



**COMPLETION
& PRODUCTION
SERVICES CO.**

**MICRO
LOG**

Company HERTEL OIL COMPANY, LLC.
Well WERTH - PFANNENSTIEL UNIT #1
Field WILDCAT
County ELLIS
State KANSAS

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Location: API # : 15-051-26436-0000
1150' FSL & 1505' FEL
NE - NE - SW - SE
SEC 14 TWP 15S RGE 19W
Permanent Datum GROUND LEVEL Elevation 1995
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL
DIL
Elevation
K.B. 2003
D.F. 2001
G.L. 1995

Date	12/14/12		
Run Number	TWO		
Depth Driller	3700		
Depth Logger	3701		
Bottom Logged Interval	3699		
Top Log Interval	2900		
Casing Driller	8 5/8" @ 1189'		
Casing Logger	1189		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 1,500 PPM	
Density / Viscosity	8.8/61		
pH / Fluid Loss	10.5/8.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	1.10 @ 88F		
Rmf @ Meas. Temp	.825 @ 88F		
Rmc @ Meas. Temp	1.32 @ 88F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.857 @ 113F		
Time Circulation Stopped	3.5 HOURS		
Time Logger on Bottom	5:00 P.M.		
Maximum Recorded Temperature	113F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	HERB DEINES		

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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

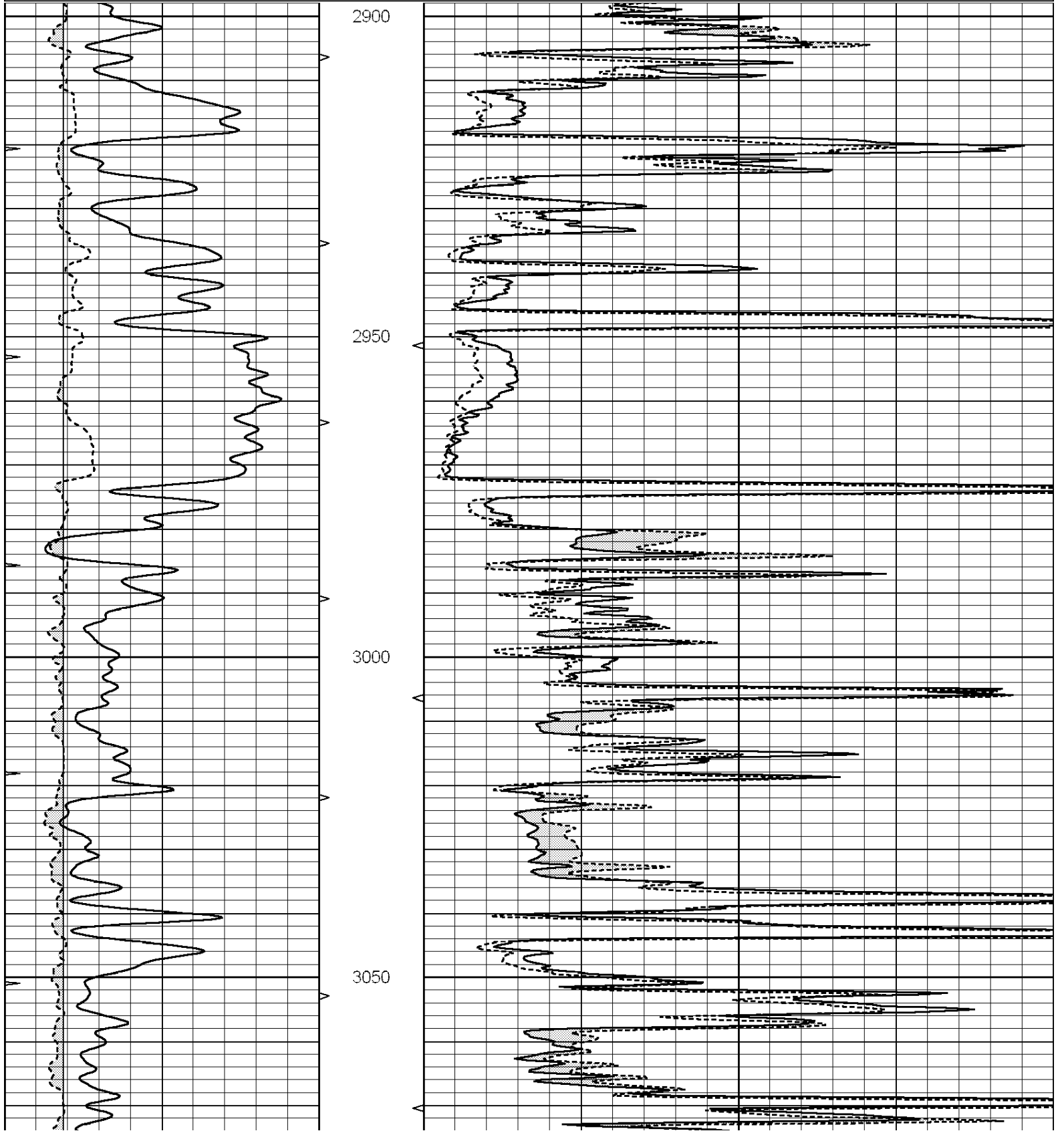
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
ANTONINO, KS., 2 3/4S., W. INTO

