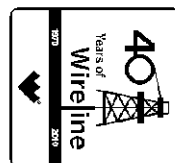




Weatherford

**COMPACT PHOTO DENSITY
COMPENSATED NEUTRON
MICRO RESISTIVITY LOG**

COMPANY **SHAKESPEARE OIL**
WELL **JANZEN 1-16**
FIELD **WILDCAT**
PROVINCE/COUNTY **SCOTT**
COUNTRY/STATE **U.S.A./KANSAS**
LOCATION **780' FNL & 815' FWL**



SEC **TWP** **RGE** Other Services
16 16 34 MAI/MFE
API Number 15-171-20790 MSS
Permit Number

Permanent Datum G.L., Elevation 3139 feet
Log Measured From K.B. @ 10 FEET above Permanent Datum
Drilling Measured From K.B.

Elevations: feet
KB 3149.00
DF 3148.00
GL 3139.00

Date	21-DEC-2010	
Run Number	ONE	
Depth Driller	4880.00	feet
Depth Logger	4876.00	feet
First Reading	4844.00	feet
Last Reading	3500.00	feet
Casing Driller	351.00	feet
Casing Logger	352.00	feet
Bit Size	7.880	inches
Hole Fluid Type	CHEMICAL	
Density / Viscosity	9.50 g/c3	45.00 sec/qt
PH / Fluid Loss	10.00	9.60 ml/30Min
Sample Source	FLOWLINE	
Rm @ Measured Temp	0.77 @ 73.0	ohm-m
Rmf @ Measured Temp	0.62 @ 73.0	ohm-m
Rmc @ Measured Temp	0.92 @ 73.0	ohm-m
Source Rmf / Rmc	CALC	CALC
Rm @ BHT	0.53 @106.0	ohm-m
Time Since Circulation	4 HOURS	
Max Recorded Temp	106.00	deg F
Equipment Name	COMPACT	
Equipment / Base	13096	LIB
Recorded By	SHAWN NUTT	
Witnessed By	TIM PRIEST	
S.O.#/JOB#	3524640	LB10-324

BOREHOLE RECORD

Last Edited: 21-DEC-2010 12:28

Bit Size inches	Depth From feet	Depth To feet
7.880	352.00	4876.00

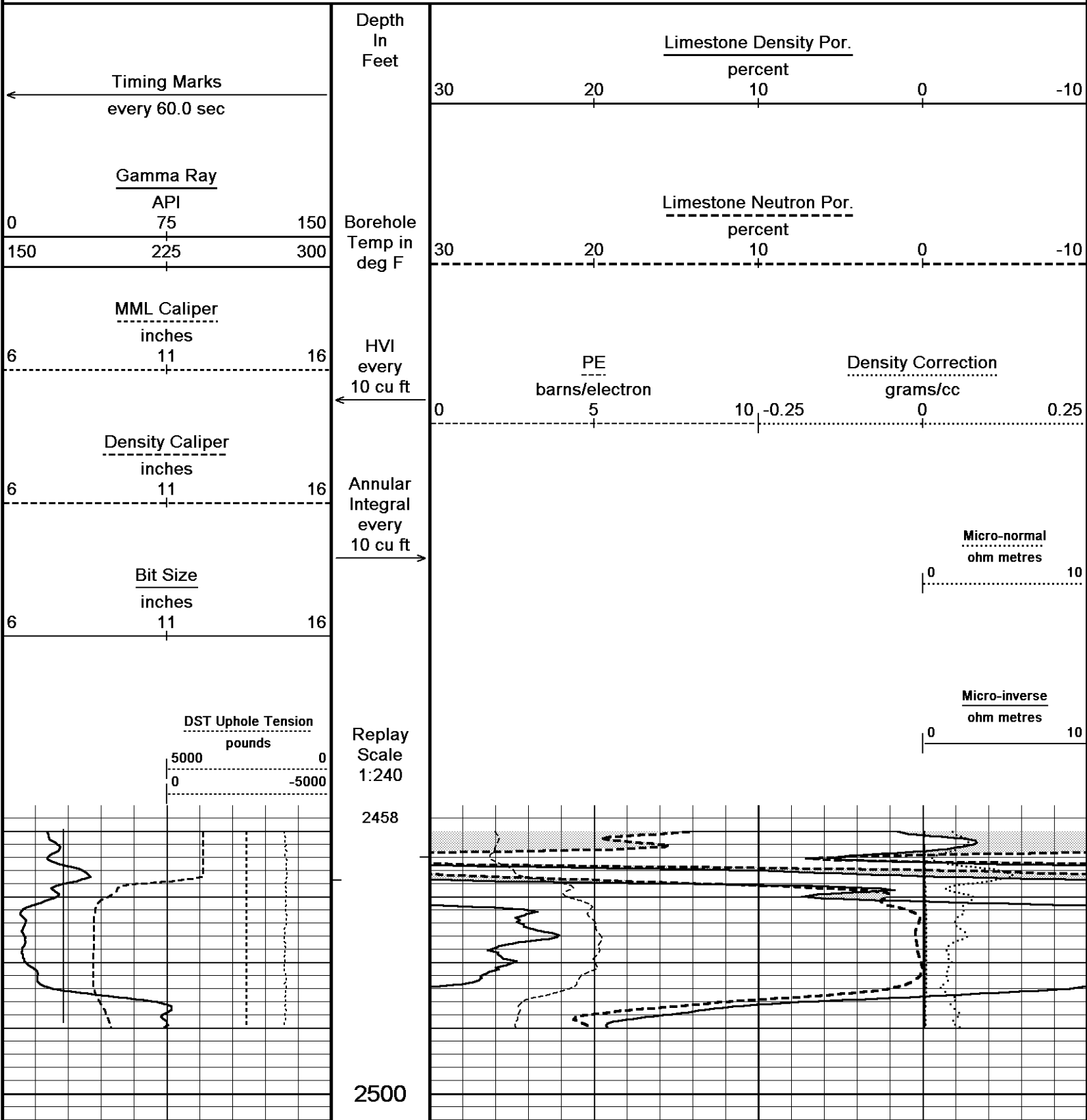
CASING RECORD

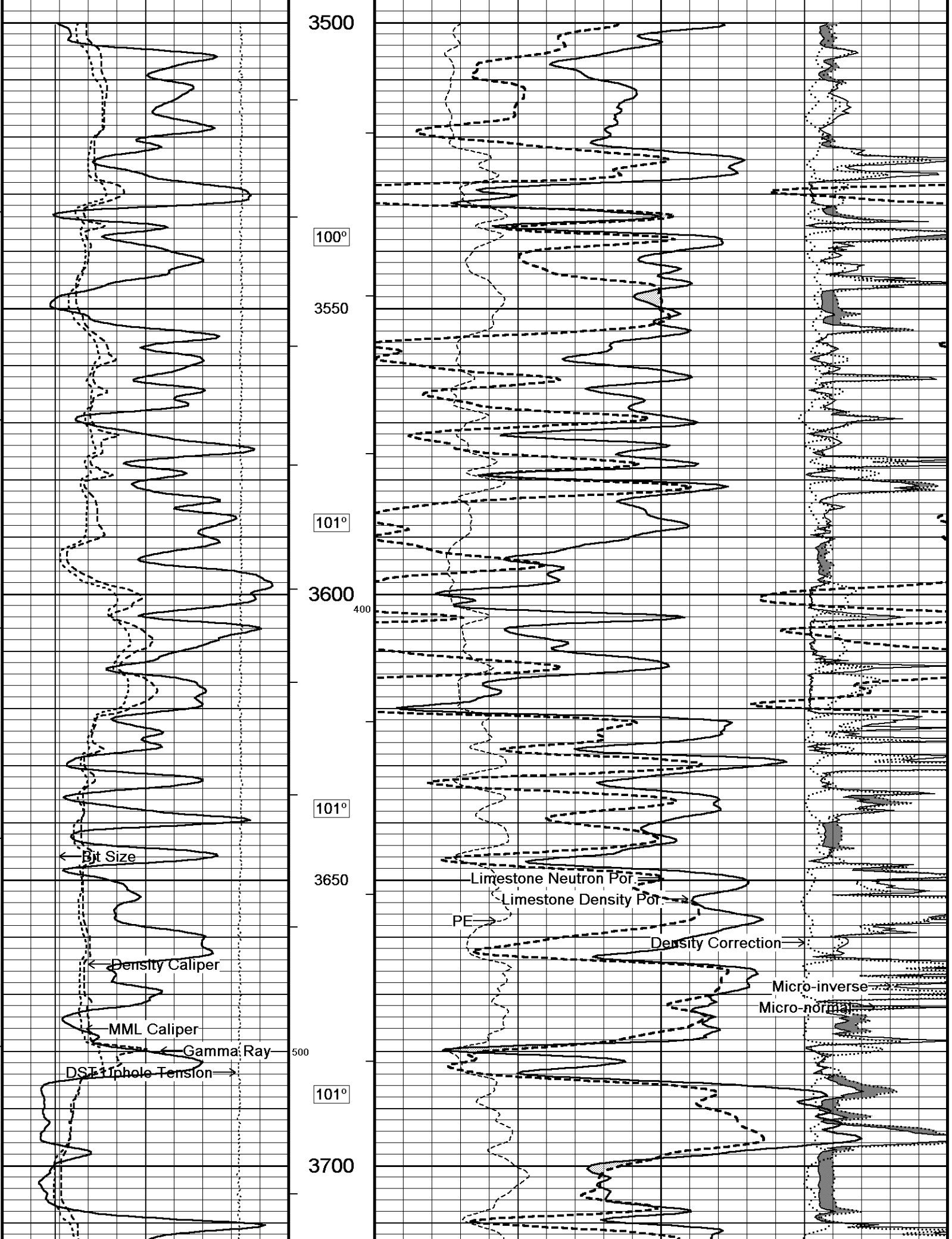
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	352.00	24.00

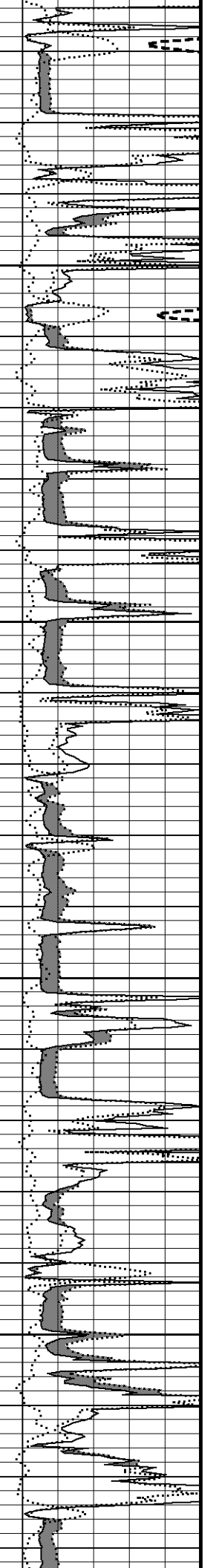
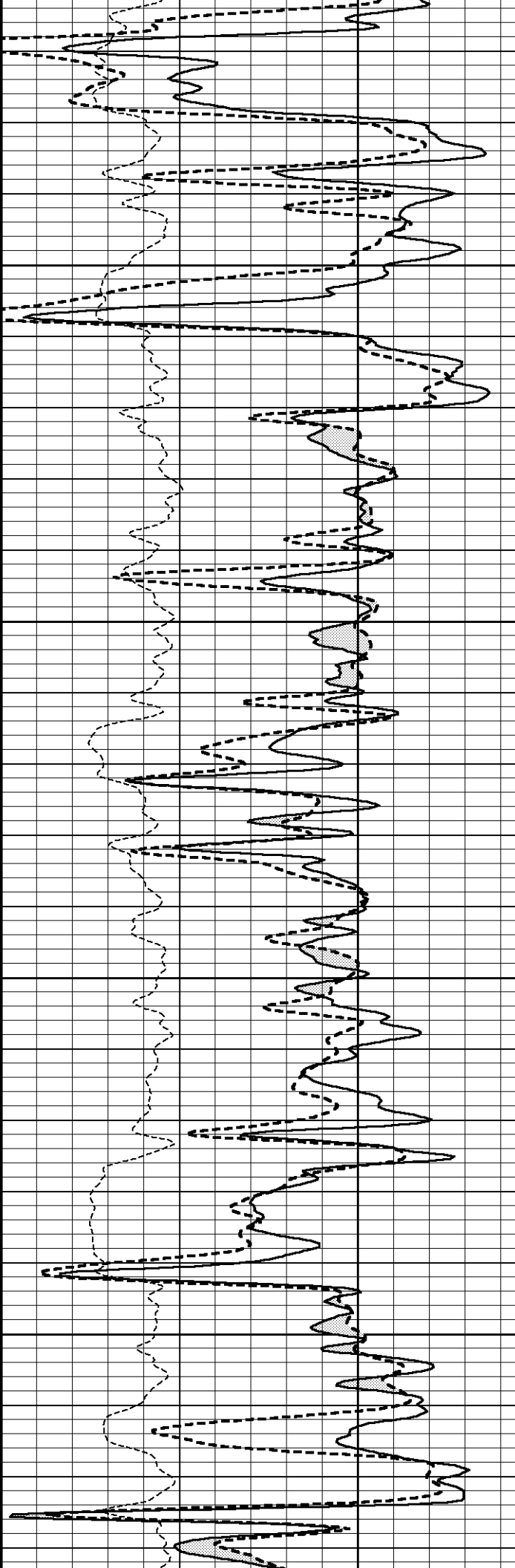
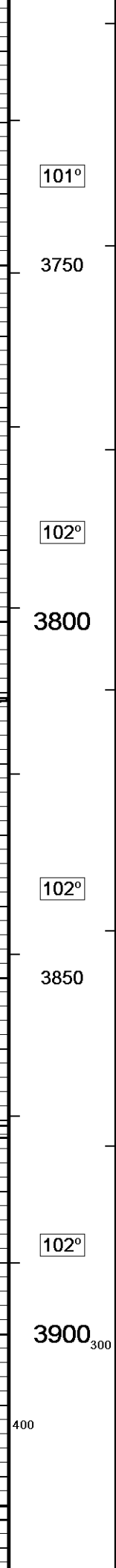
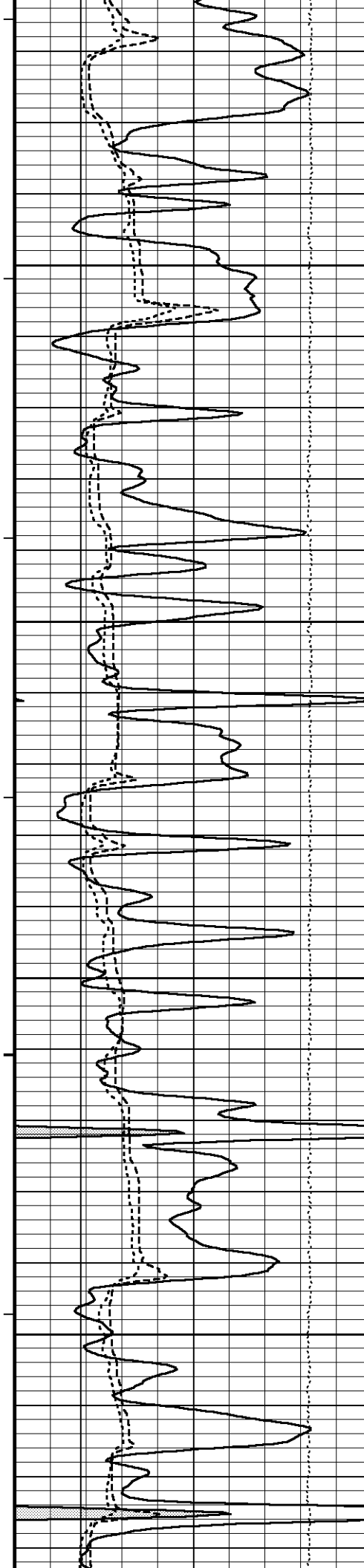
REMARKS

