



**PRECISION**  
ENERGY SERVICES

**DLL - SLL - MLL - SONIC**  
**DENSITY - NEUTRON**

**Compact**

**1:200**

COMPANY

ORIGIN ENERGY RESOURCES LIMITED

WELL

CHILDERS COVE 1

FIELD

ONSHORE OTWAY BASIN

PROVINCE/COUNTY

VICTORIA

COUNTRY/STATE

AUSTRALIA

LOCATION

38DEG29'31.96"S 142DEG44'46.66"E **FINAL PRINT**

LSD

SEC

TWP

RGE

Other Services

API Number

Permit Number PEP 154

Permanent Datum GROUND LEVEL, Elevation 46.2 metres

Log Measured From R. T. @ 5.3 METRE above Permanent Datum

Drilling Measured From R. T.

Elevations:  
KB 51.50 metres  
DF metres  
GL 46.20 metres

Date 03-Oct-2005

01-Oct-2005

Run Number

TWO

ONE

Depth Driller

2658.00

metres

2545.00

metres

Depth Logger

2656.80

metres

2529.00

metres

First Reading

2656.80

metres

2528.15

metres

Last Reading

2400.00

metres

0.00

metres

Casing Driller

544.50

metres

544.50

metres

Casing Logger

544.20

metres

544.20

metres

Bit Size

8.50

inches

8.50

inches

Hole Fluid Type

KCL/PHPA/POL

KCL/PHPA/POL

Density / Viscosity

1.16 g/cc3

58.00 CP

1.15 g/cc3

59.00 CP

PH / Fluid Loss

8.00

5.00

8.60

4.00

Sample Source

FLOWLINE

FLOWLINE

Rm @ Measured Temp

0.18 @ 25.0

ohm-m

0.65 @ 13.9

ohm-m

Rmf @ Measured Temp

0.20 @ 25.0

ohm-m

1.06 @ 13.9

ohm-m

Rmc @ Measured Temp

0.13 @ 25.0

ohm-m

0.53 @ 14.1

ohm-m

Source Rmf / Rmc

PRESS

FILTER

PRESS

FILTER

Rm @ BHT

0.07 @ 93.5

ohm-m

0.09 @ 95.5

ohm-m

Time Since Circulation

11.8 HOURS

18 HOURS

Max Recorded Temp

93.50

deg C

95.50

deg C

Equipment Name

COMPACT

COMPACT

Recorded By

BEN MOSS

SALE

Witnessed By

JOHN HOBDAV

SALE

CIRC. STOP

13:00 3/10

00:00 1/10

## BOREHOLE RECORD

Bit Size inches	Depth From metres	Depth To metres
8.500	544.50	2658.00

## CASING RECORD

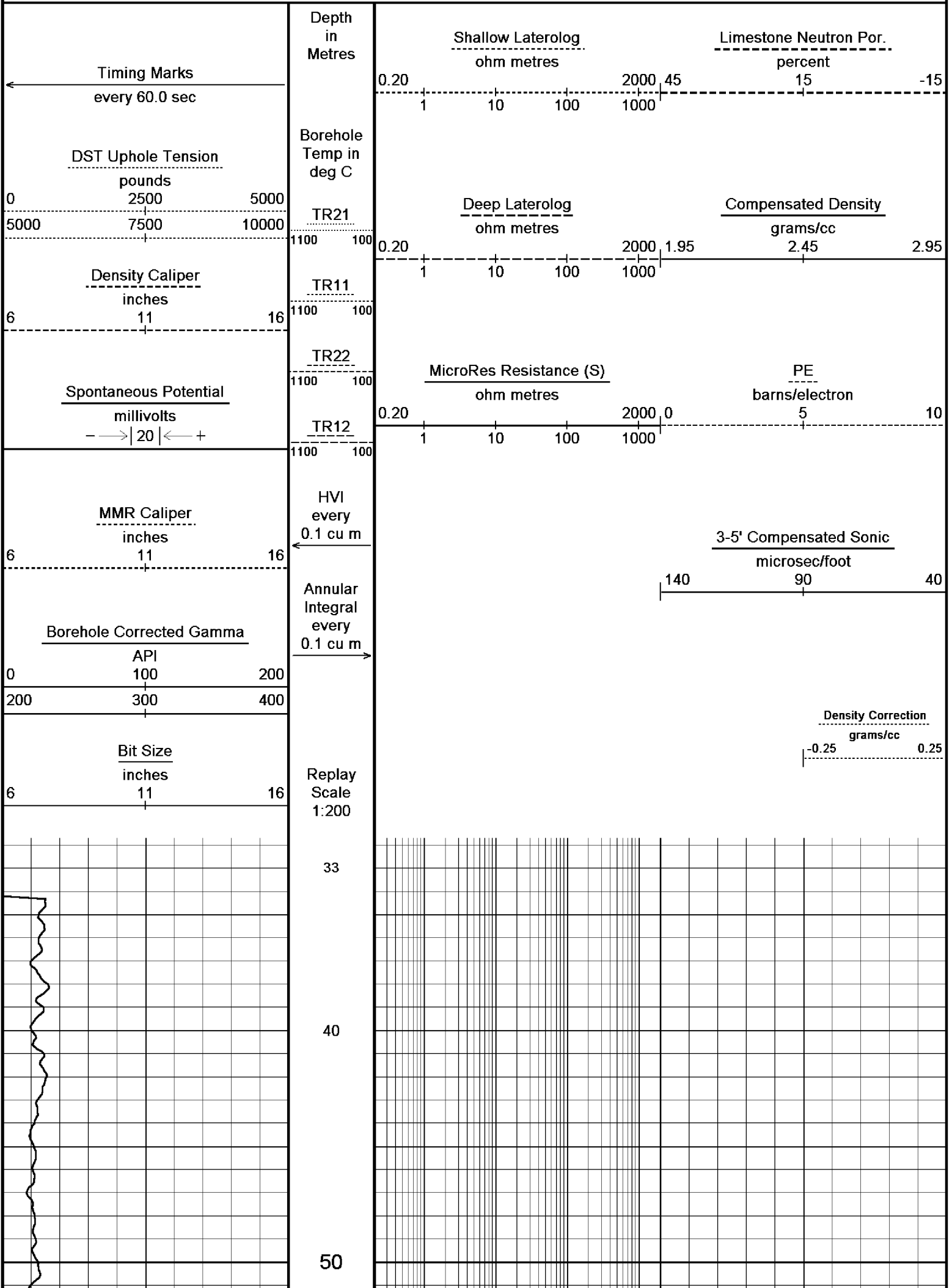
Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K-55	9.625	0.00	544.50	36.00

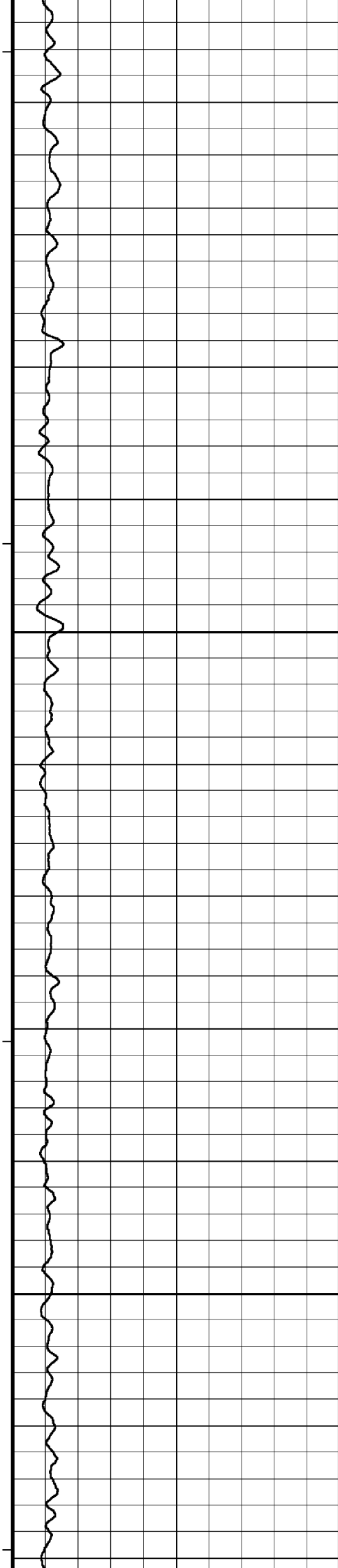
## REMARKS

- 1) SOFTWARE ISSUE: JUN 17, 2004.
- 2) CUSTOMER SCALES AND INTERVALS LOGGED.
- 3) HFS, MMR, MLE, MUG, MSS, SKJ, MPD,MDN, MCG, MBE RAN IN COMBINATION.
- 4) HARDWARE: MMR: ONE 25.4MM STANDOFF  
MSS: TWO 25.4MM STANDOFF  
MUG: ONE 25.4MM STANDOFF  
MBE: ONE 25.4MM STANDOFF
- 5) SERVICE ORDER: 2071
- 6) RIG:CENTURY 7
- 7) TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 79.7 CU.M.
- 8) TOTAL ANNULAR VOLUME WITH 7 INCH CASING = 27.7 CU.M.
- 9) SONIC CASING SIGNAL AT 500.5 M.

PRINTS: 1 FIELD 3 FINALS

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.





