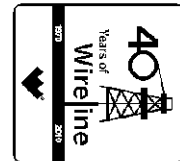




Weatherford[®]

**ARRAY INDUCTION - RTAP
SHALLOW FOCUSED
ELECTRIC LOG**

COMPANY **BILL BARRETT CORPORATION**
WELL **GGU FEDERAL 34A-20-691**
FIELD **GIBSON GULCH**
PROVINCE/COUNTY **GARFIELD**
COUNTRY/STATE **U.S.A. / COLORADO**
LOCATION **SHL: 1212' FNL & 1338' FEL**
BHL: 165' FSL & 1990' FEL



SEC	TWP	RGE	Other Services
20	6S	91W	MPD/MDN
API Number	05-045-19805		
Permit Number			
Permanent Datum G.L., Elevation 6104 feet			
Log Measured From K.B. @ 23 FEET above Permanent Datum			
Drilling Measured From K.B.			
Date	28-FEB-2011		

Elevations:	feet
KB	6127.00
DF	6126.00
GL	6104.00

Run Number	ONE	
Depth Driller	7640.00	feet
Depth Logger	7642.00	feet
First Reading	7639.00	
Last Reading	200.00	
Casing Driller	764.00	feet
Casing Logger	764.00	feet
Bit Size	7.880	inches
Hole Fluid Type	LSND	
Density / Viscosity	10.80 lb/USg	55.00 CP
PH / Fluid Loss	10.00	5.60 ml/30Min
Sample Source	FLOW LINE	
Rm @ Measured Temp	3.50 @ 80.0	ohm-m
Rmf @ Measured Temp	2.80 @ 80.0	ohm-m
Rmc @ Measured Temp	4.20 @ 80.0	ohm-m
Source Rmf / Rmc	CALC	CALC
Rm @ BHT	1.63 @175.0	ohm-m
Time Since Circulation	6 HOURS	
Max Recorded Temp	175.00	deg F
Equipment Name	COMPACT	
Equipment / Base	13173	GDJCT
Recorded By	J.GARCIA	
Witnessed By	C.CROW	

BOREHOLE RECORD

Last Edited: 28-FEB-2011 23:20

Bit Size inches	Depth From feet	Depth To feet
8.750	764.00	4258.00
7.880	4258.00	7640.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	764.00	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. = 8.99" (9 5/8", 36 LB/FT CASING)

8.75 INCH BIT USED FROM SURFACE CASING TO 4258 FT.

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2840 CU.FT.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 2080 CU.FT.

LOG SPLICED AT 4050

ENGINEER(S): J.GARCIA

OPERATOR: D.DALEY, S.KAISER

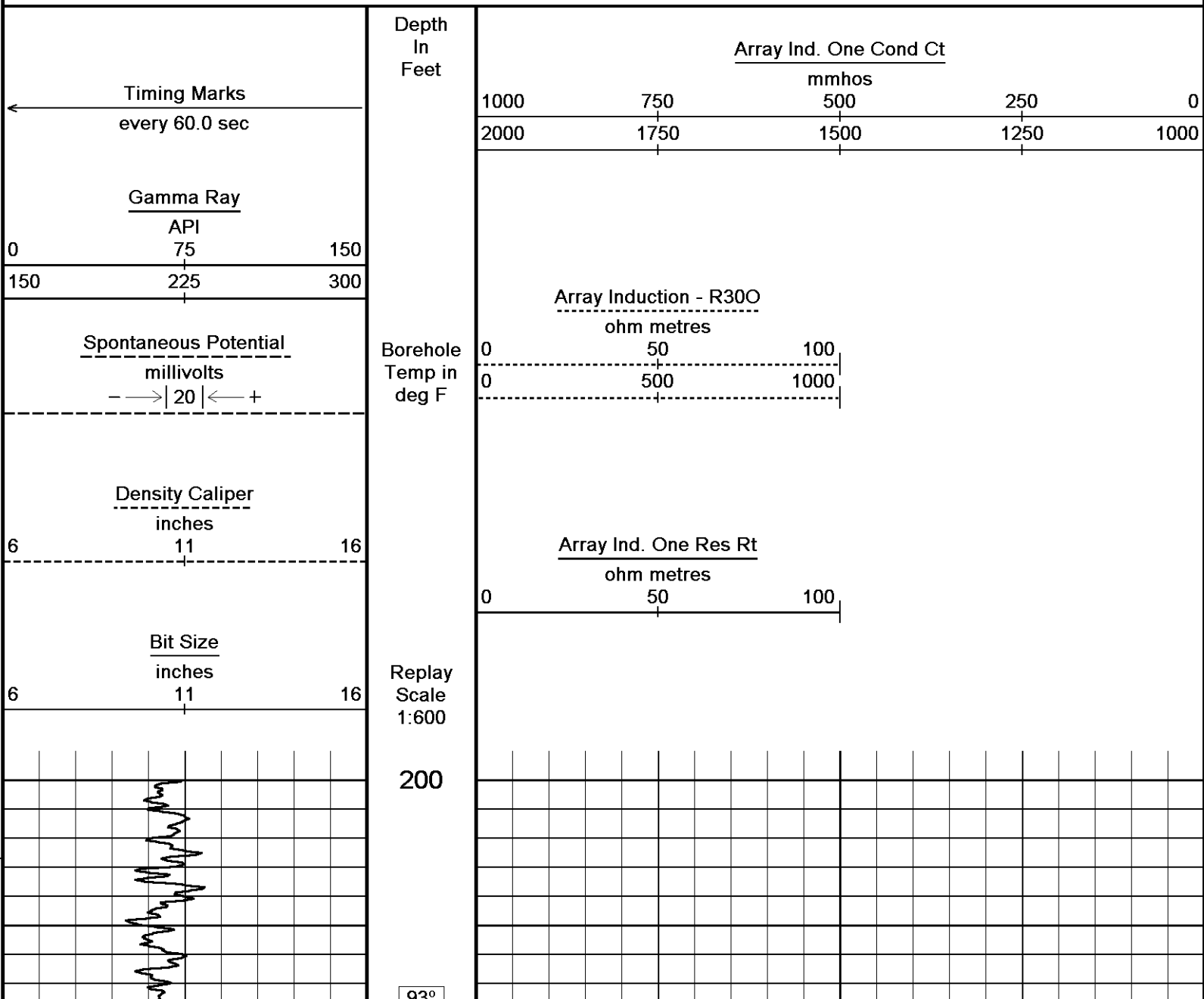
SERVICE ORDER: # 3524853

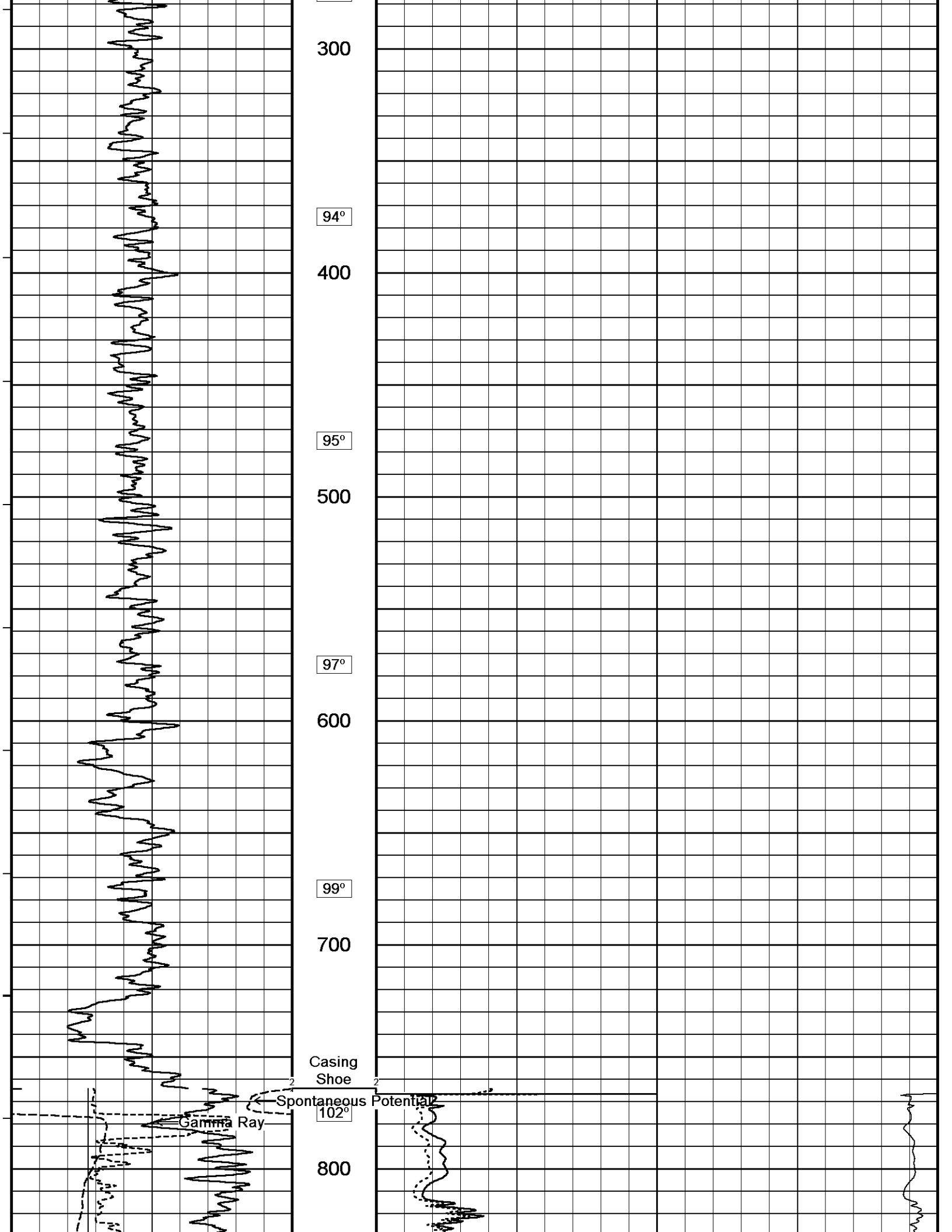
RIG: PATTERSON #307

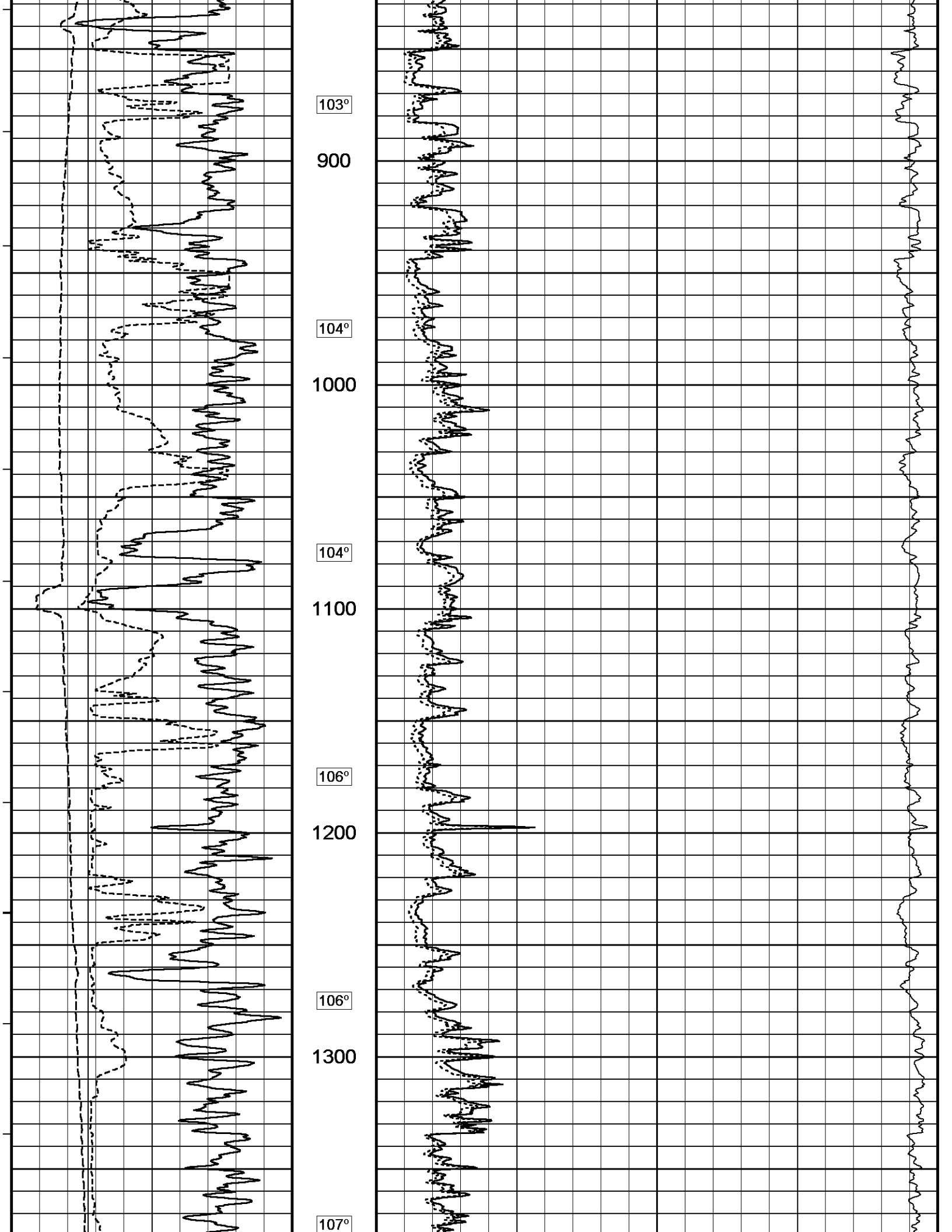
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

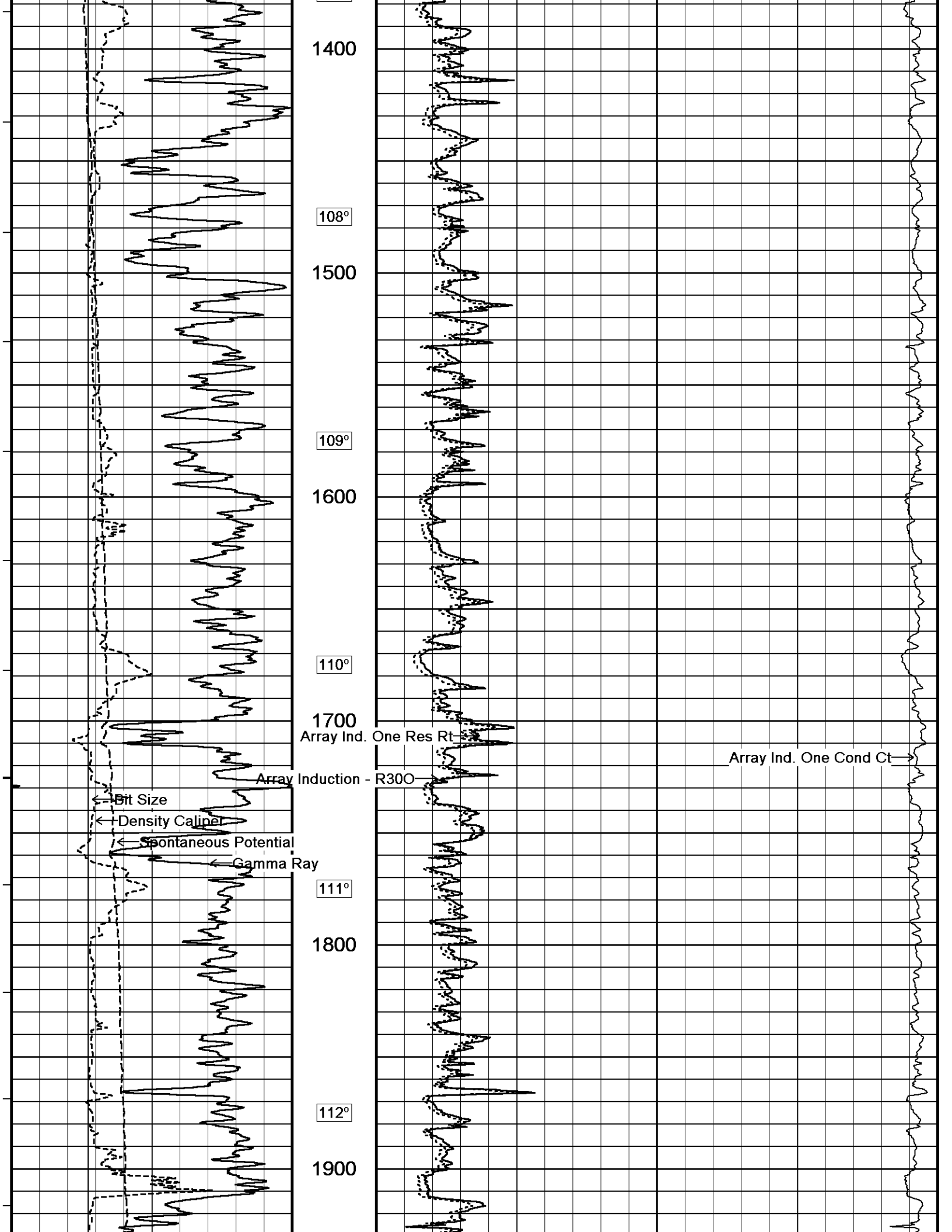
2 INCH MAIN LOG

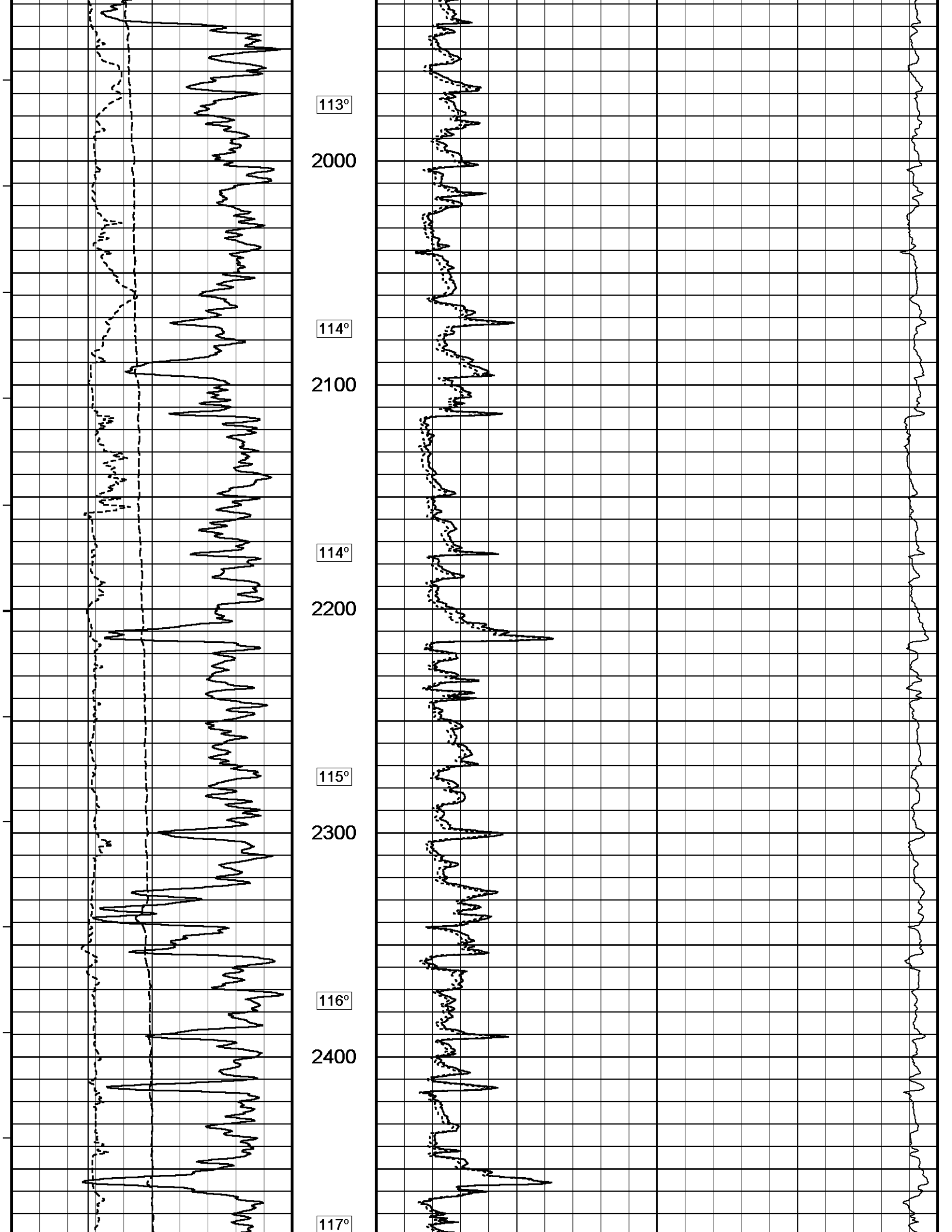
Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 01-MAR-2011 17:55
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 System Versions: Processed with 11.01.2198 Plotted with 11.01.2198

