



HOLE VOLUME CALIPER LOG

COMPANY				BILL BARRETT CORPORATION			
WELL				GGU MILLER 23B-32-691			
FIELD				GIBSON GULCH			
PROVINCE/COUNTY				GARFIELD			
COUNTRY/STATE				U.S.A. / COLORADO			
LOCATION				SHL: 1241' FSL & 2293' FWL BHL: 1800' FSL & 1990' FWL			
SEC	TWP	RGE	Other Services				
32	6S	91W	MPD/MDN				
API Number		05-045-19424		MAI/MFE			
Permit Number							
Permanent Datum G.L., Elevation 6121 feet							
Log Measured From K.B. @ 23 FEET above Permanent Datum							
Drilling Measured From K.B.							
Date	25-NOV-2010				Elevations: KB DF GL		
Run Number	ONE						
Depth Driller	7250.00				feet		
Depth Logger	7253.00				feet		
First Reading	7232.00						
Last Reading	784.00						
Casing Driller	780.00				feet		
Casing Logger	784.00				feet		
Bit Size	7.875				inches		
Hole Fluid Type	LSND						
Density / Viscosity	10.50 lb/USg		55.00 CP				
PH / Fluid Loss	9.60		7.00 ml/30Min				
Sample Source	FLOW LINE						
Rm @ Measured Temp	2.16 @ 87.7		ohm-m				
Rmf @ Measured Temp	1.73 @ 87.7		ohm-m				
Rmc @ Measured Temp	2.59 @ 87.7		ohm-m				
Source Rmf / Rmc	CALC		CALC				
Rm @ BHT	1.0 @ 193.0		ohm-m				
Time Since Circulation	6 HOURS						
Max Recorded Temp	194.00		deg F				
Equipment Name	COMPACT						
Equipment / Base	13045		GD JCT				
Recorded By	R. BROWN						
Witnessed By	C.CROW						

BOREHOLE RECORD			Last Edited: 25-NOV-2010 00:37	
Bit Size inches	Depth From feet	Depth To feet		
8.750	780.00	4730.00		
7.875	4730.00	7250.00		
CASING RECORD				
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	780.00	36.00

REMARKS	
TOOLS: SHA, MCG, MDN, MPD, SKJ, MFE, AND MAI RAN IN COMBINATION	
HARDWARE: MPD: (1) 8 INCH PROFILE PLATE MAI: (1) 0.5 INCH STANDOFF MDN: (1) DUAL BOWSPRING	
2.68 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.	
ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.	
TIGHT PULLS, BOREHOLE SIZE, AND RUGOSITY WILL AFFECT REPEATABILITY AND DATA QUALITY.	
CALIPER CHECK IN CASING PRESENTED, REFERENCE I.D. = 8.98" (9 5/8", 36 LB/FT CASING)	
8.75 INCH BIT USED FROM SURFACE CASING TO 4730 FEET.	
TOOL ROLL-OVER THROUGHOUT EXTENT OF LOG. SEVERAL REPEAT PASSES WERE ATTEMPTED TO CORRECT THE ISSUE, HOWEVER, CALIPER STILL READ UNDERGAUGED THROUGH THE FOLLOWING ZONES: FROM 6460 - 6440 FEET, 6345 - 6314 FEET, 6210 - 6190 FEET, 5894 - 5878 FEET AND 4772 - 4760 FEET	

6210 = 6150 FEET, 5654 = 5678 FEET AND 4772 = 4760 FEET.

DATA SPLICED AT 6800 FEET, 6660 FEET, 6500 FEET, 6460 FEET, 6210 FEET, 5900 FEET, 4780 FEET, AND 2570 FEET.

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2480 CU.FT.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 1760 CU.FT.

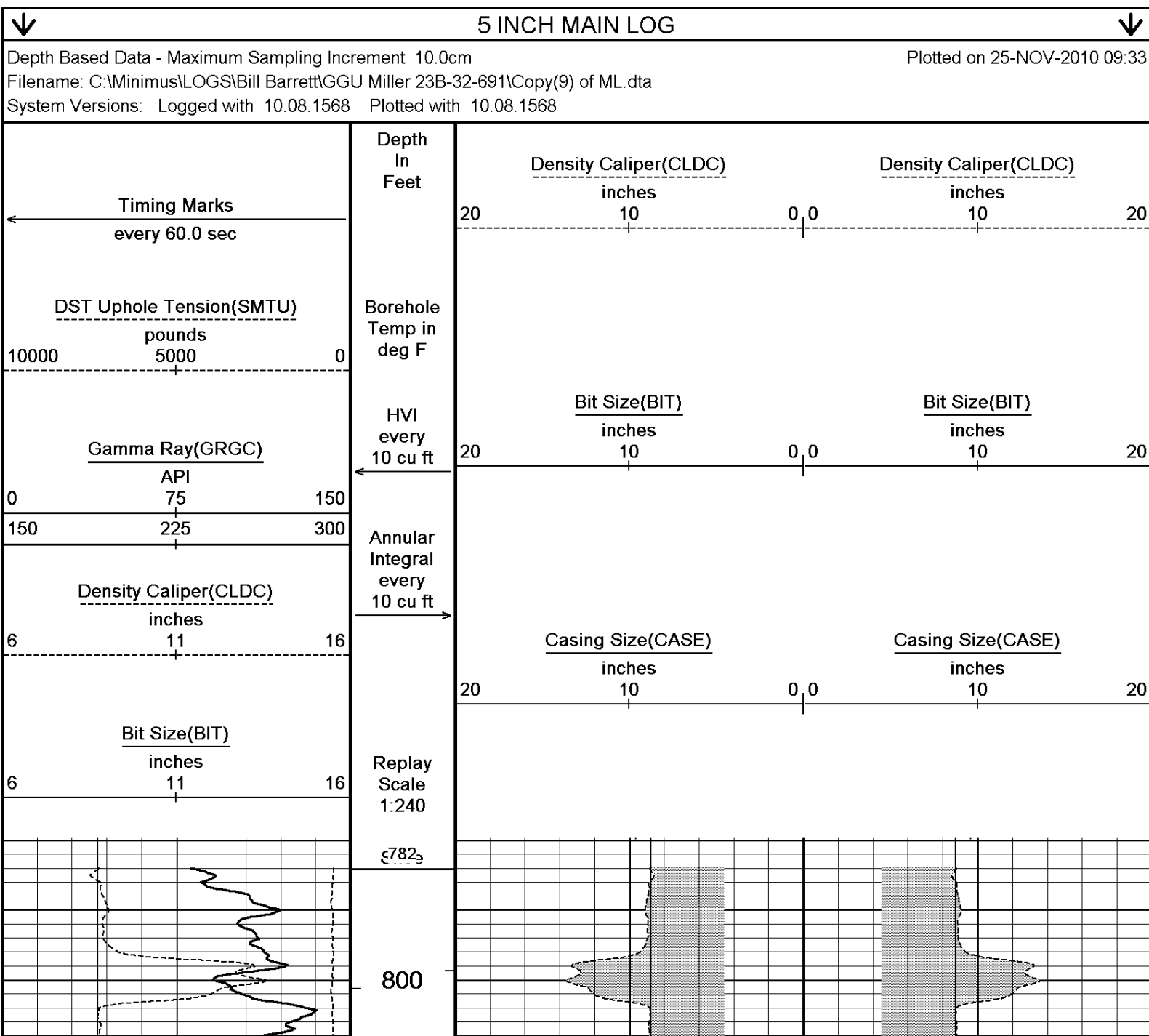
ENGINEER: R. BROWN

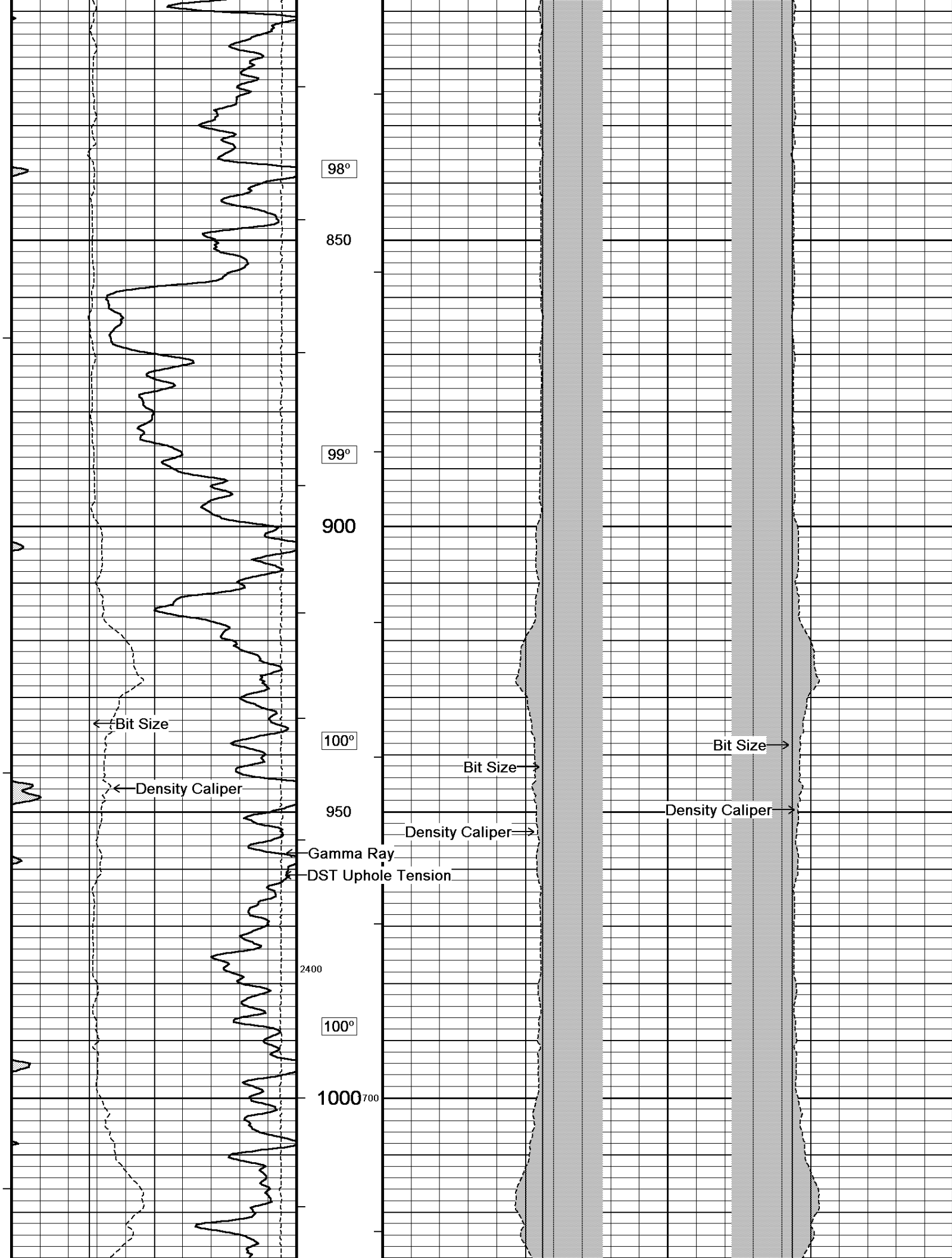
OPERATOR(S): S.KAISER, L. STAAKE

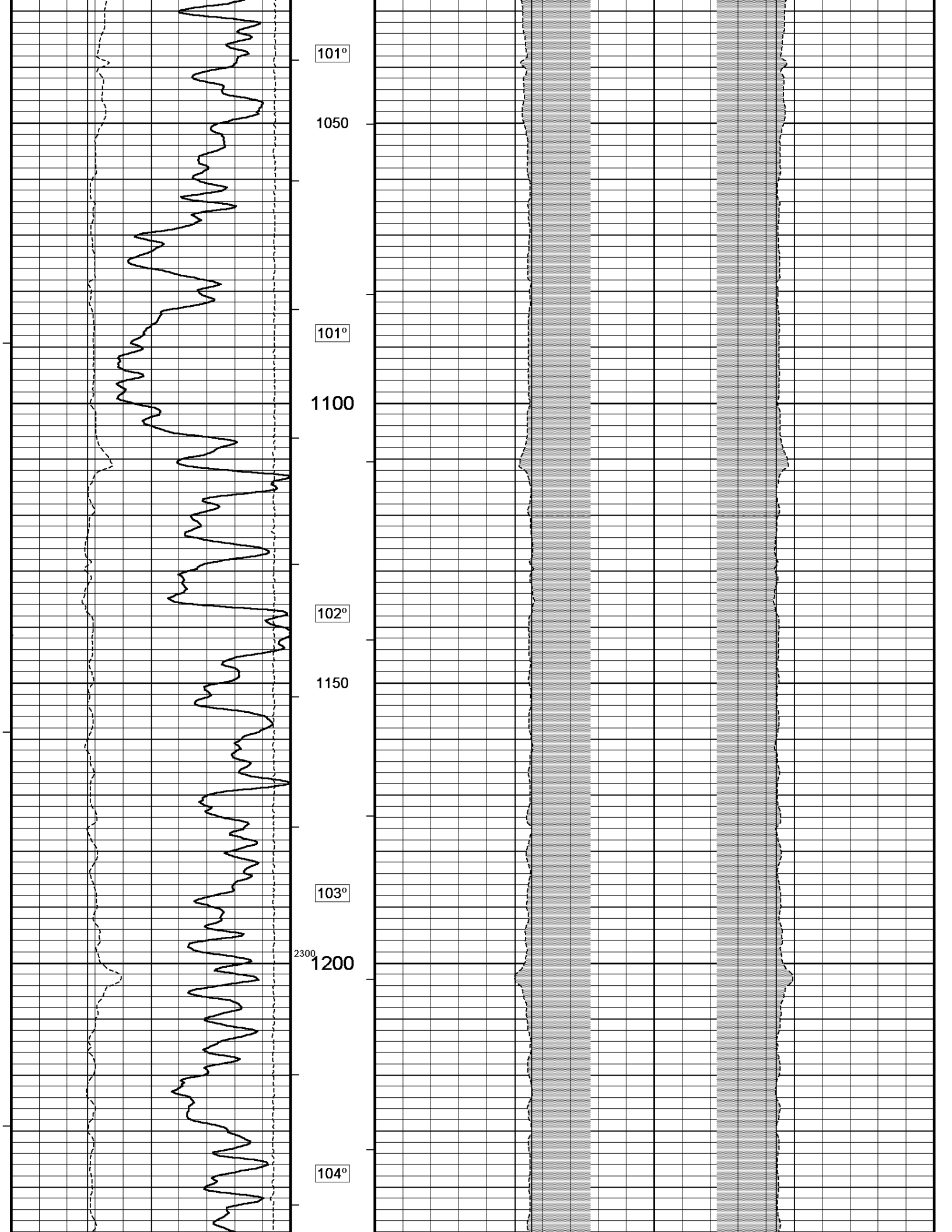
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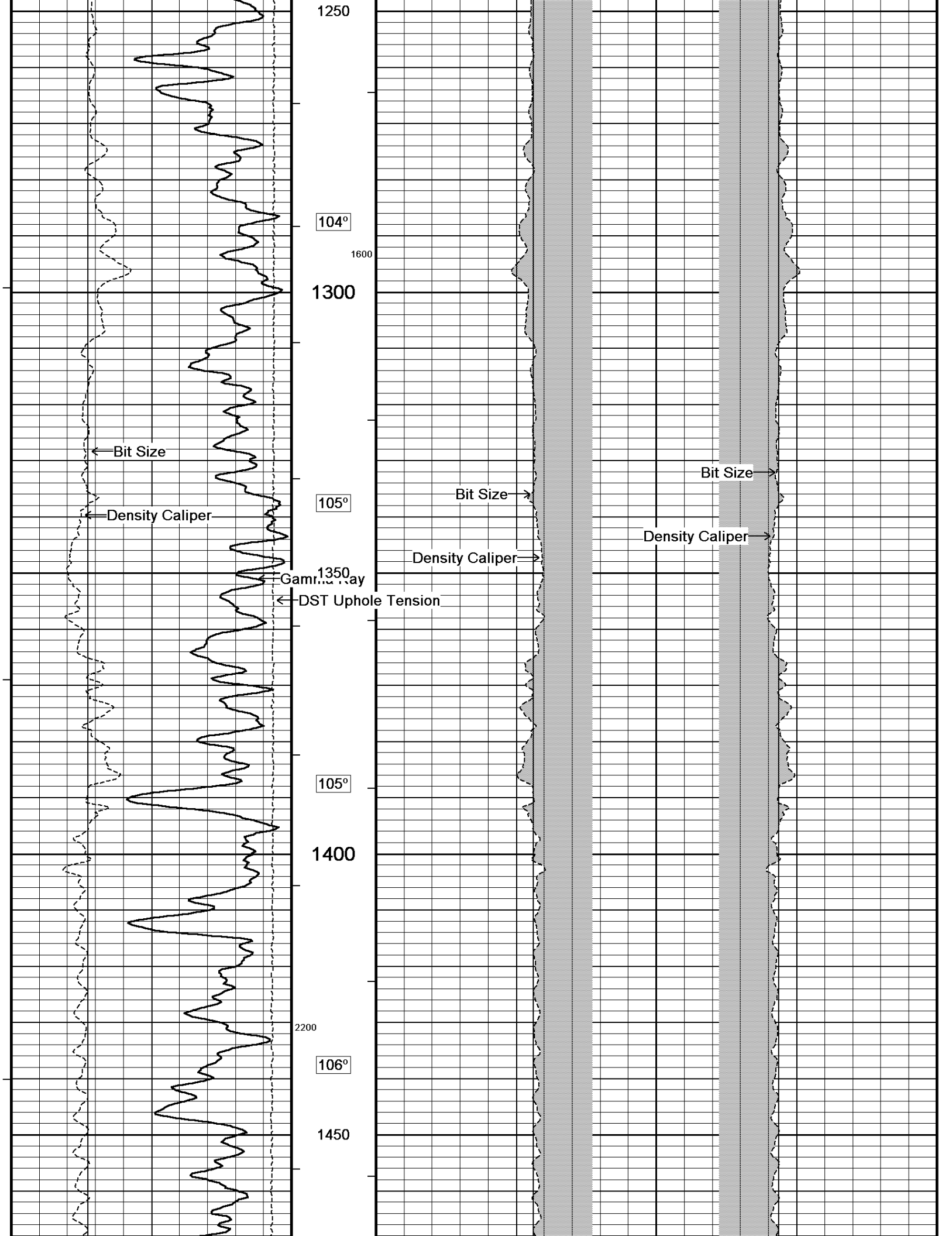
RIG: PATTERSON #307

