



Weatherford[®]

COMPACT TRIPLE COMBO

QUICKLOOK

LOG

COMPANY BILL BARRETT CORPORATION

WELL CB-TG LAND 21A-20-692

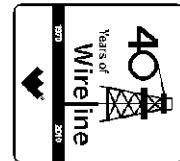
FIELD MAMM CREEK

PROVINCE/COUNTY GARFIELD

COUNTRY/STATE U.S.A. / COLORADO

LOCATION SHL: 735' FNL & 2551' FEL

BHL: 1197' FNL & 1972' FWL



SEC TWP 6S RGE 92W Other Services

API Number 05-045-19774

Permit Number

Permanent Datum G.L., Elevation 5530 feet

Log Measured From K.B. @ 23 FT above Permanent Datum

Drilling Measured From K.B.

Elevations:	feet
KB	5553.00
DF	5552.00
GL	5530.00

Date 15-MAY-2011

Run Number ONE

Depth Driller 7641.00 feet

Depth Logger 7640.00 feet

First Reading 7637.00

Last Reading 816.00

Casing Driller 815.00 feet

Casing Logger 816.00 feet

Bit Size 7.875 inches

Hole Fluid Type LSND

Density / Viscosity 10.30 lb/USg 55.00 CP

PH / Fluid Loss 9.70 8.00 ml/30Min

Sample Source FLOW LINE

Rm @ Measured Temp 2.87 @ 75.2 ohm-m

Rmf @ Measured Temp 2.30 @ 75.2 ohm-m

Rmc @ Measured Temp 3.44 @ 75.2 ohm-m

Source Rmf / Rmc CALC CALC

Rm @ BHT 1.13 @ 196.0 ohm-m

Time Since Circulation 7 HOURS

Max Recorded Temp 196.00 deg F

Equipment Name COMPACT

Equipment / Base 13045 GD JCT

Recorded By D. KUNTZ

Witnessed By C. CROWTON

BOREHOLE RECORD

Last Edited: 16-MAY-2011 02:27

Bit Size inches	Depth From feet	Depth To feet
8.750	816.00	5084.00
7.875	5084.00	7640.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	816.00	36.00

REMARKS

LOGGED USING WLS SOFTWARE VERSION 11.02.3186

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

HARDWARE: MPD: (1) 8 INCH PROFILE PLATE
MAI: (2) 0.5 INCH STANDOFF
MDN: (1) DUAL BOWSPRING
MFE: (1) 0.5 INCH STANDOFF

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.

CALIPER CHECK IN CASING PRESENTED, REFERENCE I.D. = 8.99" (9 5/8", 36 LB/FT CASING)

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2785 CU.FT.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 2035 CU.FT.

SERVICE ORDER: #3524798

RIG: NABORS #37

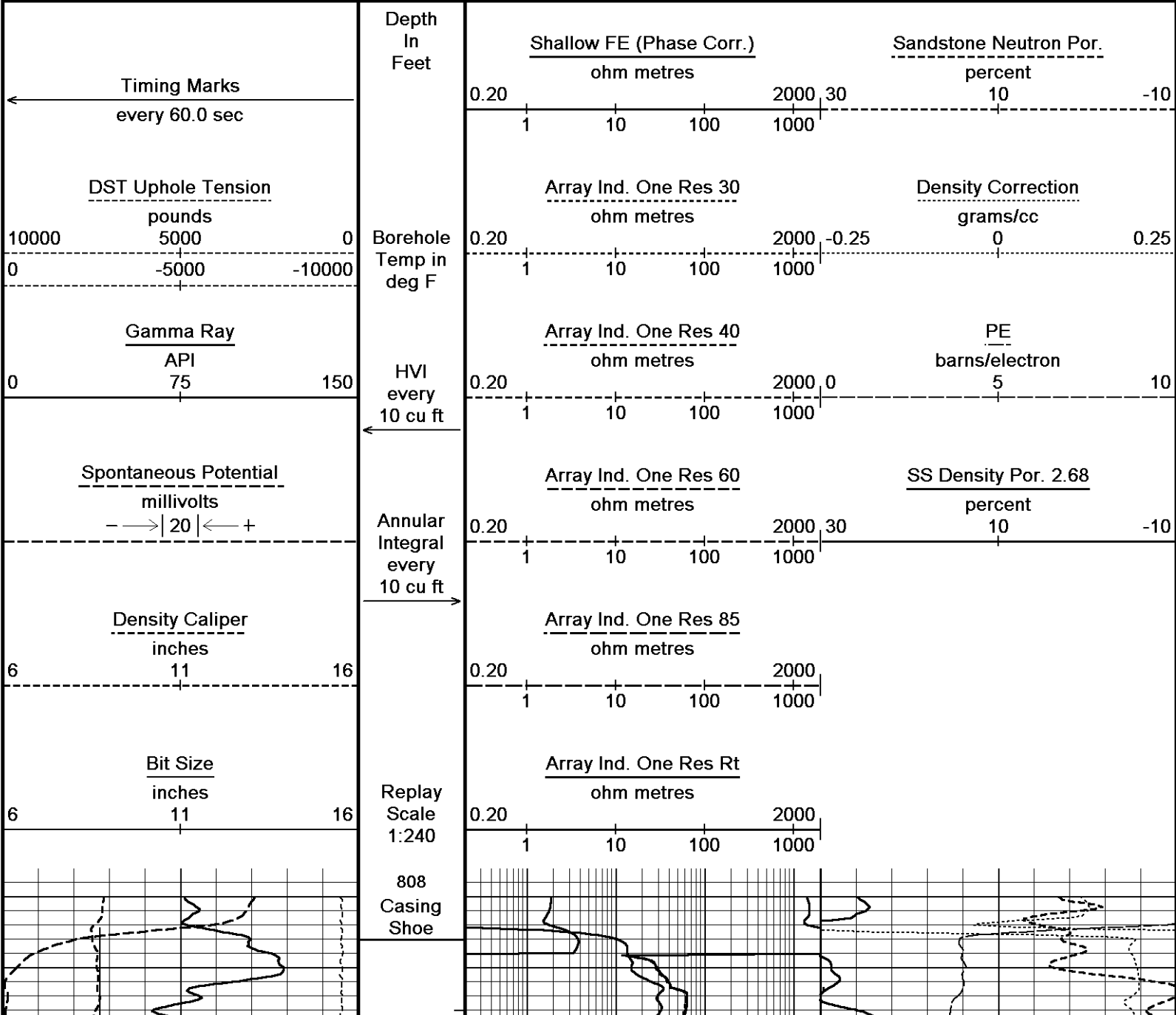
ENGINEER(S): D.KUNTZ, K. SALLER (JFE)

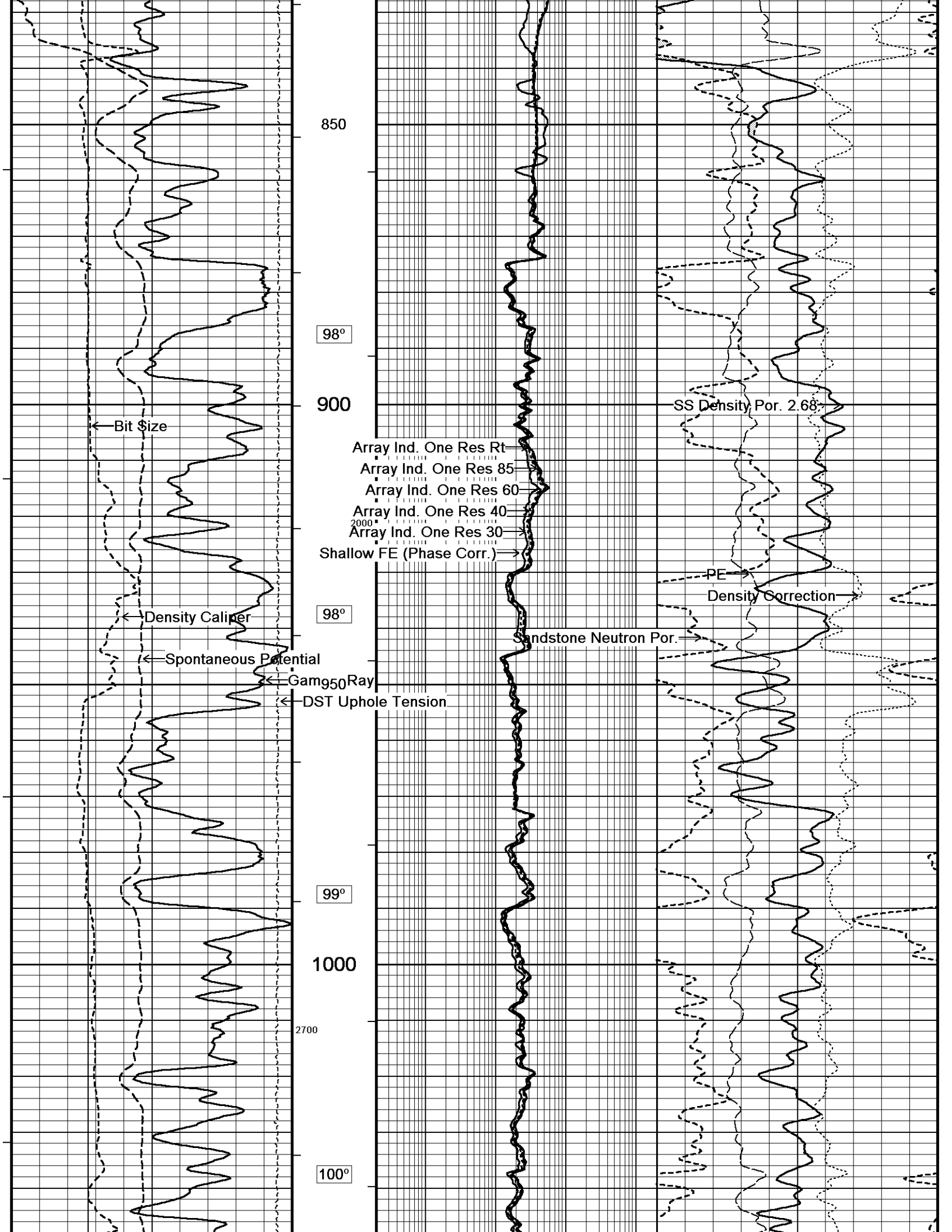
OPERATOR(S): M. VERSLUIS, J. PEHRSON

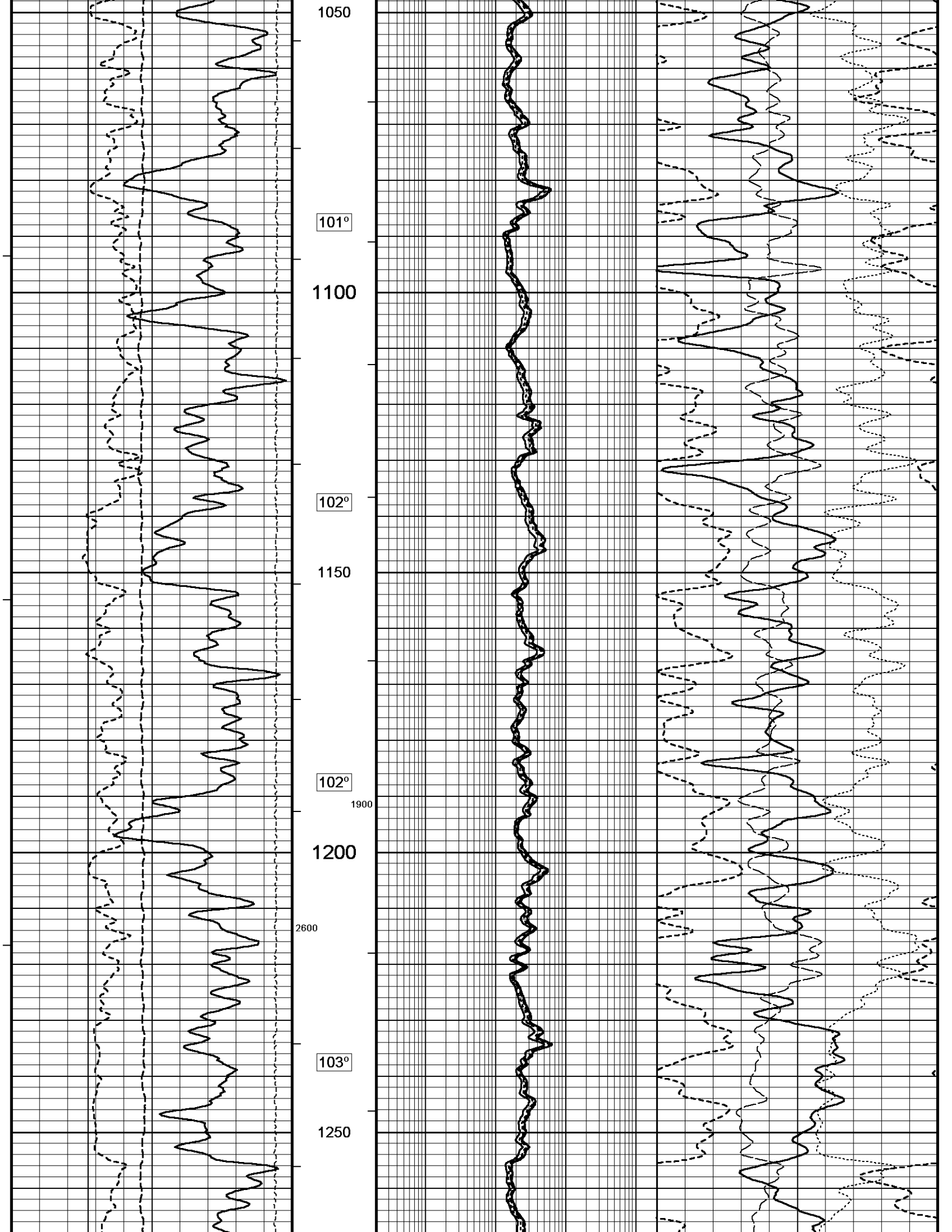
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

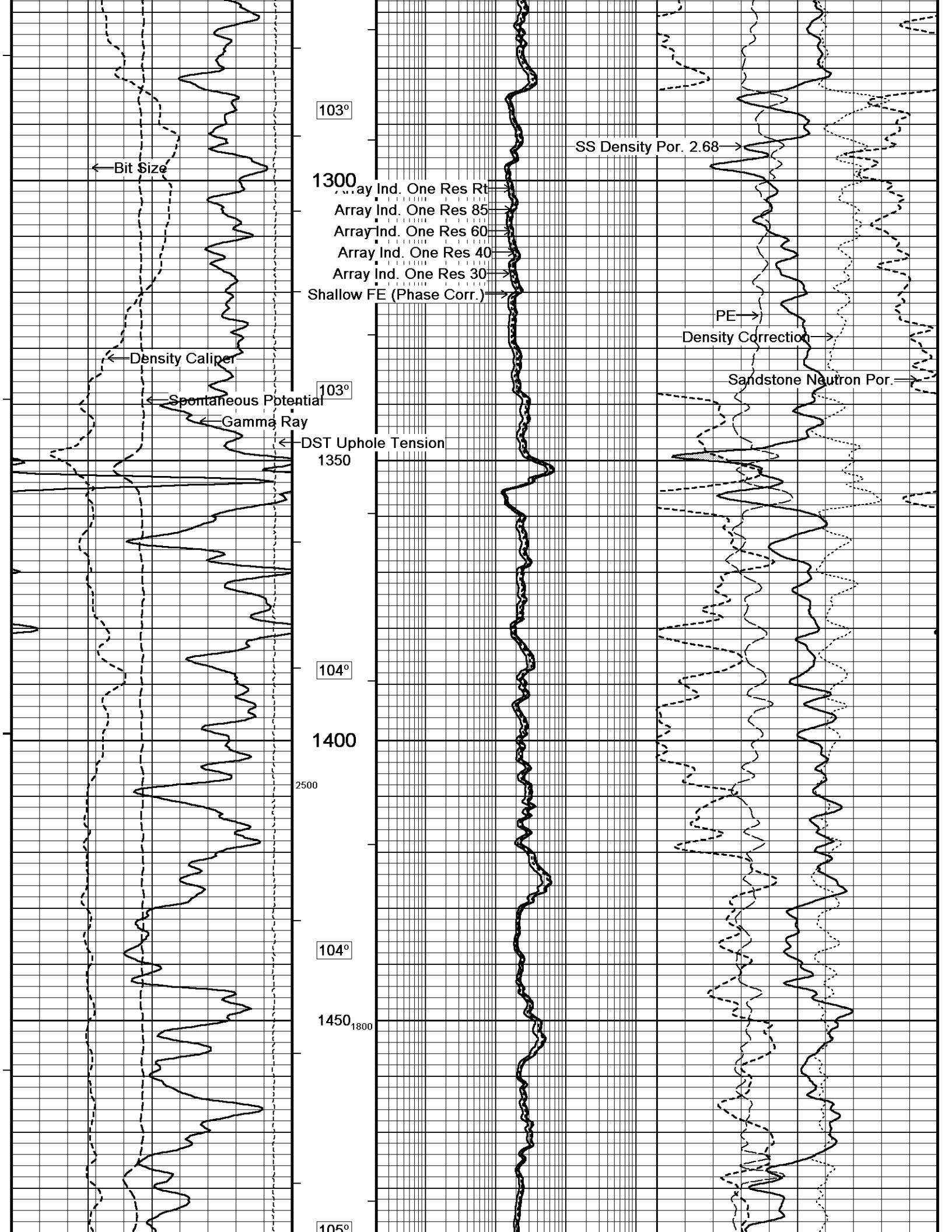
5 INCH MAIN LOG

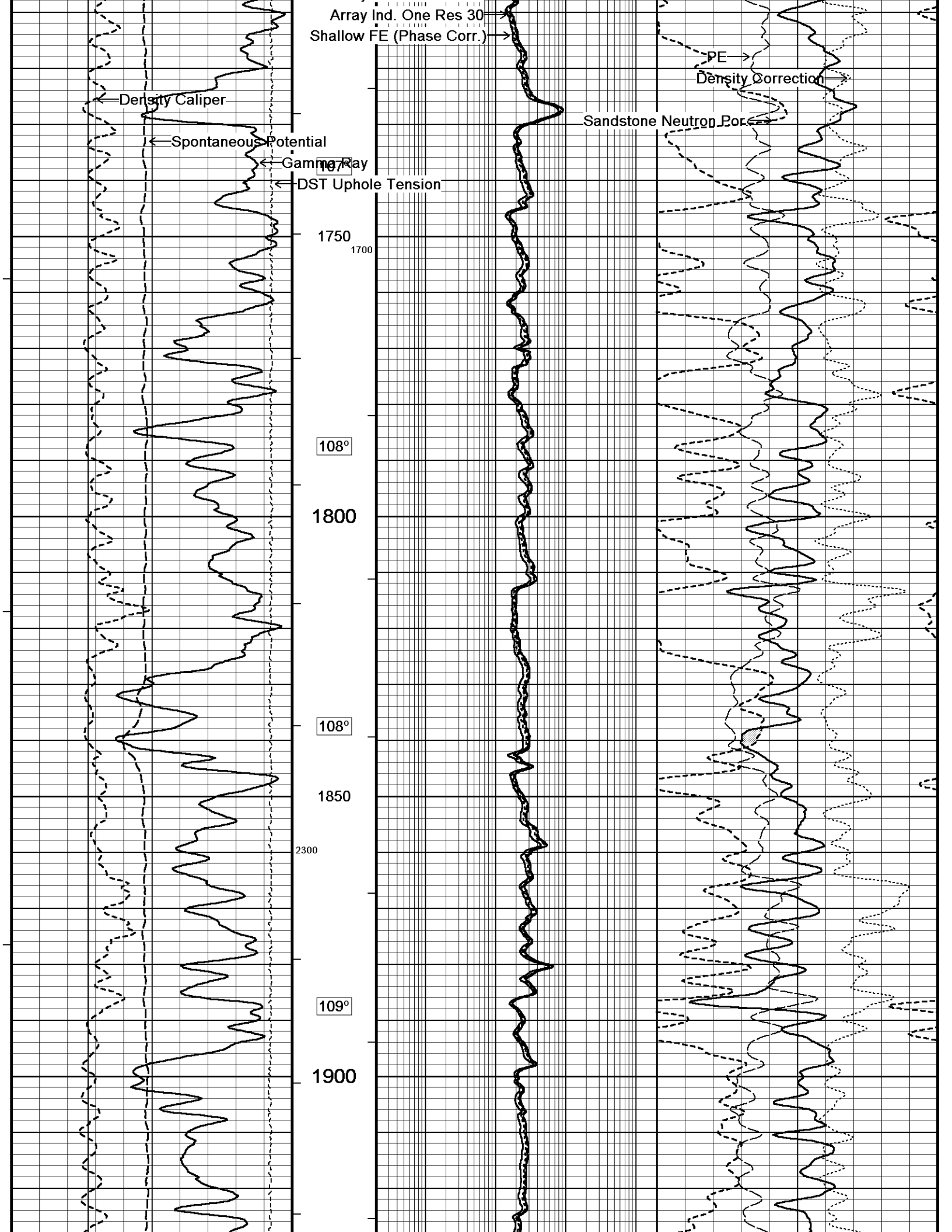
Depth Based Data - Maximum Sampling Increment 10.0cm
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System Versions: Logged with 11.02.3186 Plotted with 11.02.3186
Plotted on 16-MAY-2011 03:43
Recorded on 16-MAY-2011 00:18

