Weatherford®

CML WELL SHUTTLE
COMPENSATED PHOTO-DENSITY
COMPENSATED NEUTRON LOG

COMPANY	SANDRIDGE EXPLORATION & PRODUCTION
WELL	PETER 3404 1-20H
FIELD	
PROVINCE/COUNTY	SUMNER
COUNTRY/STATE	USA / KANSAS
LOCATION	200' FSL & 510' FEL

SEC	TWP	RGE	Other Services
20	34S	4W	MAI
API Number 15-191-22668			CMI
Permit Number			

Permanent Datum G.L., Elevation 1220 feet	Elevations:	feet
Log Measured From KB	KB	1242.00
Drilling Measured From K.B.	DF	1242.00
	GL	1220.00

Date	03-FEB-2013			
Run Number	ONE			
Depth Driller	11618.00	feet		
Depth Logger	11549.00	feet		
First Reading	11491.00	feet		
Last Reading	3000.00	feet		
Casing Driller	4787.00	feet		
Casing Logger	4787.00	feet		
Bit Size	6.125	inches		
Hole Fluid Type	WATER			
Density / Viscosity	8.40 lb/USg	28.00 CP		
PH / Fluid Loss	8.00	60.00 ml/30Min		
Sample Source	FLOWLINE			
Rm @ Measured Temp	1.98 @ 52.7	ohm-m		
Rmf @ Measured Temp	1.58 @ 52.7	ohm-m		
Rmc @ Measured Temp	2.37 @ 52.7	ohm-m		
Source Rmf / Rmc	CALC	CALC		
Rm @ BHT	0.76 @136.0	ohm-m		
Time Since Circulation	1 HOUR			
Max Recorded Temp	136.00	deg F		
Equipment Name	COMPACT			
Equipment / Base	18064	OKC		
Recorded By	C. GRIFFIN			
Witnessed By	T. ALCORN			
S.O.#/AFE	3539585/ DC12598			

BOREHOLE RECORD

Last Edited: 02-FEB-2013 20:35

Bit Size inches	Depth From feet	Depth To feet
6.125	4787.00	11618.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
INTERMED	7.000	0.00	4787.00	26.00
INTERMED	9.625	0.00	545.00	36.00

REMARKS

WLS SOFTWARE VERSION 13.03. USED.
TOOLS RUN ON DRILLPIPE USING COMPACT WELL SHUTTLE DEPLOYMENT TECHNIQUE.

DEPTH MEASURED USING ADVANTAGE RIG DEPTH CORRECTED TO PIPE TALLY.

TOOLS DEPLOYED WITH MULE SHOE SITTING AT 11448 FT.
AFTER DEPLOYMENT LOGGING TOOL WAS AT 11549 FT.

WELL FLOW DURING LOGGING OPERATION WAS NOT NORMAL

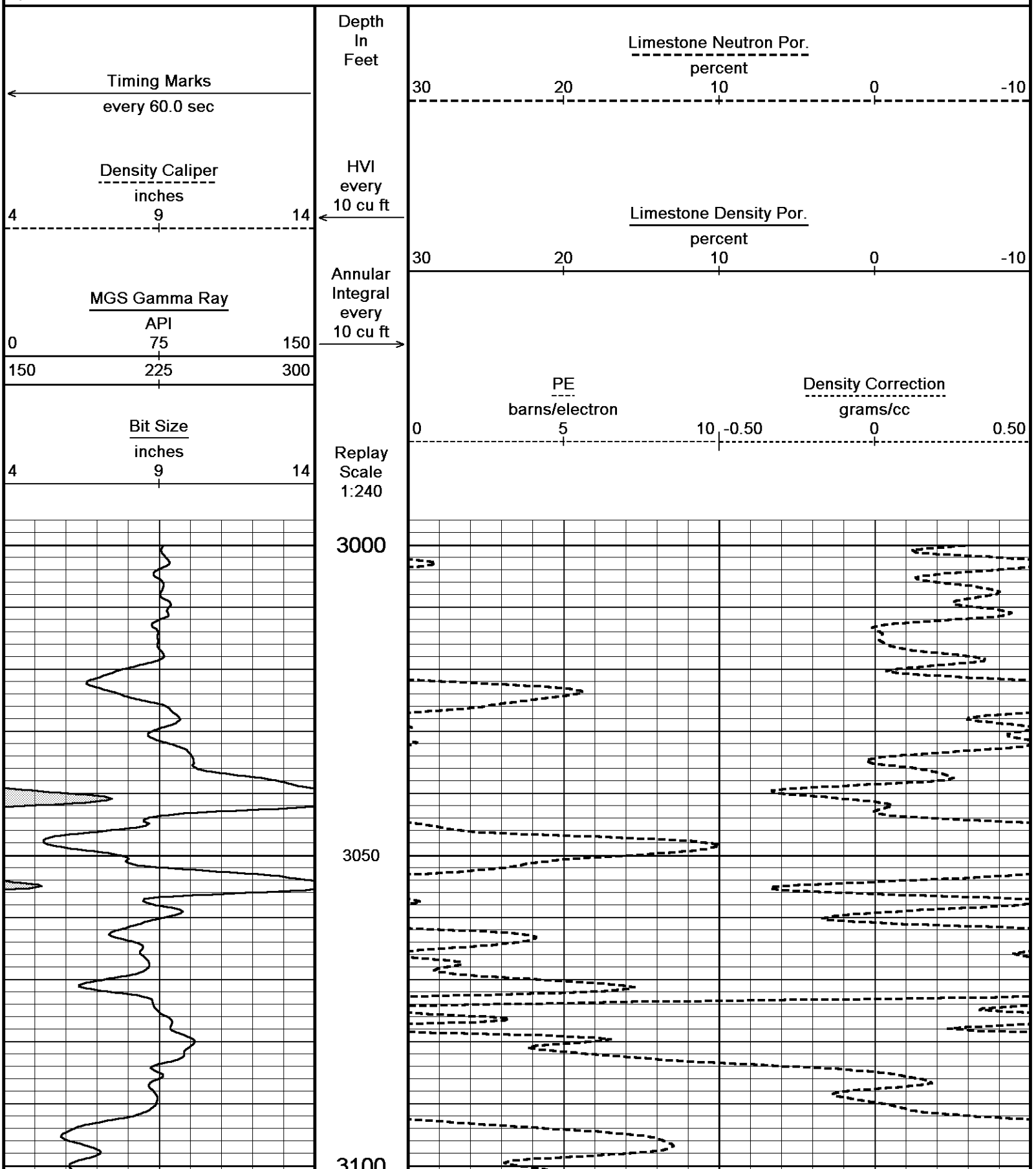
4.5 " PRODUCTION CASING USED TO CALCULATE ANNULAR HOLE VOLUMES.

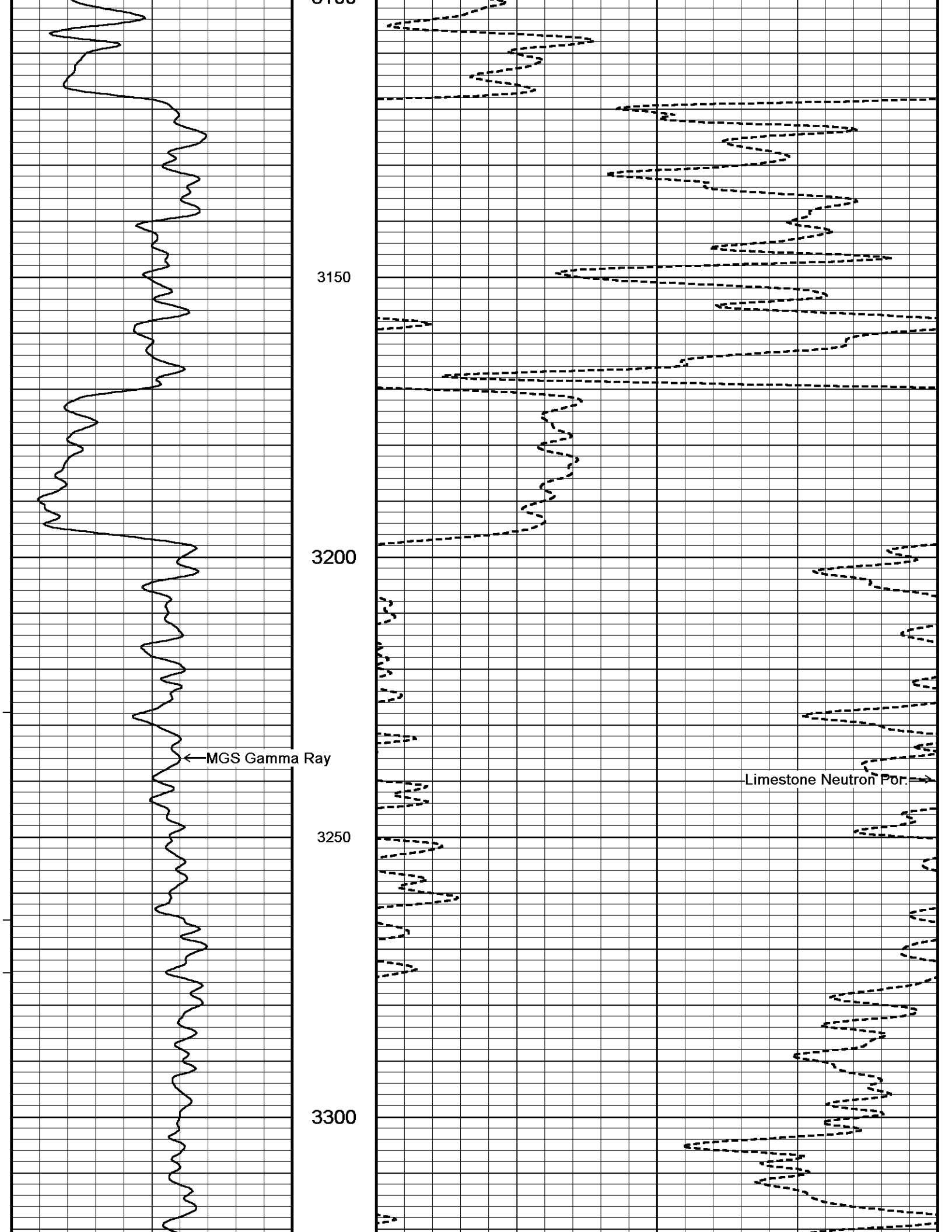
OPERATORS: J. TURNER, S. WORLEY
RIG: LATSHAW 38

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 PASS DSC

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 03-FEB-2013 20:02
Filename: C:\Data\Sandridge\Sandridge Peter 3404 1-20H\MMS158 Depthlog.dta
Recorded on 03-FEB-2013 19:01
System Versions: Processed with 13.03.7779 Plotted with 13.03.7779

