Weatherford®

CALIPER LOG

COMPANY	O'BRIEN RESOURCES, LLC
WELL	BOOMHOWER 36 #3
FIELD	BOOMHOWER
PROVINCE/COUNTY	LANE
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	1309' FSL & 2300' FEL NE NW SW SE

SEC	TWP	RGE	Other Services
36	17S	29W	

API Number 15-101-22464
Permit Number

Permanent Datum G.L, Elevation 2774 feet
Log Measured From KB
Drilling Measured From K.B. @ 10 FEET

Elevations:	feet
KB	2784.00
DF	2782.00
GL	2774.00

Date	25-OCT-2013			
Run Number	ONE			
Service Order	3539911			
Depth Driller	4685.00	feet		
Depth Logger	4683.00	feet		
First Reading	4664.00	feet		
Last Reading	3300.00	feet		
Casing Driller	275.00	feet		
Casing Logger	276.00	feet		
Bit Size	7.875	inches		
Hole Fluid Type	CHEMICAL			
Density / Viscosity	9.30 lb/USg	44.00 CP		
PH / Fluid Loss	11.00	5.60 ml/30Min		
Sample Source	FLOWLINE			
Rm @ Measured Temp	1.02 @ 78.0	ohm-m		
Rmf @ Measured Temp	0.82 @ 78.0	ohm-m		
Rmc @ Measured Temp	1.22 @ 78.0	ohm-m		
Source Rmf / Rmc	CALC	CALC		
Rm @ BHT	0.69 @115.0	ohm-m		
Time Since Circulation	3 HOURS			
Max Recorded Temp	115.00	deg F		
Equipment / Base	13057	LIB		
Recorded By	ROB HOFFMAN			
Witnessed By	KURT TALBOTT			
JOB #	LB13-305			

BOREHOLE RECORD

Last Edited: 25-OCT-2013 06:19

Bit Size inches	Depth From feet	Depth To feet
7.875	275.00	4685.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	275.00	24.00

REMARKS

- SOFTWARE ISSUE: 13.05.9583
- MCG, MML, MDN, MPD, MFE, MAI RAN IN COMBINATION
- HARDWARE: DUAL BOWSPRING USED ON MDN
  0.5 INCH STANDOFF USED ON MFE_MAI
- 2.71 G/CC LIMESTONE DENSTIY MATRIX USED TO CALCULATE POROSITY
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL EFFECT DATA QUALITY
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMRES REQUEST
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 1732 CU.FT.
- ANNULAR HOLE VOLUME WITH 4.5 INCH PRODUCTION CASING FROM TD TO 3300 FEET: 339 CU.FT.
- RIG: VAL DRILLING RIG #2

- ENGINEER: ROB HOFFMAN, JOHN LAPOINT

- OPERATOR: CARLOS RAMIREZ

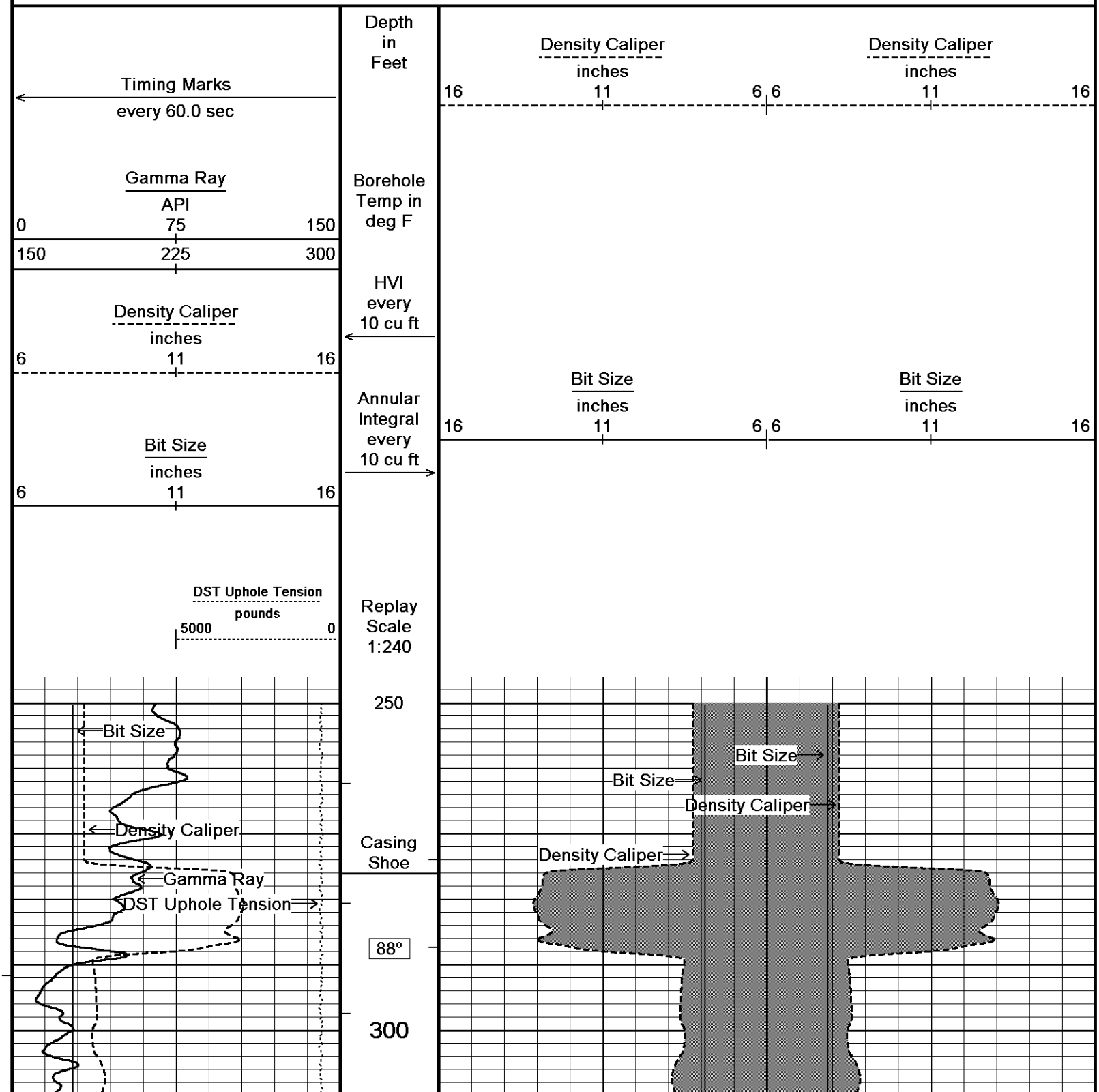
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

