

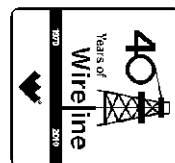


# Weatherford

## COMPACT TRIPLE COMBO

### QUICKLOOK

### LOG



COMPANY

WEXPRO COMPANY

WELL

JACK DRAW UNIT #19

FIELD

JACK DRAW UNIT

PROVINCE/COUNTY

MOFFAT

COUNTRY/STATE

U.S.A. / COLORADO

LOCATION

SHL: 1342' FSL &amp; 2264' FEL

SEC

TWP

10

11N

97W

Other Services

CMI

Permit Number

05-081-07616

Permanent Datum G.L., Elevation 6894 feet

Log Measured From KB

Drilling Measured From K.B.

Date

8-OCT-2011

Run Number

ONE

Depth Driller

9373.00

Depth Logger

9375.00

First Reading

9372.00

Last Reading

538.00

Casing Driller

535.00

Casing Logger

538.00

Bit Size

7.875

Hole Fluid Type

LSND

Density / Viscosity

10.20 lb/USg

PH / Fluid Loss

9.60

Sample Source

FLOWLINE

Rm @ Measured Temp

7.63 @ 54.0

Rmf @ Measured Temp

6.10 @ 54.0

Rmc @ Measured Temp

9.16 @ 54.0

Source Rmf / Rmc

CALC

Rm @ BHT

2.23 @190.0

Time Since Circulation

8 HOURS

Max Recorded Temp

190.00

Equipment Name

COMPACT

Equipment / Base

13037

Recorded By

J. PAULSON

Witnessed By

R. BUSH

## BOREHOLE RECORD

Last Edited: 08-OCT-2011 10:44

Bit Size  
inches

7.875

Depth From  
feet

535.00

Depth To  
feet

9373.00

## CASING RECORD

Type

Size  
inches

9.625

Depth From  
feet

0.00

Shoe Depth  
feet

535.00

Weight  
pounds/ft

36.00

## REMARKS

SOFTWARE VERSION 11.03.4044.

TOOLS RUN 1: SHA, MCG, MDN, MPD, MIS-A, SKJ, MIS-B, SKJ, MIM, MIE, MFE, MAI RAN IN COMBINATION.

HARDWARE: MDN: DUAL BOWSPRING USED.  
MPD: 8" PROFILE PLATE USED.  
MAI: TWO 1.0" STANDOFFS USED.

2.65 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.

ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

TOTAL HOLE VOLUME FROM T.D. TO SURFACE CASING = 3110 CUBIC FEET.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 2130 CUBIC FEET.

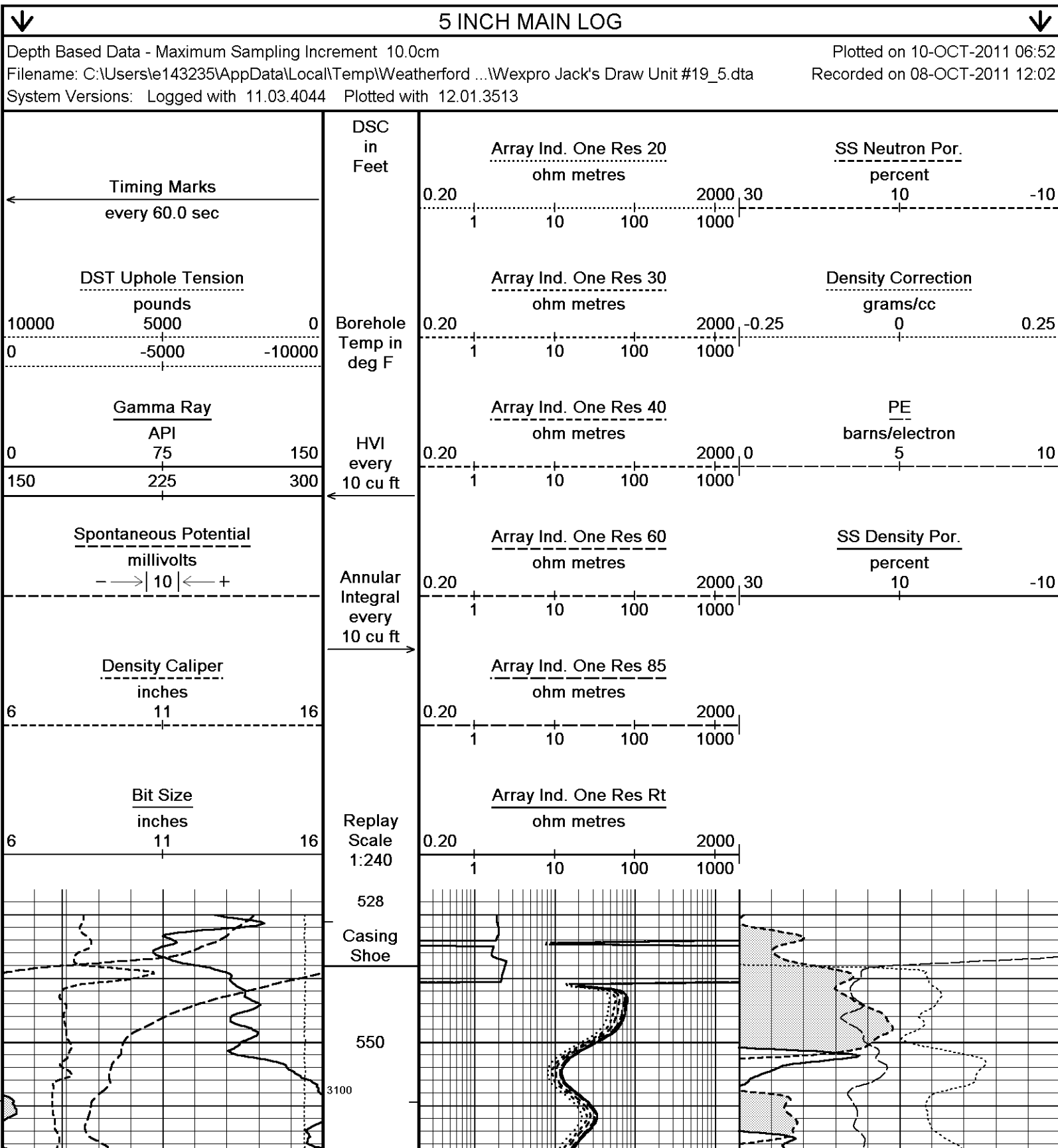
TIGHT PULLS, BOREHOLE SIZE AND RUGOSITY WILL AFFECT REPEATABILITY AND DATA QUALITY.

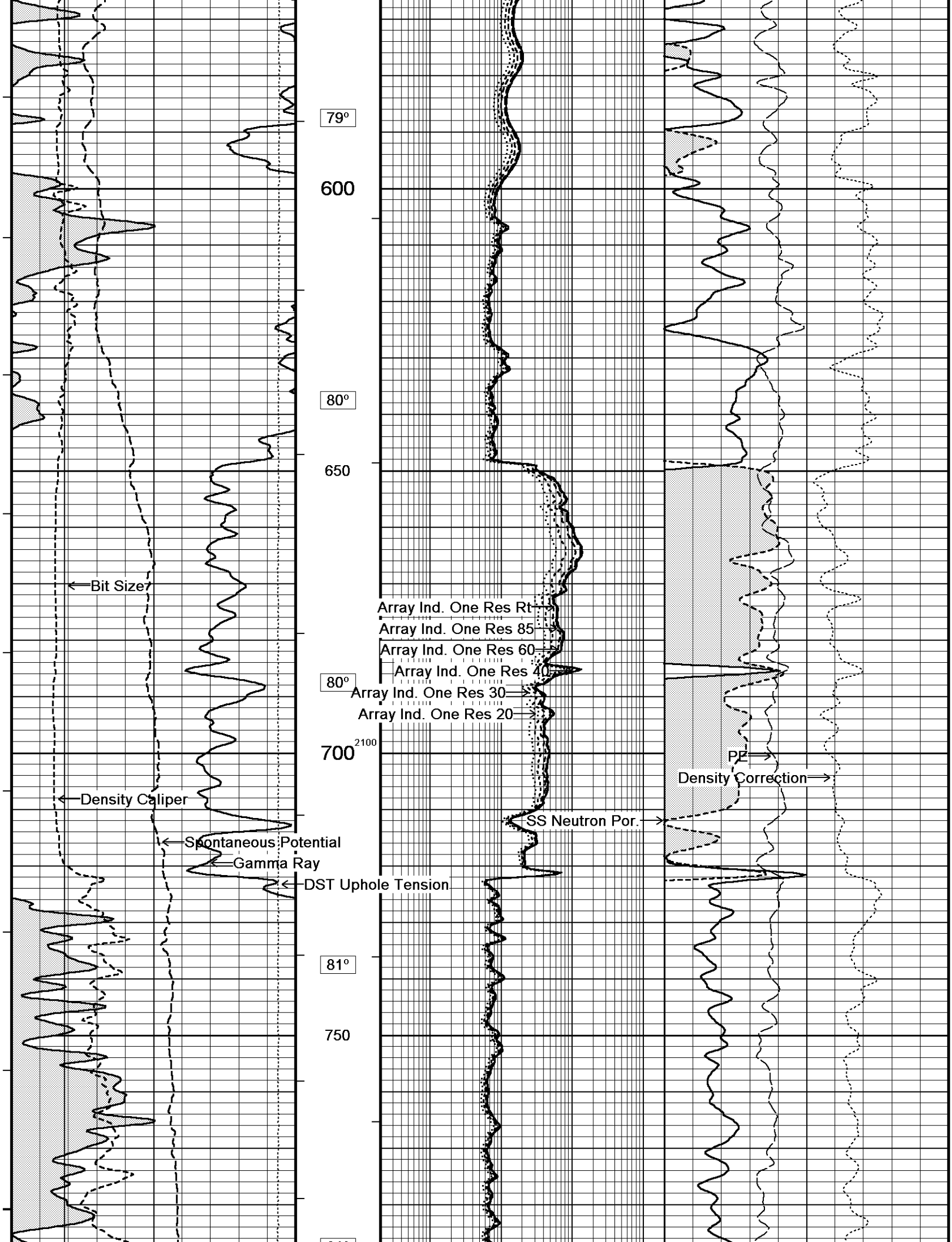
OPERATOR: D. SMITH.

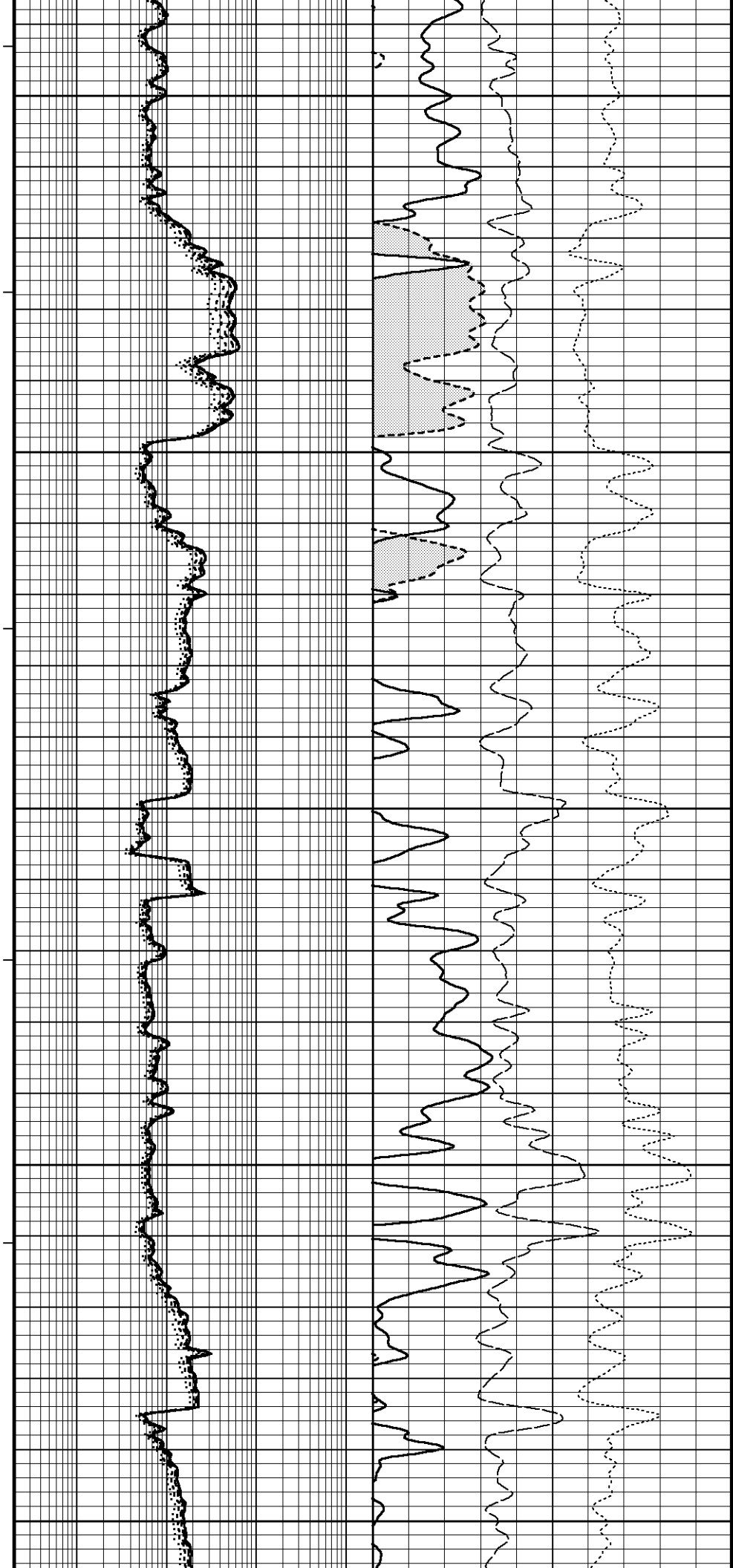
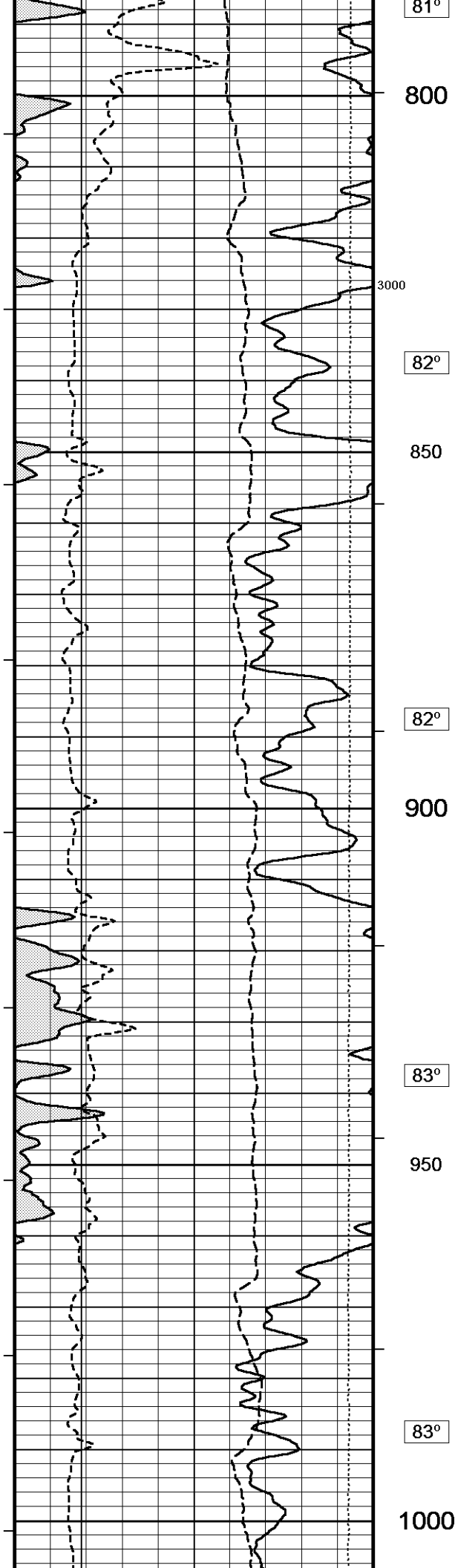
SERVICE ORDER: #3529731.

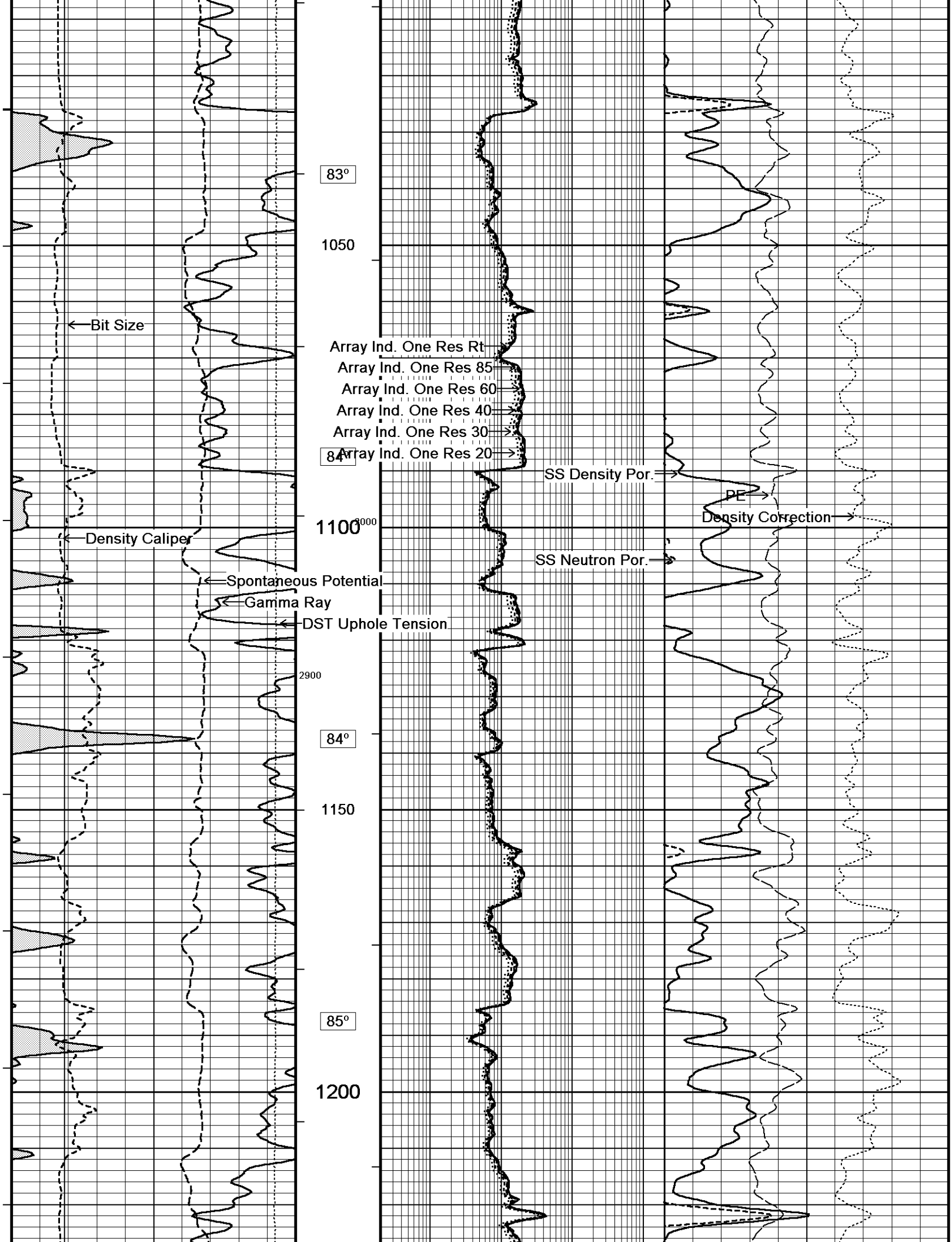
RIG: SST #88.

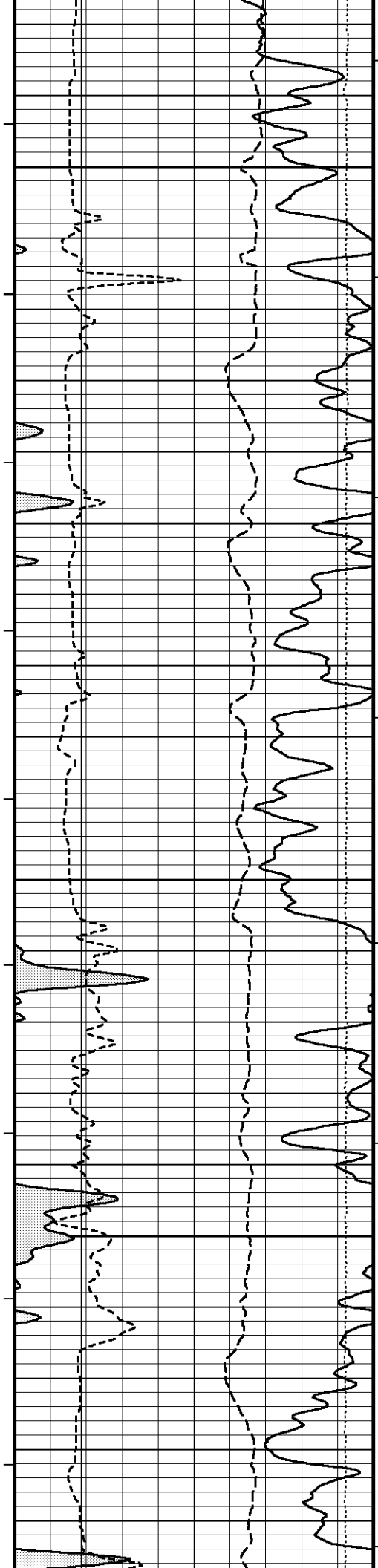
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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



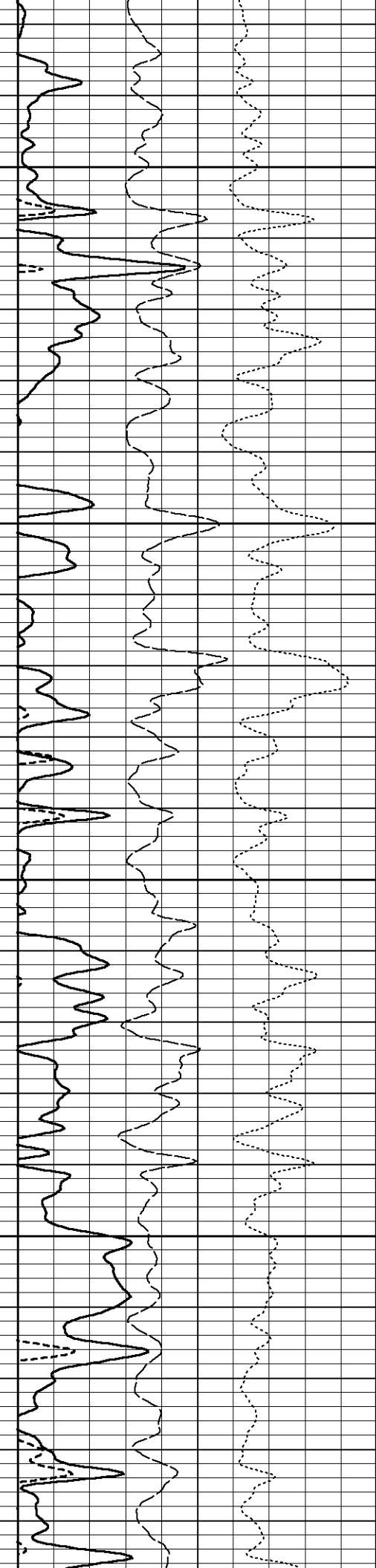
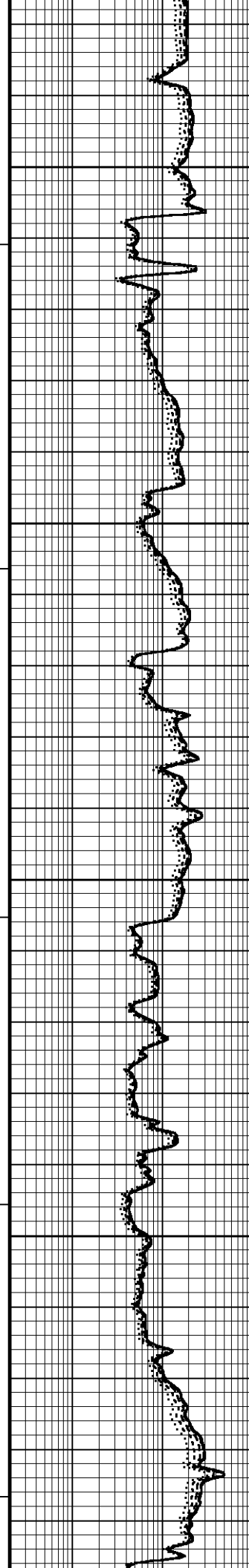


