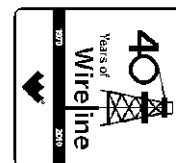


**Weatherford****COMPACT TRIPLE COMBO
QUICKLOOK
LOG**

COMPANY

WEXPRO COMPANY

WELL

JACKS DRAW UNIT 18

FIELD

POWDER WASH

PROVINCE/COUNTY

MOFFAT

COUNTRY/STATE

U.S.A. / COLORADO

LOCATION

SHL: 933' FNL & 1503' FWL

SEC

TWP
28 12NRGE
97W

Other Services

API Number

05-081-07635

Permit Number

Permanent Datum G.L., Elevation 6570 feet

Log Measured From KB

Drilling Measured From K.B.

Date

10-NOV-2011

Elevations:	feet
KB	6599.00
DF	6598.00
GL	6570.00

Run Number

ONE

Depth Driller

9087.00 feet

Depth Logger

9087.00 feet

First Reading

9070.00 feet

Last Reading

1525.00 feet

Casing Driller

1523.00 feet

Casing Logger

1525.00 feet

Bit Size

7.875

inches

Hole Fluid Type

LSND

Density / Viscosity

10.40 lb/USg

39.00 CP

PH / Fluid Loss

9.90

6.80 ml/30Min

Sample Source

FLOWLINE

Rm @ Measured Temp

1.50 @ 74.7 ohm-m

Rmf @ Measured Temp

1.20 @ 74.7 ohm-m

Rmc @ Measured Temp

1.80 @ 74.7 ohm-m

Source Rmf / Rmc

CALC

CALC

Rm @ BHT

0.761 @151.0 ohm-m

Time Since Circulation

0.5 HOURS

Max Recorded Temp

151.00

deg F

Equipment Name

COMPACT

Equipment / Base

18063

CASPER

Recorded By

J. BOON

Witnessed By

R. BUSH

BOREHOLE RECORD

Last Edited: 10-NOV-2011 06:52

Bit Size
inches

7.875

Depth From
feet

1523.00

Depth To
feet

9087.00

CASING RECORD

Type

Size
inches

9.625

Depth From
feet

0.00

Shoe Depth
feet

1523.00

Weight
pounds/ft

36.00

REMARKS

SOFTWARE VERSION USED: 11.03.4044

TOOLS CONVEYED VIA CML WELL SHUTTLE

ALL DEPTHS RECORDED WITH WEATHERFORD PASON DEPTH SYSTEM
ALL DEPTHS CORRECTED TO DRILLER'S STRAP DEPTH

MCG, MDN, MPD, MFE, MAI RAN IN COMBINATION

HARDWARE USED: SEE TOOL DIAGRAM

CUSTOMER'S SCALES USED AND INTERVALS LOGGED

4.5 INCH PRODUCTION CASING USED TO CALCULATE ANNULAR HOLE VOLUME.
ANNULAR HOLE VOLUME: 2360 CUBIC FEET
HOLE VOLUME: 3180 CUBIC FEET

BOREHOLE SIZE AND RUGOSITY WILL AFFECT DATA QUALITY

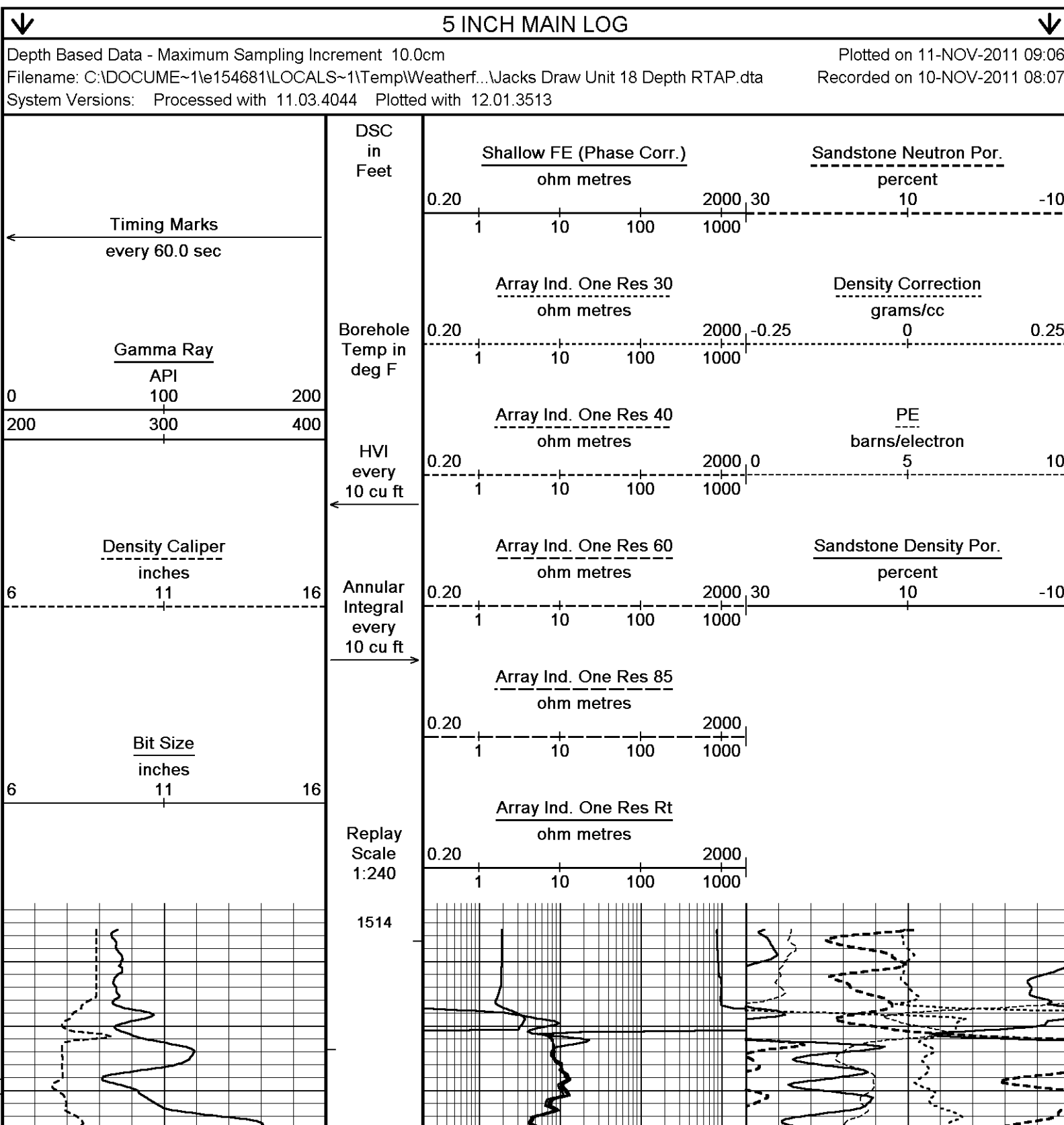
BOREHOLE SIZE AND RESISTIVITY WILL AFFECT DATA QUALITY. DENSITY CORRECTION AFFECTED BY WASHED OUT HOLE. READS PROPERLY IN GAUGE SECTIONS OF BOREHOLE

