



MICRO LOG

Company HARTMAN OIL COMPANY, INC.
Well SANDERS #2
Field DUQUOIN TOWNSITE
County HARPER
State KANSAS

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County HARPER State KANSAS

Location: API # : 15-077-22180-0000
4290' FSL & 1980' FEL
S/2 - NW - NE
Permanent Datum GROUND LEVEL Elevation 1587
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING
Elevation
K.B. 1592
D.F. 1590
G.L. 1587

Date	12/20/18
Run Number	TWO
Depth Driller	4400
Depth Logger	4401
Bottom Logged Interval	4399
Top Log Interval	3100
Casing Driller	8 5/8"@287'
Casing Logger	287
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.4/52
pH / Fluid Loss	10.0/8.8
Source of Sample	FLOWLINE
Rim @ Meas. Temp	.600@80F
Rmf @ Meas. Temp	.450@80F
Rmc @ Meas. Temp	.720@80F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.720@80F
Time Circulation Stopped	4 HOURS
Time Logger on Bottom	10:30 A.M.
Maximum Recorded Temperature	120F
Equipment Number	922339
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	LOREN DEEVER

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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

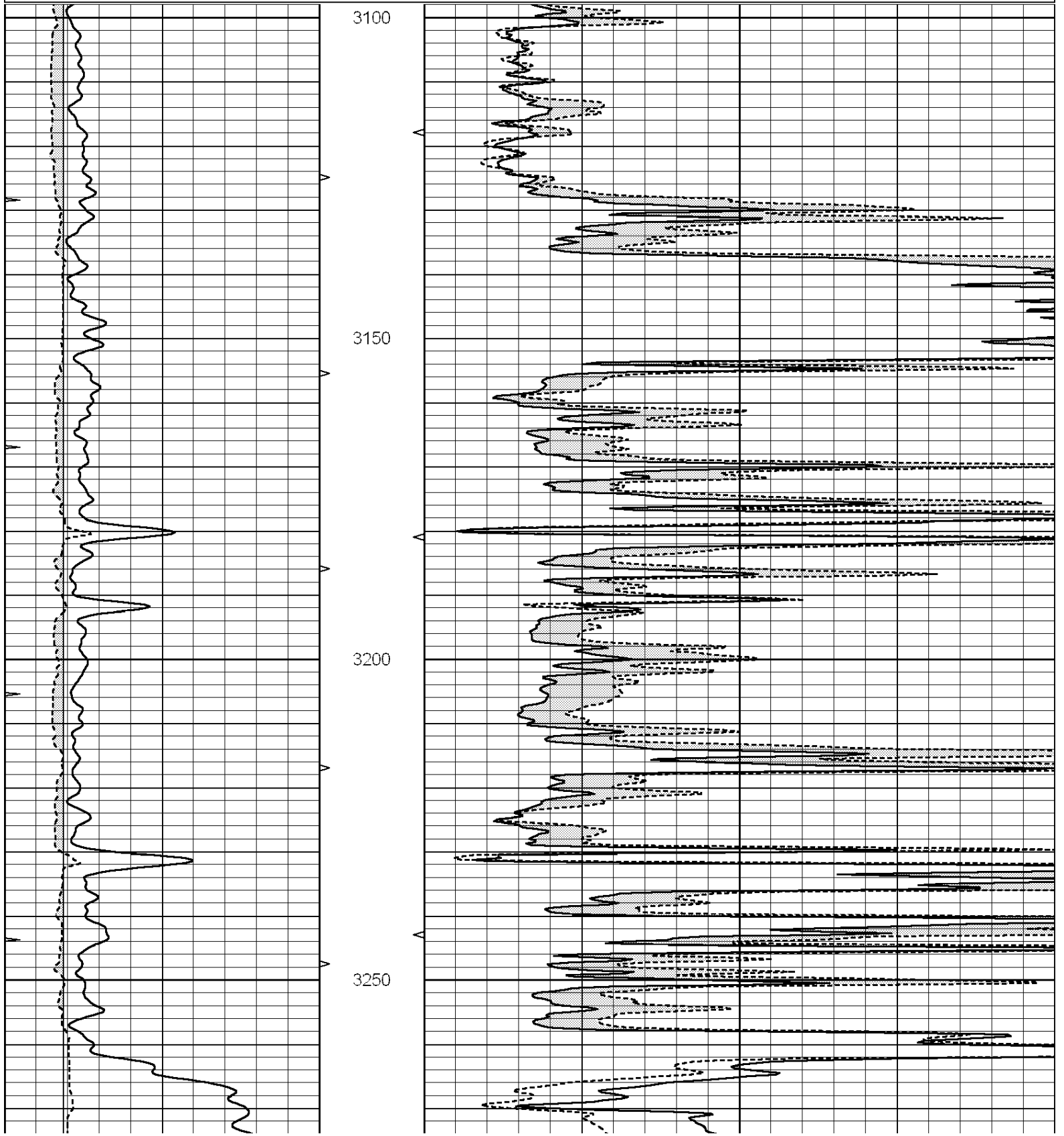
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
RAGO, KS., 5S. ON HWY 14.TO "RD. 180", 3/4W., S. INTO