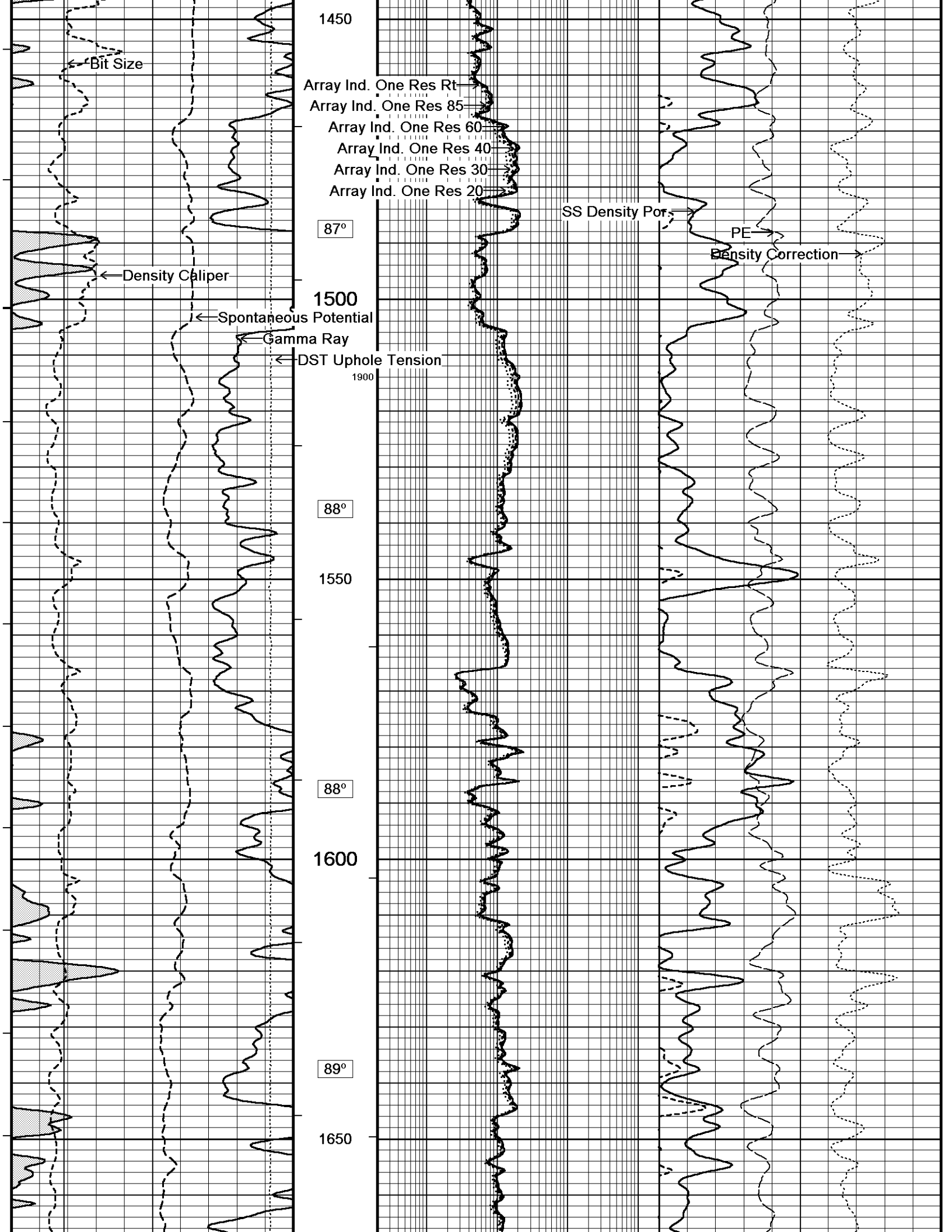


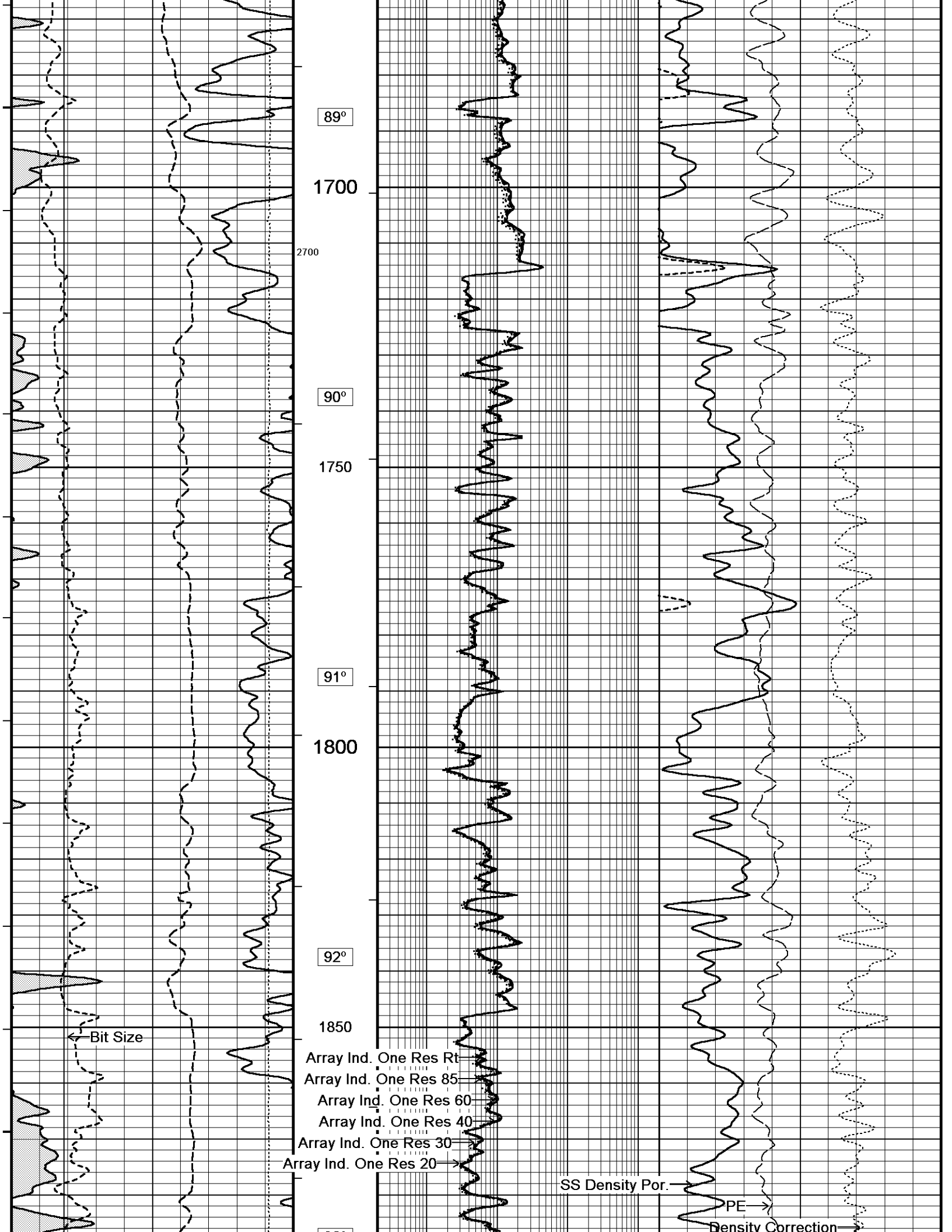




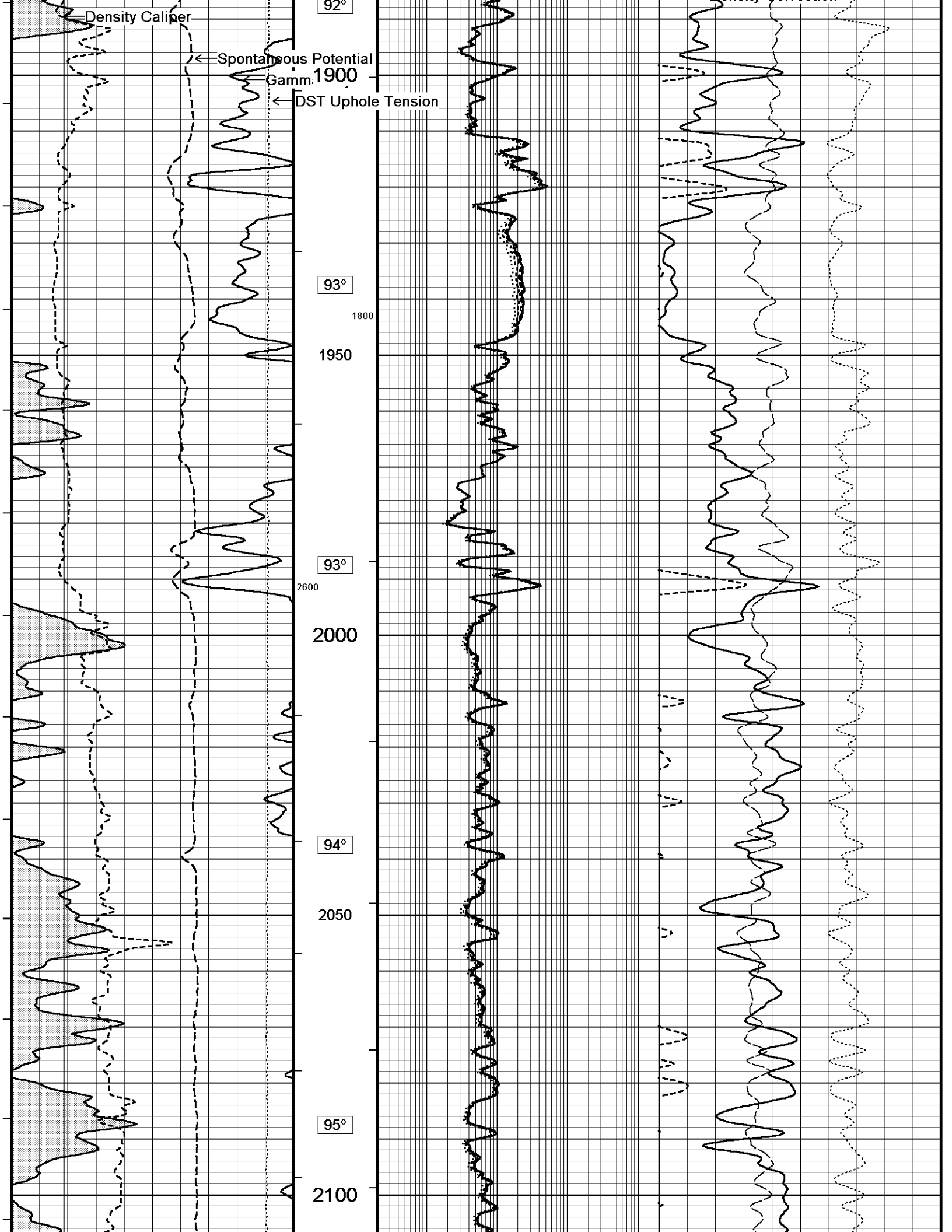
85°  
1250  
86°  
1300  
86°  
1350  
87°  
1400  
2800  
87°