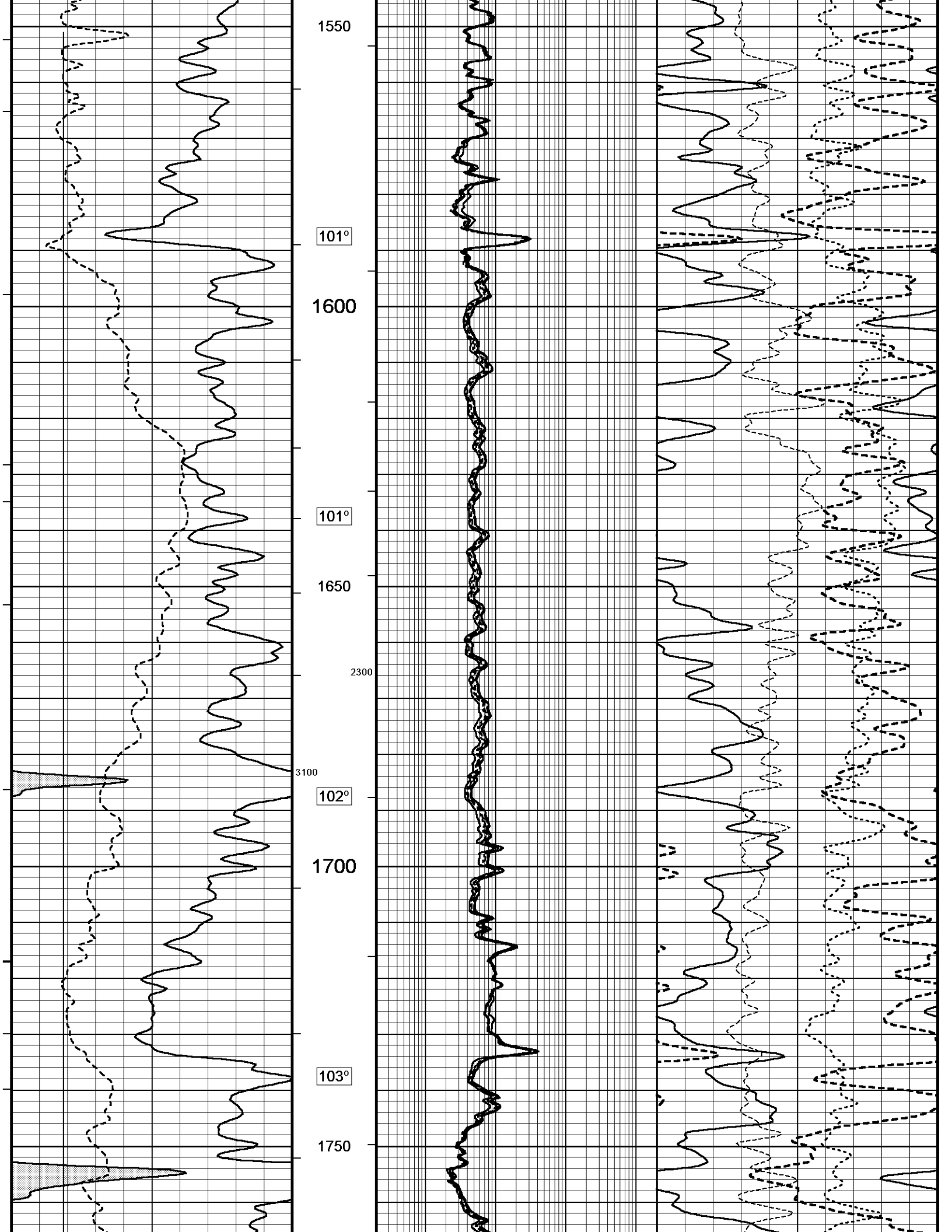
TIGHT PULLS WILL AFFECT DATA QUALITY

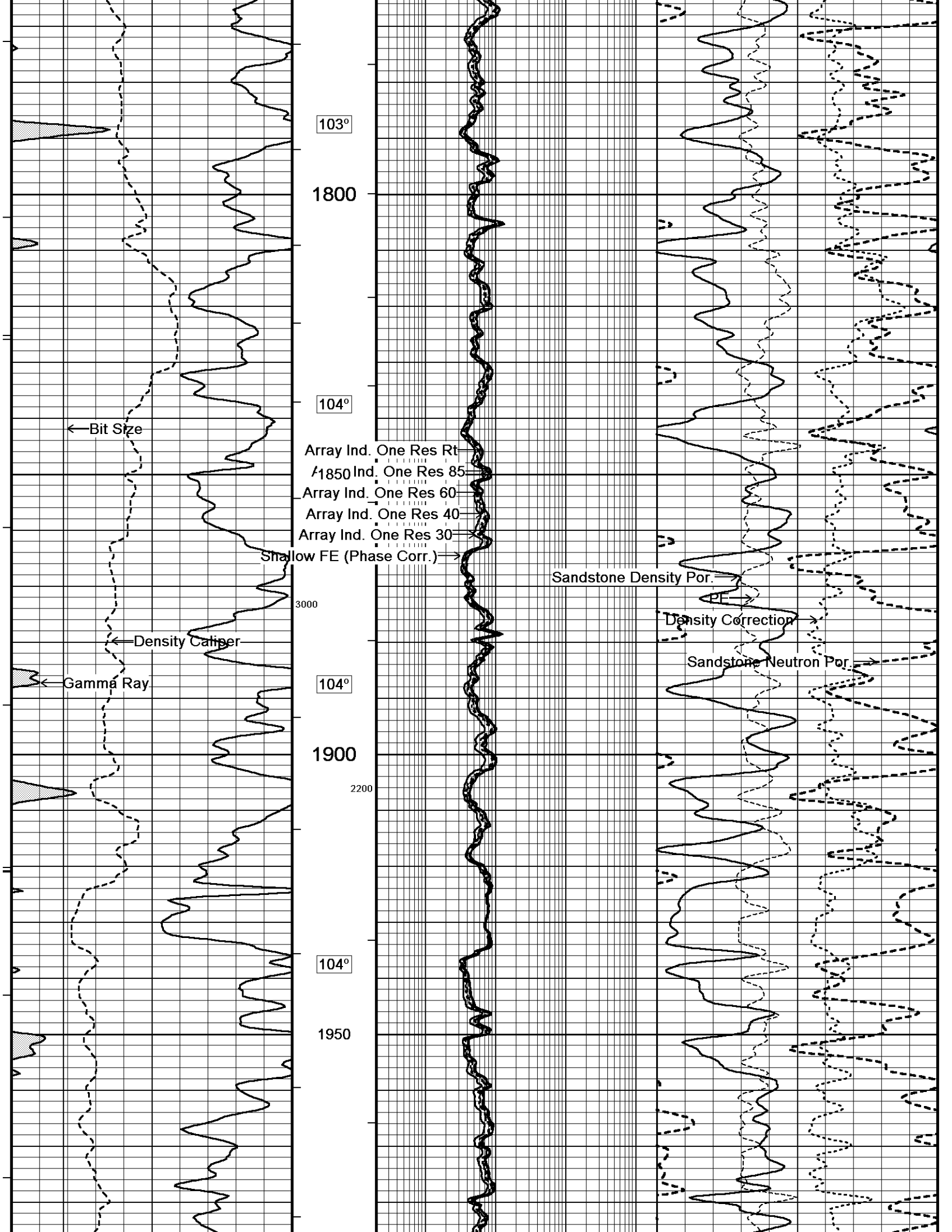
RIG: SST 88

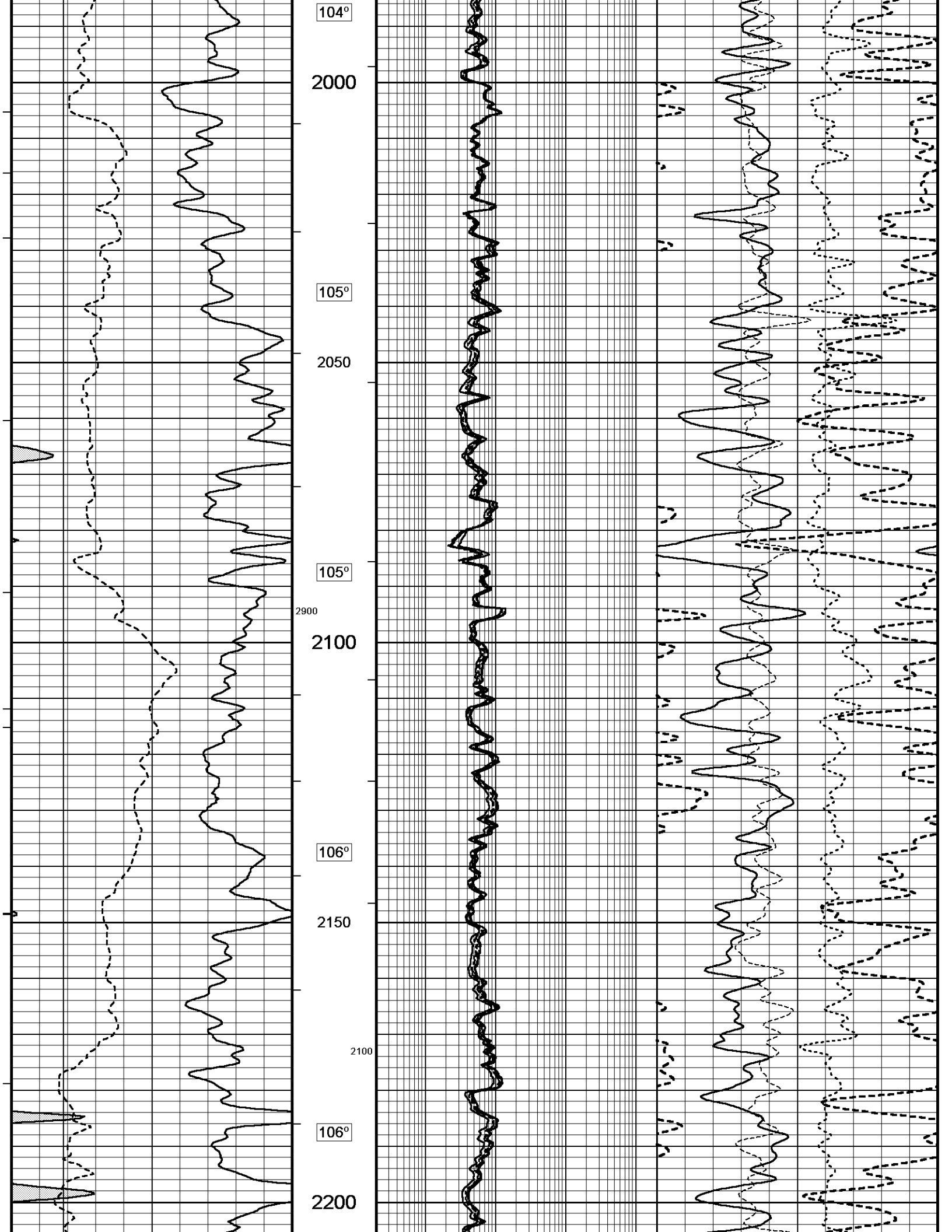
SERVICE ORDER #3529618

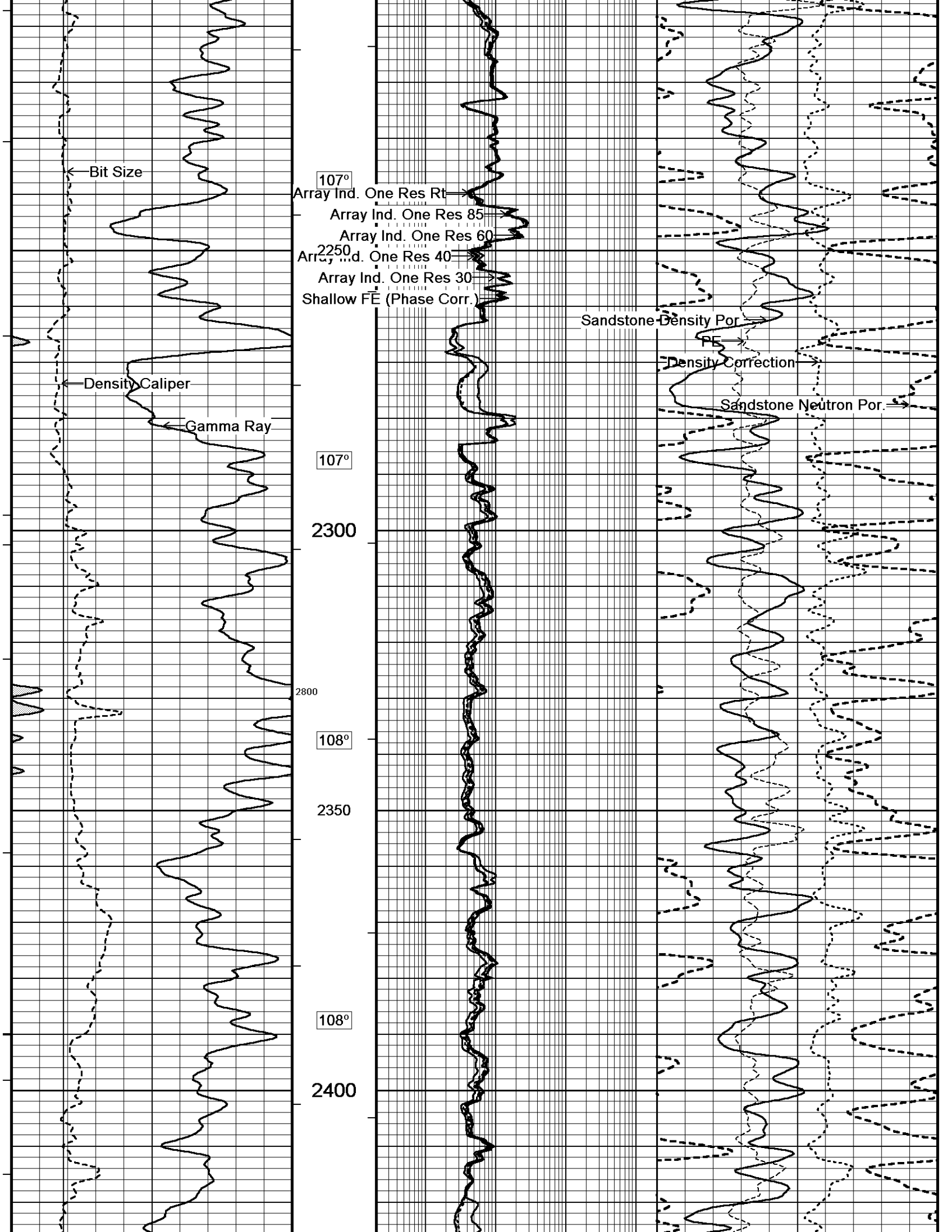
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

