



**Weatherford**

**COMPACT TRIPLE COMBO  
QUICKLOOK  
LOG**

COMPANY

**BILL BARRETT CORPORATION**

WELL

**GGU FEDERAL 41B-29-691**

FIELD

**GIBSON GULCH**

PROVINCE/COUNTY

**GARFIELD**

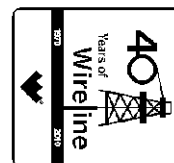
COUNTRY/STATE

**U.S.A. / COLORADO**

LOCATION

**SHL: 1240' FNL & 1367' FEL**

**BHL: 819' FNL & 664' FEL**



SEC TWP RGE Other Services

29 6S 91W

Permit Number

05-045-19799

Permanent Datum G.L., Elevation 6104 feet

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

Drilling Measured From K.B.

Elevations:

feet

KB 6127.00  
DF 6126.00  
GL 6104.00

Date 25-JAN-2011

Run Number ONE

Depth Driller 7435.00 feet

Depth Logger 7438.00 feet

First Reading 7438.00

Last Reading 835.00

Casing Driller 832.00 feet

Casing Logger 835.00 feet

Bit Size 7.880 inches

Hole Fluid Type LSND

Density / Viscosity 11.20 lb/USg 55.00 CP

PH / Fluid Loss 9.20 6.20 ml/30Min

Sample Source FLOW LINE

Rm @ Measured Temp 3.90 @ 92.0 ohm-m

Rmf @ Measured Temp 3.12 @ 92.0 ohm-m

Rmc @ Measured Temp 4.68 @ 92.0 ohm-m

Source Rmf / Rmc CALC CALC

Rm @ BHT 1.97 @ 184.0 ohm-m

Time Since Circulation 6 HOURS

Max Recorded Temp 184.00 deg F

Equipment Name COMPACT

Equipment / Base 13173 GD JCT

Recorded By J.GARCIA

Witnessed By C.CROW

**BOREHOLE RECORD**

Last Edited: 25-JAN-2011 16:03

Bit Size  
inches

Depth From  
feet

Depth To  
feet

8.750

832.00

5440.00

7.880

5440.00

7435.00

**CASING RECORD**

Type

Size  
inches

Depth From  
feet

Shoe Depth  
feet

Weight  
pounds/ft

SURFACE

9.625

0.00

832.00

36.00

**REMARKS**

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

HARDWARE: MPD: 8 INCH PROFILE PLATE USED.  
ONE 0.5 INCH STANDOFFS USED ON INDUCTION.  
ONE 0.5 INCH STANDOFFS USED ON MFE.  
DUAL BOWSPRING USED ON NEUTRON.

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. = 8.92" (9 5/8", 36 LB/FT CASING)

8.75 INCH BIT USED FROM SURFACE CASING TO 5440 FT.

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2920 CU.FT.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 2170 CU.FT.

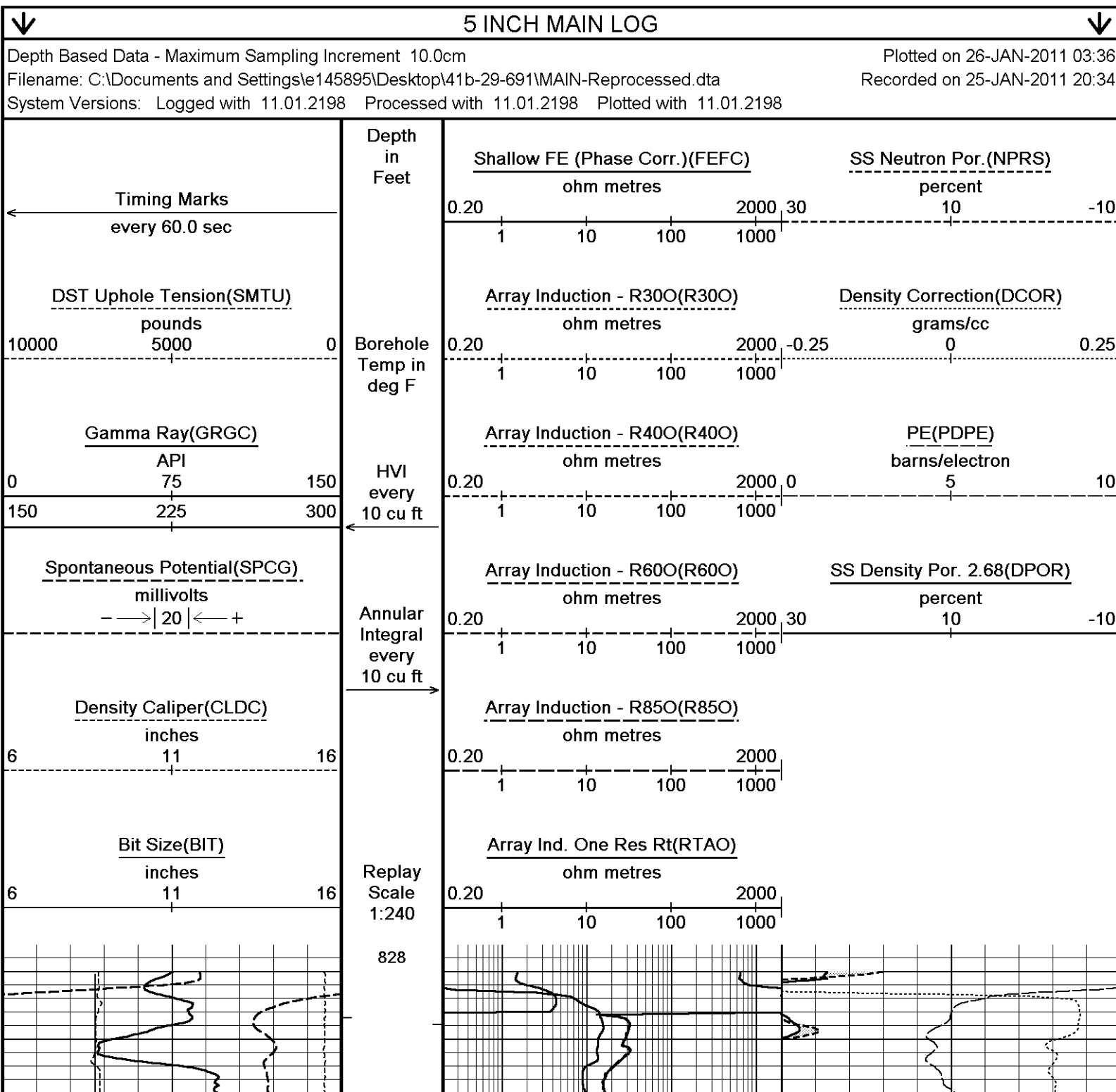
ENGINEER(S): J.GARCIA

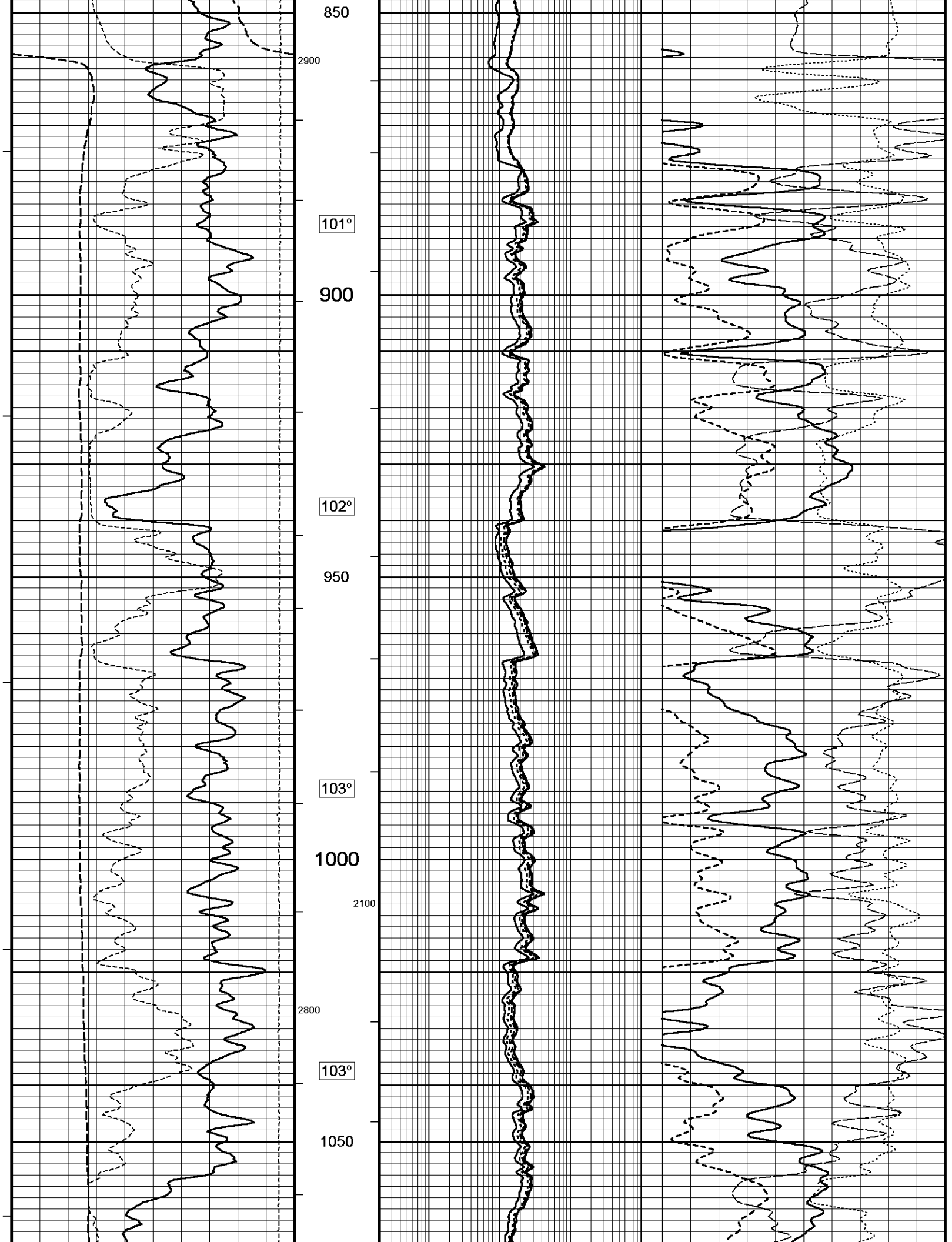
OPERATOR: L.STAAKE, S.KAISER

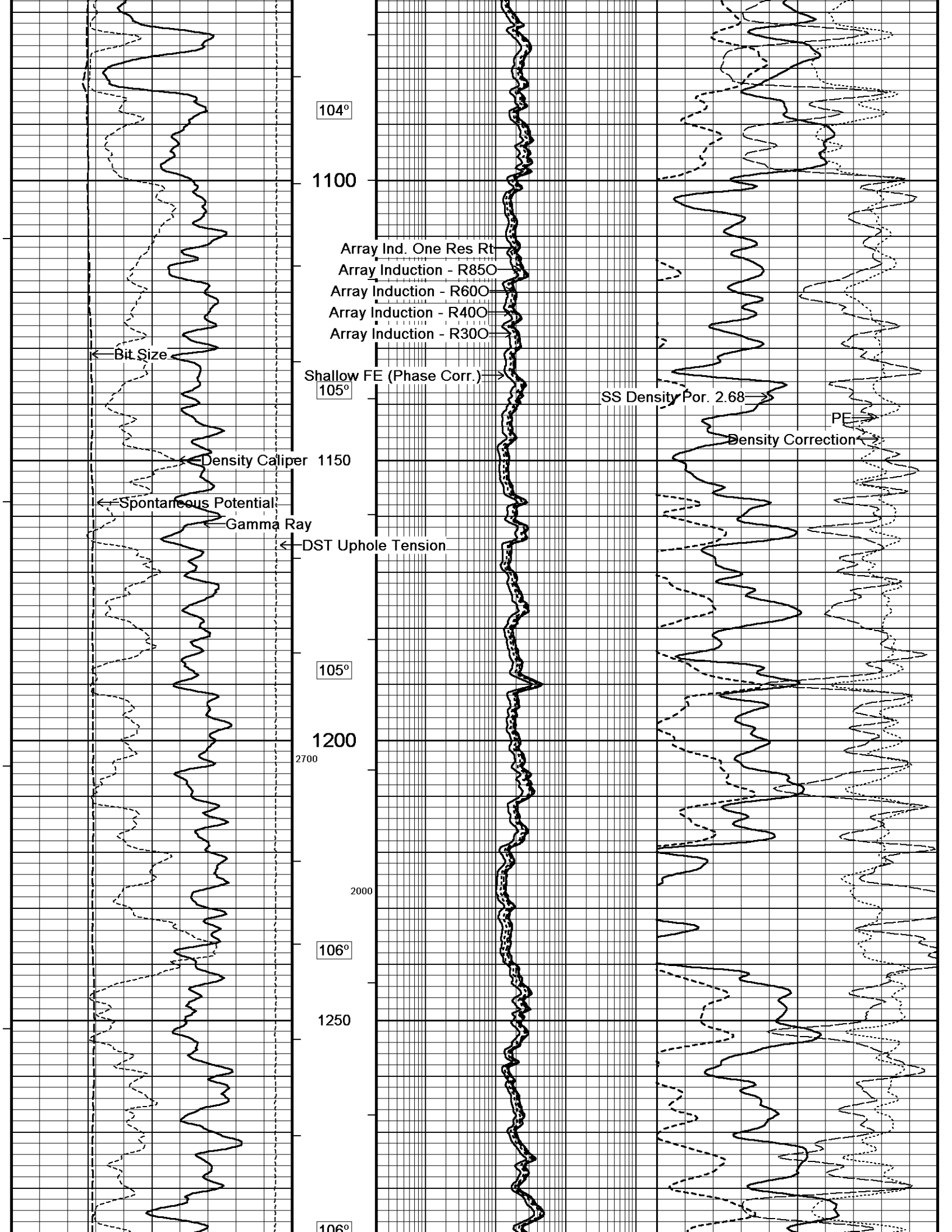
SERVICE ORDER: # 3524976

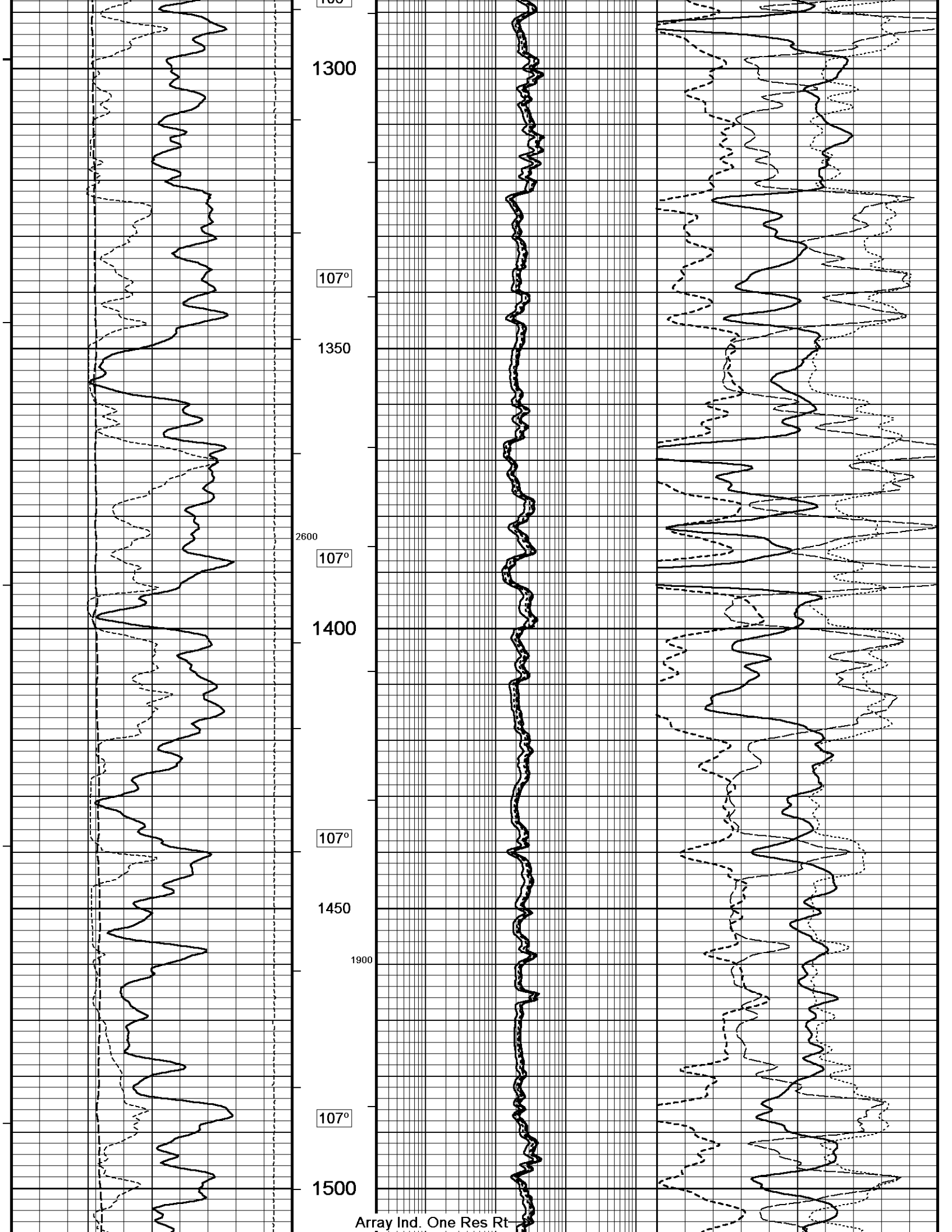
RIG: PATTERSON #307

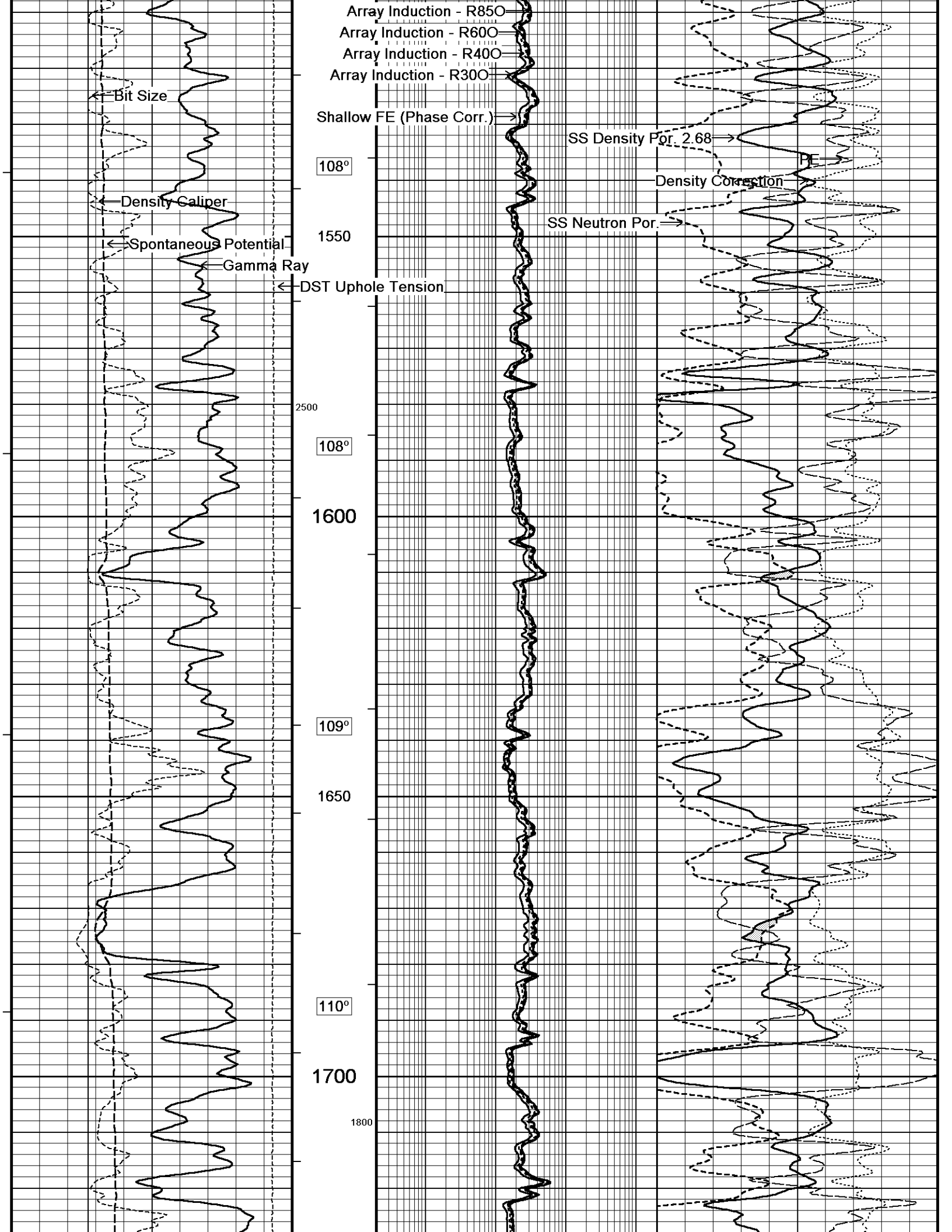
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

