Weatherford®

Photo Density
Compensated Neutron

COMPANY	Antero Resources Appalachian Corp.
WELL	Proudfoot Unit 2H
FIELD	Wildcat
PROVINCE/COUNTY	Doddrigde County
COUNTRY/STATE	U.S.A / West Virginia
LOCATION	Greenbrier District
PERMIT NUMBER	47-017-063200000

FIELD PRINT

SEC	TWP	RGE

API Number 47-017-063200000

Other Services
Gamma Ray
Data Pack
Caliper
Dual Laterolog

Permanent Datum Ground Level, Elevation 1275 feet
Log Measured From KB
Drilling Measured From KB of 22.5'

Elevations:	feet
KB	1297.50
DF	1297.50
GL	1275.00

Date	21-July-2014			
Run Number	One			
Service Order	5362-93159882			
Depth Driller	7395.00	feet		
Depth Logger	6746.00	feet		
First Reading	6746.00	feet		
Last Reading	0.00	feet		
Casing Driller	2581.00	feet		
Casing Logger	2581.00	feet		
Bit Size	8.750	inches		
Hole Fluid Type	WBM			
Density / Viscosity	12.30 lb/USg	43.00 CP		
PH / Fluid Loss	8.70	6.60 ml/30Min		
Sample Source	Flowline			
Rm @ Measured Temp	0.041 @107.0	ohm-m		
Rmf @ Measured Temp	0.03 @107.0	ohm-m		
Rmc @ Measured Temp	0.053 @107.0	ohm-m		
Source Rmf / Rmc	Calc	Calc		
Rm @ BHT	0.03 @130.0	ohm-m		
Time Since Circulation	10 Hours			
Max Recorded Temp	130.00	deg F		
Equipment / Base	13157	Weston		
Recorded By	Justin Bartlett			
Witnessed By	Stan Dudley			
_	_		_	

BOREHOLE RECORD

Last Edited: 22-JUL-2014 06:30

Bit Size inches	Depth From feet	Depth To feet
17.500	0.00	385.00
12.250	385.00	2581.00
8.750	2581.00	6746.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
Casing	13.375	0.00	385.00	54.50
Casing	9.625	0.00	2581.00	36.00

REMARKS

Weatherford Logging Software version used 14.01.3220
Crew: Ron Bosley
Jon Turner
Tools ran: SHA, MBE, MBE, MTI, MCG, MLK, MDN, MPD, SKJ, MUG, MLE, MLG
Hardware Ran: 1- 0.5 inch standoff on MUG and 1- 0.5 inch standoff used on MLG
1 dual eccentraliser ran on MDN
Log data obtained from deepest reachable depth
Borehole rugosity may effect all curves
Barite may effect PE and Density
All header information accquired from client representative
All Logs put on depth with MWD Gamma as per client request
Could not reach TD due to borehole rugosity and deviation
Rig: Patterson 317

In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.

2 Inch Main Pass

Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 22-JUL-2014 06:51

Filename: C:\DOCUME~1\sysadmin\LOCALS~1\Temp\Weatherford PreView5\0\Main Pass FL.dta

System Versions: Plotted with 14.01.3220

Timing Marks
every 60.0 sec

Density Caliper
inches
7 12 17

Borehole Corrected Gamma
API
0 100 200
200 300 400

Bit Size
inches
7 12 17

DST Uphole Tension
pounds
0 3000
3000 6000

Depth in Feet

Borehole Temp in deg F

HVI every 10 cu ft

Annular Integral every 10 cu ft

Replay Scale 1:600

0

Limestone Neutron Por.
percent
30 20 10 0 -10

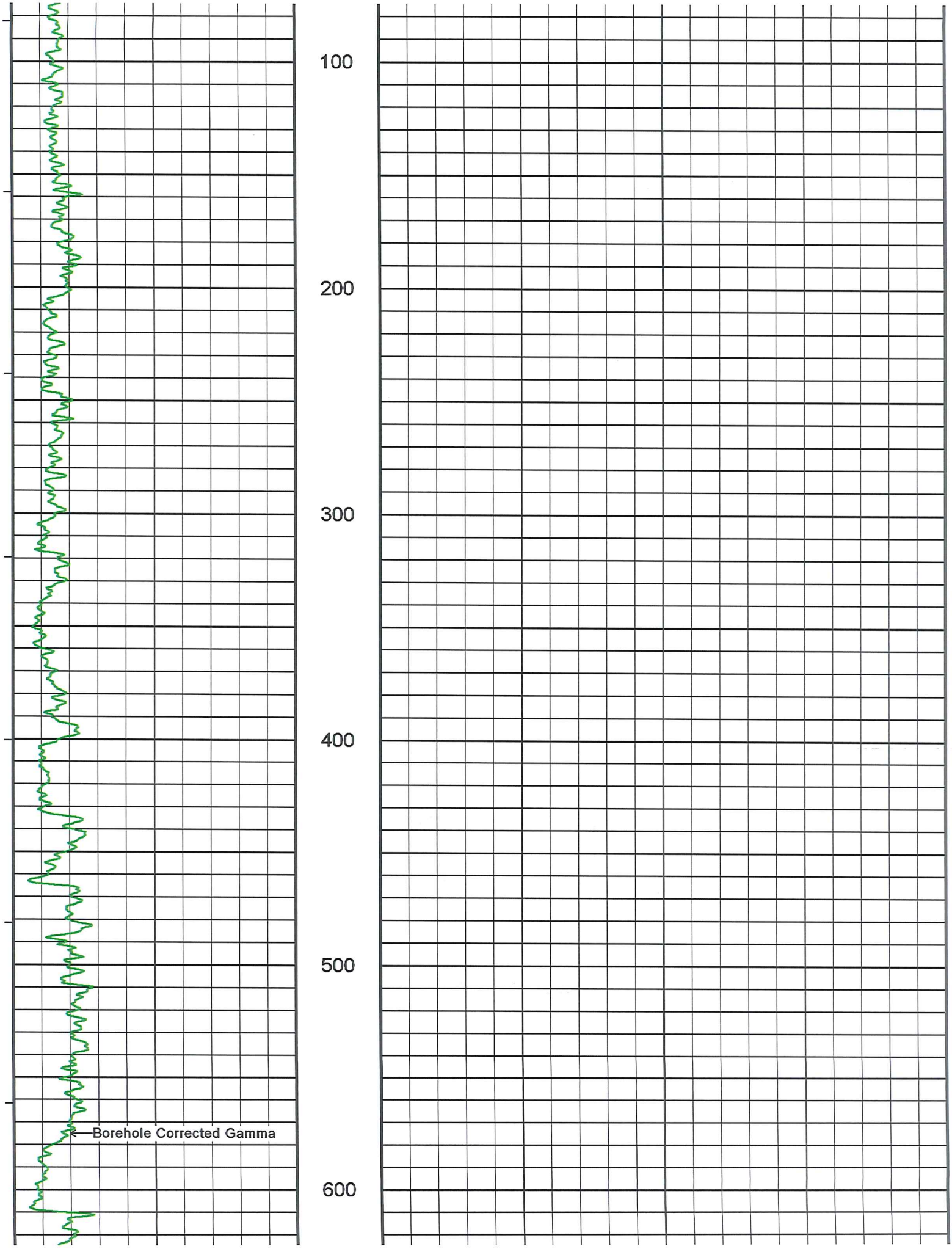
Compensated Density
grams/cc
2 2.25 2.50 2.75 3

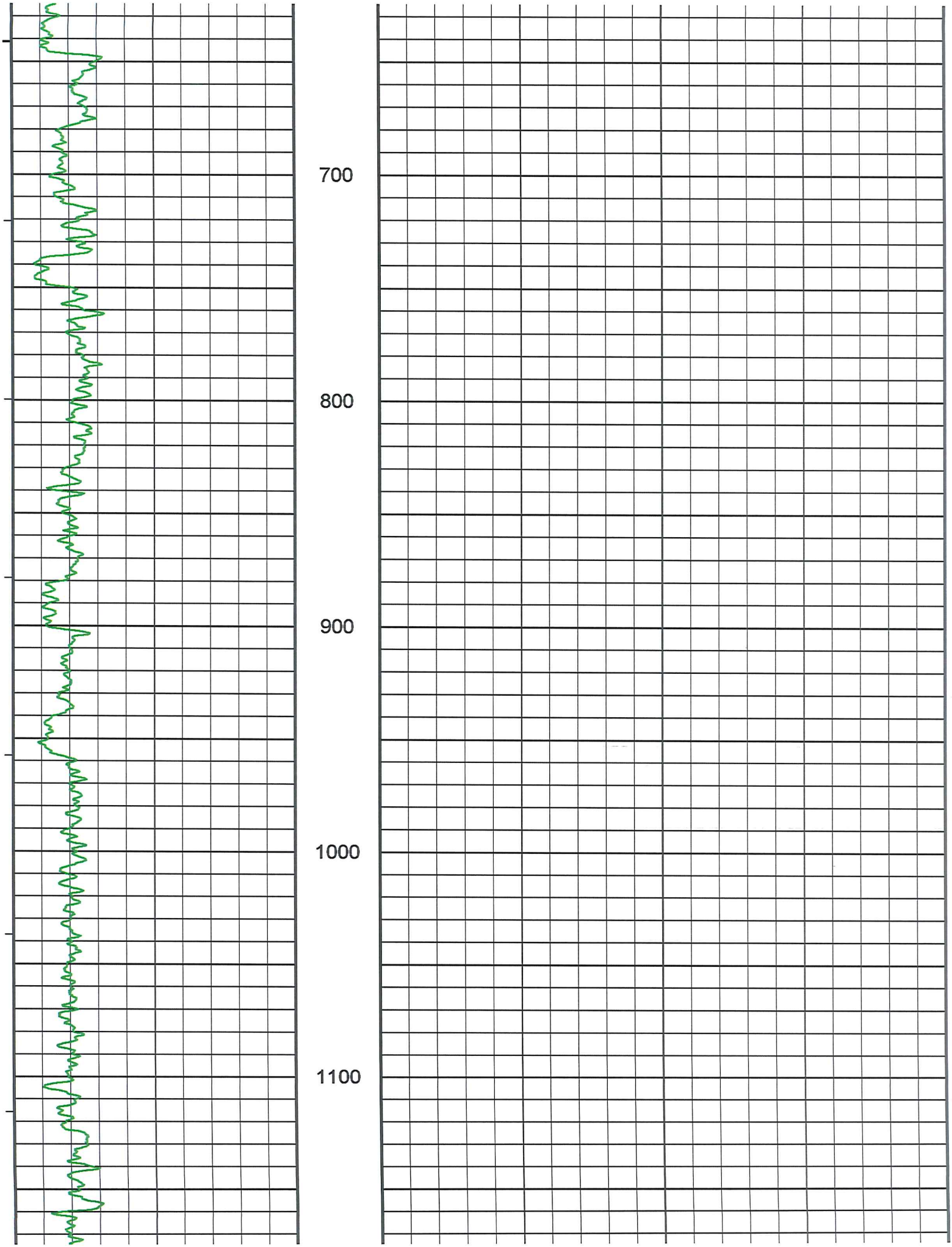
PE
barns/electron
0 2.50 5 7.50 10

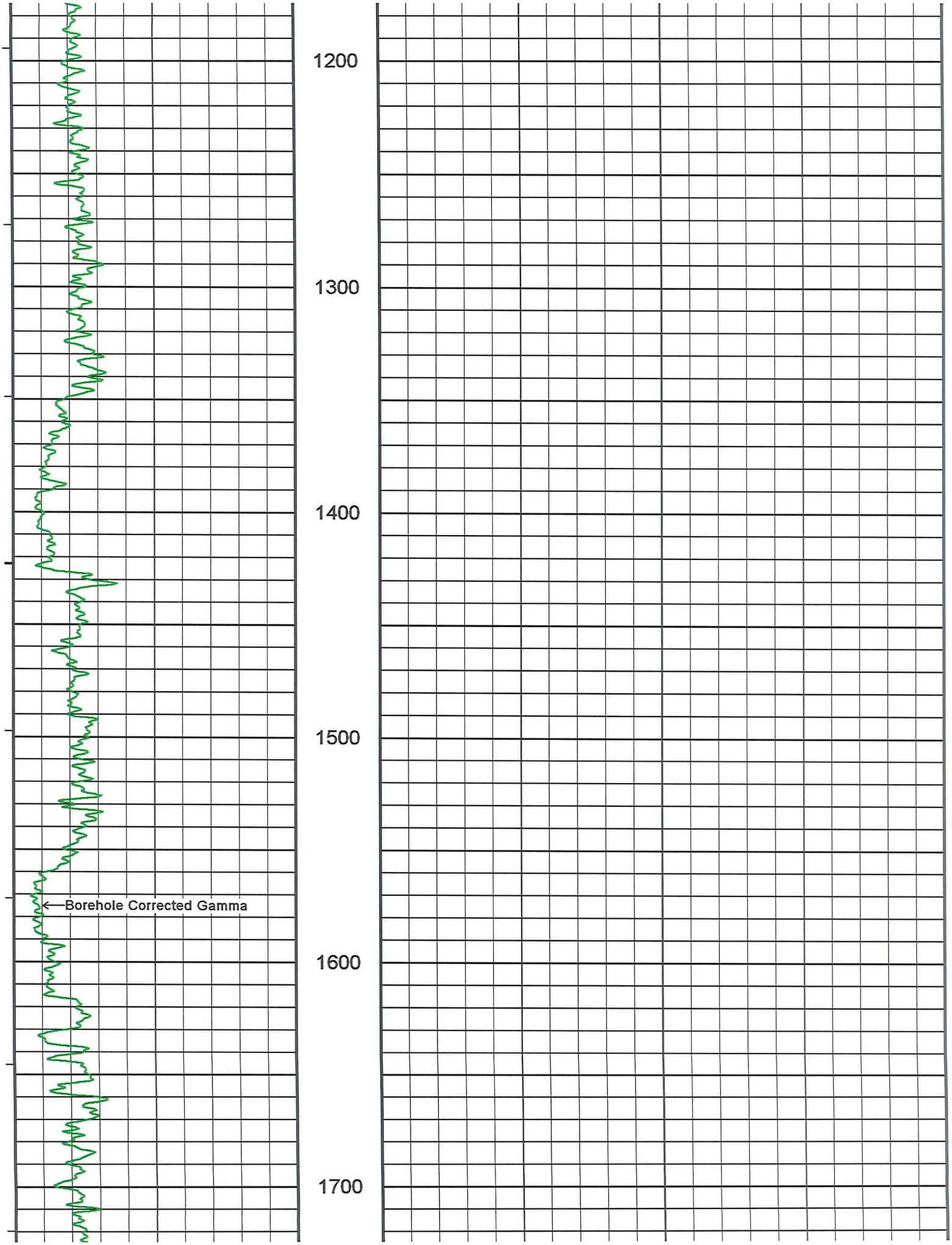
Base Density Porosity
percent
30 20 10 0 -10

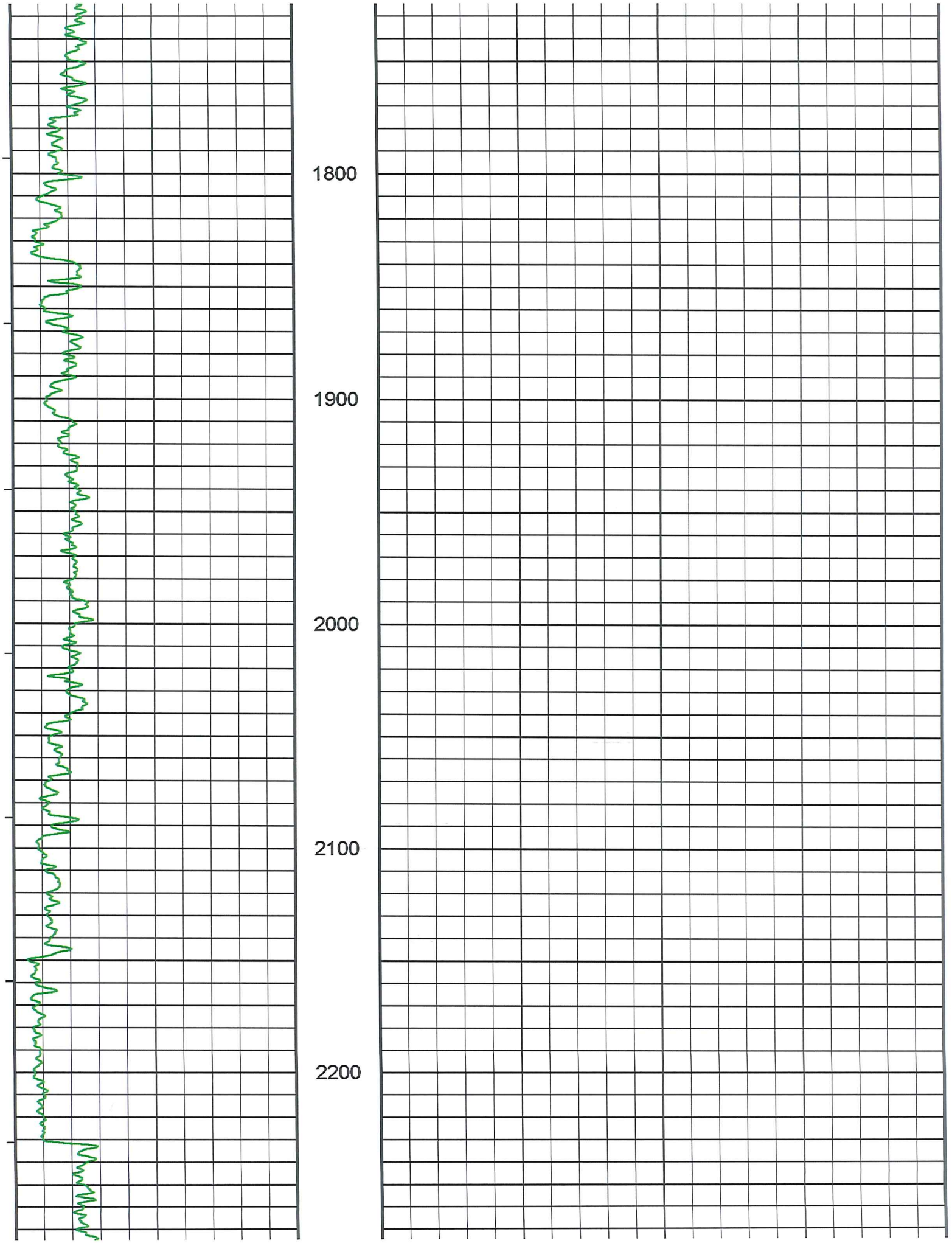
Matrix density
grams/cc
2 2.25 2.50 2.75 3

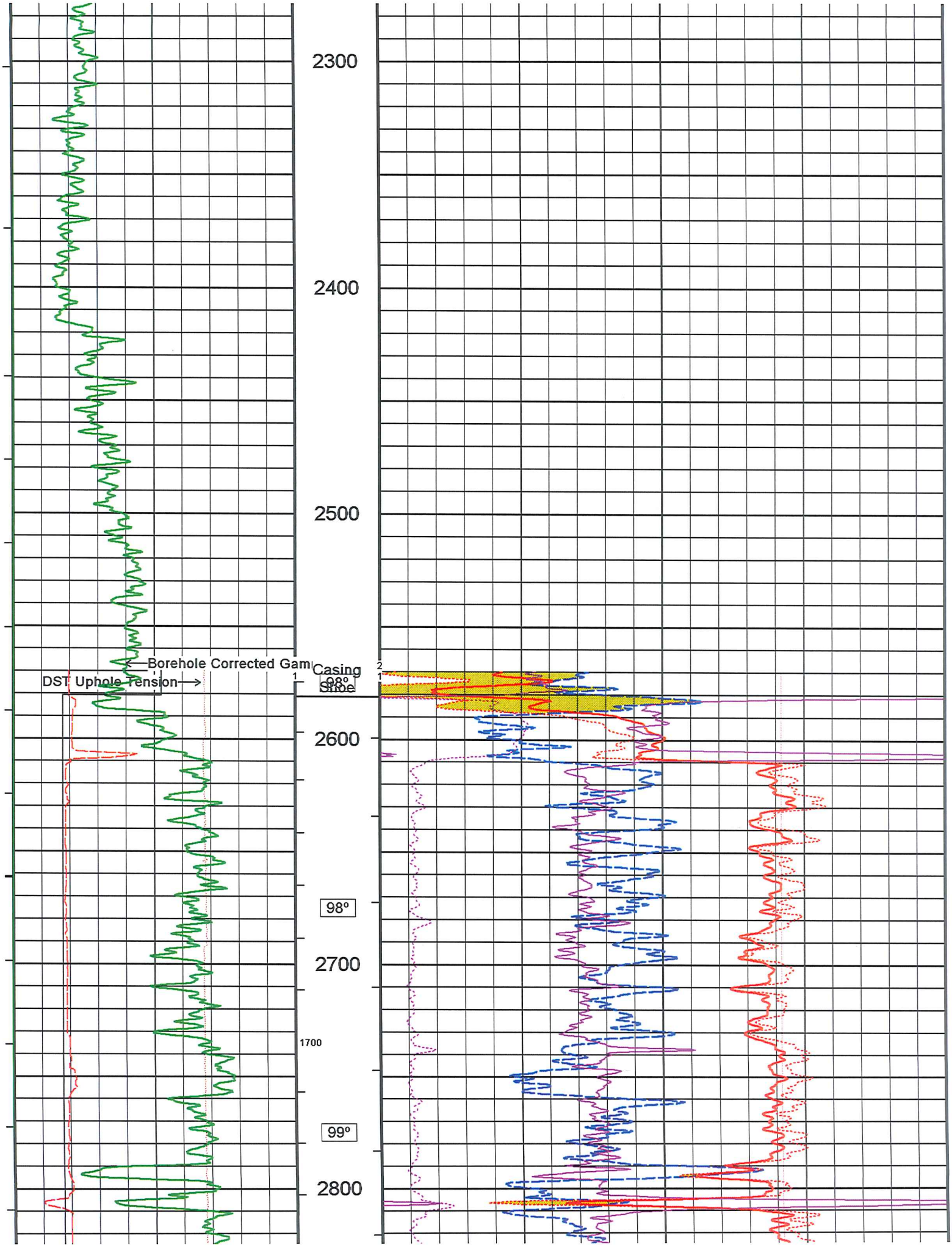
Density Correction
grams/cc
-0.05 0.20 0.45