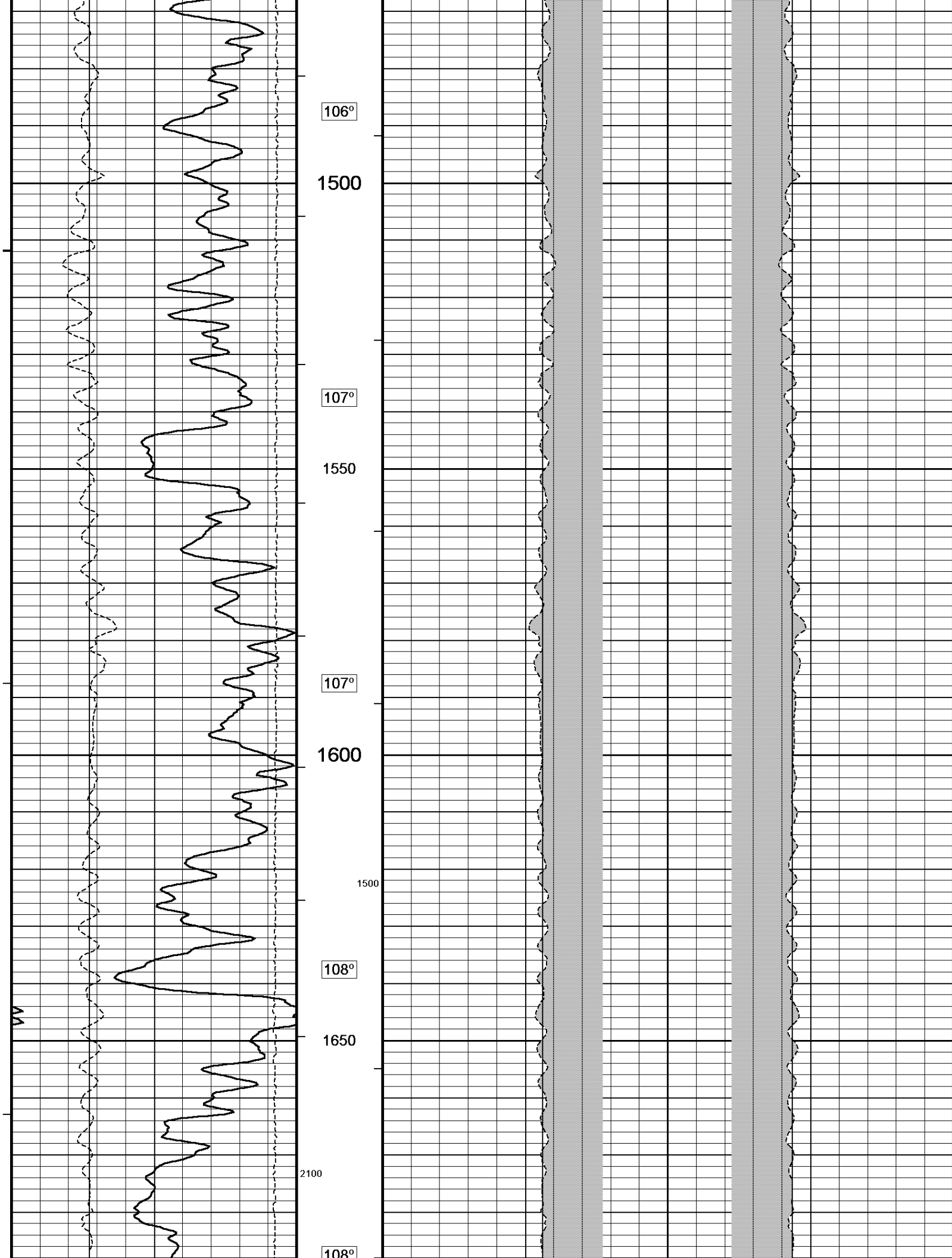
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

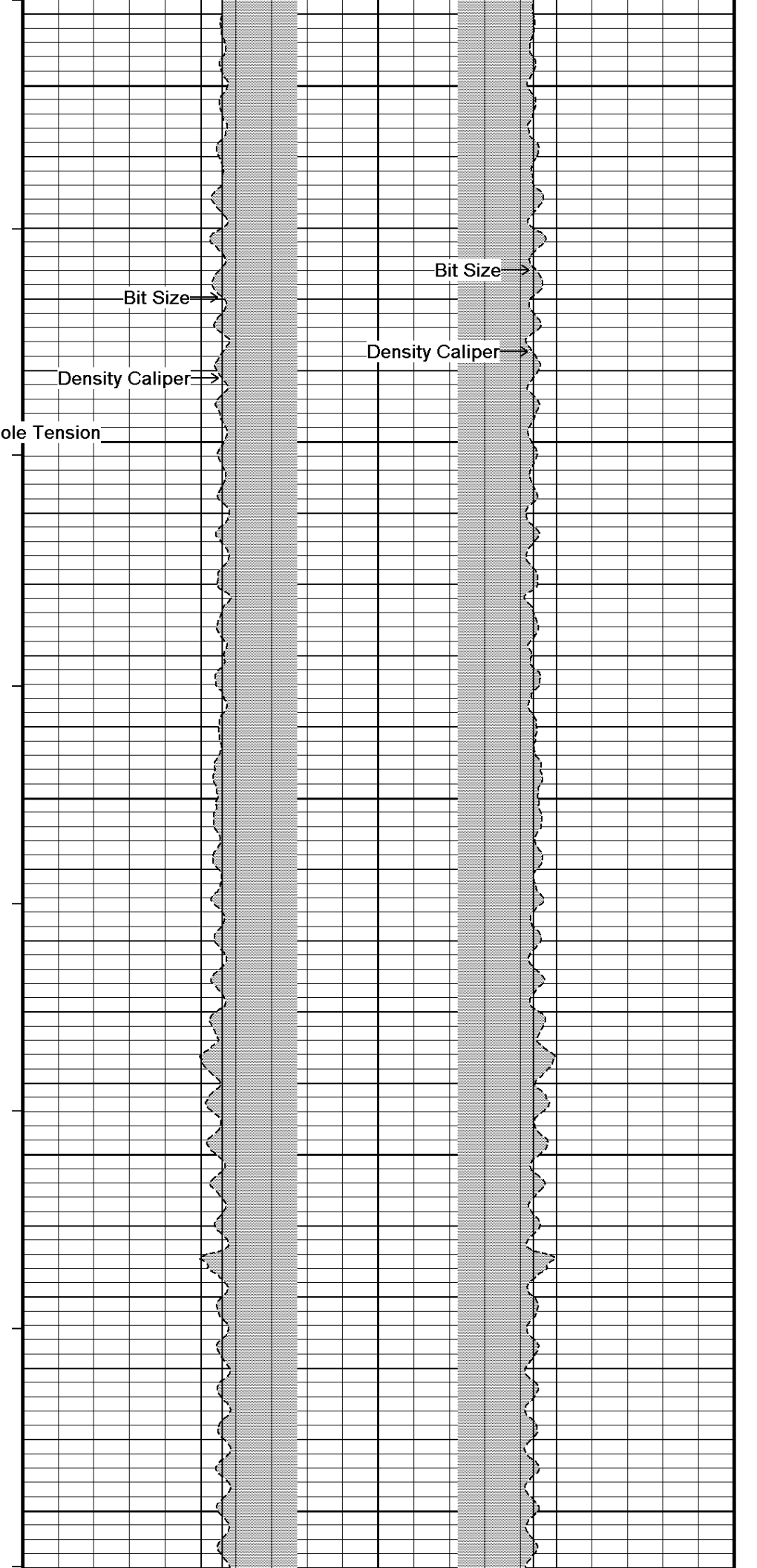
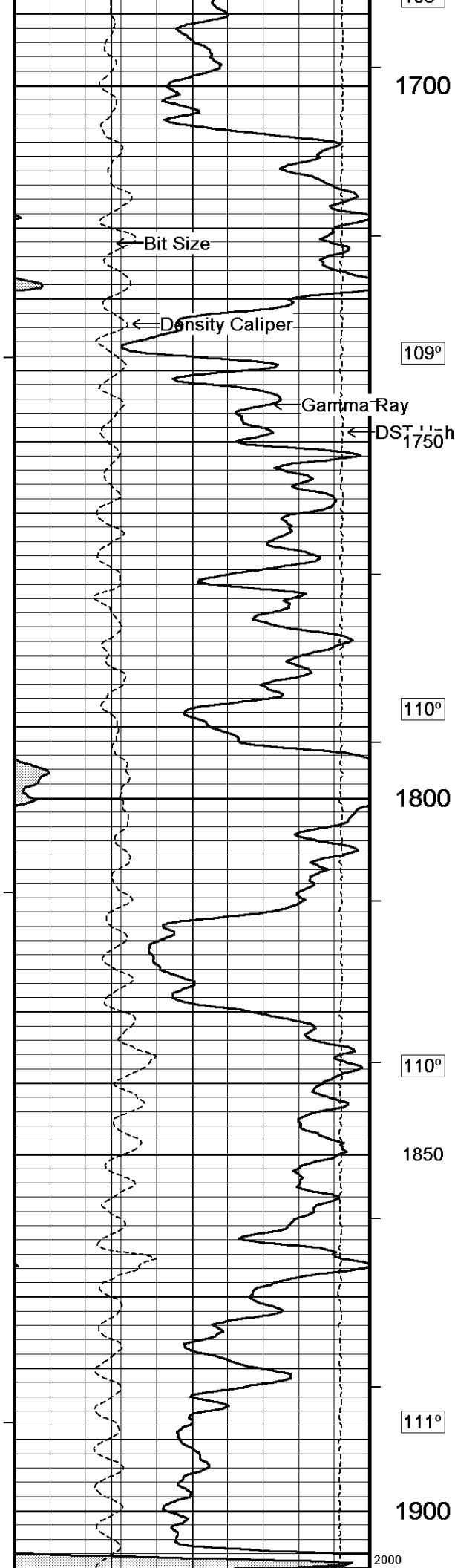


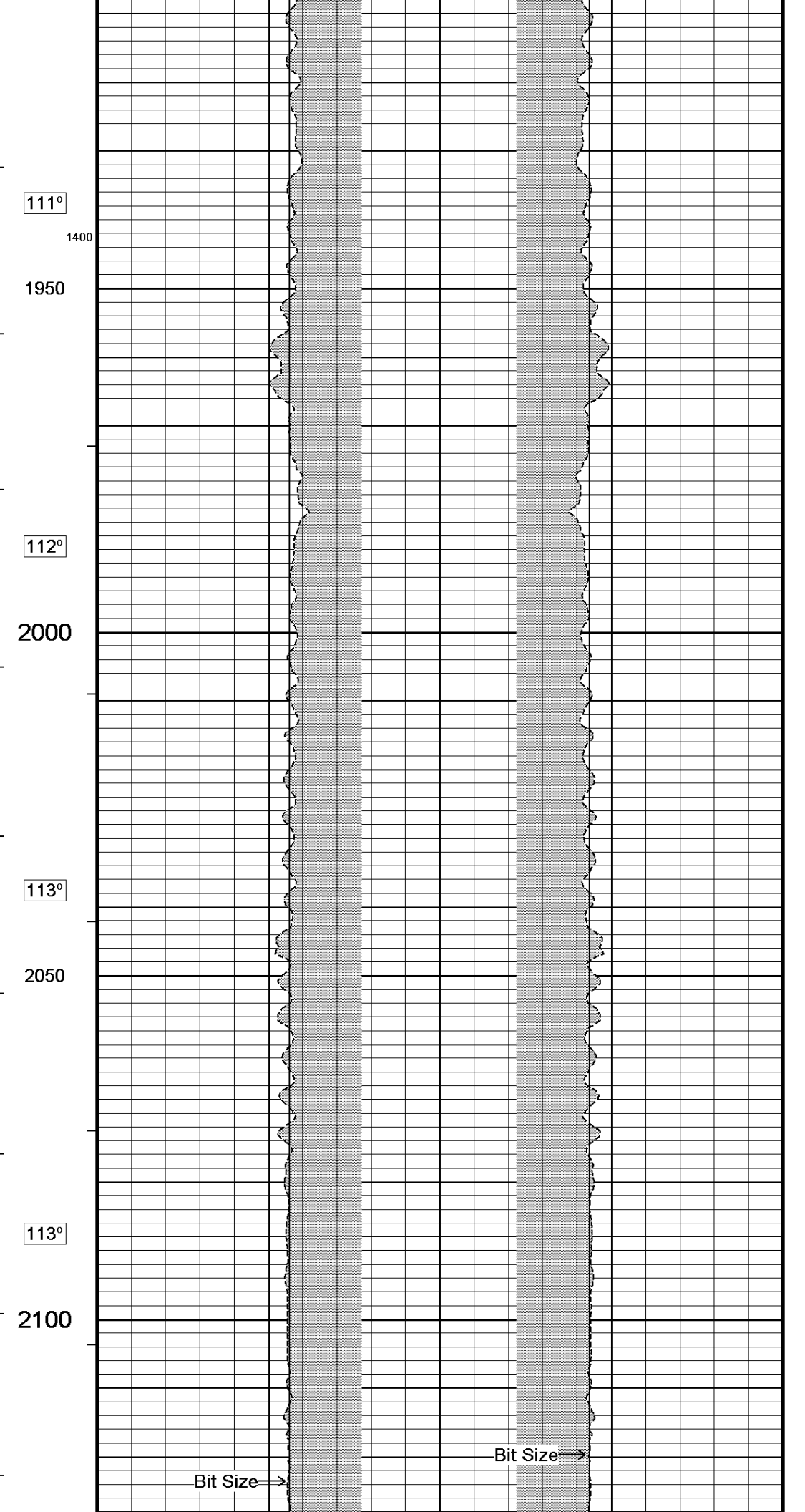
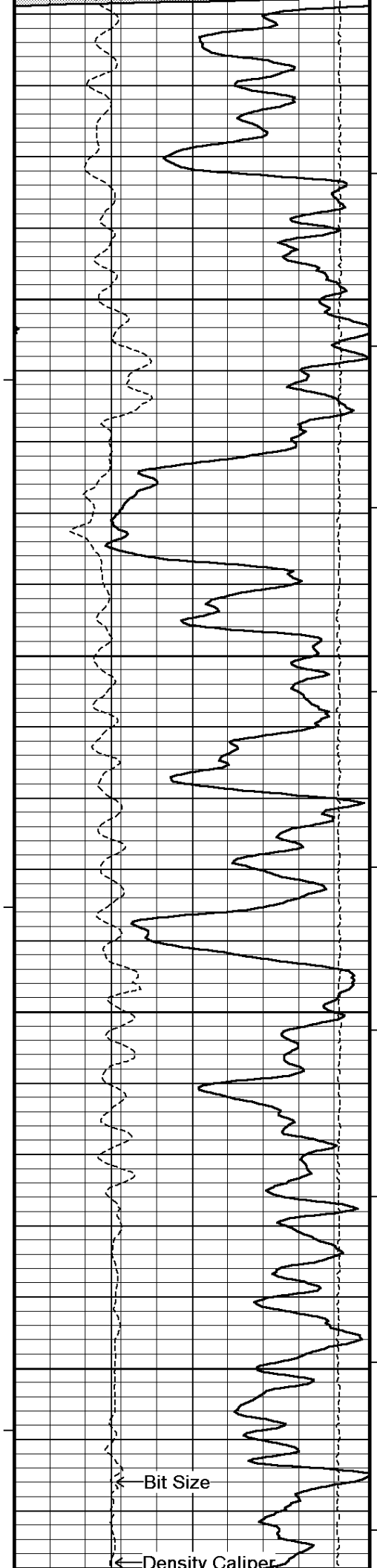


