



HOLE VOLUME CALIPER LOG

COMPANY BILL BARRETT CORPORATION
WELL GGU MILLER 24D-32-691
FIELD GIBSON GULCH
PROVINCE/COUNTY GARFIELD
COUNTRY/STATE U.S.A. / COLORADO
LOCATION SHL: 1225' FSL & 2288' FWL
 BHL: 1184' FSL & 1990' FWL

SEC 32 **TWP** 6S **RGE** 91W **Other Services**
API Number 05-045-19427 **MPD/MDN**
Permit Number **MAI/MFE**

Permanent Datum G.L., Elevation 6120 feet
Log Measured From K.B. @ 22 FEET above Permanent Datum
Drilling Measured From K.B.

Elevations:
 KB 6142.00
 DF 6141.00
 GL 6120.00

Date	20-NOV-2010
Run Number	ONE
Depth Driller	7875.00 feet
Depth Logger	7878.00 feet
First Reading	7856.00
Last Reading	788.00
Casing Driller	788.00 feet
Casing Logger	788.00 feet
Bit Size	7.875 inches
Hole Fluid Type	LSND
Density / Viscosity	10.70 lb/USg 50.00 CP
PH / Fluid Loss	8.80 7.20 ml/30Min
Sample Source	FLOW LINE
Rm @ Measured Temp	1.81 @ 90.0 ohm-m
Rmf @ Measured Temp	1.45 @ 90.0 ohm-m
Rmc @ Measured Temp	2.17 @ 90.0 ohm-m
Source Rmf / Rmc	CALC CALC
Rm @ BHT	0.824 @202.0 ohm-m
Time Since Circulation	6 HOURS
Max Recorded Temp	202.00 deg F
Equipment Name	COMPACT
Equipment / Base	13045 GD_JCT
Recorded By	D.KUNTZ
Witnessed By	C.CROW
	J.GARCIA

BOREHOLE RECORD

Last Edited: 20-NOV-2010 15:35

Bit Size inches	Depth From feet	Depth To feet
8.750	788.00	3697.00
7.880	3697.00	7875.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	788.00	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.

UNDERGAUGE CALIPER READINGS FROM 7510-7550 FEET AND FROM 6600-6625 FEET REPEATED AND VERIFIED.

UNDERGAUGE CALIPER READINGS FROM 7380-7400 FEET NOT REPEATED DUE TO WIRELINE HITTING A LEDGE AT THE SAME DEPTH WHILE RUNNING IN HOLE.

TIGHT PULL ENCOUNTERED AT 6790 FEET AND PULLED 2700 POUNDS.

CALIPER CHECK IN CASING PRESENTED, REFERENCE I.D. = 9.10" (9 5/8", 36 LB/FT CASING)

8.75 INCH BIT USED FROM SURFACE CASING TO 3697 FEET.

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2705 CU.FT.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 1925 CU.FT.

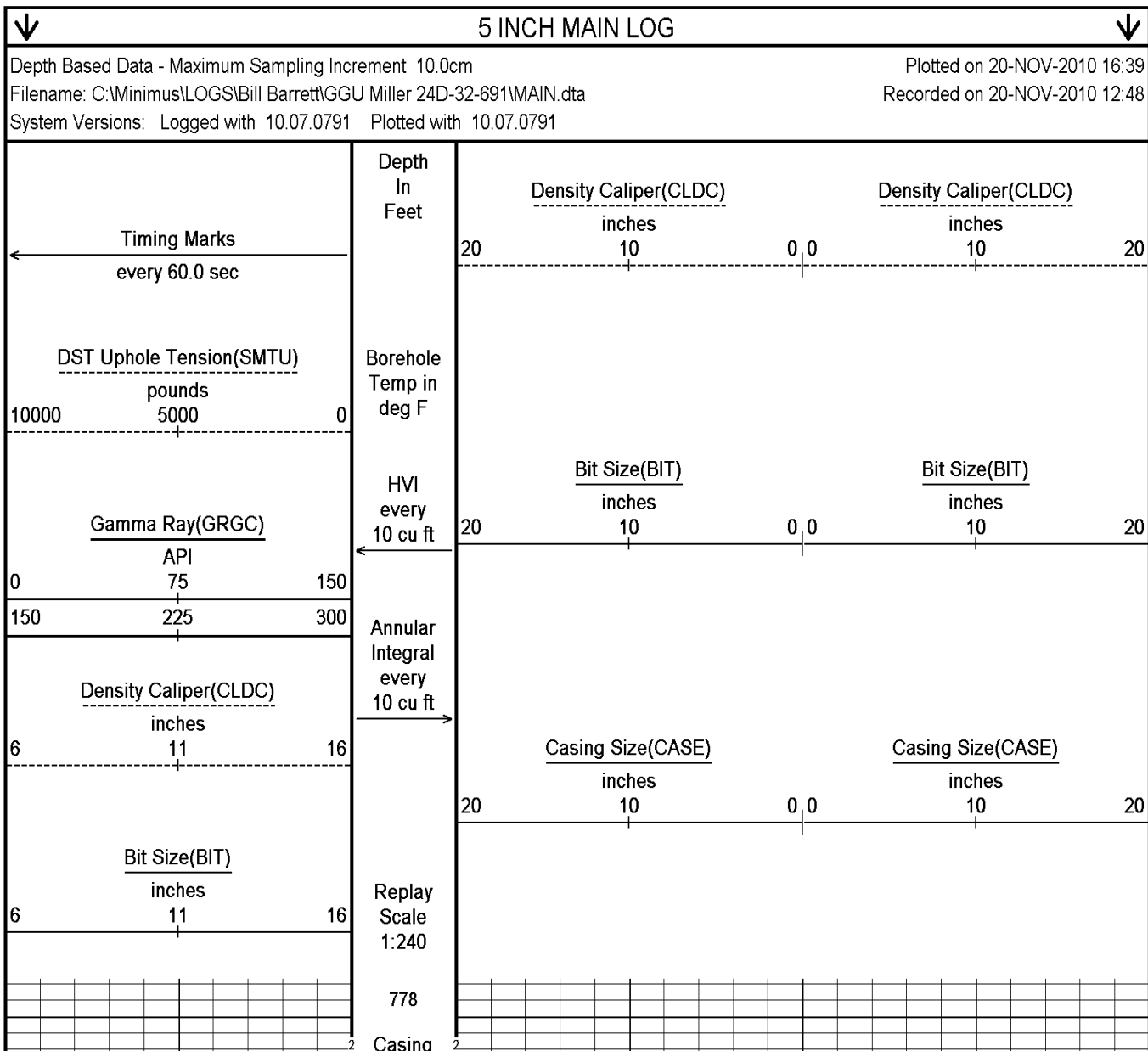
ENGINEER: D.KUNTZ / J.GARCIA/ O.GOYZUETA(JFE)

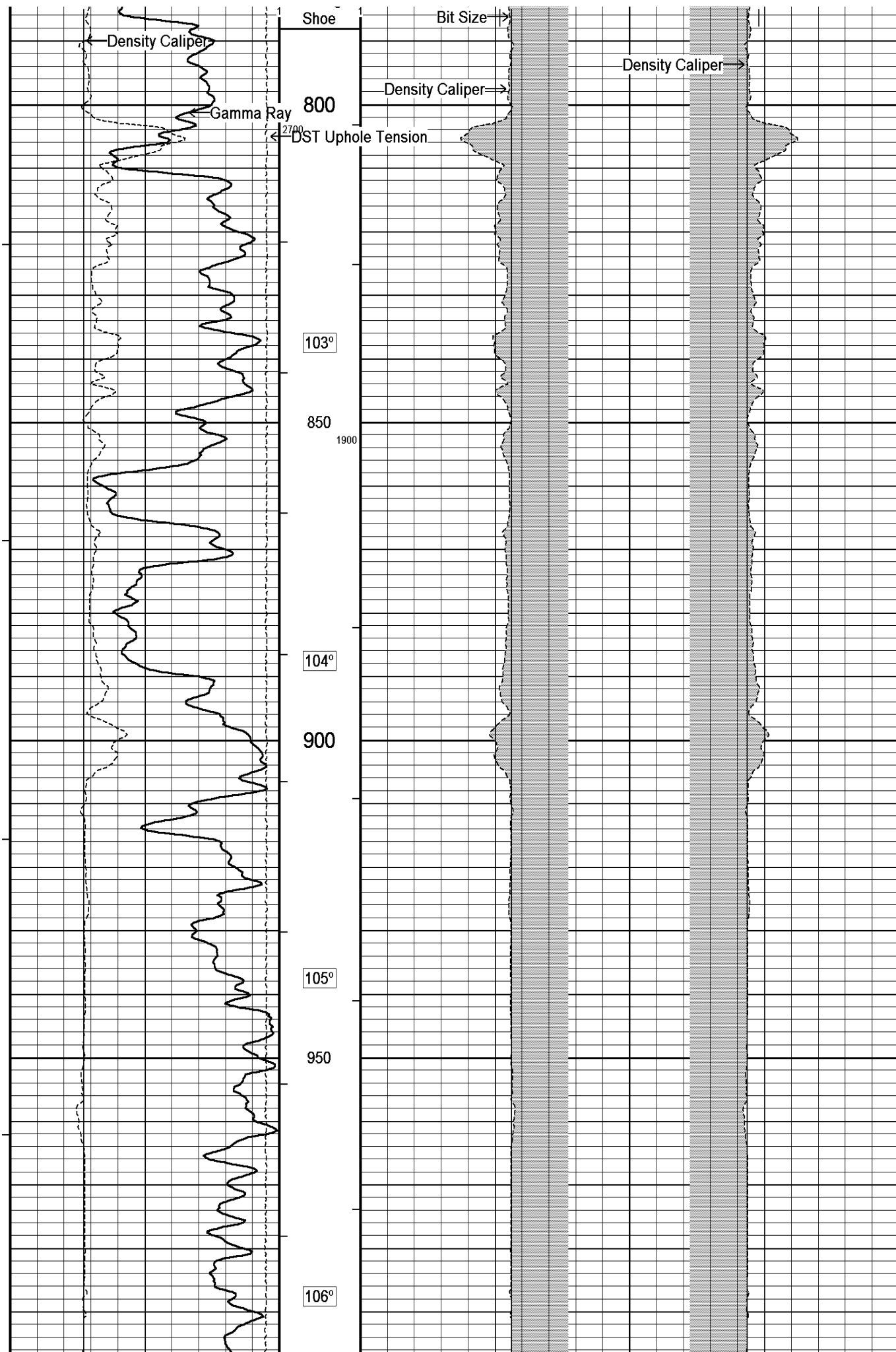
OPERATOR: S.KAISER

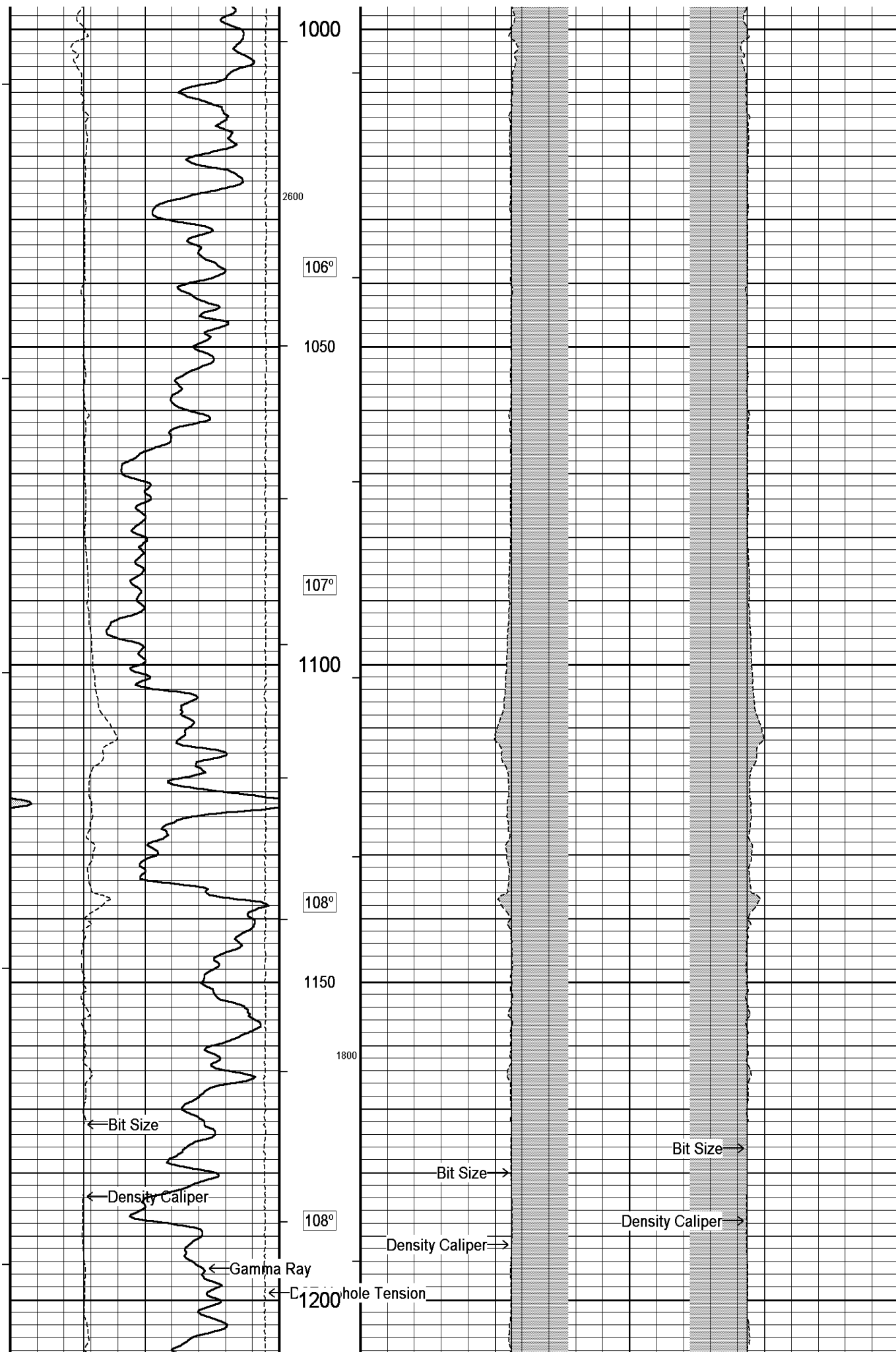
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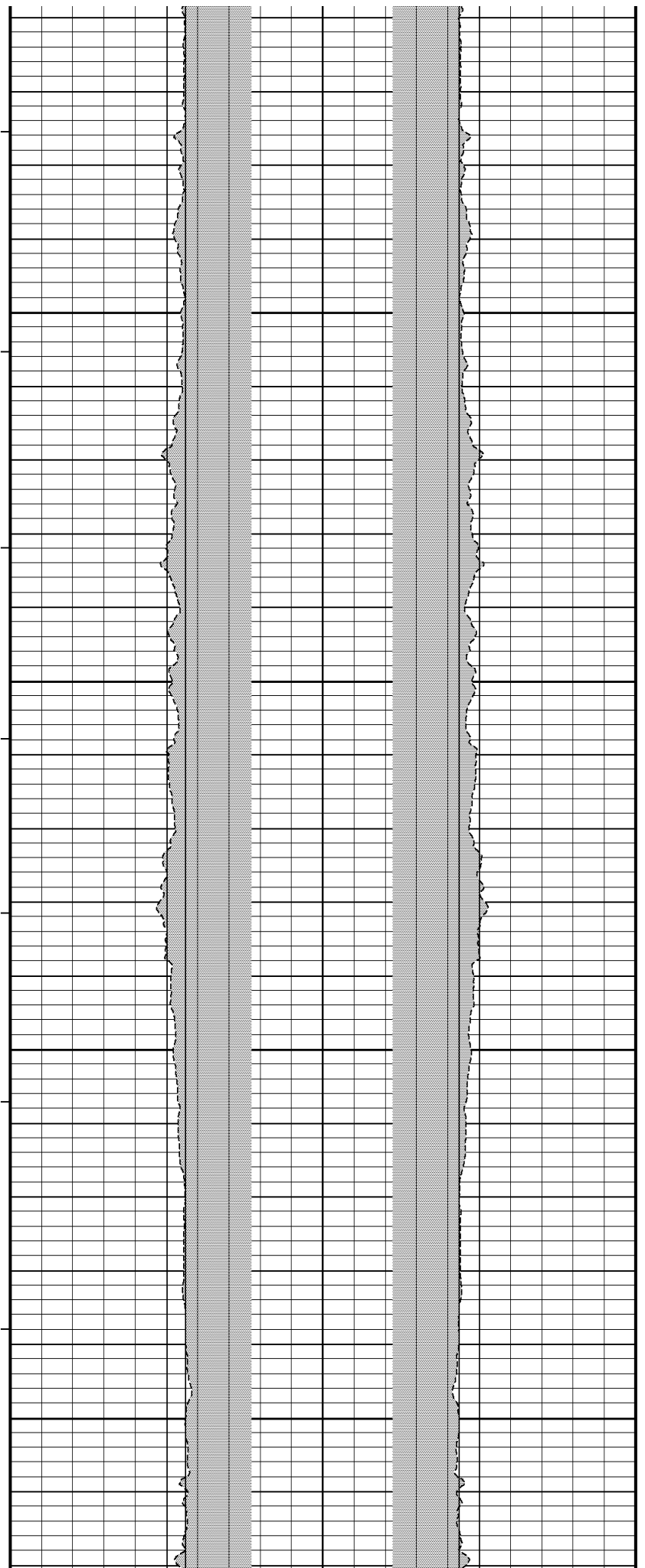
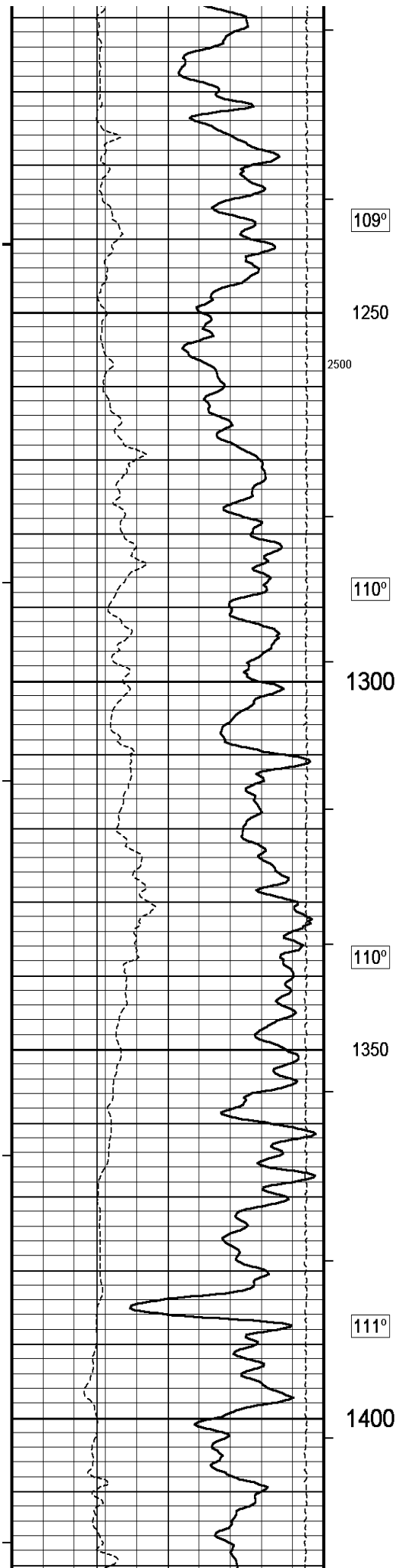
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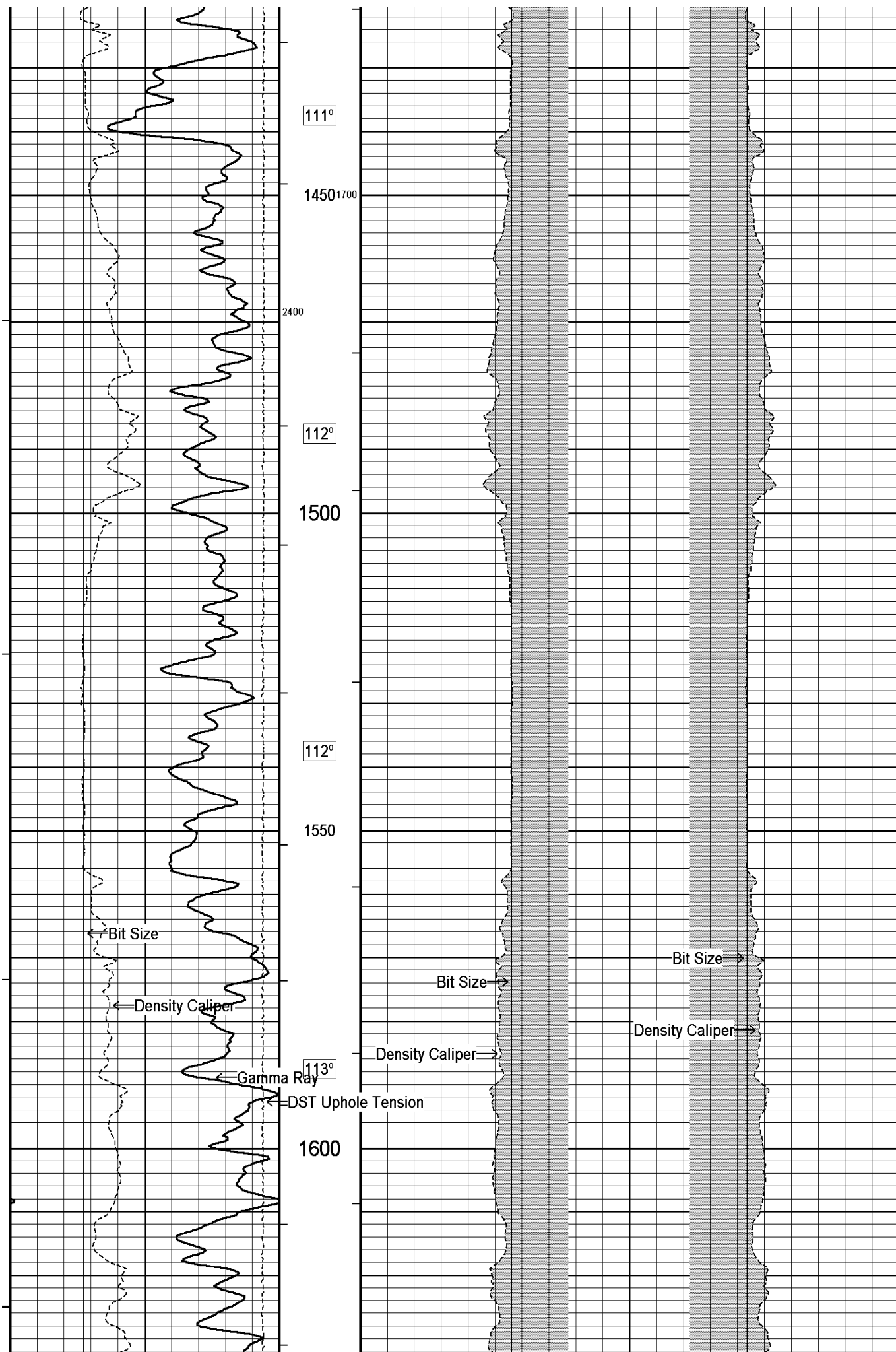
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