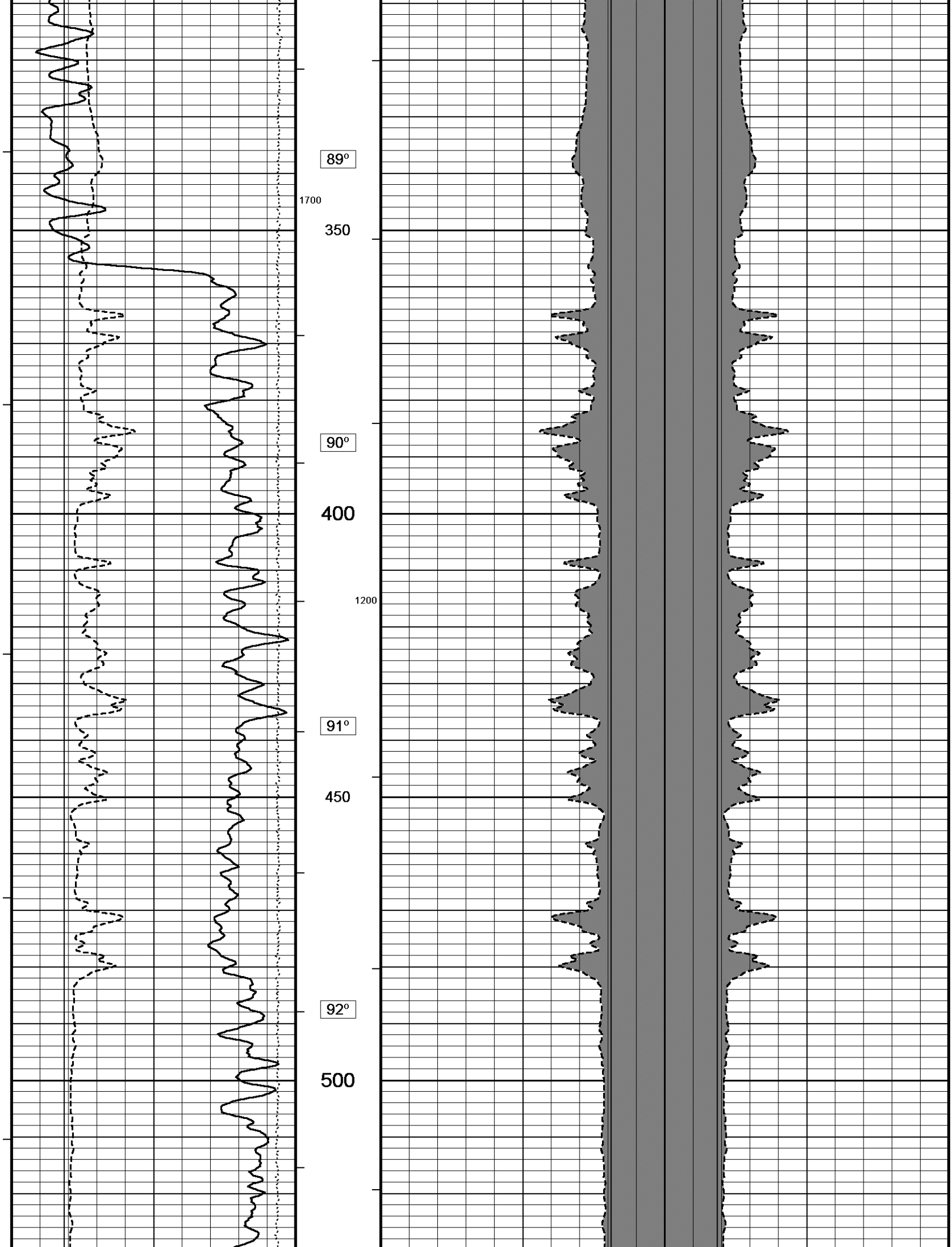
5 INCH MAIN

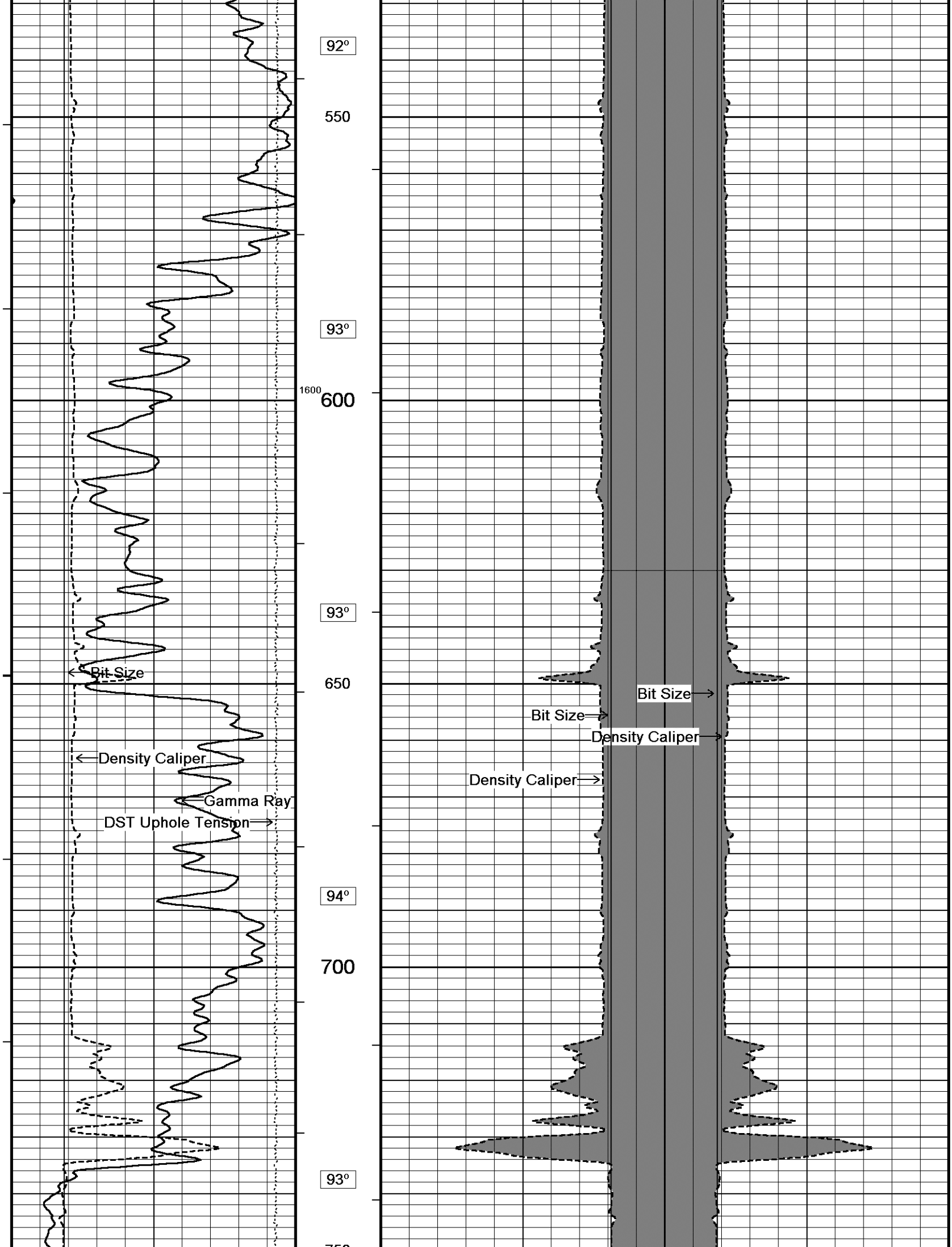
Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 25-OCT-2013 14:52

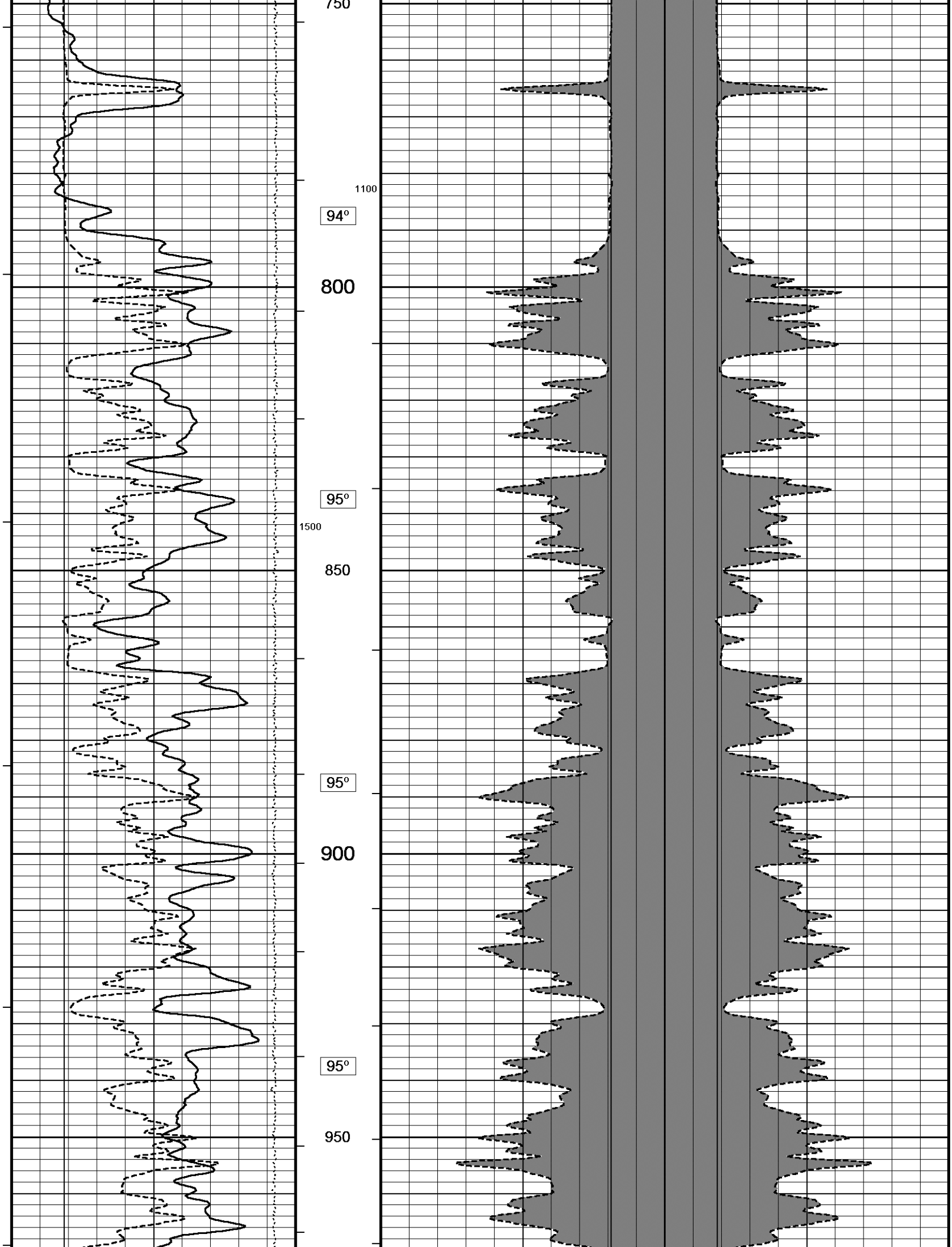
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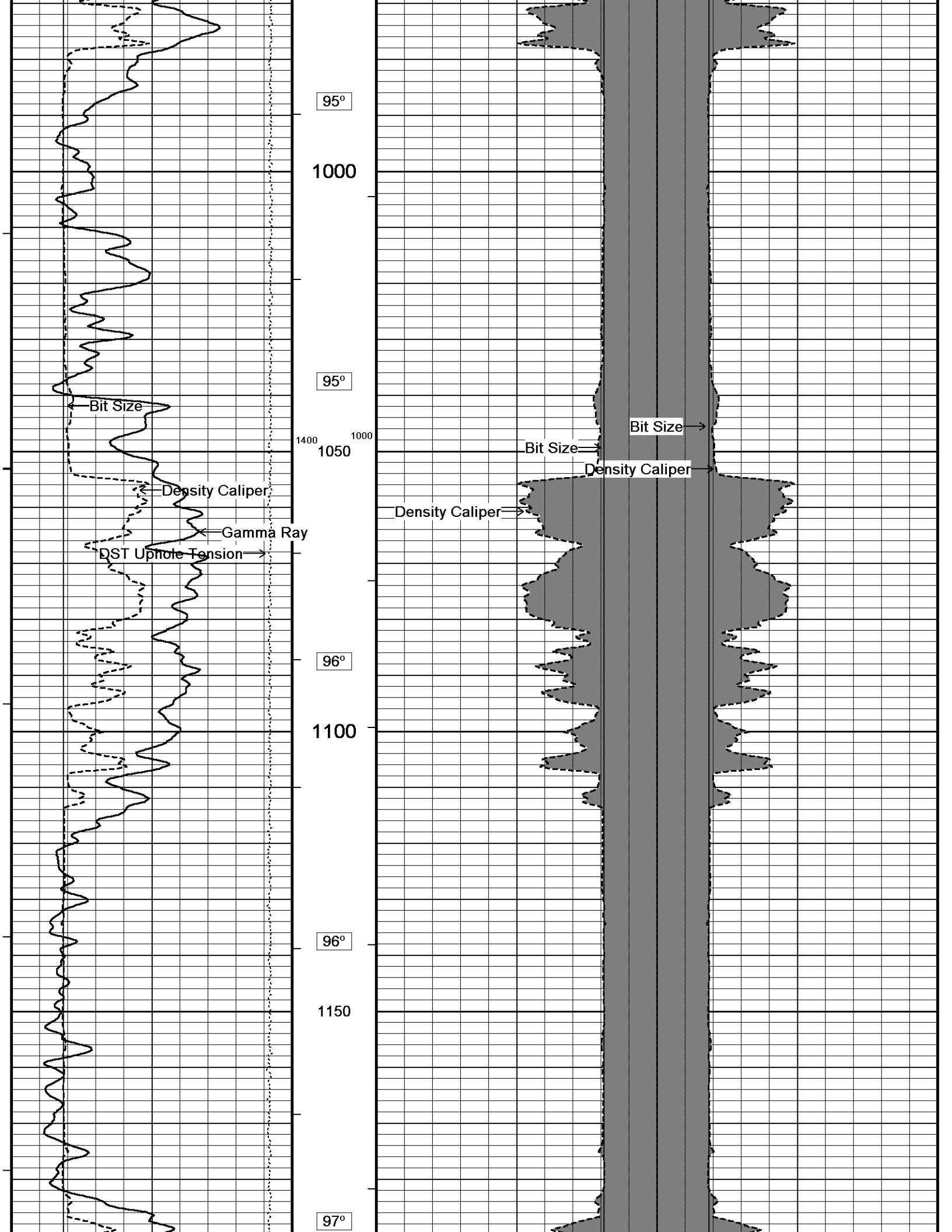
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