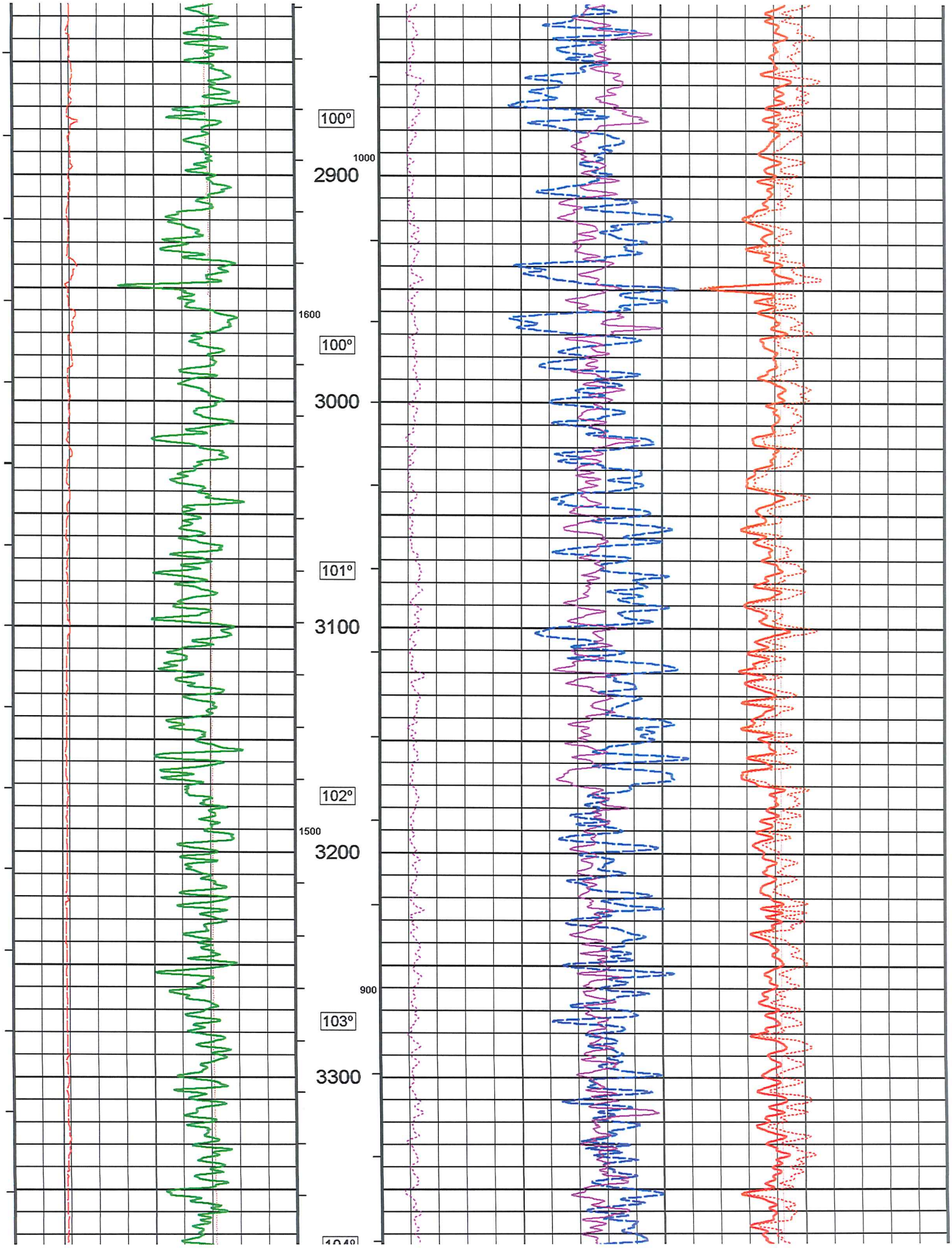

100
200
300
400
500
600
Borehole Corrected Gamma

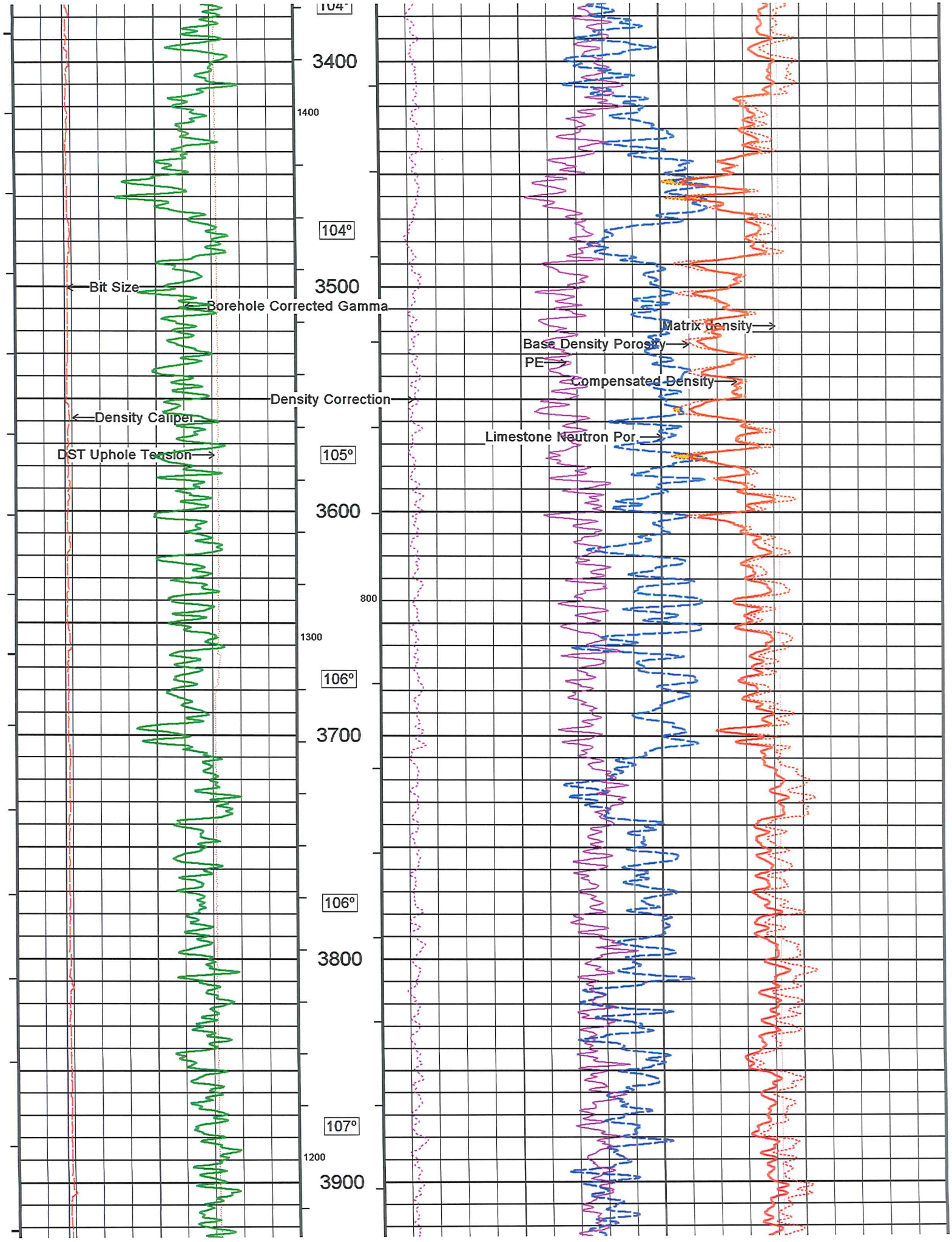

700
800
900
1000
1100

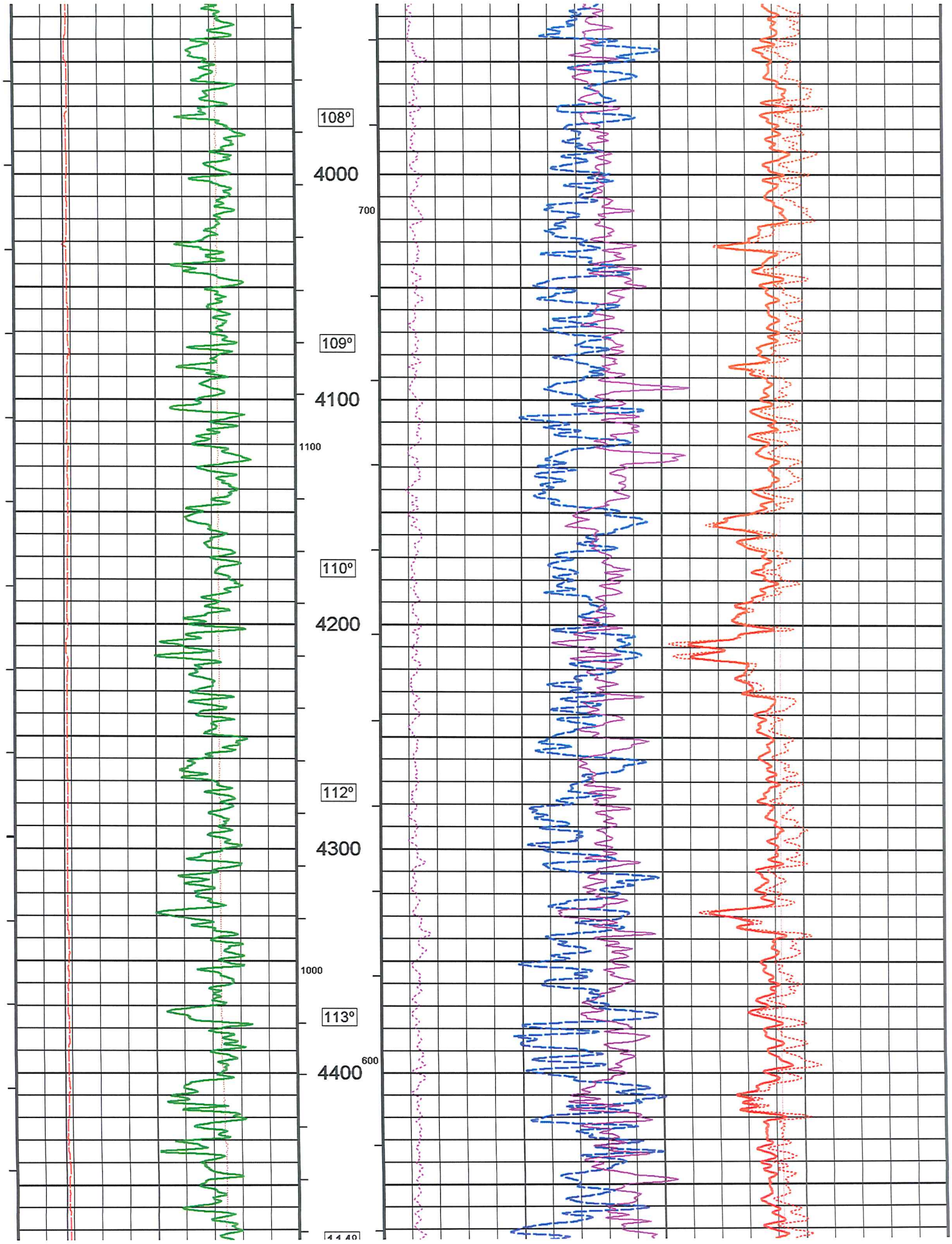

1200
1300
1400
1500
1600
1700
Borehole Corrected Gamma

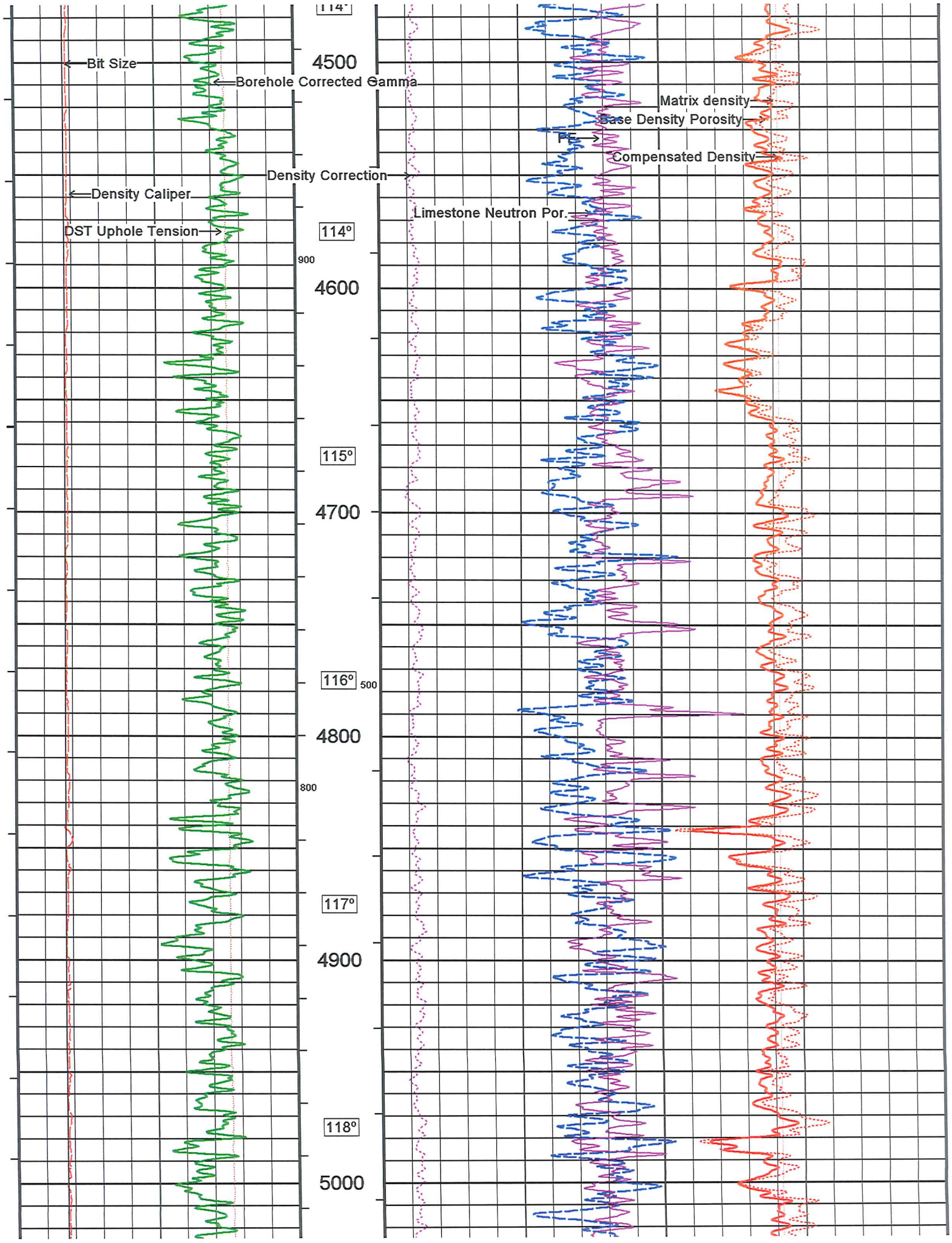

1800
1900
2000
2100
2200

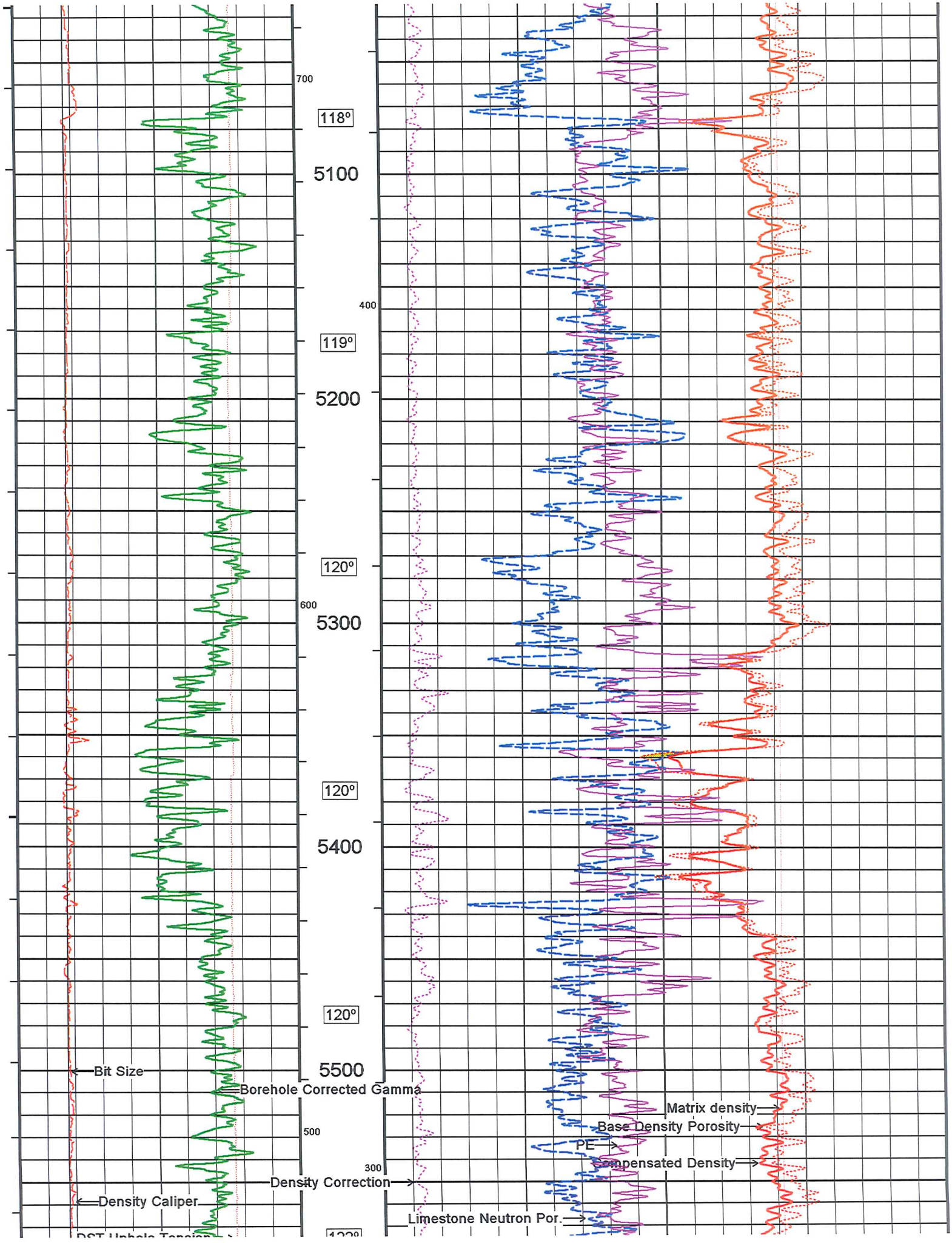

2300
2400
2500
2600
2700
2800
Borehole Corrected Gam
DST Uphole Tension
1
Casing
Shoe
98°
98°
99°
1700
2
1

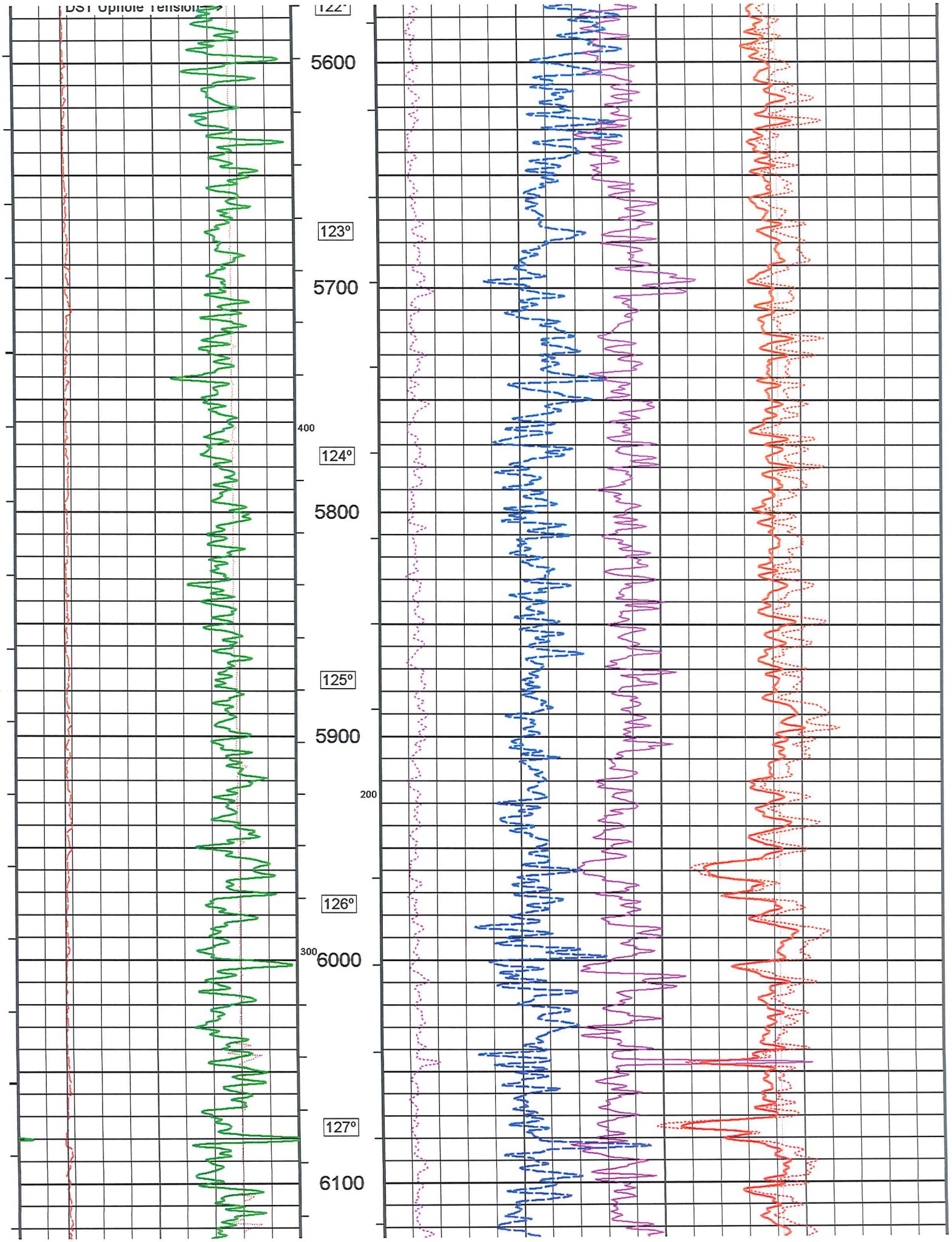

100°
2900
1600
100°
3000
101°
3100
102°
1500
3200
900
103°
3300
1000

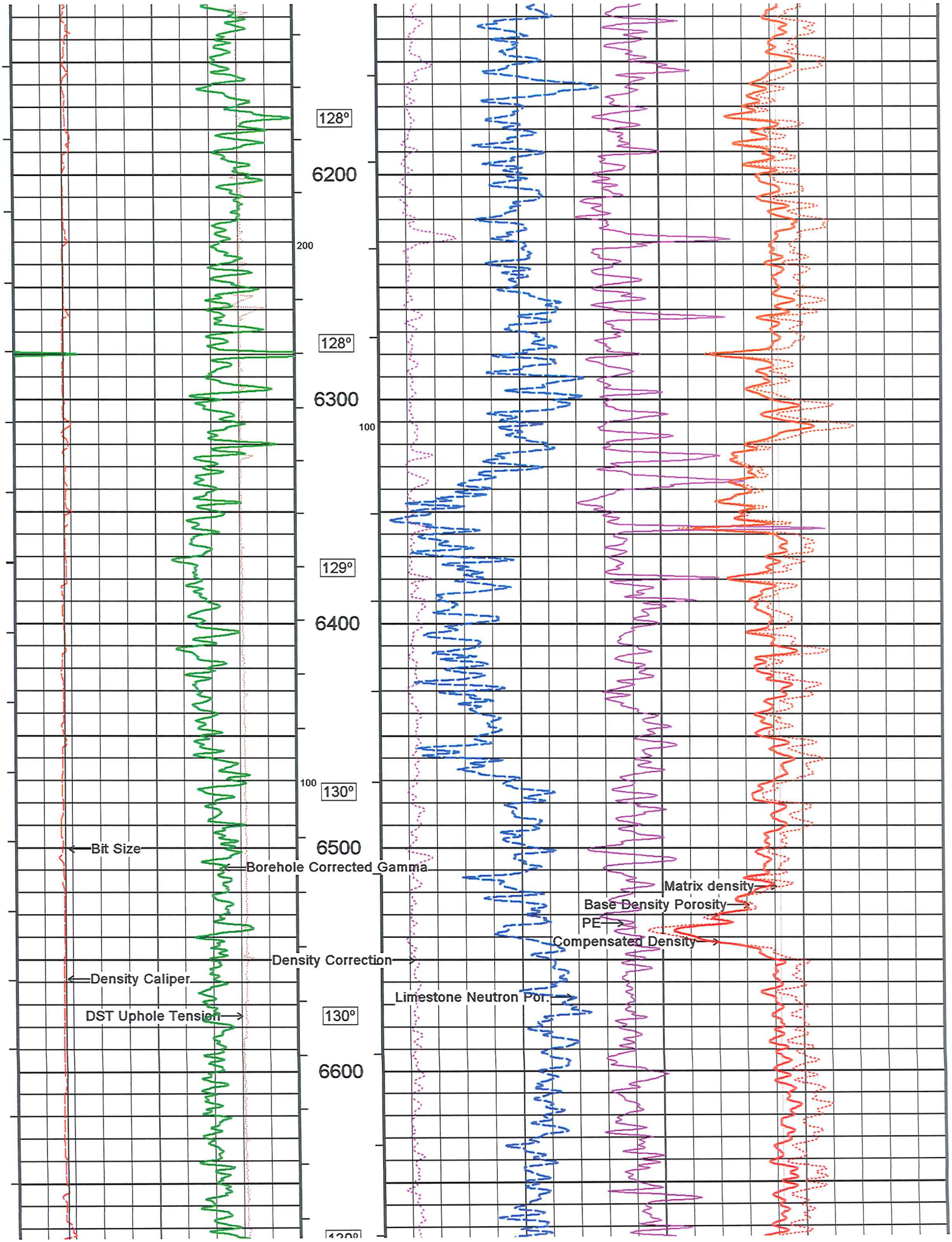

104°
3400
1400
104°
3500
Bit Size
Borehole Corrected Gamma
Matrix Density
Base Density Porosity
PE
Compensated Density
Density Correction
Density Caliper
Limestone Neutron Por
DST Uphole Tension
105°
3600
800
1300
106°
3700
106°
3800
107°
1200
3900

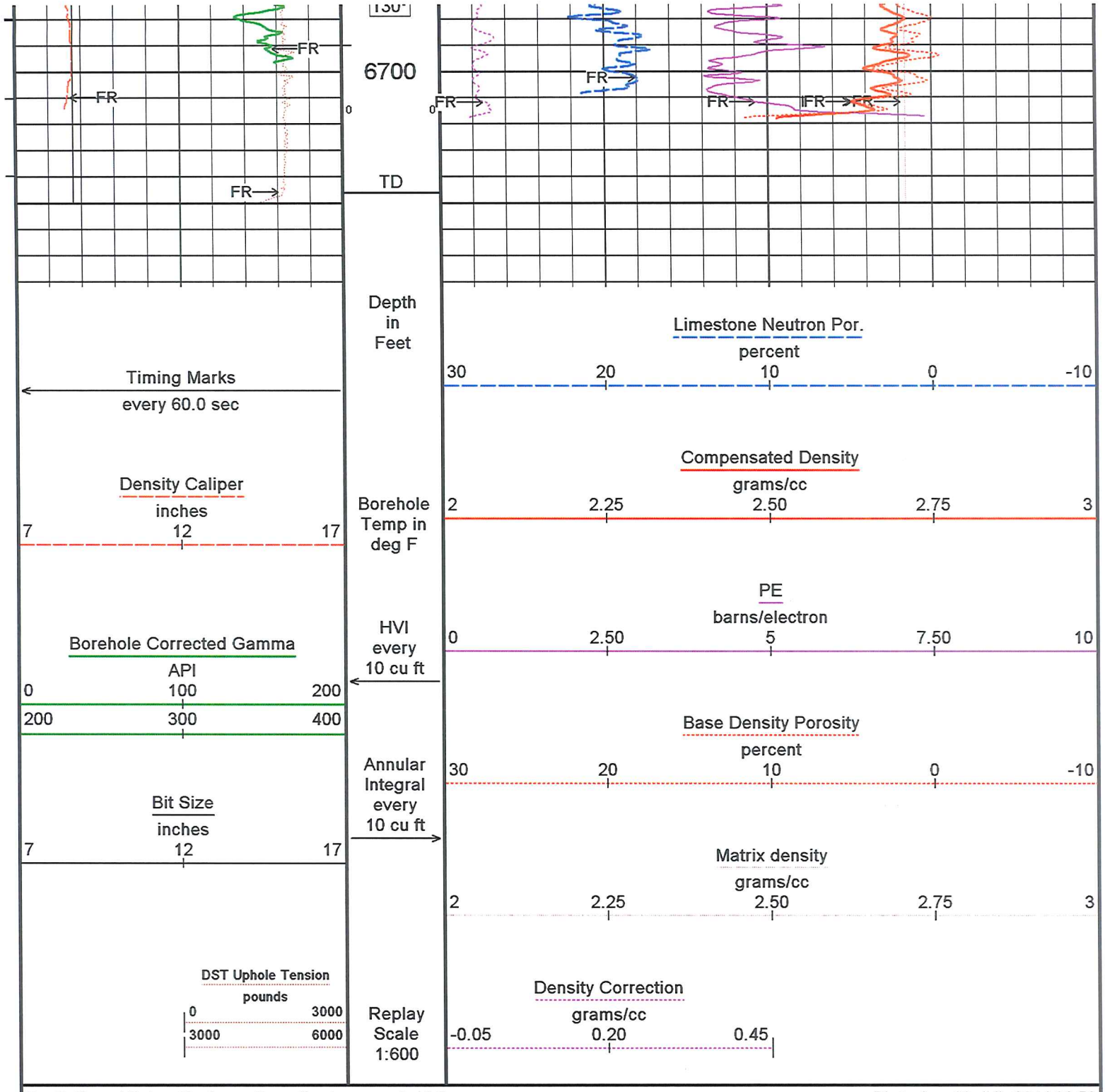

108°
4000
700
109°
4100
1100
110°
4200
112°
4300
1000
113°
4400
600


Bit Size
Borehole Corrected Gamma
Density Caliper
DST Uphole Tension
Density Correction
Limestone Neutron Por.
Matrix density
Base Density Porosity
PE
Compensated Density
114°
115°
116°
117°
118°
4500
4600
4700
4800
4900
5000
900
800
500


700
118°
5100
400
119°
5200
120°
600
5300
120°
5400
120°
5500
500
300
Bit Size
Borehole Corrected Gamma
Density Correction
Density Caliper
Limestone Neutron Por.
Matrix density
Base Density Porosity
PE
Compensated Density


DST Uphole Tension
122°
5600
123°
5700
400
124°
5800
125°
5900
200
126°
300
6000
127°
6100


128°
6200
200
128°
6300
100
129°
6400
100
130°
6500
Bit Size
Borehole Corrected Gamma
Density Correction
Density Caliper
DST Uphole Tension
130°
6600
Matrix density
Base Density Porosity
PE
Compensated Density
Limestone Neutron Por.

