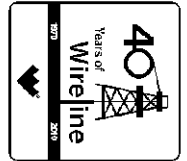




**Weatherford**<sup>®</sup>

ARRAY INDUCTION / RSFE  
PHOTO-DENSITY / NEUTRON  
GAMMA RAY LOG



COMPANY SMITH PRODUCTION  
WELL N R BROUSSARD LANDING INC #1  
FIELD ABBEVILLE  
PROVINCE/COUNTY VERMILLION  
COUNTRY/STATE U.S.A. / LOUISIANA  
LOCATION SECTION: 68 TWP:12S RGS: 03E

**FINAL PRINT**

SEC TWP RGE Other Services  
68 12S 03E  
API Number 1711322431  
Permit Number 75192

Permanent Datum G.L., Elevation 10 feet  
Log Measured From K.B. @ 17 FT. above Permanent Datum  
Drilling Measured From K.B.

Elevations: feet  
KB 27.00  
DF 26.00  
GL 10.00

Date	6-JULY-2011	
Run Number	ONE	
Depth Driller	8416.00	feet
Depth Logger	8412.00	feet
First Reading	8400.00	feet
Last Reading	1806.00	feet
Casing Driller	1807.00	feet
Casing Logger	1806.00	feet
Bit Size	7.875	Inches
Hole Fluid Type	WATER BASED	
Density / Viscosity	10.00 lb/USg	43.00 SEC/QT
PH / Fluid Loss	10.00	6.00 ml/30Min
Sample Source	MUD TANK	
Rm @ Measured Temp	1.20 @ 75.0	ohm-m
Rmf @ Measured Temp	0.90 @ 75.0	ohm-m
Rmc @ Measured Temp	1.50 @ 75.0	ohm-m
Source Rmf / Rmc	CALC	CALC
Rm @ BHT	0.55 @169.0	ohm-m
Time Since Circulation	6 HOURS	
Max Recorded Temp	169.00	deg F
Equipment Name	COMPACT	
Equipment / Base	13046	TYLER
Recorded By	M. JOHNSON	
Witnessed By	BROOKE FURRH	STEVE BAE
Witnessed By	JAY CHANG	

**BOREHOLE RECORD**

Last Edited: 07-JUL-2011 03:04

Bit Size inches	Depth From feet	Depth To feet
7.875	1806.00	8412.00

**CASING RECORD**

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	1806.00	24.00

**REMARKS**

SERVICE ORDER #3518691

RUN ONE TOOLS RAN IN COMBINATION: SHAMCG/MDN/MPD/MAI

DENSITY POROSITY CALCULATED ASSUMING SANDSTONE MATRIX OF 2.65 g/cc.

ANNULAR HOLE VOLUME CALCULATED ASSUMING 5.5 CASING.

LOGGED INTERVALS AS PER CLIENT REQUEST.

BOREHOLE SIZE AND RUGOSITY AFFECTING LOG QUALITY.

RIG: GUICHARD #5  
K.B. HEIGHT = 17

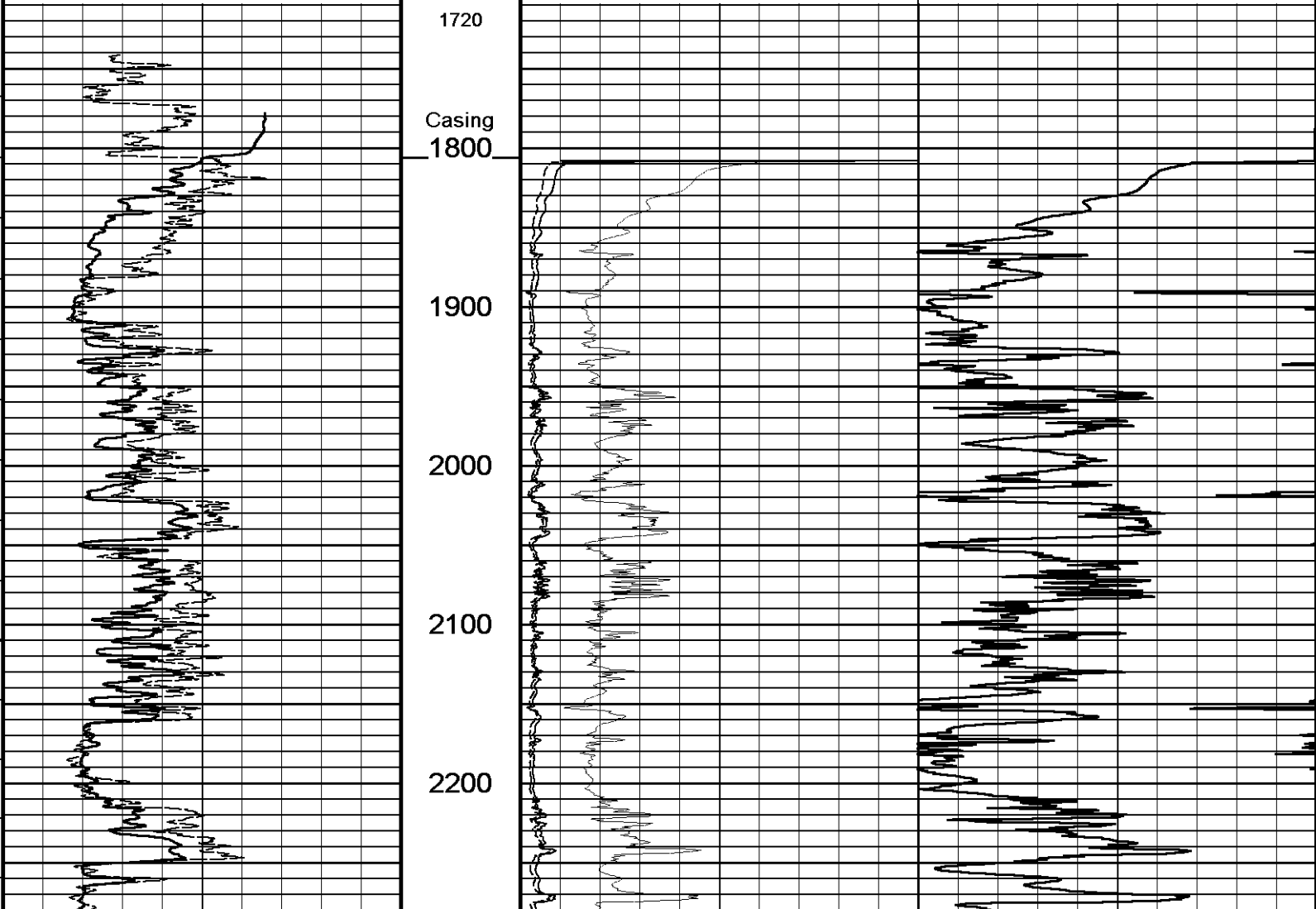
CREW: J. PRICE, J. CHEATHAM, J. METTLER

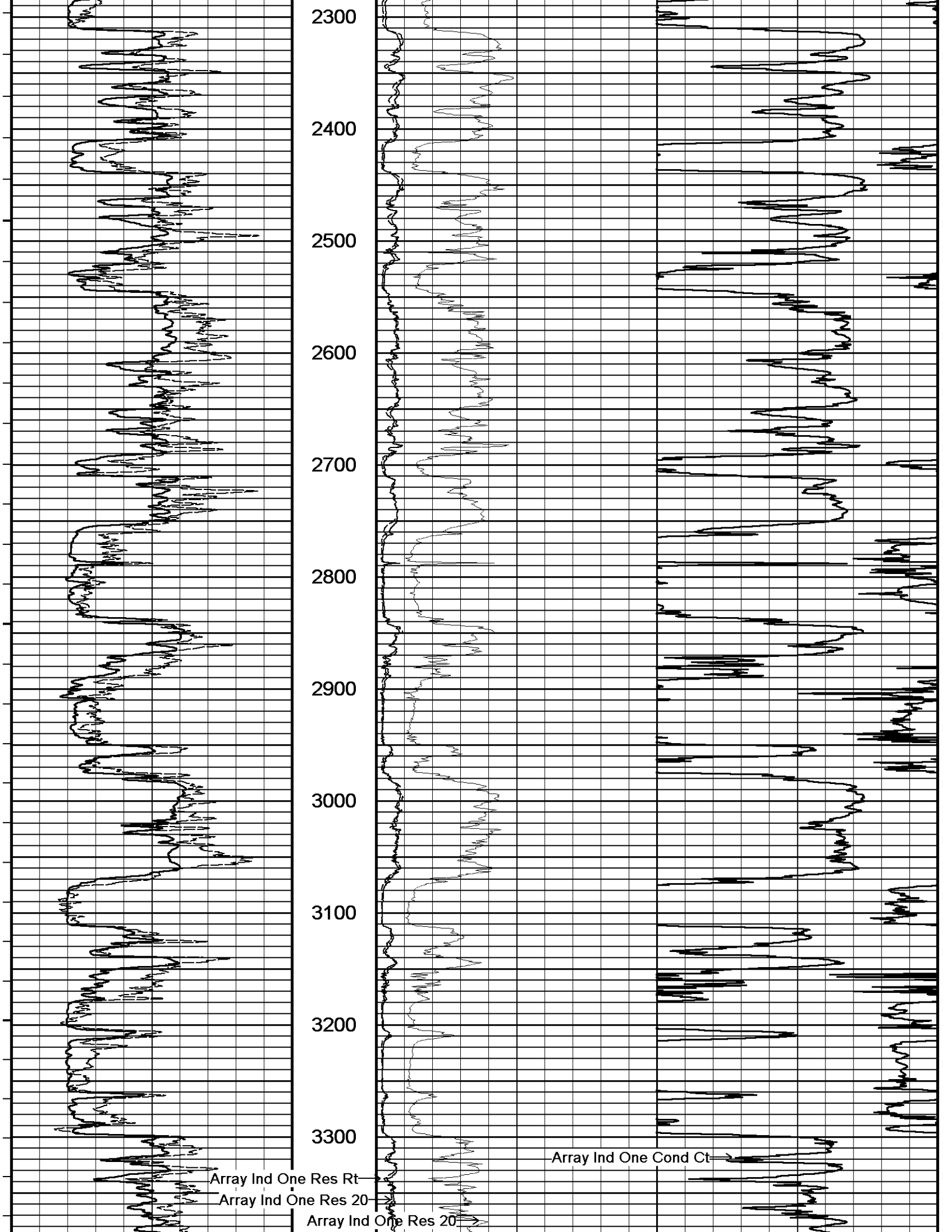
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

