COMPACT PHOTO DENSITY COMPENSATED NEUTRON LOG

Weatherford®

COMPANY	STELBAR OIL CORPORATION, INC.
WELL	LPR #1-17
FIELD	WILDCAT
PROVINCE/COUNTY	LOGAN
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	1230' FSL & 1748' FEL NW NE SW SE

SEC	TWP	RGE	Other Services
17	15S	33W	MAI/MFE MML MSS

API Number 15-109-21146
Permit Number

Permanent Datum G.L., Elevation 2944 feet
Log Measured From KB
Drilling Measured From K.B.

Elevations:	feet
KB	2951.00
DF	2950.00
GL	2944.00

Date	07-JAN-2013		
Run Number	ONE		
Service Order	3537802		
Depth Driller	4685.00	feet	
Depth Logger	4686.00	feet	
First Reading	4654.00	feet	
Last Reading	3400.00	feet	
Casing Driller	303.00	feet	
Casing Logger	304.00	inches	
Bit Size	7.875		
Hole Fluid Type	CHEMICAL	lb/USg	
Density / Viscosity	9.00 lb/USg	64.00 CP	
PH / Fluid Loss	10.50	10.50	
Sample Source	FLOWLINE		
Rm @ Measured Temp	0.44 @ 79.0	ohm-m	
Rmf @ Measured Temp	0.35 @ 79.0	ohm-m	
Rmc @ Measured Temp	0.53 @ 79.0	ohm-m	
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	0.33 @107.0	ohm-m	
Time Since Circulation	5 HOURS		
Max Recorded Temp	107.00	deg F	
Equipment / Base	13096	LIB	
Recorded By	LYNN SCOTT		
Witnessed By	DAVE GOLDAK		
JOB#	LB13-005		

BOREHOLE RECORD

Last Edited: 07-JAN-2013 07:06

Bit Size inches	Depth From feet	Depth To feet
7.875	304.00	4686.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	304.00	24.00

REMARKS

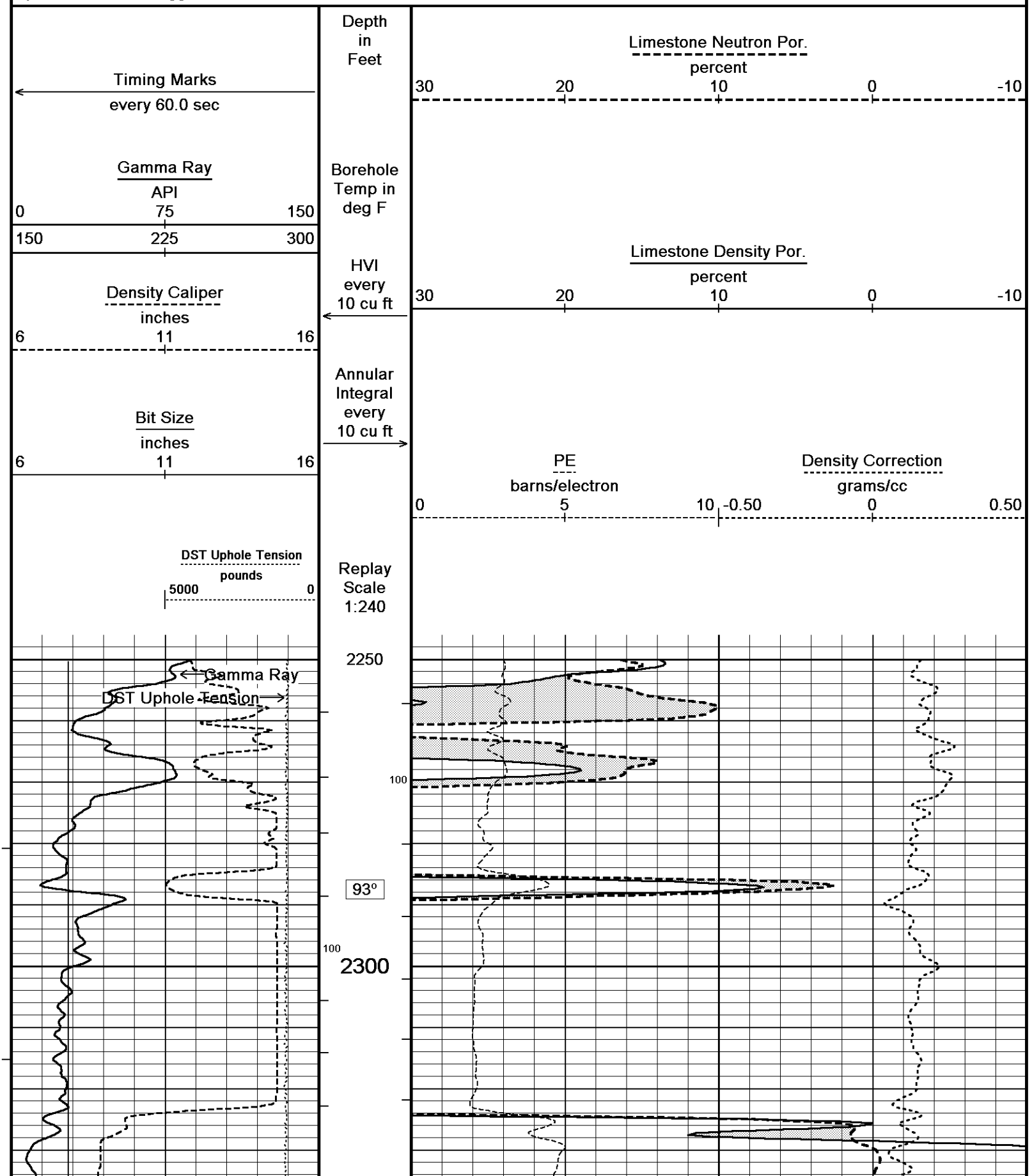
Tools Ran: MCG, MML, MDN, MPD, MFE, MSS, MAI ran in combination.
Hardware Used: MPD: 8 inch profile plate used. MAI, MSS and MFE: 0.5 inch standoffs used. MDN: Dual Bowspring used.
2.71 G/CC Limestone Density porosity used to calculate porosity.
Sonic porosity calculated using a Limestone scale (47.5 usec/ft).
Borehole Rugosity, Tight pulls, and washouts will affect data quality.
All intervals logged and scaled per customer's request.
Total hole volume from TD to Surface casing= 2171 cubic feet
Annular hole volume with 5.5 Inch casing from TD to 3400 ft.= 241 cubic feet
Service order: 3537802
Rig: Pickrell #10
Engineer: L. Scott
Operator(s): B. Reeves

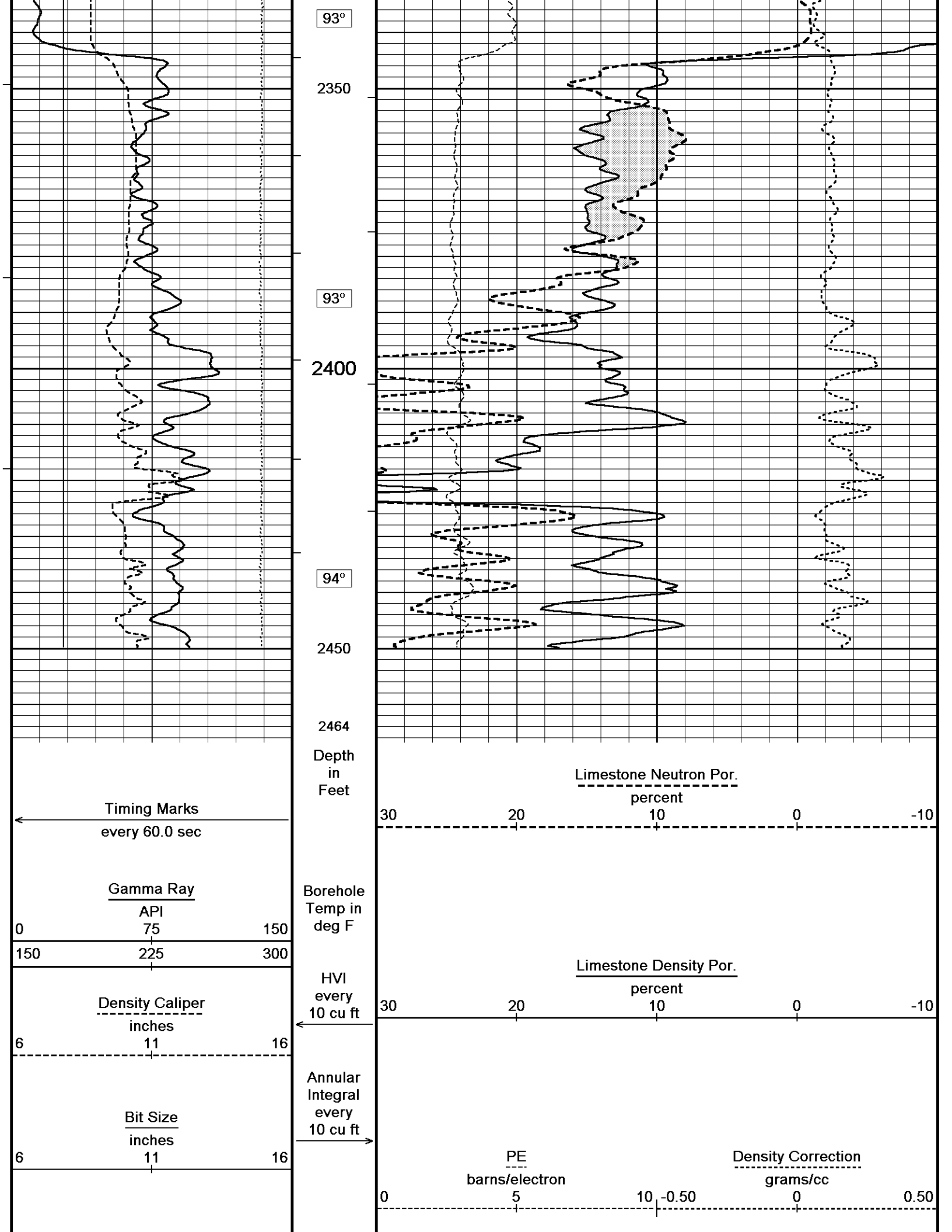
The software duplicates the pH value on the fluid loss. The Fluid loss should be 10.4.