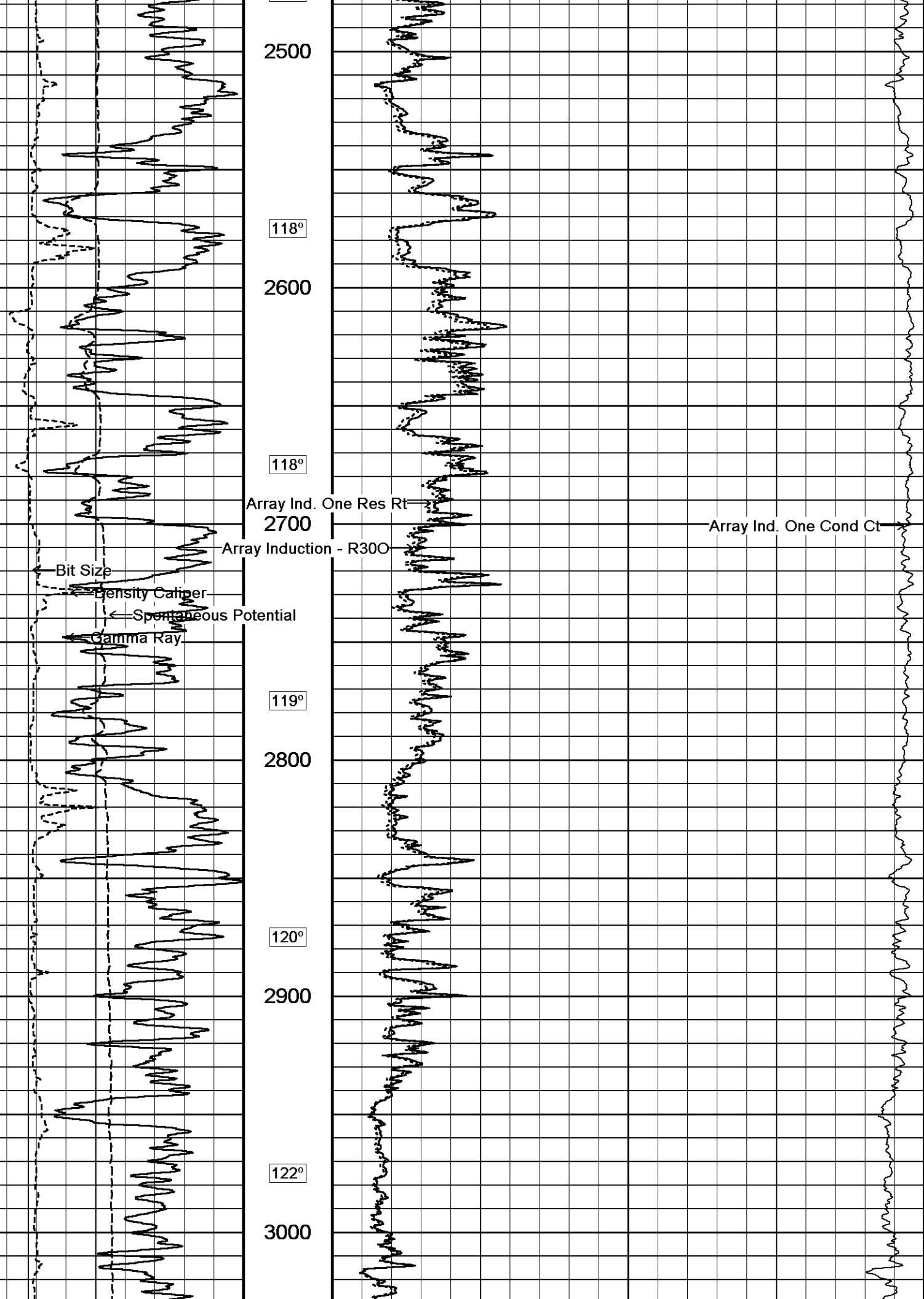


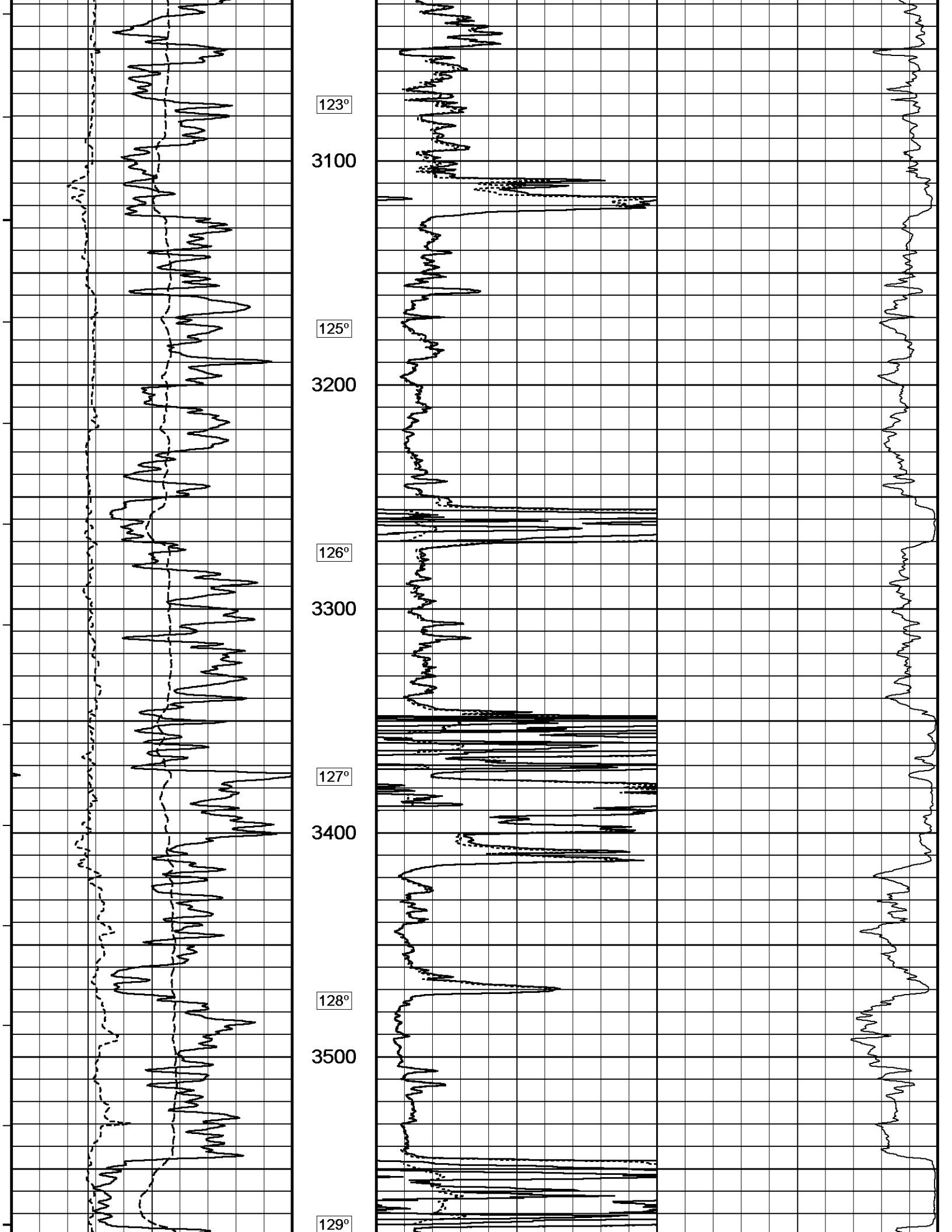


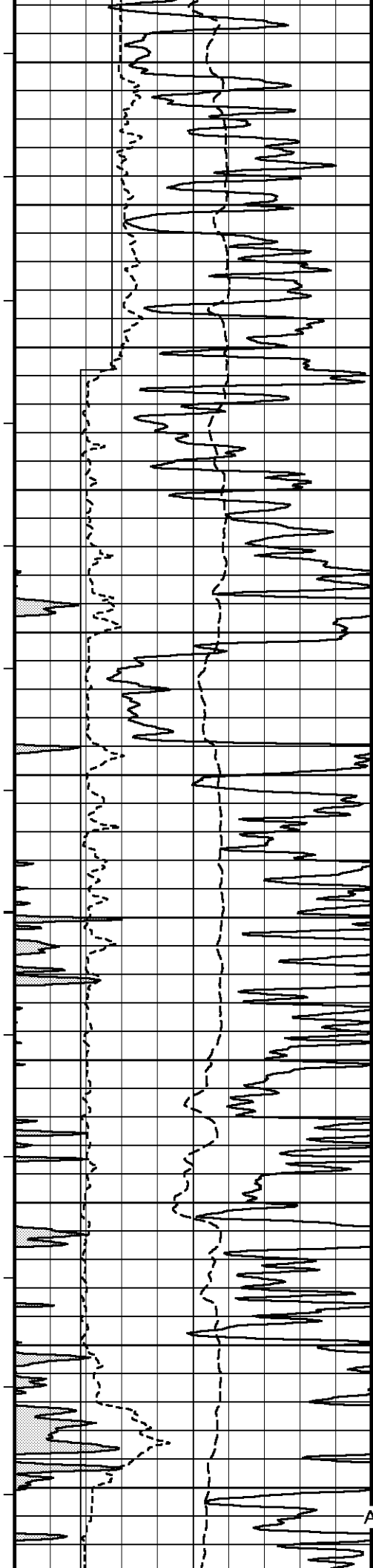












129°

4200

130°

4300

131°

4400

132°

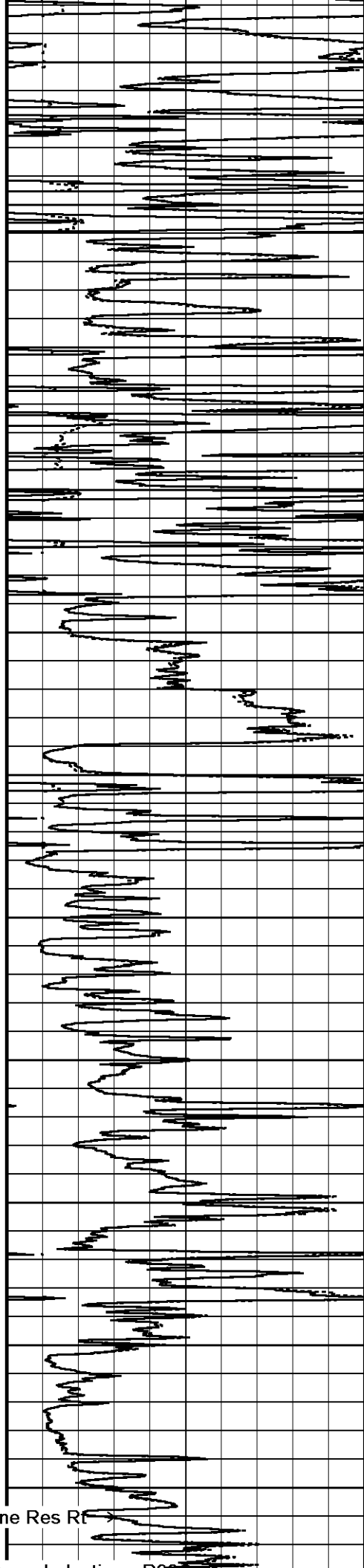
4500

134°

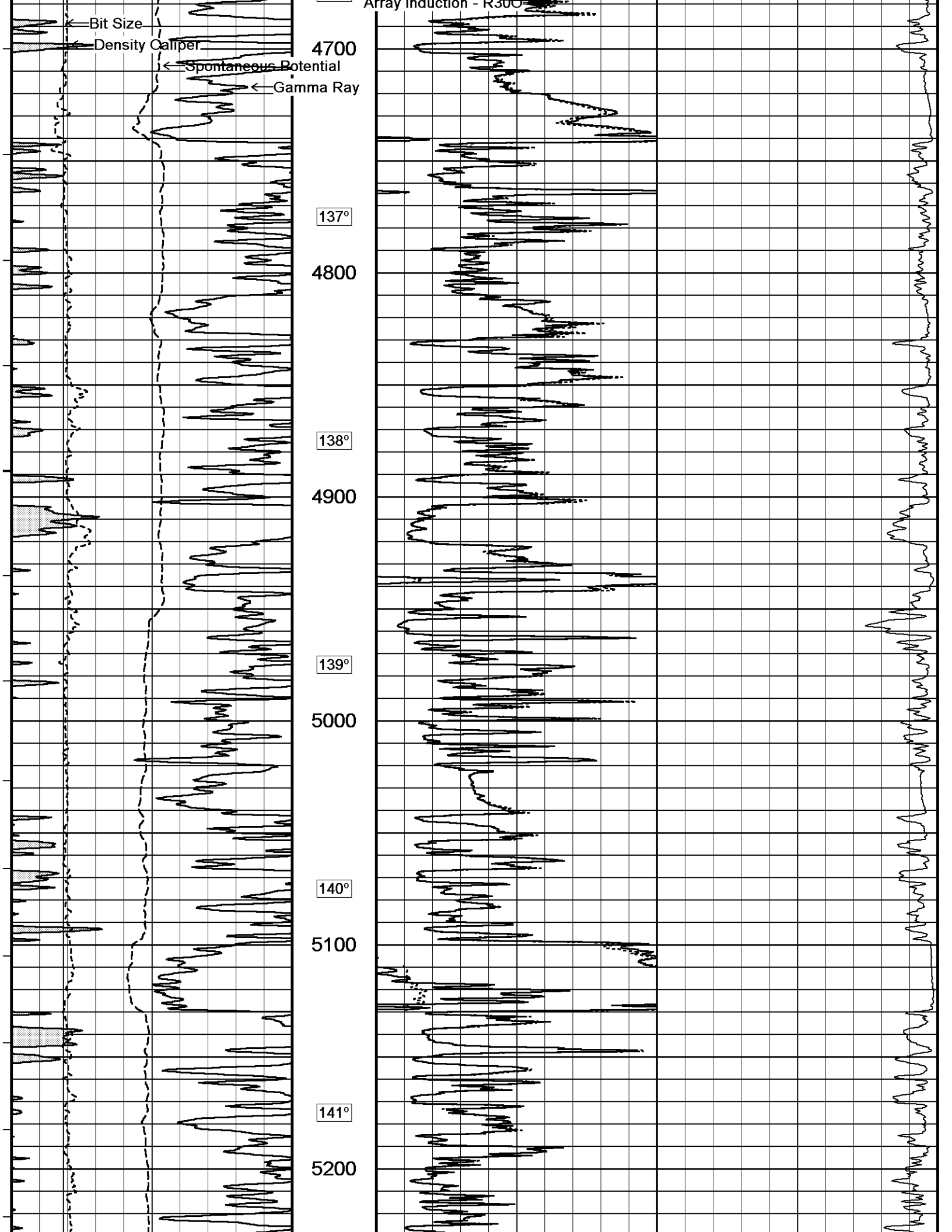
4600

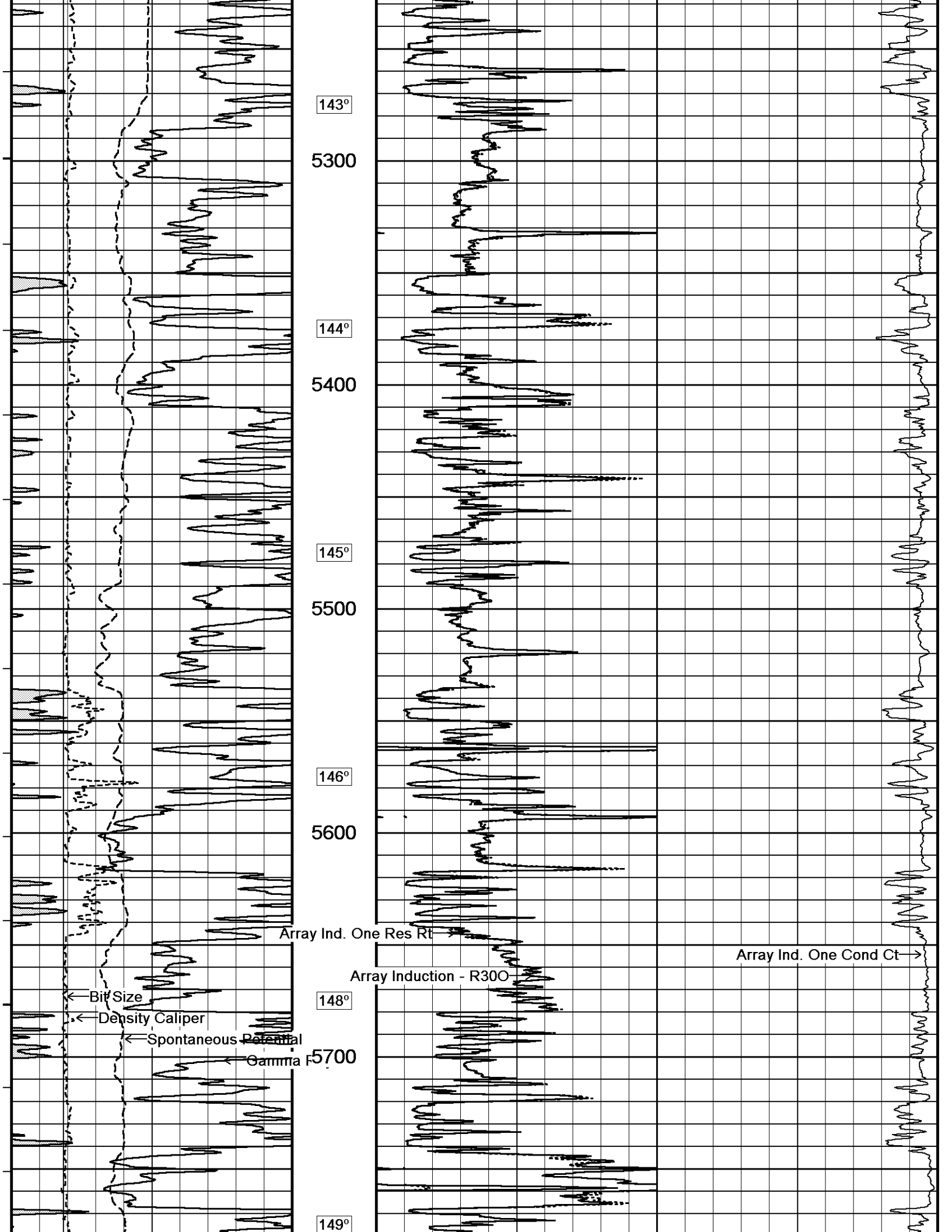
Array Ind. One Res Rt

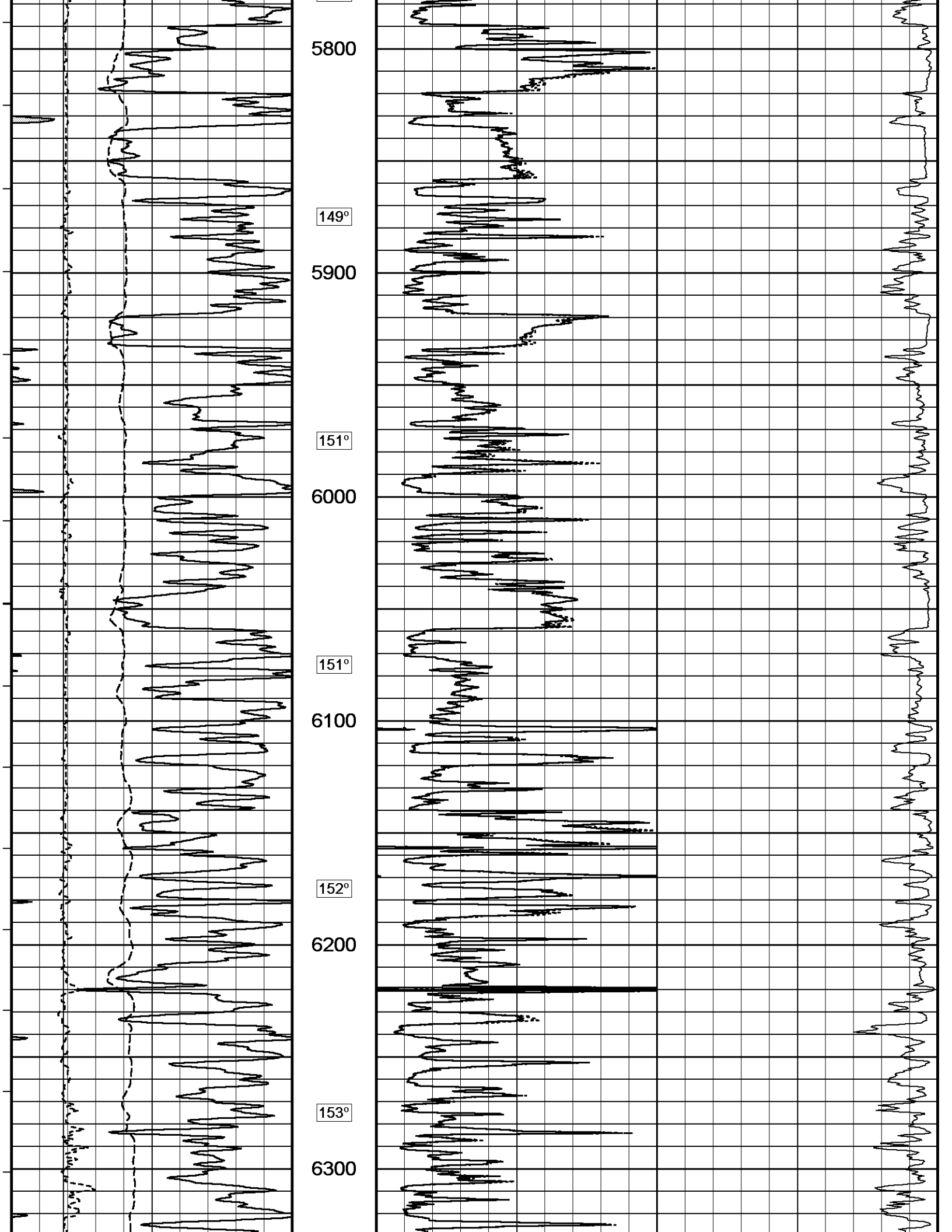
135°

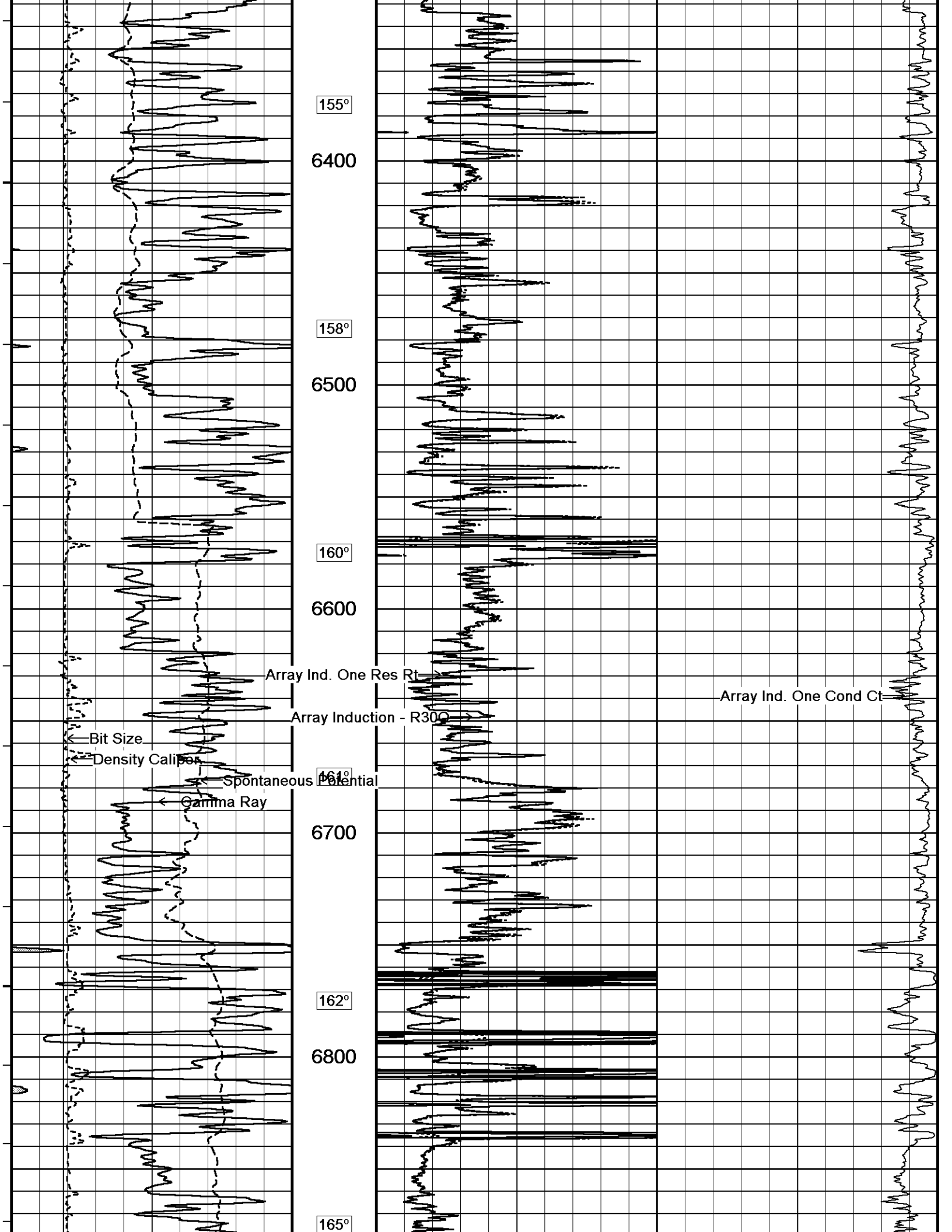


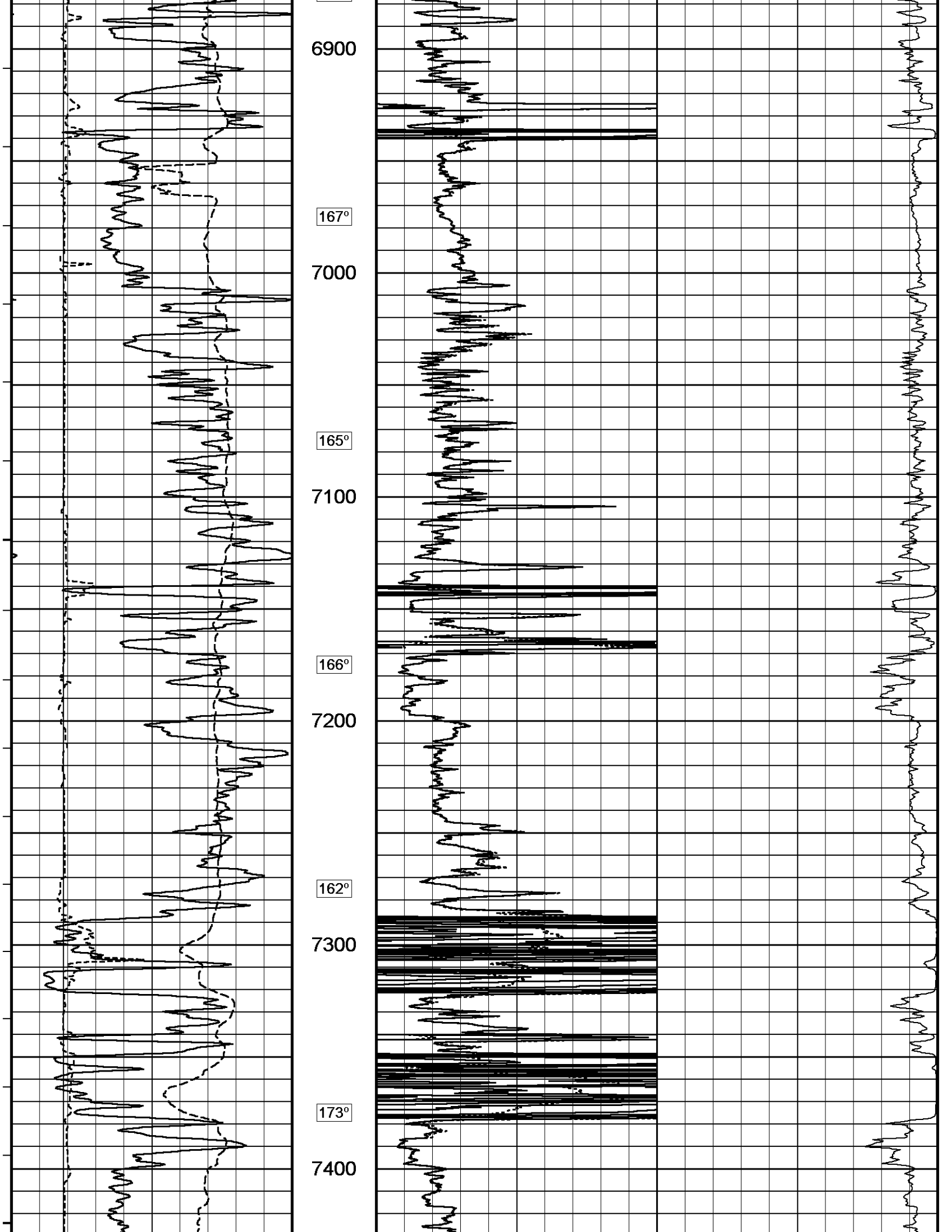
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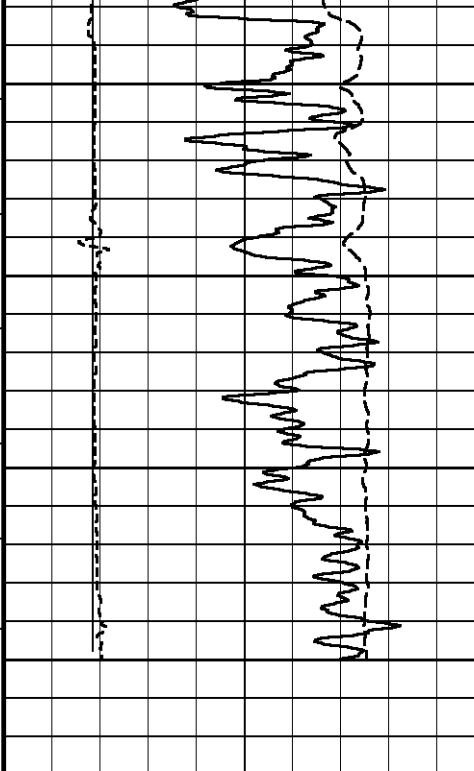












172°

7500

175°

7600

7620

Depth
In
Feet

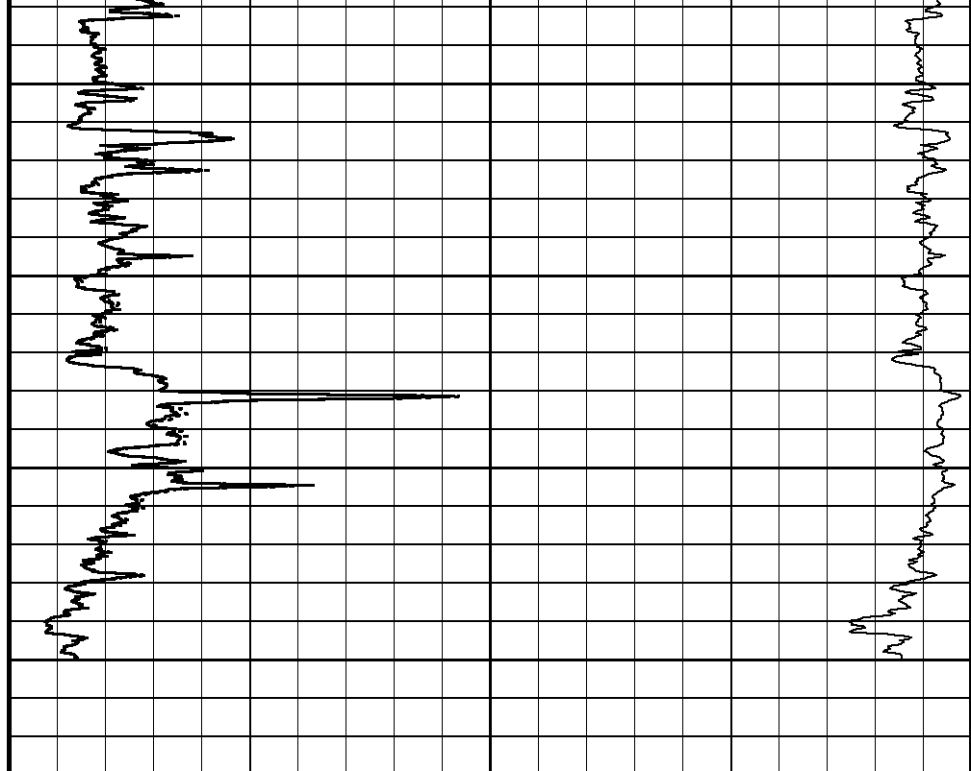
← Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
- -> | 20 | <- +

Density Caliper
inches
6 11 16

Bit Size
inches
6 11 16



Array Ind. One Cond Ct
mmhos
1000 750 500 250 0
2000 1750 1500 1250 1000

Array Induction - R300
ohm metres
0 50 100
0 500 1000

Array Ind. One Res Rt
ohm metres
0 50 100

Borehole
Temp in
deg F

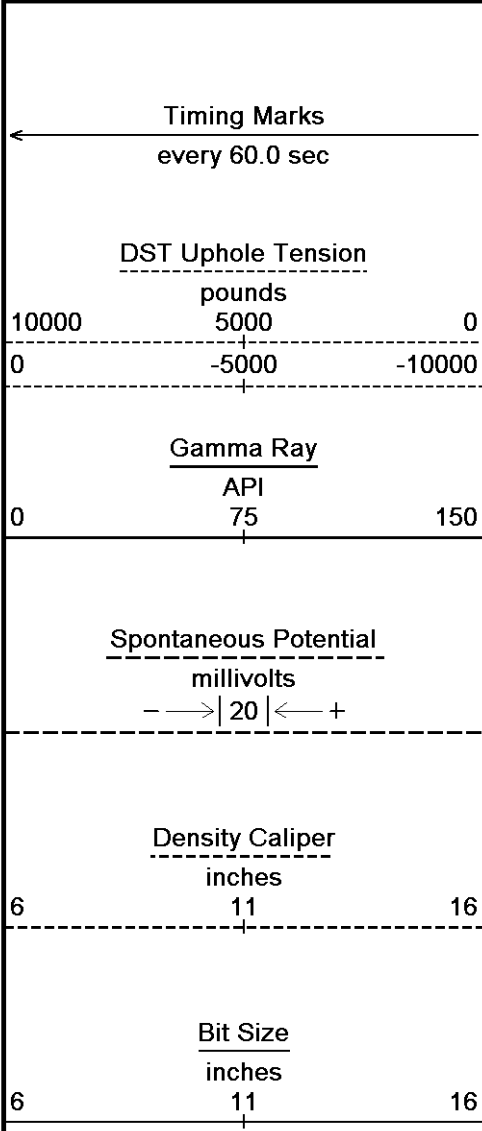
Replay
Scale
1:600

Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 01-MAR-2011 17:55
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 Recorded on 01-MAR-2011 11:46
 System Versions: Processed with 11.01.2198 Plotted with 11.01.2198

↑ 2 INCH MAIN LOG ↑

↓ 5 INCH MAIN LOG ↓

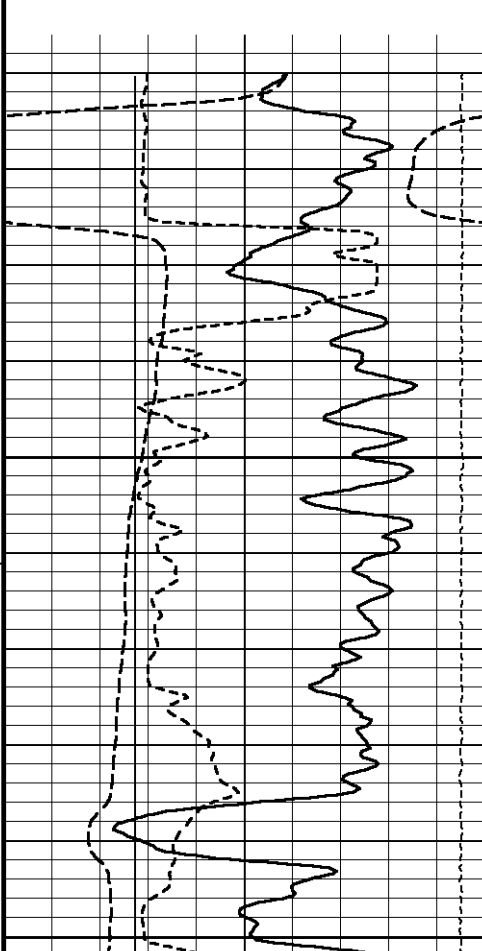
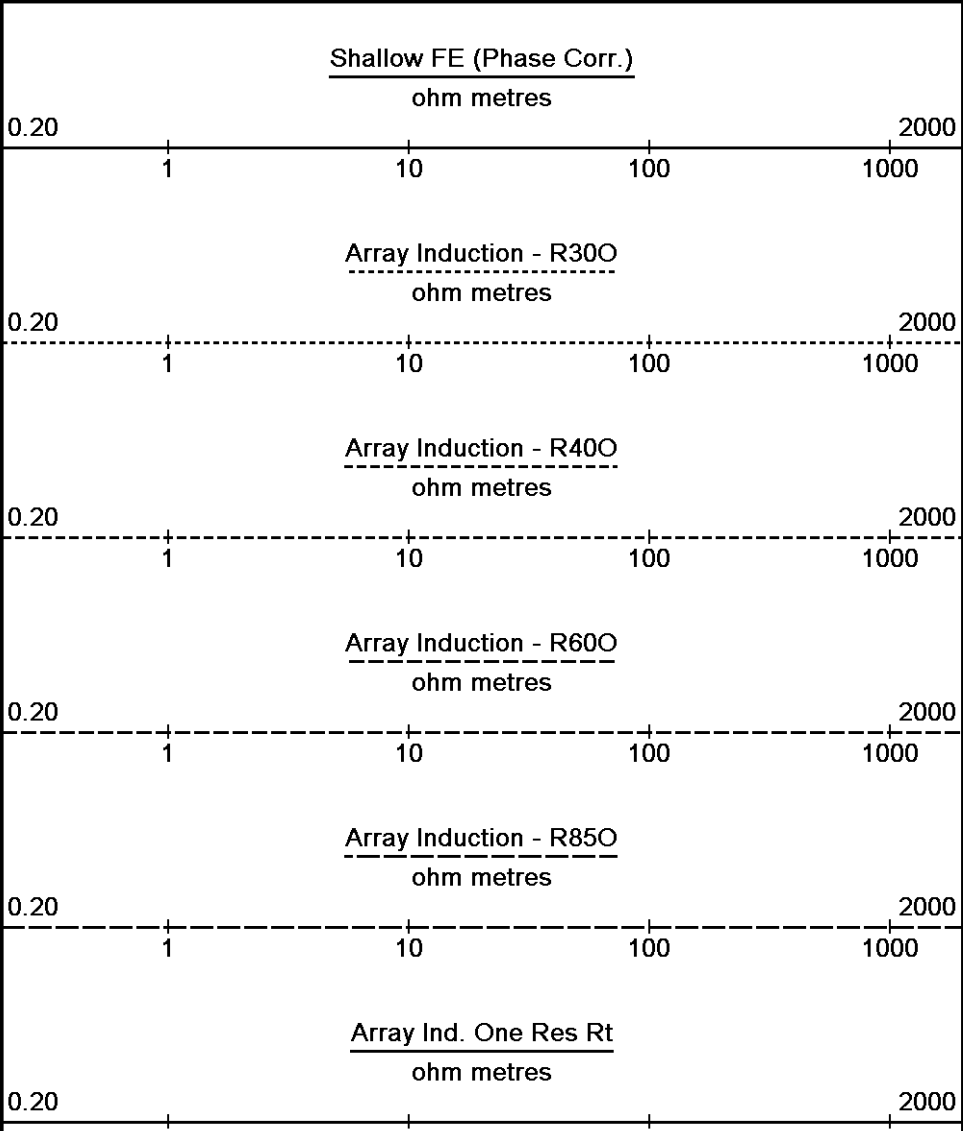
Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 01-MAR-2011 17:55
 Filename: C:\Documents and Settings\145895\Desktop\GGU FEDERAL 34A-20-691\SPLICE.dta
 Recorded on 01-MAR-2011 11:46
 System Versions: Processed with 11.01.2198 Plotted with 11.01.2198