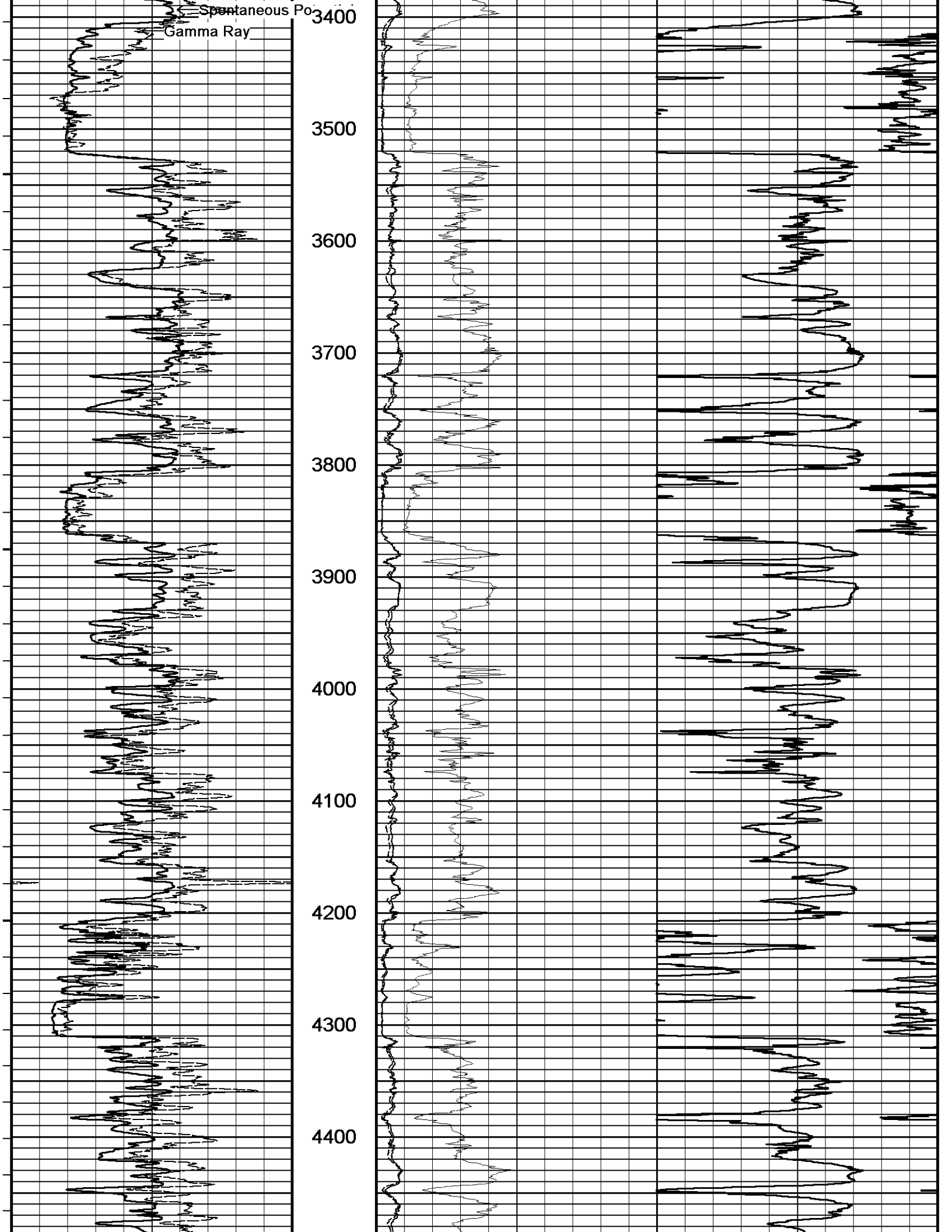
**1 INCH MAIN PASS**

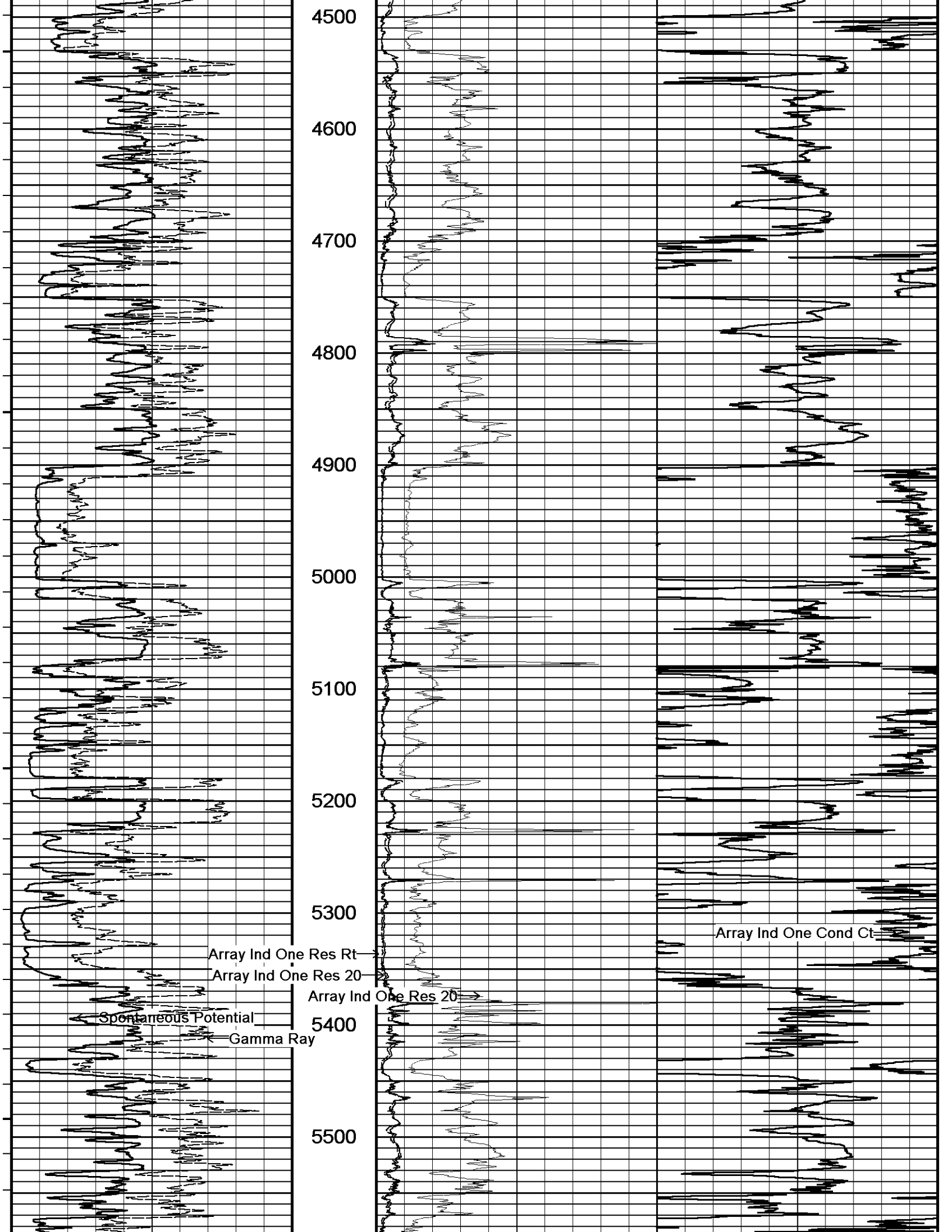
Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 07-JUL-2011 05:53  
 Filename: C:\DATA\Guichard\_Smith Production\NR Broussard Landing #1\Main Pass2.dta Recorded on 06-JUL-2011 22:54  
 System Versions: Logged with 11.02.2782 Processed with 11.02.2782 Plotted with 11.02.2782

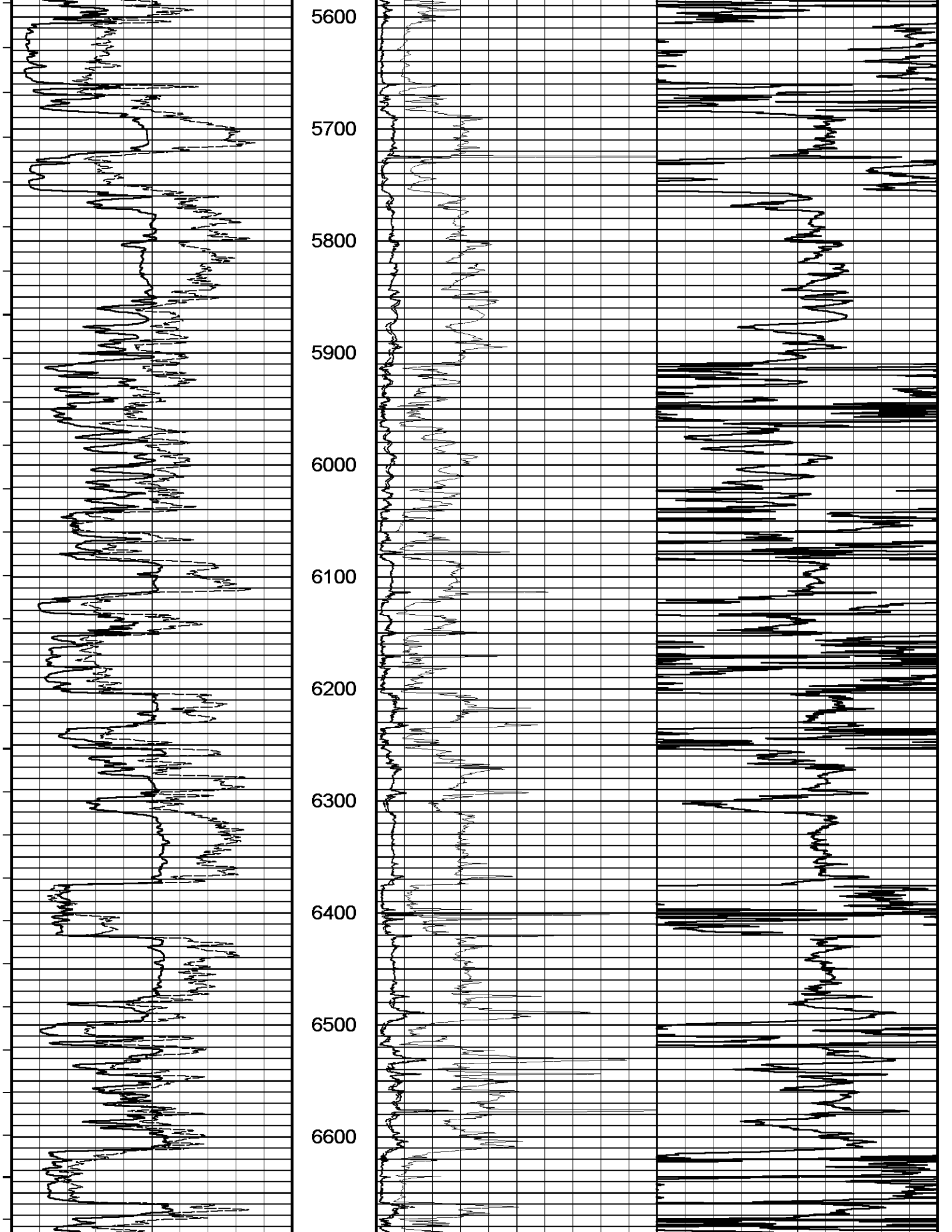
<p style="text-align: center;">Timing Marks every 60.0 sec</p> <hr/> <p style="text-align: center;">Gamma Ray API</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">0</td> <td style="width: 33%;">75</td> <td style="width: 33%;">150</td> </tr> <tr> <td>150</td> <td>225</td> <td>300</td> </tr> </table> <hr/> <p style="text-align: center;">Spontaneous Potential millivolts</p> <p style="text-align: center;">--&gt;   20   &lt;--+</p>	0	75	150	150	225	300	<p style="text-align: center;">Depth In Feet</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;"><u>Array Ind One Res 20</u> ohm metres</td> <td style="width: 33%; text-align: center;"><u>Array Ind One Cond Ct</u> mmhos</td> </tr> <tr> <td style="text-align: center;">0            1            2, 4000</td> <td style="text-align: center;">0            2000            0</td> </tr> </table> <hr/> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;"><u>Array Ind One Res 20</u> ohm metres</td> <td style="width: 33%; text-align: center;"><u>Array Ind One Res Rt</u> ohm metres</td> </tr> <tr> <td style="text-align: center;">0            5            10</td> <td style="text-align: center;">0            5            10</td> </tr> <tr> <td style="text-align: center;">0            50            100</td> <td style="text-align: center;">0            50            100</td> </tr> </table>	<u>Array Ind One Res 20</u> ohm metres	<u>Array Ind One Cond Ct</u> mmhos	0            1            2, 4000	0            2000            0	<u>Array Ind One Res 20</u> ohm metres	<u>Array Ind One Res Rt</u> ohm metres	0            5            10	0            5            10	0            50            100	0            50            100
0	75	150																
150	225	300																
<u>Array Ind One Res 20</u> ohm metres	<u>Array Ind One Cond Ct</u> mmhos																	
0            1            2, 4000	0            2000            0																	
<u>Array Ind One Res 20</u> ohm metres	<u>Array Ind One Res Rt</u> ohm metres																	
0            5            10	0            5            10																	
0            50            100	0            50            100																	

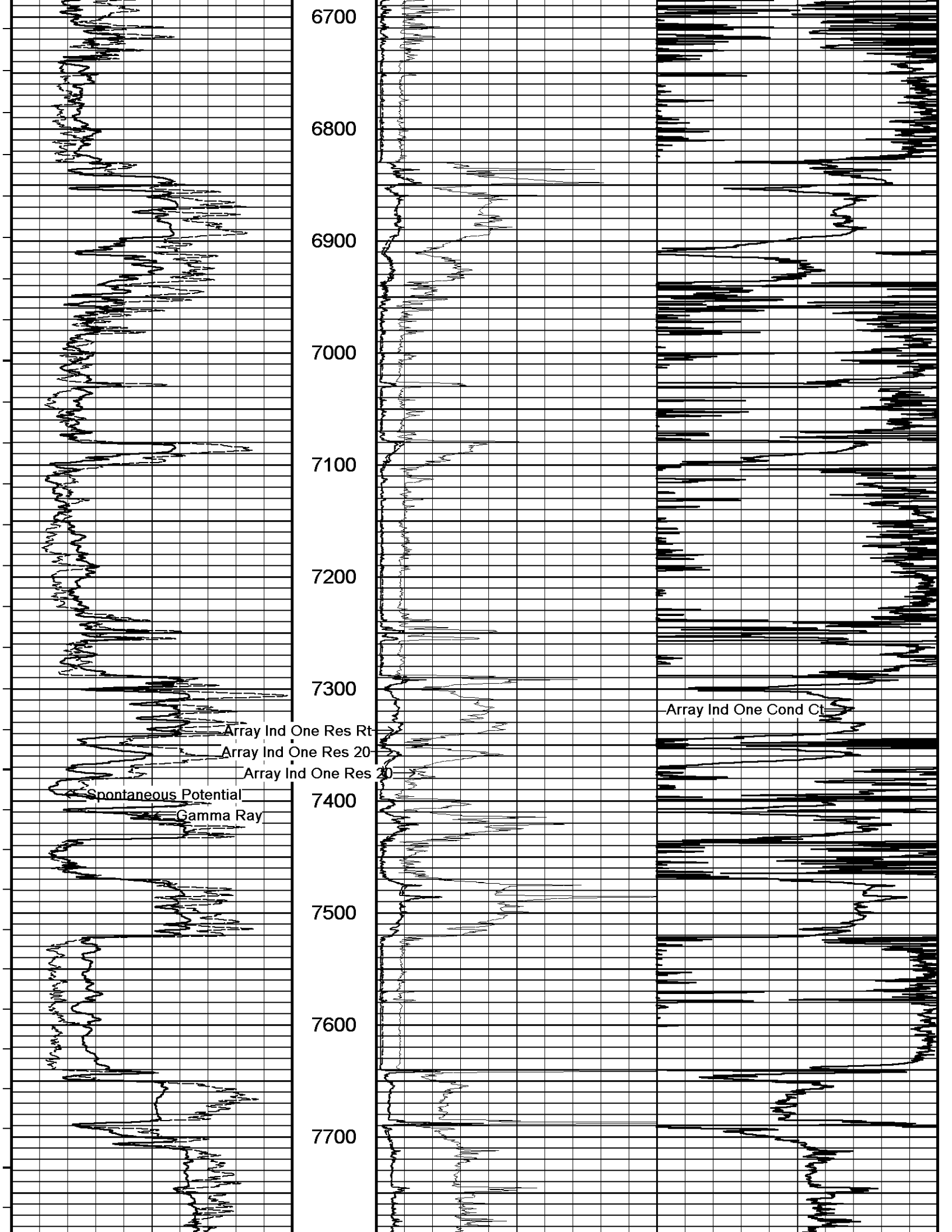


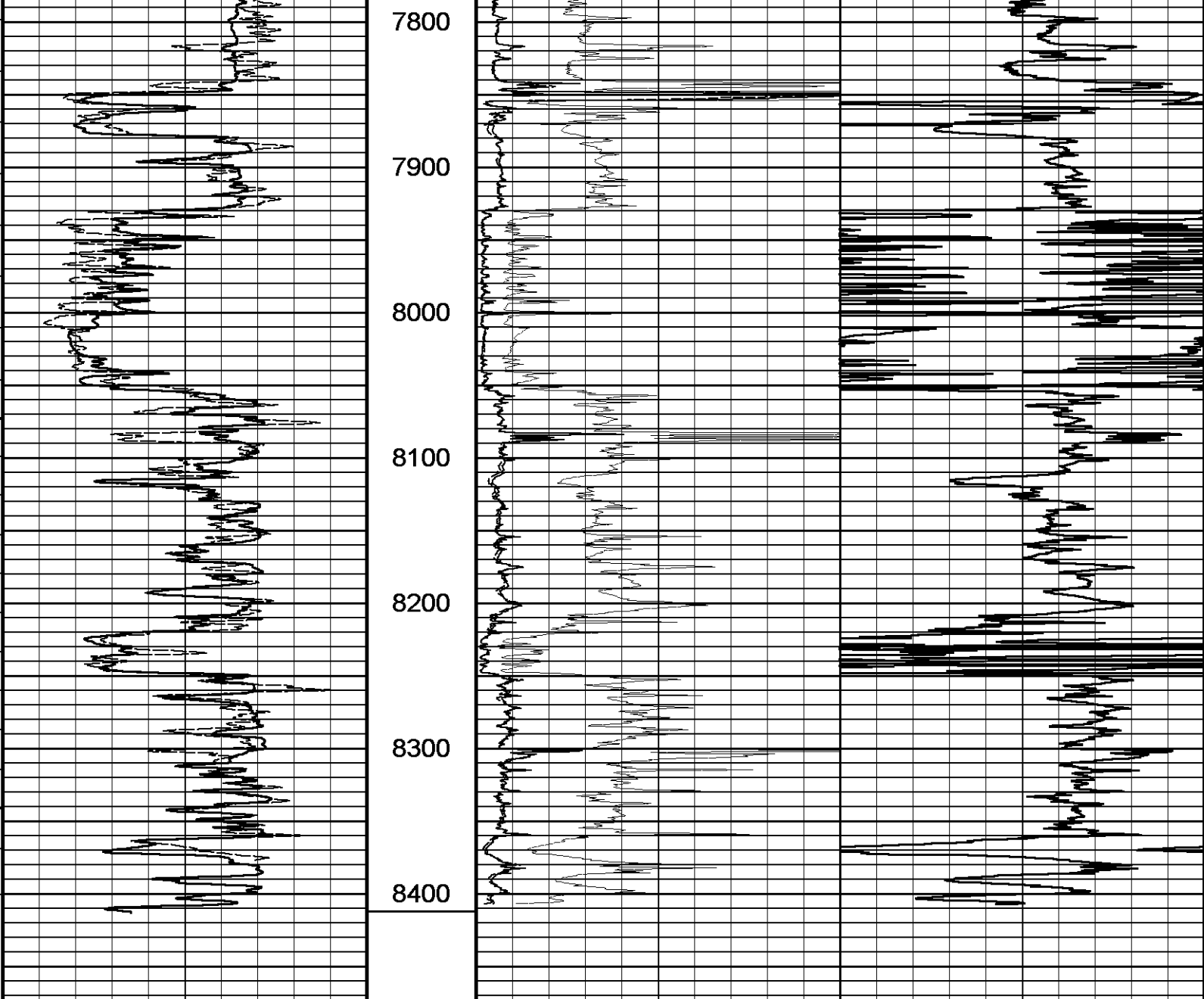












← Timing Marks every 60.0 sec

Gamma Ray  
API  
0 75 150  
150 225 300

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

Depth In Feet

Replay Scale 1:1200

Array Ind One Res 20 ohm metres	Array Ind One Cond Ct mmhos
0 1 2 4000	0 2000 0
Array Ind One Res 20 ohm metres	
0 5 10	
0 50 100	
Array Ind One Res Rt ohm metres	
0 5 10	
0 50 100	