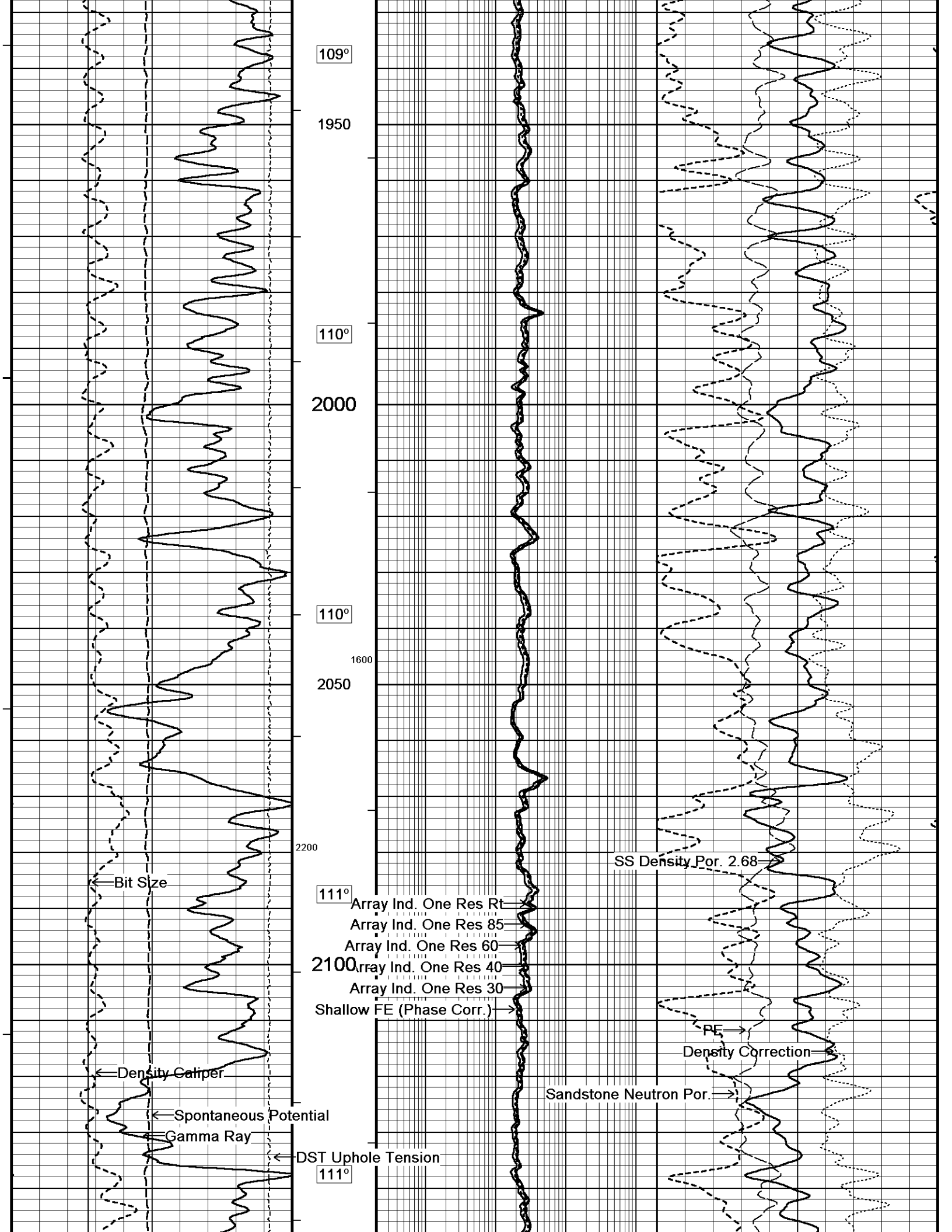


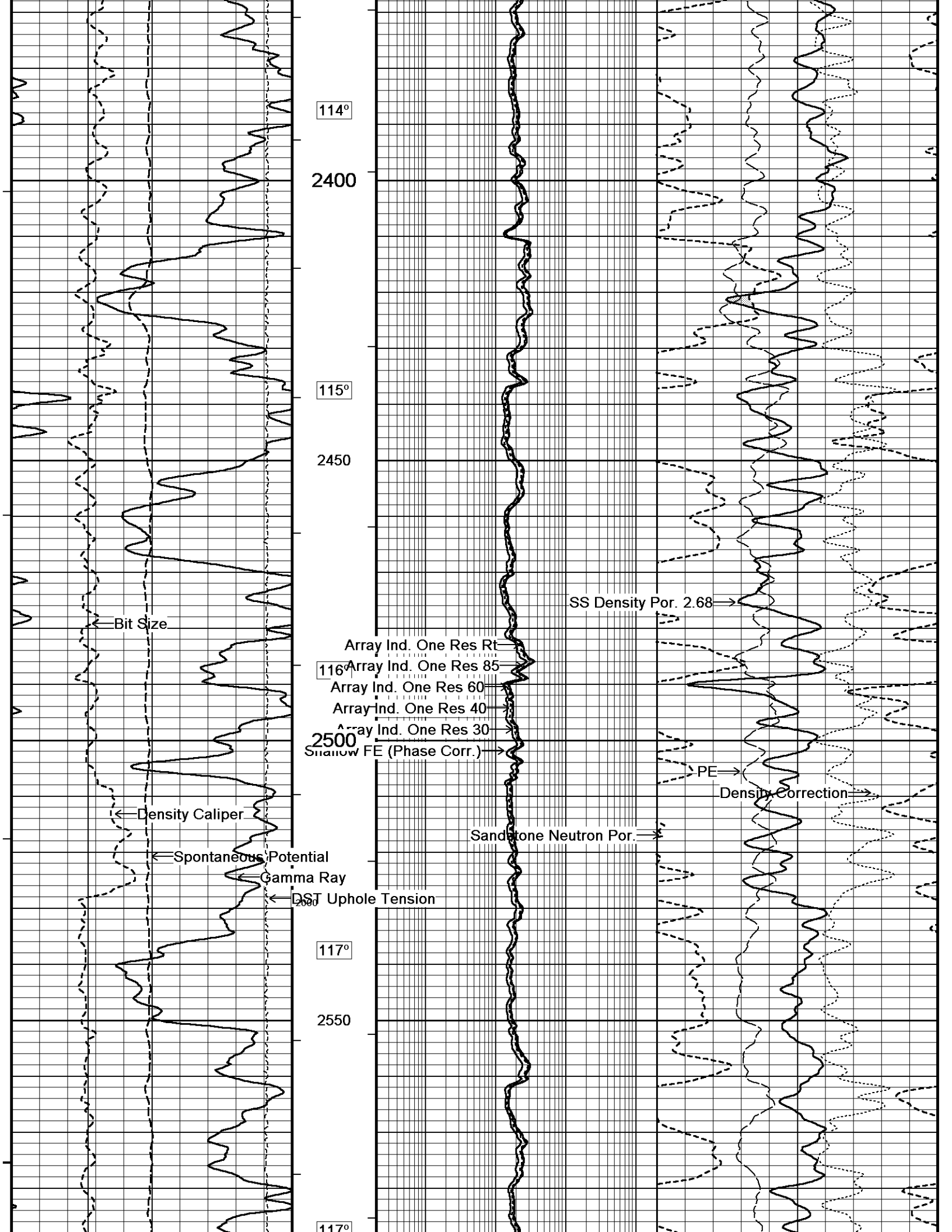


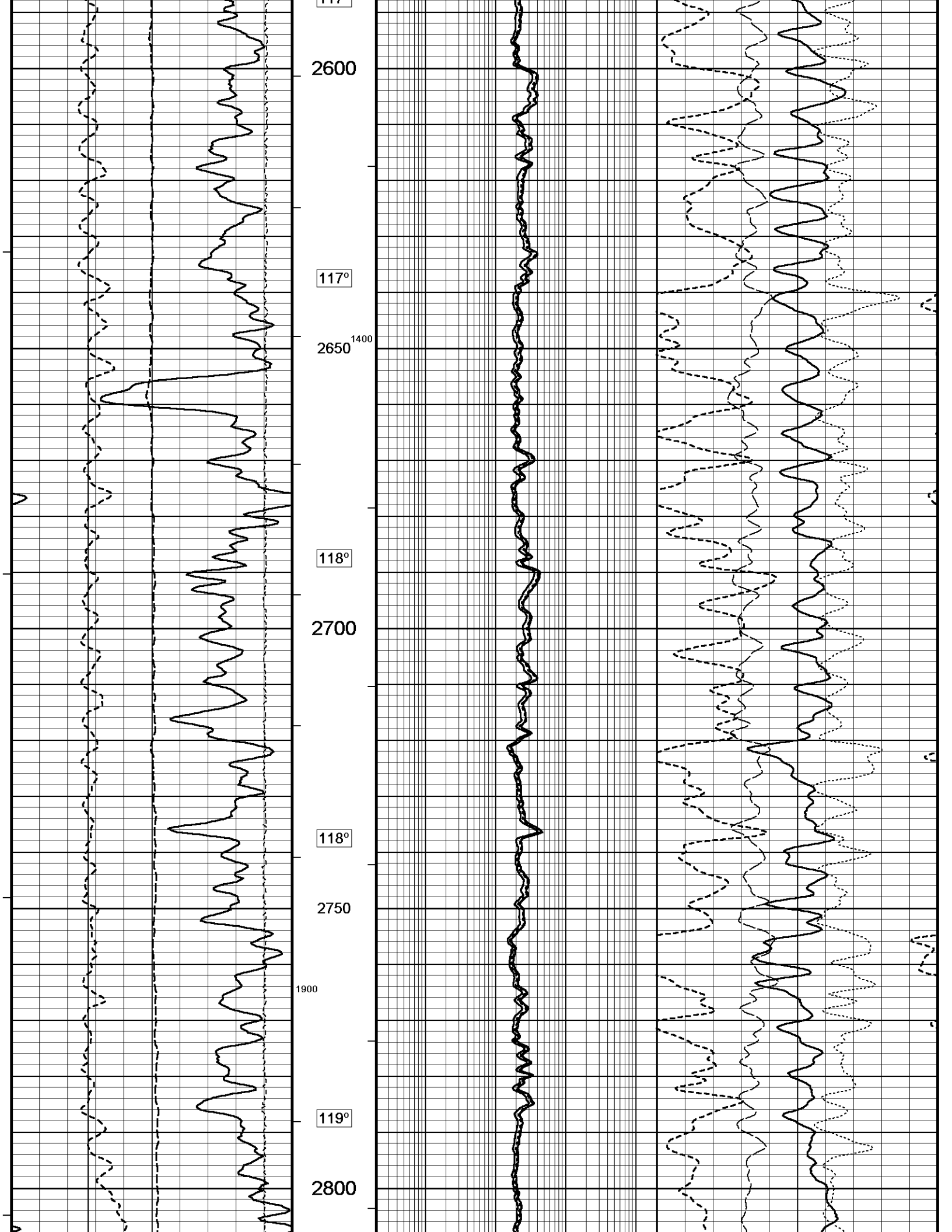


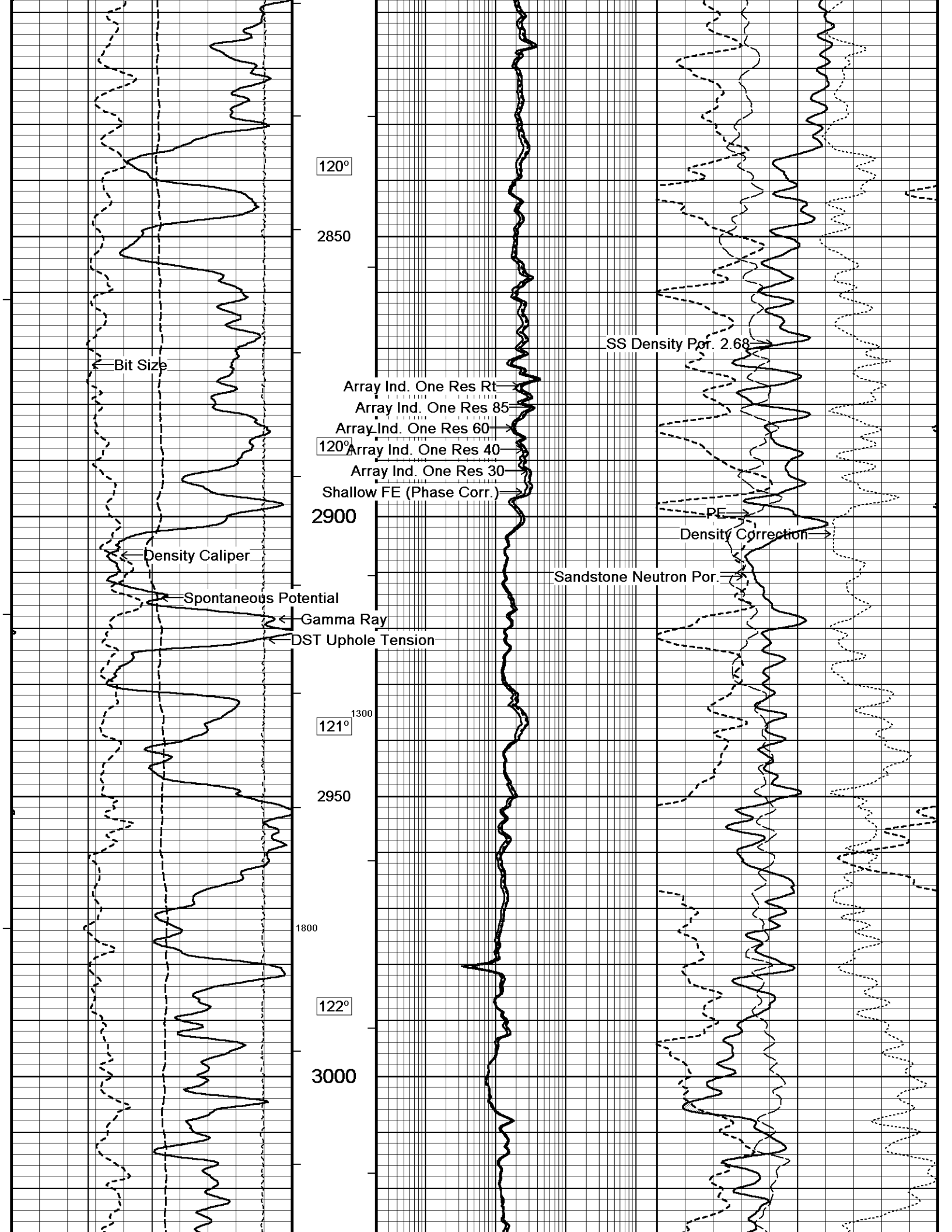


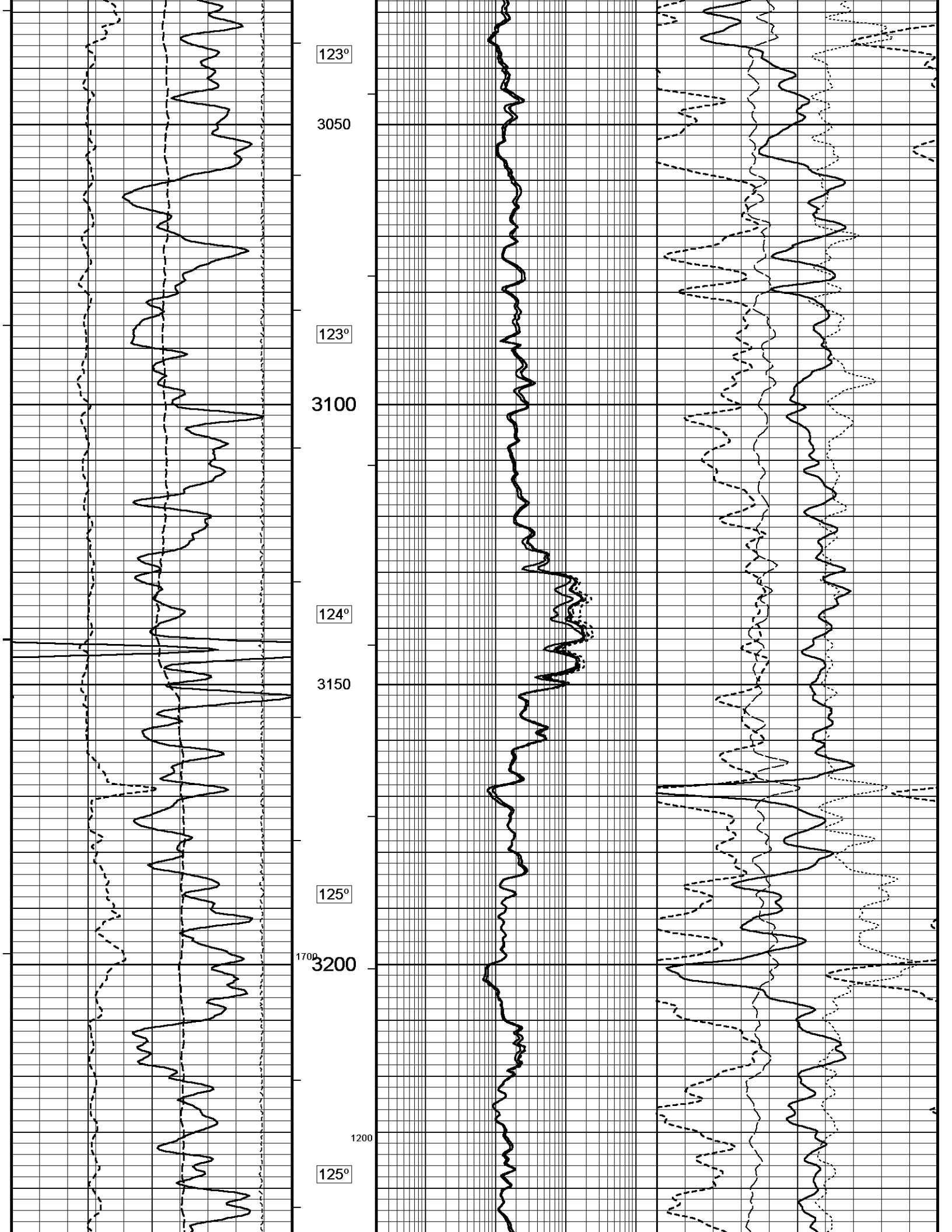


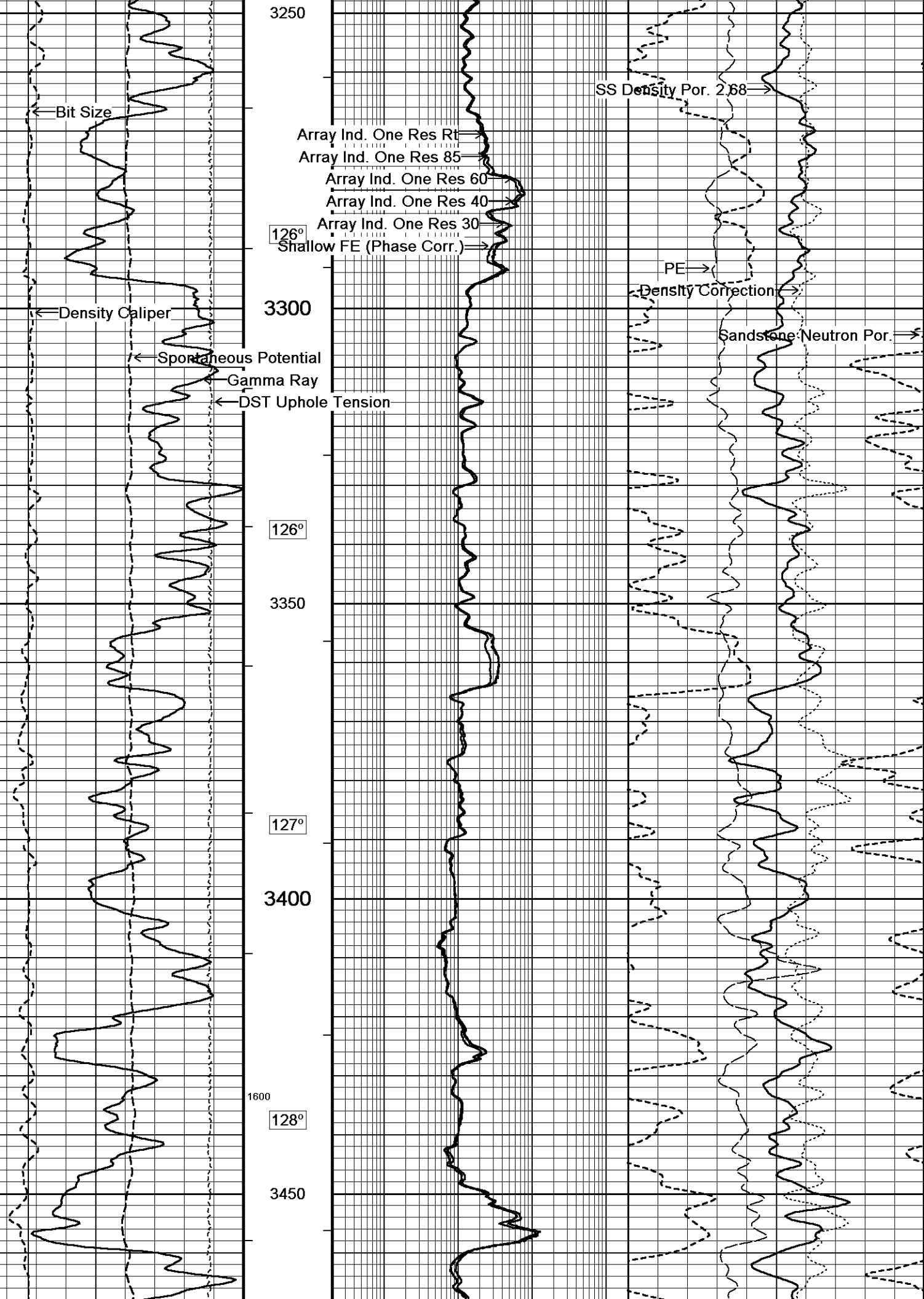


