



Weatherford

COMPACT TRIPLE COMBO QUICKLOOK LOG

COMPANY

BILL BARRETT CORPORATION

WELL

GGU FEDERAL 42D-29-691

FIELD

GIBSON GULCH

PROVINCE/COUNTY

GARFIELD

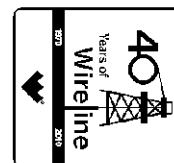
COUNTRY/STATE

U.S.A. / COLORADO

LOCATION

SHL: 1246' FNL & 1282' FEL

BHL: 1473' FNL & 664' FEL



SEC TWP RGE Other Services

29 6S 91W

API Number 05-045-19803

Permit Number

Permanent Datum G.L., Elevation 6104 feet

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

Drilling Measured From K.B.

Elevations:
KB 6127.00
DF 6126.00
GL 6104.00

Date 08-JAN-2011

Run Number ONE

Depth Driller 7385.00 feet

Depth Logger 7384.00 feet

First Reading 7381.00

Last Reading 824.00

Casing Driller 820.00 feet

Casing Logger 824.00 feet

Bit Size 7.880 inches

Hole Fluid Type LSND

Density / Viscosity 10.10 lb/USg 55.00 CP

PH / Fluid Loss 9.00 6.20 ml/30Min

Sample Source FLOW LINE

Rm @ Measured Temp 3.30 @ 70.0 ohm-m

Rmf @ Measured Temp 2.64 @ 70.0 ohm-m

Rmc @ Measured Temp 3.96 @ 70.0 ohm-m

Source Rmf / Rmc CALC CALC

Rm @ BHT 1.32 @ 179.0 ohm-m

Time Since Circulation 6 HOURS

Max Recorded Temp 179.00 deg F

Equipment Name COMPACT

Equipment / Base 13173 GD JCT

Recorded By D. KUNTZ

Witnessed By C. CROW

BOREHOLE RECORD

Last Edited: 08-JAN-2011 10:28

Bit Size
inchesDepth From
feetDepth To
feet

8.750

824.00

5628.00

7.880

5628.00

7385.00

CASING RECORD

Type

Size
inchesDepth From
feetShoe Depth
feetWeight
pounds/ft

SURFACE

9.625

0.00

824.00

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.

LOGS SPLICED AT 5780 FEET DUE TO TOOL ROLLOVER. AFTER REPEATING THE HOLE WAS FOUND TO BE IN GAUGE.

DENSITY POROSITY IS READING HIGH, NEUTRON POROSITY AND DCOR ARE READING LOW DUE TO 8% LCM USED IN THE MUD SYSTEM. LOGGED OUT WITHOUT SWAPPING TOOLS AS PER CUSTOMERS' REQUEST.

SYSTEM: LOGGED OUT WITHOUT SWAPTING TOOLS AFTER CUSTOMERS REQUEST.
CALIPER CHECK IN CASING PRESENTED, REFERENCE I.D. = 8.99" (9 5/8", 36 LB/FT CASING)

8.75 INCH BIT USED FROM SURFACE CASING TO 5628 FT.

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2095 CU.FT.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 1550 CU.FT.

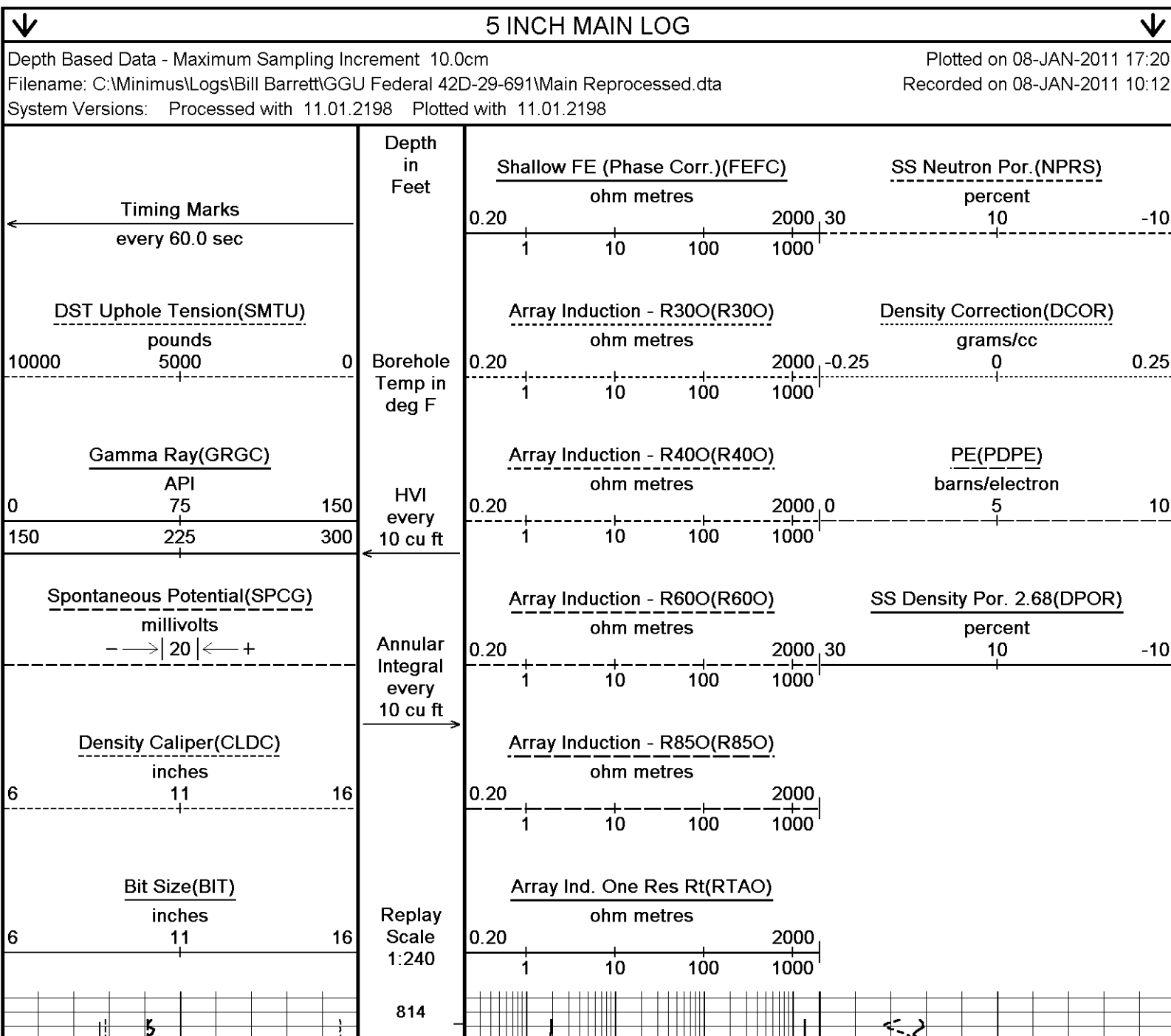
ENGINEER(S): D. KUNTZ

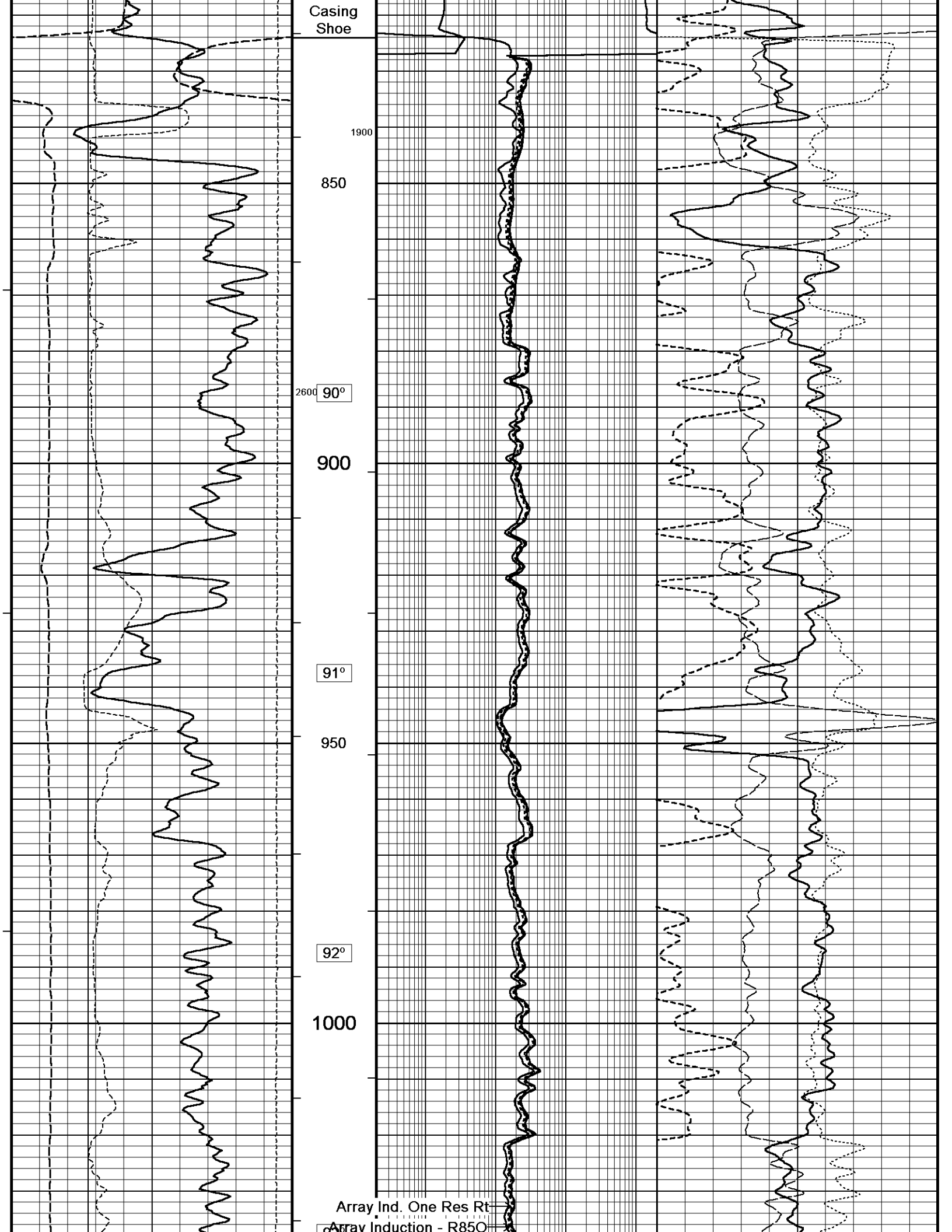
OPERATOR: S.KAISER, R. SYERS

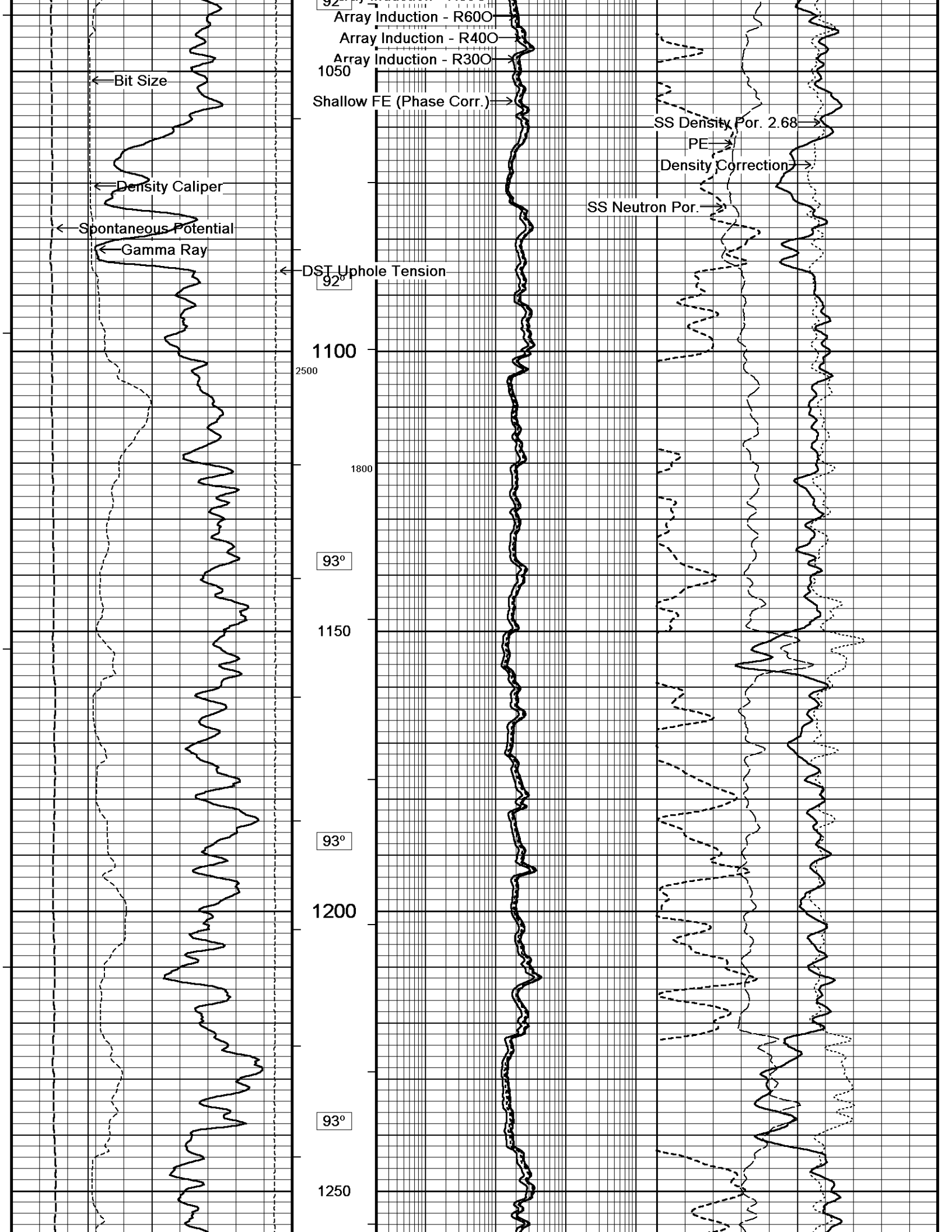
SERVICE ORDER: # 3526093

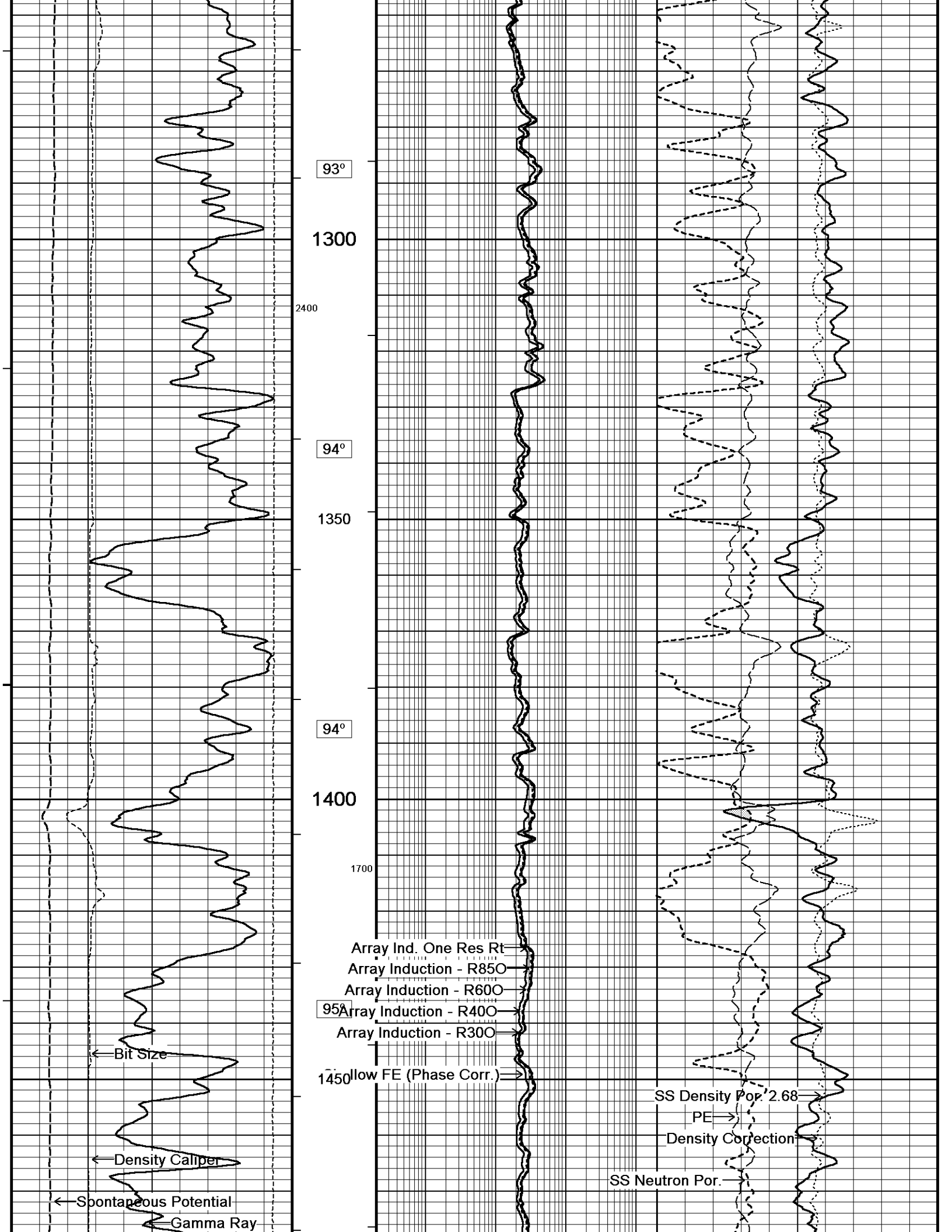
RIG: PATTERSON #307

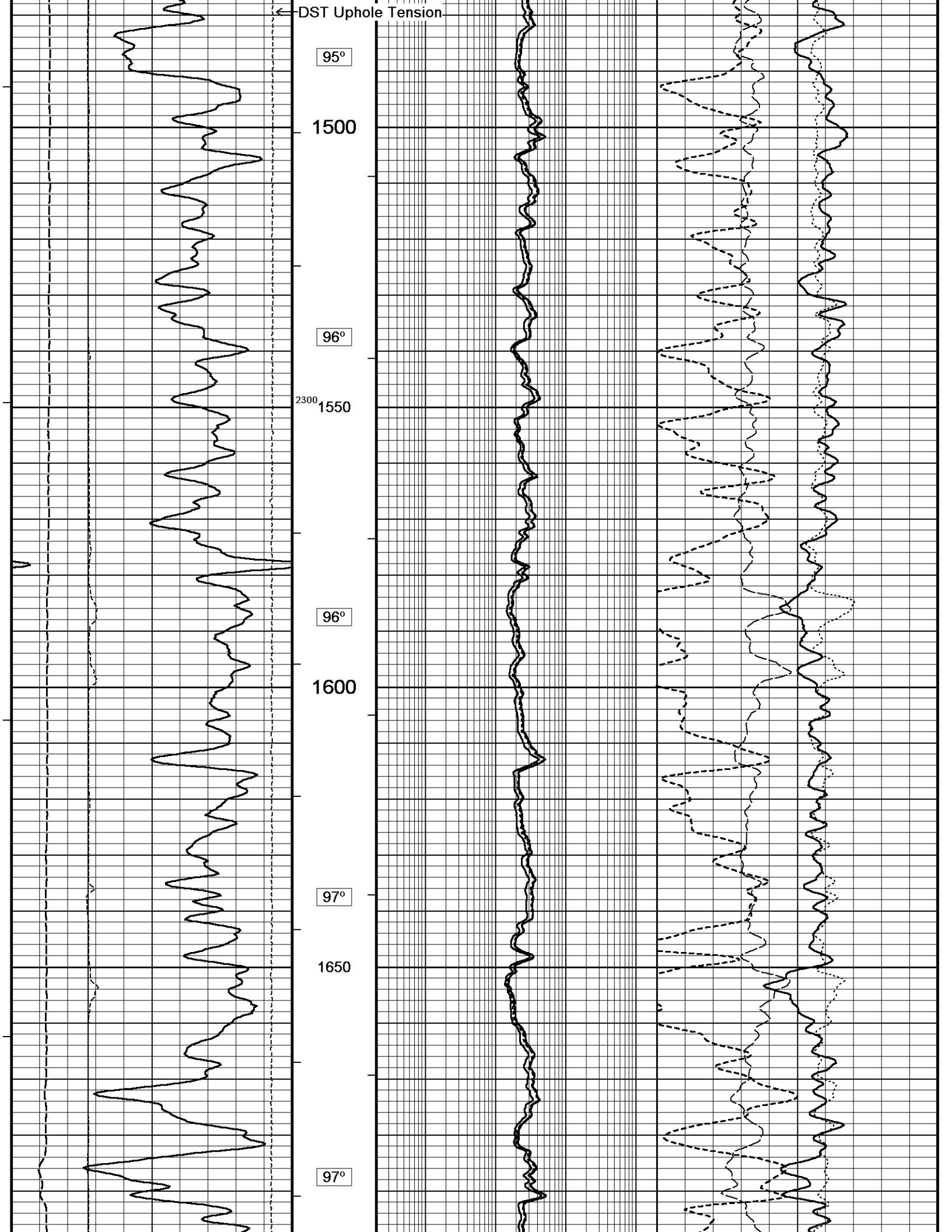
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