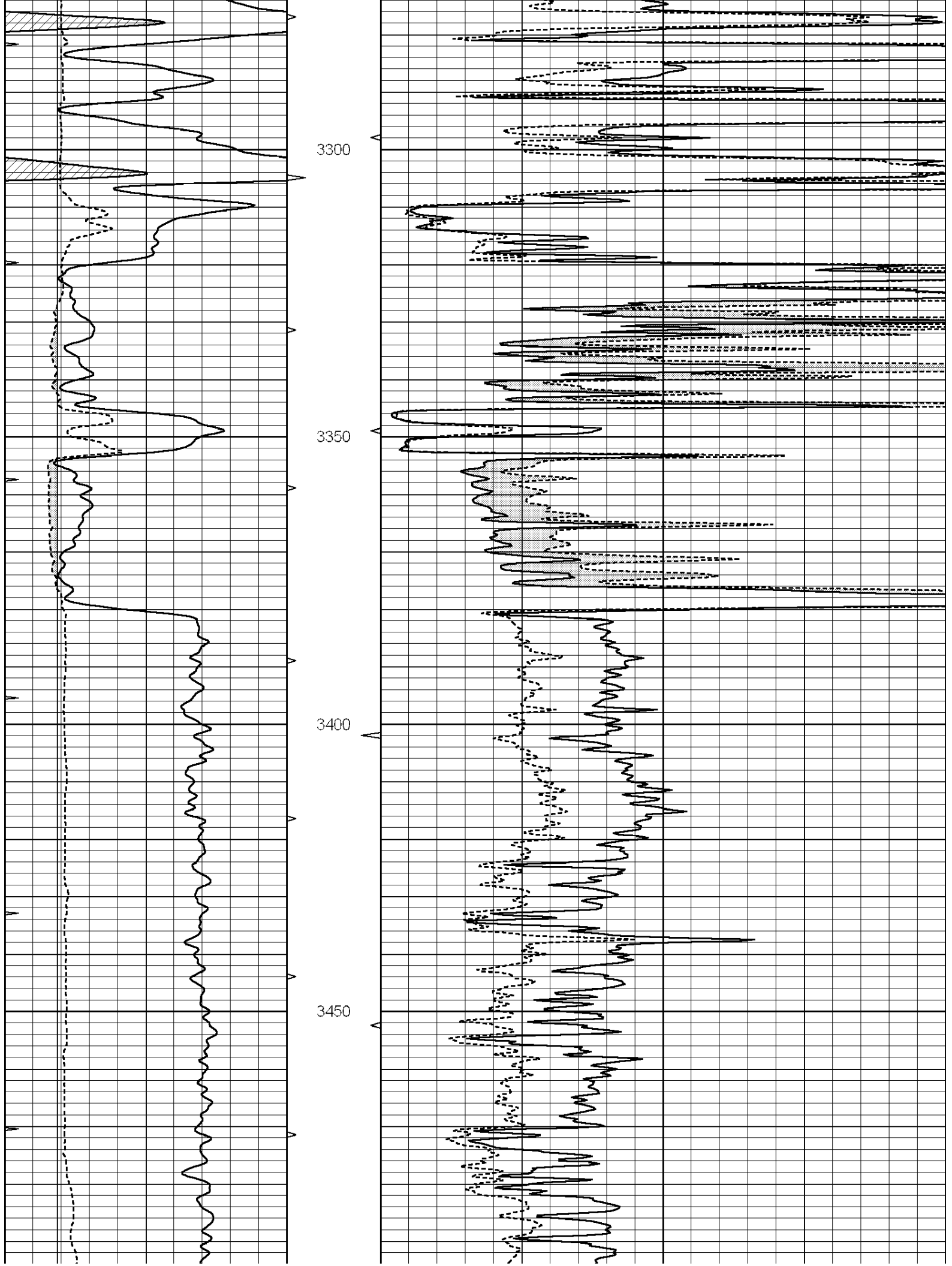


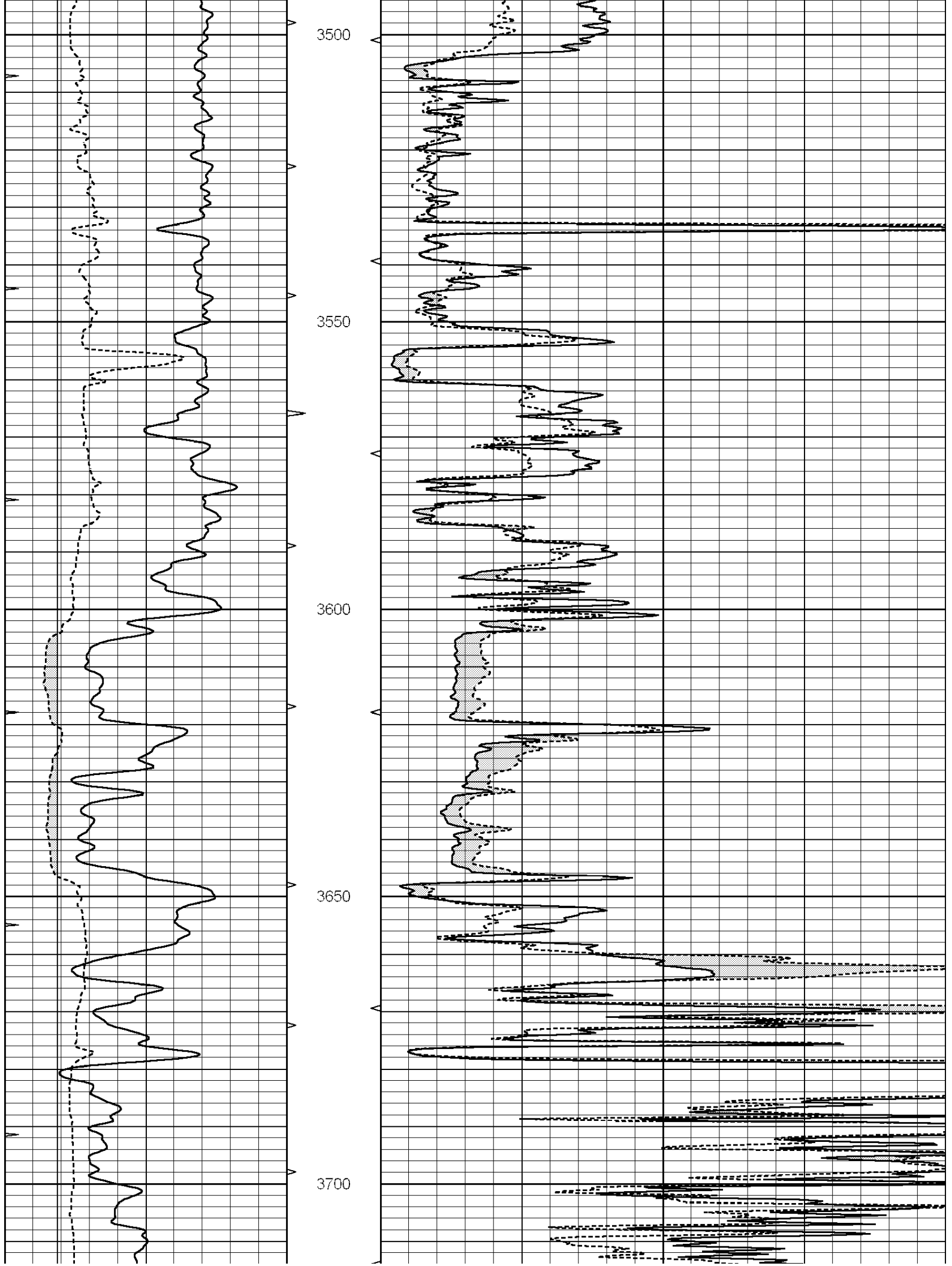
MAIN SECTION

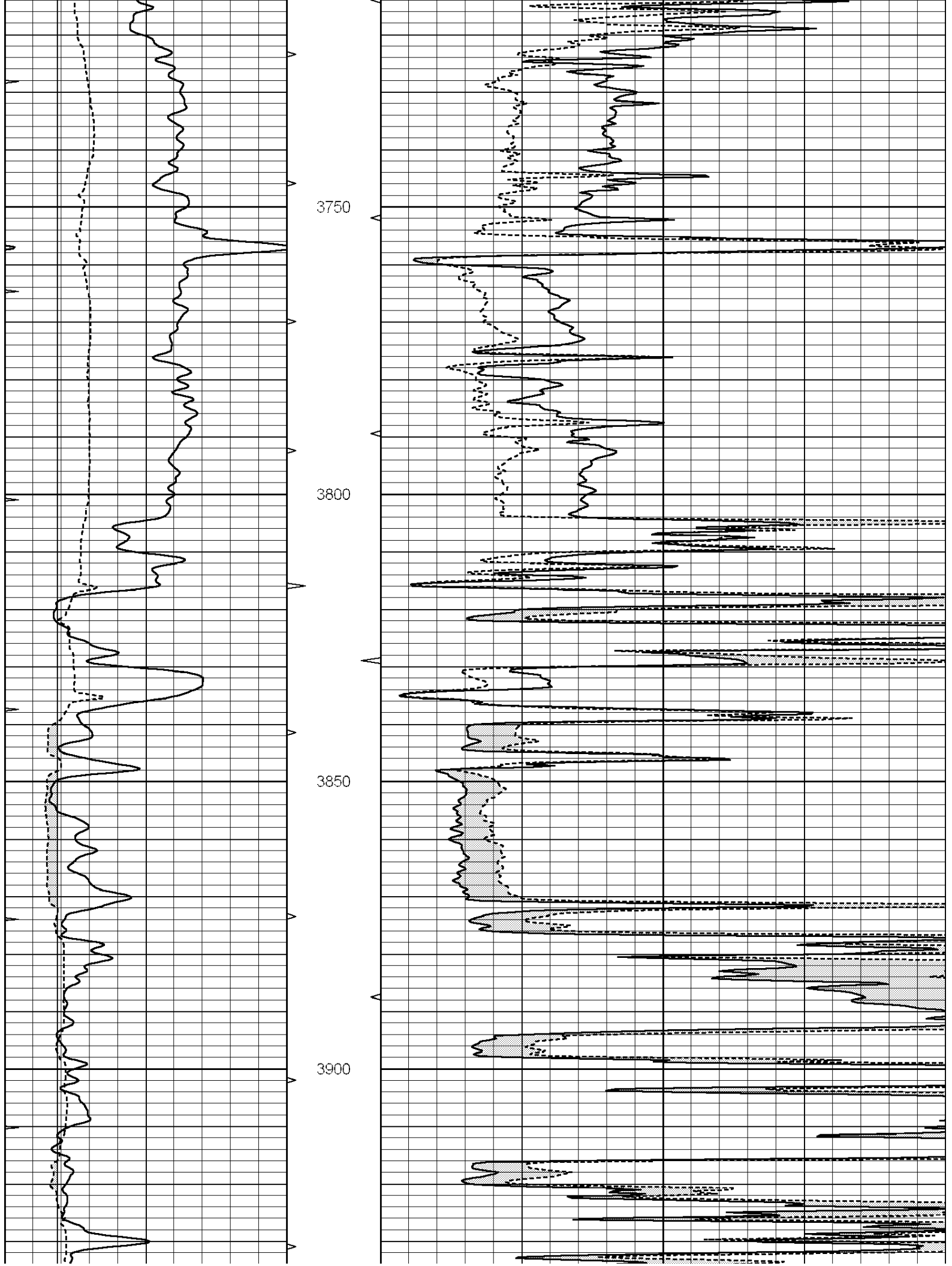
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 