

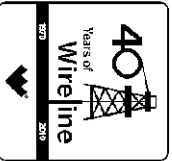


Weatherford[®]

**CML IMPULSE SHUTTLE
COMPENSATED PHOTO-DENSITY
COMPENSATED NEUTRON LOG**

SANDRIDGE EXPLORATION & PRODUCTIO

**WELL SARAH 1-34H
FIELD BEAIS EAST
PROVINCE/COUNTY COMANCHE
COUNTRY/STATE U.S.A. / KANSAS
LOCATION SL:200' FNL & 810' FWL OF NW/4
BHL:330' FLS & 810' FWL OF SW/4**



SEC	TWP	RGE	Other Services
34	33S	17W	MA/IM/FE
API Number	15-033-21622		
Permit Number			

Permanent Datum G.L., Elevation 1831 feet
 Log Measured From DF
 Drilling Measured From DF

Elevations:	feet
KB	1851.00
DF	1851.00
GL	1831.00

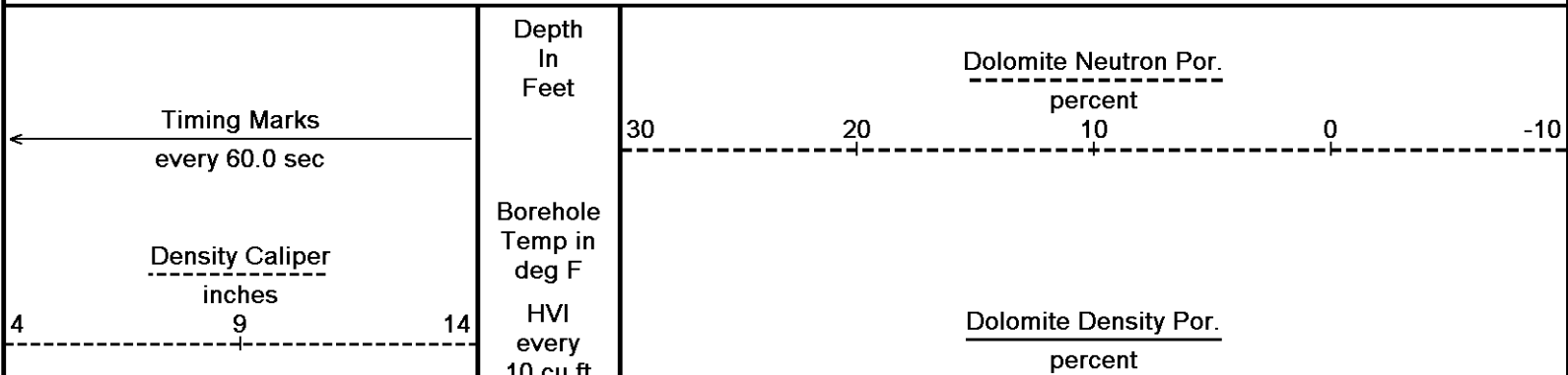
Date	22-MAR-2012	
Run Number	ONE	
Depth Driller	9752.00	feet
Depth Logger	9596.00	feet
First Reading	9563.00	feet
Last Reading	5050.00	feet
Casing Driller	5598.00	feet
Casing Logger	5598.00	feet
Bit Size	6.125	inches
Hole Fluid Type	WBM	
Density / Viscosity	8.60	lb/USg 28.00 CP
PH / Fluid Loss	10.00	
Sample Source	MUD TANK	
Rm @ Measured Temp	1.30 @ 78.0	ohm-m
Rmf @ Measured Temp	1.04 @ 78.0	ohm-m
Rmc @ Measured Temp	1.56 @ 78.0	ohm-m
Source Rmf / Rmc	CALC	CALC
Rm @ BHT	0.74 @ 136.0	ohm-m
Time Since Circulation	8 HOURS	
Max Recorded Temp	136.00	deg C
Equipment Name	COMPACT	
Equipment / Base	18077	OKC
Recorded By	MIKE GARRISON	
Witnessed By	KATHY GENTRY	
Service Order	3534318	DC11665

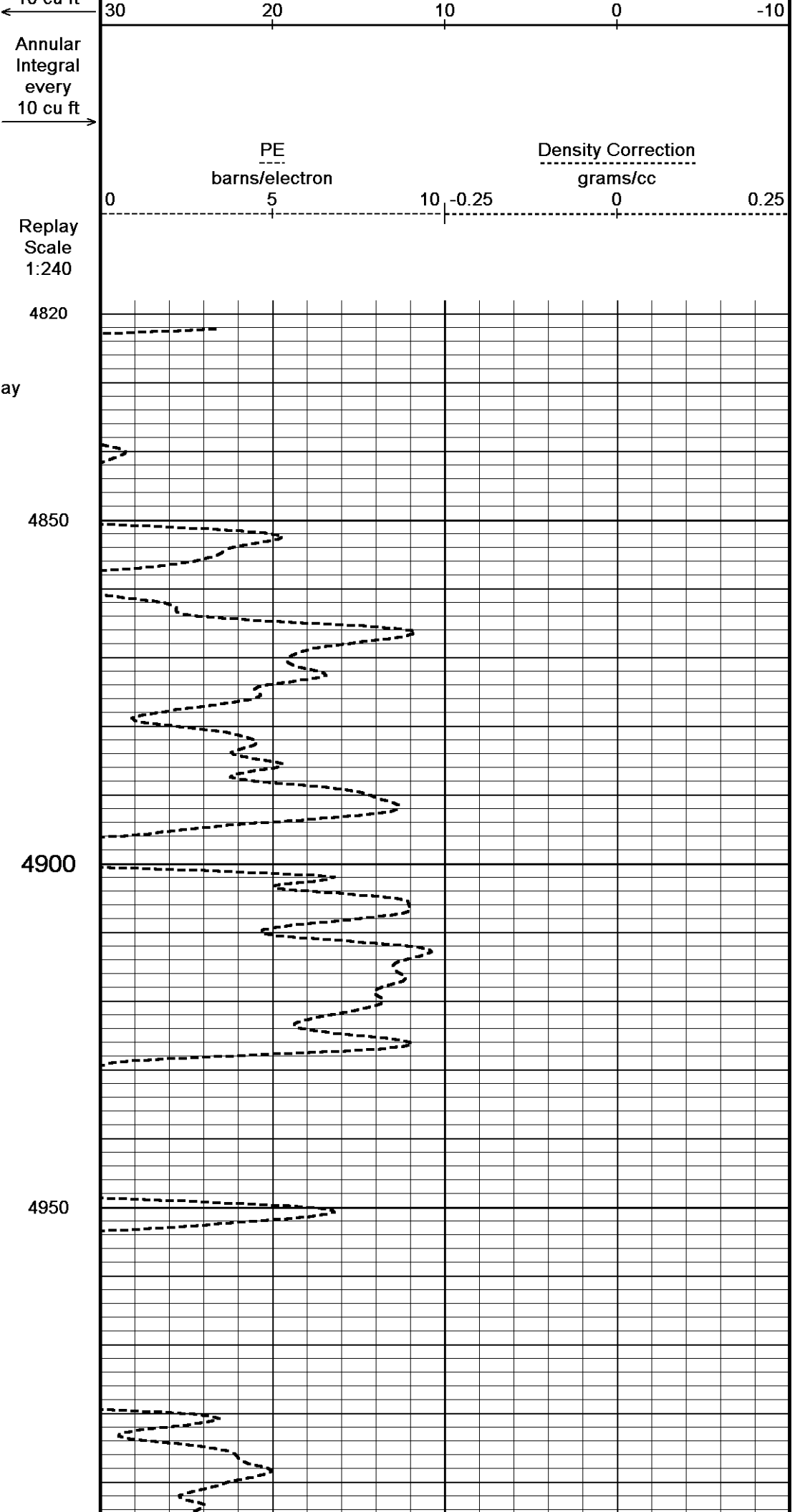
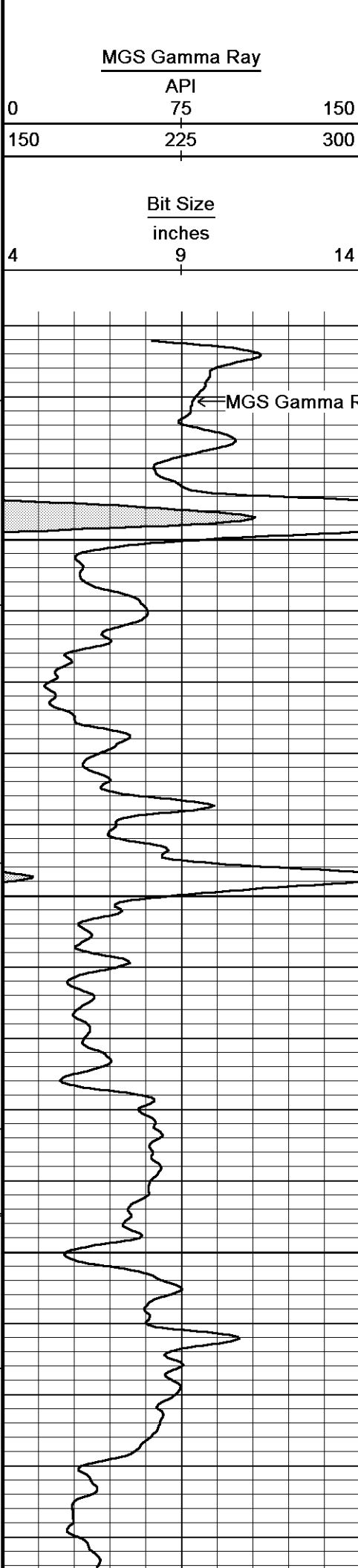
REMARKS

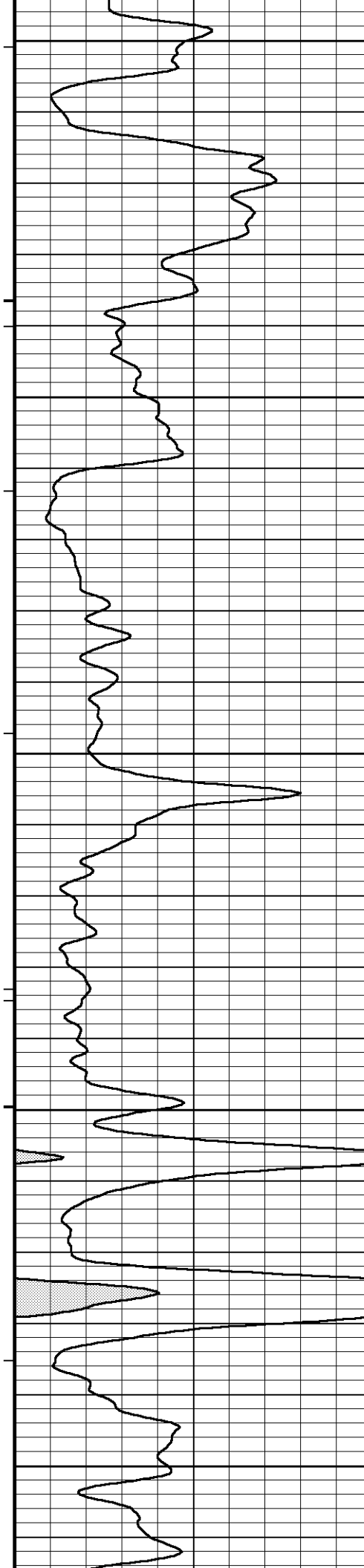
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, 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.

5 INCH MAIN LOG

Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 23-MAR-2012 09:16
 Filename: C:\Minimus 12.02.4401\Data\New Folder\mms 158 rtap.dta
 Recorded on 23-MAR-2012 02:08
 System Versions: Processed with 12.02.4401 Plotted with 12.02.4401







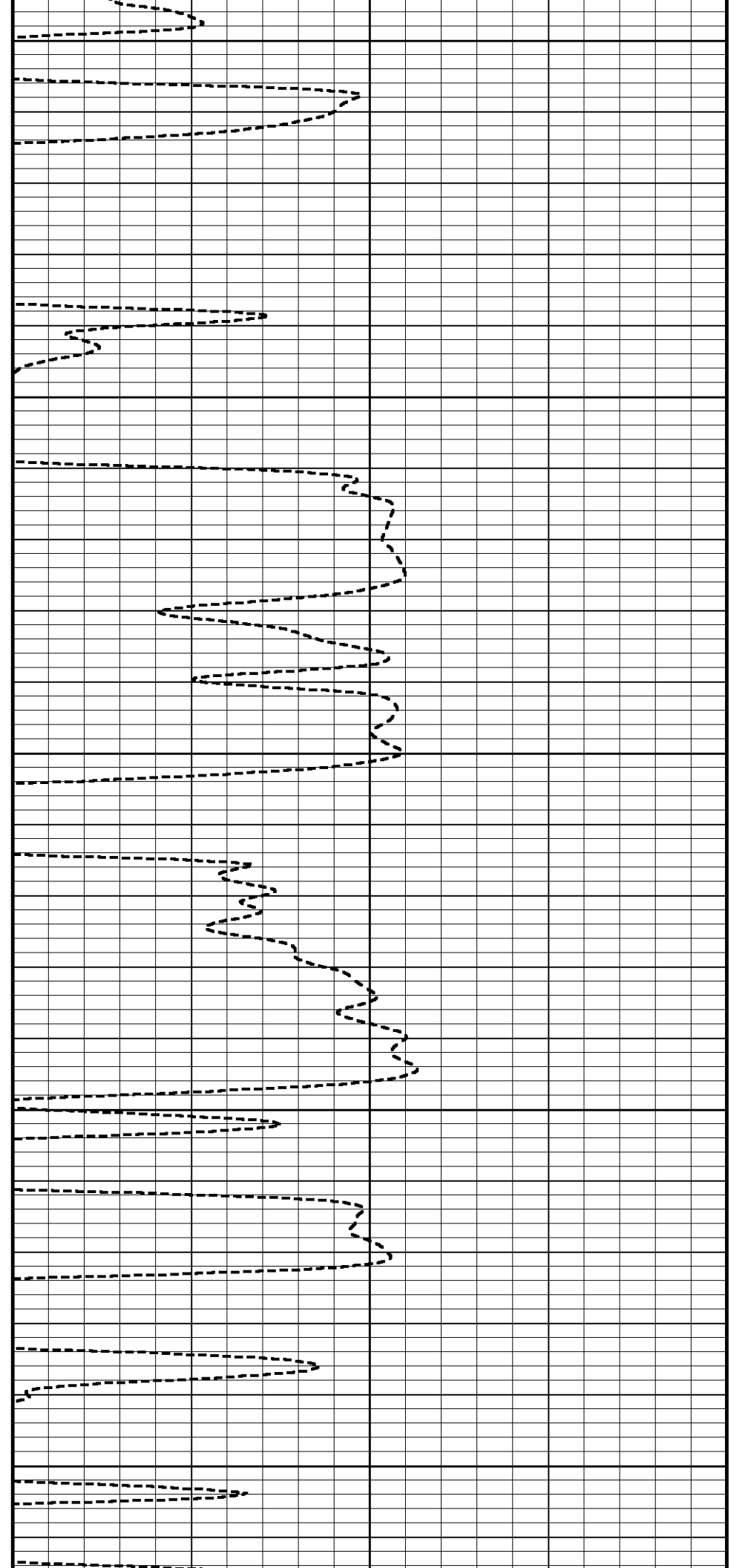
5000

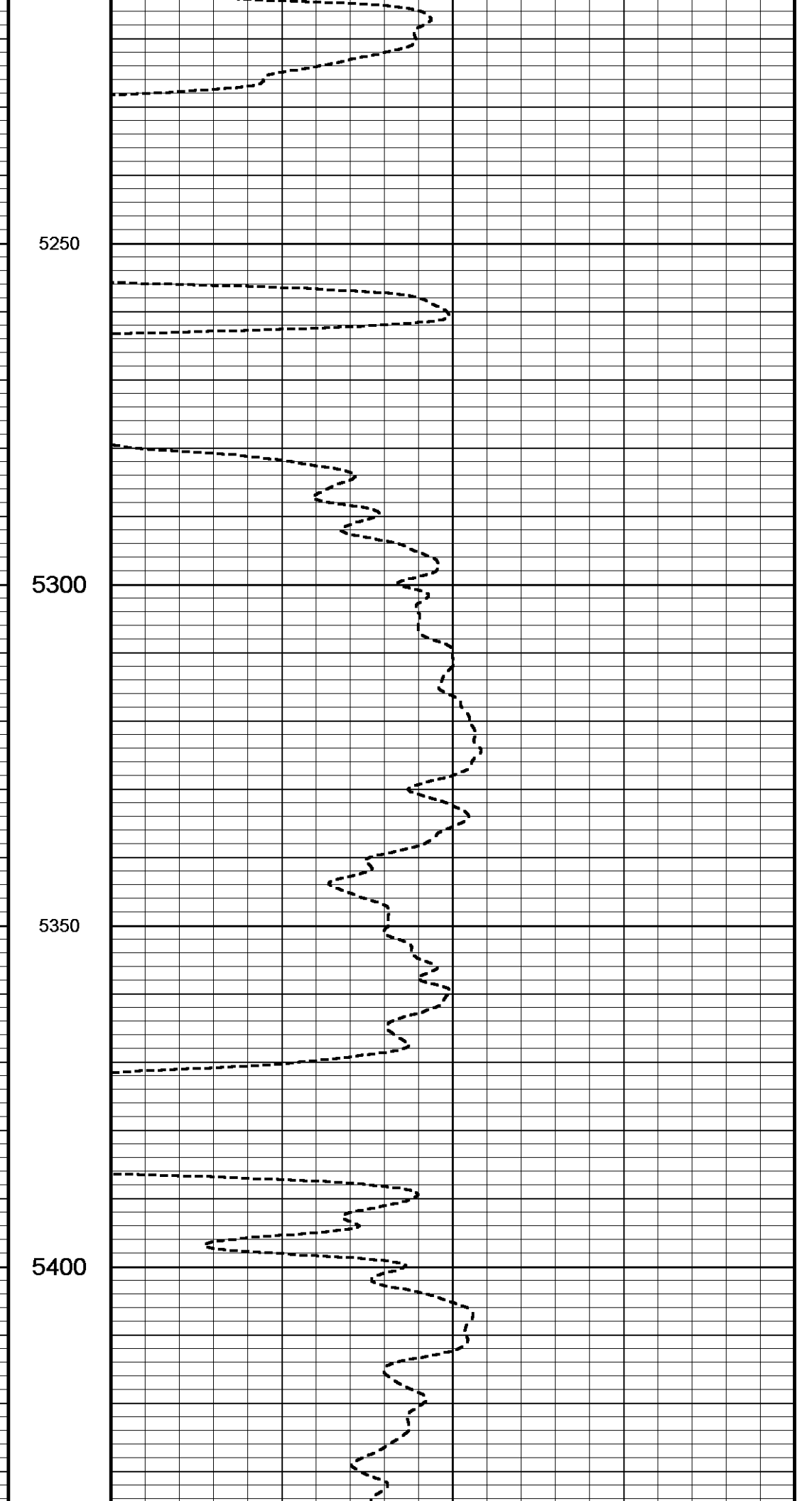
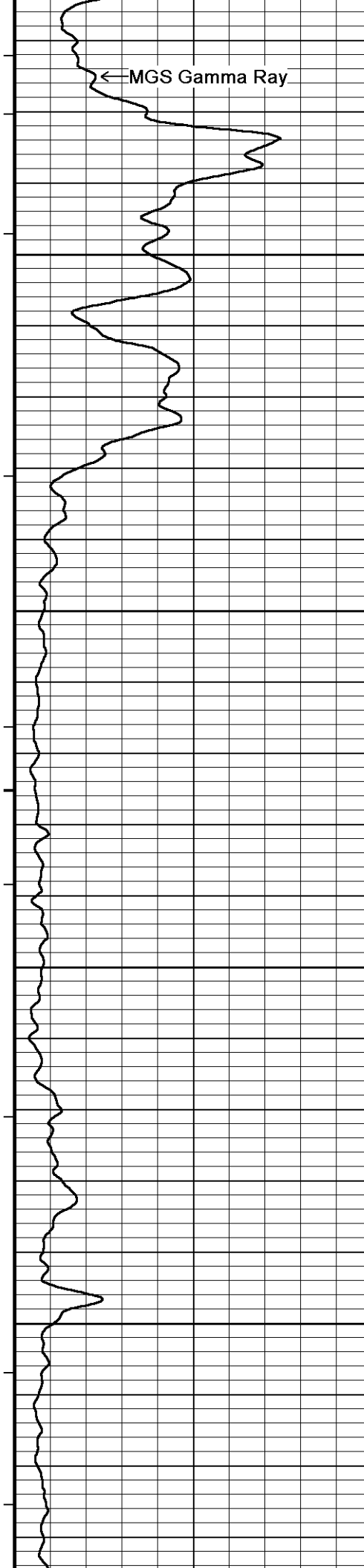
5050