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←MGS Gamma Ray
Limestone Neutron Por.→
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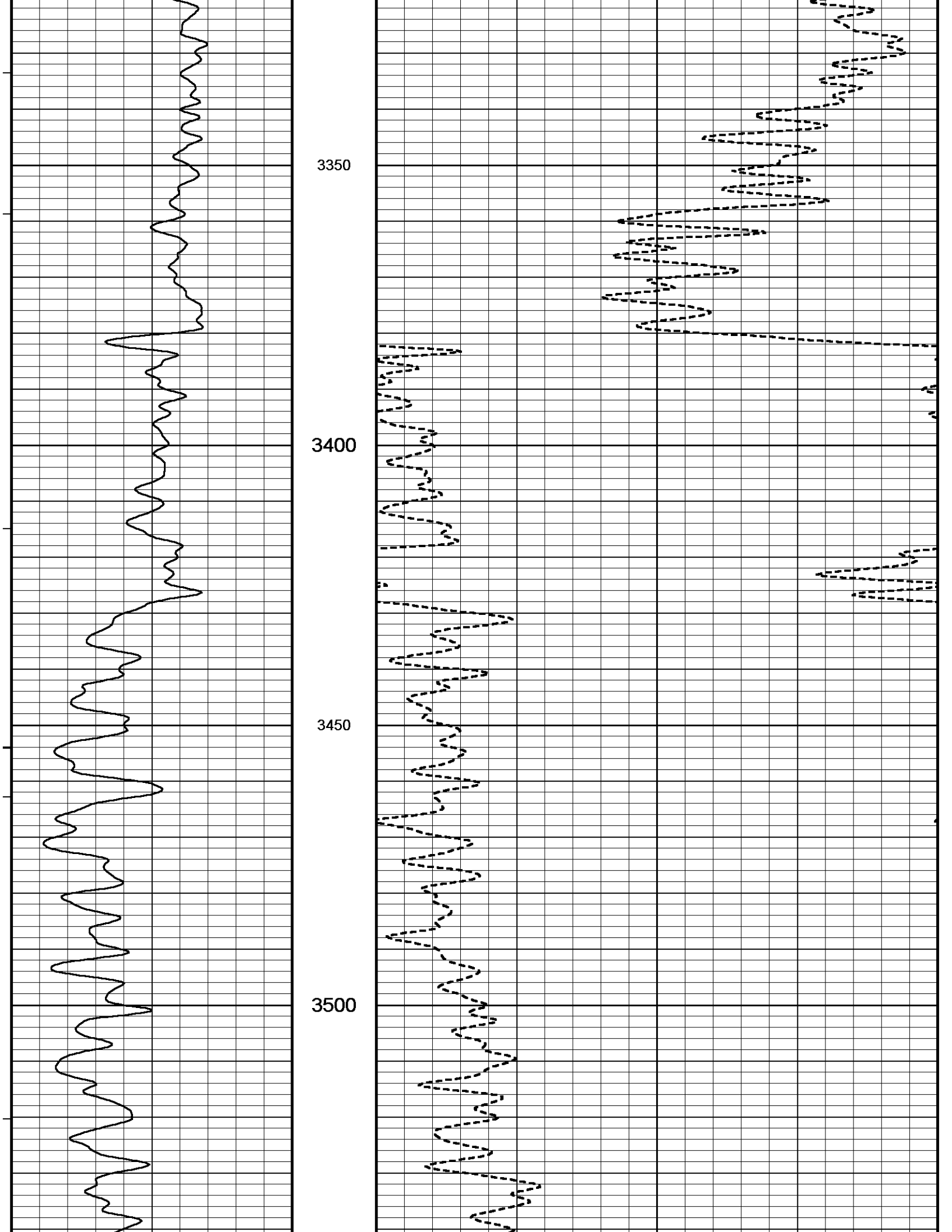
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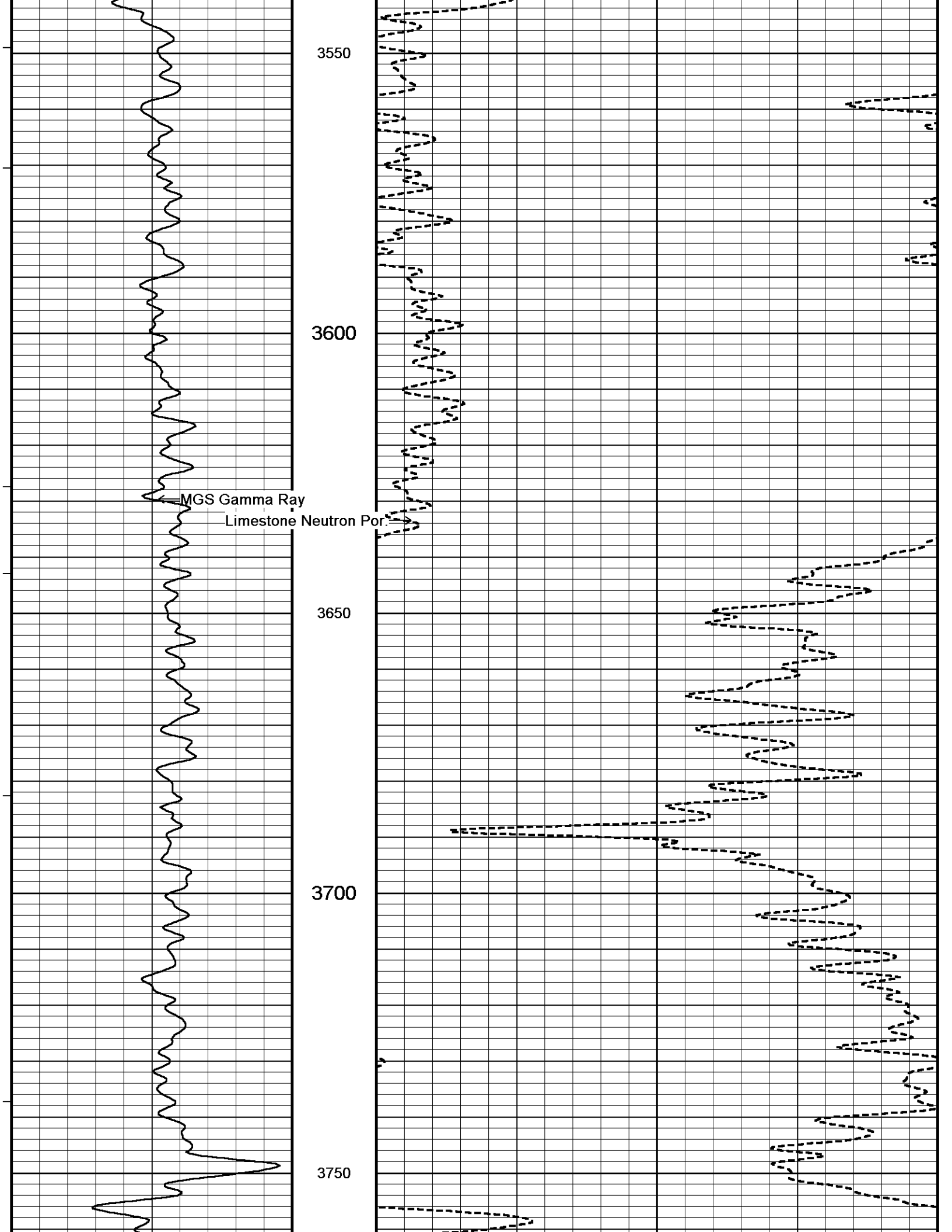
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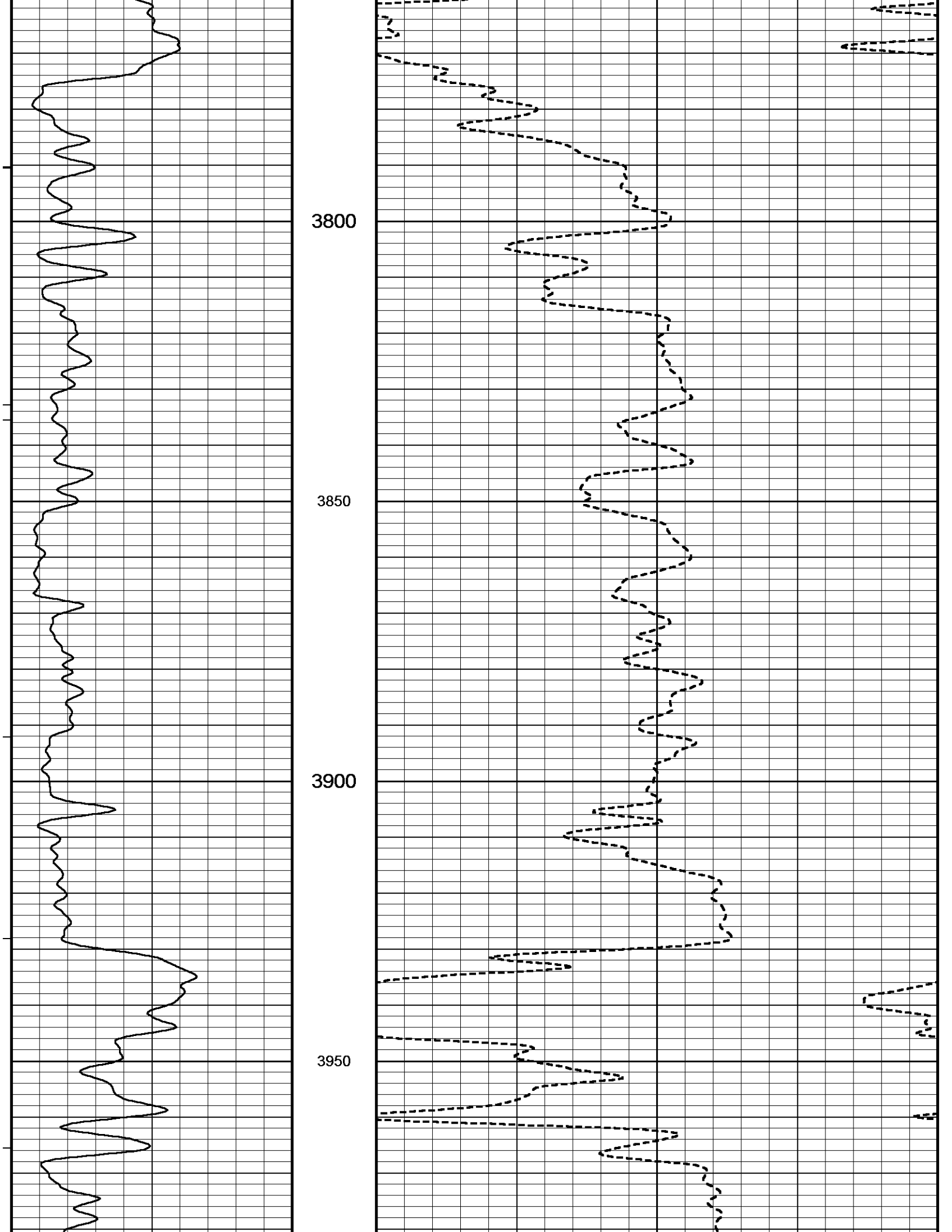
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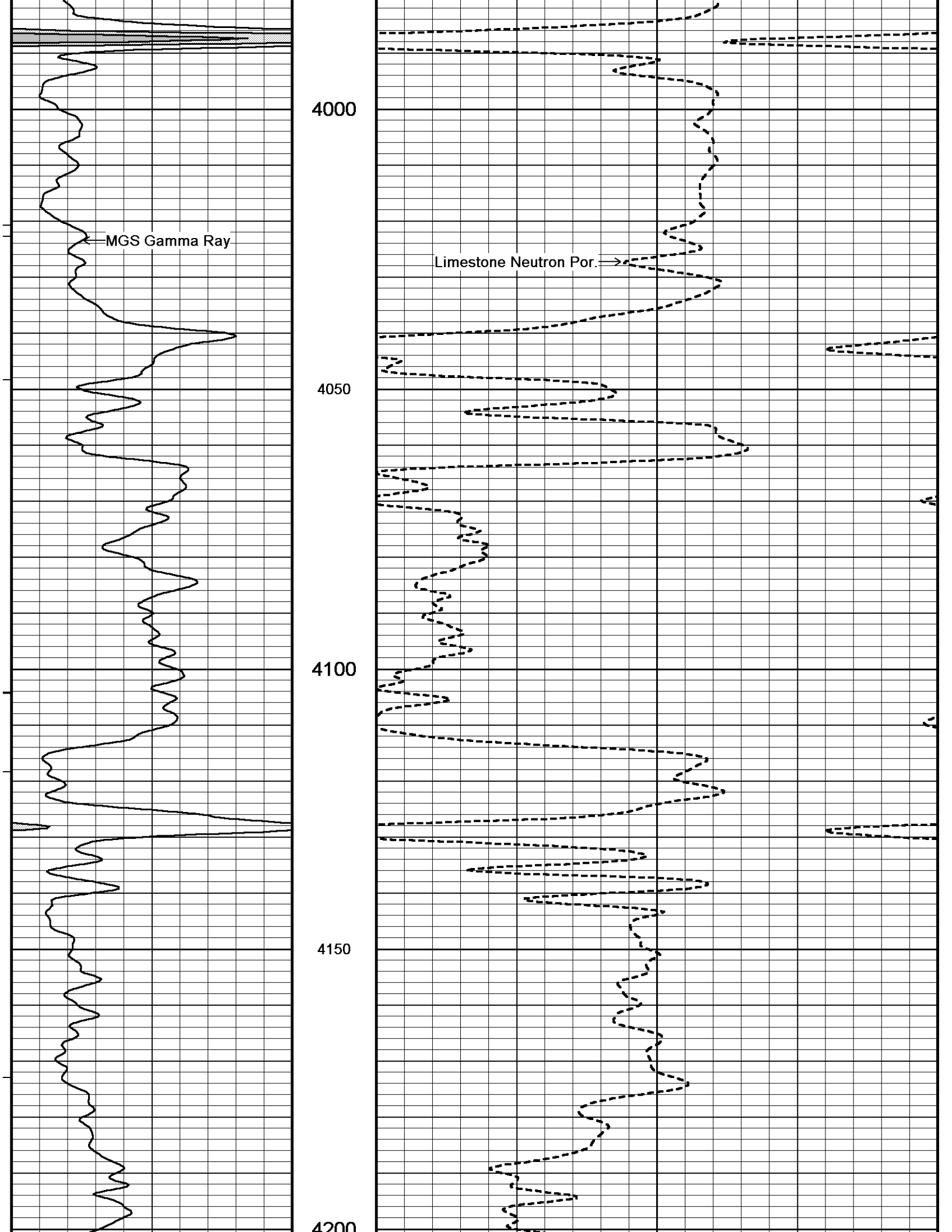
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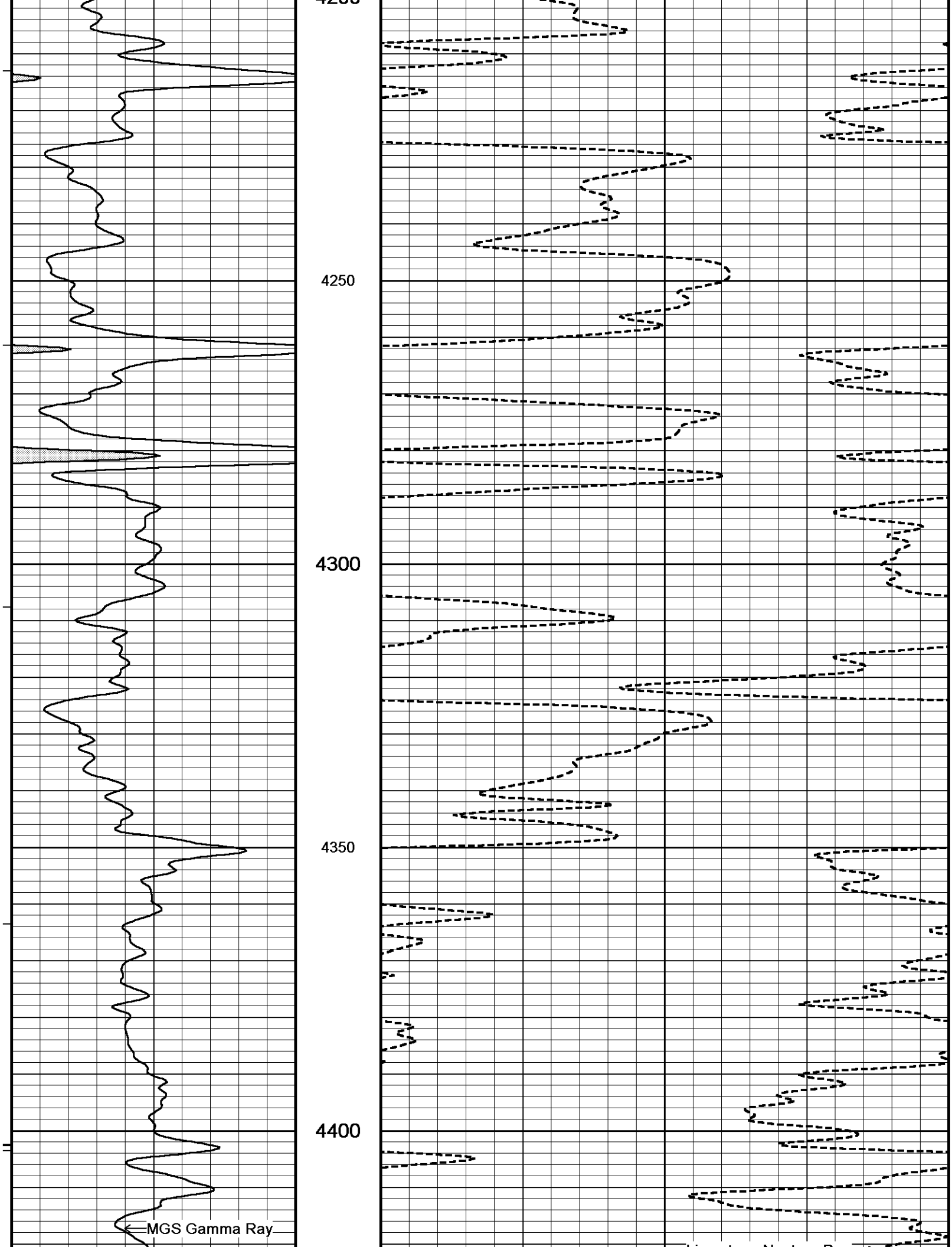
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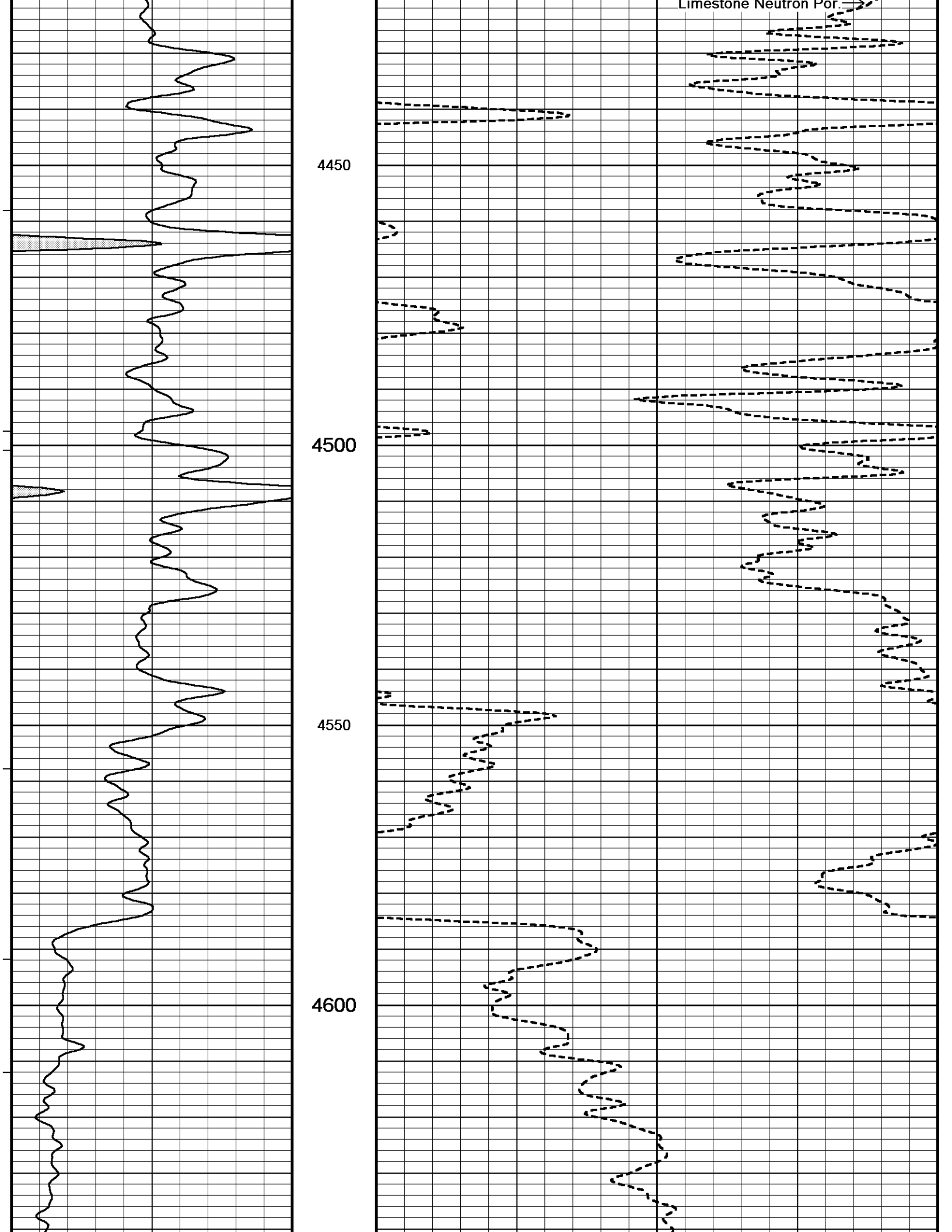
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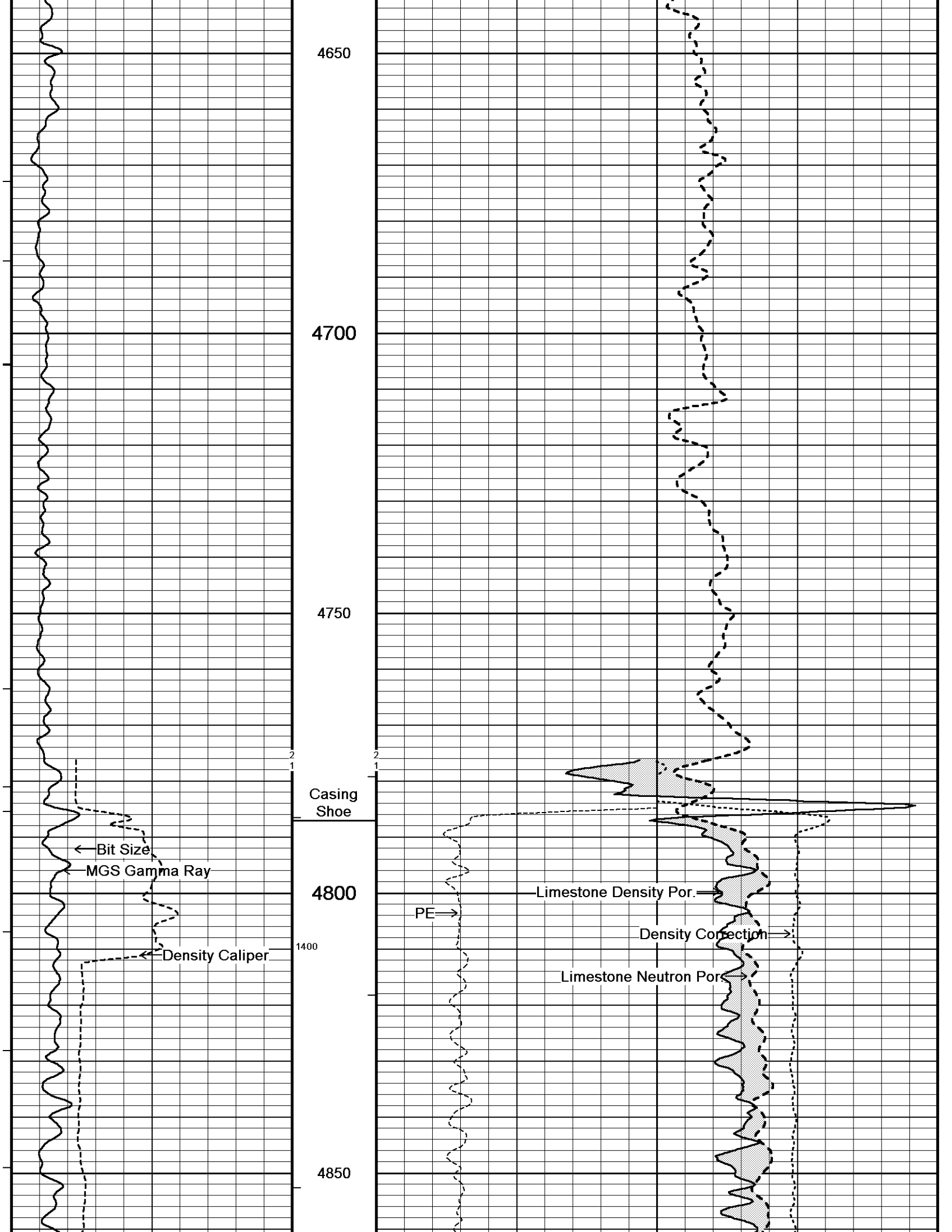
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1
2
1
Casing
Shoe
Bit Size
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Density Caliper
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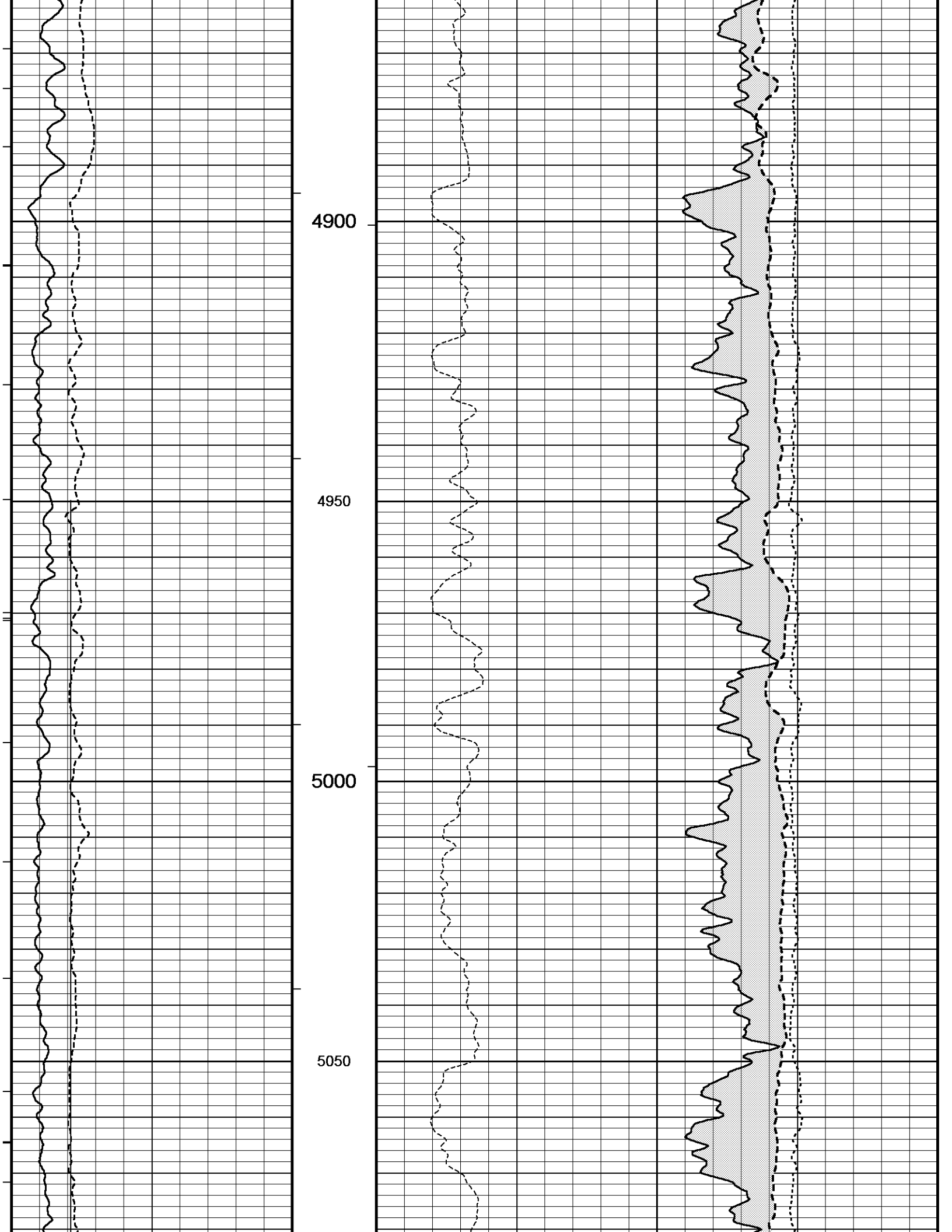
PE
Limestone Density Por.
Density Correction
Limestone Neutron Por.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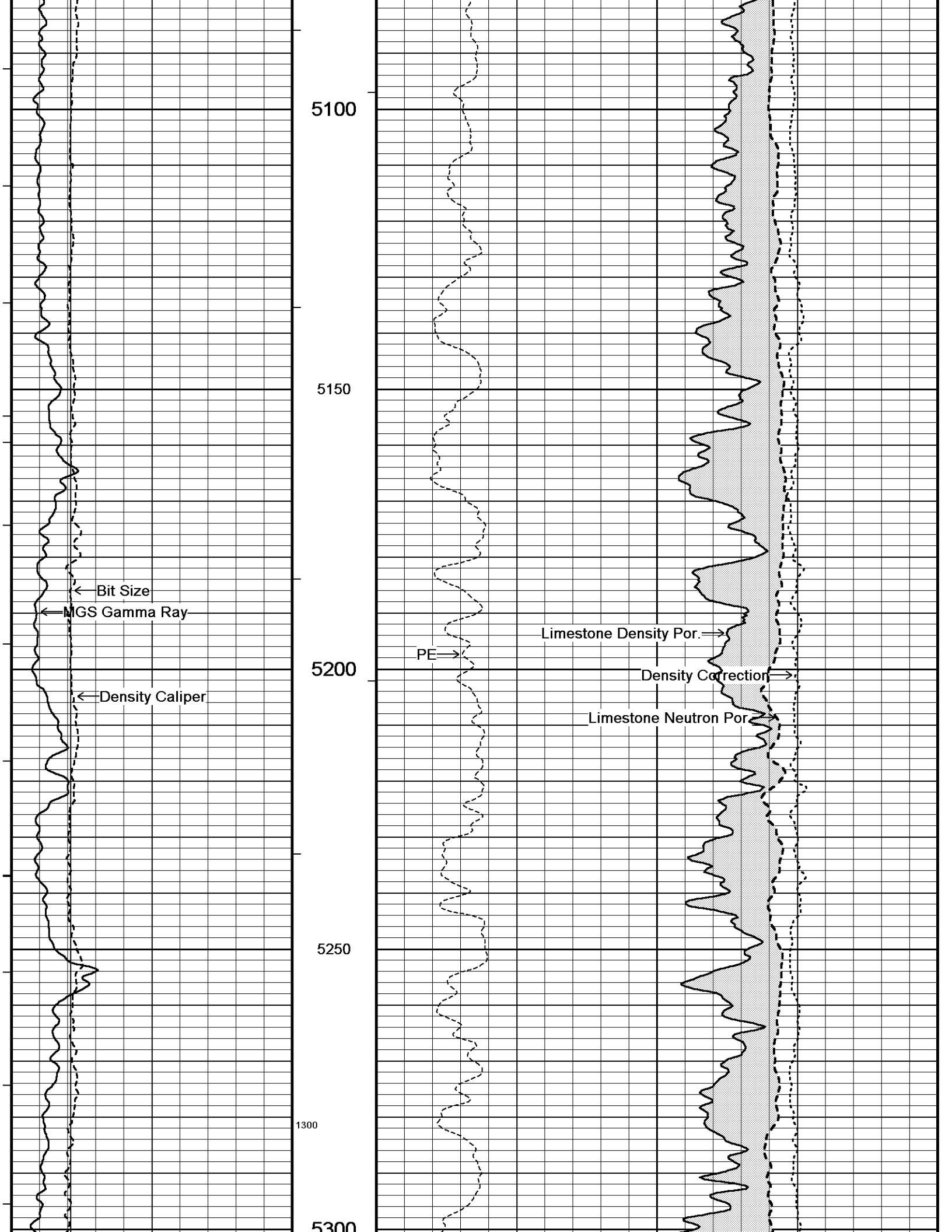
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Density Correction
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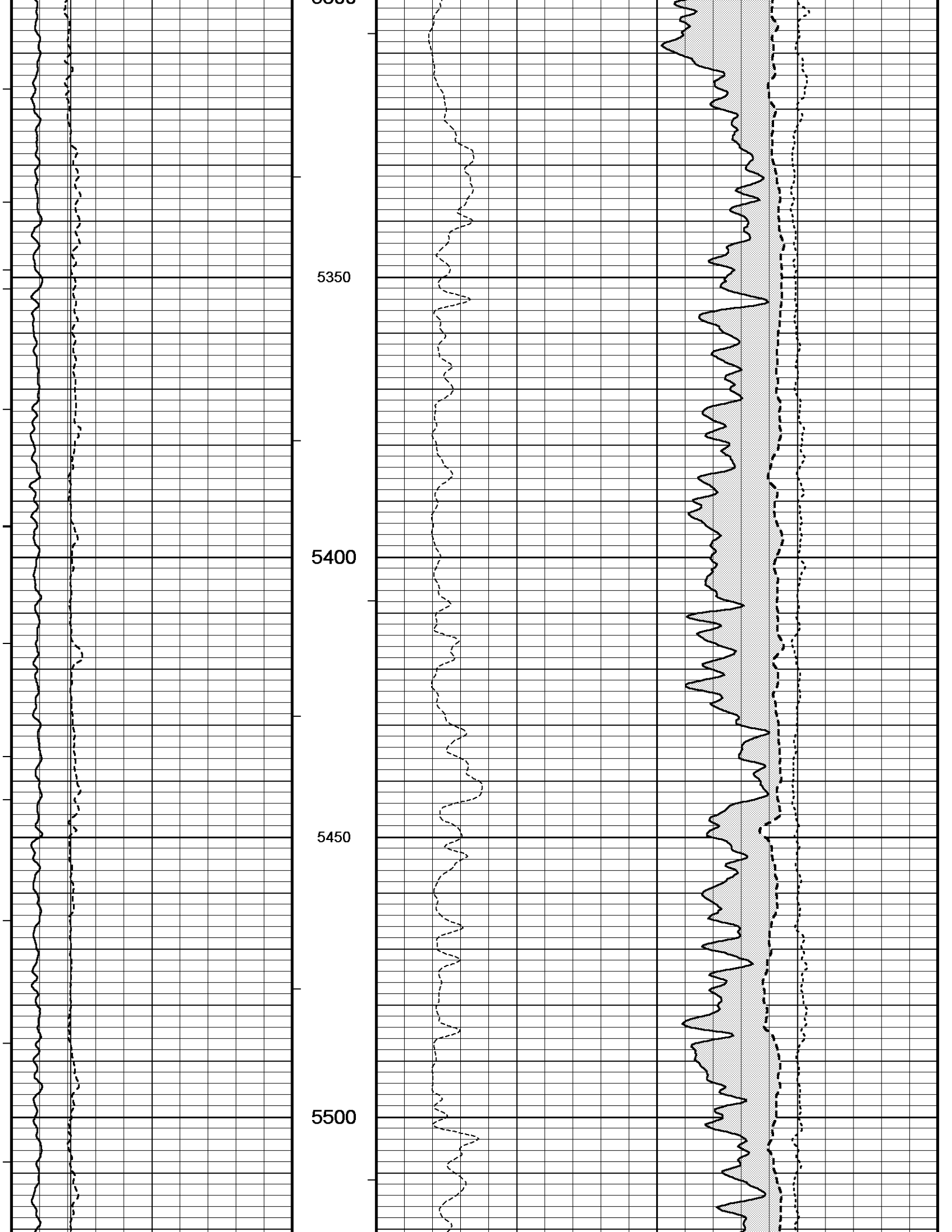
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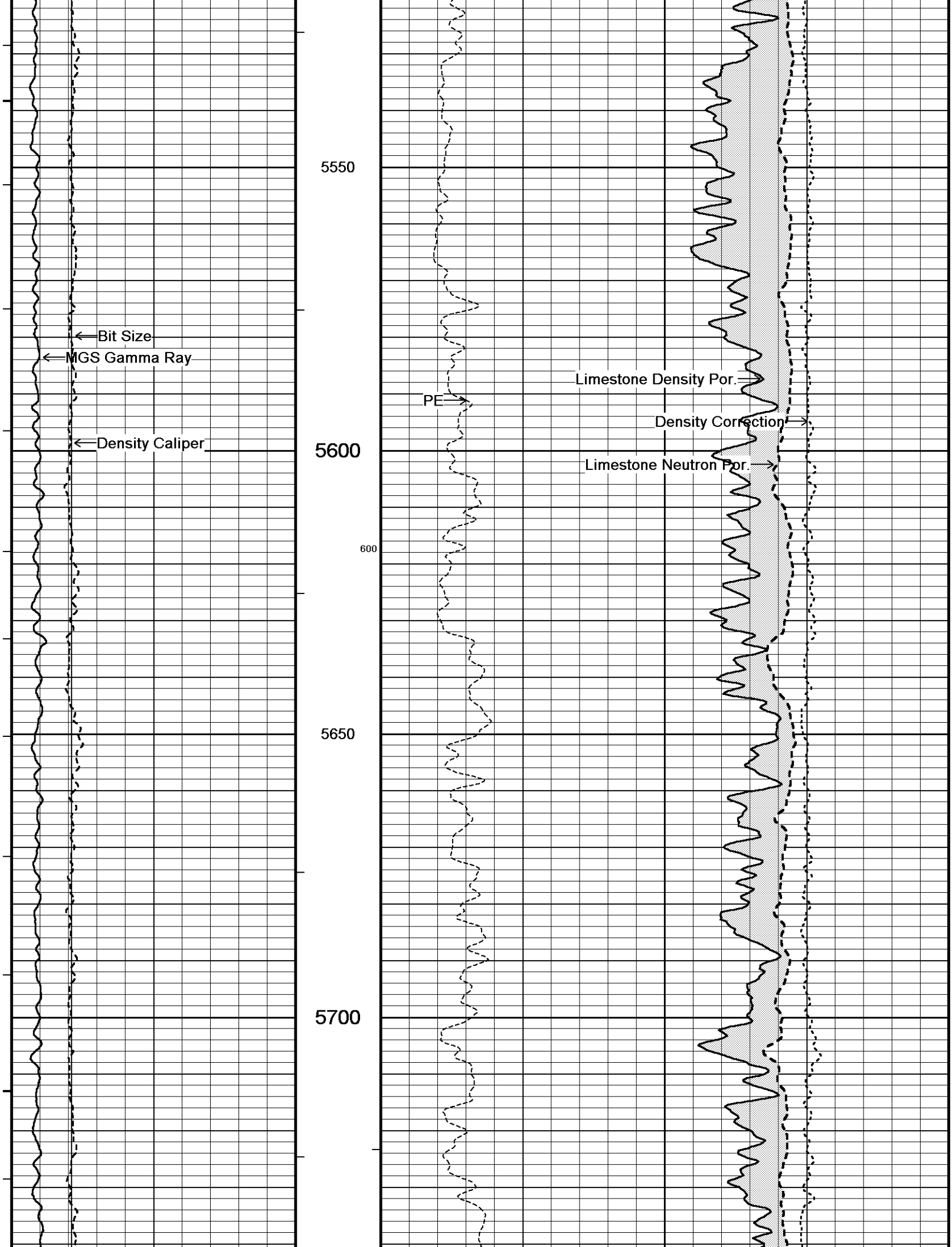
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Density Caliper
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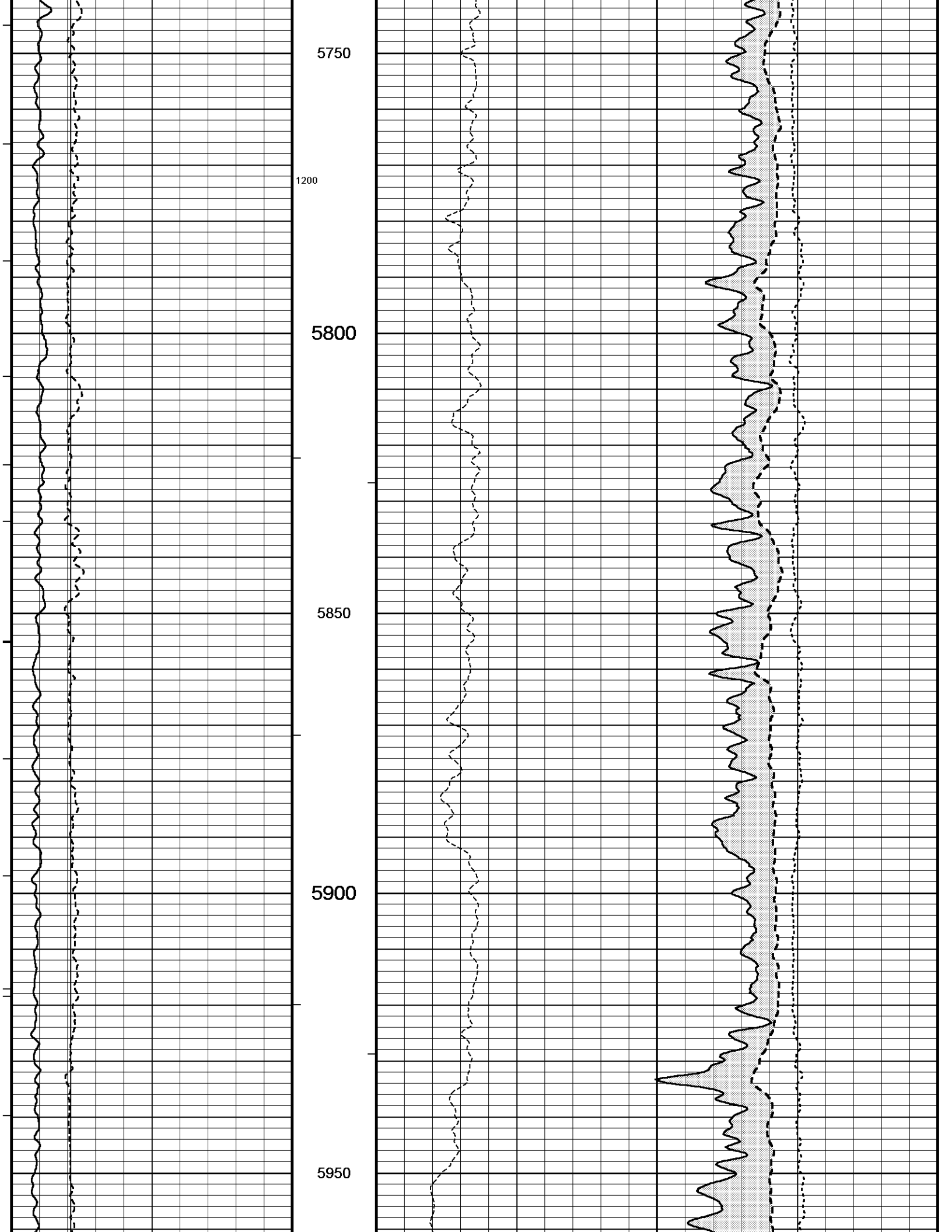
Density Correction
Limestone Neutron Por.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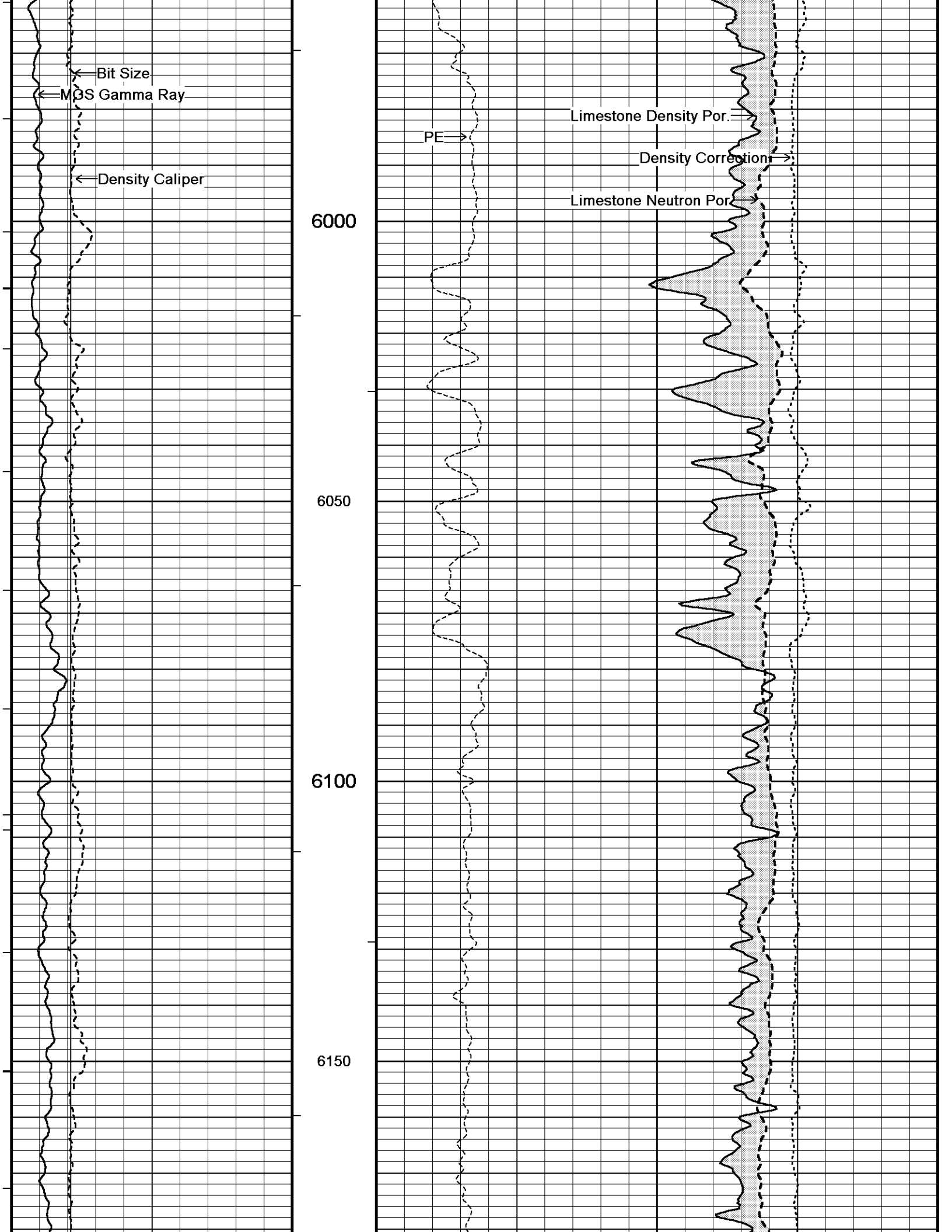
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Density Caliper
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Limestone Density Por.
Density Correction
Limestone Neutron Por.
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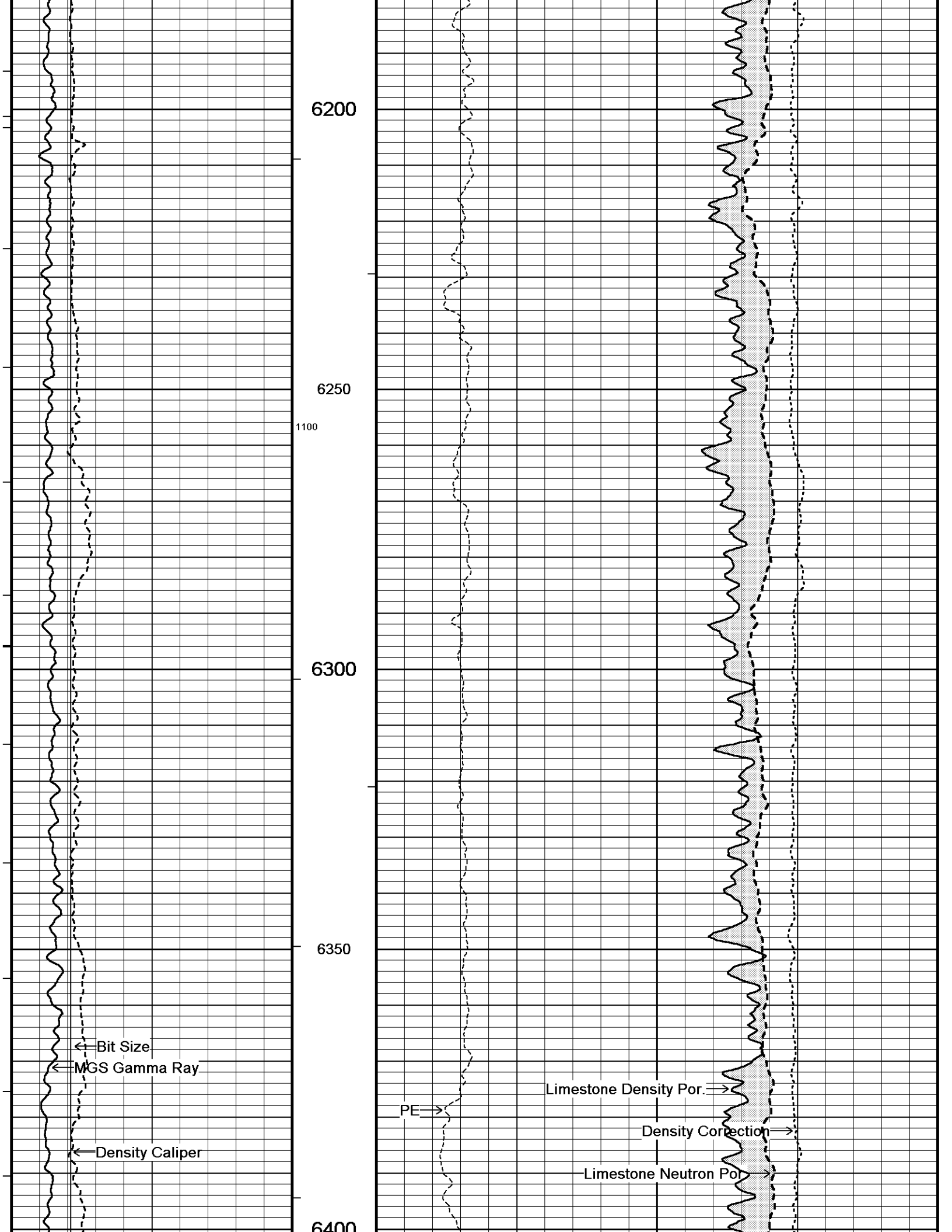
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Density Correction
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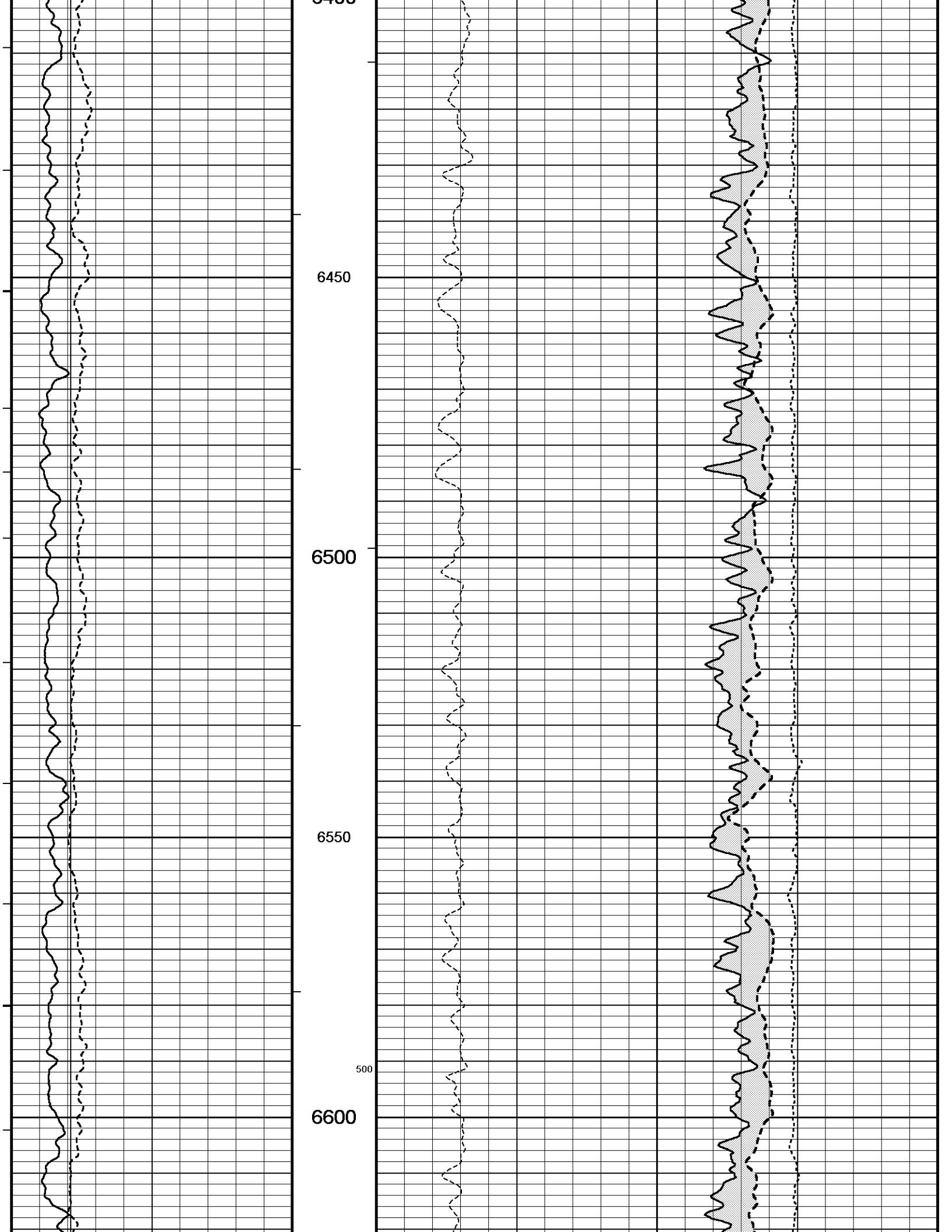
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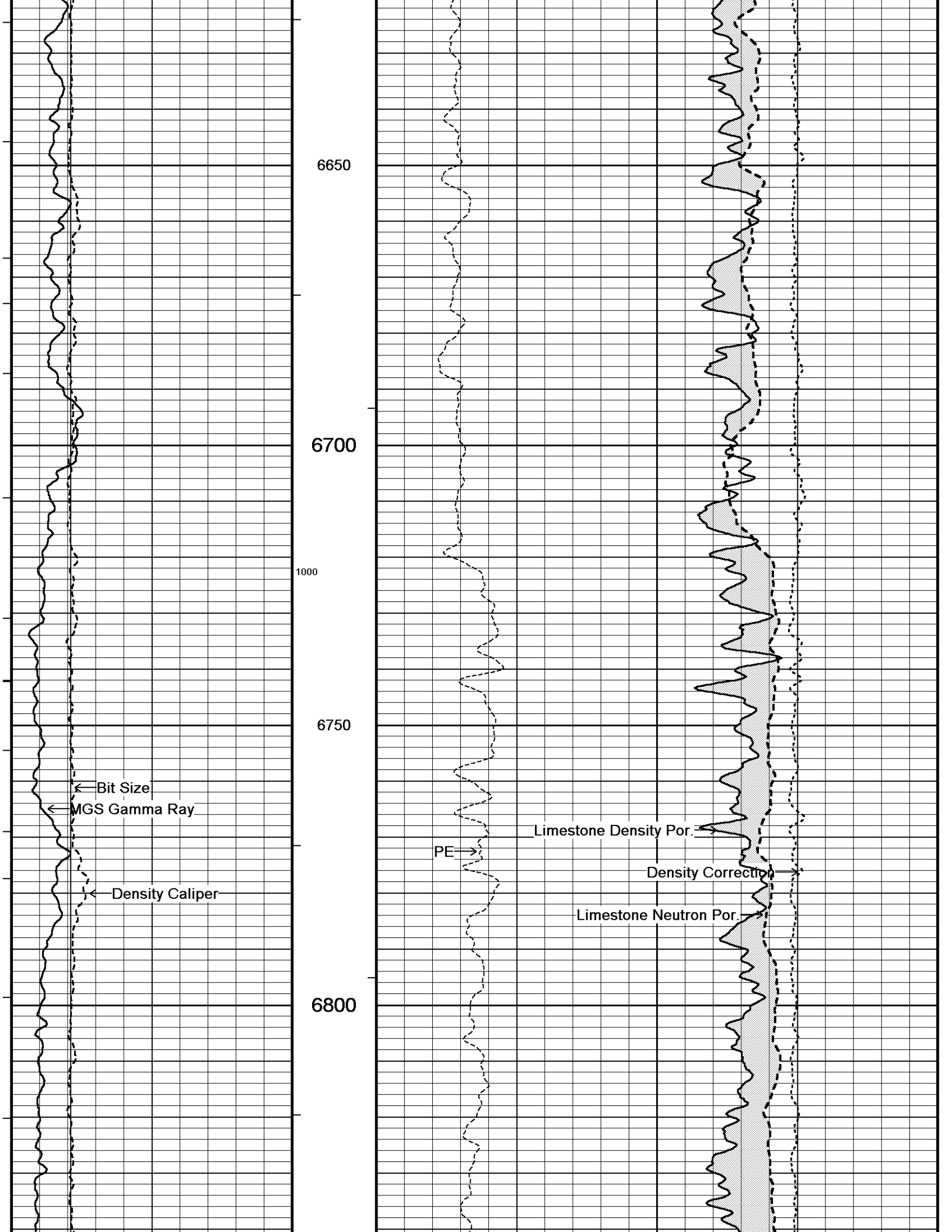
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Density Correction