Dataset Pathname: pass6.4
 Presentation Format: micro
 Dataset Creation: Thu Dec 20 11:57:01 2018 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

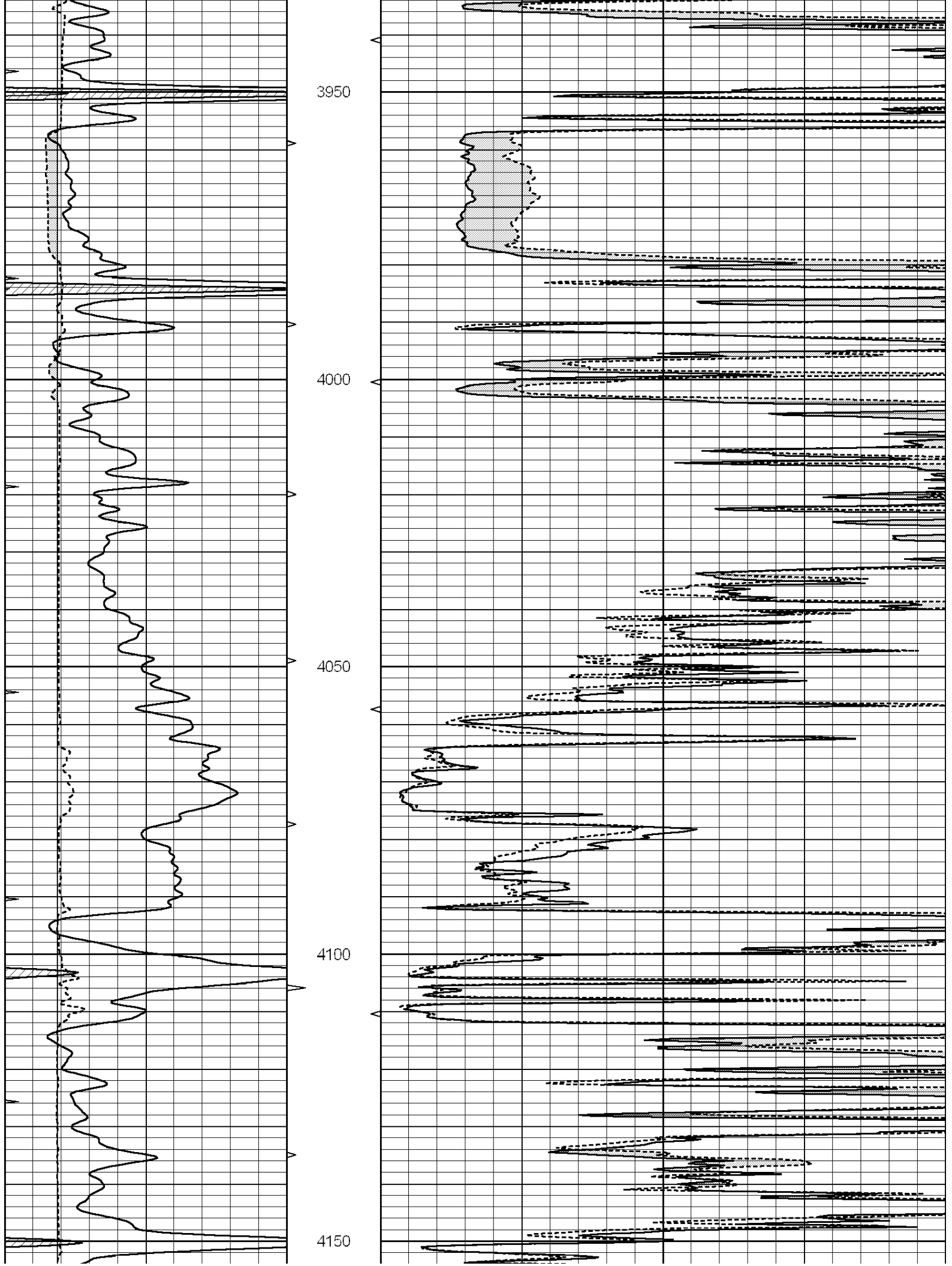
0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	40
6	CALIPER (in)	16	10 (ft3)	0	MEL 20 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		