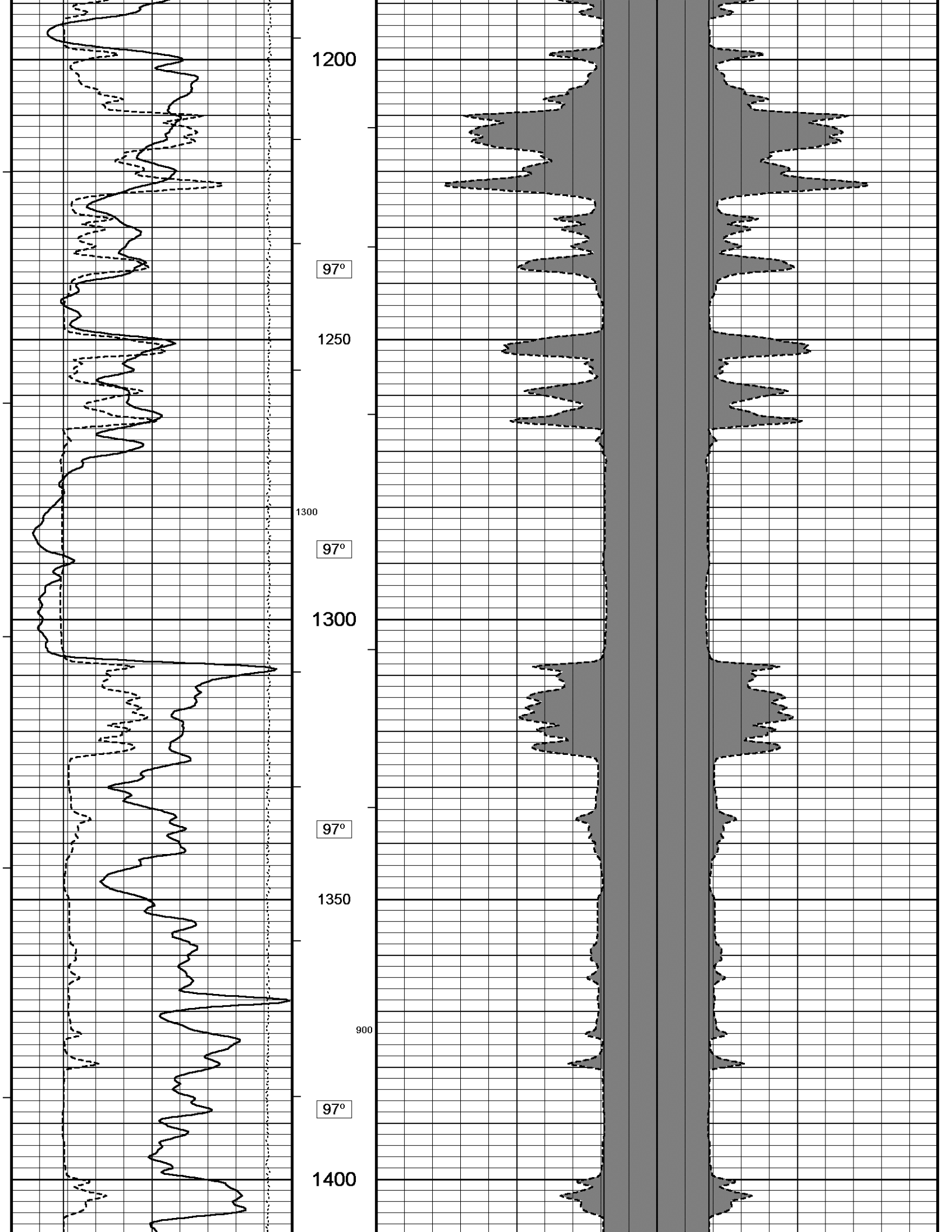


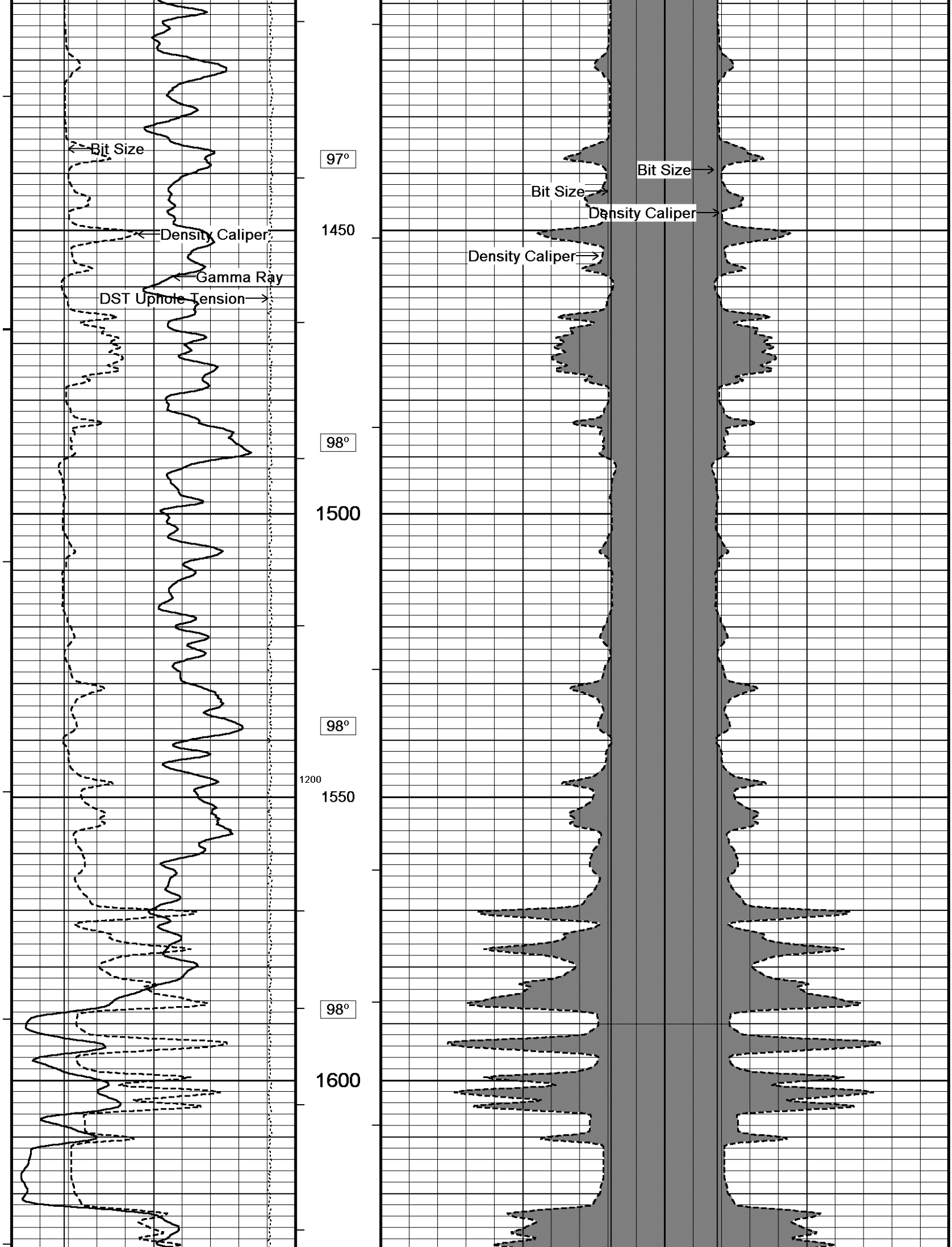

89°
1700
350
90°
400
1200
91°
450
92°
500

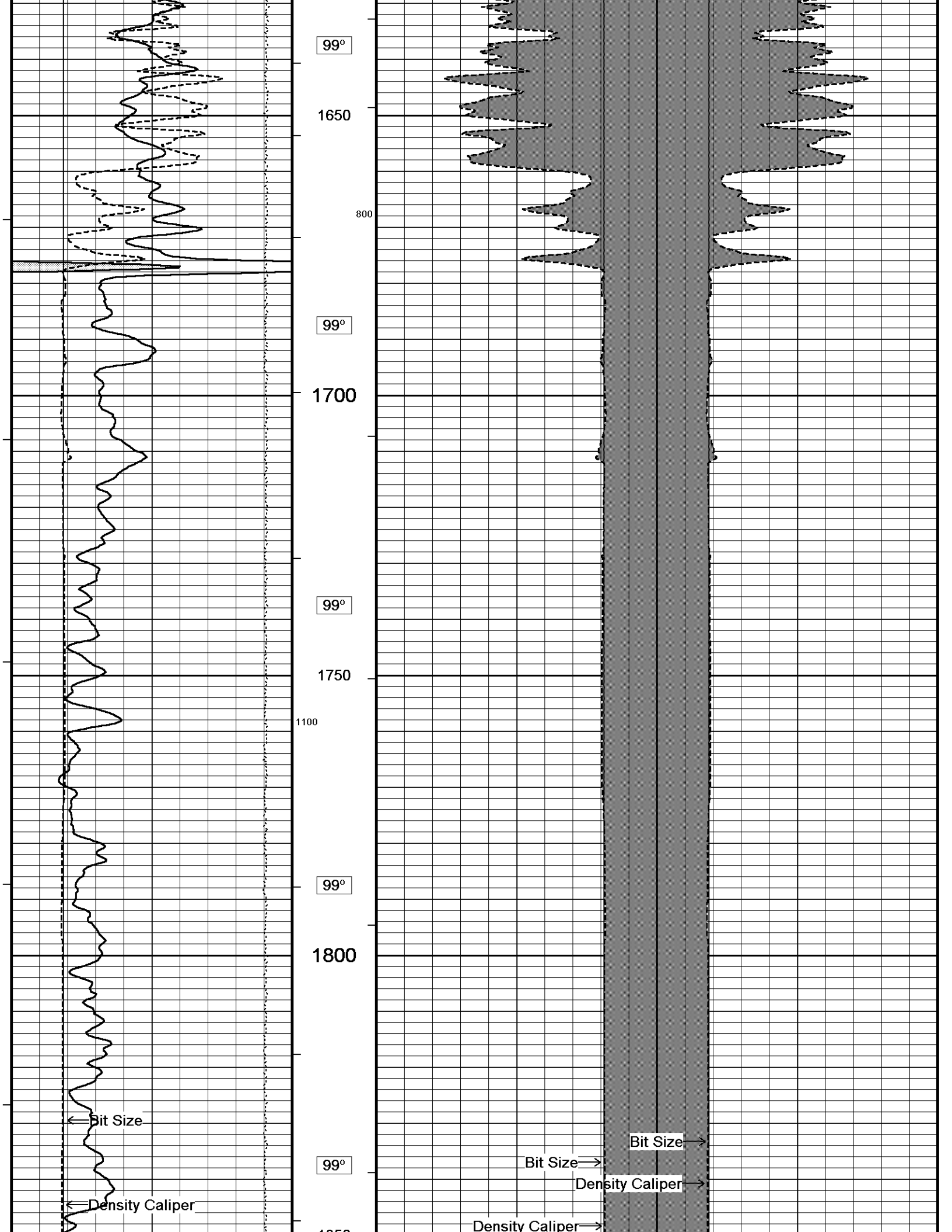

92°
550
93°
1600
600
93°
Bit Size
650
Density Caliper
Gamma Ray
DST Uphole Tension
94°
700
93°
Bit Size
Bit Size
Density Caliper
Density Caliper