# 5 INCH MAIN PASS



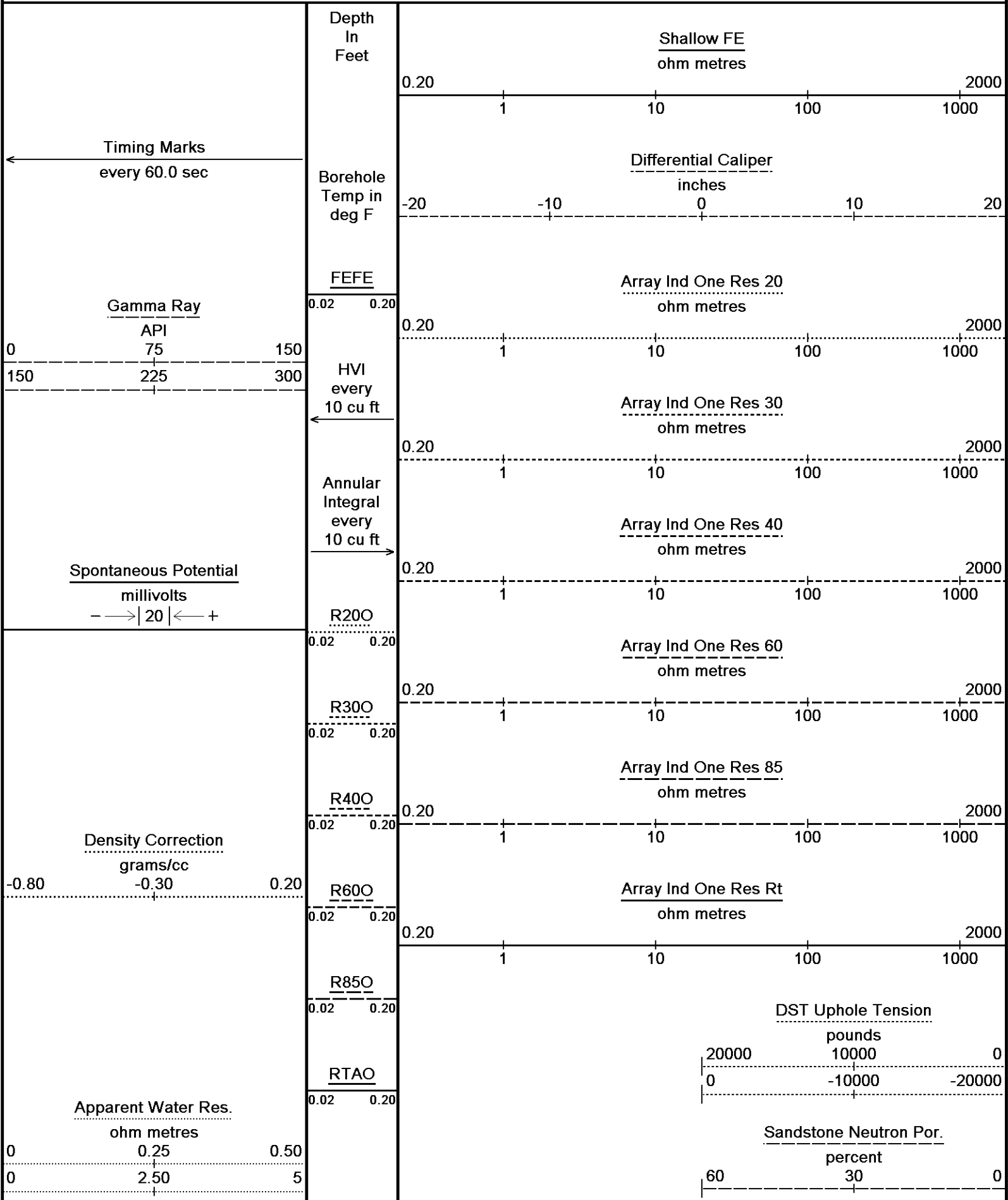
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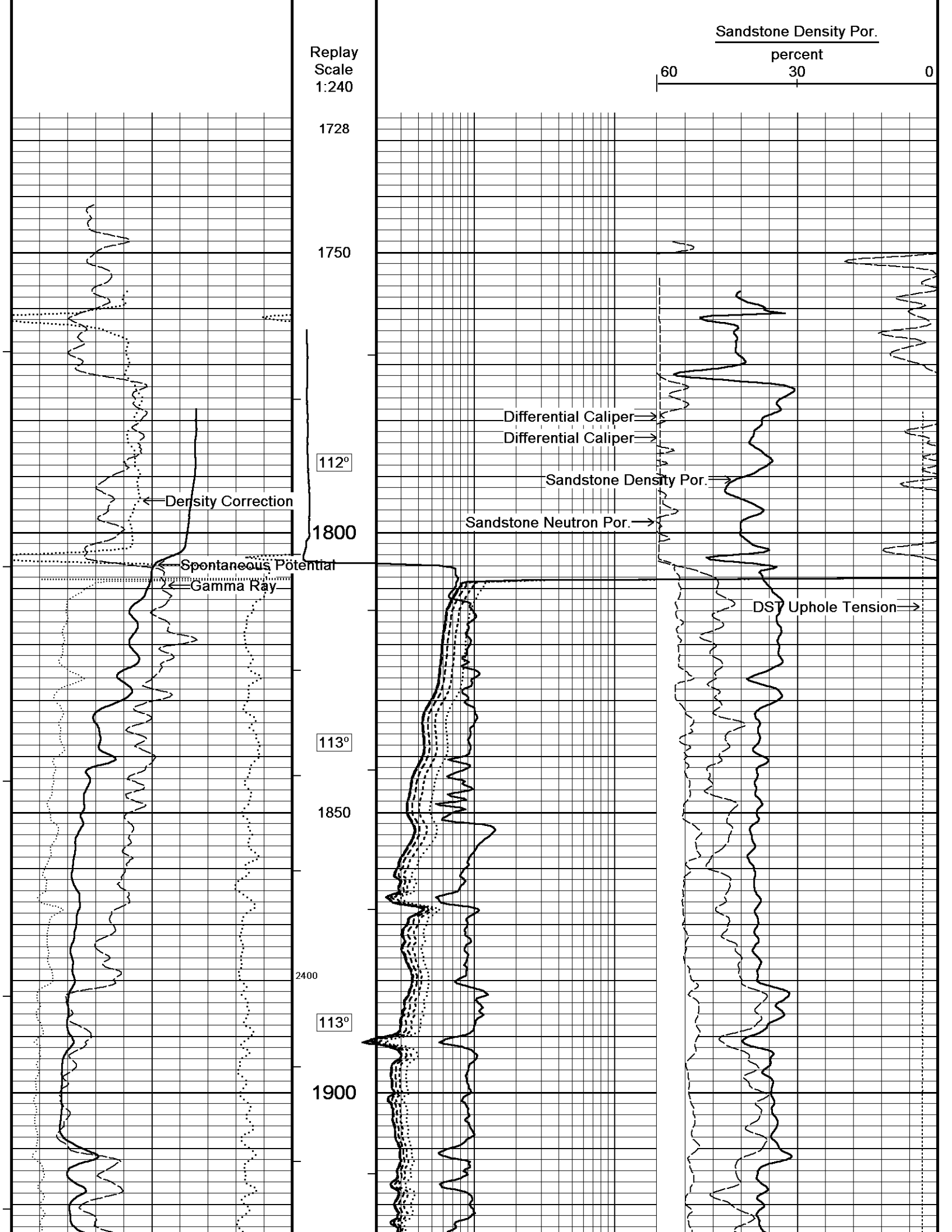
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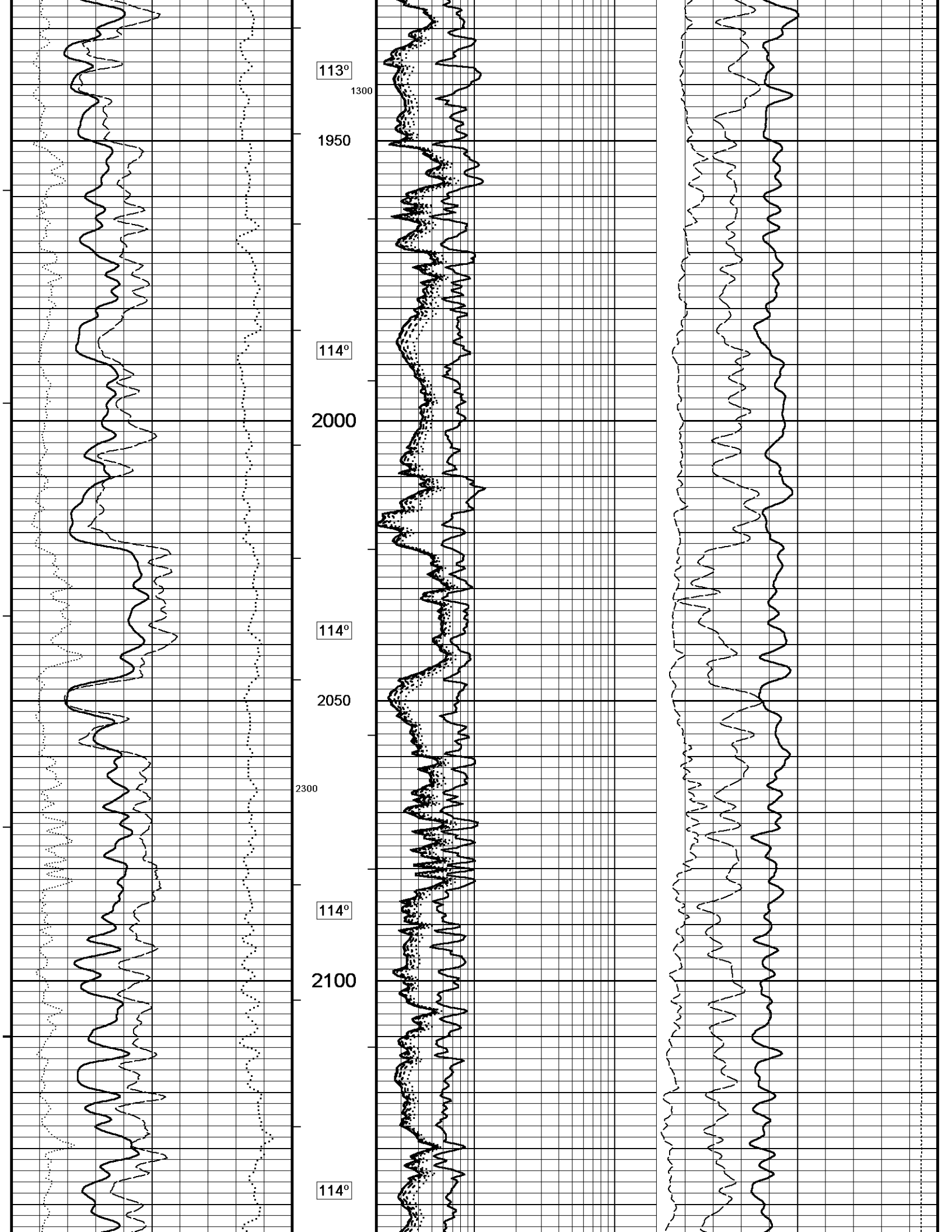
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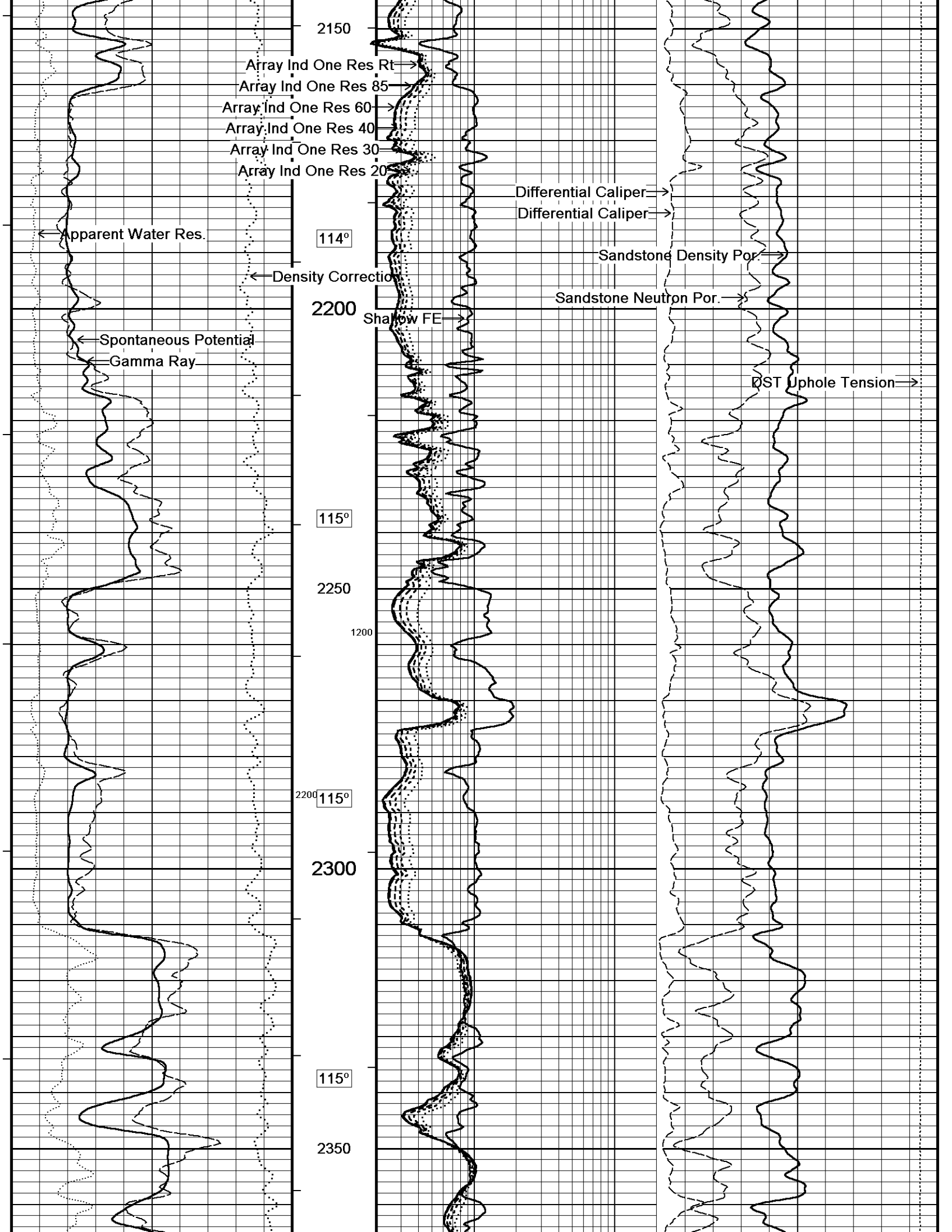
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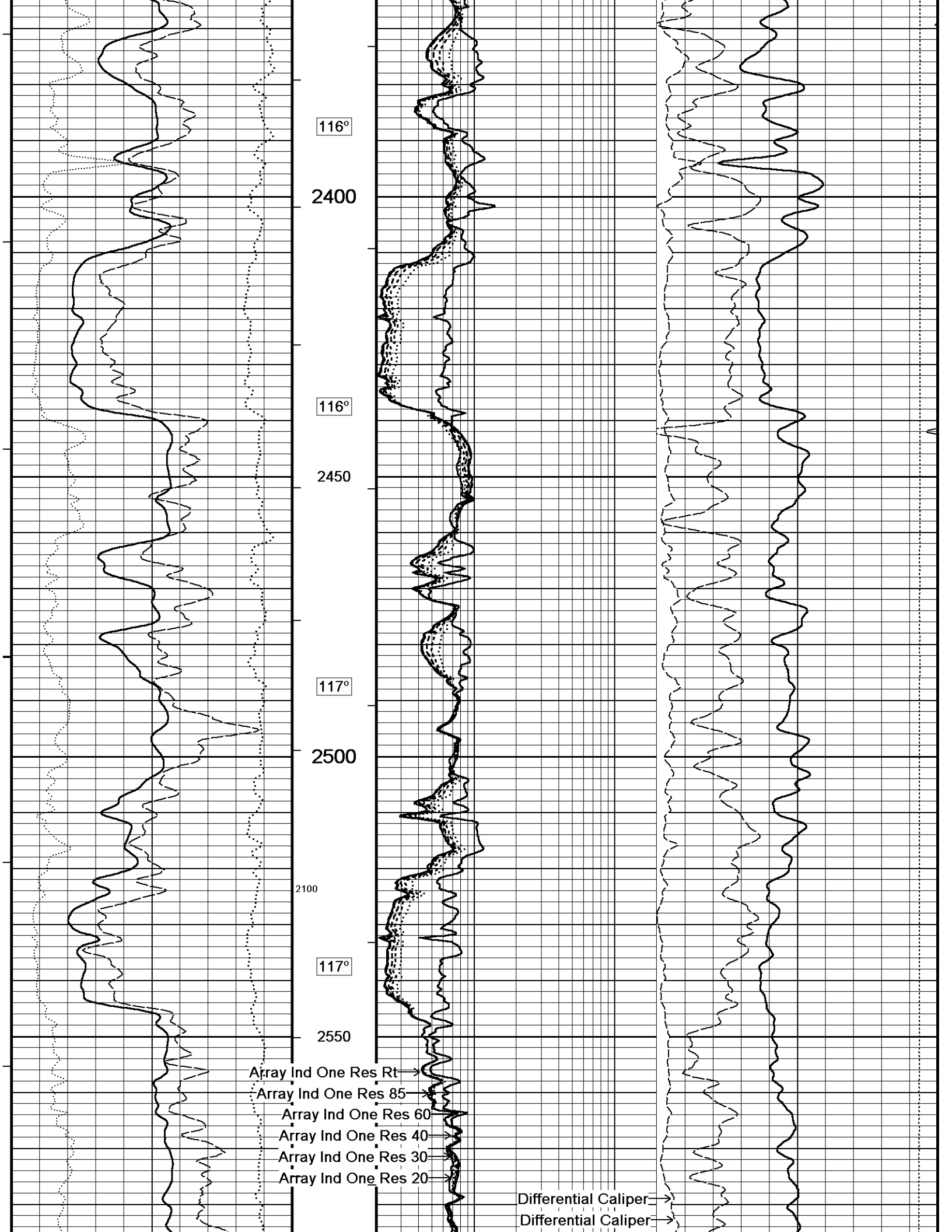
System Versions: Logged with 11.02.2782 Processed with 11.02.2782 Plotted with 11.02.2782