Depth
In
Feet

Borehole
Temp in
deg F

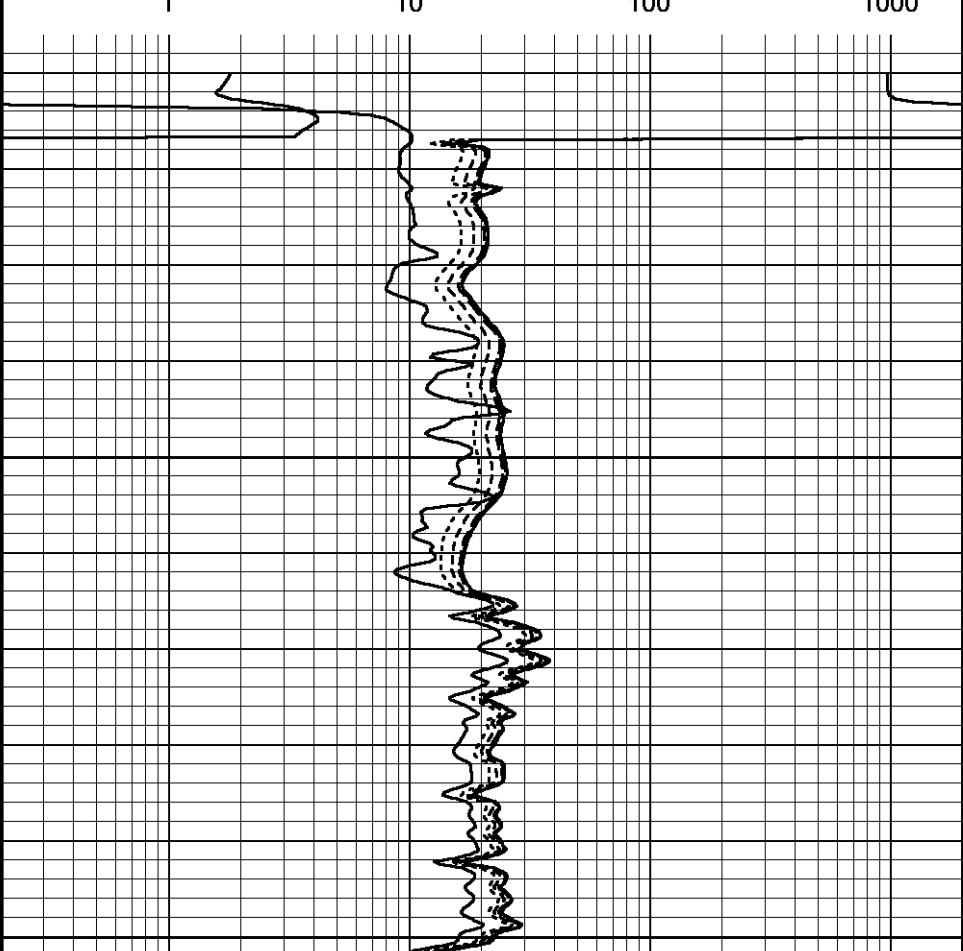
Replay
Scale
1:240

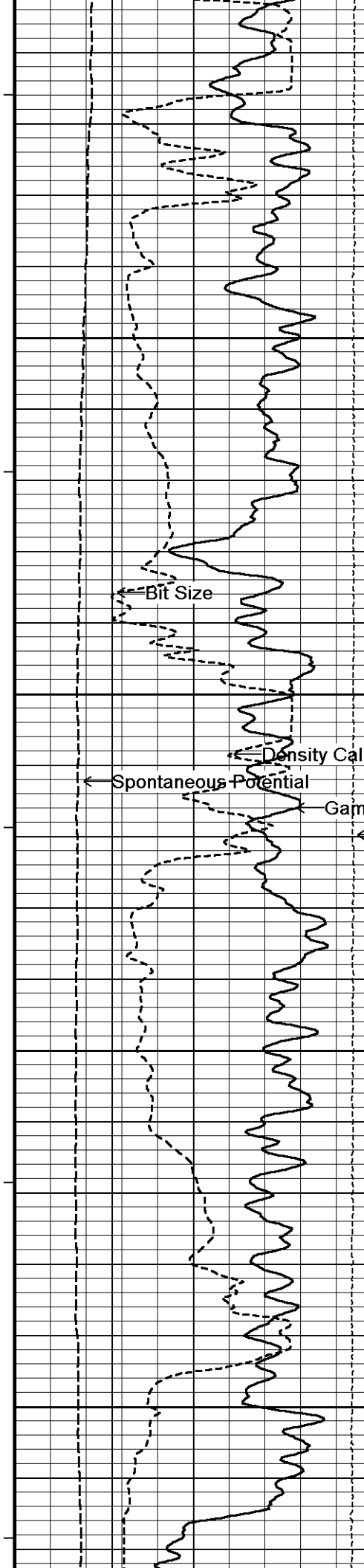


800

103°

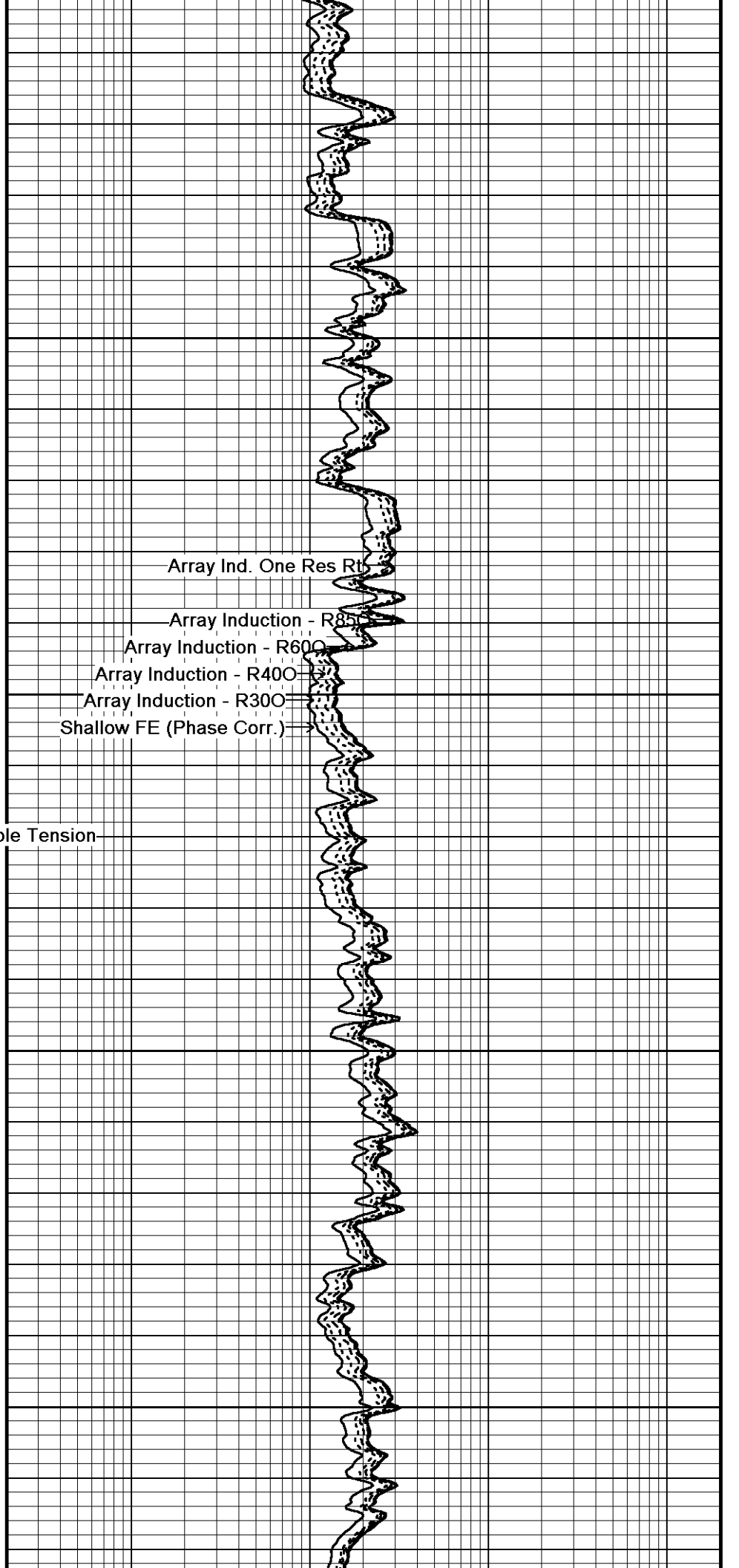
850



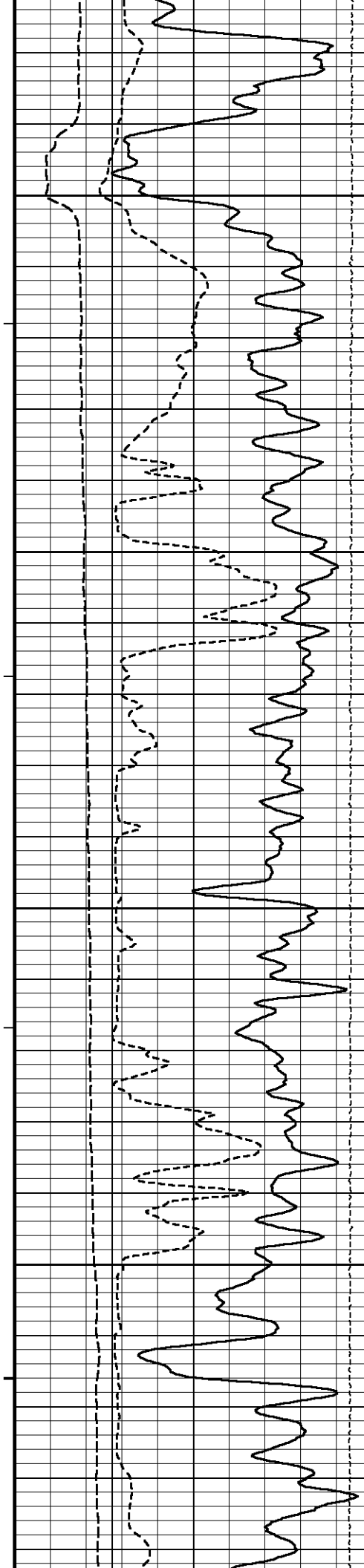


103°
900
104°
950
104°
1000
104°
1050

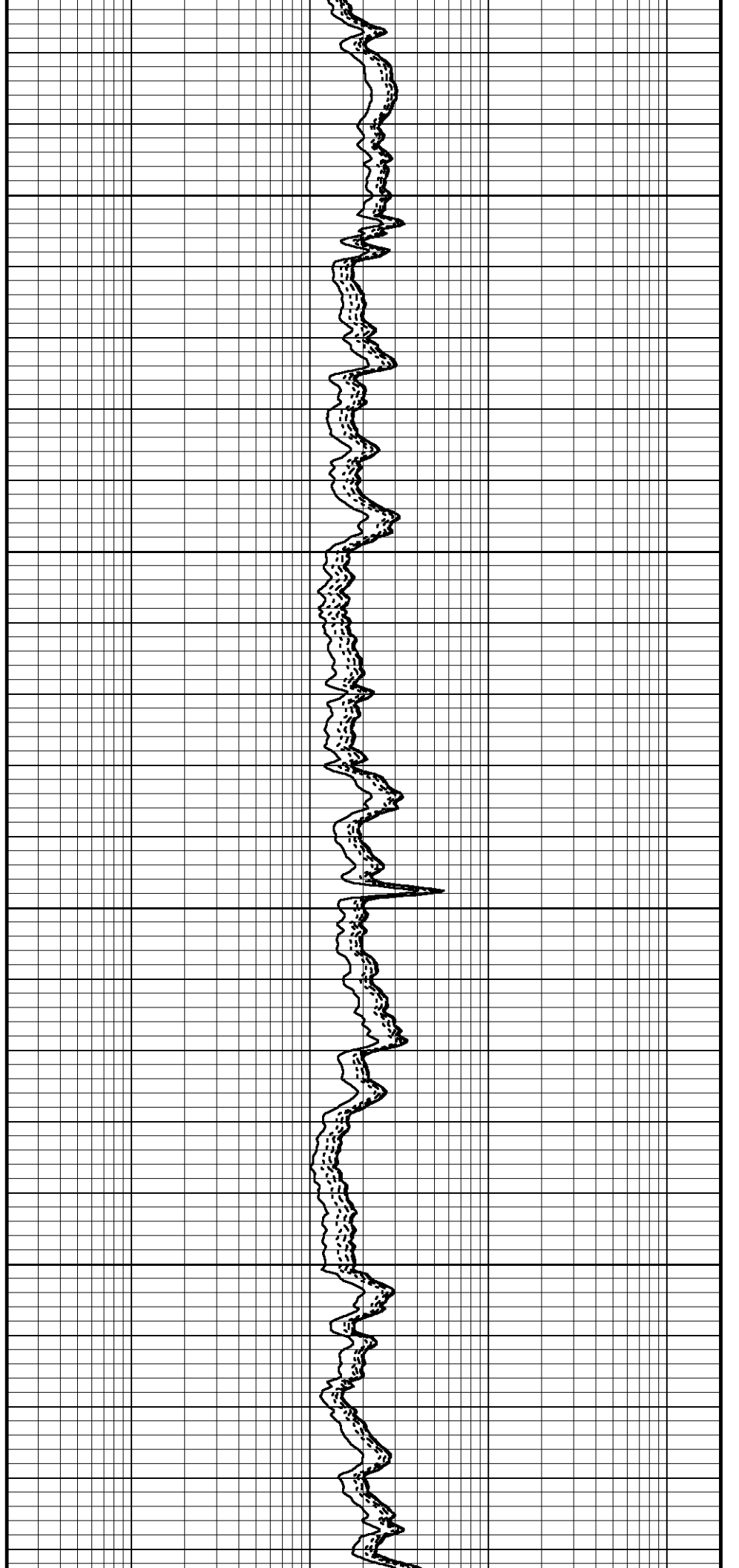
← Bit Size
← Spontaneous Potential
← Density Caliper
← Gamma Ray
← DST Uphole Tension

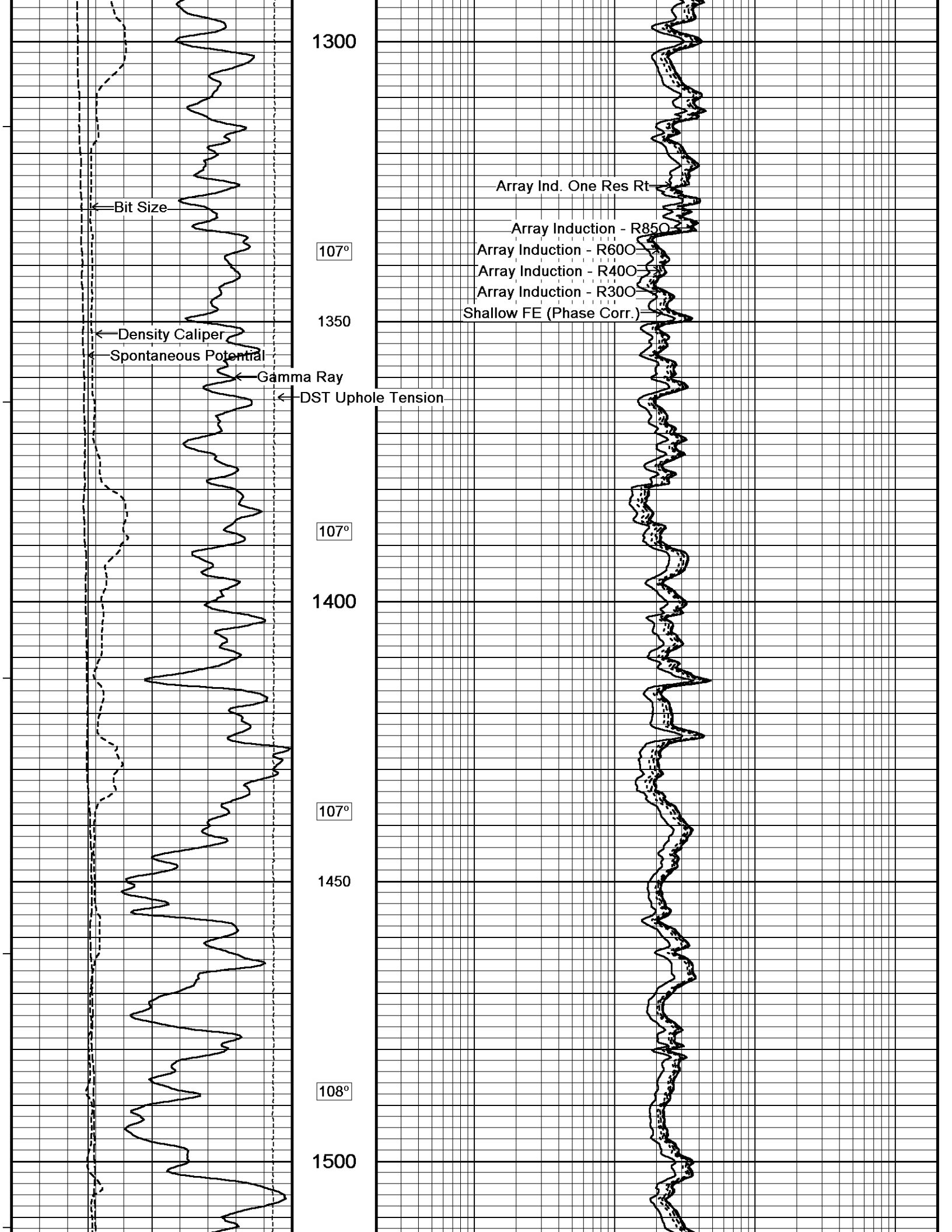


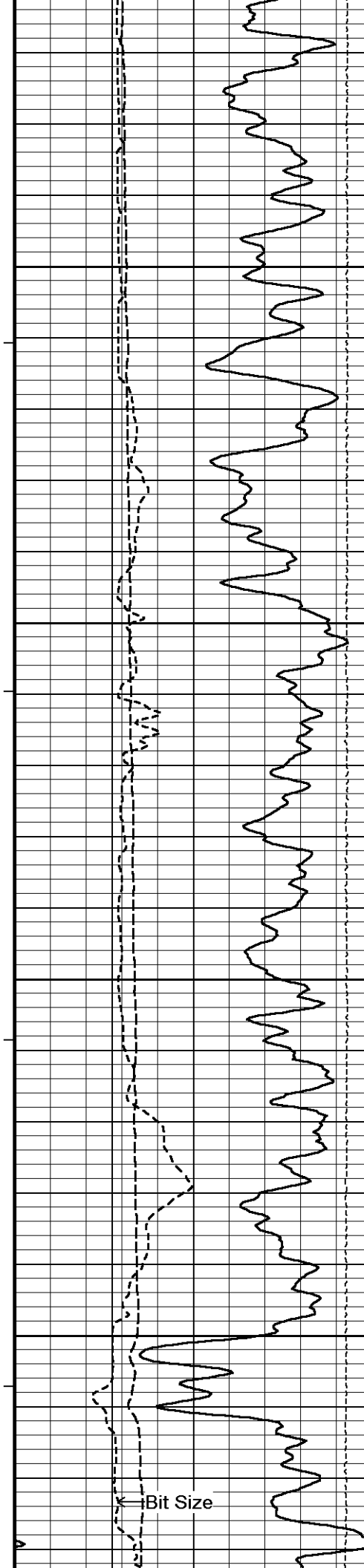
Array Ind. One Res Rt
Array Induction - R85
Array Induction - R60
Array Induction - R40
Array Induction - R30
Shallow FE (Phase Corr.)



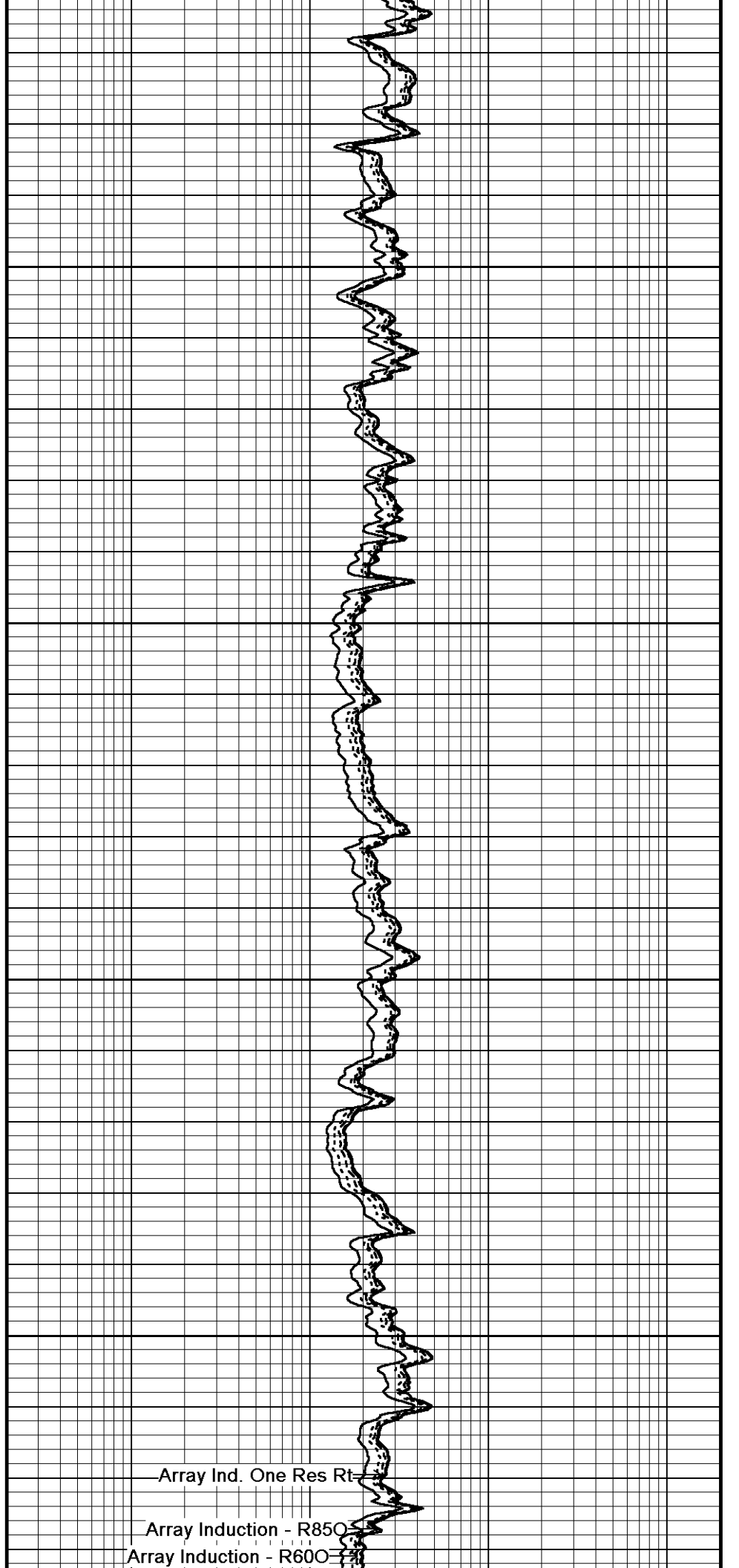
105°
1100
106°
1150
106°
1200
106°
1250
106°







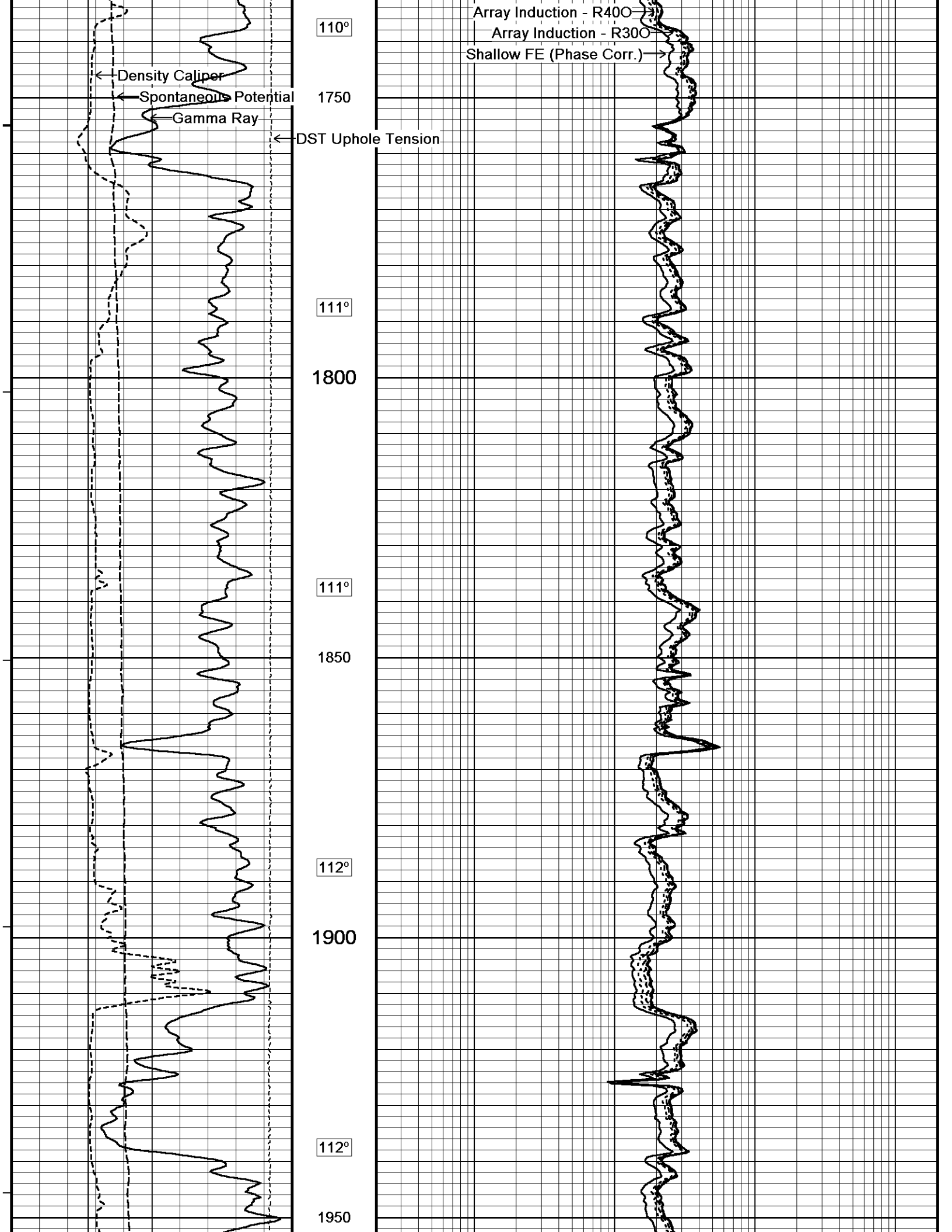
109°
1550
109°
1600
110°
1650
110°
1700



Array Ind. One Res Rt

Array Induction - R850

Array Induction - R600



110°

Array Induction - R400
Array Induction - R300
Shallow FE (Phase Corr.)

Density Caliper
Spontaneous Potential
Gamma Ray

1750

DST Uphole Tension

111°

1800

111°

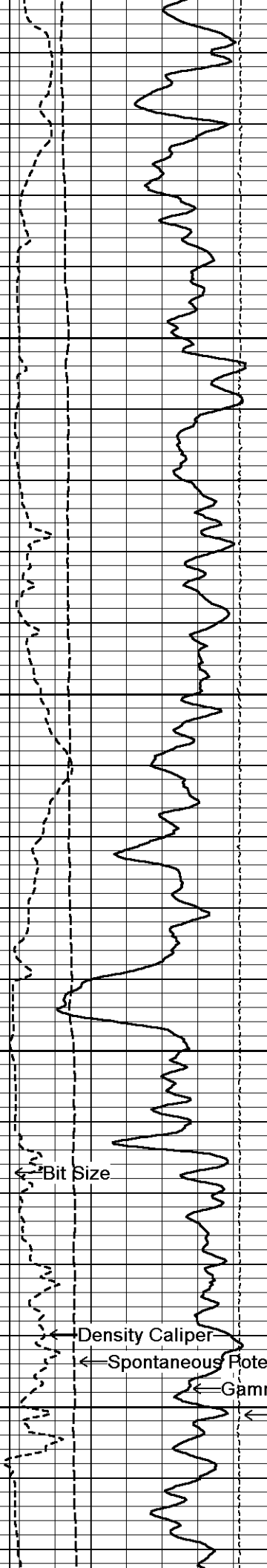
1850

112°

1900

112°

1950



113°

2000

113°

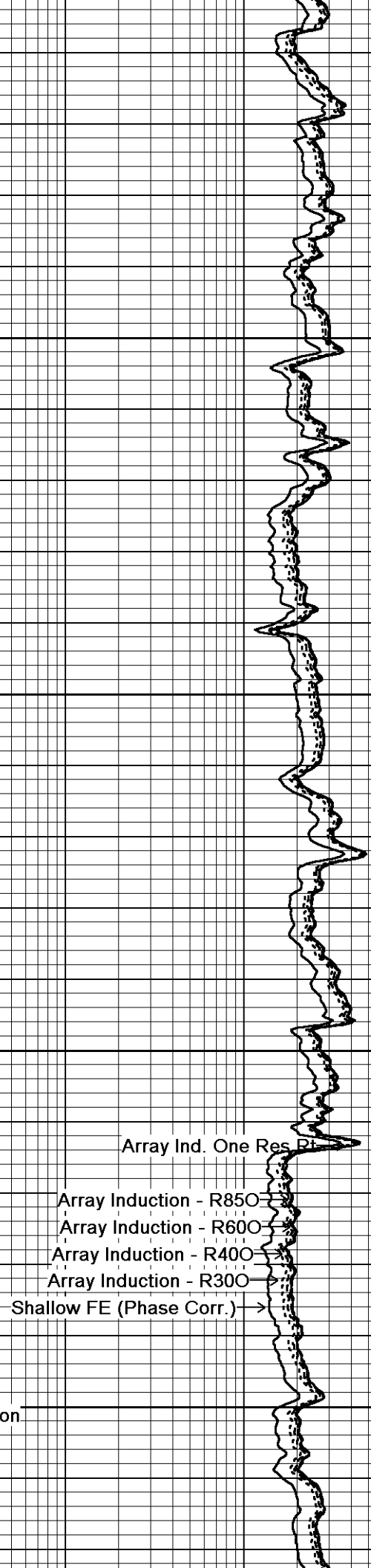
2050

114°

2100

114°

DS 2150
Well Tension



Array Ind. One Res Pt

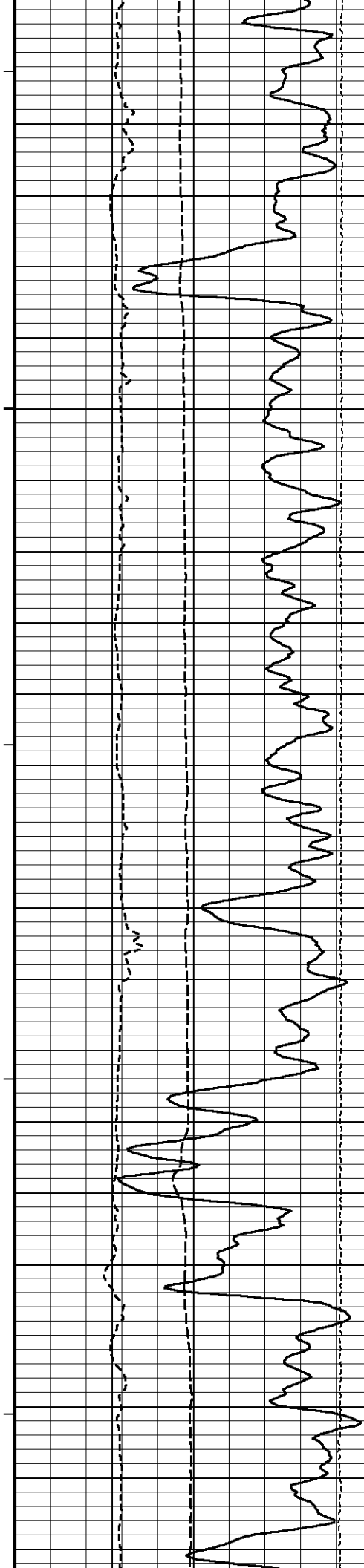
Array Induction - R850

Array Induction - R600

Array Induction - R400

Array Induction - R300

Shallow FE (Phase Corr.)



114°

2200

115°

2250

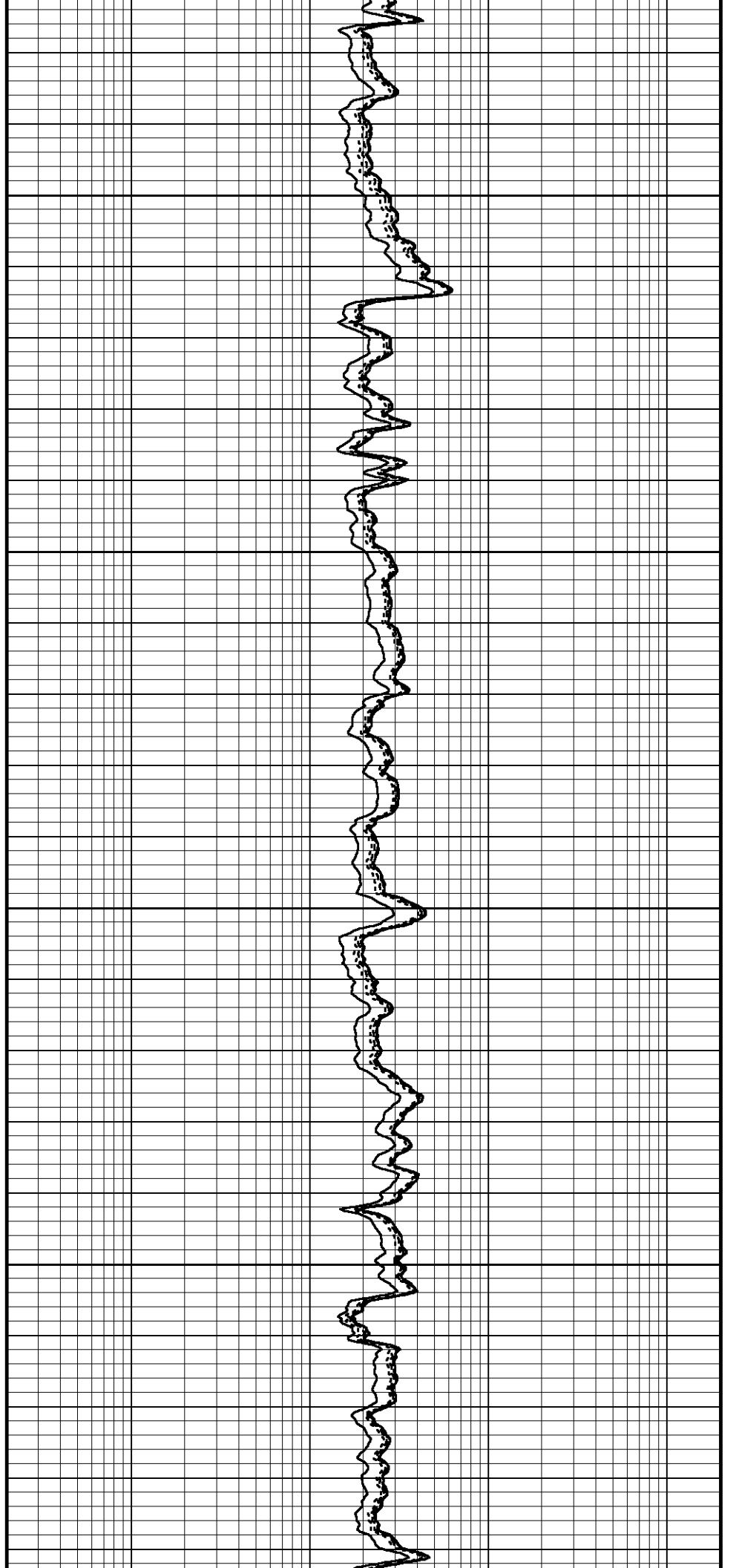
115°

2300

116°

2350

116°



2400

117°

2450

117°

2500

Array Ind. One Res Rt

Array Induction - R850

Array Induction - R600

Array Induction - R400

Array Induction - R300

Shallow FE (Phase Corr.)