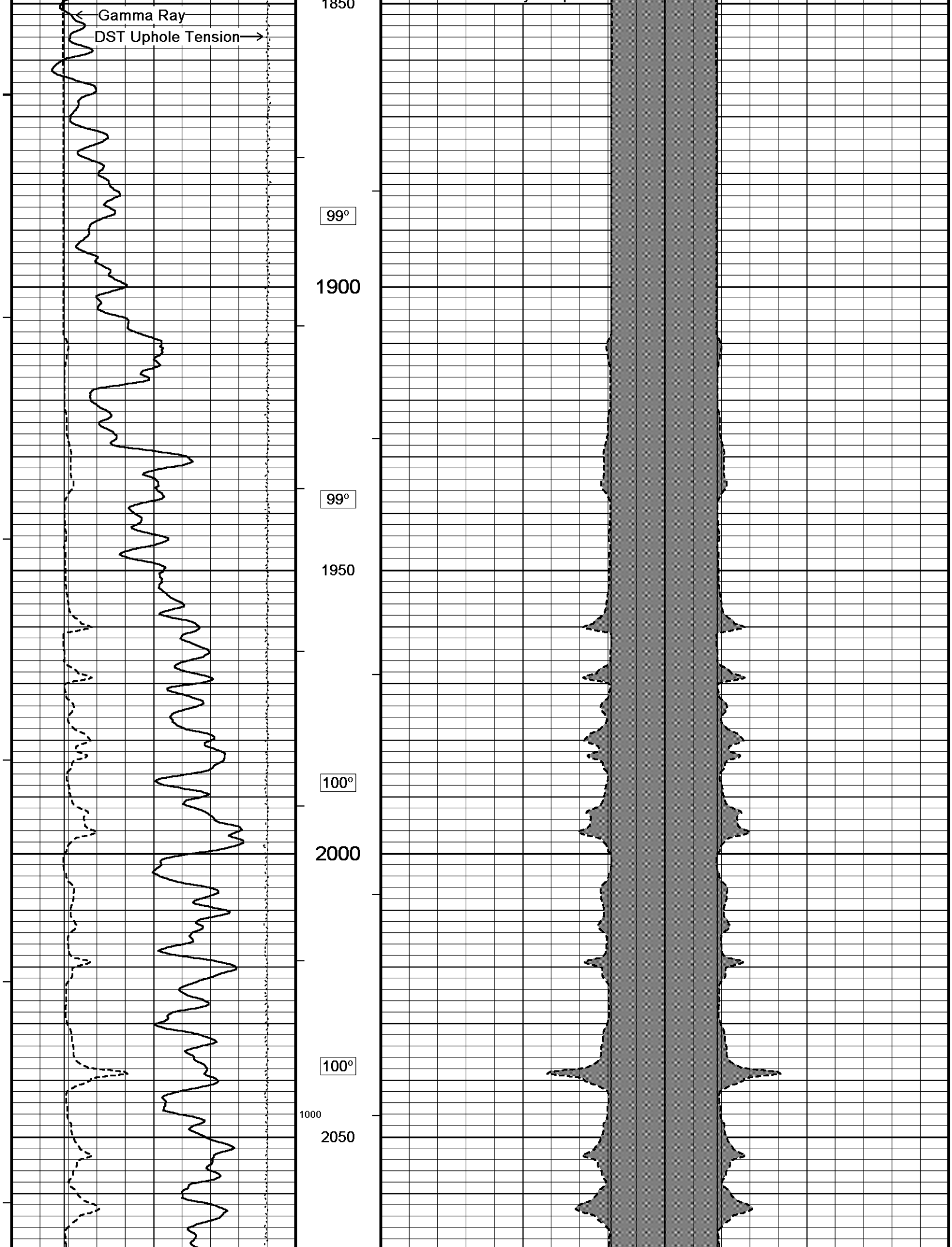

750
1100
94°
800
95°
1500
850
95°
900
95°
950

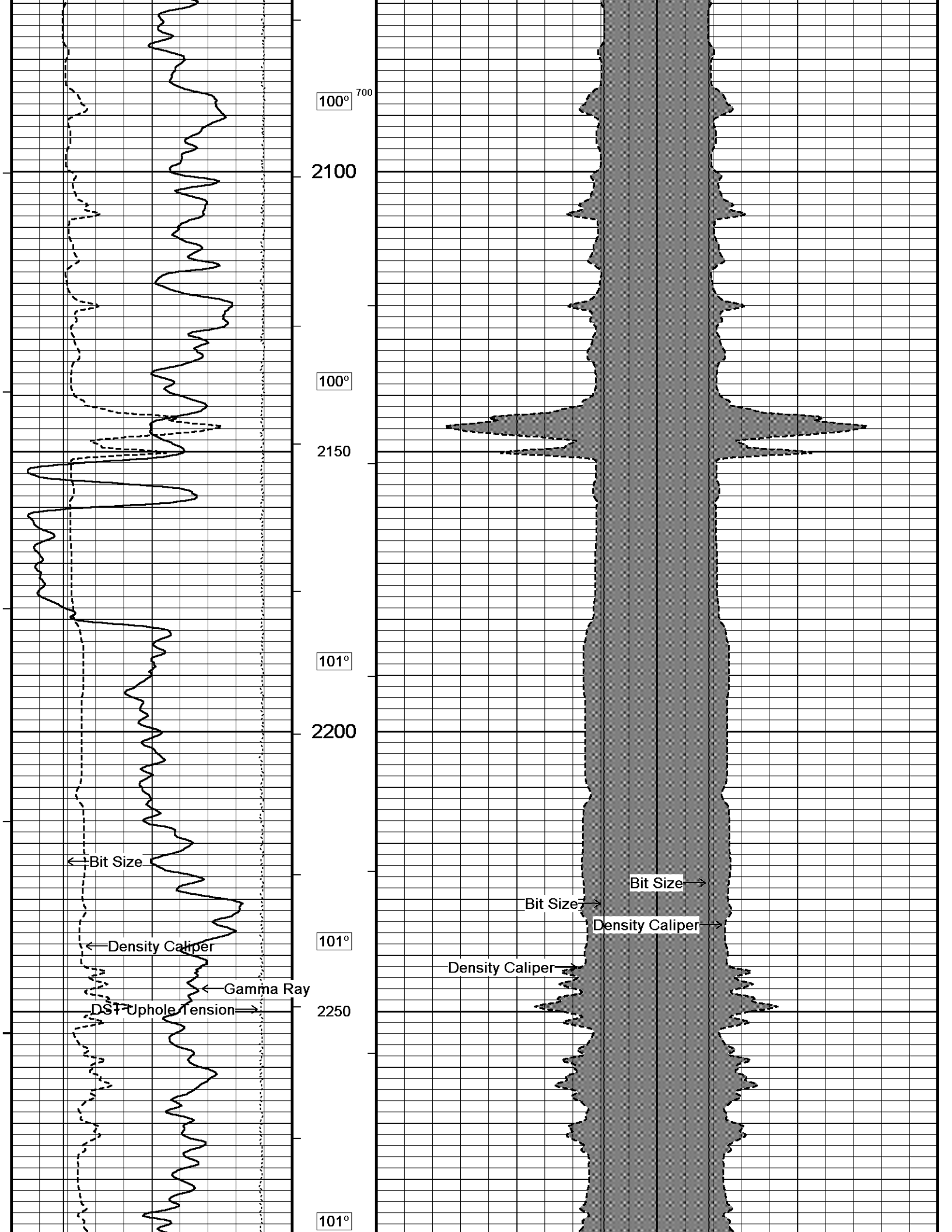

95°
1000
95°
Bit Size
1400
1050
1000
Bit Size
Bit Size
Density Caliper
Density Caliper
Density Caliper
Gamma Ray
DST Uphole Tension
96°
1100
96°
1150
97°

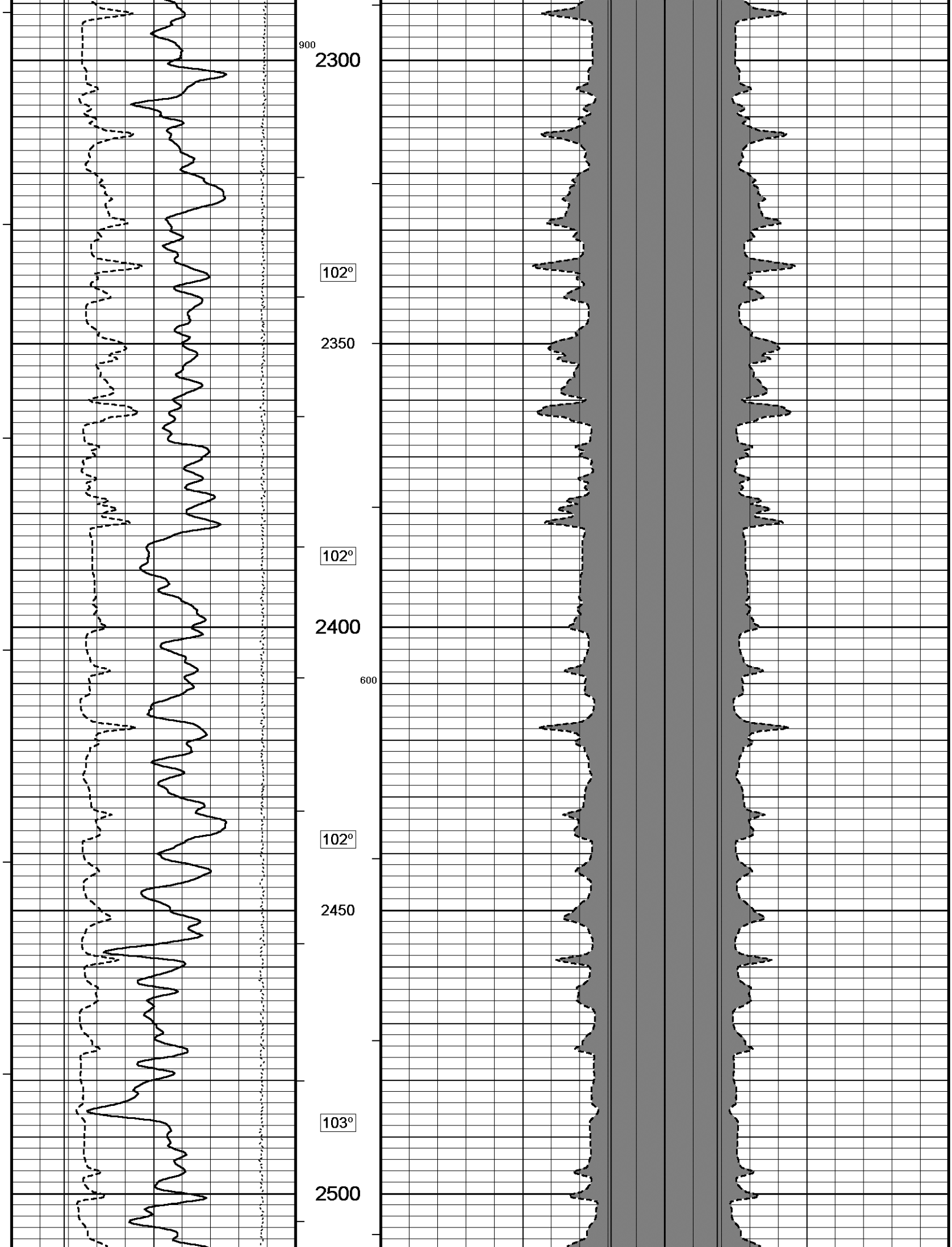

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1250
1300
97°
1300
97°
1350
900
97°
1400