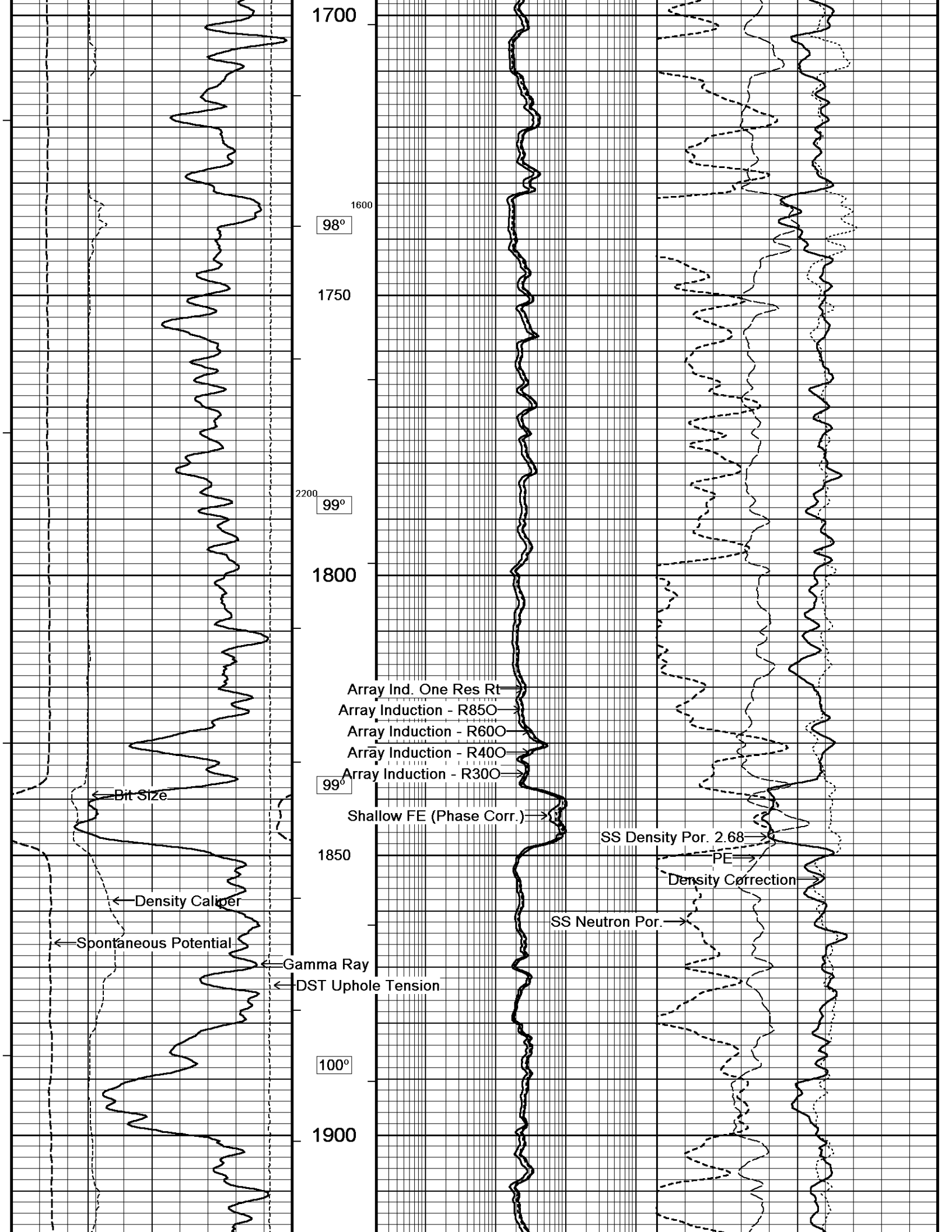


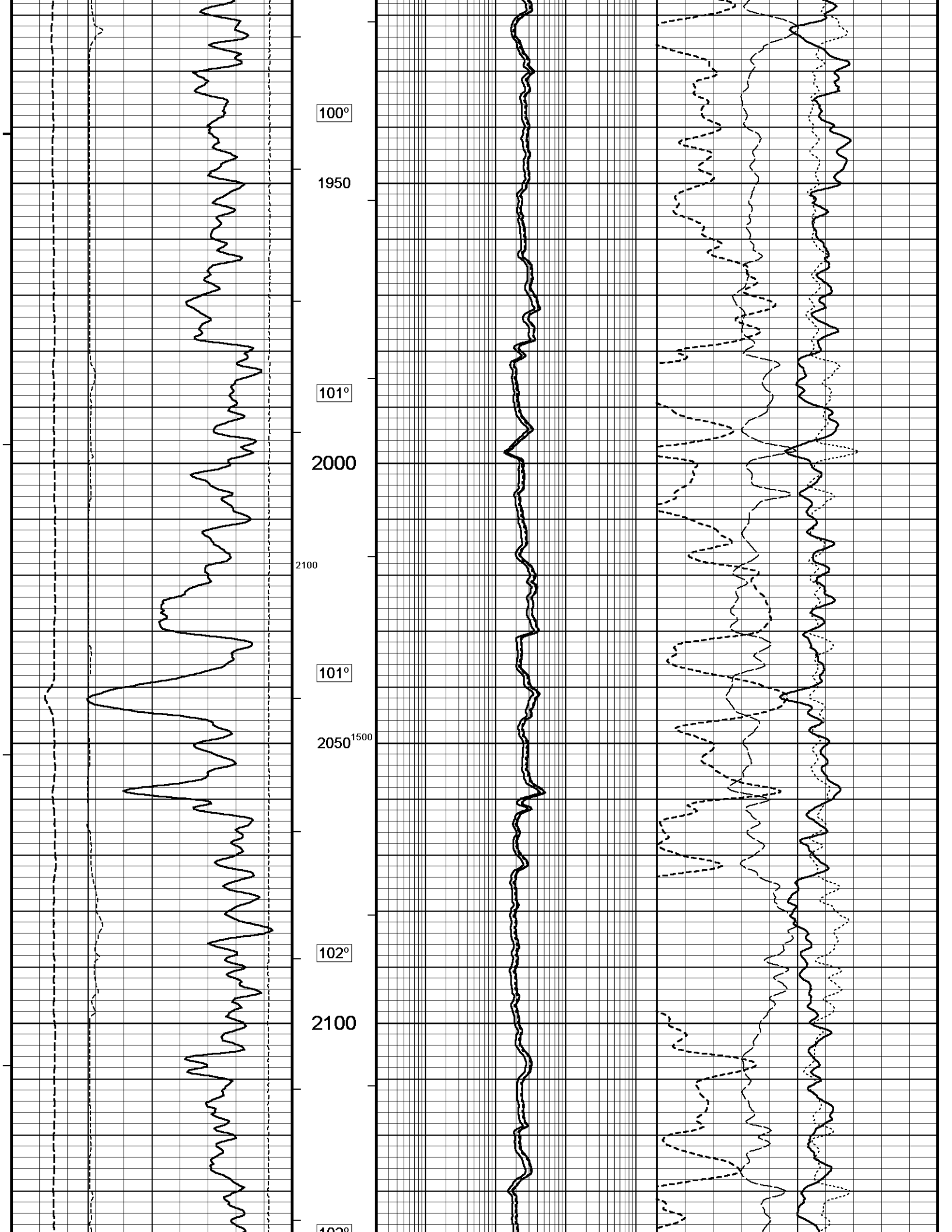


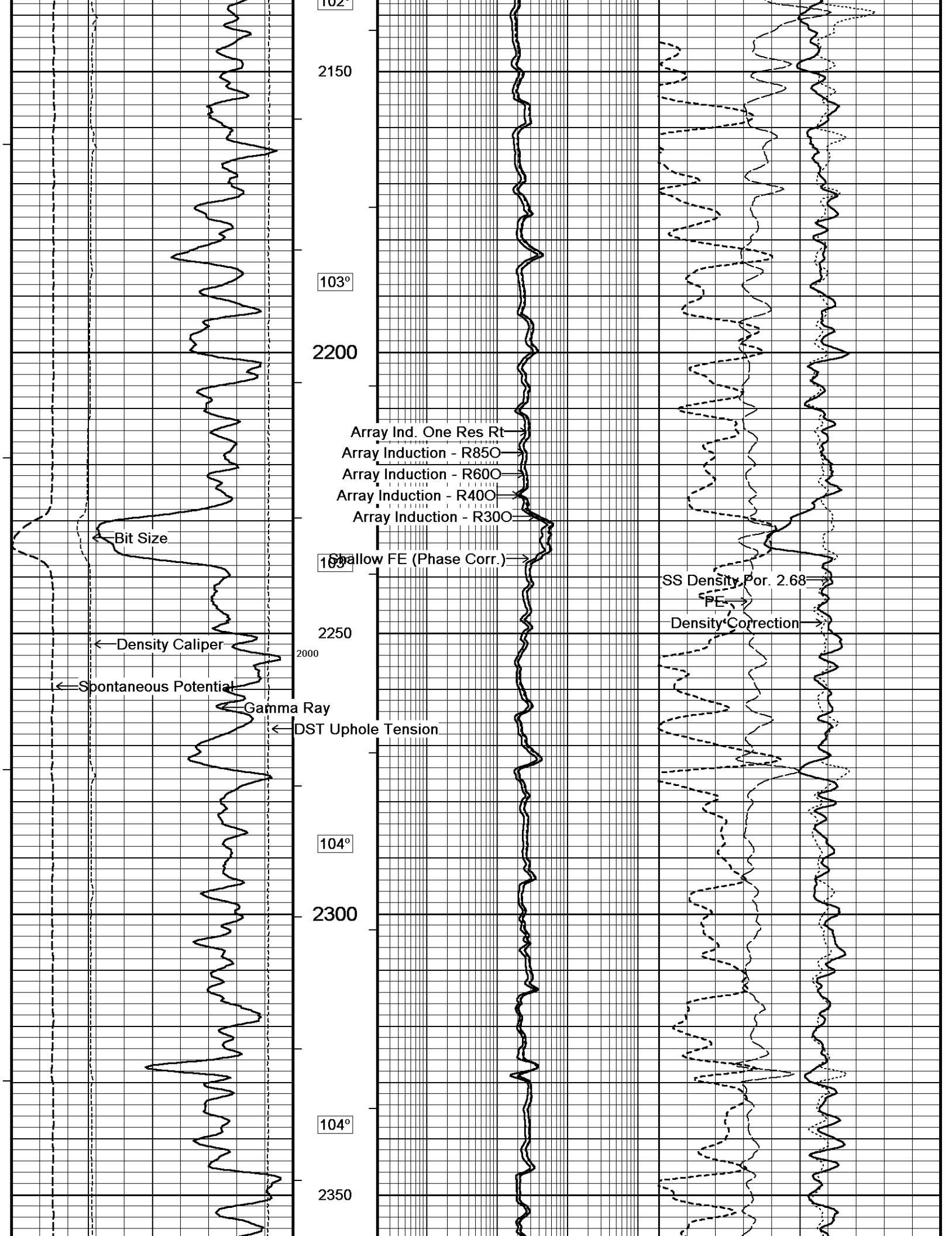


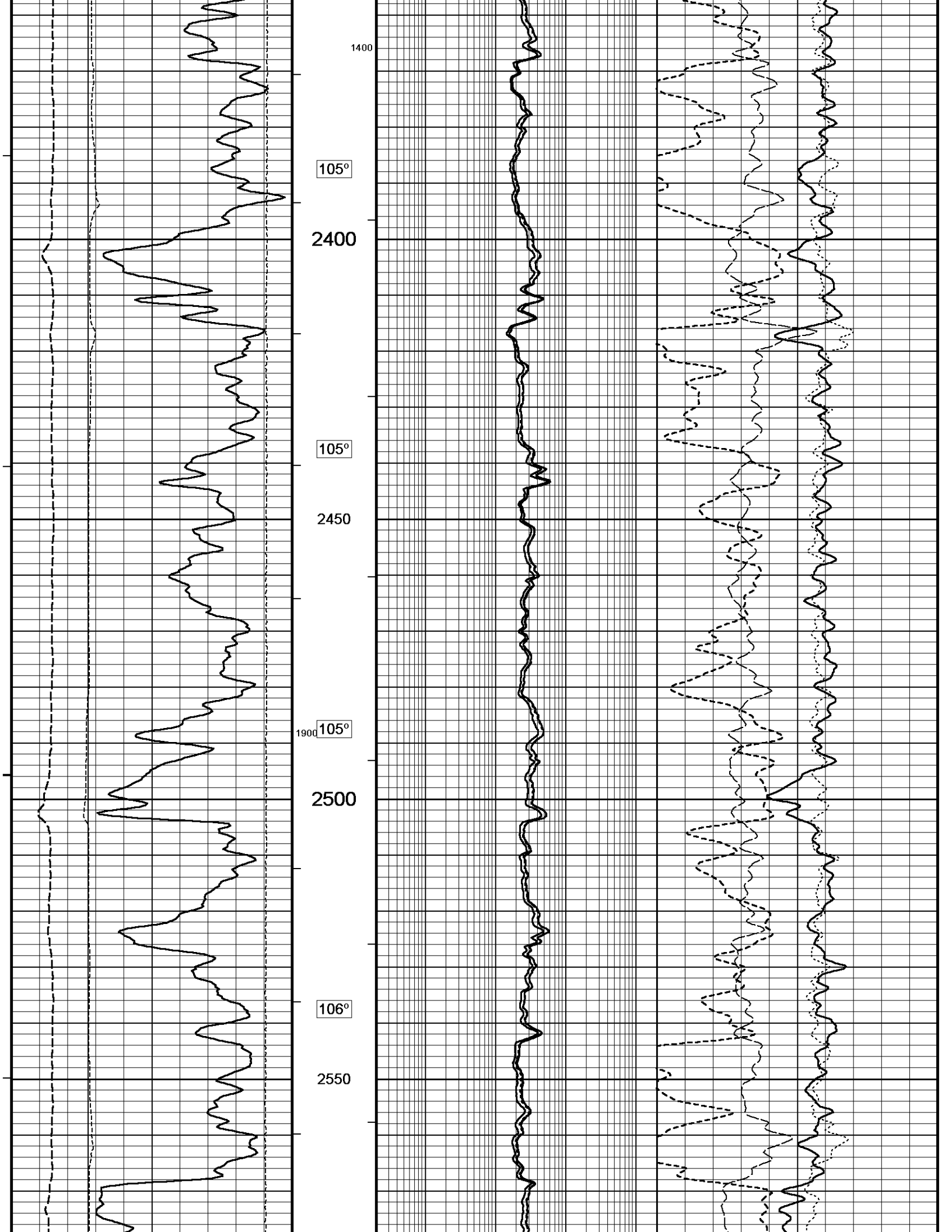


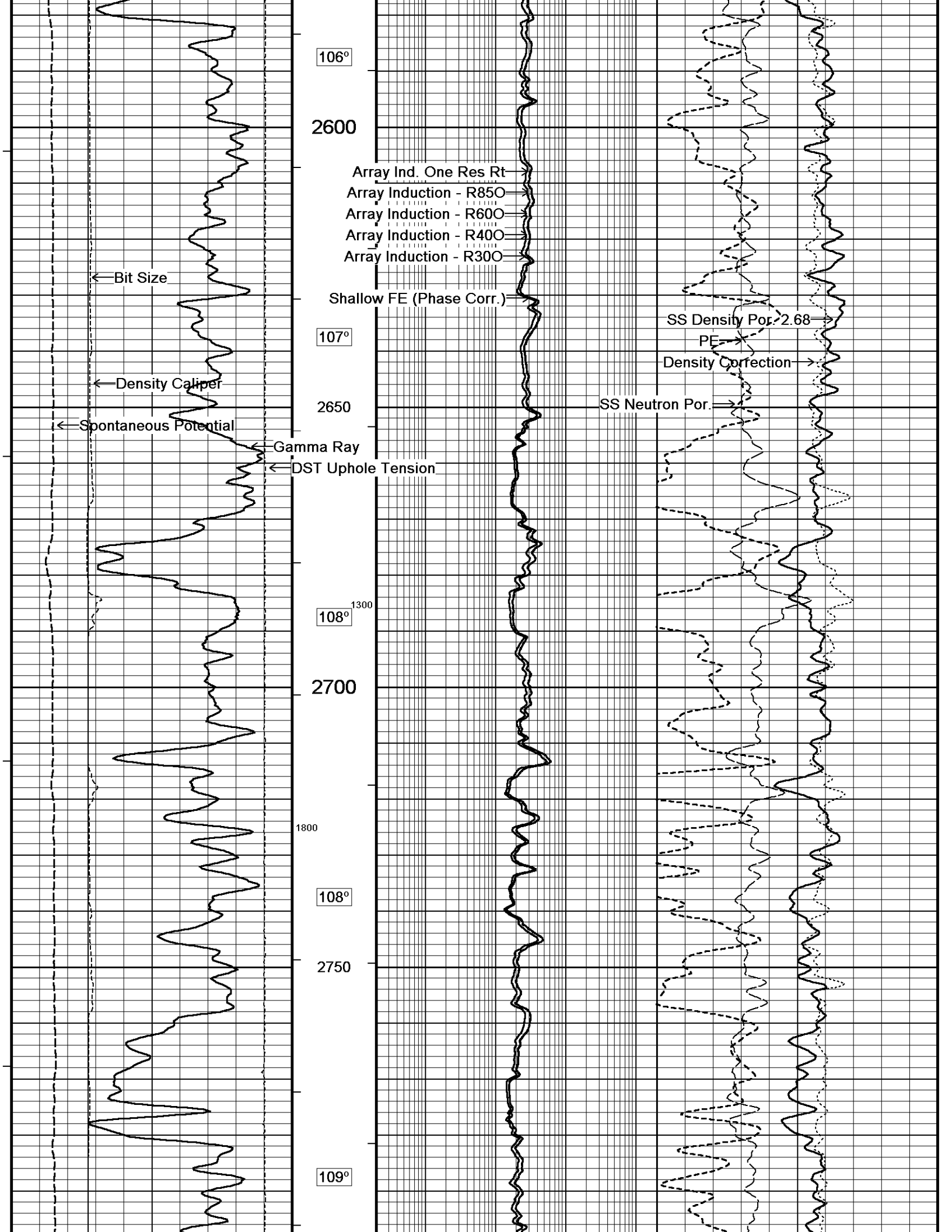