60

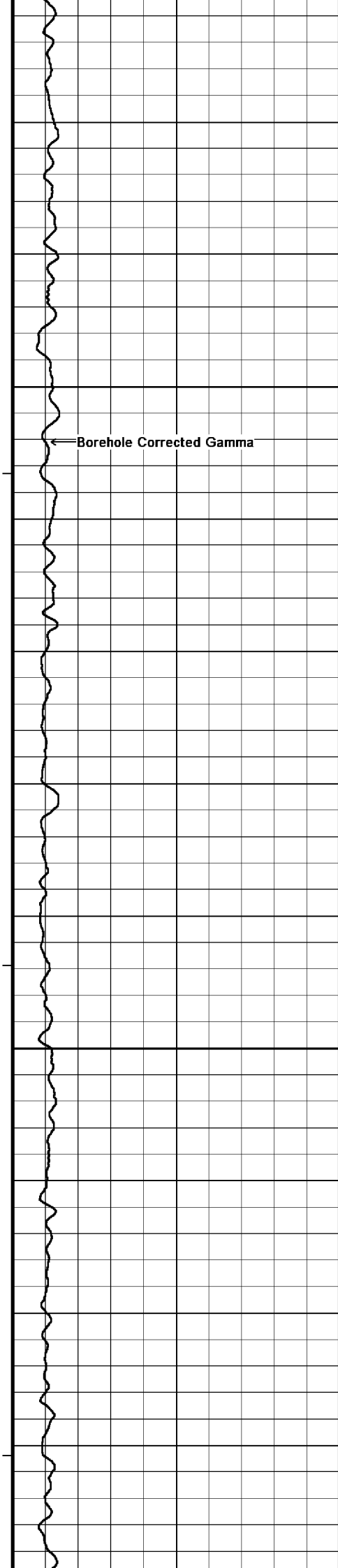
70

80

90

100

110



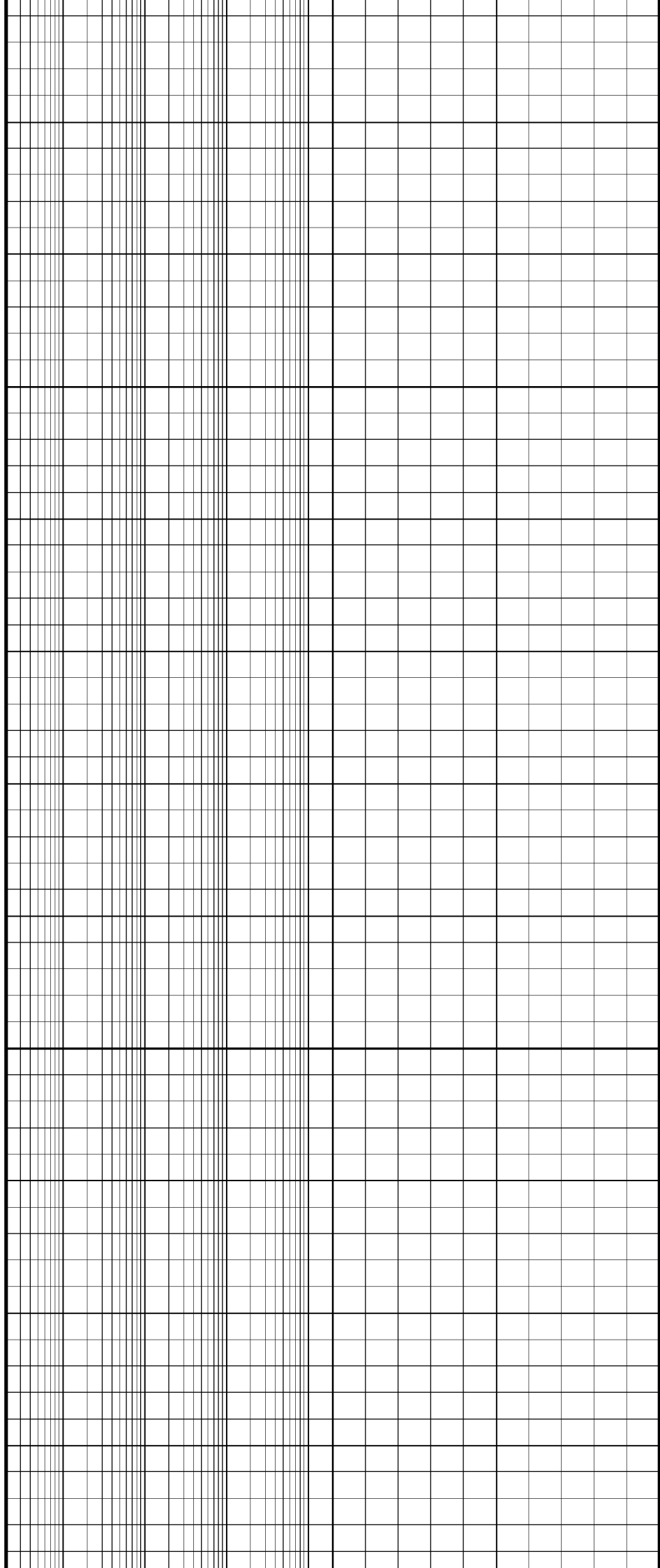
120

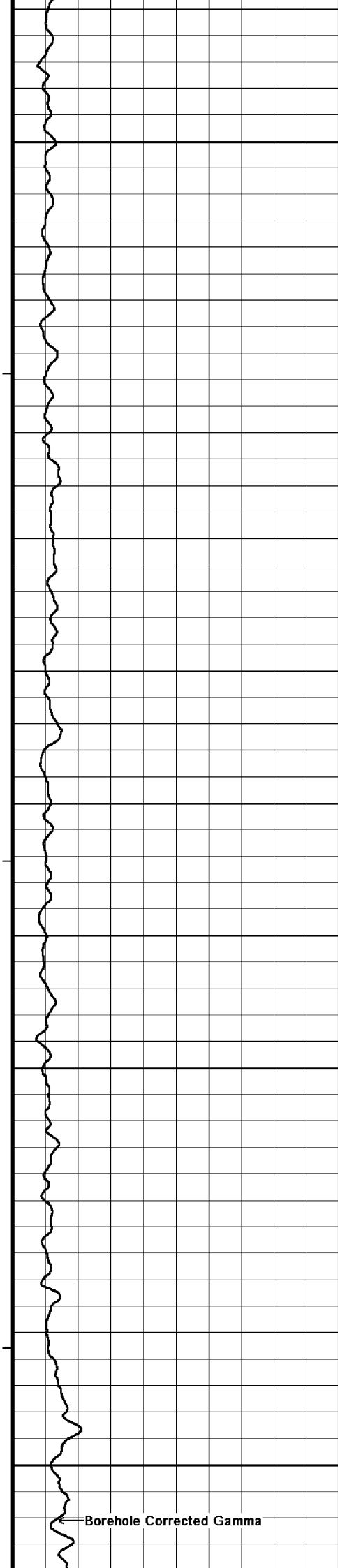
130

140

150

160





170

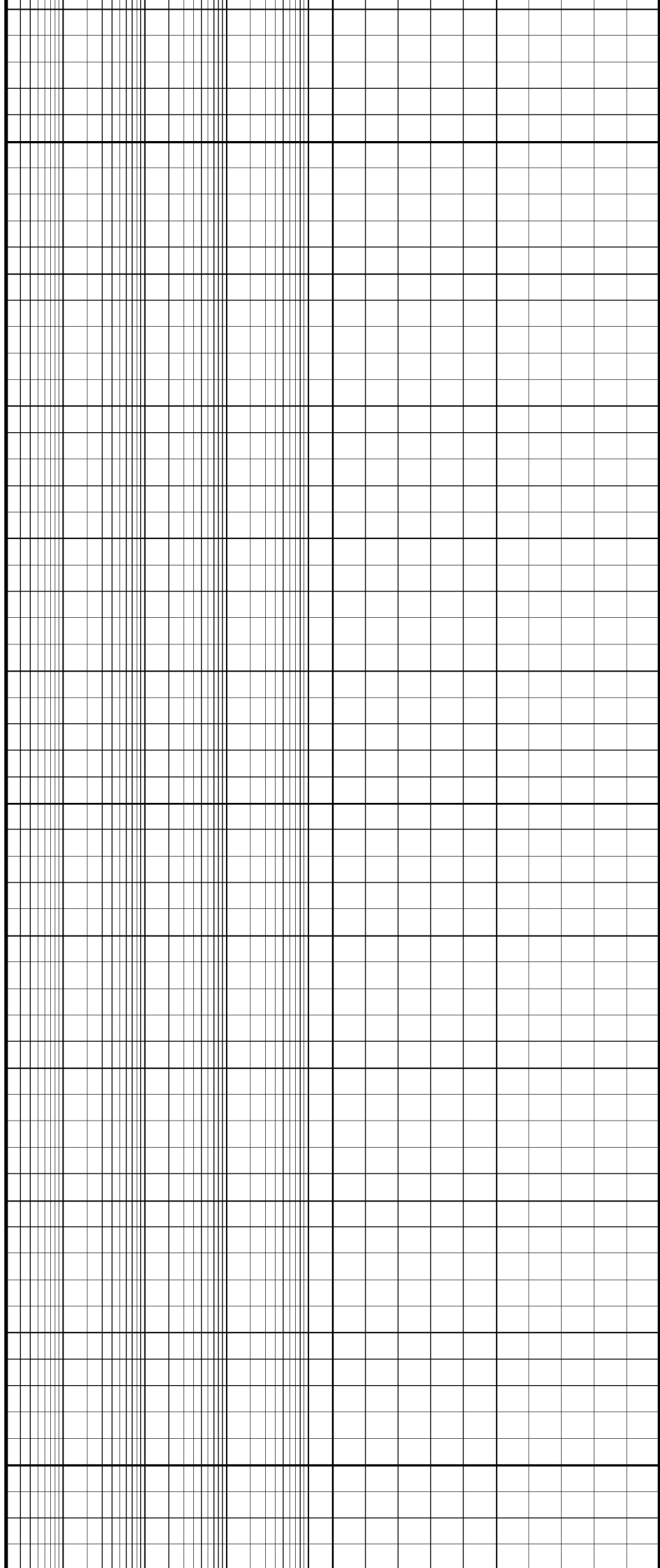
180

190

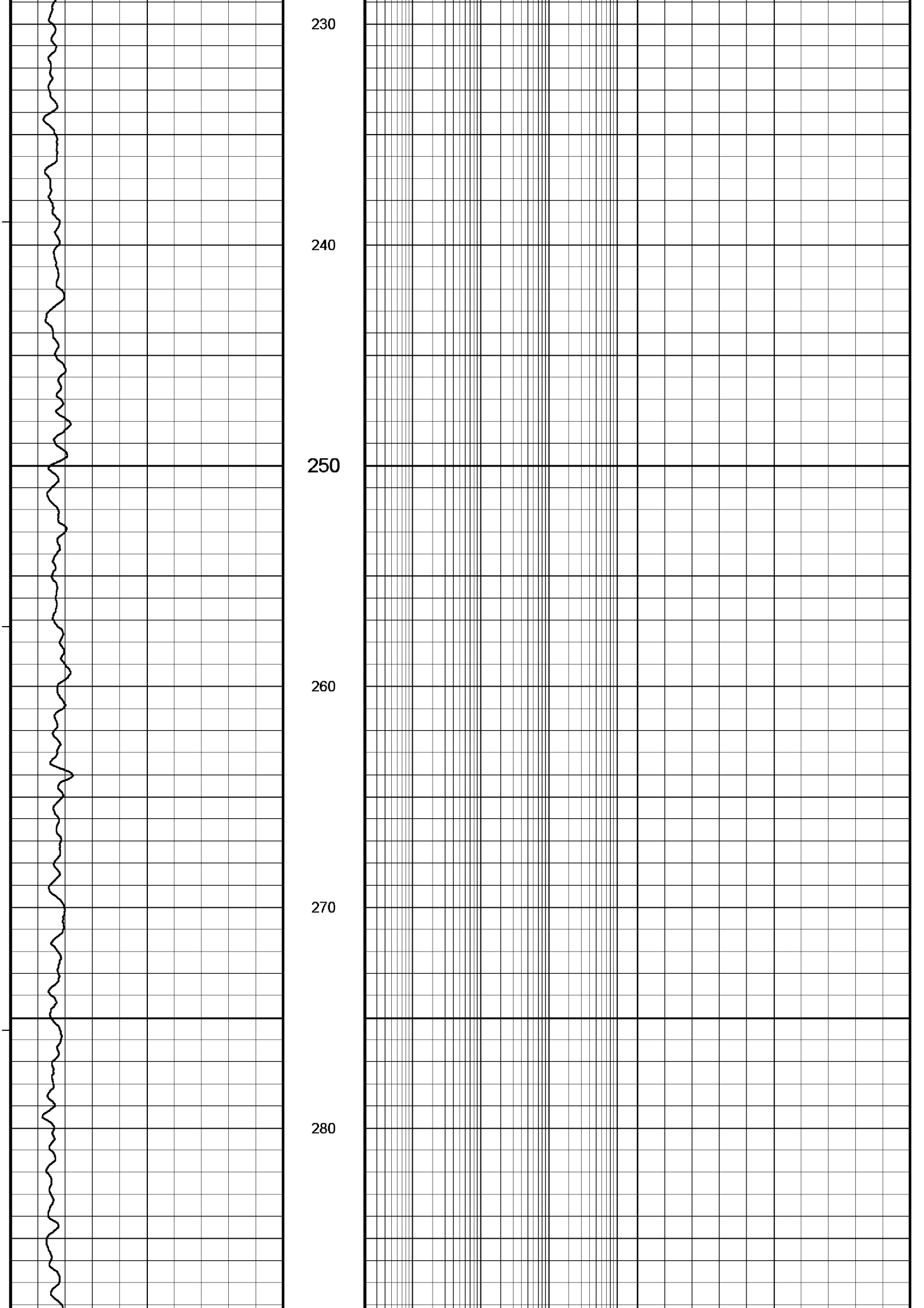
200

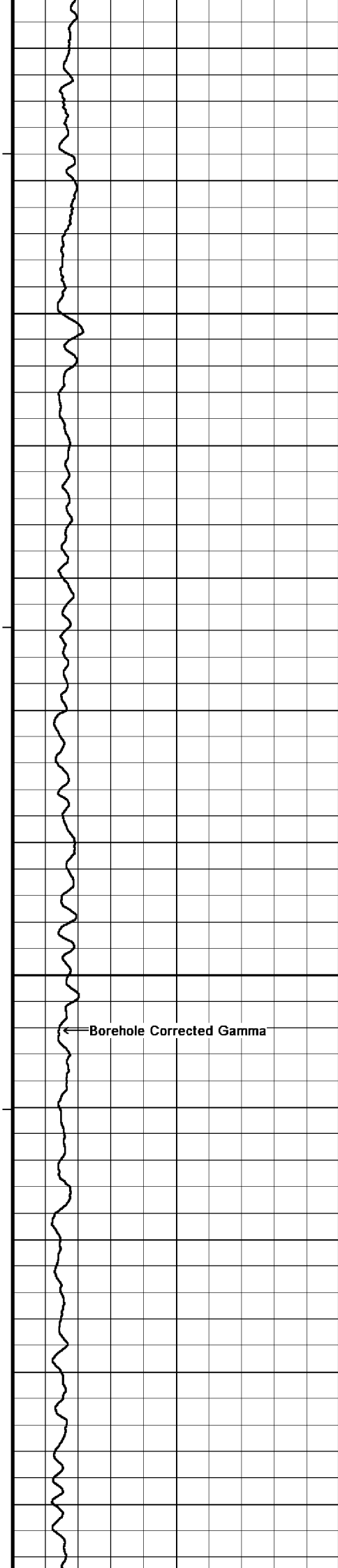
210

220



← Borehole Corrected Gamma





290

300

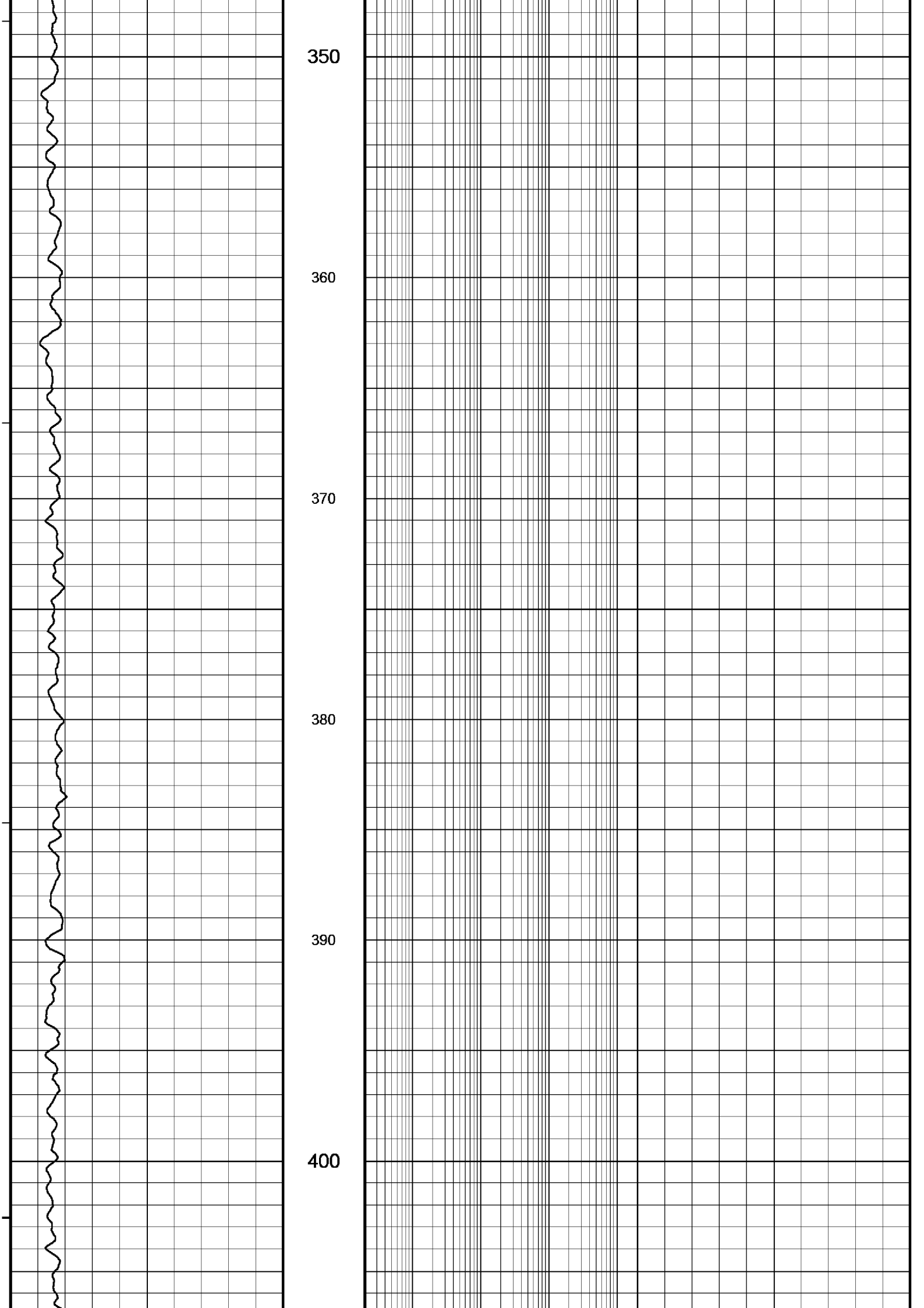
310

320

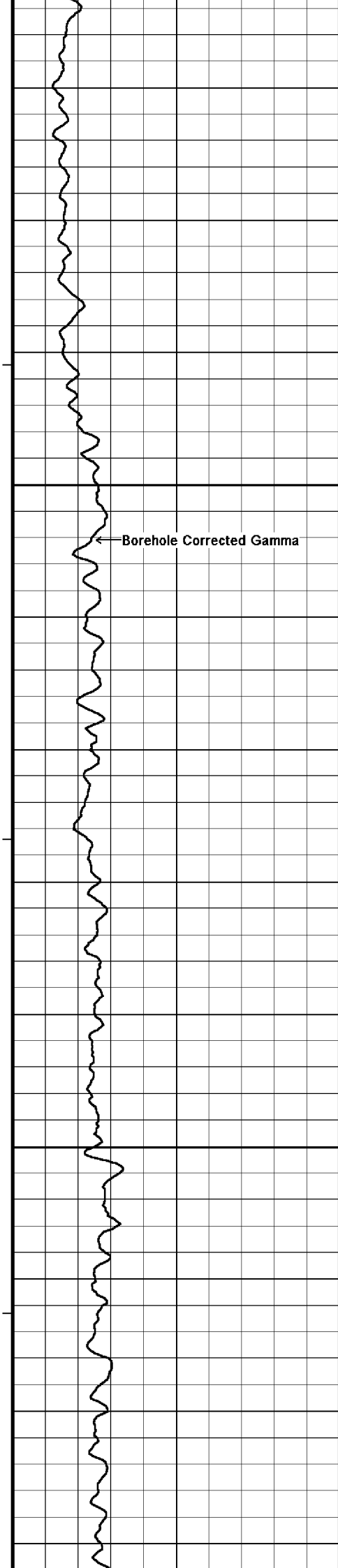
