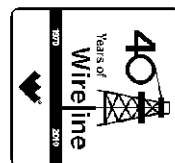




Weatherford

COMPENSATED PHOTO DENSITY COMPENSATED DUAL NEUTRON LOG



COMPANY

WEXPRO COMPANY

WELL

JACK DRAW UNIT #19

FIELD

JACK DRAW UNIT

PROVINCE/COUNTY

MOFFAT

COUNTRY/STATE

U.S.A. / COLORADO

LOCATION

SHL: 1342' FSL & 2264' FEL

SEC

TWP
10 11NRGE
97WOther Services
MAI
CMI

API Number

05-081-07616

Permit Number

Permanent Datum G.L., Elevation 6894 feet

Log Measured From KB

Drilling Measured From K.B.

Date

8-OCT-2011

Elevations:
KB 6923.00
DF 6922.00
GL 6894.00

Run Number

ONE

Depth Driller

9373.00 feet

Depth Logger

9375.00 feet

First Reading

9322.00

Last Reading

538.00

Casing Driller

535.00 feet

Casing Logger

538.00 feet

Bit Size

7.875

inches

Hole Fluid Type

LSND

Density / Viscosity

10.20 lb/USg 44.00 CP
9.60 7.00 ml/30Min

PH / Fluid Loss

9.60

Sample Source

FLOWLINE

Rm @ Measured Temp

7.63 @ 54.0 ohm-m

Rmf @ Measured Temp

6.10 @ 54.0 ohm-m

Rmc @ Measured Temp

9.16 @ 54.0 ohm-m

Source Rmf / Rmc

CALC CALC

Rm @ BHT

2.23 @190.0 ohm-m

Time Since Circulation

8 HOURS

Max Recorded Temp

190.00 deg F

Equipment Name

COMPACT

Equipment / Base

13037 RK SPR

Recorded By

J. PAULSON

Witnessed By

R. BUSH

BOREHOLE RECORD

Last Edited: 08-OCT-2011 10:44

Bit Size
inches

7.875

Depth From
feet

535.00

Depth To
feet

9373.00

CASING RECORD

Type

Size
inches

9.625

Depth From
feet

0.00

Shoe Depth
feet

535.00

Weight
pounds/ft

36.00

REMARKS

SOFTWARE VERSION 11.03.4044.

TOOLS RUN 1: SHA, MCG, MDN, MPD, MIS-A, SKJ, MIS-B, SKJ, MIM, MIE, MFE, MAI RAN IN COMBINATION.

HARDWARE: MDN: DUAL BOWSPRING USED.
MPD: 8" PROFILE PLATE USED.
MAI: TWO 1.0" STANDOFFS USED.

2.65 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.

ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

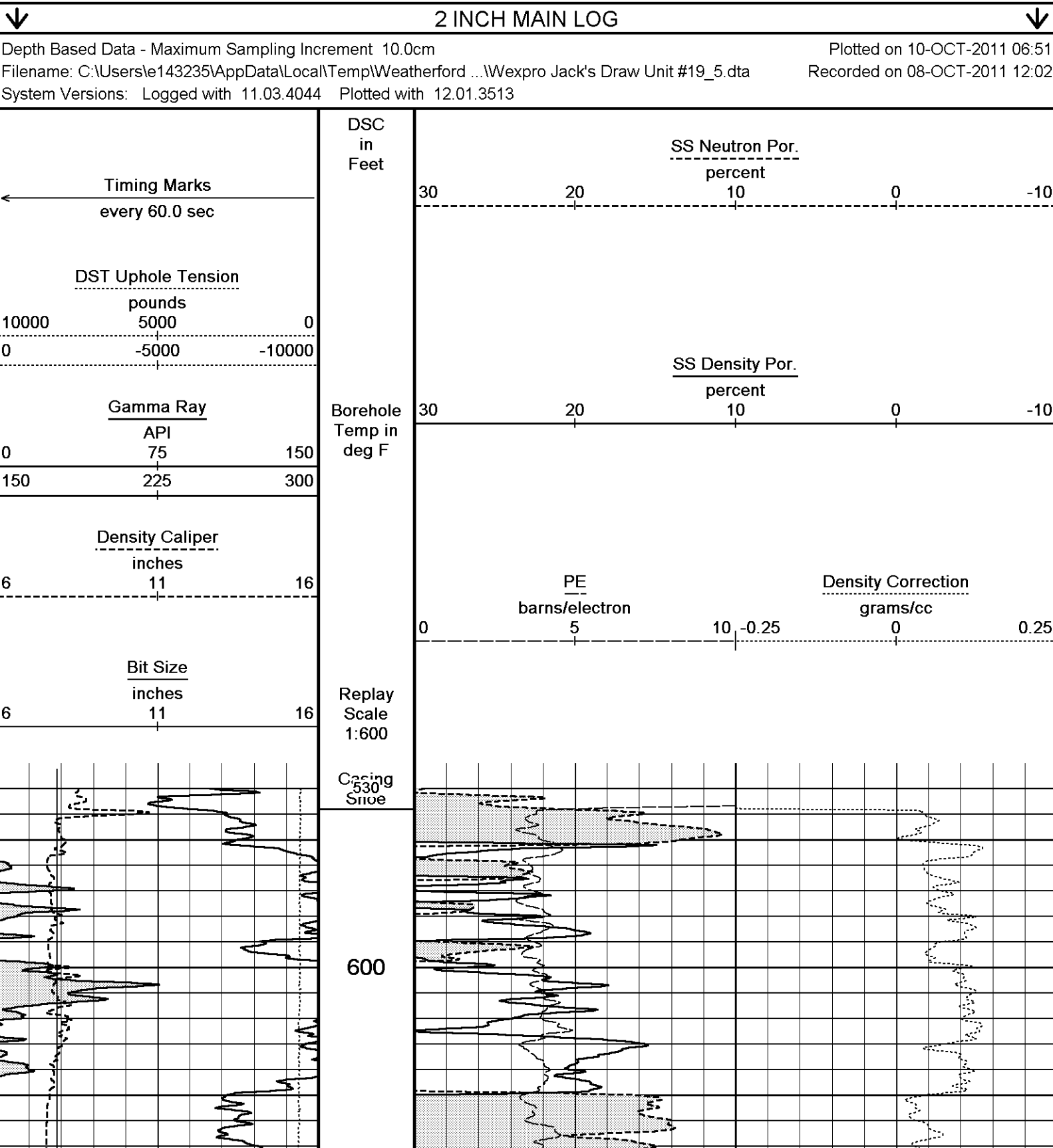
TOTAL HOLE VOLUME FROM T.D. TO SURFACE CASING = 3110 CUBIC FEET.

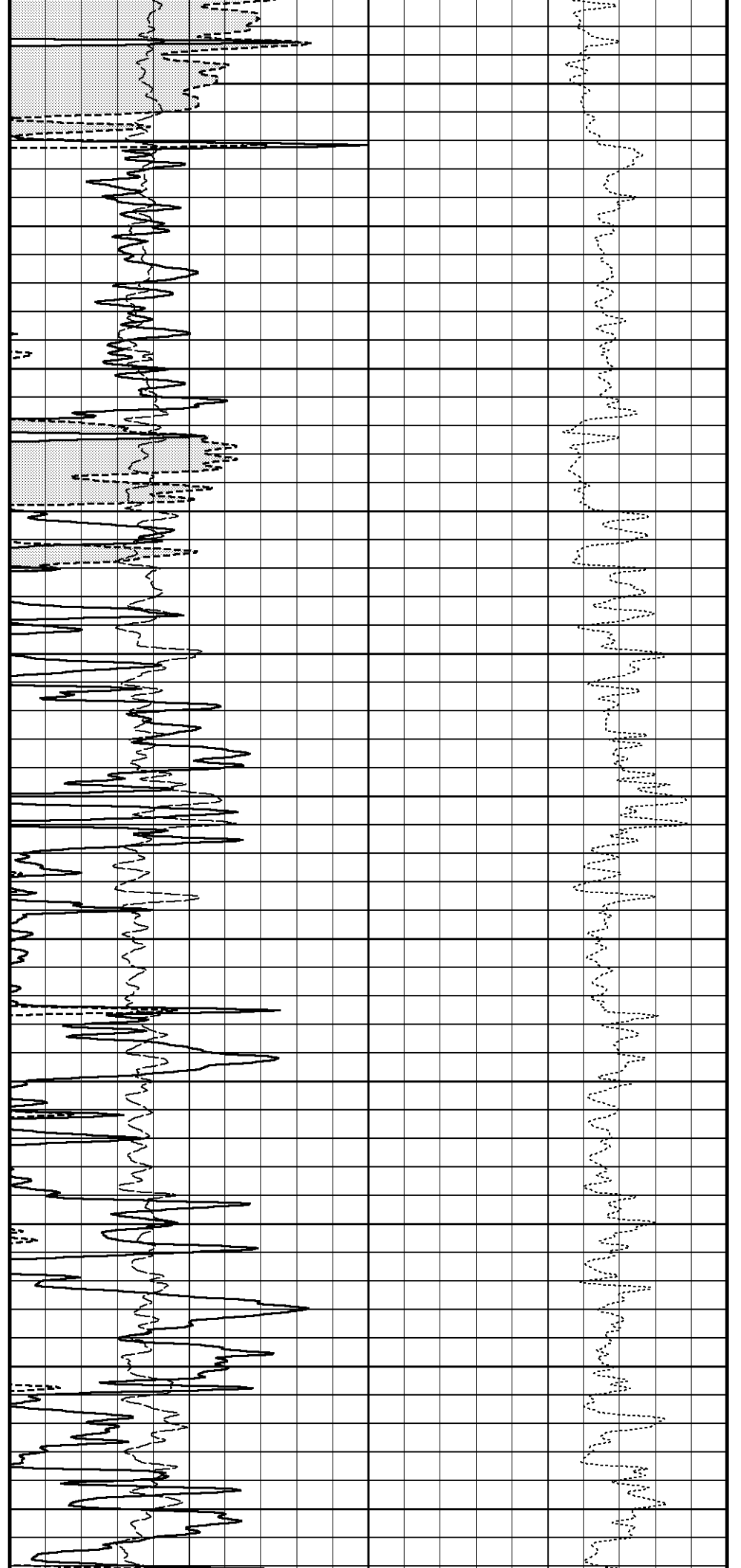
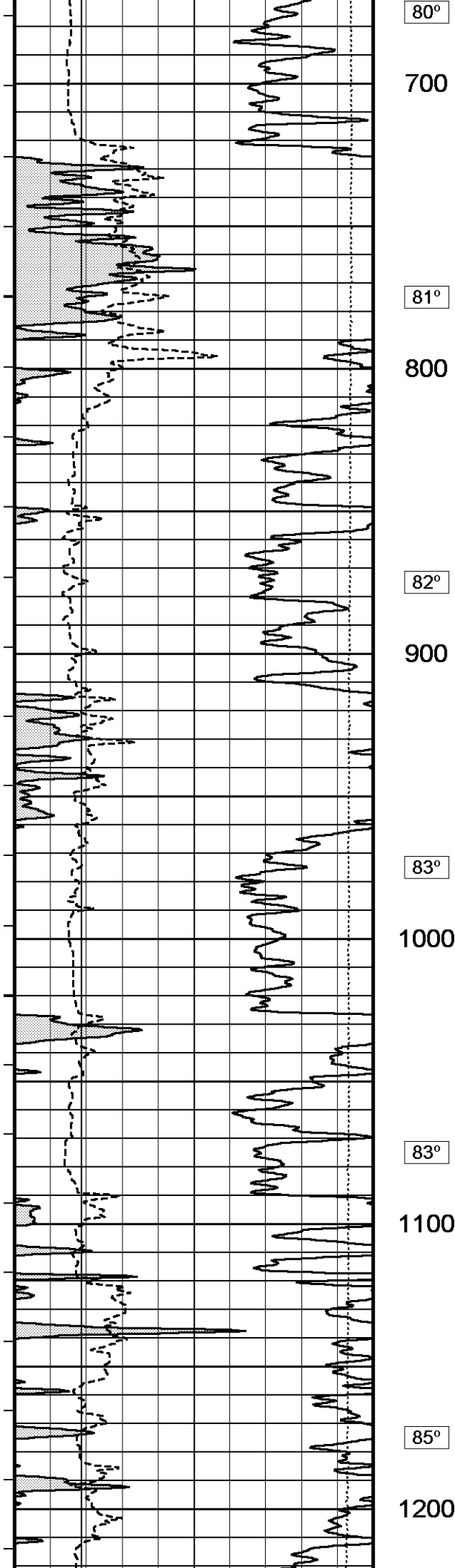
ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 2130 CUBIC FEET.

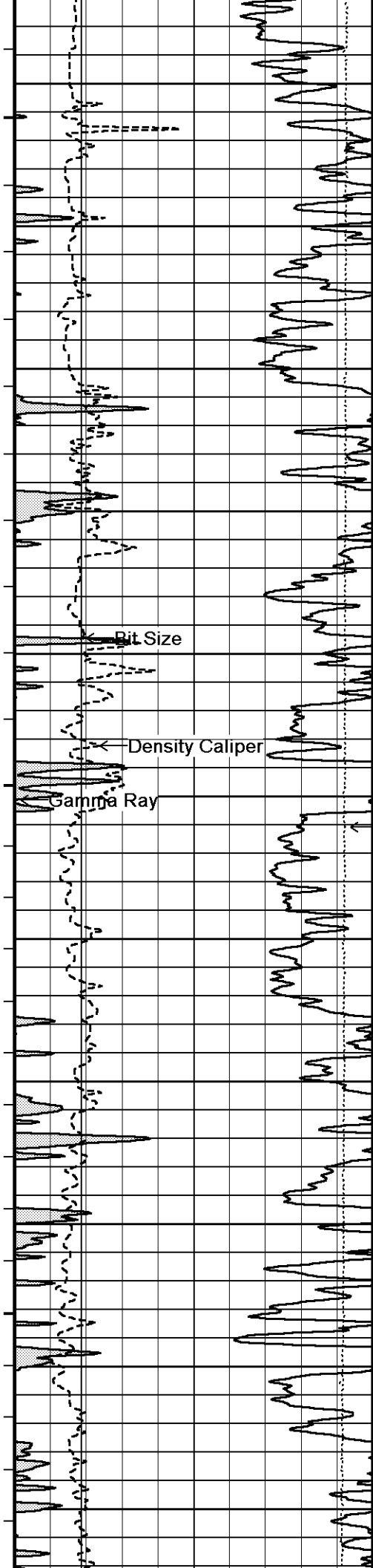
TIGHT PULLS, BOREHOLE SIZE AND RUGOSITY WILL AFFECT REPEATABILITY AND DATA QUALITY.

OPERATOR: D. SMITH.
SERVICE ORDER: #3529731.
RIG: SST #88.

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.

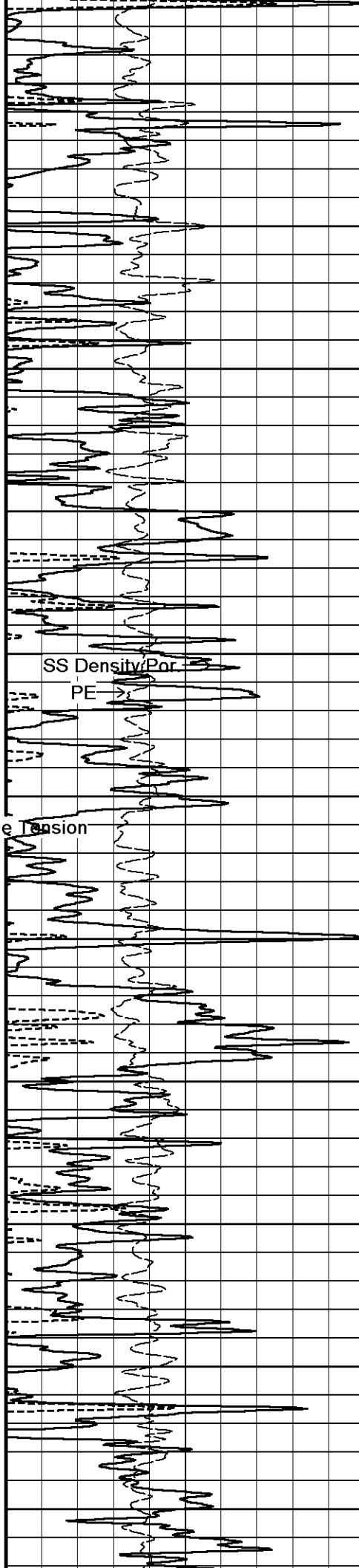




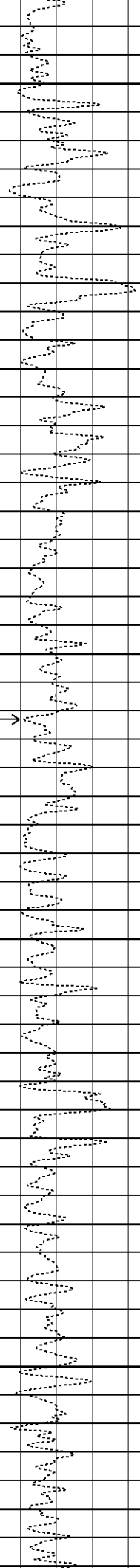


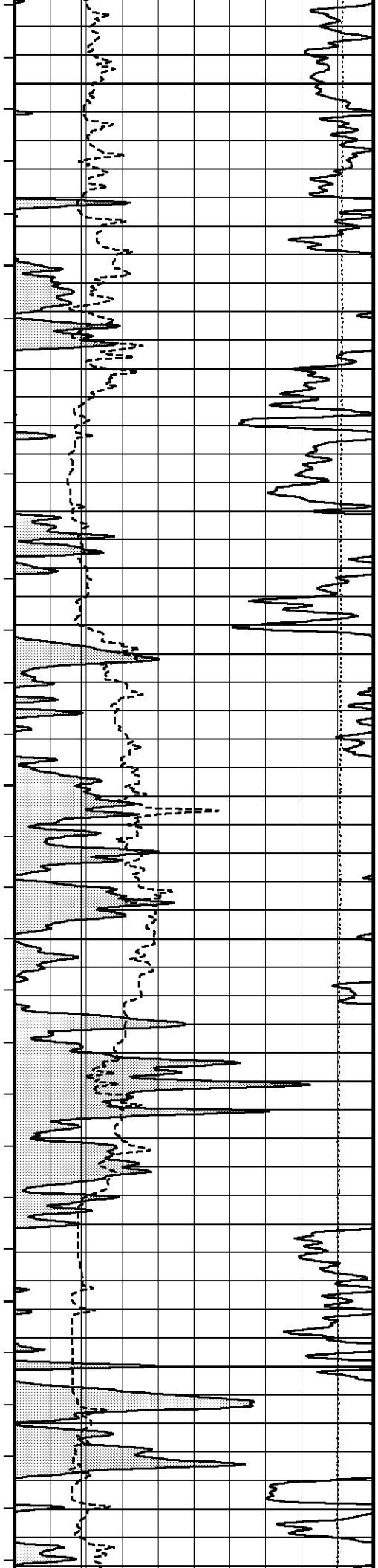
86°
1300
86°
1400
87°
1500
88°
1600
89°
1700

DST Uphole Tension



Density Correction





91°

1800

92°

1900

93°

2000

94°

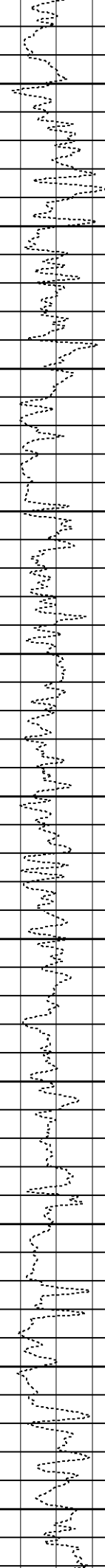
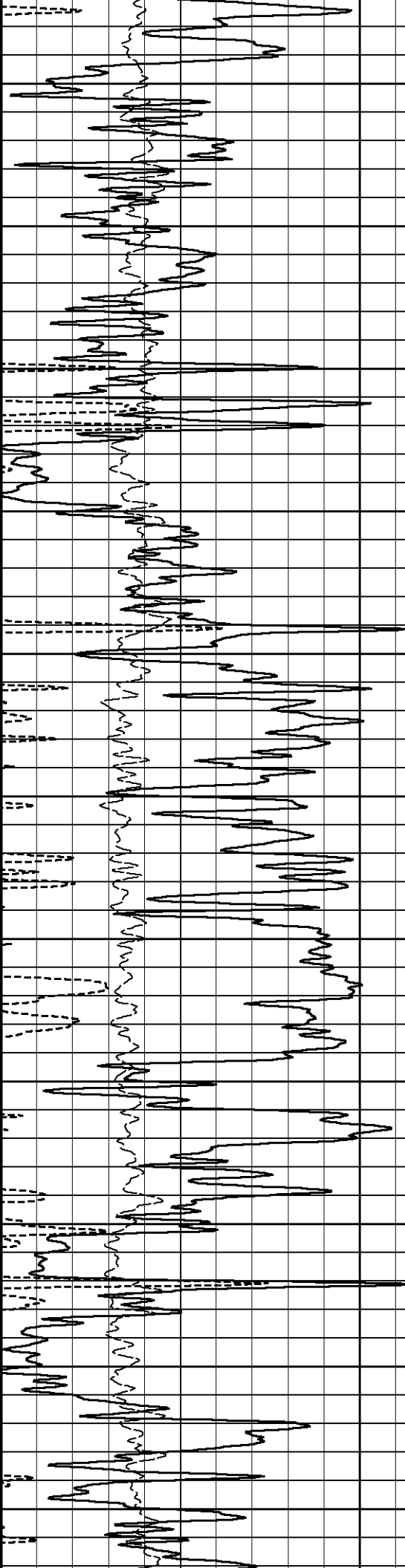
2100

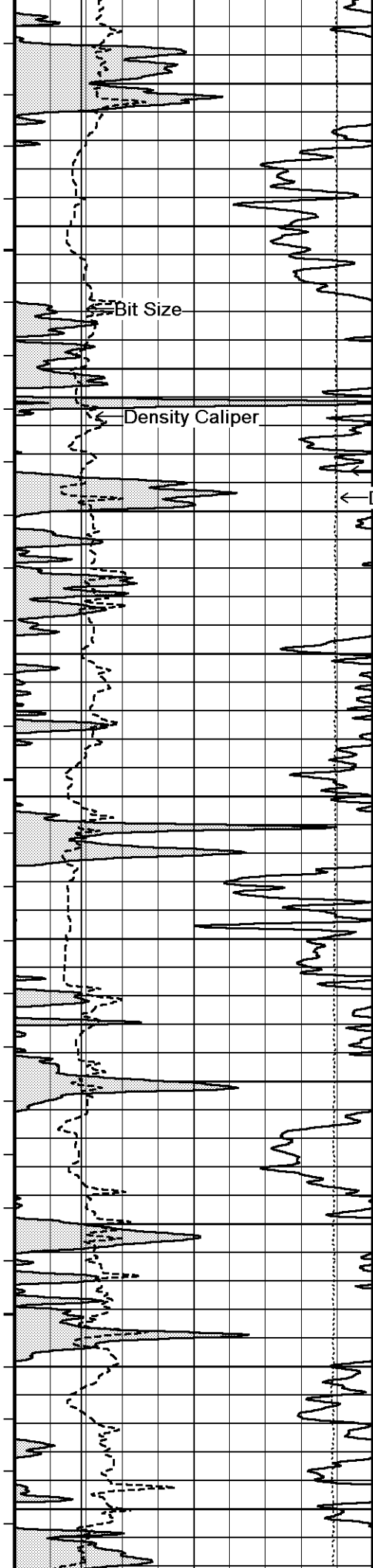
96°

2200

97°

2300





98°

2400

Bit Size

Density Caliper

99°

Gamma Ray

DST Hole Tension

2500

100°

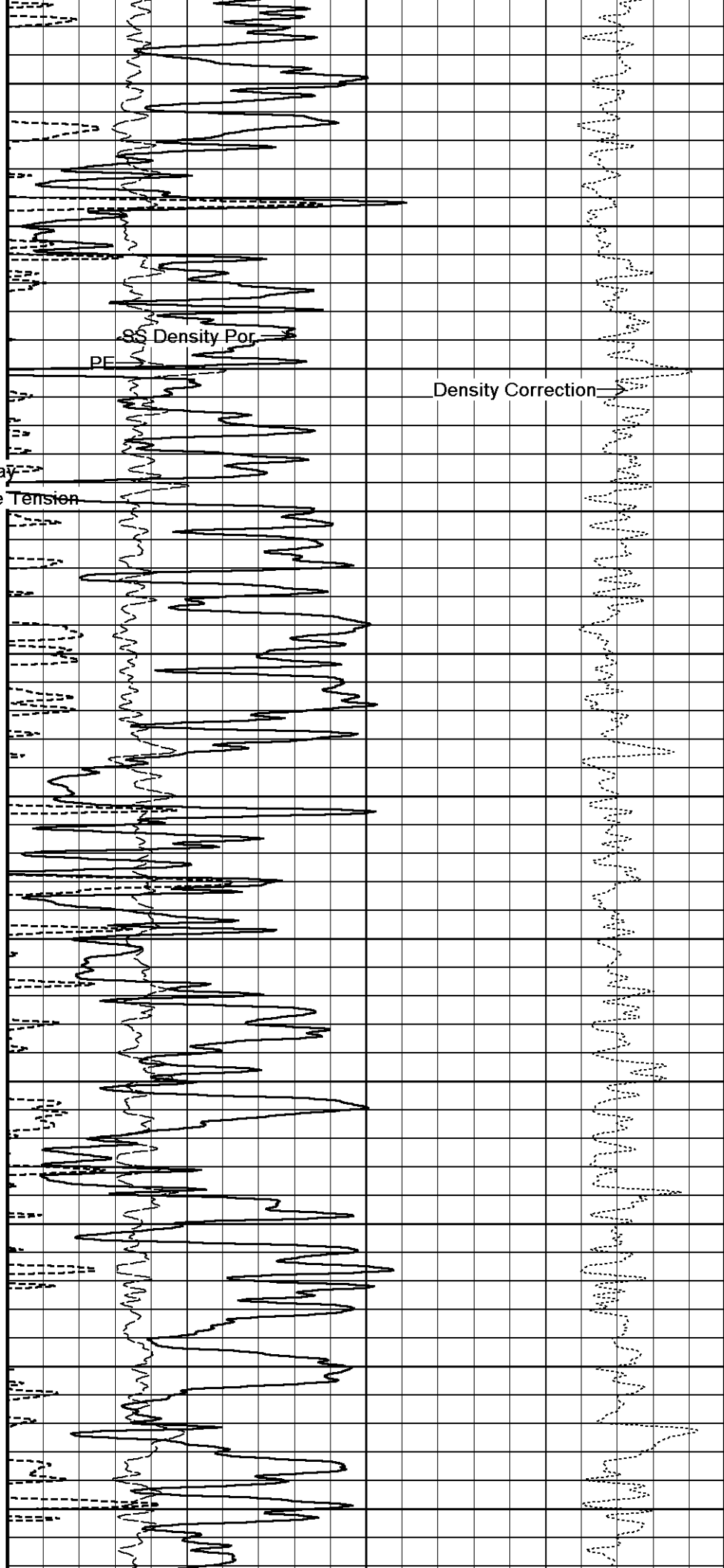
2600

101°

2700

102°

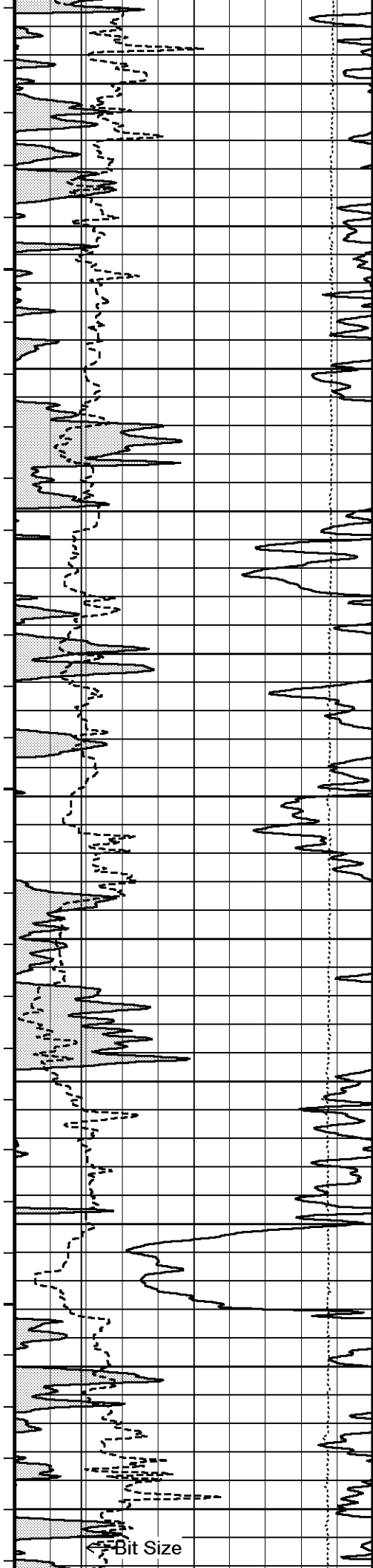
2800



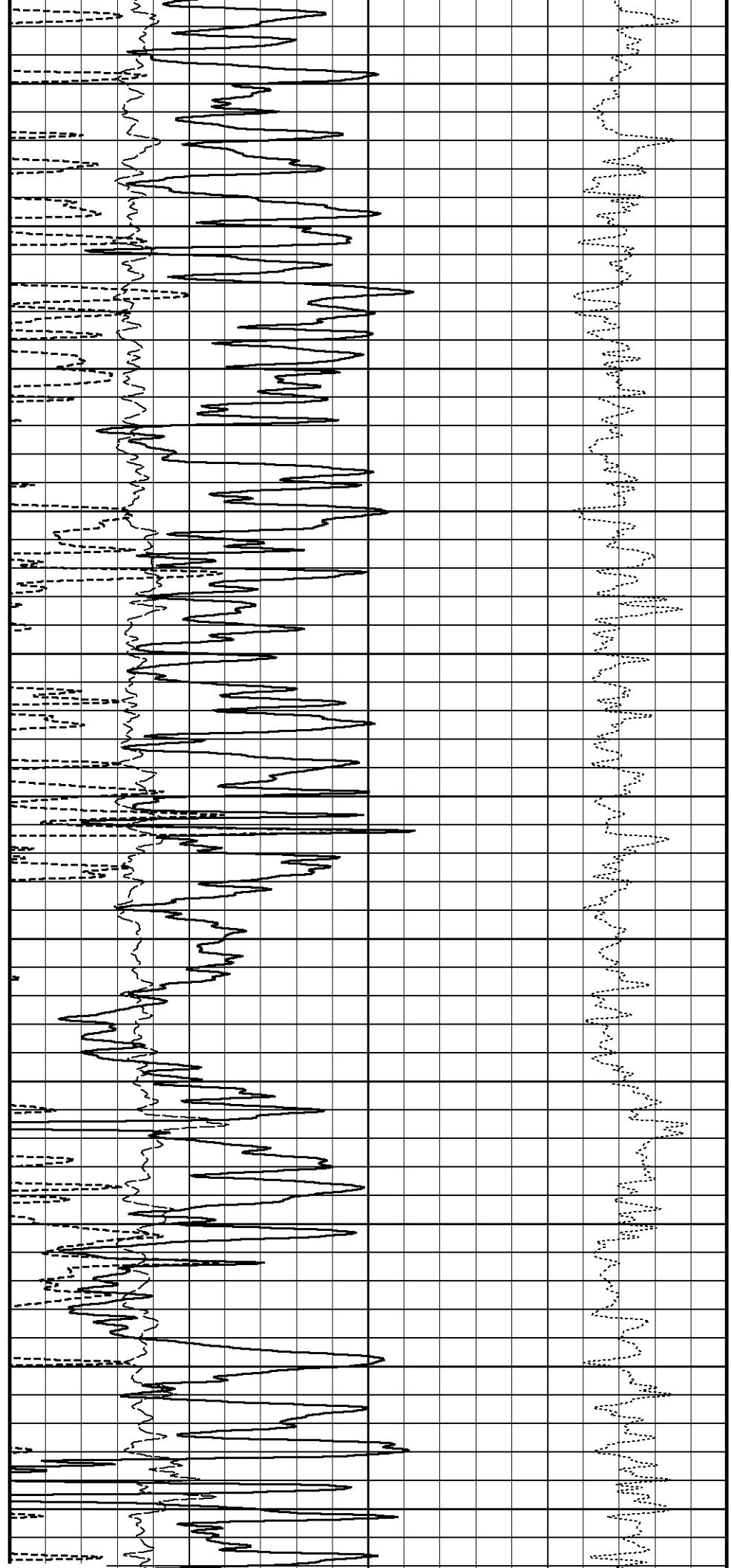
Density Por

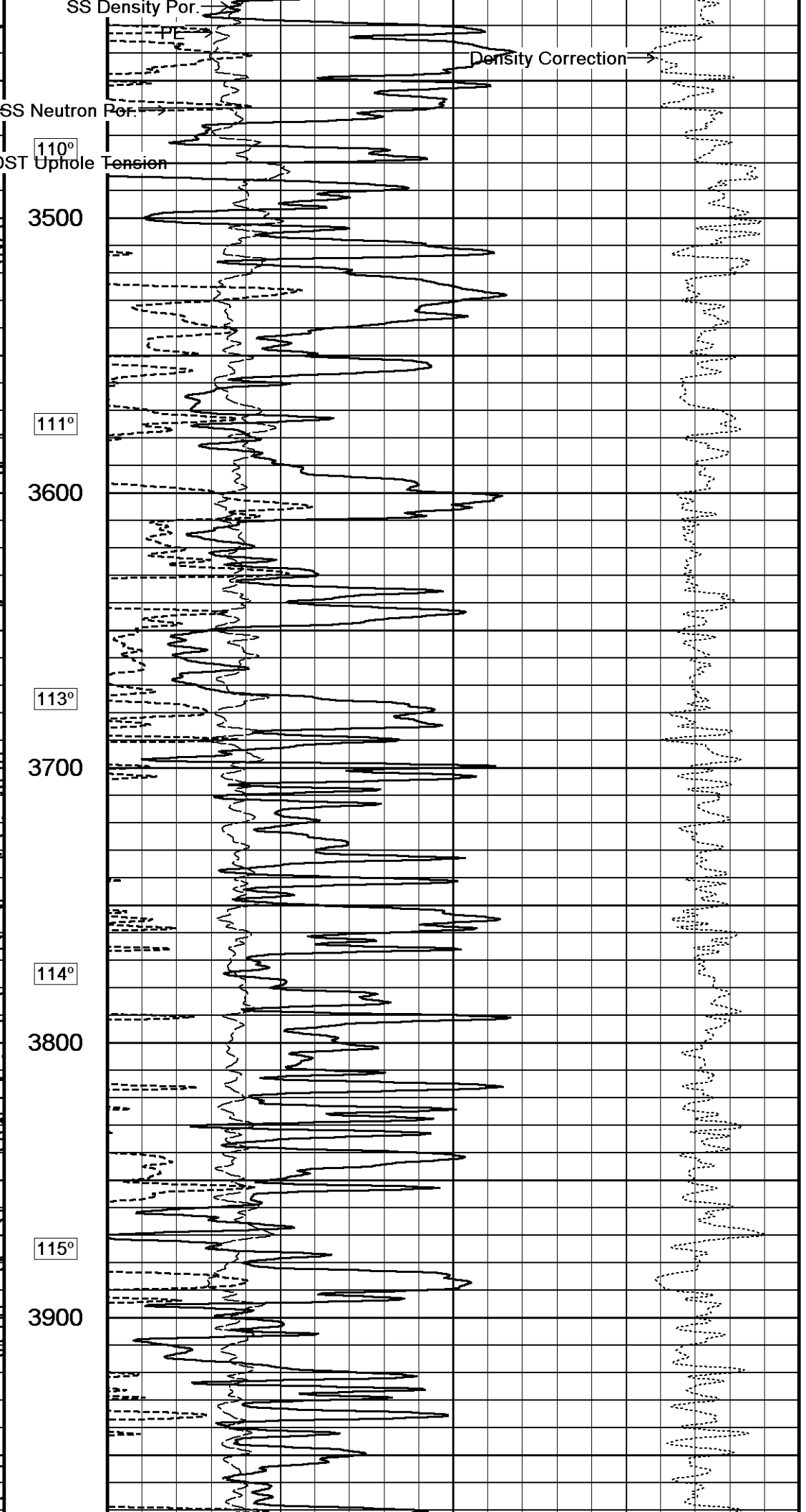
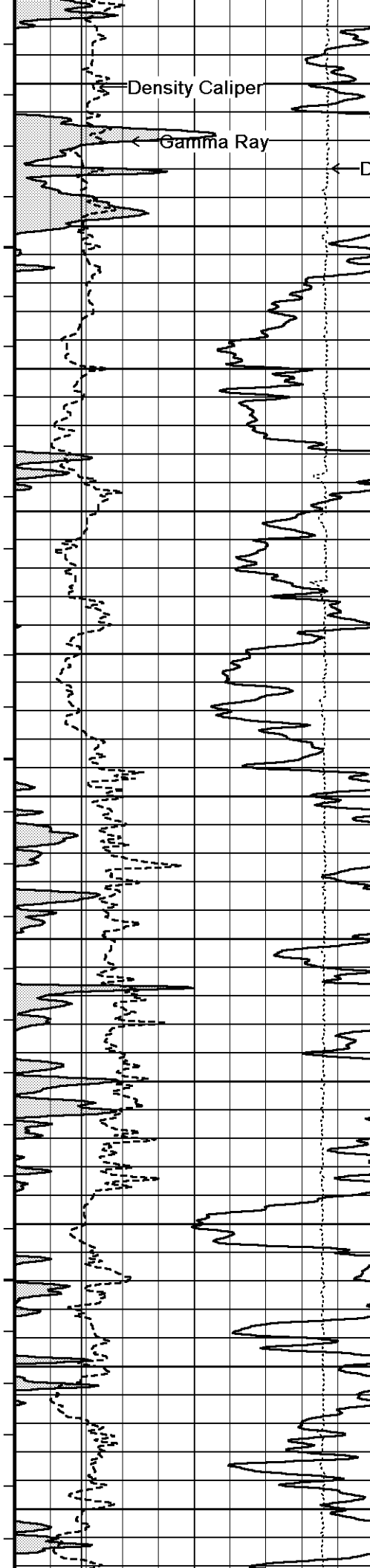
PE

Density Correction



103°
2900
104°
3000
106°
3100
107°
3200
108°
3300
109°
3400





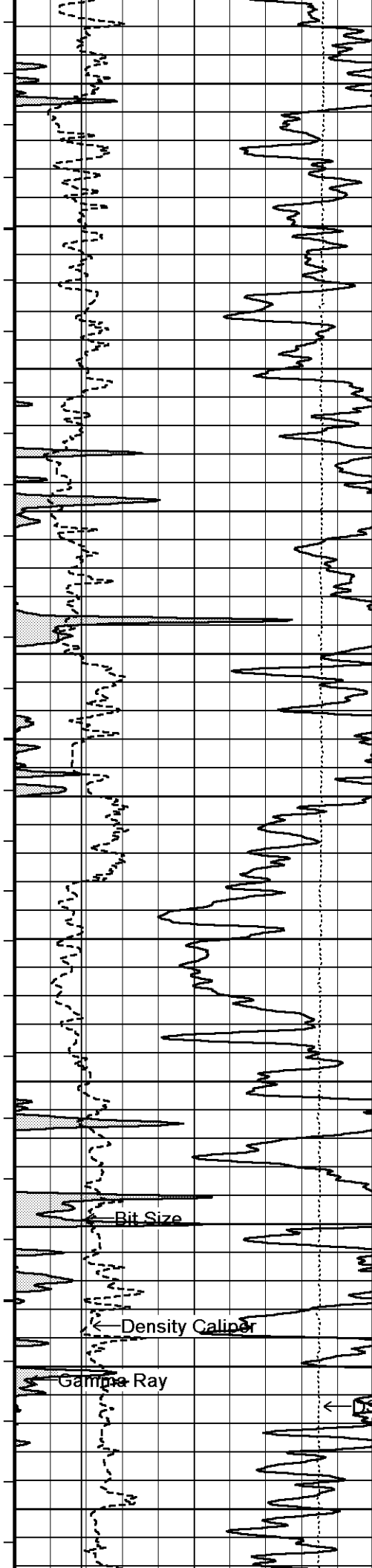
110°

111°

113°

114°

115°



117°

4000

118°

4100

119°

4200

120°

4300

121°

4400

123°

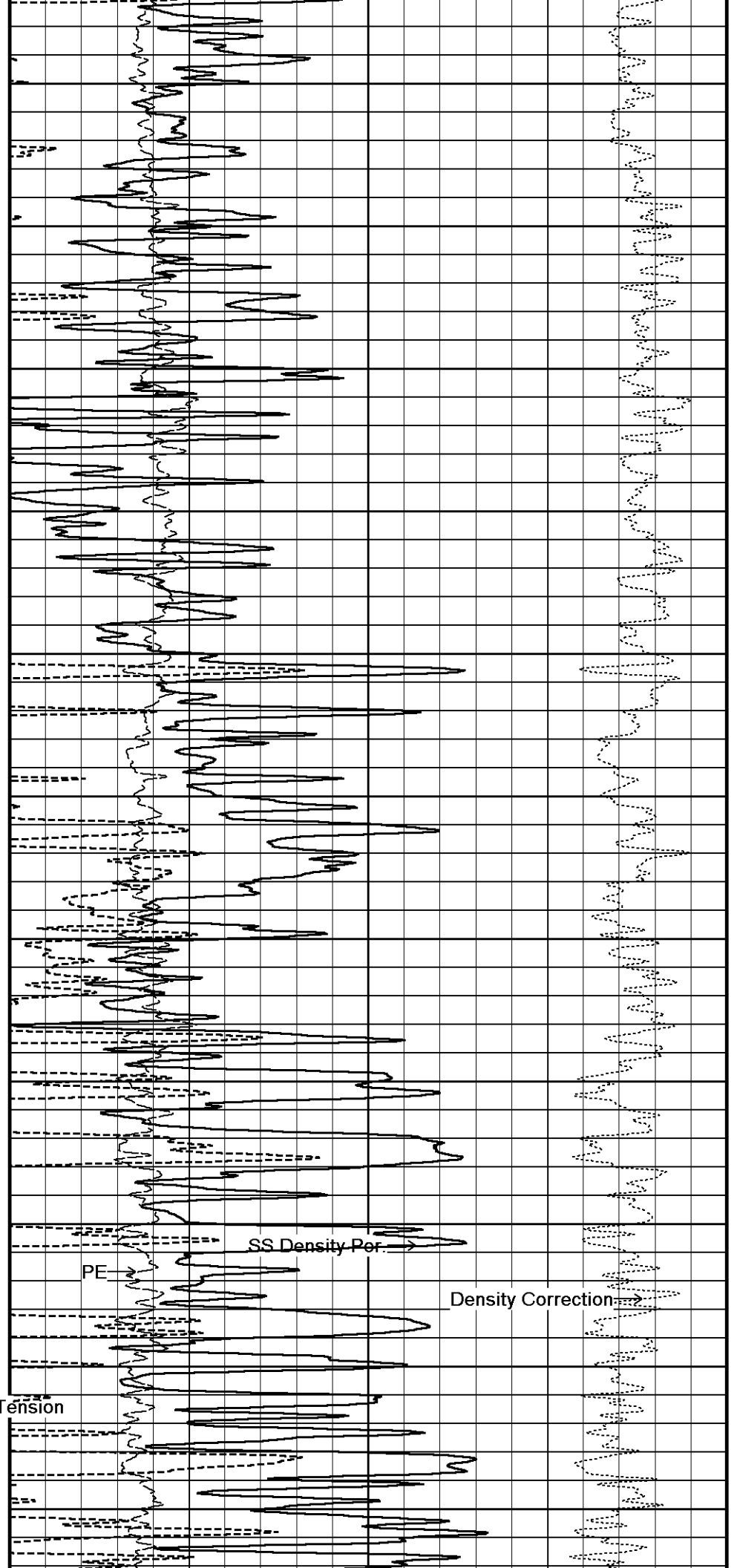
4500

Bit Size

Density Caliper

Gamma Ray

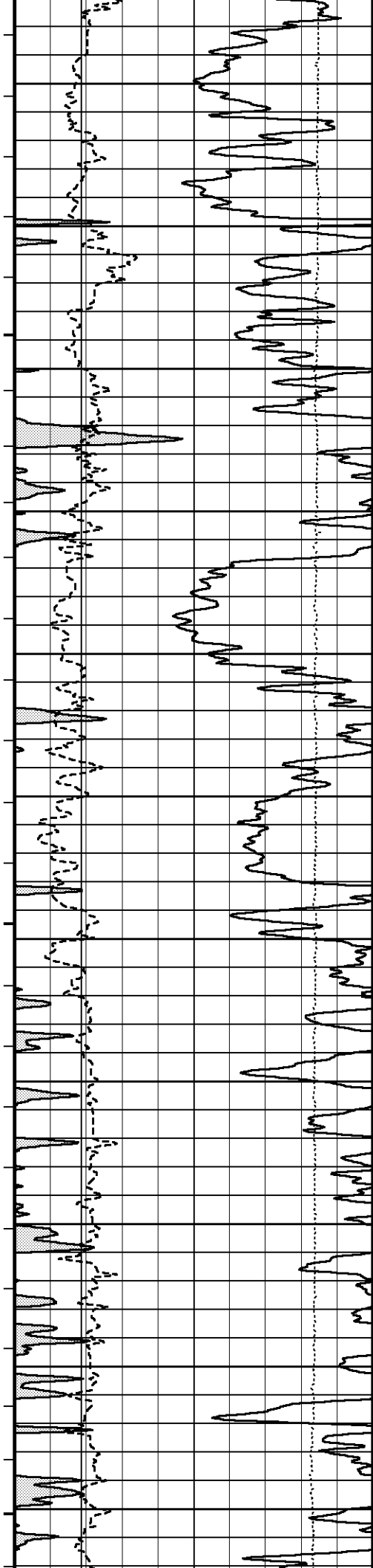
DST Uphole Tension



SS Density Per.

PE

Density Correction



124°

4600

125°

4700

126°

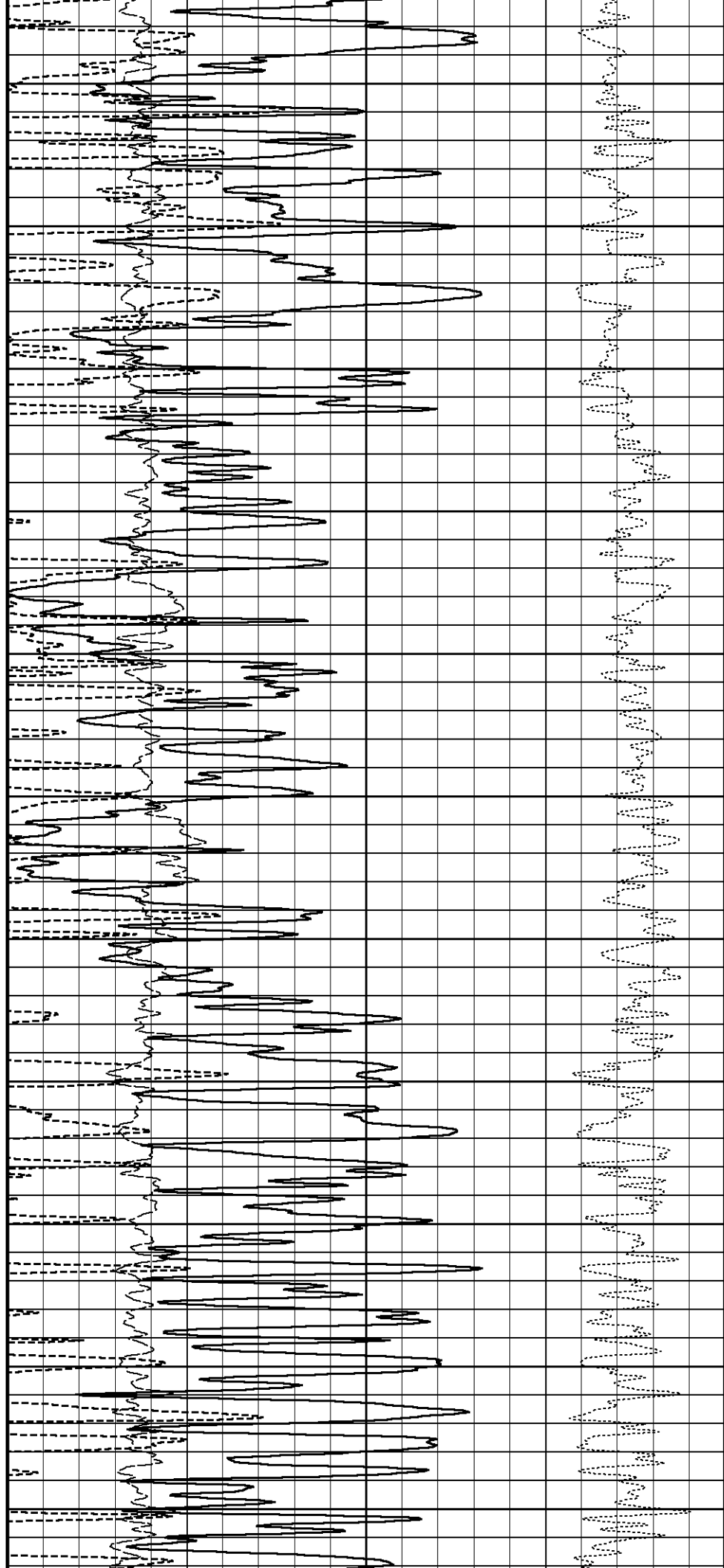
4800

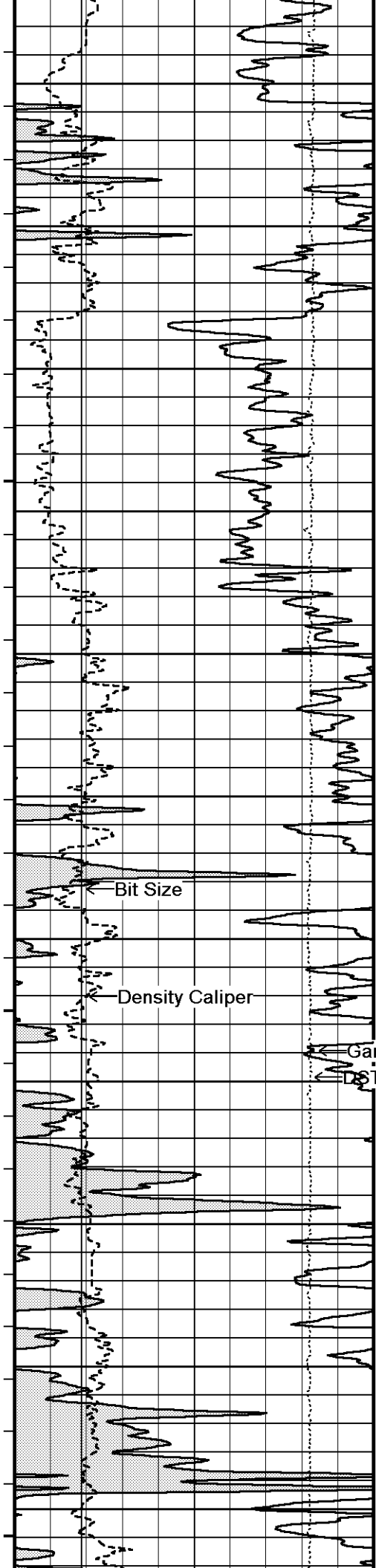
127°

4900

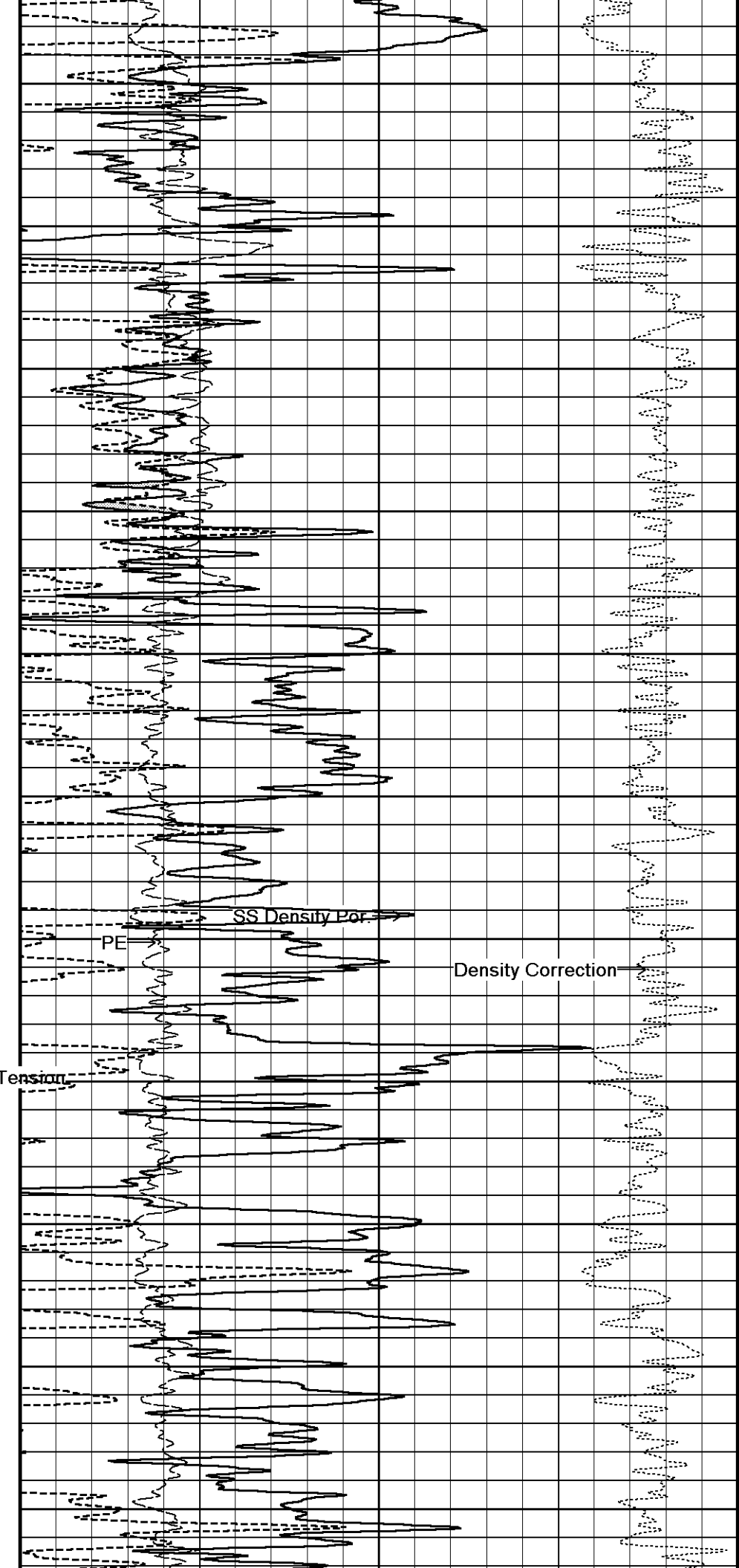
129°

5000





130°
5100
131°
5200
132°
5300
134°
5400
135°
5500
137°
5600



Bit Size

Density Caliper

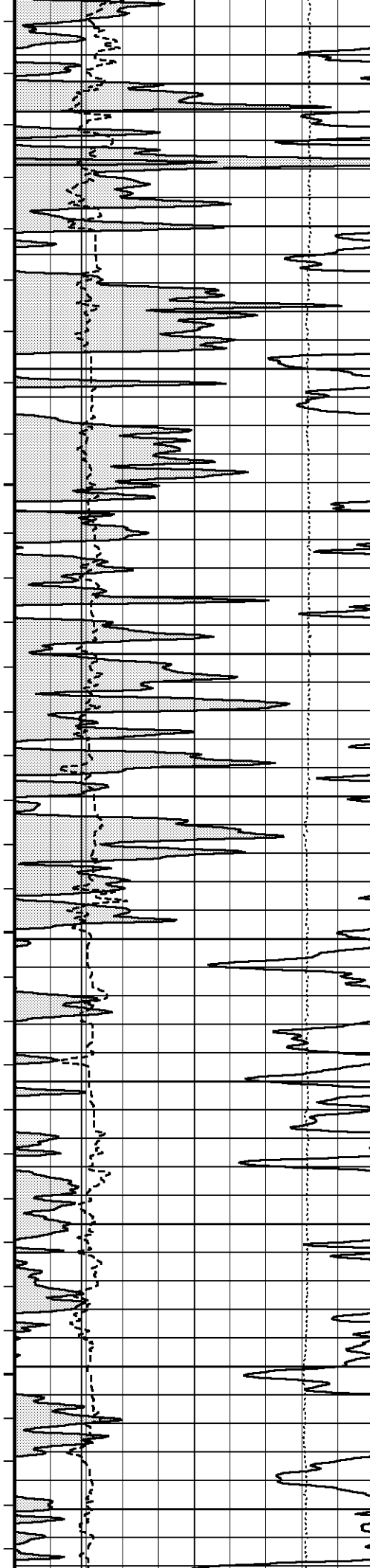
Gamma Ray

DST Uphole Tension

PE

SS Density Por.

Density Correction



138°

5700

140°

5800

142°

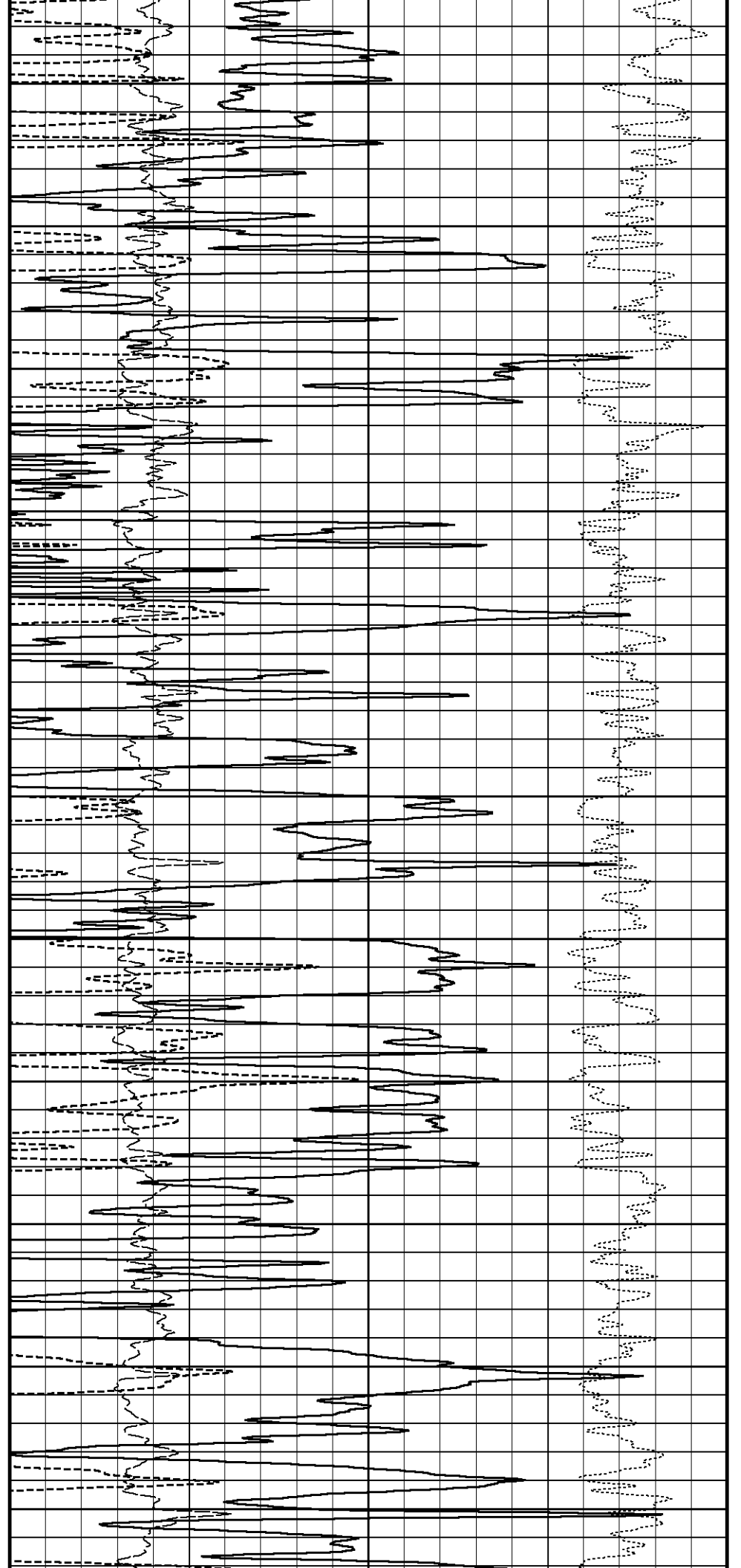
5900

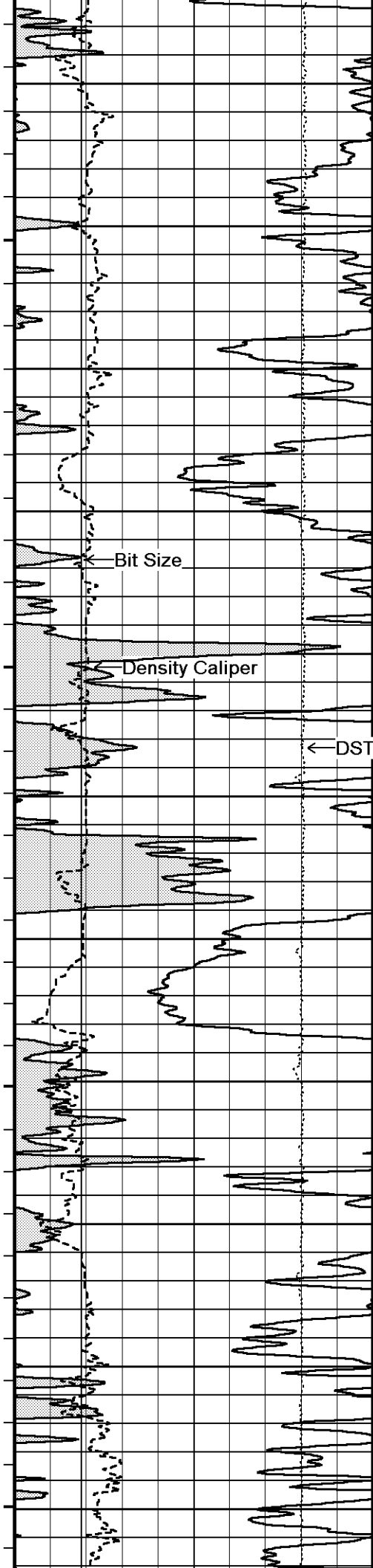
144°

6000

146°

6100





147°

6200

149°

6300

150°

6400

152°

6500

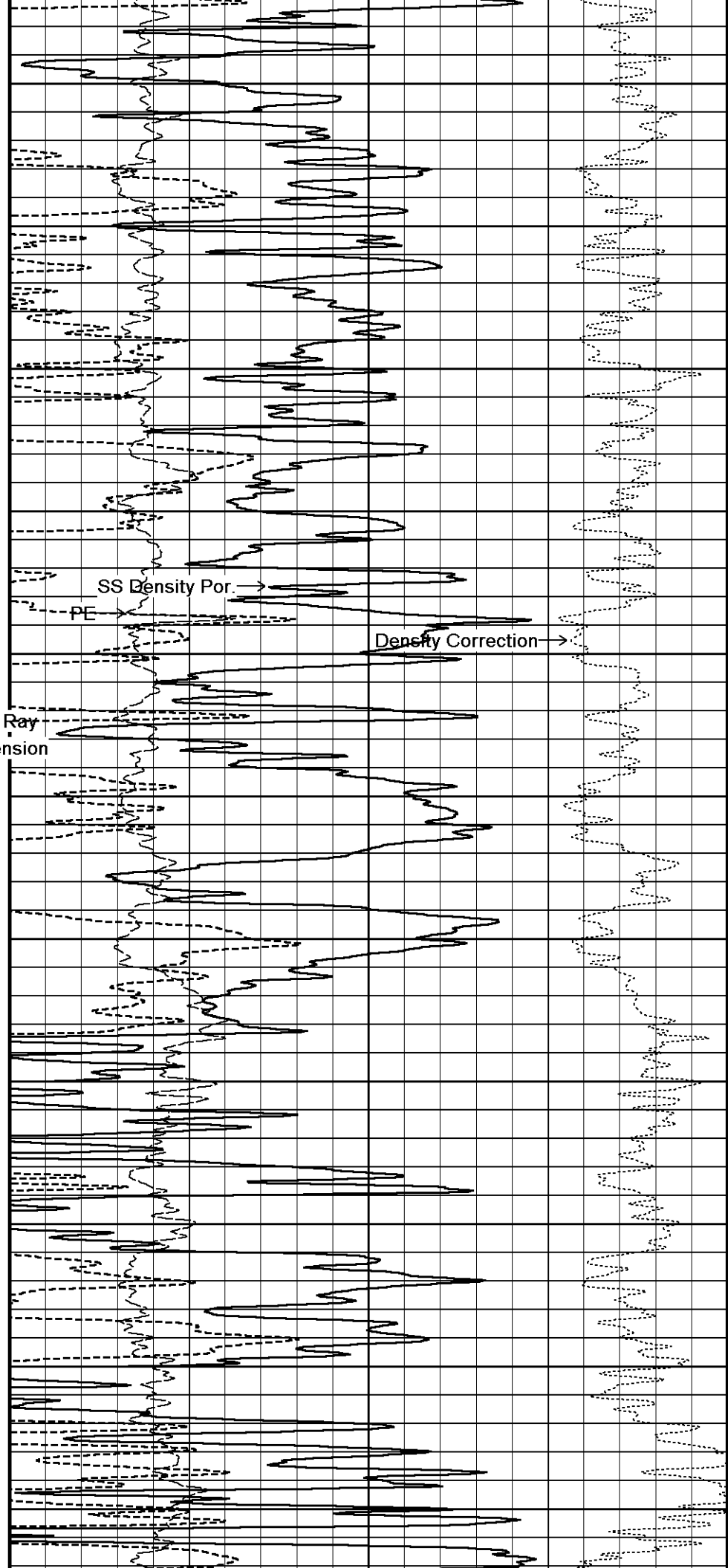
153°

6600

155°

6700

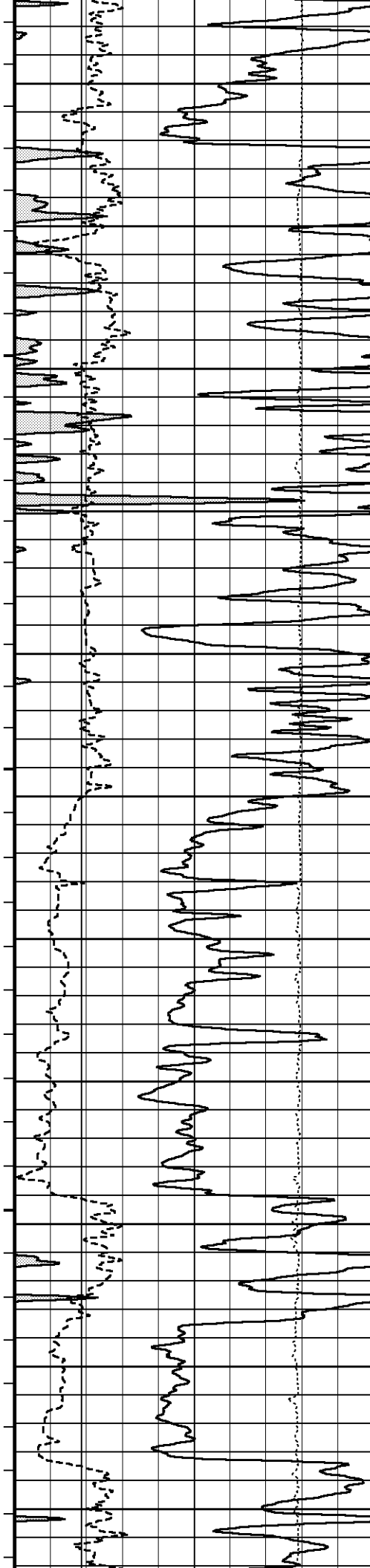
Gamma Ray
← DST Uphole Tension



SS Density Por. →

PE →

Density Correction →



157°

6800

158°

6900

161°

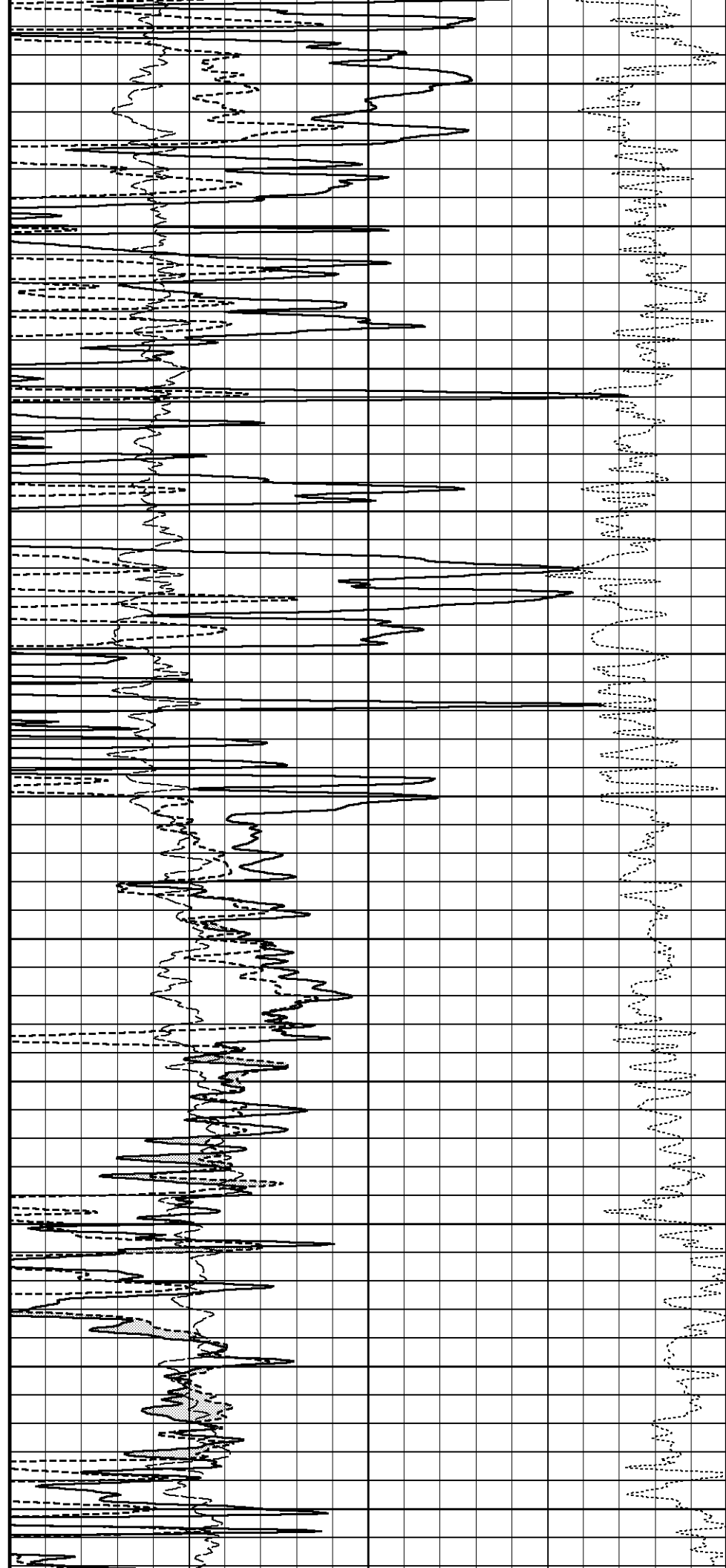
7000

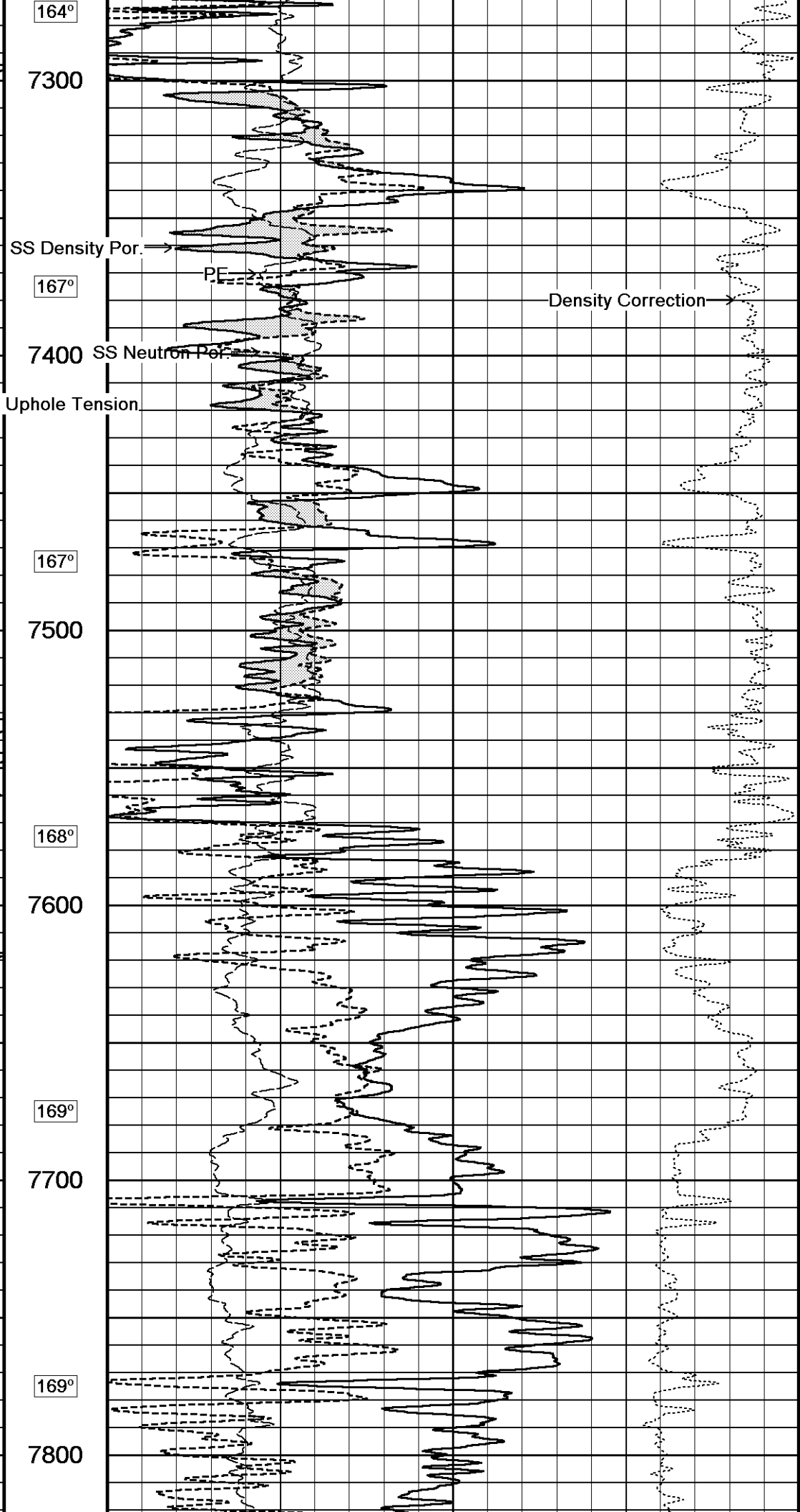
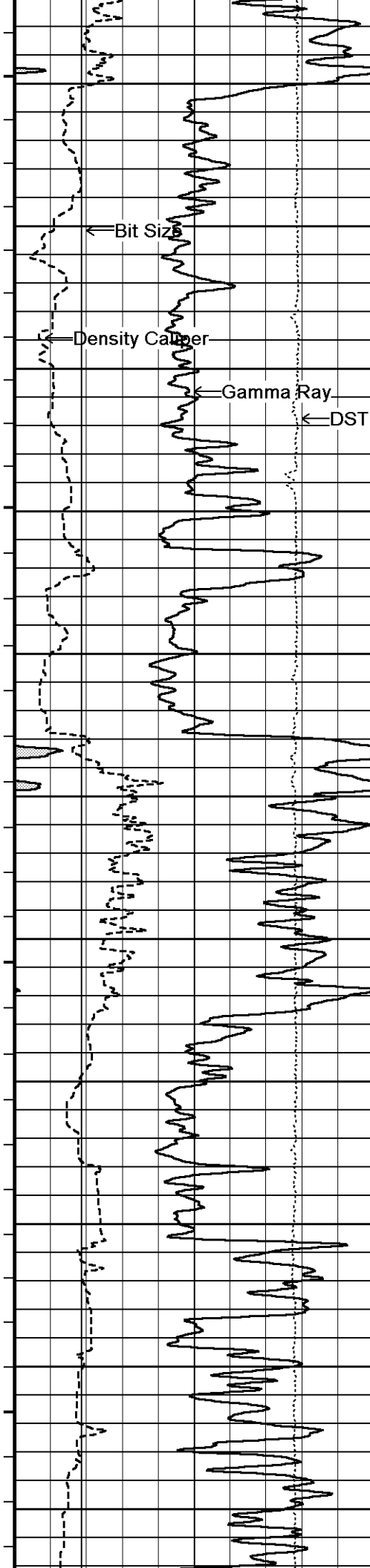
163°