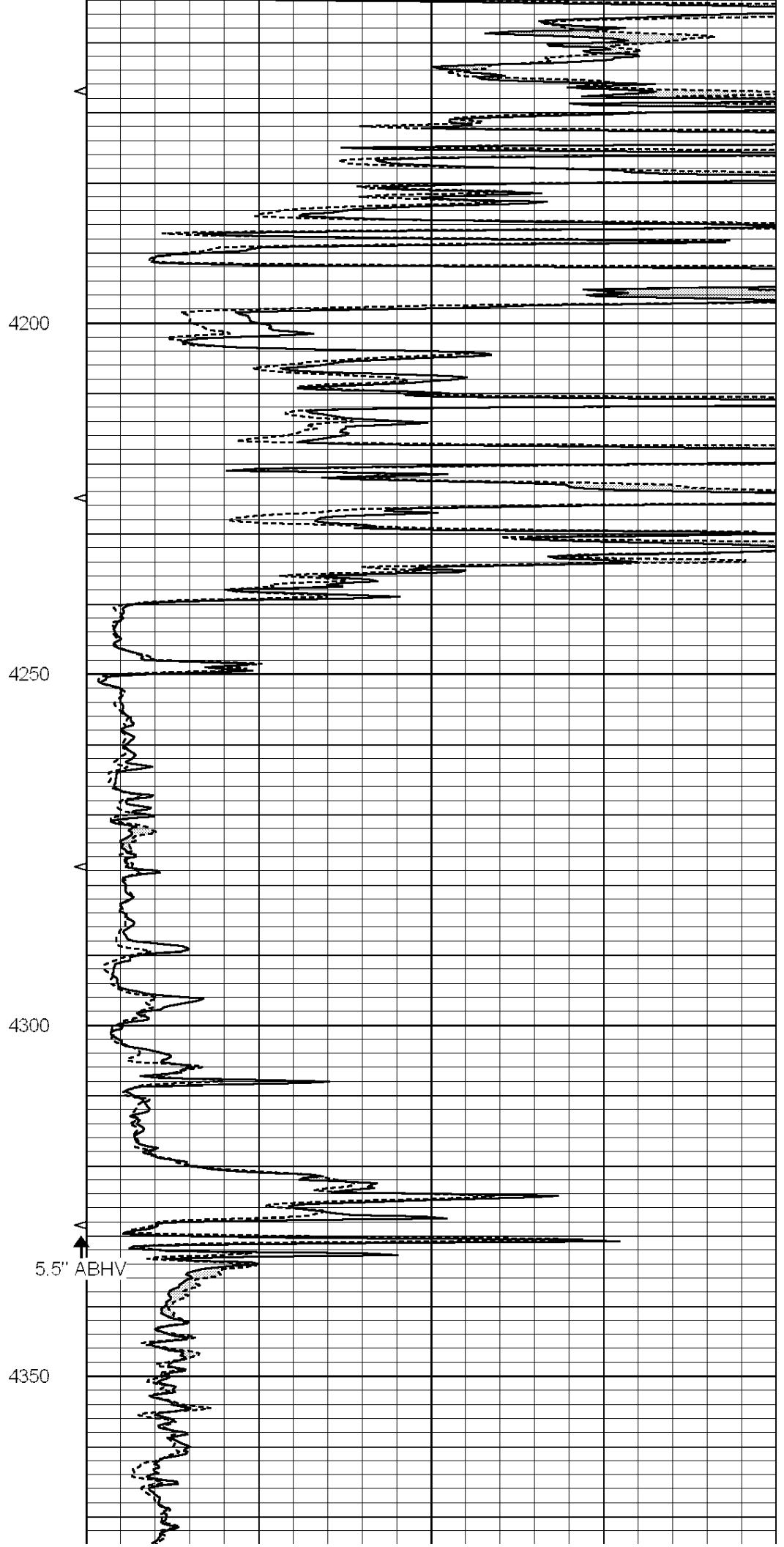
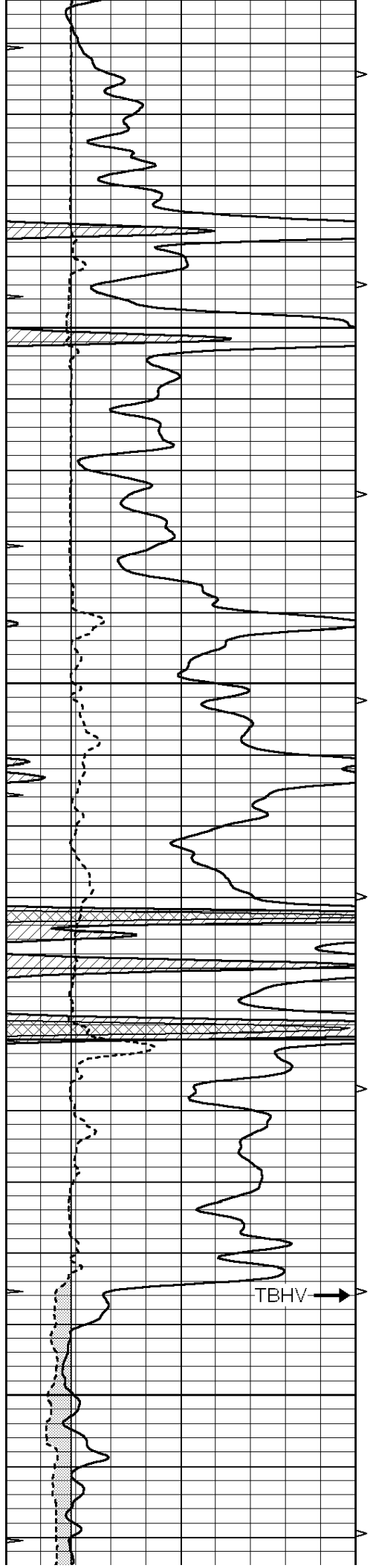