330

340

Borehole Corrected Gamma







410

420

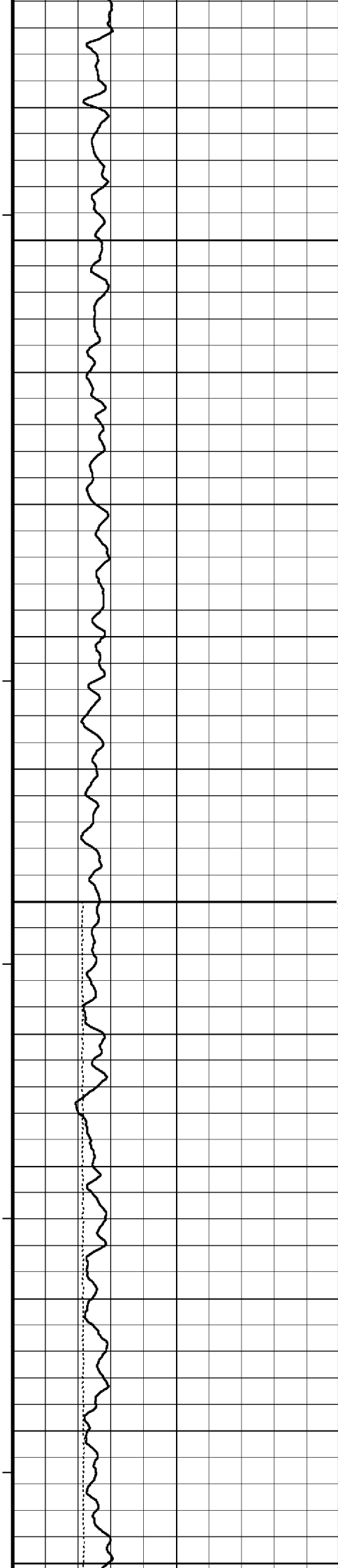
← Borehole Corrected Gamma

430

440

450

460



470

480

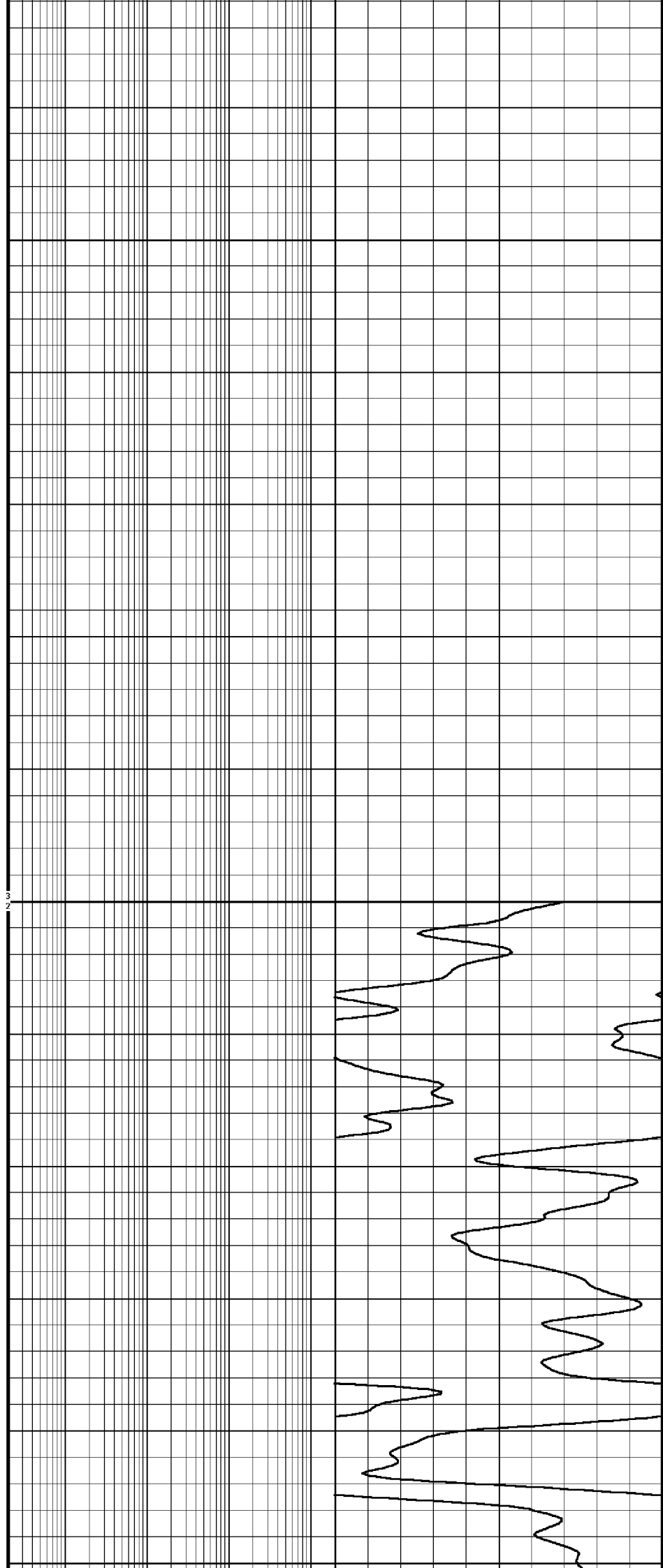
490

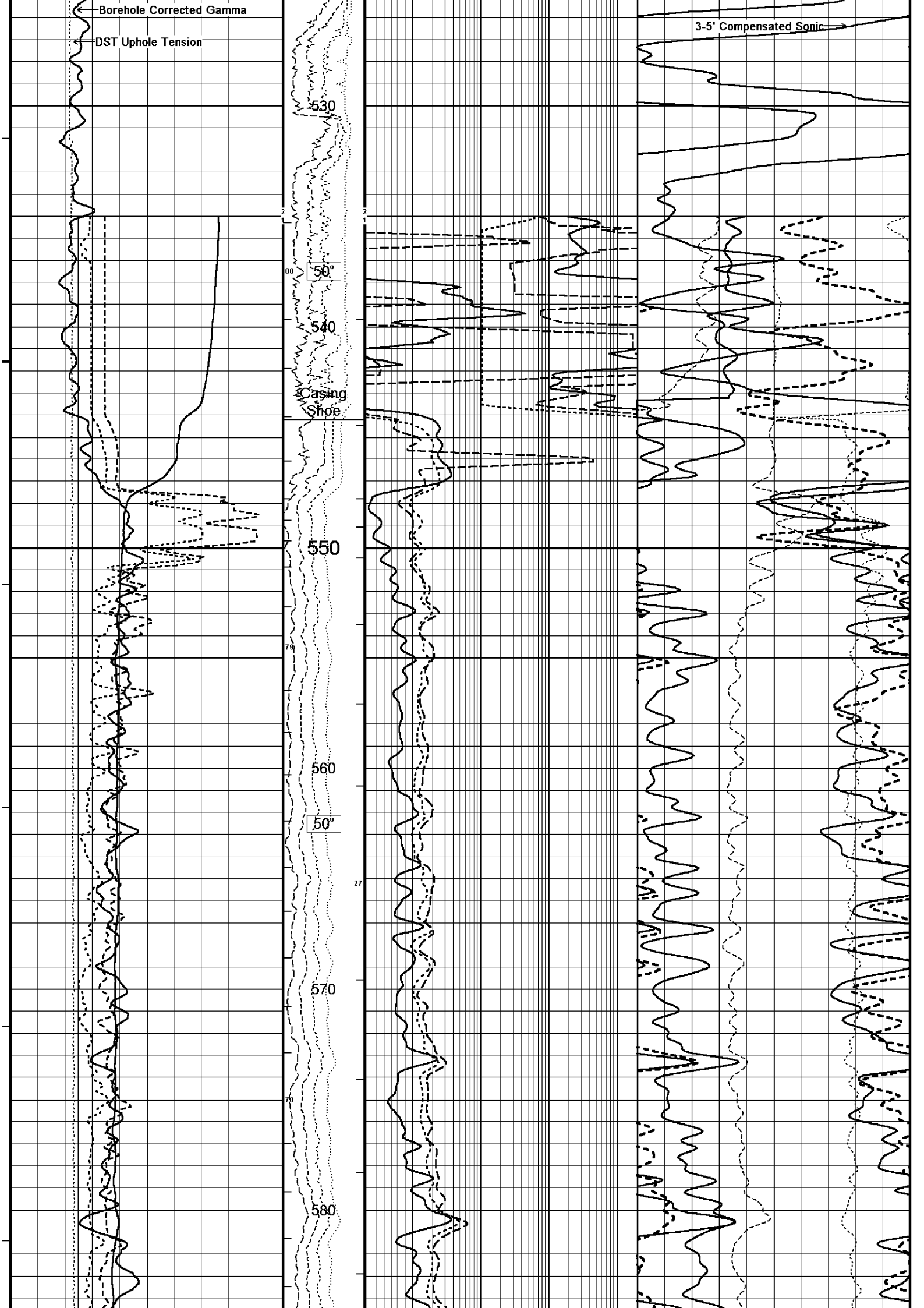
500

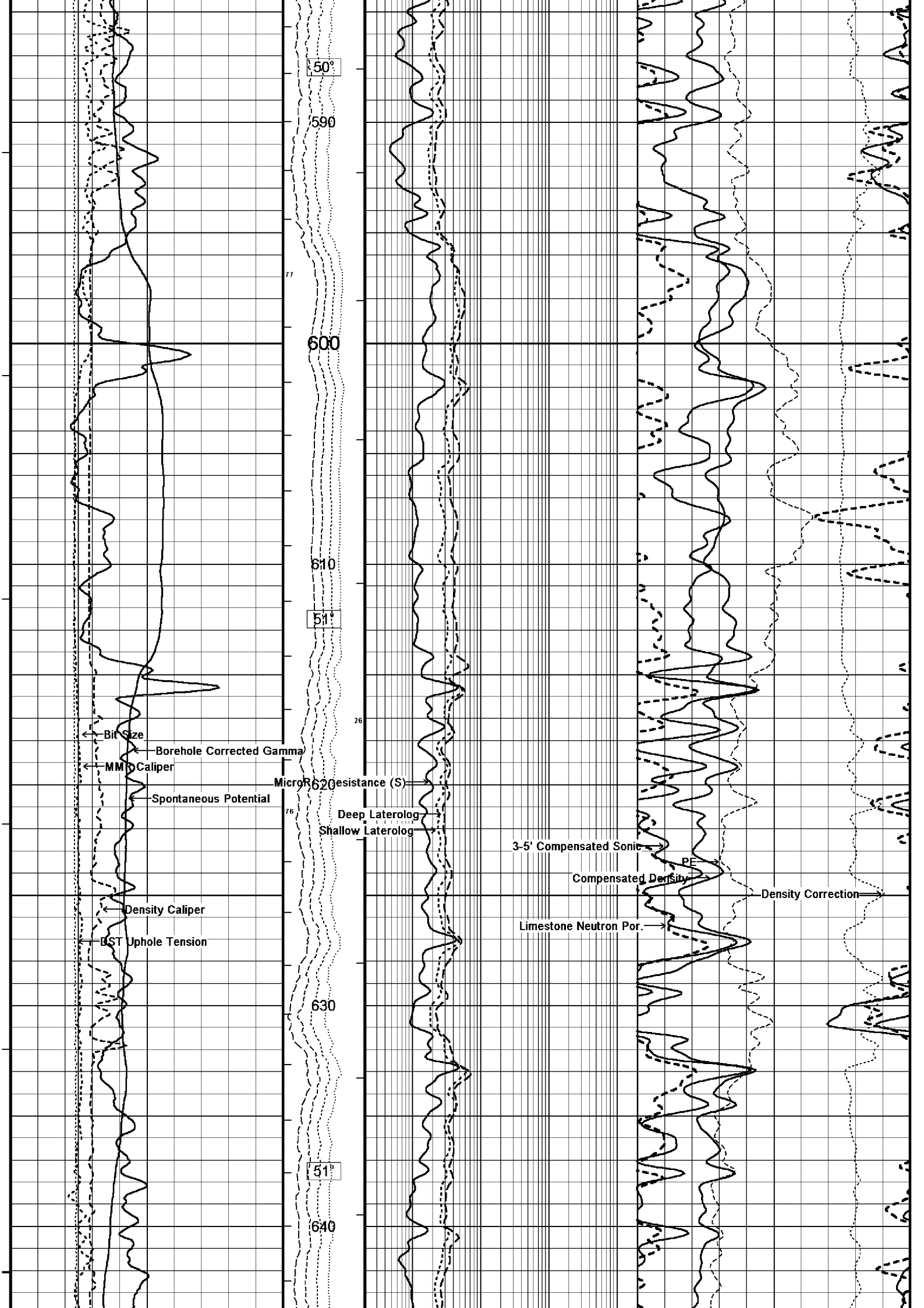


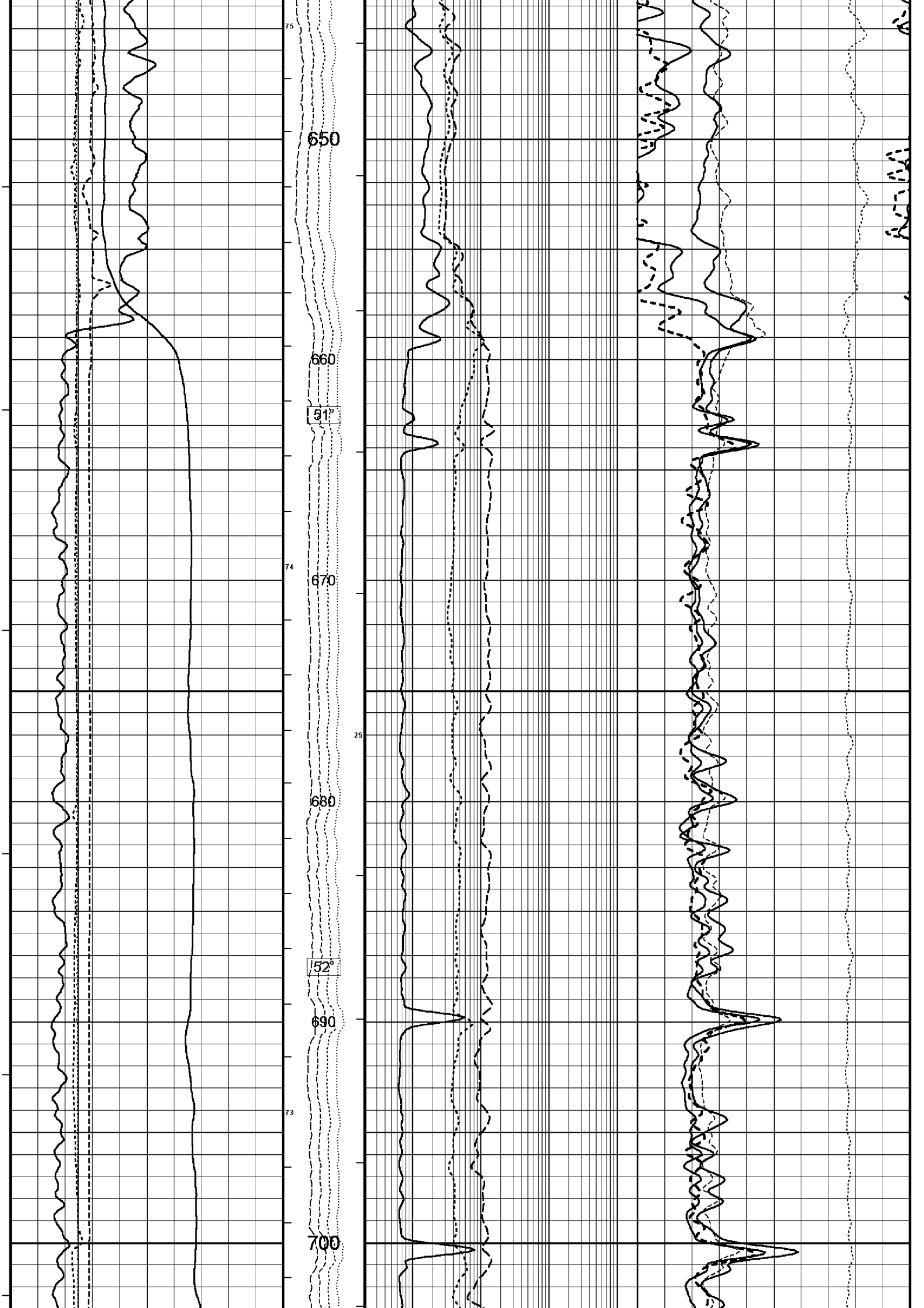
510

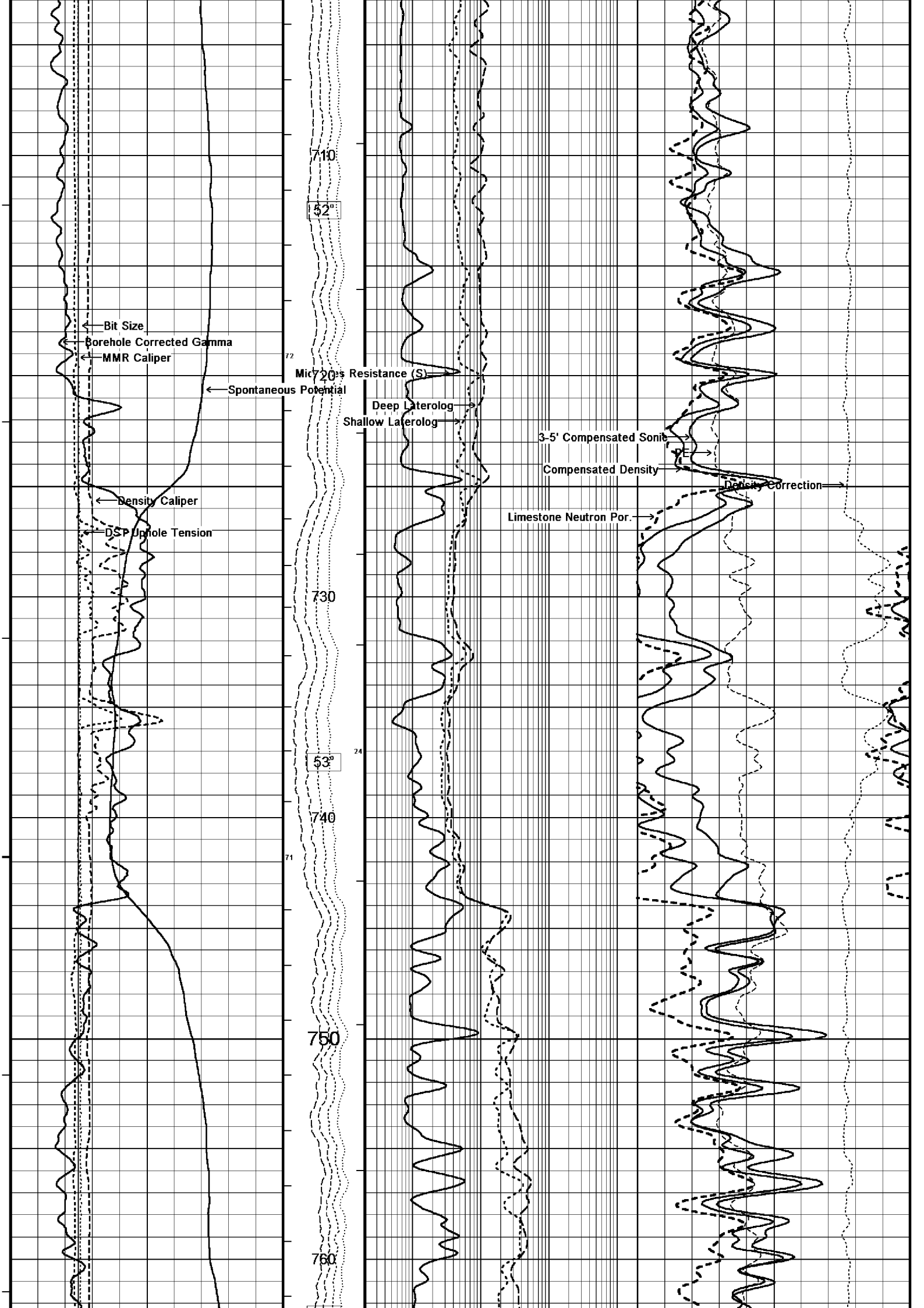
520

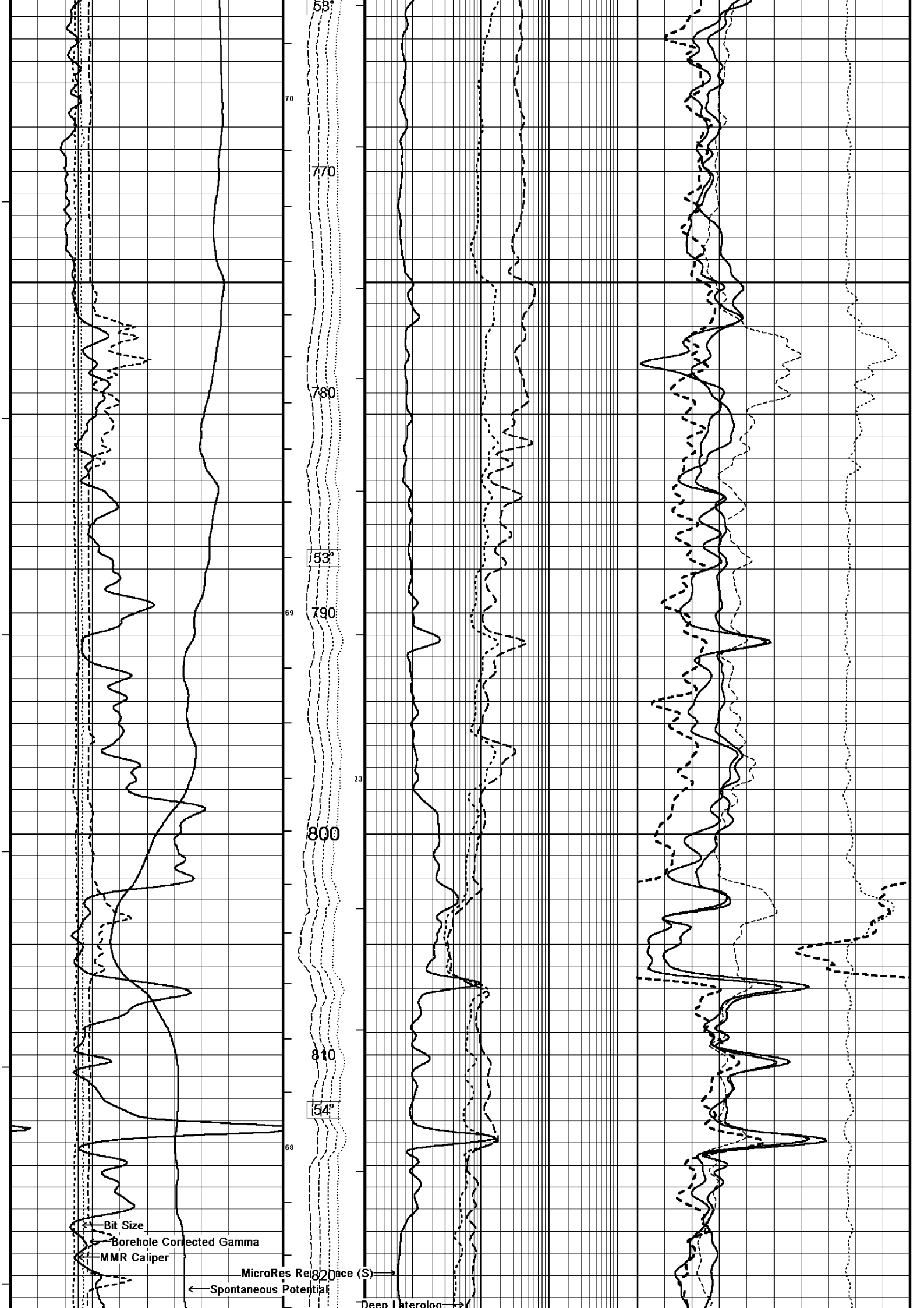


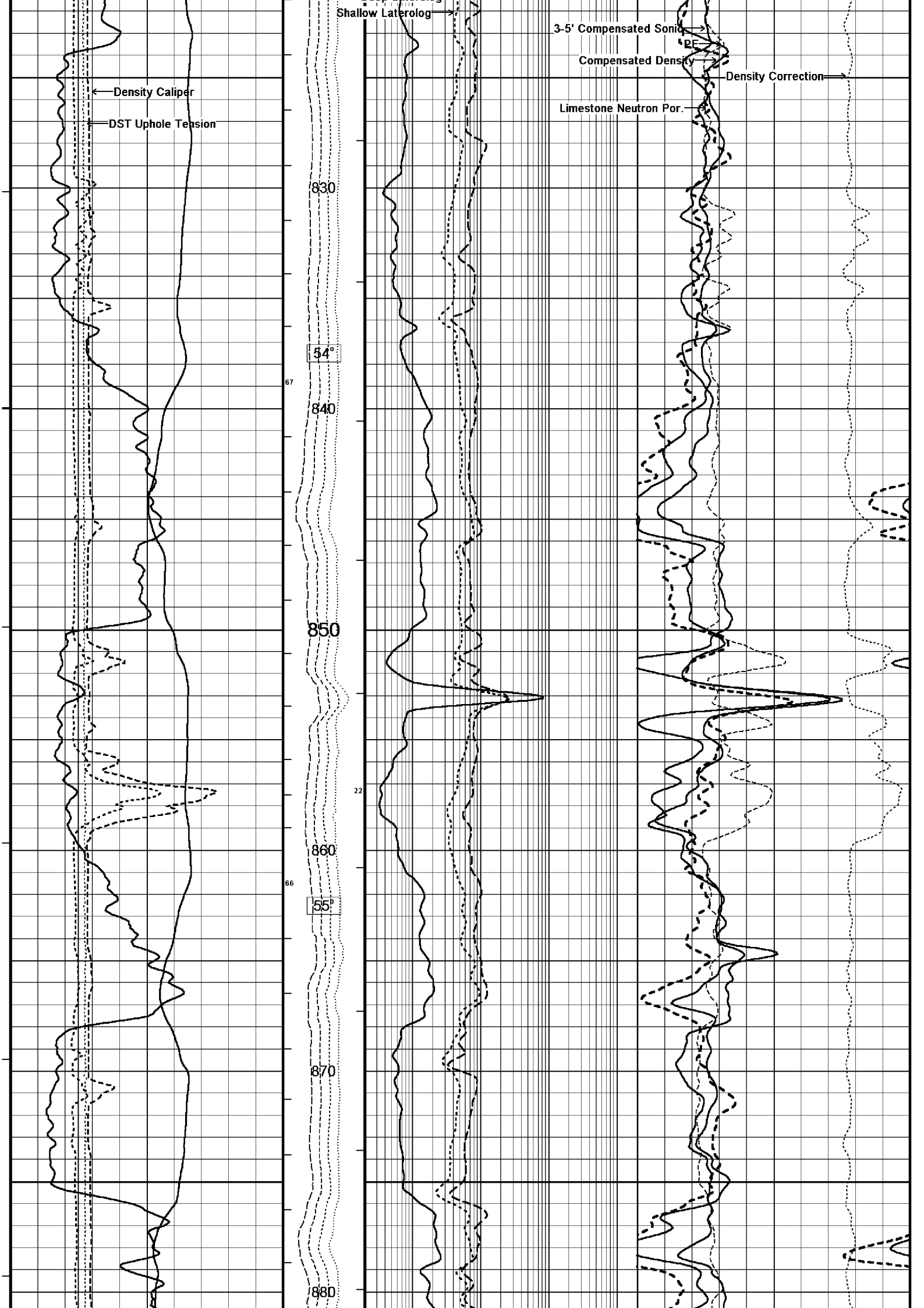