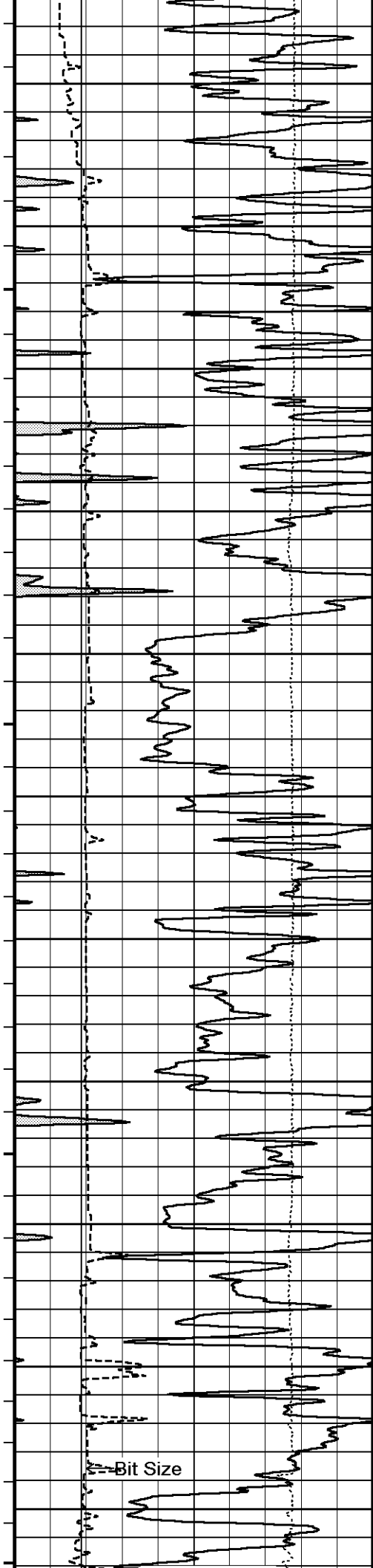
7100

164°

7200







171°

7900

173°

8000

175°

8100

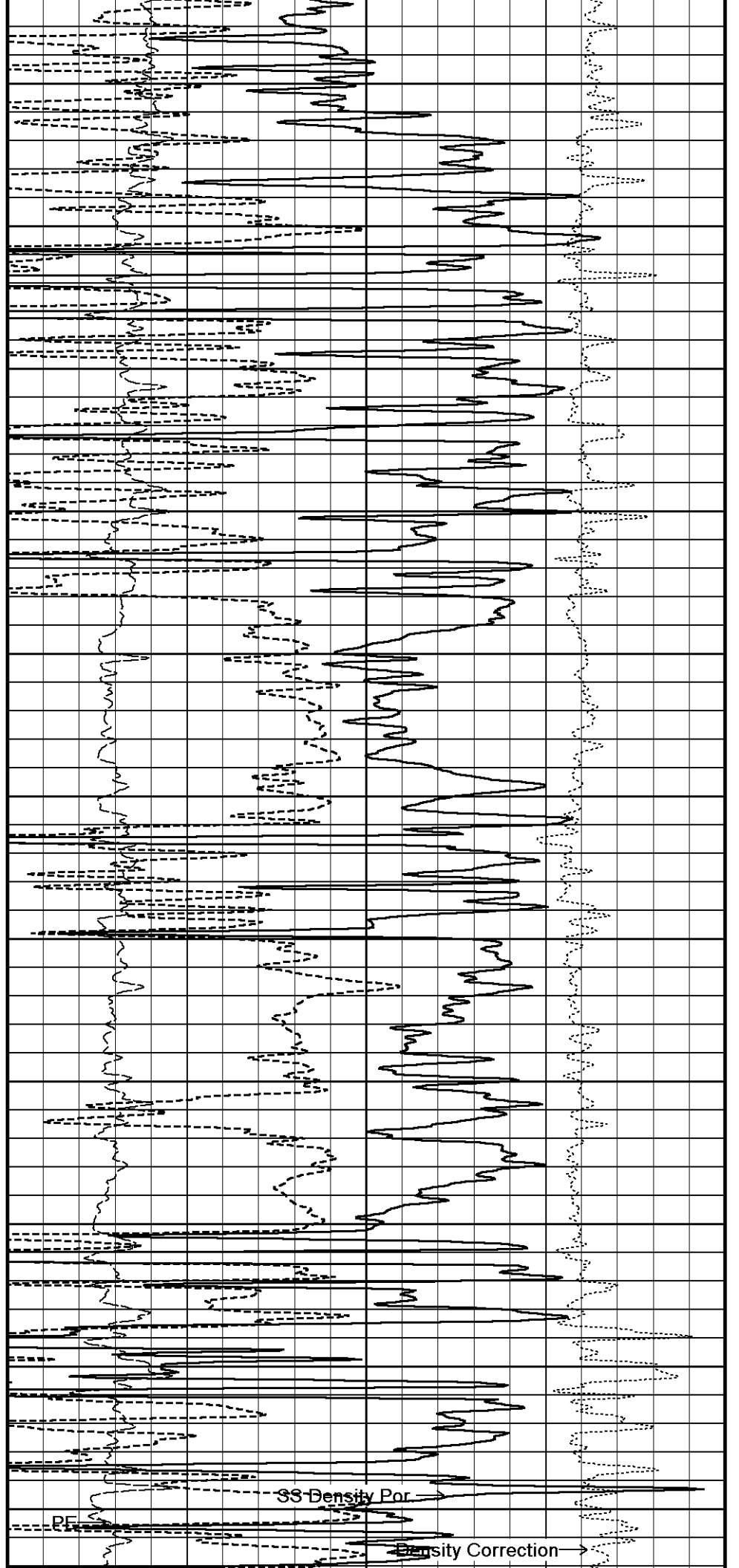
176°

8200

175°

8300

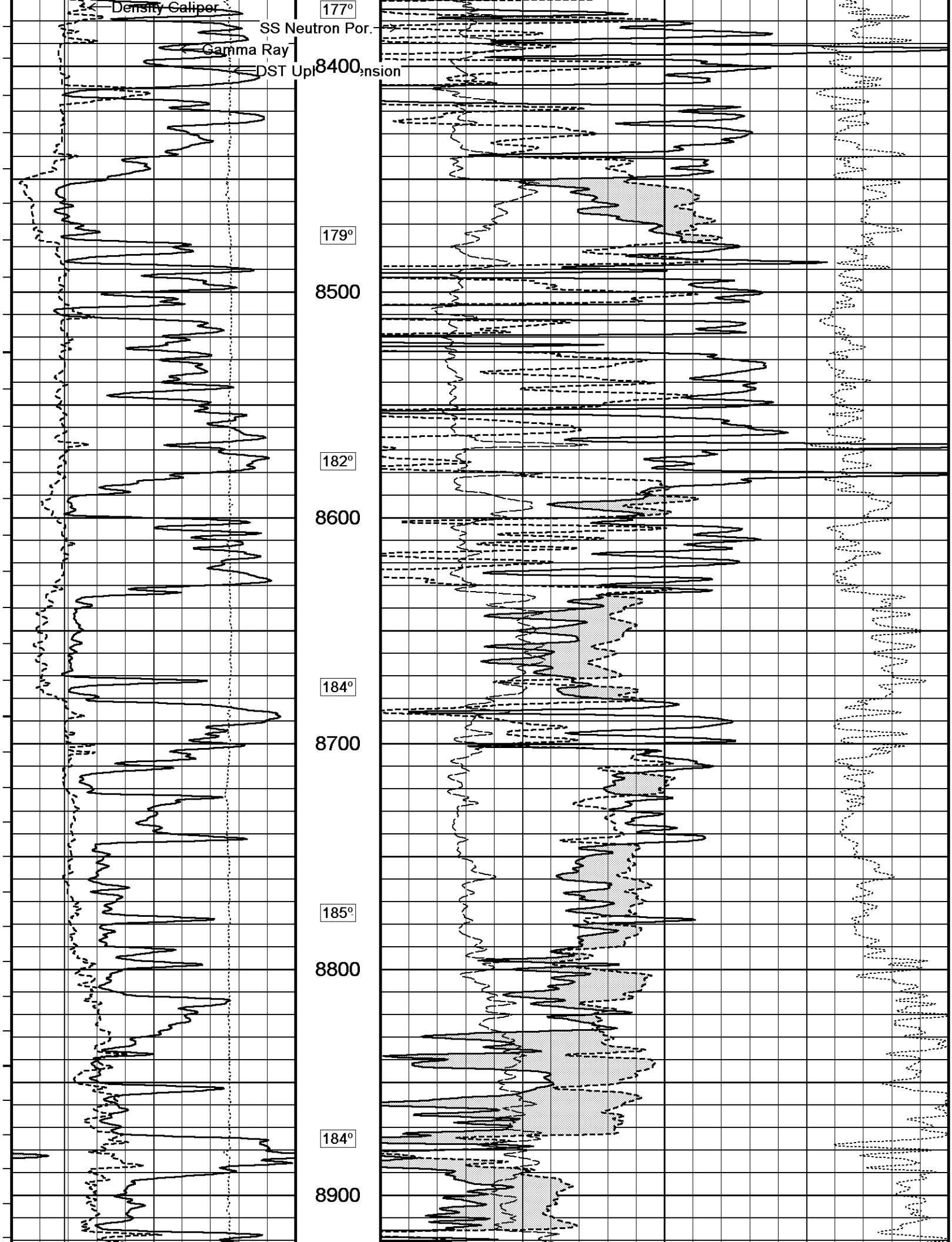
Bit Size

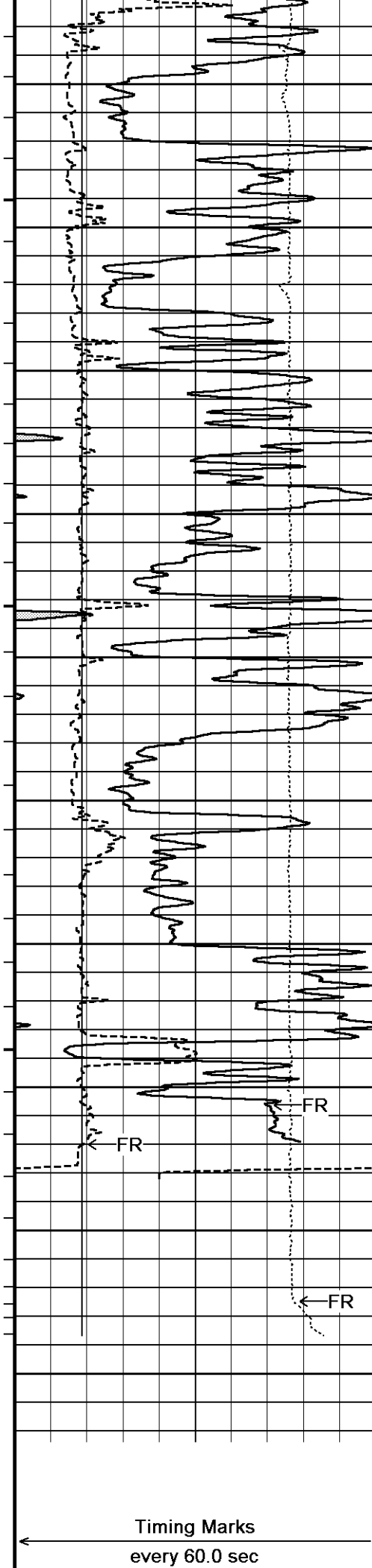


SS Density Por

Density Correction

PF





186°

9000

188°

9100

190°

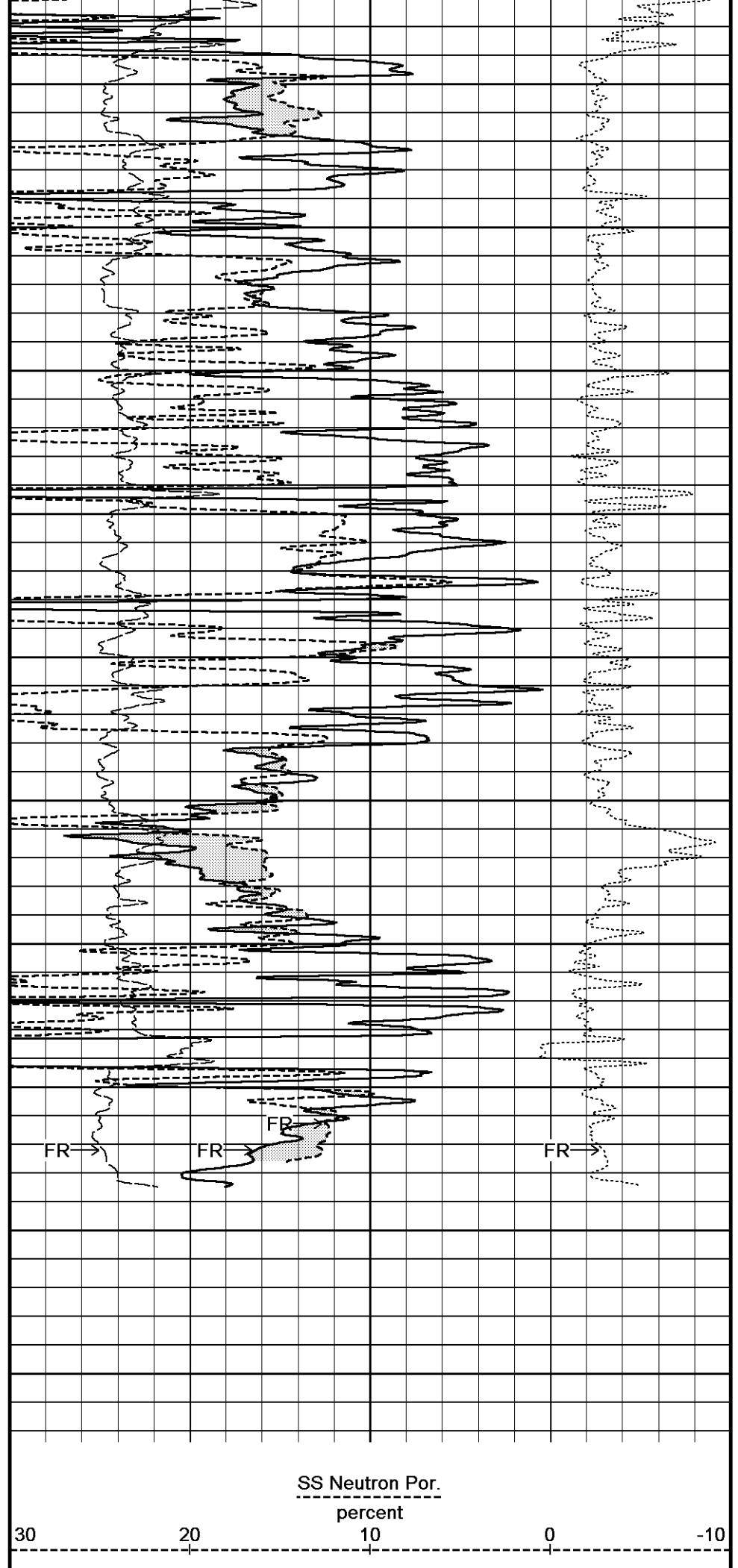
9200

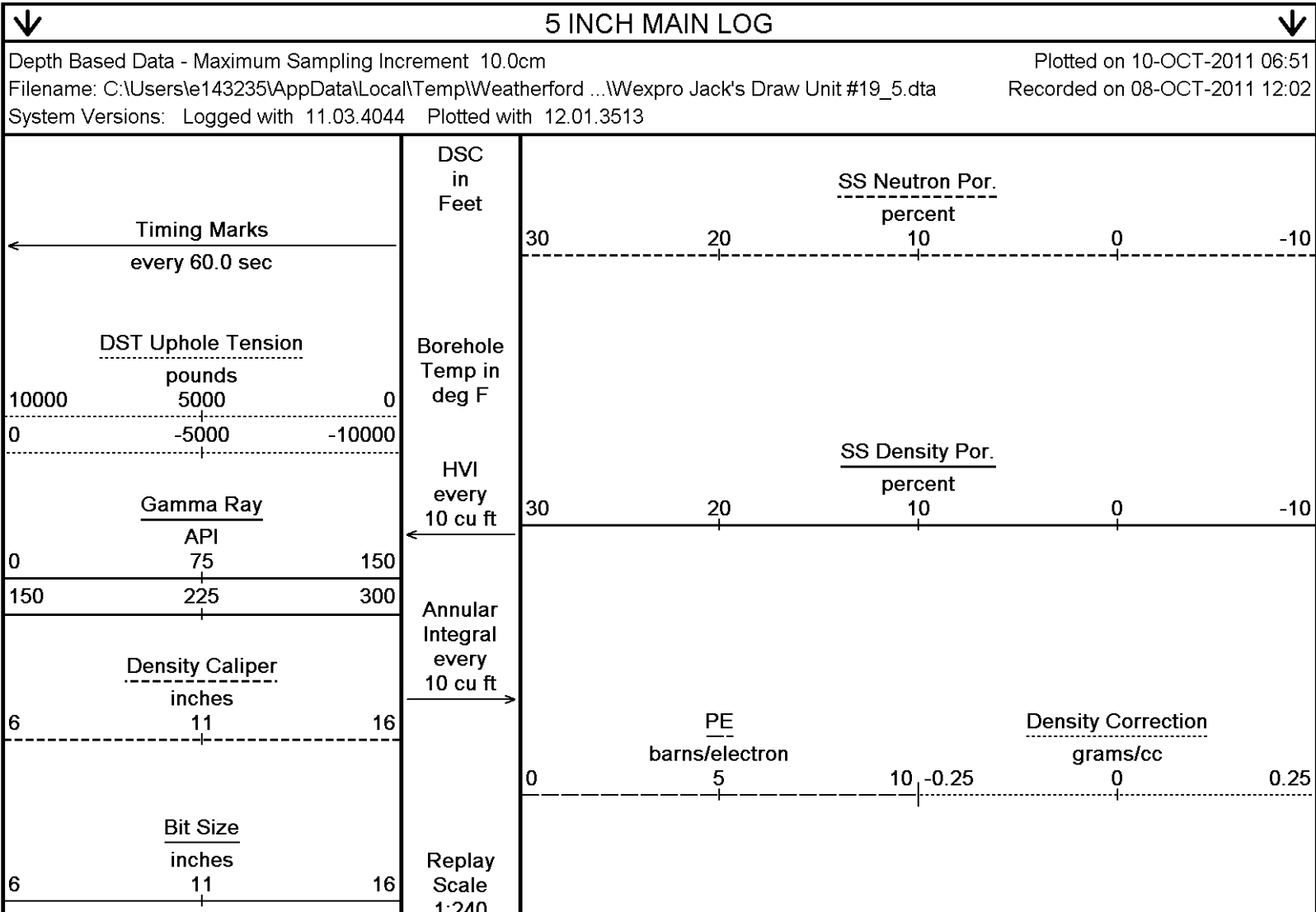
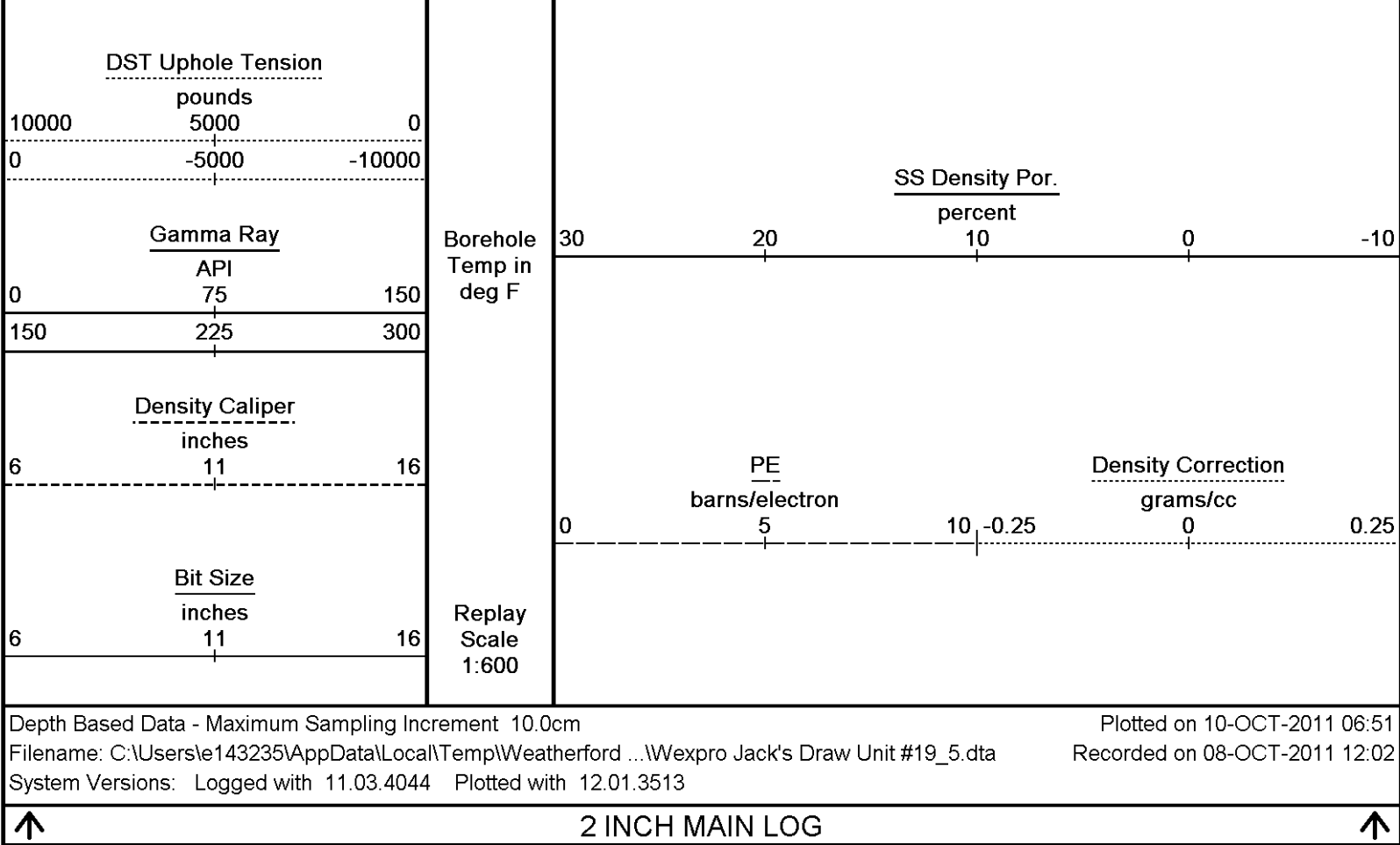
187°

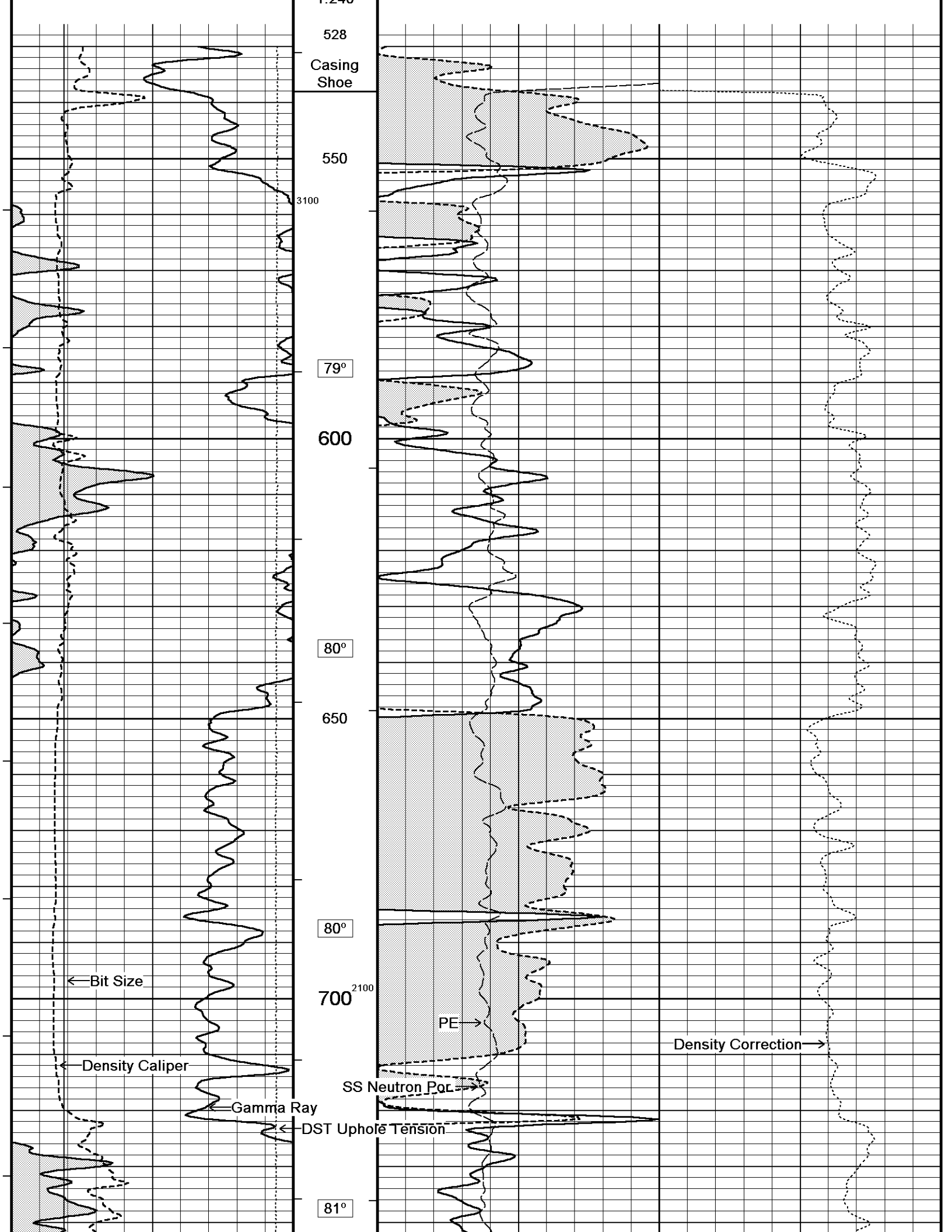
9300

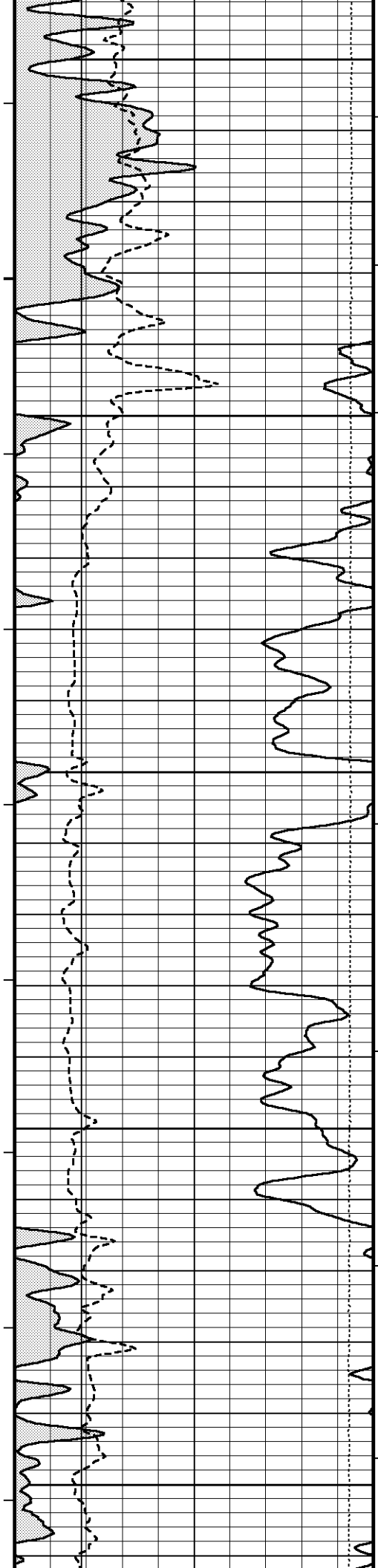
9400

DSC
in
Feet









750

81°

800

3000

82°

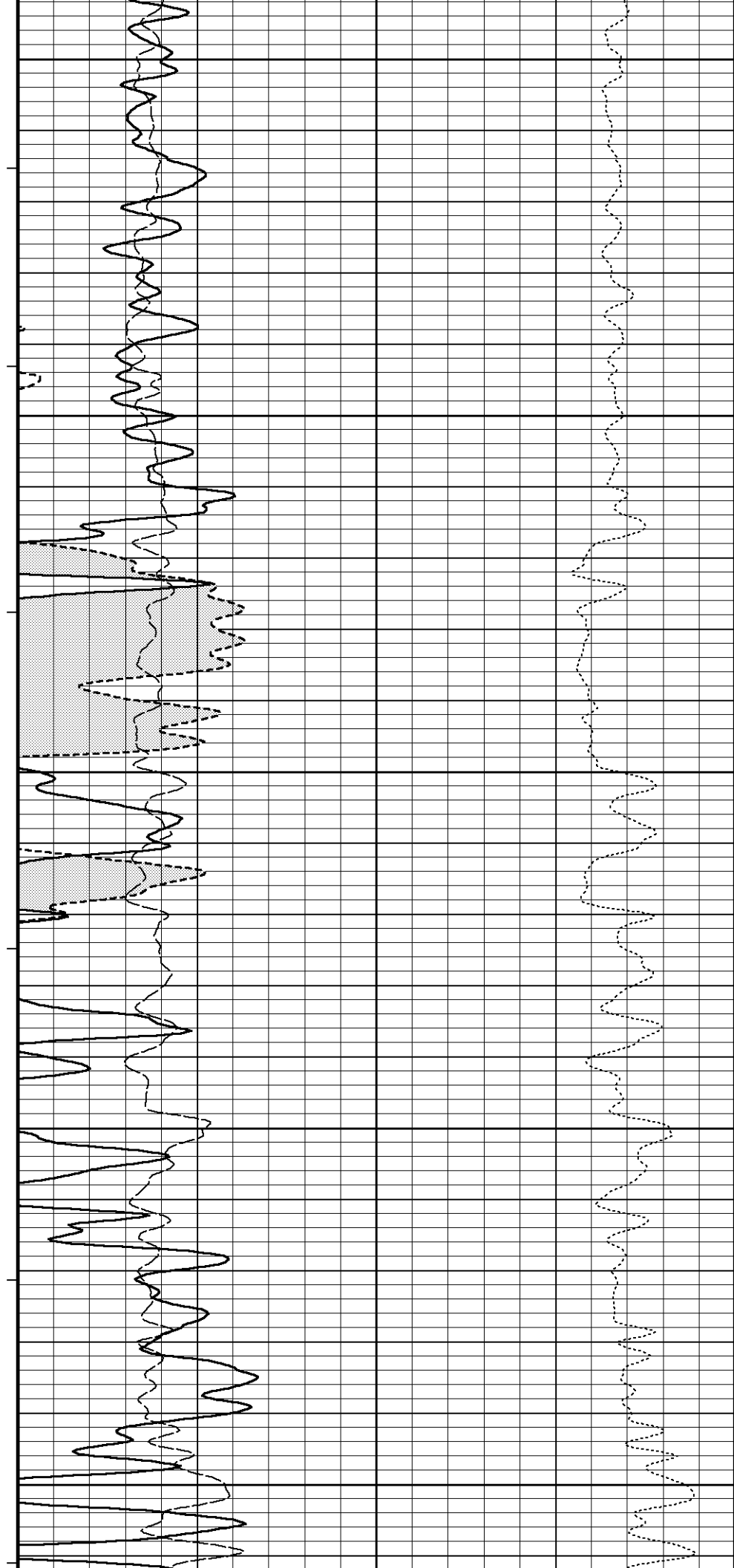
850

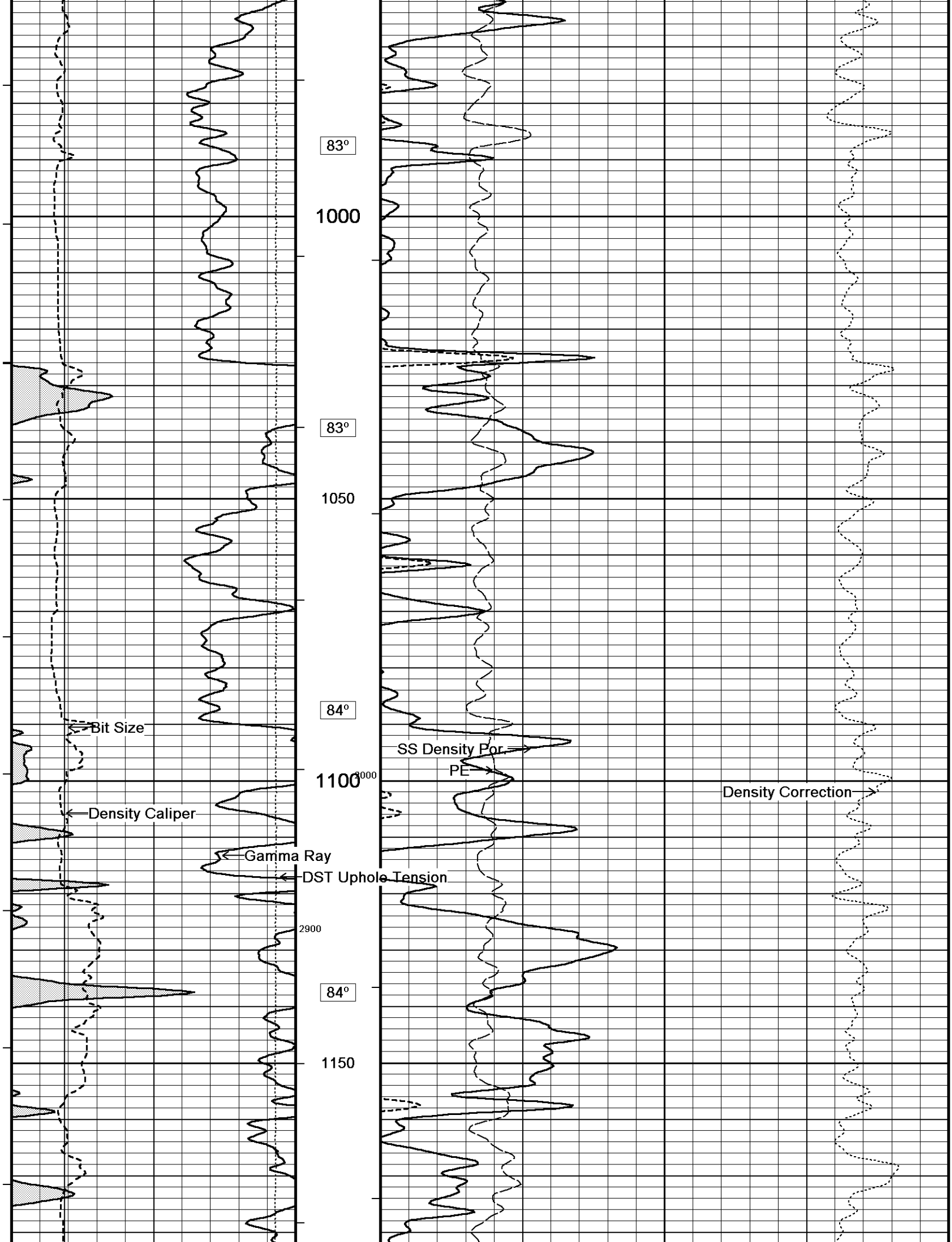
82°

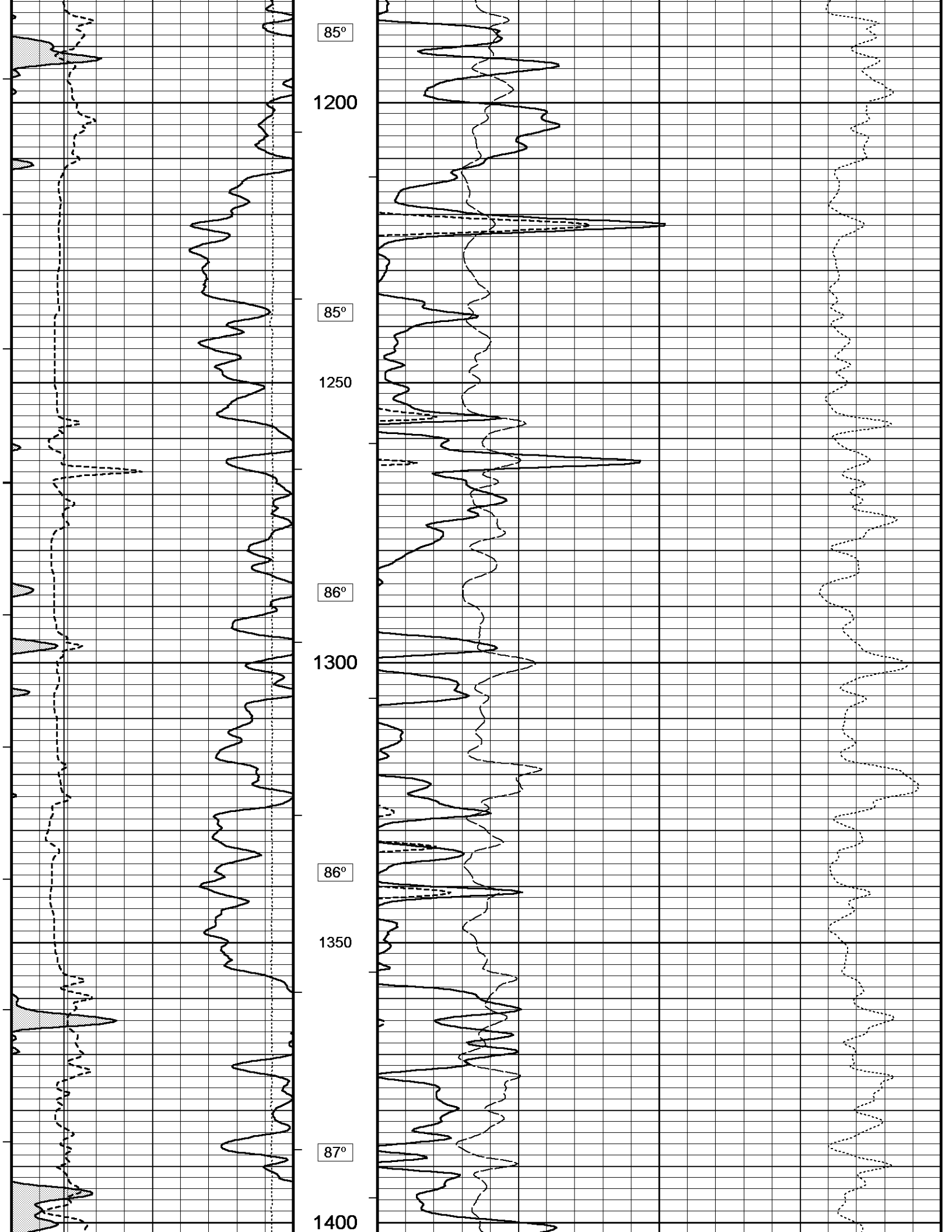
900

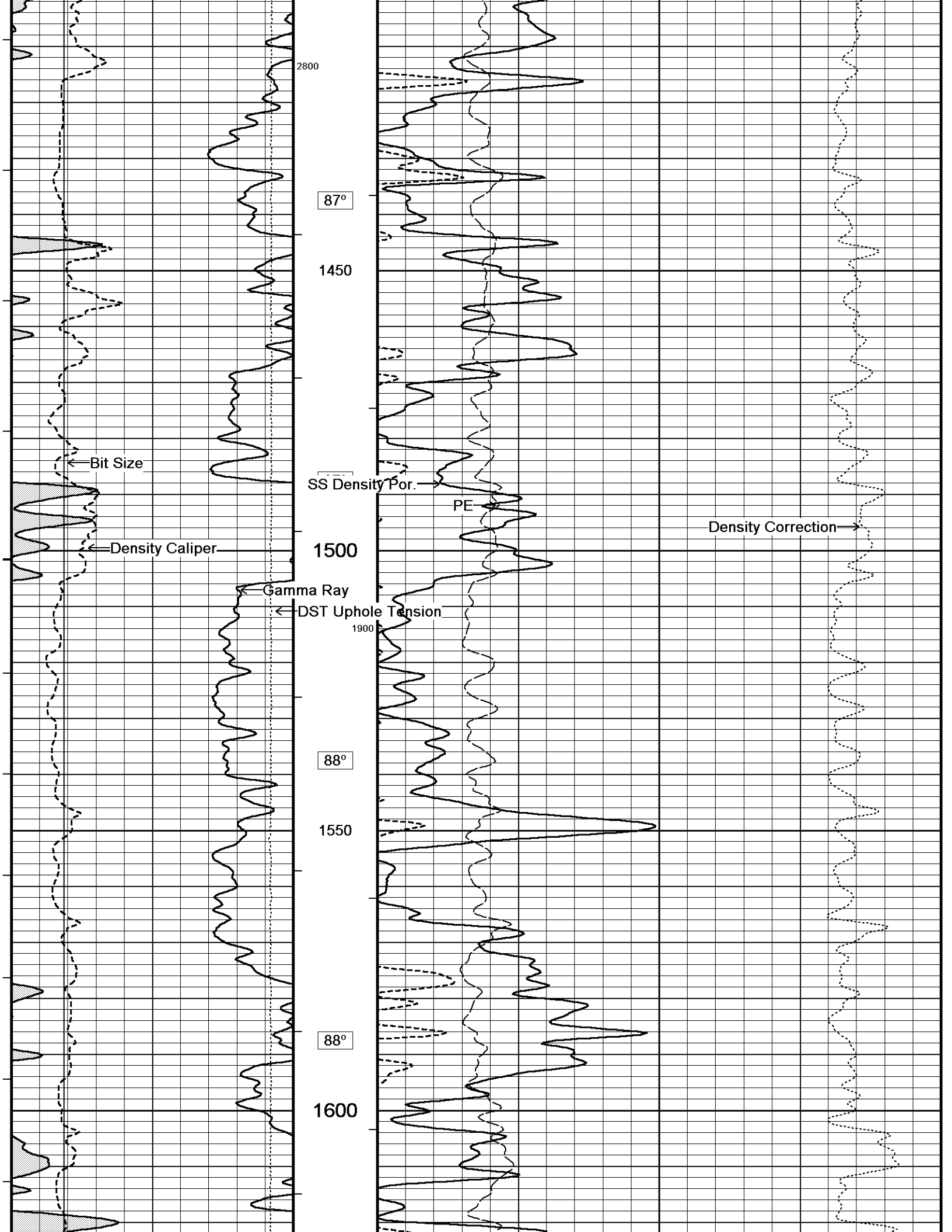
83°

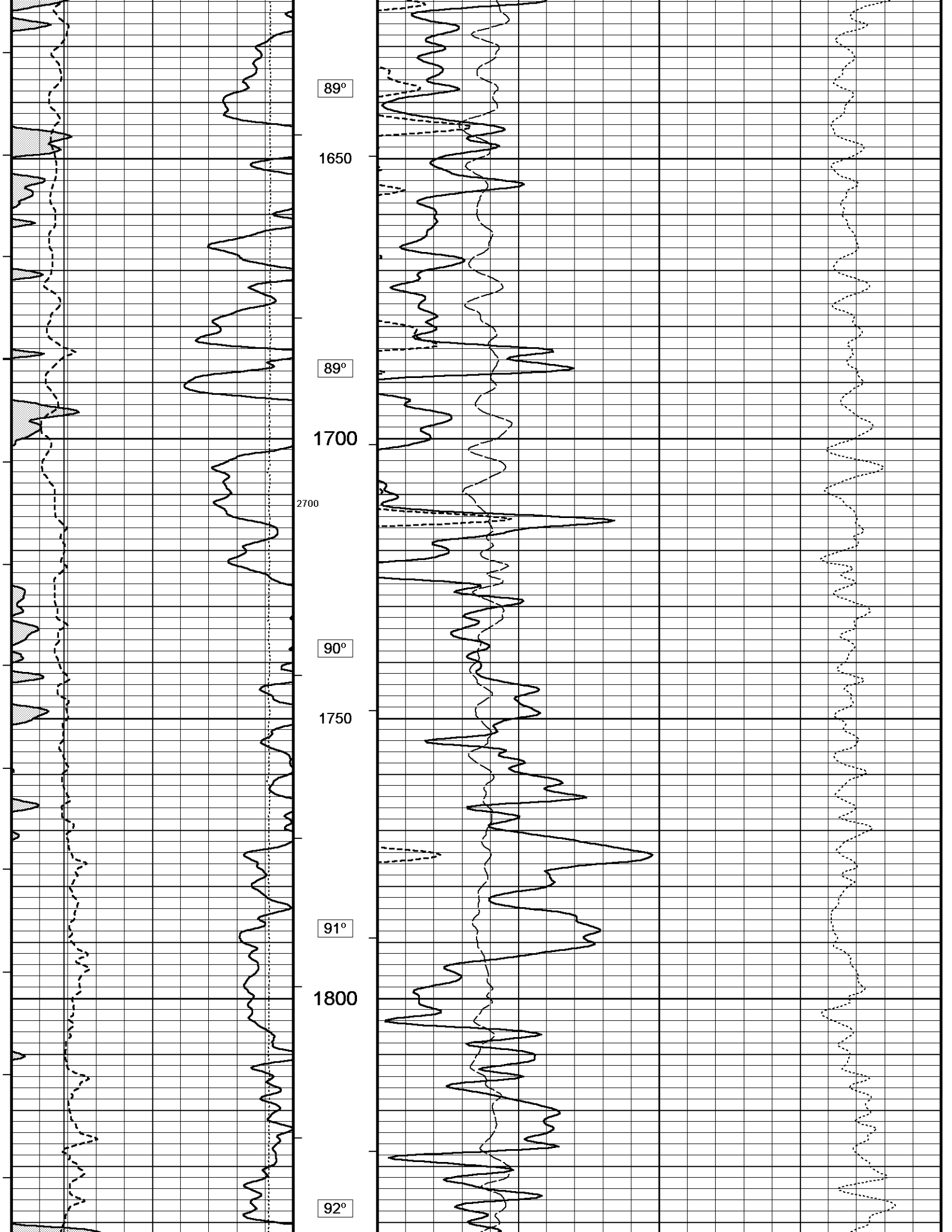
950

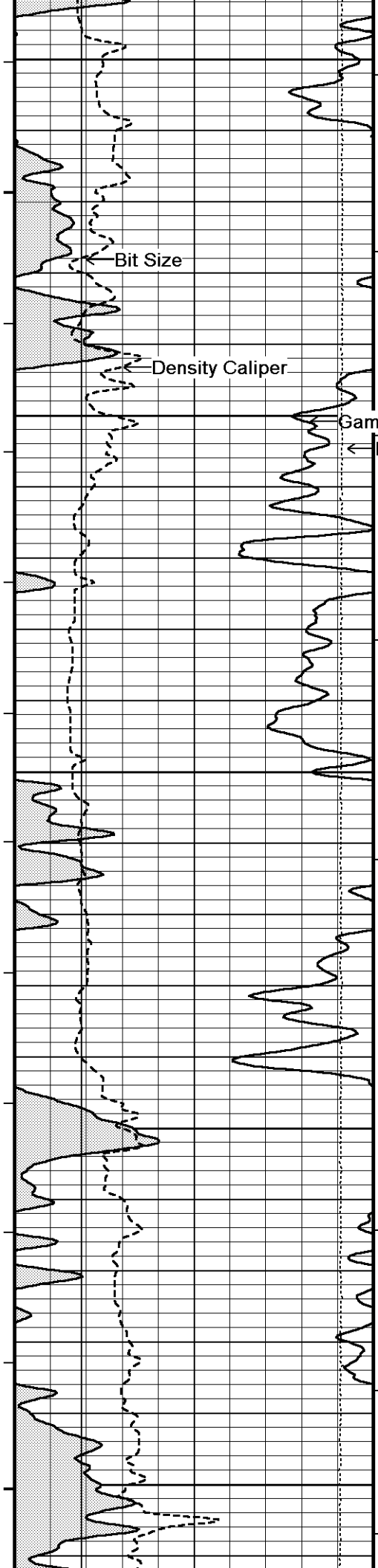












1850

92°

1900

93°

1950

93°

2000

94°

2050

SS Density Por

PE

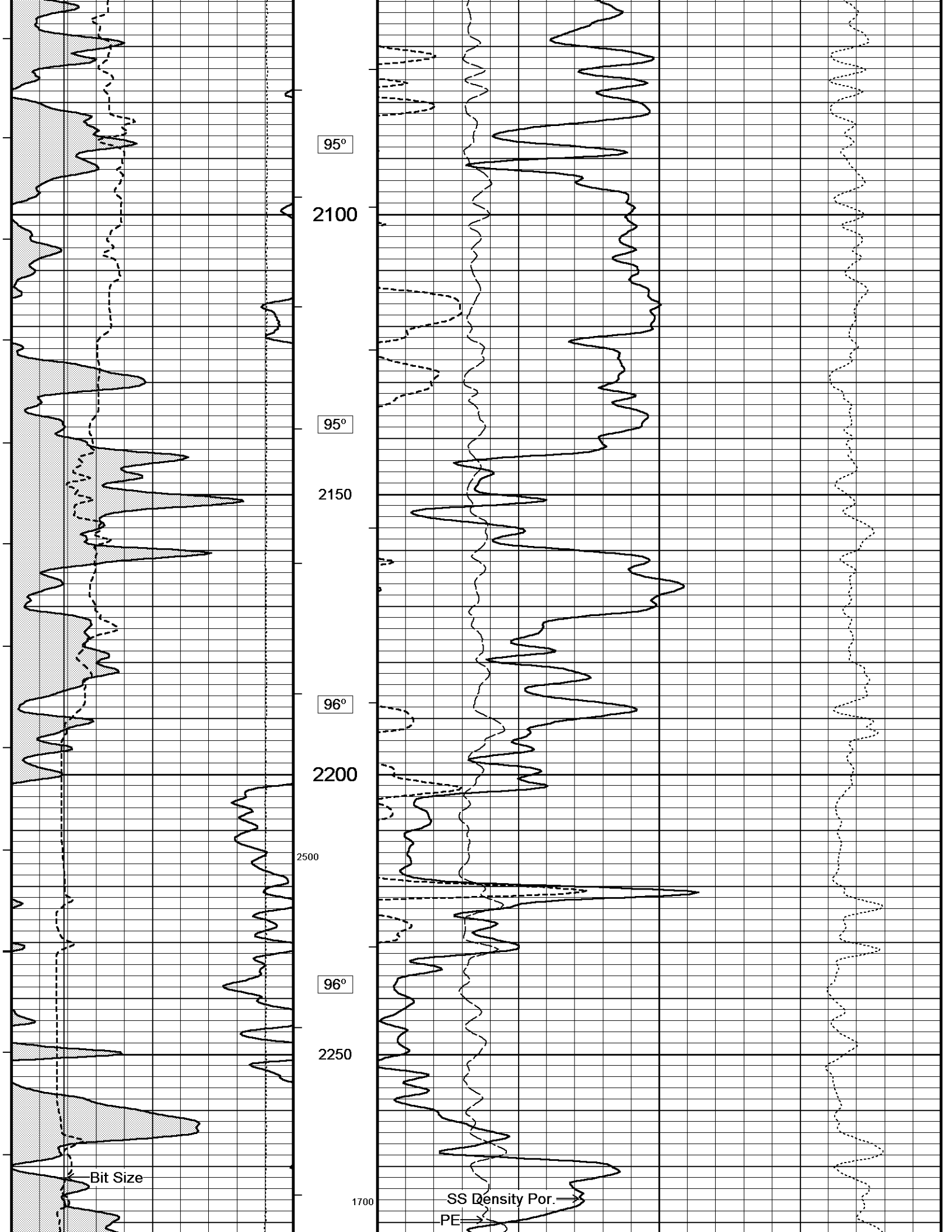
Density Correction

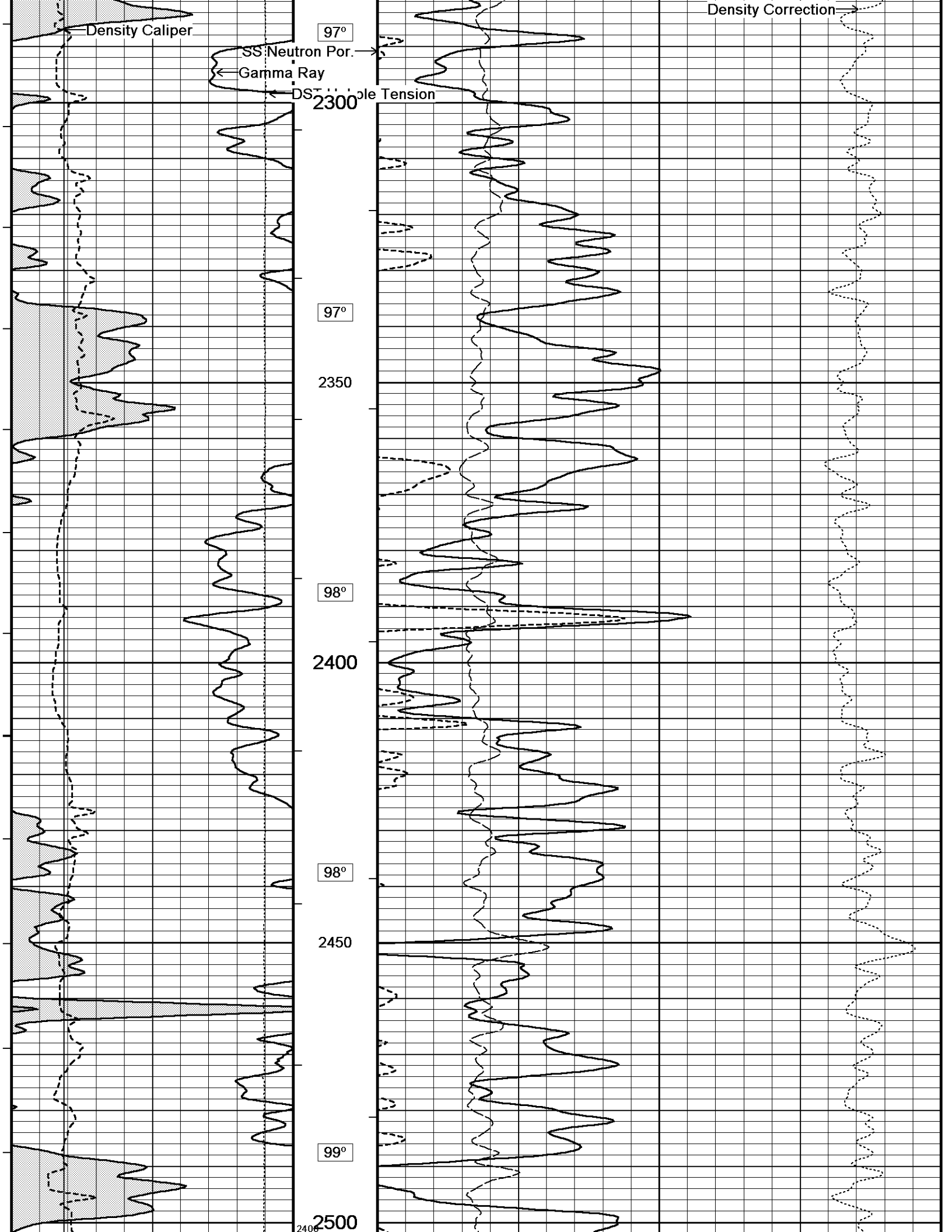
Gamm

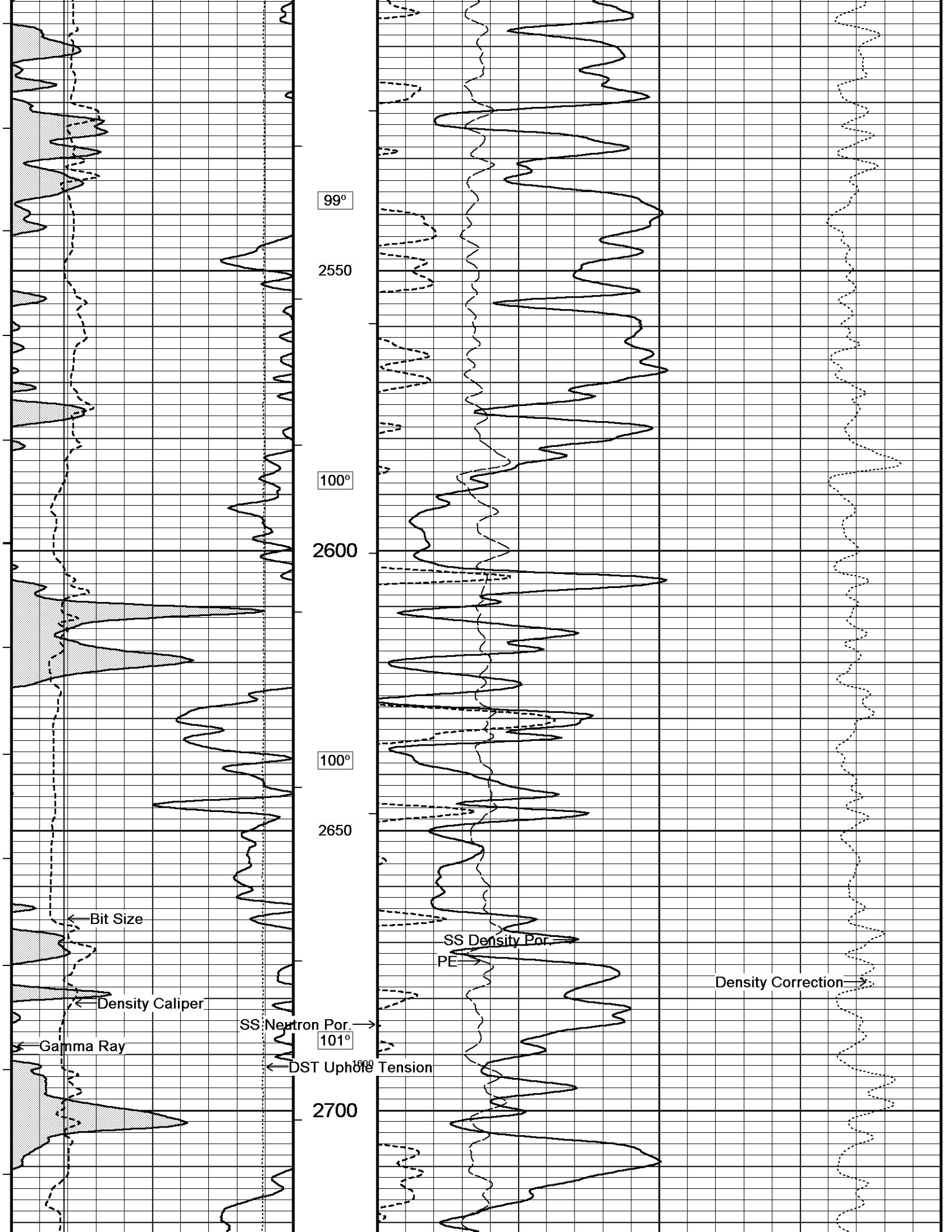
DST Uphole Tension

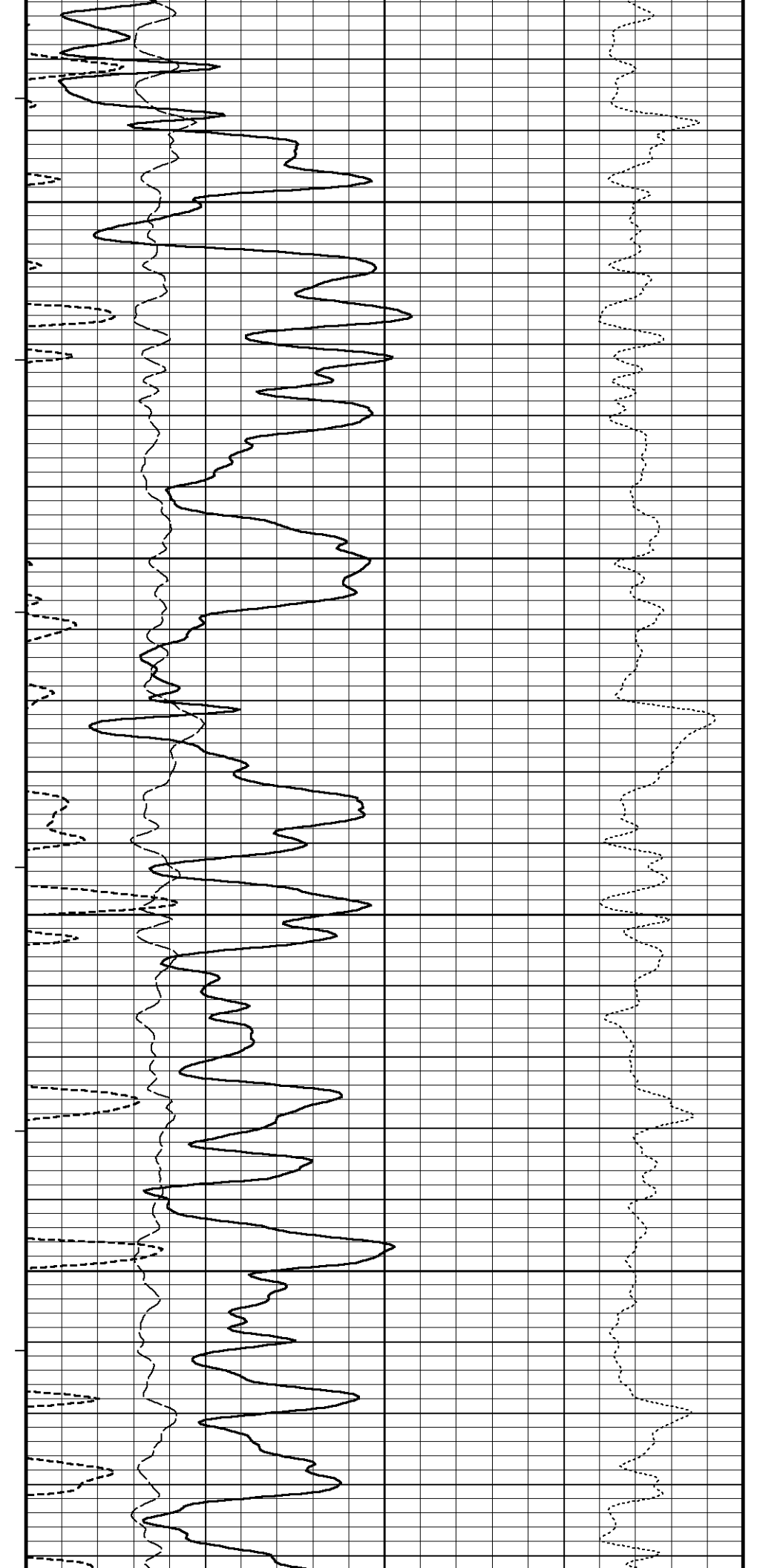
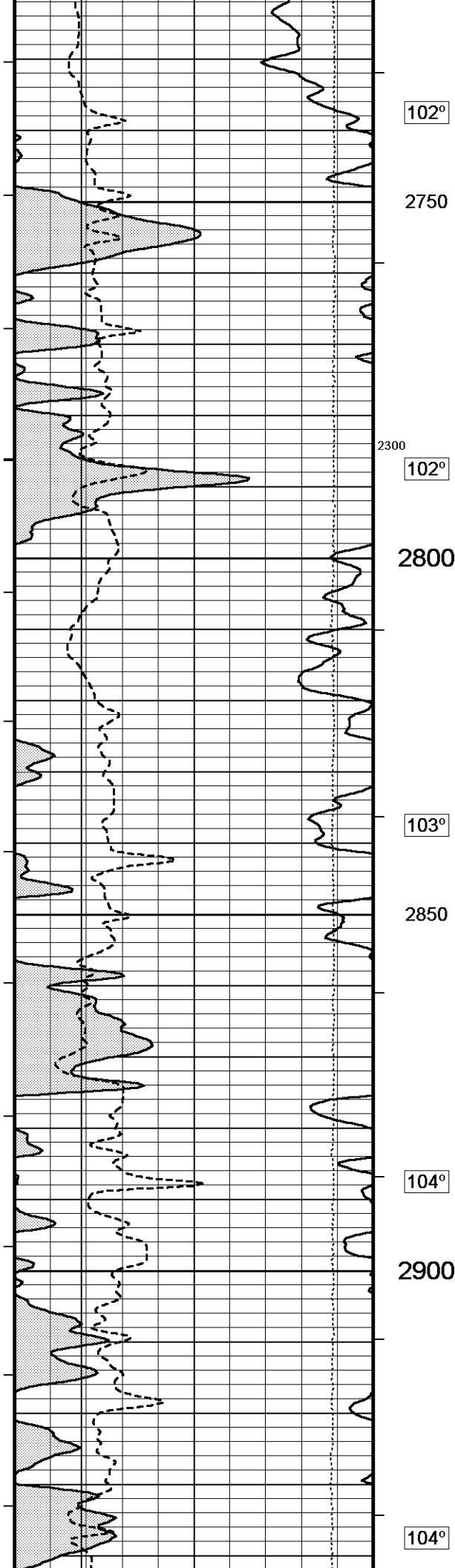
1800

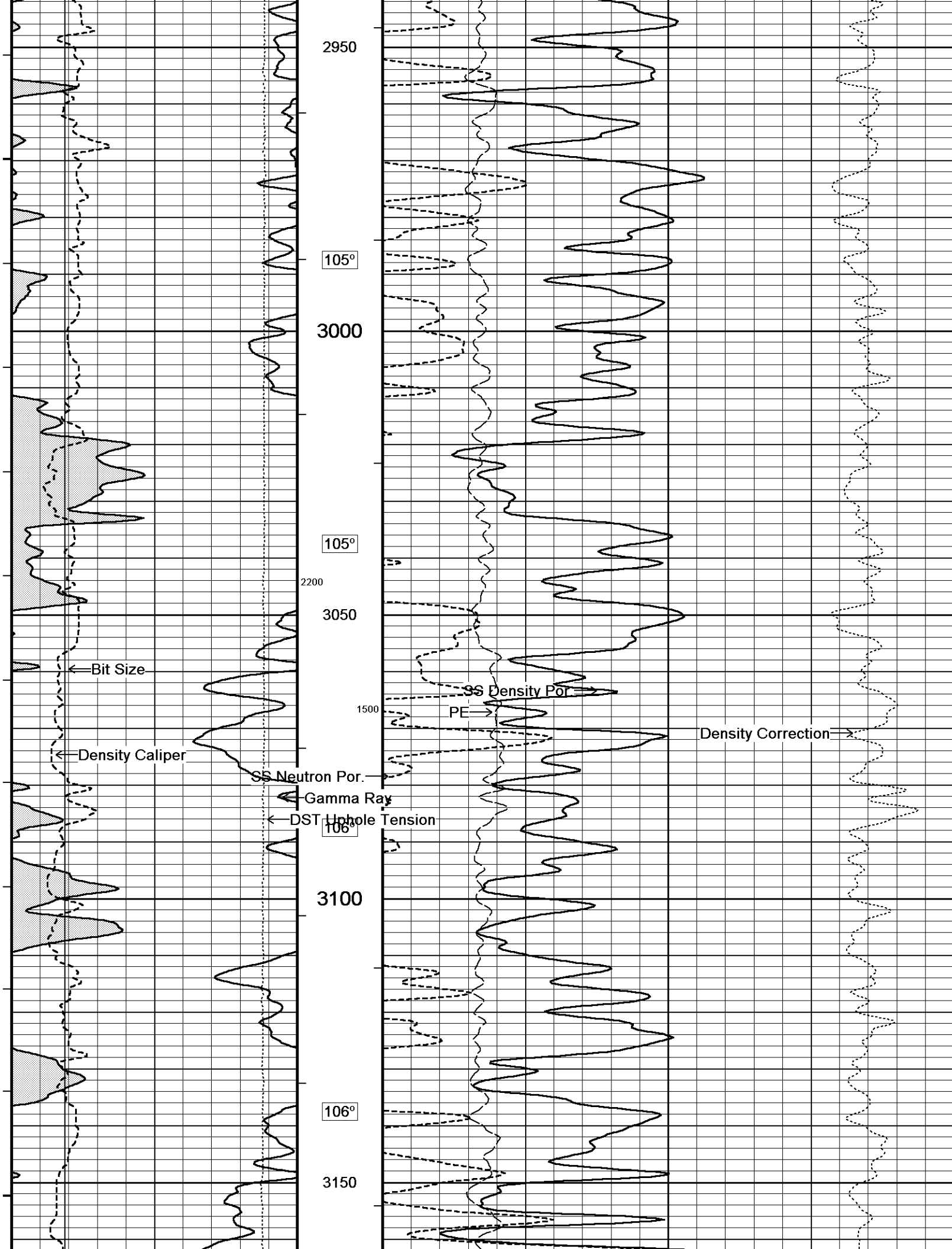
2600

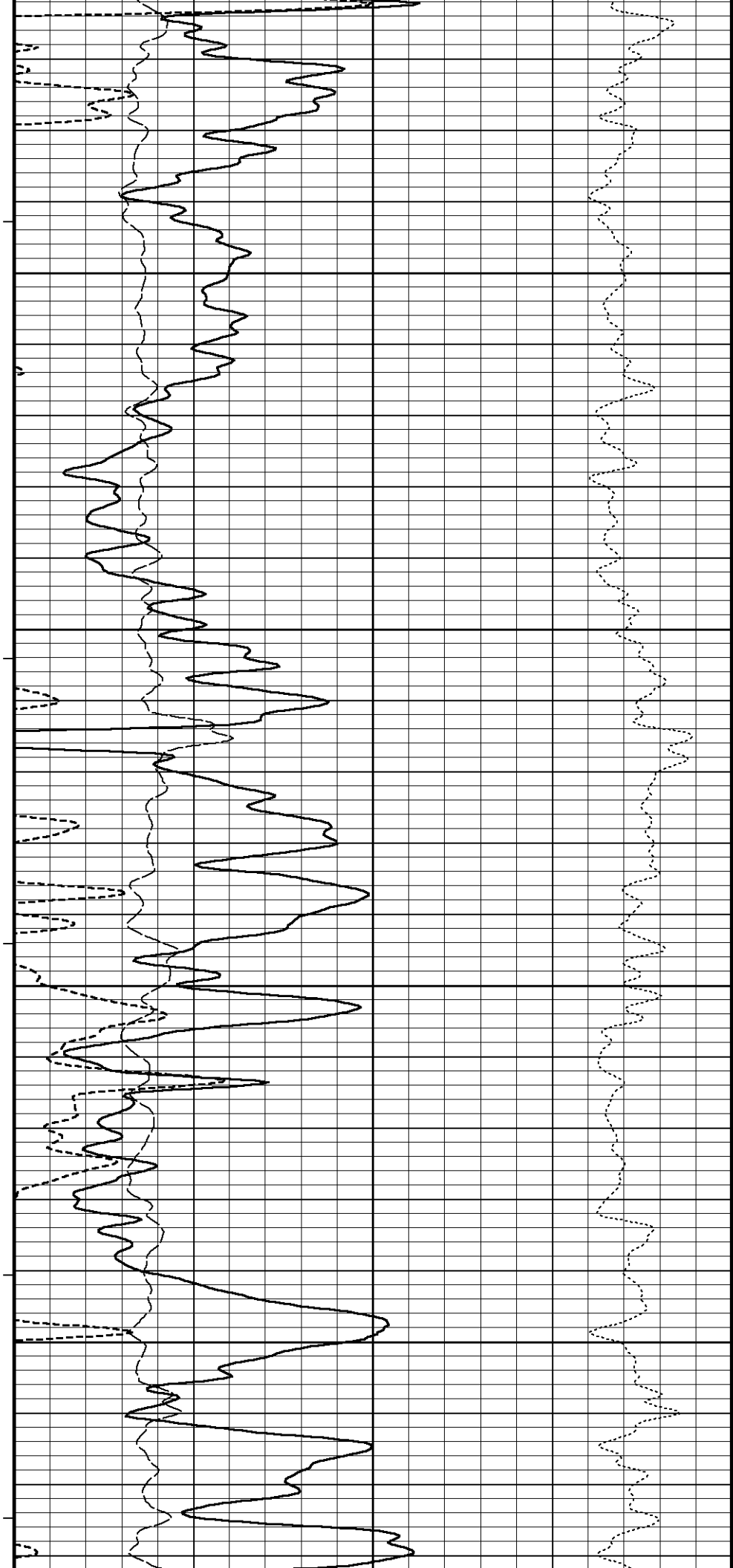
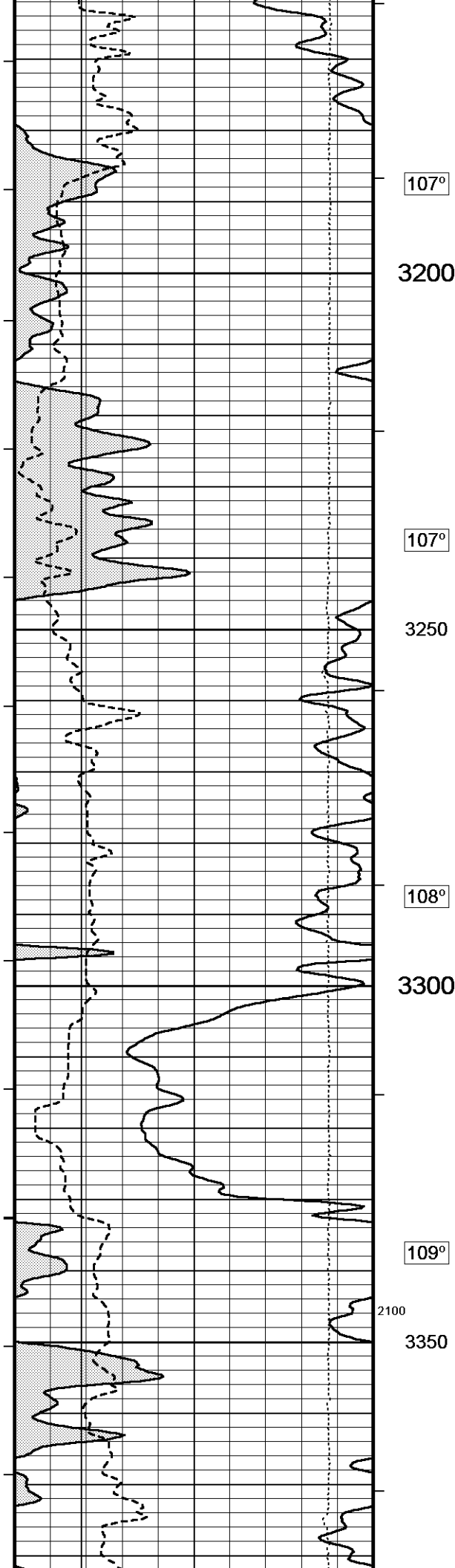