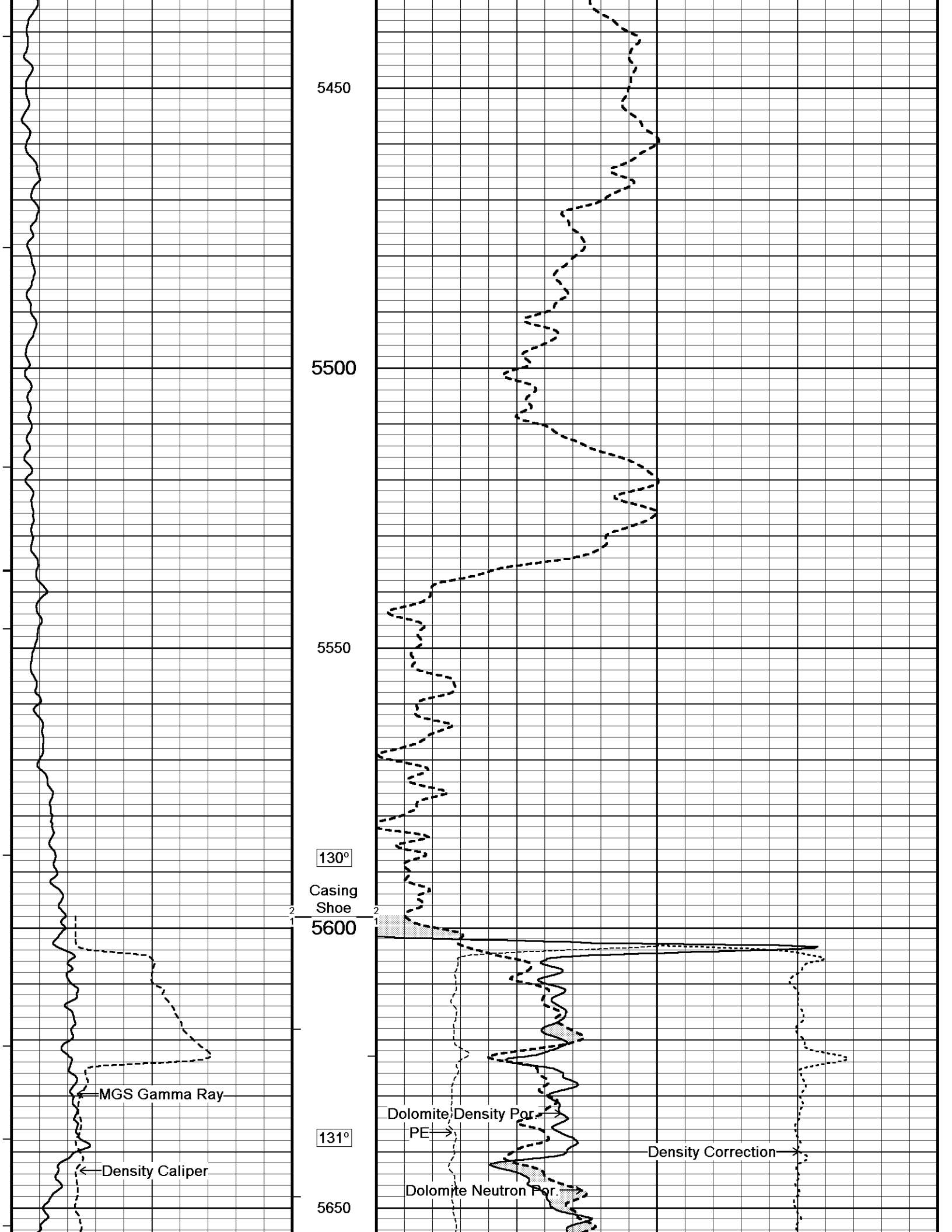
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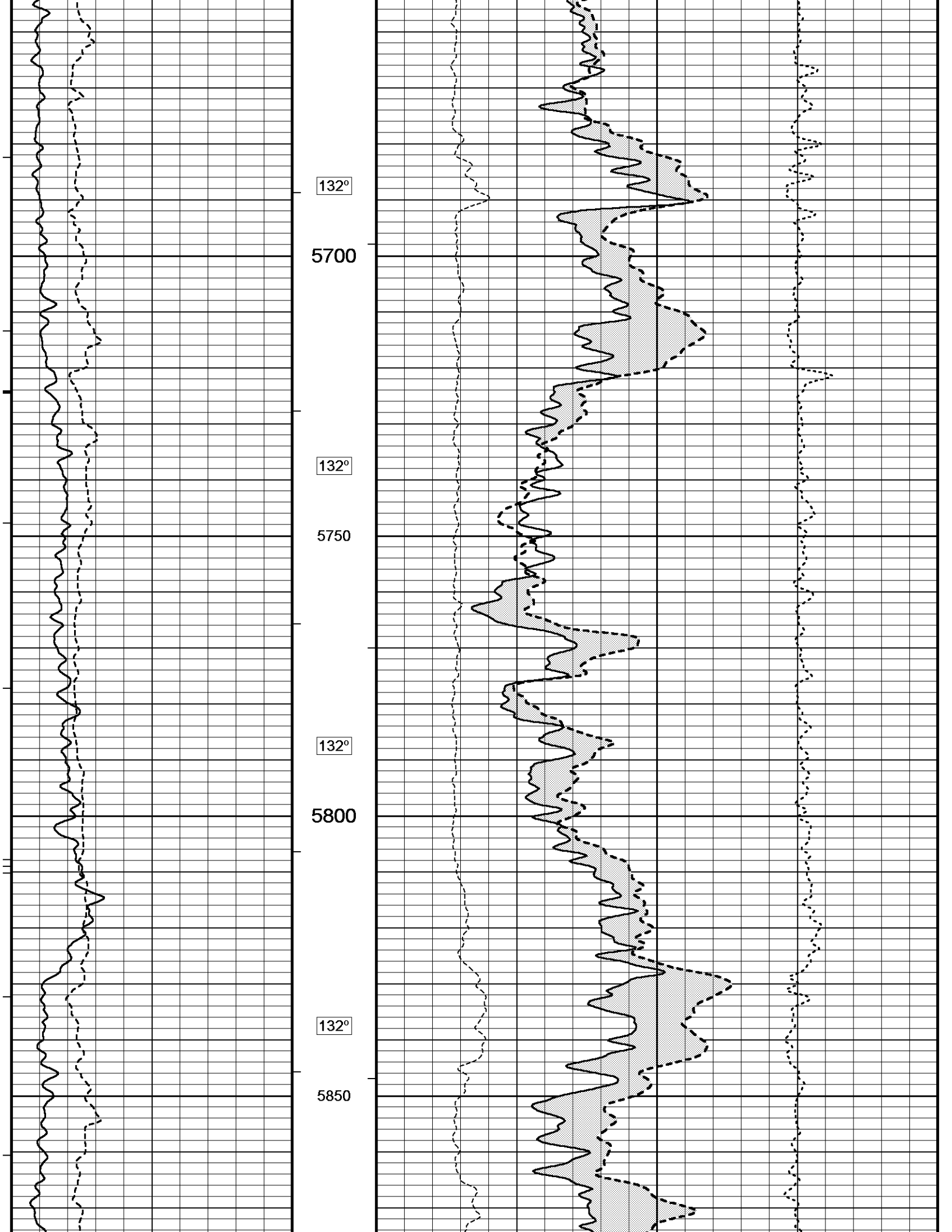
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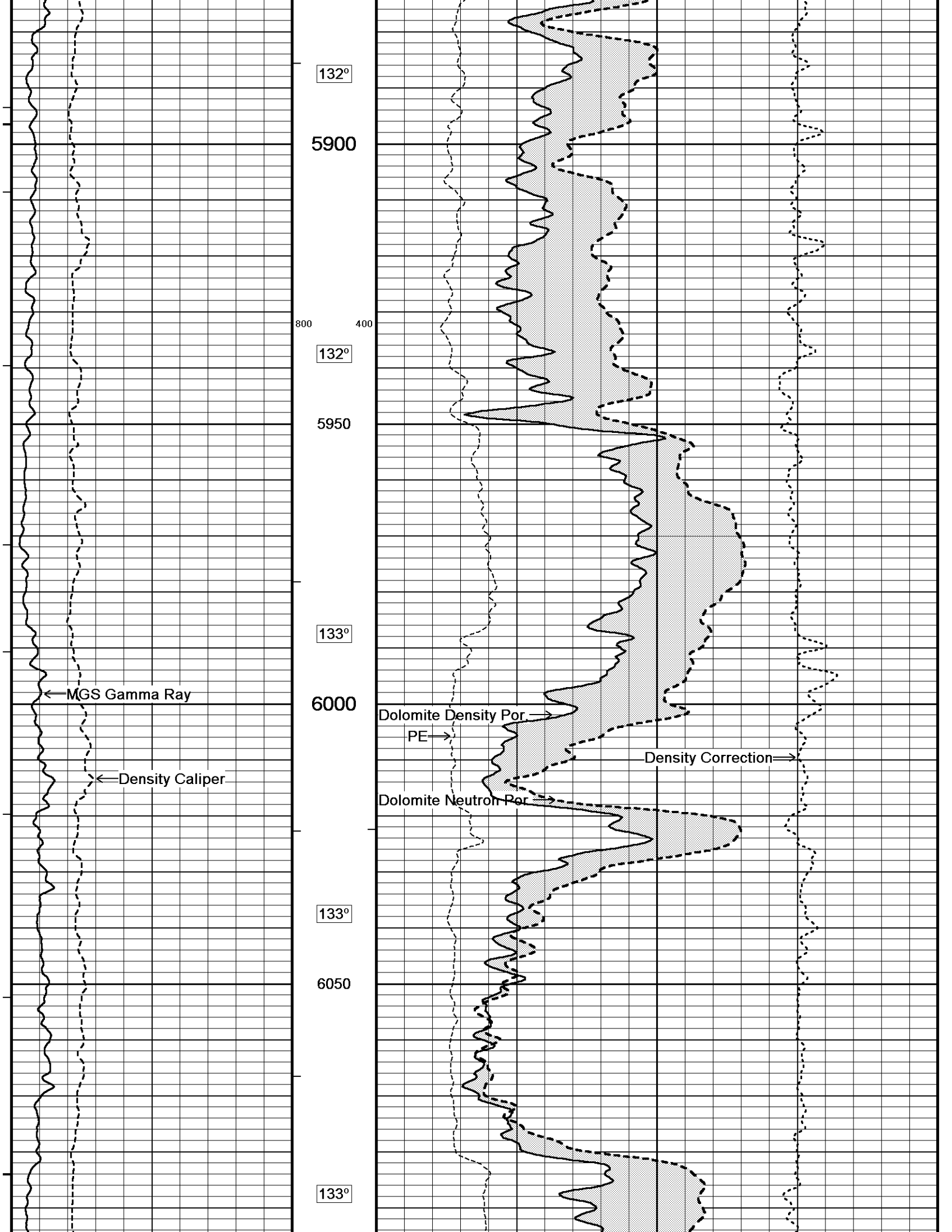
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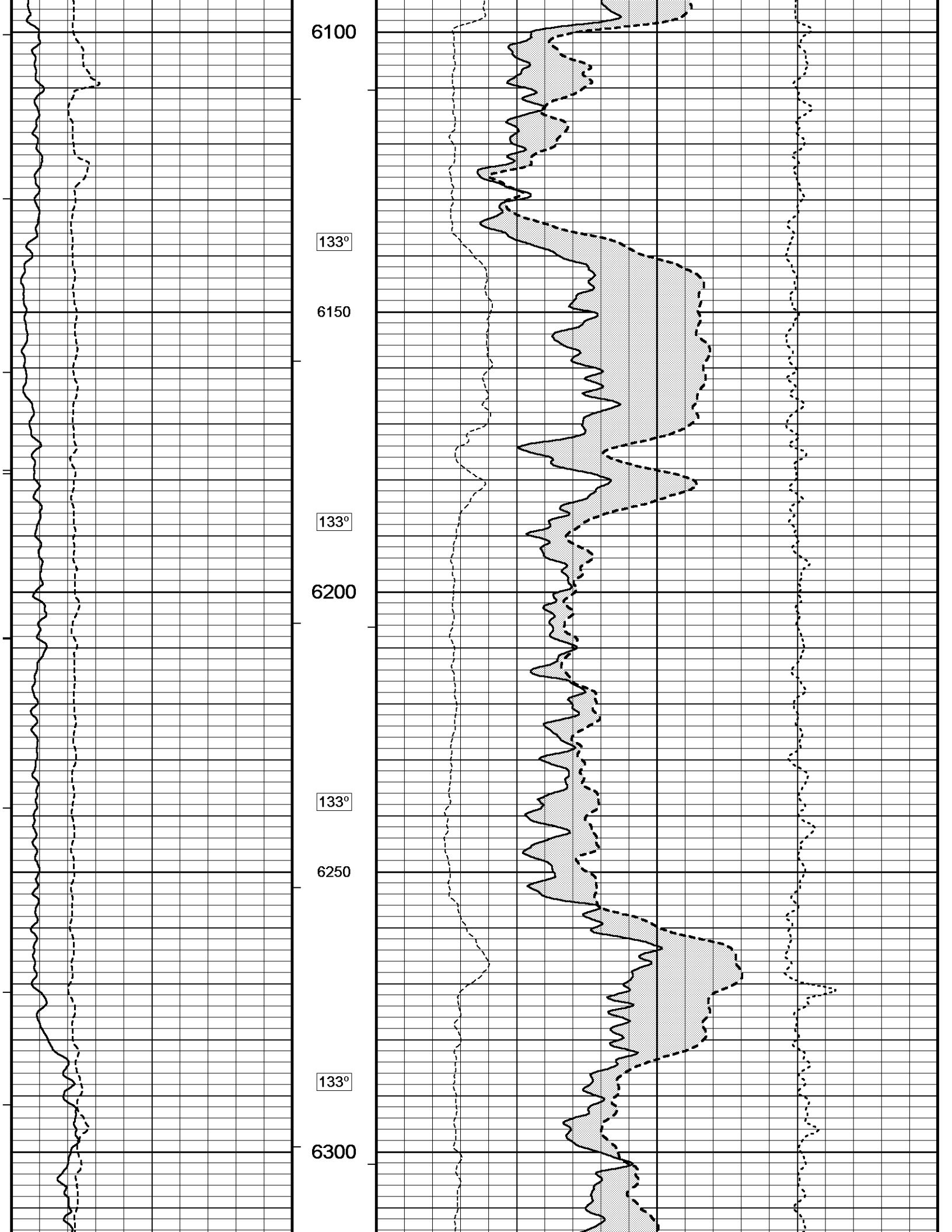