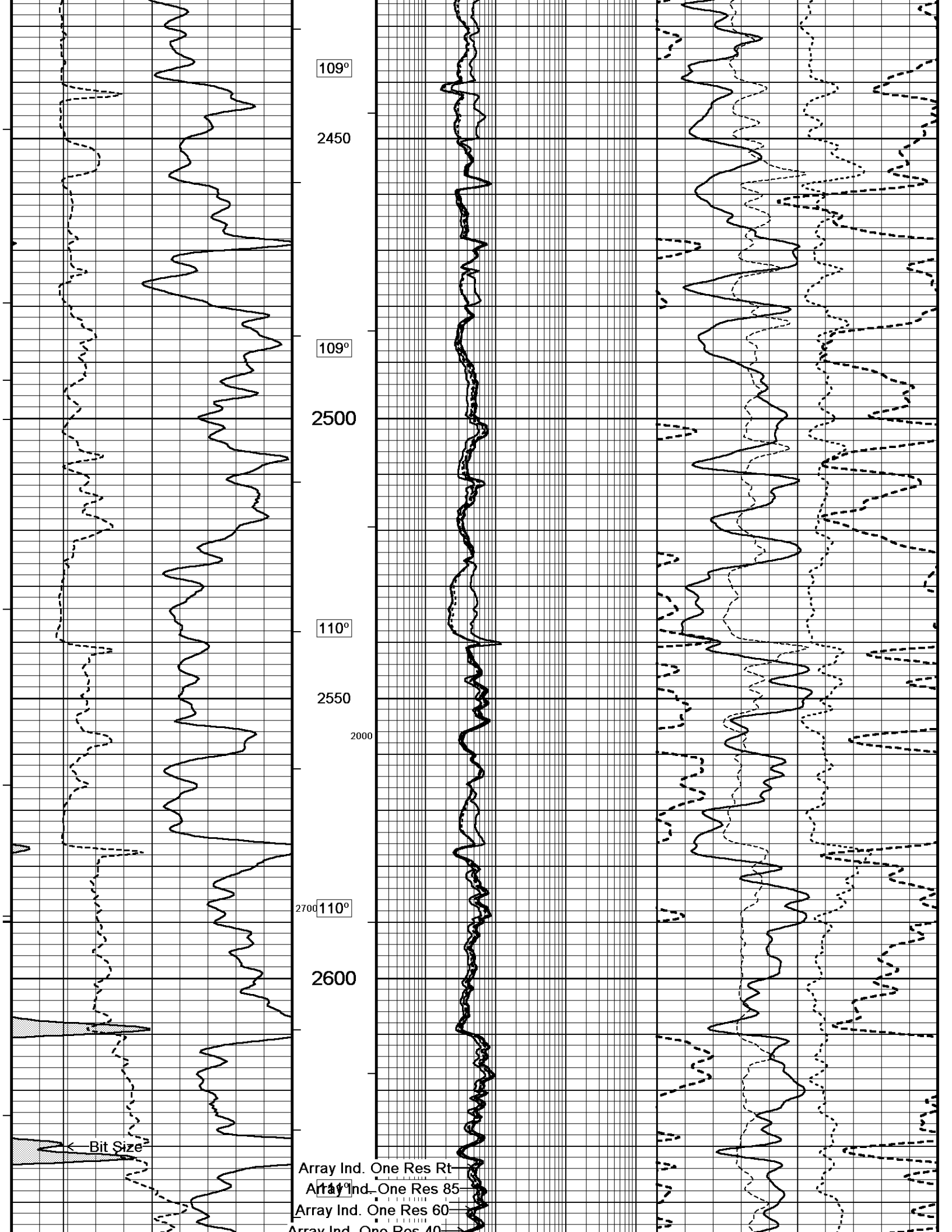


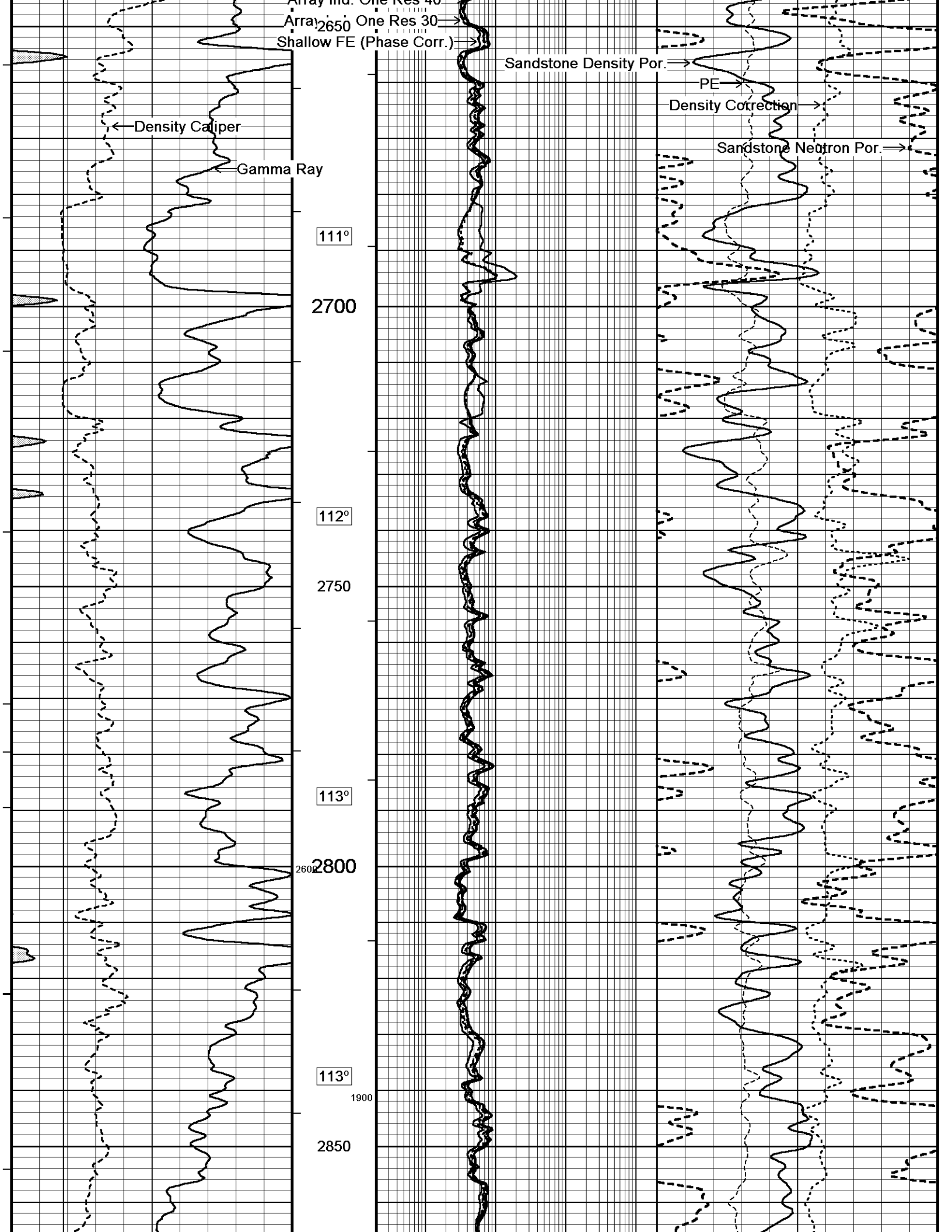


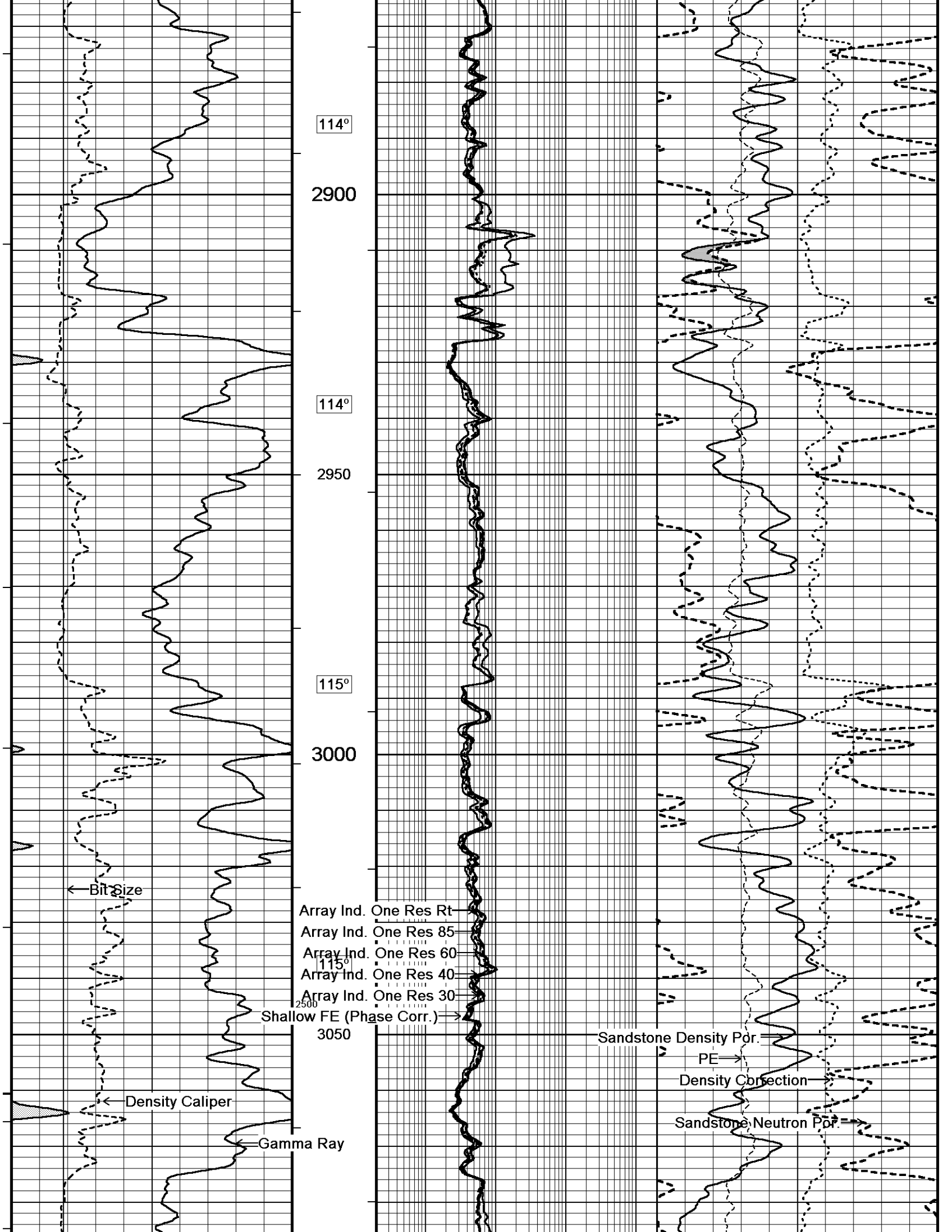


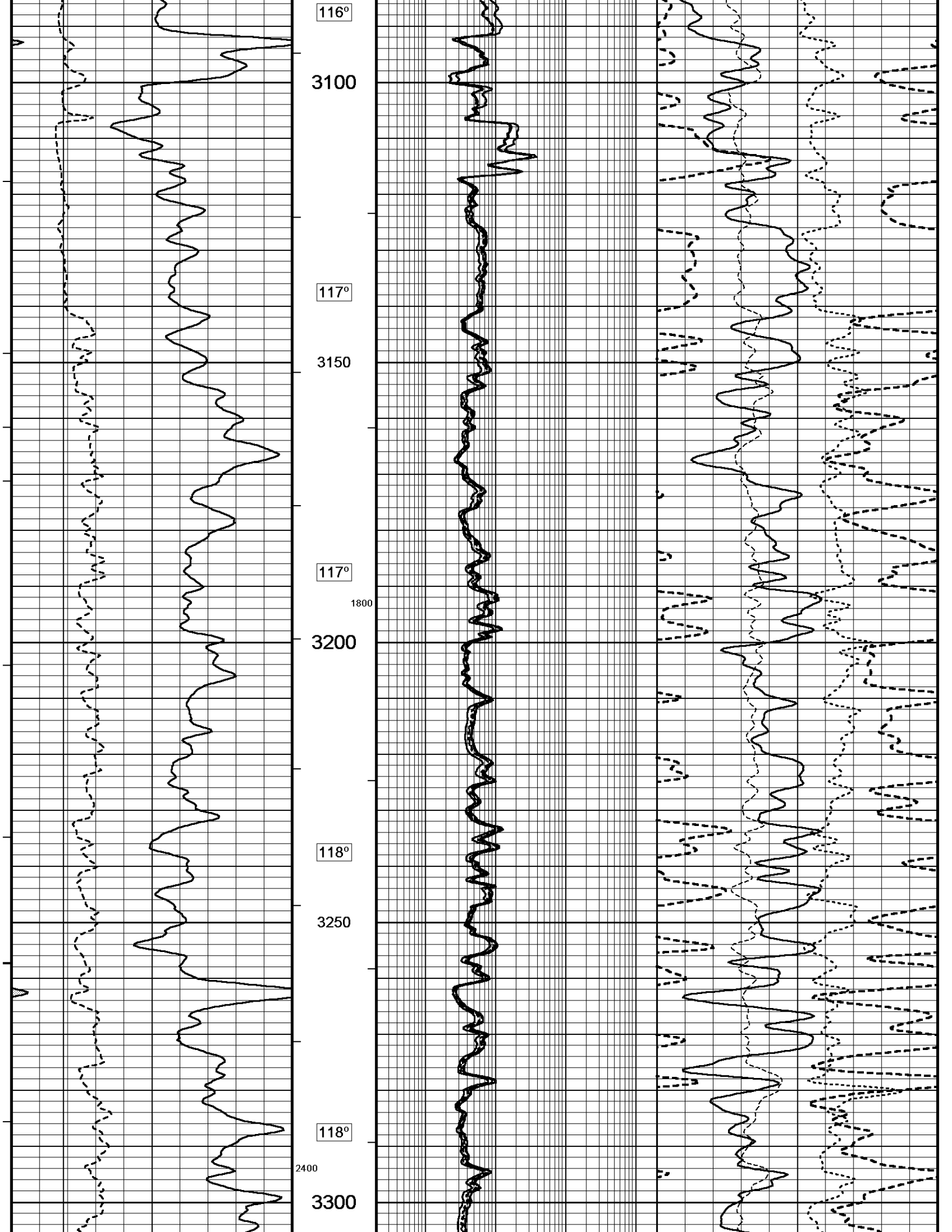


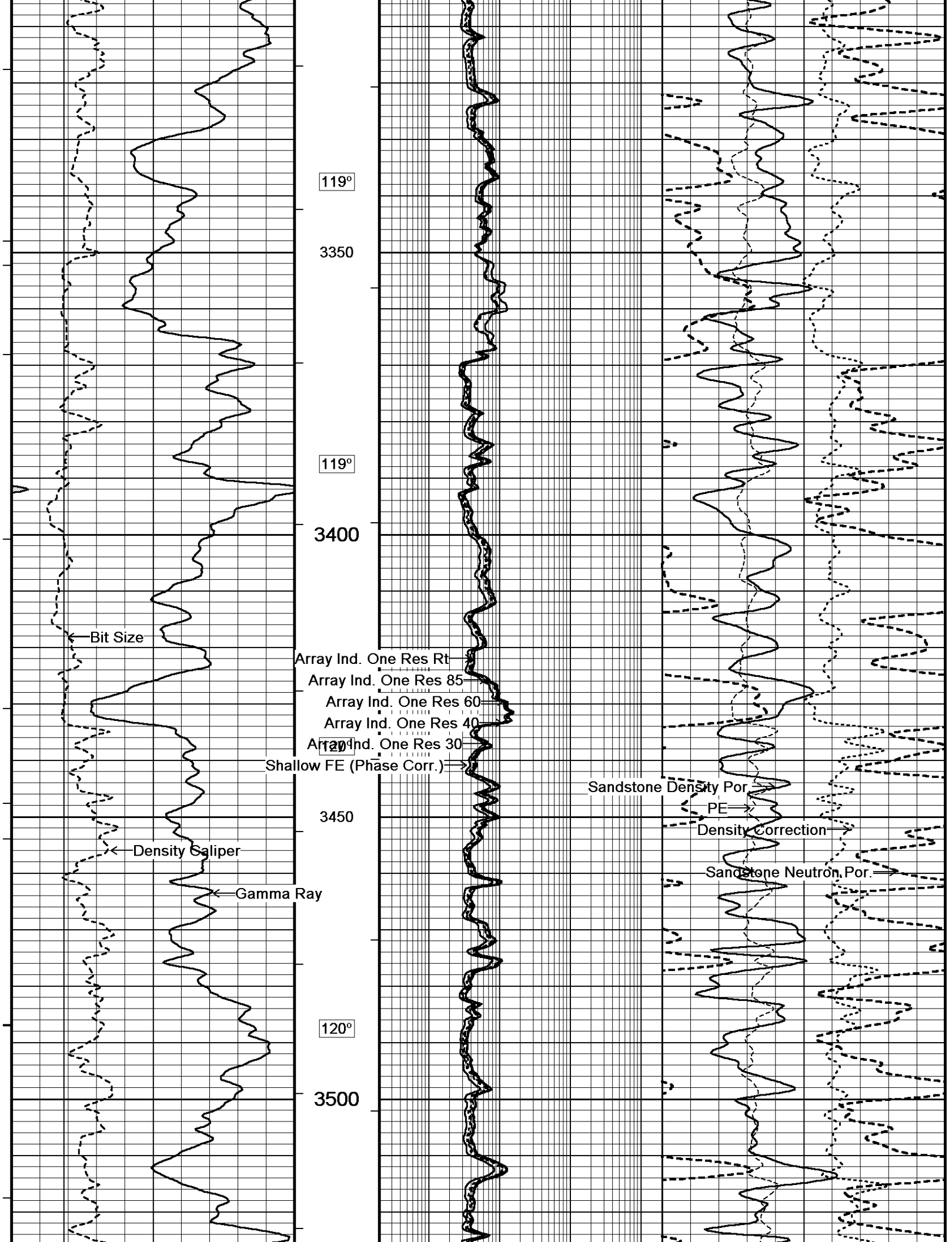


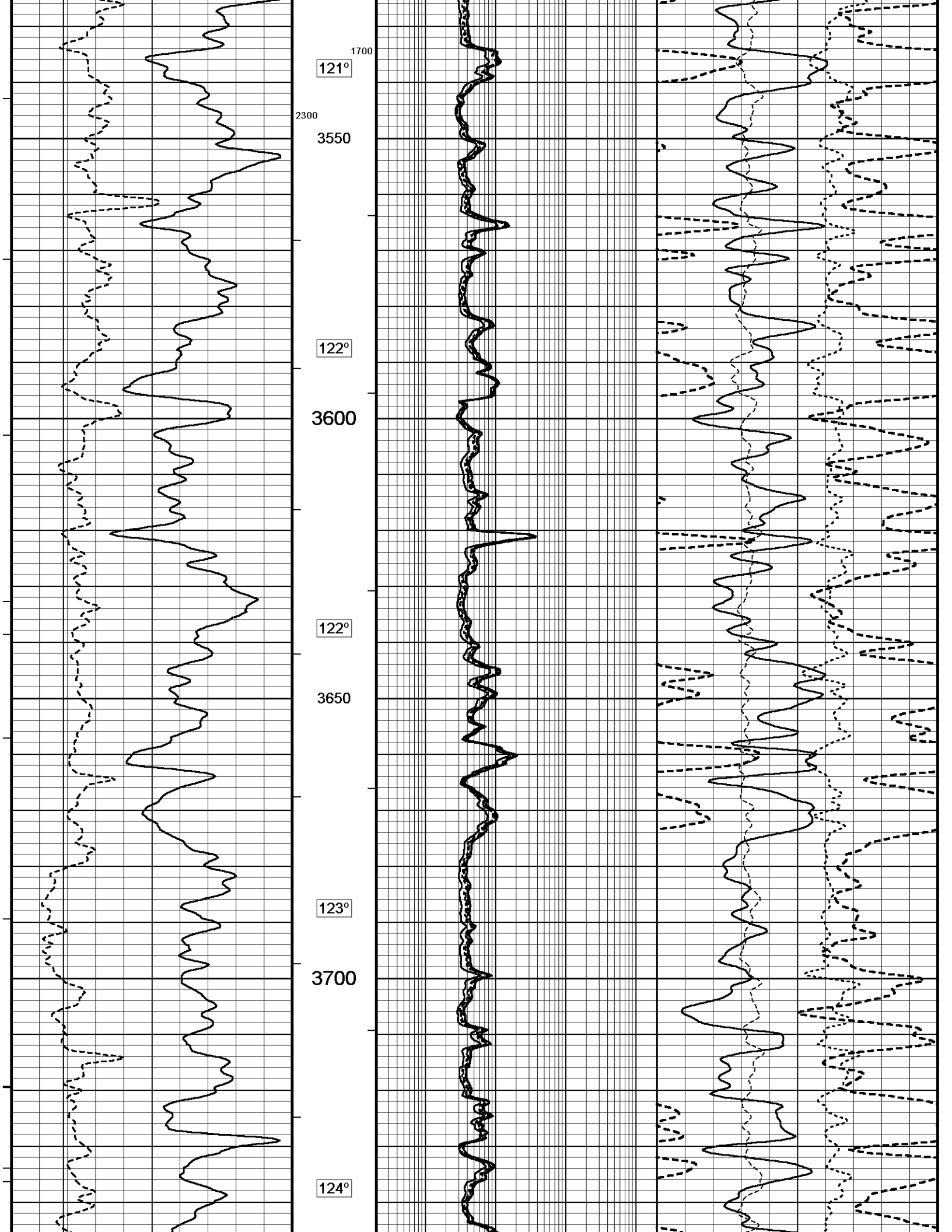


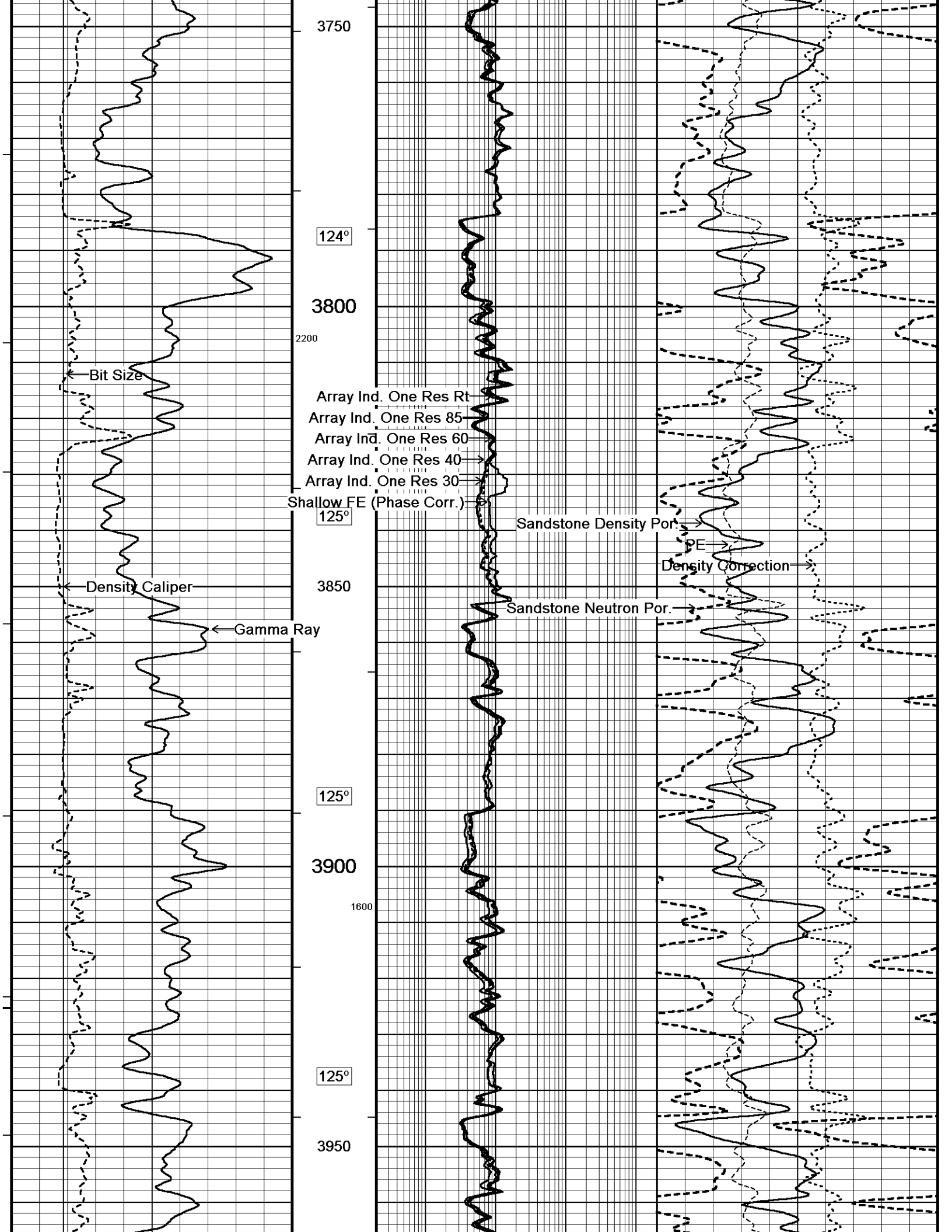