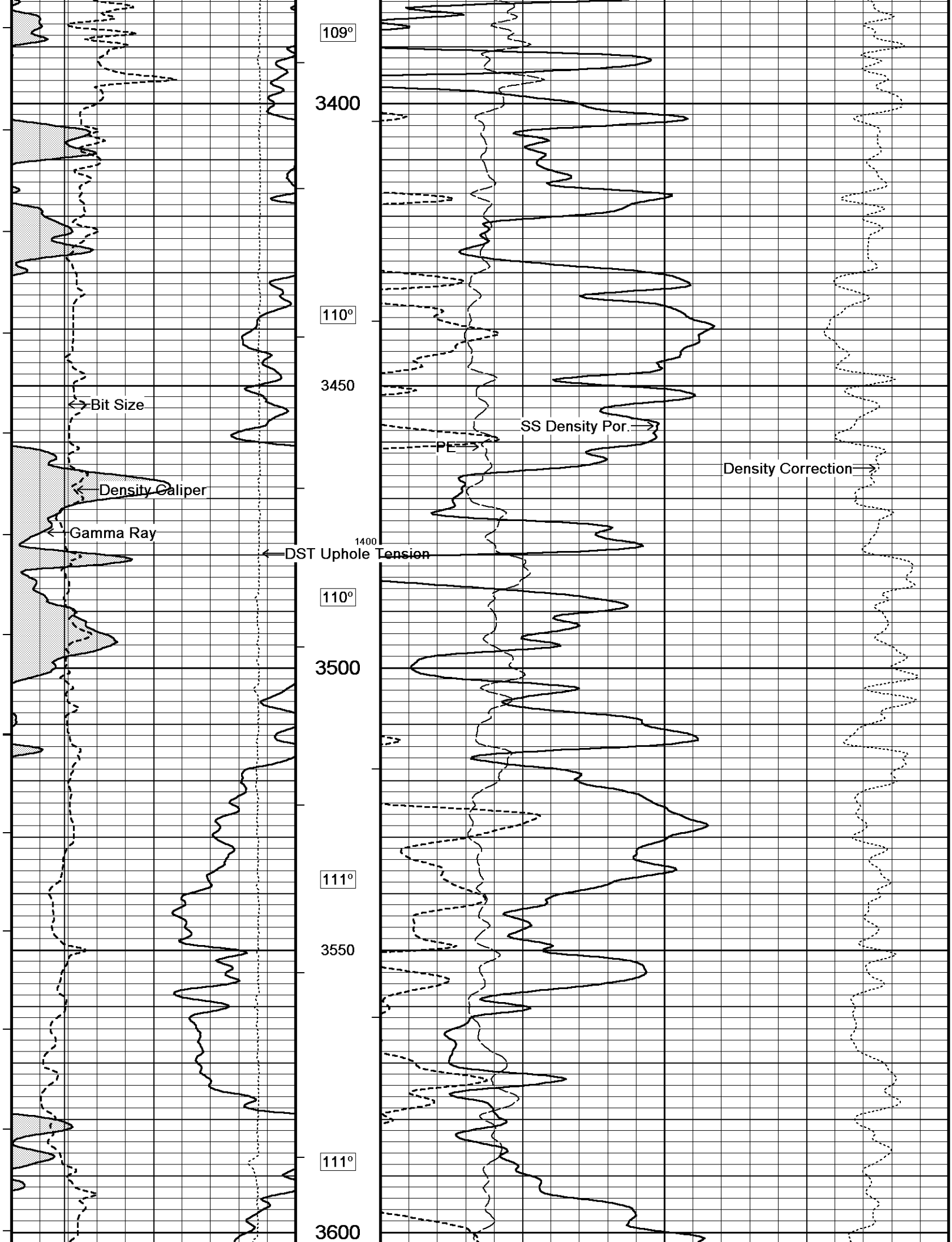


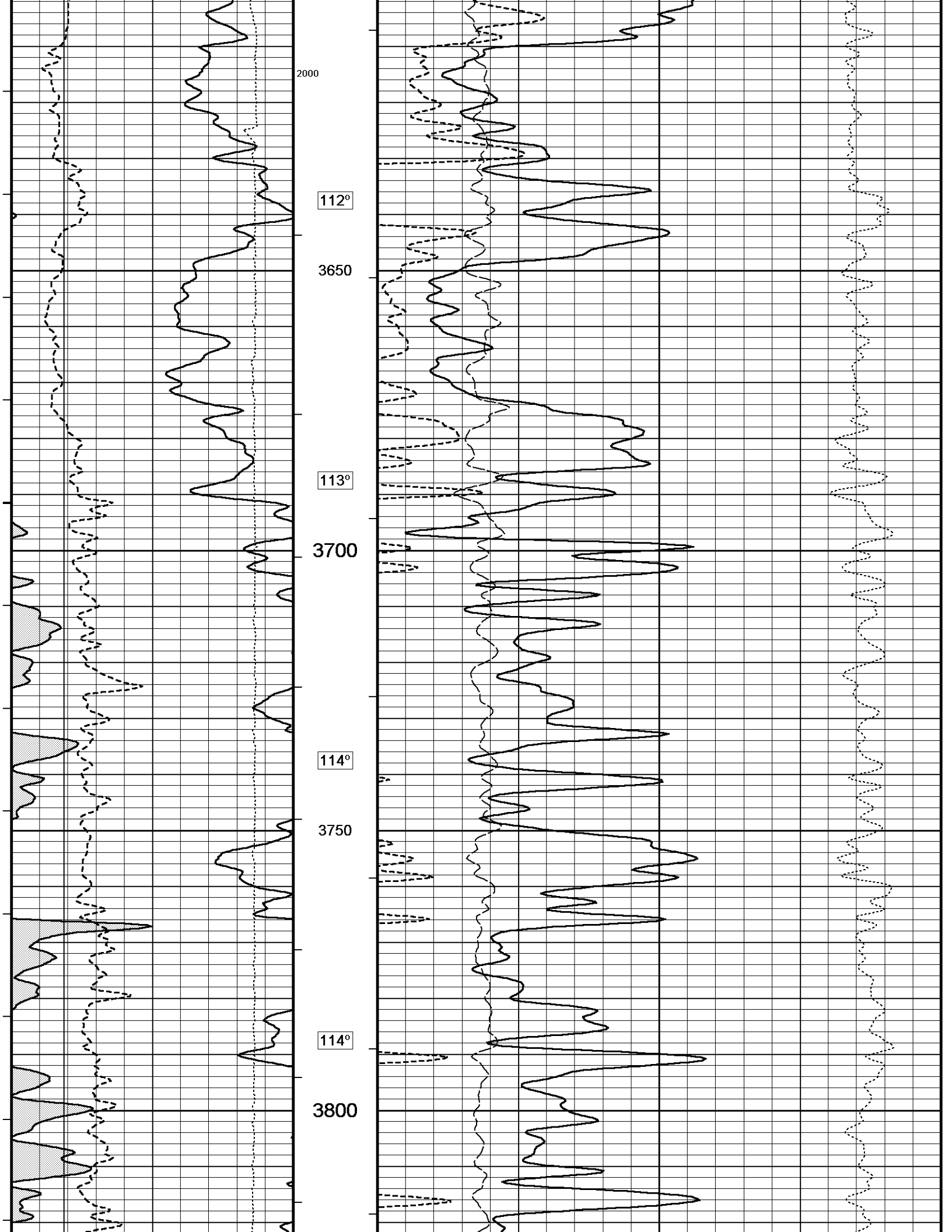


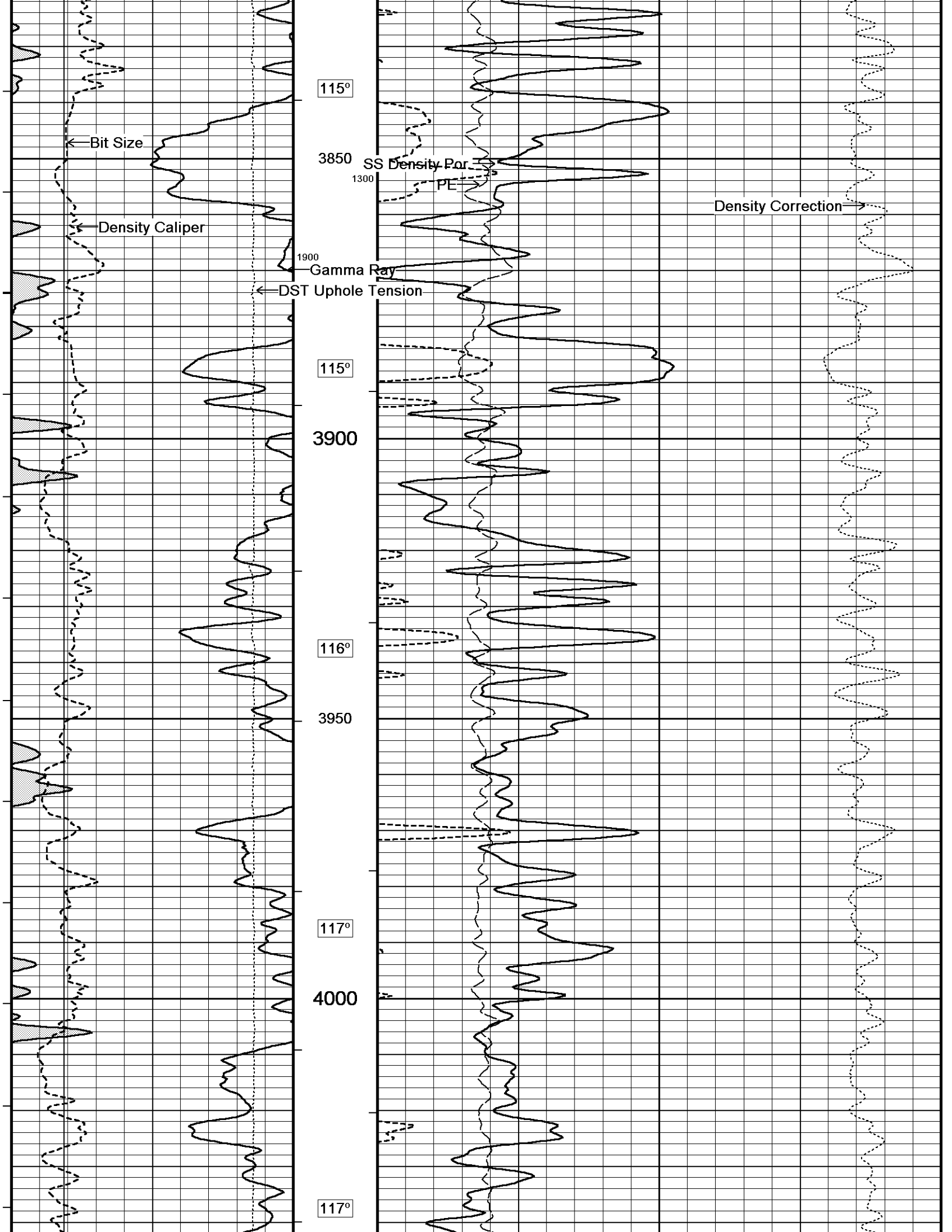


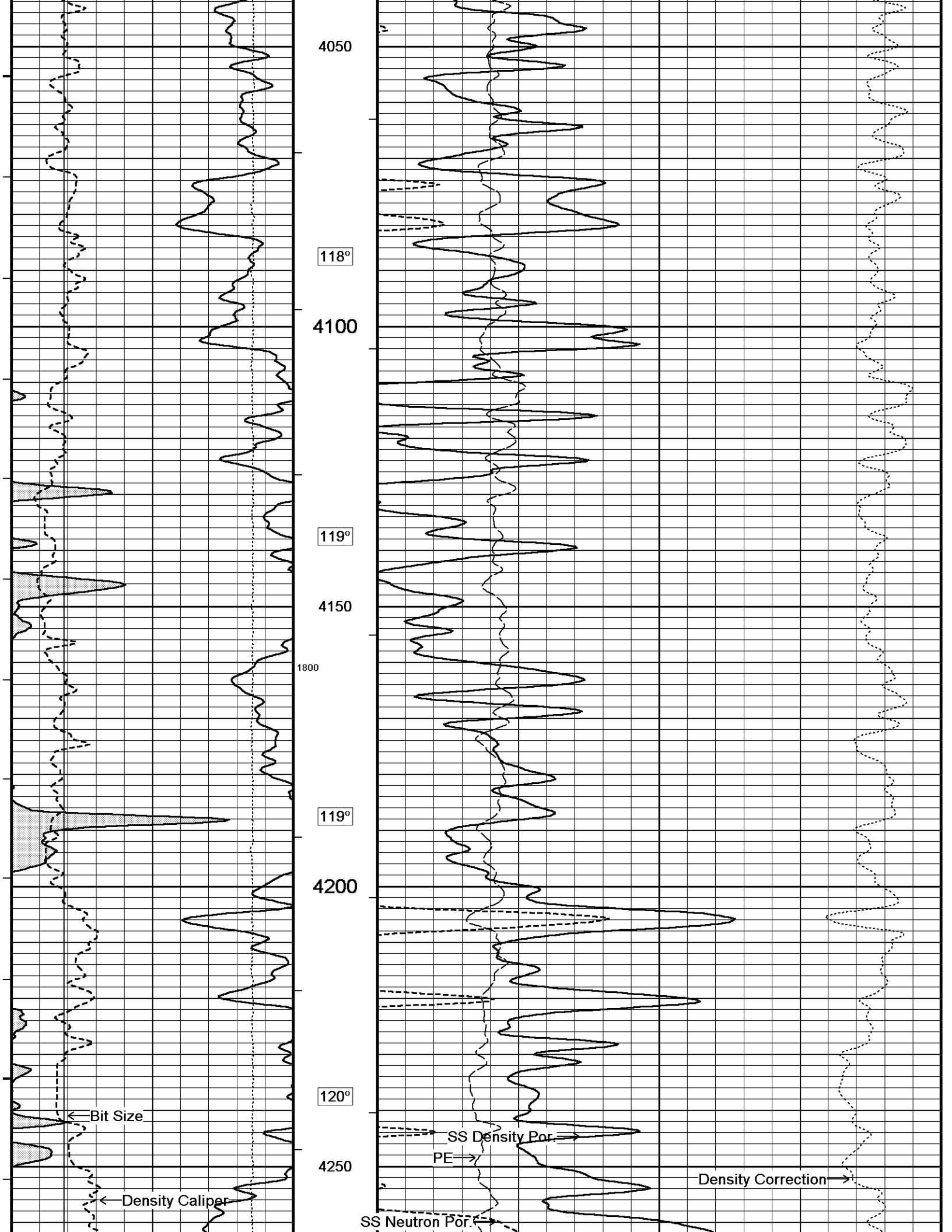


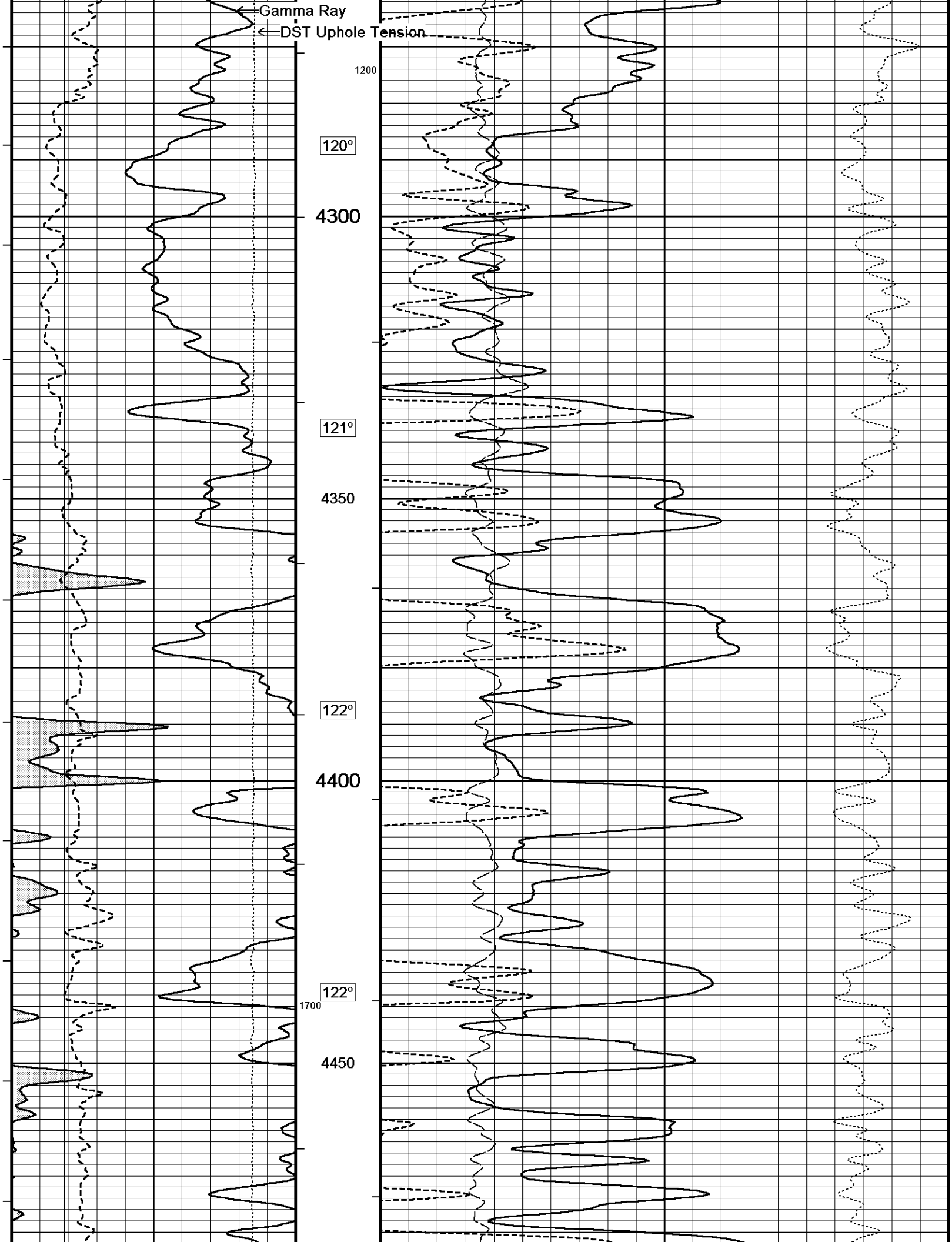


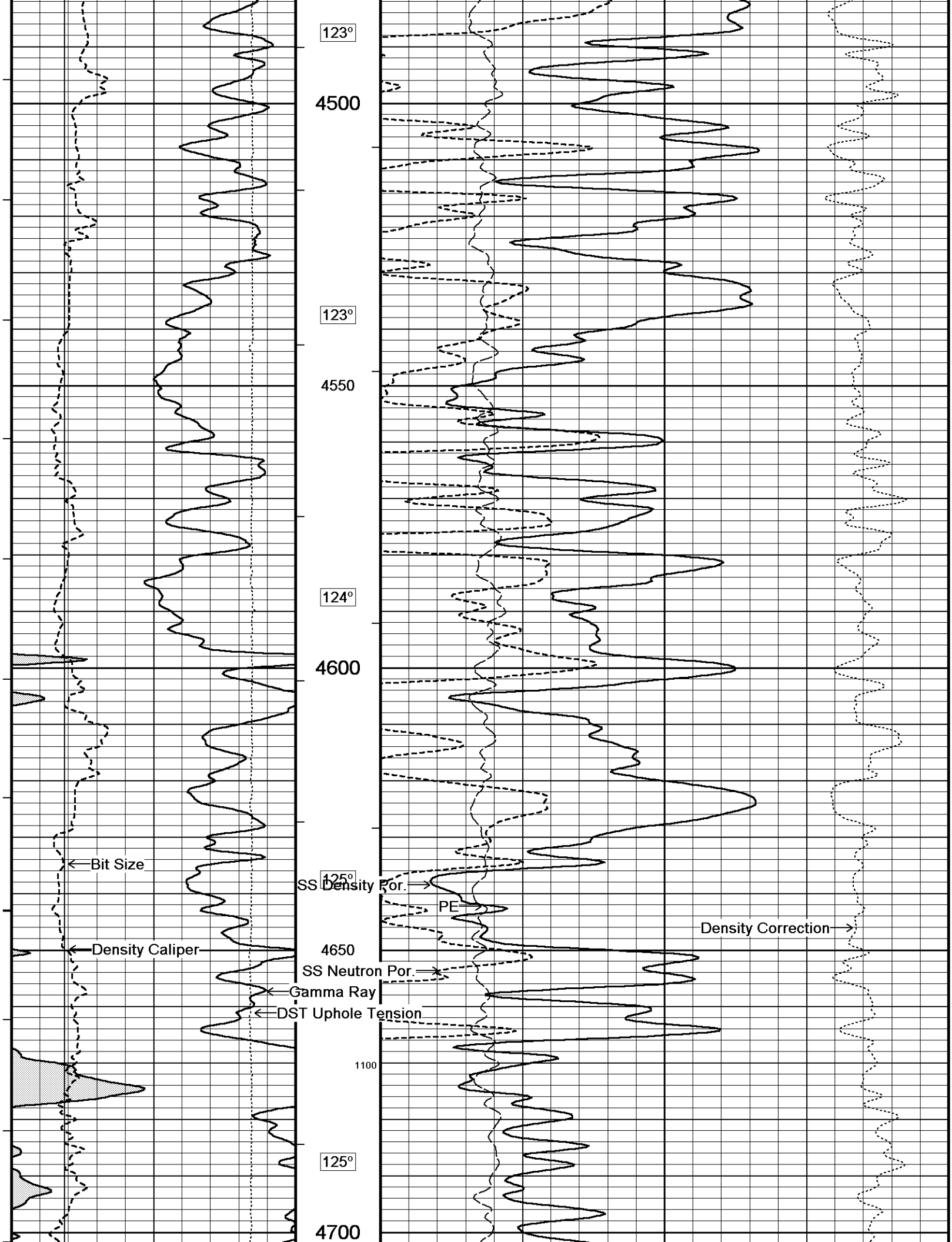


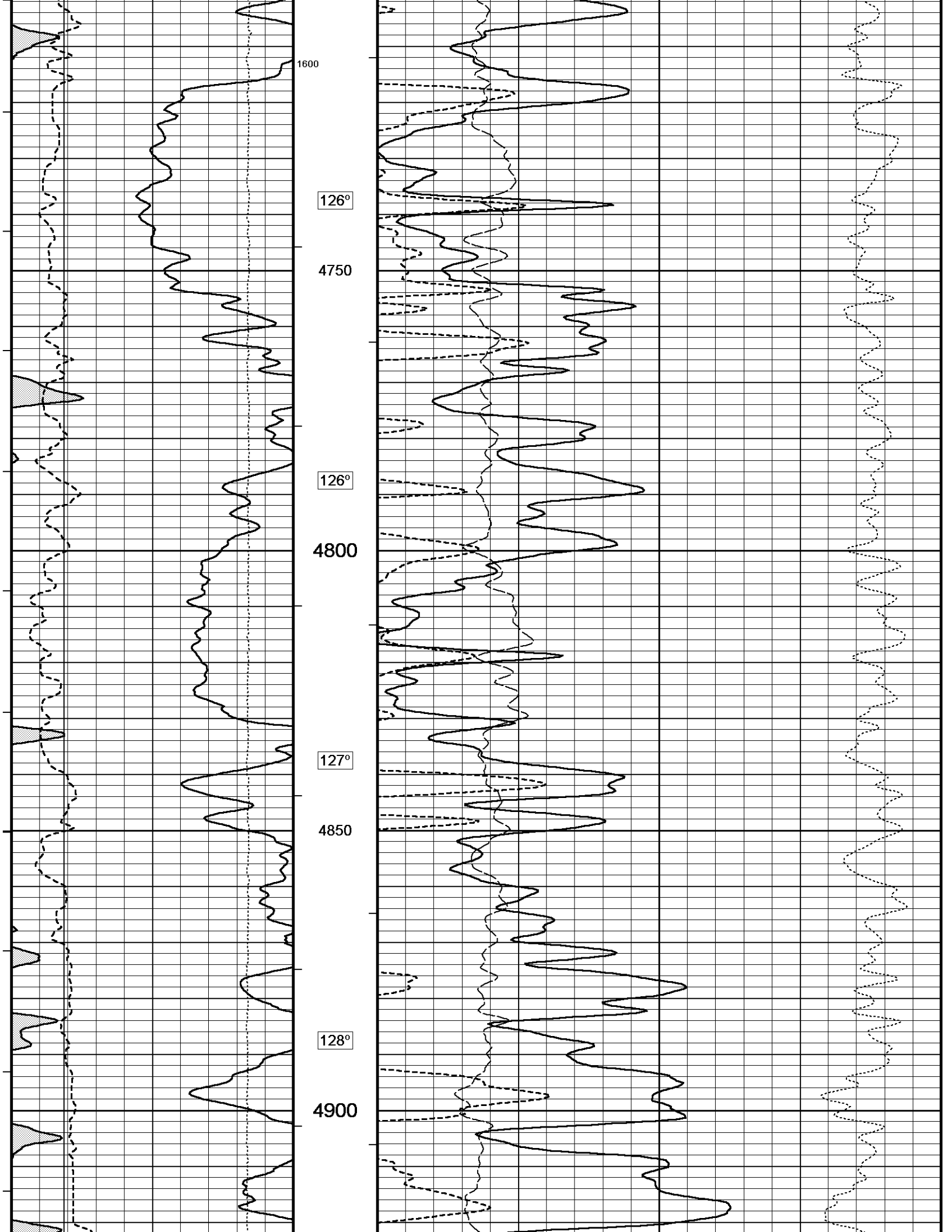


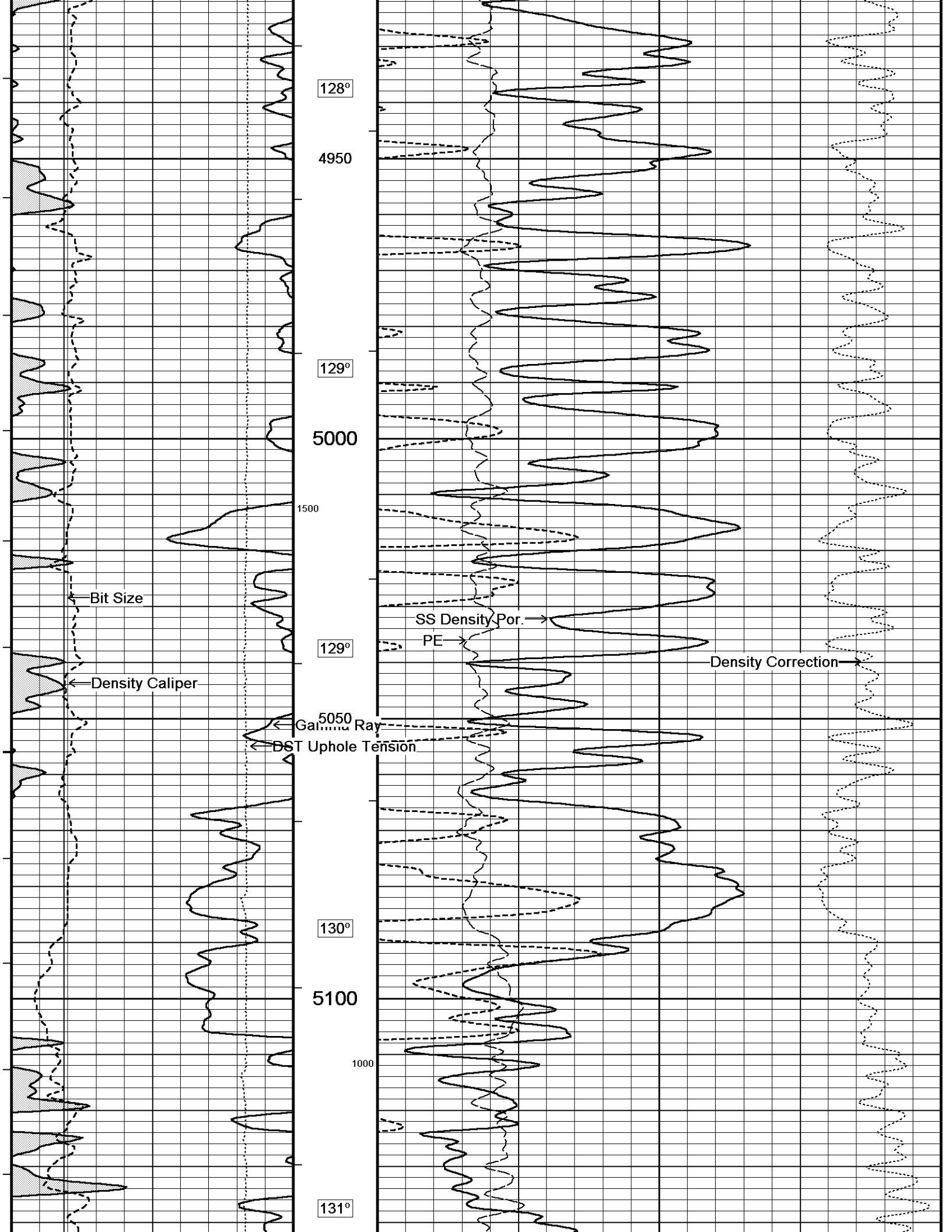


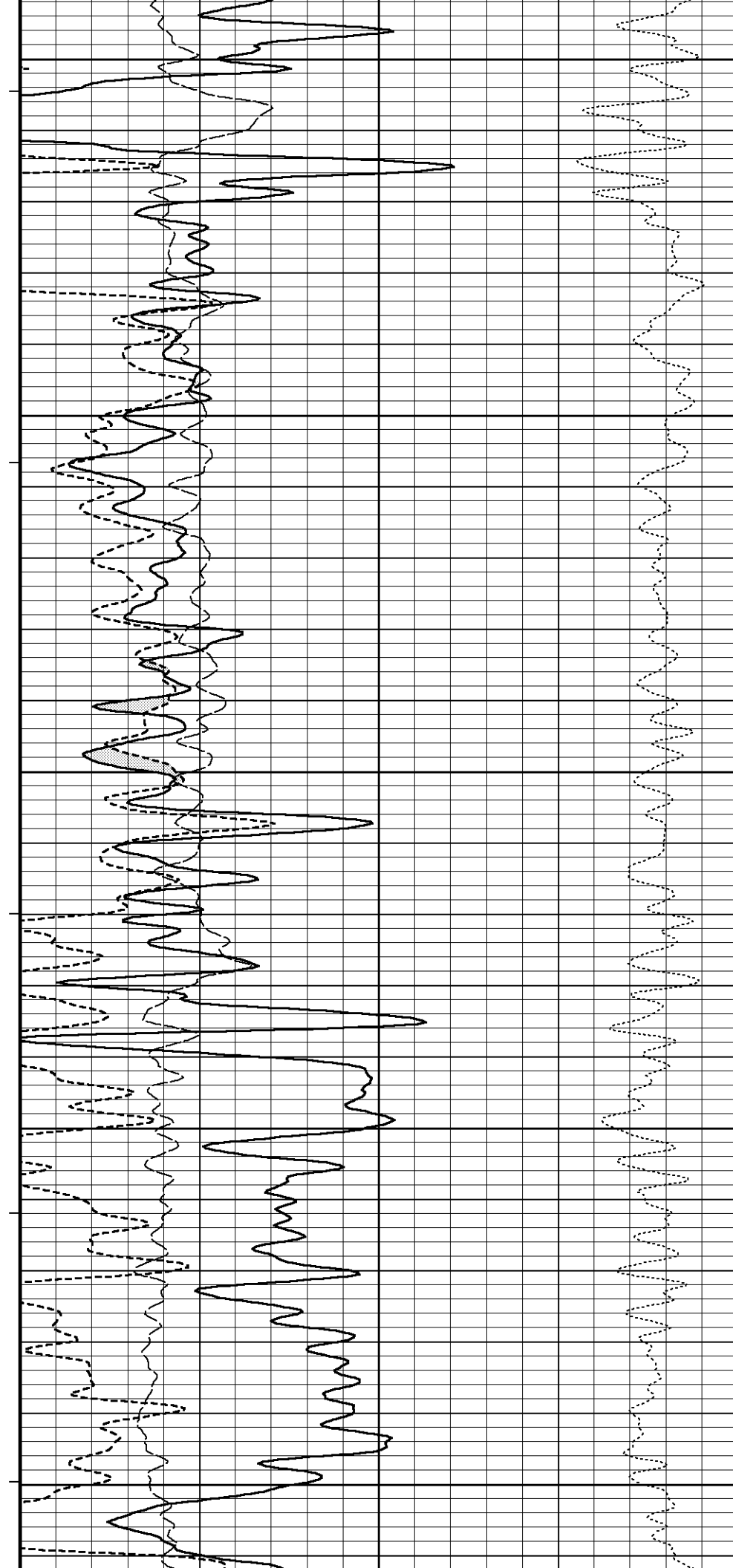
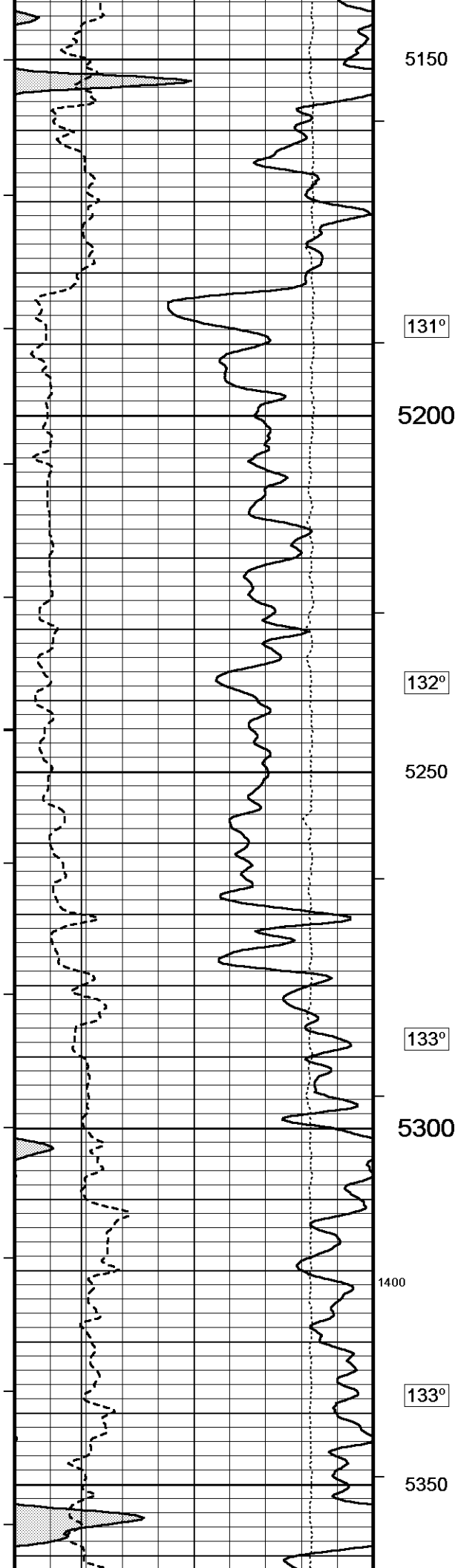


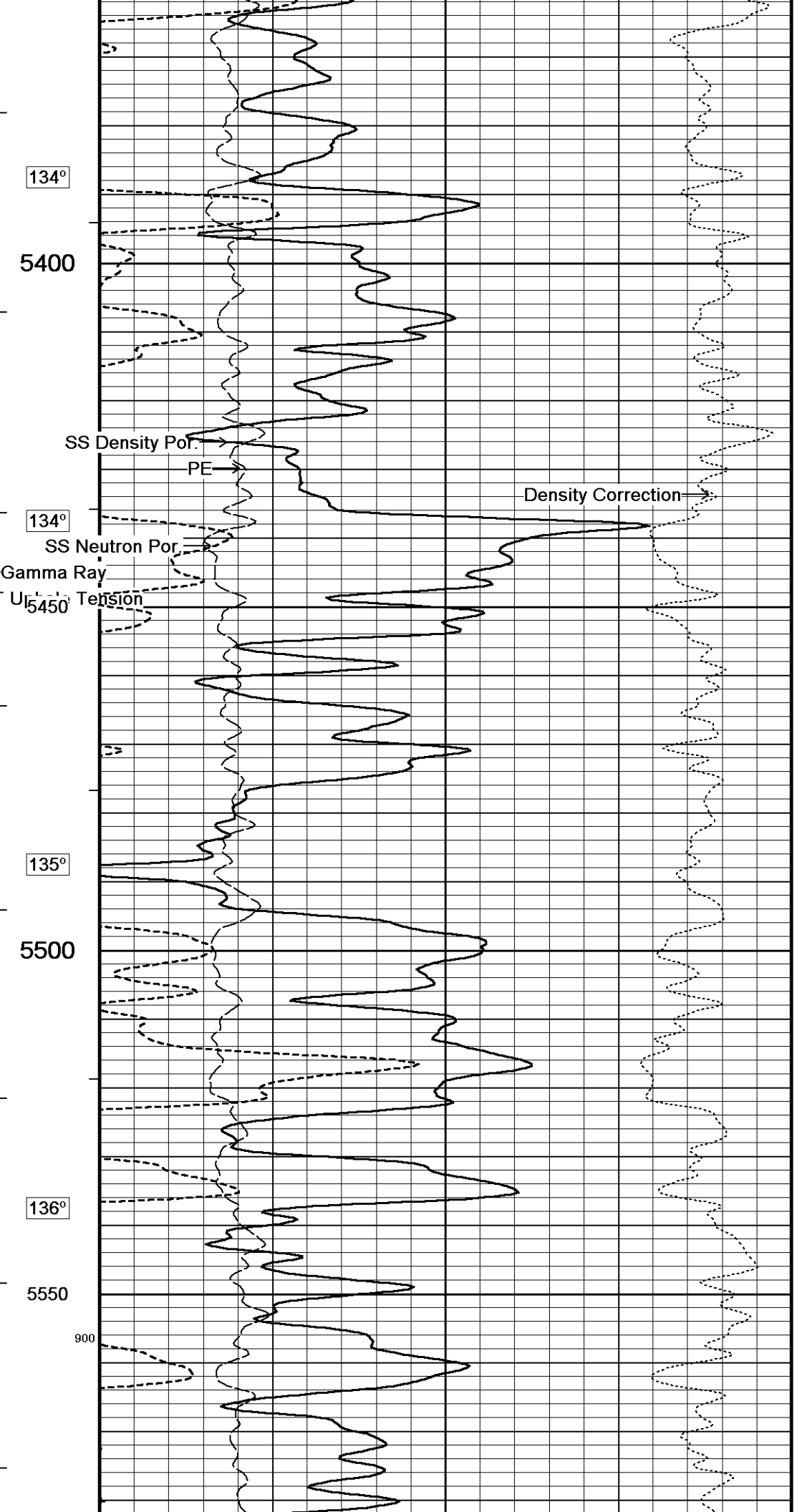
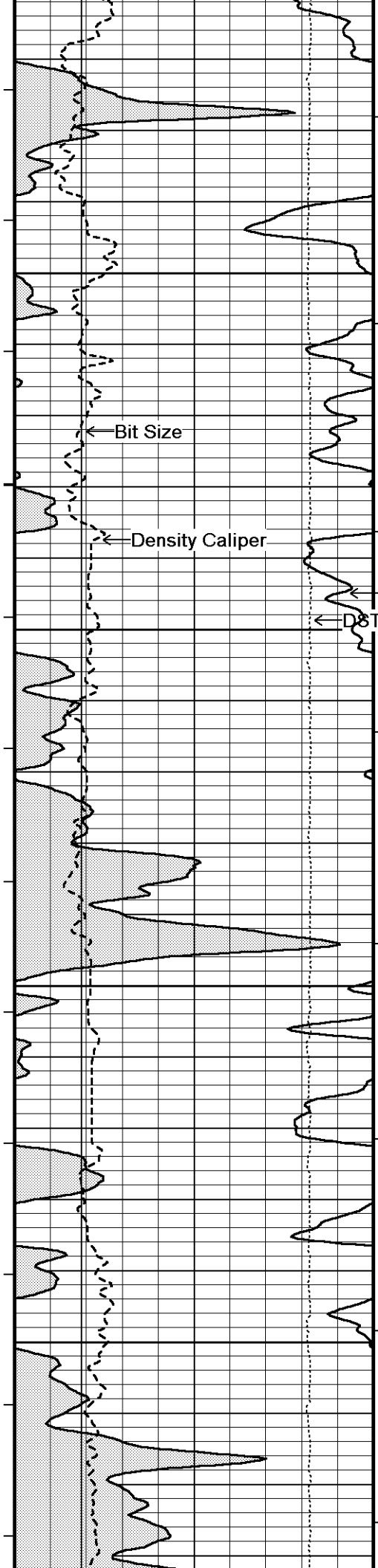


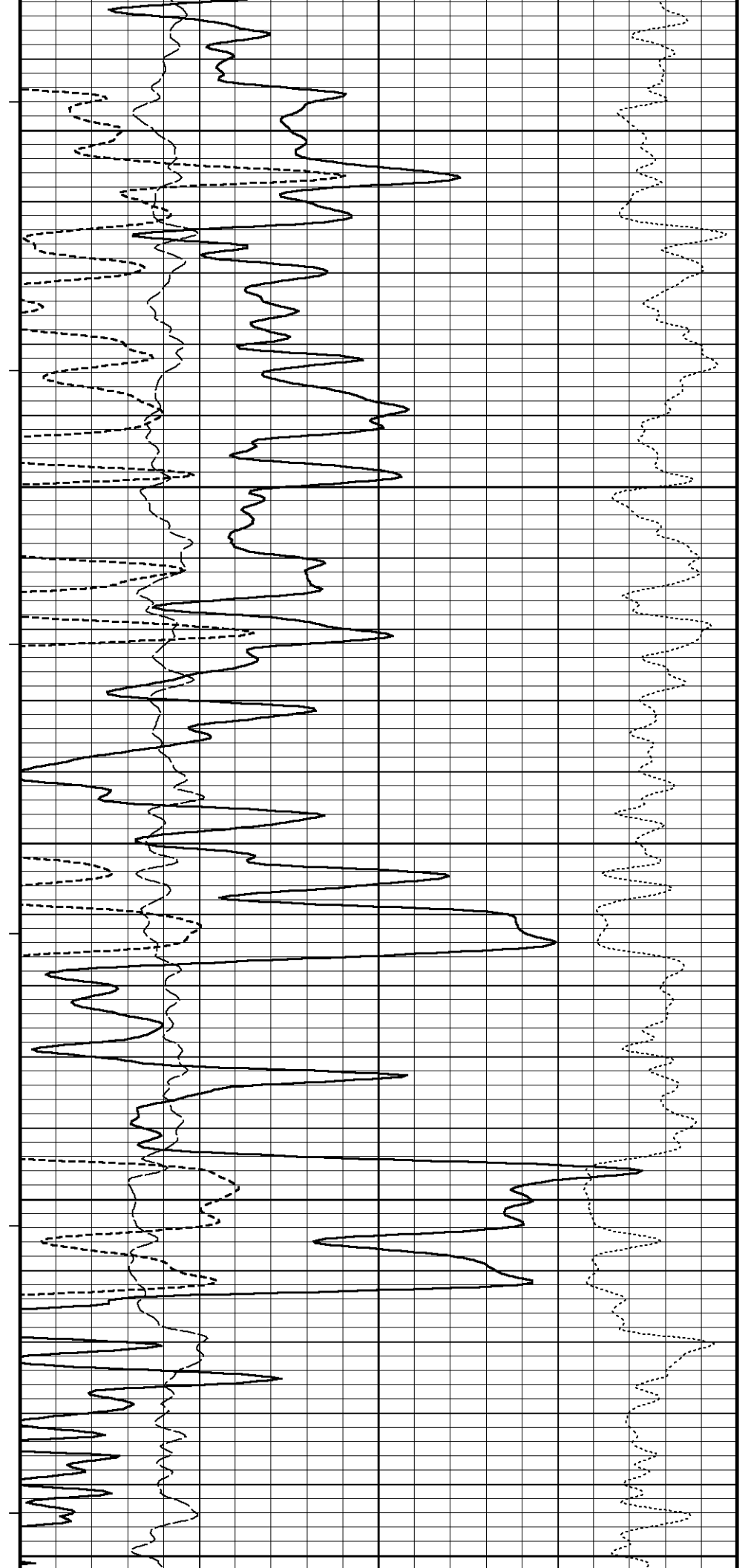
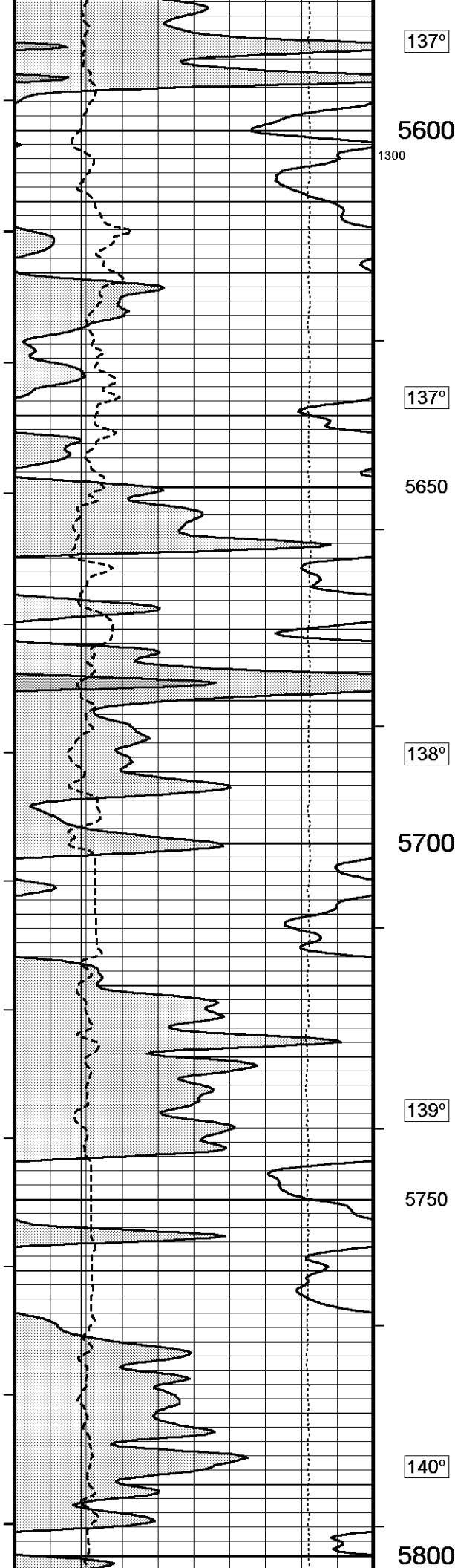


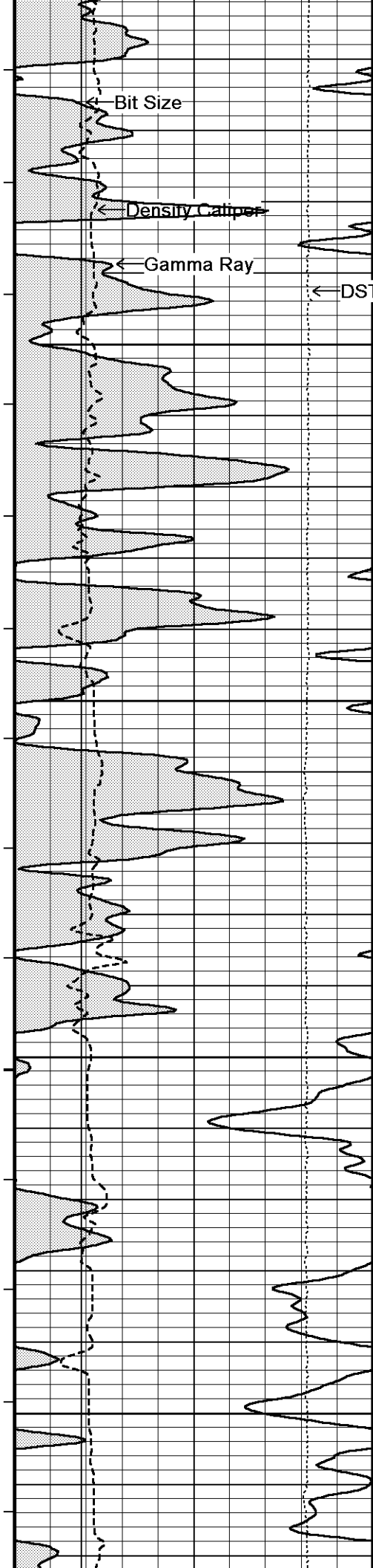












SS Density Por.

PF

Density Correction

141°

SS Neutron Por.

5850

1200

143°

5900

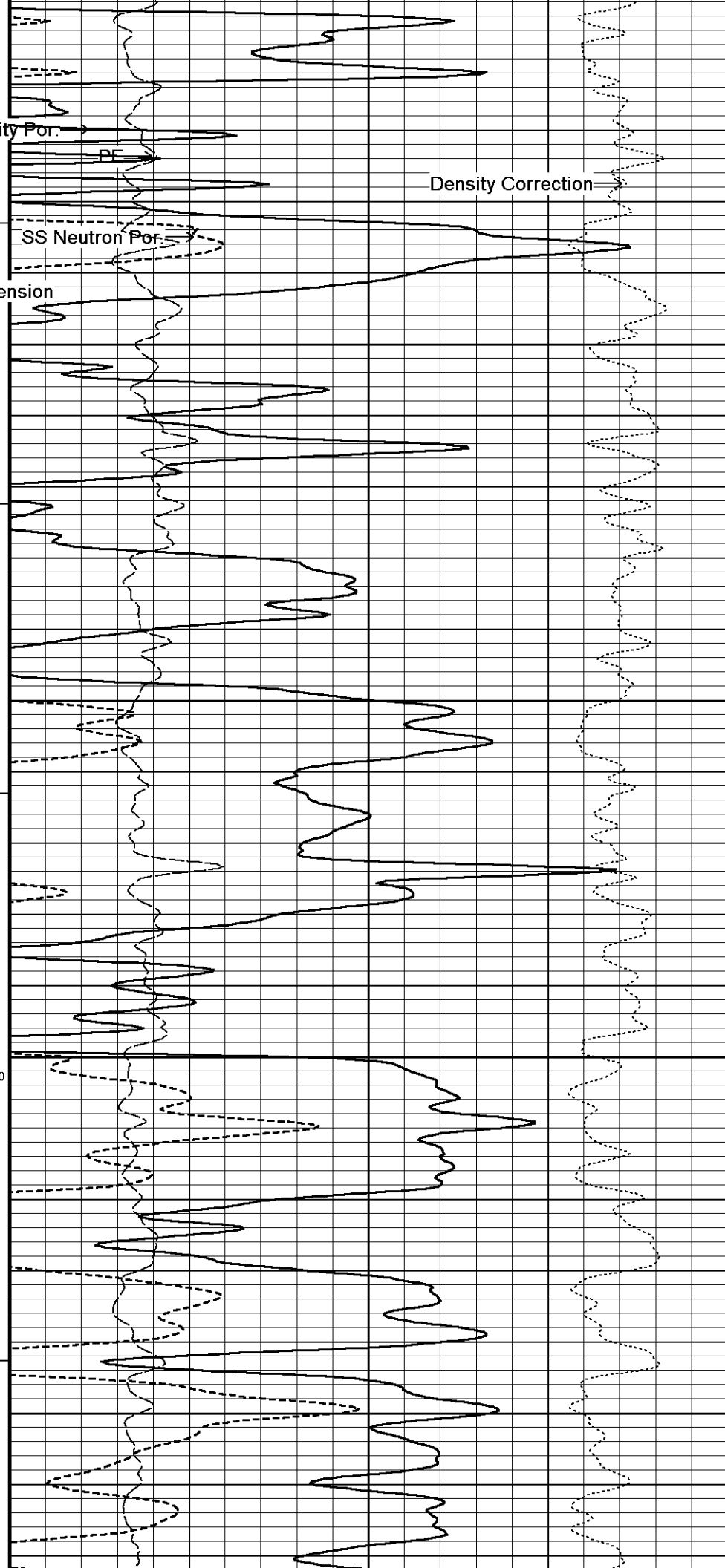
143°

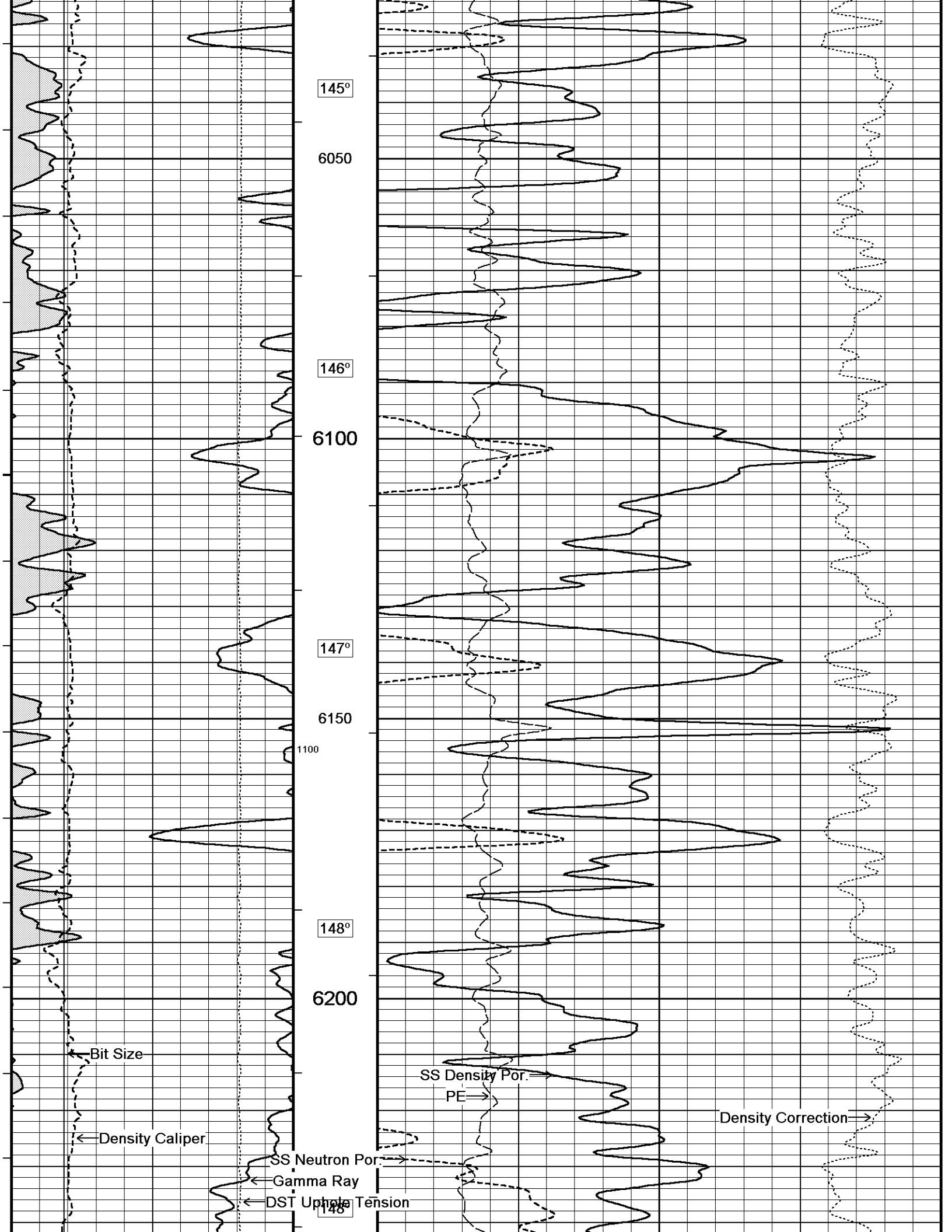
5950

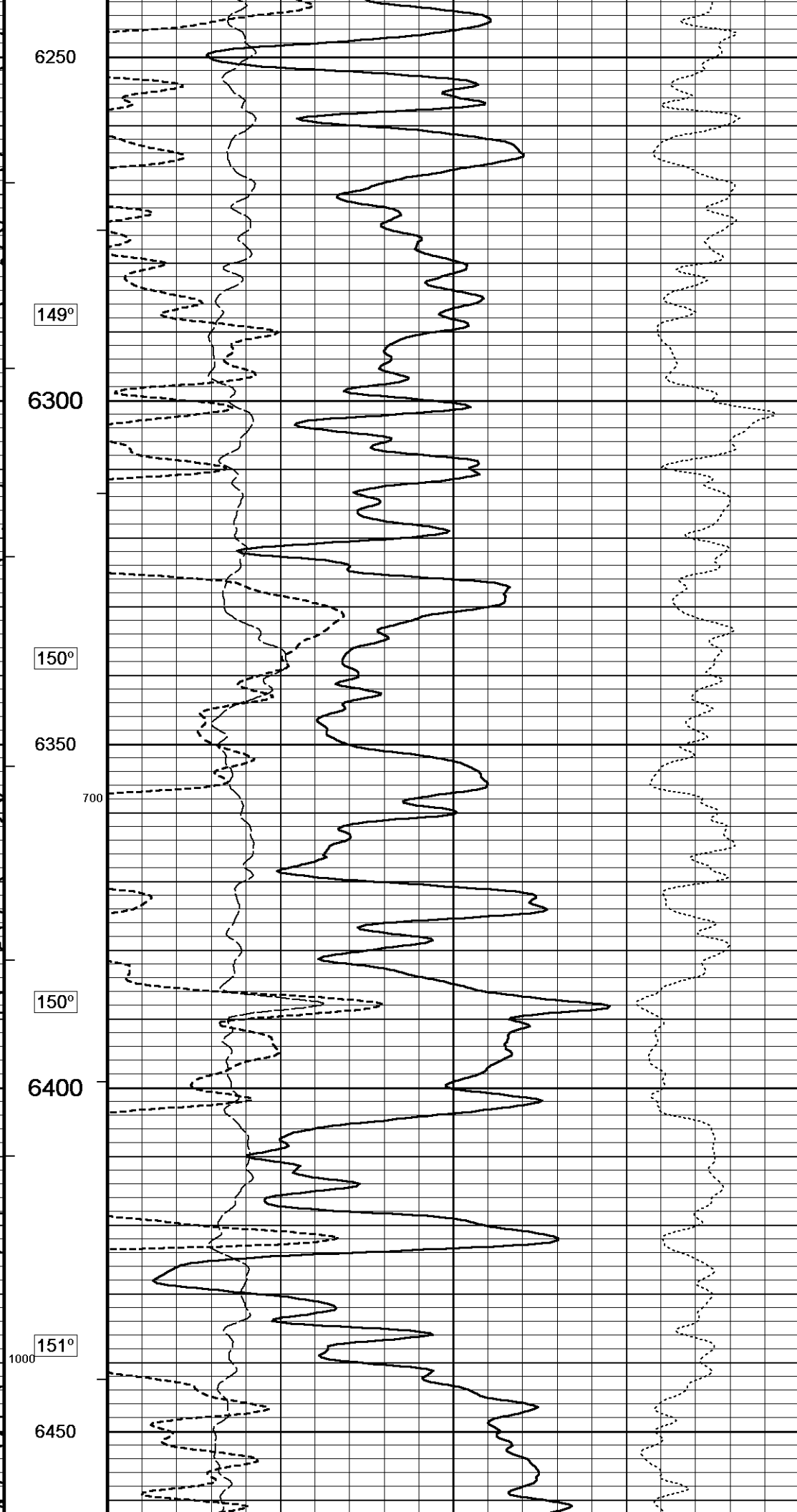
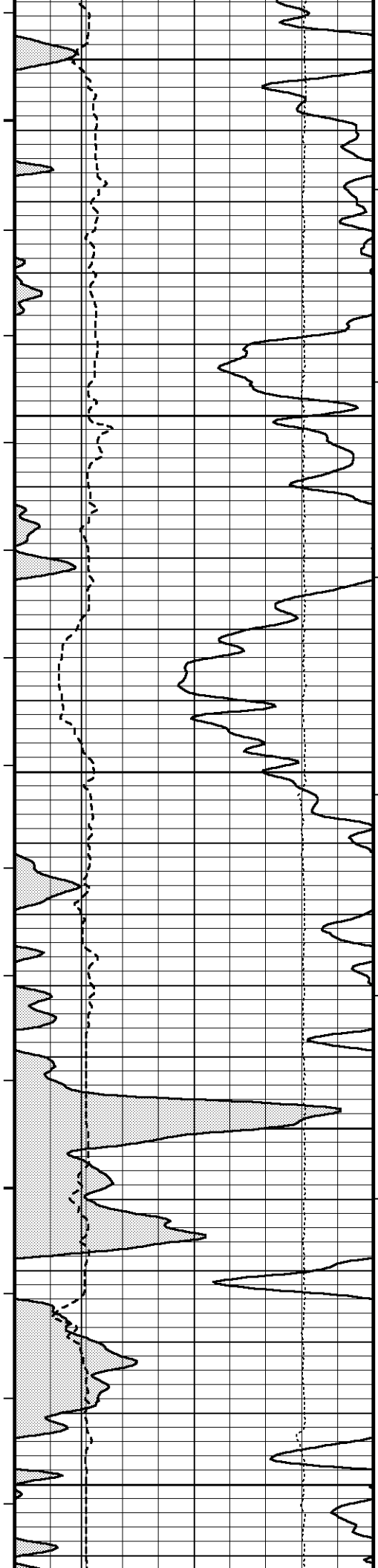
800

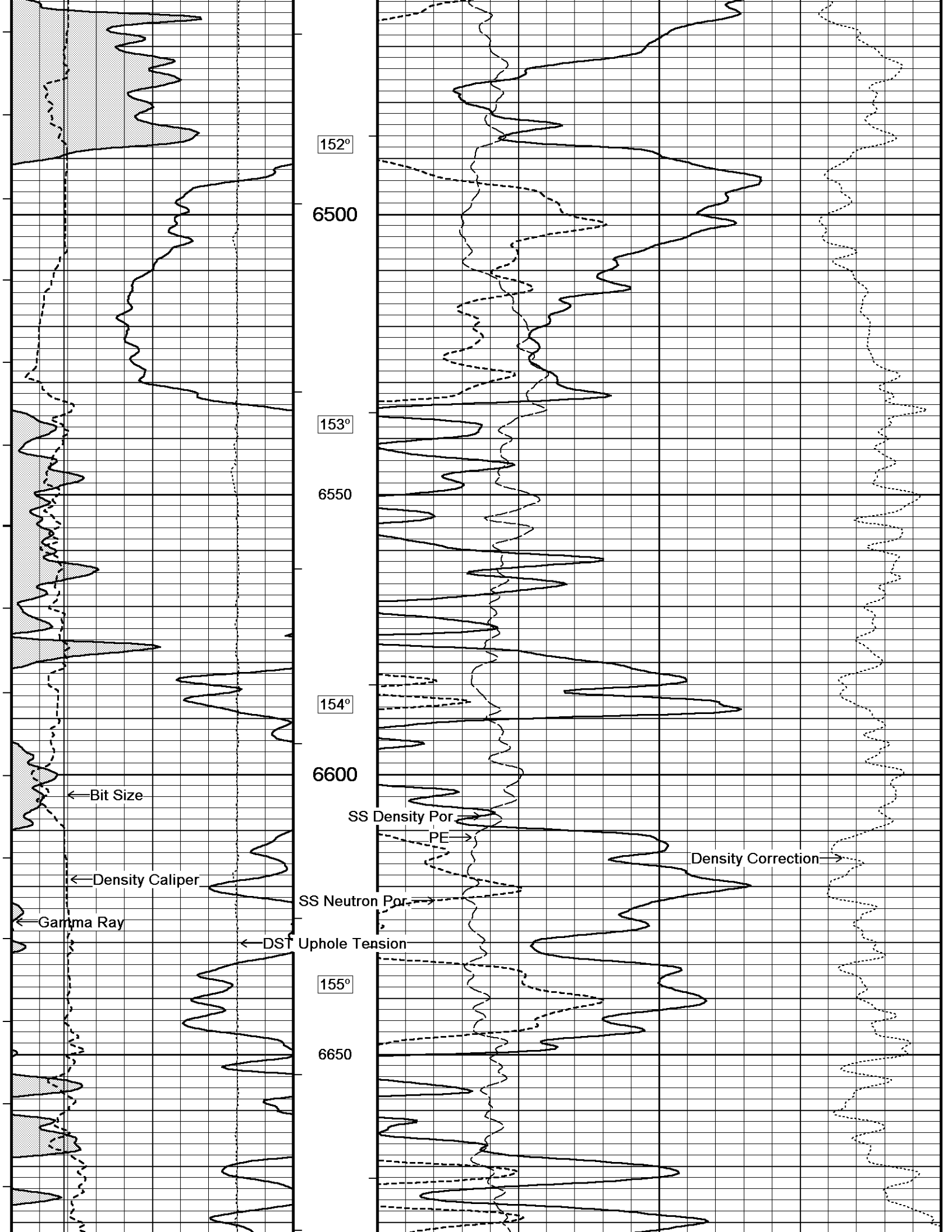
144°

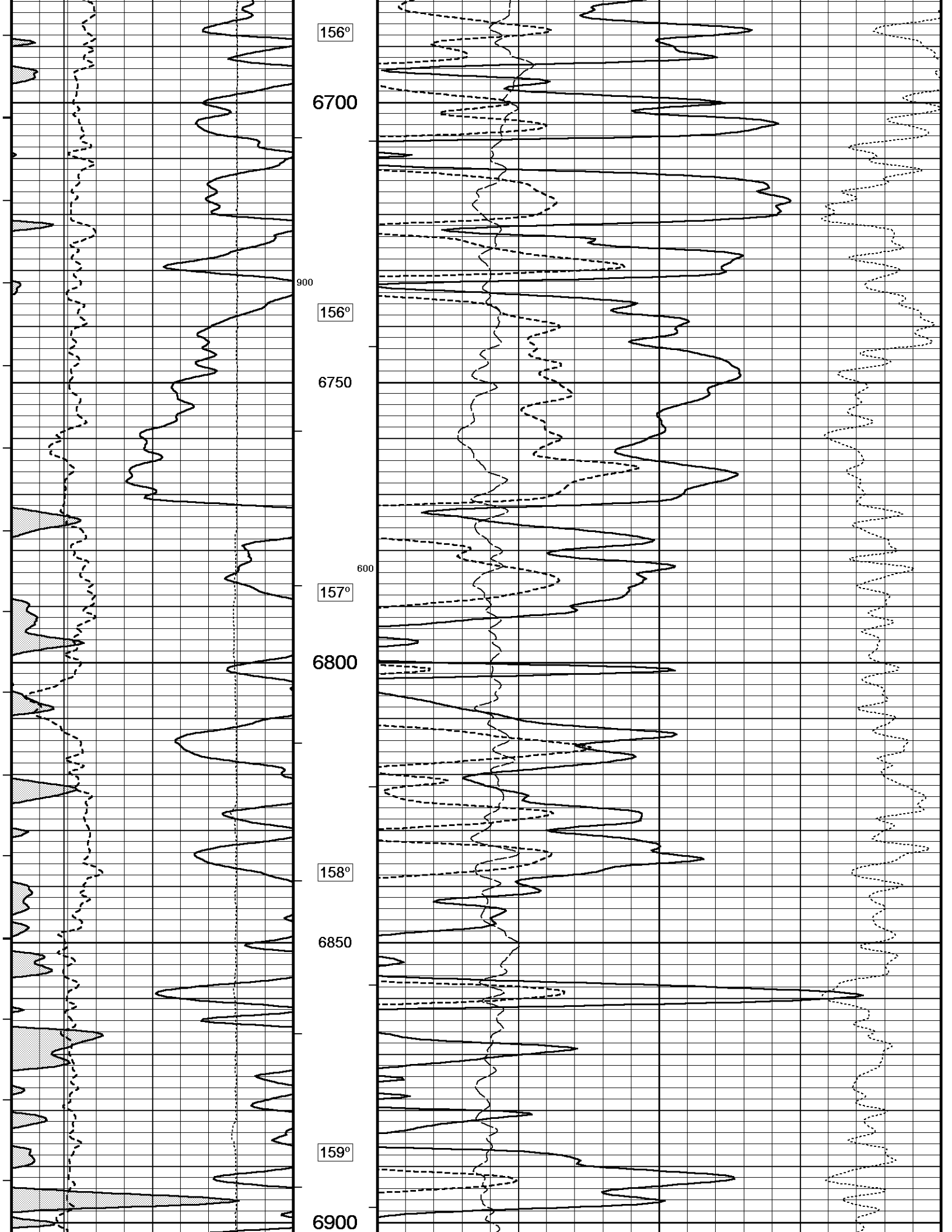
6000

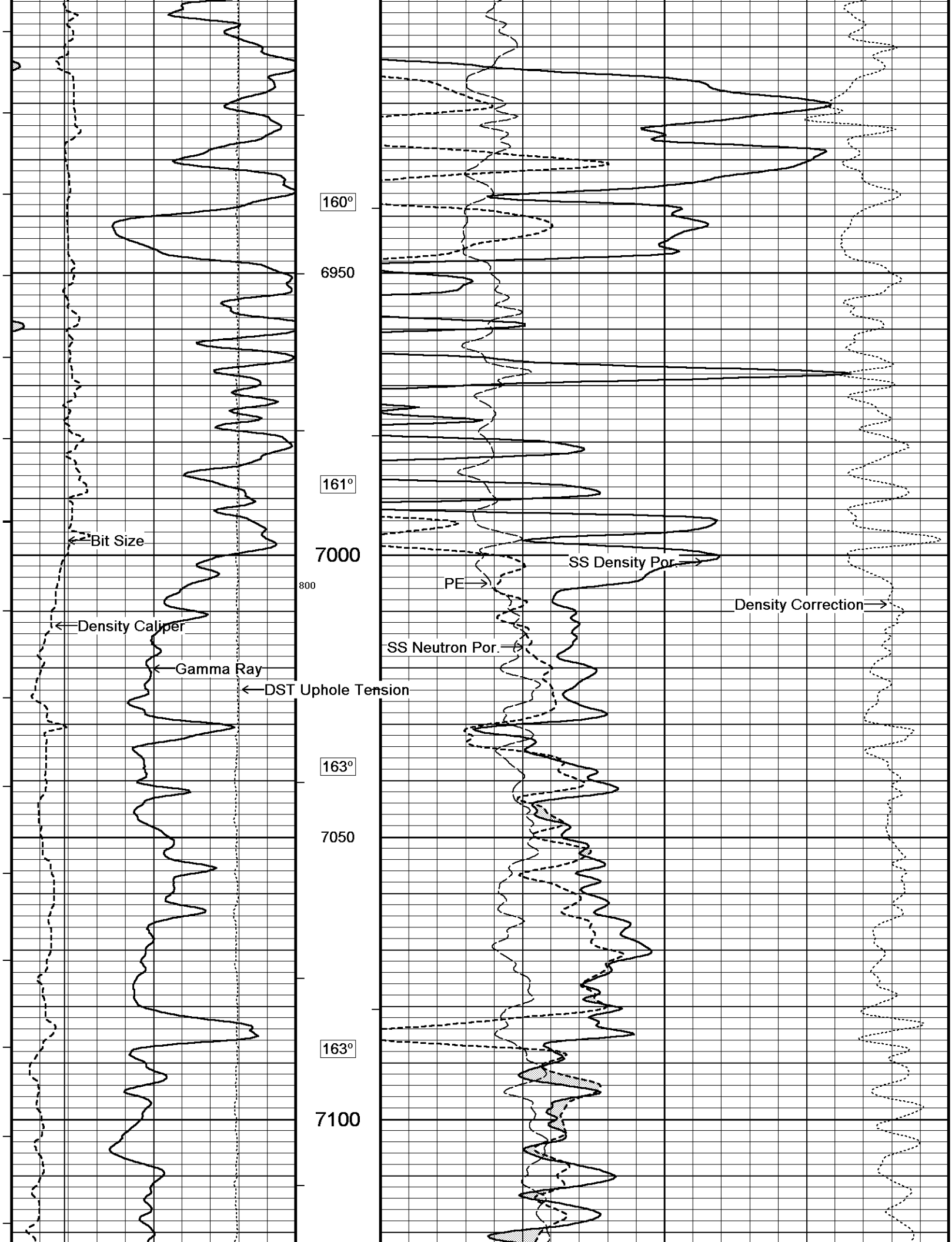


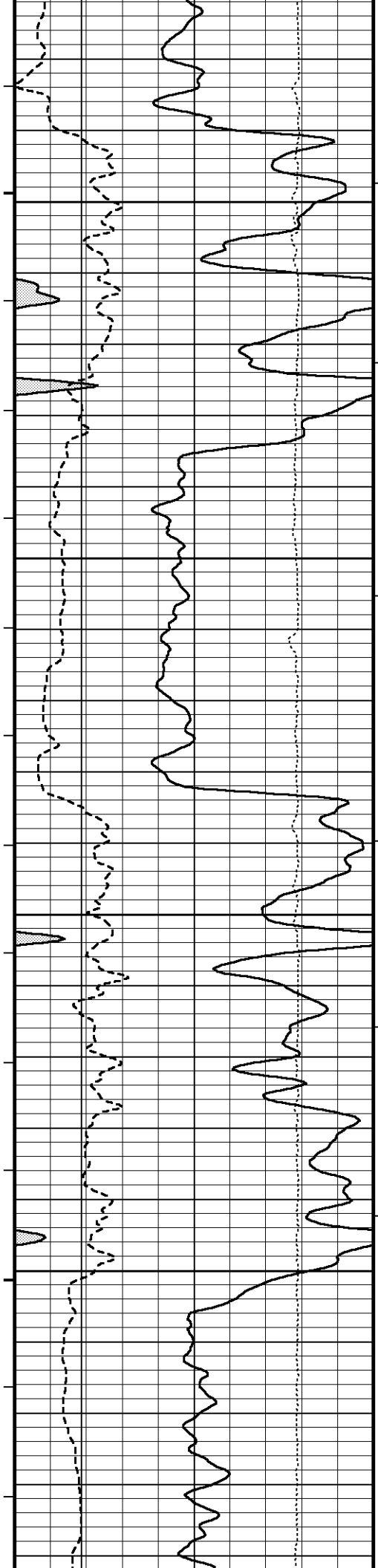




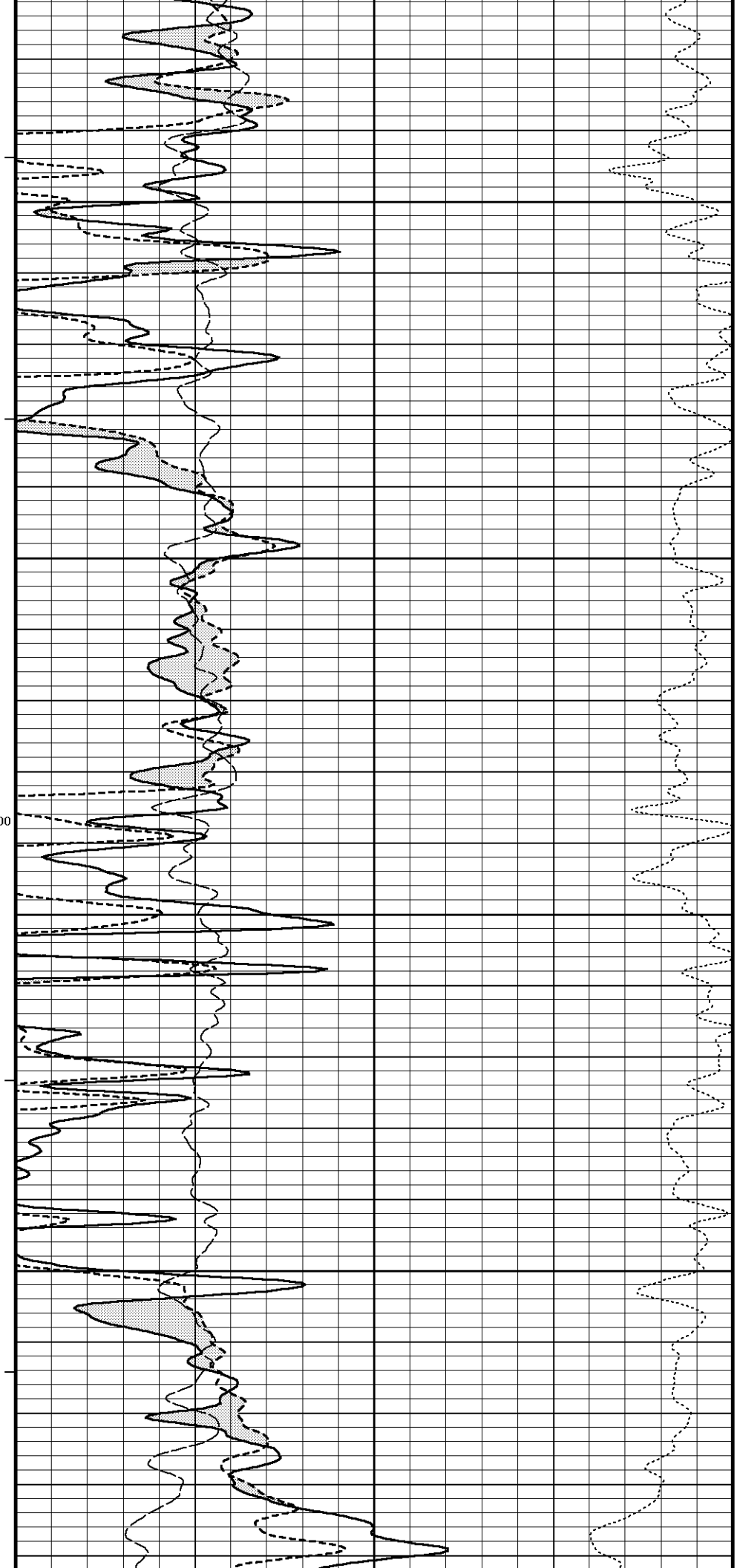


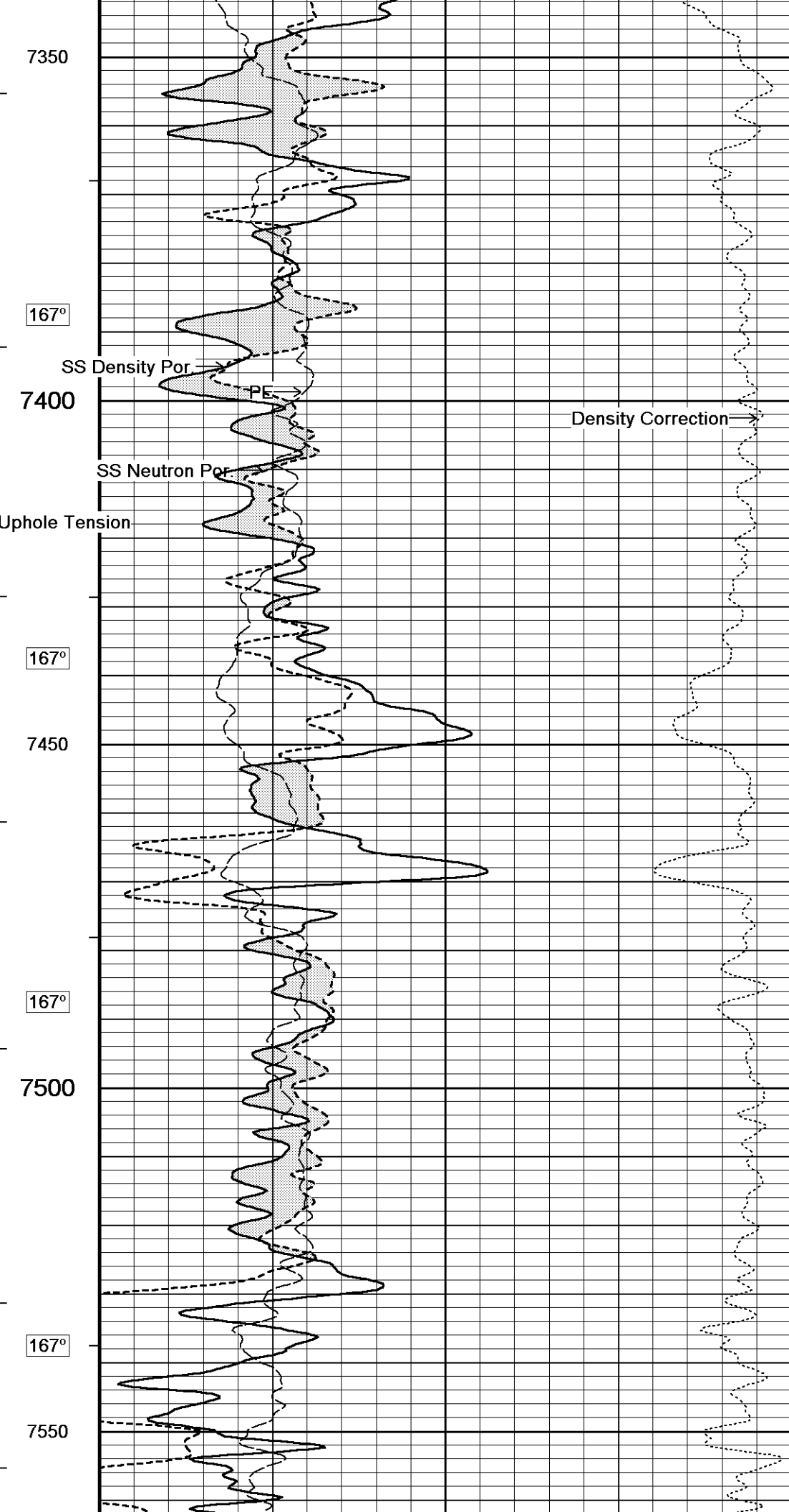
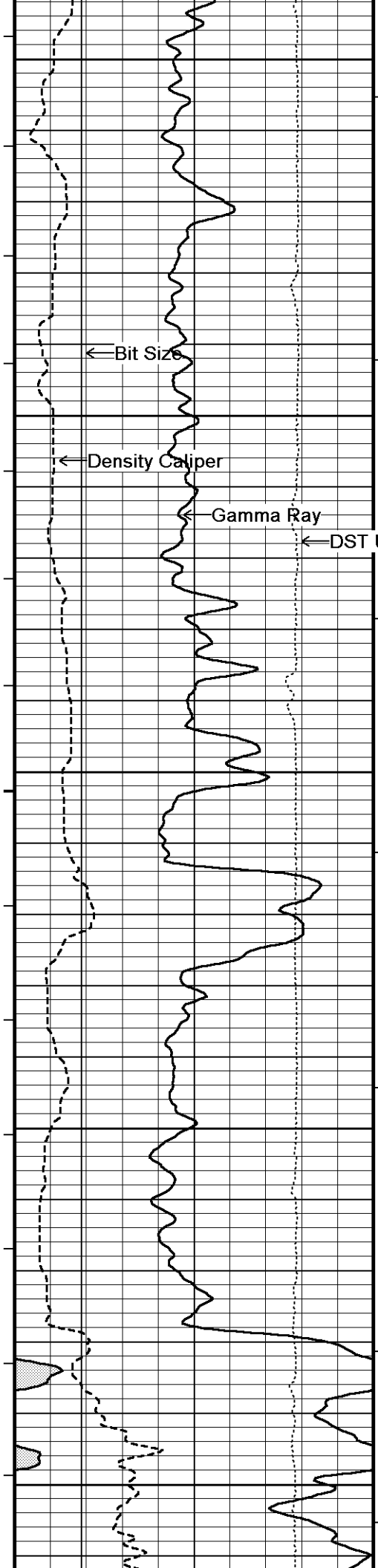