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 07-JAN-2013 08:27
Filename: C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_002.dta
Recorded on 07-JAN-2013 06:05
System Versions: Logged with 13.04.8492 Plotted with 13.04.8492




93°
2350
93°
2400
94°
2450
2464
Depth in Feet
Timing Marks
every 60.0 sec
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
HVI every 10 cu ft
Annular Integral every 10 cu ft
Limestone Neutron Por.
percent
30 20 10 0 -10
Limestone Density Por.
percent
30 20 10 0 -10
PE
barns/electron
0 5 10
Density Correction
grams/cc
-0.50 0 0.50

DST Uphole Tension
pounds
5000 0

Replay Scale 1:240

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_002.dta
System Versions: Logged with 13.04.8492 Plotted with 13.04.8492

Plotted on 07-JAN-2013 08:27
Recorded on 07-JAN-2013 06:05

5 INCH MAIN

5 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_002.dta
System Versions: Logged with 13.04.8492 Plotted with 13.04.8492

Plotted on 07-JAN-2013 08:27
Recorded on 07-JAN-2013 06:05

Timing Marks
every 60.0 sec

Depth in Feet

Limestone Neutron Por.
percent
30 20 10 0 -10

Gamma Ray
API
0 75 150
150 225 300

Borehole Temp in deg F

Limestone Density Por.
percent
30 20 10 0 -10

Density Caliper
inches
6 11 16

HVI every 10 cu ft

Annular Integral every 10 cu ft

Bit Size
inches
6 11 16

PE
barns/electron
0 5 10

Density Correction
grams/cc
-0.50 0 0.50

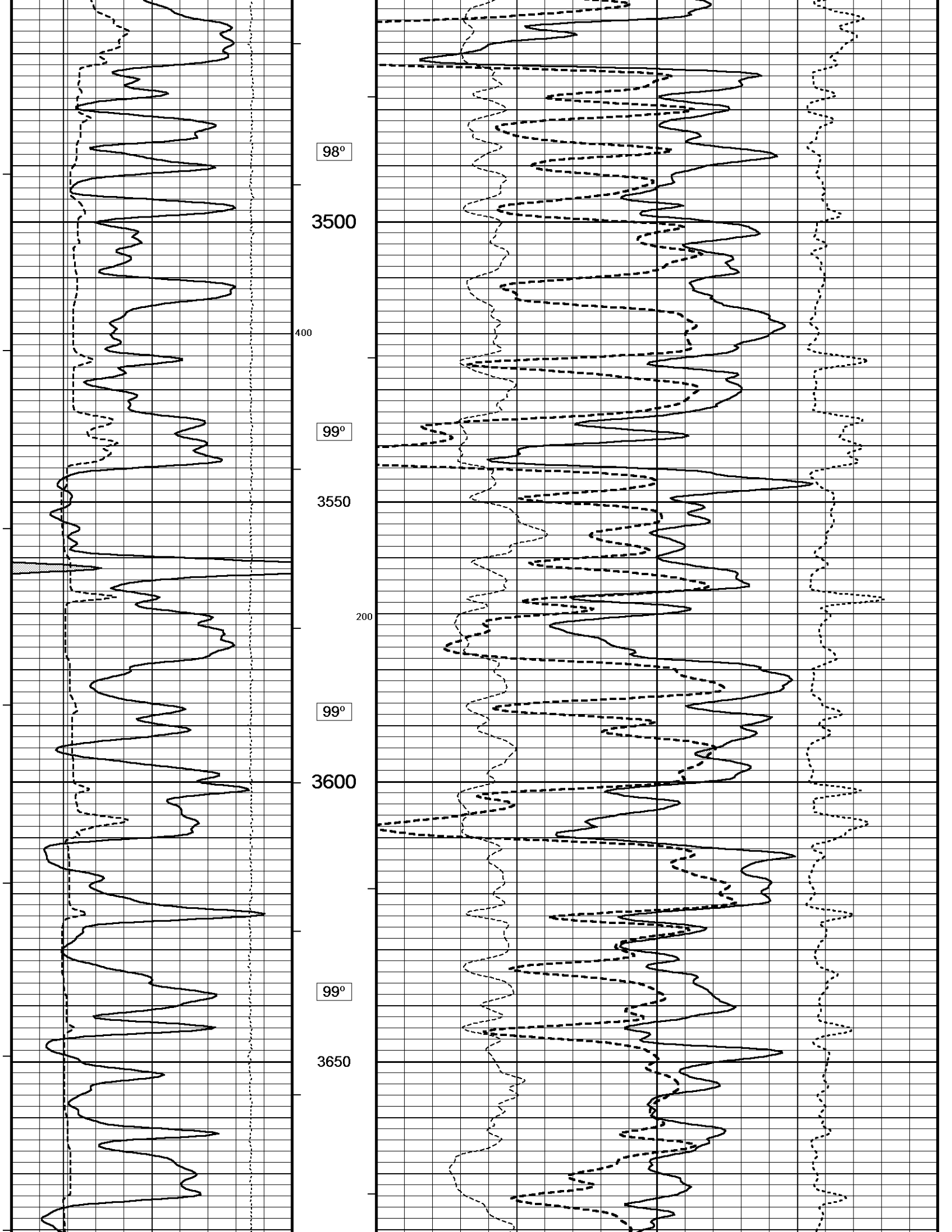
DST Uphole Tension
pounds
5000 0

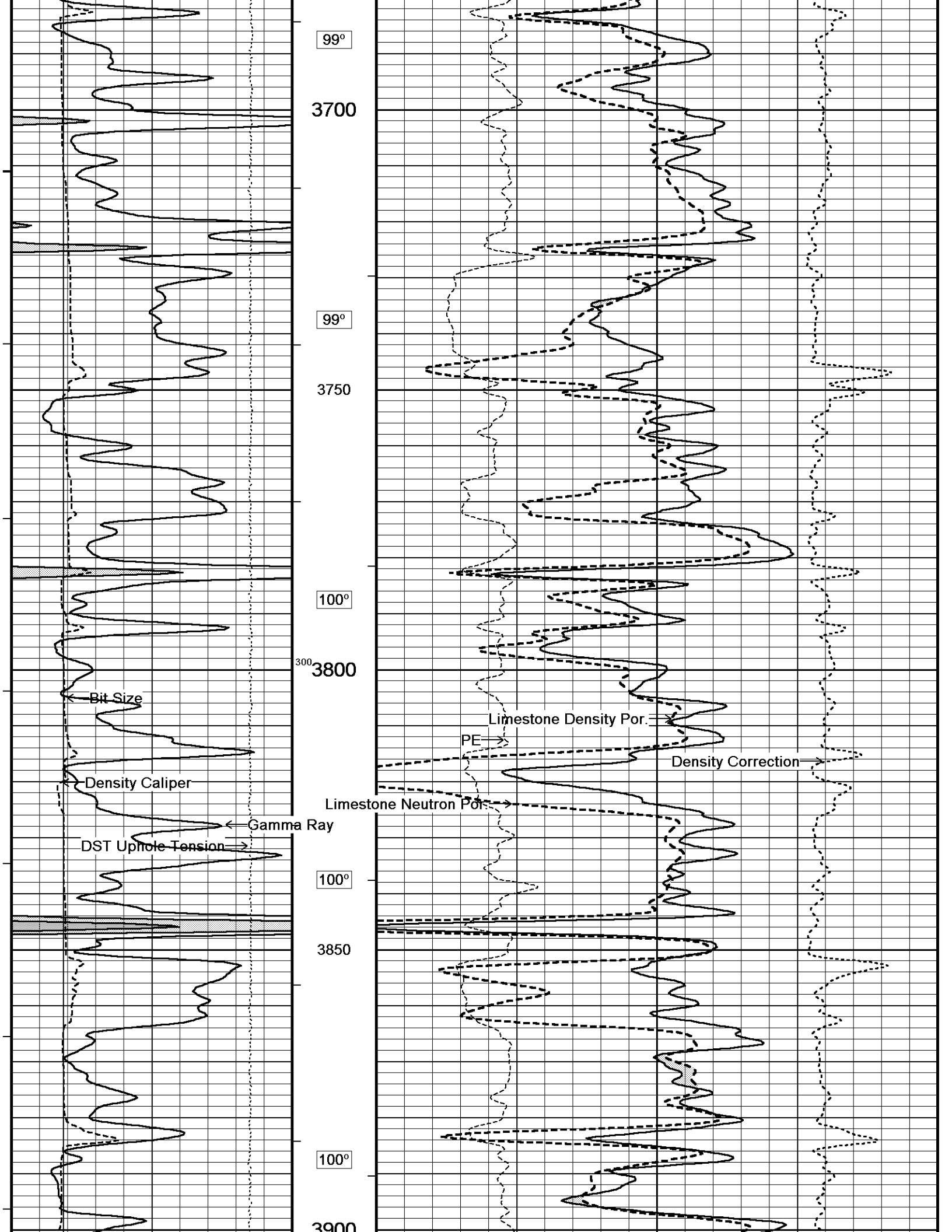
Replay Scale 1:240