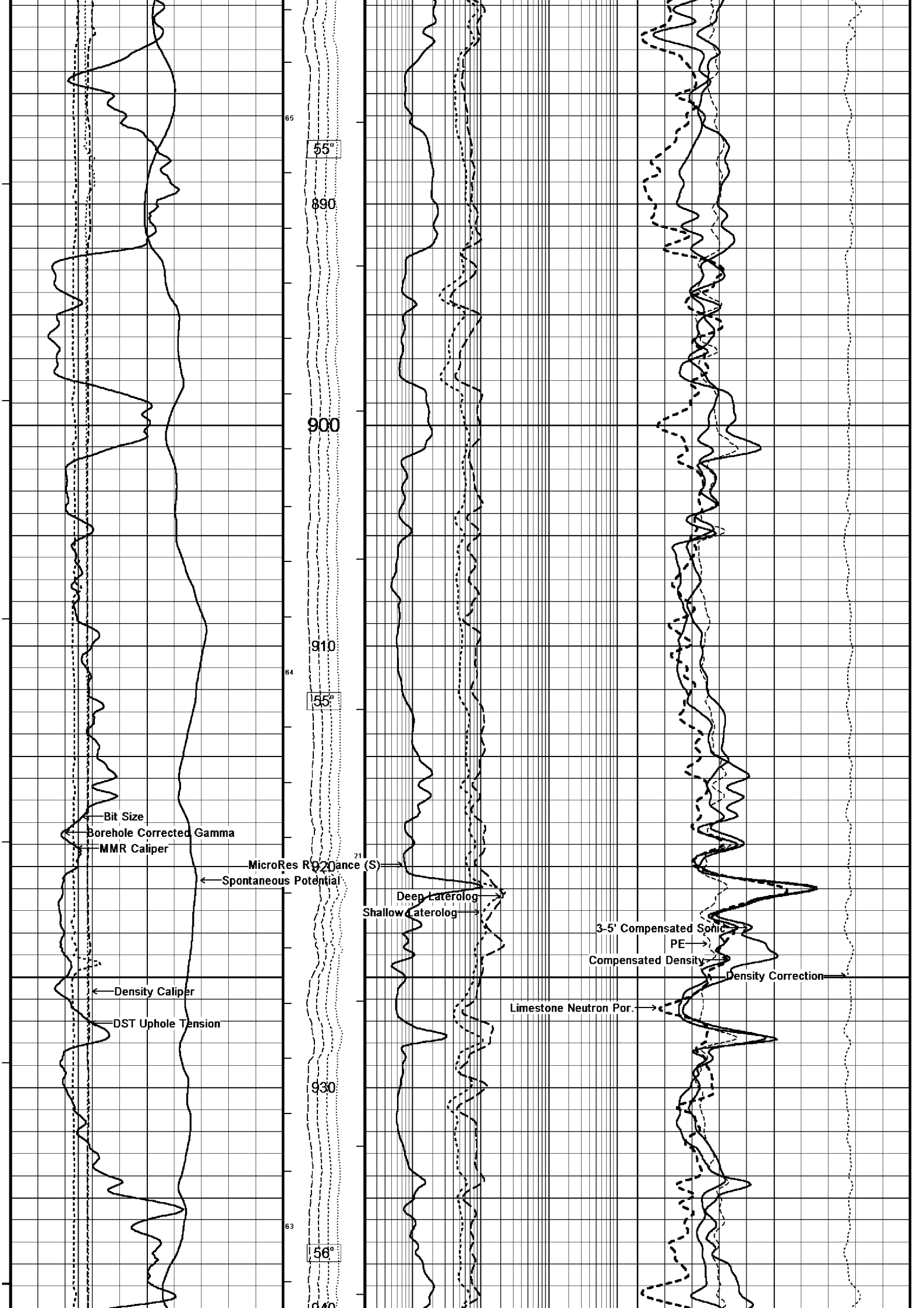


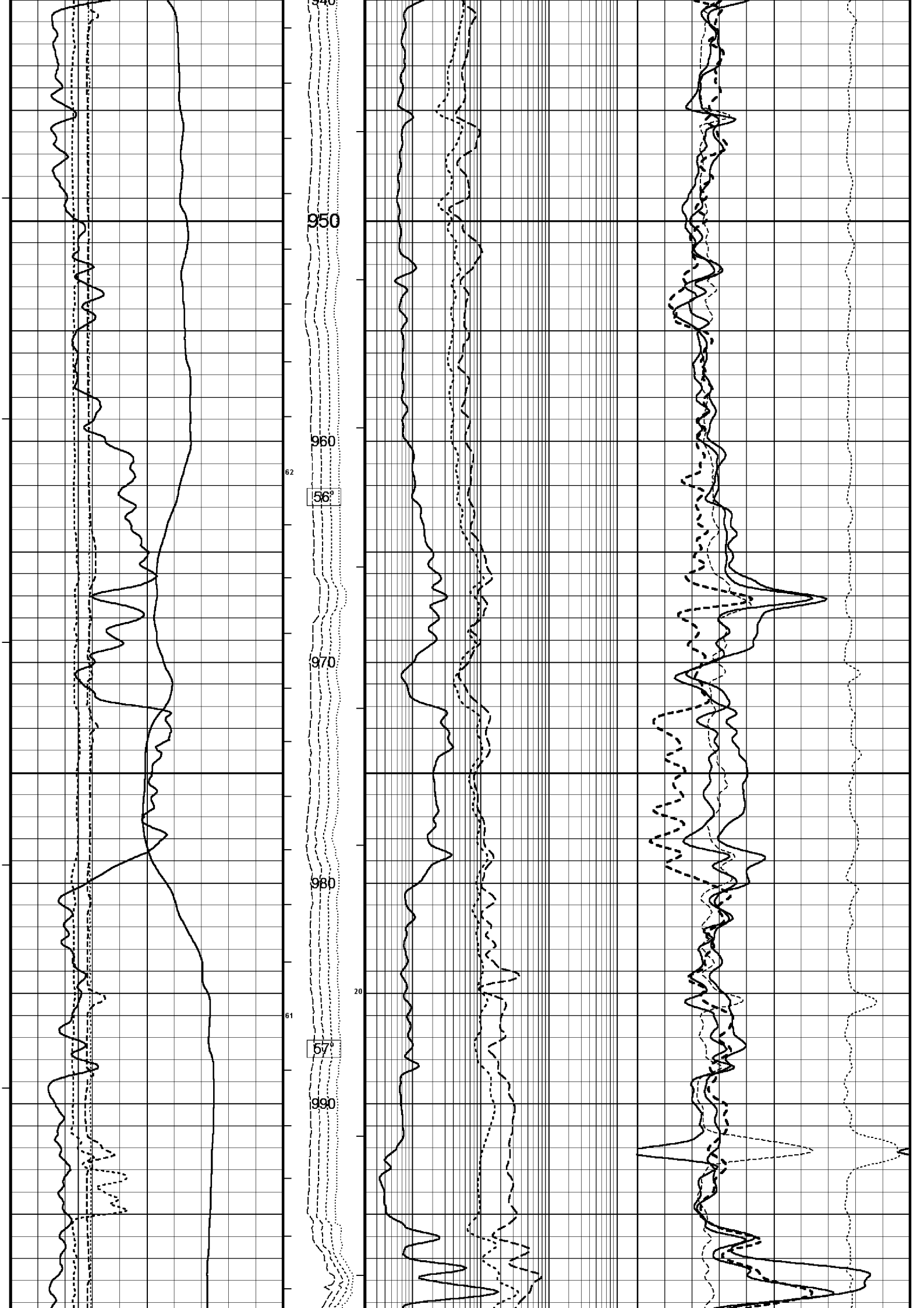


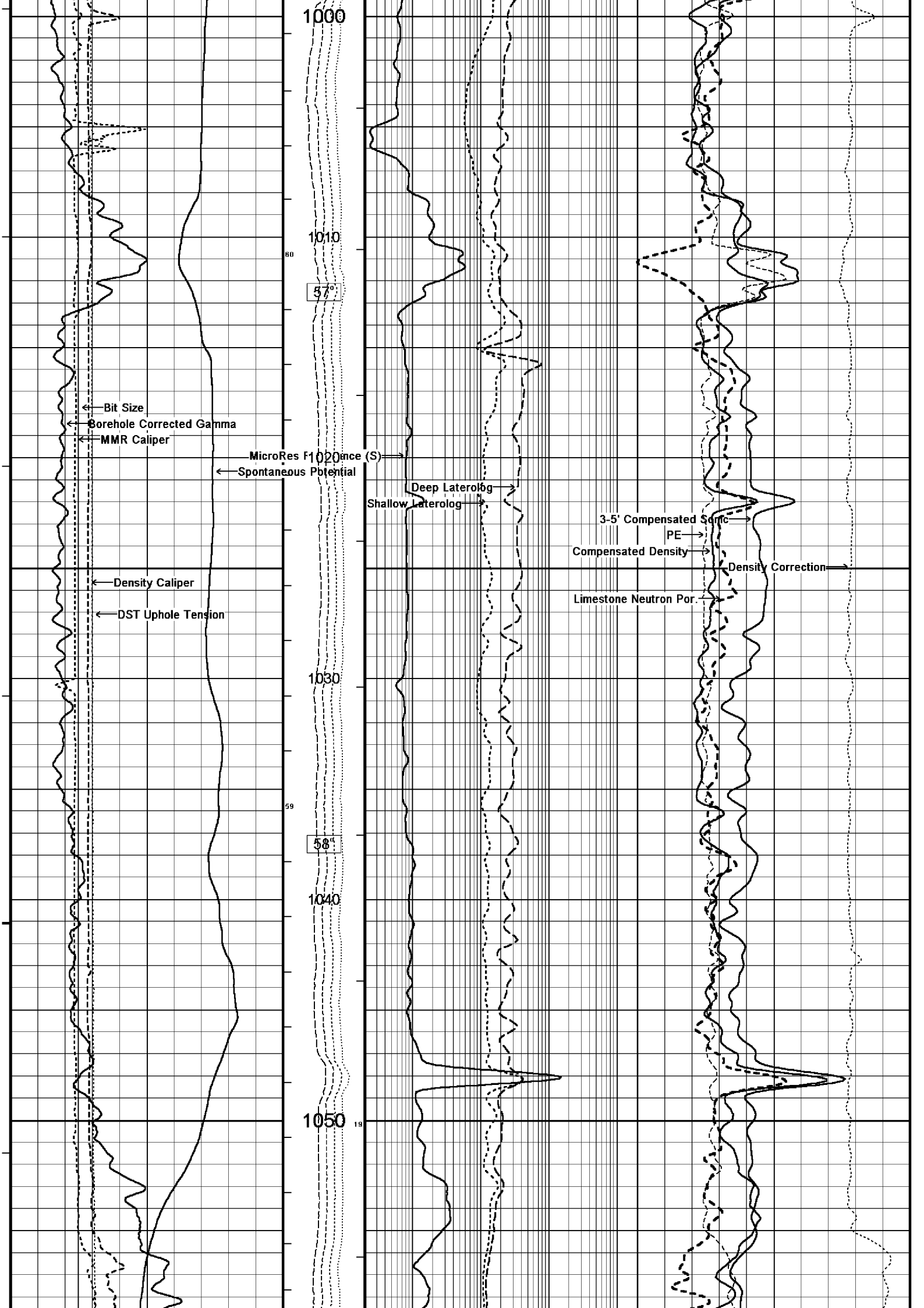


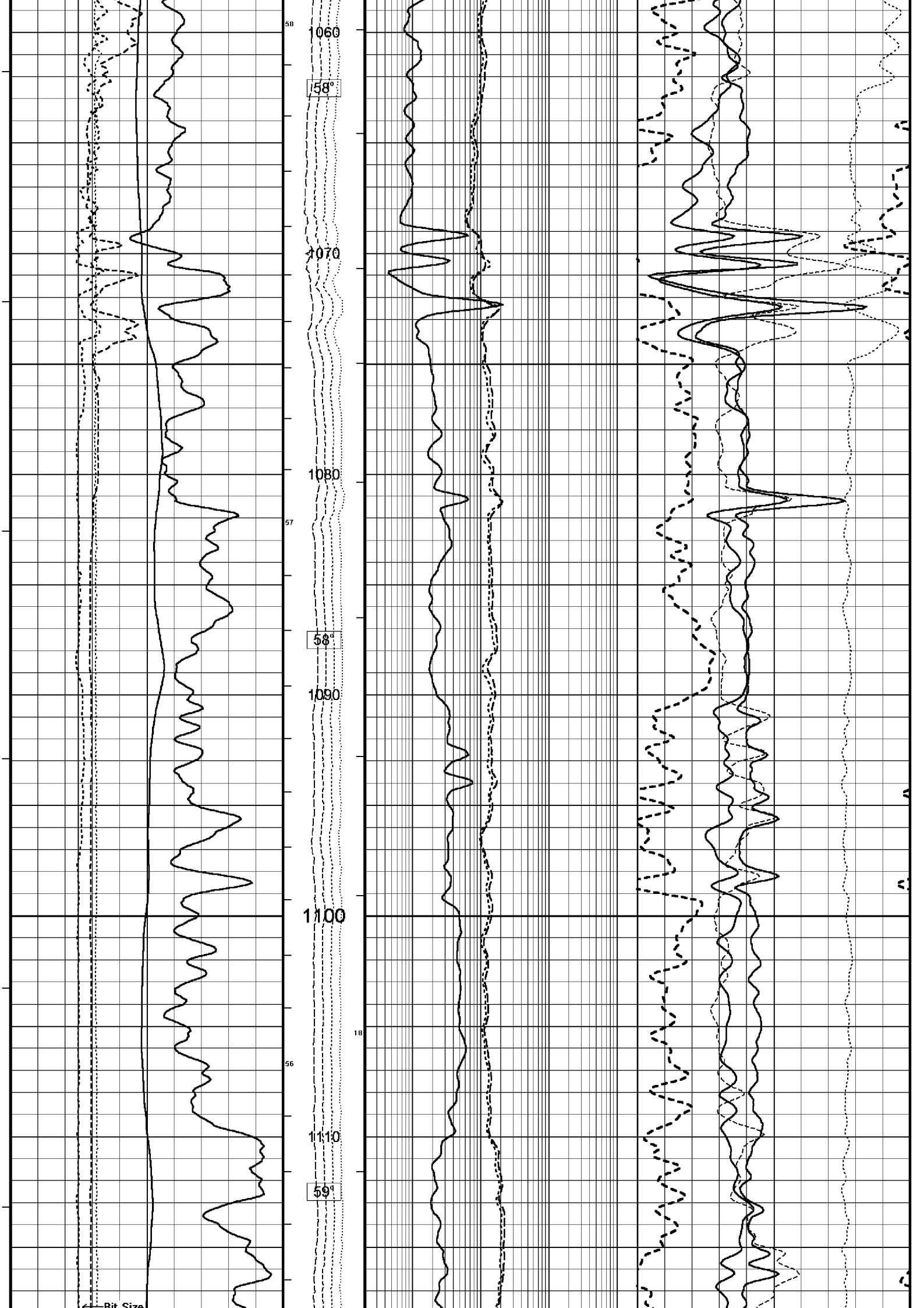


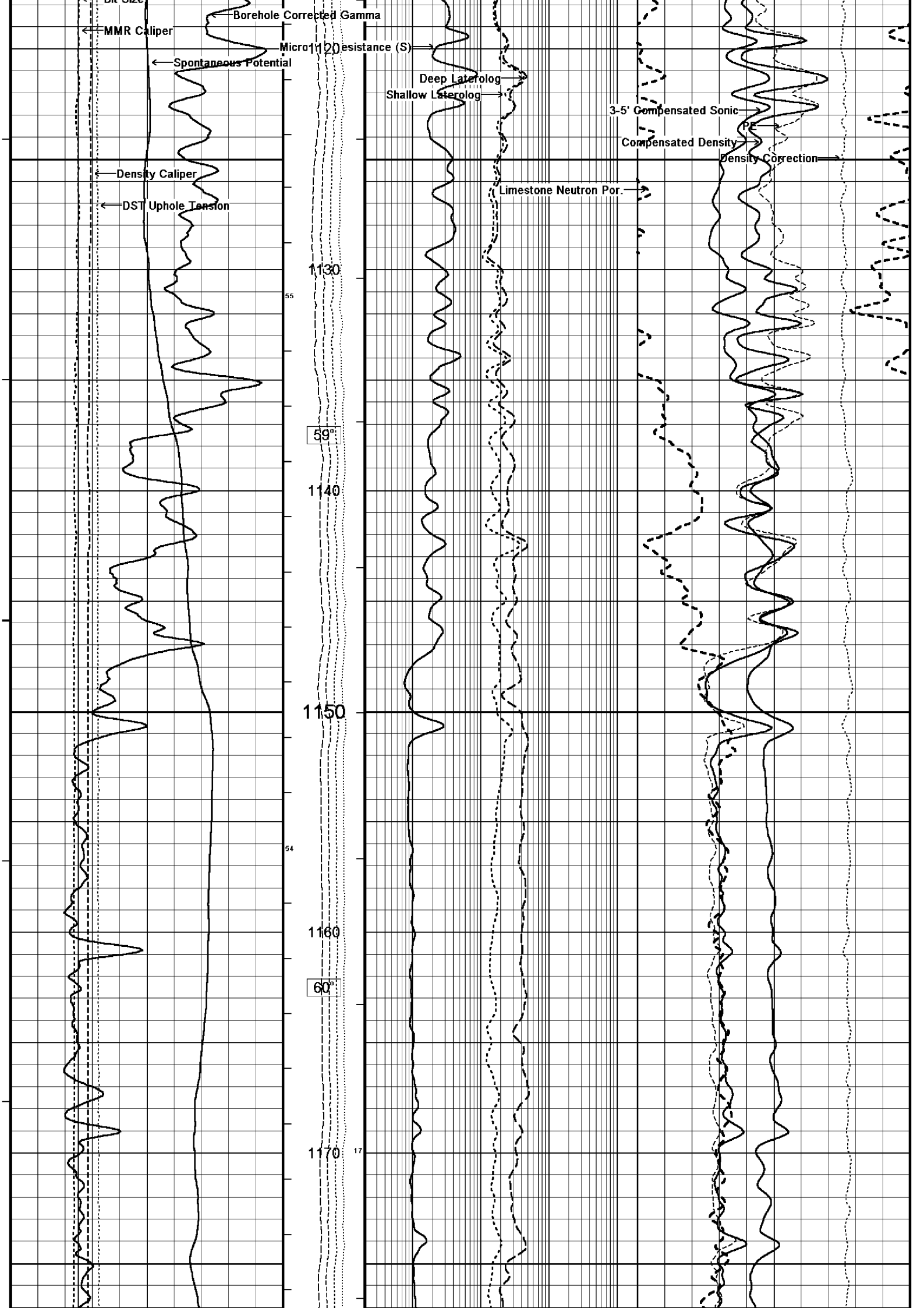


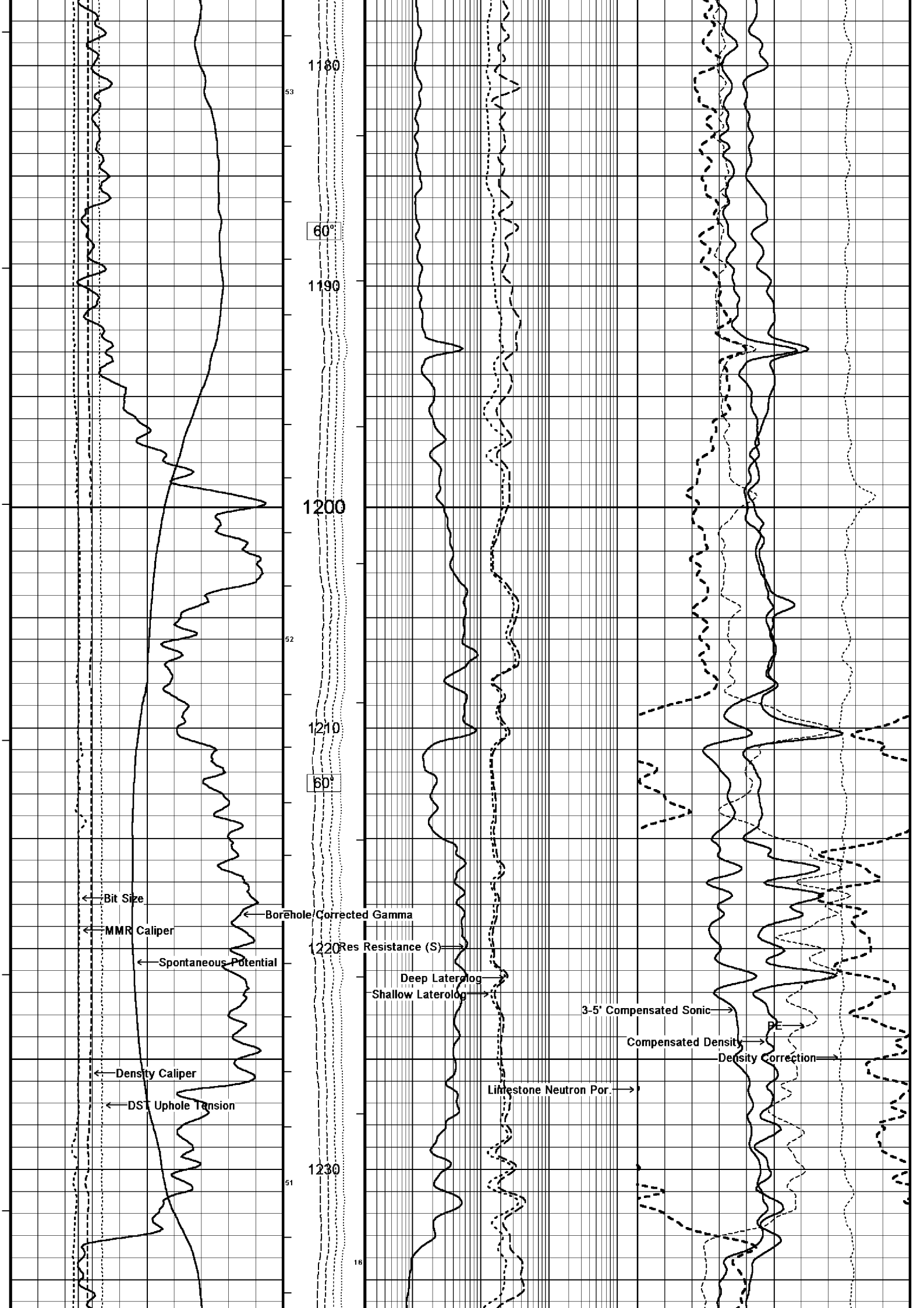


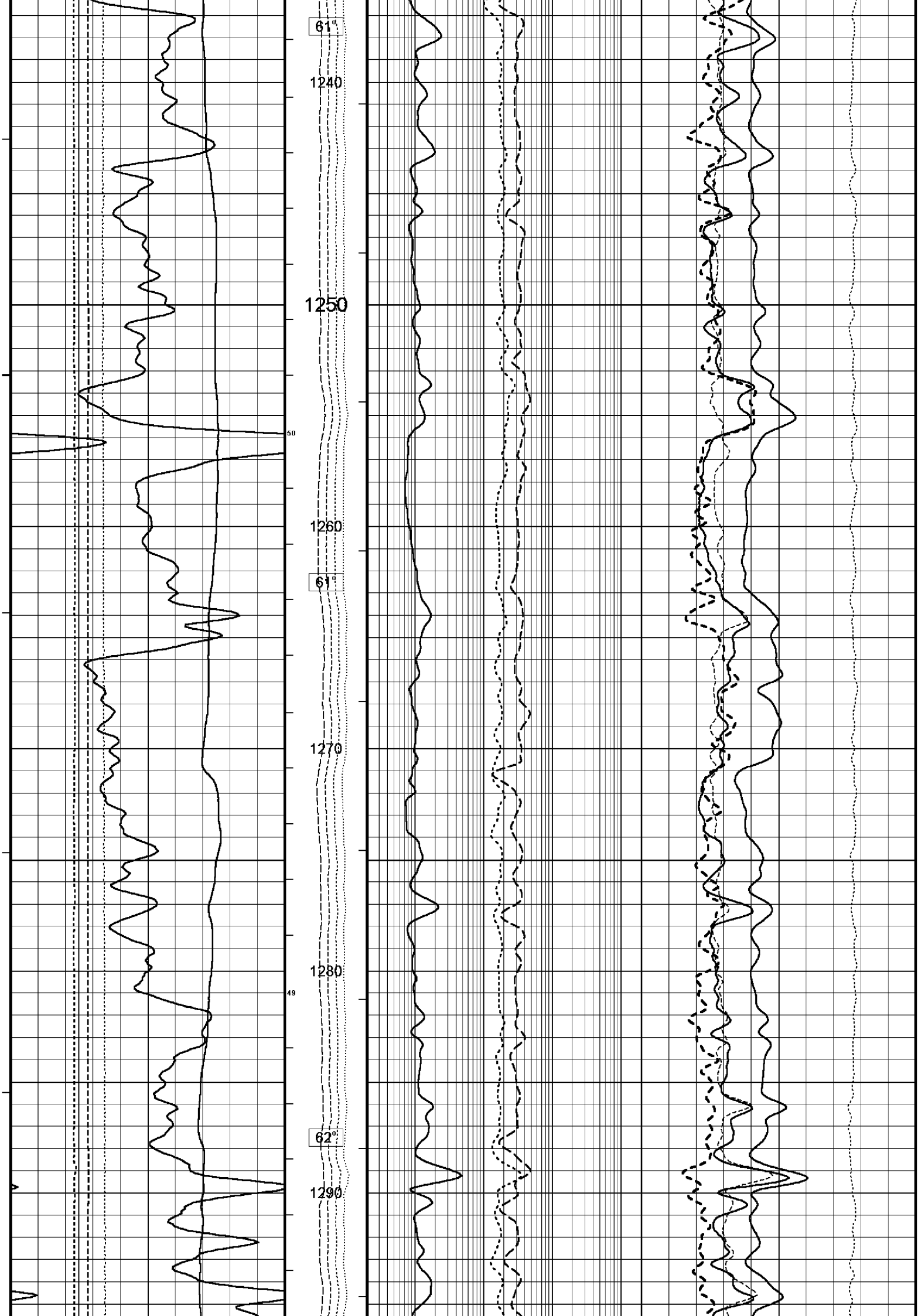


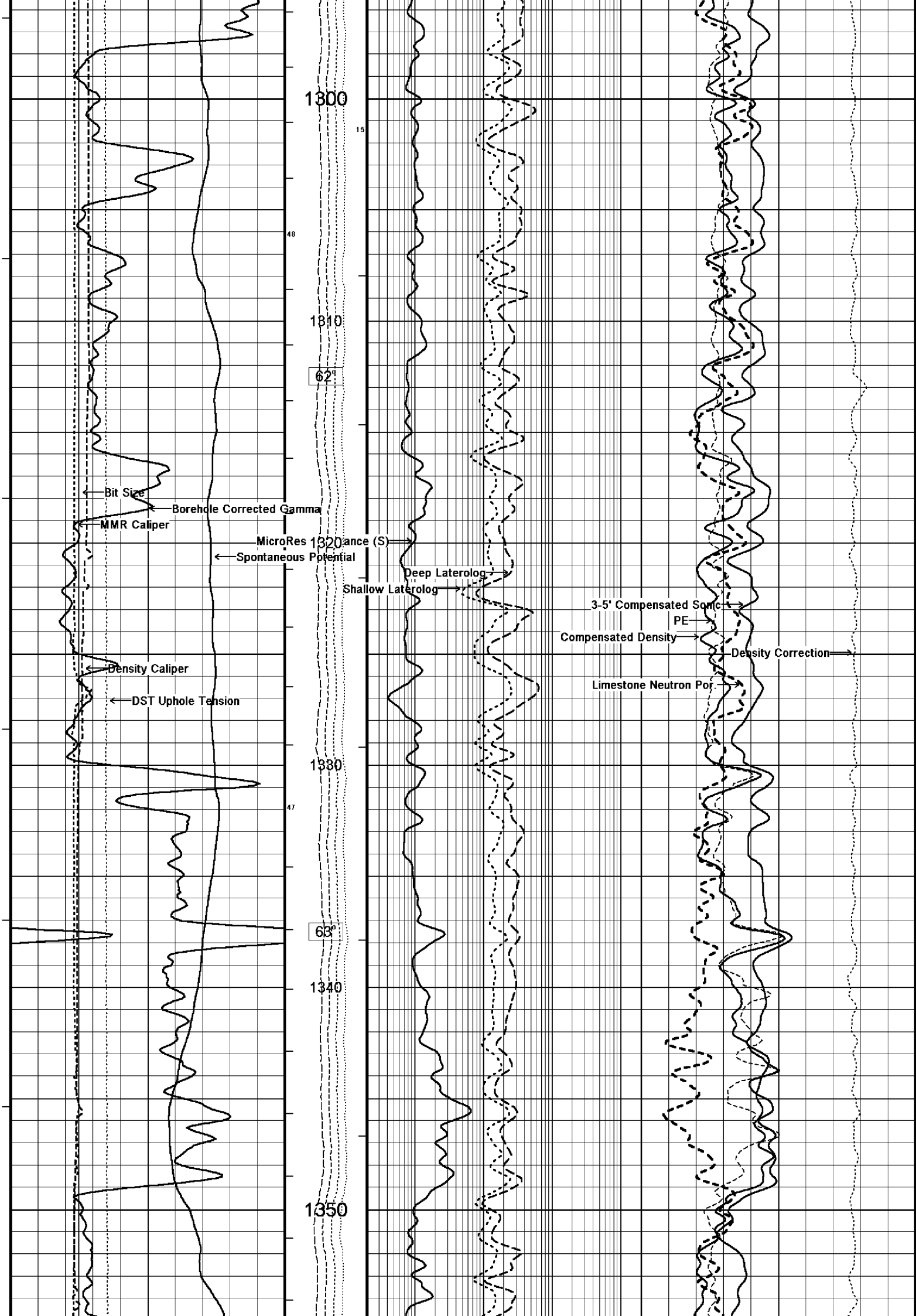




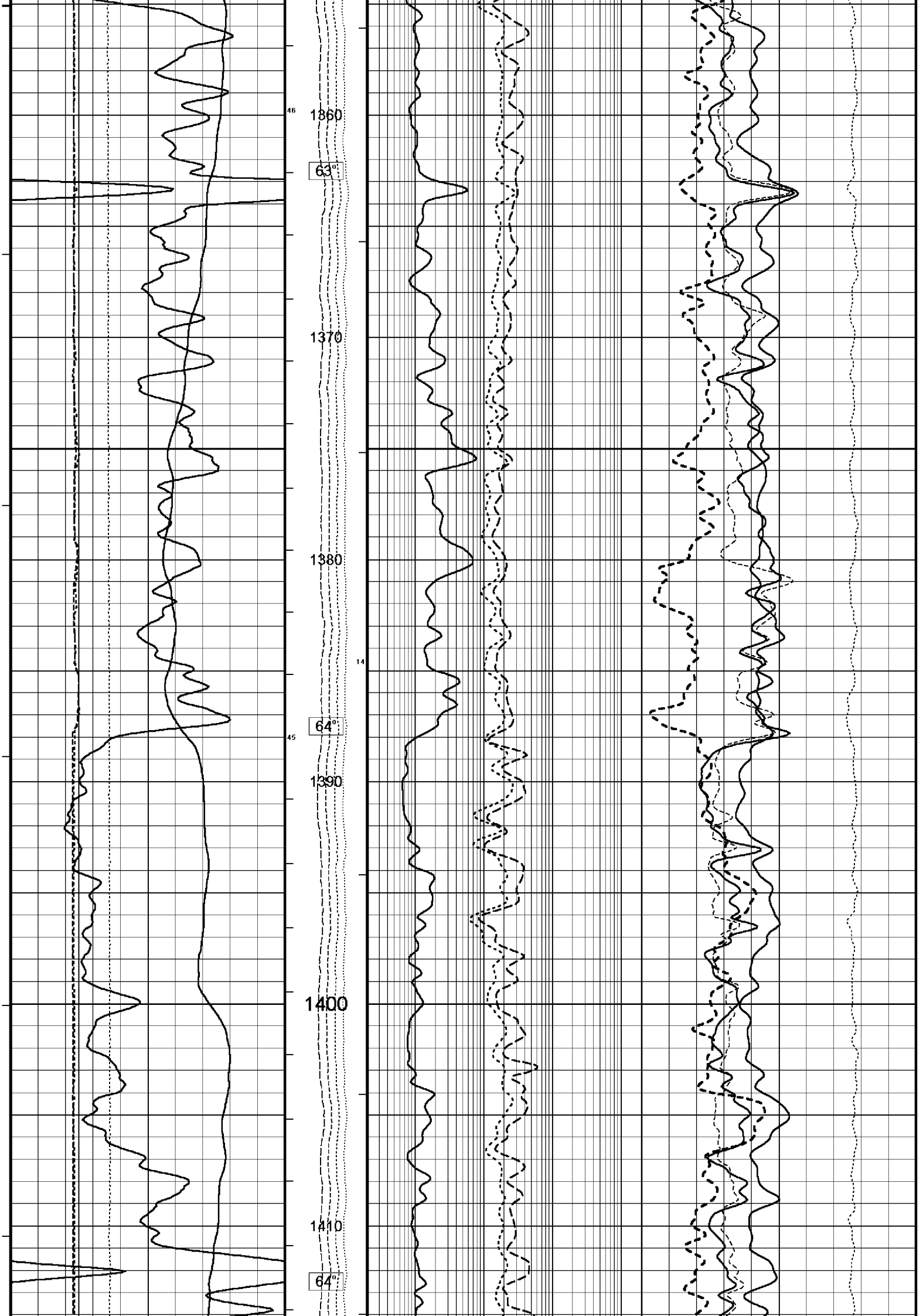


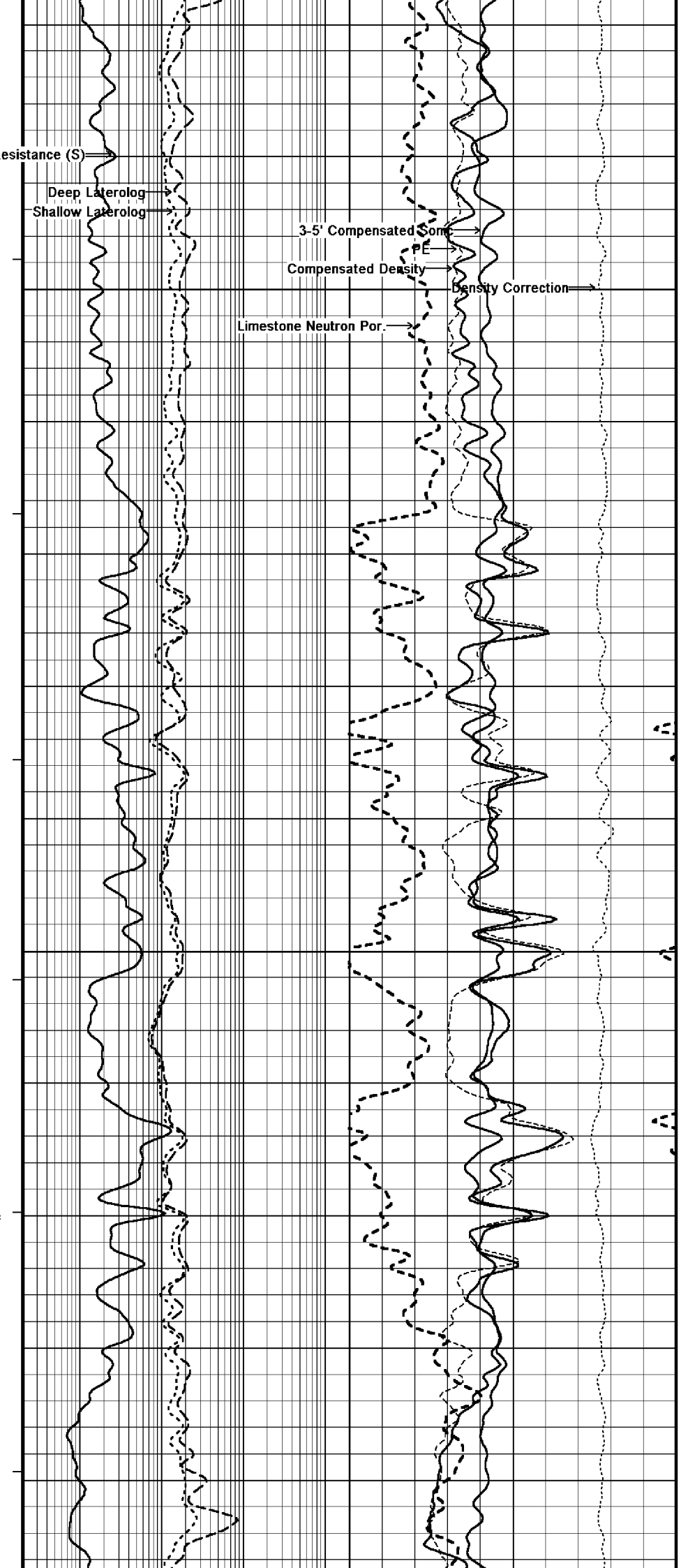
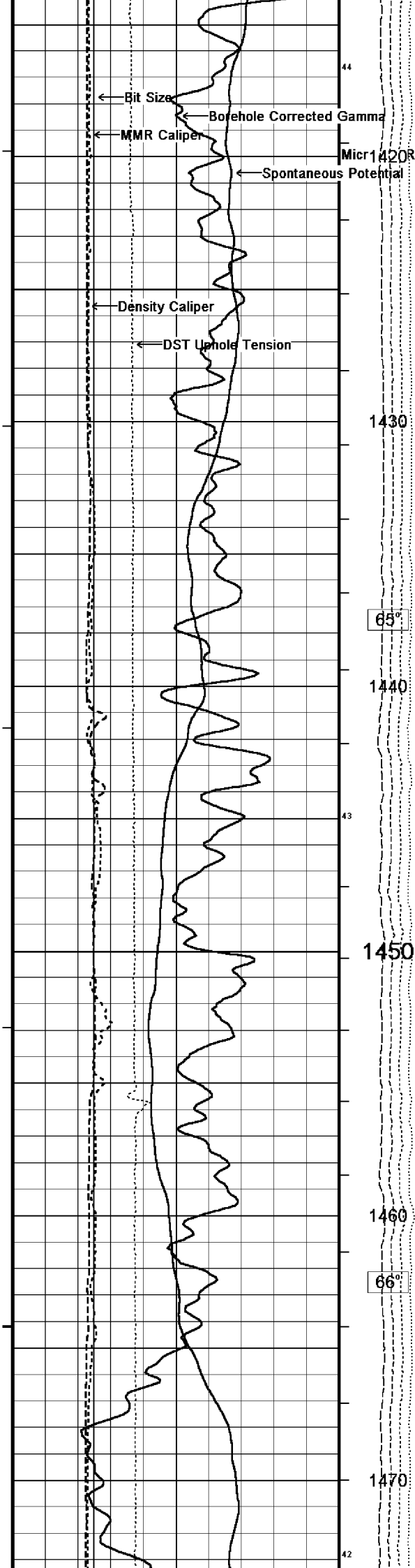