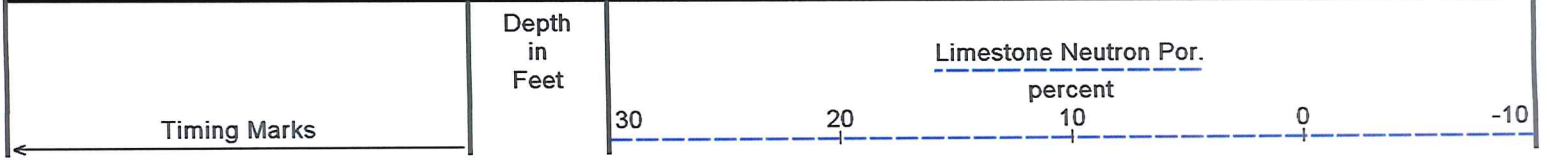


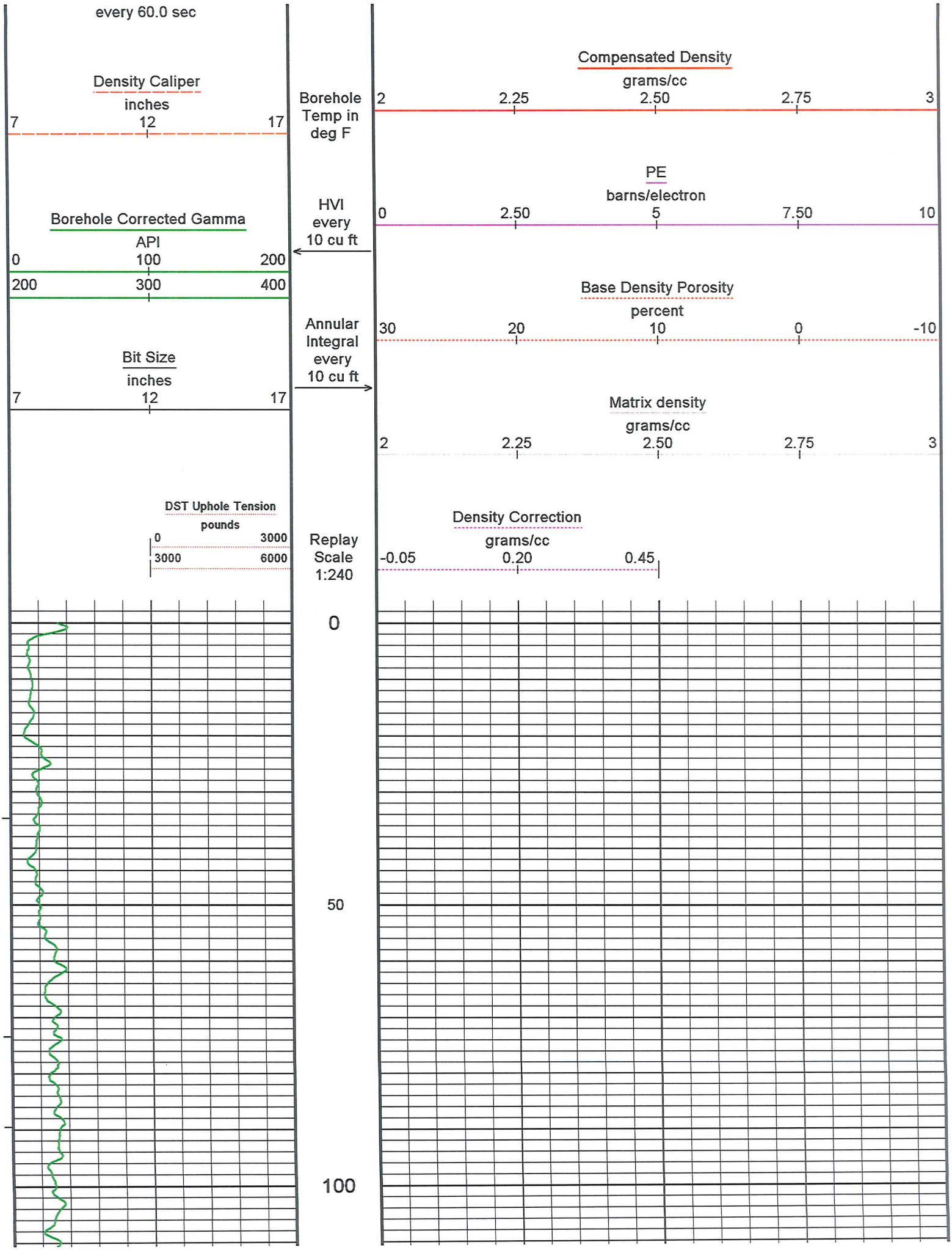
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 22-JUL-2014 06:52
Filename: C:\DOCUME~1\sysadmin\LOCALS~1\Temp\Weatherford PreView5\0\Main Pass FL.dta
System Versions: Plotted with 14.01.3220

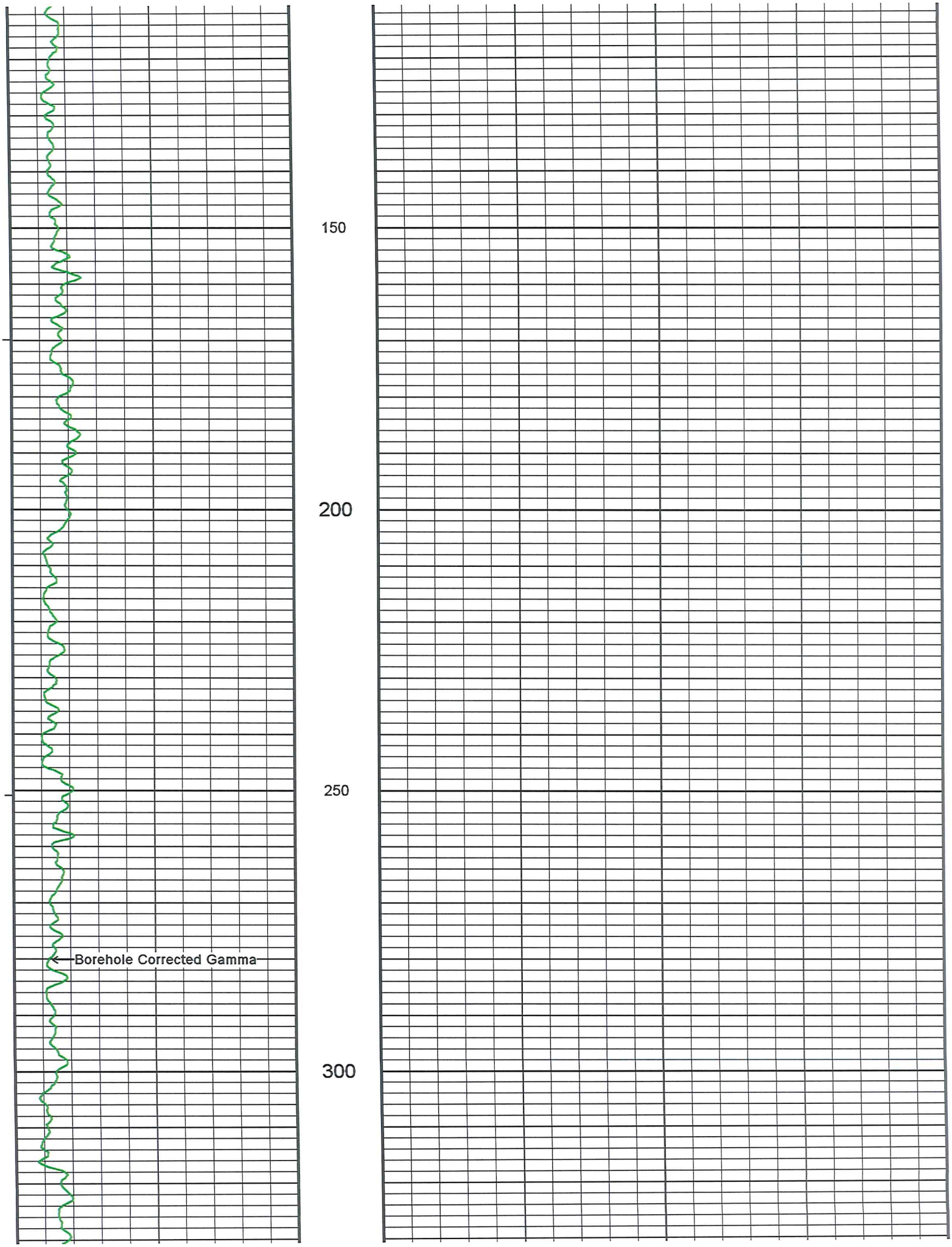
2 Inch Main Pass

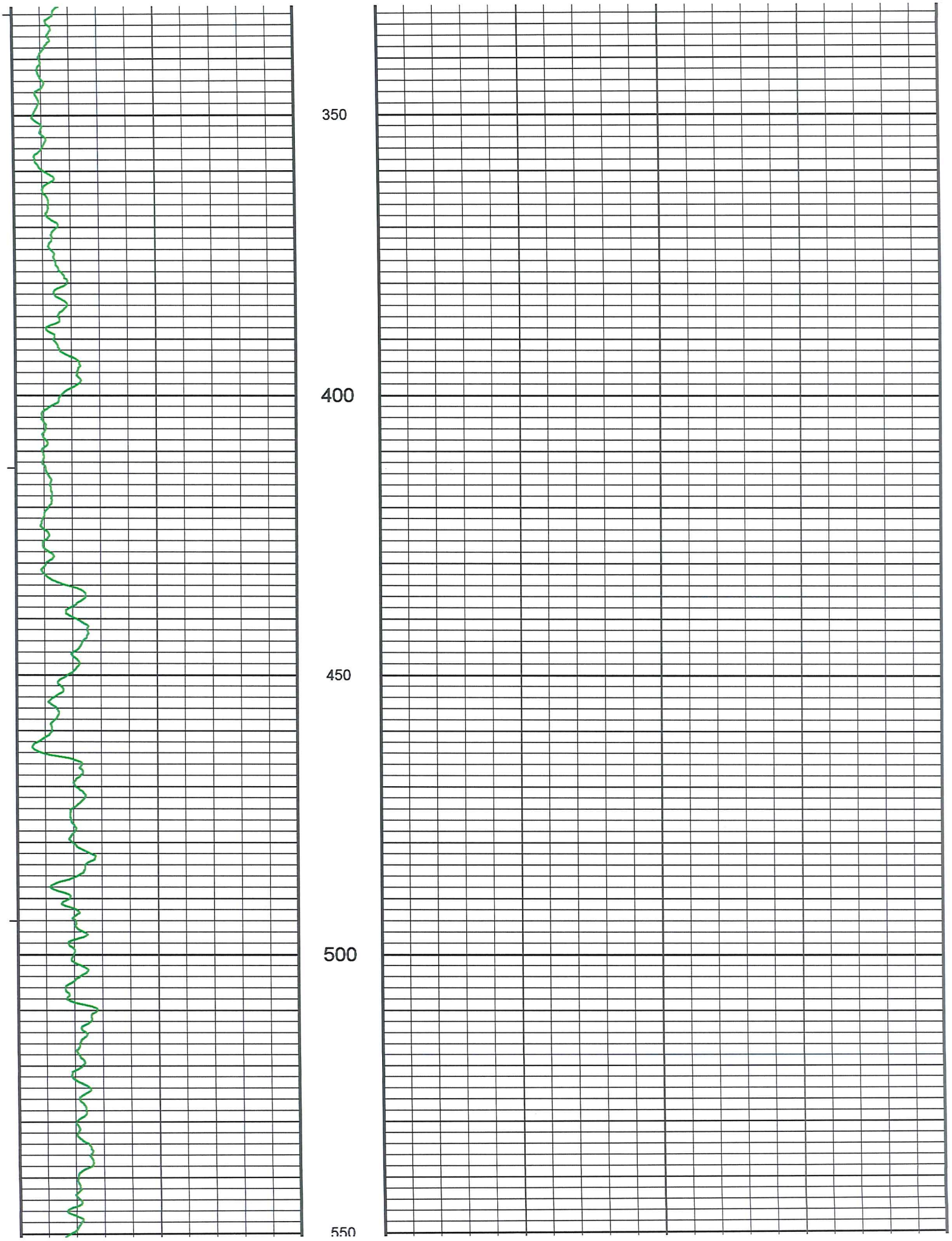
5 Inch Main Pass

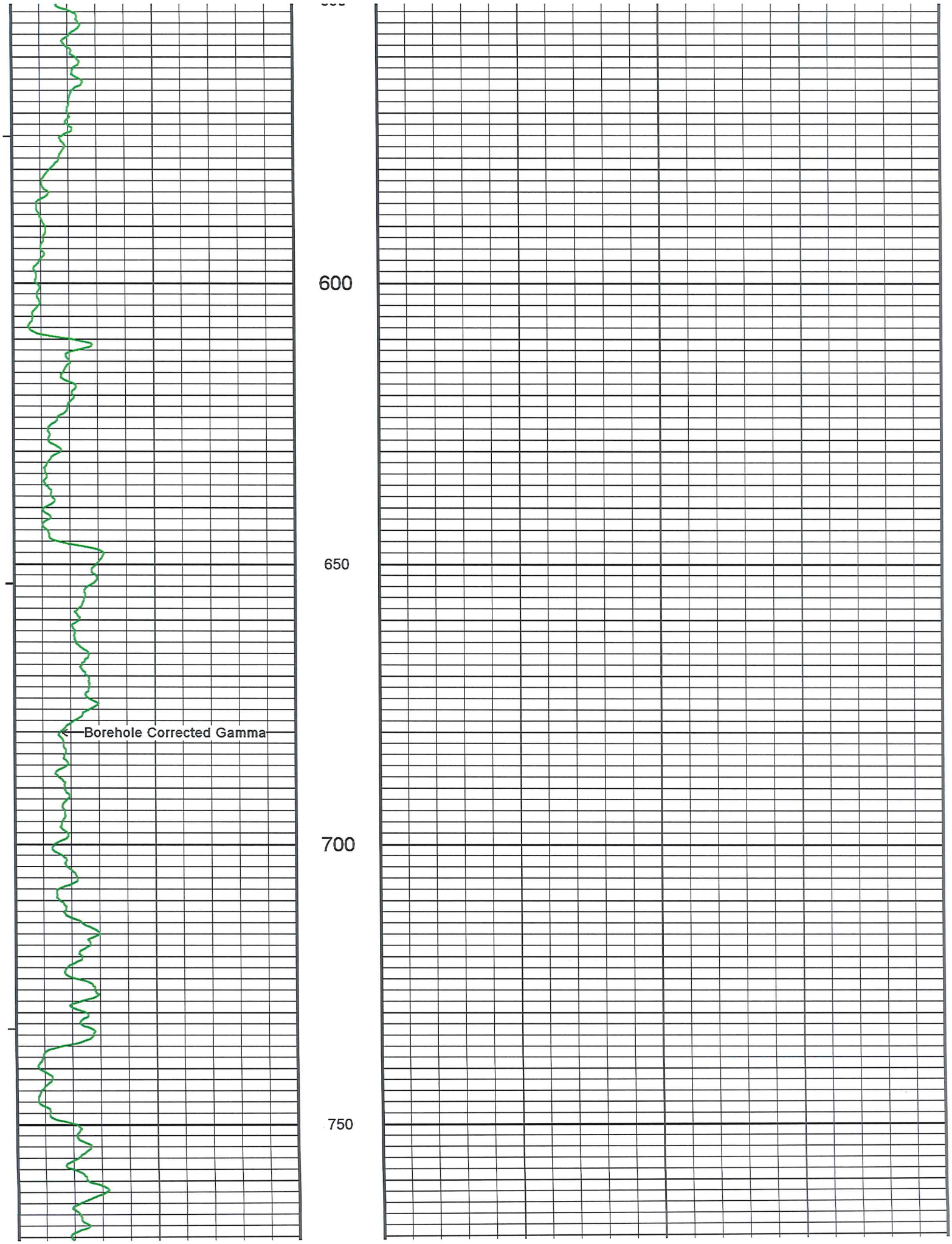
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 22-JUL-2014 06:52
Filename: C:\DOCUME~1\sysadmin\LOCALS~1\Temp\Weatherford PreView5\0\Main Pass FL.dta
System Versions: Plotted with 14.01.3220

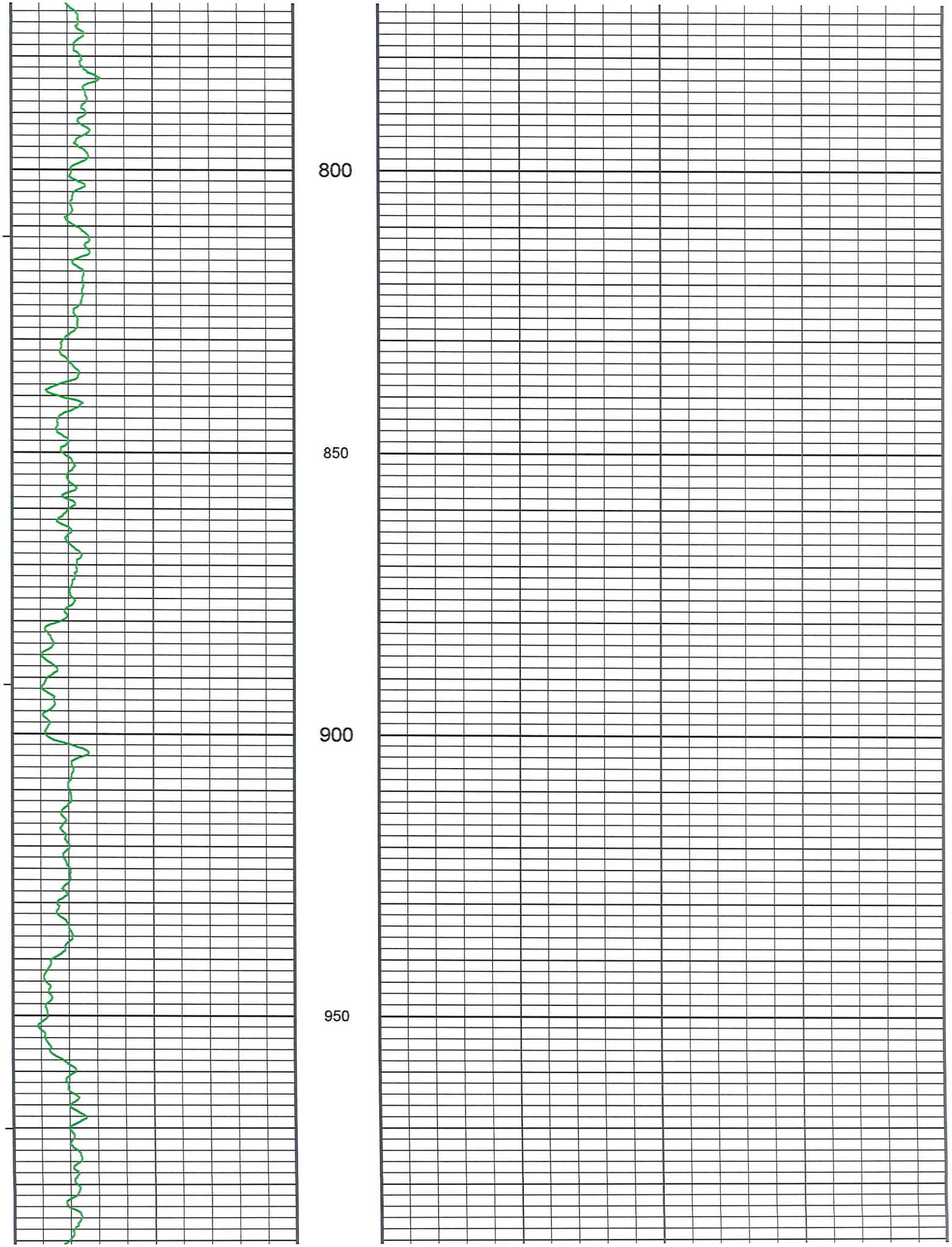


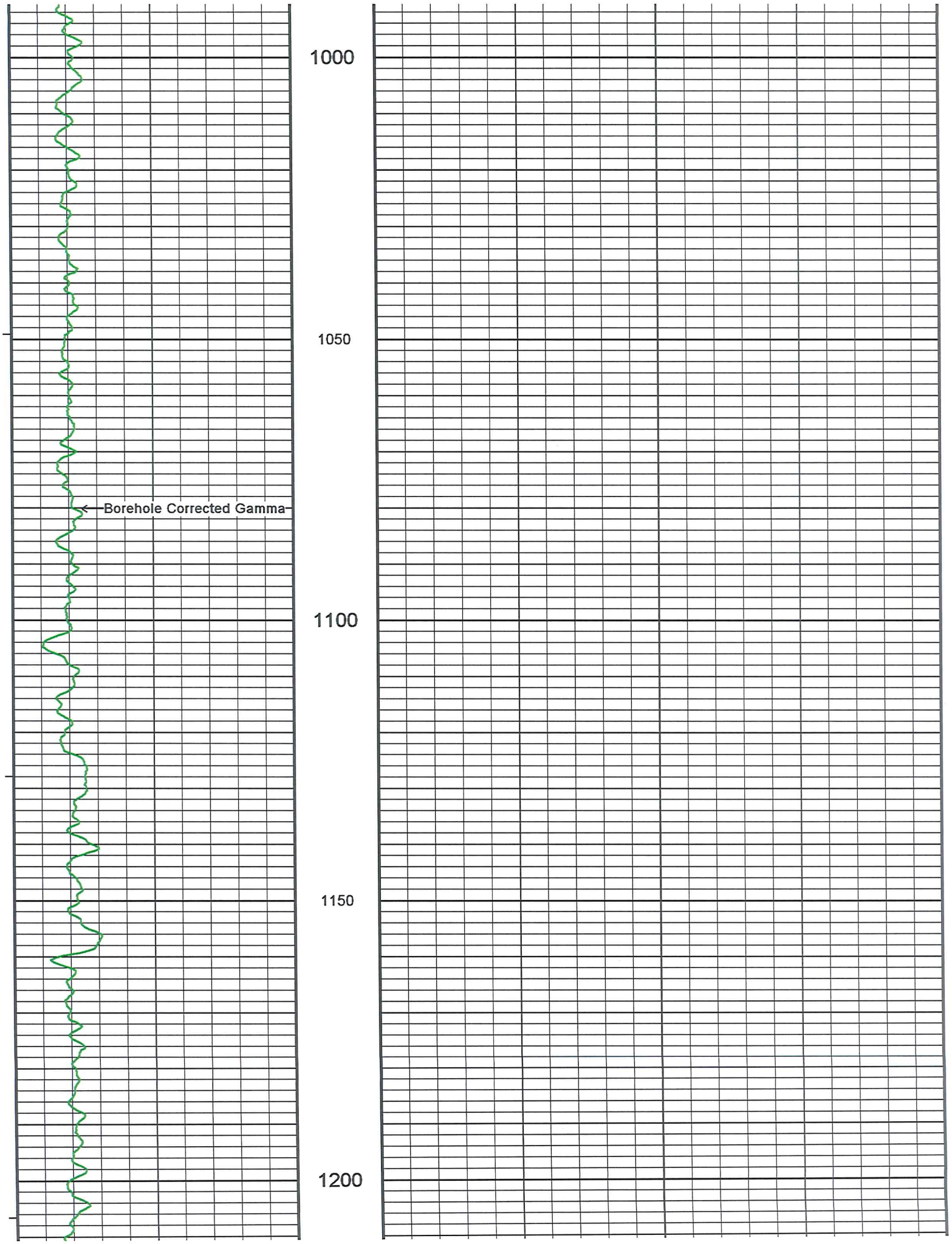

every 60.0 sec
Density Caliper
inches
7
12
17
Borehole Corrected Gamma
API
0
100
200
200
300
400
Bit Size
inches
7
12
17
DST Uphole Tension
pounds
0
3000
3000
6000
Borehole Temp in deg F
HVI every 10 cu ft
Annular Integral every 10 cu ft
Replay Scale 1:240
0
50
100
Compensated Density
grams/cc
2
2.25
2.50
2.75
3
PE
barns/electron
0
2.50
5
7.50
10
Base Density Porosity
percent
30
20
10
0
-10
Matrix density
grams/cc
2
2.25
2.50
2.75
3
Density Correction
grams/cc
-0.05
0.20
0.45