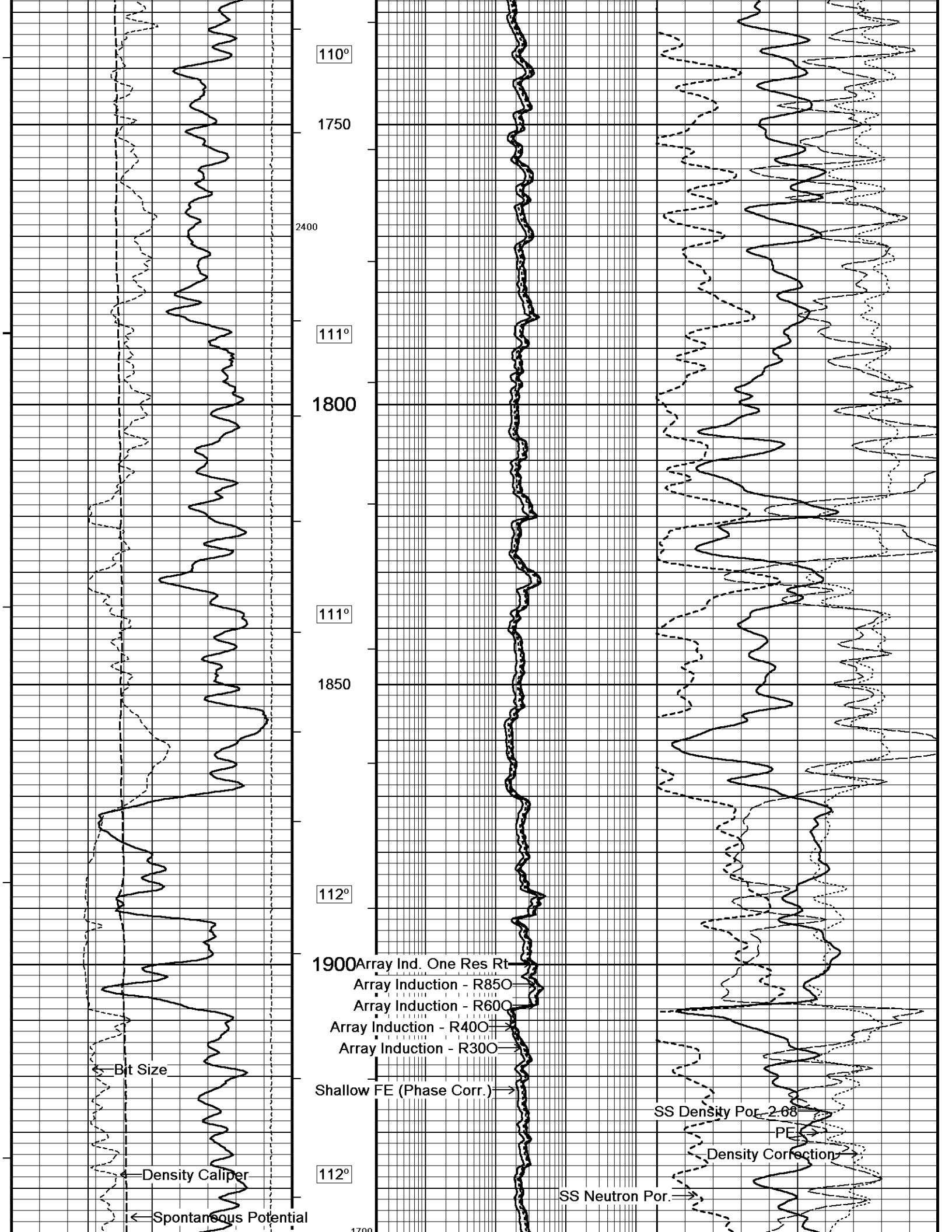


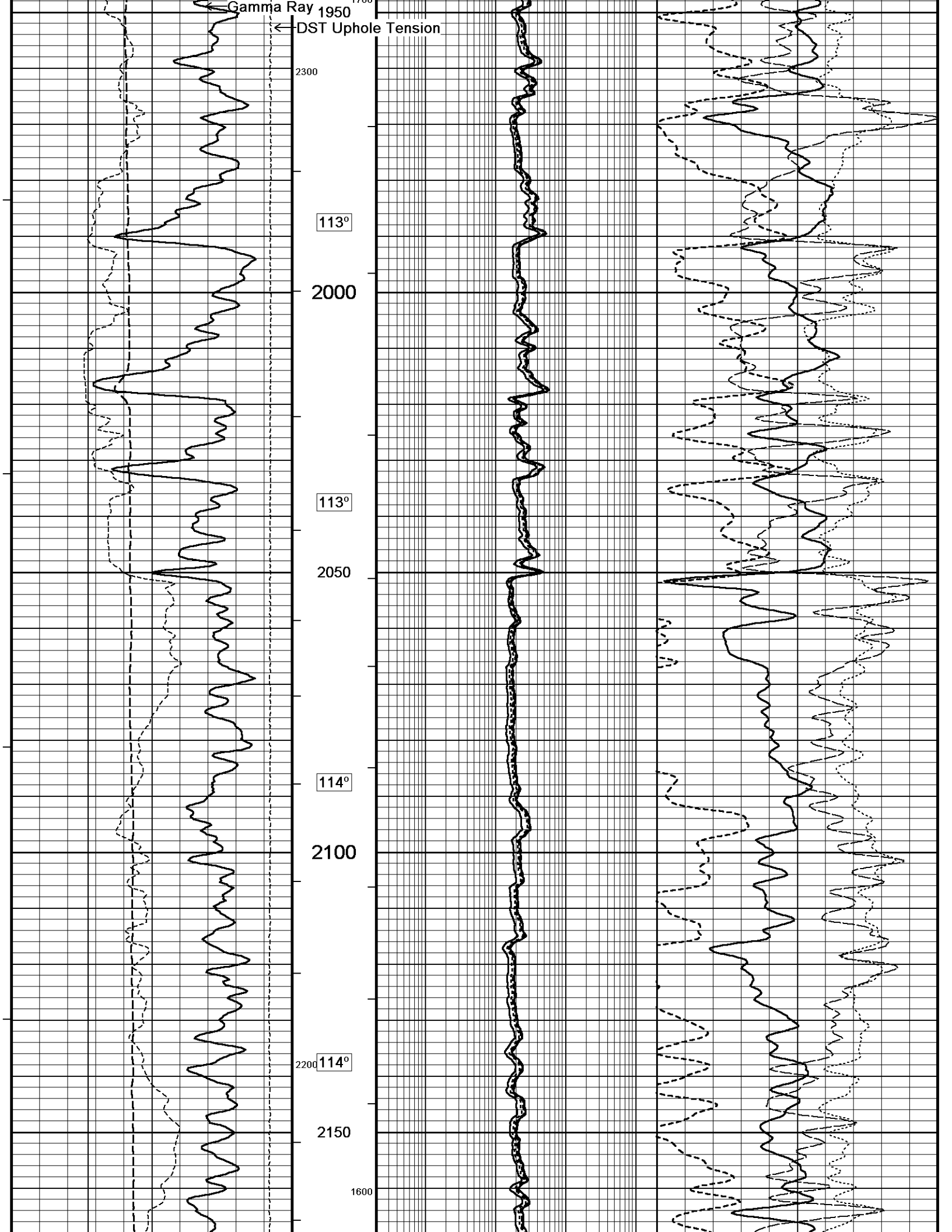




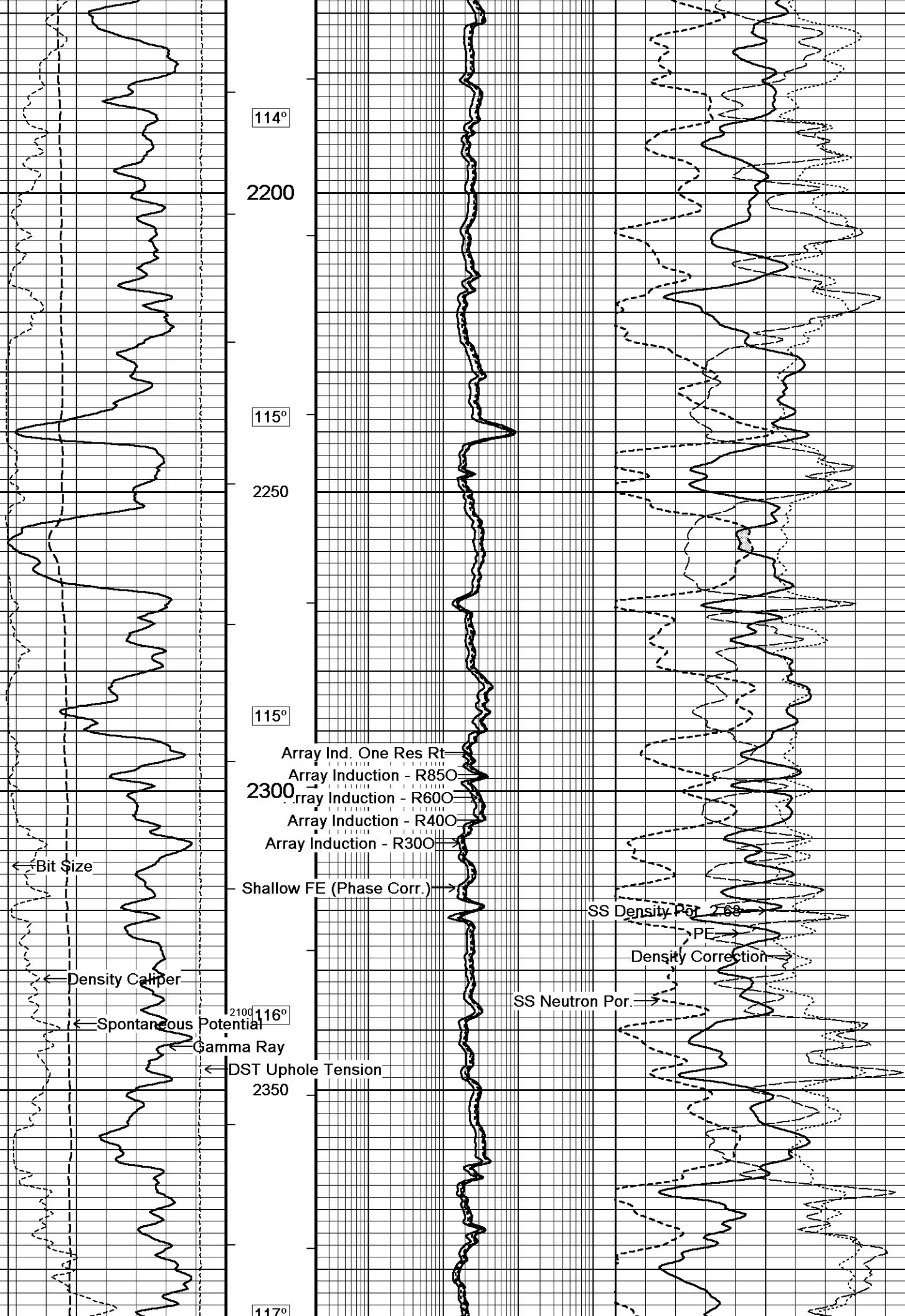


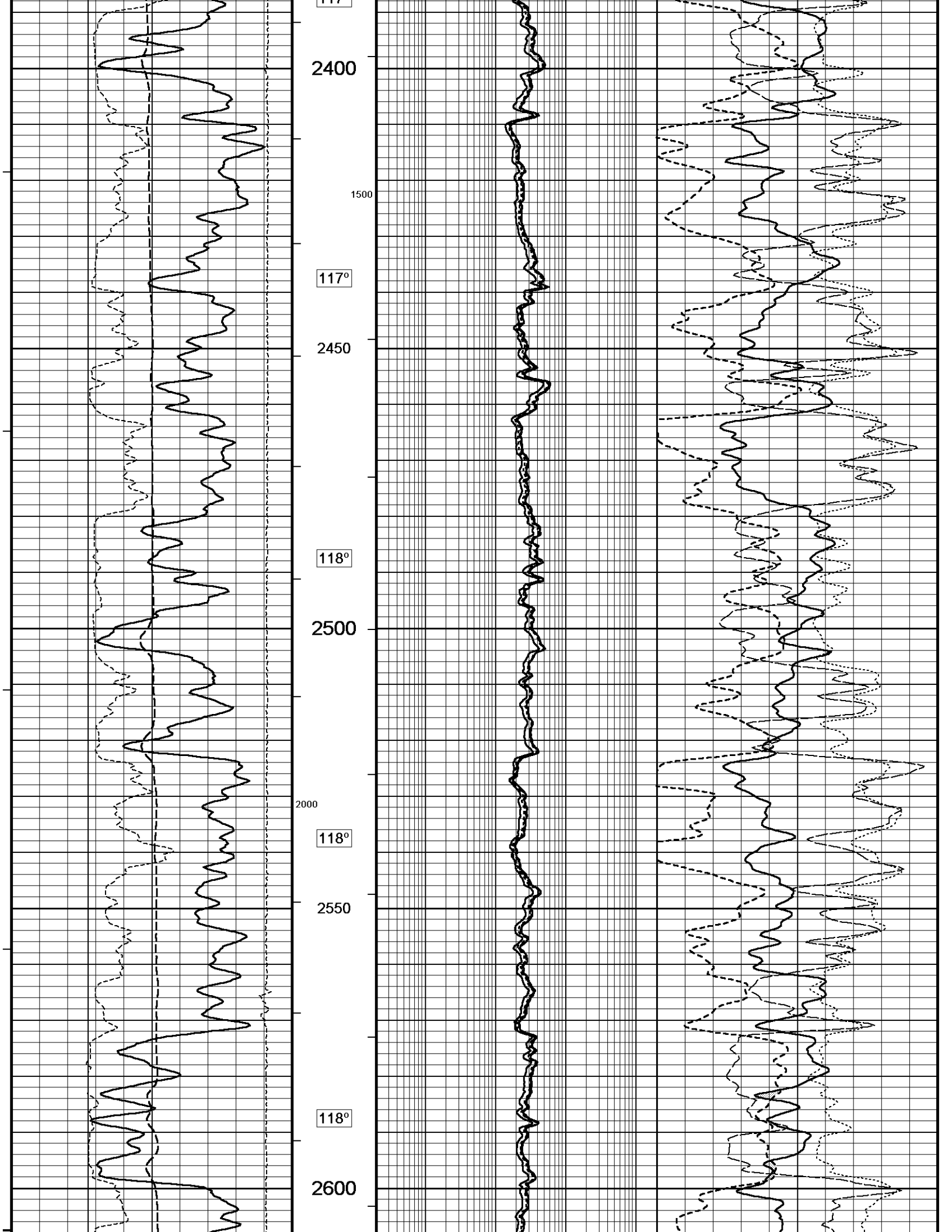


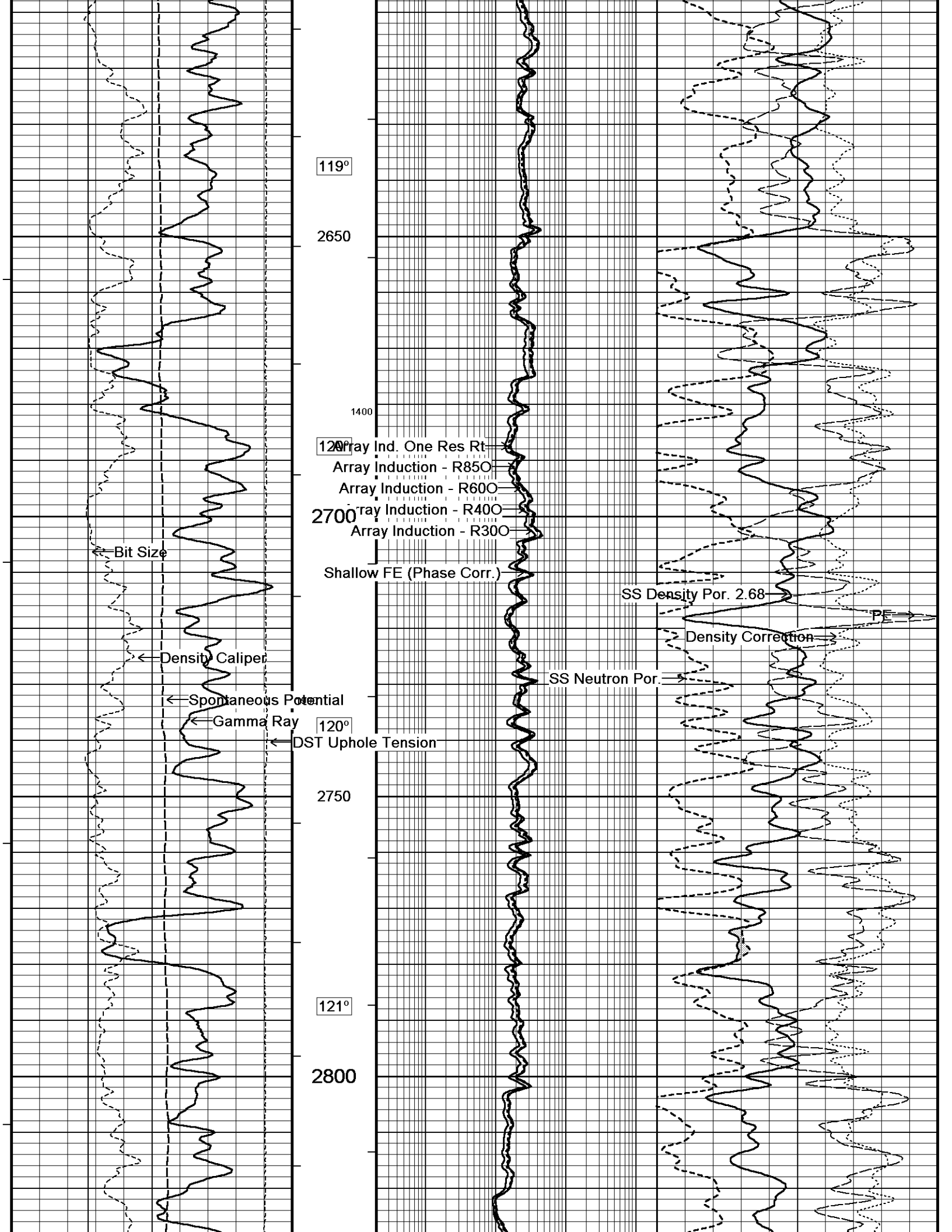