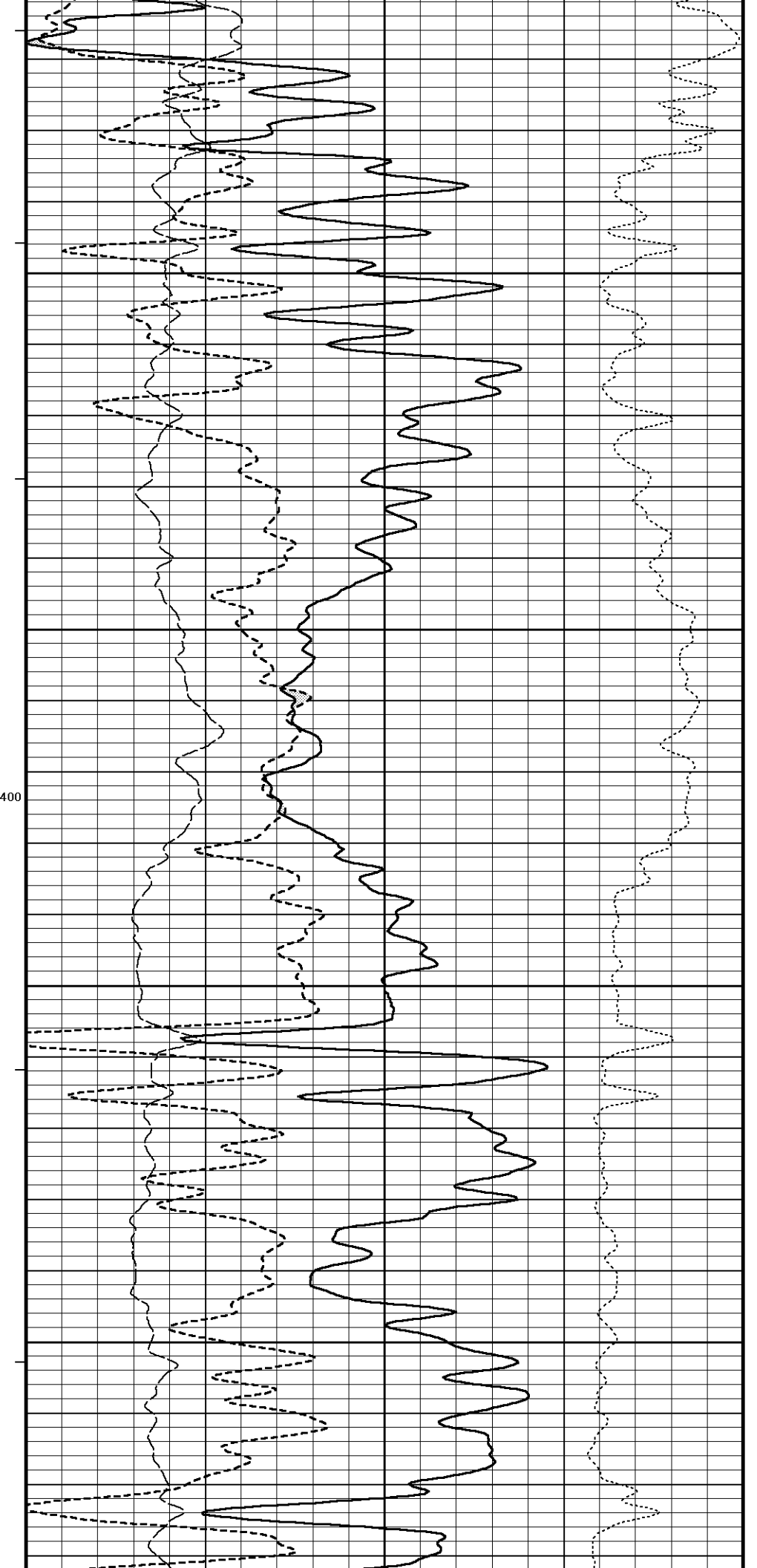
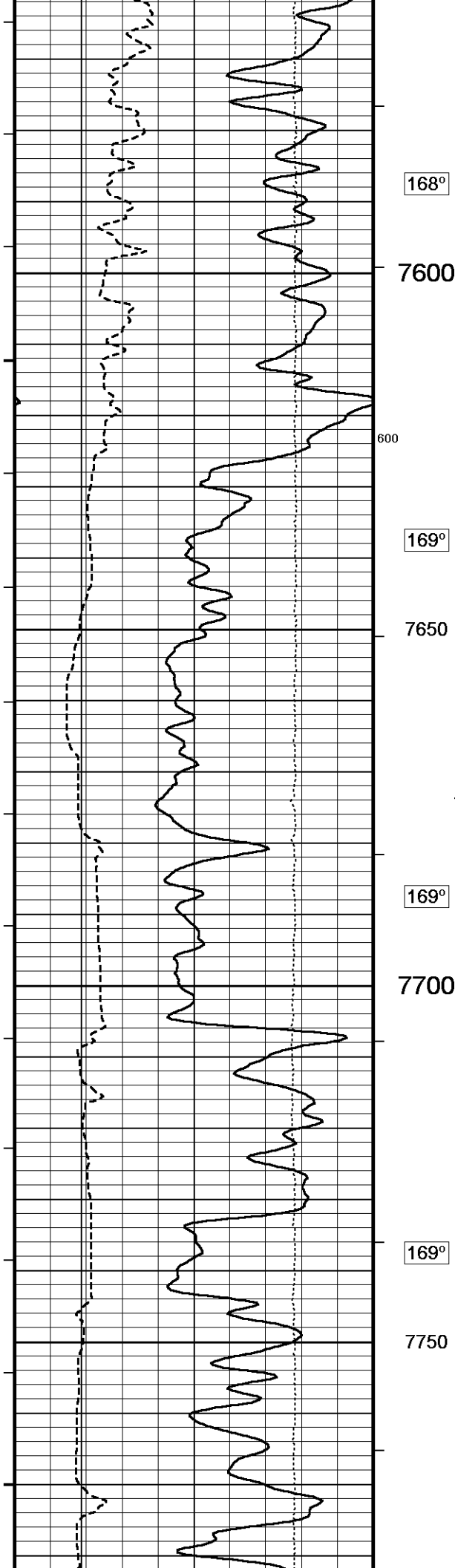


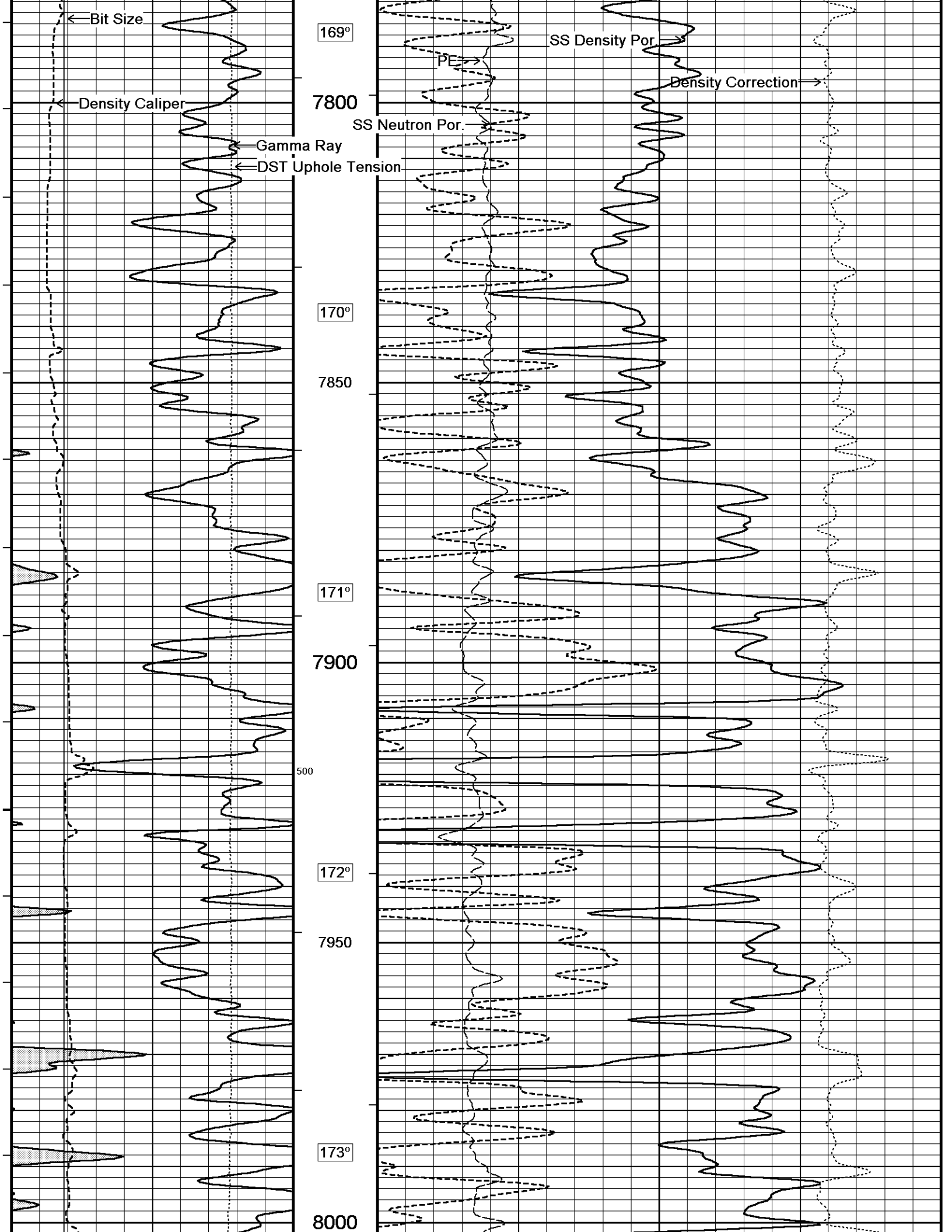


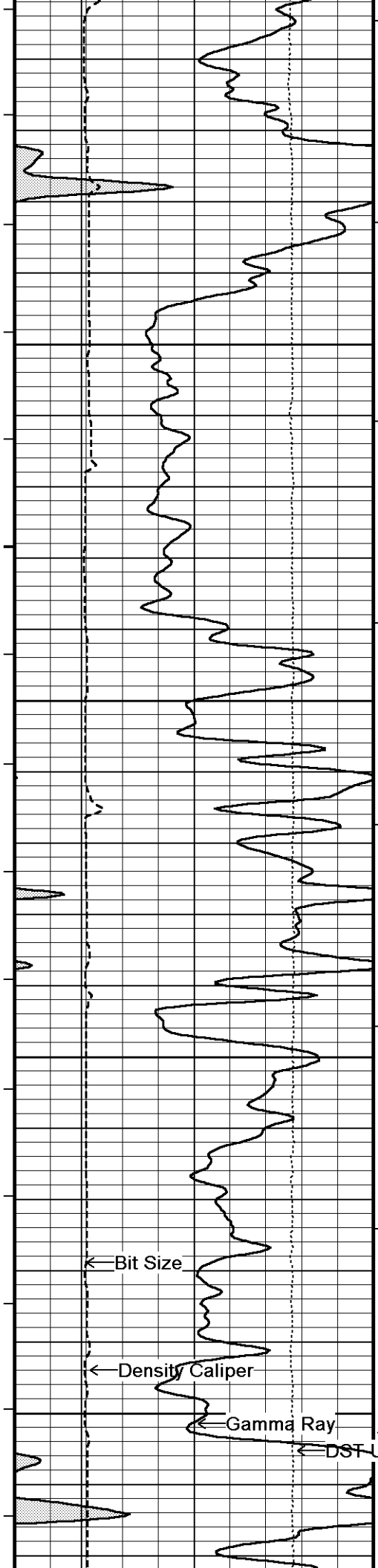
163°
7150
164°
7200
164° 500
7250
165°
7300
700
166°











174°

8050

174°

8100₃₀₀

175°

8150

176°

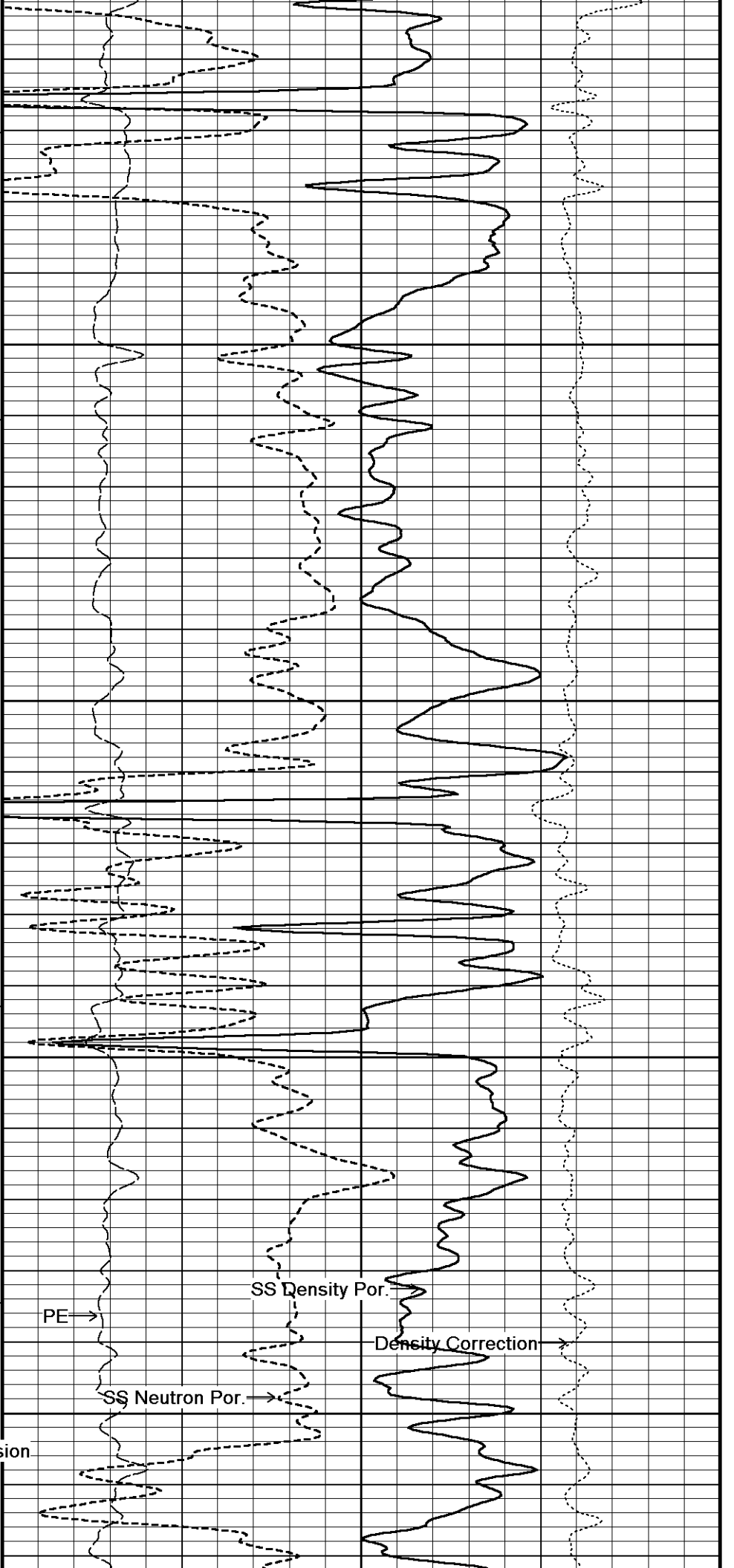
8200

← Bit Size

← Density Caliper

← Gamma Ray

← DST Uphole Tension

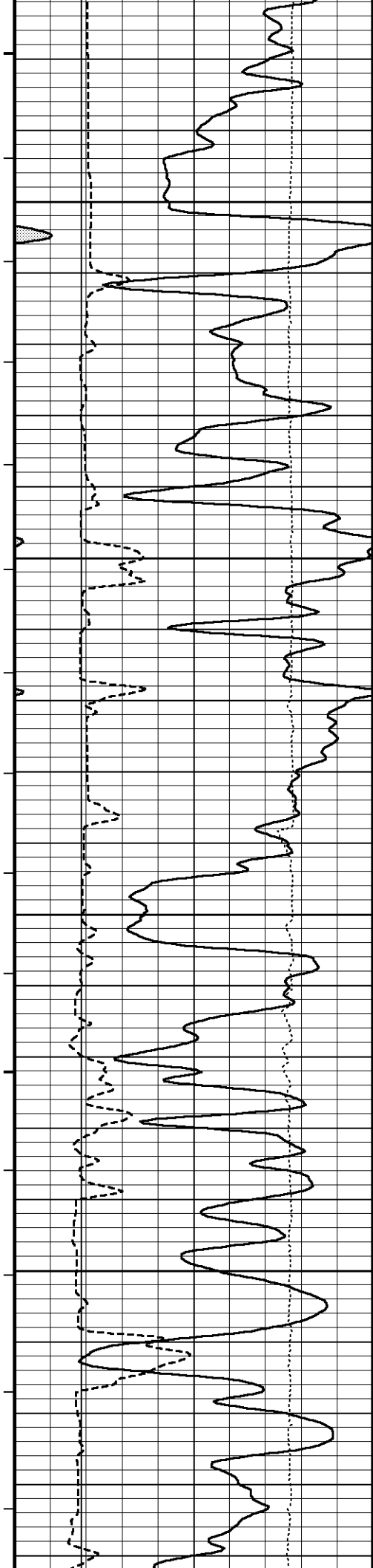


PE →

SS Density Por. →

SS Neutron Por. →

Density Correction →



176°

8250

175°

8300

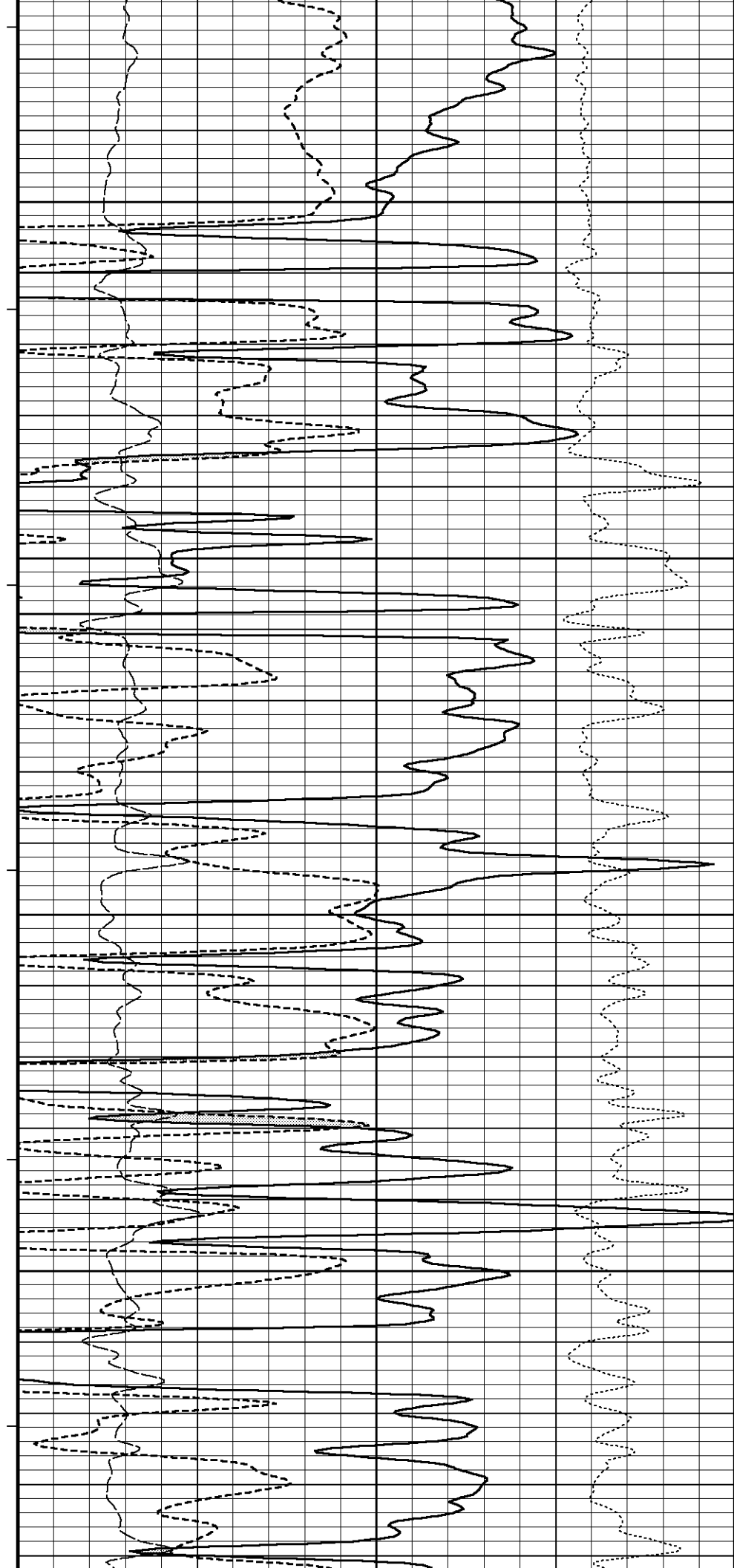
177°

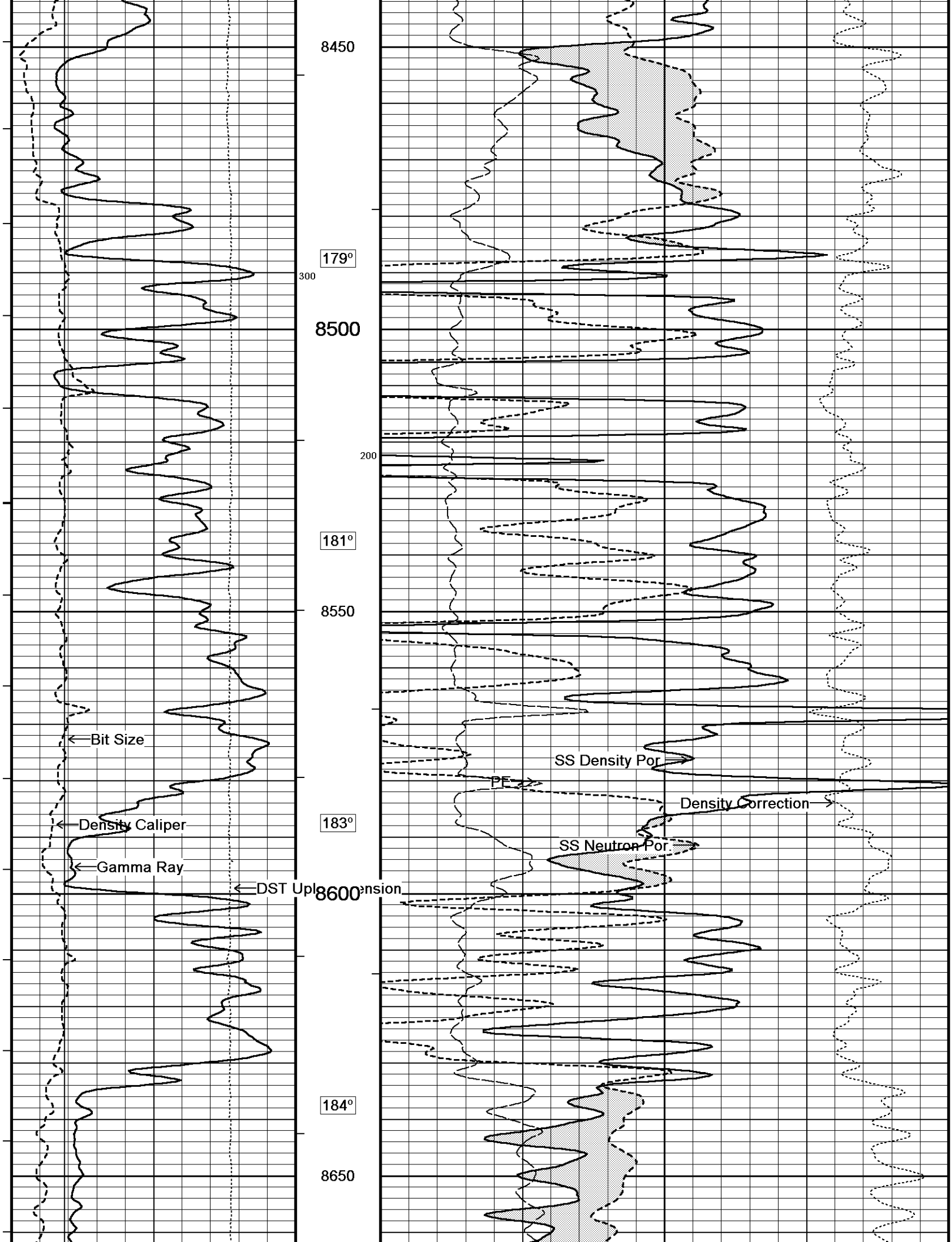
8350

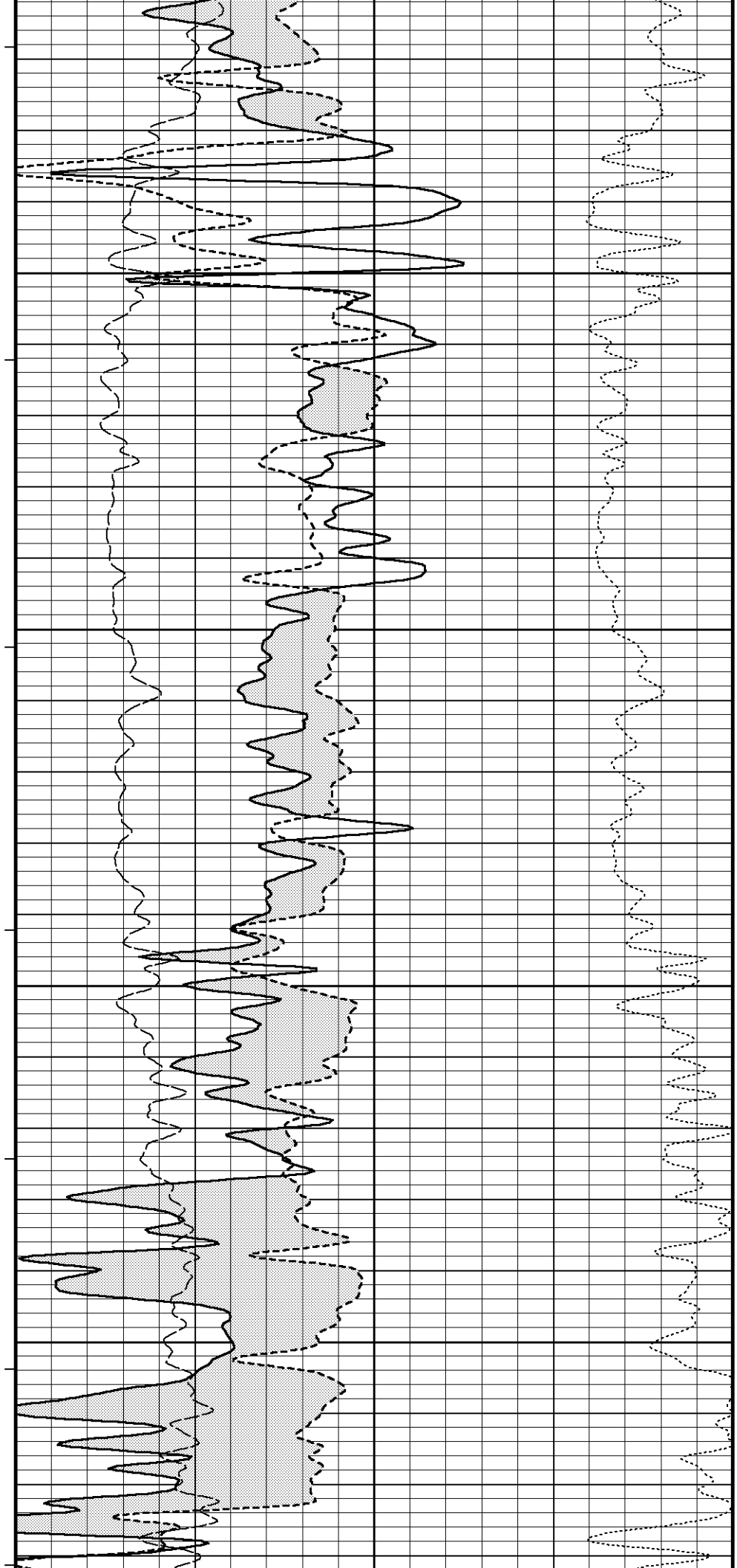
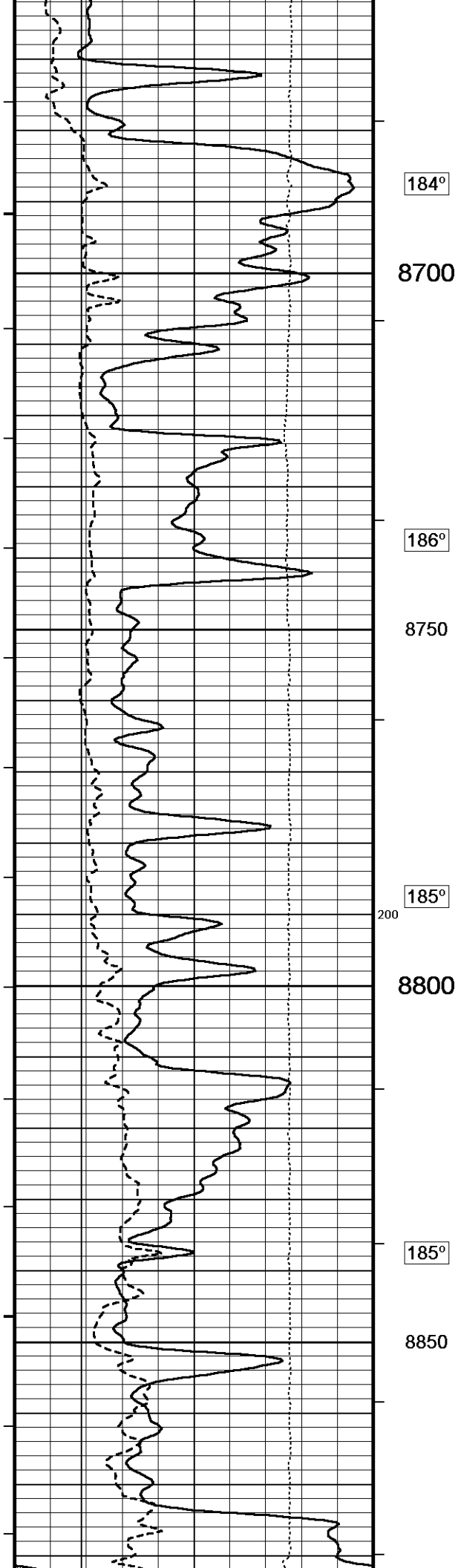
177°

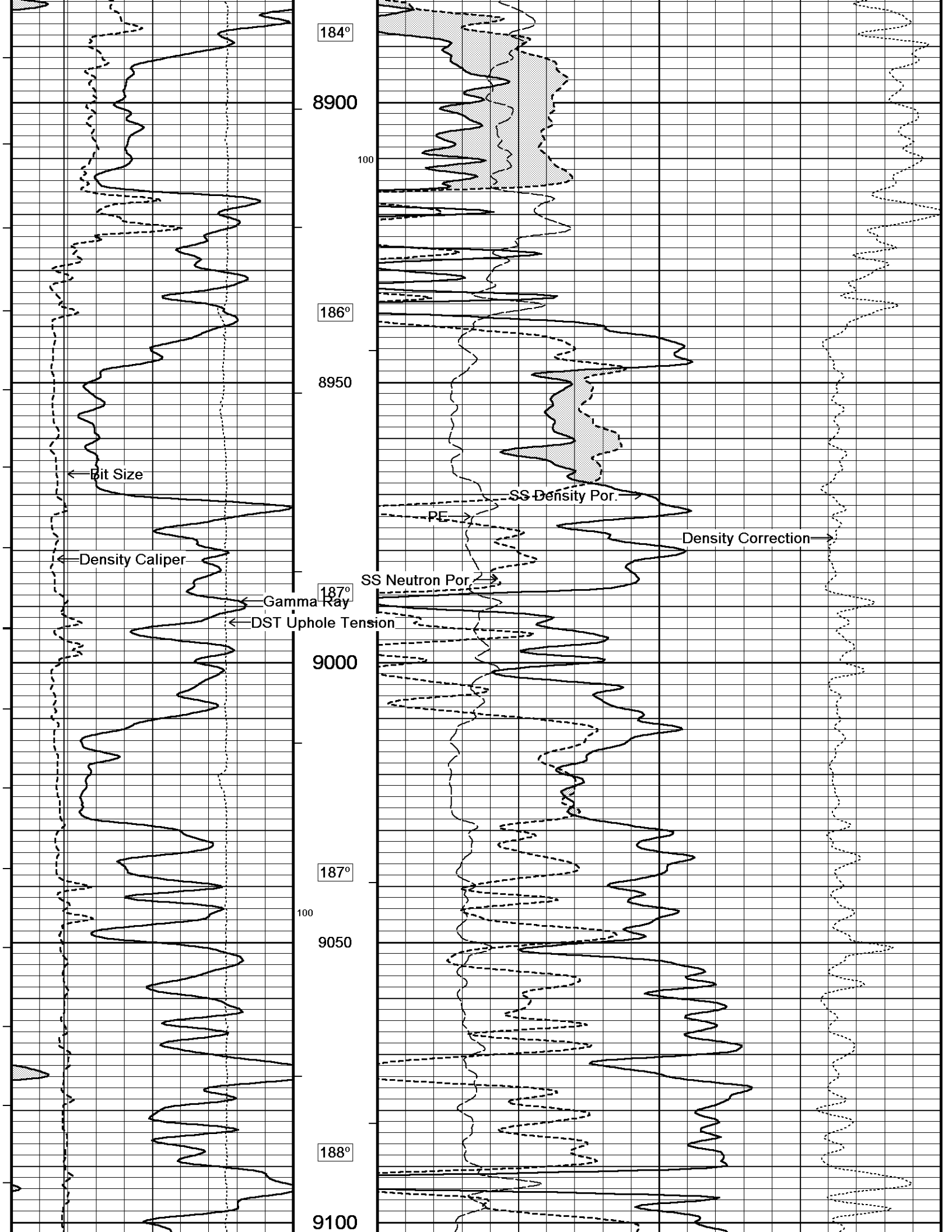
8400

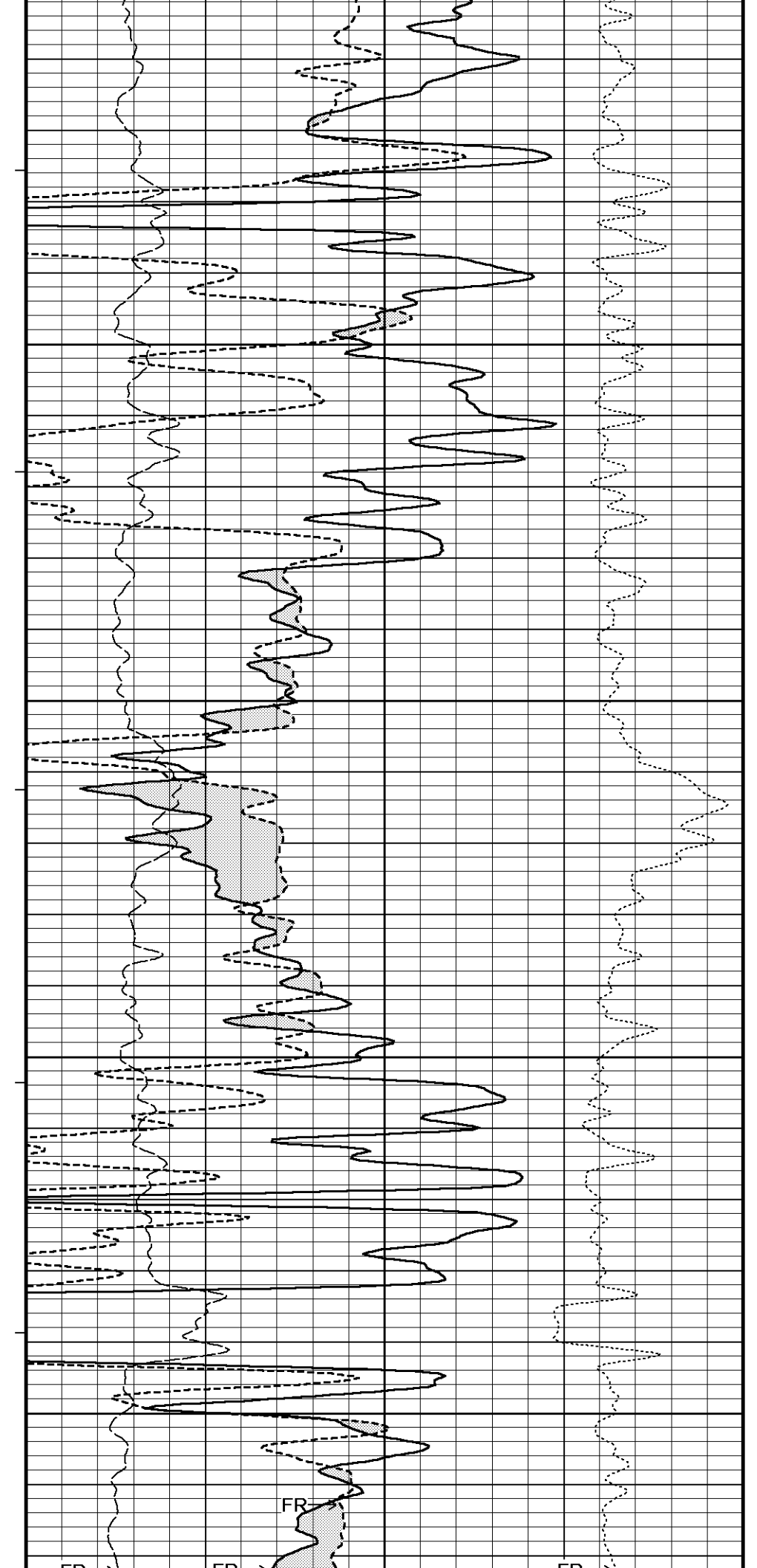
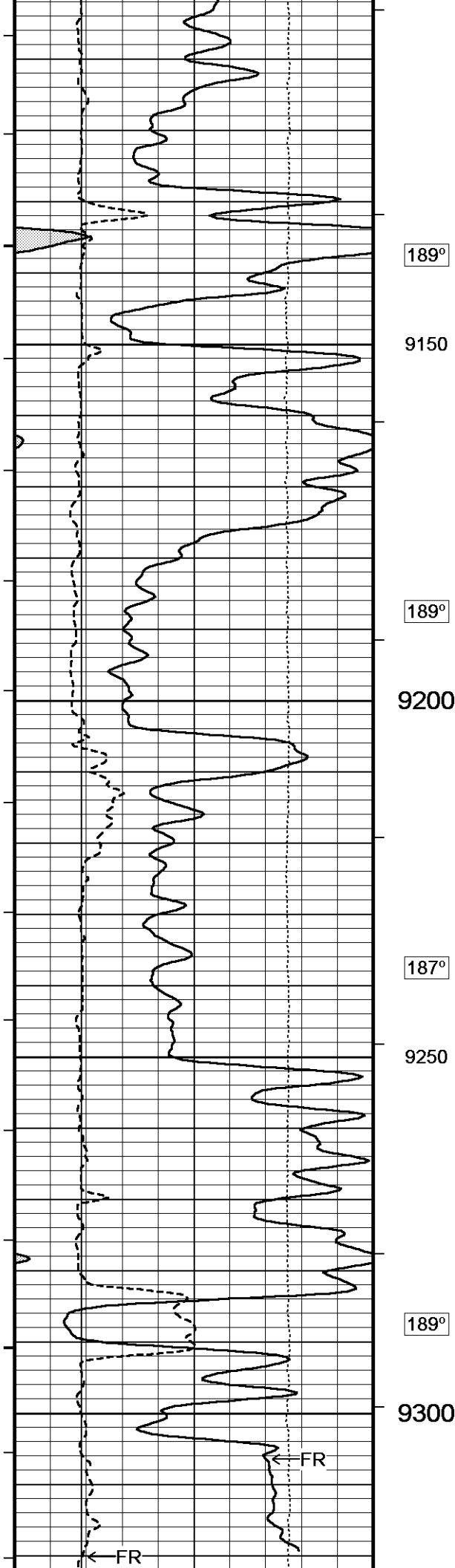
180°

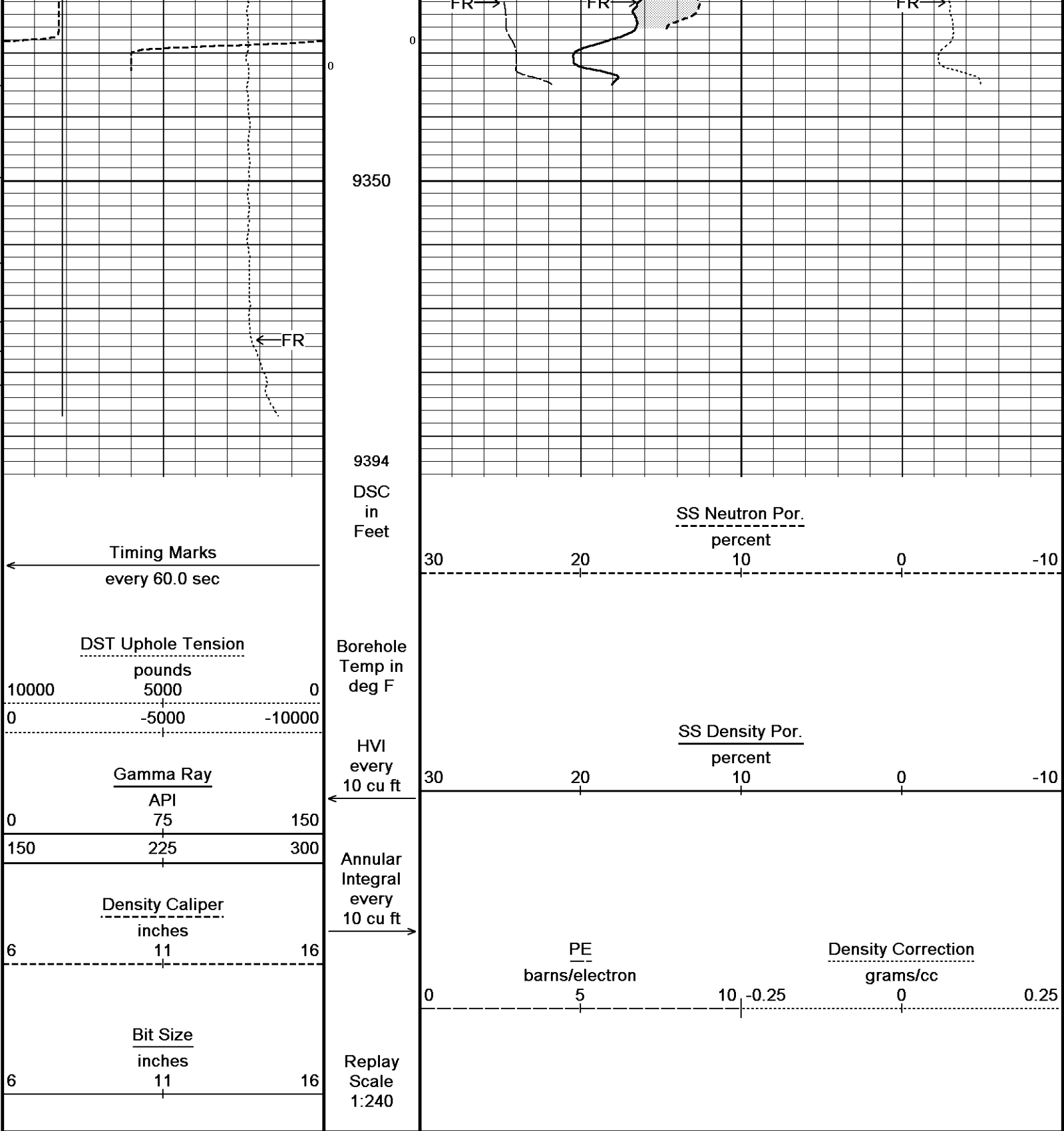










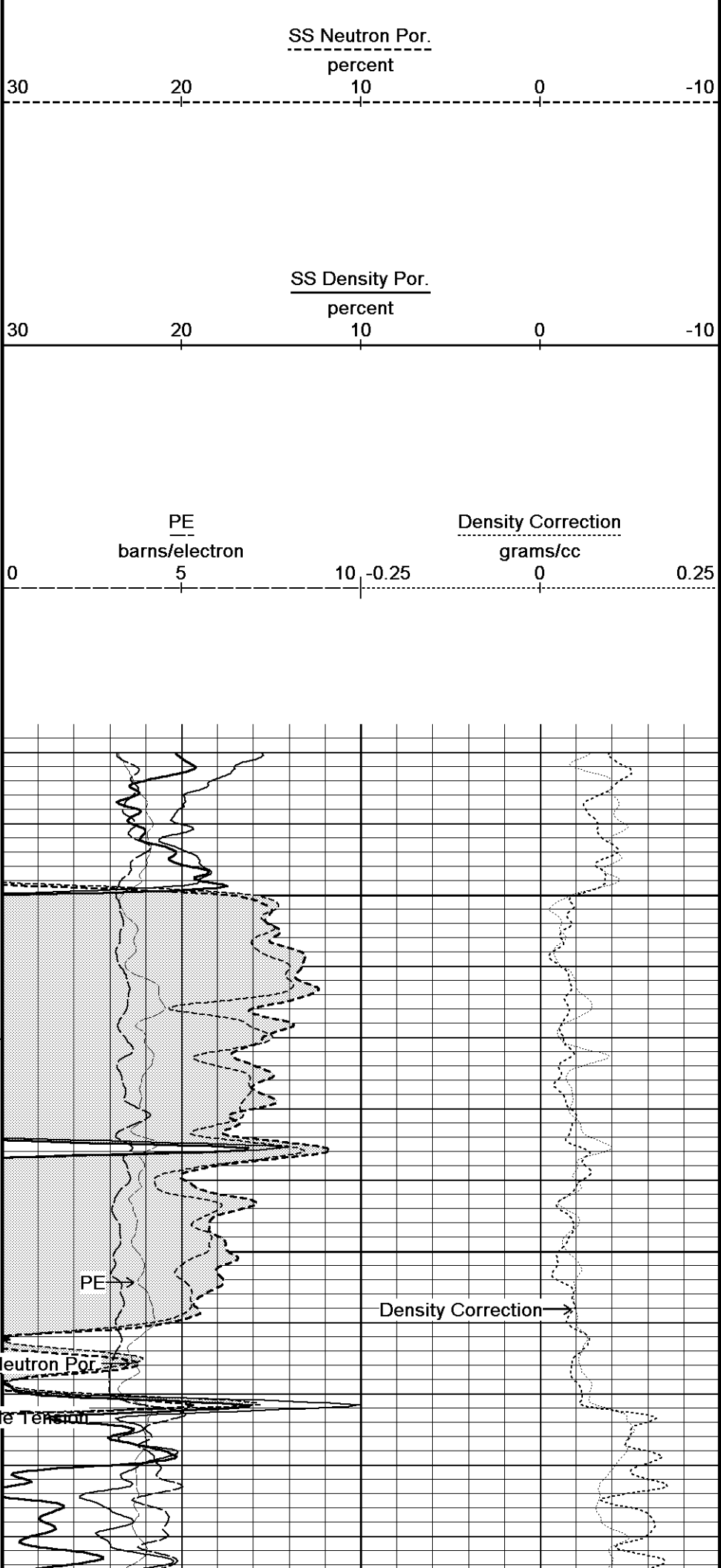
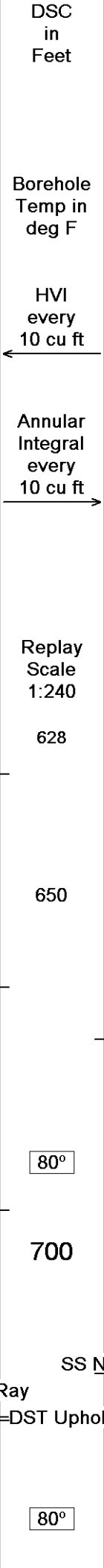
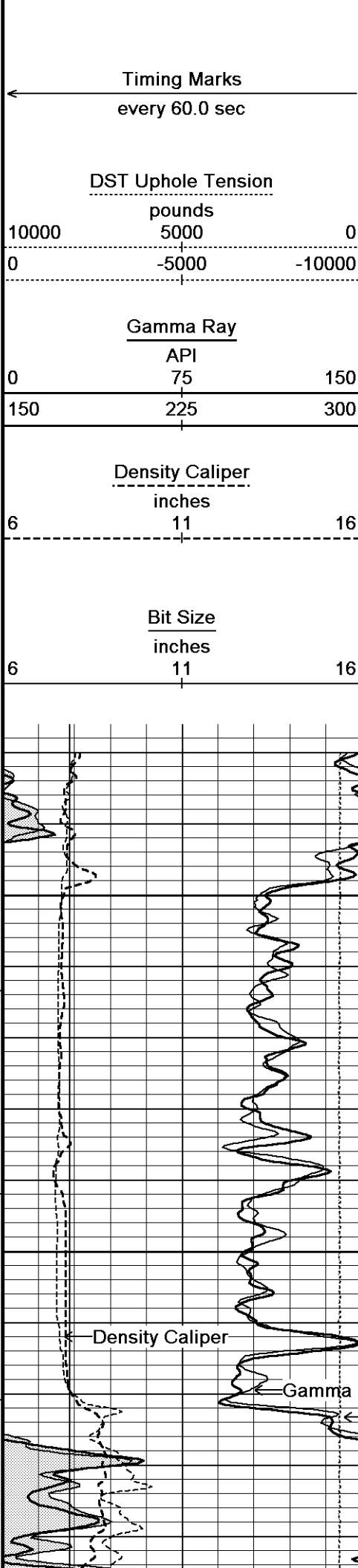


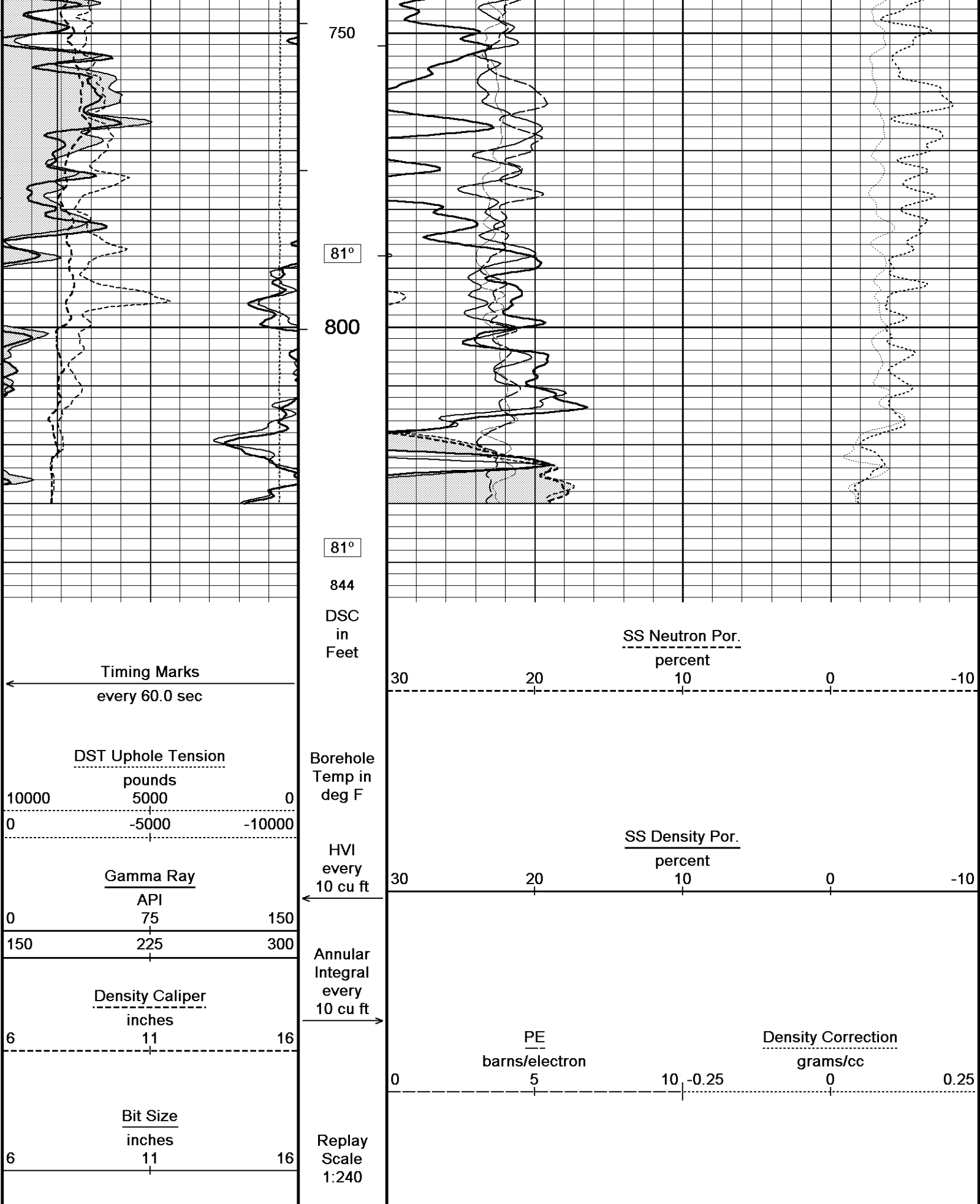
Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Users\le143235\AppData\Local\Temp\Weatherford ...Wexpro Jack's Draw Unit #19_5.dta
System Versions: Logged with 11.03.4044 Plotted with 12.01.3513

5 INCH MAIN LOG

UPPER REPEAT SECTION OVERLAY

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Users\le143235\AppData\Local\Temp\Weatherford ...Wexpro Jack's Draw Unit #19_6.dta
Filename: C:\Users\le143235\AppData\Local\Temp\Weatherford ...Wexpro Jack's Draw Unit #19_5.dta
System Versions: Logged with 11.03.4044 Plotted with 12.01.3513





↓

BOTTOM REPEAT SECTION OVERLAY

↓

Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 10-OCT-2011 06:51

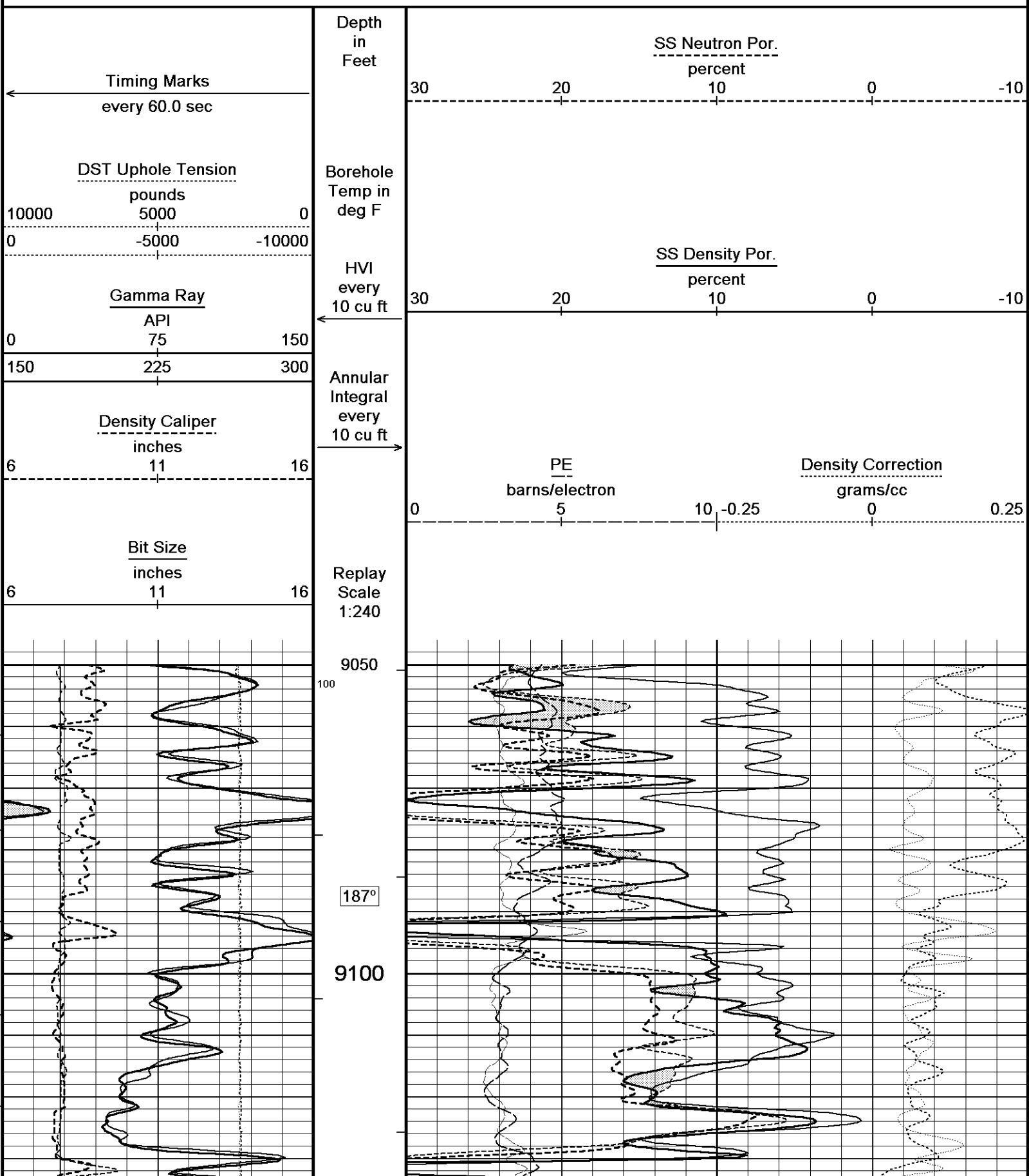
Filename: C:\Users\le143235\AppData\Local\Temp\Weatherford ... \Wexpro Jack's Draw Unit #19_4.dta

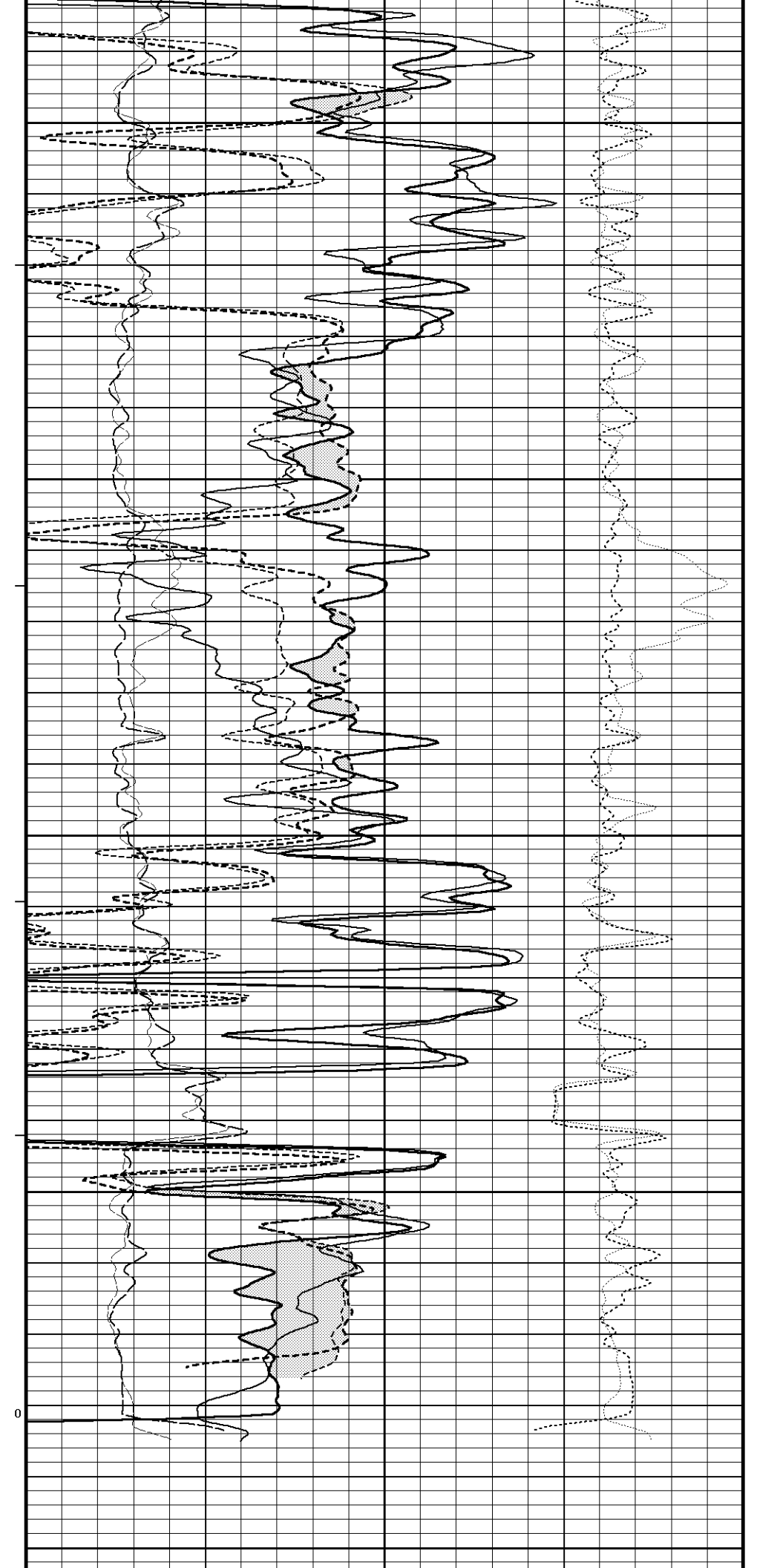
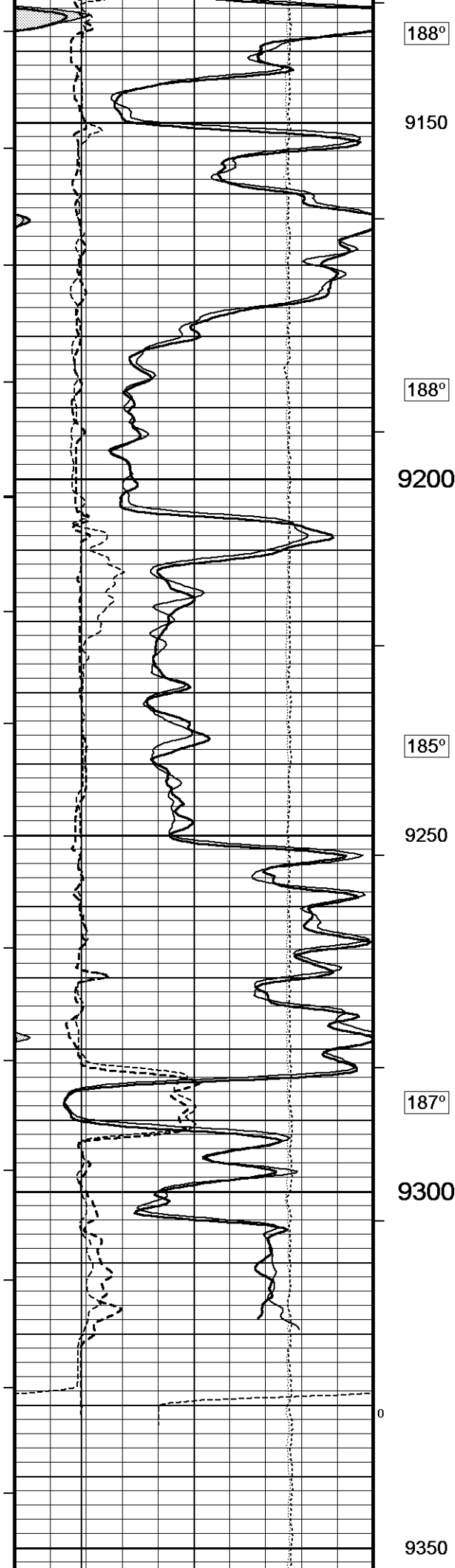
Recorded on 08-OCT-2011 11:23