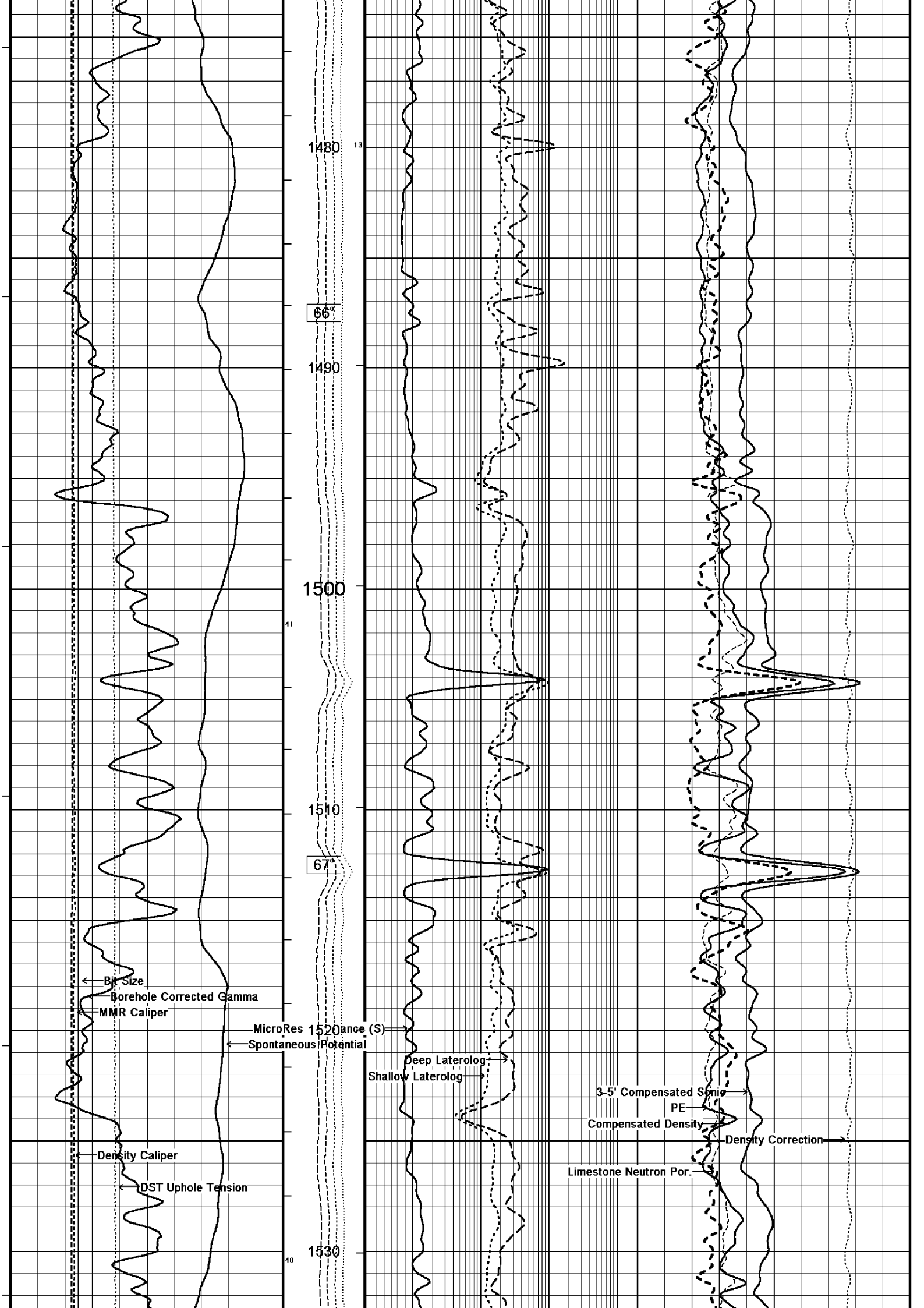


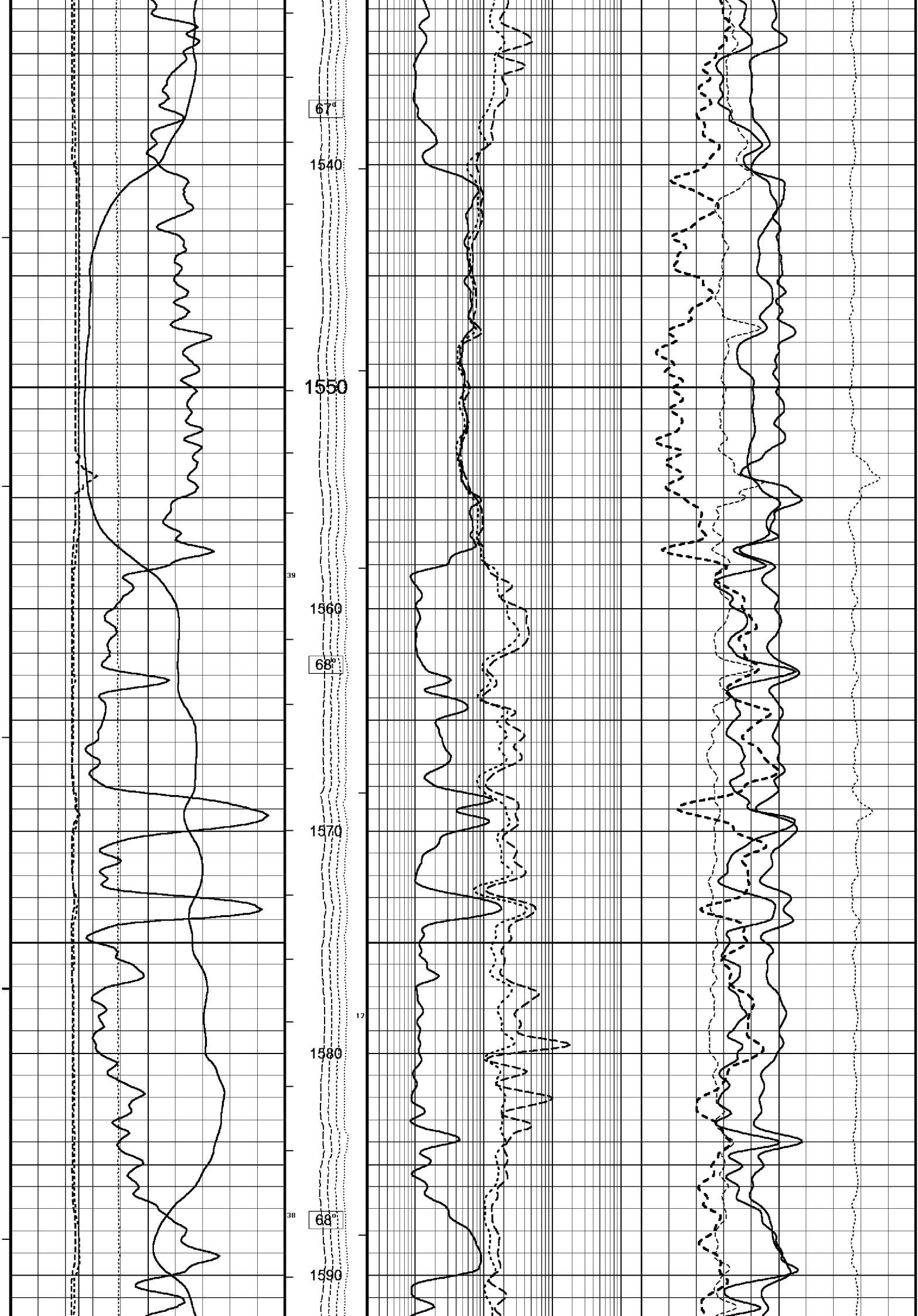


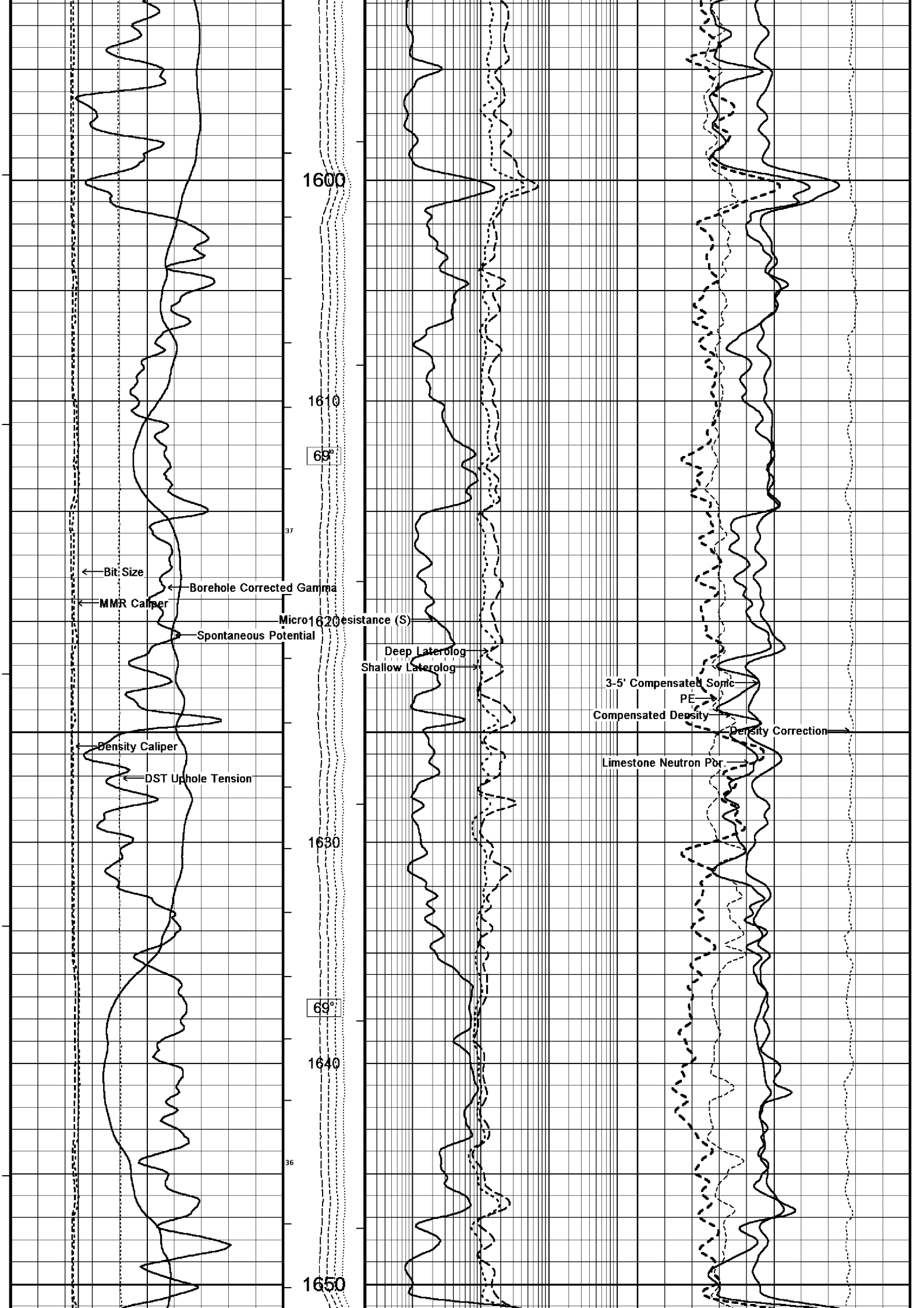


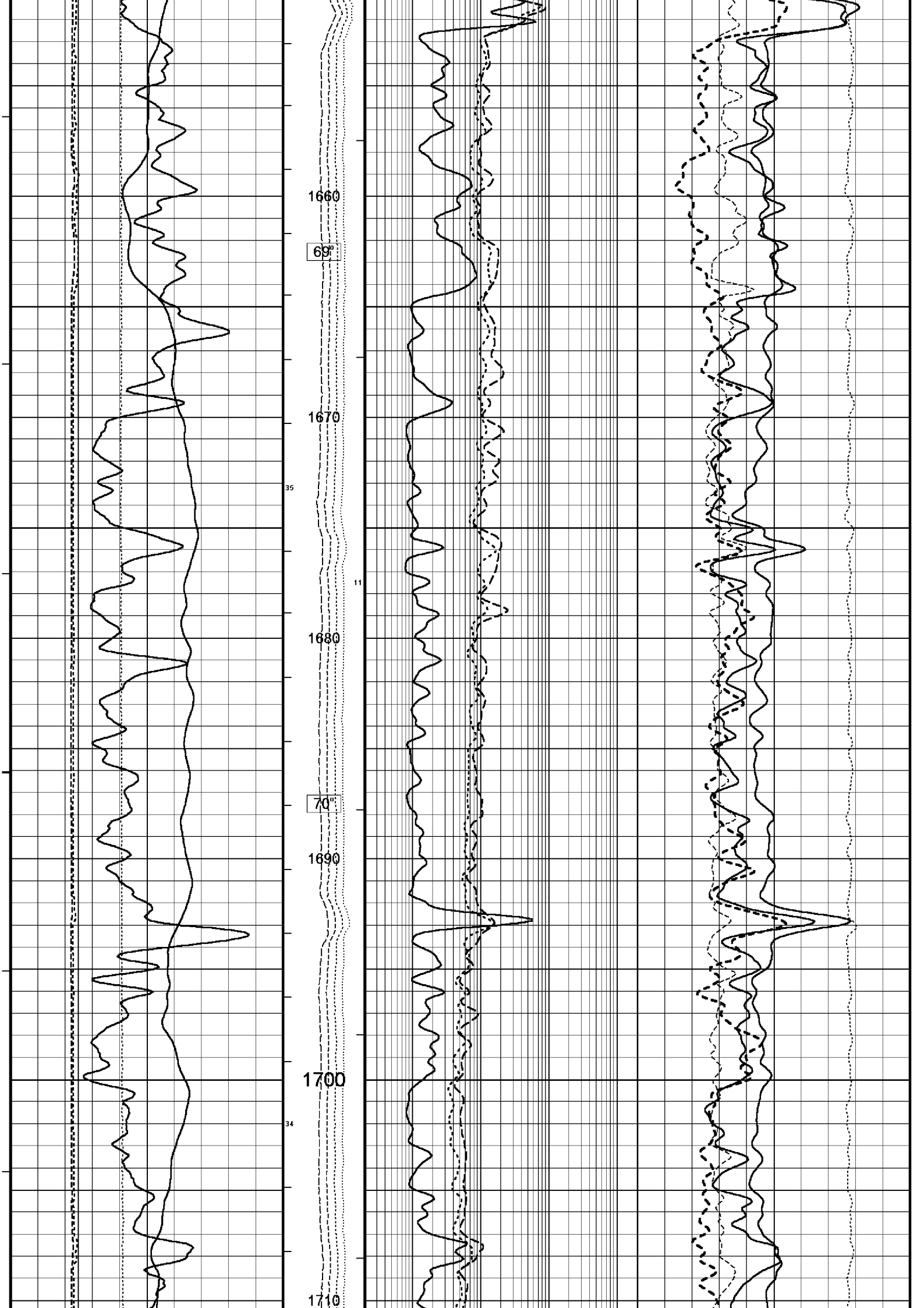


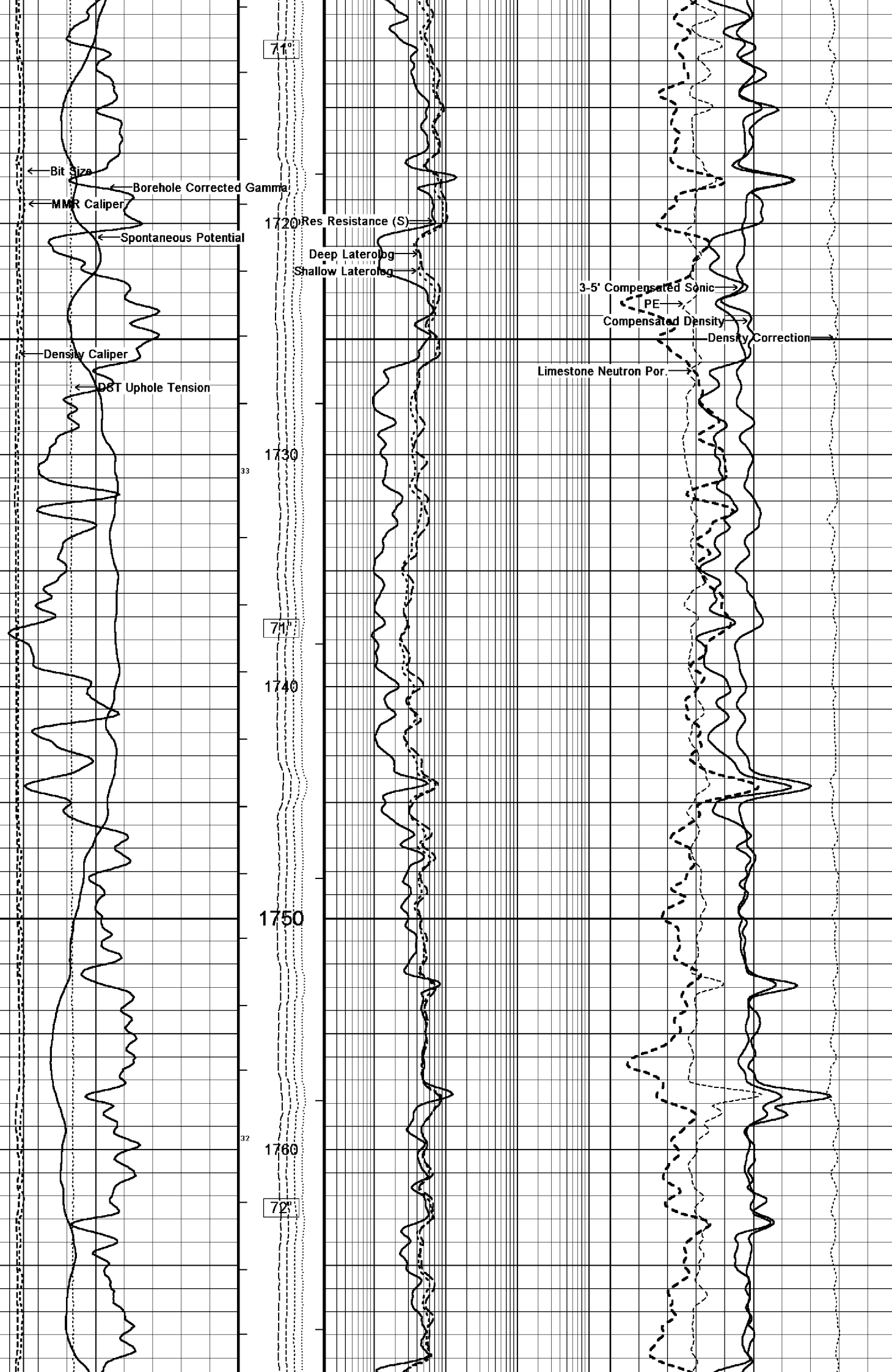


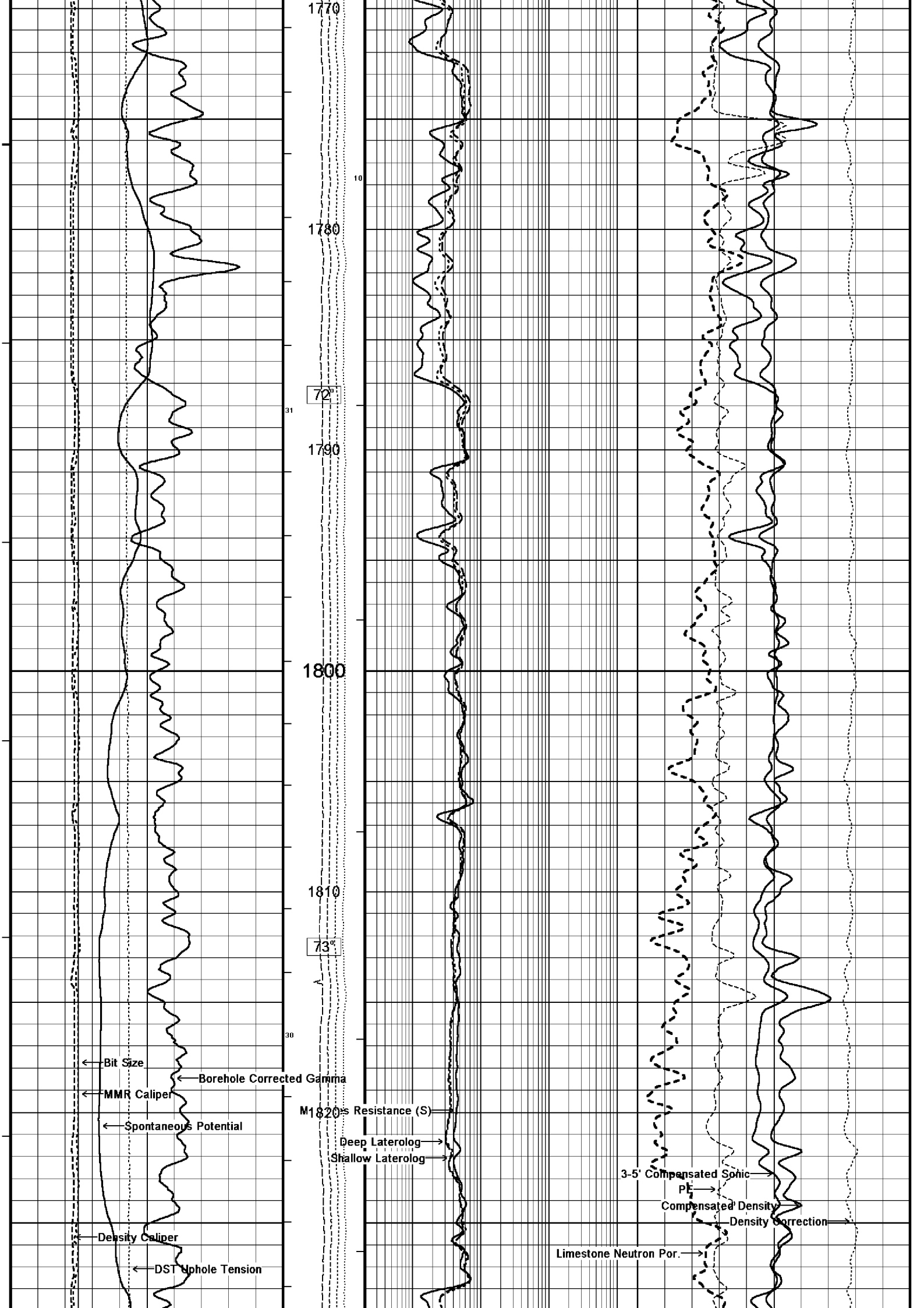




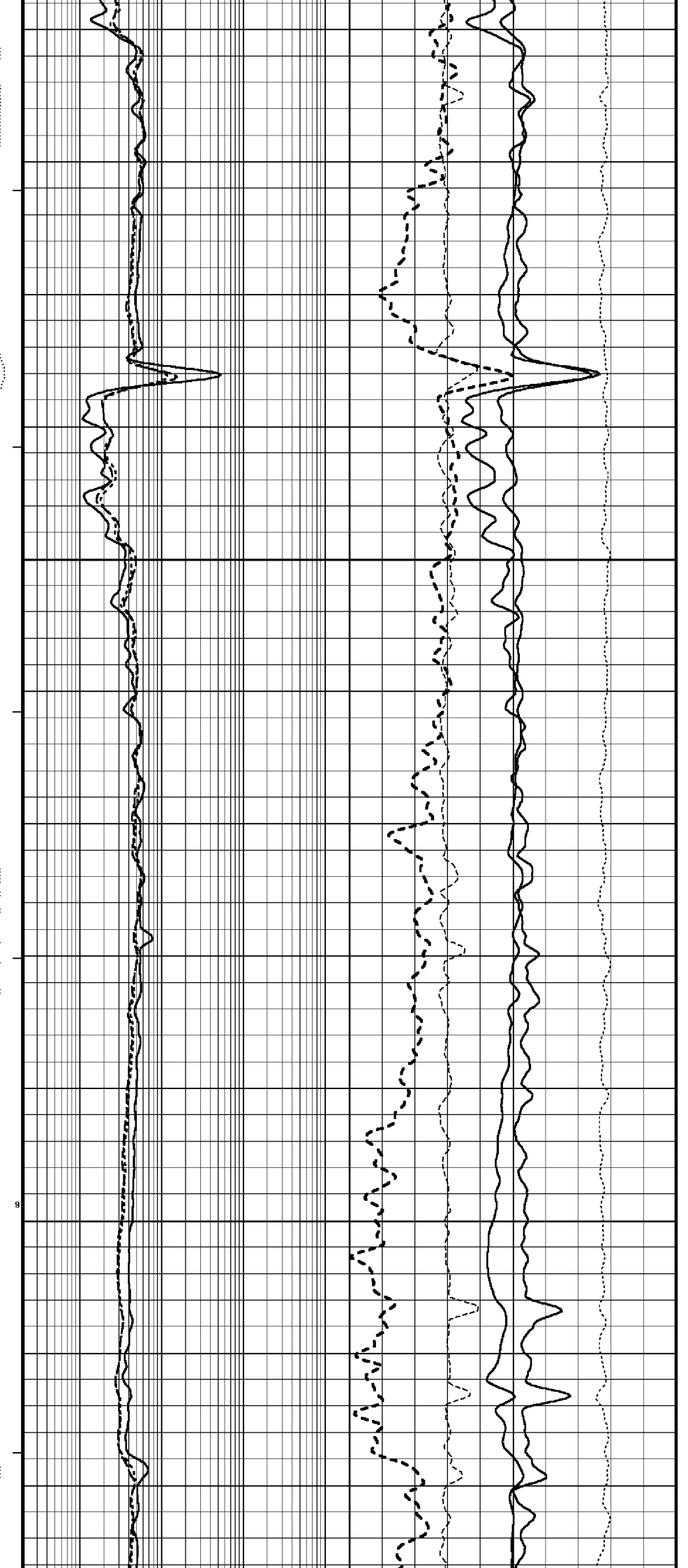
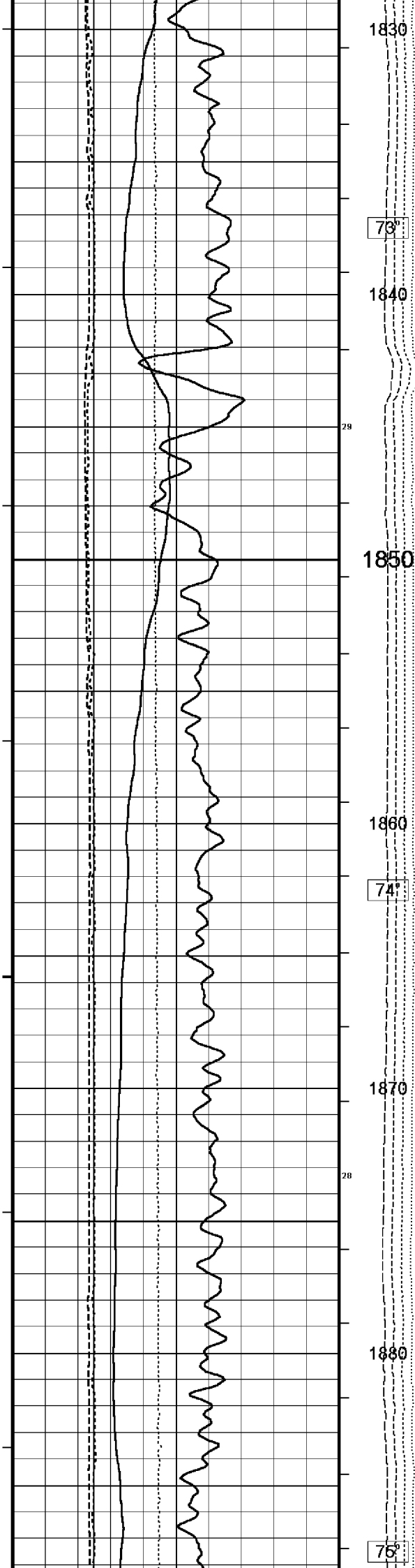