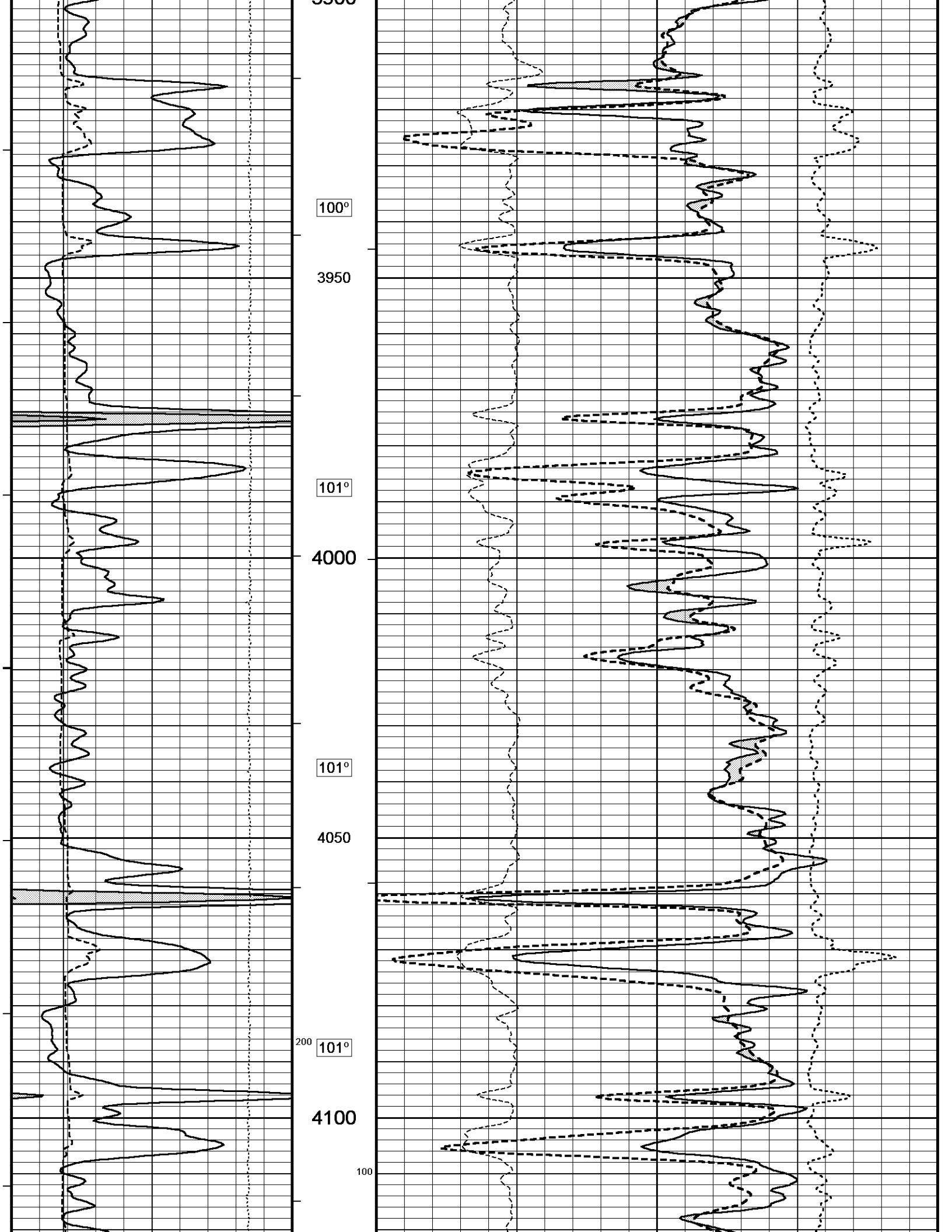
3400

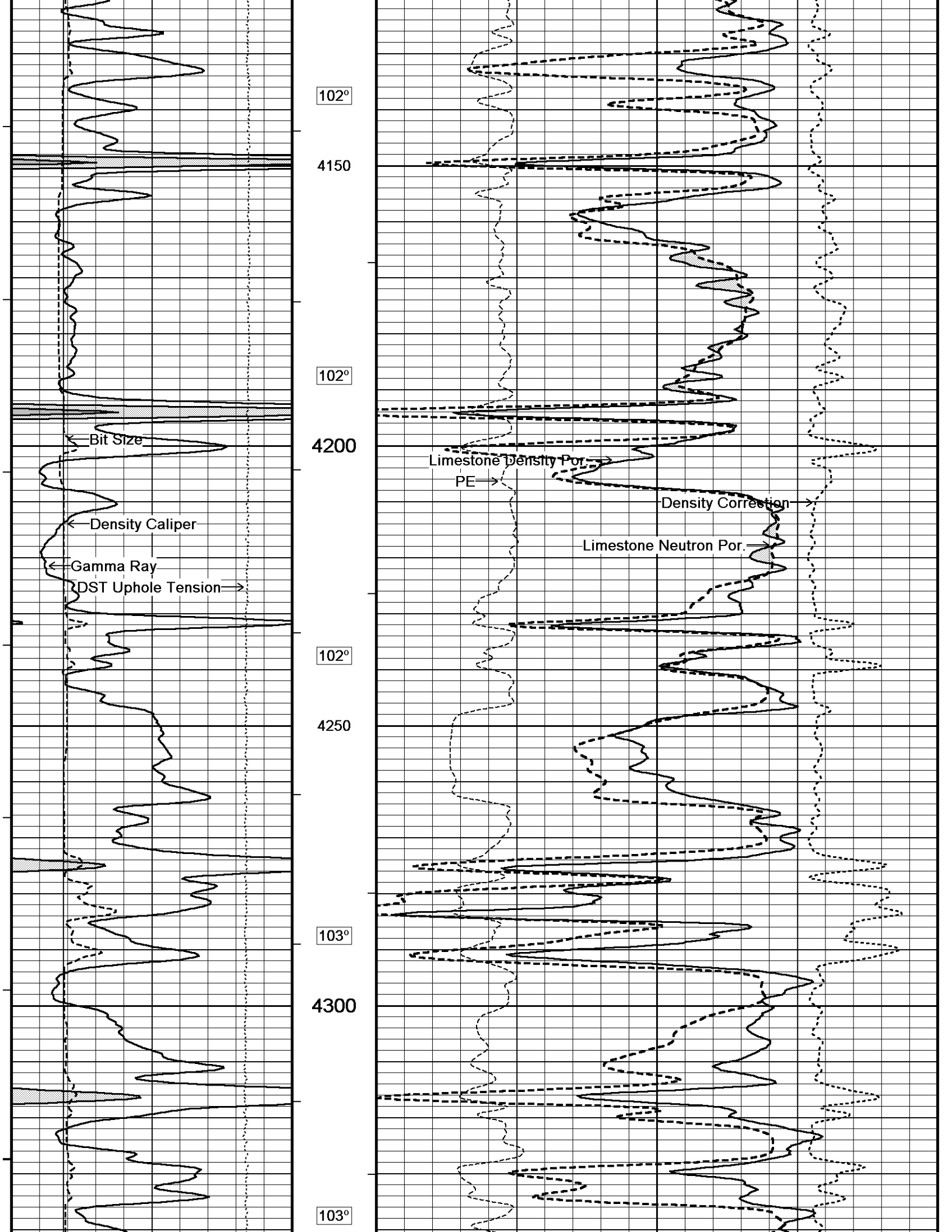
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
98°
Limestone Density Por.
PE
Density Correction
Limestone Neutron Por.

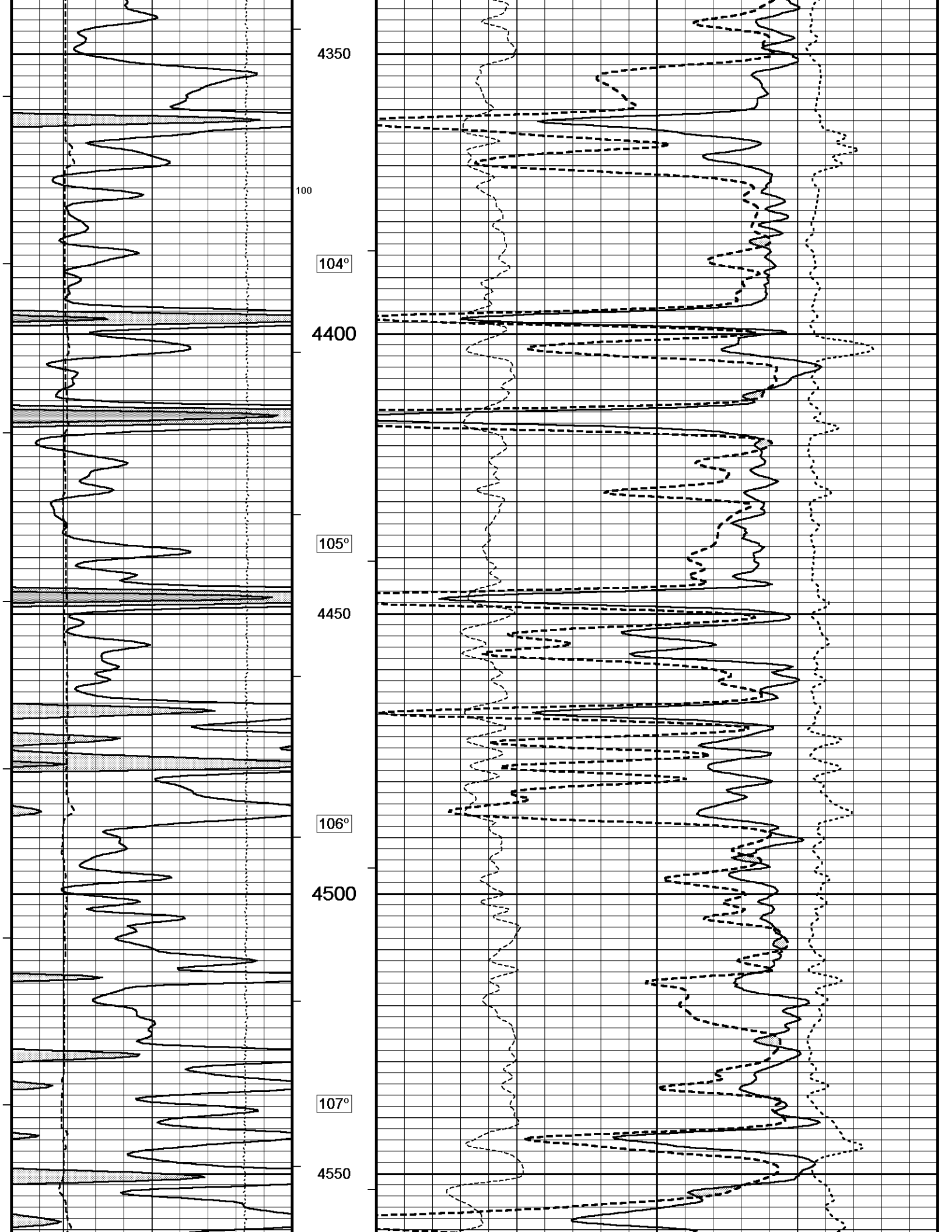
3450

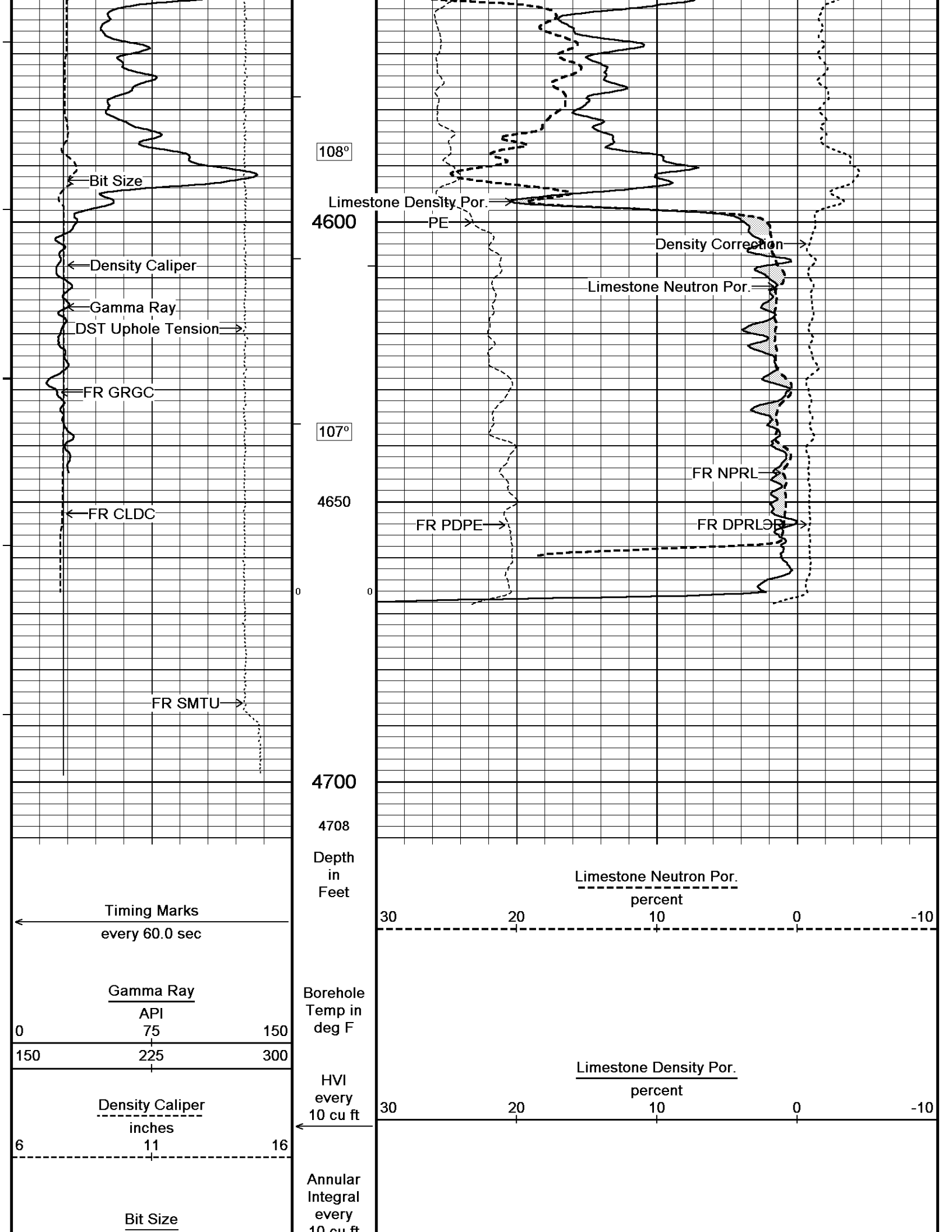

98°
3500
400
99°
3550
200
99°
3600
99°
3650


99°
3700
99°
3750
100°
300
3800
Bit Size
Limestone Density Por.
PE
Density Correction
Density Caliper
Limestone Neutron Por.
Gamma Ray
DST Uphole Tension
100°
3850
100°
3900


100°
3950
101°
4000
101°
4050
200
101°
4100
100


102°
4150
102°
Bit Size
4200
Limestone Density Por.
PE
Density Correction
Density Caliper
Limestone Neutron Por.
Gamma Ray
DST Uphole Tension
102°
4250
103°
4300
103°


4350
100
104°
4400
105°
4450
106°
4500
107°
4550


Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
FR GRGC
FR CLDC
FR SMTU
108°
107°
4600
4650
4700
4708
Limestone Density Por.
PE
Density Correction
Limestone Neutron Por.
FR NPRL
FR PDPE
FR DPRL
0
0
Depth in Feet
Timing Marks
every 60.0 sec
Gamma Ray
API
0
75
150
150
225
300
Density Caliper
inches
6
11
16
Bit Size
Borehole Temp in deg F
HVI every 10 cu ft
Annular Integral every 10 cu ft
Limestone Neutron Por.
percent
30
20
10
0
-10
Limestone Density Por.
percent
30
20
10
0
-10

inches
6 11 16

DST Uphole Tension
pounds
5000 0

10 cu ft

Replay
Scale
1:240

PE
barns/electron
0 5 10

Density Correction
grams/cc
-0.50 0 0.50

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_002.dta
System Versions: Logged with 13.04.8492 Plotted with 13.04.8492