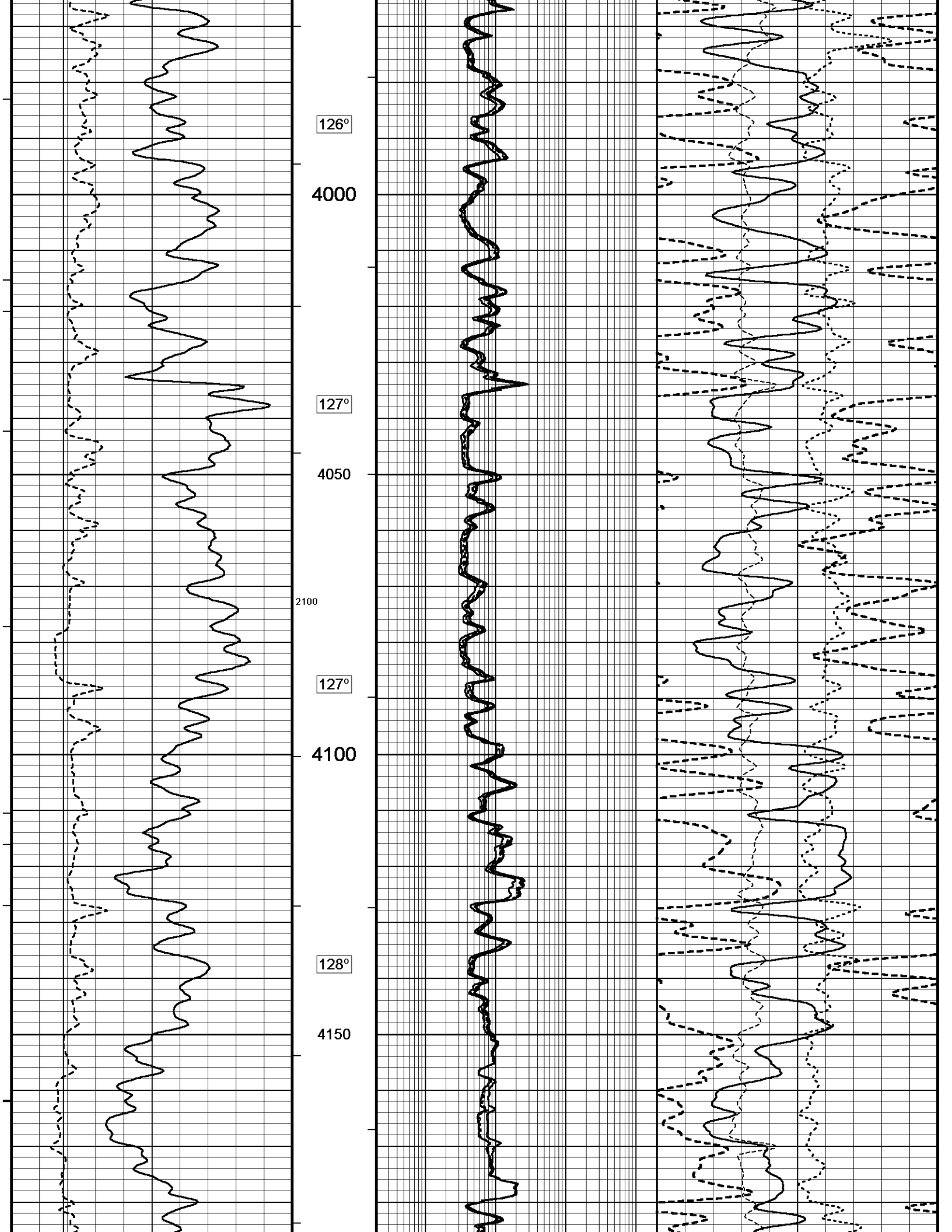


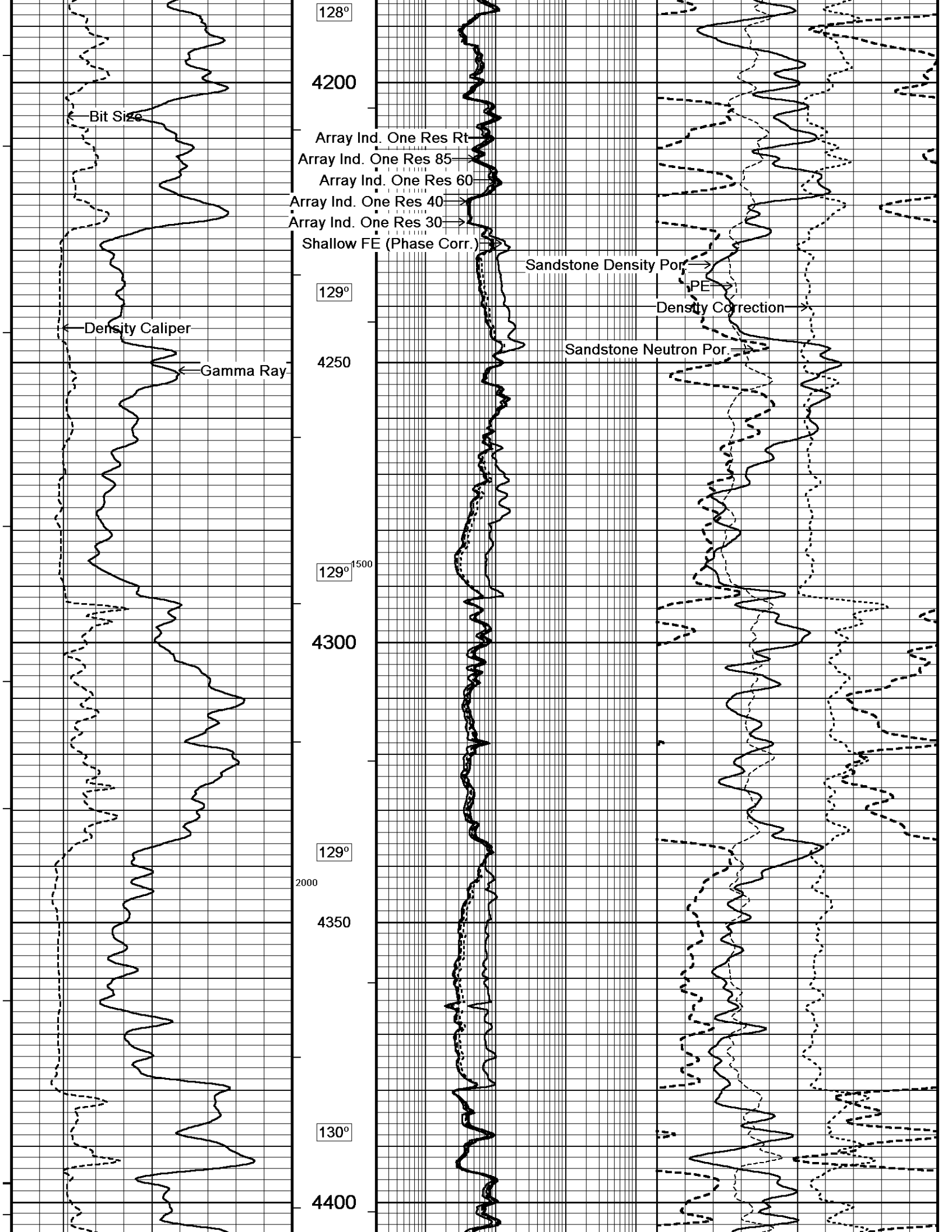


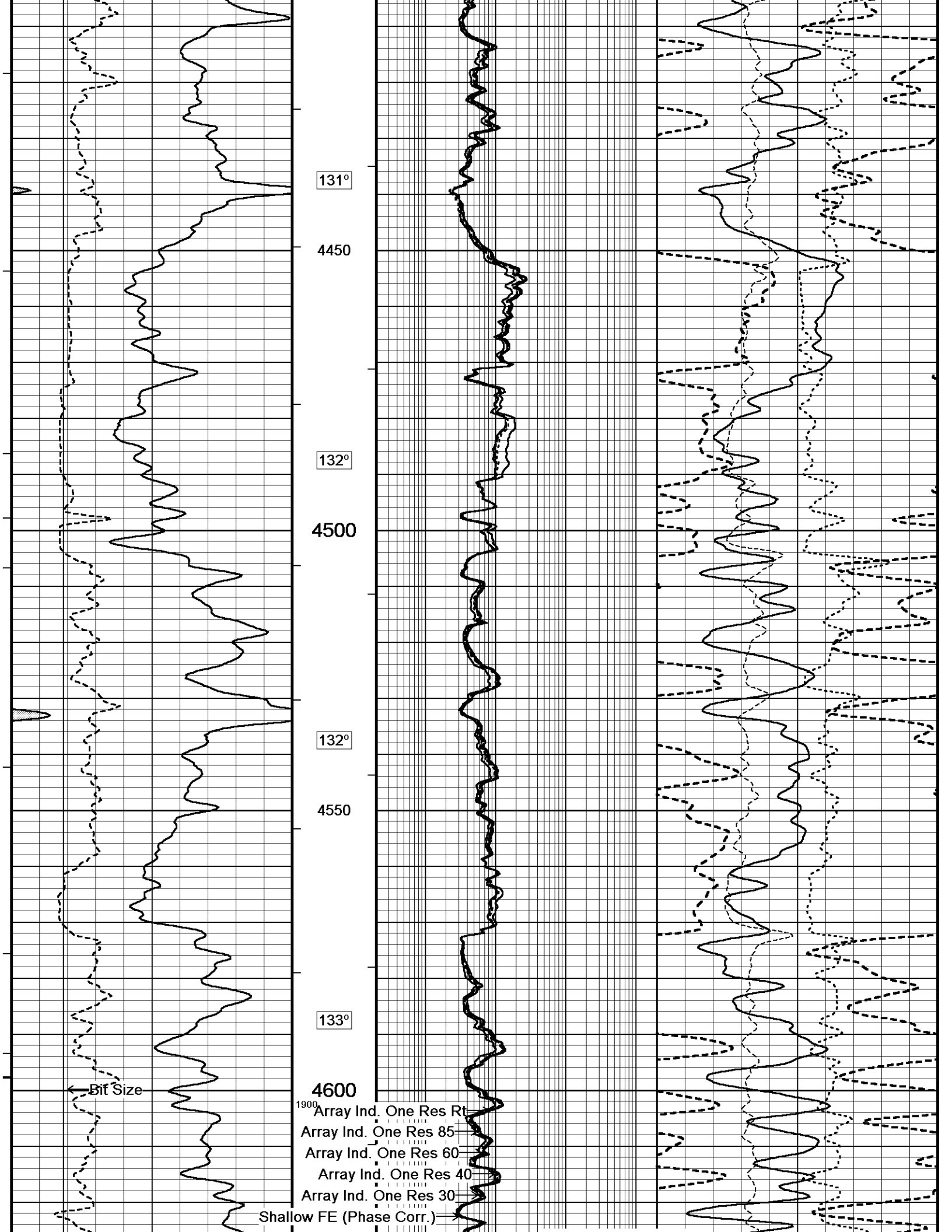


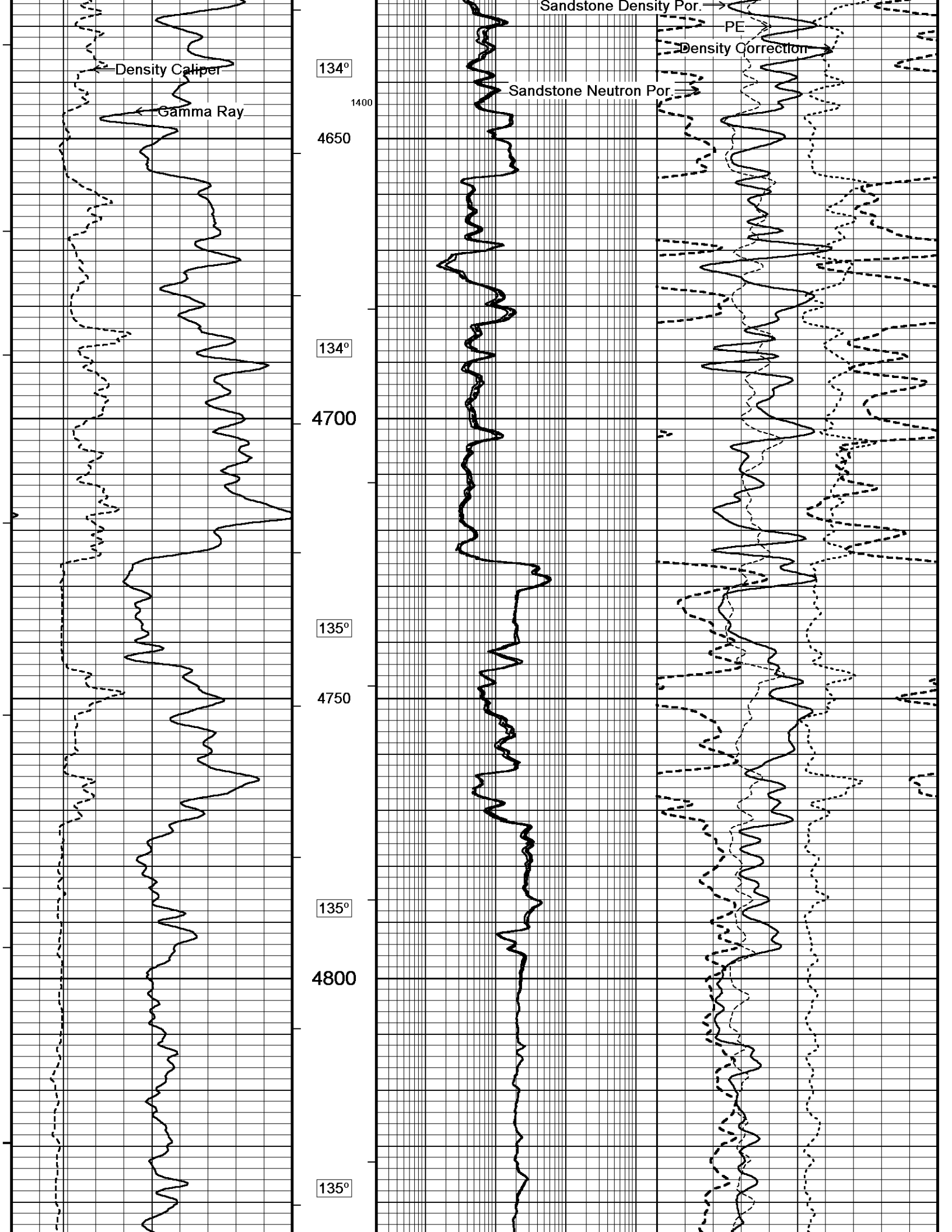


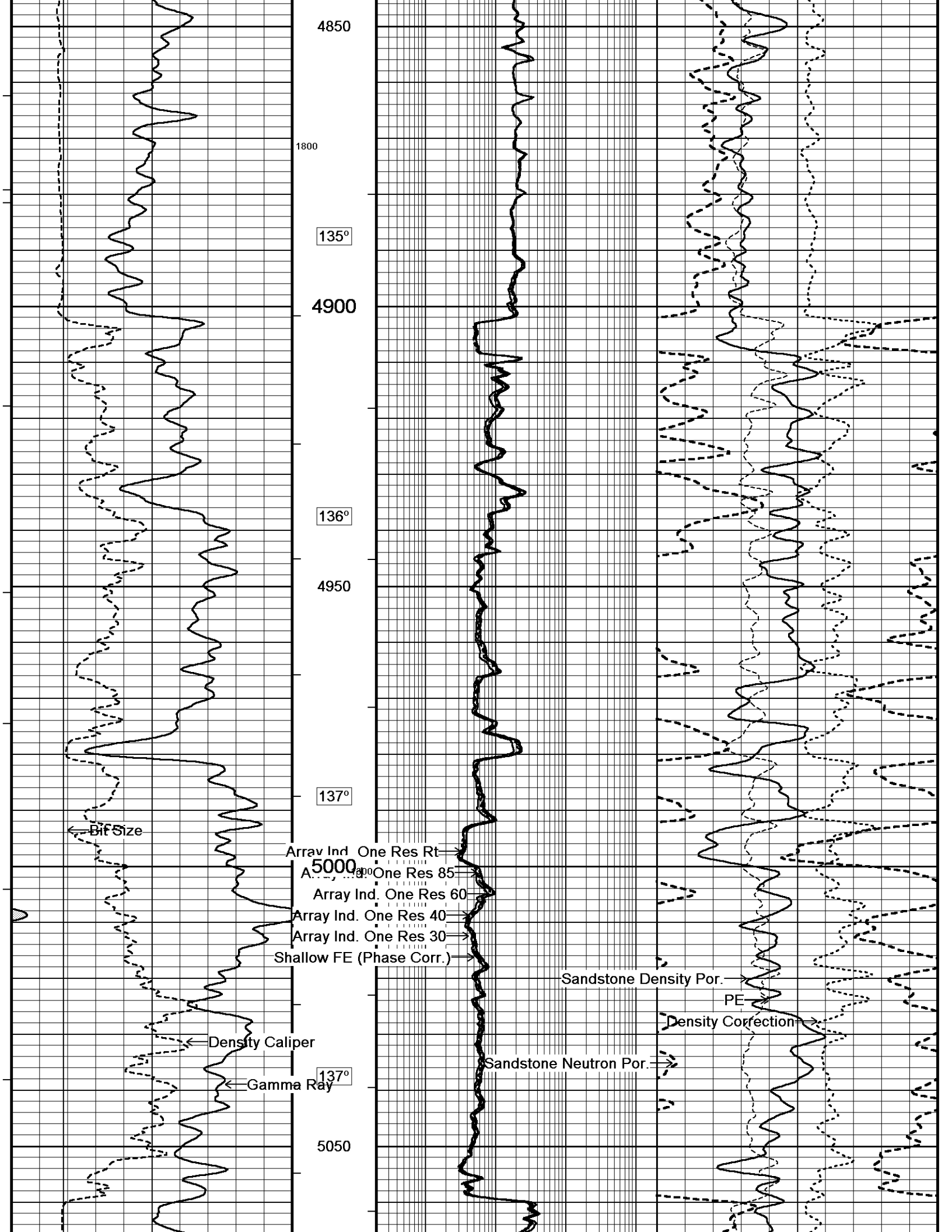


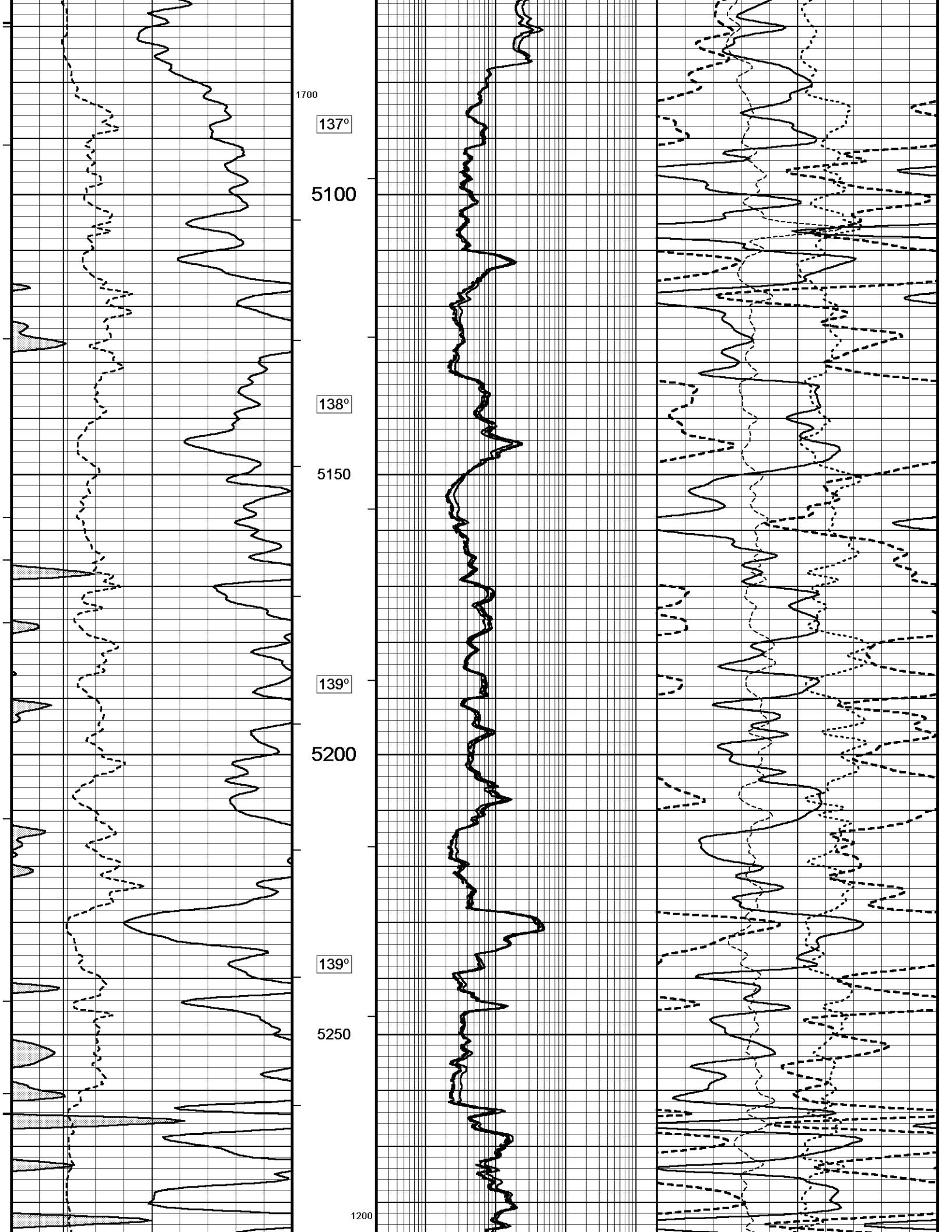


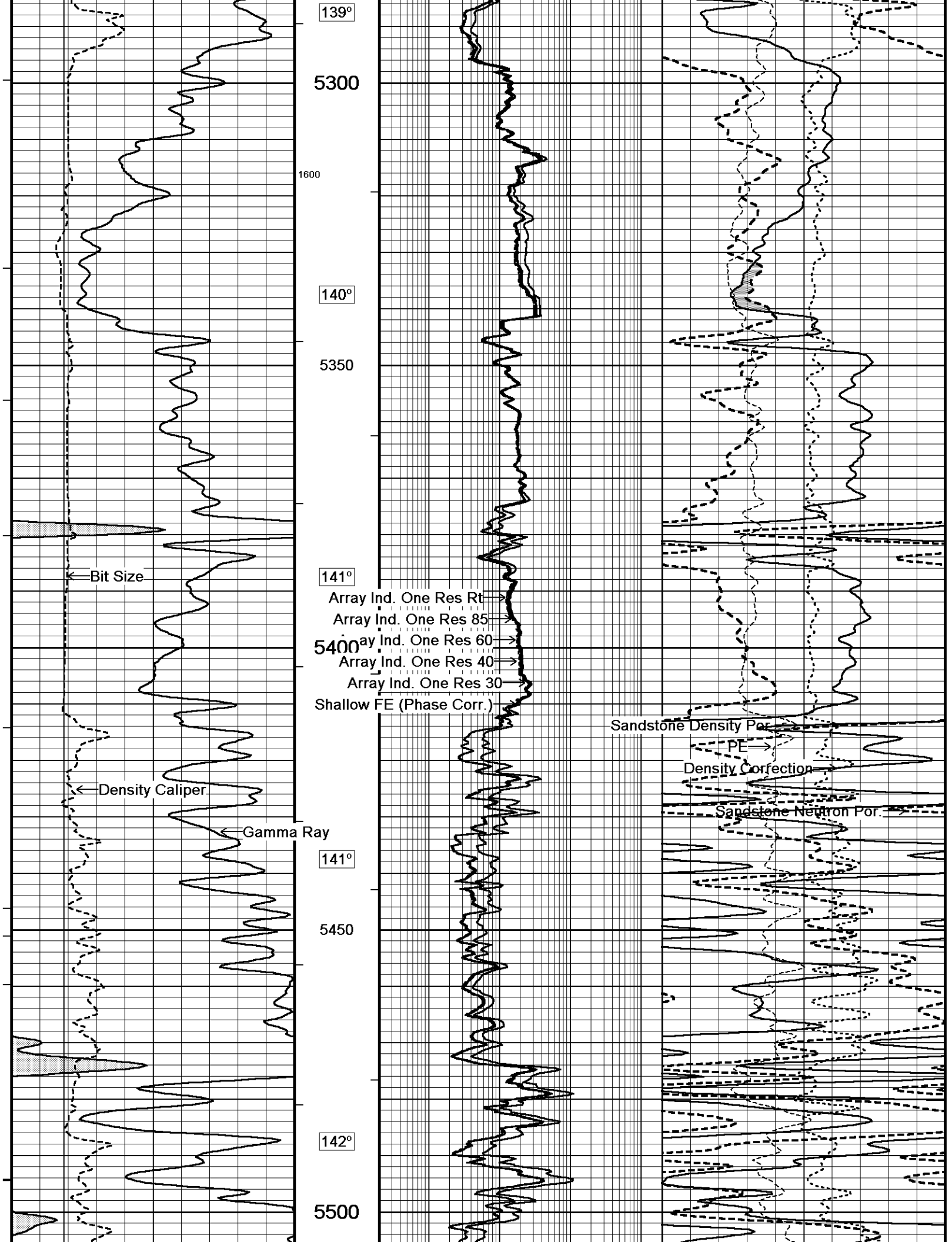


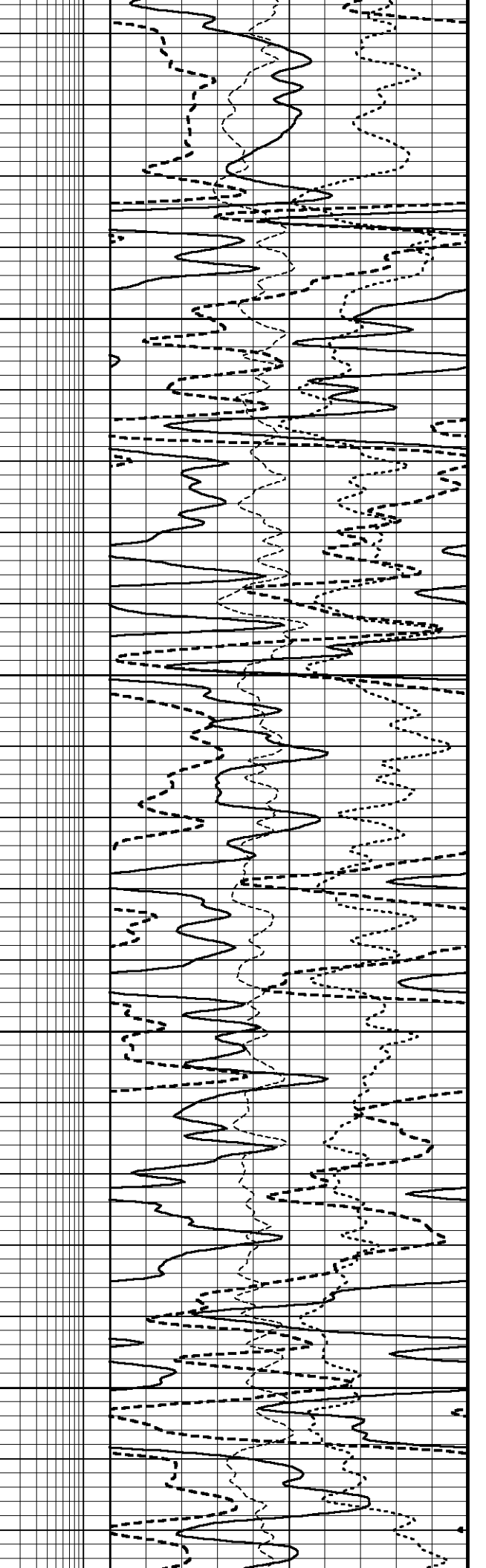
