Weatherford®

CALIPER LOG

COMPANY	EAST CHEYENNE GAS STORAGE LLC
WELL	ECGS NO 6-14 WPD008-1
FIELD	PEETZ WEST
PROVINCE/COUNTY	LOGAN
COUNTRY/STATE	USA/COLORADO
LOCATION	NWNE 257' FNL & 1642' FEL

SEC	TWP	RGE
6	11N	52W

Other Services
MAI CMI
MPD/MDN

API Number WPD008-1
Permit Number 05-075-09403

Permanent Datum GL, Elevation 4544 feet
Log Measured From KB
Drilling Measured From KB

Elevations:	feet
KB	4558.00
DF	4557.00
GL	4544.00

Date	30-SEP-2012			
Run Number	ONE			
Depth Driller	5265.00	feet		
Depth Logger	5267.00	feet		
First Reading	5211.00	feet		
Last Reading	1212.00	feet		
Casing Driller	1217.00	feet		
Casing Logger	1212.00	feet		
Bit Size	8.750	inches		
Hole Fluid Type	WBM			
Density / Viscosity	10.00 g/c3	38.00 CP		
PH / Fluid Loss	10.00	6.40 ml/10min		
Sample Source	FLOWLINE			
Rm @ Measured Temp	2.37 @ 93.5	ohm-m		
Rmf @ Measured Temp	1.896 @ 93.5	ohm-m		
Rmc @ Measured Temp	2.844 @ 93.5	ohm-m		
Source Rmf / Rmc	CALC	CALC		
Rm @ BHT	1.458 @154.0	ohm-m		
Time Since Circulation	4 HOURS			
Max Recorded Temp	154.00	deg F		
Equipment Name	COMPACT			
Equipment / Base	13144	RK SPR		
Recorded By	B. ROSSER		T.BENICH	
Witnessed By	J. ASHBY			

BOREHOLE RECORD

Last Edited: 30-SEP-2012 07:16

Bit Size inches	Depth From feet	Depth To feet
8.750	1212.00	5267.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	1212.00	36.00

REMARKS

SOFTWARE VERSION 13.03.7779
TOOLS RUN: SHA, MCG, MDN, MPD, MIS-D, SKJ, MIS-E, SKJ, SHA, MIM, MIE, SKJ, MFE, MAI RUN IN COMBINATION.

HARDWARE: MPD: 8" PROFILE PLATE USED.
MAI: TWO 1 INCH STANDOFFS USED.
MFE: ONE 1 INCH STANDOFF USED.
MDN: DUAL BOWSPRING USED.
MIM: ONE NONMETALIC CENTRALIZING BASKET USED.
MIE: ONE 1 INCH STANDOFF USED

2.65 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY FROM TD TO BOTTOM OF NIOBRARA FORMATION (5267 FT TO 4655 FT).

2.71 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY IN NIOBRARA FORMATION (4655 FT TO 4200 FT).

TIGHT PULLS, BOREHOLE SIZE AND RUGOSITY WILL AFFECT REPEATABILITY AND DATA QUALITY.

ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST

ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

LAT, LONG: 40.96288 N, 103.21683 W

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING =1770 CUBIC FEET

ANNULAR VOLUME WITH 7 INCH PRODUCTION CASING FROM TD TO SURFACE CASING = 700 CUBIC FEET

SERVICE ORDER: #3531928

OPERATOR: D. SMITH
S.ELMORE

RIG: CADE 22

5 INCH MAIN LOG

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 01-OCT-2012 12:22
Filename: C:\Users\e173613\AppData\Local\Temp\Weath...\ECGS No 6-14 WPD008-1_MAINPASS.dta
Recorded on 30-SEP-2012 04:49
System Versions: Logged with 13.03.7779 Plotted with 13.03.6602