Plotted on 07-JAN-2013 08:27
Recorded on 07-JAN-2013 06:05

5 INCH MAIN

REPEAT SECTION

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_001.dta
System Versions: Logged with 13.04.8492 Plotted with 13.04.8492

Plotted on 07-JAN-2013 08:27
Recorded on 07-JAN-2013 05:48

Depth
in
Feet

Timing Marks
every 60.0 sec

Limestone Neutron Por.
percent
30 20 10 0 -10

Gamma Ray
API
0 75 150
150 225 300

Borehole
Temp in
deg F

Limestone Density Por.
percent
30 20 10 0 -10

Density Caliper
inches
6 11 16

HVI
every
10 cu ft

Annular
Integral
every
10 cu ft

Bit Size
inches
6 11 16

PE
barns/electron
0 5 10

Density Correction
grams/cc
-0.50 0 0.50

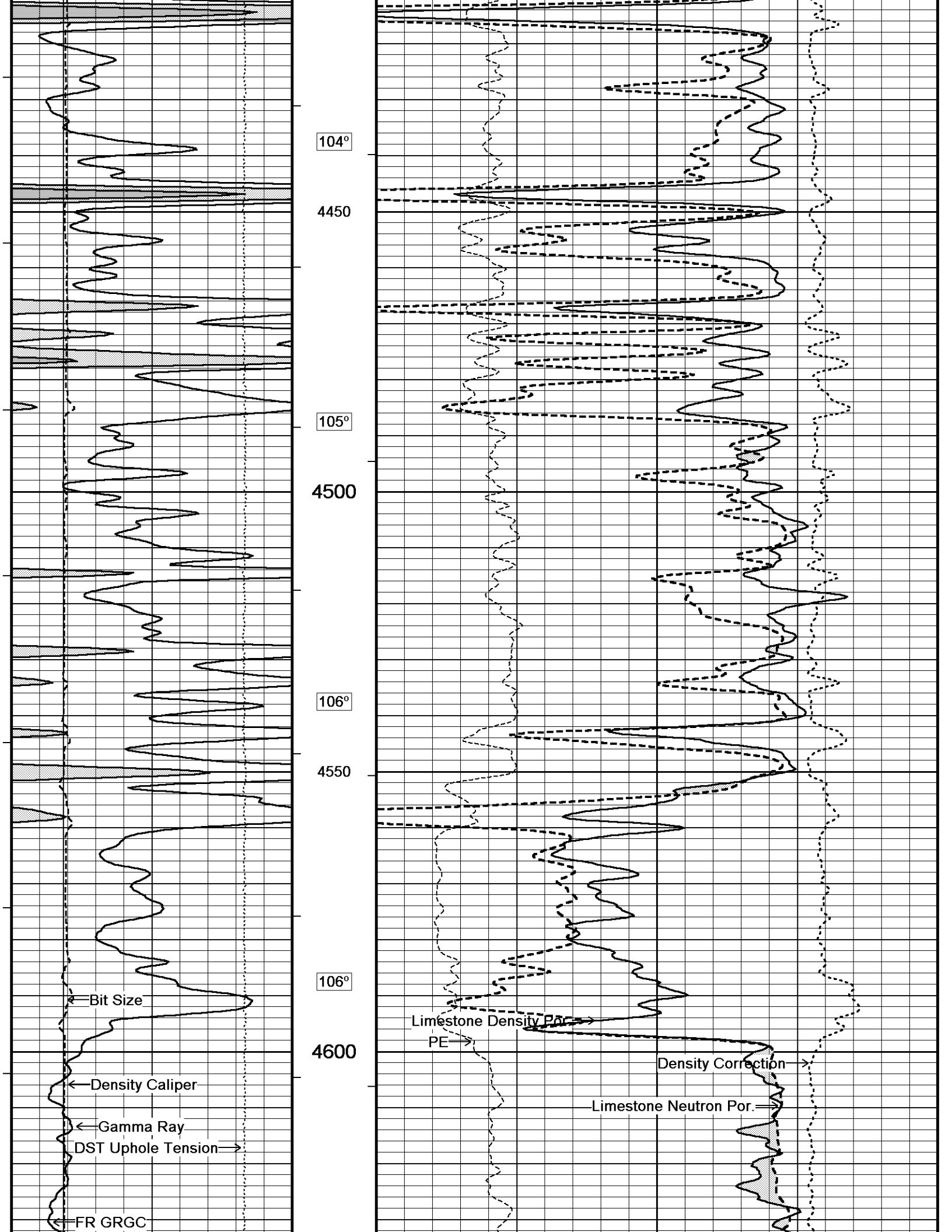
DST Uphole Tension
pounds
5000 0

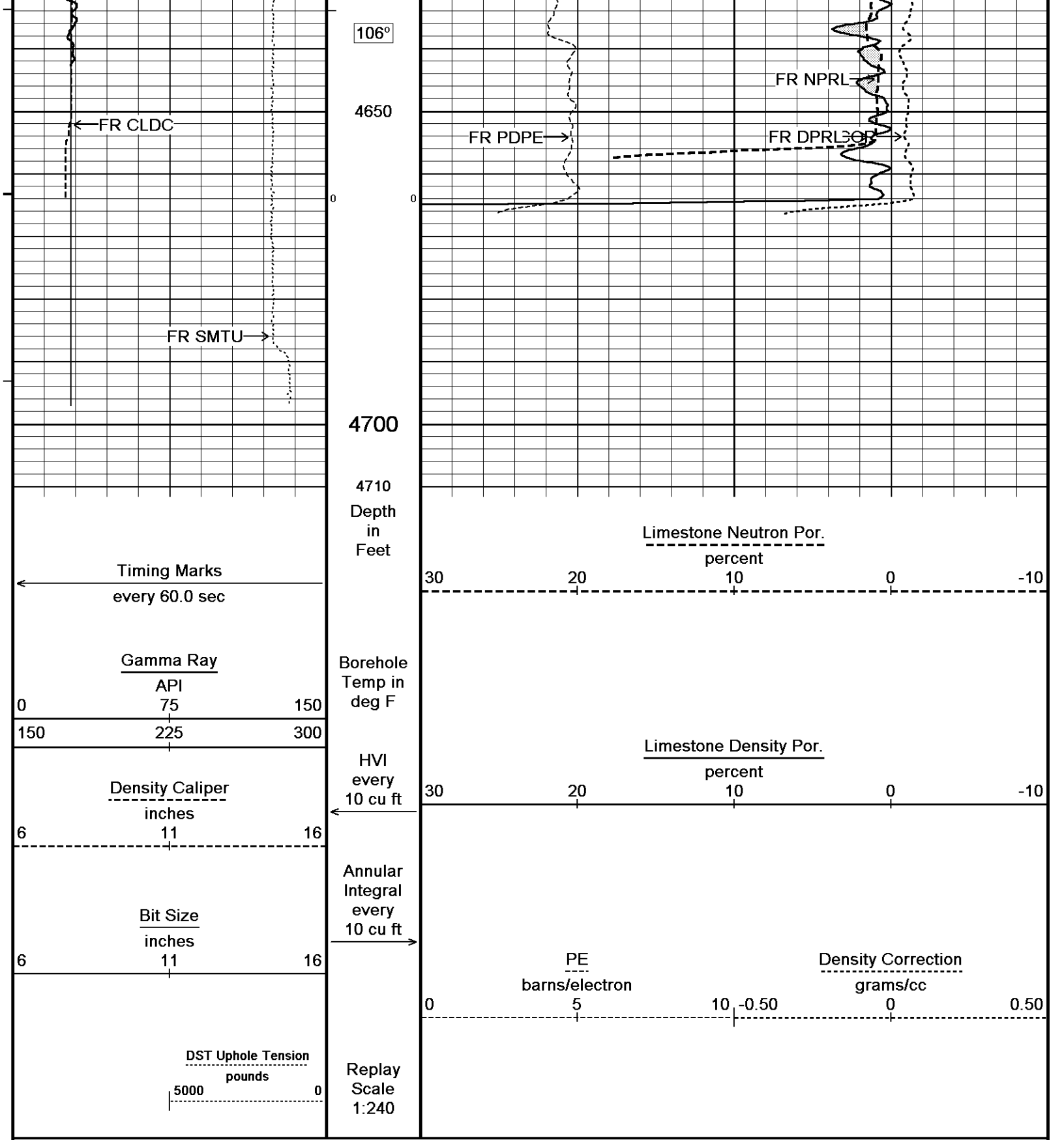
Replay
Scale
1:240

4368

100

4400


104°
4450
105°
4500
106°
4550
106°
4600
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
FR GRGC
Limestone Density Por.
PE
Density Correction
Limestone Neutron Por.