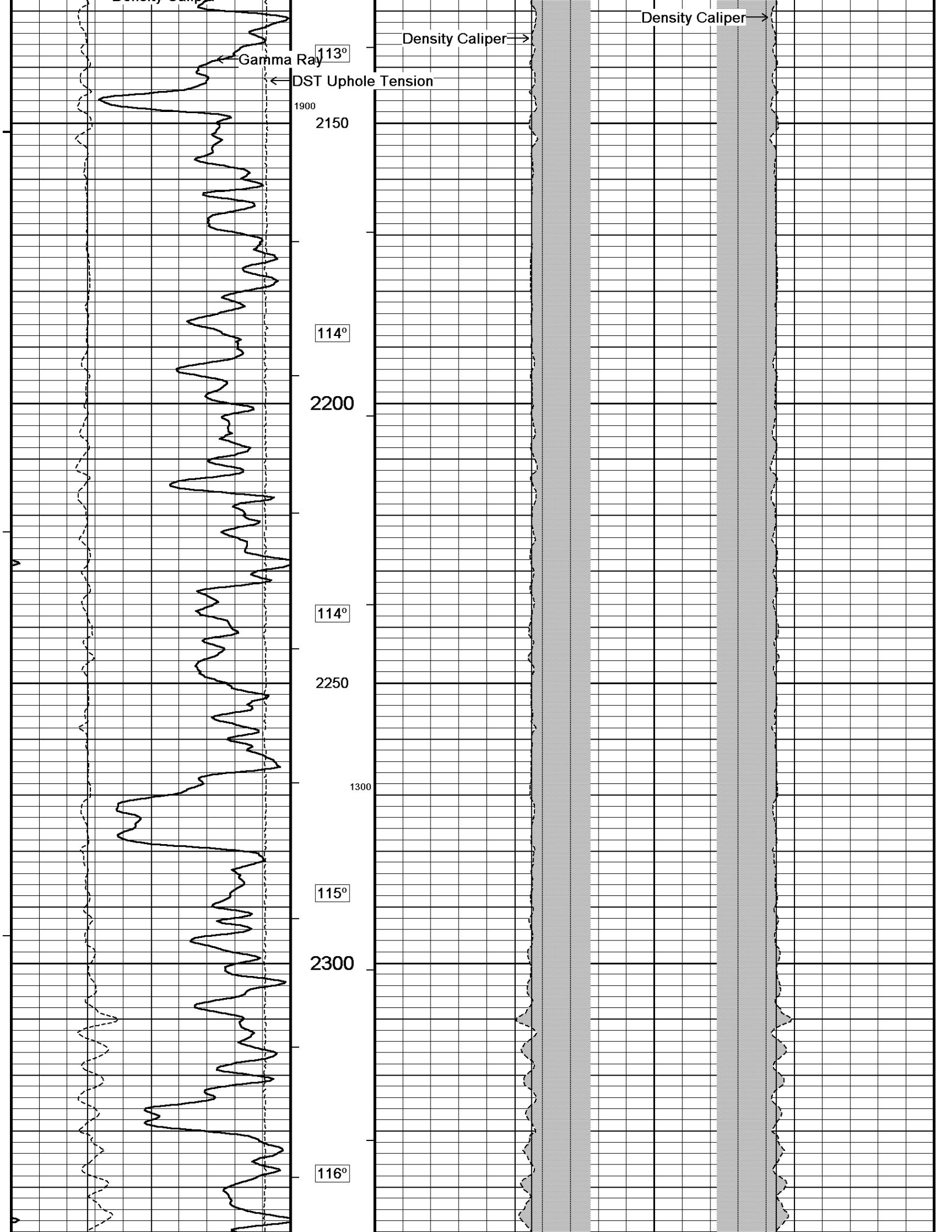


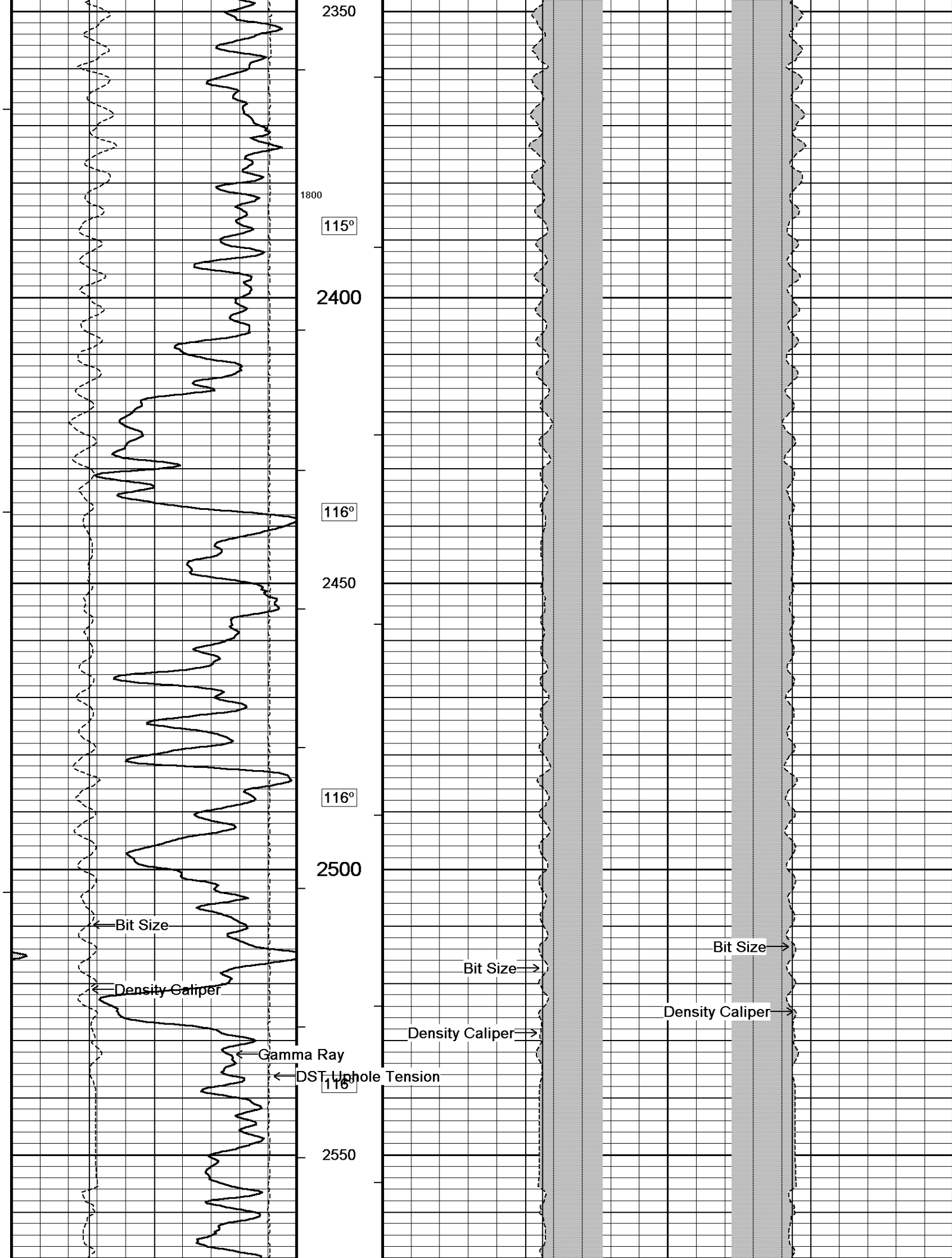


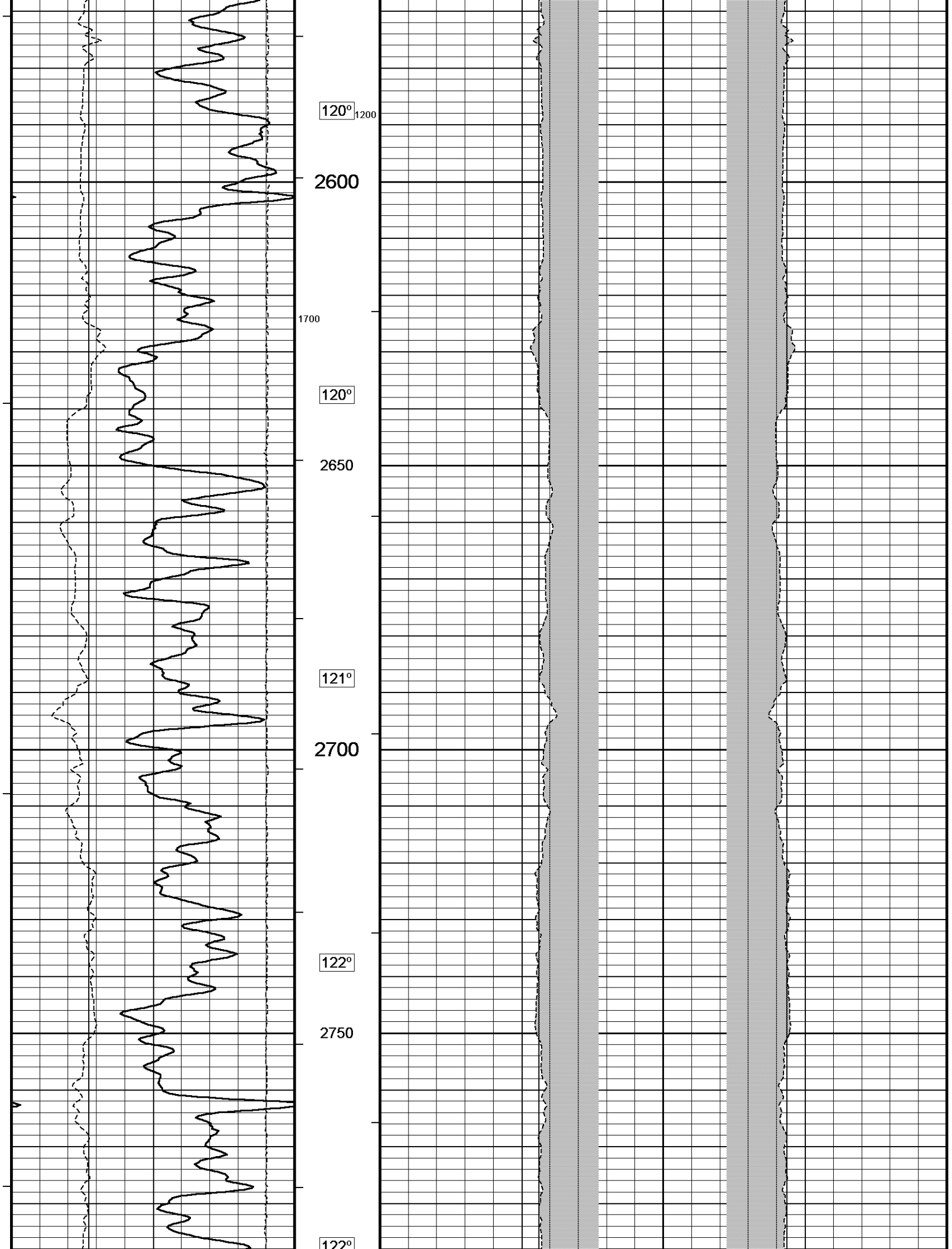


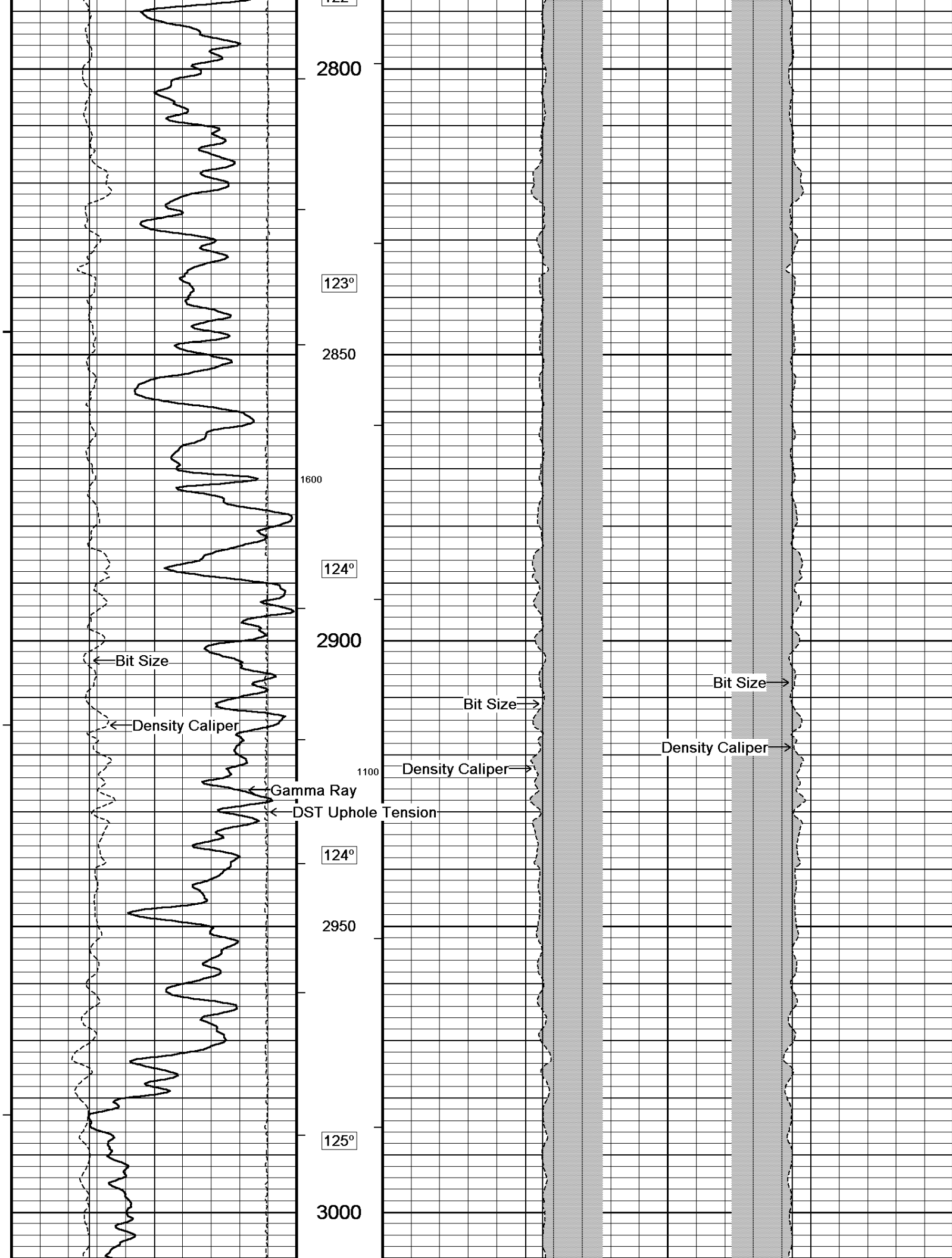


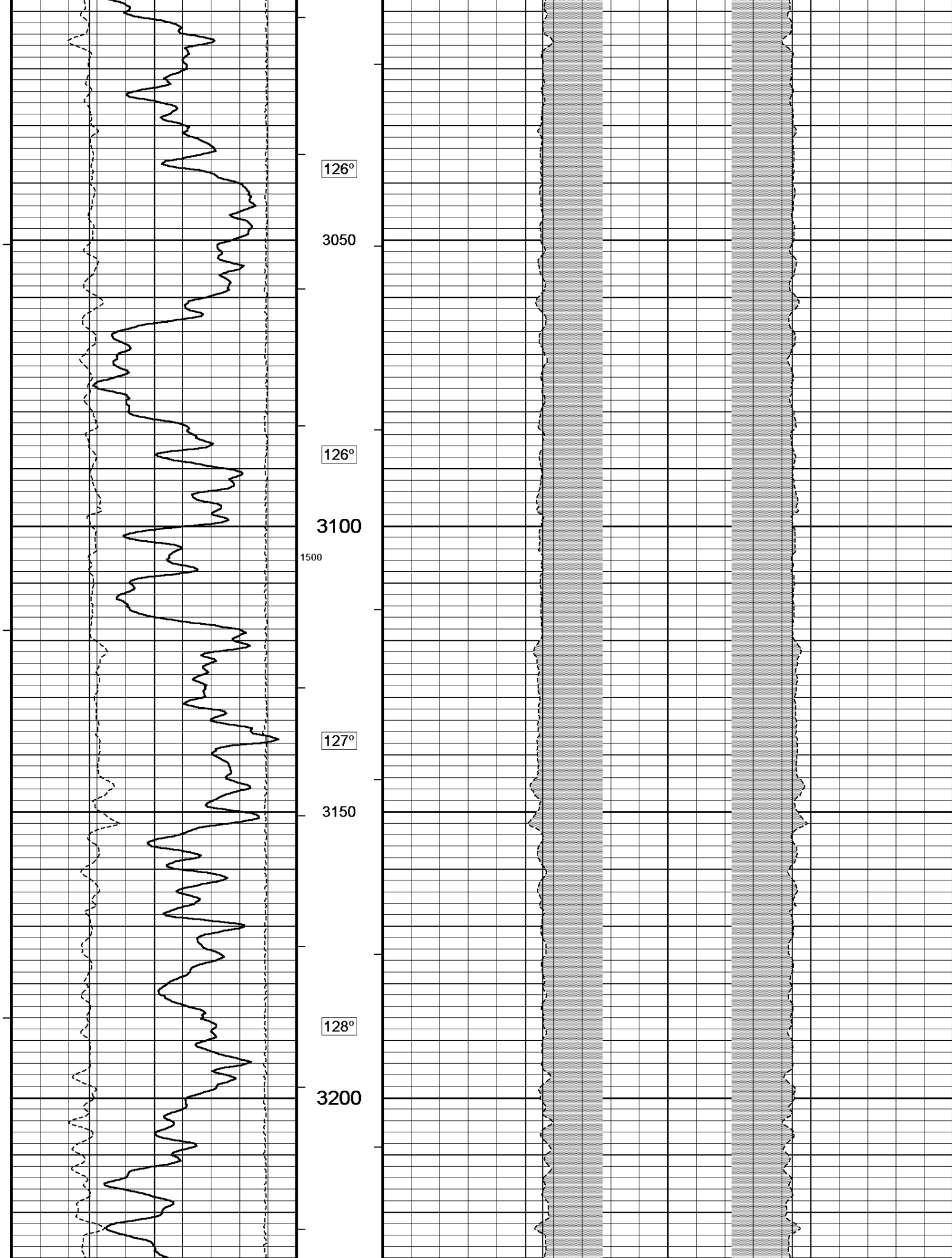