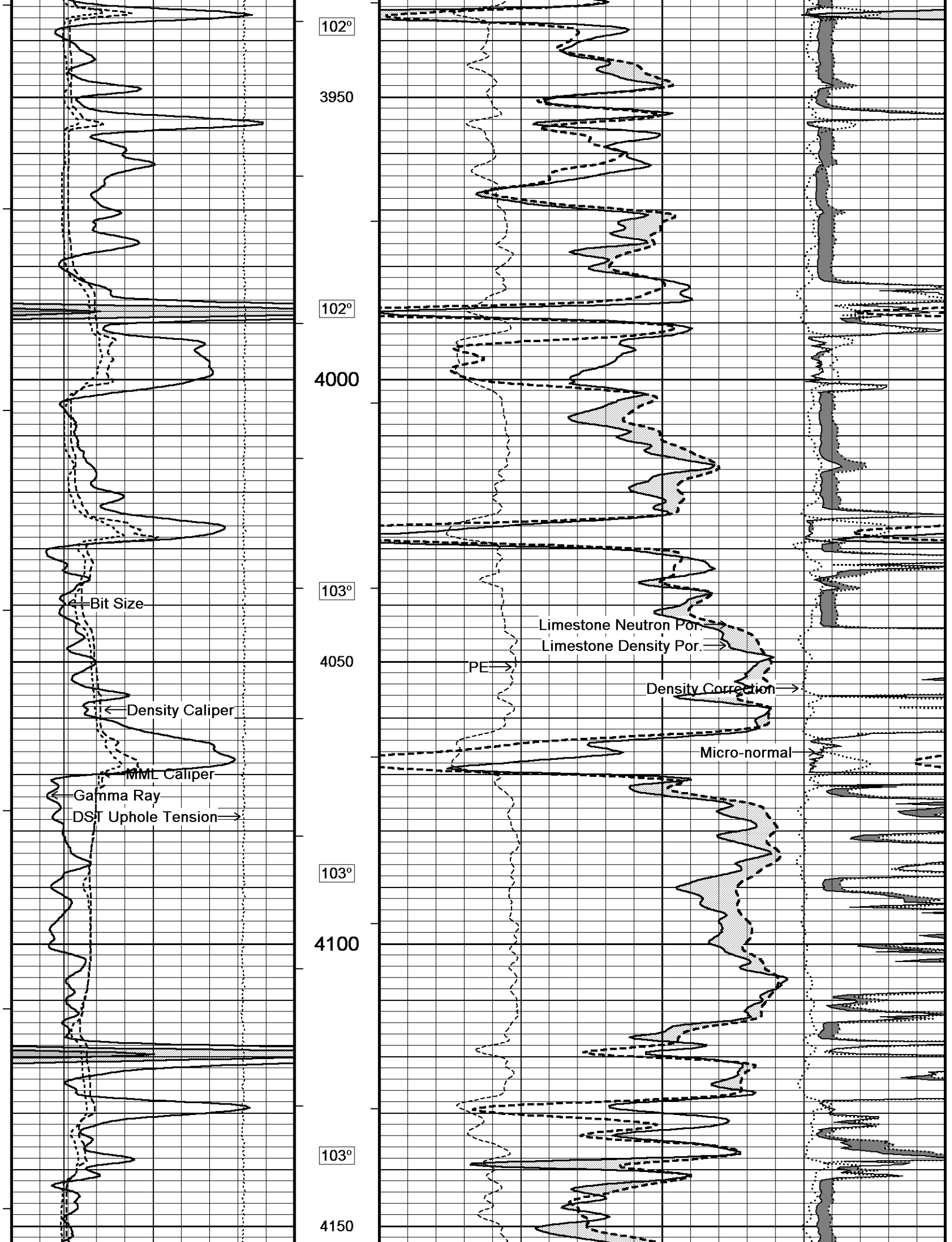
Tools Run: MAI, MPD, MCG, MDN, MML, MFE, MSS, SKJ
Hardware: MPD: 8 inch profile plate used. MAI, MSS and MFE: 0.5 Inch standoffs used. MDN: Dual Eccentraliser used.
2.71 G/CC Limestone density matrix used to calculate porosity.
Borhole rugosity, tight pulls, and washouts will affect data quality.
All intervals logged and scaled per customer's request.
Annular volume with 4.5 inch production casing= 437 cu. ft.
Service order #3524640
Rig: HD #2
Engineer: Shawn Nutt
Operator(s): K. Rinehart

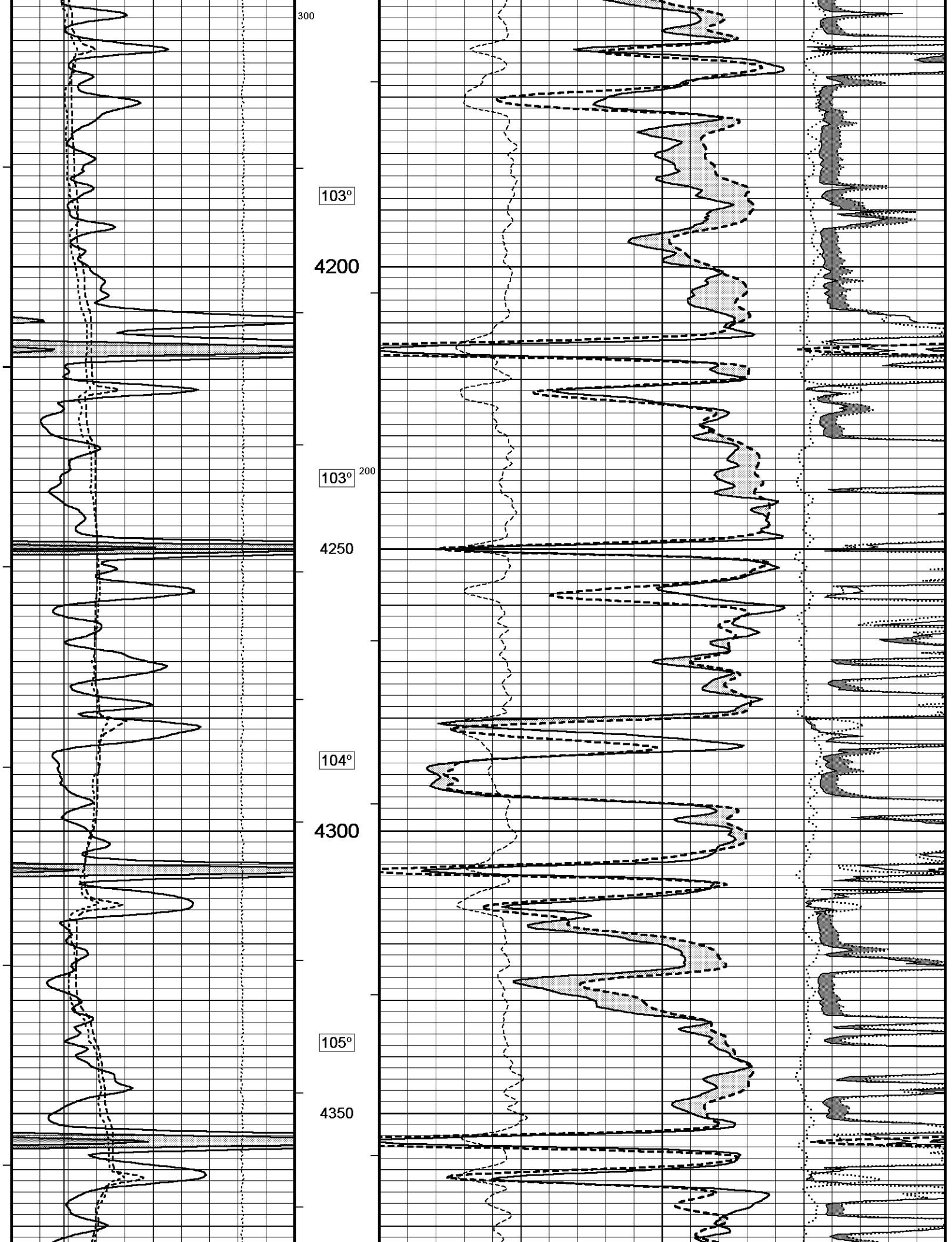
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

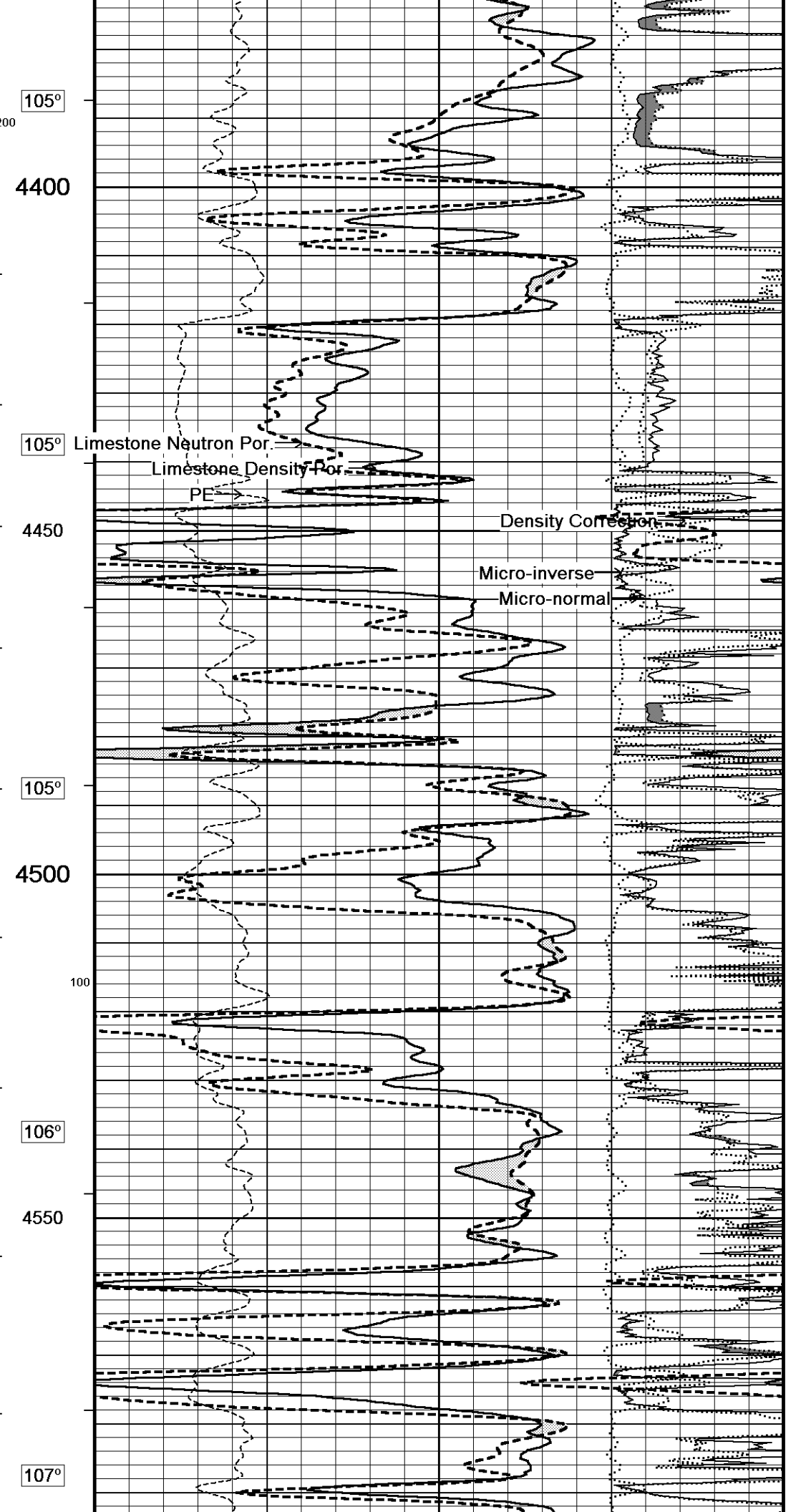
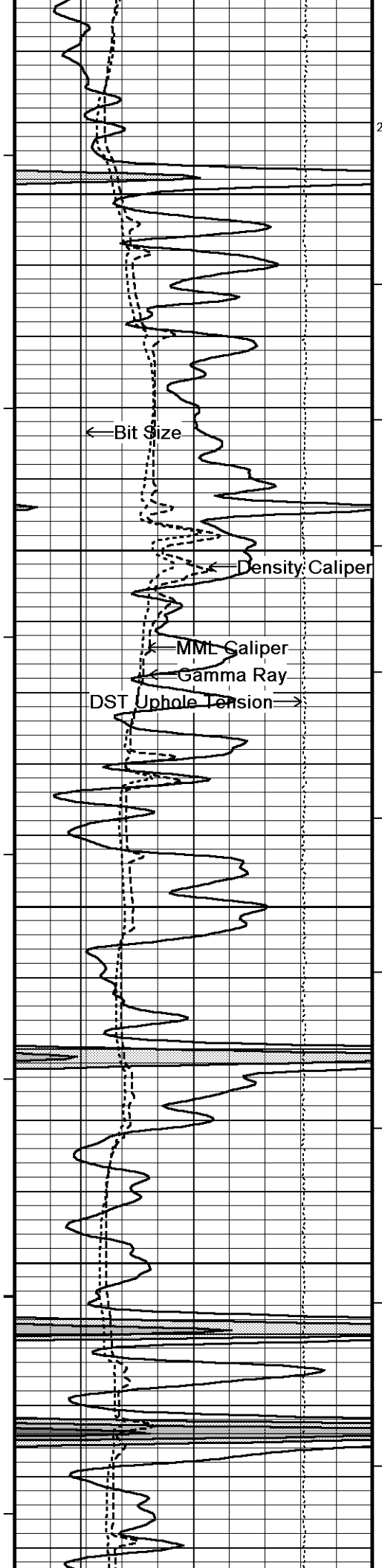


