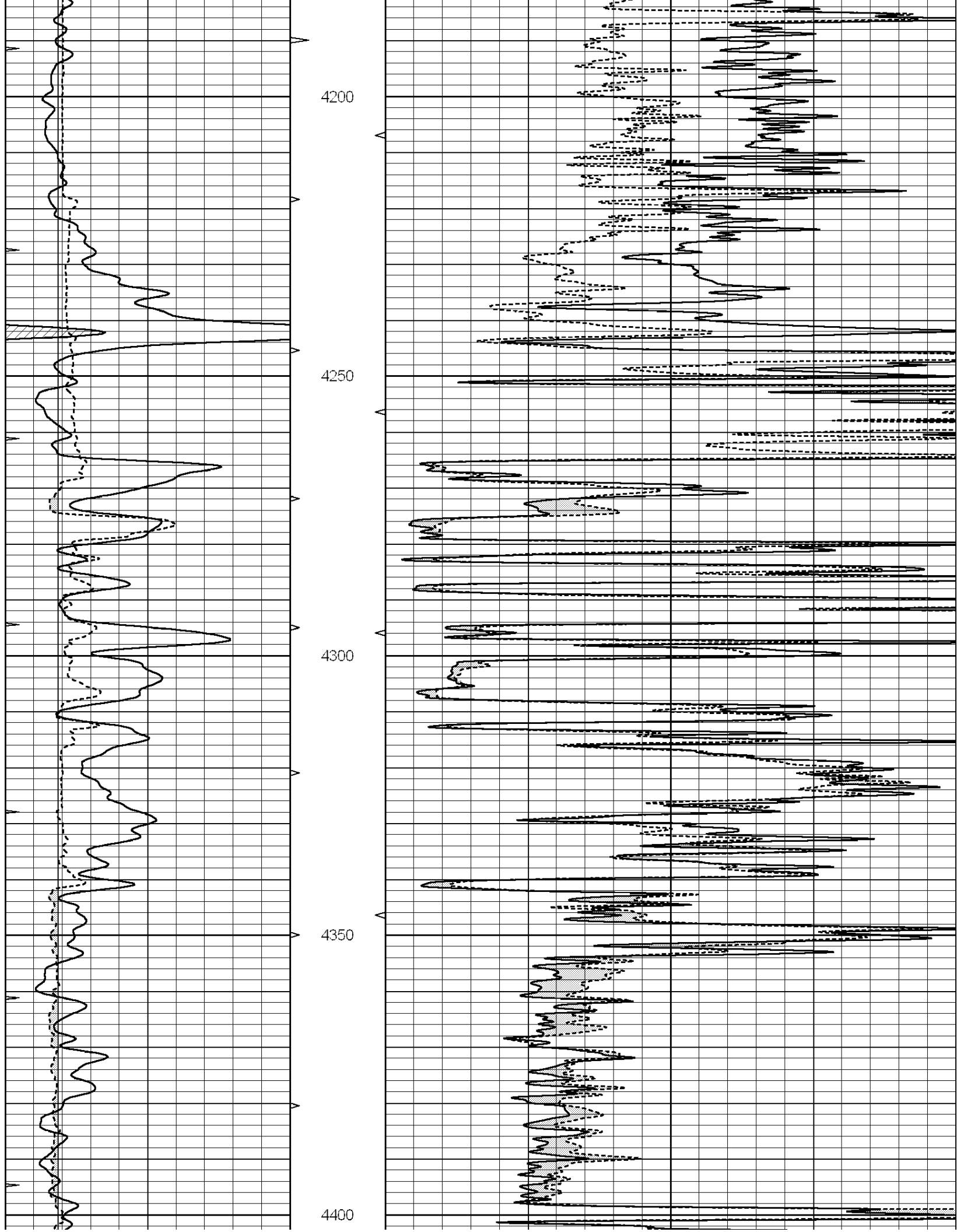
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