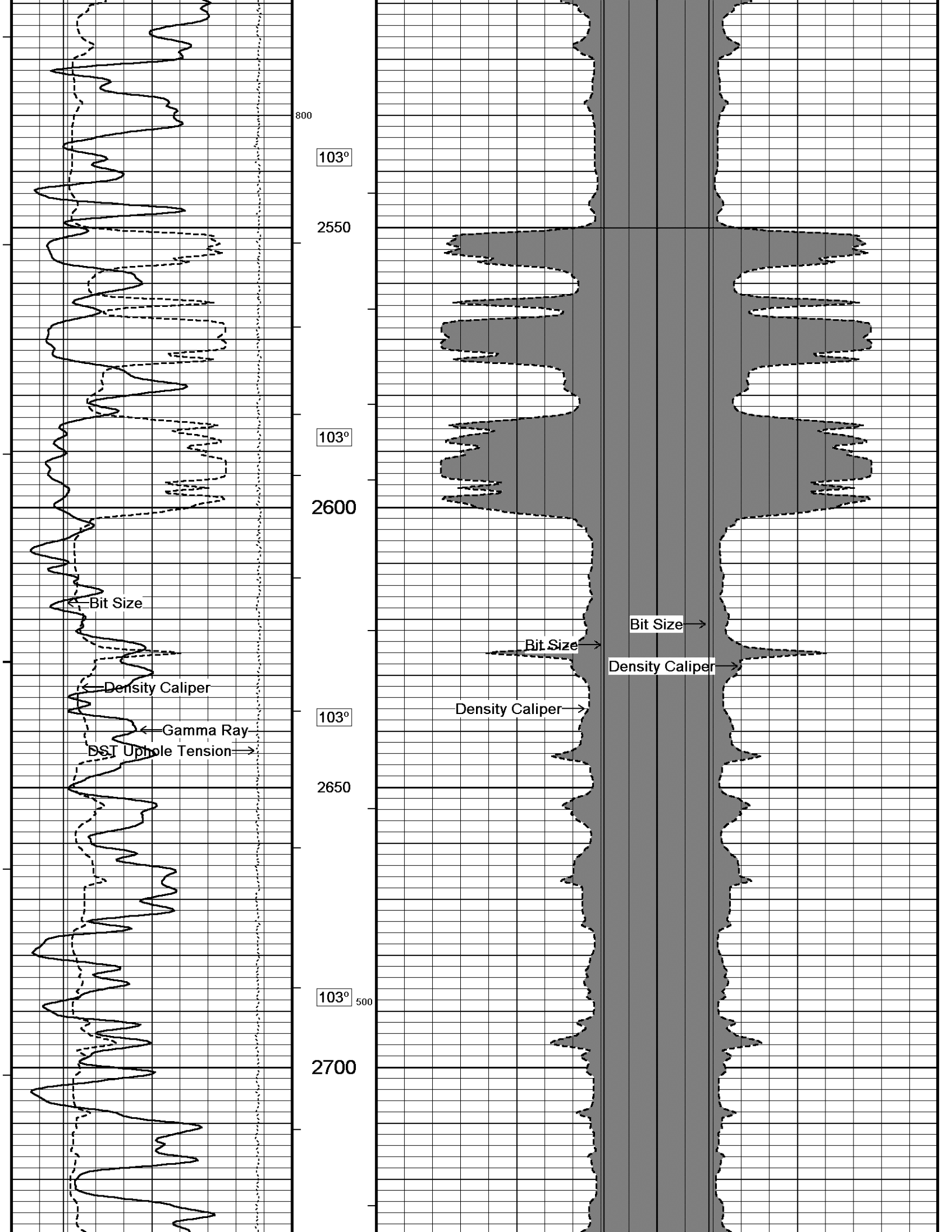

Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
97°
1450
98°
1500
98°
1200
1550
98°
1600
Bit Size
Bit Size
Density Caliper
Density Caliper

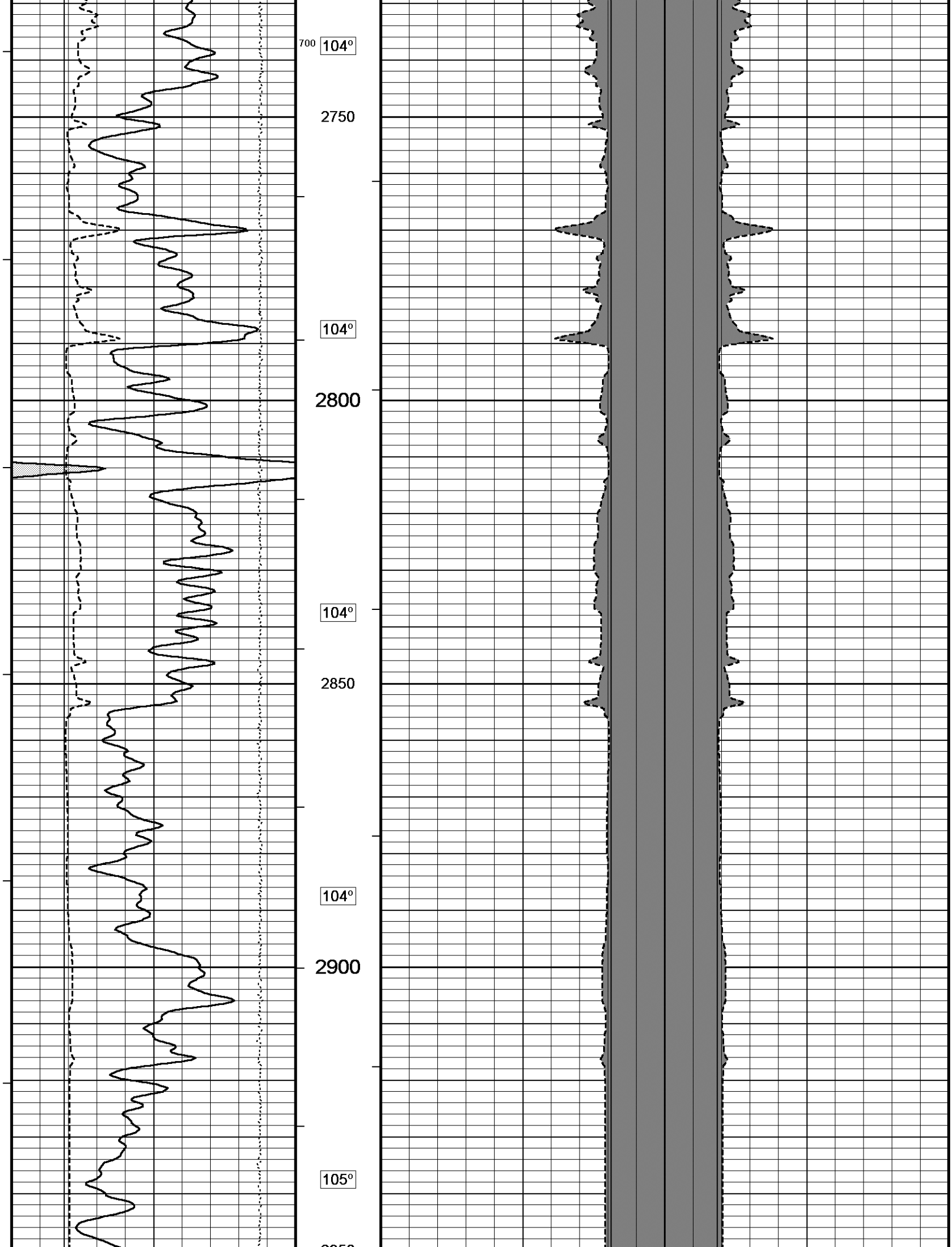

99°
1650
800
99°
1700
99°
1750
1100
99°
1800
99°
Bit Size
Density Caliper
Bit Size
Bit Size
Density Caliper
Density Caliper

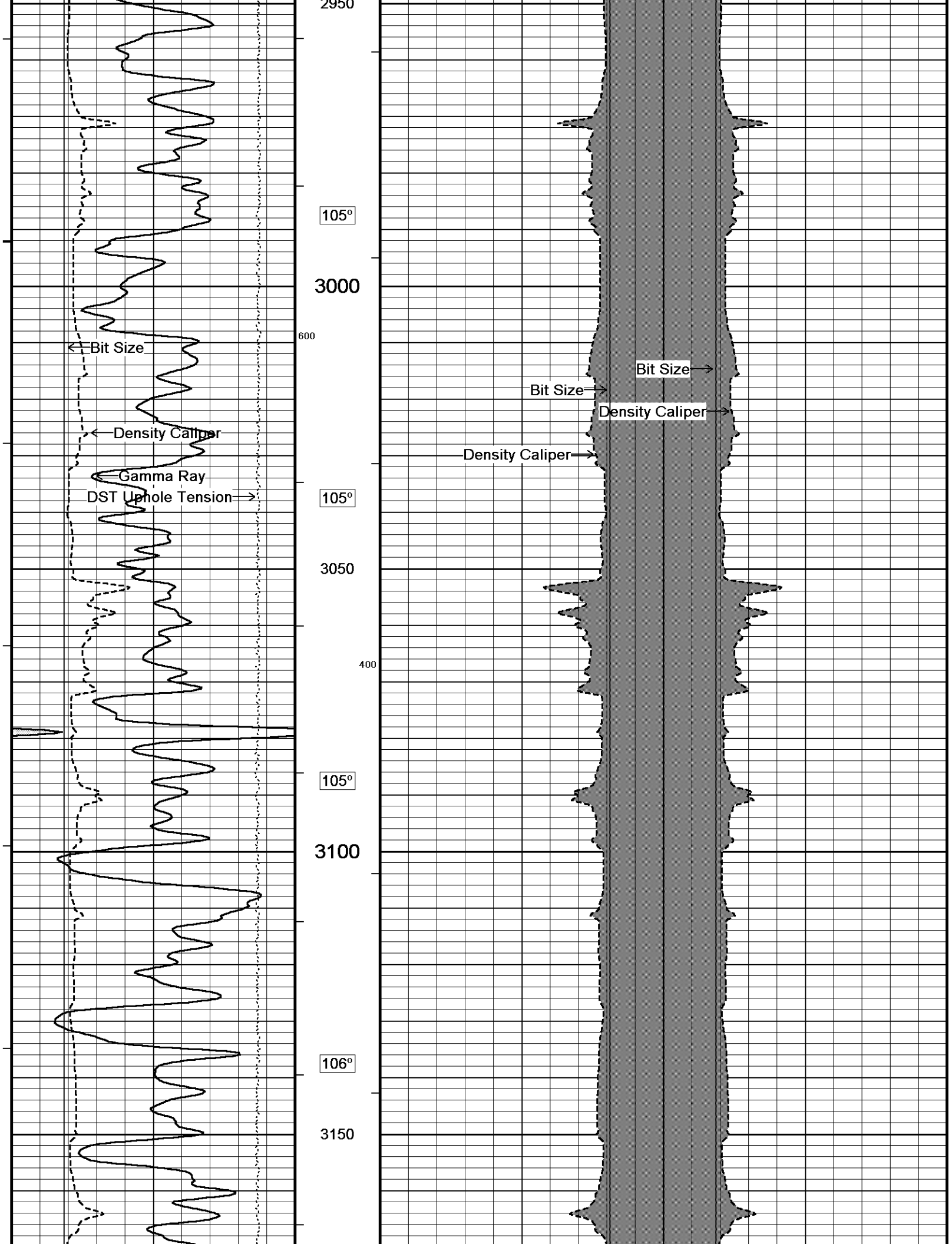

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DST Uphole Tension
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99°
1900
99°
1950
100°
2000
100°
1000
2050