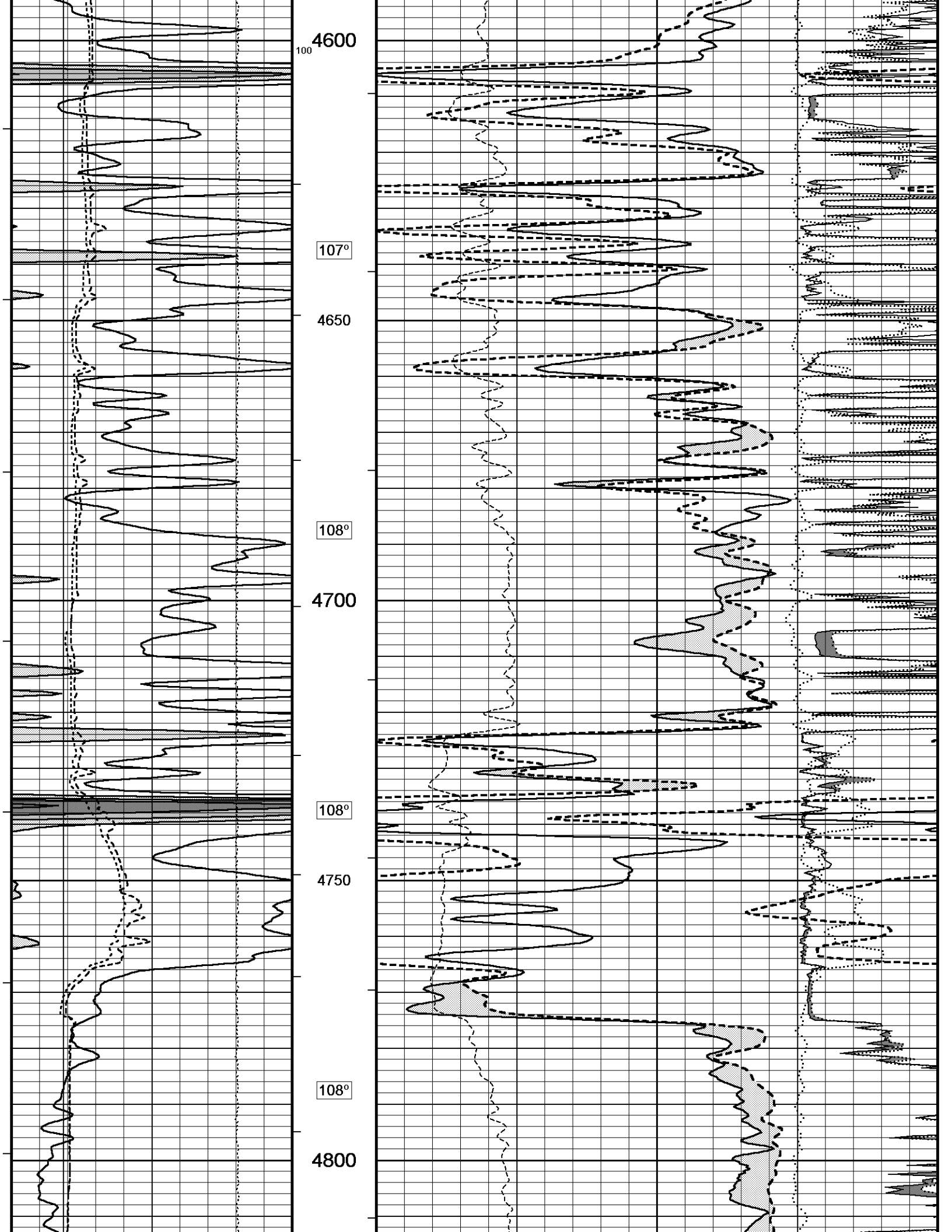


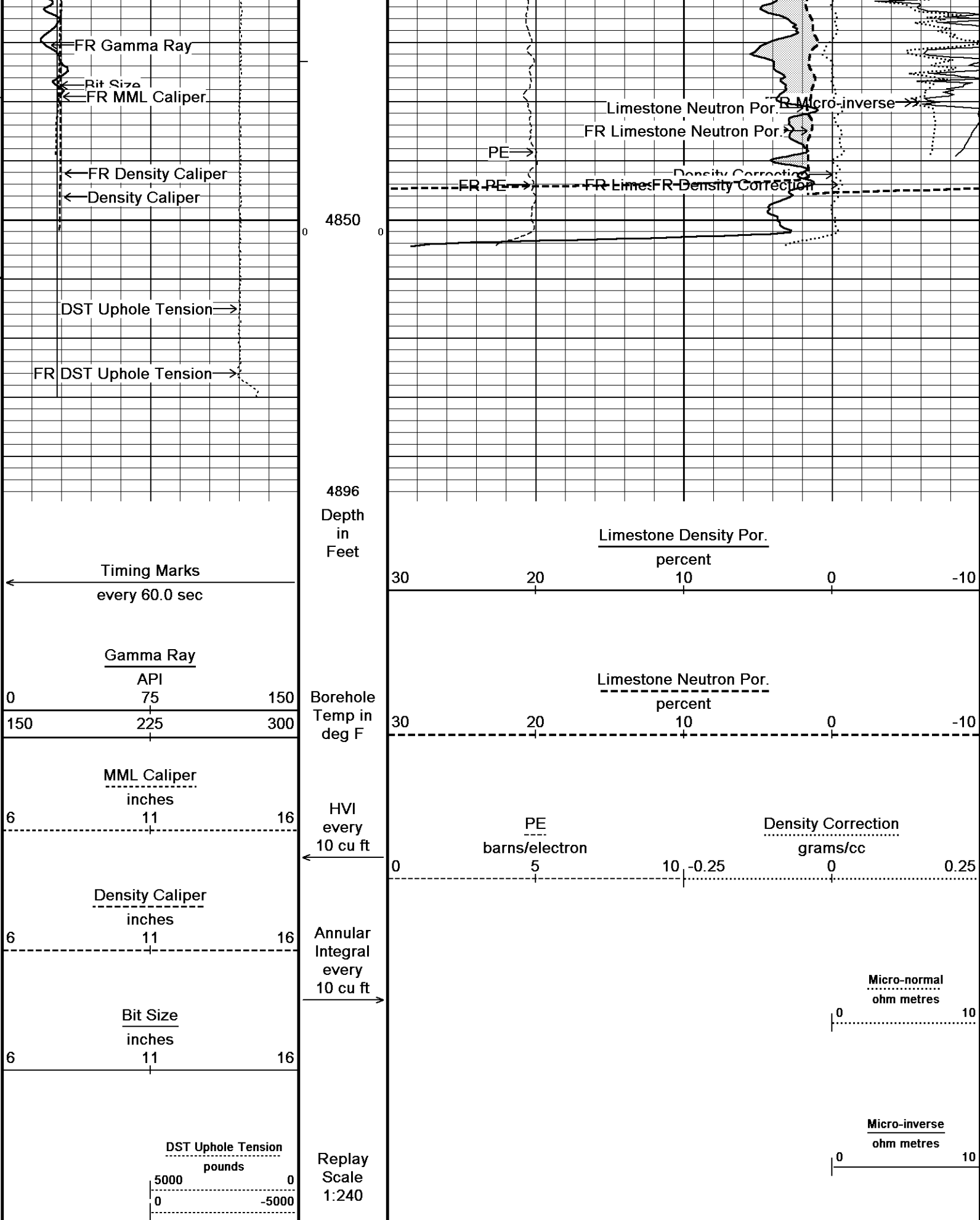


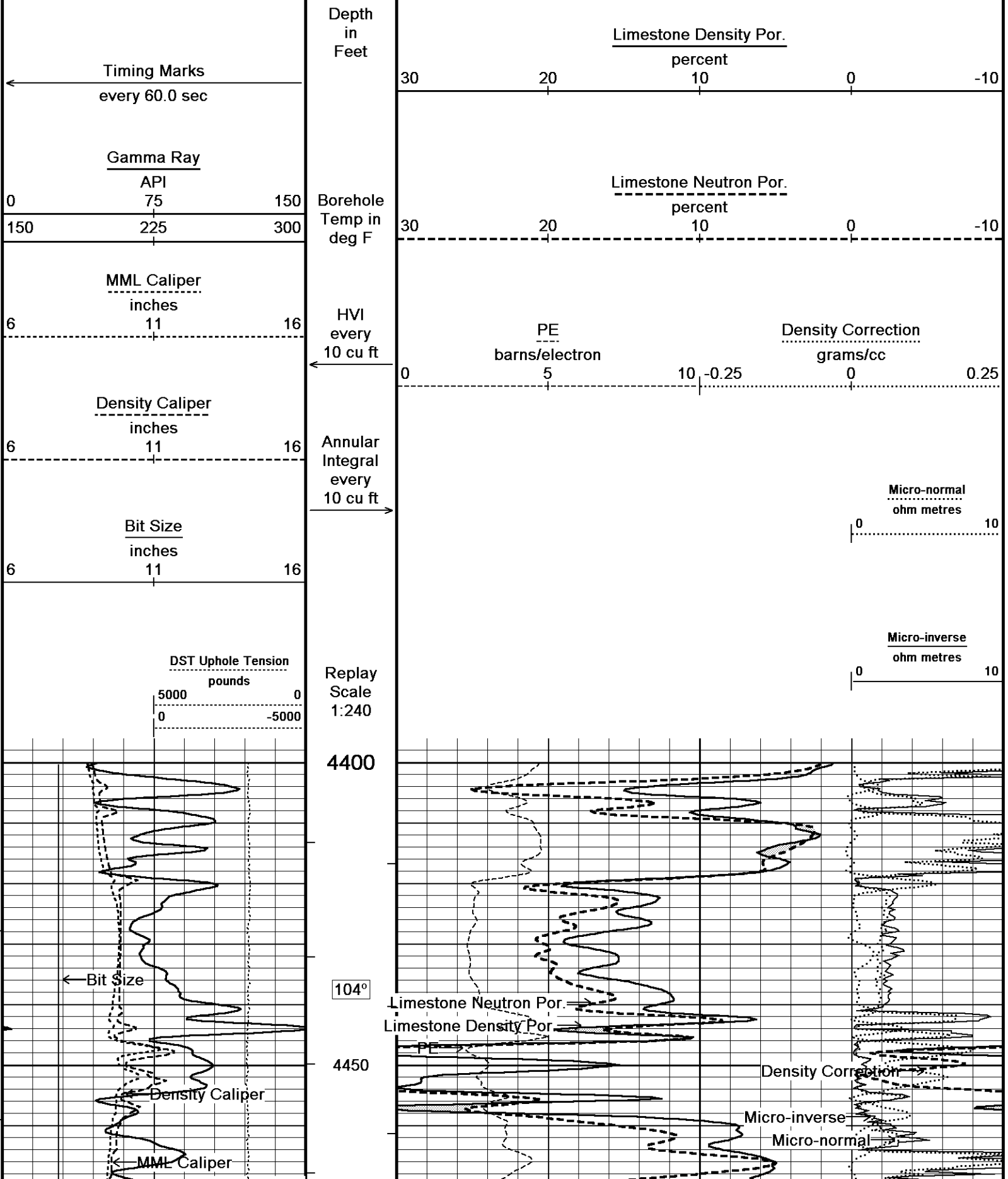


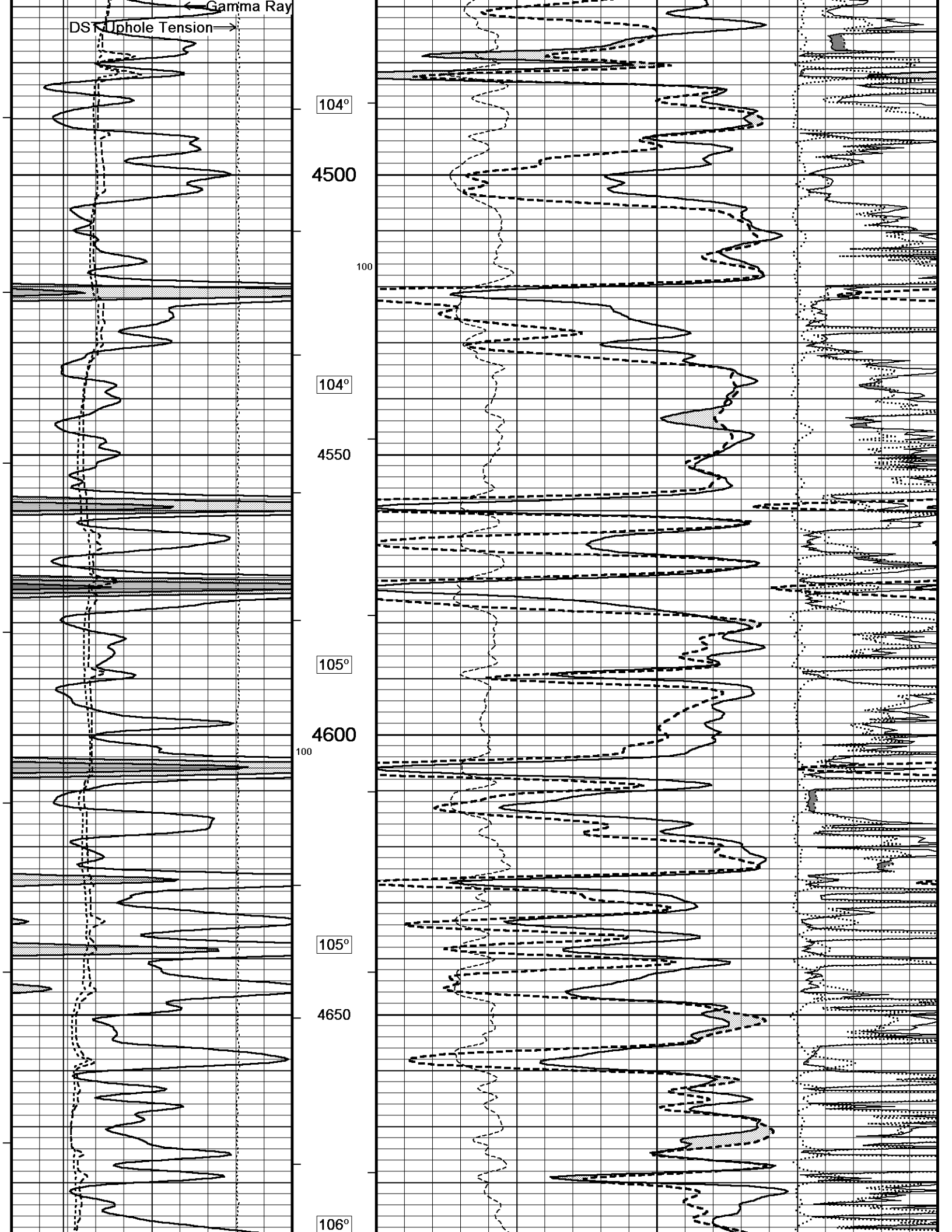


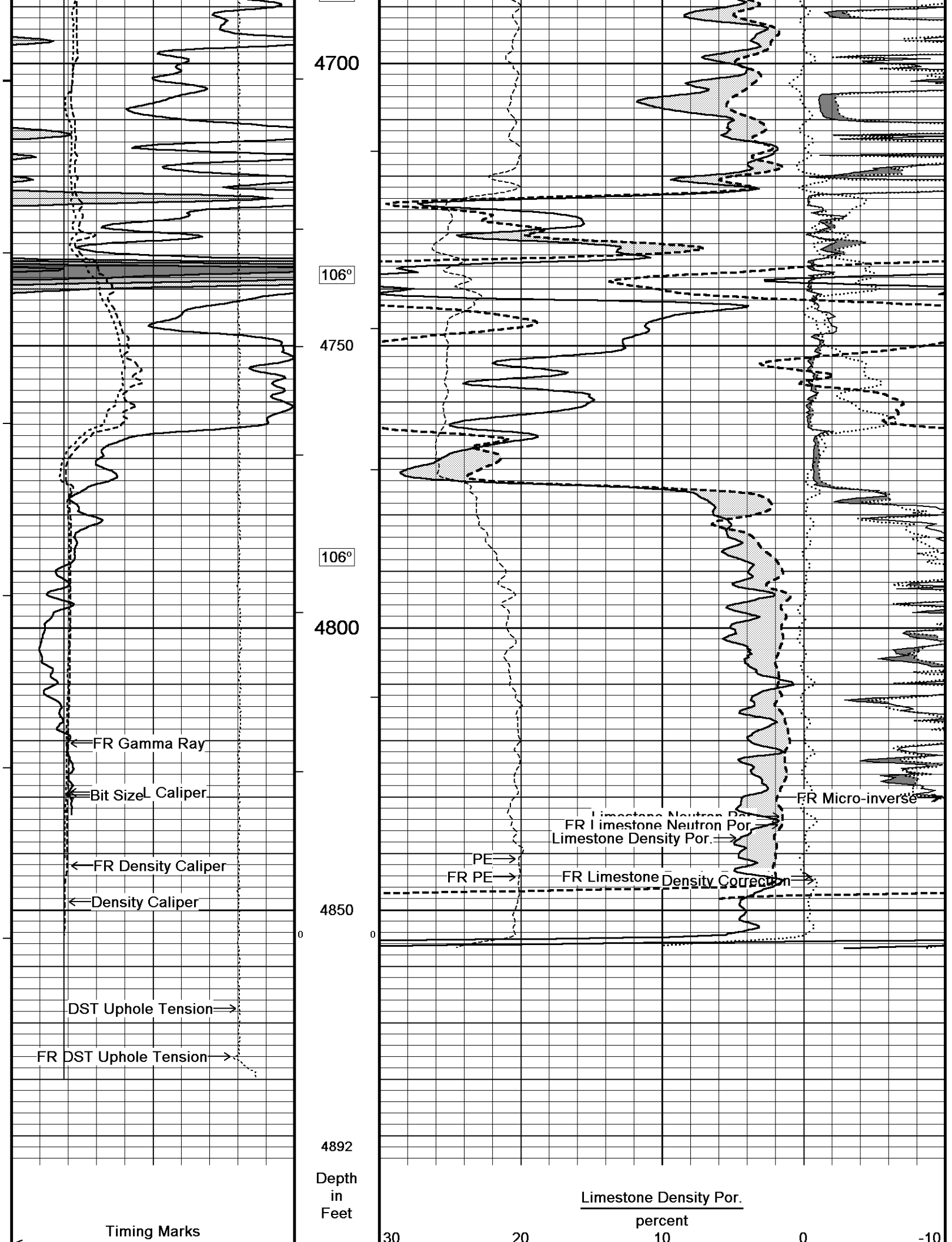