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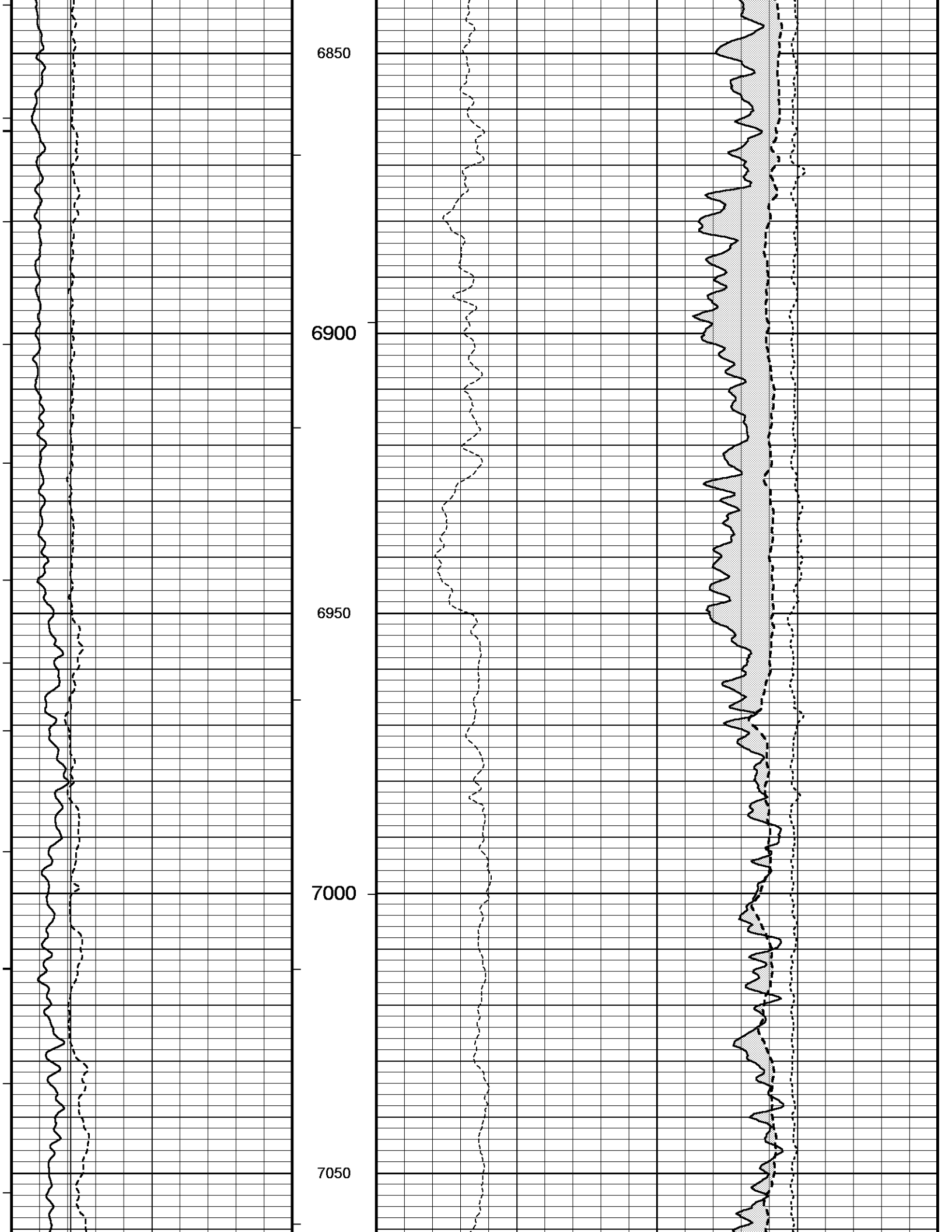
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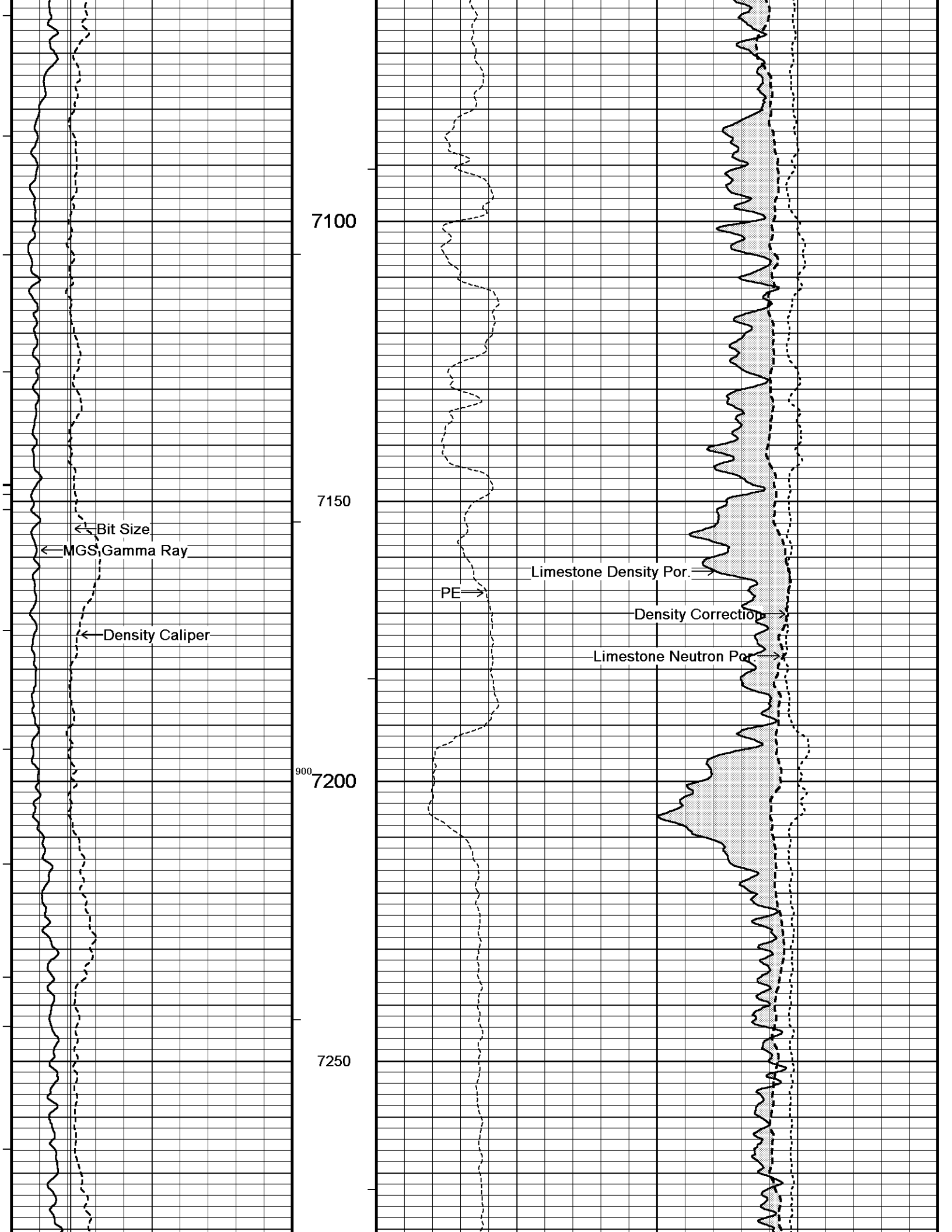
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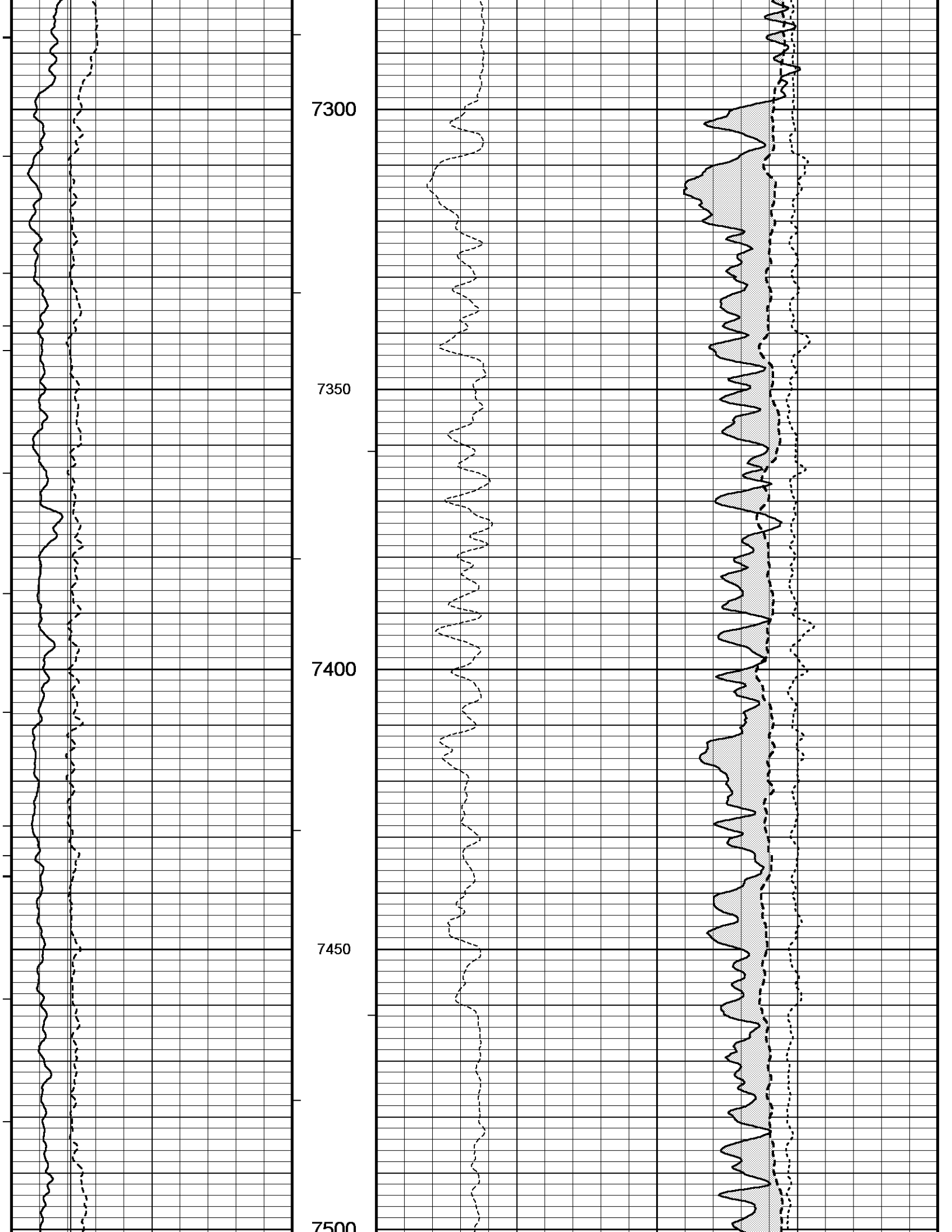
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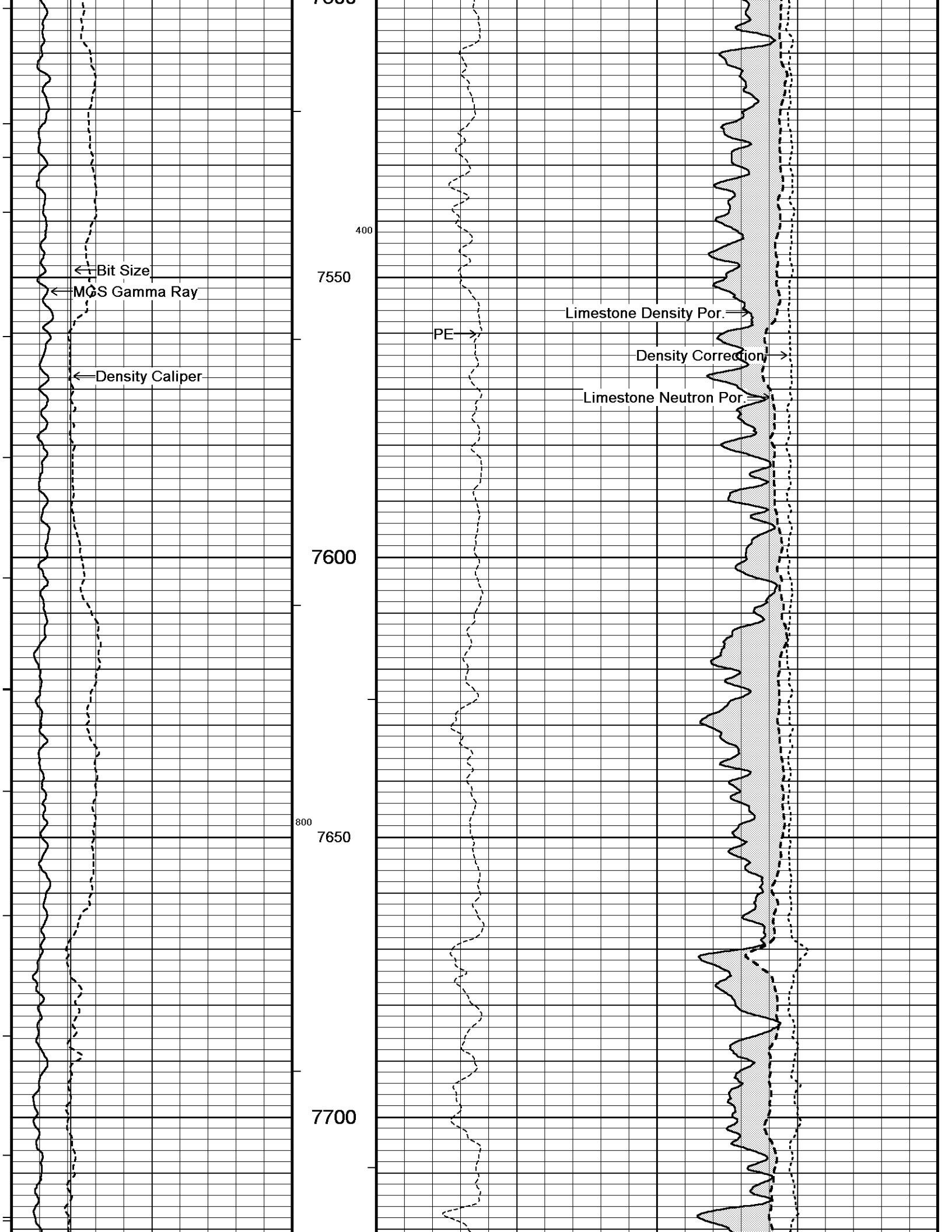
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Density Correction
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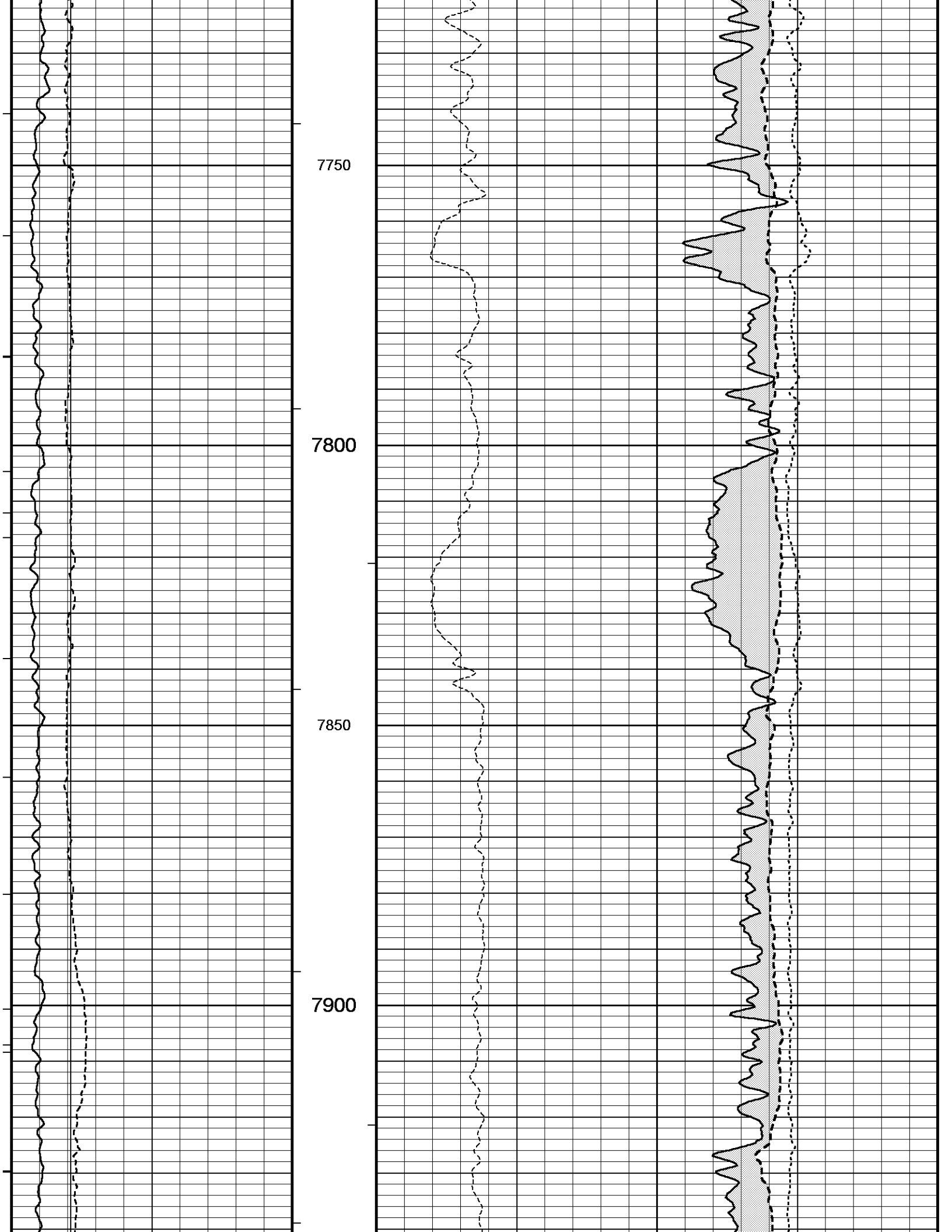
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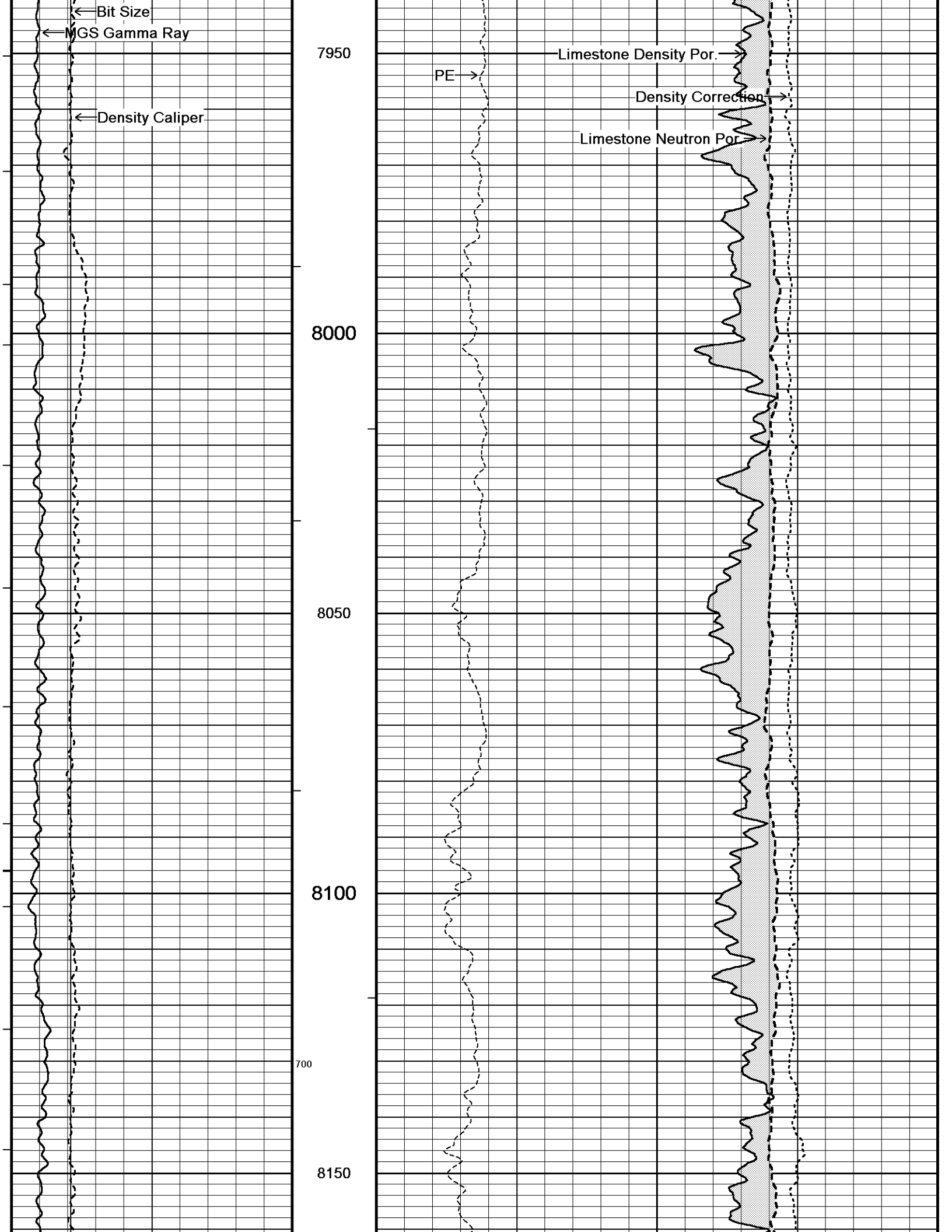
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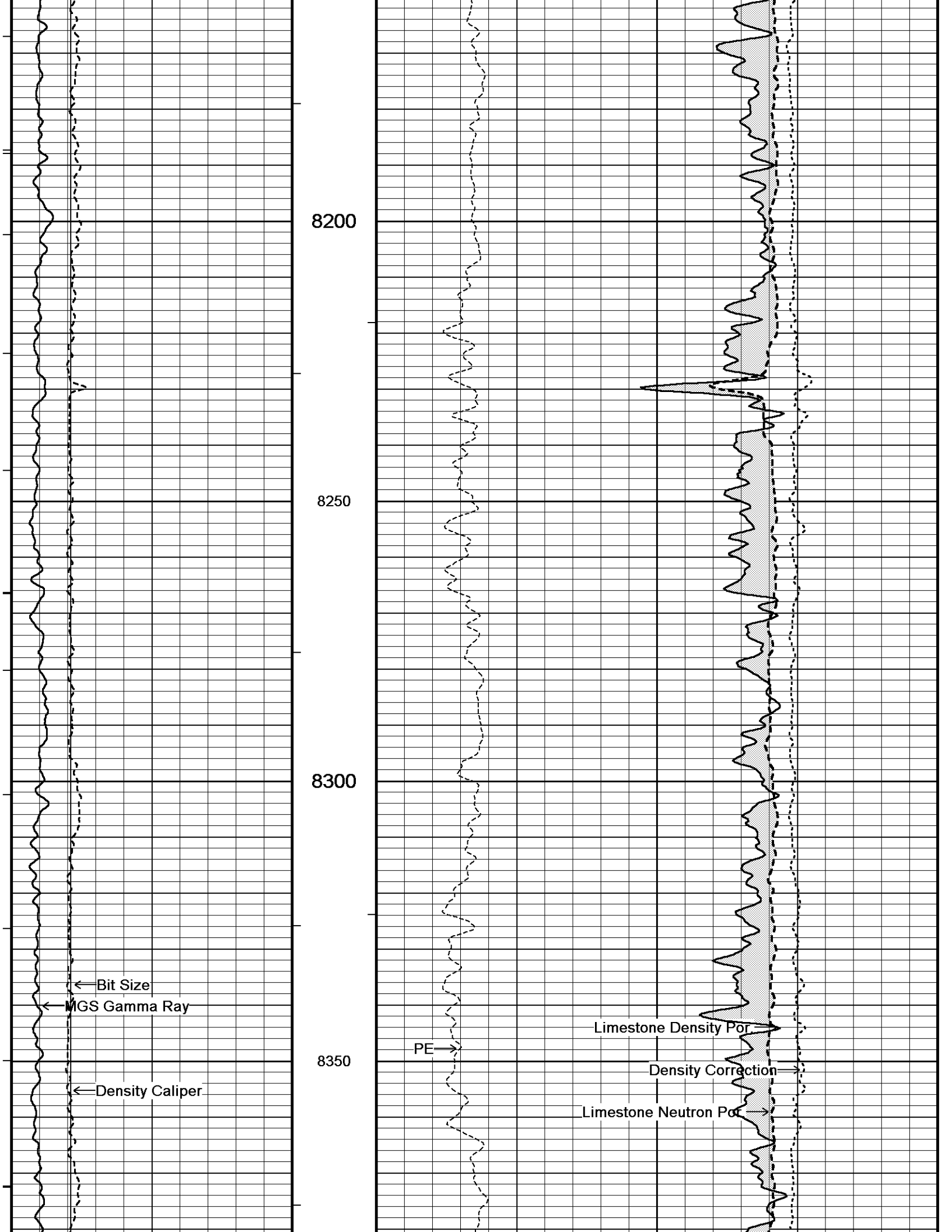
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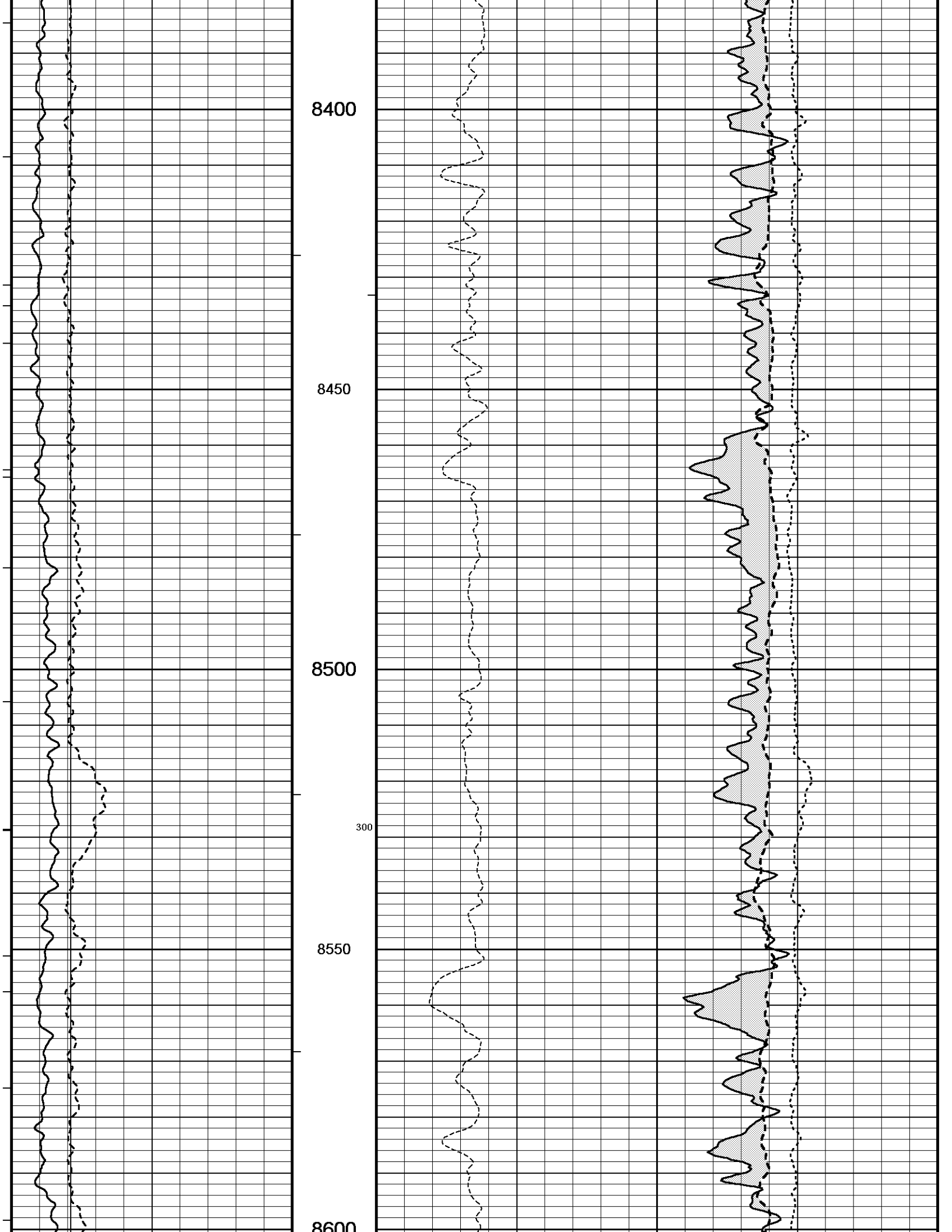
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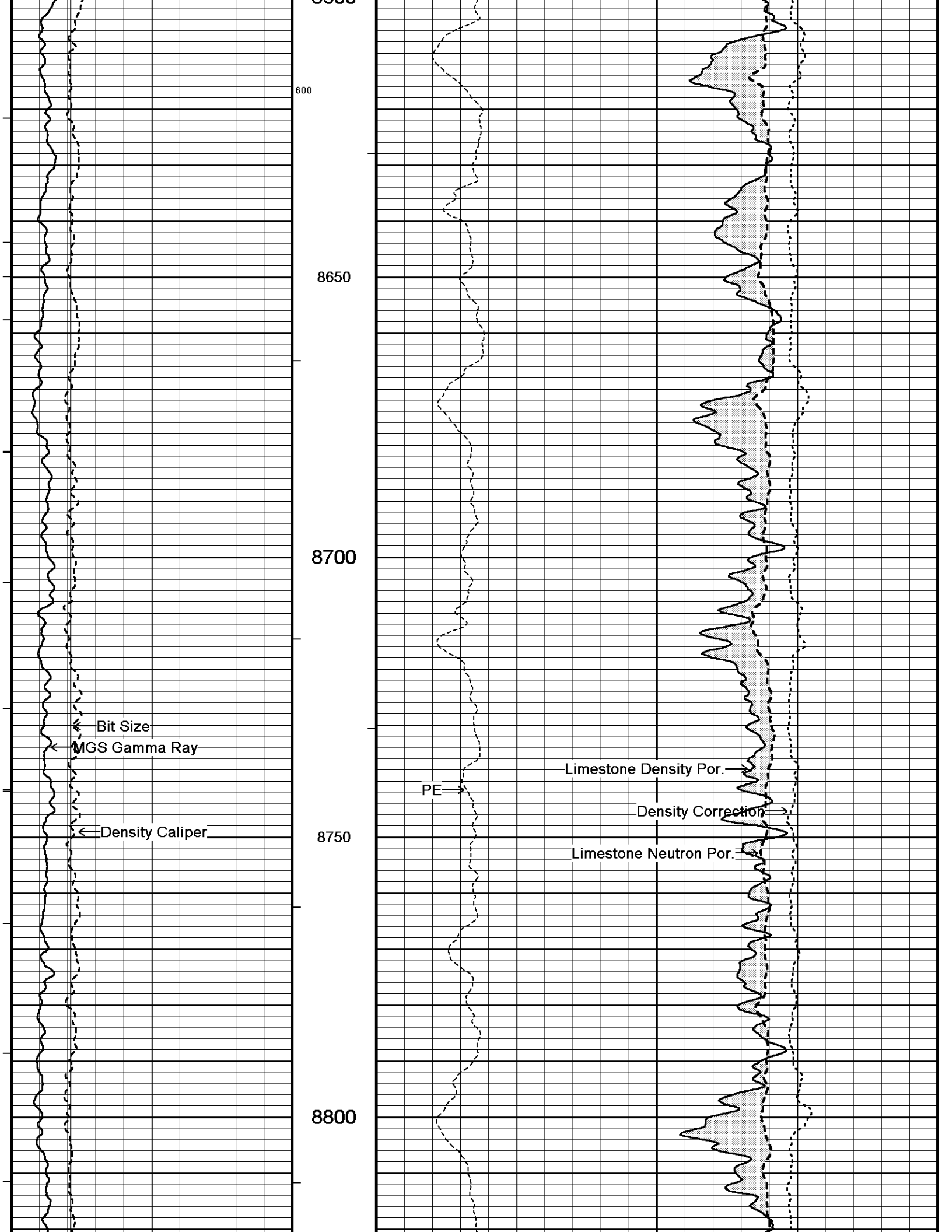
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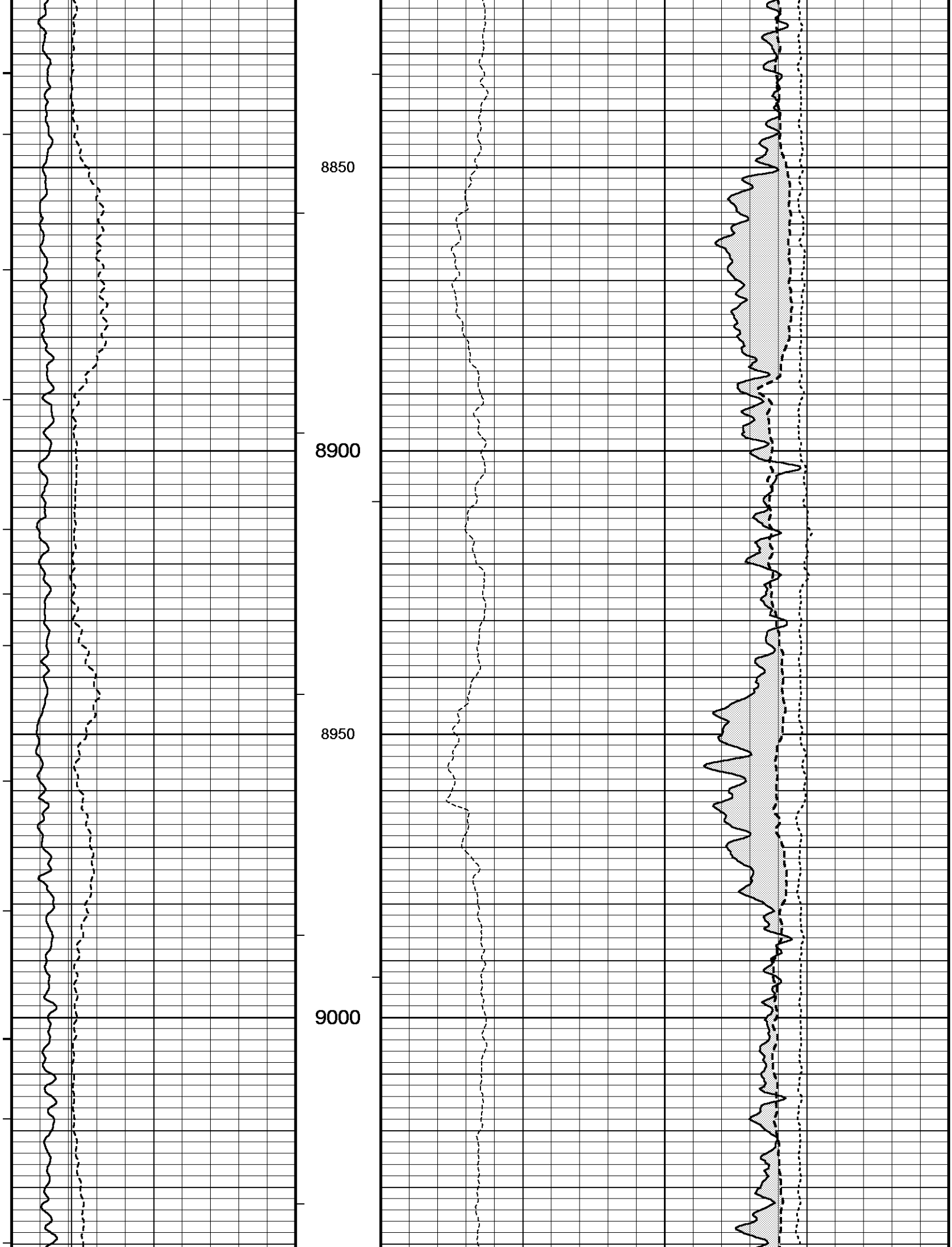
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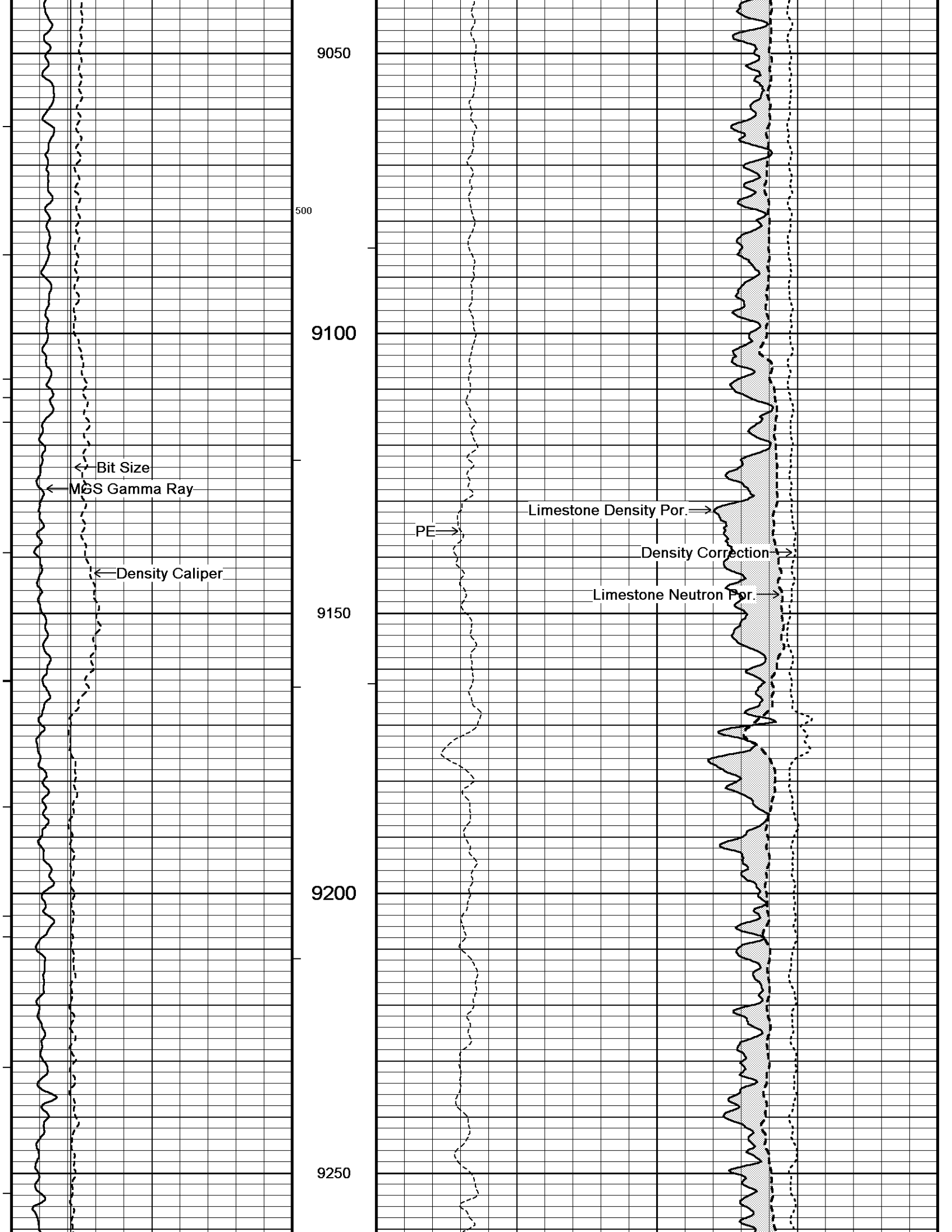
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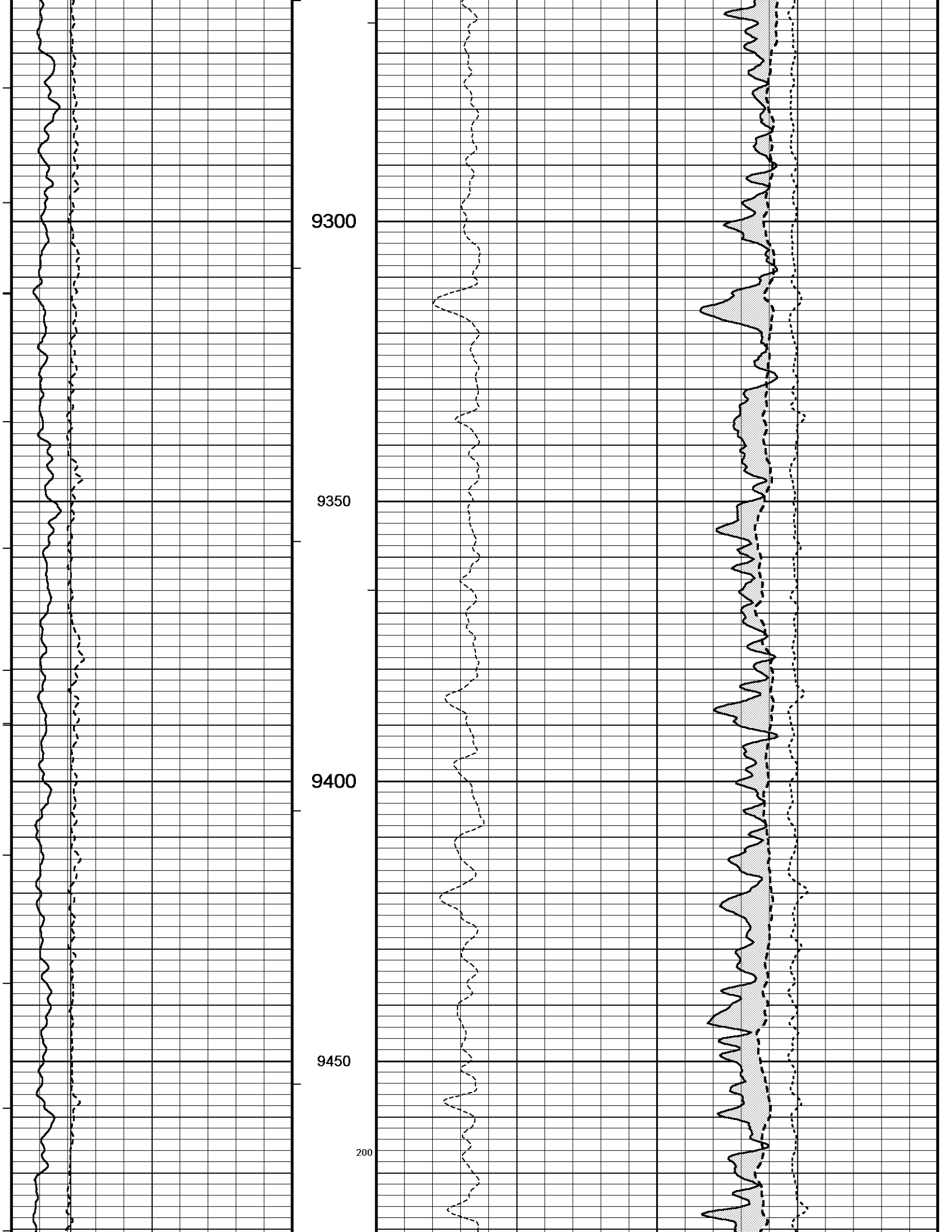
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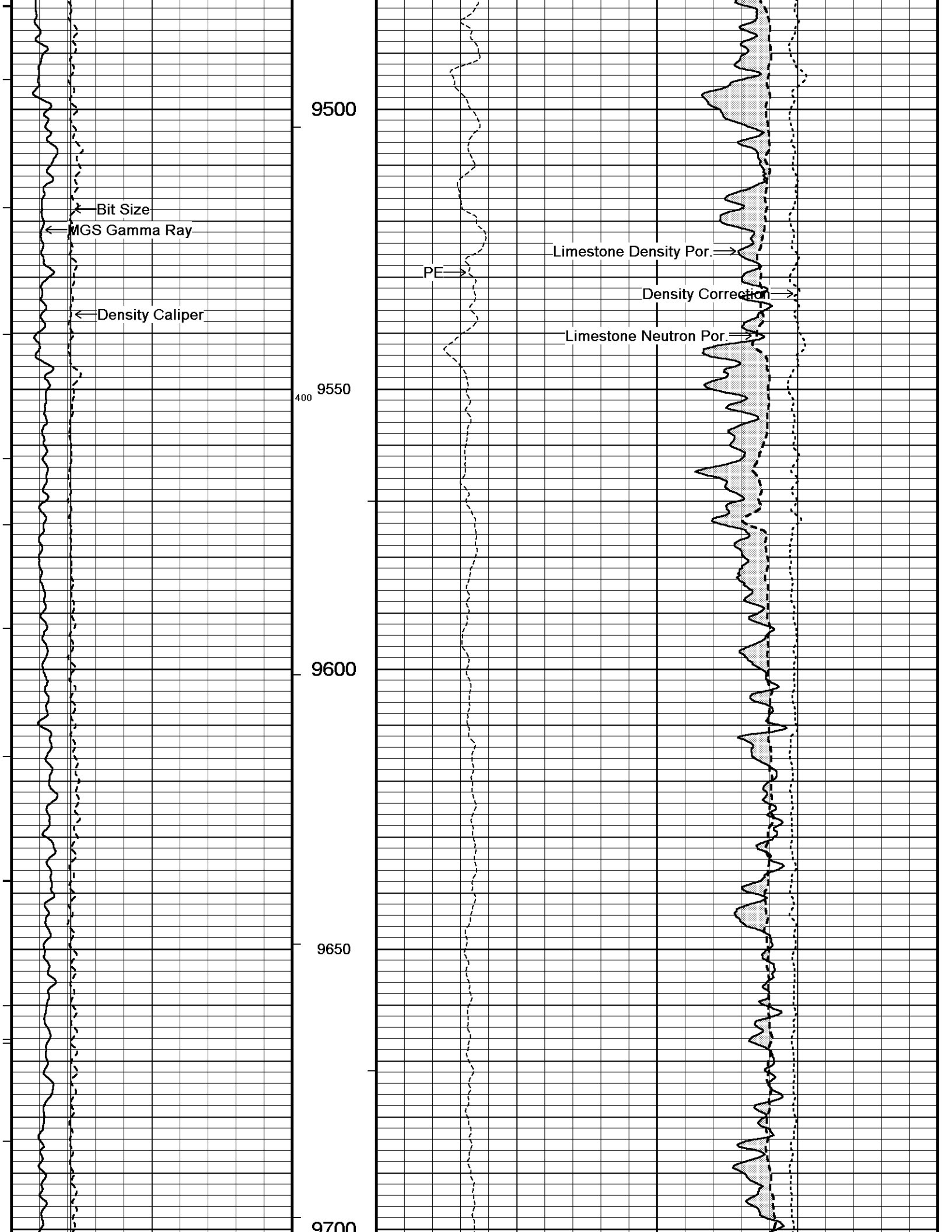
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Density Correction
Limestone Neutron Por.
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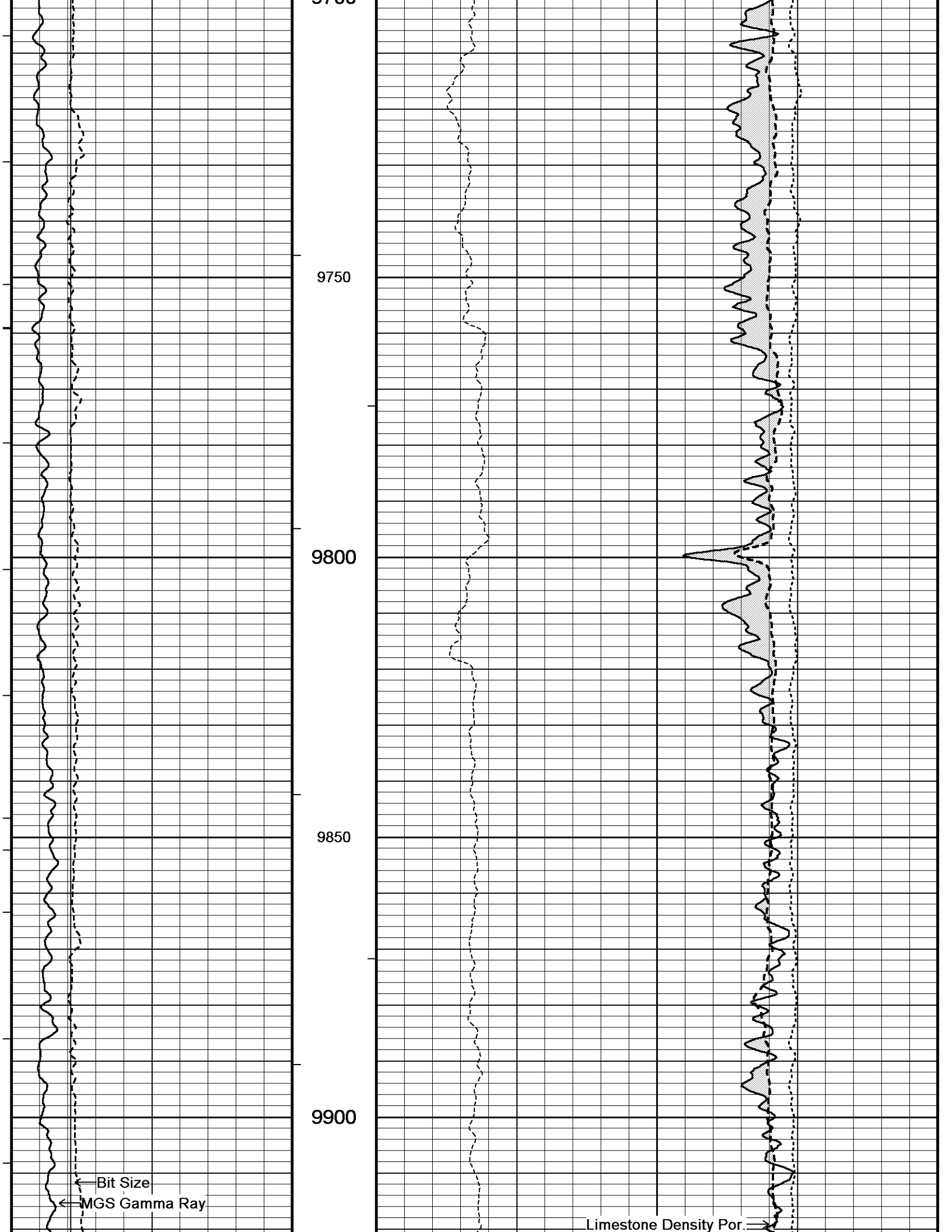
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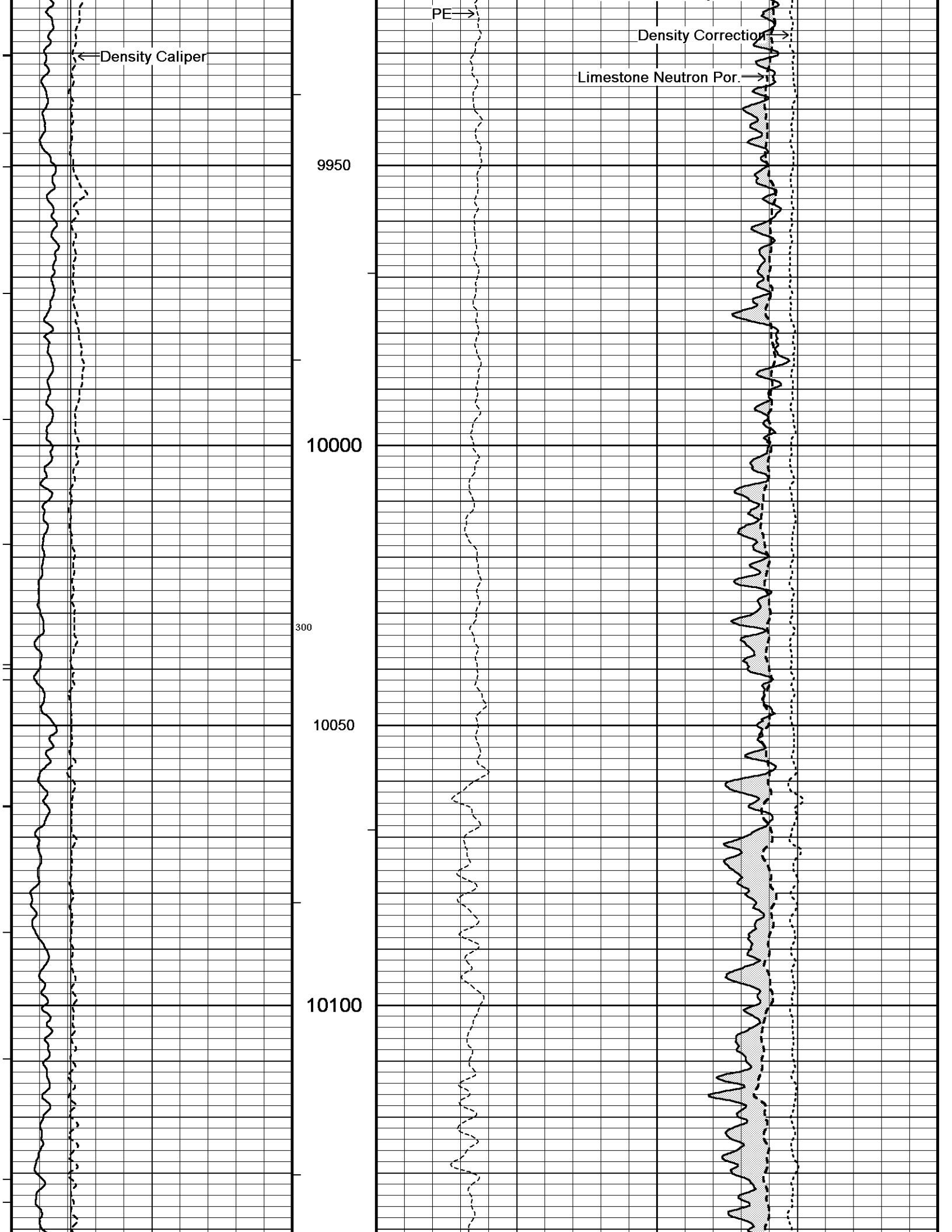
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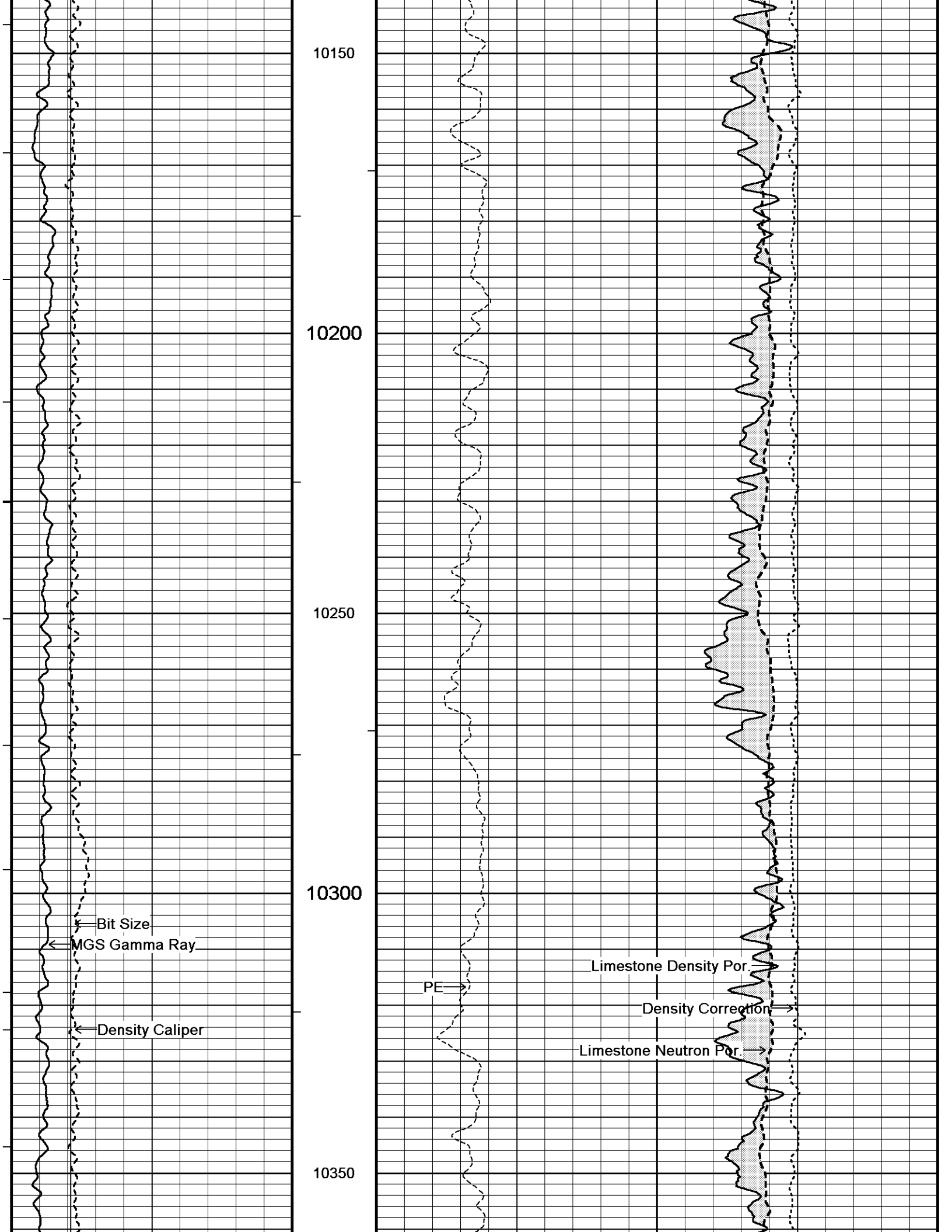
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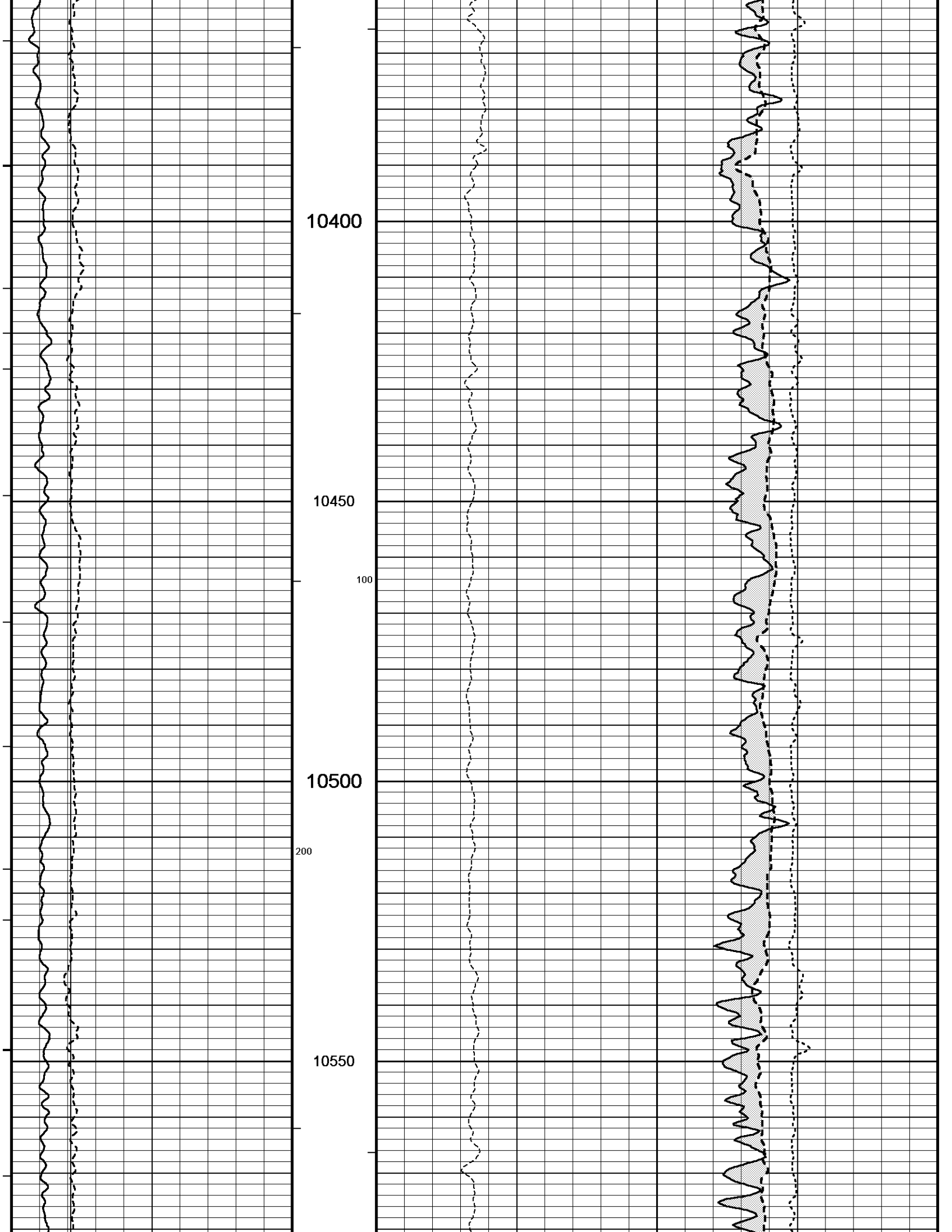
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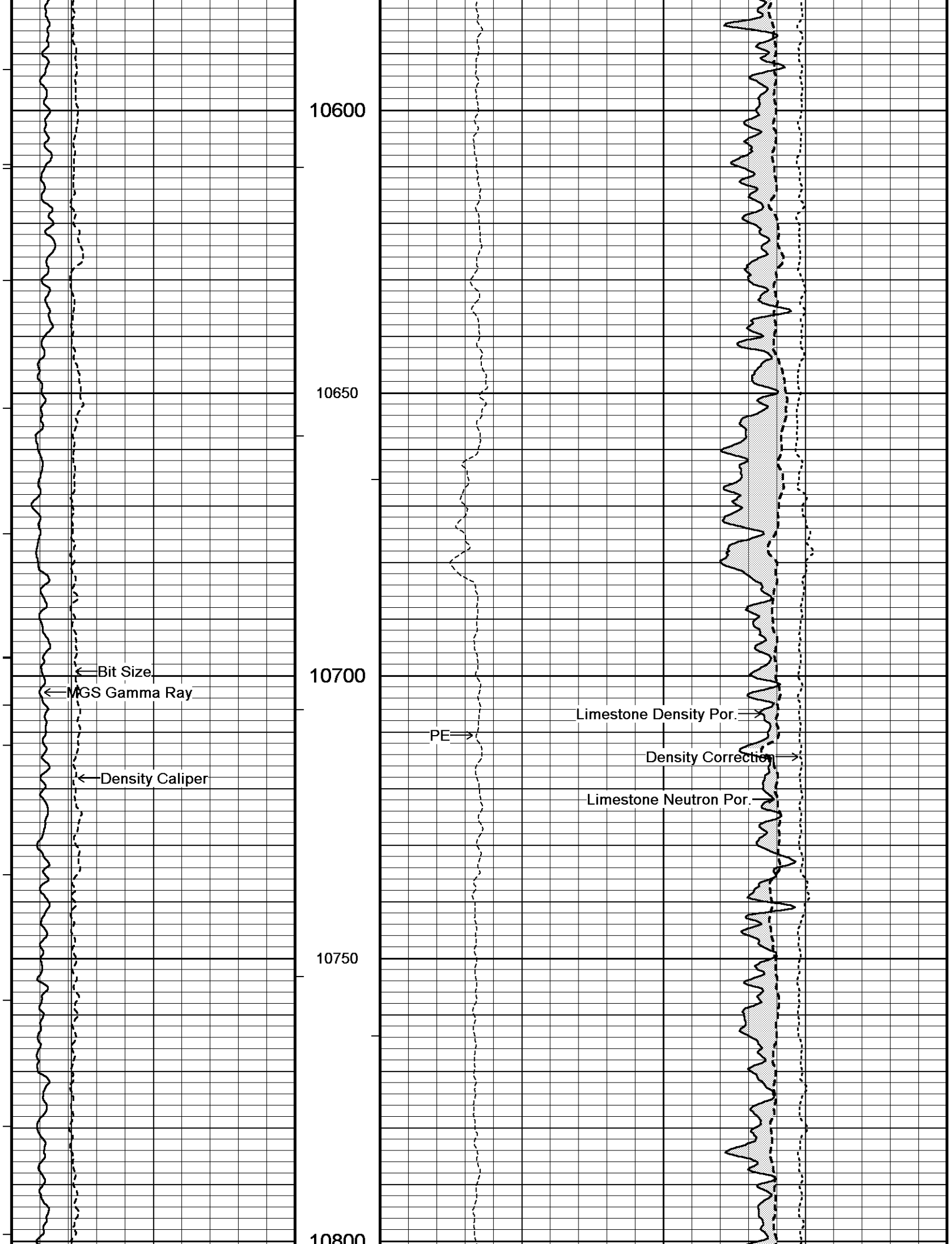
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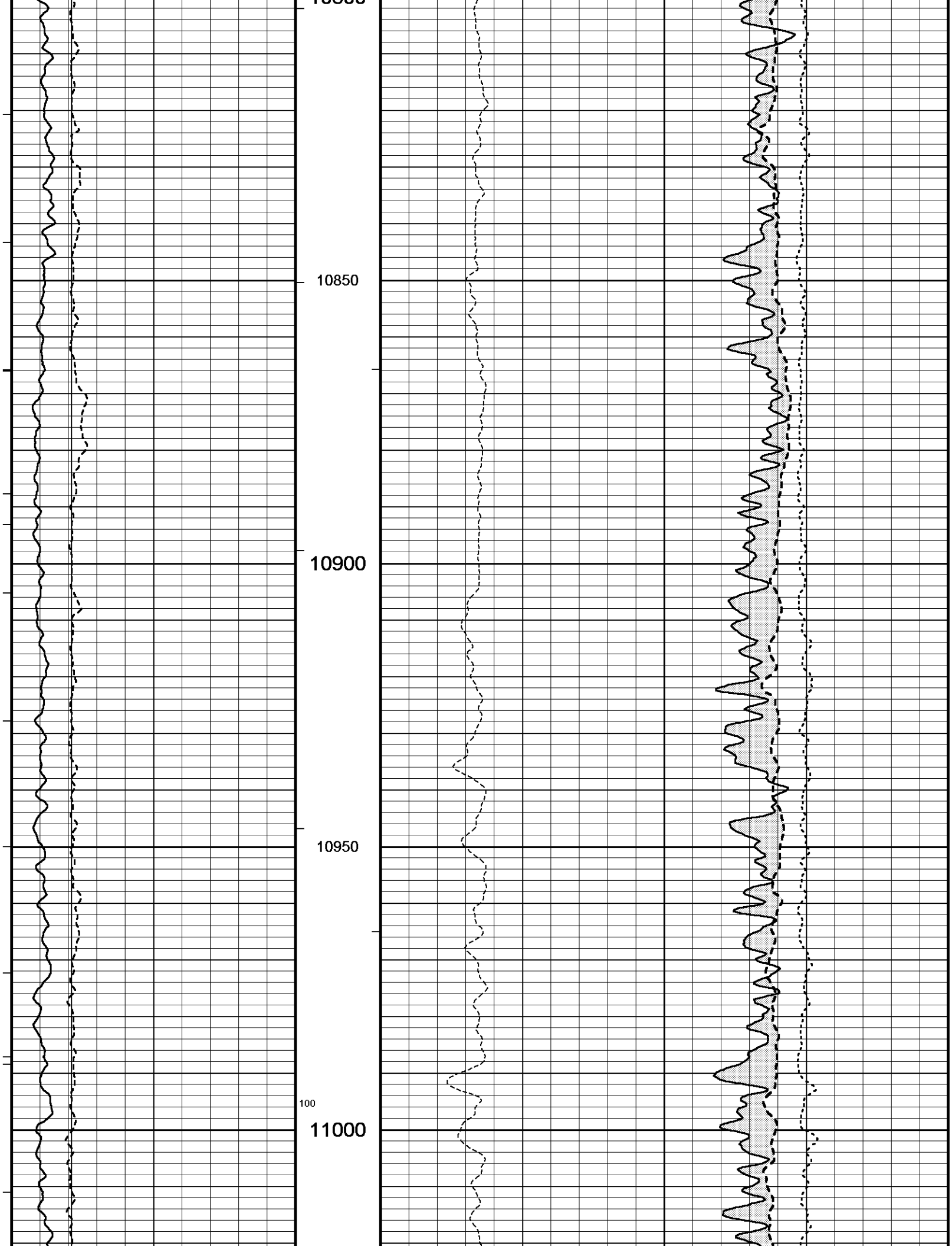
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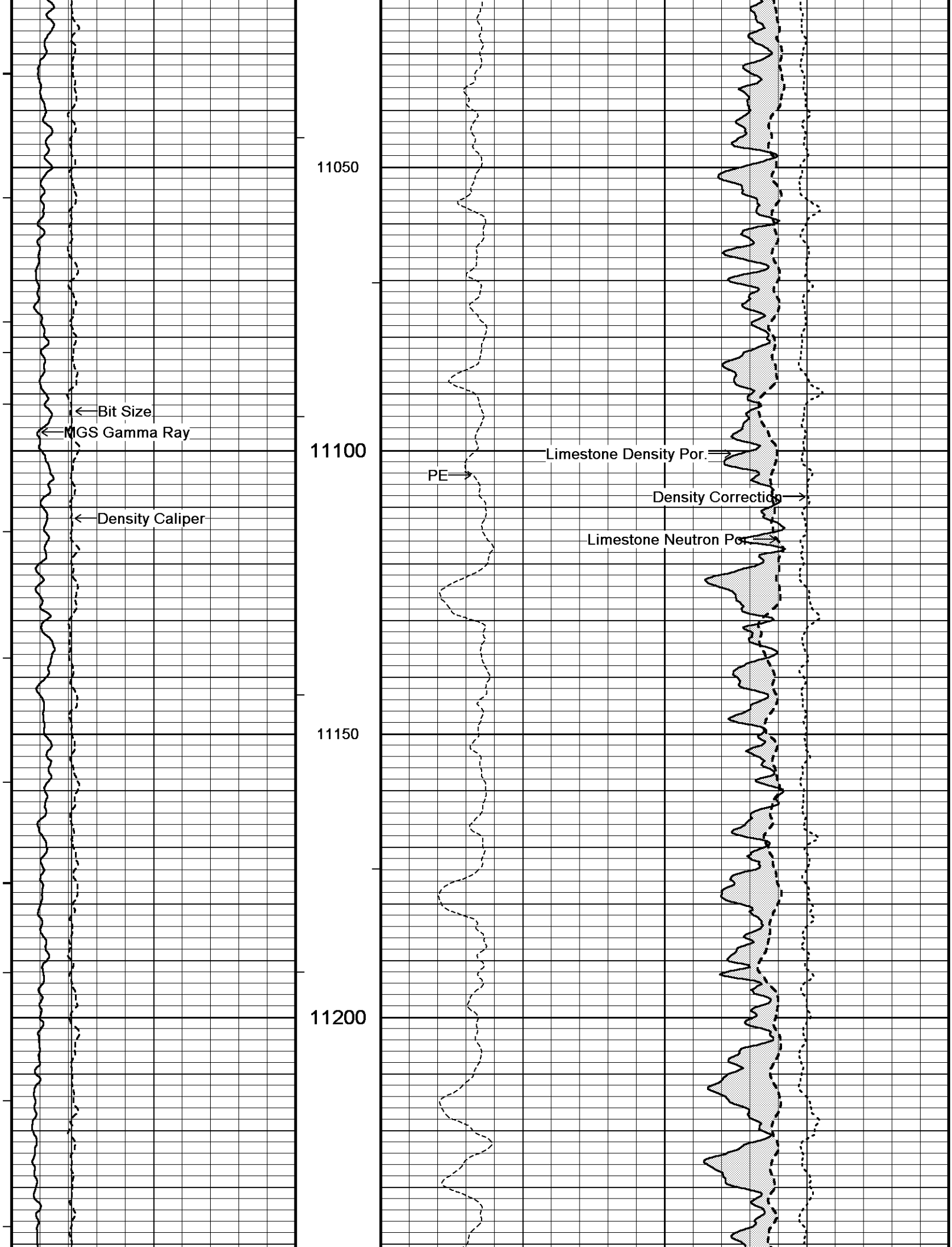
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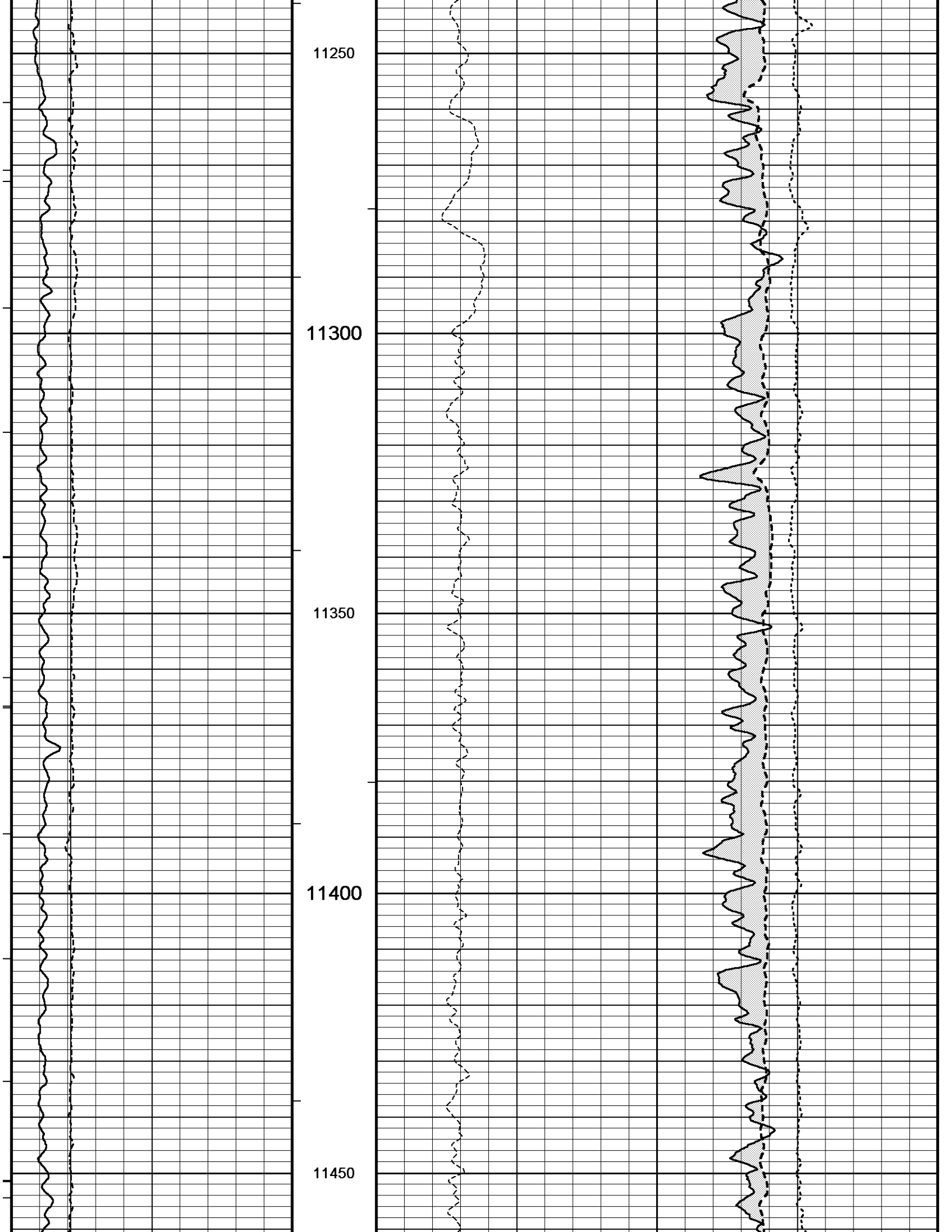
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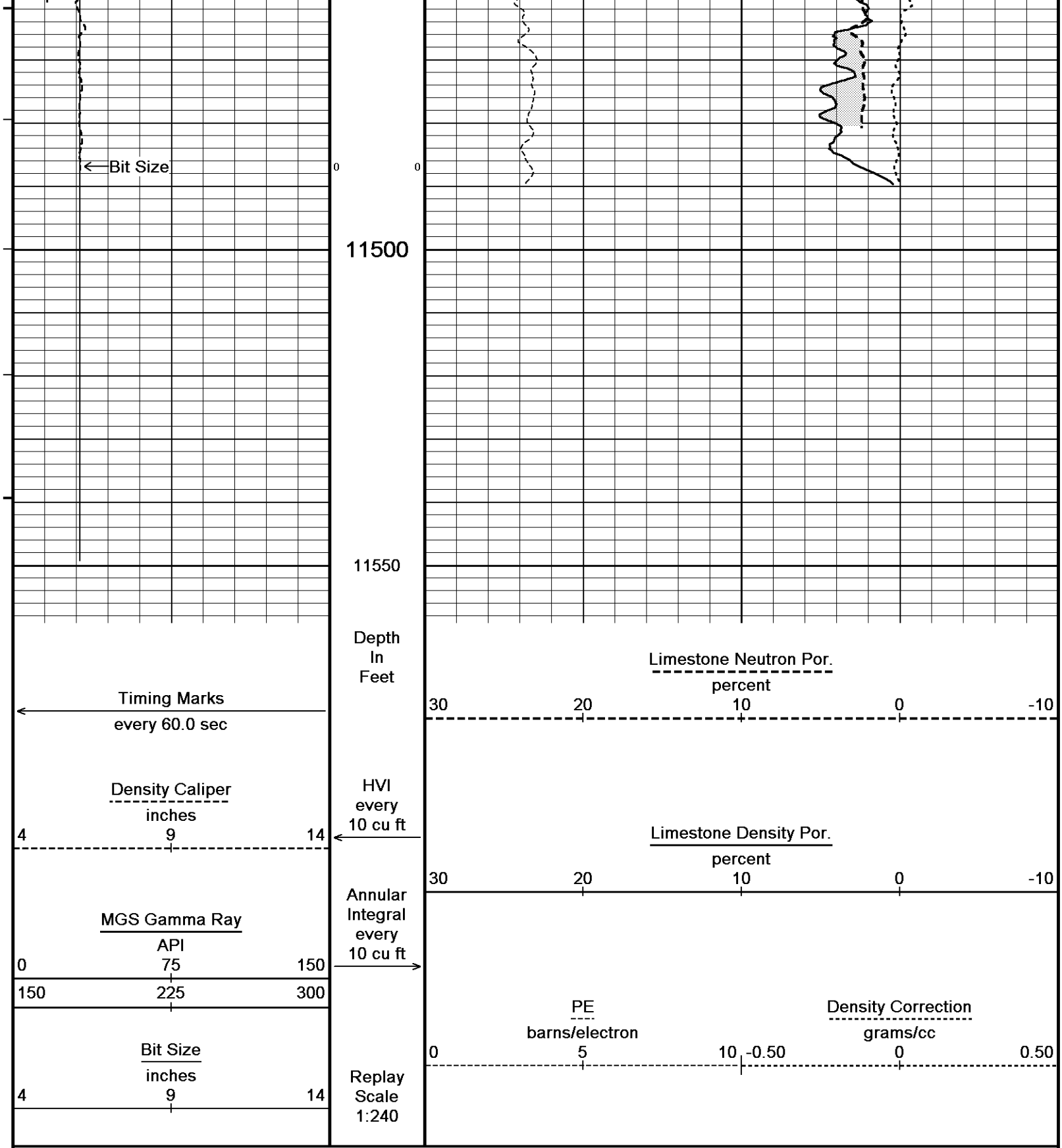
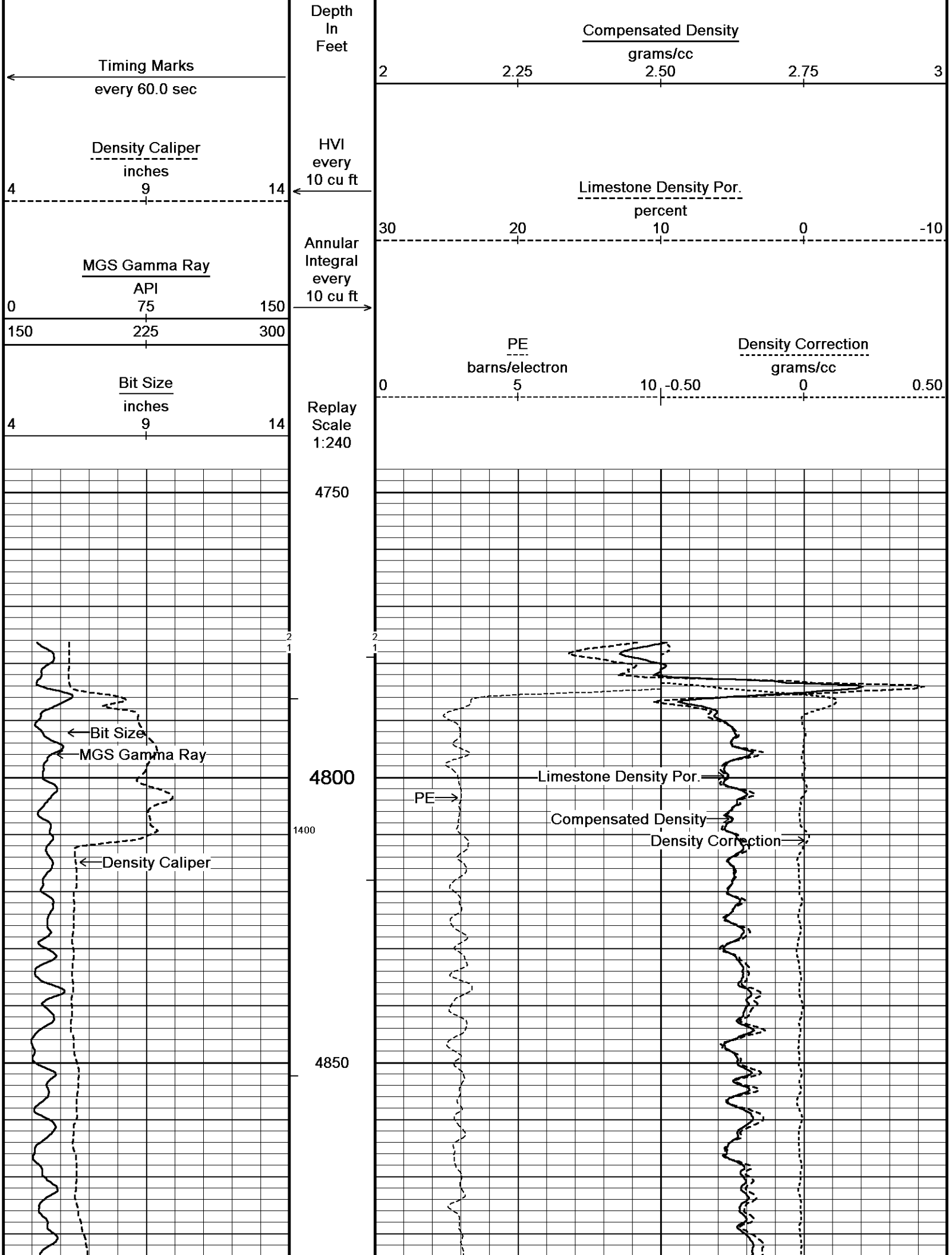