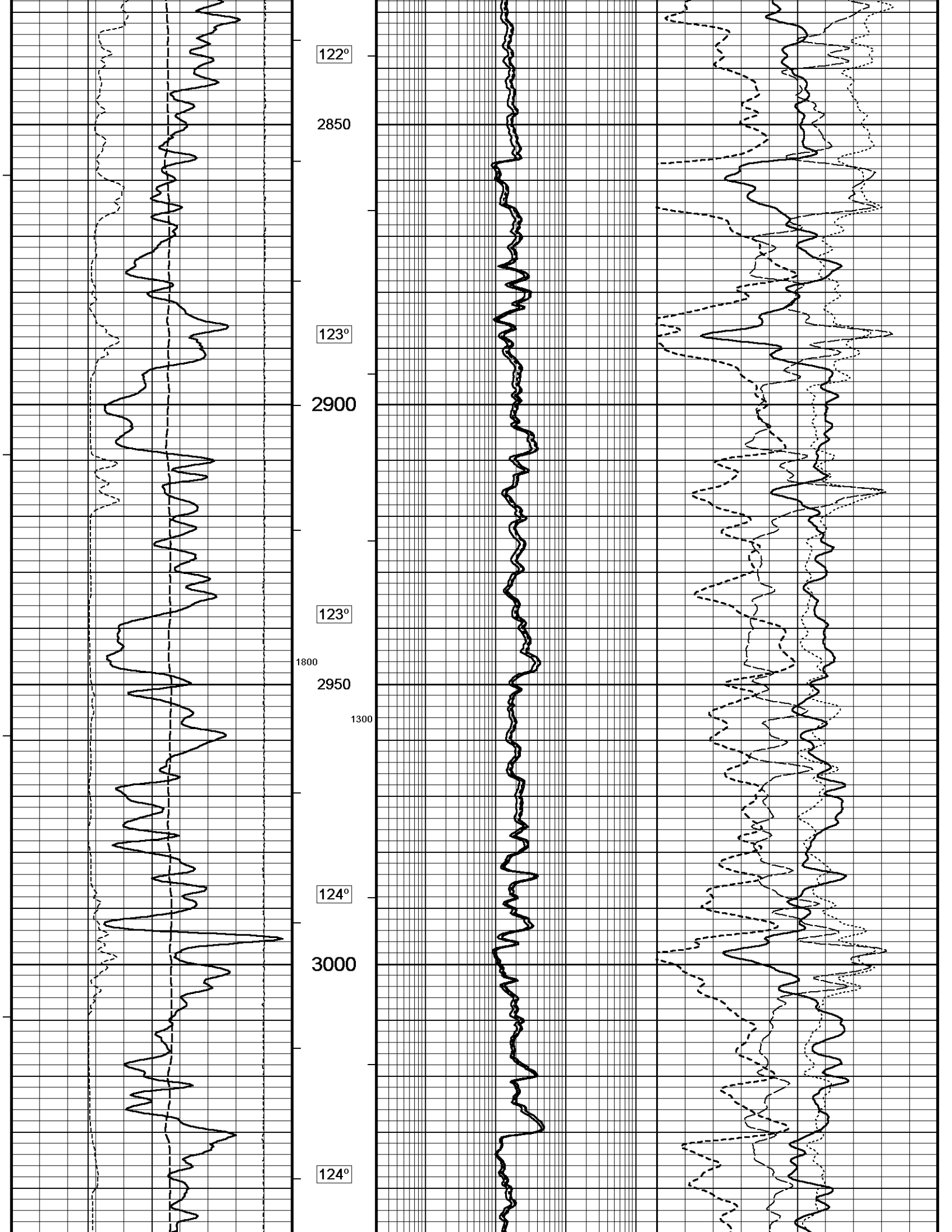


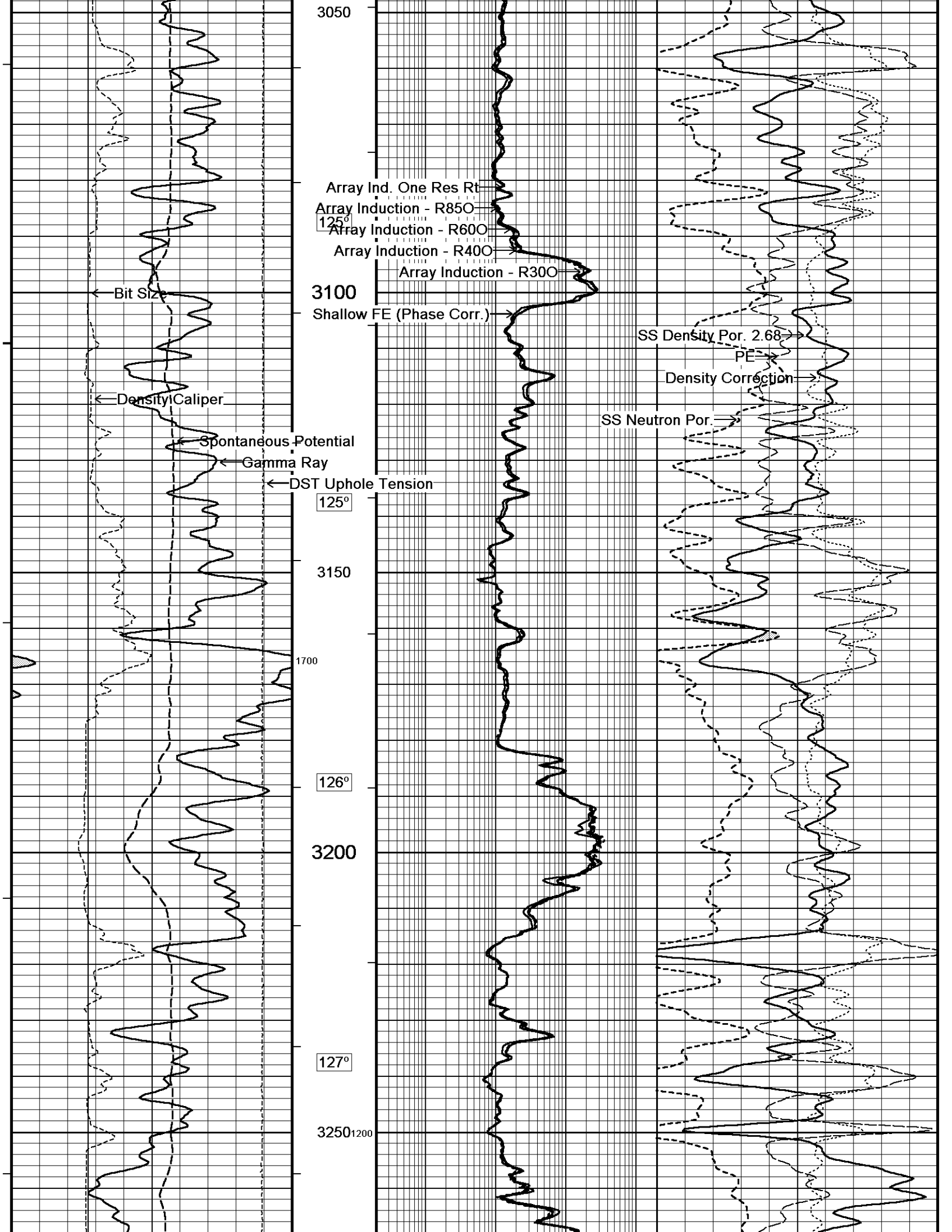


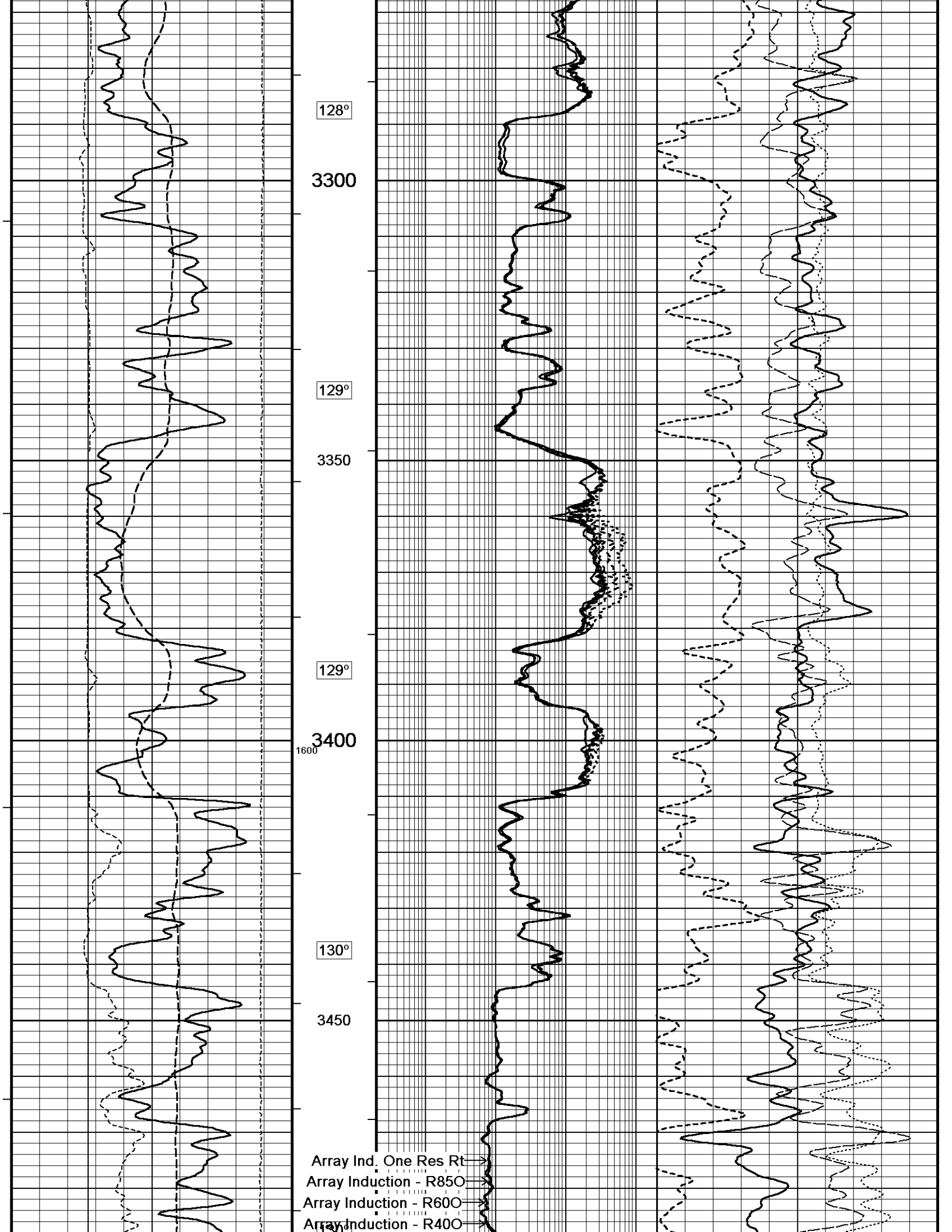


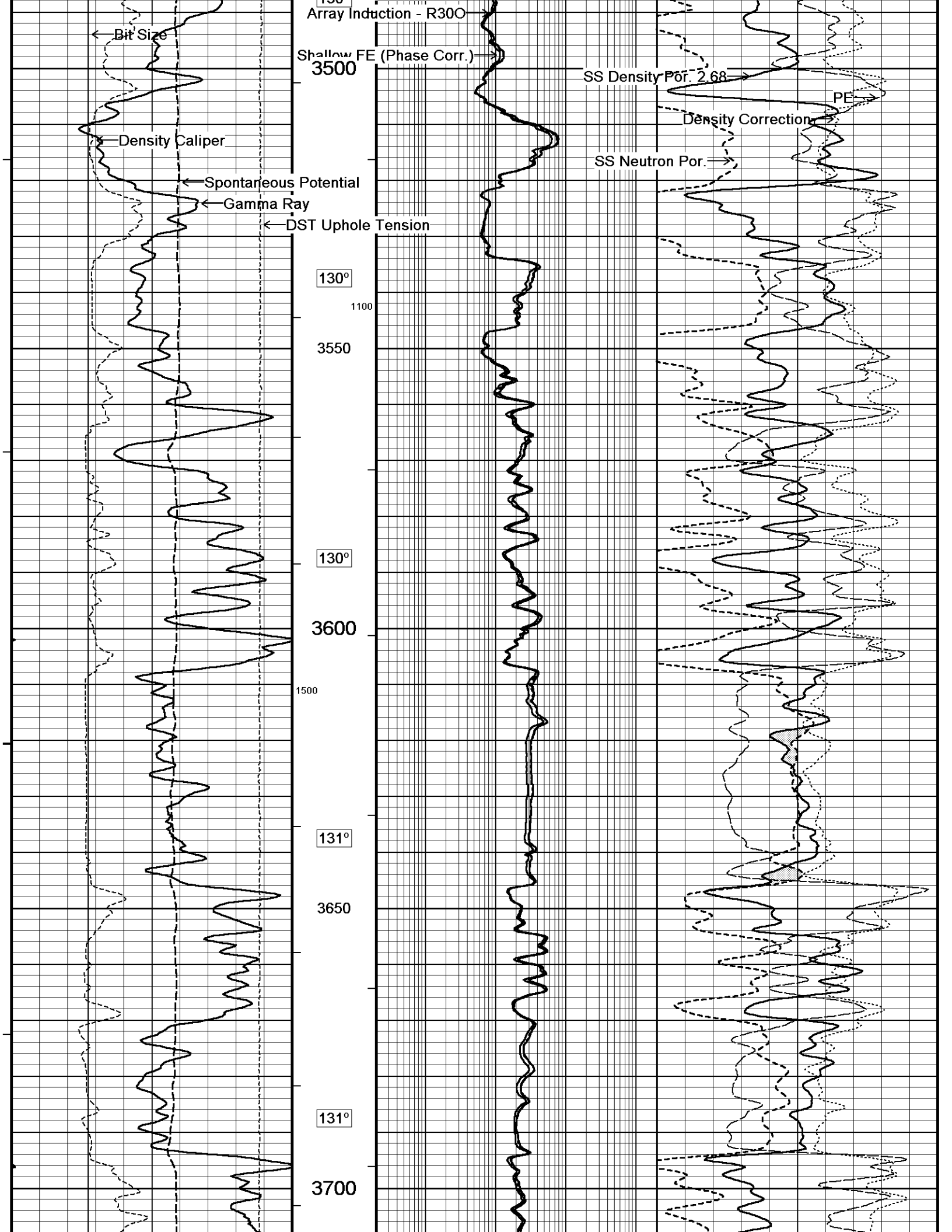


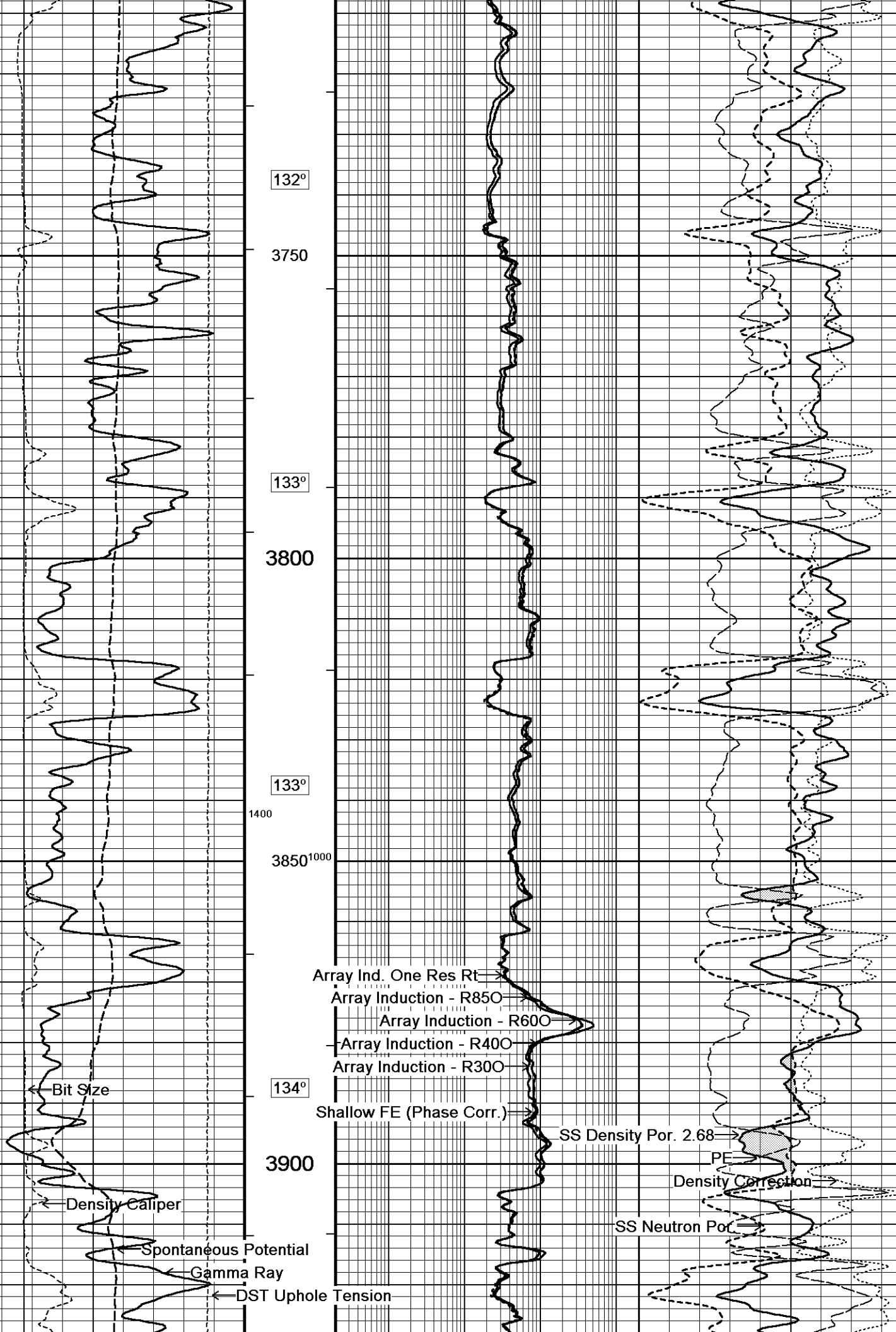