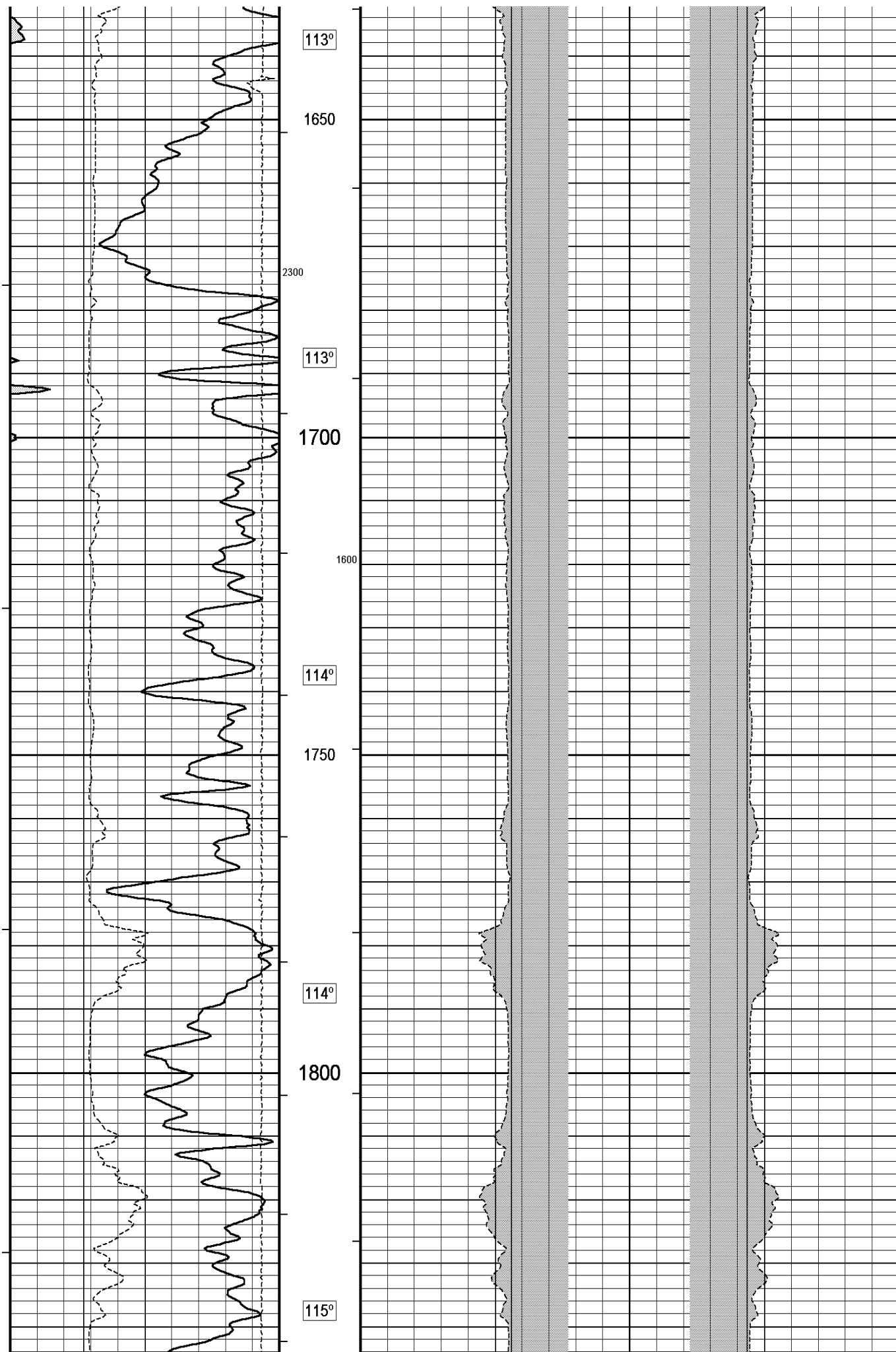


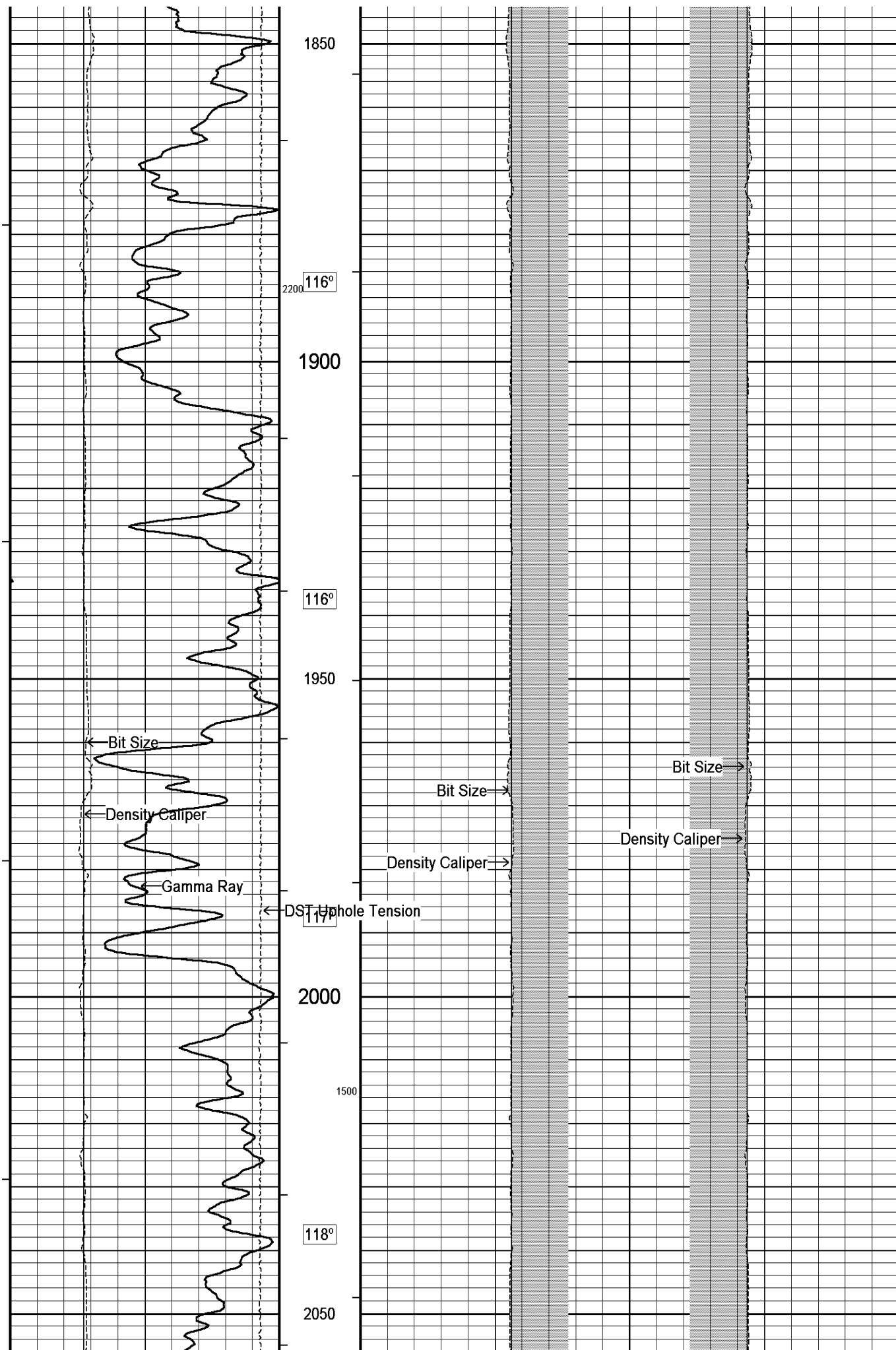


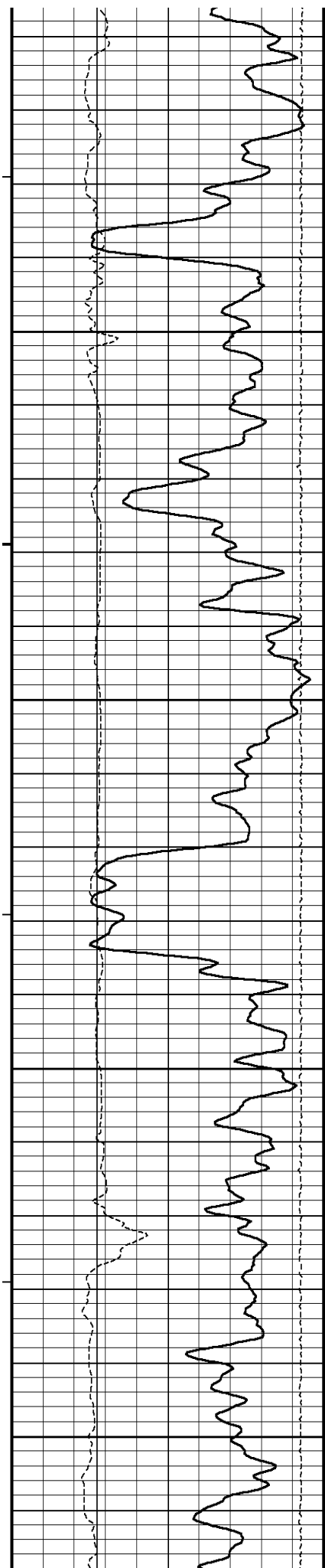












118°

2100

2100

119°

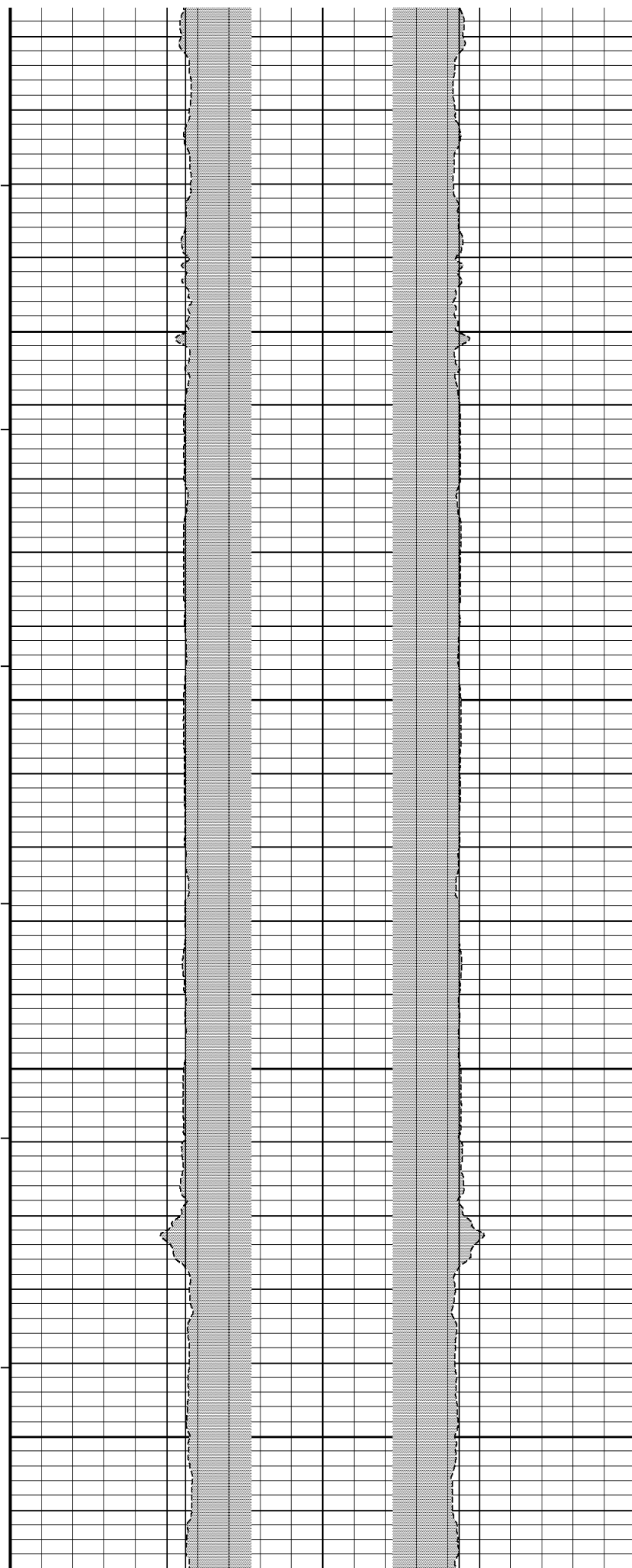
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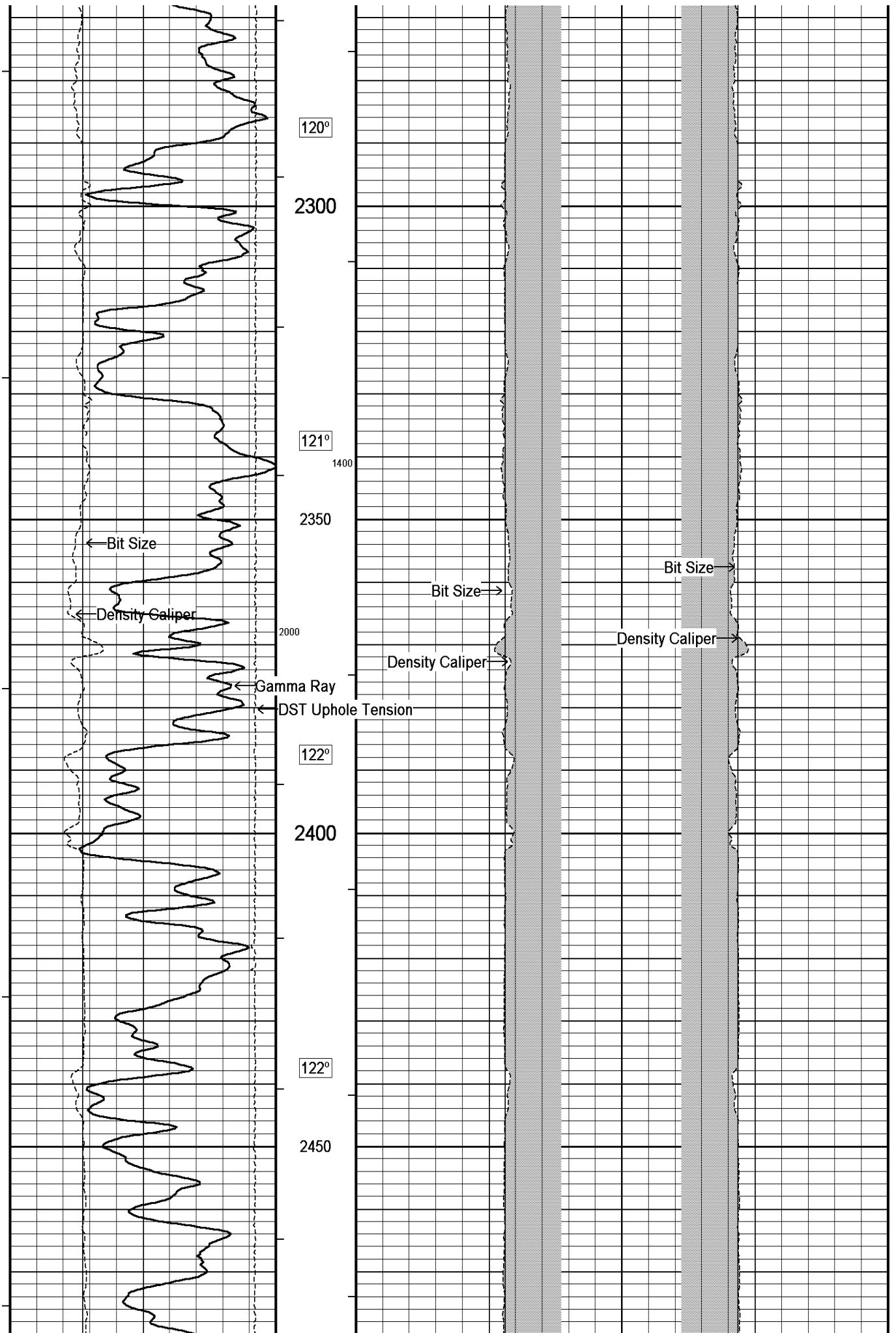
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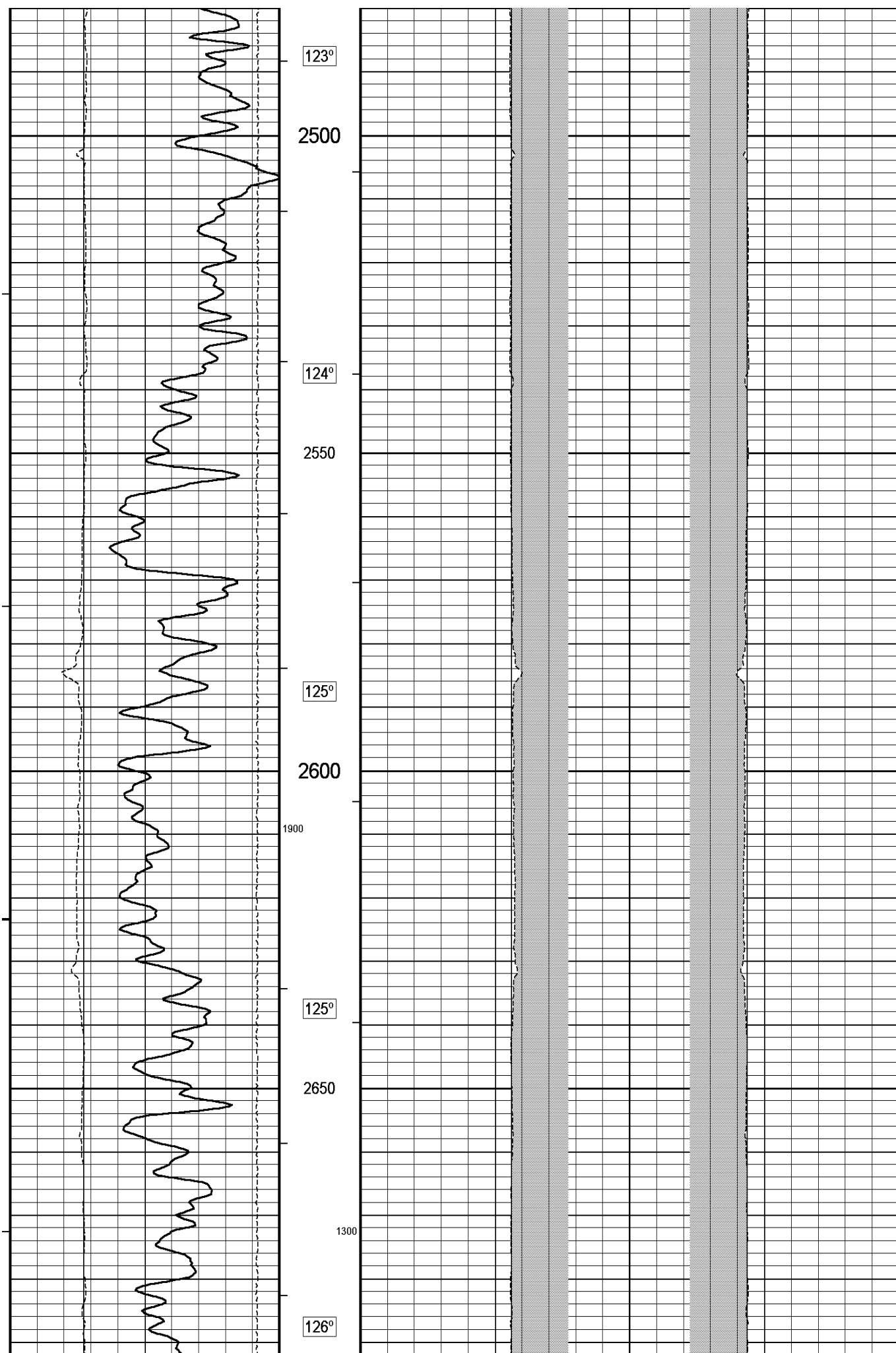
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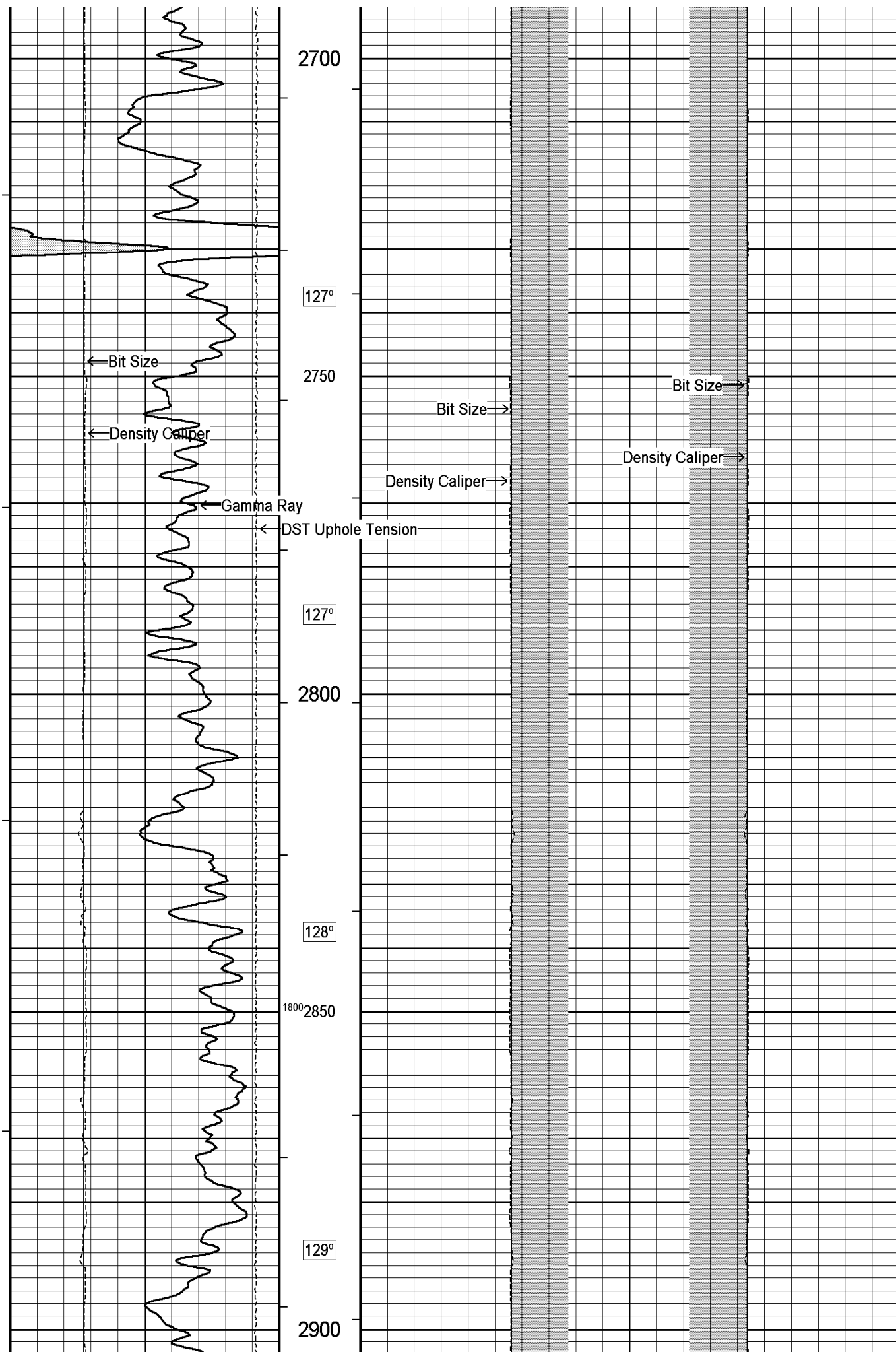