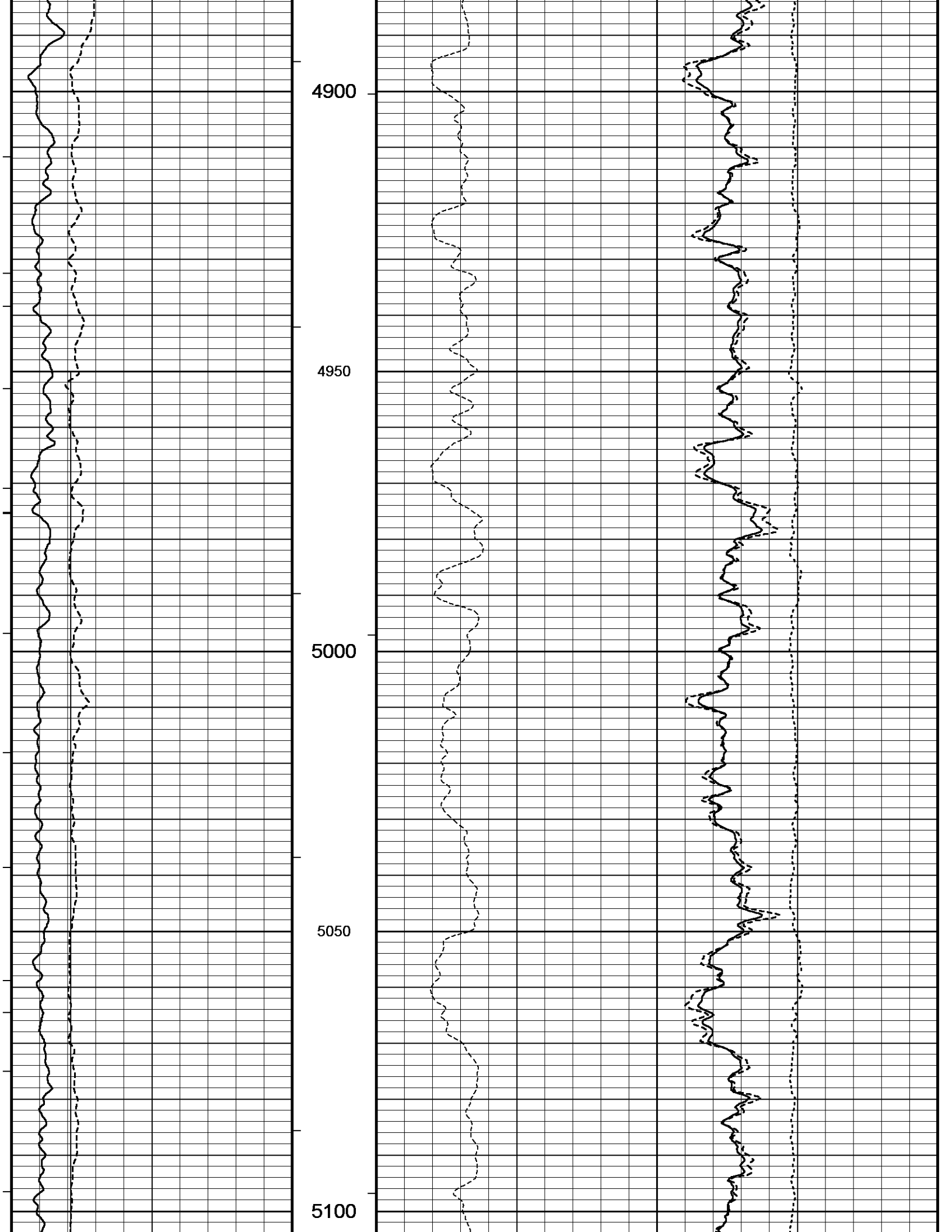
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 03-FEB-2013 20:02
Filename: C:\Data\Sandridge\Sandridge Peter 3404 1-20H\MMS158 Depthlog.dta
Recorded on 03-FEB-2013 19:01
System Versions: Processed with 13.03.7779 Plotted with 13.03.7779