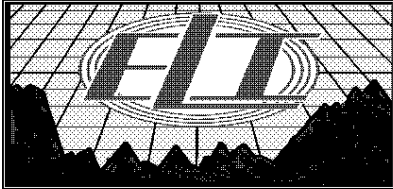
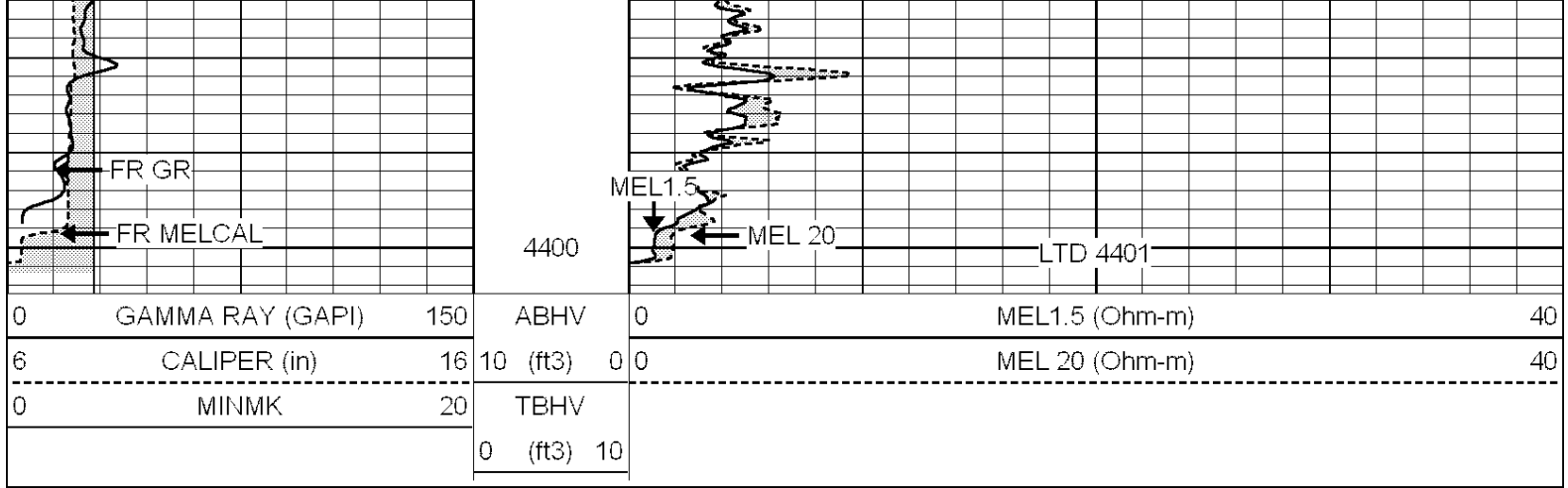