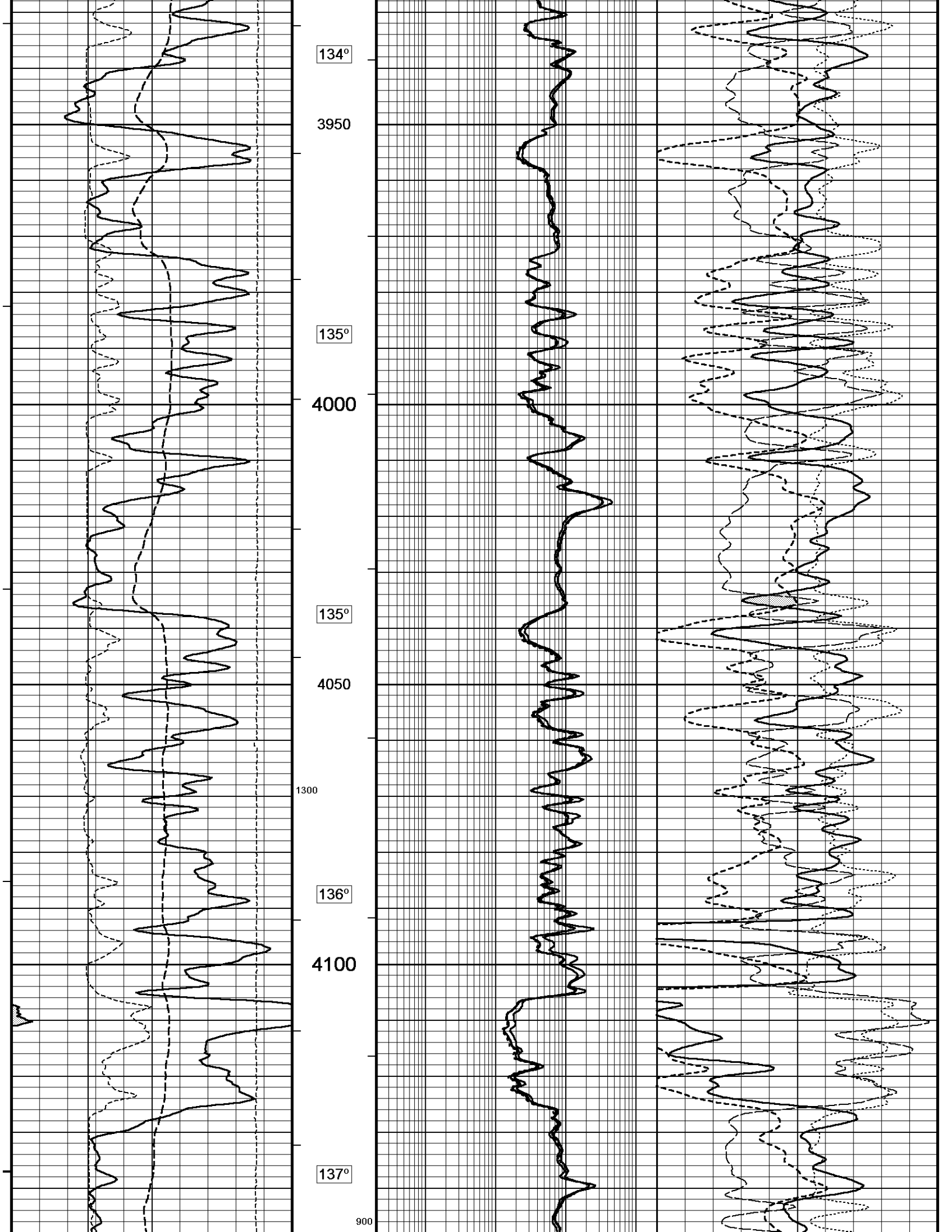


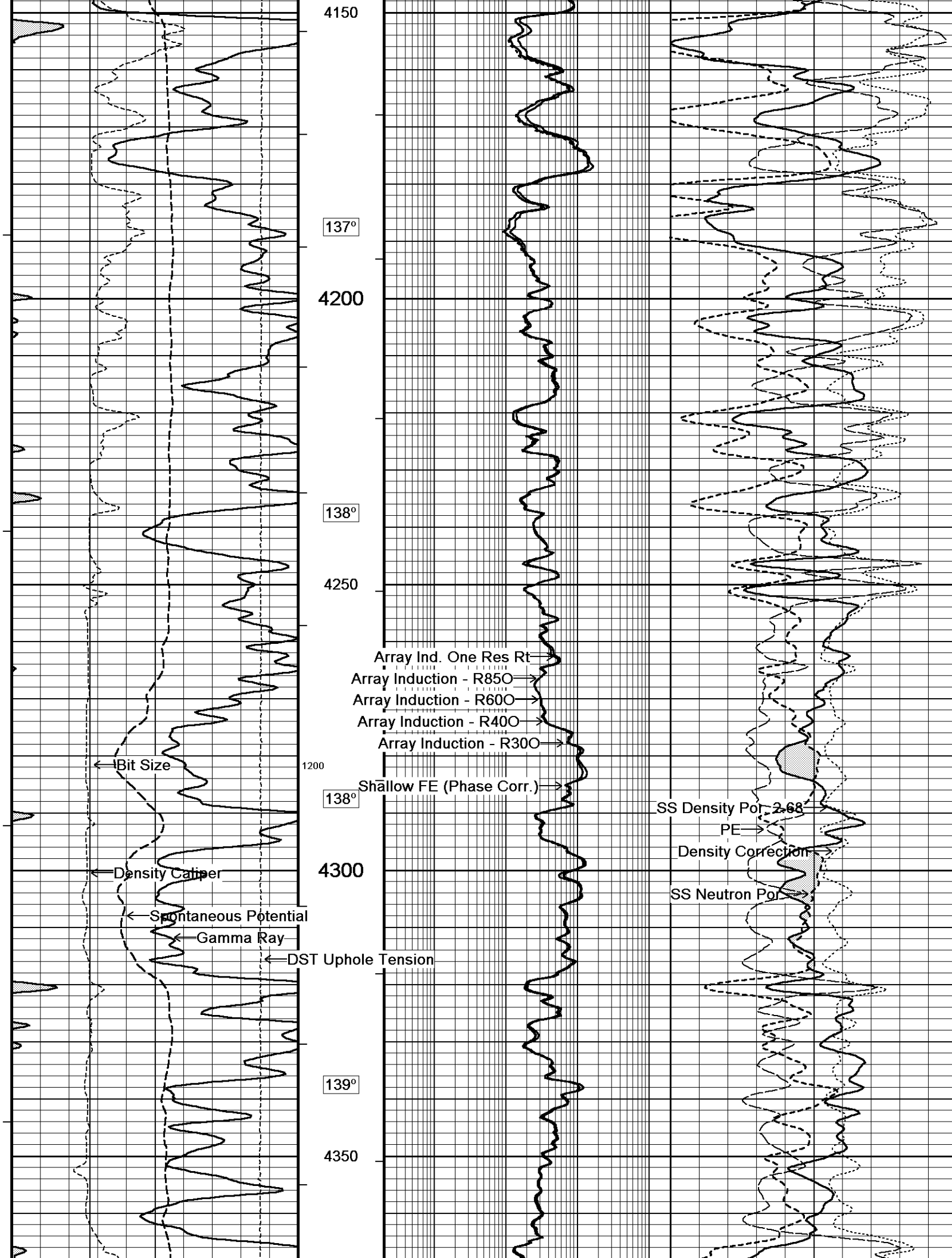


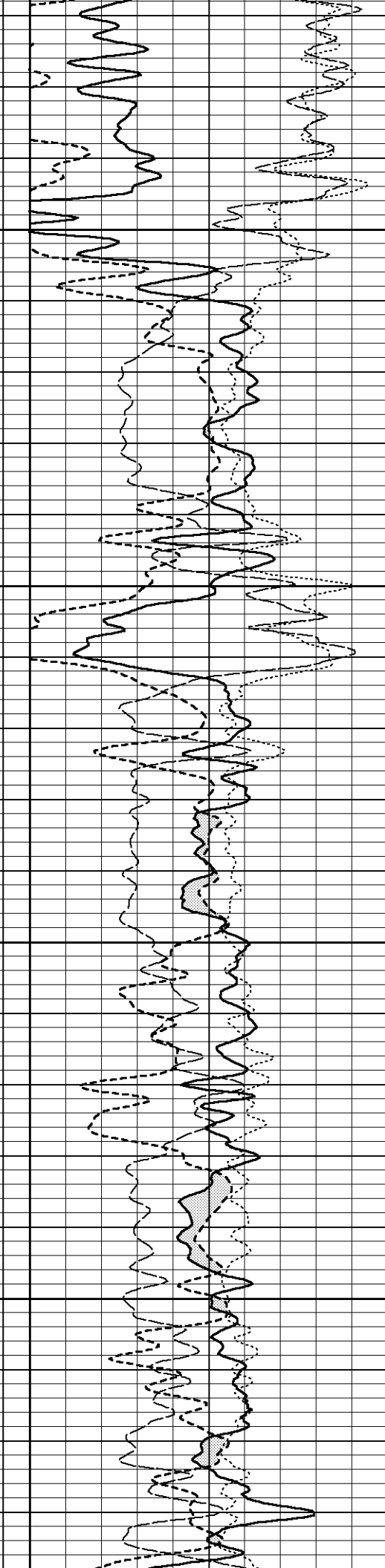
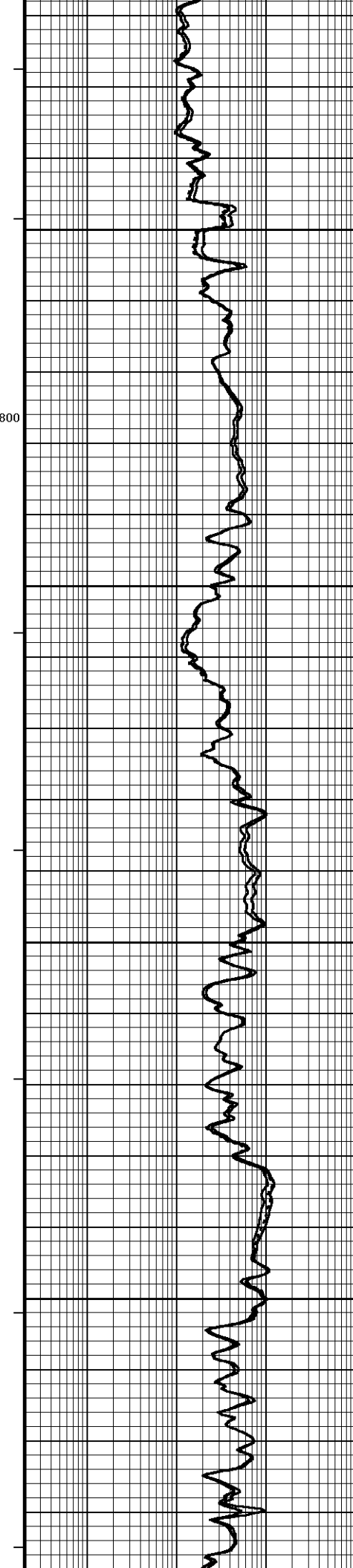
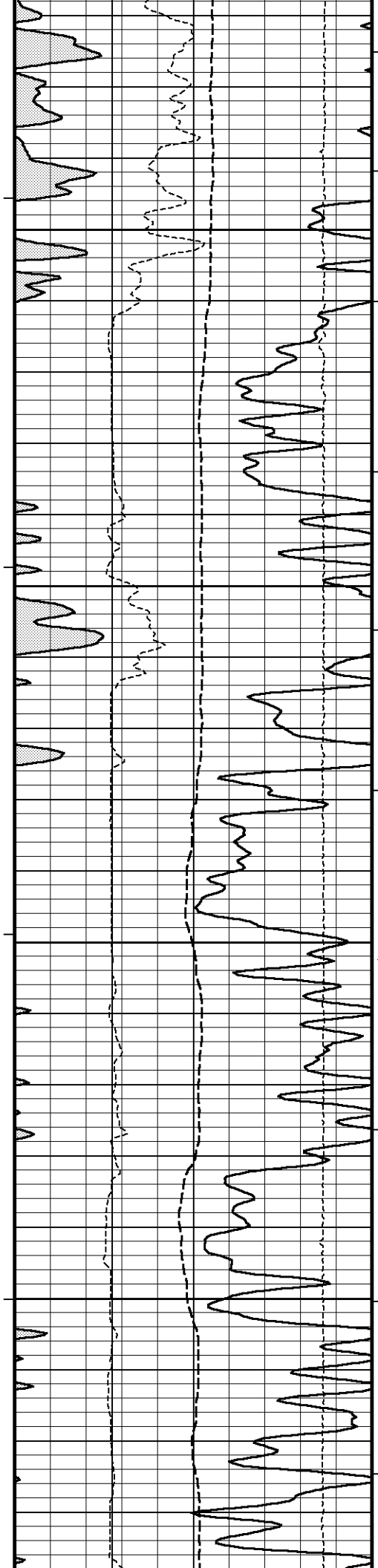