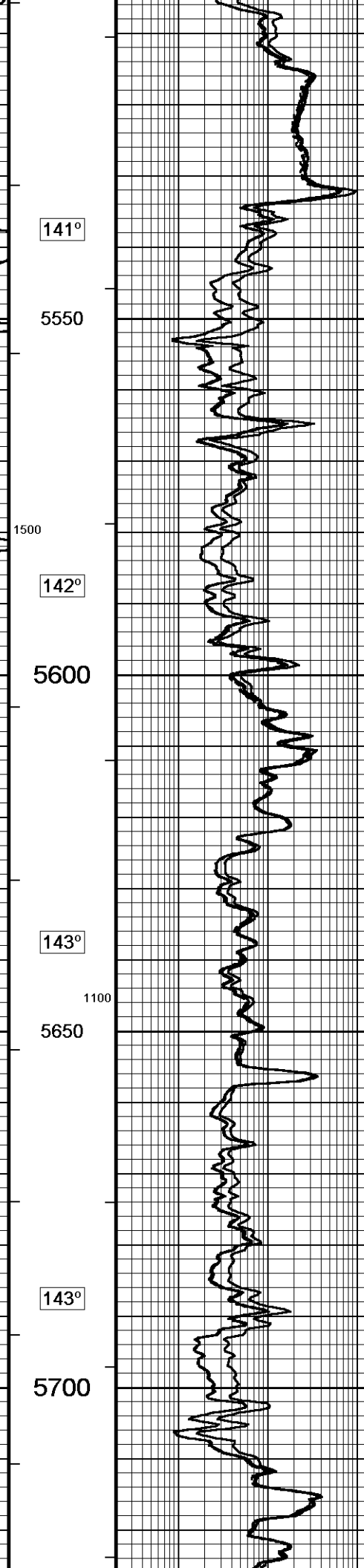
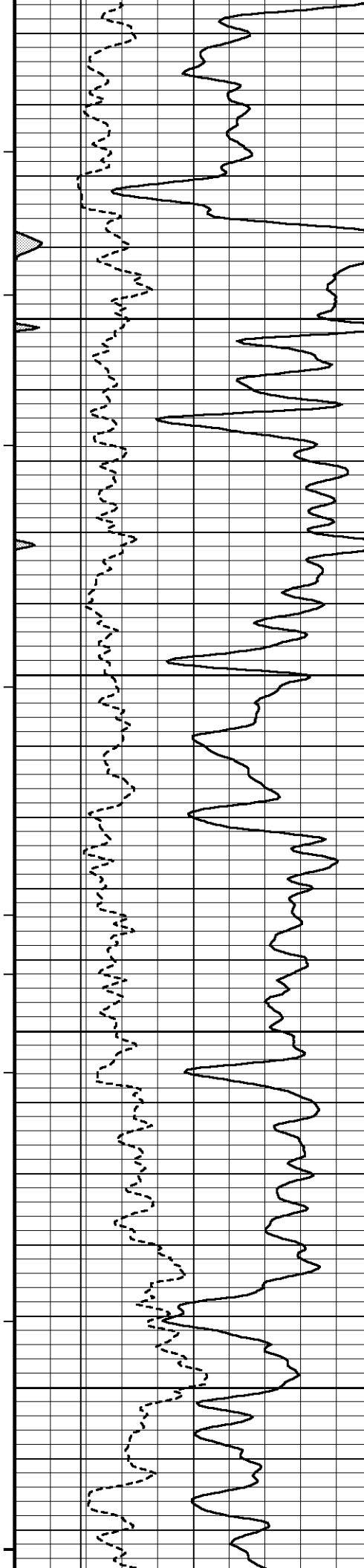












141°

5550

1500

142°

5600

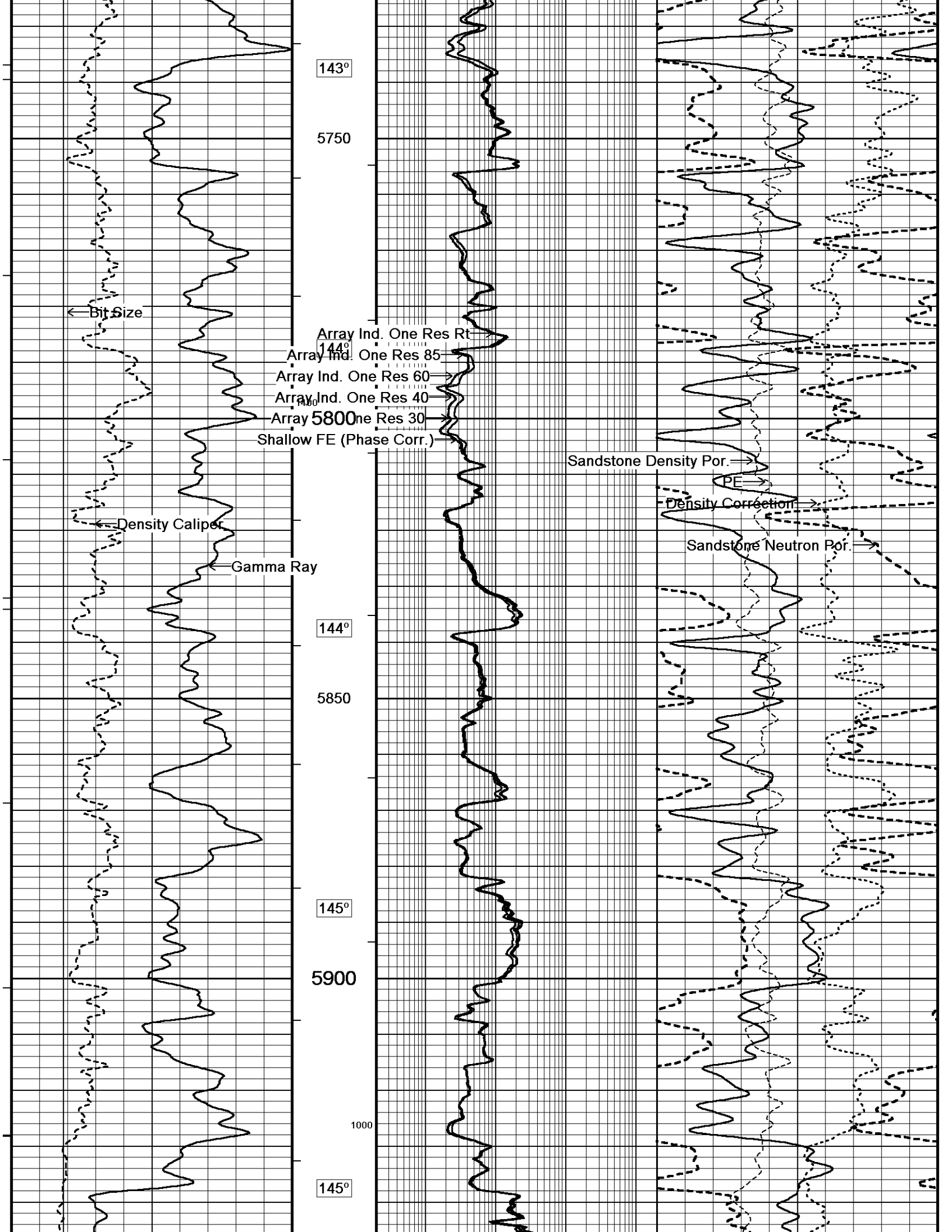
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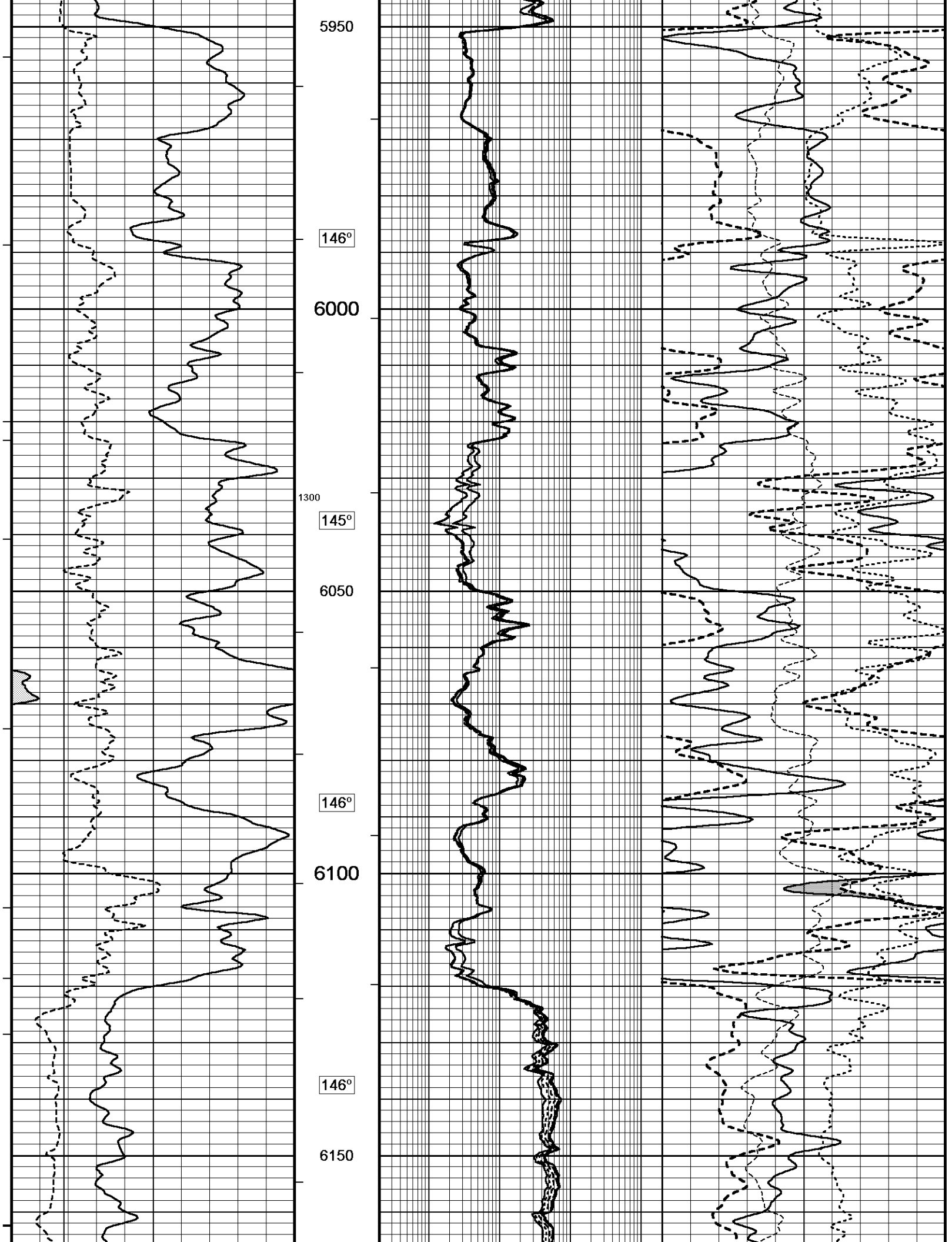
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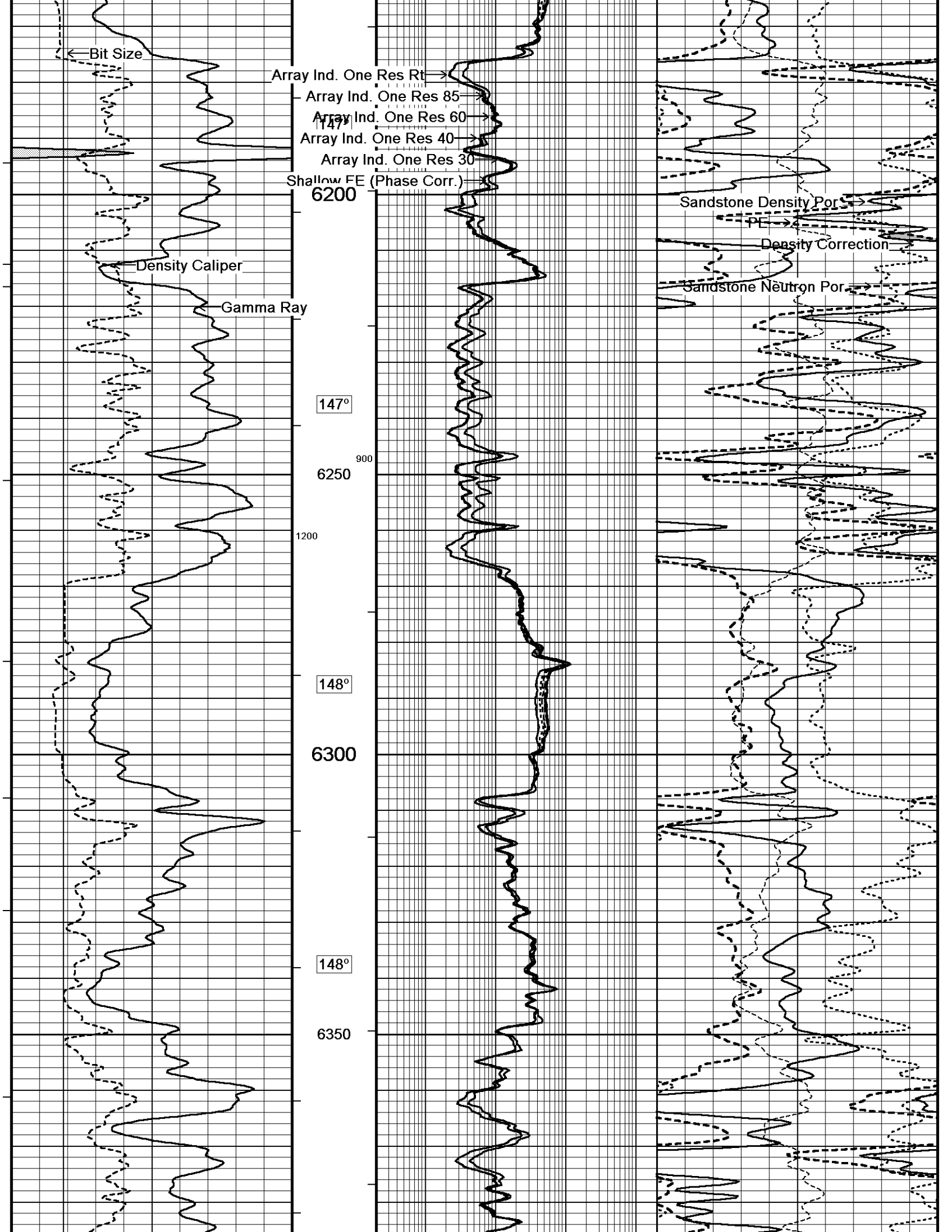