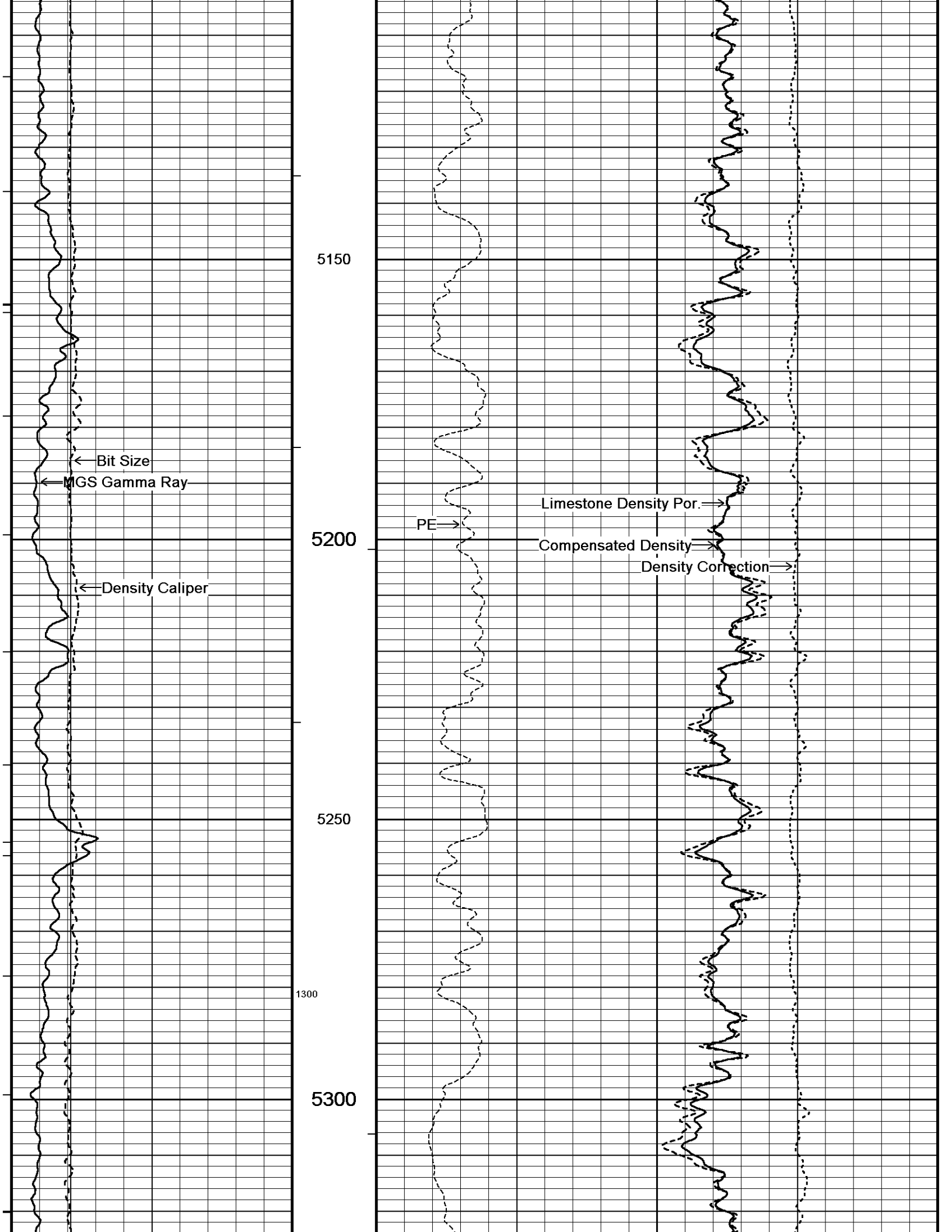
5 INCH MAIN PASS DSC

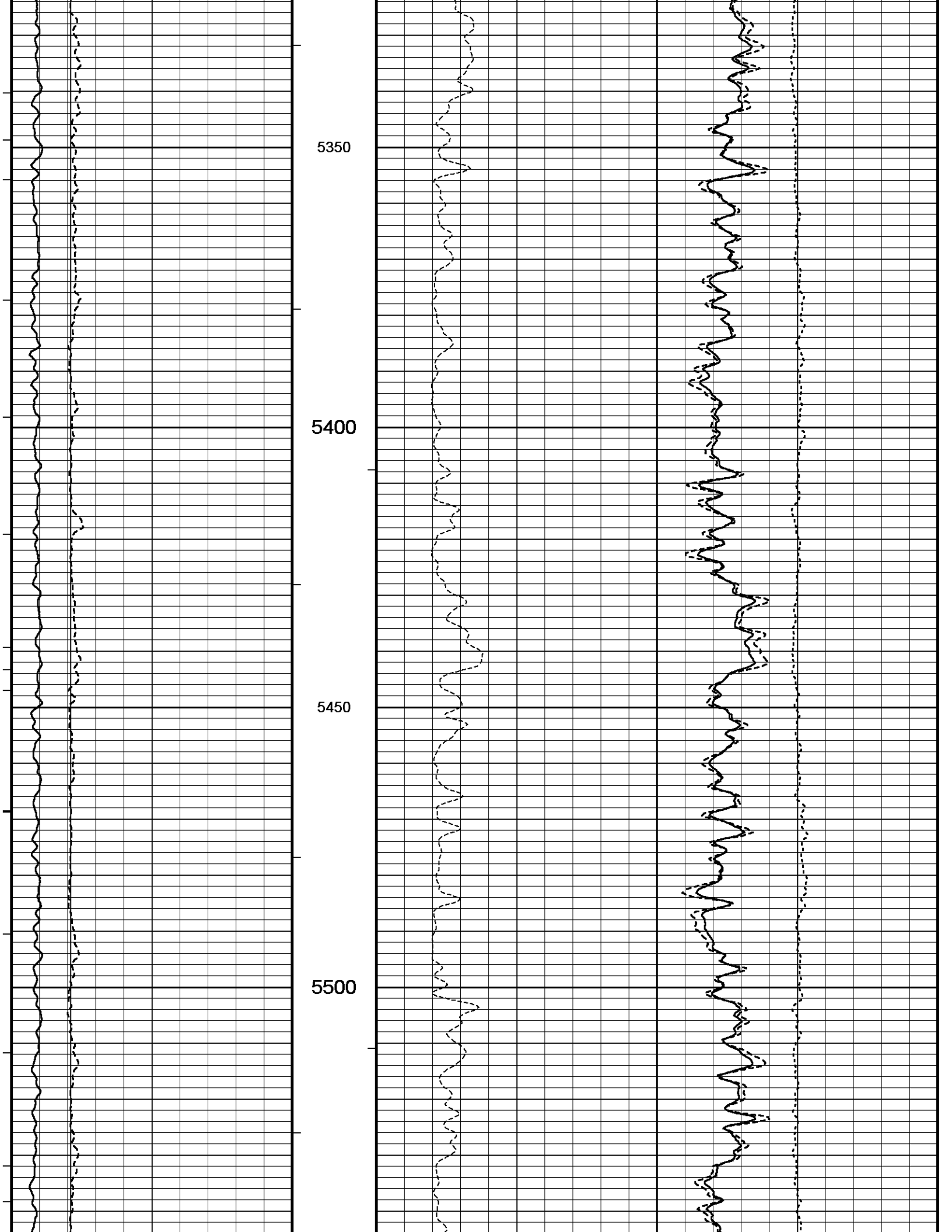
5 INCH BULK DENSITY DSC

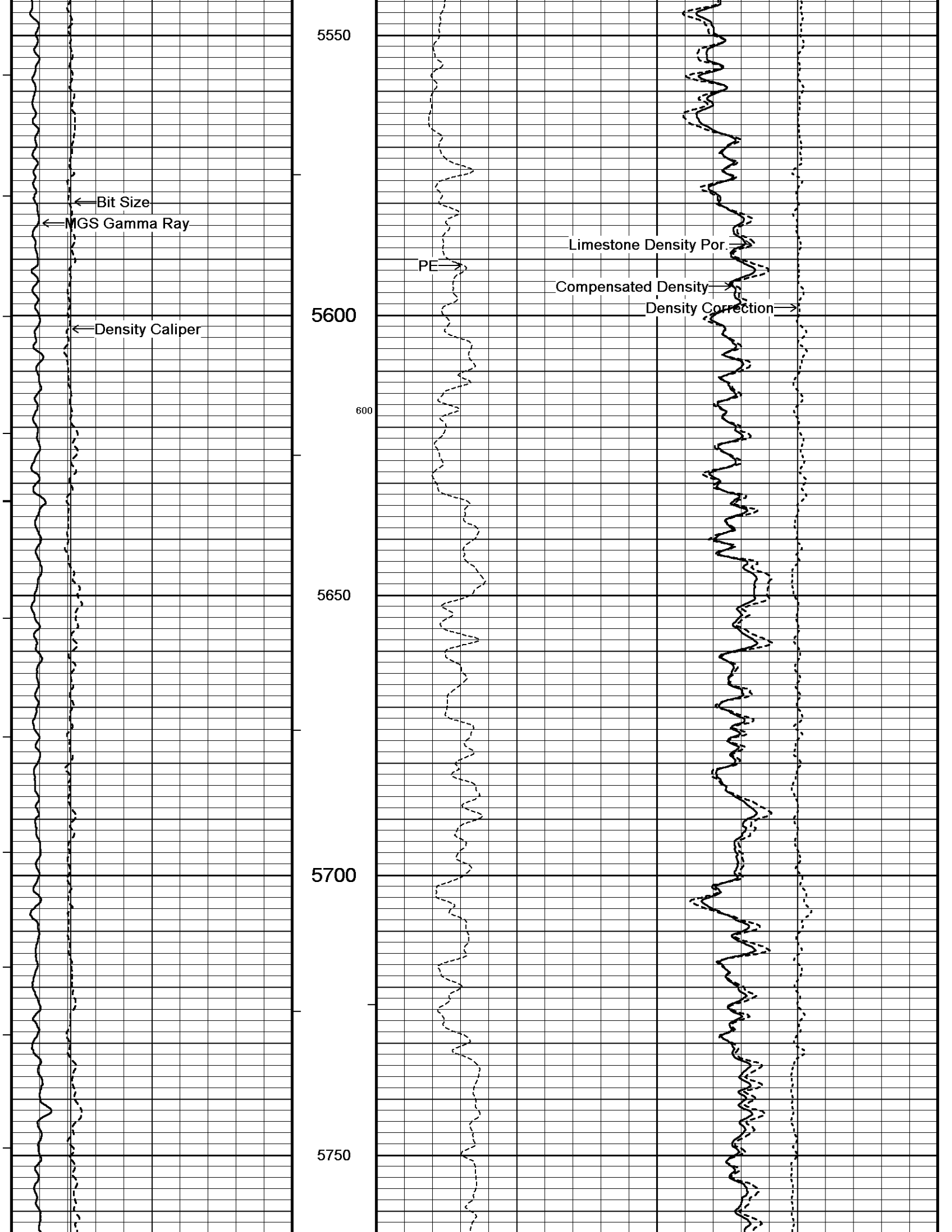
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 03-FEB-2013 20:02
Filename: C:\Data\Sandridge\Sandridge Peter 3404 1-20H\MMS158 Depthlog.dta
Recorded on 03-FEB-2013 19:01
System Versions: Processed with 13.03.7779 Plotted with 13.03.7779

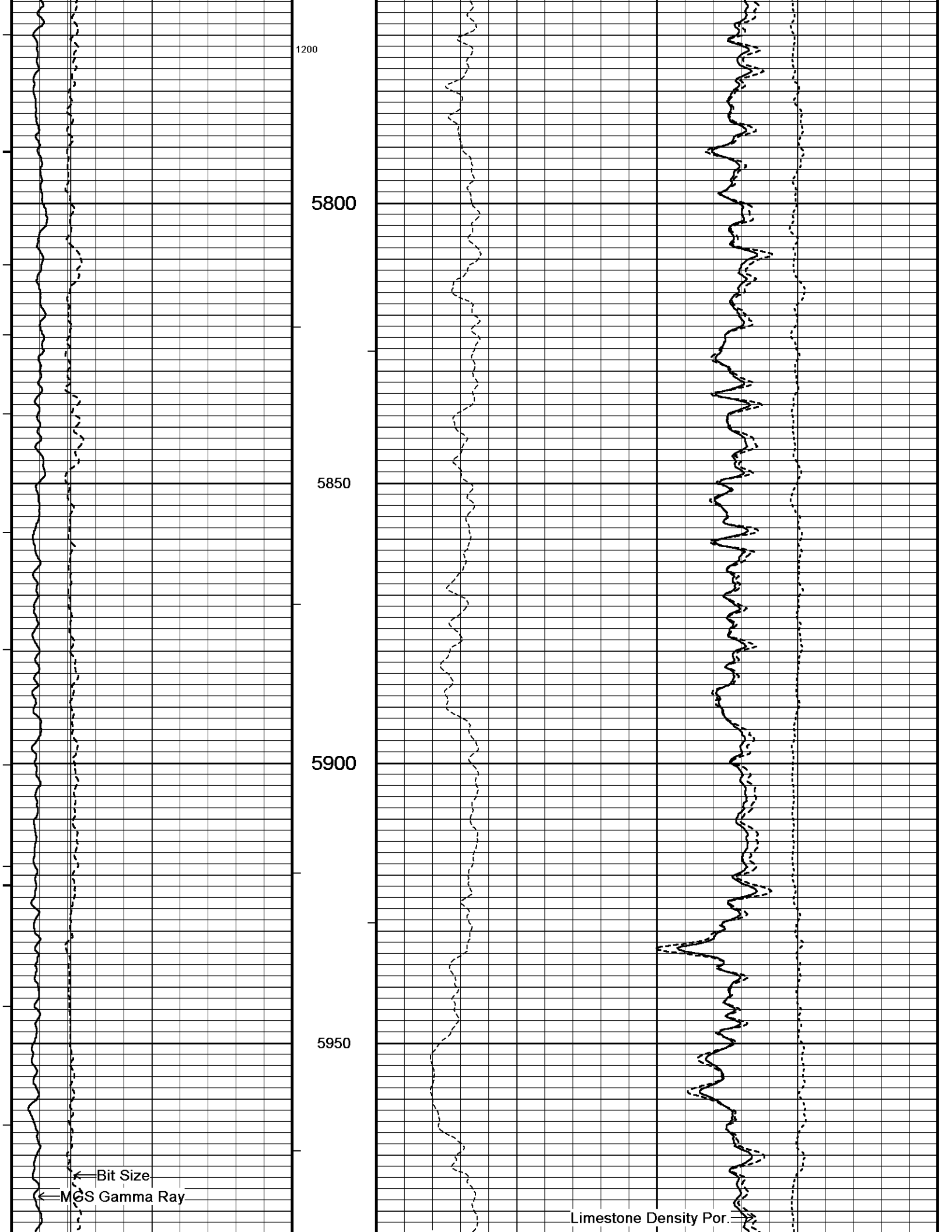

Depth
In
Feet
Timing Marks
every 60.0 sec
Compensated Density
grams/cc
2
2.25
2.50
2.75
3
Density Caliper
inches
4
9
14
HVI
every
10 cu ft
Limestone Density Por.
percent
30
20
10
0
-10
MGS Gamma Ray
API
0
75
150
Annular
Integral
every
10 cu ft
150
225
300
PE
barns/electron
0
5
10
Density Correction
grams/cc
-0.50
0
0.50
Bit Size
inches
4
9
14
Replay
Scale
1:240
4750
4800
4850
1400
Bit Size
MGS Gamma Ray
Density Caliper
PE
Limestone Density Por.
Compensated Density
Density Correction

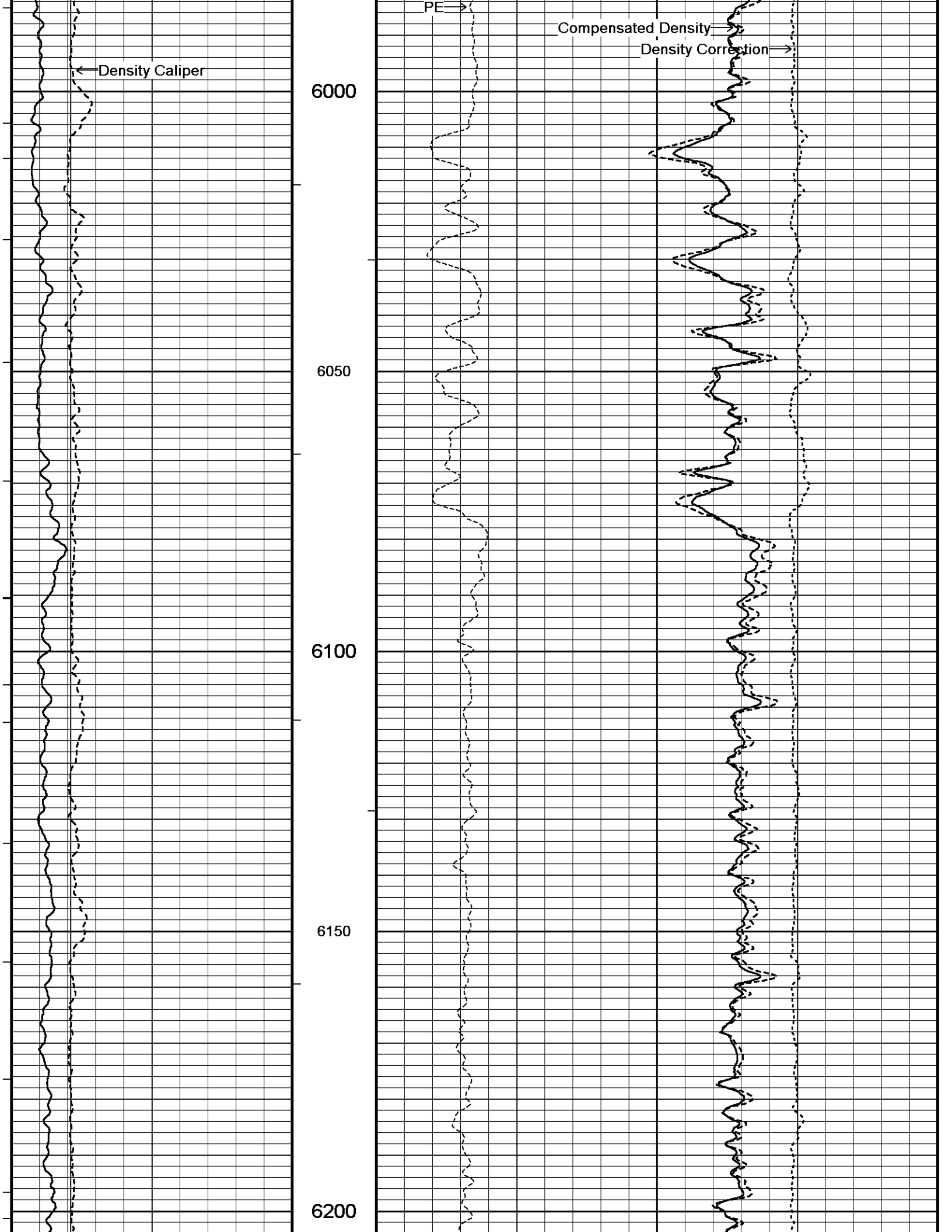

4900
4950
5000
5050
5100

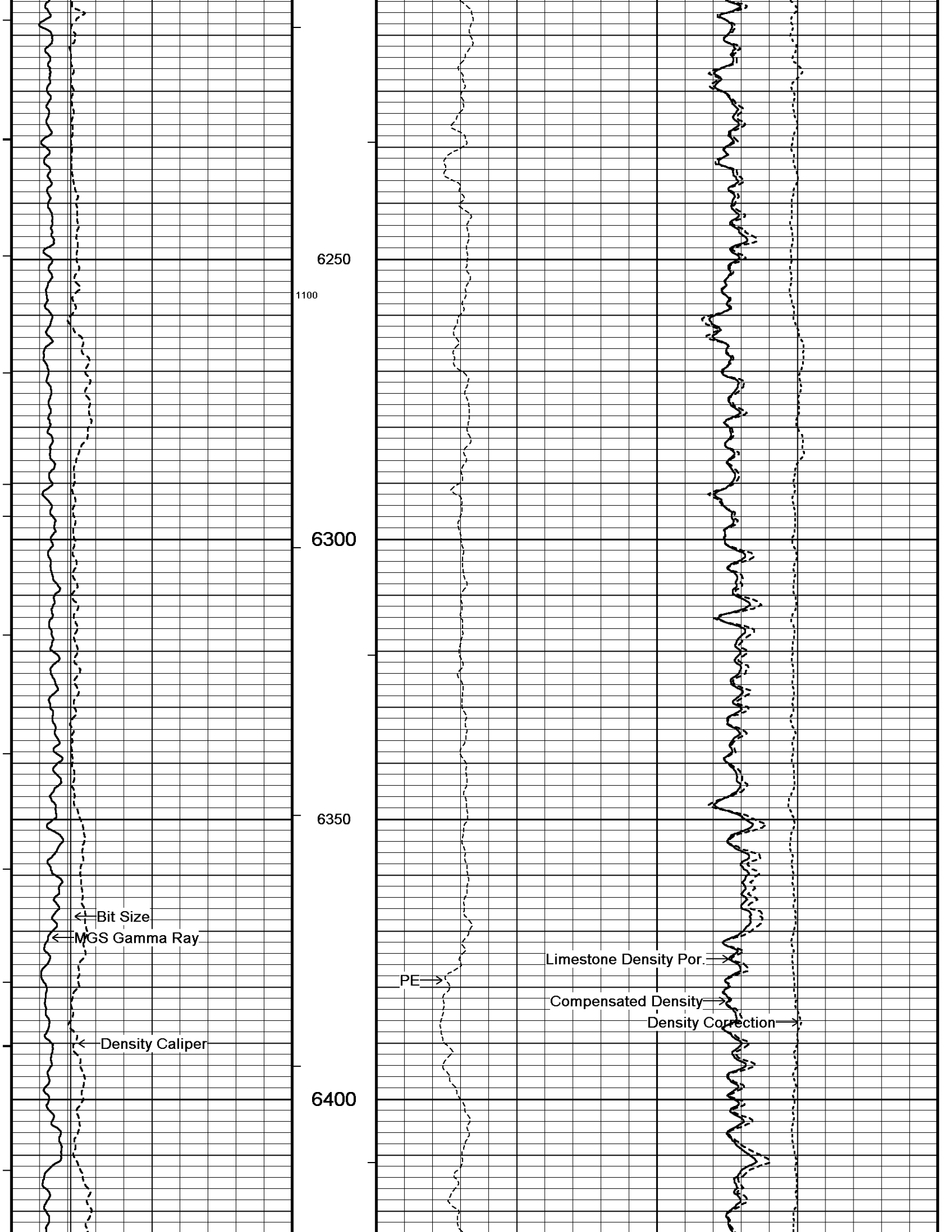

Bit Size
MGS Gamma Ray
Density Caliper
5150
5200
5250
1300
5300
PE
Limestone Density Por.
Compensated Density
Density Correction