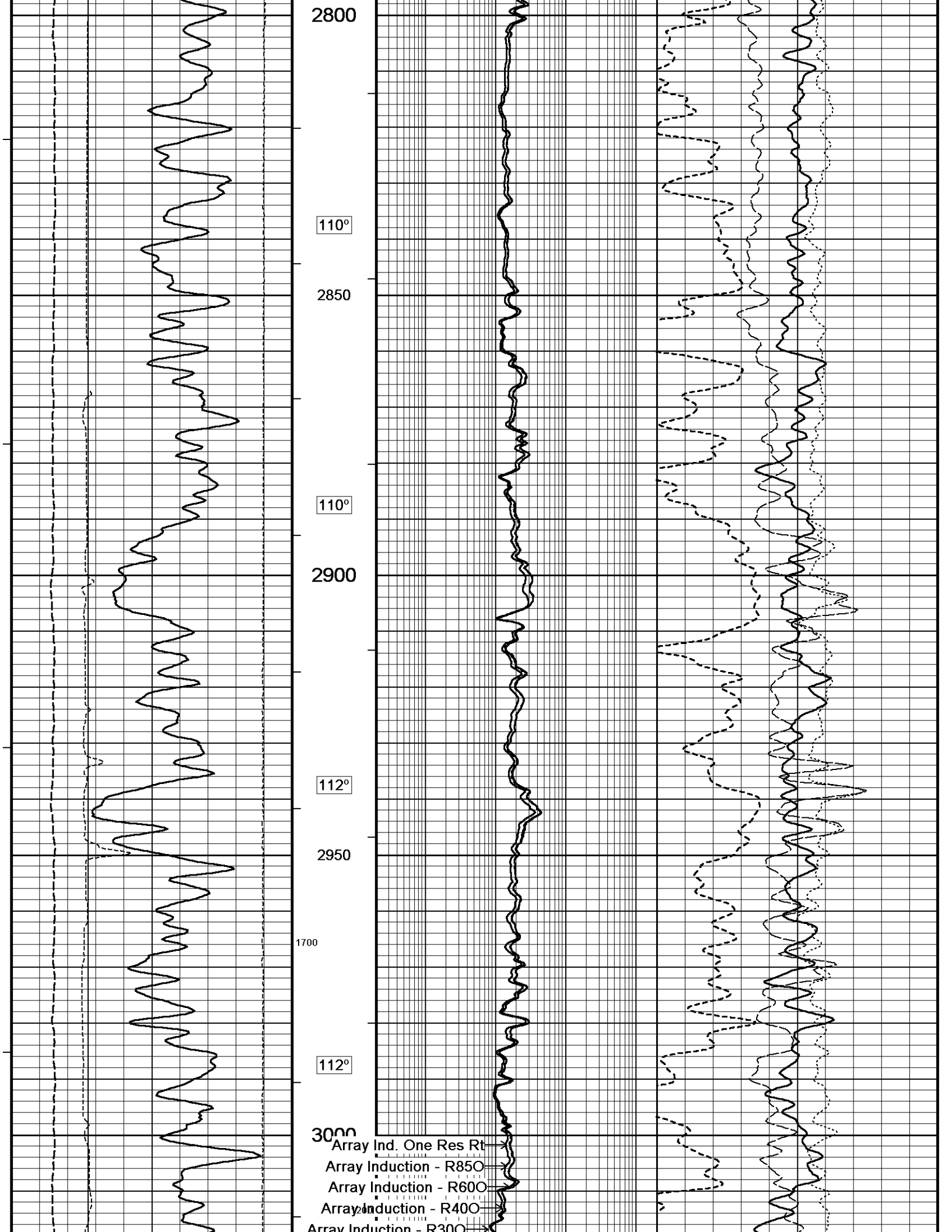


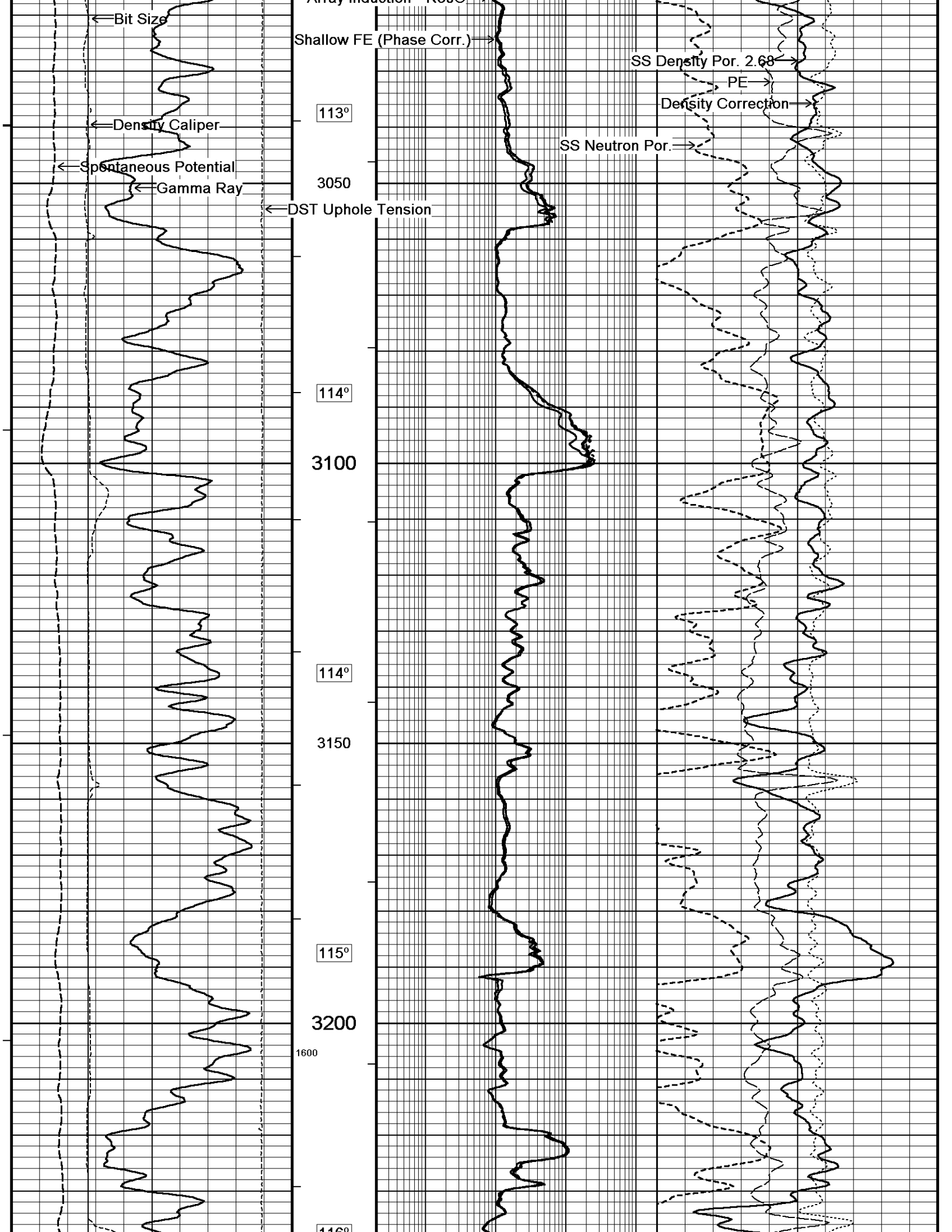


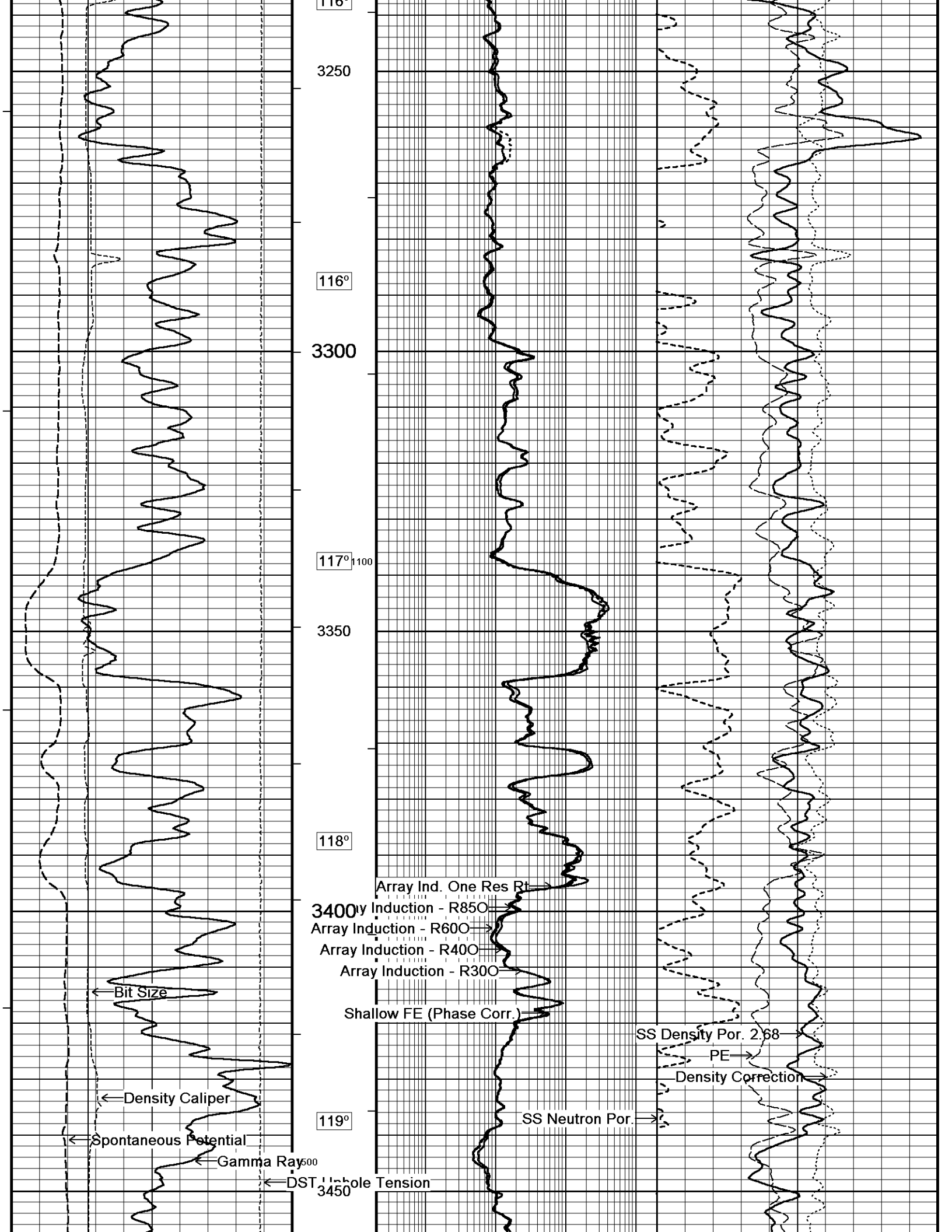


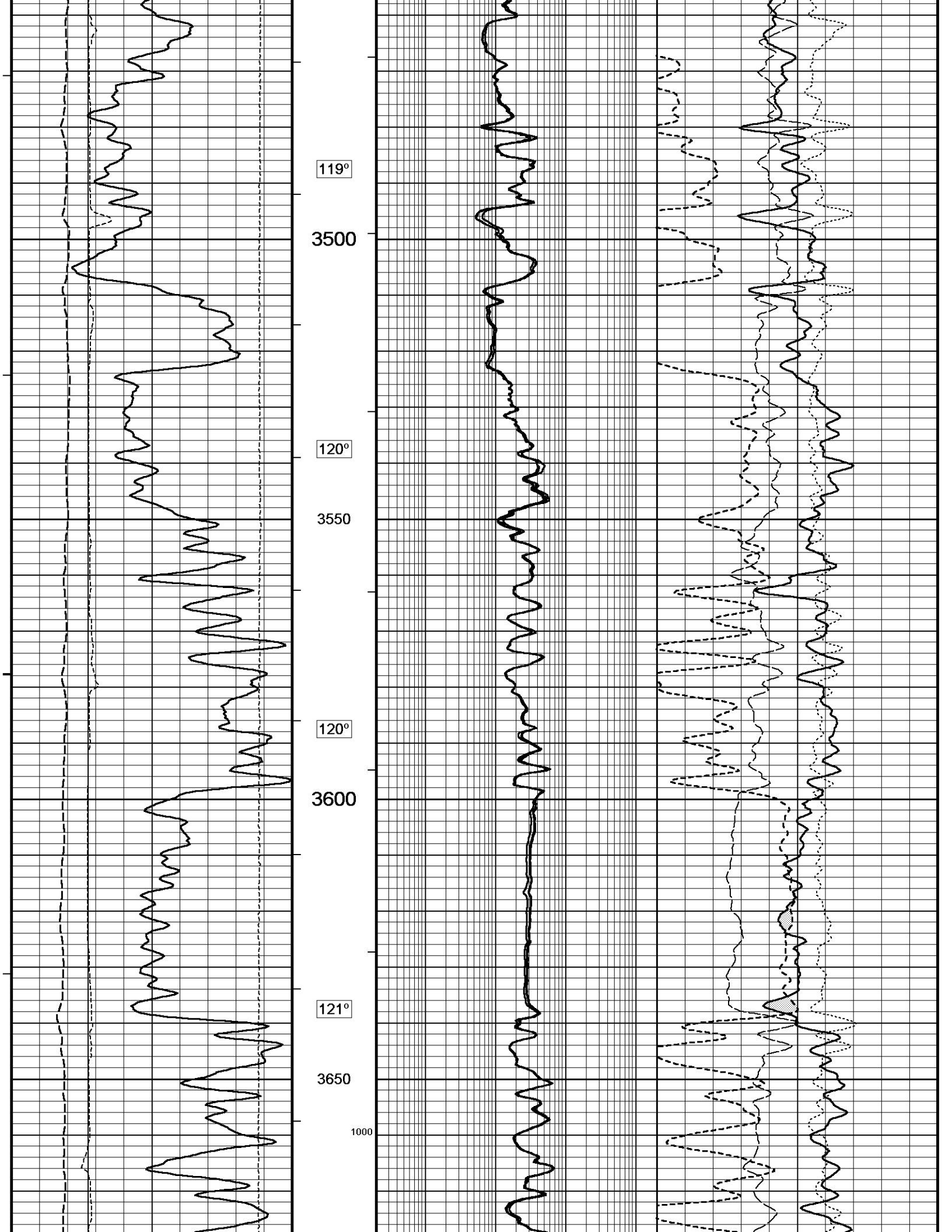


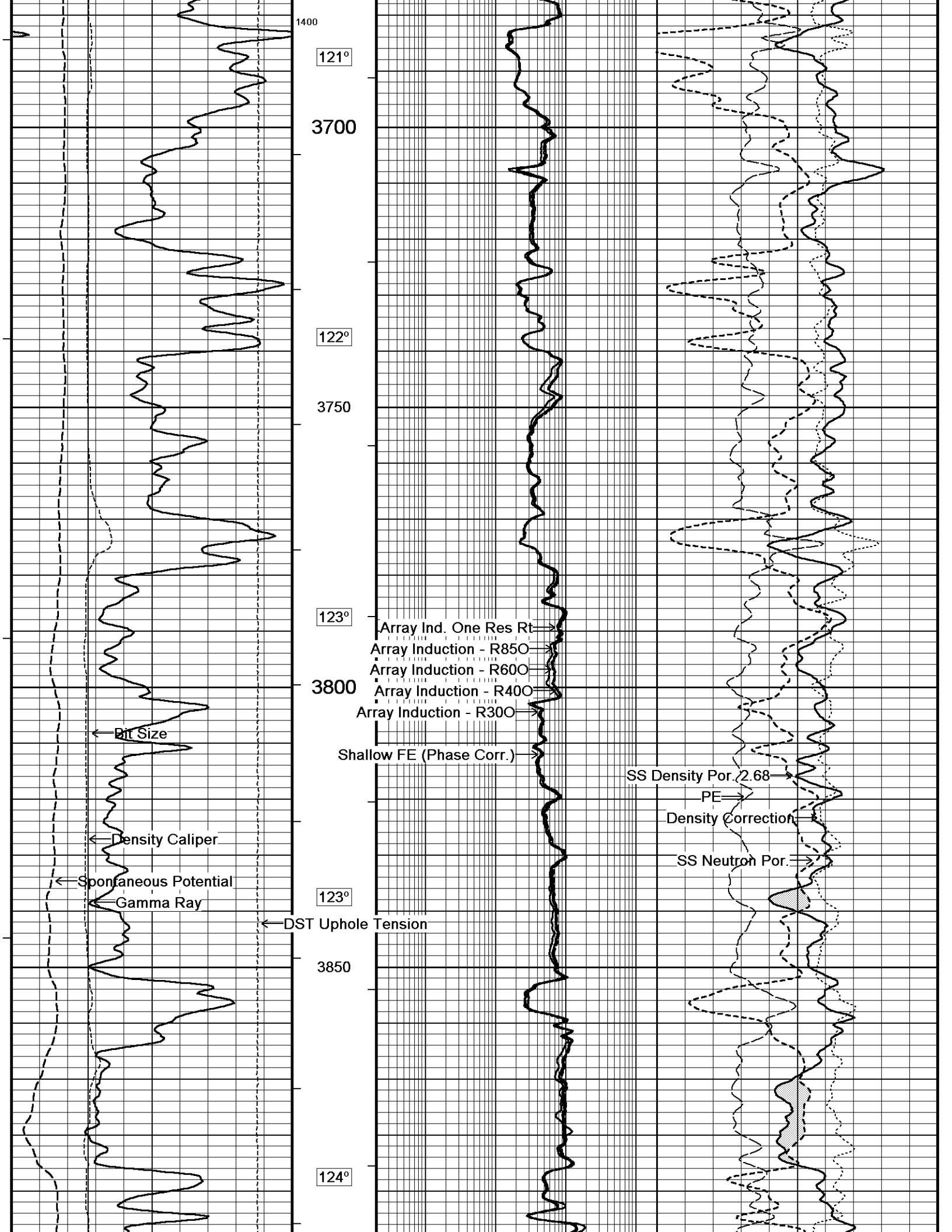


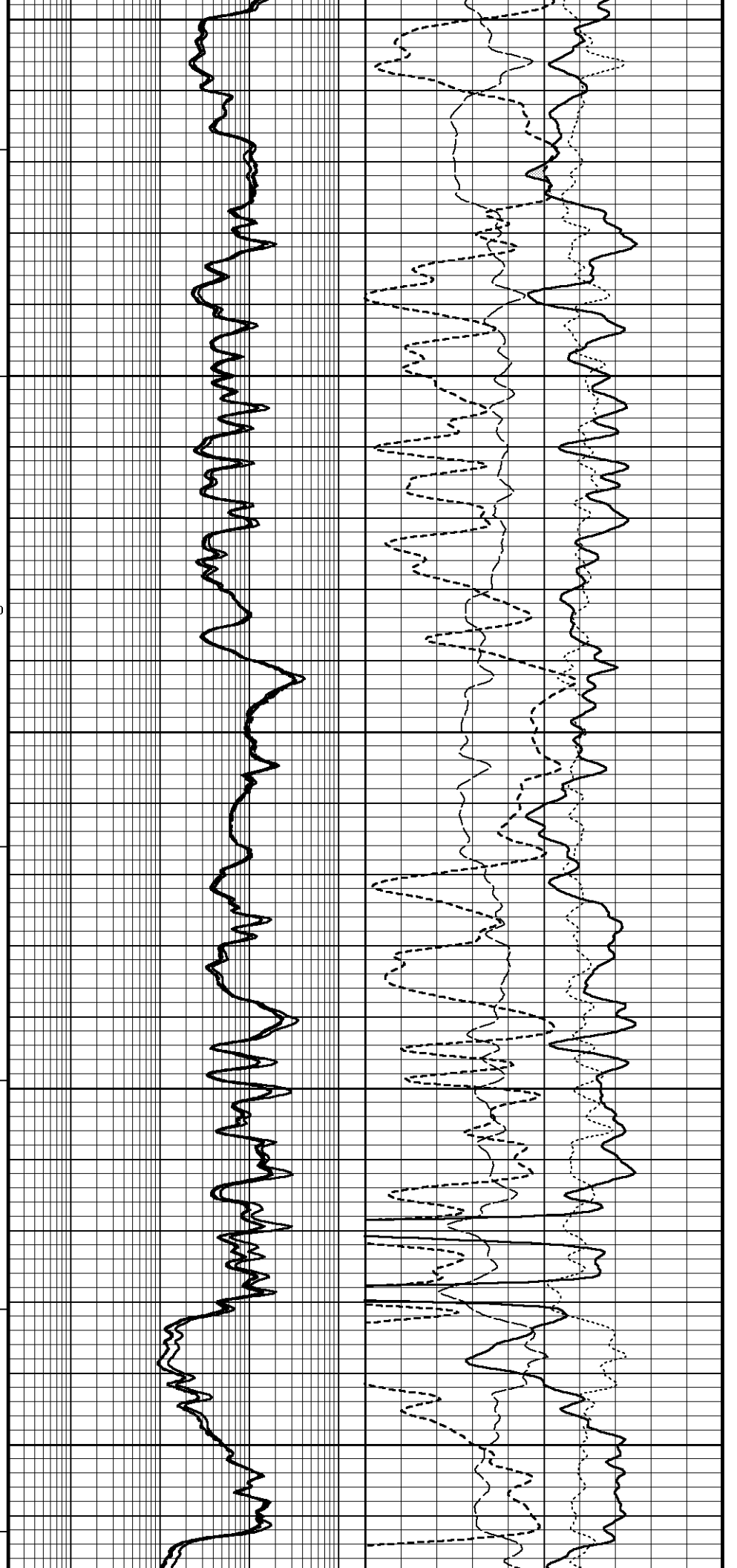
