

Reeves

Compact

Density - Neutron
Dual Laterolog - Sonic
1:200 MD

COMPANY	Lakes Oil N.L.		
WELL	Wombat 3		
FIELD	Strezleki		
PROVINCE/COUNTY	Australia/Victoria		
COUNTRY/STATE	147°08'57" E, 38°21'28" S		
LOCATION	FIELD PRINT		
LSD	SEC	TWP	RGE
API Number			Other Services
Permit Number PEP157 VIC			Formation Tester
Permanent Datum ASL			Elevation 0.0 metres
Log Measured From KB			above Permanent Datum
Drilling Measured From KB			Elevations: KB 22.65 metres DF 22.55 metres GL 19.00 metres
Date	Two		
Run Number	2178.00		
Depth Driller	2182.00		
Depth Logger	2179.30		
First Reading	1300.00		
Last Reading	1375.00		
Casing Driller	1378.50		
Casing Logger	6.13		
Bit Size	KCL		
Hole Fluid Type	1.13 g/cc		
Density / Viscosity	10.00		
PH / Fluid Loss	Flowline		
Sample Source	0.11 @ 25.0 ohm-m		
Rm @ Measured Temp	0.091 @ 25.0 ohm-m		
Rmf @ Measured Temp	0.127 @ 25.0 ohm-m		
Rmc @ Measured Temp	Press		
Source Rmf / Rmc	0.043 @ 78.0 ohm-m		
Rm @ BHT	10:00 Hrs		
Time Since Circulation	78.00 deg C		
Max Recorded Temp	HSU-002		
Equipment Name	2 SALE		
Equipment / Base	G. MCMANUS, N. PATMAN		
Recorded By	T. O'BRIAN		
Witnessed By	25-Oct		
DATE			

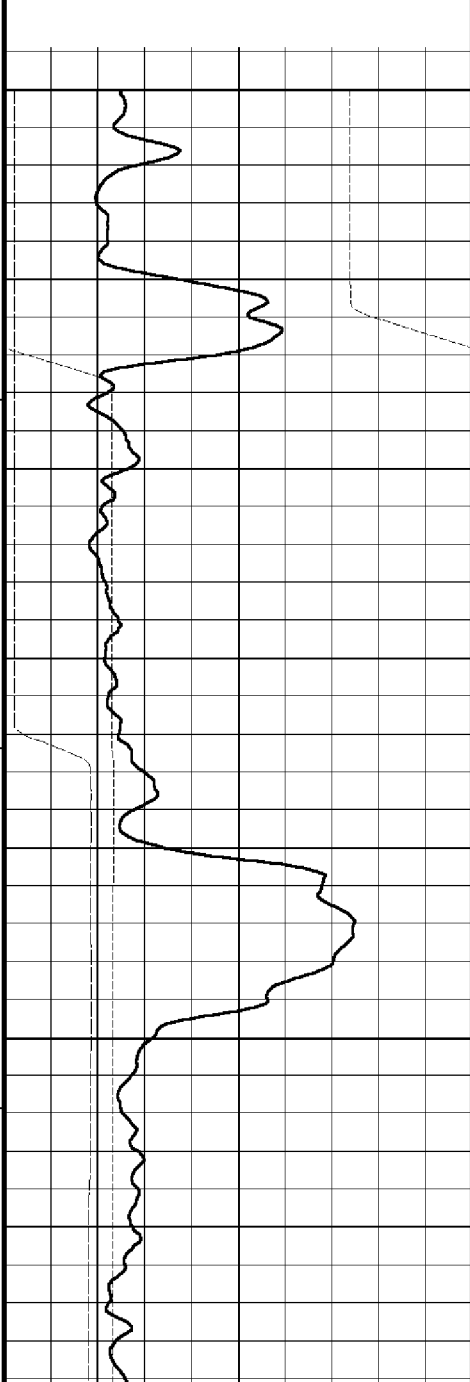
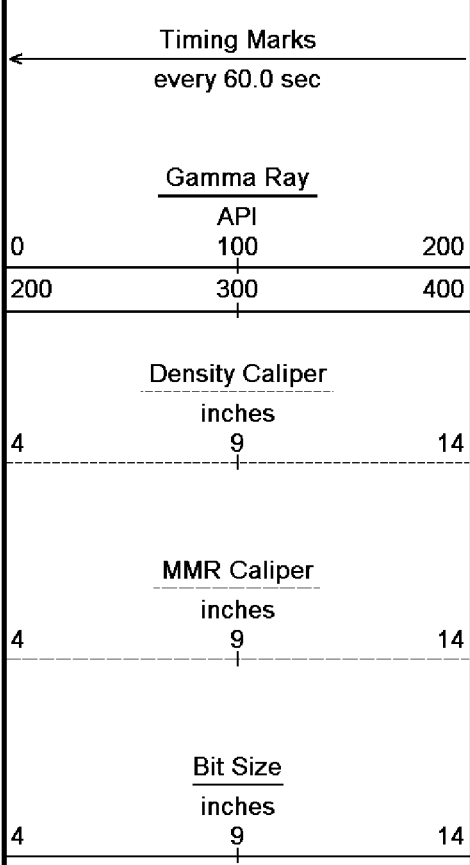
BOREHOLE RECORD			
Bit Size inches		Depth From metres	Depth To metres
6.000		1375.00	2178.00
CASING RECORD			
Type	Size inches	Depth From metres	Shoe Depth metres
	7.000	0.00	1375.00
			Weight pounds/ft
			0.00

REMARKS
RIG: HUNT 2
CREW: G MCMANUS, N PATMAN, M SUSA
Wombat #3 logged using Reeves COMPACT tools in SQUAD combination.
Annular Volume: 9.8m ³ , calculated for 5' casing
Hole Volume: 19.9m ³

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.

Main Log 1	
Depth Based Data - Maximum Sampling Increment 10.0cm	Plotted on 25-OCT-2004 16:32
Filename: C:\wombat 3\Main Log 1.dta	Recorded on 25-OCT-2004 03:18
System Configuration Dates: Logged 23-AUG-2004: Plotted 23-AUG-2004:	

	Depth in	3-5' Compensated Sonic	Limestone Neutron Por.
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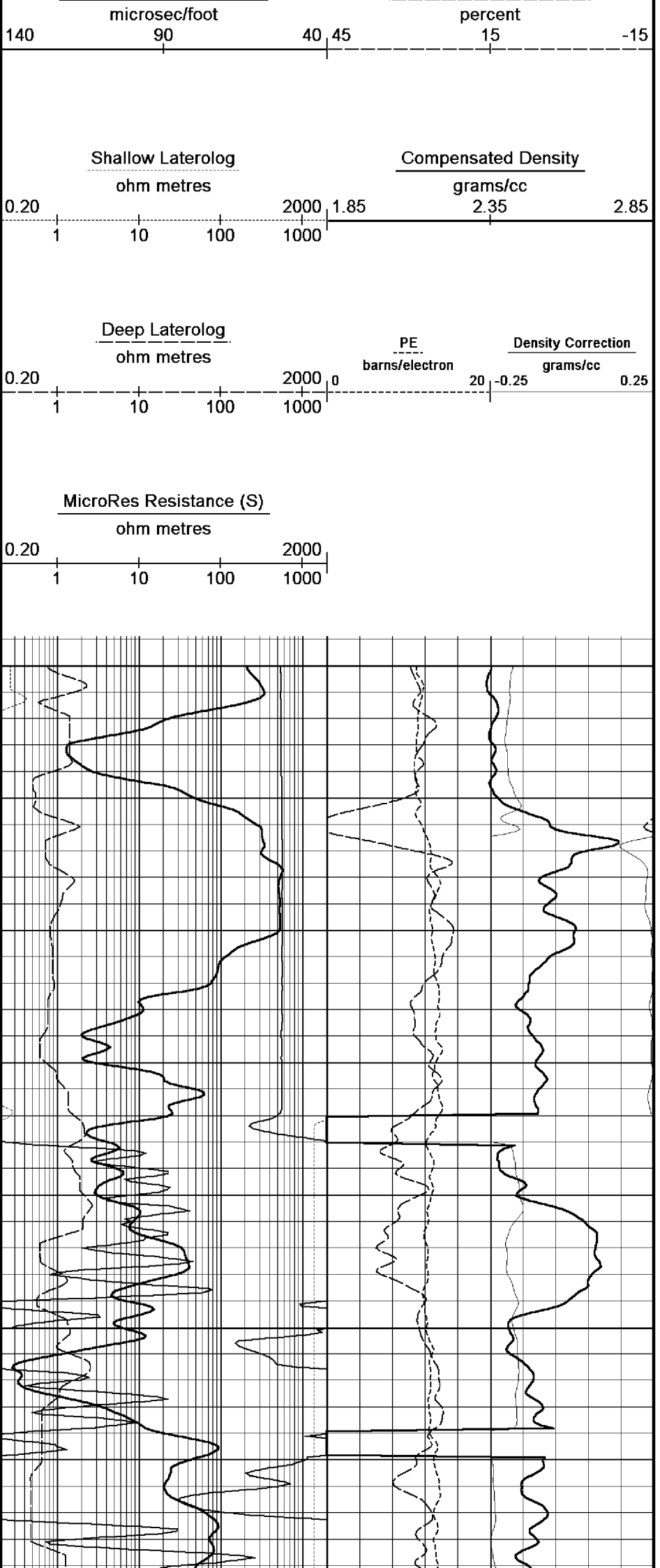
Metres

