



Weatherford

**COMPACT TRIPLE COMBO
QUICKLOOK
LOG**

BILL BARRETT CORPORATION

KAUFMAN 24C-24-692

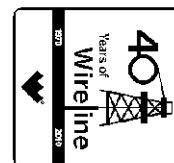
MAMM CREEK

GARFIELD

U.S.A. / COLORADO

SHL: 1763' FSL & 2408' FEL

BHL: 816' FSL & 1970' FWL



SEC 24 TWP 6S RGE 92W Other Services

API Number 05-045-19650

Permit Number

Permanent Datum G.L., Elevation 5843 feet

Log Measured From KB

Drilling Measured From K.B. @ 23 FEET

Date 23-AUG-2011

Run Number ONE

Depth Driller 7720.00 feet

Depth Logger 7720.00 feet

First Reading 7720.00

Last Reading 858.00

Casing Driller 850.00 feet

Casing Logger 858.00 feet

Bit Size 7.875 inches

Hole Fluid Type LSND

Density / Viscosity 10.50 lb/USg 59.00 CP

PH / Fluid Loss 9.50 8.00 ml/30Min

Sample Source FLOW LINE

Rm @ Measured Temp 2.0 @ 75.0 ohm-m

Rmf @ Measured Temp 1.60 @ 75.0 ohm-m

Rmc @ Measured Temp 2.40 @ 75.0 ohm-m

Source Rmf / Rmc CALC CALC

Rm @ BHT 0.83 @ 186.0 ohm-m

Time Since Circulation 5 HOURS

Max Recorded Temp 186.00 deg F

Equipment Name COMPACT

Equipment / Base 13173 GD JCT

Recorded By O. GOYZUETA

Witnessed By C. CROWTON

Service Order 3531754

Elevations:
KB 5866.00
DF 5866.00
GL 5843.00

BOREHOLE RECORD

Last Edited: 24-AUG-2011 06:18

Bit Size inches	Depth From feet	Depth To feet
8.750	858.00	5301.00
7.875	5301.00	7720.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	858.00	36.00

REMARKS

TOOLS: MCG, MDN, MPD, SKJ, MFE AND MAI RAN IN COMBINATION.

HARDWARE: MPD: 8 INCH PROFILE PLATE.
MAI: TWO 0.5 INCH STANDOFFS.
MDN: DUAL BOWSPRING.

2.68 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.

ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

TIGHT PULLS, BOREHOLE SIZE, AND RUGOSITY WILL AFFECT REPEATABILITY AND DATA QUALITY.

SP RESPONSE BELOW 7400 FEET WARRANTED INVESTIGATION. DISCOVERED RIG HANDS SPRAYING WATER NEAR SURFACE ELECTRODE. RESPONSE AT 7250 FEET REQUIRED ANOTHER INVESTIGATION. SURFACE ELECTRODE WAS FOUND TO BE KNOCKED OVER.

CALIPER CHECK IN CASING PRESENTED. REFERENCE I.D. = 8.85" / 9.5/8" 36 LB/FT CASING)

CALLIPER CHECK IN CASING PRESENTED, REFERENCE I.D. = 6.69 (5.916 + 30 LBH T CASING).

8.75 INCH BIT CHANGE AT 5301 FT.

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2990 CU.FT.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 2230 CU.FT.

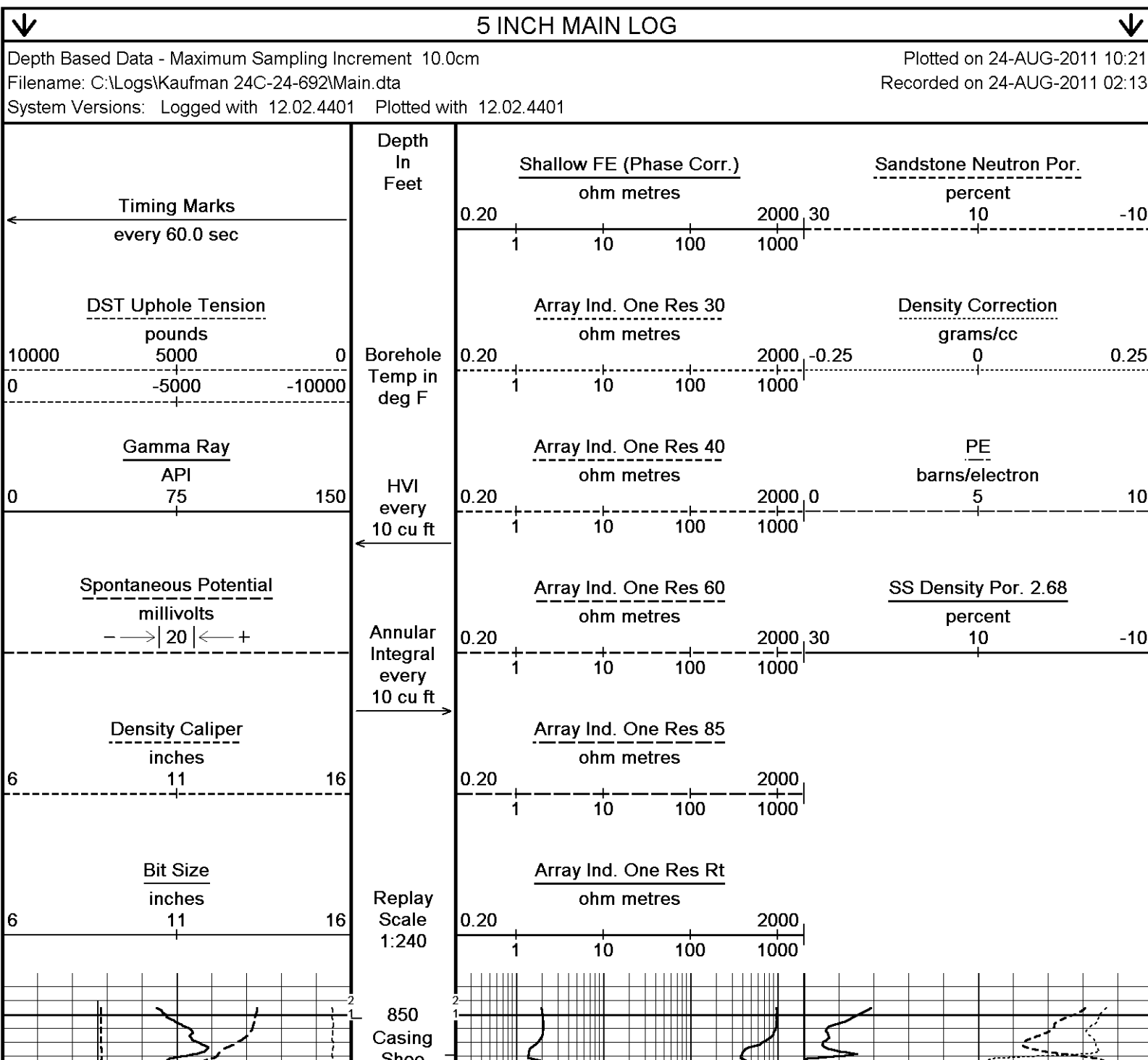
ENGINEER(S): O. GOYZUETA, C. ROGERS (JFE)

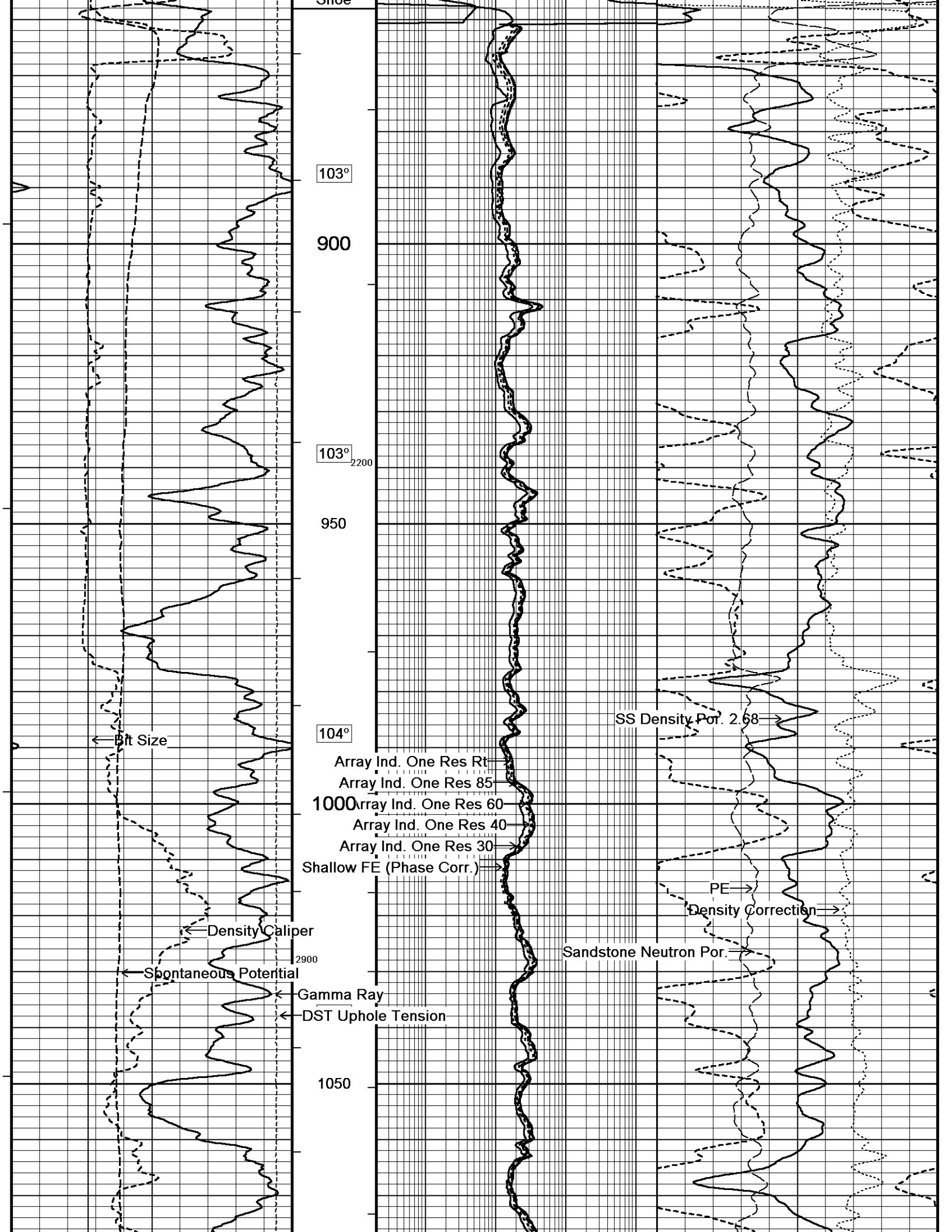
OPERATOR(S): K. BOBLITT

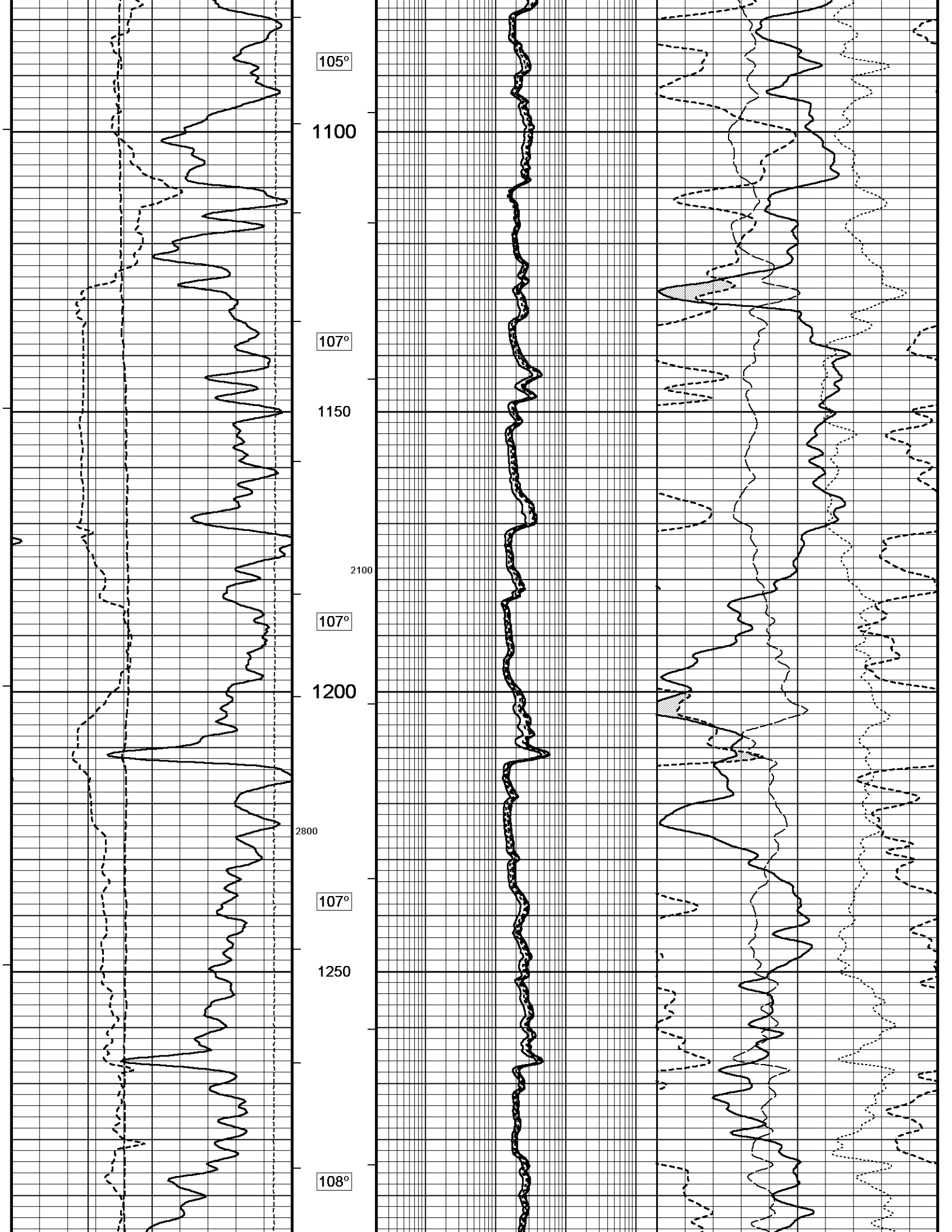
SERVICE ORDER: # 3531754

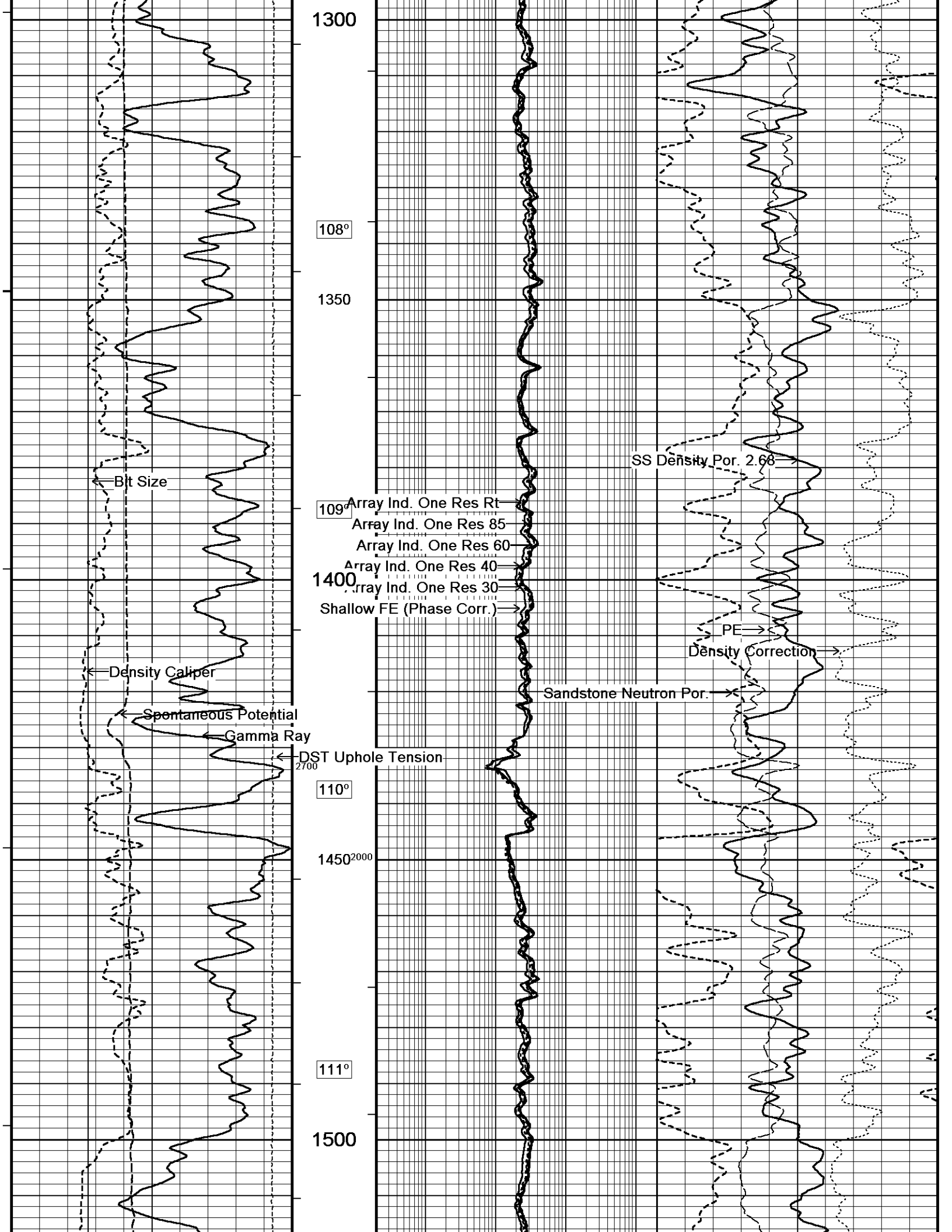
RIG: PATTERSON 307

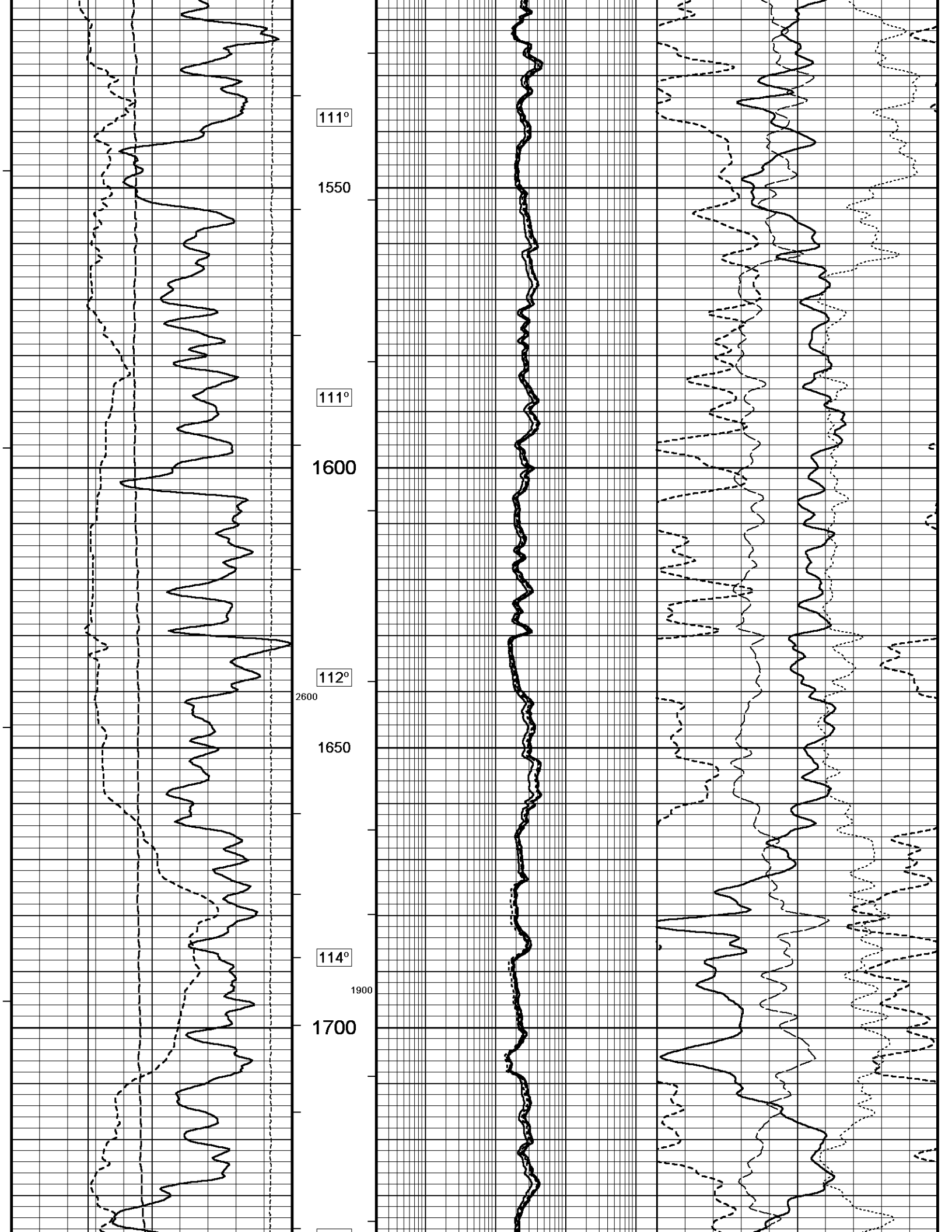
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