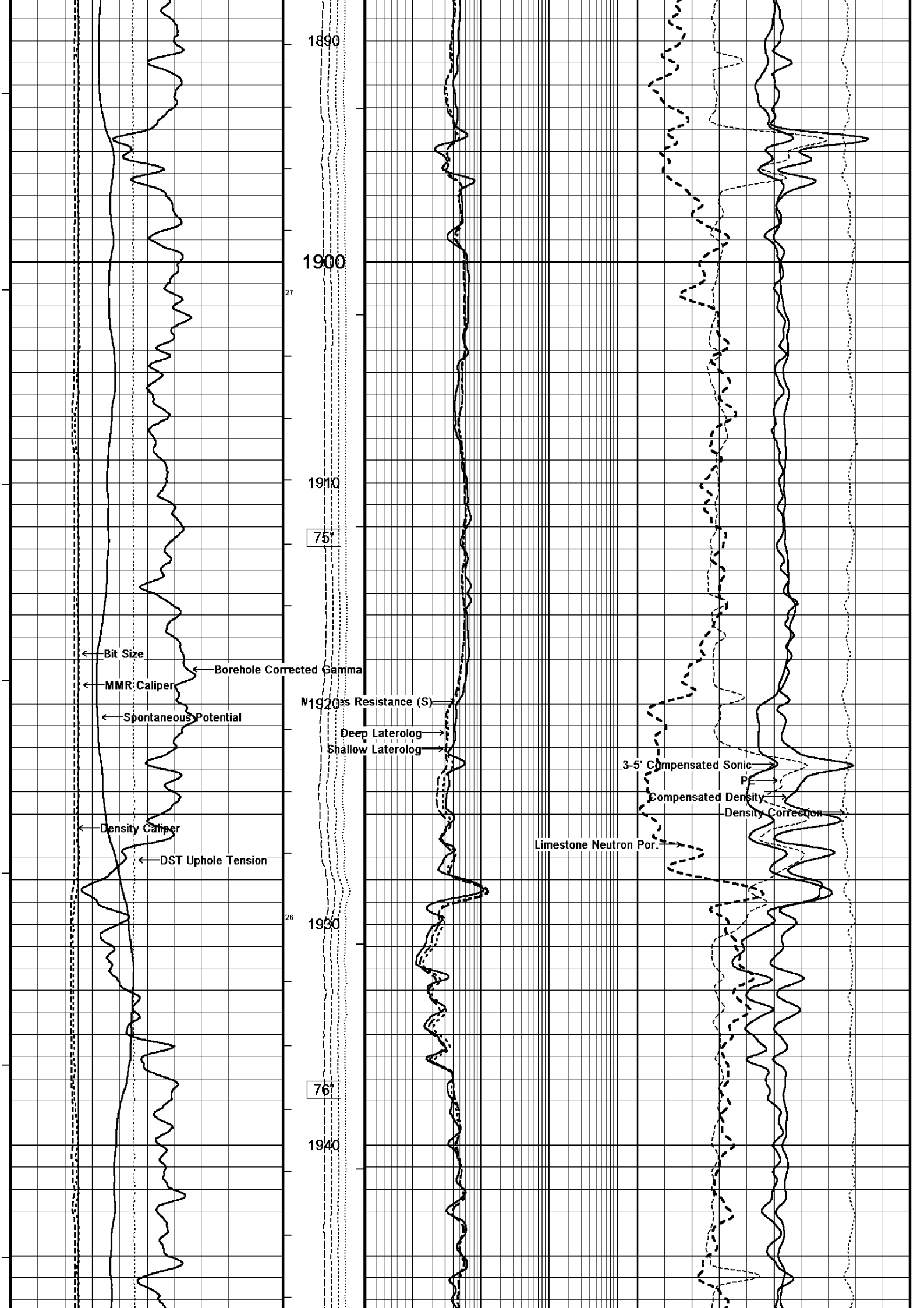


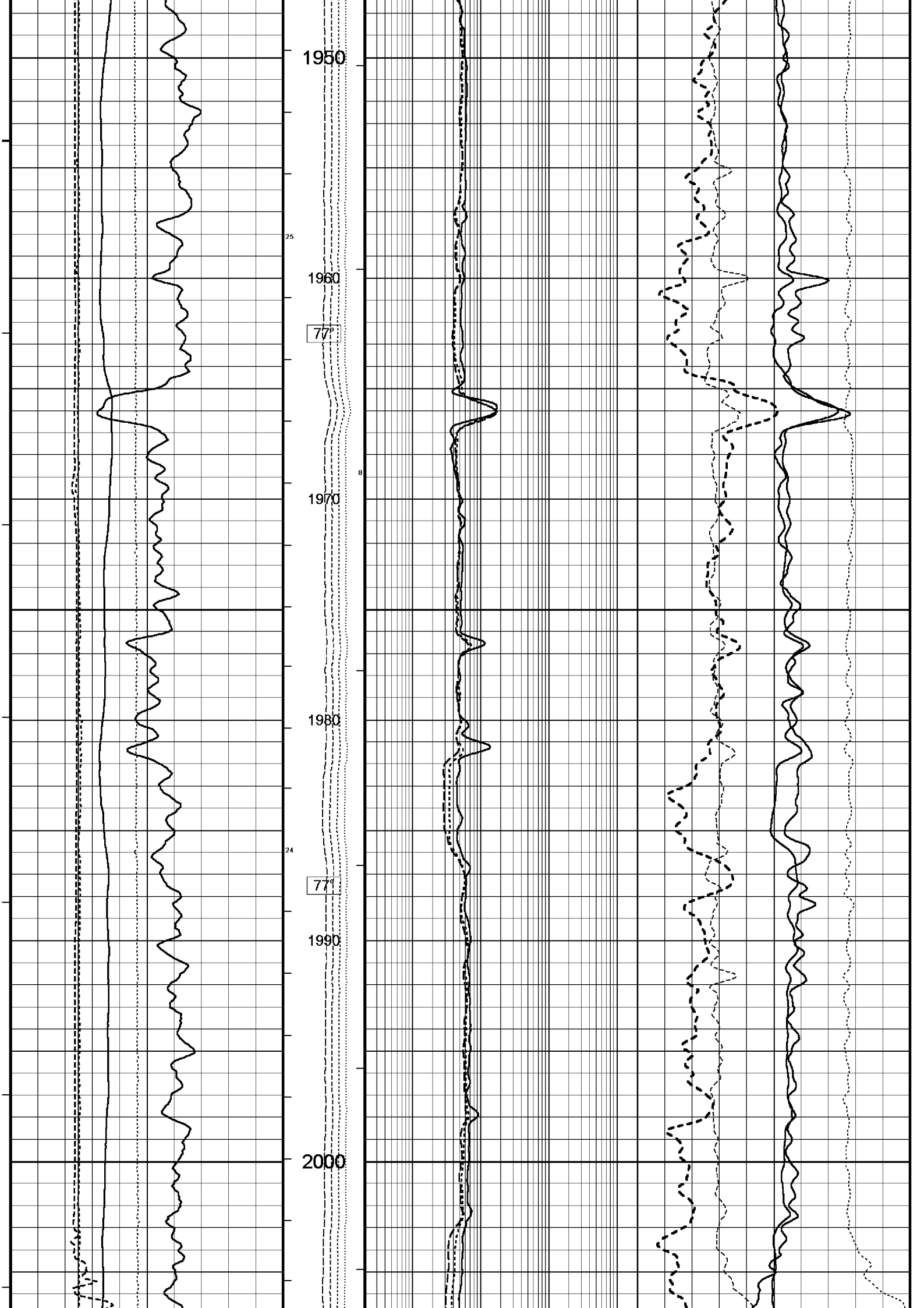


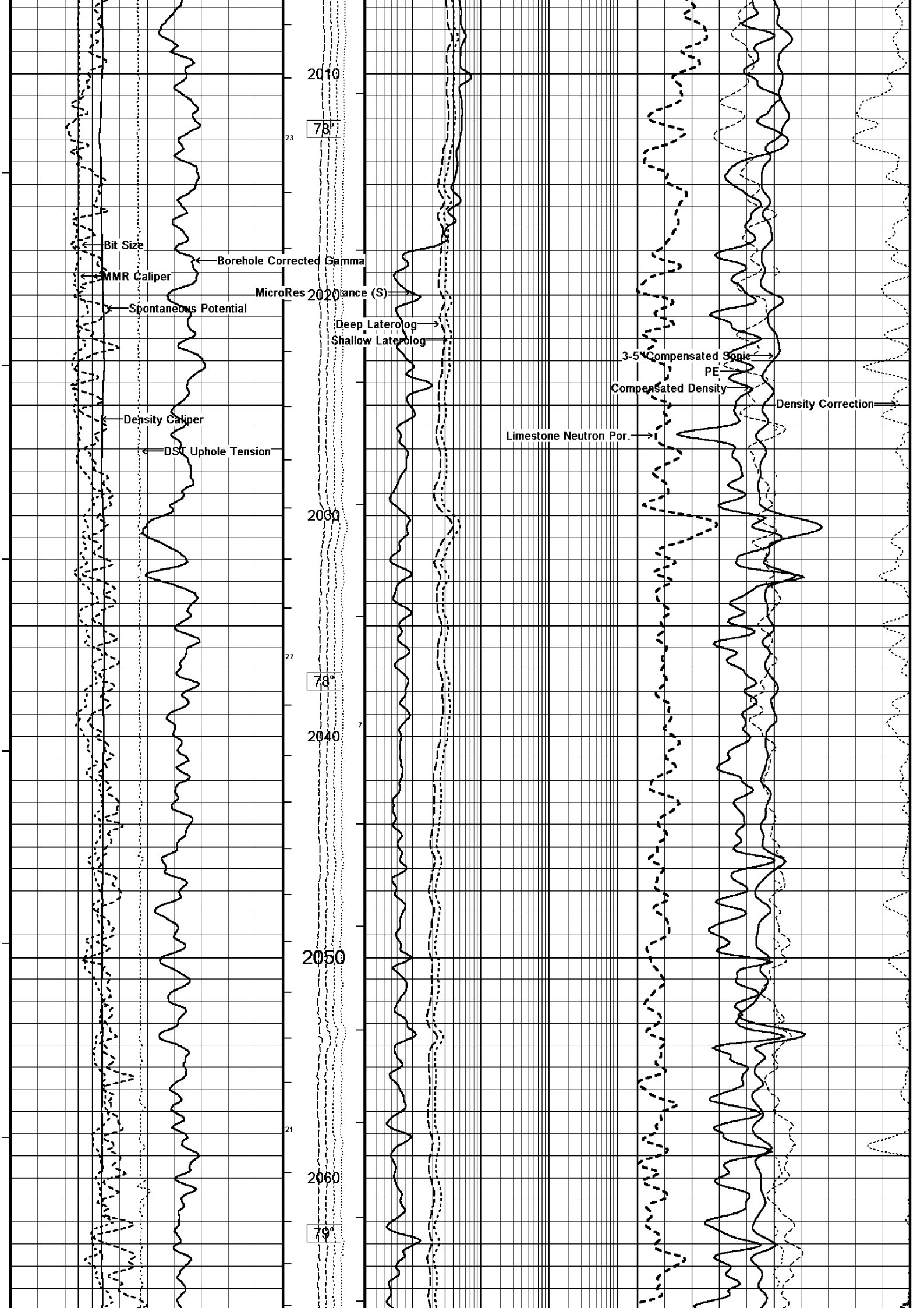


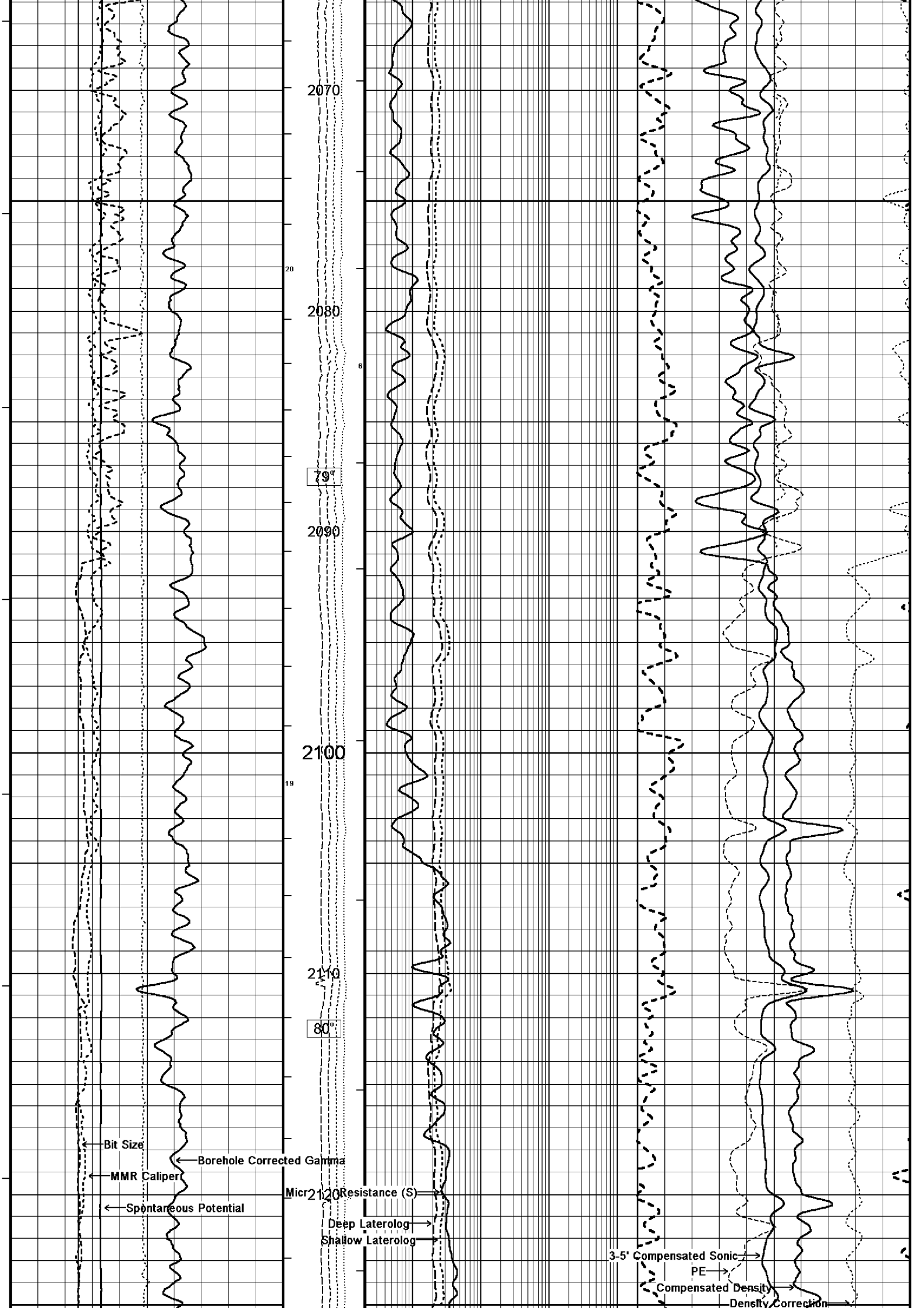


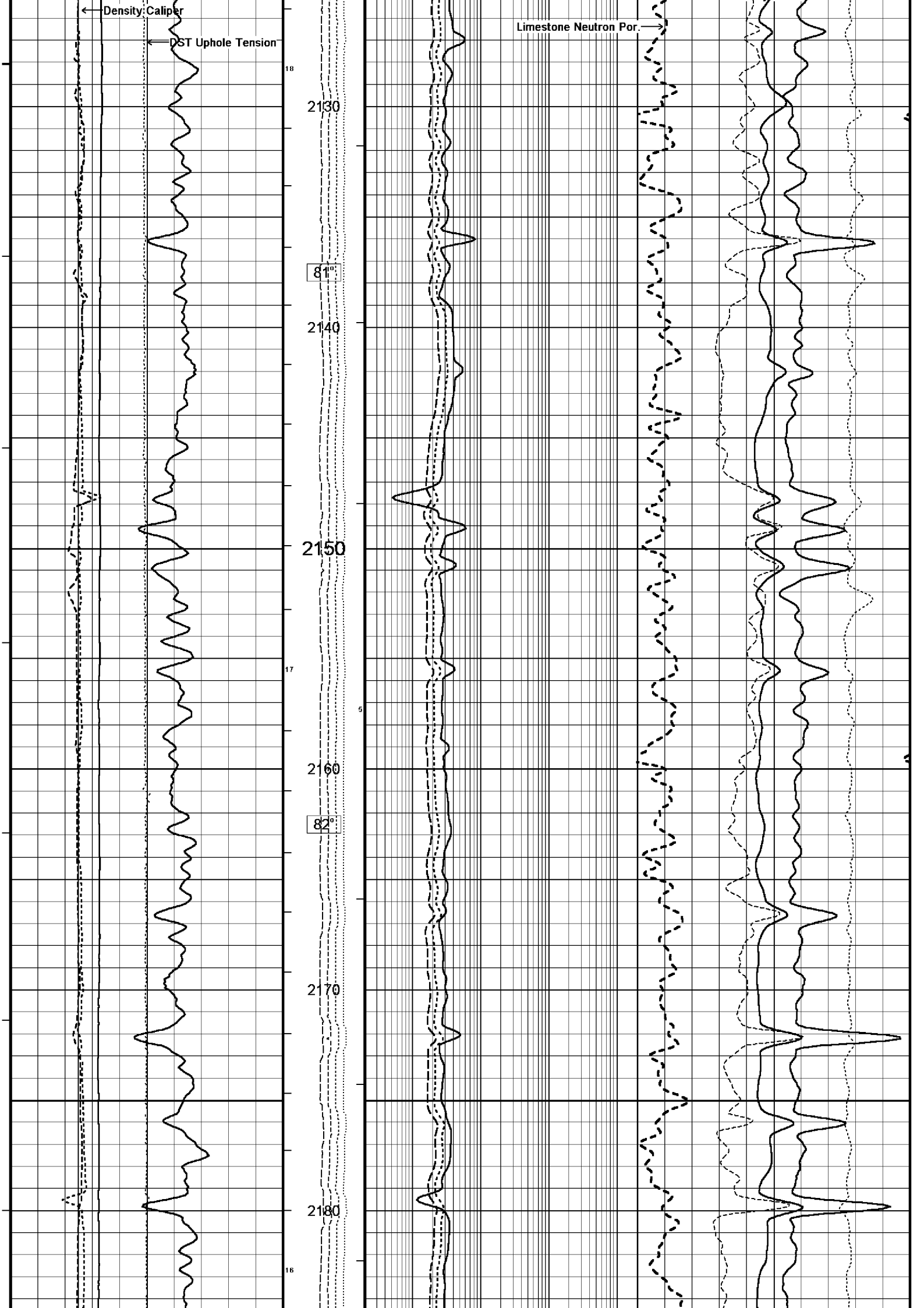


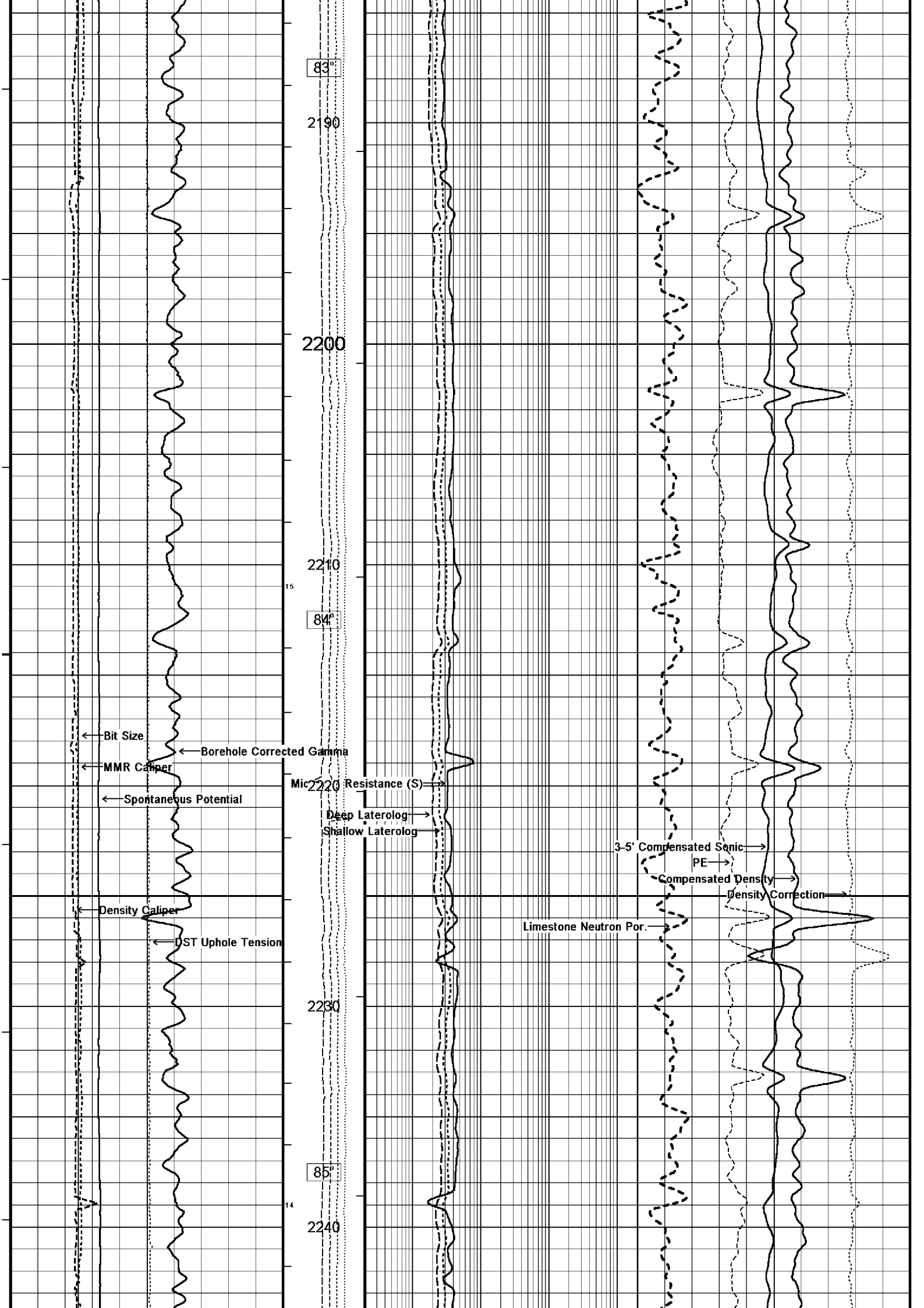


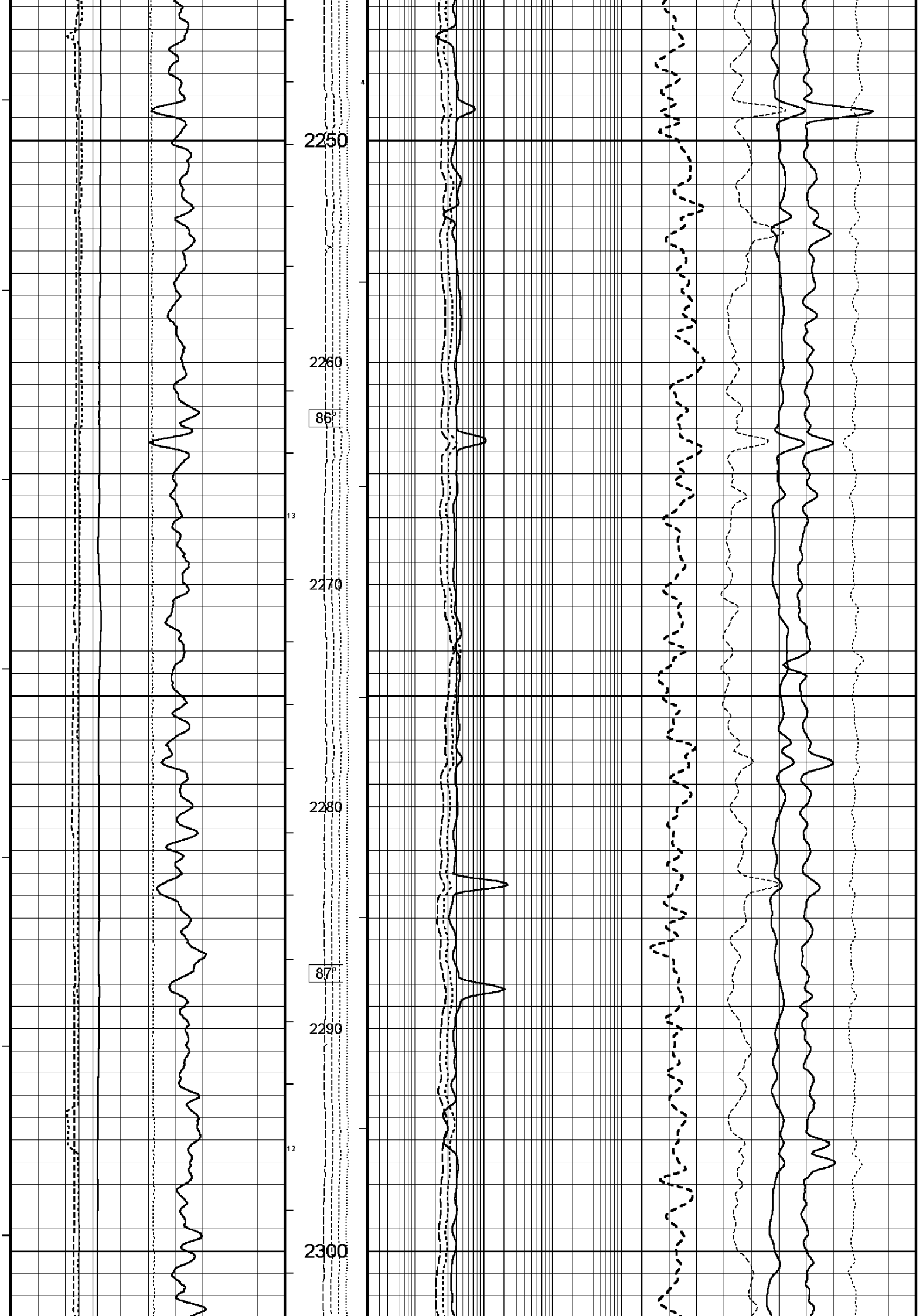




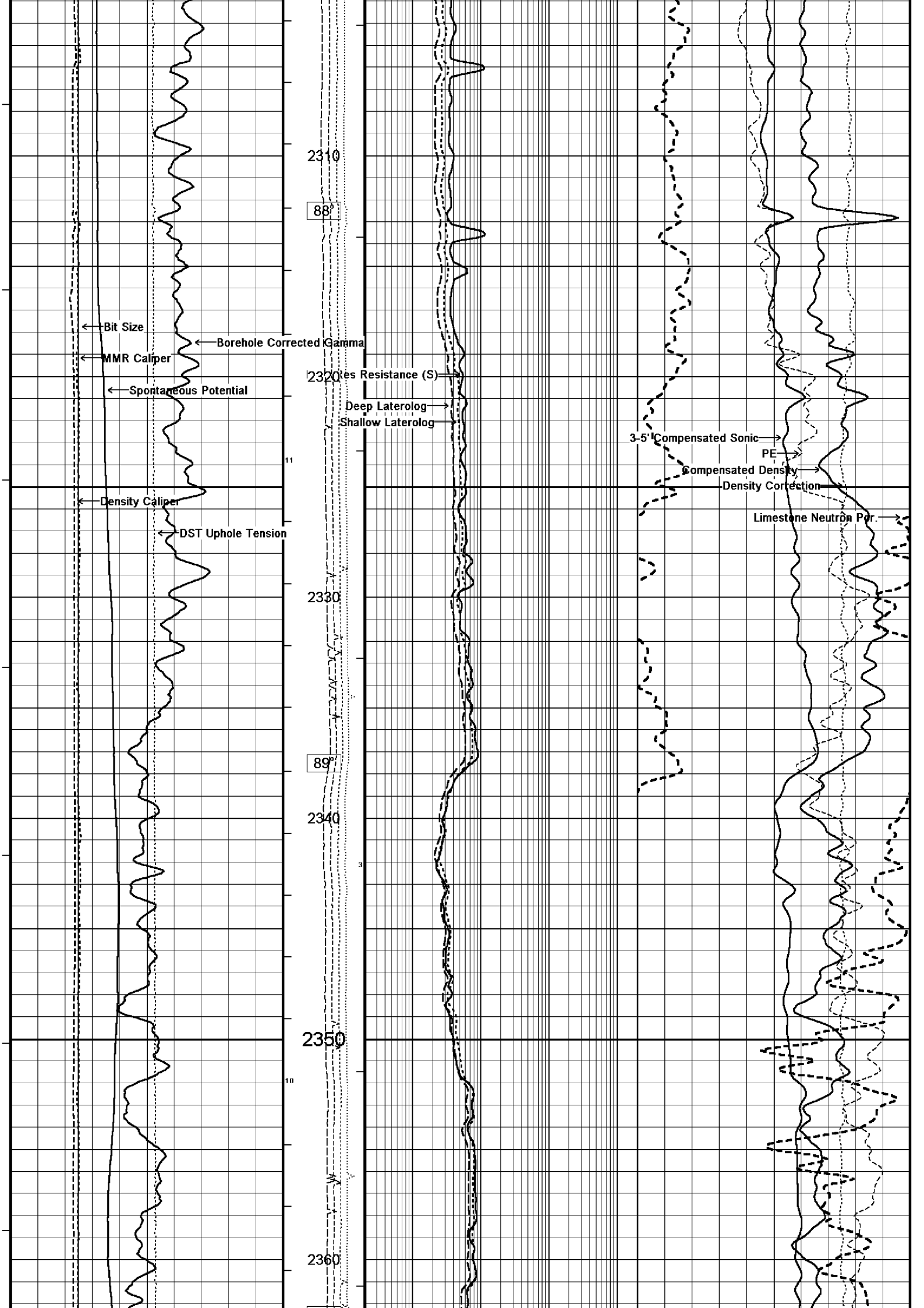


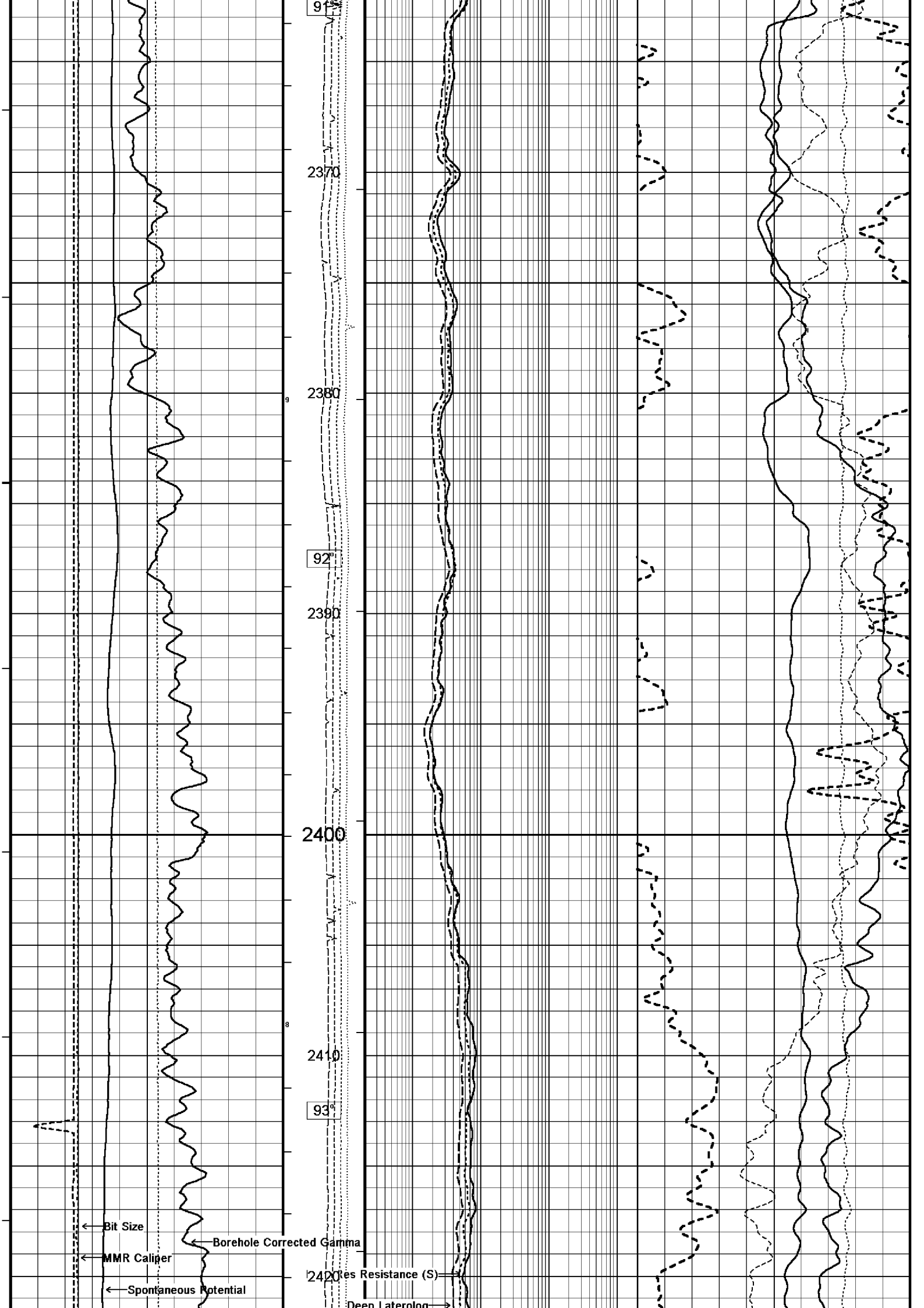


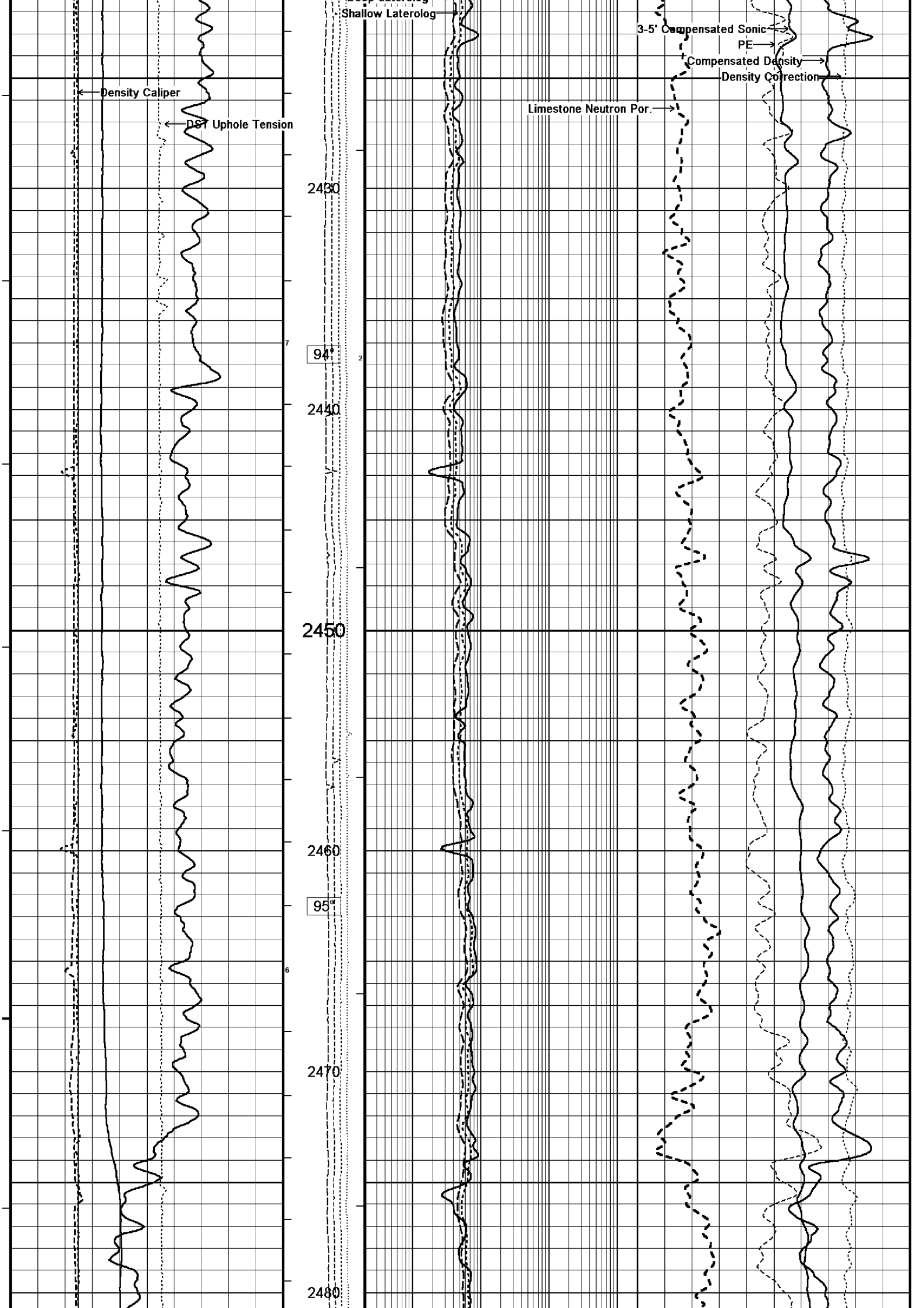