Timing Marks
every 60.0 sec

DST Uphole Tension
pounds
10000 5000 0
0 -5000 -10000

Gamma Ray
API
0 75 150
150 225 300

Density Caliper
inches
6 11 16

Bit Size
inches
6 11 16

Depth In Feet

Borehole Temp in deg F

HVI every 10 cu ft

Annular Integral every 10 cu ft

Replay Scale 1:240

1200

Casing Shoe

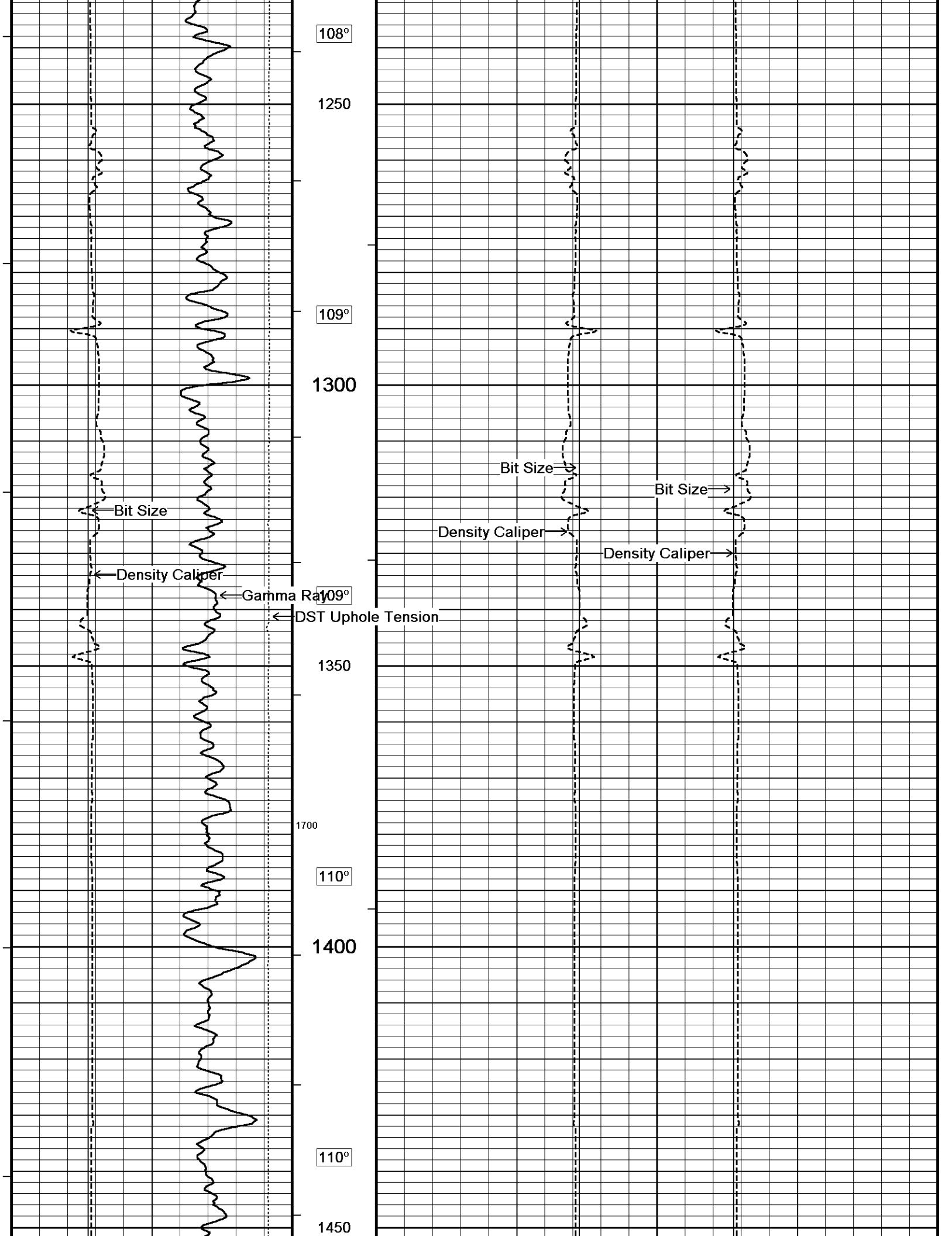
700

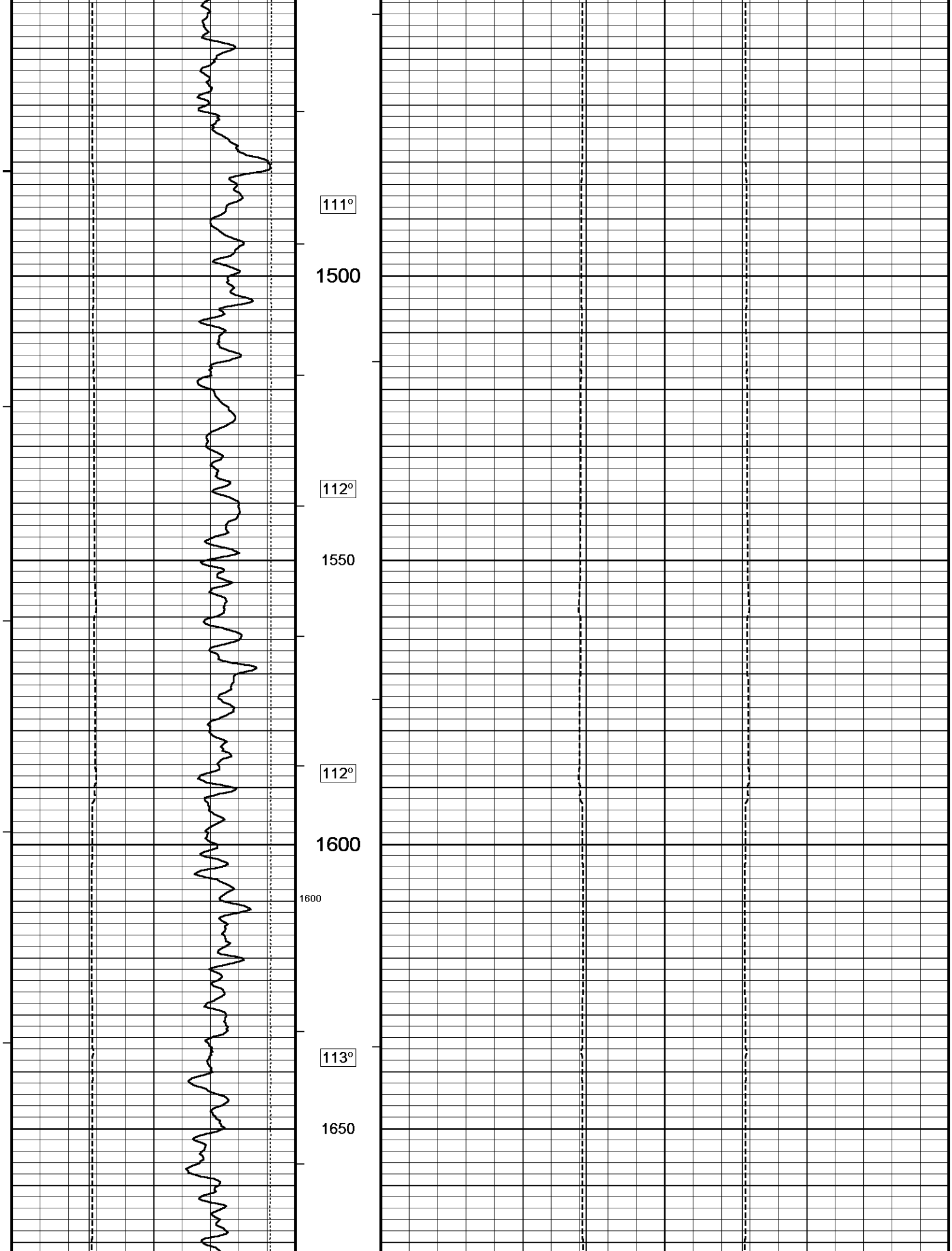
Density Caliper
inches
16 11 6 6

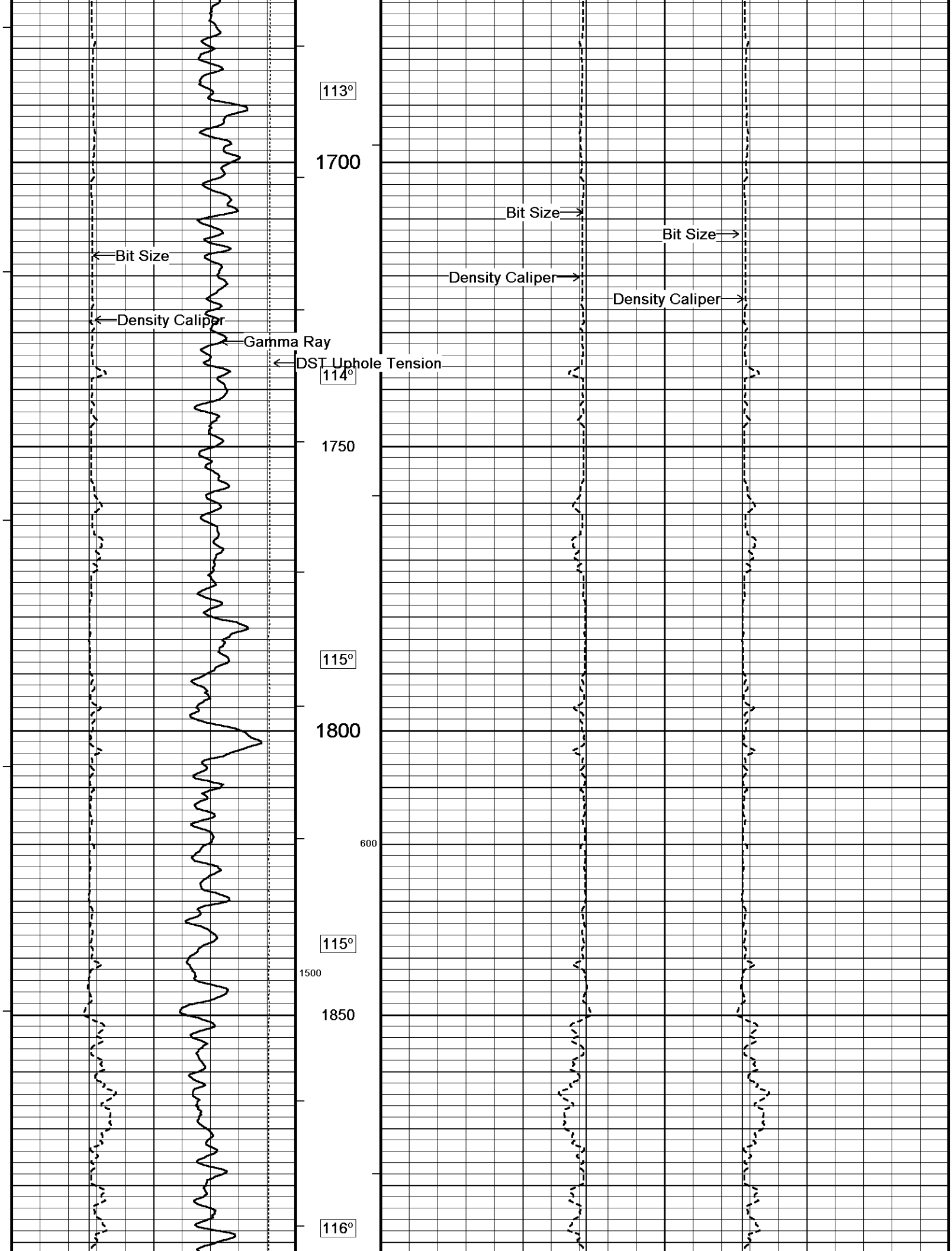
Density Caliper
inches
11 16

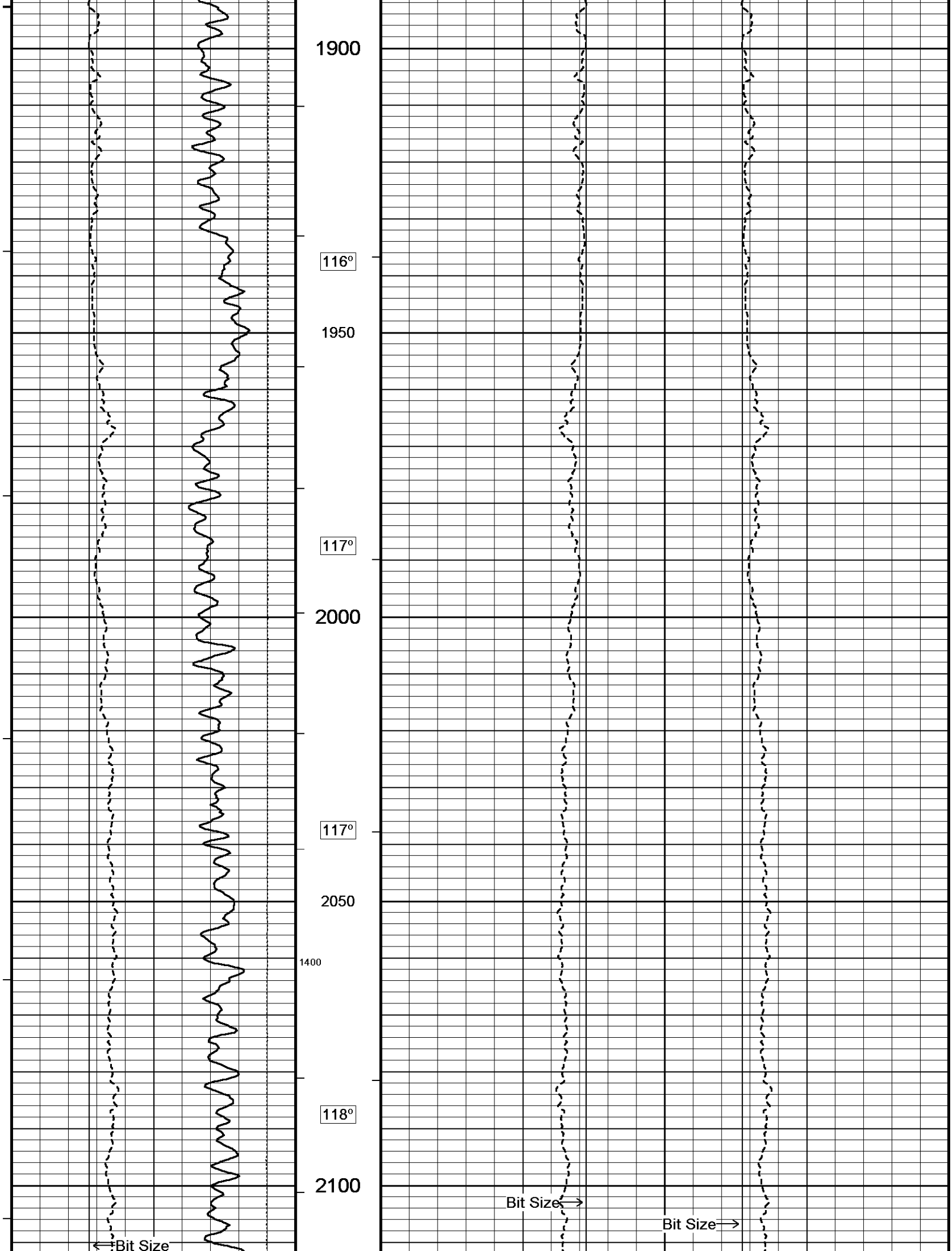
Bit Size
inches