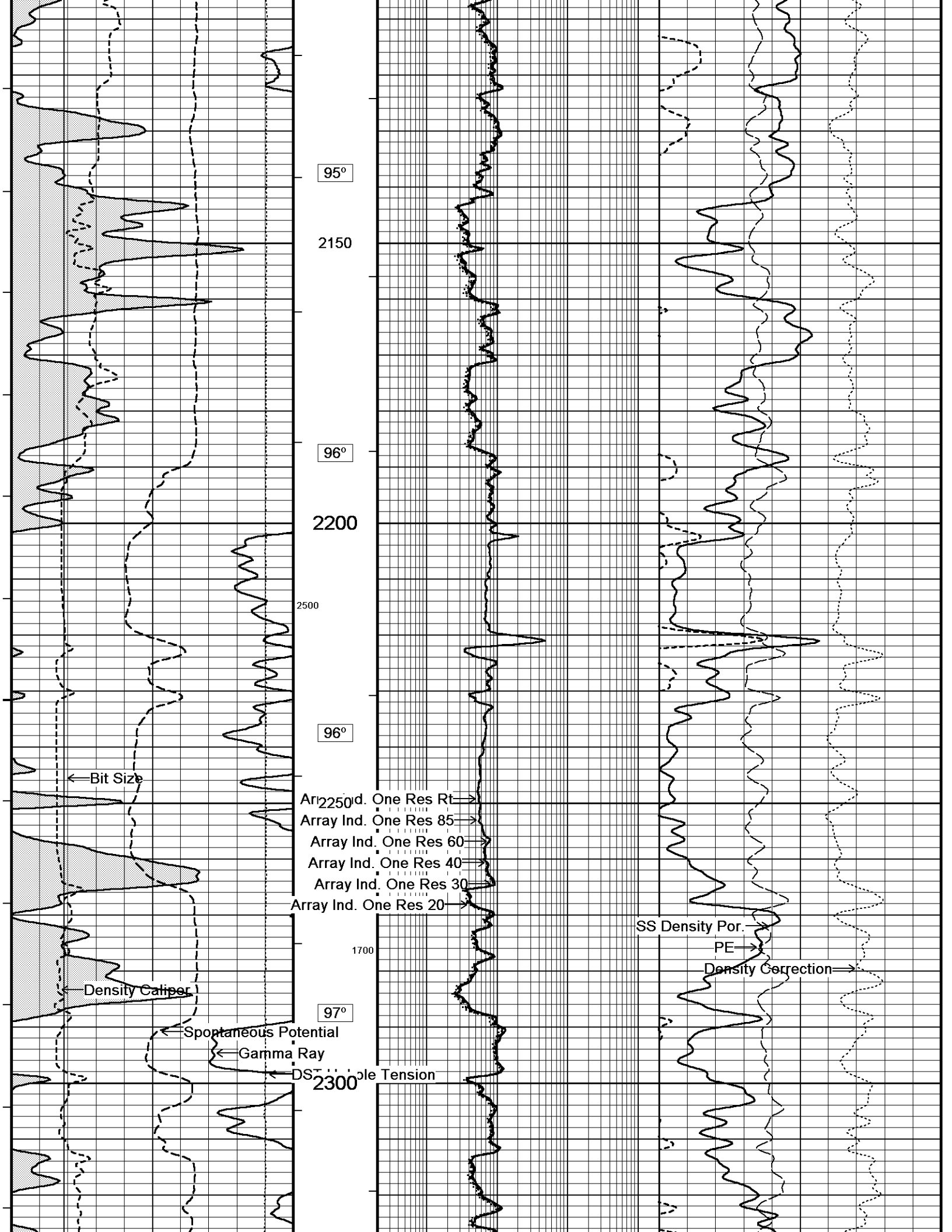


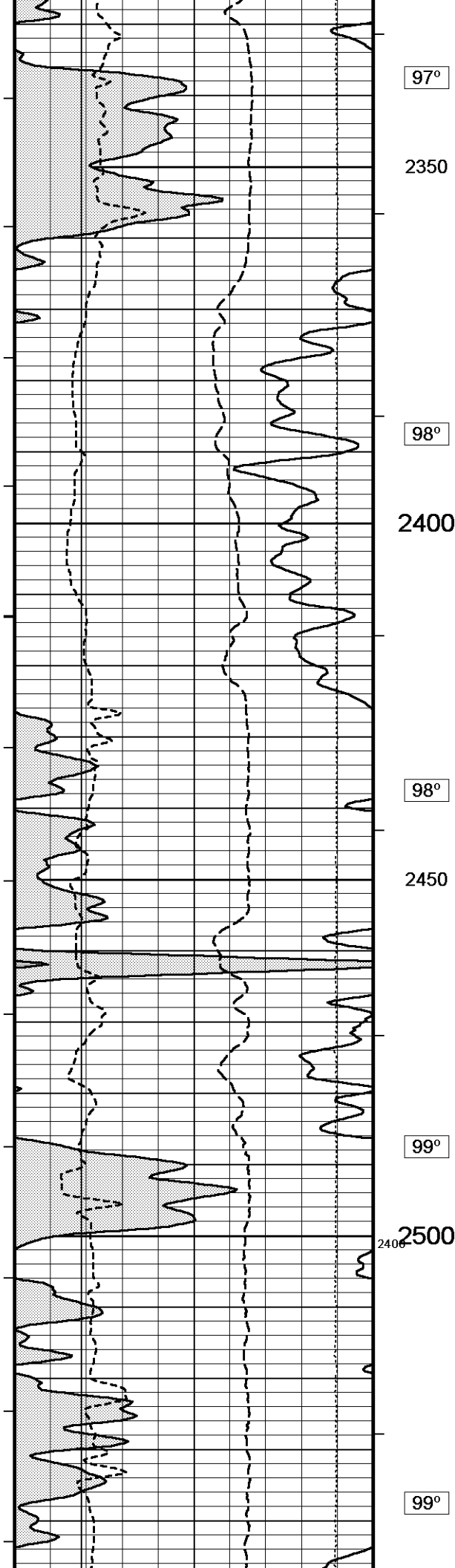












97°

2350

98°

2400

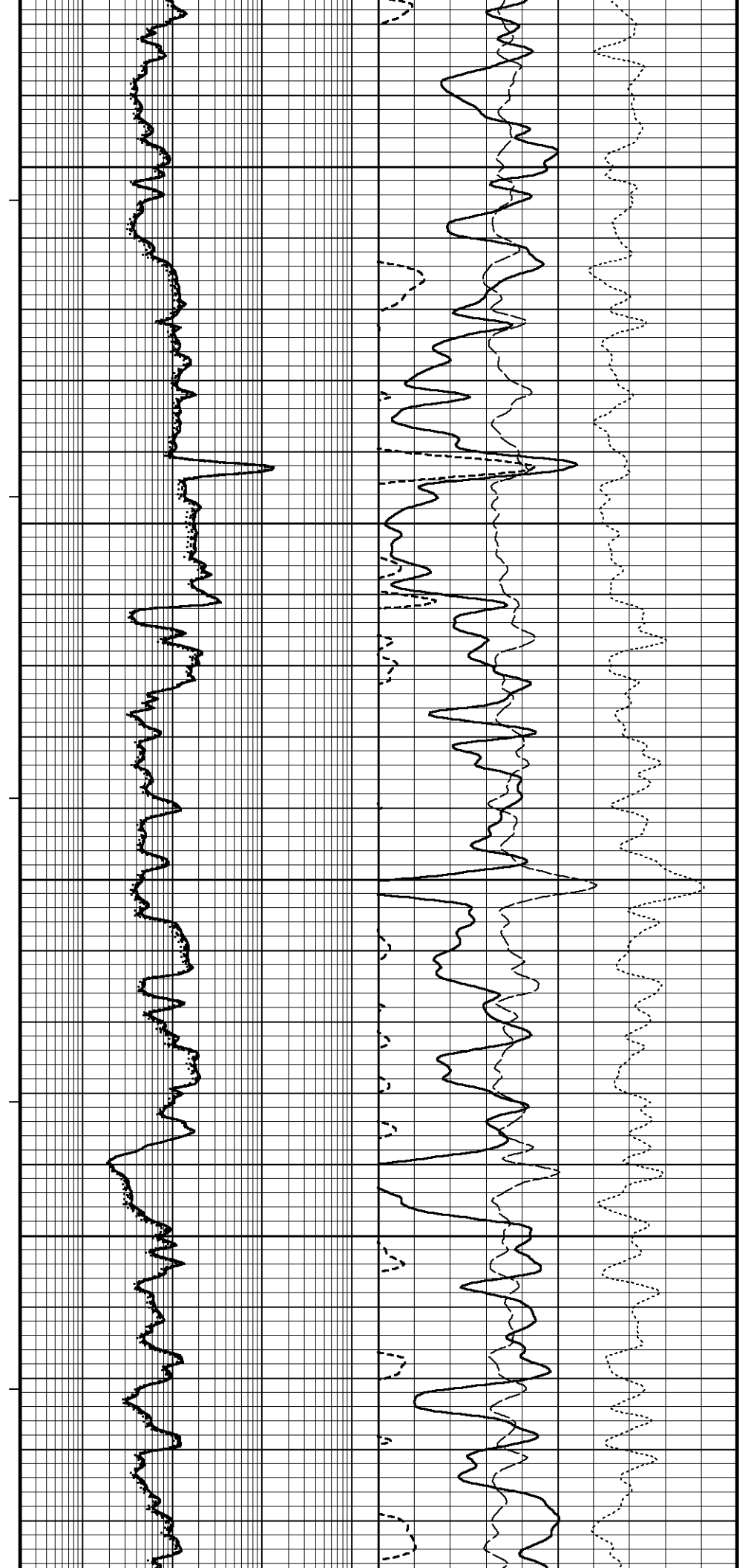
98°

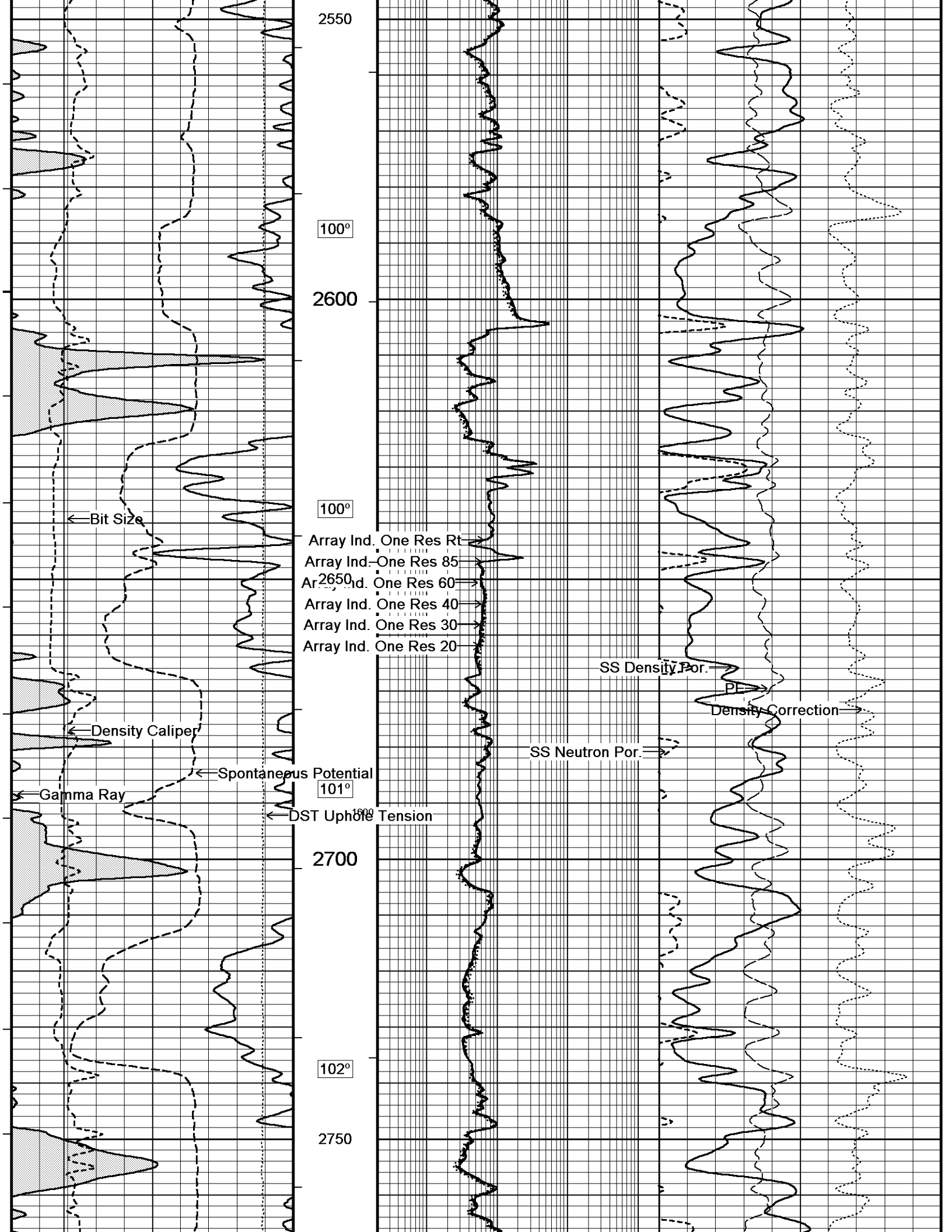
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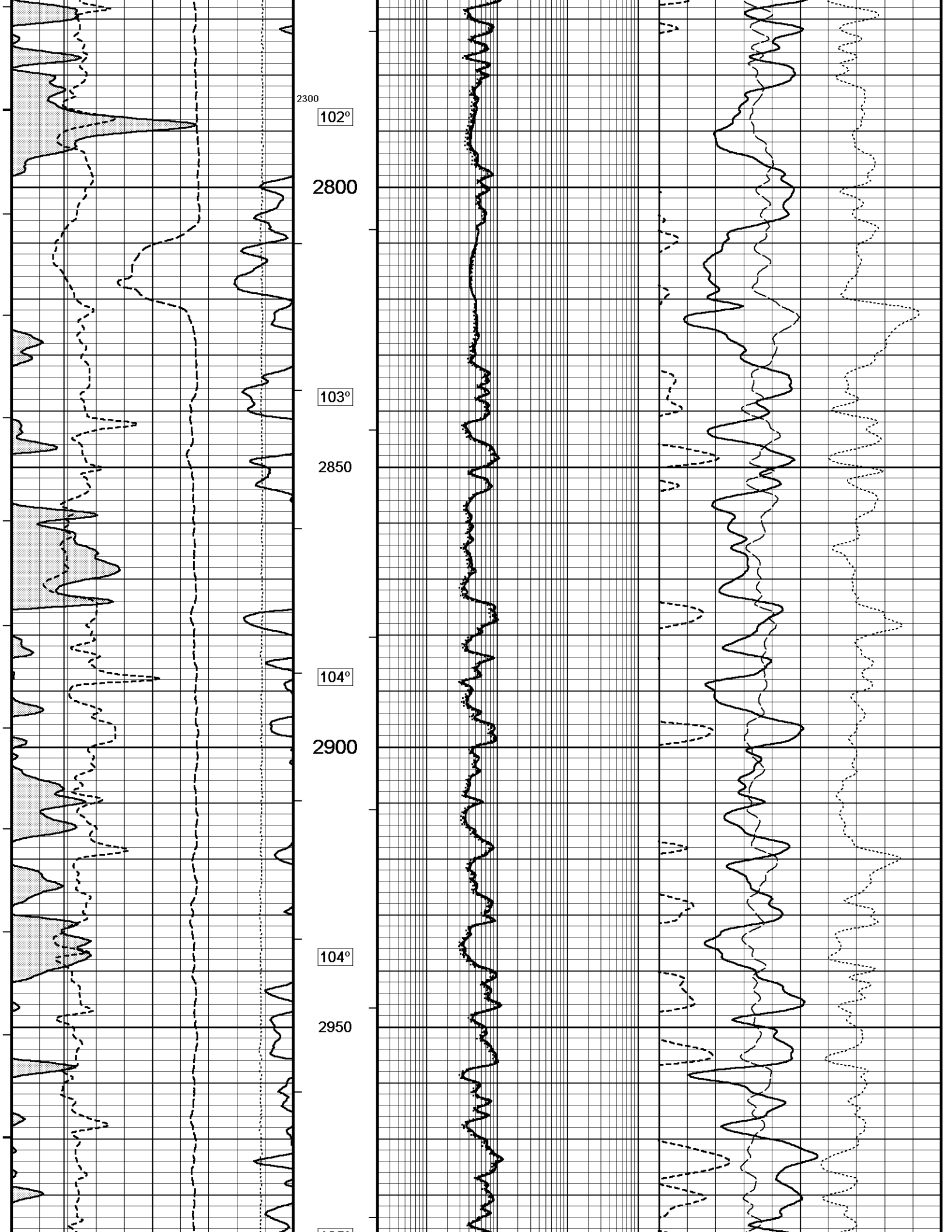
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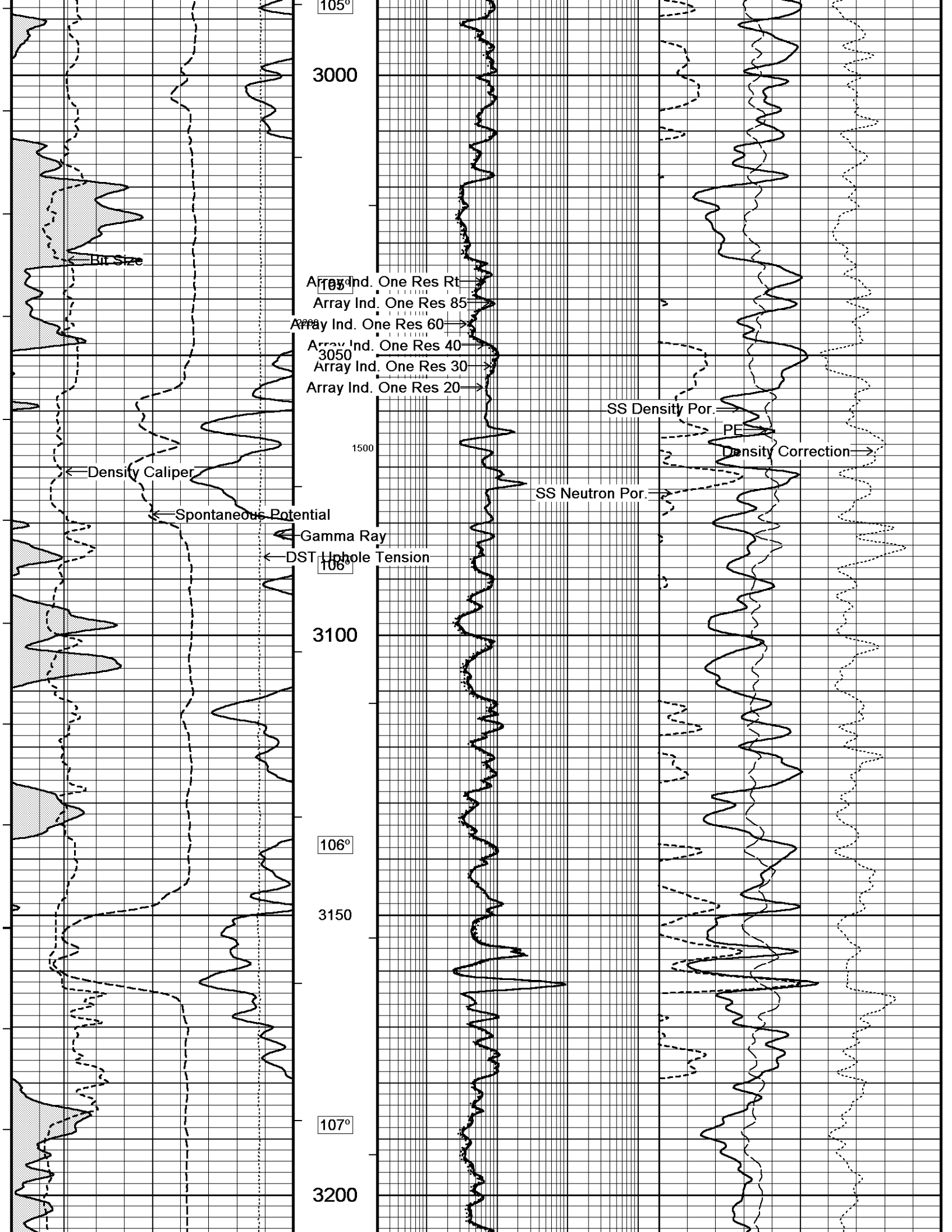
2400 2500

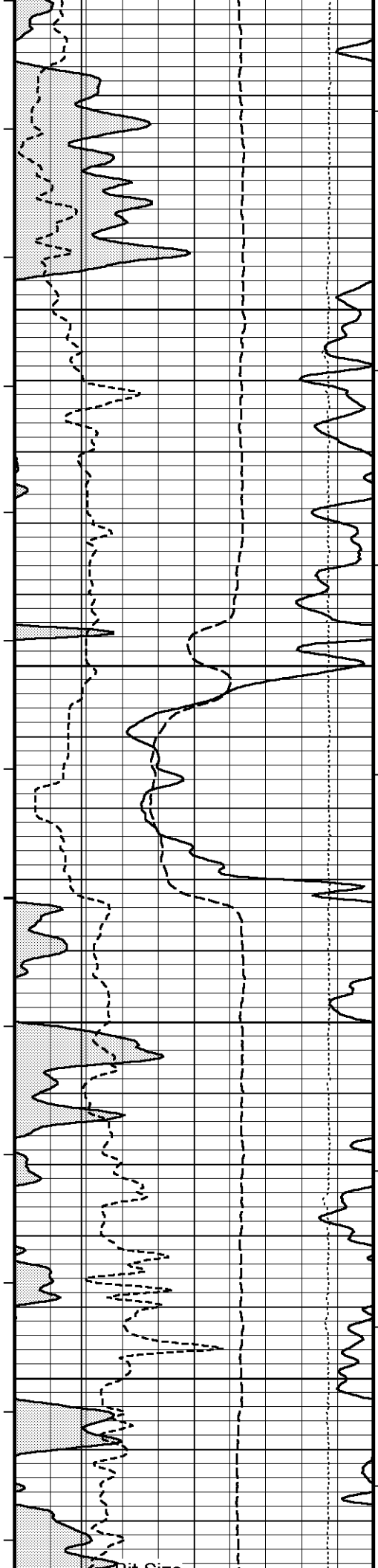
99°











107°

3250

108°

3300

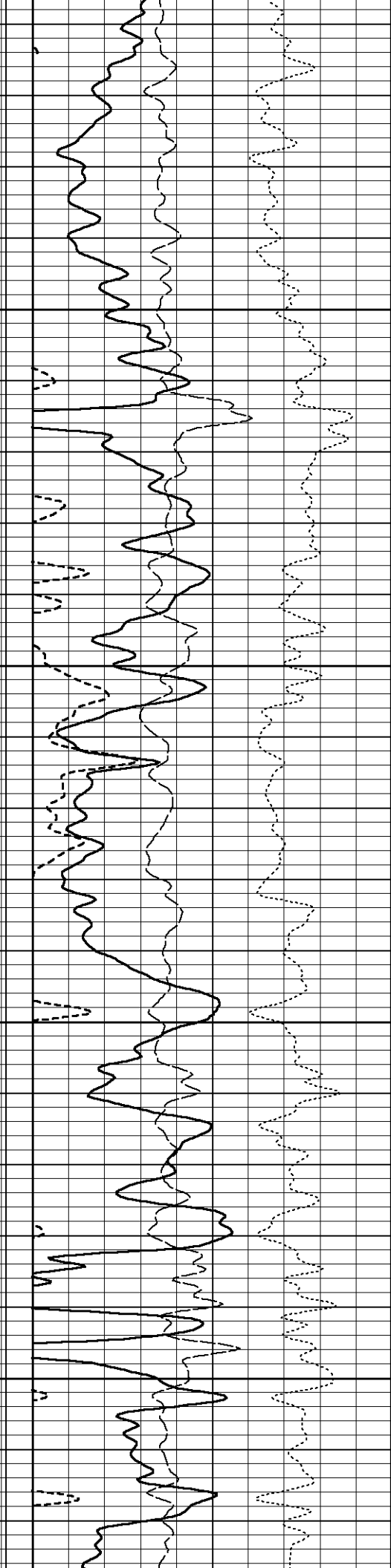
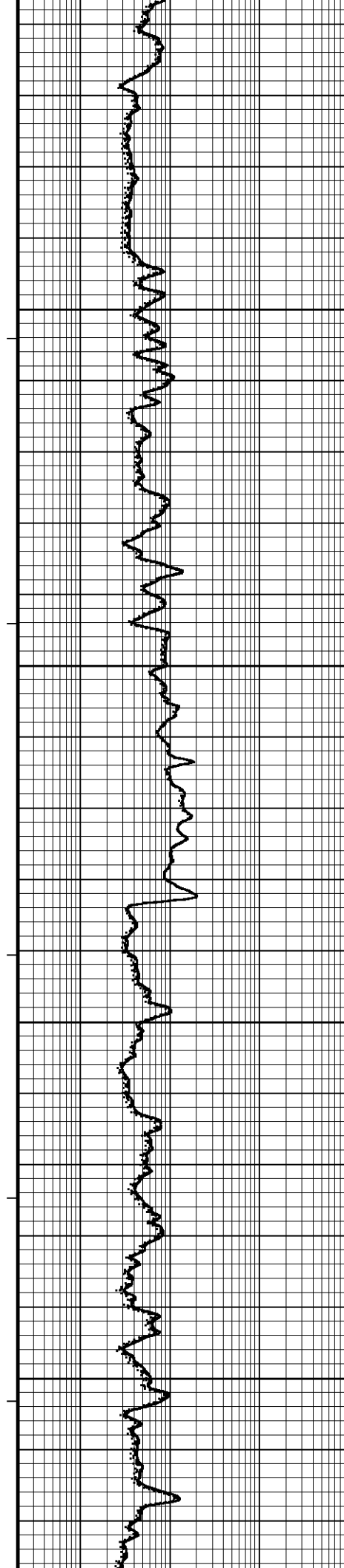
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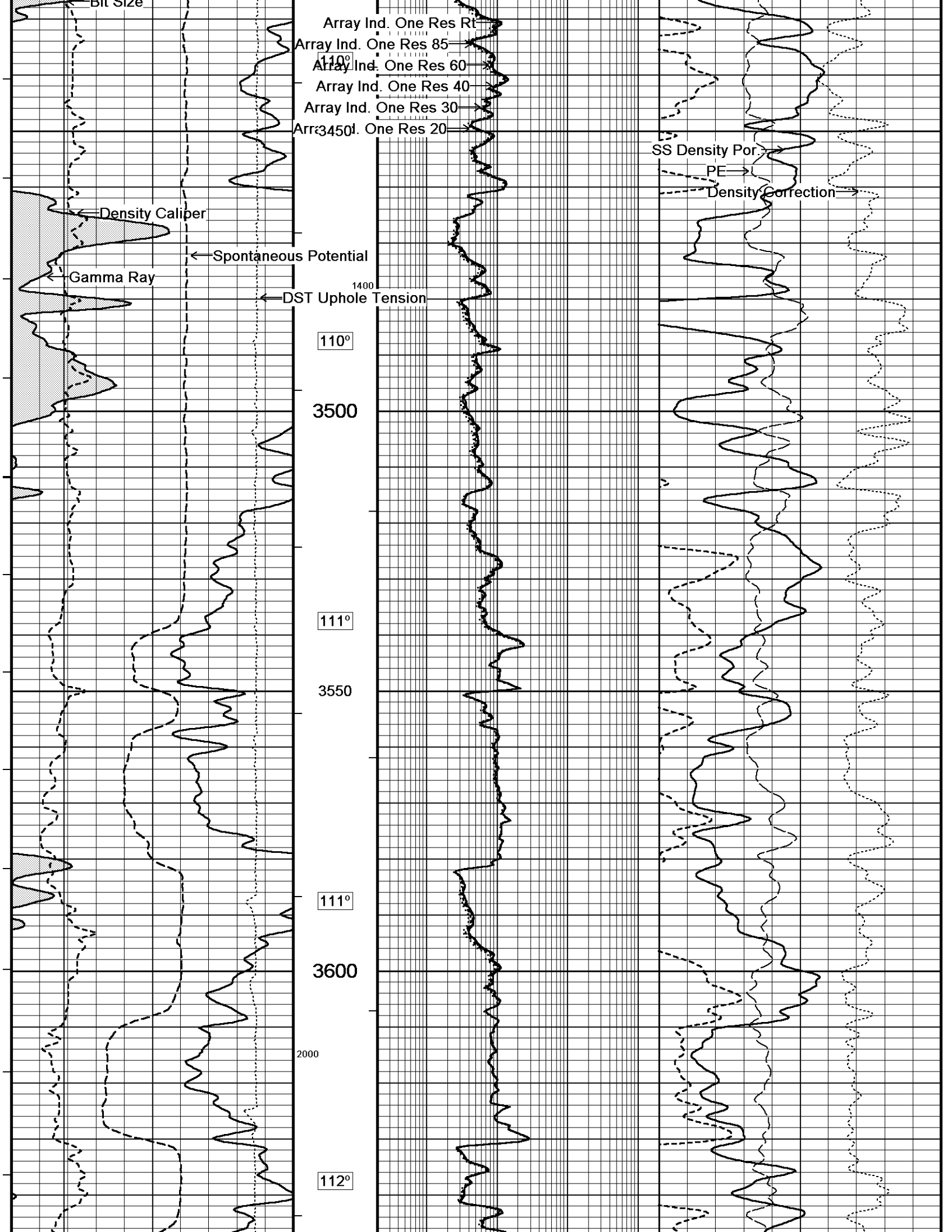
2100

3350

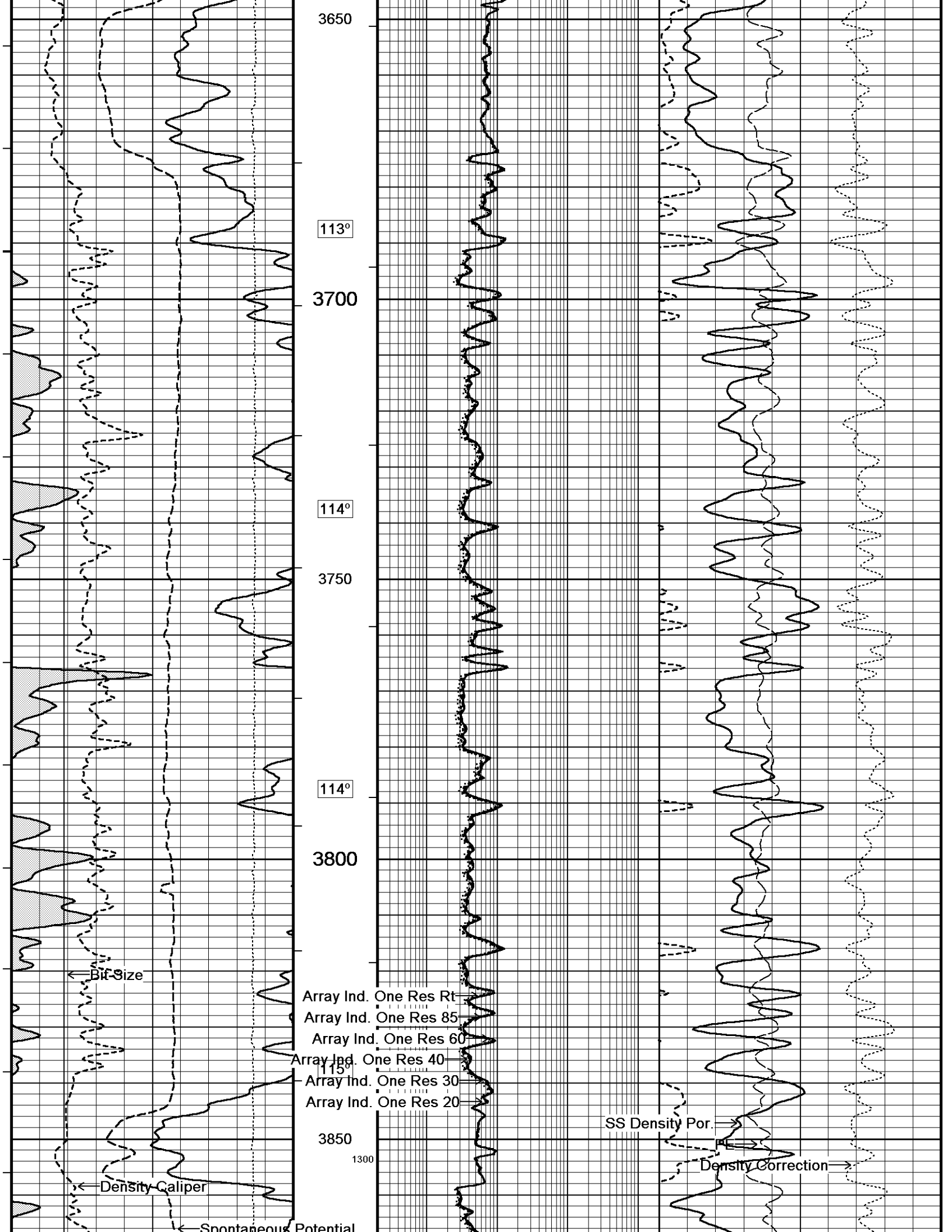
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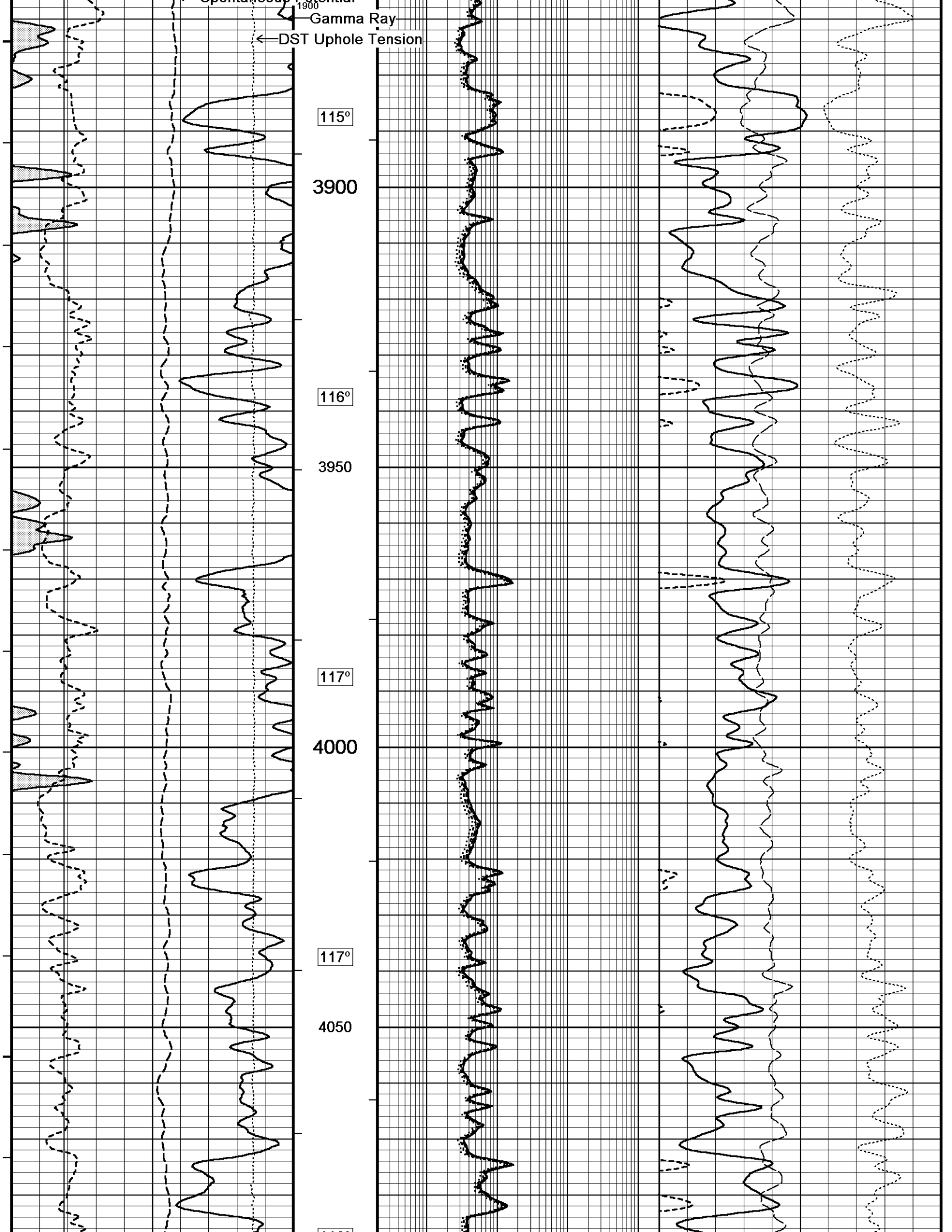
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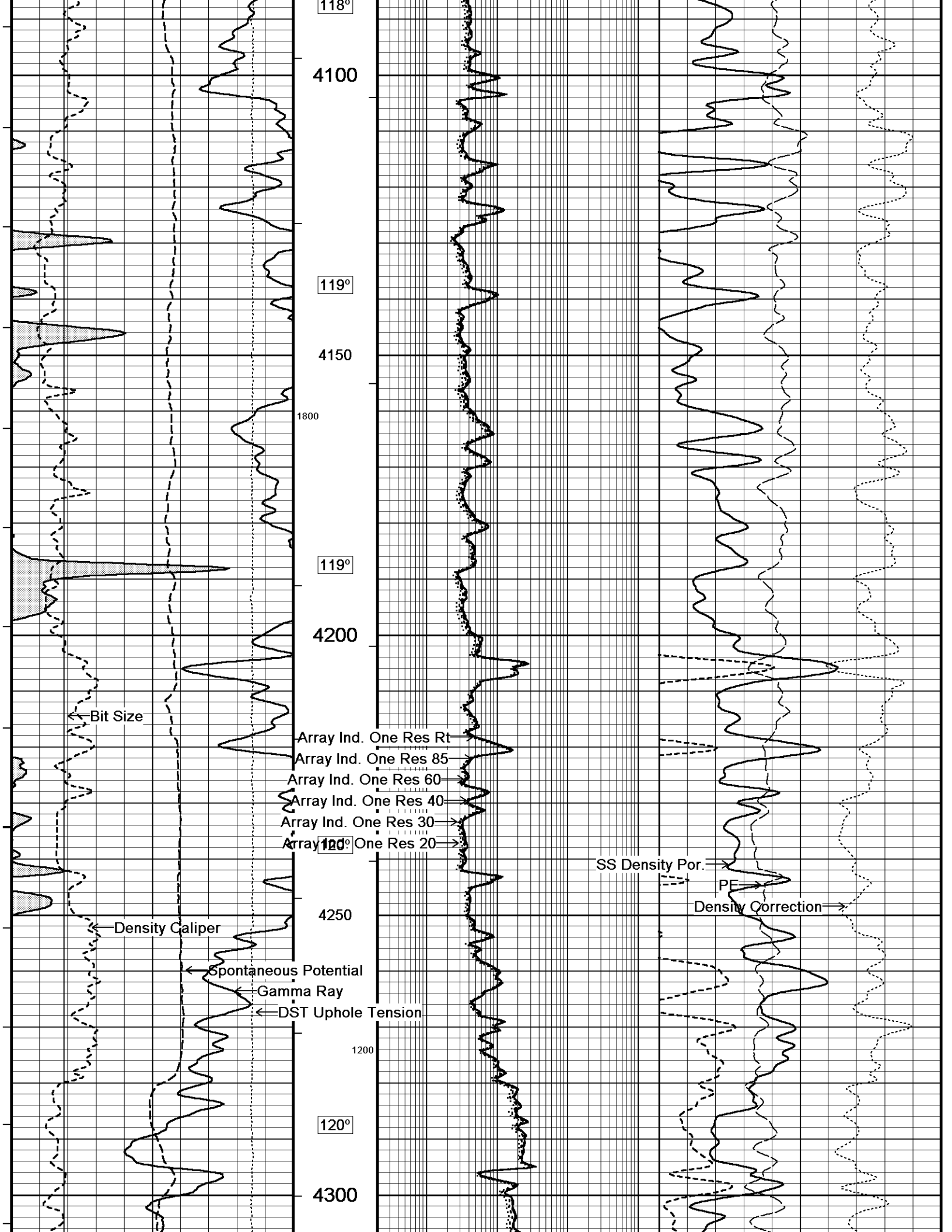