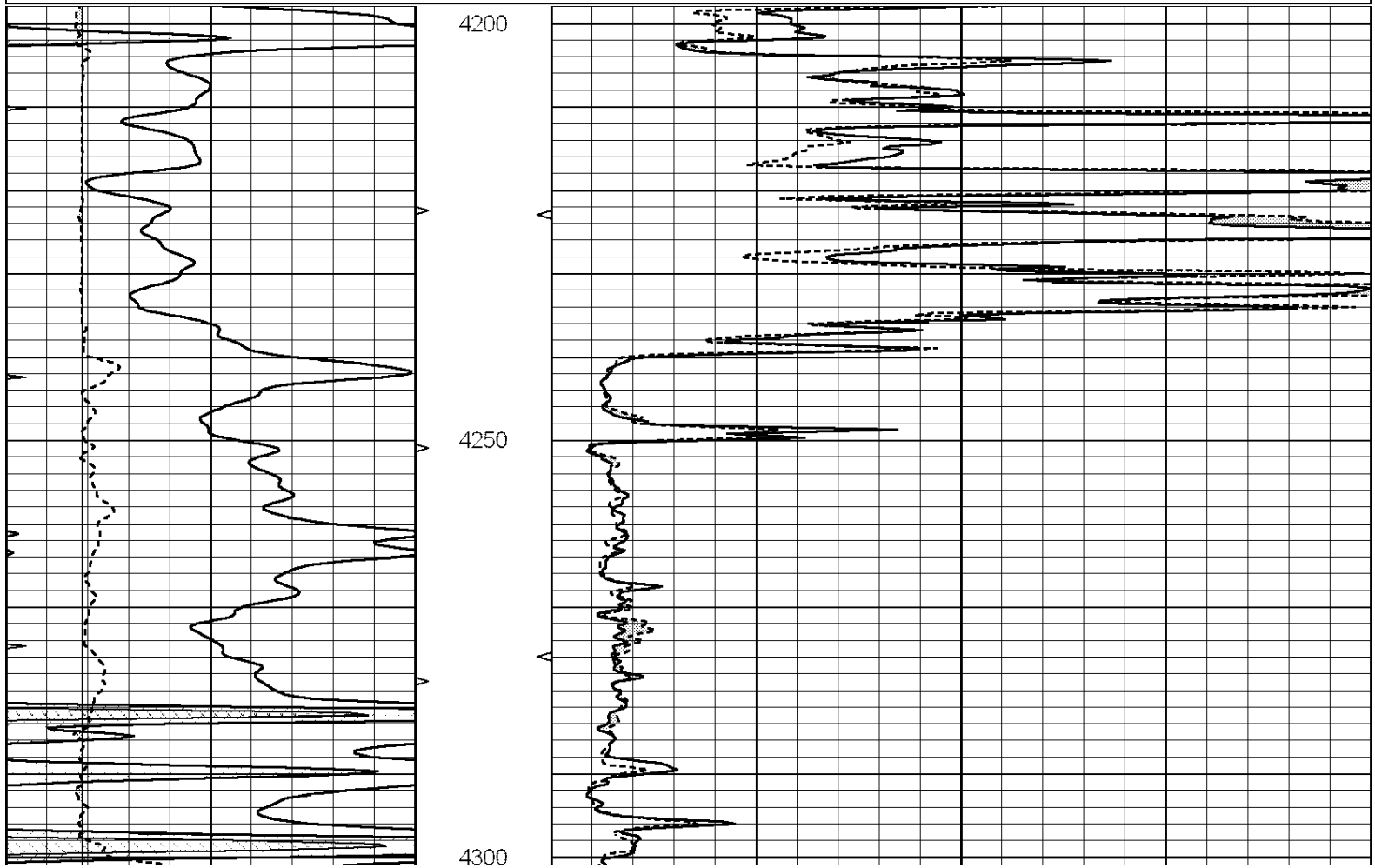


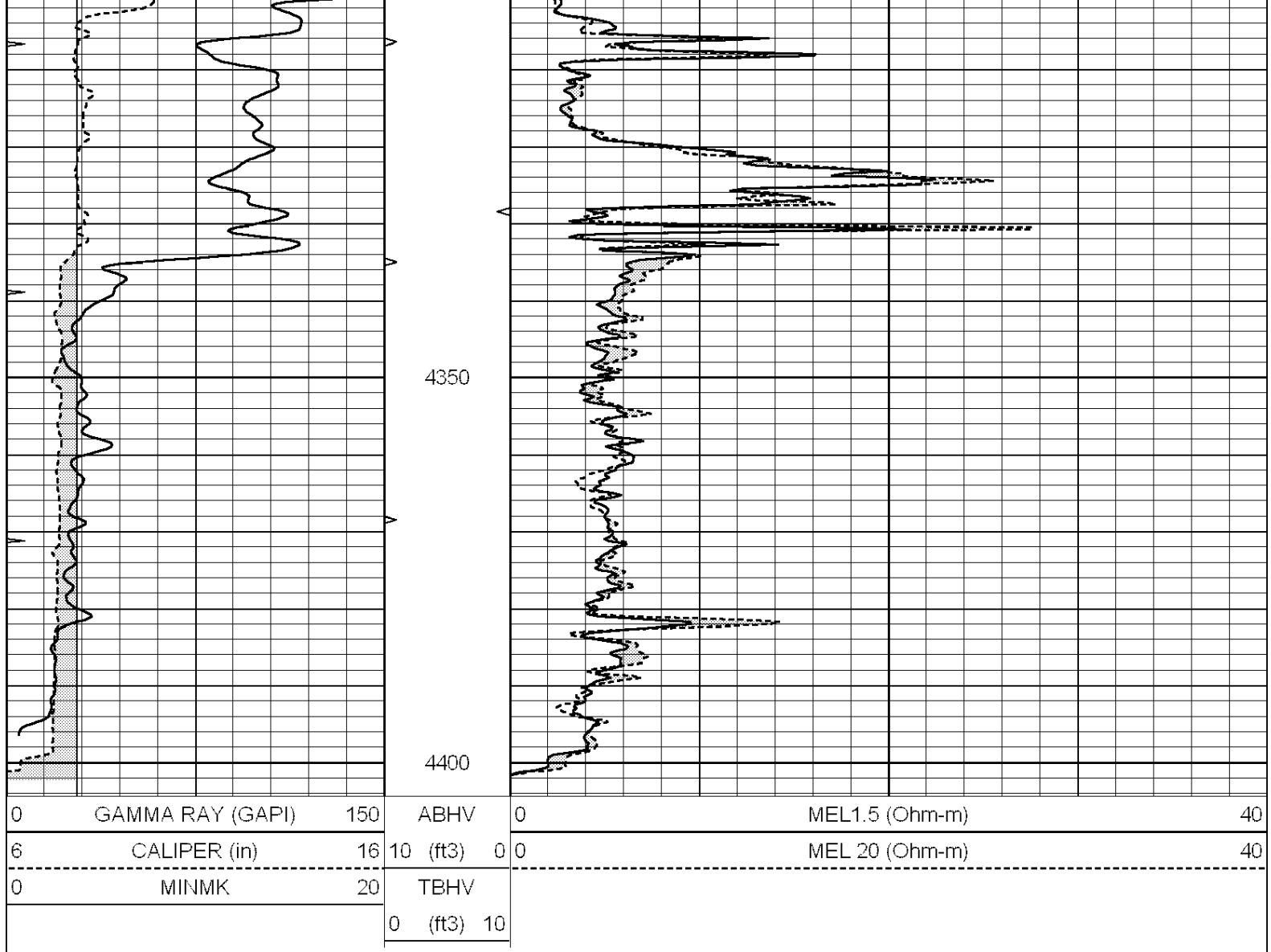


REPEAT SECTION

Database File: 3326pe.db
 Dataset Pathname: pass5.3
 Presentation Format: micro
 Dataset Creation: Thu Dec 20 11:12:41 2018 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	MEL 20 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		





Calibration Report

Database File: 3326pe.db
 Dataset Pathname: pass6.1
 Dataset Creation: Thu Dec 20 11:50:58 2018 by Calc SOC 120430

MICRO Calibration Report

Serial Number:	070912	
Tool Model:	ProbeN	
Performed:	Thu Dec 20 11:33:19 2018	
Caliper Calibration:	Gain=4.102	Offset=-0.621
References	Low Cal	High Cal
Readings	7.500	18.000
	1.980	4.540
1.5" Calibration:	Gain=48.000	Offset=0.000
References	Low Cal	High Cal
Readings	0.000	20.000
	0.002	1.239
2" Calibration:	Gain=55.000	Offset=0.000
References	Low Cal	High Cal
Readings	0.000	20.000
	0.003	1.075

Gamma Ray Calibration Report

Serial Number:	070559	
Tool Model:	OPEN_GR	
Performed:	Tue Dec 18 20:50:11 2018	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2300	GAPI/cps