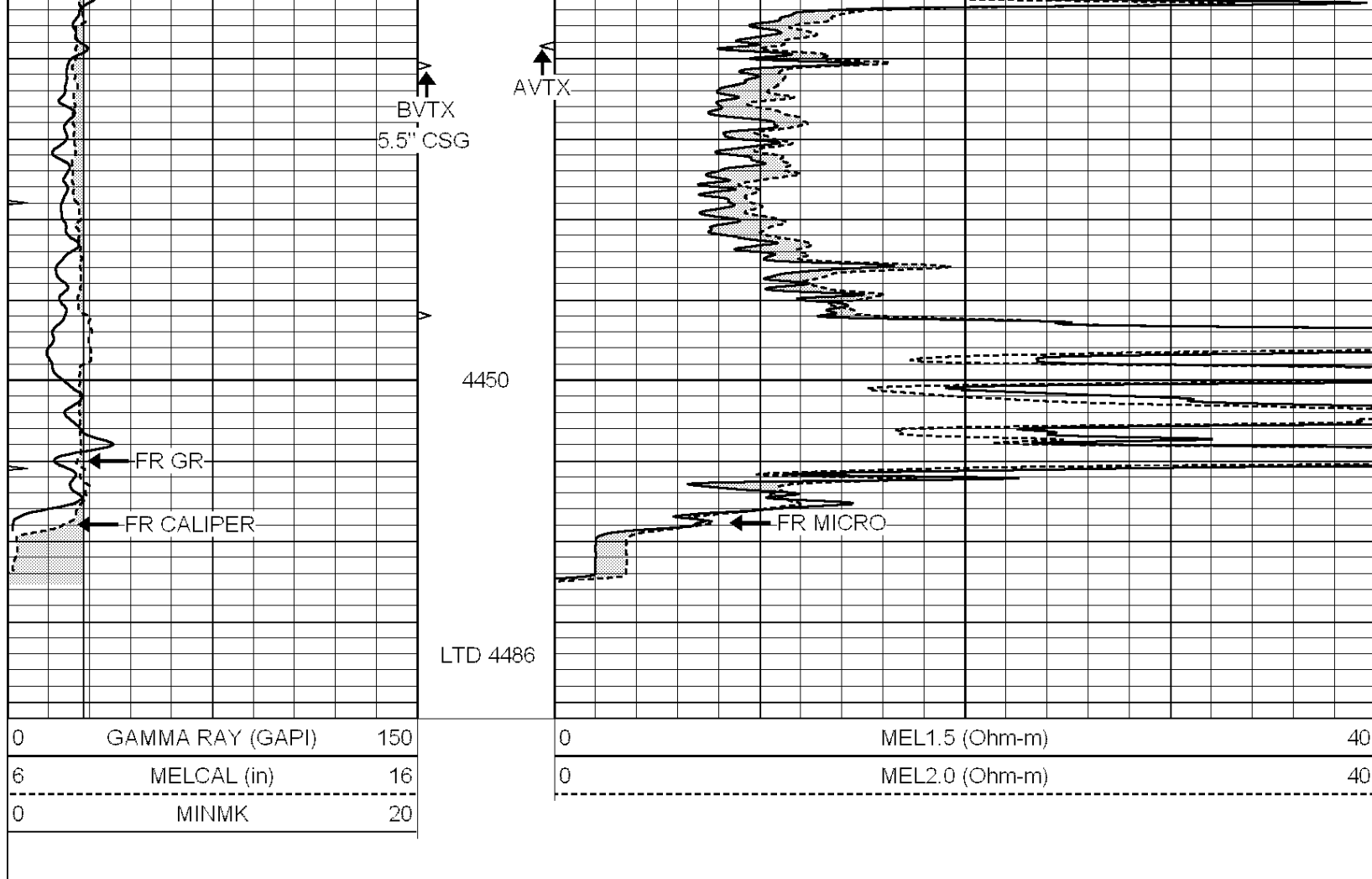
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4150