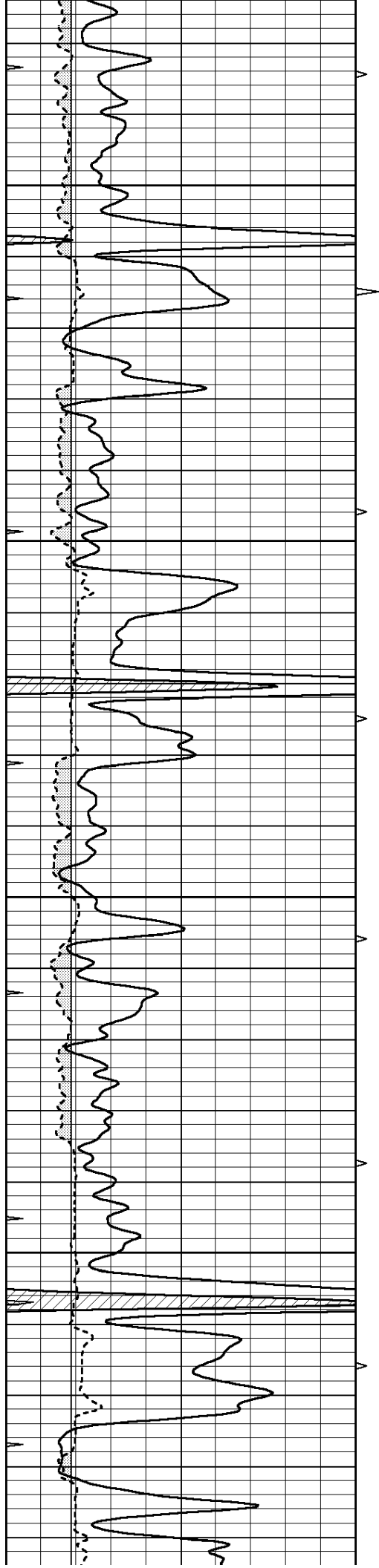


MAIN SECTION

Database File: 010033ddn.db
 Dataset Pathname: pass7.6
 Presentation Format: micro
 Dataset Creation: Fri Dec 14 20:19:47 2012
 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	MEL2.0 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		