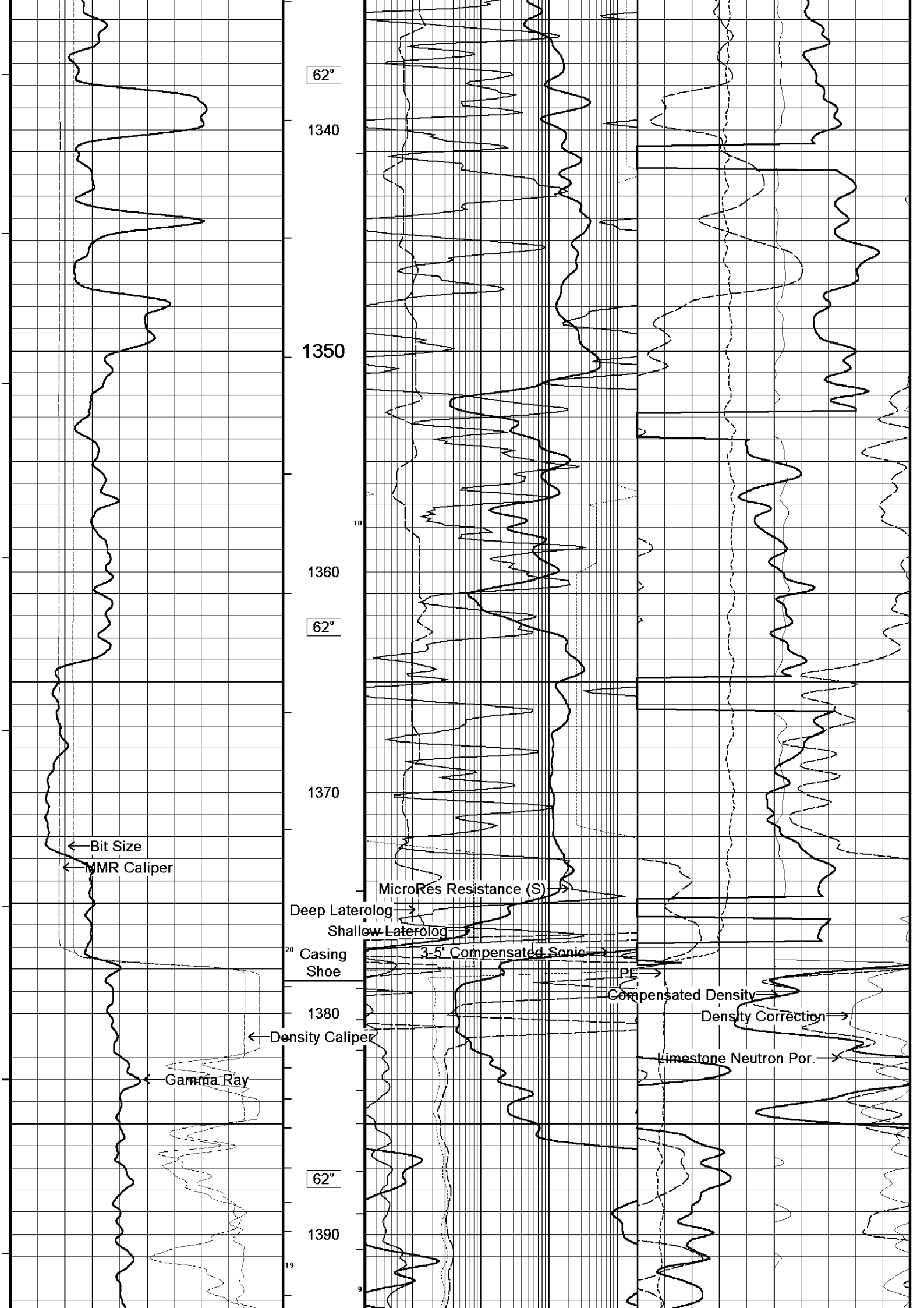
Borehole
Temp in
deg C

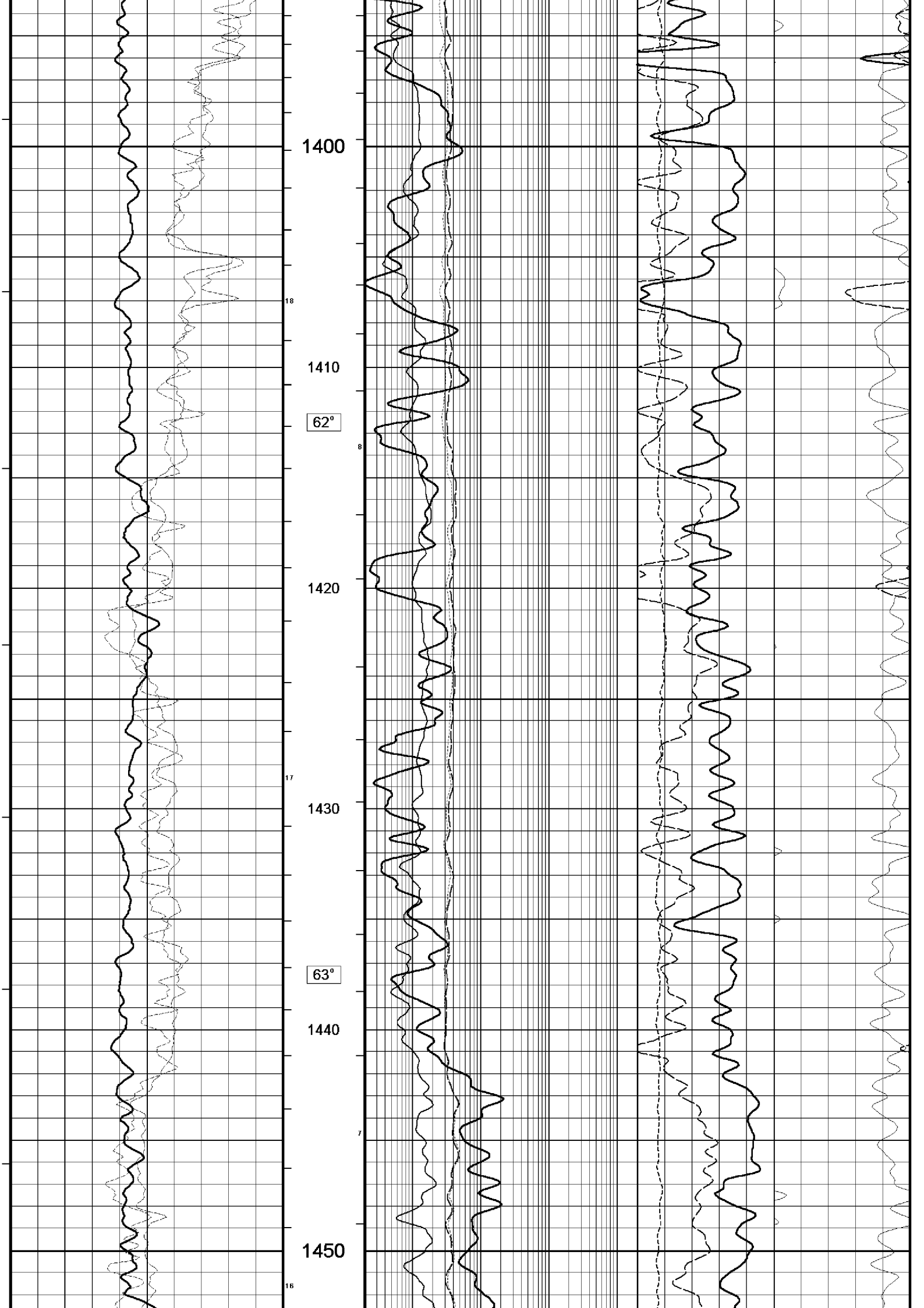
HVI
every
0.1 cu m

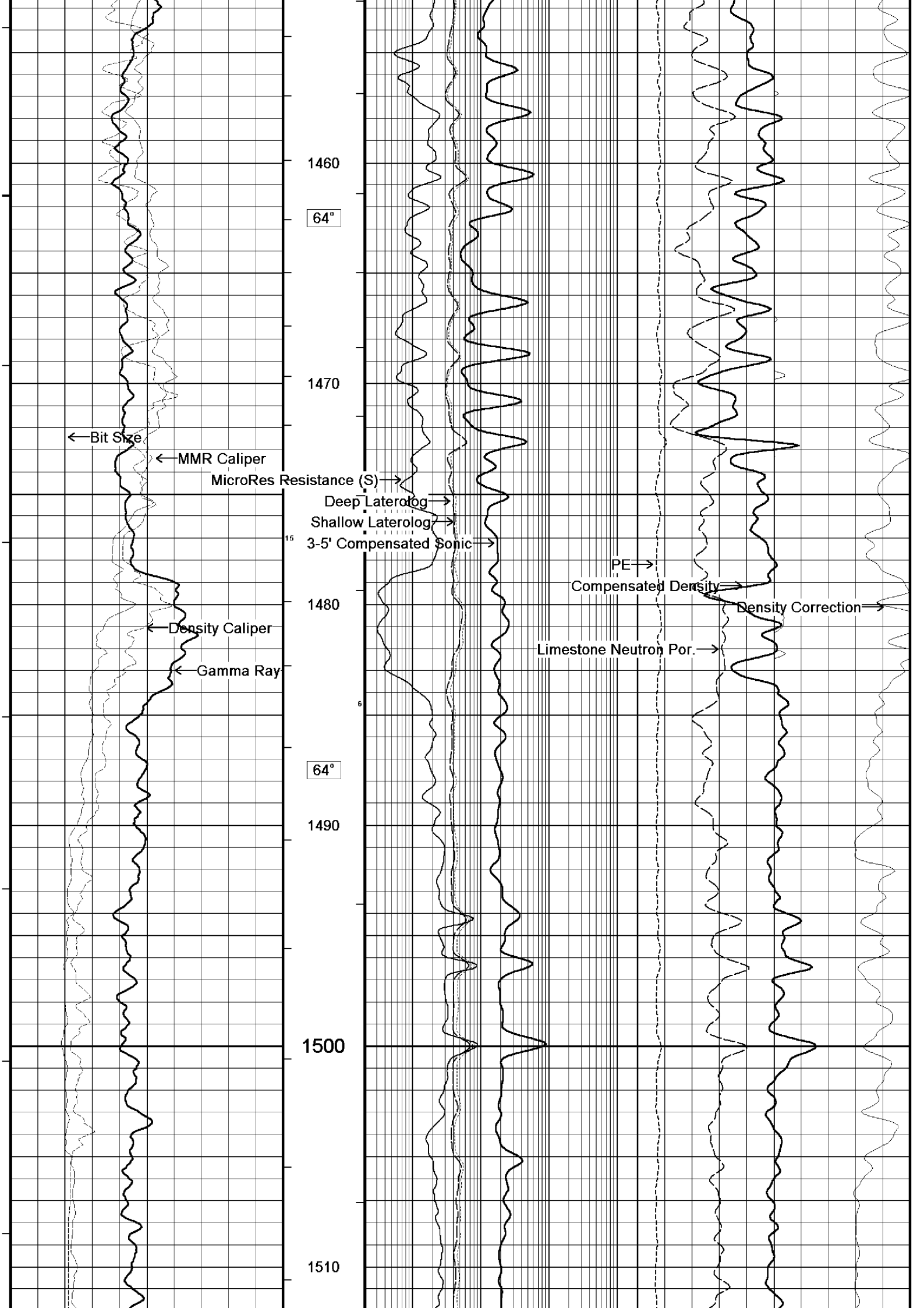