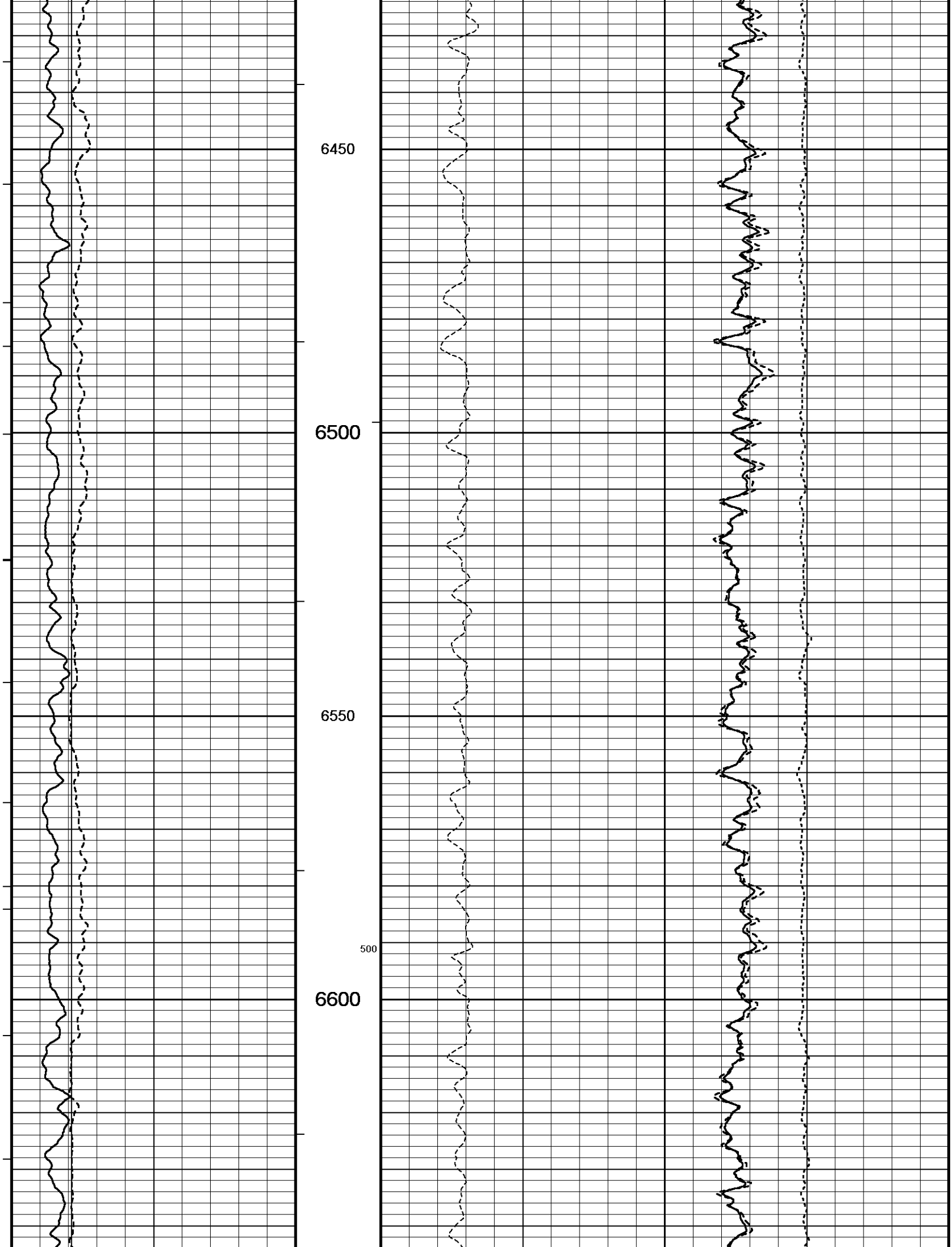

5350
5400
5450
5500

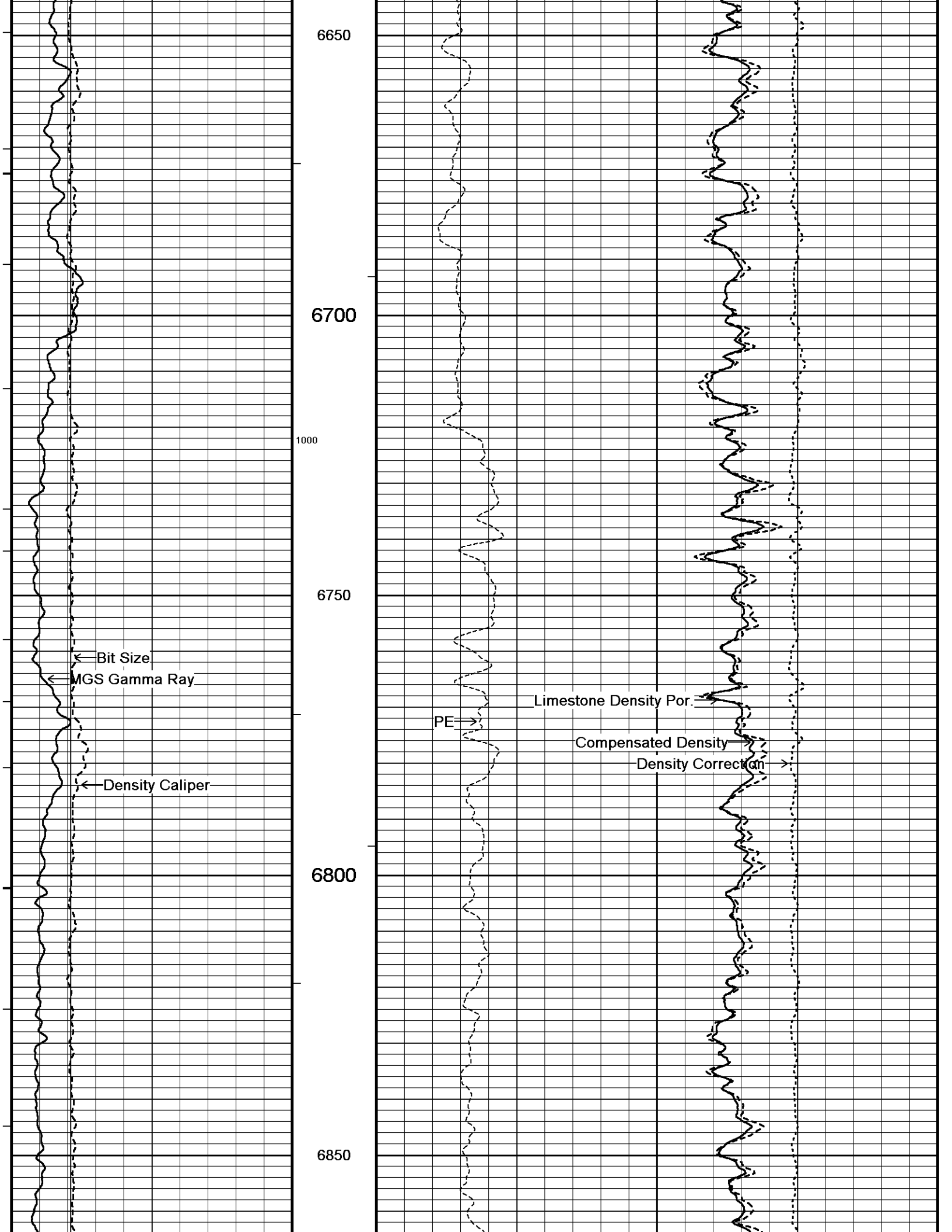

5550
Bit Size
MGS Gamma Ray
PE
Limestone Density Por.
Compensated Density
Density Correction
5600
Density Caliper
600
5650
5700
5750

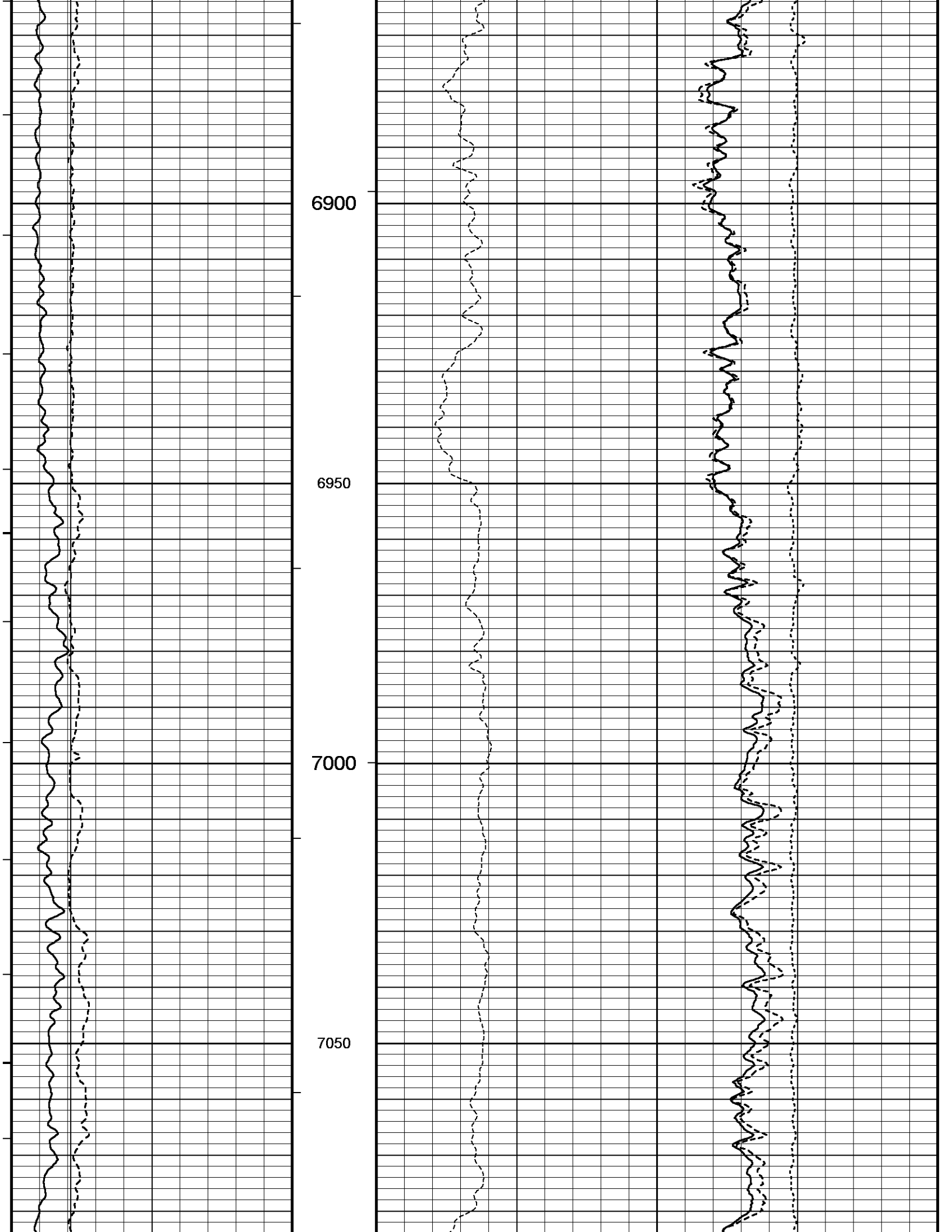

1200
5800
5850
5900
5950
Bit Size
MCS Gamma Ray
Limestone Density Por.

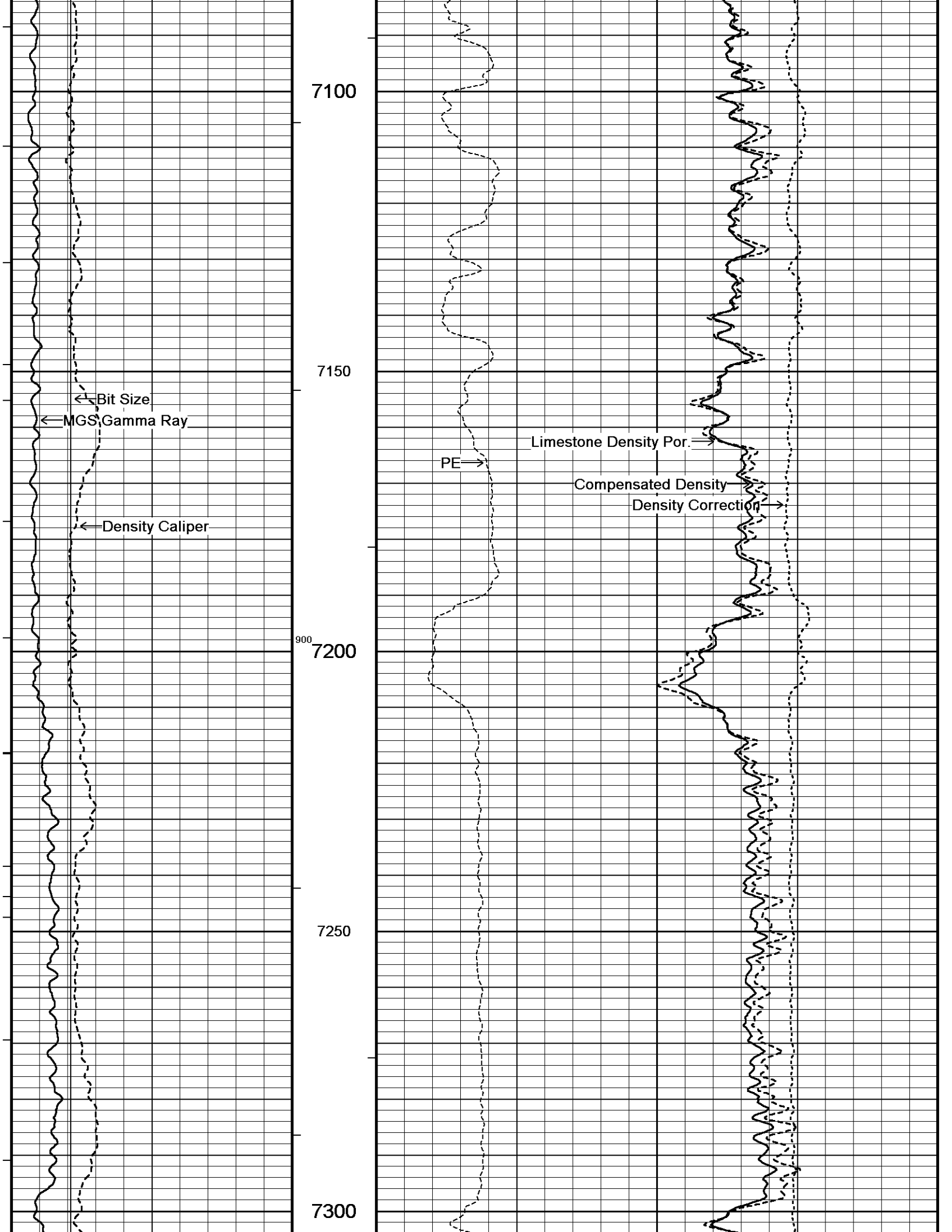

Density Caliper
6000
6050
6100
6150
6200
PE
Compensated Density
Density Correction

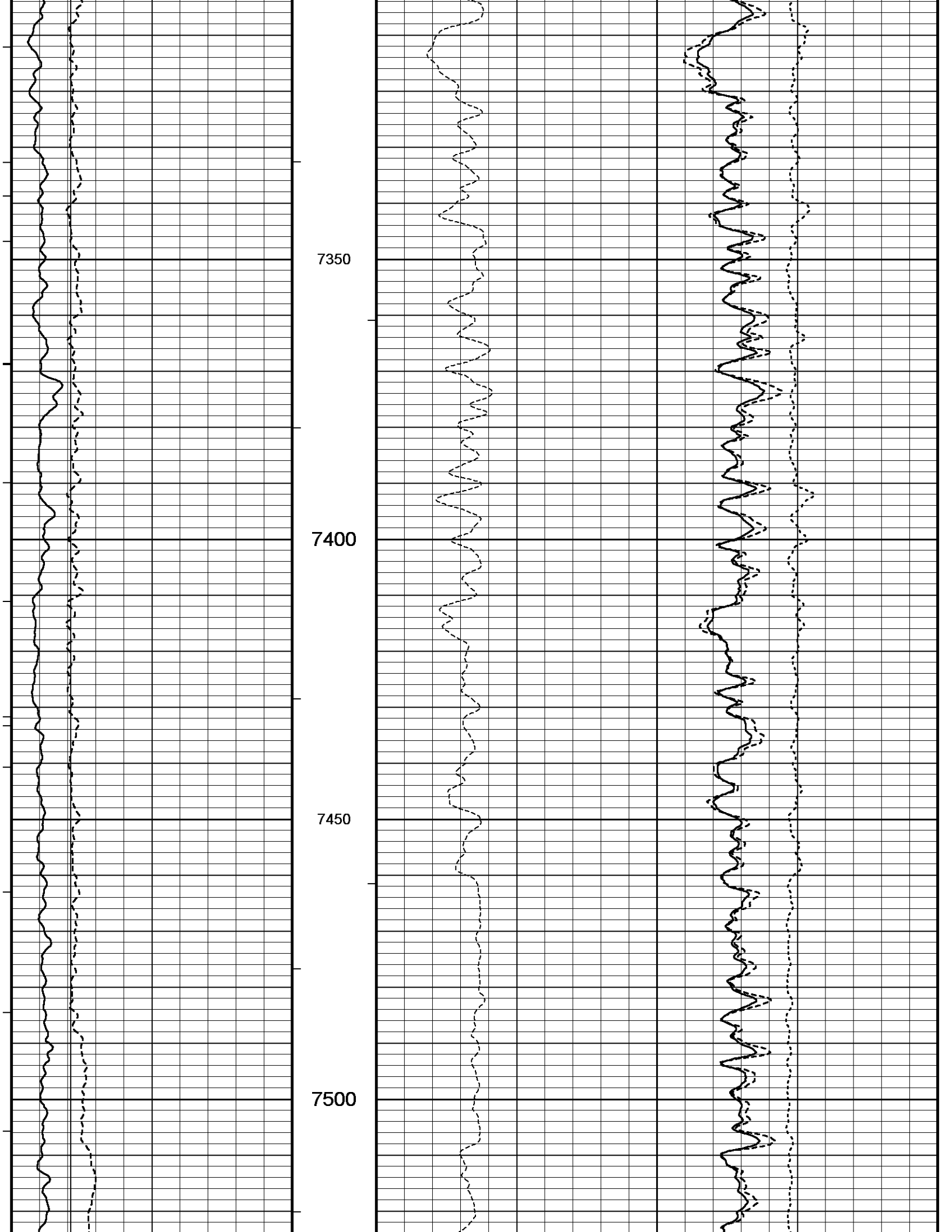

6250
1100
6300
6350
6400
Bit Size
MGS Gamma Ray
Density Caliper
PE
Limestone Density Por.
Compensated Density
Density Correction

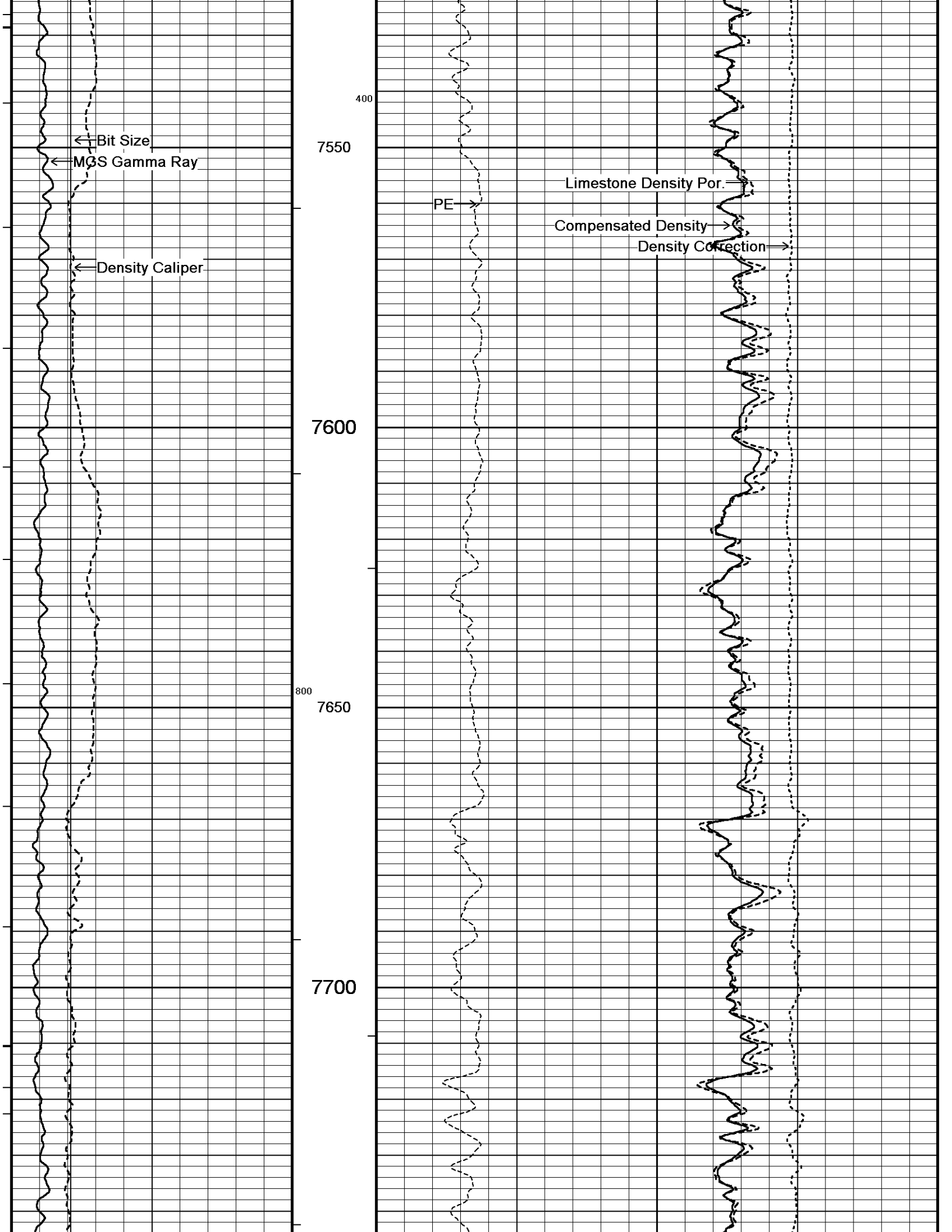

6450
6500
6550
500
6600

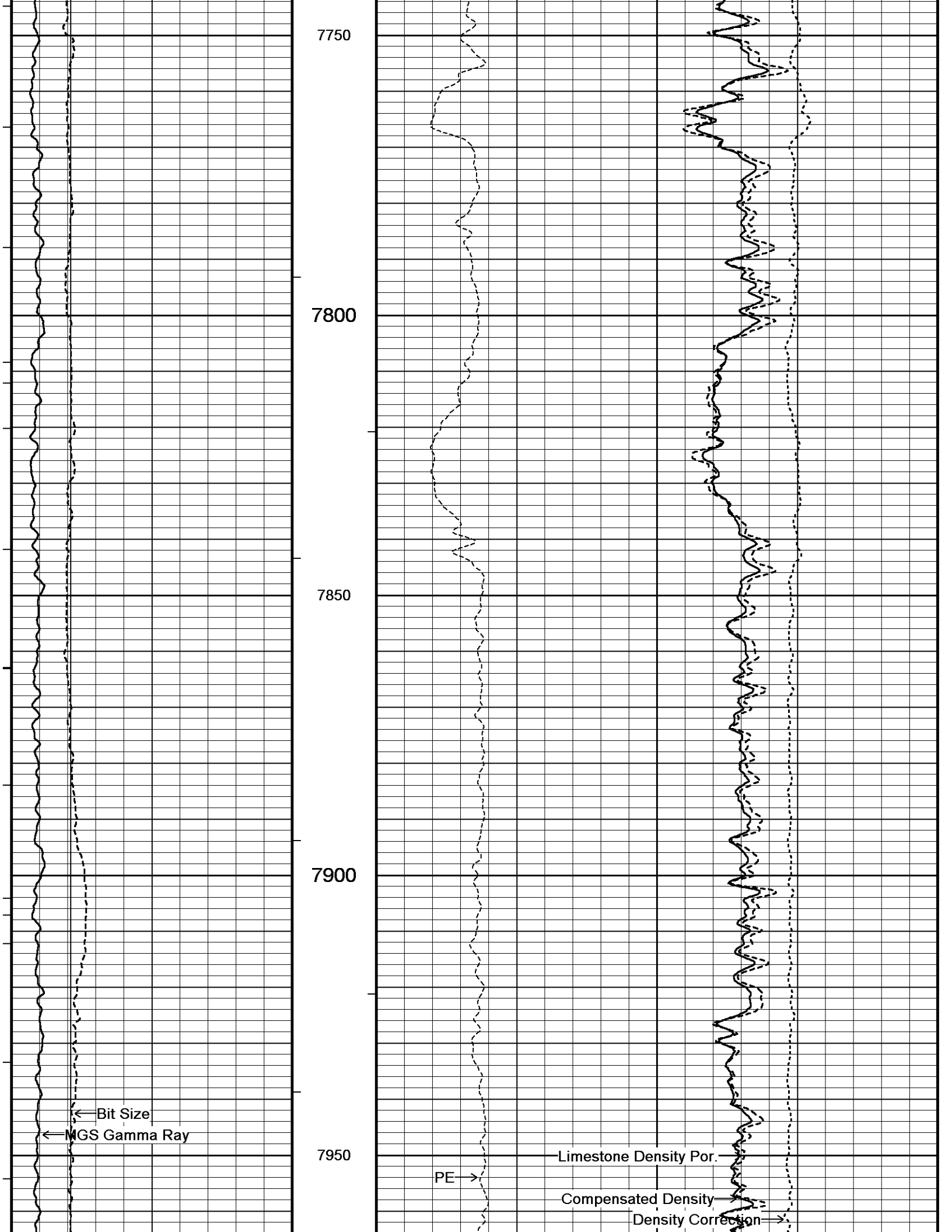

6650
6700
1000
6750
6800
6850
Bit Size
MGS Gamma Ray
Density Caliper
PE
Limestone Density Por.
Compensated Density
Density Correction

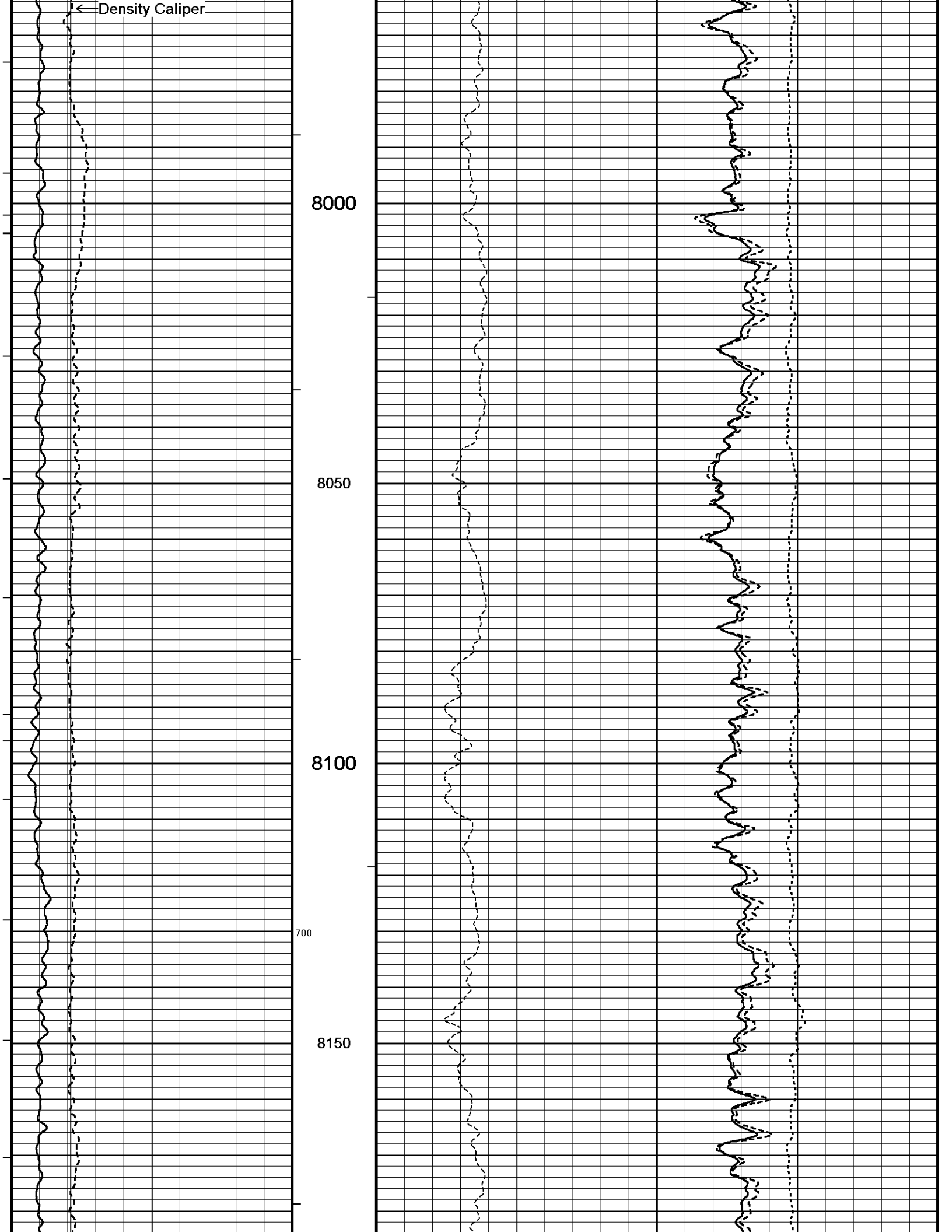

6900
6950
7000
7050

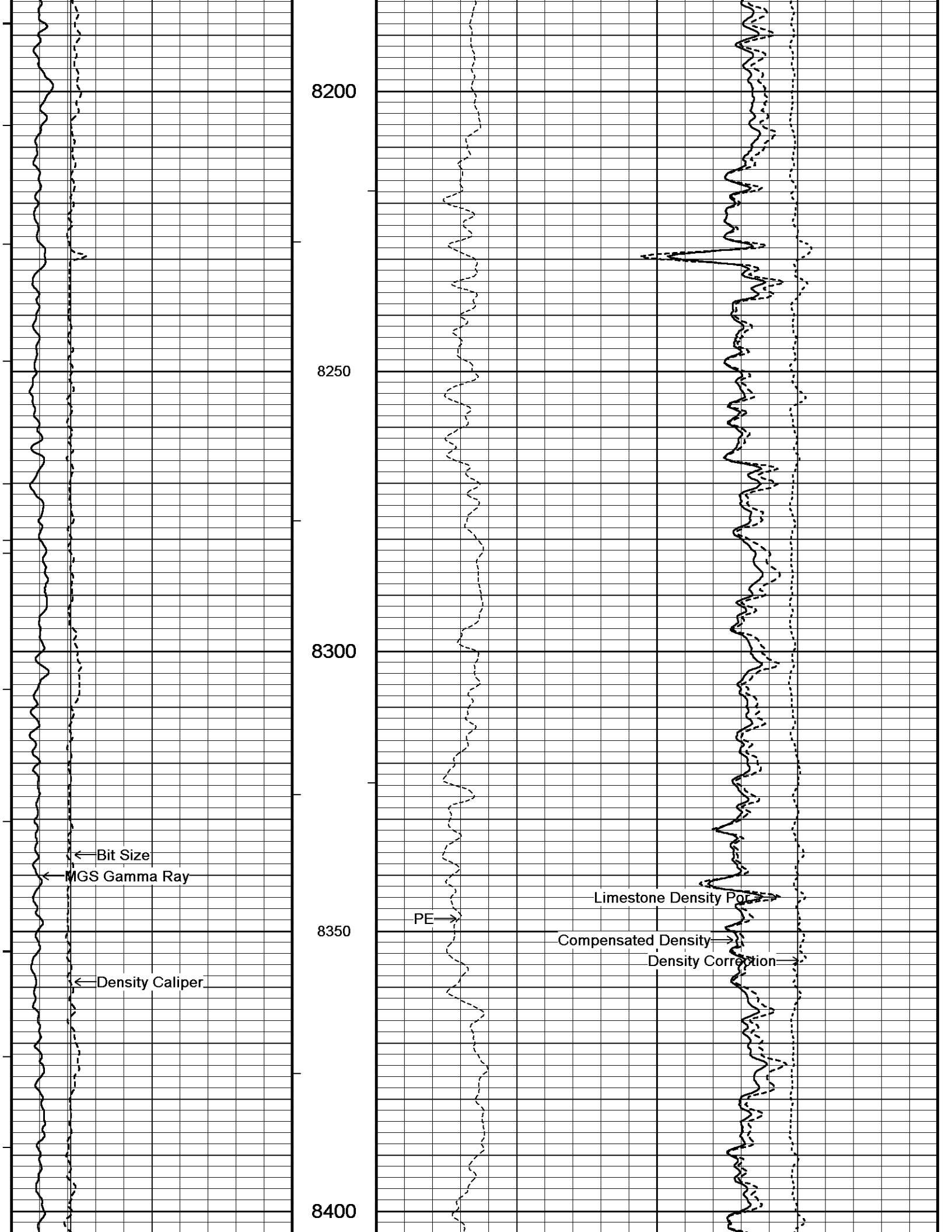

7100
7150
7200
7250
7300
900
Bit Size
MGS Gamma Ray
Density Caliper
PE
Limestone Density Por.
Compensated Density
Density Correction