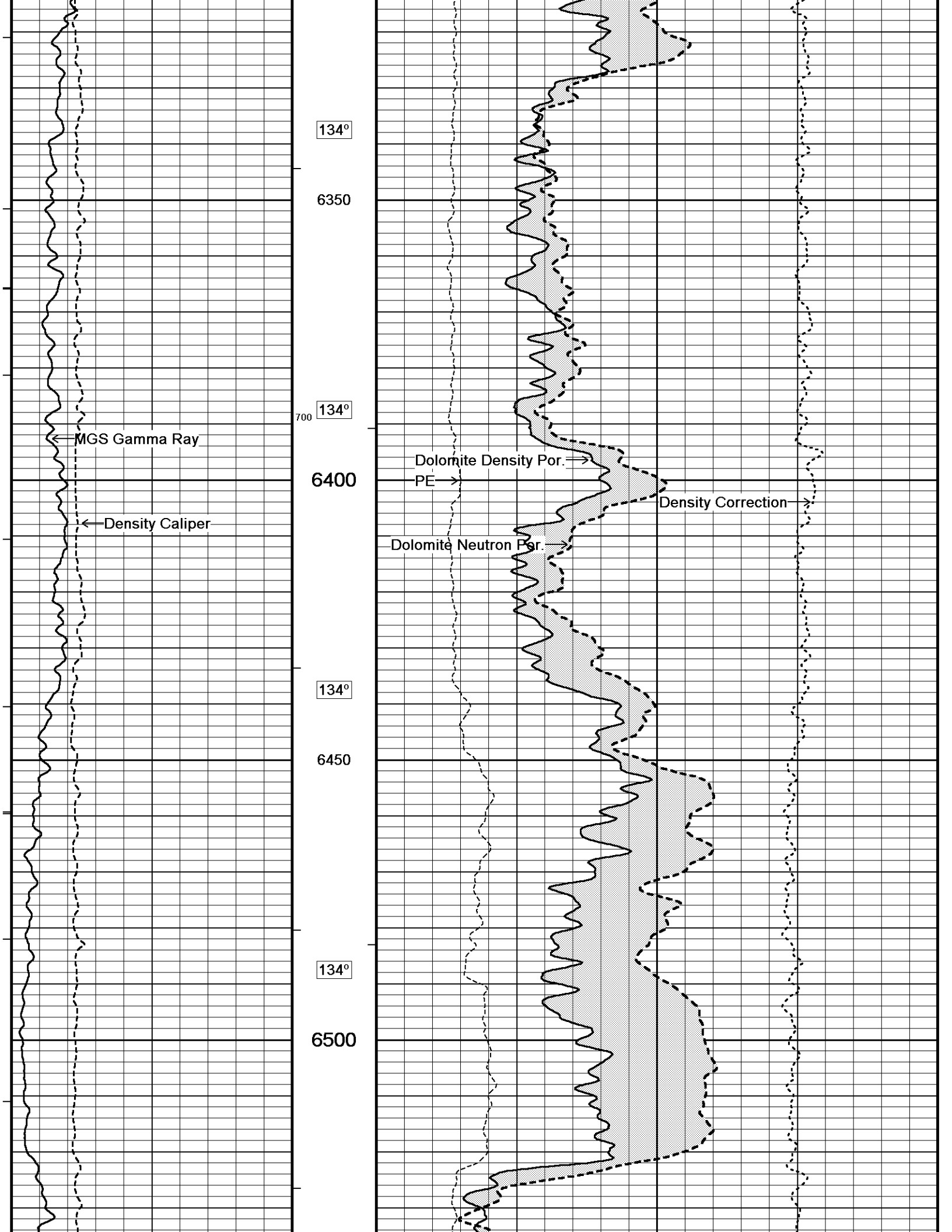


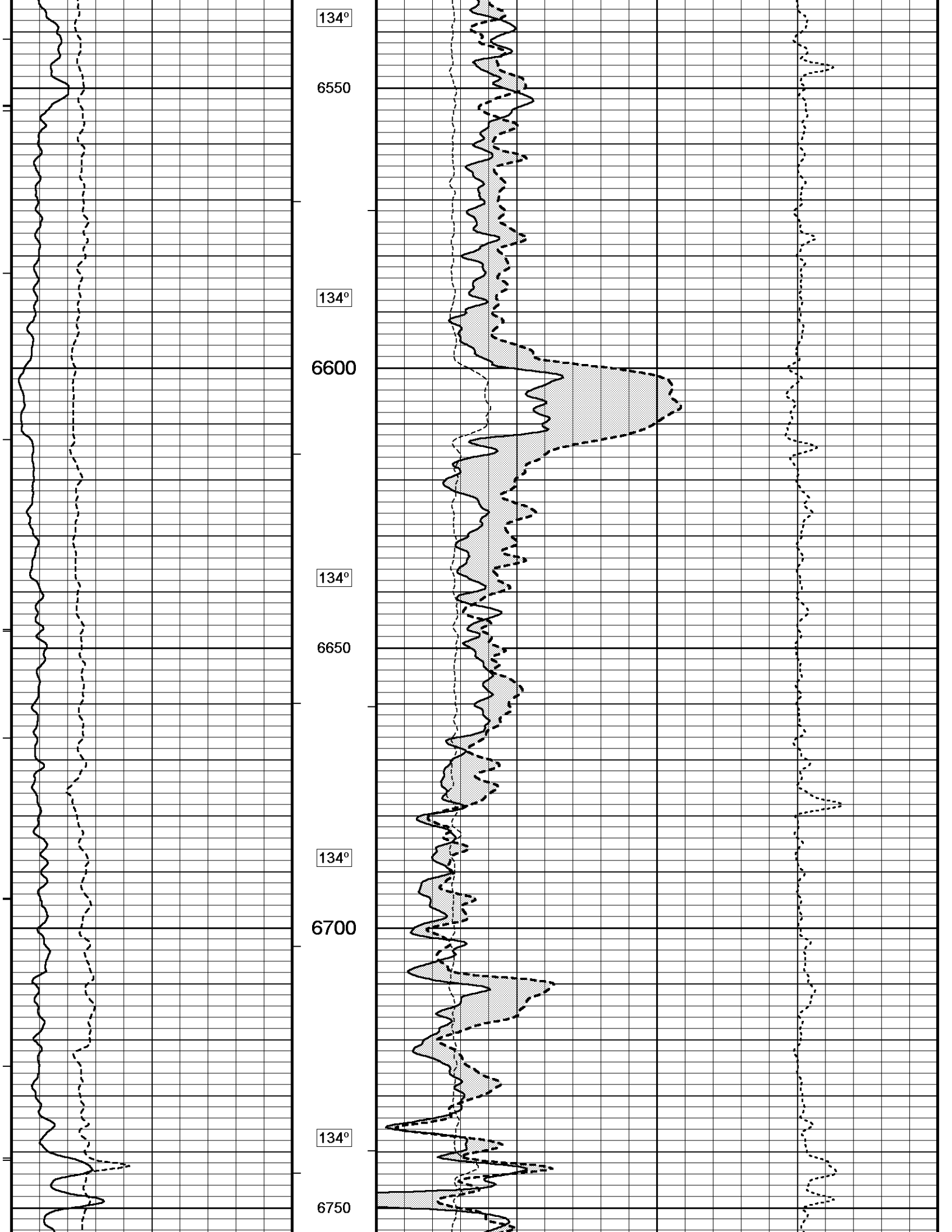


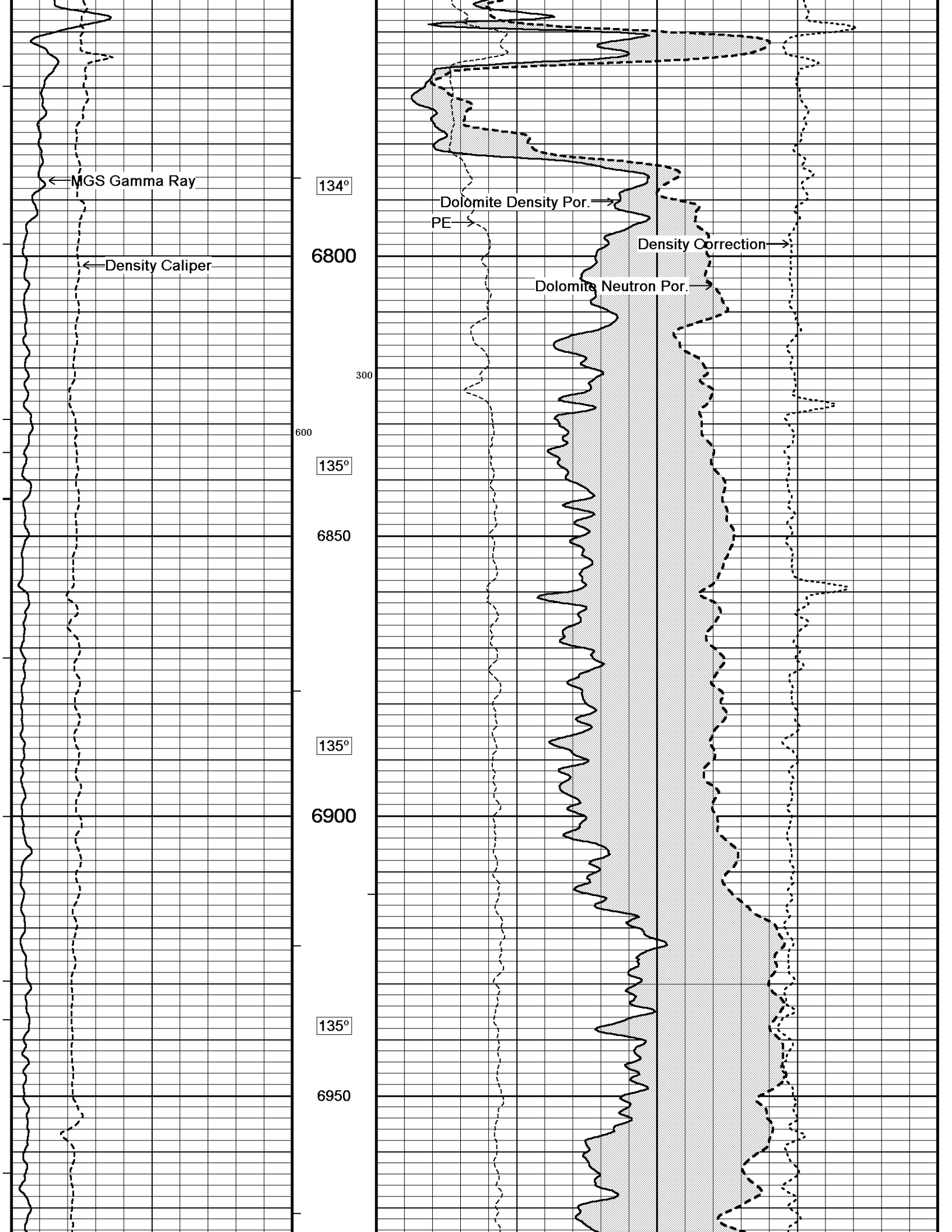


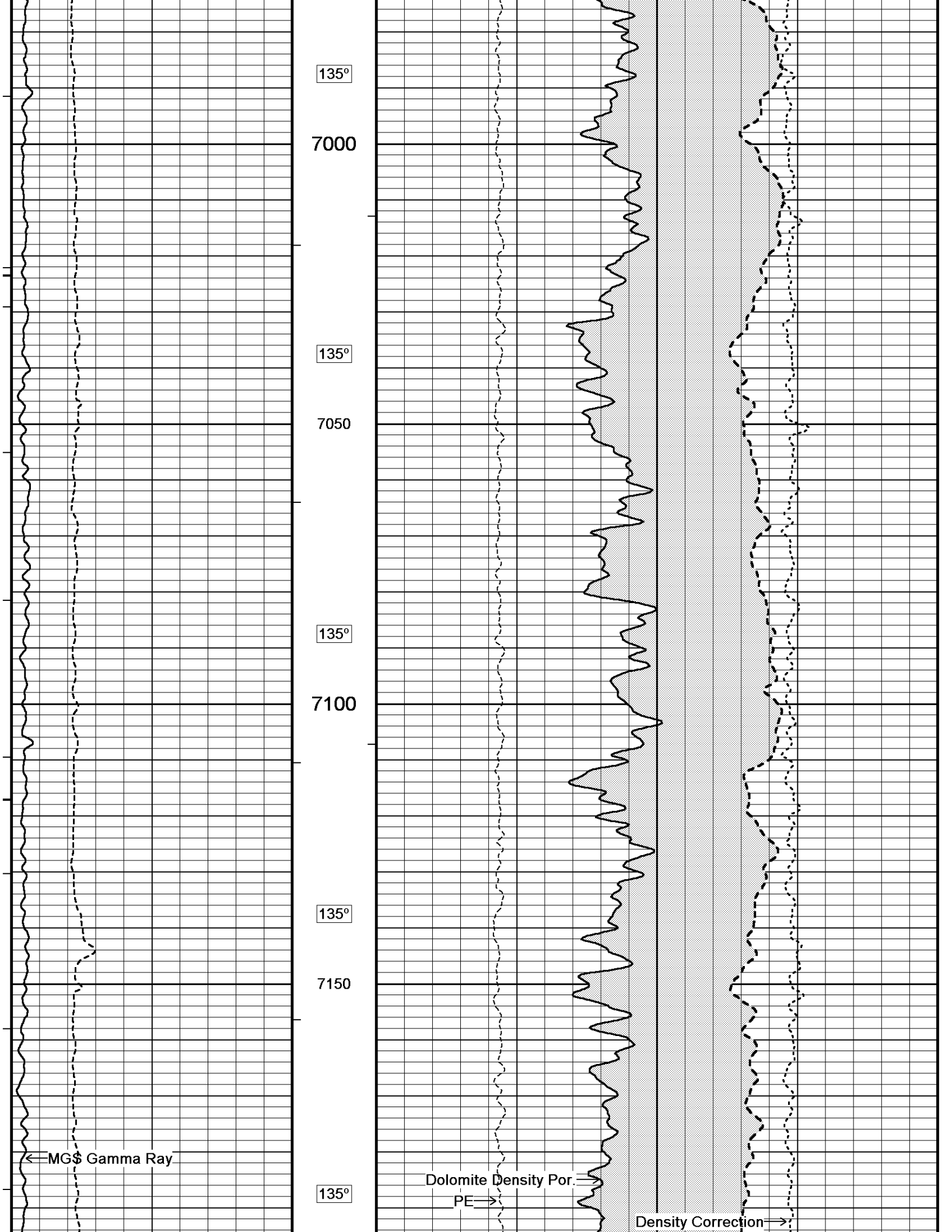


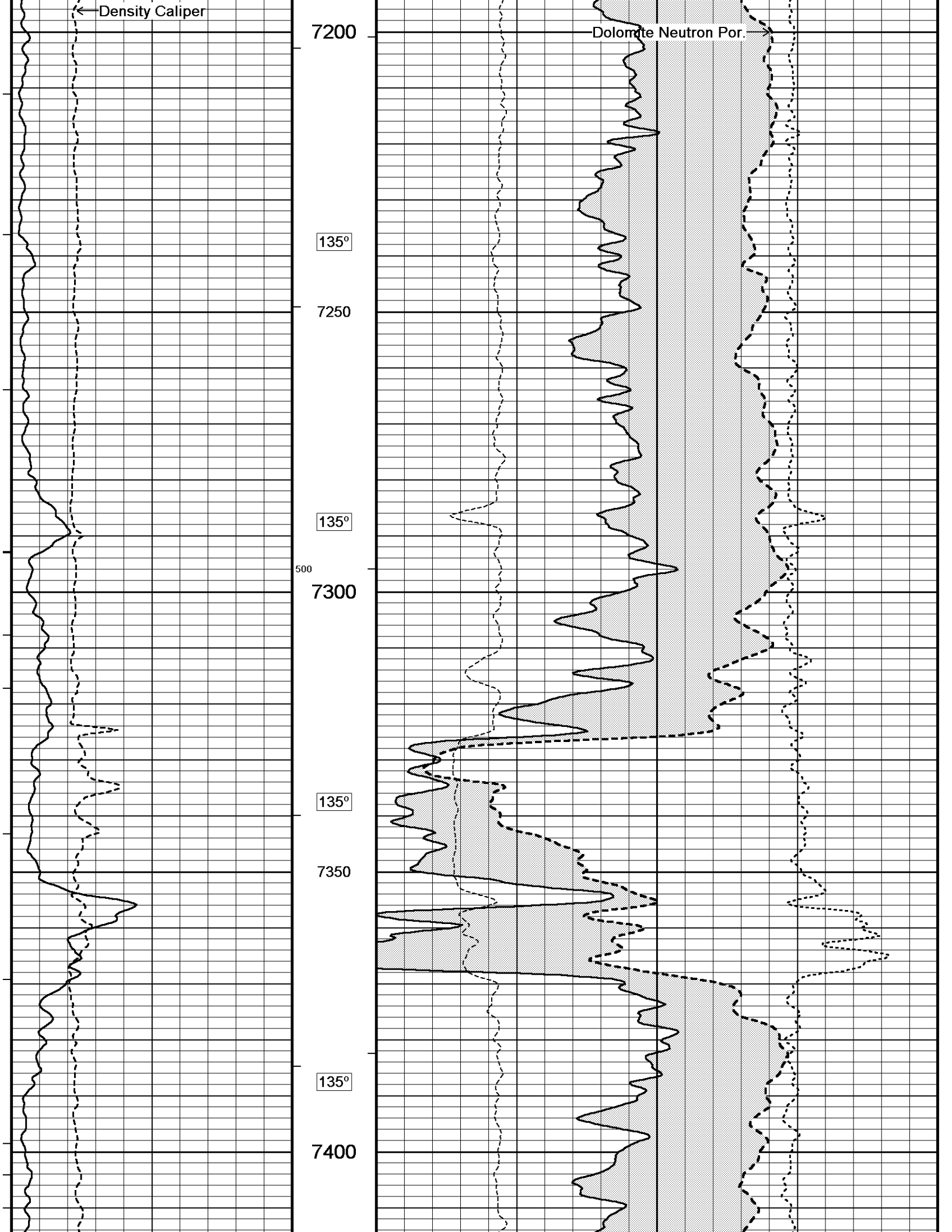












Density Caliper

Dolomite Neutron Por.