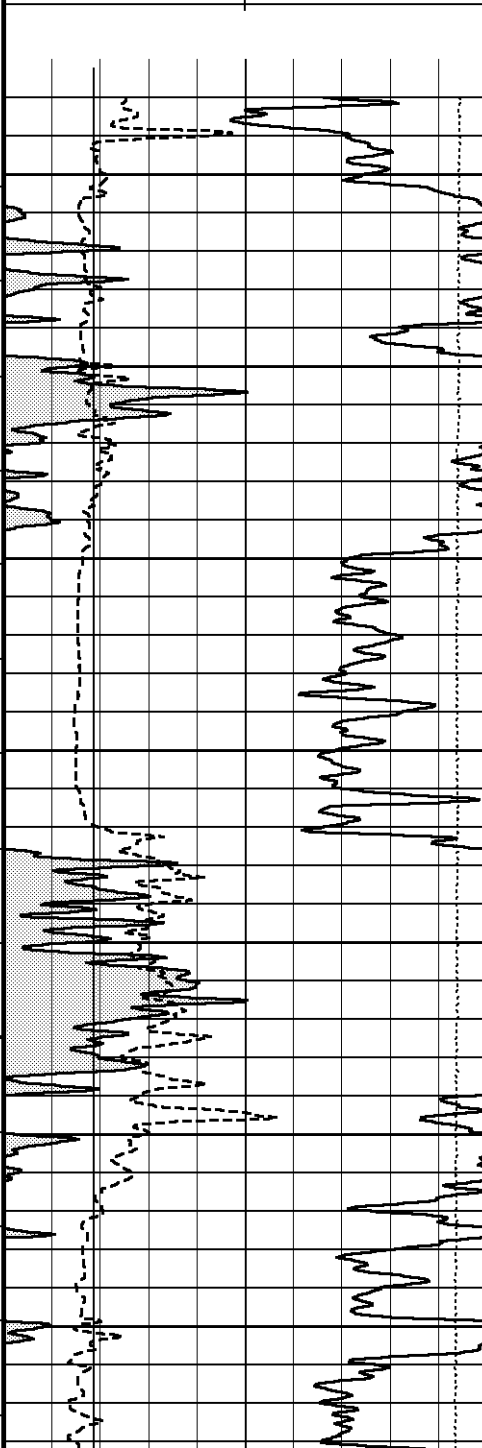
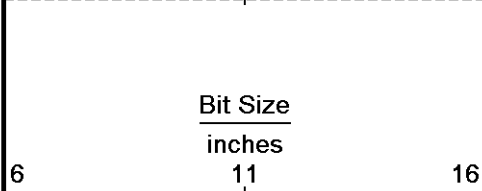
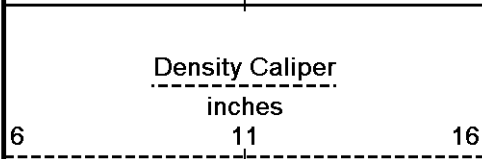
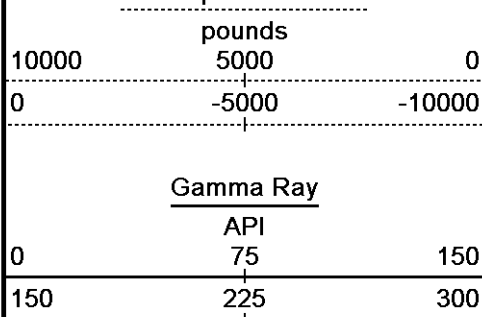
Filename: C:\Users\le143235\AppData\Local\Temp\Weatherford ... \Wexpro Jack's Draw Unit #19_5.dta

Recorded on 08-OCT-2011 12:02

System Versions: Logged with 11.03.4044 Plotted with 12.01.3513



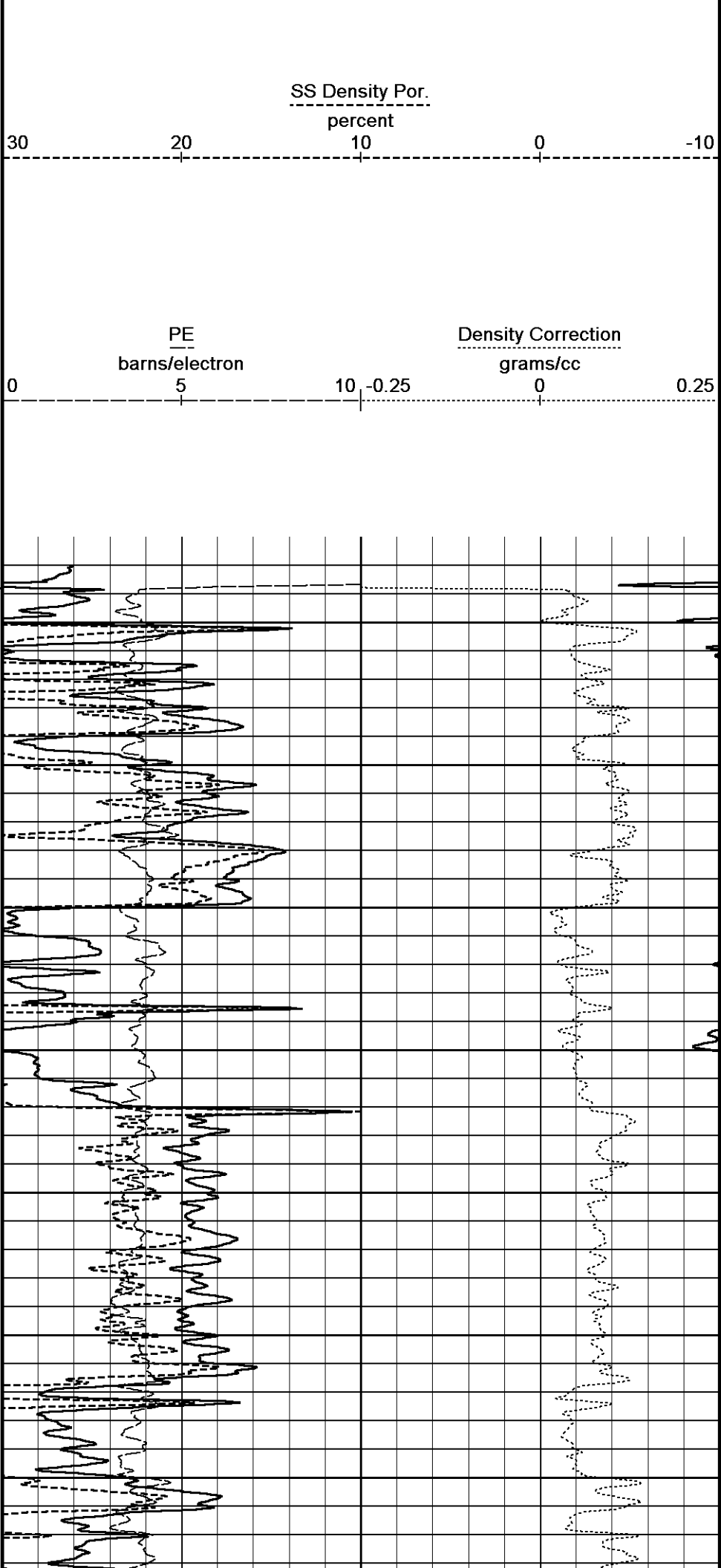


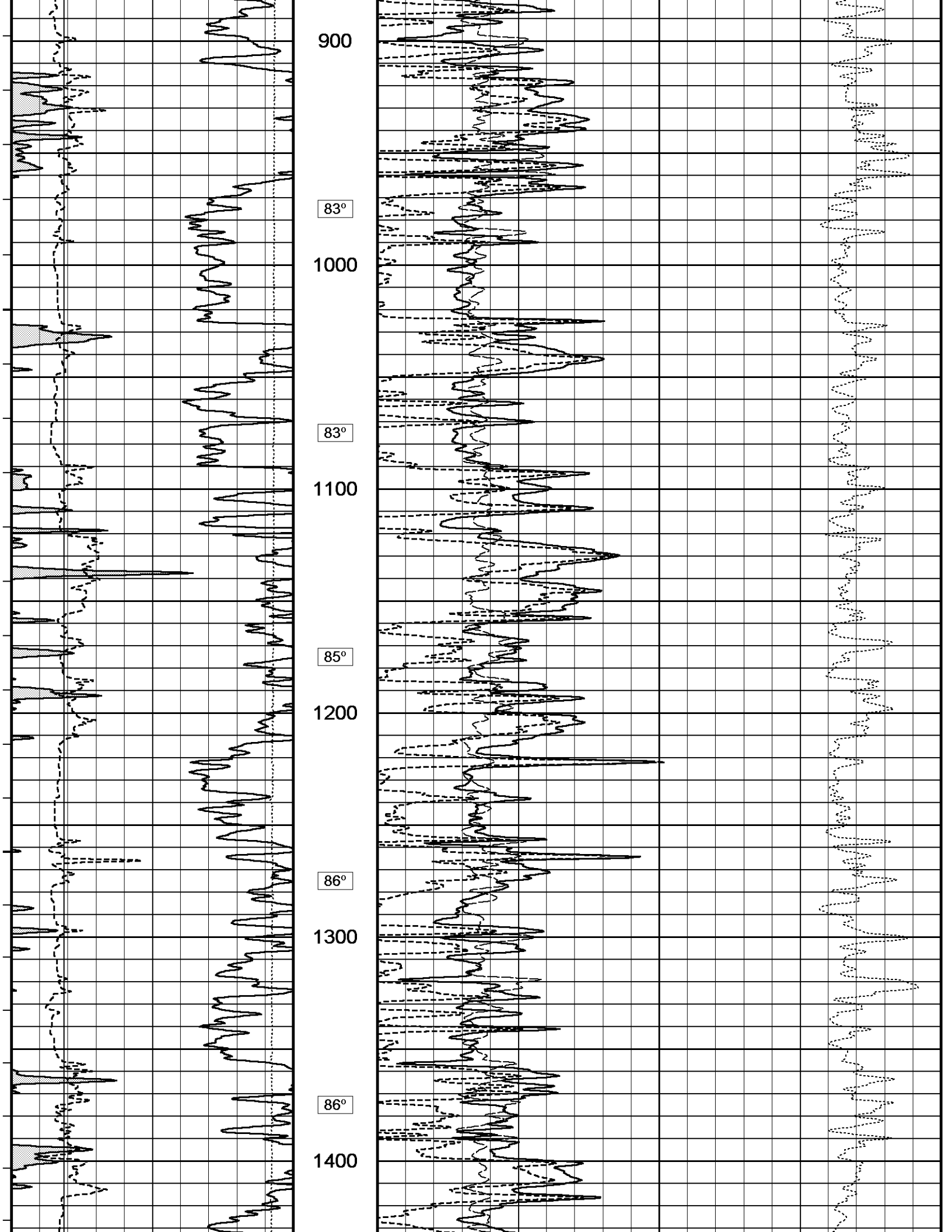


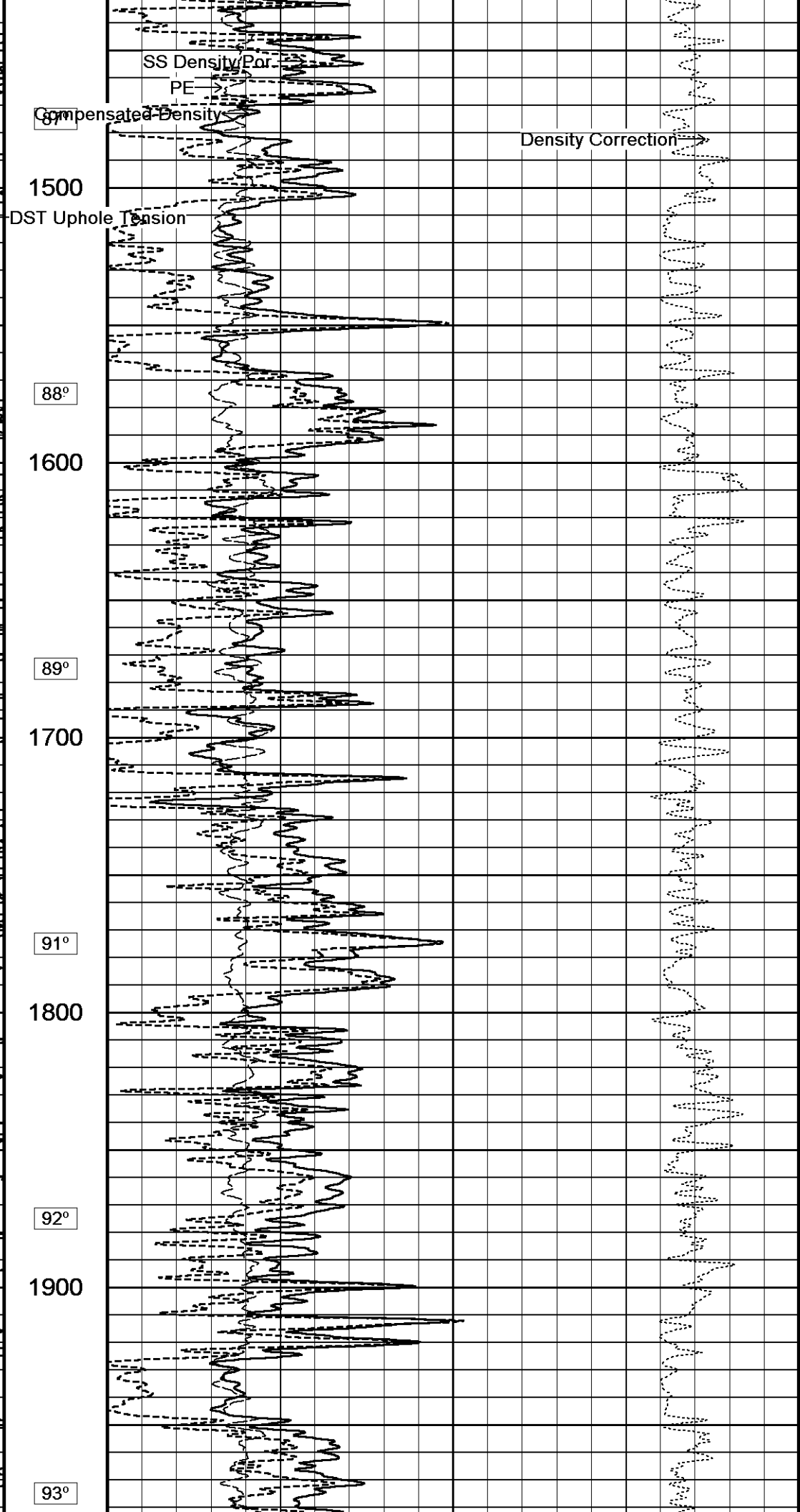
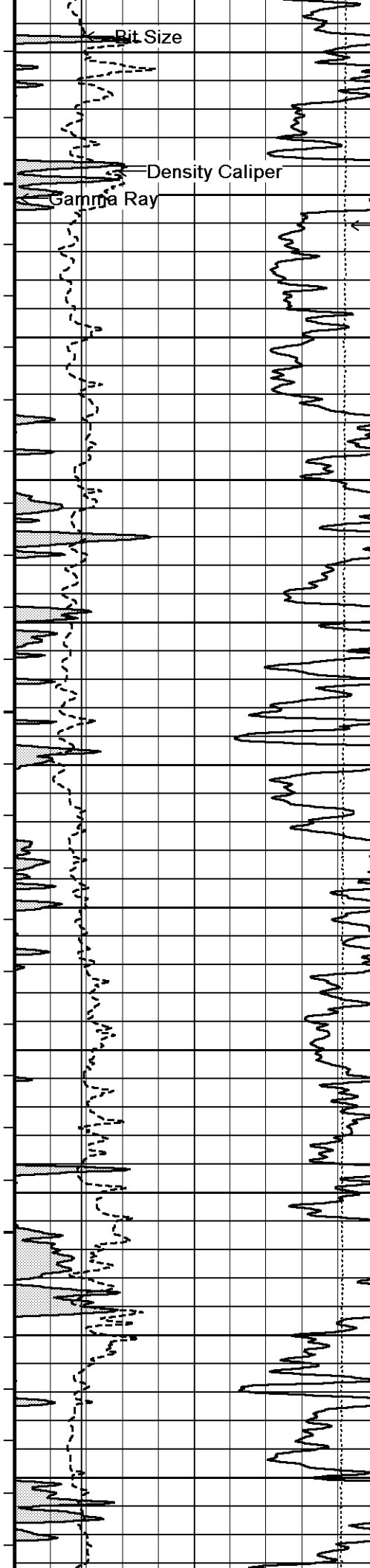
Borehole
Temp in
deg F

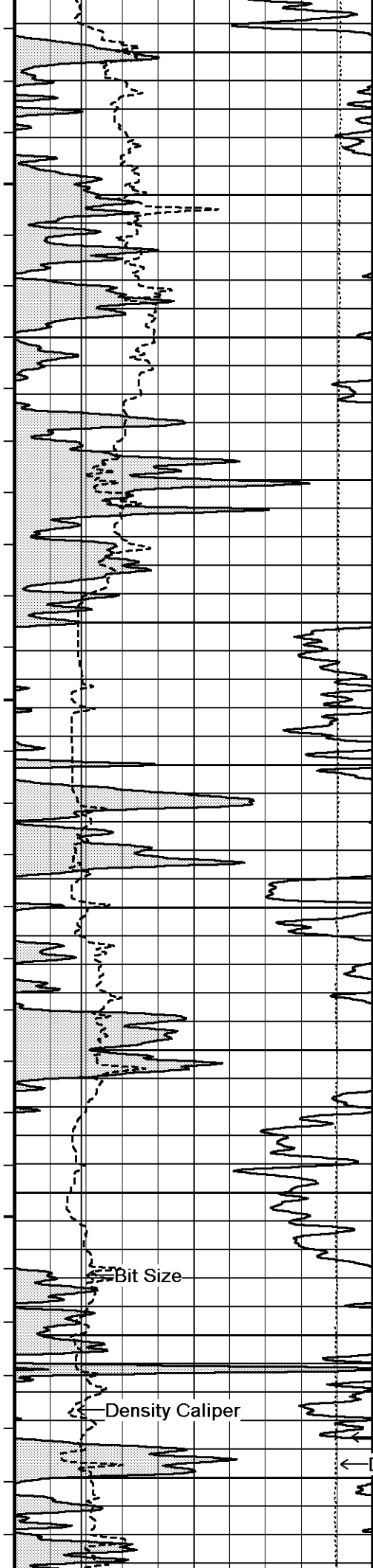
Replay
Scale
1:600

Casing
530
Snoe









2000

94°

2100

96°

2200

97°

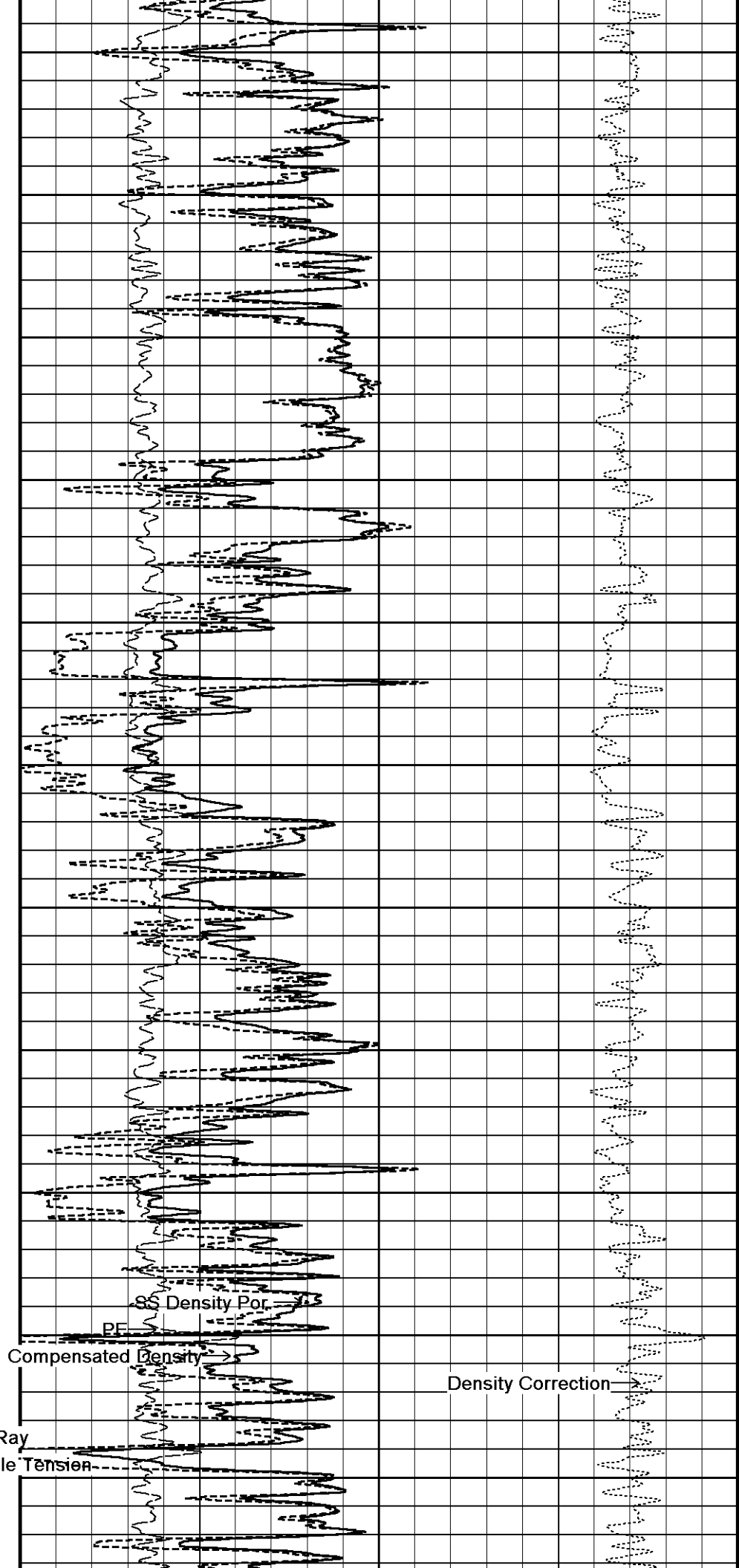
2300

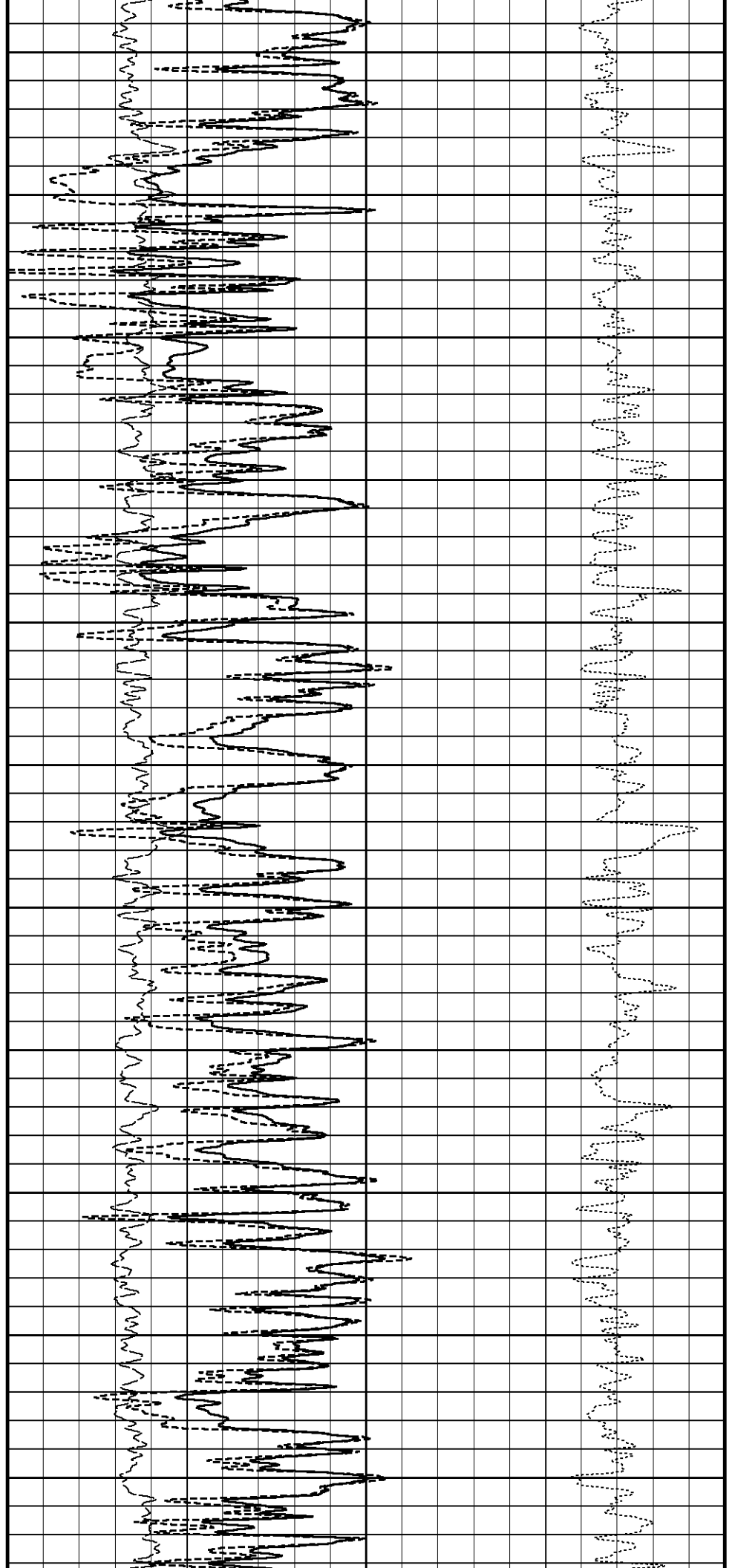
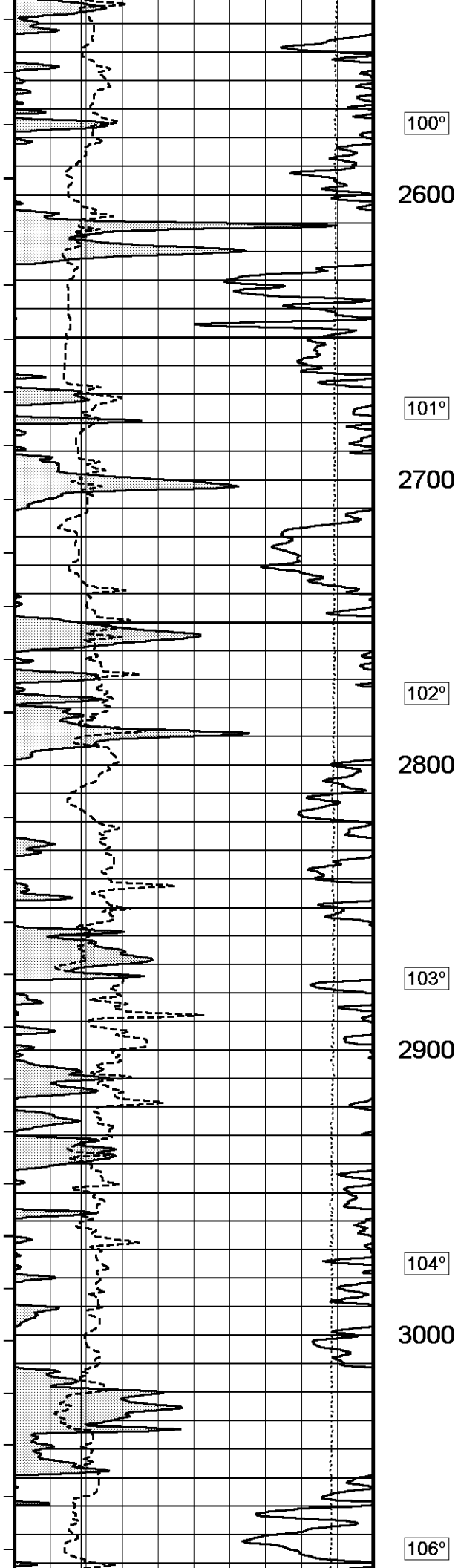
98°