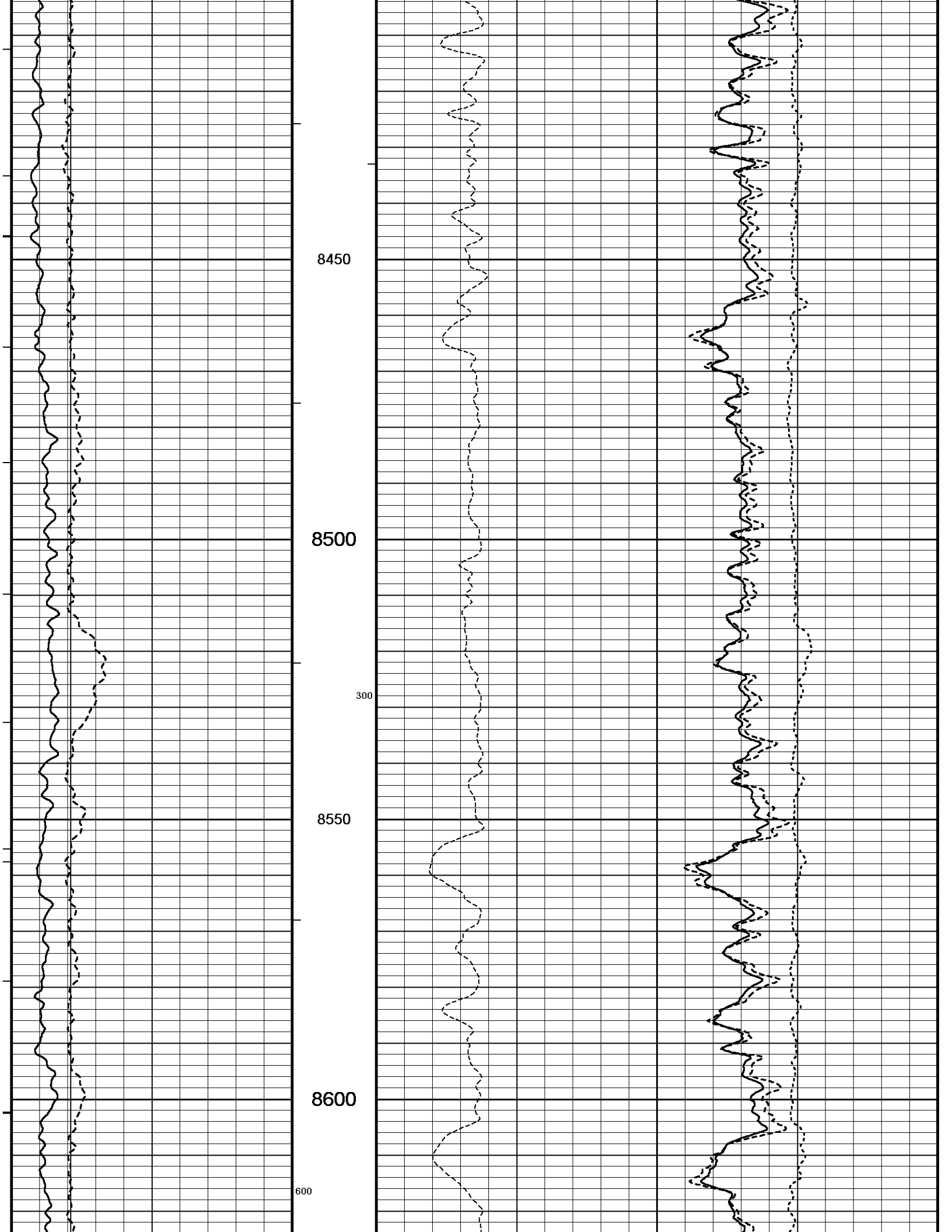

7350
7400
7450
7500

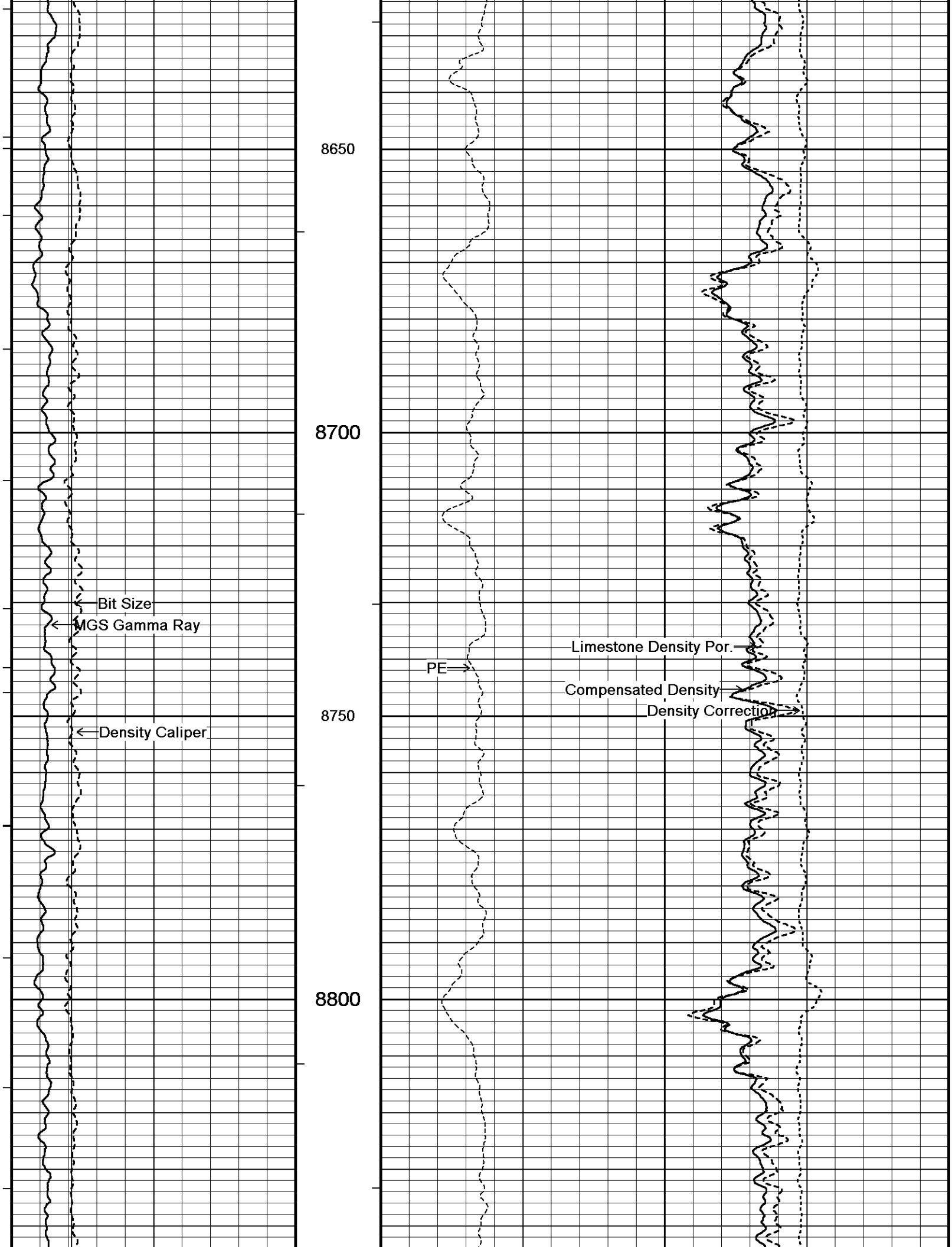

Bit Size
MGS Gamma Ray
Density Caliper
400
7550
PE
Limestone Density Por.
Compensated Density
Density Correction
7600
800
7650
7700

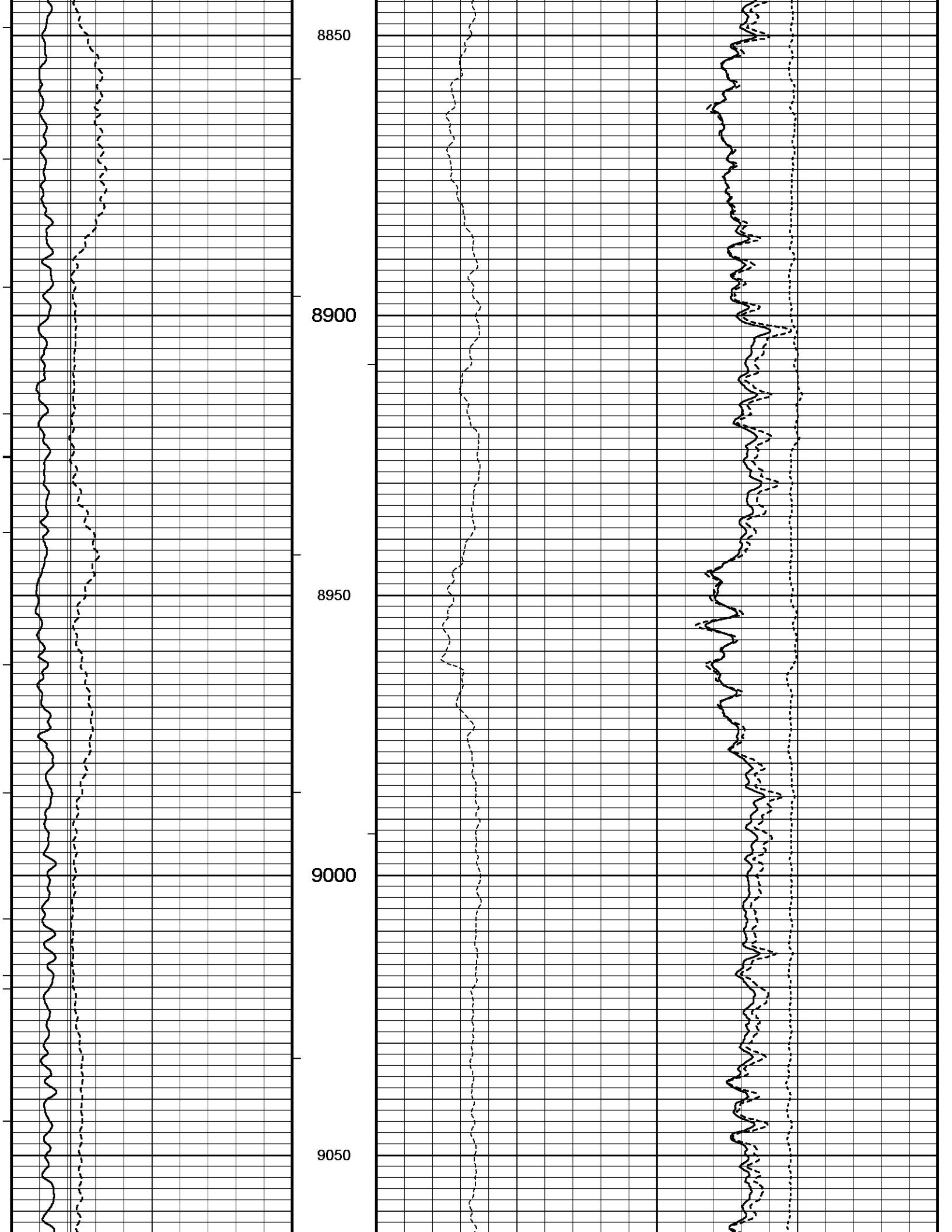

7750
7800
7850
7900
7950
Bit Size
MGS Gamma Ray
PE
Limestone Density Por.
Compensated Density
Density Correction

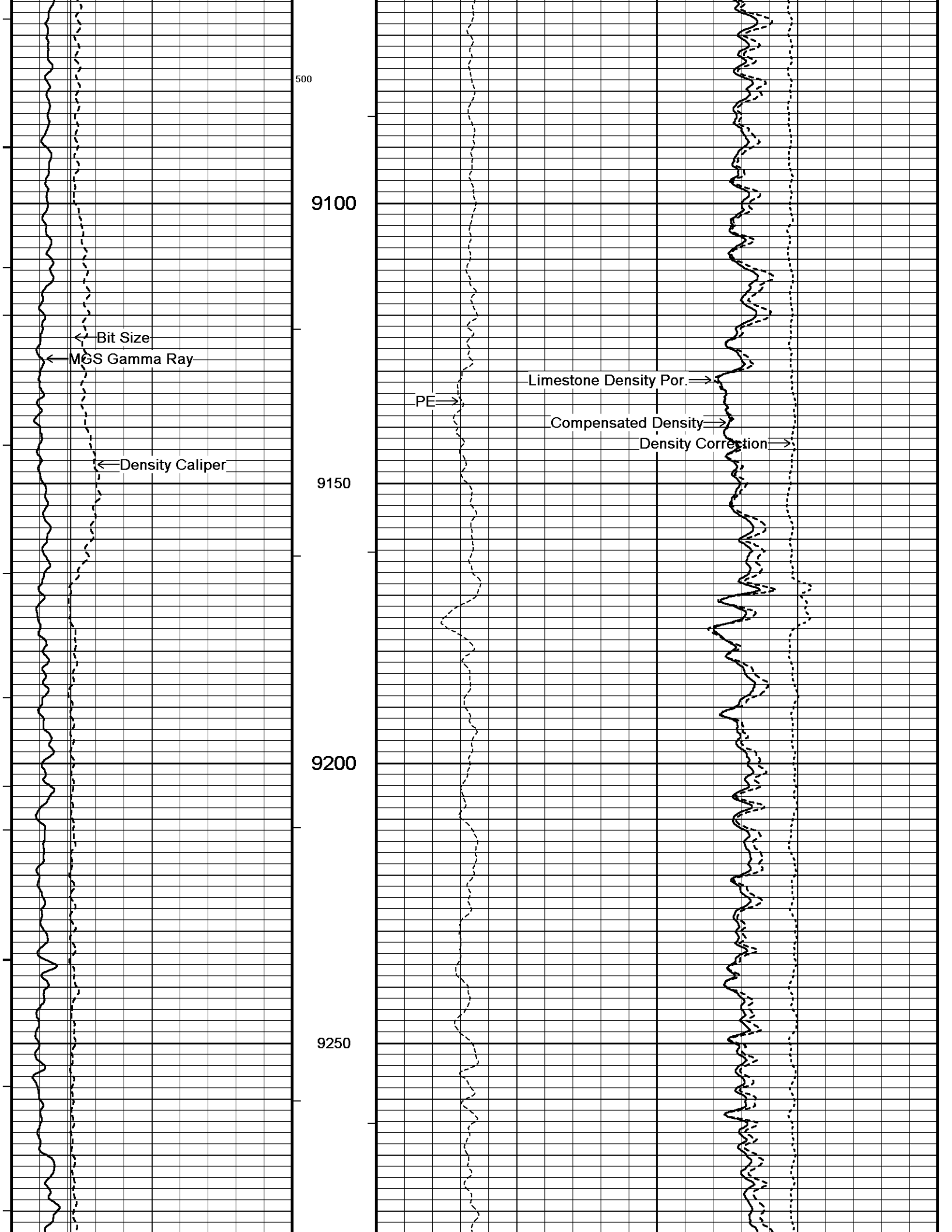

←Density Caliper
8000
8050
8100
700
8150

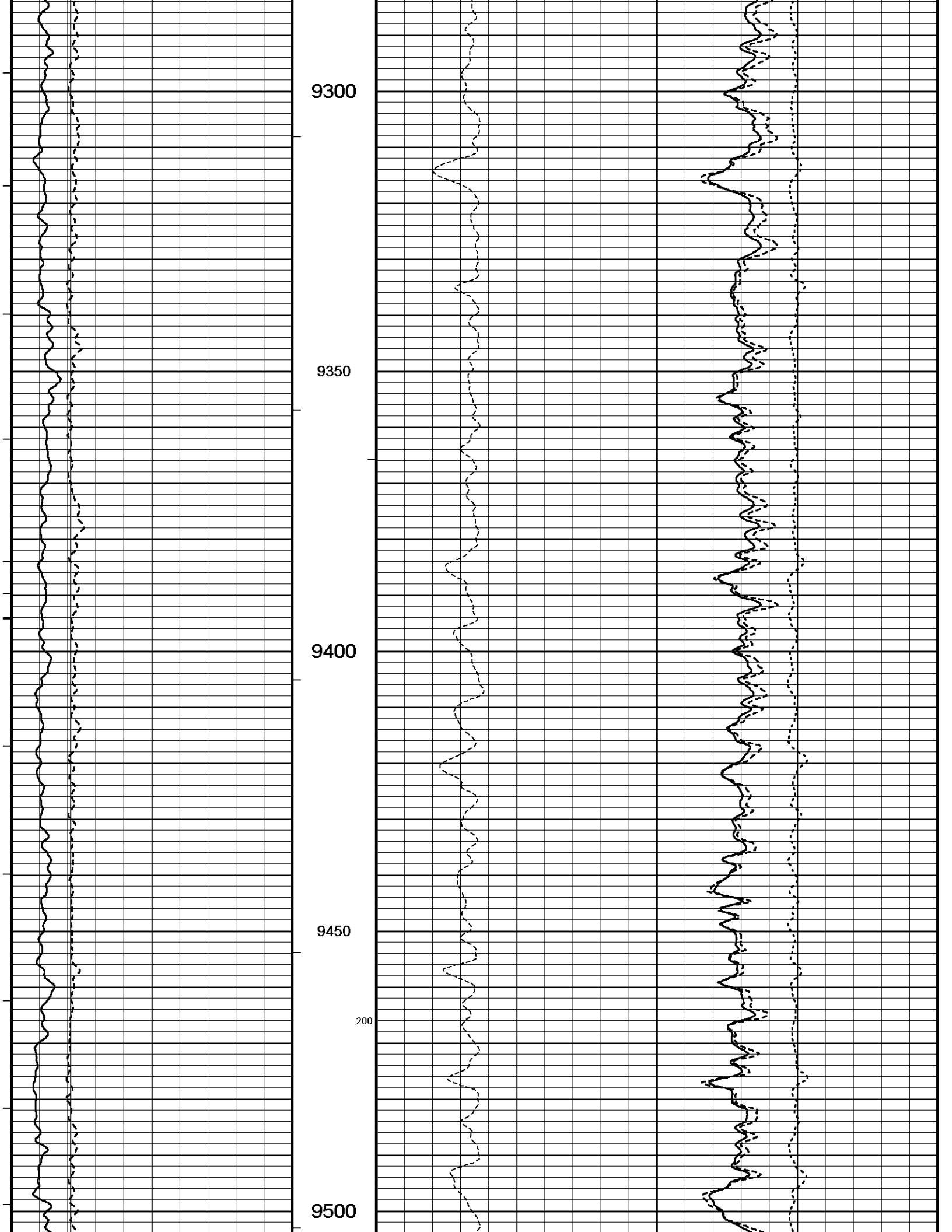

8200
8250
8300
8350
8400
Bit Size
MGS Gamma Ray
Density Caliper
PE
Limestone Density Por
Compensated Density
Density Correction

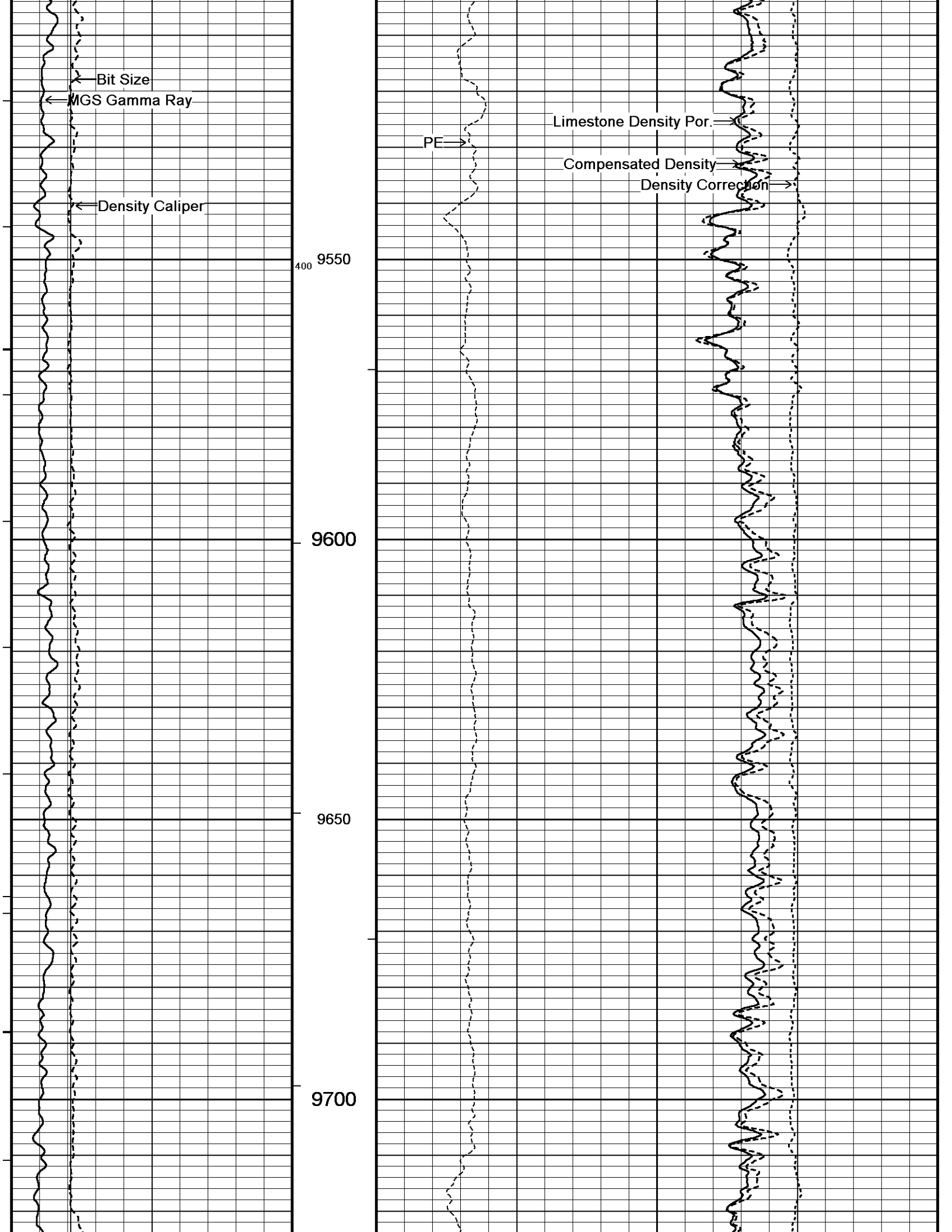

8450
8500
300
8550
8600
600

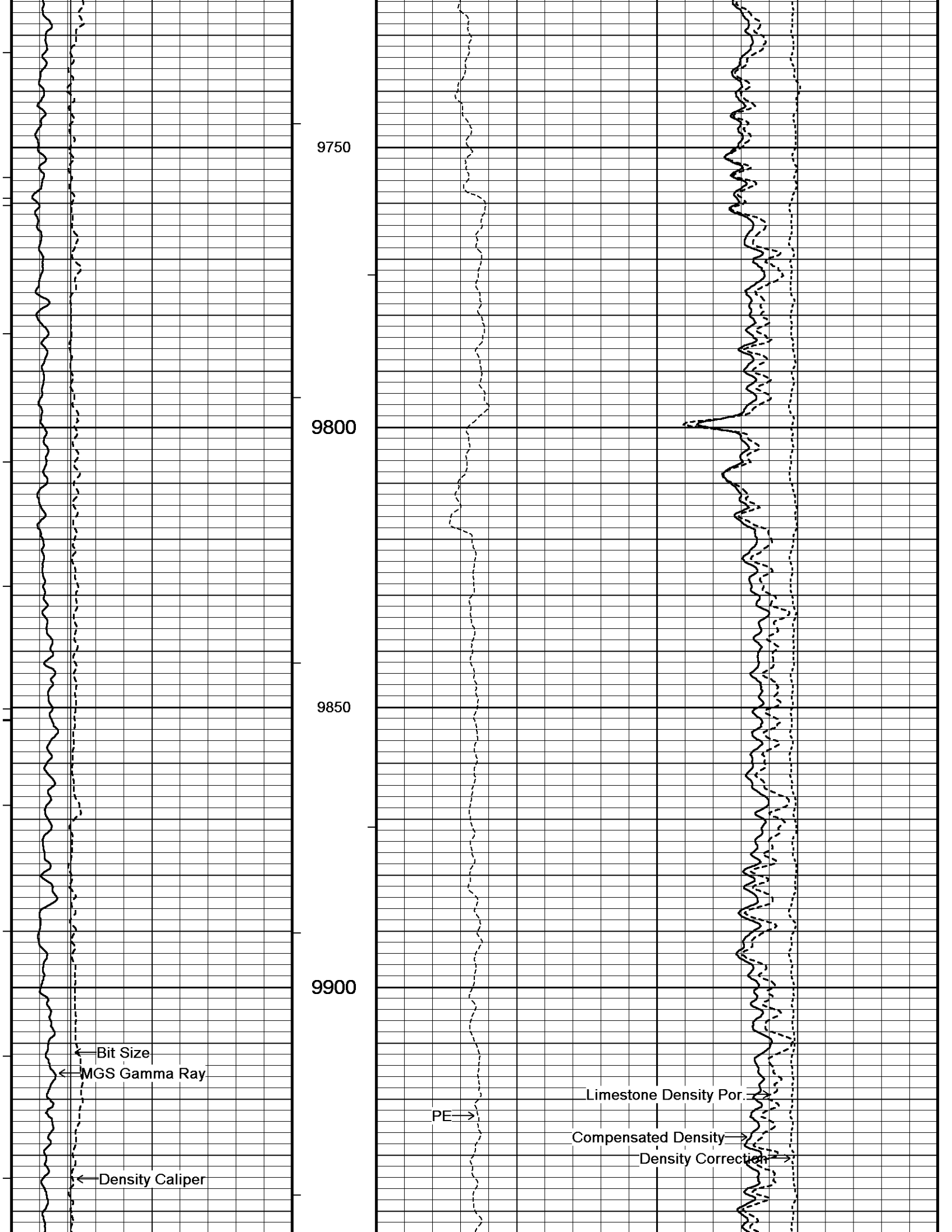

8650
8700
8750
8800
Bit Size
MGS Gamma Ray
Density Caliper
PE
Limestone Density Por.
Compensated Density
Density Correction

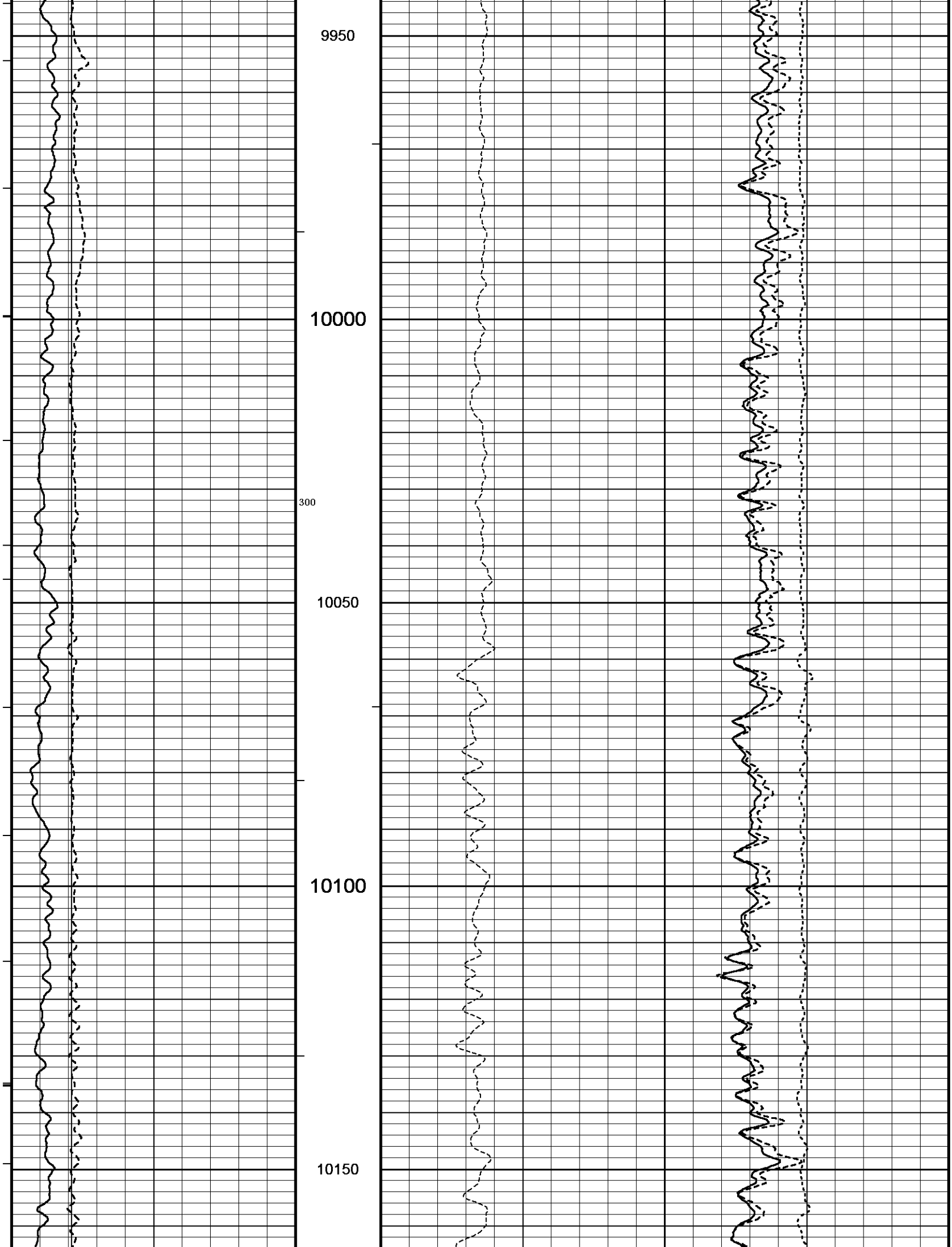

8850
8900
8950
9000
9050

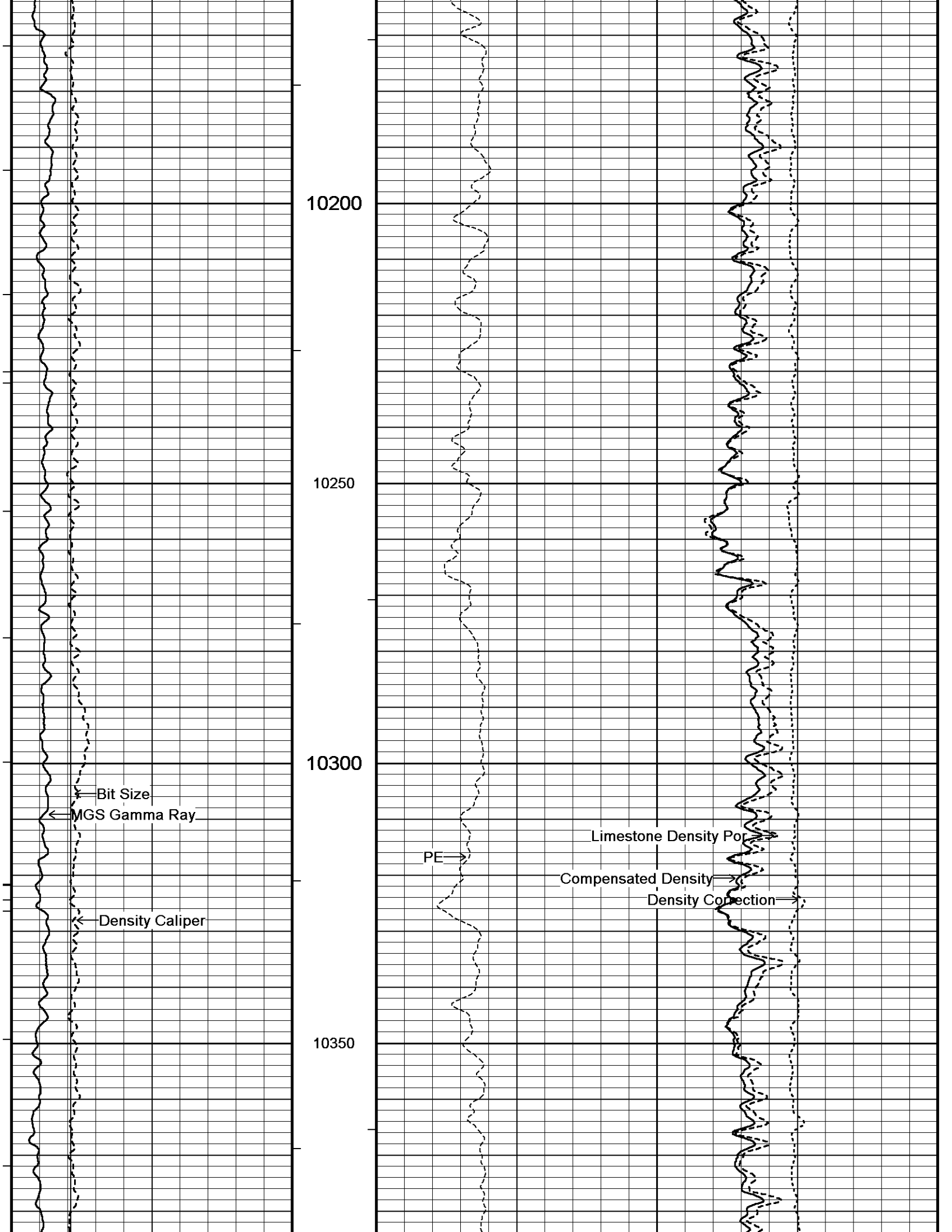

500
9100
9150
9200
9250
Bit Size
MGS Gamma Ray
Density Caliper
PE
Limestone Density Por
Compensated Density
Density Correction