7200

135°

7250

135°

500

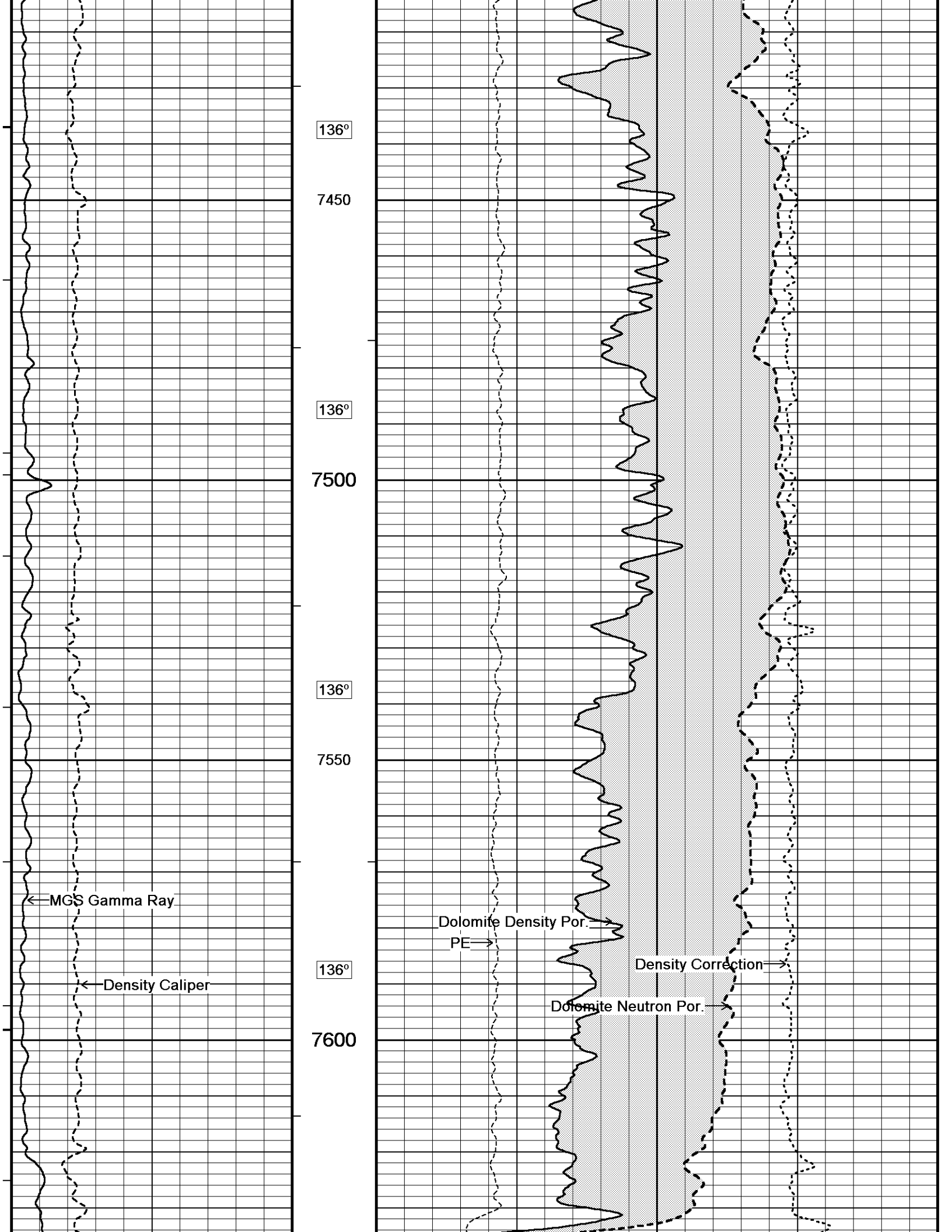
7300

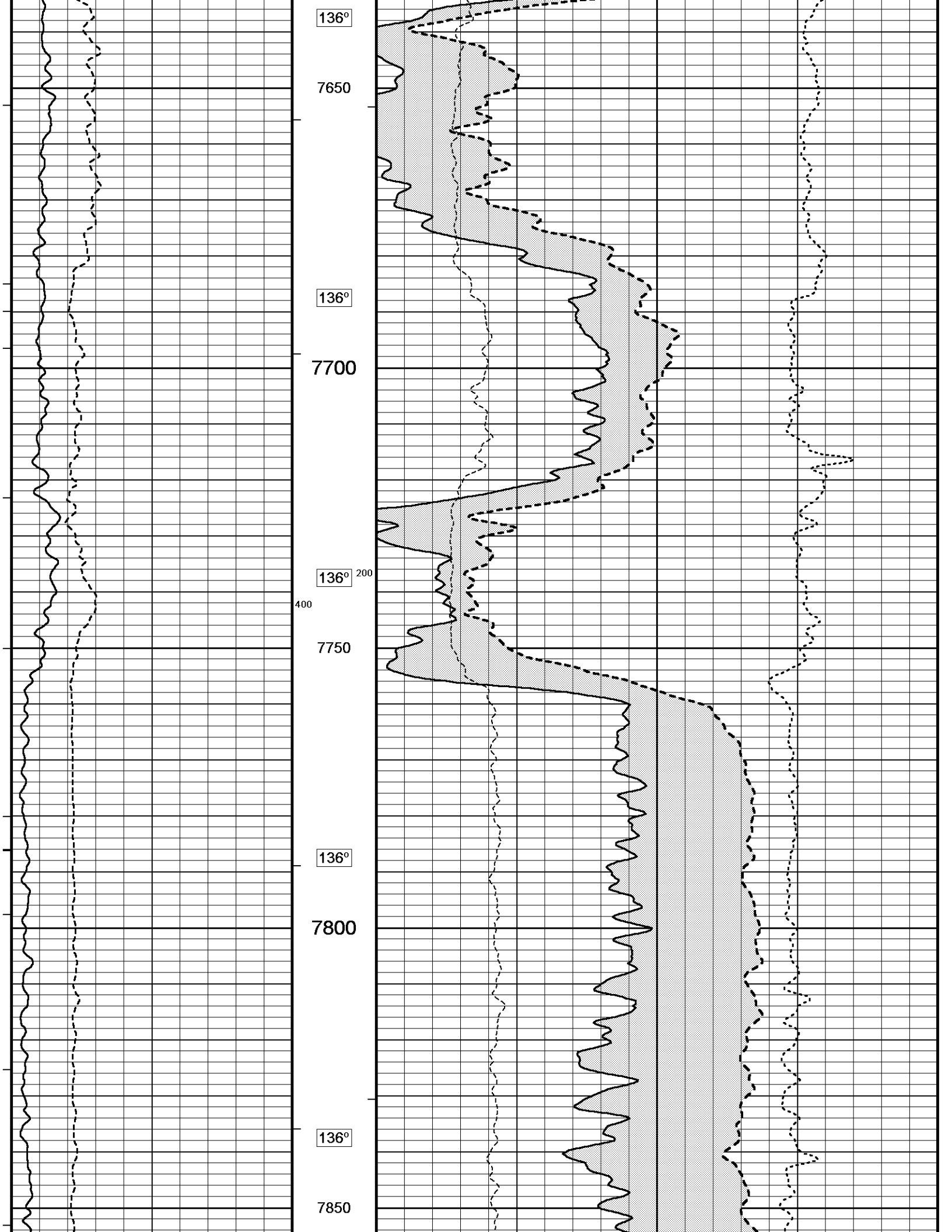
135°

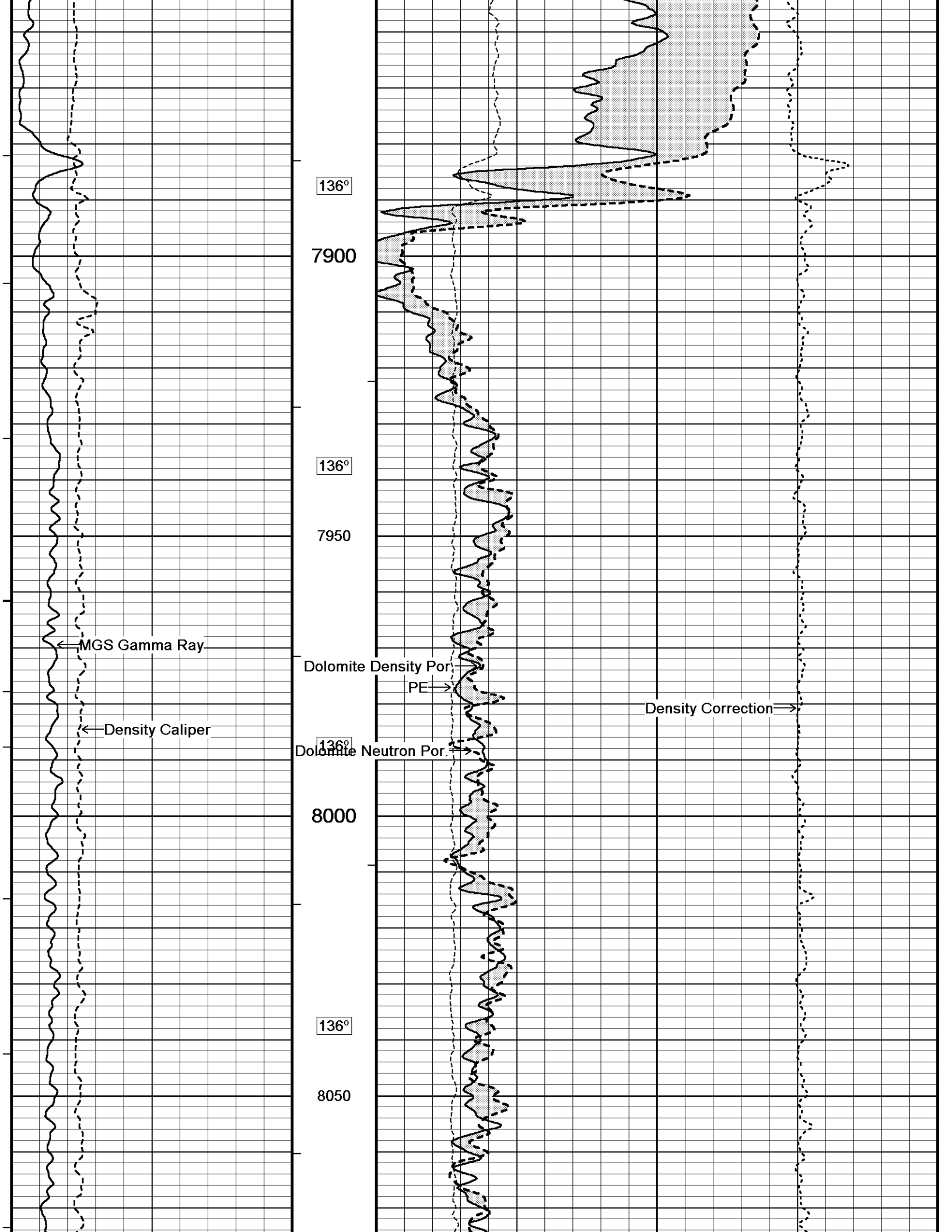
7350

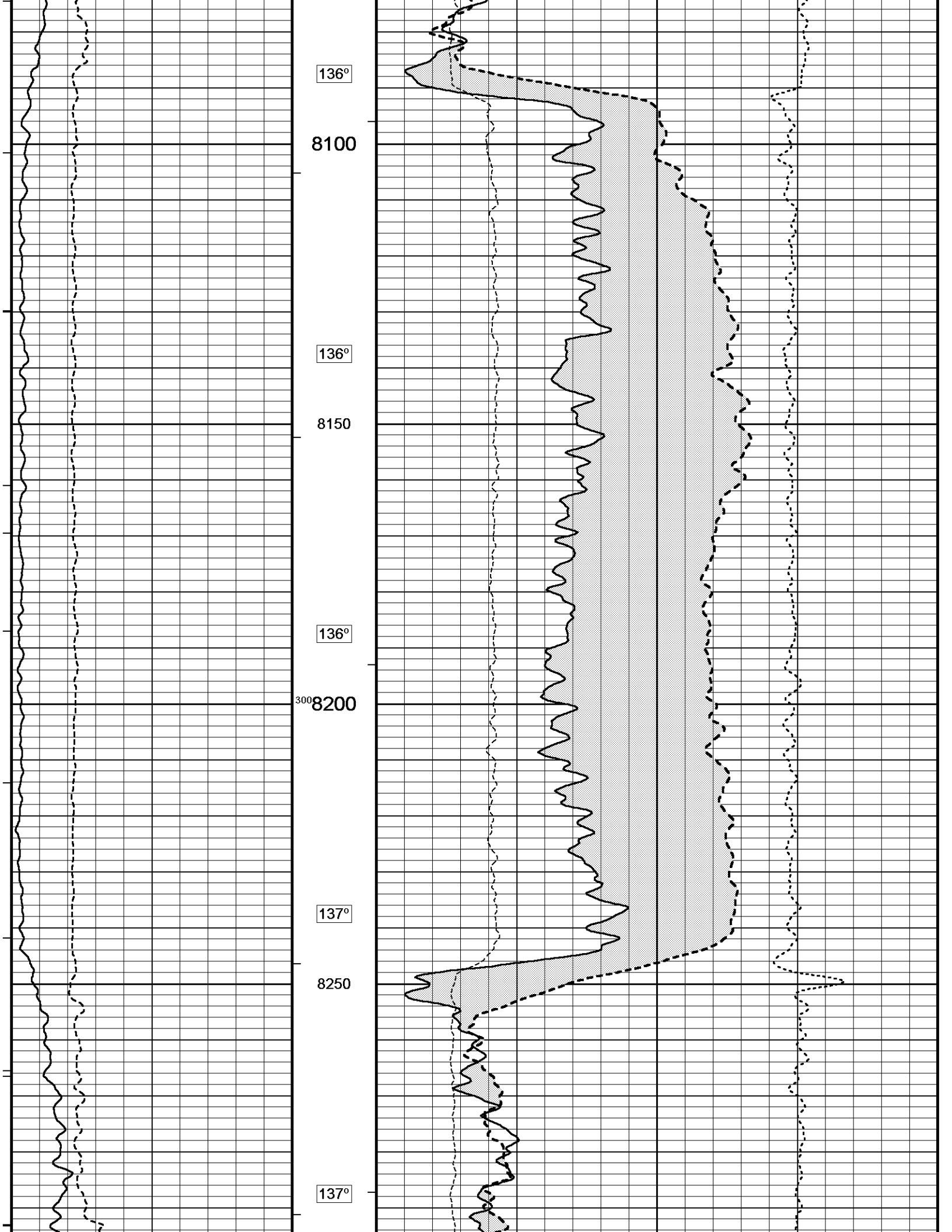
135°

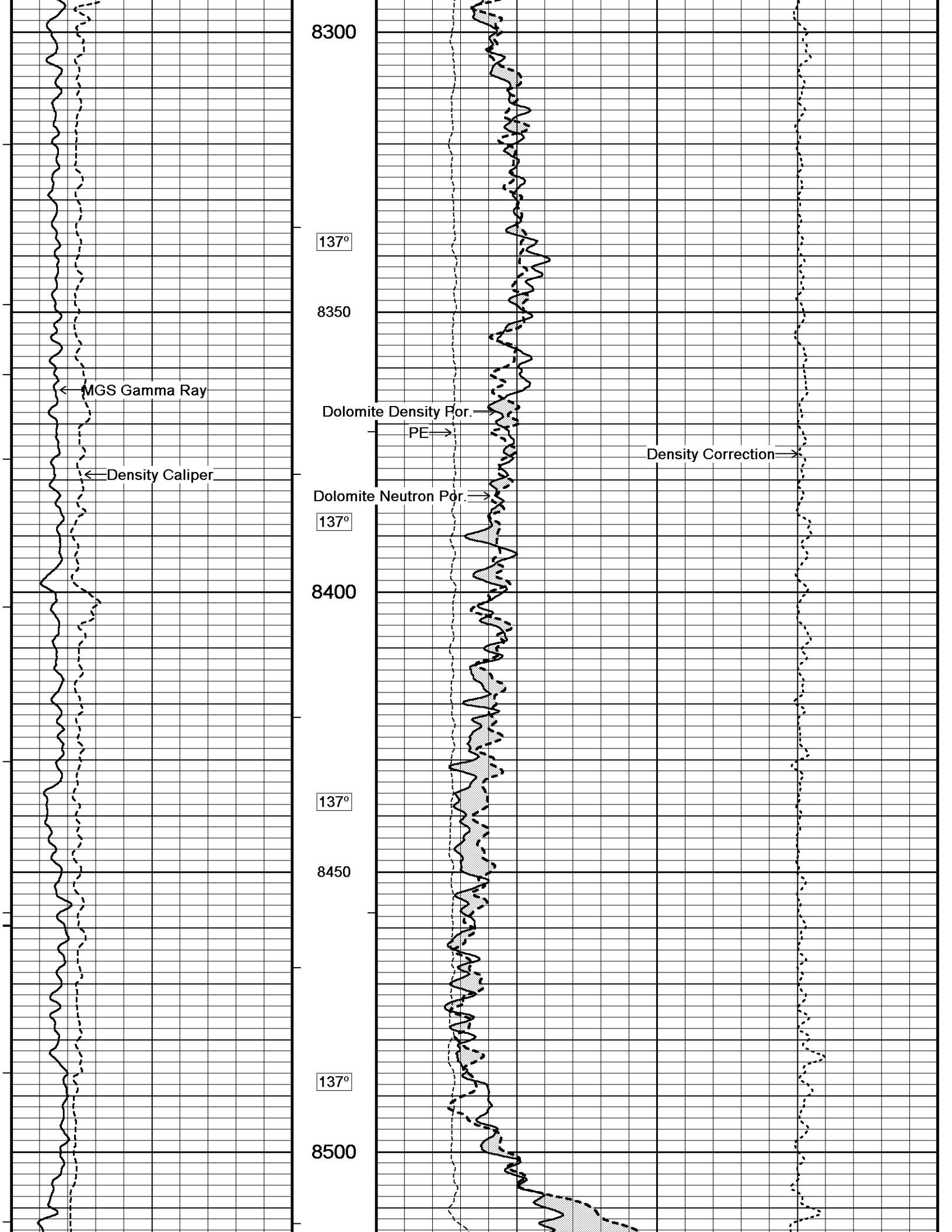
7400

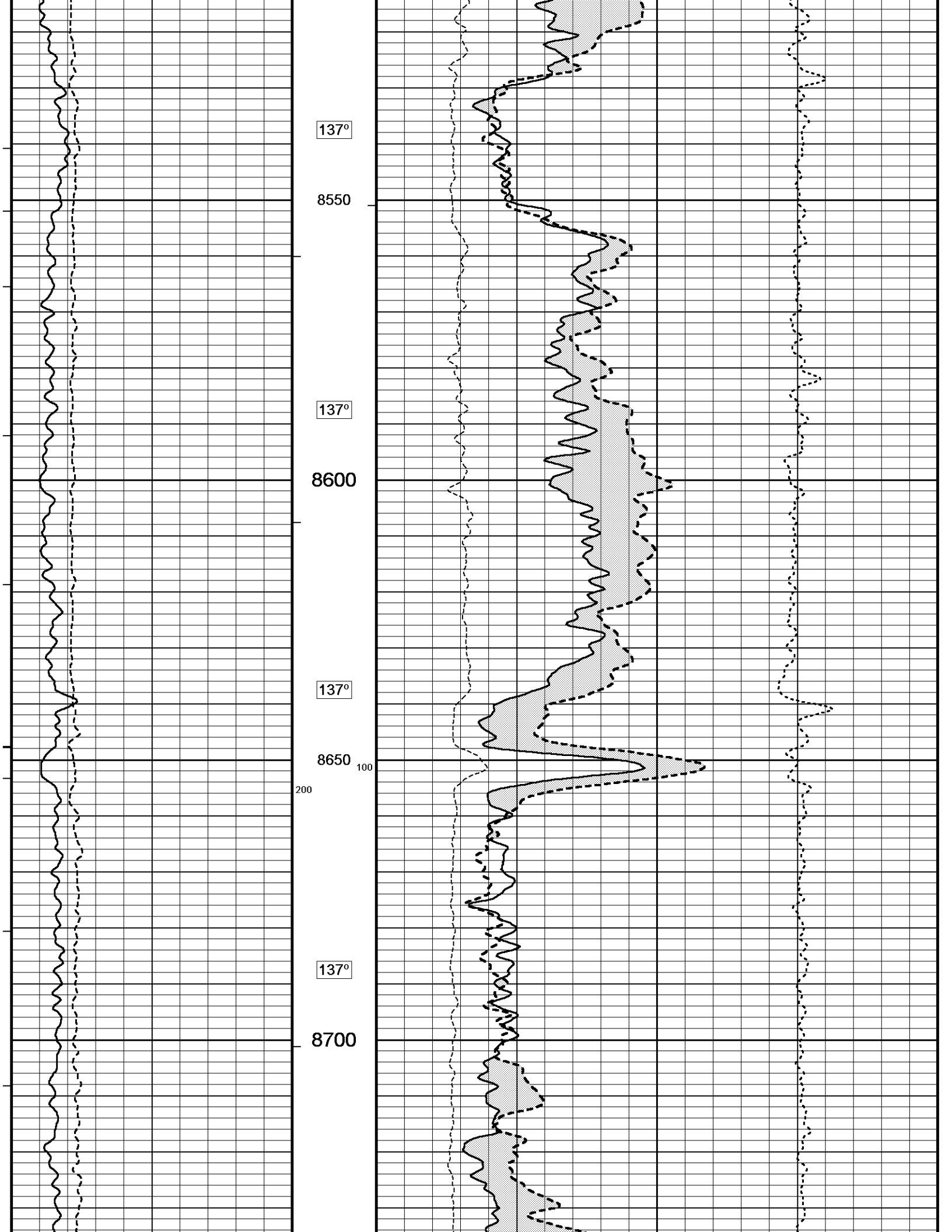


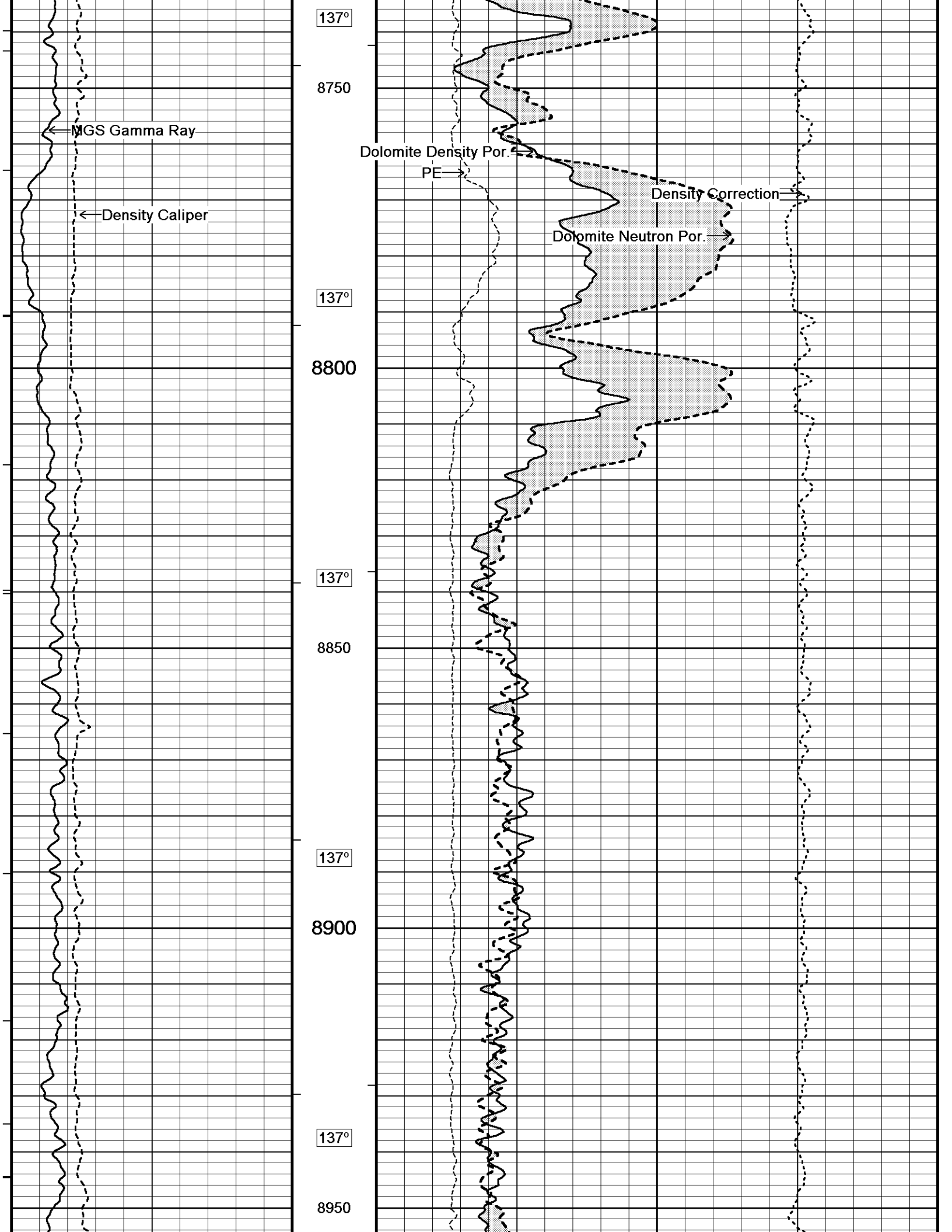


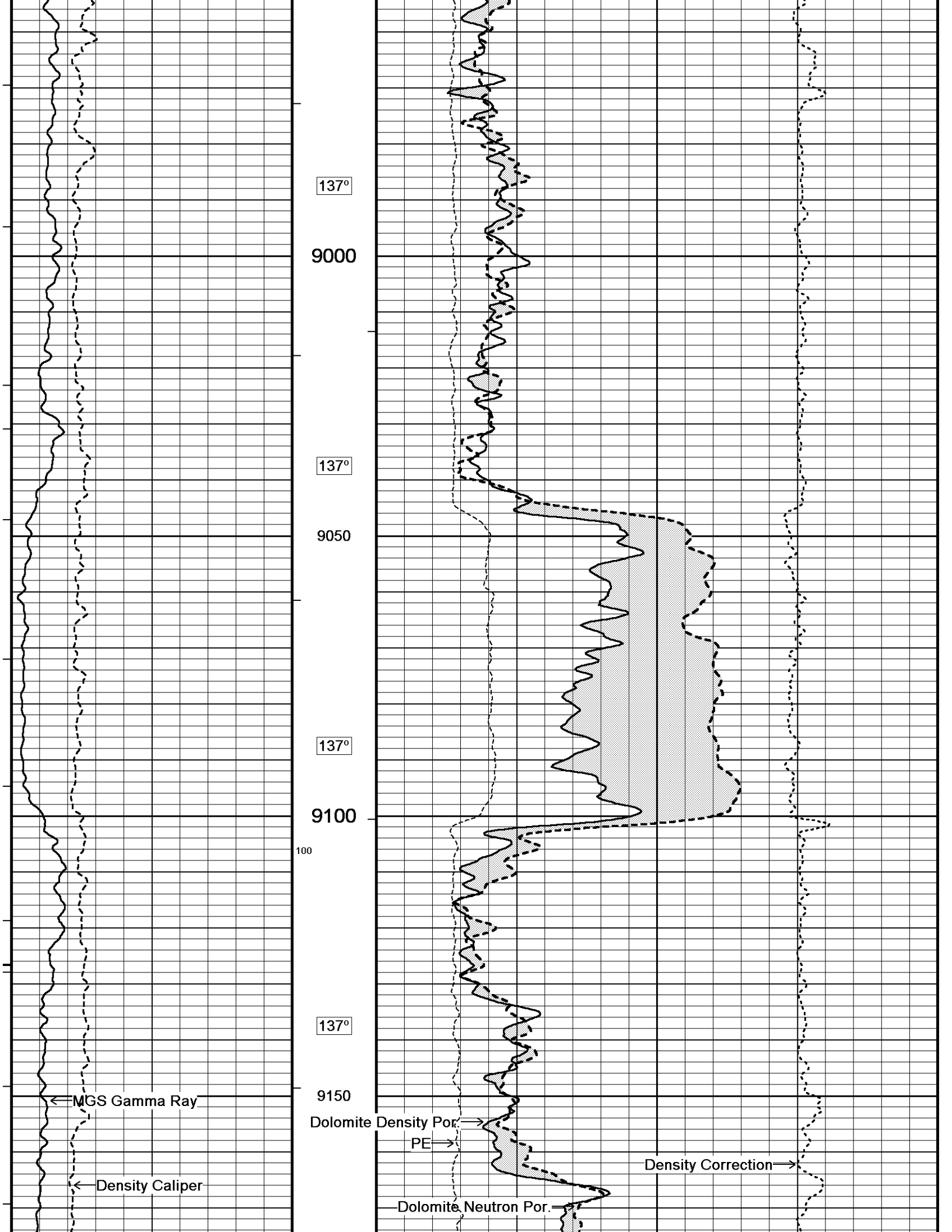


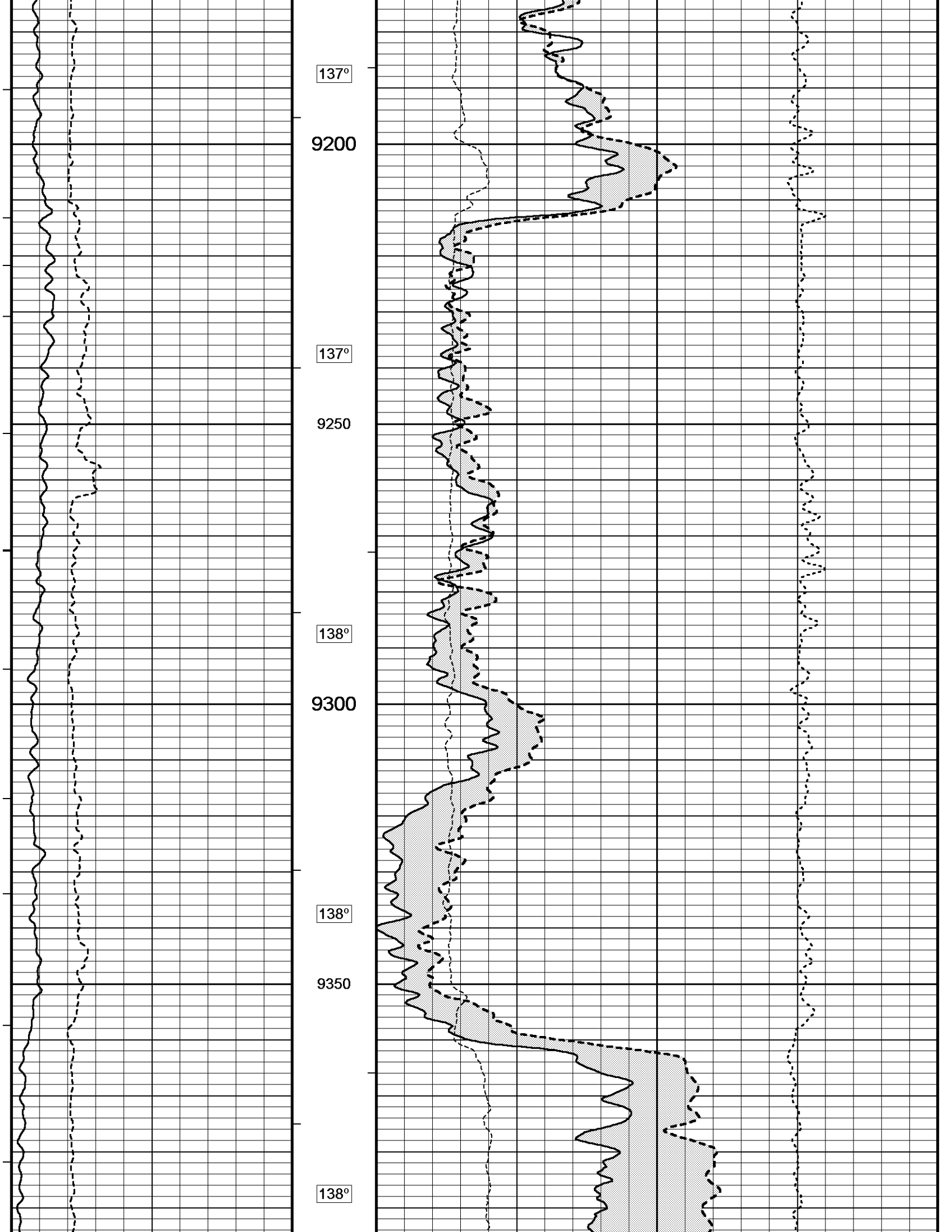


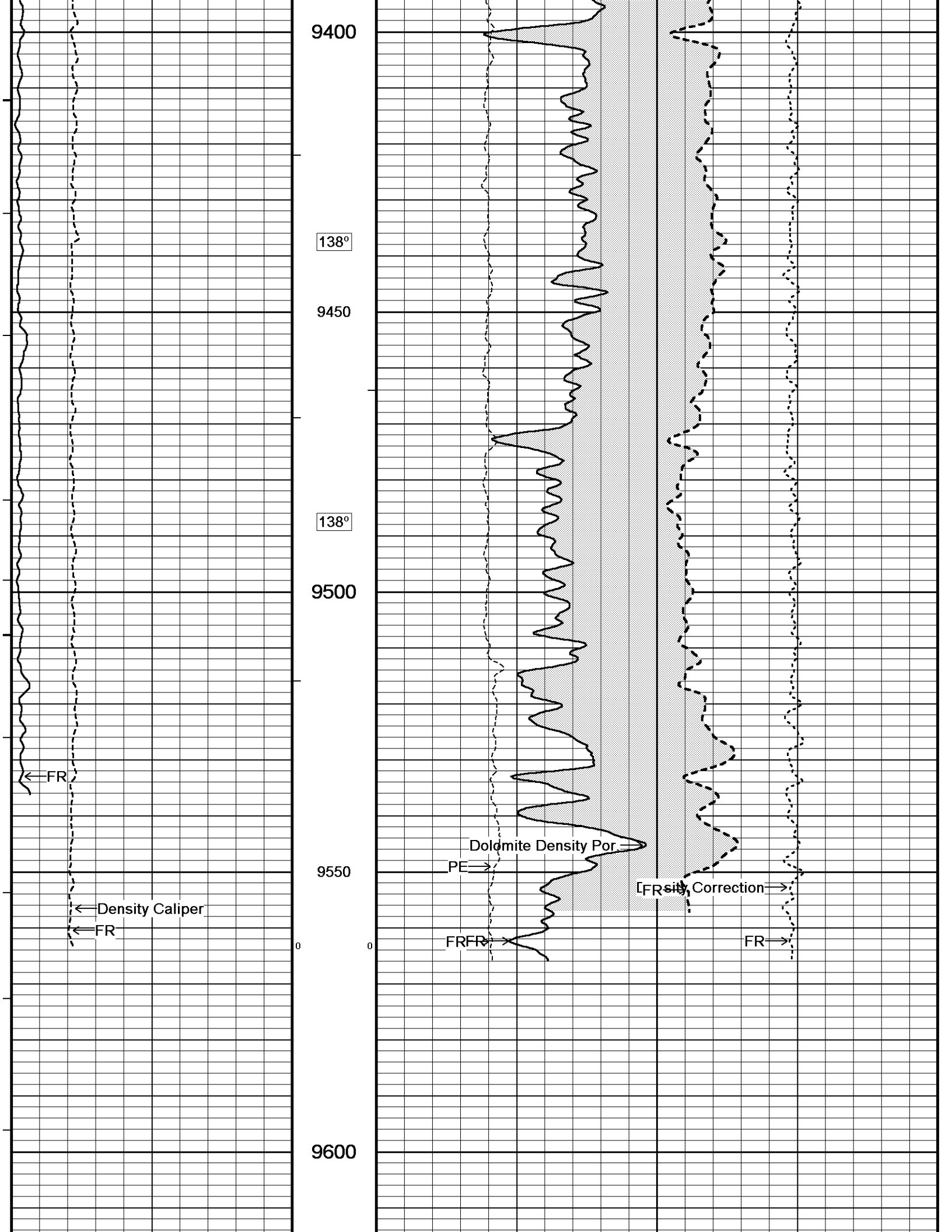


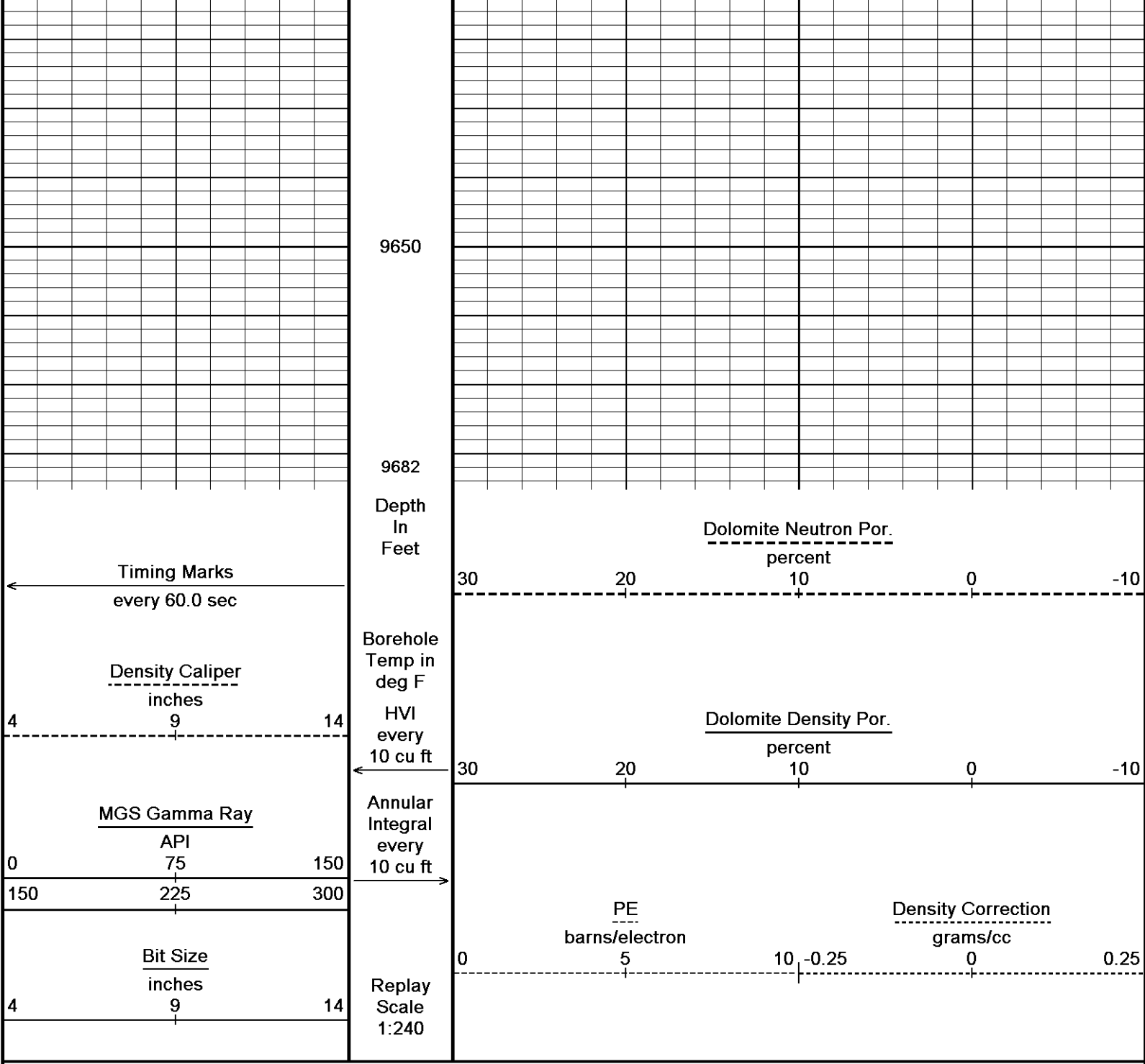










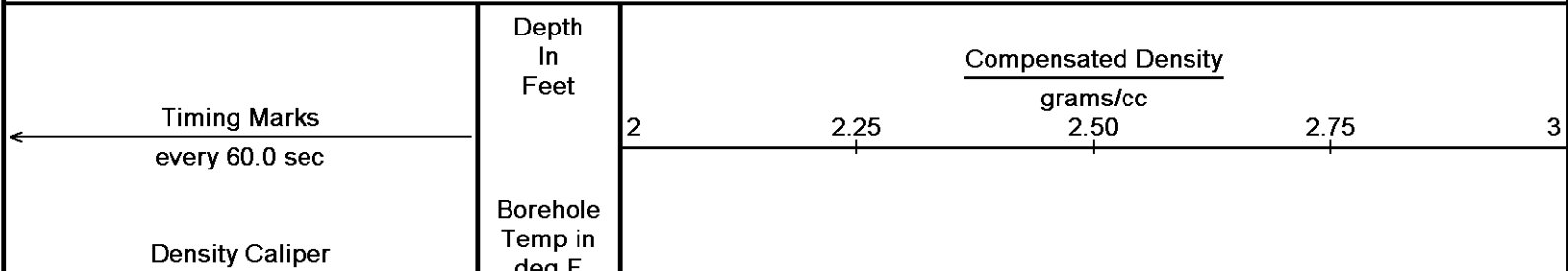


5 INCH MAIN LOG

5 INCH BULK DENSITY LOG