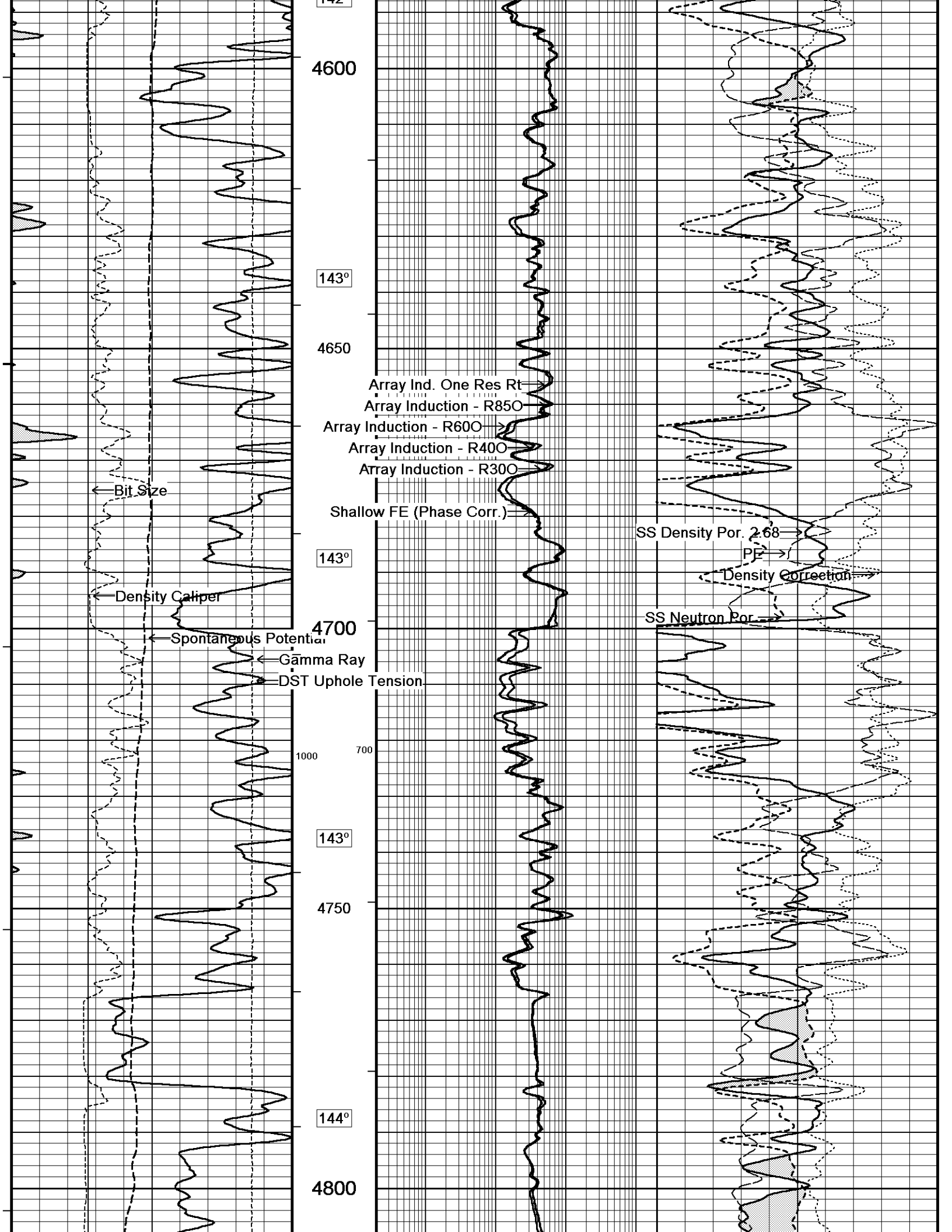


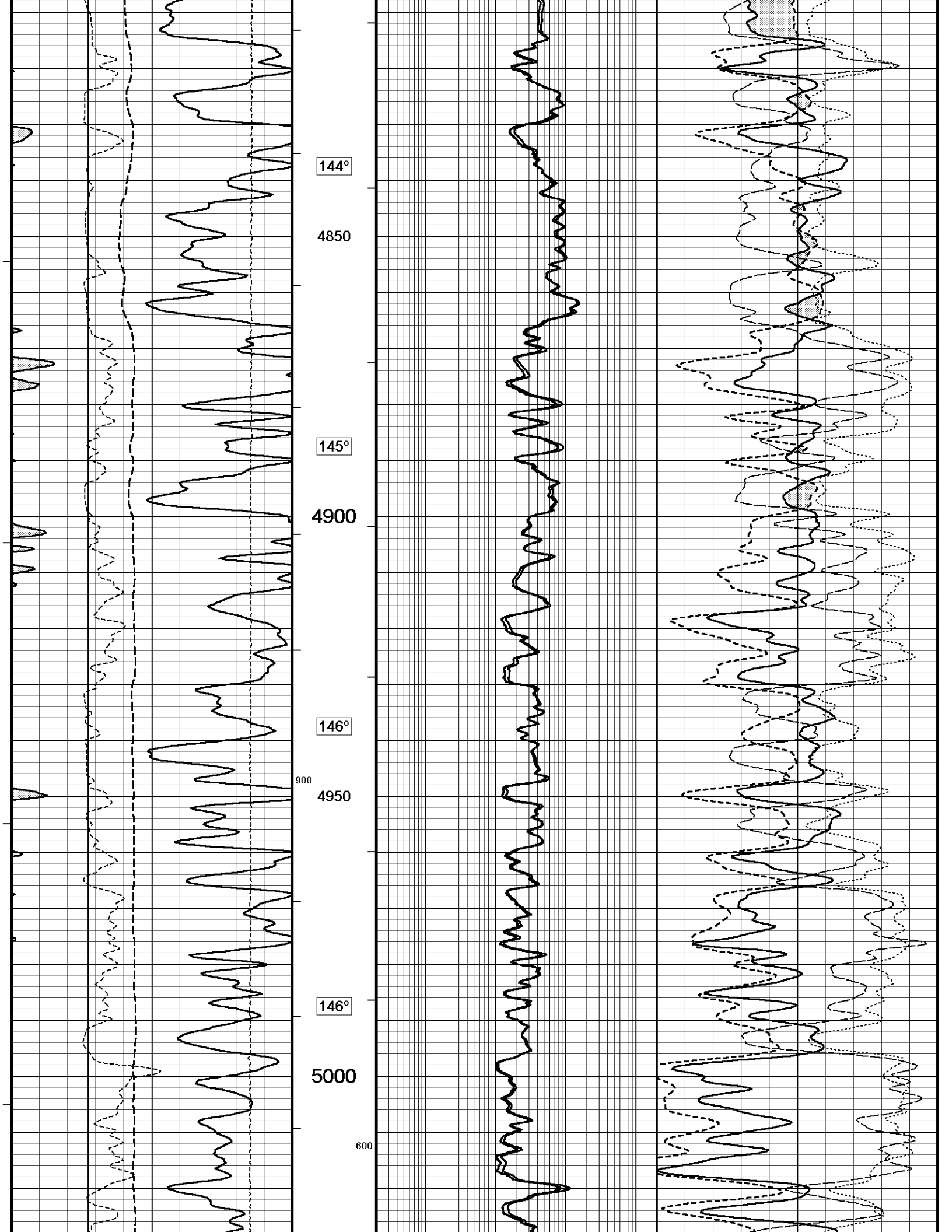


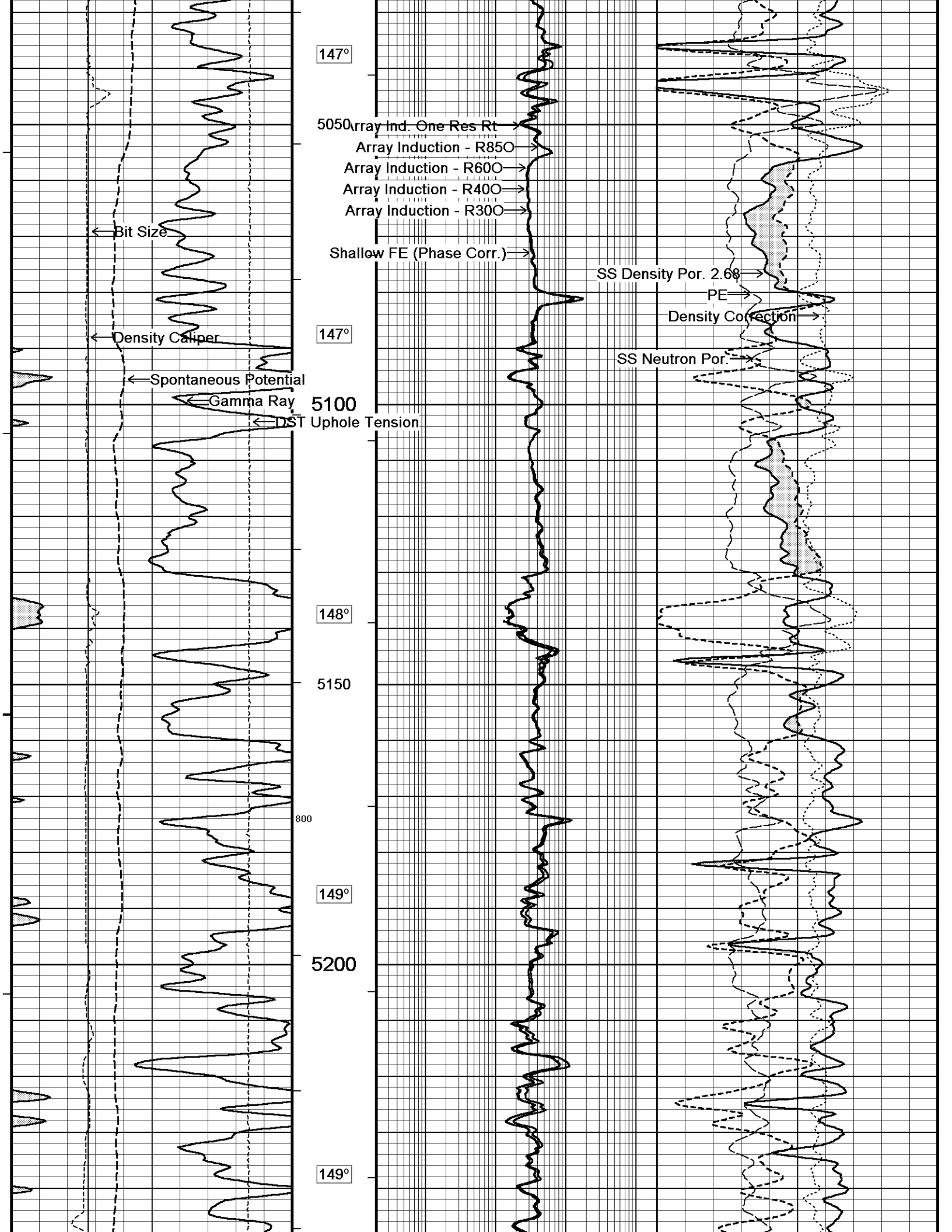


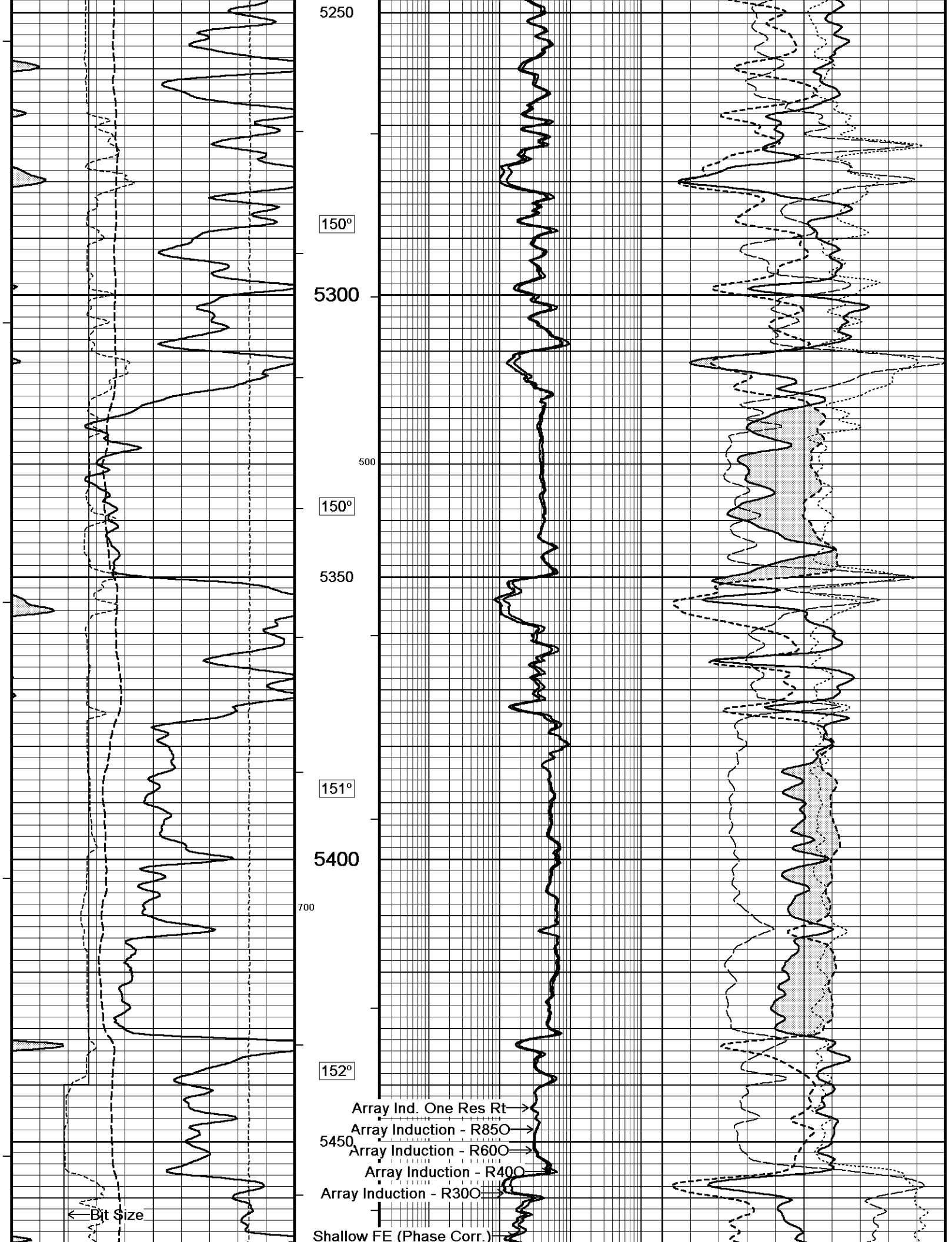


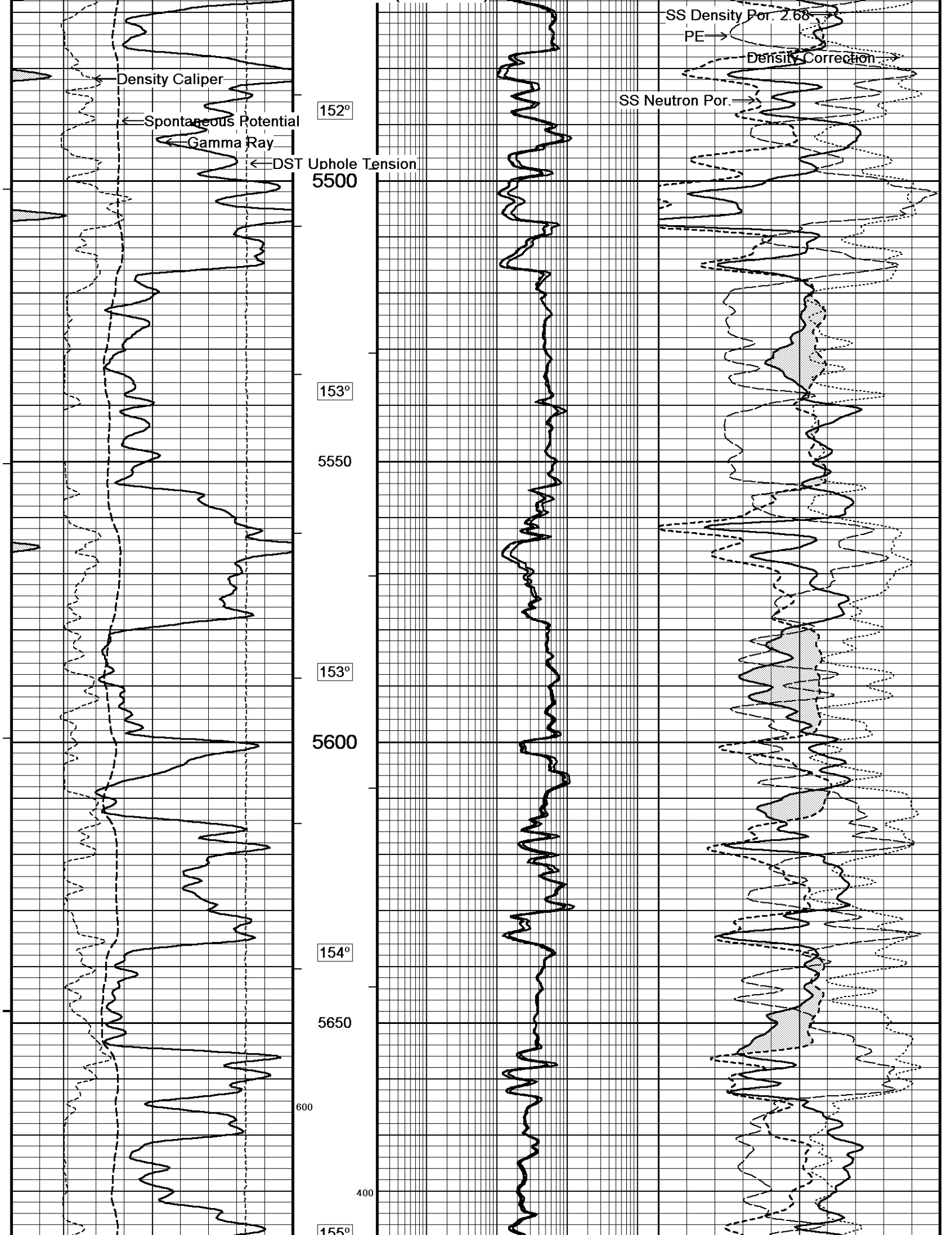




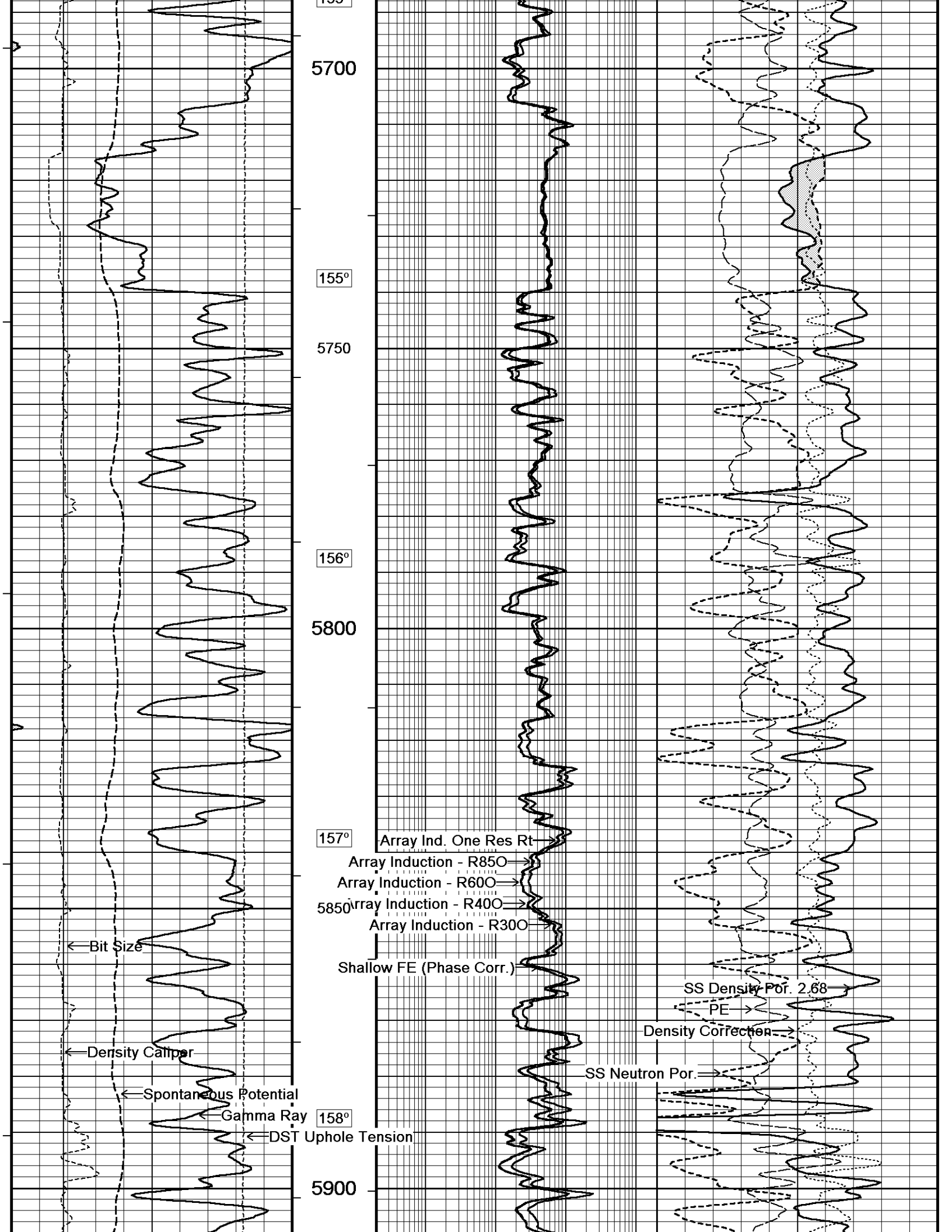


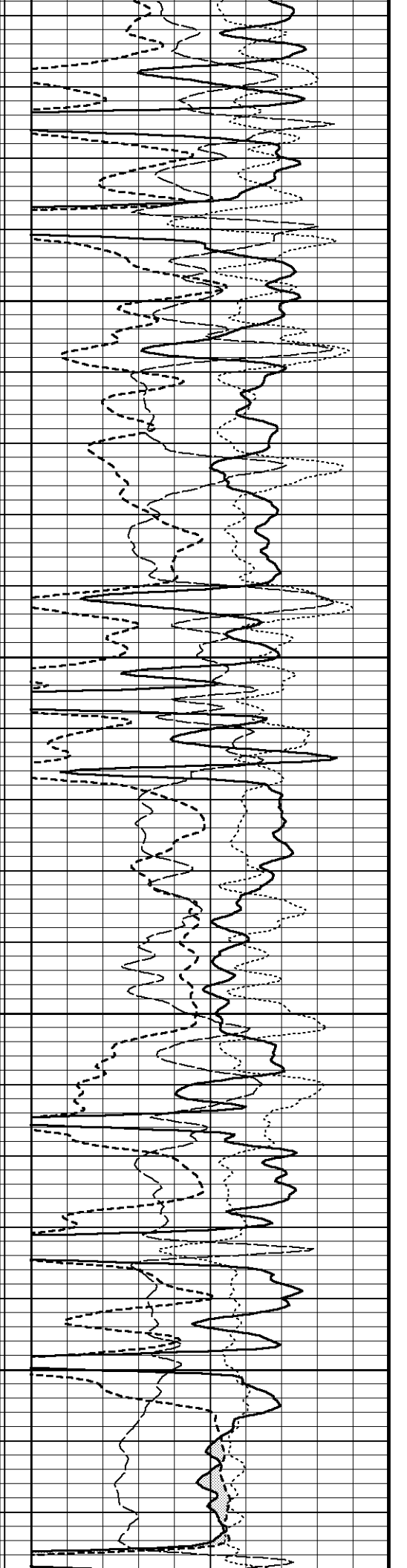
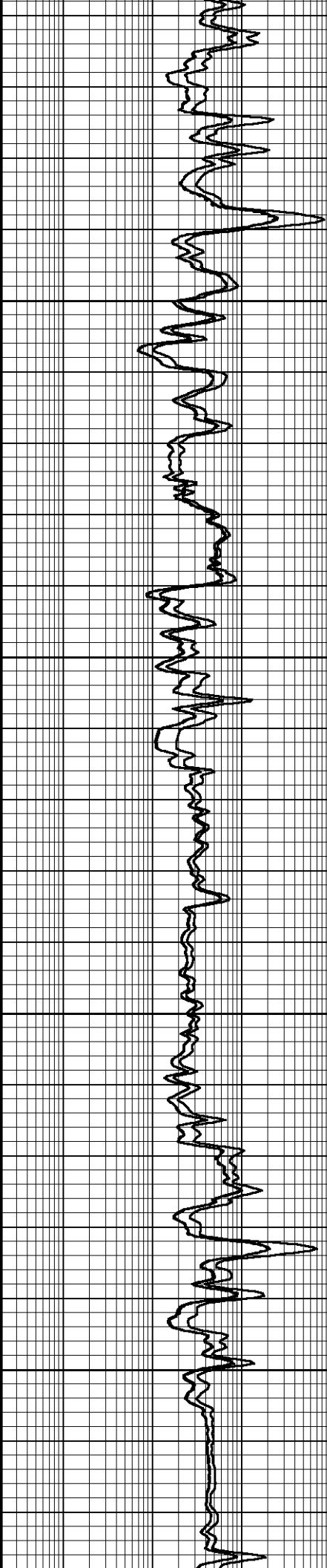
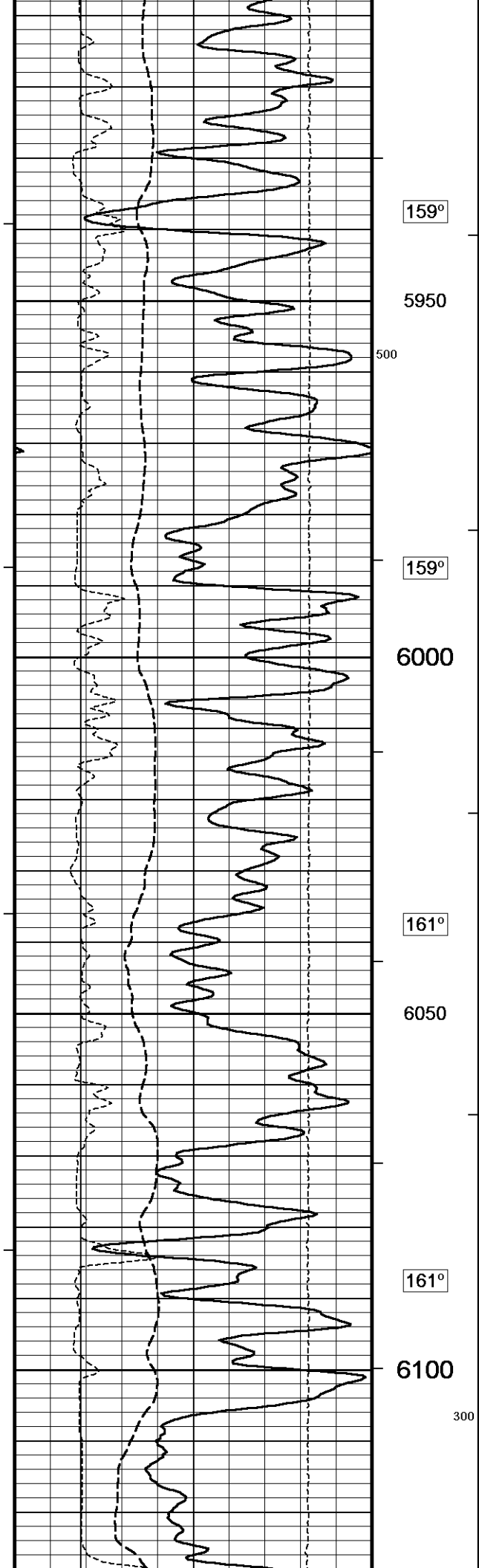