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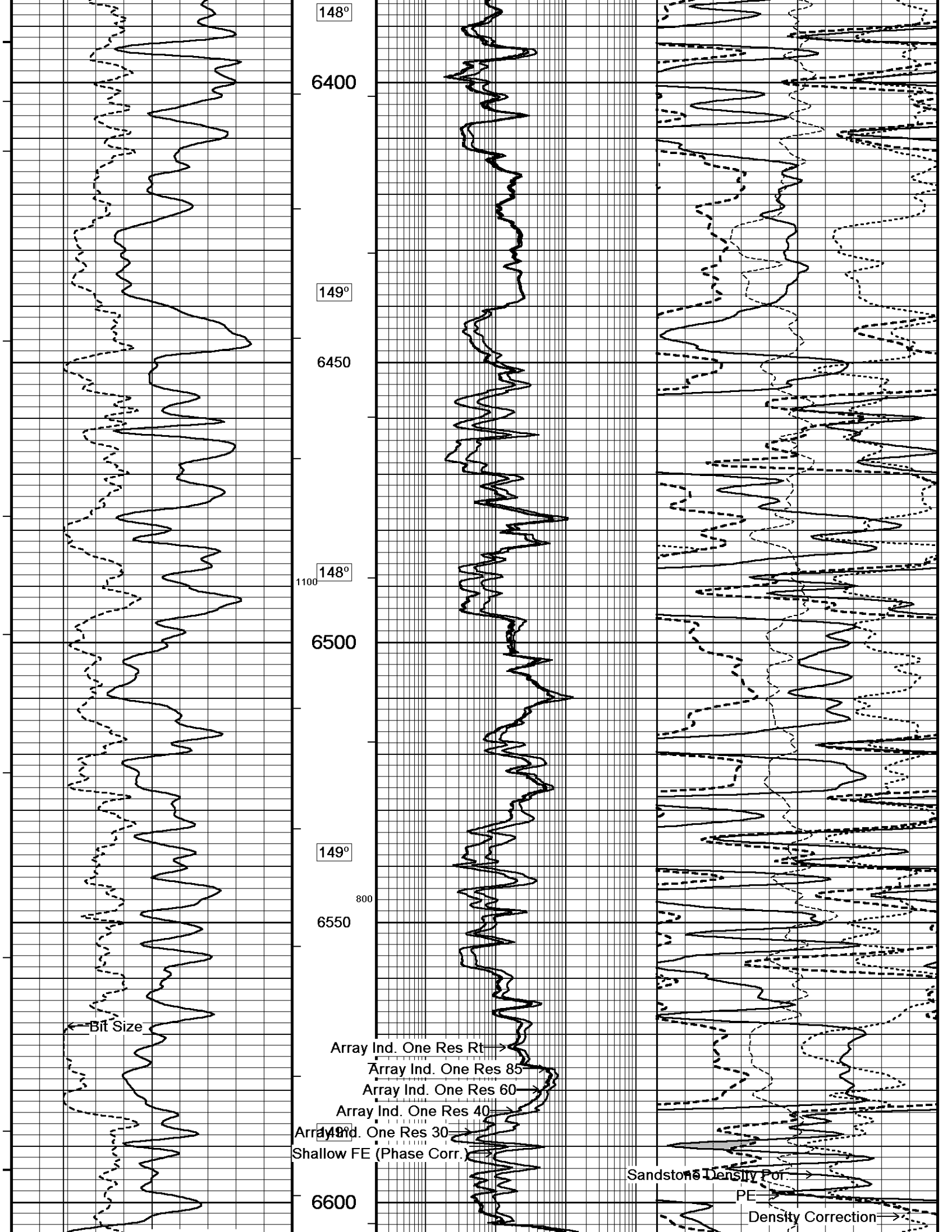
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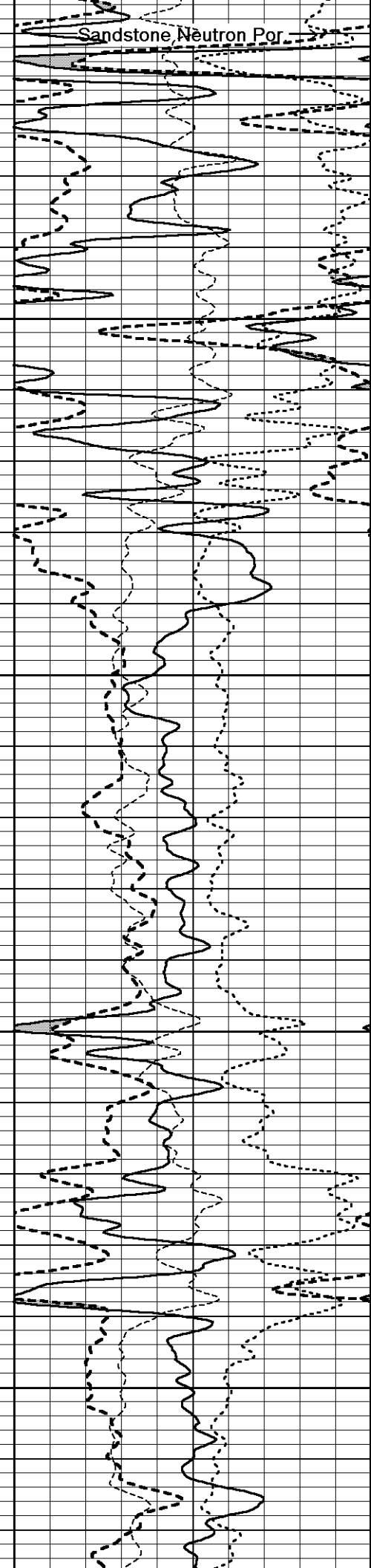
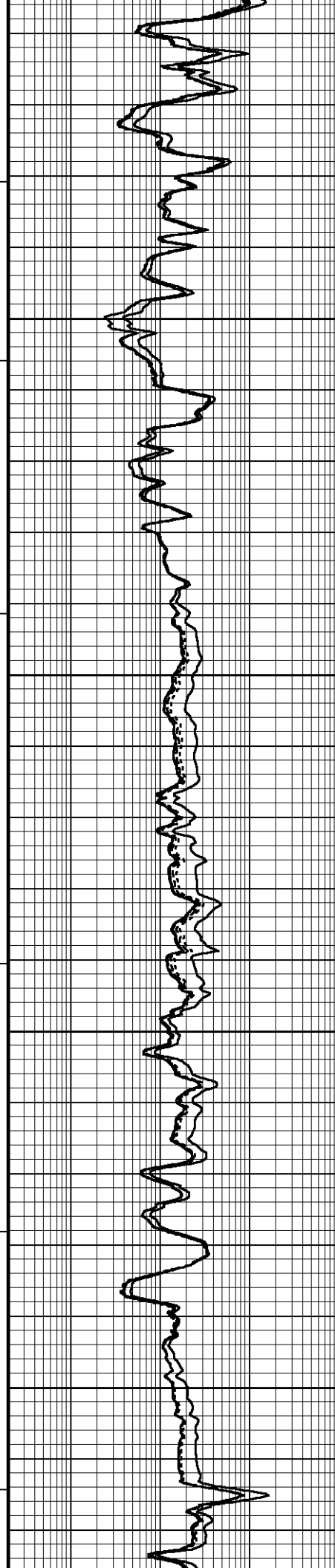
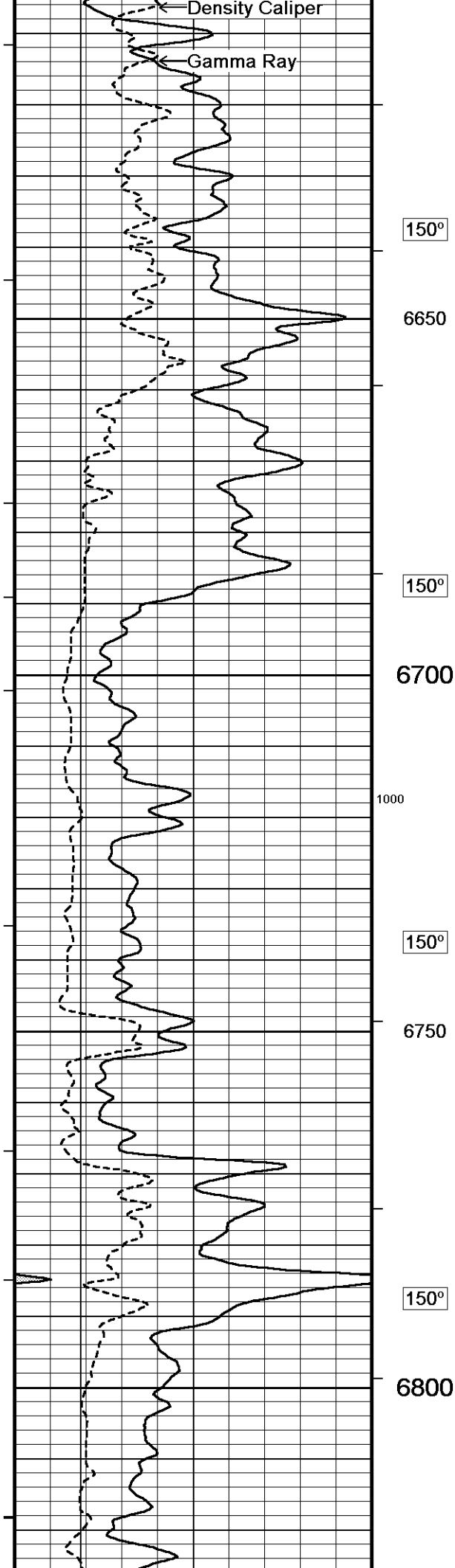
5700