← Bit Size

← Density Caliper

← Spontaneous Potential 117°

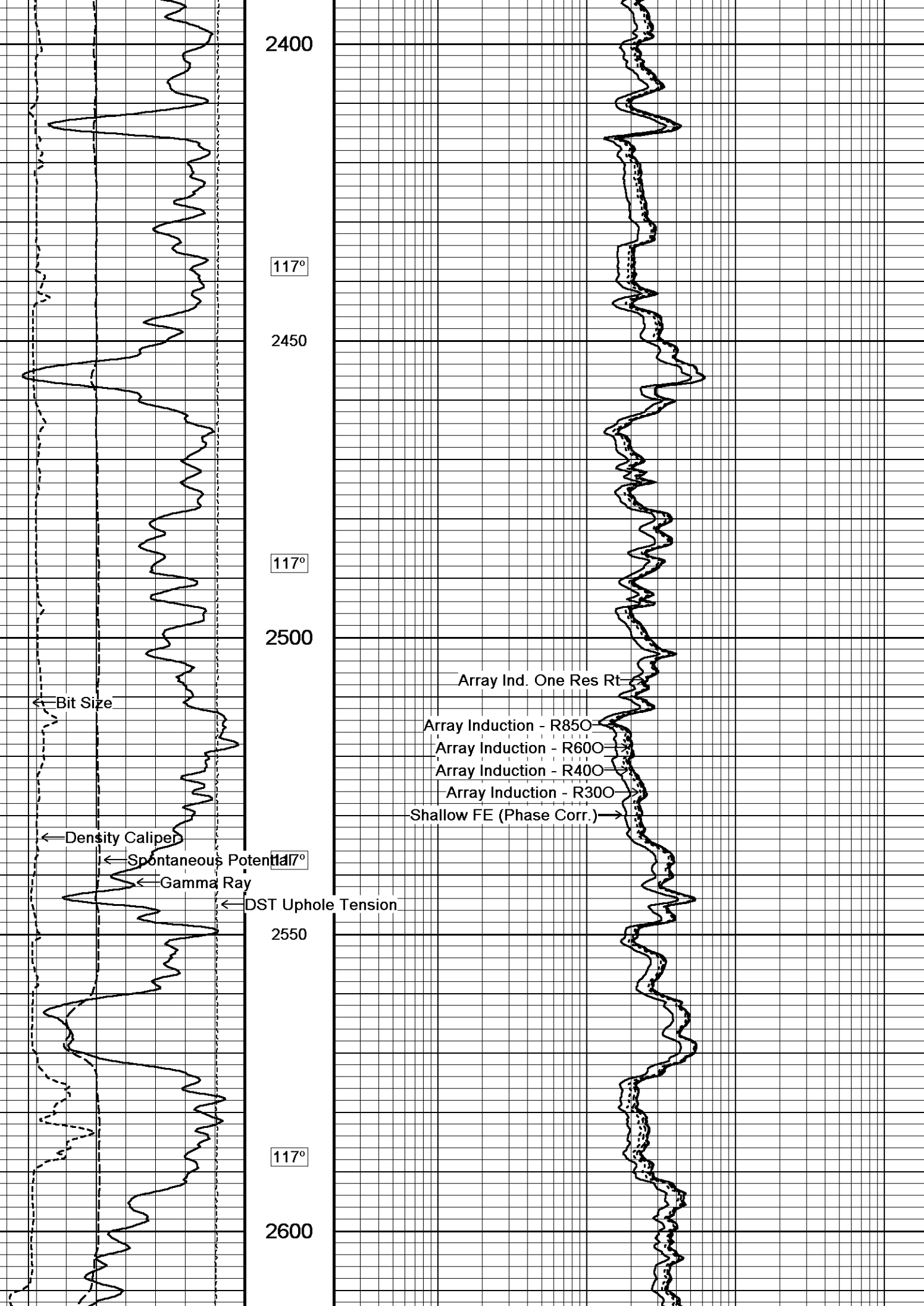
← Gamma Ray

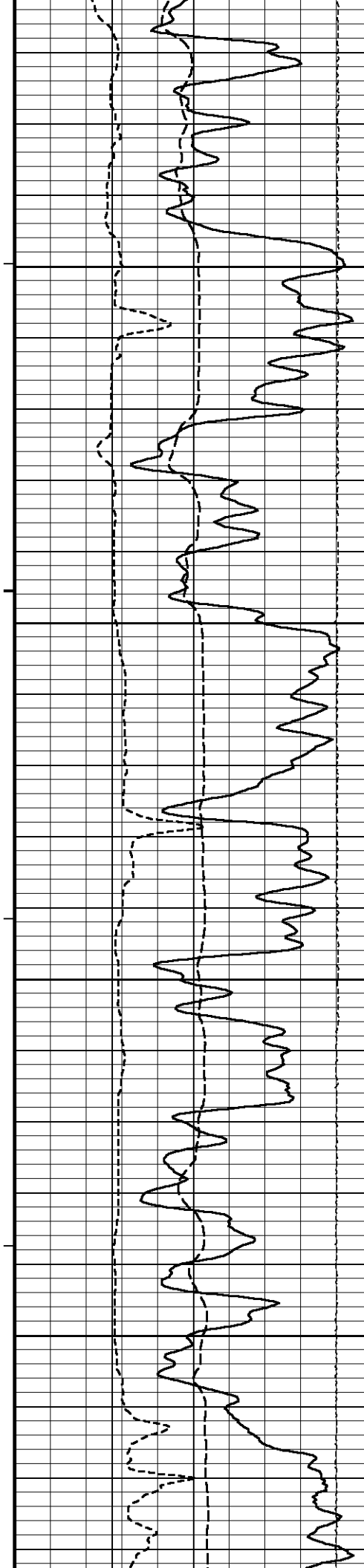
← DST Uphole Tension

2550

117°

2600





118°

2650

118°

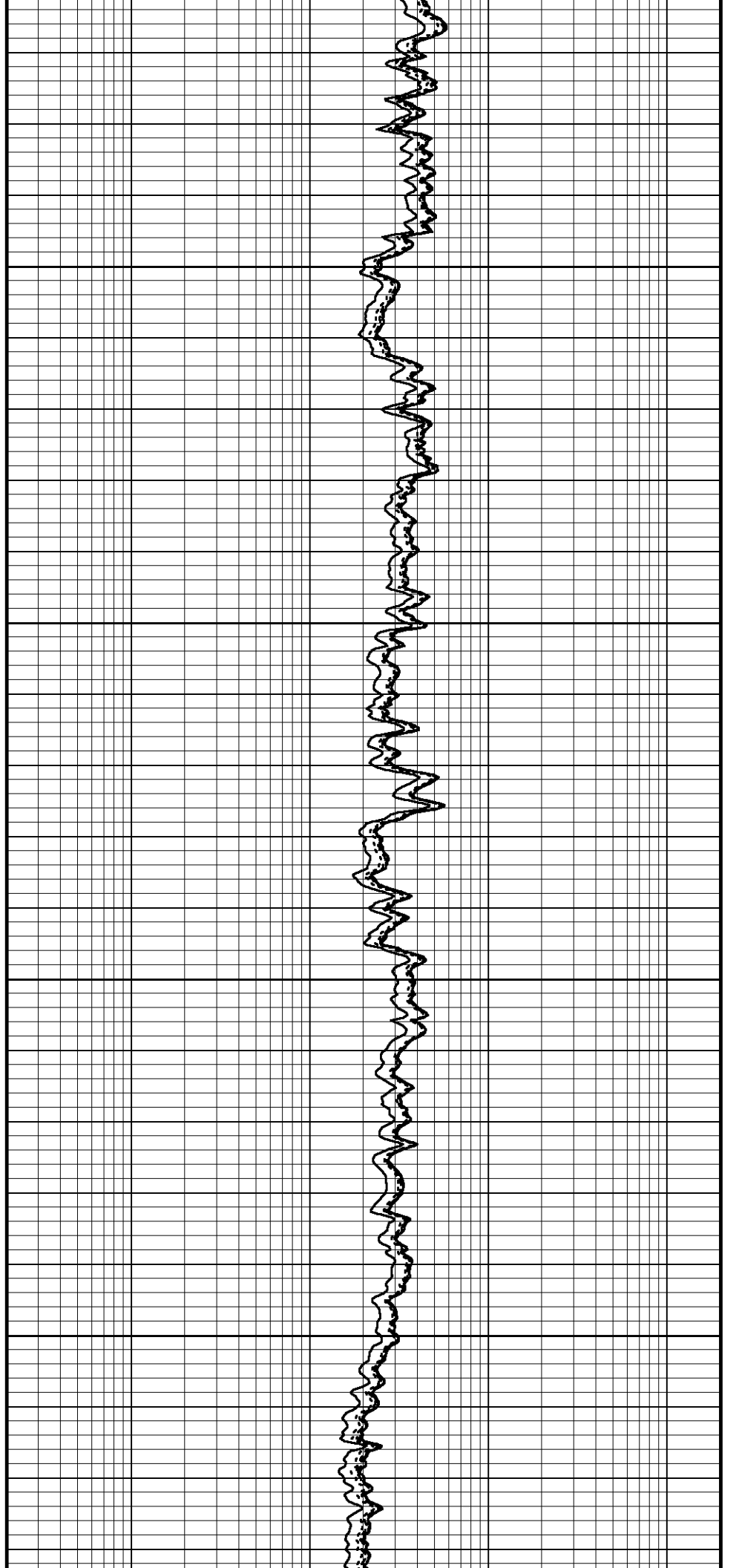
2700

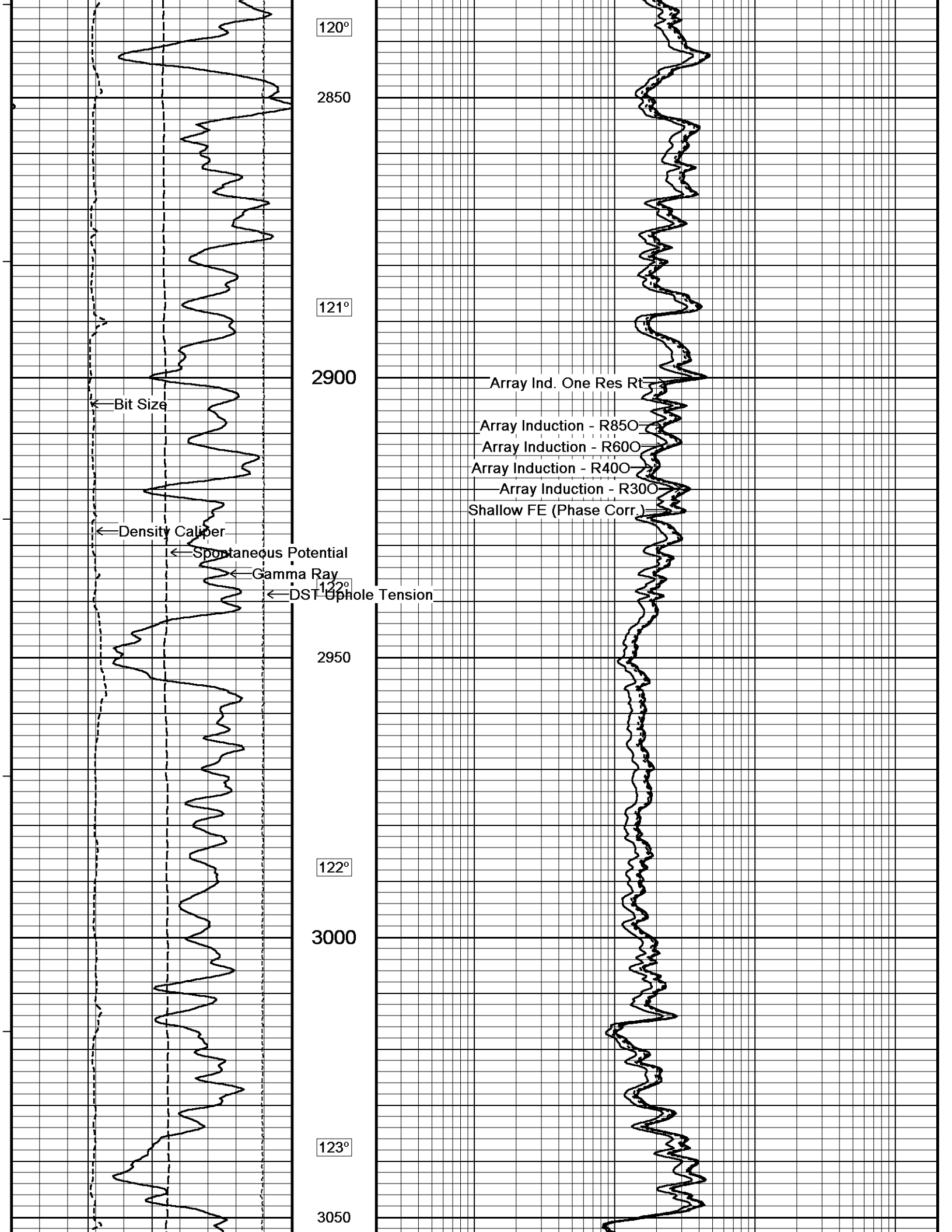
119°

2750

120°

2800





120°

2850

121°

2900

← Bit Size

Array Ind. One Res Rt

Array Induction - R850

Array Induction - R600

Array Induction - R400

Array Induction - R300

Shallow FE (Phase Corr.)

← Density Caliper

← Spontaneous Potential

← Gamma Ray

← DST Uphole Tension

122°

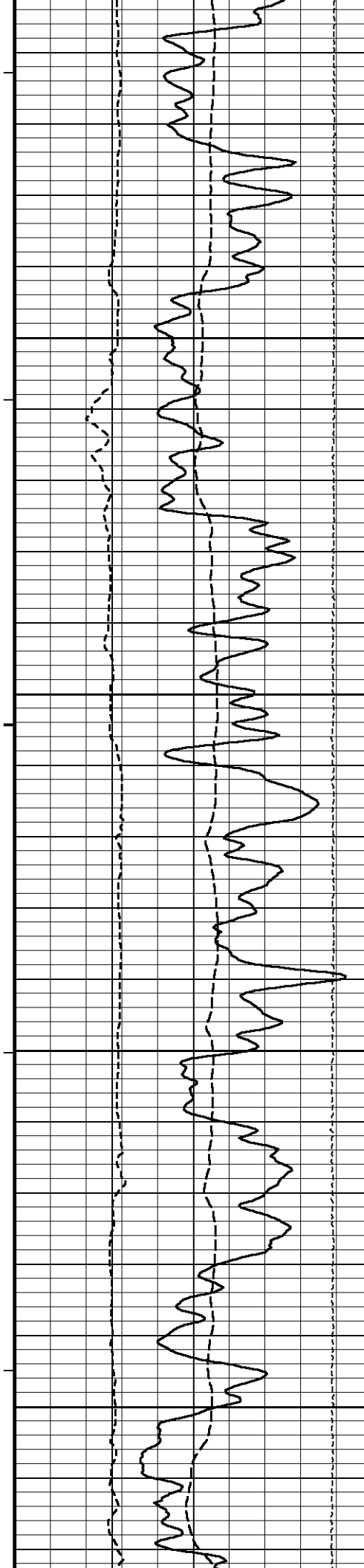
2950

122°

3000

123°

3050



124°

3100

124°

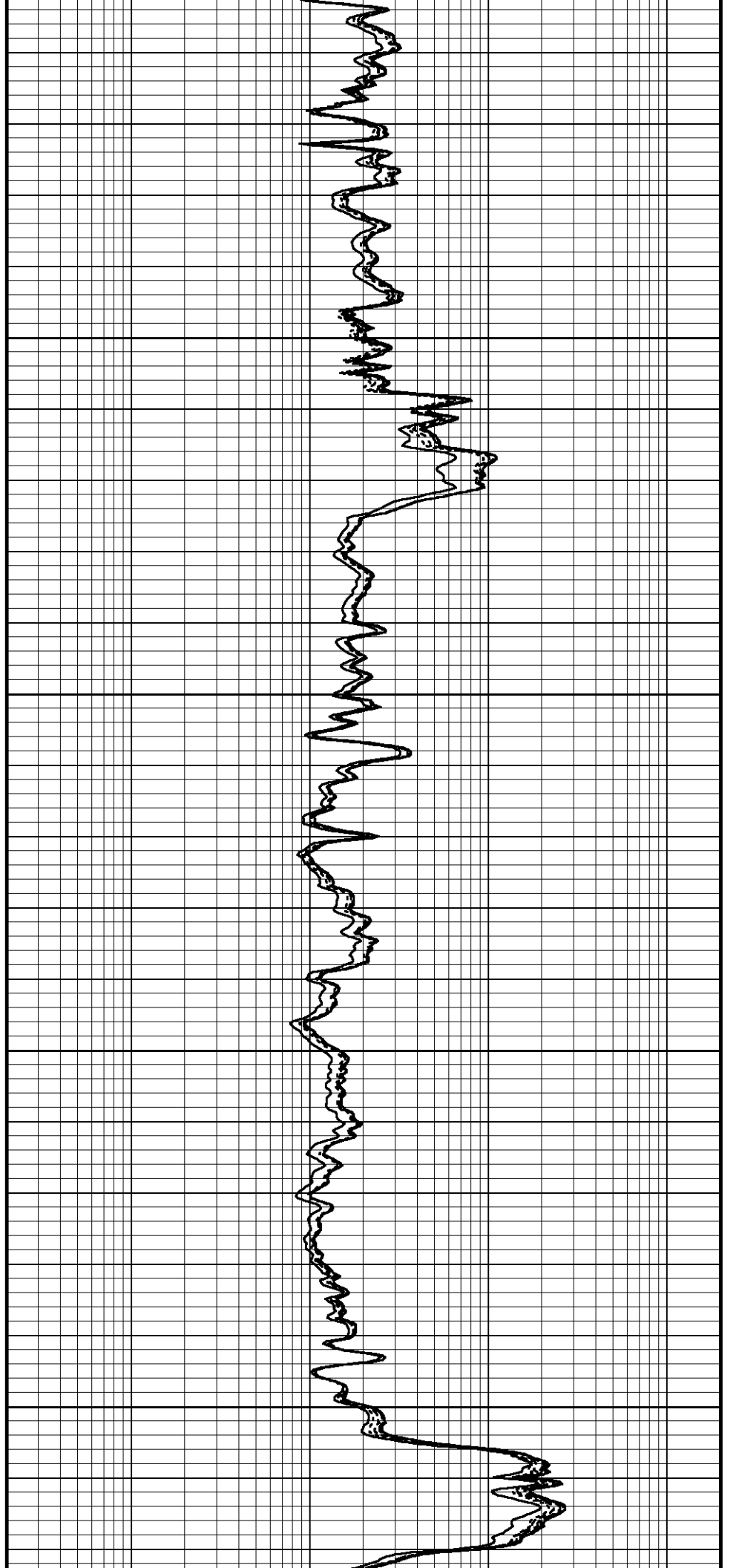
3150

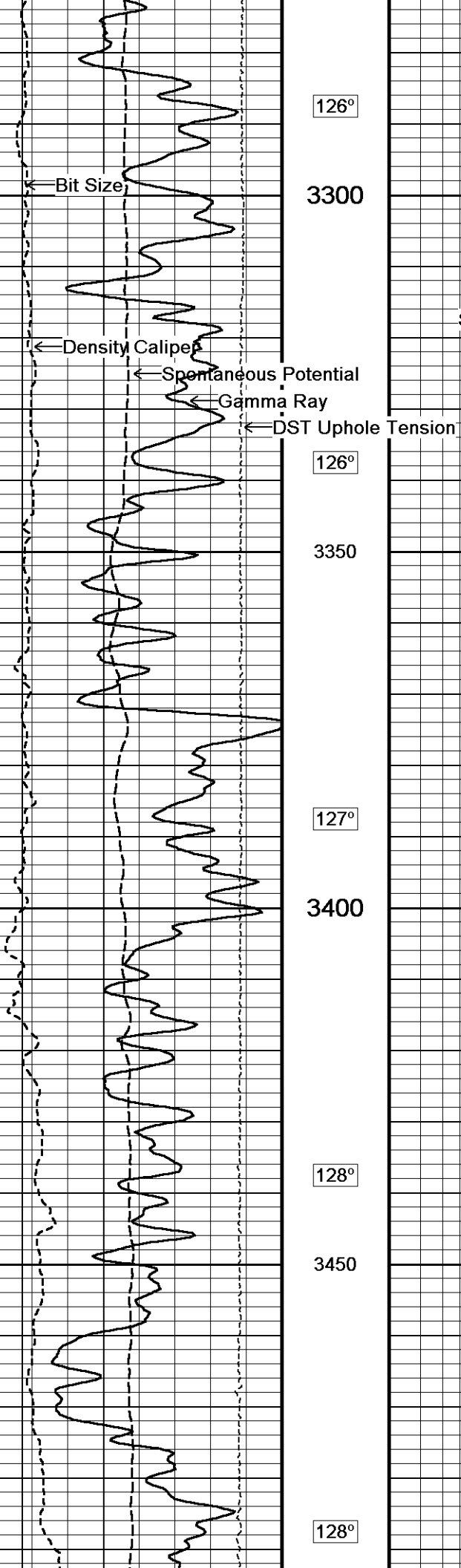
125°

3200

125°

3250





126°

3300

126°

3350

127°

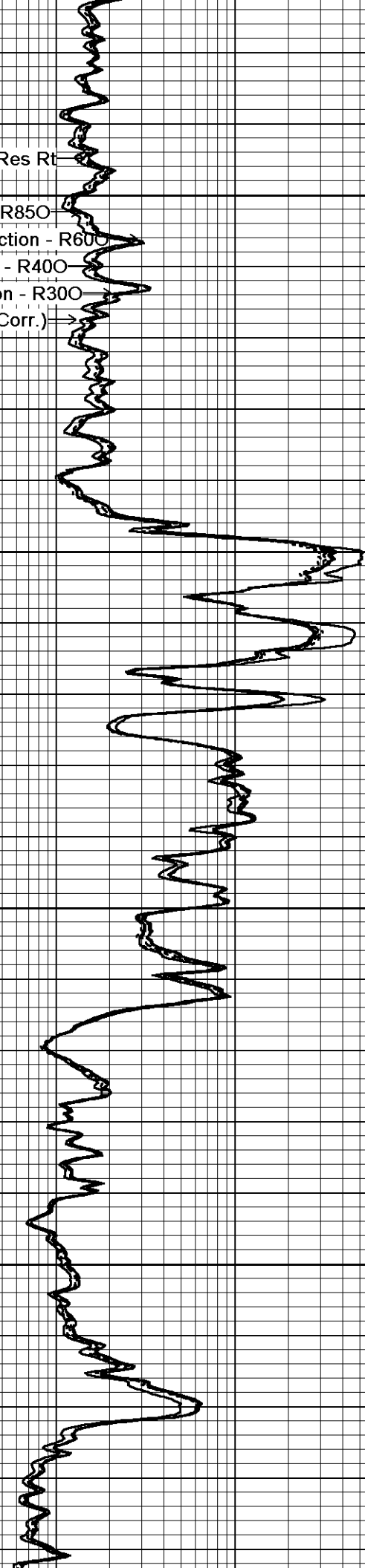
3400

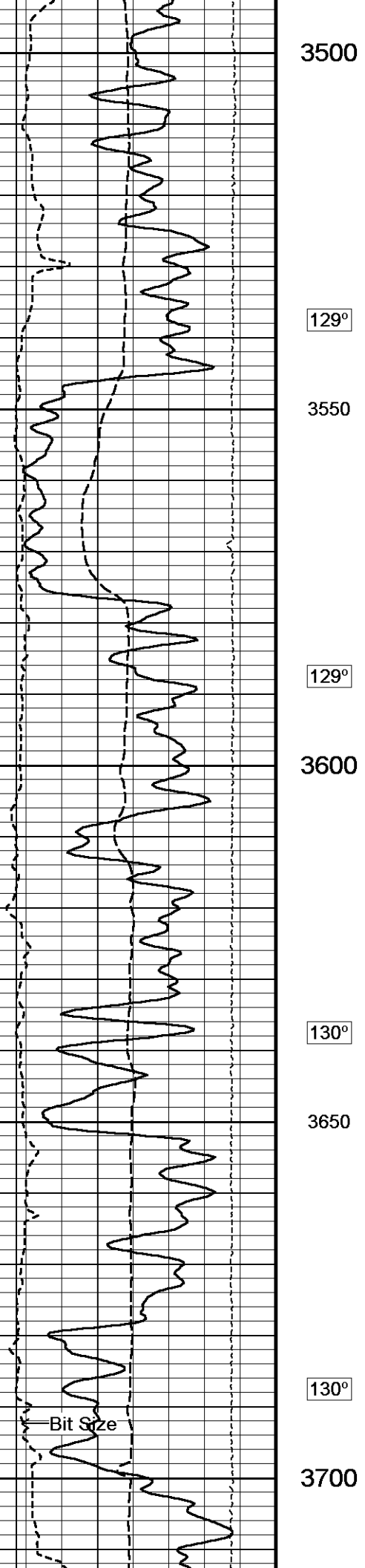
128°

3450

128°

Array Ind. One Res Rt
Array Induction - R850
Array Induction - R600
Array Induction - R400
Array Induction - R300
Shallow FE (Phase Corr.)





3500

129°

3550

129°

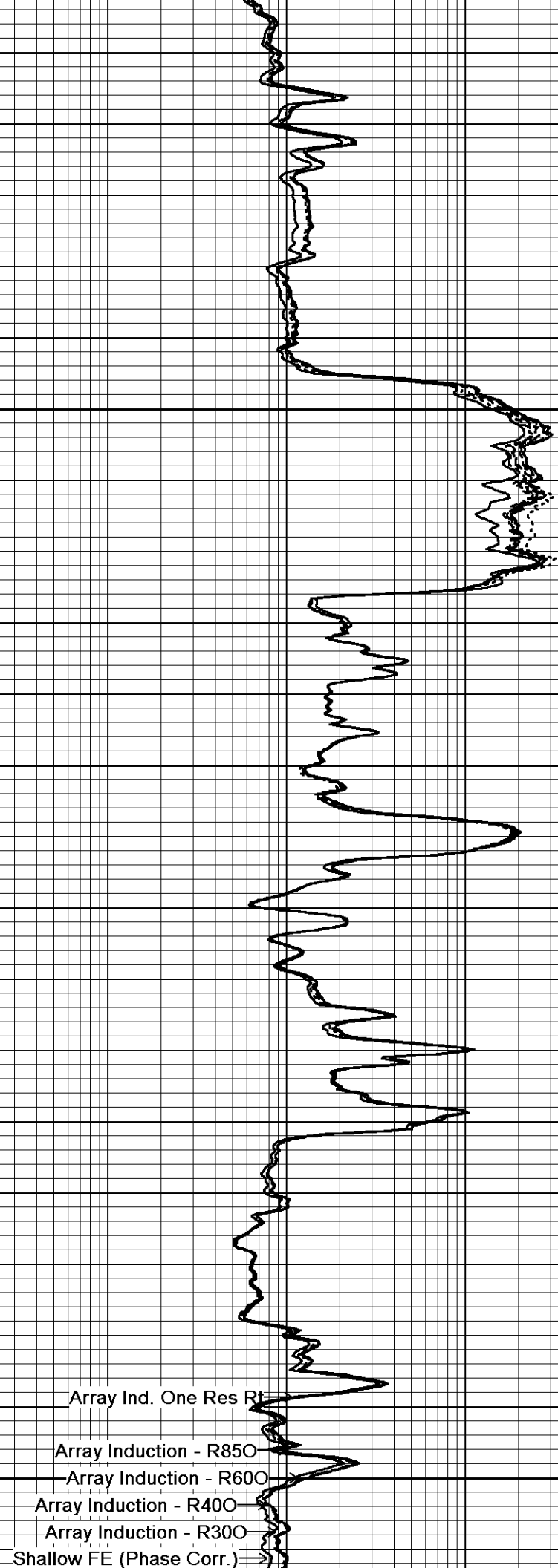
3600

130°

3650

130°

3700



Array Ind. One Res Rt

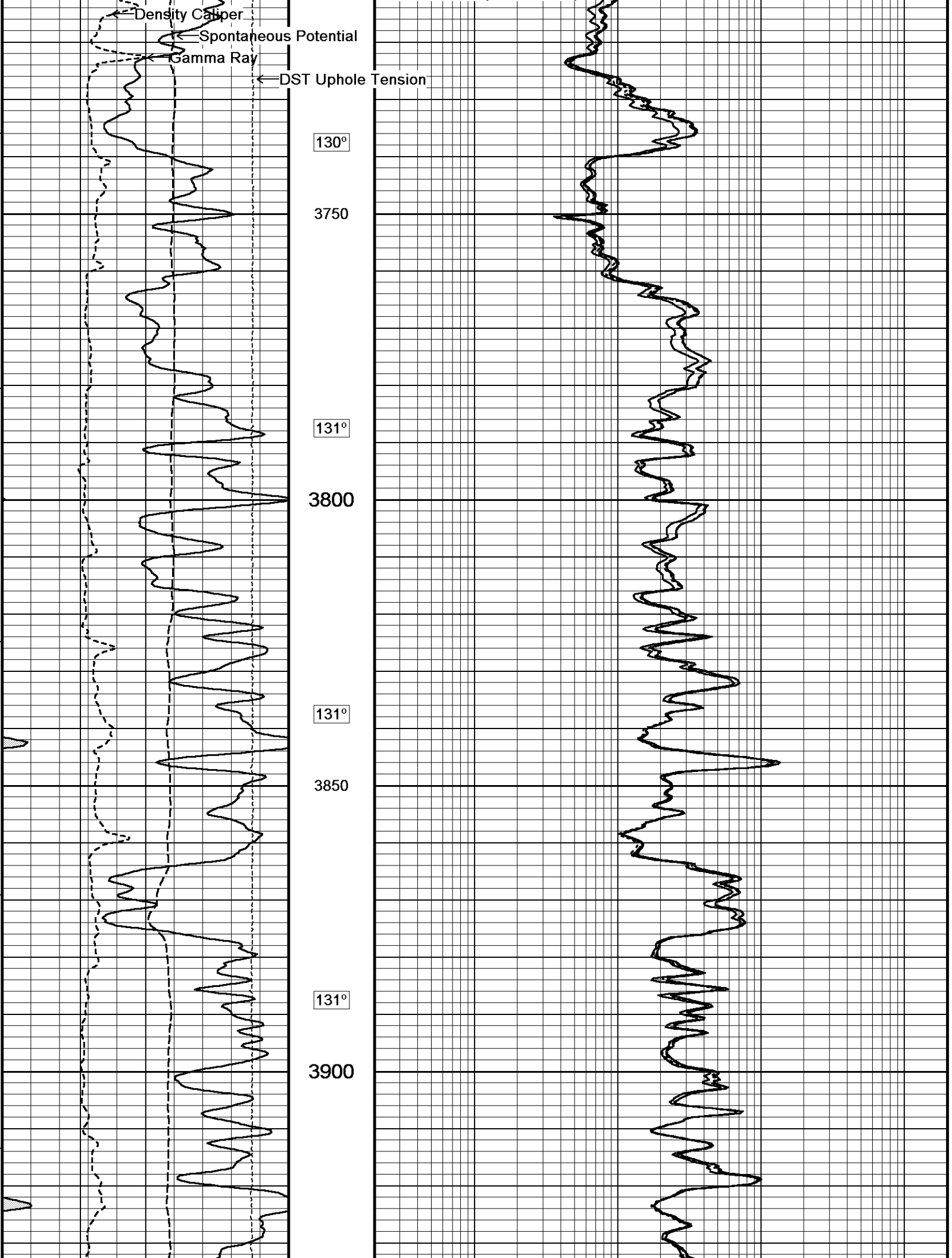
Array Induction - R850

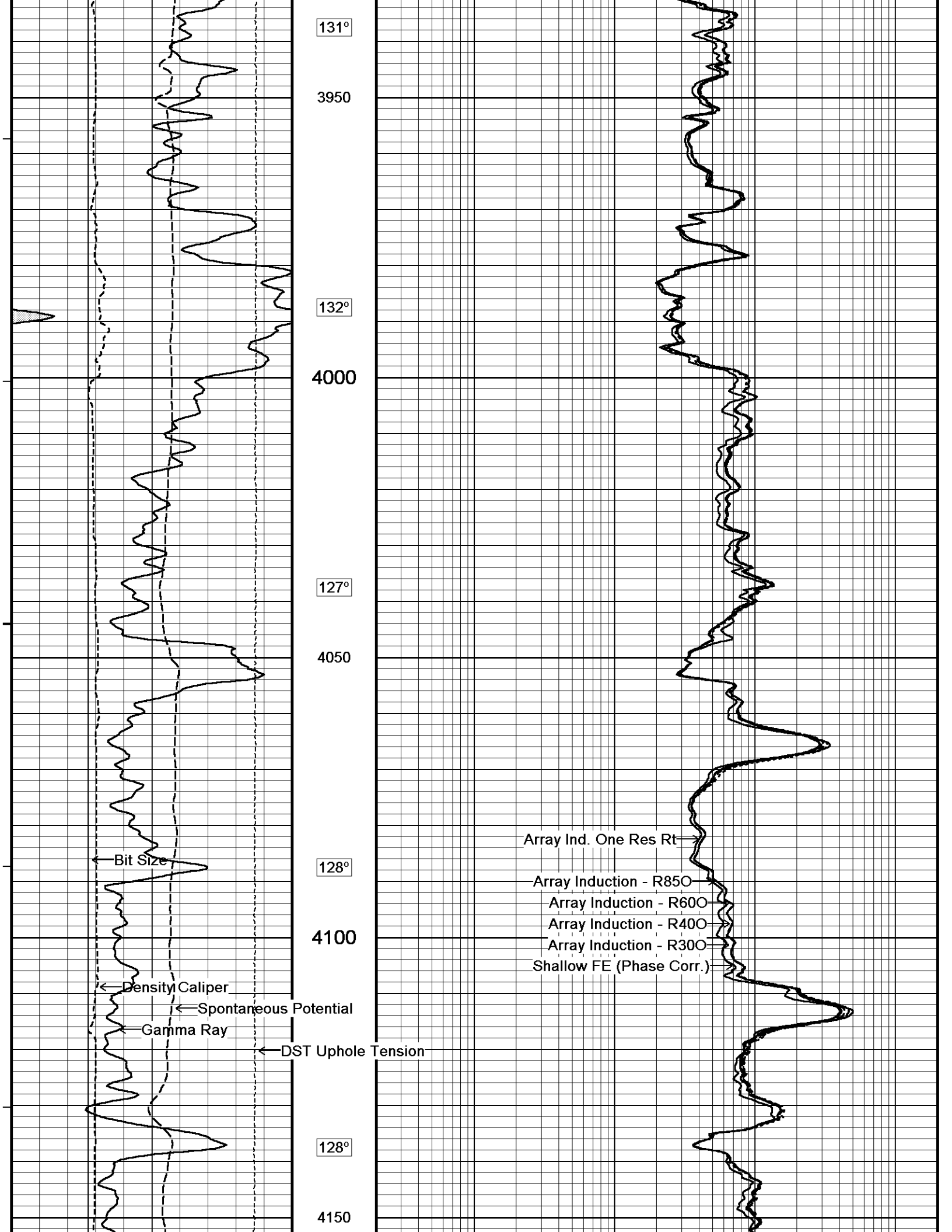
Array Induction - R600

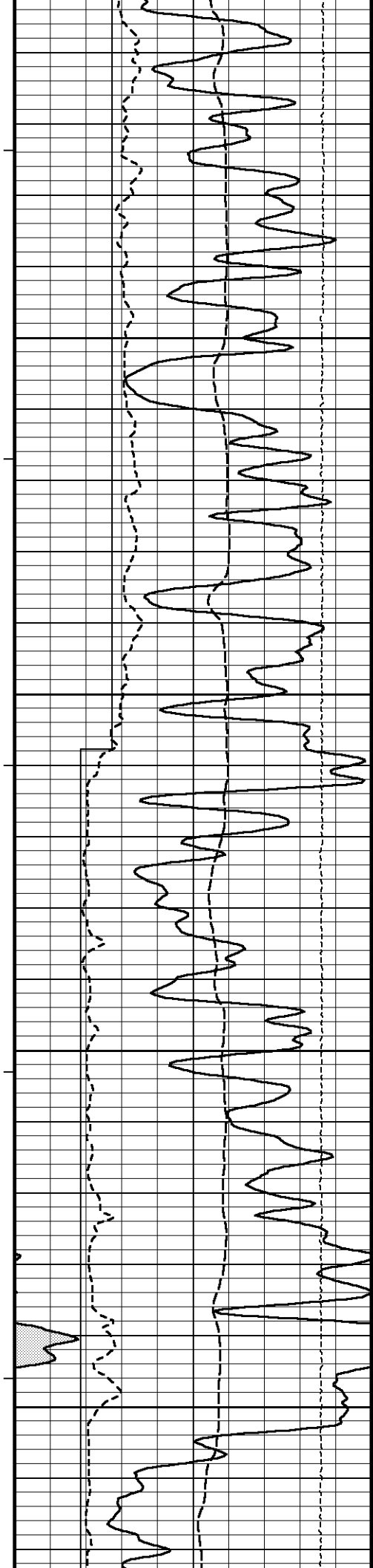
Array Induction - R400

Array Induction - R300

Shallow FE (Phase Corr.)