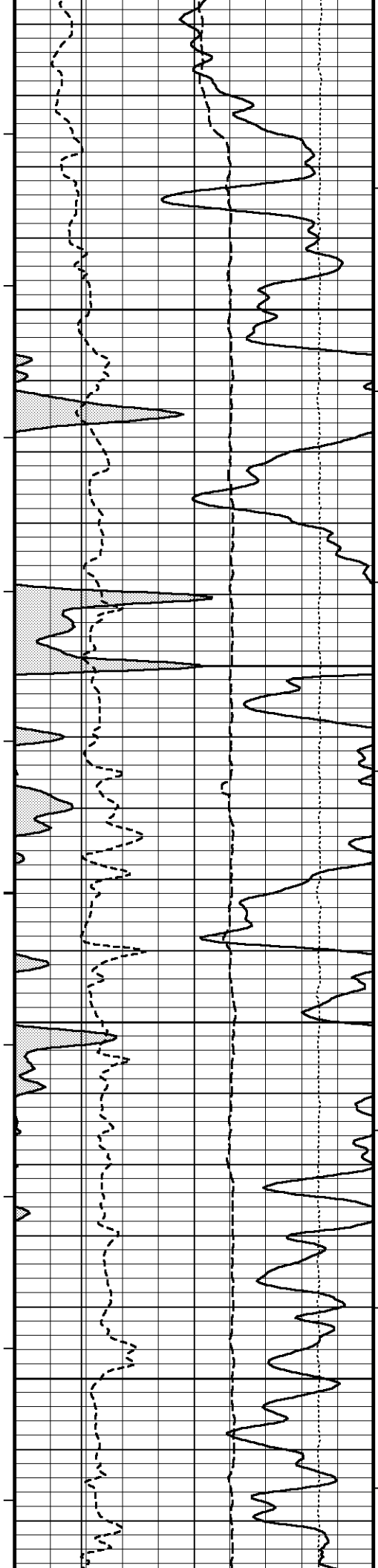












121°

4350

122°

4400

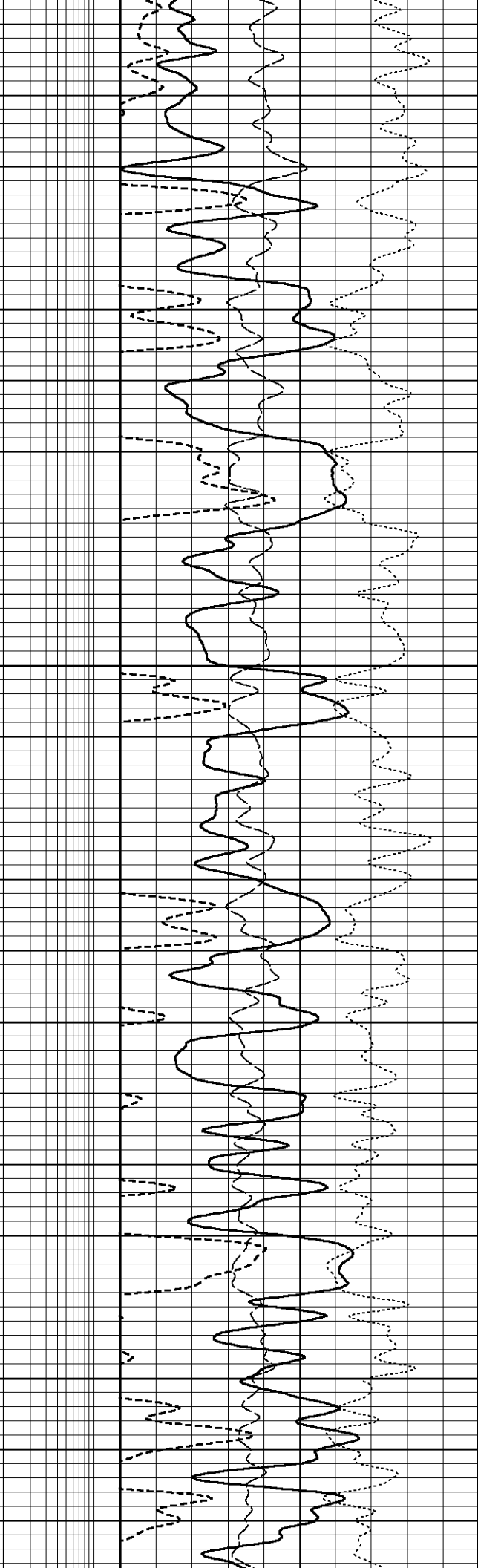
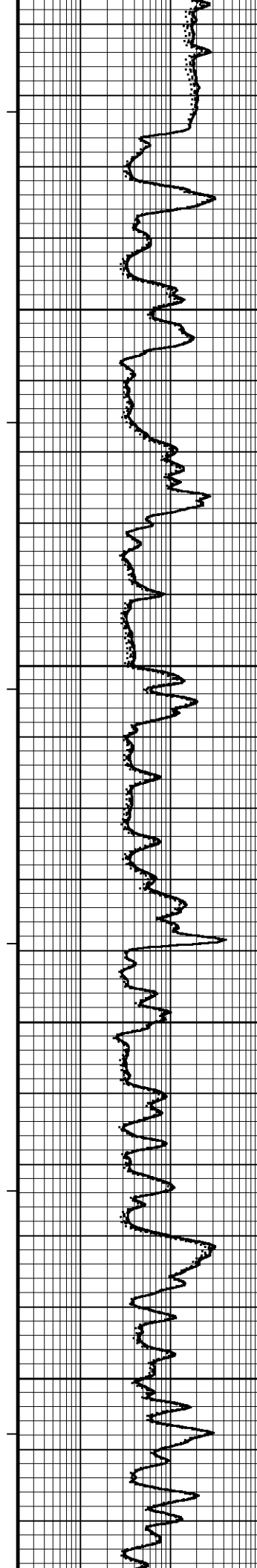
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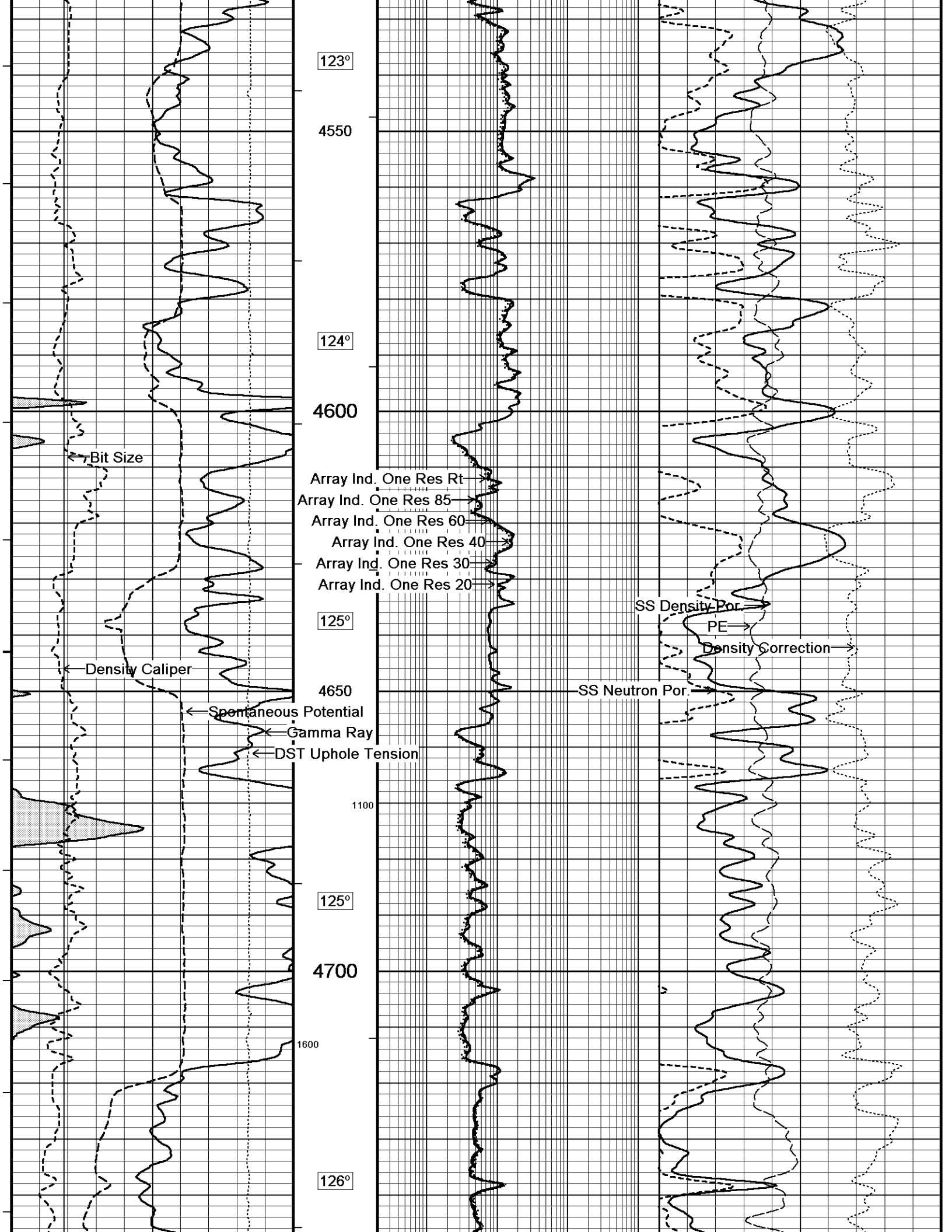
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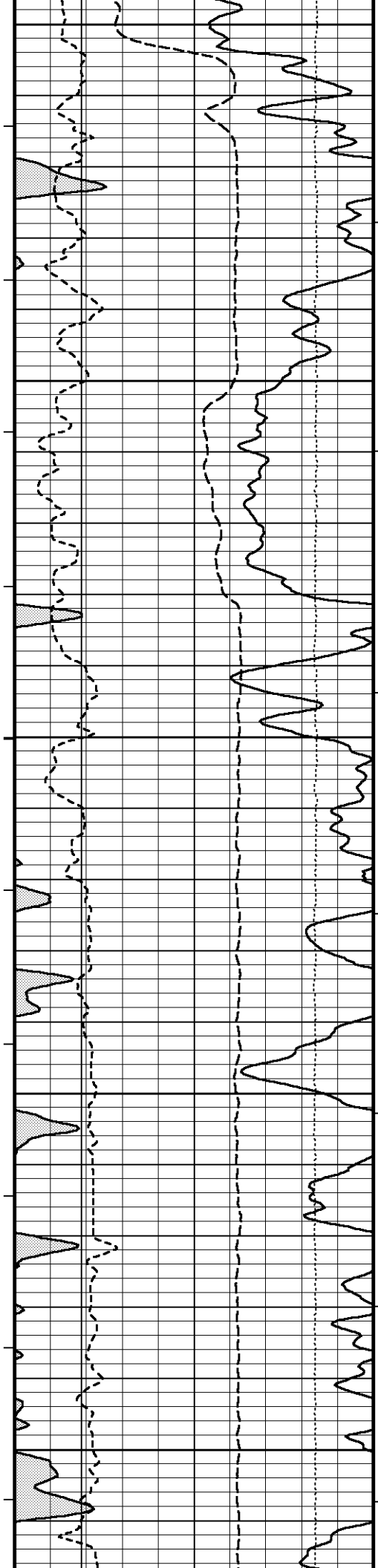
4450

123°

4500







4750

126°

4800

127°

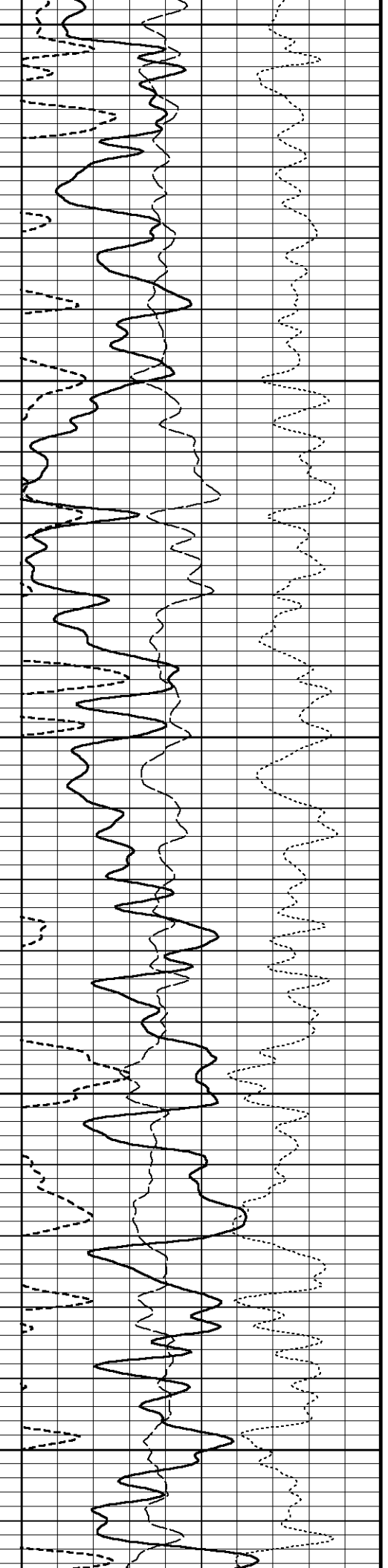
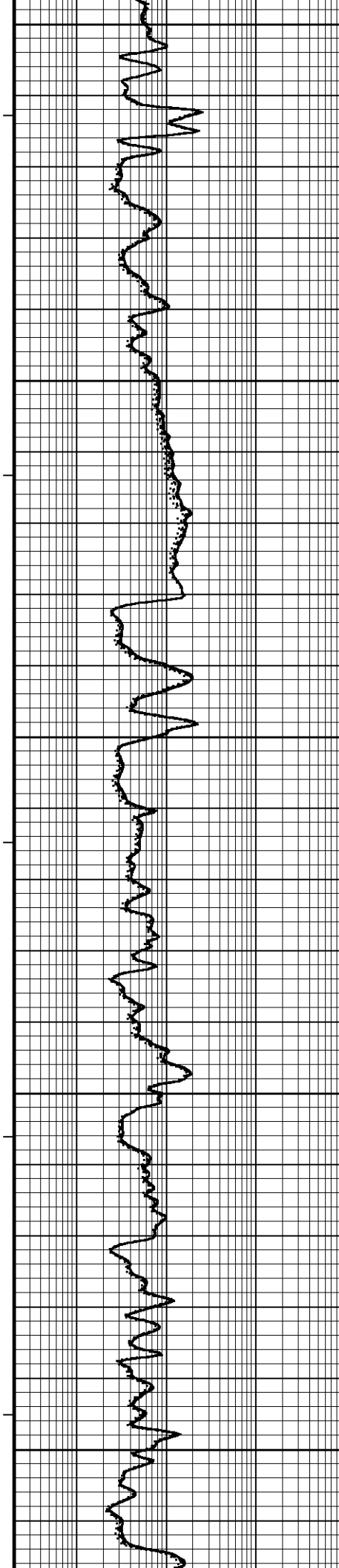
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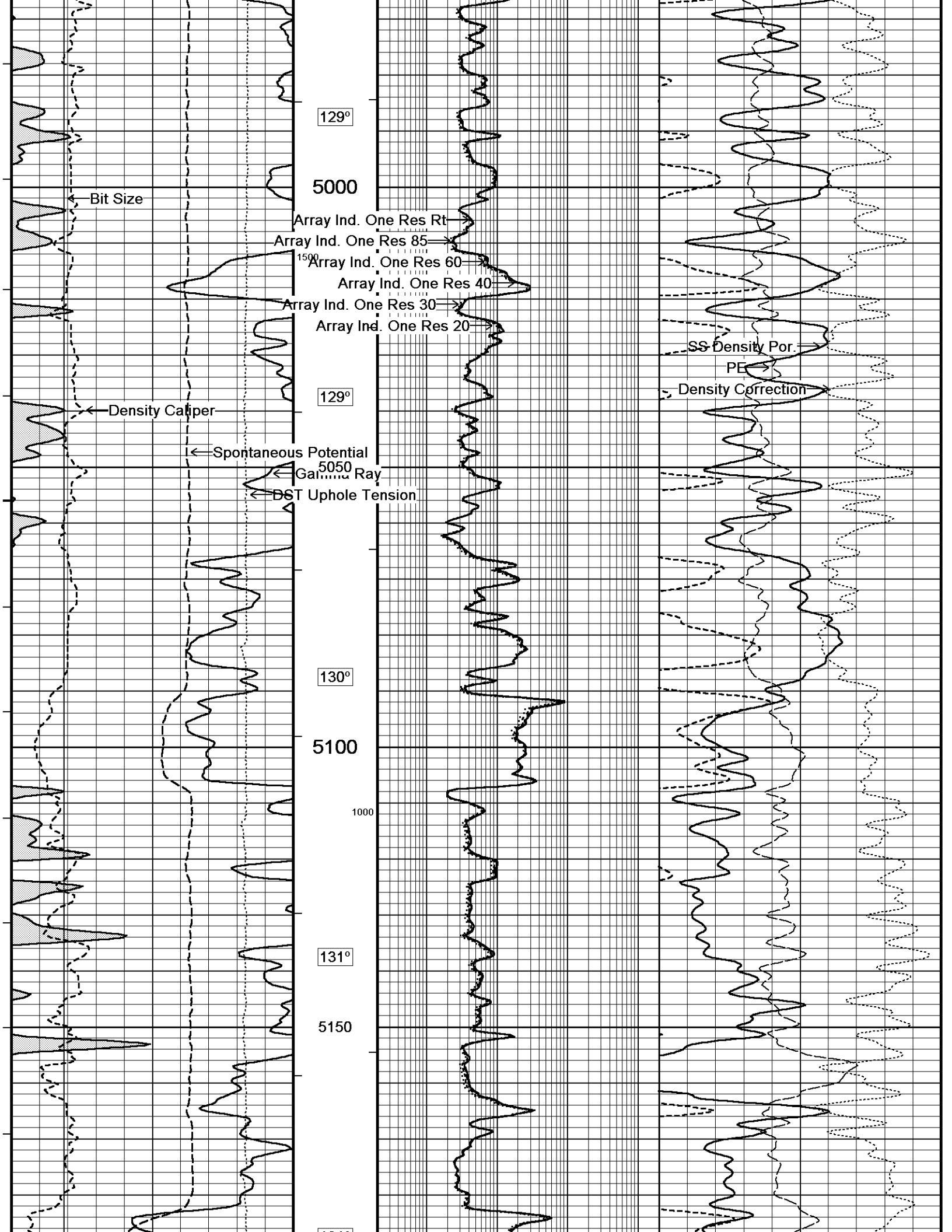
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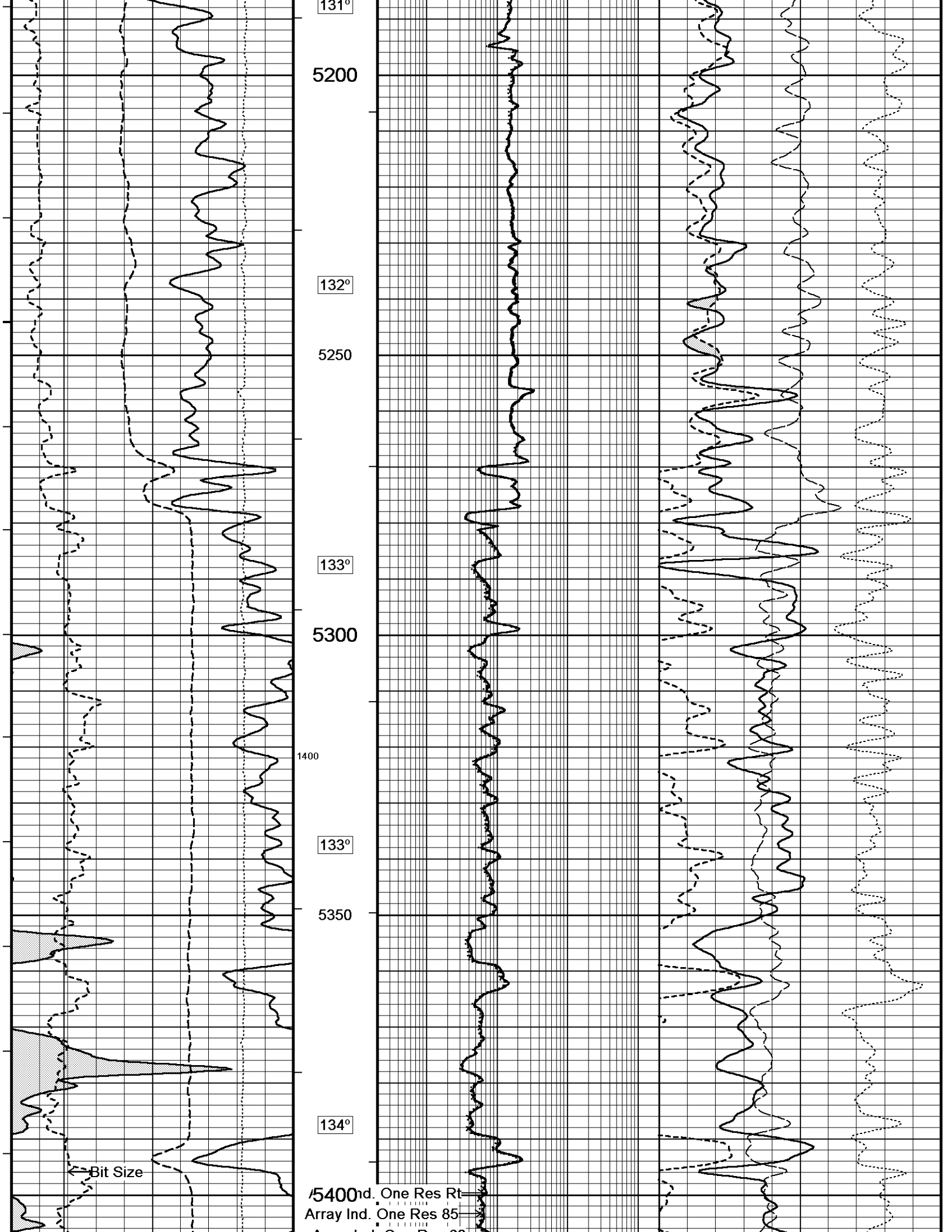
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128°