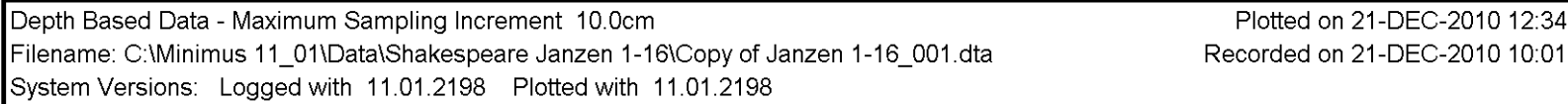




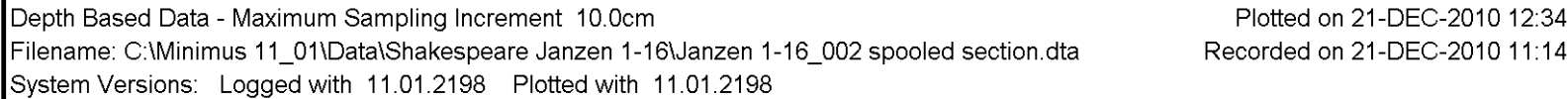


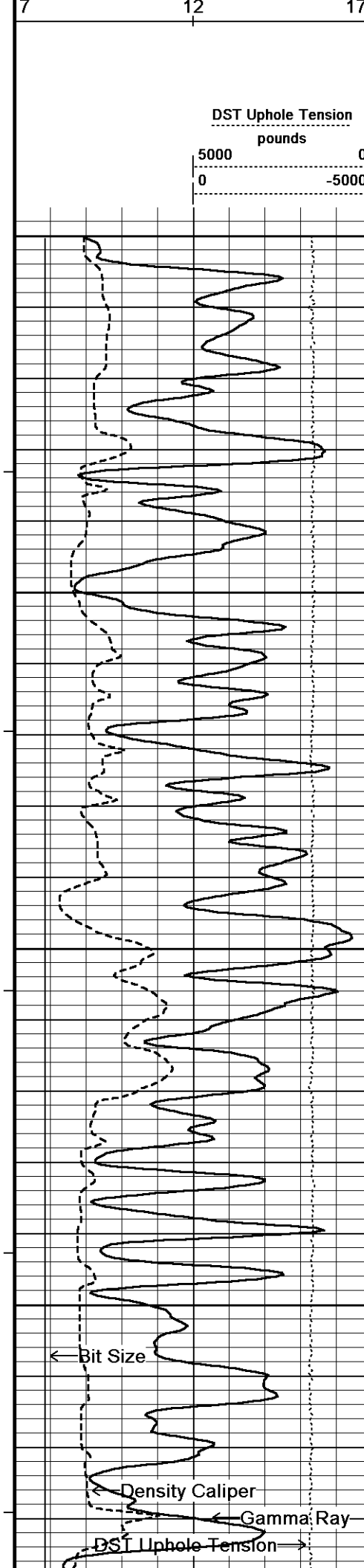






↑ Repeat Section ↑





Replay
Scale
1:240

3500

100°

3550

101°

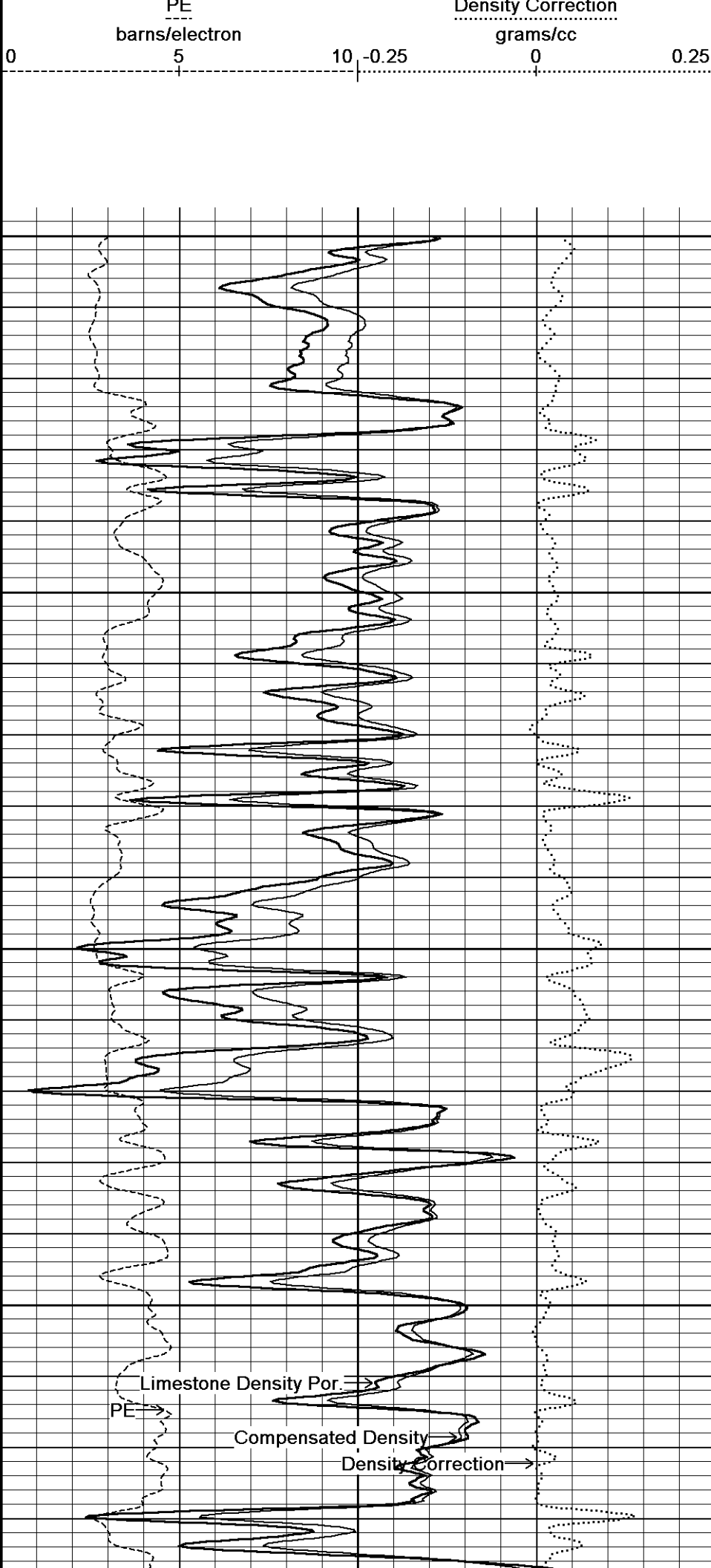