129°

4200

129°

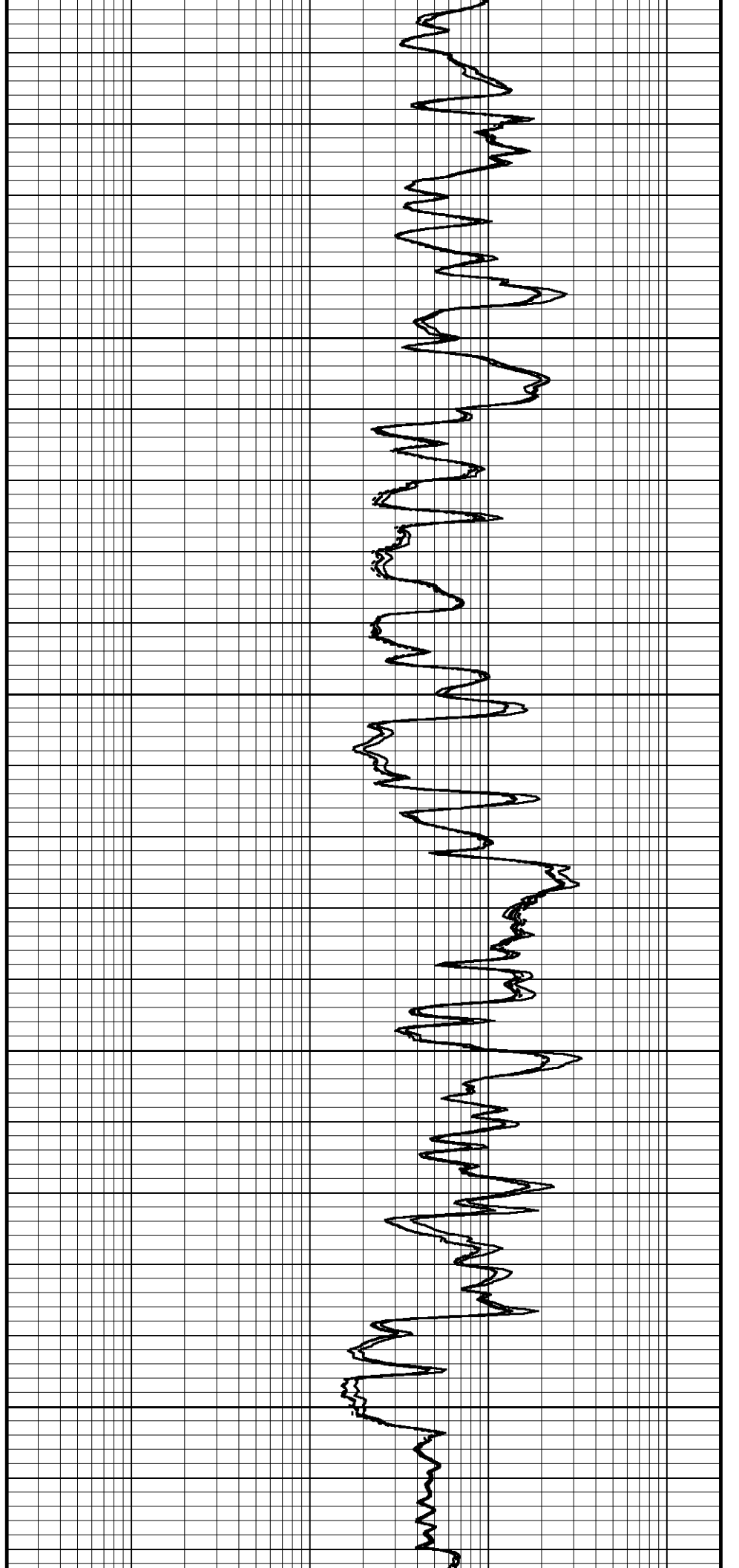
4250

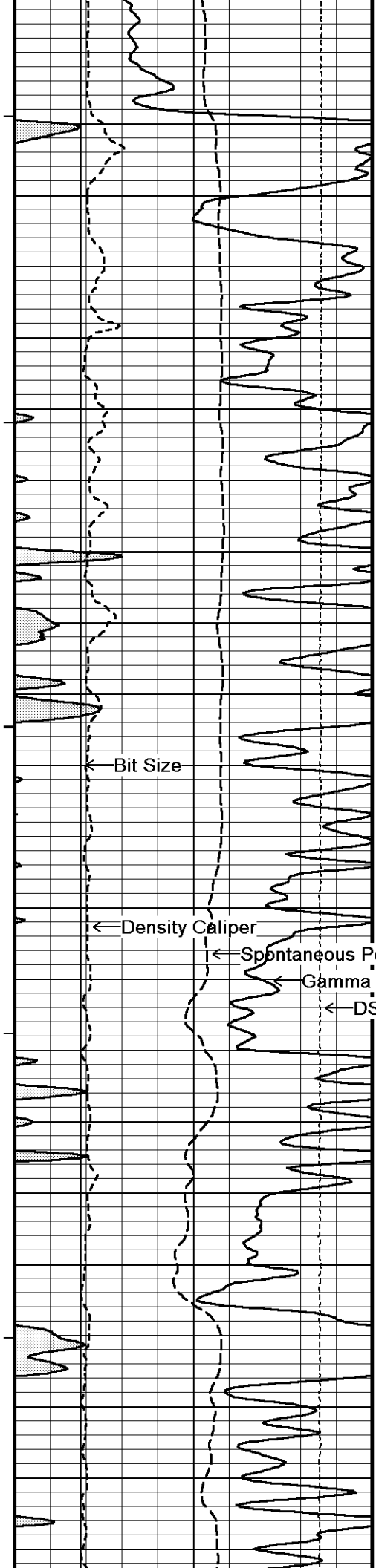
130°

4300

131°

4350





131°

4400

132°

4450

132°

4500

133°

4550

134°

← Bit Size

← Density Caliper

← Spontaneous Potential

← Gamma Ray

← DST Uphole Tension

Array Ind. One Res RI

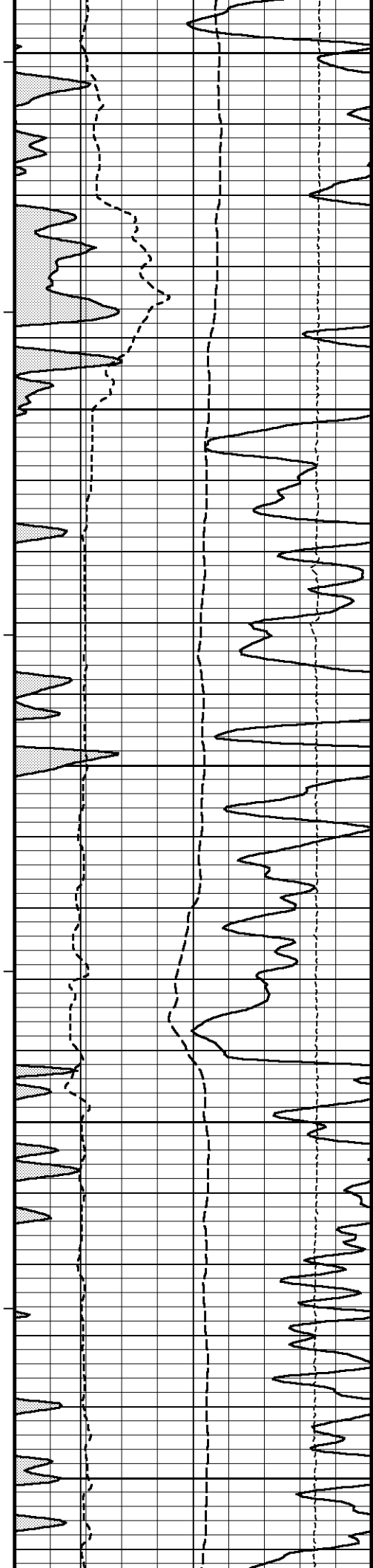
Array Induction - R850

Array Induction - R600 →

Array Induction - R400

Array Induction - R300

Shallow FE (Phase Corr.)



4600

135°

4650

135°

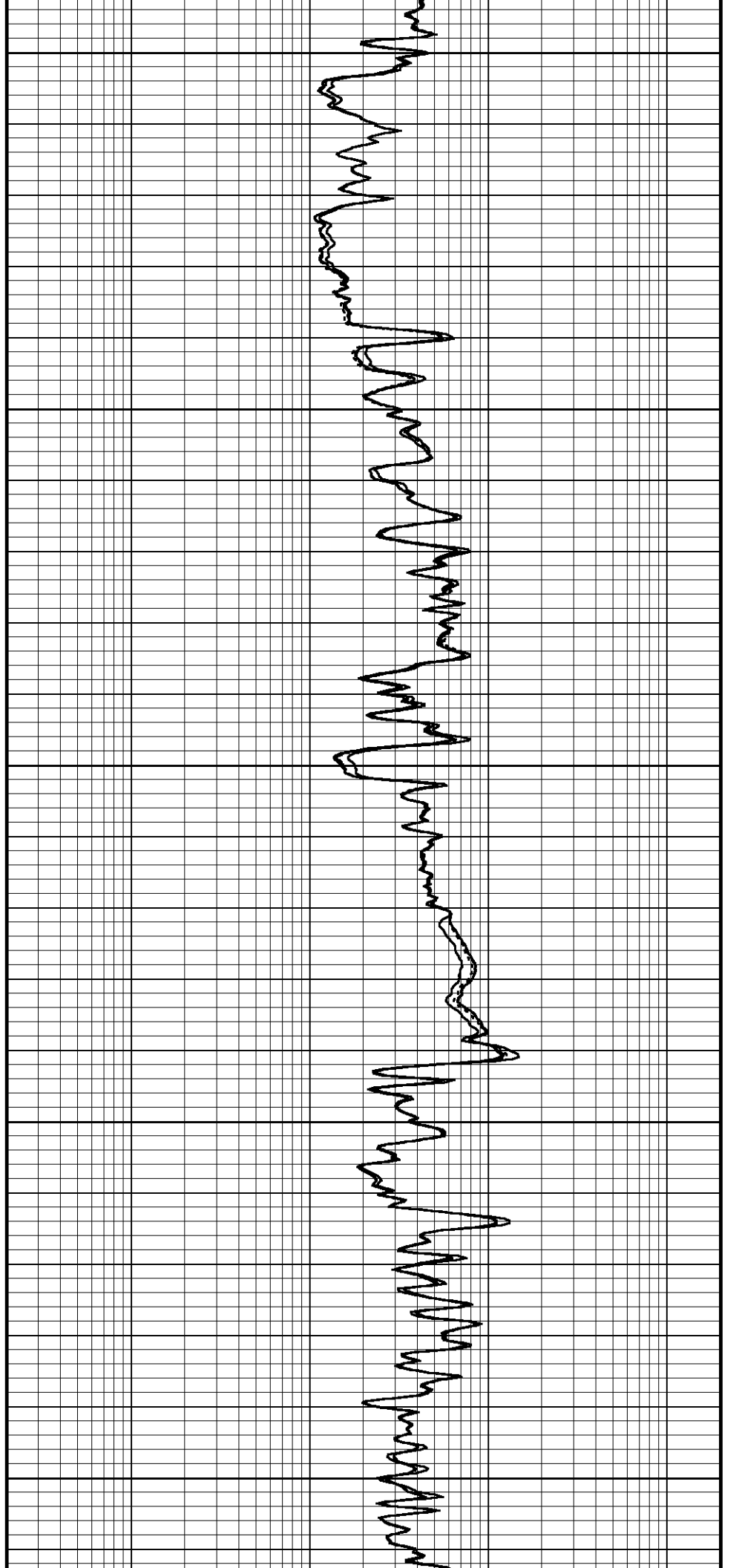
4700

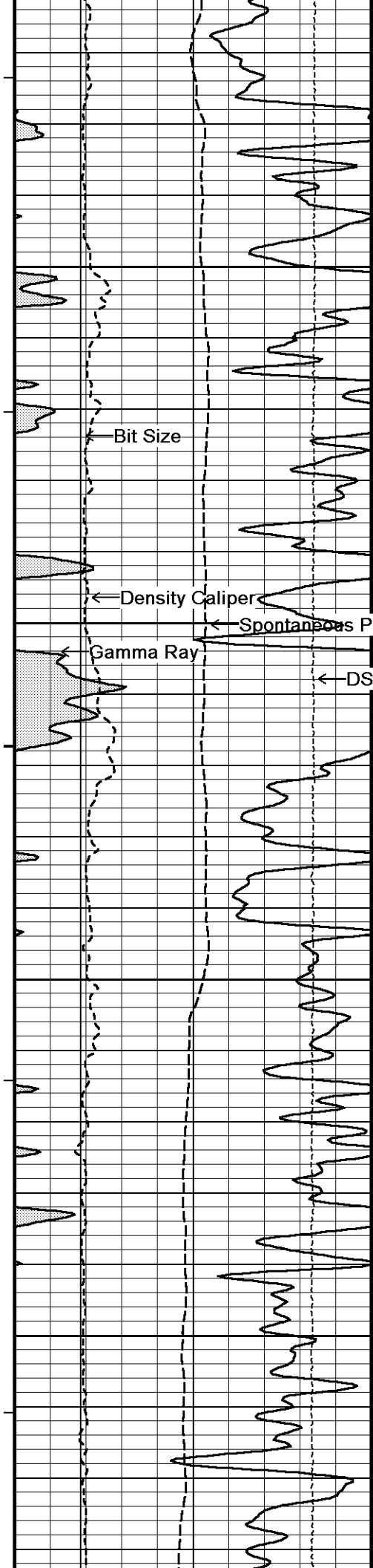
136°

4750

137°

4800





138°

4850

138°

4900

138°

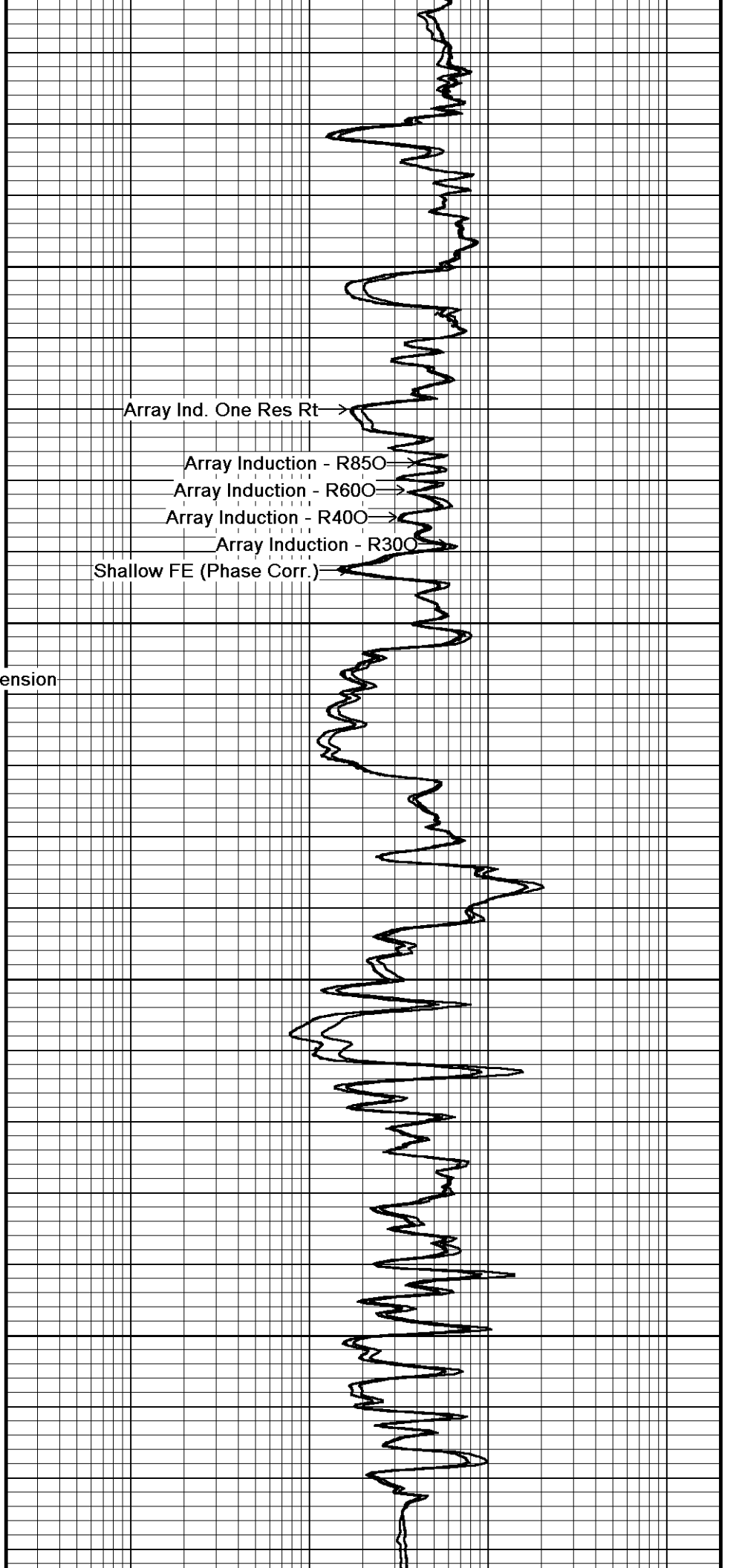
4950

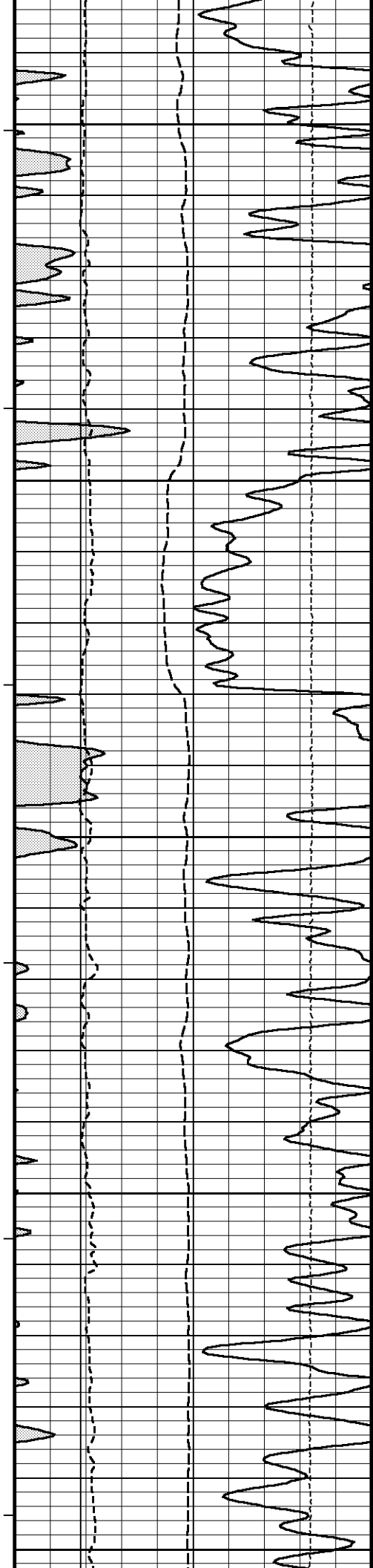
139°

5000

Array Ind. One Res Rt →
Array Induction - R850 →
Array Induction - R600 →
Array Induction - R400 →
Array Induction - R300 →
Shallow FE (Phase Corr.) →

← DST Uphole Tension





140°

5050

141°

5100

141°

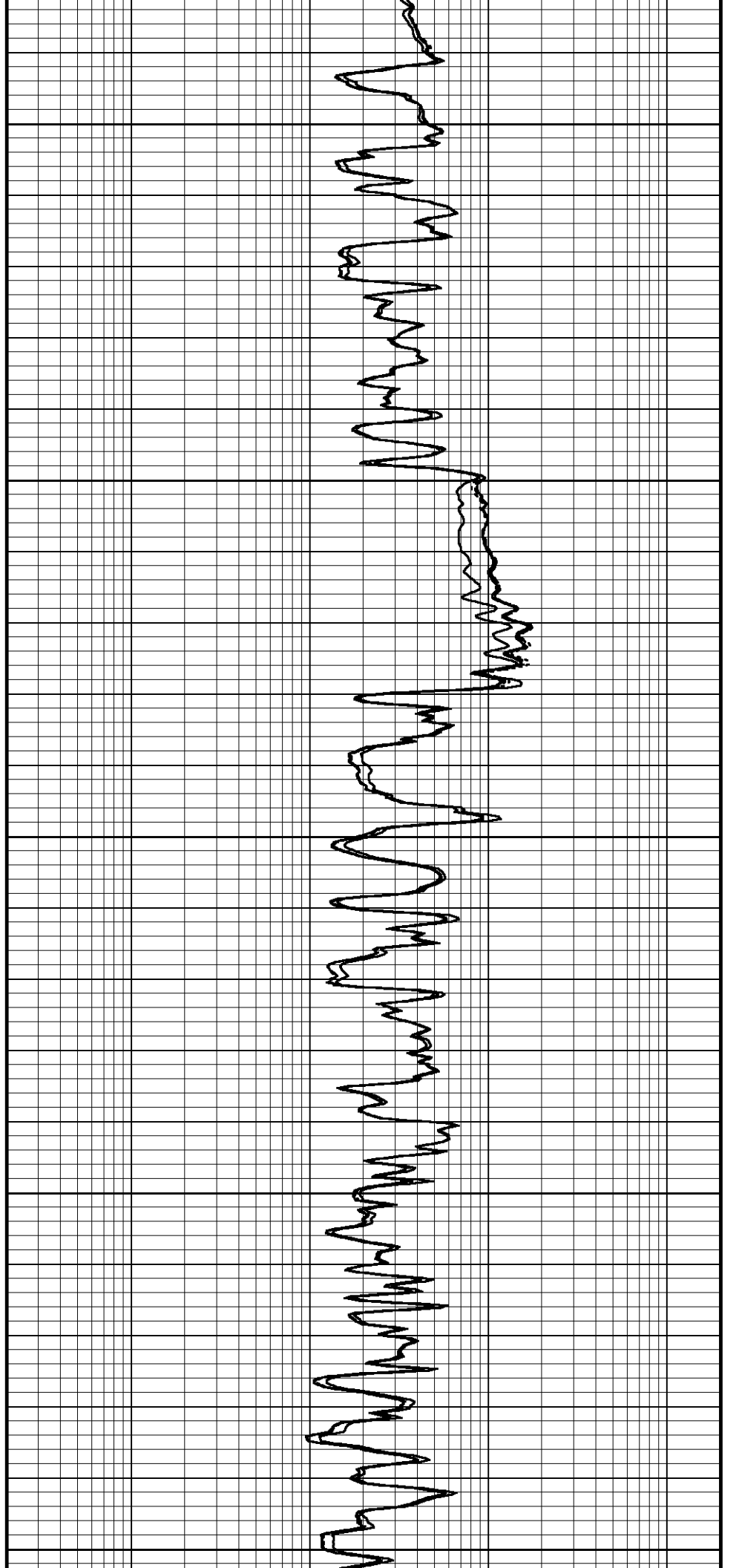
5150

141°

5200

142°

5250





143°

5300
Uprate Tension

143°

5350

144°

5400

145°

5450

Array Ind. One Res Rt →

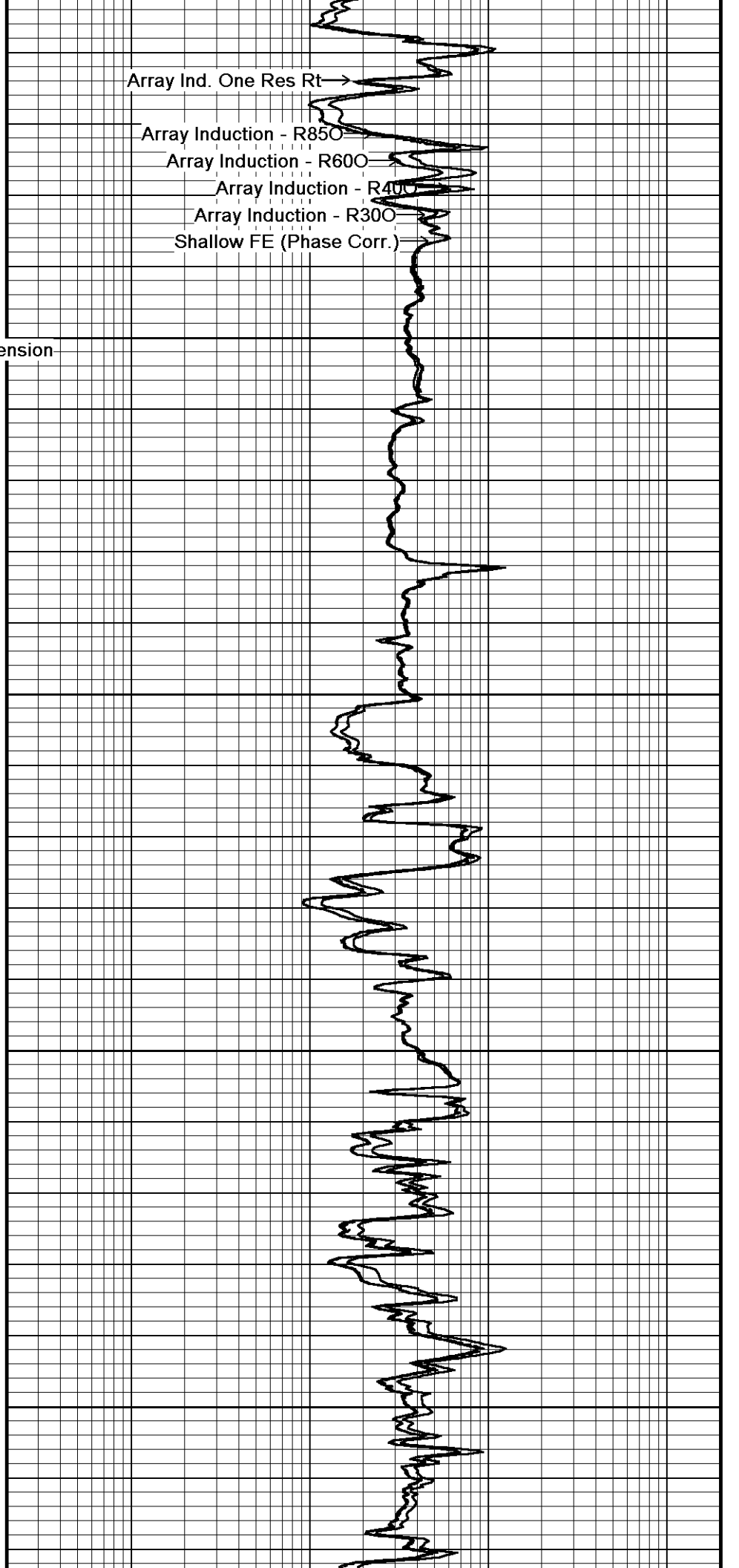
Array Induction - R850

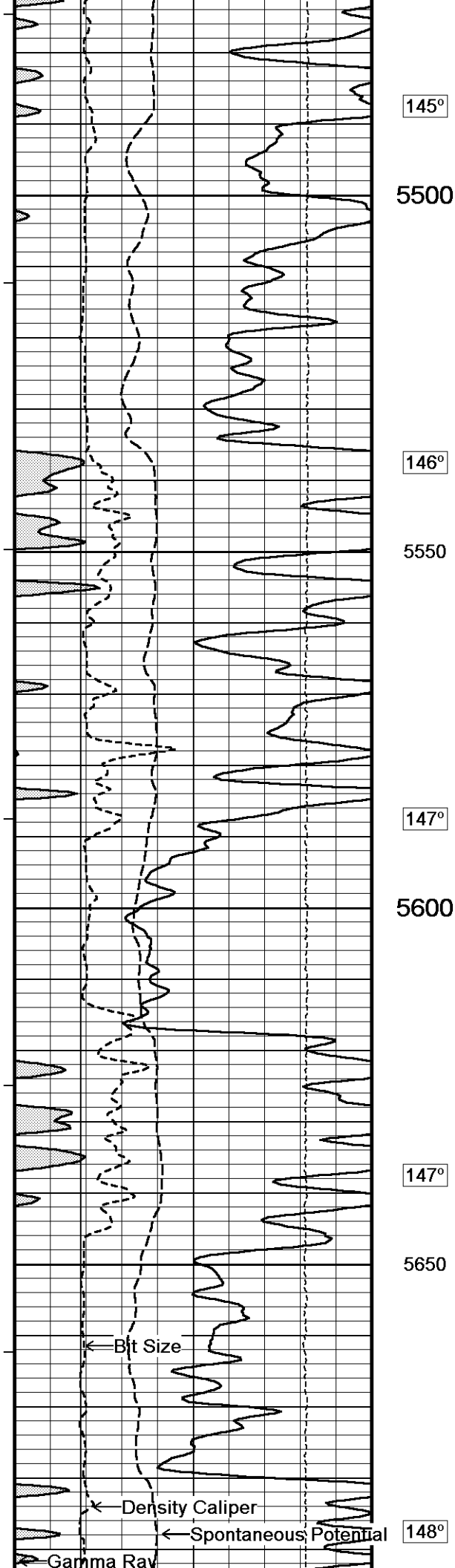
Array Induction - R600

Array Induction - R400

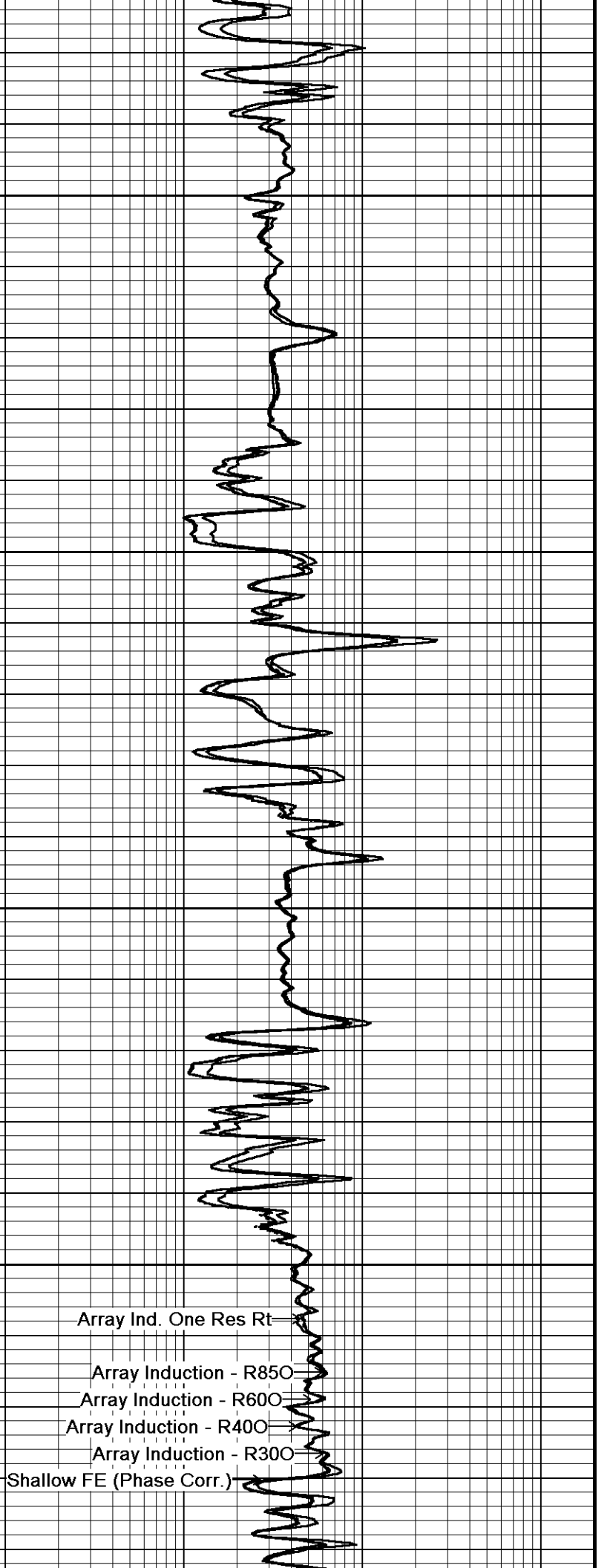
Array Induction - R300

Shallow FE (Phase Corr.)





145°
5500
146°
5550
147°
5600
147°
5650
148°



Array Ind. One Res Rt
Array Induction - R850
Array Induction - R600
Array Induction - R400
Array Induction - R300
Shallow FE (Phase Corr.)