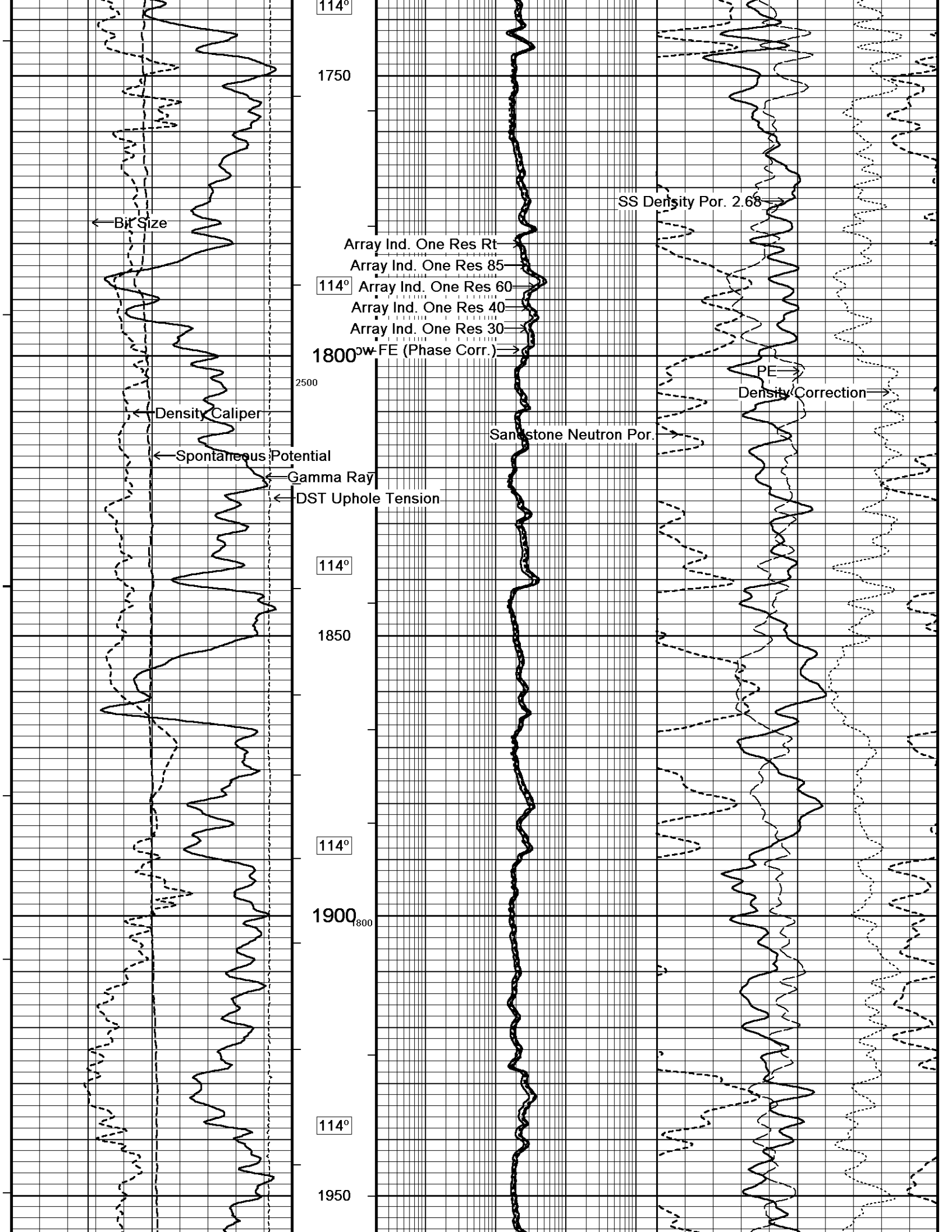


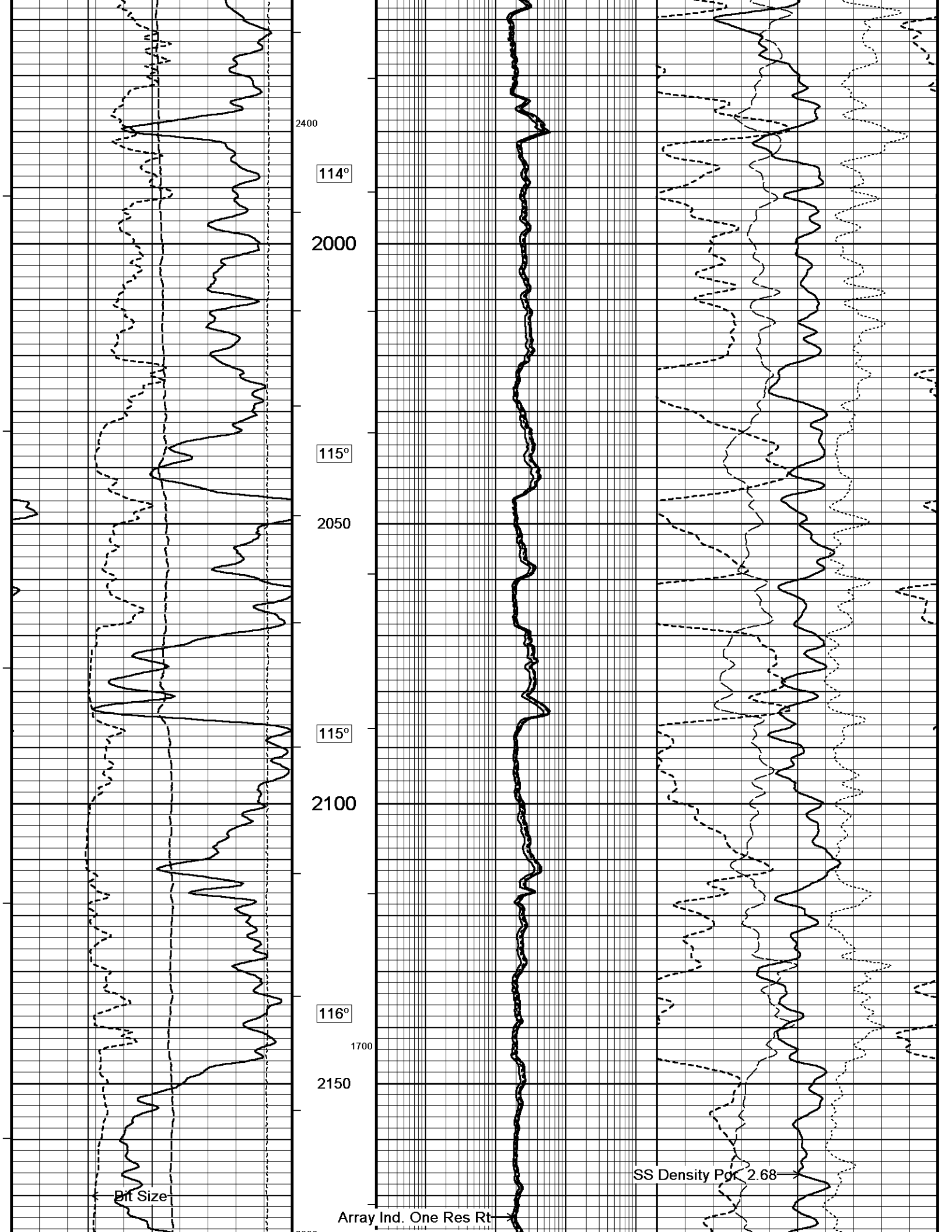


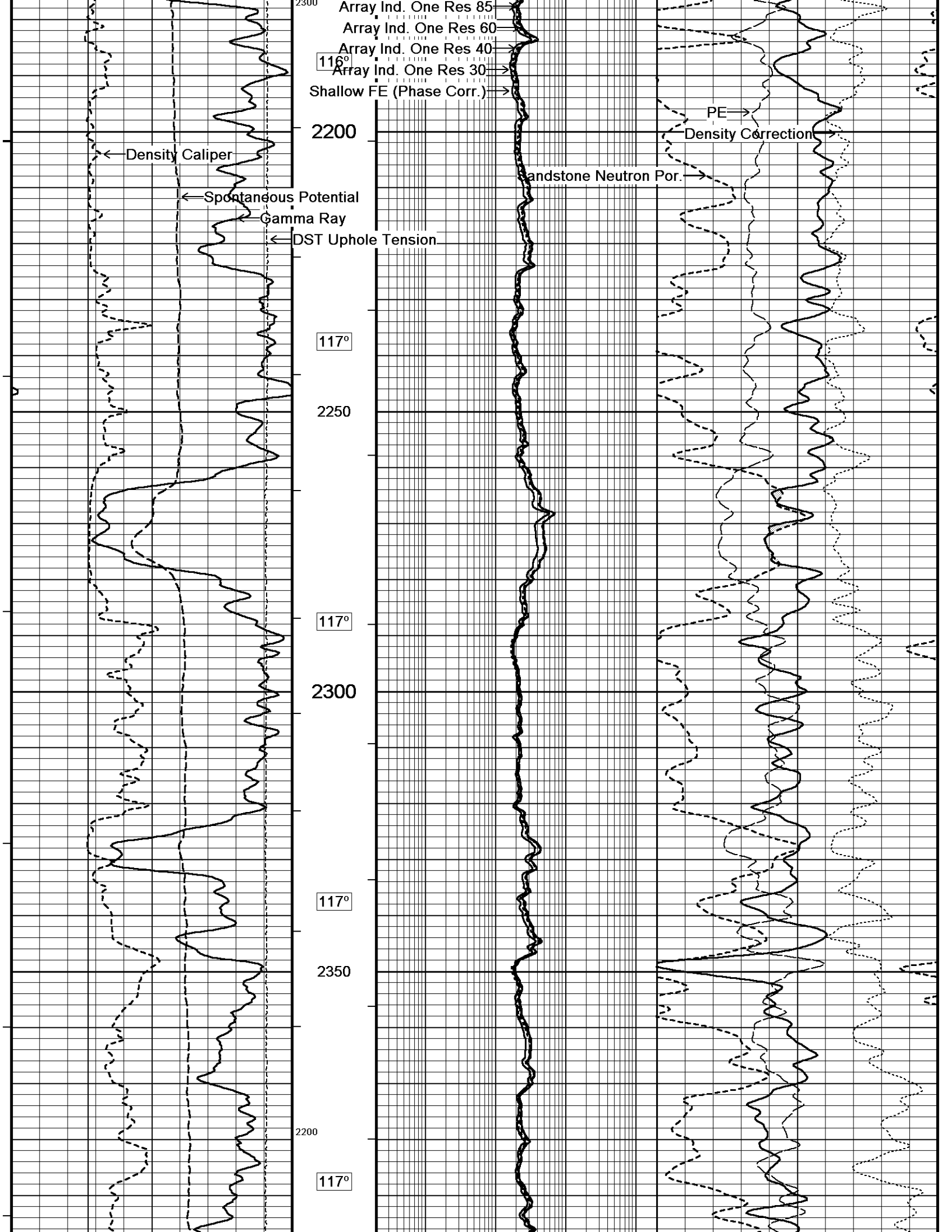


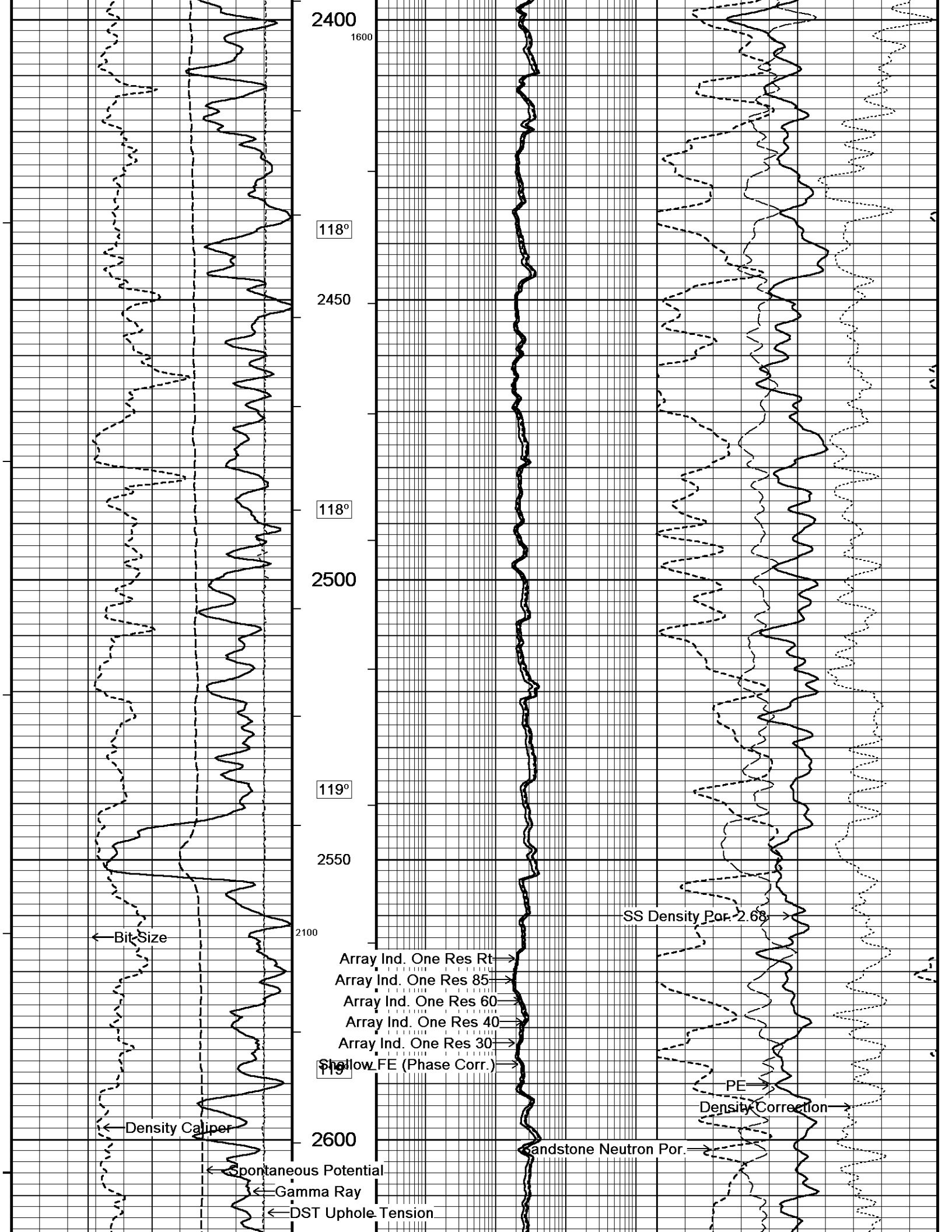


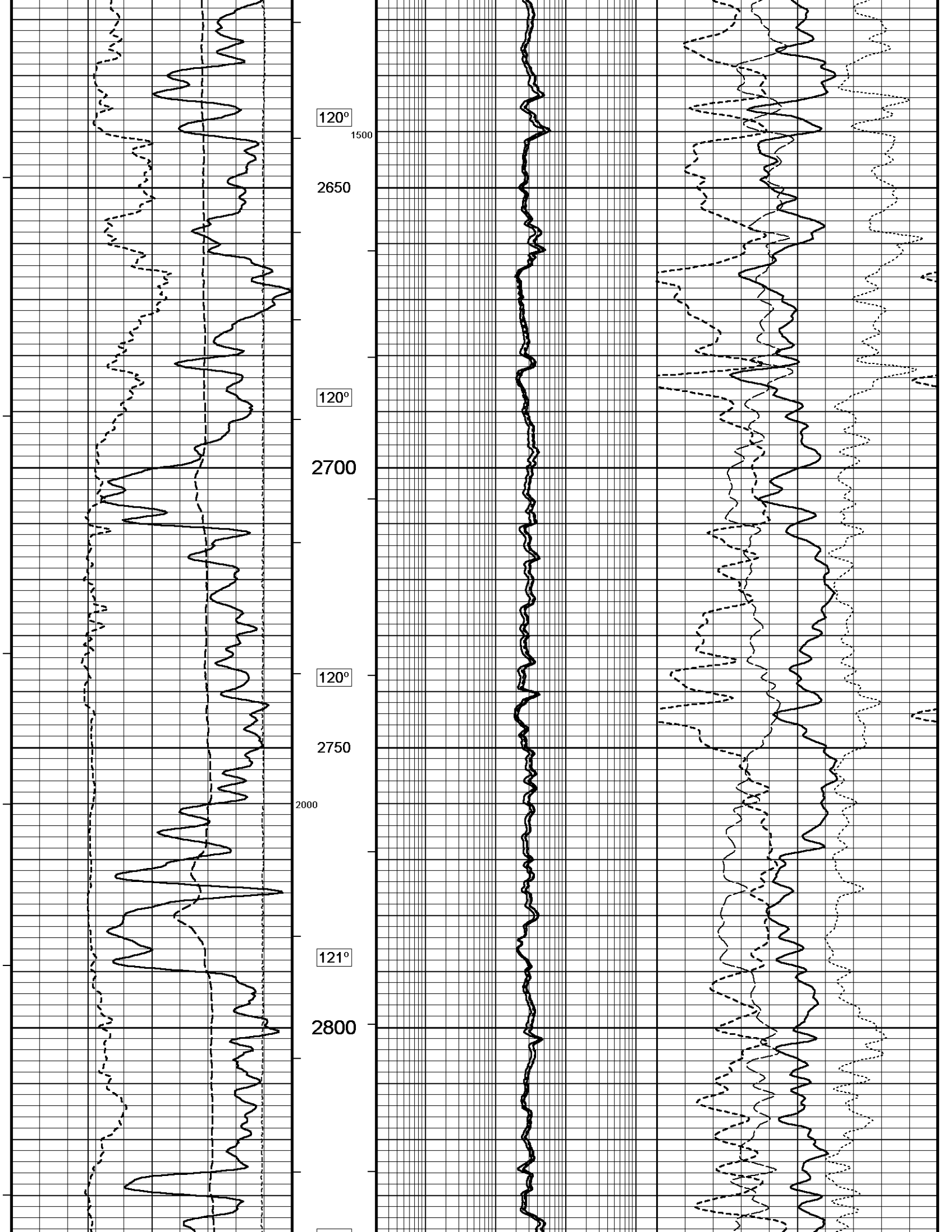


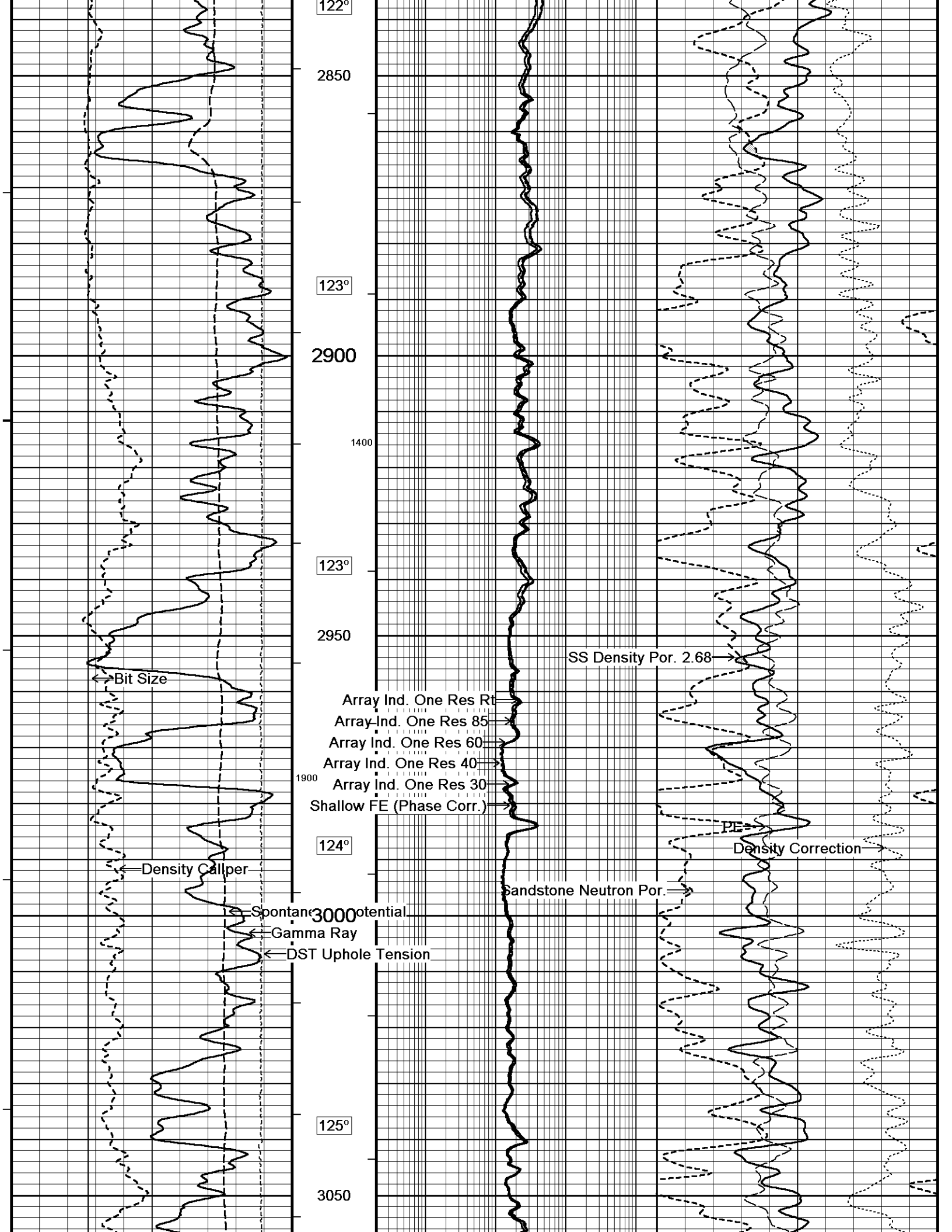