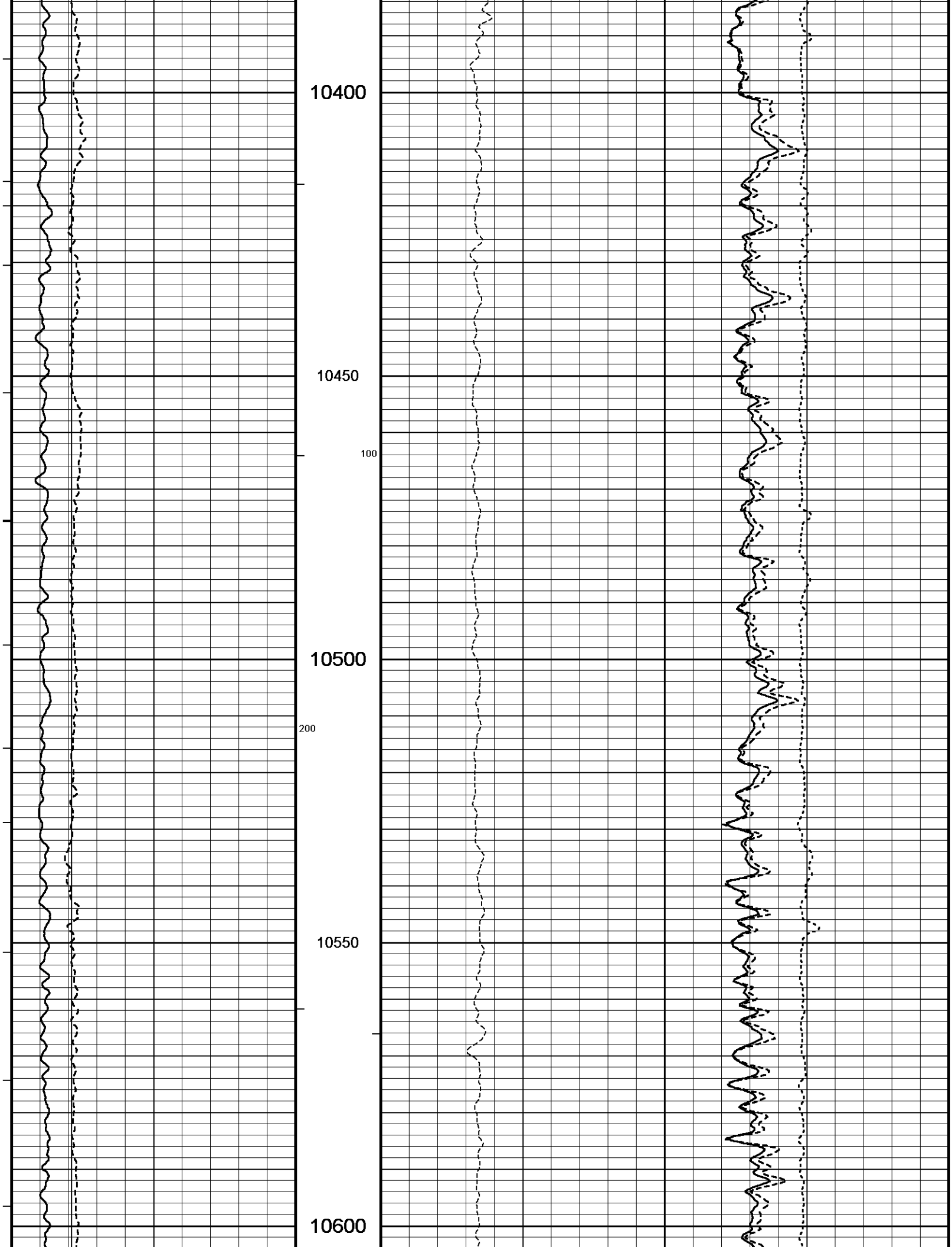

9300
9350
9400
9450
200
9500

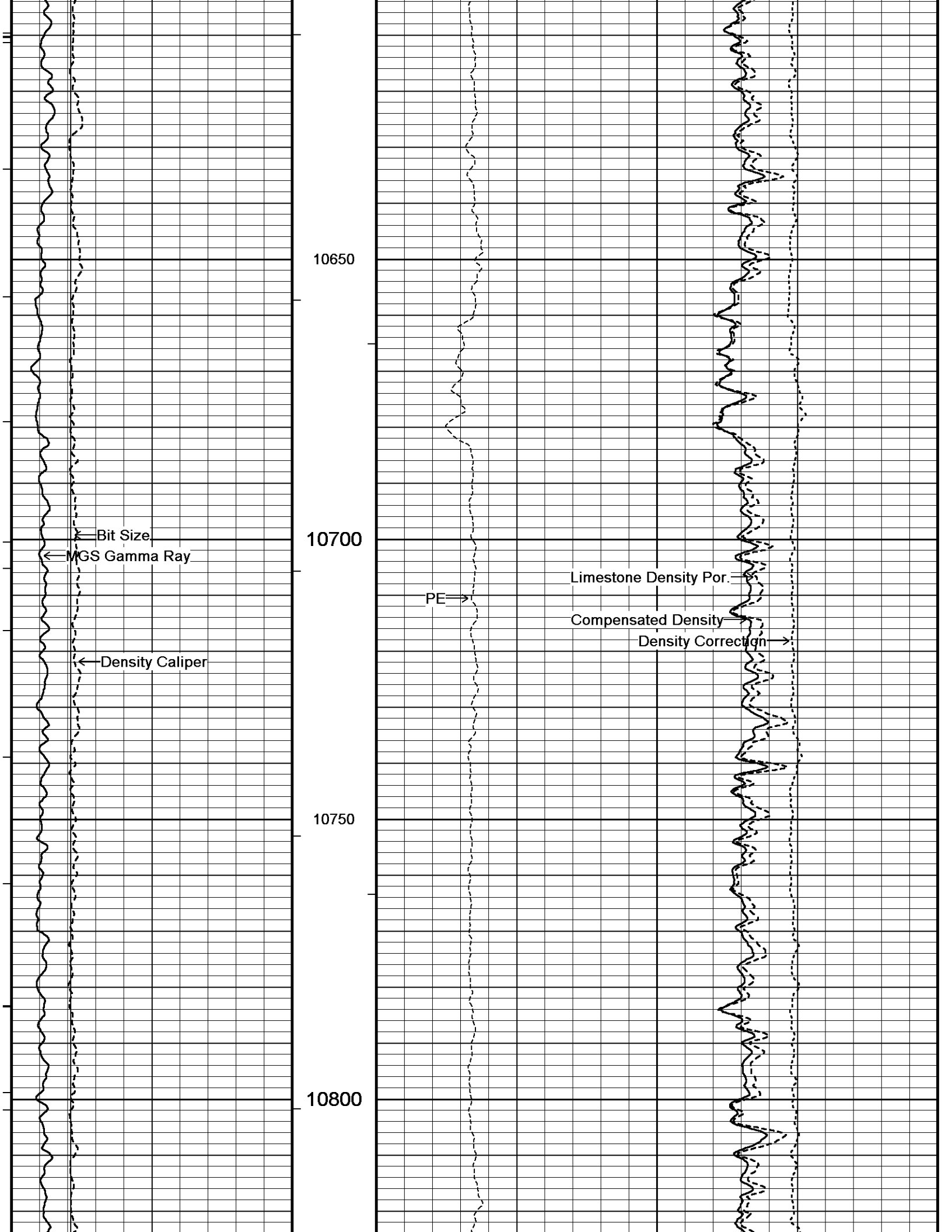

Bit Size
MGS Gamma Ray
Density Caliper
400
9550
9600
9650
9700
PE
Limestone Density Por.
Compensated Density
Density Correction

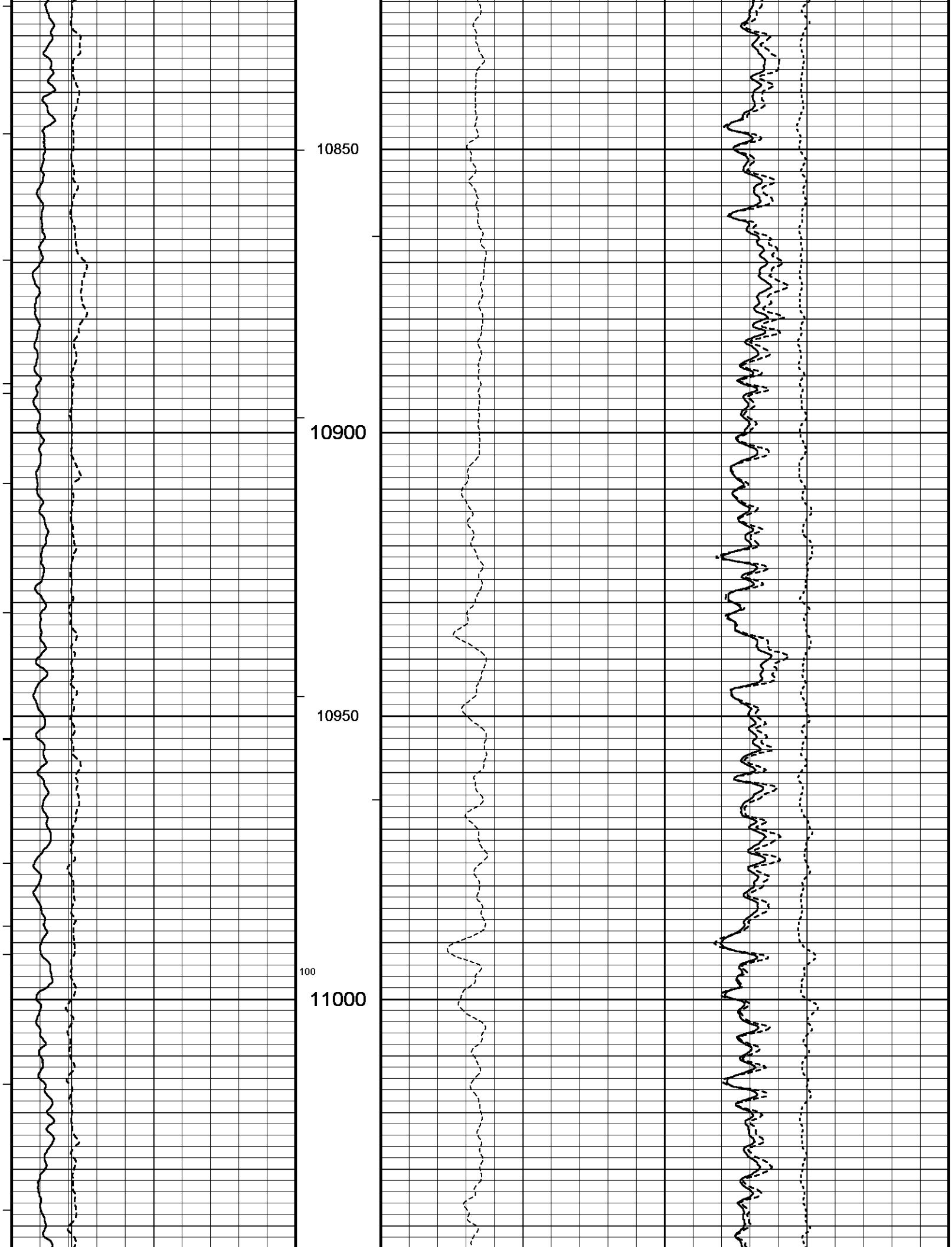

9750
9800
9850
9900
Bit Size
MGS Gamma Ray
Density Caliper
PE
Limestone Density Por
Compensated Density
Density Correction

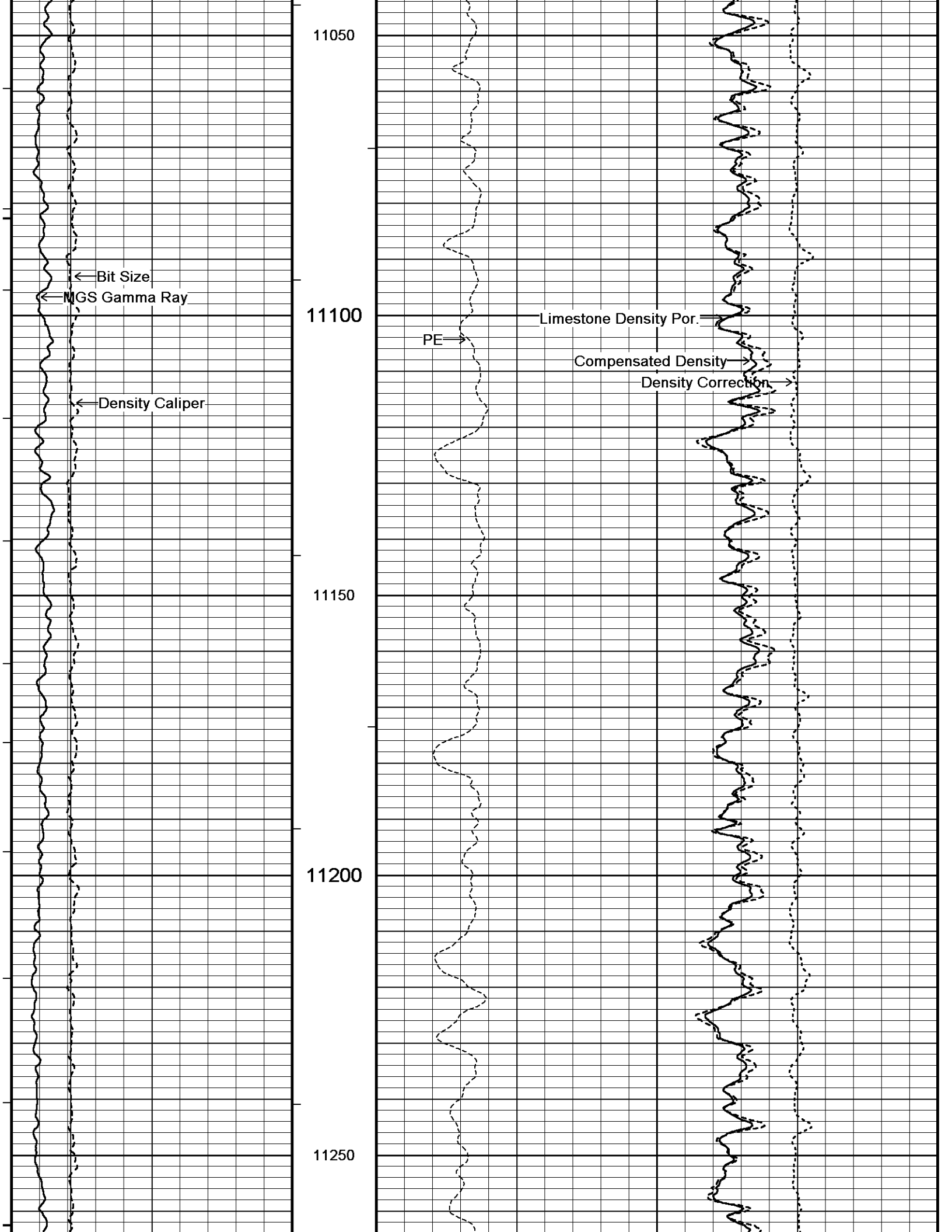

9950
10000
300
10050
10100
10150

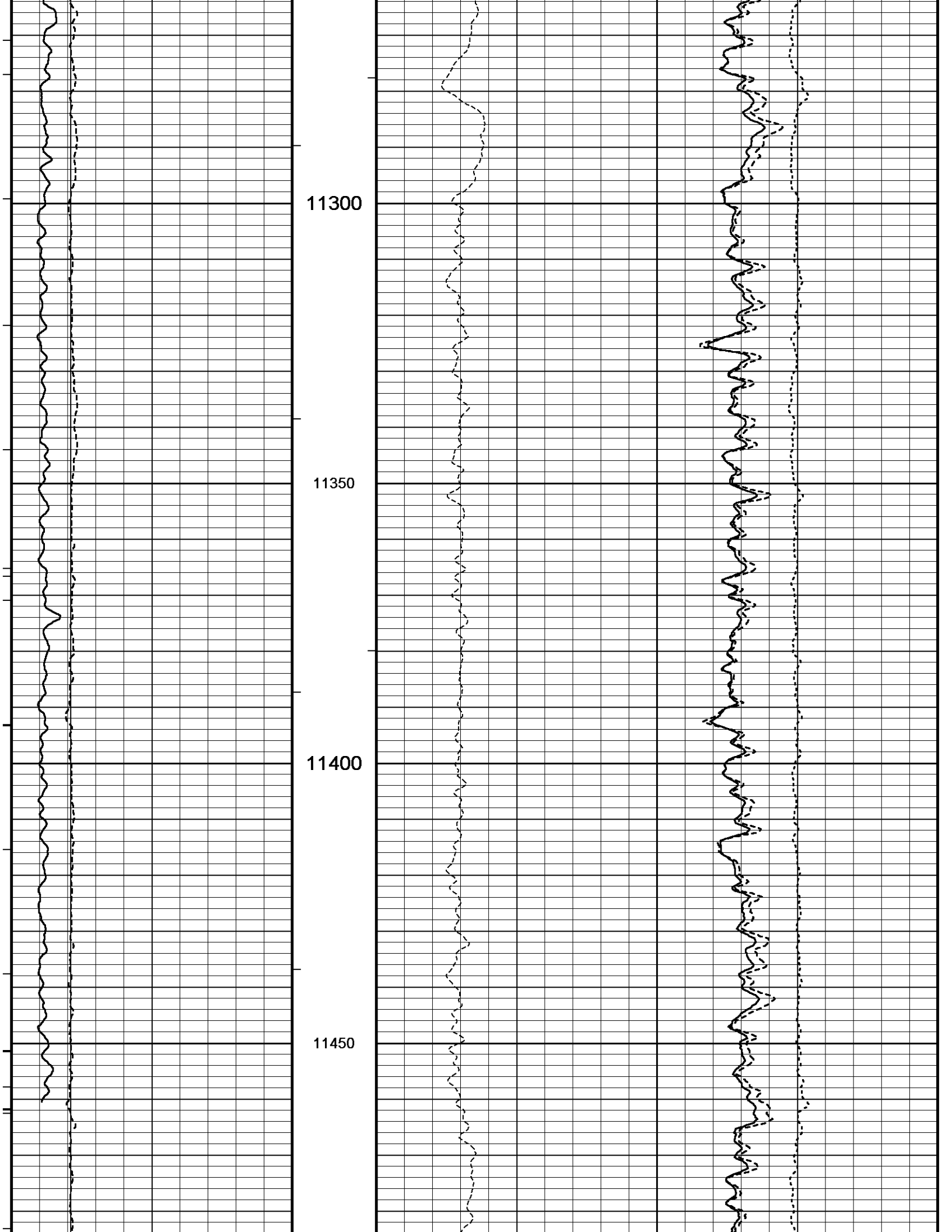

10200
10250
10300
10350
Bit Size
MGS Gamma Ray
Density Caliper
PE
Limestone Density Por
Compensated Density
Density Correction

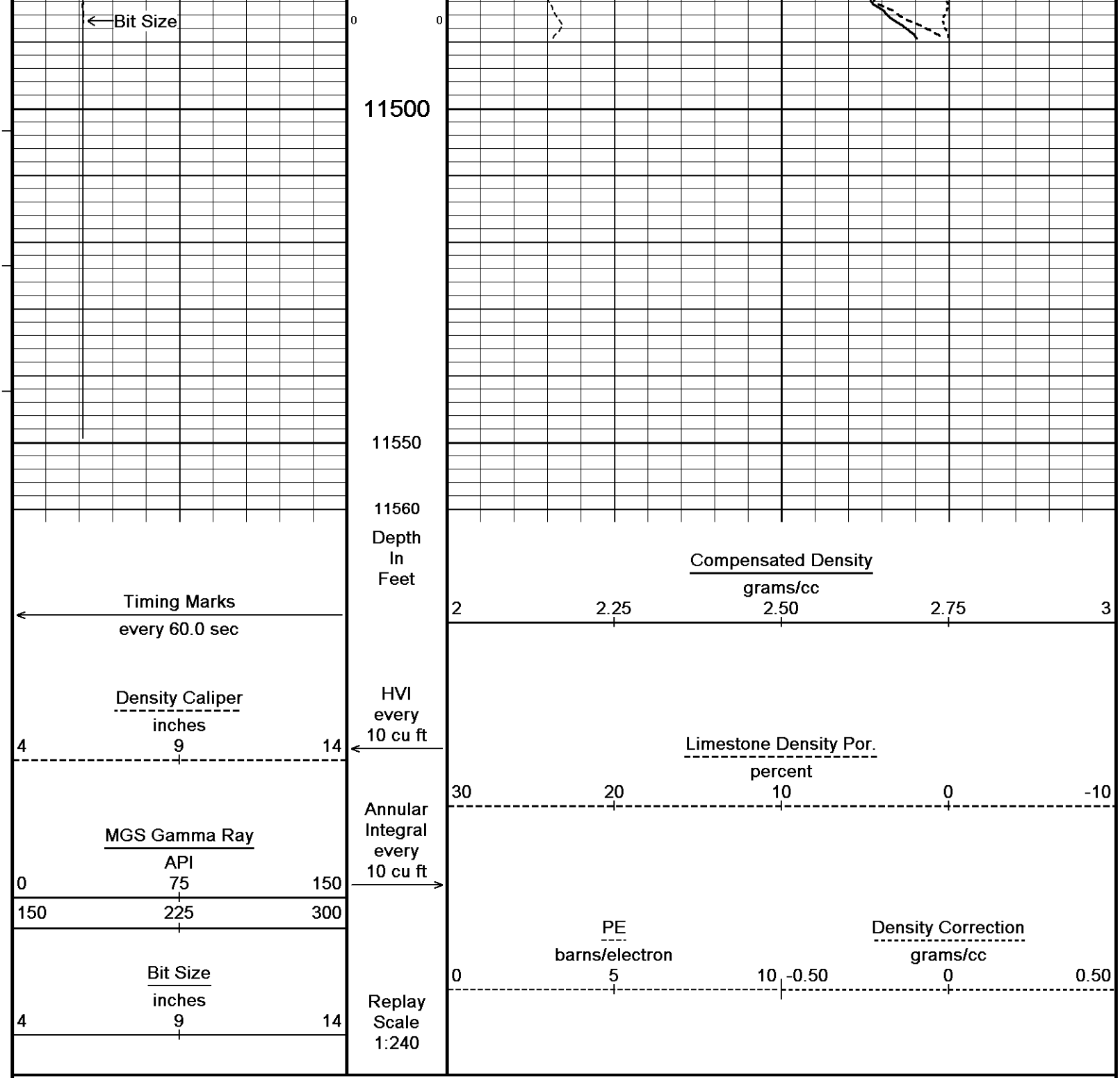

10400
10450
100
10500
200
10550
10600


10650
10700
10750
10800
Bit Size
MGS Gamma Ray
Density Caliper
PE
Limestone Density Por.
Compensated Density
Density Correction


10850
10900
10950
100
11000


11050
11100
11150
11200
11250
Bit Size
MGS Gamma Ray
Density Caliper
PE
Limestone Density Por.
Compensated Density
Density Correction


11300
11350
11400
11450



Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 03-FEB-2013 20:02
Filename: C:\Data\Sandridge\Sandridge Peter 3404 1-20H\MMS158 Depthlog.dta
Recorded on 03-FEB-2013 19:01
System Versions: Processed with 13.03.7779 Plotted with 13.03.7779

5 INCH BULK DENSITY DSC

BEFORE SURVEY CALIBRATION

C:\Data\Sandridge\Sandridge Peter 3404 1-20H\MMS158 Depthlog.dta

General Constants All 000

Last Edited on 03-FEB-2013,08:34

General Parameters

Mud Resistivity	1.980	ohm-metres
Mud Resistivity Temperature	52.700	degrees F
Water Level	0.000	feet
Density/Neutron Processing	Wet Hole	

Hole/Annular Volume and Differential Caliper Parameters

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	Density Caliper	

Rwa Parameters

Porosity used	Base Density Porosity	
Resistivity used	Array Ind. One Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	

Down-hole Tension Calibration SMS 0

Field Calibration on 05-SEP-2012,13:01

Reading No	Measured	Calibrated (lbs)
1	15152.07	0.00
2	18386.74	2000.00

Strain Gauge Constants MMS-E.B 158

Last Edited on

Atmospheric Pressure	14.70	psi
Serial Number	0	
Calibration Date	000000000000	
Base Check Date		
Dead Weight Serial Number	0	
Dead Weight Gravitational Correction	1.0	

Temperature	75.0		150.0		250.0		350.0	degrees F
Pressure psia	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.
0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10000.0	0.000		0.000		0.000		0.000	

Gamma Calibration MGS-C.J 133

Field Calibration on 30-JAN-2013 09:17

	Measured	Calibrated (API)
Background	146	106
Calibrator (Gross)	1106	802
Calibrator (Net)	959	696

Gamma Constants MGS-C.J 133

Last Edited on 30-JAN-2013,21:43

Gamma Calibrator Number	036	
Mud Density	1.00	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

SP Calibration MGS-C.J 133

Field Calibration on 30-JAN-2013,09:12

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

High Resolution Temperature Calibration MGS-C.J 133

Field Calibration on 30-JAN-2013,09:11

	Measured	Calibrated(Deg F)
Lower	0.00	0.00
Upper	0.00	0.00

High Resolution Temperature Constants MGS-C.J 133

Last Edited on 30-JAN-2013,09:11

Pre-filter Length	11

Neutron Calibration MDN-B.J 423

Base Calibration on 21-JAN-2013 09:28
Field Check on 30-JAN-2013 09:25

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	2797	85	3714	110
Ratio	32.949		33.764	

Field Calibrator at Base	Calibrated (cps)	
	2242	3339
Ratio	0.671	

Field Check	Calibrated (cps)	
	2206	3107
Ratio	0.710	

Neutron Constants MDN-B.J 423

Last Edited on 01-FEB-2013,04:21

Neutron Source Id	000	
Neutron Jig Number	000	
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	None	
Formation Pressure	N/A	kpsi
Temperature Source	Constant Value	
Temperature	20.00	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	

Navigation Constants MIE-A.A 209

Last Edited on

Magnetic Declination	0.00	degrees	East

Imager Pad Check MIE-A.A 209

Field Check on

Pad 1	Pad Not Tested	Pad 5	Pad Not Tested
Pad 2	Pad Not Tested	Pad 6	Pad Not Tested
Pad 3	Pad Not Tested	Pad 7	Pad Not Tested
Pad 4	Pad Not Tested	Pad 8	Pad Not Tested

Compact Micro Imager Constants MIE-A.A 209

Last Edited on 02-FEB-2013,09:42

Sonde Configuration	Imager Mode	
Arm-Pad Kit	Normal Pads (12.25 in)	
Arm-Pad Kit Serial Number	N/A	
Centre Pad 1 Rotational Offset	0.00	degrees
Image/Borehole Ovality Reference	Azimuth of Pad 1	
Non Active Buttons	Omit	
Search Angle	0.00	degrees
Correlation Interval	3.28	feet
Correlation Step	1.64	feet
Current Offset	0.0000	mAmp
Squasher Start	0.0500	mAmp
Image Processing	Enabled	

Magnetometer Parameters MIE-A.A 209

Date Of Last Magnetometer Calibration 26-NOV-2010,12:01

	X Magnetometer	Y Magnetometer	Z Magnetometer
Slope	-1.000000	-1.001951	-1.007691
Offset	0.007782	-0.016800	0.011730

Magnetometer Constants MIE-A.A 209

Last Edited on

Magnetometer Calibrator Number	000

Accelerometer Parameters MIE-A.A 209

Date Of Last Accelerometer Calibration 25-NOV-2010,12:19

	X Accelerometer	Y Accelerometer	Z Accelerometer
Slope	1.113214	1.109979	1.101652

Slope	-1.113214	-1.109979	-1.101653
Offset	0.005467	0.005399	0.010368

Accelerometer Constants MIE-A.A 209

Last Edited on 25-NOV-2010,12:25

Accelerometer Calibrator Number 000

Accelerometer Temperature Characterisation

X Accelerometer

Serial Number	826			
Calibration Date	01-Jan-1998			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	2.32377e-005	-1.87334e-008	9.07324e-011
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.71389e-004	4.55326e-007	4.58364e-010

Y Accelerometer

Serial Number	617			
Calibration Date	11-May-2008			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	1.76675e-005	6.93464e-010	2.98691e-011
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.56882e-004	5.72598e-007	2.37496e-010

Z Accelerometer

Serial Number	844			
Calibration Date	01-Jan-1998			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	-1.21769e-005	-1.46867e-008	-6.44015e-011
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.73539e-004	4.65657e-007	2.88996e-010

Caliper Calibration MIE-A.A 209

Base Calibration on 20-JUL-2012 05:31
Field Calibration on

Base Calibration

Reading No	Pads 1-5 Meas.	Pads 3-7 Meas.	Calibrator Size (in)
1	26963	26793	5.96
2	36961	37191	7.97
3	46401	44863	9.84
4	58072	58409	11.91
5	0	0	0.00

Reading No	Pad 2 Meas.	Pad 4 Meas.	Pad 6 Meas.	Pad 8 Meas.	Calibrator Size (in)
1	24829	25688	24937	24692	5.96
2	33487	34230	33721	33433	7.97
3	40559	41186	42962	42856	9.84
4	51771	52426	51758	51697	11.91
5	0	0	0	0	0.00

Field Calibration

Measured	Measured	Actual

Measured	Measured	Measured	Measured	Actual

Caliper Constants MIE-A.A 209

Last Edited on 25-NOV-2010,07:57

Caliper Difference for BRKT 0.120 inches

High Resolution Temperature Calibration MAI-C.A 427

Field Calibration on 27-JAN-2013,14:35

	Measured	Calibrated(Deg F)
Lower	10.00	10.00
Upper	100.00	100.00

High Resolution Temperature Constants MAI-C.A 427

Last Edited on 30-JAN-2013,08:54

Pre-filter Length 11

Induction Calibration MAI-C.A 427

Base Calibration on 27-JAN-2013,14:35
Field Check on 01-FEB-2013 04:16

Base Calibration

Test Loop Calibration	Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High
1	14.4	434.9	9.3	966.2
2	5.8	355.4	7.6	821.4
3	2.7	244.4	5.2	566.0
4	1.8	129.3	2.6	279.2

Array Temperature	22.9	Deg F

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1			15.6	4140.9
2			31.1	3770.9
3			30.8	3209.9
4			19.7	2124.5
Deep			19.1	2019.9
Medium			45.2	4288.9
Shallow			45.8	5679.9

Array Temperature	24.9	Deg F

Induction Constants MAI-C.A 427

Last Edited on 03-FEB-2013,19:09

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	6.0000	
Stand-off Fin Angle	60.00	degrees
Stand-off Fin Width	0.5000	inches
Borehole Corr. Rm Source	Temperature Corr	
Temp. for Rm Corr.	MGS 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	

Photo Density Calibration MPD-D.A 471

Base Calibration on 26-DEC-2012 09:33
Field Check on 01-FEB-2013 04:21

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	54132	27447	59869	31110
Reference 2	22673	2730	24557	2522

Field Check at Base

	1281.3	1476.8

Field Check

1284.8 1477.5

PE Calibration

Base Calibration	WS	Measured WH	Ratio	Calibrated Ratio
Background	246	1128		
Reference 1	23825	53911	0.447	0.369
Reference 2	6960	22516	0.314	0.271

Field Check at Base

245.7 1128.4

Field Check

244.4 1137.5

Density Constants MPD-D.A 471

Last Edited on 17-JAN-2013,10:31

Density Source Id	243	
Nylon Calibrator Number	633	
Aluminium Calibrator Number	633	
Density Shoe Profile	4 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.04	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	

Caliper Calibration MPD-D.A 471

Base Calibration on 14-DEC-2012,07:31
Field Calibration on 11-JAN-2013 09:46

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	19410	3.99
2	29147	5.97
3	38815	7.99
4	48375	9.86
5	59610	11.93
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.87	5.97

DOWNHOLE EQUIPMENT

C:\Data\Sandridge\Sandridge Peter 3404 1-20H\MMS158 Depthlog.dta

Shuttle Running Tool 3.5")
SRT-A.A 40 LG: 6.62 ft WT: 37.5 lb OD: 2.52 in

Empty Battery
MLK-A 2 LG: 14.23 ft WT: 30.9 lb OD: 2.24 in

Empty Battery

MLK-A 3 LG: 14.23 ft WT: 30.9 lb OD: 2.24 in

MBS-G.A 200v Compact Battery Sub
MBS-G.A 135 LG: 17.06 ft WT: 123.5 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 133 LG: 3.41 ft WT: 24.3 lb OD: 2.24 in

Compact Collar Locator
MCL-B.J 72 LG: 3.17 ft WT: 26.5 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint
SKJ-E.B 456 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor
SHA-J.A 432 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

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

Compact Neutron
MDN-B.J 423 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
MPD-D.A 471 LG: 9.59 ft WT: 90.4 lb OD: 2.24 in

MIS-D.B Compact Inline Bowspring sub
MIS-D.B 591 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor
SHA-J.A 205 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint
SKJ-E.B 477 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-E.B Compact Inline Standoff sub
MIS-E.B 576 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

MIS-D.A Compact Inline Bowspring sub
MIS-D.A 333 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact MMI Memory Section
MIM-A.A 157 LG: 4.65 ft WT: 26.5 lb OD: 2.24 in

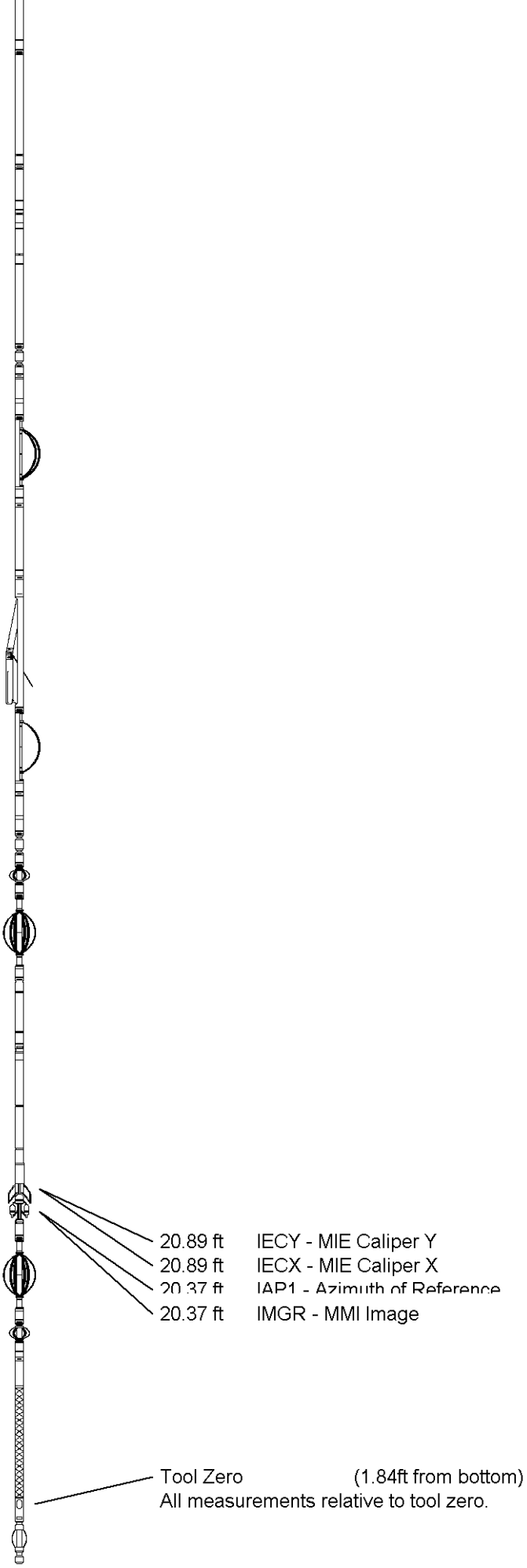
Compact MMI Electrode Section
MIE-A.A 209 LG: 13.96 ft WT: 99.2 lb OD: 4.09 in

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

MIS-E.A Compact Inline Standoff sub
MIS-E.A 336 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Induction
MAI-C.A 427 LG: 12.52 ft WT: 48.5 lb OD: 2.24 in

Total Length: 145.68 ft Weight: 881.8 lb



COMPANY	SANDRIDGE EXPLORATION & PRODUCTION

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WELL	PETER 3404 1-20H
FIELD	
PROVINCE/COUNTY	SUMNER
COUNTRY/STATE	USA / KANSAS

Elevation Kelly Bushing	1242.00	feet	First Reading	11491.00	feet
Elevation Drill Floor	1242.00	feet	Depth Driller	11618.00	feet
Elevation Ground Level	1220.00	feet	Depth Logger	11549.00	feet

Weatherford®

CML WELL SHUTTLE

COMPENSATED PHOTO-DENSITY

COMPENSATED NEUTRON LOG