Depth Based Data - Maximum Sampling Increment 10.0cm
 Filename: C:\Minimus 12.02.4401\Data\New Folder\mms 158 rtap.dta
 System Versions: Processed with 12.02.4401 Plotted with 12.02.4401

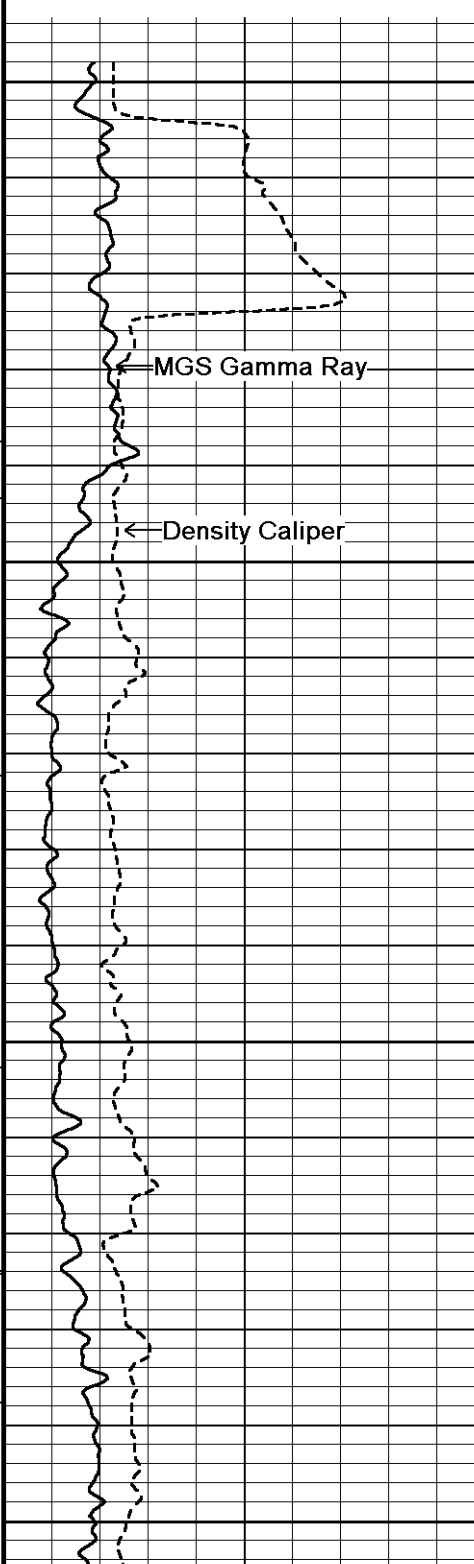
Plotted on 23-MAR-2012 09:16
 Recorded on 23-MAR-2012 02:08



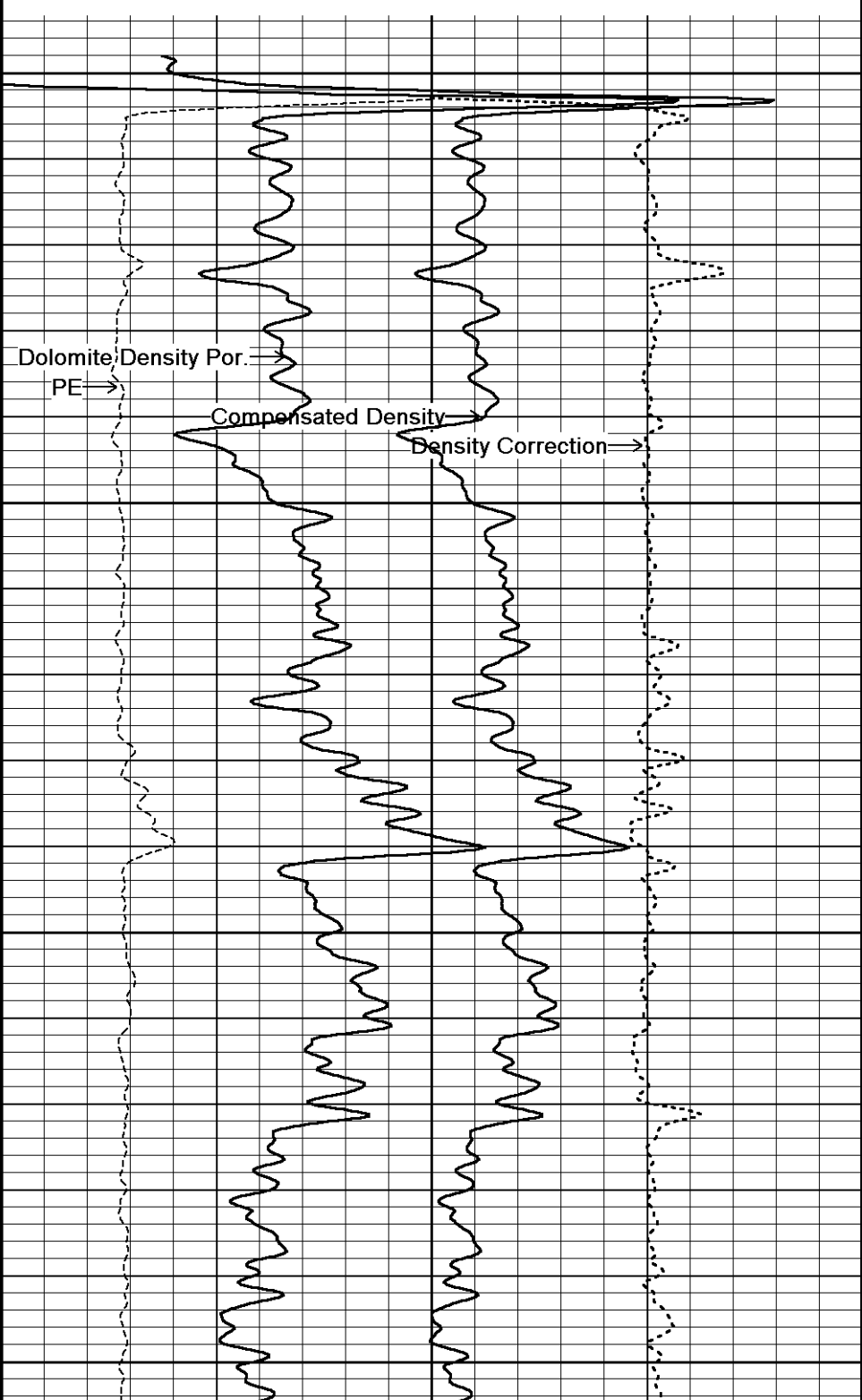
inches
 4 9 14
 MGS Gamma Ray
 API
 0 75 150
 150 225 300
 Bit Size
 inches
 4 9 14

HVI
 every
 10 cu ft
 Annular
 Integral
 every
 10 cu ft
 Replay
 Scale
 1:240
 Shoe
 5600

Dolomite Density Por.
 percent
 30 20 10 0 -10
 PE
 barns/electron
 0 5 10
 Density Correction
 grams/cc
 -0.25 0 0.25