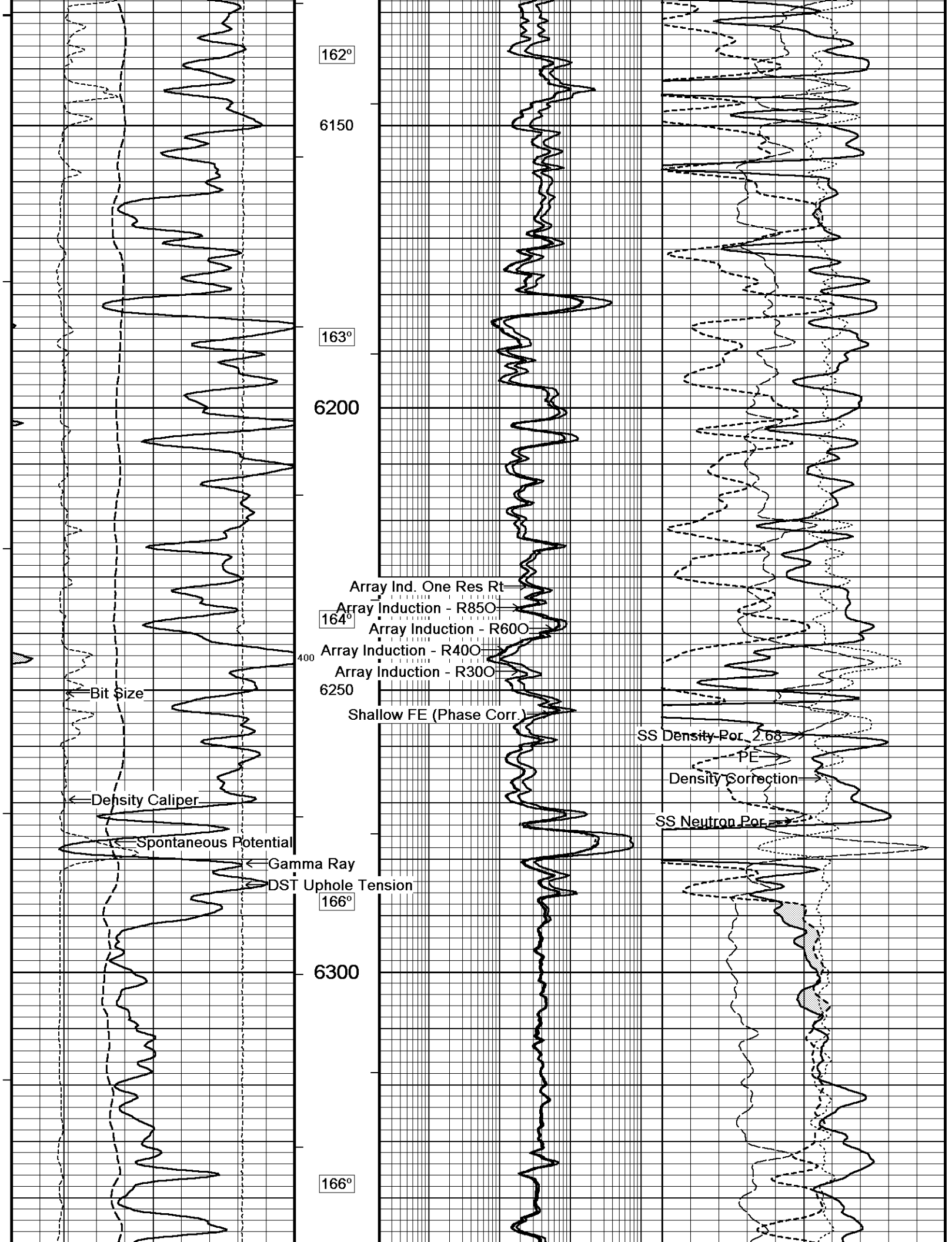


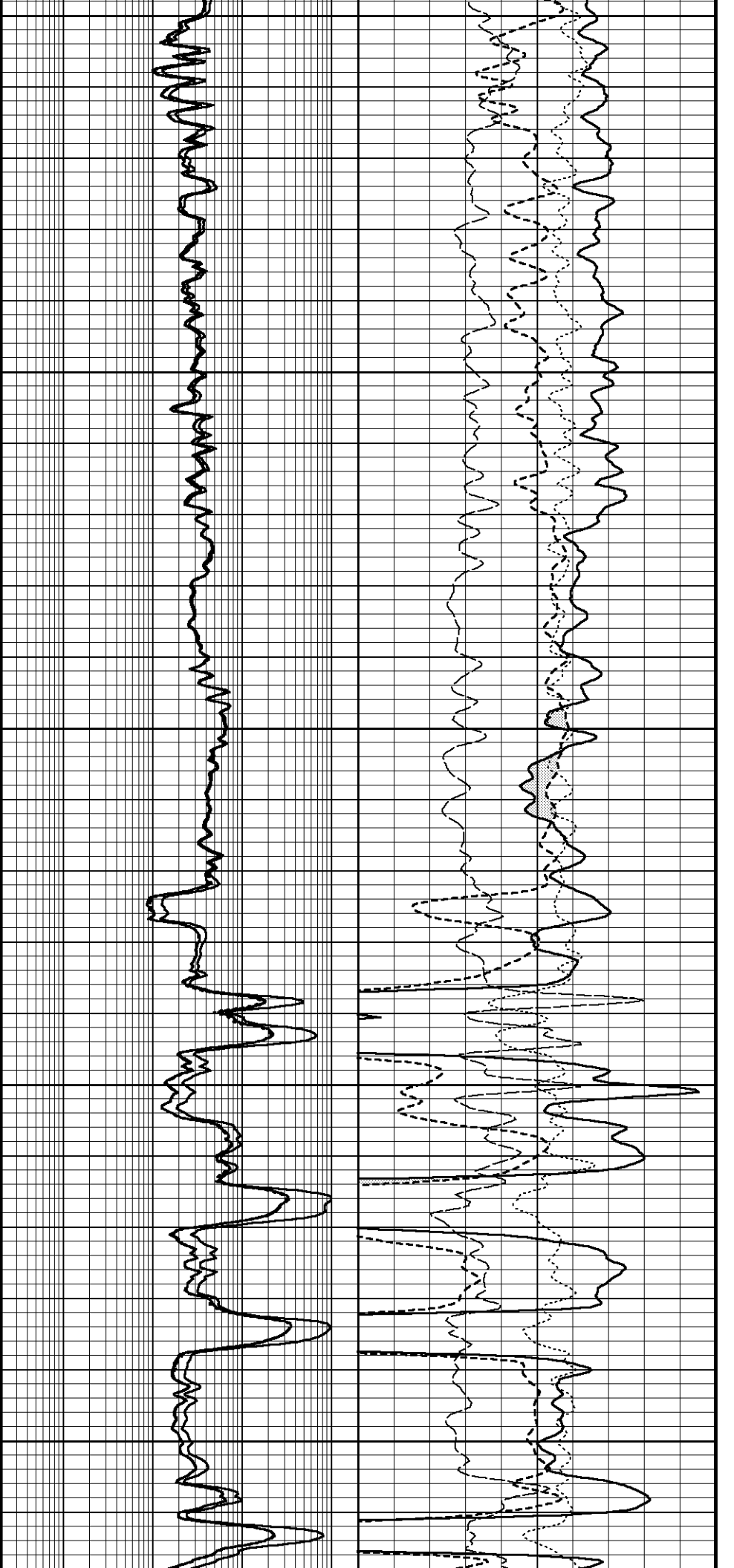
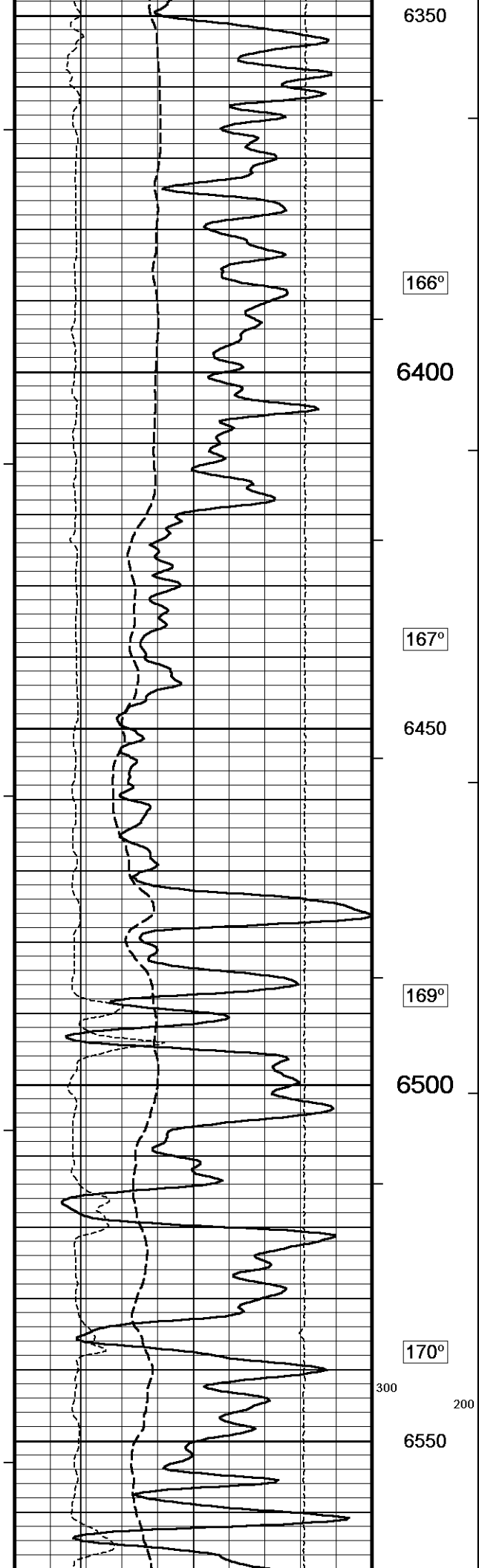


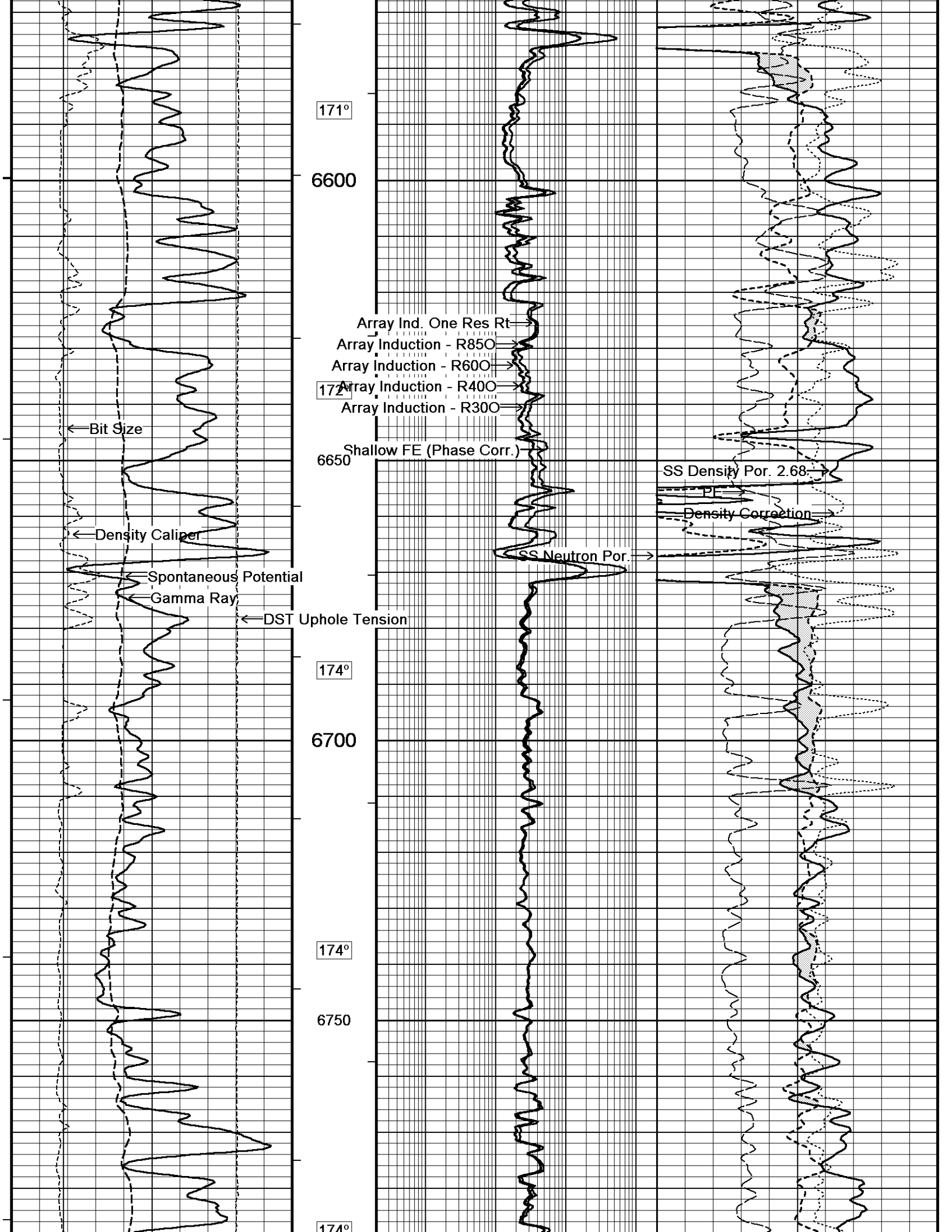


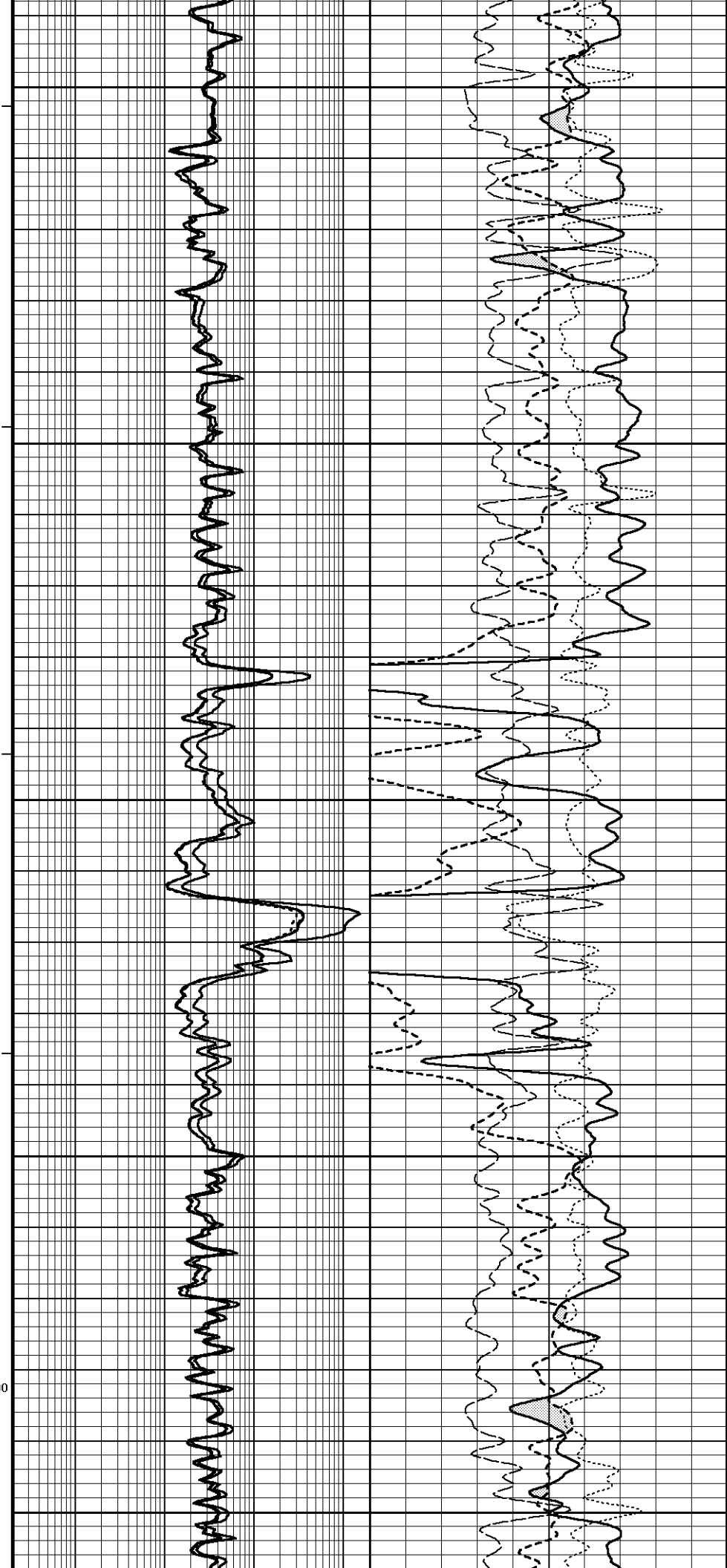
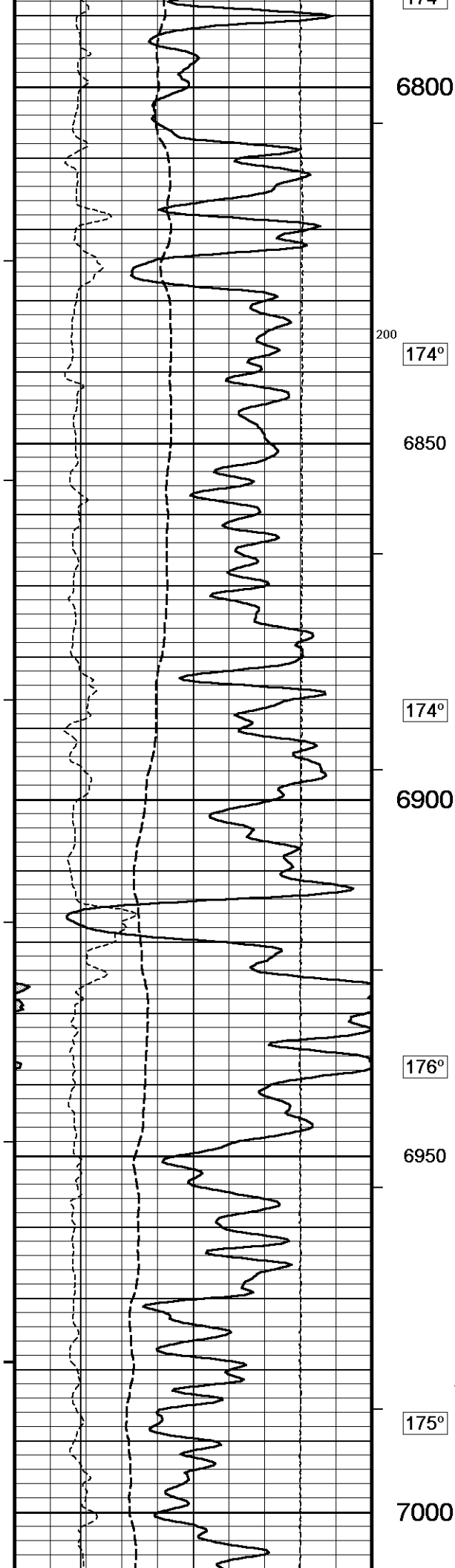


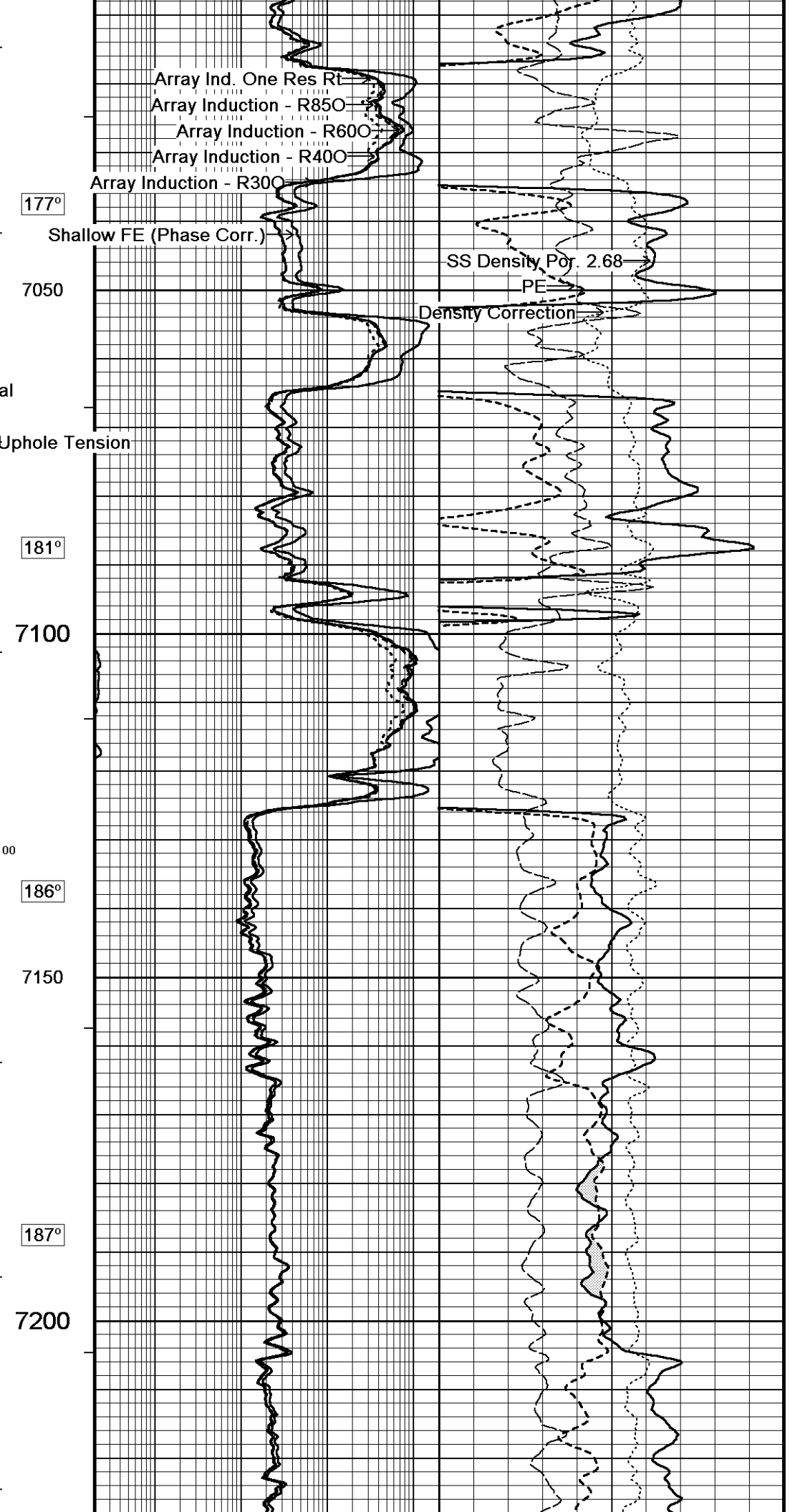
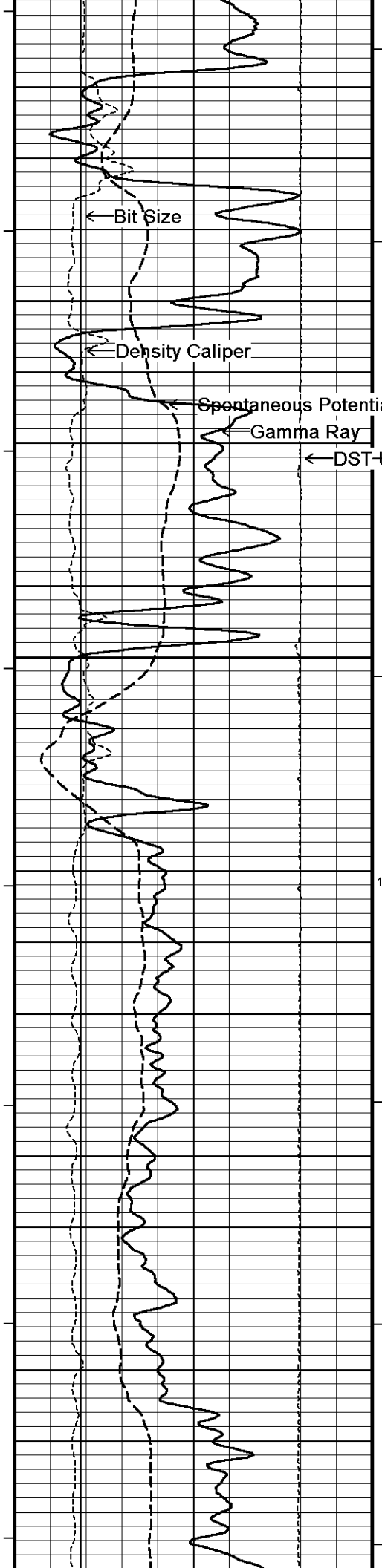