16 11 6 6

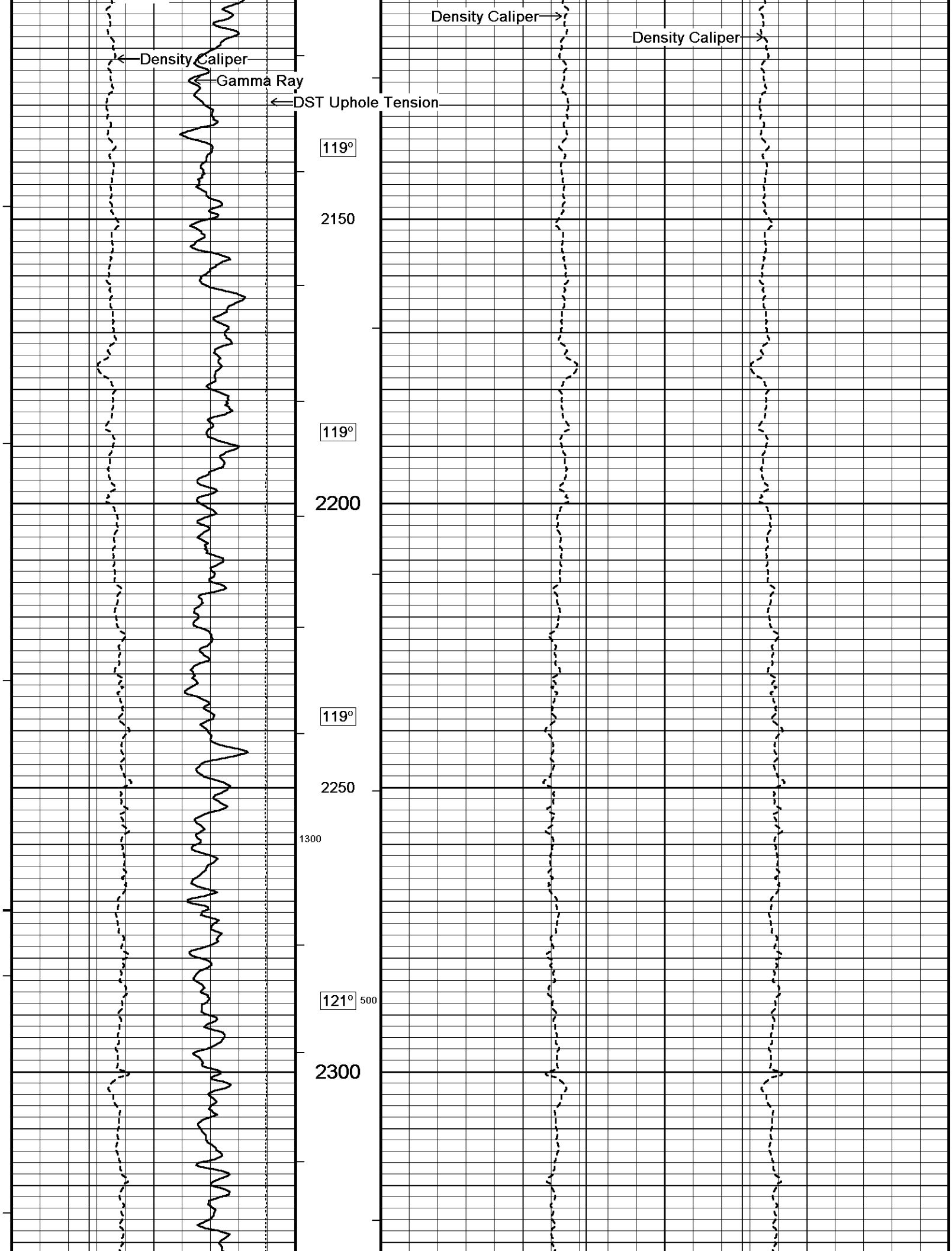
Bit Size
inches
11 16

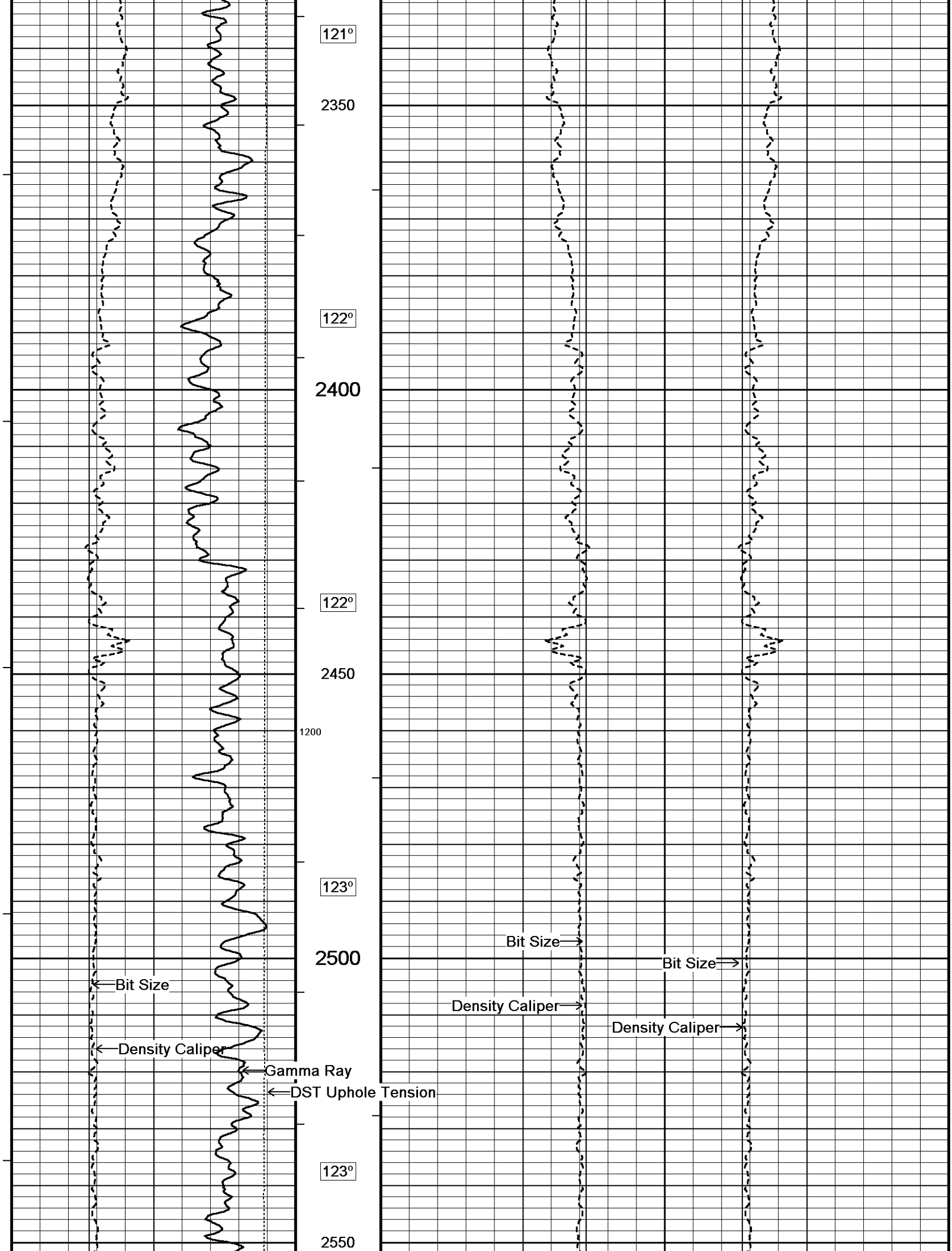

108°
1250
109°
1300
Bit Size
Bit Size
Density Caliper
Density Caliper
Bit Size
Density Caliper
Gamma Ray
109°
DST Uphole Tension
1350
1700
110°
1400
110°
1450

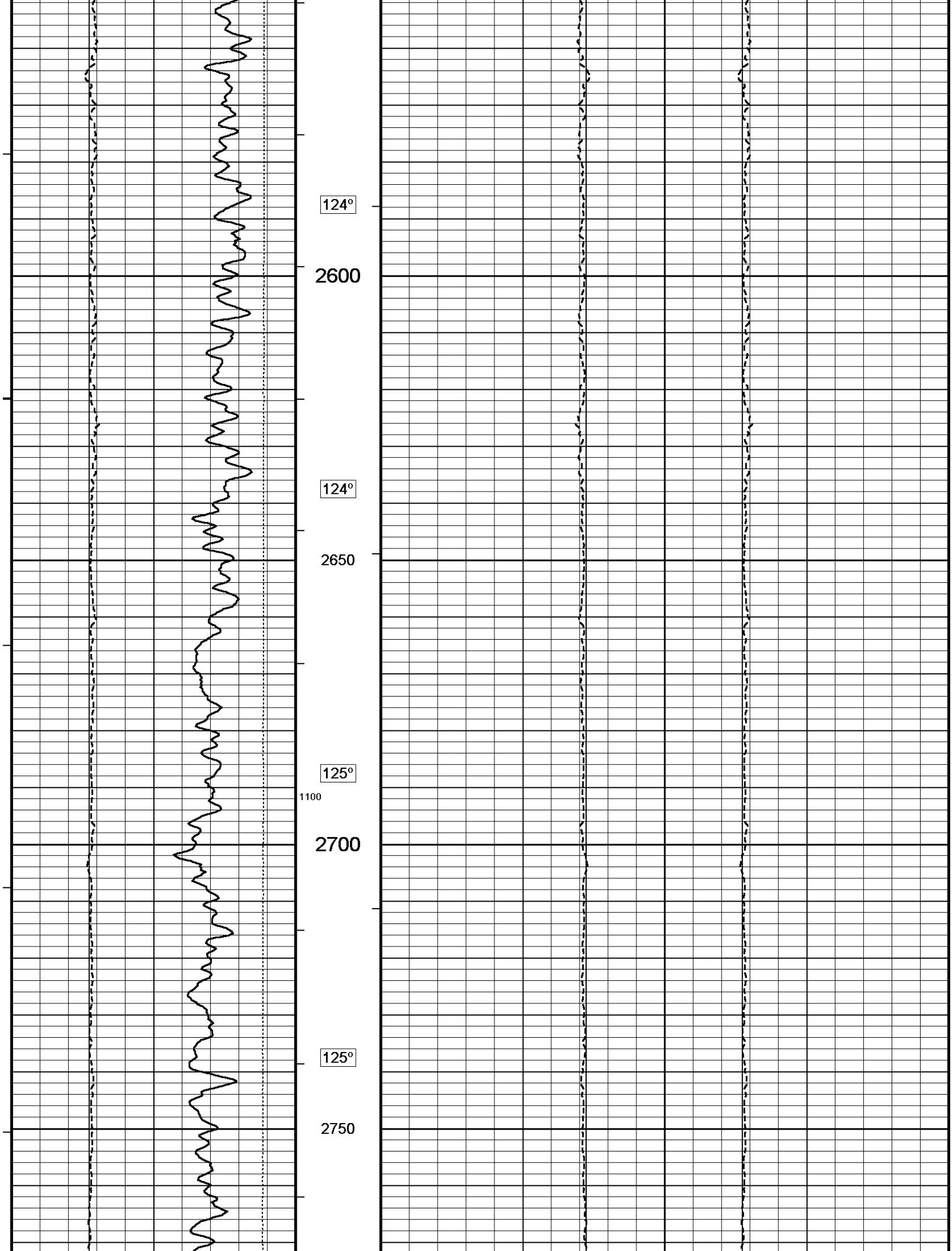

111°
1500
112°
1550
112°
1600
1600
113°
1650

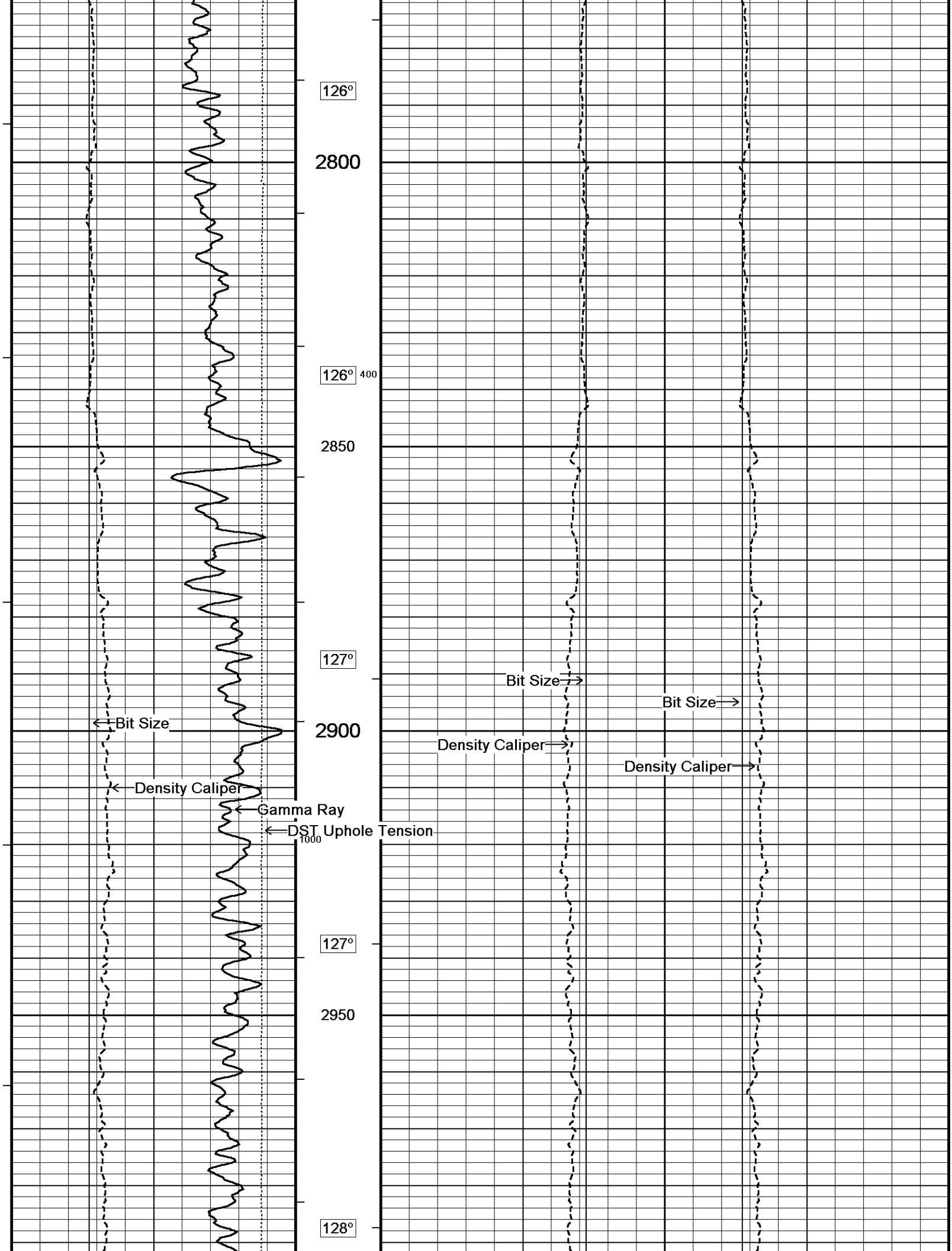

113°
1700
Bit Size
Bit Size
Density Caliper
Density Caliper
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
114°
1750
115°
1800
600
115°
1500
1850
116°