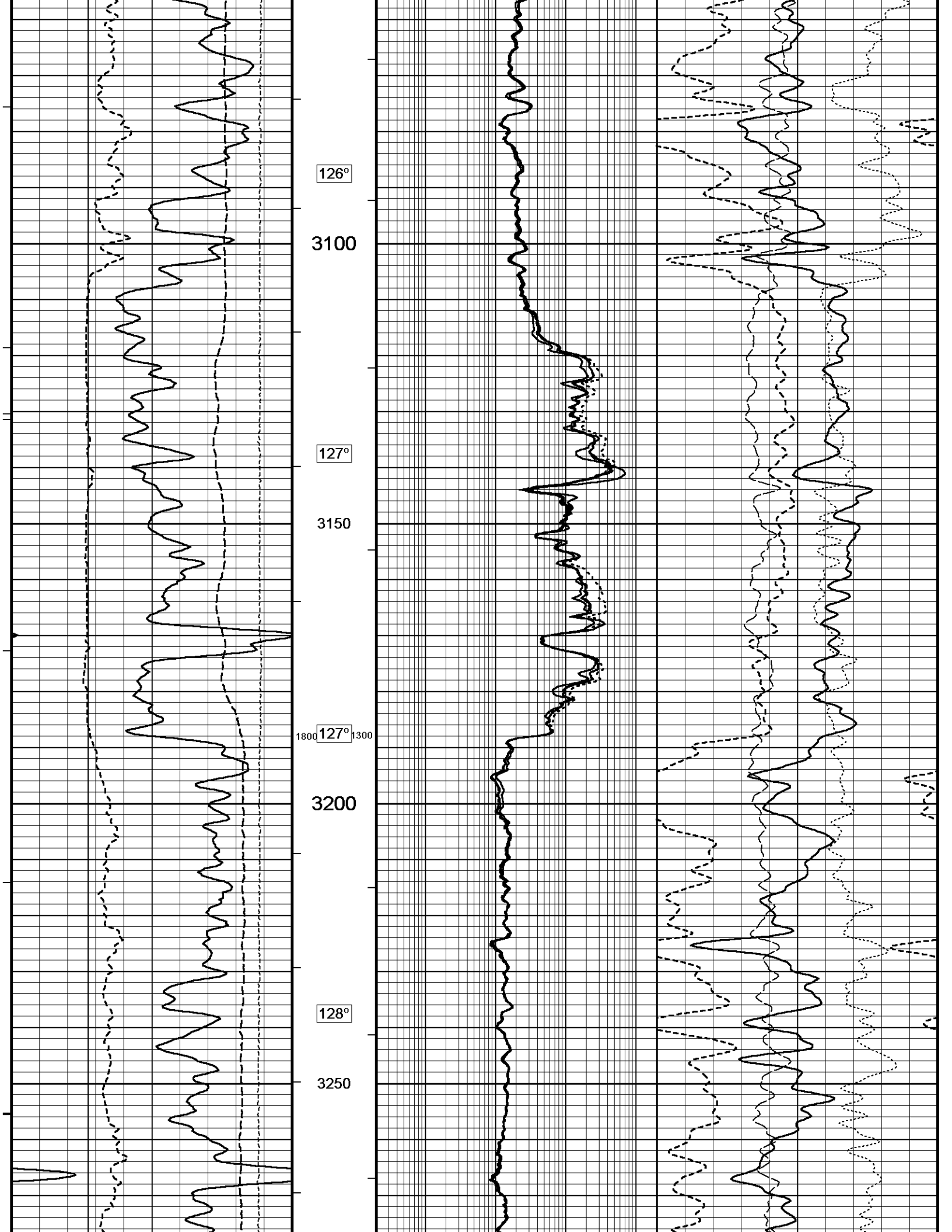


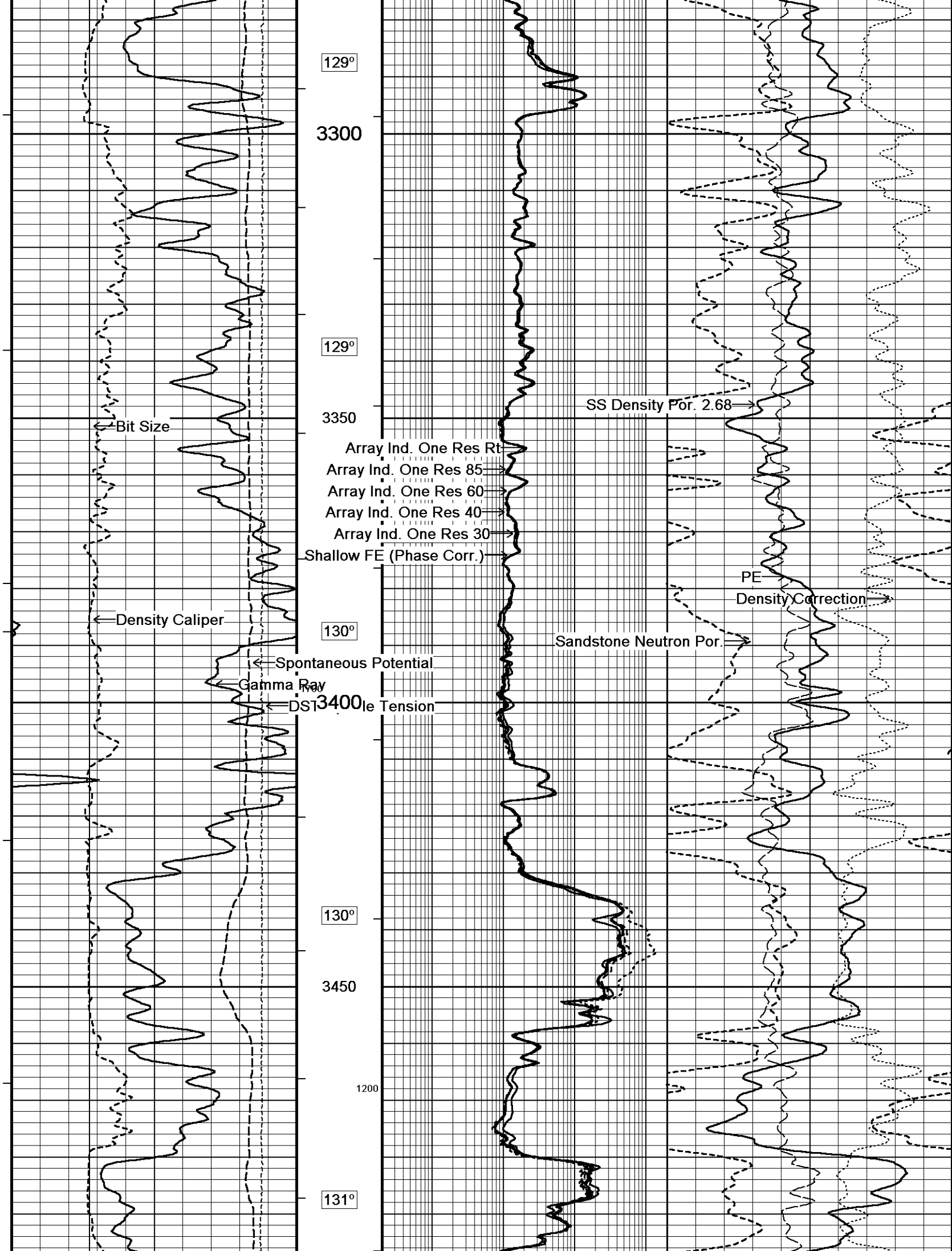


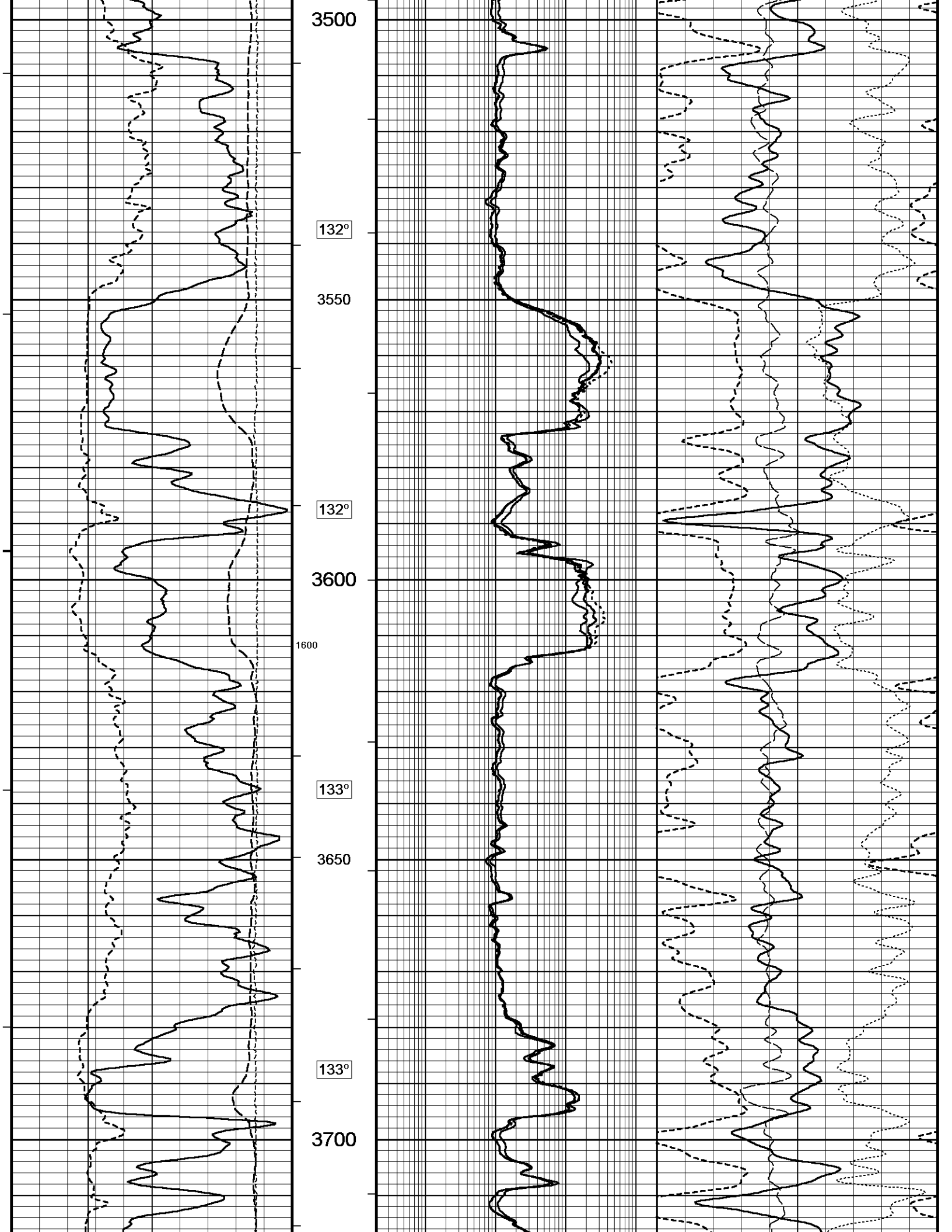


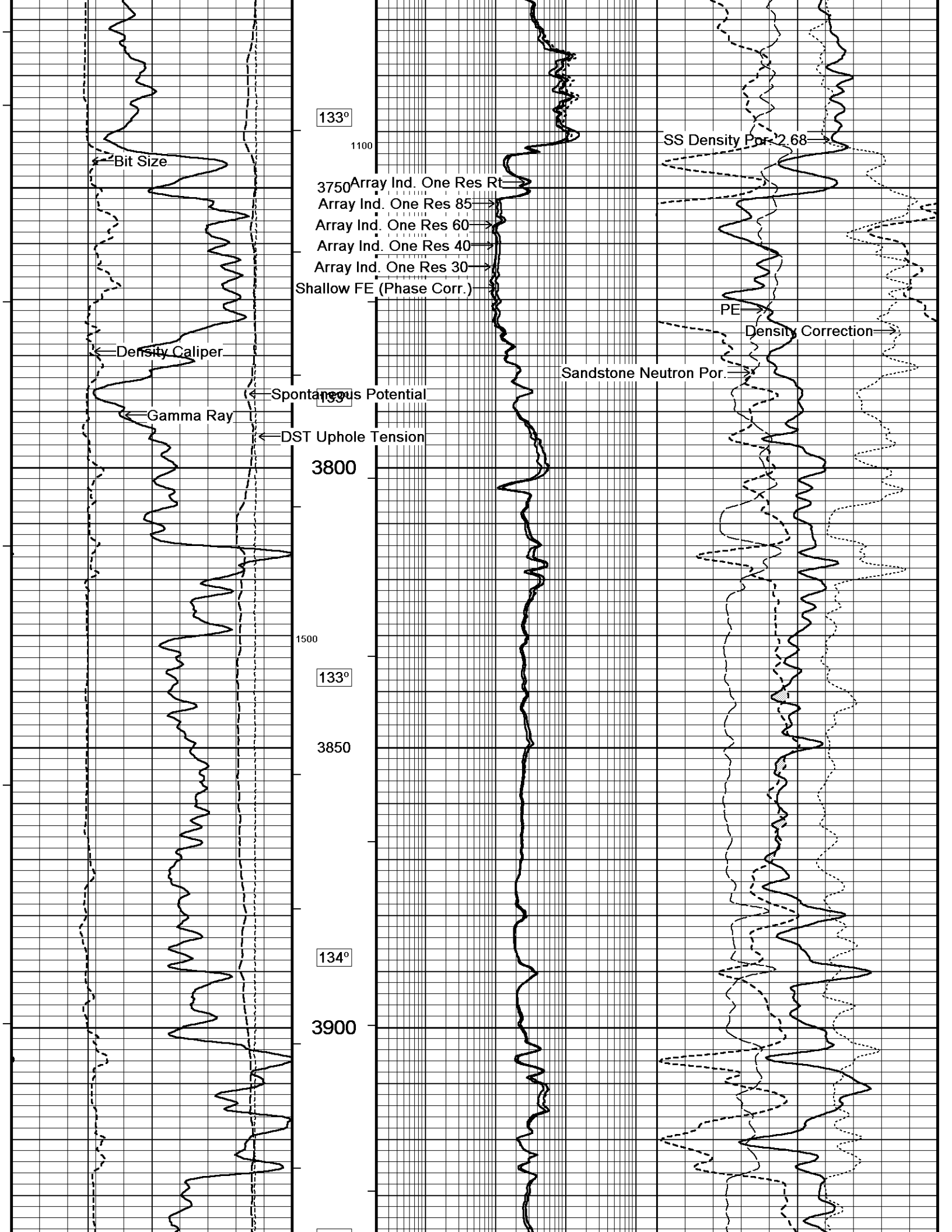


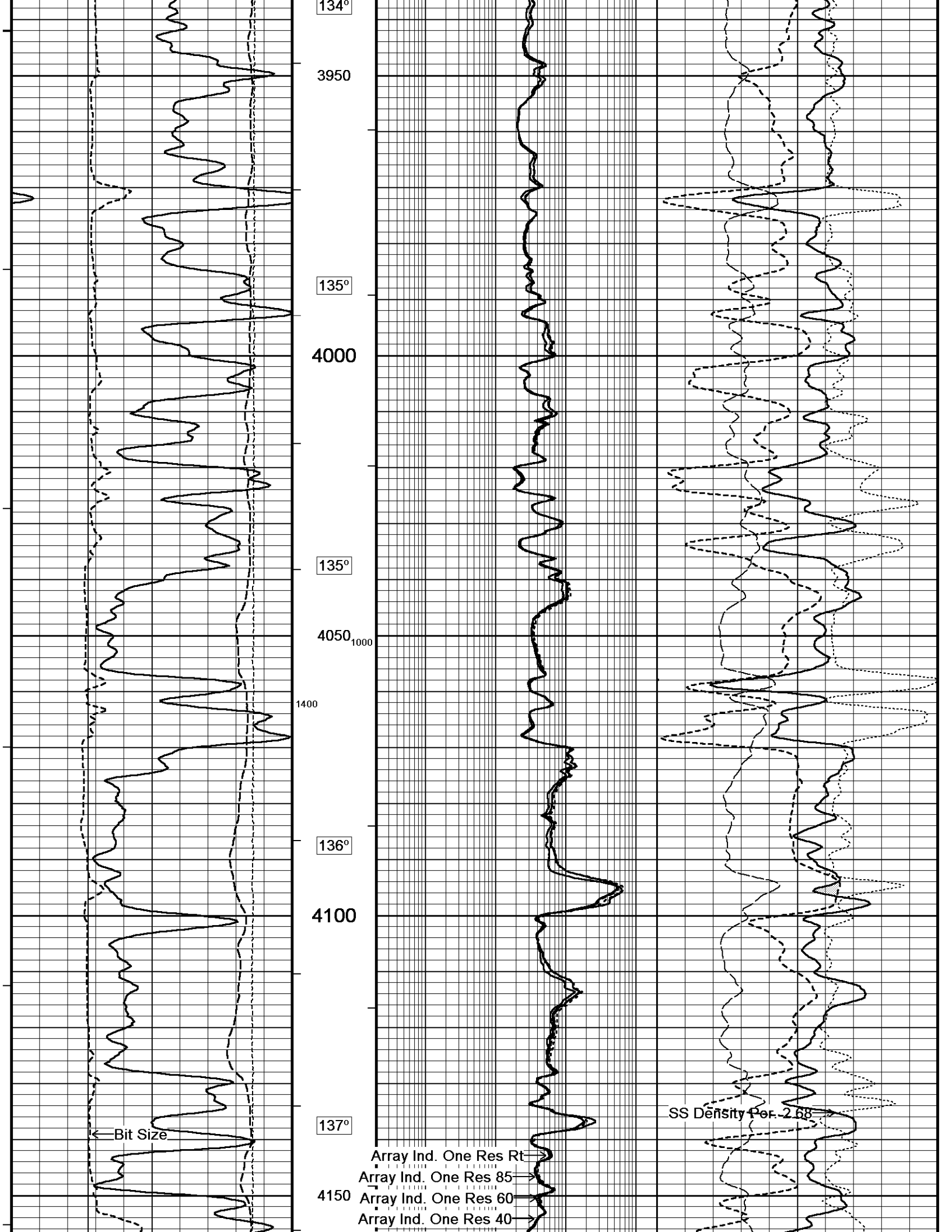


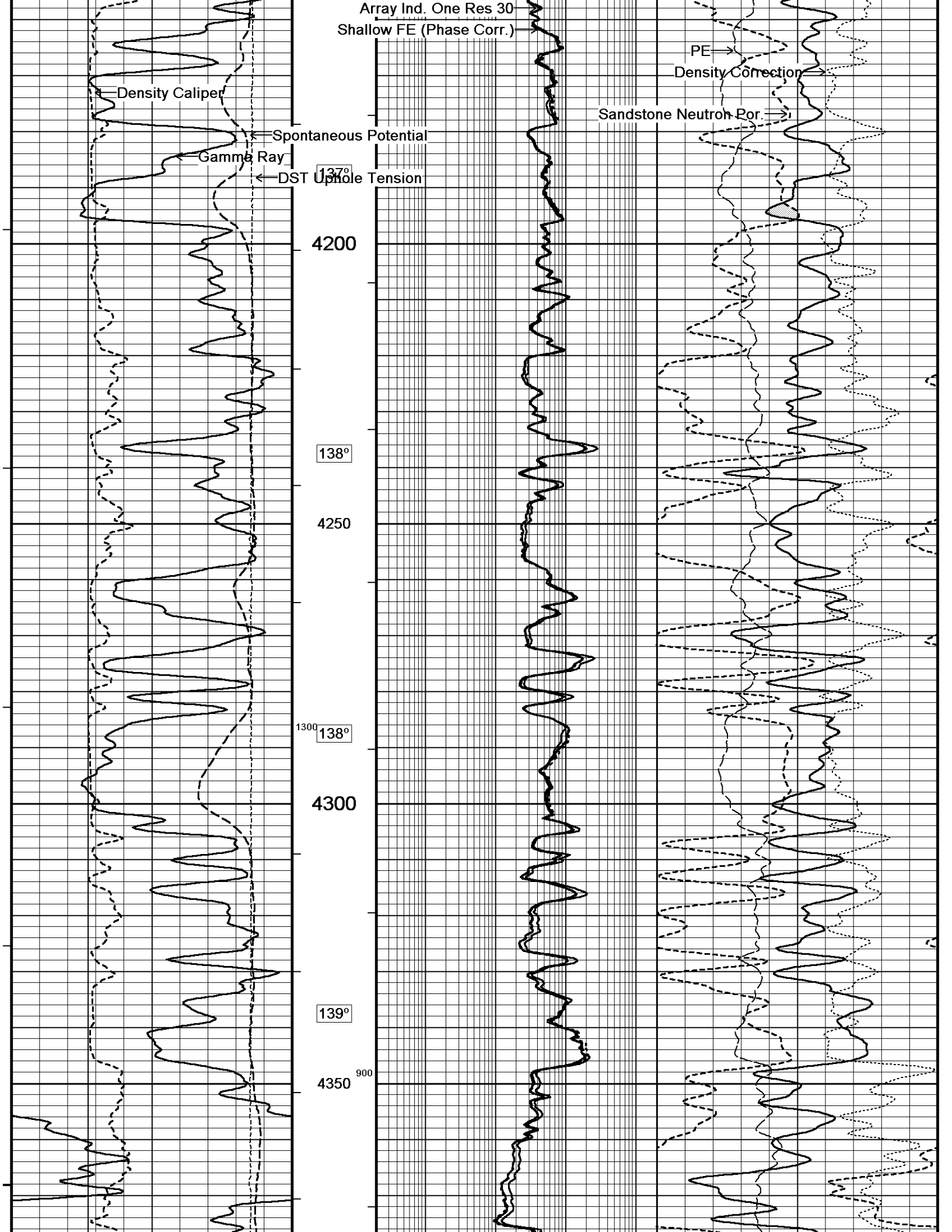