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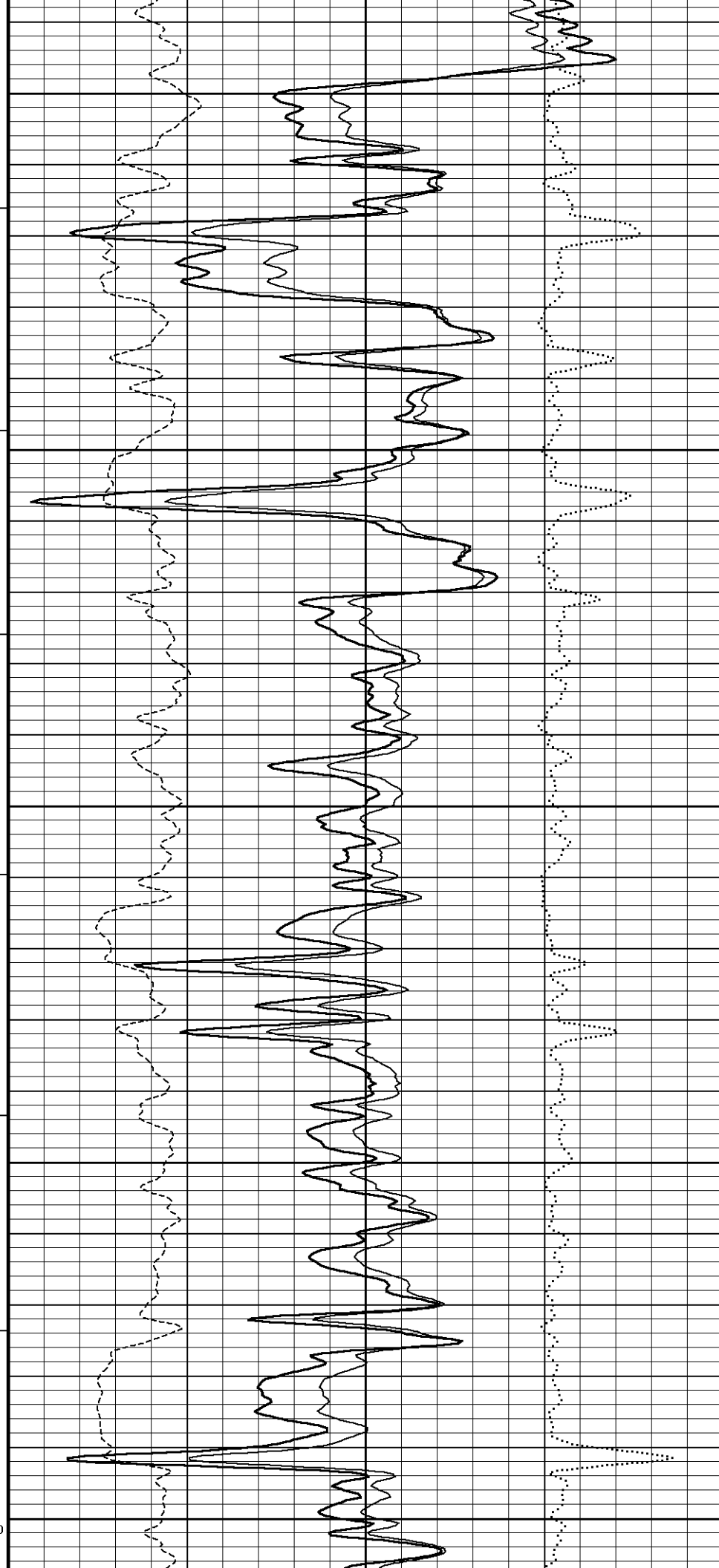
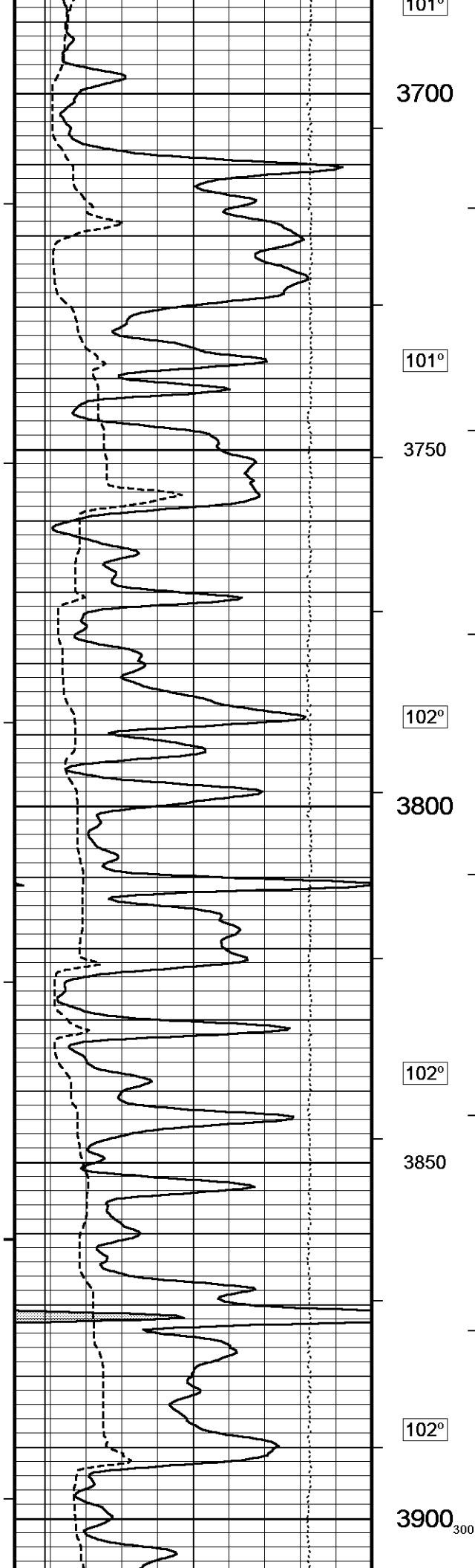
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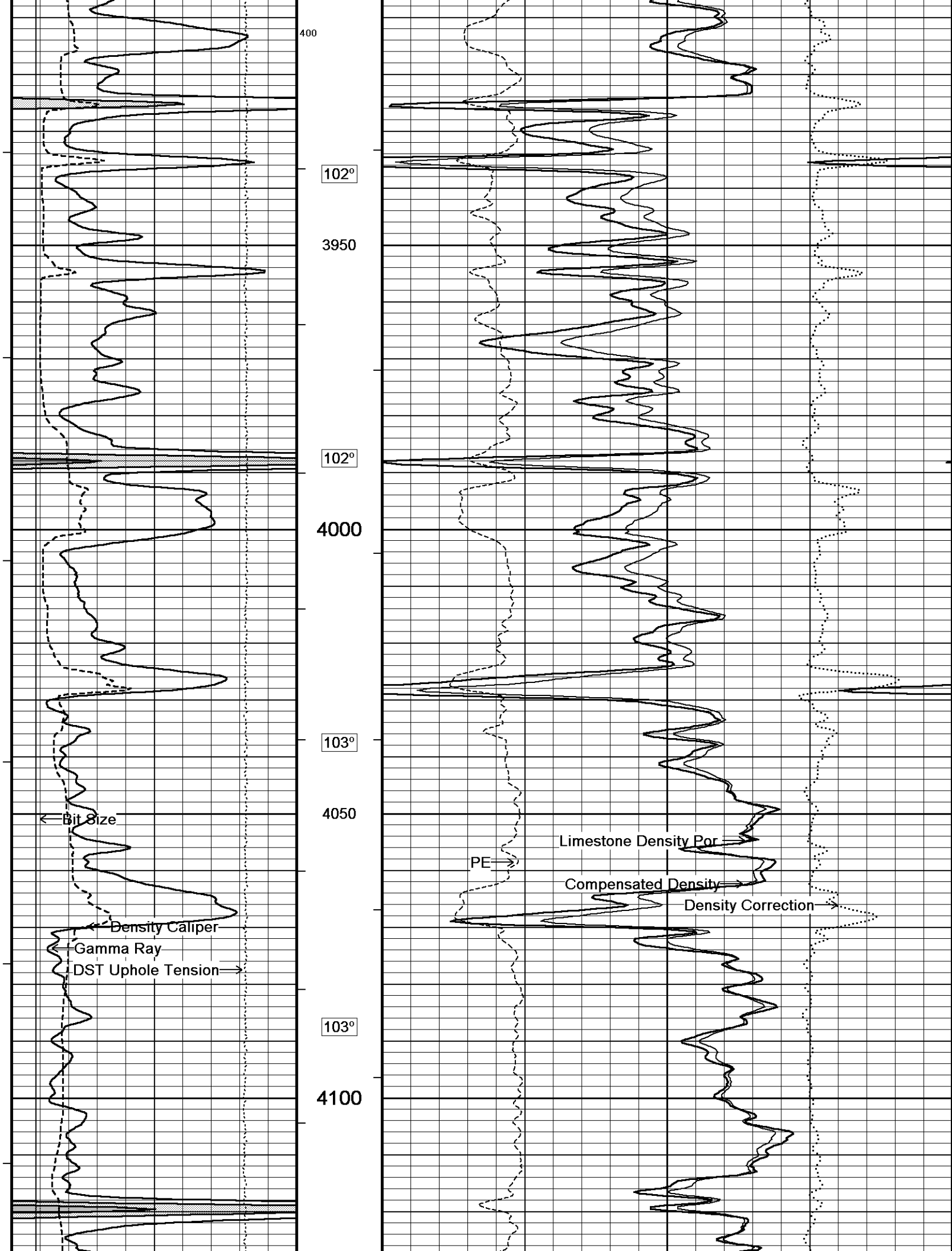
101°