← DST Uphole Tension

5700

148°

5750

149°

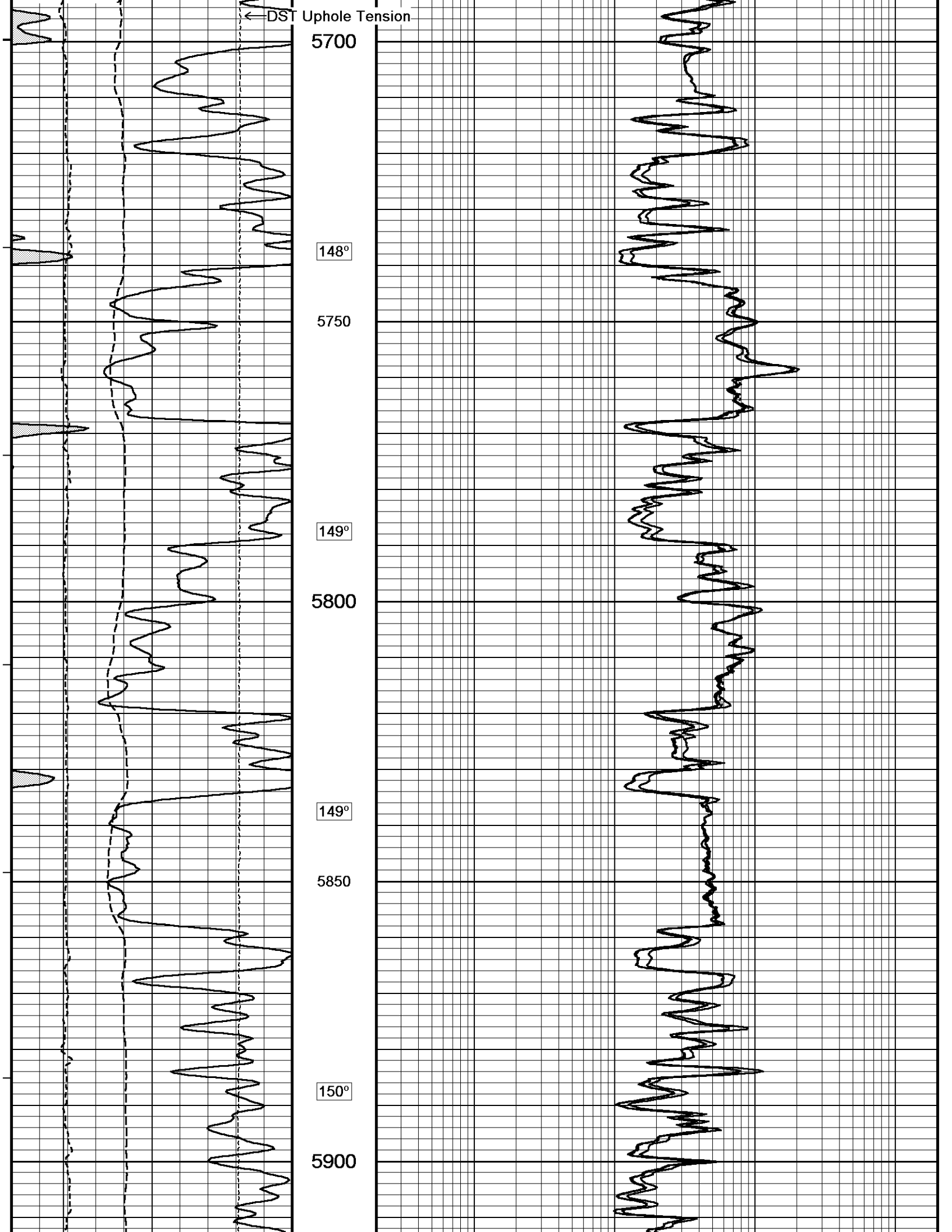
5800

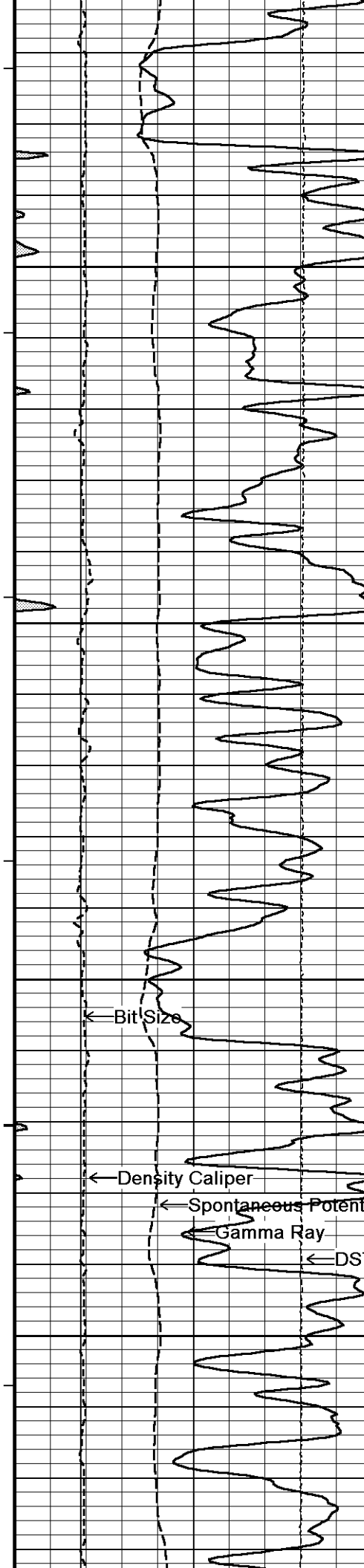
149°

5850

150°

5900





150°

5950

151°

6000

151°

6050

151°

6100

← Bit Size

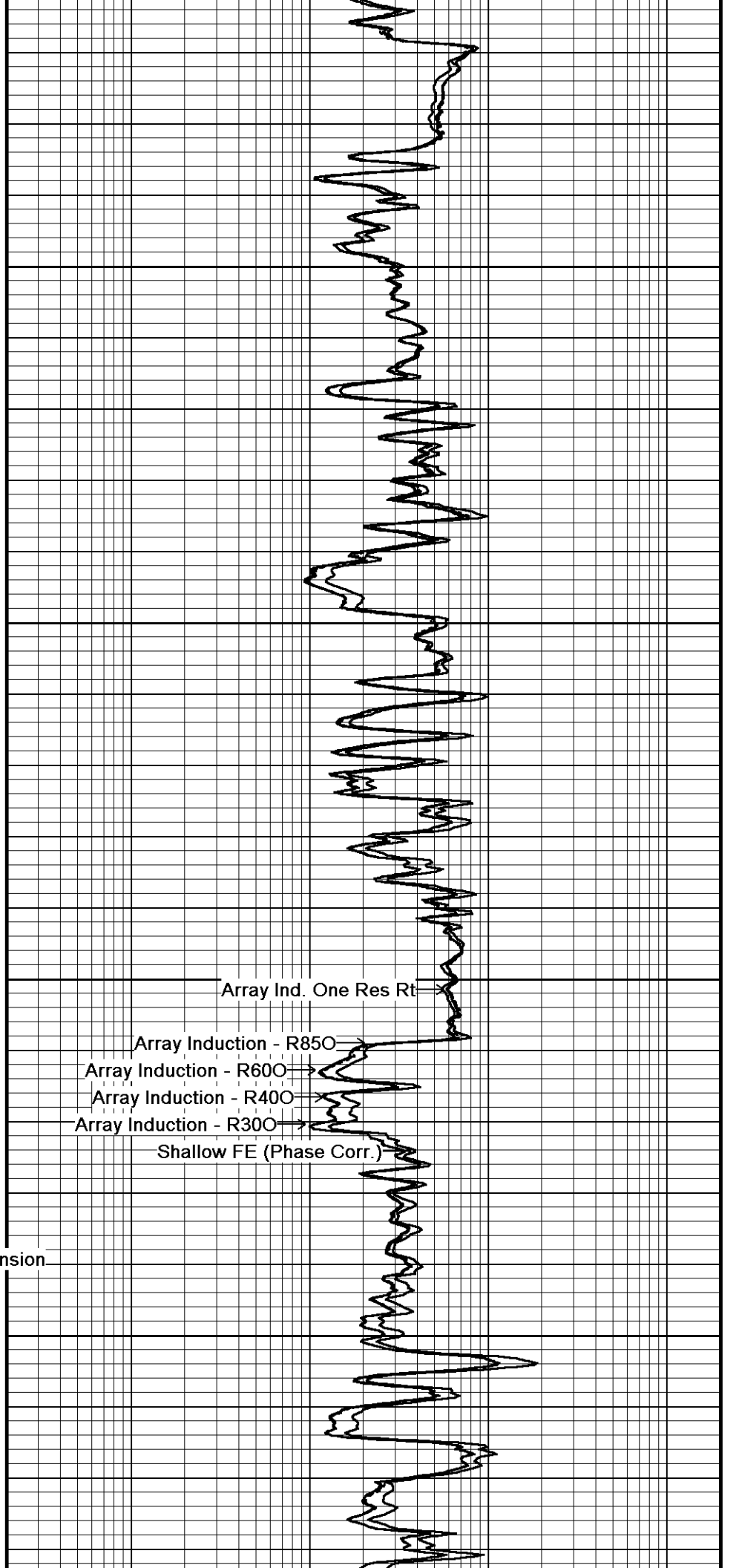
← Density Caliper

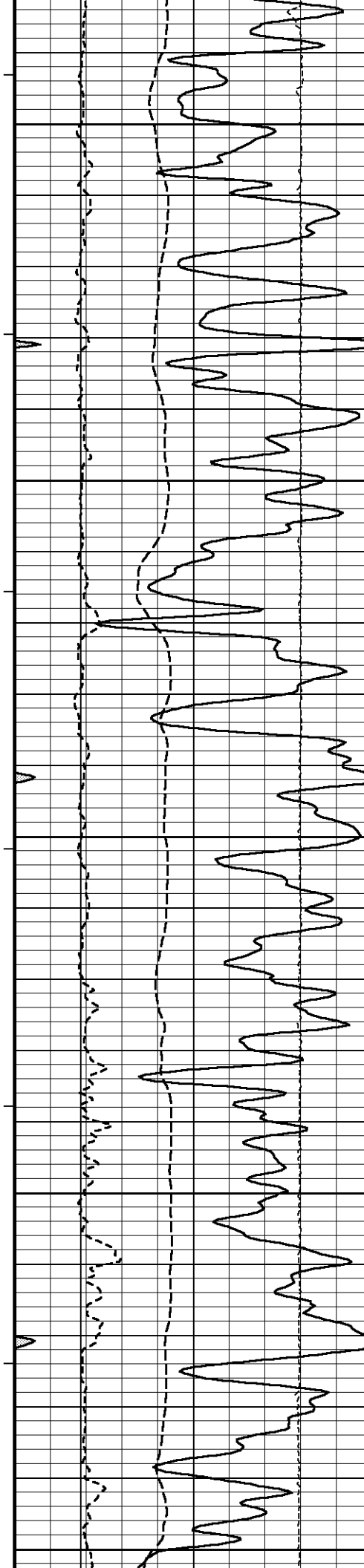
← Spontaneous Potential

← Gamma Ray

← DST Uphole Tension

Array Ind. One Res Rt
Array Induction - R850
Array Induction - R600
Array Induction - R400
Array Induction - R300
Shallow FE (Phase Corr.)