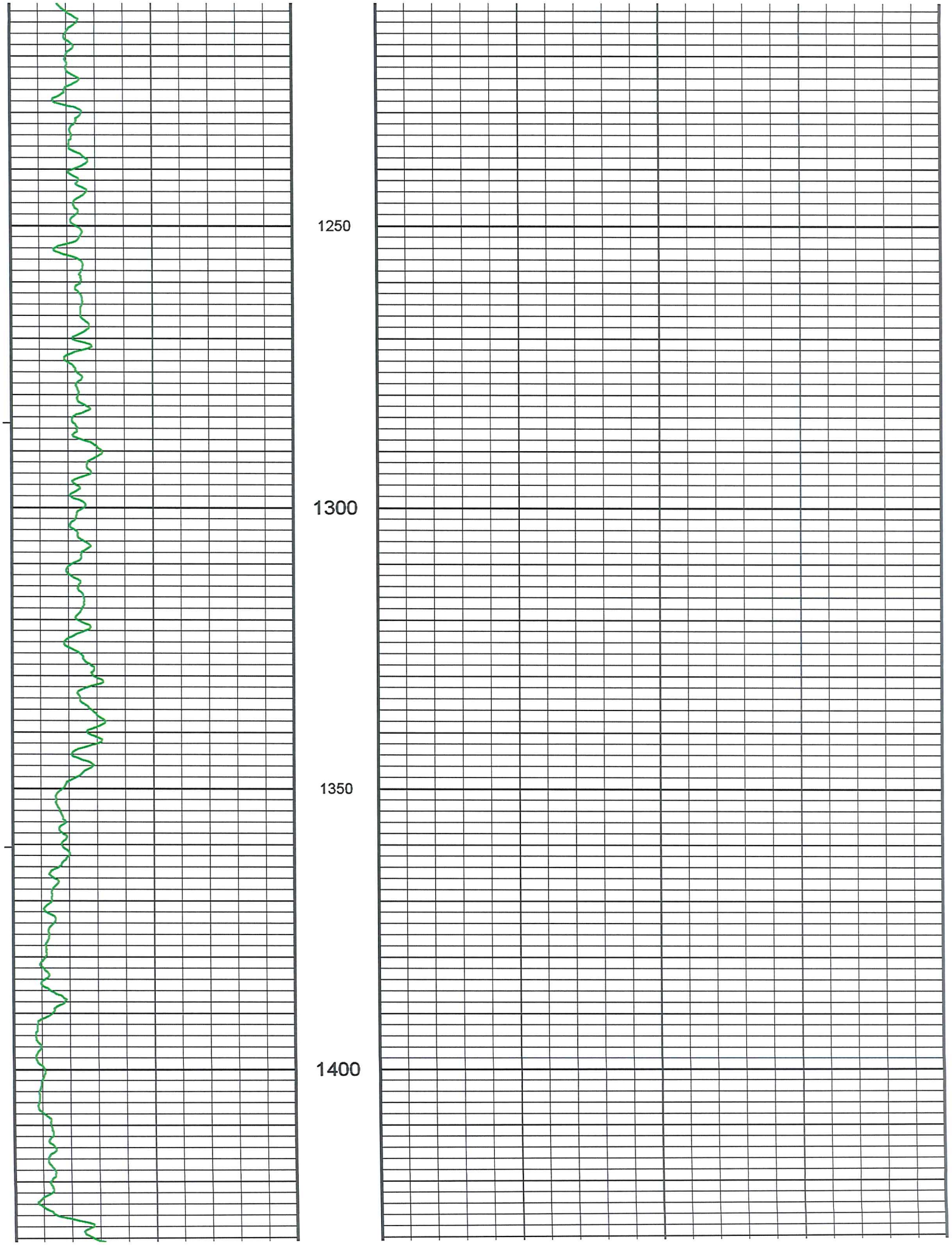

150
200
250
300
Borehole Corrected Gamma

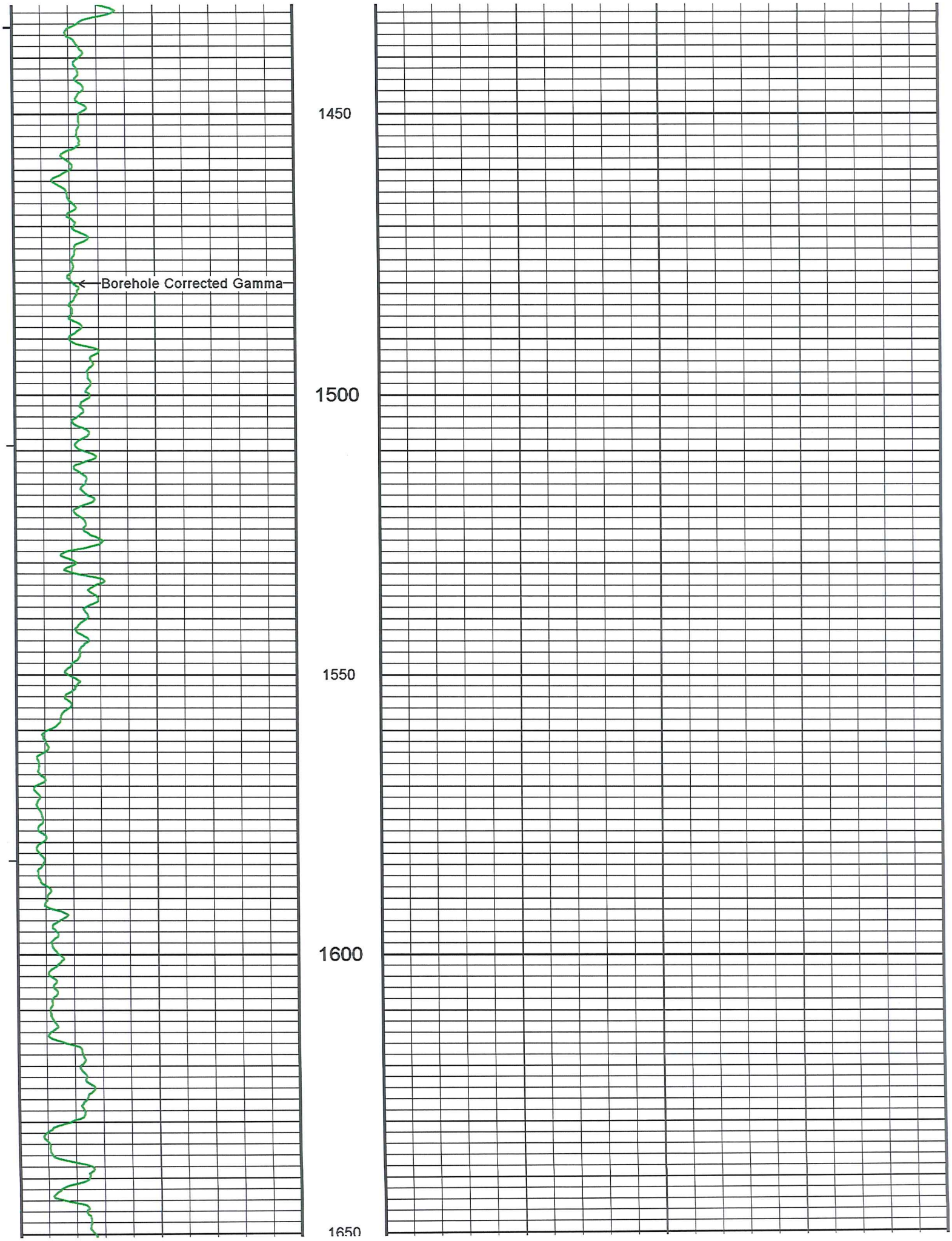

350
400
450
500
550

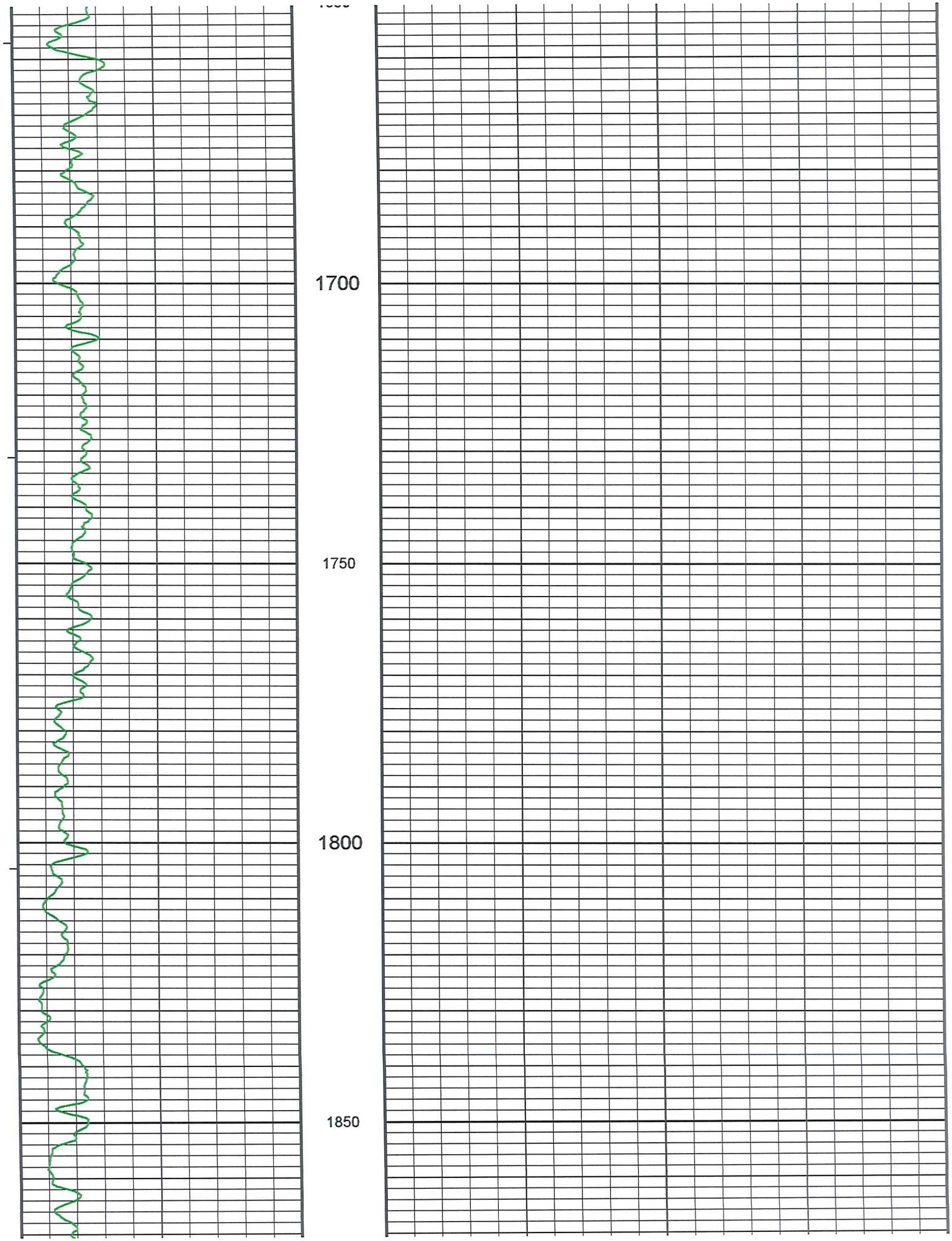

600
650
700
750
Borehole Corrected Gamma

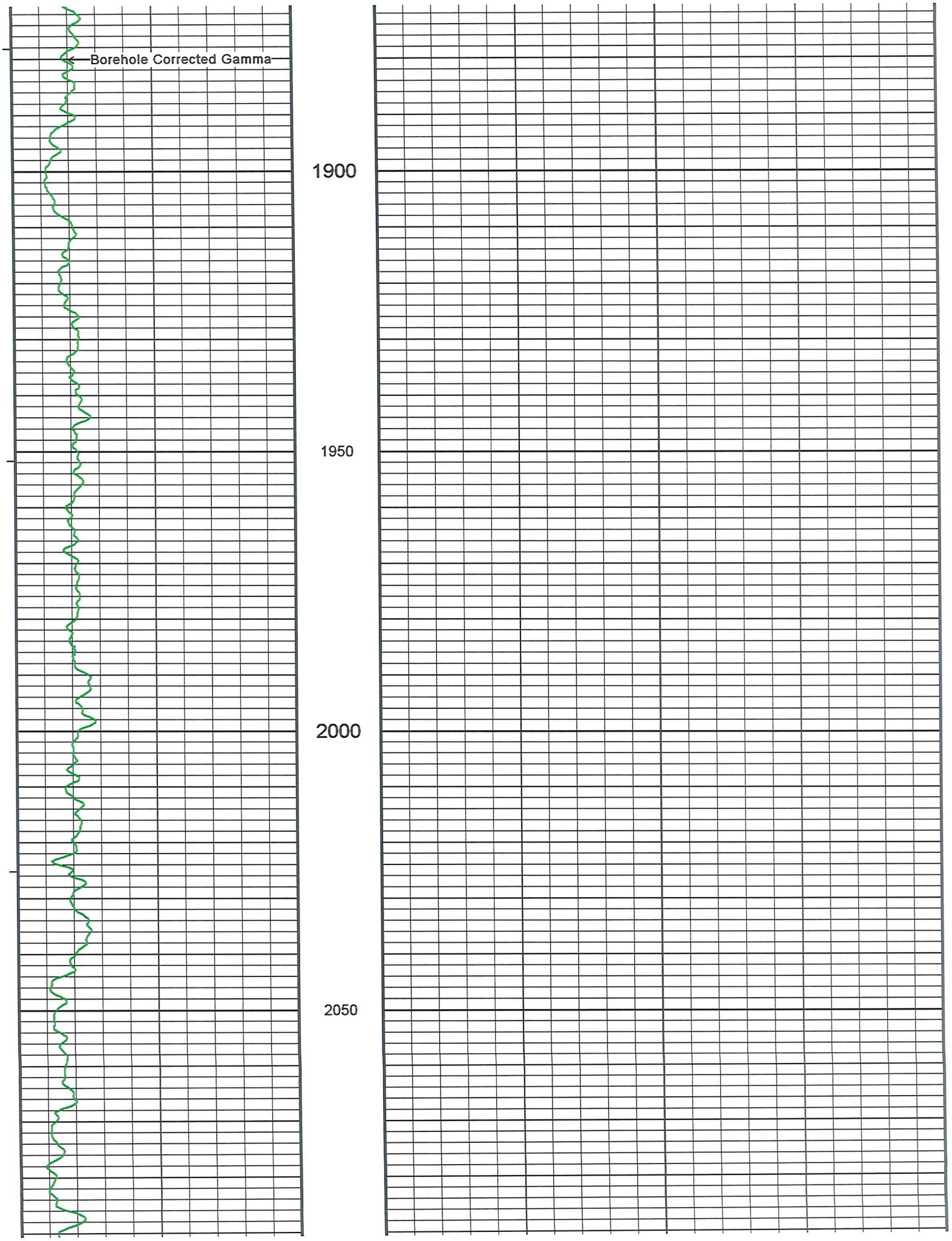

800
850
900
950

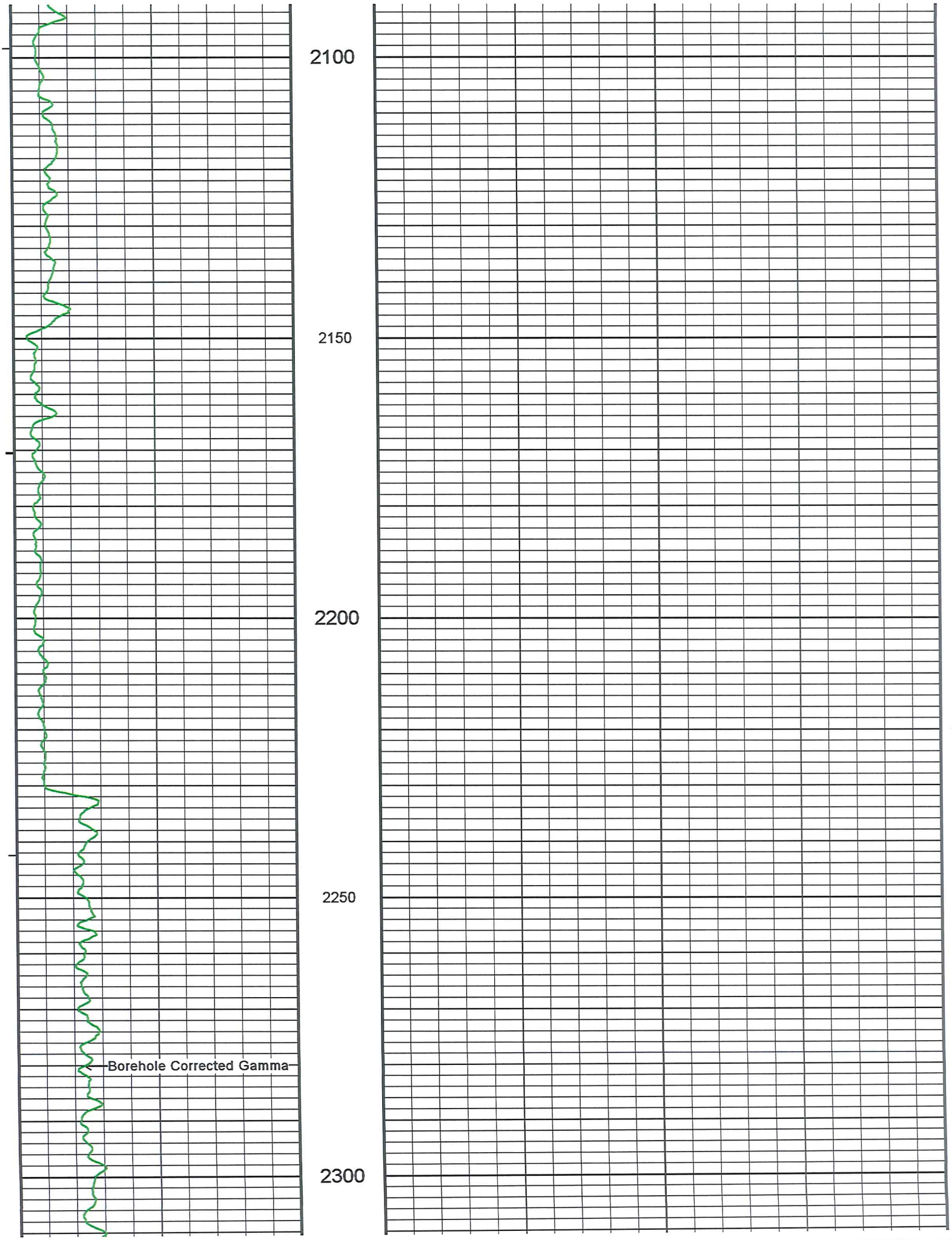

1000
1050
Borehole Corrected Gamma
1100
1150
1200

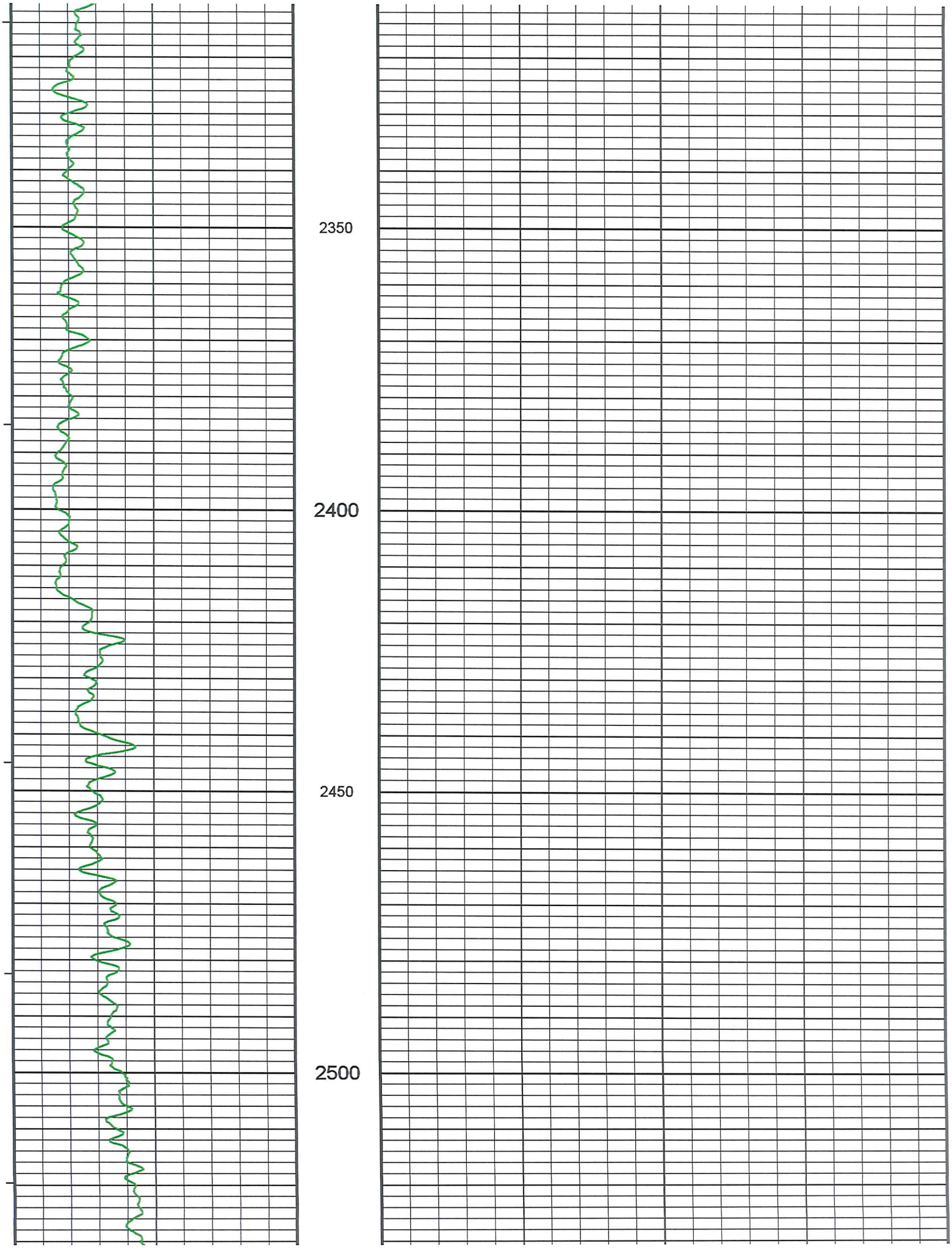

1250
1300
1350
1400

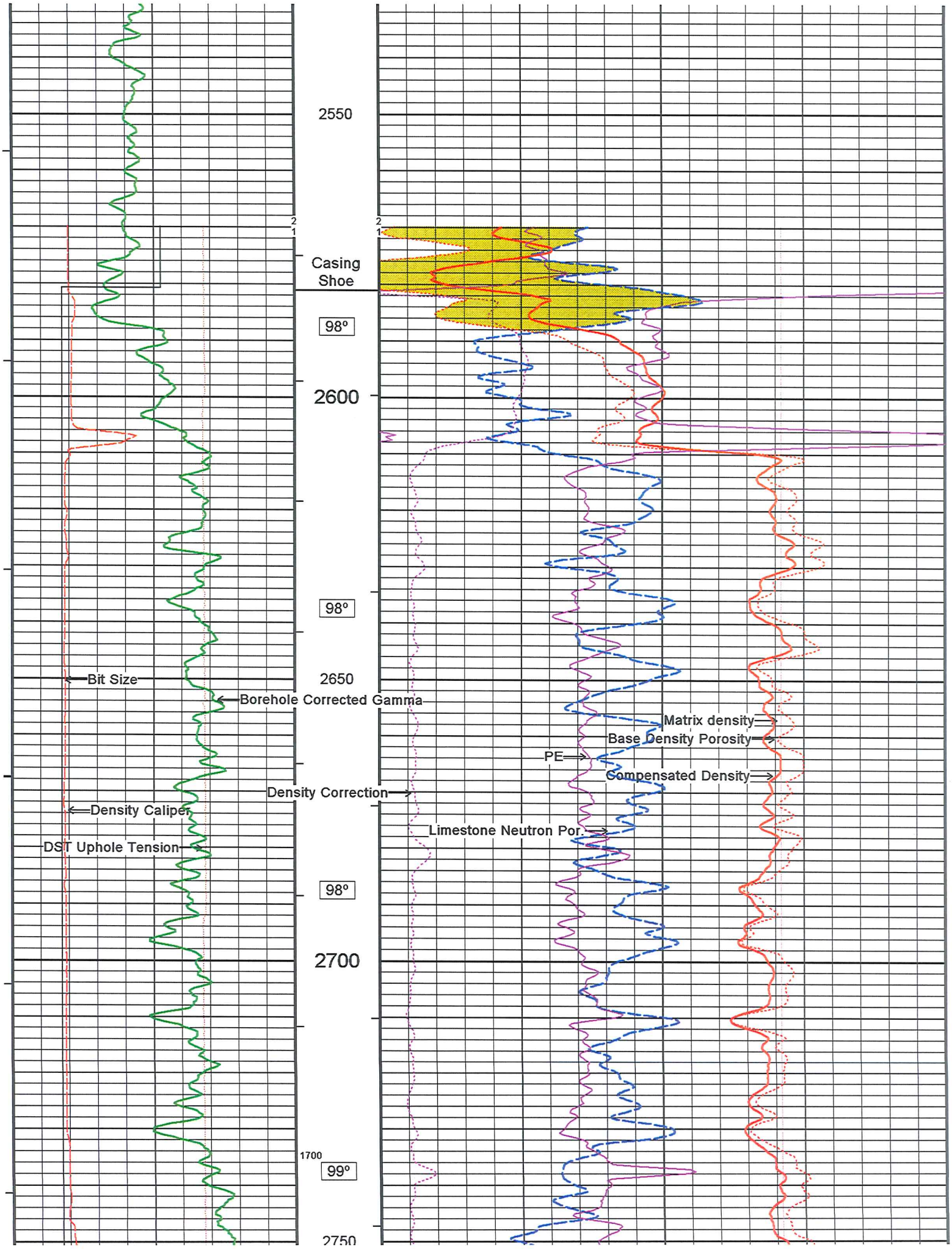

Borehole Corrected Gamma
1450
1500
1550
1600
1650