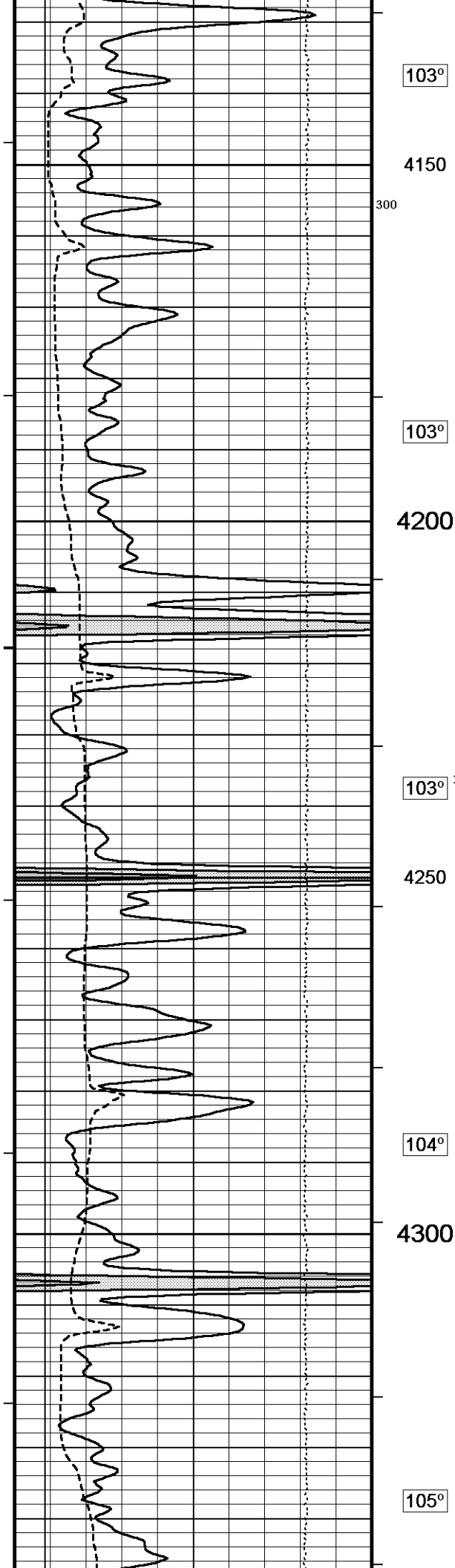
3650

4000









103°

4150

300

103°

4200

103°

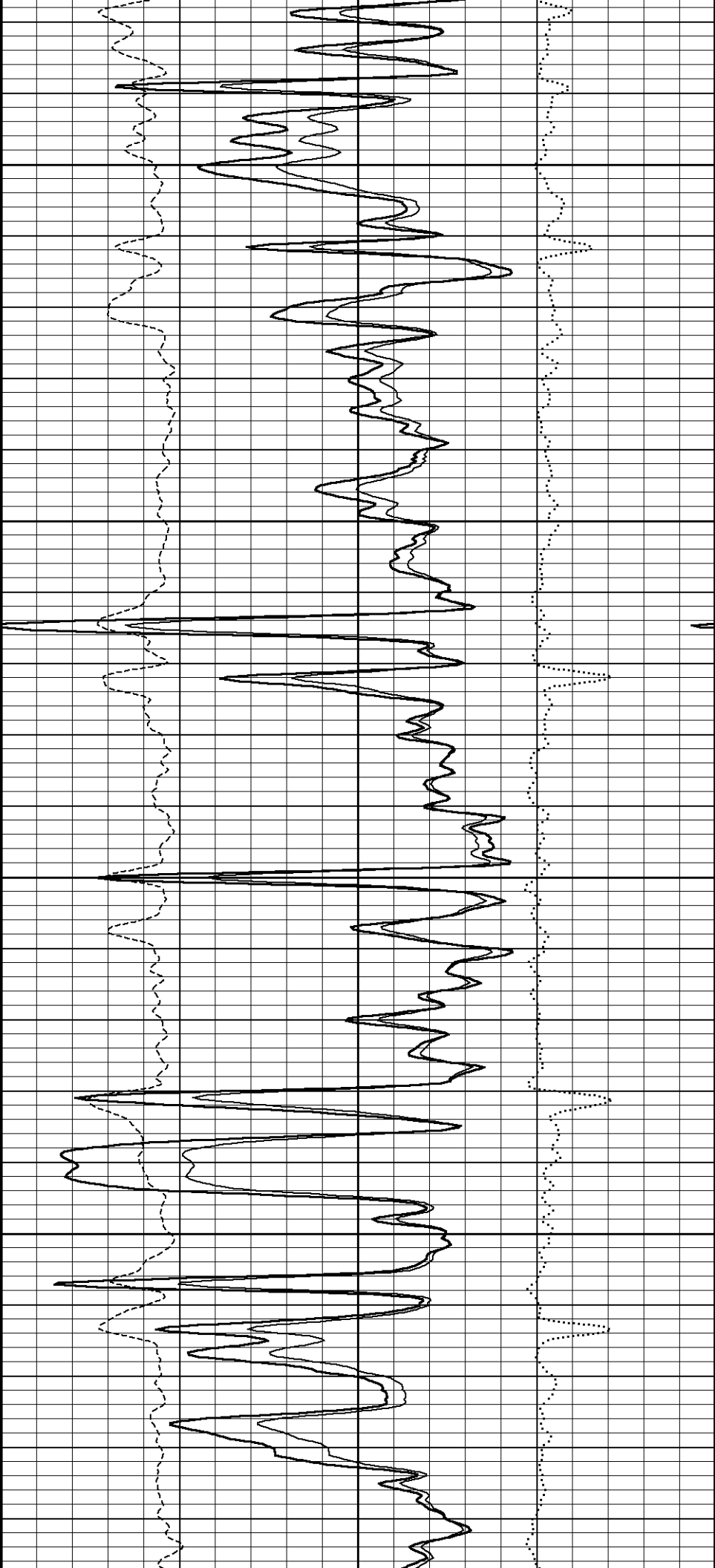
200

4250

104°

4300

105°



103°

4150

300

103°

4200

103°

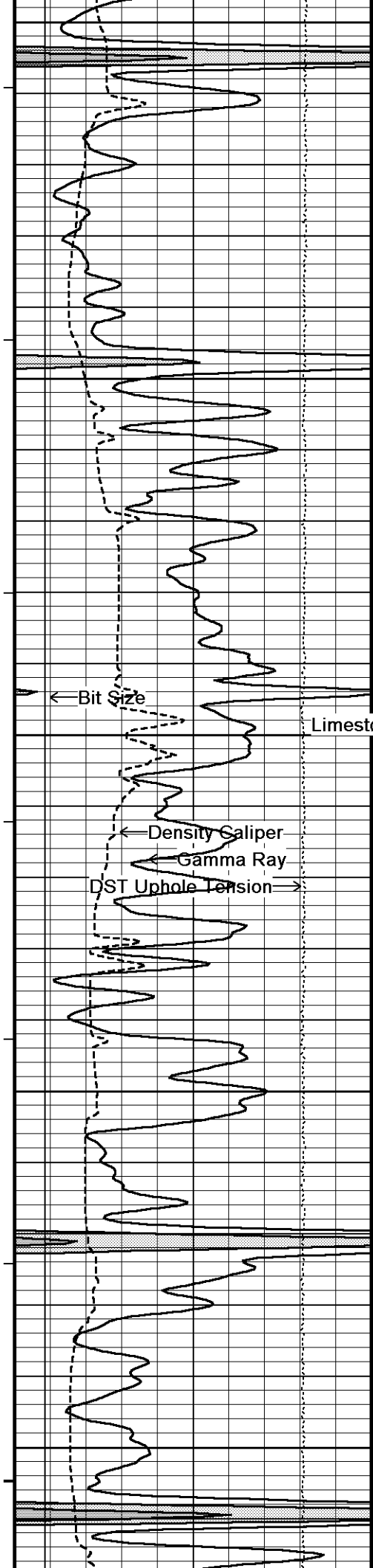
200

4250

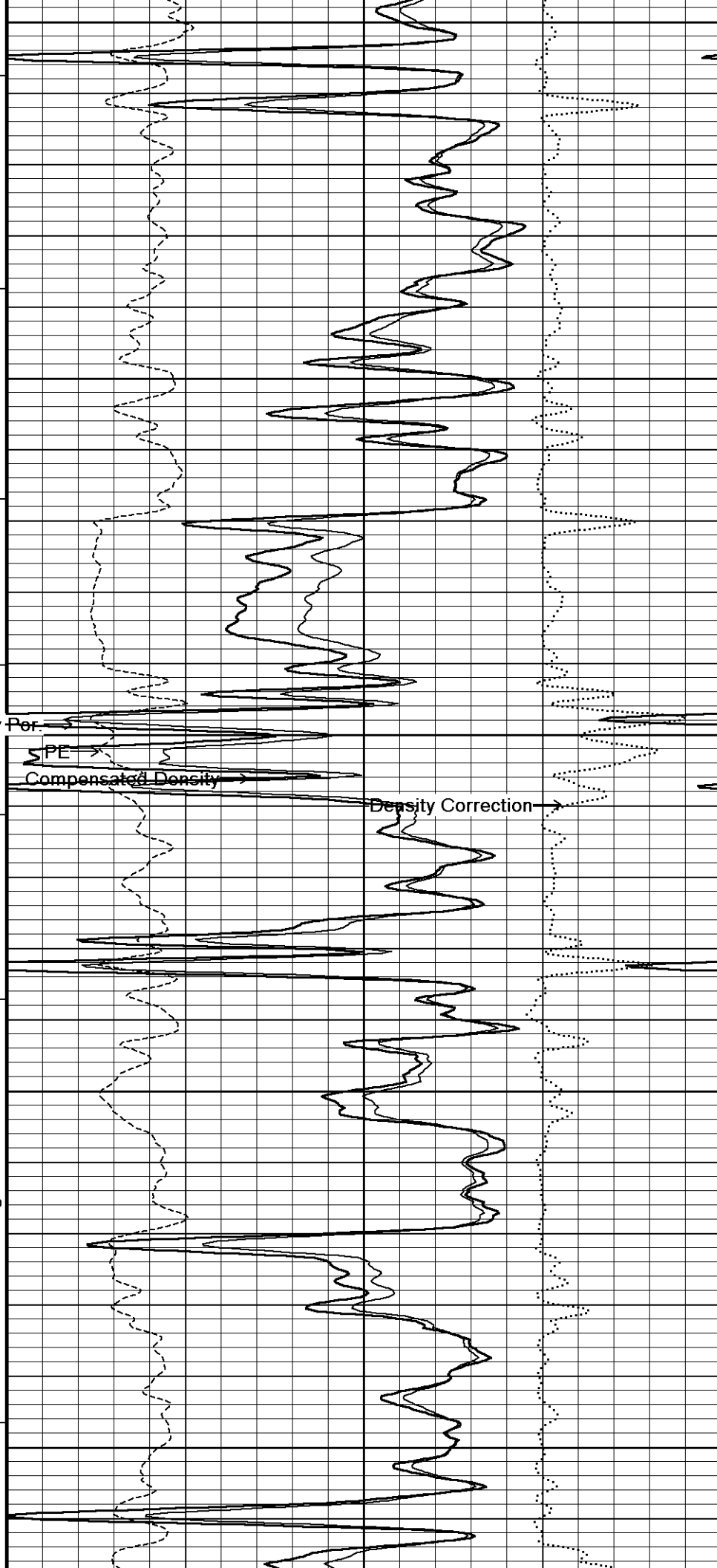
104°

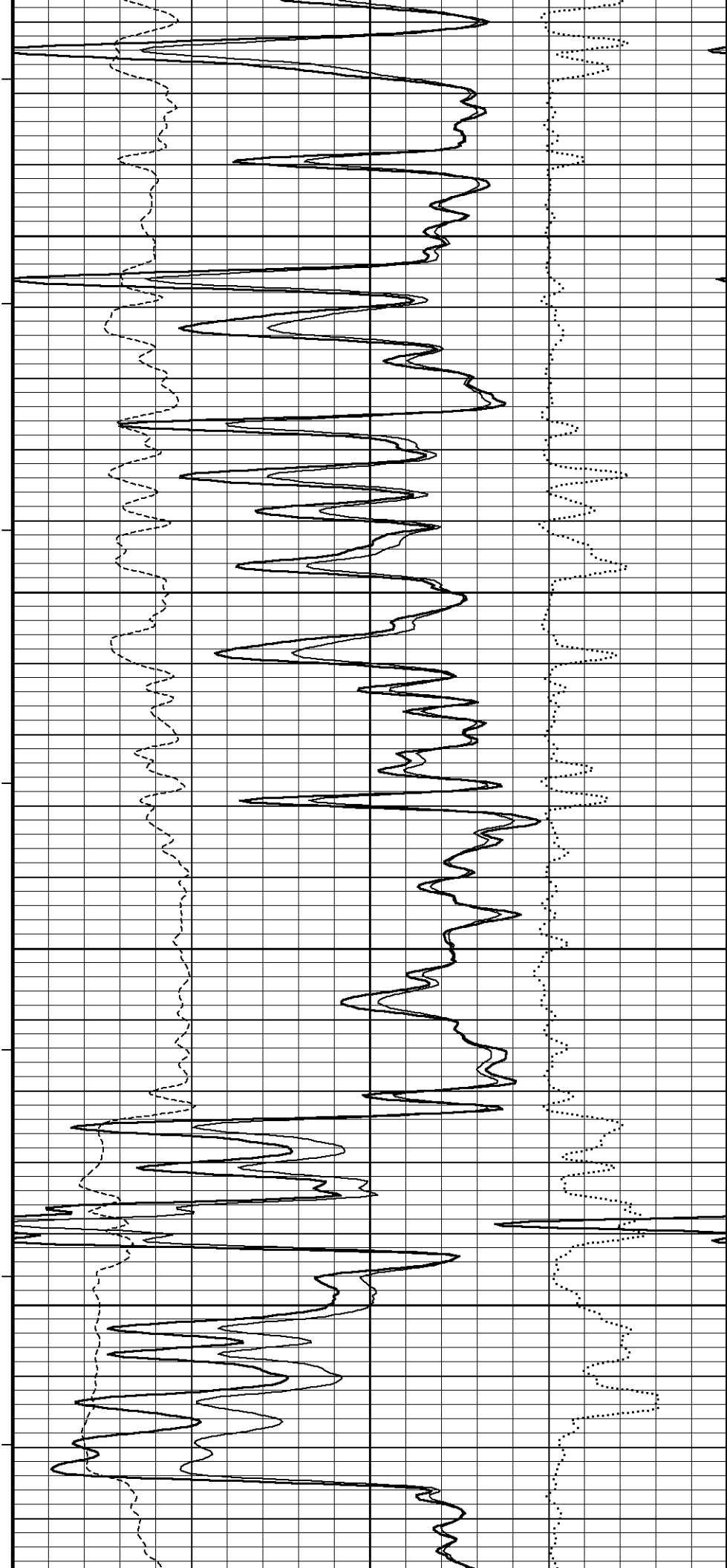
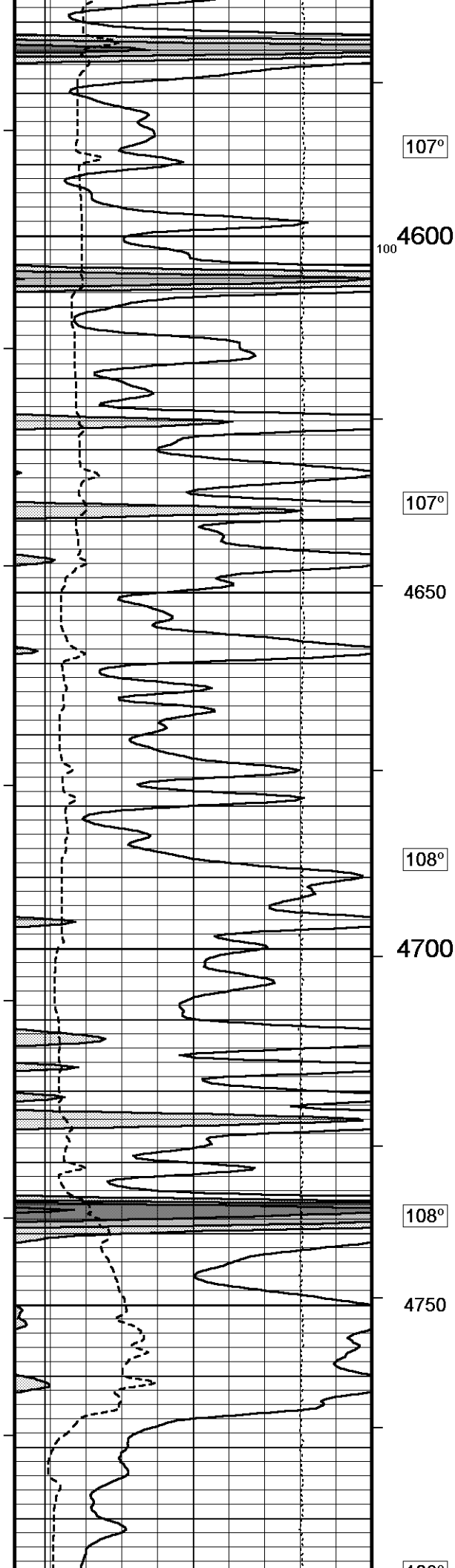
4300