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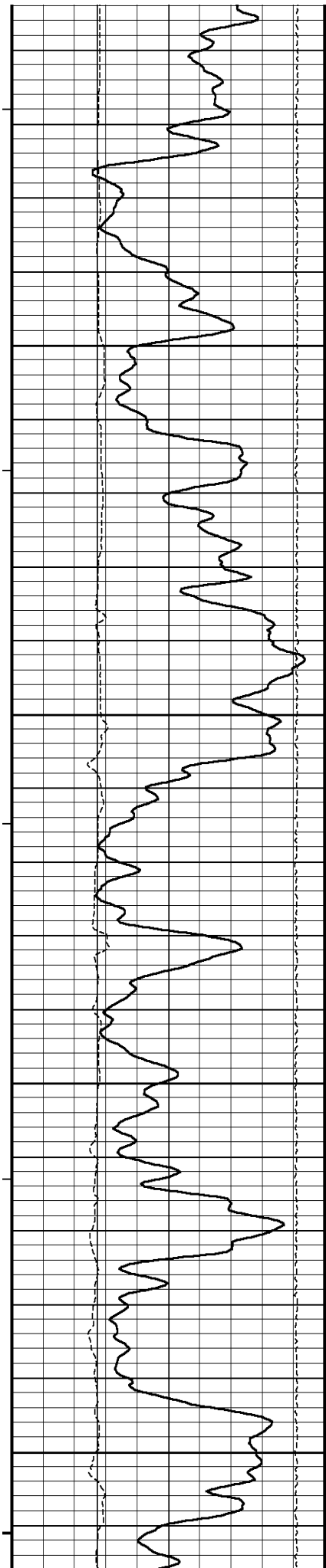
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130°

2950

130°

1200

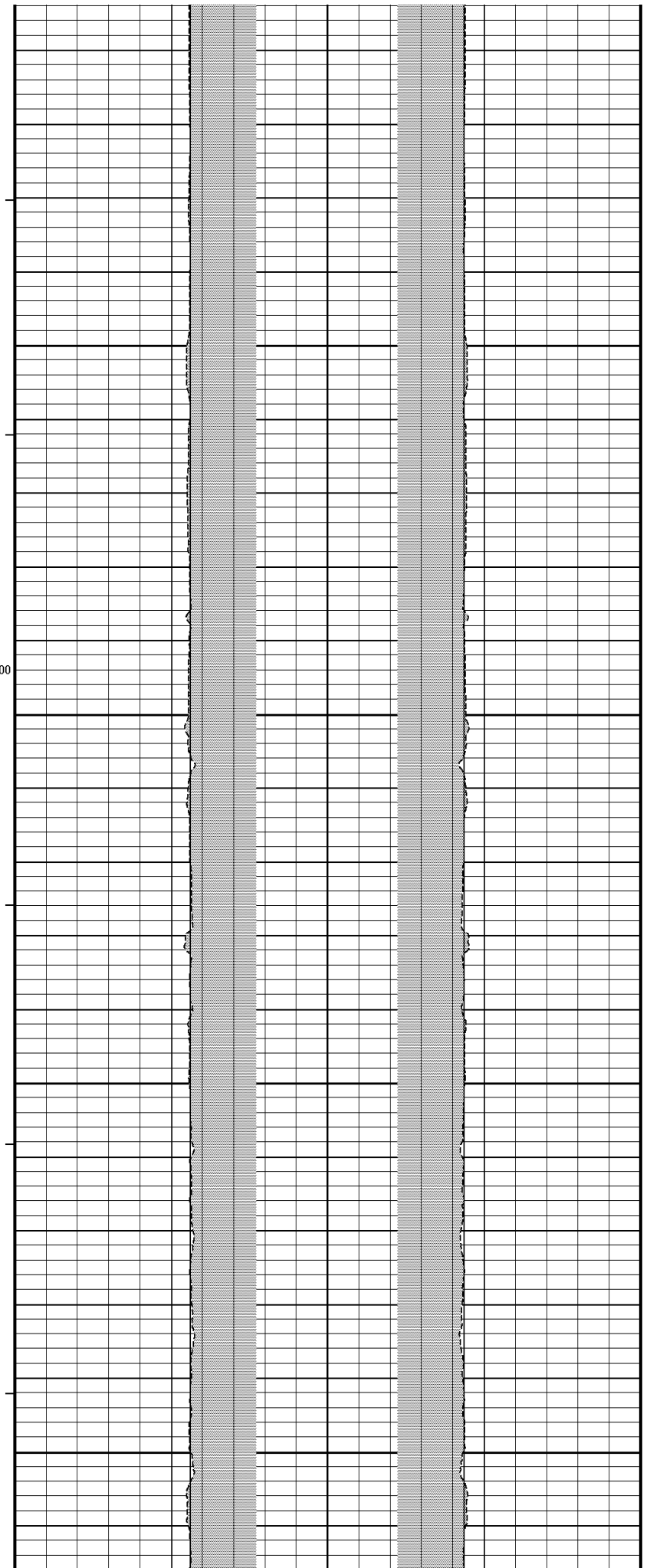
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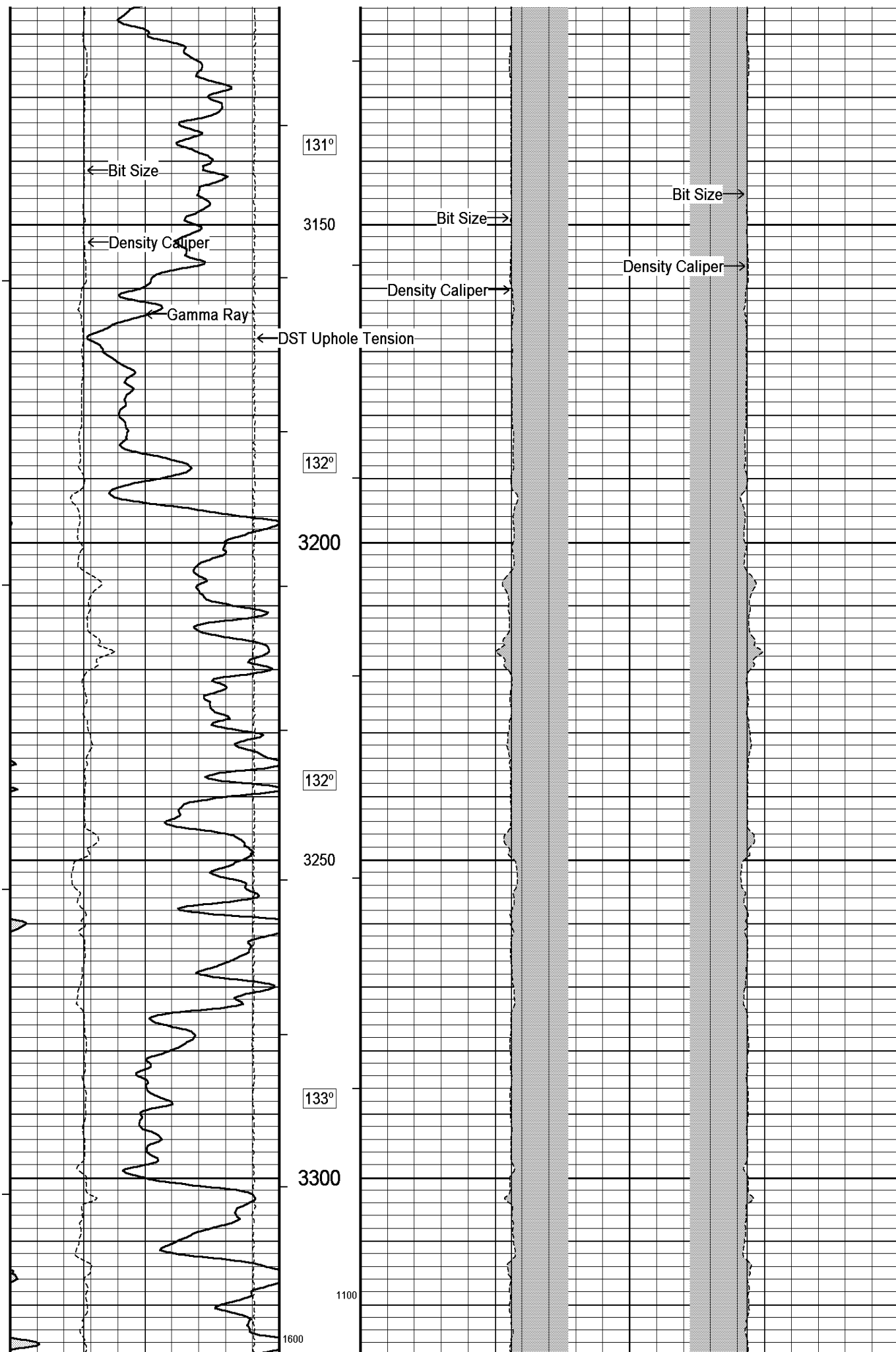
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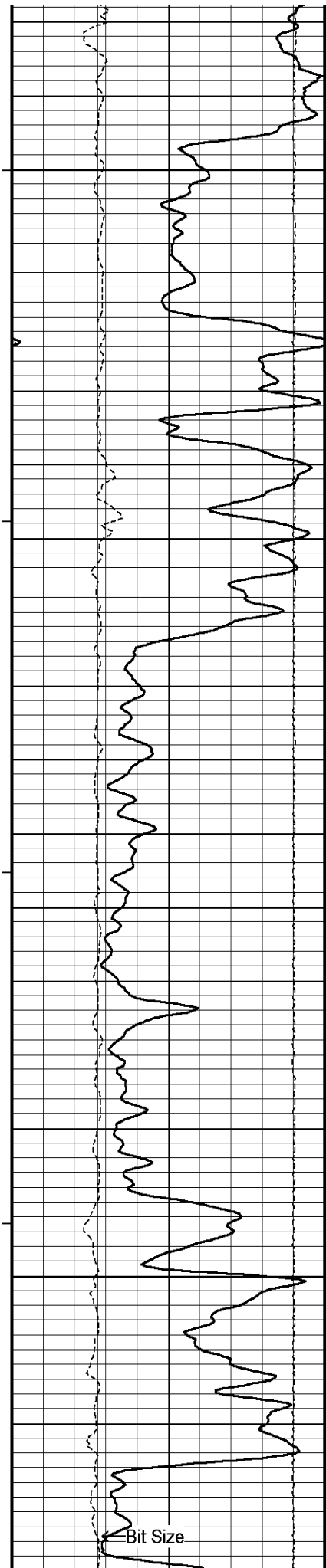
3050