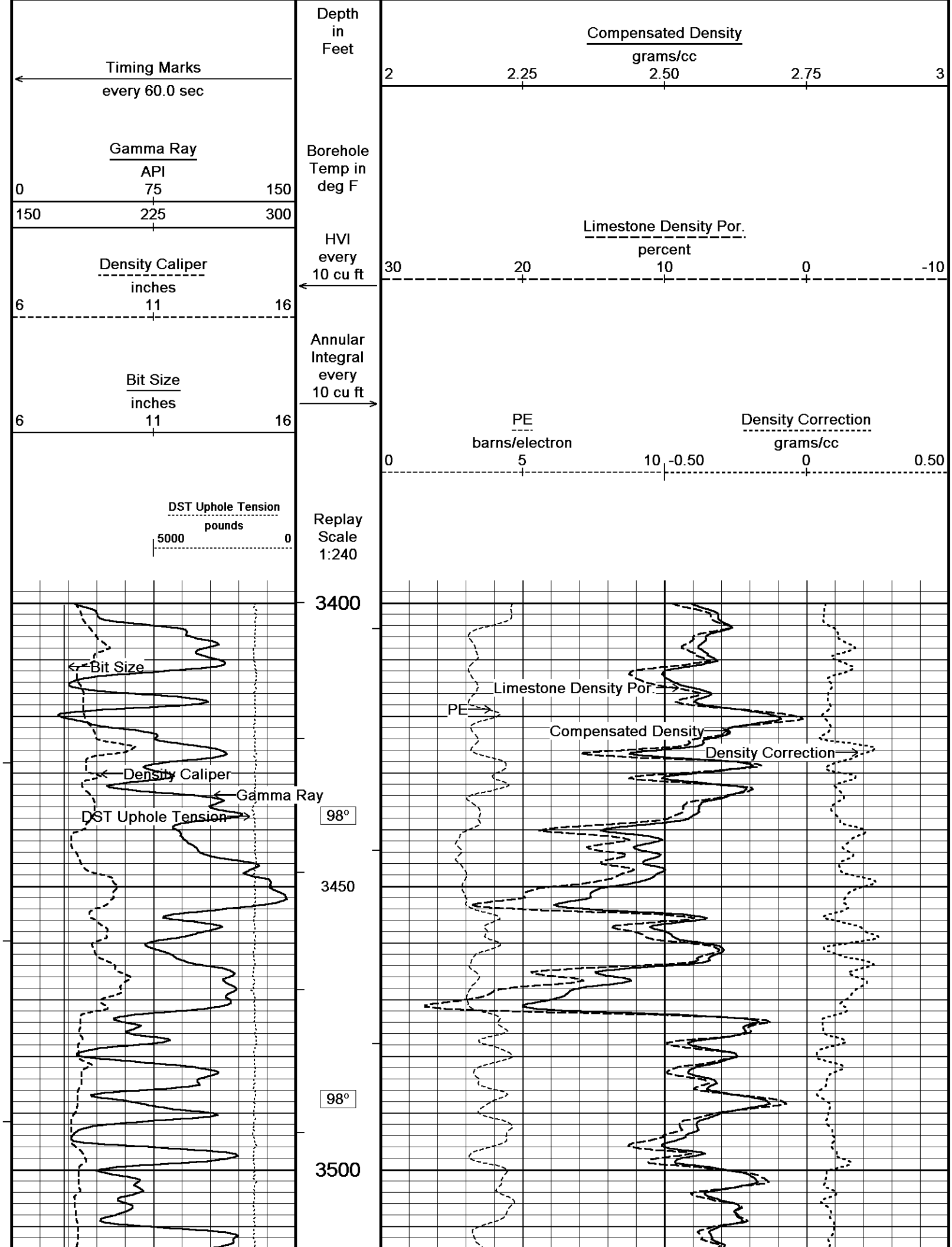


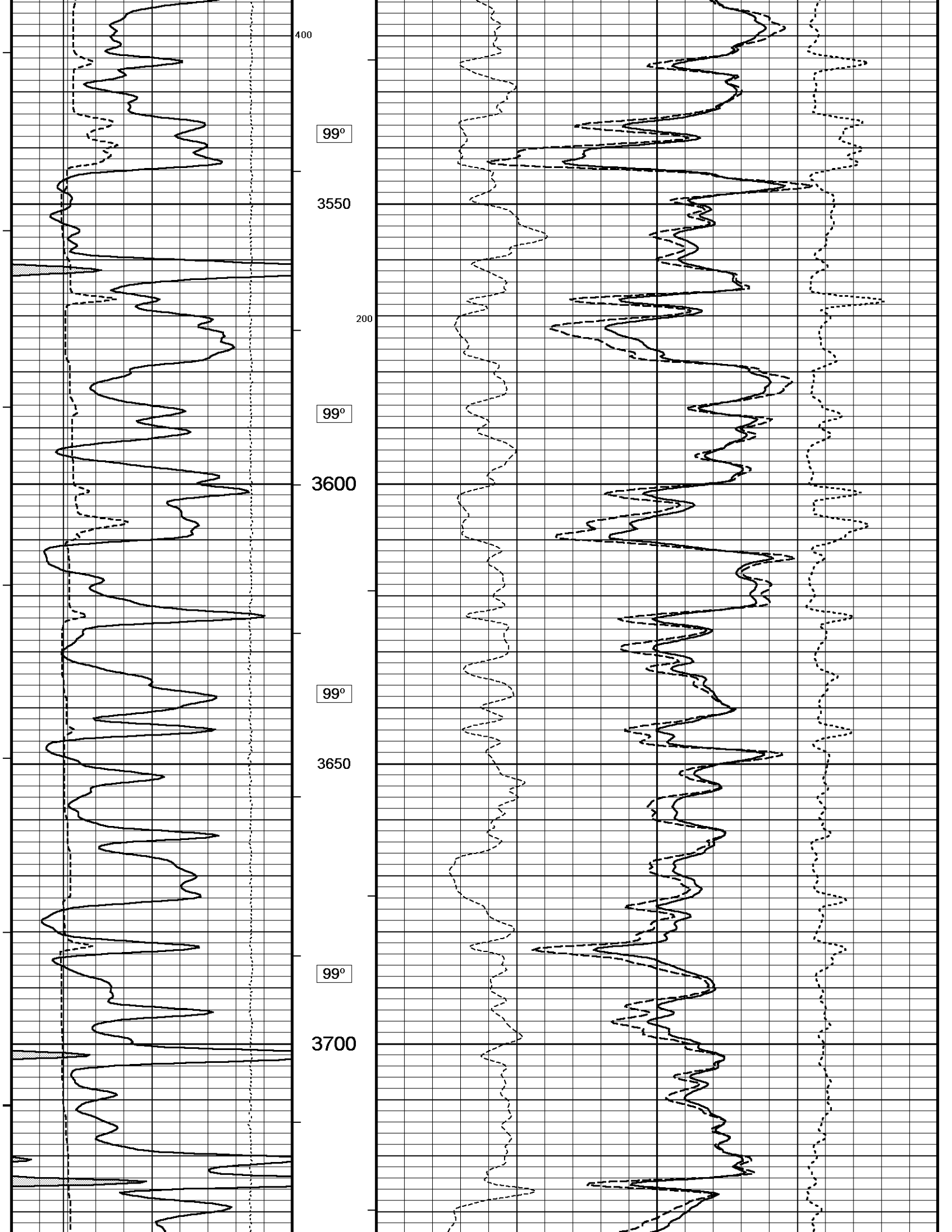
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 07-JAN-2013 08:27
Filename: C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_001.dta
Recorded on 07-JAN-2013 05:48
System Versions: Logged with 13.04.8492 Plotted with 13.04.8492