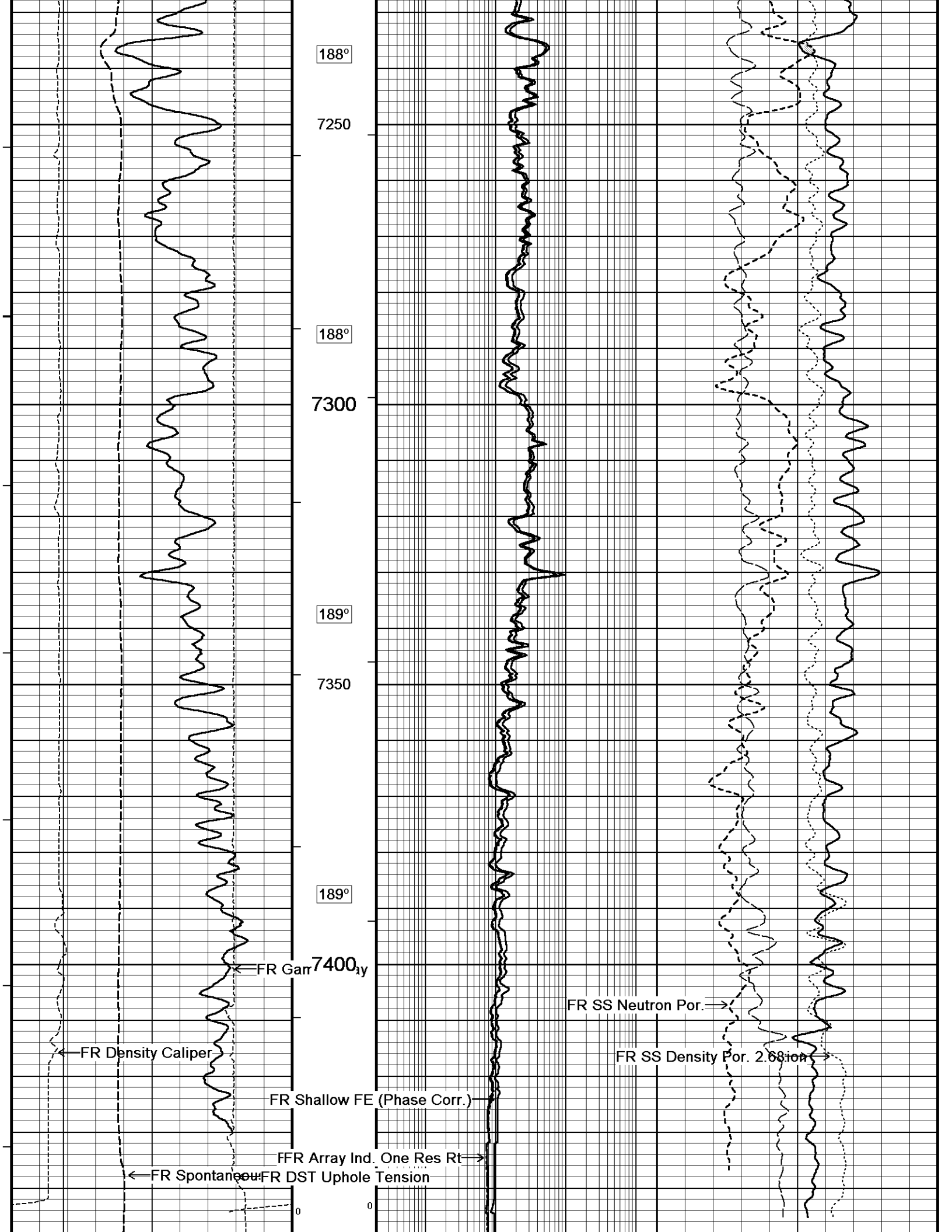




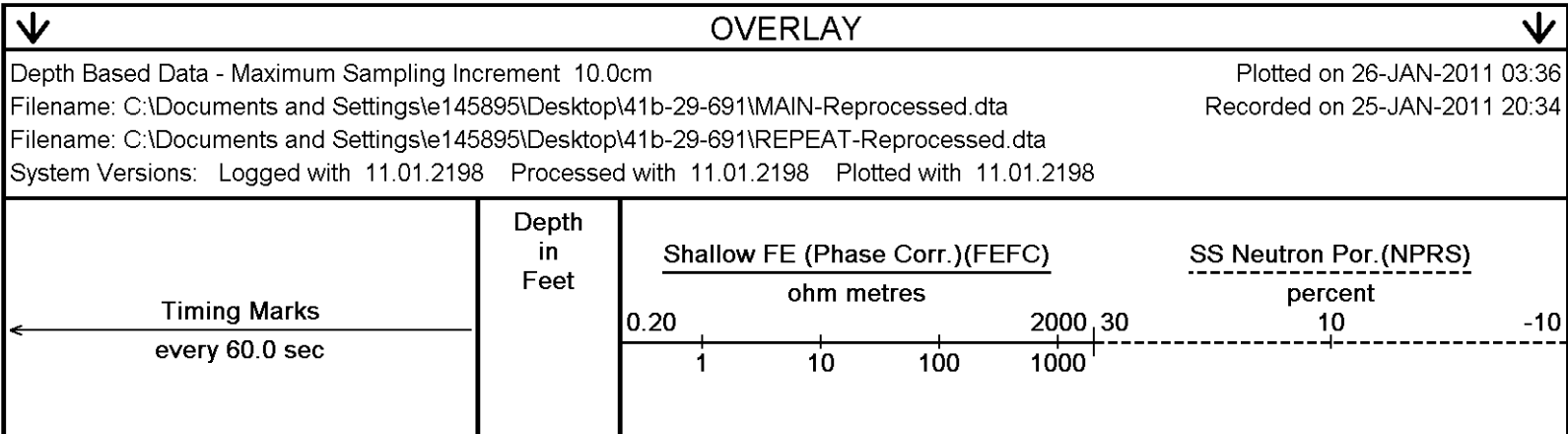
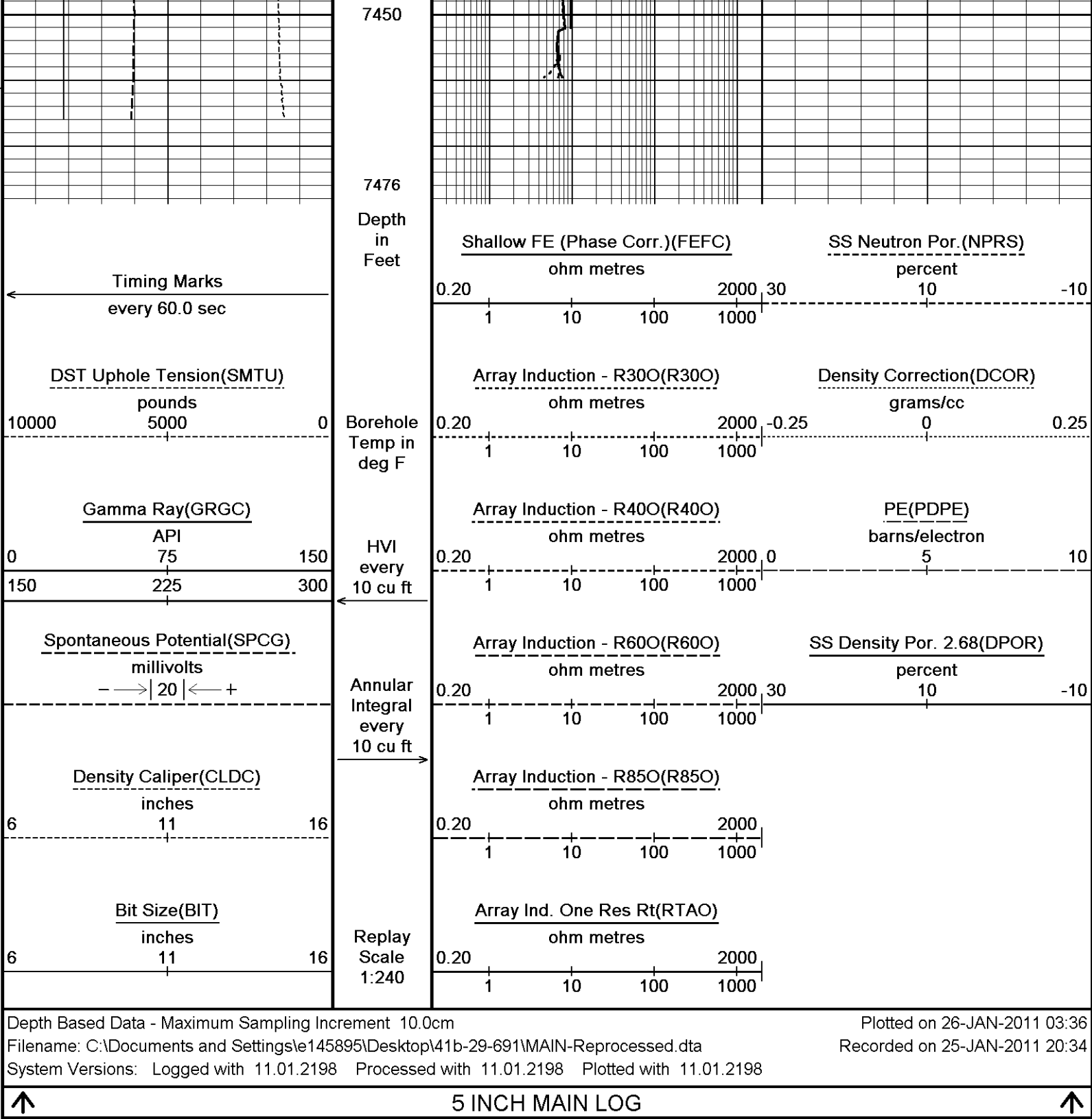


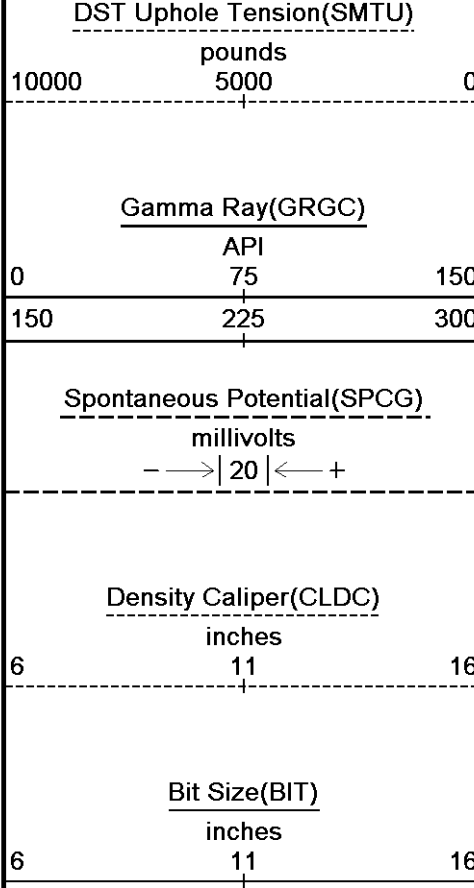










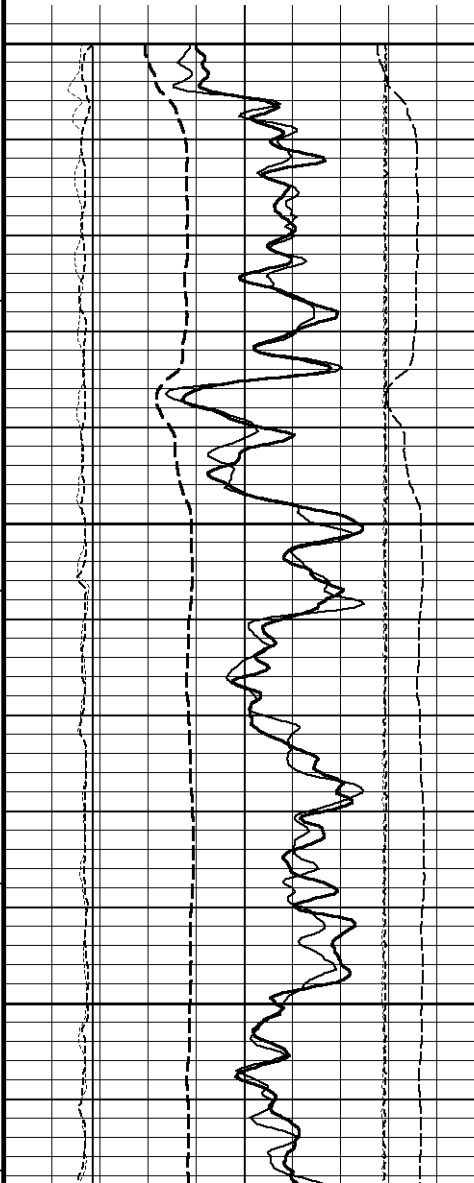
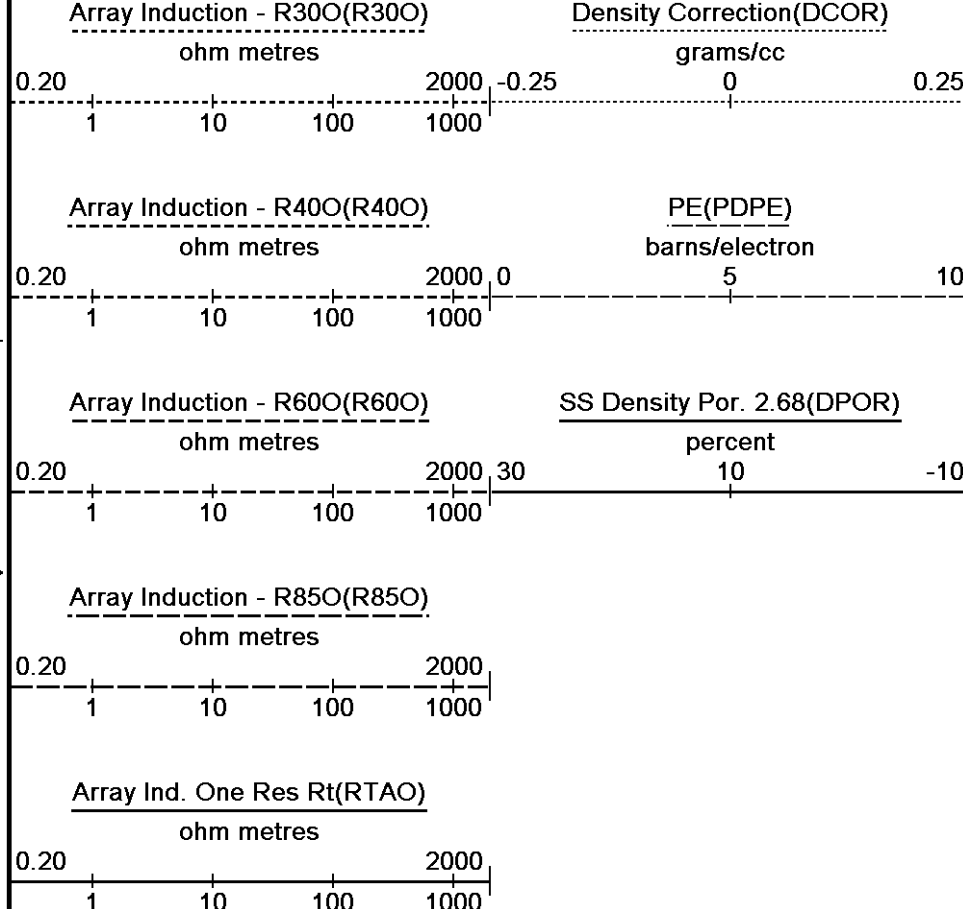