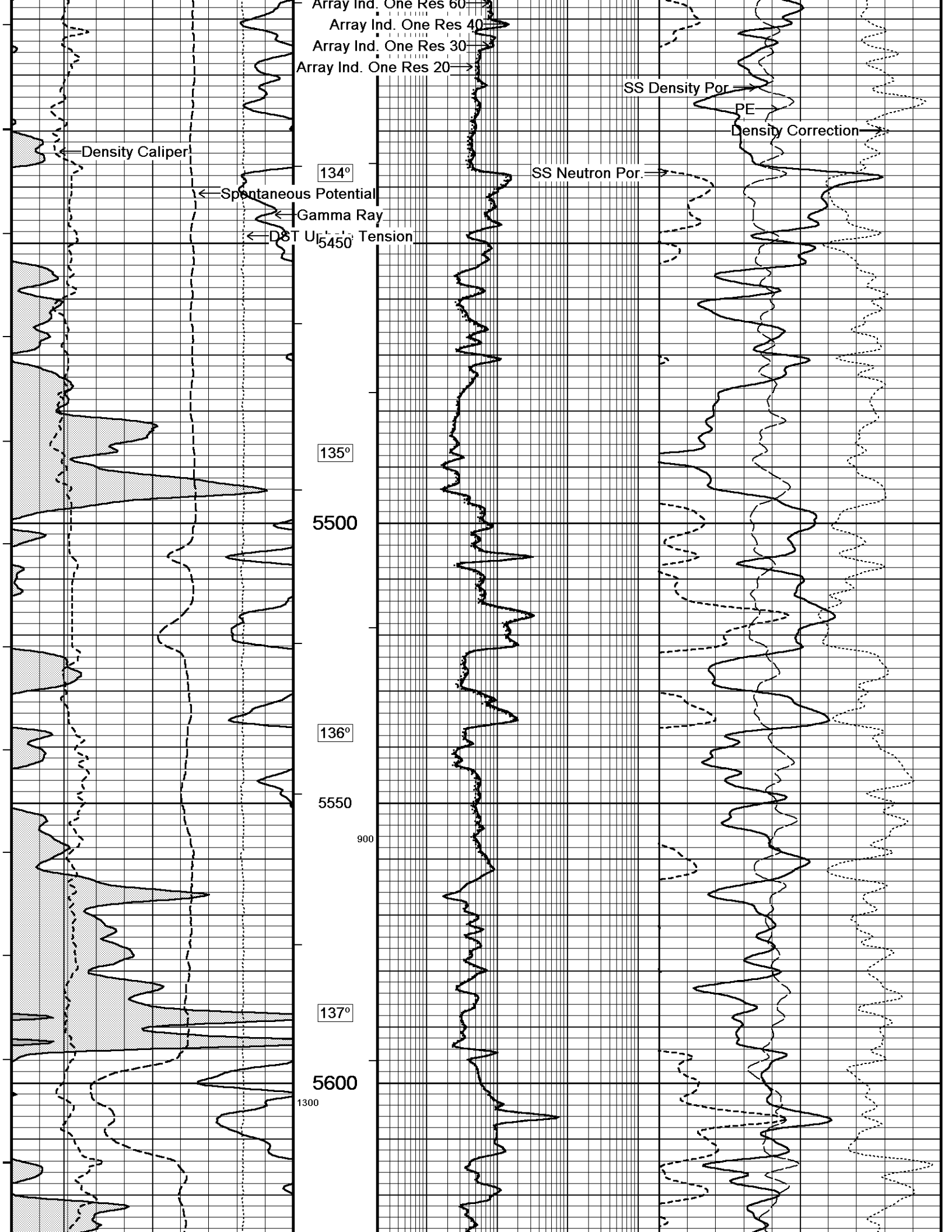
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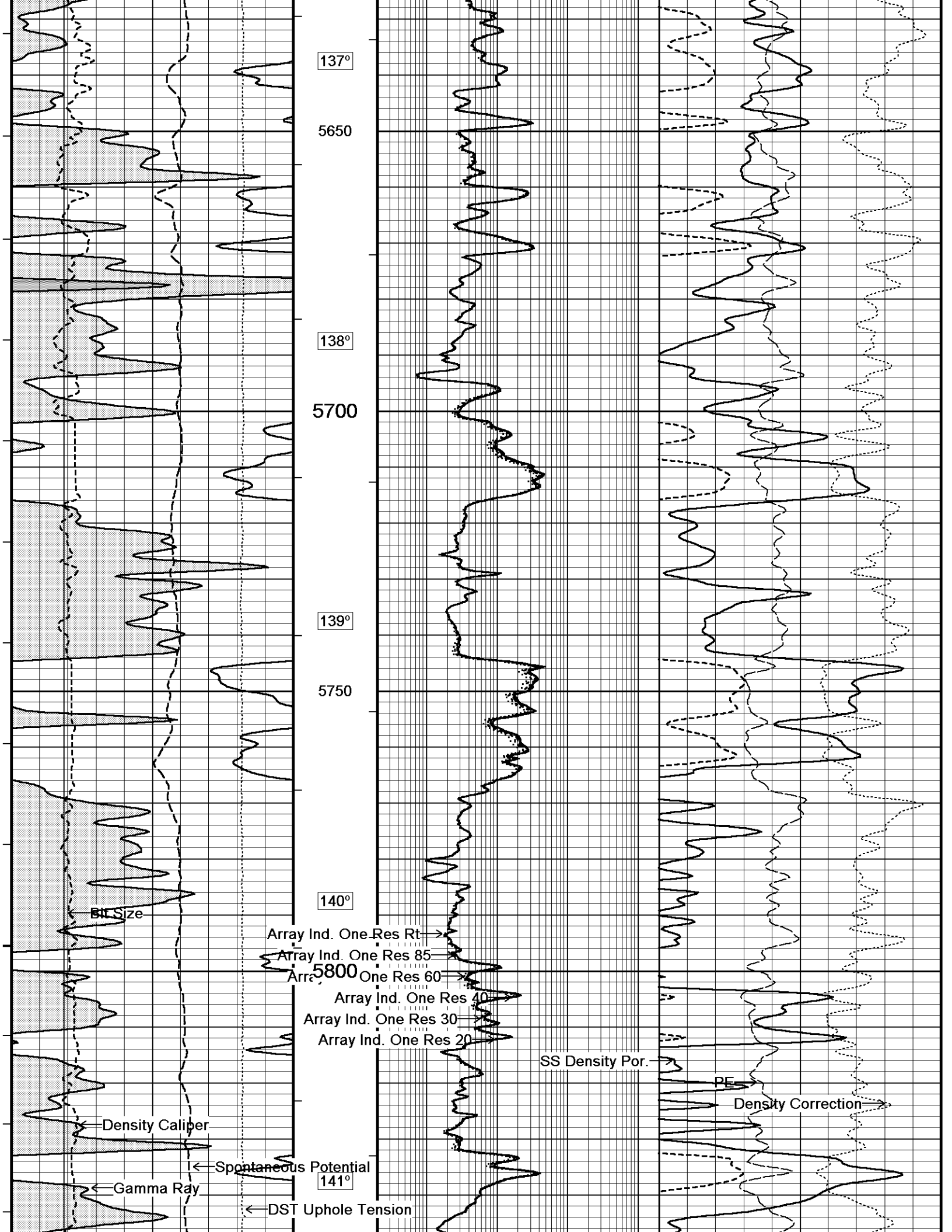


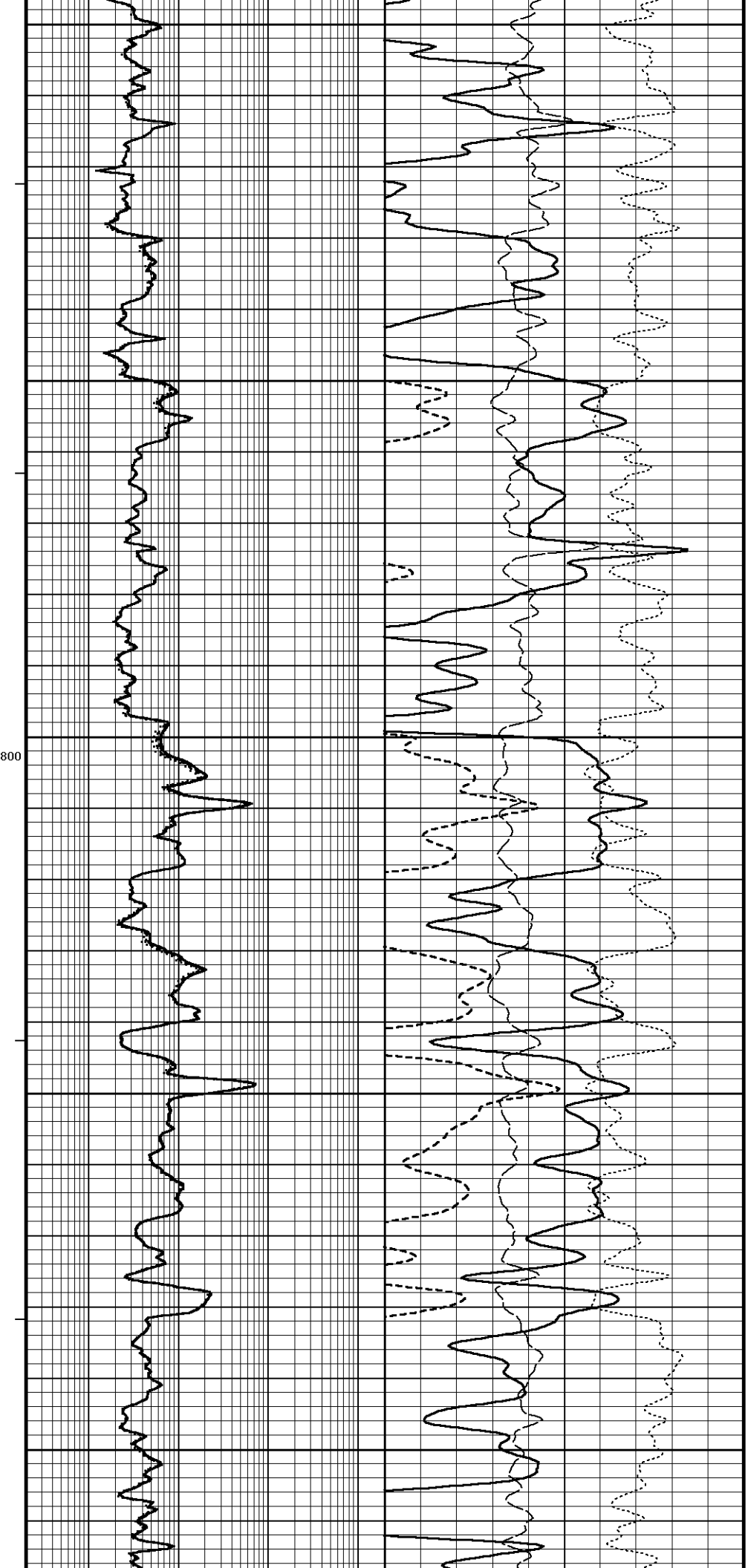
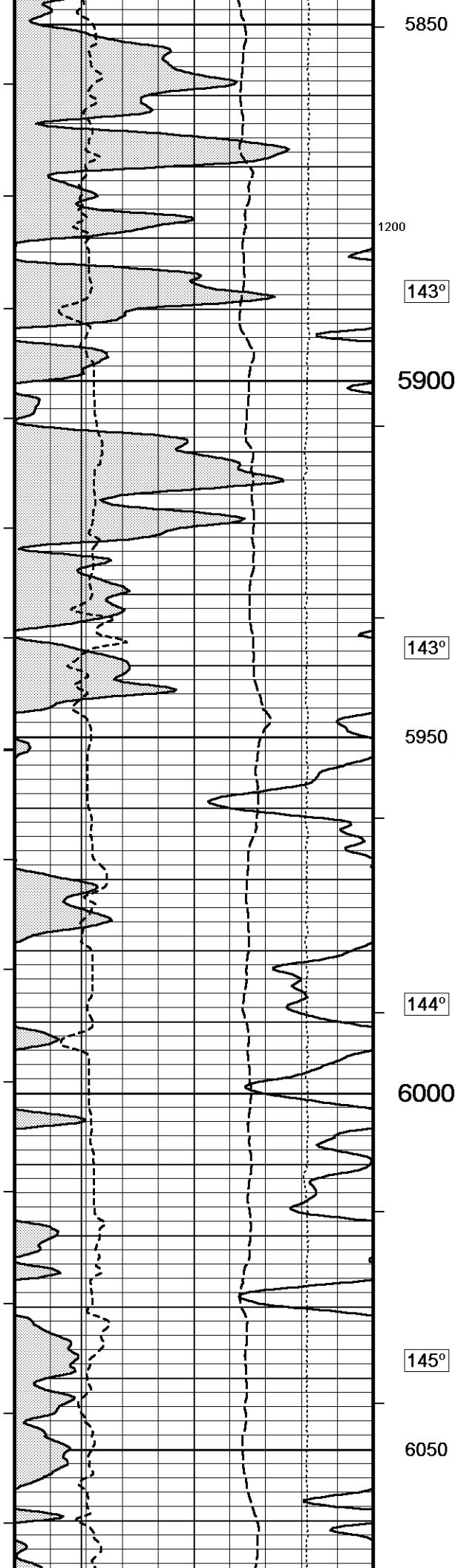


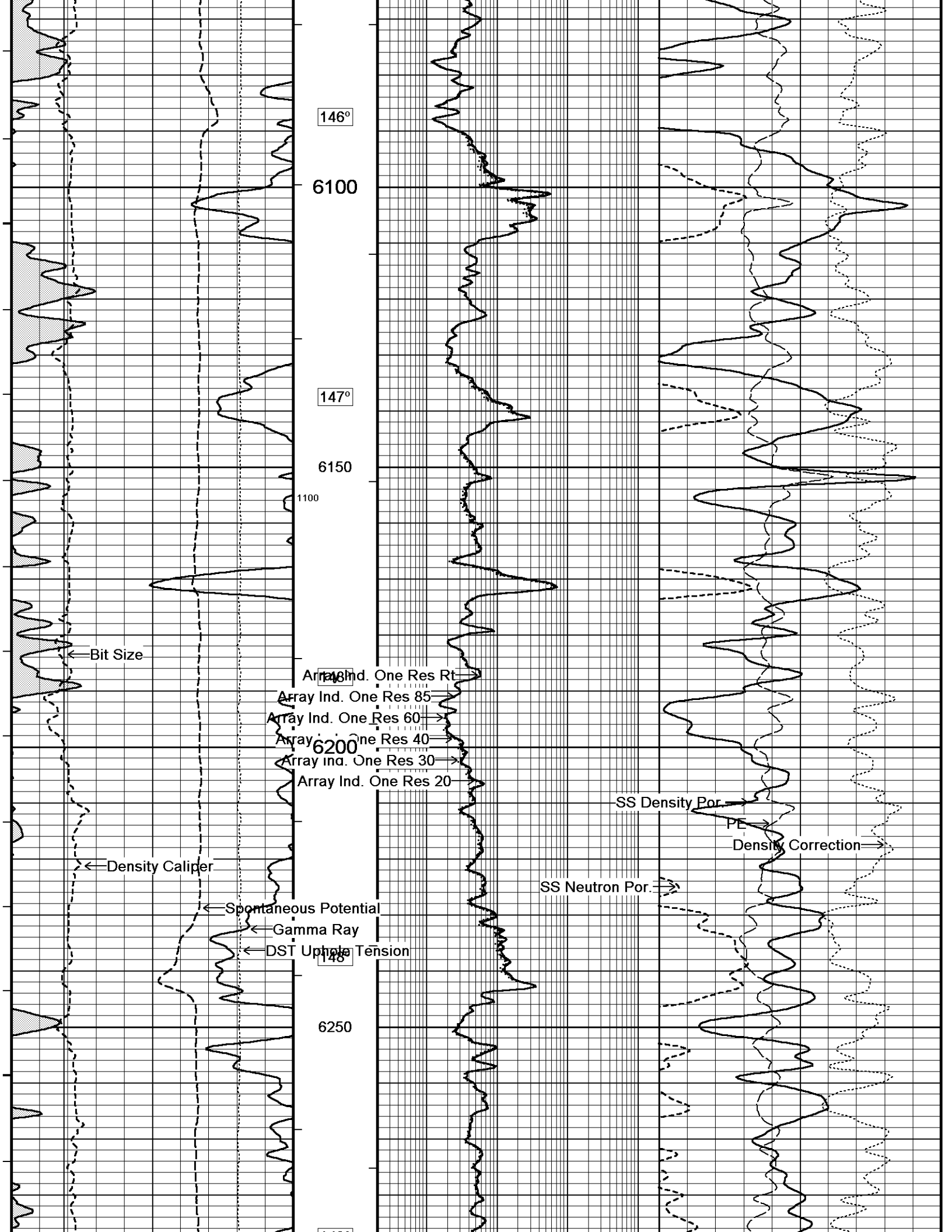


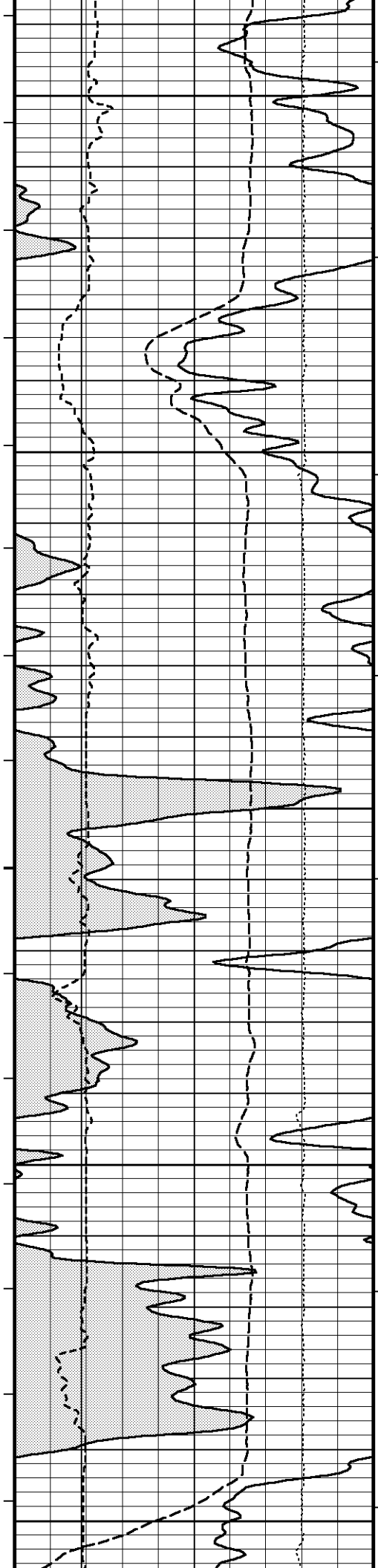




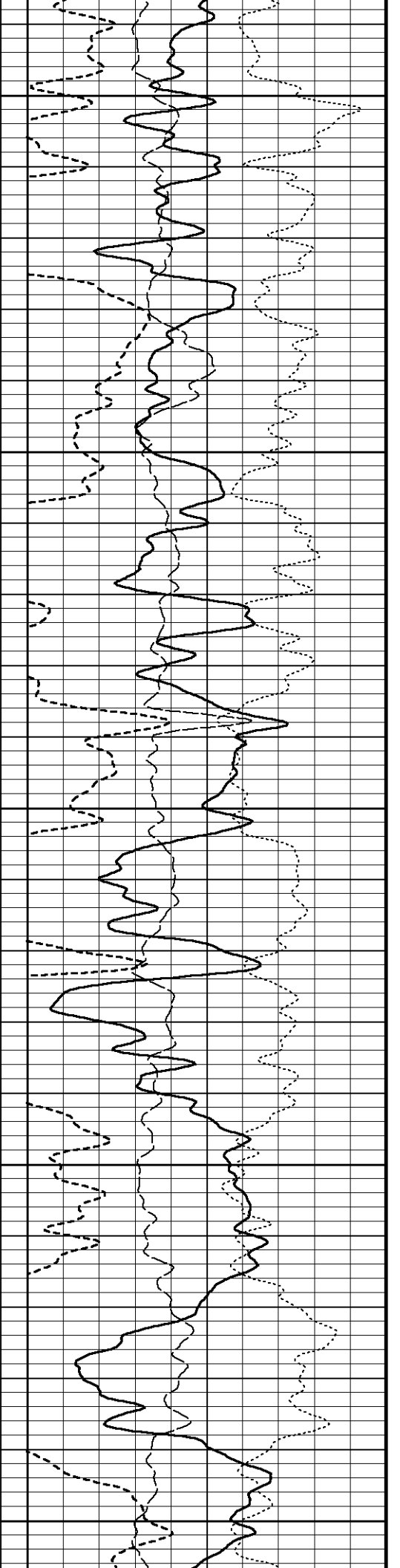
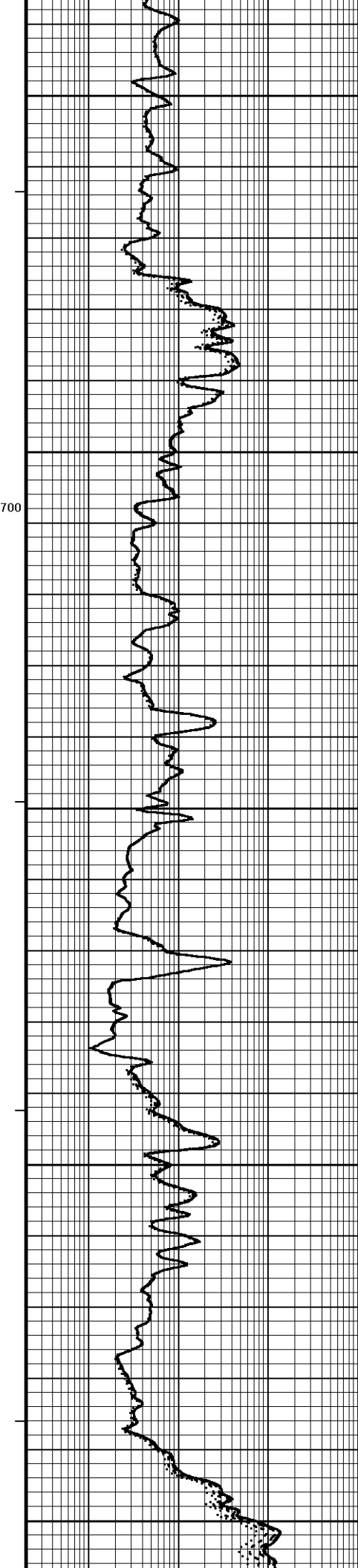