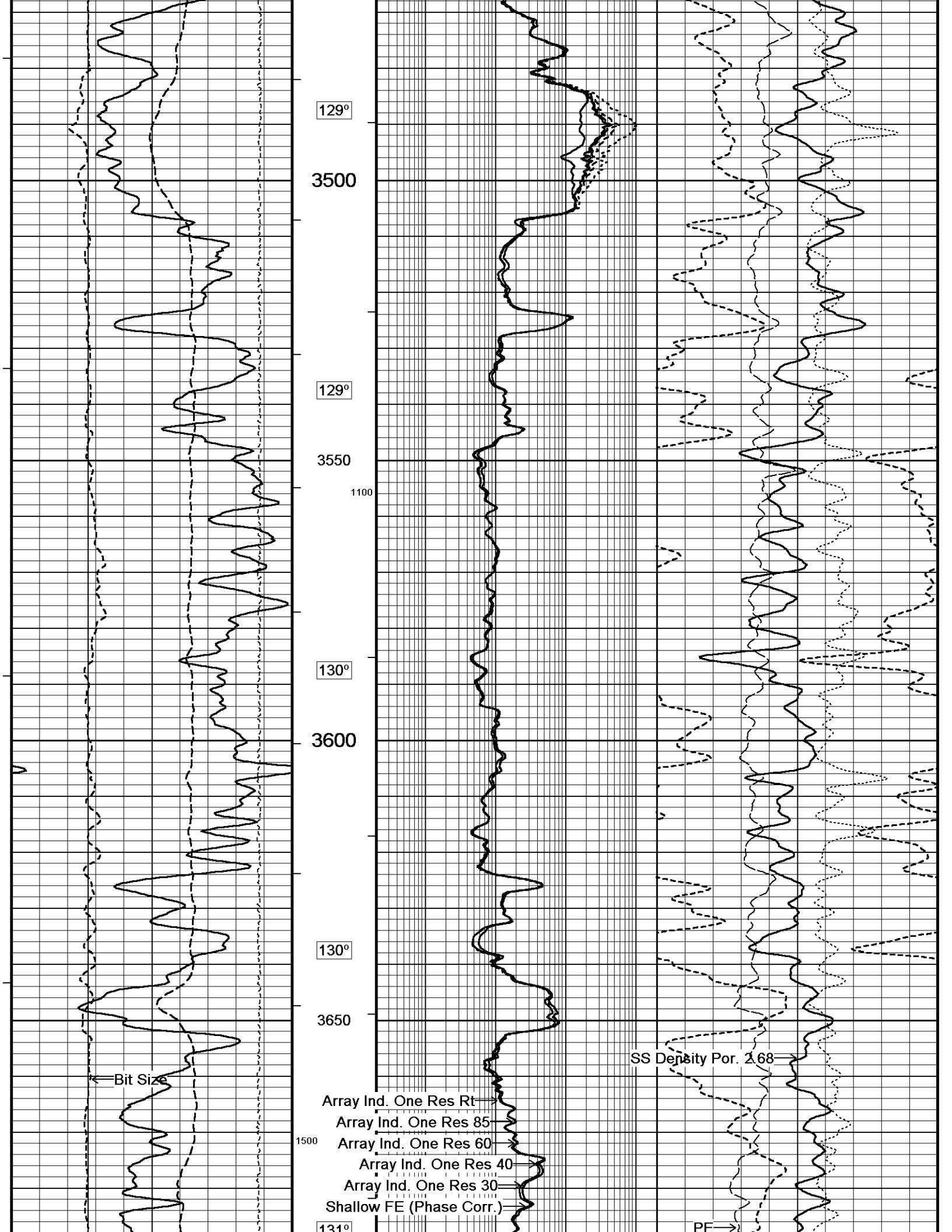












129°

3500

129°

3550

1100

130°

3600

130°

3650

Array Ind. One Res Rt

Array Ind. One Res 85

1500 Array Ind. One Res 60

Array Ind. One Res 40

Array Ind. One Res 30

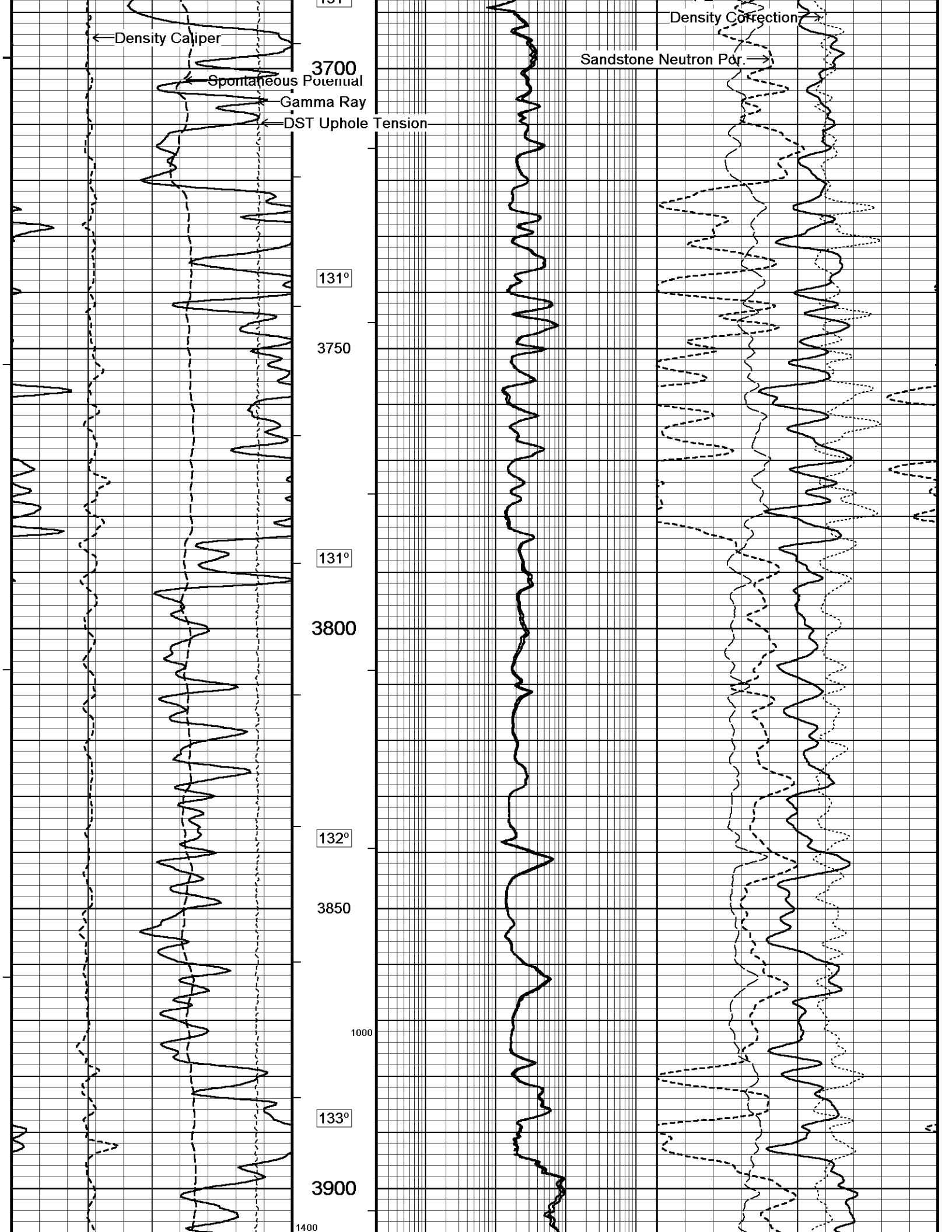
Shallow FE (Phase Corr.)