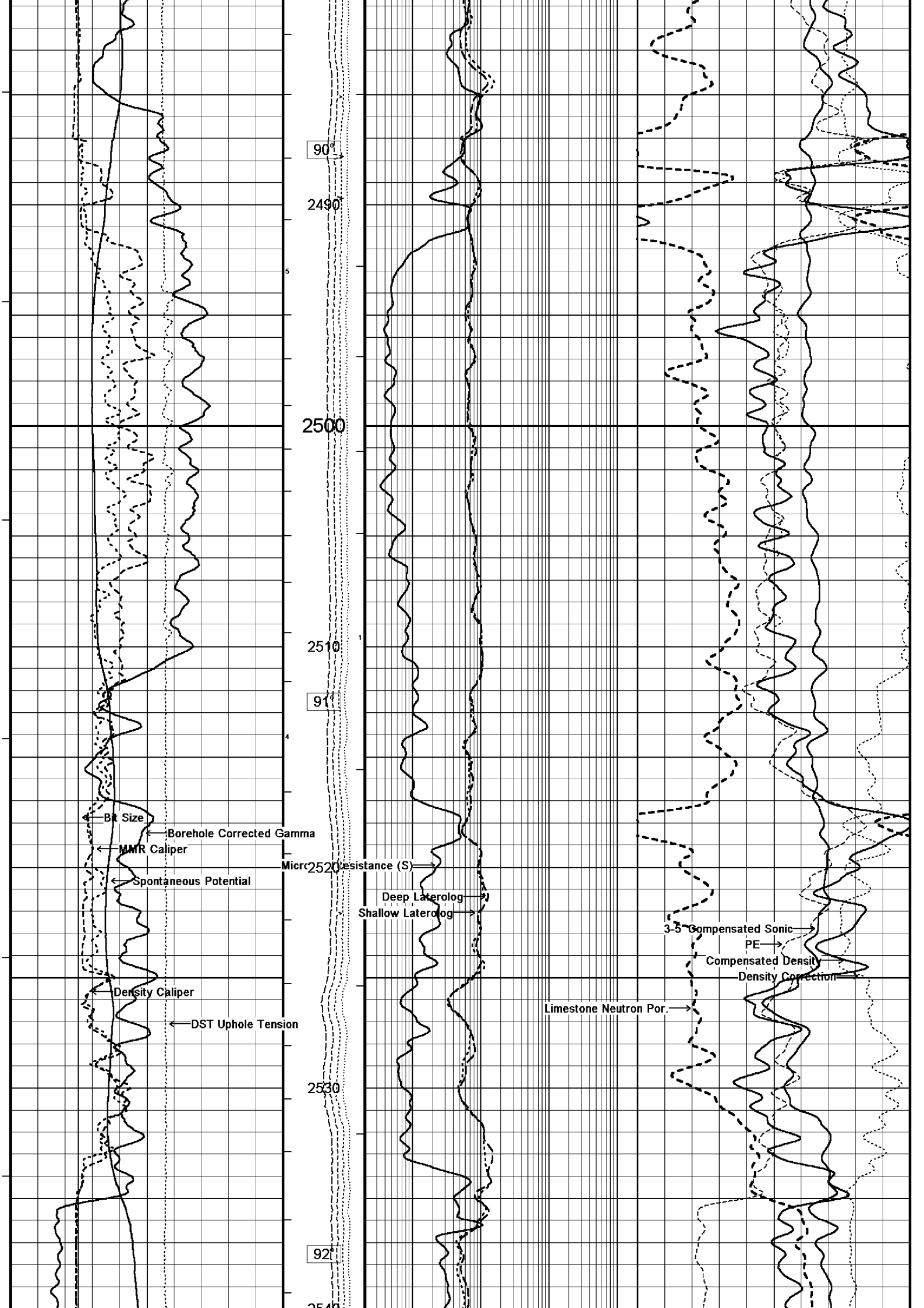


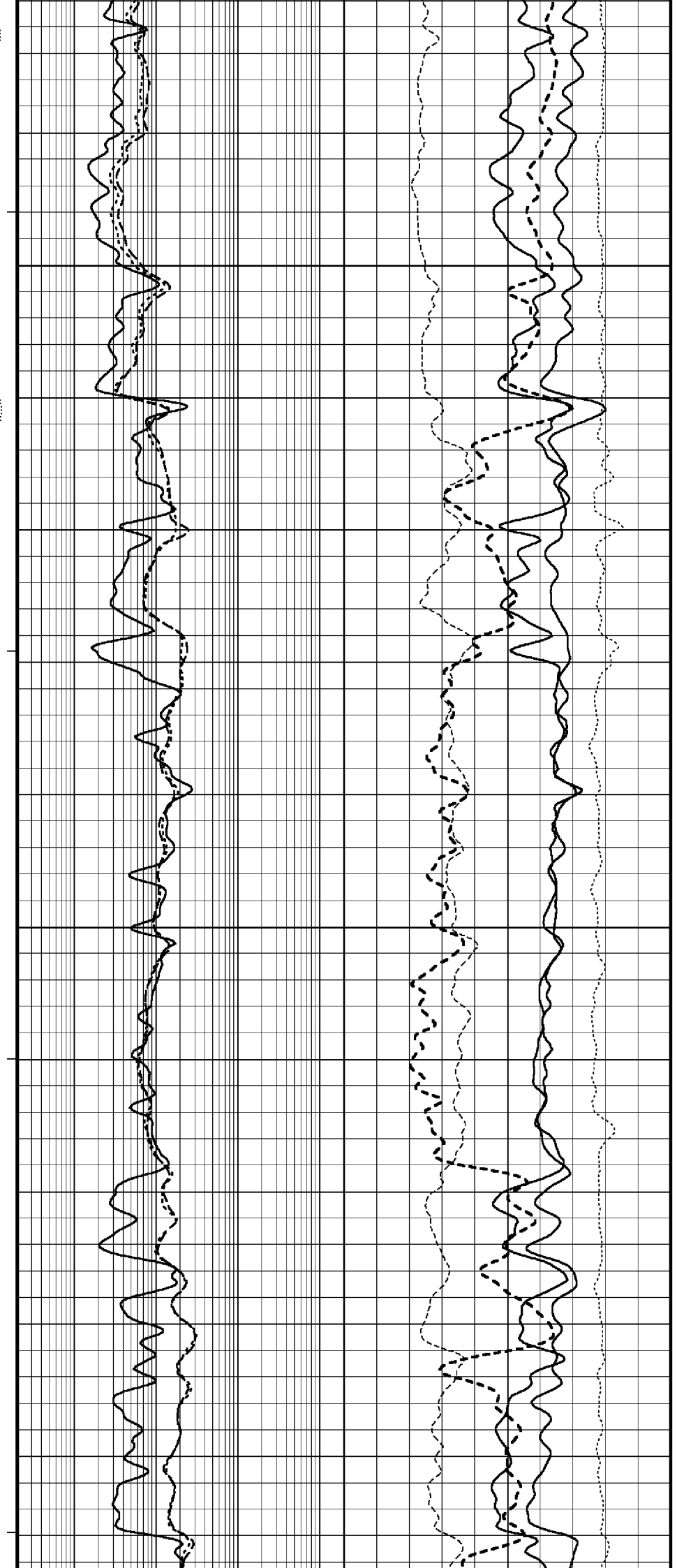
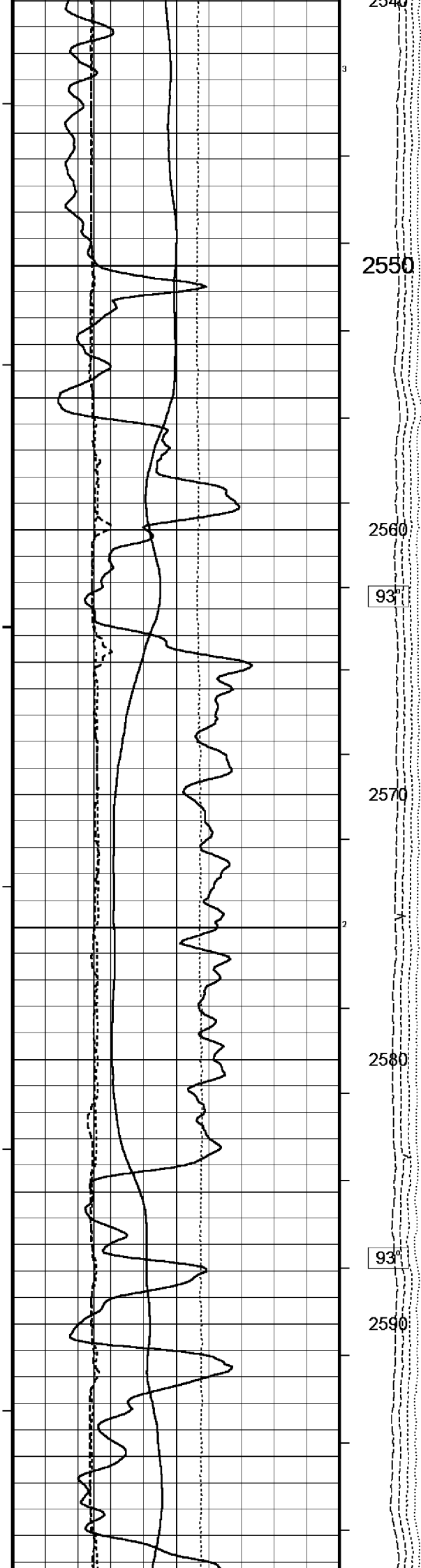


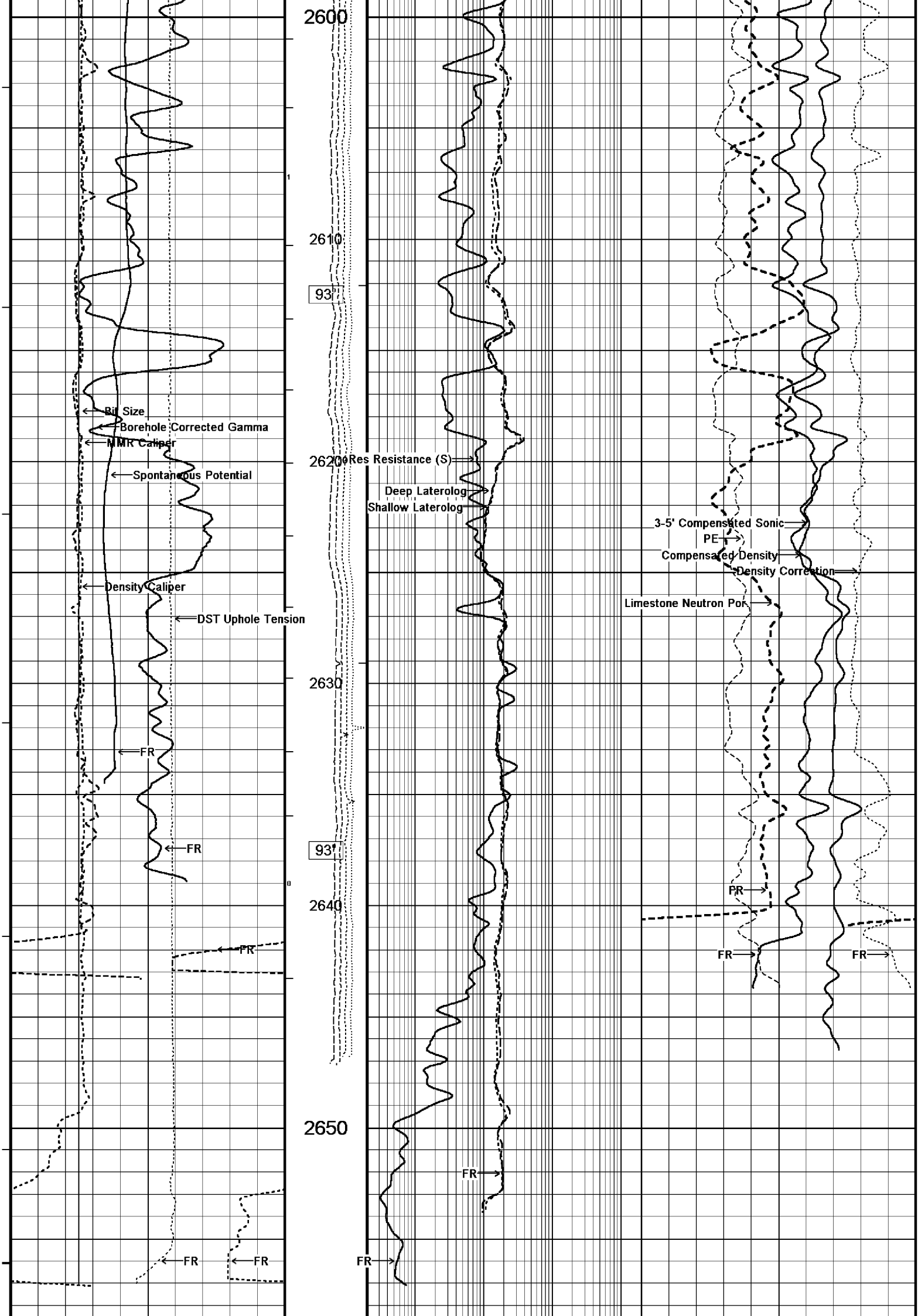




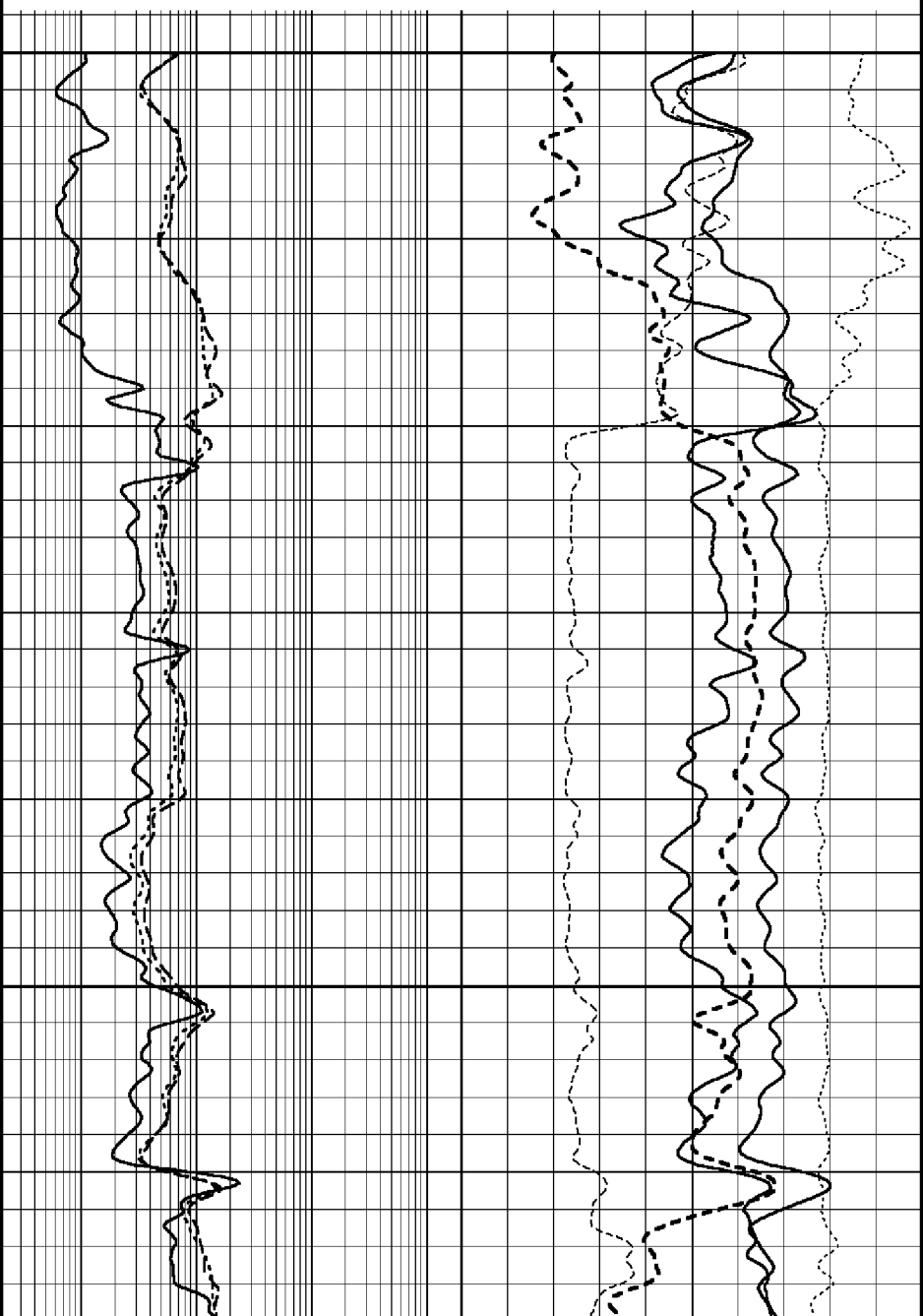
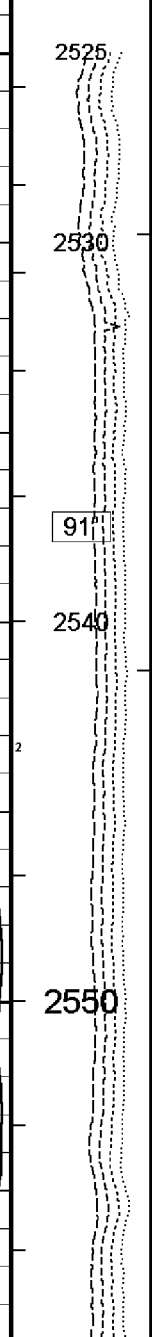
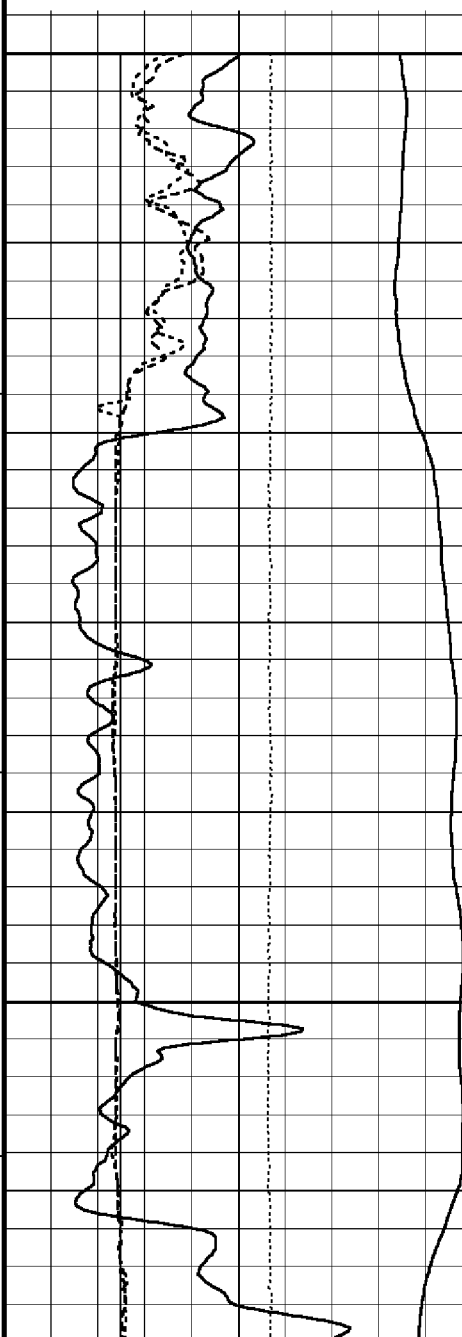
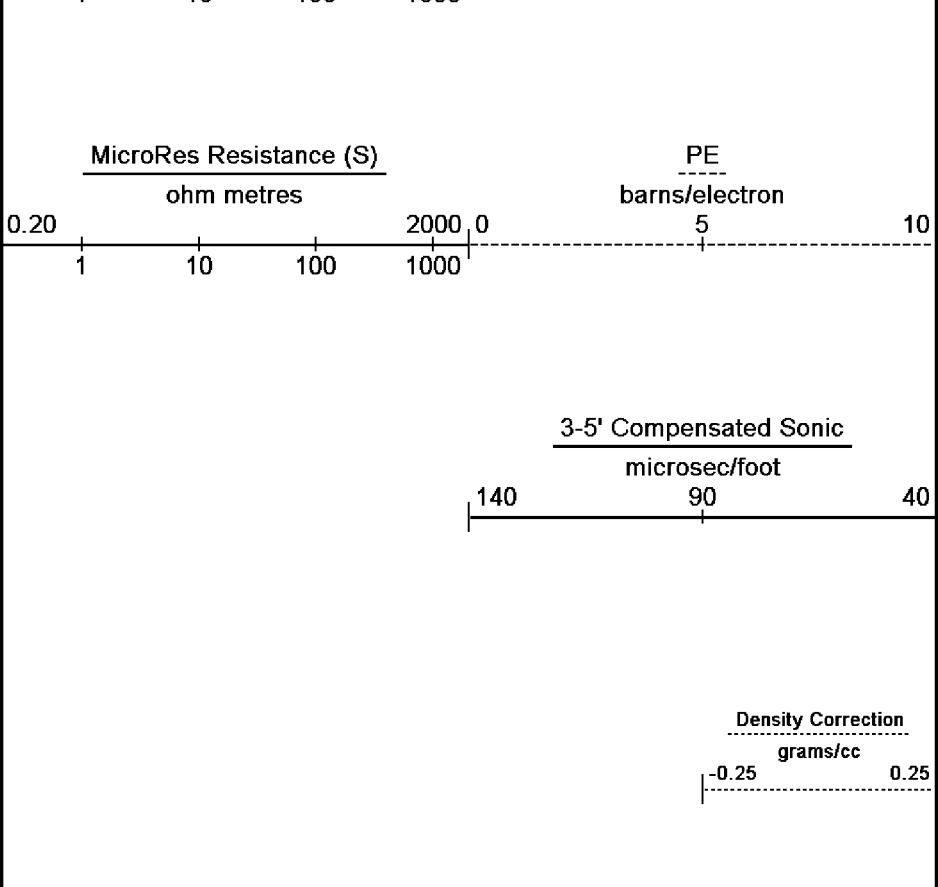
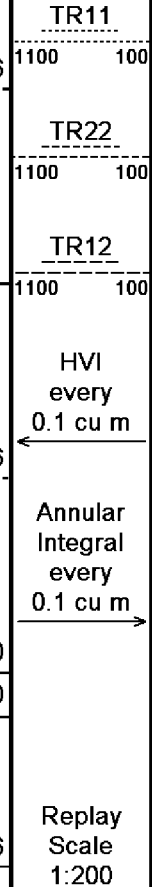
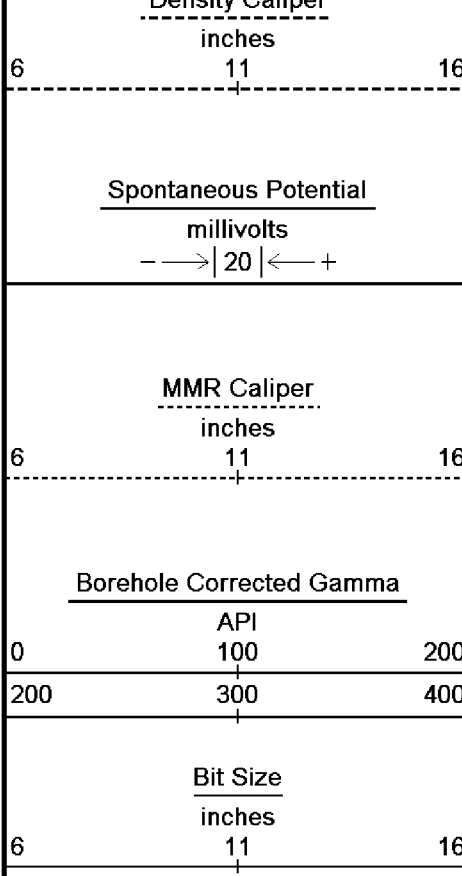