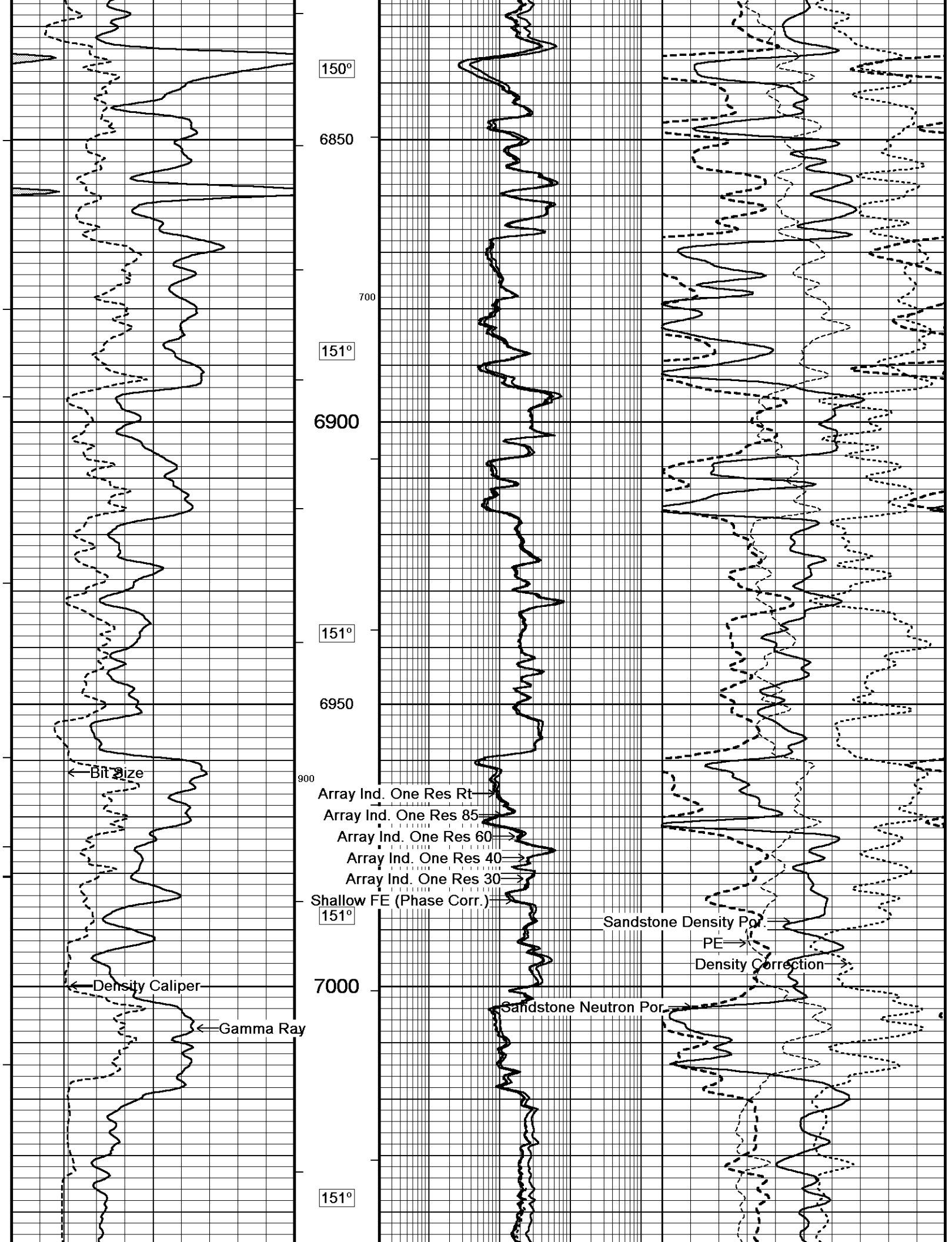


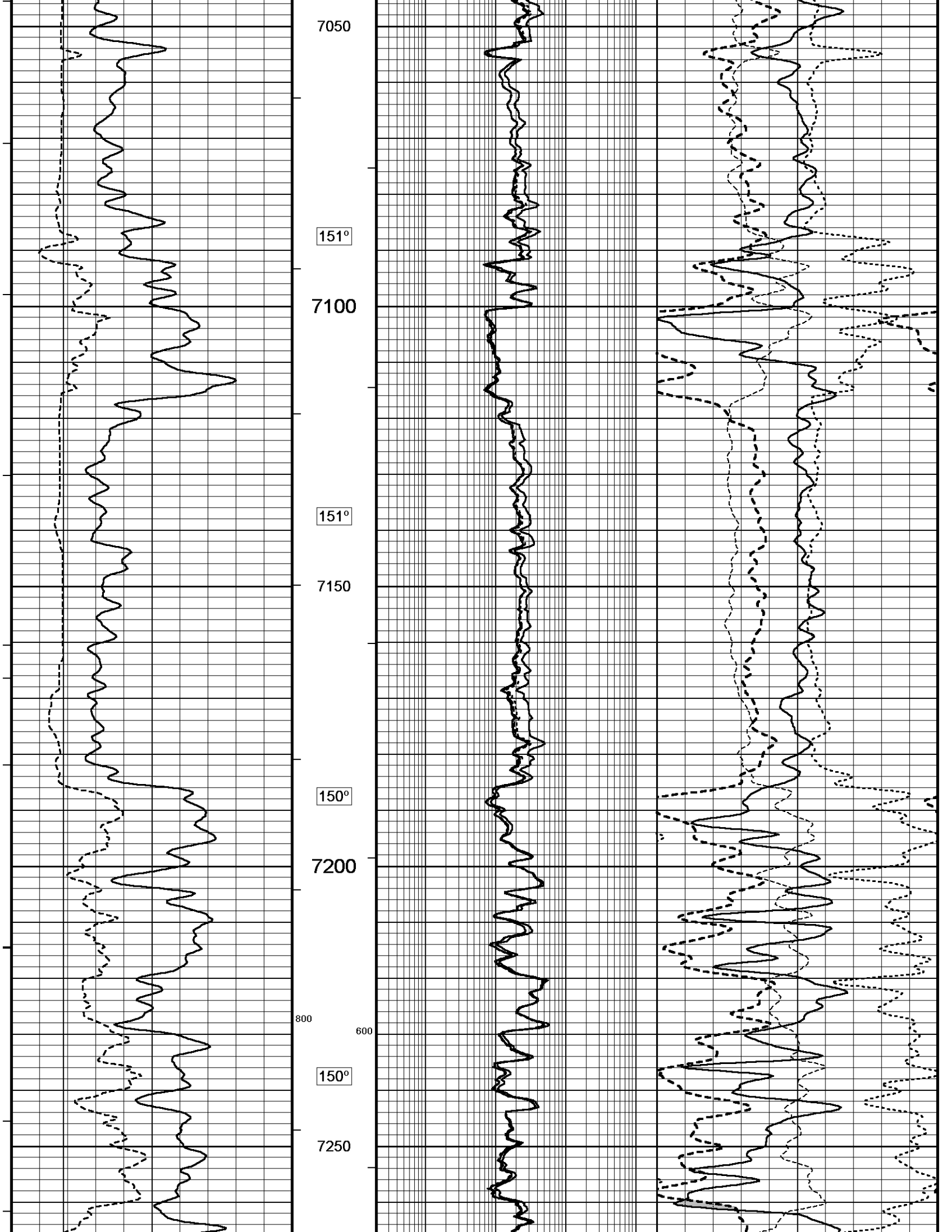


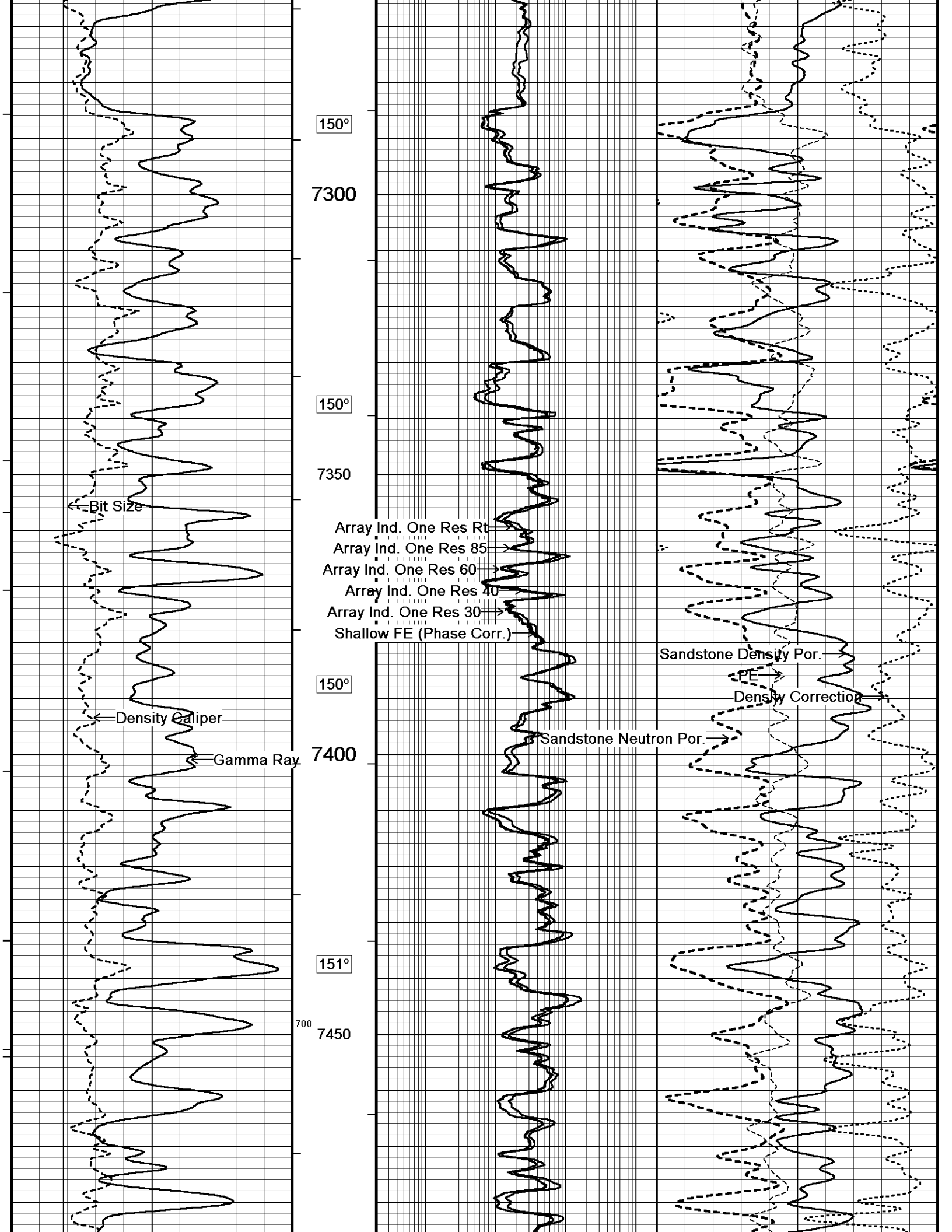


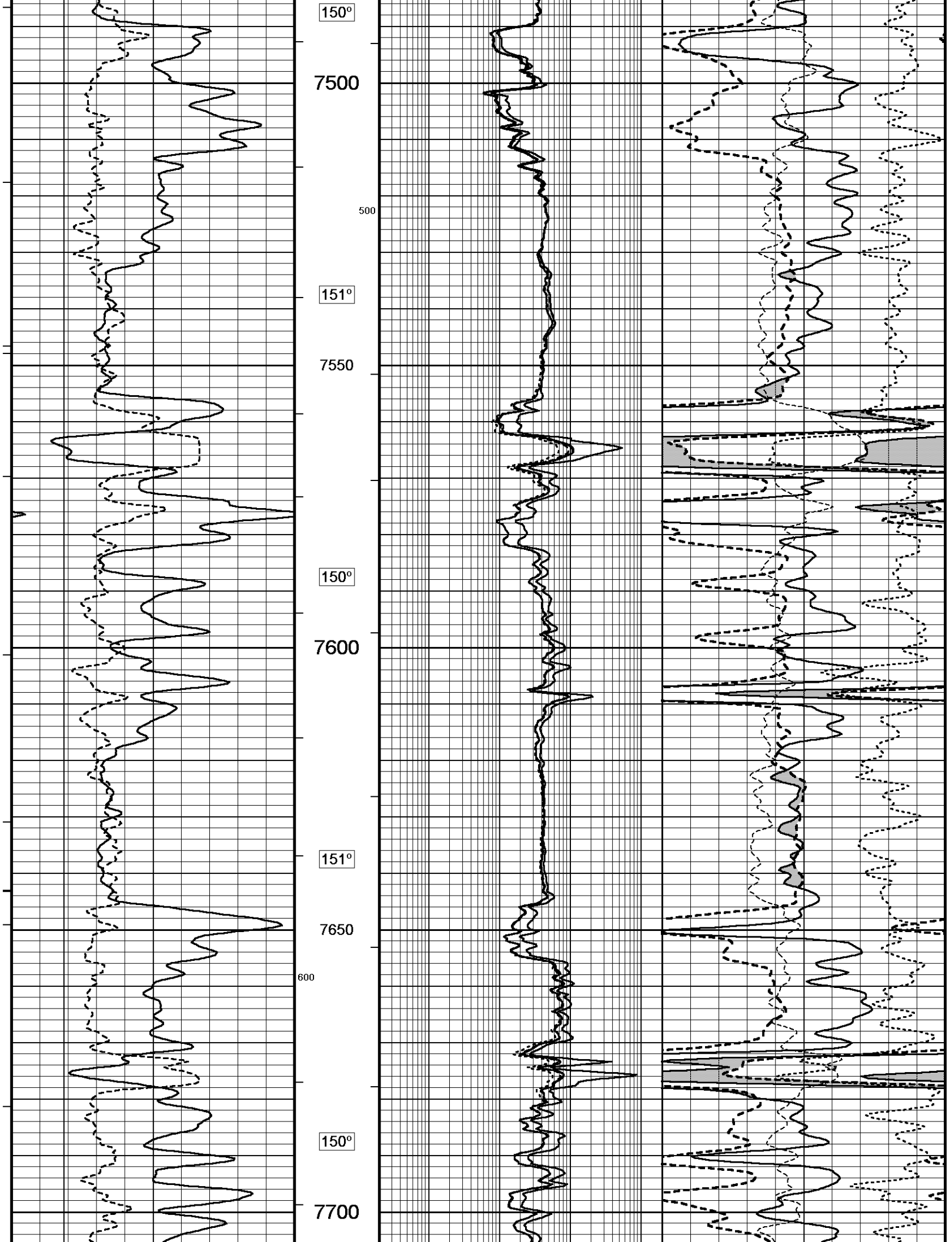


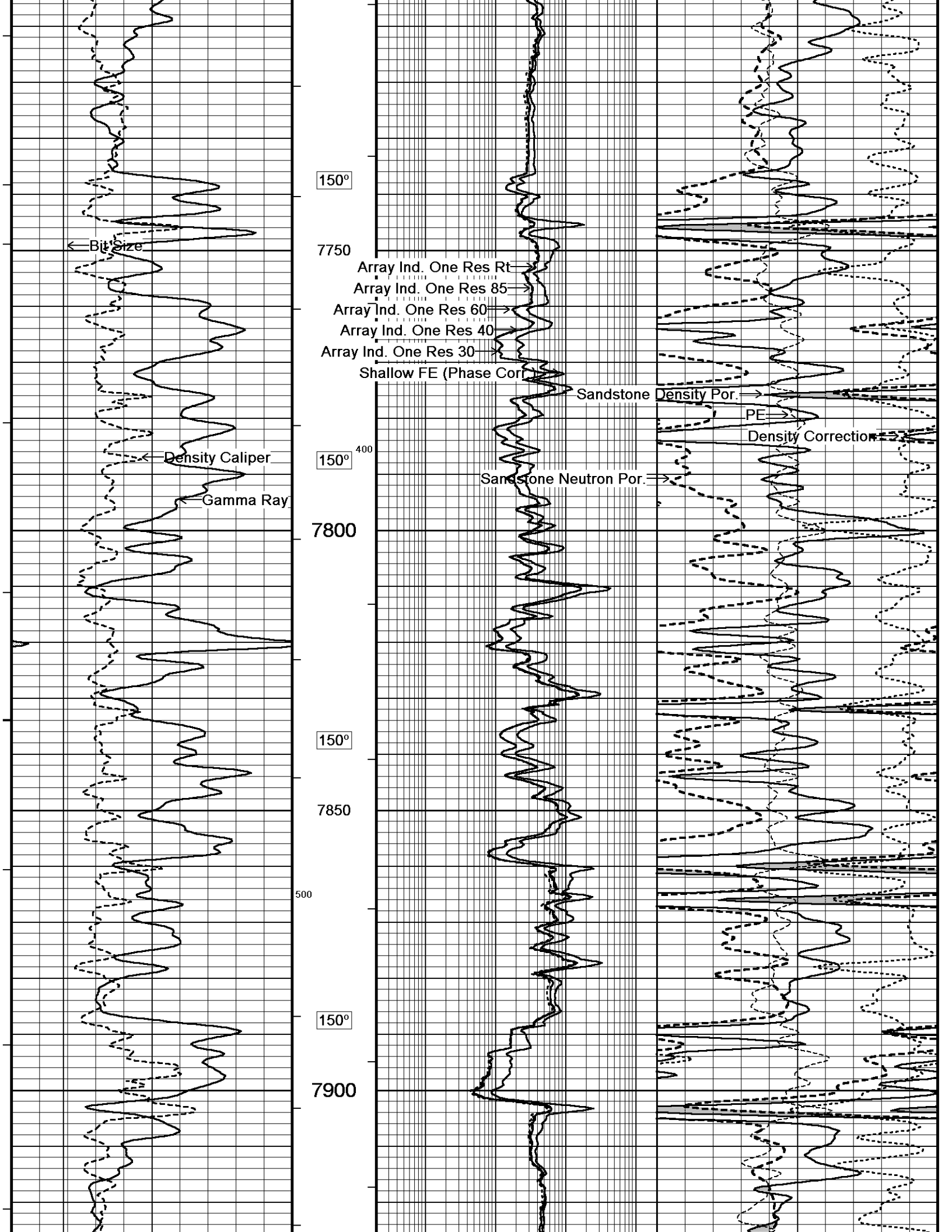


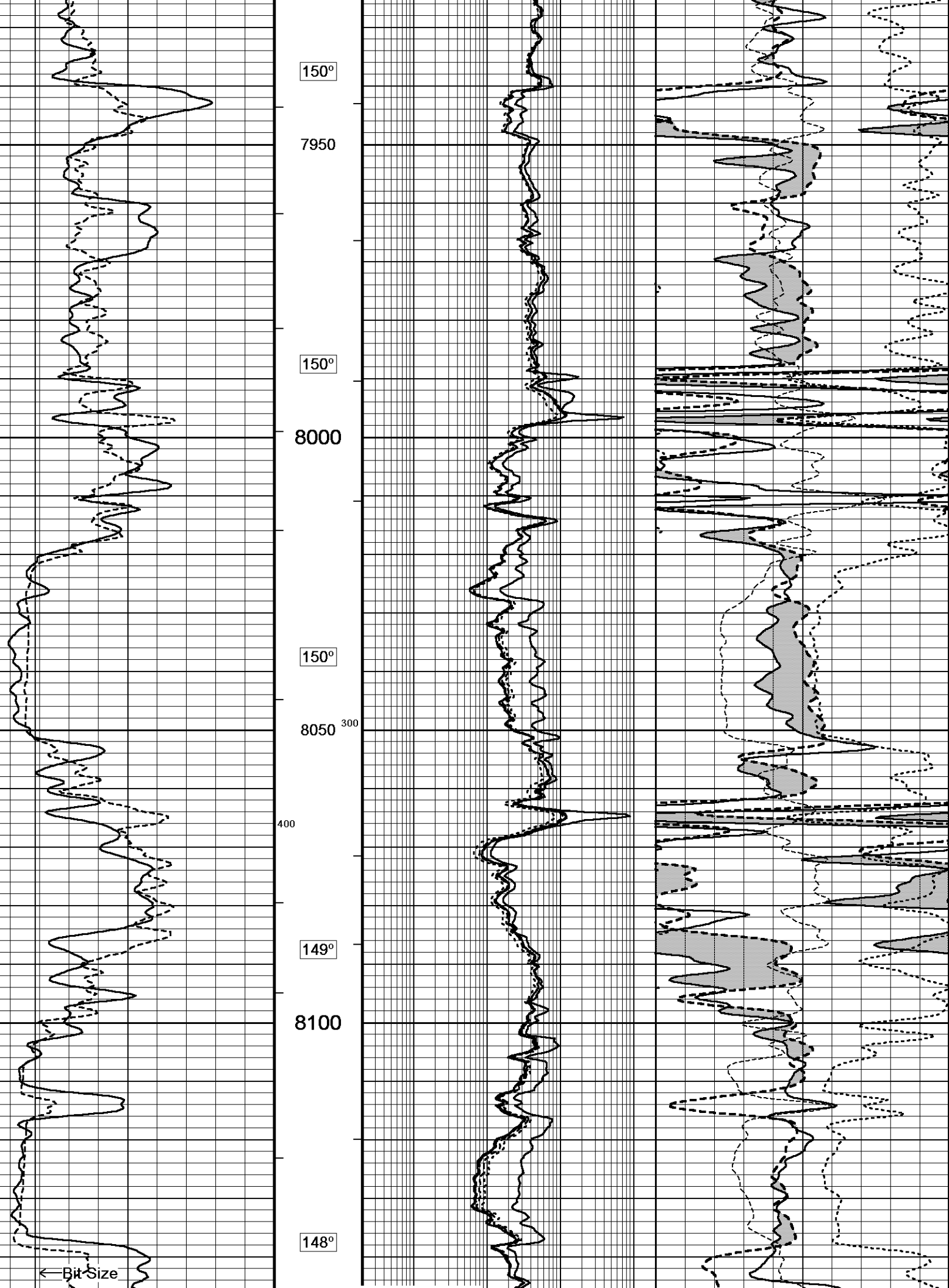


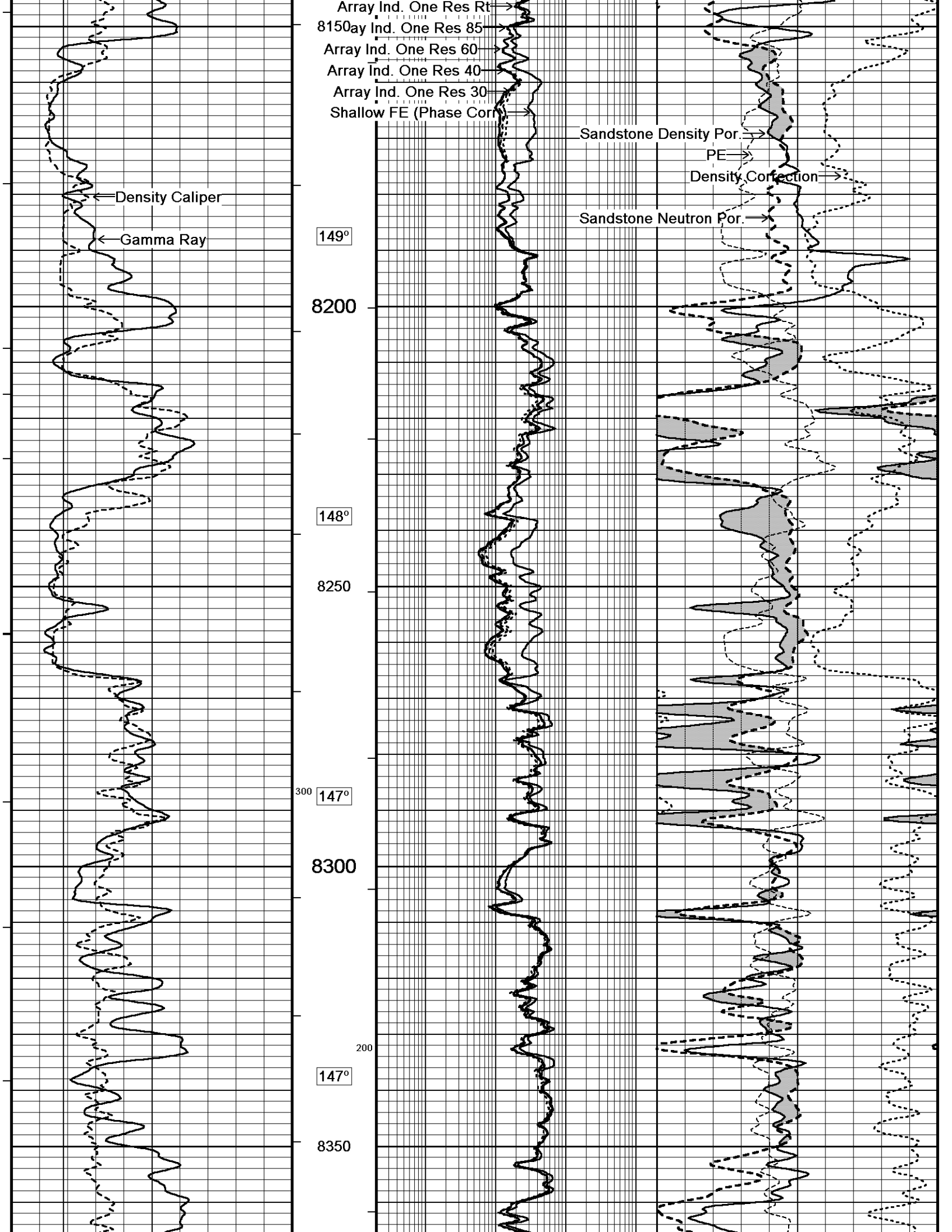


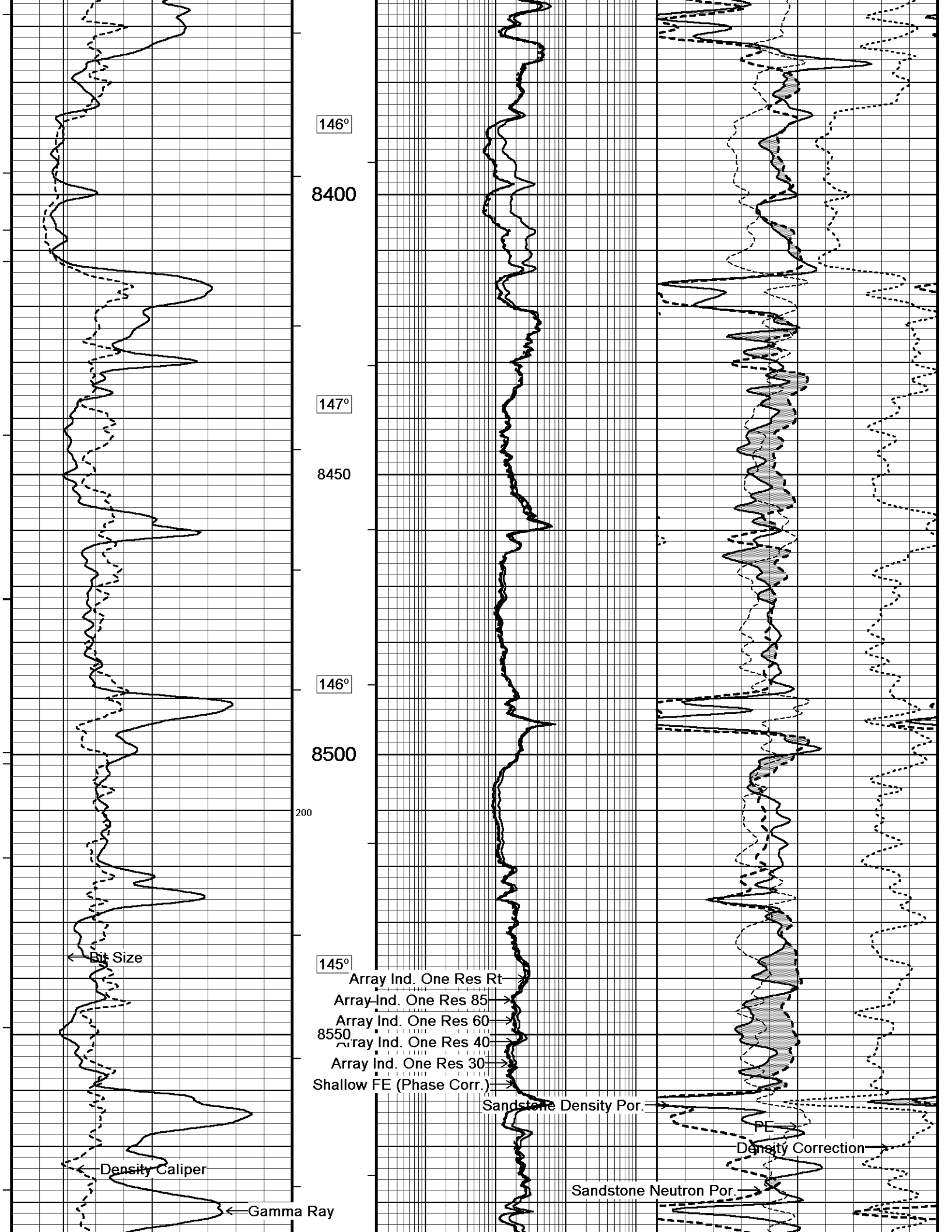


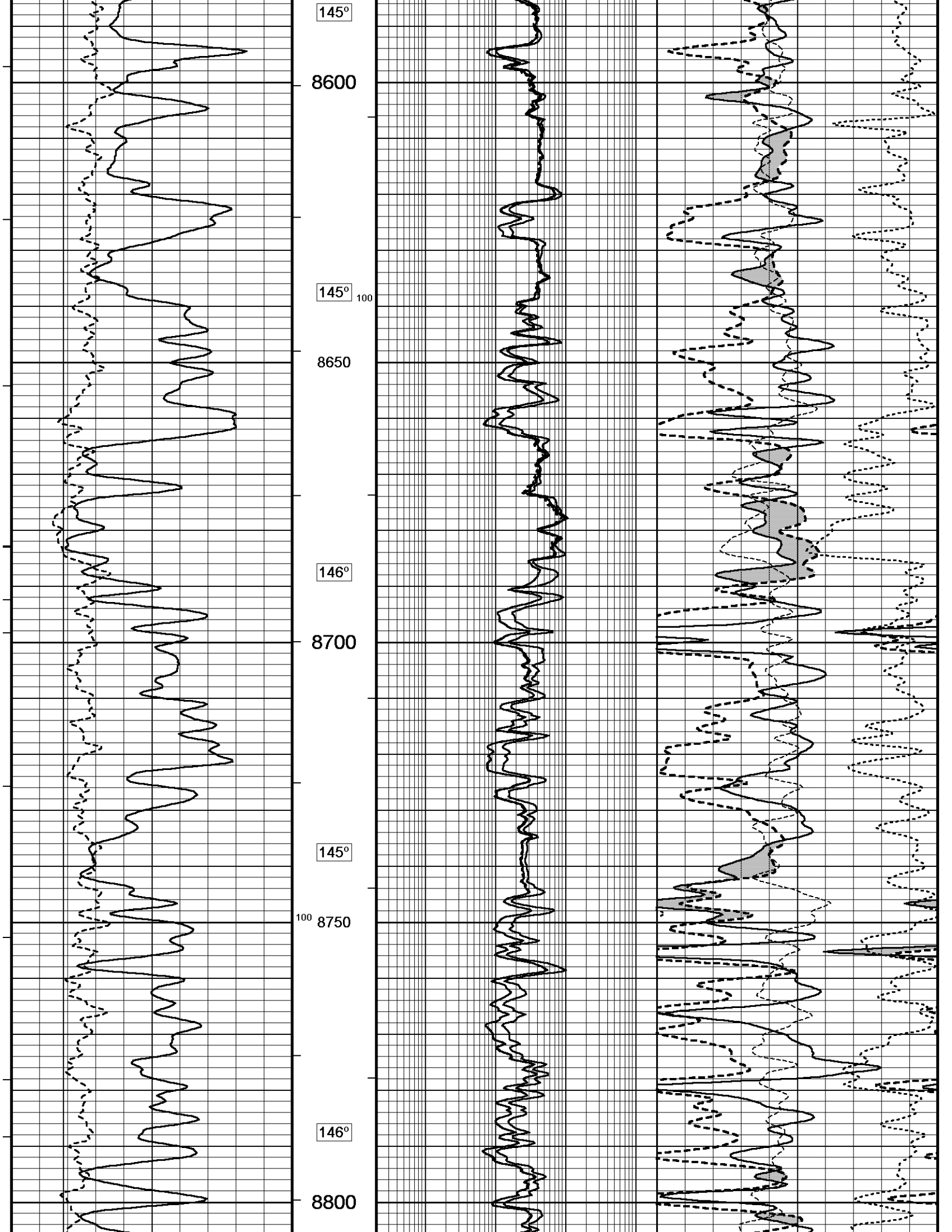


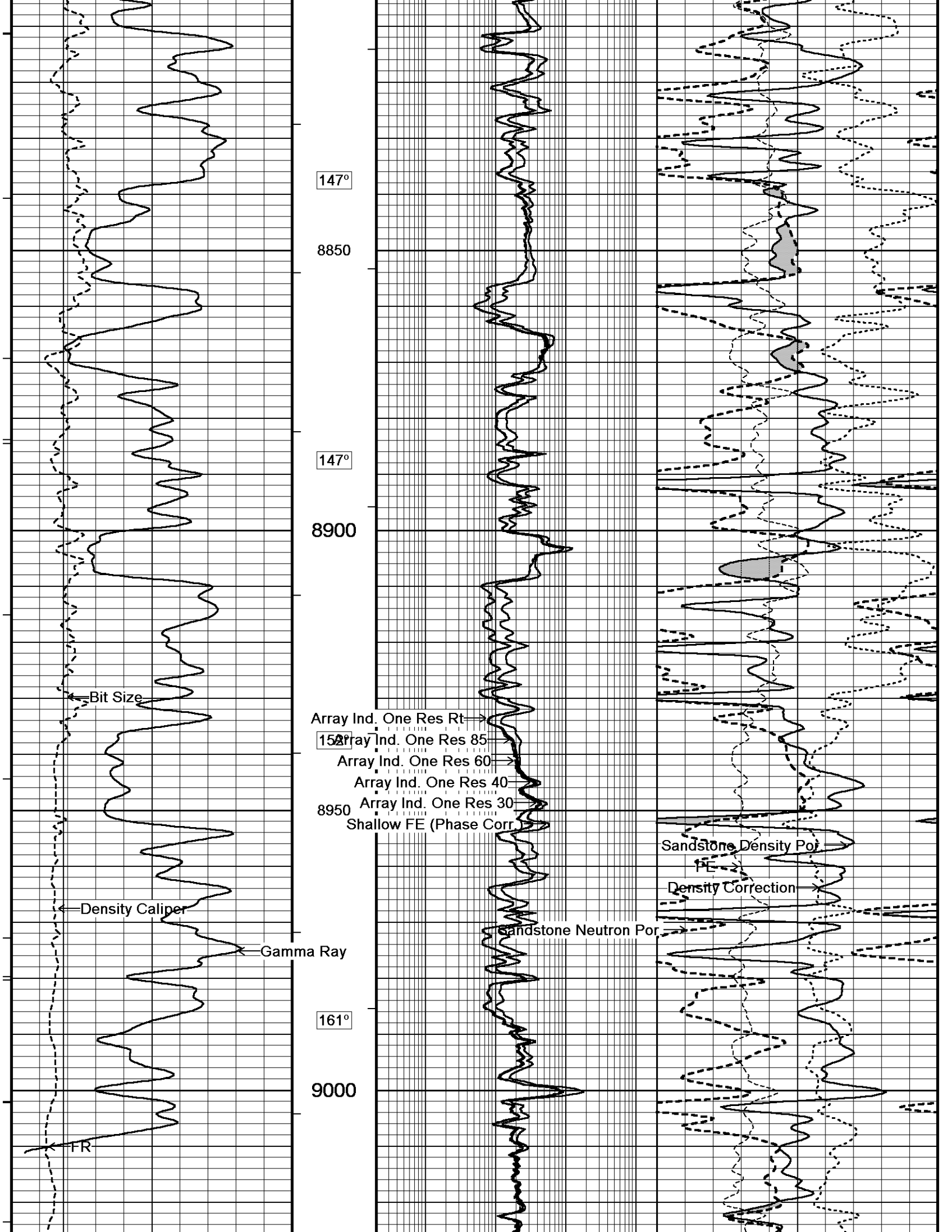


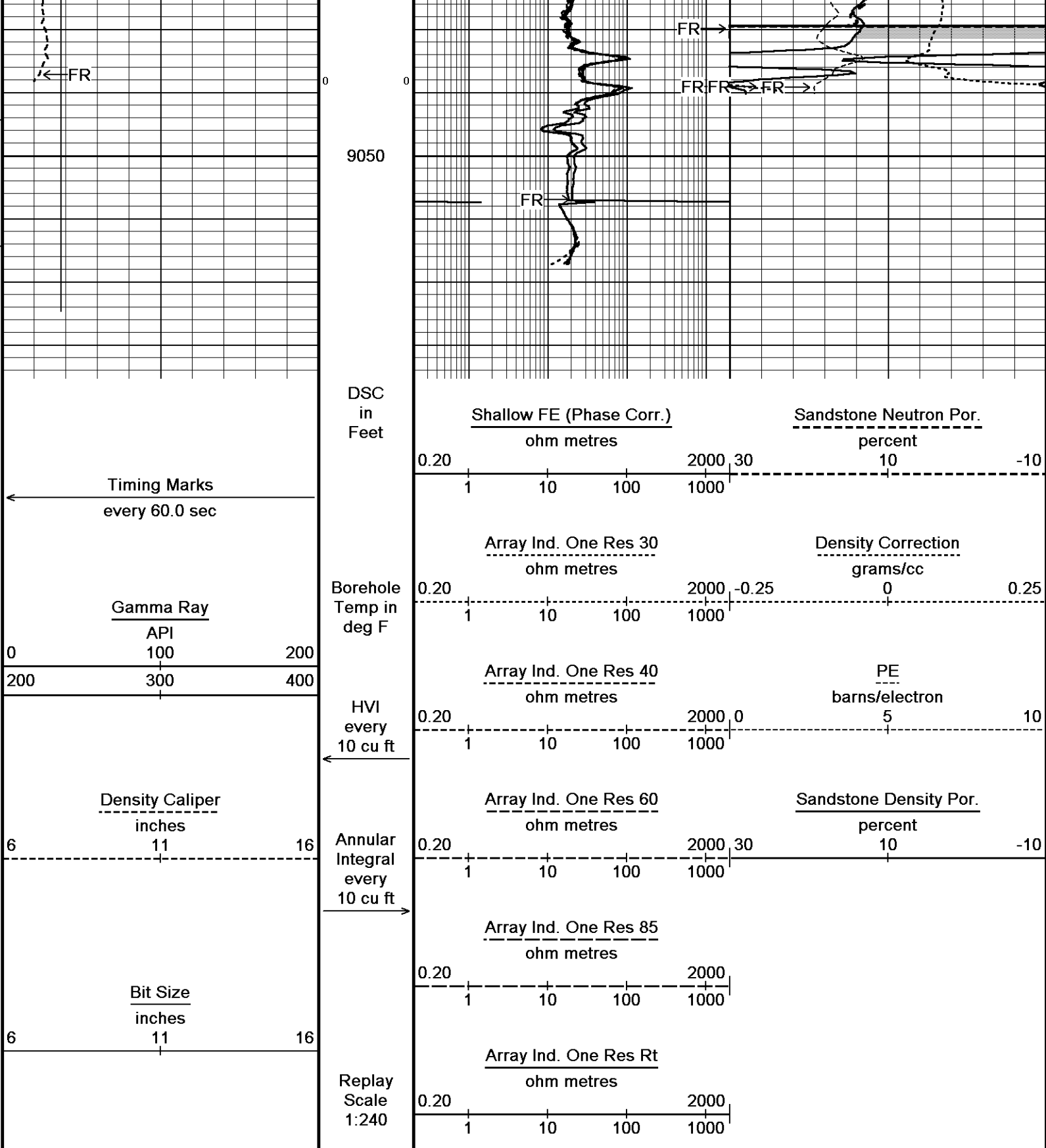












Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\DOCUME~1\154681\LOCALS~1\Temp\Weatherford\Jacks Draw Unit 18 Depth RTAP.dta
System Versions: Processed with 11.03.4044 Plotted with 12.01.3513

Plotted on 11-NOV-2011 09:06
Recorded on 10-NOV-2011 08:07

5 INCH MAIN LOG

General Parameters			
Mud Resistivity	1.500	ohm-metres	
Mud Resistivity Temperature	74.700	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	Base Density Porosity		
Resistivity used	Array Ind. Four Res Rt		
RWA Constant A	0.610		
RWA Constant M	2.150		
Down-hole Tension Calibration SMS 0			
			Field Calibration on 08-OCT-2007 10:22
Reading No	Measured	Calibrated (lbs)	
1	15585.87	0.00	
2	15586.05	0.10	
High Resolution Temperature Calibration MCG-D.J 423			
			Field Calibration on 27-AUG-2011 10:48
	Measured	Calibrated(Deg F)	
Lower	0.00	0.00	
Upper	50.00	50.00	
High Resolution Temperature Constants MCG-D.J 423			
			Last Edited on
Pre-filter Length	11		
SP Calibration MCG-D.J 423			
			Field Calibration on 27-AUG-2011 10:48
	Measured	Calibrated (mV)	
Reference 1	100.0	100.0	
Reference 2	-100.0	-100.0	
Gamma Calibration MCG-D.J 423			
			Field Calibration on 09-NOV-2011 13:40
	Measured	Calibrated (API)	
Background	157	108	
Calibrator (Gross)	935	642	
Calibrator (Net)	778	534	
Gamma Constants MCG-D.J 423			
			Last Edited on 10-NOV-2011 06:36
Gamma Calibrator Number	GRCC225		
Mud Density	1.00	gm/cc	
Caliper Source for Processing	Density Caliper		
Tool Position	Eccentred		
Concentration of KCl	0.00	kppm	
Neutron Calibration MDN-B.A 275			
			Base Calibration on 19-OCT-2011 17:41 Field Check on 09-NOV-2011 13:19
Base Calibration			
	Measured	Calibrated (cps)	
	Near Far	Near Far	
	2934 90	3714 110	
Ratio	32.540	33.764	
Field Calibrator at Base			
		Calibrated (cps)	
		2415 3509	
Ratio		0.688	
Field Check			
		Calibrated (cps)	
		2319 3391	
Ratio		0.684	
Neutron Constants MDN-B.A 275			
			Last Edited on 10-NOV-2011 06:37

Neutron Source Id	P31131B	
Neutron Jig Number	NEC C 057	
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	7.00	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	None	
Formation Pressure	N/A	kpsi
Temperature Source	None	
Temperature	N/A	degrees F
Mud Salinity	0.00	kppm
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

FE Calibration MFE-B.J 310

Base Calibration on 10-OCT-2011 18:45

Field Check on 09-NOV-2011 13:29

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	964.2	126.8

Base Check	280.4
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Field Check	280.7
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FE Constants MFE-B.J 310

Last Edited on 10-NOV-2011 06:38

Running Mode	No Sleeve
MFE K Factor	0.1268
Caliper Source for FE correction	Density Caliper
Caliper Value for FE correction	N/A
Rm Source for FE correction	Temperature Corr
Temp. for Rm Corr.	MCG External Temperature
Stand-off	0.5

High Resolution Temperature Calibration MAI-B.A 219

Field Calibration on 09-NOV-2011 13:04

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MAI-B.A 219

Last Edited on

Pre-filter Length	11
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Induction Calibration MAI-B.A 219

Base Calibration on 12-AUG-2011 20:22

Field Check on 09-NOV-2011 13:03

Base Calibration

Test Loop Calibration	Measured	Calibrated (mmho/m)
Channel	Low High	Low High
1	17.4 478.1	9.3 966.2
2	5.8 380.3	7.6 821.4
3	3.5 258.5	5.2 566.0
4	1.9 136.0	2.6 279.2

Array Temperature	77.2	Deg F
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Channel	Base Check (mmho/m)	Field Check (mmho/m)