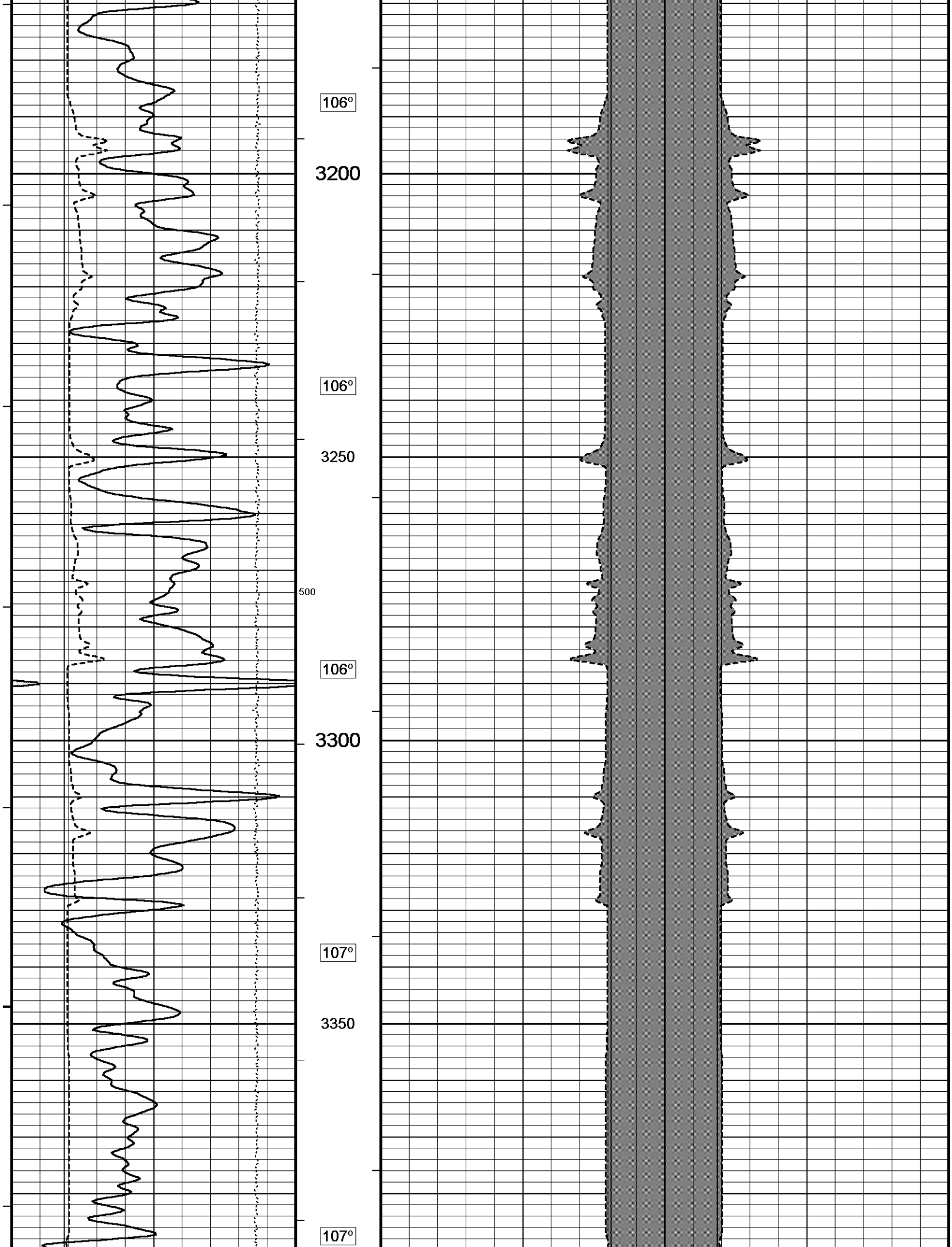

100°
700
2100
100°
2150
101°
2200
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
2250
101°
Bit Size
Bit Size
Density Caliper
Density Caliper
101°

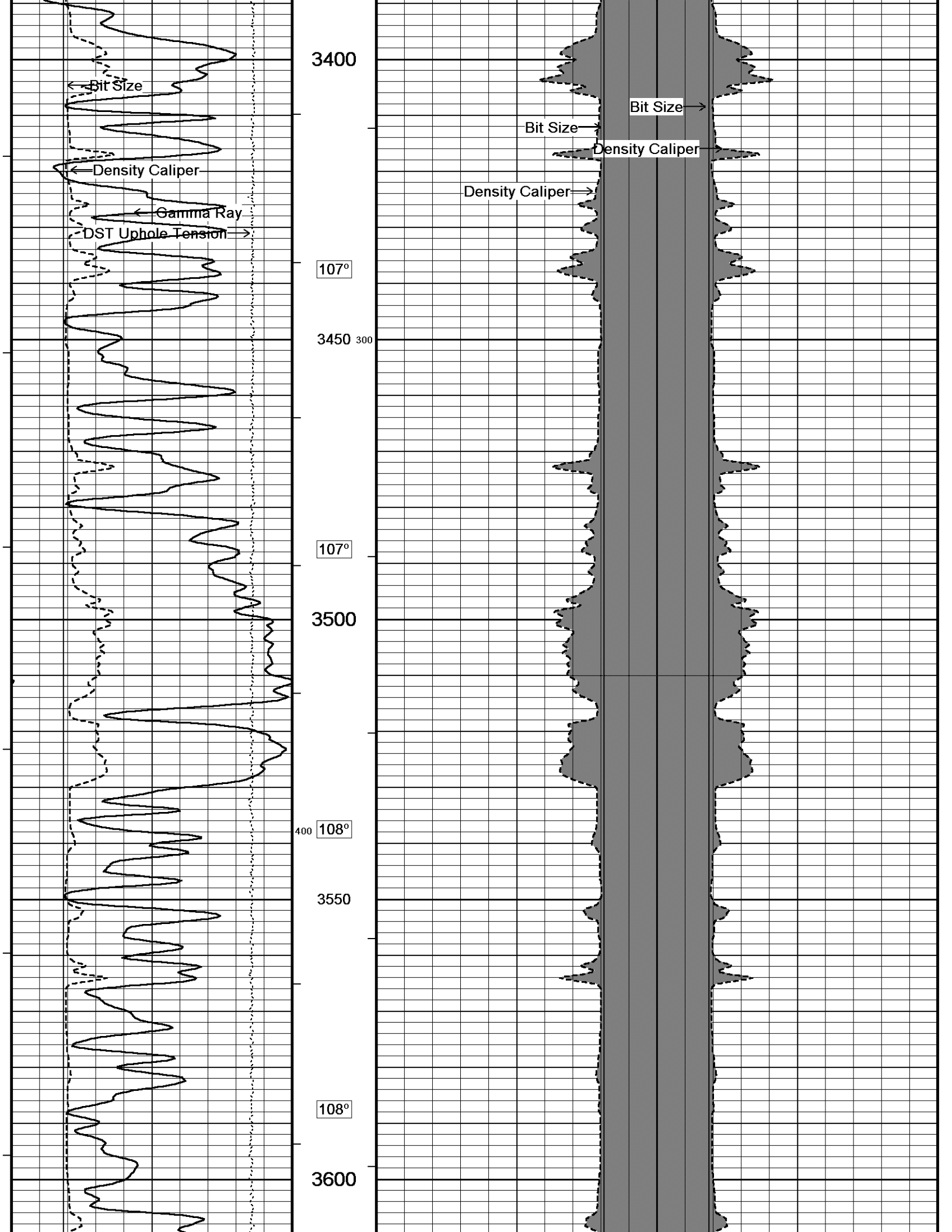

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2350
102°
2400
600
102°
2450
103°
2500

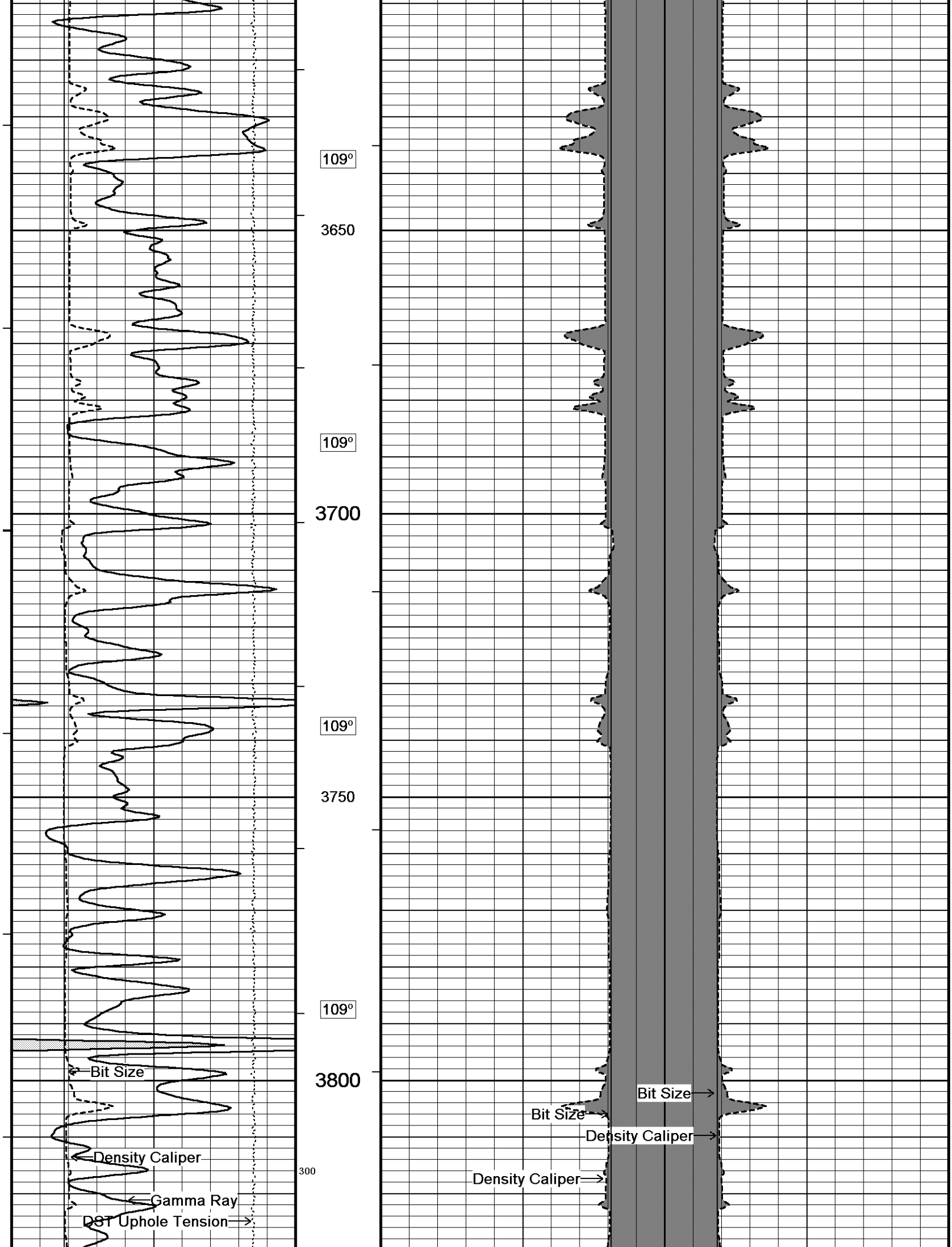

800
103°
2550
103°
2600
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
103°
2650
103°
500
2700
Bit Size
Bit Size
Density Caliper
Density Caliper