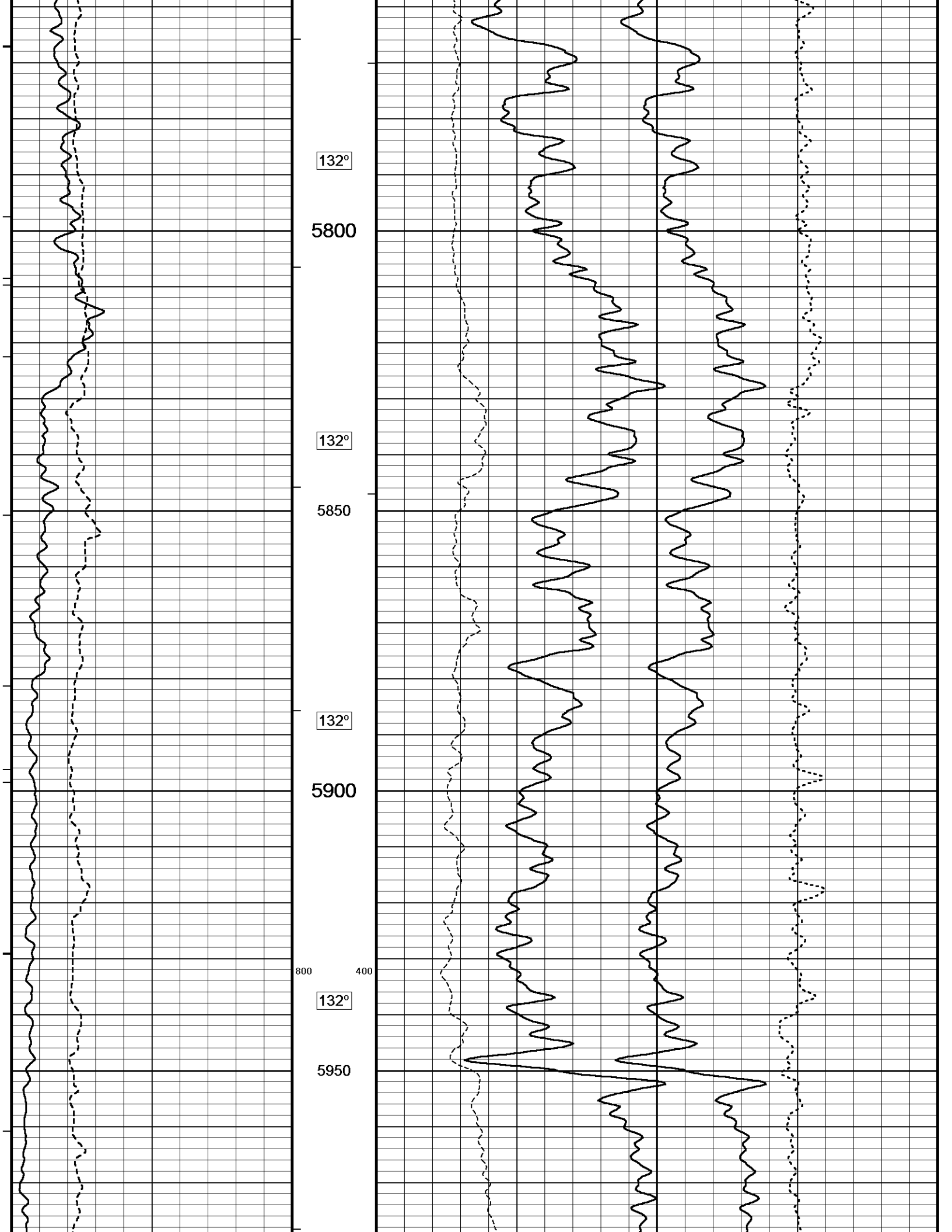


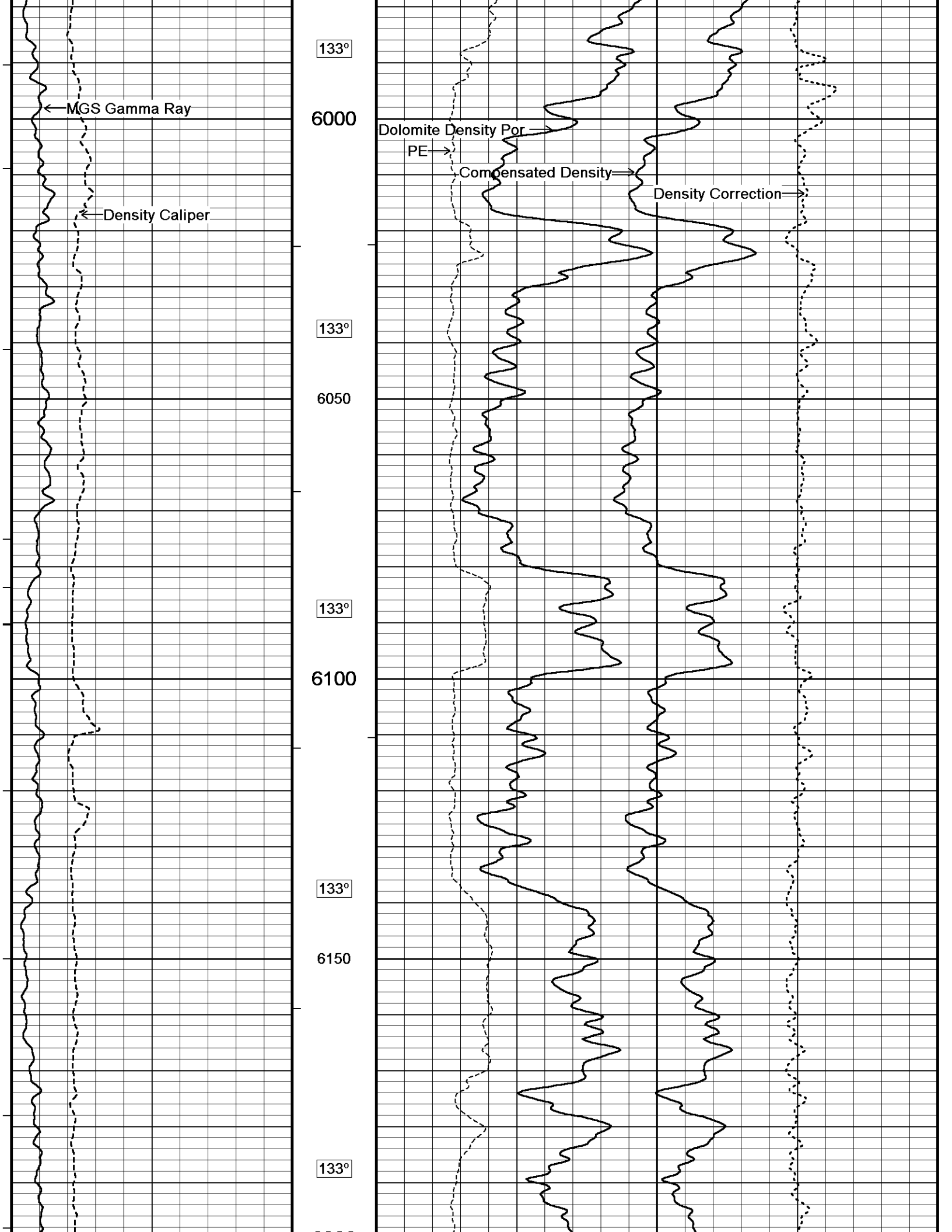
131°
 5650
 132°
 5700
 132°
 5750

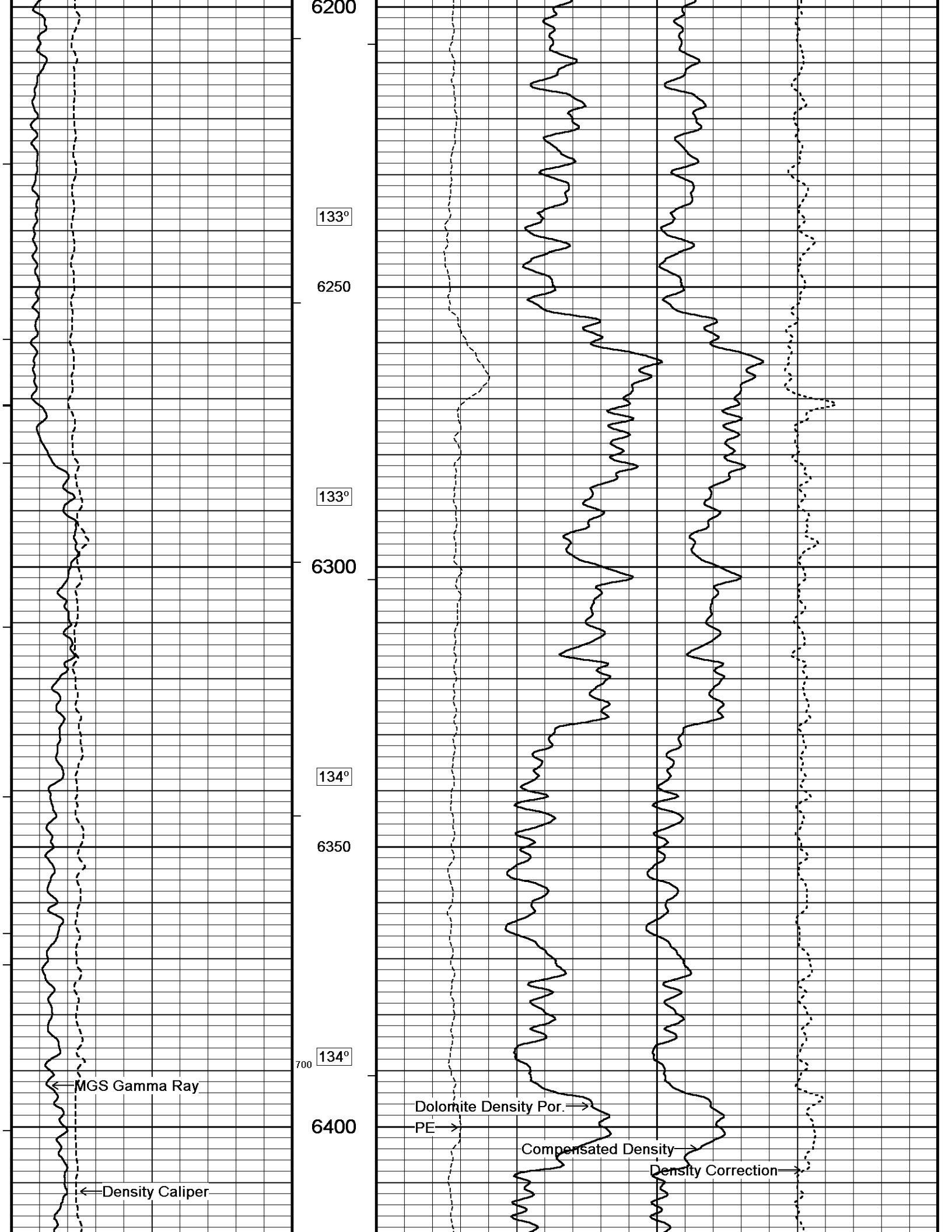


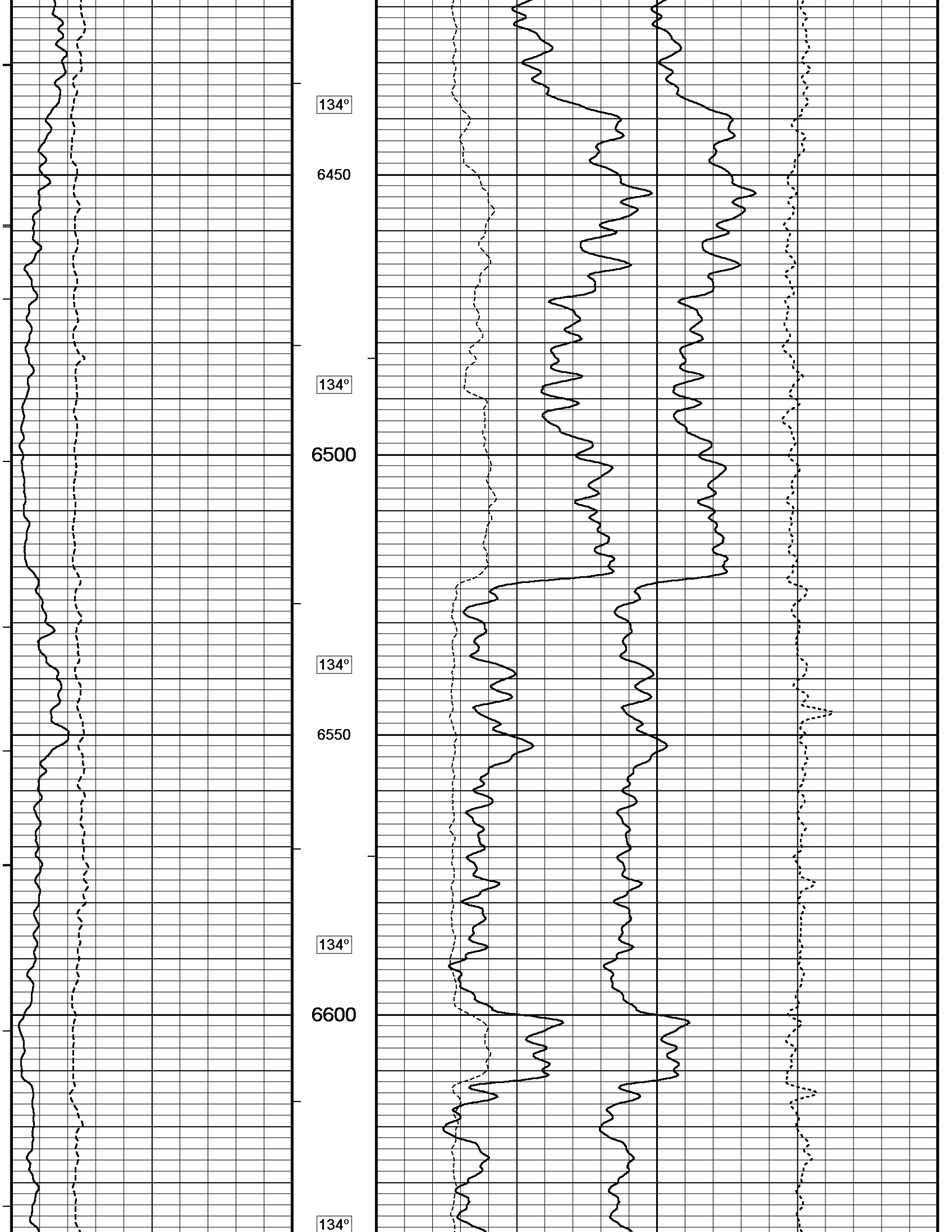
← MGS Gamma Ray
 ← Density Caliper

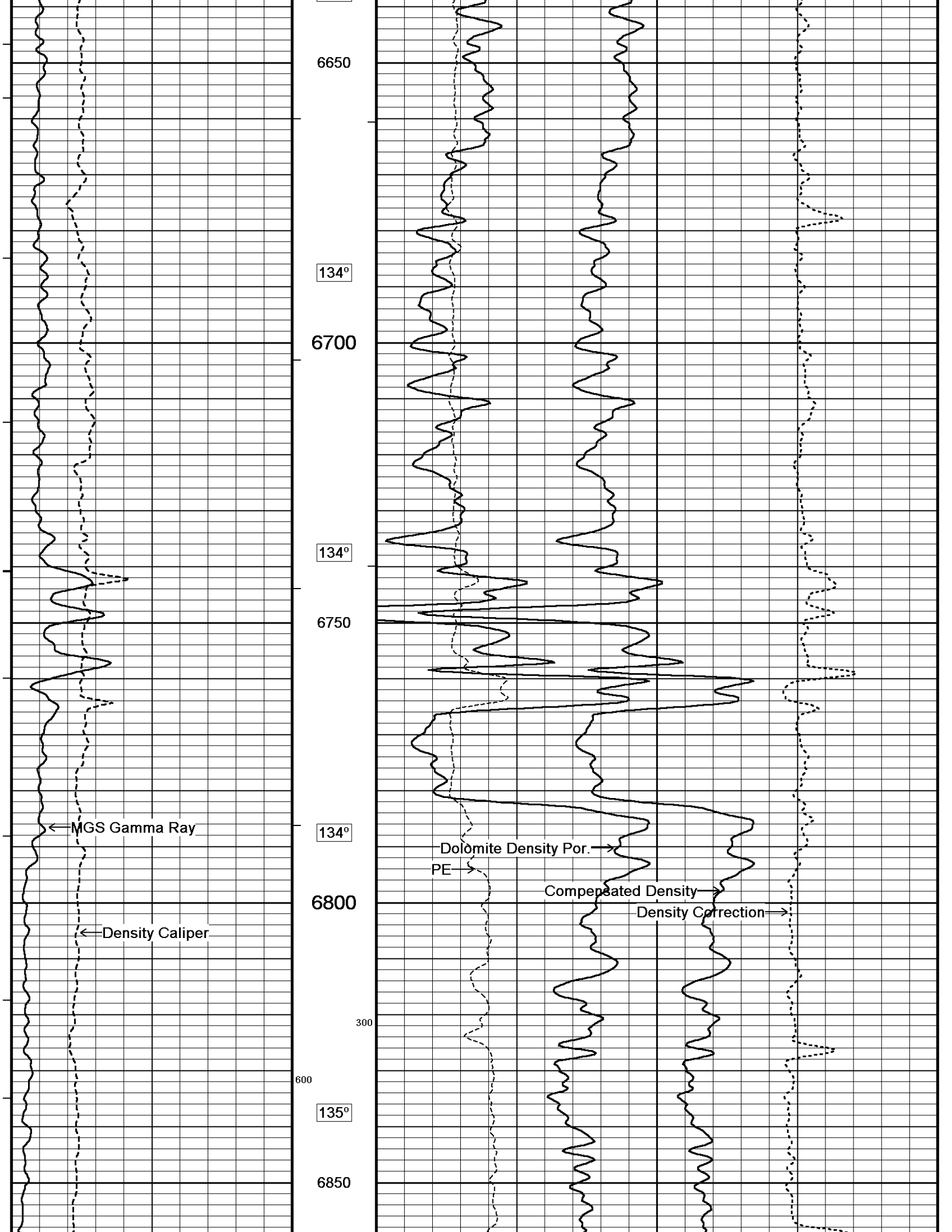
Dolomite Density Por. →
 PE →
 Compensated Density →
 Density Correction →