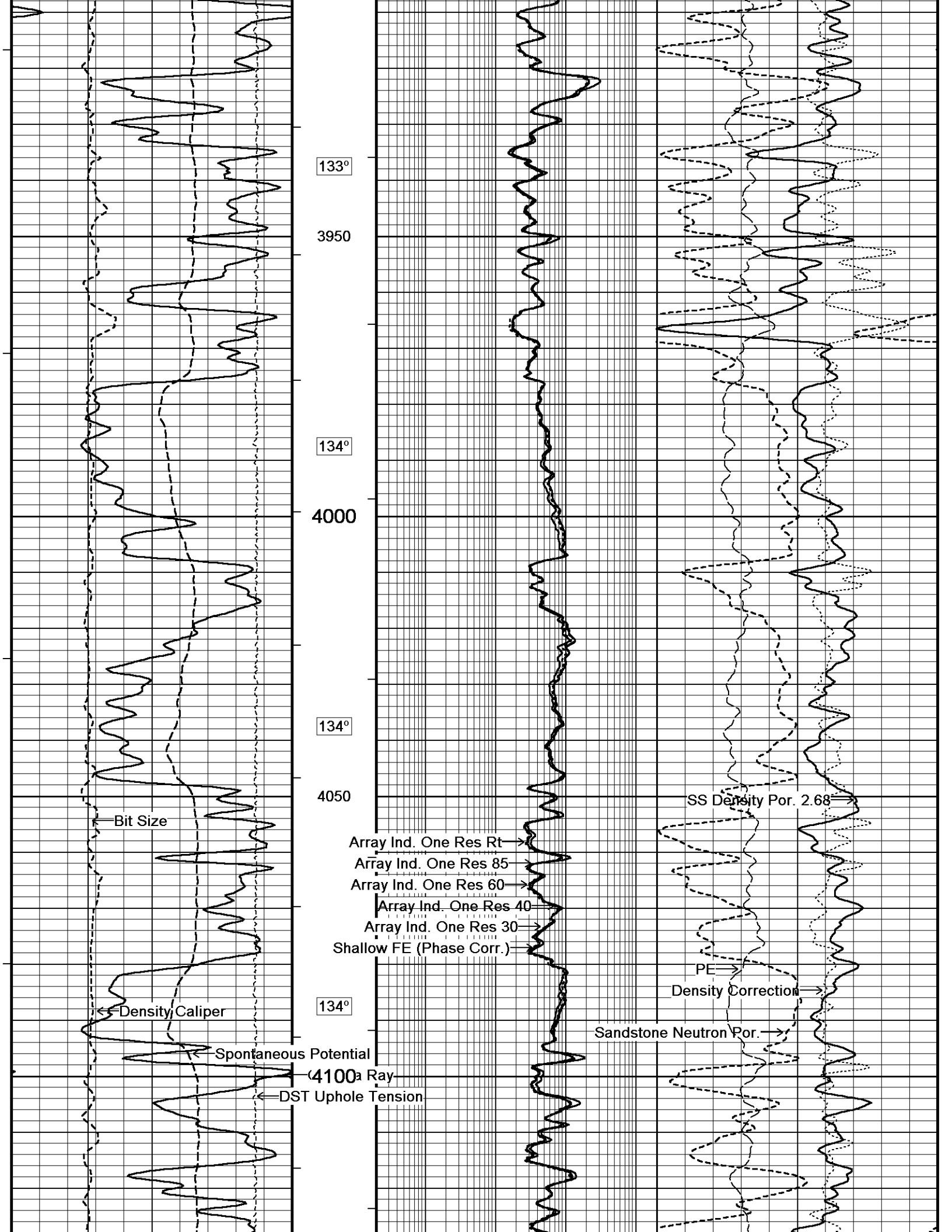
131°

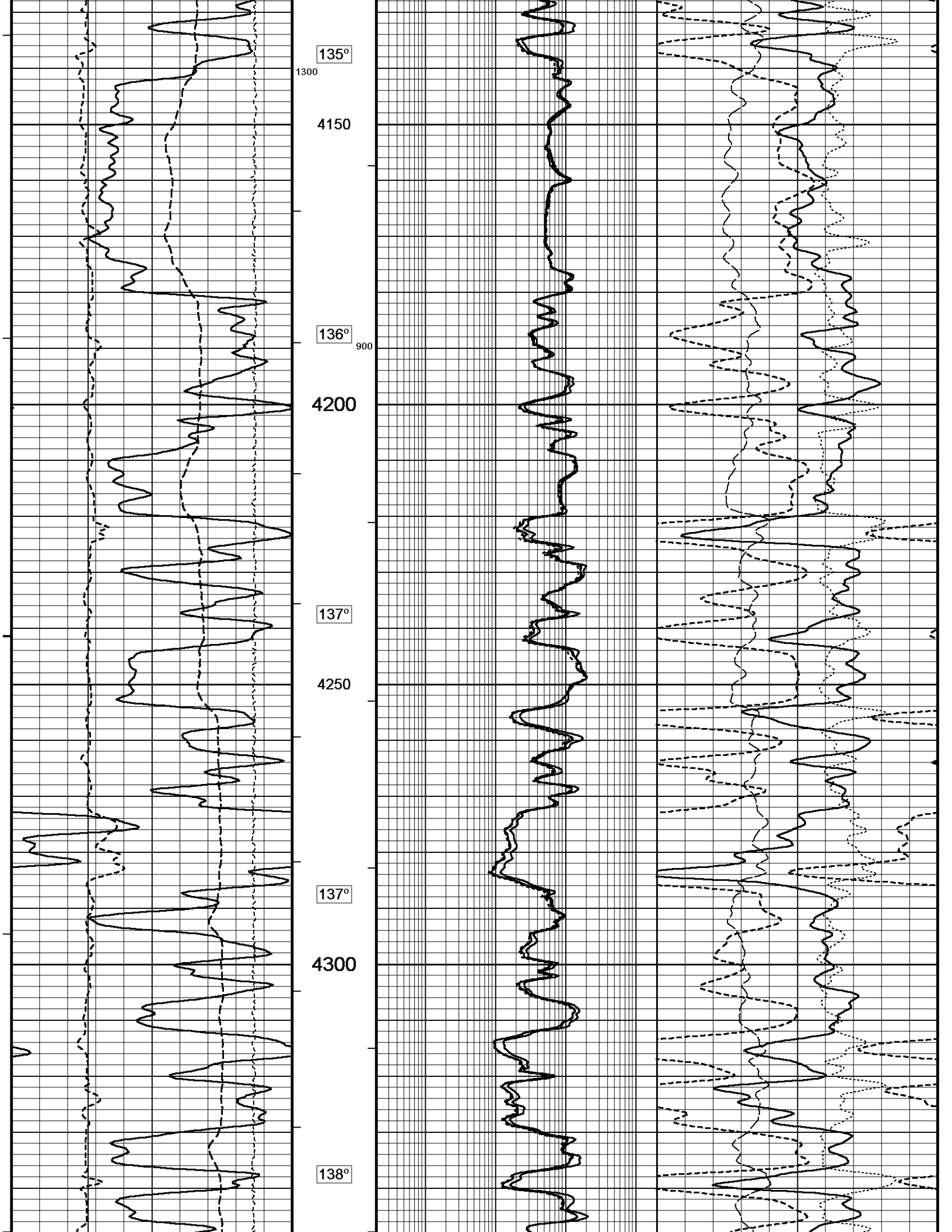
SS Density Por. 2.68

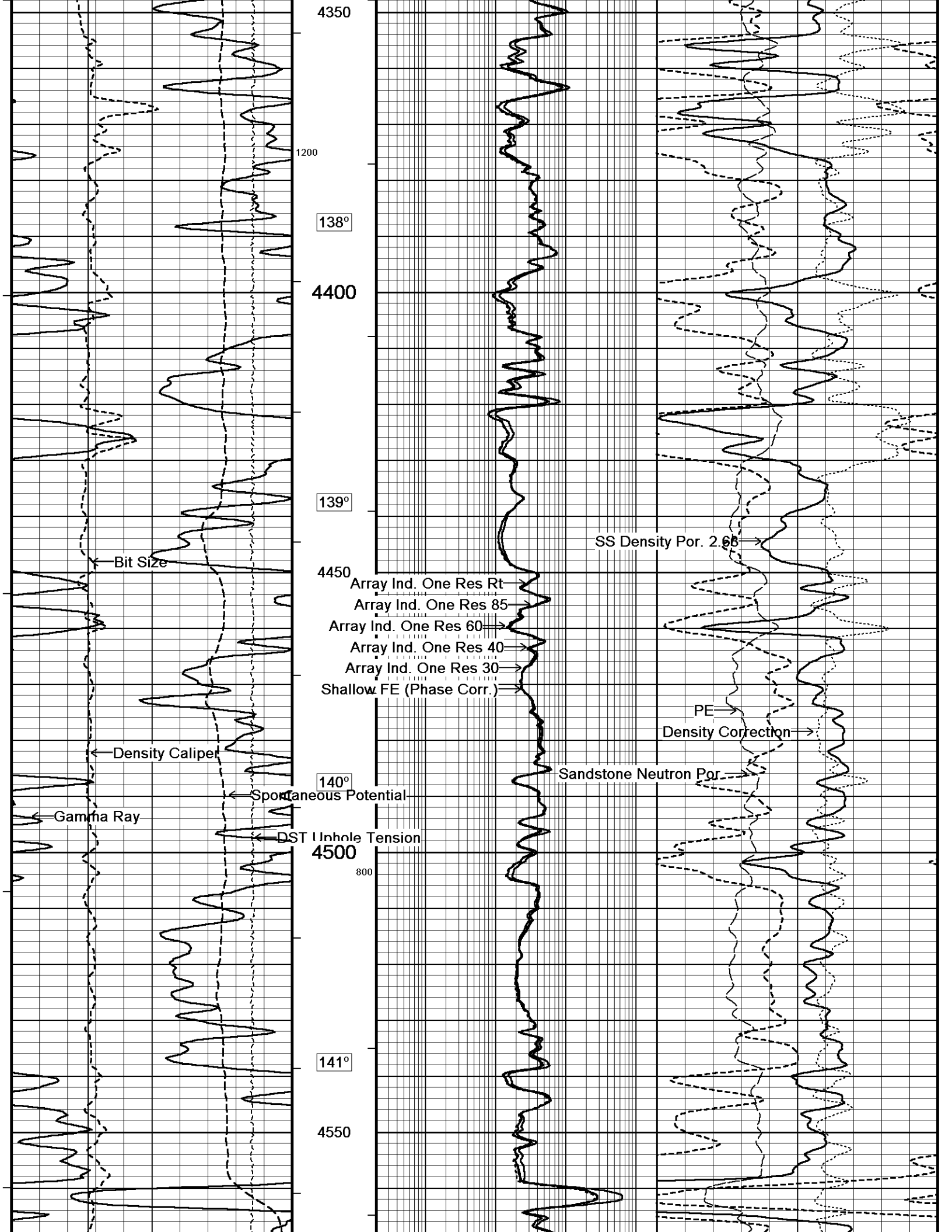
PF

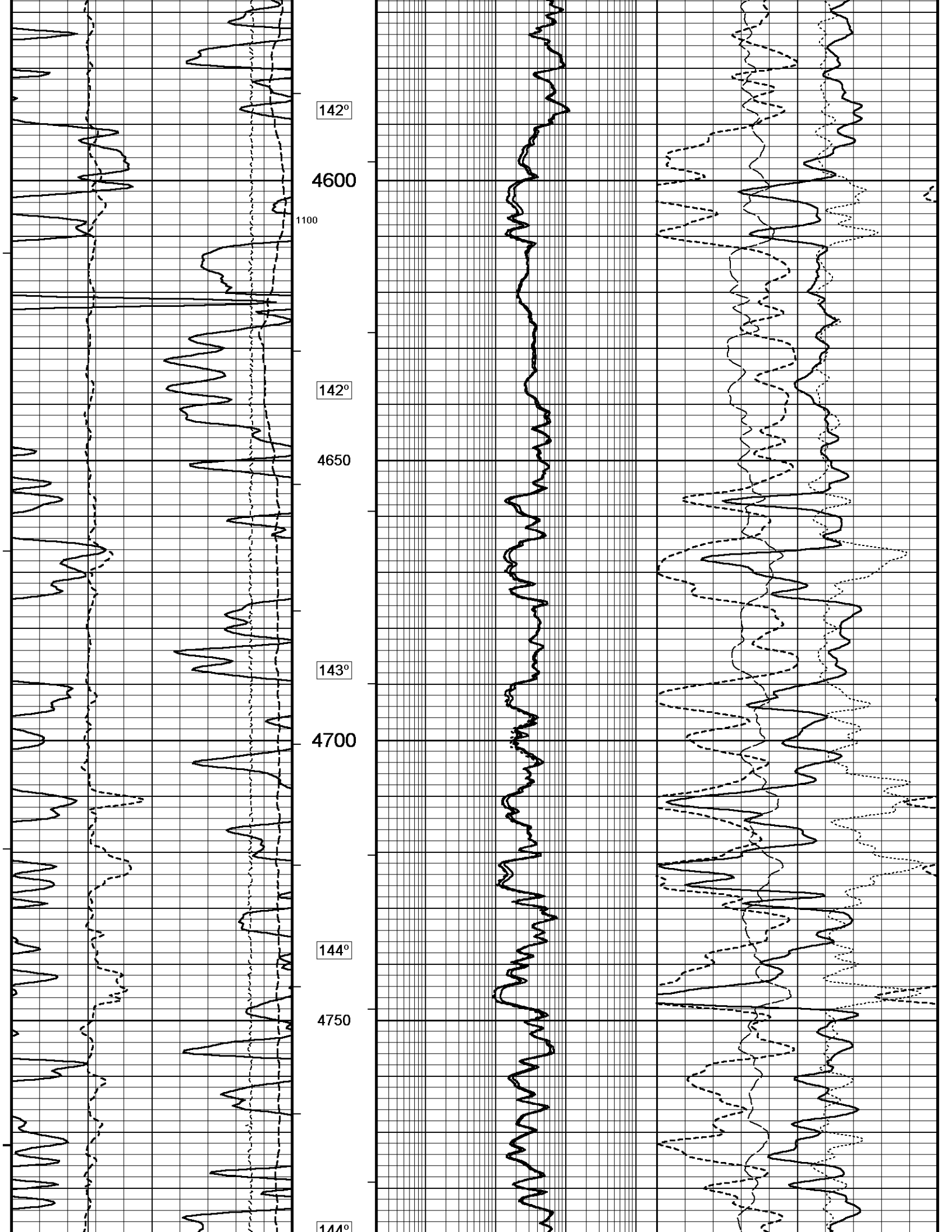
Bit Size

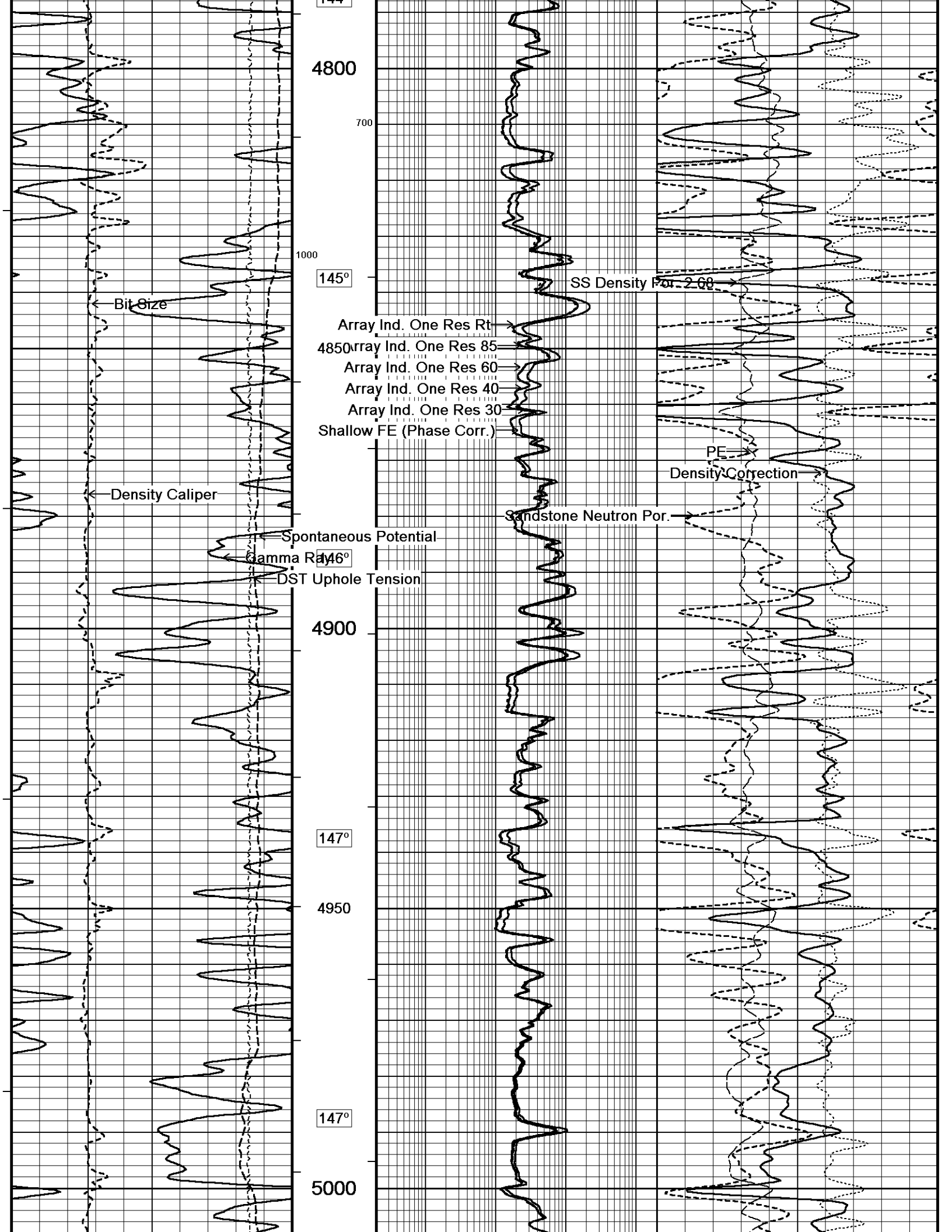


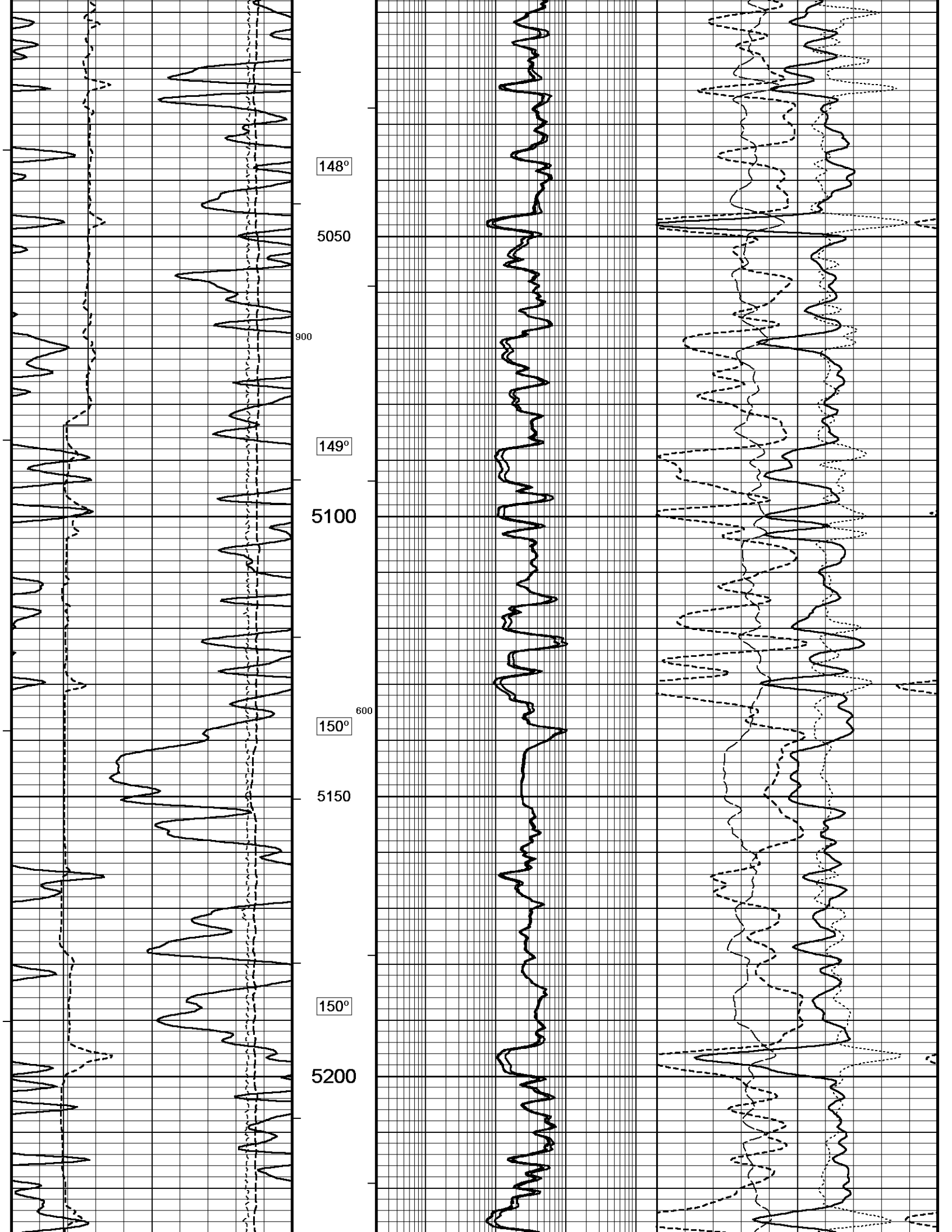


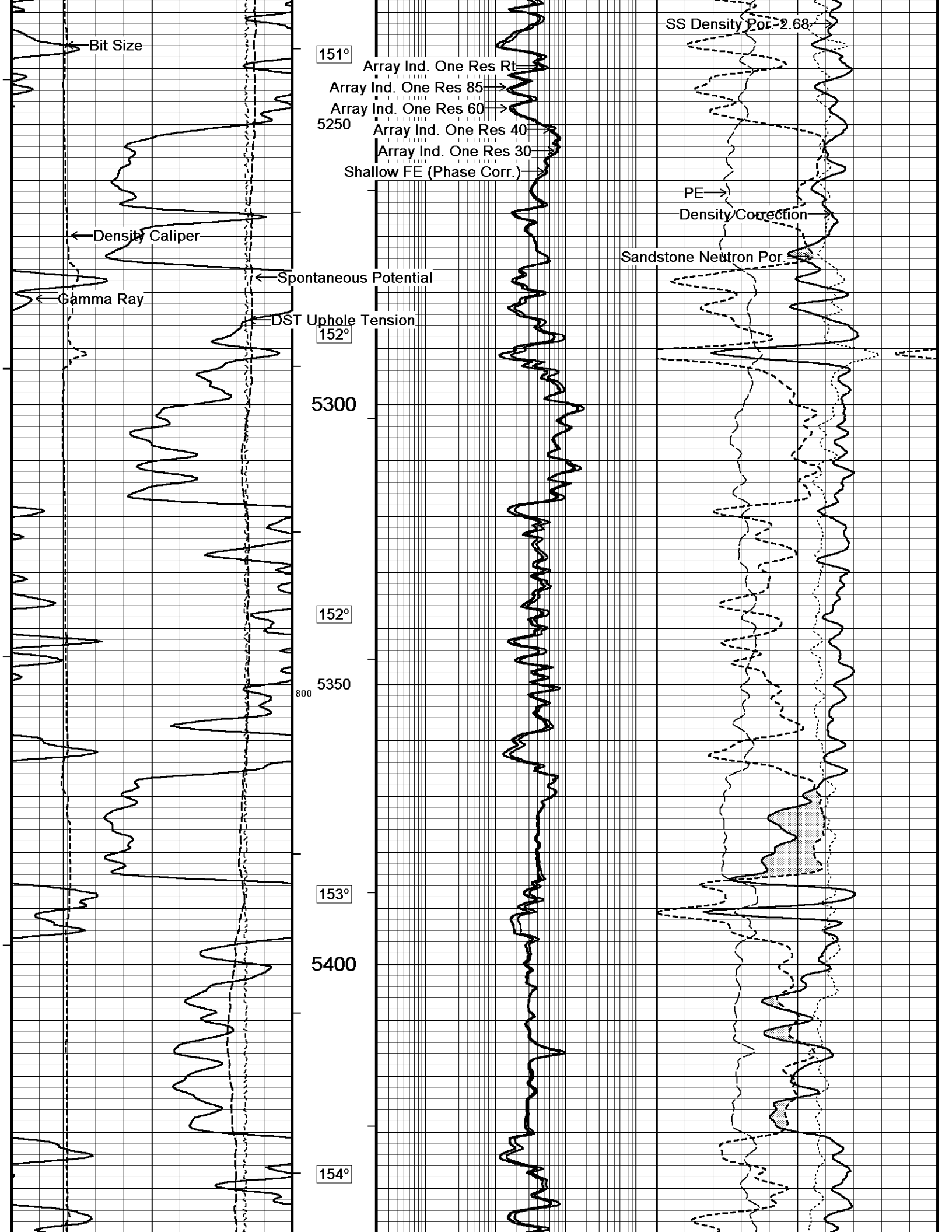












Bit Size

151°

Array Ind. One Res 80

Array Ind. One Res 60

Array Ind. One Res 40

Array Ind. One Res 30

Shallow FE (Phase Corr.)