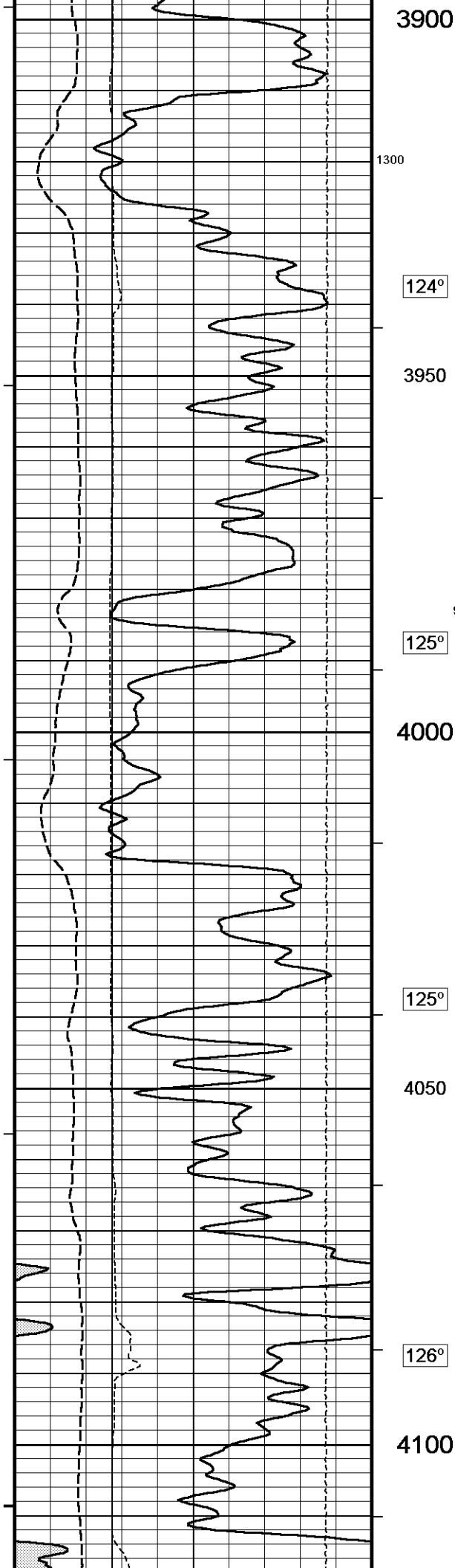


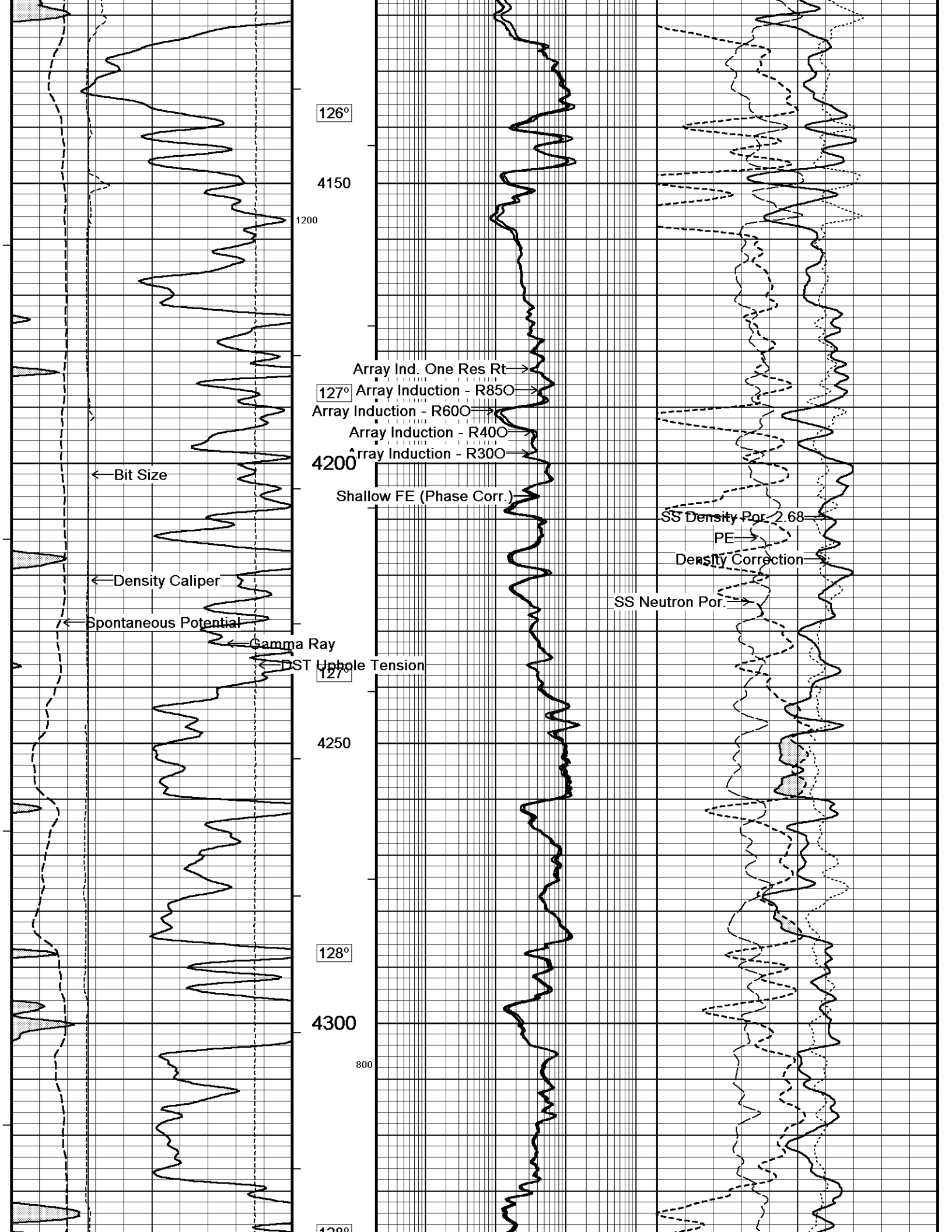


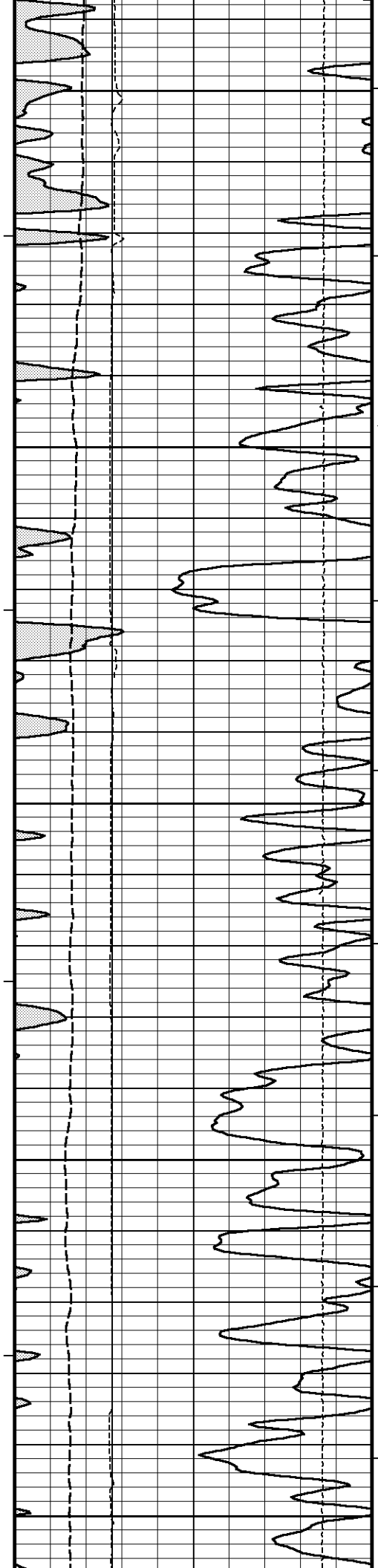




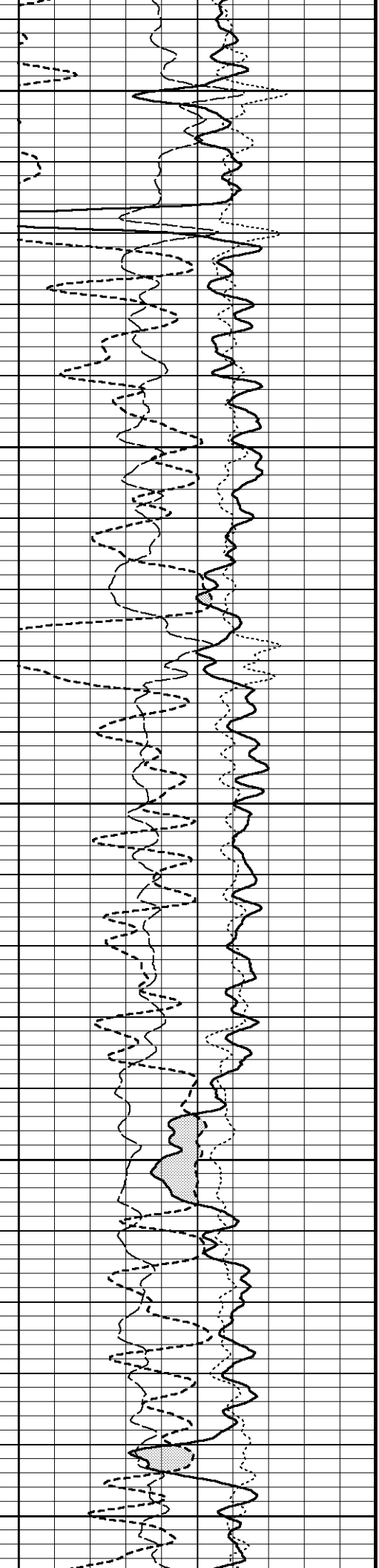
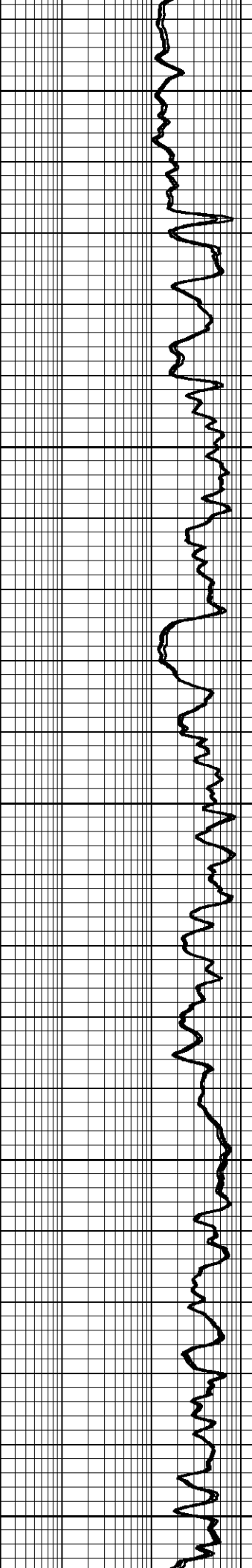