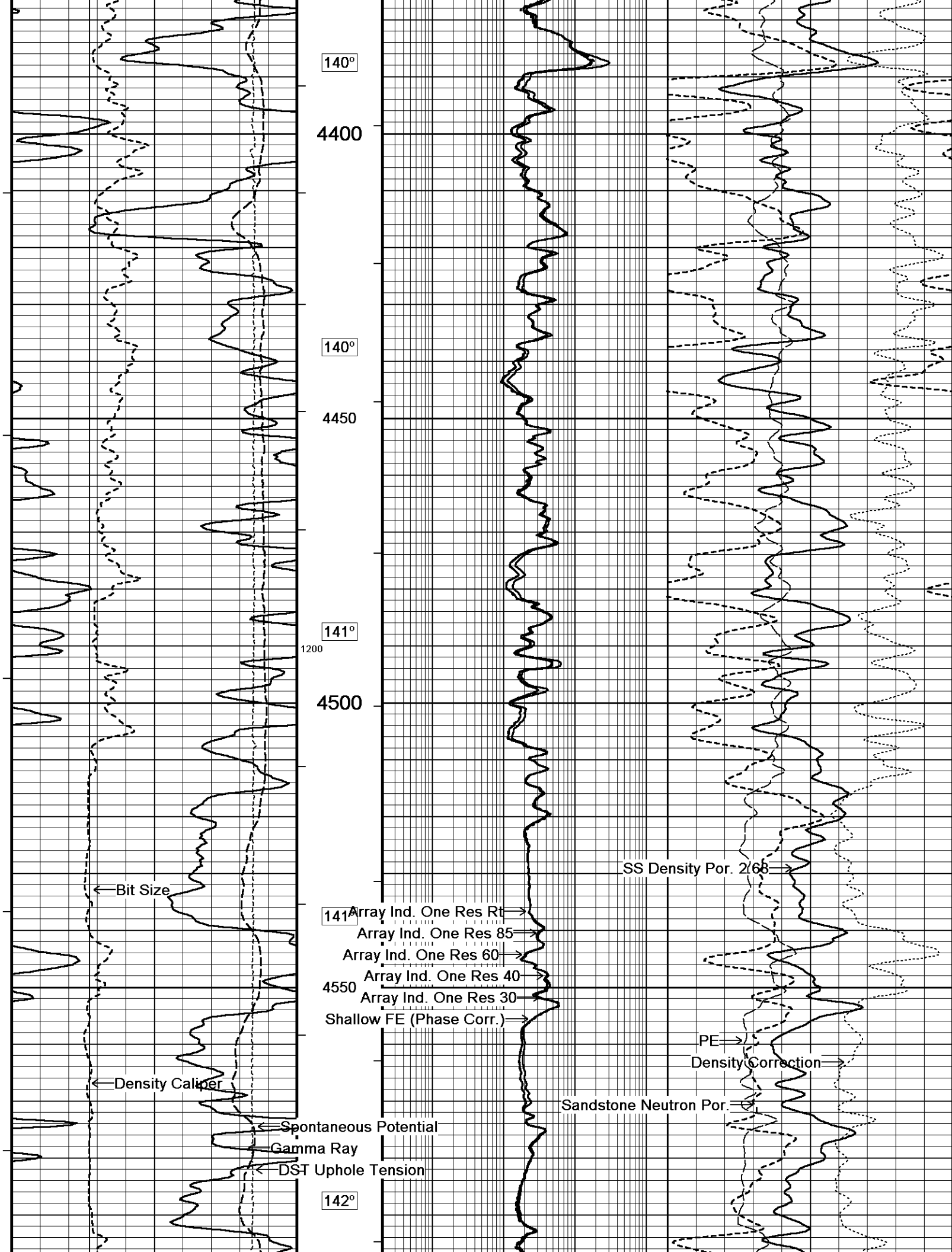


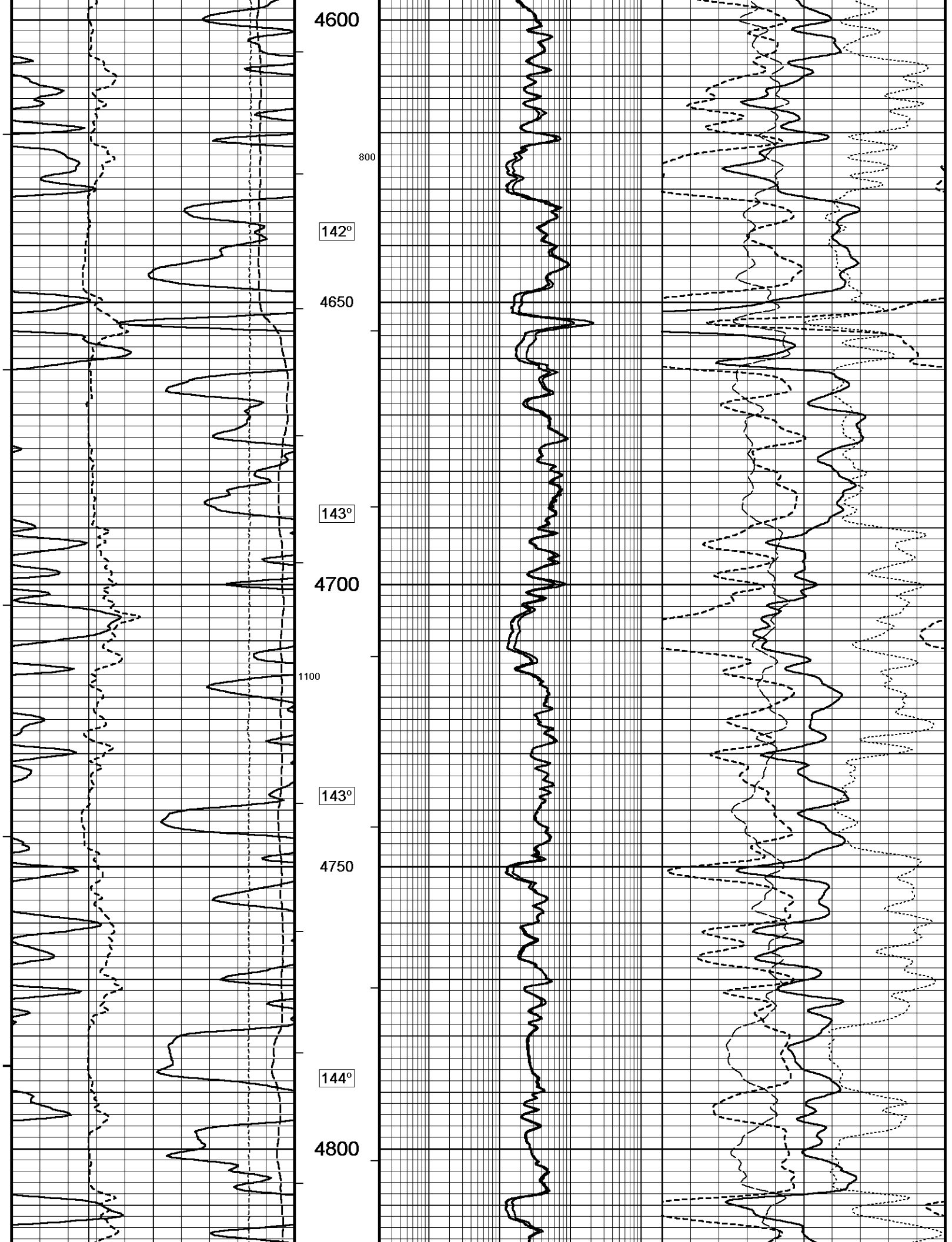


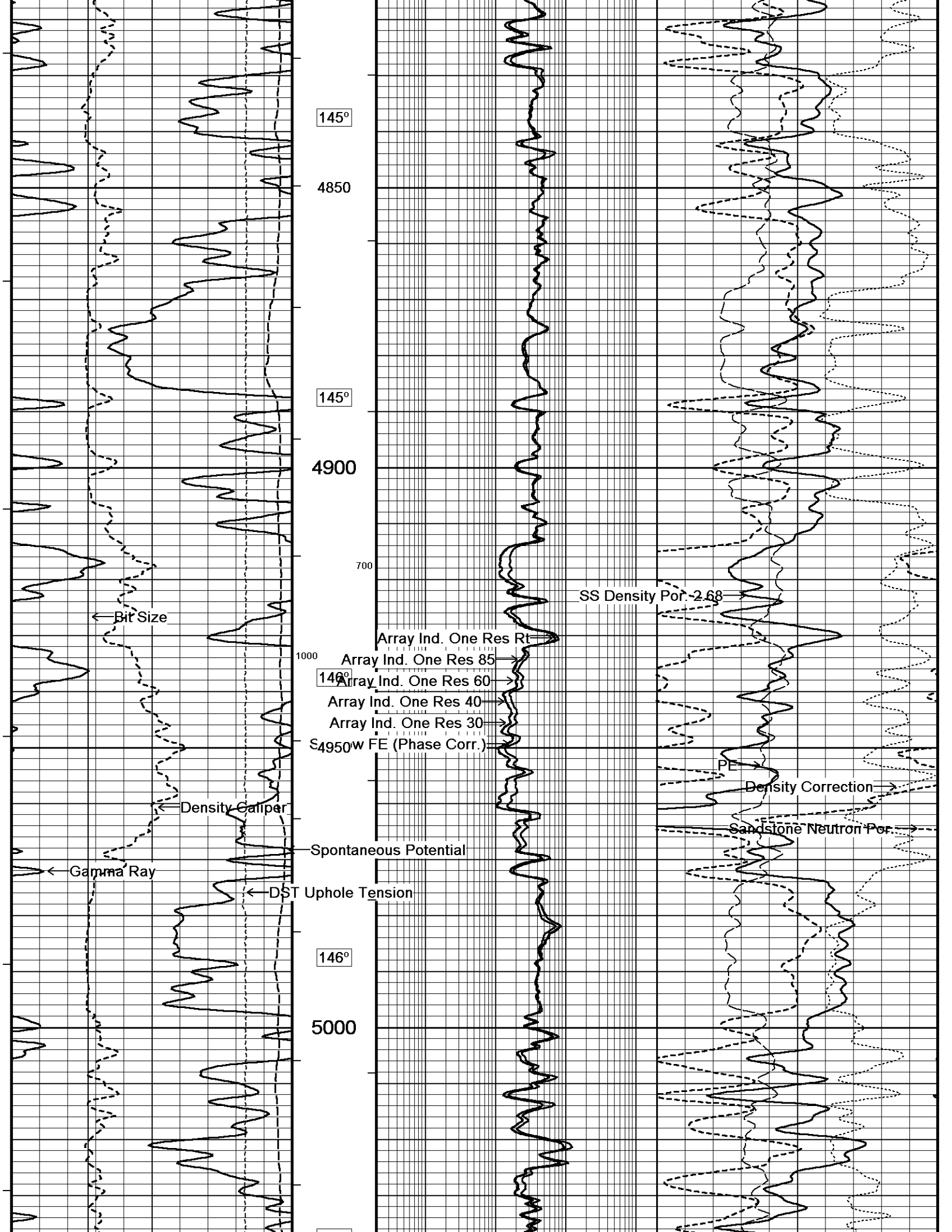


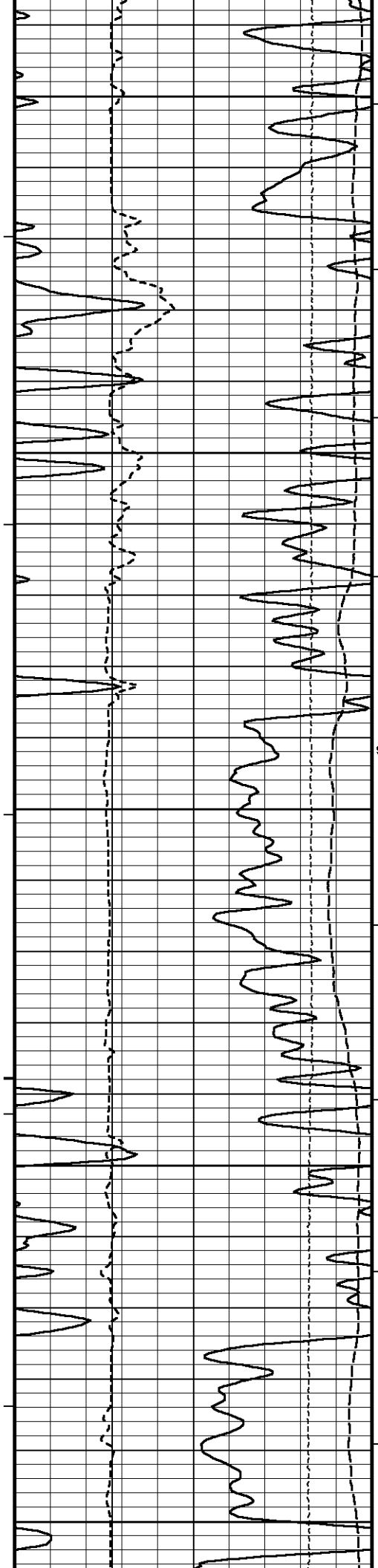




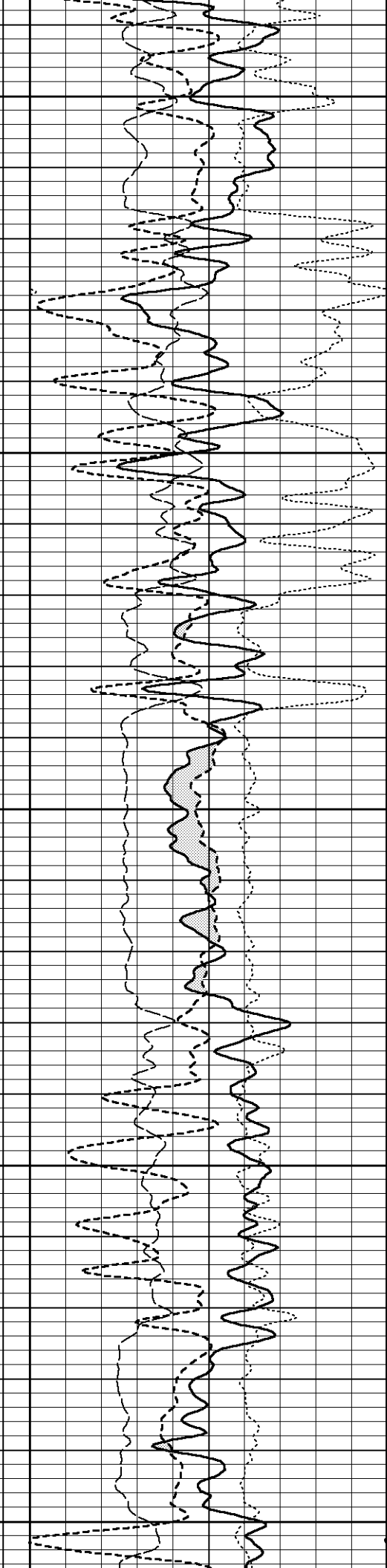