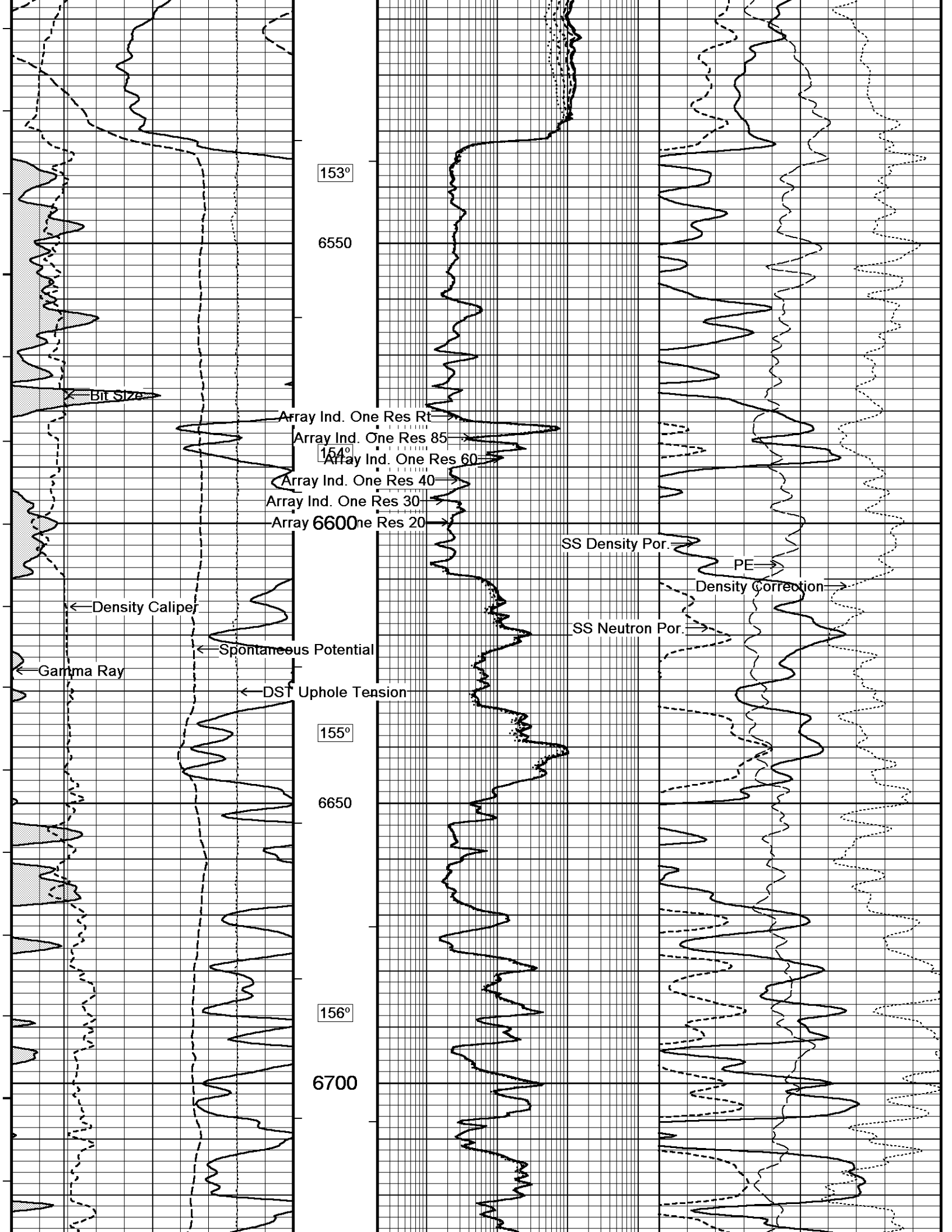


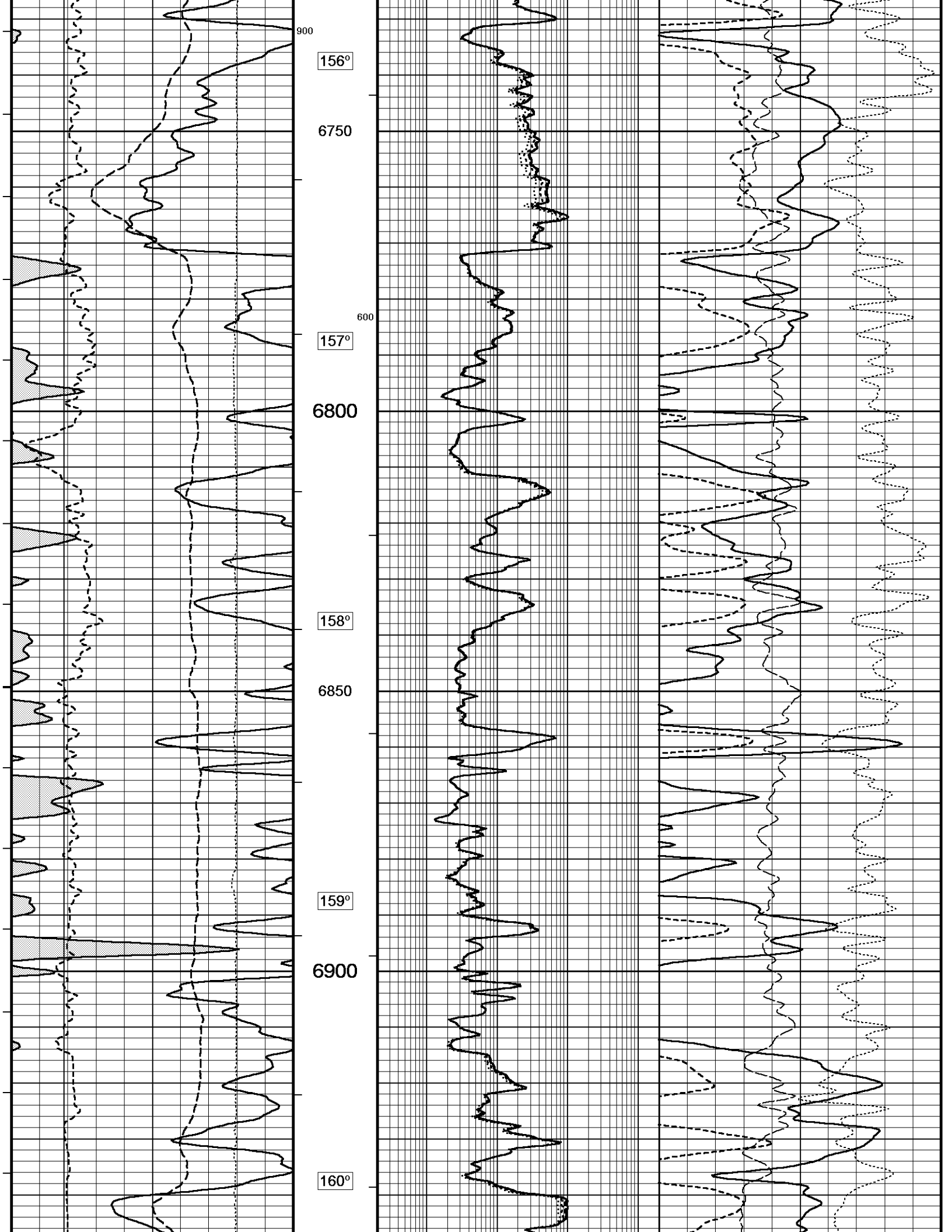


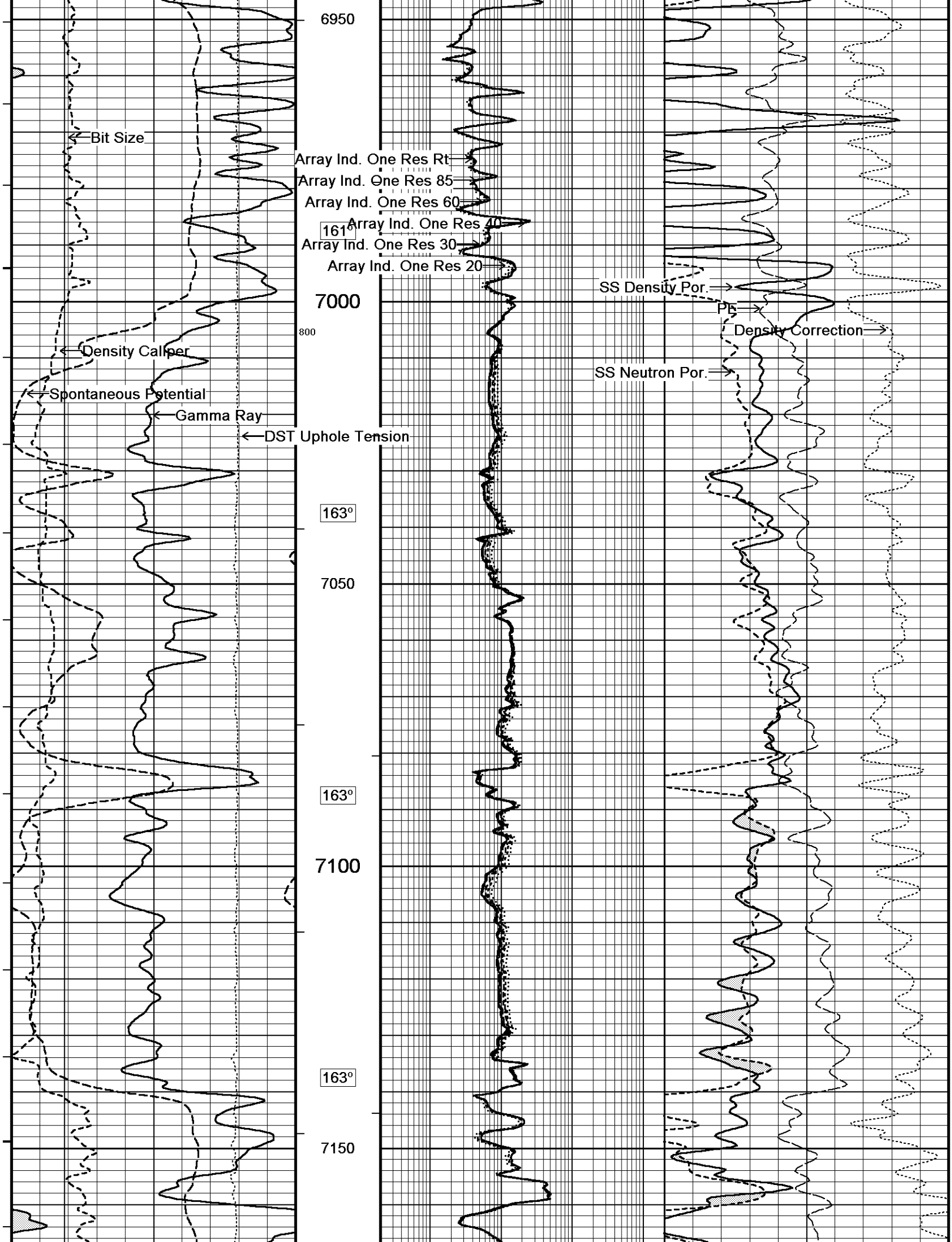


149°  
6300  
150°  
6350  
700  
150°  
6400  
1000  
151°  
6450  
152°  
6500

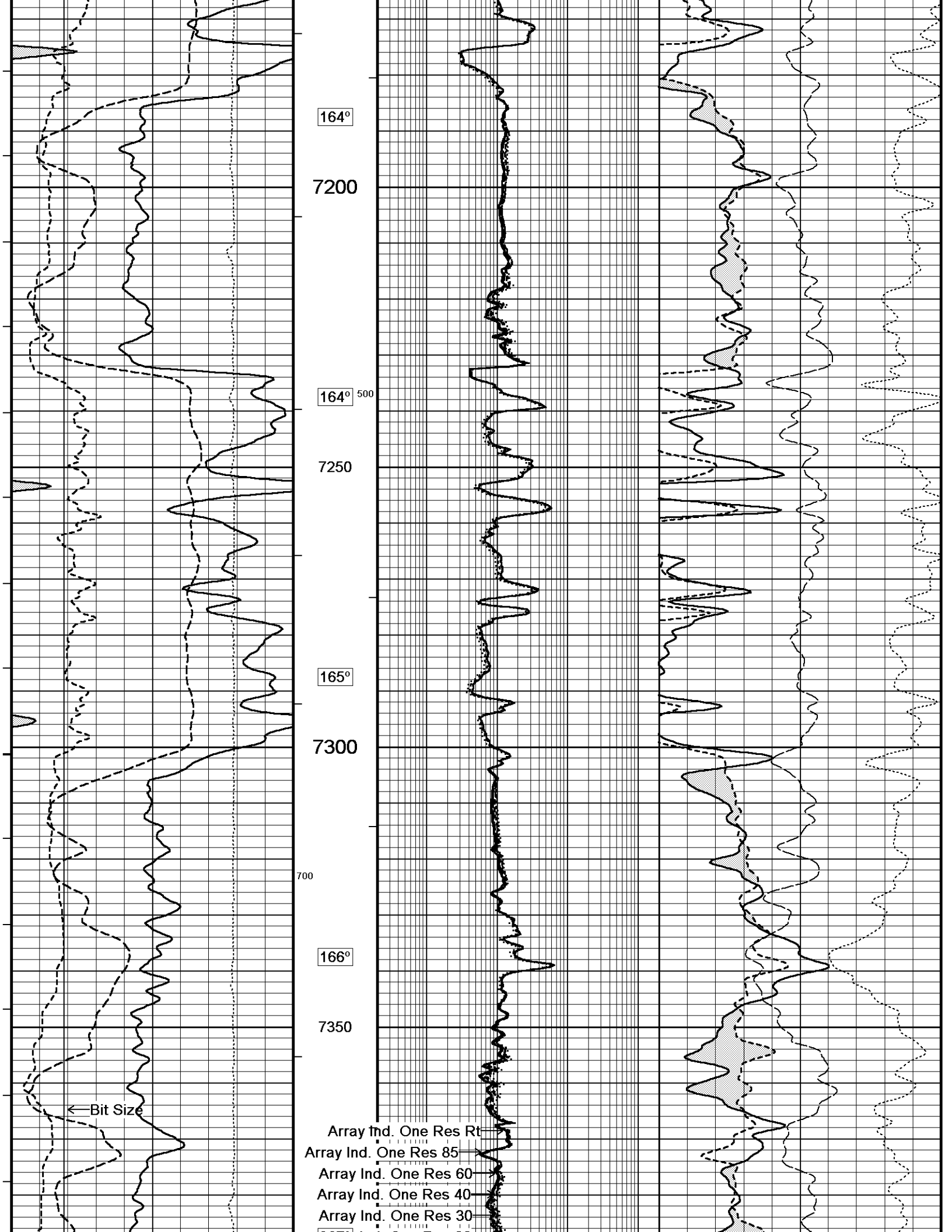


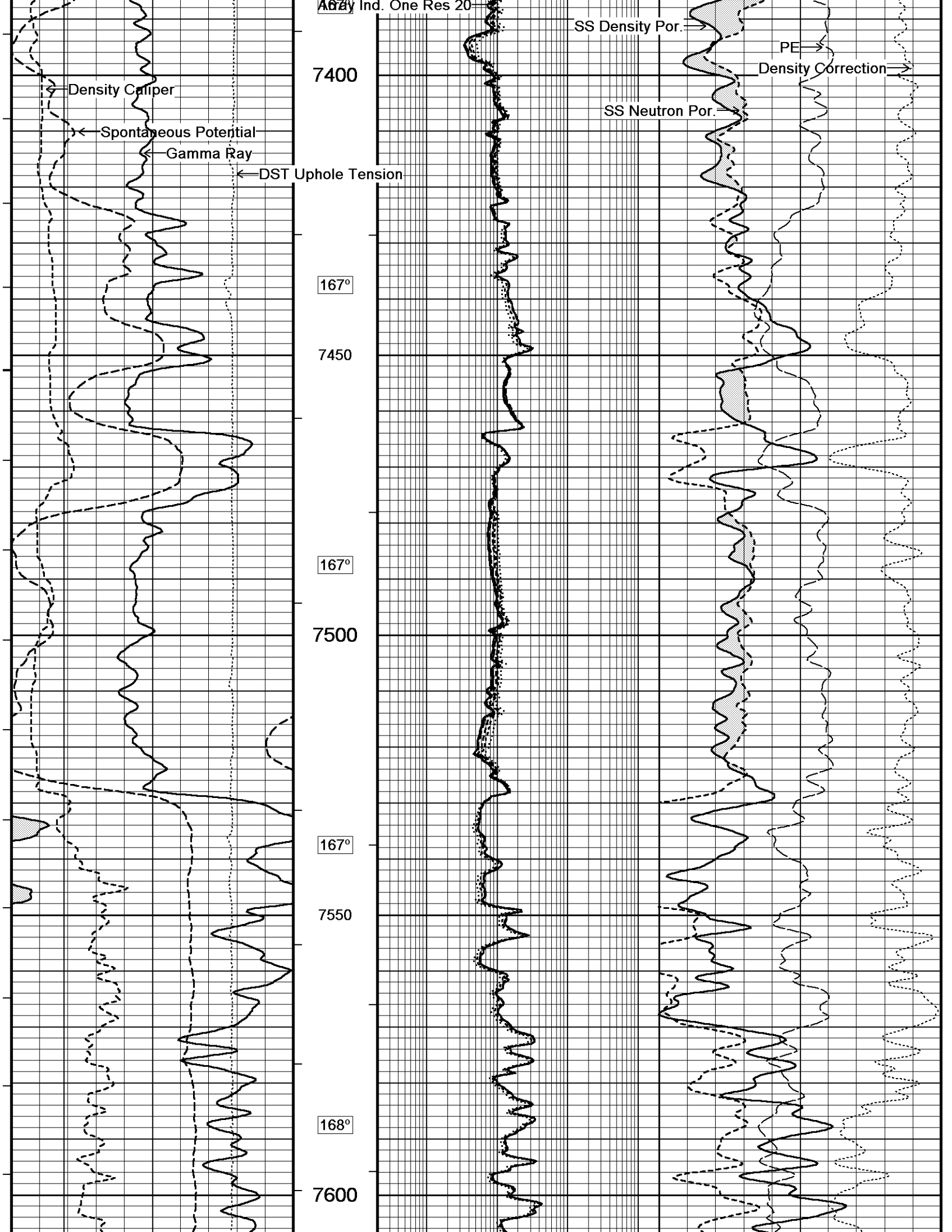


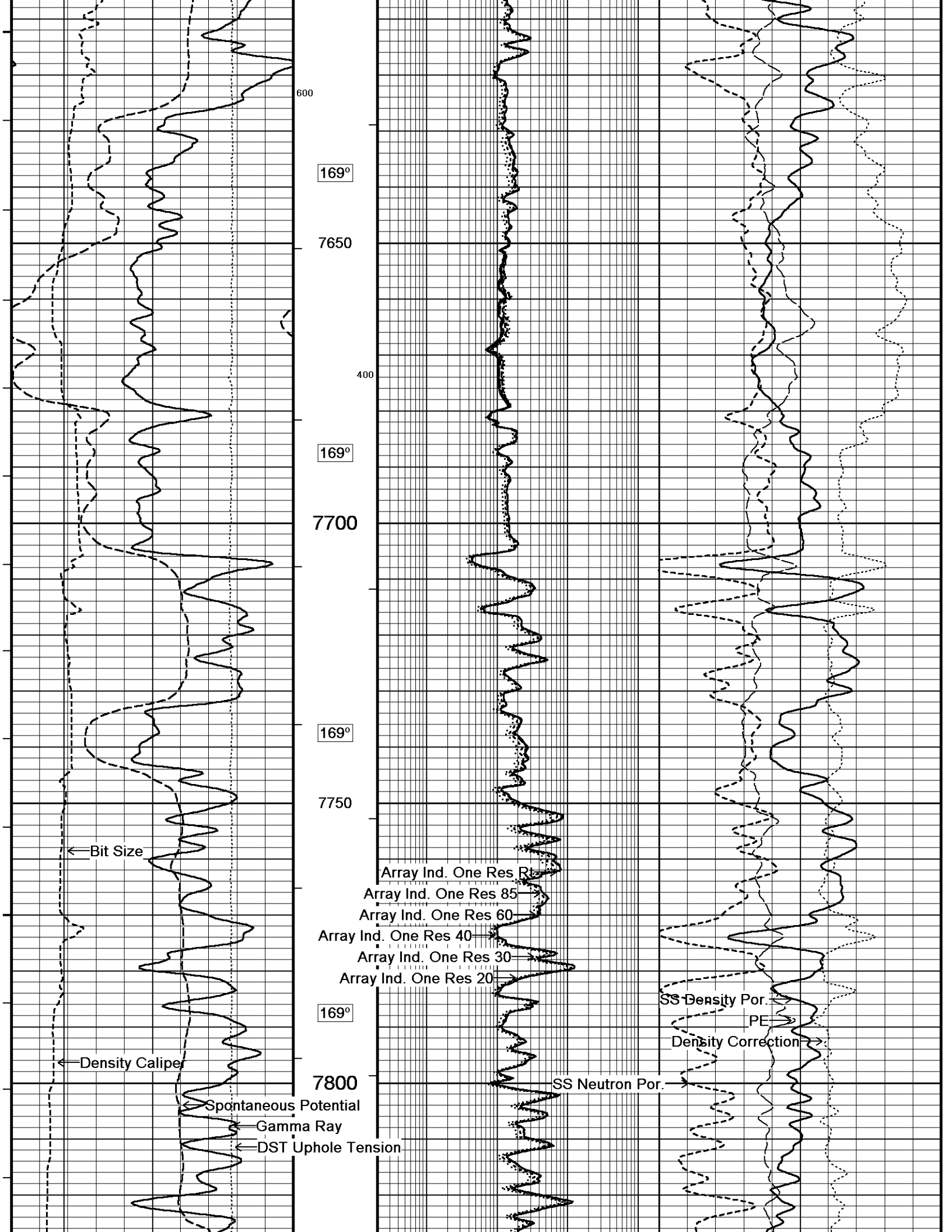


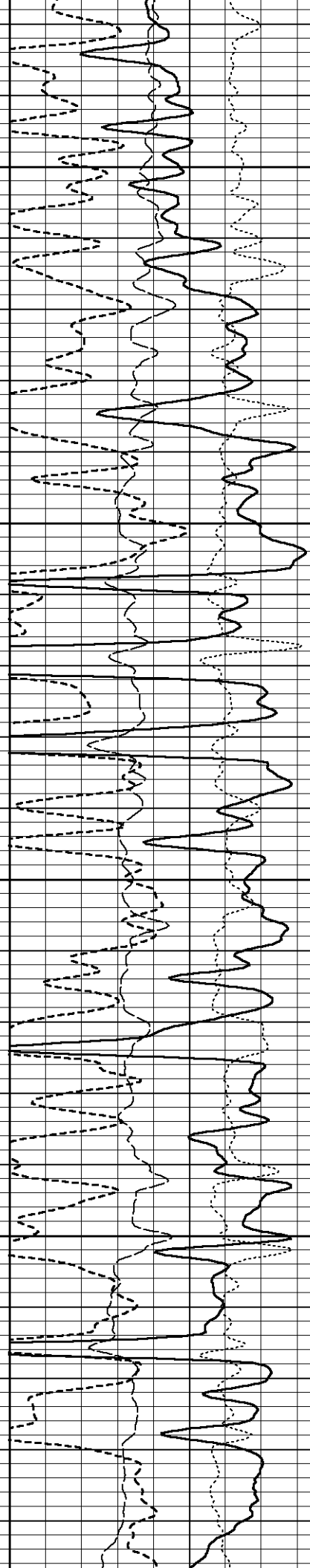
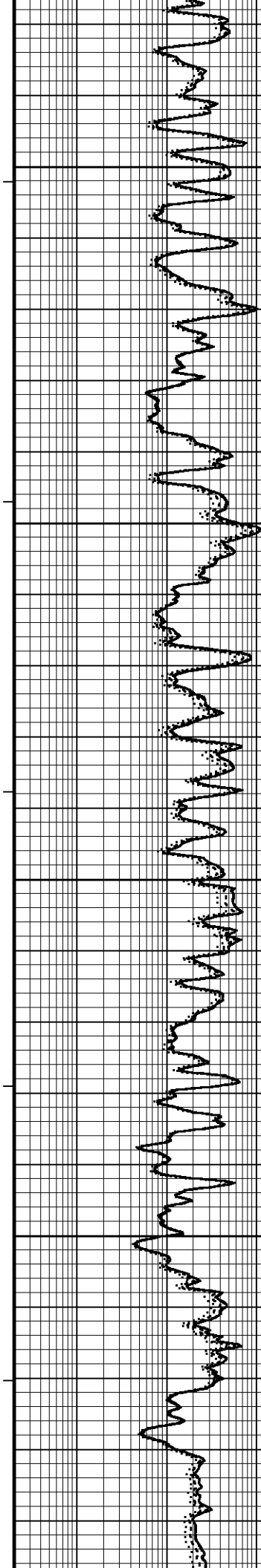
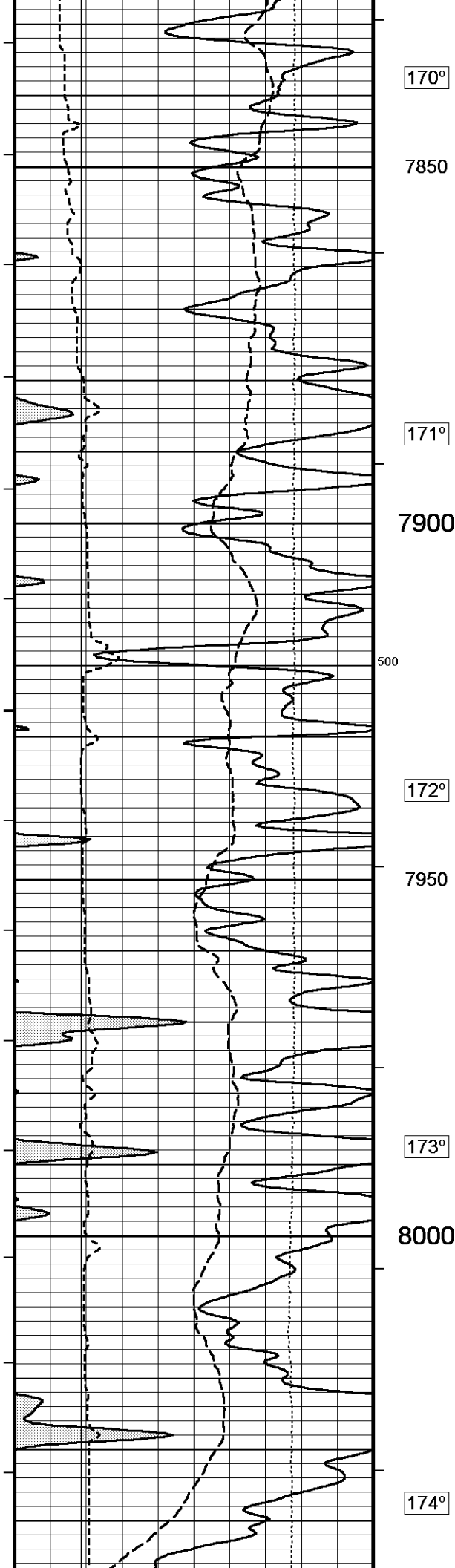