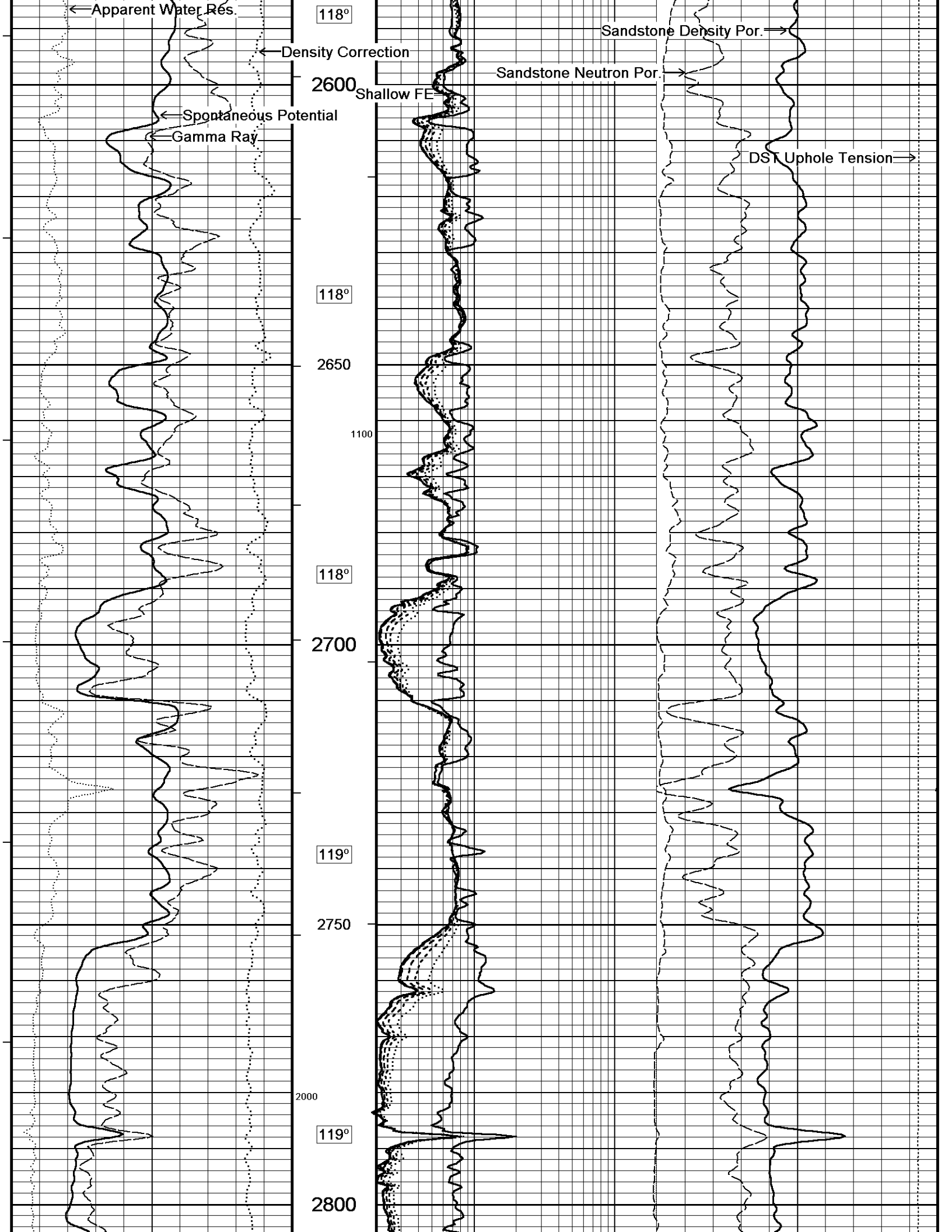


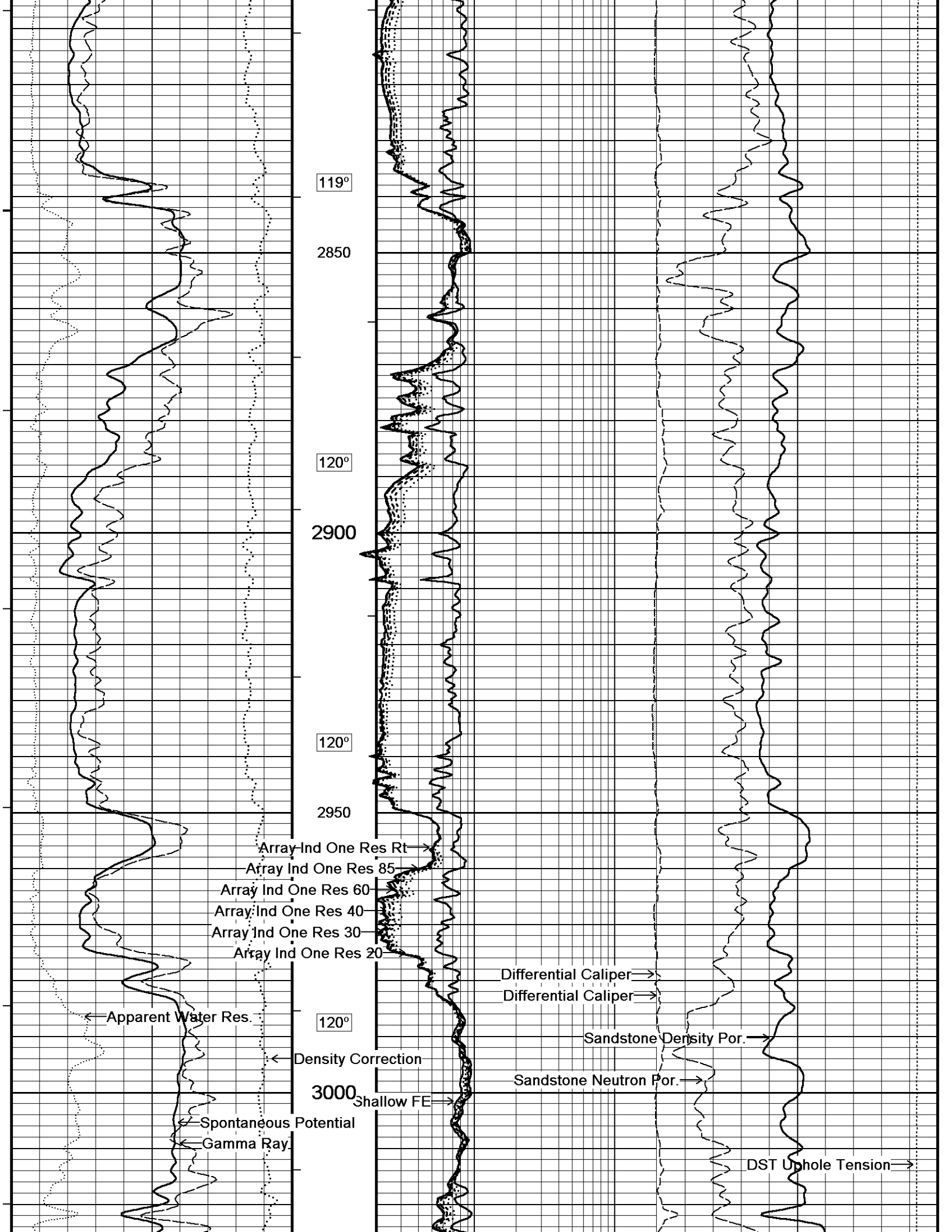


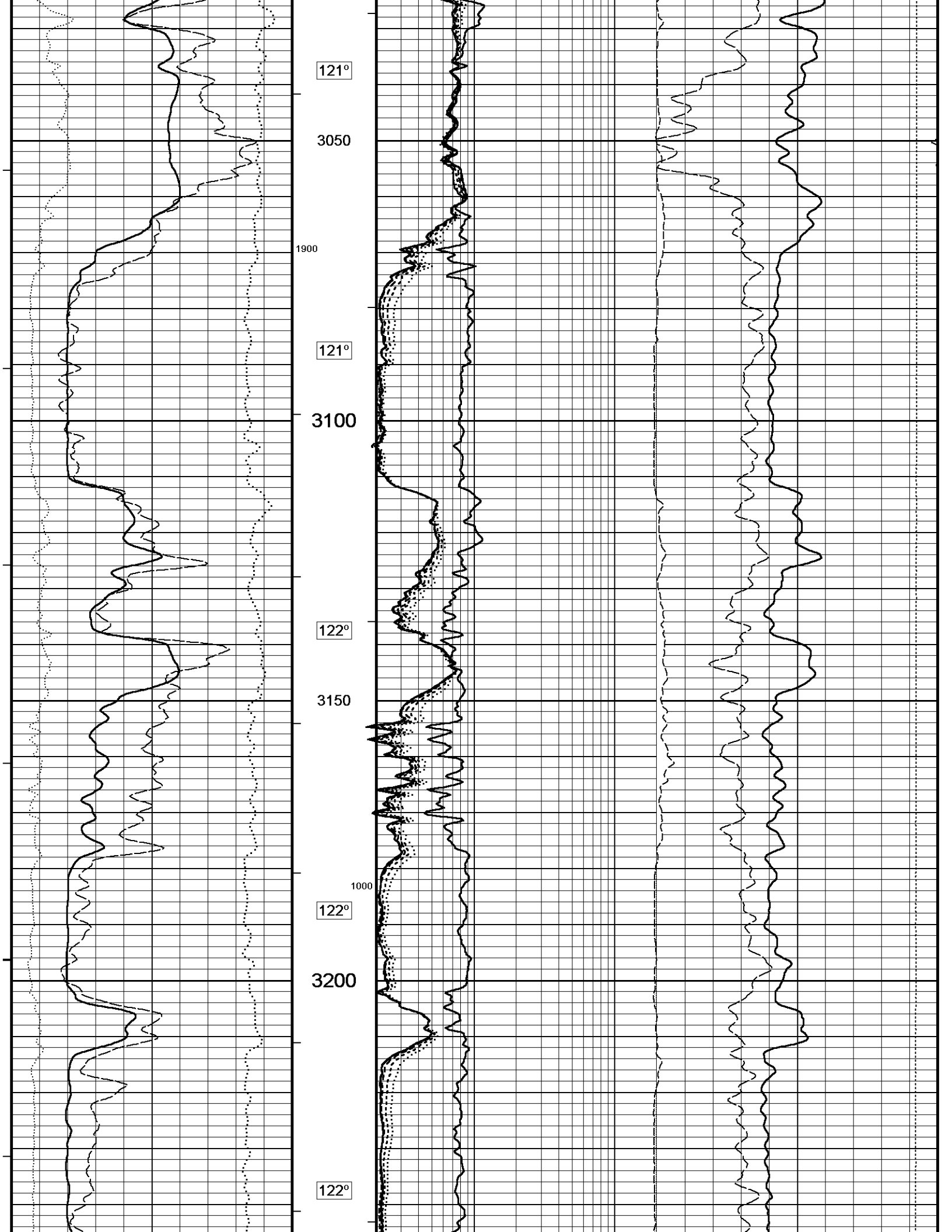


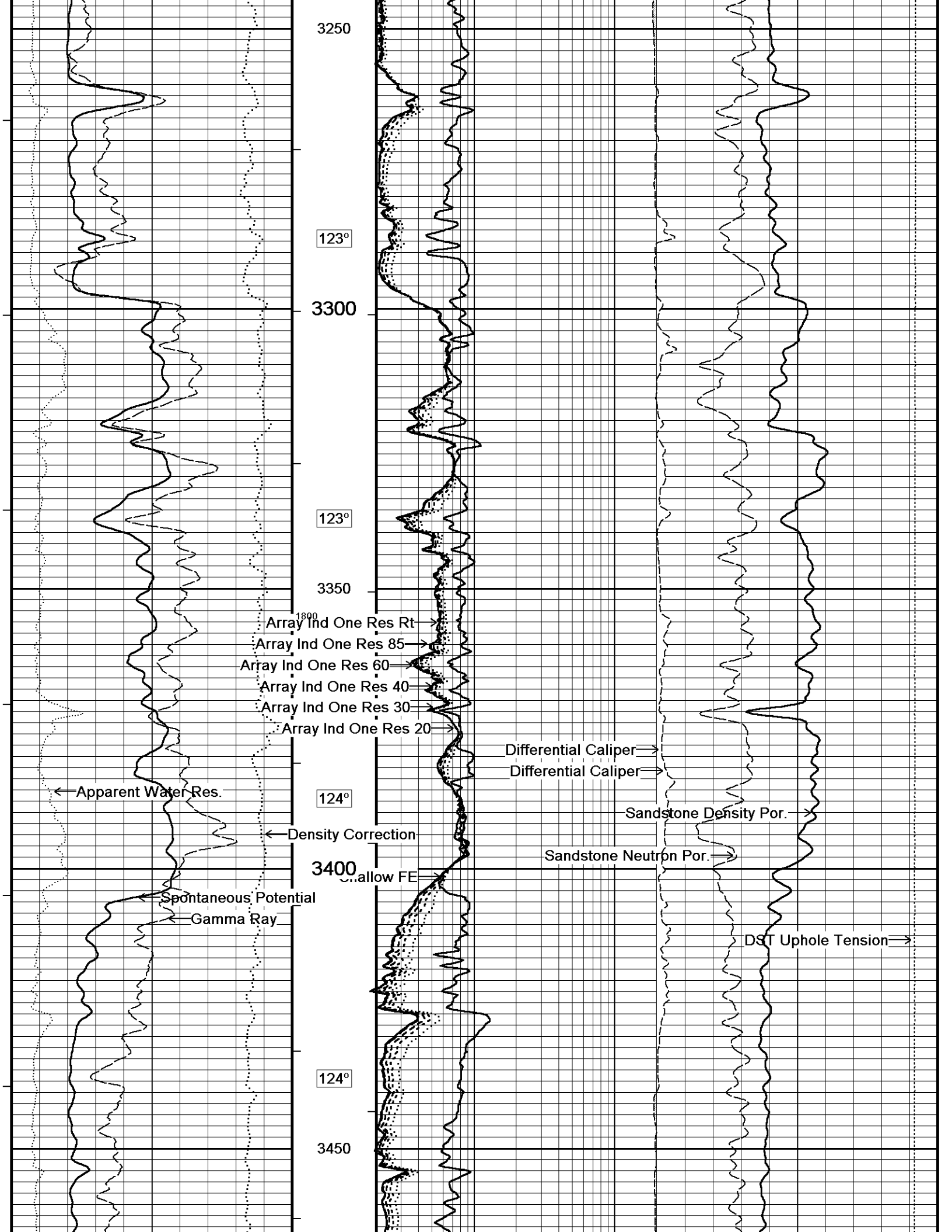