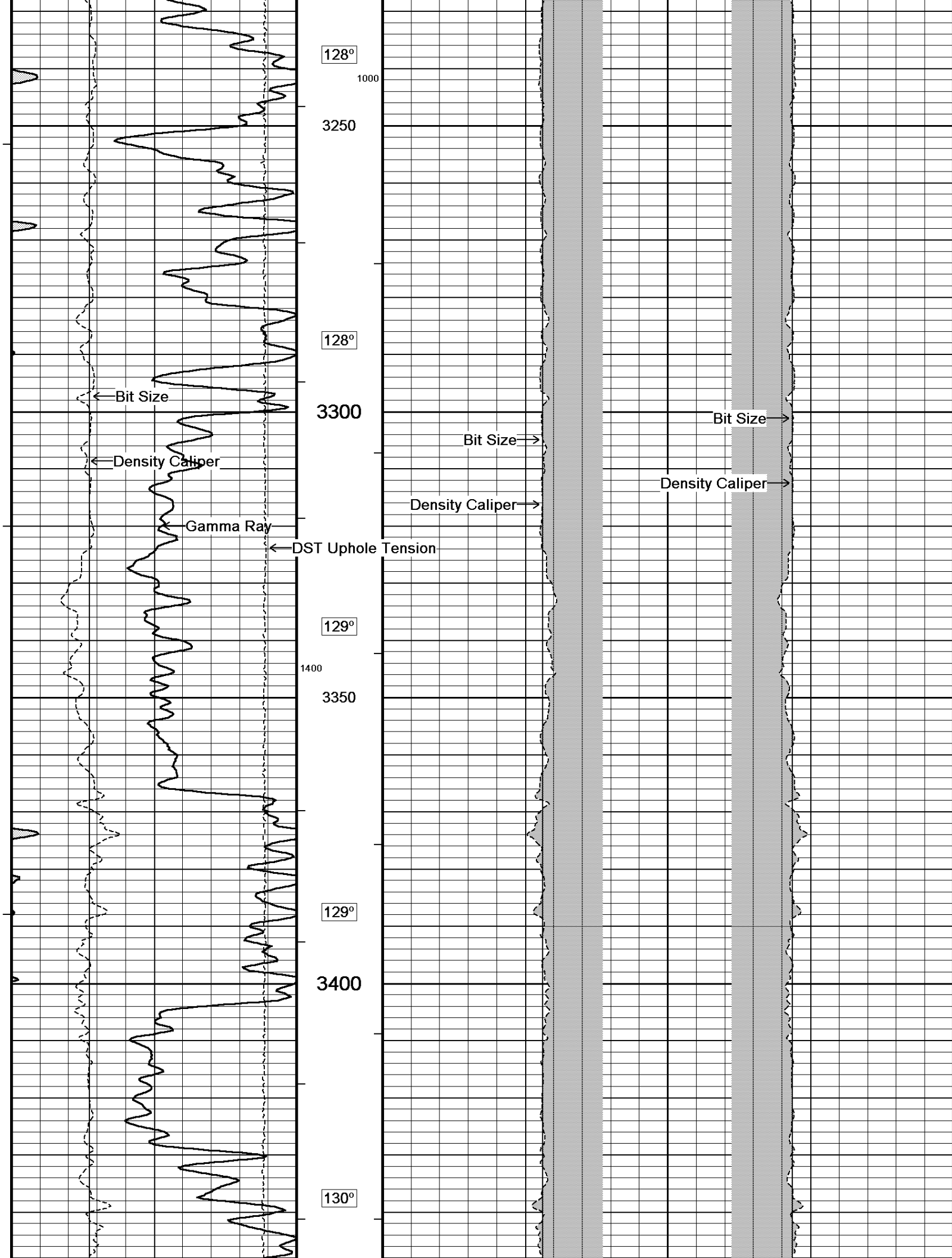


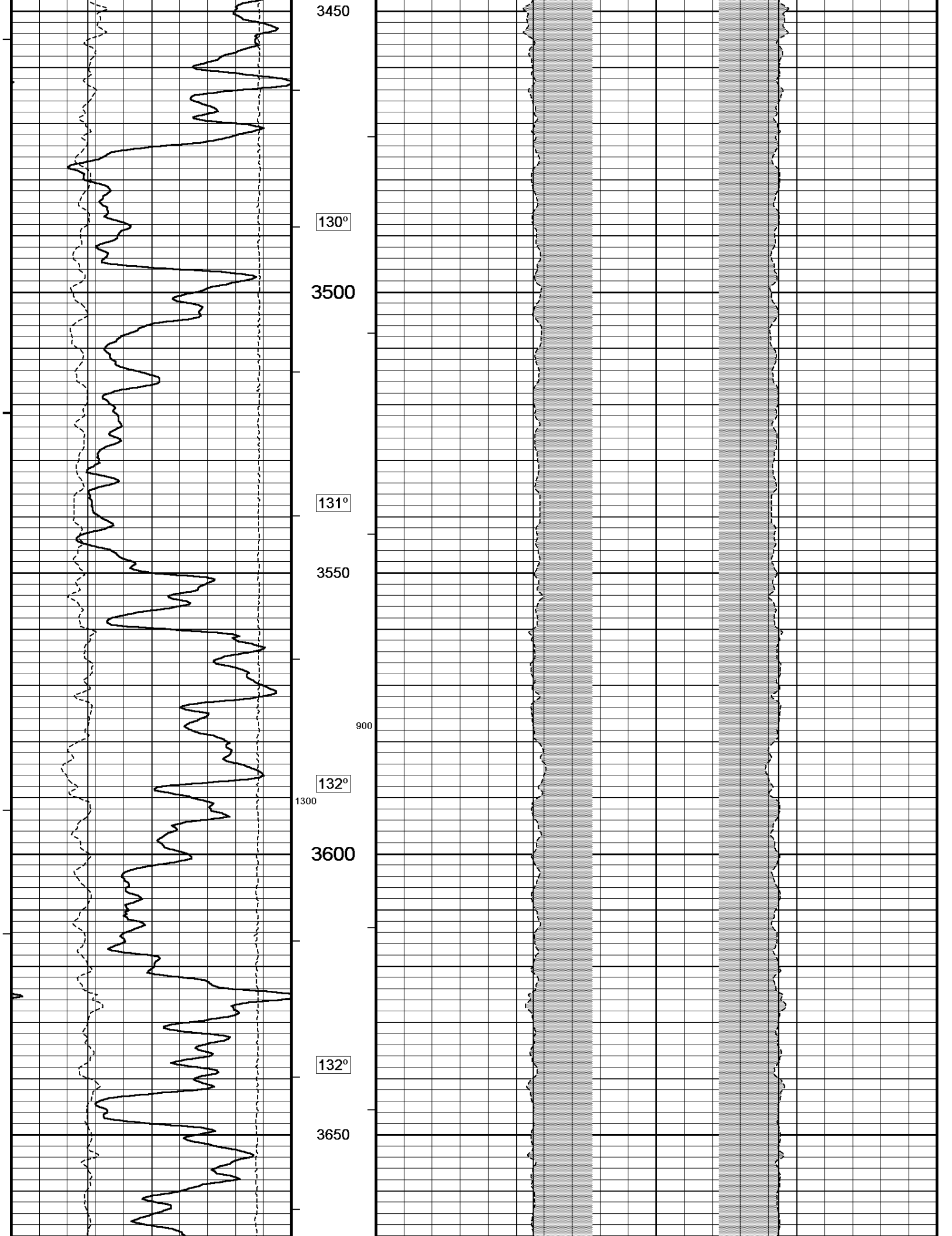


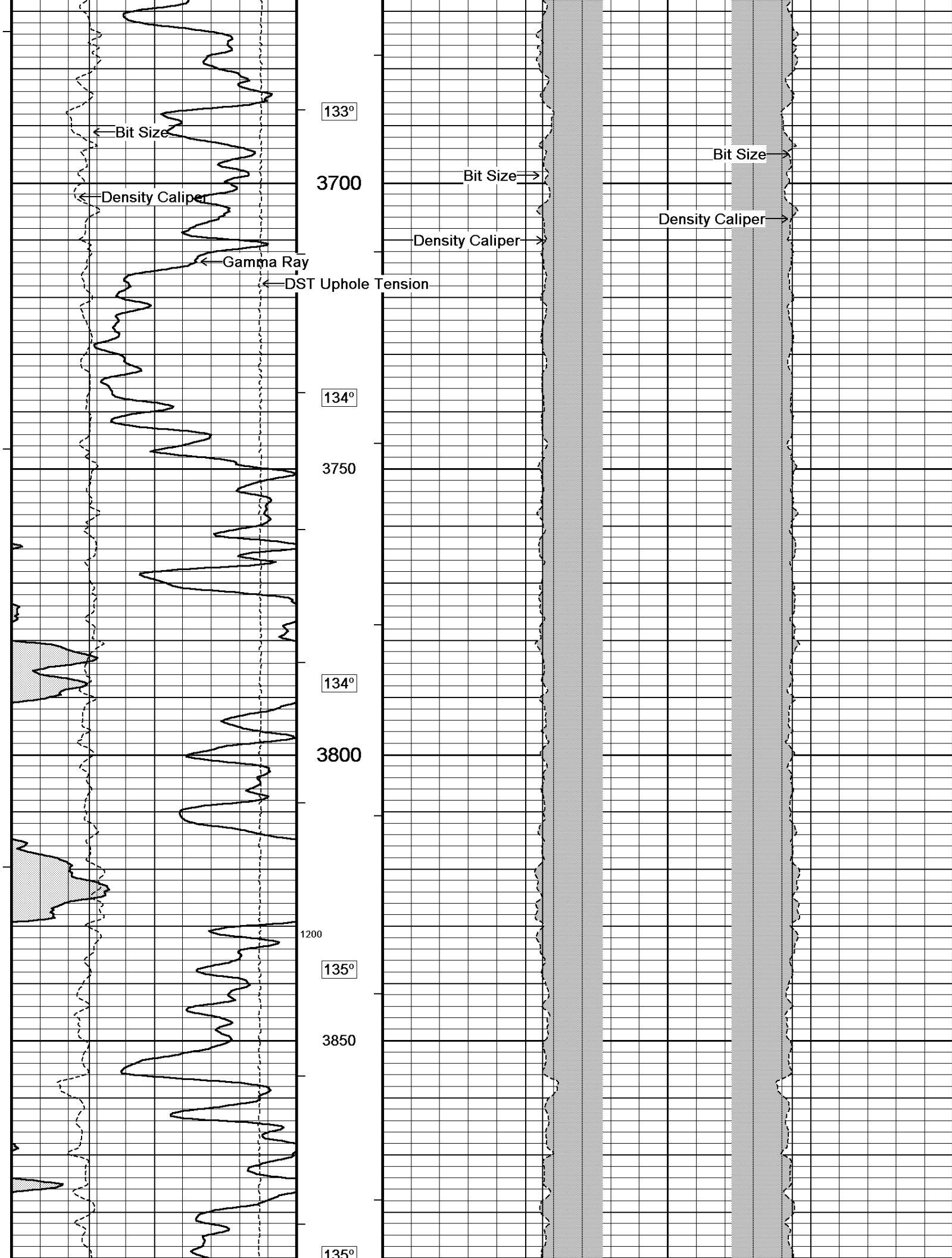


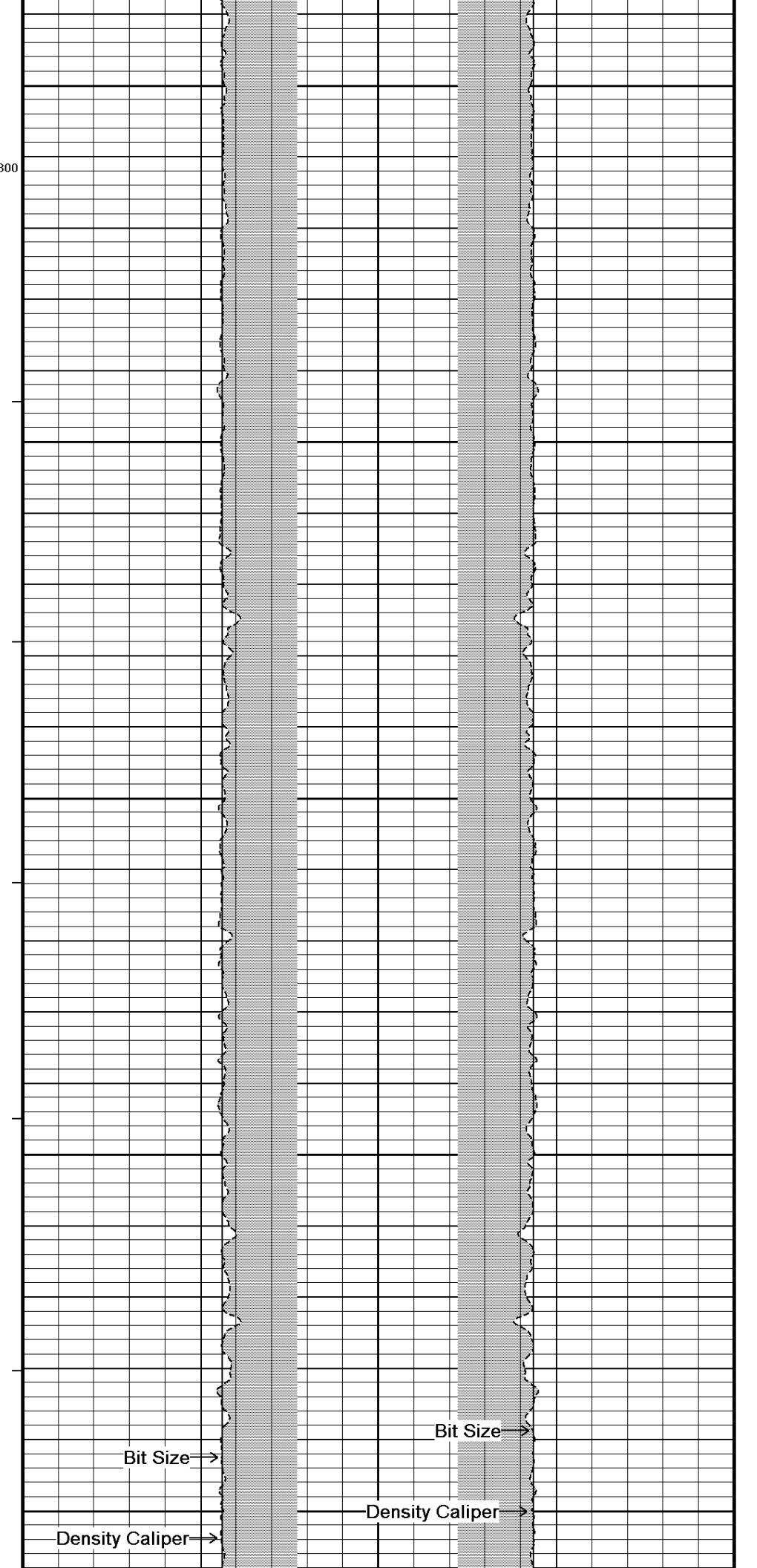
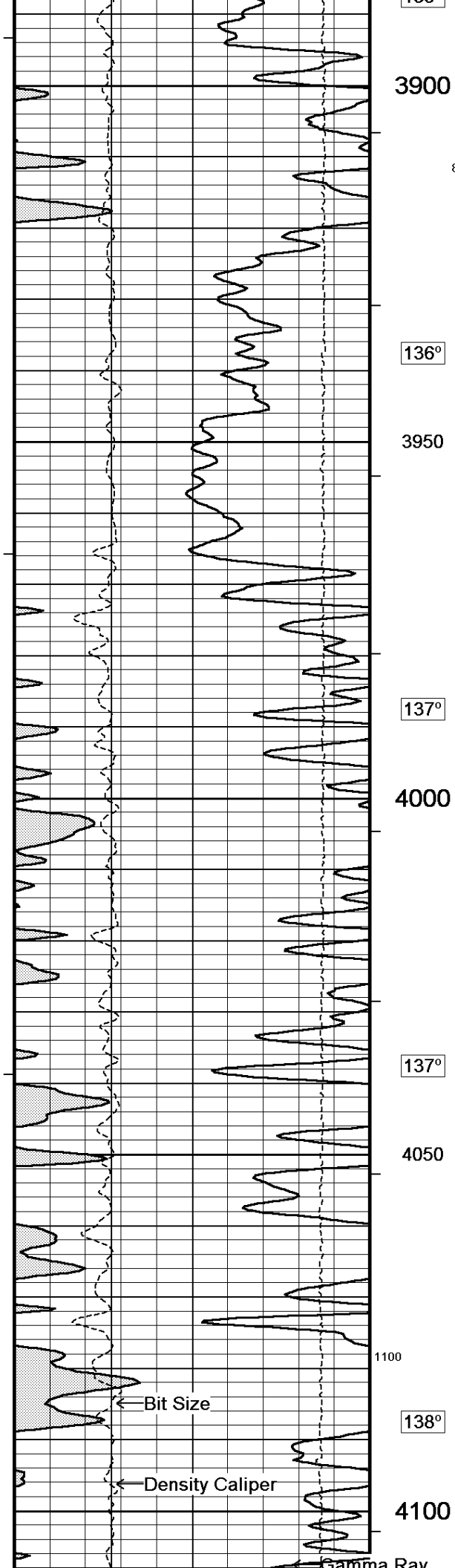