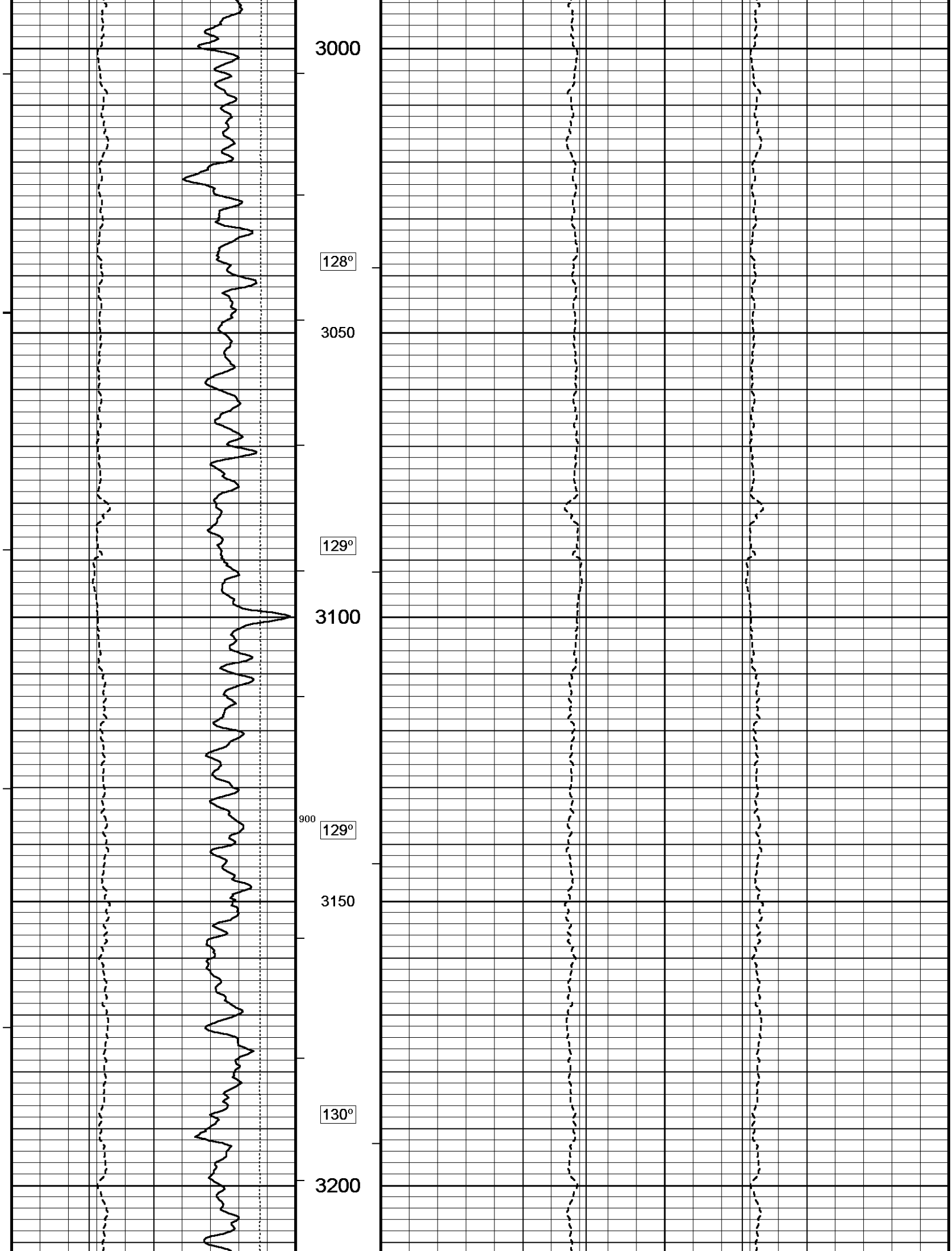

1900
116°
1950
117°
2000
117°
2050
1400
118°
2100
Bit Size
Bit Size
Bit Size

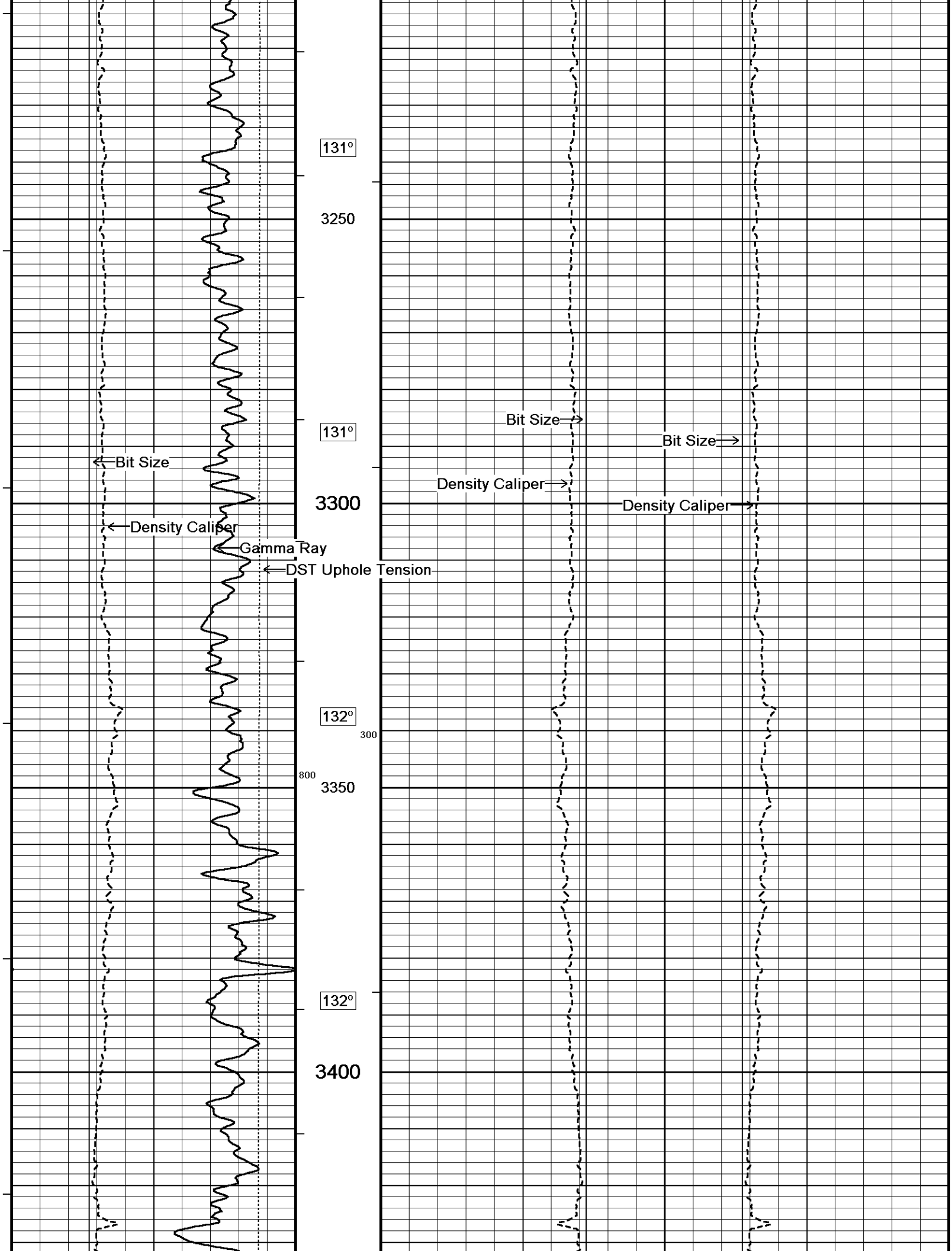

Density Caliper
Gamma Ray
DST Uphole Tension
Density Caliper
Density Caliper
119°
2150
119°
2200
119°
2250
1300
121°
500
2300

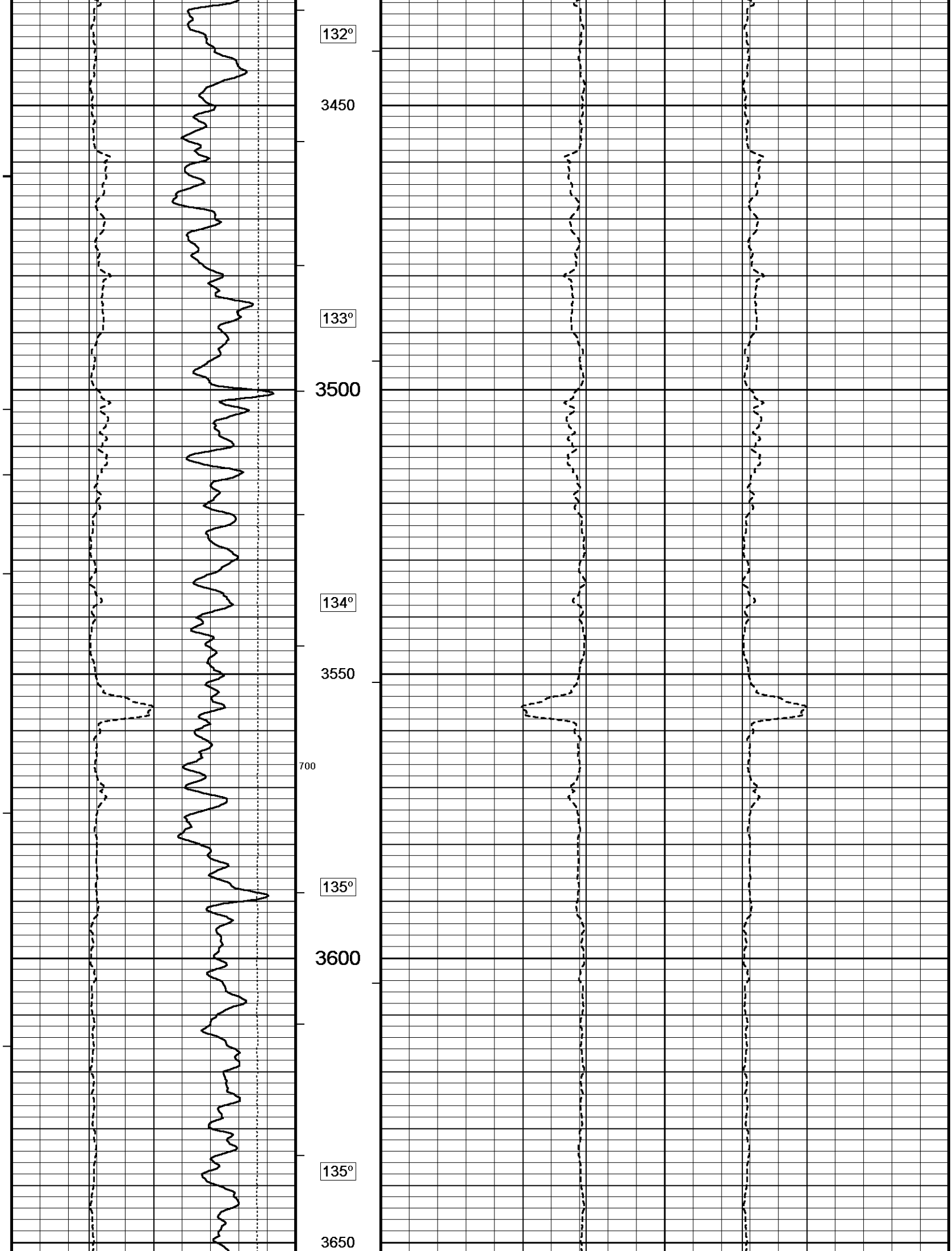

121°
2350
122°
2400
122°
2450
1200
123°
2500
123°
2550
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
Bit Size
Density Caliper
Bit Size
Density Caliper