1700 131°

3100







133°

3350

134°

3400

134°

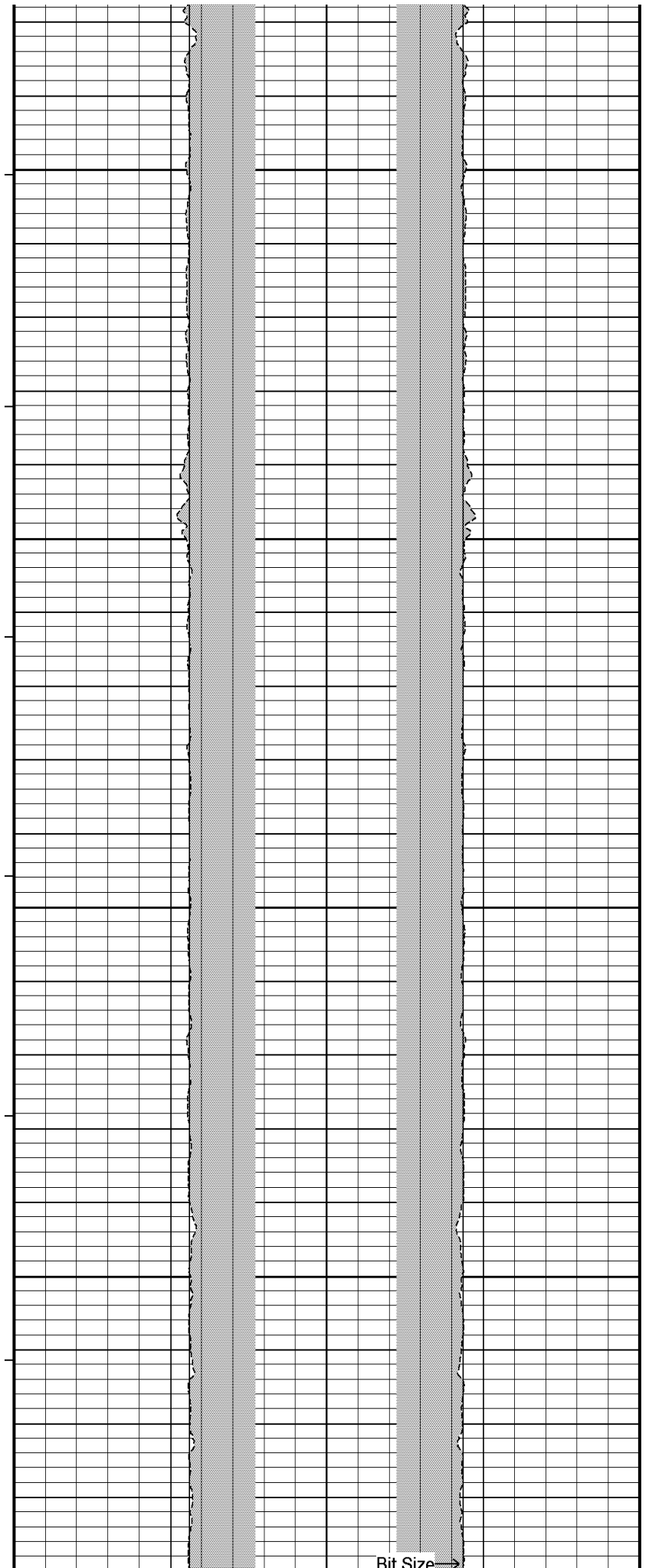
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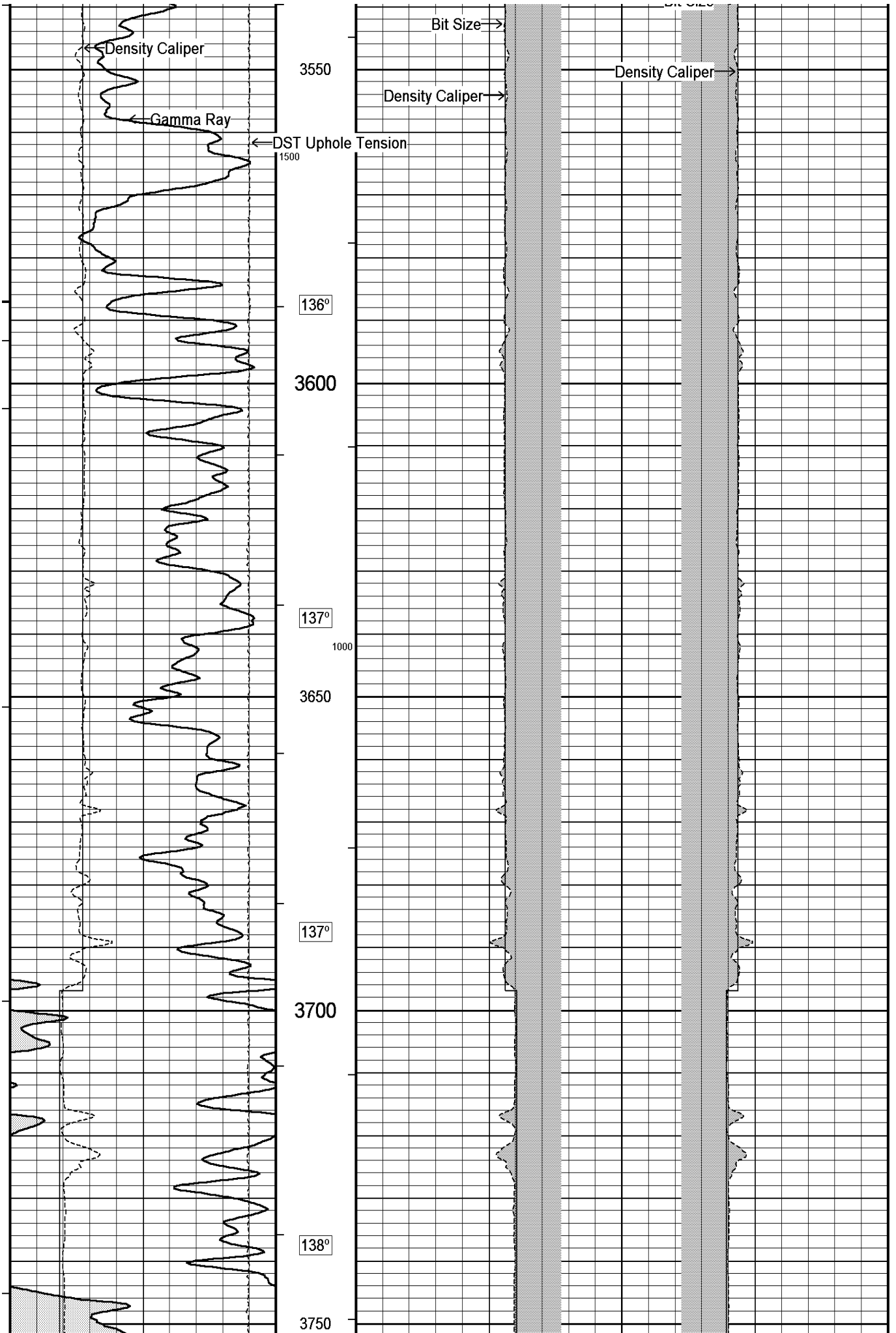
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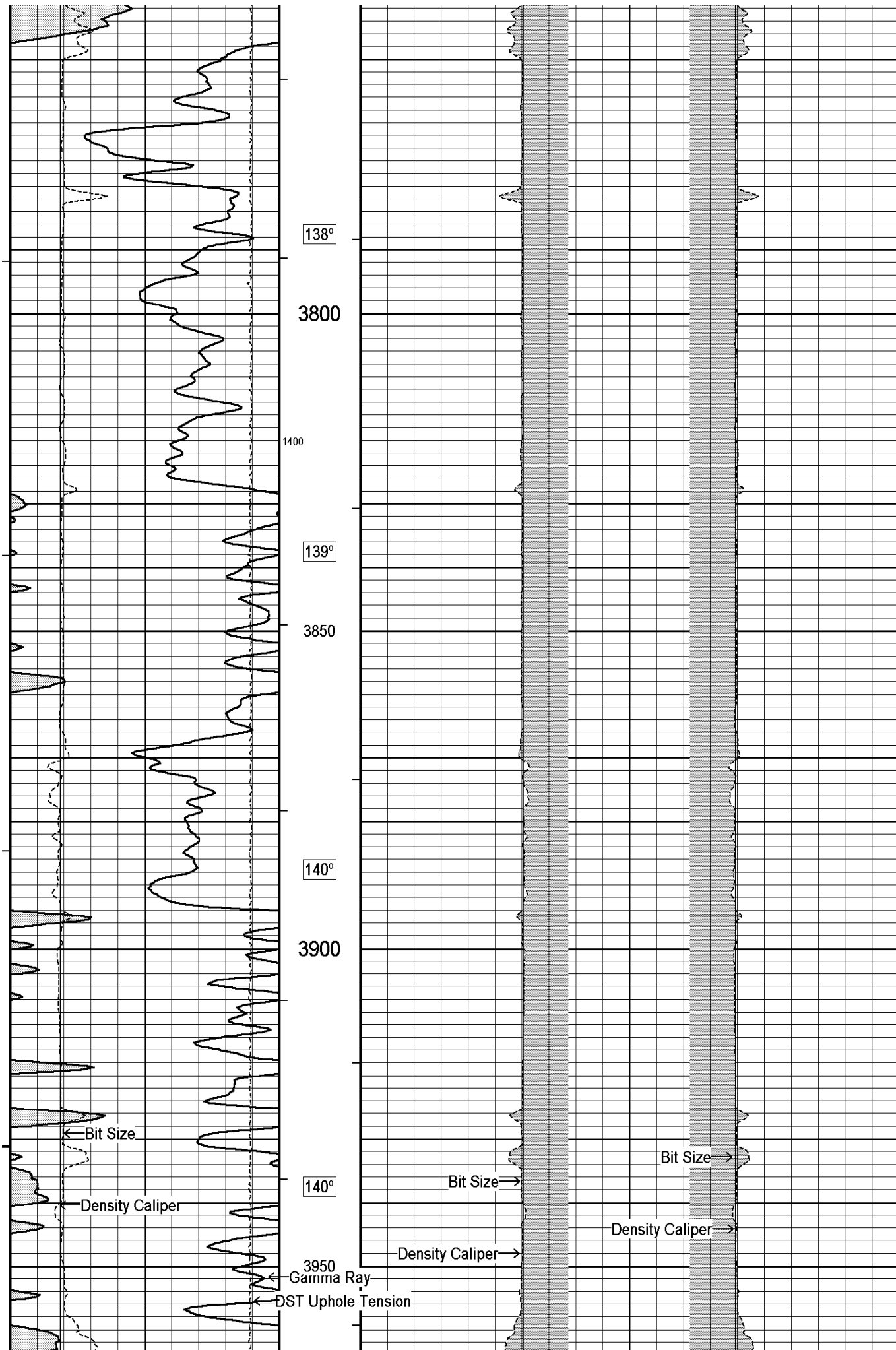
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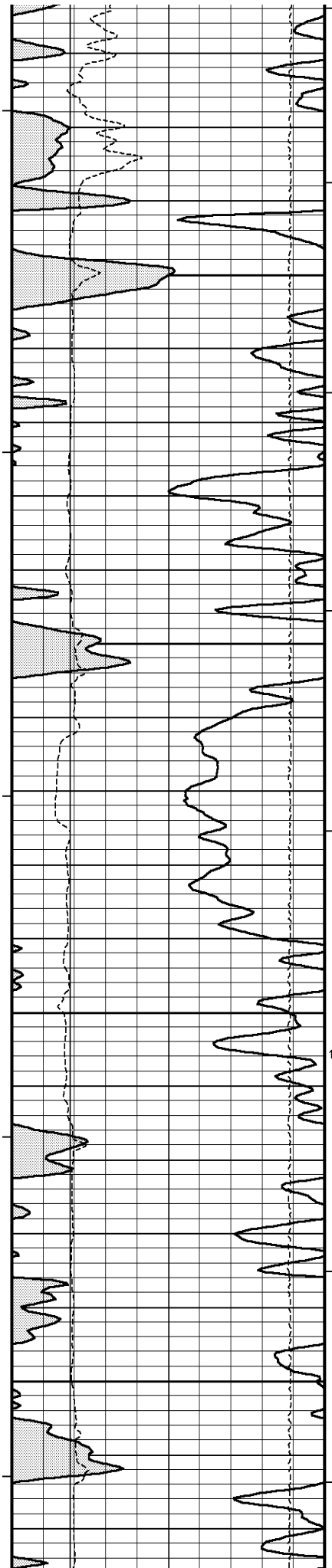
Bit Size