152°

6150

152°

6200

152°

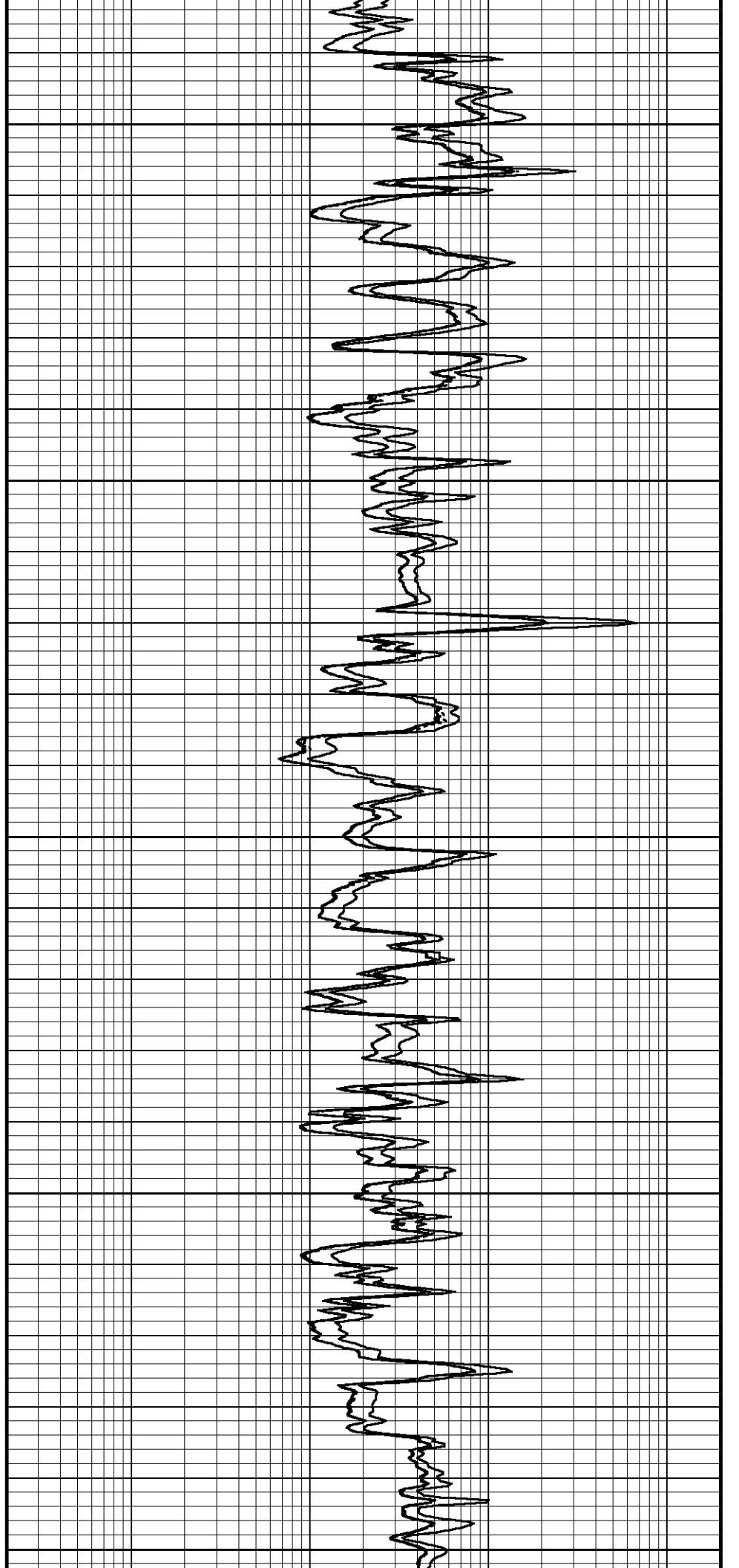
6250

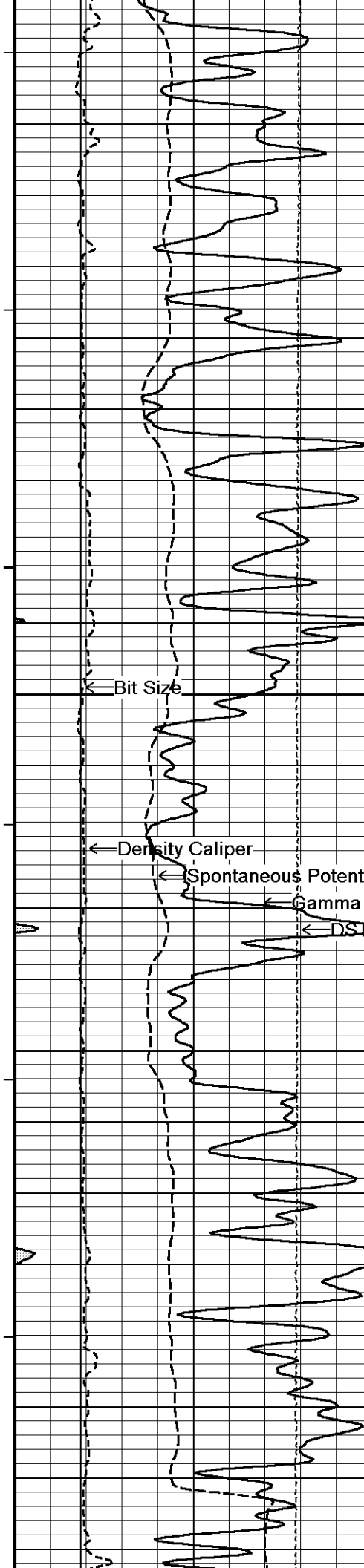
153°

6300

154°

6350





155°

6400

157°

6450

158°

6500

158°

6550

← Bit Size

← Density Caliper

← Spontaneous Potential

← Gamma Ray

← DST Uphole Tension

Array Ind. One Res Rt →

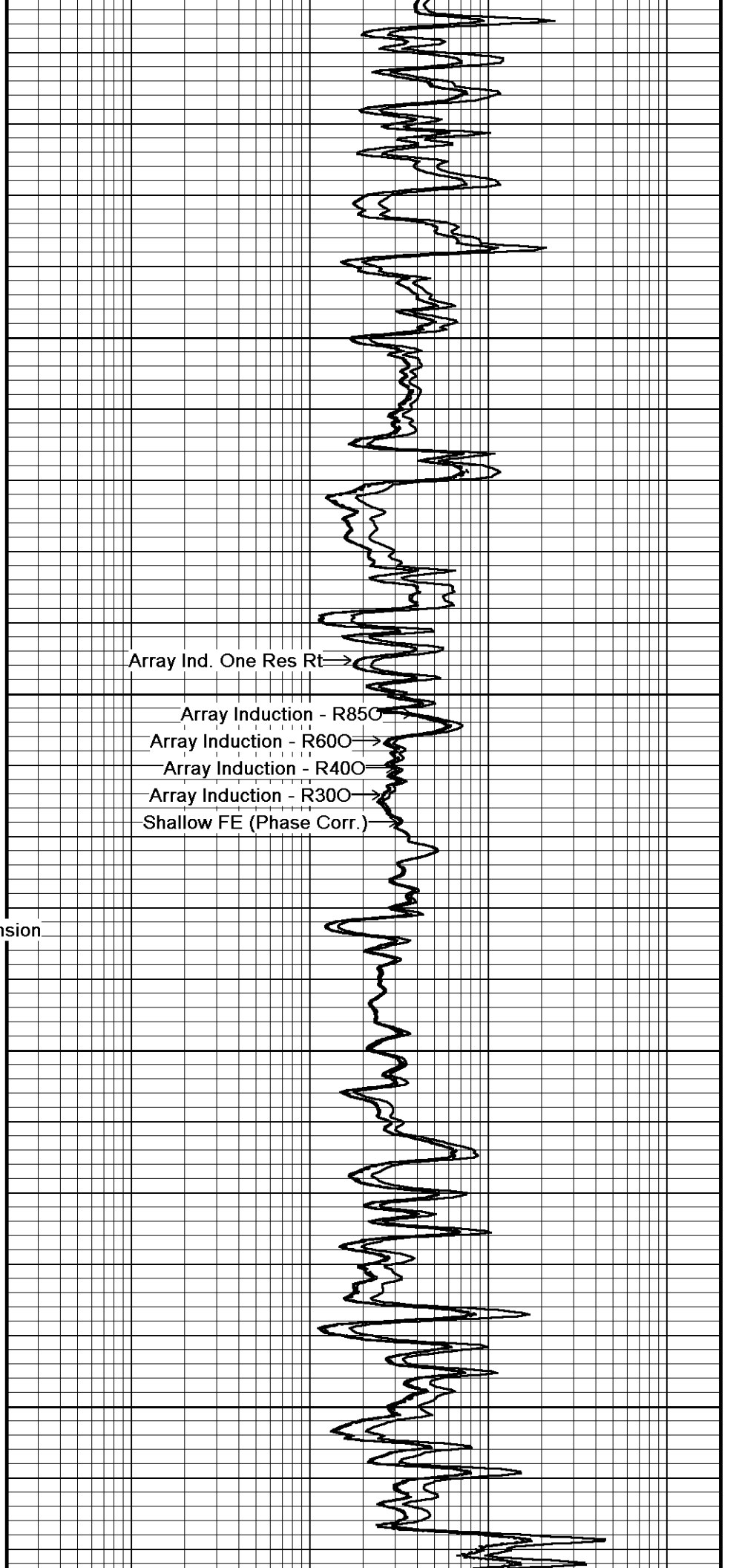
Array Induction - R850 →

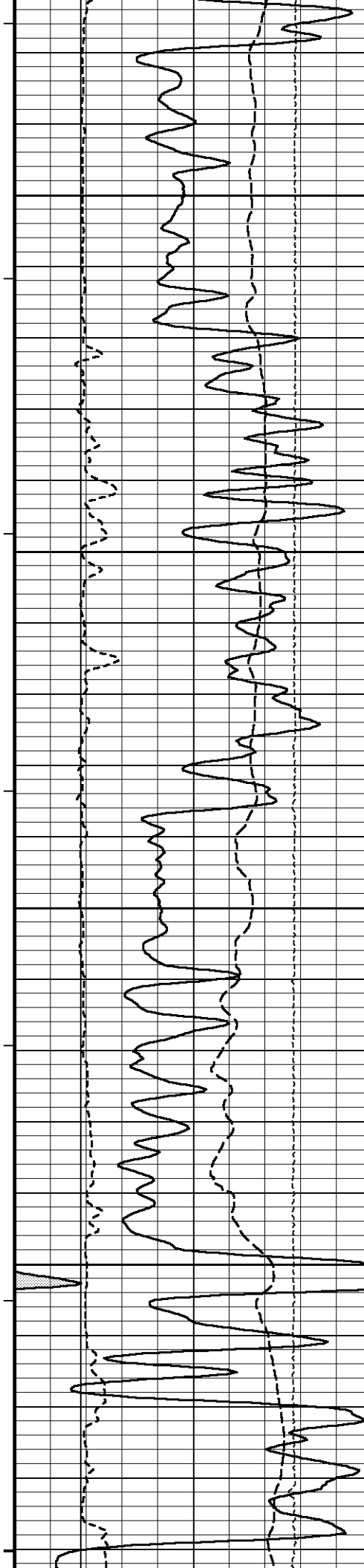
Array Induction - R600 →

Array Induction - R400 →

Array Induction - R300 →

Shallow FE (Phase Corr.) →





161°

6600

161°

6650

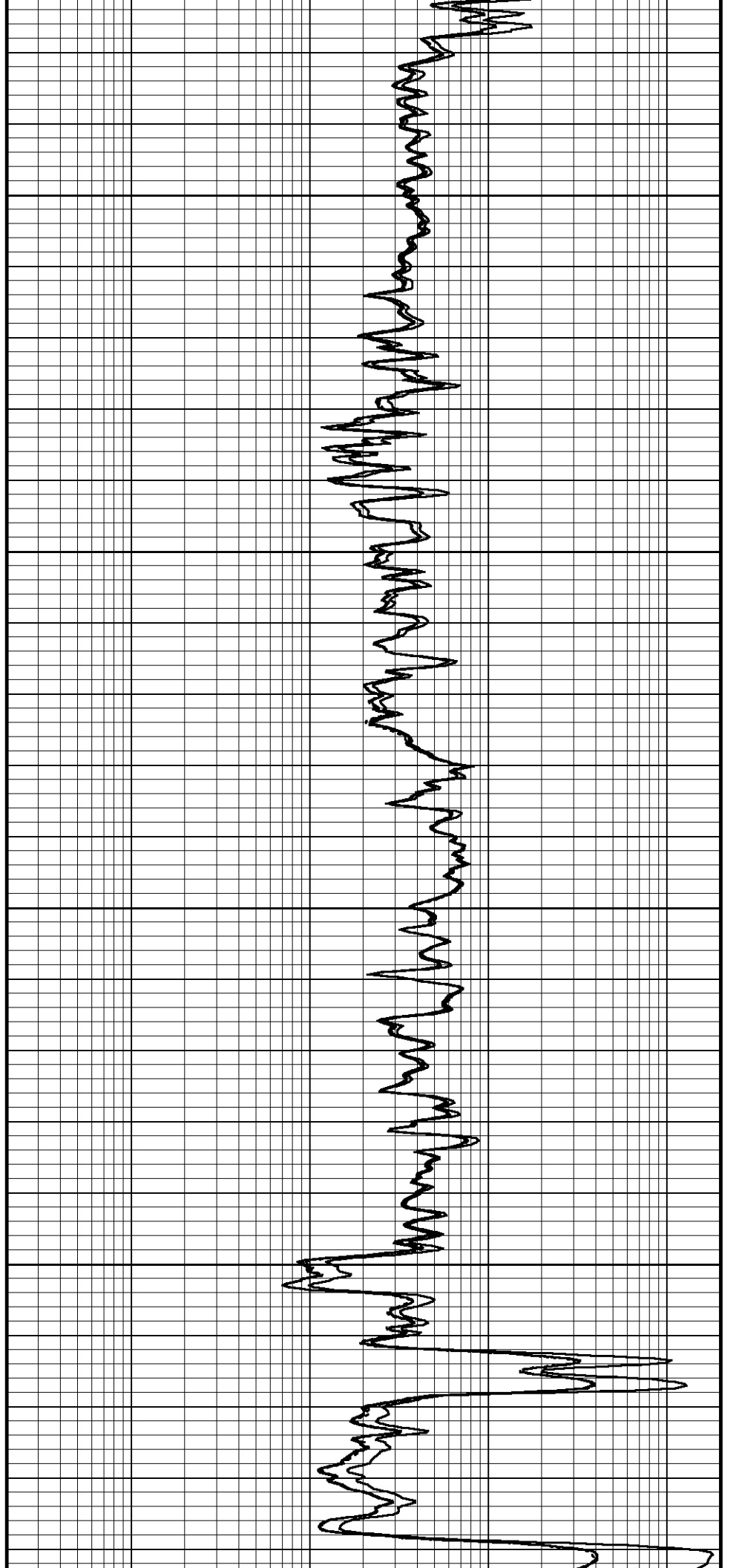
161°

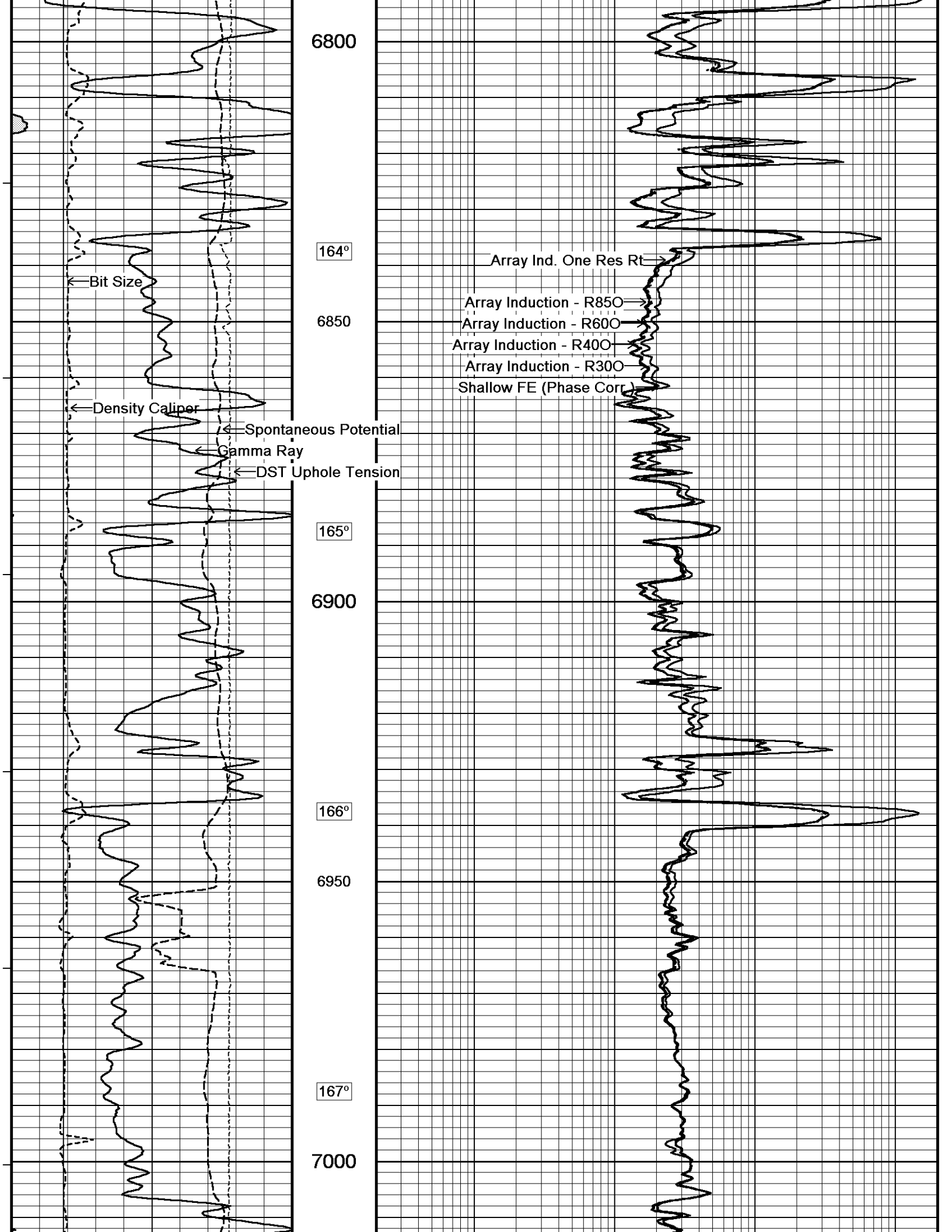
6700

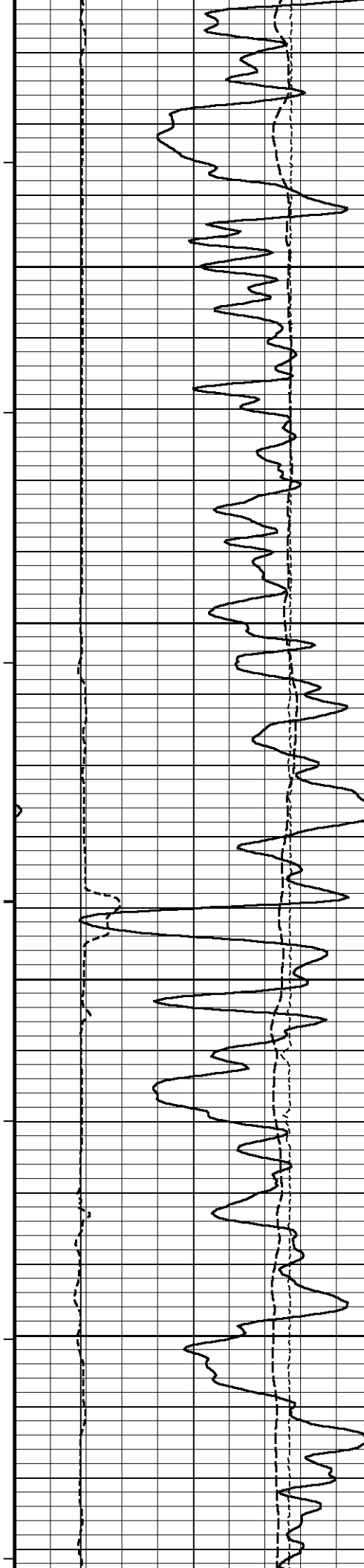
161°

6750

162°







166°

7050

165°

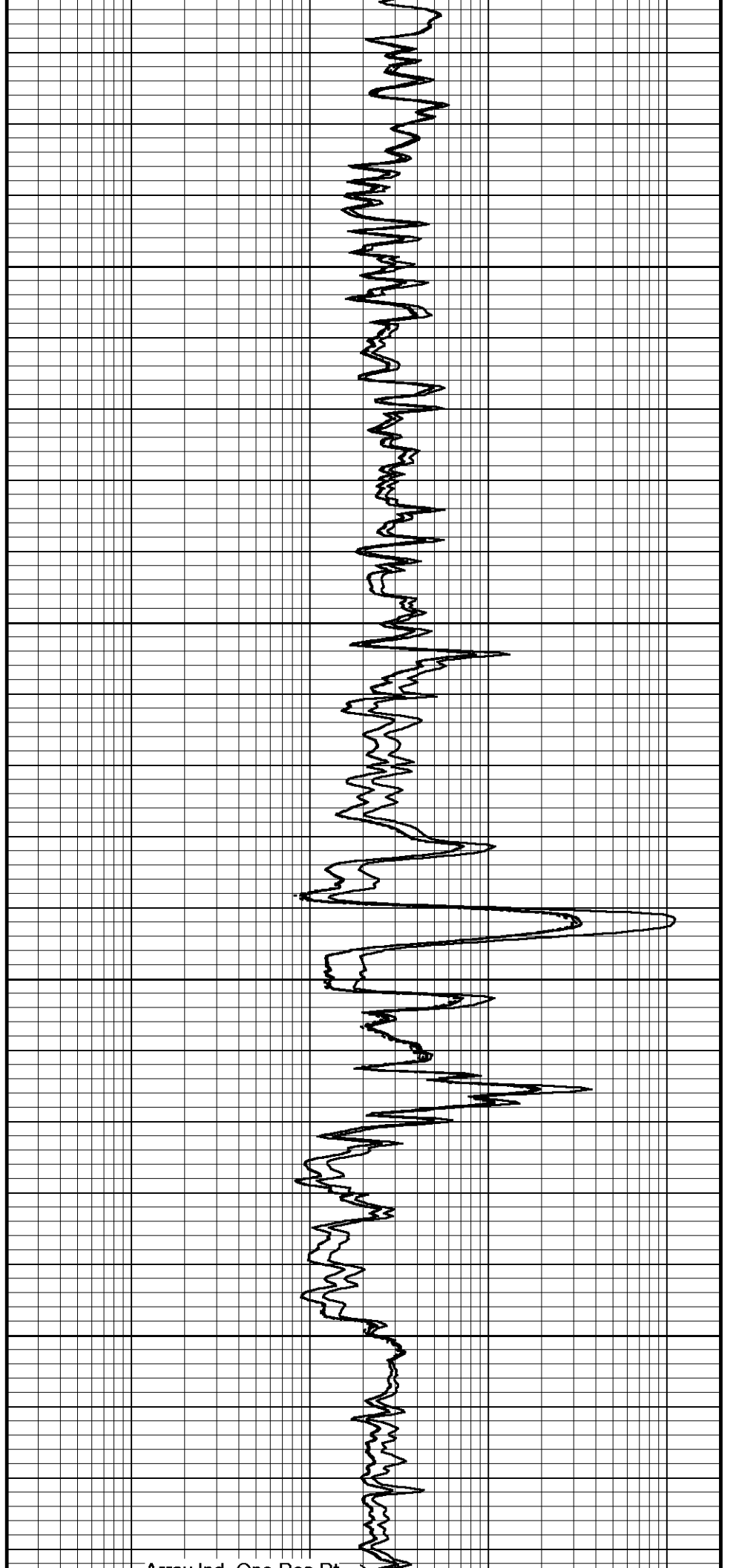
7100

165°

7150

166°

7200



← Bit Size

← Density Caliper

← Spontaneous Potential

← Gamma Ray

← DST Uphole Tension

164°

7250

163°

7300

167°

7350

173°

7400

173°

7450

Array Ind. One Res Rt

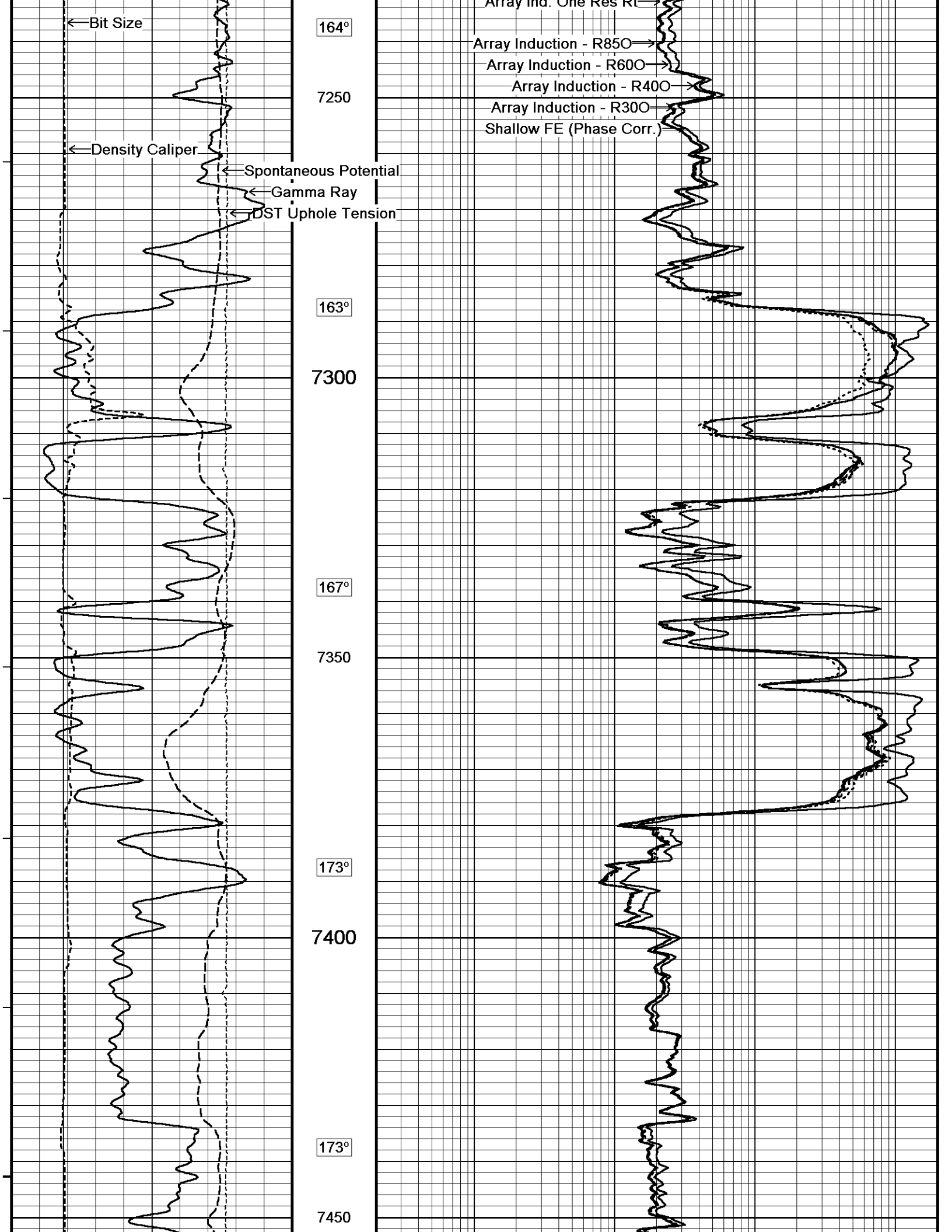
Array Induction - R850

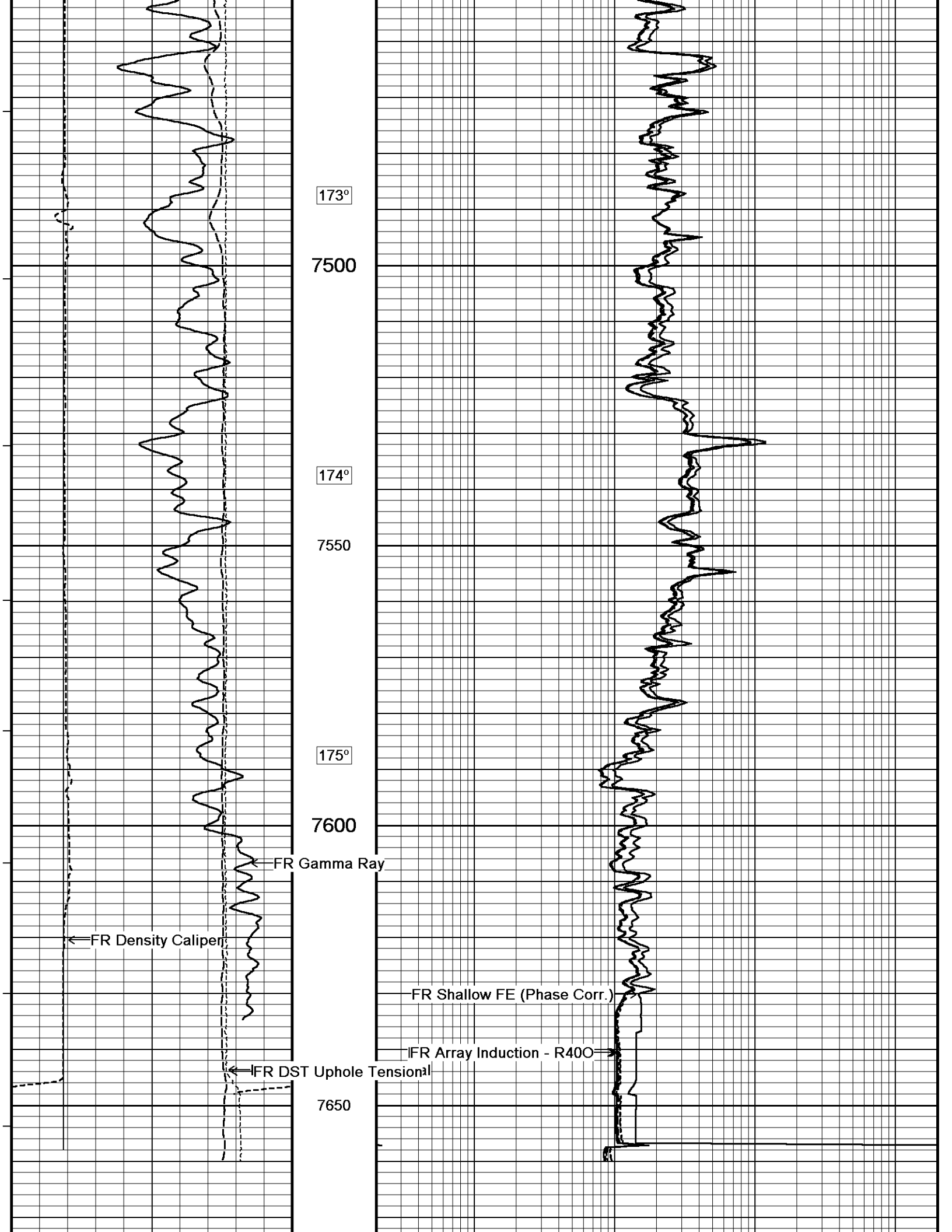
Array Induction - R600

Array Induction - R400

Array Induction - R300

Shallow FE (Phase Corr.)





173°

7500

174°

7550

175°

7600

FR Gamma Ray

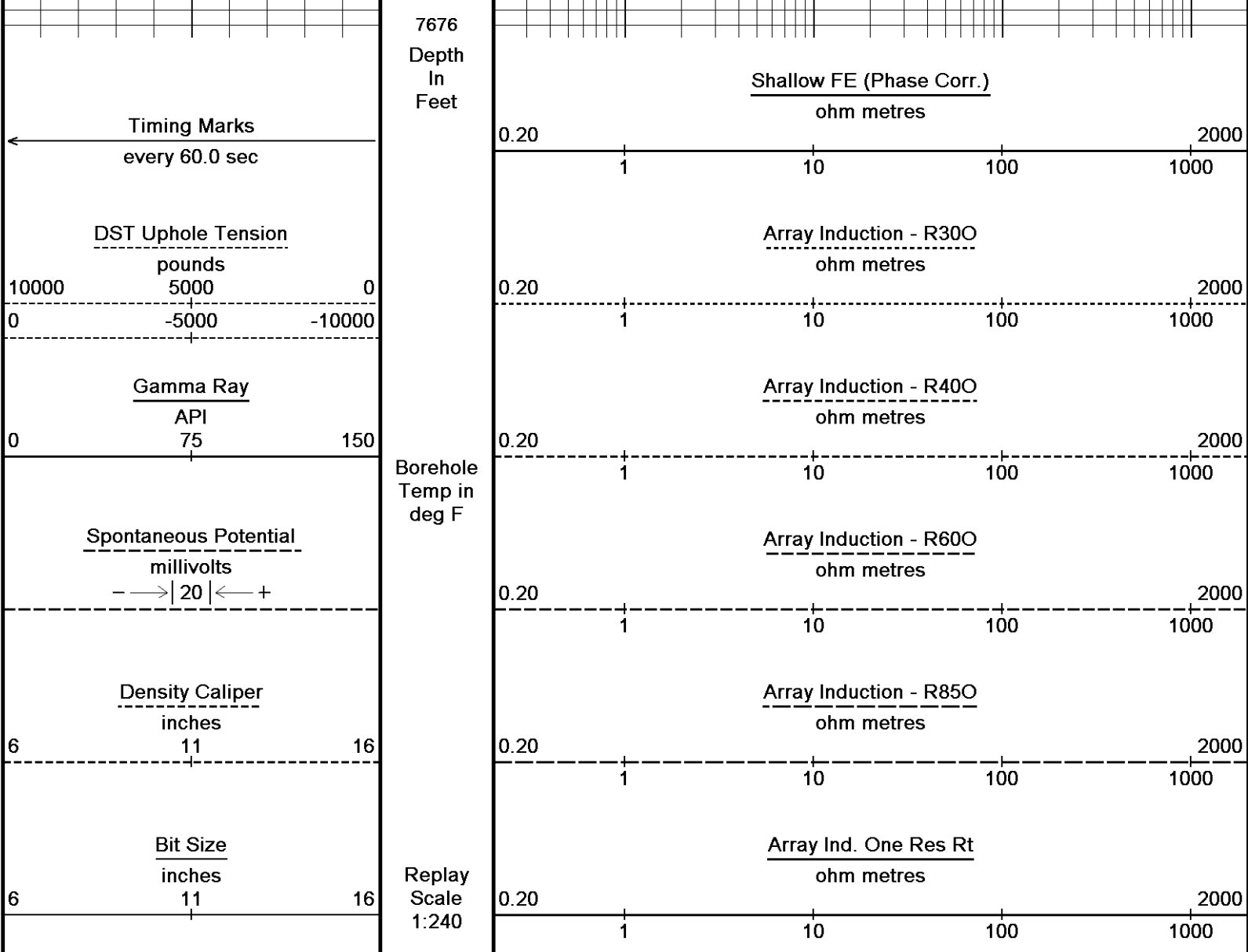
FR Density Caliper

FR Shallow FE (Phase Corr.)

IFR Array Induction - R400

IFR DST Uphole Tensional

7650

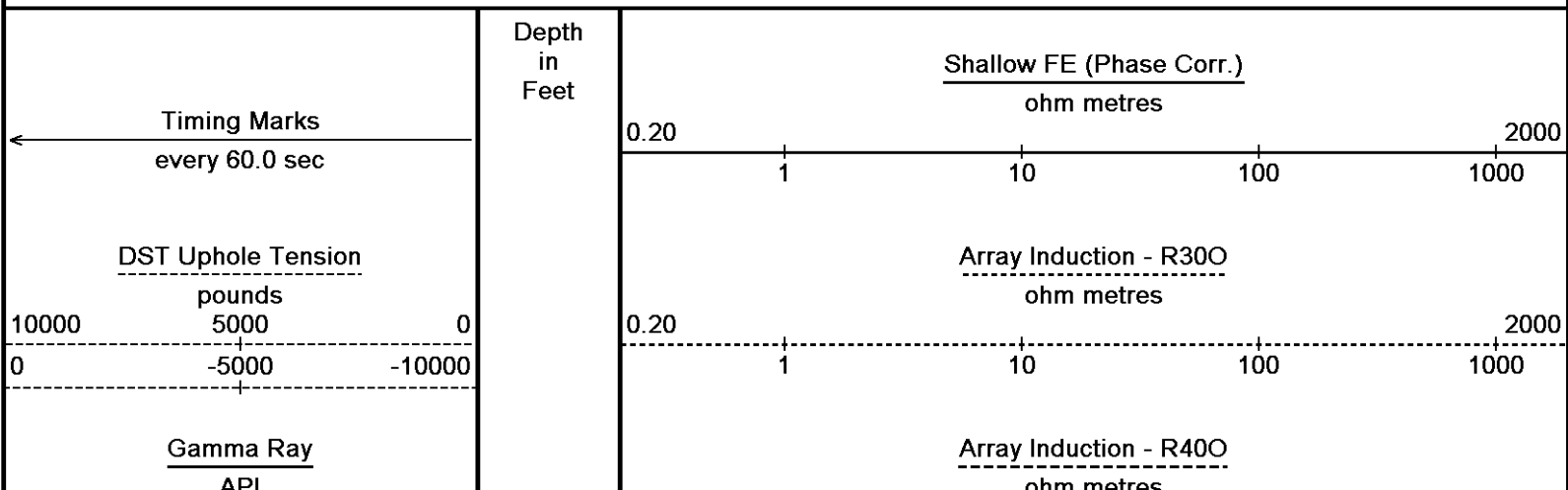


Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 01-MAR-2011 17:55
 Filename: C:\Documents and Settings\145895\Desktop\GGU FEDERAL 34A-20-691\SPLICE.dta Recorded on 01-MAR-2011 11:46
 System Versions: Processed with 11.01.2198 Plotted with 11.01.2198

↑ **5 INCH MAIN LOG** ↑

↓ **OVERLAY** ↓

Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 01-MAR-2011 17:55
 Filename: C:\Documents and Settings\145895\Desktop\GGU FEDERAL 34A-20-691\SPLICE.dta Recorded on 01-MAR-2011 11:46
 Filename: C:\Documents and Settings\145895\Desktop\GGU FEDERAL 34A-20-691\REPEAT-RUN2.dta Recorded on 01-MAR-2011 11:24
 System Versions: Processed with 11.01.2198 Plotted with 11.01.2198



0 75 150

Spontaneous Potential
millivolts
--> | 20 | <-- +

Density Caliper
inches
6 11 16

Bit Size
inches
6 11 16

Borehole
Temp in
deg F

Replay
Scale
1:240

7400

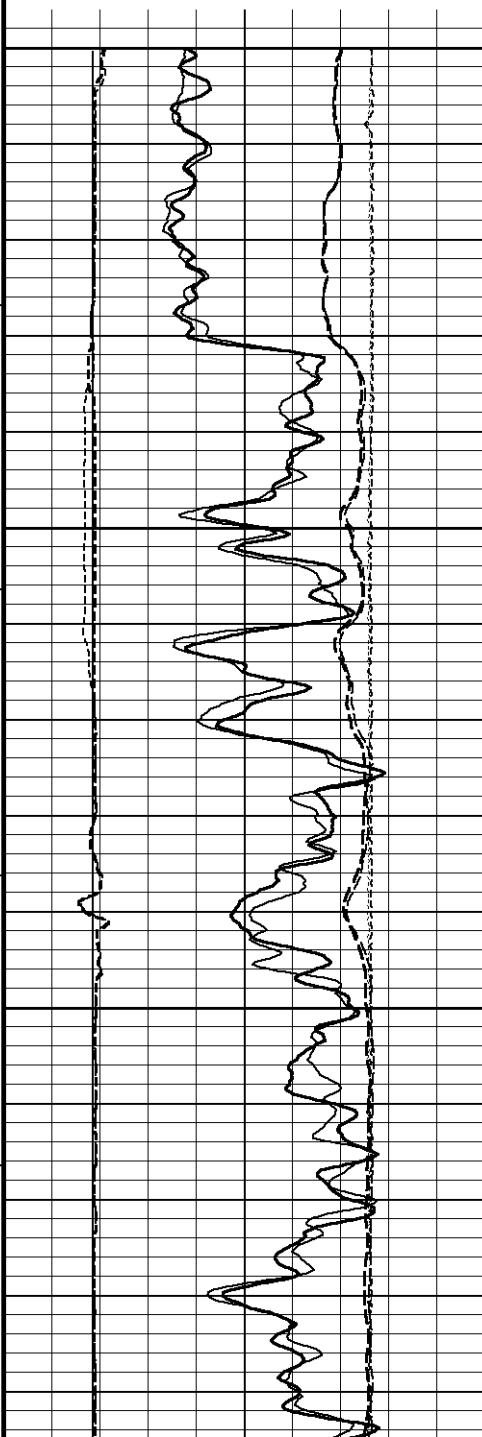
173°

7450

173°

7500

174°

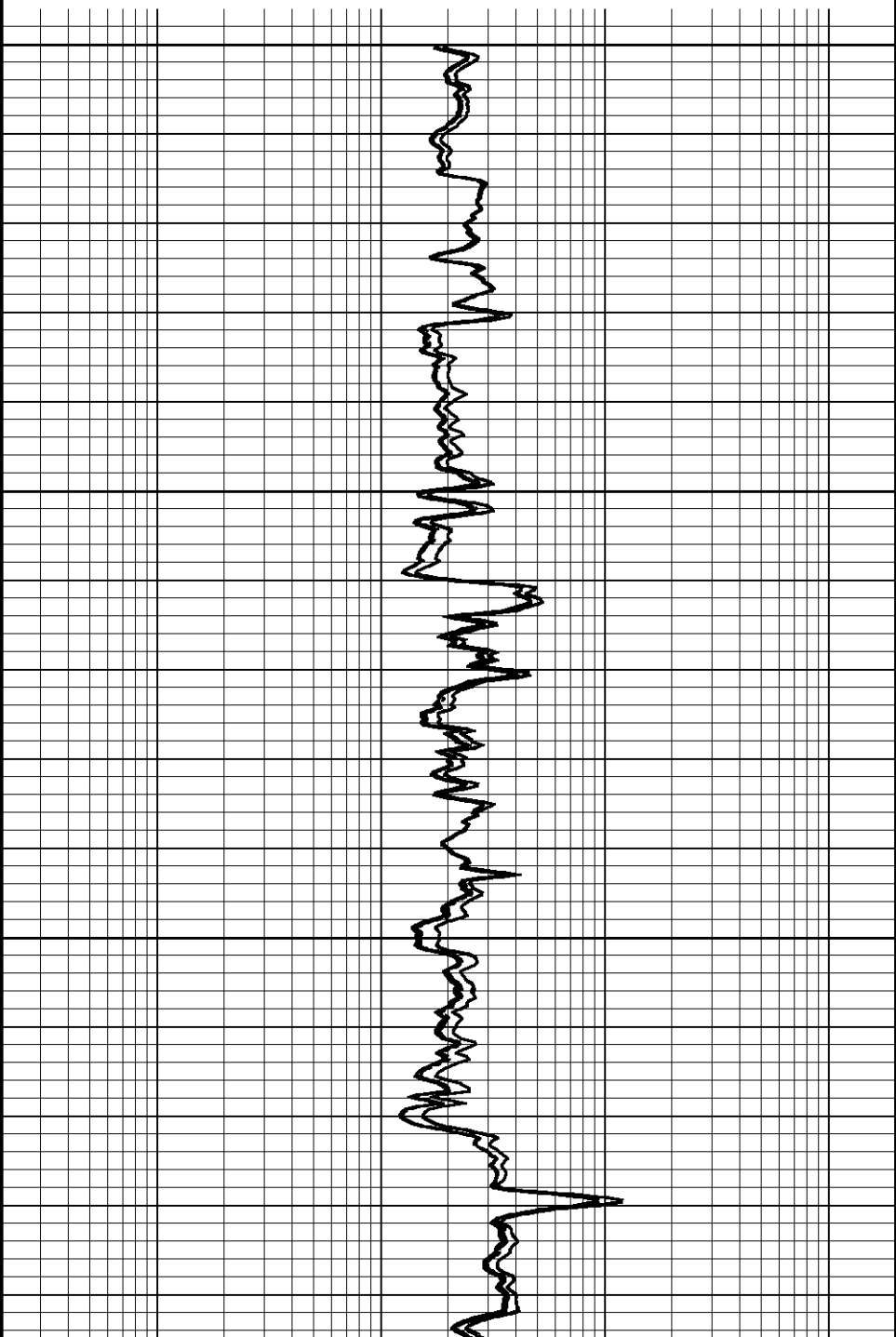


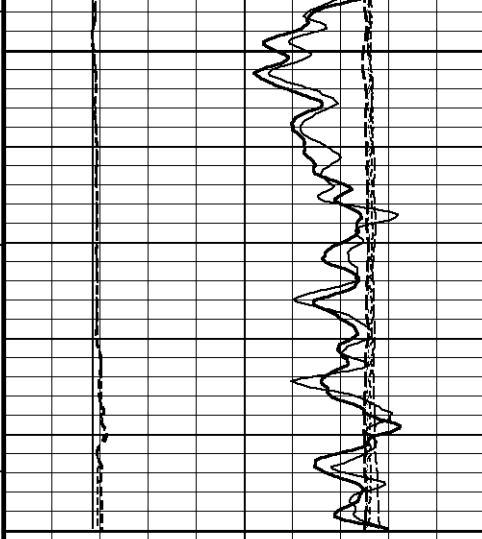
0.20 1 10 100 1000 2000
ohm metres

Array Induction - R60O
ohm metres
0.20 1 10 100 1000 2000

Array Induction - R85O
ohm metres
0.20 1 10 100 1000 2000

Array Ind. One Res Rt
ohm metres
0.20 1 10 100 1000 2000





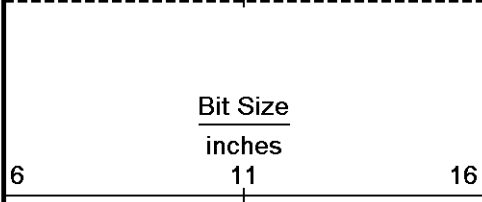
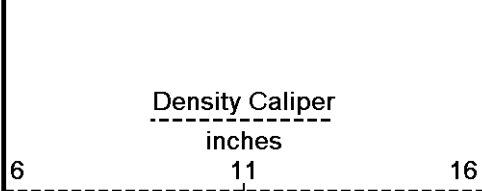
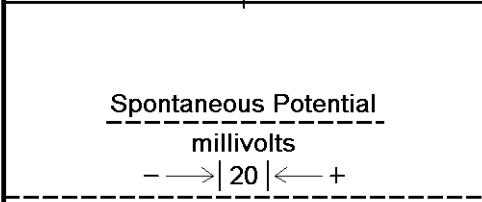
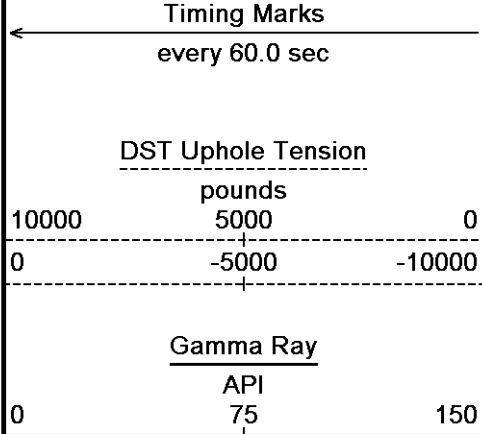
7550

175°

7600

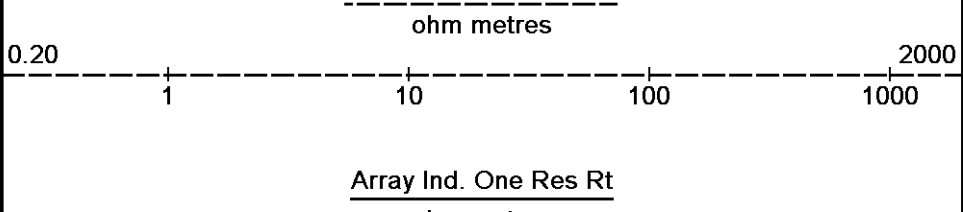
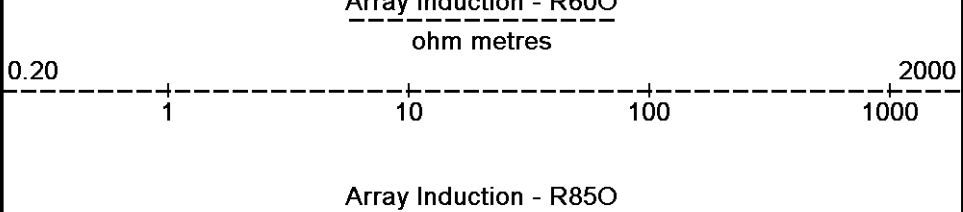
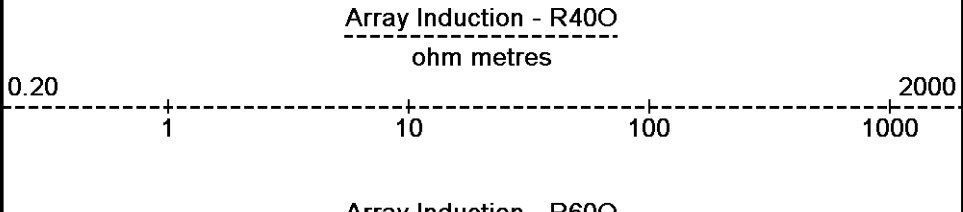
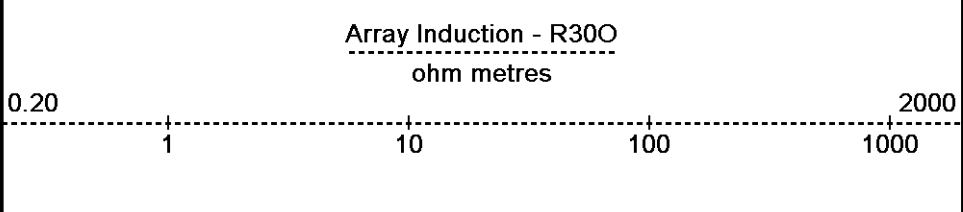
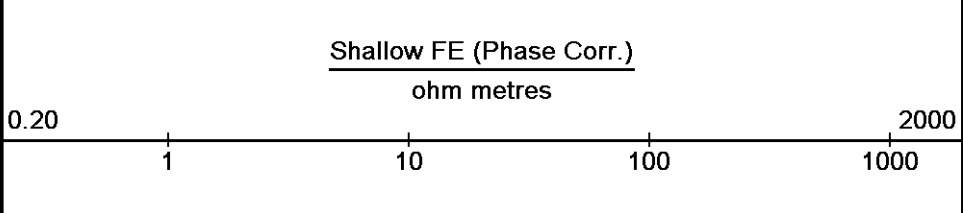
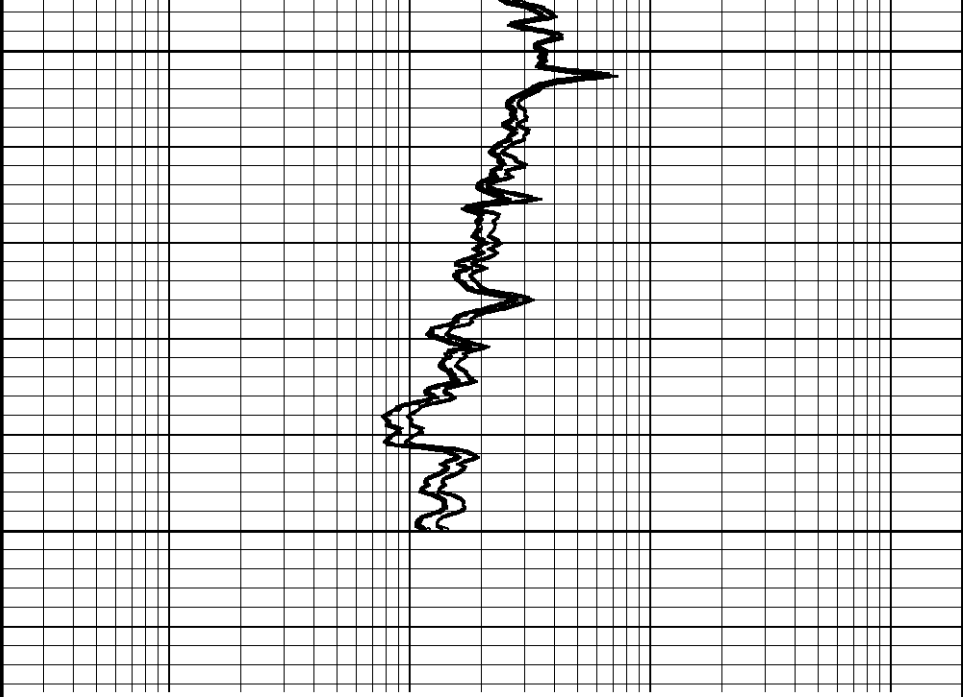
7614

Depth in Feet



Borehole Temp in deg F

Replay Scale 1:240



Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 01-MAR-2011 17:55

Filename: C:\Documents and Settings\le145895\Desktop\GGU FEDERAL 34A-20-691\SPLICE.dta

Recorded on 01-MAR-2011 11:46

Filename: C:\Documents and Settings\le145895\Desktop\GGU FEDERAL 34A-20...\REPEAT-RUN2.dta

Recorded on 01-MAR-2011 11:24

System Versions: Processed with 11.01.2198 Plotted with 11.01.2198

BEFORE SURVEY CALIBRATION

C:\Documents and Settings\le145895\Desktop\GGU FEDERAL 34A-20-691\SPLICE.dta

General Constants All 000

Last Edited on 01-MAR-2011,08:52

General Parameters

Mud Resistivity	3.500	ohm-metres
Mud Resistivity Temperature	80.000	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	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 01-MAR-2011 10:30

Reading No	Measured	Calibrated (lbs)
1	15885.47	0.00
2	16851.46	368.00

High Resolution Temperature Calibration MCG-C 192

Field Calibration on 01-MAR-2011,08:56

	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
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SP Calibration MCG-C 192

Field Calibration on 01-MAR-2011,08:20

	Measured	Calibrated (mV)
Reference 1	100.9	100.0
Reference 2	-100.2	-100.0

Gamma Calibration MCG-C 192

Field Calibration on 01-MAR-2011 08:20

	Measured	Calibrated (API)
Background	96	66
Calibrator (Gross)	1416	978
Calibrator (Net)	1320	912

Gamma Constants MCG-C 192

Last Edited on 28-FEB-2011,20:00

Gamma Calibrator Number	912	
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 22-FEB-2011,05:29

Field Check on 01-MAR-2011 08:25

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	3208	98	3714	110
	32.812		33.764	

Field Calibrator at Base

	Calibrated (cps)	
Ratio	1323	1983
	0.667	

Field Check	Calibrated (cps)
Ratio	1310 1960
	0.668

Neutron Constants MDN-A.B 160 Last Edited on 01-MAR-2011,14:52

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-FEB-2011 09:44
Field Check on 01-MAR-2011 08:51

Base Calibration		
	Measured	Calibrated (ohm-m)
Reference 1	10.7	1.3
Reference 2	965.5	126.8
Base Check		281.9
Field Check		282.3

FE Constants MFE-A.A 85 Last Edited on 01-MAR-2011,14:08

Running Mode	No Sleeve	
MFE K Factor	0.1268	
Caliper Source for FE correction	Density Caliper	
Caliper Value for FE correction	N/A	inches
Rm Source for FE correction	Temperature Corr	
Temp. for Rm Corr.	MCG External Temperature	
Stand-off	0.5	inches

High Resolution Temperature Calibration MAI-B.A 213 Field Calibration on 01-MAR-2011,08:56

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

High Resolution Temperature Constants MAI-B.A 213 Last Edited on 13-DEC-2010,09:54

Pre-filter Length 11

Induction Calibration MAI-B.A 213 Base Calibration on 22-FEB-2011,05:28
Field Check on

Base Calibration					
Test Loop Calibration					
		Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High	
1	16.8	462.4	9.3	966.2	
2	6.2	381.7	7.6	821.4	
3	3.6	254.8	5.2	566.0	
4	2.3	132.3	2.6	279.2	
Array Temperature		73.6	Deg F		
Channel Base Check (mmho/m) Field Check (mmho/m)					
	Low	High	Low	High	
1	12.1	3932.4	0.0	0.0	
2	29.6	3538.5	0.0	0.0	
3	28.5	3113.0	0.0	0.0	
4	18.9	2095.5	0.0	0.0	

Deep	17.1	2076.8	0.0	0.0
Medium	42.3	4087.5	0.0	0.0
Shallow	44.6	5158.2	0.0	0.0
Array Temperature		42.3	0.0	Deg F

Induction Constants MAI-B.A 213

Last Edited on 01-MAR-2011,14:06

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-B 167

Base Calibration on 10-FEB-2011 10:23
Field Calibration on 28-FEB-2011,19:42

Base Calibration			
Reading No	Measured	Calibrator Size (in)	
1	18496	4.00	
2	27008	5.96	
3	34874	7.98	
4	43063	9.86	
5	52192	11.88	
6	N/A	N/A	
Field Calibration			
	Measured Caliper (in)	Actual Caliper (in)	
	7.98	7.98	