	Low High	Low High
1	0.0 0.0	10.2 3794.3
2	0.0 0.0	30.4 3538.8
3	0.0 0.0	28.3 3057.6
4	0.0 0.0	19.2 2029.6
Deep	0.0 0.0	16.2 1949.9
Medium	0.0 0.0	42.6 4090.5
Shallow	0.0 0.0	46.8 5285.5

Array Temperature	0.0	33.4	Deg F
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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.		MCG 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	

Caliper Calibration MPD-C.J 376

Base Calibration on 01-NOV-2011 17:18

Field Calibration on 10-NOV-2011 08:57

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	16672	4.01
2	26192	5.97
3	35920	7.96
4	45648	9.86
5	56743	11.92
6	N/A	N/A
Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	7.94	7.96

Photo Density Calibration MPD-C.J 376

Base Calibration on 01-NOV-2011 17:07

Field Check on 09-NOV-2011 13:08

Density Calibration				
Base Calibration		Measured	Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	53680	17984	53167	19331
Reference 2	25200	2711	25116	2544
Field Check at Base				
	1239.8	1402.5		
Field Check				
	1228.1	1401.8		

PE Calibration

Base Calibration Measured Calibrated

Base Calibration	WS	Measured	WH	Ratio	Calibrated	Ratio
Background	223		1107			
Reference 1	18811		53490	0.355		0.320
Reference 2	7185		25056	0.291		0.273
Field Check at Base						
	223.3		1107.5			
Field Check						
	224.2		1098.9			

Density Constants MPD-C.J 376		Last Edited on 10-NOV-2011 06:37	
Density Source Id	P21136B		
Nylon Calibrator Number	535		
Aluminium Calibrator Number	535		
Density Shoe Profile	4 inch		
Caliper Source for Processing	Density Caliper		
PE Correction to Density	Not Applied		
Mud Density	1.25	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		
0.00	0.00		

DOWNHOLE EQUIPMENT	
C:\DOCUME~1\154681\LOCALS~1\Temp\Weatherford PreView\0\Jacks Draw Unit 18 Depth RTAP.dta	
Shuttle Running Tool 3.5")	
SRT-A.A 59 LG: 6.62 ft WT: 37.5 lb OD: 2.52 in	
MBS-A 400v Compact Battery Sub	
MBS-A 26 LG: 14.24 ft WT: 105.8 lb OD: 2.24 in	
Compact Comms Gamma	
MCG-D.J 423 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in	
Compact Memory Sub. A.C	
MMS-A.C 7 LG: 3.12 ft WT: 22.0 lb OD: 2.24 in	
SKJ-E.B Compact Knuckle Joint	
SKJ-E.B 537 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in	
SHA-H Compact Swivel Head Adaptor	
SHA-H 170 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in	
MIS-D.A Compact Inline Bowspring sub	
MIS-D.A 441 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in	
Compact Neutron	
MDN-B.A 275 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in	
Compact Density/Caliper	

Diagram illustrating the downhole equipment string. The string is shown vertically with various tools and components labeled. Depth markers are indicated on the right side of the string:

- 62.63 ft GRGC - Gamma Ray
- 59.72 ft CGXT - MCG External Temperature
- 42.89 ft NPRS - Sandstone Neutron Por.
- 35.65 ft AVOL - Annular Volume

MPD-C.J 376 LG: 9.59 ft WT: 90.4 lb OD: 2.24 in

MIS-D.A Compact Inline Bowspring sub
MIS-D.A 440 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor
SHA-J.A 397 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint
SKJ-E.B 529 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

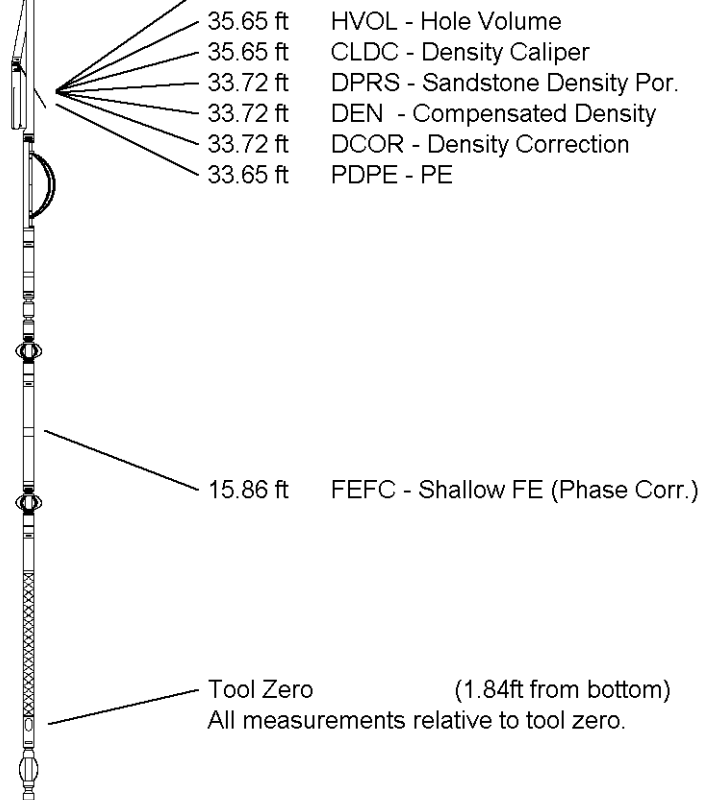
MIS-E.A Compact Inline Standoff sub
MIS-E.A 333 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Focussed Electric
MFE-B.J 310 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

MIS-E.A Compact Inline Standoff sub
MIS-E.A 326 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Induction
MAI-B.A 219 LG: 12.52 ft WT: 48.5 lb OD: 2.24 in

Total Length: 90.49 ft Weight: 657.0 lb



COMPANY	WEXPRO COMPANY
WELL	JACKS DRAW UNIT 18
FIELD	POWDER WASH
PROVINCE/COUNTY	MOFFAT
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	6599.00	feet	First Reading	9070.00	feet
Elevation Drill Floor	6598.00	feet	Depth Driller	9087.00	feet
Elevation Ground Level	6570.00	feet	Depth Logger	9087.00	feet



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