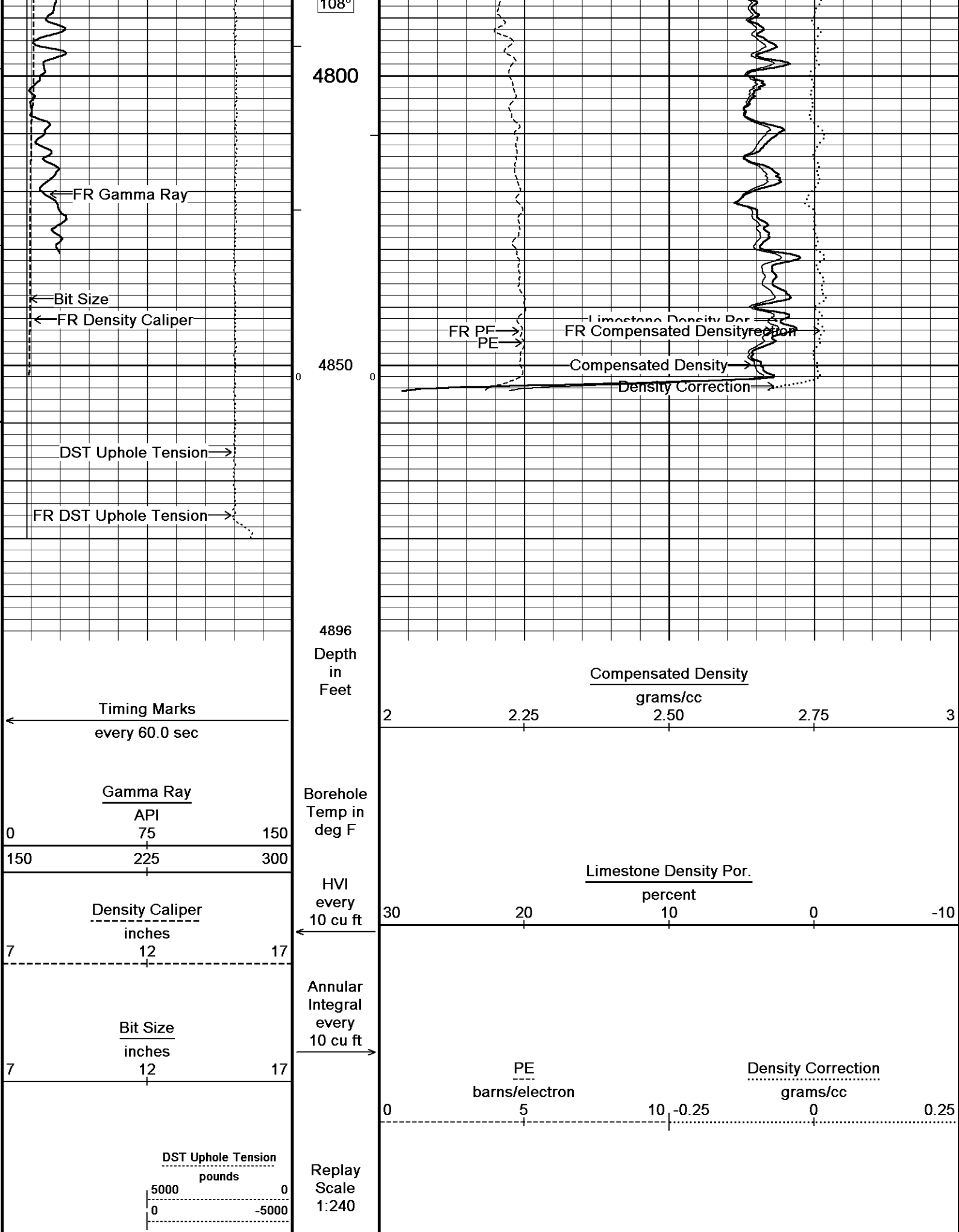
105°



4350
105°
200
4400
105°
4450
105°
4500
100
106°
4550

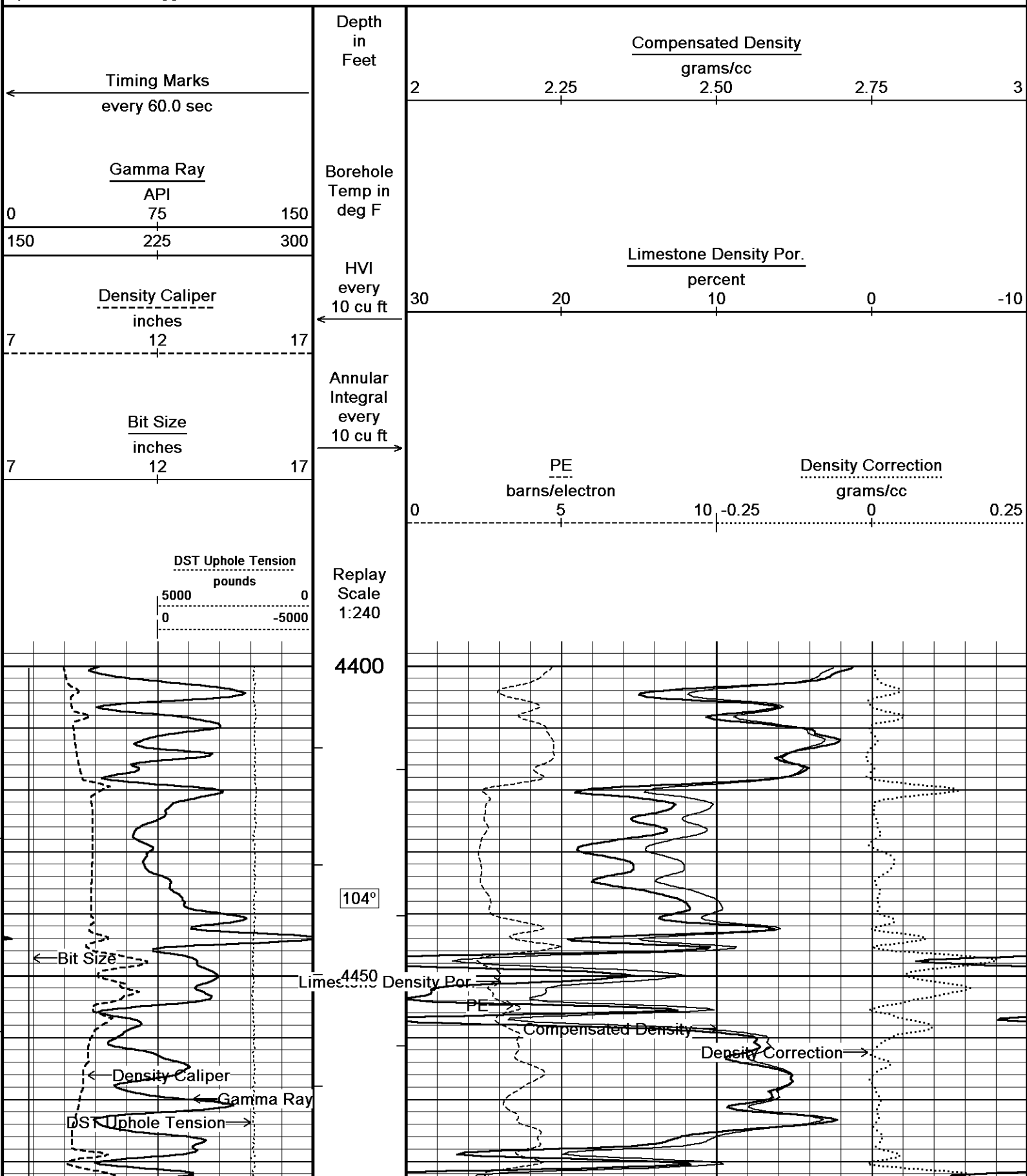


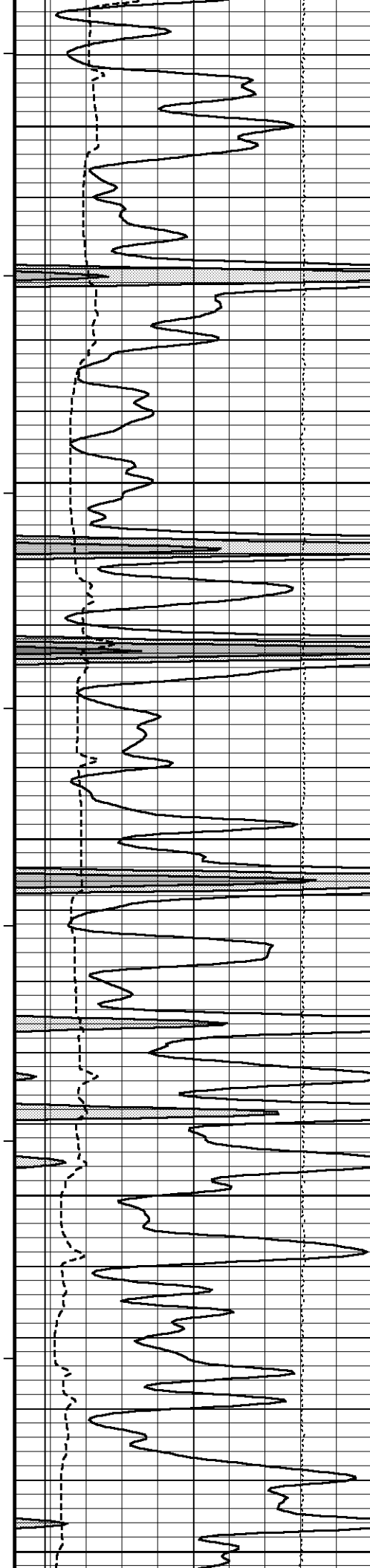




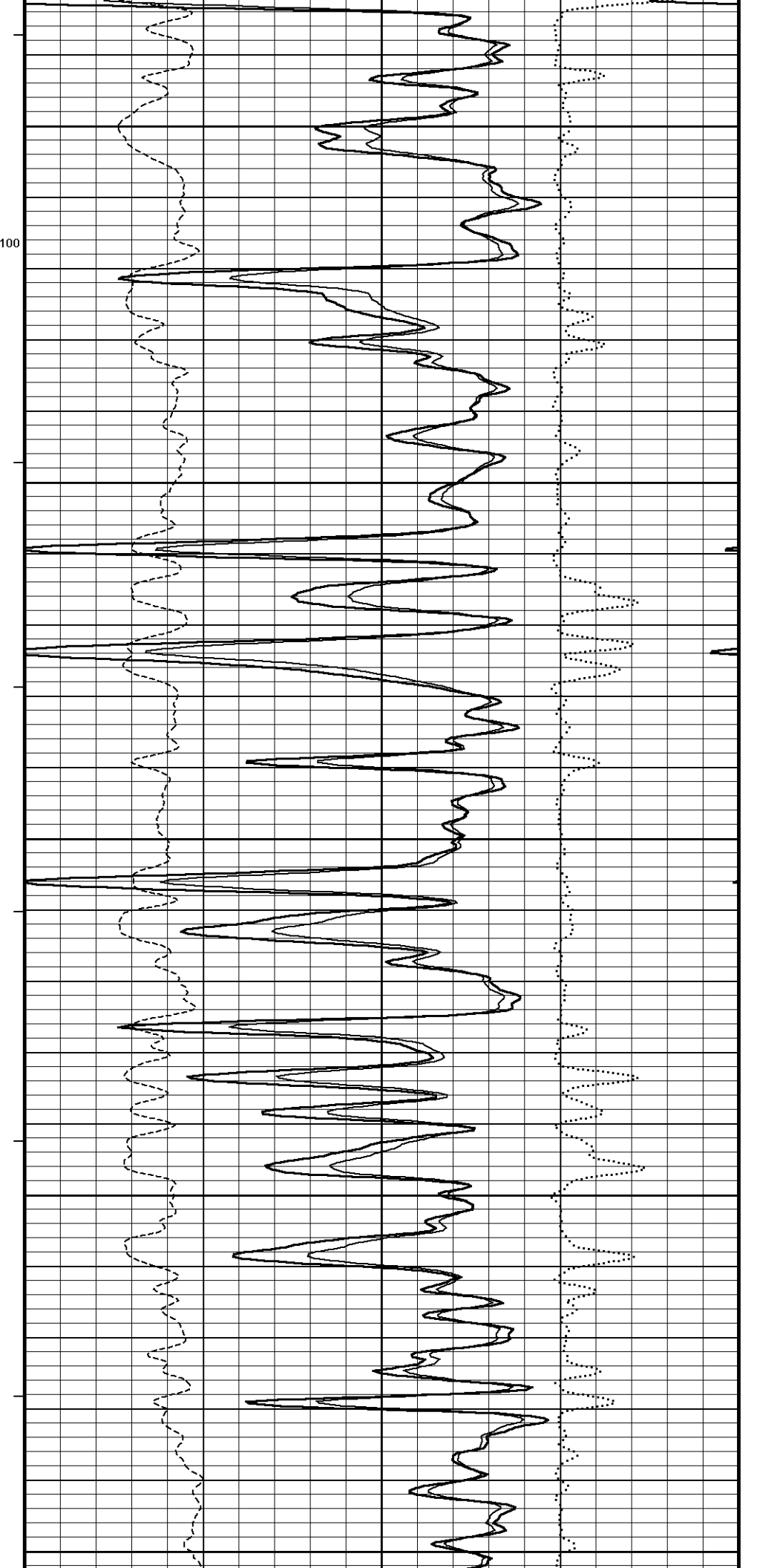
Repeat Section

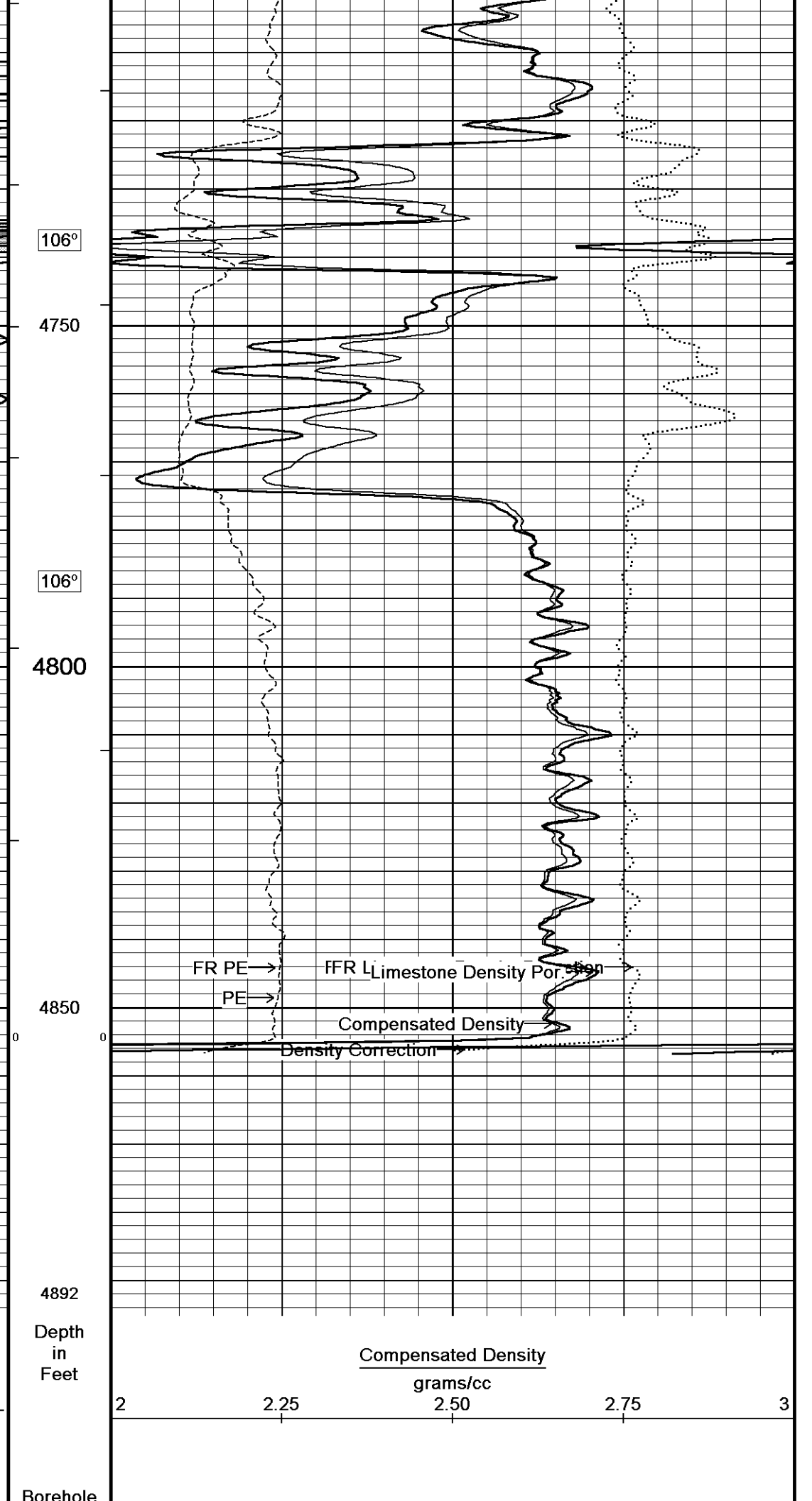
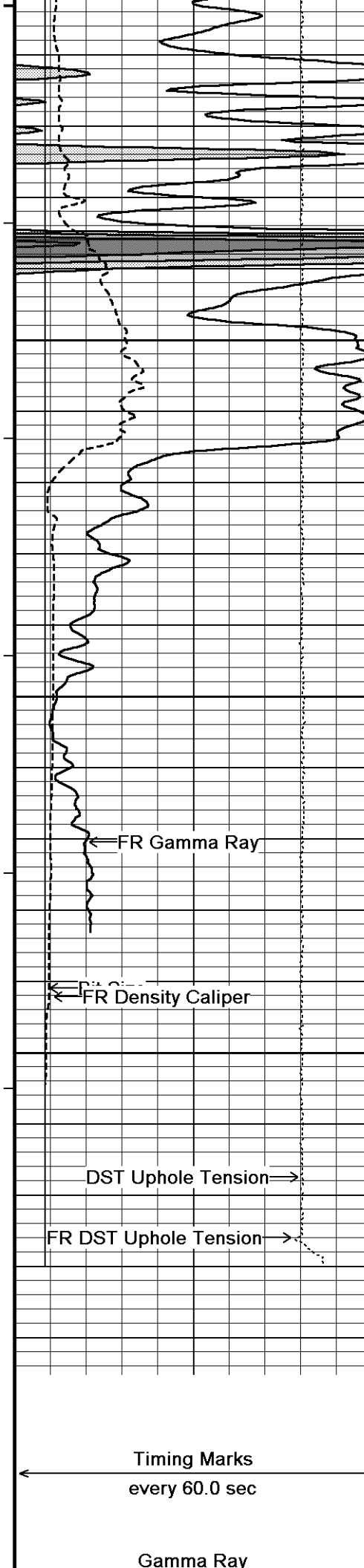
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 21-DEC-2010 12:34
Filename: C:\Minimus 11_01\Data\Shakespeare Janzen 1-16\Copy of Janzen 1-16_001.dta
Recorded on 21-DEC-2010 10:01
System Versions: Logged with 11.01.2198 Plotted with 11.01.2198