Bit Size







141°

4000

142°

4050

142°

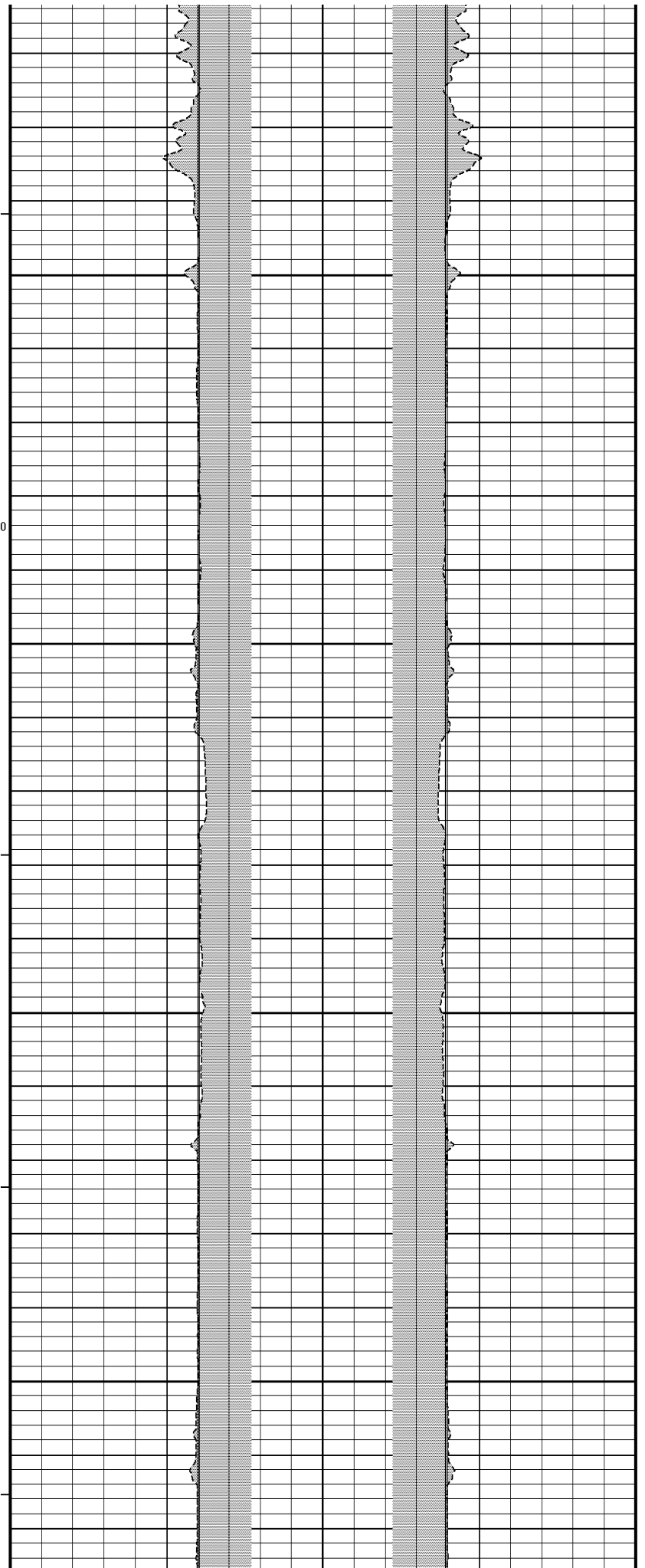
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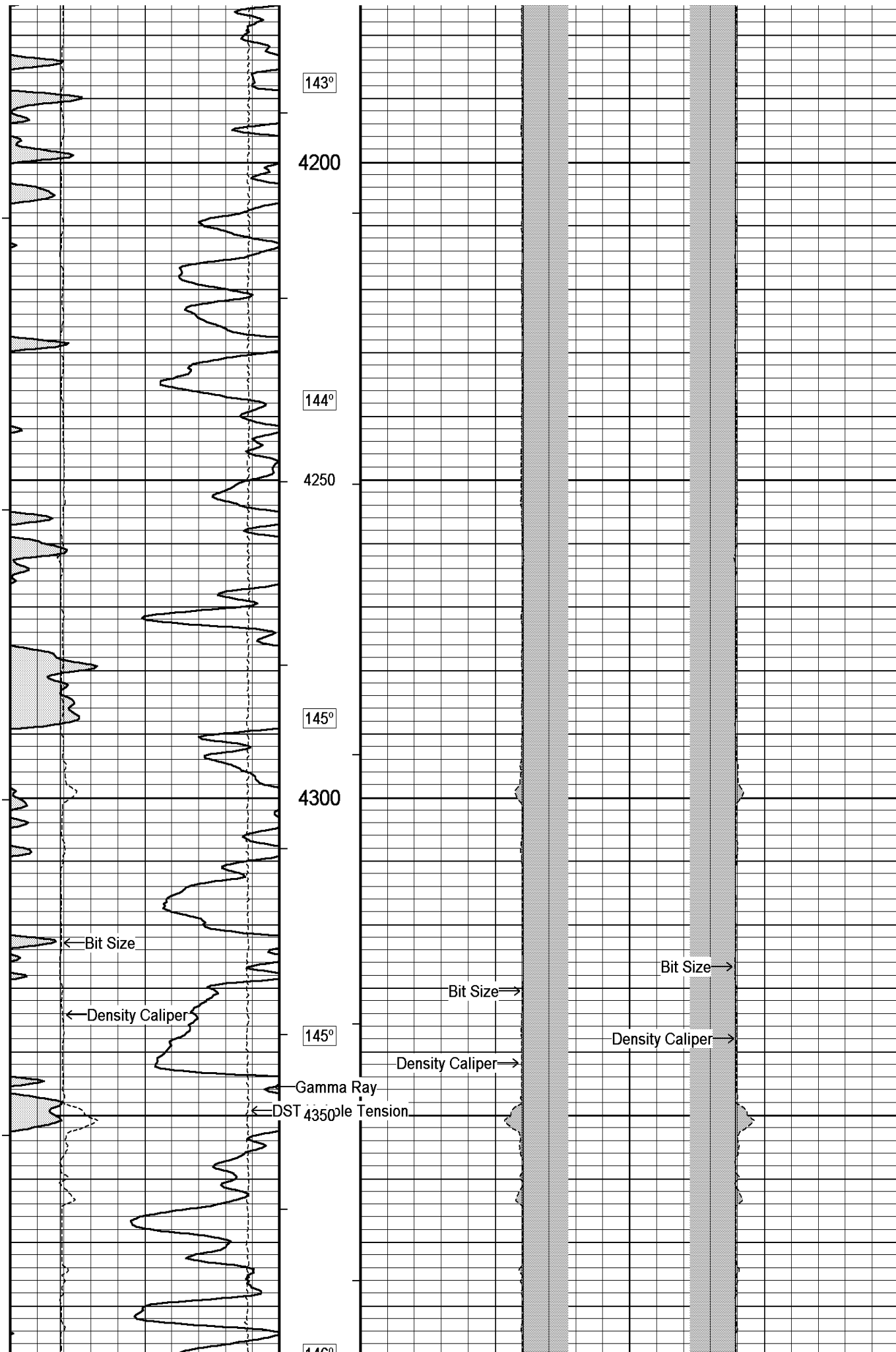
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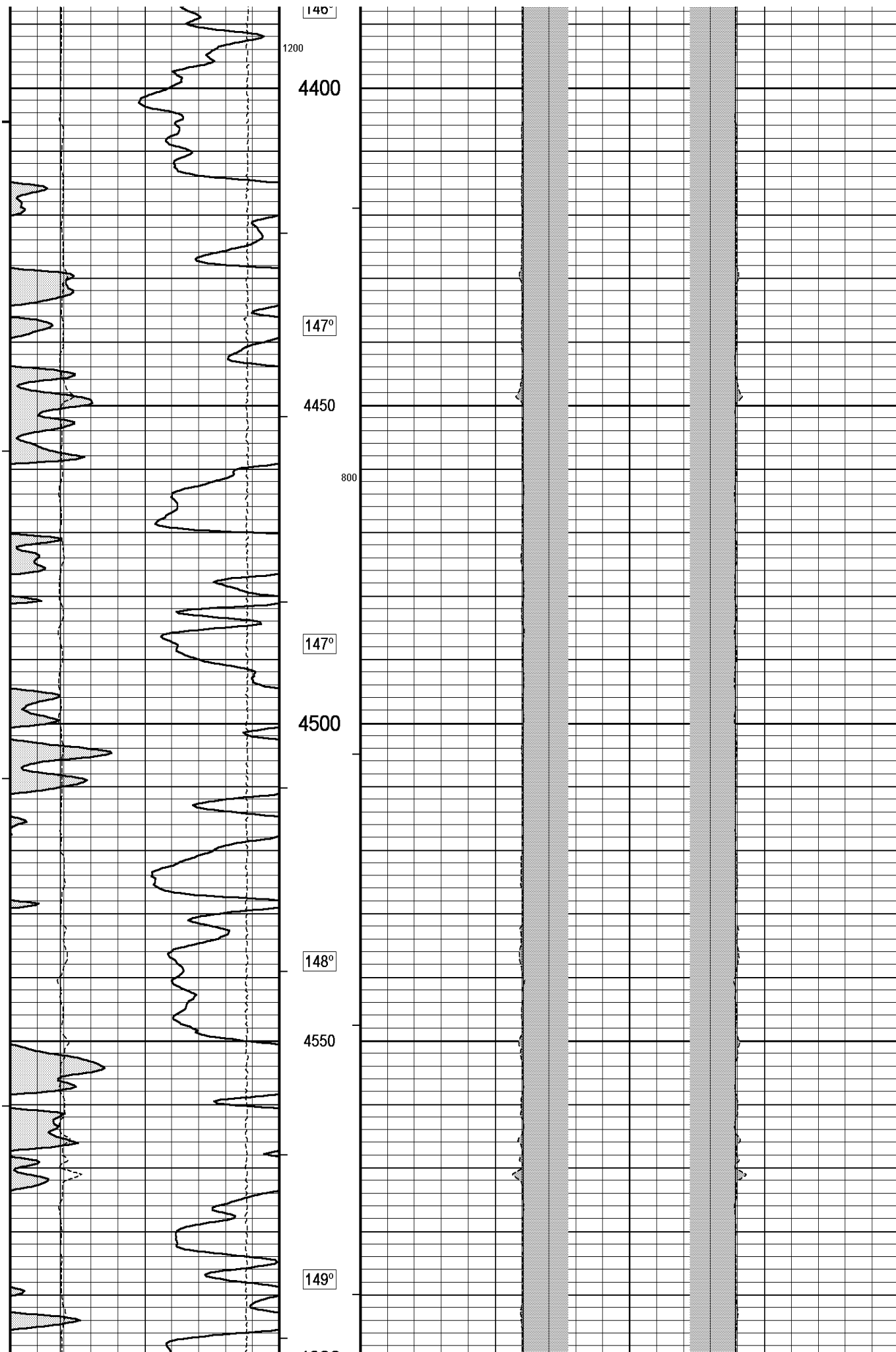
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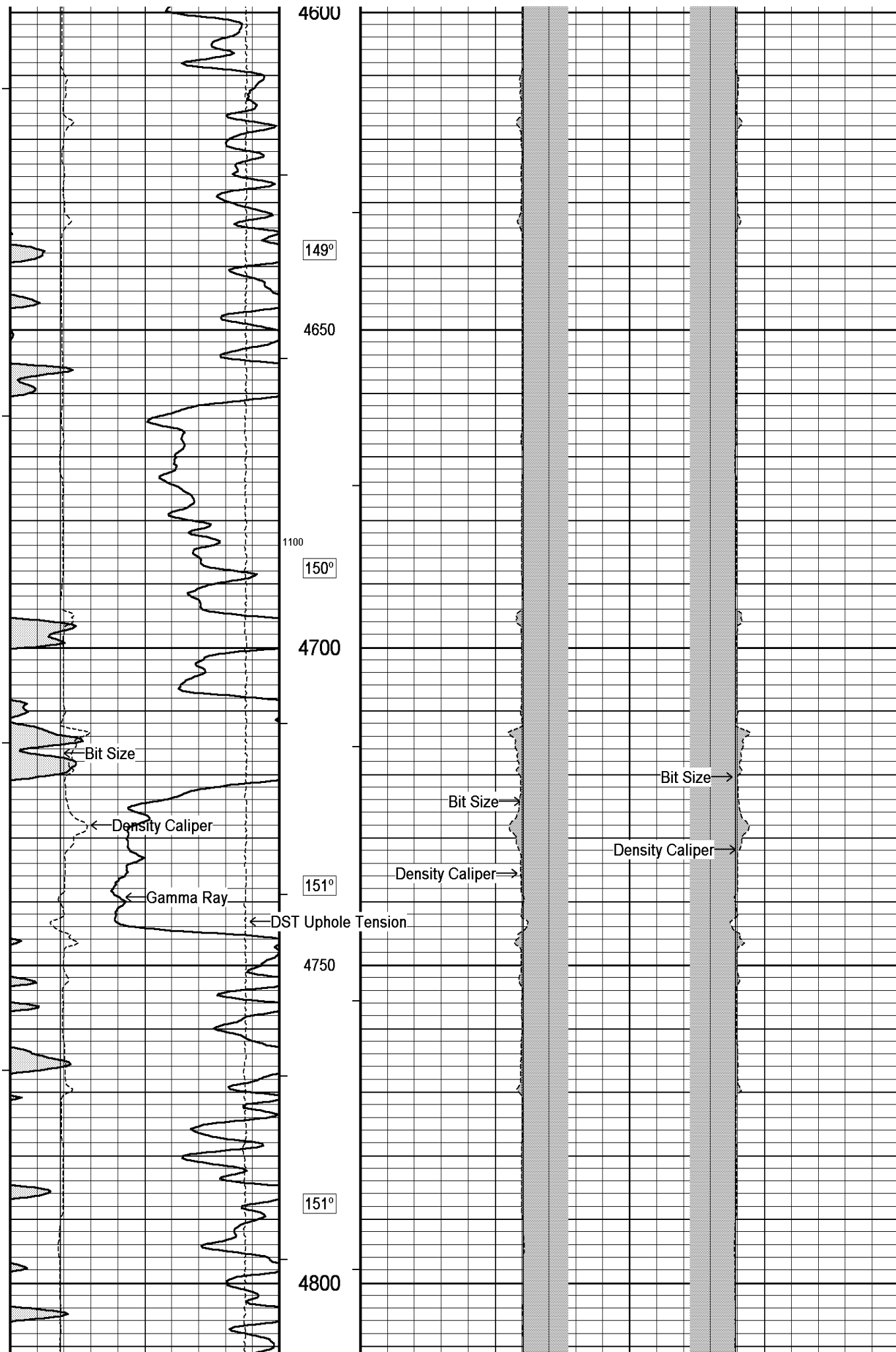
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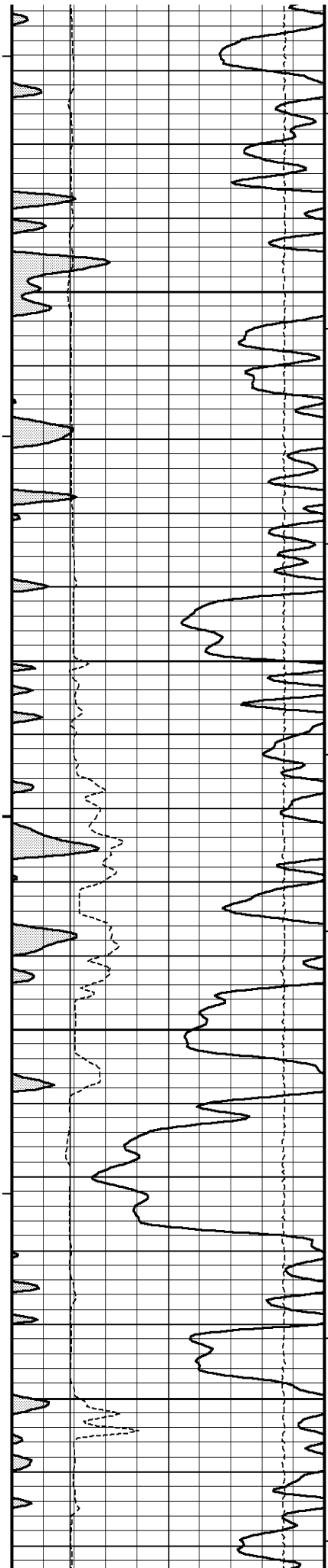
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152°