Annular
Integral
every
0.1 cu m

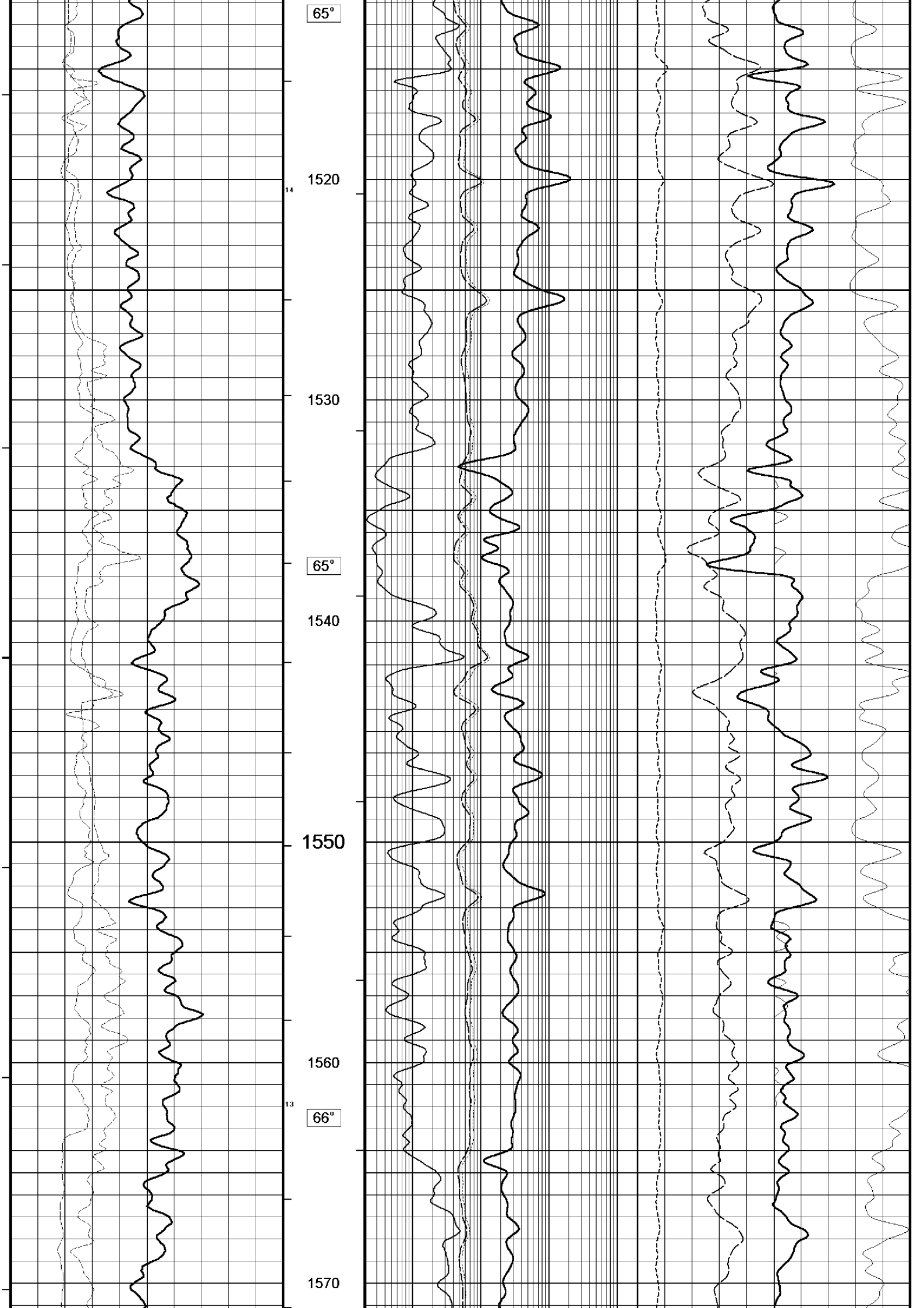
Replay
Scale
1:200

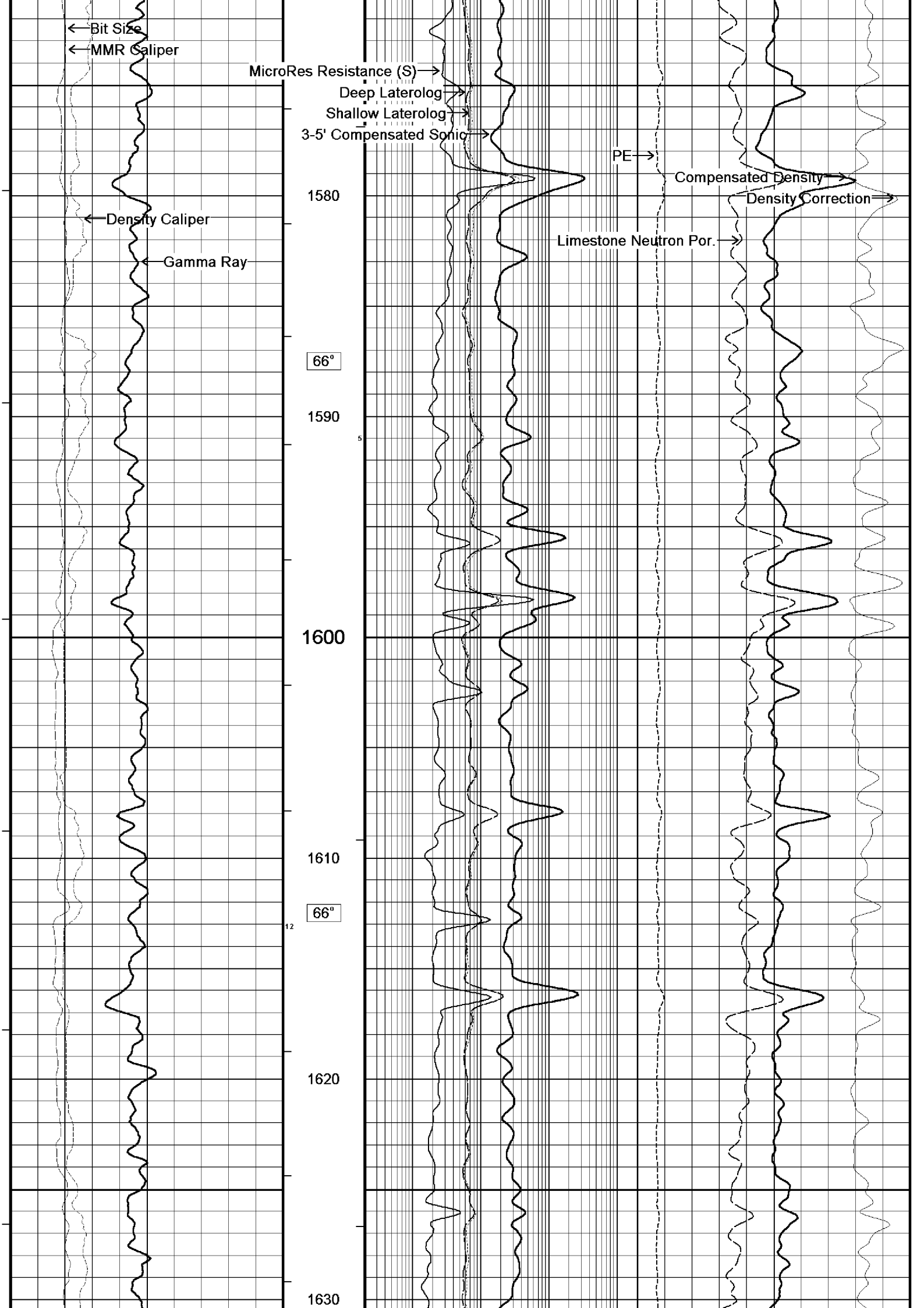