Borehole  
Temp in  
deg F

HVI  
every  
10 cu ft

Annular  
Integral  
every  
10 cu ft

Replay  
Scale  
1:240



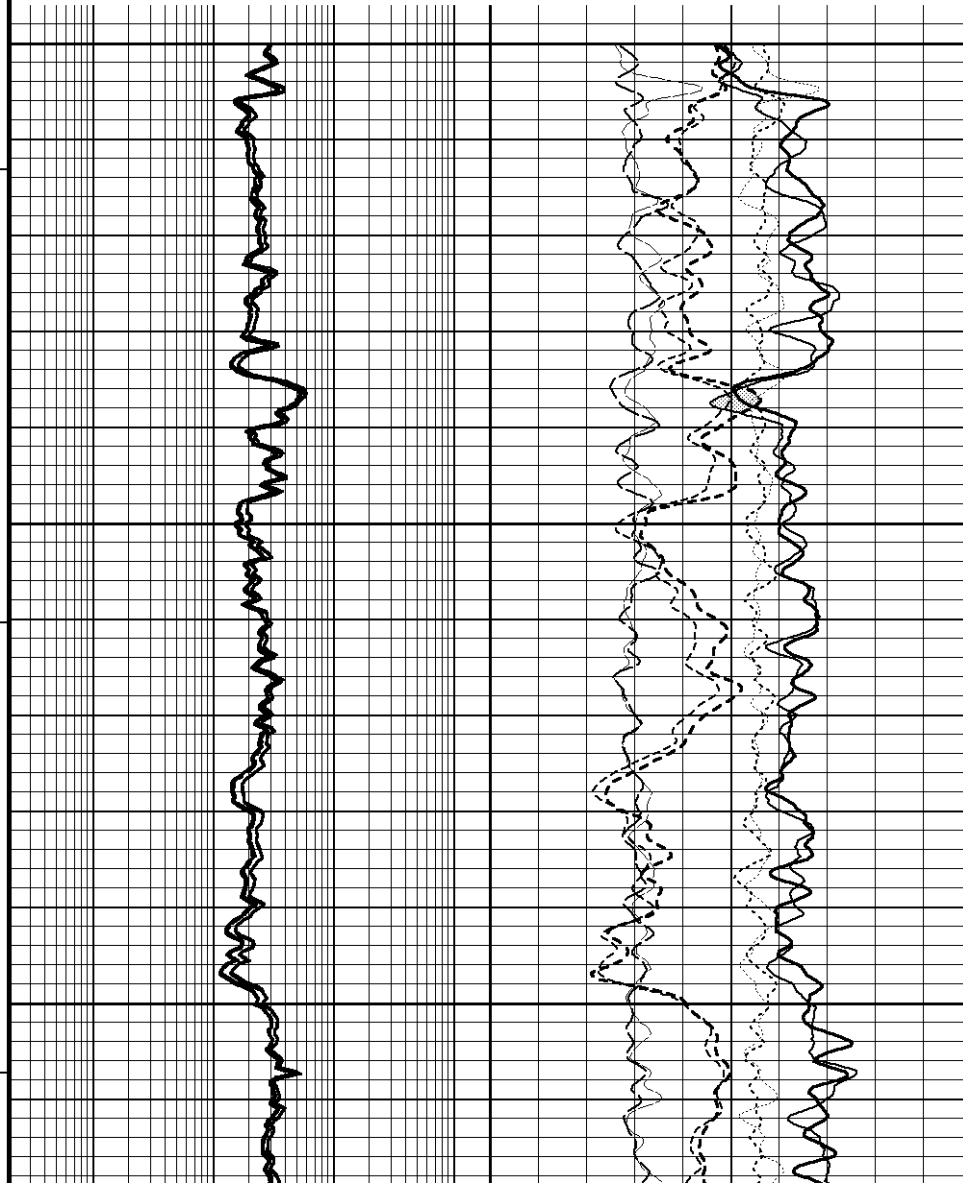
7200

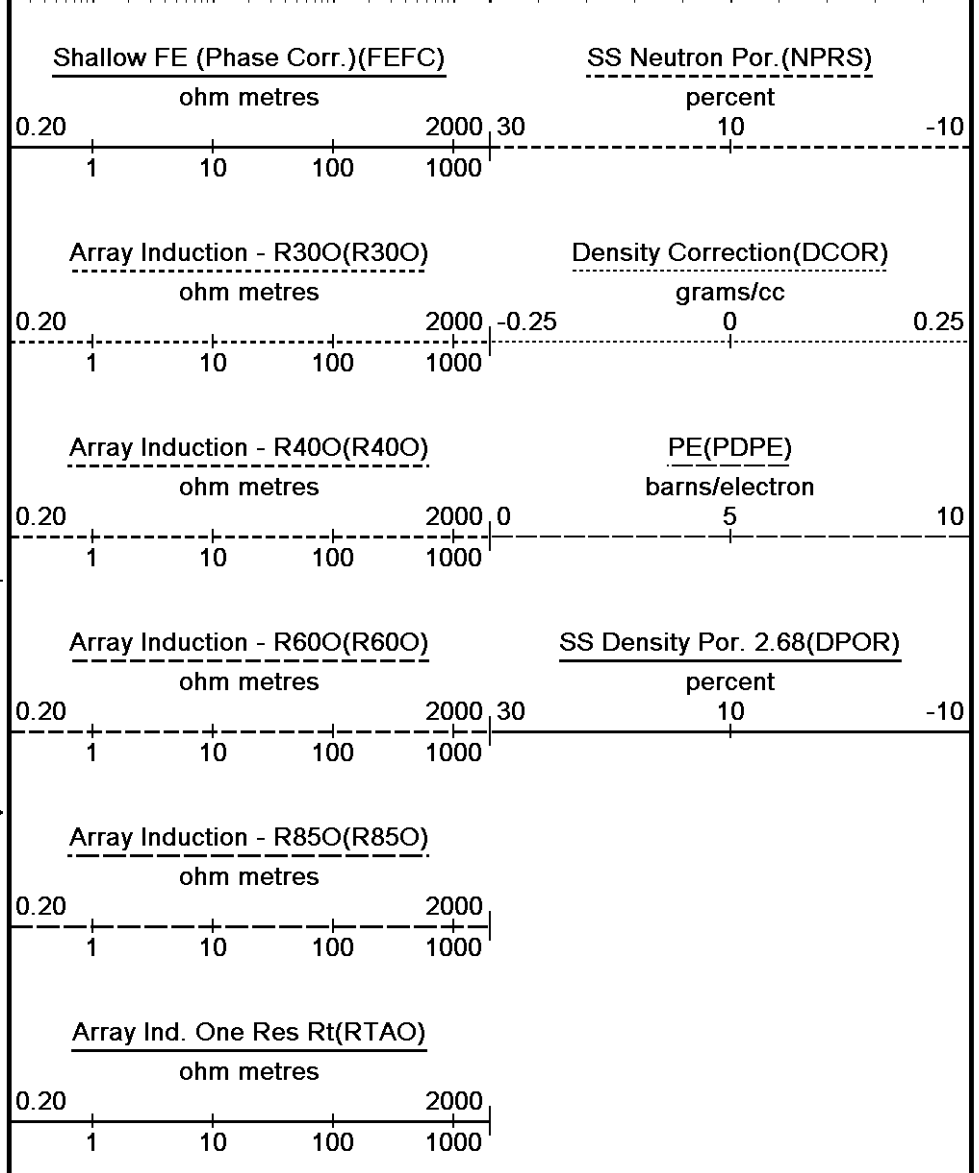
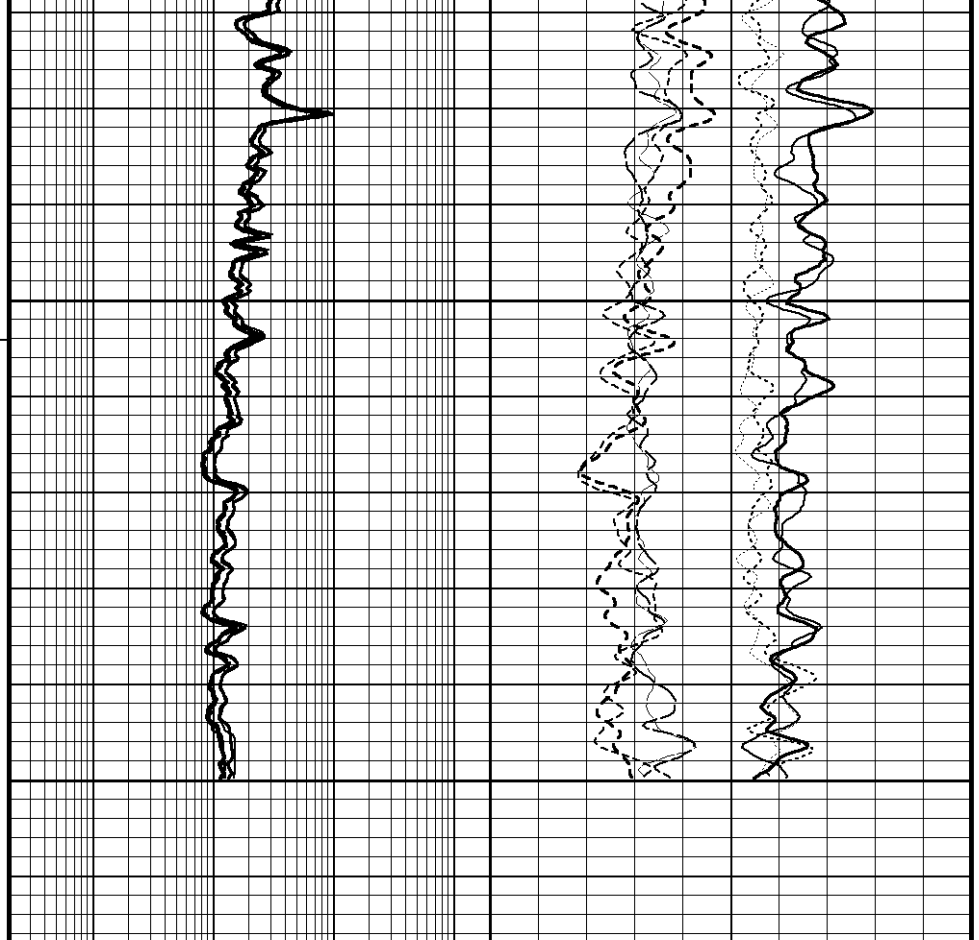
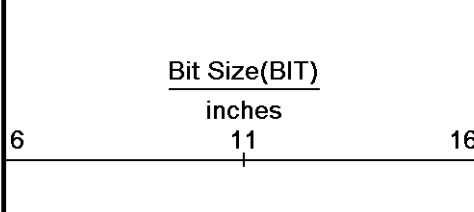
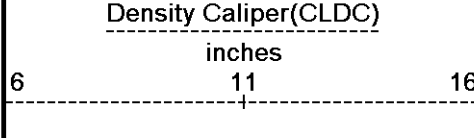
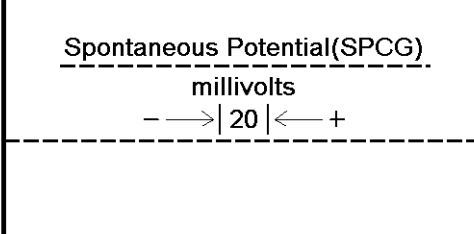
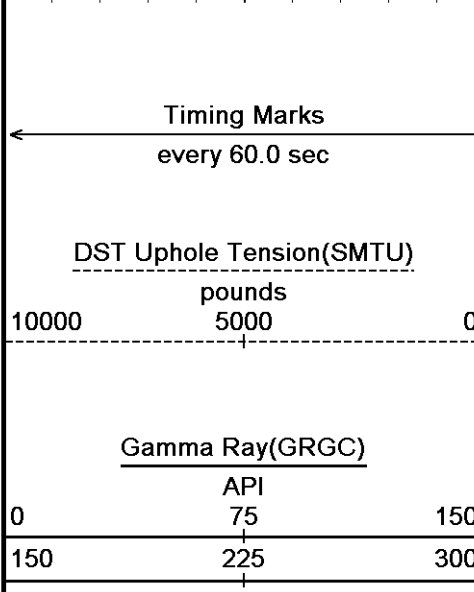
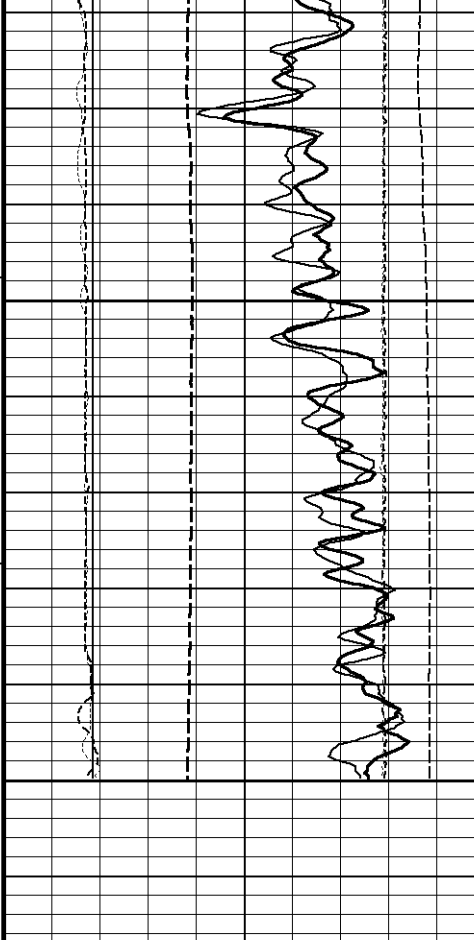
188°

7250

188°

7300





BEFORE SURVEY CALIBRATION

C:\Documents and Settings\le145895\Desktop\41b-29-691\MAIN-Reprocessed.dta

General Constants All 000			Last Edited on 25-JAN-2011,19:39
General Parameters			
Mud Resistivity	3.800	ohm-metres	
Mud Resistivity Temperature	92.000	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 25-JAN-2011 18:42
Reading No	Measured	Calibrated (lbs)	
1	16732.26	0.00	
2	18043.58	368.20	

High Resolution Temperature Calibration MCG-C 192			Field Calibration on 25-JAN-2011,16:13
	Measured	Calibrated(Deg F)	
Lower	50.00	50.00	
Upper	75.00	75.00	

High Resolution Temperature Constants MCG-C 192			Last Edited on 13-DEC-2010,09:50
Pre-filter Length	11		

SP Calibration MCG-C 192			Field Calibration on 25-JAN-2011,16:13
	Measured	Calibrated (mV)	
Reference 1	102.5	101.0	
Reference 2	-98.8	-101.0	

Gamma Calibration MCG-C 192			Field Calibration on 25-JAN-2011 15:56
	Measured	Calibrated (API)	
Background	95	65	
Calibrator (Gross)	1425	977	
Calibrator (Net)	1330	912	

Gamma Constants MCG-C 192			Last Edited on 25-JAN-2011,19:40
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 25-DEC-2010,03:47 Field Check on 25-JAN-2011 16:01
Base Calibration			
	Measured	Calibrated (cps)	

	Near	Measured	Far	Near	Far
	3208		98	3714	110
Ratio		32.812			33.764
Field Calibrator at Base				Calibrated (cps)	
				1323	1983
Ratio					0.667
Field Check				Calibrated (cps)	
				1305	1999
Ratio					0.653

Neutron Constants MDN-A.B 160				Last Edited on 26-JAN-2011,00:07	
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			

FE Calibration MFE-A.A 85				Base Calibration on 04-JAN-2011 14:22 Field Check on 25-JAN-2011 16:05	
Base Calibration					
	Measured		Calibrated (ohm-m)		
Reference 1	0.0		0.0		
Reference 2	968.2		126.8		
Base Check			280.9		
Field Check			281.1		

FE Constants MFE-A.A 85				Last Edited on 25-JAN-2011,23:27	
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 212				Field Calibration on 25-JAN-2011,16:12	
	Measured		Calibrated(Deg F)		
Lower	10.00		50.00		
Upper	100.00		212.00		

High Resolution Temperature Constants MAI-B.A 212				Last Edited on 03-JAN-2011,01:08	
Pre-filter Length		11			

Induction Calibration MAI-B.A 212				Base Calibration on 12-NOV-2010,10:48 Field Check on 25-JAN-2011 16:09	
Base Calibration					
Test Loop Calibration		Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High	
1	16.6	473.9	9.3	966.2	
2	6.2	387.5	7.6	821.4	
3	3.9	263.1	5.2	566.0	
4	2.0	132.9	2.6	279.2	

Array Temperature

71.2

Deg F

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1	13.7	3844.7	13.8	3845.2
2	29.6	3491.4	29.6	3491.2
3	27.5	3023.7	27.5	3023.4
4	19.5	2088.1	19.5	2087.9
Deep	17.0	2015.1	17.0	2014.9
Medium	39.5	3941.1	39.5	3940.5
Shallow	44.1	5104.6	44.1	5104.5

Array Temperature

62.1

63.3

Deg F

Induction Constants MAI-B.A 212

Last Edited on 25-JAN-2011,23:28

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	0.0000	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 21-JAN-2011 16:11

Field Calibration on 25-JAN-2011,16:15

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	18525	4.00
2	27040	5.96
3	34832	7.98
4	43072	9.86
5	52544	11.88
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
6.05	5.96

Photo Density Calibration MPD-B 167

Base Calibration on 21-JAN-2011 15:55

Field Check on 25-JAN-2011 23:26

Density Calibration		Measured		Calibrated (sdu)	
Base Calibration		Near	Far	Near	Far
Reference 1		48339	18513	53115	19186
Reference 2		22777	3049	25020	2536

Field Check at Base

1168.2      1745.6

Field Check

1174.7      1752.4

PE Calibration		Measured		Calibrated	
Base Calibration		WS	WH	Ratio	Ratio
Background		216	1046		
Reference 1		14699	48168	0.307	0.320
Reference 2		5890	22643	0.263	0.272

Field Check at Base

216.3      1045.7

Field Check

214.2      1047.5

## Density Constants MPD-B 167

Last Edited on 25-JAN-2011,16:15

Density Source Id	P50561B
Nylon Calibrator Number	507
Aluminium Calibrator Number	507
Density Shoe Profile	8 inch
Caliper Source for Processing	Density Caliper
PE Correction to Density	Not Applied
Mud Density	1.34      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

C:\Documents and Settings\le145895\Desktop\41b-29-691\MAIN-Reprocessed.dta

### Gamma Check MCG-C 192

Field Calibration on 25-JAN-2011 15:56  
After Survey Check on 26-JAN-2011 00:06

	Before (API)	After (API)
Background	65	67
Calibrator (Gross)	977	979
Calibrator (Net)	912	912

### Neutron Check MDN-A.B 160

Before Survey Check on 25-JAN-2011 16:01  
After Survey Check on 26-JAN-2011 00:11

Near (cps)		Far (cps)	
Before	After	Before	After
1305	1268	1999	1921
Ratio			
Before	After		
0.653	0.660		

Before (ohm-m)  
281.1After (ohm-m)  
280.8

## Induction Check MAI-B.A 212

Before Survey Check on 25-JAN-2011 16:09  
After Survey Check on 25-JAN-2011 23:30

Channel	Before Survey (mmho/m)		After Survey (mmho/m)		
	Low	High	Low	High	
1	13.8	3845.2	14.4	3844.8	
2	29.6	3491.2	29.9	3491.1	
3	27.5	3023.4	27.6	3023.4	
4	19.5	2087.9	19.6	2087.7	
Deep	17.0	2014.9	17.1	2014.8	
Medium	39.5	3940.5	39.7	3940.7	
Shallow	44.1	5104.5	44.5	5104.3	
Array Temperature		63.3		69.7	Deg F

## DOWNHOLE EQUIPMENT

C:\Documents and Settings\le145895\Desktop\41b-29-691\MAIN-Reprocessed.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 Gamma

MCG-C 192 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Neutron

MDN-A.B 160 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper

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

SKJ-E.A Compact Knuckle Joint

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

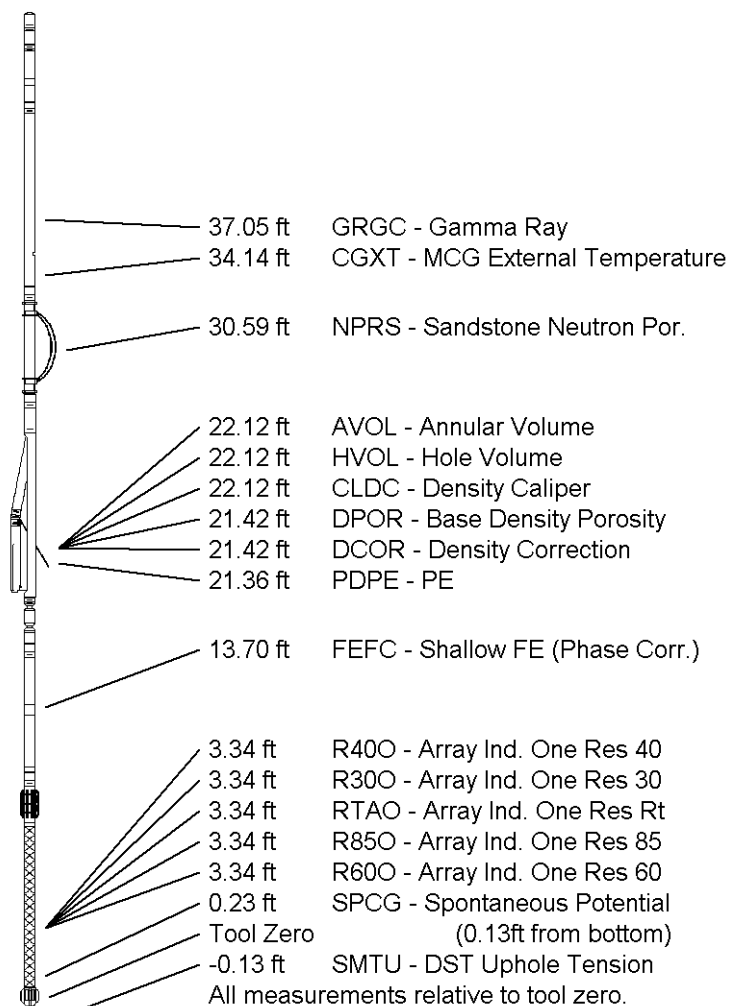
Compact Focussed Electric

MFE-A.A 85 LG: 6.03 ft WT: 48.5 lb OD: 2.24 in

Compact Induction

MAI-B.A 212 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 46.65 ft Weight: 368.2 lb



COMPANY

BILL BARRETT CORPORATION

WELL

GGU FEDERAL 41B-29-691

FIELD

GIBSON GULCH

PROVINCE/COUNTY

GARFIELD

COUNTRY/STATE

U.S.A. / COLORADO

Elevation Kelly Bushing 6127.00 feet

First Reading 7438.00



Elevation Drill Floor 6126.00 feet  
Elevation Ground Level 6104.00 feet

Depth Driller 7435.00 feet  
Depth Logger 7438.00 feet



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QUICKLOOK  
LOG