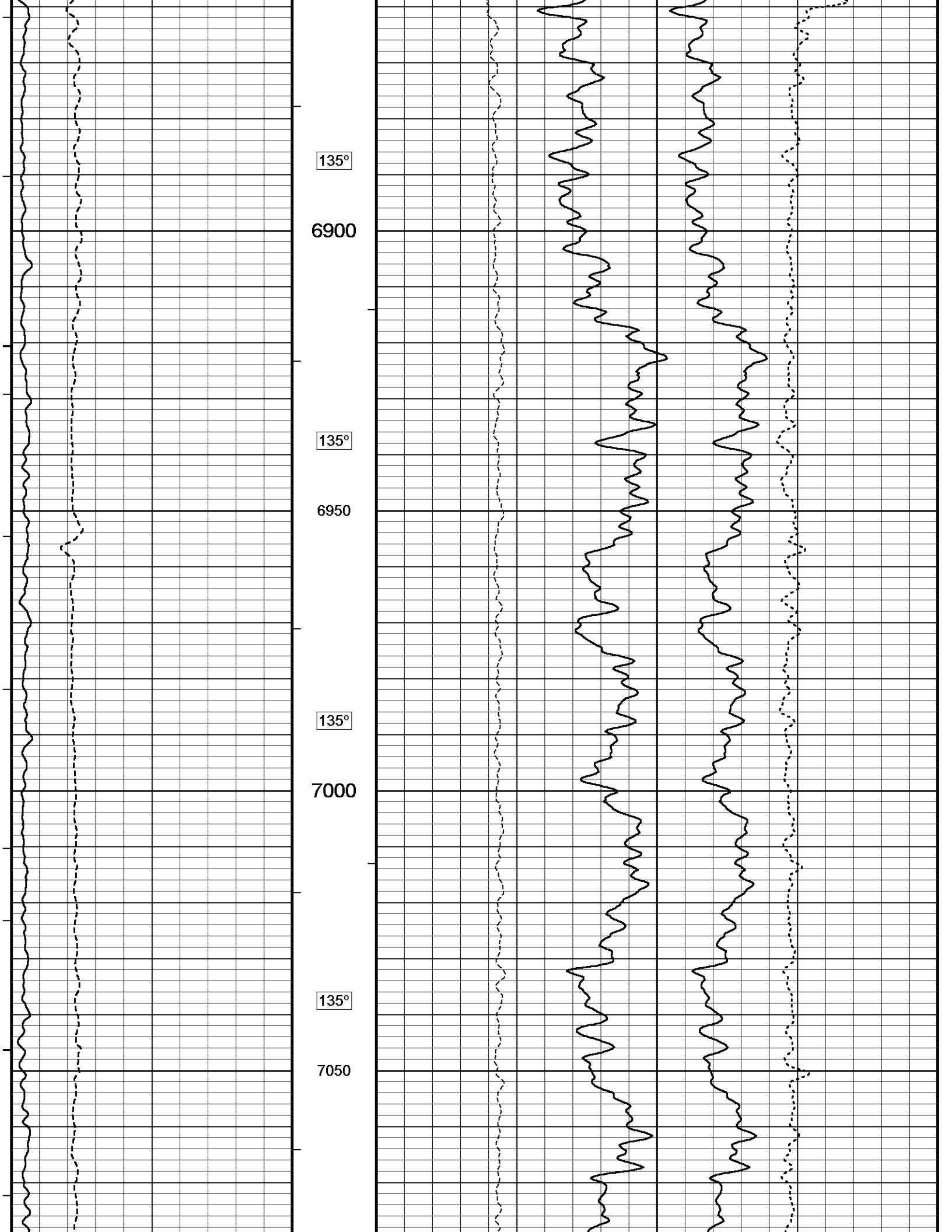


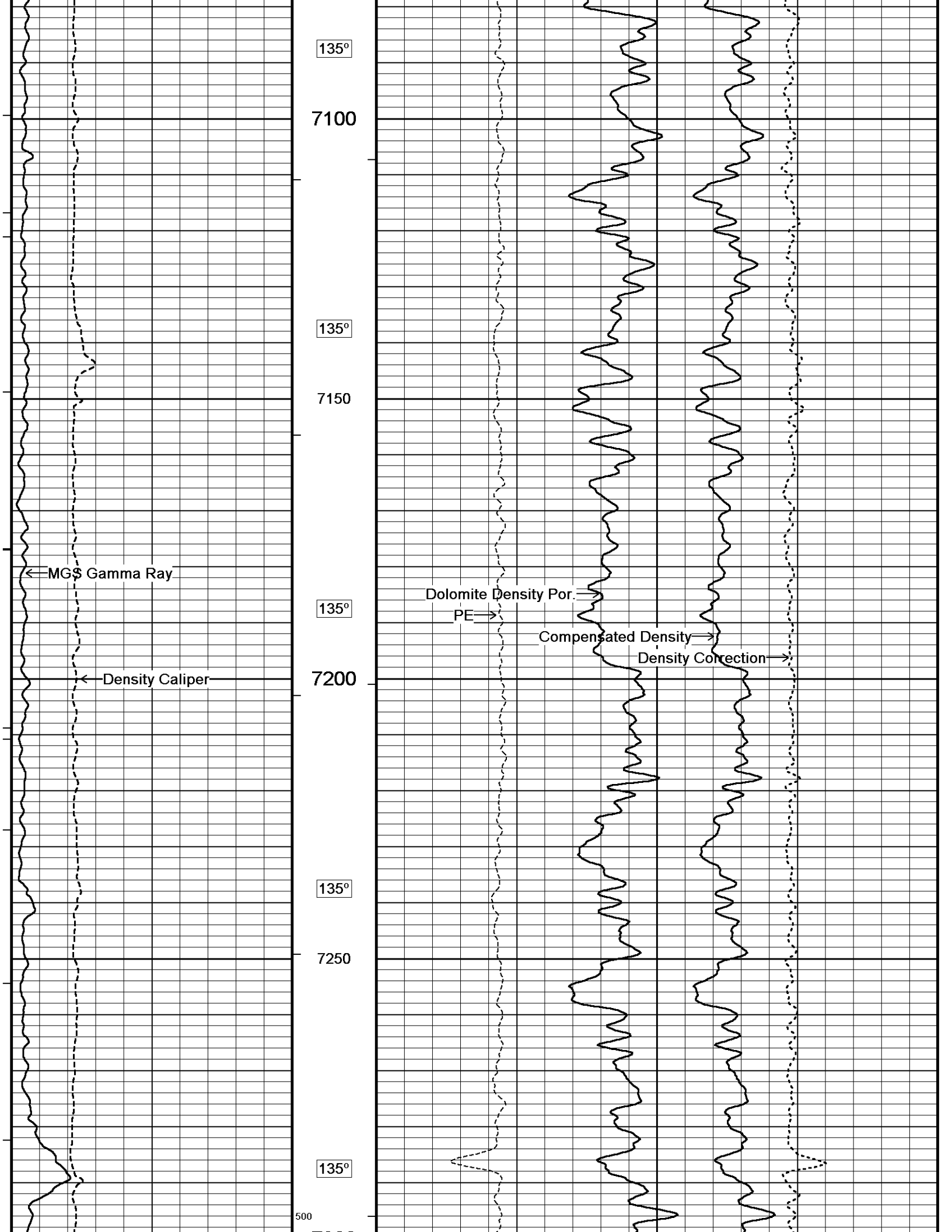


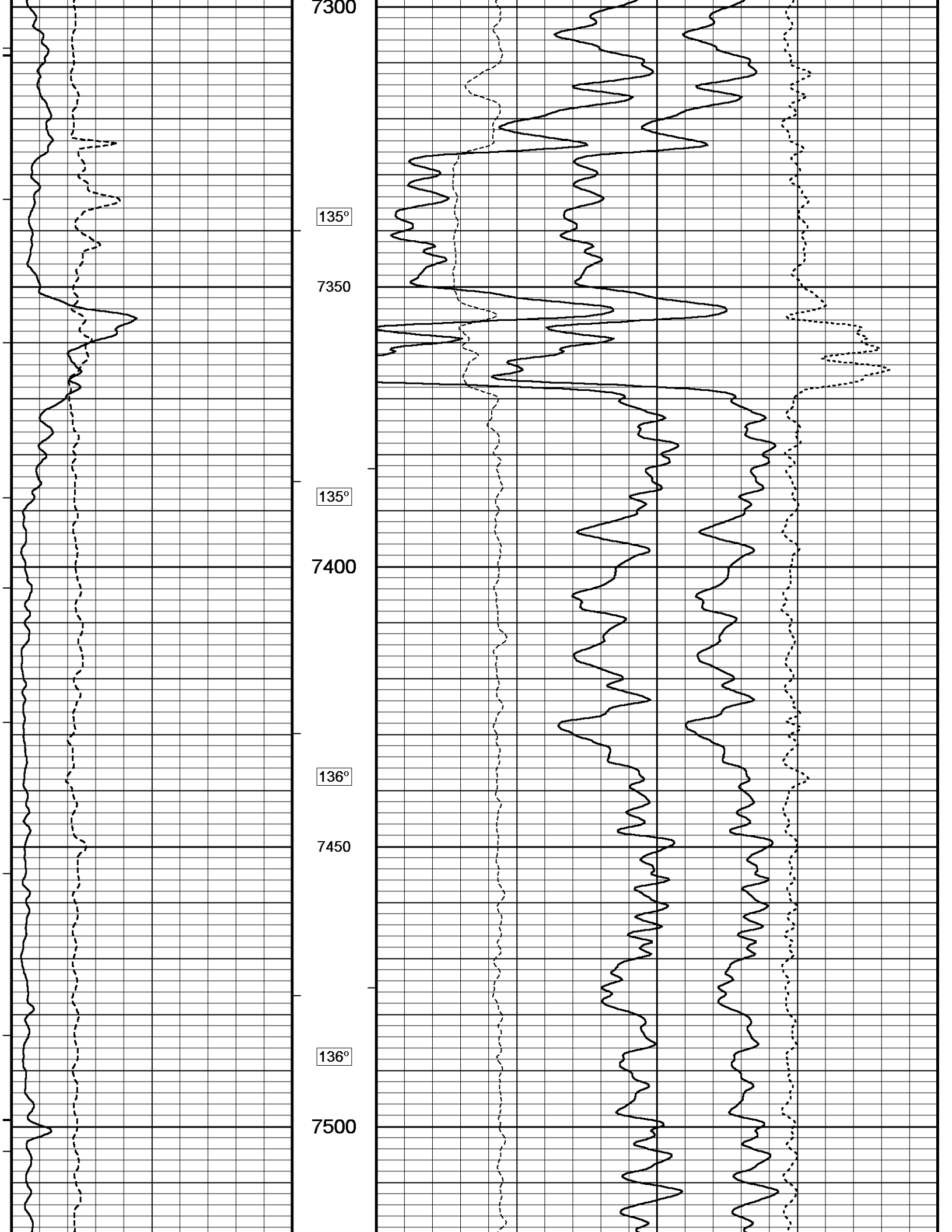


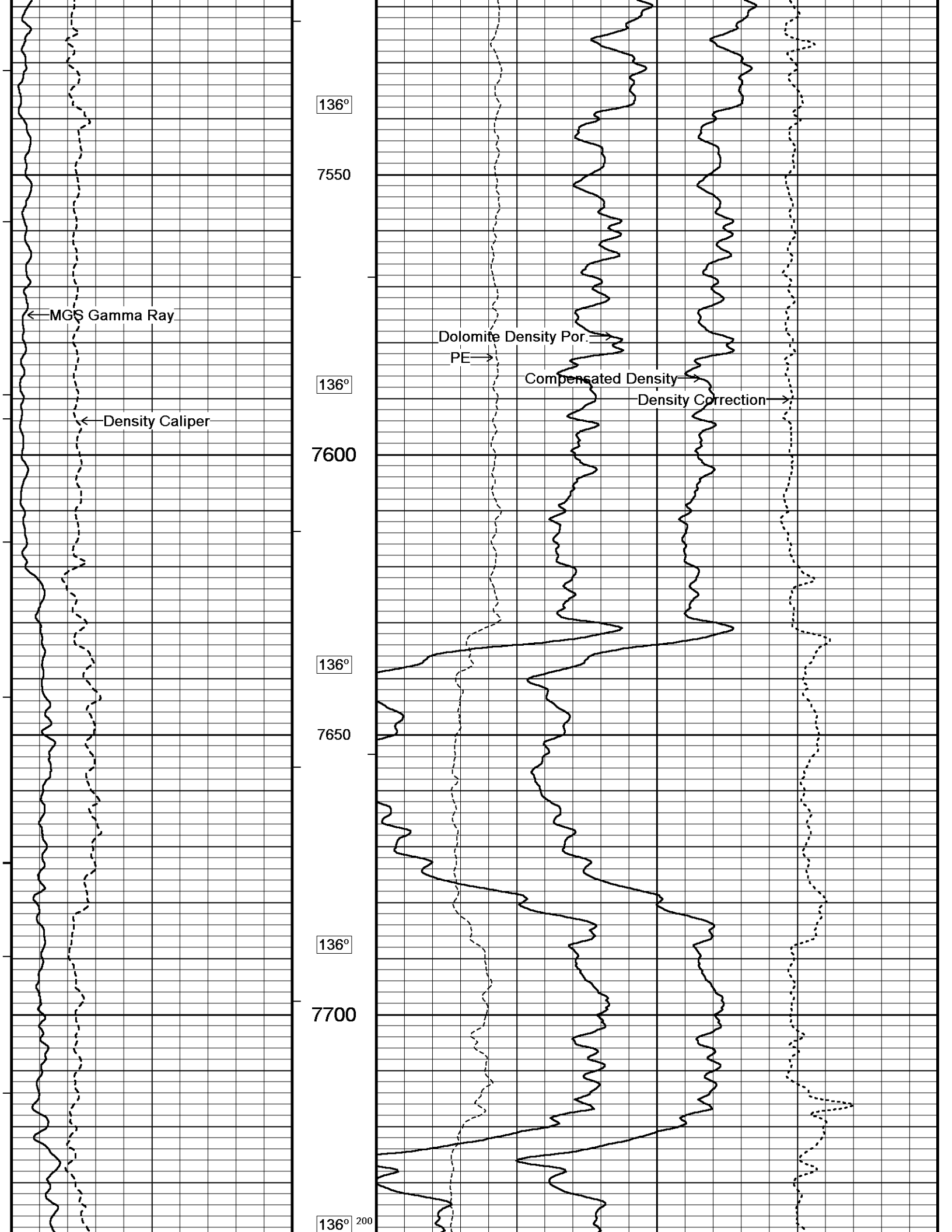


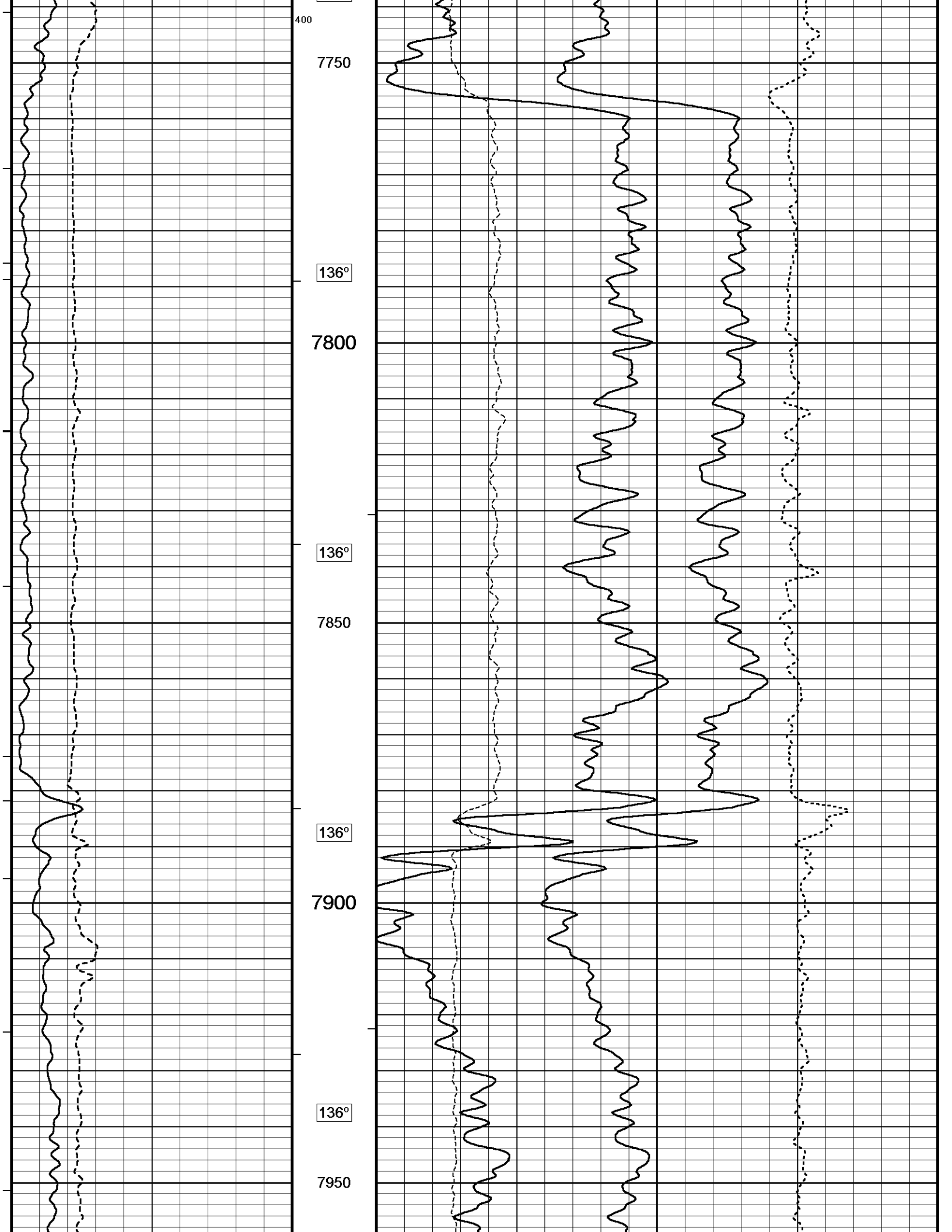


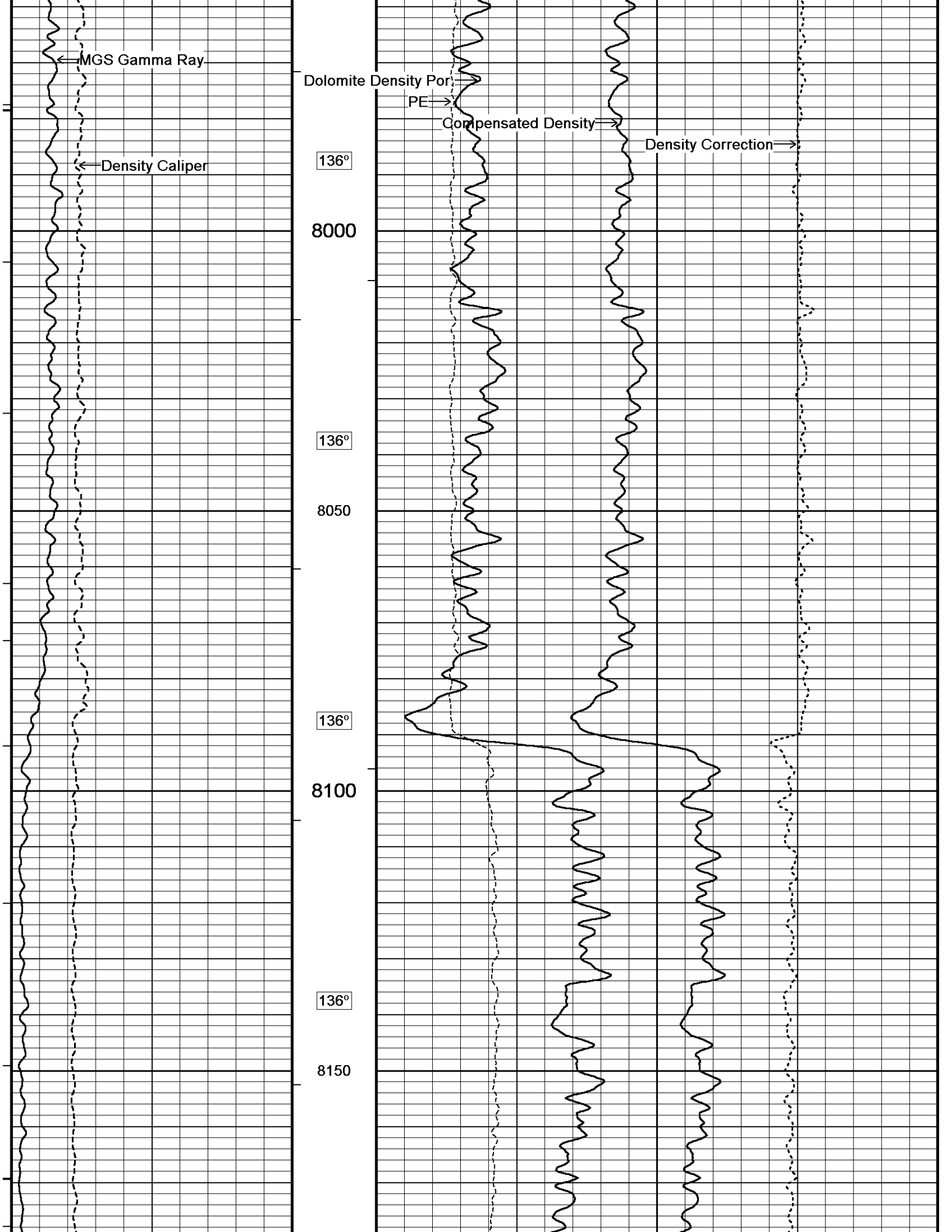


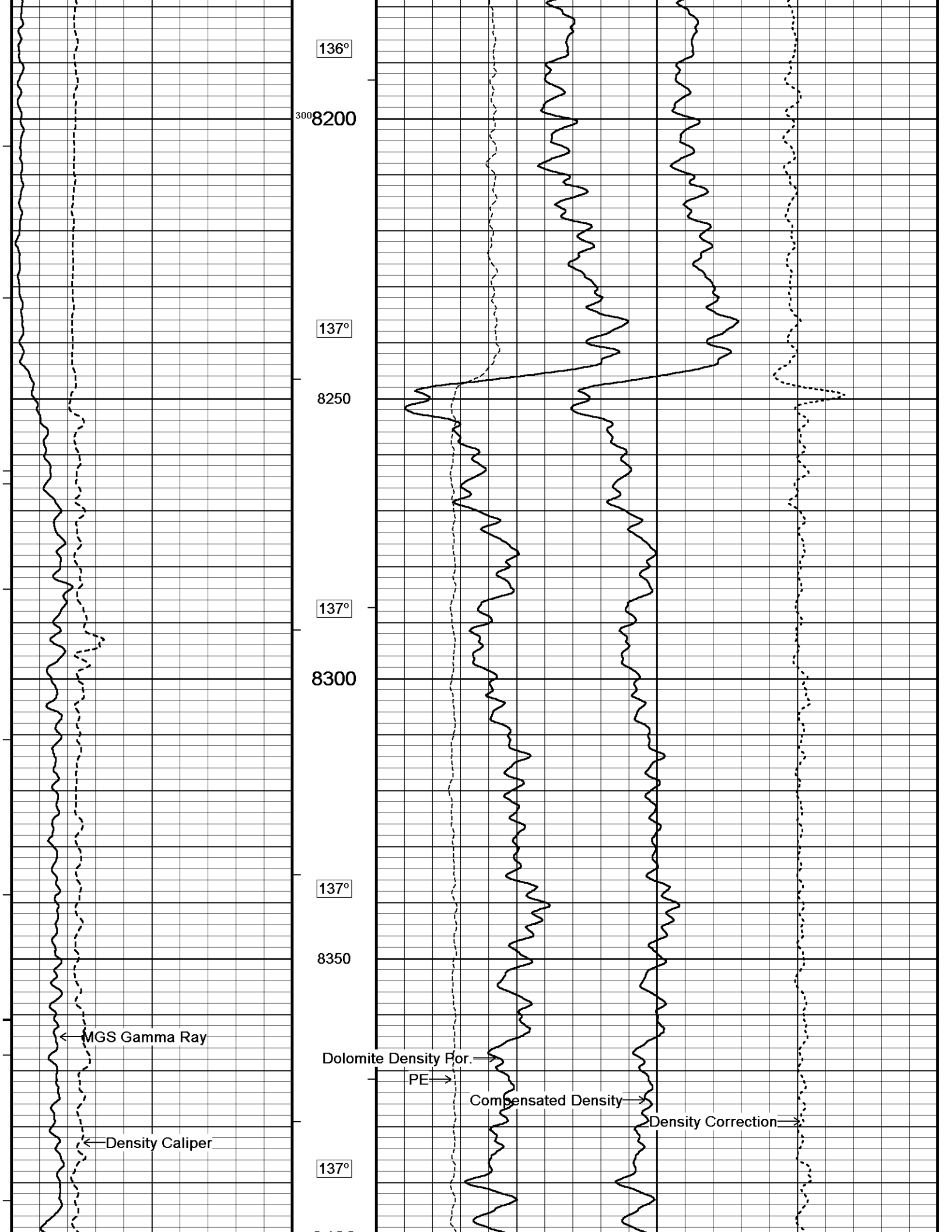


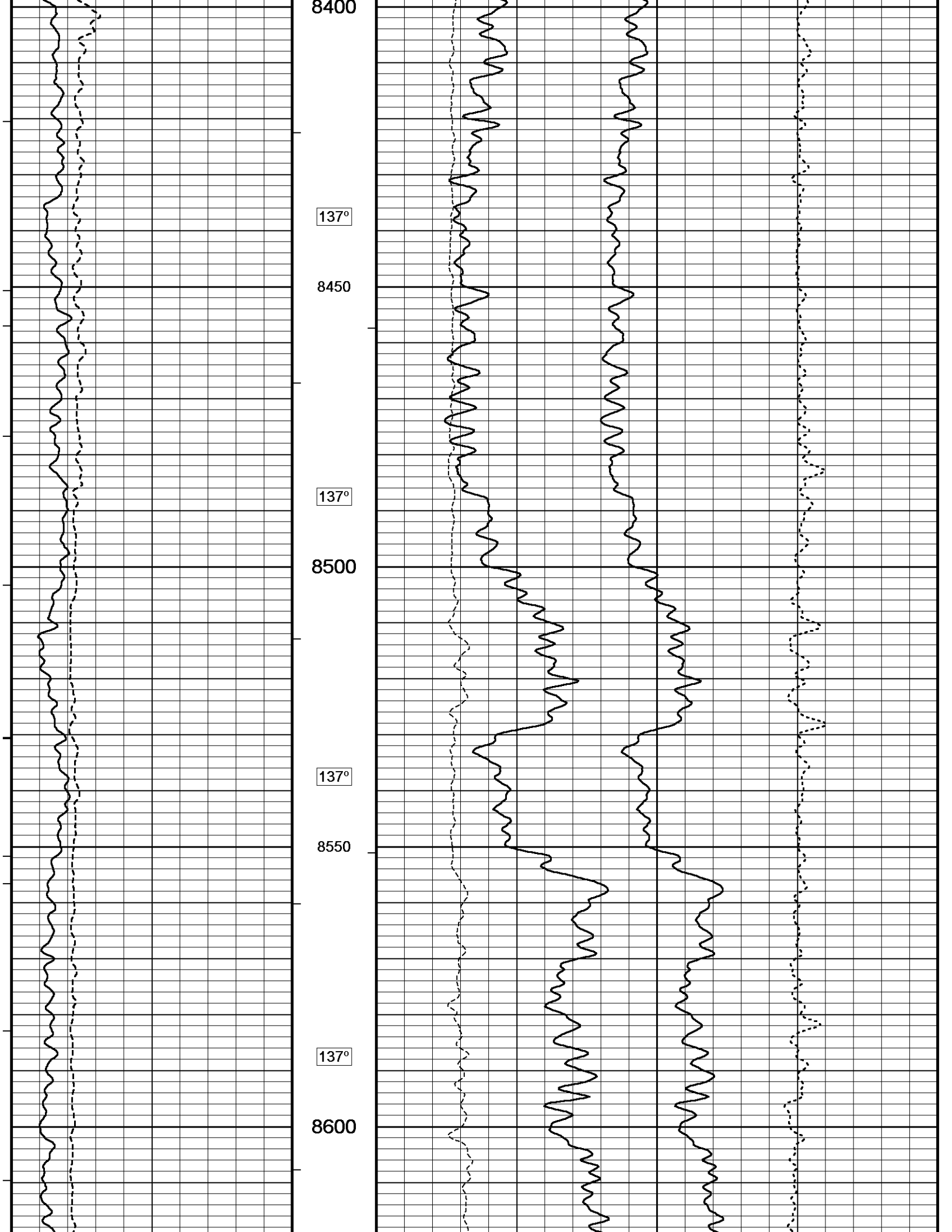


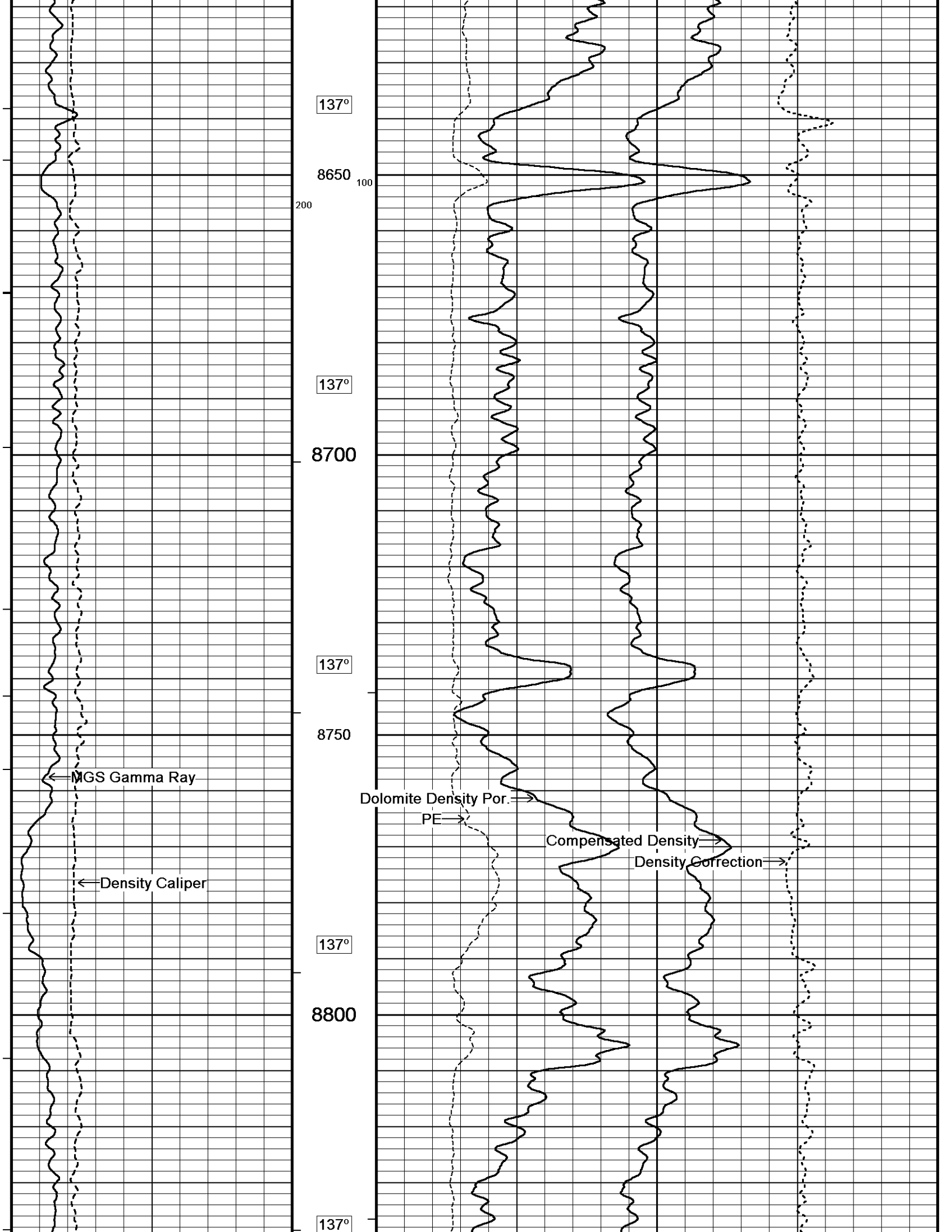


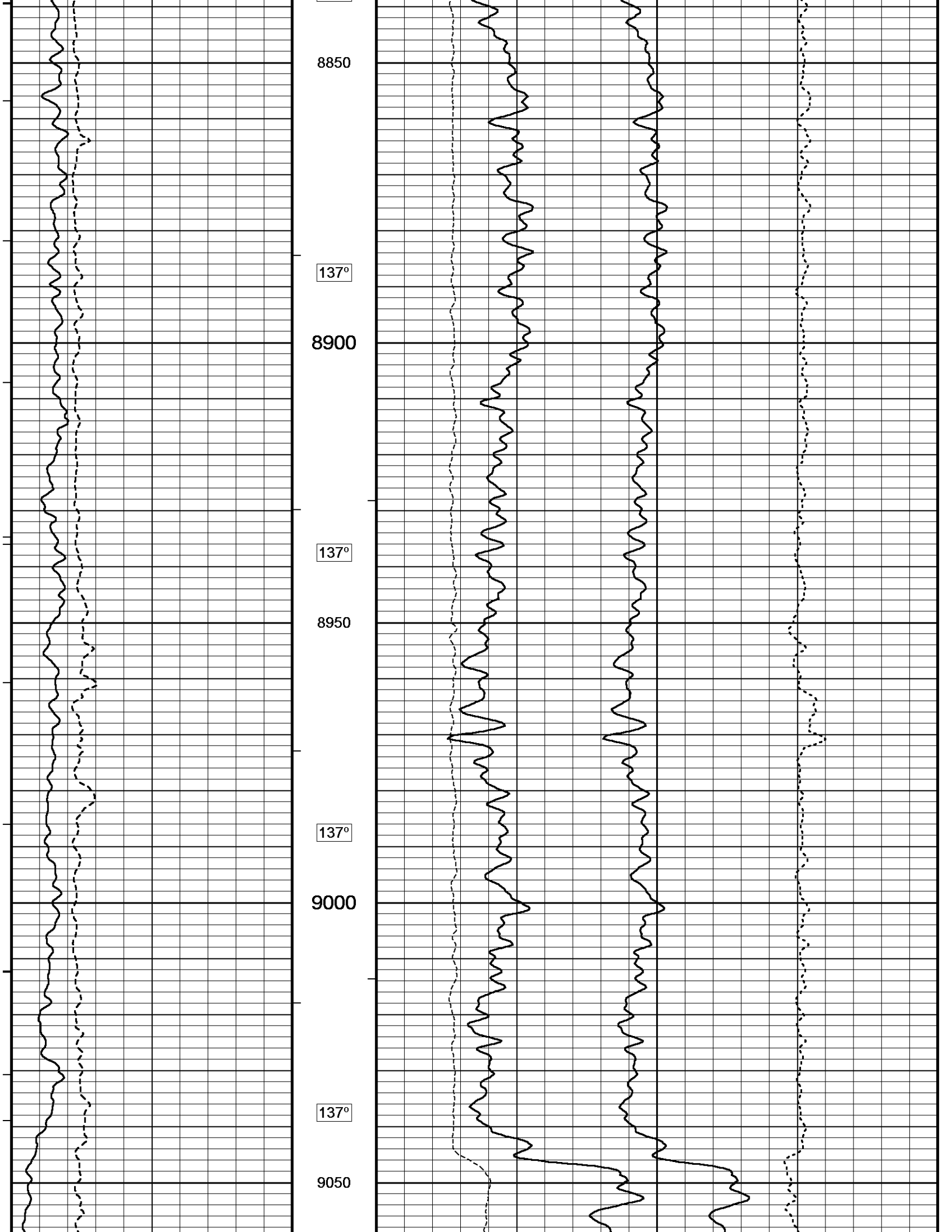


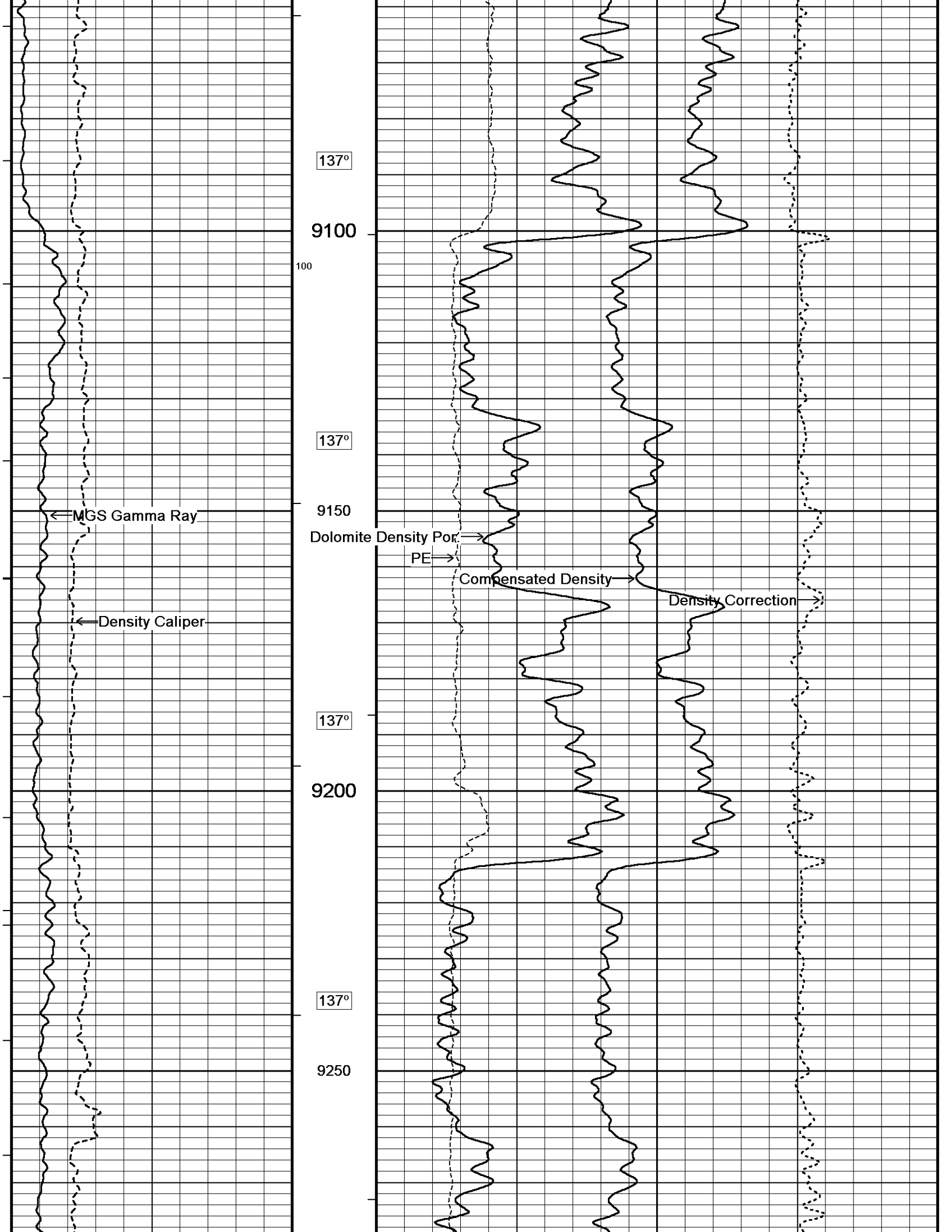


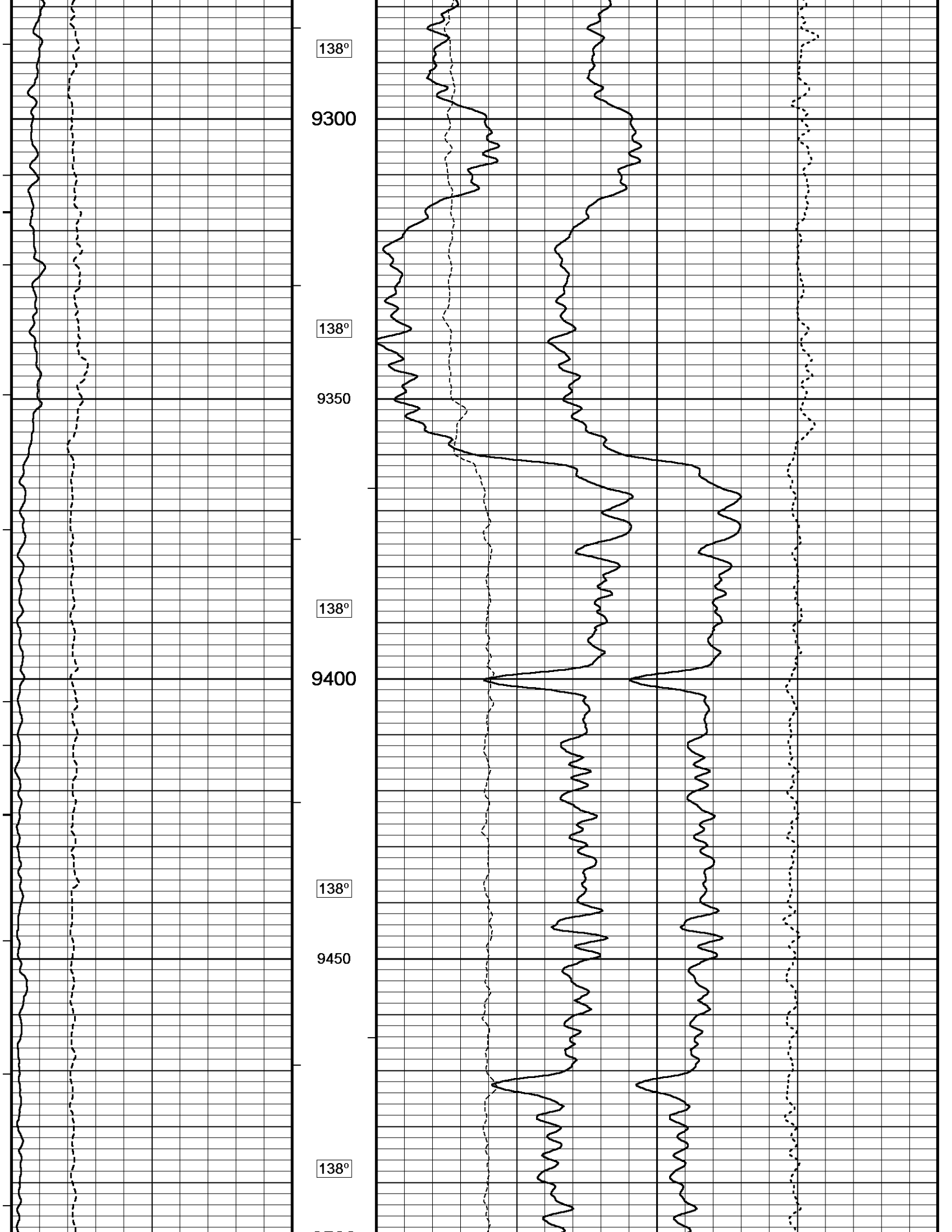


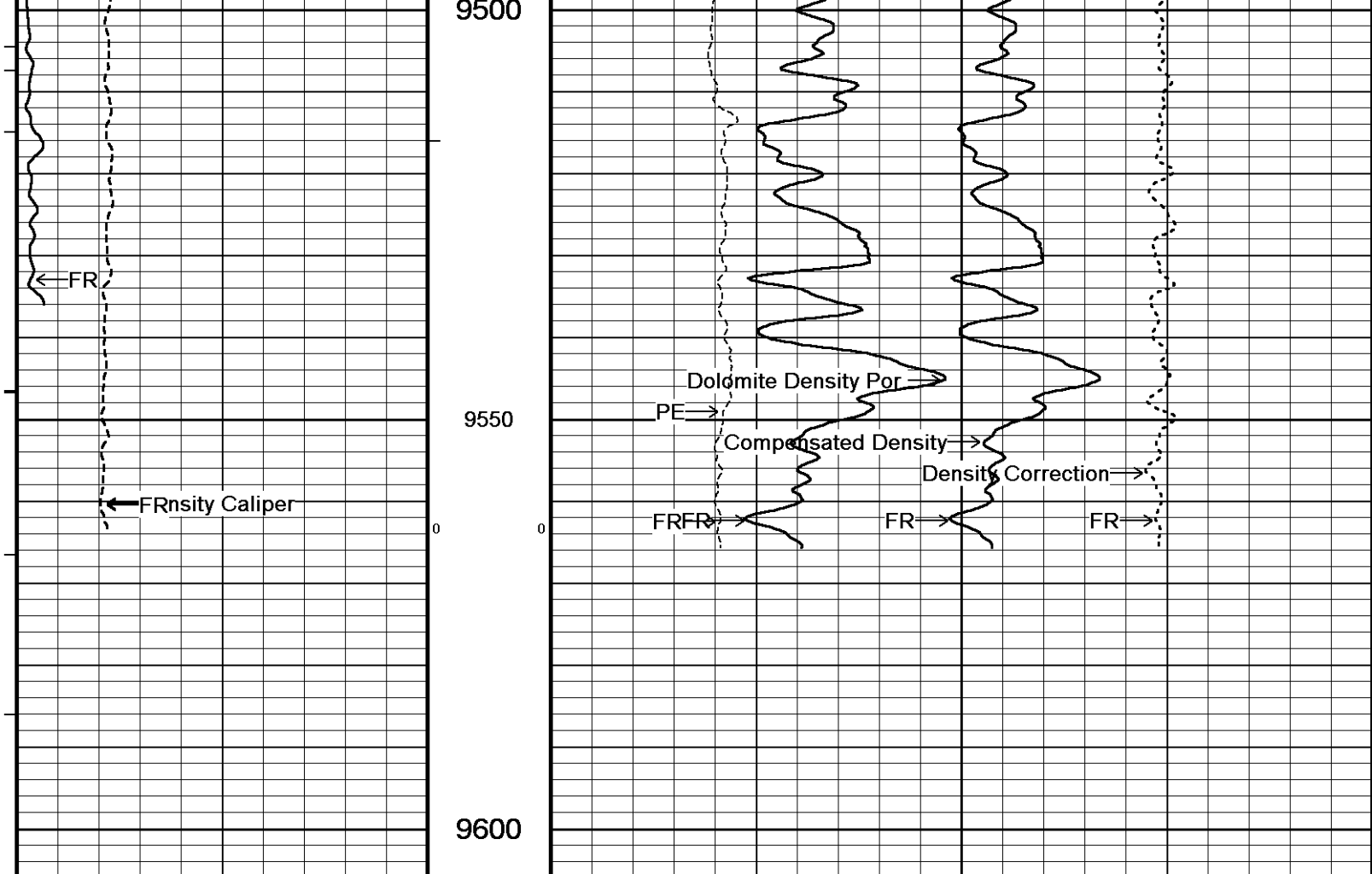












Timing Marks every 60.0 sec		
Density Caliper inches		
4	9	14
MGS Gamma Ray API		
0	75	150
150	225	300
Bit Size inches		
4	9	14

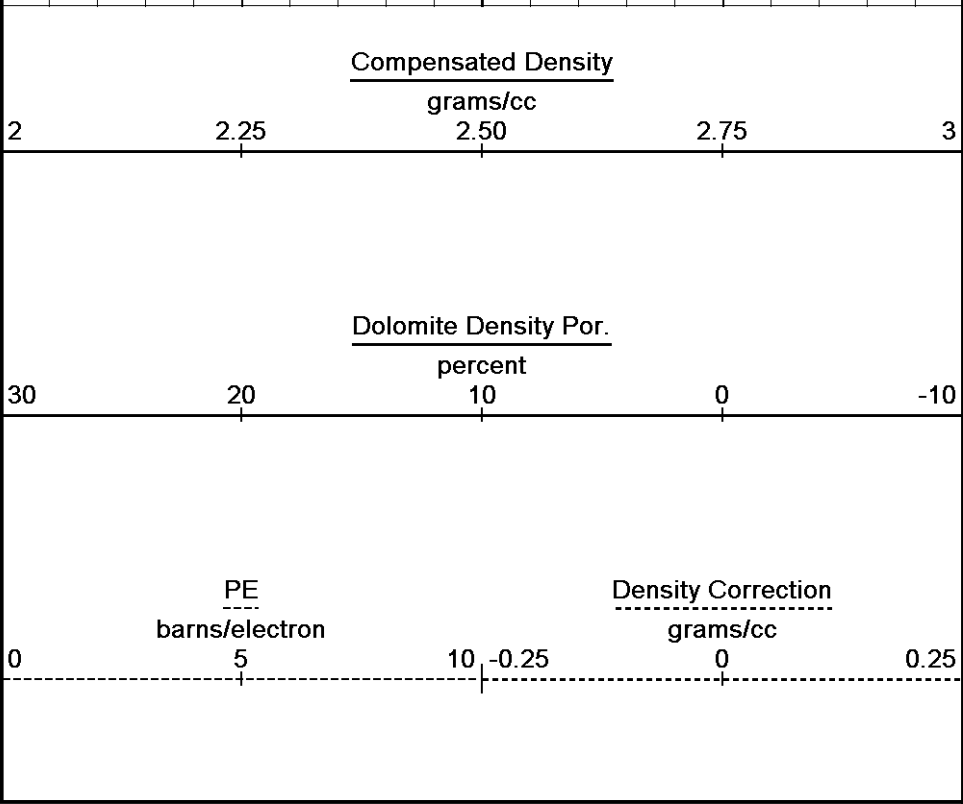
Depth
In
Feet

Borehole
Temp in
deg F

HVI
every
10 cu ft

Annular
Integral
every
10 cu ft

Replay
Scale
1:240



Depth Based Data - Maximum Sampling Increment 10.0cm
 Filename: C:\Minimus 12.02.4401\Data\New Folder\mms 158 rtap.dta
 System Versions: Processed with 12.02.4401 Plotted with 12.02.4401
 Plotted on 23-MAR-2012 09:16
 Recorded on 23-MAR-2012 02:08

5 INCH BULK DENSITY LOG

BEFORE SURVEY CALIBRATION
 C:\Minimus 12.02.4401\Data\New Folder\TOOL CHECK 2.dta

General Parameters

Mud Resistivity	2.400	ohm-metres
Mud Resistivity Temperature	60.000	degrees F
Water Level	0.000	feet
Density/Neutron Processing	Wet Hole	

Hole/Annular Volume and Differential Caliper Parameters

HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	4.500	inches
Caliper for Differential Caliper	None	

Rwa Parameters

Porosity used	Limestone Density Por.	
Resistivity used	Deep Induction	
RWA Constant A	0.610	
RWA Constant M	2.150	

MMS Parameters MMS-E.B 158

Logging Parameters

Firmware Version	2v40	
Caliper Open On	MAI	
Caliper Open Delay	0.0	minutes
Caliper Closed On	Unknown	
Caliper Closed Delay	N/A	minutes
Sample Rate	1.00	seconds
Use Deep Sleep	No	
Delay Deep Sleep	N/A	
Deep Sleep Wake Time	N/A	minutes
Deep Sleep Wake on Temperature	N/A	
Deep Sleep Wake Temperature	N/A	degrees C
Deep Sleep Wake on Pressure	N/A	
Deep Sleep Wake Pressure	N/A	psi
MMI Pad Pressure	0.0	

Release Parameters

Pulse Duration Base Level	10.0	seconds
Pulse Duration Transition Time	60.0	seconds
Pulse Duration Status Pulse From	20.0	seconds
Pulse Duration Caliper Close From	145.0	seconds
Pulse Duration Caliper Open From	150.0	seconds
Pulse Duration Release Pulse From	215.0	seconds
Pulse Duration Release Pulse To	280.0	seconds
Pulse Release Duration	240.0	seconds