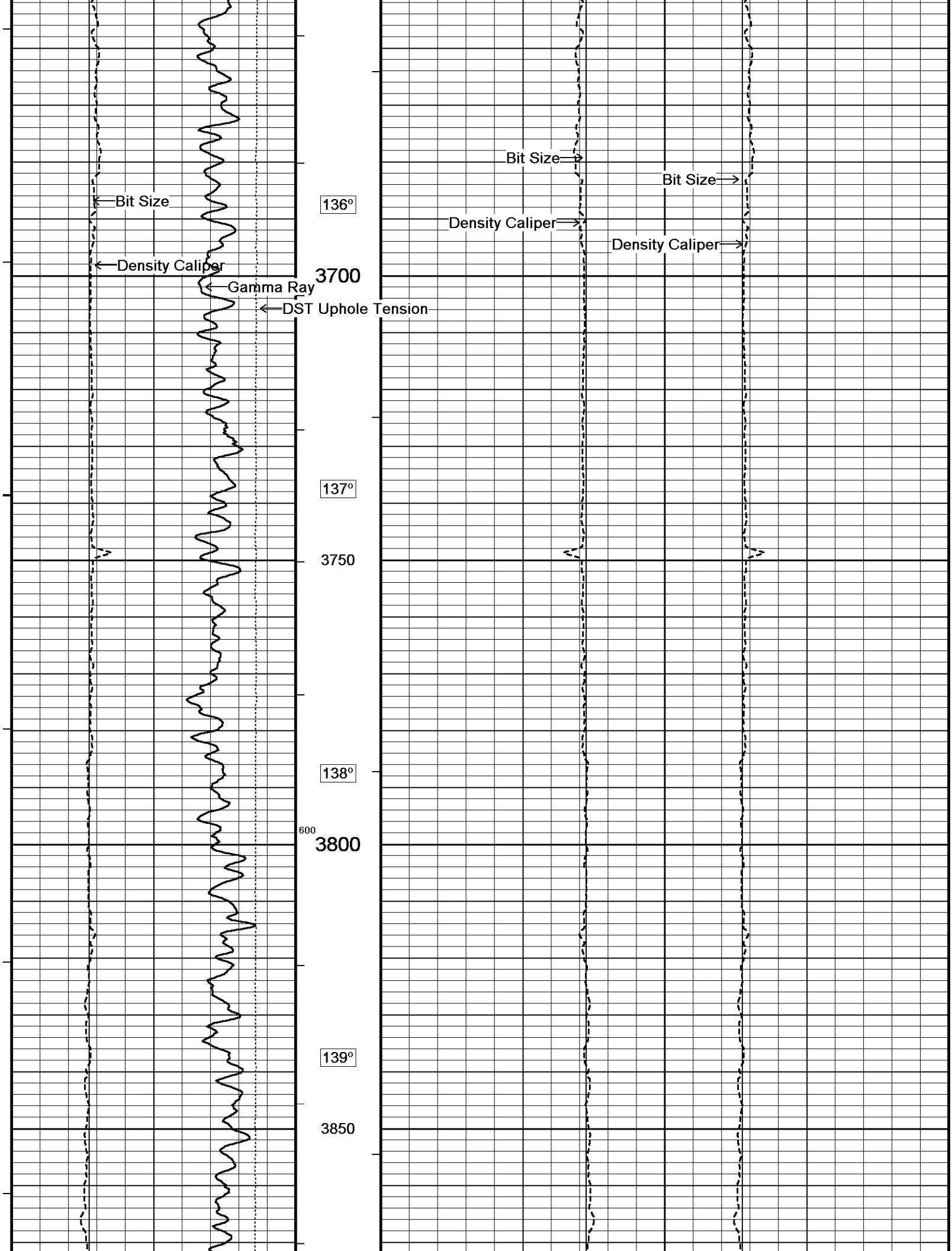

124°
2600
124°
2650
125°
1100
2700
125°
2750

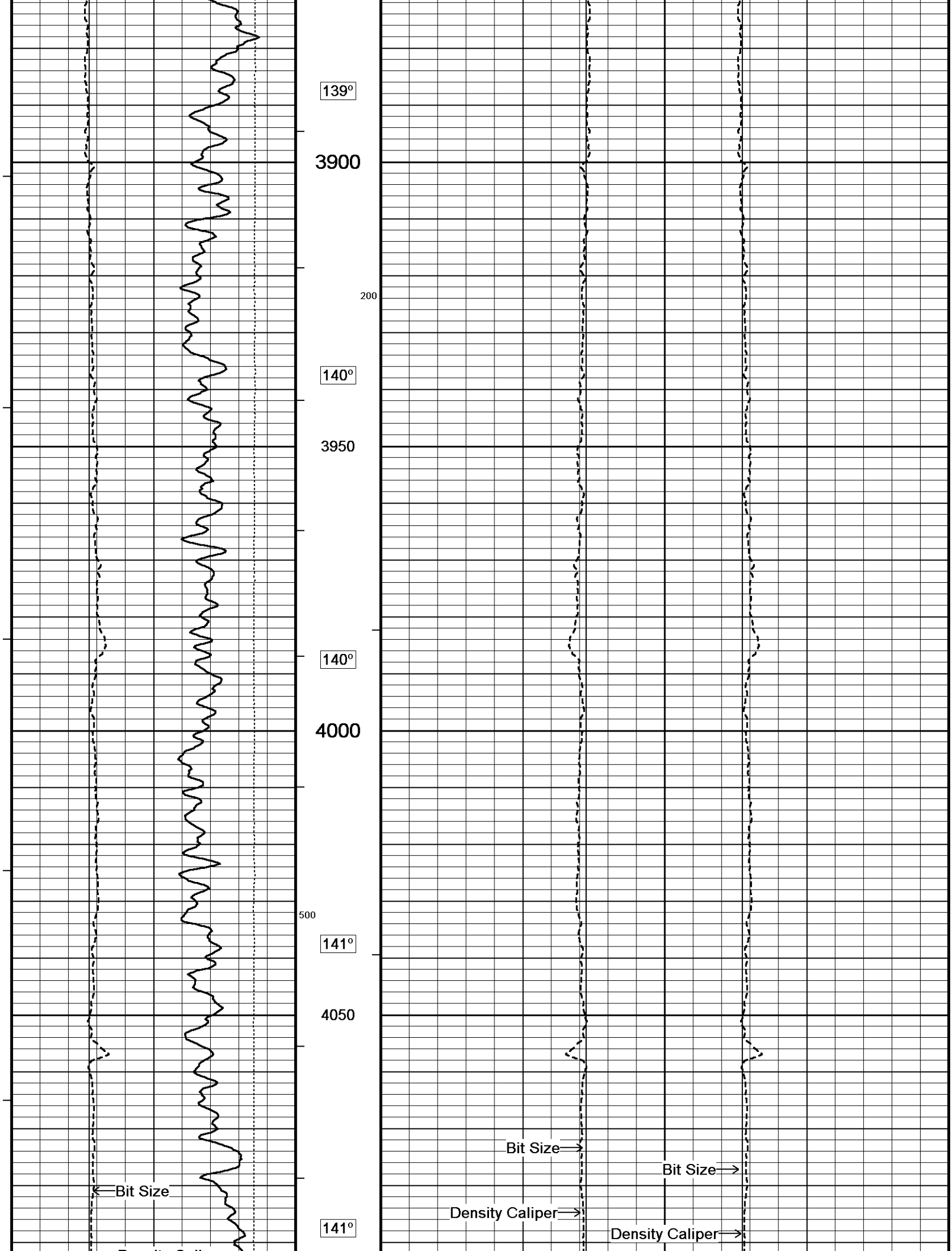

126°
2800
126°
400
2850
127°
Bit Size
Bit Size
Bit Size
2900
Density Caliper
Density Caliper
Density Caliper
Gamma Ray
DST Uphole Tension
1000
127°
2950
128°