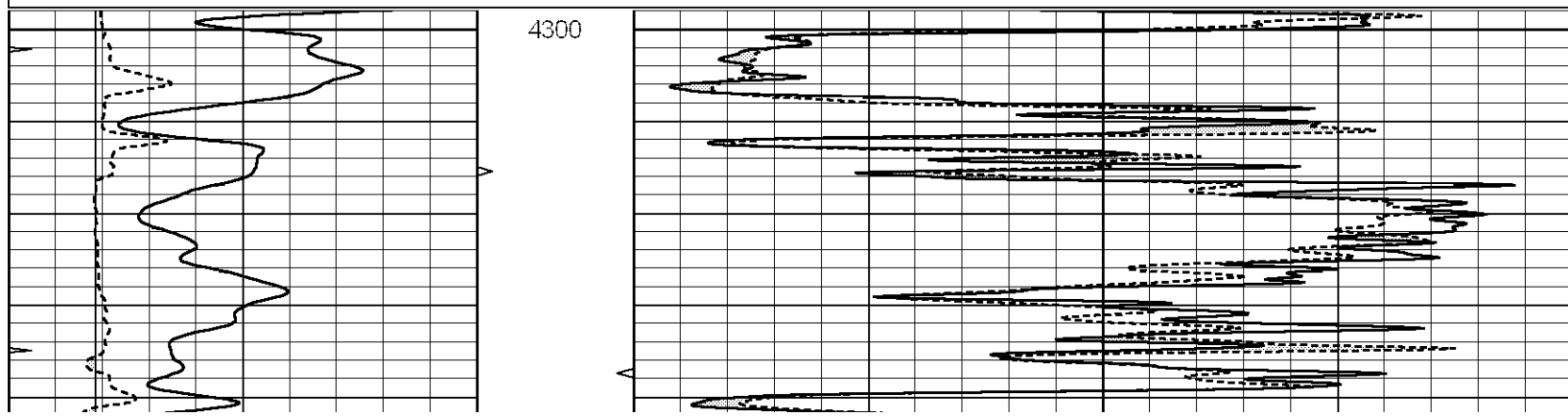


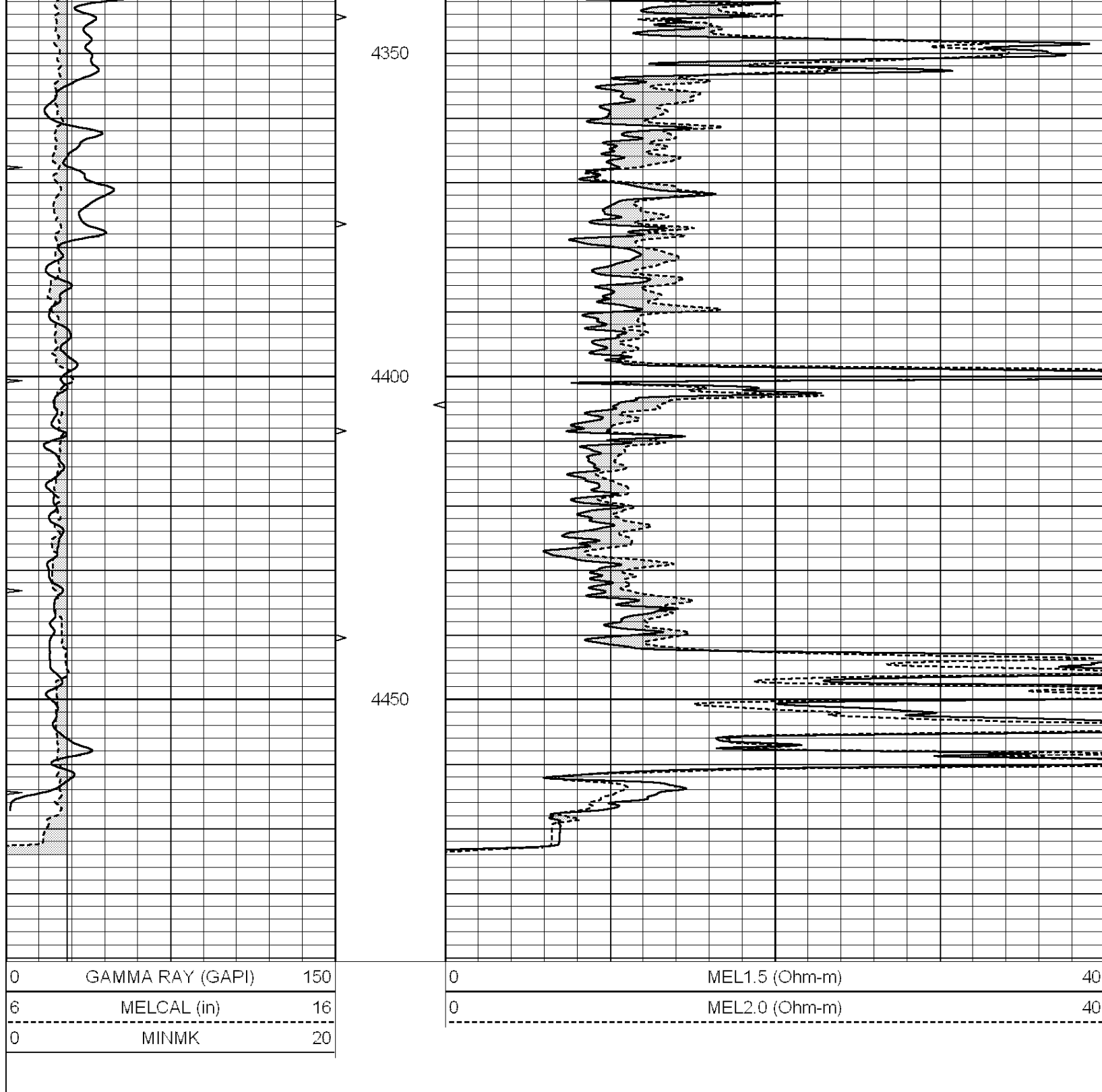


REPEAT SECTION

Database File: 012047pe.db
 Dataset Pathname: pass5.1.2
 Presentation Format: _micro
 Dataset Creation: Fri Nov 29 17:17:04 2013 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0	MEL1.5 (Ohm-m)	40
6	MELCAL (in)	16	0	MEL2.0 (Ohm-m)	40
0	MINMK	20			





Calibration Report

Database File: 012047pe.db
Dataset Pathname: pass7.1.1
Dataset Creation: Fri Nov 29 17:43:24 2013 by Calc Open-Cased 090629

MICRO Calibration Report

Serial Number: MICRO4
Tool Model: PROBE
Performed: Sat Nov 23 07:48:00 2013

Caliper Calibration: Gain=2.947 Offset=-9.500

Low Cal High Cal

References	8.600	14.000
Readings	5.934	7.767
1.5" Calibration:	Gain=50.000	Offset=-2.200
References	Low Cal	High Cal
	0.000	20.000
Readings	0.009	1.541
2" Calibration:	Gain=55.000	Offset=-0.600
References	Low Cal	High Cal
	0.000	20.000
Readings	0.004	1.198
Gamma Ray Calibration Report		
Serial Number:	GR5	
Tool Model:	OPEN	
Performed:	Mon Nov 25 00:29:00 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8100	GAPI/cps