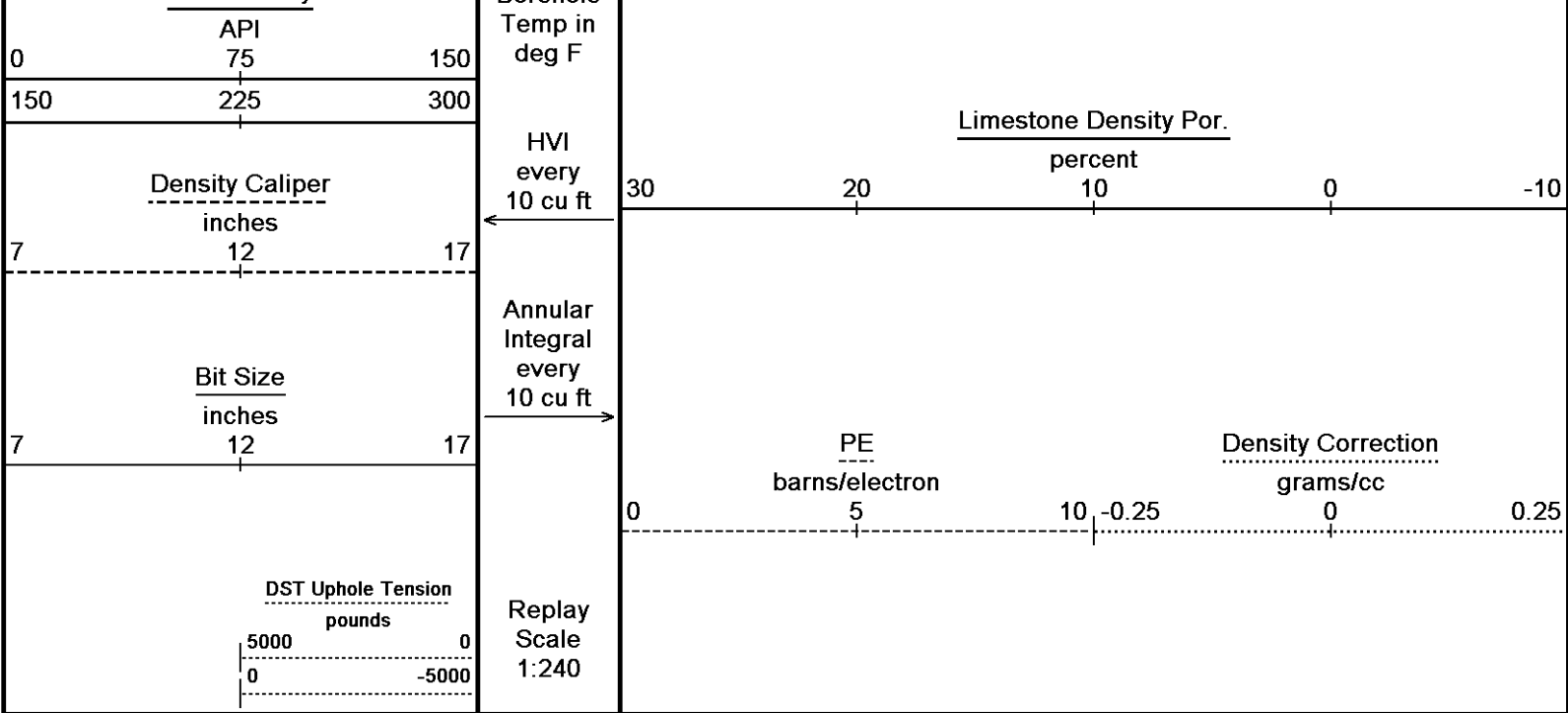




104°
4500
100
104°
4550
105°
4600
100
105°
4650
106°
4700







Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 21-DEC-2010 12:34
Filename: C:\Minimus 11_01\Data\Shakespeare Janzen 1-16\Copy of Janzen 1-16_001.dta
Recorded on 21-DEC-2010 10:01
System Versions: Logged with 11.01.2198 Plotted with 11.01.2198

↑ Repeat Section ↑

BEFORE SURVEY CALIBRATION
C:\Minimus 11_01\Data\Shakespeare Janzen 1-16\Copy of Janzen 1-16_001.dta

General Constants All 000			Last Edited on 21-DEC-2010,08:40		
General Parameters					
Mud Resistivity	0.770		ohm-metres		
Mud Resistivity Temperature	73.000		degrees F		
Water Level	0.000		feet		
Density/Neutron Processing	Wet Hole				
Hole/Annular Volume and Differential Caliper Parameters					
HVOL Method	Single Caliper				
HVOL Caliper 1	Density Caliper				
HVOL Caliper 2	N/A				
Annular Volume Diameter	4.500		inches		
Caliper for Differential Caliper	Density Caliper				
Rwa Parameters					
Porosity used	Limestone Density Por.				
Resistivity used	Array Ind. One Res Rt				
RWA Constant A	1.000				
RWA Constant M	2.000				

High Resolution Temperature Calibration MCG-B 67		Field Calibration on 06-AUG-2010,10:40	
	Measured	Calibrated(Deg F)	
Lower	50.00	50.00	
Upper	75.00	75.00	

High Resolution Temperature Constants MCG-B 67		Last Edited on 06-AUG-2010,10:39	
Pre-filter Length	11		

Gamma Calibration MCG-B 67		Field Calibration on 09-DEC-2010 10:58	
	Measured	Calibrated (API)	
Background	63	45	
Calibrator (Gross)	707	501	
Calibrator (Net)	644	456	

Gamma Calibrator Number	grcc141	
Mud Density	1.14	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

Caliper Calibration MPD-B 61

Base Calibration on 12-DEC-2010,09:32

Field Calibration on 12-DEC-2010,09:32

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	19181	4.01
2	29014	5.96
3	39136	7.98
4	49217	9.95
5	59496	11.91
6	N/A	N/A

Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	5.96	5.96

Photo Density Calibration MPD-B 61

Base Calibration on 22-NOV-2010 12:12

Field Check on 12-DEC-2010 09:31

Density Calibration				
Base Calibration				
	Near	Far	Near	Far
Reference 1	42985	18873	59556	30836
Reference 2	16752	1673	24941	2541

Field Check at Base		
	680.6	839.8

Field Check		
	683.1	835.5

PE Calibration				
Base Calibration				
	WS	WH	Ratio	Calibrated Ratio
Background	123	609		
Reference 1	17134	42878	0.402	0.371
Reference 2	4610	16672	0.279	0.272

Field Check at Base		
	123.4	608.5

Field Check		
	123.9	610.7

Density Constants MPD-B 61

Last Edited on 21-DEC-2010,08:41

Density Source Id	20718b	
Nylon Calibrator Number	dnce695	
Aluminium Calibrator Number	dacd698	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.14	gm/cc
Mud Density Z/A Multiplier	1.11	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc
DNCT	0.00	gm/cc
CRCT	0.00	gm/cc
Density Z/A Correction	Hybrid	

Matrix Density (gm/cc)	Depth (ft)
2.71	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

0.00
0.00
0.00
0.00

0.00
0.00
0.00

DOWNHOLE EQUIPMENT

C:\Minimus 11_01\Data\Shakespeare Janzen 1-16\Cop of Janzen 1-16_001.dta

MCB-A.A 11B Tension Cablehead

MCB-A.A 2 LG: 2.40 ft WT: 19.8 lb OD: 2.24 in

Compact Comms Gamma

MCG-B 67 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-log

MML-A 4 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron

MDN-A.B 41 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper

MPD-B 61 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

Compact Focussed Electric

MFE-A.A 67 LG: 6.03 ft WT: 48.5 lb OD: 2.24 in

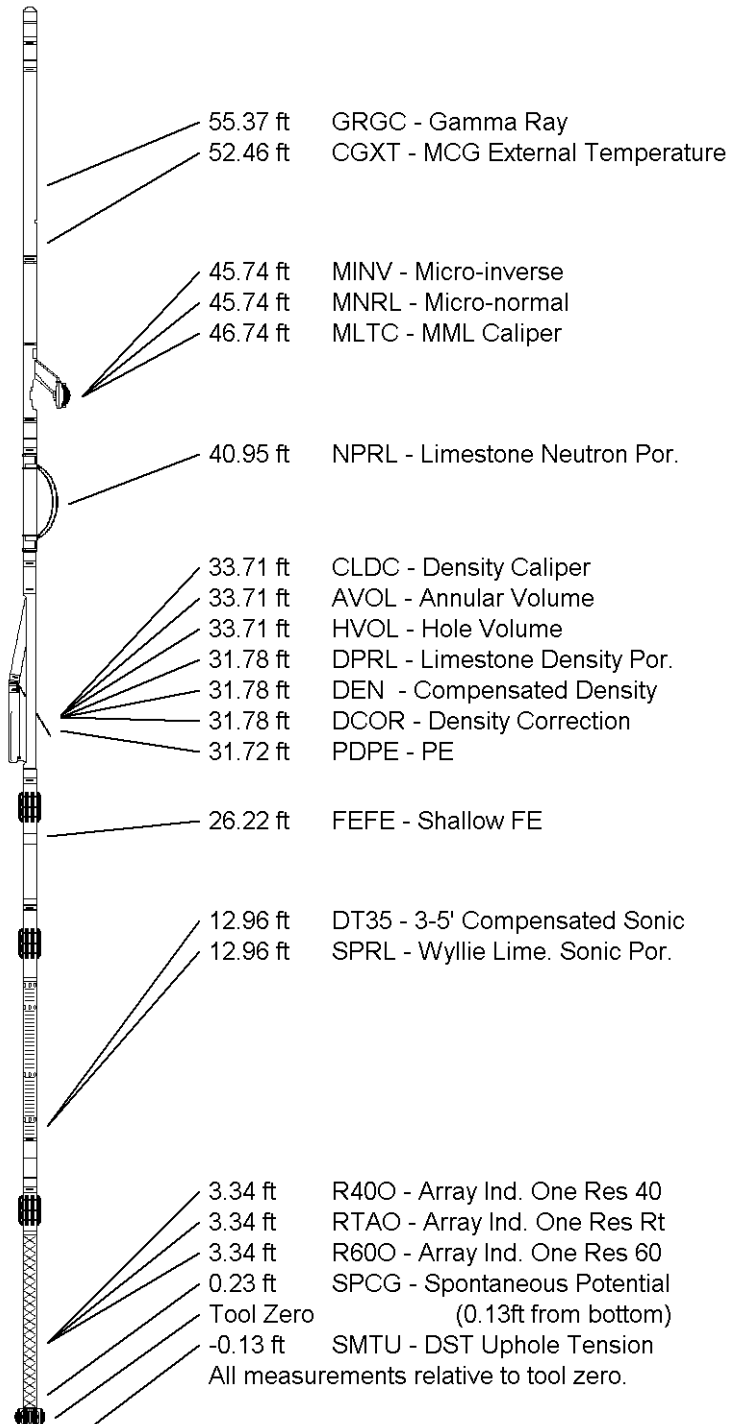
Compact Sonic

MSS-A.A 127 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

Compact Induction

MAI-A.A 188 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 63.05 ft Weight: 476.2 lb



COMPANY	SHAKESPEARE OIL
WELL	JANZEN 1-16
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A./KANSAS

Elevation/Kelly Bushing 2146.00 feet

First Reading 4244.00 feet

Elevation Kelly Bushing	3149.00	feet	First Reading	4844.00	feet
Elevation Drill Floor	3148.00	feet	Depth Driller	4880.00	feet
Elevation Ground Level	3139.00	feet	Depth Logger	4876.00	feet



Weatherford®

COMPACT PHOTO DENSITY
COMPENSATED NEUTRON
MICRO RESISITIVITY LOG