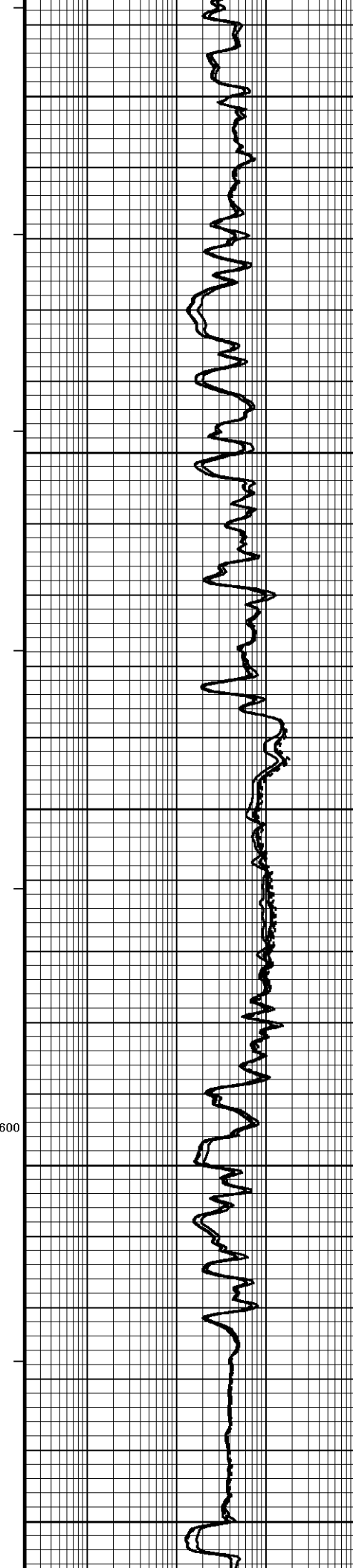


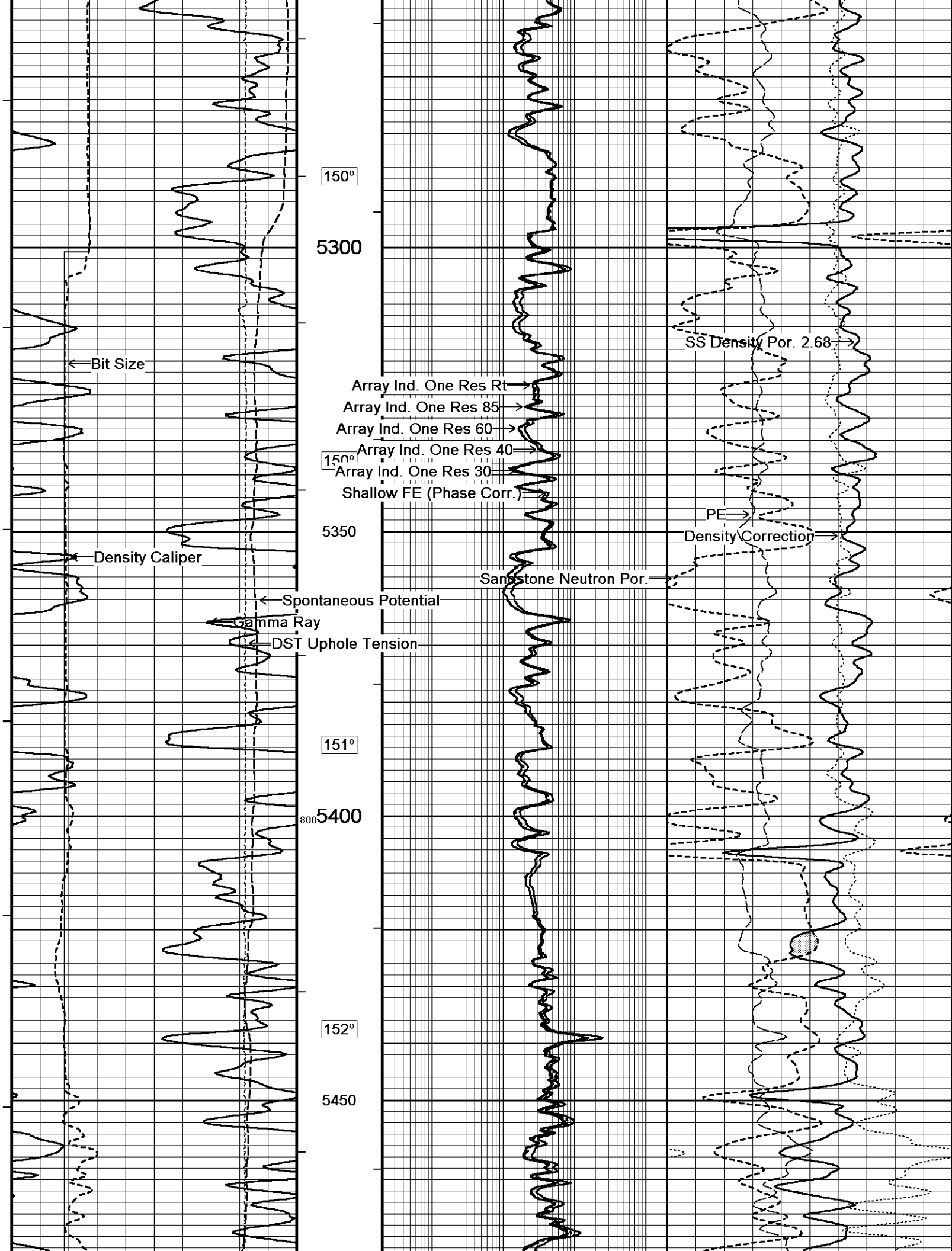


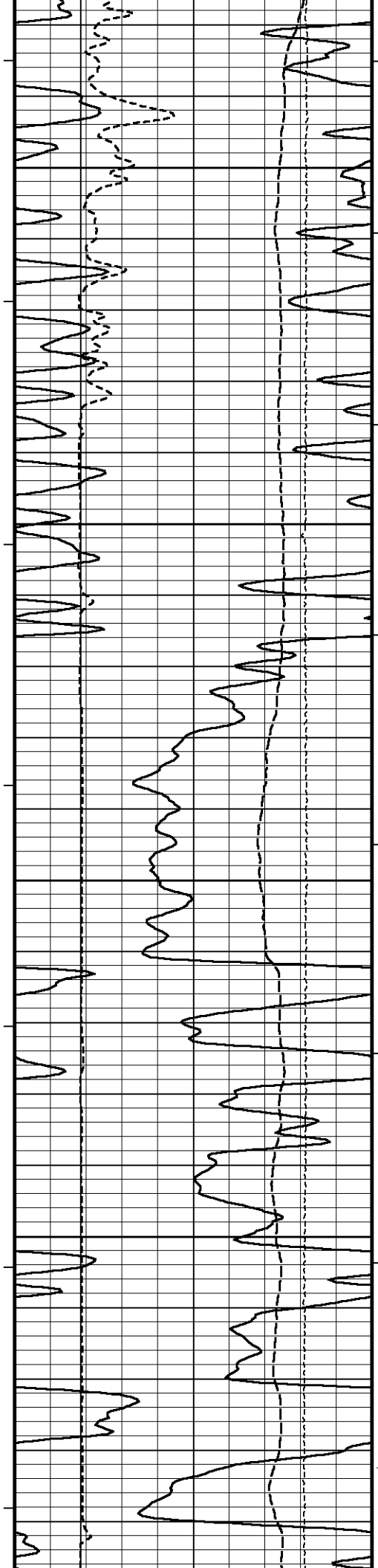




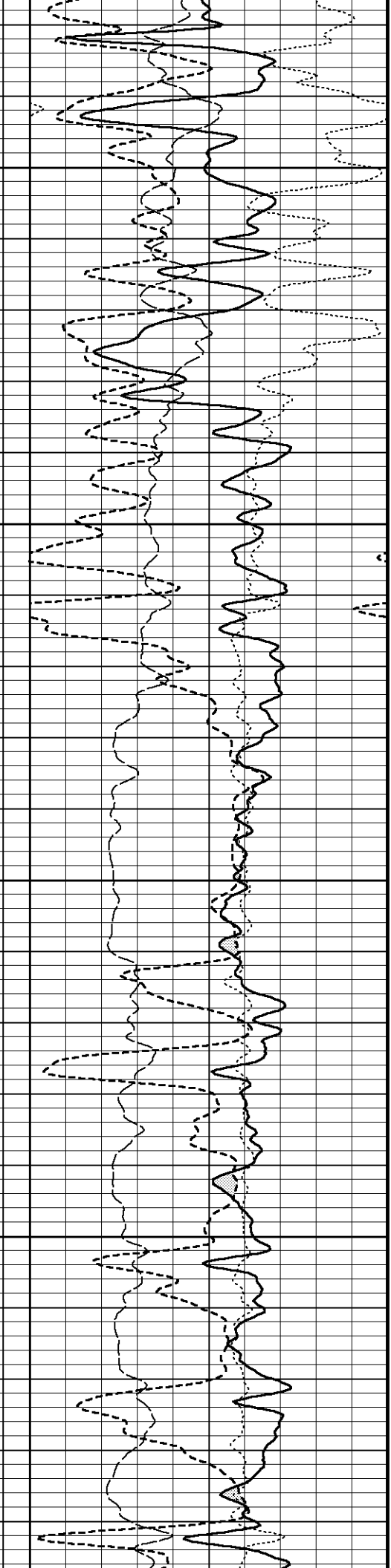
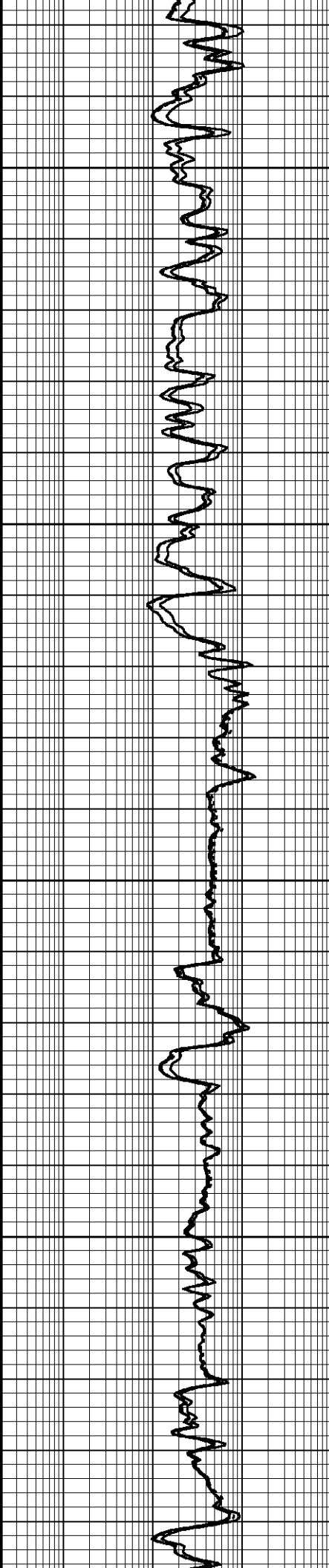
147°
5050
147°
5100
148°
900
5150
148°
600
5200
149°
5250