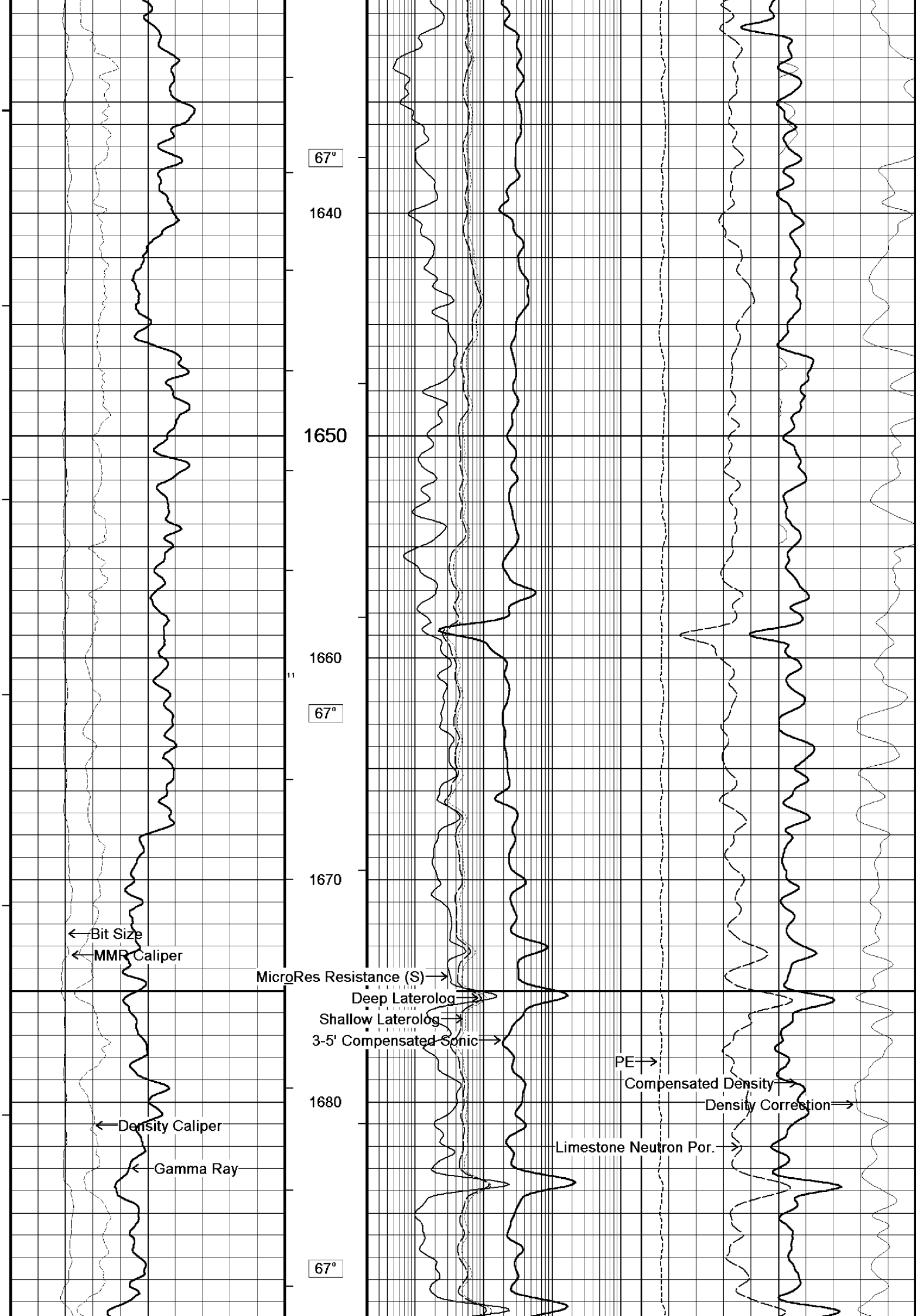


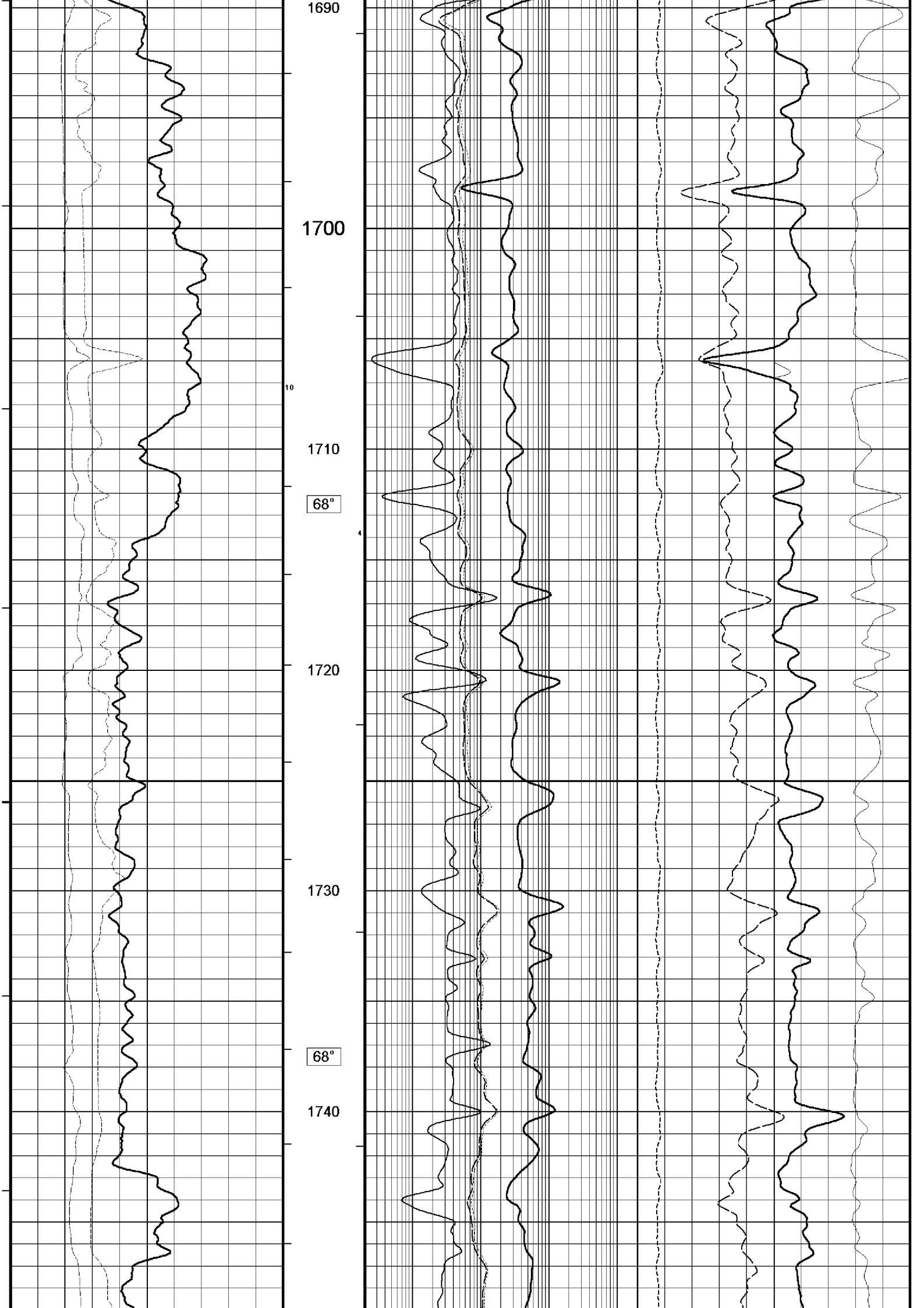


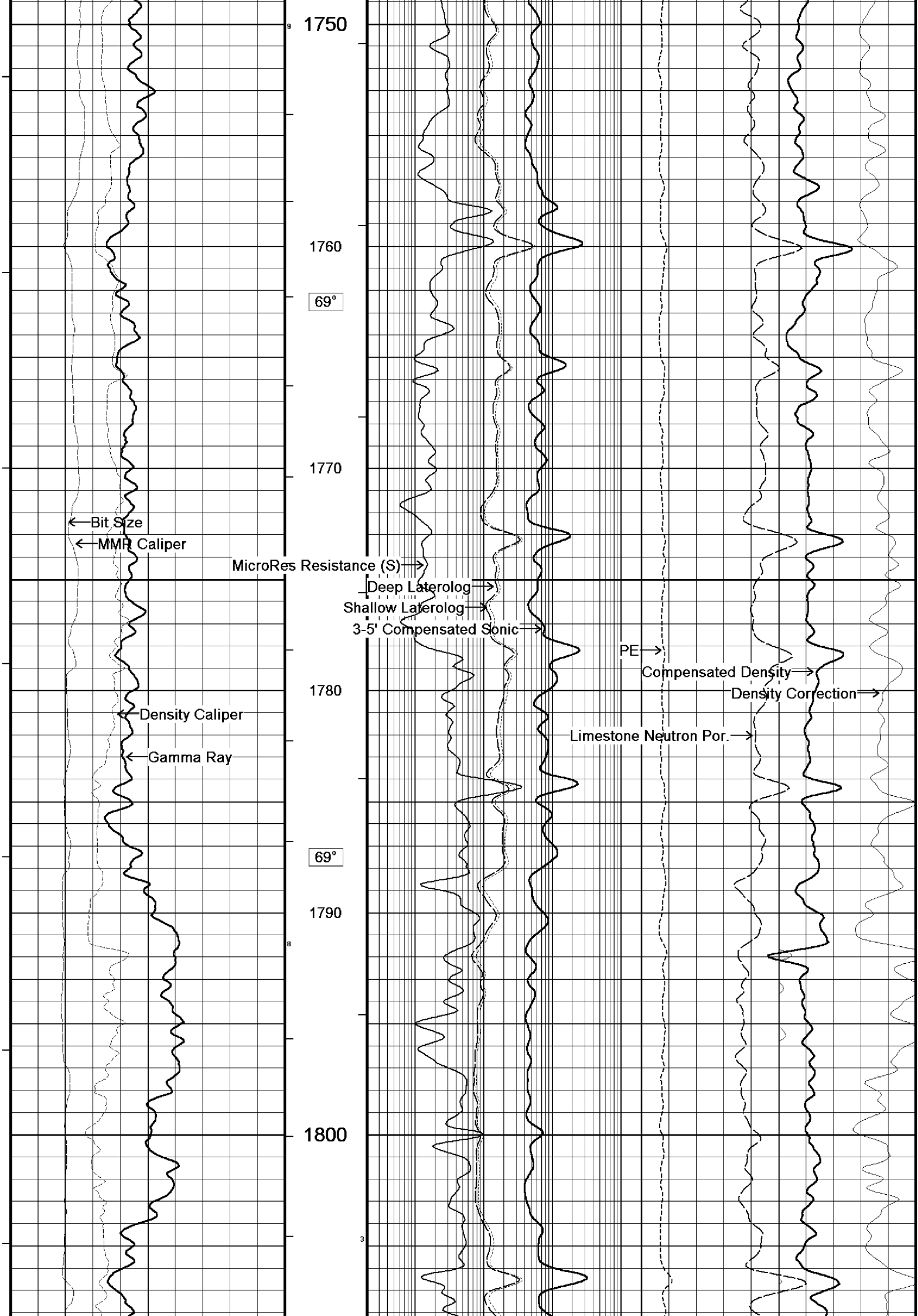


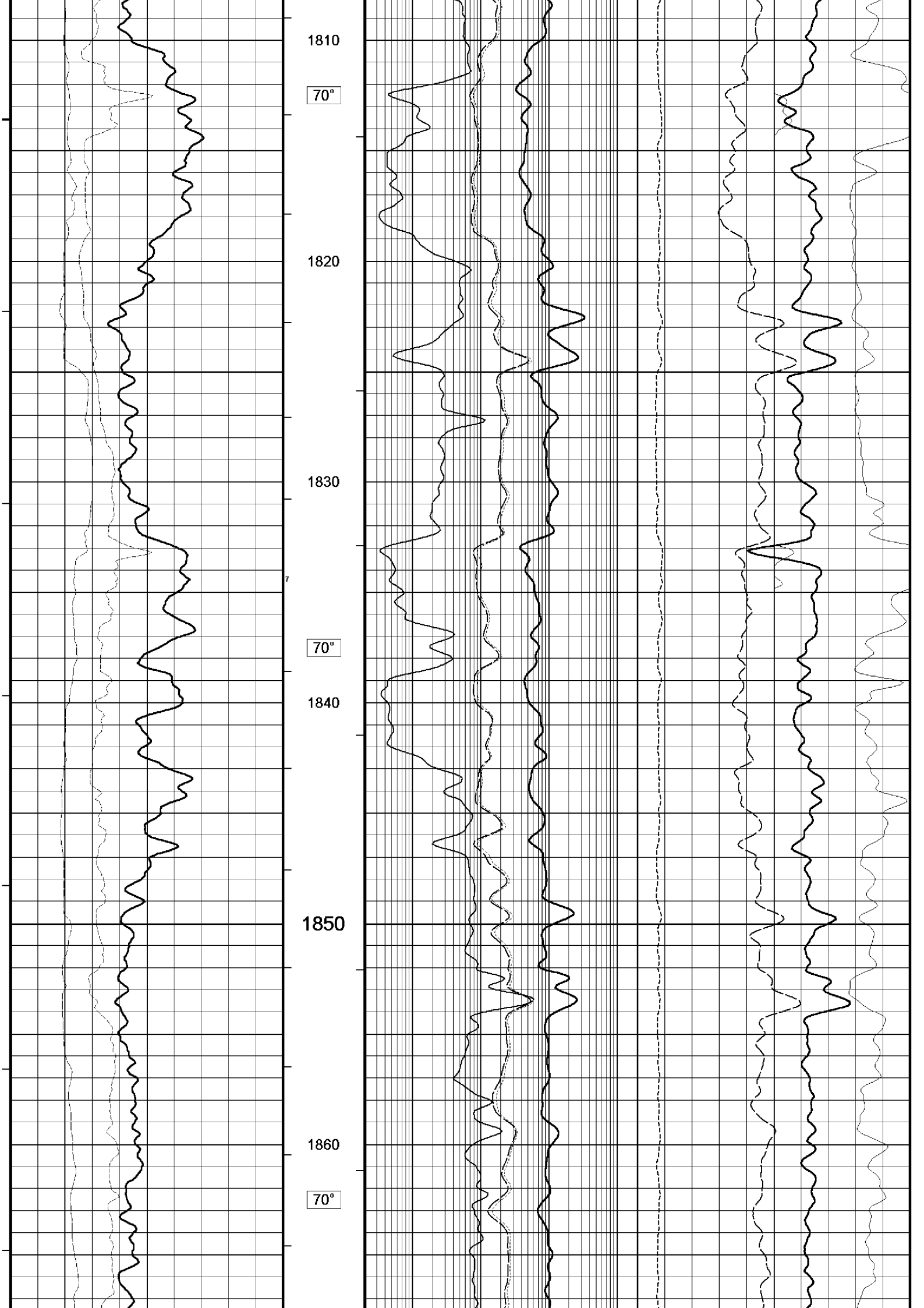