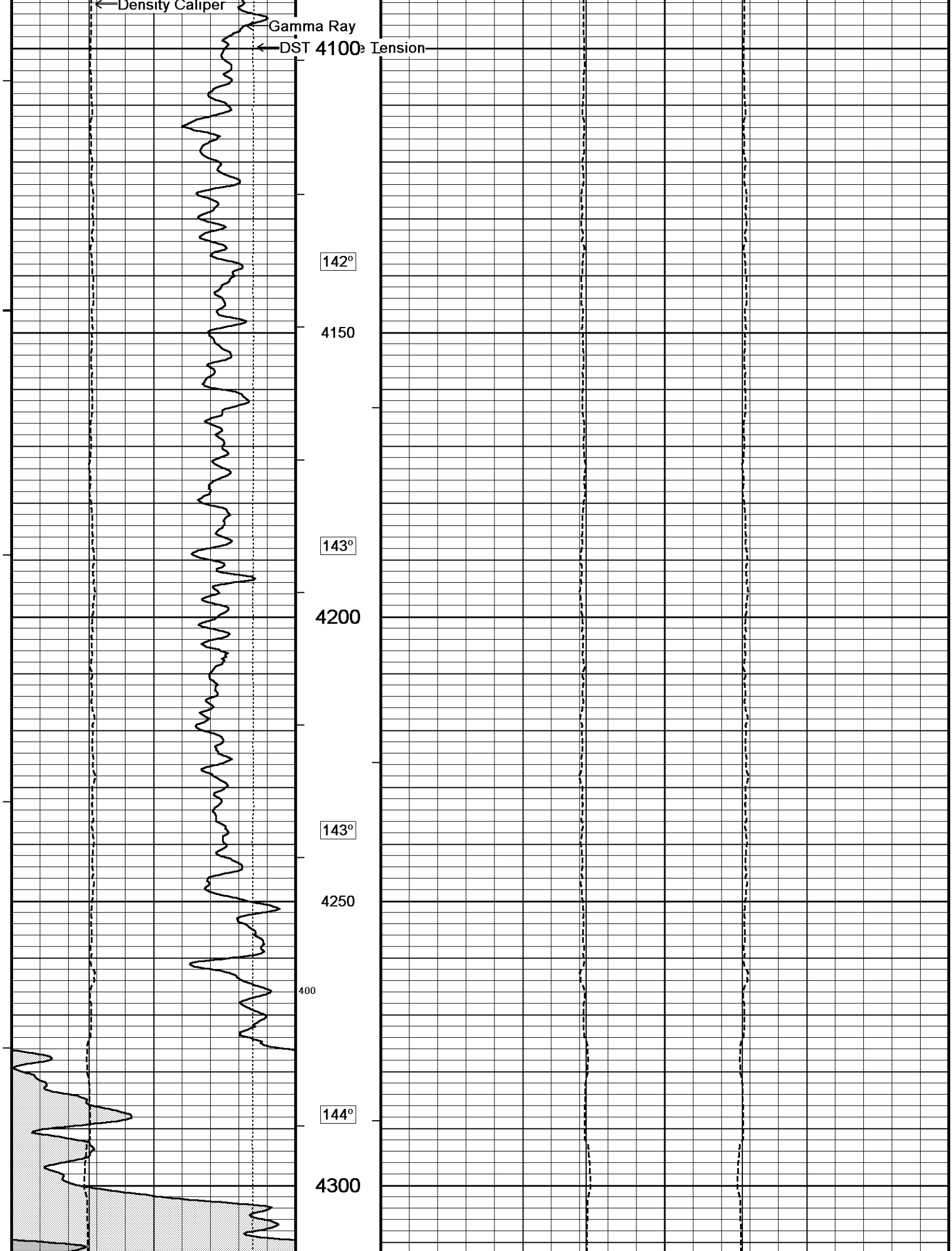

3000
128°
3050
129°
3100
900
129°
3150
130°
3200

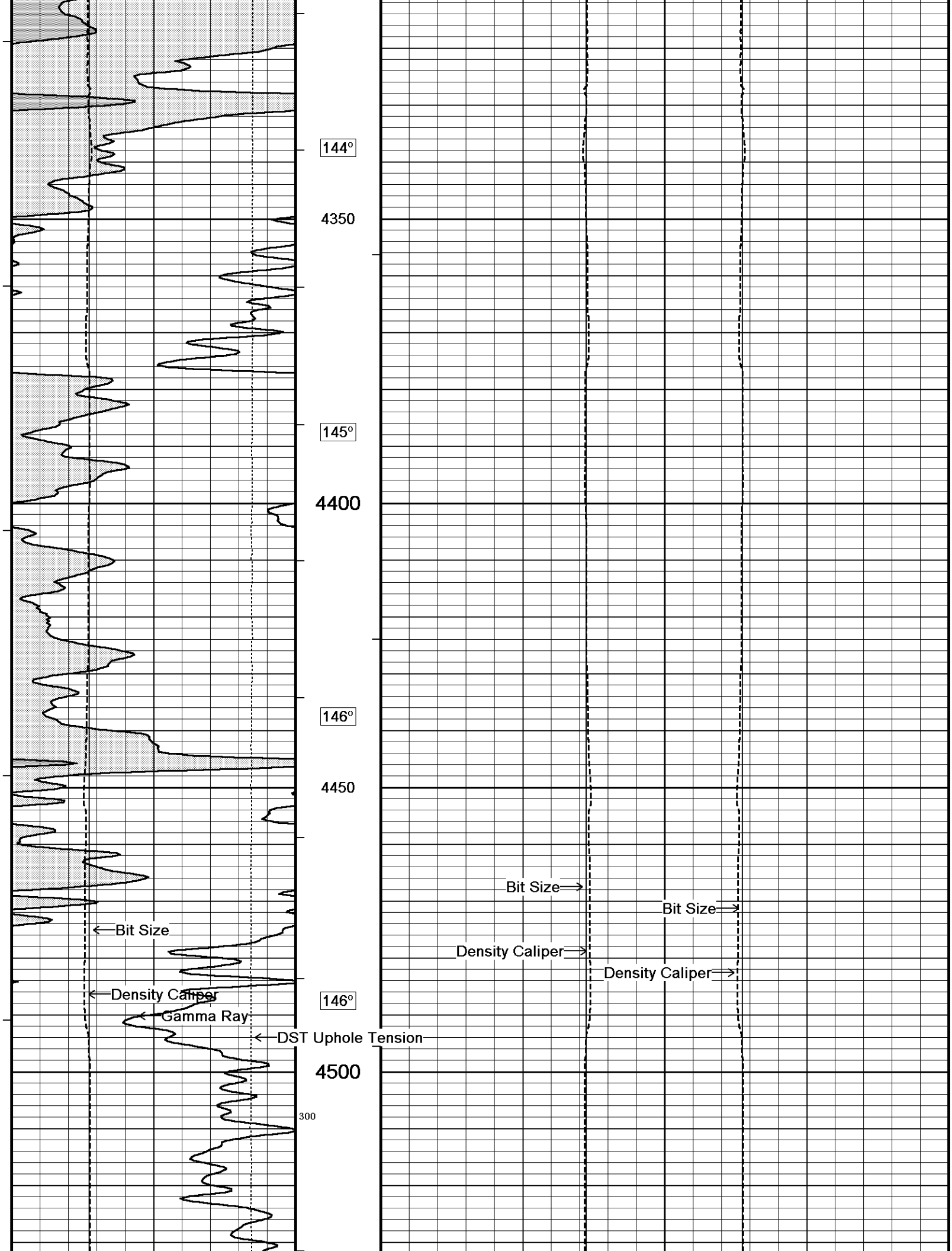

131°
3250
131°
Bit Size
Bit Size
Bit Size
Density Caliper
Density Caliper
3300
Density Caliper
Gamma Ray
DST Uphole Tension
132°
300
800
3350
132°
3400

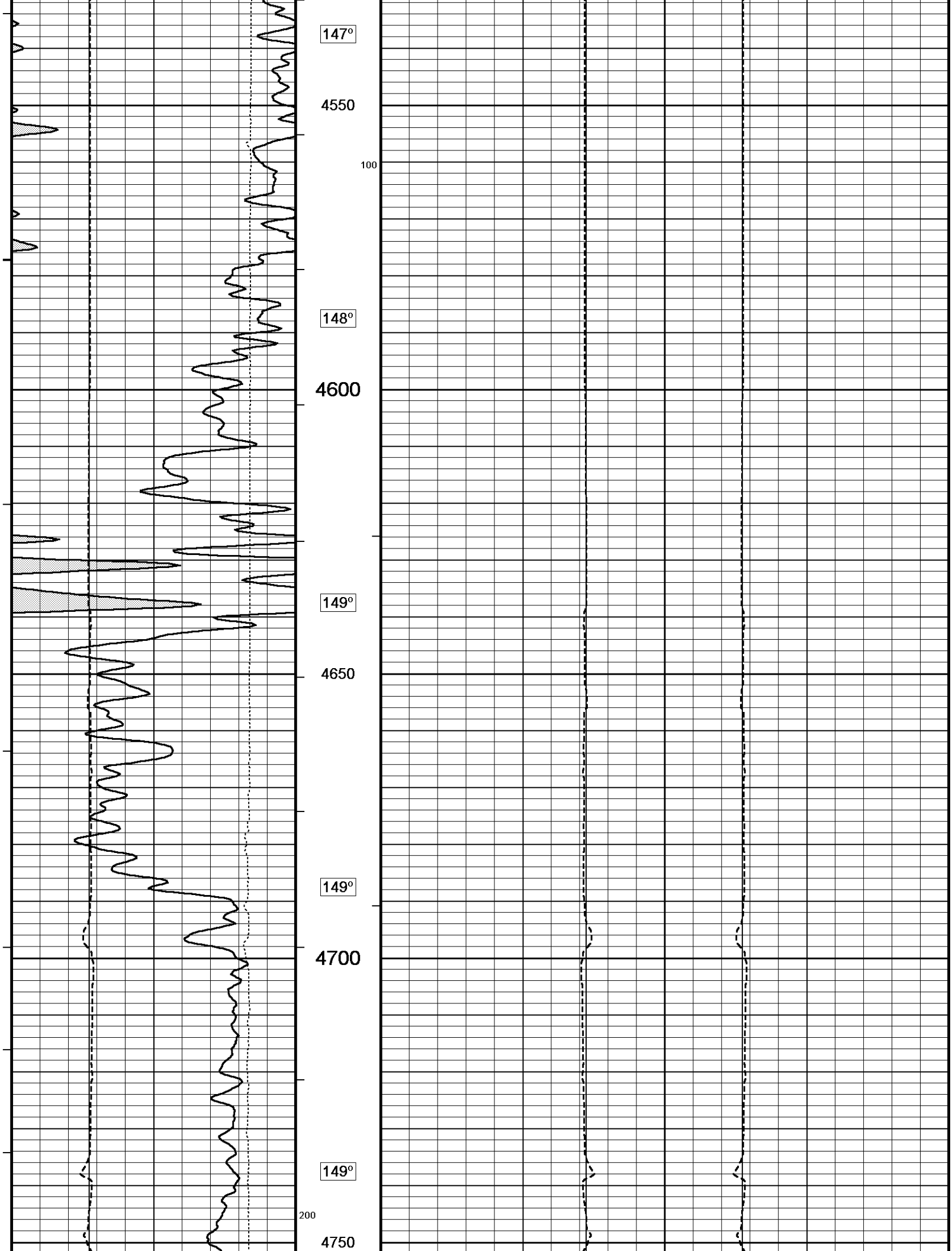

132°
3450
133°
3500
134°
3550
700
135°
3600
135°
3650

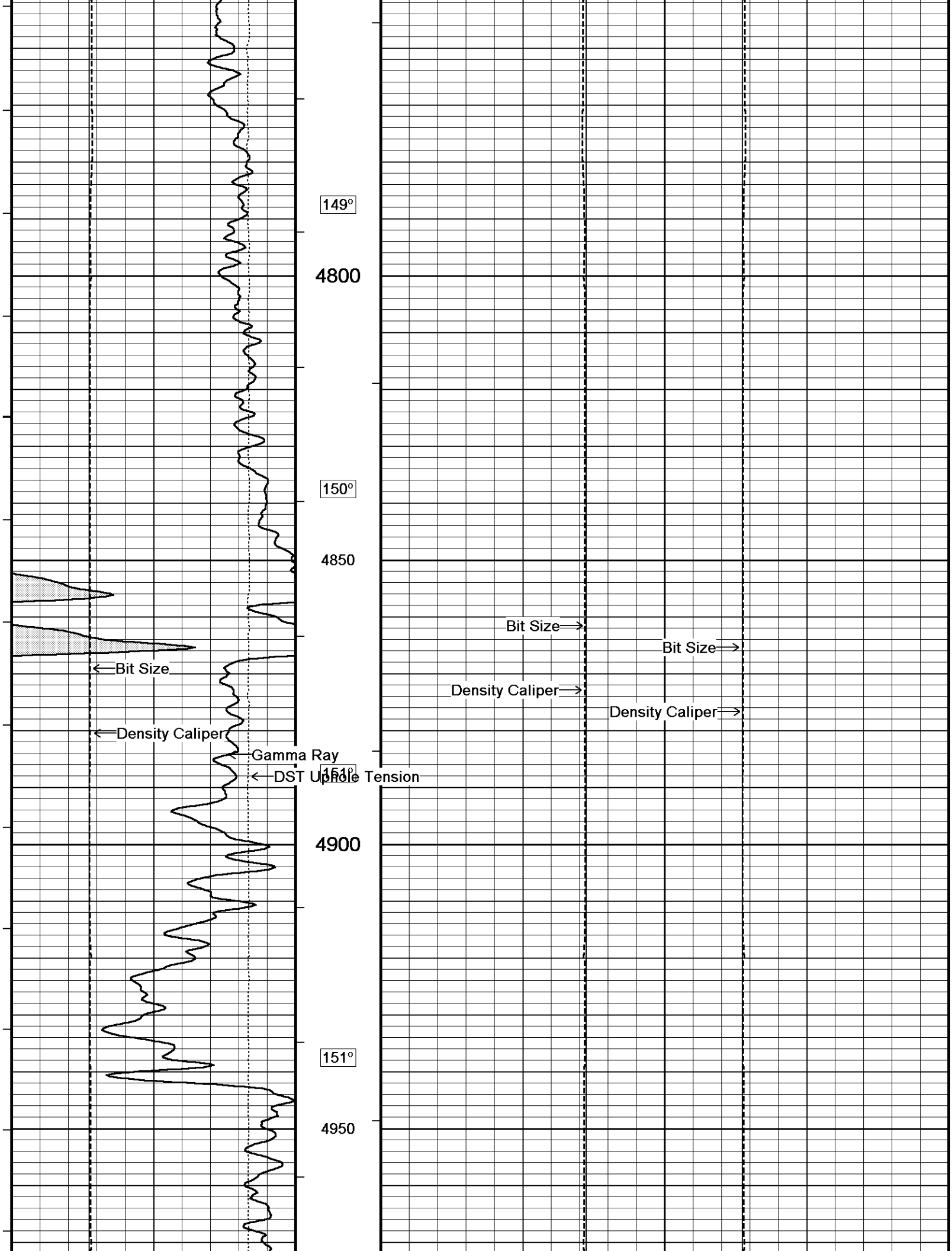

Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
136°
137°
138°
139°
3700
3750
3800
3850
600
Bit Size
Density Caliper
Bit Size
Density Caliper