SS Density Por. - 2.68

PE

Density Correction

Sandstone Neutron Por.

Density Caliper

Spontaneous Potential

Gamma Ray

DST Uphole Tension

152°

5300

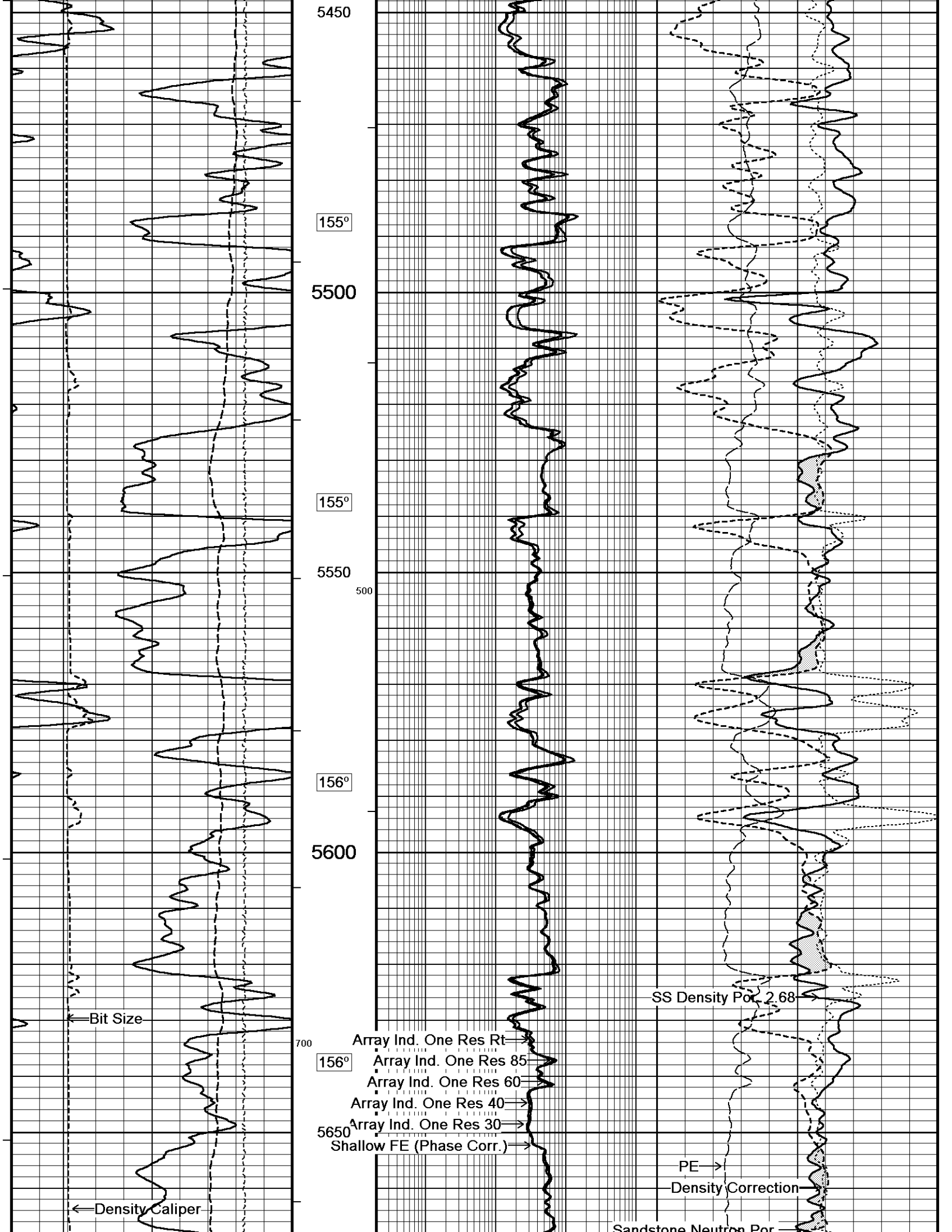
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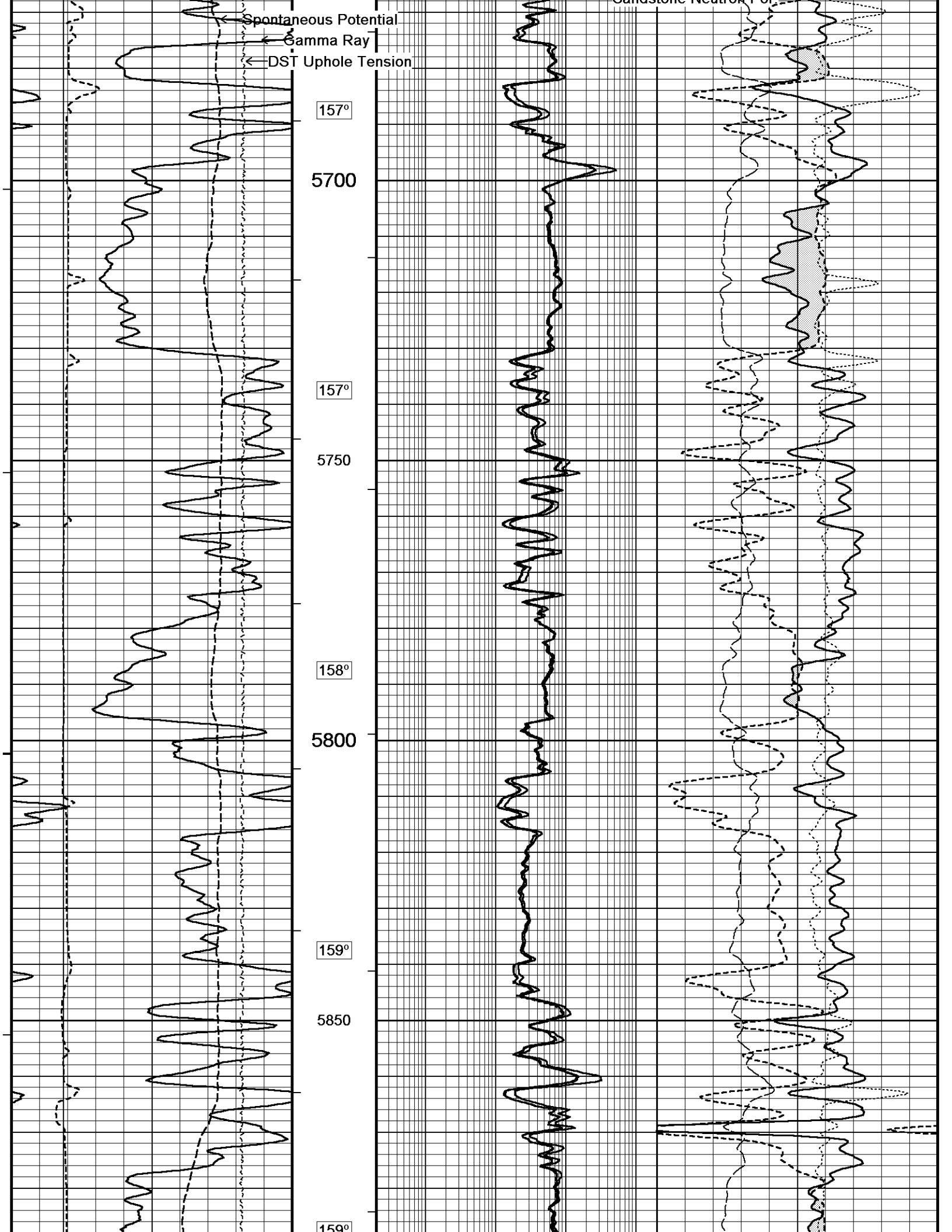
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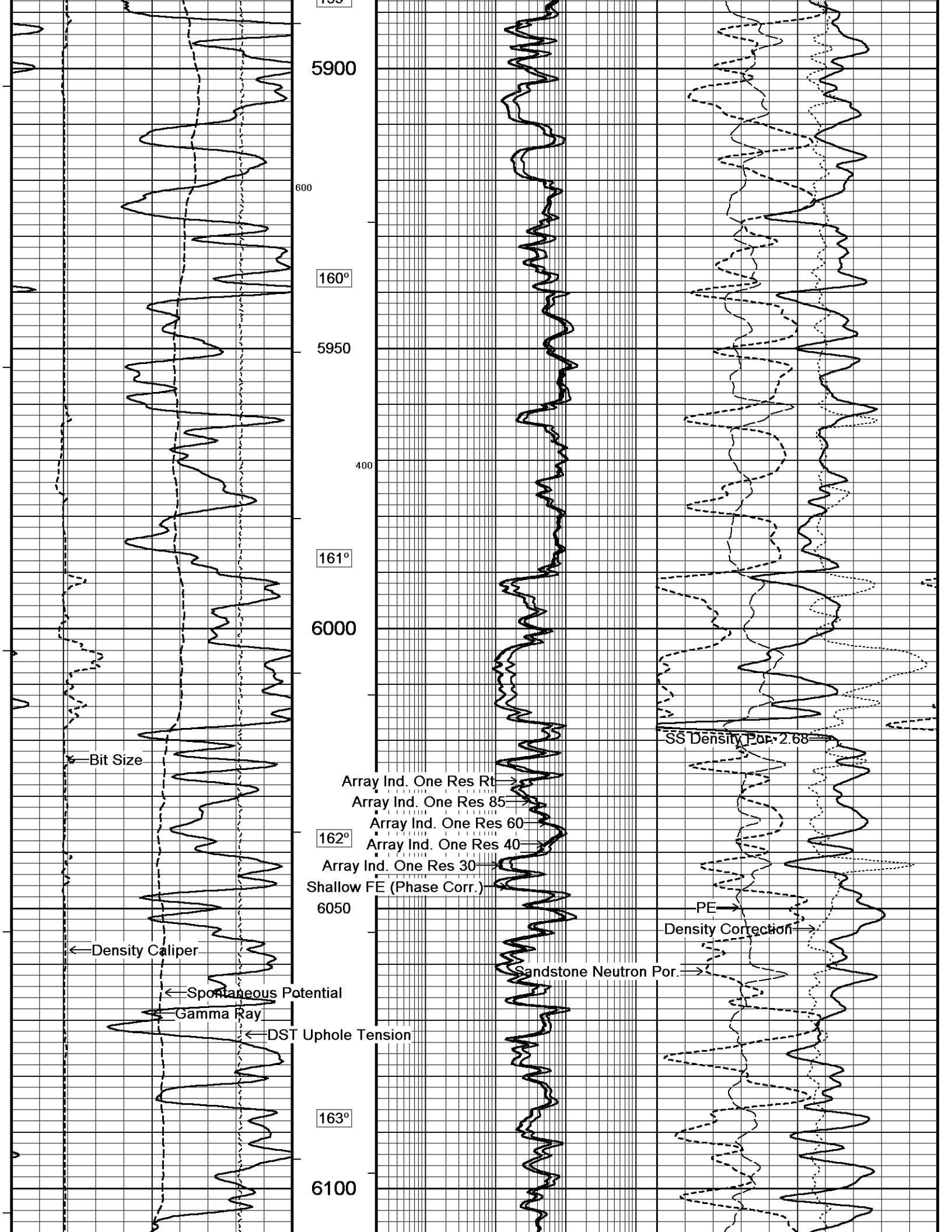
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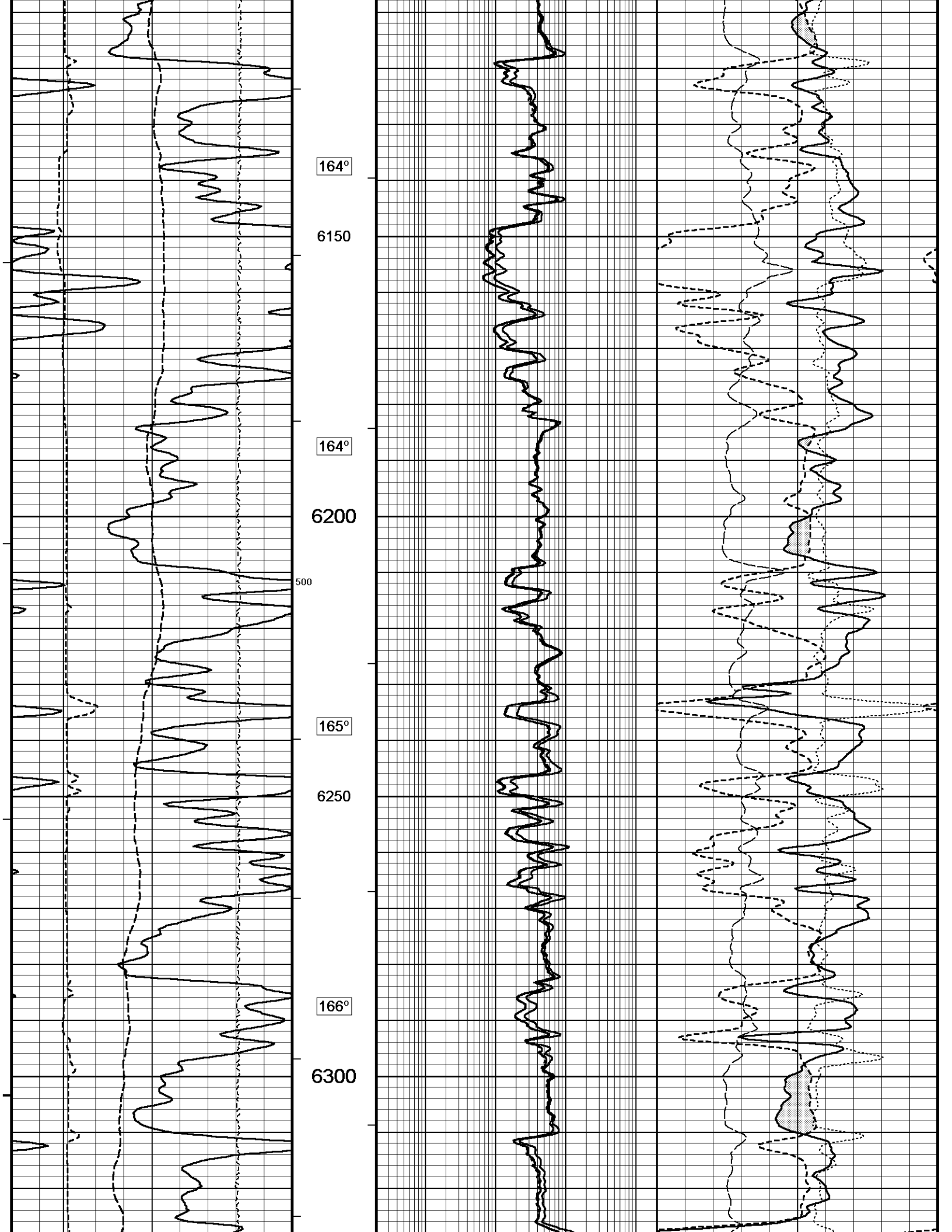
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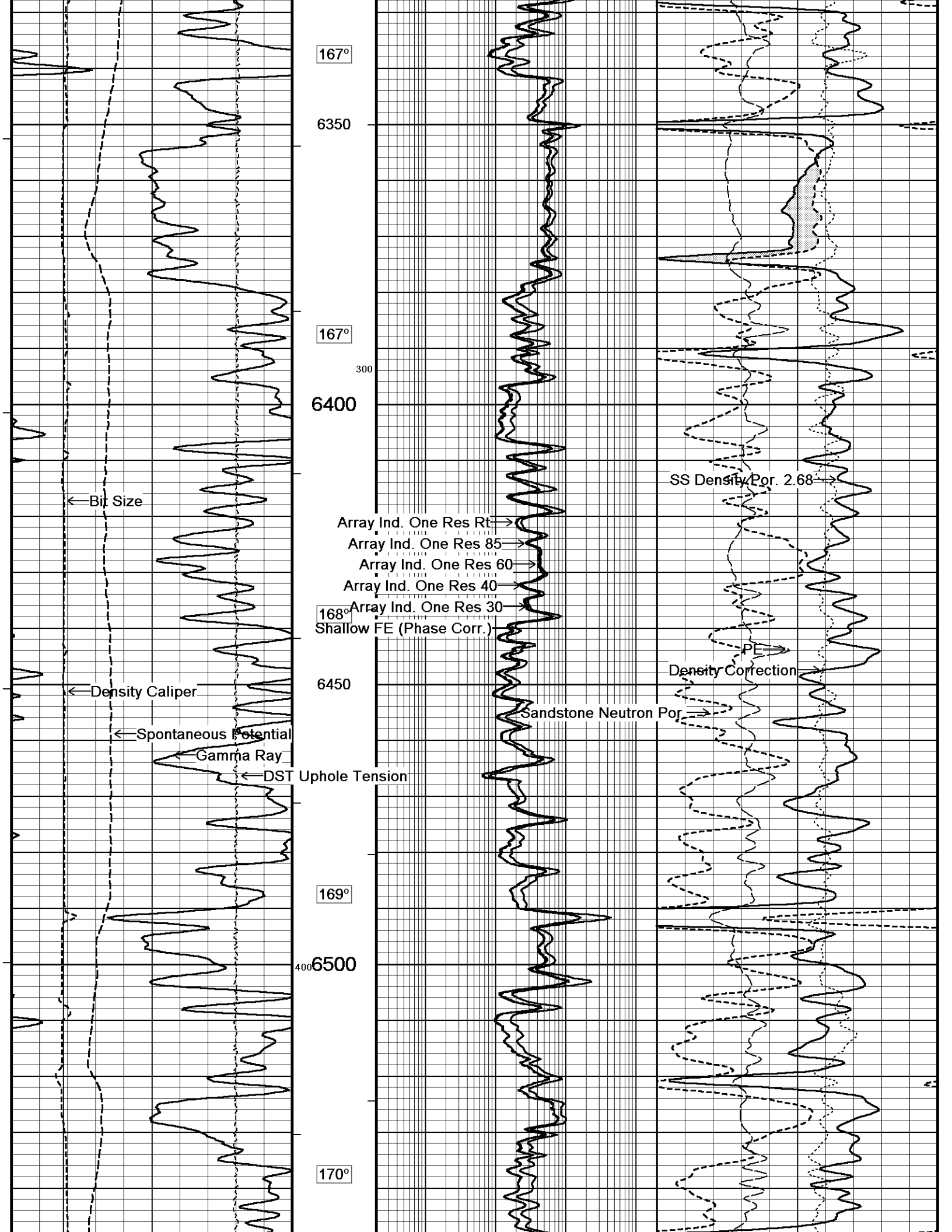
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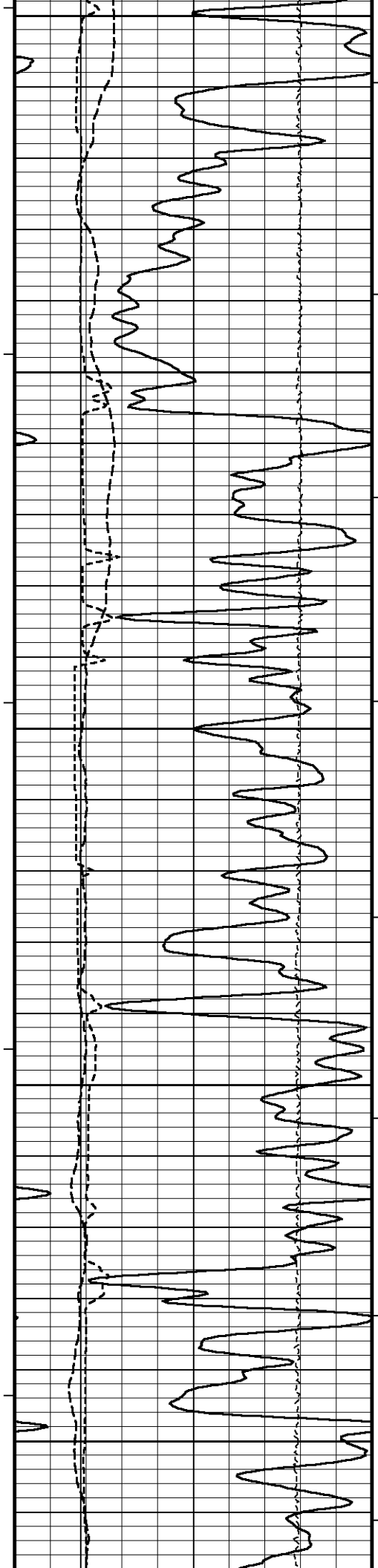