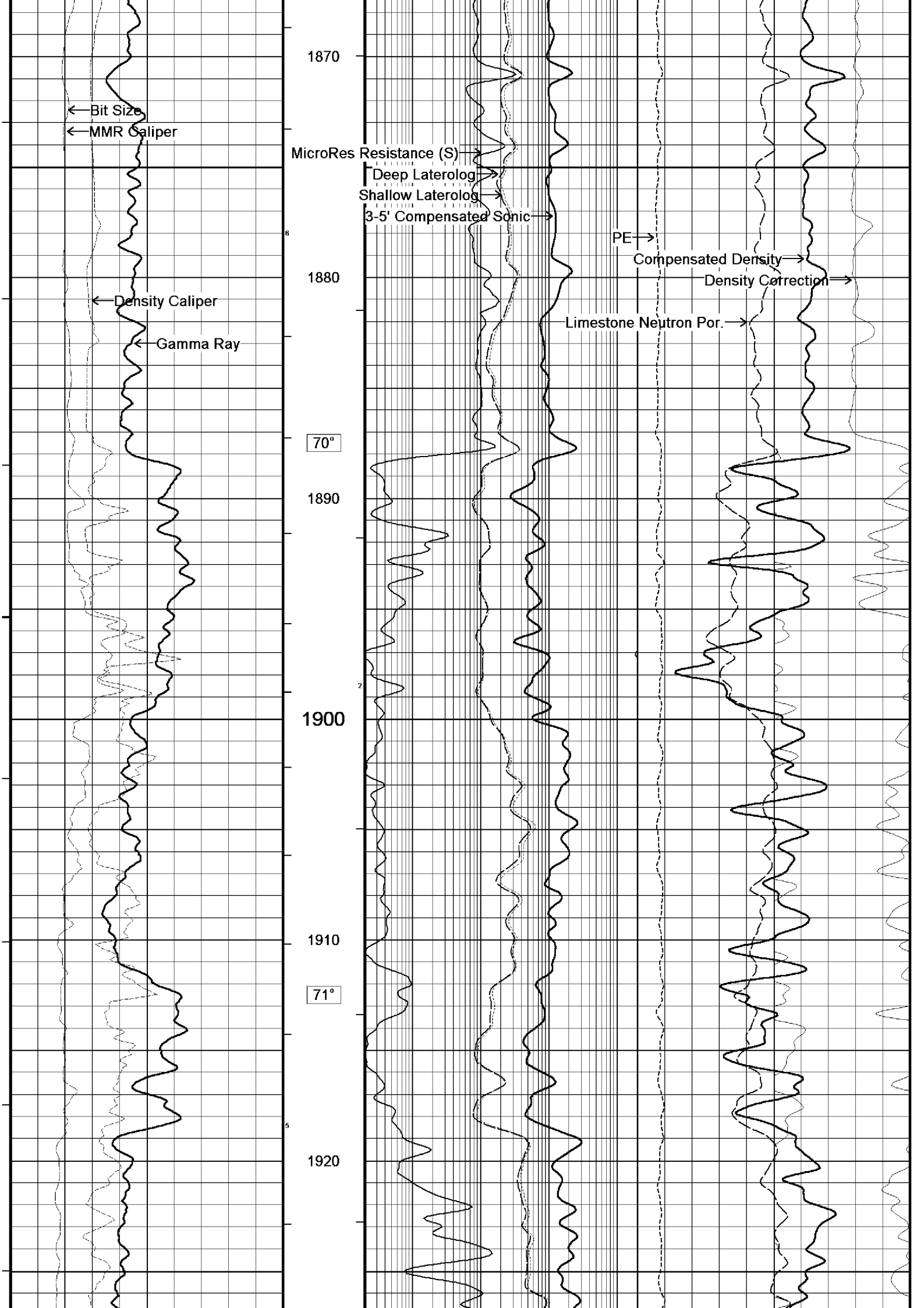


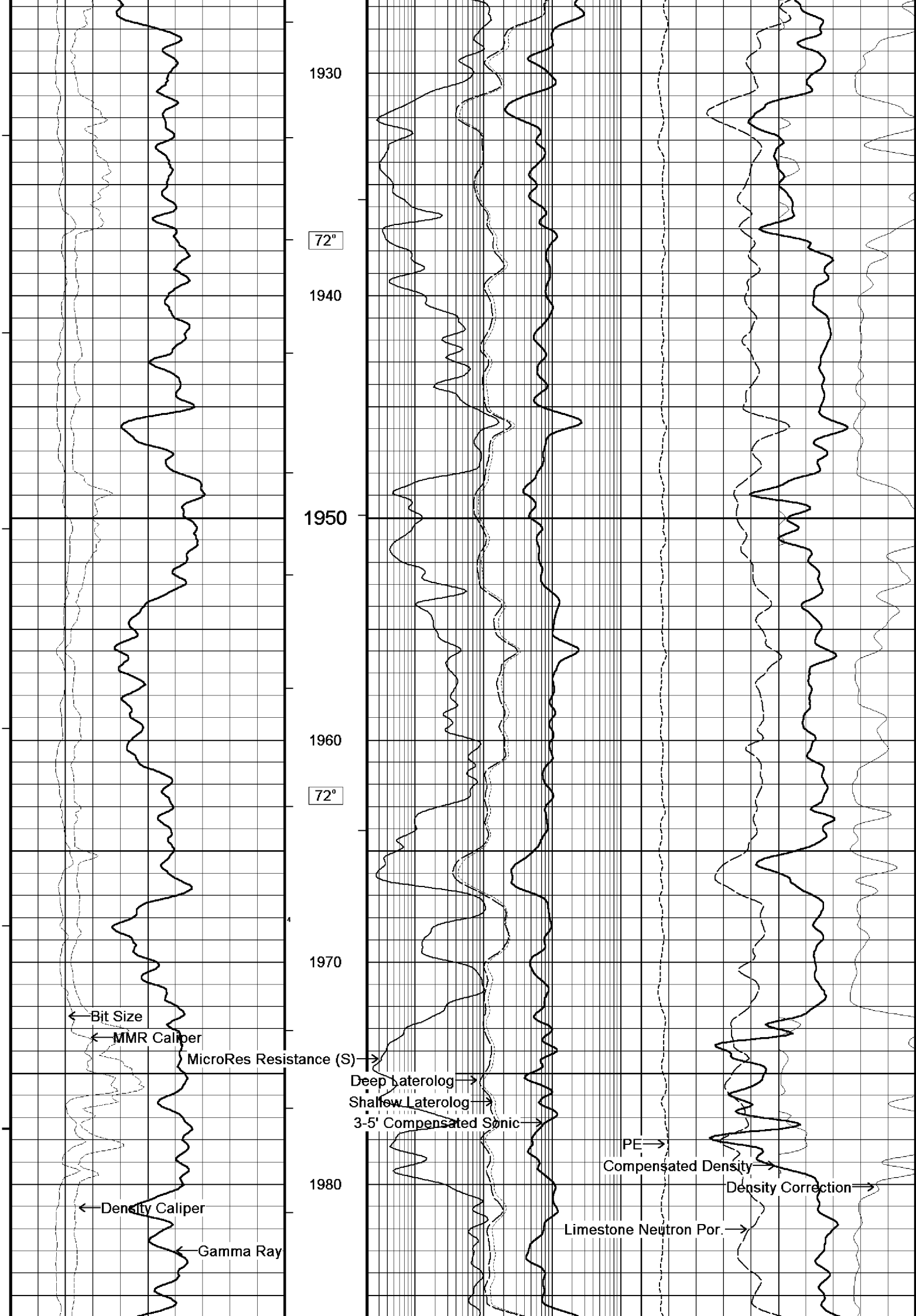


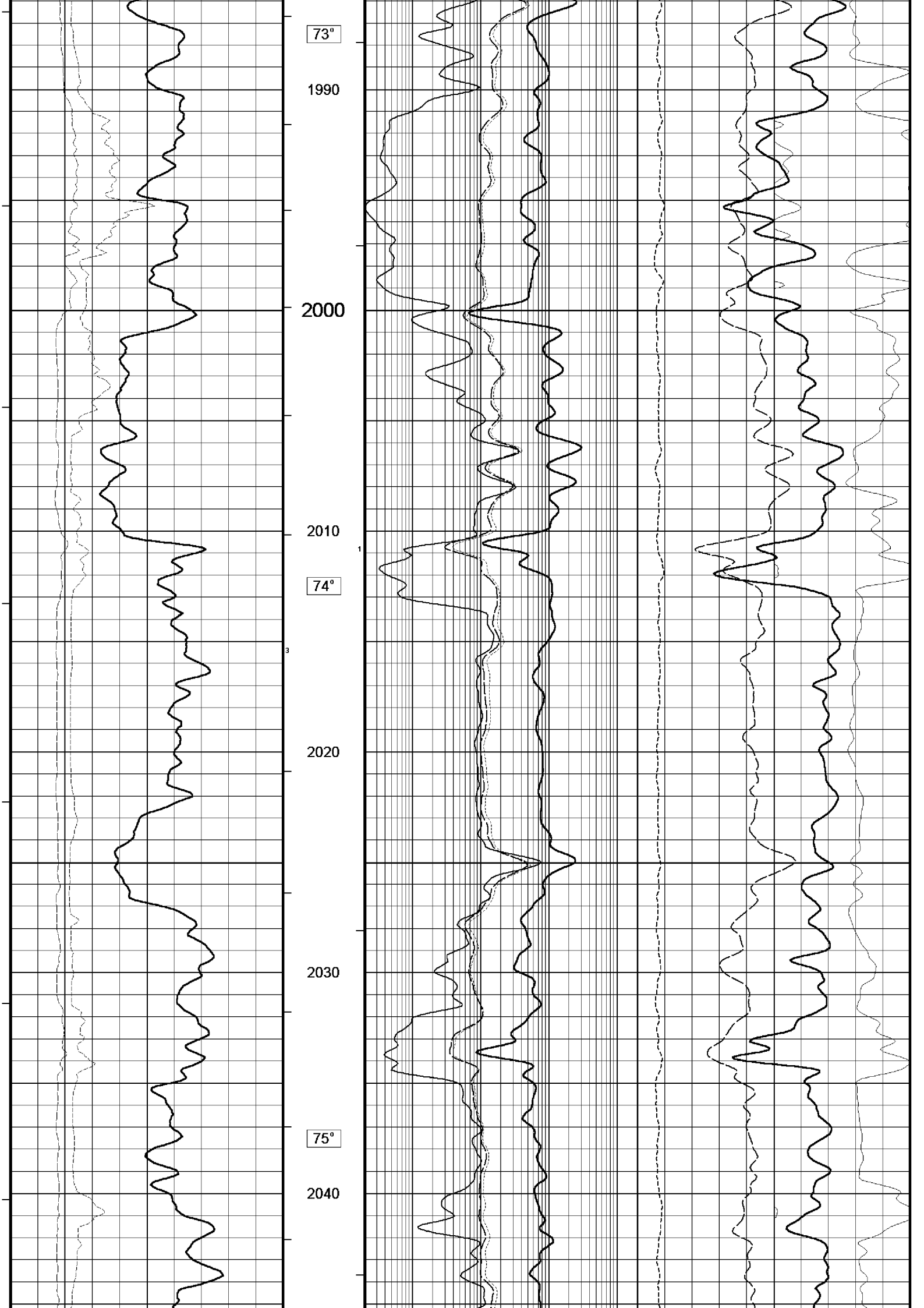