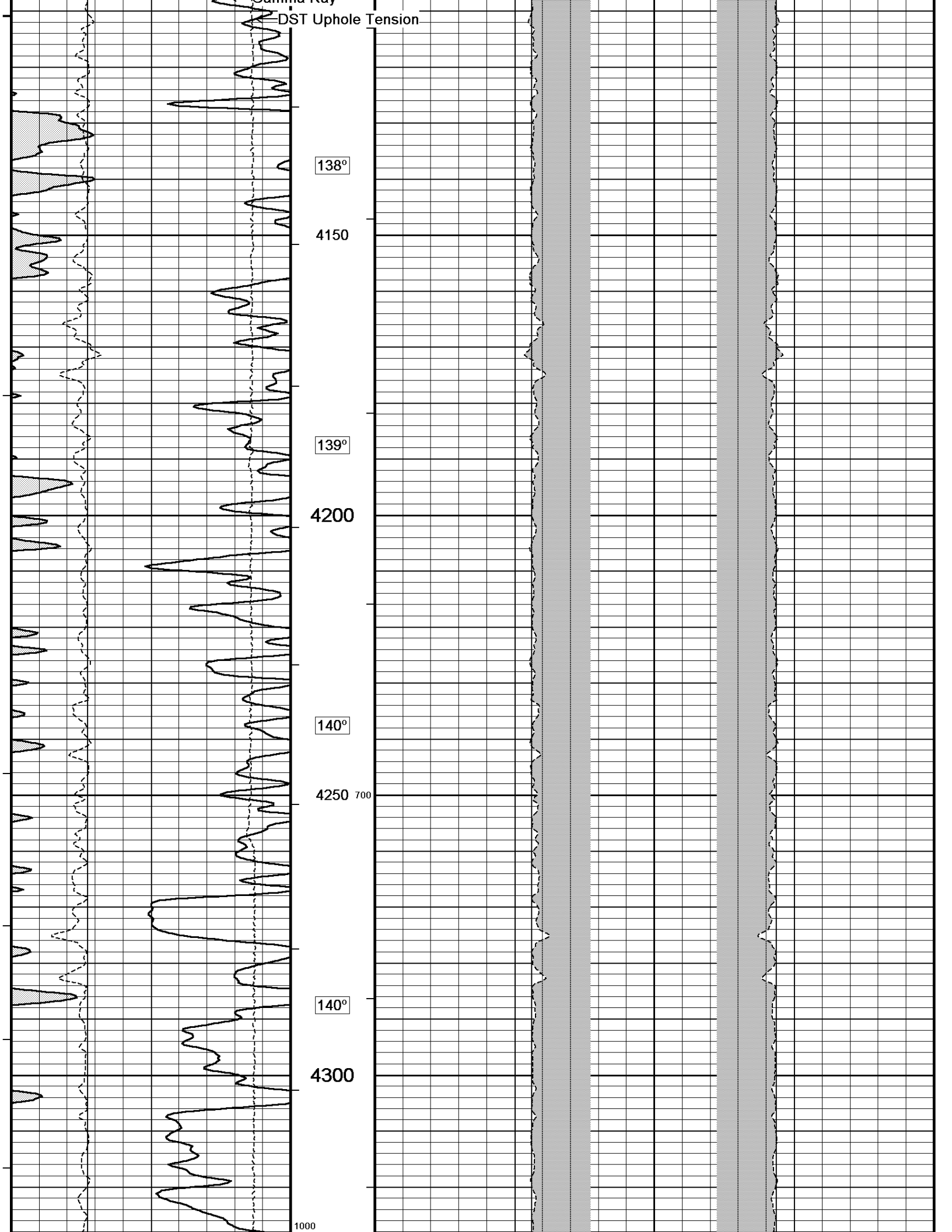


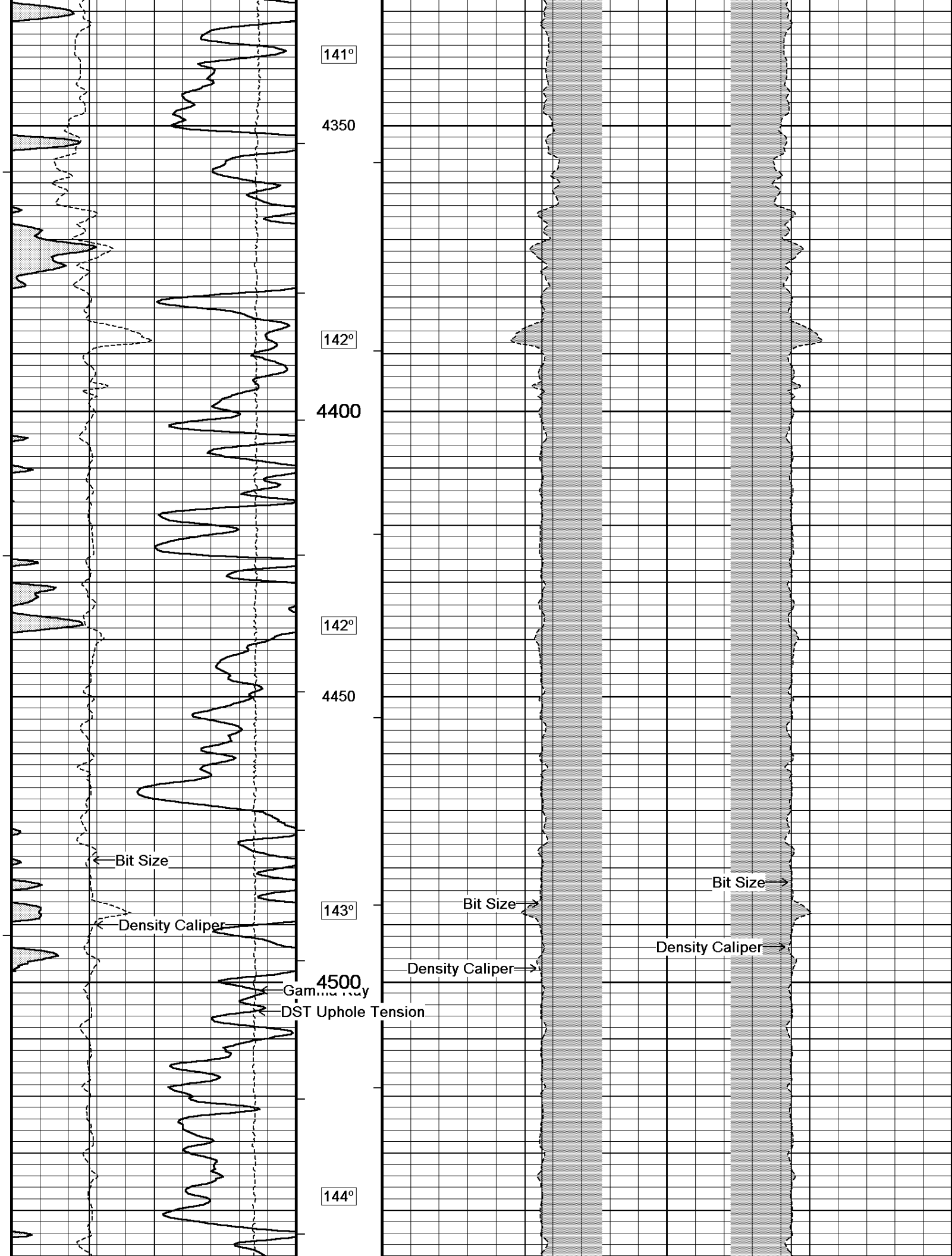


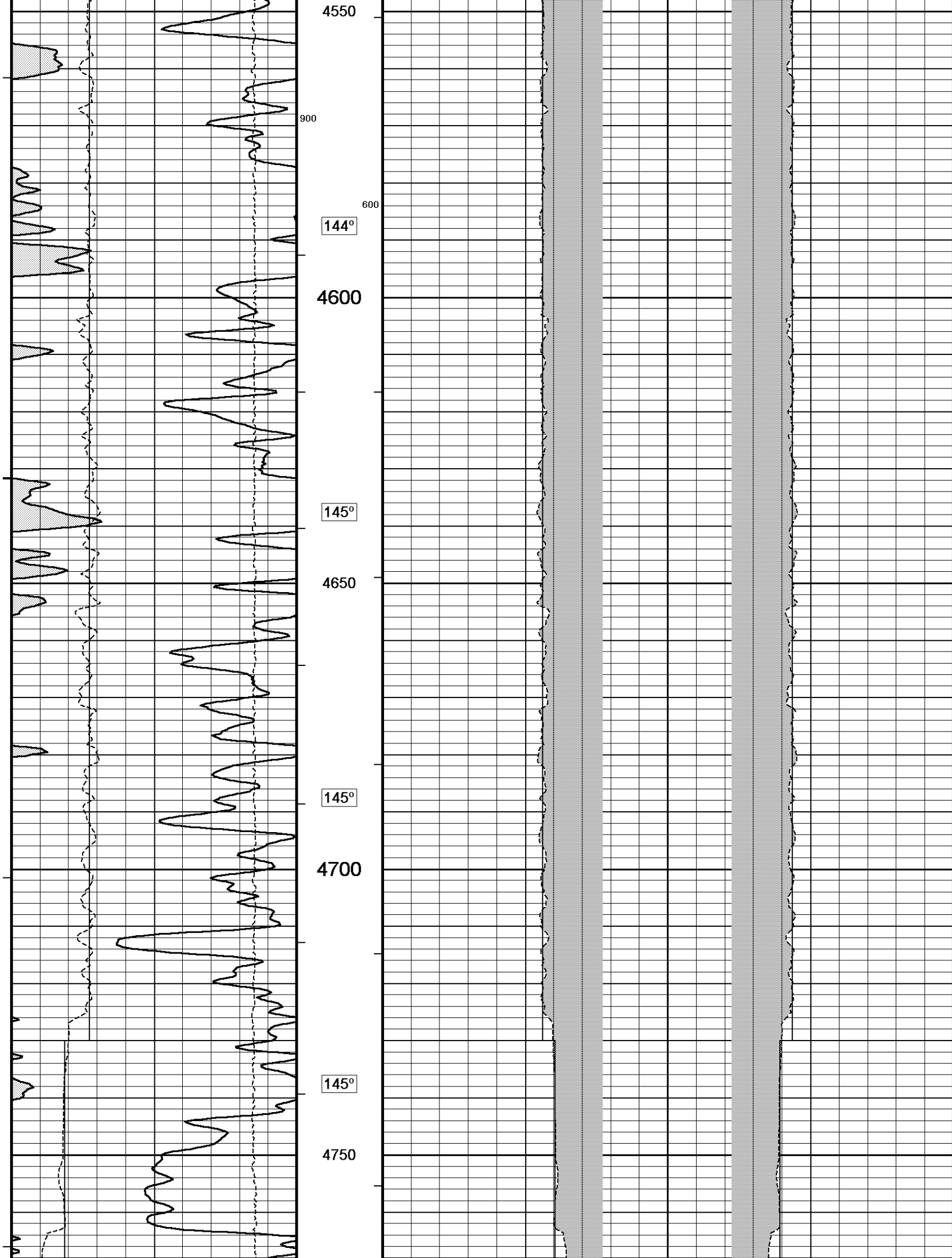


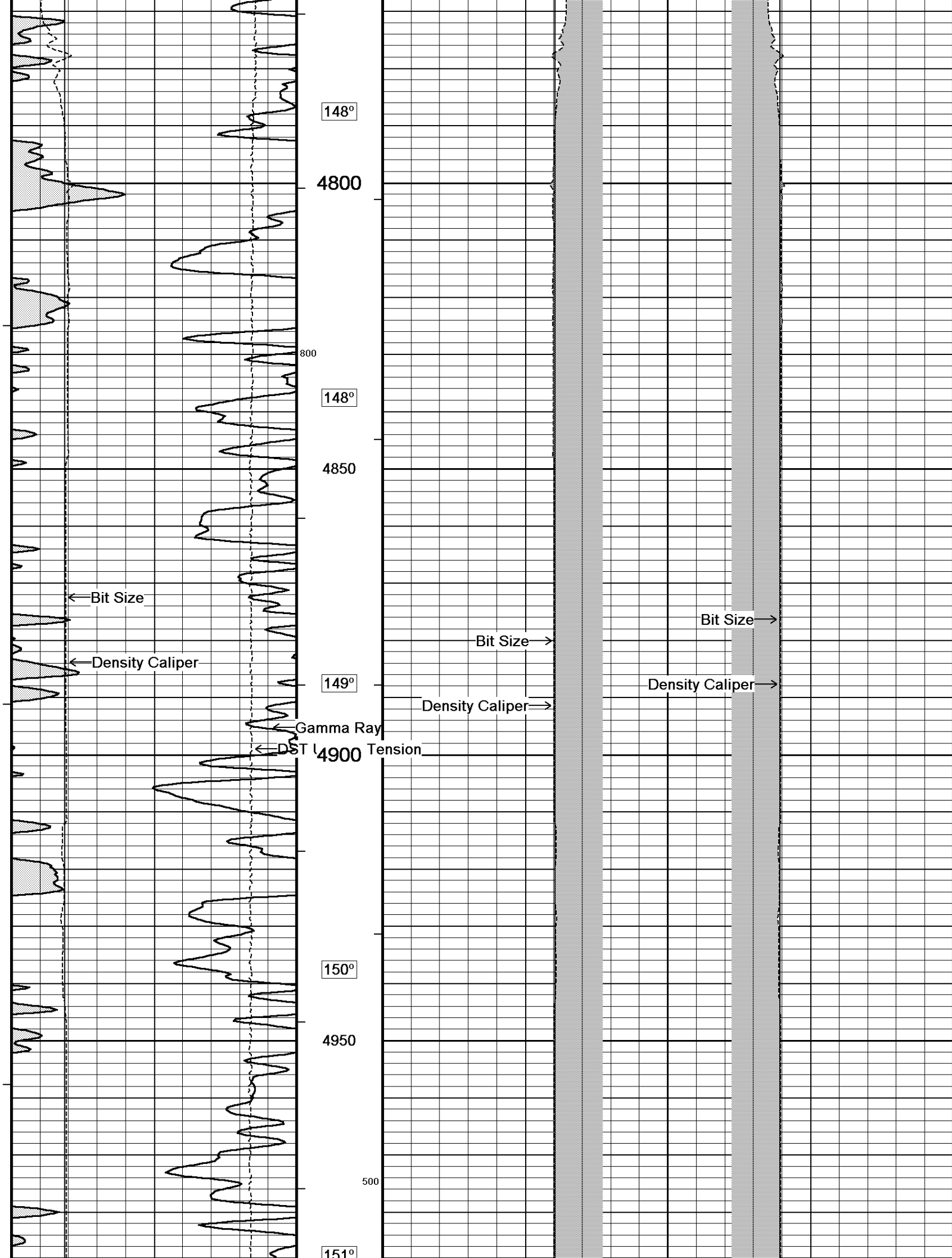


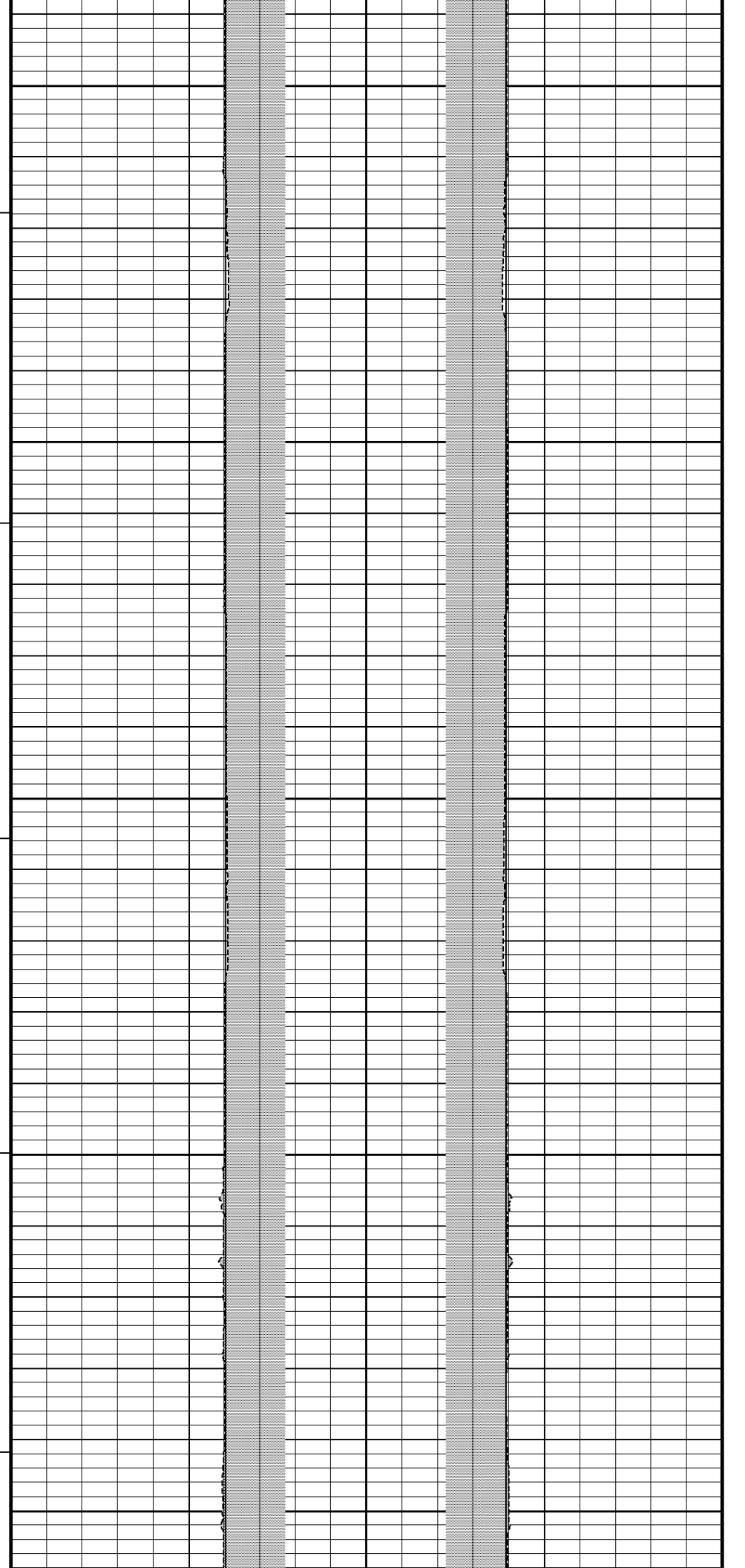
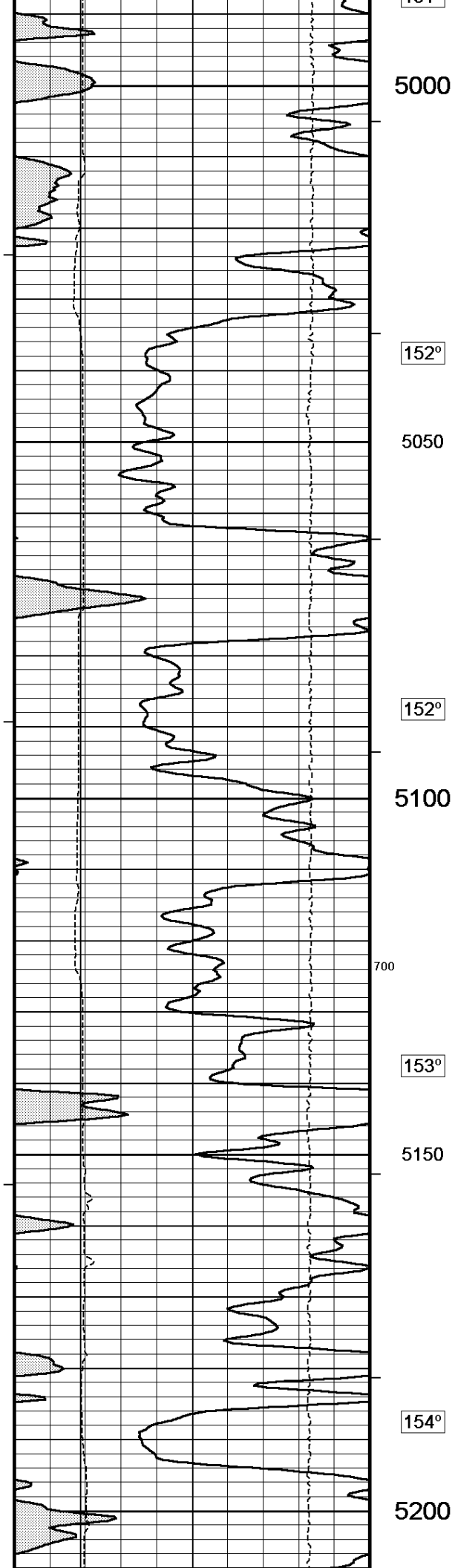