4850

153°

4900

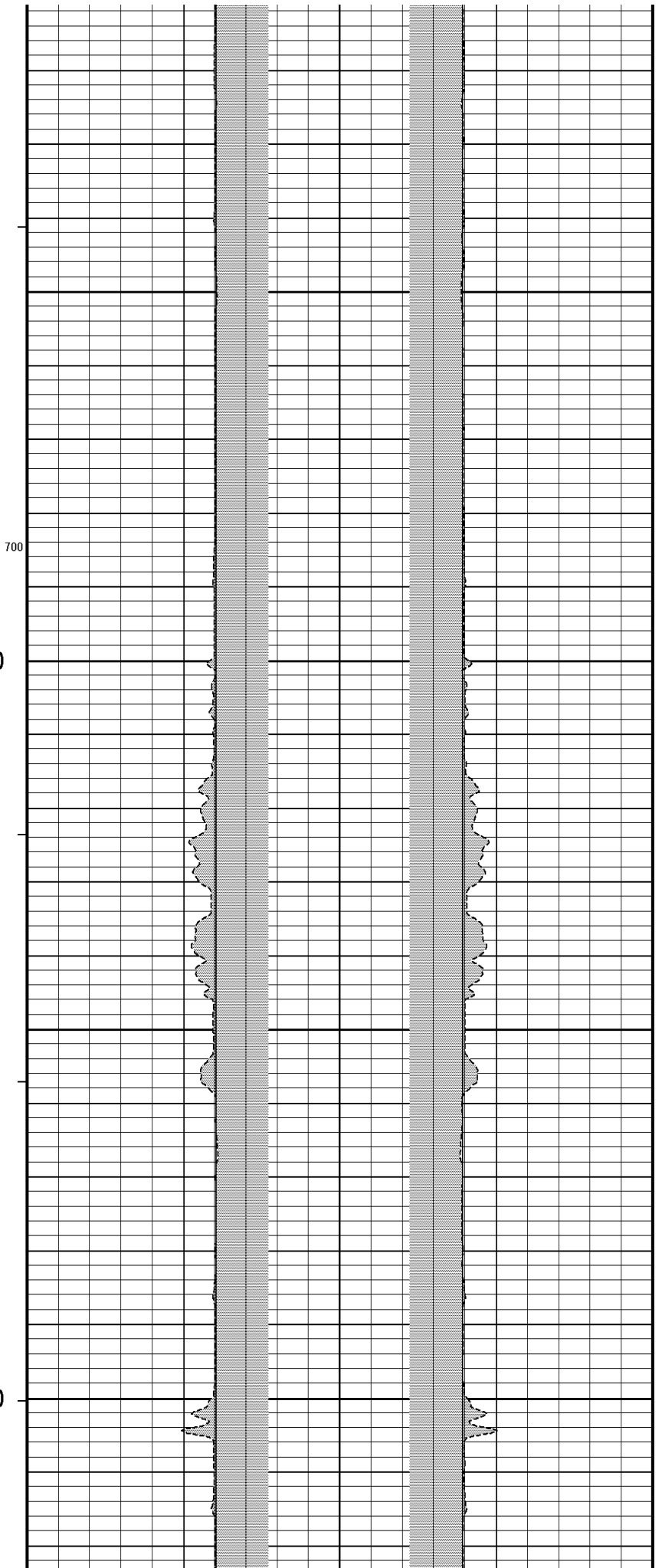
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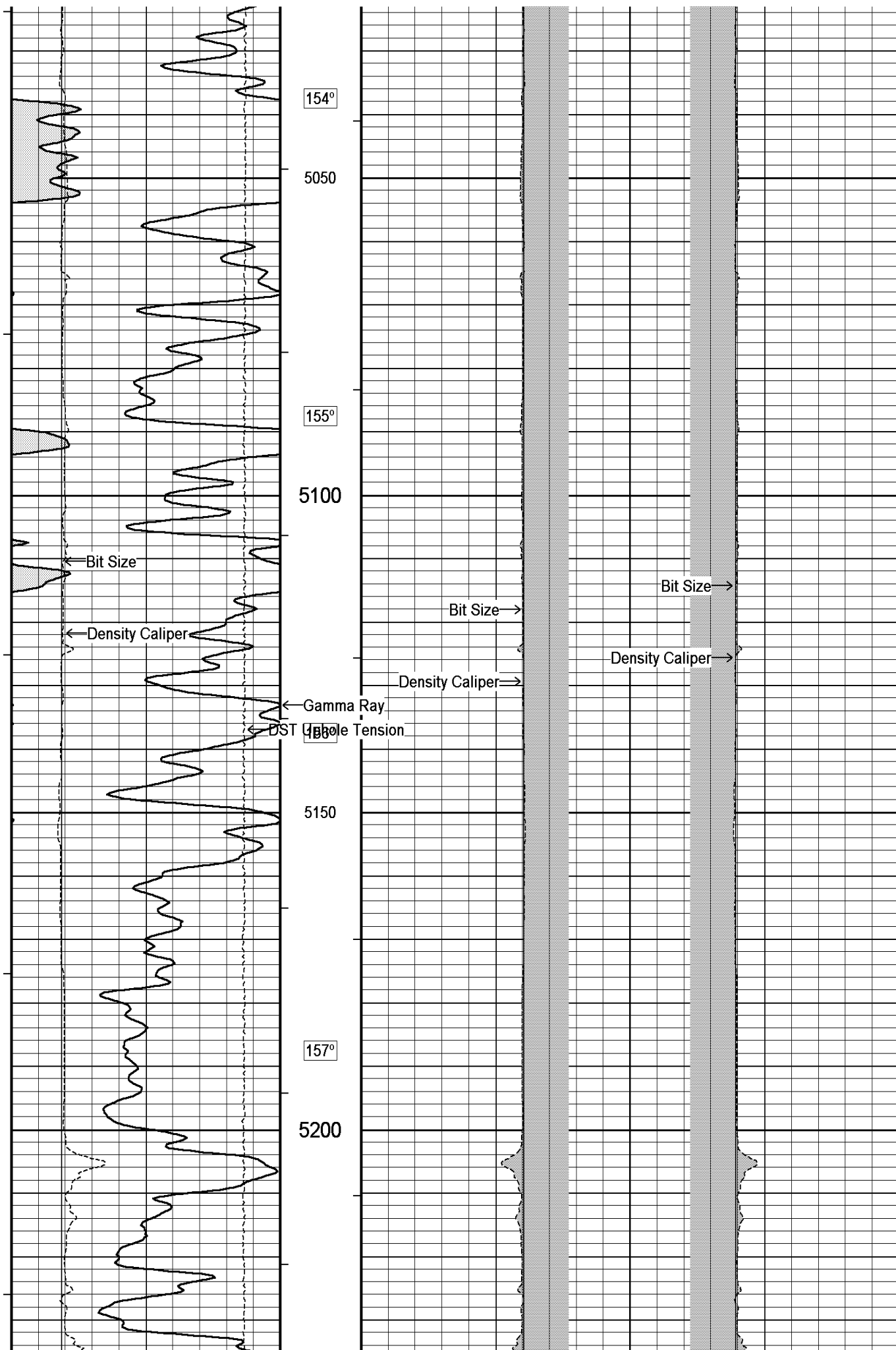
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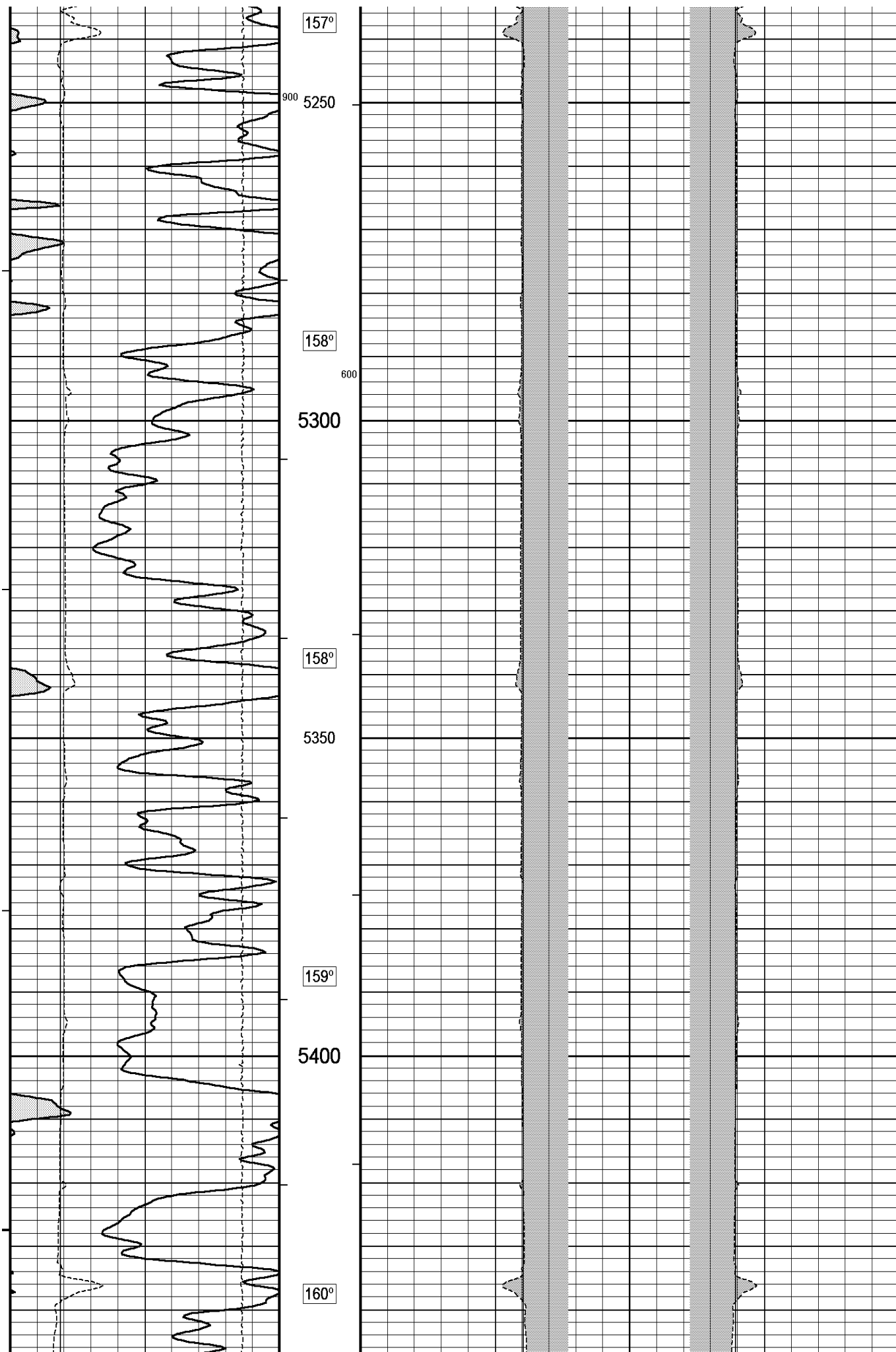
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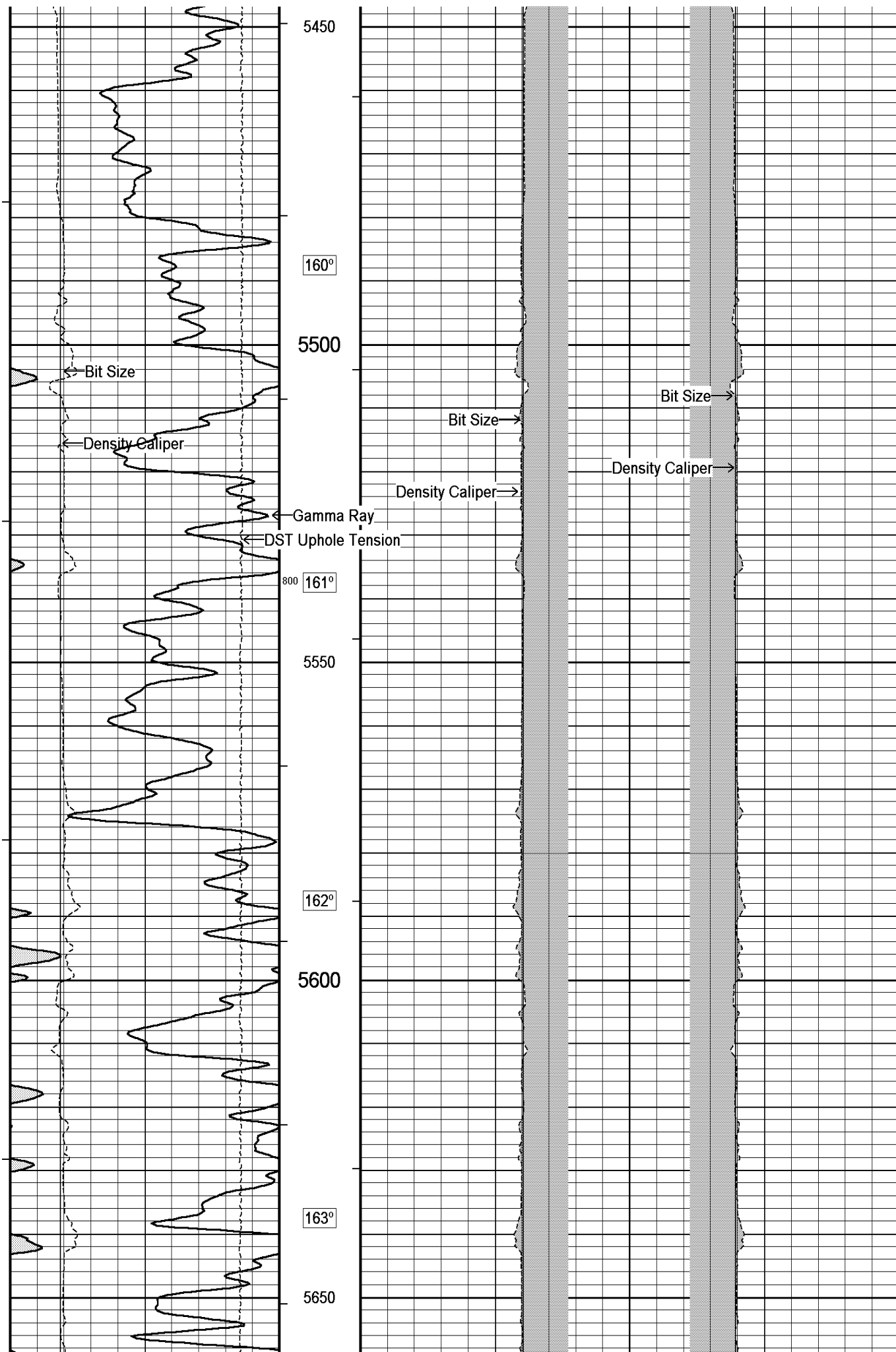
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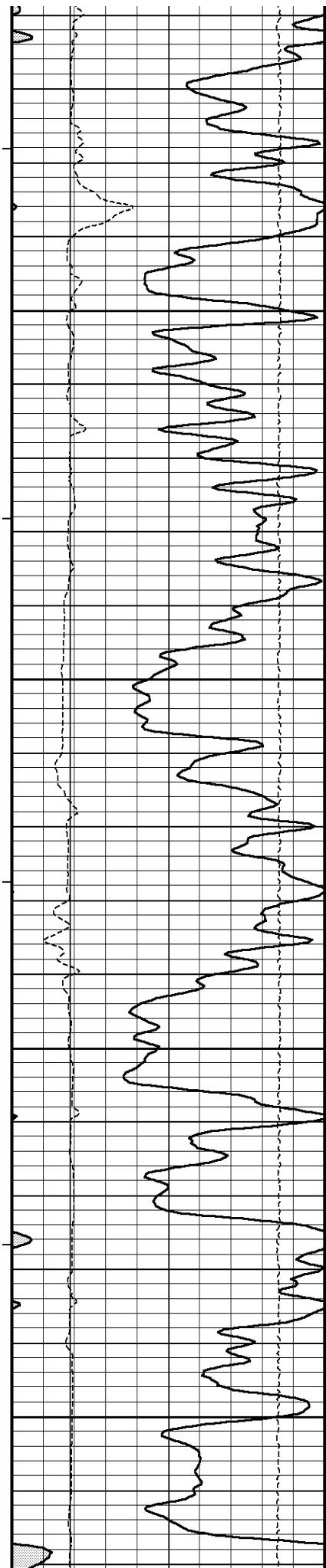
5000