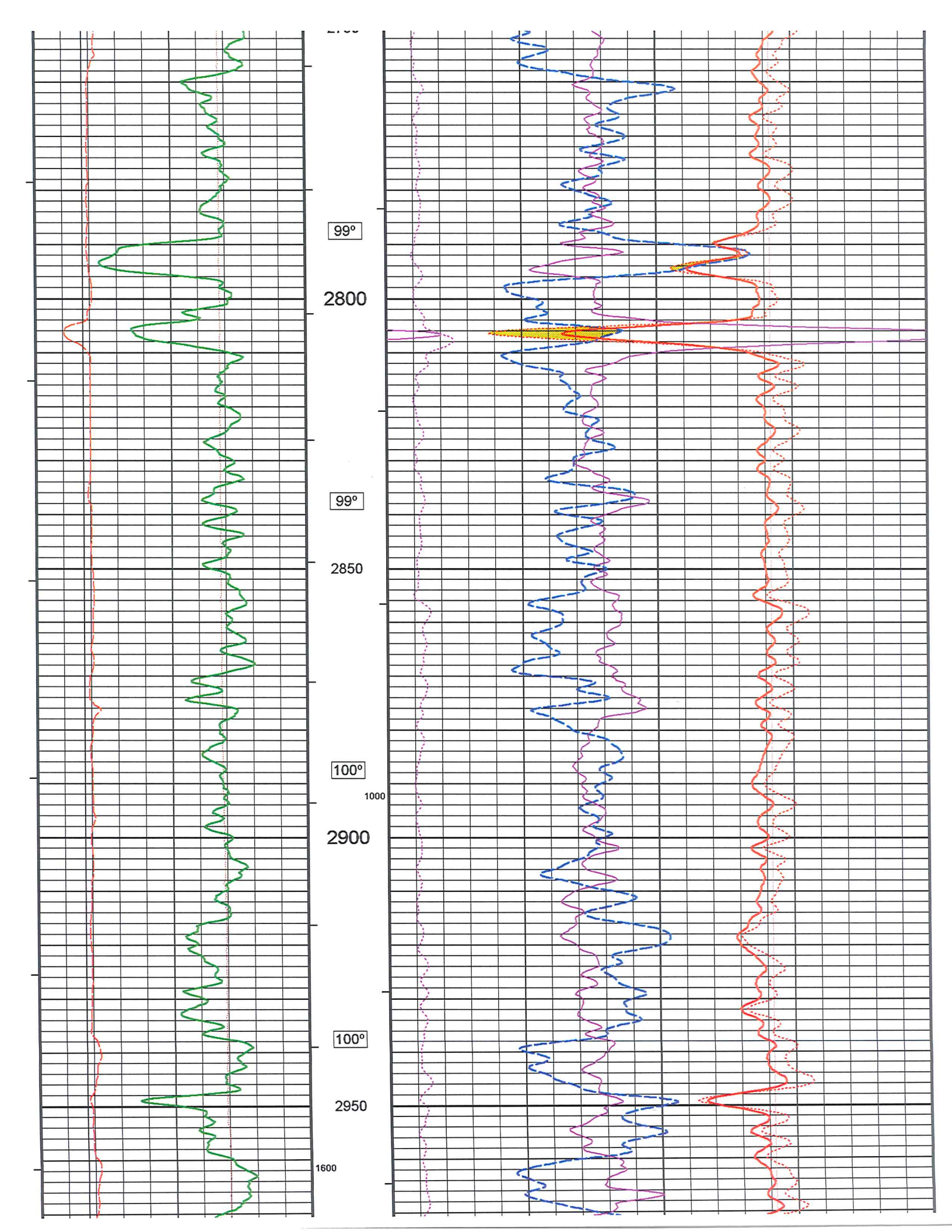

1700
1750
1800
1850

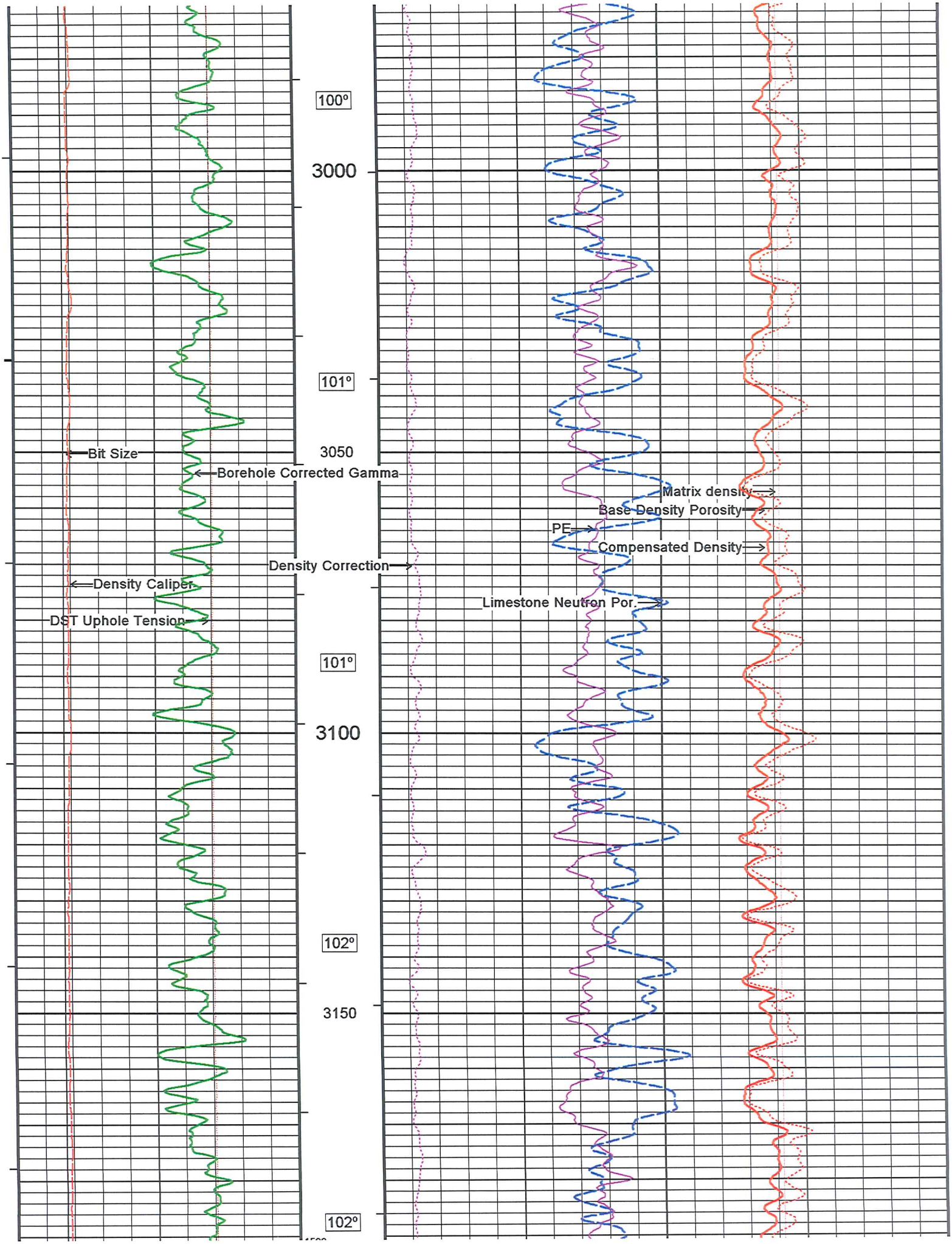

Borehole Corrected Gamma
1900
1950
2000
2050

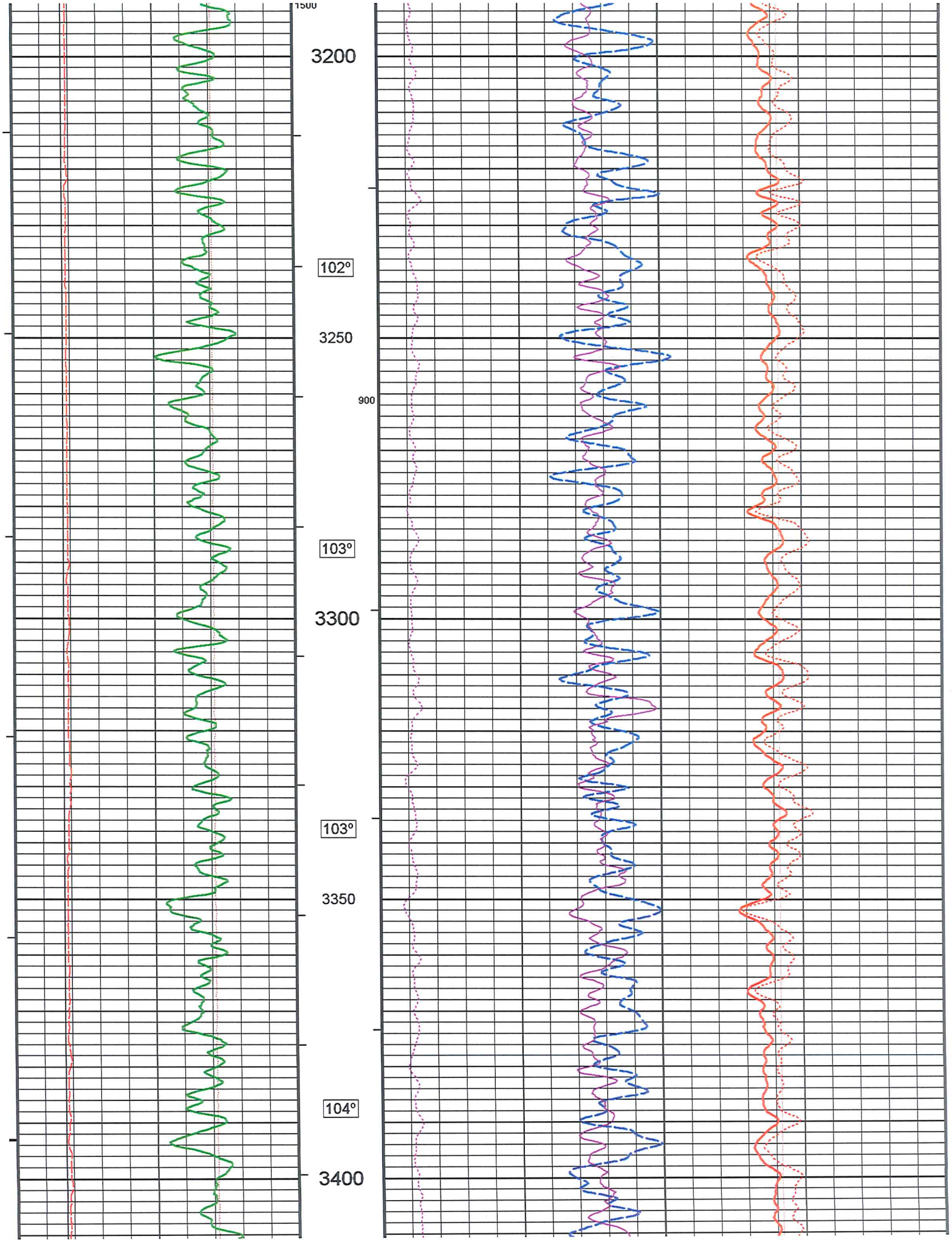

2100
2150
2200
2250
2300
Borehole Corrected Gamma

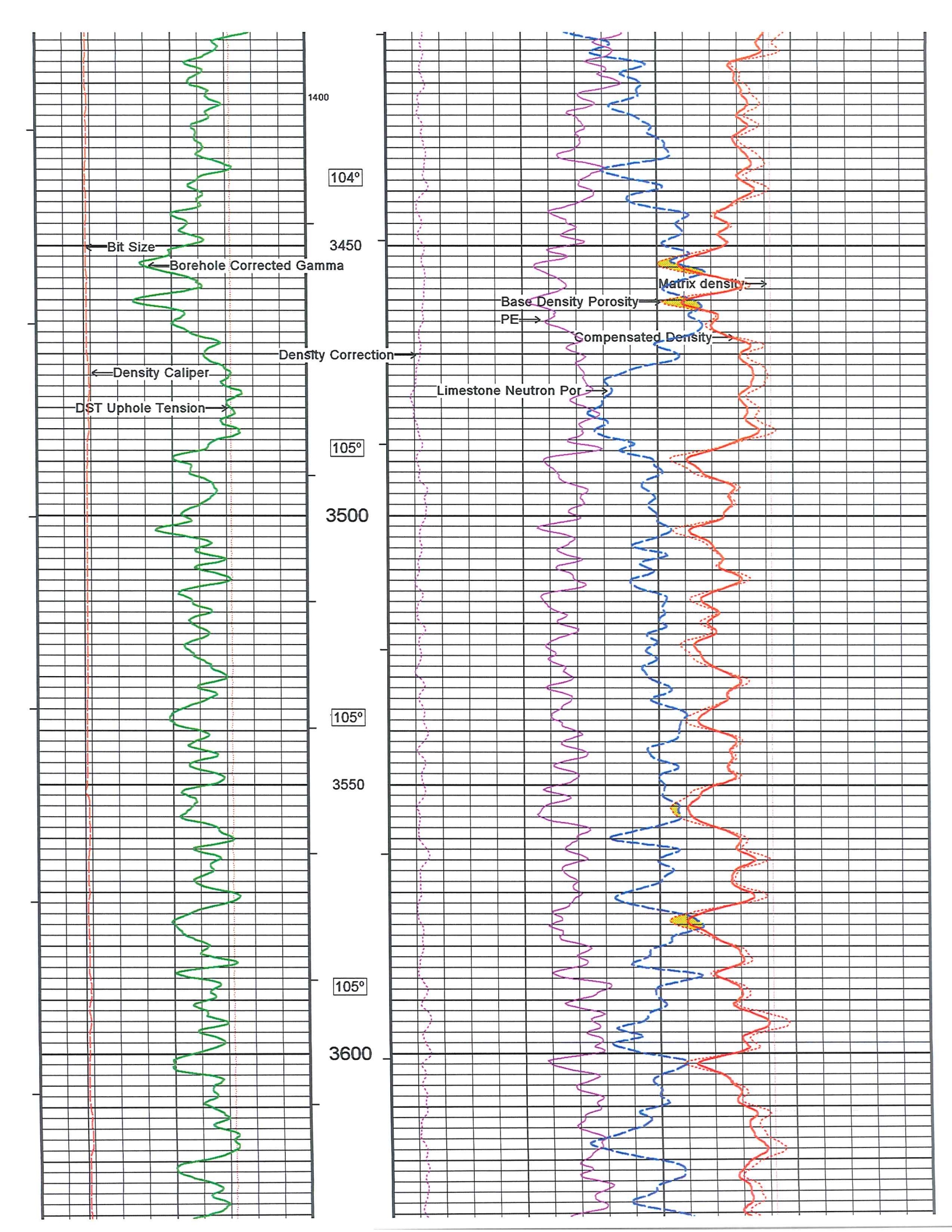

2350
2400
2450
2500

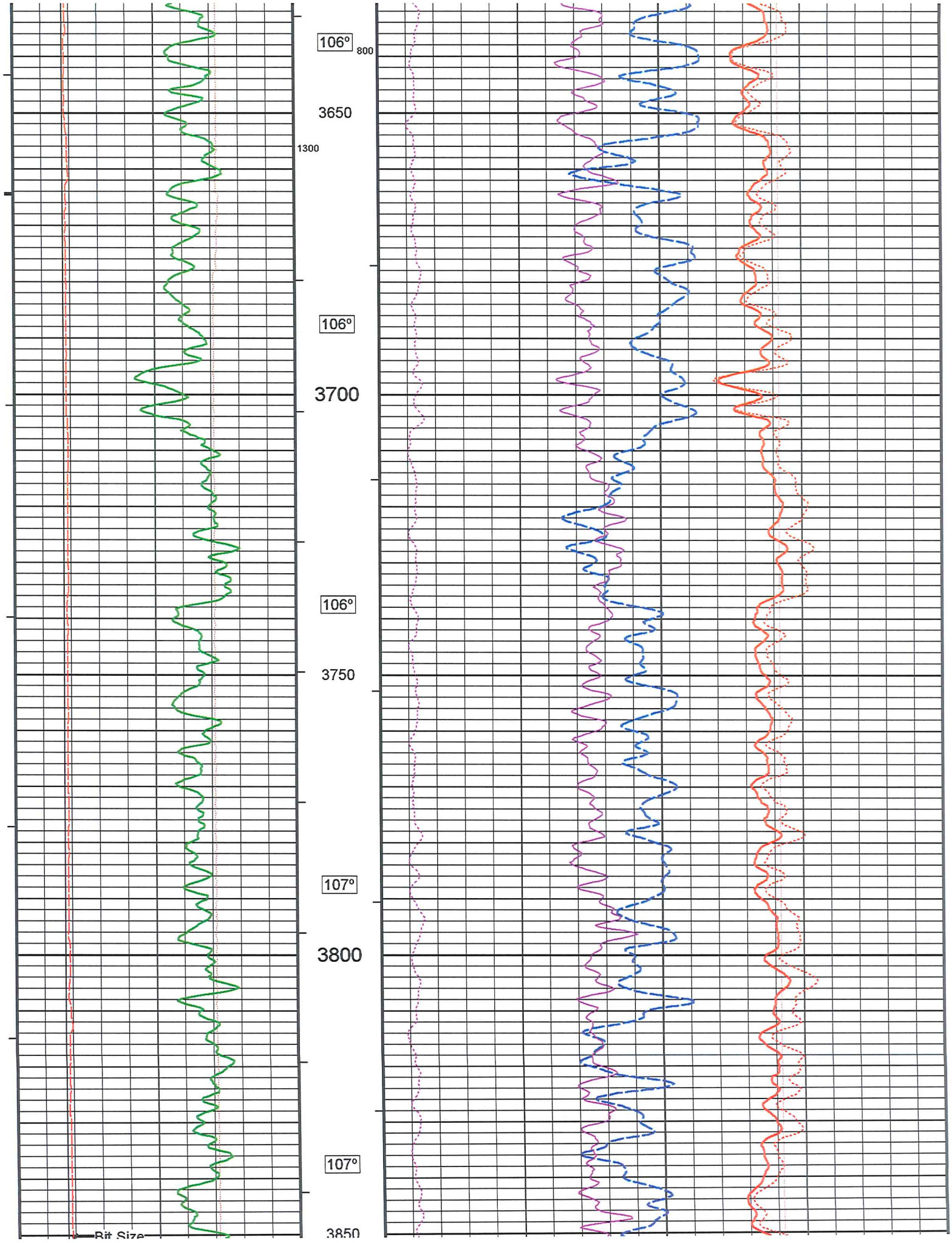

2550
Casing Shoe
98°
2600
98°
2650
Bit Size
Borehole Corrected Gamma
Density Correction
Density Caliper
DST Uphole Tension
98°
2700
1700
99°
2750
Matrix density
Base Density Porosity
PE
Compensated Density
Limestone Neutron Por.