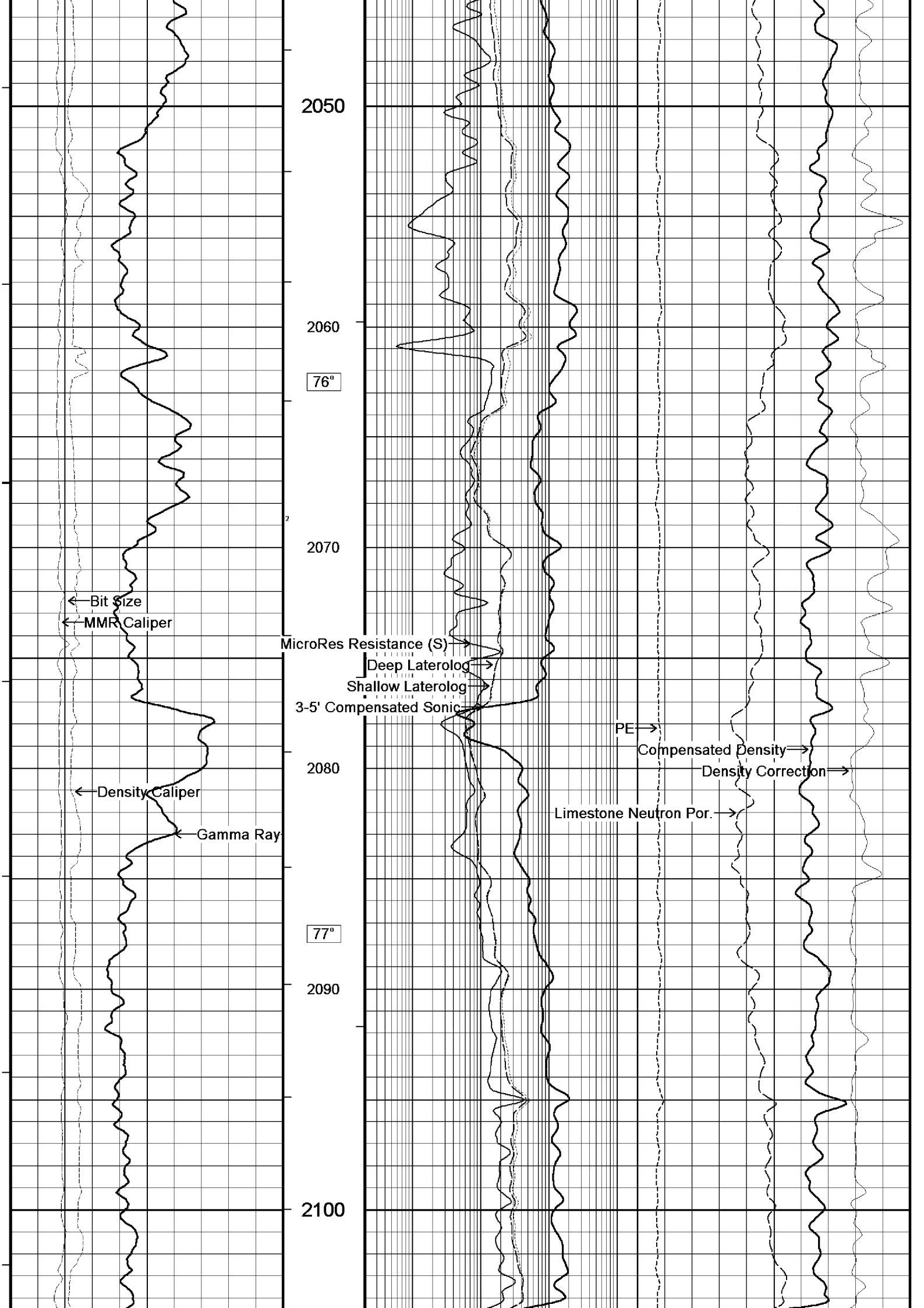


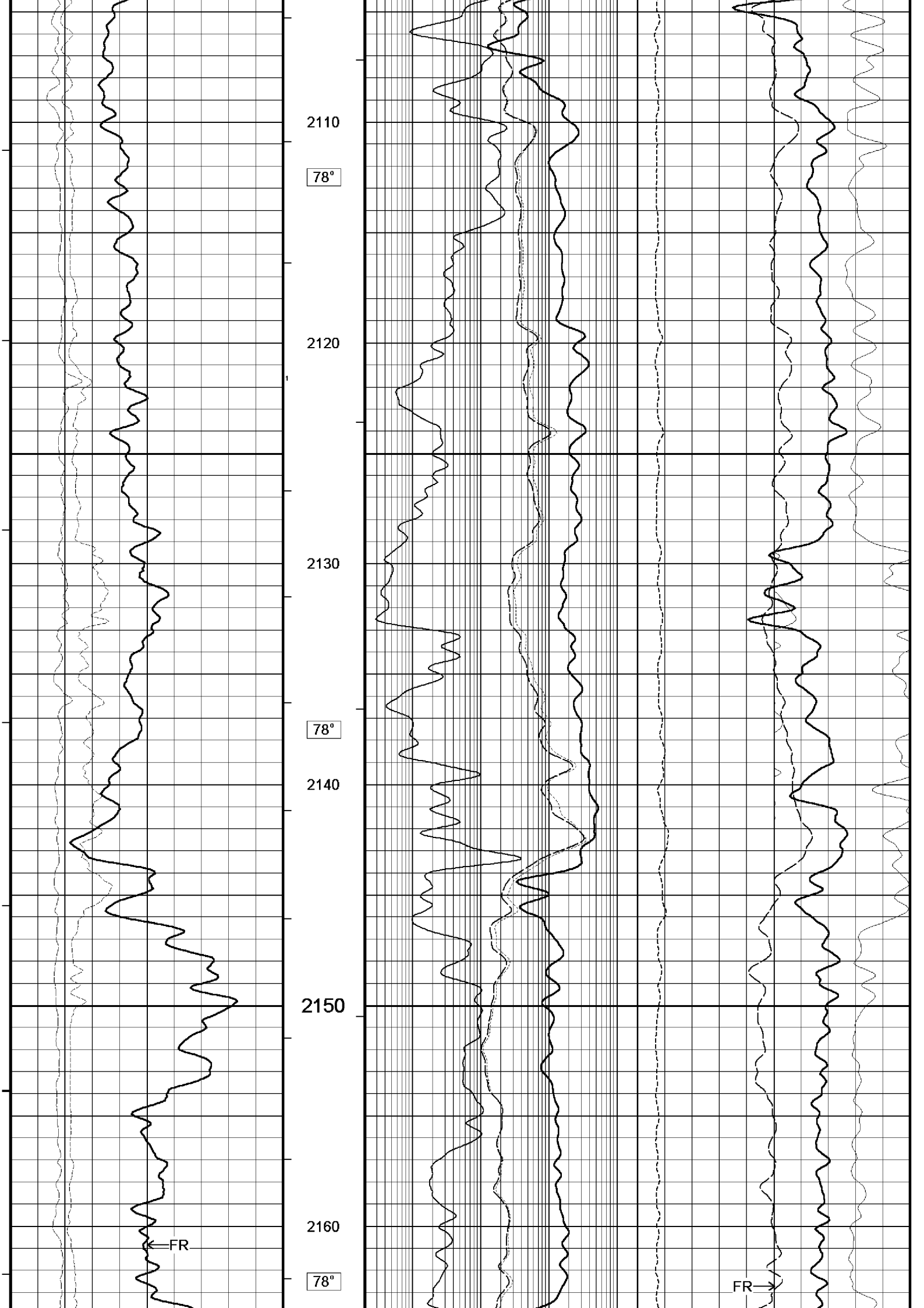


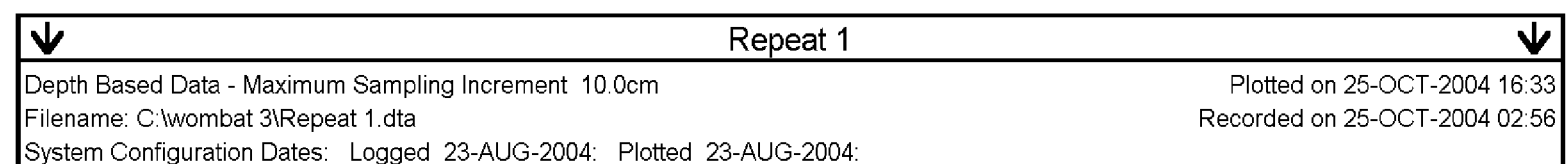
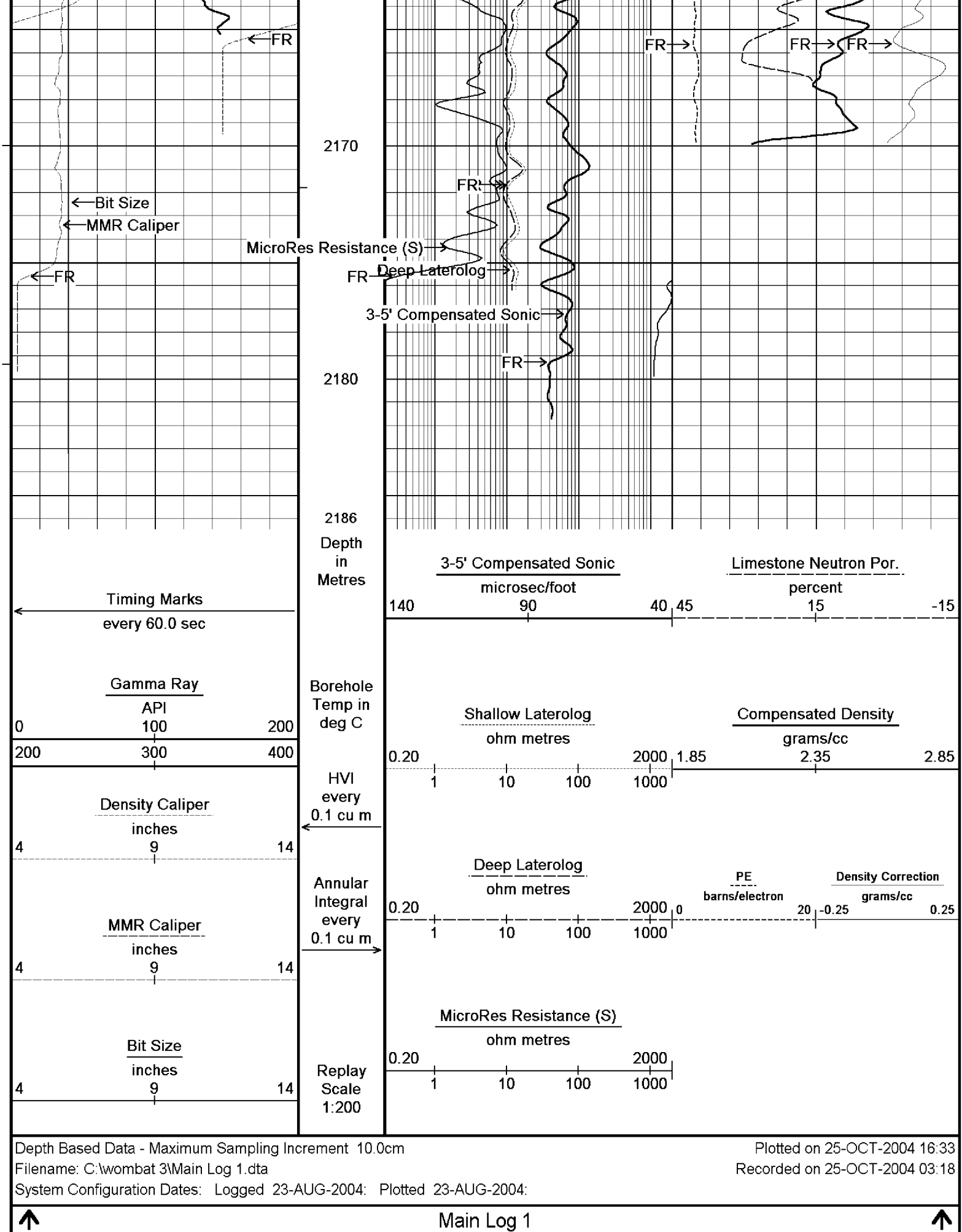