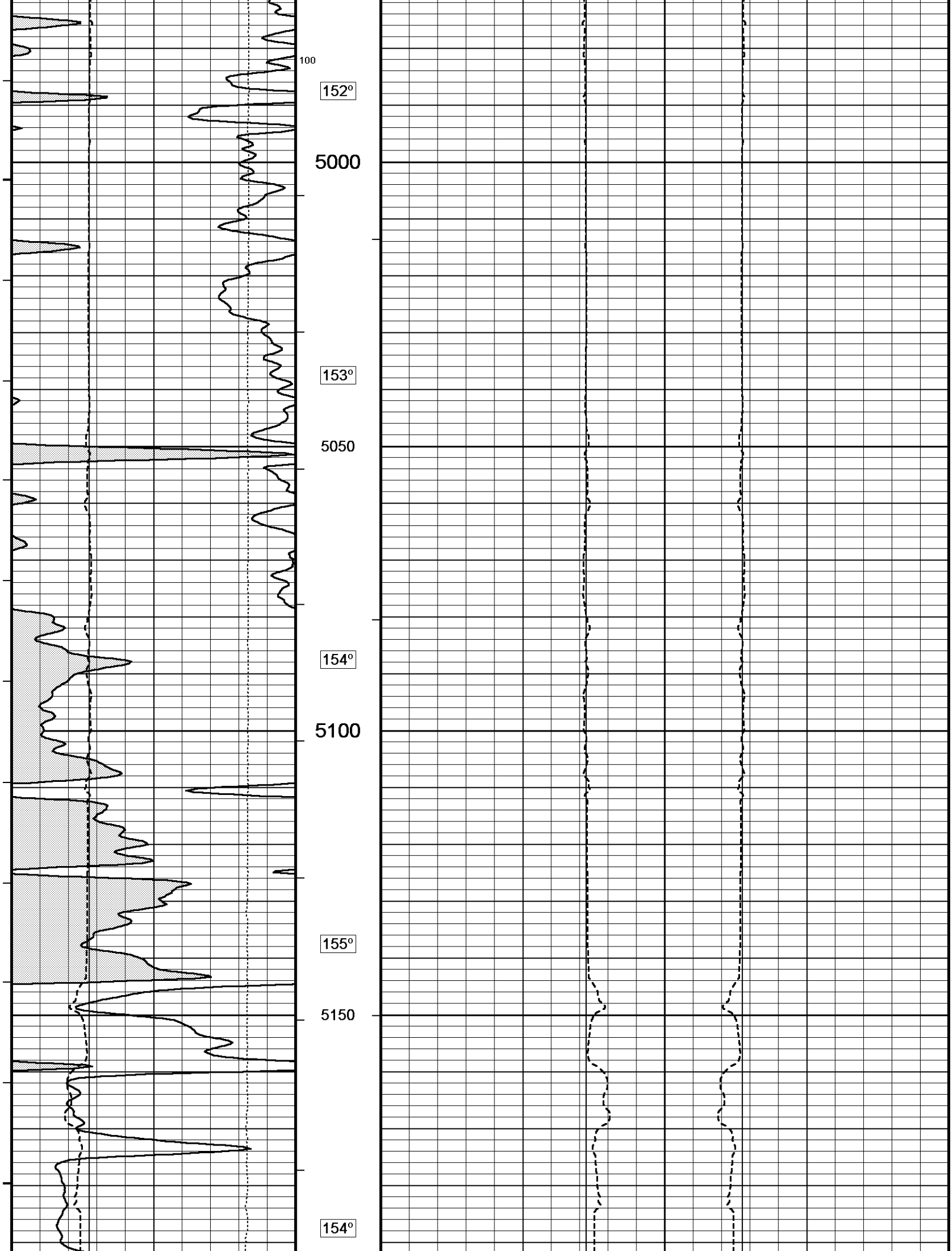

139°
3900
200
140°
3950
140°
4000
500
141°
4050
141°
Bit Size
Bit Size
Bit Size
Density Caliper
Density Caliper

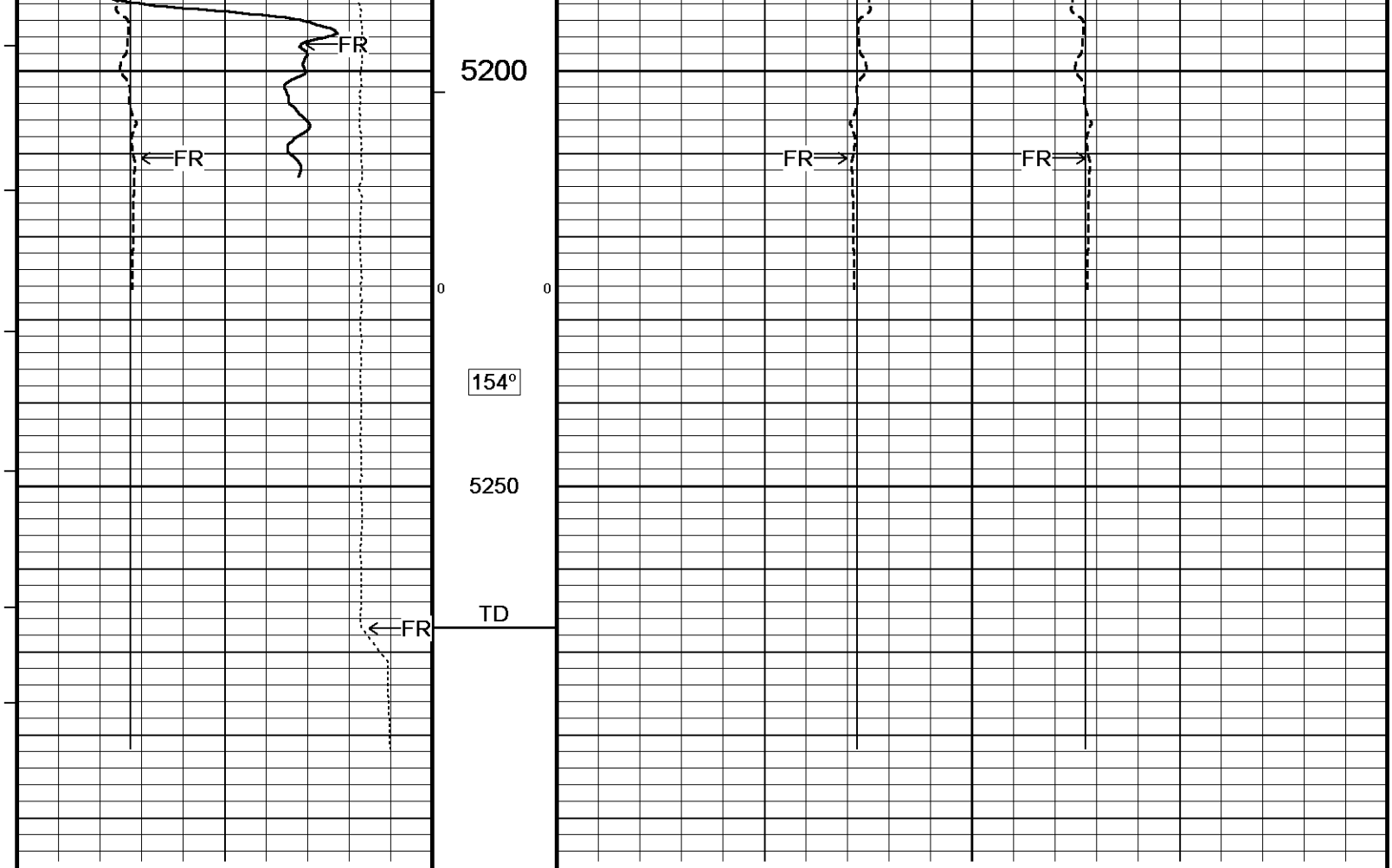

Density Caliper
Gamma Ray
DST
4100
Tension
142°
4150
143°
4200
143°
4250
400
144°
4300


144°
4350
145°
4400
146°
4450
Bit Size
Bit Size
Density Caliper
Density Caliper
Bit Size
Density Caliper
146°
Gamma Ray
DST Uphole Tension
4500
300


147°
4550
100
148°
4600
149°
4650
149°
4700
149°
200
4750


149°
4800
150°
4850
Bit Size
Bit Size
Bit Size
Density Caliper
Density Caliper
Density Caliper
Gamma Ray
151°
DST Uphole Tension
4900
151°
4950


100
152°
5000
153°
5050
154°
5100
155°
5150
154°



Timing Marks
every 60.0 sec

DST Uphole Tension
pounds
10000 5000 0
0 -5000 -10000

Gamma Ray
API
0 75 150
150 225 300

Density Caliper
inches
6 11 16

Bit Size
inches
6 11 16

Depth
In
Feet

Borehole
Temp in
deg F

HVI
every
10 cu ft

Annular
Integral
every
10 cu ft

Replay
Scale
1:240

Density Caliper
inches
16 11 6

Density Caliper
inches
6 11 16

Bit Size
inches
16 11 6

Bit Size
inches
6 11 16

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 01-OCT-2012 12:22
Filename: C:\Users\e173613\AppData\Local\Temp\Weath...\ECGS No 6-14 WPD008-1_MAINPASS.dta
Recorded on 30-SEP-2012 04:49
System Versions: Logged with 13.03.7779 Plotted with 13.03.6602

5 INCH MAIN LOG

BEFORE SURVEY CALIBRATION

C:\Users\e173613\AppData\Local\Temp\Weatherford PreView\0\ECGS No 6-14 WPD008-1_MAINPASS.dta

Down-hole Tension Calibration All 000

Field Calibration on 24-OCT-2010 03:34

Reading No	Measured	0
1	15659.85	0.00
2	15734.68	370.00

General Constants All 000

Last Edited on 30-SEP-2012,04:08

General Parameters		
Mud Resistivity	2.370	ohm-metres
Mud Resistivity Temperature	93.500	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	7.000	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. One Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	

Down-hole Tension Calibration SMS 0

Field Calibration on 30-SEP-2012 03:26

Reading No	Measured	Calibrated (lbs)
1	15589.90	0.00
2	16735.70	480.00

Gamma Calibration MCG-D.K 483

Field Calibration on 29-SEP-2012 18:20

	Measured	Calibrated (API)
Background	74	50
Calibrator (Gross)	842	569
Calibrator (Net)	768	519

Gamma Constants MCG-D.K 483

Last Edited on 30-SEP-2012,01:50

Gamma Calibrator Number	GRCC119	
Mud Density	1.00	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

SP Calibration MCG-D.K 483

Field Calibration on 23-SEP-2012,10:15

	Measured	Calibrated (mV)
Reference 1	100.0	100.0
Reference 2	-100.0	-100.0

High Resolution Temperature Calibration MCG-D.K 483

Field Calibration on 30-SEP-2012,04:09

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MCG-D.K 483

Last Edited on 30-SEP-2012,04:08

Pre-filter Length	11

Neutron Calibration MDN-B.J 372

Base Calibration on 11-SEP-2012 10:37
Field Check on 29-SEP-2012 18:42

Base Calibration

	Measured	Calibrated (cps)