Photo Density Calibration MPD-B 167

Base Calibration on 13-FEB-2011 15:22
Field Check on 01-MAR-2011 08:47

Density Calibration				
Base Calibration		Measured		Calibrated (sdu)
	Near	Far	Near	Far
Reference 1	48677	18603	53115	19186
Reference 2	22687	3043	25020	2536
Field Check at Base				
	1173.5	1744.9		

Field Check

1169.8 1741.6

PE Calibration

Base Calibration	WS	Measured WH	Ratio	Calibrated Ratio
Background	214	1052		
Reference 1	15293	48508	0.318	0.320
Reference 2	5942	22551	0.266	0.272

Field Check at Base

214.1 1052.3

Field Check

215.7 1048.5

Density Constants MPD-B 167

Last Edited on 28-FEB-2011,19:42

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	1.29	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:\Documents and Settings\le145895\Desktop\GGU FEDERAL 34A-20-691\SPLICE.dta

Gamma Check MCG-C 192

Field Calibration on 01-MAR-2011 08:20
After Survey Check on 01-MAR-2011 14:51

	Before (API)	After (API)
Background	66	68
Calibrator (Gross)	978	980
Calibrator (Net)	912	912

Neutron Check MDN-A.B 160

Before Survey Check on 01-MAR-2011 08:25
After Survey Check on 01-MAR-2011 14:57

Near (cps)		Far (cps)		Ratio
Before	After	Before	After	
1310	1287	1960	1943	
	Before	After		
	0.668	0.663		

FE Check MFE-A.A 85

Before Survey Check 01-MAR-2011 08:51
After Survey Check on 01-MAR-2011 14:10

Before (ohm-m)	After (ohm-m)
282.3	281.5

Induction Check MAI-B.A 213

Before Survey Check on
After Survey Check on 01-MAR-2011 14:08

Channel	Before Survey (mmho/m)		After Survey (mmho/m)	
	Low	High	Low	High

1	0.0	0.0	15.2	3936.8
2	0.0	0.0	30.7	3540.1
3	0.0	0.0	29.2	3113.7
4	0.0	0.0	19.3	2096.1
Deep	0.0	0.0	17.7	2077.3
Medium	0.0	0.0	42.9	4087.8
Shallow	0.0	0.0	46.1	5160.6
Array Temperature		0.0	83.6	Deg F

Photo Density Check MPD-B 167

Before Survey Check on 01-MAR-2011 08:47
After Survey Check on 01-MAR-2011 14:14

Density Check

	Near		Far	
	Before	After	Before	After
	1169.8	1169.2	1741.6	1744.1

PE Check

	Before	After
WS	215.7	215.1
WH	1048.5	1040.9

DOWNHOLE EQUIPMENT

C:\Documents and Settings\le145895\Desktop\GGU FEDERAL 34A-20-691\SPLICE.dta

3/8" Triple Cone Cable Head (MCB F B)
MCB-F.B 9 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-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

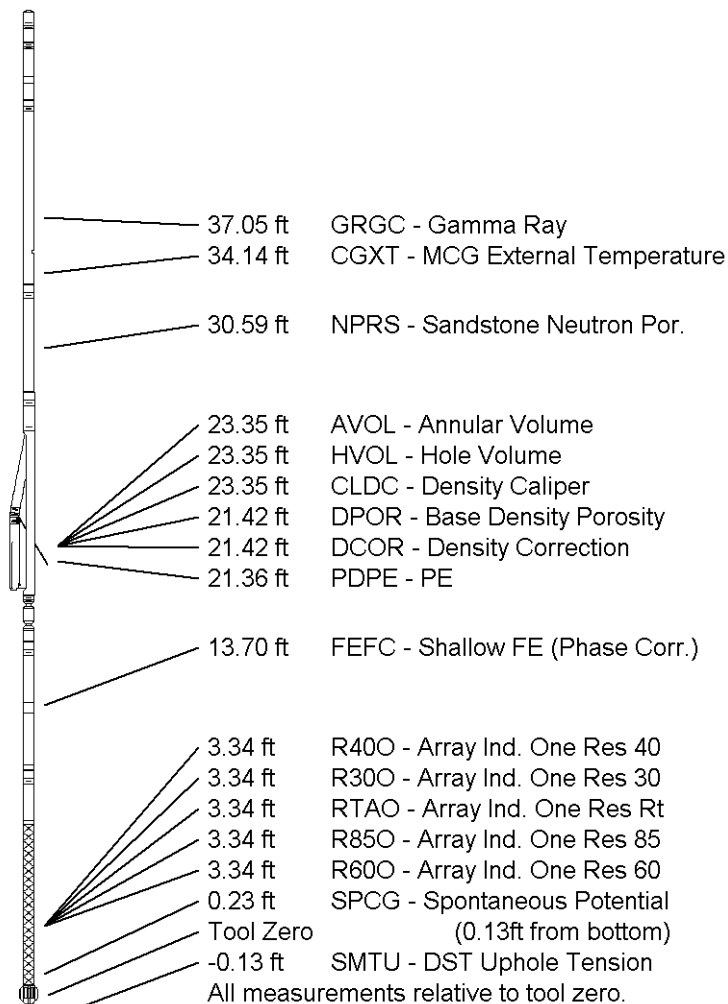
Compact Density/Caliper
MPD-B 167 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

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 213 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 34A-20-691

FIELD

GIBSON GULCH

PROVINCE/COUNTY

GARFIELD

COUNTRY/STATE

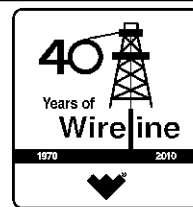
U.S.A. / COLORADO

Elevation Kelly Bushing	6127.00	feet
Elevation Drill Floor	6126.00	feet
Elevation Ground Level	6104.00	feet

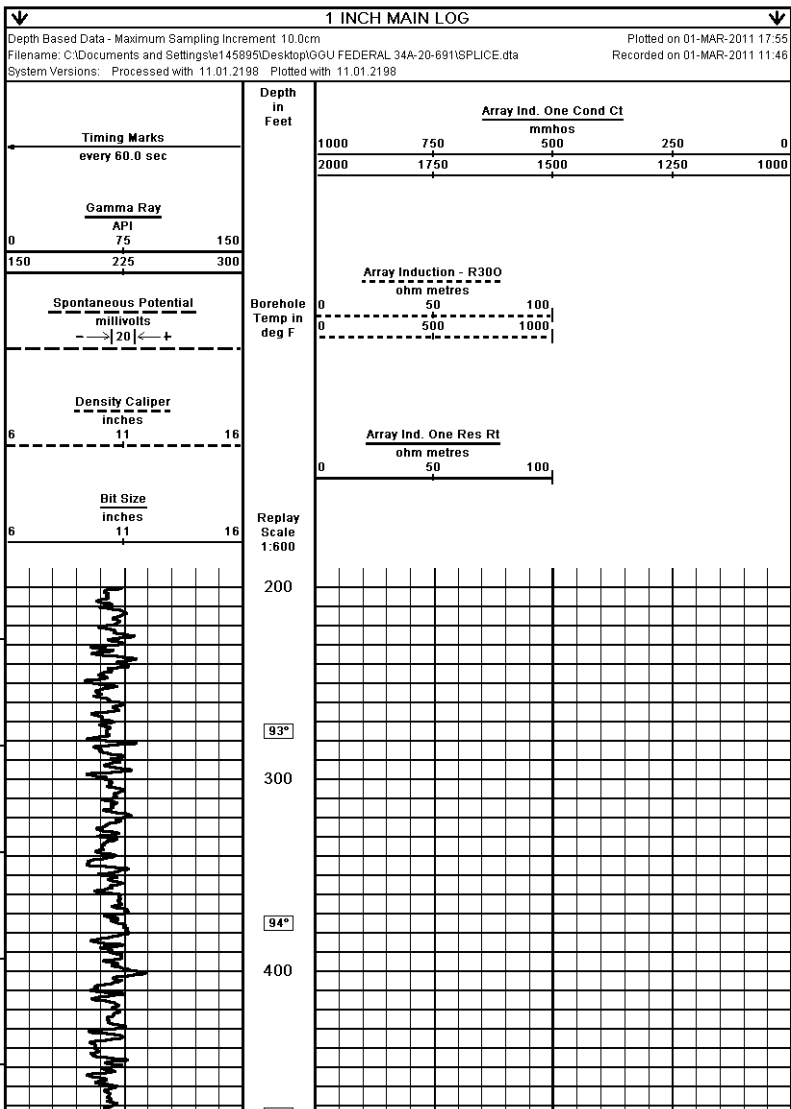
First Reading	7639.00	
Depth Driller	7640.00	feet
Depth Logger	7642.00	feet

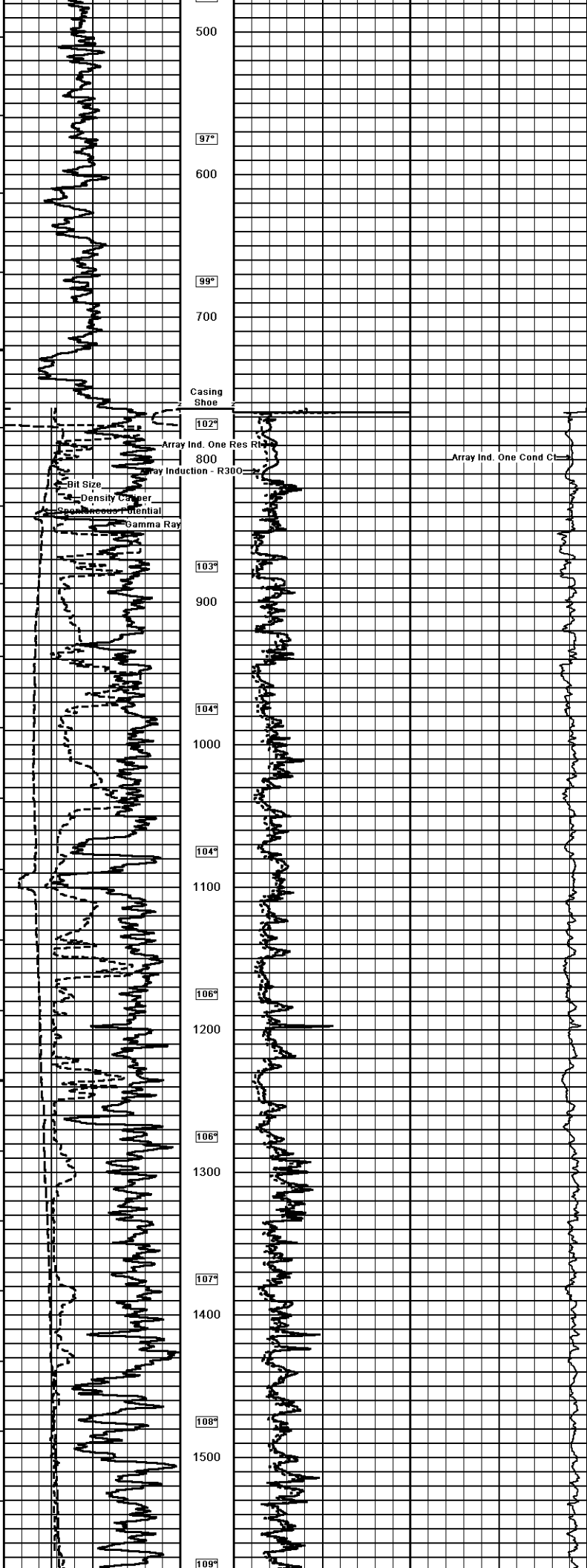


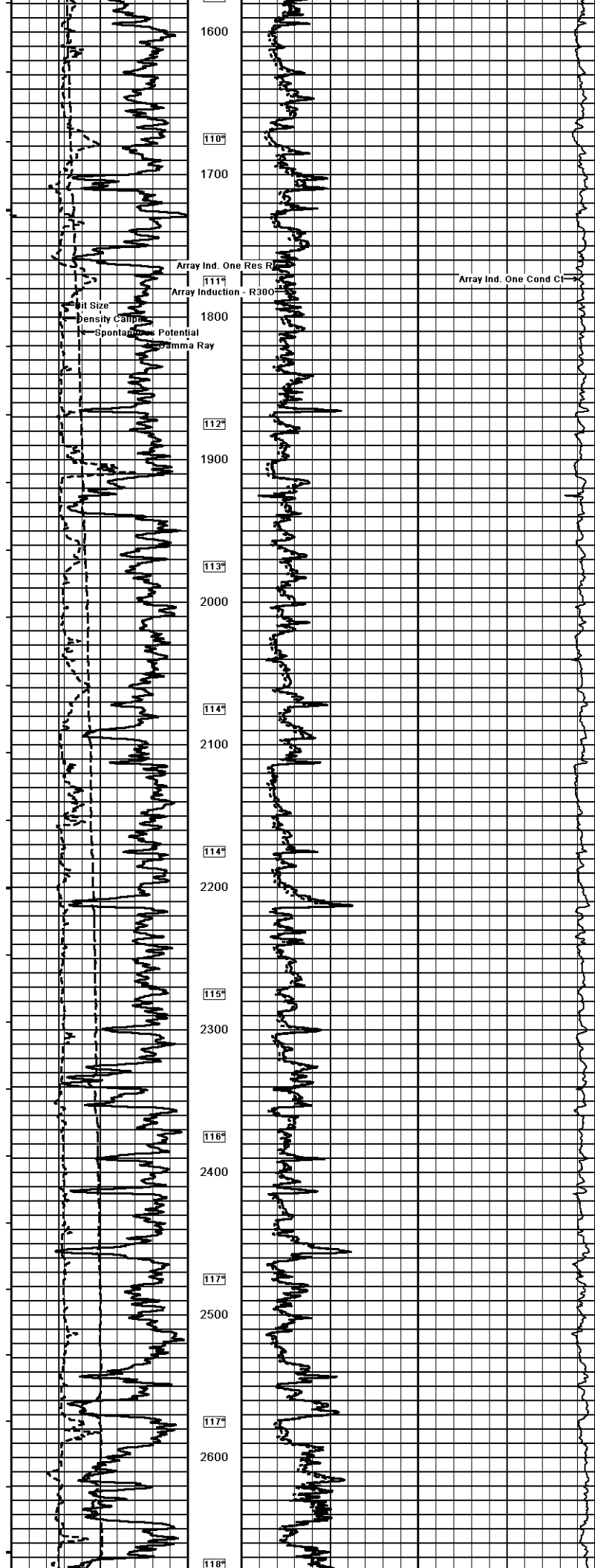
ARRAY INDUCTION - RTAP
SHALLOW FOCUSED
ELECTRIC LOG

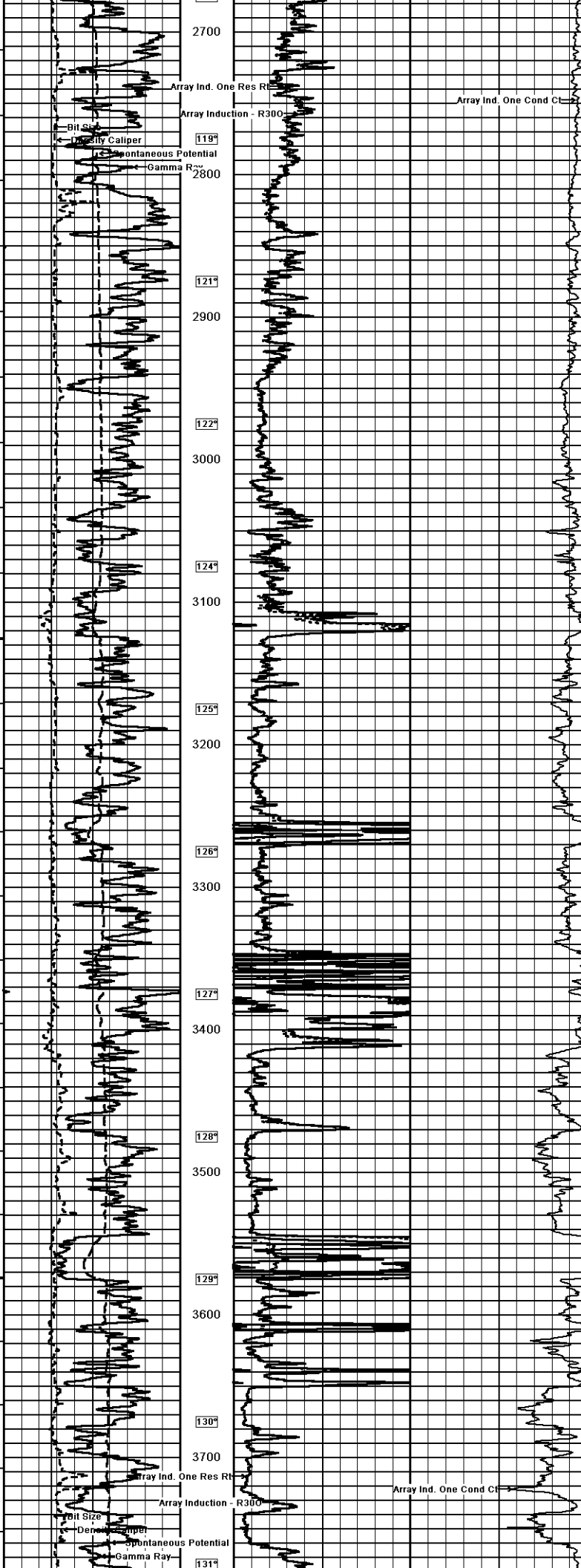


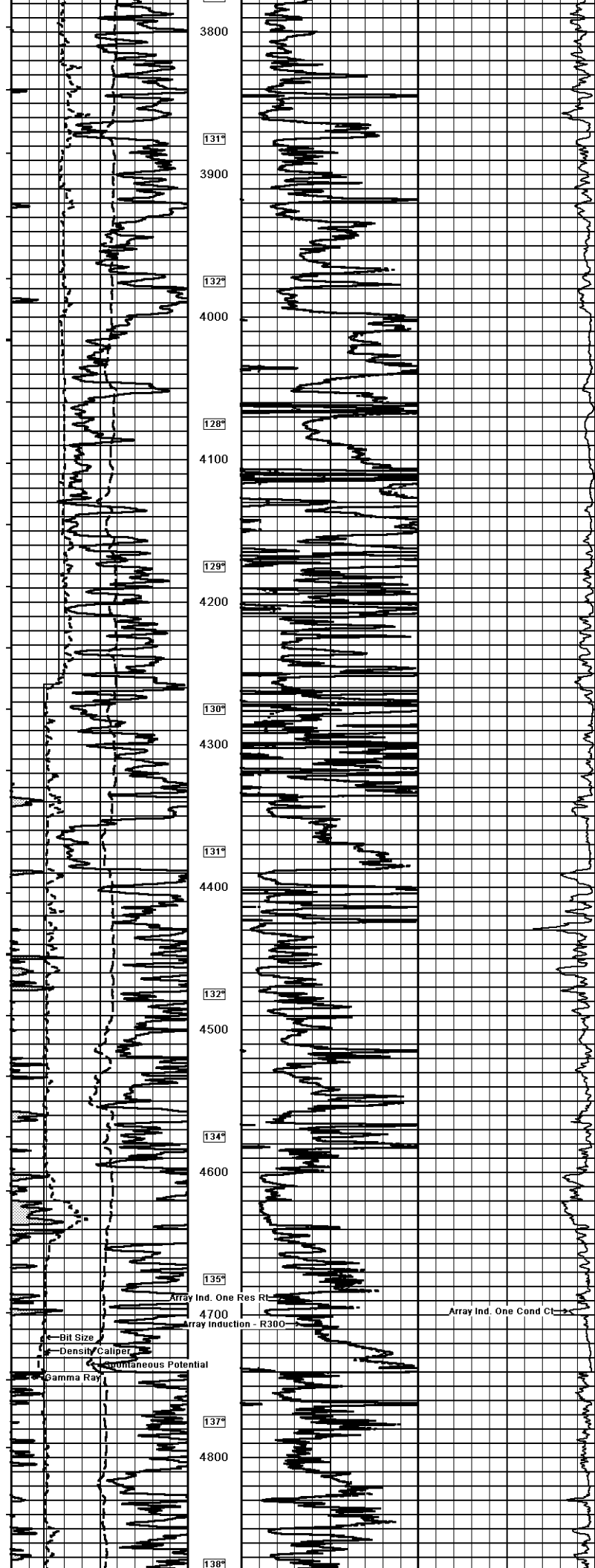
Weatherford		ARRAY INDUCTION - RTAP SHALLOW FOCUSED ELECTRIC LOG	
COMPANY	BILL BARRETT CORPORATION	WELL	GGU FEDERAL 34A-20-691
FIELD	GIBSON GULCH	PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	U.S.A. / COLORADO	LOCATION	SHL: 1212' FNL & 1338' FEL
LOG NUMBER	BHL: 165' FSL & 1990' FEL	DATE	28-FEB-2011
LOG MEASURED FROM	K/B @ 23 FEET ABOVE PERMANENT DATUM	LOGGING MEASURED FROM	K/B
PERMANENT DATUM	G.L. ELEVATION 6104 FEET	LOG MEASURED FROM	K/B @ 23 FEET ABOVE PERMANENT DATUM
LOGGING MEASURED FROM	K/B	LOGGING MEASURED FROM	K/B
DATE	28-FEB-2011	LOGGING MEASURED FROM	K/B
RUN NUMBER	ONE	LOGGING MEASURED FROM	K/B
DEPTH DRILLER	7640.00	LOGGING MEASURED FROM	K/B
DEPTH LOGGER	7642.00	LOGGING MEASURED FROM	K/B
FIRST READING	7639.00	LOGGING MEASURED FROM	K/B
LAST READING	200.00	LOGGING MEASURED FROM	K/B
CASING DRILLER	764.00	LOGGING MEASURED FROM	K/B
CASING LOGGER	764.00	LOGGING MEASURED FROM	K/B
BIT SIZE	7.880	LOGGING MEASURED FROM	K/B
FLOW FLUID TYPE	LSNO	LOGGING MEASURED FROM	K/B
DENSITY / VISCOSITY	10.80	LOGGING MEASURED FROM	K/B
PH / FLUID LOSS	10.00	LOGGING MEASURED FROM	K/B
SAMPLE SOURCE	FLOWLINE	LOGGING MEASURED FROM	K/B
R/M @ MEASURED TEMP	3.50 @ 80.0	LOGGING MEASURED FROM	K/B
R/M @ MEASURED TEMP	2.80 @ 80.0	LOGGING MEASURED FROM	K/B
R/M @ MEASURED TEMP	4.20 @ 80.0	LOGGING MEASURED FROM	K/B
SOURCE R/M @ R/M	CALC	LOGGING MEASURED FROM	K/B
R/M @ BHT	1.63 @ 175.0	LOGGING MEASURED FROM	K/B
TIME SINCE CIRCULATION	6 HOURS	LOGGING MEASURED FROM	K/B
MAX RECORDED TEMP	175.00	LOGGING MEASURED FROM	K/B
EQUIPMENT NAME	COMPACT	LOGGING MEASURED FROM	K/B
EQUIPMENT BASE	USA804	LOGGING MEASURED FROM	K/B
RECORDED BY	USA804	LOGGING MEASURED FROM	K/B
INTERESTED BY	C/CREW	LOGGING MEASURED FROM	K/B

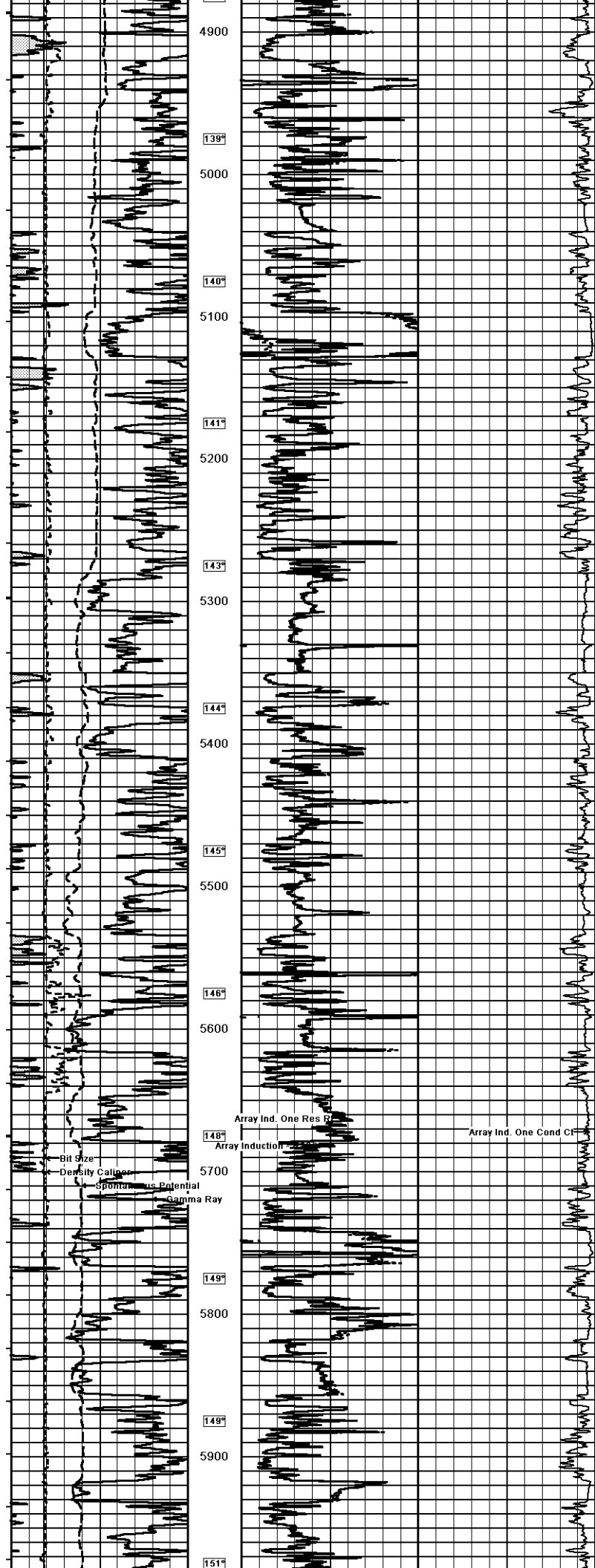


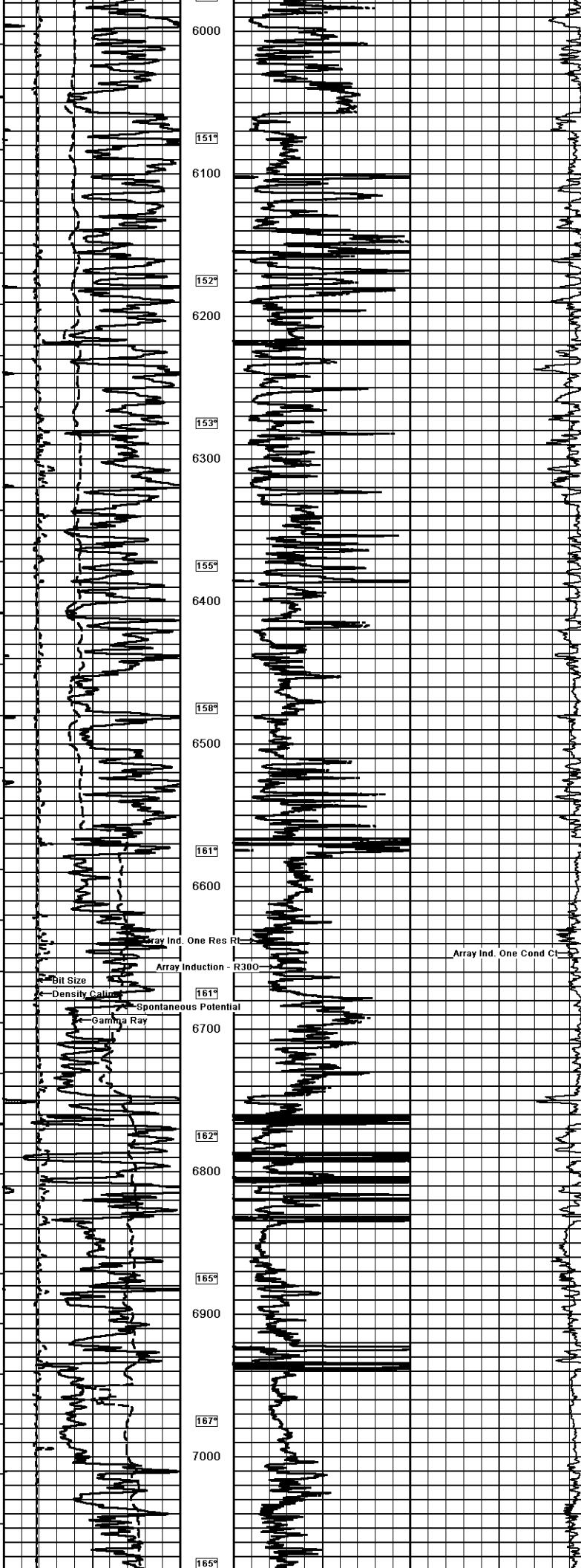


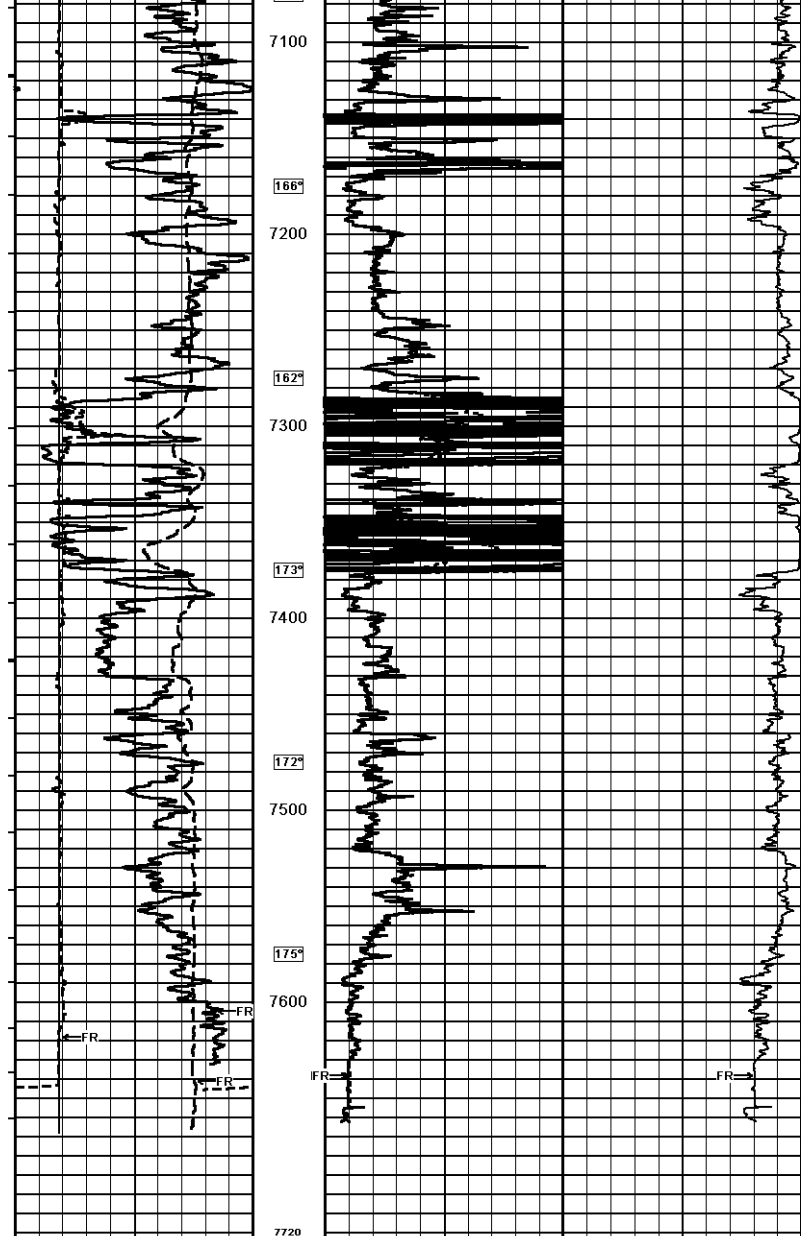












Timing Marks every 60.0 sec		Depth in Feet	
Gamma Ray API		Array Ind. One Cond Ct mmhos	
0	150	1000	0
150	300	2000	1000
Spontaneous Potential millivolts		Borehole Temp in deg F	
- -> 20 <- -		0 50 100	
Density Caliper inches		0 500 1000	
6	16	Array Ind. One Res Rt ohm metres	
	11	0 50 100	
Bit Size inches		Replay Scale 1:600	
6	16		

Depth Based Data - Maximum Sampling Increment 10.0cm
 File Name: C:\Documents and Settings\145895\Desktop\GGU FEDERAL 34A-20-691\SPLICE.dta
 System Versions: Processed with 11.01.2198 Plotted with 11.01.2198
 Plotted on 01-MAR-2011 17:56
 Recorded on 01-MAR-2011 11:46

1 INCH MAIN LOG

COMPANY	BILL BARRETT CORPORATION			
WELL	GGU FEDERAL 34A-20-691			
FIELD	GIBSON GULCH			
PROVINCE/COUNTY	GARFIELD			
COUNTRY/STATE	U.S.A. / COLORADO			
Elevation Kelly Bushing	6127.00	feet	First Reading	7639.00
Elevation Drill Floor	6126.00	feet	Depth Driller	7640.00
Elevation Ground Level	6104.00	feet	Depth Logger	7642.00

Weatherford ARRAY INDUCTION - RTAP
 SHALLOW FOCUSED
 ELECTRIC LOG