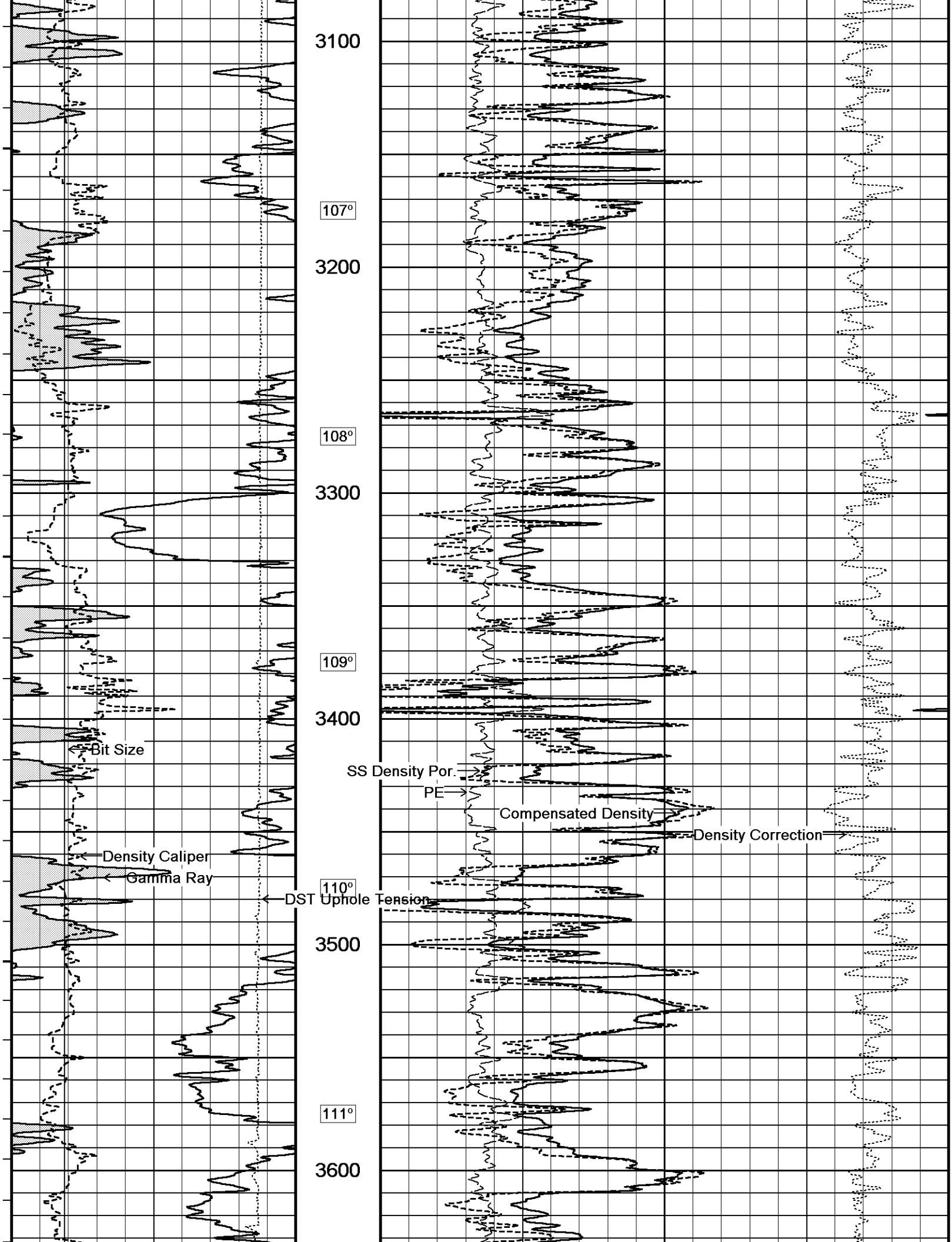
2400

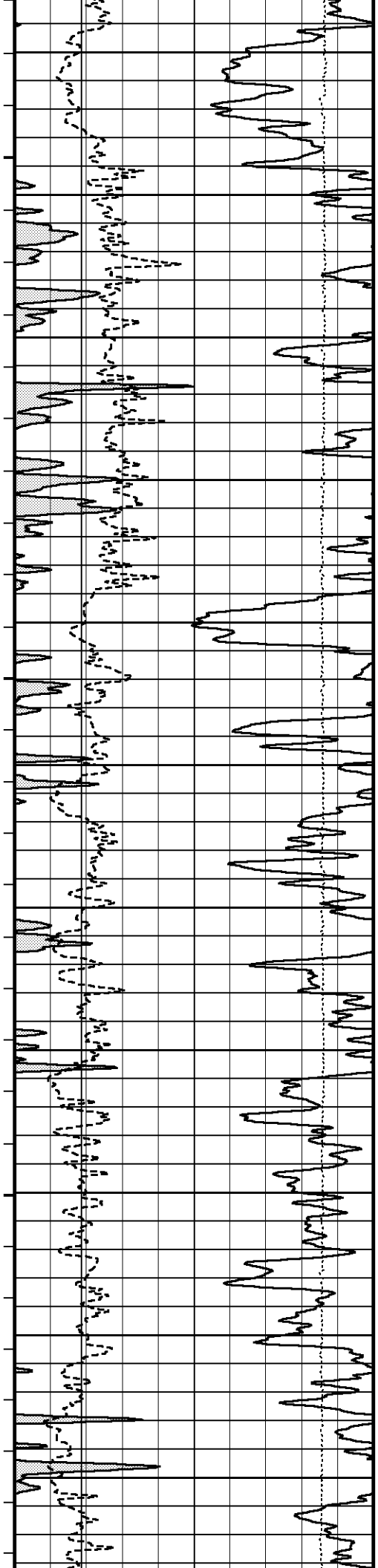
99°

2500









113°

3700

114°

3800

115°

3900

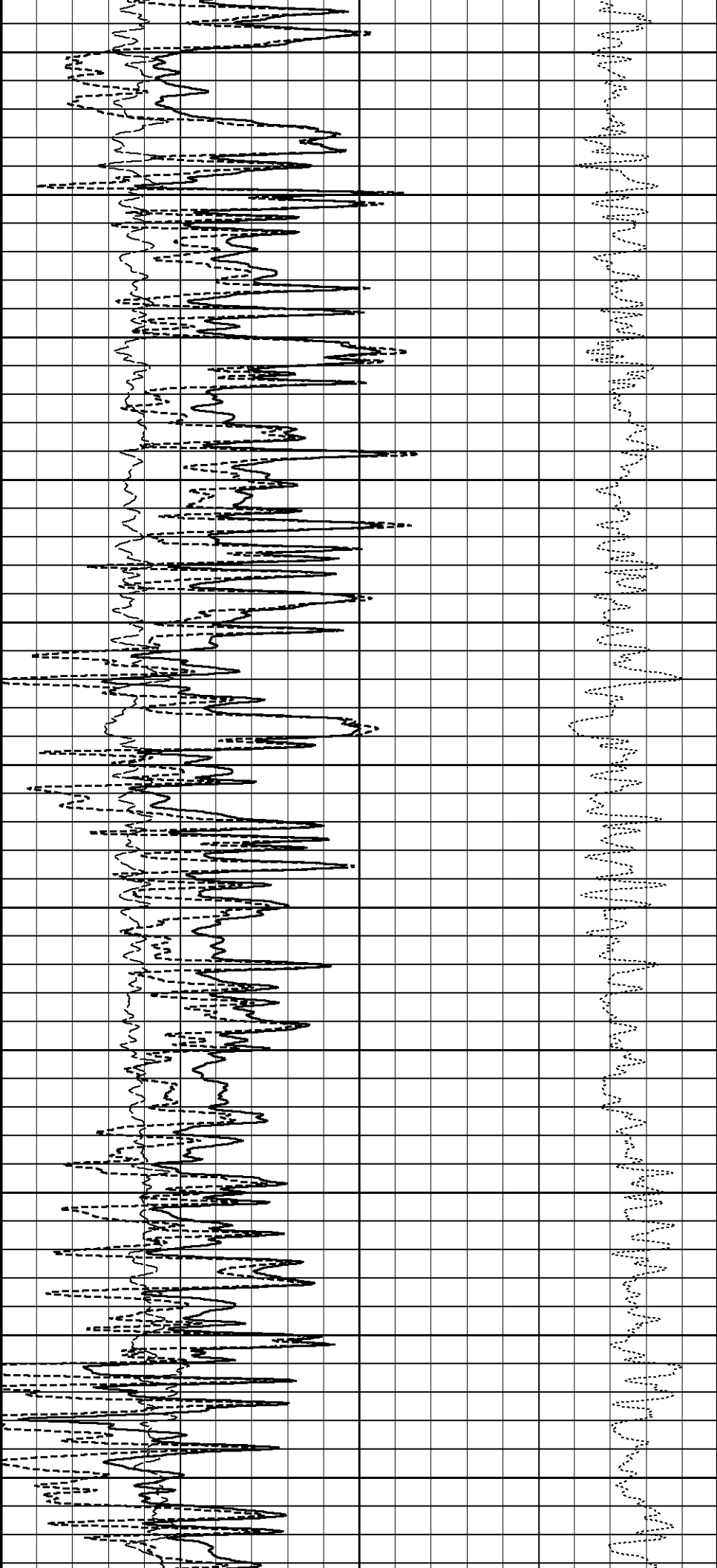
117°

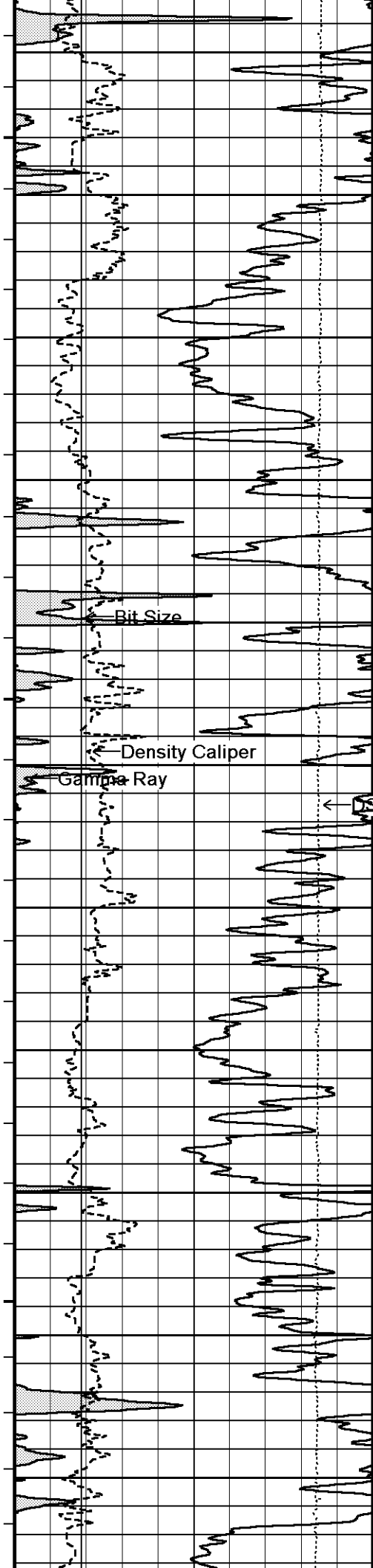
4000

118°

4100

119°





4200

120°

4300

121°

4400

123°

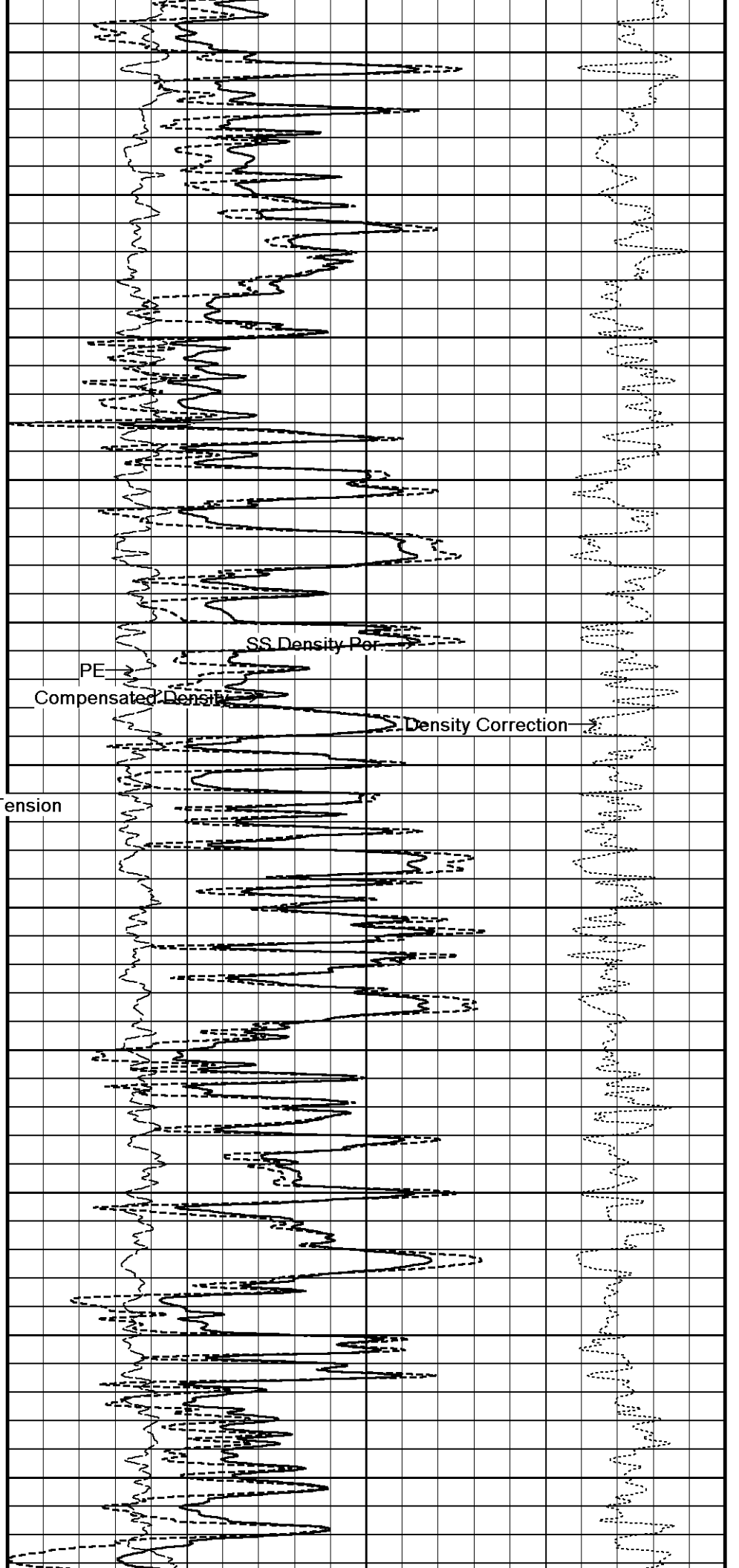
4500

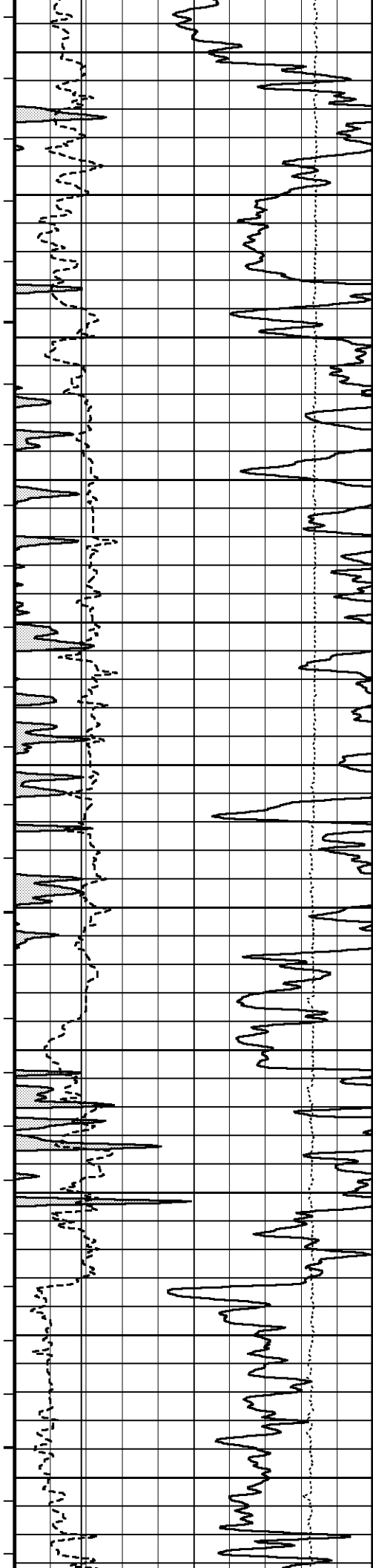
124°

4600

125°

4700





126°

4800

127°

4900

129°

5000

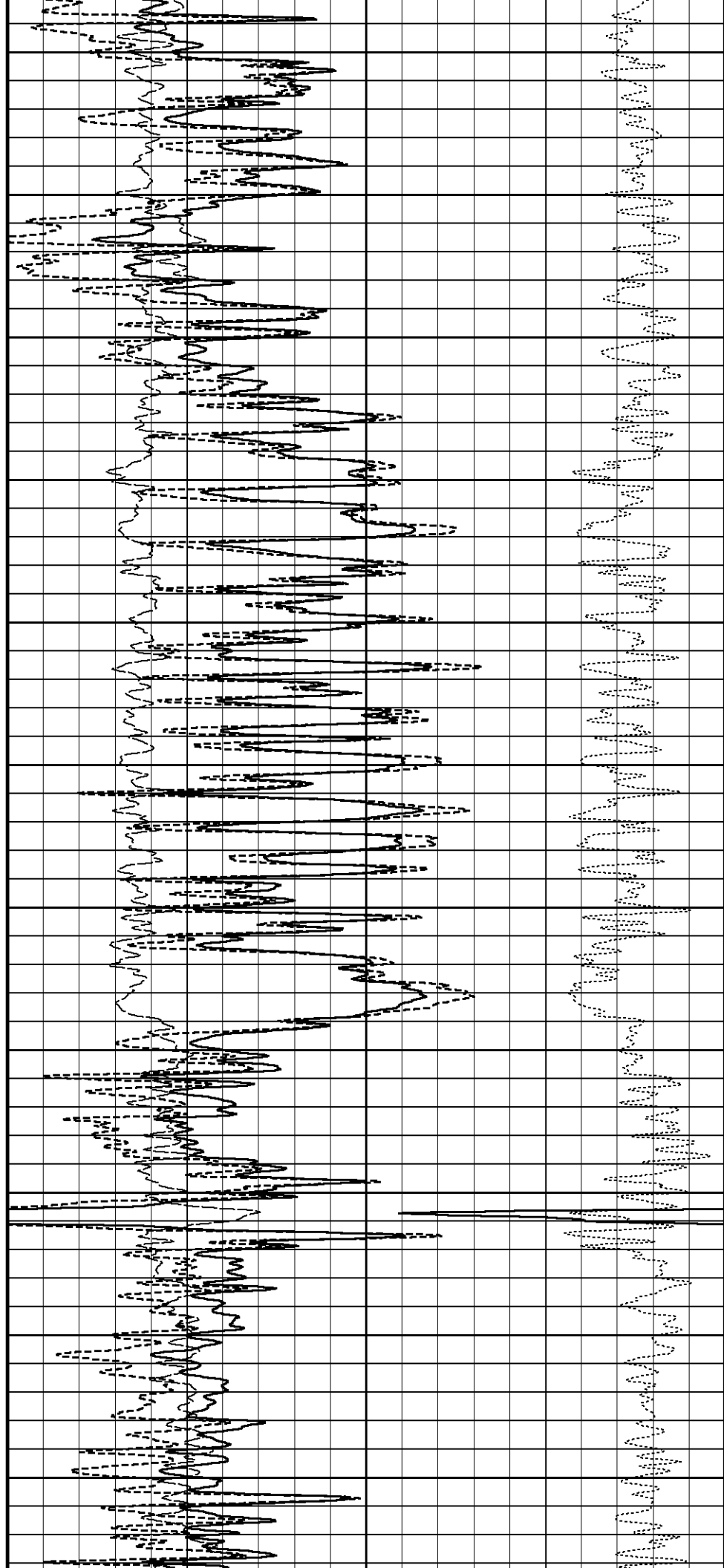
130°

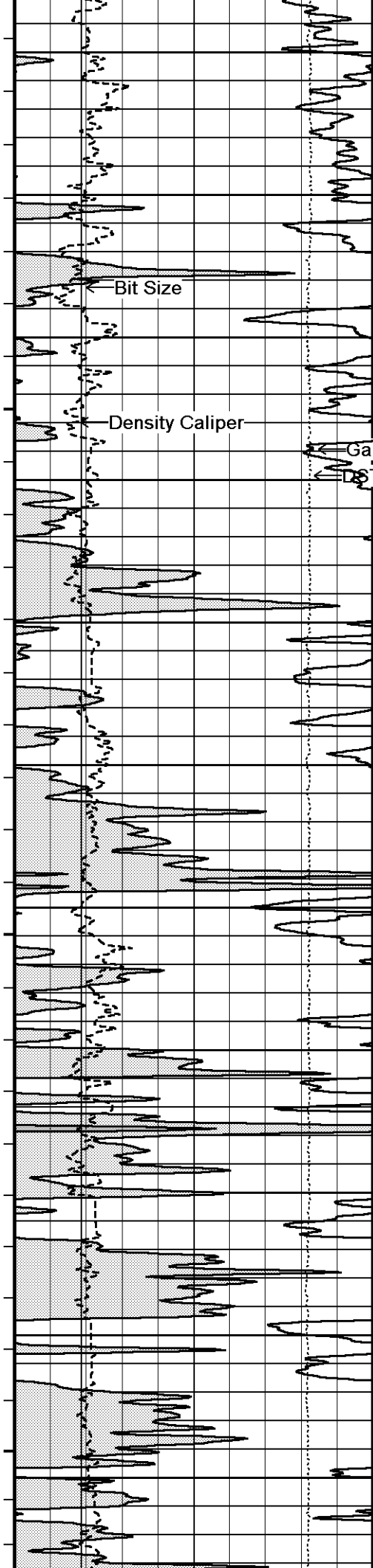
5100

131°

5200

132°





5300

134°

5400

Bit Size

Density Caliper

Gamma Ray

DST Uphole Tension

135°

5500

137°

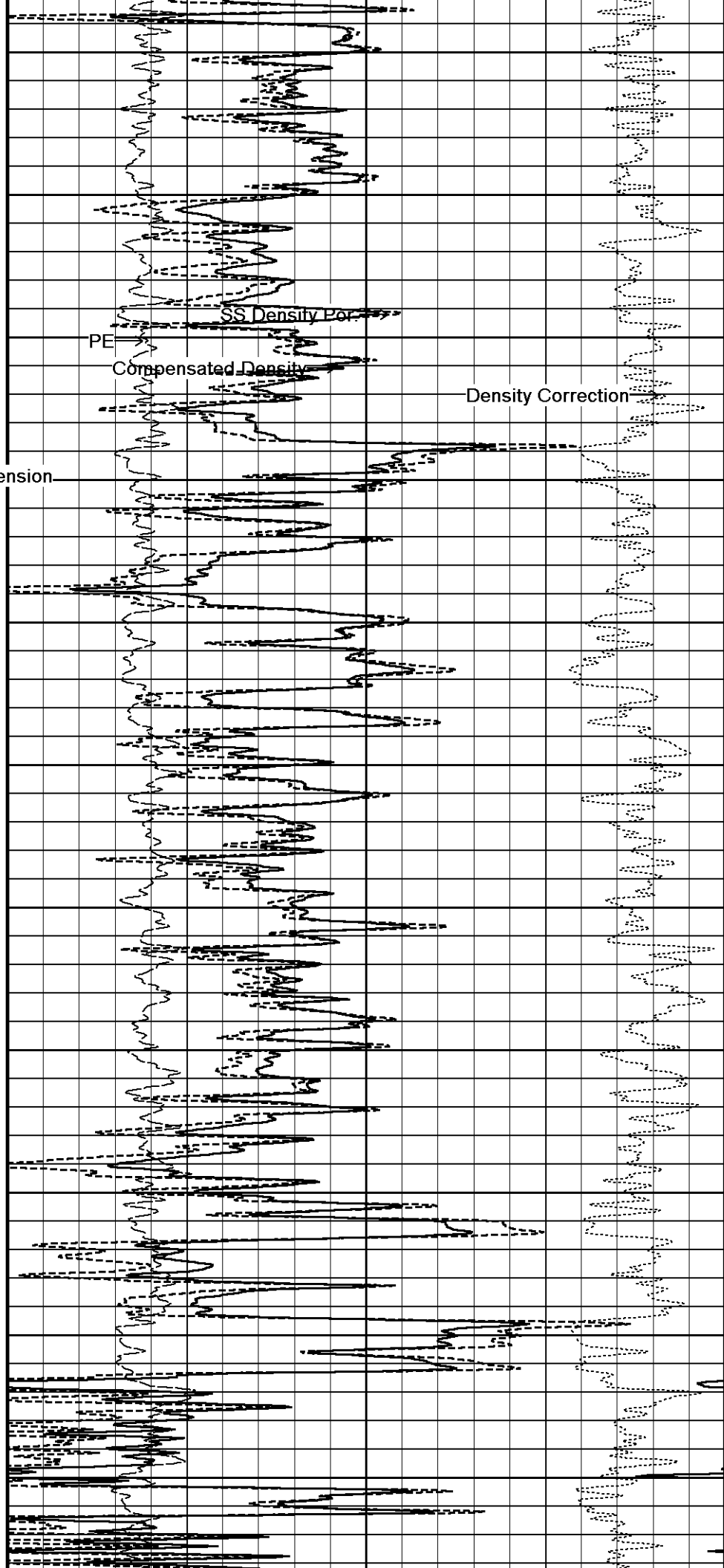
5600

138°

5700

140°

5800

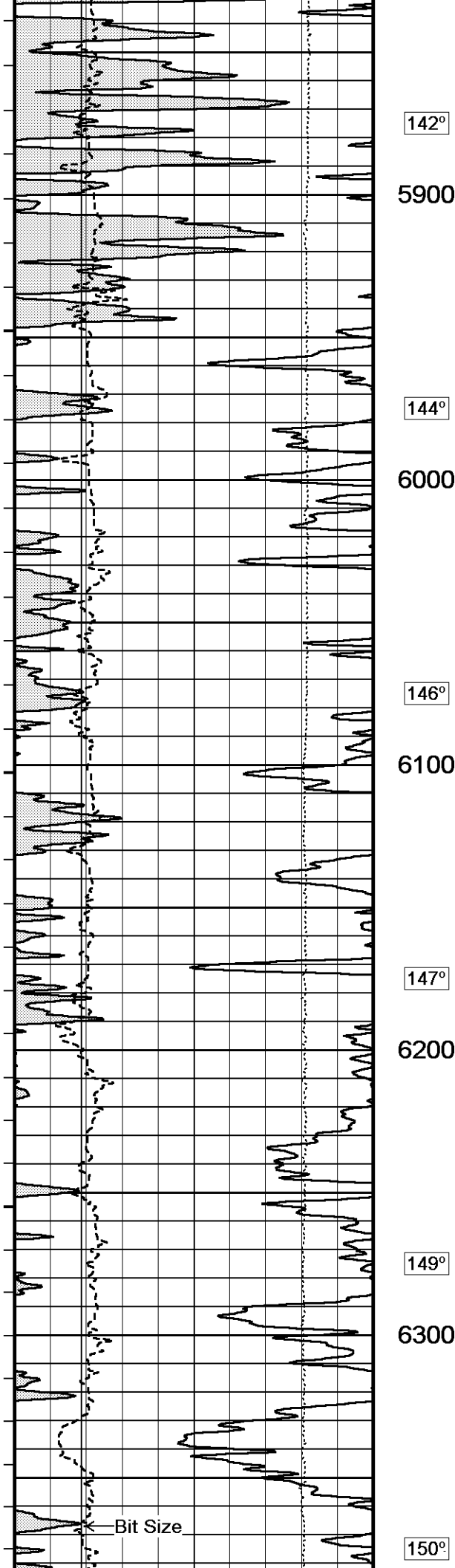


SS Density Por

PE

Compensated Density

Density Correction



142°

5900

144°

6000

146°

6100

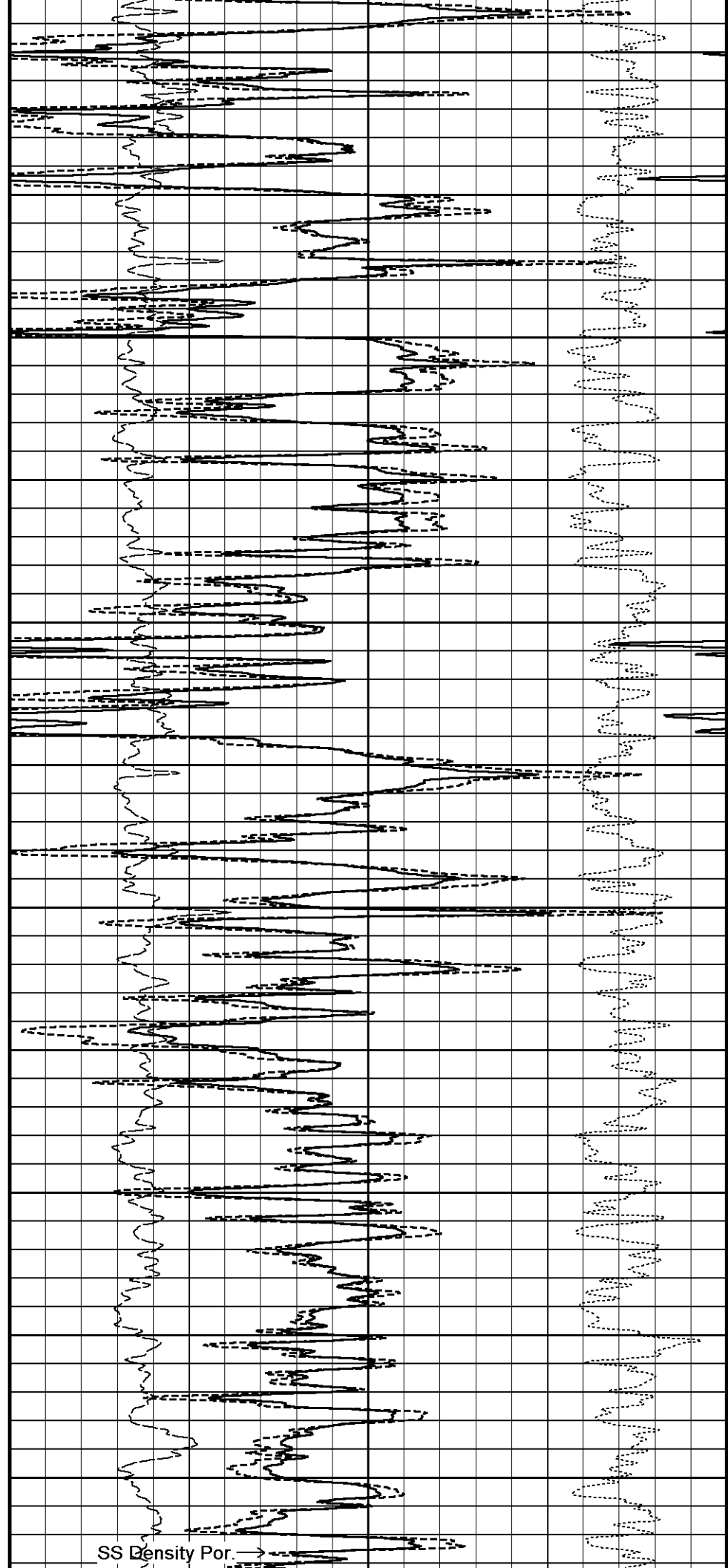
147°

6200

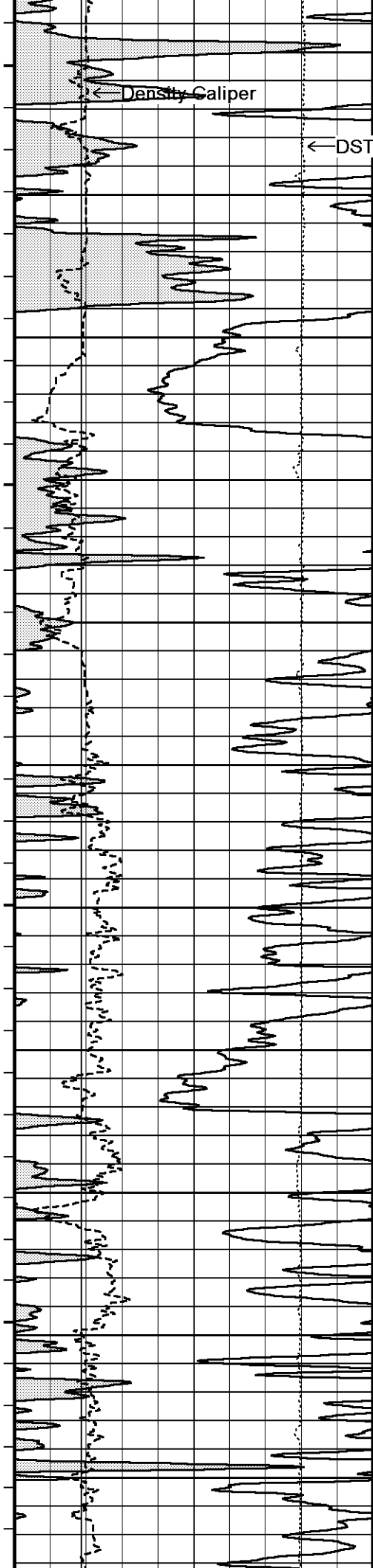
149°

6300

150°



SS Density Por. →



6400

Density Caliper

Gamma Ray

DST Uphole Tension

152°

6500

153°

6600

155°

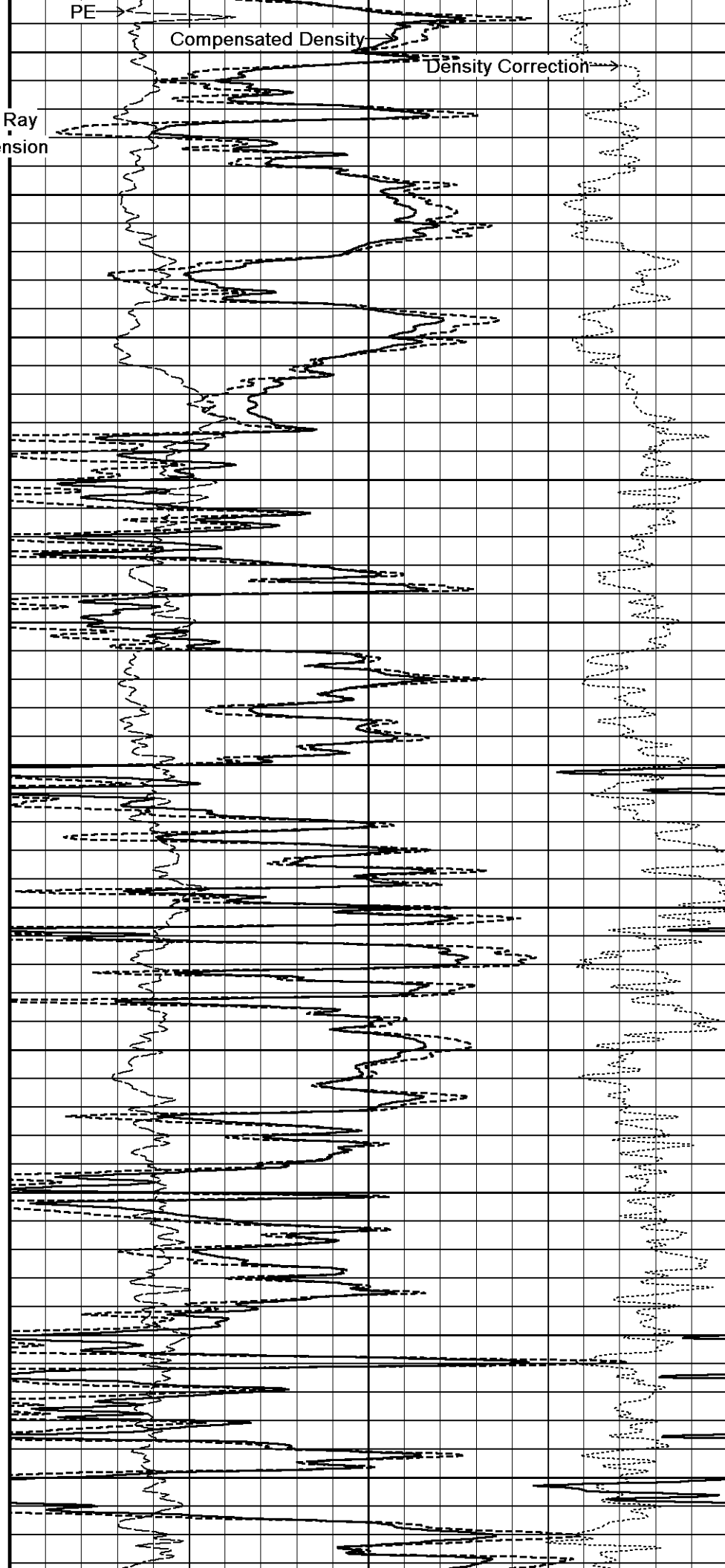
6700

157°

6800

158°

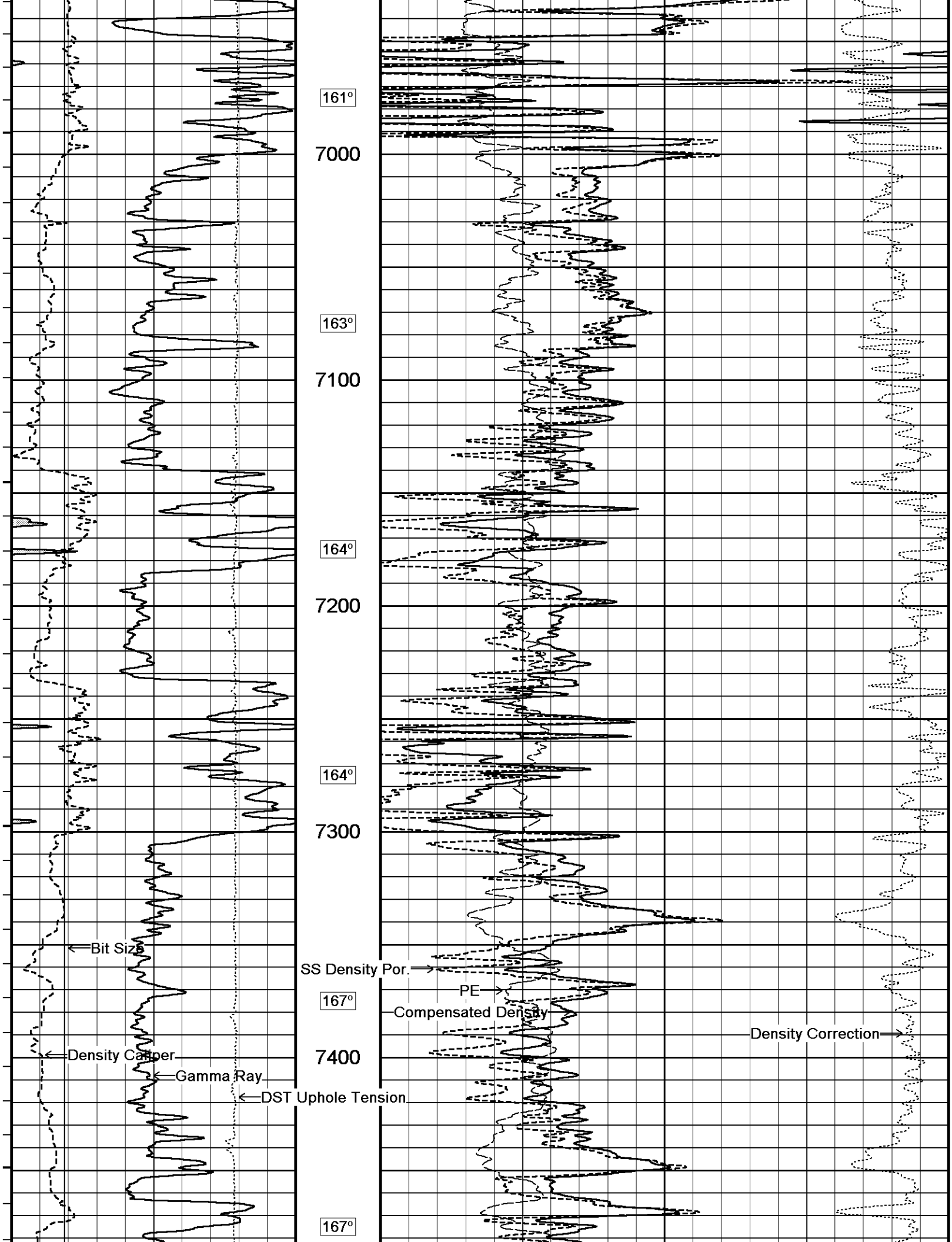
6900

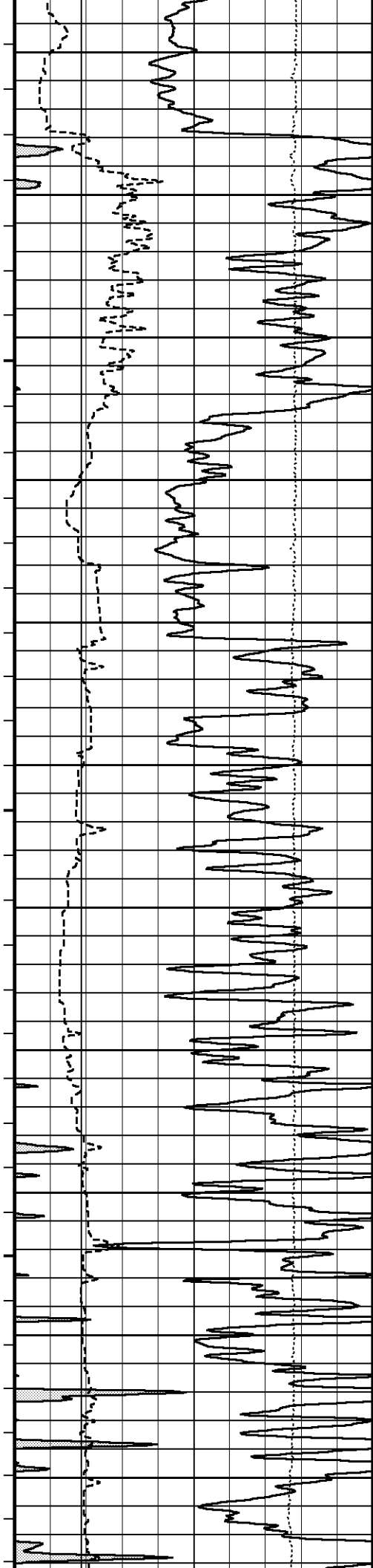


PE

Compensated Density

Density Correction





7500

168°

7600

169°

7700

169°

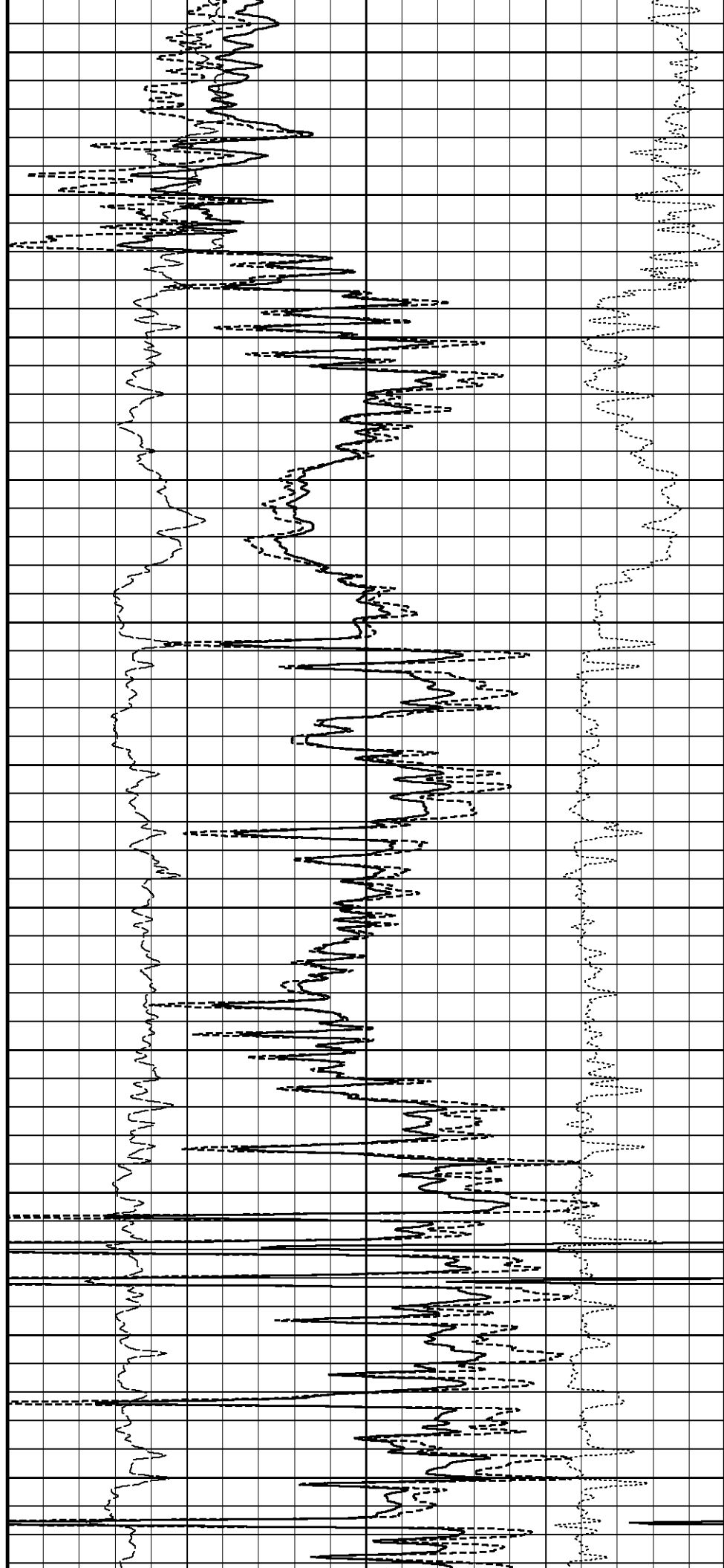
7800

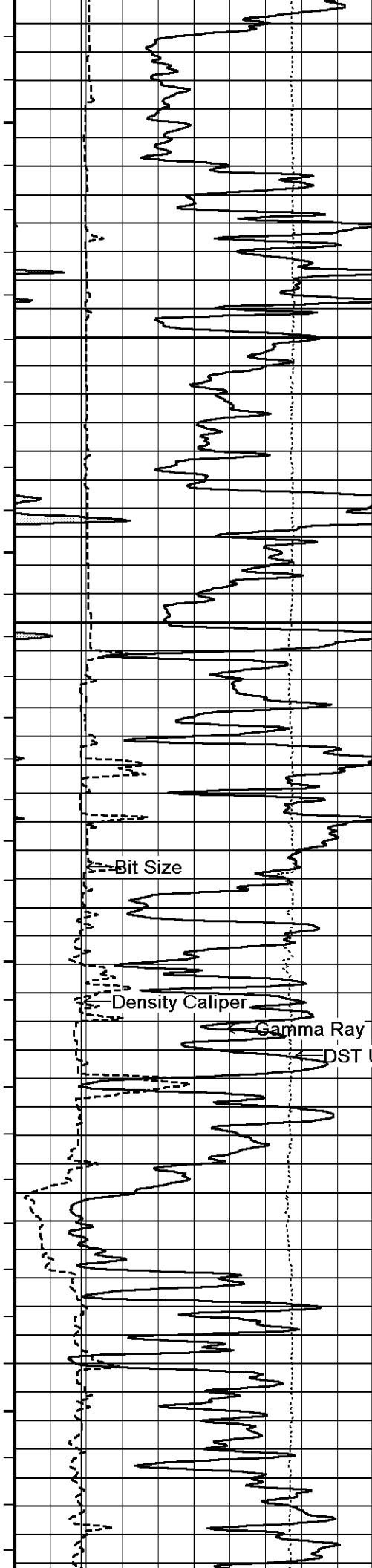
171°

7900

173°

8000





175°

8100

176°

8200

175°

8300

Bit Size

Density Caliper

Gamma Ray

DST Up

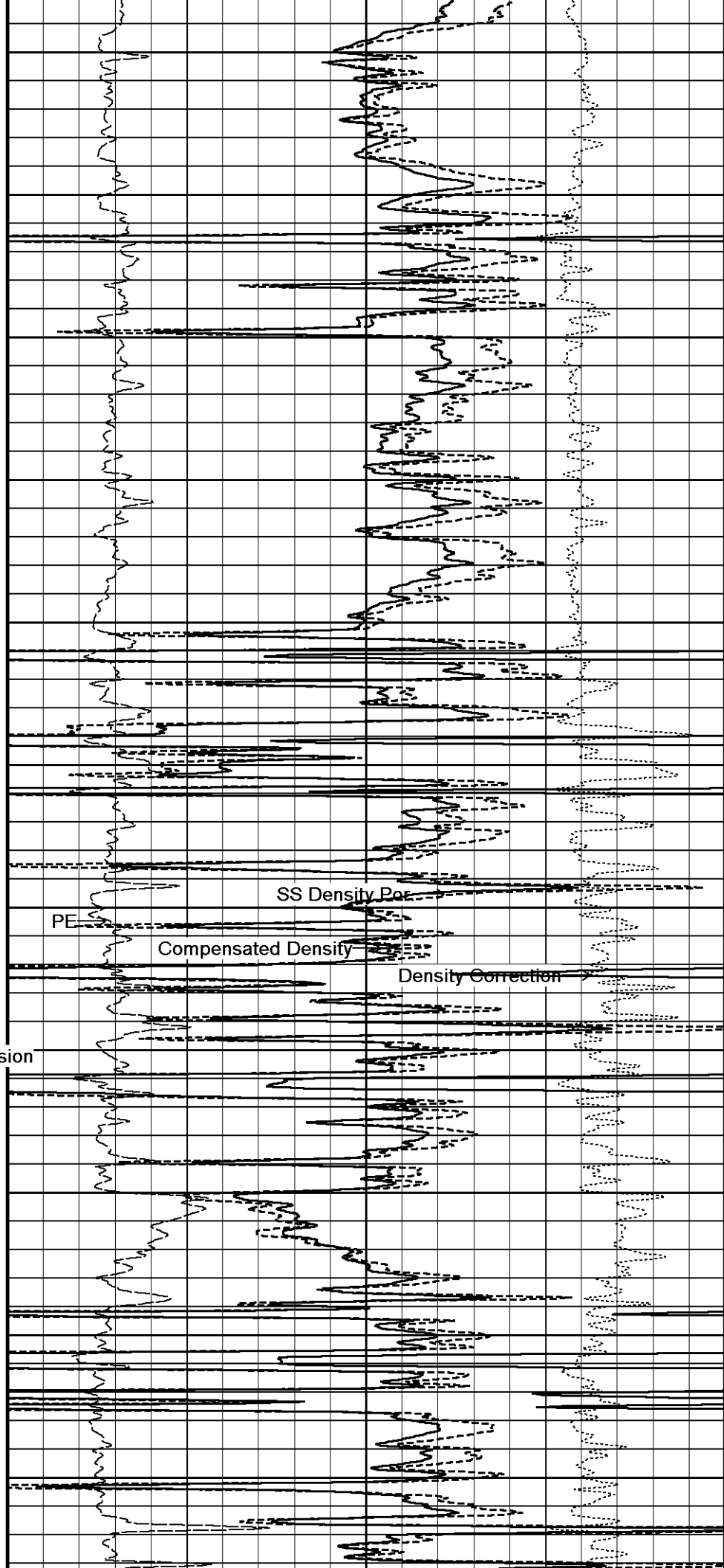
177°

8400

179°

8500

182°

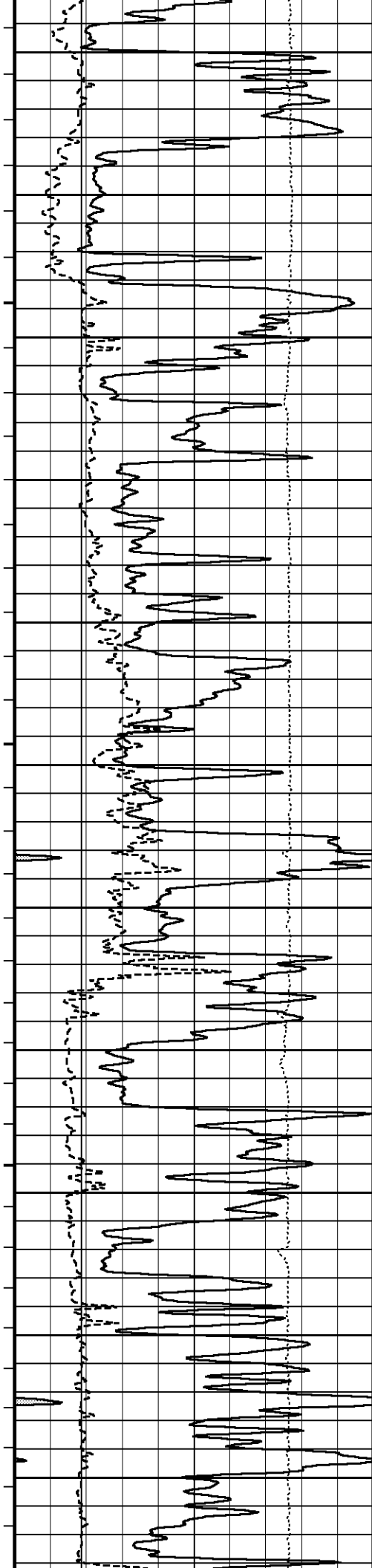


SS Density Por

PE

Compensated Density

Density Correction



8600

184°

8700

185°

8800

184°

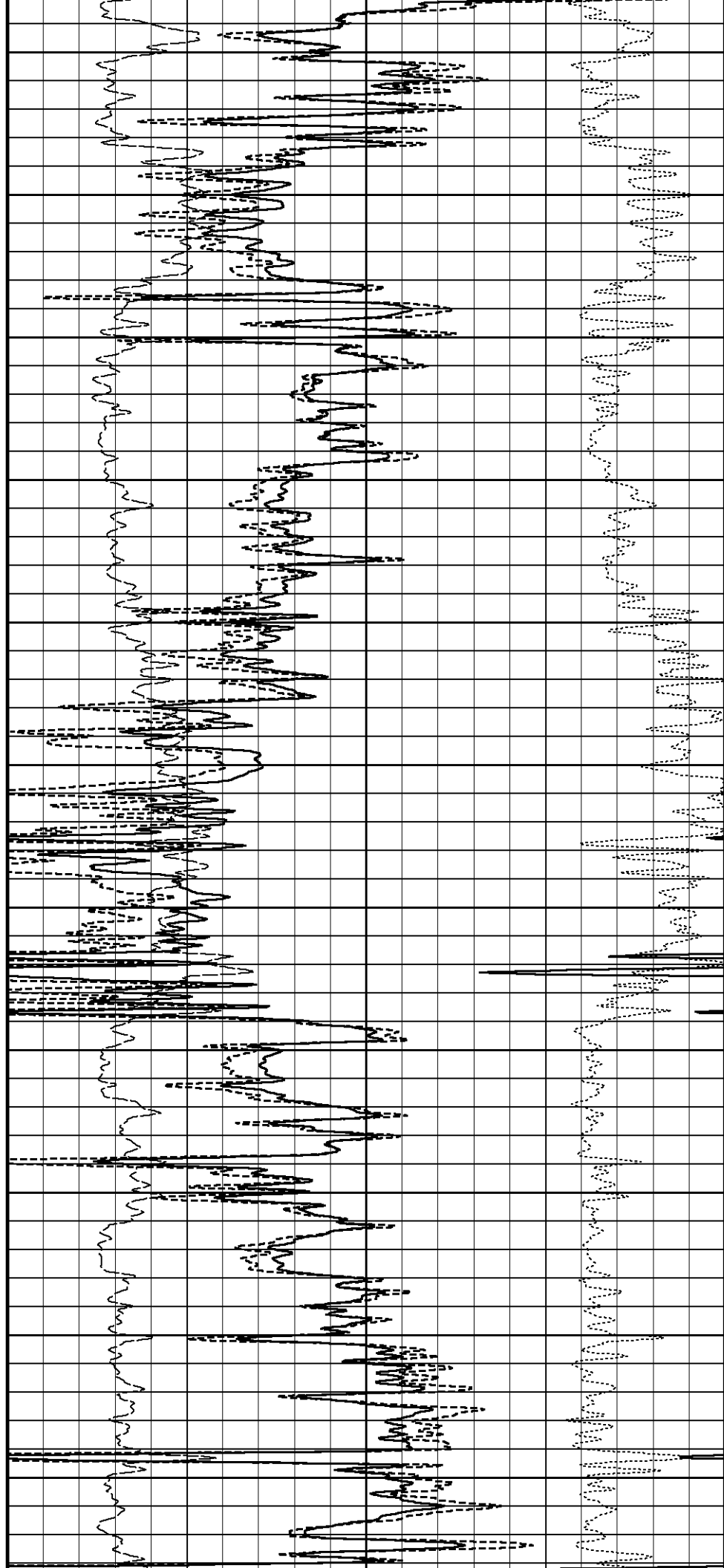
8900

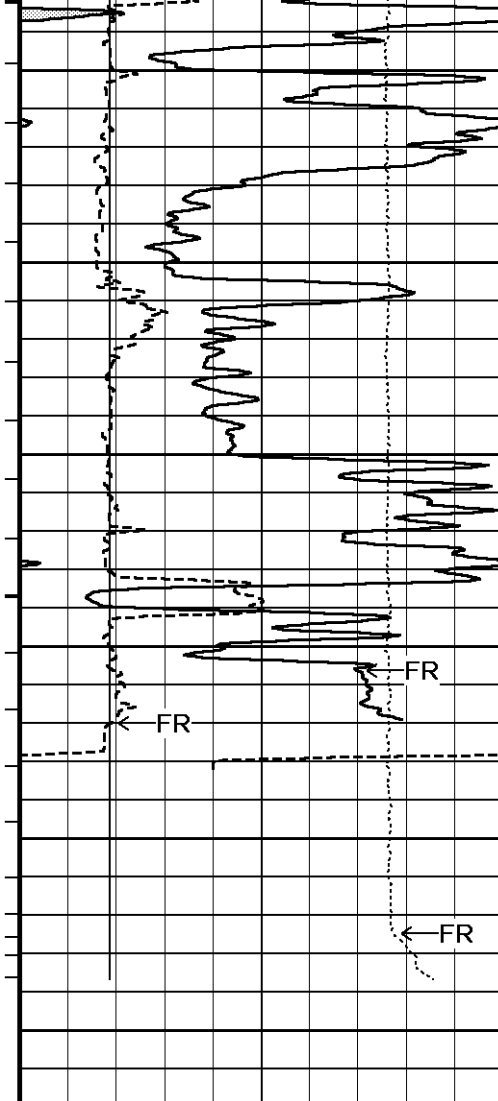
186°

9000

188°

9100





190°

9200

187°

9300

9400

9420
DSC
in
Feet

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

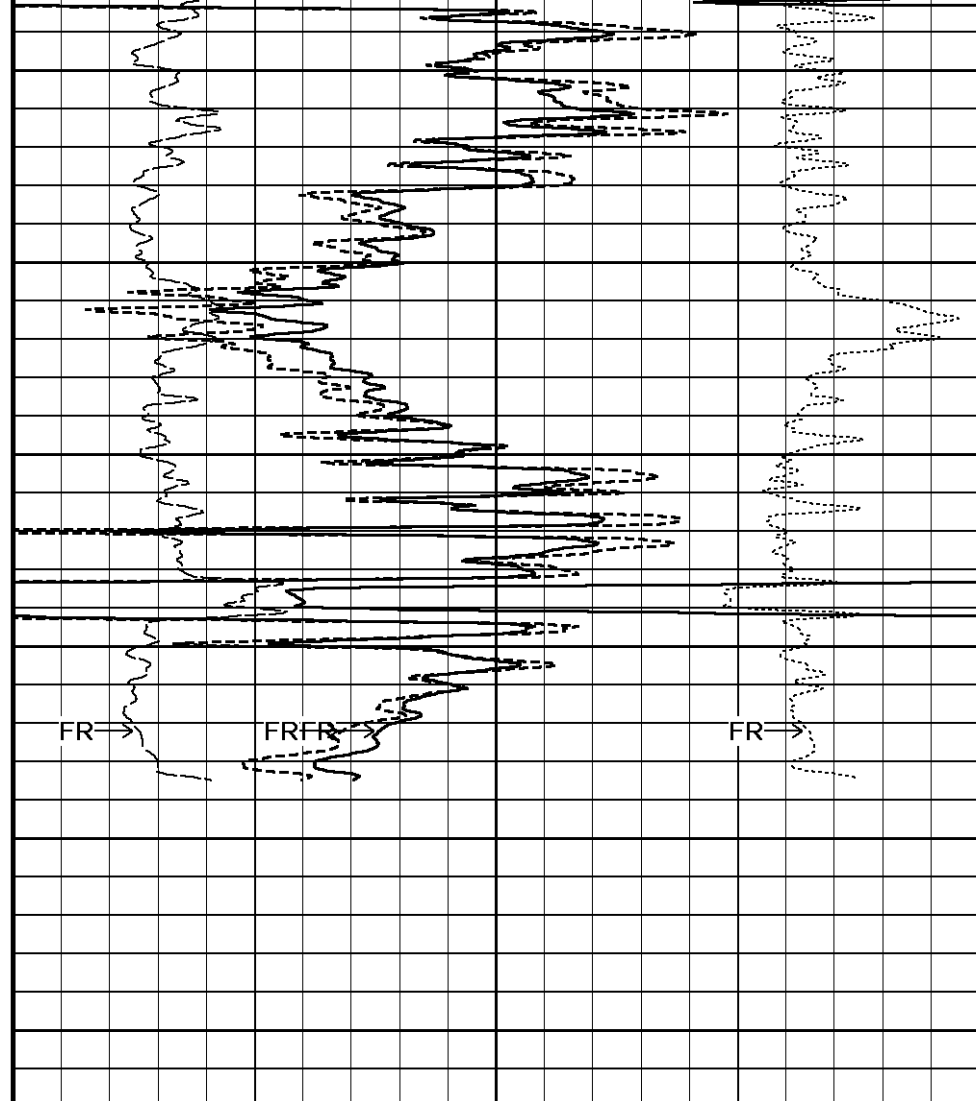
Bit Size

inches

6 11 16

Borehole
Temp in
deg F

Replay
Scale
1:600



Compensated Density

grams/cc

2 2.25 2.50 2.75 3
1 1.25 1.50 1.75 2

SS Density Por.

percent

30 20 10 0 -10

PE

barns/electron

0 5 10 -0.25

Density Correction

grams/cc

0 0.25

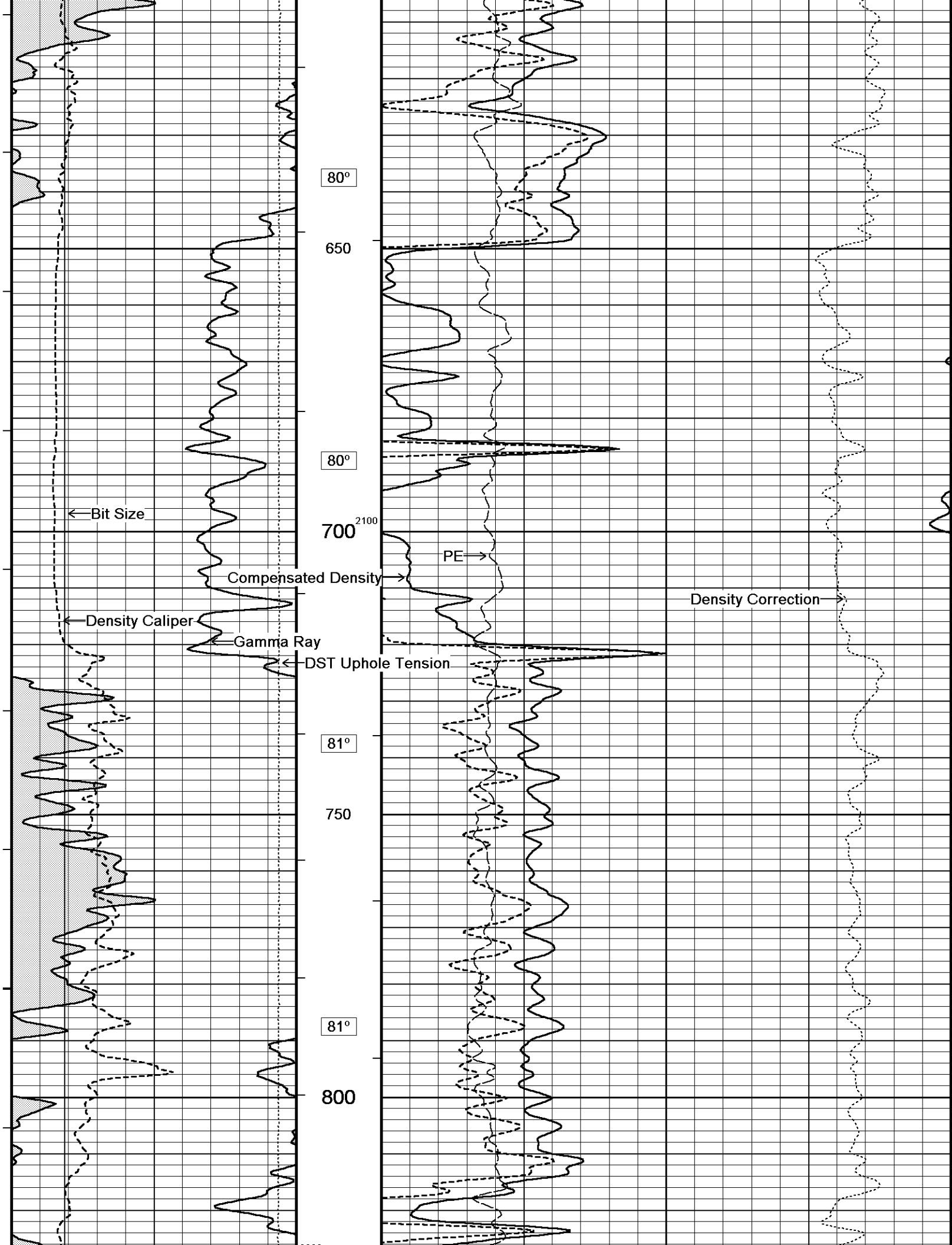
2 INCH MAIN LOG

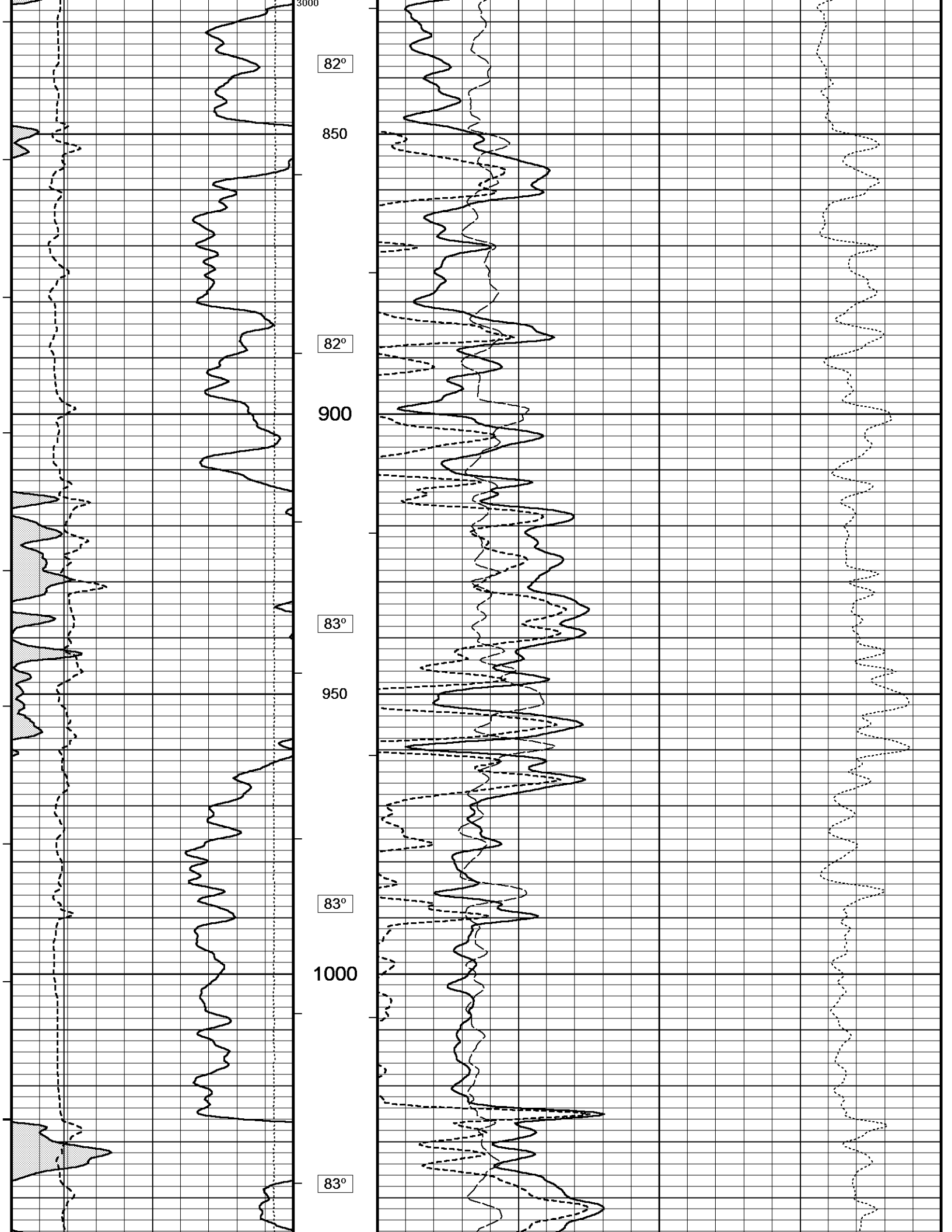
5 INCH MAIN LOG

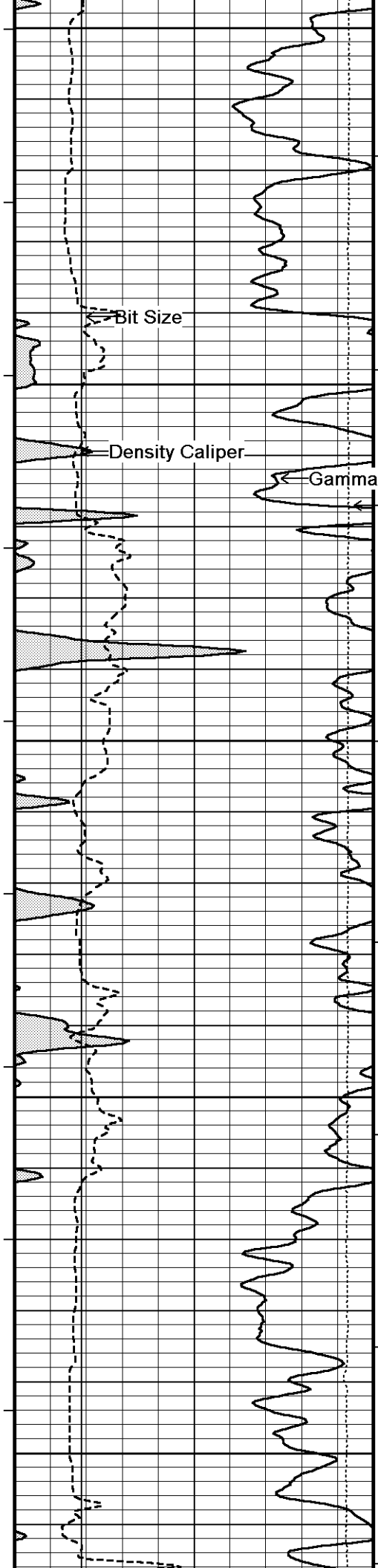
Plotted on 10-OCT-2011 06:51

Recorded on 08-OCT-2011 12:02

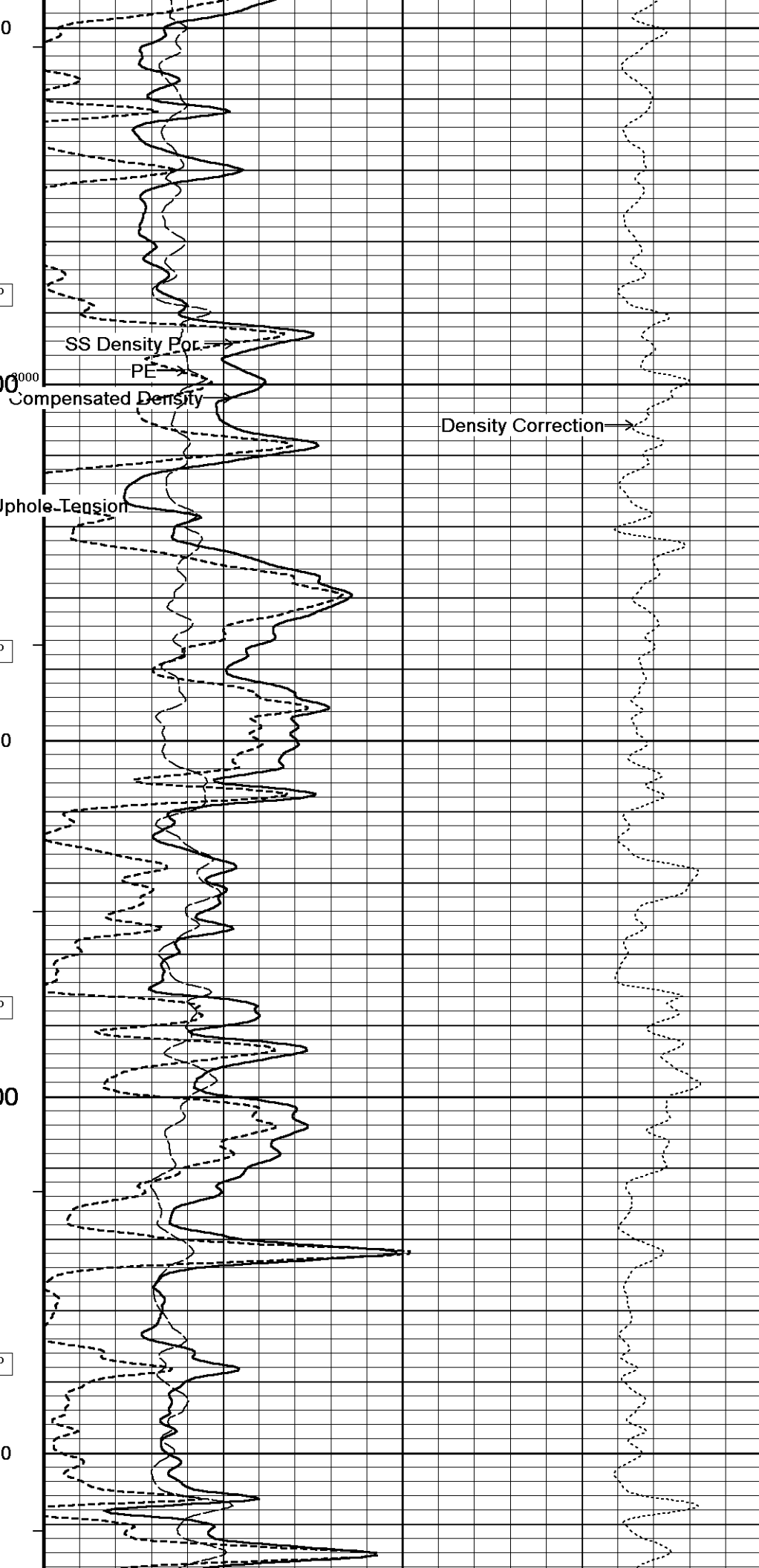
Timing Marks every 60.0 sec			DSC in Feet	<u>Compensated Density</u> grams/cc				
				2	2.25	2.50	2.75	3
				1	1.25	1.50	1.75	2
<u>DST Uphole Tension</u> pounds			Borehole Temp in deg F					
10000	5000	0						
0	-5000	-10000						
<u>Gamma Ray</u> API			HVI every 10 cu ft	<u>SS Density Por.</u> percent				
0	75	150		30	20	10	0	-10
150	225	300						
<u>Density Caliper</u> inches			Annular Integral every 10 cu ft					
6	11	16						
<u>Bit Size</u> inches			Replay Scale 1:240	<u>PE</u> barns/electron				
6	11	16		0	5	10	-0.25	0.25
				<u>Density Correction</u> grams/cc				
			528					
			Casing Shoe					
			550					
			3100					
			79°					
			600					

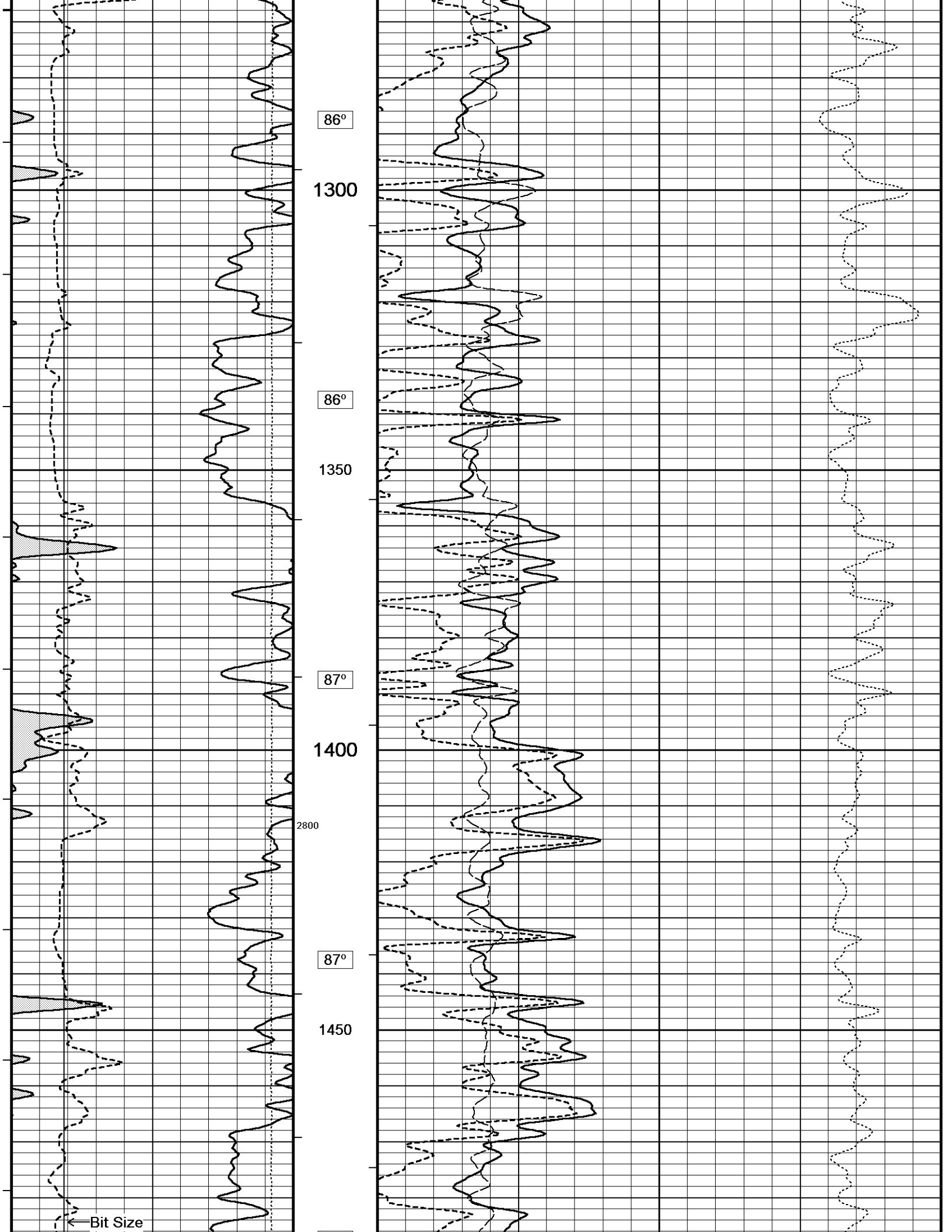


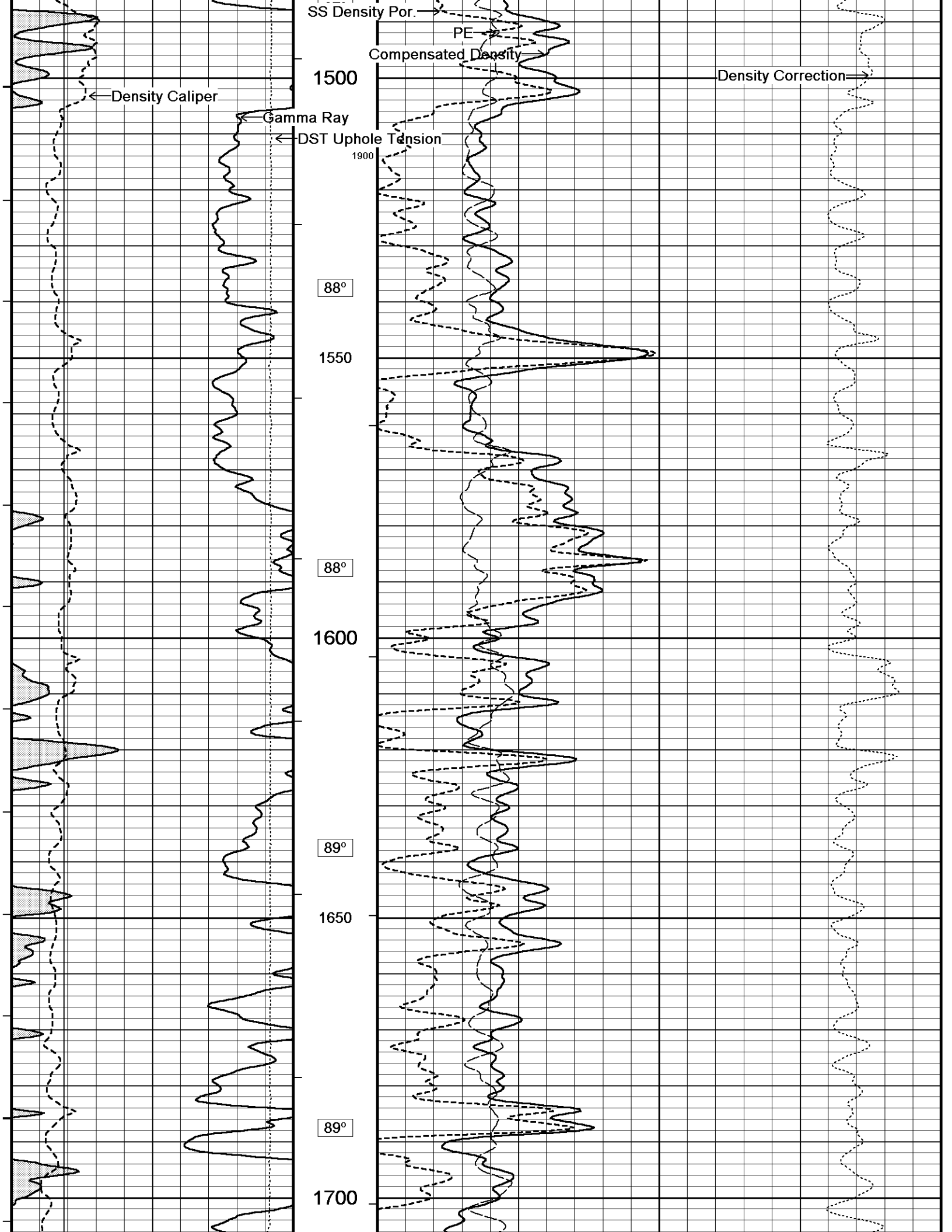


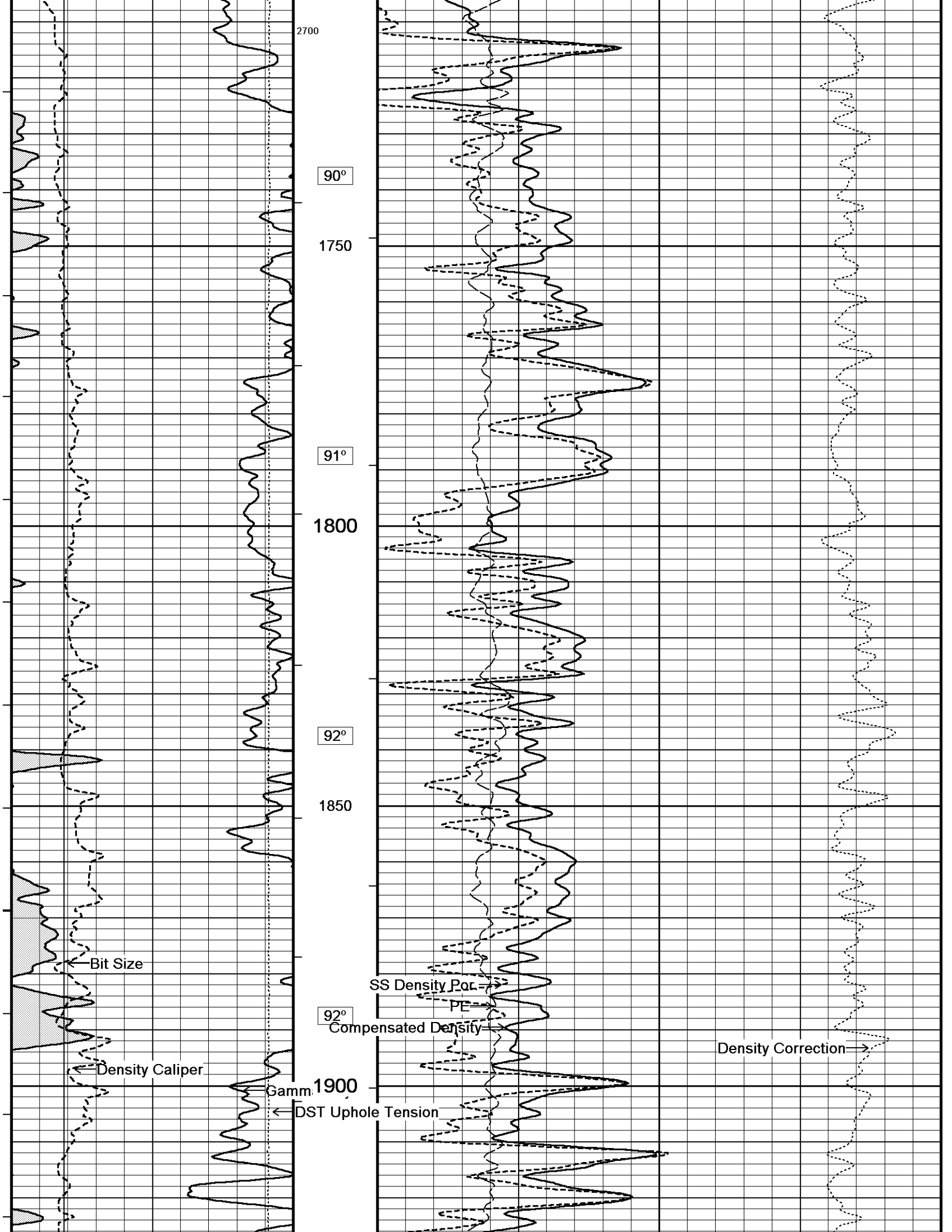


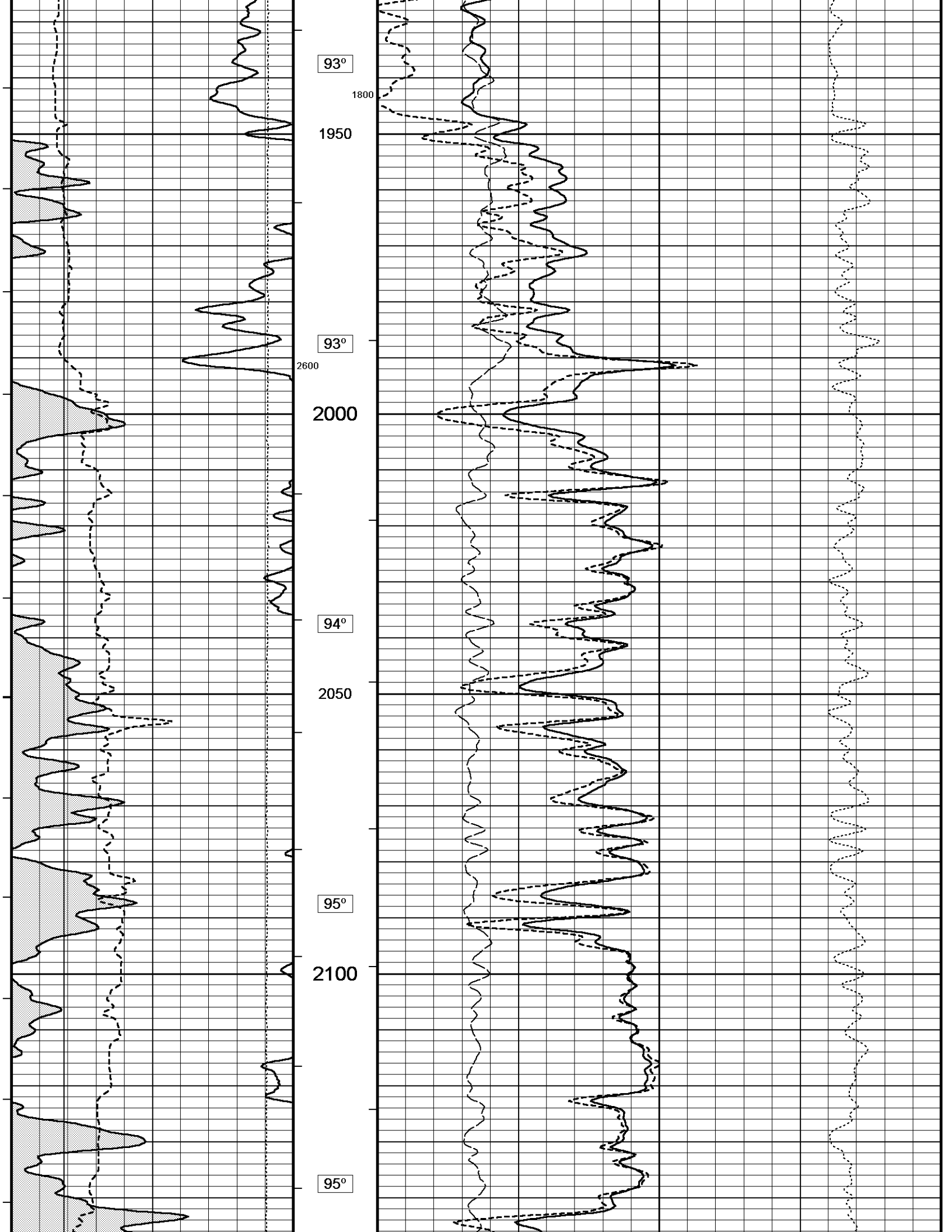
1050
84°
1100
2900
84°
1150
85°
1200
85°
1250

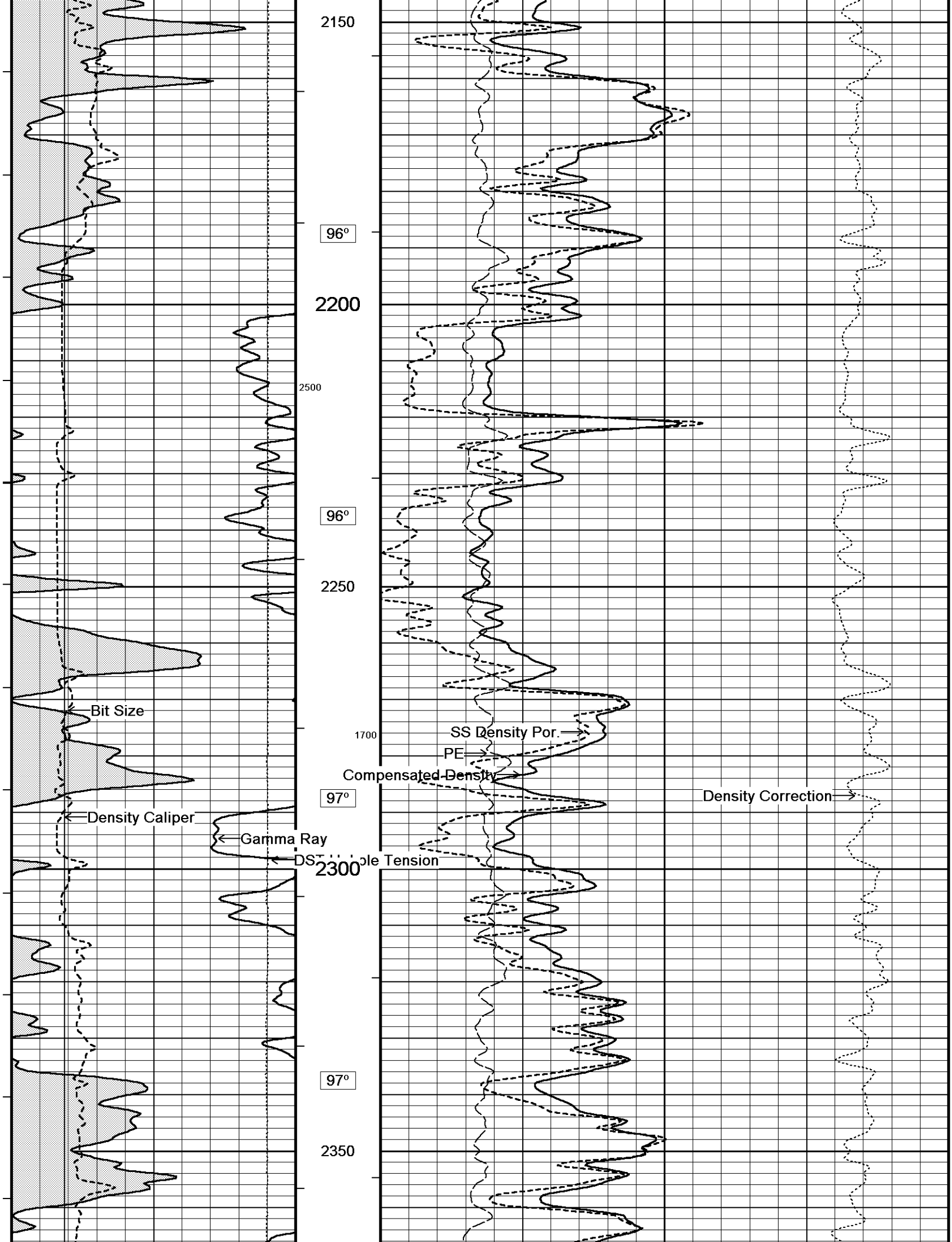


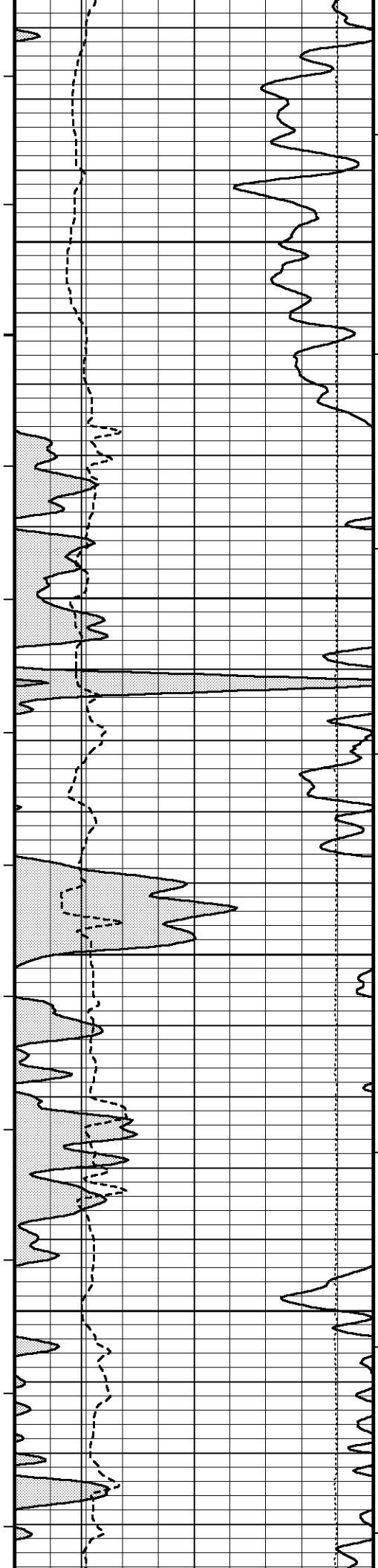




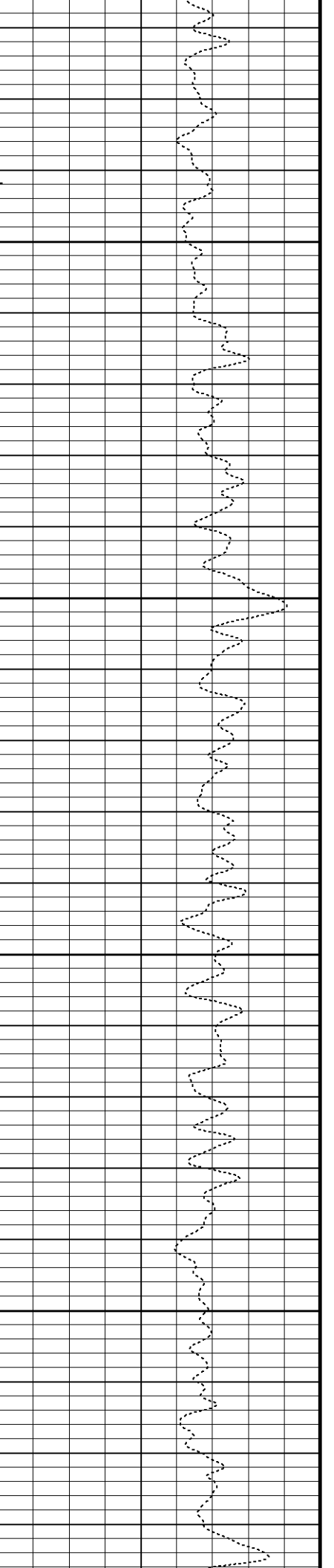
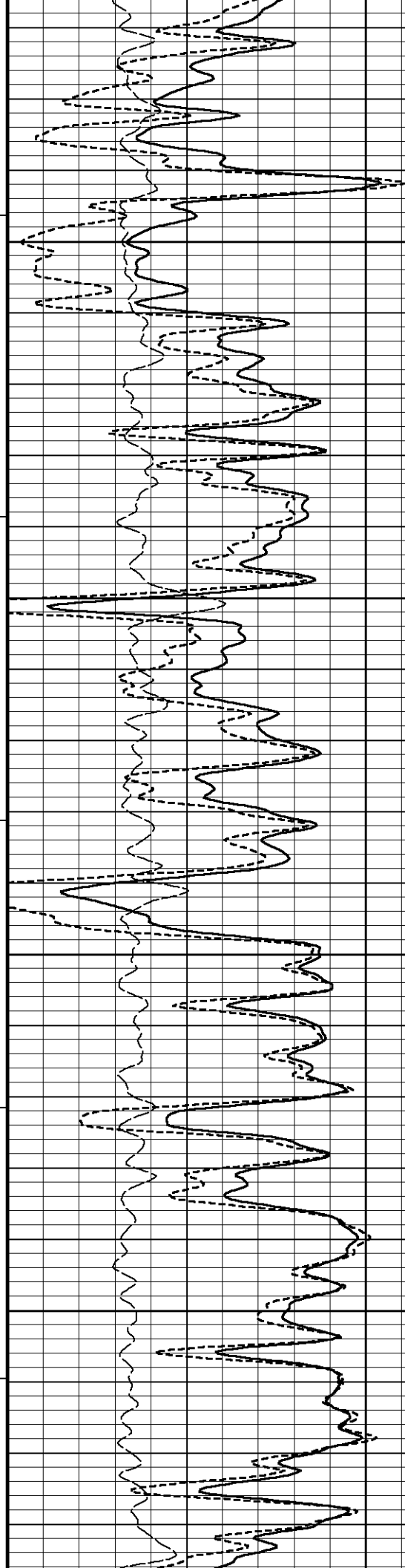


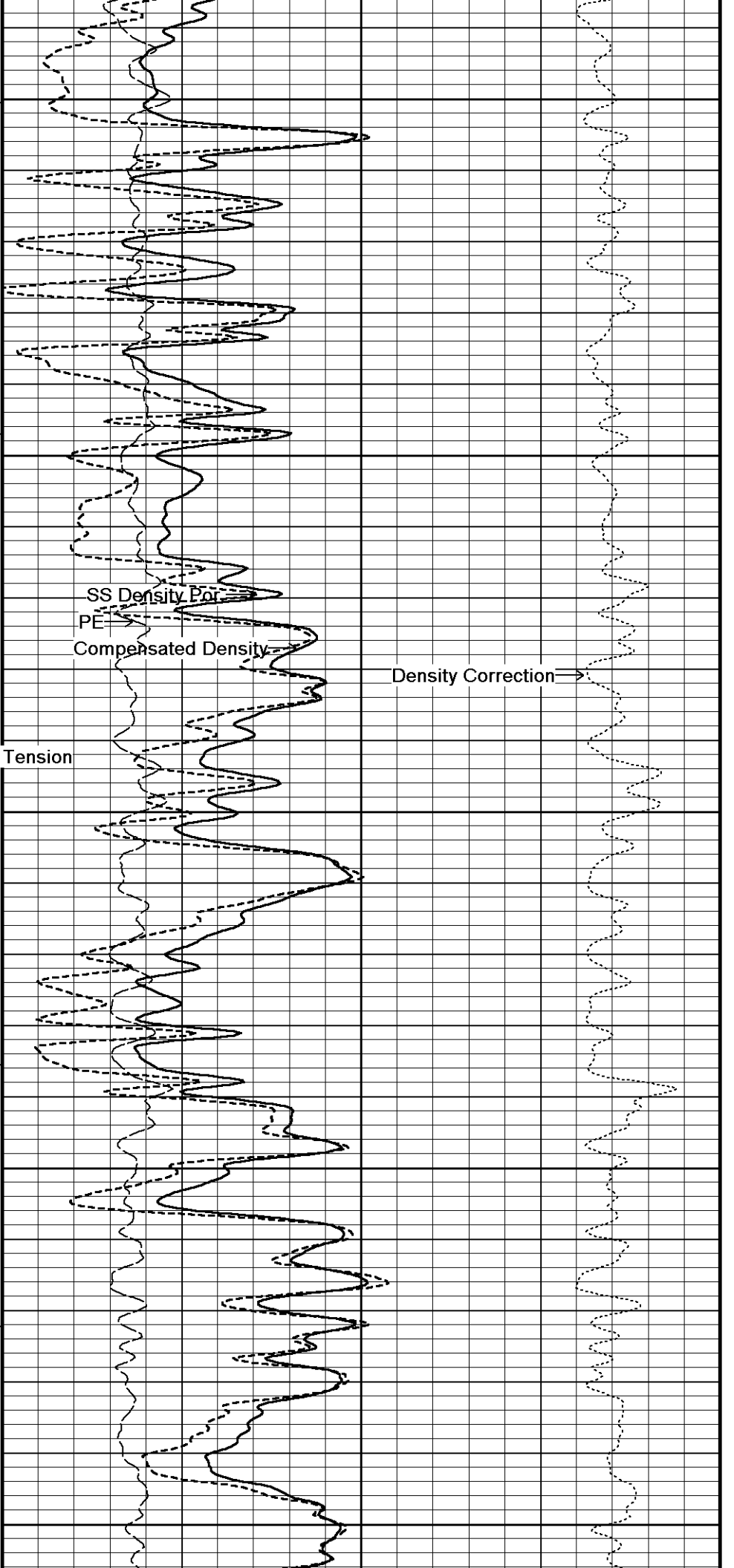
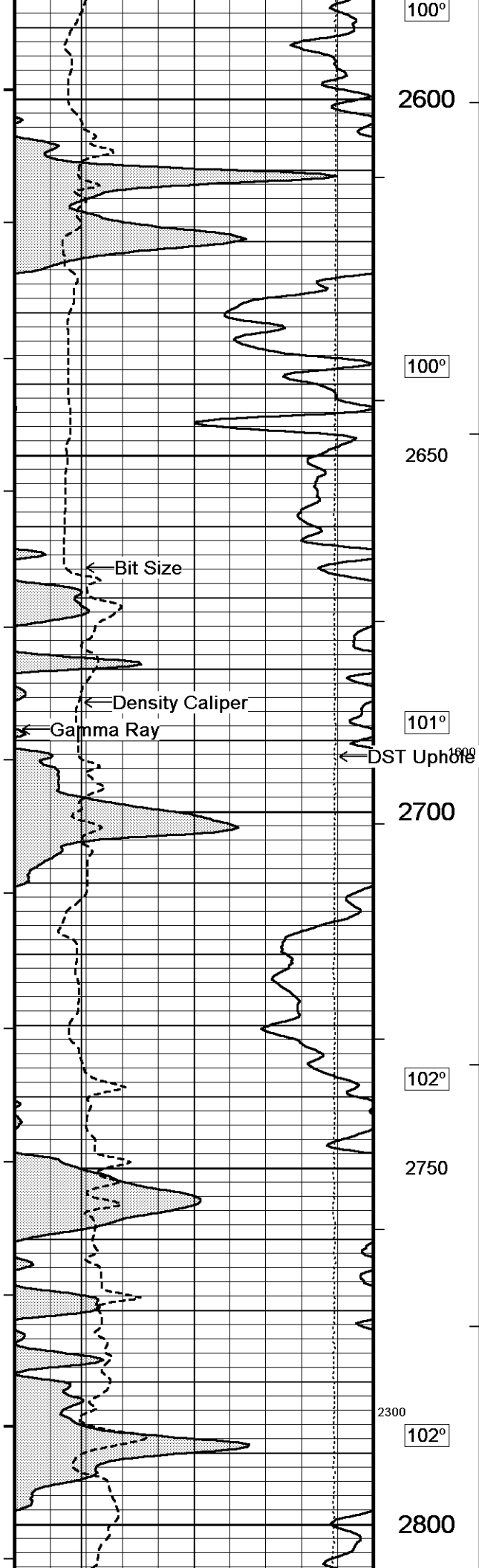


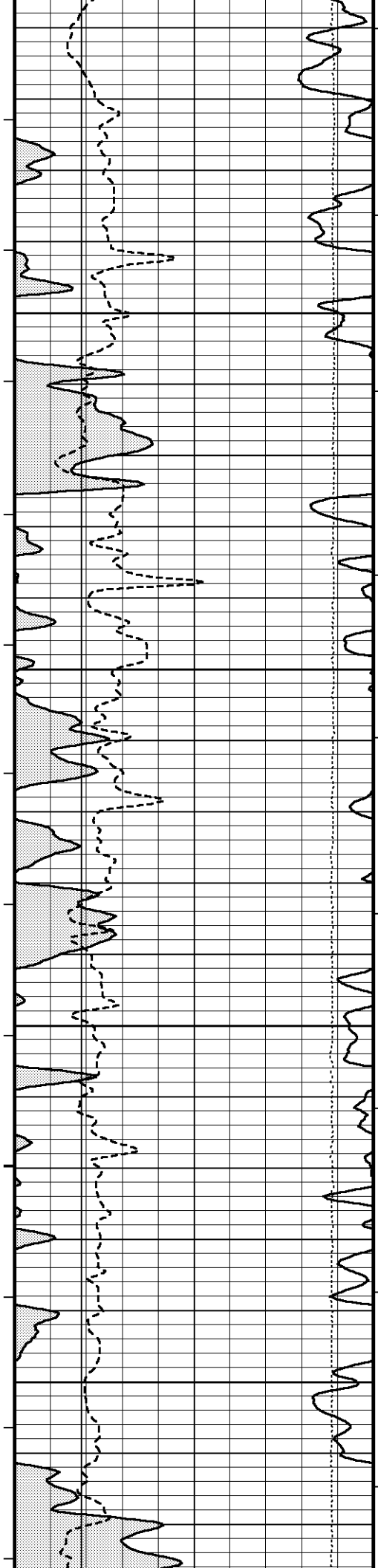




98°
2400
98°
2450
99°
2500
99°
2550







103°

2850

104°

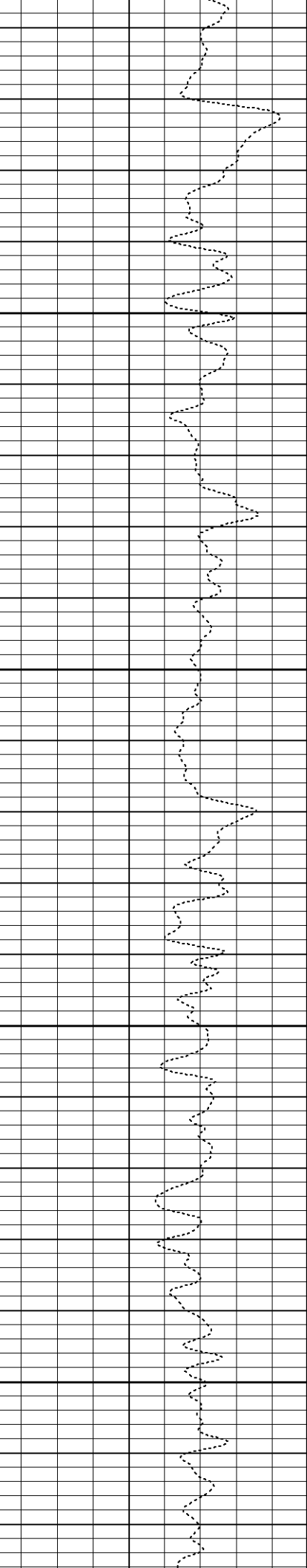
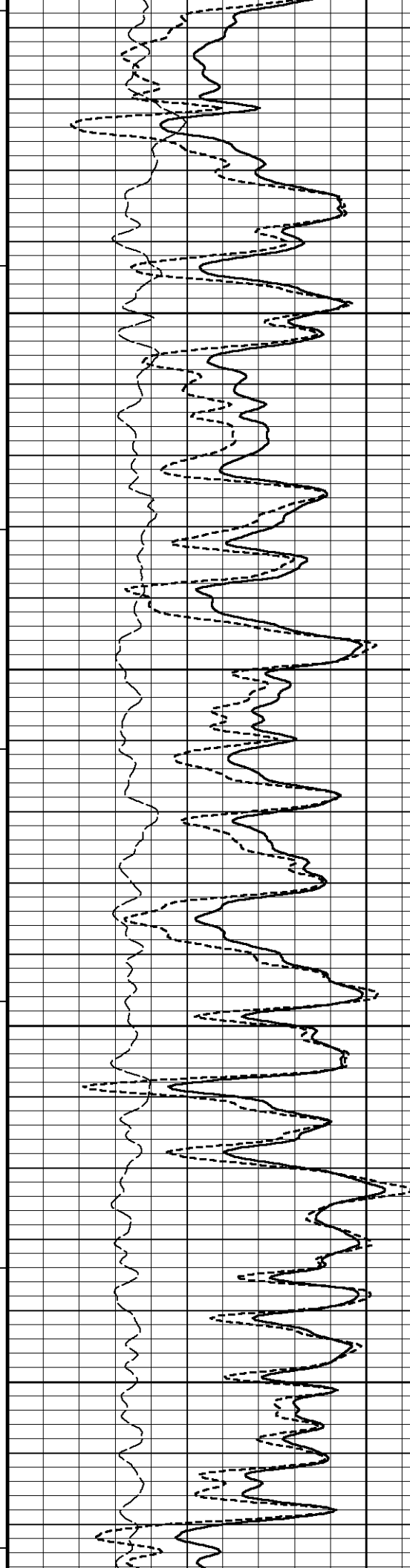
2900

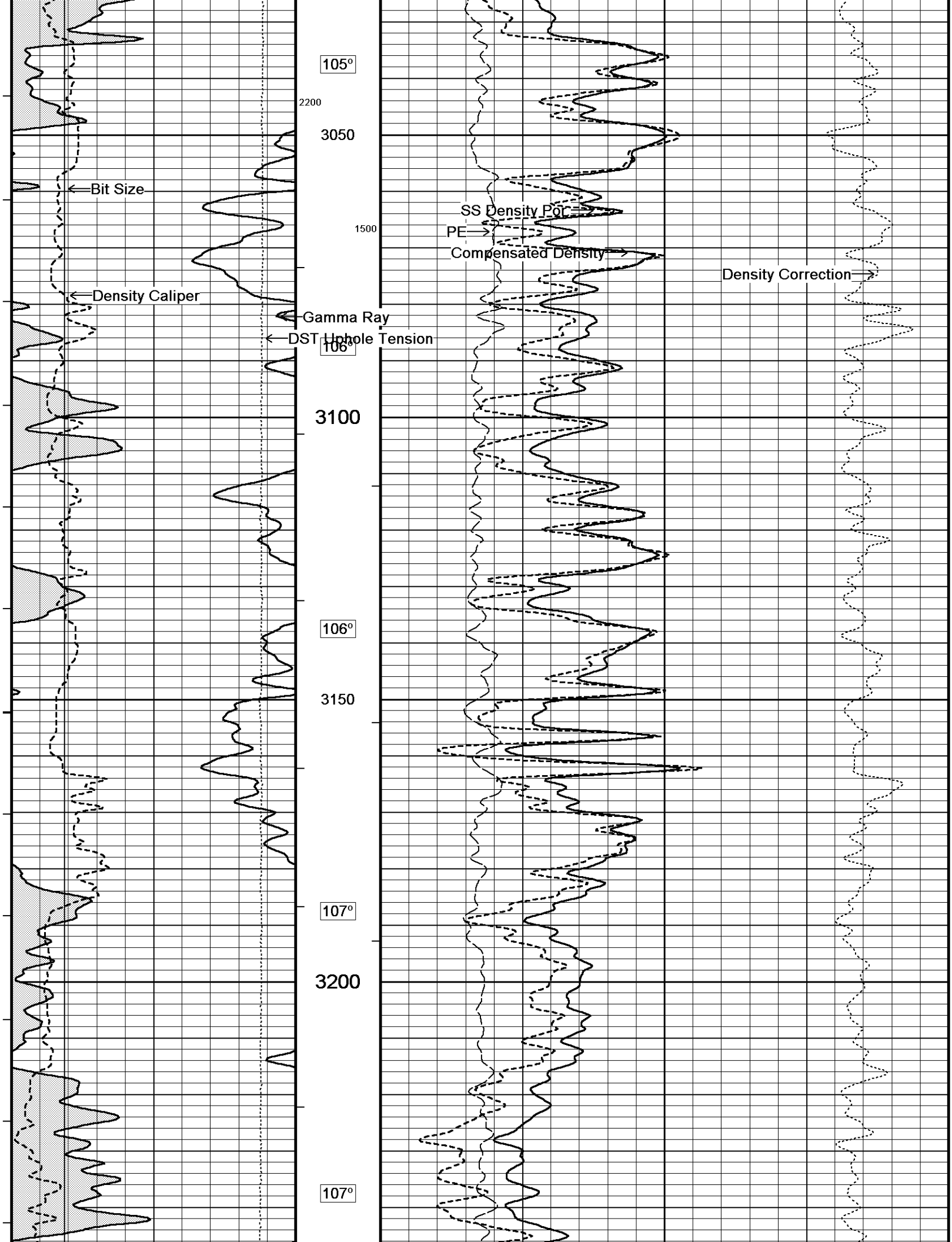
104°

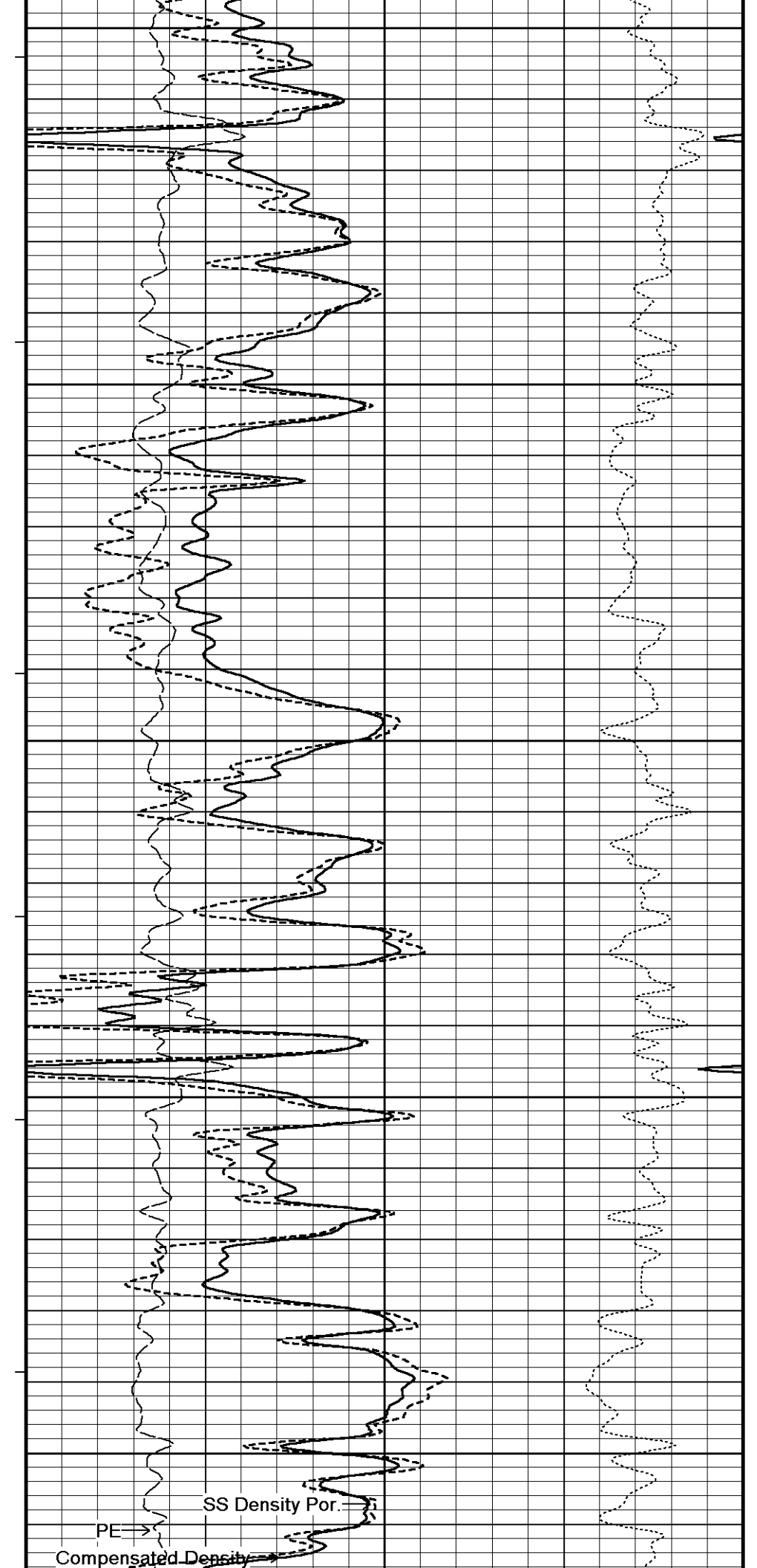
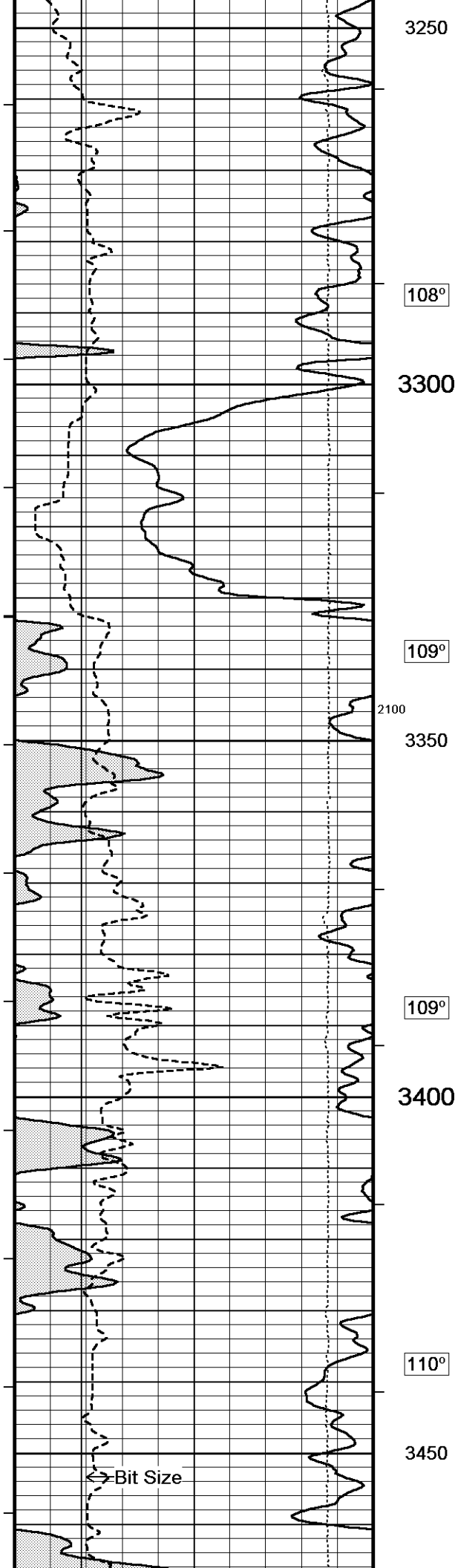
2950