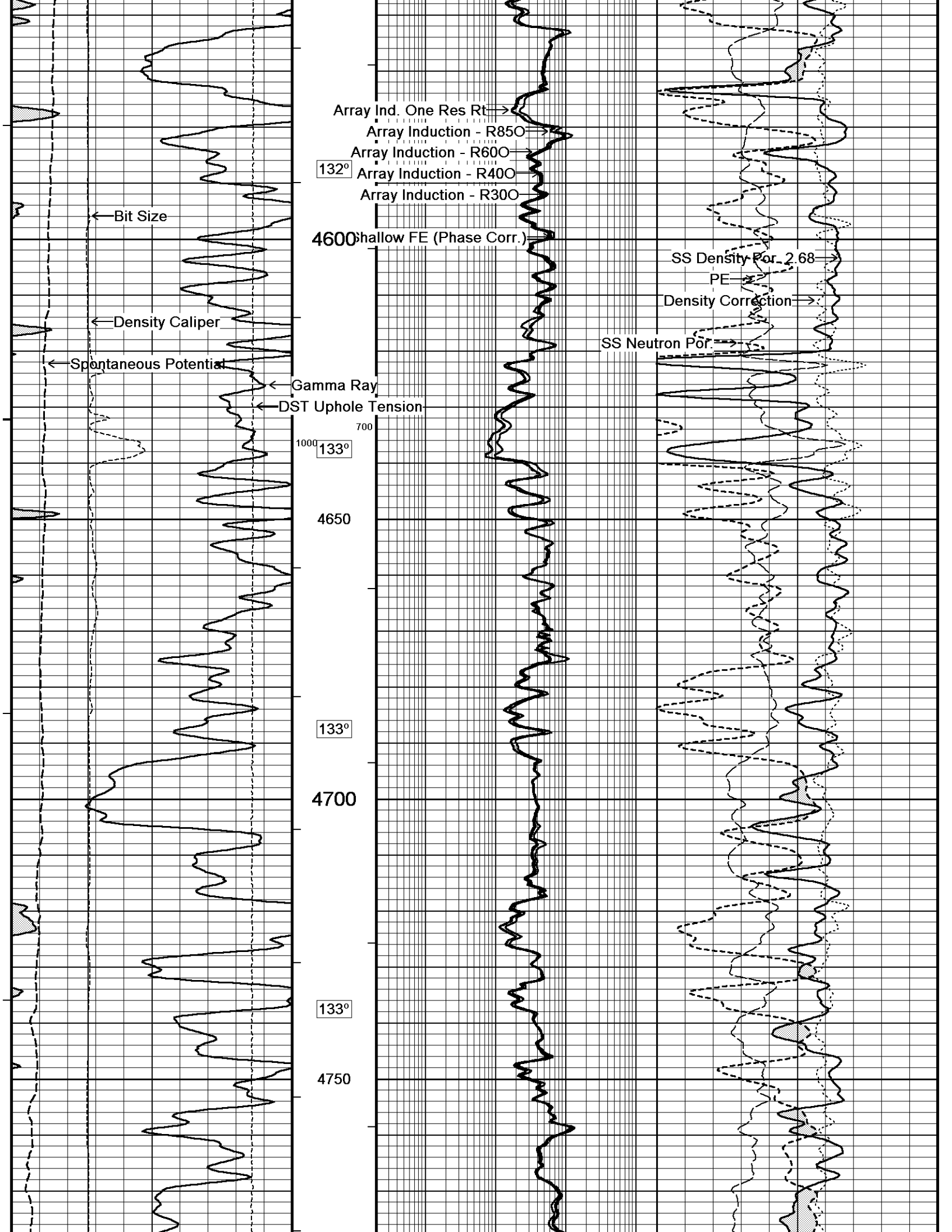


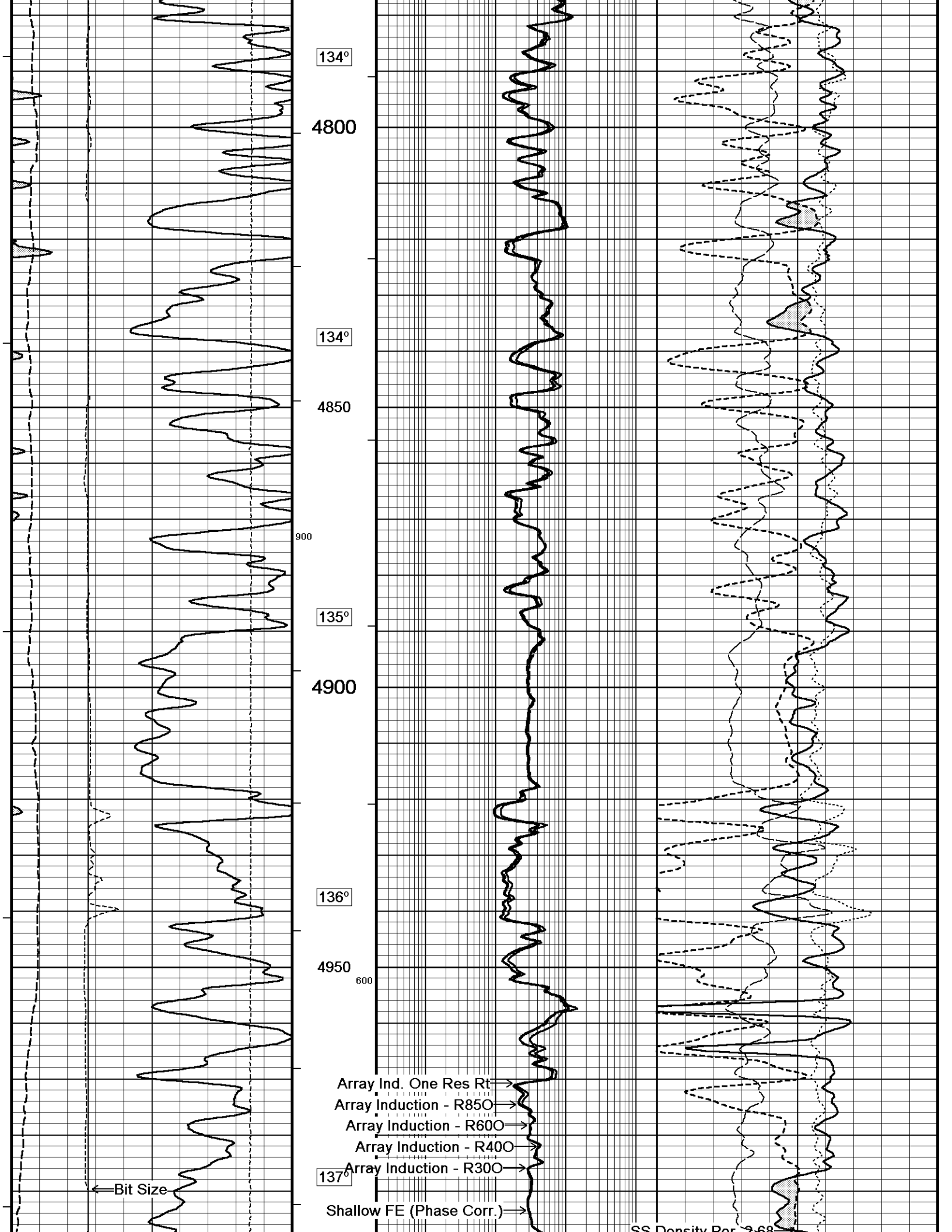


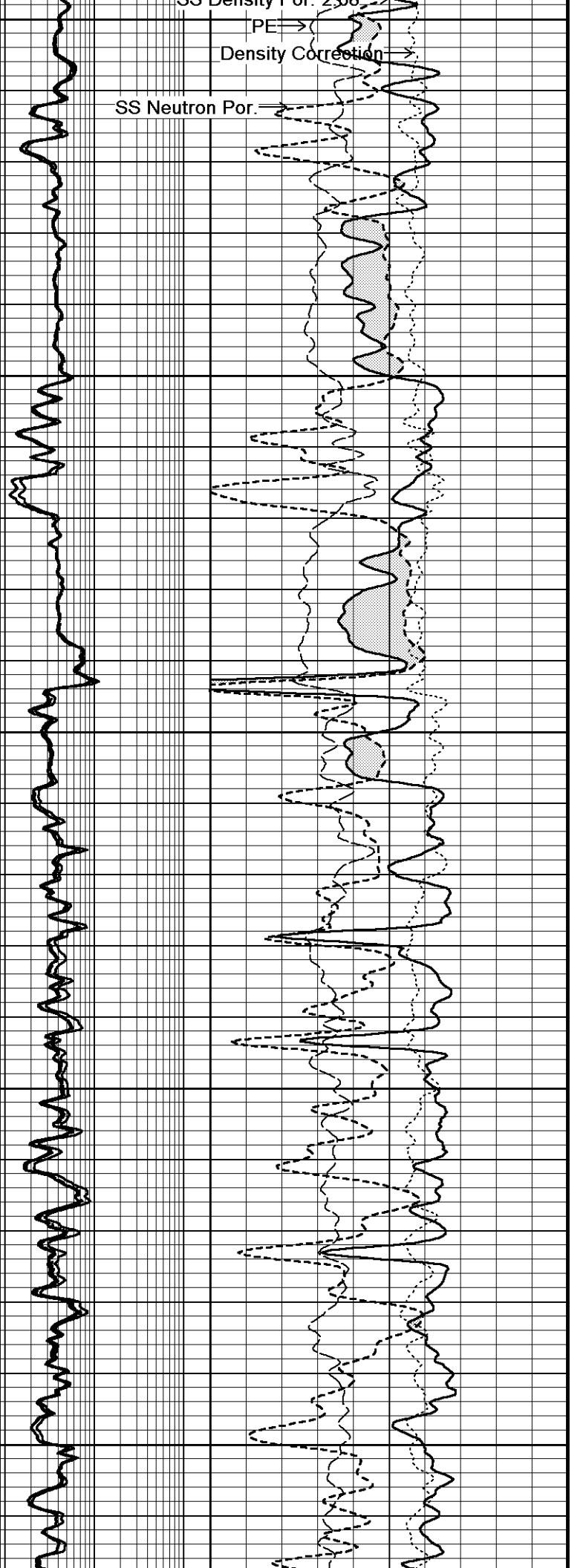
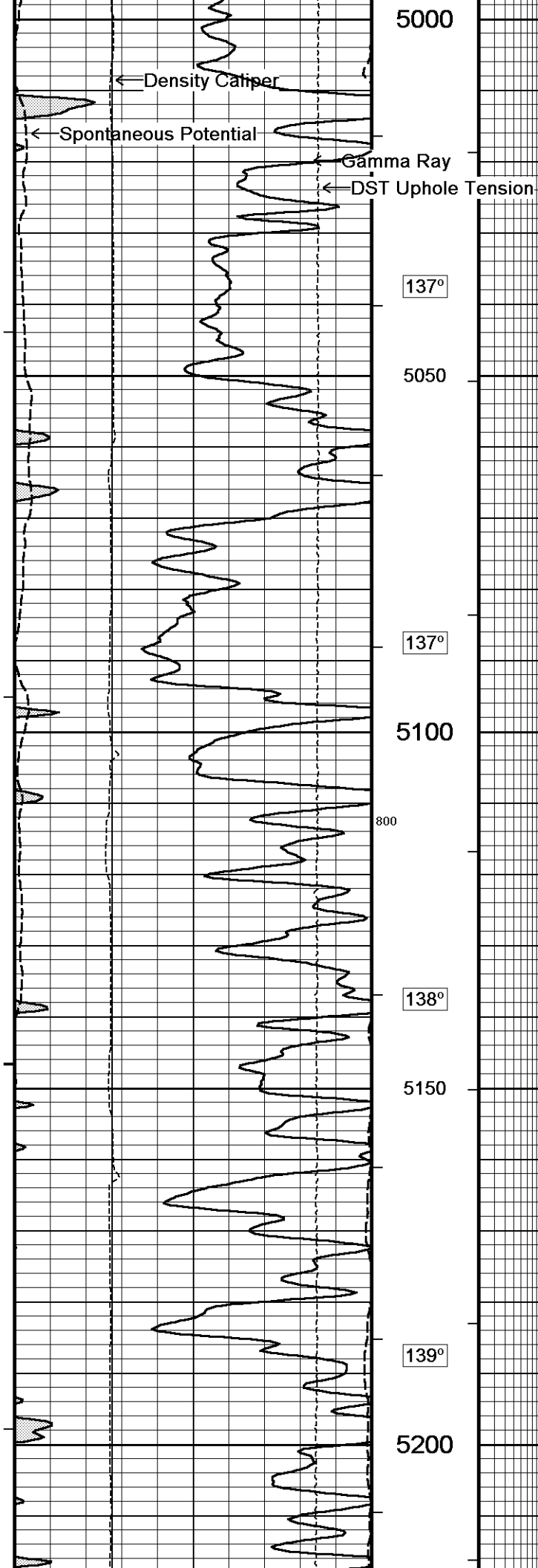


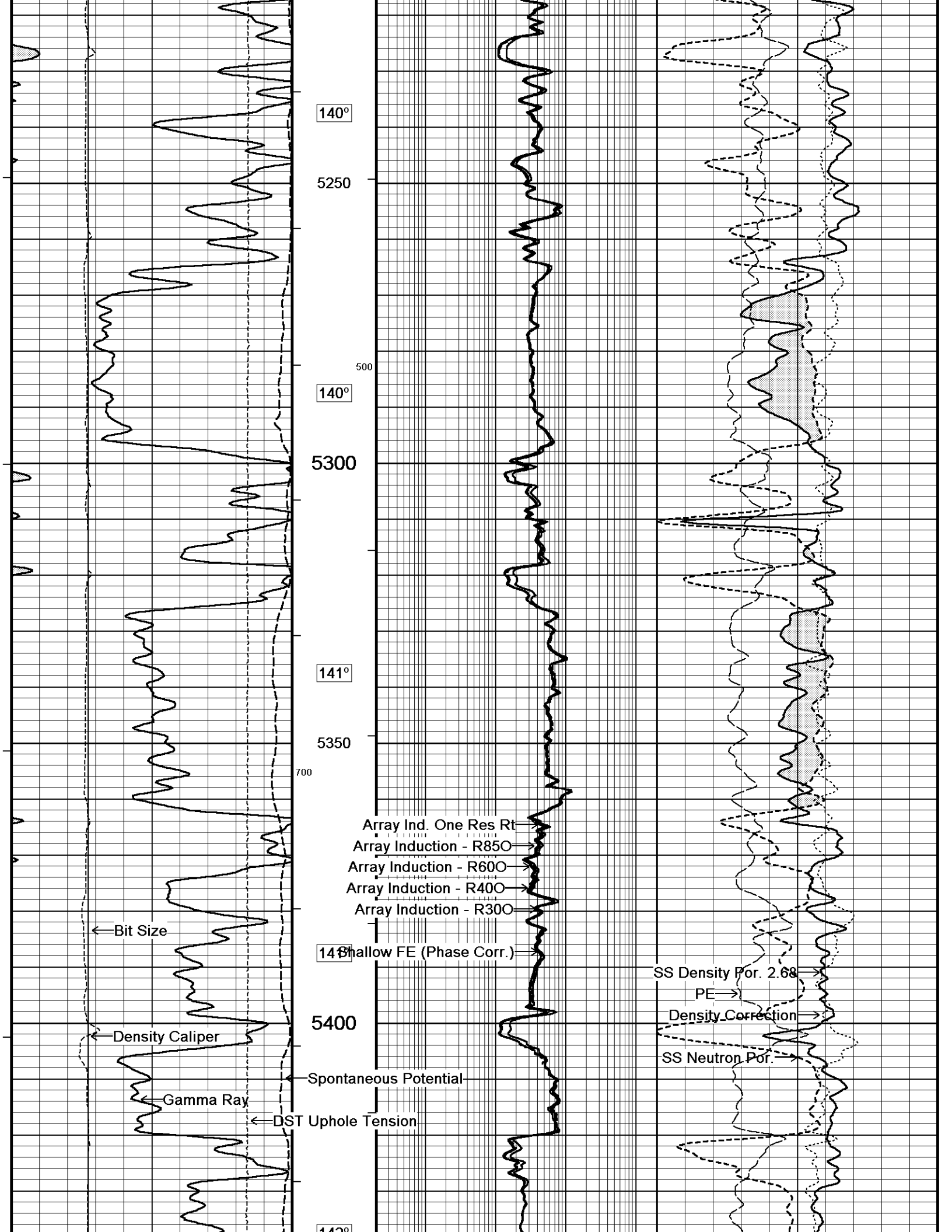
128°
4350
129°
1100
4400
130°
4450
130°
4500
131°
4550

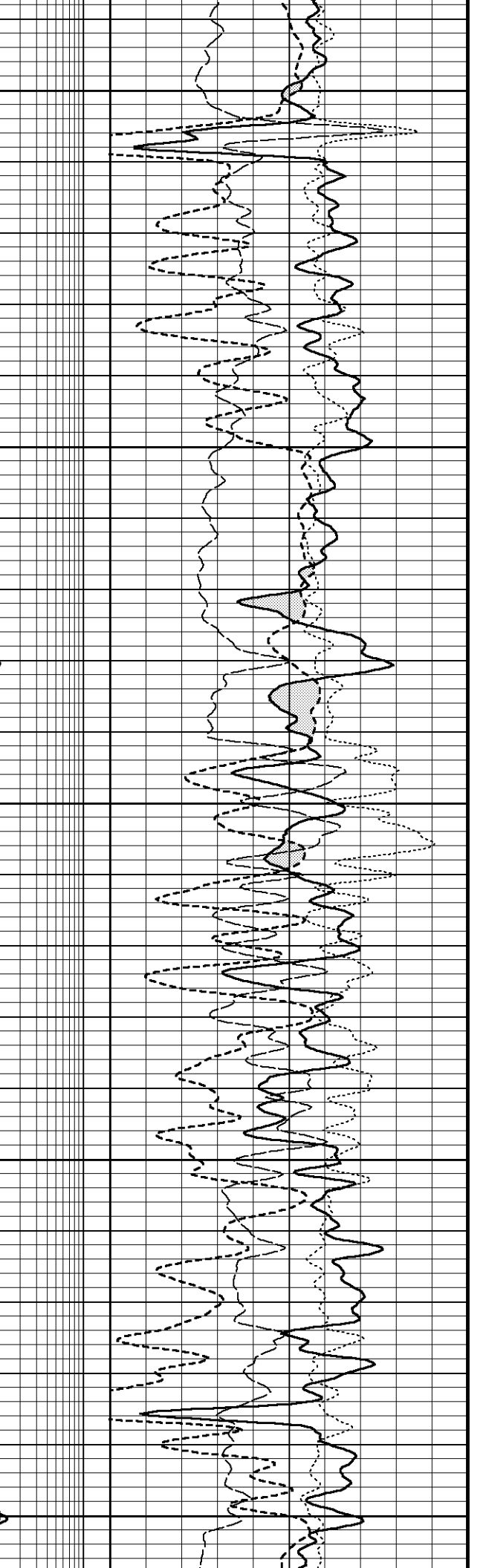
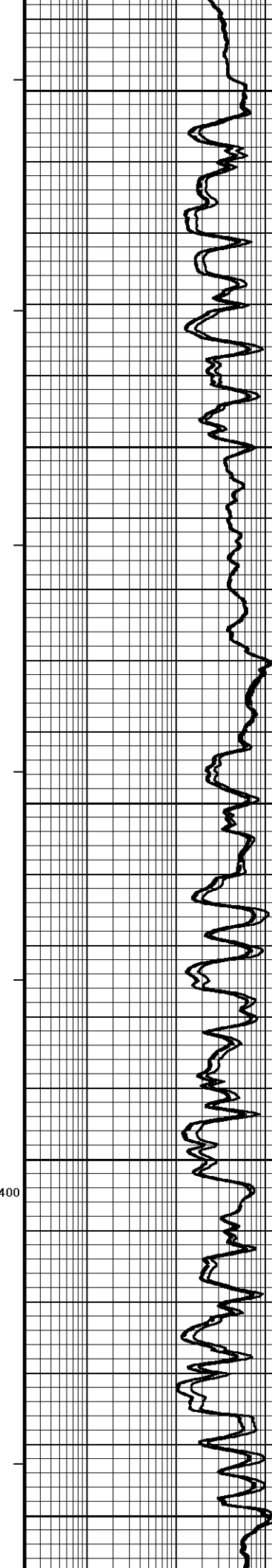
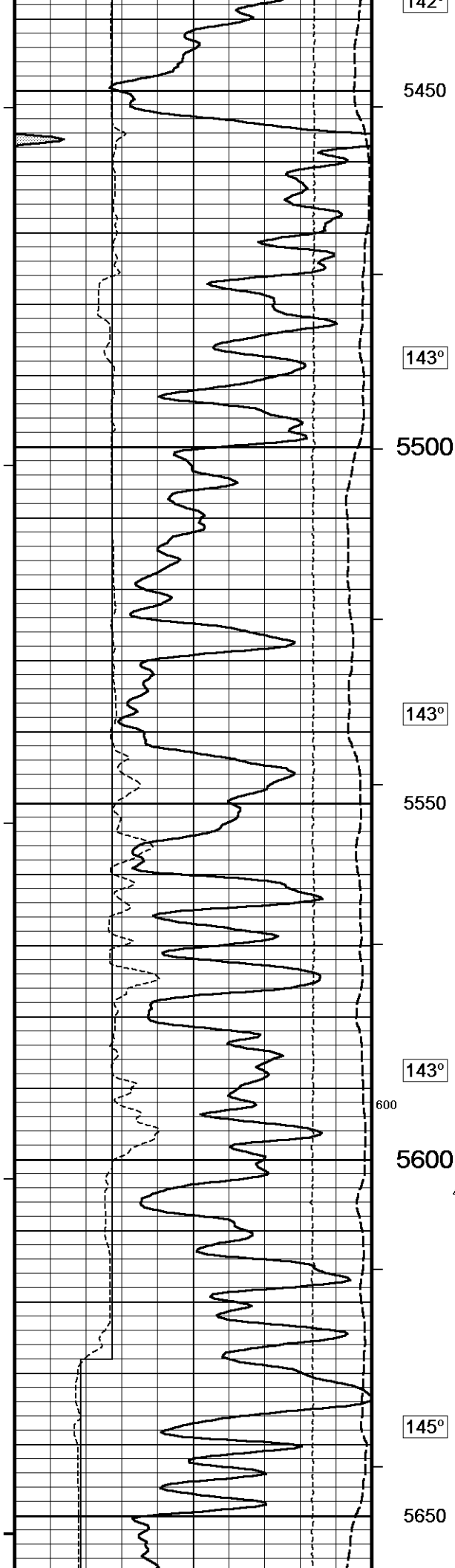