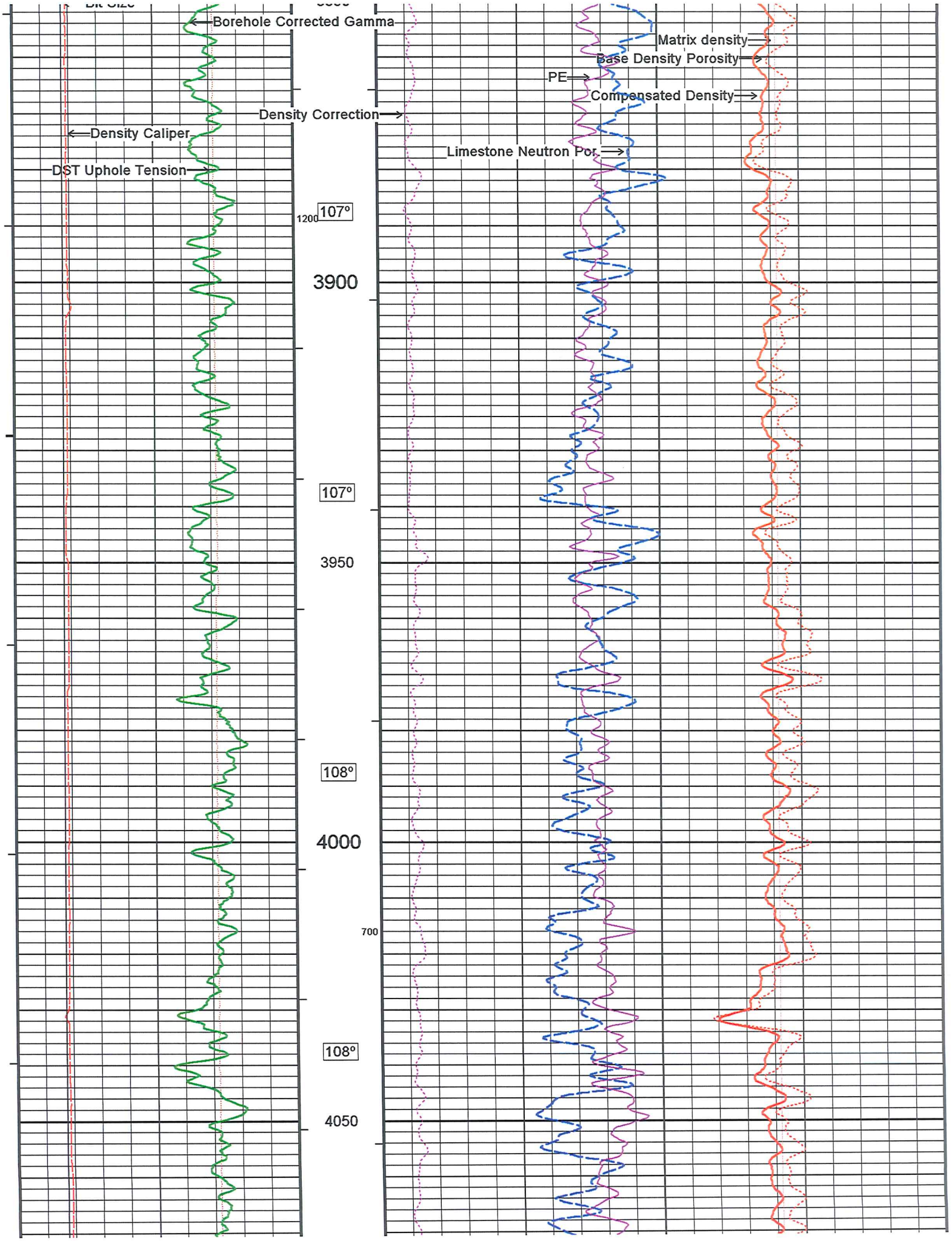

99°
2800
99°
2850
100°
1000
2900
100°
2950
1600

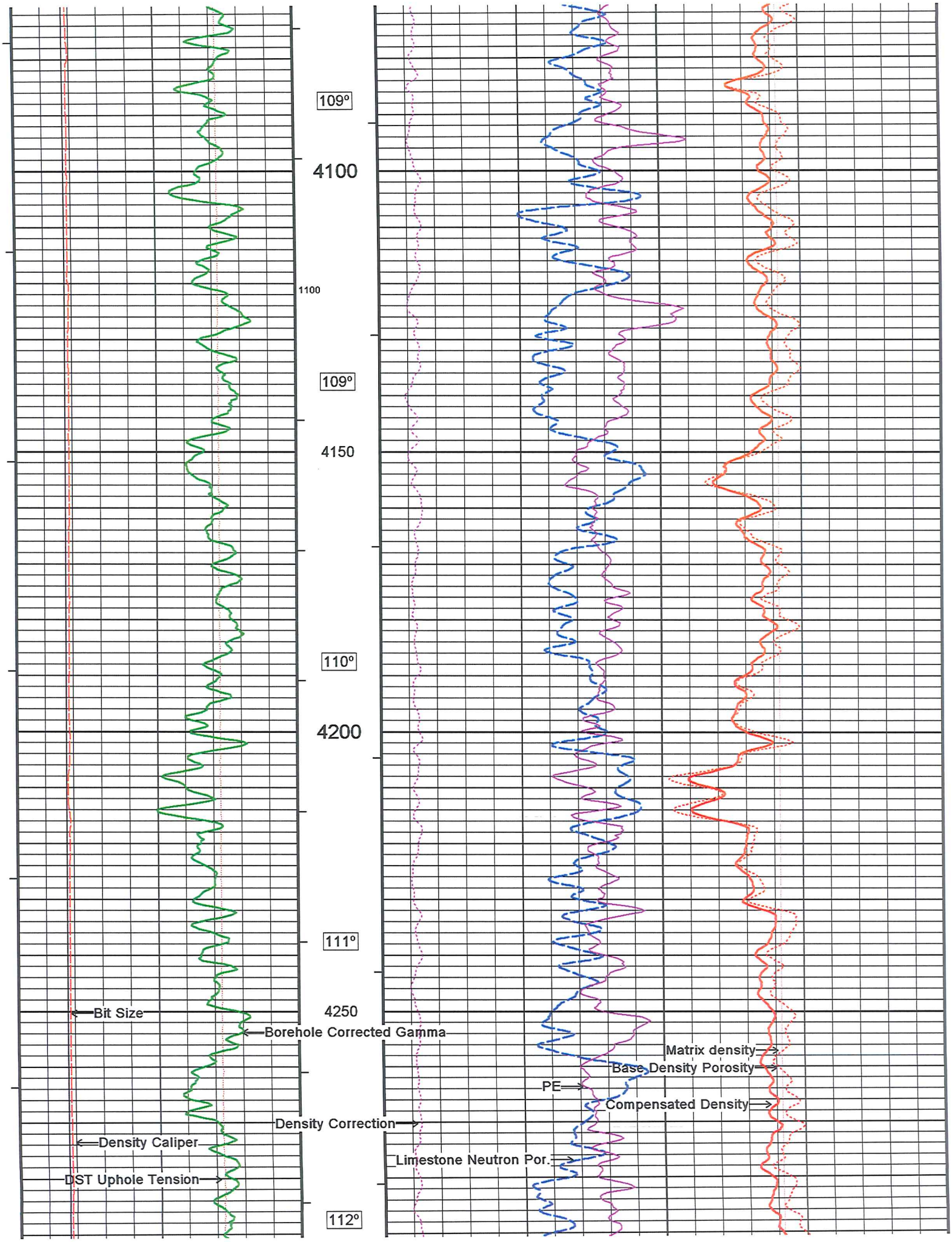

100°
3000
101°
3050
Bit Size
Borehole Corrected Gamma
Matrix density
Base Density Porosity
PE
Compensated Density
Density Correction
Density Caliper
Limestone Neutron Por.
DST Uphole Tension
101°
3100
102°
3150
102°

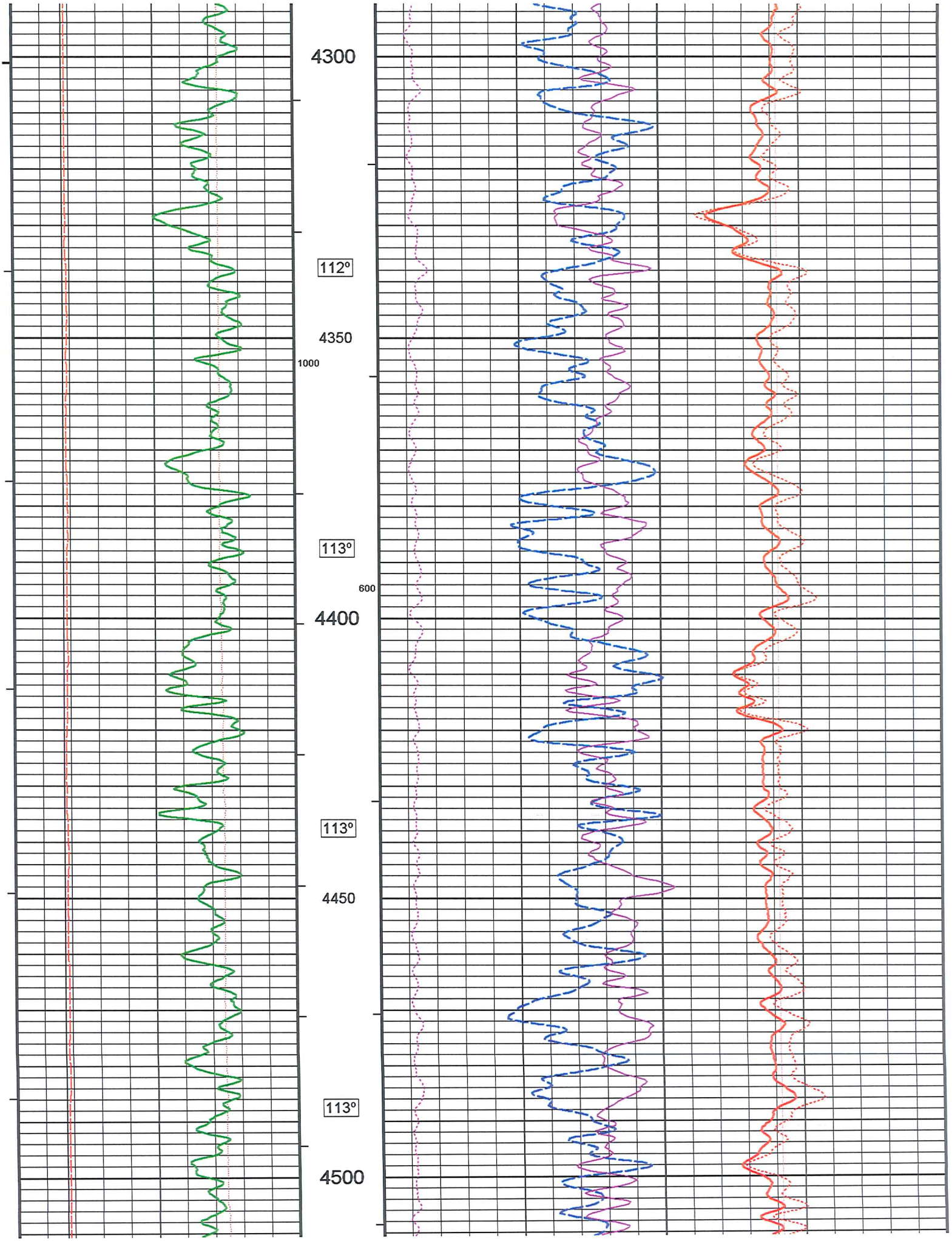

1500
3200
102°
3250
900
103°
3300
103°
3350
104°
3400

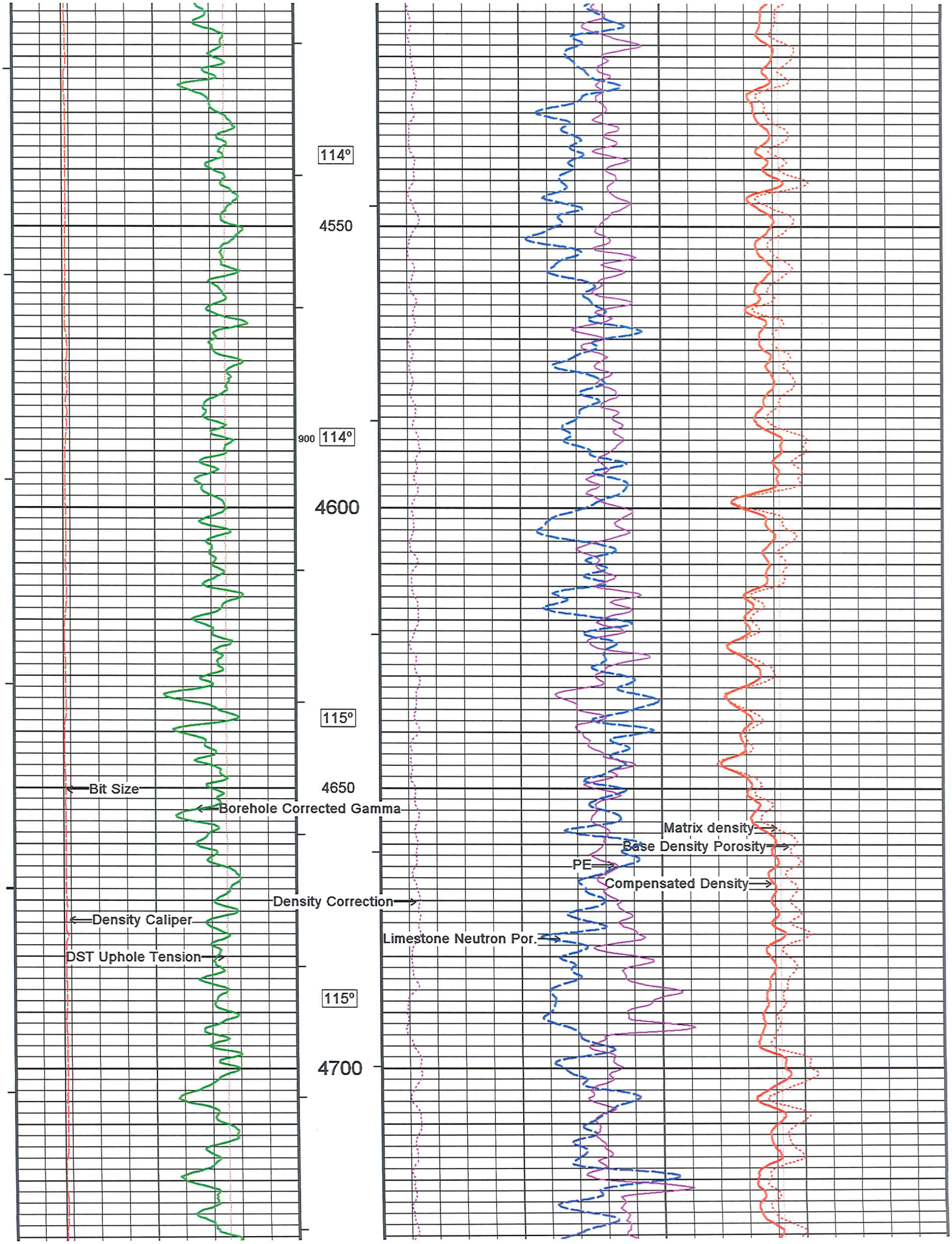

1400
104°
3450
Bit Size
Borehole Corrected Gamma
Matrix density
Base Density Porosity
PE
Compensated Density
Density Correction
Density Caliper
Limestone Neutron Por
DST Uphole Tension
105°
3500
105°
3550
105°
3600

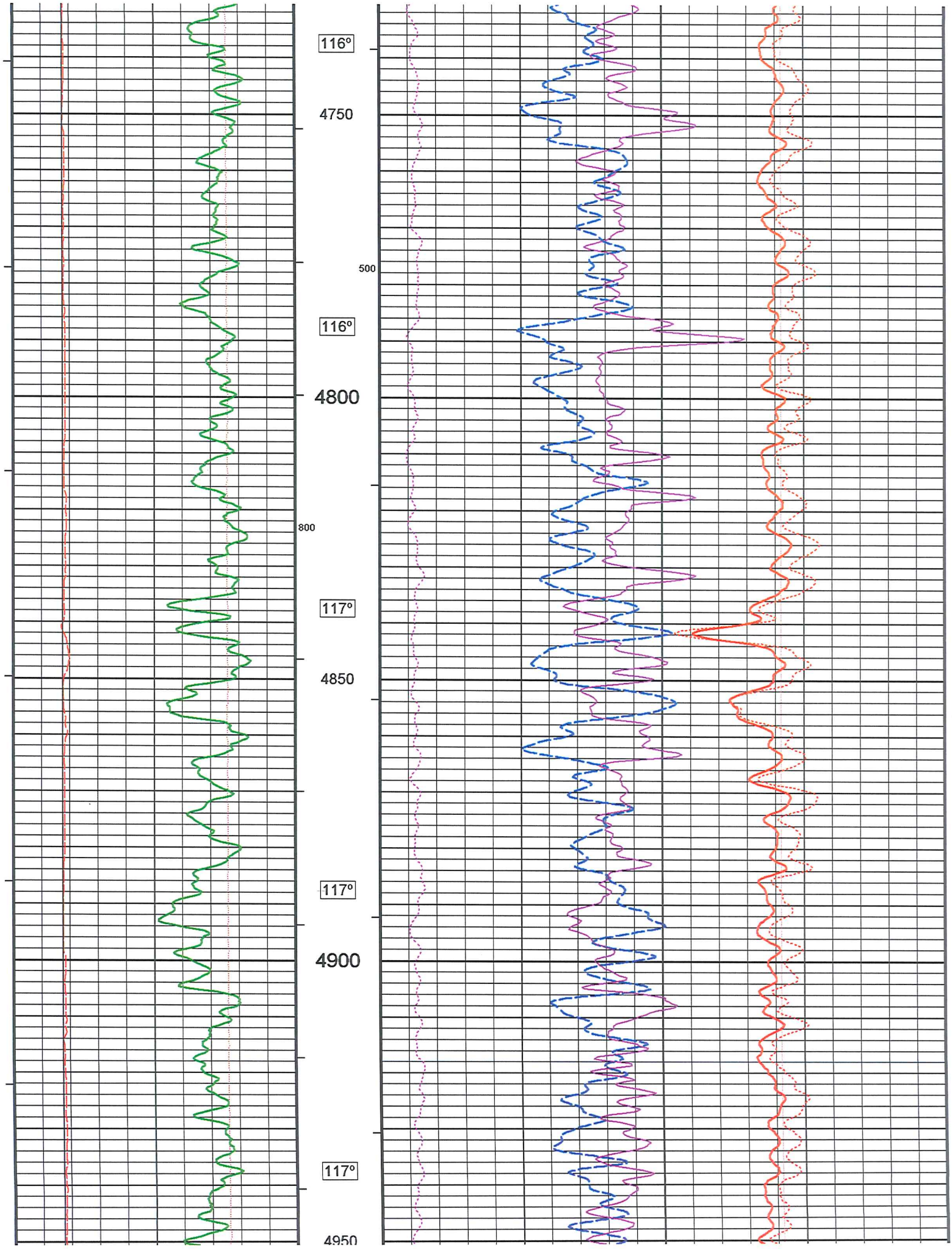

106°
800
3650
1300
106°
3700
106°
3750
107°
3800
107°
3850
Bit Size

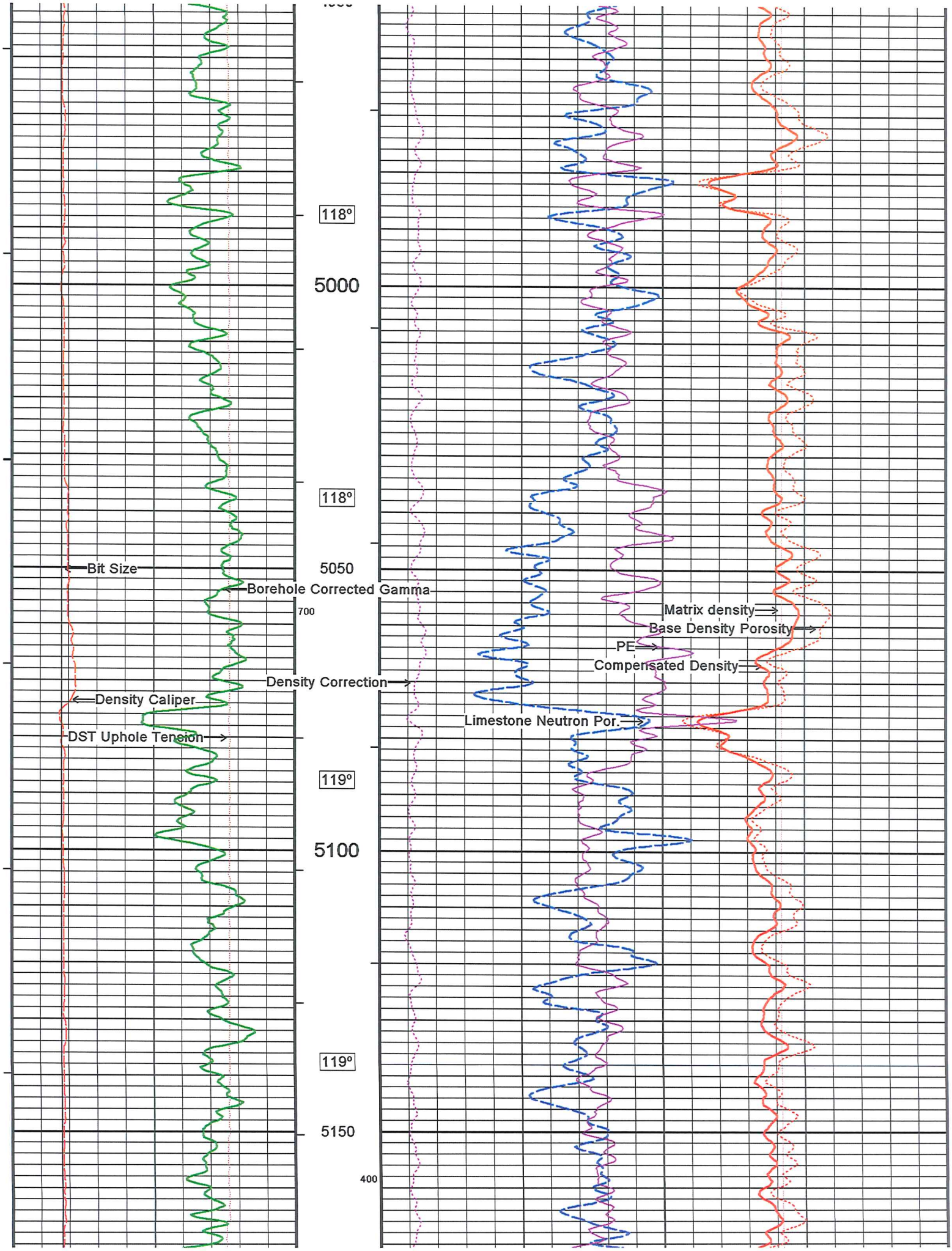

Borehole Corrected Gamma
Density Caliper
DST Uphole Tension
Density Correction
Matrix density
Base Density Porosity
PE
Compensated Density
Limestone Neutron Por.
1200
107°
3900
107°
3950
108°
4000
700
108°
4050

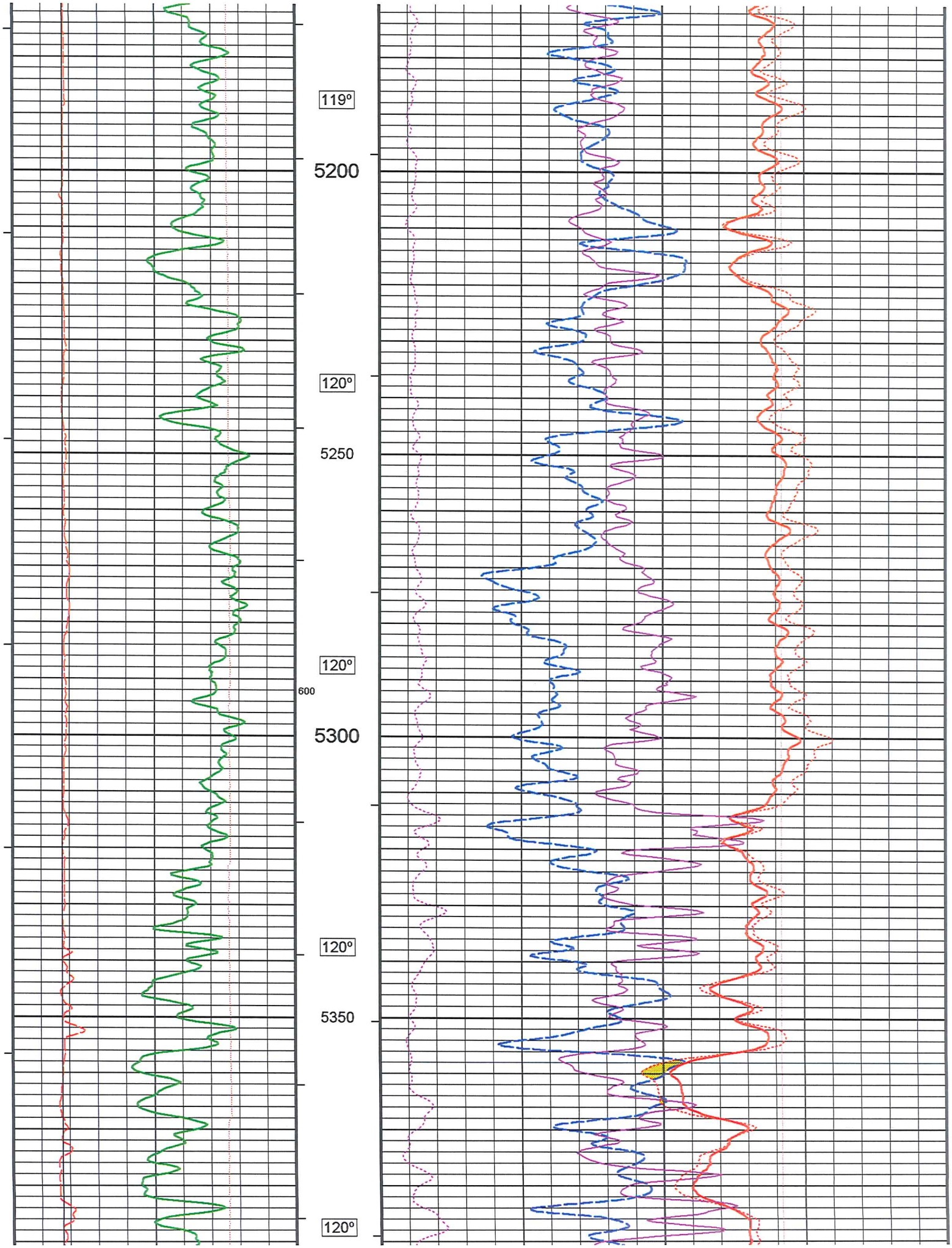

109°
4100
1100
109°
4150
110°
4200
111°
4250
112°
Bit Size
Borehole Corrected Gamma
Density Correction
Density Caliper
DST Uphole Tension
Matrix density
Base Density Porosity
PE
Compensated Density
Limestone Neutron Por.