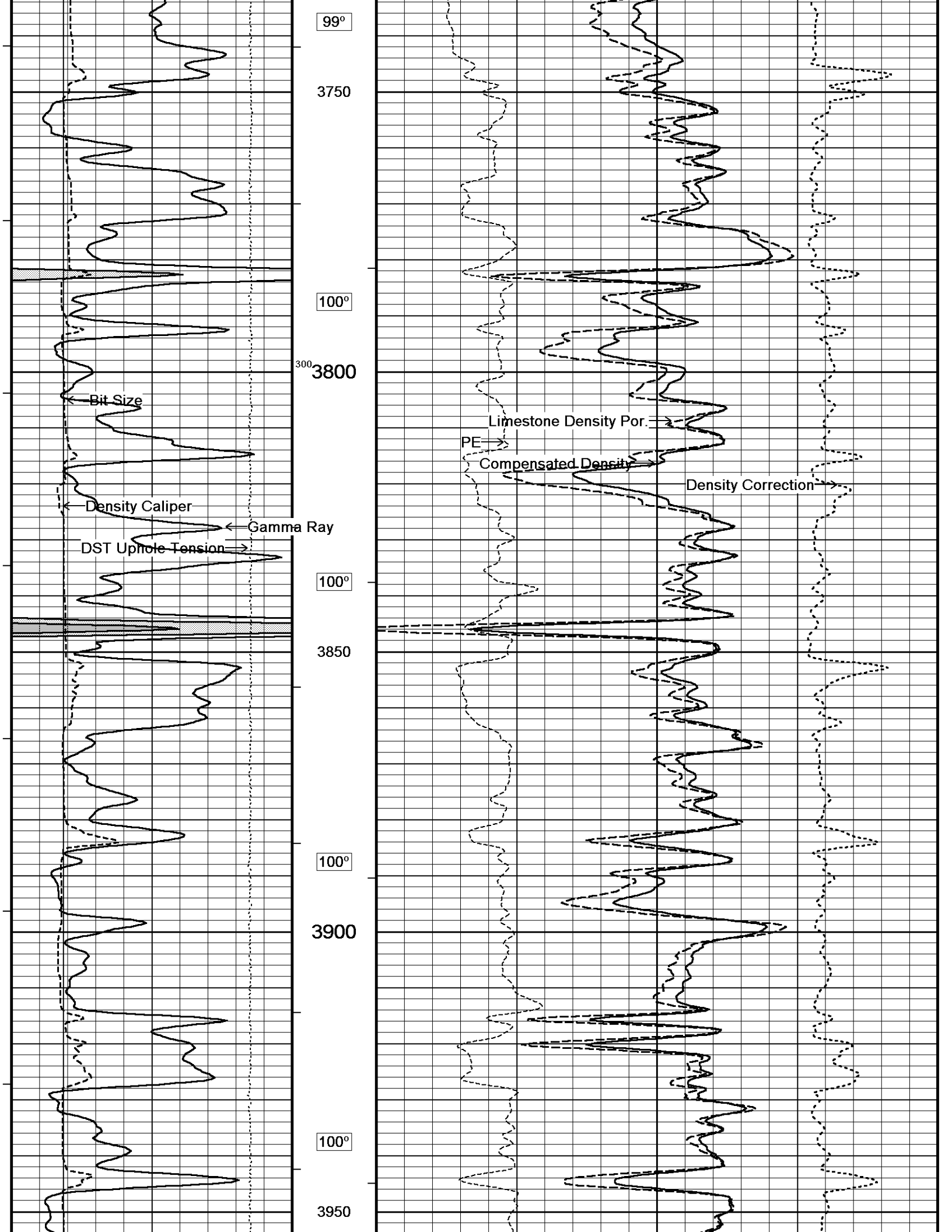
REPEAT SECTION

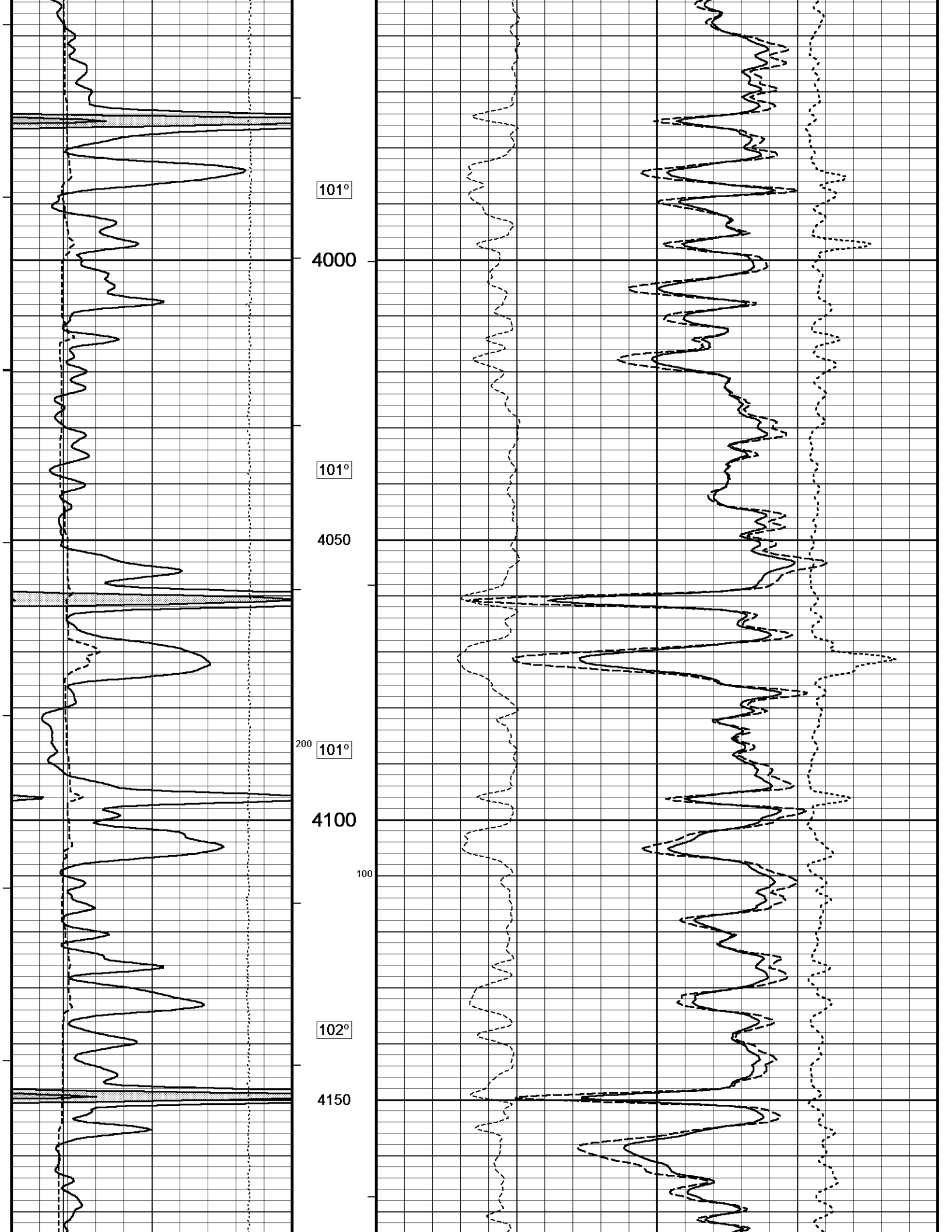
5 INCH MAIN

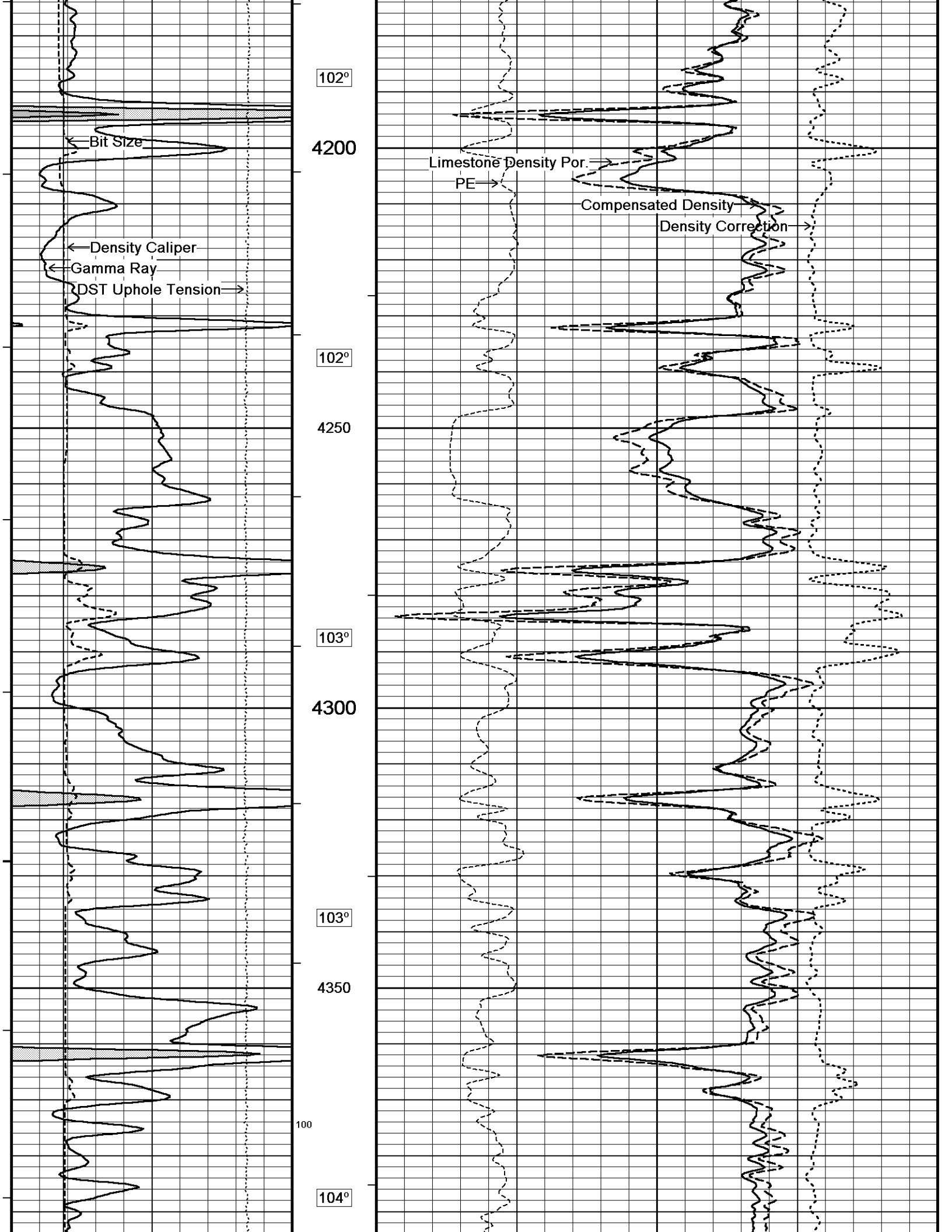
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 07-JAN-2013 08:27
Filename: C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_002.dta
Recorded on 07-JAN-2013 06:05
System Versions: Logged with 13.04.8492 Plotted with 13.04.8492

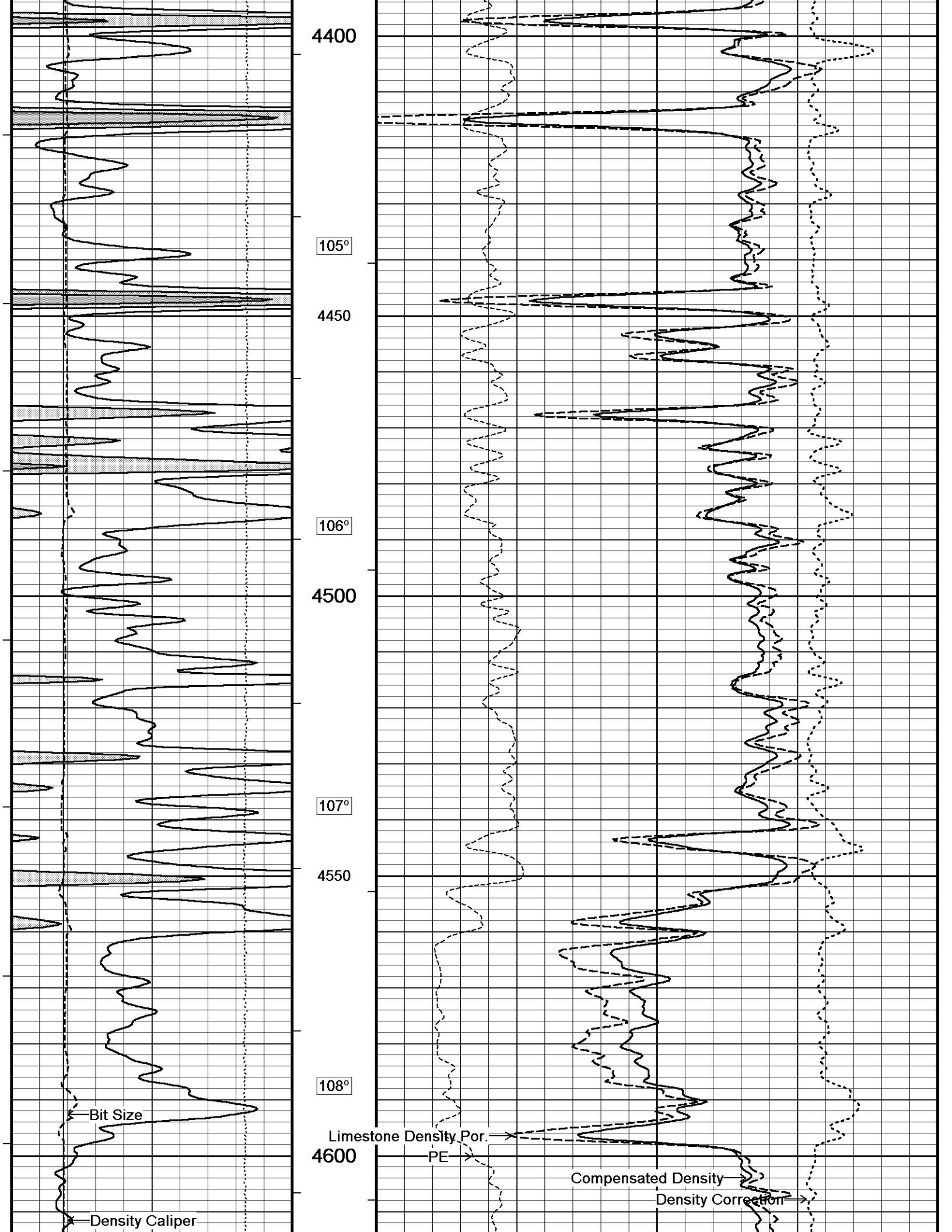

Depth in Feet
Timing Marks
every 60.0 sec
Gamma Ray
API
0
75
150
150
225
300
Density Caliper
inches
6
11
16
Bit Size
inches
6
11
16
DST Uphole Tension
pounds
5000
0
Borehole Temp in deg F
HVI every 10 cu ft
Annular Integral every 10 cu ft
Replay Scale 1:240
Compensated Density
grams/cc
2
2.25
2.50
2.75
3
Limestone Density Por.
percent
30
20
10
0
-10
PE
barns/electron
0
5
10
Density Correction
grams/cc
-0.50
0
0.50
3400
3450
3500
98°
98°
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
Limestone Density Por.
PE
Compensated Density
Density Correction

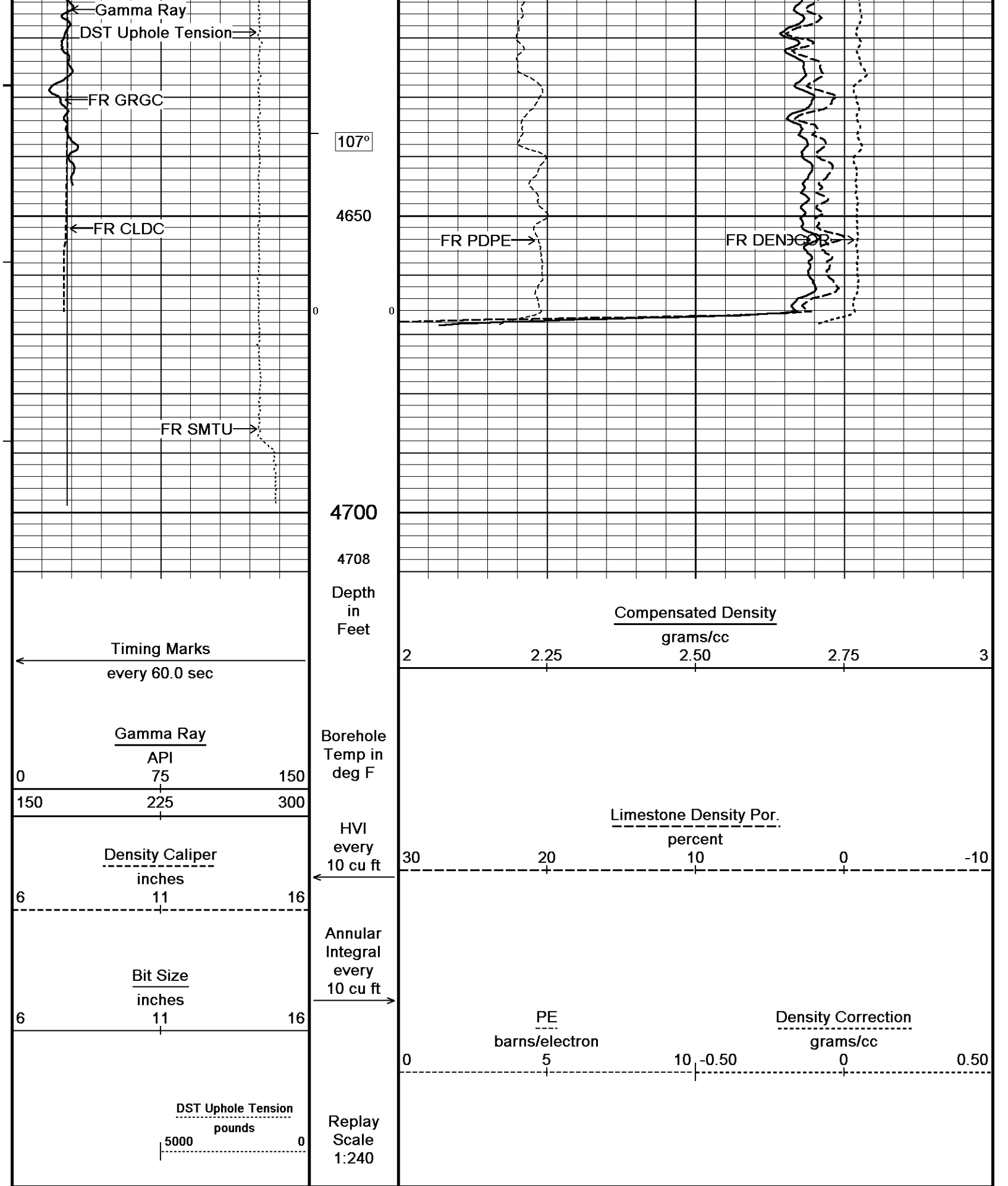

400
99°
3550
200
99°
3600
99°
3650
99°
3700


99°
3750
100°
300
3800
Bit Size
Limestone Density Por.
PE
Compensated Density
Density Correction
Density Caliper
Gamma Ray
DST Uphole Tension
100°
3850
100°
3900
100°
3950