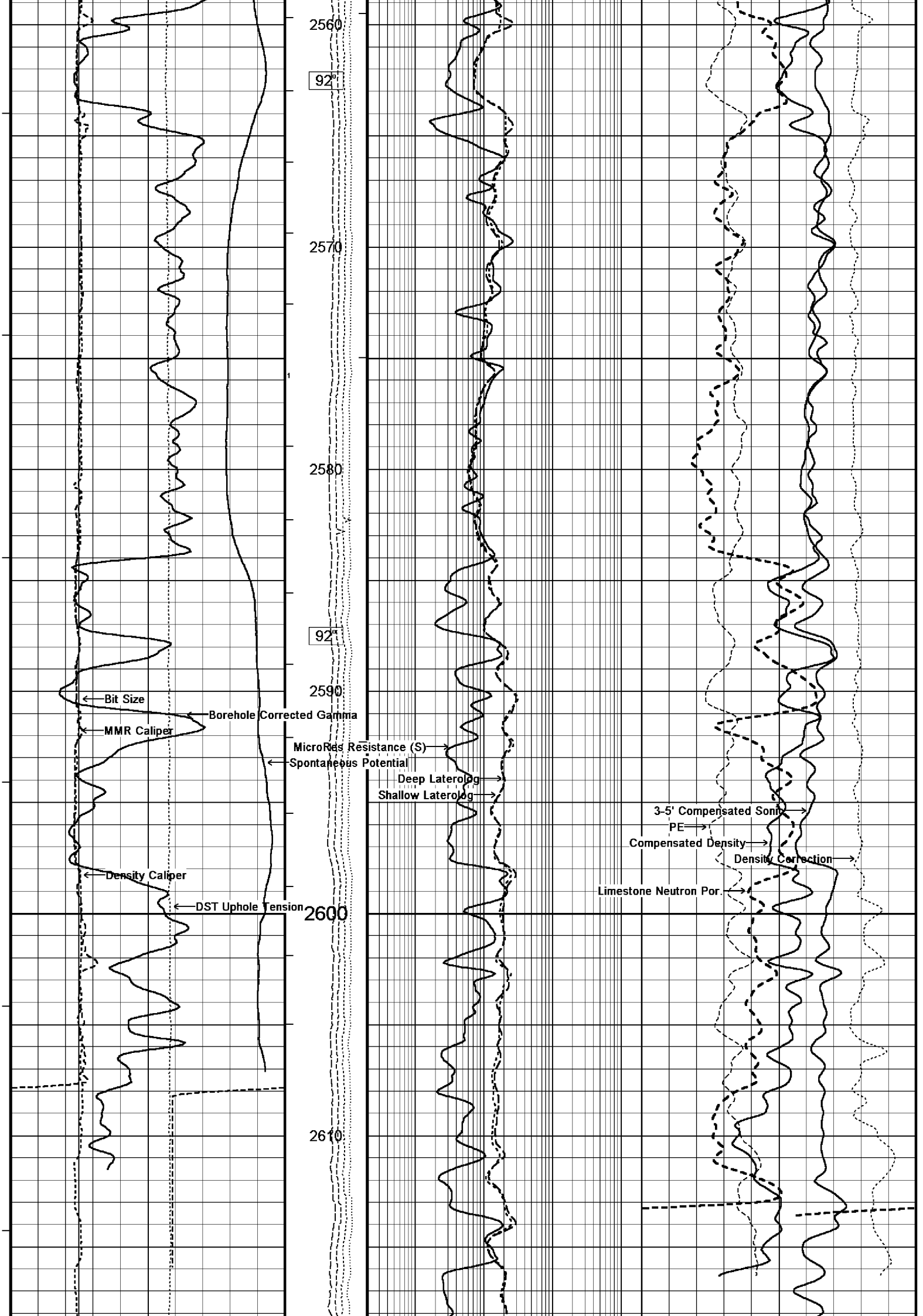


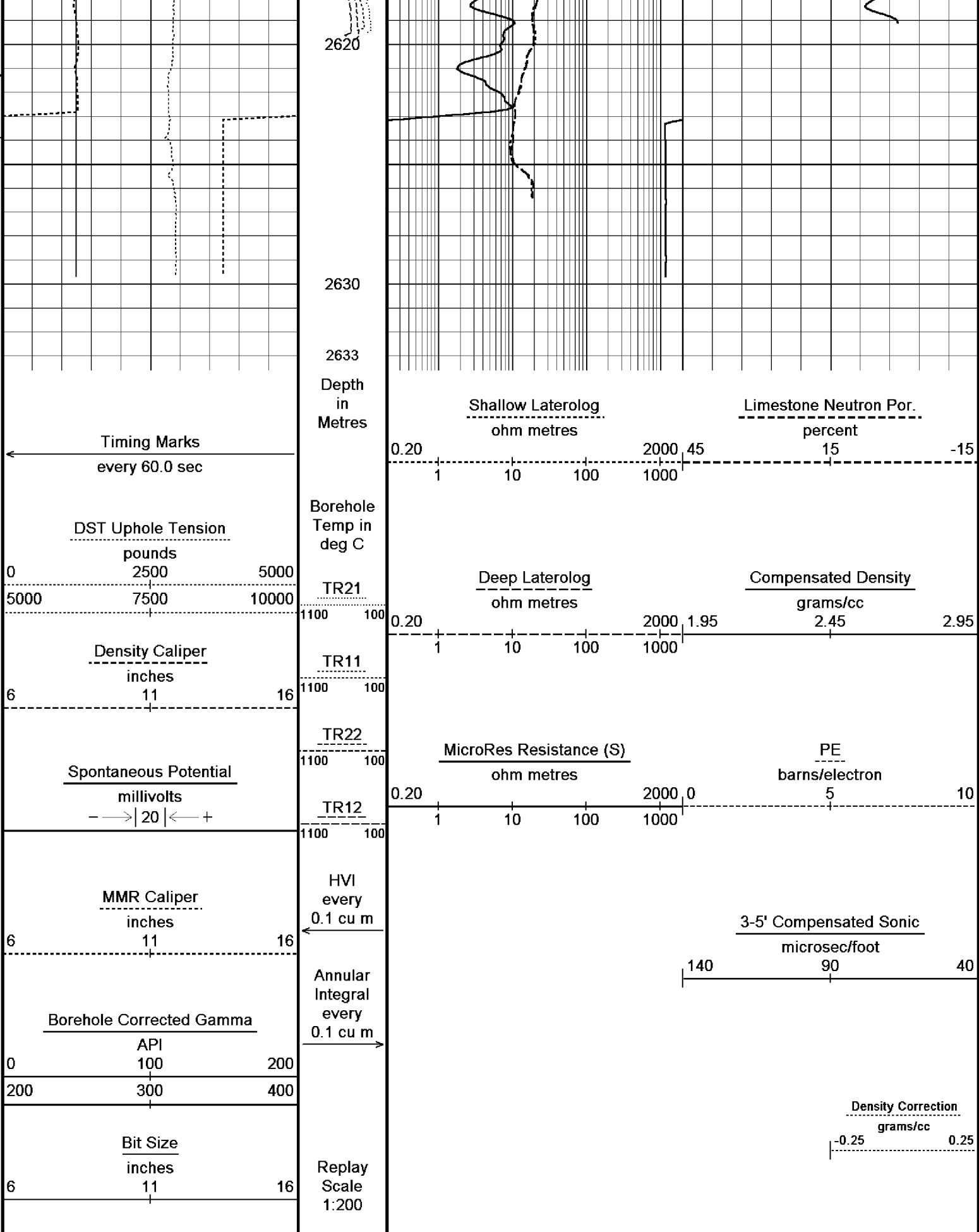












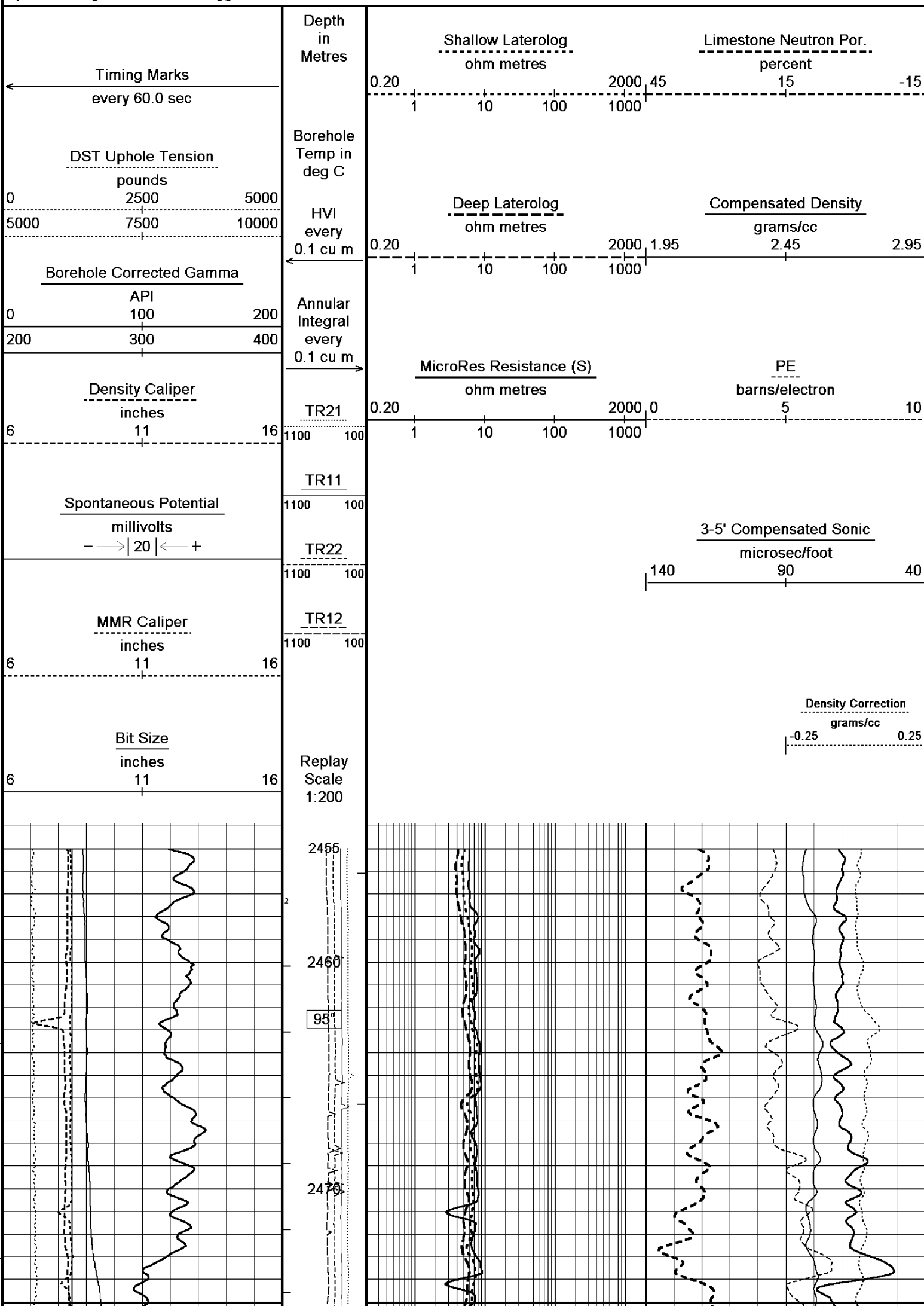
Depth Based Data - Maximum Sampling Increment 10.0cm  
Filename: C:\logs\Origin\Childers Cove Run 2\SUPERCOMBO\_4\_002.dta  
System Configuration Dates: Logged 17-JUN-2004: Plotted 17-JUN-2004:

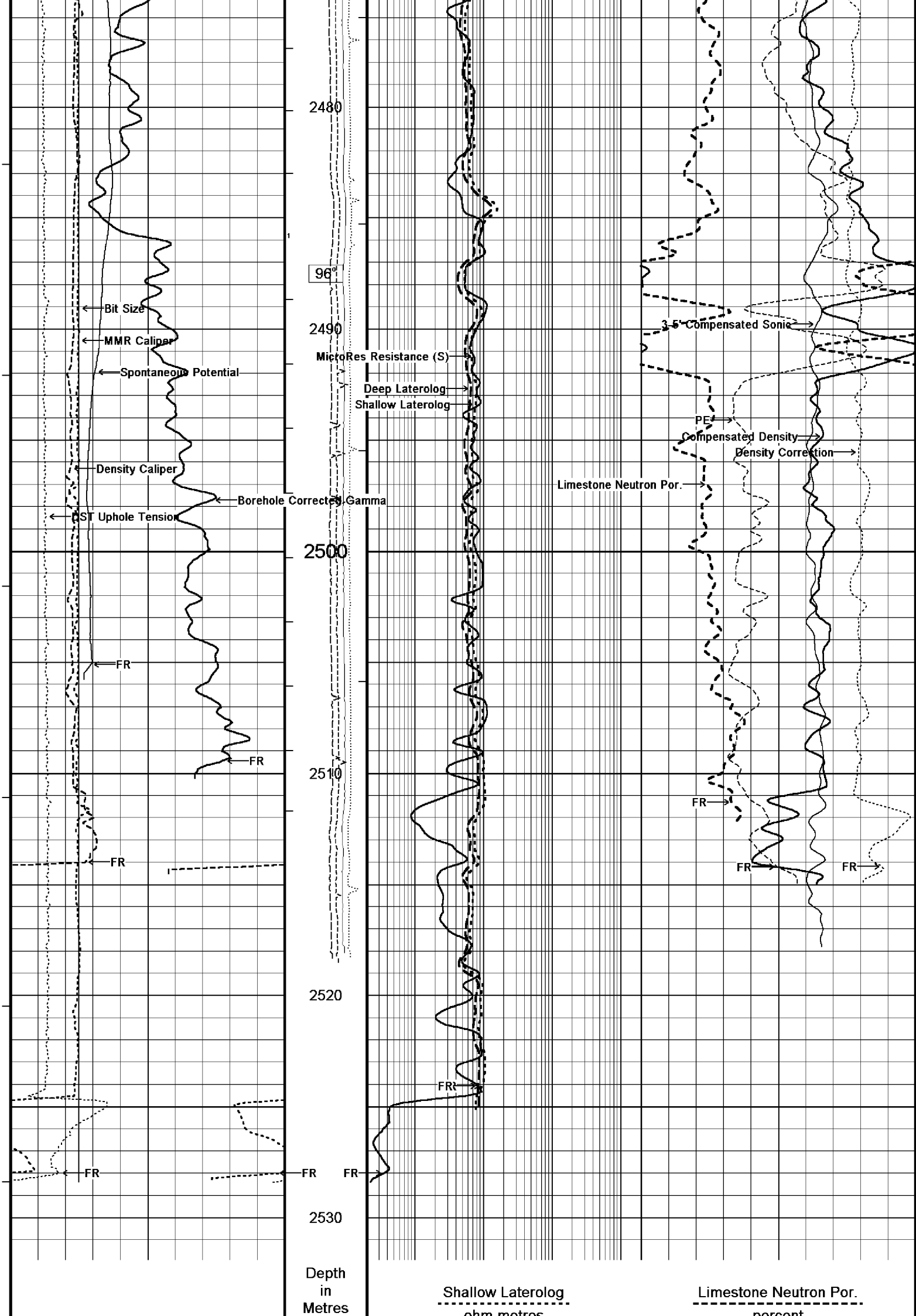
Plotted on 06-OCT-2005 16:18  
Recorded on 04-OCT-2005 00:11

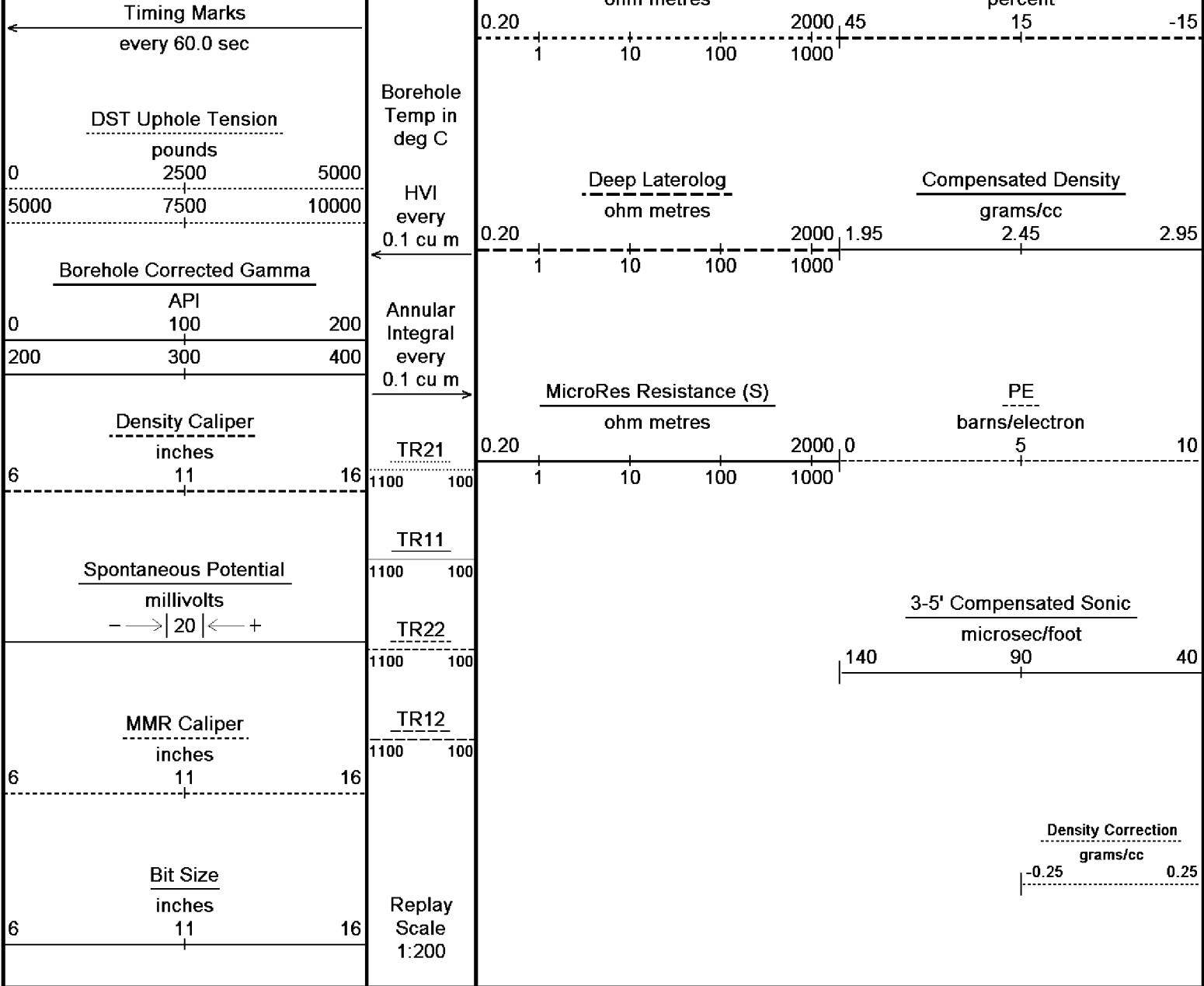
REPEAT SECTION 1:200 RUN 2

REPEAT SECTION 1:200 RUN 1

Depth Based Data - Maximum Sampling Increment 10.0cm  
Plotted on 06-OCT-2005 16:18



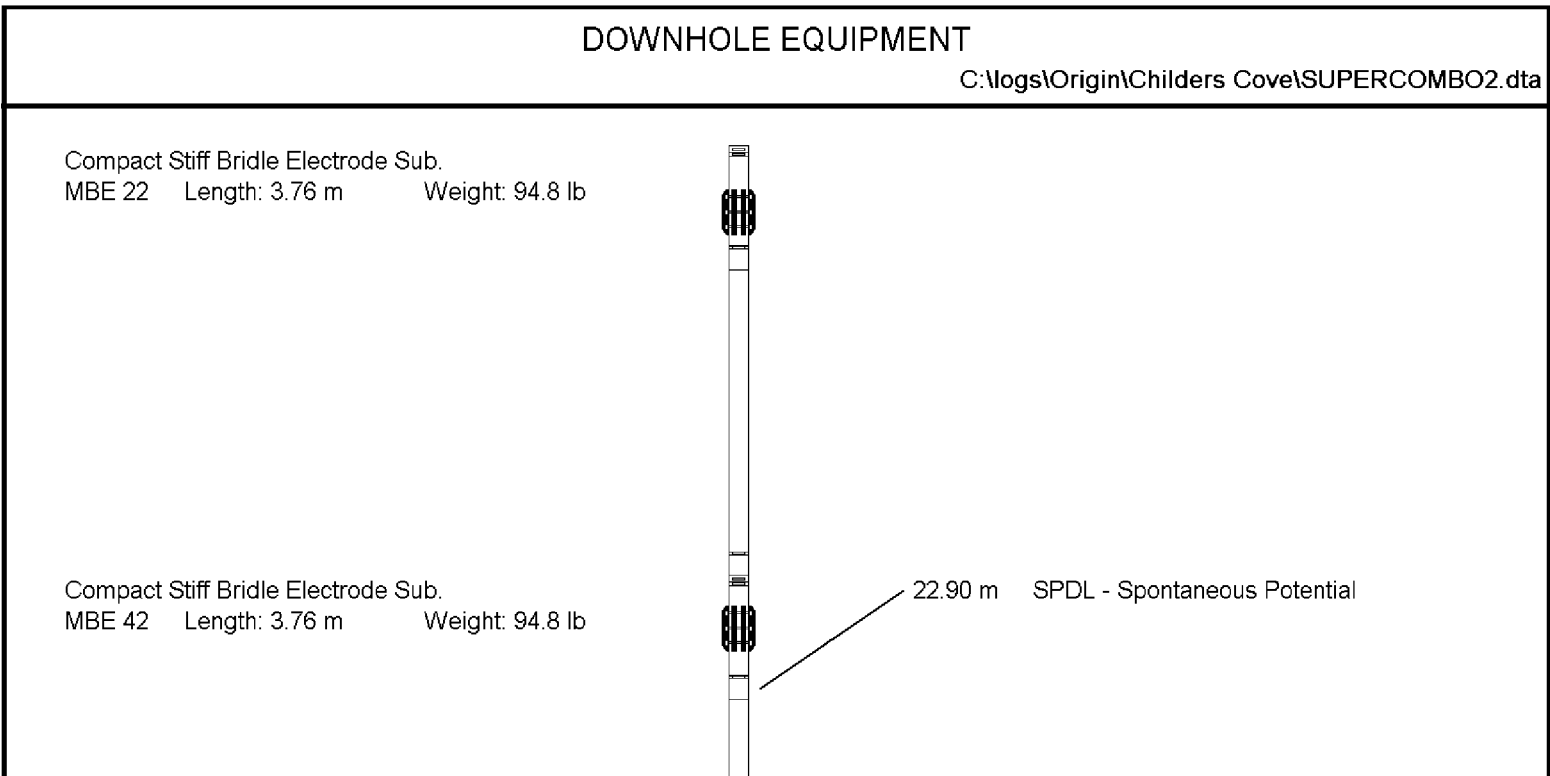




Depth Based Data - Maximum Sampling Increment 10.0cm  
Filename: C:\logs\Origin\Childers Cove\SUPERCOMBO2.dta  
System Configuration Dates: Logged 17-JUN-2004: Plotted 17-JUN-2004:

Plotted on 06-OCT-2005 16:18  
Recorded on 01-OCT-2005 18:14

↑ REPEAT SECTION 1:200 RUN 1 ↑



Compact Gamma  
MCG 98 Length: 2.65 m Weight: 63.9 lb

Compact Neutron  
MDN 43 Length: 1.53 m Weight: 50.7 lb

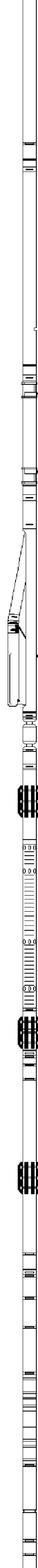
Compact Density/Caliper  
MPD 66 Length: 2.92 m Weight: 90.4 lb

Compact Knuckle Joint  
SKJ 3 Length: 0.66 m Weight: 24.3 lb

Compact Sonic  
MSS 49 Length: 3.82 m Weight: 72.8 lb

Compact Upper Guard Sub.  
MUG 20 Length: 2.74 m Weight: 68.3 lb

Compact Laterolog Electrode Sub.  
MLE 16 Length: 3.76 m Weight: 92.6 lb



18.56 m GGCE - Borehole Corrected Gamma  
17.67 m CGXT - MCG External Temperature

16.69 m NPRL - Limestone Neutron Por.

14.01 m AVOL - Annular Volume  
14.01 m HVOL - Hole Volume  
14.01 m CLDC - Density Caliper  
13.80 m DEN - Compensated Density

13.80 m DCOR - Density Correction  
13.78 m PDPE - PE

9.24 m TR21 - 3' Transit Time  
9.24 m TR22 - 5' Transit Time  
9.24 m TR11 - 4' Transit Time  
9.24 m DT35 - 3-5' Compensated Sonic

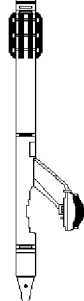
9.24 m TR12 - 6' Transit Time

3.93 m DSLL - Shallow Laterolog  
3.93 m DDLL - Deep Laterolog

Compact Micro-Resistivity  
MMR 5 Length: 2.62 m Weight: 81.6 lb

Pressure Bung + Hole Finder  
HFS 3 Length: 0.28 m Weight: 6.6 lb

Total Length: 28.50 m Weight: 740.8 lb



MRRS - MicroRes Resistance (S)  
MATC - MMR Caliper  
Tool Zero (0.85m from bottom)

All measurements relative to tool zero.

## BEFORE SURVEY CALIBRATION

C:\logs\Origin\Childers Cove Run 2\SUPERCOMBO\_COMBINED\_MAIN\_LOG.dta

### General Constants All 000

#### General Parameters

Mud Resistivity	3.210	ohm-metres
Mud Resistivity Temperature	20.000	degrees C
Water Level	0.000	metres
Density/Neutron Processing	Wet Hole	

#### Hole/Annular Volume and Differential Caliper Parameters

HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	Density Caliper	
Annular Volume Diameter	7.000	inches
Caliper for Differential Caliper	Density Caliper	

#### Rwa Parameters

Porosity used	Limestone Sonic Porosity
Resistivity used	Deep Laterolog
RWA Constant A	0.610
RWA Constant M	2.150

### Gamma Calibration MCG 098

Field Calibration on 3-OCT-2005,19:46

	Measured	Calibrated (API)
Background	29	22
Calibrator (Gross)	1029	771
Calibrator (Net)	1000	749

### Gamma Constants MCG 098

Gamma Calibrator Number	30	
Mud Density	1.16	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

### High Resolution Temperature Calibration MCG 098

Field Calibration on 3-OCT-2005,20:14

	Measured	Calibrated(Deg C)
Lower	0.00	0.00
Upper	100.00	100.00

### High Resolution Temperature Constants MCG 098

Pre-filter Length	11
-------------------	----

### Neutron Calibration MDN 043

Base Calibration on 22-AUG-2005 15:53

Field Check on 3-OCT-2005,20:14

#### Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	3021	94	3714	110
	32.071		33.764	

#### Field Calibrator at Base

	Calibrated (cps)	
Ratio	1674	2333
	0.717	

#### Field Check

	Calibrated (cps)	
Ratio	1647	2293
	0.719	

## Neutron Constants MDN 043

Neutron Source Id	NSNE-747	
Neutron Jig Number	31	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.16	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	20.00	degrees C
Mud Salinity	11.57	kppm
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	

## Photo Density Calibration MPD 066

Base Calibration on 22-AUG-2005,12:13

Field Check on 3-OCT-2005,20:15

## Density Calibration

## Base Calibration

	Measured	Calibrated (sdu)
	Near	Far
Reference 1	49825	17938
Reference 2	23308	2480

## Field Check at Base

918.0 1089.7

## Field Check

919.8 1086.8

## PE Calibration

## Base Calibration

	Measured	Calibrated
	WH	Ratio
Background	176	793
Reference 1	15856	49650
Reference 2	6240	23176

## Field Check at Base

176.0 793.2

## Field Check

173.6 795.1

## Density Constants MPD 066

Density Source Id	NSDL250	
Nylon Calibrator Number	DNC-D-536	
Aluminium/Fe Calibrator Number	DAC-D-536	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.16	gm/cc
Mud Density Z/A Correction	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
Matrix Density (gm/cc)	Depth (m)	
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	0.00	

## Caliper Calibration MPD 066

Base Calibration on 22-AUG-2005 11:11

Field Calibration on 3-OCT-2005,20:15

## Base Calibration



Reading No	Measured	Calibrator Size (in)
1	11983	4.01
2	20446	5.99
3	29120	7.98
4	37568	9.94
5	47008	12.01
6	N/A	N/A
Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	8.91	8.92

Sonic Constants MSS 049				
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		
Fixed Gate Parameters				
Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	Depth (m)	
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	0.00	
Down Hole Fixed Gate Parameters				
Gate Start	0.00	micro-sec		
Gate Width	0.00	micro-sec		
Initial Discriminator Level	0.0000	mVolts		
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	0			
4' Waveform Filter	0			
5' Waveform Filter	0			
6' Waveform Filter	0			
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		

Laterolog Calibration MLE 016					Base Calibration on 24-AUG-2005 11:54
					Field Check on 3-OCT-2005,20:15
Base Calibration					
		Measured	Calibrated (ohm-m)		
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2	
Shallow	9.7	965.7	13.3	1327.3	
Deep	9.7	966.0	8.5	852.7	
Groningen	9.7	966.3	8.5	852.7	
Channel	Base Check (ohm-m)		Field Check (ohm-m)		
Shallow	49.4		49.4		
Deep	31.7		31.7		
Groningen	253.9		253.9		


Laterolog Constants MLE 016		
Squasher Start	40000	ohm-m
Shallow Laterolog K Factor	1.3273	
Deep Laterolog K Factor	0.8527	
Groningen Laterolog K Factor	0.8527	

Groningen Laterolog K Factor	0.8527
Interference Rejection	50 Hz
SP Connection	SP Bridle Electrode
Groningen Connection	None

SP Calibration MLE 016			Field Calibration on 3-OCT-2005,20:16
	Measured	Calibrated (mV)	
Reference 1	93.1	100.0	
Reference 2	-114.1	-100.0	

Micro Laterolog Calibration MMR 005				Base Calibration on 24-AUG-2005 09:35	
				Field Check on 3-OCT-2005,20:16	
Base Calibration					
	Measured		Calibrated (ohm-m)		
	Ref 1	Ref 2	Ref 1	Ref 2	
	0.0	9744.7	0.0	196.0	
	Base Check (ohm-m)		Field Check (ohm-m)		
	8.1		8.0		

Micro Laterolog Constants MMR 005		
Micro Laterolog K Factor	0.0196	
Standoff Offset	0.0000	inches

COMPANY		ORIGIN ENERGY RESOURCES LIMITED			
WELL		CHILDERS COVE 1			
FIELD		ONSHORE OTWAY BASIN			
PROVINCE/COUNTY		VICTORIA			
COUNTRY/STATE		AUSTRALIA			
Elevation Kelly Bushing	51.50	metres	First Reading	2656.80	metres
Elevation Drill Floor		metres	Depth Driller	2658.00	metres
Elevation Ground Level	46.20	metres	Depth Logger	2656.80	metres
		DLL - SLL - MLL - SONIC			
		DENSITY - NEUTRON			
		1:200			