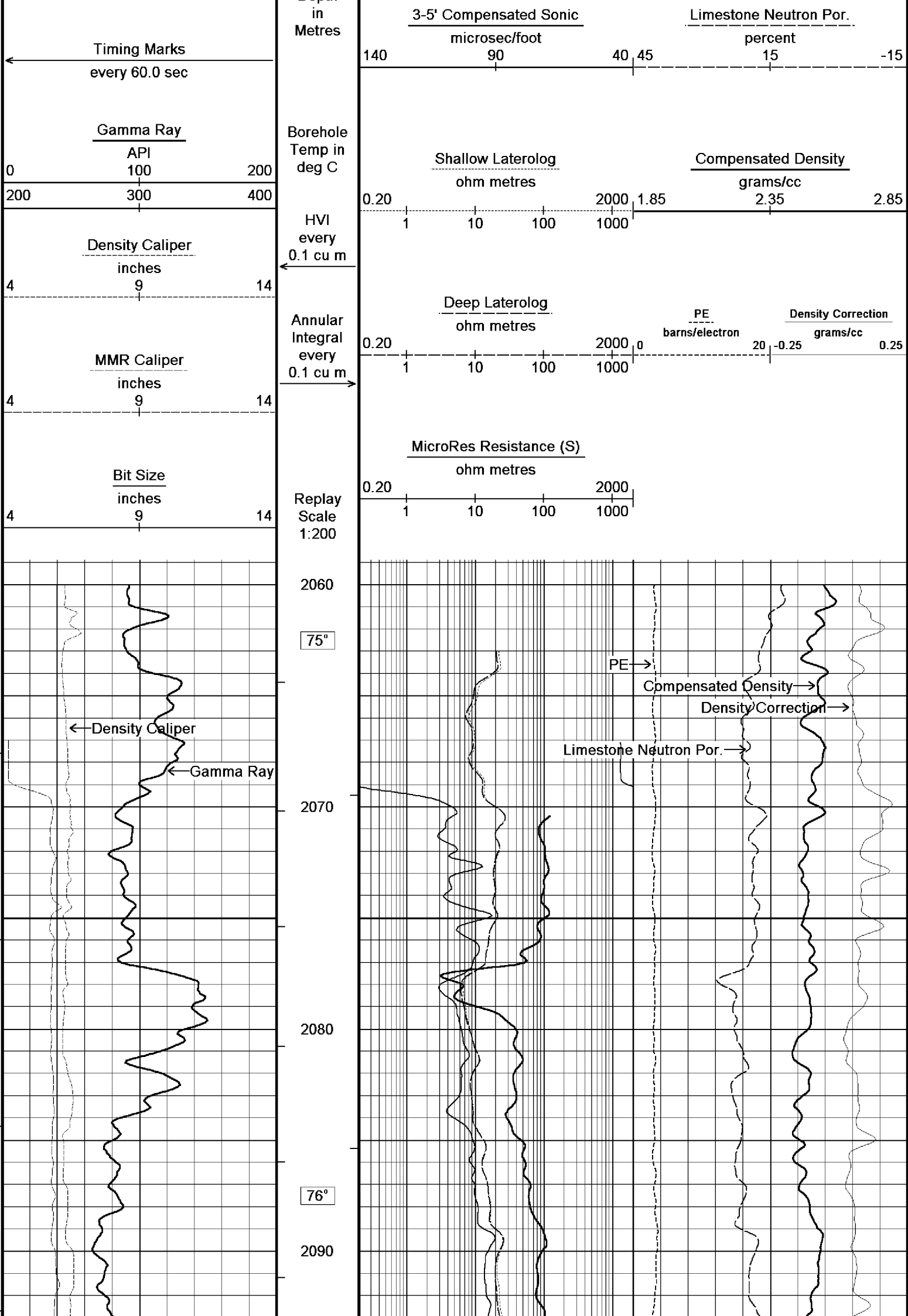


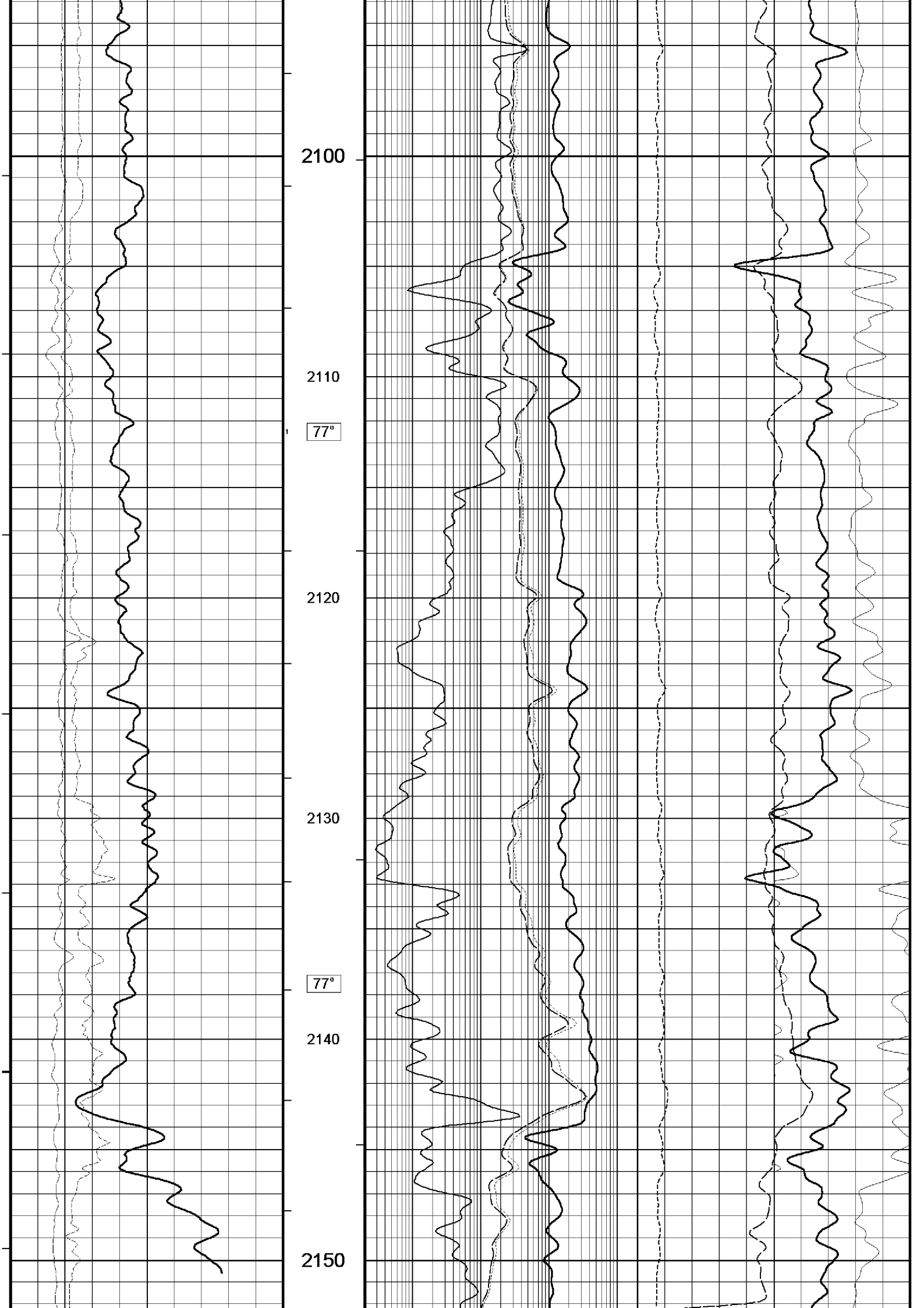


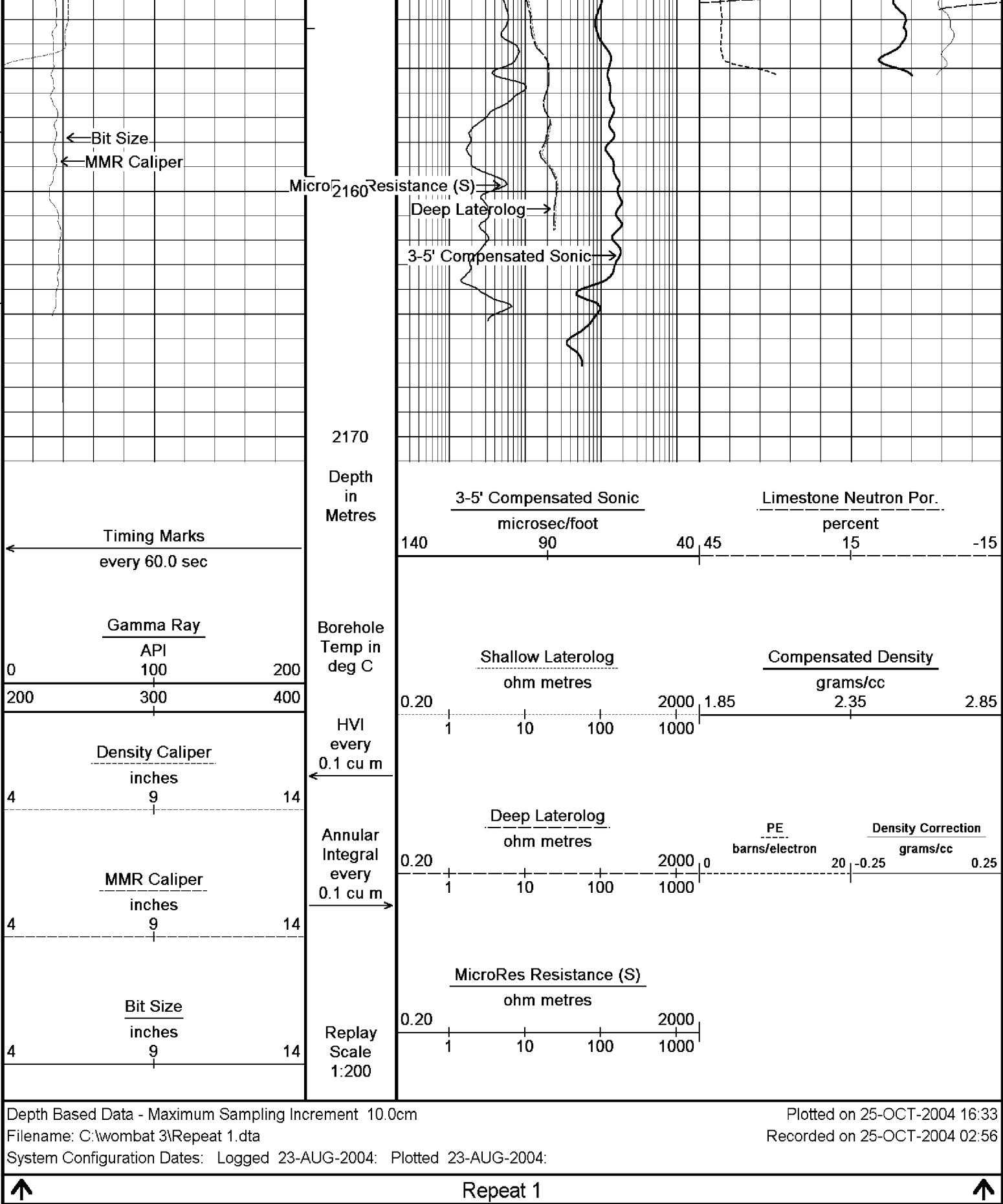




Depth







BEFORE SURVEY CALIBRATION

C:\wombat 3\Primary String.dta

General Constants All 000

General Parameters		
Mud Resistivity	0.141	ohm-metres
Mud Resistivity Temperature	14.400	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	MMR Caliper	
Annular Volume Diameter	5.000	inches
Caliper for Differential Caliper	None	

Rwa Parameters	
Porosity used	Base Density Porosity
Resistivity used	Deep Laterolog
RWA Constant A	0.610
RWA Constant M	2.150

Gamma Calibration MCG 018

Field Calibration on 24-OCT-2004 22:04

	Measured	Calibrated (API)
Background	31	20
Calibrator (Gross)	1386	929
Calibrator (Net)	1355	909

Gamma Constants MCG 018

Gamma Calibrator Number	60	
Mud Density	1.00	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

High Resolution Temperature Constants MCG 018

Pre-filter Length	11
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Neutron Calibration MDN 099

Base Calibration on 8-OCT-2004,13:46
Field Check on 24-OCT-2004 22:09

Base Calibration			
	Measured	Calibrated (cps)	
	Near Far	Near Far	
	3159 98	3714 110	
Ratio	32.102	33.764	
Field Calibrator at Base		Calibrated (cps)	
		1689 2405	
Ratio		0.702	
Field Check		Calibrated (cps)	
		1690 2327	
Ratio		0.726	

Neutron Constants MDN 099

Neutron Source Id	NSN E 762	
Neutron Jig Number	N485	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.13	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	0.00	kppm
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	

Caliper Calibration MPD 100

Base Calibration on 8-OCT-2004 10:11
Field Calibration on 24-OCT-2004 22:27

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	17076	4.01
2	26800	5.99
3	36768	7.98
4	46793	9.94
5	58256	12.01

Field Calibration

Measured Caliper (in)
5.98

Actual Caliper (in)
5.99

Photo Density Calibration MPD 100

Base Calibration on 8-OCT-2004 10:37
Field Check on 24-OCT-2004 22:14

Density Calibration

Base Calibration

	Near	Measured Far	Near	Calibrated (sdu) Far
Reference 1	57373	18759	53111	19310
Reference 2	26738	2285	24951	2530

Field Check at Base

988.7 997.7

Field Check

938.7 925.7

PE Calibration

Base Calibration

	WS	Measured WH	Ratio	Calibrated Ratio
Background	186	871		
Reference 1	17377	57197	0.305	0.320
Reference 2	6943	26611	0.263	0.273

Field Check at Base

186.0 870.6

Field Check

176.9 821.3

Density Constants MPD 100

Density Source Id DTC.D 076A
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 1.13 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

SP Calibration MLE 005

Field Calibration on 7-OCT-2004 12:30

	Measured	Calibrated (mV)
Reference 1	1590.1	1600.0
Reference 2	-1581.5	-1600.0

Laterolog Calibration MLE 005

Base Calibration on 7-OCT-2004 12:15
Field Check on

Base Calibration

	Resistor 1	Measured Resistor 2	Resistor 1	Calibrated (ohm-m) Resistor 2
Channel				
Shallow	9.8	968.0	13.2	1321.0
Deep	9.8	963.7	7.5	755.0
Groningen	7.6	631.0	8.5	854.0

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 005			
Squasher Start	40000	ohm-m	
Shallow Laterolog K Factor	1.3210		
Deep Laterolog K Factor	0.7550		
Groningen Laterolog K Factor	0.8540		
Interference Rejection	50 Hz		
SP Connection	SP Bridle Electrode		
Groningen Connection	None		

Caliper Calibration MMR 004			Base Calibration on 7-OCT-2004 13:36