164°

5700

500

165°

5750

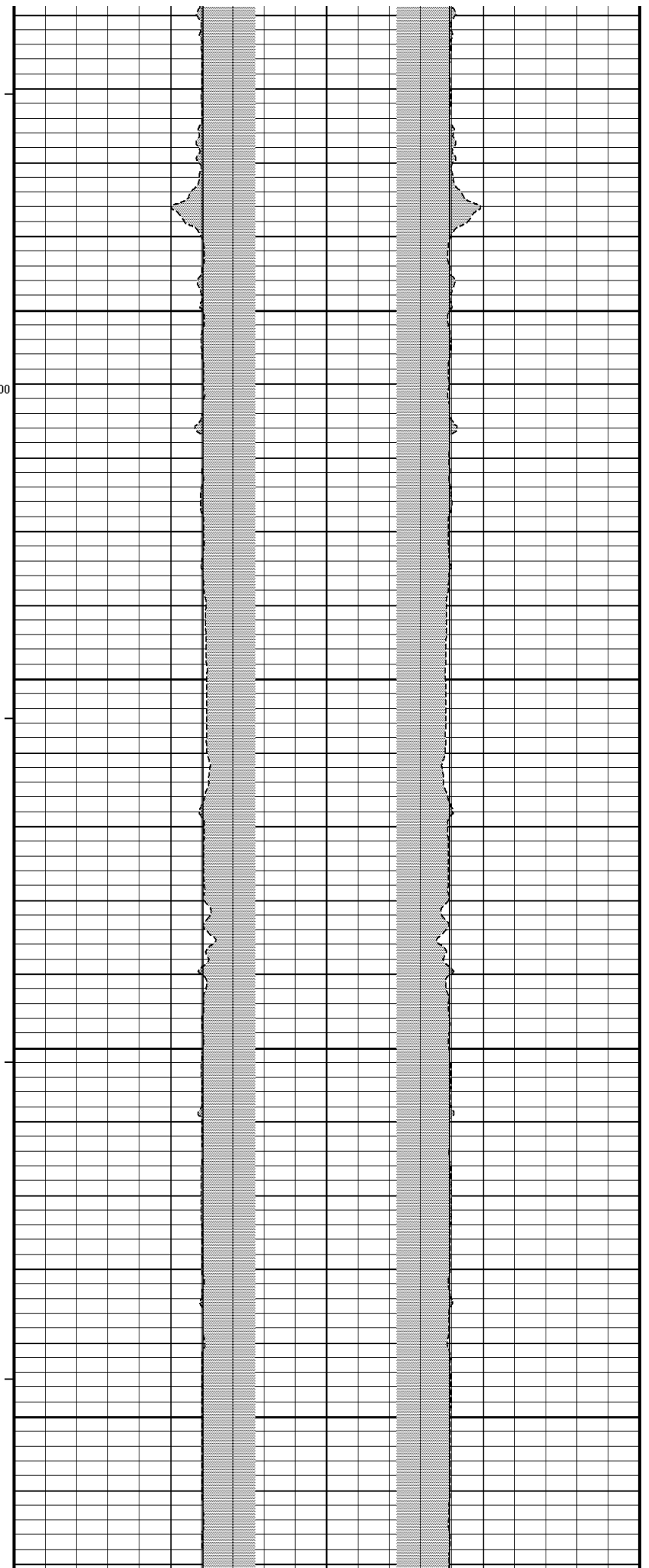
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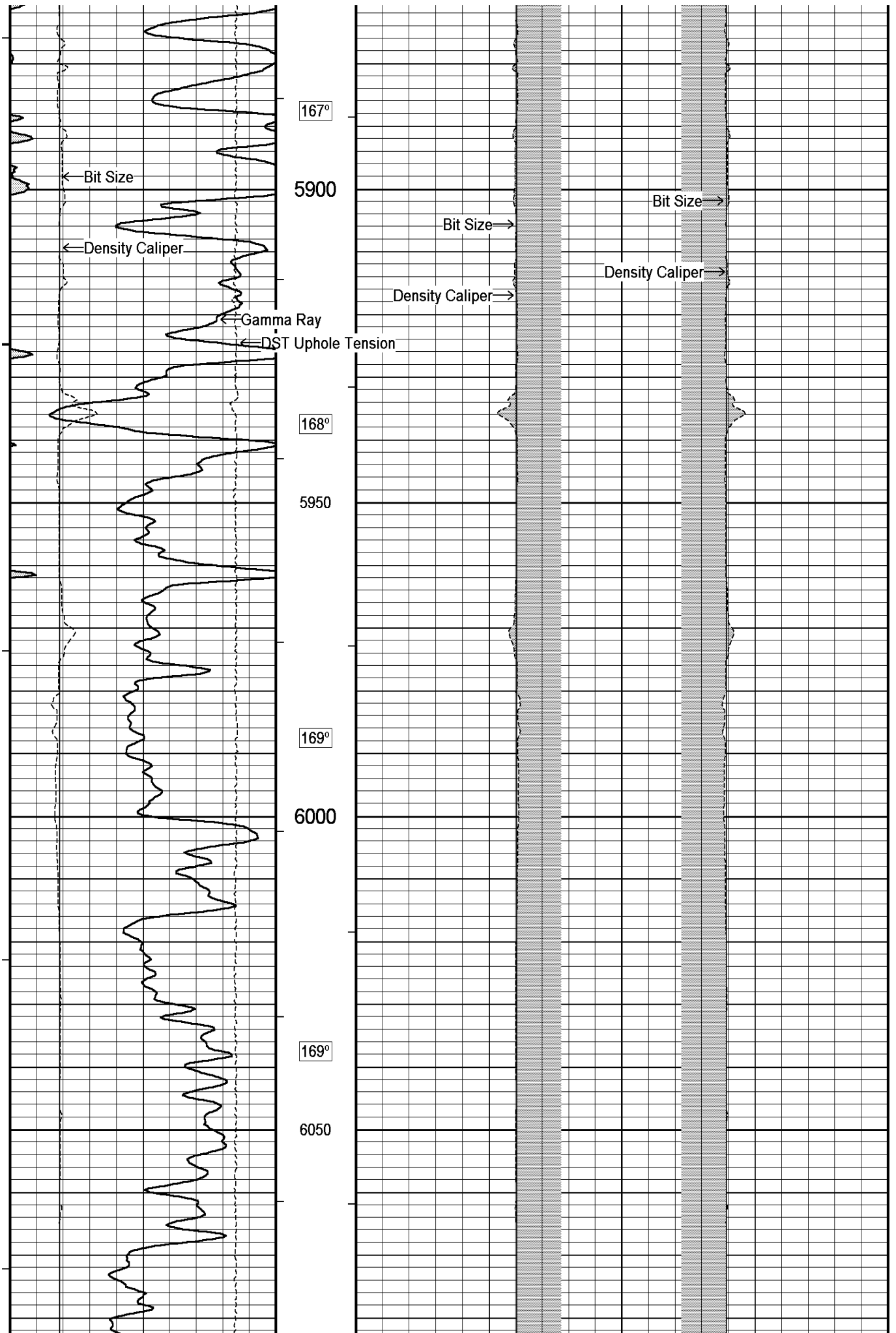
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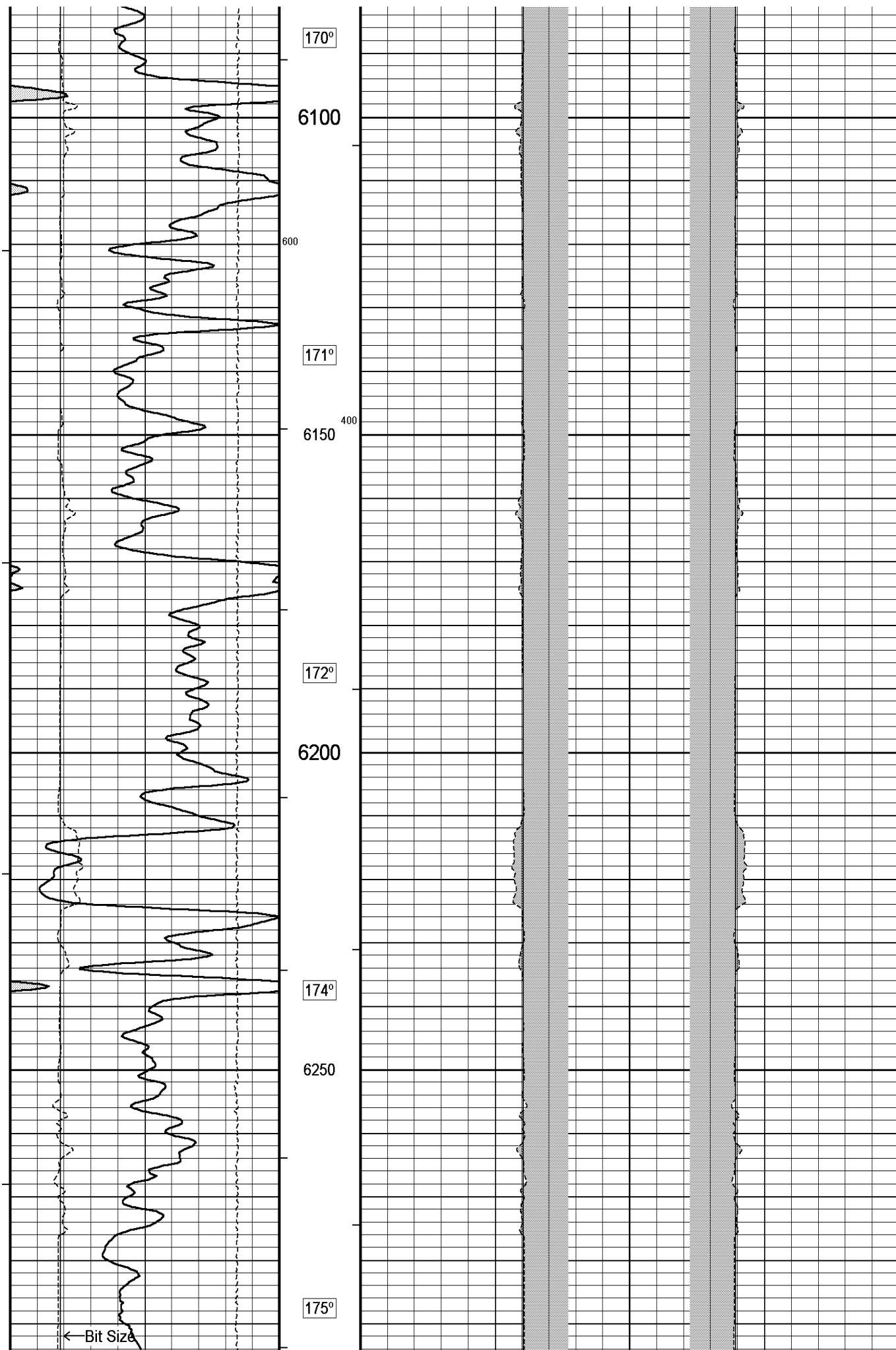
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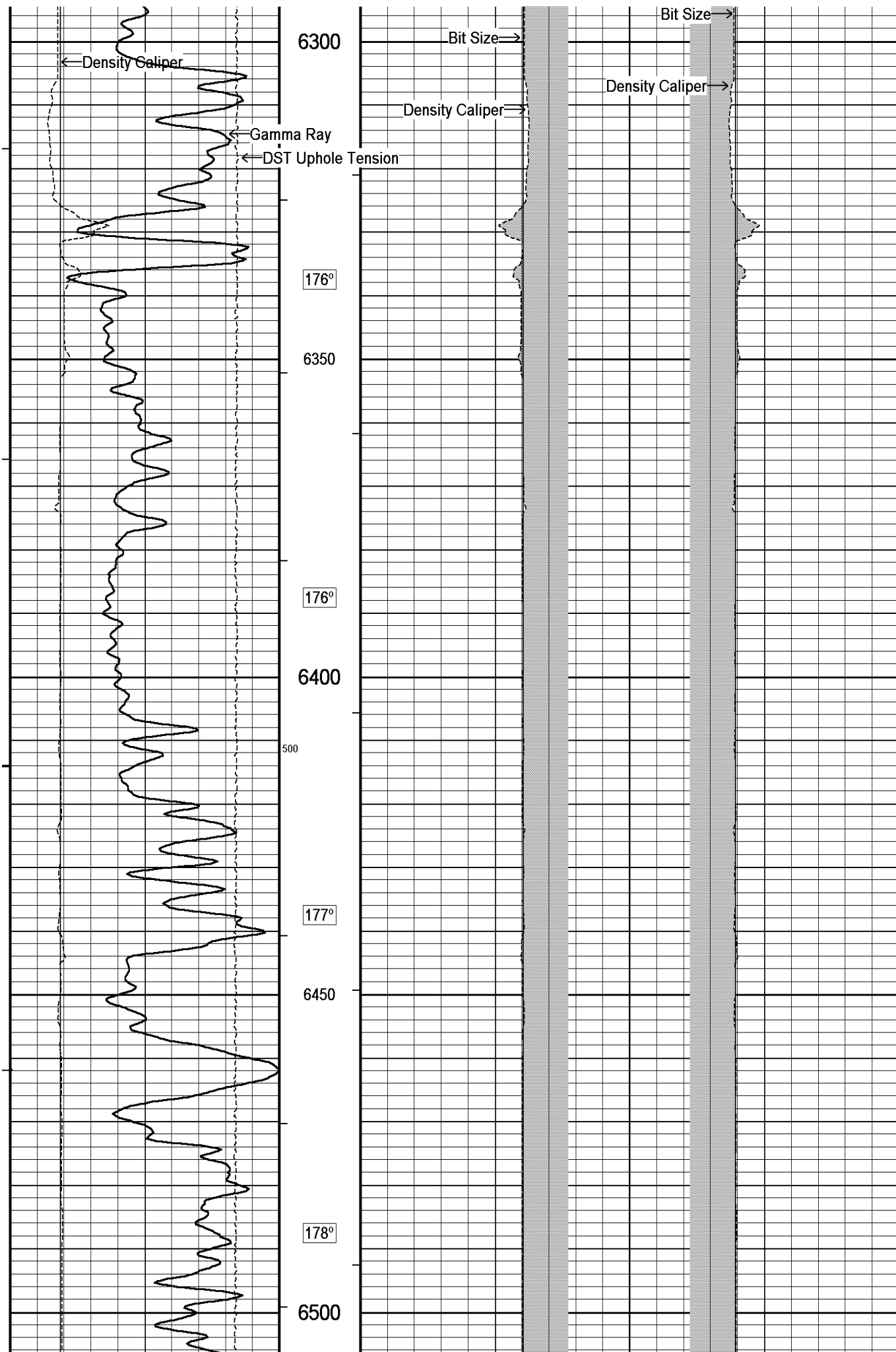
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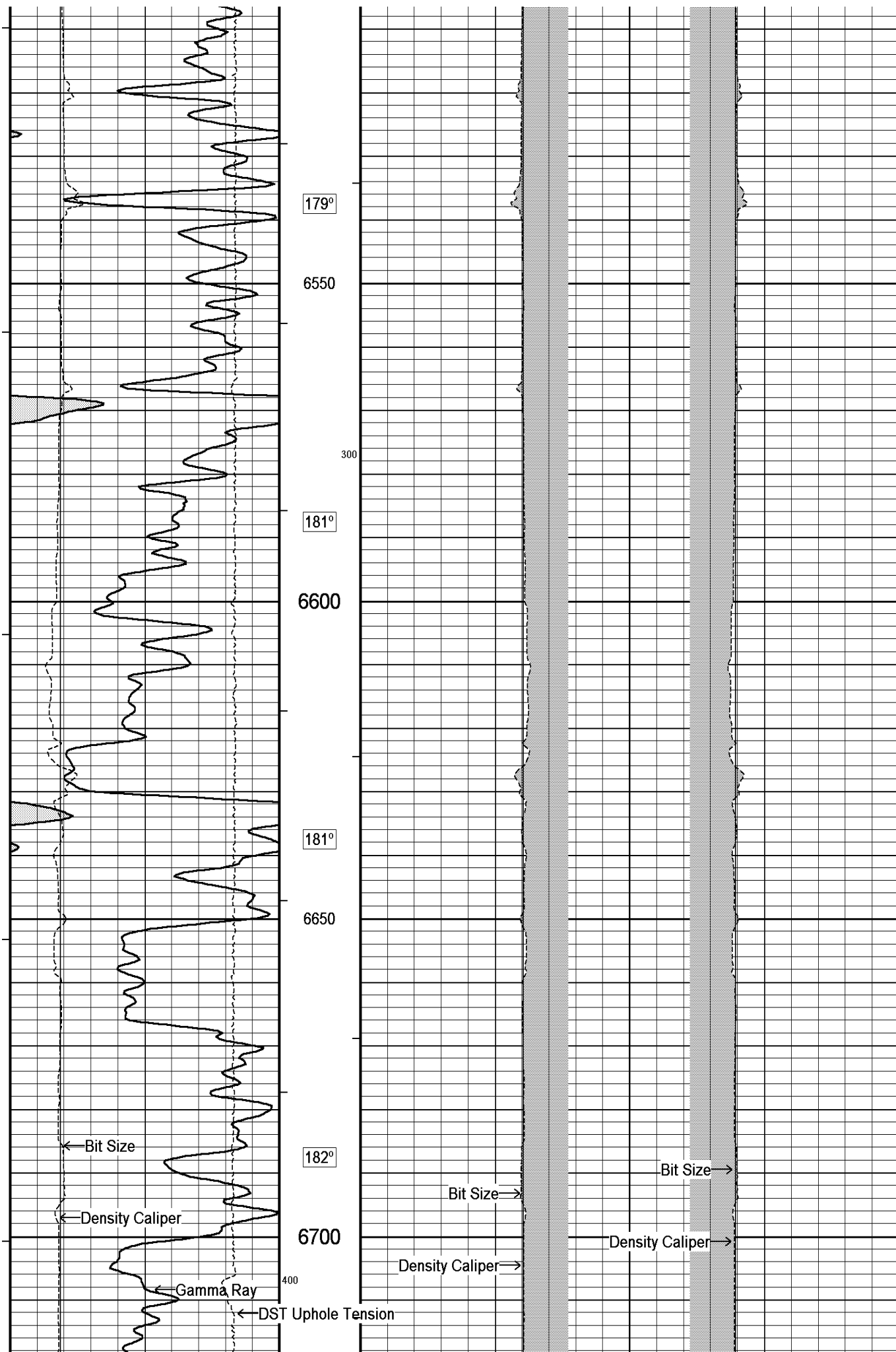
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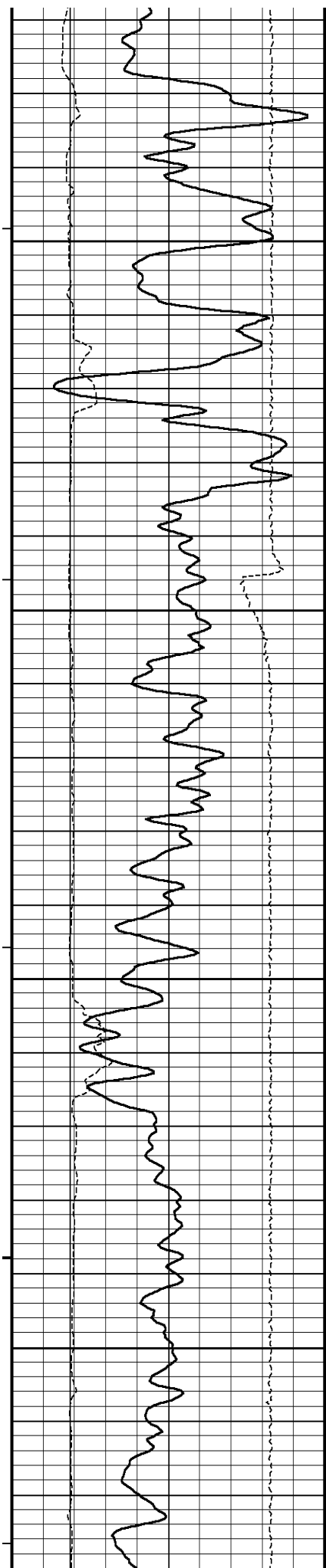












183°

6750

184°

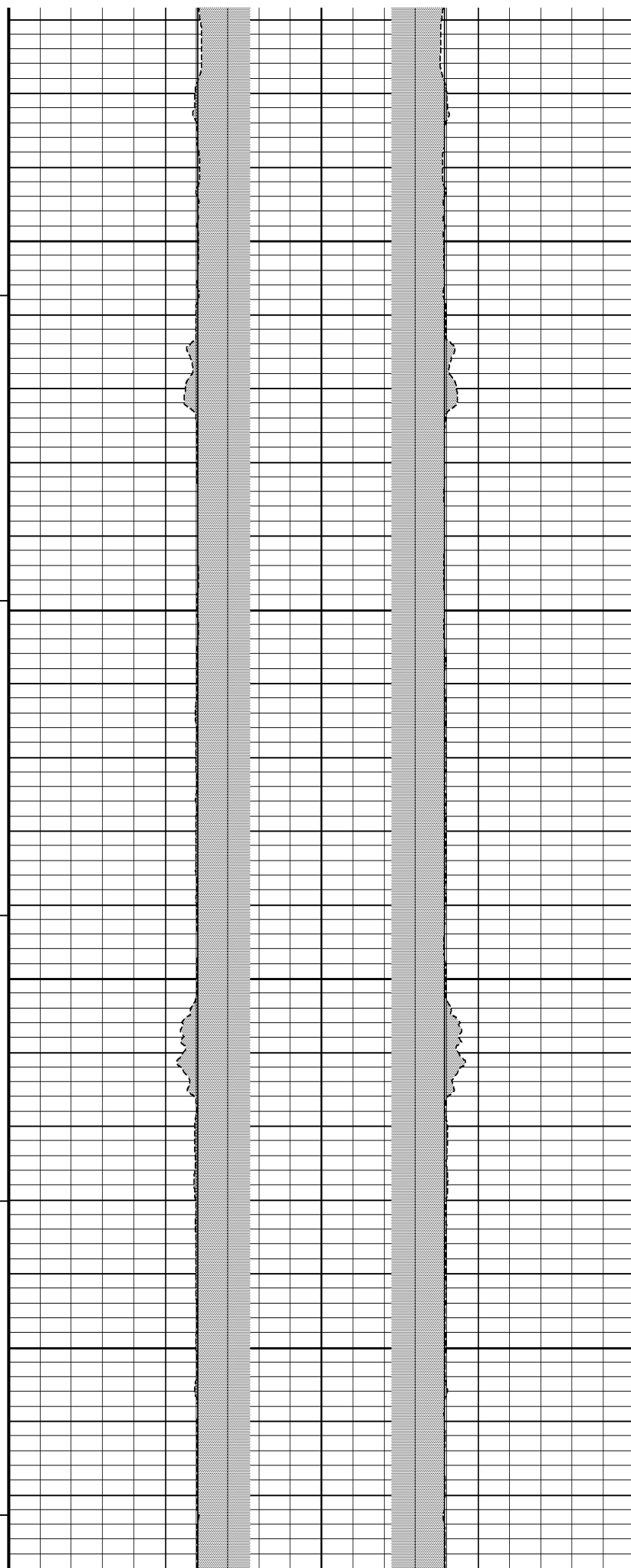
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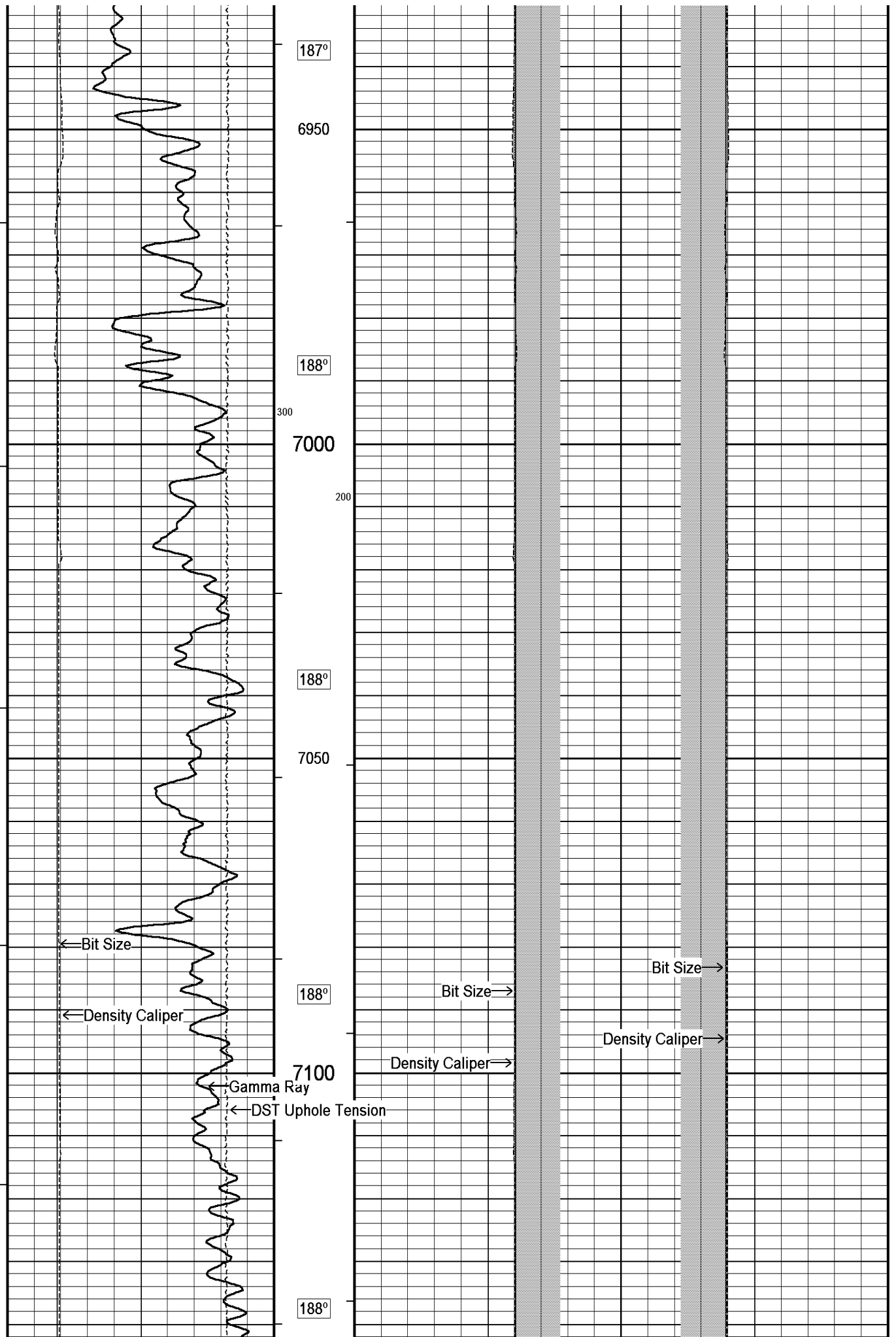
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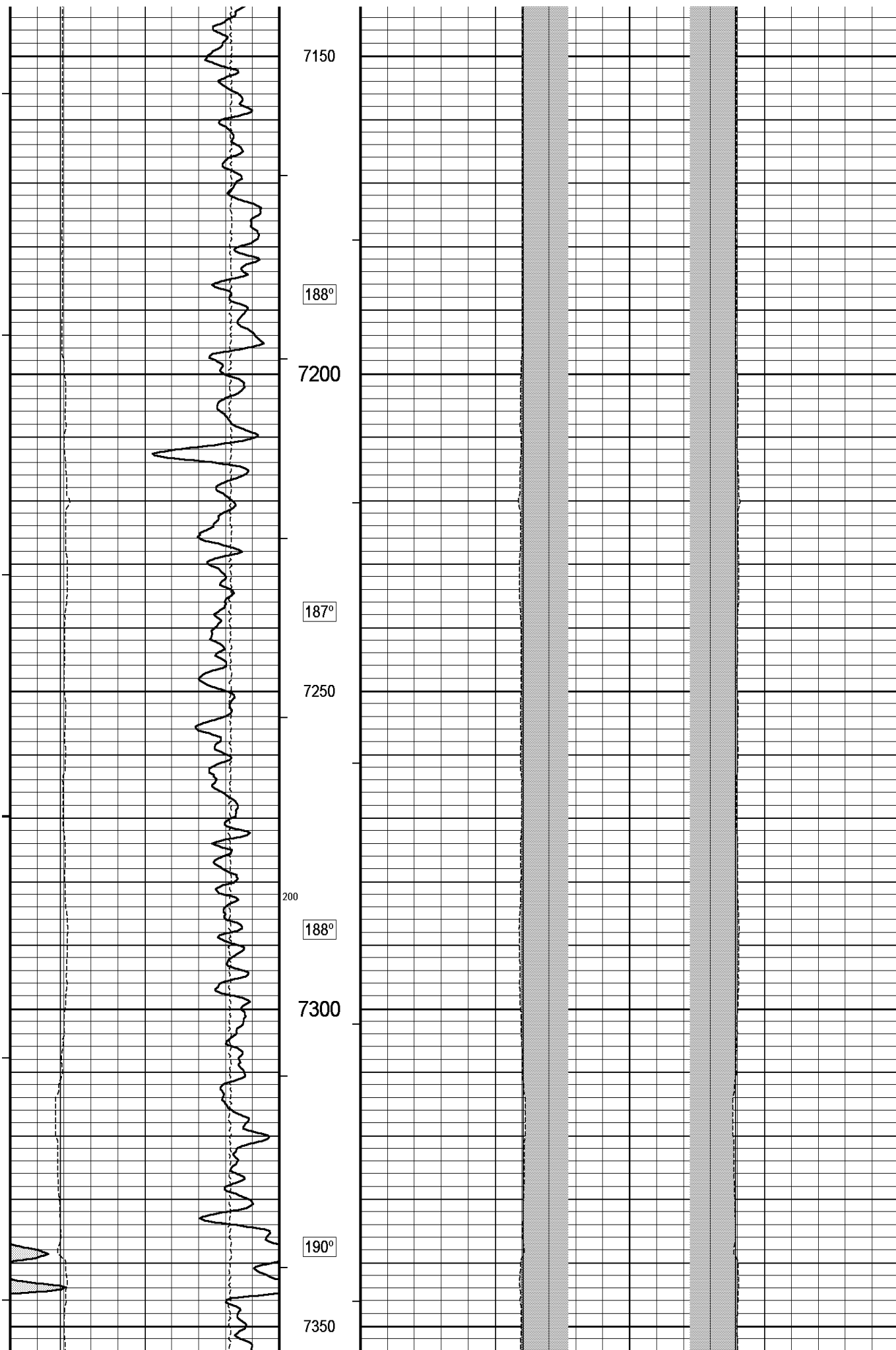
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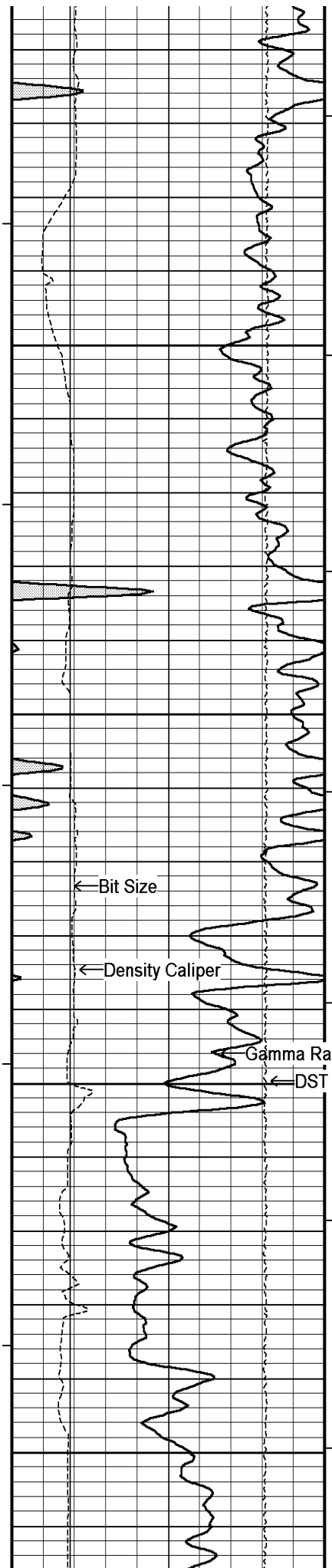
187°