101°
4000
101°
4050
200
101°
4100
100
102°
4150


102°
4200
Bit Size
Limestone Density Por.
PE
Compensated Density
Density Correction
Density Caliper
Gamma Ray
DST Uphole Tension
102°
4250
103°
4300
103°
4350
100
104°


4400
105°
4450
106°
4500
107°
4550
108°
4600
Bit Size
Density Caliper
Limestone Density Por.
PE
Compensated Density
Density Correction



Depth in Feet

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Density Caliper
inches
6 11 16

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Borehole Temp in deg F

HVI every 10 cu ft

Annular Integral every 10 cu ft

Replay Scale 1:240

Compensated Density
grams/cc
2 2.25 2.50 2.75 3

Limestone Density Por.
percent
30 20 10 0 -10

PE
barns/electron
0 5 10

Density Correction
grams/cc
-0.50 0 0.50

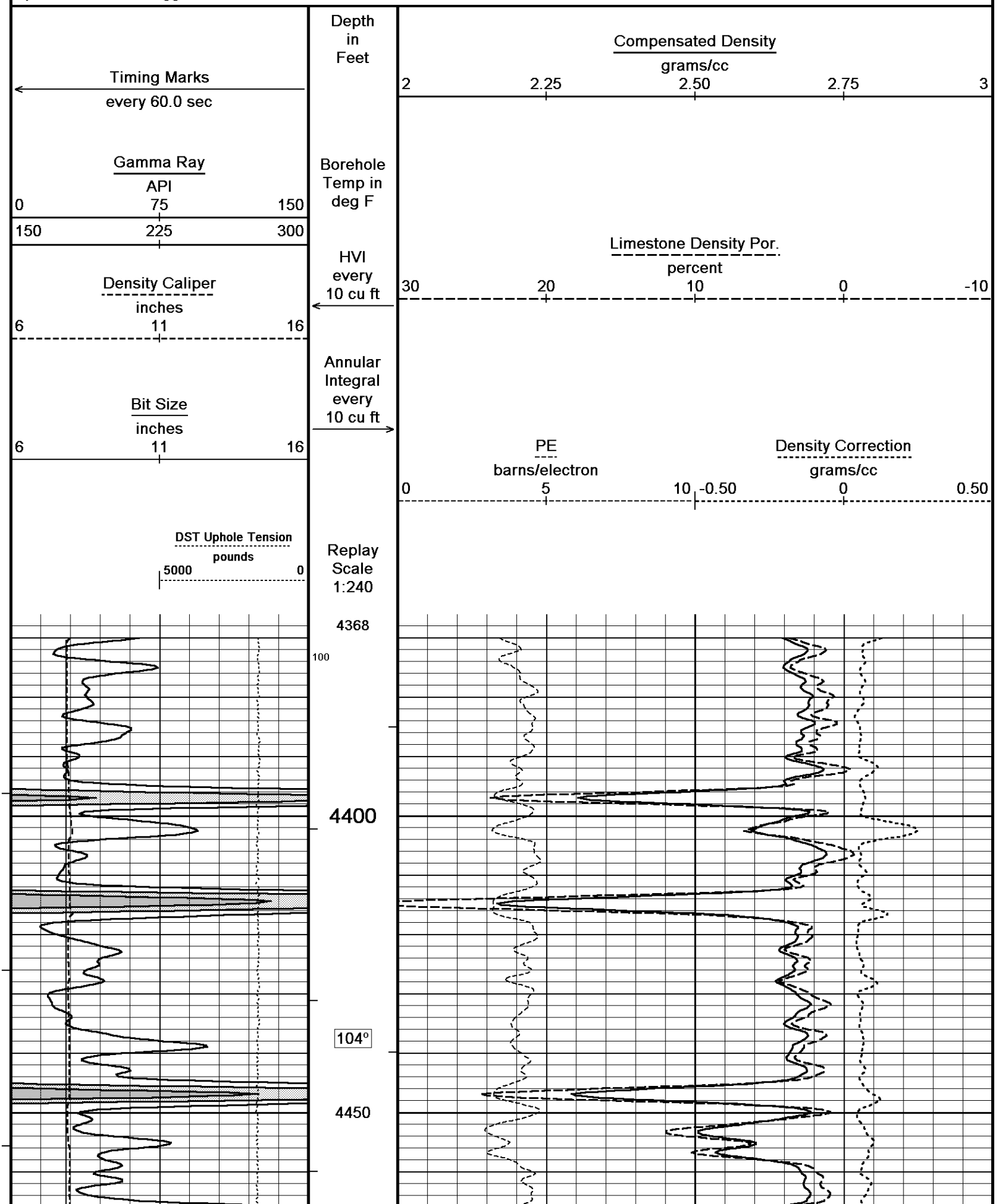
Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_002.dta
System Versions: Logged with 13.04.8492 Plotted with 13.04.8492

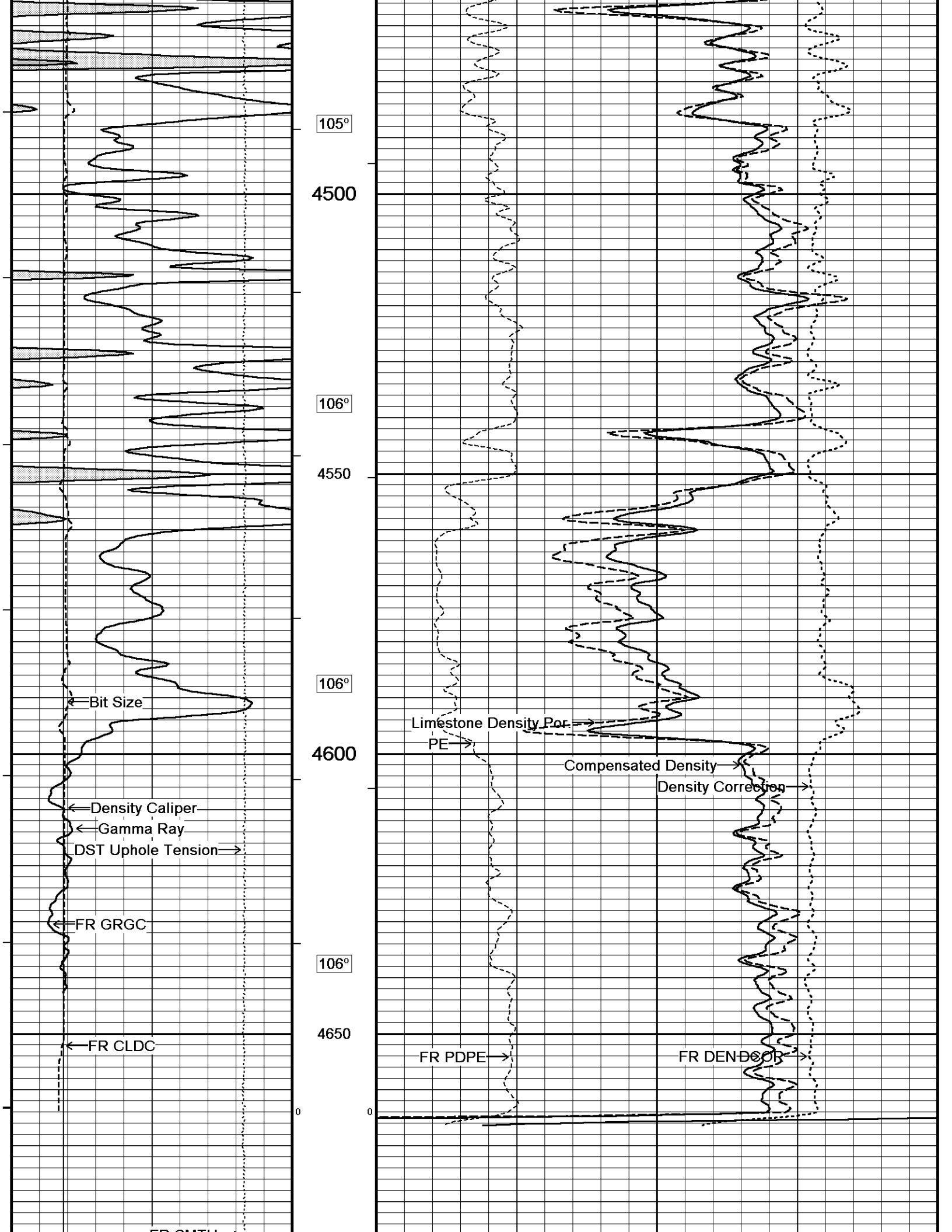
Plotted on 07-JAN-2013 08:27
Recorded on 07-JAN-2013 06:05

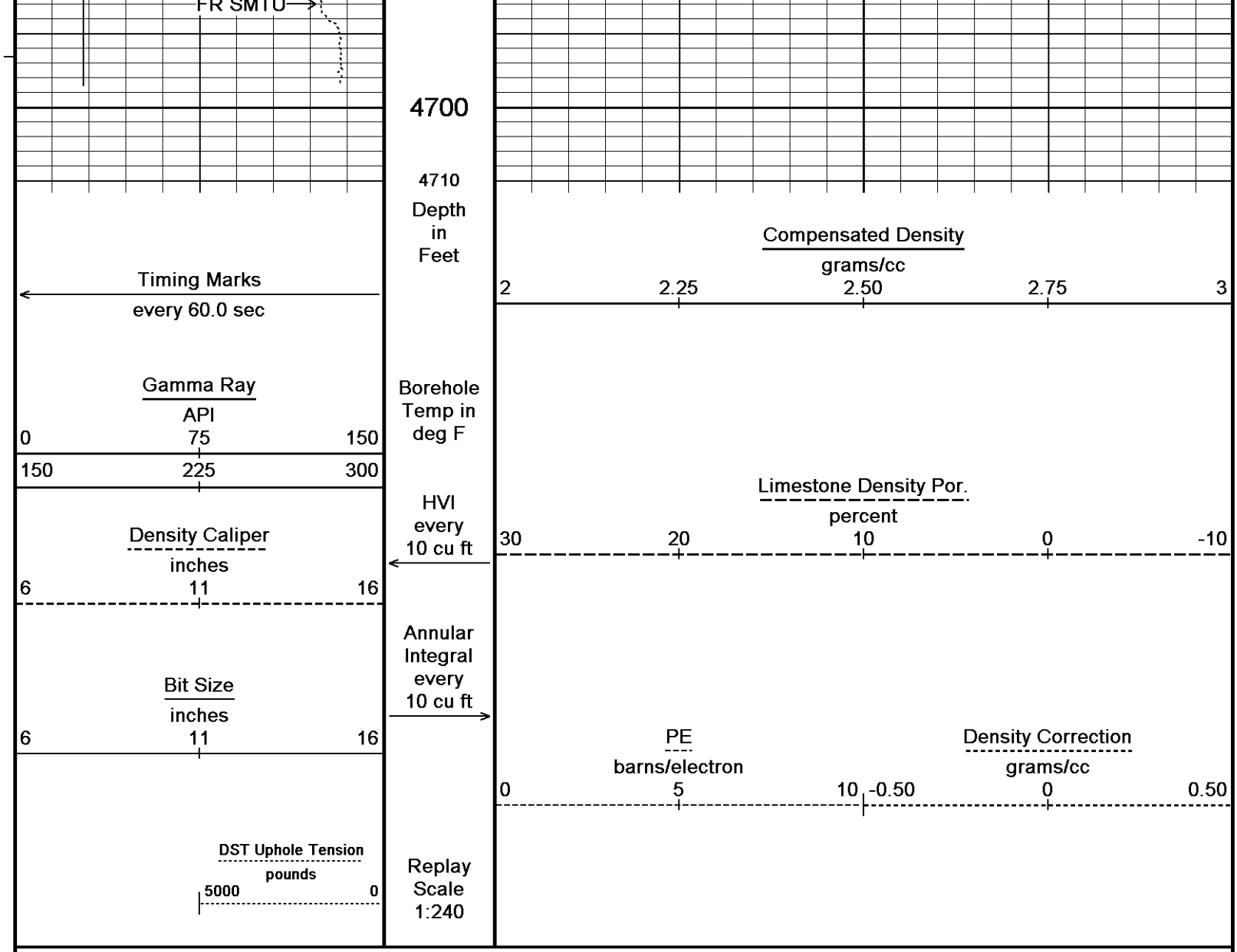
5 INCH MAIN

REPEAT SECTION

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 07-JAN-2013 08:27
Filename: C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_001.dta
Recorded on 07-JAN-2013 05:48
System Versions: Logged with 13.04.8492 Plotted with 13.04.8492