Pulse Discriminator Pressure Band	96.0	seconds
Pulse Pressure Discriminator	213.0	seconds
Use Negative Pulsing	No	
Good Status Reply Open Hole	0.0	seconds
Good Status Reply Cased Hole	20.0	seconds
Bad Status Reply	60.0	seconds
Status Pulse To	80.0	seconds
Caliper Close To	0.0	seconds
Caliper Open To	210.0	seconds

Configuration

SER,MMS,MGS,MDN,MPD,MPD,MFE,MAI

DOWNHOLE EQUIPMENT

C:\Minimus 12.02.4401\Data\New Folder\TOOL CHECK 2.dta



Shuttle Electrical Release
 SER-A 146 LG: 6.90 ft WT: 50.7 lb OD: 2.24 in

MBS-F.A 200v Compact Battery Sub
 MBS-F.A 60 LG: 10.22 ft WT: 81.6 lb OD: 2.24 in

Compact Memory Sub E.B
 MMS-E.B 158 LG: 5.20 ft WT: 37.5 lb OD: 2.24 in

Compact Short Gamma
 MGS-C.J 134 LG: 3.41 ft WT: 24.3 lb OD: 2.24 in

Compact Collar Locator
 MCL-B.J 68 LG: 3.17 ft WT: 26.5 lb OD: 2.24 in

Compact Tool Isolator sub.
 MTI-B.A 67 LG: 1.54 ft WT: 13.2 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor
 SHA-J.A 431 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

SKJ-E.A Compact Knuckle Joint
 SKJ-E.A 479 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-D.A Compact Inline Bowspring sub
 MIS-D.A 606 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact Neutron
 MDN-B.J 391 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
 MPD-C.J 394 LG: 9.59 ft WT: 90.4 lb OD: 2.24 in

MIS-D.A Compact Inline Bowspring sub
 MIS-D.A 275 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor
 SHA-J.A 434 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

SKJ-E.A Compact Knuckle Joint
 SKJ-E.A 476 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

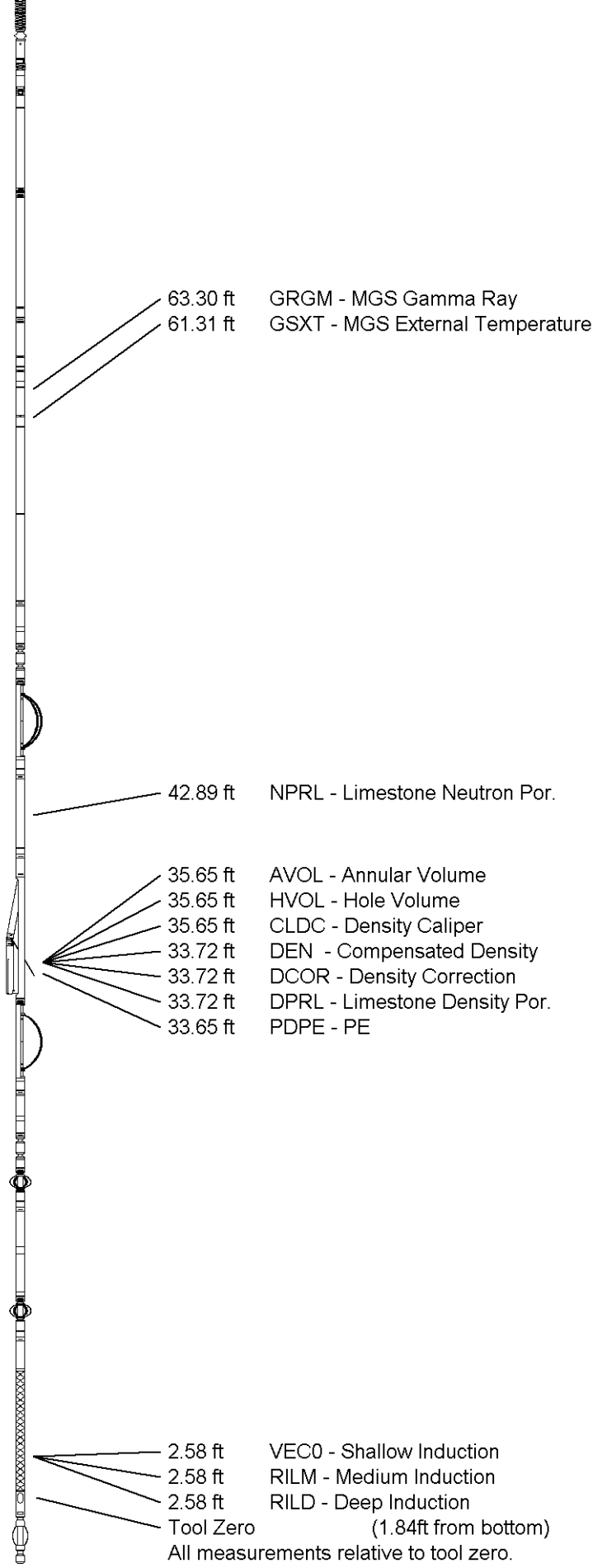
MIS-E.B Compact Inline Standoff sub
 MIS-E.B 595 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Focussed Electric
 MFE-A.A 175 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

MIS-E.B Compact Inline Standoff sub
 MIS-E.B 597 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Induction
 MAI-B.J 392 LG: 12.52 ft WT: 48.5 lb OD: 2.24 in

Total Length: 96.78 ft Weight: 738.5 lb



COMPANY
 WELL
 FIELD

SANDRIDGE EXPLORATION & PRODUCTION LLC
 SARAH 1-34H
 BEAUS EAST

FIELD BEAIS EAST
PROVINCE/COUNTY COMANCHE
COUNTRY/STATE U.S.A. / KANSAS

Elevation Kelly Bushing	1851.00	feet	First Reading	9563.00	feet
Elevation Drill Floor	1851.00	feet	Depth Driller	9752.00	feet
Elevation Ground Level	1831.00	feet	Depth Logger	9596.00	feet



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COMPENSATED NEUTRON LOG