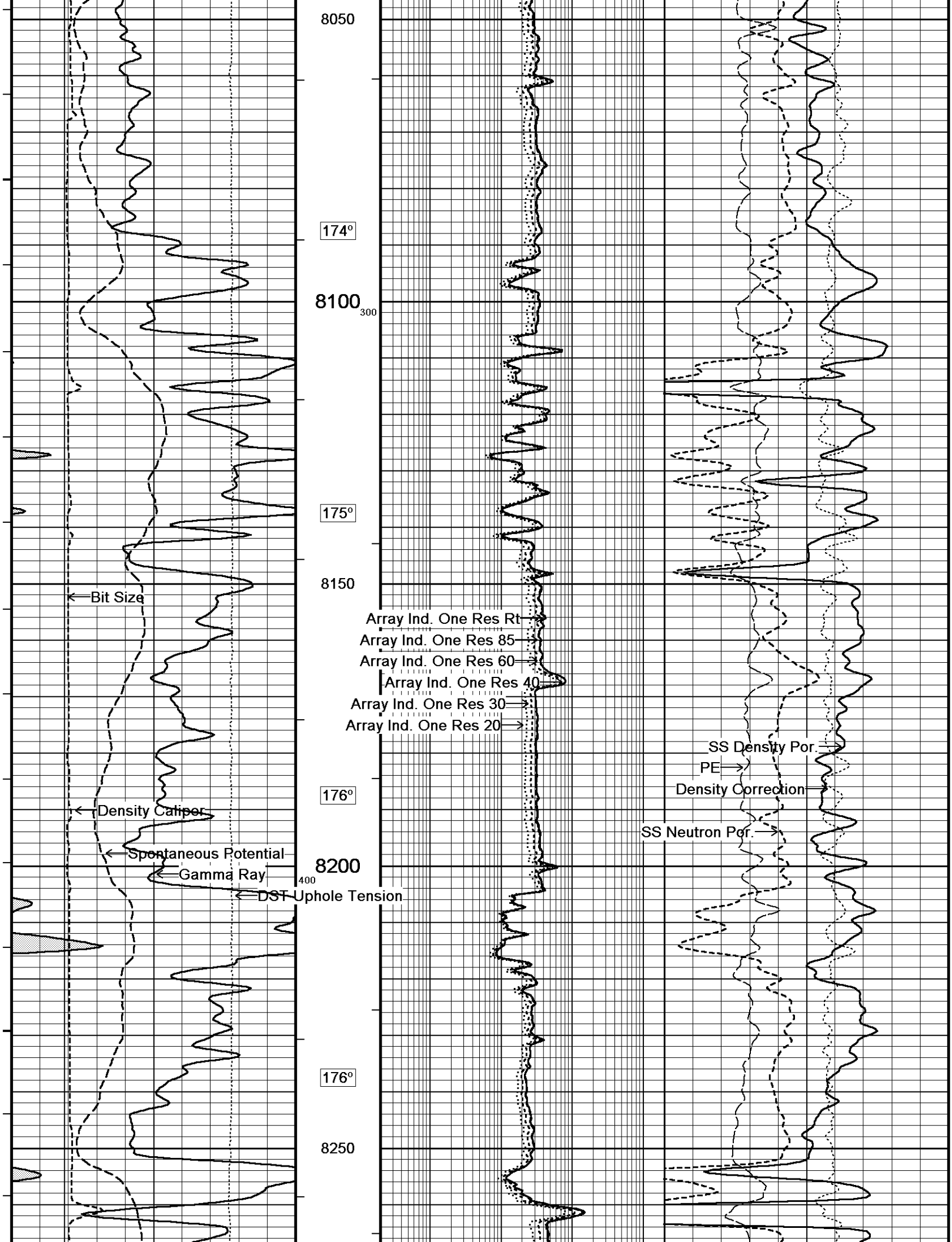


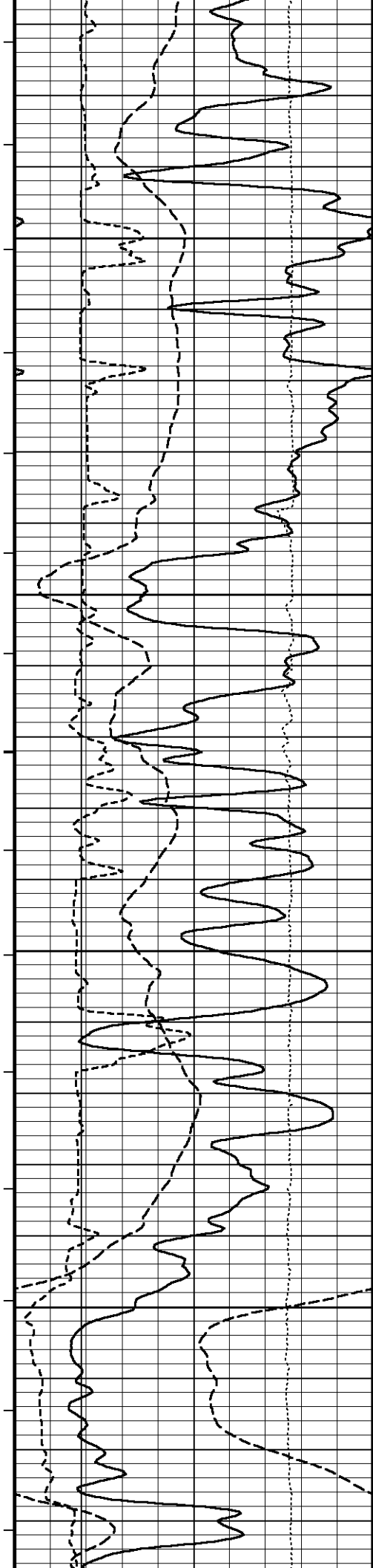












175°

8300

177°

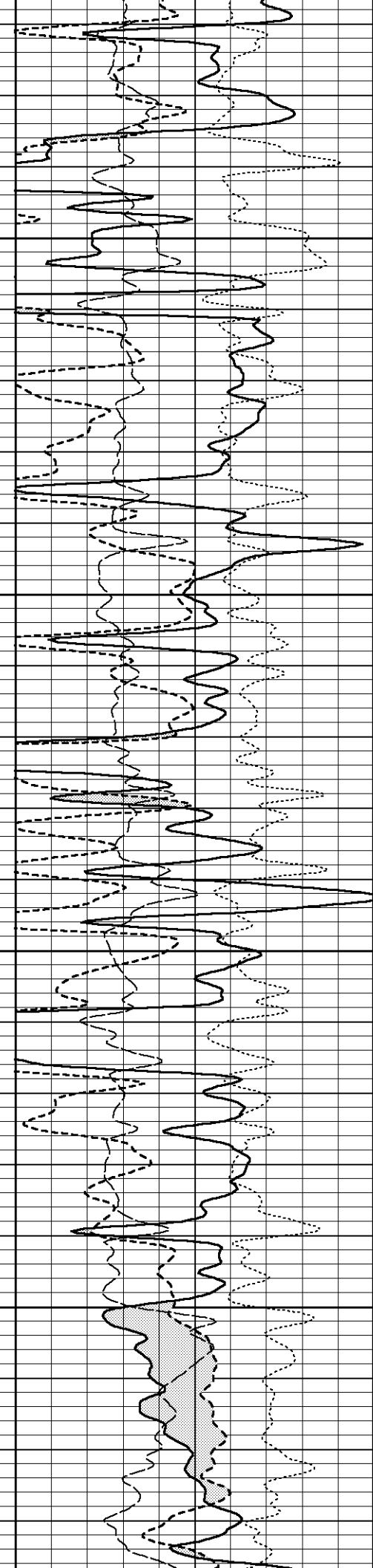
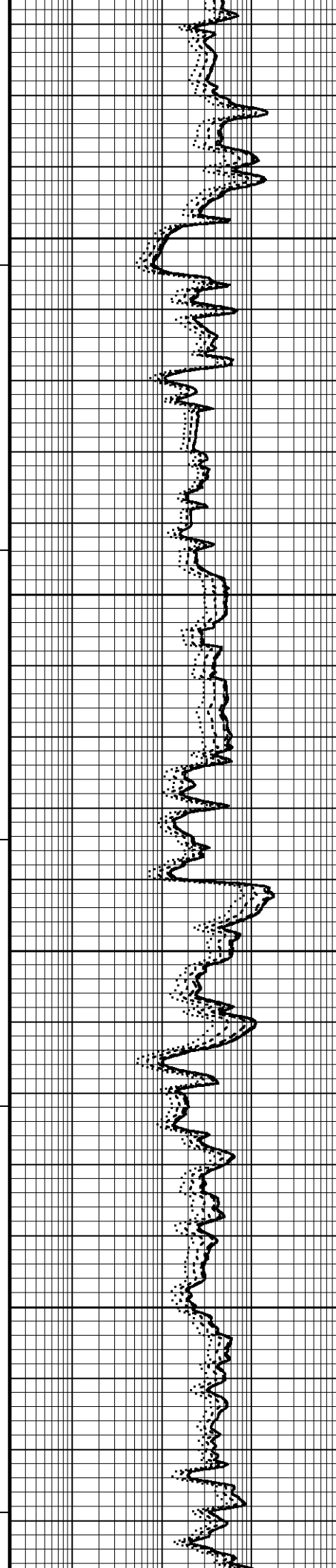
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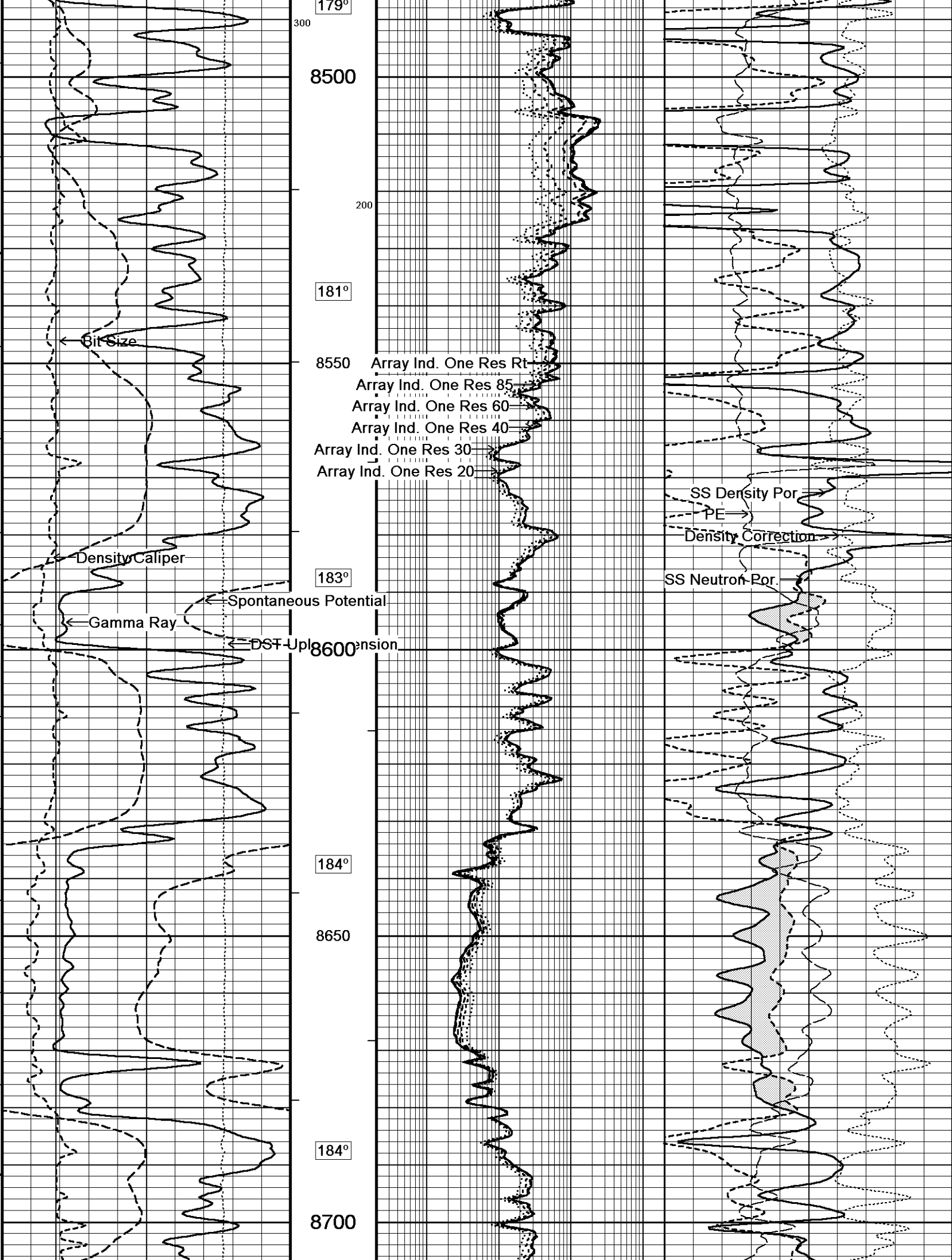
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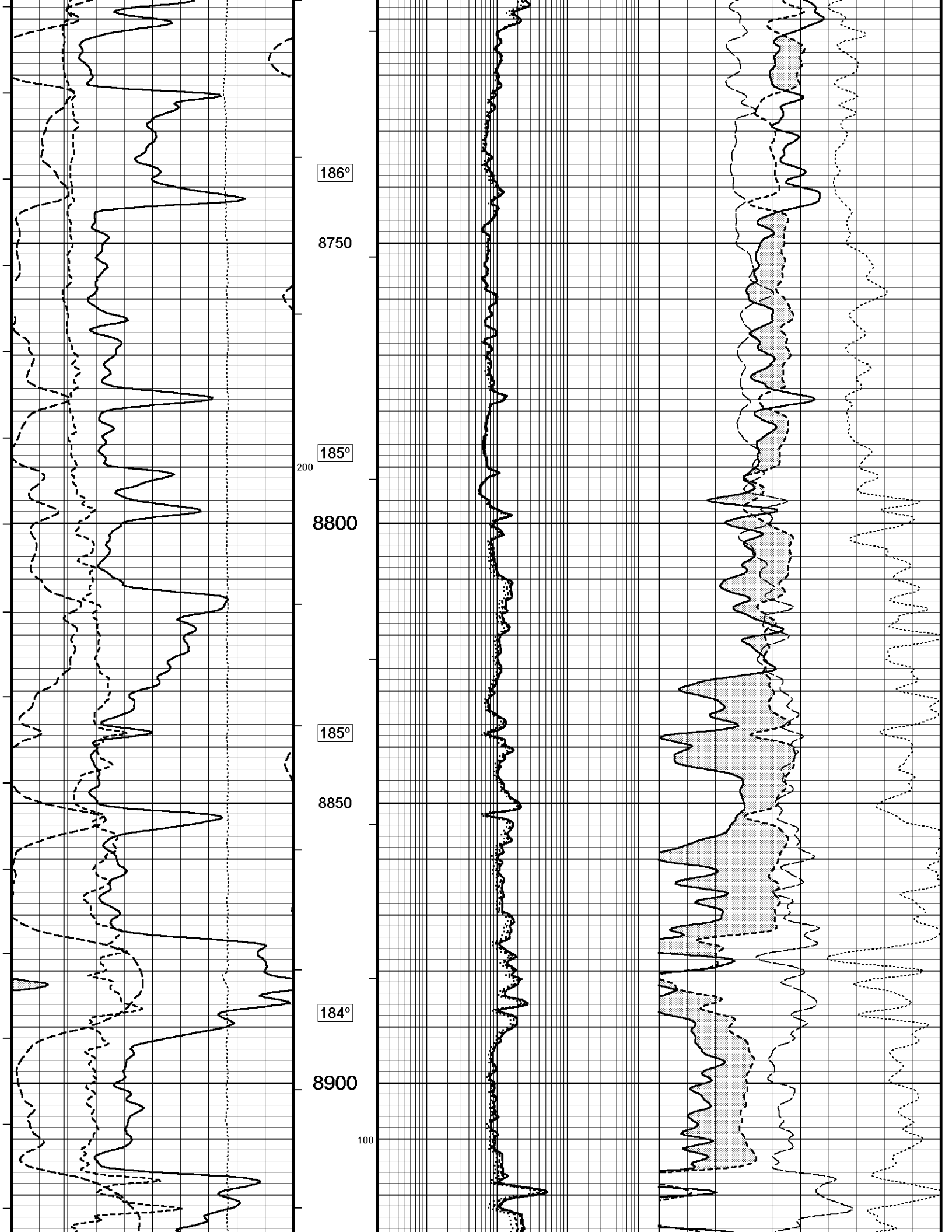
8400

180°

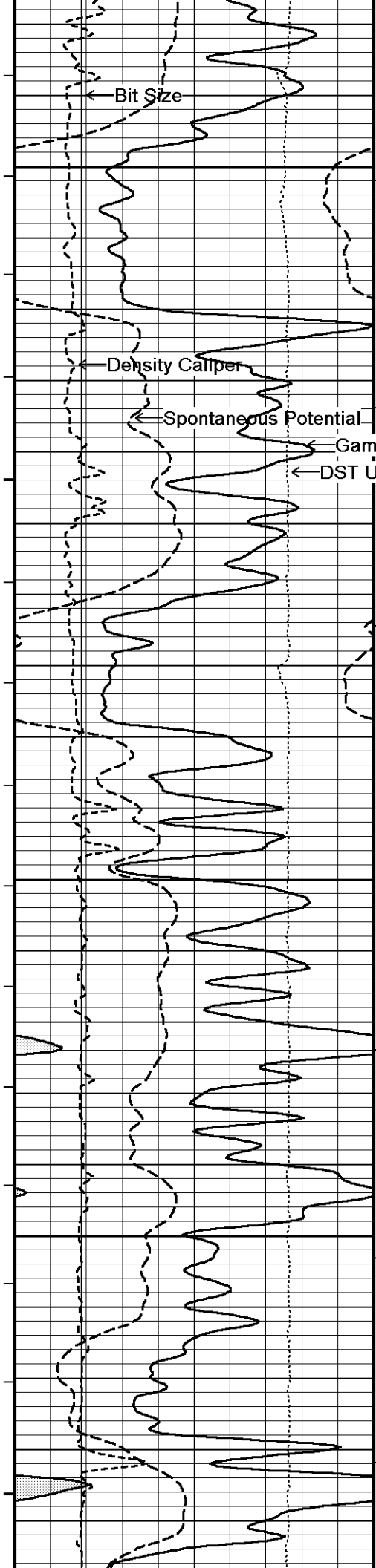
8450











186°

Array Ind. One Res Rt  
Array Ind. One Res 85  
8950  
Array Ind. One Res 60  
Array Ind. One Res 40  
Array Ind. One Res 30  
Array Ind. One Res 20