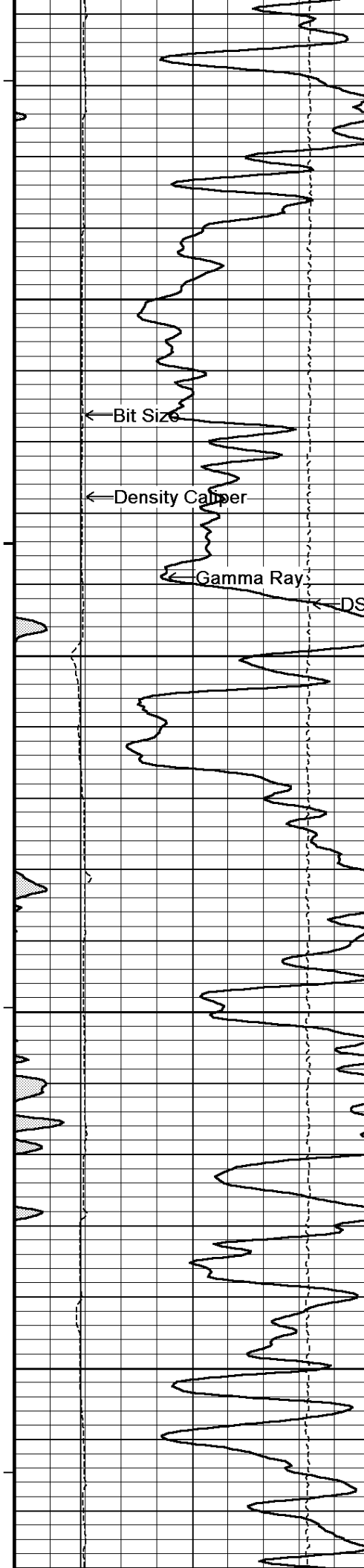












155°

5250

← Bit Size

← Density Caliper

← Gamma Ray

← DST Uphole Tension

155°

5300

156°

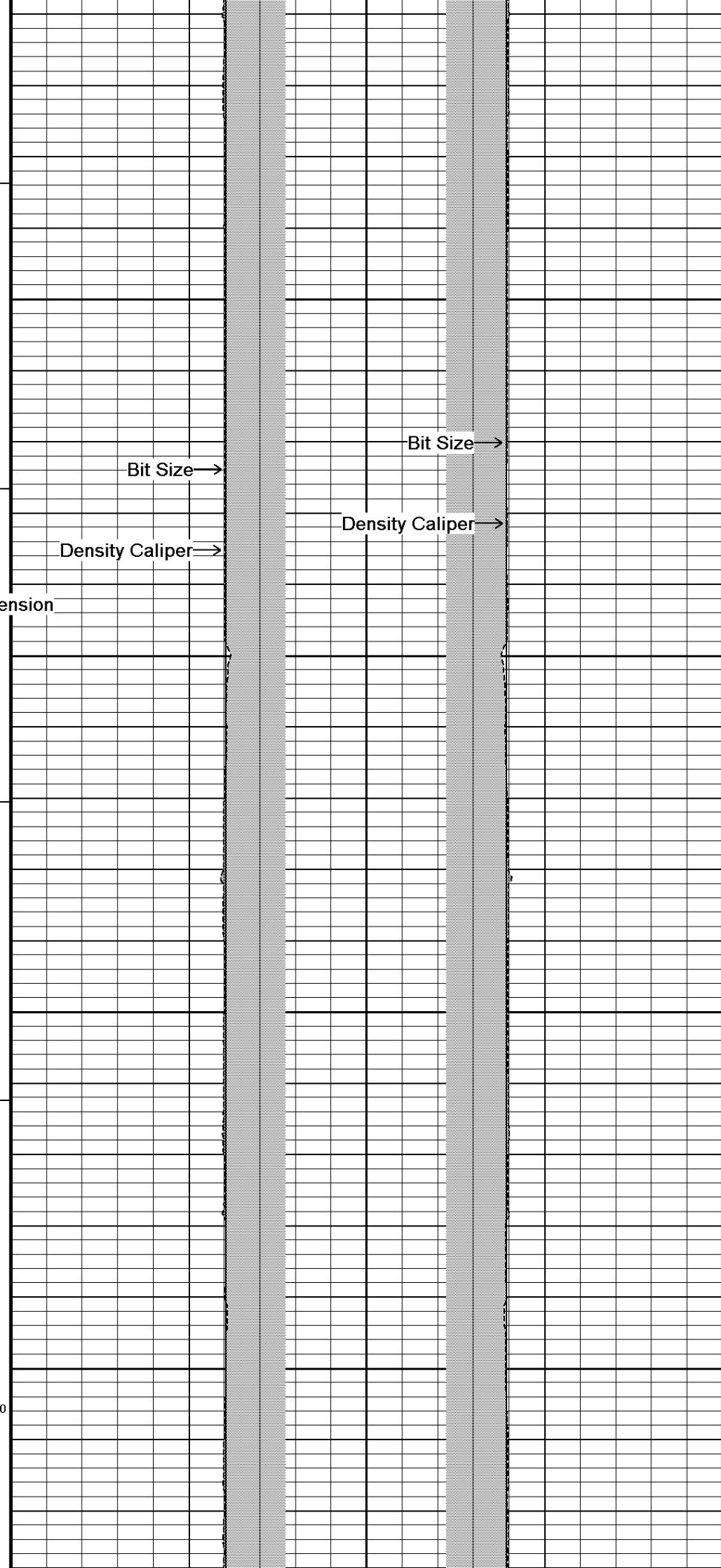
5350

157°

5400

400

600

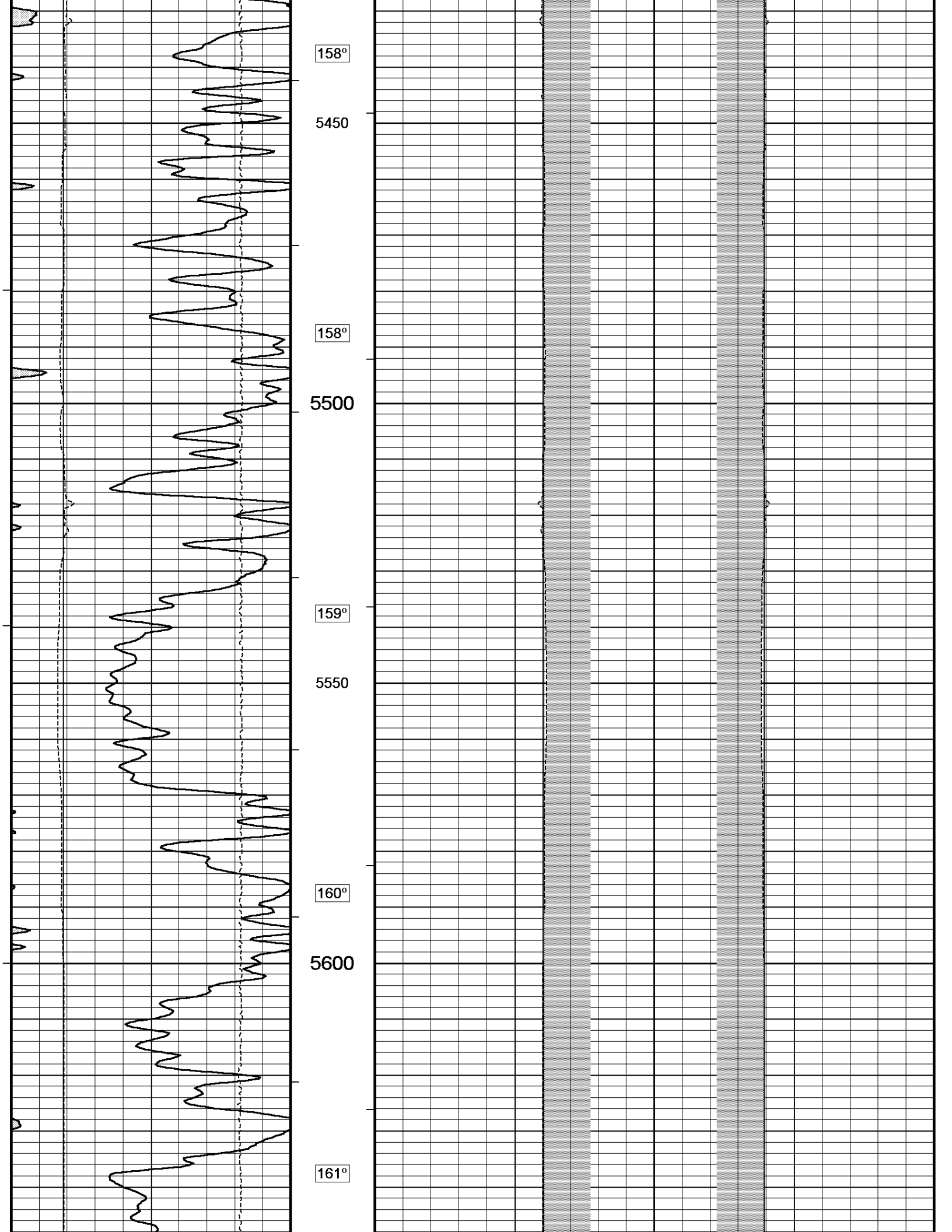


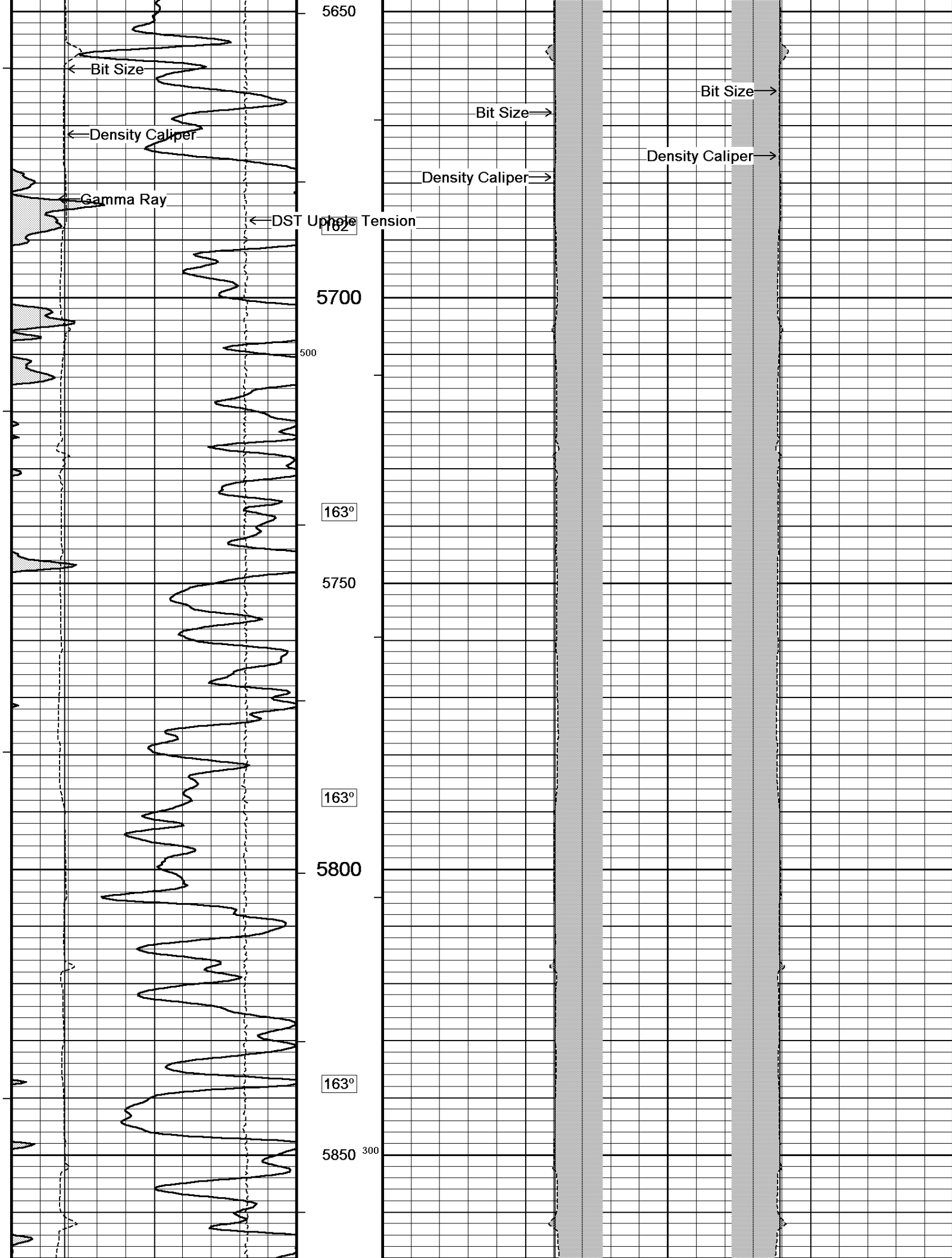
Bit Size →

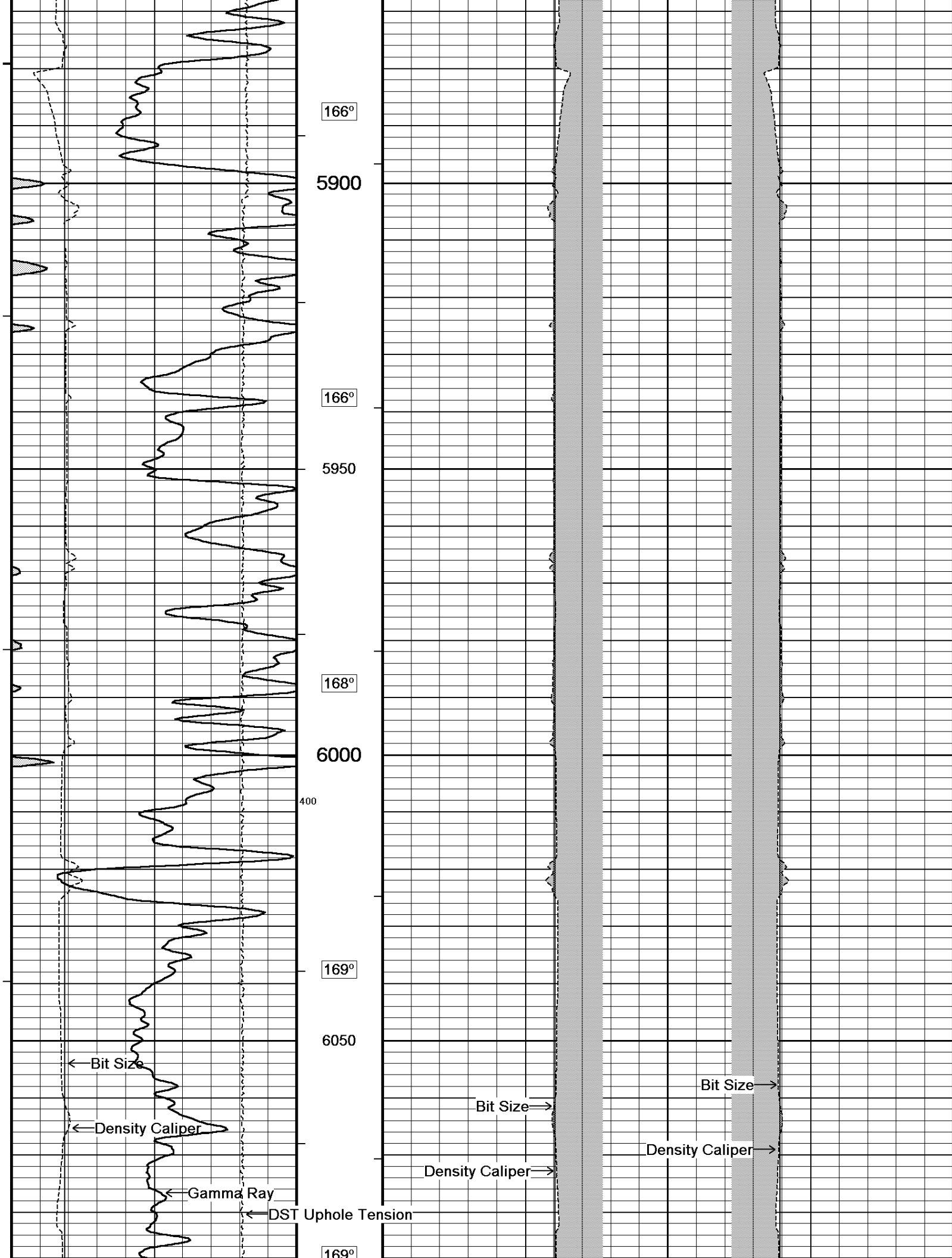
Density Caliper →

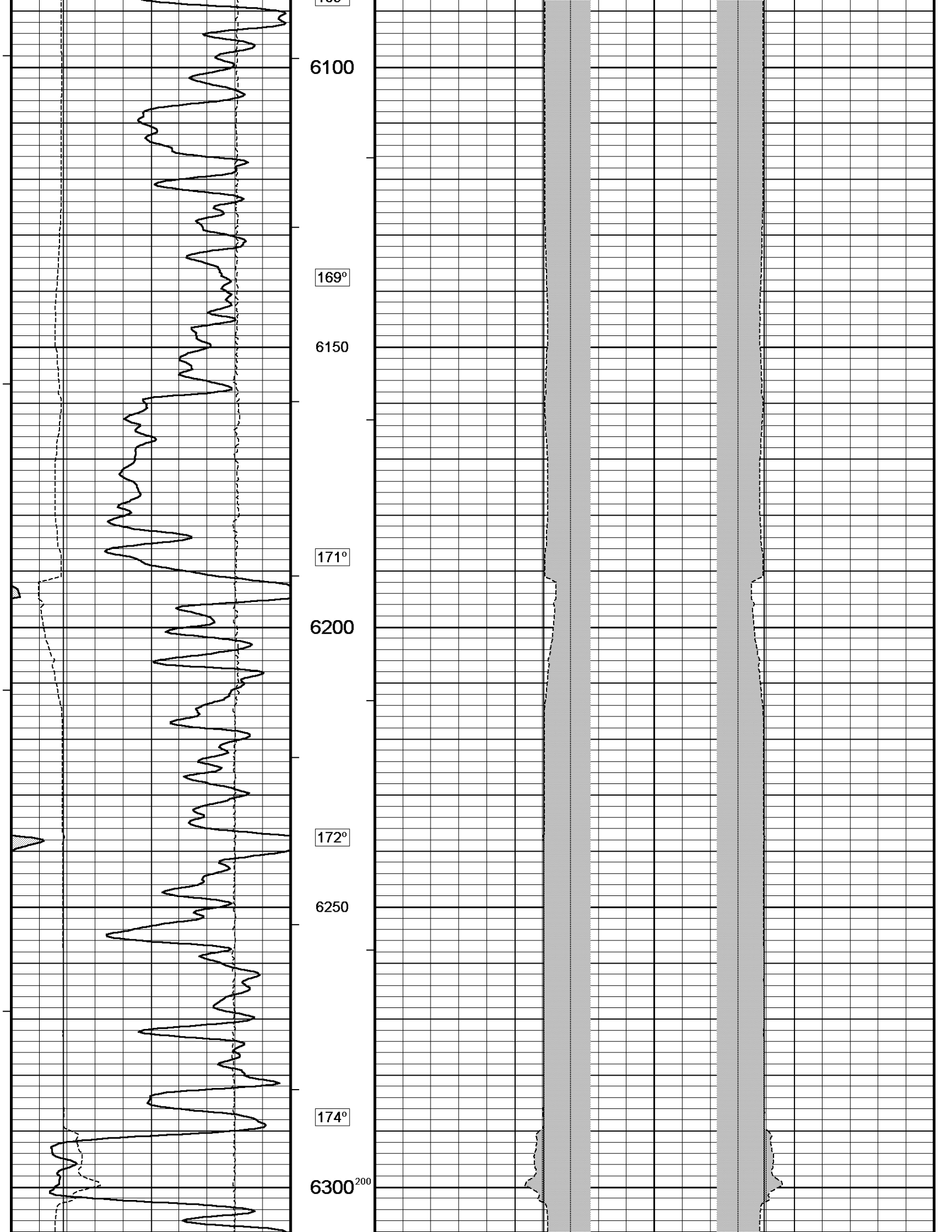
Bit Size →

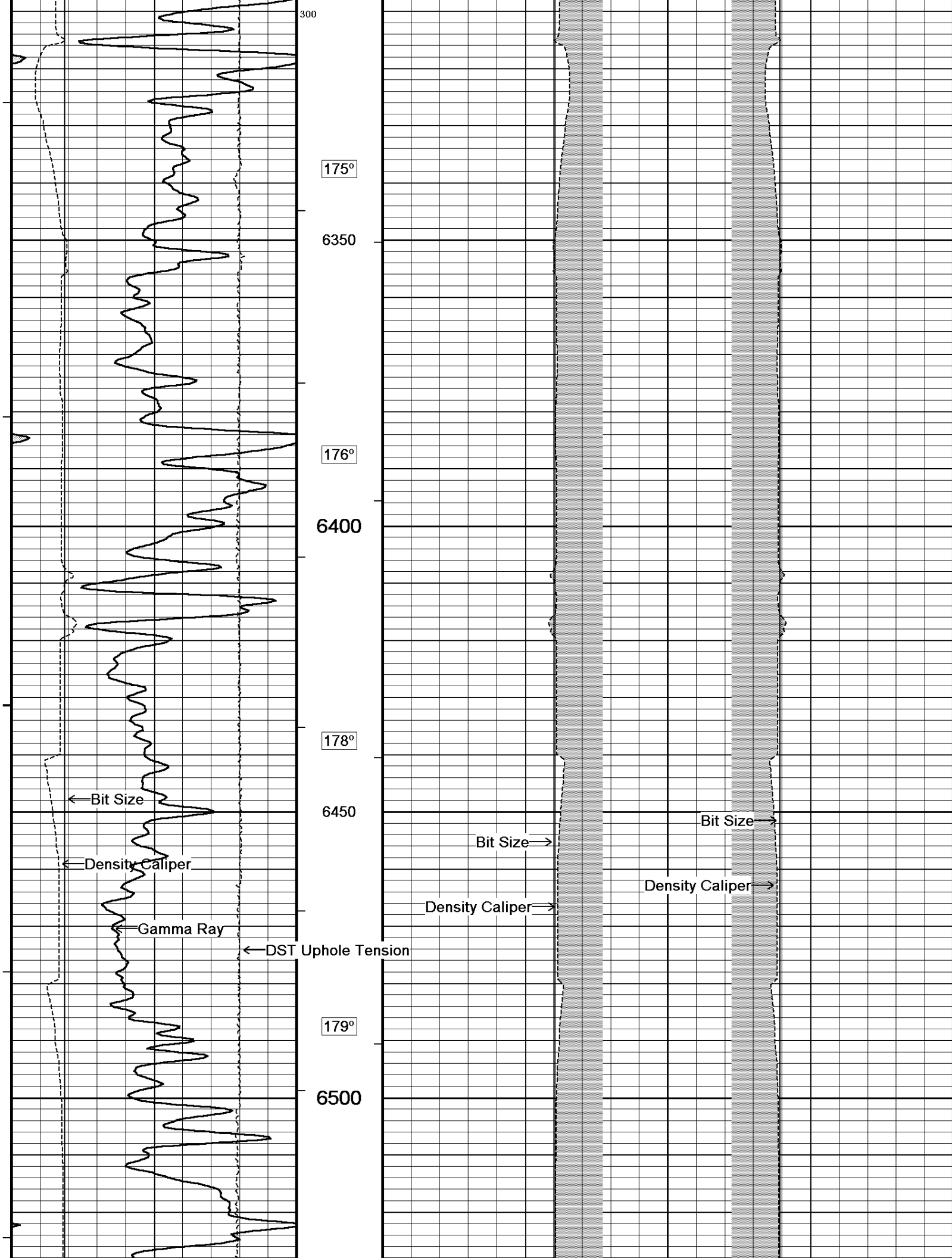
Density Caliper →

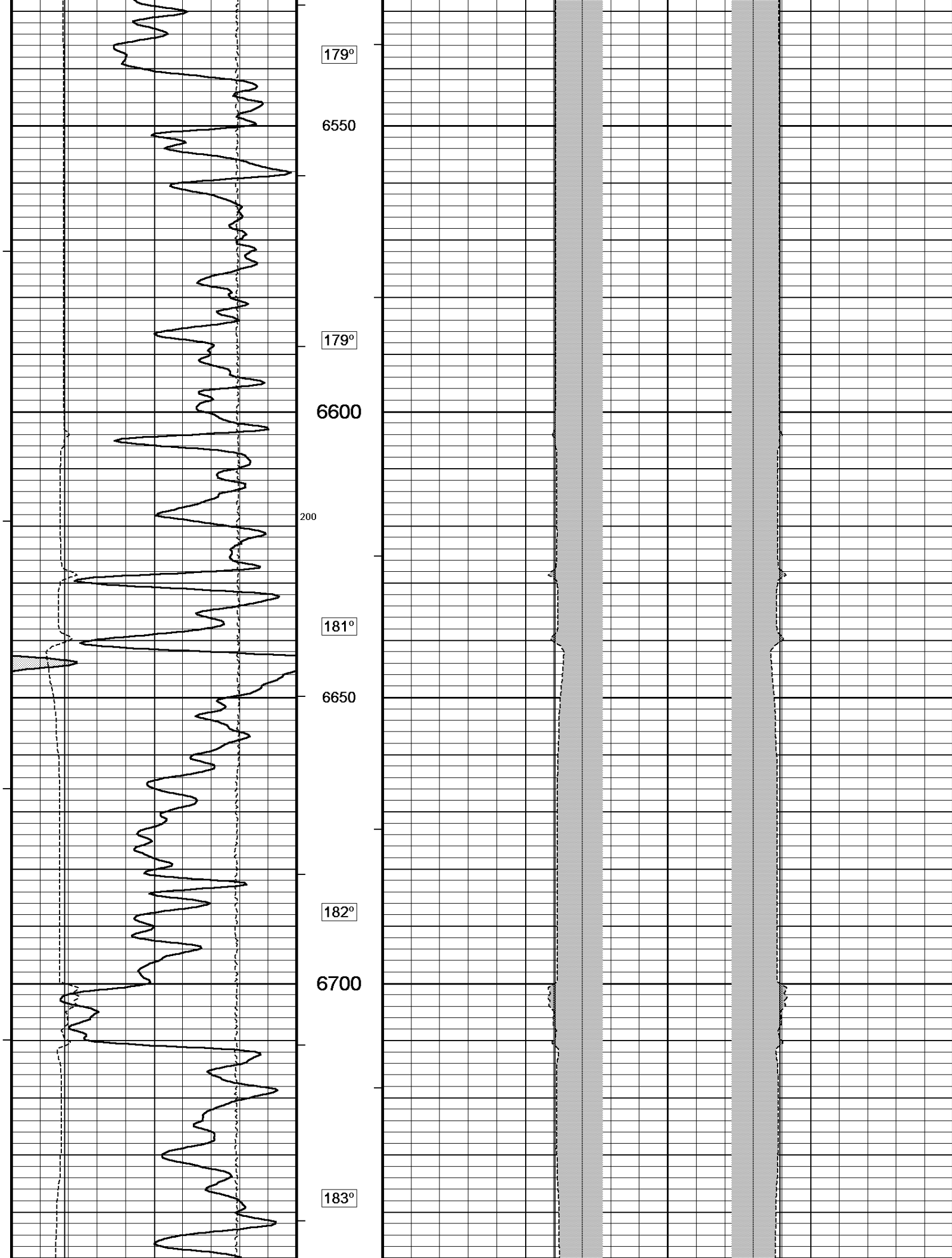


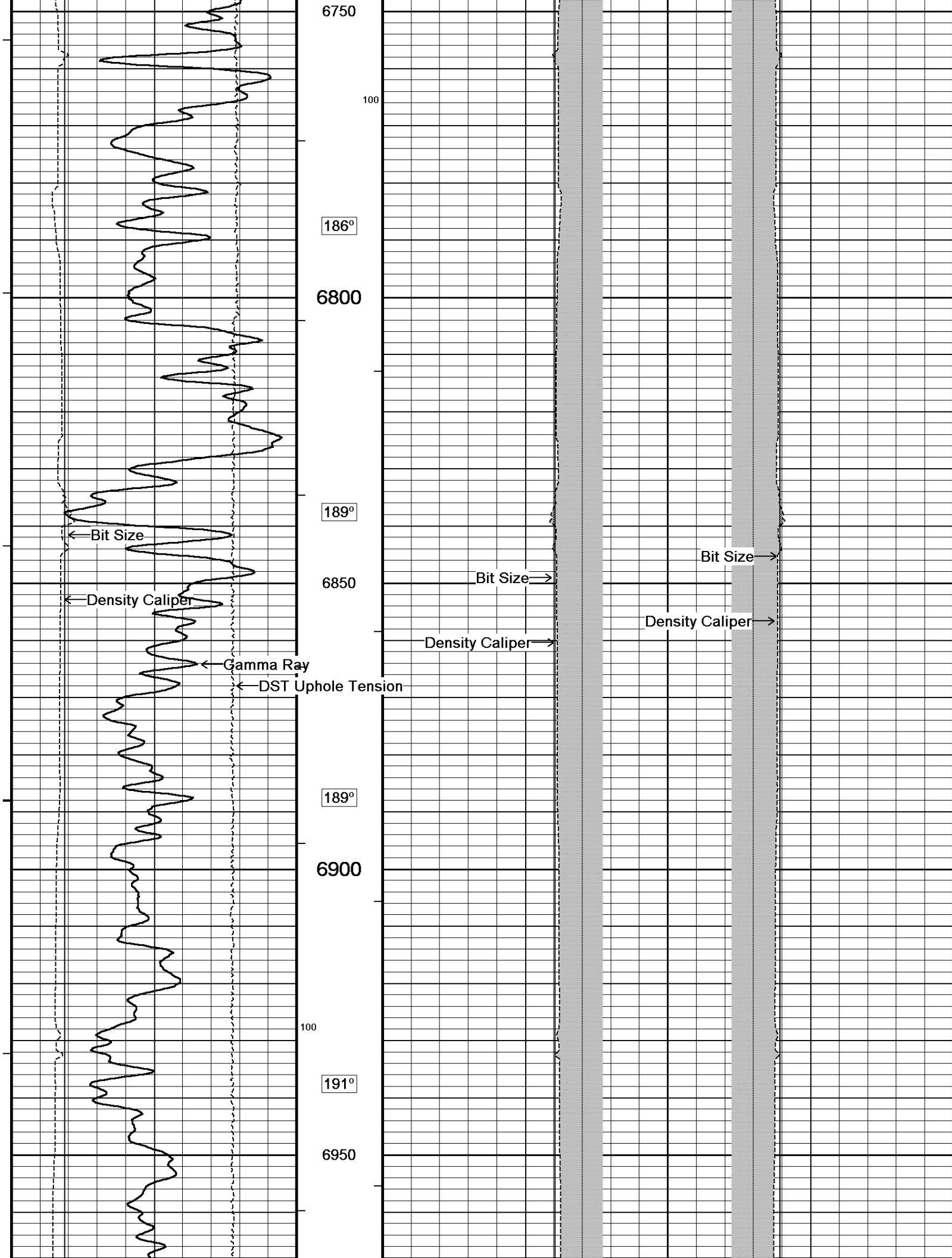


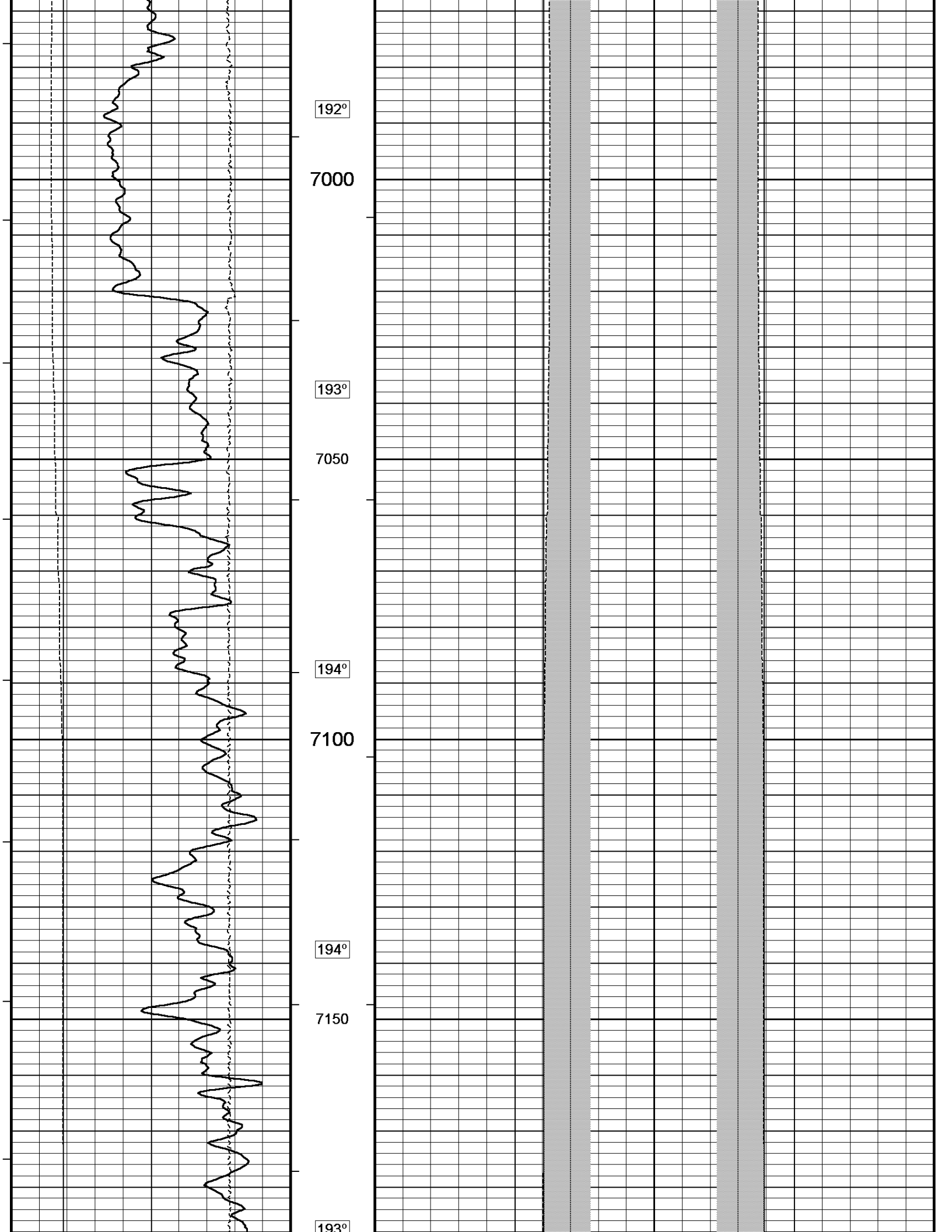