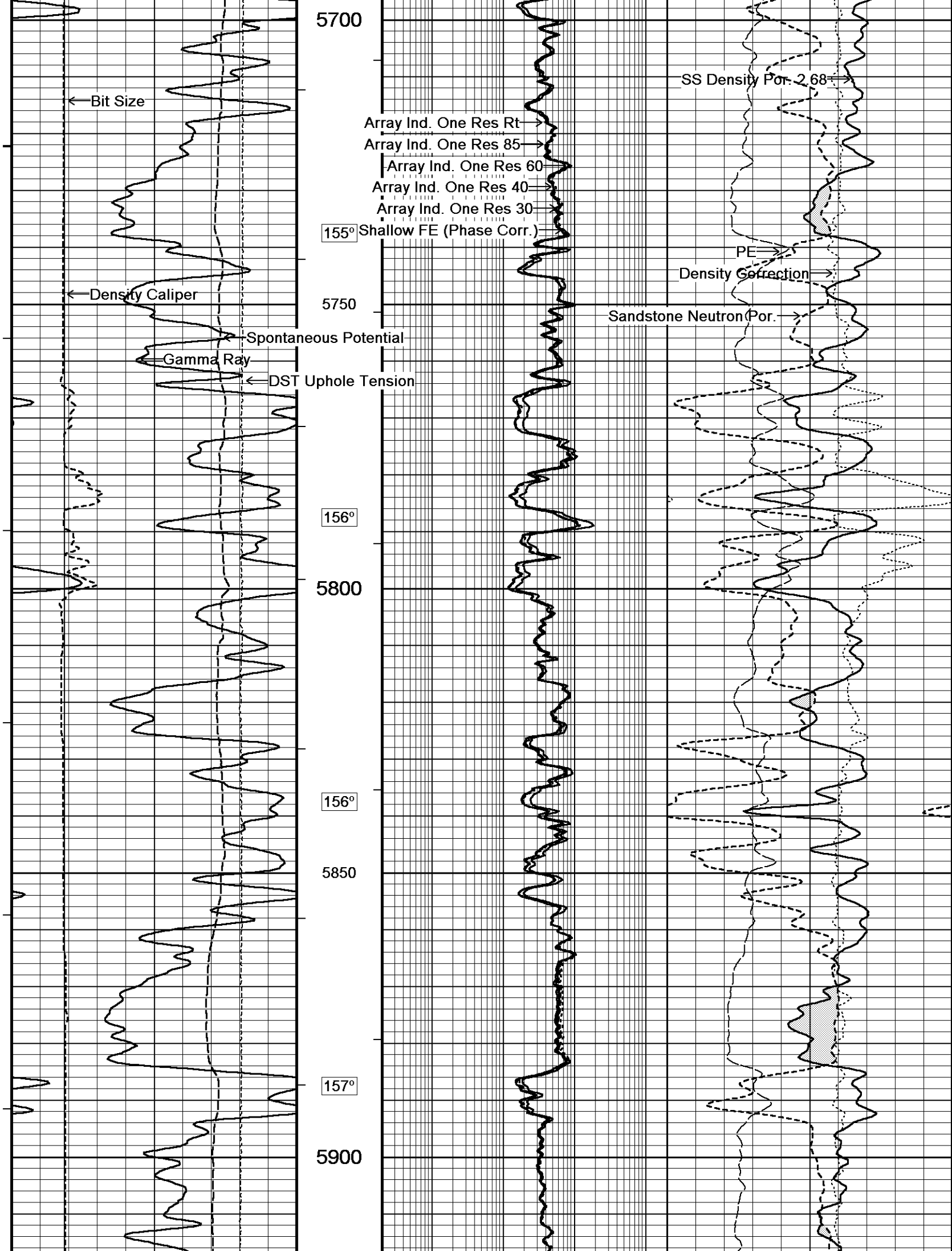


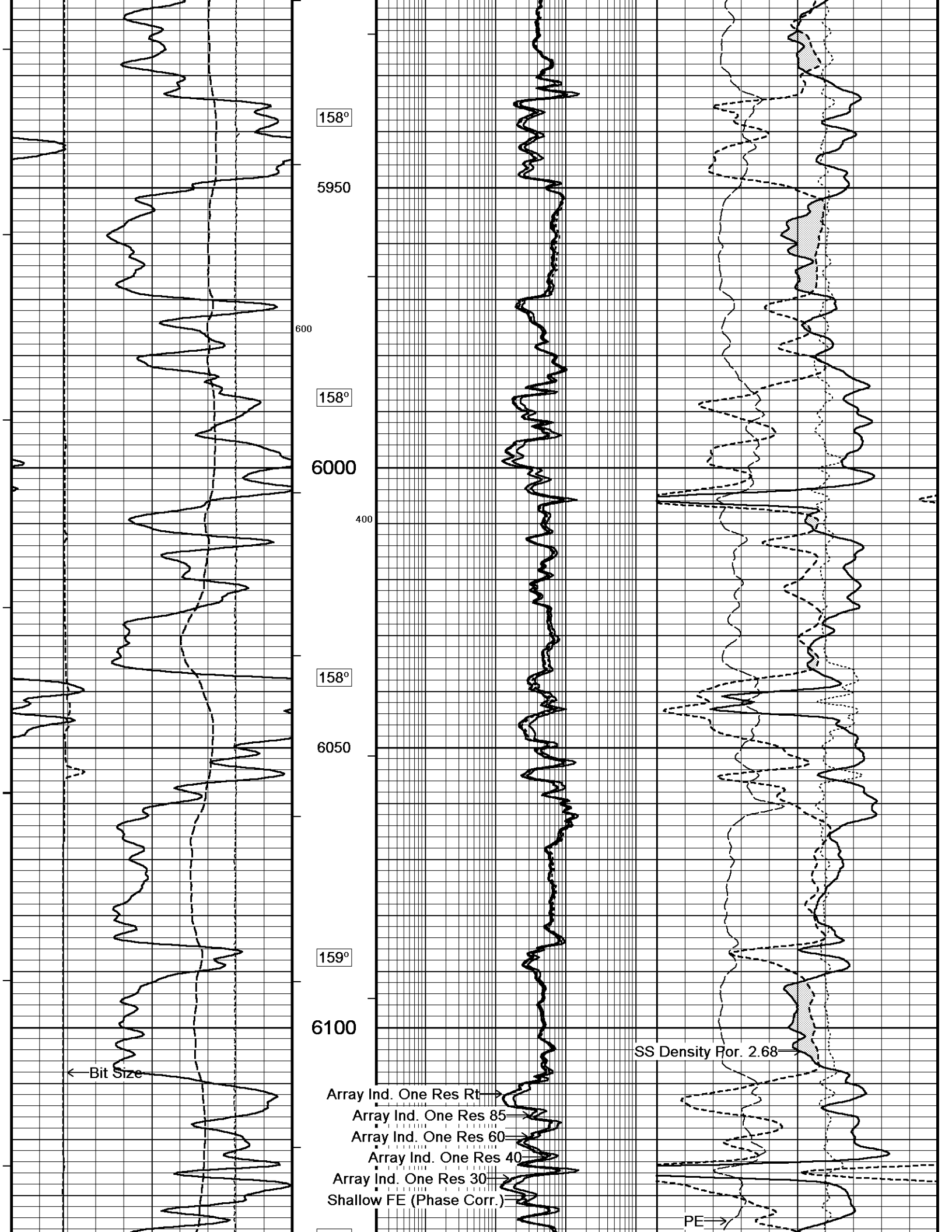


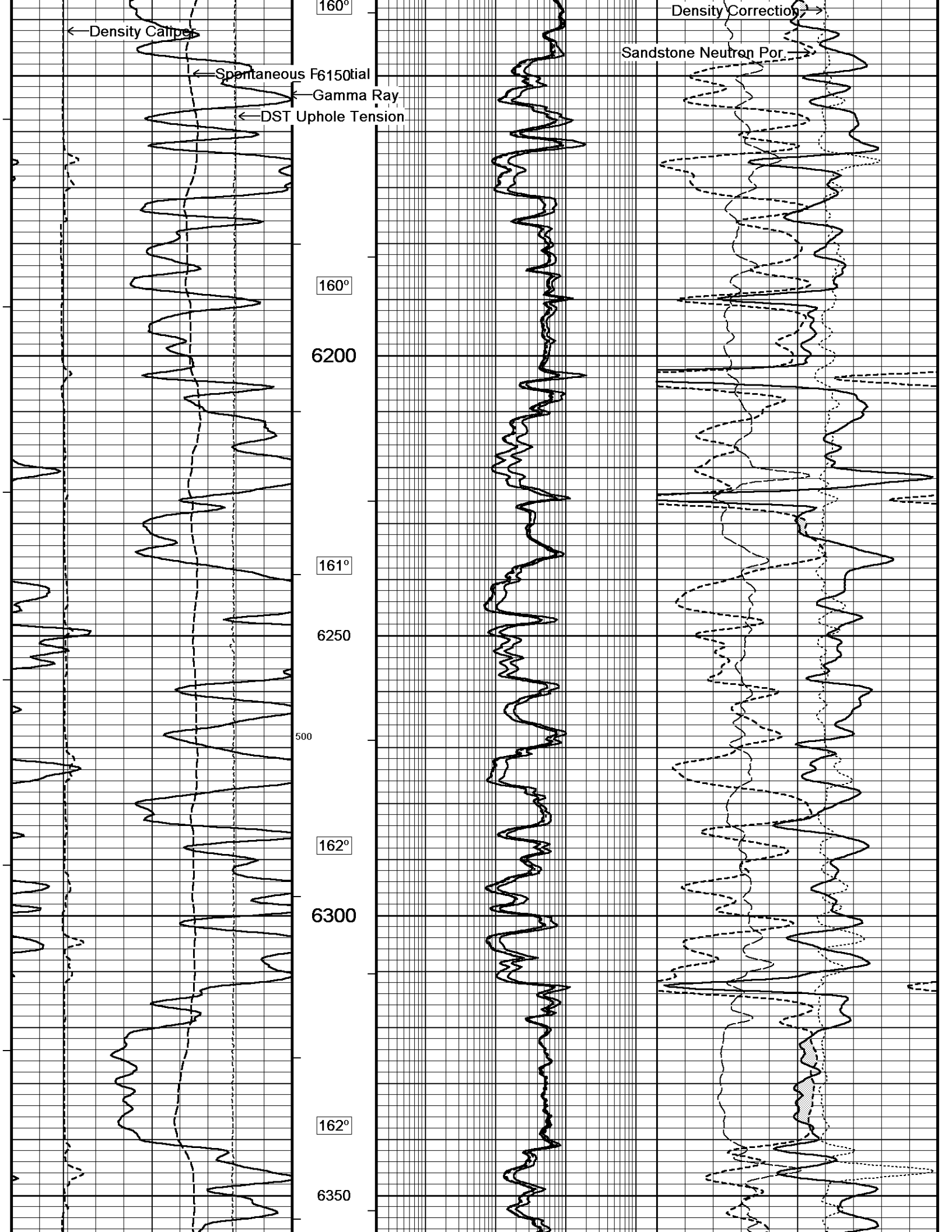


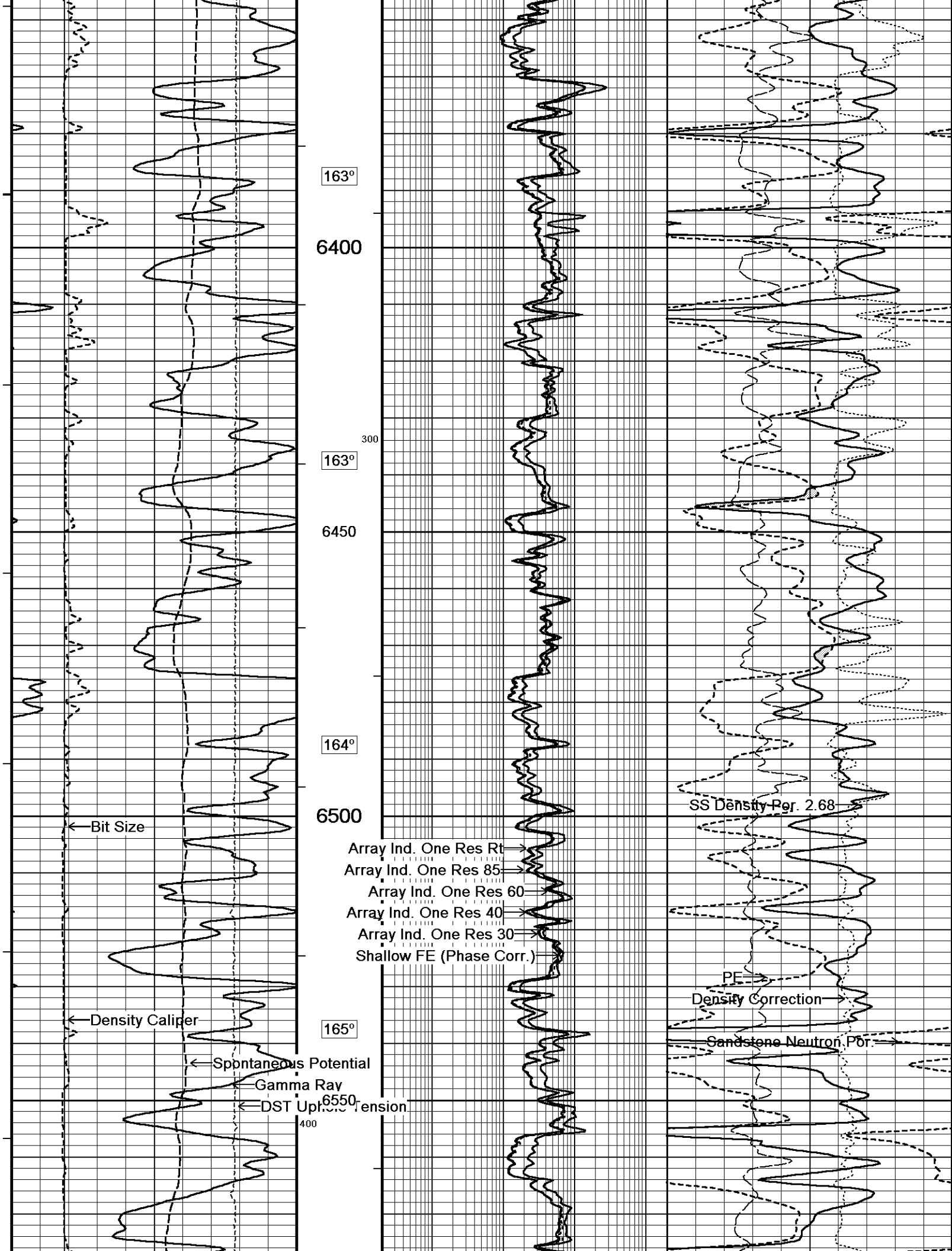
152°
5500
153°
5550
500
154°
5600
154°
5650
700
155°

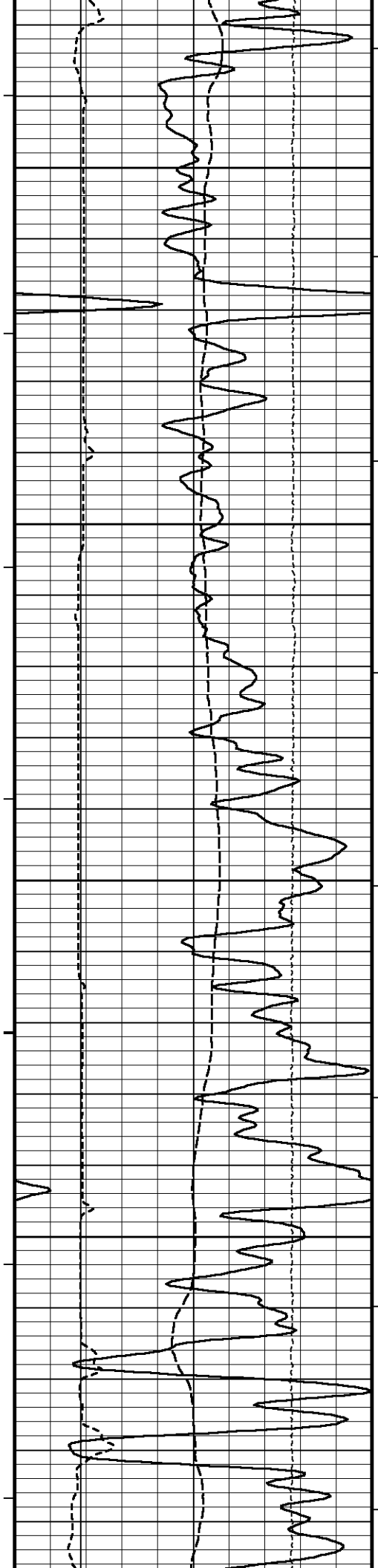












166°

6600

166°

6650

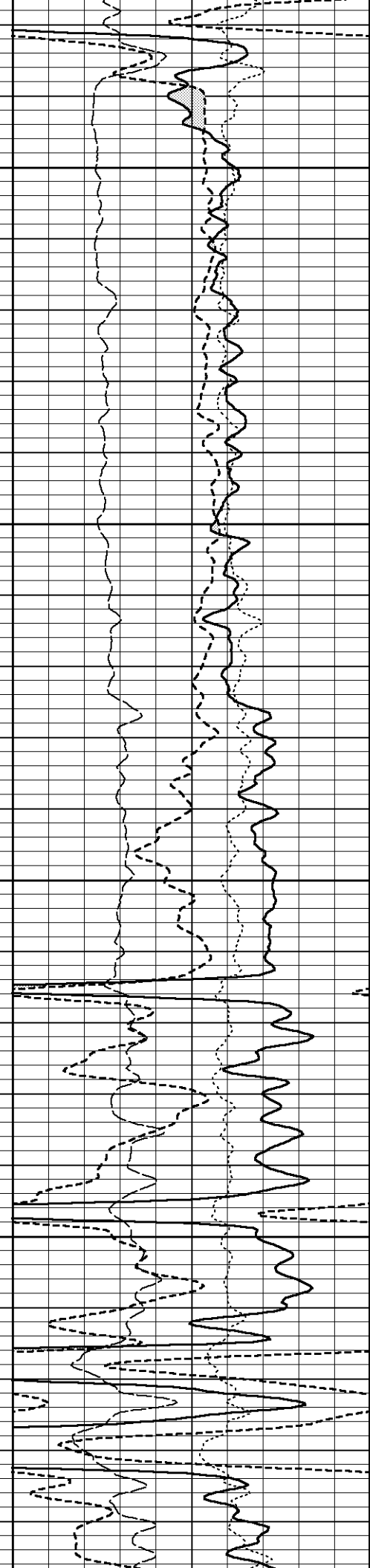
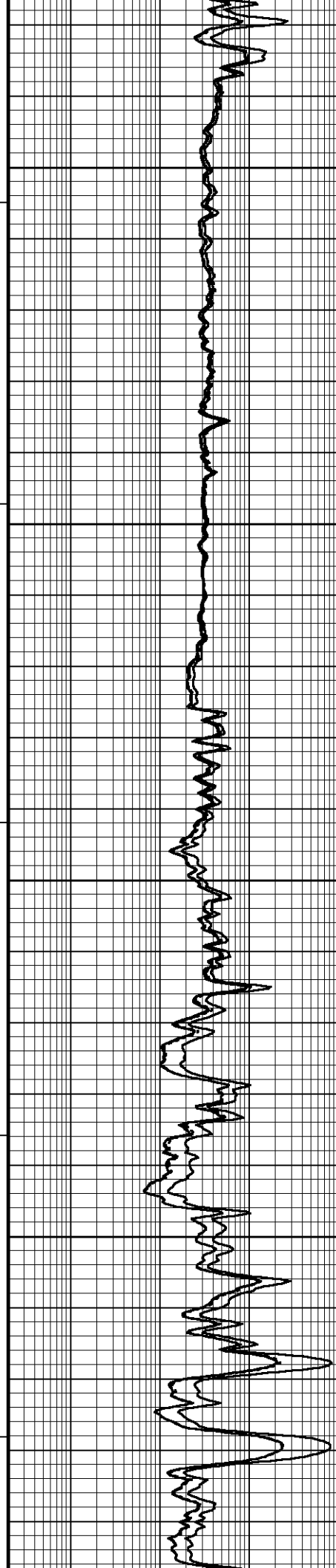
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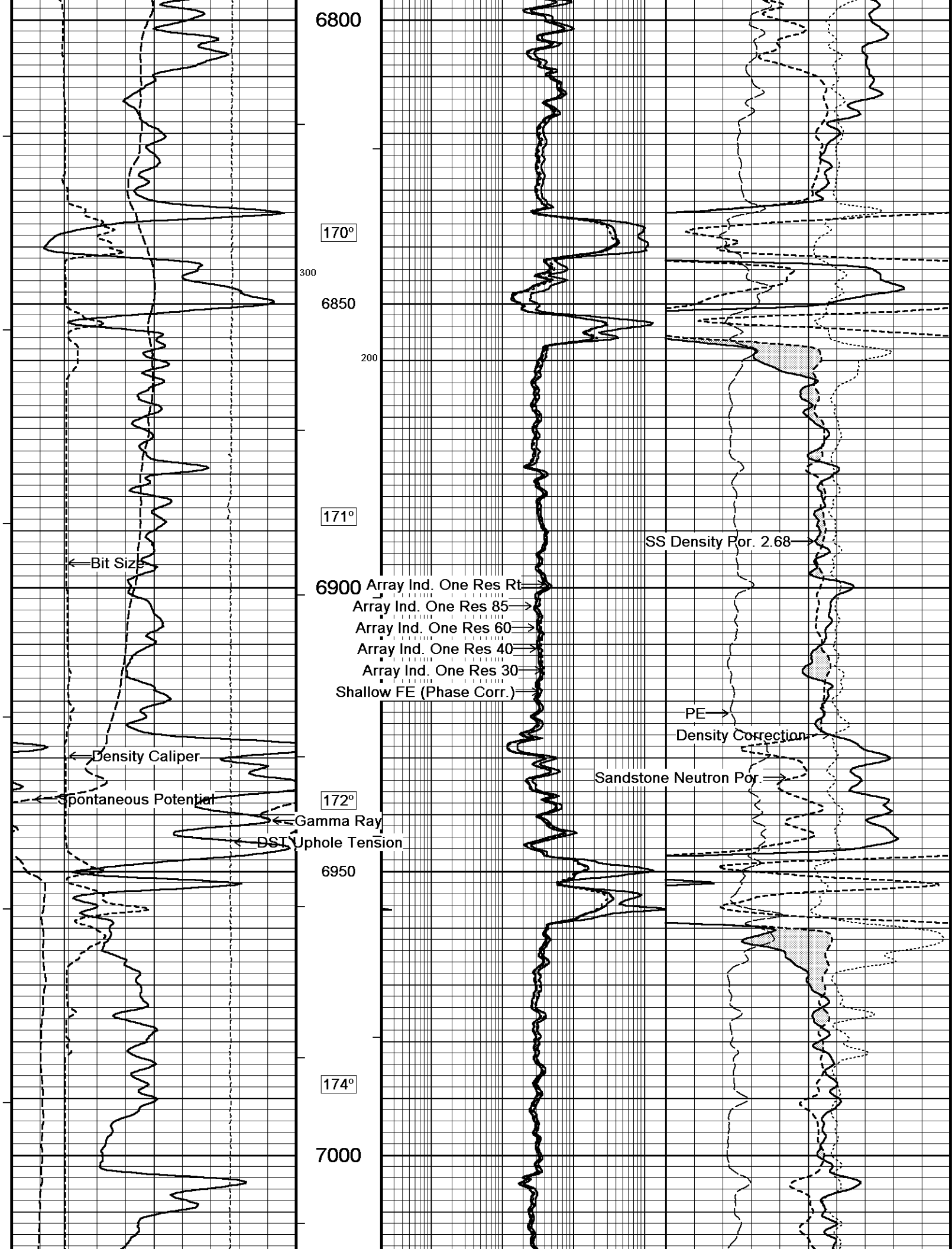
6700