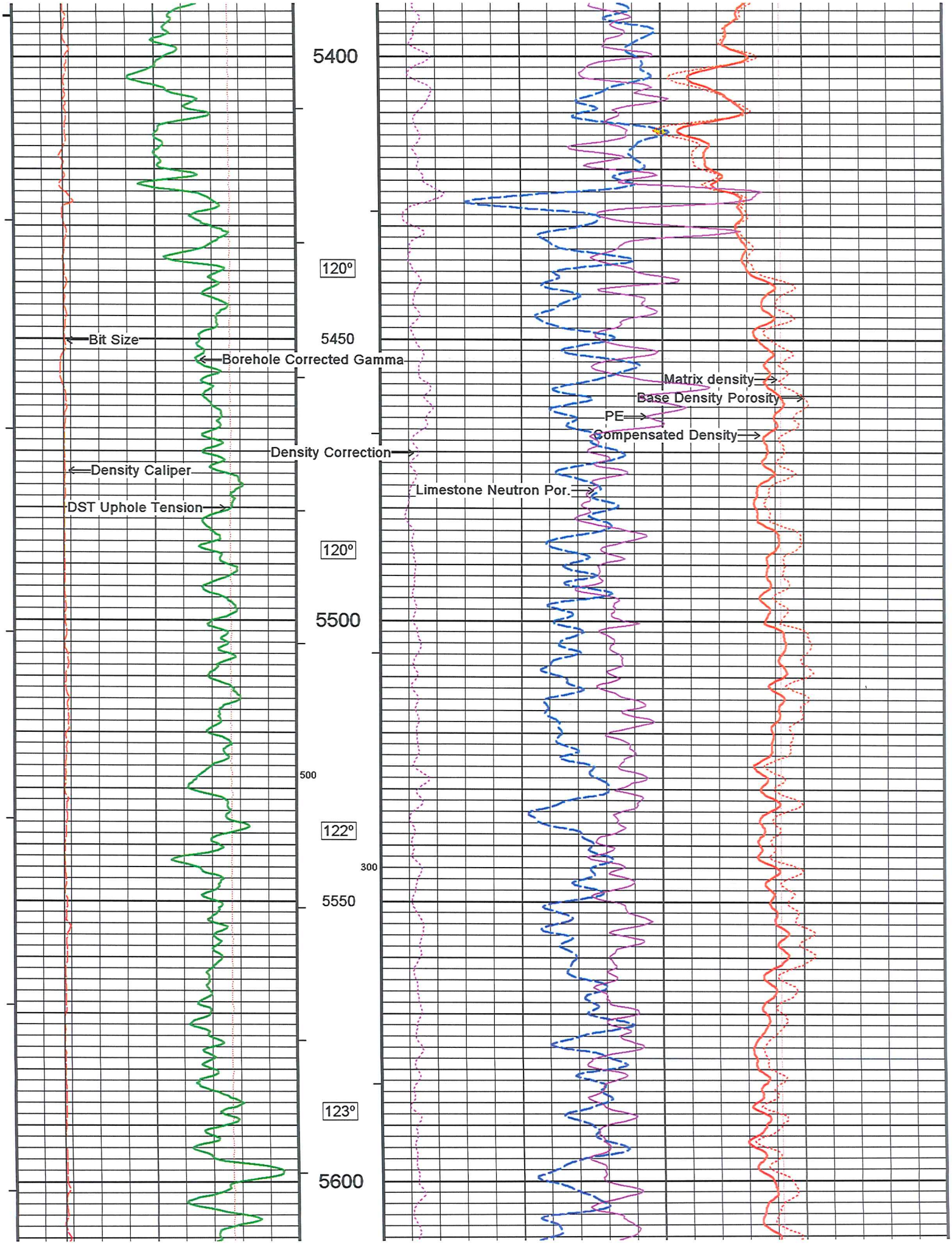

4300
112°
4350
1000
113°
600
4400
113°
4450
113°
4500

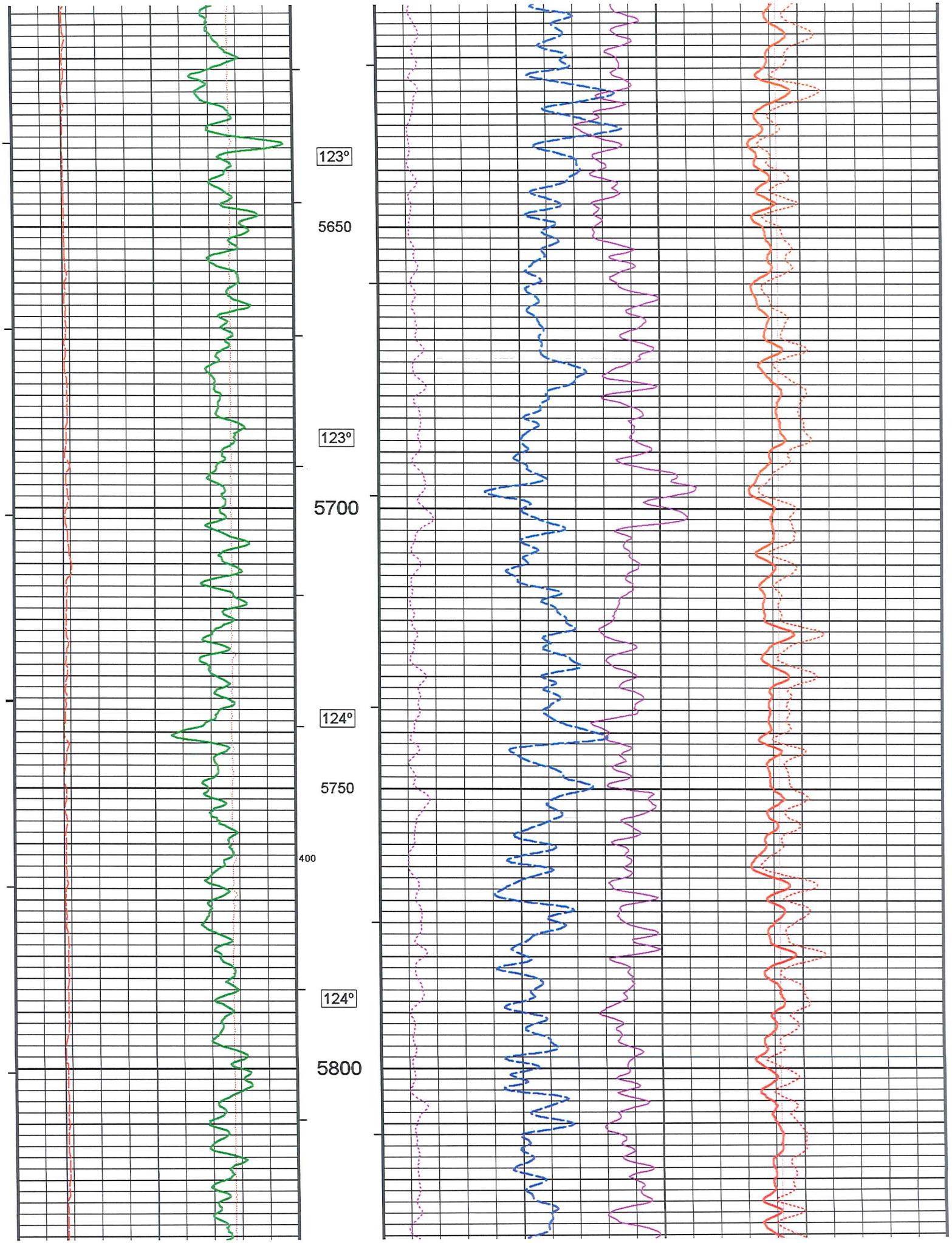

114°
4550
900
114°
4600
115°
4650
Bit Size
Borehole Corrected Gamma
Density Caliper
DST Uphole Tension
Density Correction
115°
4700
Matrix density
Base Density Porosity
PE
Compensated Density
Limestone Neutron Por.

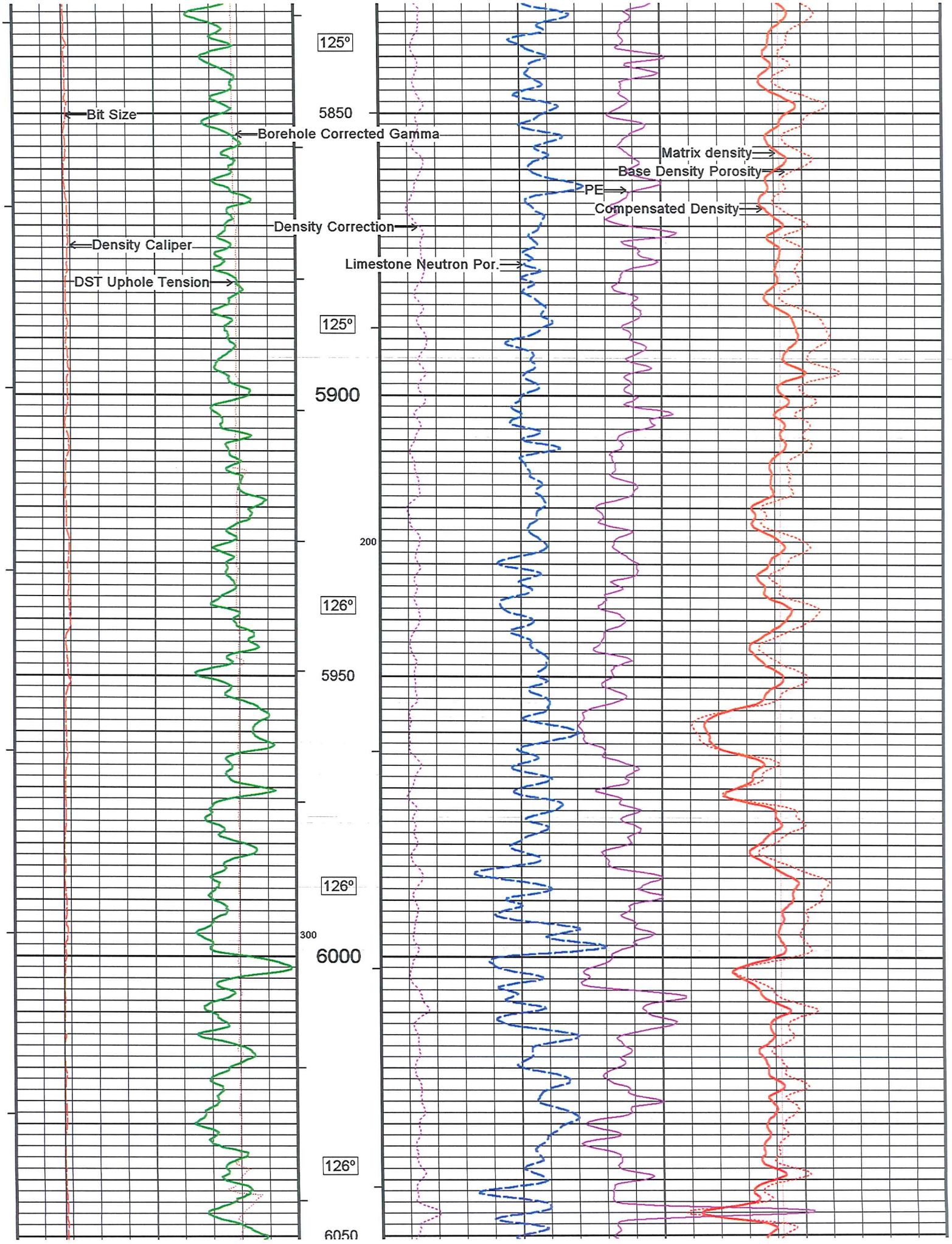

116°
4750
500
116°
4800
800
117°
4850
117°
4900
117°
4950

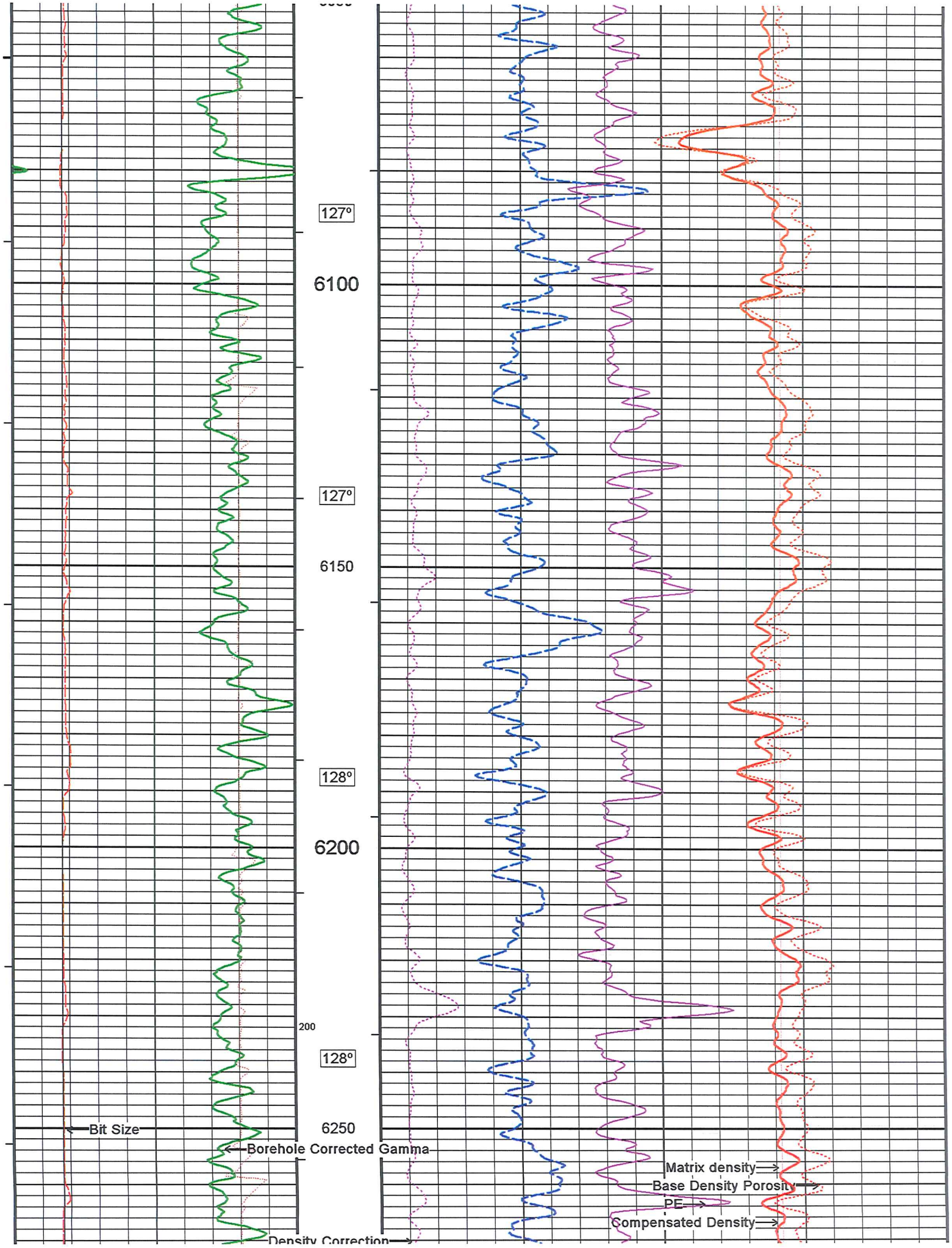

118°
5000
118°
5050
Bit Size
Borehole Corrected Gamma
700
Density Correction
Density Caliper
DST Uphole Tension
119°
5100
119°
5150
400
Matrix density
Base Density Porosity
PE
Compensated Density
Limestone Neutron Por.

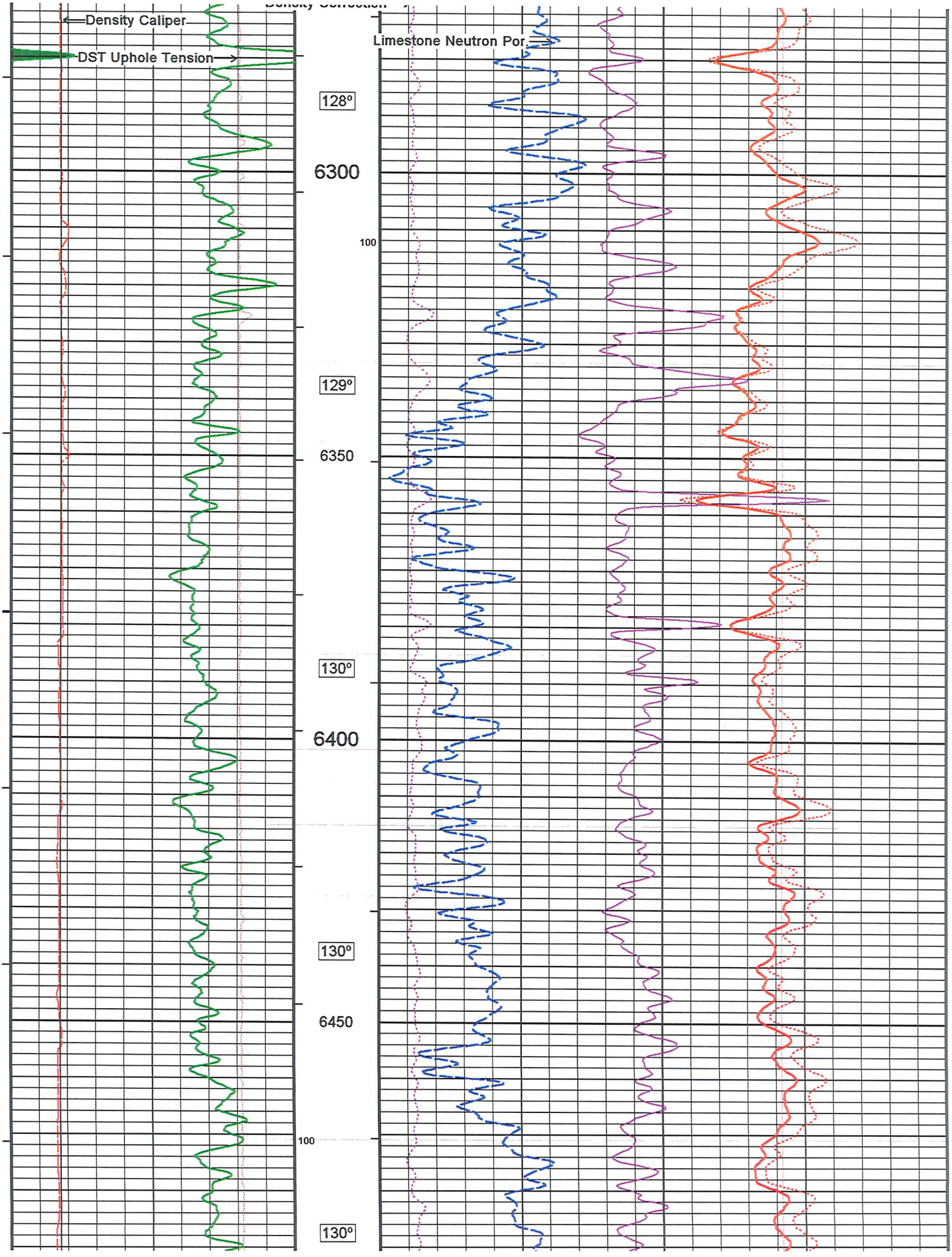

119°
5200
120°
5250
120°
600
5300
120°
5350
120°

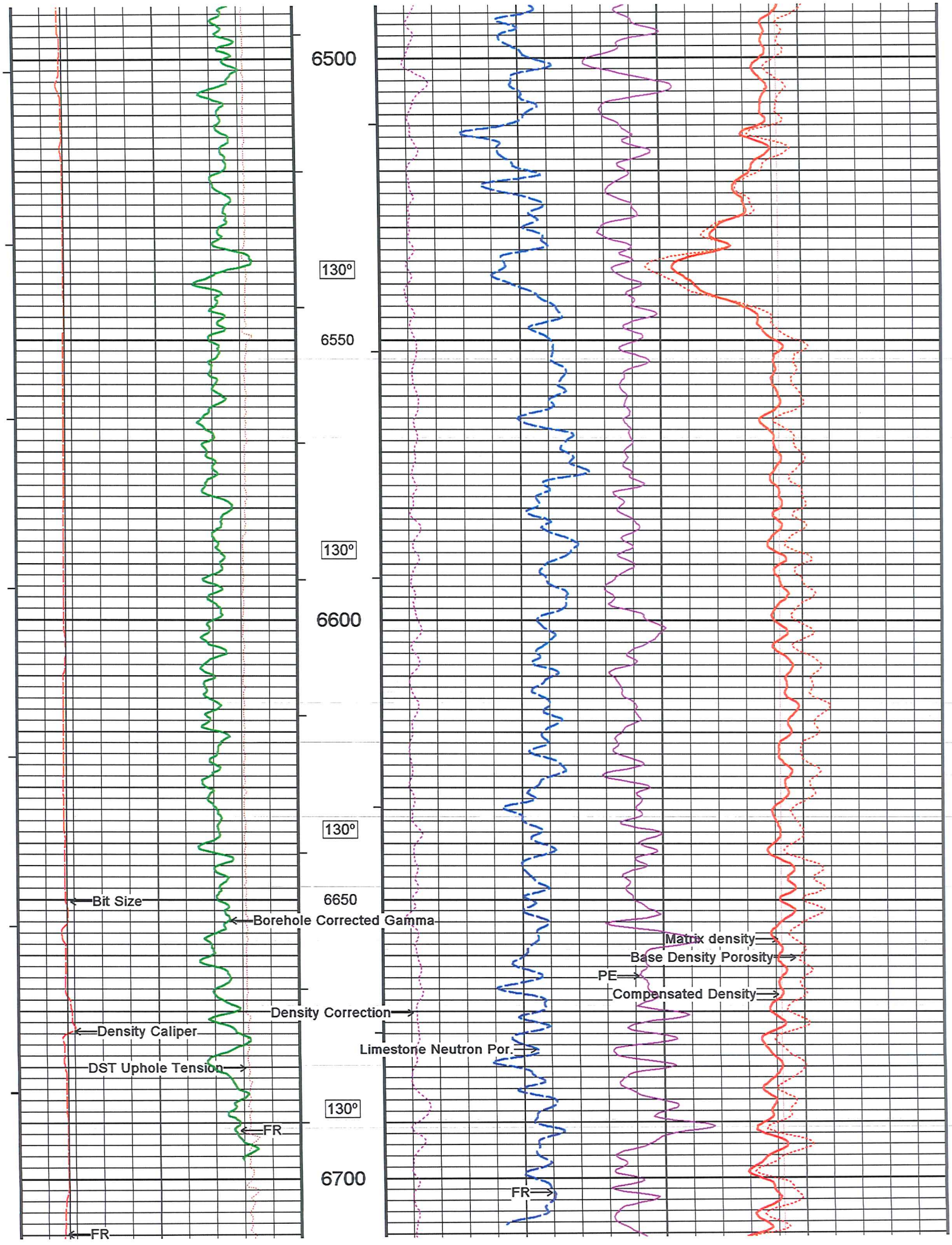

5400
120°
Bit Size
5450
Borehole Corrected Gamma
Matrix density
Base Density Porosity
PE
Compensated Density
Density Correction
Density Caliper
Limestone Neutron Por.
DST Uphole Tension
120°
5500
500
122°
300
5550
123°
5600

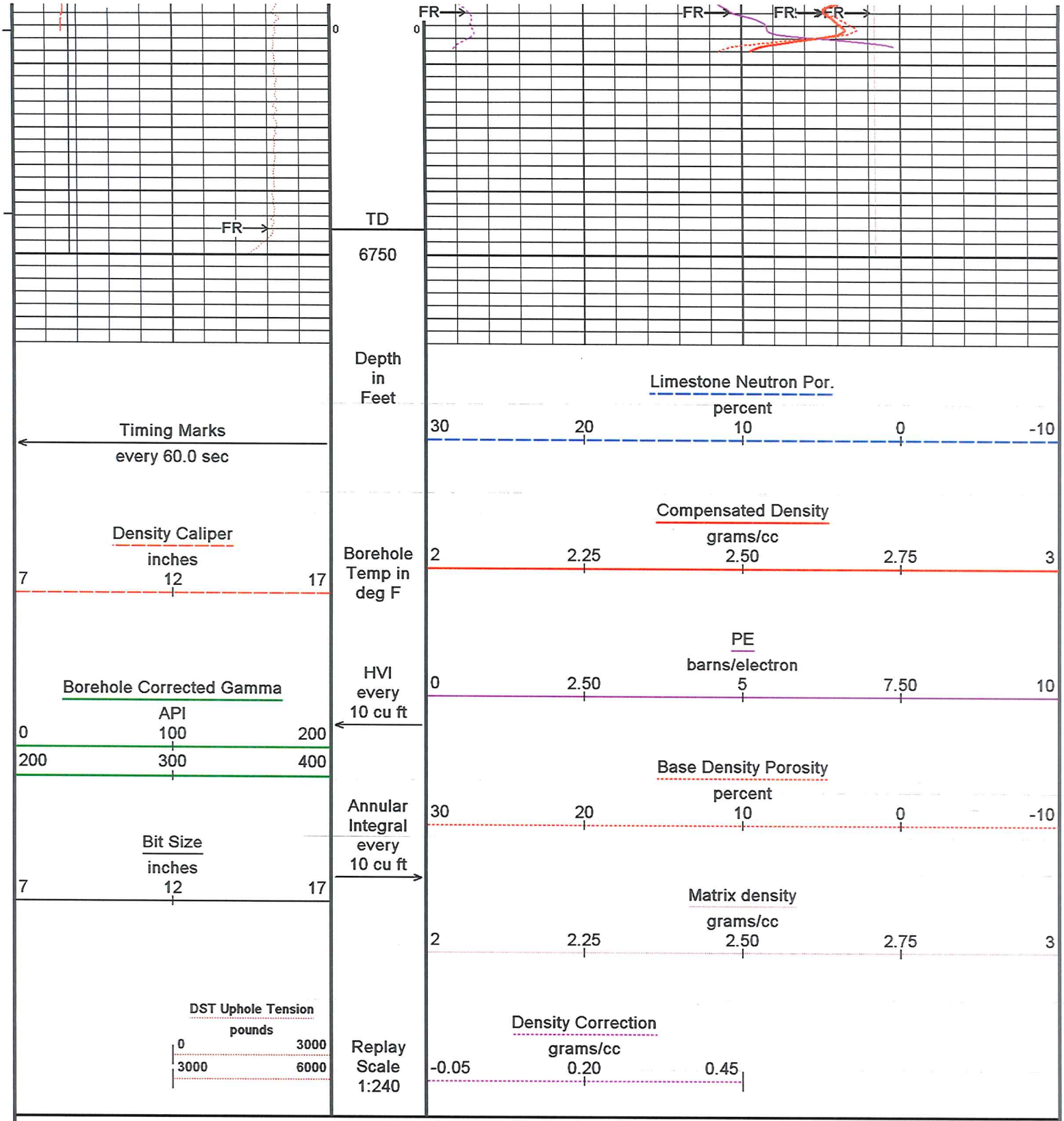

123°
5650
123°
5700
124°
5750
400
124°
5800


125°
5850
Bit Size
Borehole Corrected Gamma
Matrix density
Base Density Porosity
PE
Compensated Density
Density Correction
Density Caliper
Limestone Neutron Por.
DST Uphole Tension
125°
5900
200
126°
5950
126°
300
6000
126°
6050