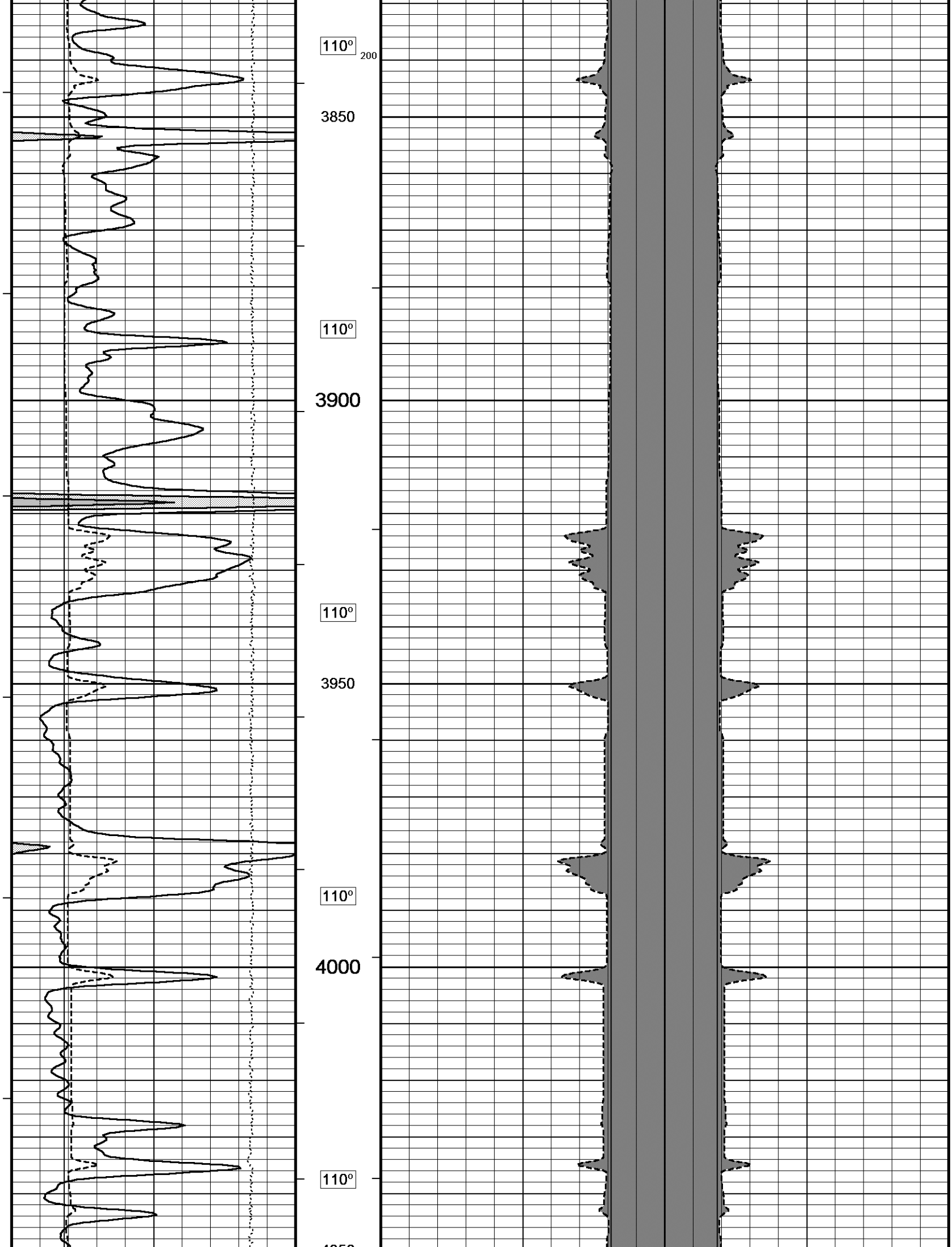

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2750
104°
2800
104°
2850
104°
2900
105°

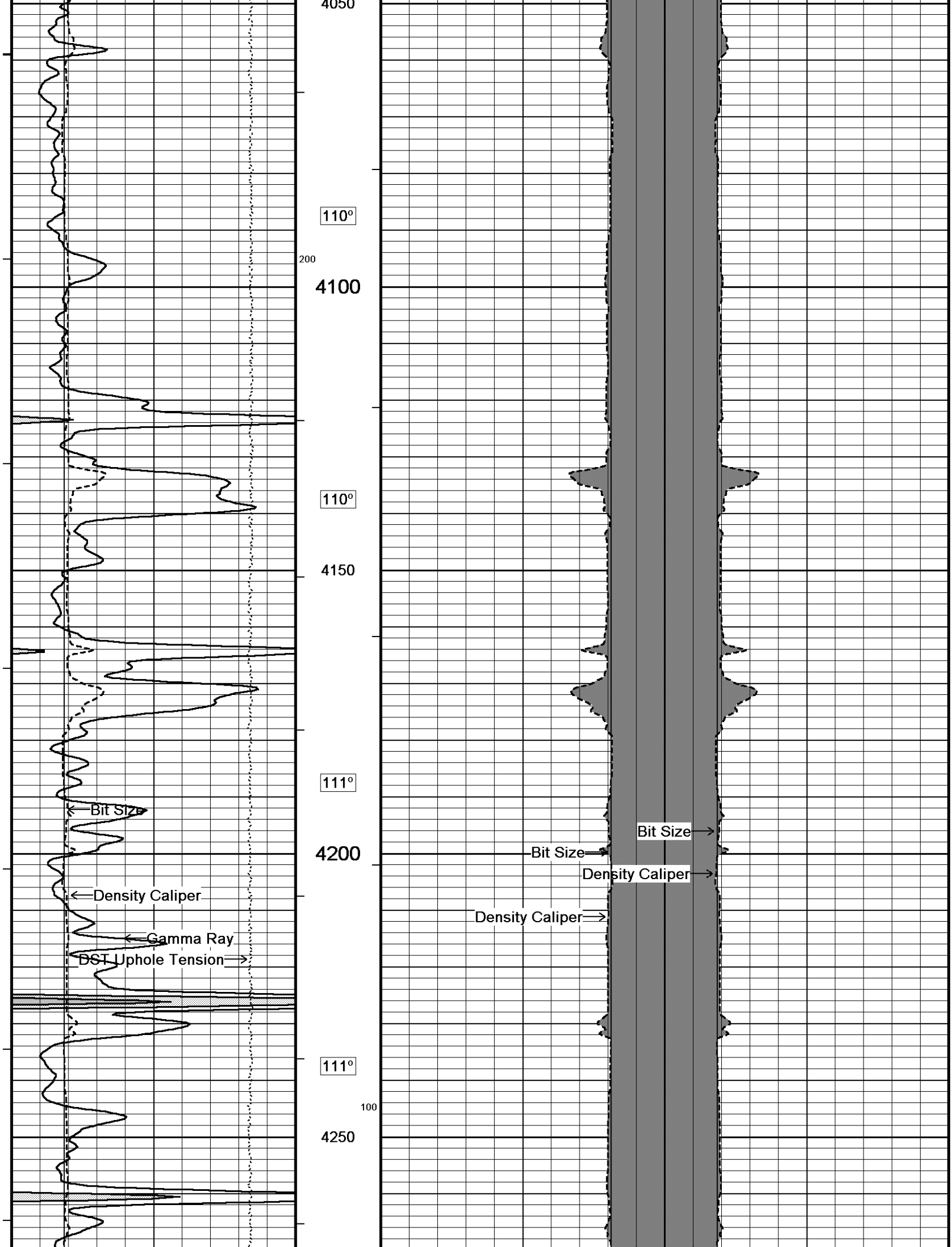

2950
105°
3000
600
Bit Size
Density Caliper
Gamma Ray
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105°
3050
400
105°
3100
106°
3150
Bit Size
Bit Size
Density Caliper
Density Caliper

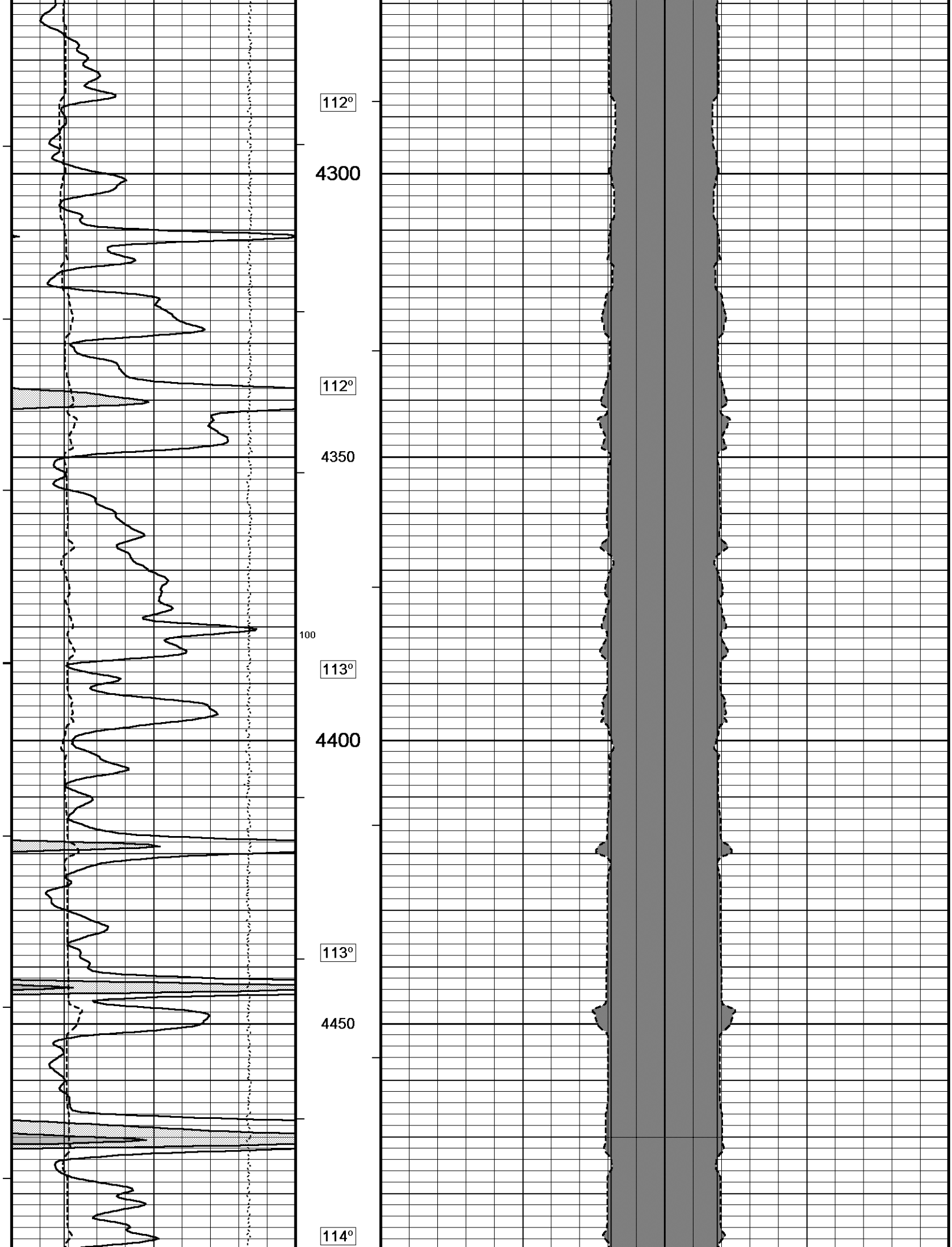

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106°
3250
500
106°
3300
107°
3350
107°