105°
4500
106°
4550
106°
4600
106°
4650
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
FR GRGC
FR CLDC
0
Limestone Density Por
PE
Compensated Density
Density Correction
FR PDPE
FR DENDCOR
0



Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 07-JAN-2013 08:27
Filename: C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_001.dta
Recorded on 07-JAN-2013 05:48
System Versions: Logged with 13.04.8492 Plotted with 13.04.8492

REPEAT SECTION

BEFORE SURVEY CALIBRATION

C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_001.dta

General Constants All 000

Last Edited on 07-JAN-2013,02:57

General Parameters		
Mud Resistivity	0.440	ohm-metres
Mud Resistivity Temperature	79.000	degrees F
Water Level	0.000	feet
Borehole Fluid 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	5.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. Four Res Rt	
RWA Constant A	1.000	

RWA Constant M	2.000

Down-hole Tension Calibration SMS 0

Field Calibration on 02-JAN-2013 05:23

Reading No	Measured	Calibrated (lbs)
1	13709.50	0.00
2	14142.20	390.00

High Resolution Temperature Calibration MCG-B 34

Field Calibration on 08-NOV-2012,10:05

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

High Resolution Temperature Constants MCG-B 34

Last Edited on 08-NOV-2012,10:04

Pre-filter Length	11

SP Calibration MCG-B 34

Field Calibration on 08-NOV-2012 10:10

	Measured	Calibrated (mV)
Reference 1	107.1	100.0
Reference 2	-93.0	-100.0

Gamma Calibration MCG-B 34

Field Calibration on 06-JAN-2013 23:19

	Measured	Calibrated (API)
Background	68	46
Calibrator (Gross)	1125	771
Calibrator (Net)	1057	725

Gamma Constants MCG-B 34

Last Edited on 07-JAN-2013,02:58

Gamma Calibrator Number	GRC38	
Mud Density	1.08	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

Micro Normal and Micro Inverse Calibration MML-A 16

Base Calibration on 13-DEC-2012 09:14
Field Check on 06-JAN-2013 23:14

Base Calibration

	Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Micro Normal	12.1	60.2	5.0	25.0
Micro Inverse	15.6	78.3	5.0	25.0

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	62.9	62.9
Micro Inverse	48.2	48.2

Micro Normal and Micro Inverse Constants MML-A 16

Last Edited on 06-JAN-2013,23:13

Pad Type	8-12 in Soft Rubber Inflatable 006-9011-159	
Micro Normal K Factor	1.0000	
Micro Inverse K Factor	1.0000	
Standoff Offset	N/A	inches

Caliper Calibration MML-A 16

Base Calibration on 13-DEC-2012 09:09
Field Calibration on 06-JAN-2013 23:13

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14167	5.98
2	17246	7.97
3	20473	9.86
4	24393	11.92
5	0	0.00
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.95	5.98

Neutron Calibration MDN-A.B 66

Base Calibration on 13-DEC-2012 15:33

Field Check on 06-JAN-2013 23:26

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	2993	92	3714	110
Ratio	32.445		33.764	

Field Calibrator at Base

	Calibrated (cps)	
	1709	2478
Ratio	0.690	

Field Check

	Calibrated (cps)	
	1706	2480
Ratio	0.682	

Neutron Constants MDN-A.B 66

Last Edited on 06-JAN-2013,23:19

Neutron Source Id	P0204NN	
Neutron Jig Number	5824NE	
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	4.26	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	Constant Value	
Formation Pressure	0.00	kpsi
Temperature Source	Constant Value	
Temperature	68.00	degrees F
Mud Salinity	0.00	kppm
Salinity Correction	Not Applied	
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	

FE Calibration MFE-B.J 353

Base Calibration on 13-DEC-2012 09:28
Field Check on 06-JAN-2013 23:00

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	964.3	126.8
Base Check		281.1
Field Check		281.0

FE Constants MFE-B.J 353

Last Edited on 07-JAN-2013,02:58

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	0.5	inches

Sonic Constants MSS-C.K 330

Last Edited on 14-NOV-2012,11:39

Maximum Boundary Contrast	100.00	micro-sec/ft
Fluid Transit Time	189.00	micro-sec/ft
Limestone Transit Time	47.50	micro-sec/ft
Sandstone Transit Time	55.50	micro-sec/ft
Dolomite Transit Time	43.50	micro-sec/ft
Sonic used for Porosities	3-5' Compensated	
Correction for Sonde Skew	Applied	
Cycle Stretch Algorithm	Applied	
MN3FT	0.00	micro-sec
MX3FT	1500.00	micro-sec
Hunt-Raymer Constant	83.13	micro-sec/ft
Sonde Mode	Compensated	

Hole Type Open Hole

Sonde Parameters

	Measured	Calibrated
Offset	0.0000	0.0000
Free Pipe	0.0000	

Peak Amplitude Source

Waveform	Start Time (micro-sec)	Width (micro-sec)	Pre Gain	Start Gain	Discriminator (mV)
3'	N/A	N/A	N/A	N/A	N/A
4'	N/A	N/A	N/A	N/A	N/A
5'	N/A	N/A	N/A	N/A	N/A
6'	N/A	N/A	N/A	N/A	N/A

Processed Fixed Gate Parameters

Waveform Used For Processing N/A

Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	Depth (ft)
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
0.00	0.00	0.00	

Full Waveform Parameters

Use 3' Waveform to derive TR	No	
Use 4' Waveform to derive TR	No	
Use 5' Waveform to derive TR	No	
Use 6' Waveform to derive TR	No	
3' Waveform Discriminator Level	0.30	mV
4' Waveform Discriminator Level	0.30	mV
5' Waveform Discriminator Level	0.15	mV
6' Waveform Discriminator Level	0.15	mV
3' Waveform Filter		
4' Waveform Filter		
5' Waveform Filter		
6' Waveform Filter		
Semblance Level	0.50	
Semblance Window Width	120.00	micro-sec
Sonic 1 Despiker	100.00	micro-sec/ft
Sonic 2 Despiker	100.00	micro-sec/ft

High Resolution Temperature Calibration MAI-A.A 167

Field Calibration on 14-NOV-2012,09:17

	Measured	Calibrated(Deg F)
Lower	1.00	33.80
Upper	11.00	51.80

High Resolution Temperature Constants MAI-A.A 167

Last Edited on 16-DEC-2012,13:35

Pre-filter Length 11

Induction Calibration MAI-A.A 167

Base Calibration on 14-NOV-2012,09:21
Field Check on 06-JAN-2013 22:58

Base Calibration

Test Loop Calibration Channel	Measured Low	Measured High	Calibrated (mmho/m) Low	Calibrated (mmho/m) High
1	17.3	474.2	9.3	966.2
2	6.3	388.4	7.6	821.4
3	3.3	259.4	5.2	566.0
4	1.9	133.0	2.6	279.2

Array Temperature 76.8 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	12.7	3840.8
2	0.0	0.0	29.5	3478.8
3	0.0	0.0	29.1	3054.6
4	0.0	0.0	19.8	2082.6

Deep		18.6	2049.7
Medium		42.2	3993.6
Shallow		42.8	5057.2
Array Temperature	0.0	67.4	Deg F

Induction Constants MAI-A.A 167

Last Edited on 07-JAN-2013,02:58

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	0.50	inches
Number of Fins on Stand-off	8.0000	
Stand-off Fin Angle	45.00	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-B 64

Base Calibration on 13-DEC-2012 14:47
Field Calibration on 06-JAN-2013 23:01

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	12994	3.99
2	21855	5.98
3	30456	7.97
4	38925	9.86
5	48176	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.95	5.98

Photo Density Calibration MPD-B 64

Base Calibration on 13-DEC-2012 15:03
Field Check on 06-JAN-2013 23:11

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	59295	32863	59556	30836
Reference 2	24770	2893	24941	2541

Field Check at Base

1180.9	1372.2

Field Check

1178.7 1360.4

PE Calibration

Base Calibration

	WS	WH	Ratio	Calibrated Ratio
Background	215	1052		
Reference 1	22270	59095	0.380	0.371
Reference 2	6705	24633	0.275	0.272

Field Check at Base

215.4 1052.3

Field Check

215.0 1050.9

Density Constants MPD-B 64

Last Edited on 07-JAN-2013,02:58

Density Source Id	18235B	
Nylon Calibrator Number	DNCE695	
Aluminium Calibrator Number	DACD698	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.08	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

DOWNHOLE EQUIPMENT

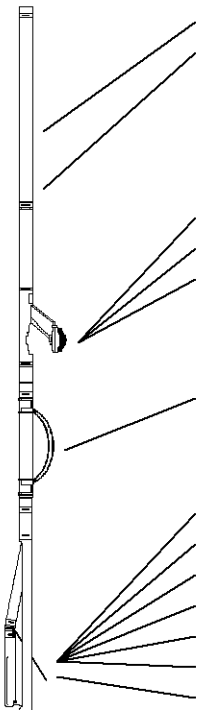
C:\Minimus 13.04.8492\Data\Stelbar LPR #1-17\Stelbar LPR #1-17_001.dta

Compact Comms Gamma
MCG-B 34 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-log
MML-A 16 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron
MDN-A.B 66 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
MPD-B 64 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in



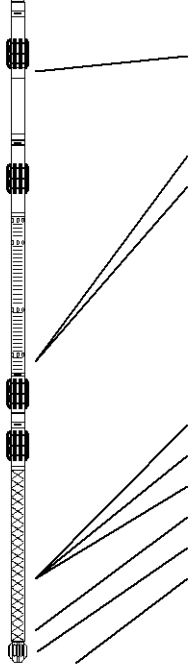
55.39 ft	GRGC - Gamma Ray
52.48 ft	CGXT - MCG External Temperature
45.76 ft	MINV - Micro-inverse
45.76 ft	MNRL - Micro-normal
46.76 ft	MLTC - MML Caliper
40.97 ft	NPRL - Limestone Neutron Por.
33.73 ft	AVOL - Annular Volume
33.73 ft	HVOL - Hole Volume
33.73 ft	CLDC - Density Caliper
31.80 ft	DPRL - Limestone Density Por.
31.80 ft	DEN - Compensated Density
31.80 ft	DCOR - Density Correction
31.74 ft	PDPE - PE

Compact Focussed Electric
MFE-B.J 353 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Sonic
MSS-C.K 330 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

Compact Induction
MAI-A.A 167 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 60.68 ft Weight: 456.4 lb



26.24 ft	FEFE - Shallow FE
12.96 ft	DT35 - 3-5' Compensated Sonic
12.96 ft	SPRL - Wyllie Lime. Sonic Por.
3.34 ft	R40O - Array Ind. One Res 40
3.34 ft	RTAO - Array Ind. One Res Rt
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	STELBAR OIL CORPORATION, INC.
WELL	LPR #1-17
FIELD	WILDCAT
PROVINCE/COUNTY	LOGAN
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	2951.00	feet	First Reading	4654.00	feet
Elevation Drill Floor	2950.00	feet	Depth Driller	4685.00	feet
Elevation Ground Level	2944.00	feet	Depth Logger	4686.00	feet

Weatherford®

COMPACT PHOTO DENSITY COMPENSATED NEUTRON LOG