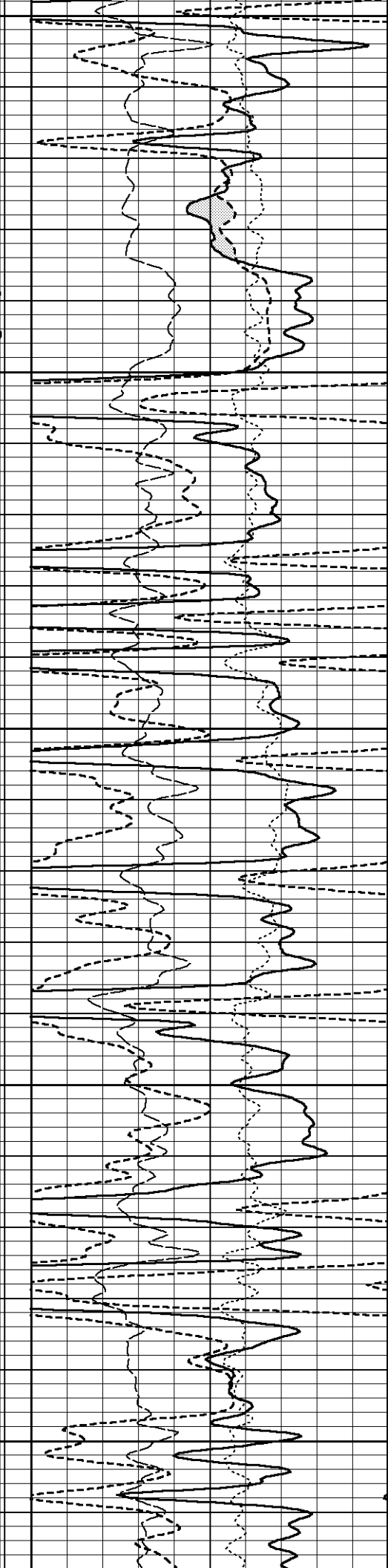
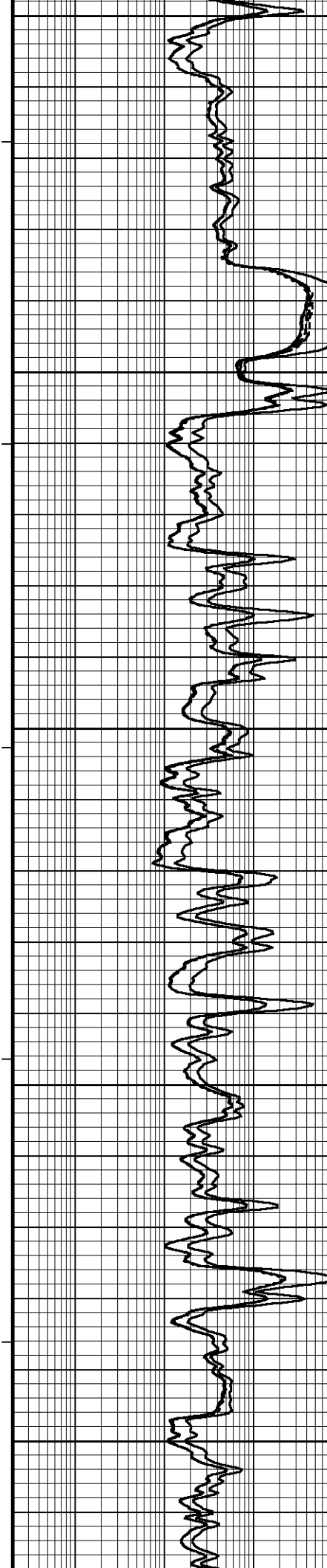


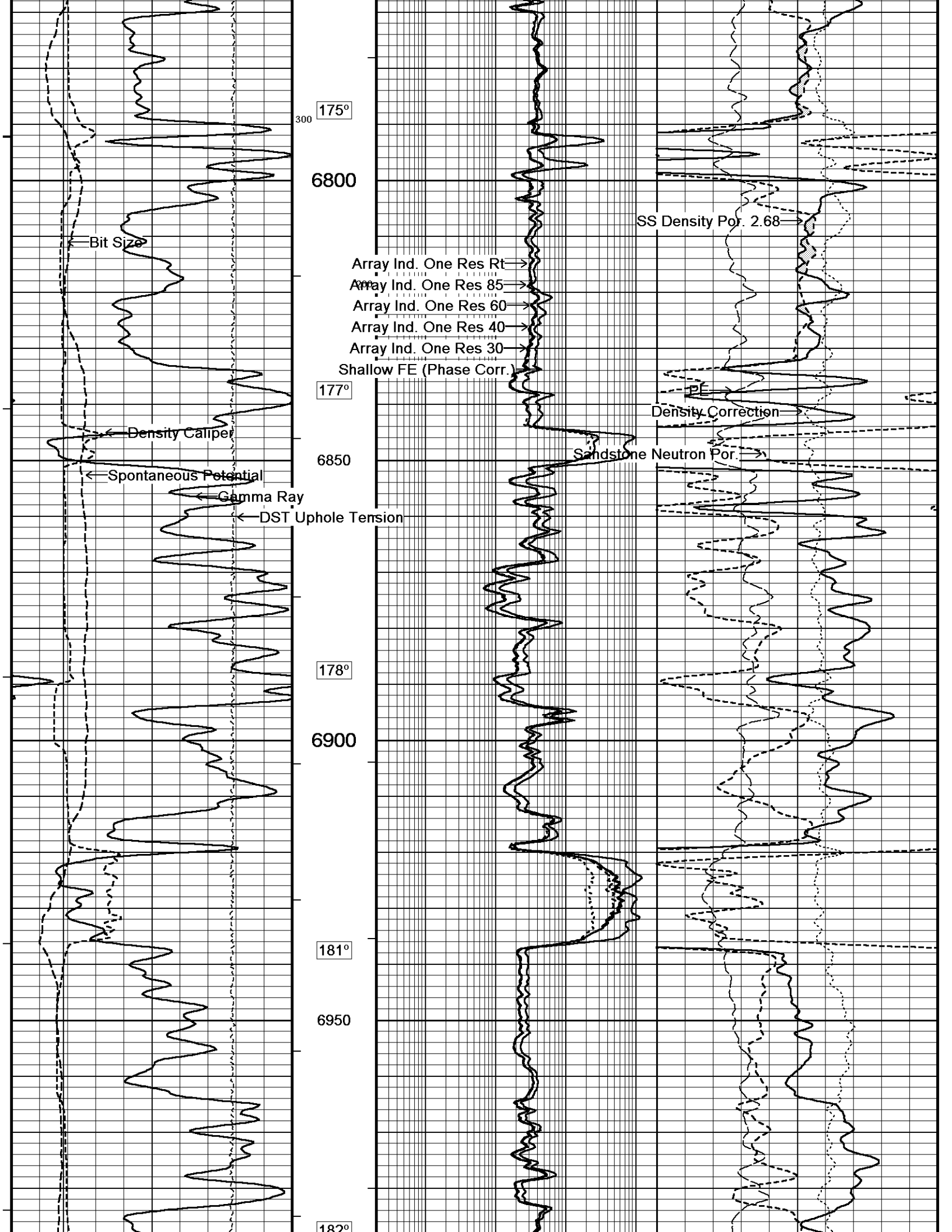


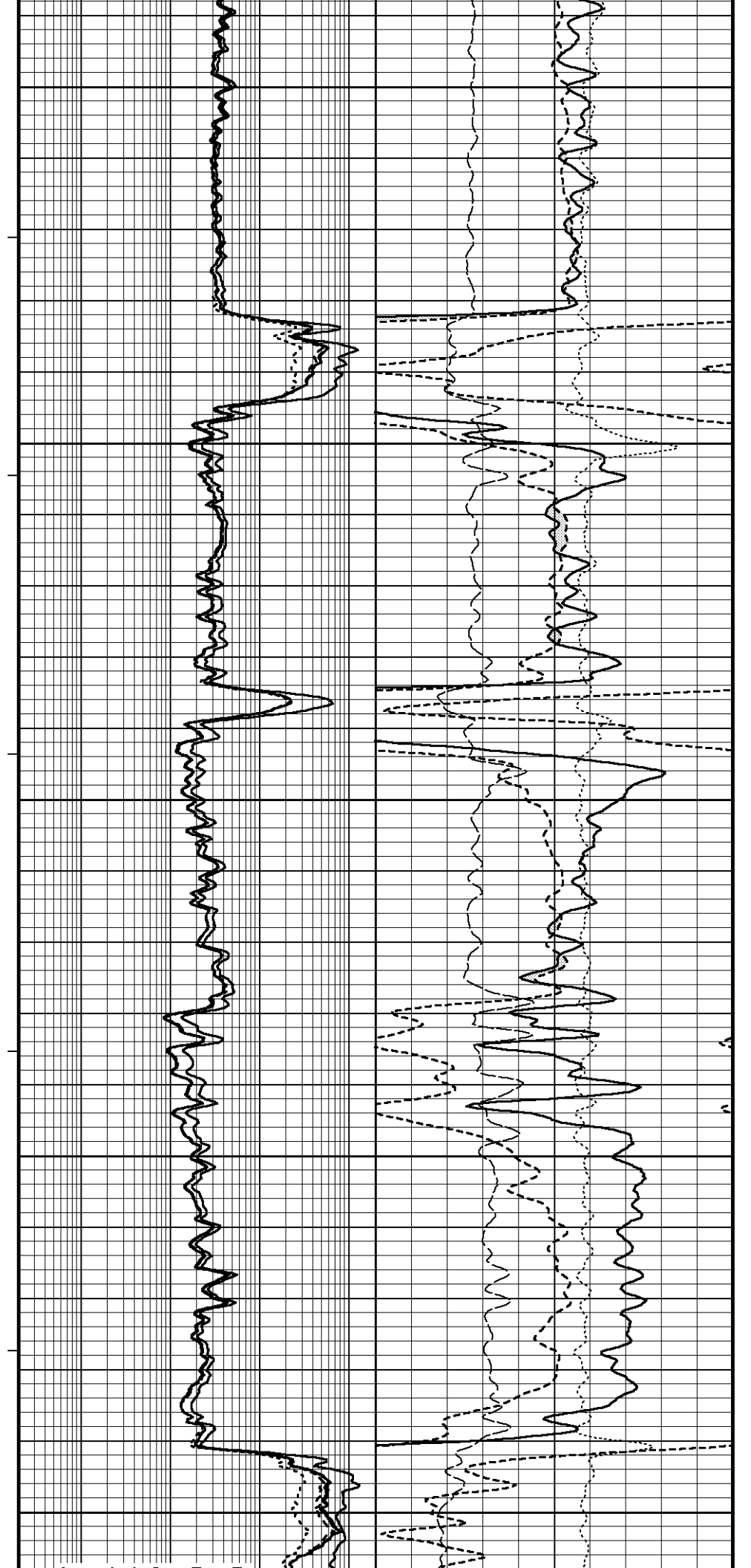
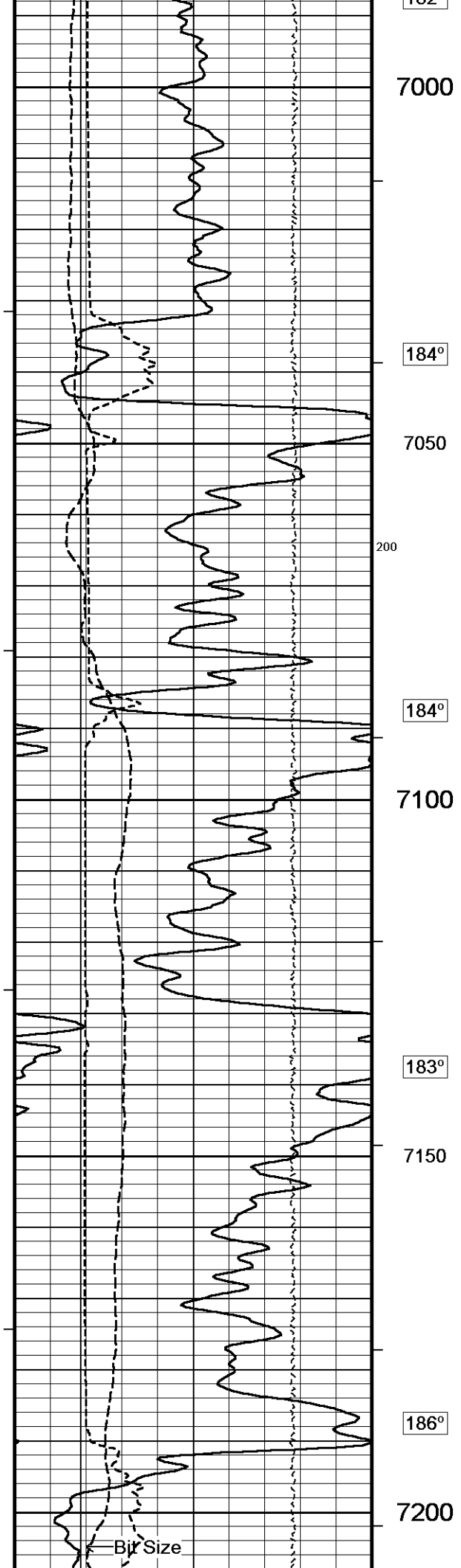