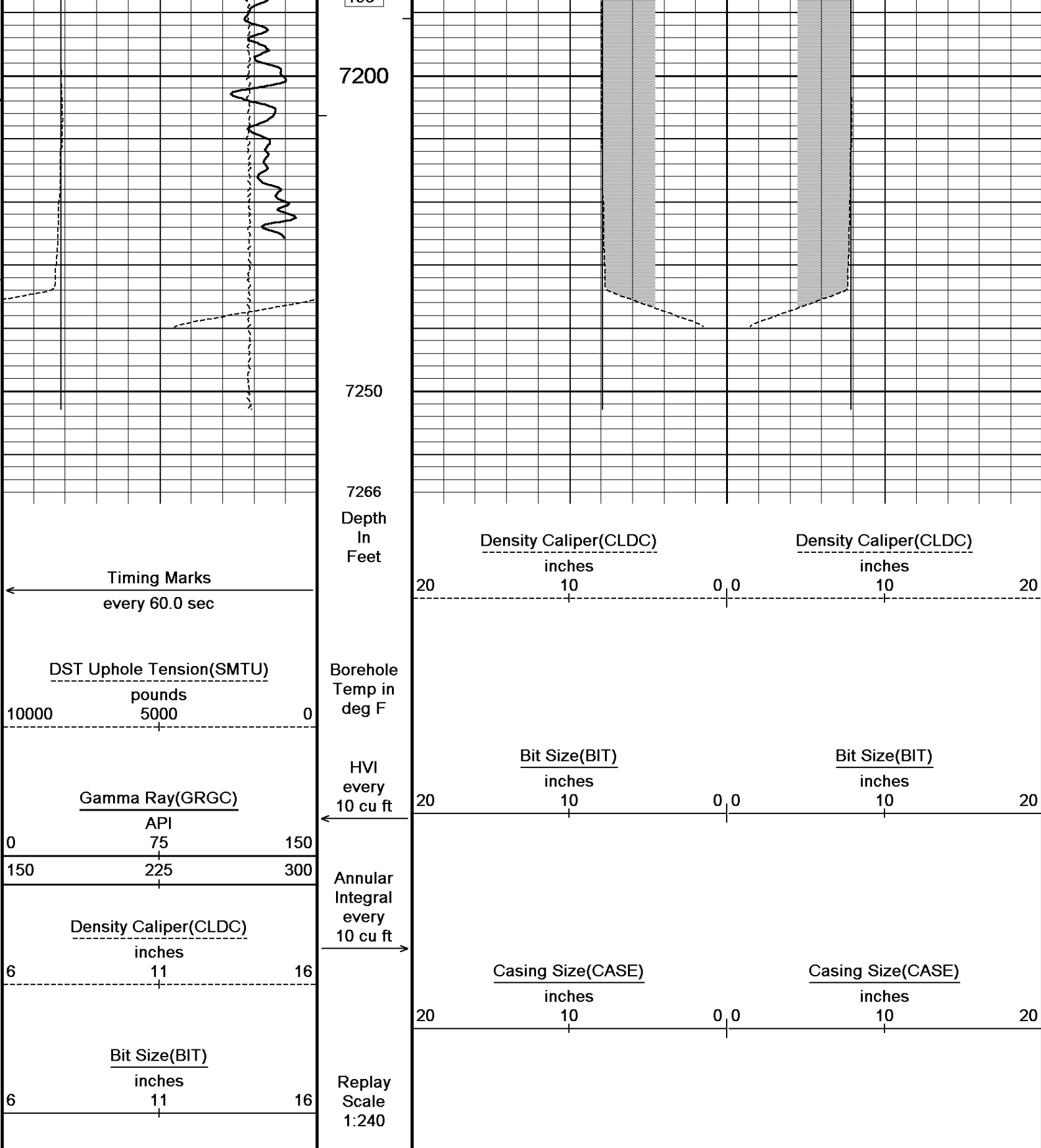












Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus\LOGS\Bill Barrett\GGU Miller 23B-32-691\Copy(9) of ML.dta
System Versions: Logged with 10.08.1568 Plotted with 10.08.1568

5 INCH MAIN LOG

DOWNHOLE EQUIPMENT
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3/8" Triple Cone Cable Head (MCB C A)

MCB 5 Length: 1.58 ft Weight: 15.4 lb

SHA-J.A Compact Swivel Head Adaptor
SHA 213 Length: 2.30 ft Weight: 22.0 lb

Compact Gamma
MCG 287 Length: 8.70 ft Weight: 63.9 lb

Compact Neutron
MDN 112 Length: 5.04 ft Weight: 50.7 lb

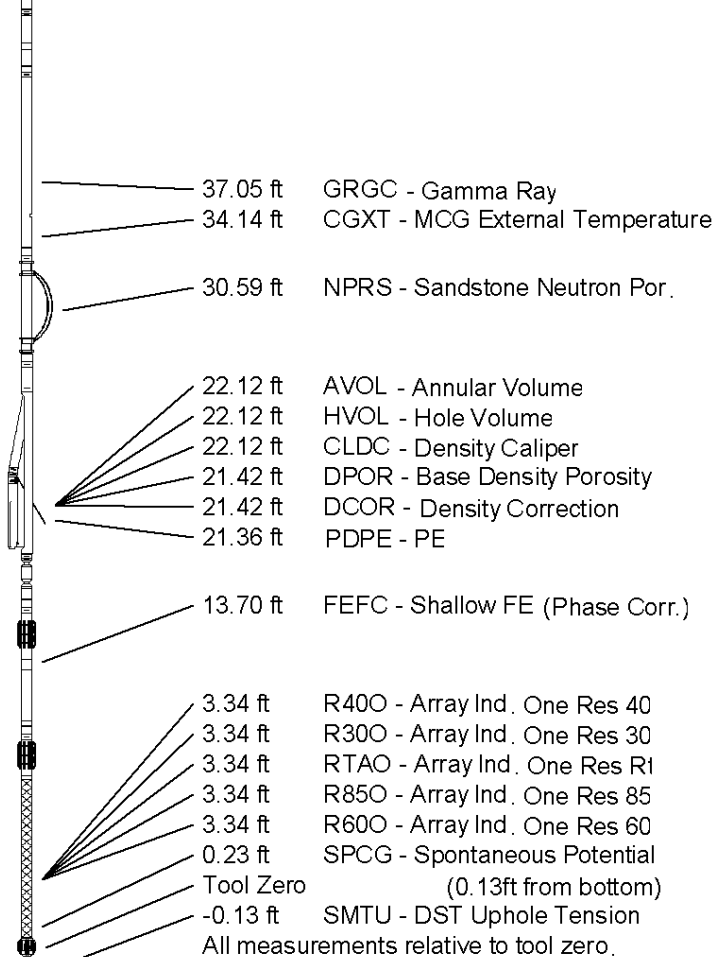
Compact Density/Caliper
MPD 220 Length: 9.59 ft Weight: 90.4 lb

SKJ-D.A Compact Knuckle Joint
SKJ 154 Length: 2.17 ft Weight: 24.3 lb

Compact Focussed Electric
MFE 179 Length: 6.03 ft Weight: 48.5 lb

Compact Induction
MAI 106 Length: 10.81 ft Weight: 48.5 lb

Total Length: 46.21 ft Weight: 363.8 lb



COMPANY	BILL BARRETT CORPORATION
WELL	GGU MILLER 23B-32-691
FIELD	GIBSON GULCH
PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	6144.00	feet	First Reading	7232.00	
Elevation Drill Floor	6143.00	feet	Depth Driller	7250.00	feet
Elevation Ground Level	6121.00	feet	Depth Logger	7253.00	feet



HOLE VOLUME
CALIPER
LOG

Weatherford®