6900









192°

7400

194°

7450

← Bit Size

← Density Caliper

Gamma Ray

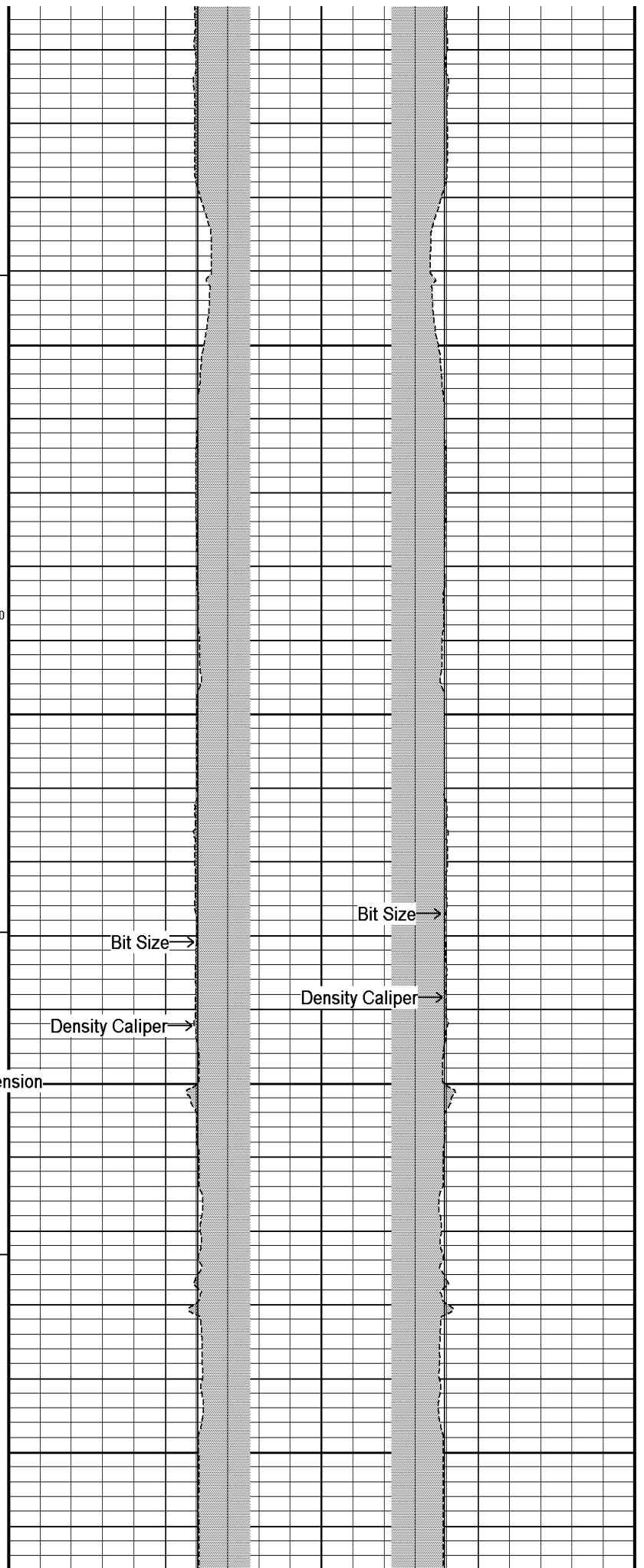
← DST U7500 tension

196°

Density Caliper →

198°

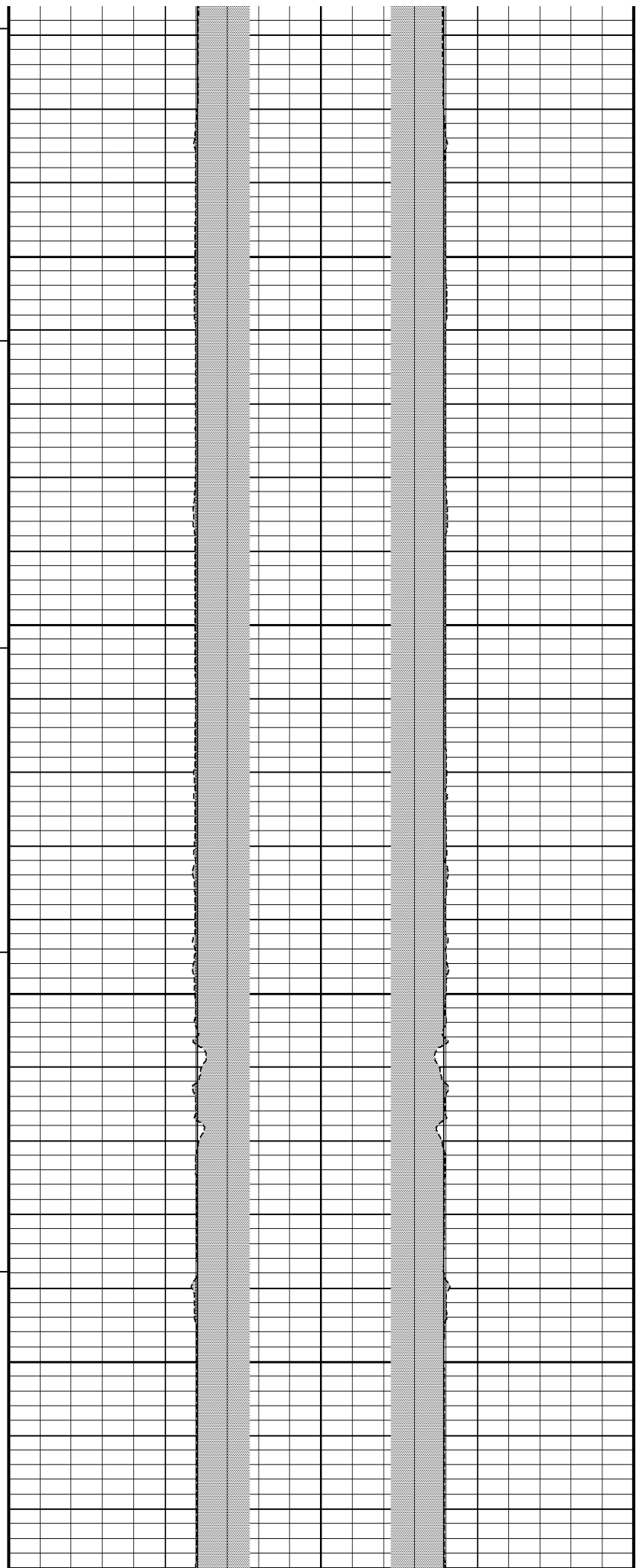
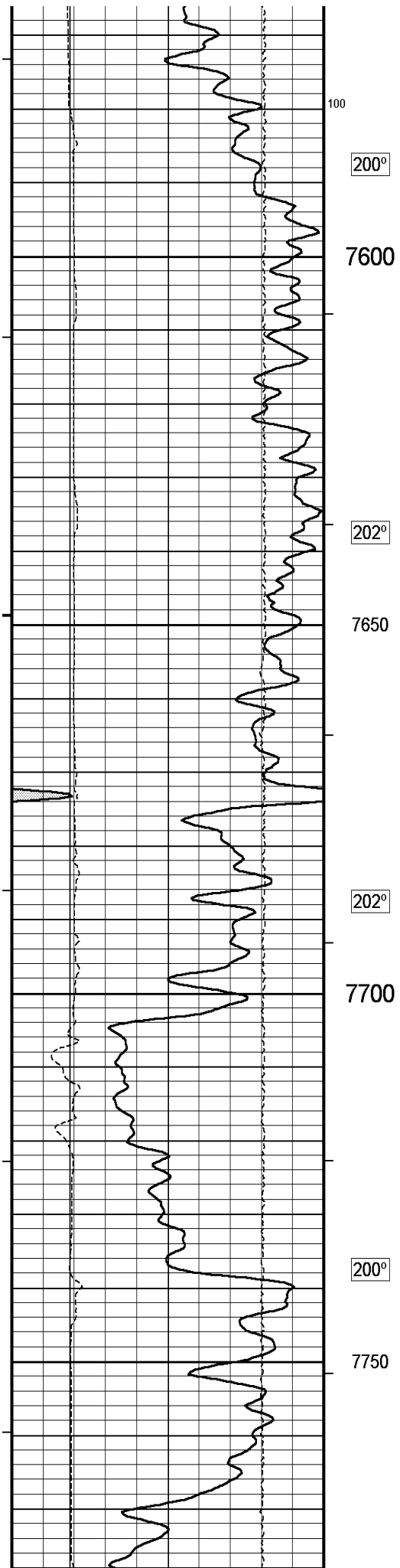
7550

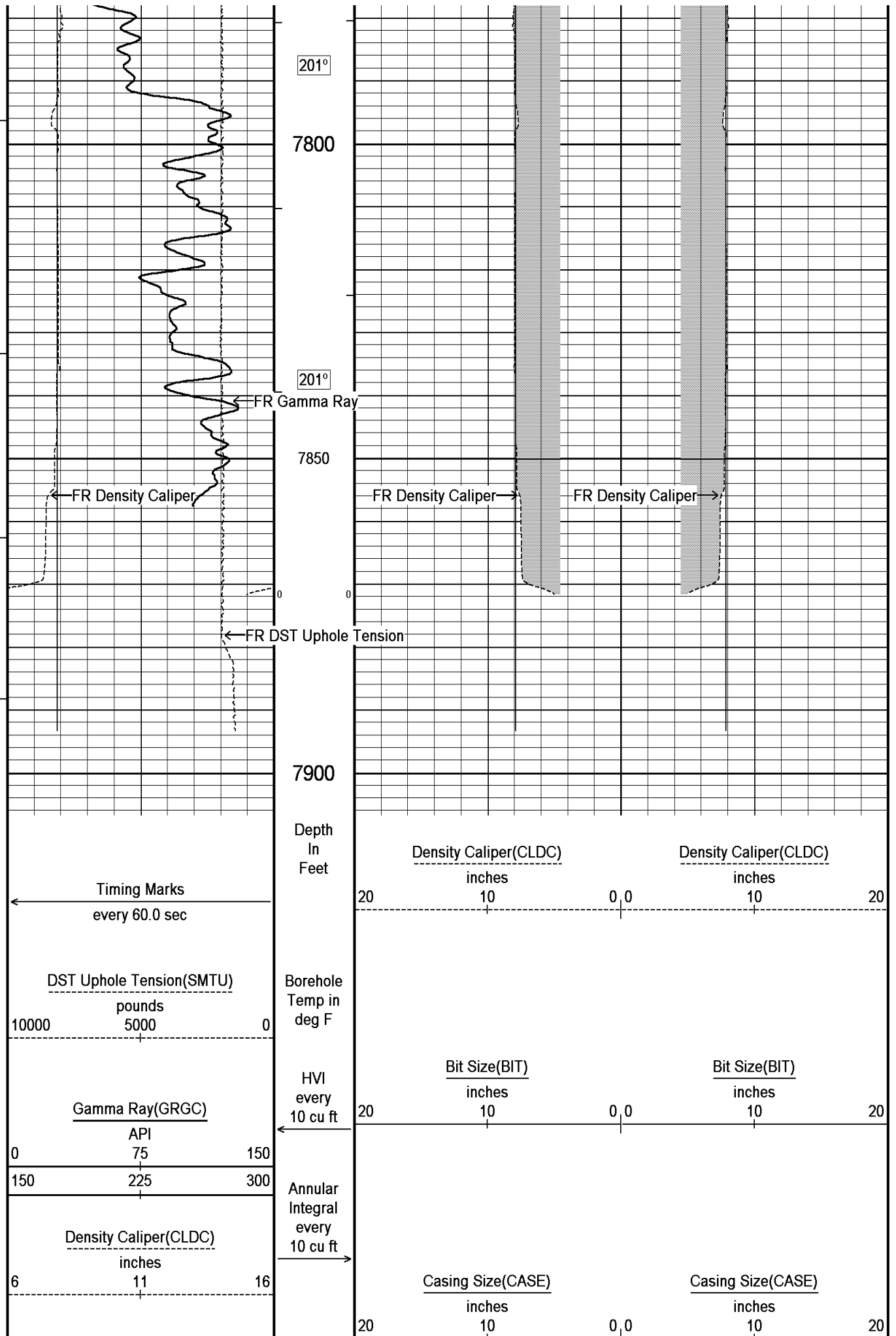


Bit Size →

Density Caliper →

Bit Size →





<u>Bit Size(BIT)</u> inches 6 11 16		Replay Scale 1:240
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Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 20-NOV-2010 16:41
Filename: C:\Minimus\LOGS\Bill Barrett\GGU Miller 24D-32-691\MAIN.dta Recorded on 20-NOV-2010 12:48
System Versions: Logged with 10.07.0791 Plotted with 10.07.0791

↑ **5 INCH MAIN LOG** ↑

DOWNHOLE EQUIPMENT
C:\Minimus\LOGS\Bill Barrett\GGU Miller 24D-32-691\MAIN.dta

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		37.05 ft GRGC - Gamma Ray 34.14 ft CGXT - MCG External Temperature
Compact Neutron MDN 112 Length: 5.04 ft Weight: 50.7 lb		30.59 ft NPRS - Sandstone Neutron Por.
Compact Density/Caliper MPD 220 Length: 9.59 ft Weight: 90.4 lb		22.12 ft AVOL - Annular Volume 22.12 ft HVOL - Hole Volume 22.12 ft CLDC - Density Caliper
SKJ-D.A Compact Knuckle Joint SKJ 154 Length: 2.17 ft Weight: 24.3 lb		21.42 ft DPOR - Base Density Porosity 21.42 ft DCOR - Density Correction 21.36 ft PDPE - PE
Compact Focussed Electric MFE 179 Length: 6.03 ft Weight: 48.5 lb		13.70 ft FEFC - Shallow FE (Phase Corr.)
Compact Induction MAI 106 Length: 10.81 ft Weight: 48.5 lb		3.34 ft R400 - Array Ind. One Res 40 3.34 ft R300 - Array Ind. One Res 30 3.34 ft RTAO - Array Ind. One Res R1 3.34 ft R850 - Array Ind. One Res 85 3.34 ft R600 - Array Ind. One Res 60
Total Length: 46.21 ft Weight: 363.8 lb		Tool Zero (0.13ft from bottom) 0.23 ft SPCG - Spontaneous Potential -0.13 ft SMTU - DST Uphole Tension All measurements relative to tool zero.

COMPANY	BILL BARRETT CORPORATION
WELL	GGU MILLER 24D-32-691
FIELD	GIBSON GULCH
PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	6142.00	feet	First Reading	7856.00	
Elevation Drill Floor	6141.00	feet	Depth Driller	7875.00	feet
Elevation Ground Level	6120.00	feet	Depth Logger	7878.00	feet

HOLE VOLUME
GAUGER

Weatherford®

CALIPER

LOG