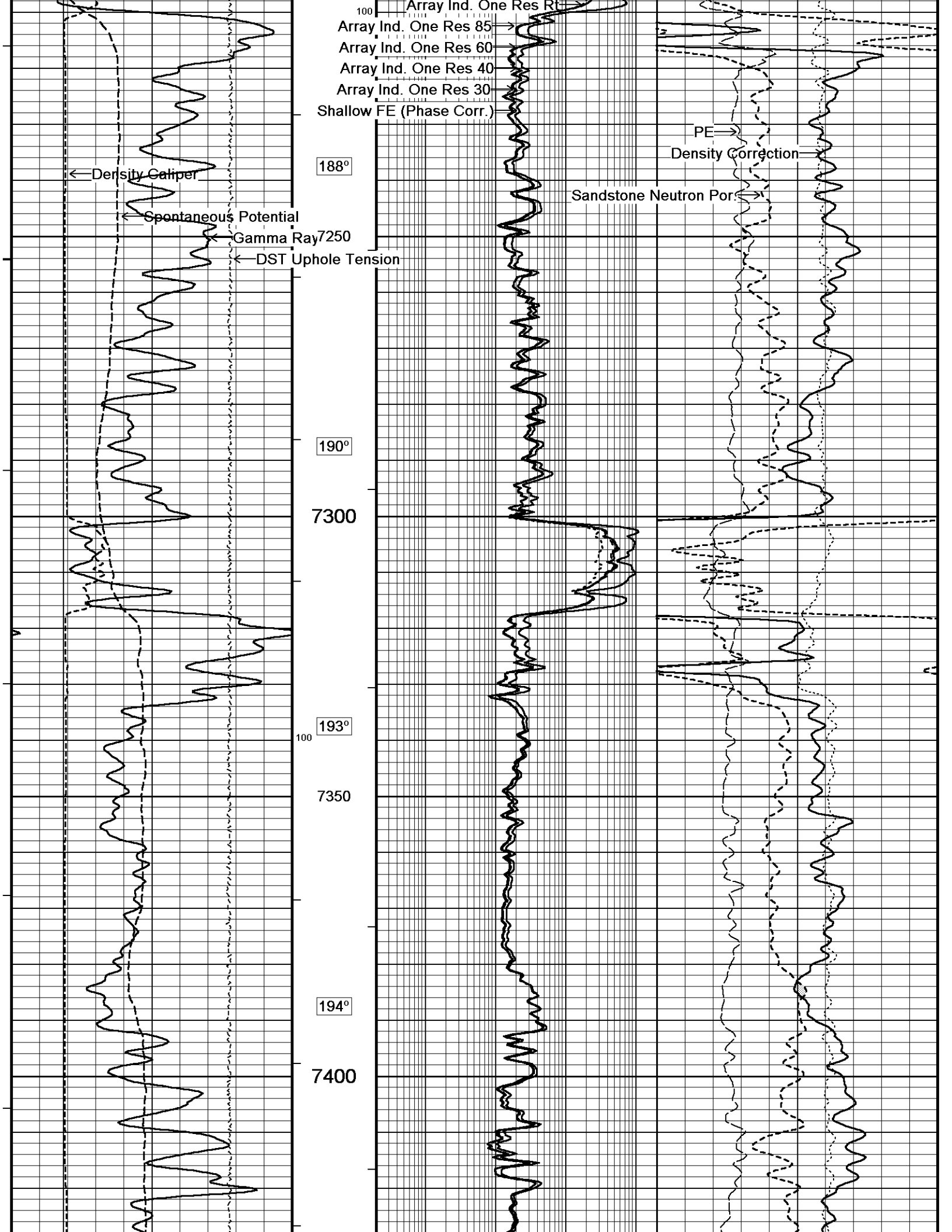


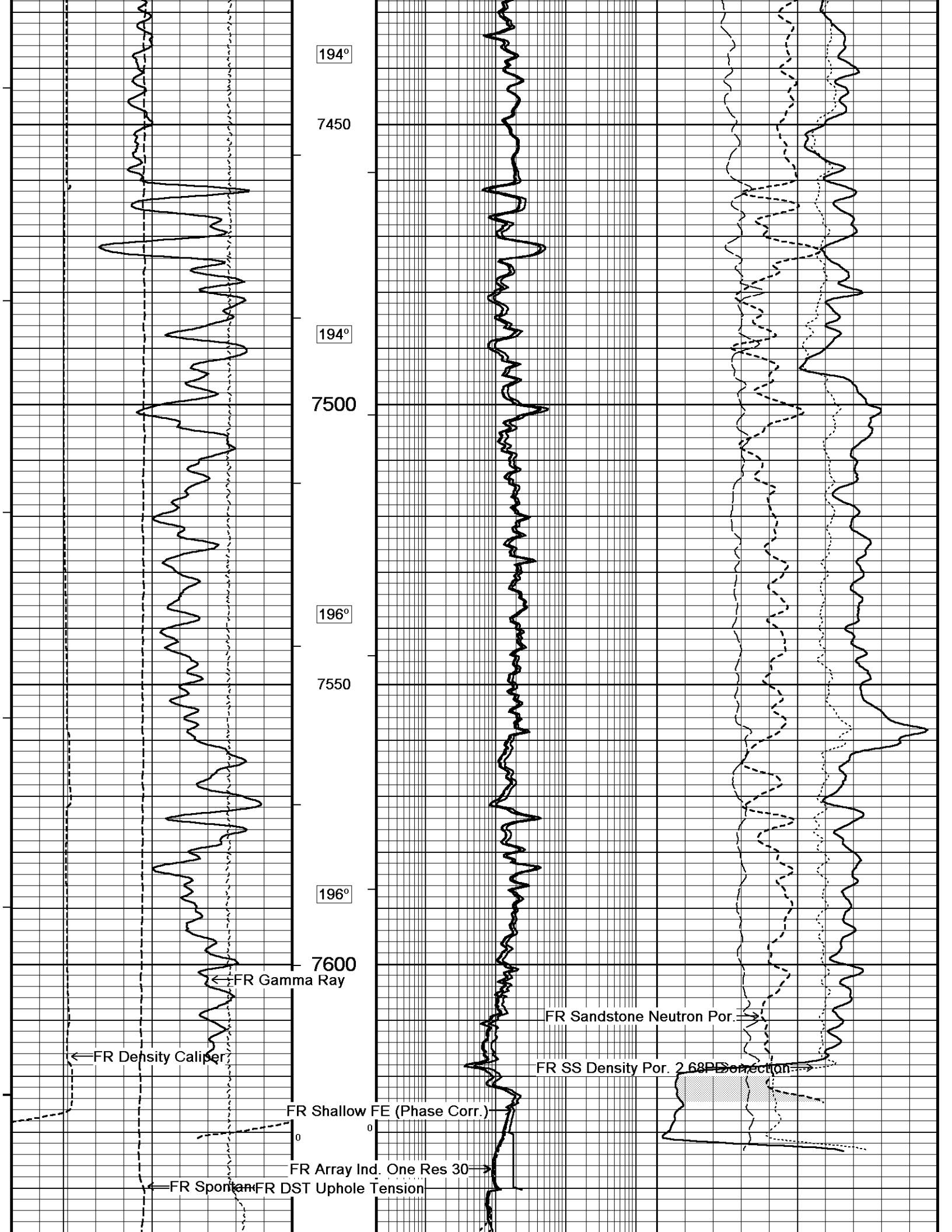
6550
171°
6600
173°
6650
174°
6700
175°
6750

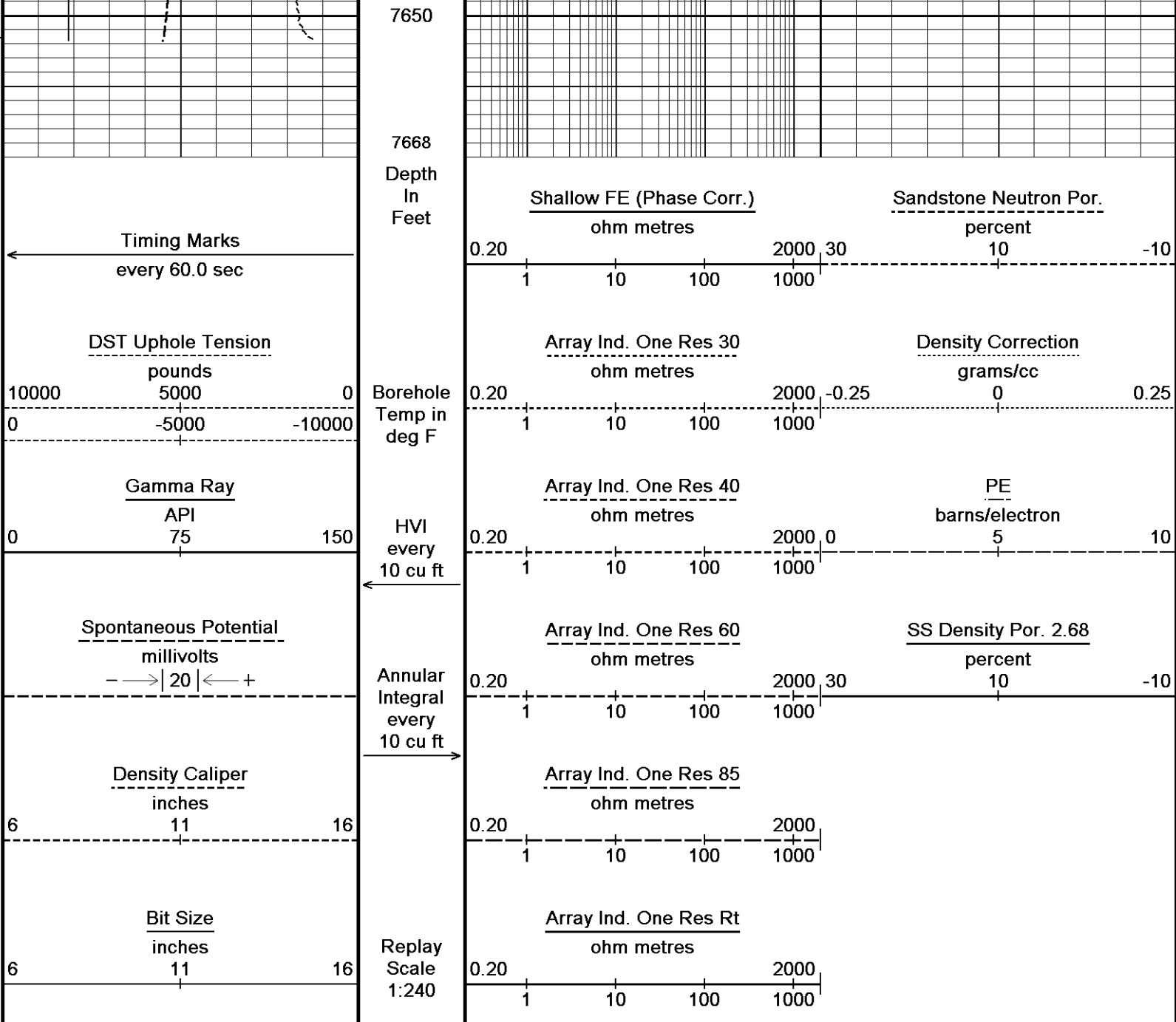










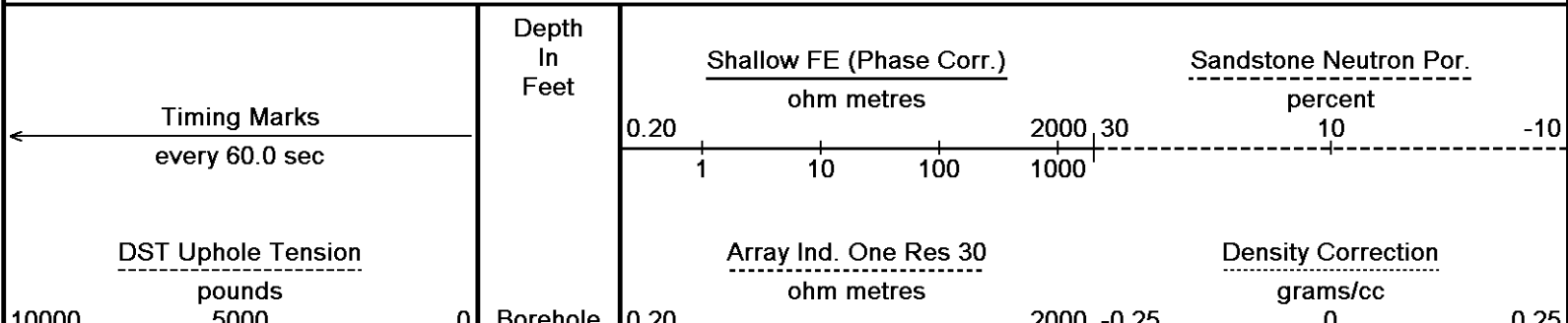


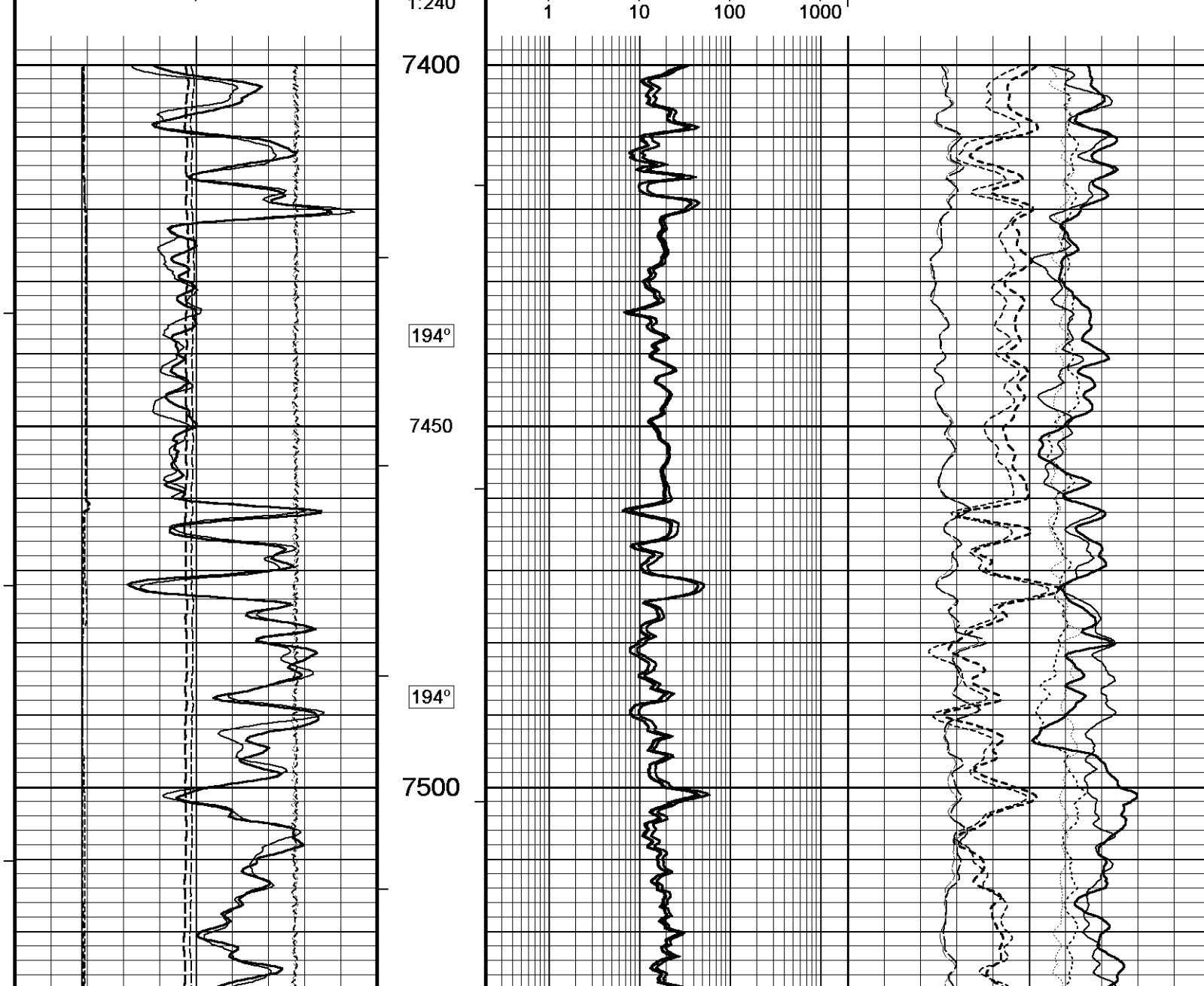
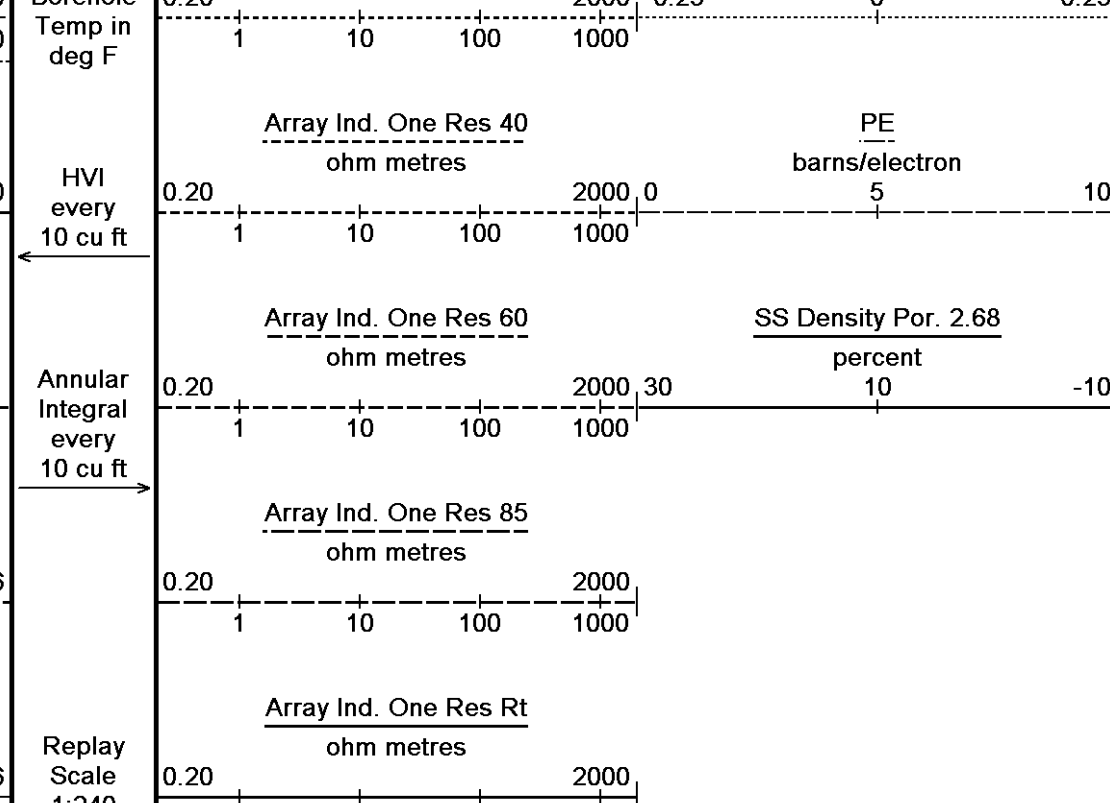
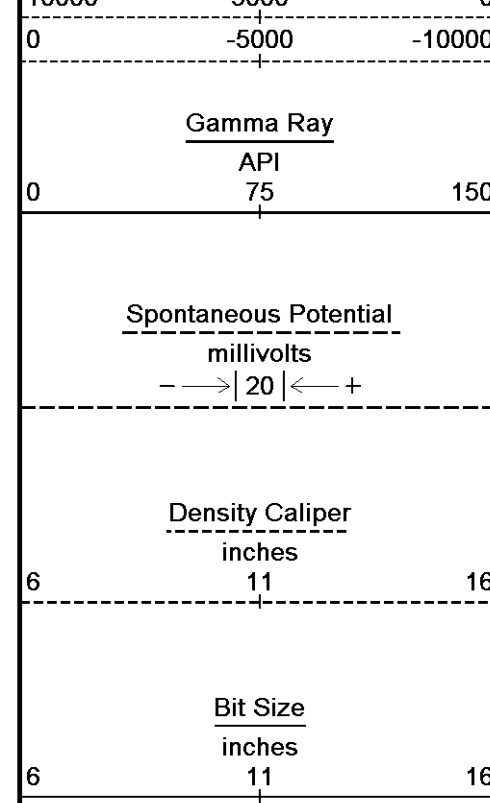
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 System Versions: Logged with 11.02.3186 Plotted with 11.02.3186
 Plotted on 16-MAY-2011 03:43
 Recorded on 16-MAY-2011 00:18