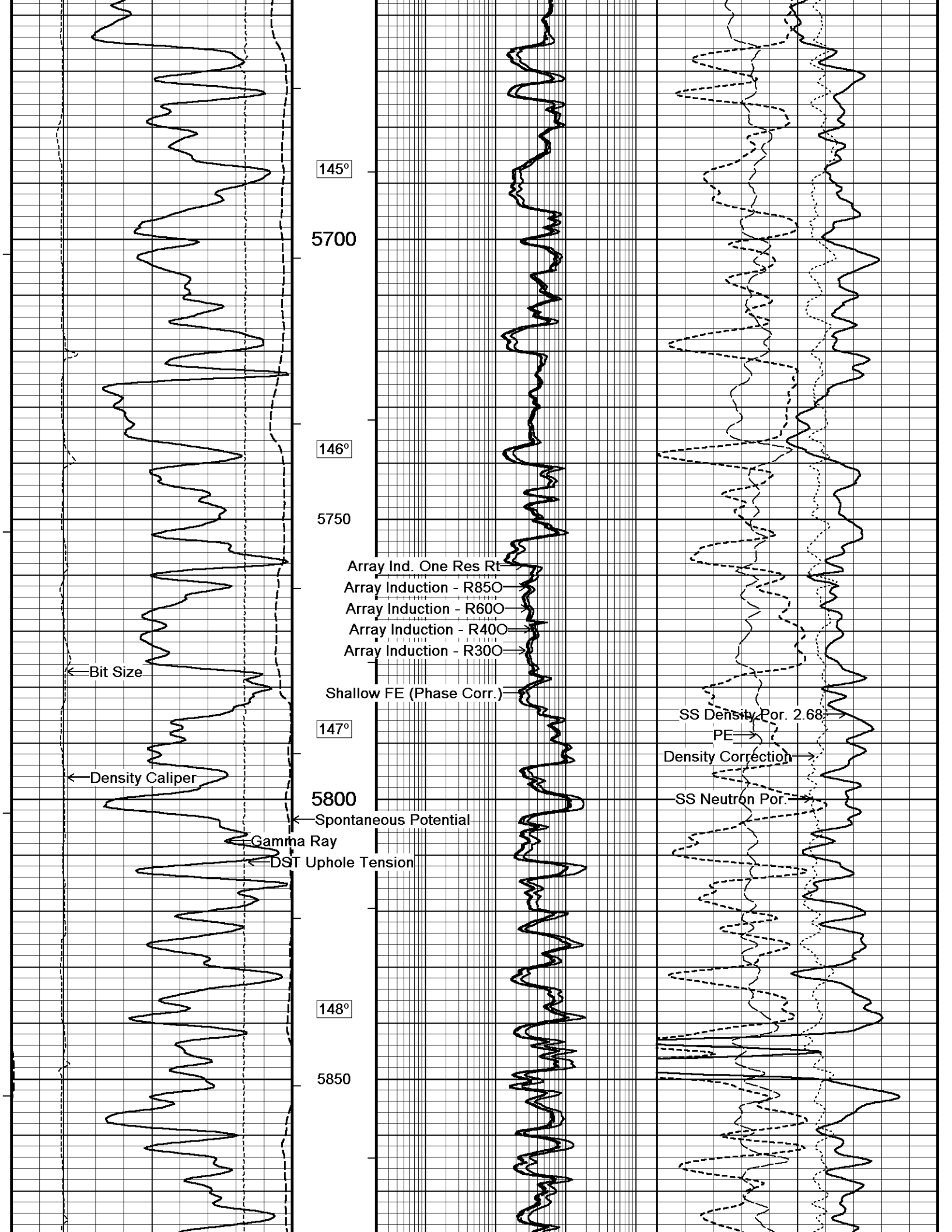


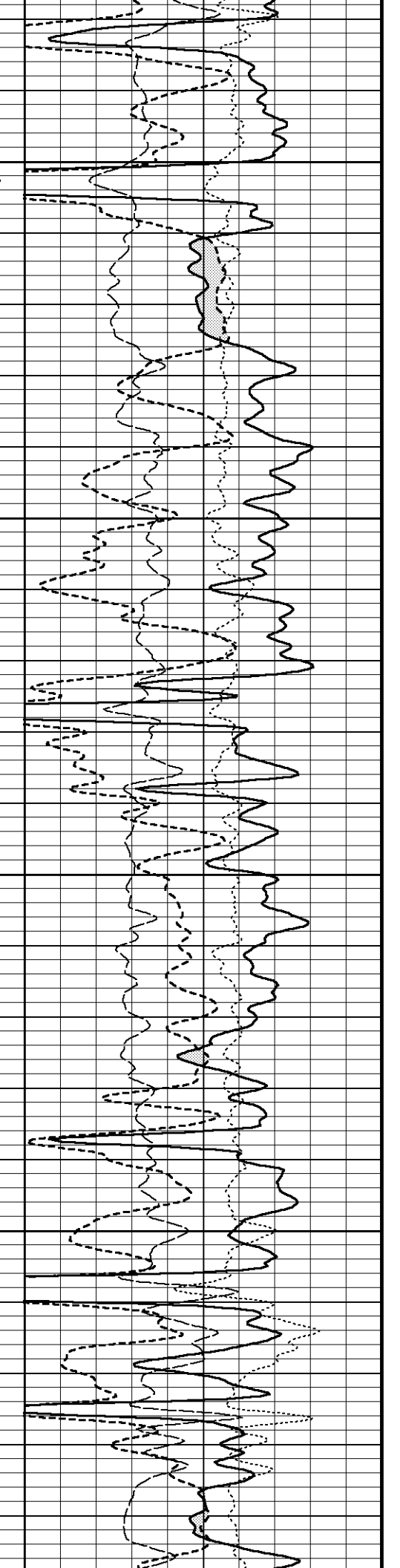
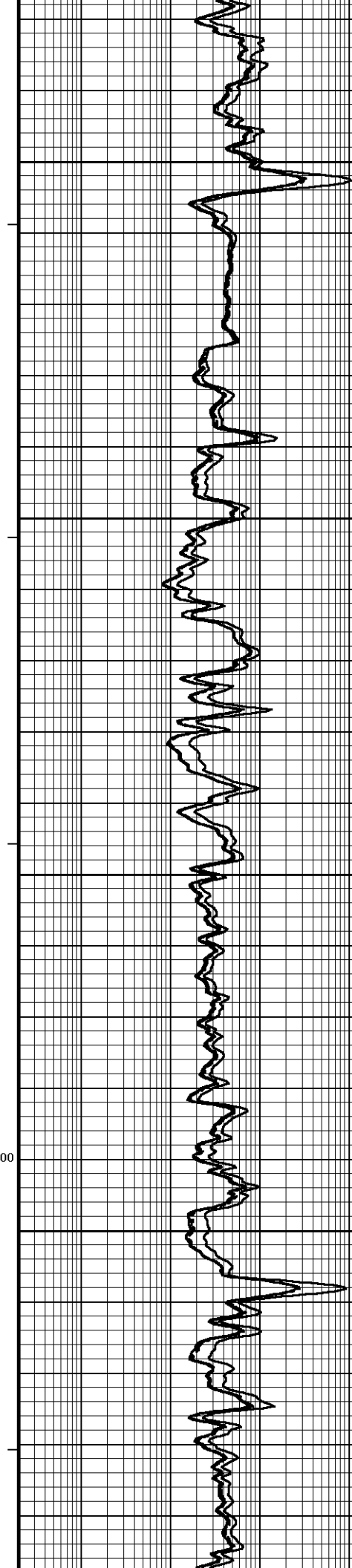
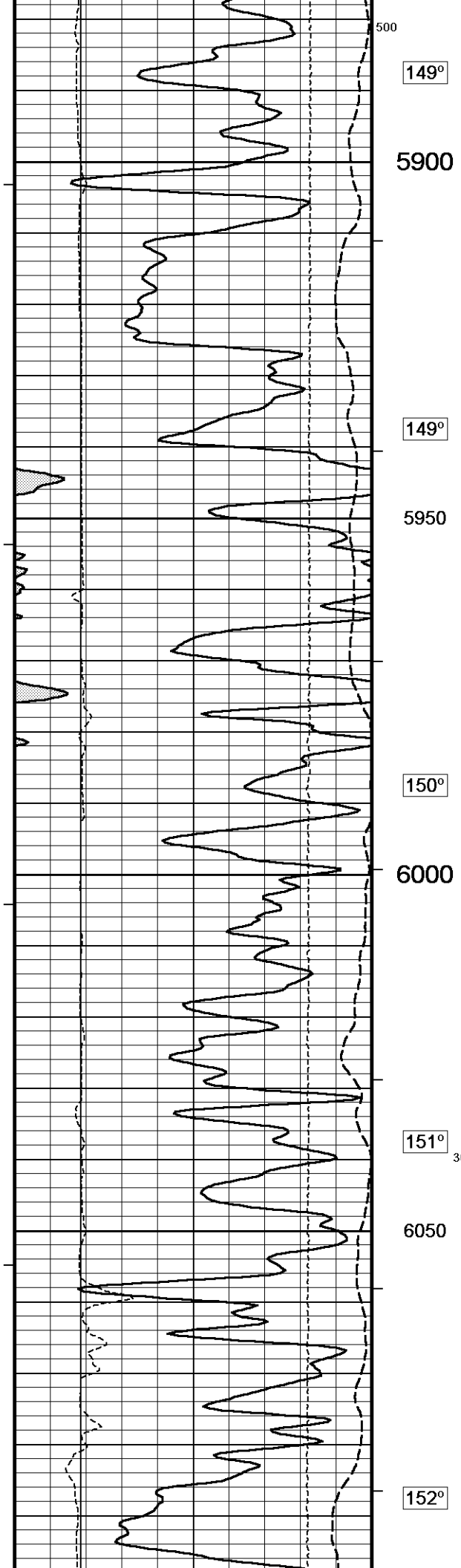


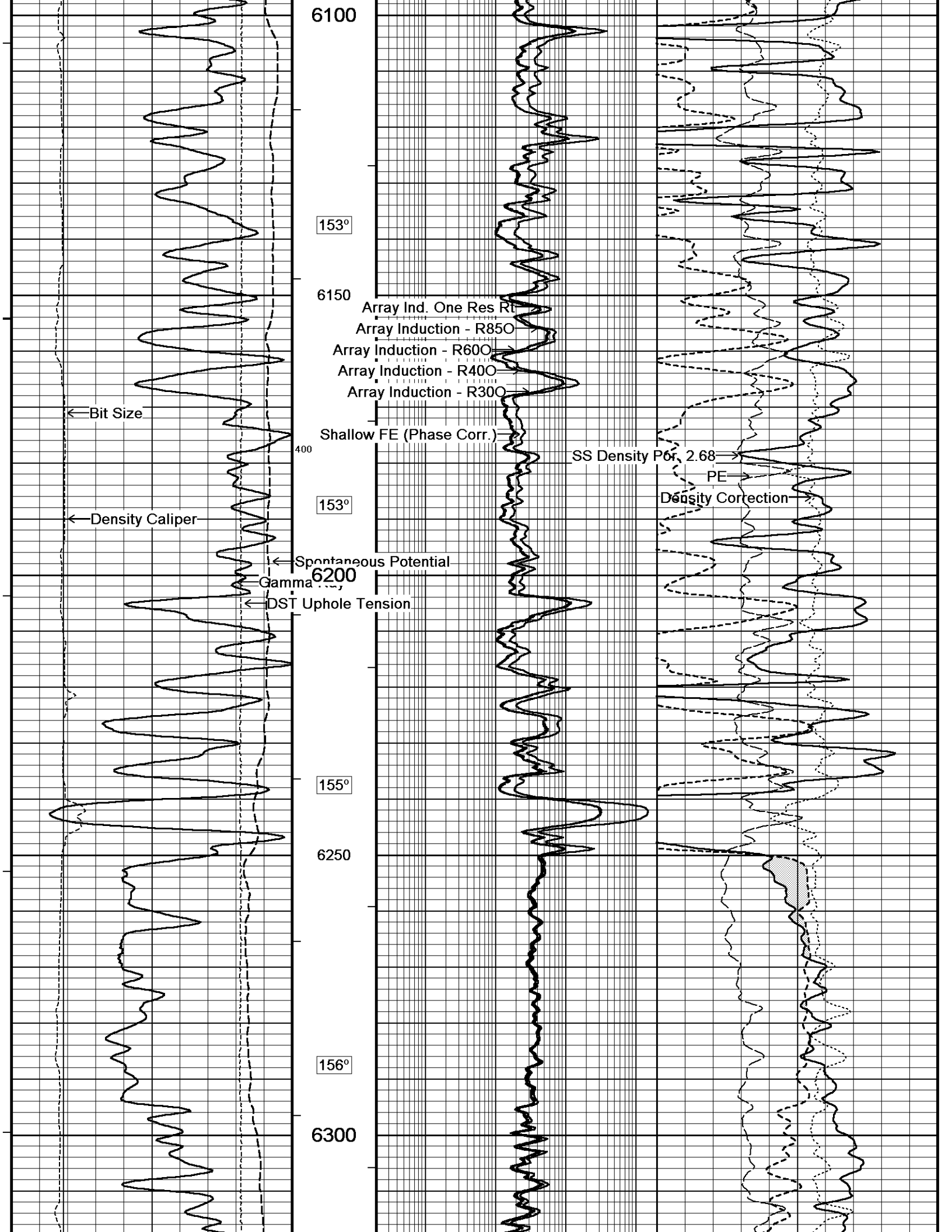


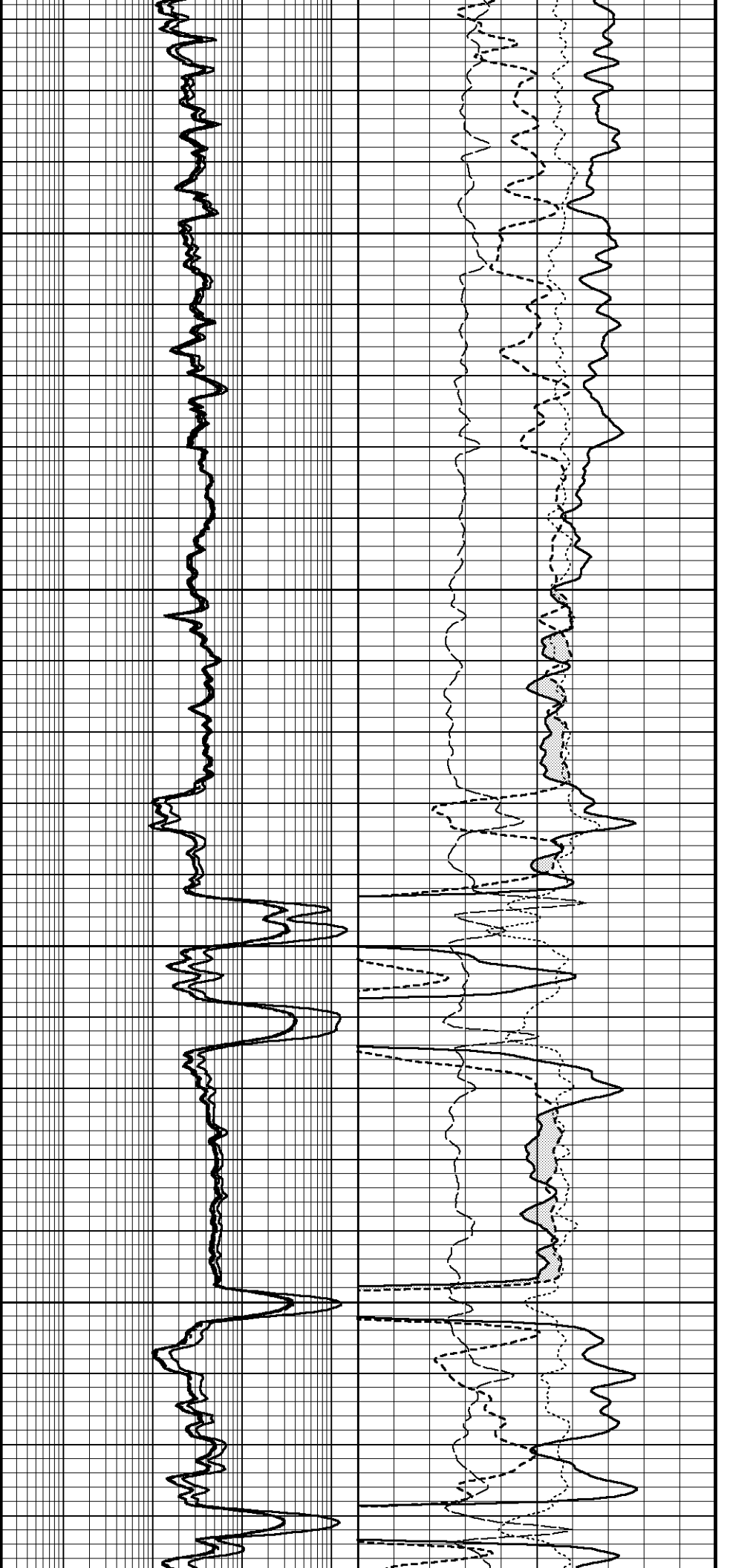
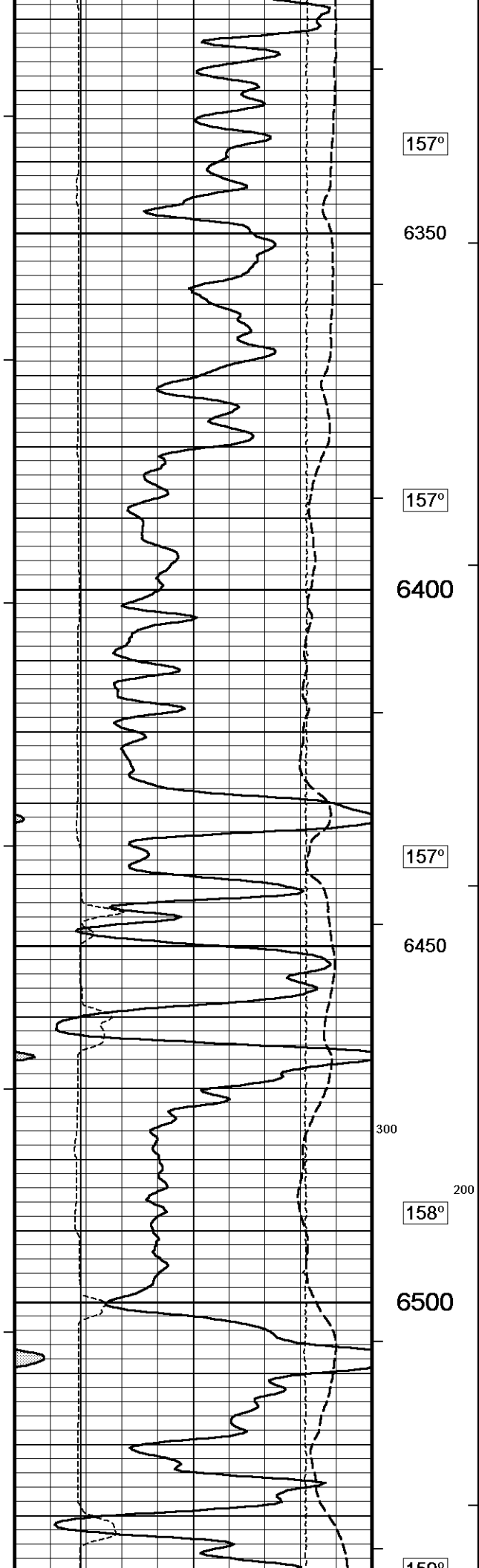