	Near	Far	Near	Far
	2935	90	3714	110
Ratio	32.738		33.764	

Field Calibrator at Base	Calibrated (cps)	
	2265	3365
Ratio	0.673	

Field Check	Calibrated (cps)	
	2313	3388
Ratio	0.683	

Neutron Constants MDN-B.J 372

Last Edited on 30-SEP-2012,01:50

Neutron Source Id	P31115B	
Neutron Jig Number	NJ5299	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.00	gm/cc
Limestone Sigma	7.10	cu
Sandstone Sigma	7.00	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	None	
Formation Pressure	N/A	kpsi
Temperature Source	MCG External Temperature	
Temperature	N/A	degrees F
Mud Salinity	0.00	kppm
Salinity Correction	Not Applied	
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

Navigation Constants MIE-A.J 241

Last Edited on 30-SEP-2012,01:56

Magnetic Declination	0.00	degrees	East

Magnetometer Parameters MIE-A.J 241

Date Of Last Magnetometer Calibration 14-FEB-2012,20:54

	X Magnetometer	Y Magnetometer	Z Magnetometer
Slope	-1.000000	-1.011676	-0.999264
Offset	0.001649	-0.018156	0.001398

Magnetometer Constants MIE-A.J 241

Last Edited on 30-SEP-2012,01:55

Magnetometer Calibrator Number	0

Accelerometer Parameters MIE-A.J 241

Date Of Last Accelerometer Calibration 14-FEB-2012,19:26

	X Accelerometer	Y Accelerometer	Z Accelerometer
Slope	-1.107927	-1.107152	-1.089726
Offset	-0.004165	0.008747	-0.006277

Accelerometer Constants MIE-A.J 241

Last Edited on 30-SEP-2012,01:54

Accelerometer Calibrator Number	000

Accelerometer Temperature Characterisation

X Accelerometer

Serial Number	922			
Calibration Date	14-Nov-2010			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	1.98626e-005	-2.34772e-009	1.61466e-010
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.59314e-004	4.64734e-007	5.67183e-010

Y Accelerometer

Serial Number	970			
Calibration Date	19-Jan-2011			
	B0	B1	B2	B3

Bias(g)	0.00000e+000	-4.23329e-006	-2.08894e-008	1.84400e-010
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.61643e-004	3.45088e-007	8.15526e-010

Z Accelerometer

Serial Number	1076			
Calibration Date	05-May-2011			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	-5.18602e-006	1.72429e-008	7.30746e-011
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.93462e-004	2.41183e-007	1.26400e-009

Caliper Calibration MIE-A.J 241

Base Calibration on 28-SEP-2012 11:04
Field Calibration on 28-SEP-2012 11:06

Base Calibration

Reading No	Pads 1-5 Meas.	Pads 3-7 Meas.	Calibrator Size (in)
1	25529	28507	5.97
2	35884	38819	7.96
3	45829	48887	9.87
4	57640	60711	11.92
5	0	0	0.00

Reading No	Pad 2 Meas.	Pad 4 Meas.	Pad 6 Meas.	Pad 8 Meas.	Calibrator Size (in)
1	24865	25887	25754	25884	5.97
2	34293	34905	33925	34009	7.96
3	42506	43163	42193	42341	9.87
4	52787	53107	51835	52240	11.92
5	0	0	0	0	0.00

Field Calibration

Measured Pads 1-5 Caliper(in)	Measured Pads 3-7 Caliper(in)	Actual Caliper(in)
7.94	7.72	7.96

Measured Pad 2 Caliper(in)	Measured Pad 4 Caliper(in)	Measured Pad 6 Caliper(in)	Measured Pad 8 Caliper(in)	Actual Caliper(in)
3.89	3.89	4.06	4.06	7.96

Caliper Constants MIE-A.J 241

Last Edited on 09-JUN-2012,12:33

Caliper Difference for BRKT	0.120	inches

Imager Pad Check MIE-A.J 241

Field Check on

Pad 1	Pad Not Tested	Pad 5	Pad Not Tested
Pad 2	Pad Not Tested	Pad 6	Pad Not Tested
Pad 3	Pad Not Tested	Pad 7	Pad Not Tested
Pad 4	Pad Not Tested	Pad 8	Pad Not Tested

Compact Micro Imager Constants MIE-A.J 241

Last Edited on 30-SEP-2012,01:56

Sonde Configuration	Imager Mode	degrees
Arm-Pad Kit	Normal Pads (12.25 in)	
Centre Pad 1 Rotational Offset	0.00	
Image/Borehole Ovality Reference	Azimuth of Pad 1	degrees
Non Active Buttons	Omit	feet
Search Angle	0.00	feet
Correlation Interval	3.28	mAmp
Correlation Step	1.64	mAmp
Current Offset	0.0000	
Squasher Start	0.0500	
Image Processing	Enabled	

FE Calibration MFE-A.A 76

Base Calibration on 10-SEP-2012 11:36
Field Check on 29-SEP-2012 18:21

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	964.4	126.8
Base Check		279.9
Field Check		280.1

FE Constants MFE-A.A 76

Last Edited on 30-SEP-2012,01:57

Running Mode	No Sleeve	
MFE K Factor	0.1268	
Caliper Source for FE correction	Density Caliper	
Caliper Value for FE correction	N/A	inches
Rm Source for FE correction	Temperature Corr	
Temp. for Rm Corr.	MCG External Temperature	
Stand-off	1.0	inches

High Resolution Temperature Calibration MAI-B.A 219

Field Calibration on 10-AUG-2011,00:10

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MAI-B.A 219

Last Edited on 30-SEP-2012,04:08

Pre-filter Length	11

Induction Calibration MAI-B.A 219

Base Calibration on 08-MAY-2012,15:56
Field Check on 29-SEP-2012 18:14

Base Calibration

Test Loop Calibration

Channel	Measured Low	Measured High	Calibrated (mmho/m) Low	Calibrated (mmho/m) High
1	17.4	478.1	9.3	966.2
2	5.8	380.3	7.6	821.4
3	3.5	258.5	5.2	566.0
4	1.9	136.0	2.6	279.2

Array Temperature 77.2 Deg F

Channel	Base Check (mmho/m) Low	Base Check (mmho/m) High	Field Check (mmho/m) Low	Field Check (mmho/m) High
1	0.0	0.0	12.4	3792.3
2	0.0	0.0	31.0	3535.9
3	0.0	0.0	28.7	3054.7
4	0.0	0.0	19.3	2027.5
Deep	0.0	0.0	16.5	1947.7
Medium	0.0	0.0	42.8	4086.8
Shallow	0.0	0.0	47.7	5281.8

Array Temperature 0.0 67.3 Deg F

Induction Constants MAI-B.A 219

Last Edited on 30-SEP-2012,02:04

Induction Model	RtAP-WBM	
Caliper for Borehole Corr.	Density Caliper	
Hole Size for Borehole Correction	N/A	inches
Tool Centred	No	
Stand-off Type	Fins	
Stand-off	1.00	inches
Number of Fins on Stand-off	6.0000	
Stand-off Fin Angle	60.00	degrees
Stand-off Fin Width	0.5000	inches
Borehole Corr. Rm Source	Temperature Corr	
Temp. for Rm Corr.	MCG External Temperature	
Squasher Start	0.0020	mhos/metre
Squasher Offset	N/A	mhos/metre

Borehole Normalisation

DRM1	0.0000	DRC1	0.0000
DRM2	0.0000	DRC2	0.0000
MRM1	0.0000	MRC1	0.0000
MRM2	0.0000	MRC2	0.0000
SRM1	0.0000	SRC1	0.0000
SRM2	0.0000	SRC2	0.0000

Calibration Site Corrections

Channel 1	0.00	mmhos/metre
Channel 2	0.00	mmhos/metre
Channel 3	0.00	mmhos/metre

Channel 4	0.00	mmhos/metre

Apparent Porosity and Water Saturation Constants		
Archie Constant (A)	1.00	
Cementation Exponent (M)	2.00	
Saturation Exponent (N)	2.00	
Saturation of Water for Apor	100.00	percent
Resistivity of Water for Apor and Sw	0.05	ohm-m
Resistivity of Mud Filtrate for Sw	0.00	ohm-m
Source for Rt	0.00	
Source for Rxo	0.00	

Caliper Calibration MPD-C.J 378

Base Calibration on 29-SEP-2012 18:35
Field Calibration on 29-SEP-2012 18:36

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14193	3.99
2	22768	5.97
3	31248	7.96
4	39297	9.87
5	48452	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.91	7.96

Photo Density Calibration MPD-C.J 378

Base Calibration on 27-SEP-2012 12:49
Field Check on 29-SEP-2012 18:28

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	39385	12332	52994	19128
Reference 2	18690	2207	25185	2558

Field Check at Base

1201.6	1277.5

Field Check

1202.3	1288.1

PE Calibration

Base Calibration	Measured			Calibrated
	WS	WH	Ratio	Ratio
Background	219	1074		
Reference 1	13507	39225	0.348	0.309
Reference 2	5341	18558	0.293	0.274

Field Check at Base

219.0	1074.2

Field Check

219.4	1076.2

Density Constants MPD-C.J 378

Last Edited on 30-SEP-2012,01:52

Density Source Id	P15771B	
Nylon Calibrator Number	DNC-D-527	
Aluminium Calibrator Number	DAC-D-527	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.20	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)
2.68	

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:\Users\e173613\AppData\Local\Temp\Weatherford PreView\0\ECGS No 6-14 WPD008-1_MAINPASS.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

SHA-H Compact Swivel Head Adaptor
SHA-H 142 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

Compact Comms Gamma
MCG-D.K 483 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Neutron
MDN-B.J 372 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
MPD-C.J 378 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

MIS-A.A Compact Inline Bowspring sub
MIS-A.A 70 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SKJ-D.A Compact Knuckle Joint
SKJ-D.A 112 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-E.A Compact Inline Standoff sub
MIS-E.A 334 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

SKJ-E.A Compact Knuckle Joint
SKJ-E.A 143 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

SHA-J.B Compact Swivel Head Adaptor
SHA-J.B 574 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

Compact MMI Memory Section
MIM-A.J 241 LG: 4.65 ft WT: 26.5 lb OD: 2.24 in

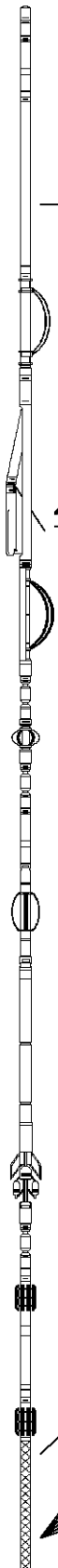
Compact MMI Electrode Section
MIE-A.J 241 LG: 13.96 ft WT: 99.2 lb OD: 4.09 in

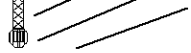
SKJ-E.B Compact Knuckle Joint
SKJ-E.B 583 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Focussed Electric
MFE-A.A 76 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction
MAI-B.A 219 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 79.30 ft Weight: 608.5 lb





-0.13 ft SMTU - DST Uphole Tension
All measurements relative to tool zero.

COMPANY	EAST CHEYENNE GAS STORAGE LLC
WELL	ECGS NO 6-14 WPD008-1
FIELD	PEETZ WEST
PROVINCE/COUNTY	LOGAN
COUNTRY/STATE	USA/COLORADO

Elevation Kelly Bushing	4558.00	feet	First Reading	5211.00	feet
Elevation Drill Floor	4557.00	feet	Depth Driller	5265.00	feet
Elevation Ground Level	4544.00	feet	Depth Logger	5267.00	feet

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