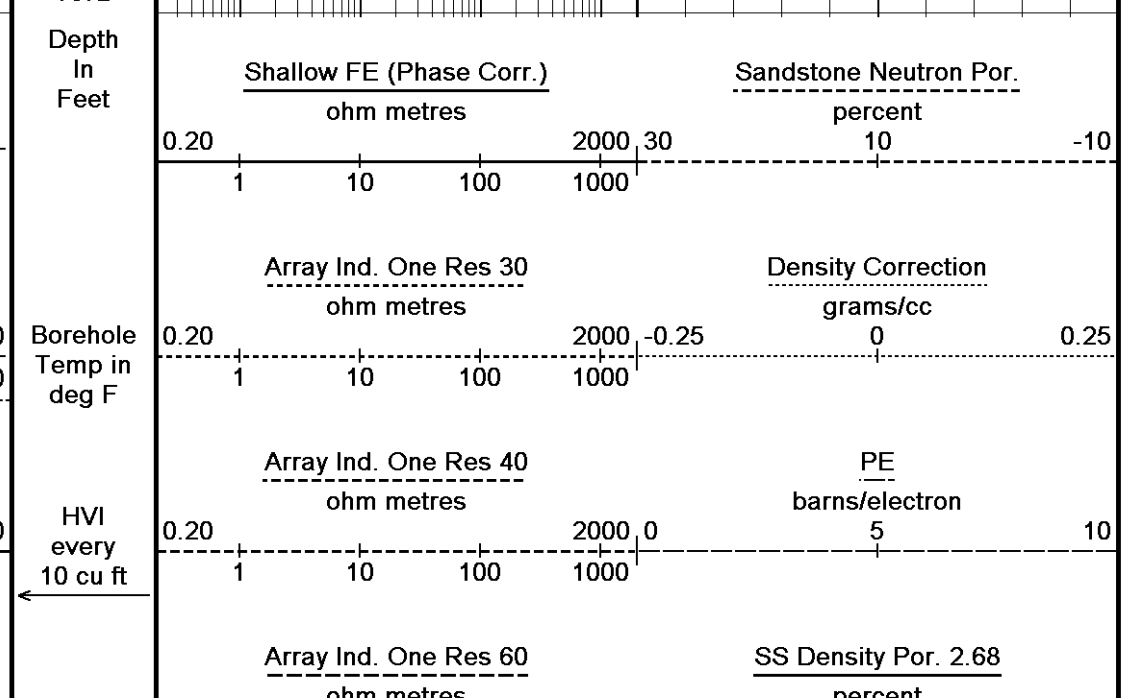
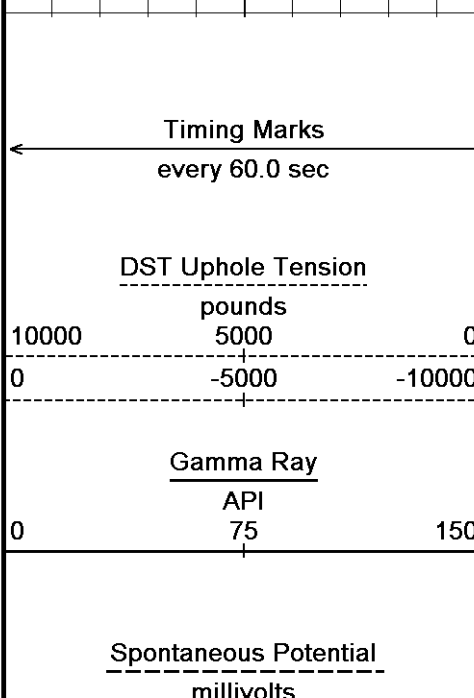
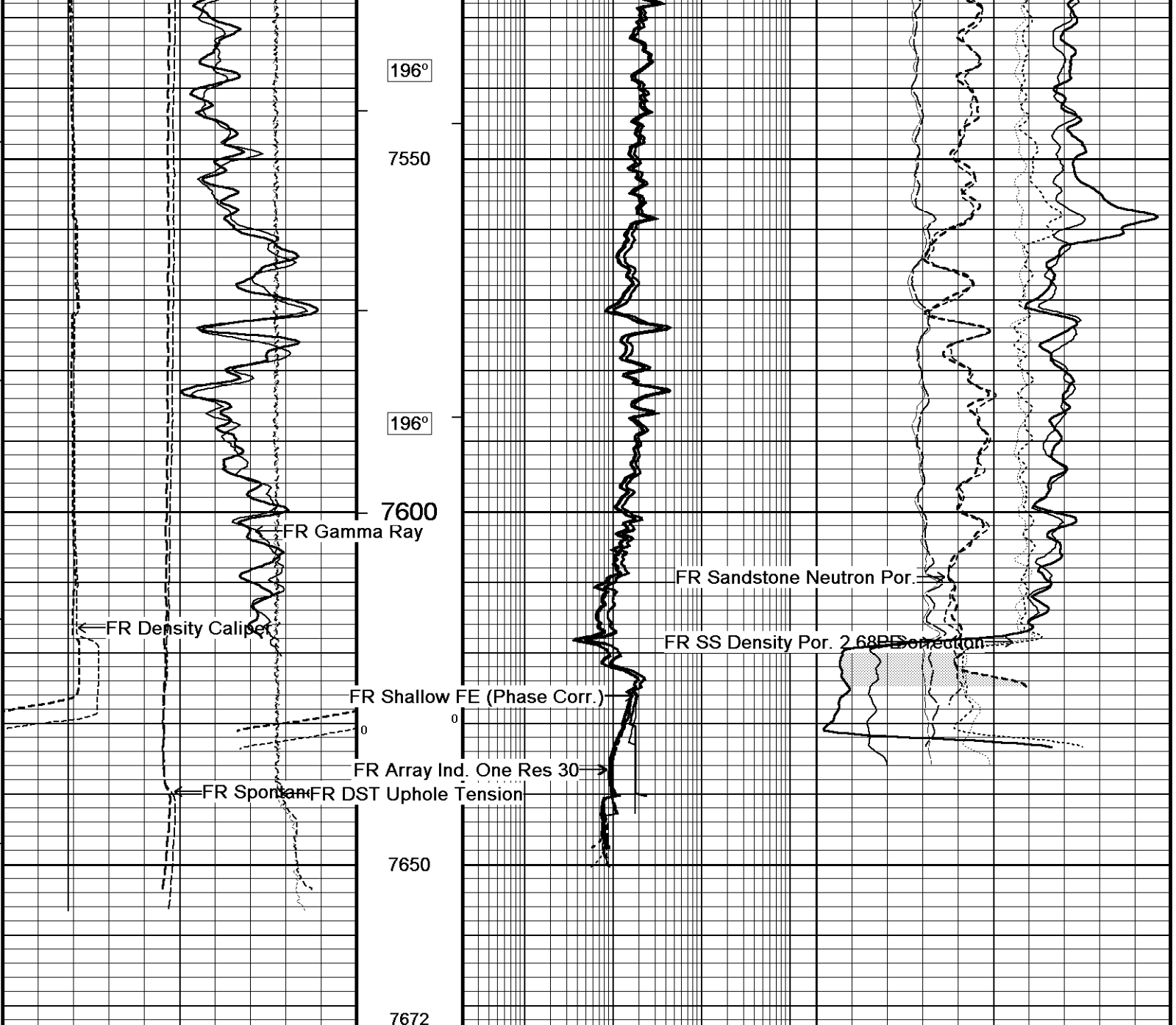
5 INCH MAIN LOG

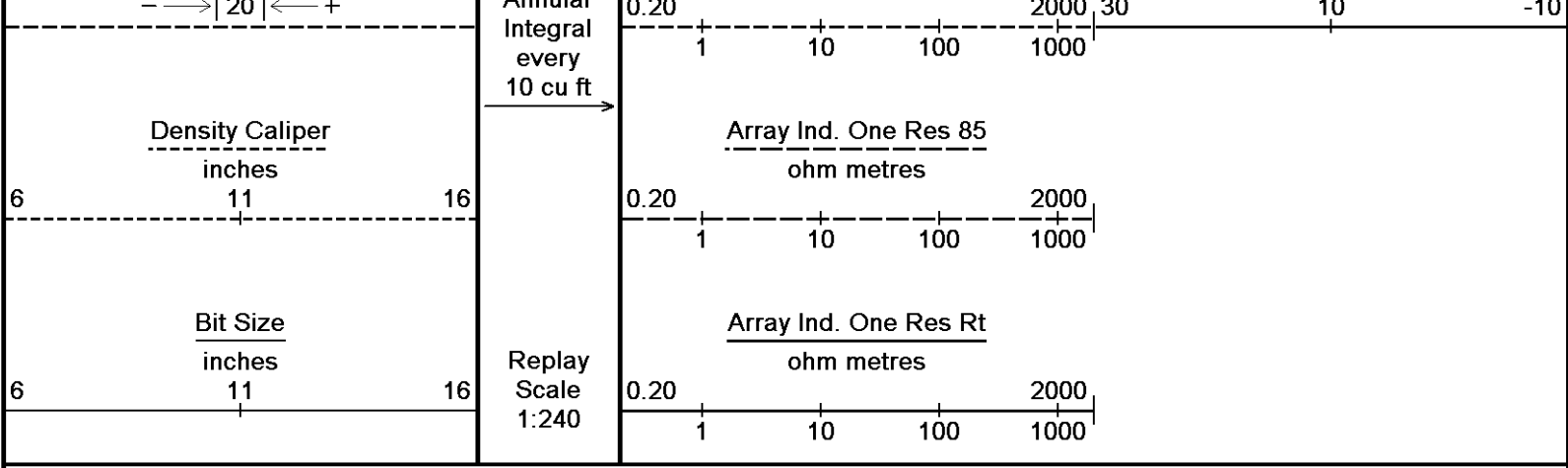
OVERLAY

Depth Based Data - Maximum Sampling Increment 10.0cm
 Filename: C:\Minimus\LOGS\Bill Barrett\CB-TG Land 21A-20-692\MAIN.dta
 Filename: C:\Minimus\LOGS\Bill Barrett\CB-TG Land 21A-20-692\REPEAT.dta
 System Versions: Logged with 11.02.3186 Plotted with 11.02.3186
 Plotted on 16-MAY-2011 03:43
 Recorded on 16-MAY-2011 00:18
 Recorded on 15-MAY-2011 23:58









Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 16-MAY-2011 03:43
 Filename: C:\Minimus\LOGS\Bill Barrett\CB-TG Land 21A-20-692\MAIN.dta Recorded on 16-MAY-2011 00:18
 Filename: C:\Minimus\LOGS\Bill Barrett\CB-TG Land 21A-20-692\REPEAT.dta Recorded on 15-MAY-2011 23:58
 System Versions: Logged with 11.02.3186 Plotted with 11.02.3186

OVERLAY

BEFORE SURVEY CALIBRATION

C:\Minimus\LOGS\Bill Barrett\CB-TG Land 21A-20-692\setup.dta

General Constants All 000 Last Edited on 15-MAY-2011,19:55

General Parameters		
Mud Resistivity	2.870	ohm-metres
Mud Resistivity Temperature	75.200	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	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 14-MAY-2011 07:41

Reading No	Measured	Calibrated (lbs)
1	14777.77	0.00
2	16127.37	368.00

High Resolution Temperature Calibration MCG-D.A 287 Field Calibration on 15-MAY-2011,19:35

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

High Resolution Temperature Constants MCG-D.A 287 Last Edited on 22-FEB-2011,07:38

Pre-filter Length 11

SP Calibration MCG-D.A 287 Field Calibration on 15-MAY-2011,19:35

	Measured	Calibrated (mV)
Reference 1	103.8	100.2
Reference 2	-96.9	-100.2

Gamma Calibration MCG-D.A 287 Field Calibration on 15-MAY-2011 19:35

	Measured	Calibrated (API)
Background	113	79
Calibrator (Gross)	864	606
Calibrator (Net)	751	527

Gamma Constants MCG-D.A 287

Last Edited on 14-MAY-2011,05:00

Gamma Calibrator Number	GRC-174	
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 306

Base Calibration on 05-APR-2011 16:34

Field Check on 15-MAY-2011 19:43

Base Calibration					
	Measured		Calibrated (cps)		
	Near	Far	Near	Far	
	2836	89	3714	110	
Ratio	31.929		33.764		
Field Calibrator at Base					
				Calibrated (cps)	
				1451	2165
Ratio	0.670				
Field Check					
				Calibrated (cps)	
				2366	3473
Ratio	0.681				

Neutron Constants MDN-B.A 306

Last Edited on 15-MAY-2011,19:54

Neutron Source Id	P44384B	
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	

FE Calibration MFE-B.A 179

Base Calibration on 13-MAY-2011 11:35

Field Check on 15-MAY-2011 22:43

Base Calibration			
	Measured		Calibrated (ohm-m)
Reference 1	0.0		0.0
Reference 2	962.7		126.8
Base Check	280.5		
Field Check	280.4		

FE Constants MFE-B.A 179

Last Edited on 14-MAY-2011,04:57

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 301

Field Calibration on 15-MAY-2011,19:53

Measured	Calibrated(Deg F)
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Lower 10.00 50.00
 Upper 100.00 212.00

High Resolution Temperature Constants MAI-B.A 301

Last Edited on 07-FEB-2011,07:23

Pre-filter Length 11

Induction Calibration MAI-B.A 301

Base Calibration on 09-JUN-2010,11:38
 Field Check on 15-MAY-2011 22:46

Base Calibration

Test Loop Calibration

Channel	Measured		Calibrated (mmho/m)	
	Low	High	Low	High
1	17.5	487.4	9.3	966.2
2	5.9	392.1	7.6	821.4
3	3.8	259.5	5.2	566.0
4	2.0	137.2	2.6	279.2

Array Temperature 71.1 Deg F

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1	0.0	0.0	13.1	3733.7
2	0.0	0.0	30.3	3443.8
3	0.0	0.0	28.3	3058.3
4	0.0	0.0	19.1	2020.0
Deep	0.0	0.0	16.6	2016.3
Medium	0.0	0.0	41.8	4068.6
Shallow	0.0	0.0	46.3	5041.0

Array Temperature 0.0 79.9 Deg F

Induction Constants MAI-B.A 301

Last Edited on 15-MAY-2011,19:53

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.A 220

Base Calibration on 26-APR-2011 15:05

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14704	4.00
2	23040	5.96
3	31024	7.98
4	39153	9.86
5	48095	11.88
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
8.81	8.92

Photo Density Calibration MPD-C.A 220

Base Calibration on 26-APR-2011 14:52

Field Check on 15-MAY-2011 19:51

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	54238	17457	53237	19445
Reference 2	24659	2427	25135	2545

Field Check at Base

1182.2 1196.0

Field Check

1178.5 1197.1

PE Calibration

Base Calibration	WS	Measured		Calibrated	
		WH	Ratio	Ratio	
Background	212	1044			
Reference 1	18412	54044	0.343		0.320
Reference 2	6811	24512	0.281		0.274

Field Check at Base

212.4 1044.3

Field Check

210.7 1043.6

Density Constants MPD-C.A 220

Last Edited on 15-MAY-2011,19:52

Density Source Id	P44263B	
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	1.23	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	
0.00	0.00	

AFTER SURVEY CALIBRATION

Before (ohm-m)
280.5

After (ohm-m)
280.7

Induction Check MAI-B.A 301

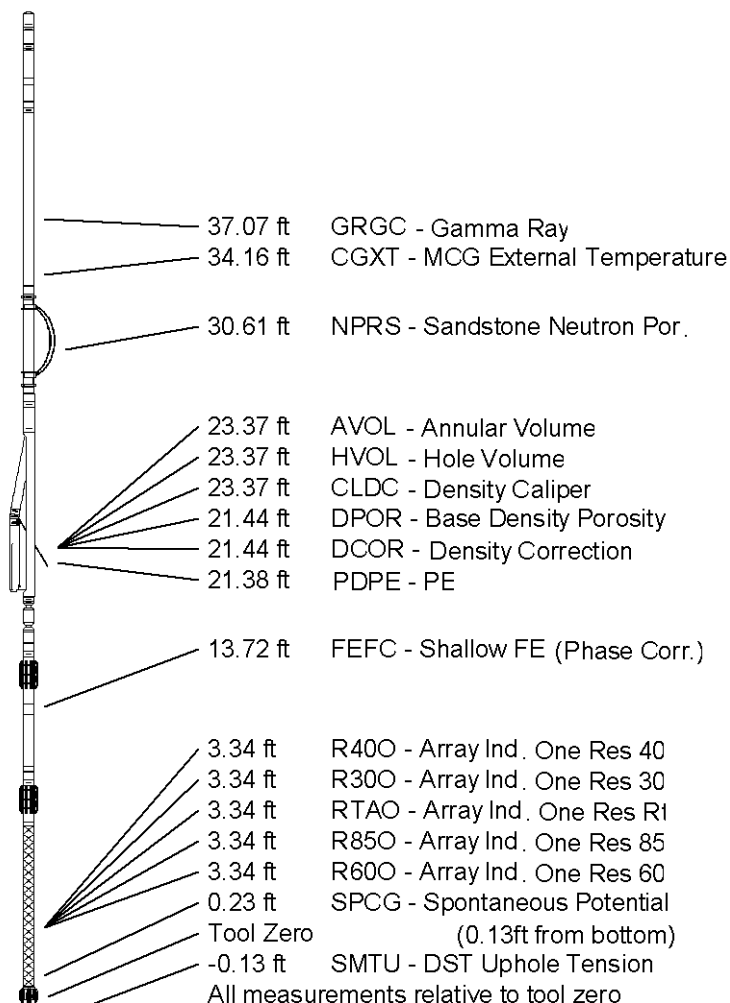
Before Survey Check on
 After Survey Check on 14-MAY-2011 12:20

Channel	Before Survey (mmho/m)		After Survey (mmho/m)		
	Low	High	Low	High	
1	0.0	0.0	13.3	3731.5	
2	0.0	0.0	30.3	3442.2	
3	0.0	0.0	28.2	3057.2	
4	0.0	0.0	19.1	2019.1	
Deep	0.0	0.0	16.6	2015.7	
Medium	0.0	0.0	41.7	4067.3	
Shallow	0.0	0.0	46.2	5038.5	
Array Temperature		0.0		84.6	Deg F

DOWNHOLE EQUIPMENT

C:\Minimus\LOGS\Bill Barrett\CB-TG Land 21A-20-692\MAIN.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 in
- SHA-F Compact Swivel Head Adaptor
 SHA-F 82 LG: 2.74 ft WT: 26.5 lb OD: 2.24 in
- Compact Comms Gamma
 MCG-D.A 287 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in
- Compact Neutron
 MDN-B.A 306 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in
- Compact Density/Caliper
 MPD-C.A 220 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in
- SKJ-D.A Compact Knuckle Joint
 SKJ-D.A 115 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in
- Compact Focussed Electric
 MFE-B.A 179 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in
- Compact Induction
 MAI-B.A 301 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 CB-TG LAND 21A-20-692
 FIELD MAMM CREEK
 PROVINCE/COUNTY GARFIELD
 COUNTRY/STATE U.S.A. / COLORADO

Elevation Drill Floor 5552.00 feet
Elevation Ground Level 5530.00 feet

Depth Driller 7641.00 feet
Depth Logger 7640.00 feet



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QUICKLOOK
LOG