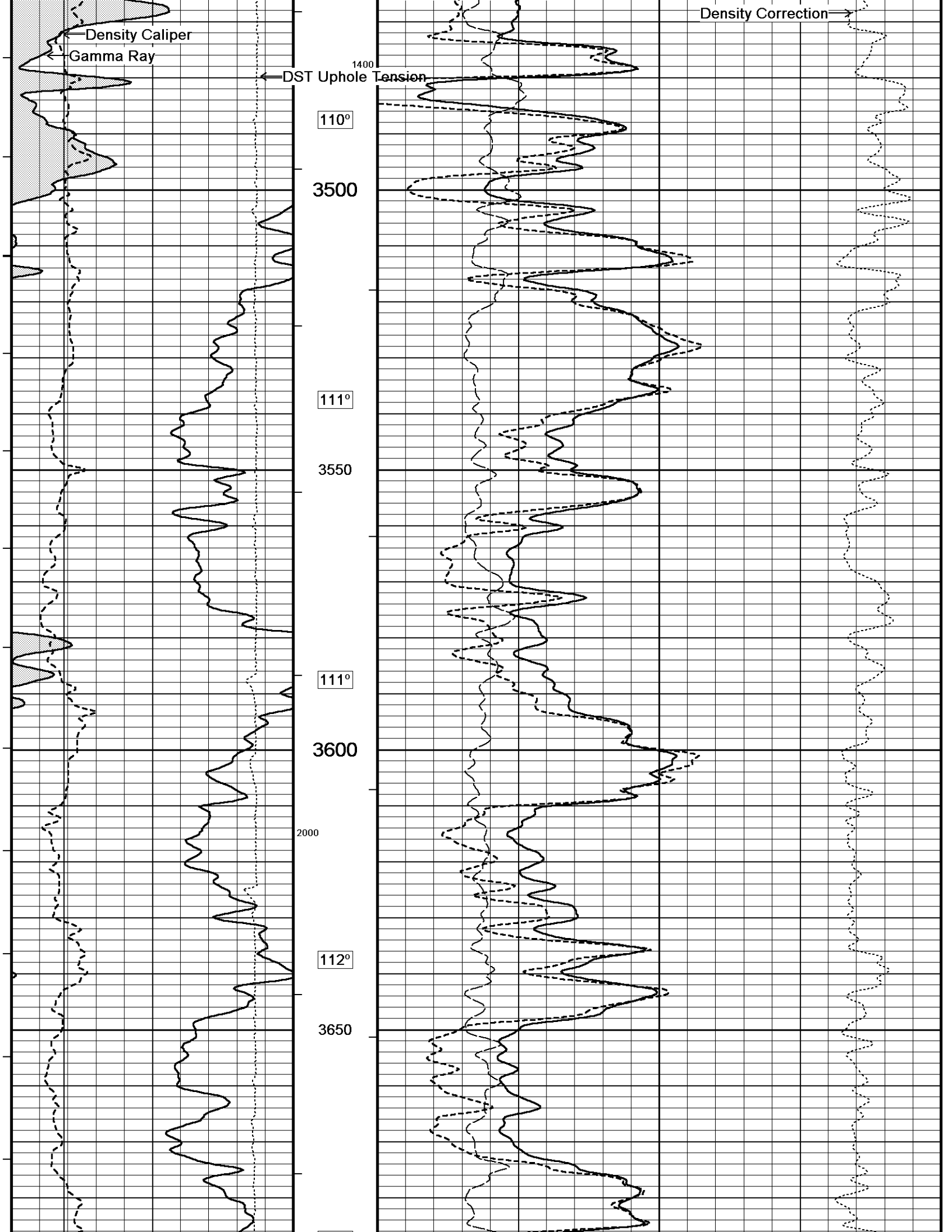
105°

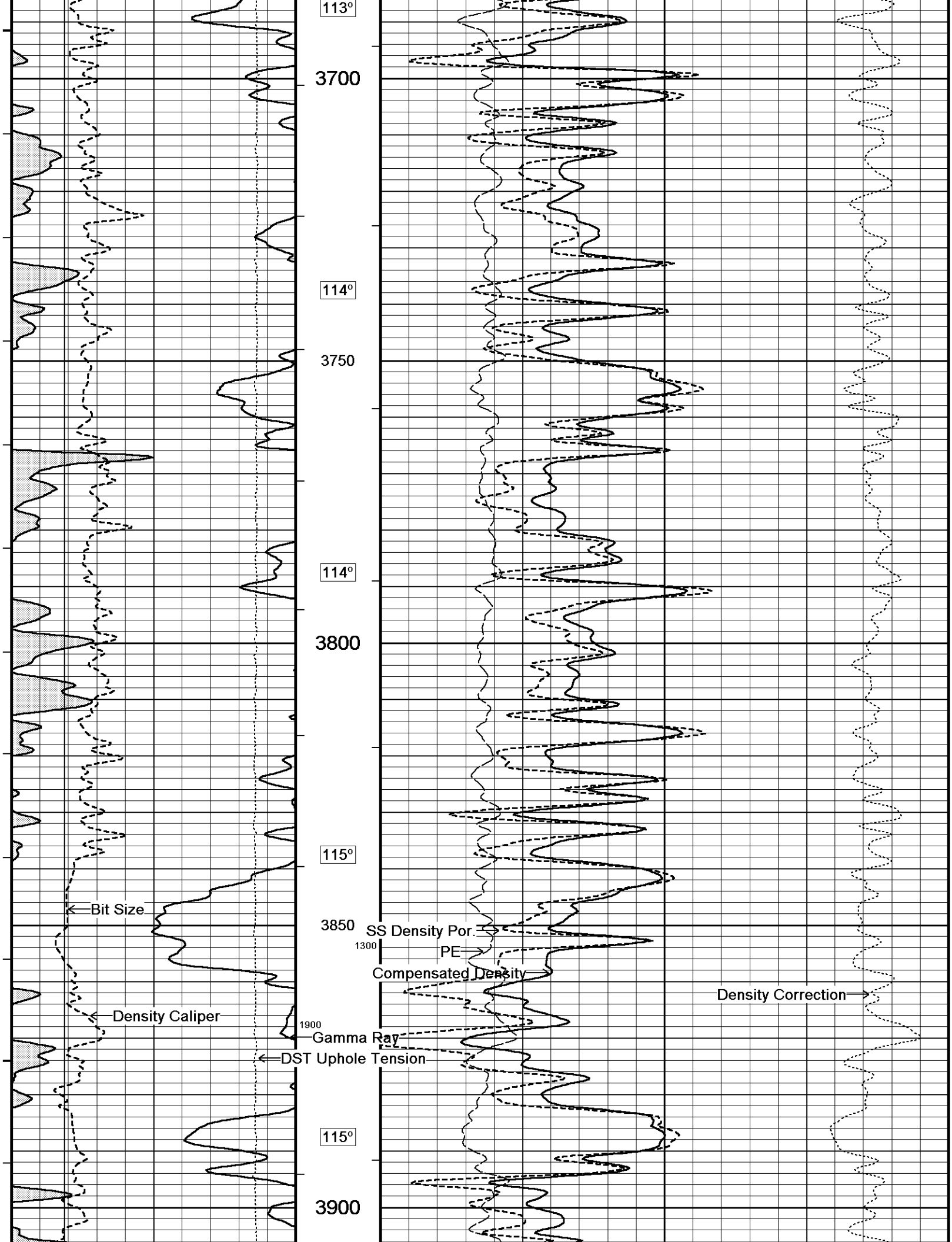
3000

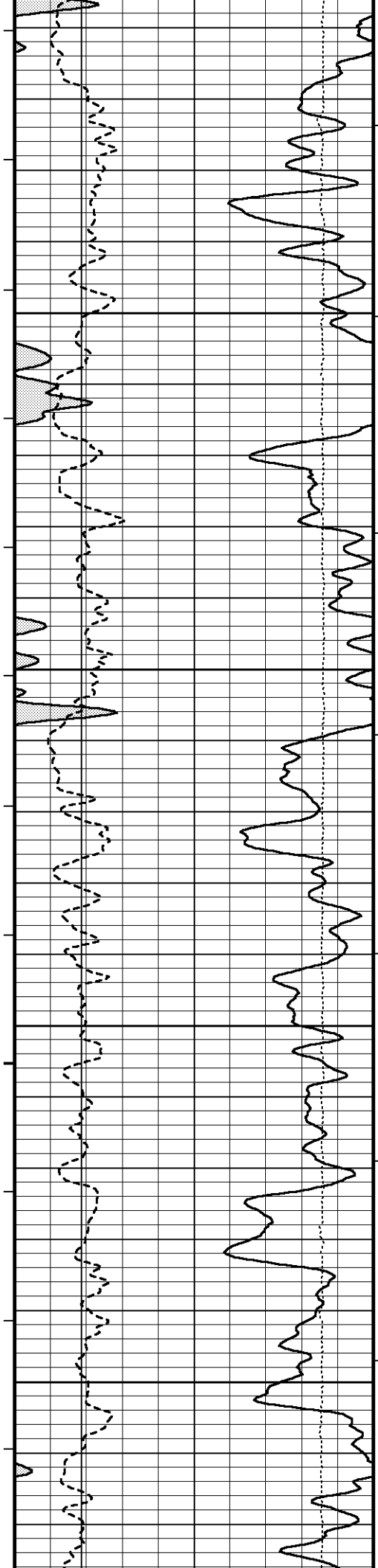












116°

3950

117°

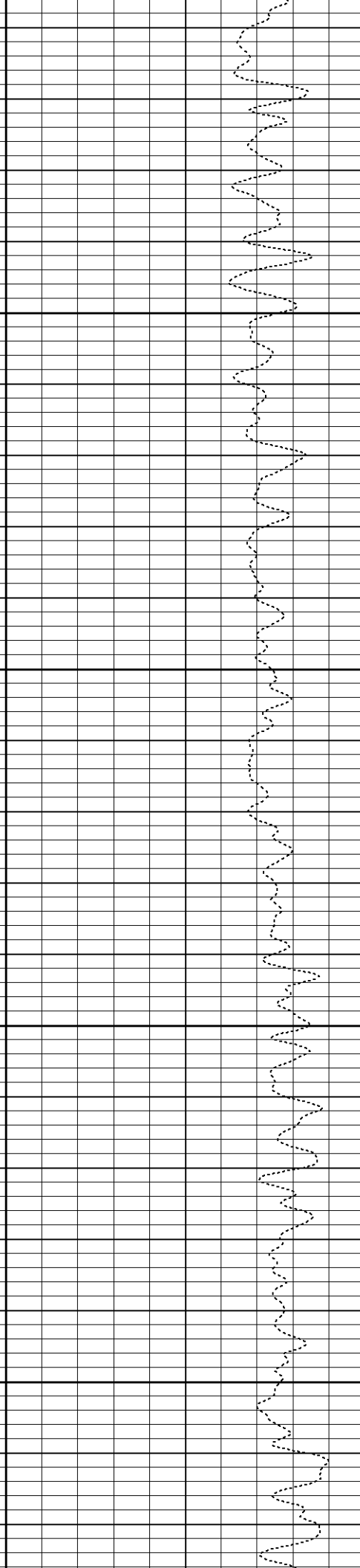
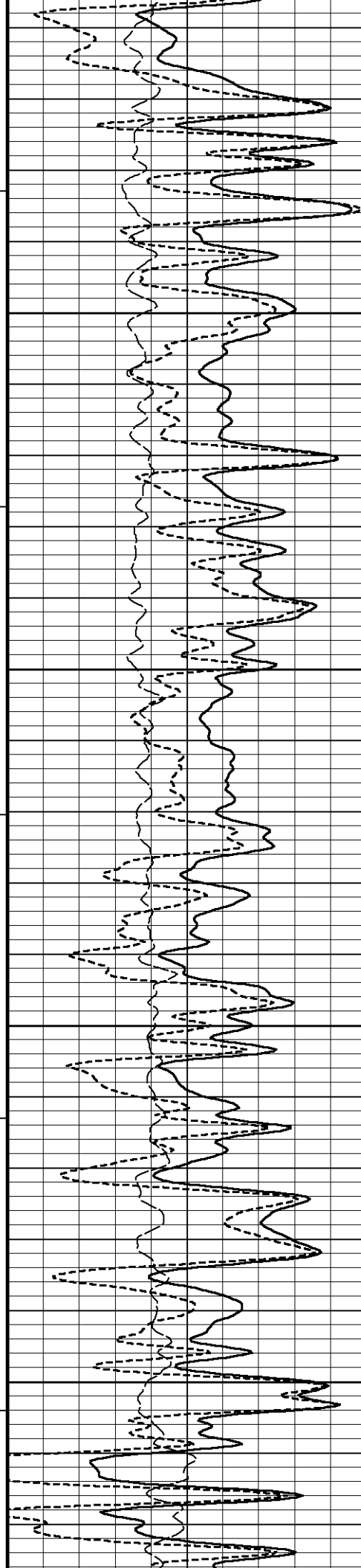
4000

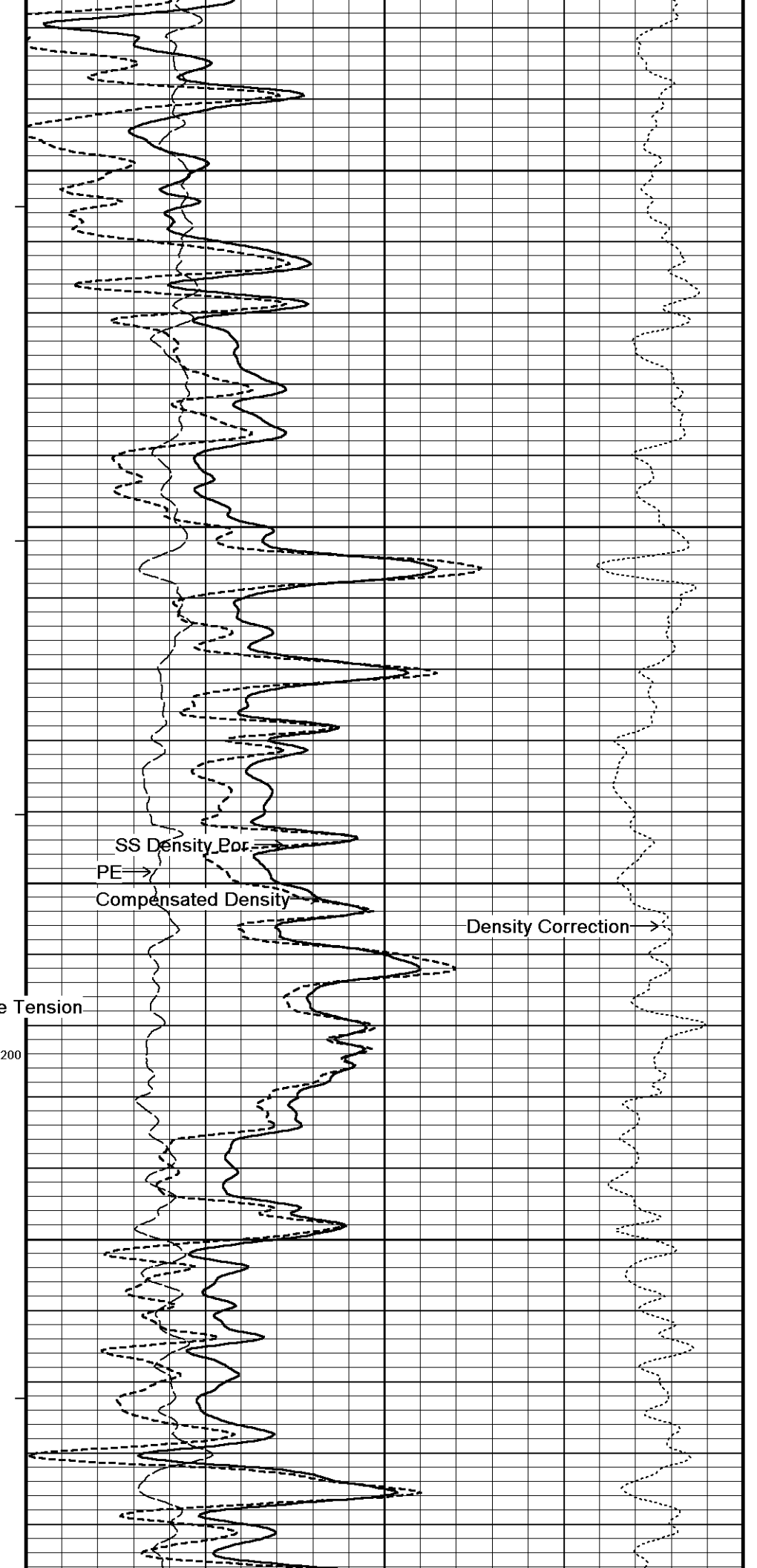
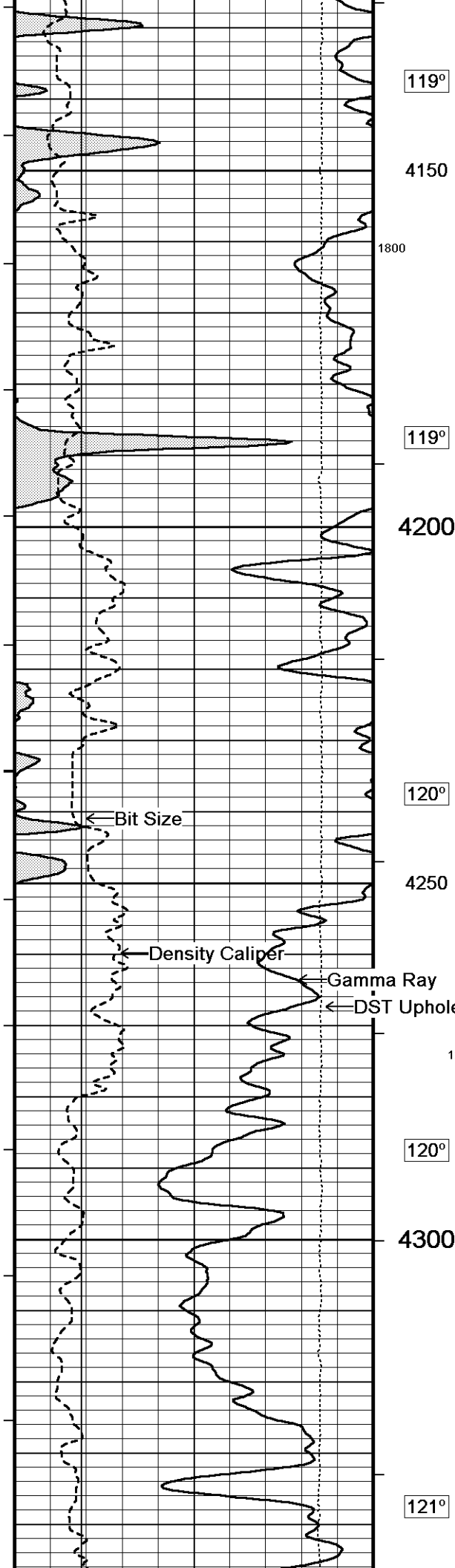
117°

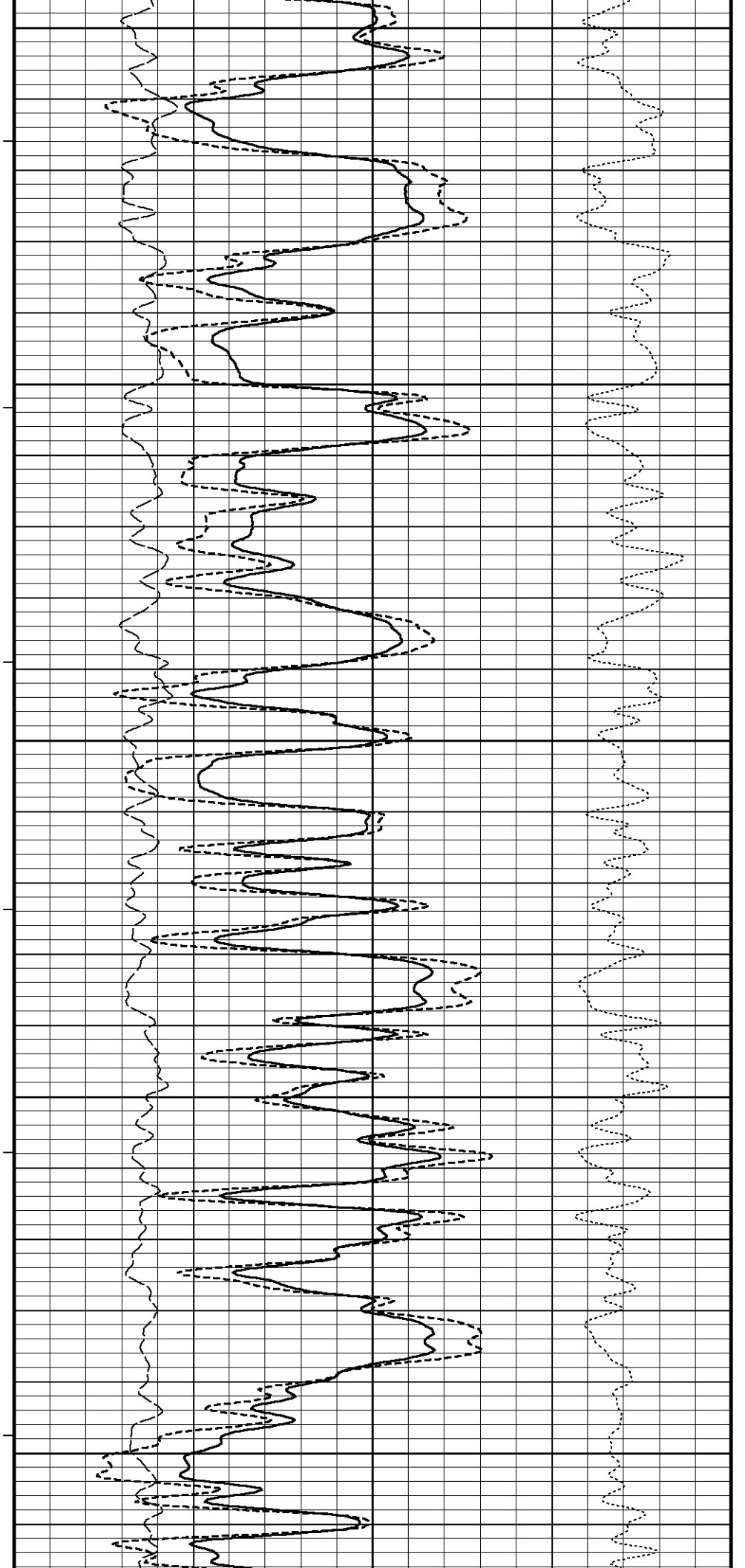
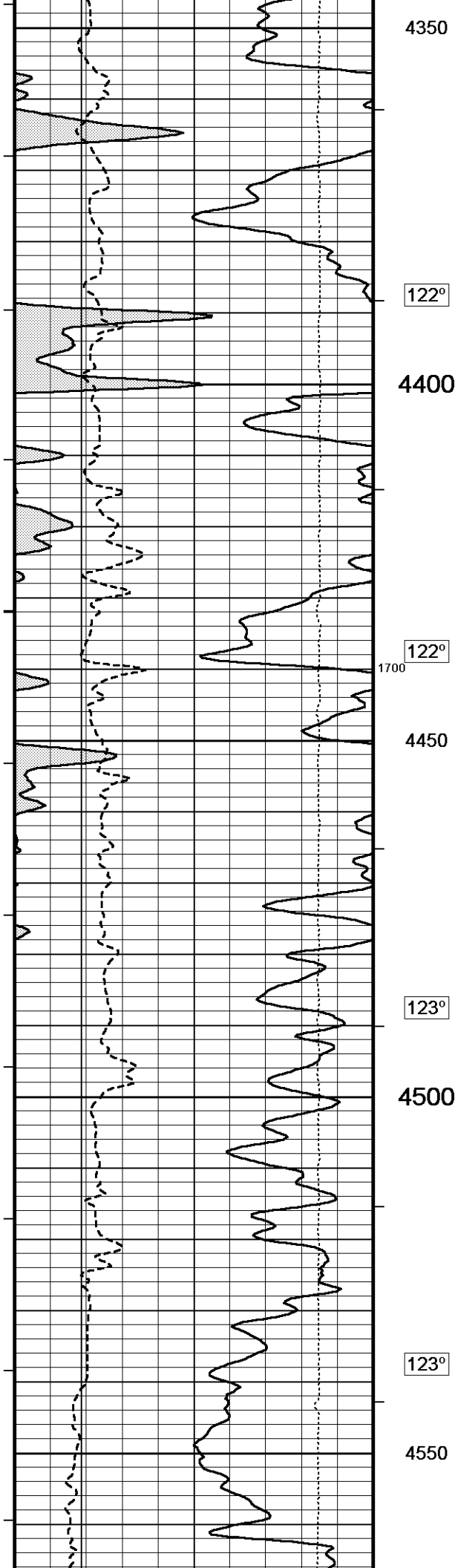
4050

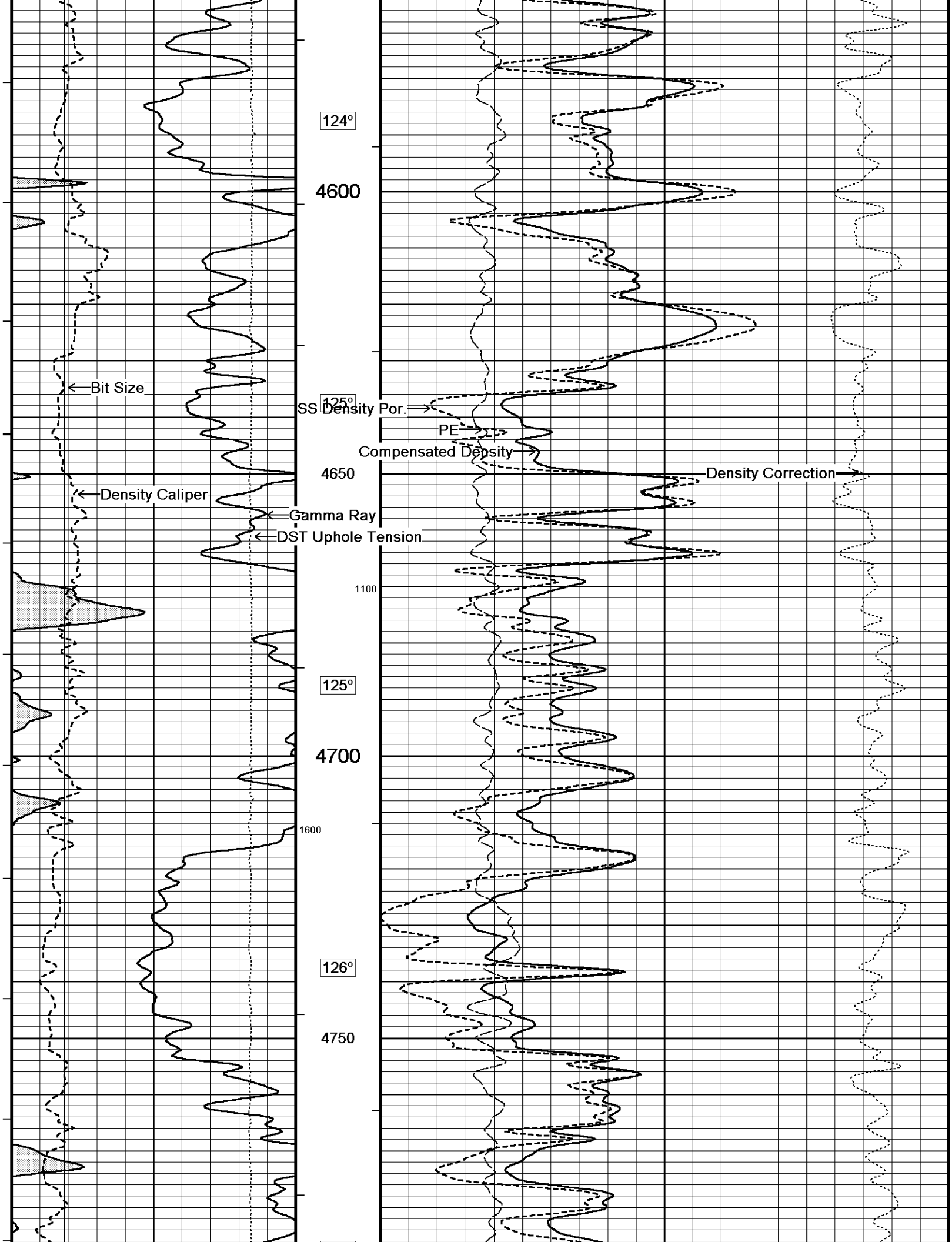
118°

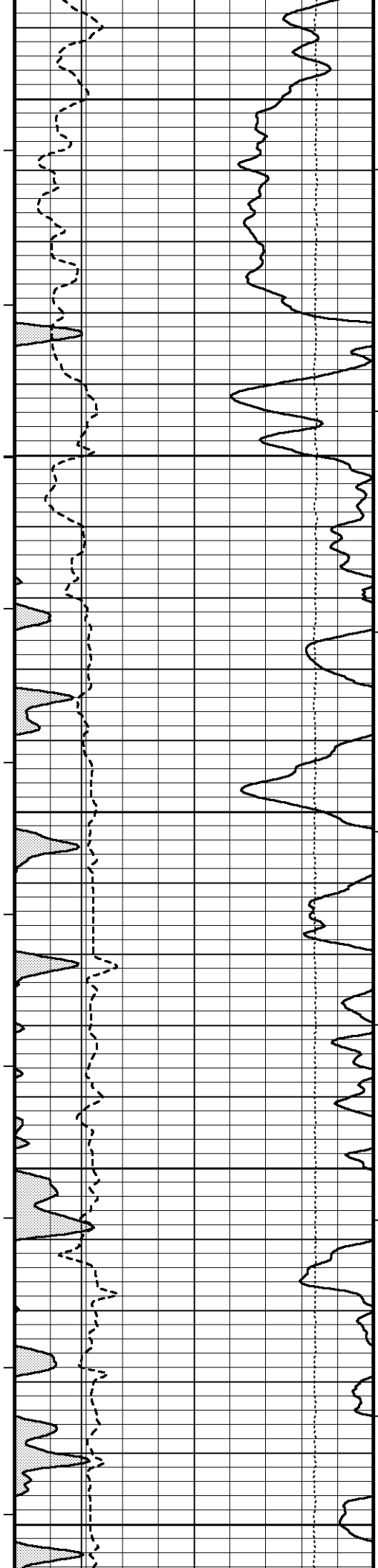
4100











126°

4800

127°

4850

128°

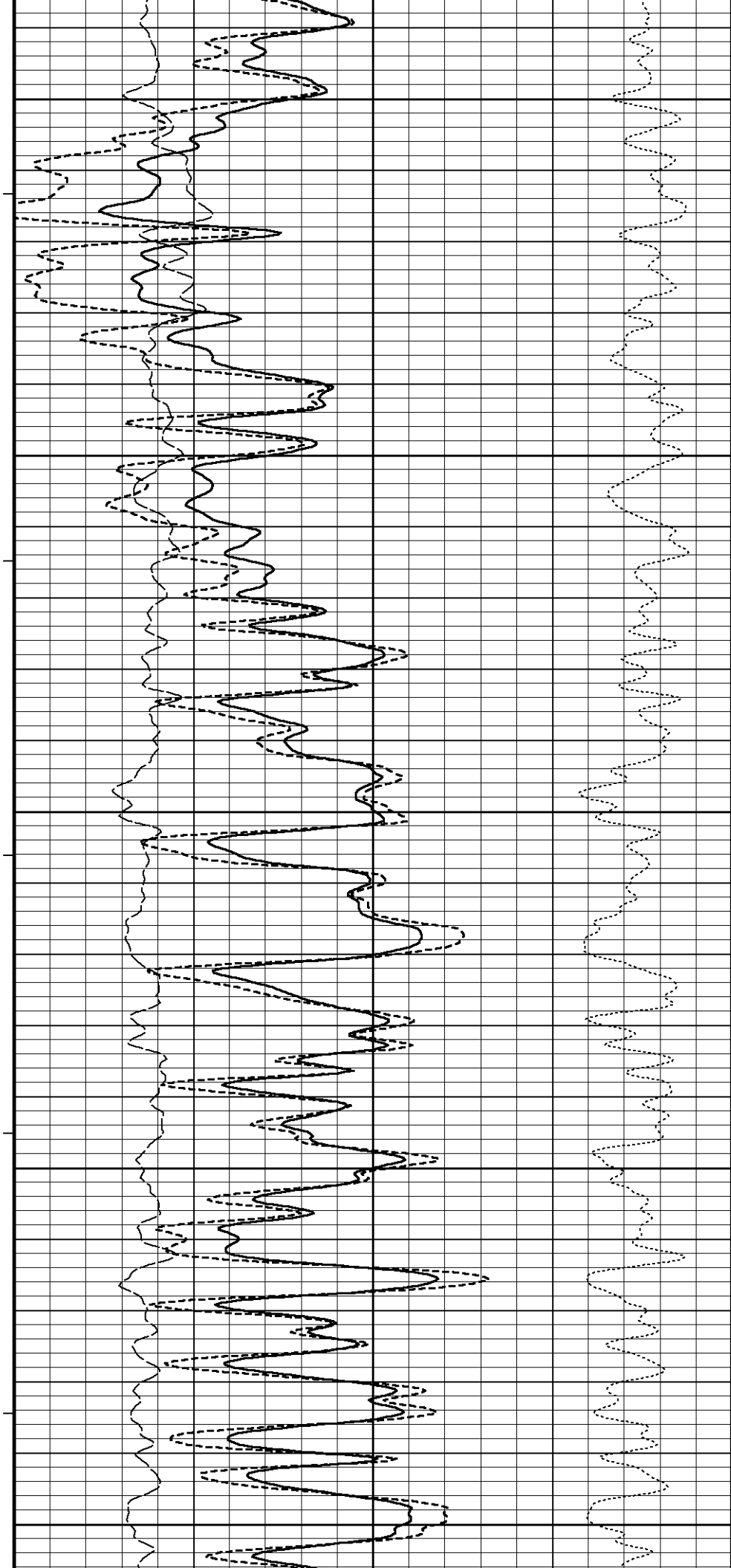
4900

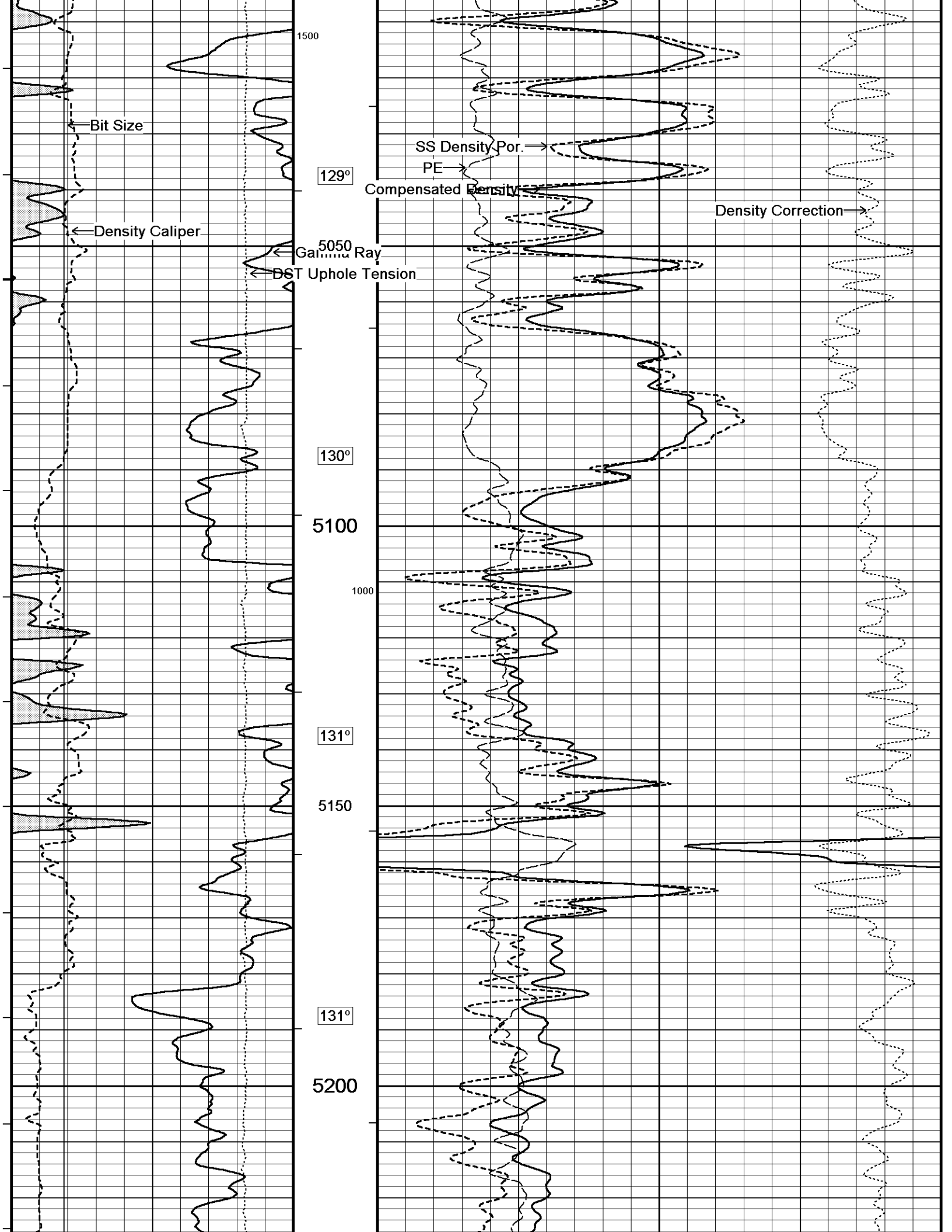
128°

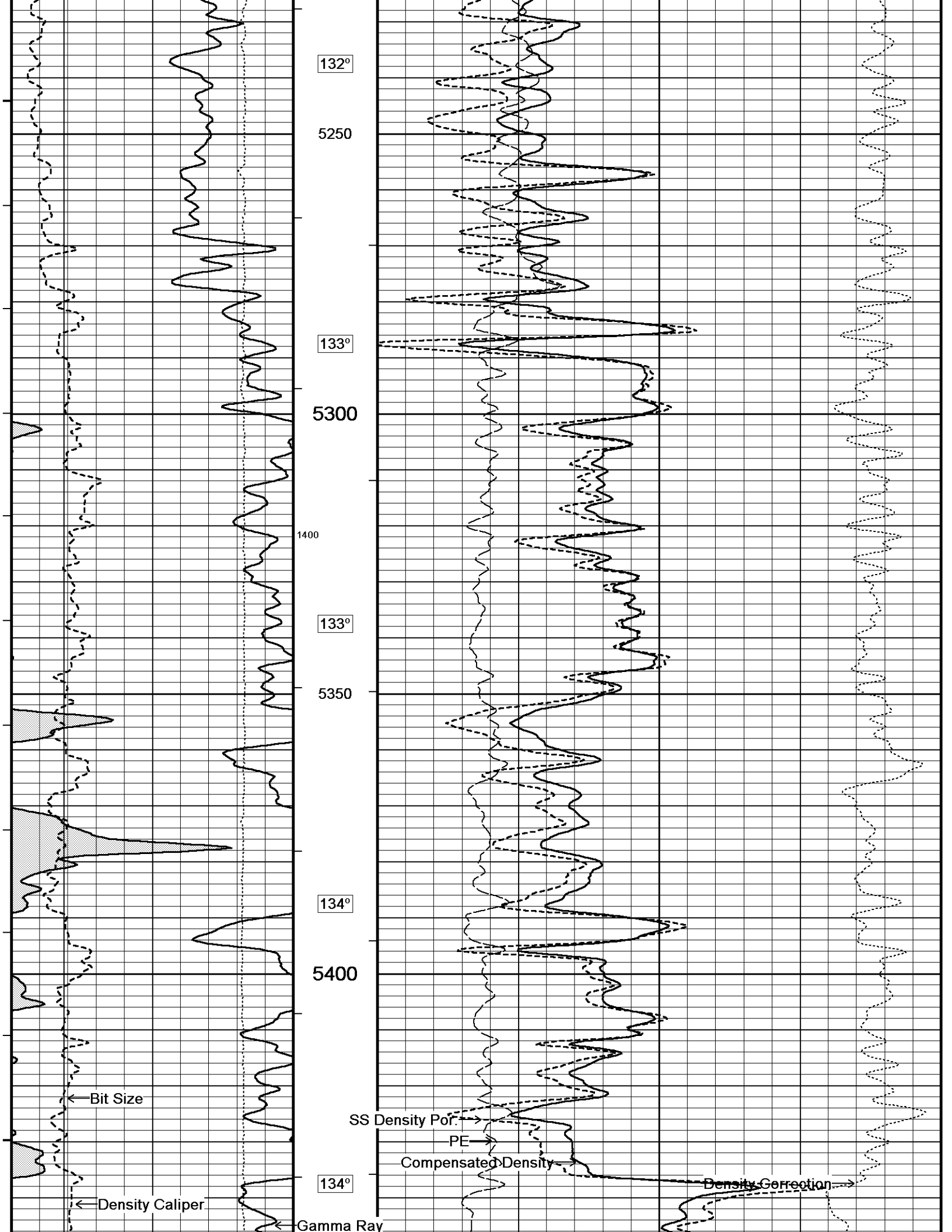
4950

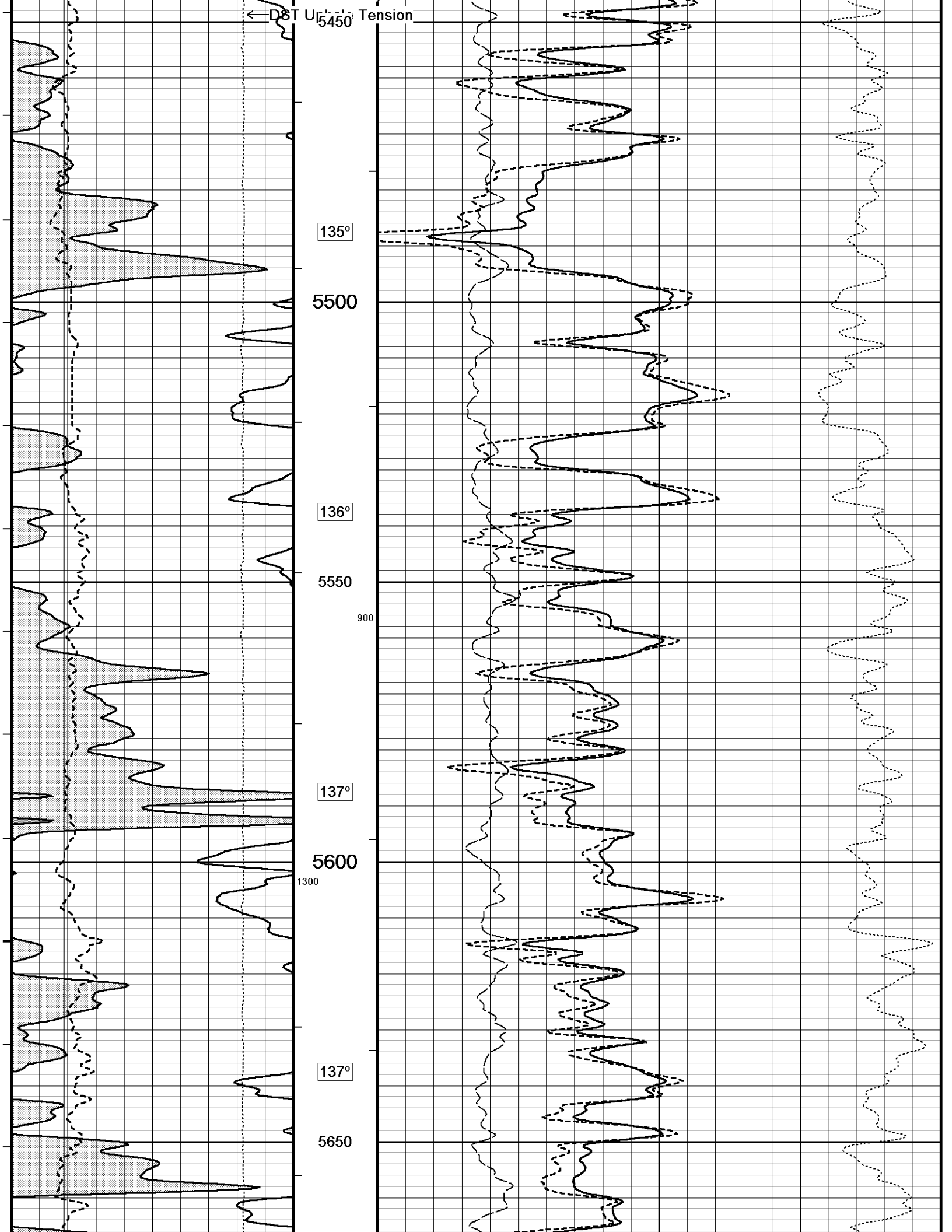
129°

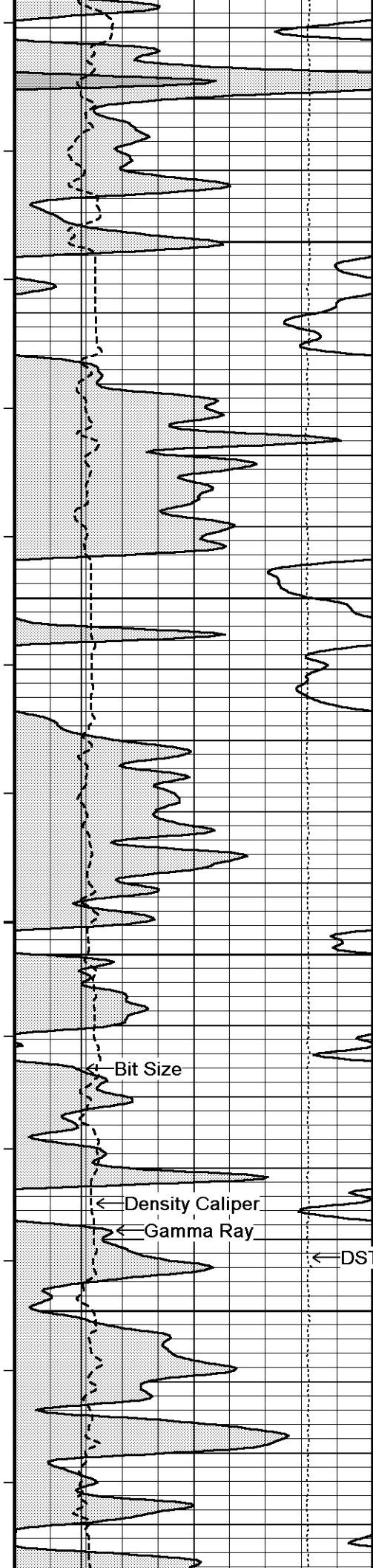
5000











138°

5700

139°

5750

140°

5800

Bit Size

Density Caliper

Gamma Ray

SS Density Por.

PT

Compensated Density

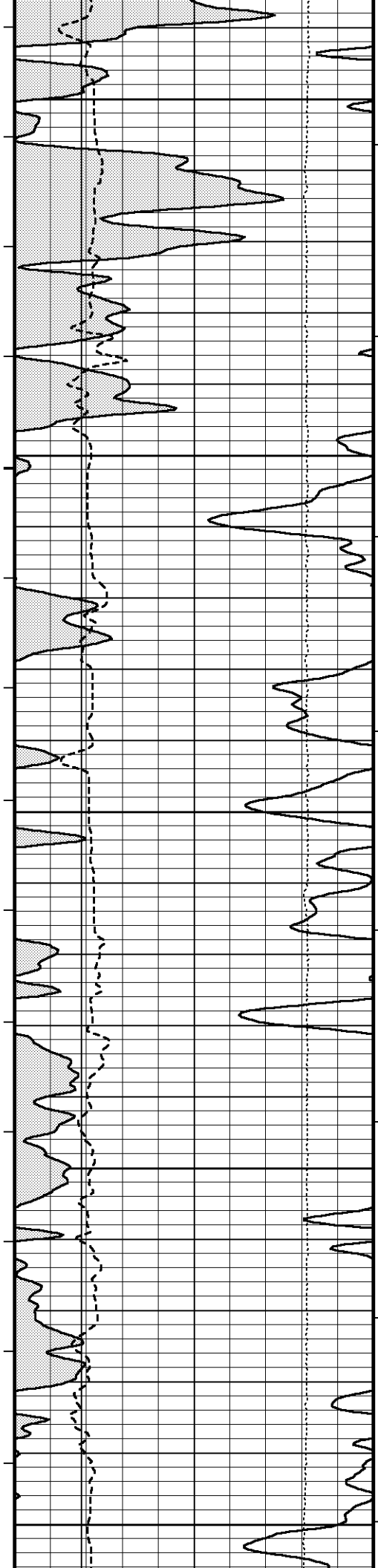
Density Correction

141°

DST Uphole Tension

5850

1200



143°

5900

143°

5950

144°

6000

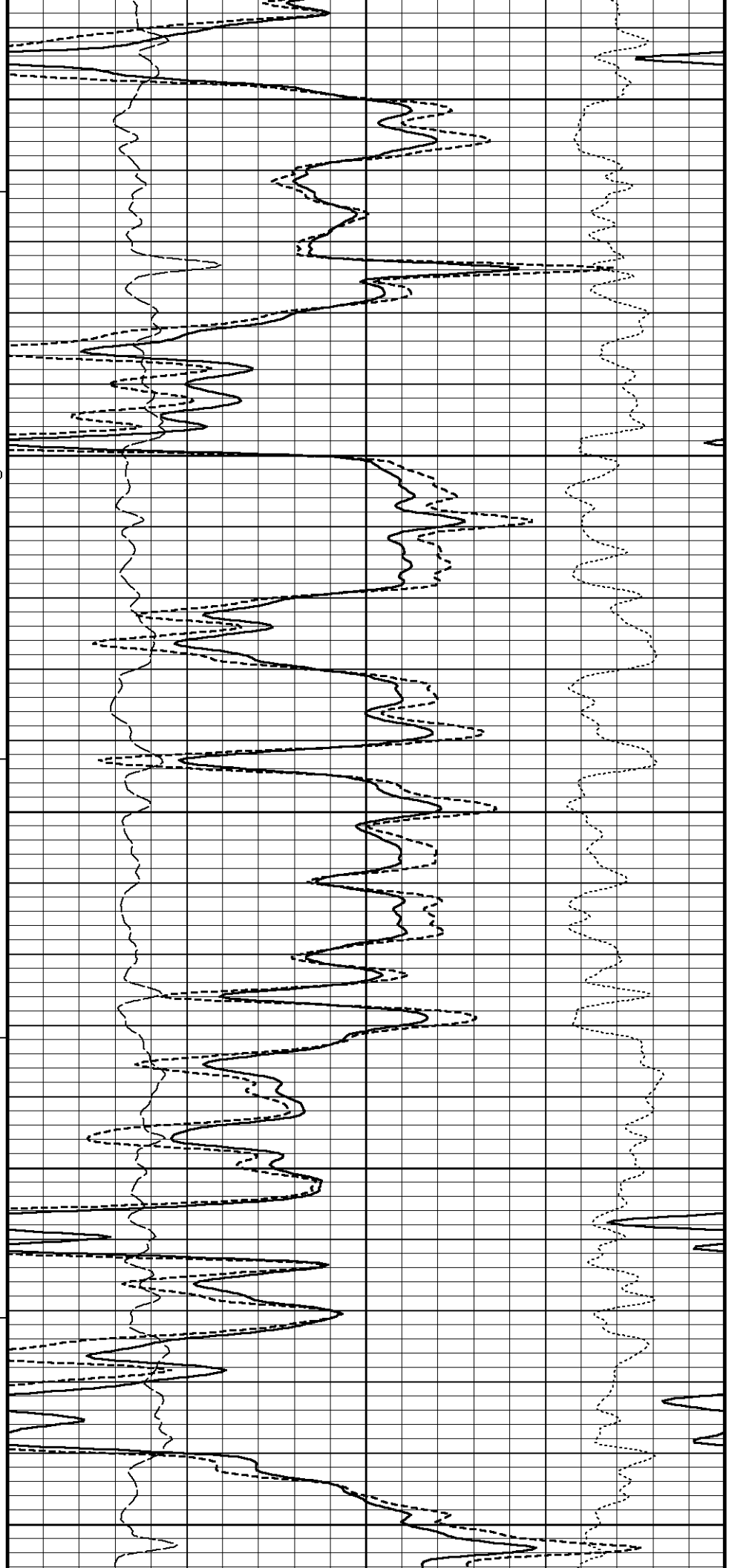
145°

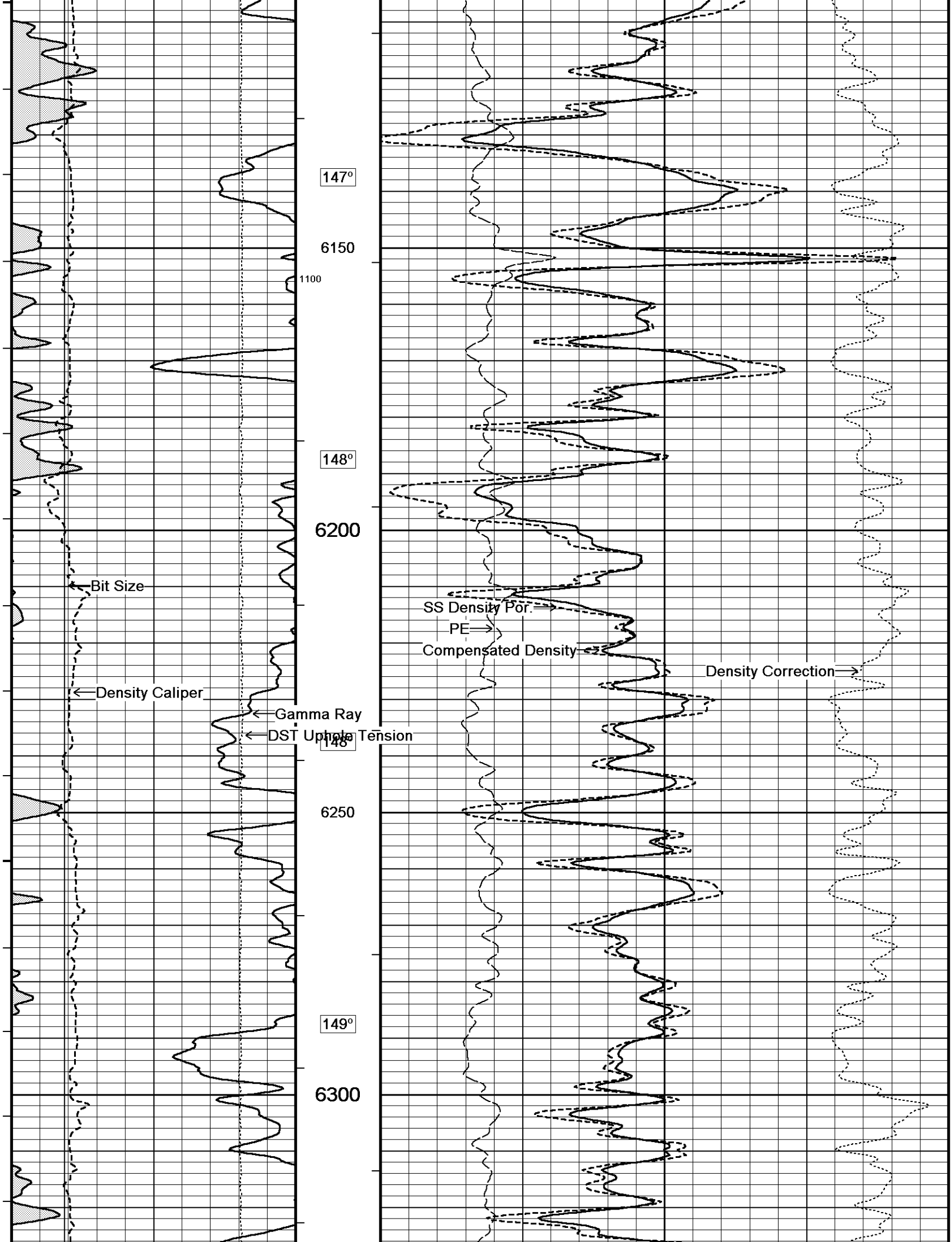
6050

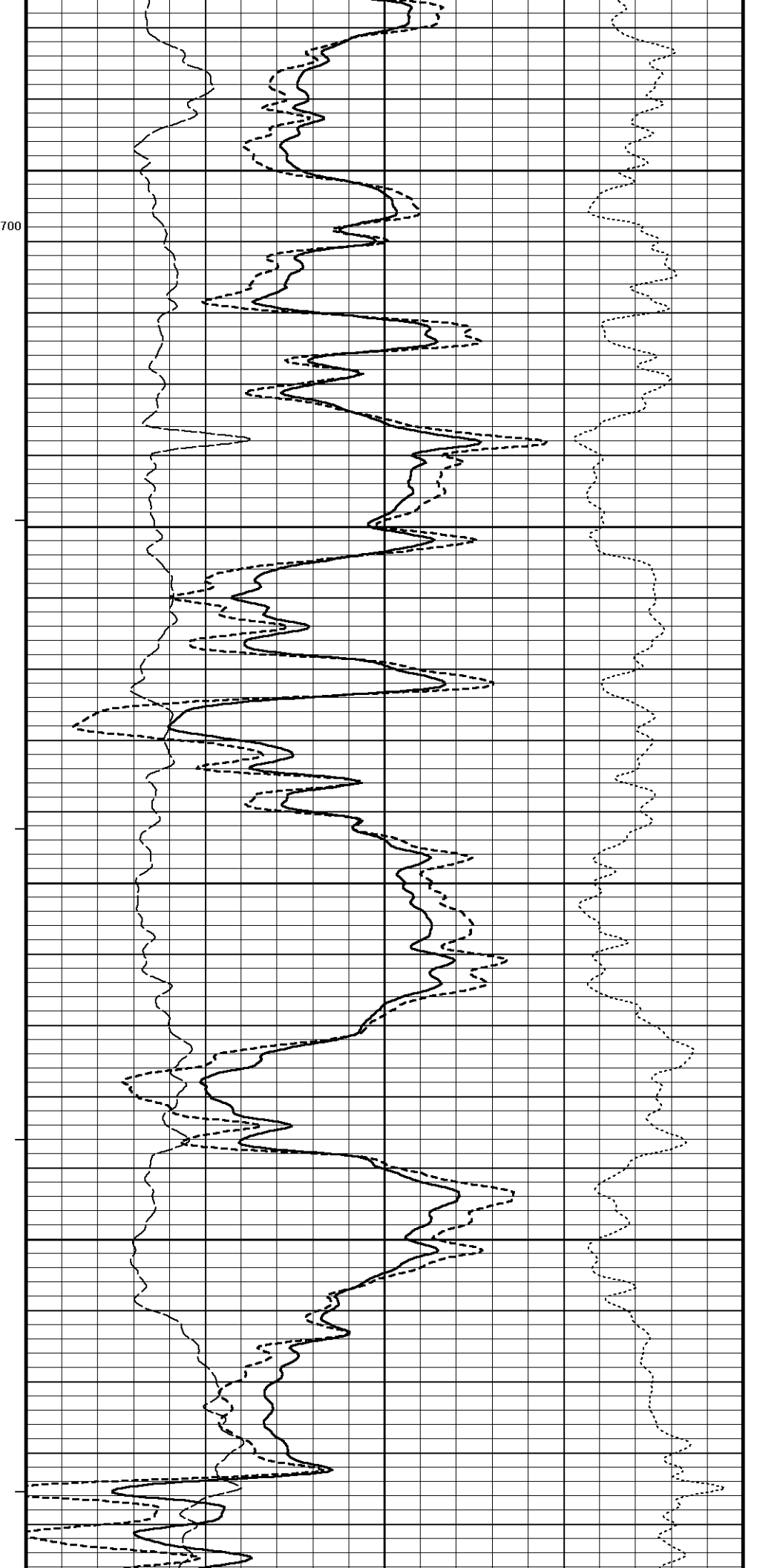
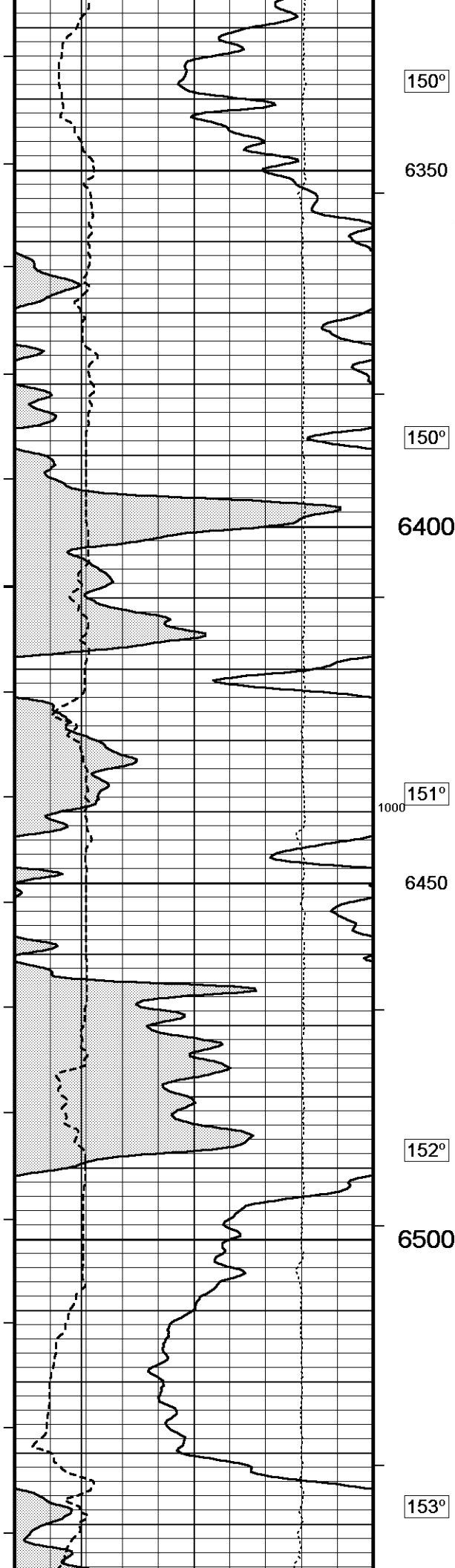
146°