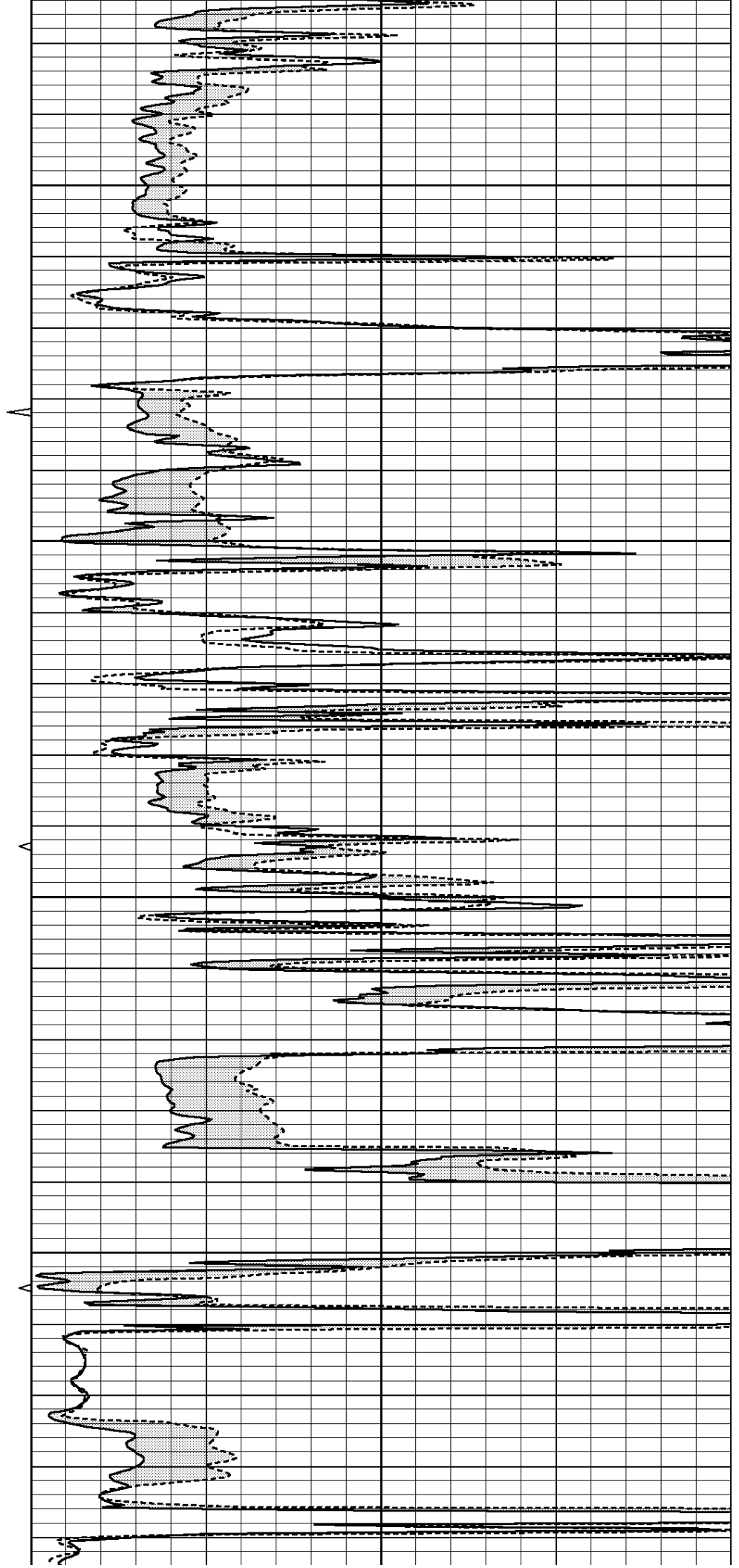


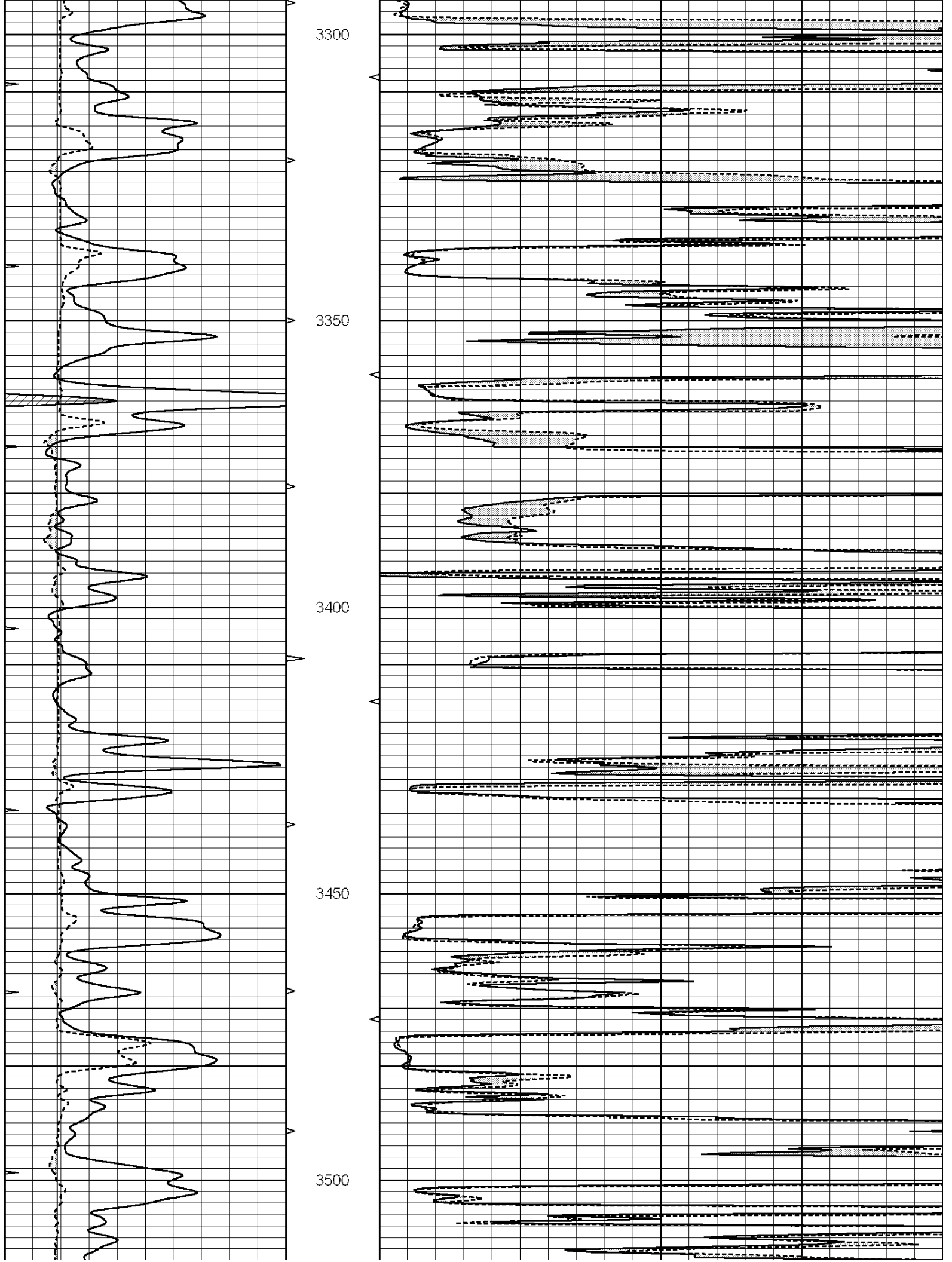