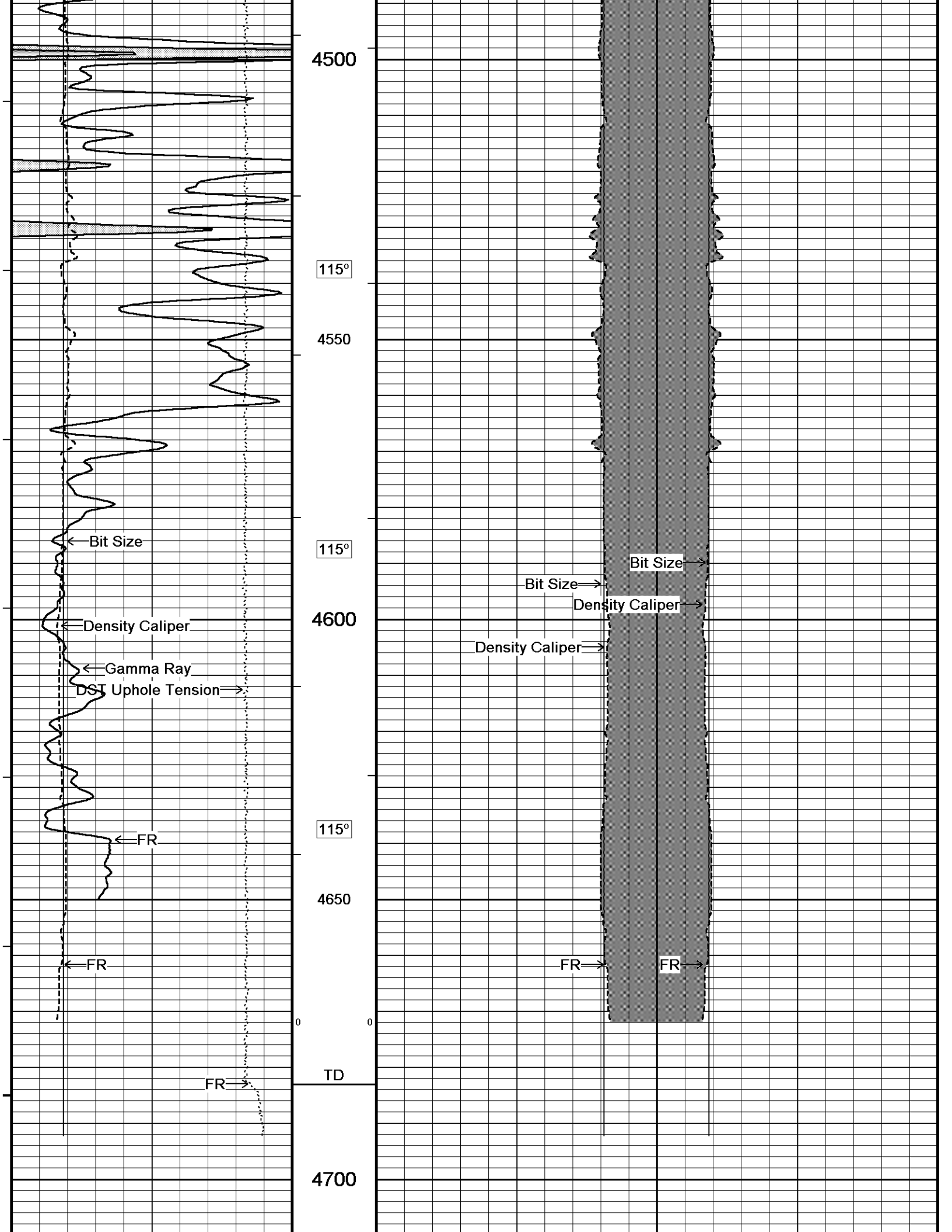

Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
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107°
3450
300
107°
3500
400
108°
3550
108°
3600
Bit Size
Bit Size
Density Caliper
Density Caliper

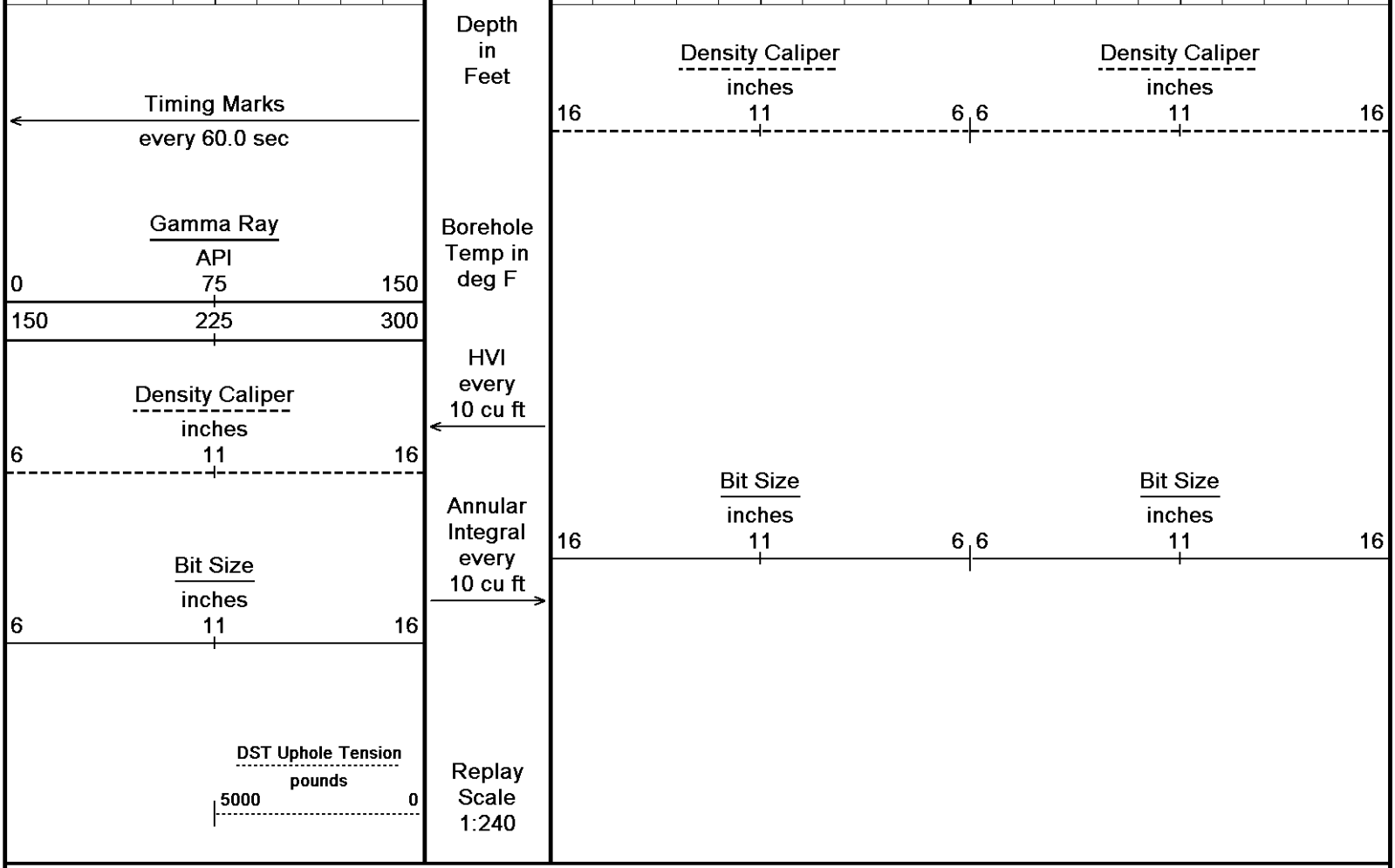

109°
3650
109°
3700
109°
3750
109°
3800
Bit Size
Density Caliper
300
Gamma Ray
DST Uphole Tension
Bit Size
Bit Size
Density Caliper
Density Caliper


110°
200
3850
110°
3900
110°
3950
110°
4000
110°


4050
110°
200
4100
110°
4150
111°
Bit Size
4200
Density Caliper
Gamma Ray
DST Uphole Tension
111°
100
4250
Bit Size
Bit Size
Density Caliper
Density Caliper


112°
4300
112°
4350
100
113°
4400
113°
4450
114°


4500
115°
4550
115°
4600
115°
4650
TD
4700
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
FR
FR
FR
Bit Size
Bit Size
Density Caliper
Density Caliper
FR
FR
0
0



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 25-OCT-2013 14:52

Filename: C:\Minimus 13.05.9583\Logs\O'Brien Resou...\O'Brien Resources Boomhower 36 #3_002.dta — Recorded on 25-OCT-2013 08:06

System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

5 INCH MAIN

DOWNHOLE EQUIPMENT

C:\Minimus 13.05.9583\Logs\O'Brien Resources Boomhower 36 #3\O'Brien Resources Boomhower 36 #3_001.dta

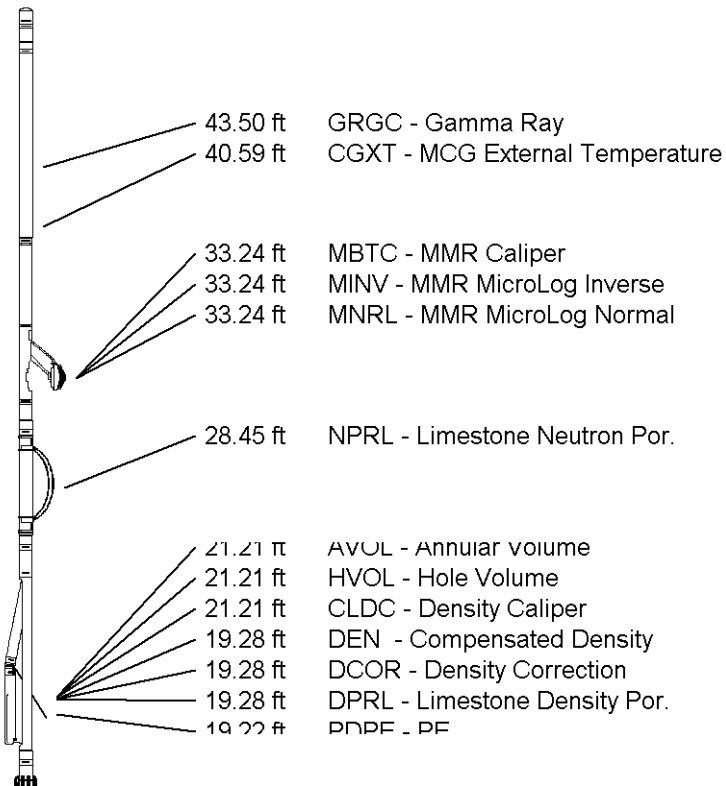
3/8" Triple Cone Cable Head (MCB C A)
MCB-C.A 5 LG: 1.58 ft WT: 15.4 lb OD: 2.24 in

Compact Comms Gamma
MCG-D.K 442 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-Resistivity
MMR-A 11 LG: 8.59 ft WT: 81.6 lb OD: 4.88 in

Compact Neutron
MDN-A.B 65 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

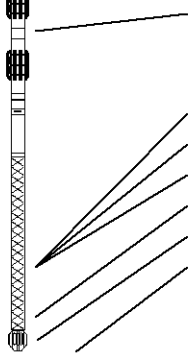
Compact Density/Caliper
MPD-B 31 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in



Compact Focussed Electric
MFE-B.J 352 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction
MAI-A.A 45 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 50.36 ft Weight: 399.0 lb



13.72 ft	FEFE - Shallow FE
3.34 ft	R40O - Array Ind. One Res 40
3.34 ft	R[illegible]O - Array Ind. One Res R[illegible]
3.34 ft	R60O - Array Ind. One Res 60
0.23 ft	SPCG - Spontaneous Potential
Tool Zero	(0.13ft from bottom)
-0.13 ft	SMTU - DST Uphole Tension

All measurements relative to tool zero.

COMPANY	O'BRIEN RESOURCES, LLC
WELL	BOOMHOWER 36 #3
FIELD	BOOMHOWER
PROVINCE/COUNTY	LANE
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	2784.00	feet	First Reading		feet
Elevation Drill Floor	2782.00	feet	Depth Driller	4685.00	feet
Elevation Ground Level	2774.00	feet	Depth Logger	4683.00	feet

Weatherford®

CALIPER LOG