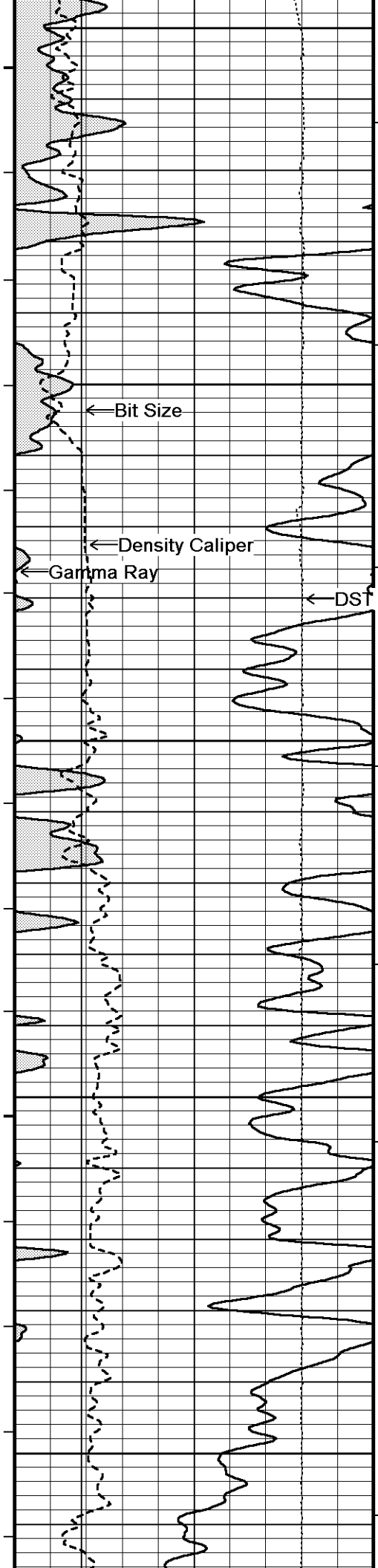
6100

800









6550

154°

6600

← Bit Size

← Density Caliper

← Gamma Ray

← DST Uphole Tension

155°

6650

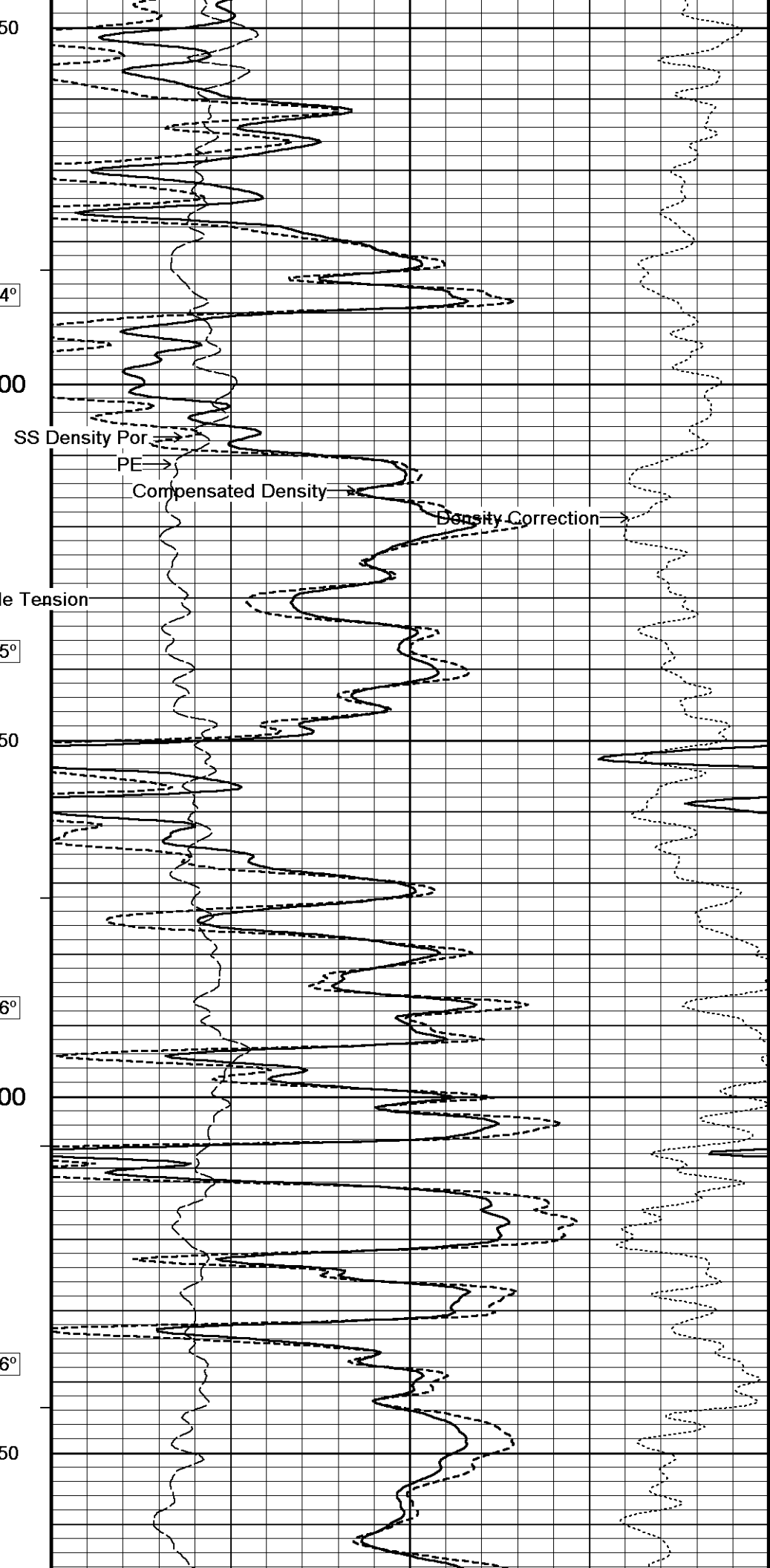
156°

6700

900

156°

6750

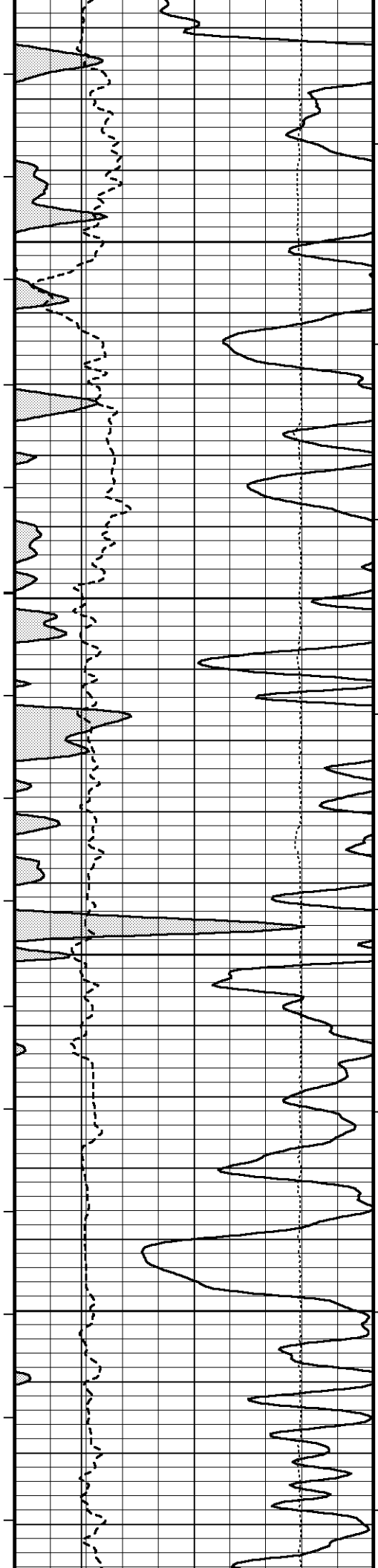


SS Density Por

PE

Compensated Density

Density Correction



600
157°

6800

158°

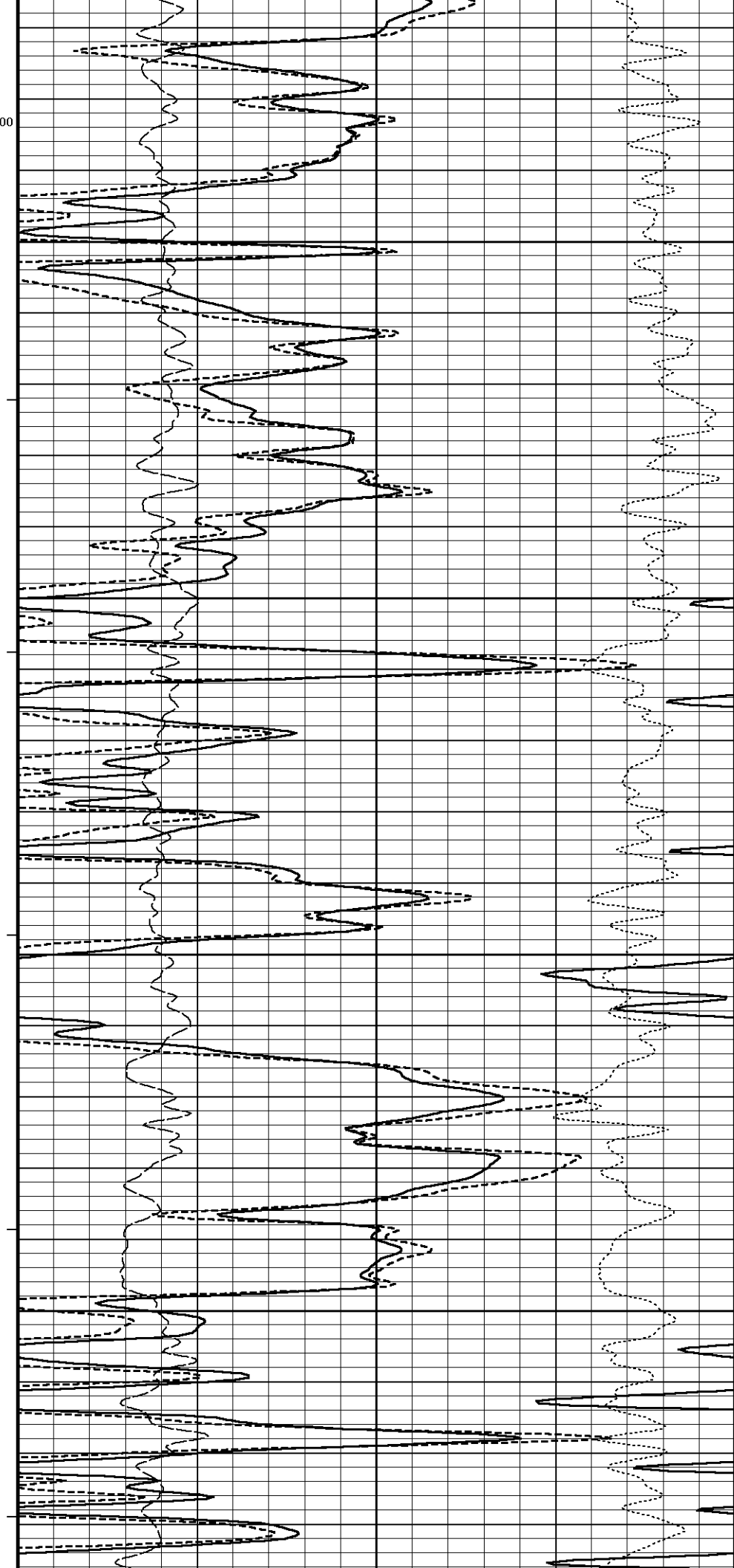
6850

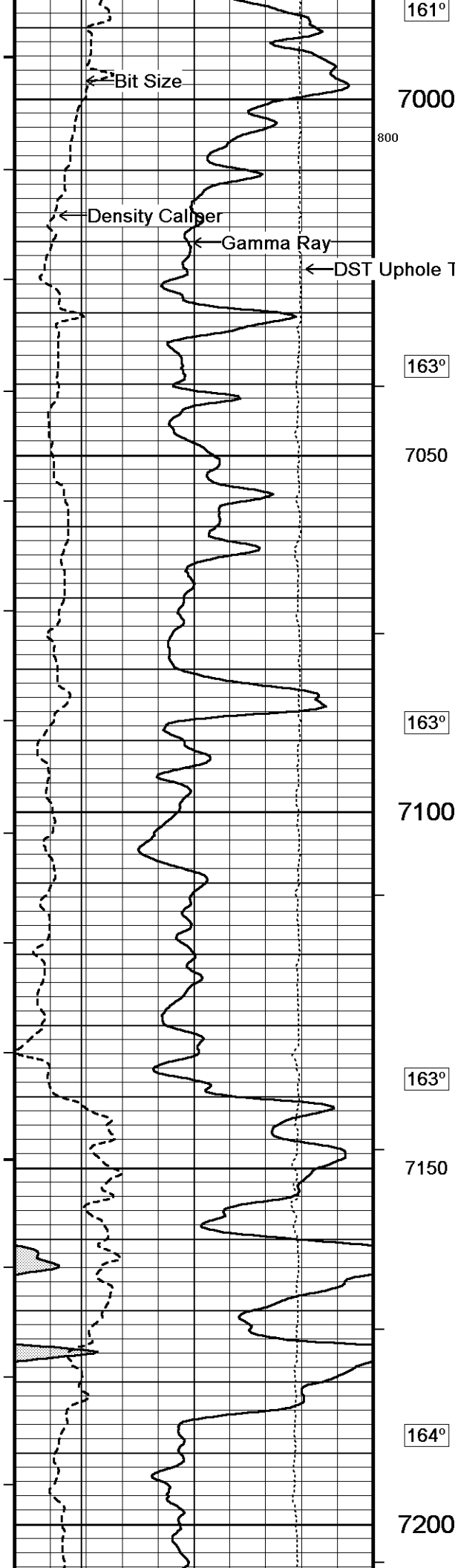
159°

6900

160°

6950





161°

7000

800

163°

7050

163°

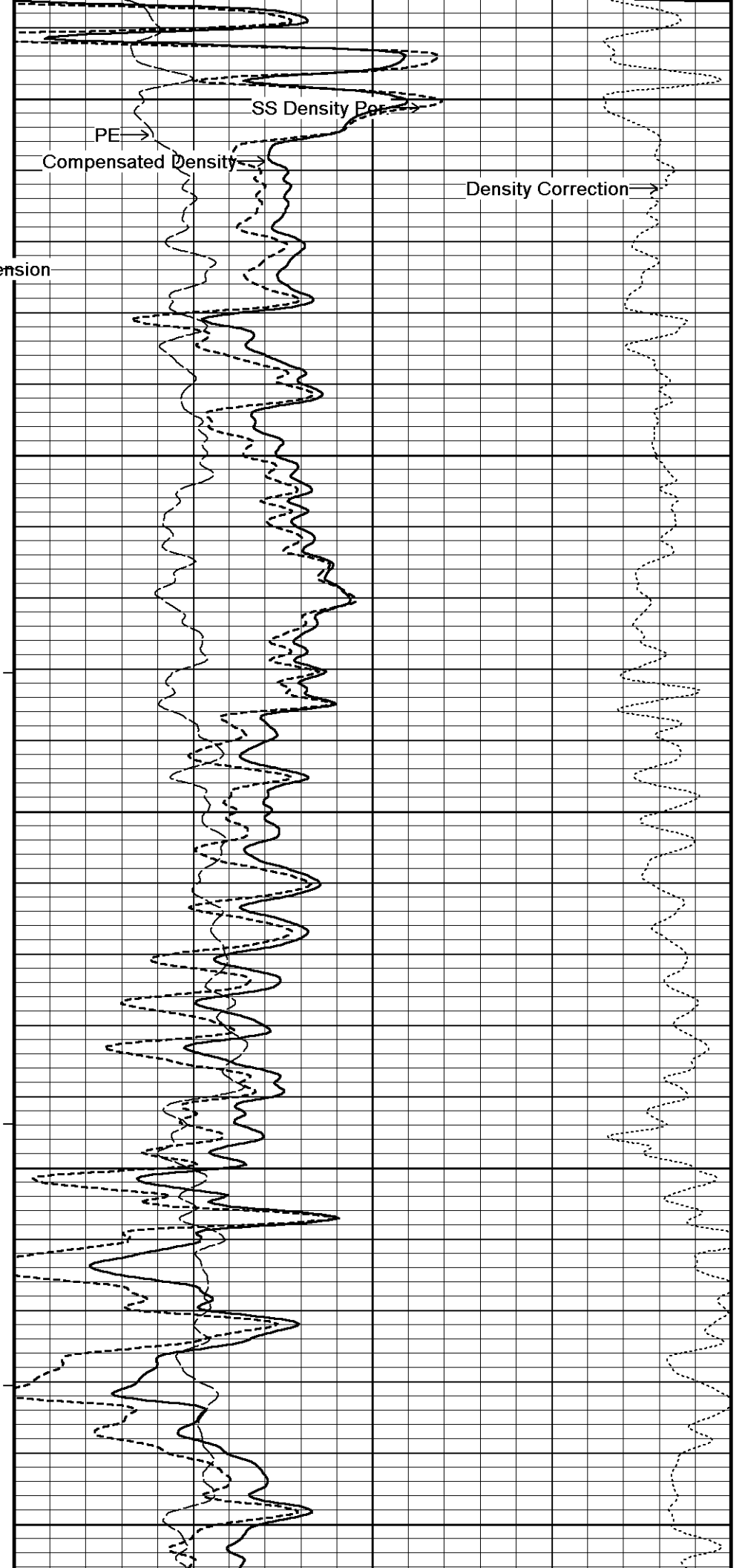
7100

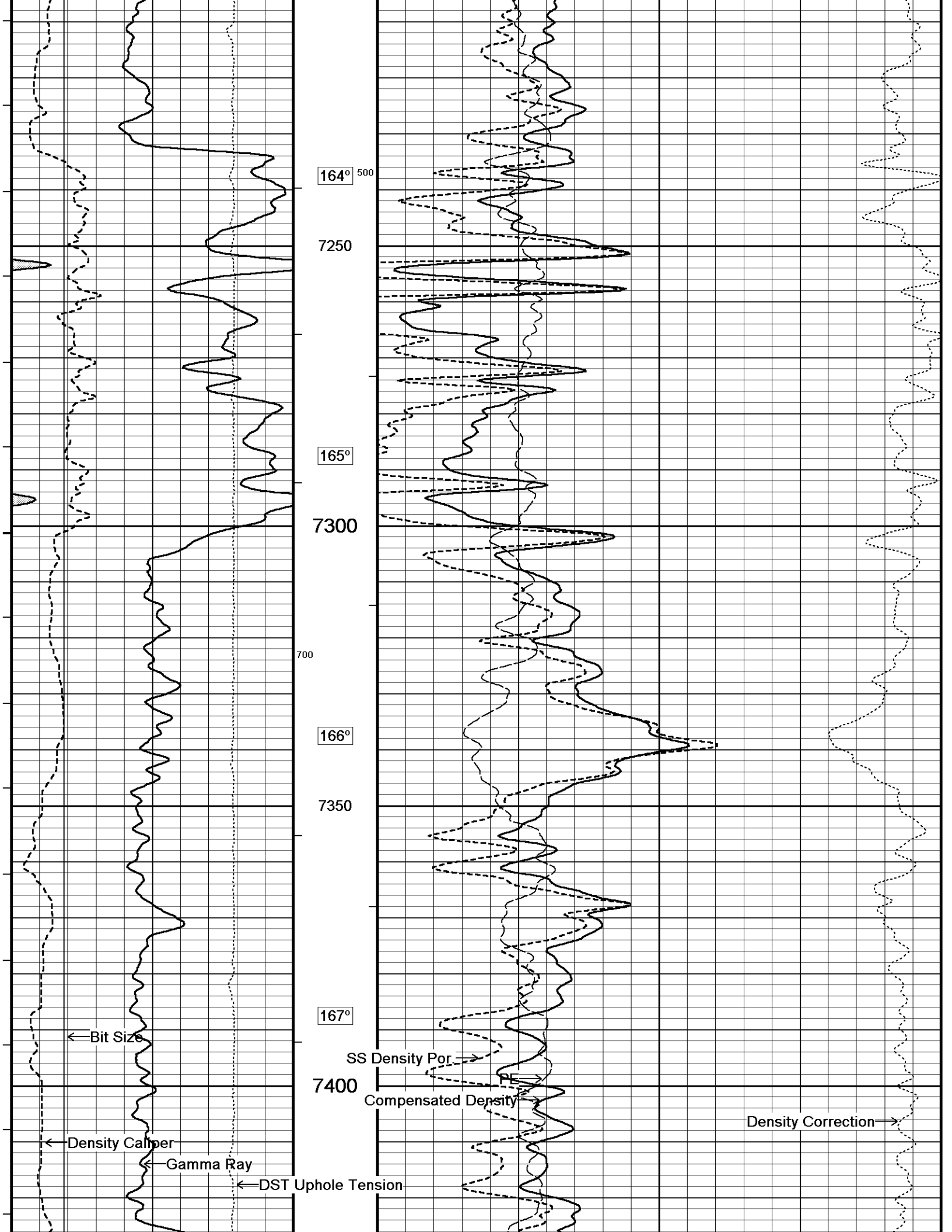
163°

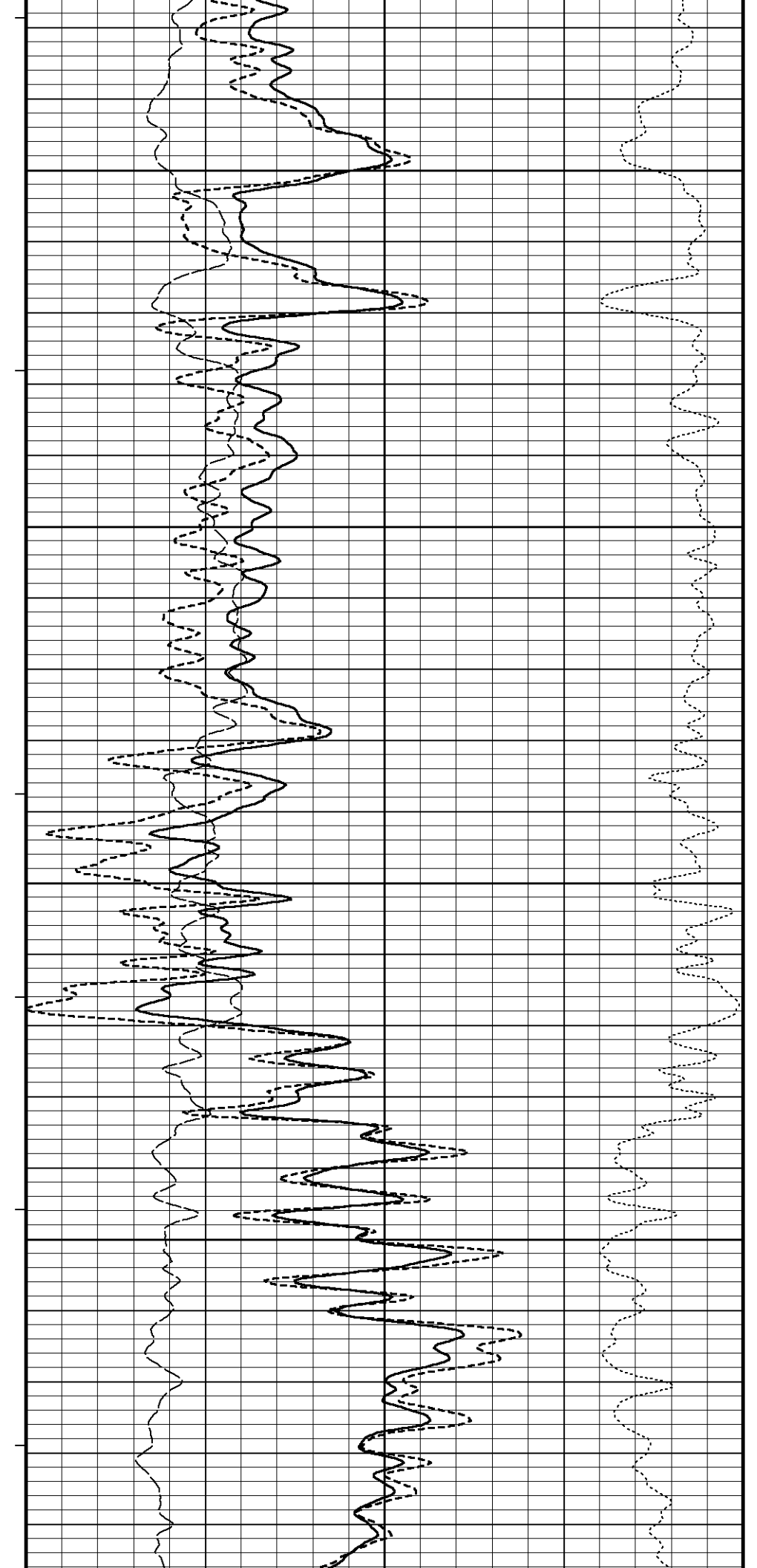
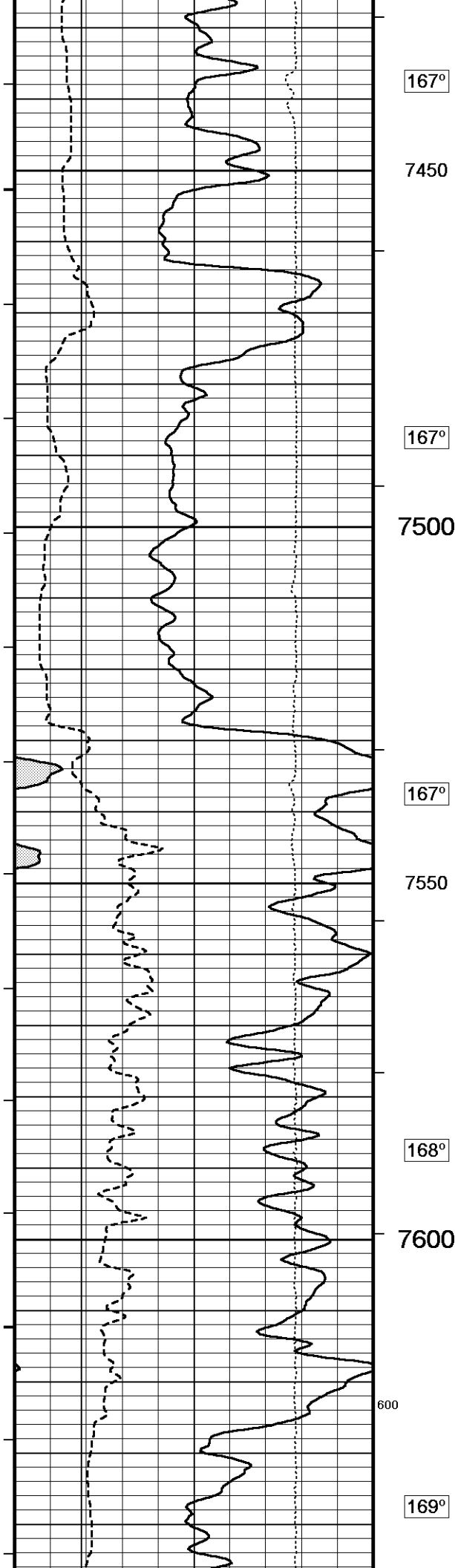
7150

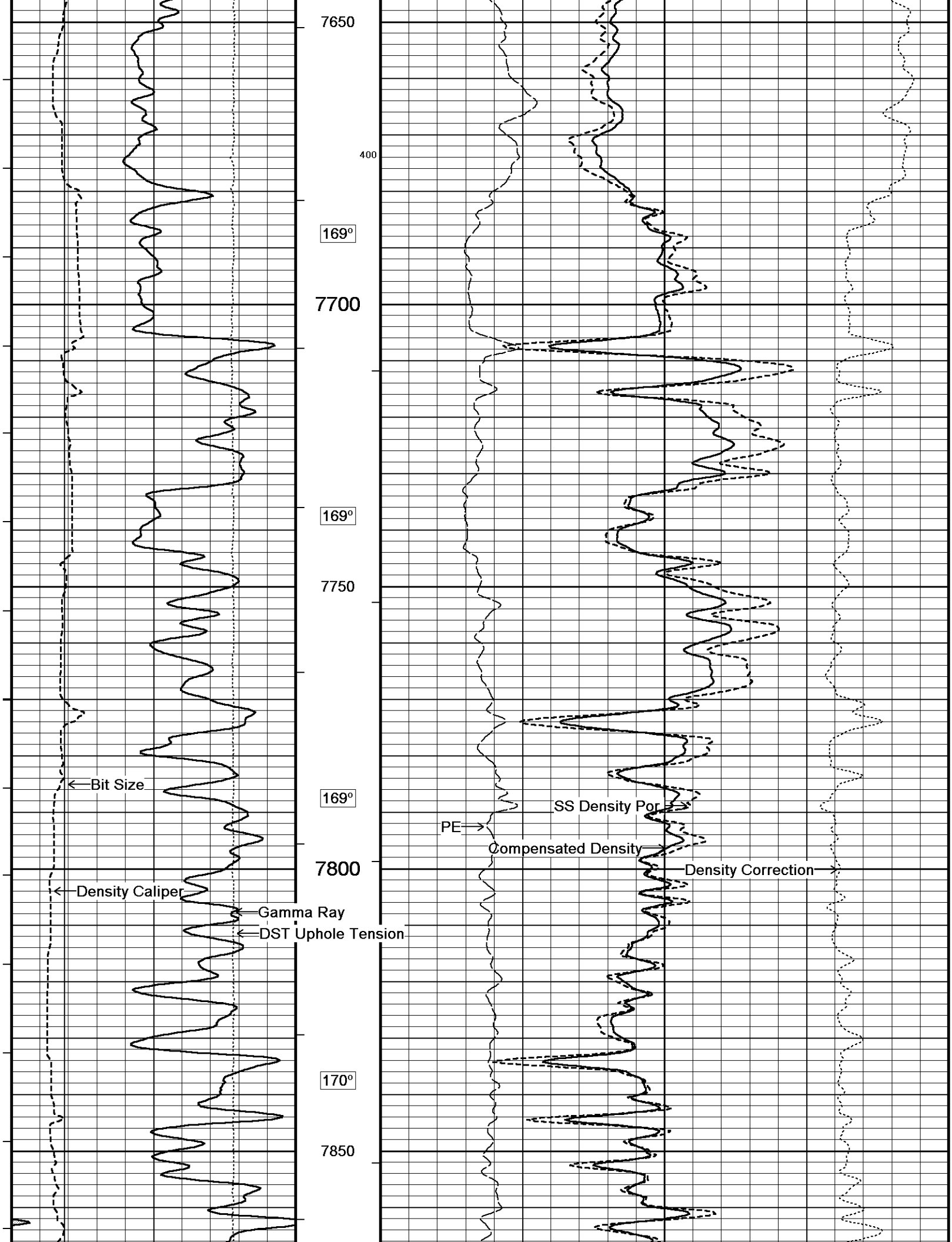
164°

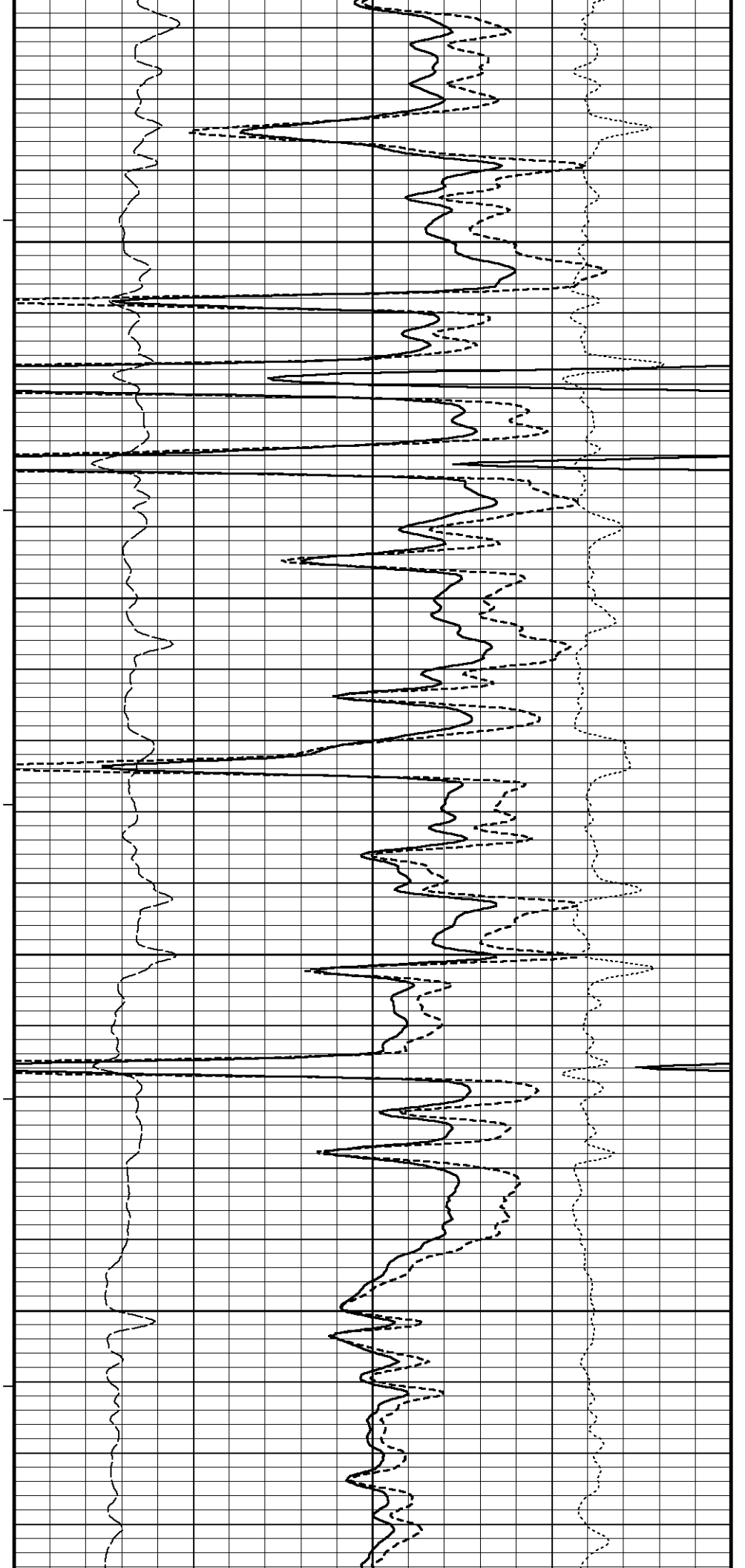
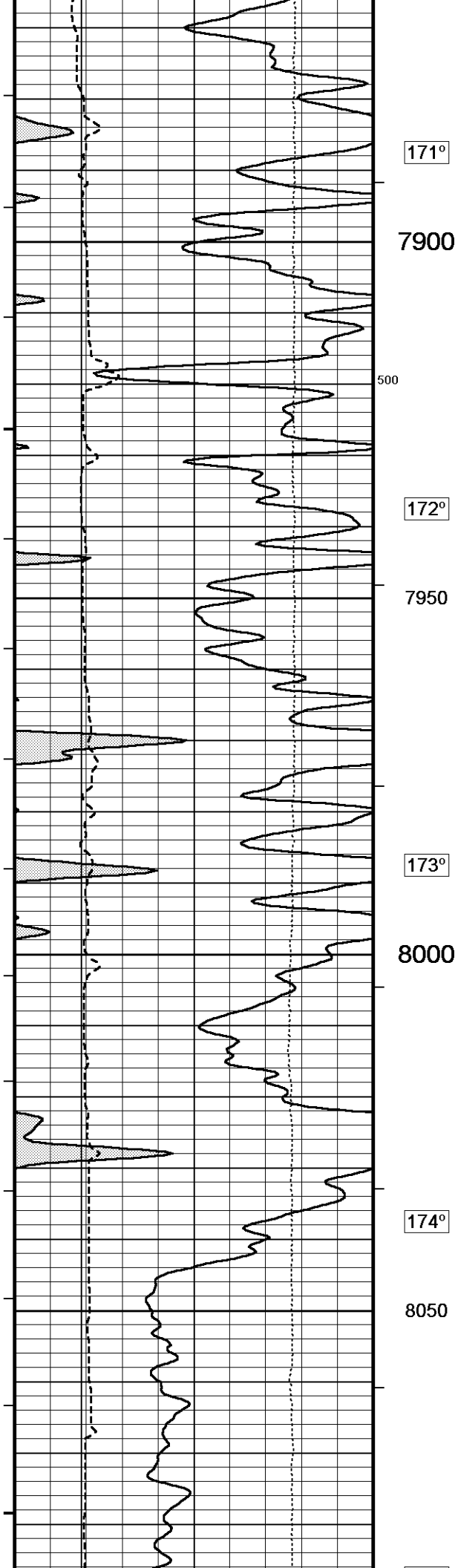
7200

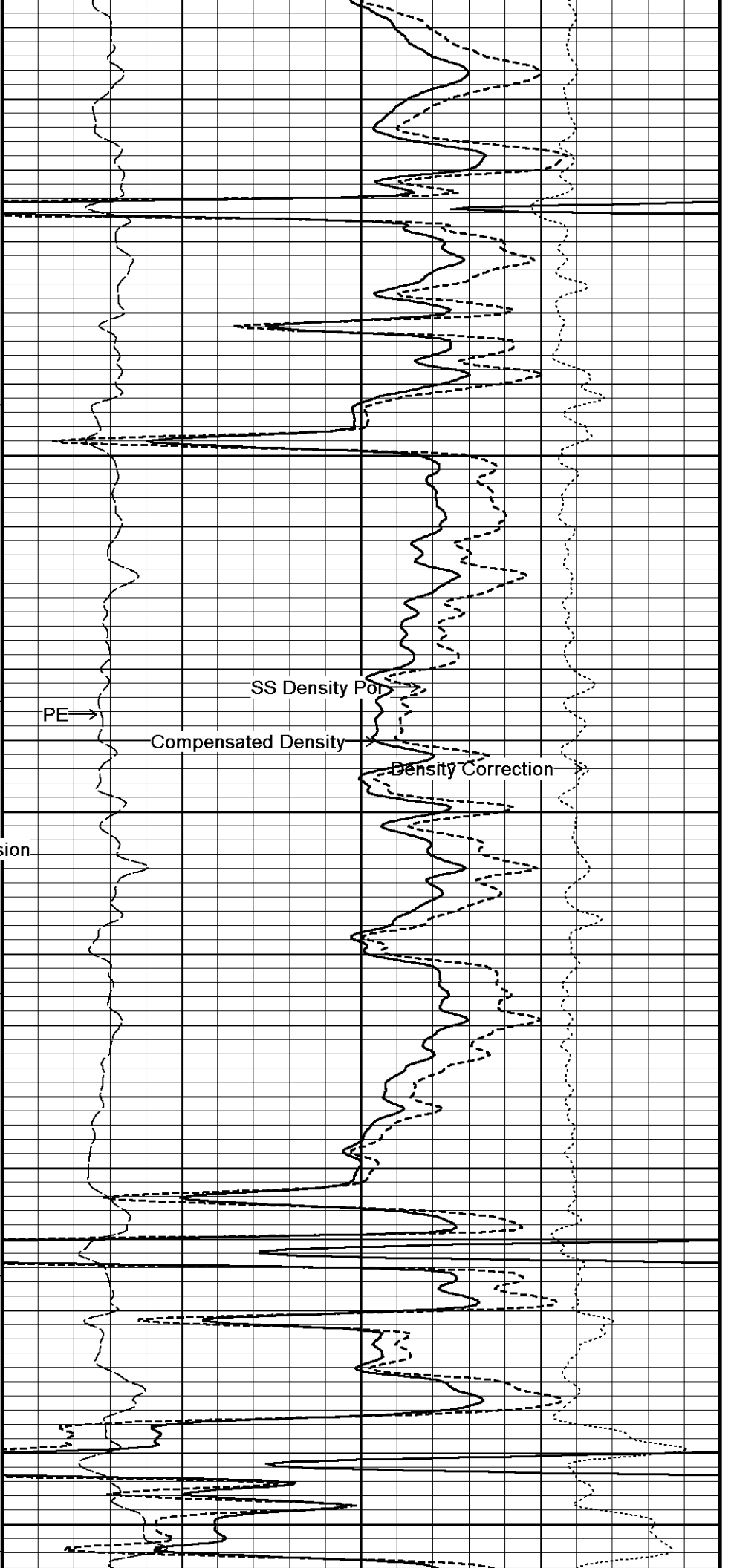
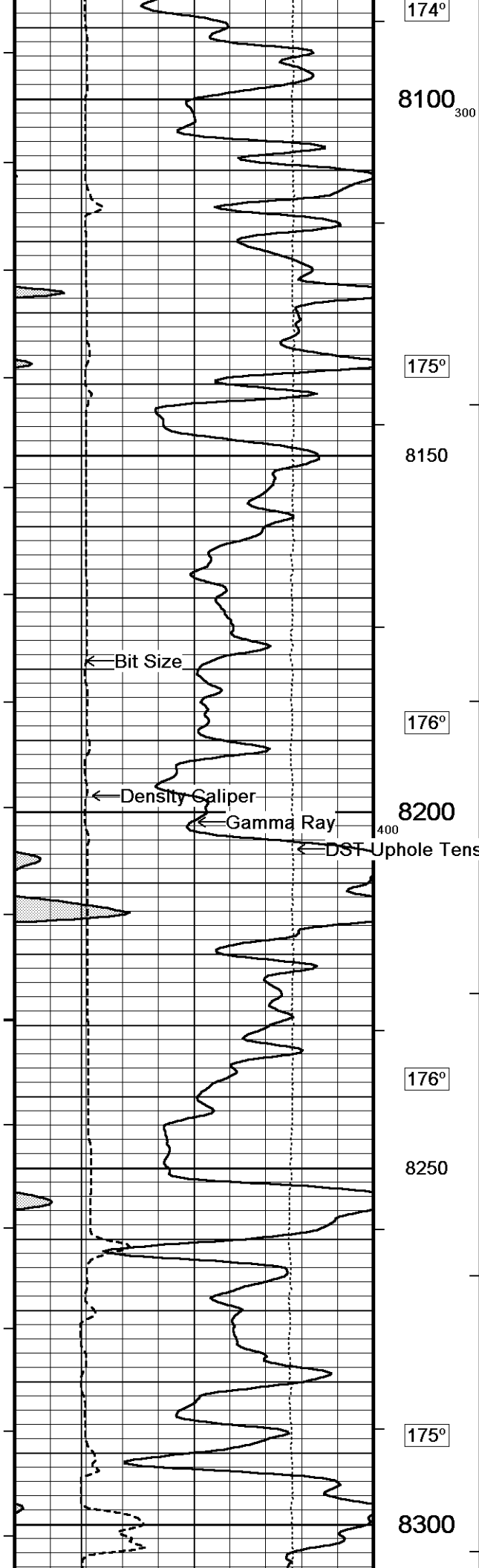


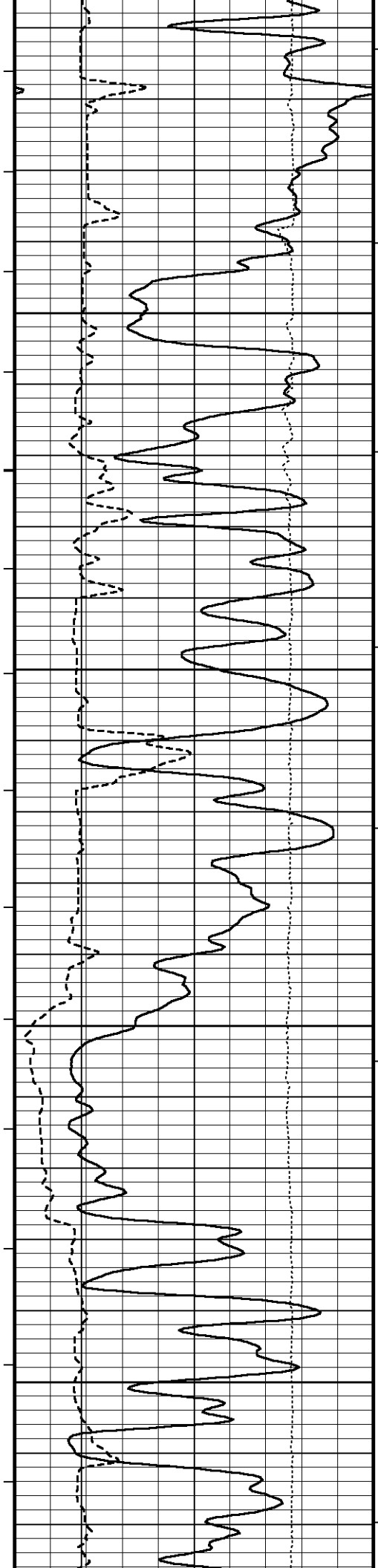












177°

8350

177°

8400

180°

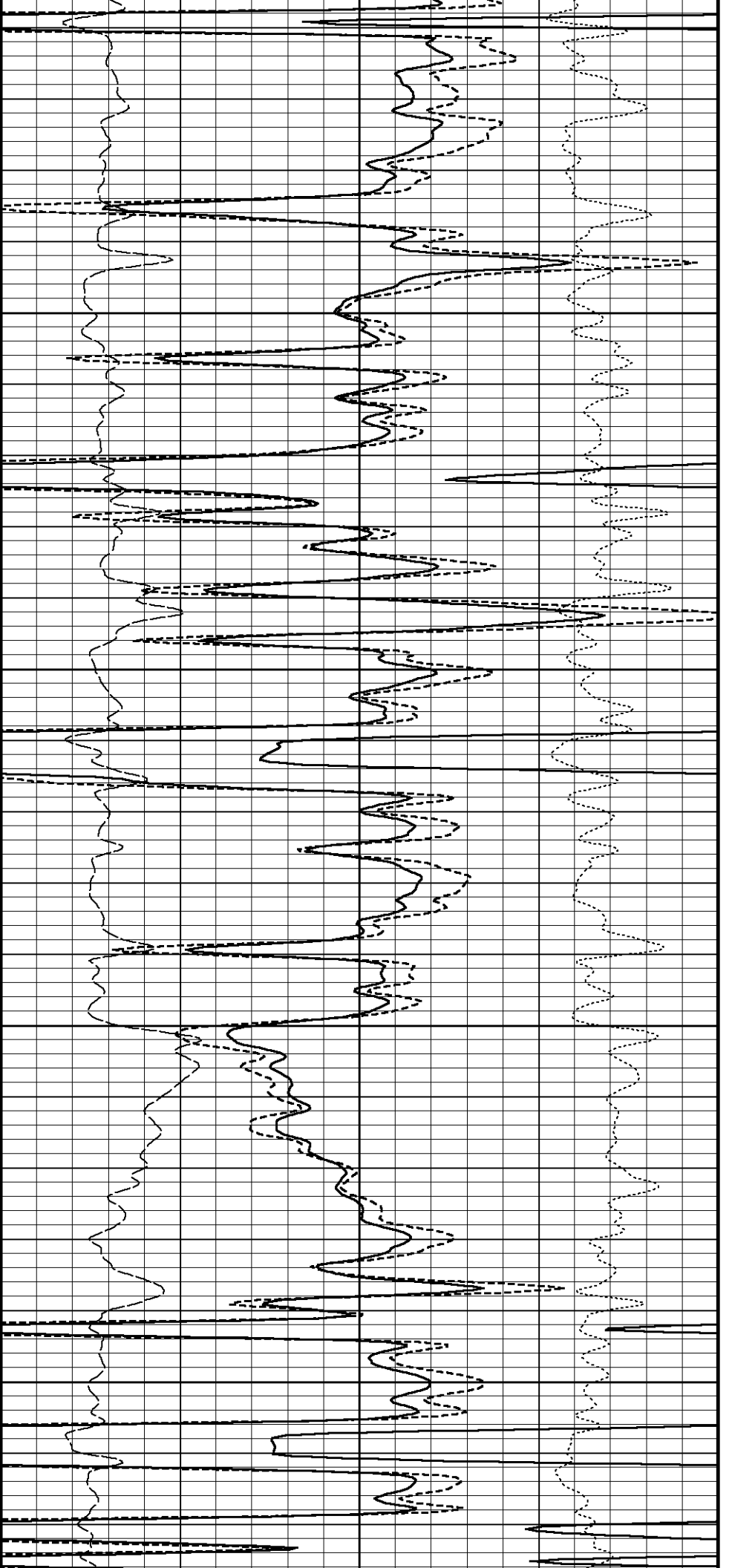
8450

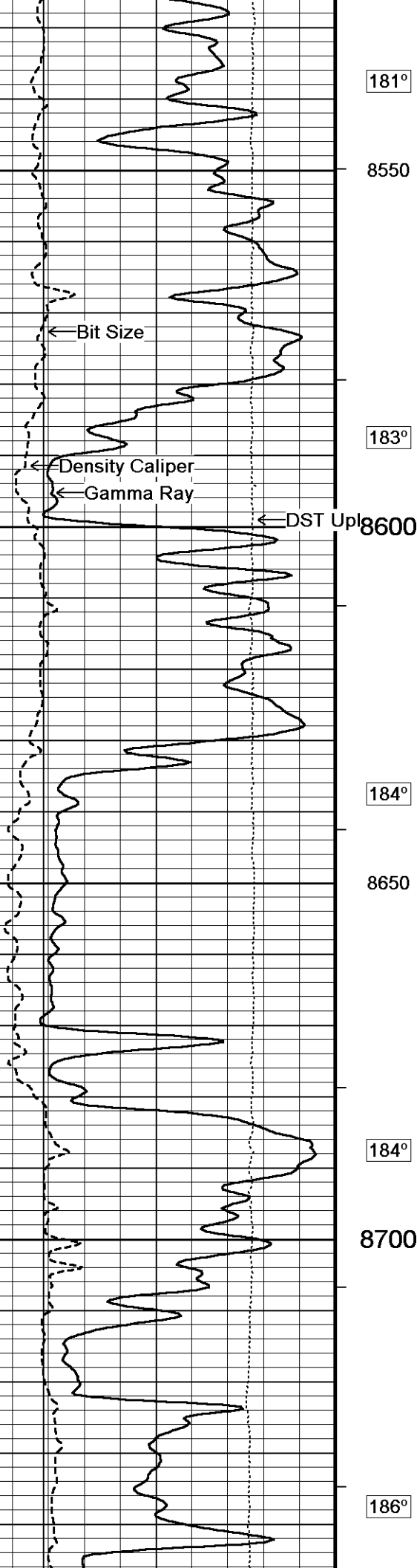
179°

300

8500

200





181°

8550

183°

8600

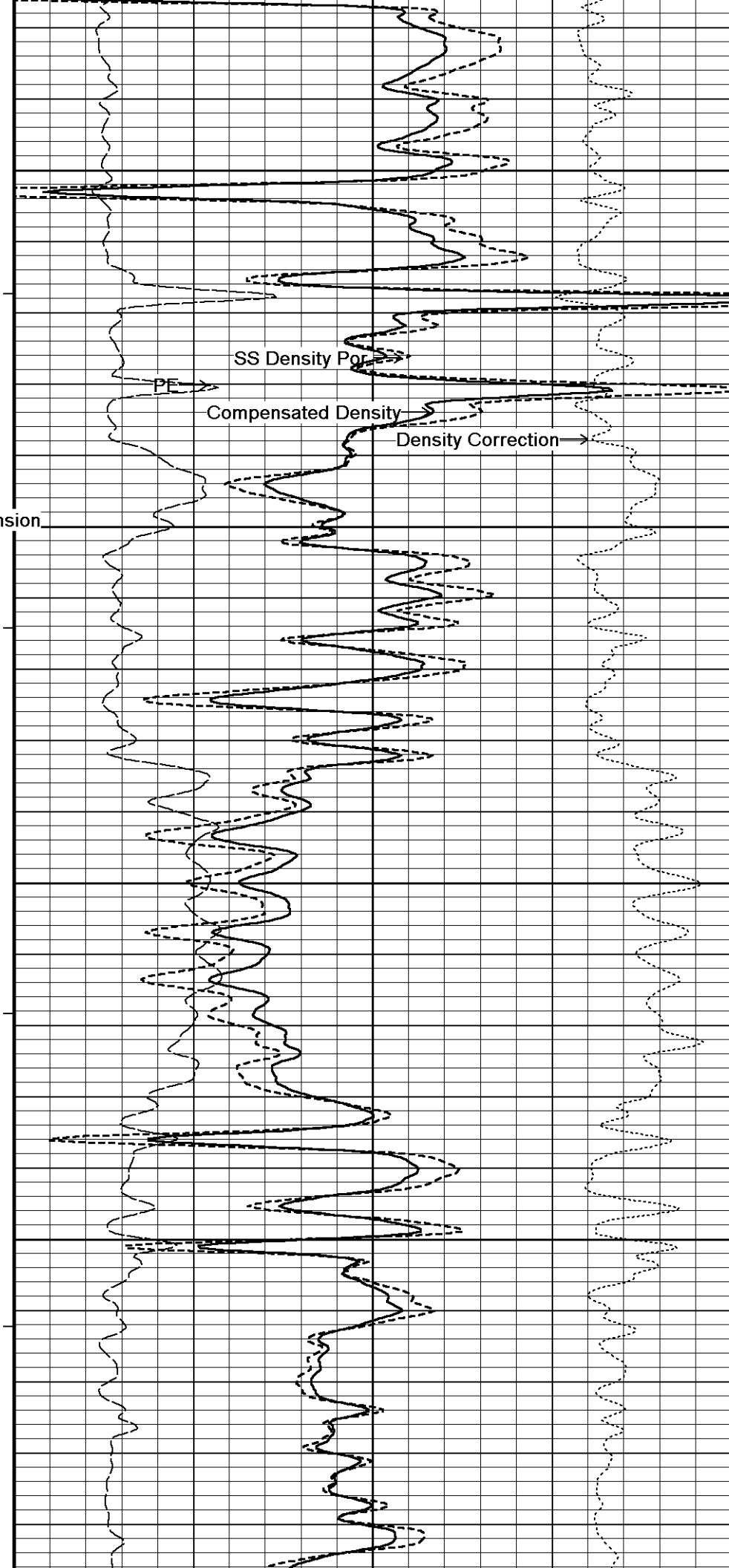
184°

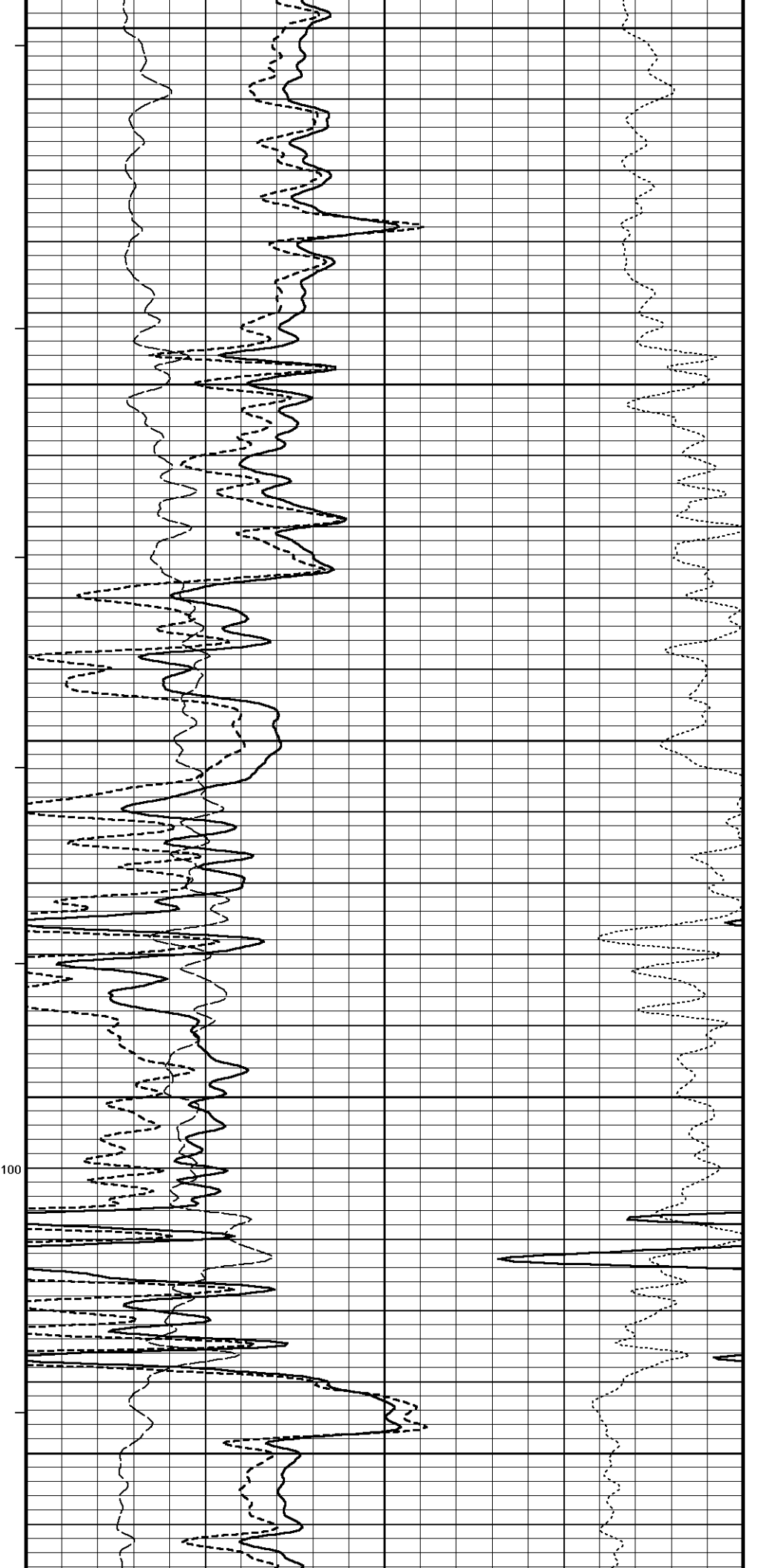
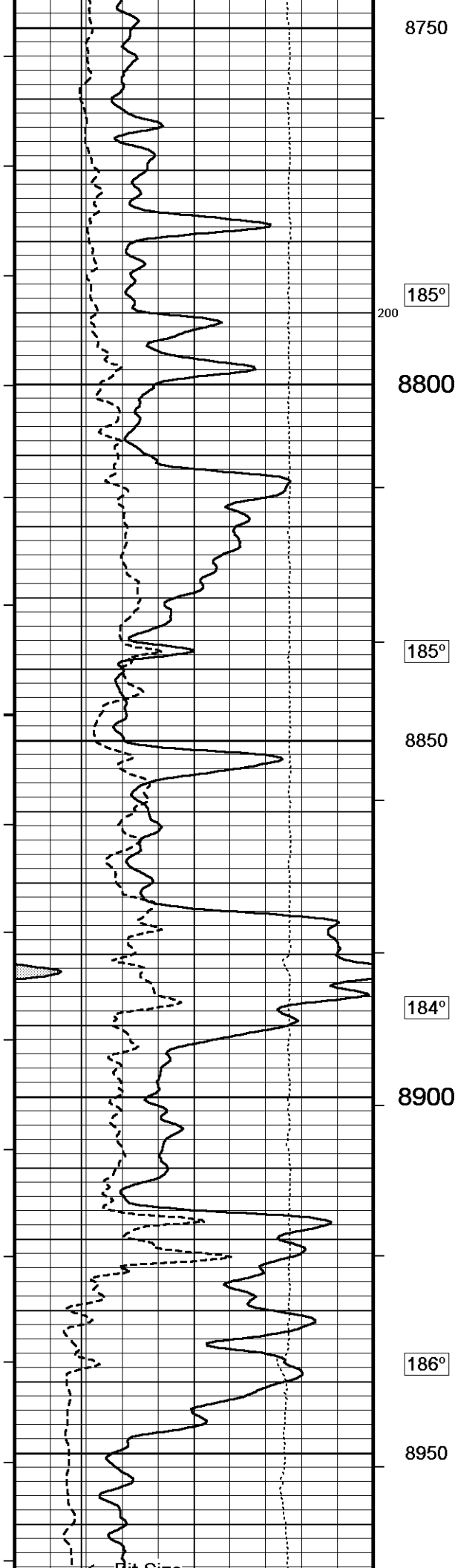
8650

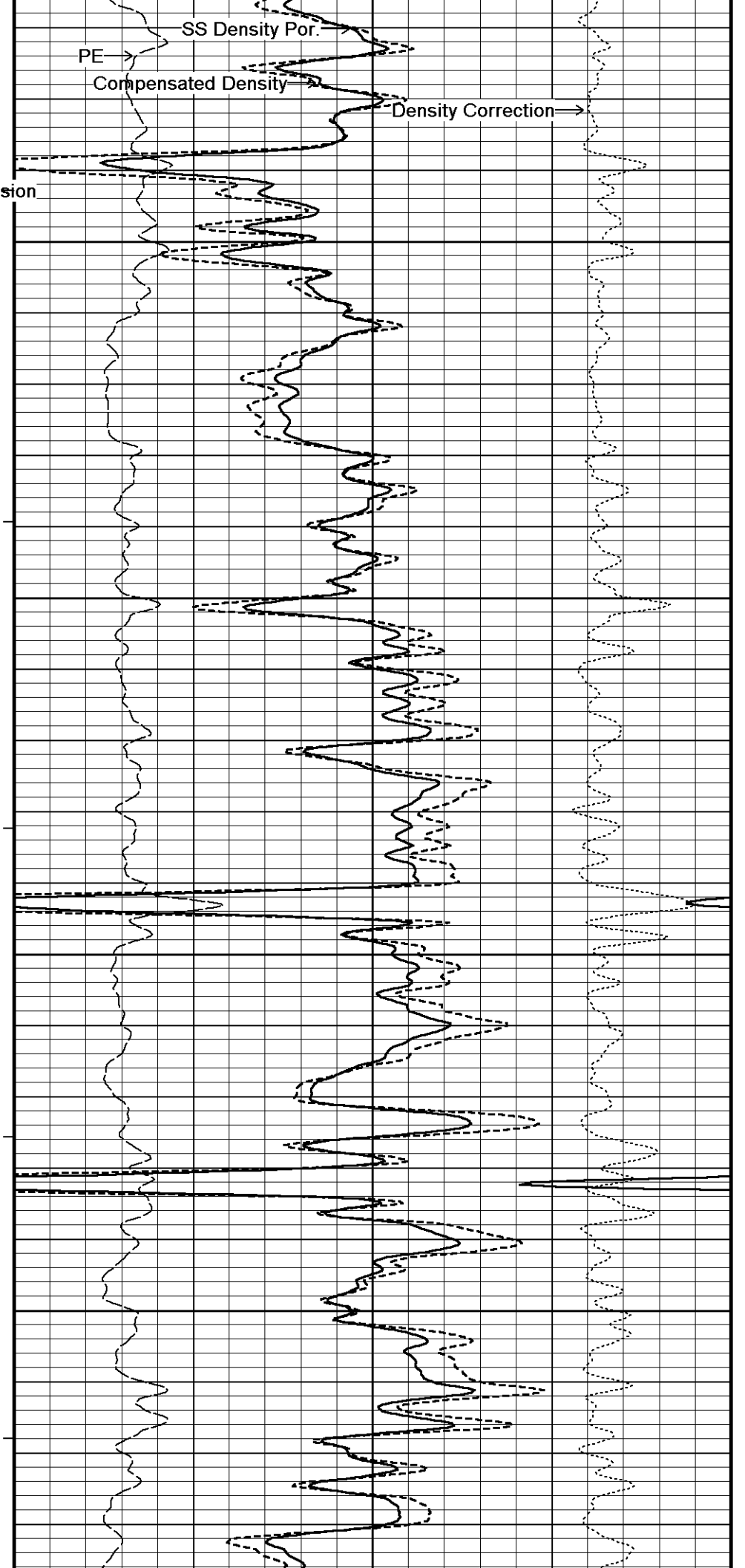
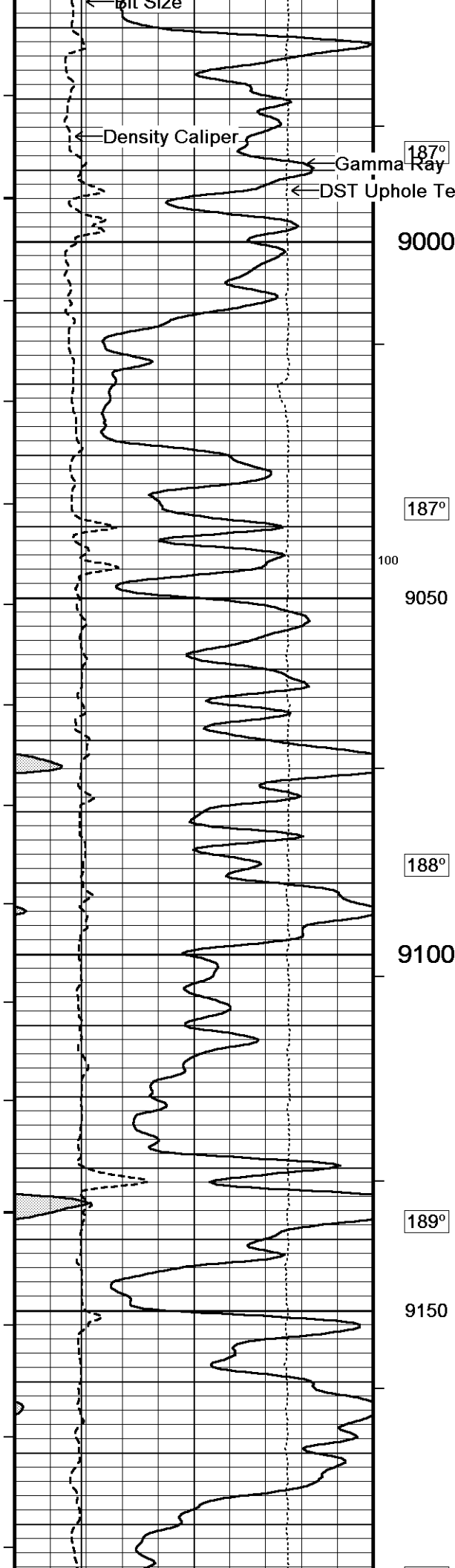
184°

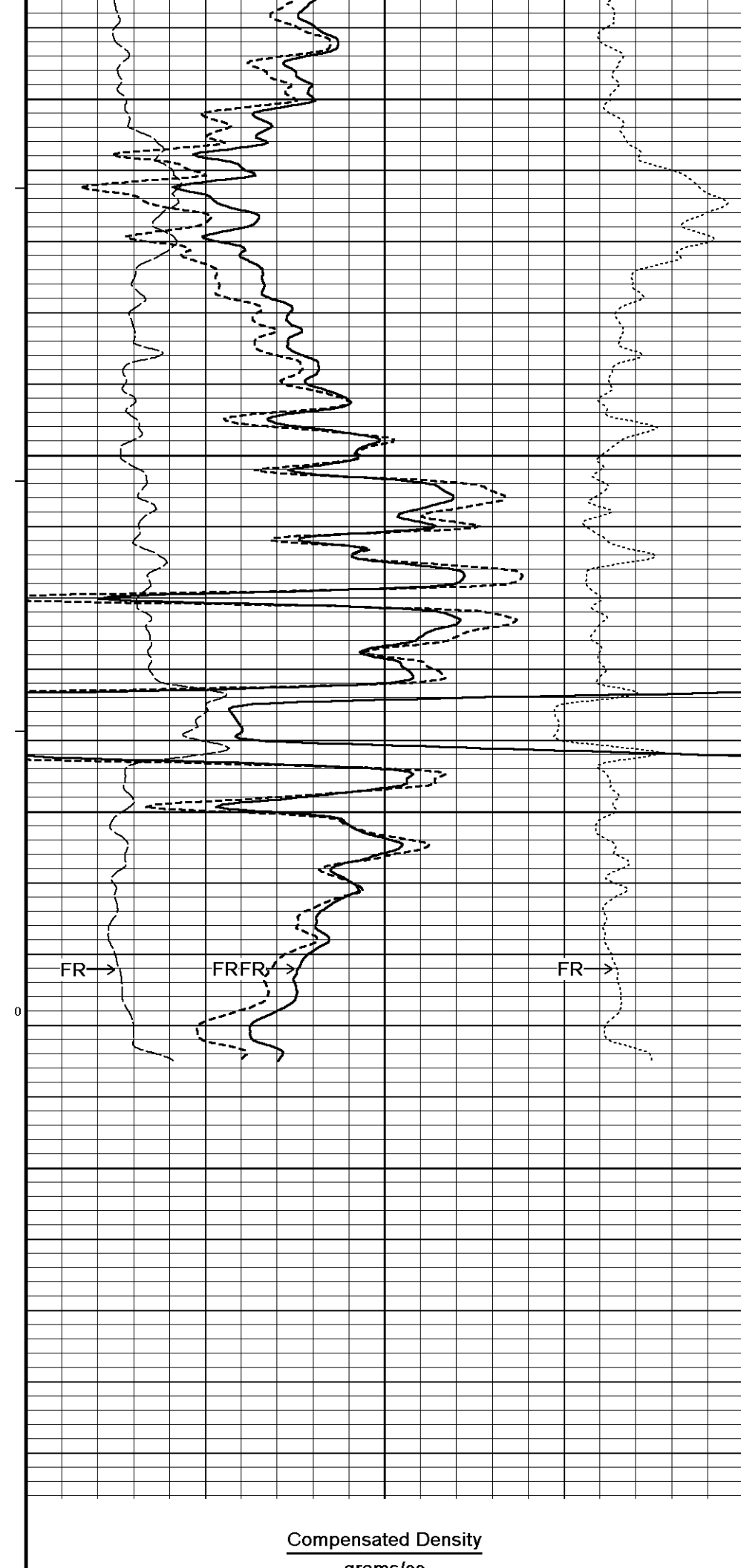
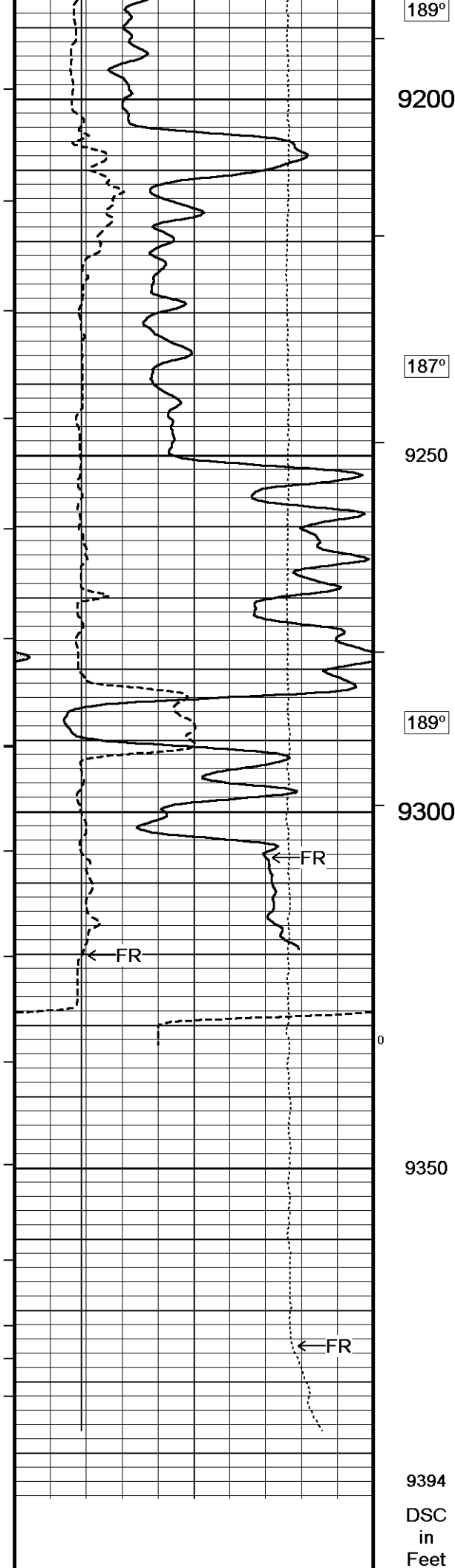
8700

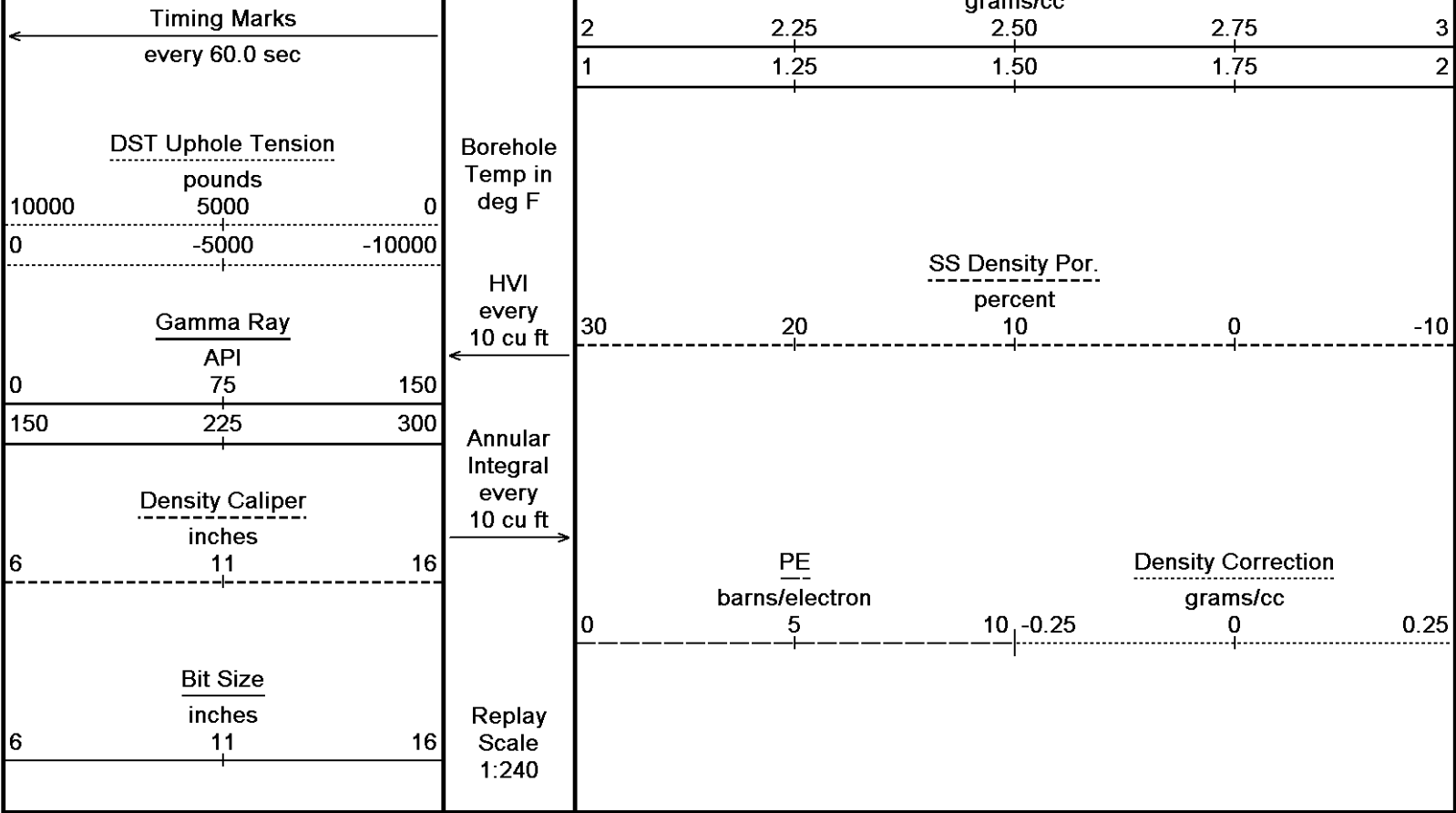
186°











Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 10-OCT-2011 06:51

Filename: C:\Users\le143235\AppData\Local\Temp\Weatherford ...\Wexpro Jack's Draw Unit #19_5.dta
 Recorded on 08-OCT-2011 12:02

System Versions: Logged with 11.03.4044 Plotted with 12.01.3513

↑
 5 INCH MAIN LOG
 ↑

BEFORE SURVEY CALIBRATION			
C:\Users\le143235\AppData\Local\Temp\Weatherford PreView\0\Wexpro Jack's Draw Unit #19_4.dta			
General Constants All 000		Last Edited on 08-OCT-2011 11:18	
General Parameters			
Mud Resistivity	7.630	ohm-metres	
Mud Resistivity Temperature	54.000	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	None		
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 08-OCT-2011 10:28	
Reading No	Measured	Calibrated (lbs)	
1	14215.89	0.00	
2	15592.64	432.00	
SP Calibration MCG-D.J 424		Field Calibration on 07-OCT-2011 12:01	
	Measured	Calibrated (mV)	
Reference 1	100.5	100.0	

Gamma Calibration MCG-D.J 424

Field Calibration on 07-OCT-2011 12:00

	Measured	Calibrated (API)
Background	76	52
Calibrator (Gross)	768	532
Calibrator (Net)	692	480

Gamma Constants MCG-D.J 424

Last Edited on 07-OCT-2011 11:54

Gamma Calibrator Number	GRCC-112	
Mud Density	1.00	gm/cc
Caliper Source for Processing	Bit Size	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

High Resolution Temperature Calibration MCG-D.J 424

Field Calibration on 28-SEP-2011 08:58

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

High Resolution Temperature Constants MCG-D.J 424

Last Edited on

Pre-filter Length	11
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Micro Normal and Micro Inverse Calibration MDN-B.A 191

Base Calibration on 03-MAY-2007 20:21

Field Check on

Base Calibration

		Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2	
Micro Normal	8.2	41.0	10.0	50.0	
Micro Inverse	8.2	41.2	10.0	50.0	

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	0.0	0.0
Micro Inverse	0.0	0.0

Micro Normal and Micro Inverse Constants MDN-B.A 191

Last Edited on 13-FEB-2007 11:14

Pad Type	0
Micro Normal K Factor	1.0000
Micro Inverse K Factor	1.0000
Standoff Offset	N/A inches

Neutron Calibration MDN-B.A 191

Base Calibration on 07-SEP-2011 11:49

Field Check on 07-OCT-2011 11:42

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	2846	88	3714	110
	32.378		33.764	

Field Calibrator at Base

	Calibrated (cps)
Ratio	1678 2451
	0.685

Field Check

	Calibrated (cps)
Ratio	1653 2458
	0.673

Neutron Constants MDN-B.A 191

Last Edited on 08-OCT-2011 10:12

Neutron Source Id	P44382B
Neutron Jig Number	6531NK
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	ksi
Temperature Source	None	
Temperature	N/A	degrees F
Mud Salinity	0.00	kppm
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

Magnetometer Parameters MIE-A.A 102				
Date Of Last Magnetometer Calibration	28-SEP-2011,08:24			
	X Magnetometer	Y Magnetometer	Z Magnetometer	
Slope	-1.000000	-1.004500	-0.999600	
Offset	0.015350	-0.015800	0.020450	

Magnetometer Constants MIE-A.A 102	Last Edited on			
Magnetometer Calibrator Number	000			

Accelerometer Parameters MIE-A.A 102				
Date Of Last Accelerometer Calibration	24-AUG-2011,18:36			
	X Accelerometer	Y Accelerometer	Z Accelerometer	
Slope	-1.112160	-1.118700	-1.117220	
Offset	0.004104	0.007024	0.002394	

Accelerometer Constants MIE-A.A 102			Last Edited on 24-AUG-2011 19:34	
Accelerometer Calibrator Number		000		
Accelerometer Temperature Characterisation				
X Accelerometer				
Serial Number	540			
Calibration Date	21-Feb-2008			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	2.02767e-005	-8.30191e-009	9.17037e-011
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.90781e-004	3.79264e-007	7.42536e-010
Y Accelerometer				
Serial Number	221			
Calibration Date	01-Nov-2007			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	1.86127e-005	-2.25929e-008	8.31895e-011
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.66396e-004	6.50784e-007	-5.38601e-010
Z Accelerometer				
Serial Number	856			
Calibration Date	03-Feb-2009			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	7.72617e-006	-4.86834e-008	1.03554e-010
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.74795e-004	4.10666e-007	4.39253e-010

Caliper Calibration MIE-A.A 102				Base Calibration on 28-SEP-2011 09:19	
				Field Calibration on 28-SEP-2011 09:23	
Base Calibration					
Reading No	Pads 1-5 Meas.	Pads 3-7 Meas.	Calibrator Size (in)		
1	26529	26004	5.97		
2	36837	36313	7.96		
3	46406	45939	9.86		
4	57787	57043	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	24685	25537	25965	25308	5.97
2	33436	33979	33941	34201	7.96
3	41582	42687	41522	42138	9.86
4	51827	53233	50353	51022	11.92
5	0	0	0	0	0.00

Field Calibration		Measured Pads 1-5 Caliper(in) 7.93	Measured Pads 3-7 Caliper(in) 7.97	Actual Caliper(in) 7.96	
	Measured Pad 2 Caliper(in) 3.96	Measured Pad 4 Caliper(in) 3.98	Measured Pad 6 Caliper(in) 3.99	Measured Pad 8 Caliper(in) 3.97	Actual Caliper(in) 7.96
Caliper Constants MIE-A.A 102				Last Edited on 24-AUG-2011 19:32	
Caliper Difference for BRKT		0.120	inches		
Navigation Constants MIE-A.A 102				Last Edited on 28-SEP-2011 09:24	
Magnetic Declination		9.42	degrees	East	
Imager Pad Check MIE-A.A 102				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.A 102				Last Edited on 28-SEP-2011 09:25	
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		N/A			
Image Processing		Enabled			
FE Calibration MFE-B.A 220				Base Calibration on 02-SEP-2011 13:53 Field Check on 07-OCT-2011 11:45	
Base Calibration		Measured	Calibrated (ohm-m)		
Reference 1		0.0	0.0		
Reference 2		963.9	126.8		
Base Check			280.8		
Field Check			281.2		
FE Constants MFE-B.A 220				Last Edited on 08-OCT-2011 10:04	
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		
Induction Calibration MAI-B.J 362				Base Calibration on 02-SEP-2011 15:29 Field Check on 07-OCT-2011 10:26	
Base Calibration					
Test Loop Calibration		Measured	Calibrated (mmho/m)		
Channel	Low	High	Low	High	
1	16.0	468.7	9.3	966.2	
2	6.2	374.5	7.6	821.4	
3	3.6	258.3	5.2	566.0	
4	1.8	133.1	2.6	279.2	
Array Temperature		74.8	Deg F		
Channel		Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High	
1	0.0	0.0	13.9	3873.0	

2	0.0	0.0	30.3	3605.8
3	0.0	0.0	28.4	3069.5
4	0.0	0.0	19.7	2079.2
Deep	0.0	0.0	17.4	1954.2
Medium	0.0	0.0	41.2	4077.5
Shallow	0.0	0.0	45.3	5400.8
Array Temperature		0.0	44.9	Deg F

Induction Constants MAI-B.J 362

Last Edited on 08-OCT-2011 10:04

Induction Model		RtAP-WBM	
Caliper for Borehole Corr.		Density Caliper	
Hole Size for Borehole Correction		N/A	inches
Tool Centred		Yes	
Stand-off Type		N/A	
Stand-off		N/A	inches
Number of Fins on Stand-off		N/A	
Stand-off Fin Angle		N/A	degrees
Stand-off Fin Width		N/A	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	

High Resolution Temperature Calibration MAI-B.J 362

Field Calibration on 28-SEP-2011 09:20

	Measured	Calibrated(Deg F)
Lower	10.00	50.00
Upper	100.00	212.00

High Resolution Temperature Constants MAI-B.J 362

Last Edited on

Pre-filter Length	11
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Caliper Calibration MPD-C.A 215

Base Calibration on 02-SEP-2011 17:36

Field Calibration on 07-OCT-2011 11:32

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	17727	3.99
2	26543	5.96
3	35429	7.99
4	43601	9.86
5	52880	11.93
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
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8.00

7.99

Photo Density Calibration MPD-C.A 215

Base Calibration on
Field Check on 07-OCT-2011 11:30

Density Calibration

Base Calibration

	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	45233	15264	52994	19128
Reference 2	21253	2466	25185	2558

Field Check at Base

1297.2 1375.3

Field Check

1299.5 1382.1

PE Calibration

Base Calibration

	WS	Measured		Calibrated	
		WH	Ratio	Ratio	
Background	237	1157			
Reference 1	14848	45047	0.333	0.309	
Reference 2	5938	21107	0.286	0.274	

Field Check at Base

237.1 1156.8

Field Check

236.2 1162.7

Density Constants MPD-C.A 215

Last Edited on 08-OCT-2011 10:05

Density Source Id	2859GW
Nylon Calibrator Number	DNC-E-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	1.22 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

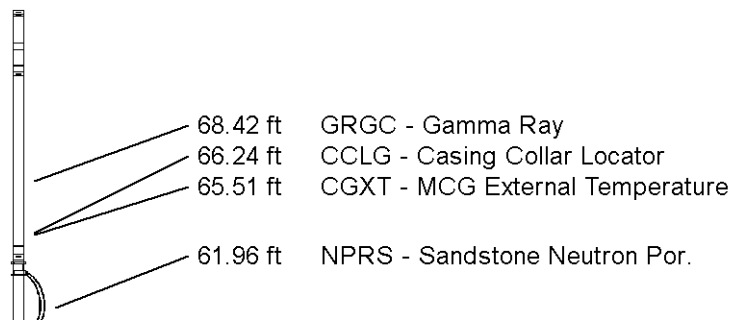
DOWNHOLE EQUIPMENT

C:\Users\le143235\AppData\Local\Temp\Weatherford PreView\0\Wexpro Jack's Draw Unit #19_4.dta

SHA-J.A Compact Swivel Head Adaptor
SHA-J.A 225 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

Compact Comms Gamma
MCG-D.J 424 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Neutron
MDN-B.A 191 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in



Compact Density/Caliper
MPD-C.A 215 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 143 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-B Compact Inline Standoff sub
MIS-B 26 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

SKJ-D.A Compact Knuckle Joint
SKJ-D.A 89 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

SHA-F Compact Swivel Head Adaptor
SHA-F 38 LG: 2.74 ft WT: 26.5 lb OD: 2.24 in

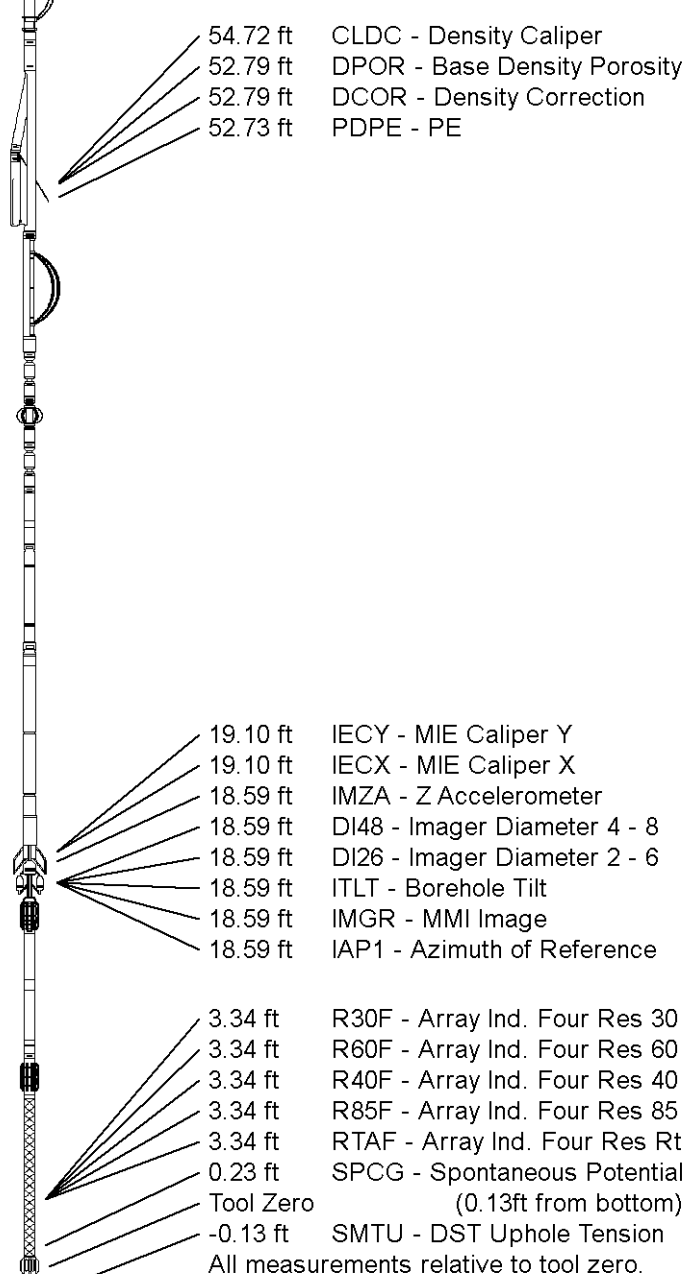
Compact MMI Memory Section
MIM-A.A 102 LG: 4.65 ft WT: 26.5 lb OD: 2.24 in

Compact MMI Electrode Section
MIE-A.A 102 LG: 13.96 ft WT: 99.2 lb OD: 4.09 in

Compact Focussed Electric
MFE-B.A 220 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction
MAI-B.J 362 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 76.00 ft Weight: 573.2 lb



COMPANY	WEXPRO COMPANY
WELL	JACK DRAW UNIT #19
FIELD	JACK DRAW UNIT
PROVINCE/COUNTY	MOFFAT
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	6923.00	feet	First Reading	9322.00	
Elevation Drill Floor	6922.00	feet	Depth Driller	9373.00	feet
Elevation Ground Level	6894.00	feet	Depth Logger	9375.00	feet



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COMPENSATED PHOTO DENSITY
COMPENSATED DUAL NEUTRON
LOG