			Field Calibration on 24-OCT-2004,22:16
Base Calibration			
Reading No	Measured	Calibrator Size (in)	
1	15124	5.99	
2	18197	7.98	
3	21637	9.94	
4	25824	12.01	
5	0	0.00	
6	N/A	N/A	
Field Calibration			
	Measured Caliper (in)	Actual Caliper (in)	
	5.98	5.99	

Micro Laterolog Calibration MMR 004				Base Calibration on 7-OCT-2004,13:31	
				Field Check on 24-OCT-2004 22:23	
Base Calibration					
		Measured		Calibrated (ohm-m)	
	Ref 1	Ref 2		Ref 1	Ref 2
	0.0	9761.9		0.0	144.0
Base Check (ohm-m)			Field Check (ohm-m)		
5.9			0.0		

Micro Laterolog Constants MMR 004			
Micro Laterolog K Factor	0.0144		
Standoff Offset	N/A	inches	

Sonic Constants MSS 066				
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 Sonic			
Correction for Sonde Skew	Applied			
Cycle Stretch Algorithm	Applied			
MN3FT	N/A	micro-sec		
MX3FT	N/A	micro-sec		
Fixed Gate Parameters				
Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	N/A	
N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	
Down Hole Fixed Gate Parameters				
Gate Start	N/A	micro-sec		
Gate Width	N/A	micro-sec		
Initial Discriminator Level	0.0000	mVolts		
Full Waveform Parameters				
Use 3' Waveform to derive TR	N/A			
Use 4' Waveform to derive TR	N/A			
Use 5' Waveform to derive TR	N/A			
Use 6' Waveform to derive TR	N/A			
3' Waveform Discriminator Level	N/A	mV		
4' Waveform Discriminator Level	N/A	mV		
5' Waveform Discriminator Level	N/A	mV		
6' Waveform Discriminator Level	N/A	mV		

3' Waveform Filter	N/A	
4' Waveform Filter	N/A	
5' Waveform Filter	N/A	
6' Waveform Filter	N/A	
Semblance Level	N/A	
Semblance Window Width	N/A	micro-sec
Sonic 1 Despiker	N/A	N/A
Sonic 2 Despiker	N/A	N/A

DOWNHOLE EQUIPMENT

C:\wombat 3\Primary String.dta

Compact Stiff Bridle Electrode Sub.

MBE 23 Length: 3.76 m Weight: 94.8 lb

Compact Gamma

MCG 18 Length: 2.65 m Weight: 63.9 lb

Compact Neutron

MDN 99 Length: 1.53 m Weight: 50.7 lb

Compact Density/Caliper

MPD 100 Length: 2.92 m Weight: 90.4 lb

Compact Knuckle Joint

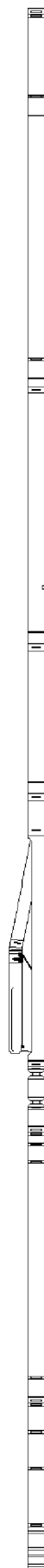
SKJ 111 Length: 0.66 m Weight: 24.3 lb

Compact Upper Guard Sub.

MUG 6 Length: 2.74 m Weight: 68.3 lb

Compact Laterolog Electrode Sub.

MLE 5 Length: 3.76 m Weight: 92.6 lb



18.44 m

GRGC - Gamma Ray

17.55 m

CGXT - MCG External Temperature

16.57 m

NPRL - Limestone Neutron Por.

13.89 m

CLDC - Density Caliper

13.68 m

DPRL - Limestone Density Por.

13.68 m

DCOR - Density Correction

13.66 m

PDPE - PE

7.63 m

DDLL - Deep Laterolog

7.63 m

DSLL - Shallow Laterolog

Compact Micro-Resistivity
MMR 4 Length: 2.62 m Weight: 81.6 lb

Compact Sonic
MSS 66 Length: 3.82 m Weight: 72.8 lb

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

Total Length: 24.74 m Weight: 646.0 lb



3.70 m MRRS - MicroRes Resistance (S)
3.70 m MATC - MMR Caliper

0.00 m TR11 - 4' Transit Time
0.00 m TR21 - 3' Transit Time
0.00 m TR22 - 5' Transit Time
0.00 m TR12 - 6' Transit Time
0.00 m DT35 - 3-5' Compensated Sonic
Tool Zero (0.97m from bottom)

All measurements relative to tool zero.

COMPANY Lakes Oil N.L.
WELL Wombat 3
FIELD Strezleki
PROVINCE/COUNTY
COUNTRY/STATE Australia/Victoria

Elevation Kelly Bushing	22.65	metres	First Reading	2179.30	metres
Elevation Drill Floor	22.55	metres	Depth Driller	2178.00	metres
Elevation Ground Level	19.00	metres	Depth Logger	2182.00	metres

Reeves
Compact

Density - Neutron
Dual Laterolog - Sonic
1:200 MD