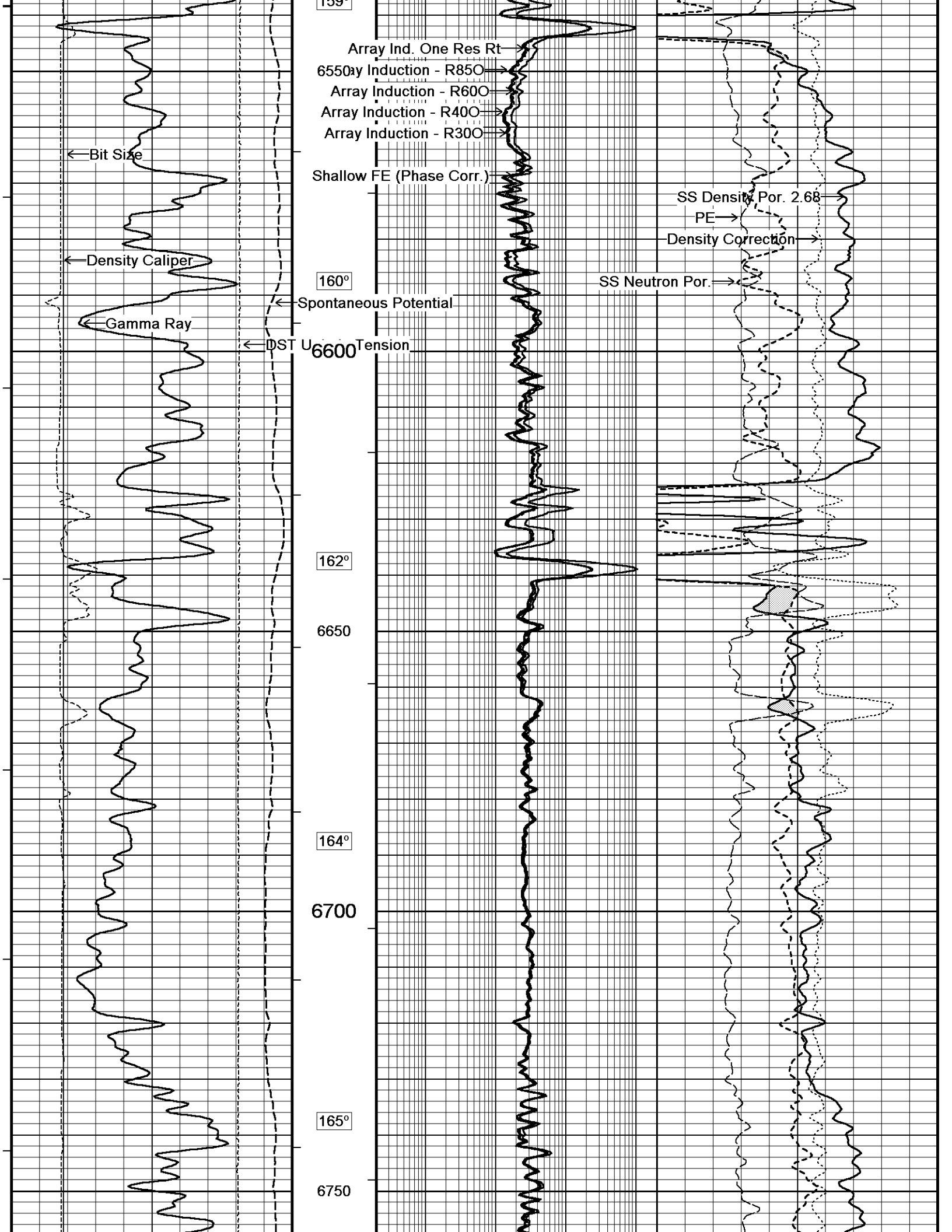


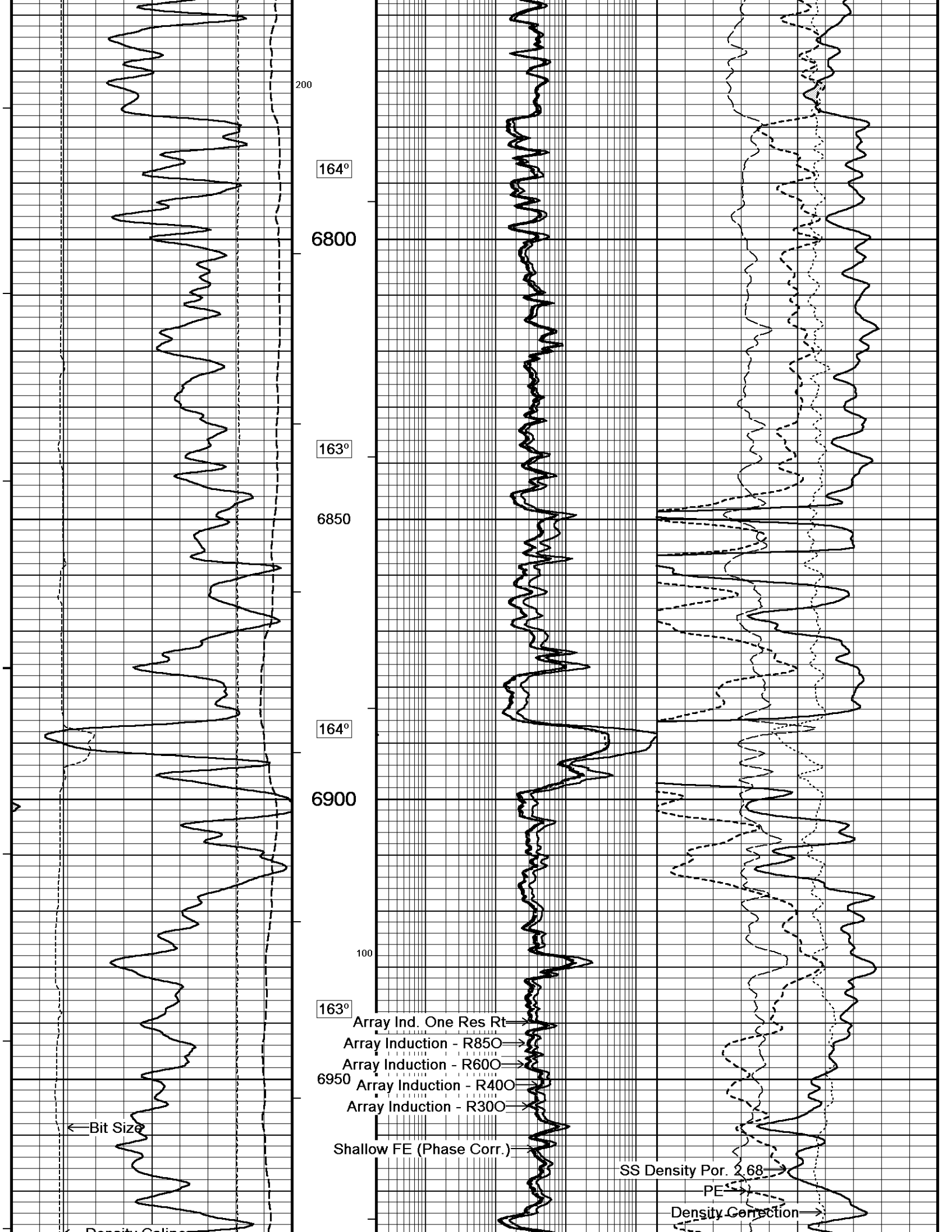


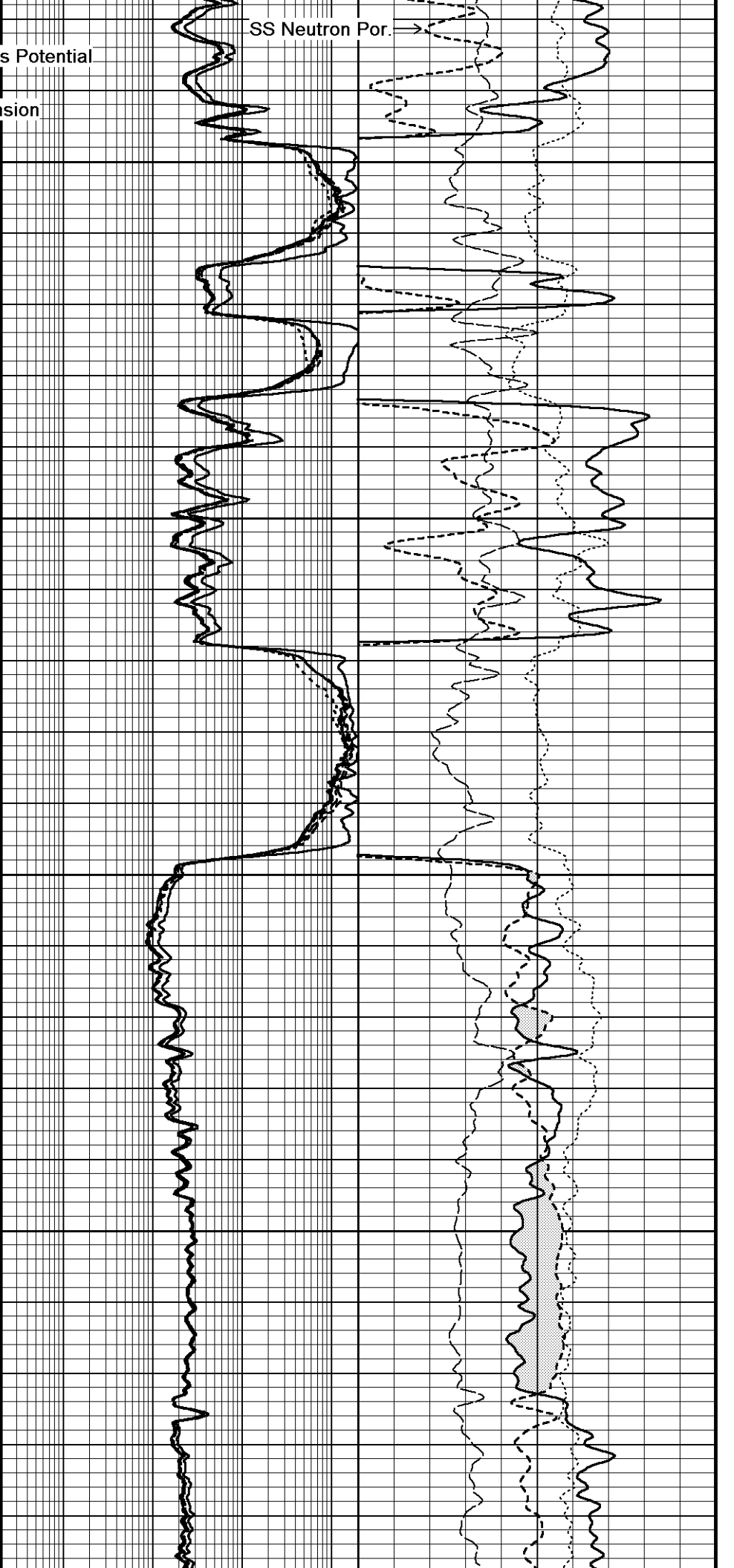
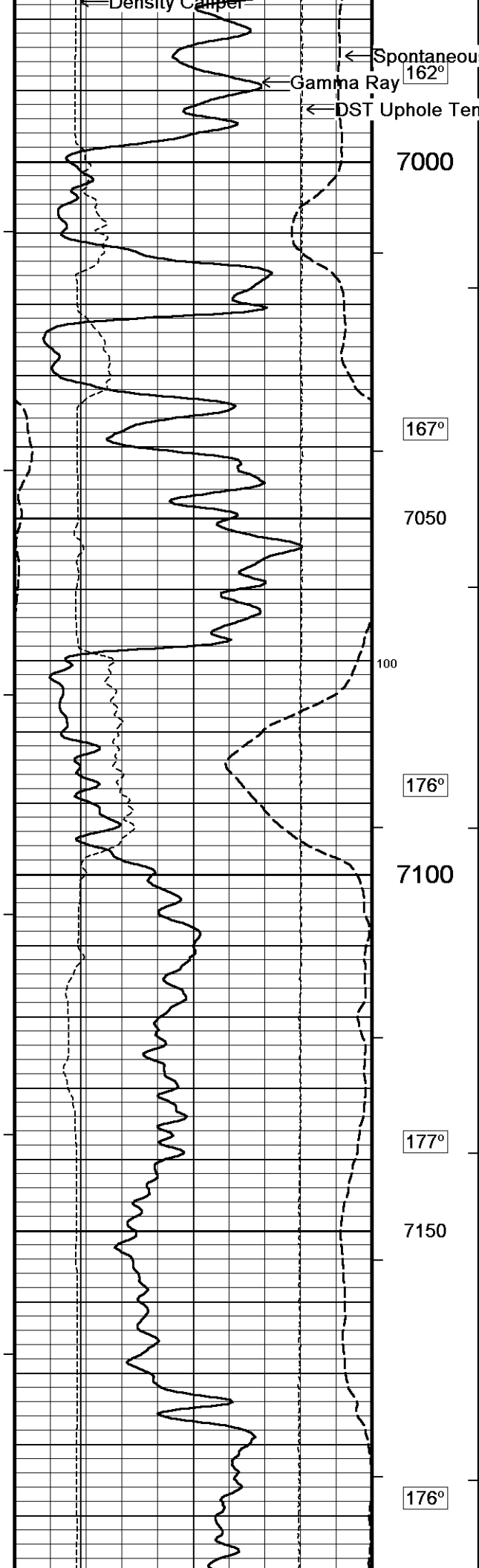


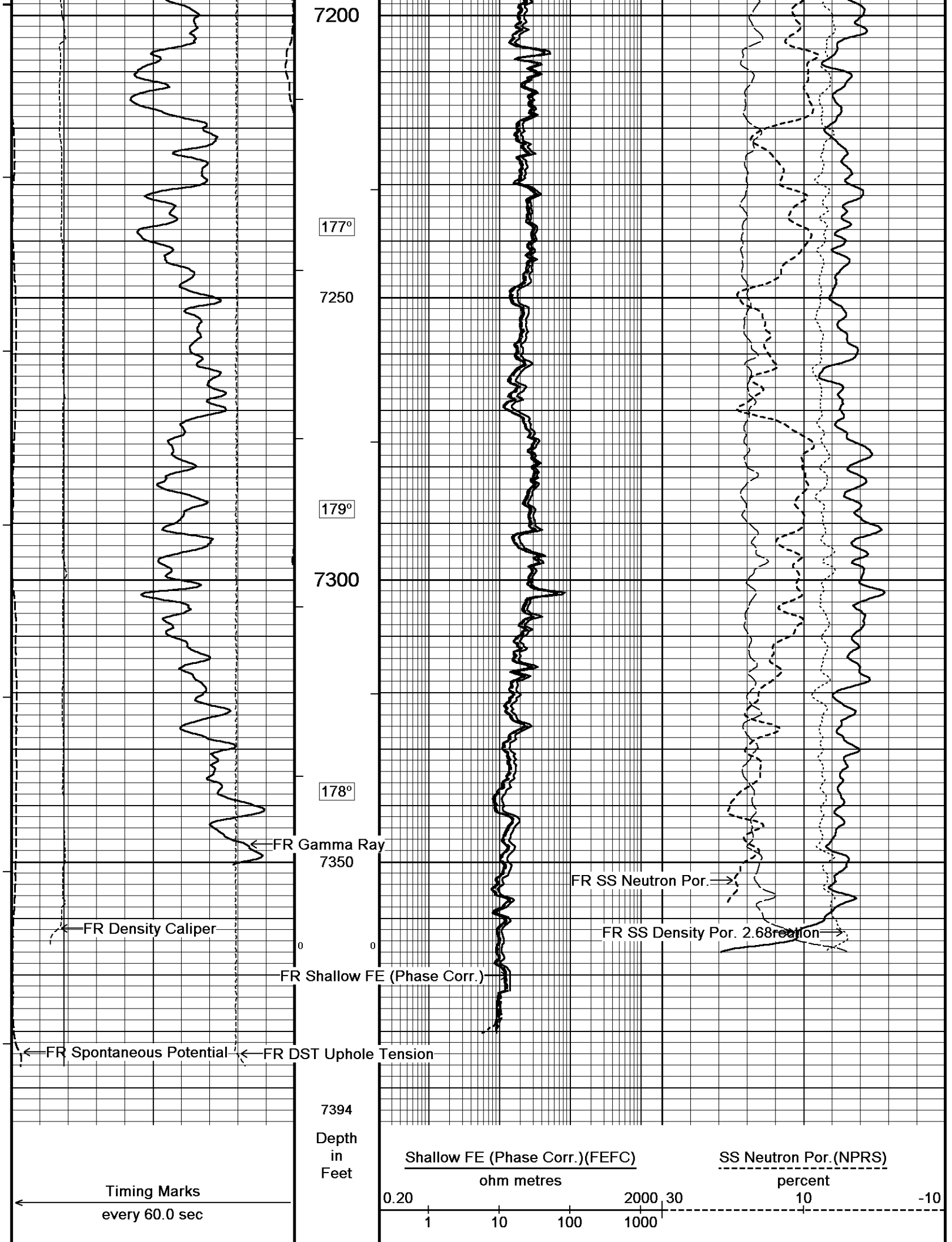


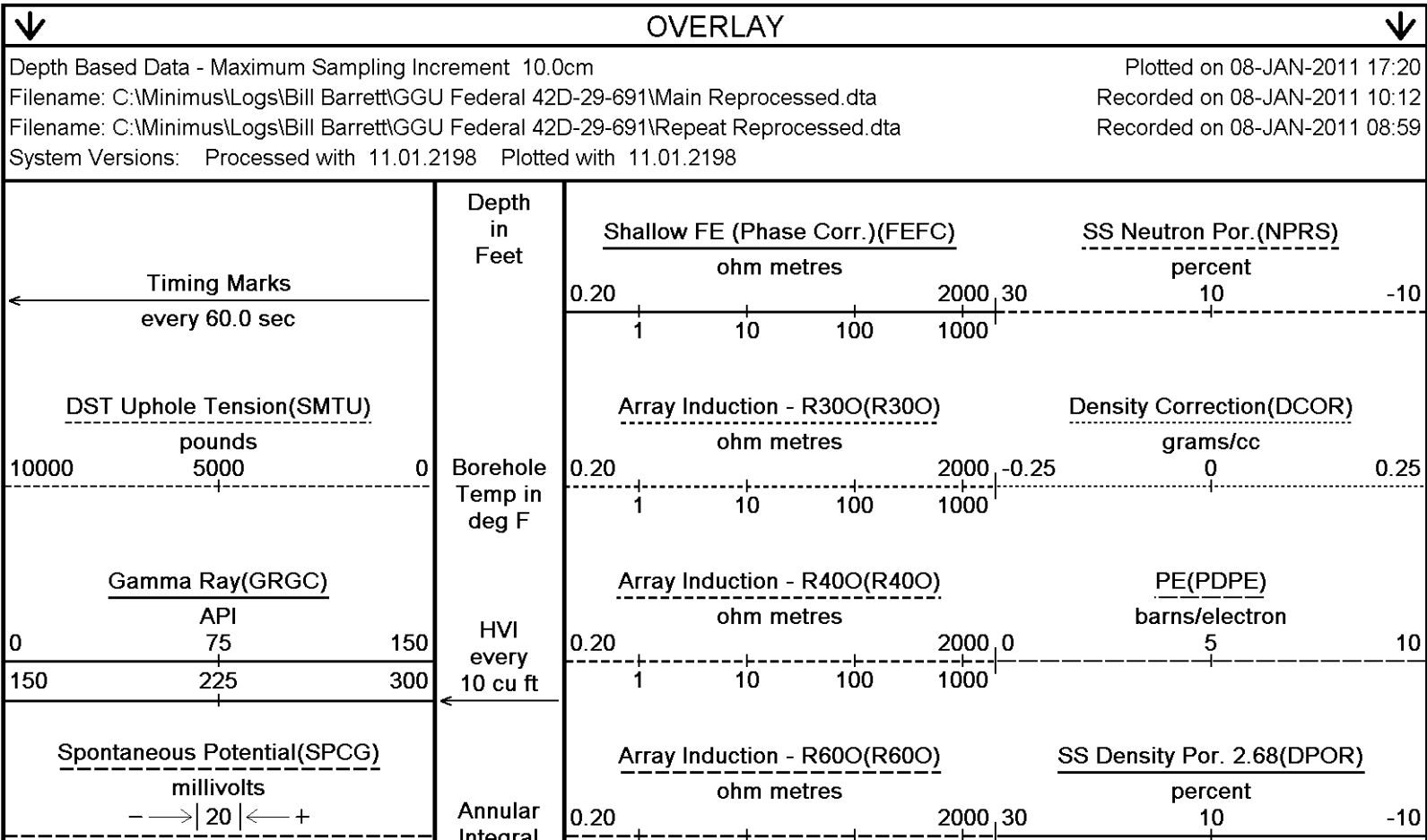
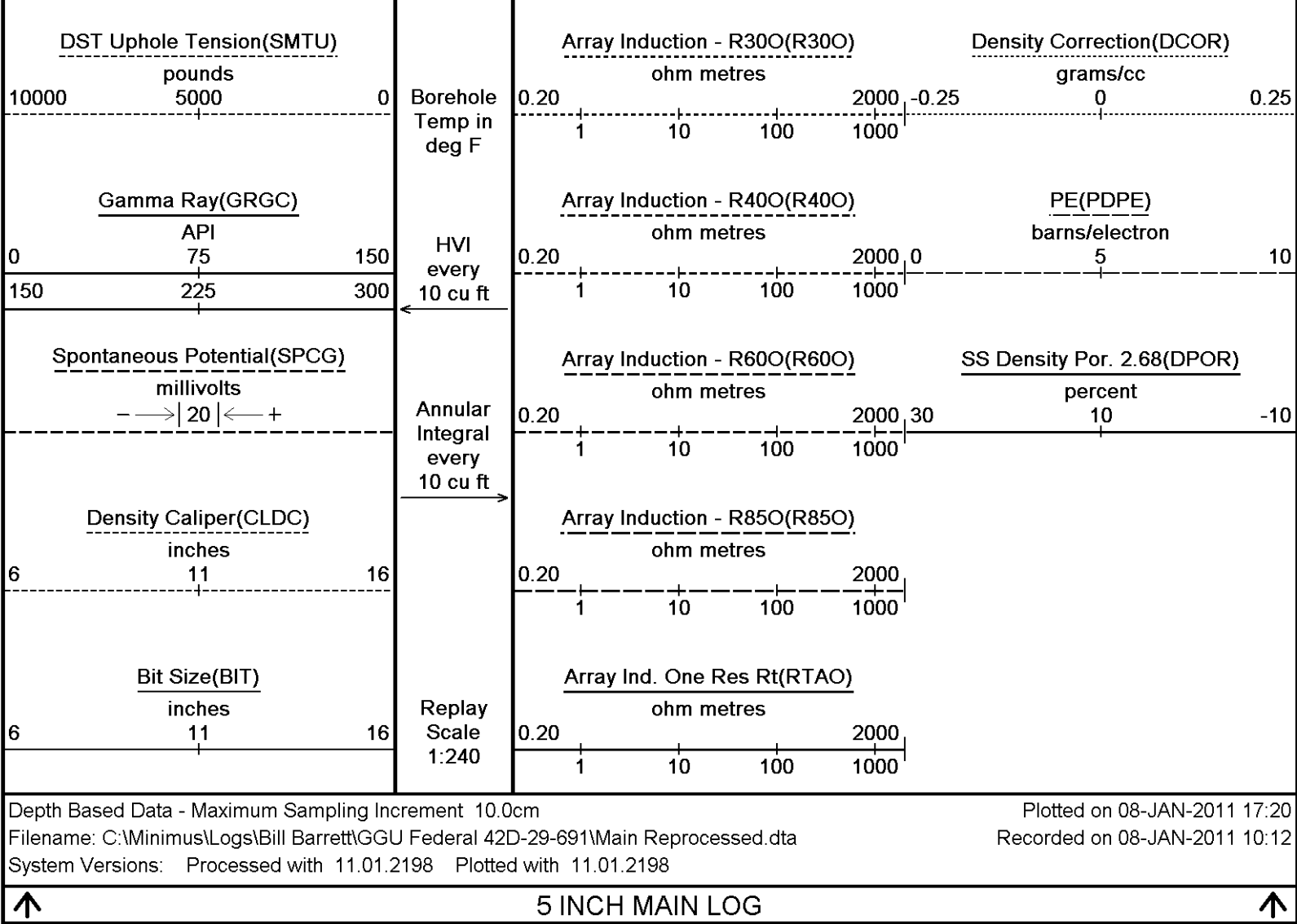