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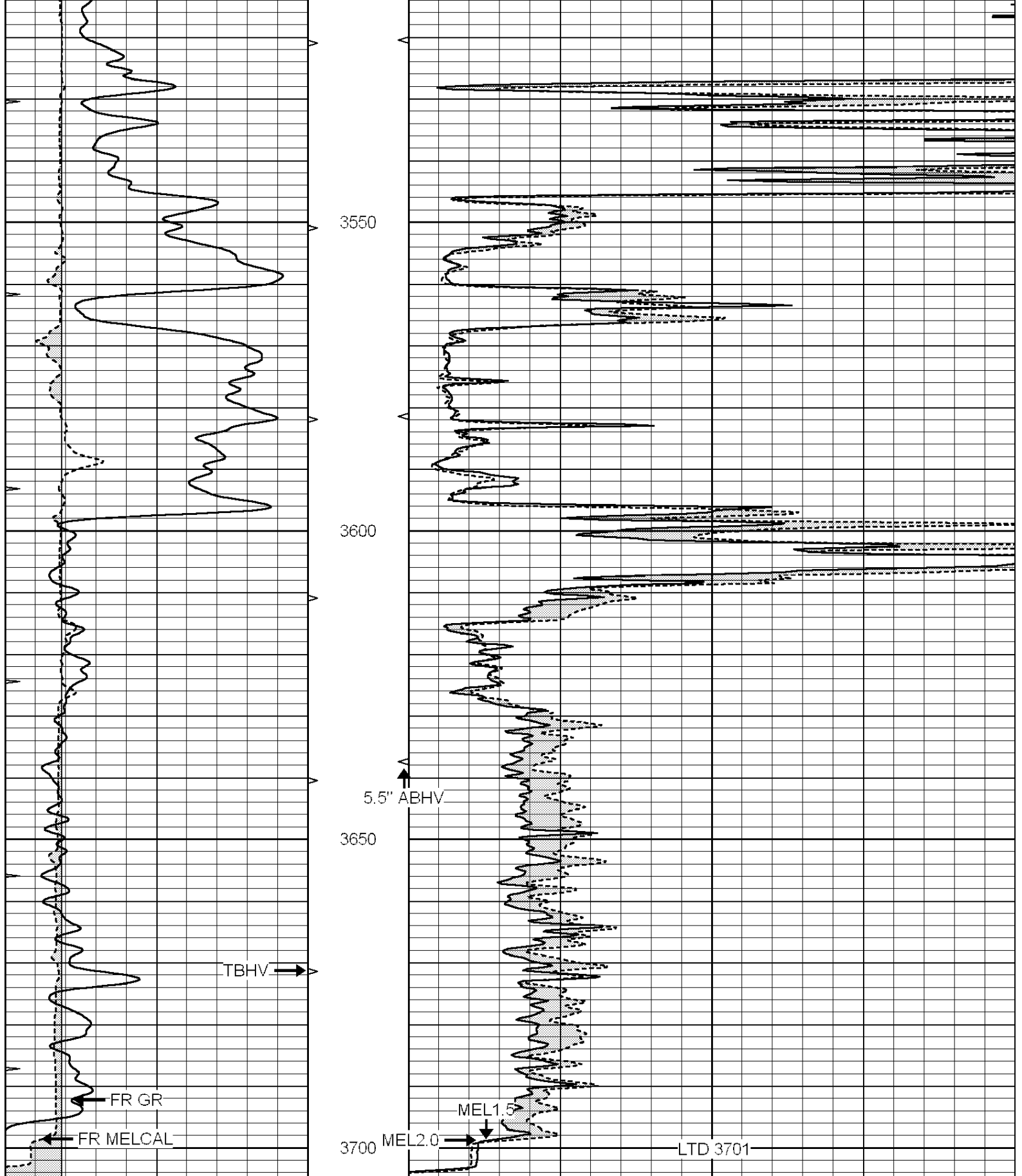
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3200