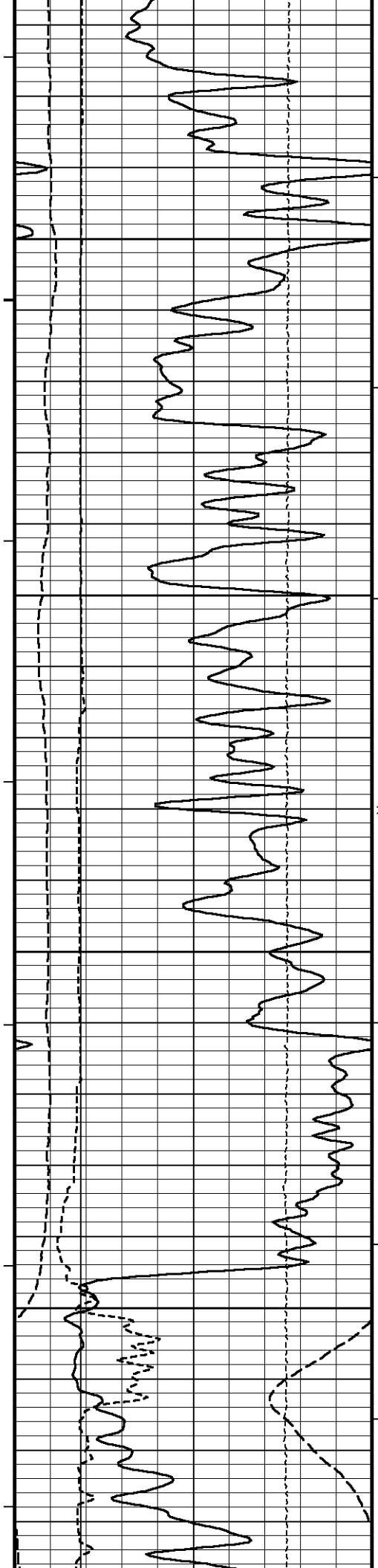
167°

6750

169°







174°

7050

174°

7100

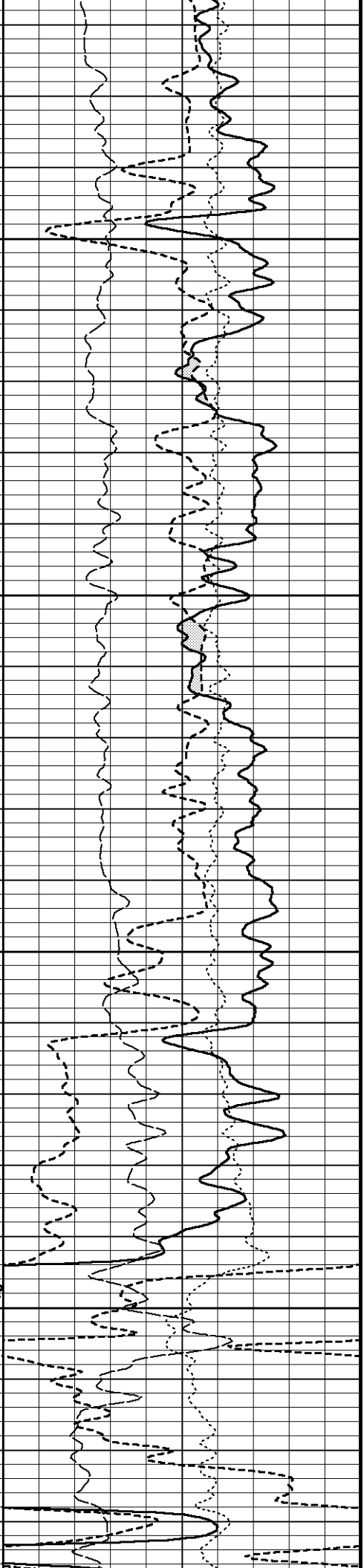
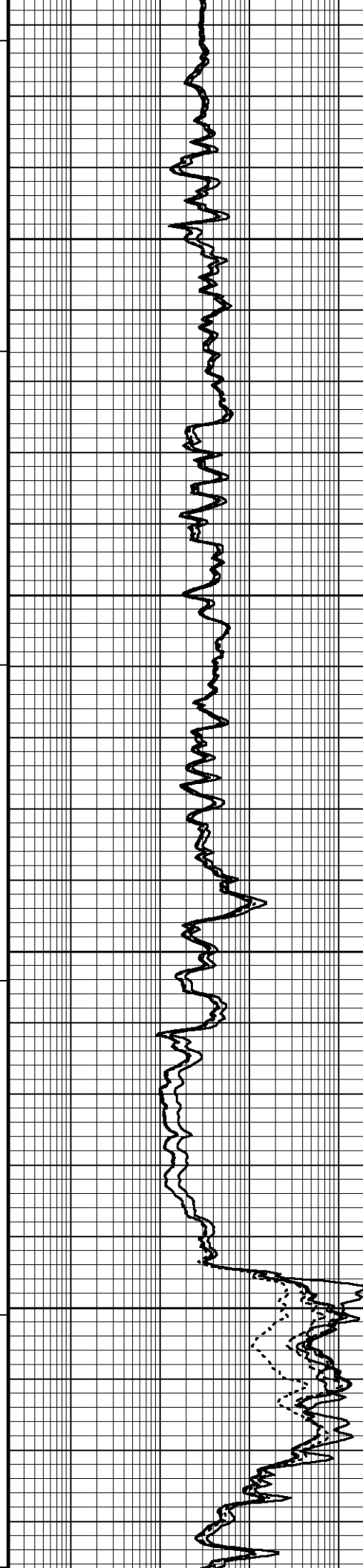
200

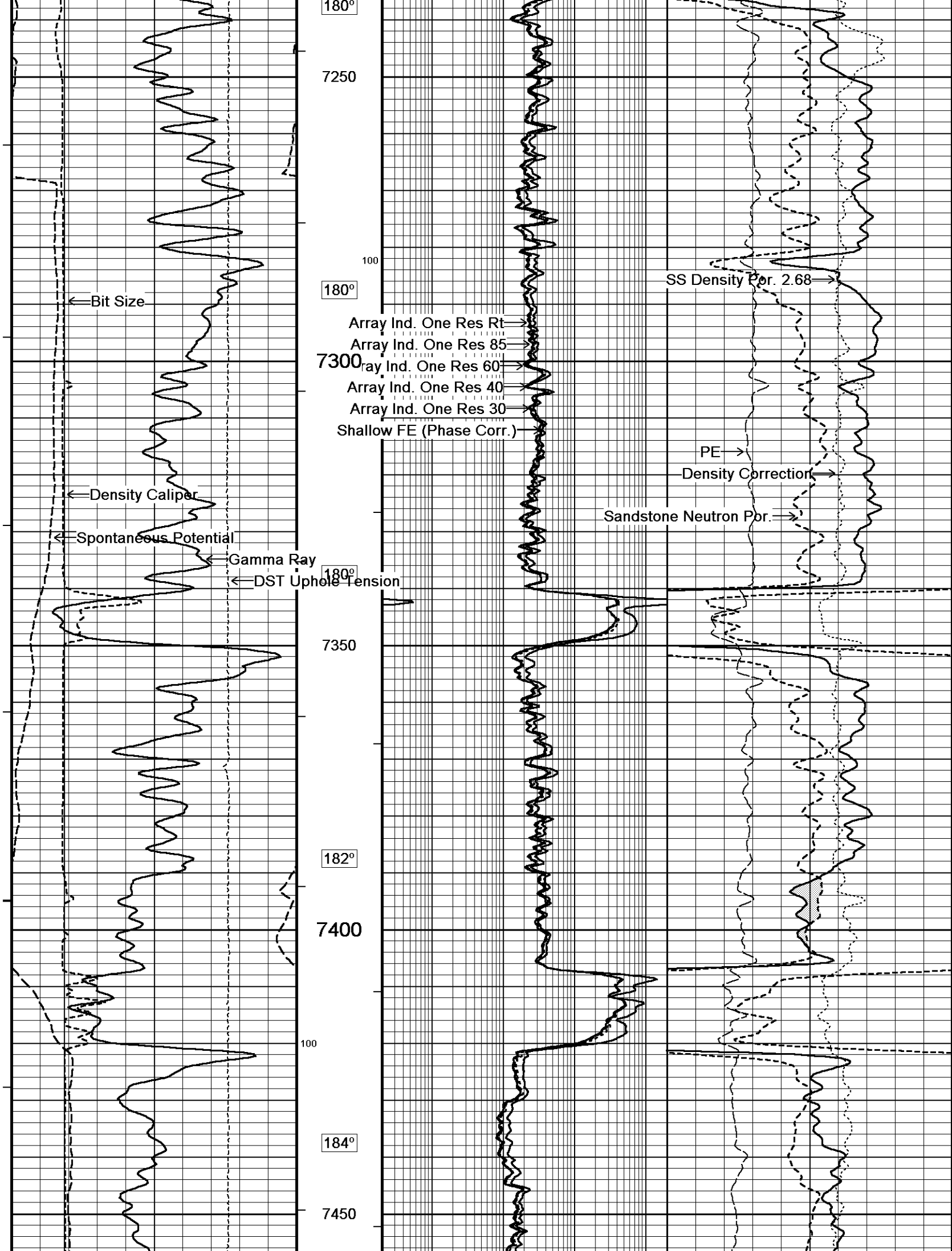
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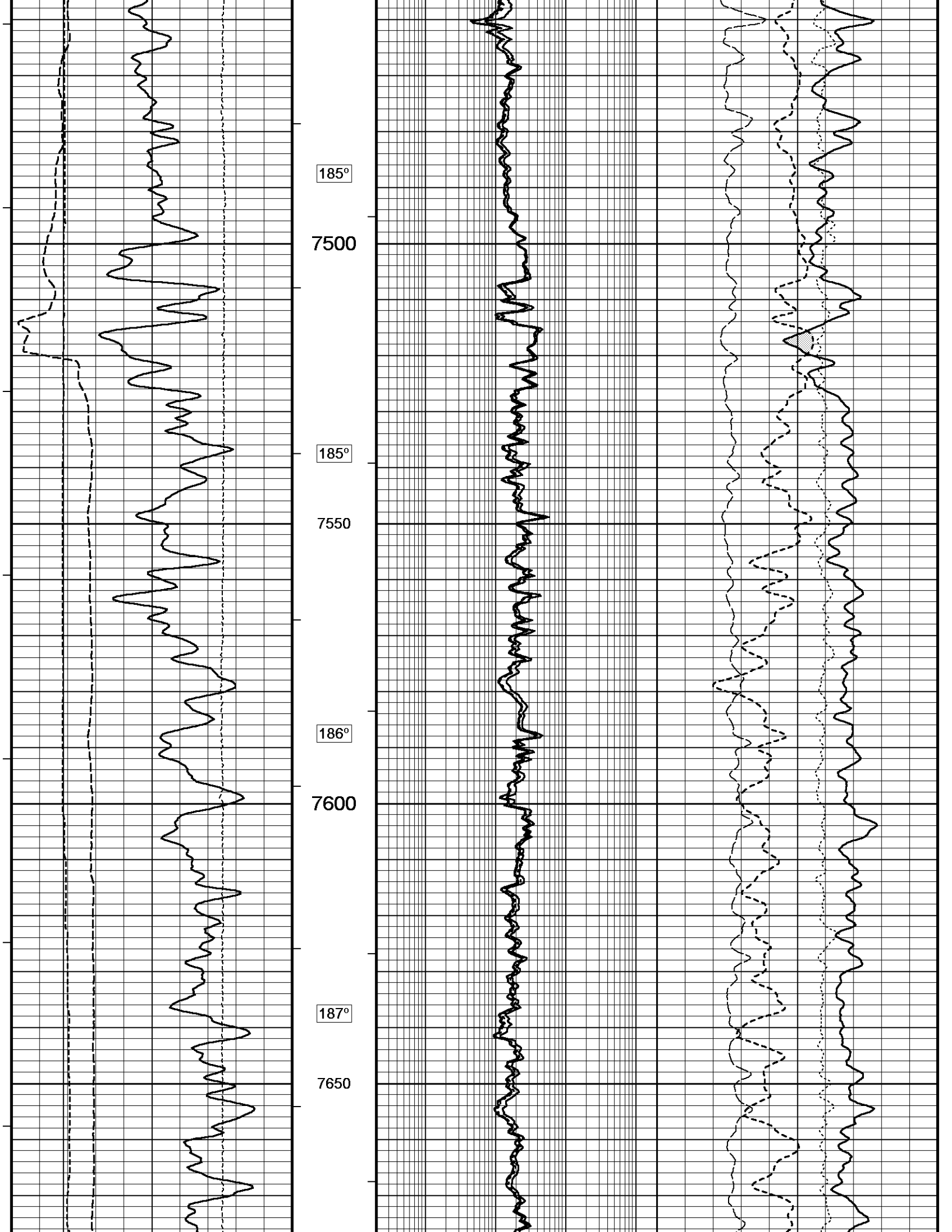
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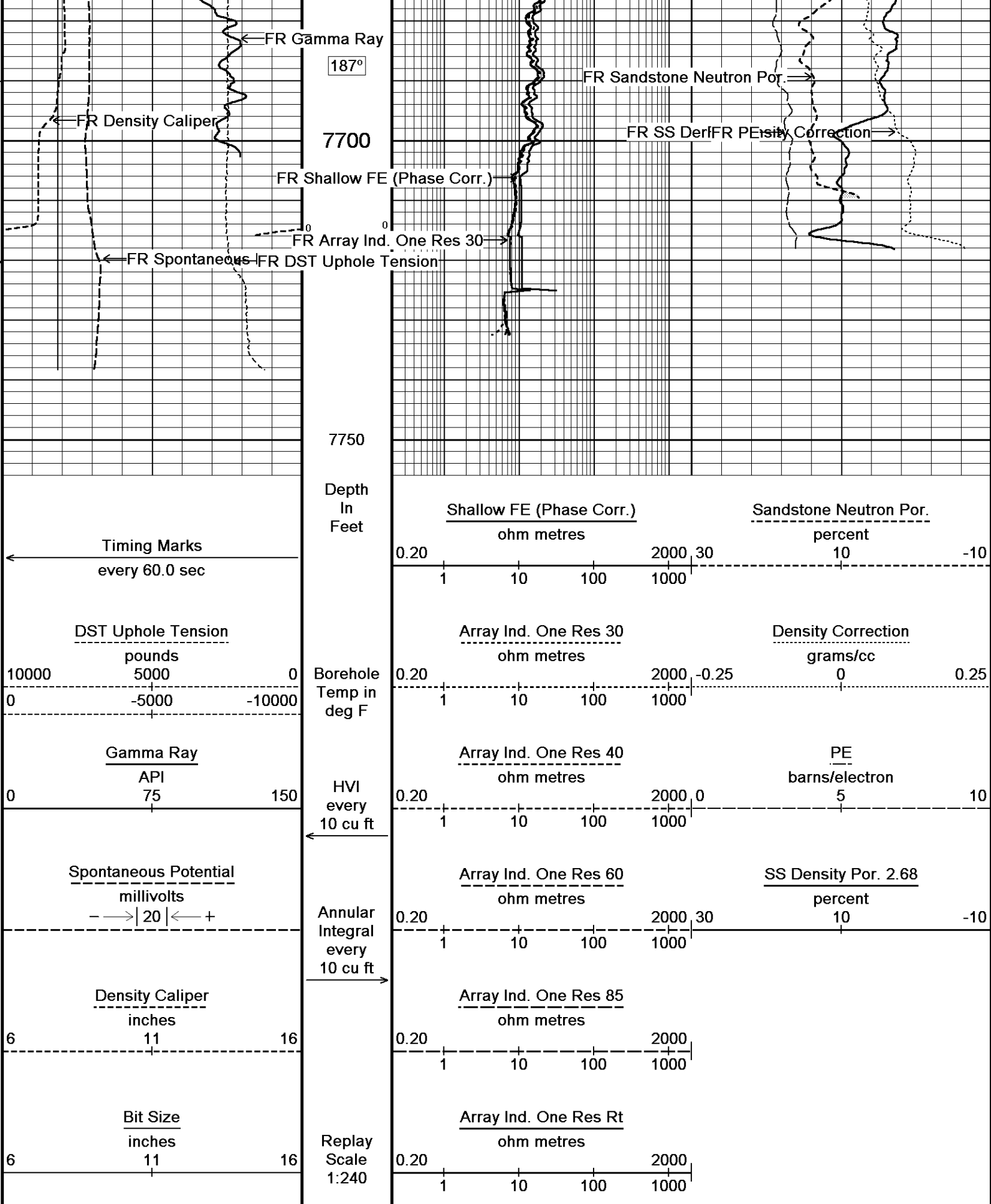
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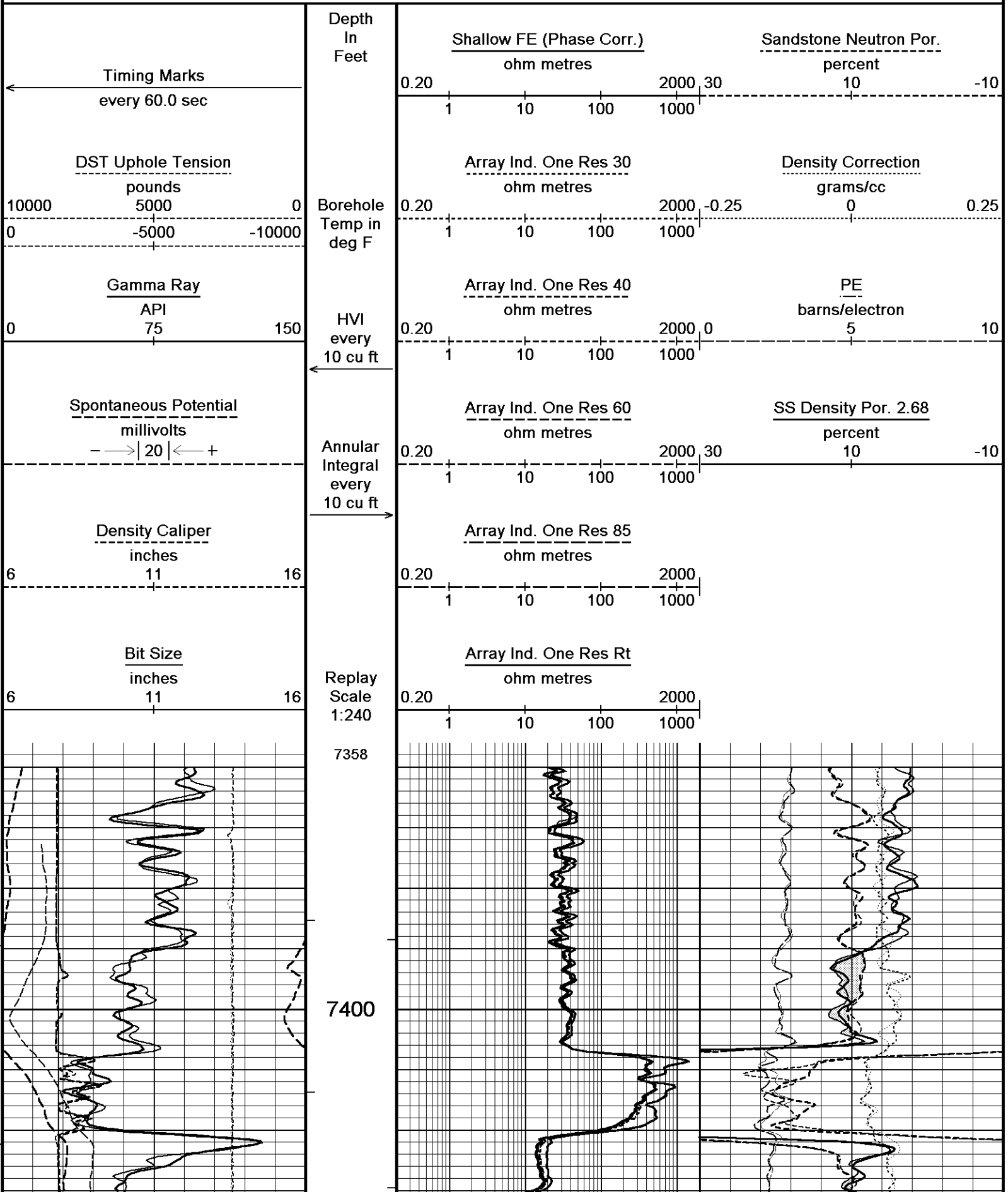
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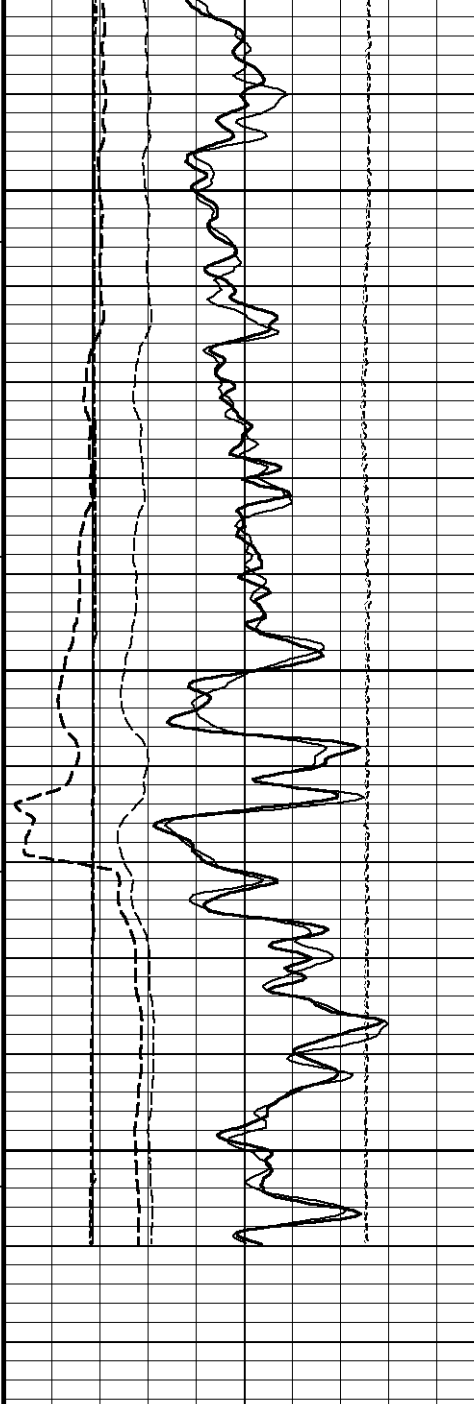