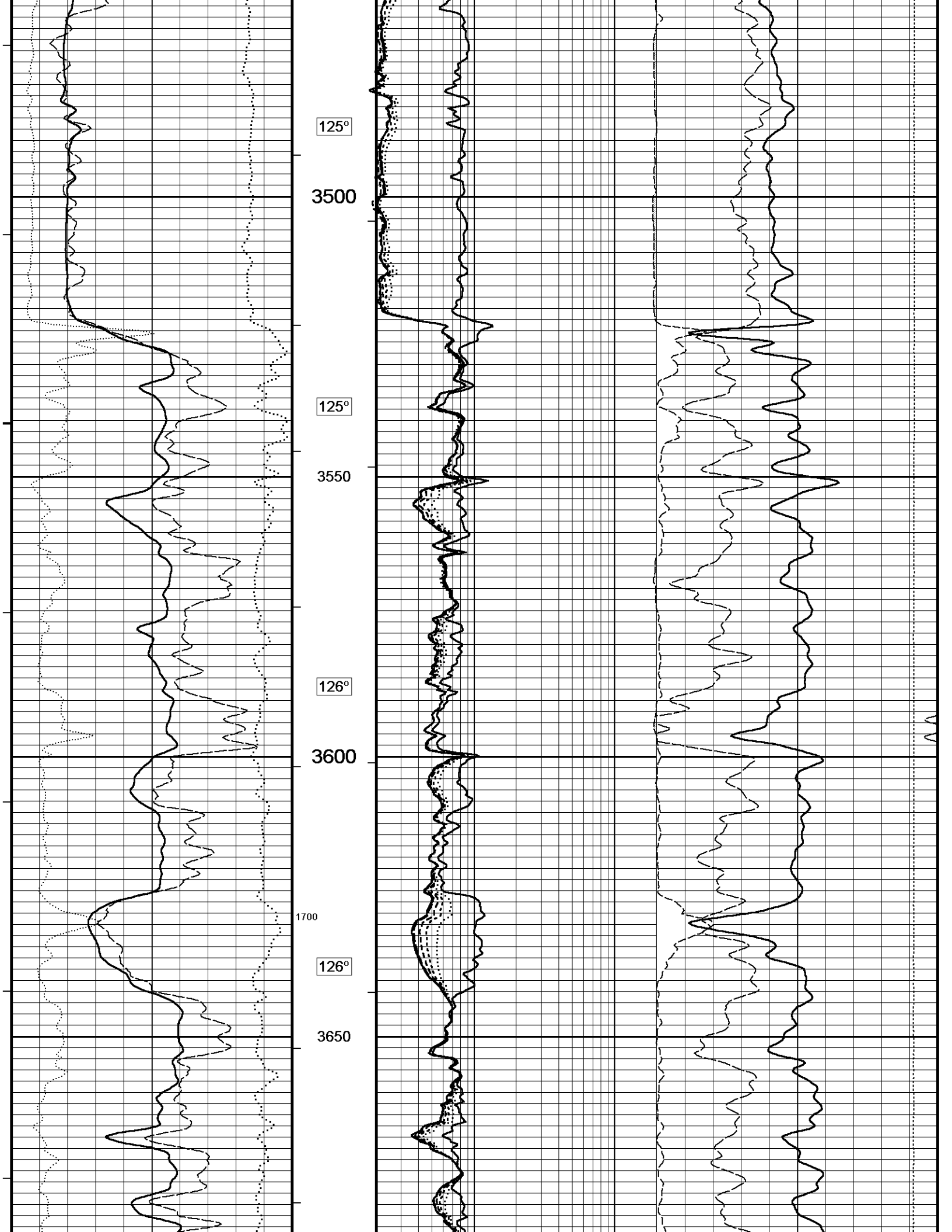


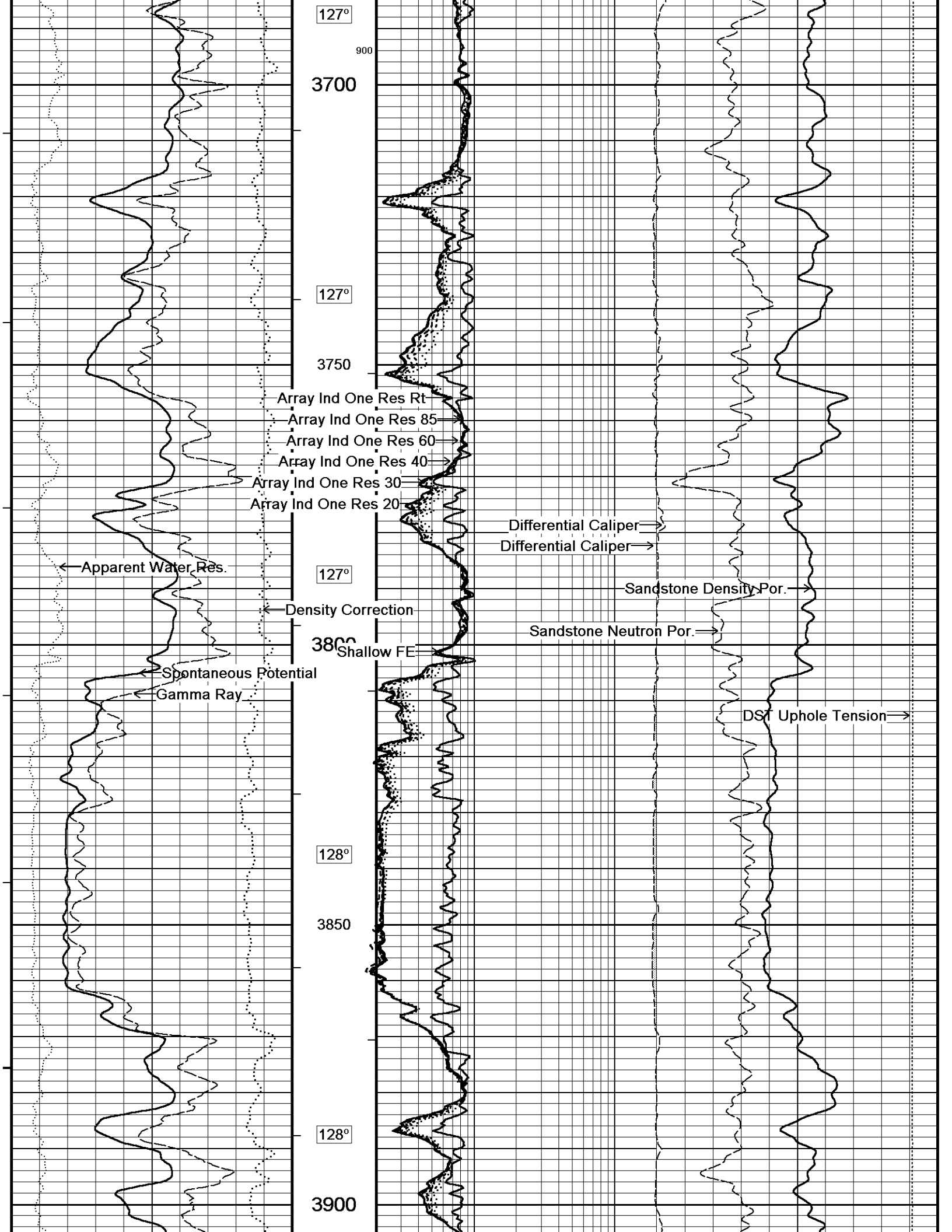


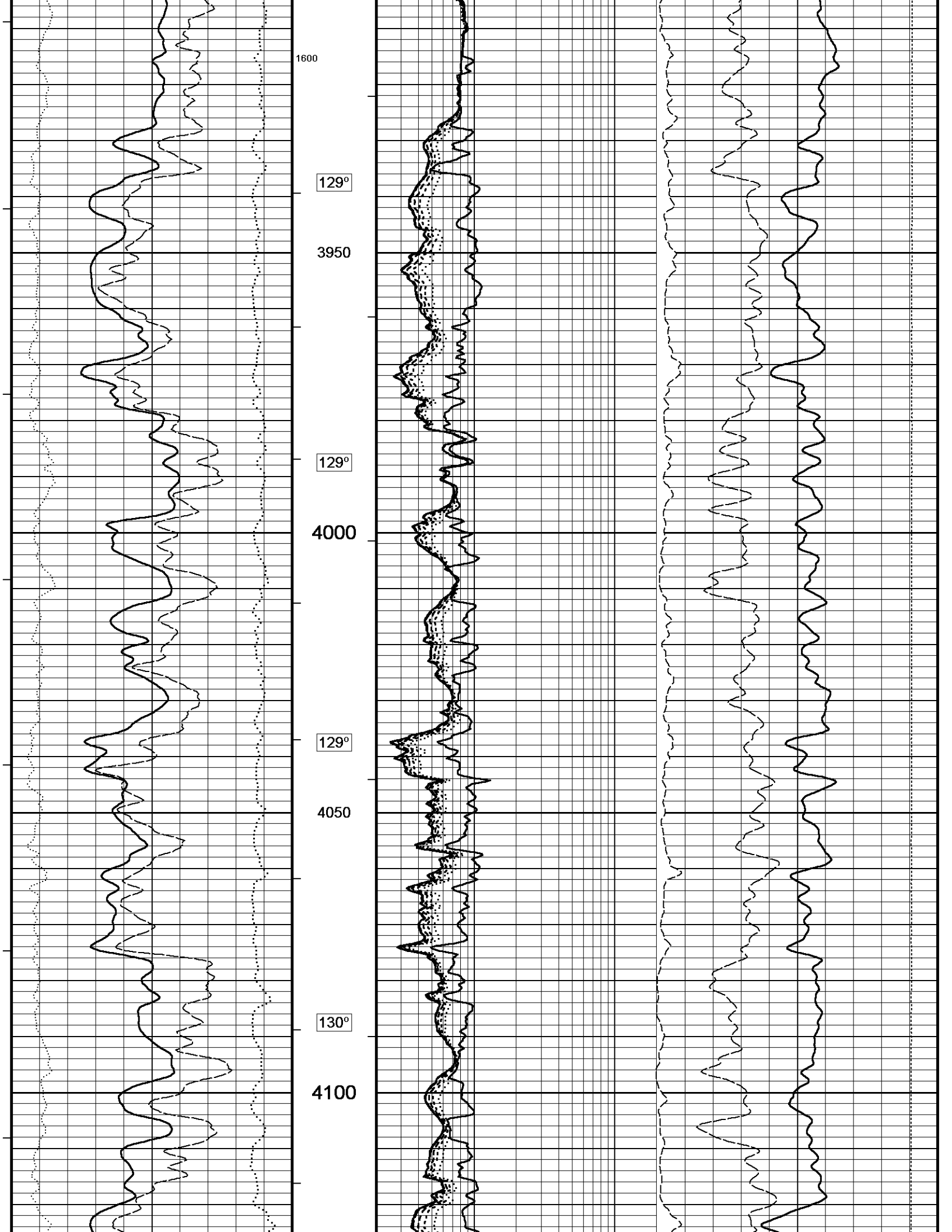


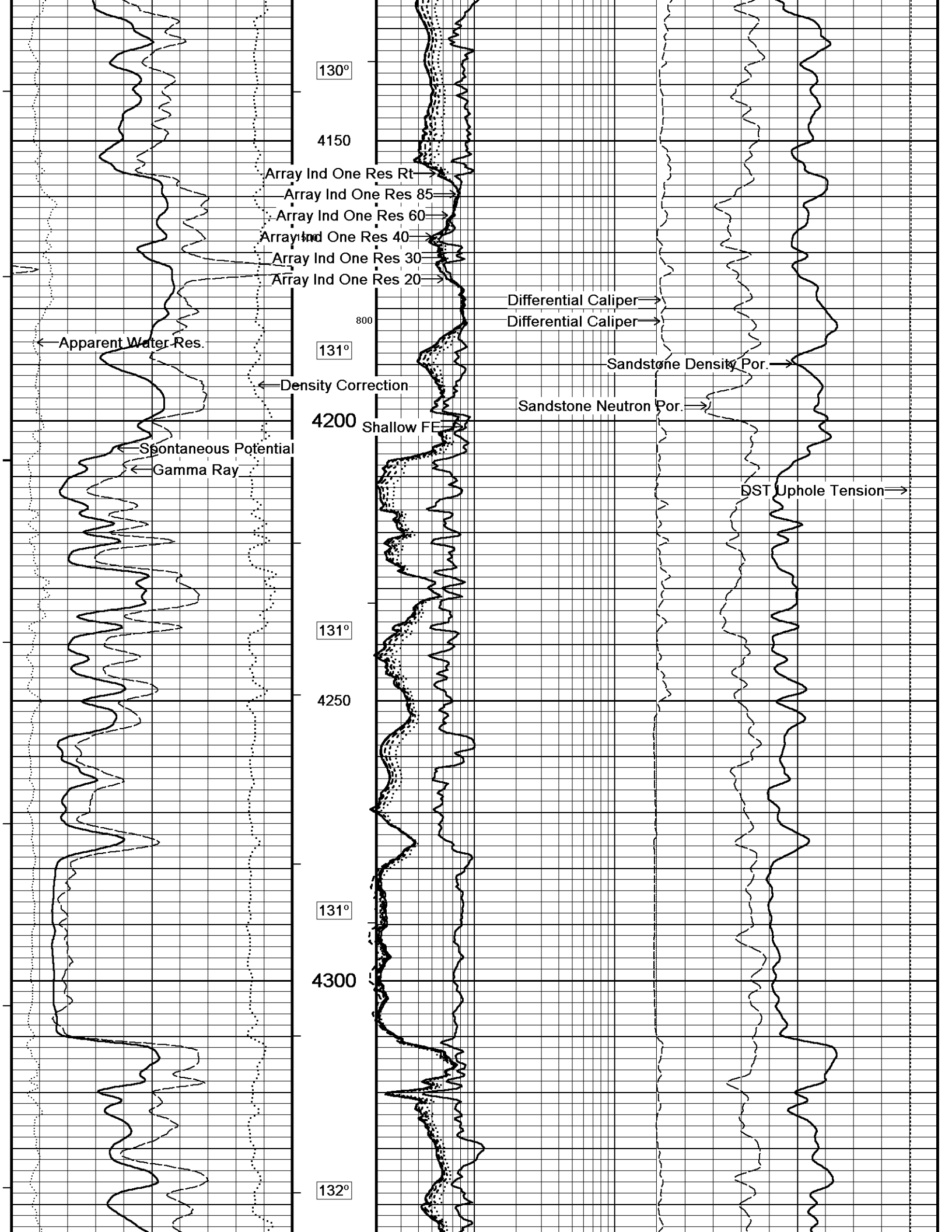