3250





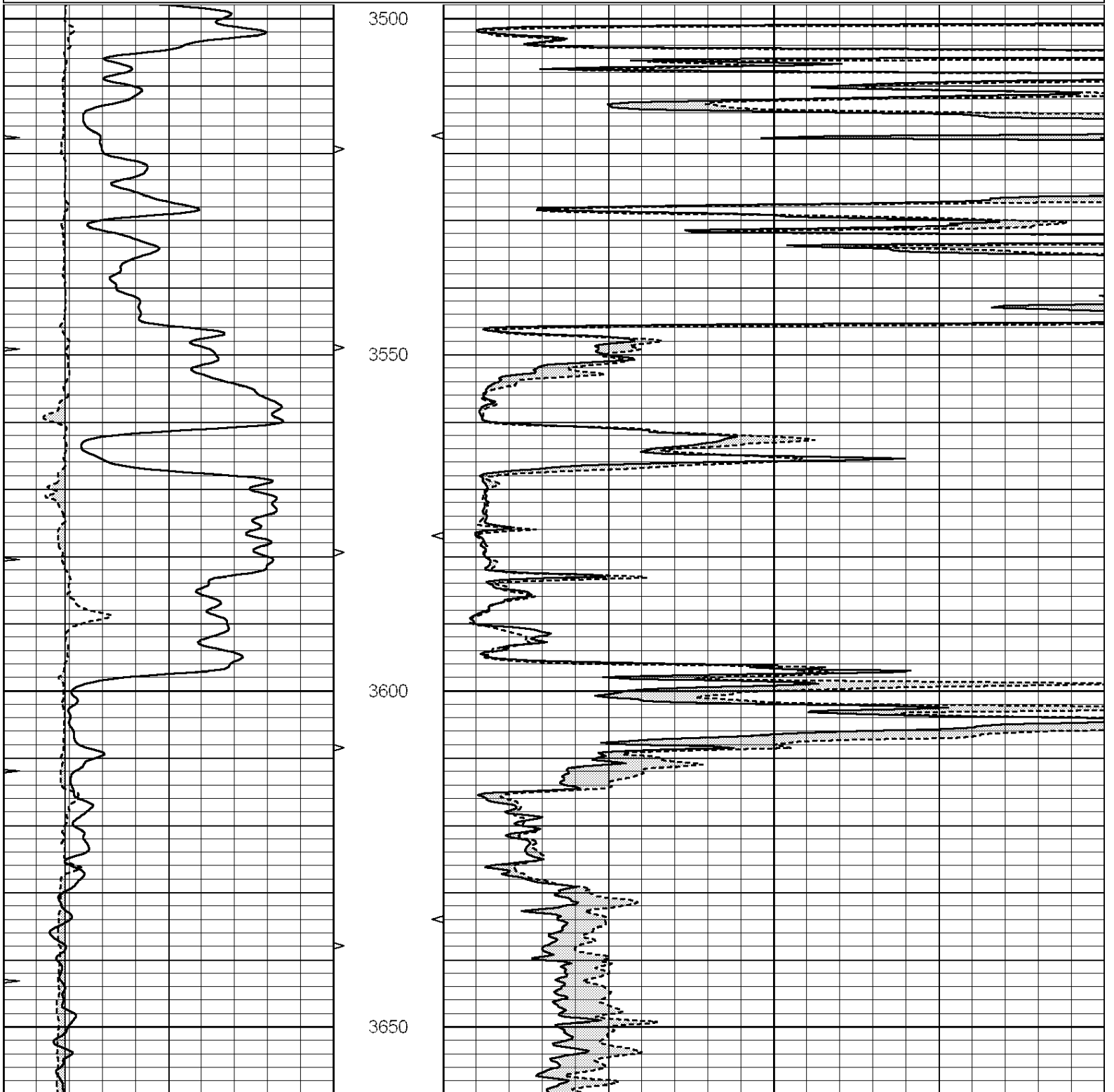


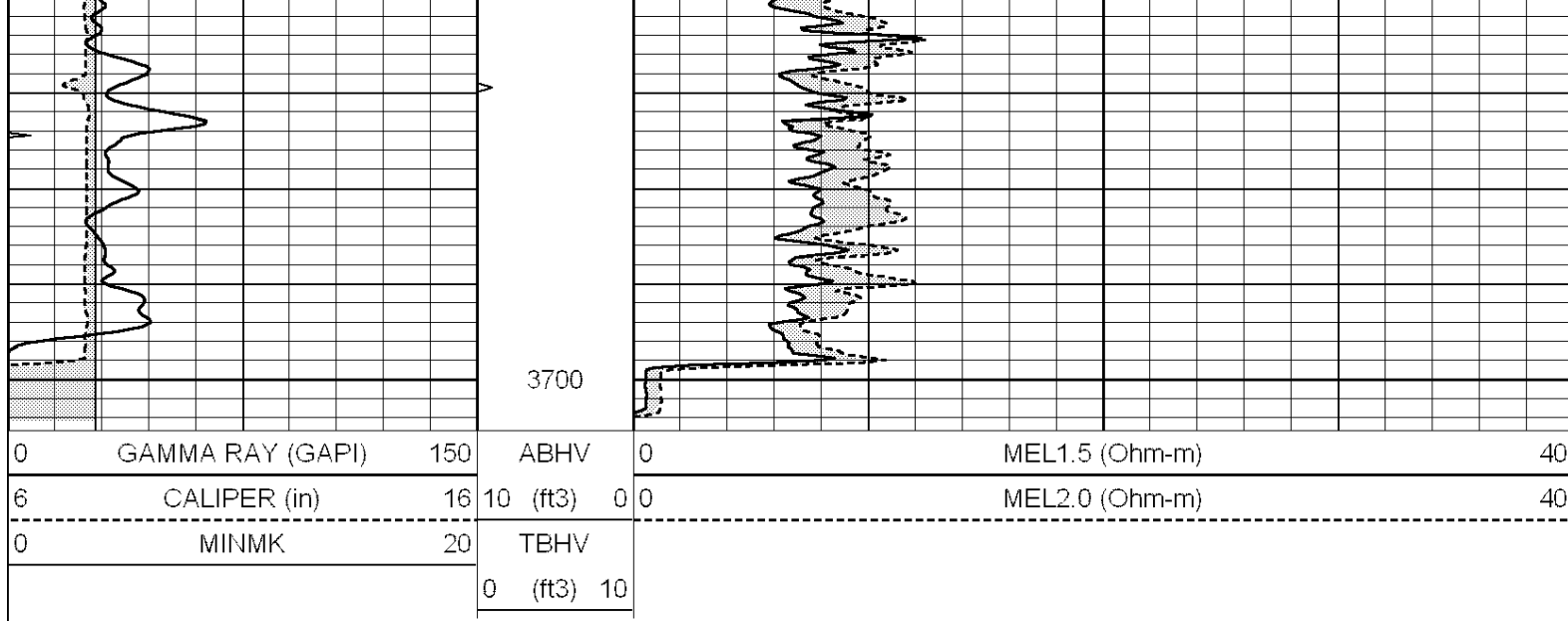
0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	40
6	CALIPER (in)	16	10 (ft3)	0 0	MEL2.0 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		

REPEAT SECTION

Database File: 010033ddn.db
 Dataset Pathname: pass6.3
 Presentation Format: micro
 Dataset Creation: Fri Dec 14 19:07:33 2012 by Calc SOC 120430
 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: 010033ddn.db
 Dataset Pathname: pass7.6
 Dataset Creation: Fri Dec 14 20:19:47 2012

MICRO Calibration Report

Serial Number: MICRO5
 Tool Model: PROBE
 Performed: Fri Dec 14 19:06:03 2012

Caliper Calibration: Gain=3.400 Offset=-3.863
 References Low Cal 7.600 High Cal 16.000
 Readings 3.372 5.843

1.5" Calibration: Gain=34.000 Offset=-0.700
 References Low Cal 0.000 High Cal 20.000
 Readings -0.002 0.981

2" Calibration: Gain=45.000 Offset=-1.100
 References Low Cal 0.000 High Cal 20.000
 Readings 0.002 0.898

Gamma Ray Calibration Report

Serial Number: GR4
 Tool Model: OPEN
 Performed: Fri Dec 14 19:06:08 2012
 Calibrator Value: 200.0 GAPI
 Background Reading: 0.0 cps
 Calibrator Reading: 189.0 cps
 Sensitivity: 1.7000 GAPI/cps