184°

7450

185°

7500

185°

7550

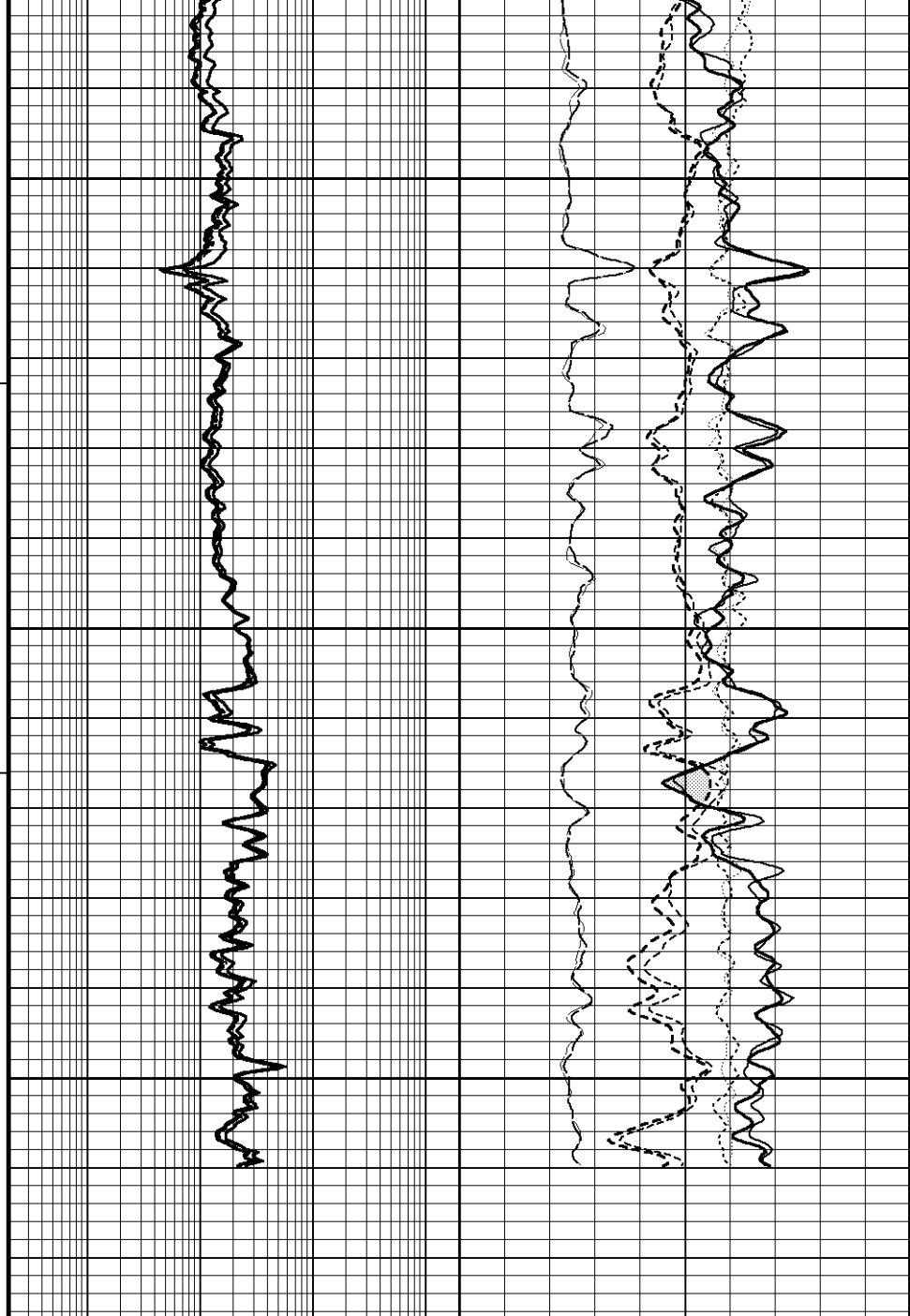
7574

Depth
In
Feet

Borehole
Temp in
deg F

HVI
every
10 cu ft

Annular



0.20 1 10 100 1000 2000 30

10 -10

0.20 1 10 100 1000 2000 -0.25

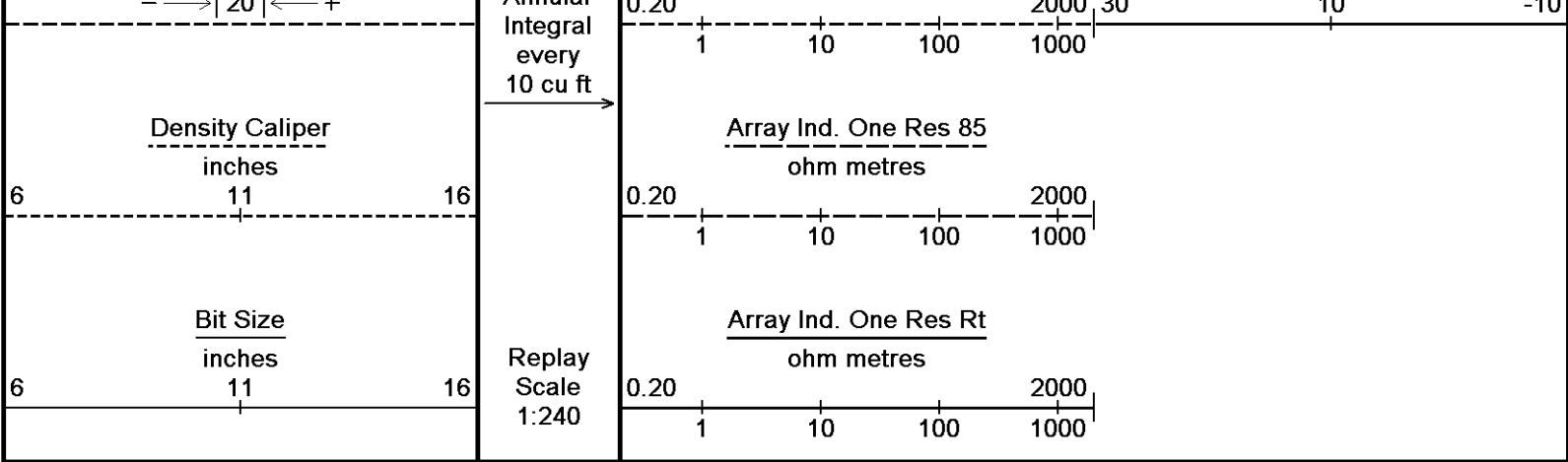
0 0.25

0.20 1 10 100 1000 2000 0

5 10

0.20 1 10 100 1000 2000 20

10 10



Depth Based Data - Maximum Sampling Increment 10.0cm
 Filename: C:\Logs\Kaufman 24C-24-692\Main.dta
 Filename: C:\Logs\Kaufman 24C-24-692\Repeat2.dta
 System Versions: Logged with 12.02.4401 Plotted with 12.02.4401

Plotted on 24-AUG-2011 10:21
 Recorded on 24-AUG-2011 02:13
 Recorded on 24-AUG-2011 01:57

OVERLAY

BEFORE SURVEY CALIBRATION			C:\Logs\Kaufman 24C-24-692\Setup.dta
General Constants All 000			Last Edited on 24-AUG-2011 00:28
General Parameters			
Mud Resistivity	2.000	ohm-metres	
Mud Resistivity Temperature	75.000	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	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 24-AUG-2011 00:14
Reading No	Measured	Calibrated (lbs)	
1	14785.82	0.00	
2	15572.55	370.00	
High Resolution Temperature Calibration MCG-D.A 287			Field Calibration on 23-AUG-2011 23:34
	Measured	Calibrated(Deg F)	
Lower	10.00	10.00	
Upper	50.00	50.00	
High Resolution Temperature Constants MCG-D.A 287			Last Edited on 13-AUG-2011 23:07
Pre-filter Length	11		
SP Calibration MCG-D.A 287			Field Calibration on 23-AUG-2011 23:34
	Measured	Calibrated (mV)	
Reference 1	100.9	100.0	
Reference 2	-100.2	-100.0	
Gamma Calibration MCG-D.A 287			Field Calibration on 23-AUG-2011 23:26

Background	Measured	Calibrated (API)
Calibrator (Gross)	141	97
Calibrator (Net)	1468	1009
	1327	912

Gamma Constants MCG-D.A 287		Last Edited on 23-AUG-2011 23:14	
Gamma Calibrator Number	GRC-072		
Mud Density	1.00	gm/cc	
Caliper Source for Processing	Density Caliper		
Tool Position	Eccentred		
Concentration of KCl	0.00	kppm	

Neutron Calibration MDN-A.B 160				Base Calibration on 08-AUG-2011 11:05	
				Field Check on 23-AUG-2011 23:32	
Base Calibration					
		Measured		Calibrated (cps)	
	Near	Far		Near	Far
	3338	103		3714	110
Ratio	32.272			33.764	
Field Calibrator at Base					
				Calibrated (cps)	
				1274	1900
Ratio				0.671	
Field Check					
				Calibrated (cps)	
				1267	1910
Ratio				0.663	

Neutron Constants MDN-A.B 160		Last Edited on 23-AUG-2011 23:32	
Neutron Source Id	1056		
Neutron Jig Number	5922		
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		
Salinity Correction	Not Applied		

FE Calibration MFE-A.A 85		Base Calibration on 08-AUG-2011 15:44	
		Field Check on 24-AUG-2011 00:15	
Base Calibration			
	Measured	Calibrated (ohm-m)	
Reference 1	0.0	0.0	
Reference 2	968.0	126.8	
Base Check		280.7	
Field Check		280.6	

FE Constants MFE-A.A 85		Last Edited on 23-AUG-2011 23:34	
Running Mode	No Sleeve		
MFE K Factor	0.1268		
Caliper Source for FE correction	Density Caliper		
Caliper Value for FE correction	N/A	inches	
Rm Source for FE correction	Temperature Corr		
Temp. for Rm Corr.	MCG External Temperature		
Stand-off	0.5	inches	

High Resolution Temperature Calibration MAI-B.A 213		Field Calibration on 23-AUG-2011 23:34	
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	Measured	Calibrated(Deg F)
Lower	10.00	50.00
Upper	100.00	212.00

High Resolution Temperature Constants MAI-B.A 213	Last Edited on
Pre-filter Length	11

Induction Calibration MAI-B.A 213				Base Calibration on 22-JAN-2007 12:35	
				Field Check on 24-AUG-2011 00:26	
Base Calibration					
Test Loop Calibration		Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High	
1	16.8	462.4	9.3	966.2	
2	6.2	381.7	7.6	821.4	
3	3.6	254.8	5.2	566.0	
4	2.3	132.3	2.6	279.2	
Array Temperature		73.6	Deg F		
Channel	Base Check (mmho/m)		Field Check (mmho/m)		
	Low	High	Low	High	
1	0.0	0.0	14.9	3938.8	
2	0.0	0.0	30.4	3541.4	
3	0.0	0.0	28.9	3115.6	
4	0.0	0.0	19.1	2098.0	
Deep	0.0	0.0	17.5	2079.8	
Medium	0.0	0.0	42.5	4089.5	
Shallow	0.0	0.0	45.7	5160.8	
Array Temperature		0.0	83.0	Deg F	

Induction Constants MAI-B.A 213			Last Edited on 24-AUG-2011 00:27	
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		0.7500	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-B 167

Base Calibration on 18-AUG-2011 12:32
Field Calibration on 23-AUG-2011 23:34

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	17027	3.98
2	25488	5.96
3	34336	7.97
4	42512	9.84
5	51936	11.91
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.89	7.97

Photo Density Calibration MPD-B 167

Base Calibration on 18-AUG-2011 12:07
Field Check on 24-AUG-2011 00:19

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	51042	18172	53237	19445
Reference 2	23364	2979	25135	2545

Field Check at Base

1244.6 1738.6

Field Check

1230.2 1723.8

PE Calibration

Base Calibration	WS	Measured		Calibrated Ratio
		WH	Ratio	
Background	227	1119		
Reference 1	17404	50860	0.345	0.320
Reference 2	6614	23229	0.289	0.274

Field Check at Base

226.9 1118.6

Field Check

224.2 1106.3

Density Constants MPD-B 167

Last Edited on 23-AUG-2011 23:34

Density Source Id	P50561B
Nylon Calibrator Number	532
Aluminium Calibrator Number	532
Density Shoe Profile	8 inch
Caliper Source for Processing	Density Caliper
PE Correction to Density	Not Applied
Mud Density	1.26 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)
2.68	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

AFTER SURVEY CALIBRATION

Gamma Check MCG-D.A 287

Field Calibration on 23-AUG-2011 23:26
After Survey Check on 24-AUG-2011 06:35

	Before (API)	After (API)
Background	97	98
Calibrator (Gross)	1009	1010
Calibrator (Net)	912	912

Neutron Check MDN-A.B 160

Before Survey Check on 23-AUG-2011 23:32
After Survey Check on 24-AUG-2011 06:45

Near (cps)		Far (cps)	
Before	After	Before	After
1267	1262	1910	1904
Ratio			
Before		After	
0.663		0.663	

FE Check MFE-A.A 85

Before Survey Check 24-AUG-2011 00:15
After Survey Check on 24-AUG-2011 05:53

Before (ohm-m)	After (ohm-m)
280.6	280.7

Induction Check MAI-B.A 213

Before Survey Check on 24-AUG-2011 00:26
After Survey Check on 24-AUG-2011 05:55

Channel	Before Survey (mmho/m)		After Survey (mmho/m)		
	Low	High	Low	High	
1	14.9	3938.8	14.5	3937.8	
2	30.4	3541.4	30.3	3540.6	
3	28.9	3115.6	28.9	3114.2	
4	19.1	2098.0	19.1	2096.6	
Deep	17.5	2079.8	17.4	2077.9	
Medium	42.5	4089.5	42.5	4088.1	
Shallow	45.7	5160.8	45.6	5160.9	
Array Temperature	83.0		74.6		Deg F

Caliper Check MPD-B 167

Field Calibration on 23-AUG-2011 23:34
After Survey Check on 24-AUG-2011 06:30

Before (in)	After (in)
7.97	7.88

Photo Density Check MPD-B 167

Before Survey Check on 24-AUG-2011 00:19
After Survey Check on 24-AUG-2011 05:52

Density Check

Before	Near		Far	
	Before	After	Before	After
	1230.2	1238.8	1723.8	1727.2

PE Check

	Before	After
WS	224.2	227.6
WH	1106.3	1112.2

DOWNHOLE EQUIPMENT

C:\Logs\Kaufman 24C-24-692\Setup.dta

3/8" Triple Cone Cable Head (MCB C A)
MCB-C.A 5 LG: 1.58 ft WT: 15.4 lb OD: 2.24 inSHA-F Compact Swivel Head Adaptor
SHA-F 82 LG: 2.74 ft WT: 26.5 lb OD: 2.24 inCompact Comms Gamma
MCG-D.A 287 LG: 8.70 ft WT: 63.9 lb OD: 2.24 inCompact Neutron
MDN-A.B 160 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in37.07 ft GRGC - Gamma Ray
34.16 ft CGXT - MCG External Temperature

30.61 ft NPRS - Sandstone Neutron Por.

23.27 ft AVOI - Annular Volume

Compact Density/Caliper

MPD-B 167 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

SKJ-D.A Compact Knuckle Joint

SKJ-D.A 114 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

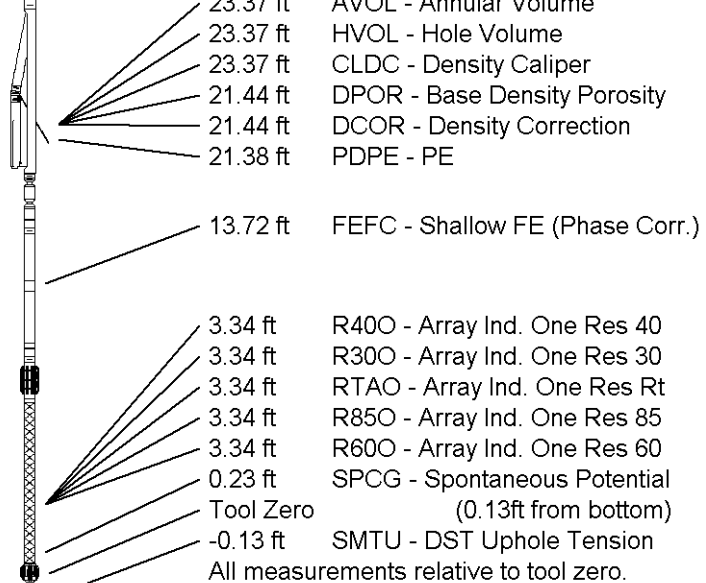
Compact Focussed Electric

MFE-A.A 85 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction

MAI-B.A 213 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 46.67 ft Weight: 368.2 lb



COMPANY	BILL BARRETT CORPORATION
WELL	KAUFMAN 24C-24-692
FIELD	MAMM CREEK
PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	5866.00	feet	First Reading	7720.00	
Elevation Drill Floor	5866.00	feet	Depth Driller	7720.00	feet
Elevation Ground Level	5843.00	feet	Depth Logger	7720.00	feet



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