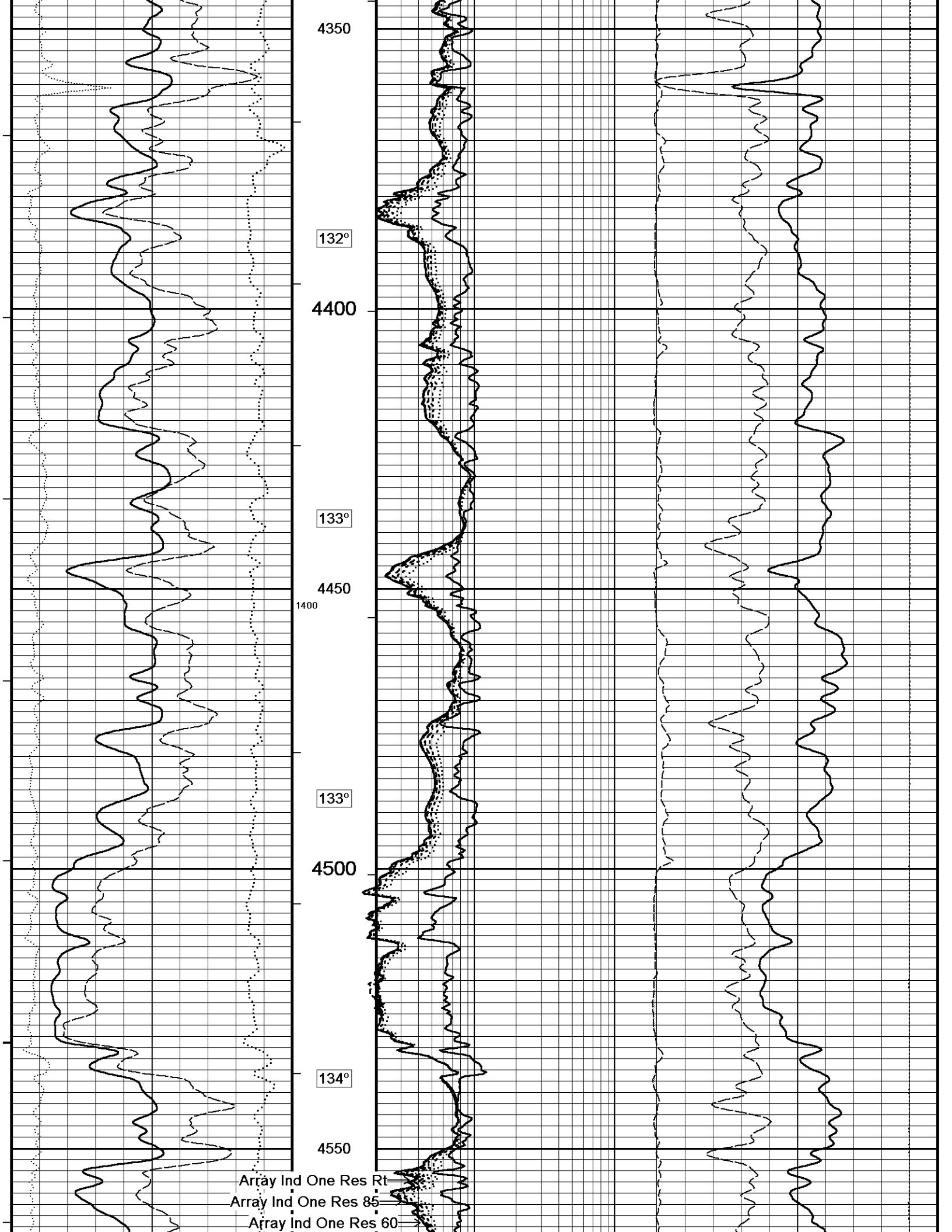


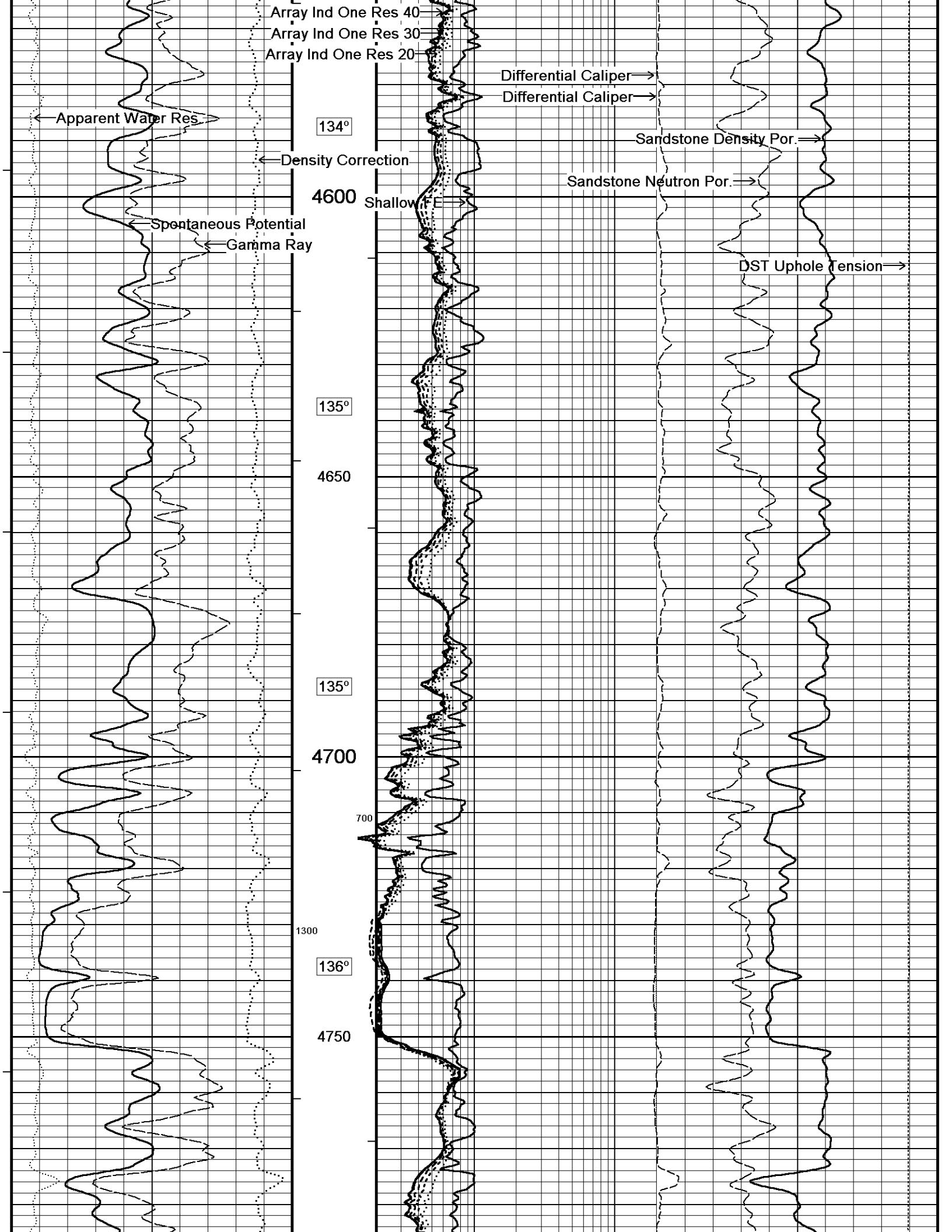


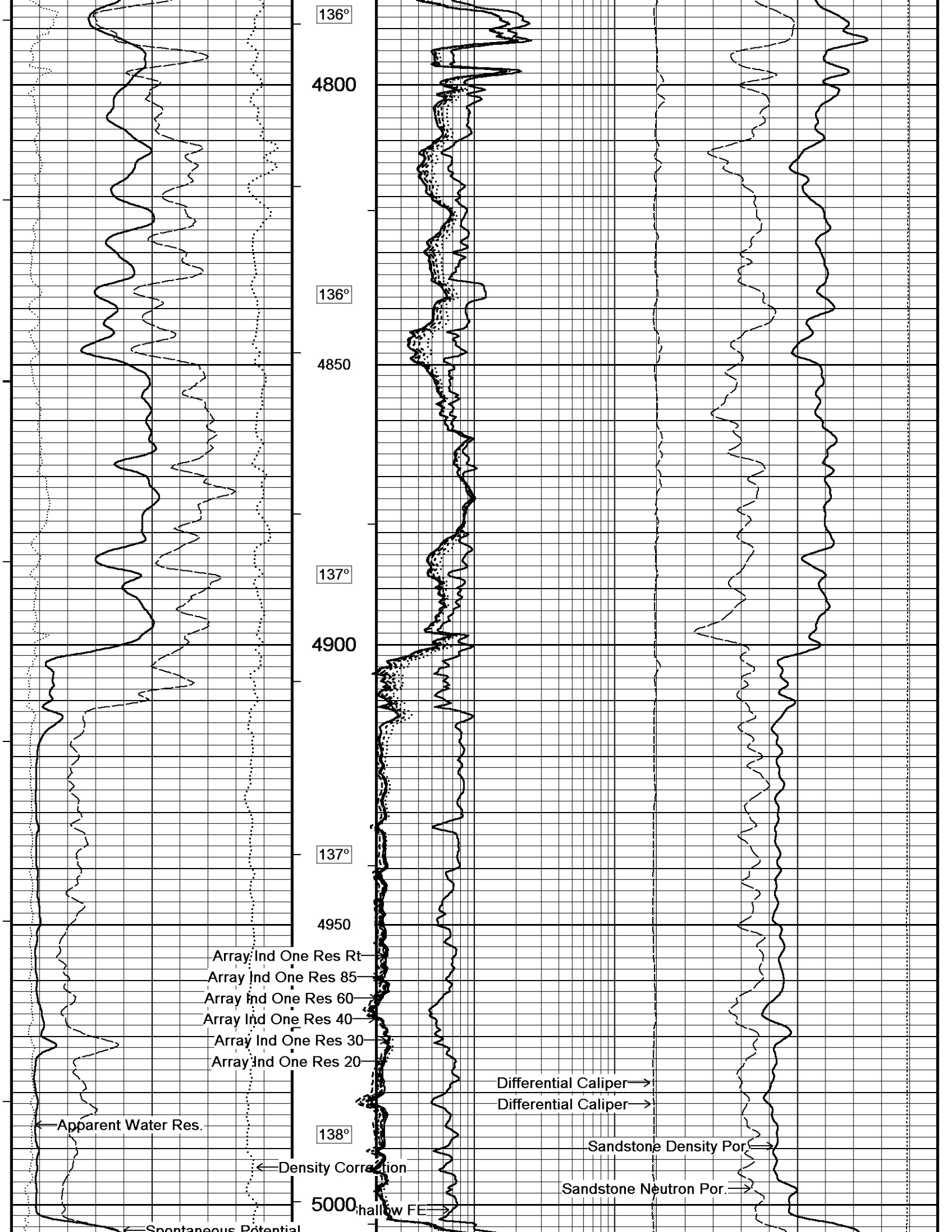