127°
6100
127°
6150
128°
6200
200
128°
6250
Bit Size
Borehole Corrected Gamma
Density Correction
Matrix density
Base Density Porosity
PE
Compensated Density


Density Caliper
DST Uphole Tension
Limestone Neutron Por
128°
6300
100
129°
6350
130°
6400
130°
6450
100
130°


6500
130°
6550
130°
6600
130°
6650
Bit Size
Borehole Corrected Gamma
Density Correction
Density Caliper
DST Uphole Tension
130°
FR
6700
FR
Matrix density
Base Density Porosity
PE
Compensated Density
Limestone Neutron Por.
FR



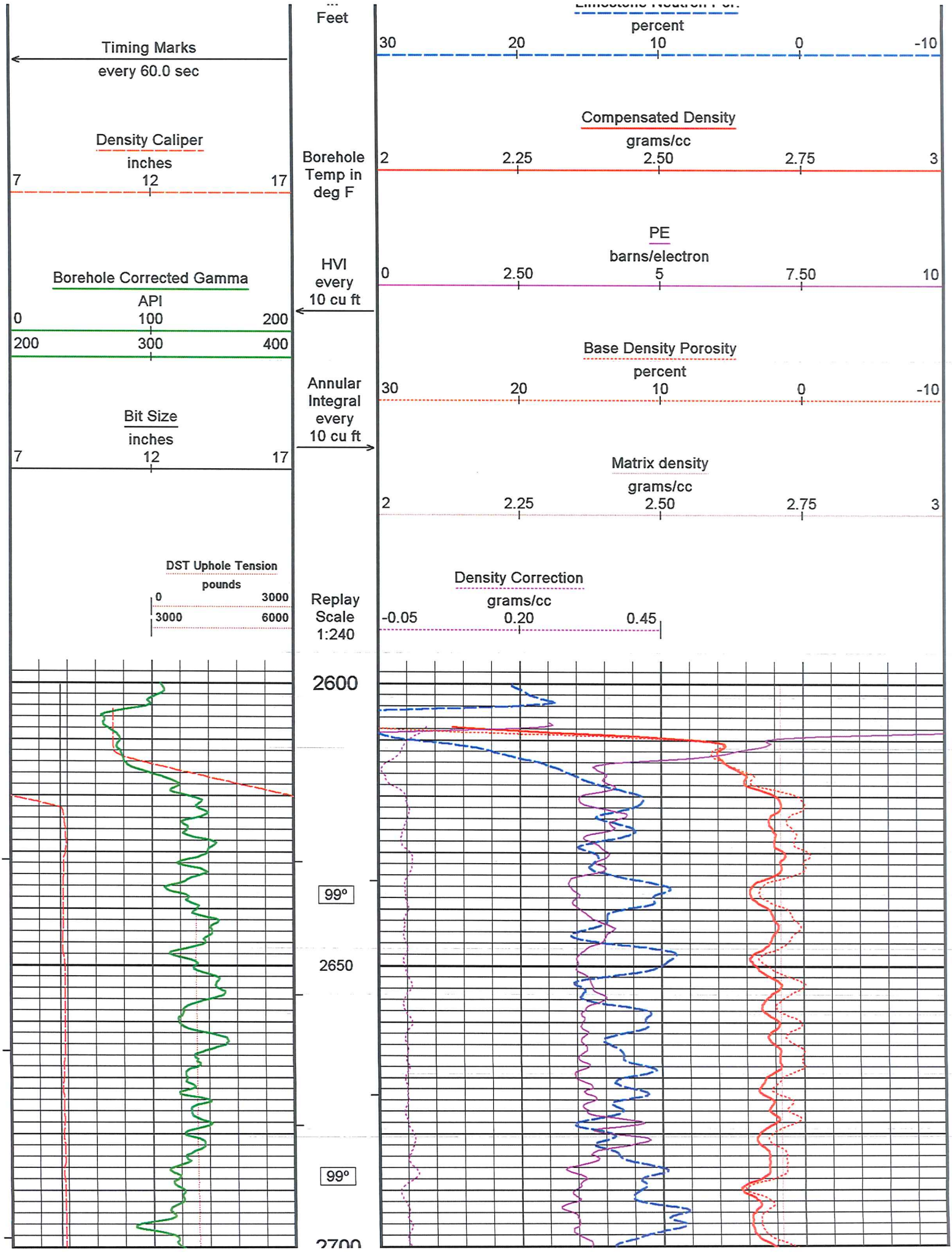
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 22-JUL-2014 06:52
Filename: C:\DOCUME~1\sysadmin\LOCALS~1\Temp\Weatherford PreView5\0\Main Pass FL.dta
System Versions: Plotted with 14.01.3220

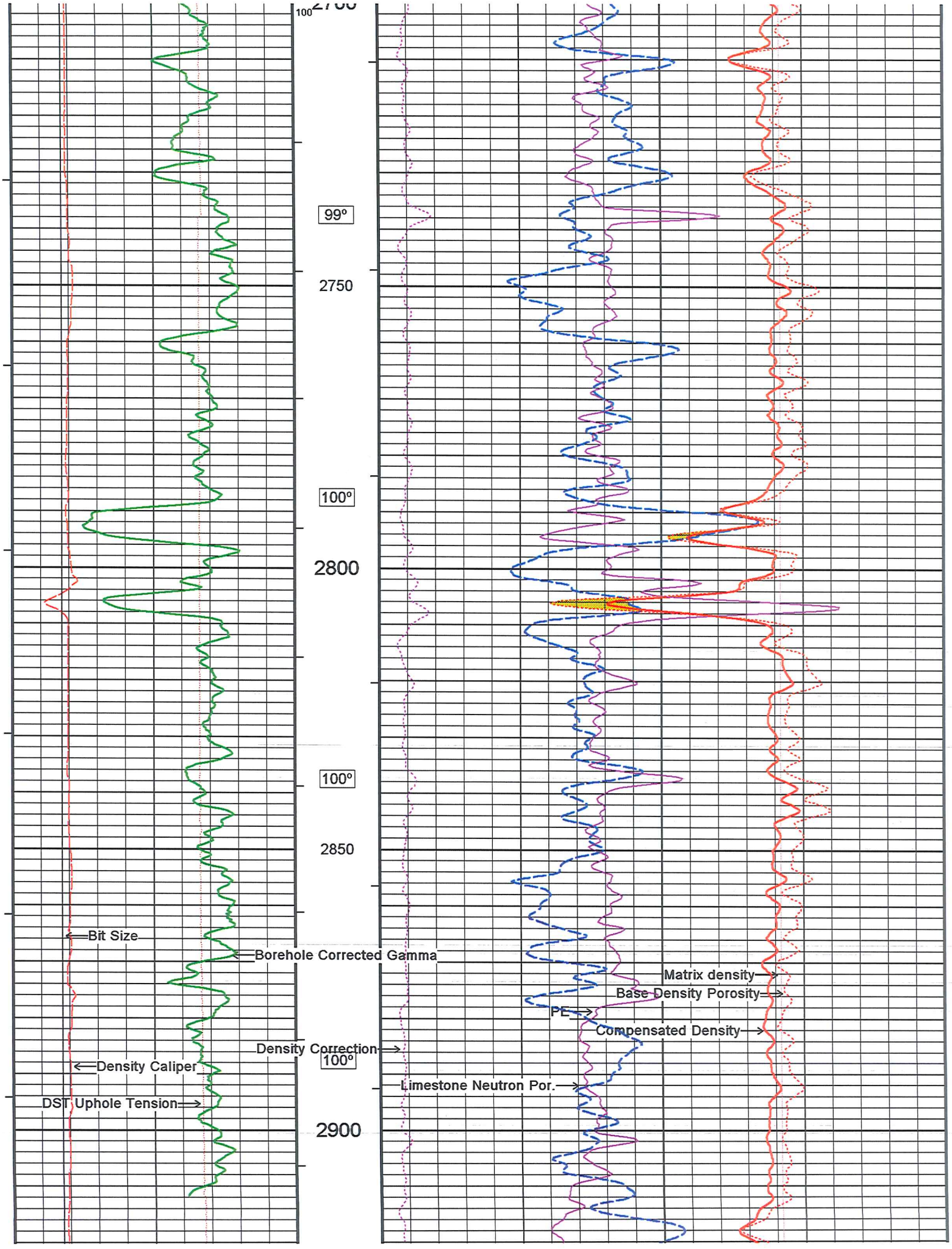
5 Inch Main Pass

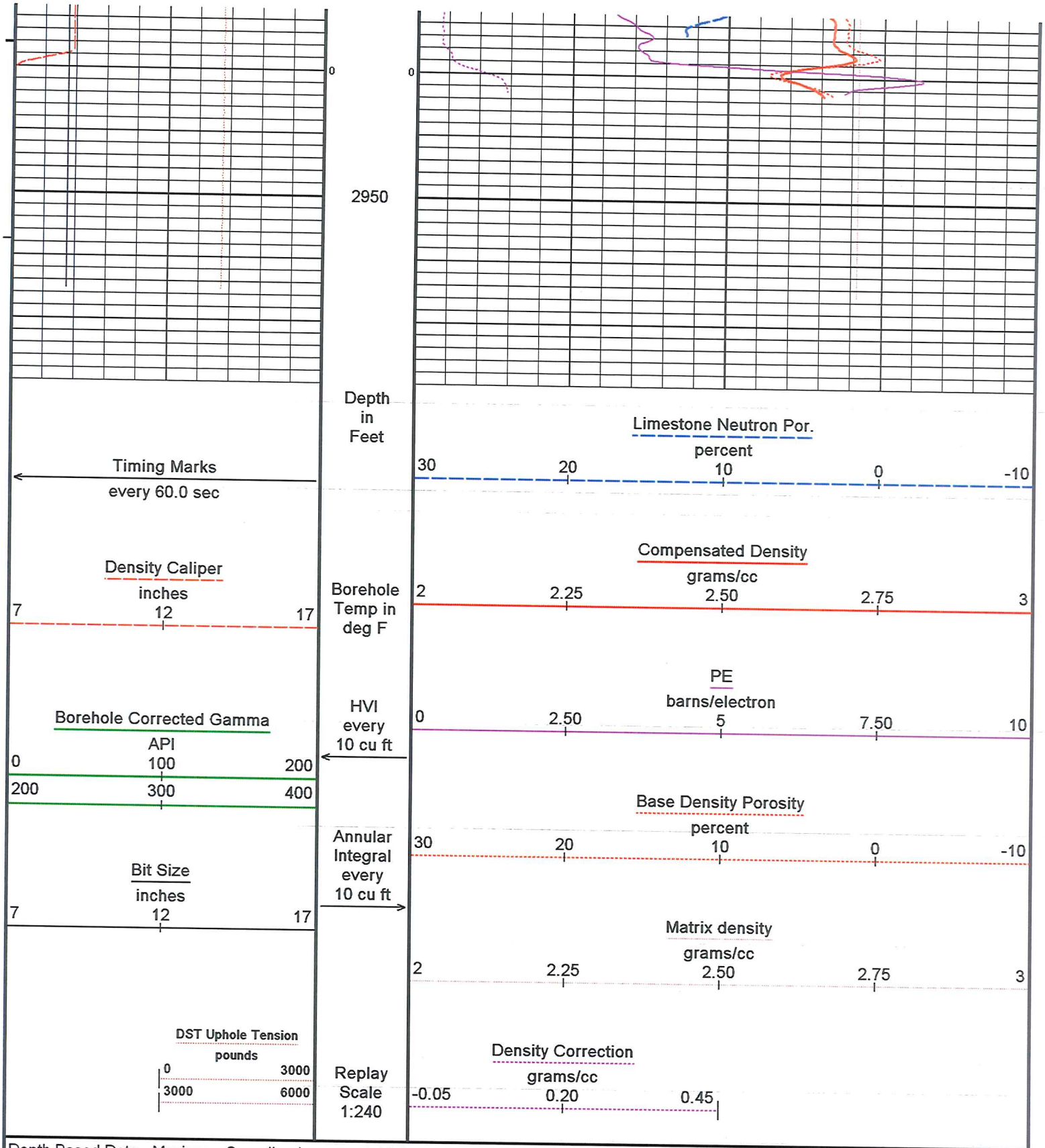
5 Inch Repeat Pass

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 22-JUL-2014 06:52
Filename: C:\DOCUME~1\sysadmin\LOCALS~1\Temp\Weatherford PreView5\0\Repeat Section2.dta
System Versions: Logged with 14.01.3220 Processed with 14.01.3220 Plotted with 14.01.3220

	Depth in	Limestone Neutron Por


Feet
Timing Marks
every 60.0 sec
Density Caliper
inches
7
12
17
Borehole Temp in deg F
Borehole Corrected Gamma
API
0
100
200
200
300
400
HVI
every
10 cu ft
Annular Integral
every
10 cu ft
Bit Size
inches
7
12
17
DST Uphole Tension
pounds
0
3000
3000
6000
Replay Scale 1:240
percent
30
20
10
0
-10
Compensated Density
grams/cc
2
2.25
2.50
2.75
3
PE
barns/electron
0
2.50
5
7.50
10
Base Density Porosity
percent
30
20
10
0
-10
Matrix density
grams/cc
2
2.25
2.50
2.75
3
Density Correction
grams/cc
-0.05
0.20
0.45
2600
99°
2650
99°
2700


100
99°
2750
100°
2800
100°
2850
100°
2900
Bit Size
Borehole Corrected Gamma
Density Correction
Density Caliper
DST Uphole Tension
Matrix density
Base Density Porosity
PE
Compensated Density
Limestone Neutron Por.



Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 22-JUL-2014 06:52

Filename: C:\DOCUME~1\sysadmin\LOCALS~1\Temp\Weatherford PreView5\0\Repeat Section2.dta

System Versions: Logged with 14.01.3220 Processed with 14.01.3220 Plotted with 14.01.3220

5 Inch Repeat Pass

BEFORE SURVEY CALIBRATION

C:\DOCUME~1\sysadmin\LOCALS~1\Temp\Weatherford PreView5\0\Main Pass FL.dta

Caliper Calibration MPD-B 84

Base Calibration on 09-JUL-2014 10:34

Field Calibration on 09-JUL-2014 10:37

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14533	3.99
2	23061	5.97
3	31840	8.00
4	40784	10.03
5	49615	11.98
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
8.00	8.00

Photo Density Calibration MPD-B 84

Base Calibration on 09-JUL-2014 11:14
Field Check on 09-JUL-2014 11:22

Density Calibration

Base Calibration

	Measured Near	Measured Far	Calibrated (sdu) Near	Calibrated (sdu) Far
Background	666	710		
Reference 1	45367	14635	53306	19389
Reference 2	20718	1794	24963	2524

Field Check at Base

666.4	709.5

Field Check

666.6	712.1

PE Calibration

Base Calibration

	WS	Measured WH	Measured Ratio	Calibrated Ratio
Background	115	574		
Reference 1	13997	45237	0.311	0.321
Reference 2	5337	20621	0.261	0.273

Field Check at Base

114.6	574.0

Field Check

116.7	571.6

Density Constants MPD-B 84

Last Edited on 21-JUL-2014,18:56

Density Source Id	P20712B	
Nylon Calibrator Number	DNC-D-526	
Aluminium Calibrator Number	DAC-D-526	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.47	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

SP Calibration MLE-C.K 236

Field Calibration on 21-FEB-2014 08:47

	Measured	Calibrated (mV)
Reference 1	-90.2	-100.6
Reference 2	108.2	100.8

Laterolog Calibration MLE-C.K 236

Base Calibration on 19-JUL-2014,16:49
Field Check on

Base Calibration

Channel	Measured Resistor 1	Measured Resistor 2	Calibrated (ohm-m) Resistor 1	Calibrated (ohm-m) Resistor 2
Shallow	0.0	976.5	0.0	1284.4
Deep	0.0	981.4	0.0	795.7
Groningen	0.0	976.0	0.0	808.4

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Shallow	0.0	0.0
Deep	0.0	0.0
Groningen	0.0	0.0

Laterolog Constants MLE-C.K 236

Last Edited on 21-JUL-2014,19:02

Profiling Laterolog Type	Dual	ohm-m
Laterolog Output Filter	N/A	
Profiling Limiter	N/A	
Median Filter	N/A	
Squasher Start	40000	
Shallow Laterolog K Factor	1.2844	
Deep Laterolog K Factor	0.7957	
Groningen Laterolog K Factor	0.8084	
Interference Rejection	60 Hz	
SP Connection	SP Bridle Electrode (Lower)	
Groningen Connection	Groningen Electrode (Upper)	

Borehole Correction Constants

Bridle Type	Standard	
Stand-off	1.00	inches
Caliper Source	Density Caliper	
Hole Size	N/A	inches
Mud Resistivity Source	Temperature Corrected	
Temp. for Rm Corr.	MCG External Temperature	

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	

Neutron Calibration MDN-A.B 121

Base Calibration on 18-APR-2014,11:03
Field Check on 03-JUN-2014 13:51

Base Calibration

	Measured Near	Measured Far	Calibrated (cps) Near	Calibrated (cps) Far
	2965	90	3714	110
Ratio	32.830		33.764	

Field Calibrator at Base

	Calibrated (cps)	
	2138	3115
Ratio	0.686	

Field Check

	Calibrated (cps)	
	2139	3151
Ratio	0.679	

Neutron Constants MDN-A.B 121

Last Edited on 21-JUL-2014,19:01

Neutron Source Id	P31125B	
Neutron Jig Number	NJ5244	
Air Hole Processing	Legacy	
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	None	
Formation Pressure	N/A	kpsi
Temperature Source	None	
Temperature	N/A	degrees F
Mud Salinity	0.00	kppm
Salinity Correction	Not Applied	
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

High Resolution Temperature Calibration MCG-C 169

Field Calibration on 03-JUN-2014,11:52

	Measured	Calibrated(Deg F)
Lower	65.00	66.00
Upper	100.00	101.00

High Resolution Temperature Constants MCG-C 169

Last Edited on 03-JUN-2014,11:52

Pre-filter Length	11

SP Calibration MCG-C 169

Field Calibration on 03-JUN-2014,11:53

	Measured	Calibrated (mV)
Reference 1	103.4	99.9
Reference 2	-95.1	-99.3

Gamma Calibration MCG-C 169

Field Calibration on 09-JUL-2014 15:10

	Measured	Calibrated (API)
Background	58	40
Calibrator (Gross)	1289	877
Calibrator (Net)	1231	837

Gamma Constants MCG-C 169

Last Edited on 21-JUL-2014,18:56

Gamma Calibrator Number	GRC-C-81	
Mud Density	1.47	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

General Constants All 000

Last Edited on 21-JUL-2014,19:01

General Parameters		
Mud Resistivity	0.041	ohm-metres
Mud Resistivity Temperature	107.000	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	Deep Laterolog	
RWA Constant A	0.610	
RWA Constant M	2.150	
SW/APOR Tool Source	0.000	

DOWNHOLE EQUIPMENT

C:\DOCUME~1\sysadmin\LOCALS~1\Temp\Weatherford PreView5\0\Main Pass FL.dta

MCB-A.A 11B Tension Cablehead
MCB-A.A 2 LG: 2.40 ft WT: 19.8 lb OD: 2.244 in

SHA-J.B Compact Swivel Head Adaptor
SHA-J.B 649 LG: 2.30 ft WT: 22.0 lb OD: 2.244 in

Compact Stiff Bridle Electrode Sub.
MBE-C.A 116 LG: 12.33 ft WT: 77.2 lb OD: 2.244 in

Compact Stiff Bridle Electrode Sub.
MBE-D.A 162 LG: 12.33 ft WT: 77.2 lb OD: 2.244 in

Compact Comms Gamma
MCG-C 169 LG: 8.70 ft WT: 63.9 lb OD: 2.244 in

Compact Linker
MLK-C.A 29 LG: 4.87 ft WT: 30.9 lb OD: 2.244 in

Compact Neutron
MDN-A.B 121 LG: 5.04 ft WT: 50.7 lb OD: 2.244 in

Compact Density/Caliper
MPD-B 84 LG: 9.59 ft WT: 90.4 lb OD: 2.449 in

SKJ-D.A Compact Knuckle Joint
SKJ-D.A 120 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

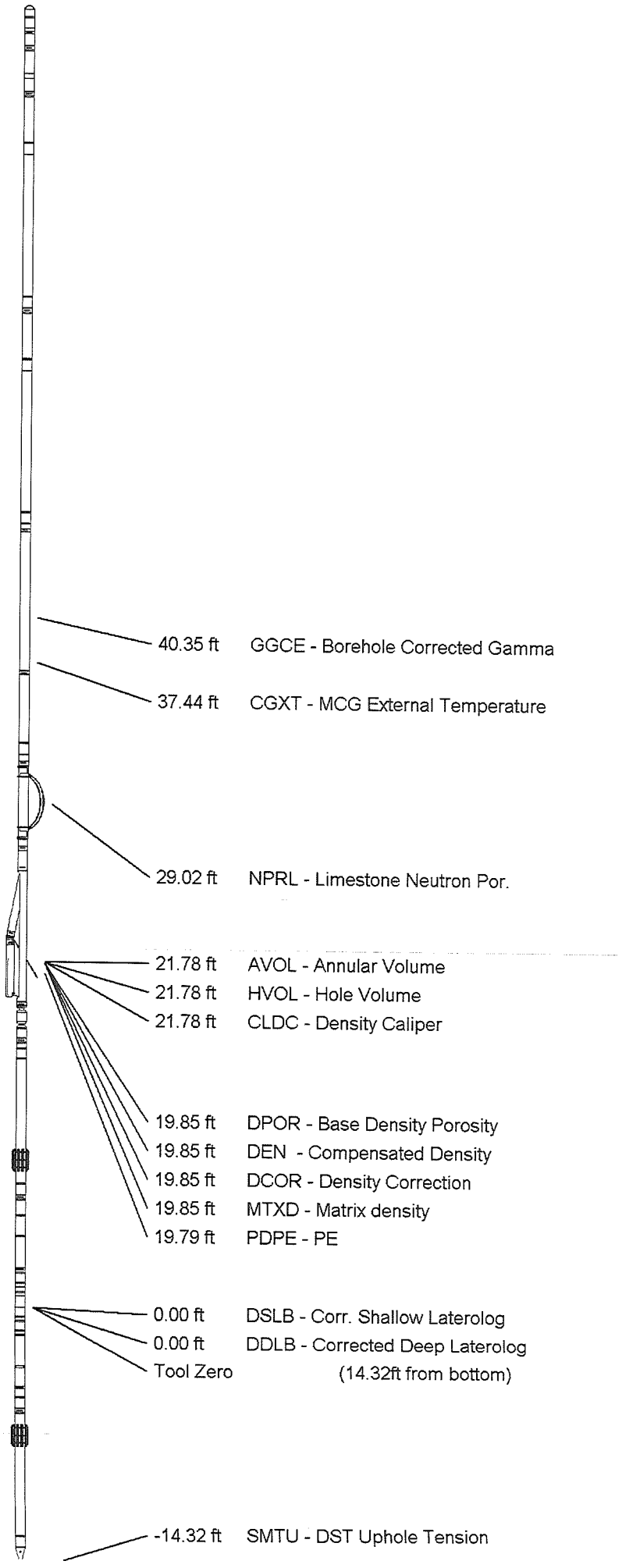
Compact Upper Guard sub
MUG-B.B 236 LG: 8.98 ft WT: 68.3 lb OD: 2.244 in

Compact Laterolog Electrode Sub.
MLE-C.K 236 LG: 12.34 ft WT: 92.6 lb OD: 2.244 in

Compact Lower Guard Sub.
MLG-A 35 LG: 8.00 ft WT: 55.1 lb OD: 2.244 in

Compact Pressure Bung
HFS 2 LG: 0.13 ft WT: 4.4 lb OD: 2.244 in

Total Length: 89.18 ft Weight: 676.8 lb



COMPANY	Antero Resources Appalachian Corp.
WELL	Proudfoot Unit 2H
FIELD	Wildcat
PROVINCE/COUNTY	Doddrigde County
COUNTRY/STATE	U.S.A / West Virginia

Elevation Kelly Bushing	1297.50	feet	First Reading	6746.00	feet
Elevation Drill Floor	1297.50	feet	Depth Driller	7395.00	feet
Elevation Ground Level	1275.00	feet	Depth Logger	6746.00	feet

Weatherford®

Photo Density

Compensated Neutron