187°

9000

187°

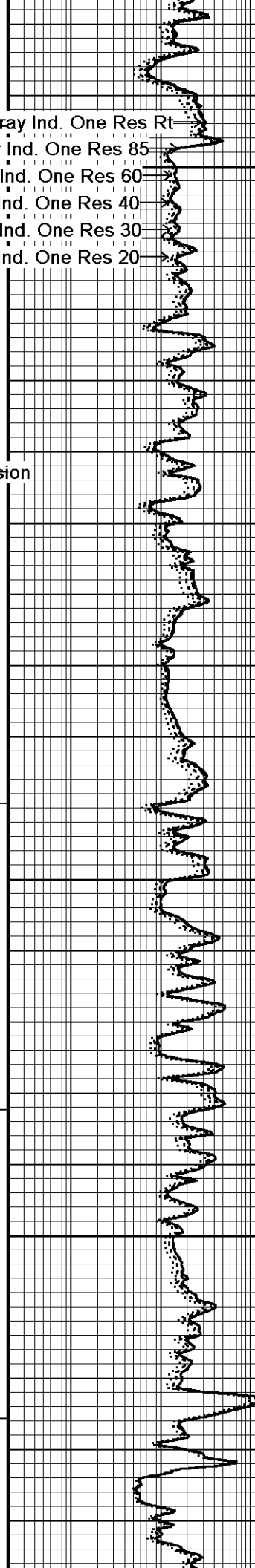
100

9050

188°

9100

189°

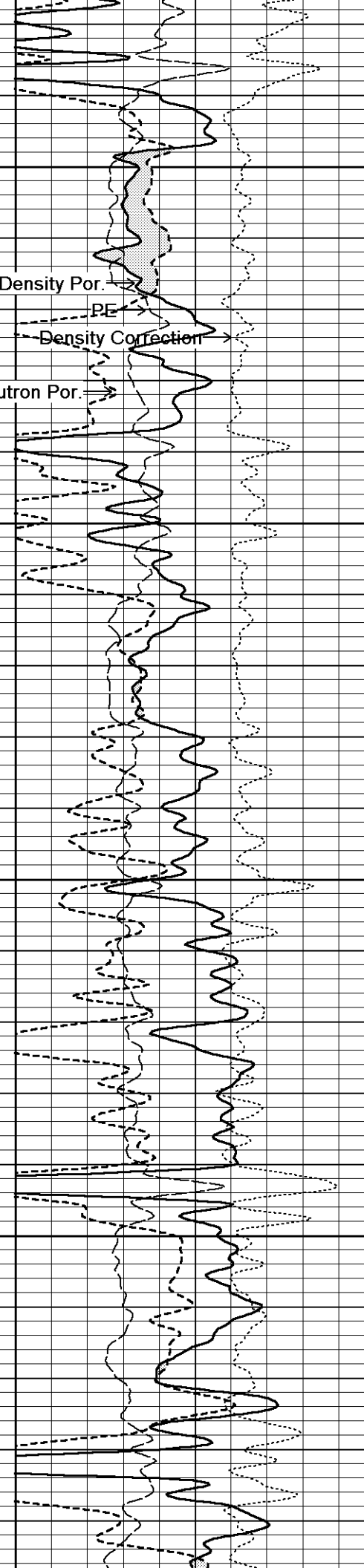


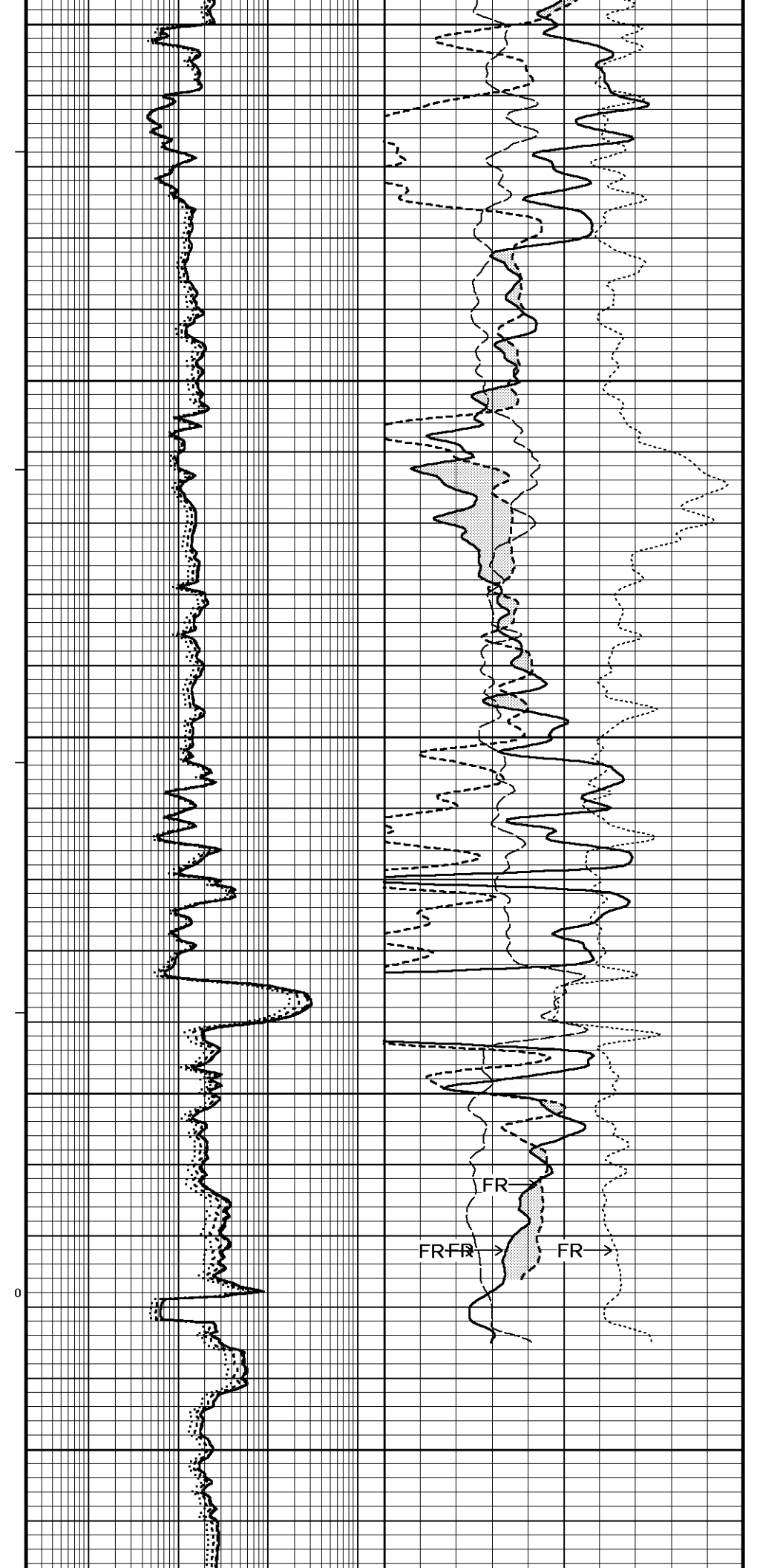
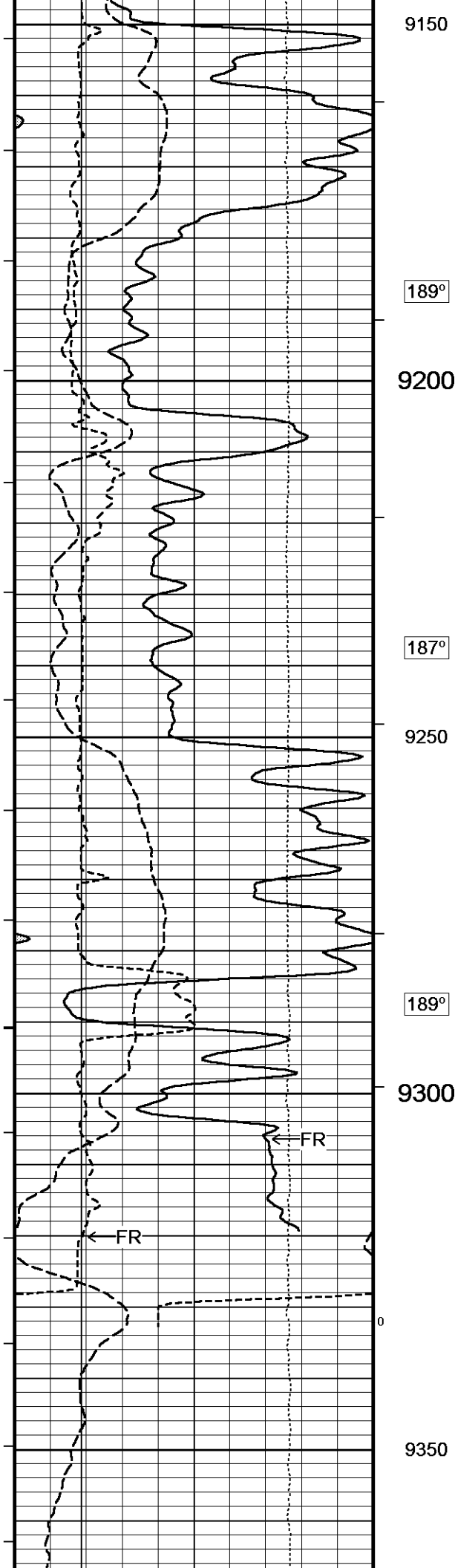
SS Density Por.

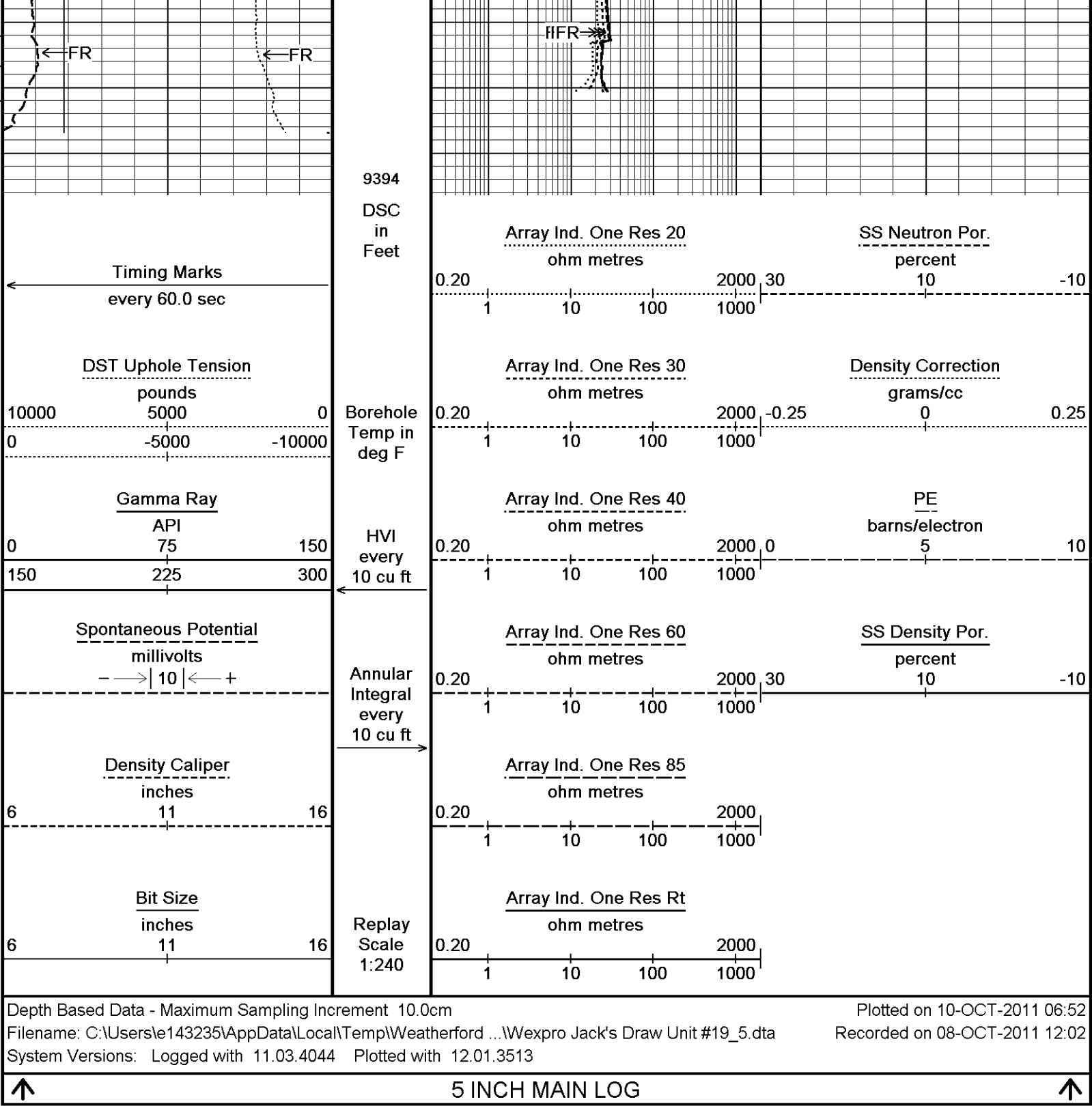
PE

Density Correction

SS Neutron Por.







BEFORE SURVEY CALIBRATION		
C:\Users\le143235\AppData\Local\Temp\Weatherford PreView\0\Wexpro Jack's Draw Unit #19_4.dta		
General Constants All 000		Last Edited on 08-OCT-2011 11:18
General Parameters		
Mud Resistivity	7.630	ohm-metres
Mud Resistivity Temperature	54.000	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	

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-OCT-2011 10:28	
Reading No	Measured	Calibrated (lbs)		
1	14215.89	0.00		
2	15592.64	432.00		
SP Calibration MCG-D.J 424			Field Calibration on 07-OCT-2011 12:01	
	Measured	Calibrated (mV)		
Reference 1	100.5	100.0		
Reference 2	-99.7	-100.0		
Gamma Calibration MCG-D.J 424			Field Calibration on 07-OCT-2011 12:00	
	Measured	Calibrated (API)		
Background	76	52		
Calibrator (Gross)	768	532		
Calibrator (Net)	692	480		
Gamma Constants MCG-D.J 424			Last Edited on 07-OCT-2011 11:54	
Gamma Calibrator Number	GRCC-112			
Mud Density	1.00	gm/cc		
Caliper Source for Processing	Bit Size			
Tool Position	Eccentred			
Concentration of KCl	0.00	kppm		
High Resolution Temperature Calibration MCG-D.J 424			Field Calibration on 28-SEP-2011 08:58	
	Measured	Calibrated(Deg F)		
Lower	50.00	50.00		
Upper	75.00	75.00		
High Resolution Temperature Constants MCG-D.J 424			Last Edited on	
Pre-filter Length	11			
Micro Normal and Micro Inverse Calibration MDN-B.A 191			Base Calibration on 03-MAY-2007 20:21 Field Check on	
Base Calibration				
Channel	Resistor 1	Measured Resistor 2	Calibrated (ohm-m) Resistor 1	Resistor 2
Micro Normal	8.2	41.0	10.0	50.0
Micro Inverse	8.2	41.2	10.0	50.0
Channel	Base Check (ohm-m)		Field Check (ohm-m)	
Micro Normal	0.0		0.0	
Micro Inverse	0.0		0.0	
Micro Normal and Micro Inverse Constants MDN-B.A 191			Last Edited on 13-FEB-2007 11:14	
Pad Type	0			
Micro Normal K Factor	1.0000			
Micro Inverse K Factor	1.0000			
Standoff Offset	N/A inches			
Neutron Calibration MDN-B.A 191			Base Calibration on 07-SEP-2011 11:49 Field Check on 07-OCT-2011 11:42	
Base Calibration				
	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	2846	88	3714	110
Ratio	32.378		33.764	
Field Calibrator at Base	Calibrated (cps)			

Field Calibrator at Base	Calibrated (cps)	1678	2451
Ratio			0.685
Field Check	Calibrated (cps)	1653	2458
Ratio			0.673

Neutron Constants MDN-B.A 191			Last Edited on 08-OCT-2011 10:12		
Neutron Source Id	P44382B				
Neutron Jig Number	6531NK				
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				

Magnetometer Parameters MIE-A.A 102				
Date Of Last Magnetometer Calibration	28-SEP-2011,08:24			
	X Magnetometer	Y Magnetometer	Z Magnetometer	
Slope	-1.000000	-1.004500	-0.999600	
Offset	0.015350	-0.015800	0.020450	

Magnetometer Constants MIE-A.A 102		Last Edited on
Magnetometer Calibrator Number	000	

Accelerometer Parameters MIE-A.A 102				
Date Of Last Accelerometer Calibration	24-AUG-2011,18:36			
	X Accelerometer	Y Accelerometer	Z Accelerometer	
Slope	-1.112160	-1.118700	-1.117220	
Offset	0.004104	0.007024	0.002394	

Accelerometer Constants MIE-A.A 102			Last Edited on 24-AUG-2011 19:34		
Accelerometer Calibrator Number		000			
Accelerometer Temperature Characterisation					
X Accelerometer					
Serial Number		540			
Calibration Date		21-Feb-2008			
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	2.02767e-005	-8.30191e-009	9.17037e-011	
	SF0	SF1	SF2	SF3	
Scale Factor(mA/g)	3.00000e+000	2.90781e-004	3.79264e-007	7.42536e-010	
Y Accelerometer					
Serial Number		221			
Calibration Date		01-Nov-2007			
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	1.86127e-005	-2.25929e-008	8.31895e-011	
	SF0	SF1	SF2	SF3	
Scale Factor(mA/g)	3.00000e+000	2.66396e-004	6.50784e-007	-5.38601e-010	
Z Accelerometer					
Serial Number		856			
Calibration Date		03-Feb-2009			
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	7.72617e-006	-4.86834e-008	1.03554e-010	
	SF0	SF1	SF2	SF3	

Scale Factor(mA/g)	3.00000e+000	2.74795e-004	4.10666e-007	4.39253e-010	
Caliper Calibration MIE-A.A 102				Base Calibration on 28-SEP-2011 09:19 Field Calibration on 28-SEP-2011 09:23	
Base Calibration					
Reading No	Pads 1-5 Meas.	Pads 3-7 Meas.	Calibrator Size (in)		
1	26529	26004	5.97		
2	36837	36313	7.96		
3	46406	45939	9.86		
4	57787	57043	11.92		
5	0	0	0.00		
Reading No	Pad 2 Meas.	Pad 4 Meas.	Pad 6 Meas.	Pad 8 Meas.	Calibrator Size (in)
1	24685	25537	25965	25308	5.97
2	33436	33979	33941	34201	7.96
3	41582	42687	41522	42138	9.86
4	51827	53233	50353	51022	11.92
5	0	0	0	0	0.00
Field Calibration					
	Measured Pads 1-5 Caliper(in)	Measured Pads 3-7 Caliper(in)	Actual Caliper(in)		
	7.93	7.97	7.96		
	Measured Pad 2 Caliper(in)	Measured Pad 4 Caliper(in)	Measured Pad 6 Caliper(in)	Measured Pad 8 Caliper(in)	Actual Caliper(in)
	3.96	3.98	3.99	3.97	7.96
Caliper Constants MIE-A.A 102				Last Edited on 24-AUG-2011 19:32	
Caliper Difference for BRKT		0.120	inches		
Navigation Constants MIE-A.A 102				Last Edited on 28-SEP-2011 09:24	
Magnetic Declination		9.42	degrees	East	
Imager Pad Check MIE-A.A 102				Field Check on	
Pad 1	Pad Not Tested	Pad 5	Pad Not Tested		
Pad 2	Pad Not Tested	Pad 6	Pad Not Tested		
Pad 3	Pad Not Tested	Pad 7	Pad Not Tested		
Pad 4	Pad Not Tested	Pad 8	Pad Not Tested		
Compact Micro Imager Constants MIE-A.A 102				Last Edited on 28-SEP-2011 09:25	
Sonde Configuration		Imager Mode	degrees		
Arm-Pad Kit		Normal Pads (12.25 in)			
Centre Pad 1 Rotational Offset		0.00			
Image/Borehole Ovality Reference		Azimuth of Pad 1	degrees		
Non Active Buttons		Omit	feet		
Search Angle		0.00	feet		
Correlation Interval		3.28	mAmp		
Correlation Step		1.64	mAmp		
Current Offset		0.0000			
Squasher Start		N/A			
Image Processing		Enabled			
FE Calibration MFE-B.A 220				Base Calibration on 02-SEP-2011 13:53 Field Check on 07-OCT-2011 11:45	
Base Calibration					
		Measured	Calibrated (ohm-m)		
Reference 1		0.0	0.0		
Reference 2		963.9	126.8		
Base Check			280.8		
Field Check			281.2		
FE Constants MFE-B.A 220				Last Edited on 08-OCT-2011 10:04	
Running Mode		No Sleeve			
MFE K Factor		0.1268			
Caliper Source for FE correction		Density Caliper			
Caliper Value for FE correction		N/A			

Caliper value for FE correction	N/A	inches
Rm Source for FE correction	Temperature Corr	
Temp. for Rm Corr.	MCG External Temperature	
Stand-off	1.0	inches

Induction Calibration MAI-B.J 362

Base Calibration on 02-SEP-2011 15:29

Field Check on 07-OCT-2011 10:26

Base Calibration					
Test Loop Calibration		Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High	
1	16.0	468.7	9.3	966.2	
2	6.2	374.5	7.6	821.4	
3	3.6	258.3	5.2	566.0	
4	1.8	133.1	2.6	279.2	
Array Temperature		74.8	Deg F		
Channel		Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High	
1	0.0	0.0	13.9	3873.0	
2	0.0	0.0	30.3	3605.8	
3	0.0	0.0	28.4	3069.5	
4	0.0	0.0	19.7	2079.2	
Deep	0.0	0.0	17.4	1954.2	
Medium	0.0	0.0	41.2	4077.5	
Shallow	0.0	0.0	45.3	5400.8	
Array Temperature		0.0	44.9	Deg F	

Induction Constants MAI-B.J 362

Last Edited on 08-OCT-2011 10:04

Induction Model		RtAP-WBM	
Caliper for Borehole Corr.		Density Caliper	
Hole Size for Borehole Correction		N/A	inches
Tool Centred		Yes	
Stand-off Type		N/A	
Stand-off		N/A	inches
Number of Fins on Stand-off		N/A	
Stand-off Fin Angle		N/A	degrees
Stand-off Fin Width		N/A	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	

High Resolution Temperature Calibration MAI-B.J 362

Field Calibration on 28-SEP-2011 09:20

	Measured	Calibrated(Deg F)
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0.00  
0.00



## DOWNHOLE EQUIPMENT

C:\Users\le143235\AppData\Local\Temp\Weatherford PreView\0\Wexpro Jack's Draw Unit #19\_4.dta

SHA-J.A Compact Swivel Head Adaptor

SHA-J.A 225 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

Compact Comms Gamma

MCG-D.J 424 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Neutron

MDN-B.A 191 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper

MPD-C.A 215 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

MIS-A.A Compact Inline Bowspring sub

MIS-A.A 70 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SKJ-D.A Compact Knuckle Joint

SKJ-D.A 143 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-B Compact Inline Standoff sub

MIS-B 26 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

SKJ-D.A Compact Knuckle Joint

SKJ-D.A 89 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

SHA-F Compact Swivel Head Adaptor

SHA-F 38 LG: 2.74 ft WT: 26.5 lb OD: 2.24 in

Compact MMI Memory Section

MIM-A.A 102 LG: 4.65 ft WT: 26.5 lb OD: 2.24 in

Compact MMI Electrode Section

MIE-A.A 102 LG: 13.96 ft WT: 99.2 lb OD: 4.09 in

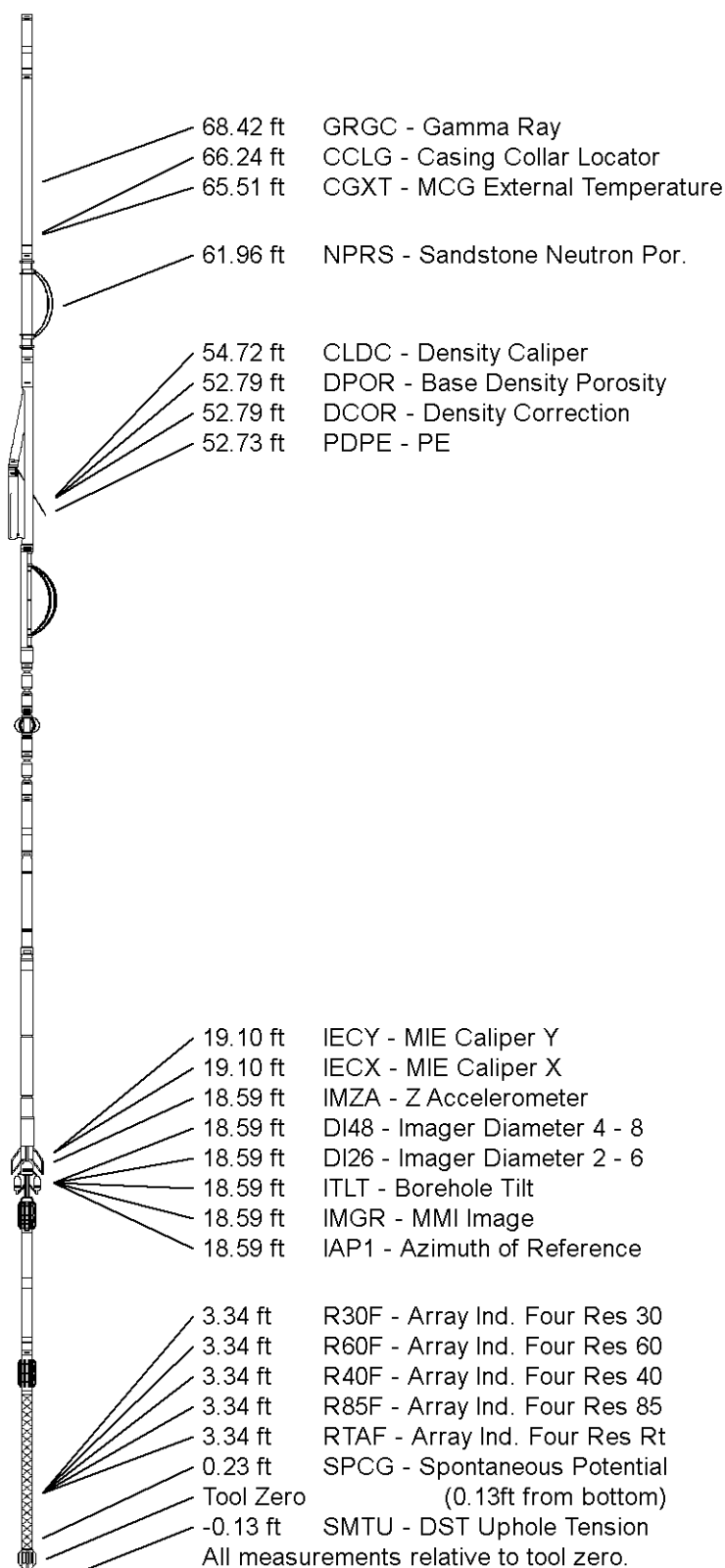
Compact Focussed Electric

MFE-B.A 220 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction

MAI-B.J 362 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 76.00 ft Weight: 573.2 lb



COMPANY

WEXPRO COMPANY

WELL

JACK DRAW UNIT #19

FIELD

JACK DRAW UNIT

PROVINCE/COUNTY

MOOSEAT

PROVINCE/COUNTY MOFFAT  
COUNTRY/STATE U.S.A. / COLORADO

Elevation Kelly Bushing	6923.00	feet	First Reading	9372.00	
Elevation Drill Floor	6922.00	feet	Depth Driller	9373.00	feet
Elevation Ground Level	6894.00	feet	Depth Logger	9375.00	feet



**Weatherford®**

COMPACT TRIPLE COMBO  
QUICKLOOK  
LOG