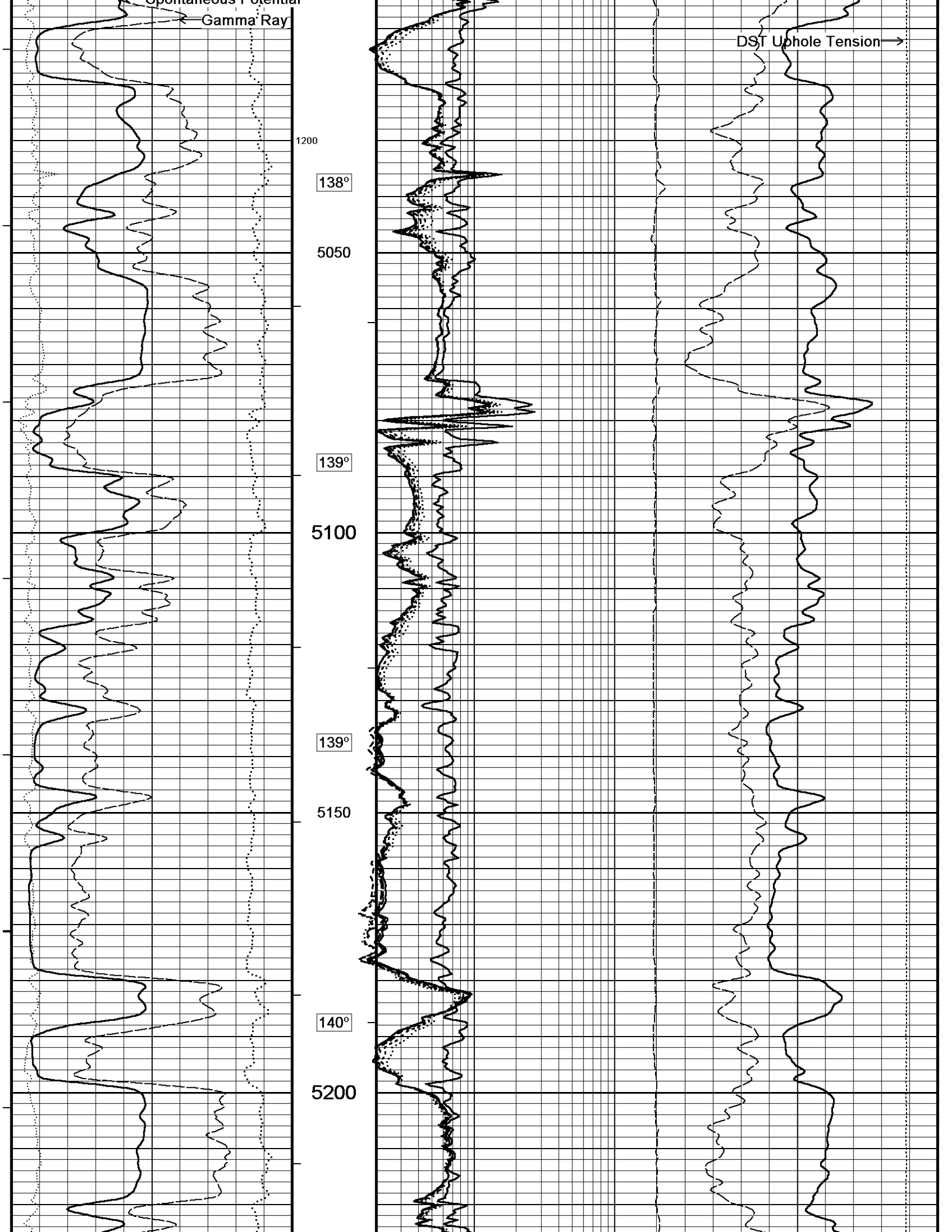


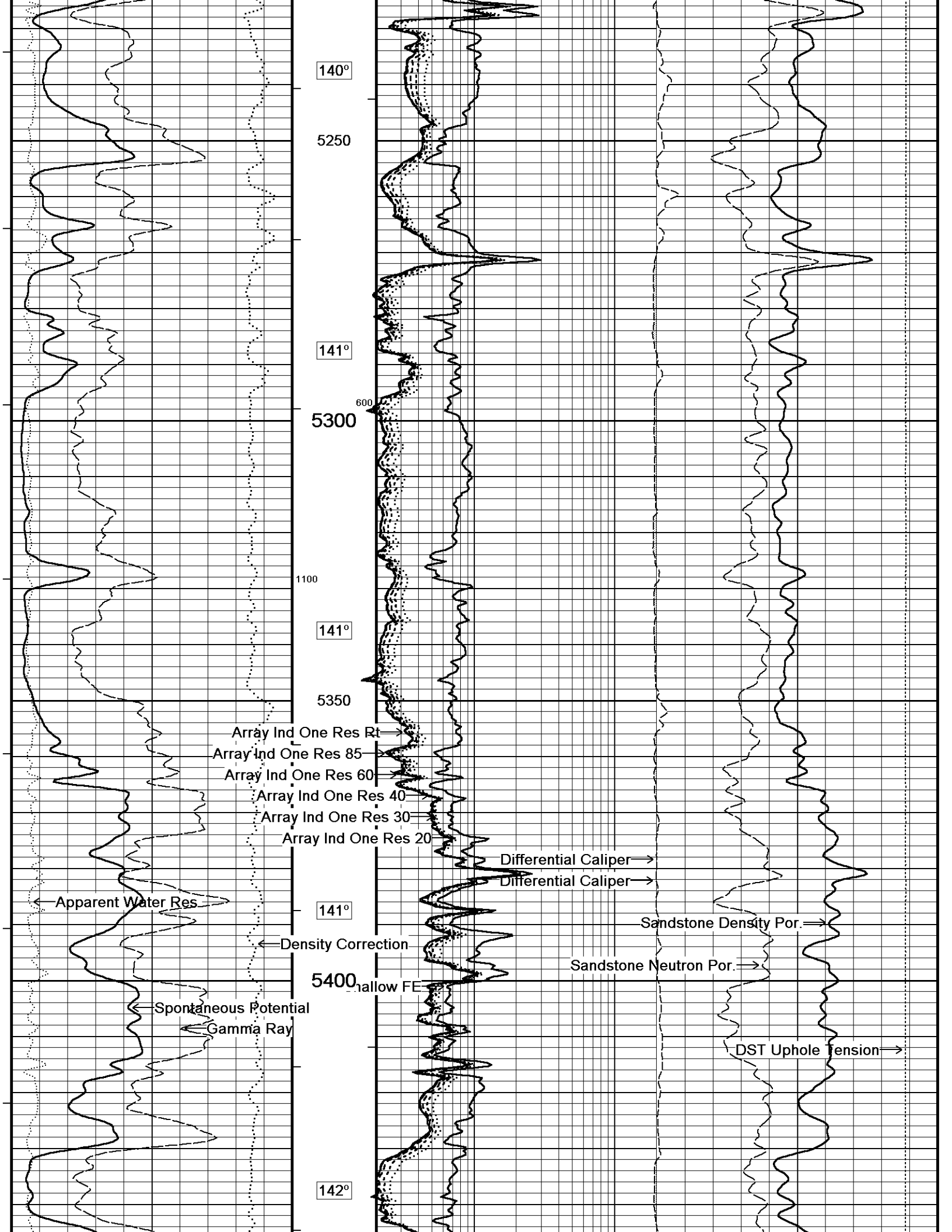


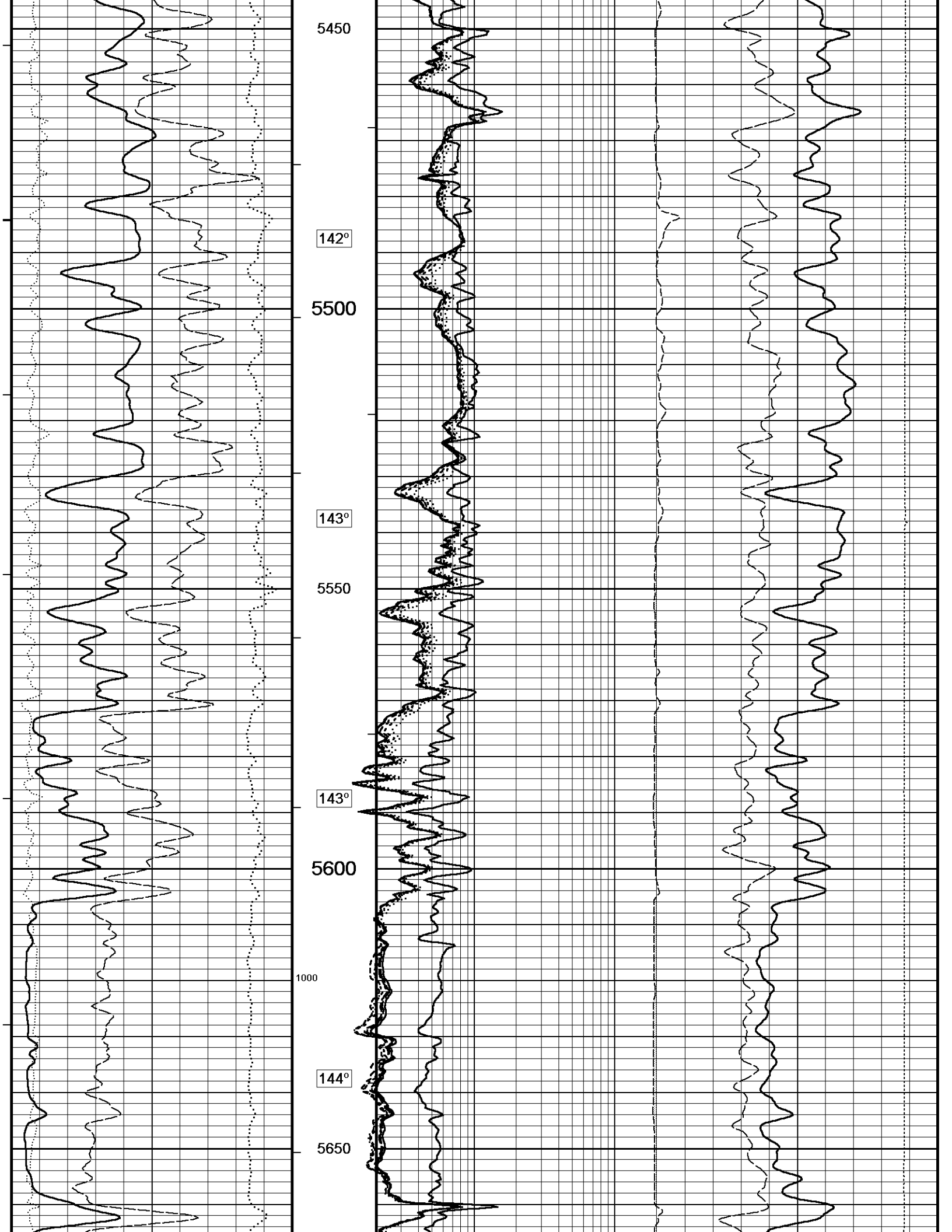


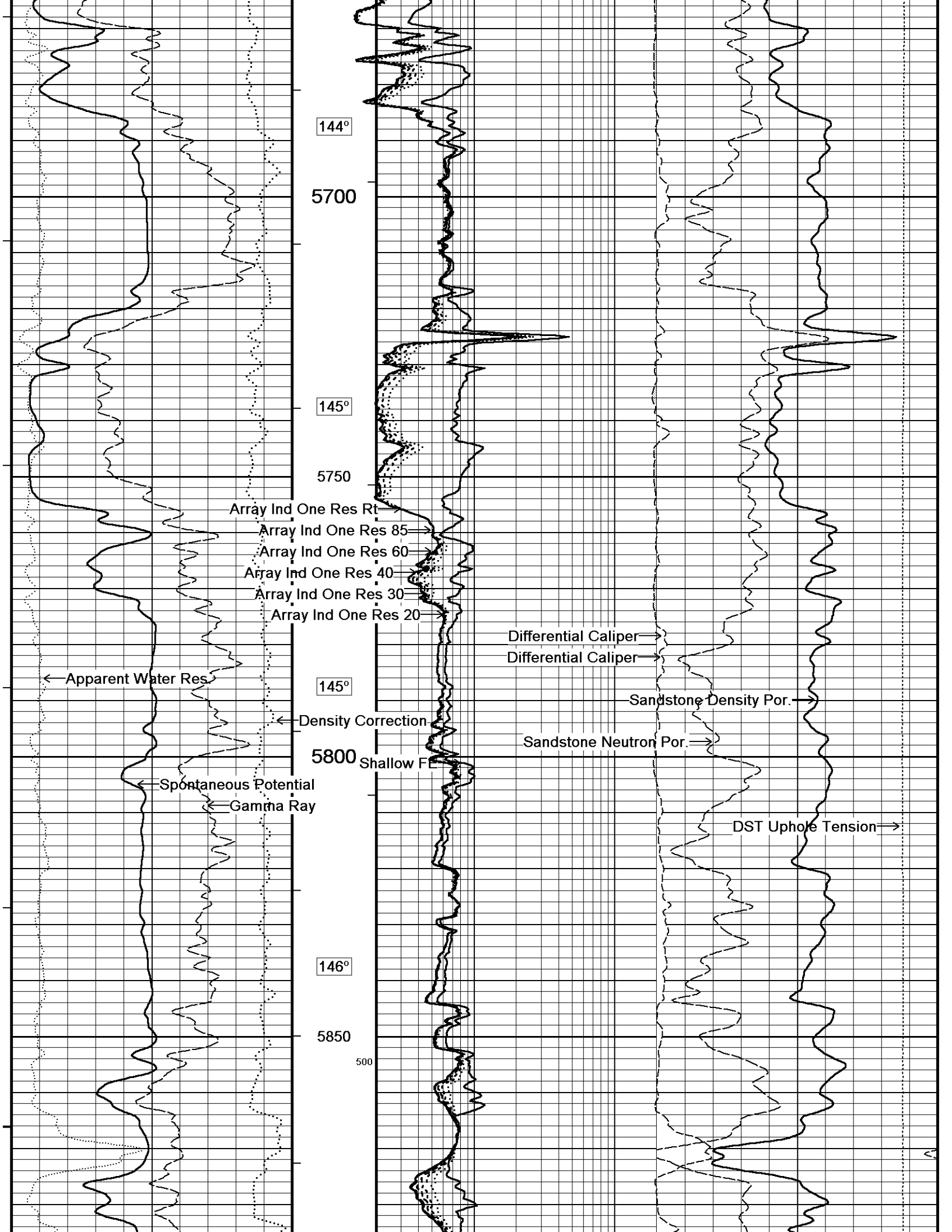