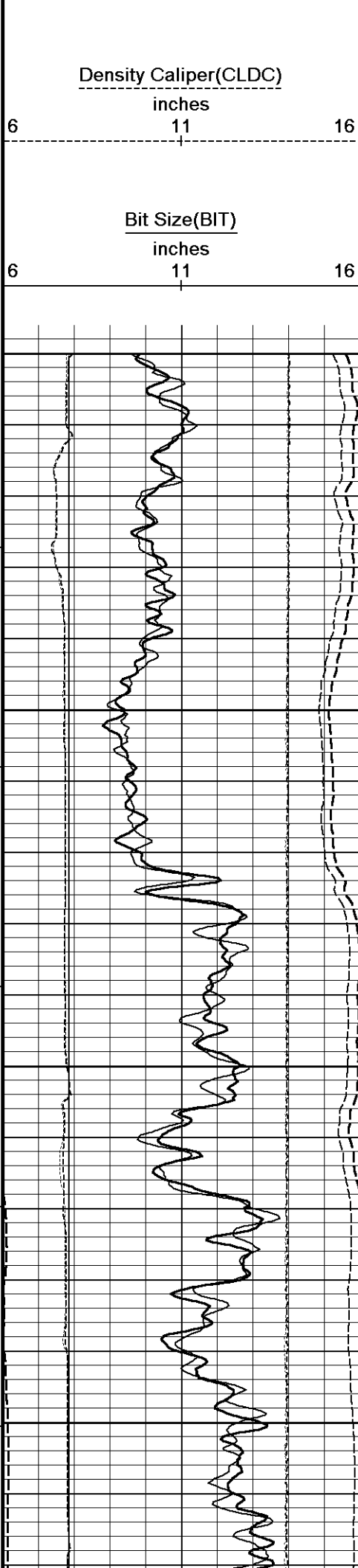






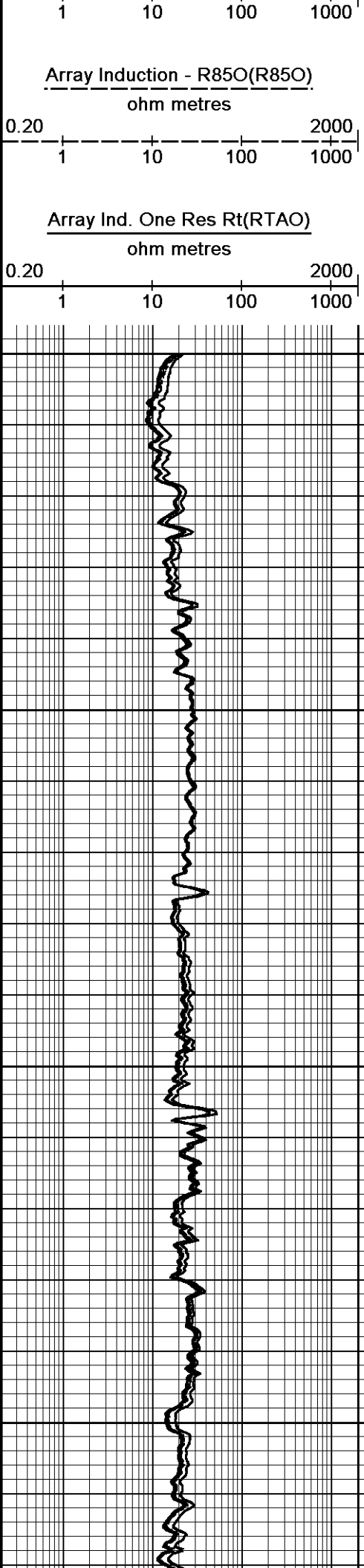


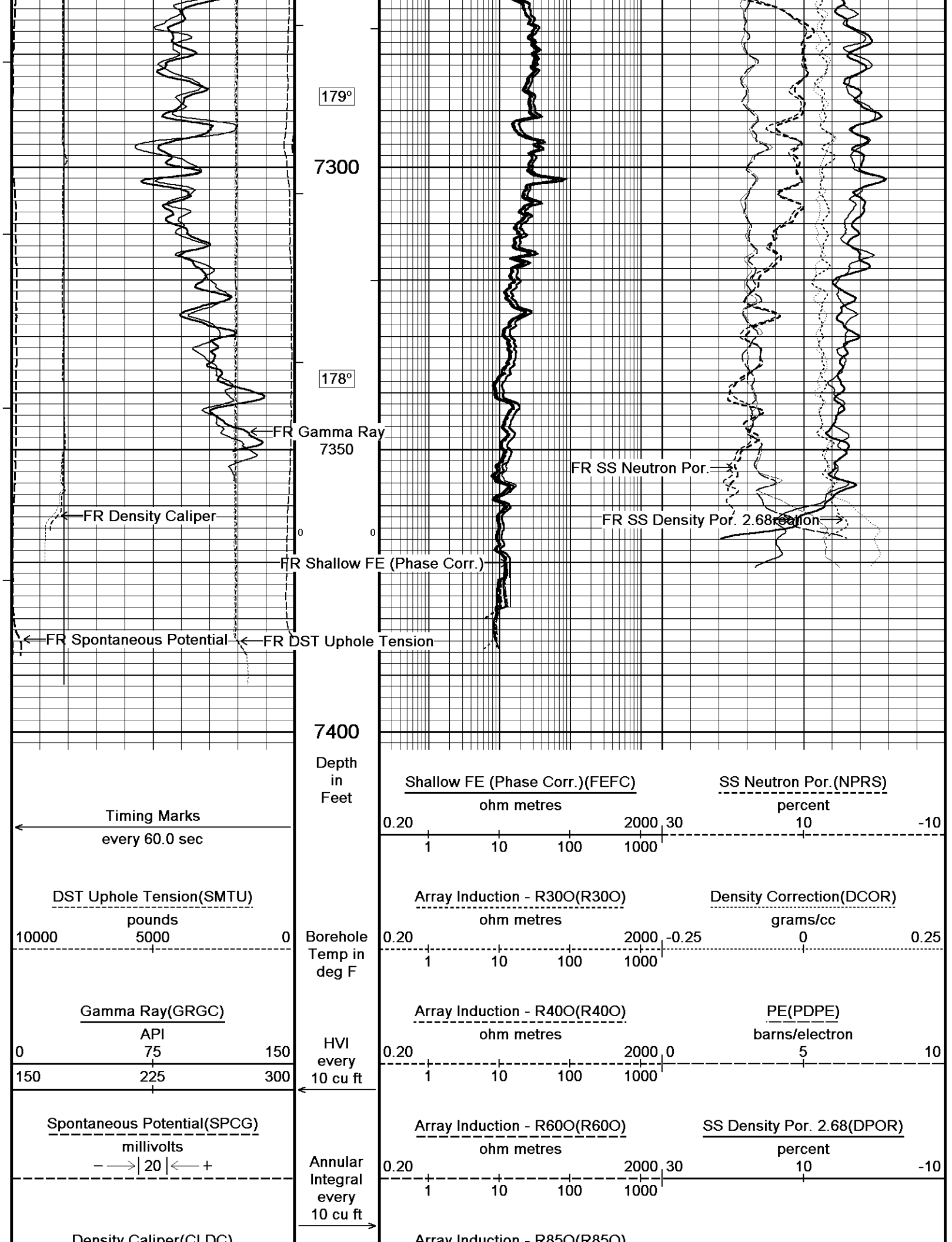


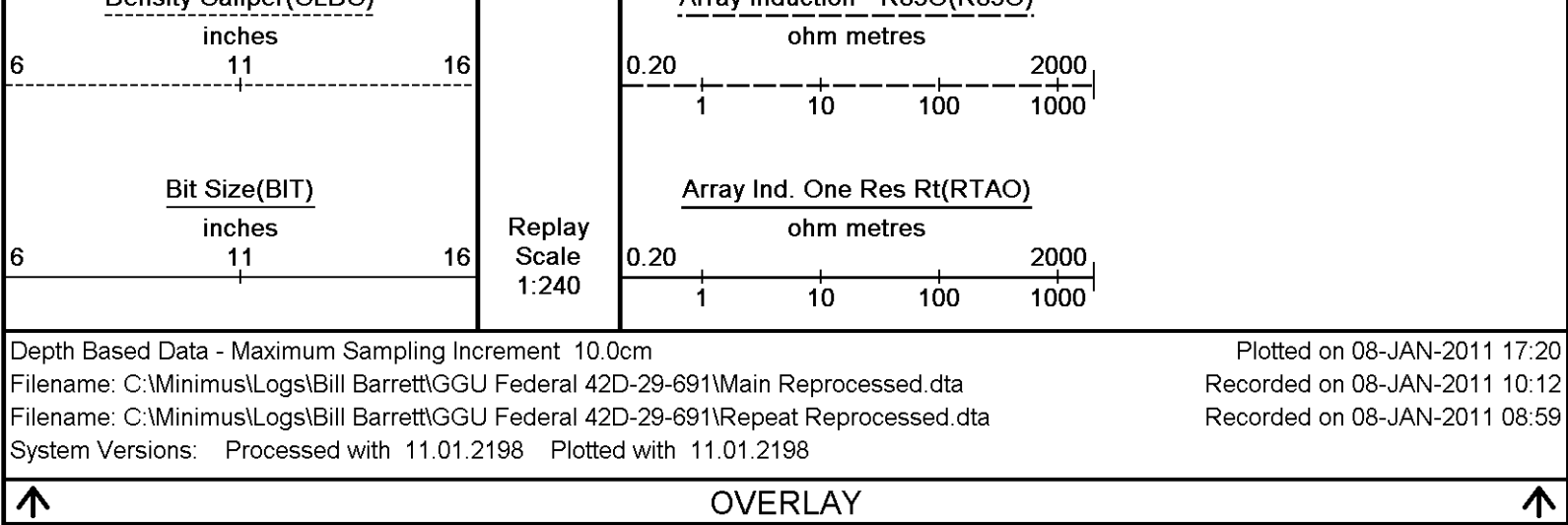


Integral
every
10 cu ft
→

Replay
Scale
1:240







BEFORE SURVEY CALIBRATION			
C:\Minimus\Logs\Bill Barrett\GGU Federal 42D-29-691\MS1.dta			
General Constants All 000		Last Edited on 08-JAN-2011,07:44	
General Parameters			
Mud Resistivity	3.300	ohm-metres	
Mud Resistivity Temperature	70.000	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 08-JAN-2011 07:54	
Reading No	Measured	Calibrated (lbs)	
1	16086.58	0.00	
2	16699.67	200.00	
High Resolution Temperature Calibration MCG-C 192		Field Calibration on 08-JAN-2011,07:03	
	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 08-JAN-2011,07:03	
	Measured	Calibrated (mV)	
Reference 1	102.5	101.0	
Reference 2	-98.8	-101.0	
Gamma Calibration MCG-C 192		Field Calibration on 08-JAN-2011 07:29	
	Measured	Calibrated (API)	
Background	40	27	
Calibrator (Gross)	1374	939	
Calibrator (Net)	1335	912	

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 08-JAN-2011 07:33

Base Calibration

	Measured		Calibrated (cps)	
	Near	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)
	1325 1961
Ratio	0.675

Neutron Constants MDN-A.B 160

Last Edited on 08-JAN-2011,10:33

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 08-JAN-2011 07:40

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	968.2	126.8

Base Check	280.9
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Field Check	280.8
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FE Constants MFE-A.A 85

Last Edited on 08-JAN-2011,07:05

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 08-JAN-2011,07:03

	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

Induction Calibration MAI-B.A 212

Base Calibration on 12-NOV-2010,10:48

Field Check on 08-JAN-2011 07:43

Base Calibration

Test Loop Calibration

Channel	Measured		Calibrated (mmho/m)	
	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	12.8	3844.3	13.6	3845.6
2	28.9	3491.0	29.7	3491.7
3	26.9	3023.1	27.6	3023.7
4	19.2	2087.9	19.6	2088.2
Deep	16.6	2014.7	17.0	2015.1
Medium	38.8	3940.2	39.6	3940.9
Shallow	43.2	5104.3	44.2	5105.3

Array Temperature 58.6 57.6 Deg F

Induction Constants MAI-B.A 212

Last Edited on 08-JAN-2011,07:00

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 04-JAN-2011 16:04

Field Calibration on 08-JAN-2011,07:05

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	18445	4.00
2	26928	5.96

3	20020	0.00
4	34736	7.98
5	51984	11.88
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
6.00	5.96

Photo Density Calibration MPD-B 167

Base Calibration on 04-JAN-2011 15:52
Field Check on 08-JAN-2011 07:38

Density Calibration

Base Calibration

	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	48428	18812	53115	25020
Reference 2	22666	3067	19186	2536

Field Check at Base

1175.0 1750.6

Field Check

1180.4 1744.4

PE Calibration

Base Calibration

	WS	Measured WH	Ratio	Calibrated Ratio
Background	215	1048		
Reference 1	14814	48256	0.309	0.320
Reference 2	5812	22530	0.261	0.272

Field Check at Base

215.1 1047.9

Field Check

216.2 1051.9

Density Constants MPD-B 167

Last Edited on 08-JAN-2011,07:04

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	1.21 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

AFTER SURVEY CALIBRATION

C:\Minimus\Logs\Bill Barrett\GGU Federal 42D-29-691\MS1.dta

Neutron Check MDN-A.B 160

Before Survey Check on 08-JAN-2011 07:33
After Survey Check on 08-JAN-2011 12:20

Near (cps)		Far (cps)	
Before	After	Before	After

1325	1300	Ratio	1961
	Before	After	
	0.675	0.660	

FE Check MFE-A.A 85

Before Survey Check 08-JAN-2011 07:40
After Survey Check on 08-JAN-2011 12:11

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

Induction Check MAI-B.A 212

Before Survey Check on 08-JAN-2011 07:43
After Survey Check on 08-JAN-2011 12:10

Channel	Before Survey (mmho/m)		After Survey (mmho/m)	
	Low	High	Low	High
1	13.6	3845.6	14.2	3844.9
2	29.7	3491.7	29.8	3491.1
3	27.6	3023.7	27.6	3023.2
4	19.6	2088.2	19.6	2087.8
Deep	17.0	2015.1	17.1	2014.7
Medium	39.6	3940.9	39.7	3940.4
Shallow	44.2	5105.3	44.4	5104.4
Array Temperature	57.6		67.7 Deg F	

Photo Density Check MPD-B 167

Before Survey Check on 08-JAN-2011 07:38
After Survey Check on 08-JAN-2011 12:15

Density Check

	Before	Near After	Before	Far After
	1180.4	1179.1	1744.4	1750.8

PE Check

	Before	After
WS	216.2	214.6
WH	1051.9	1051.7

DOWNHOLE EQUIPMENT

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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

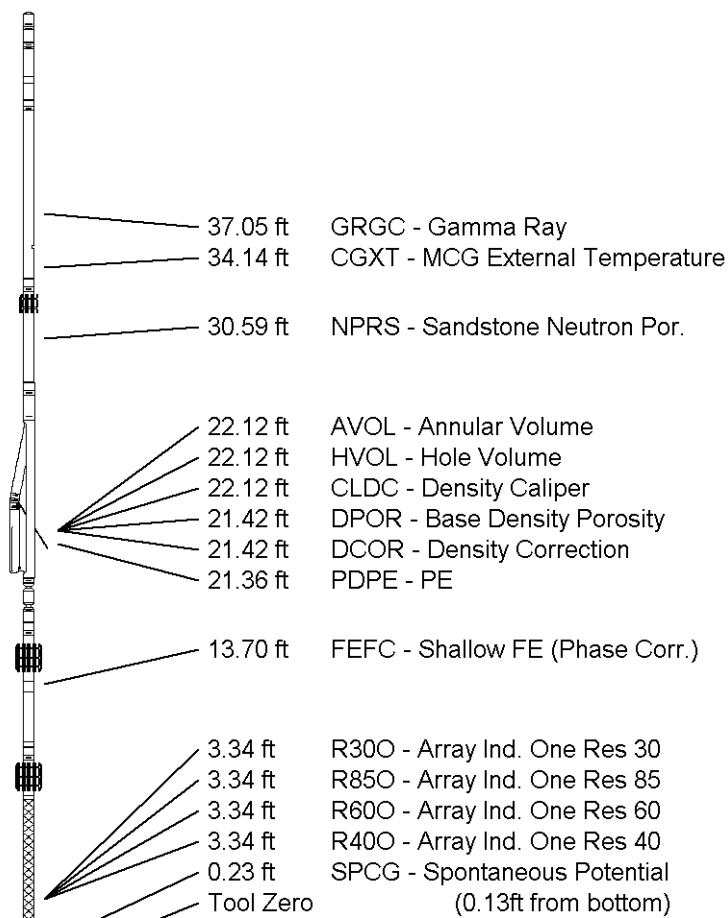
Compact Density/Caliper
MPD-B 167 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

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





-0.13 ft SMTU - DST Uphole Tension
All measurements relative to tool zero.

COMPANY	BILL BARRETT CORPORATION
WELL	GGU FEDERAL 42D-29-691
FIELD	GIBSON GULCH
PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	6127.00	feet	First Reading	7381.00	
Elevation Drill Floor	6126.00	feet	Depth Driller	7385.00	feet
Elevation Ground Level	6104.00	feet	Depth Logger	7384.00	feet



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