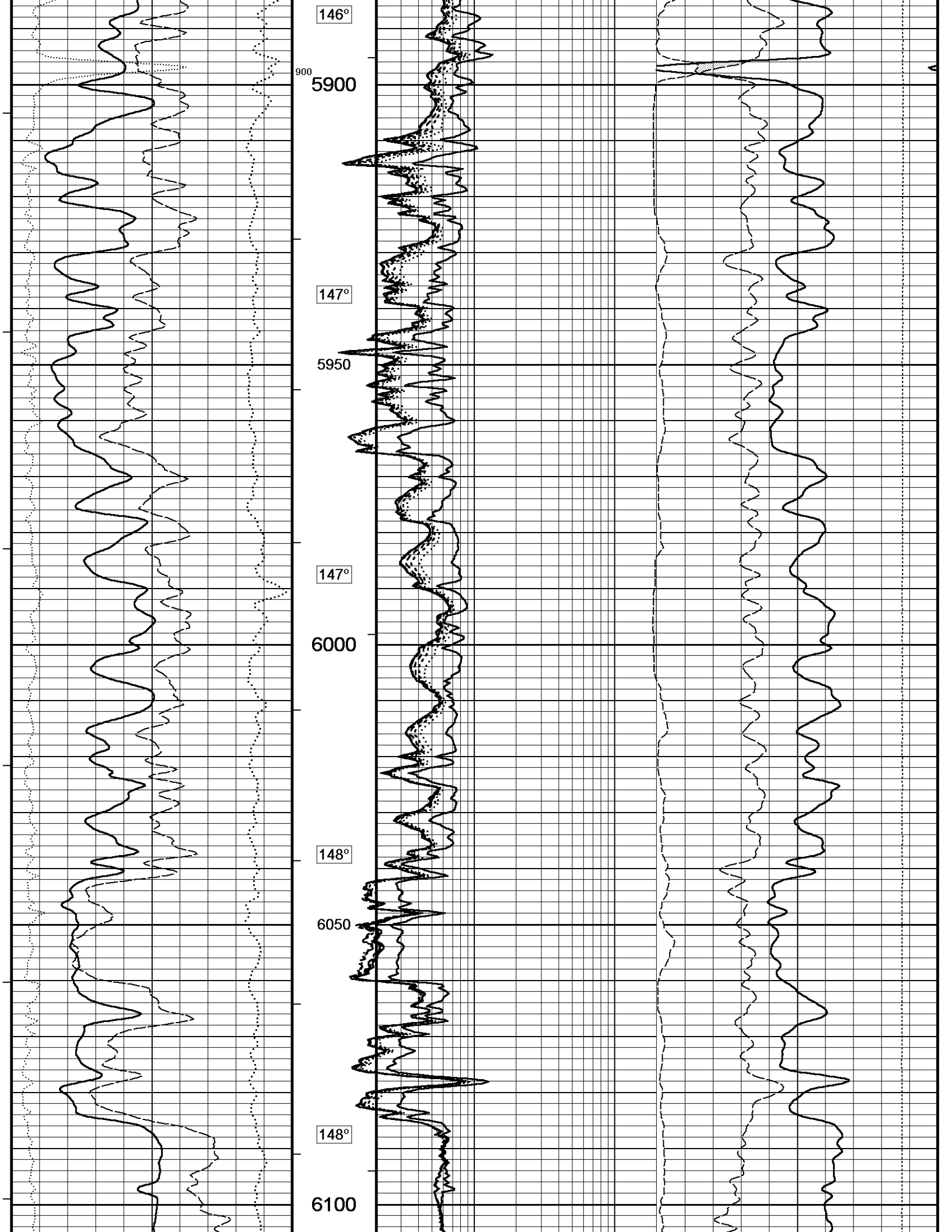


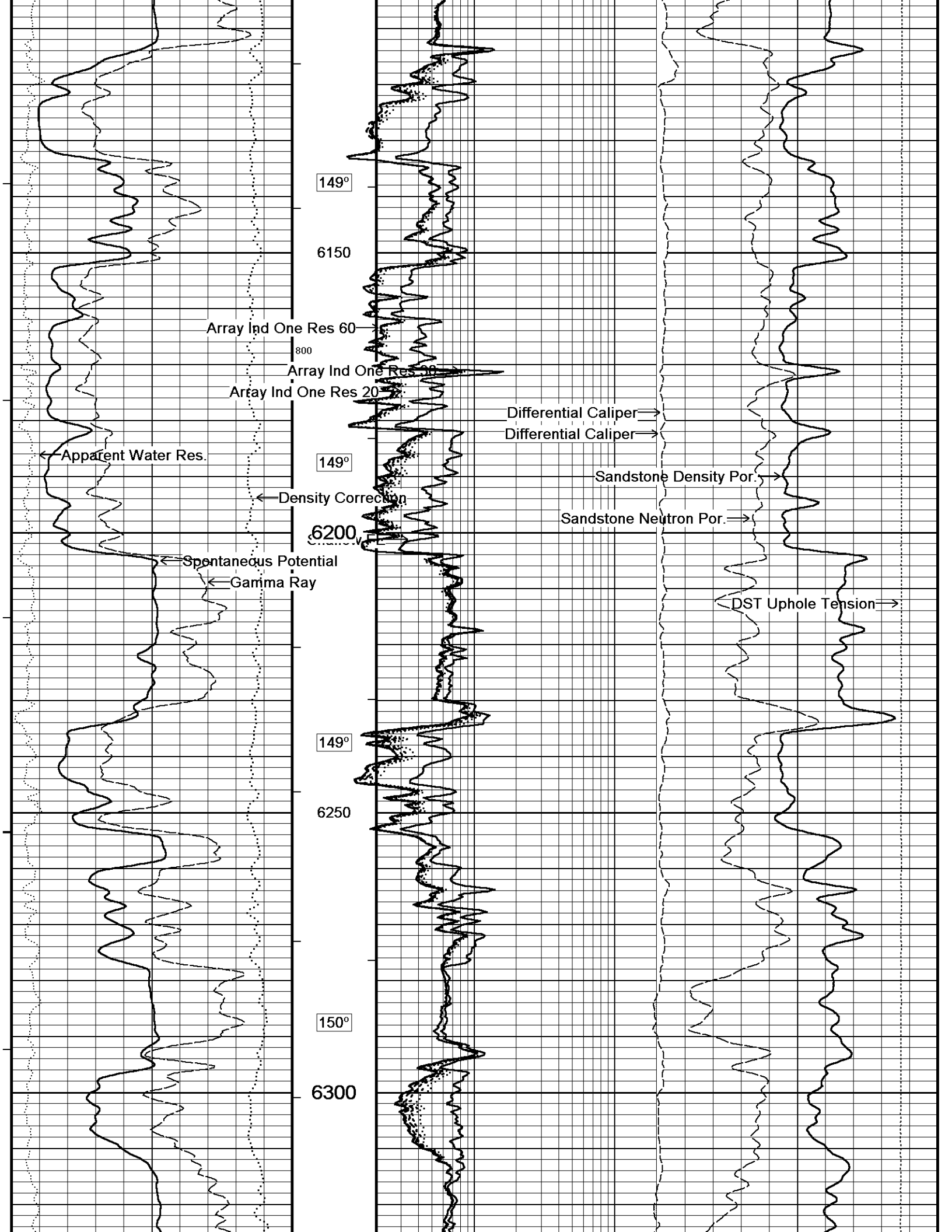


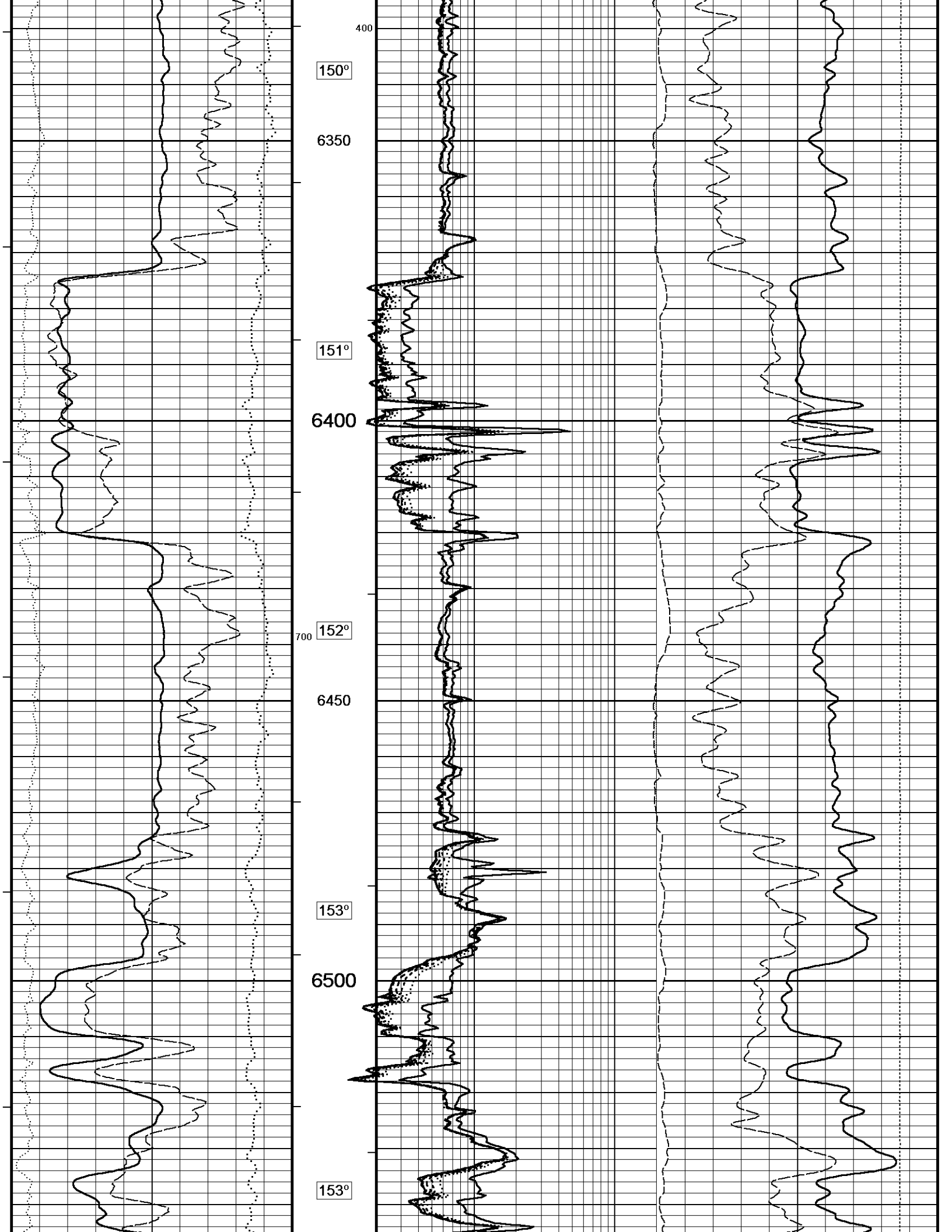


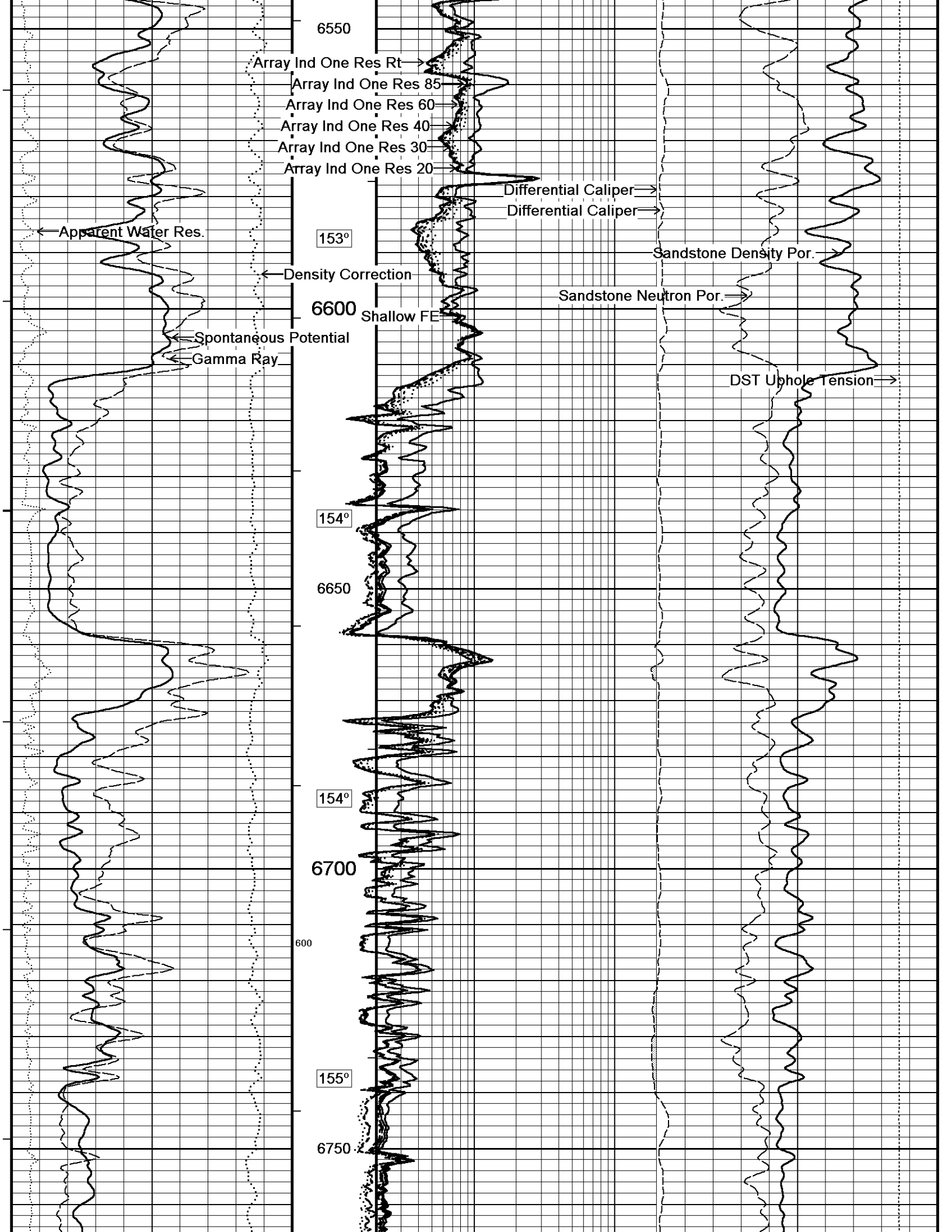


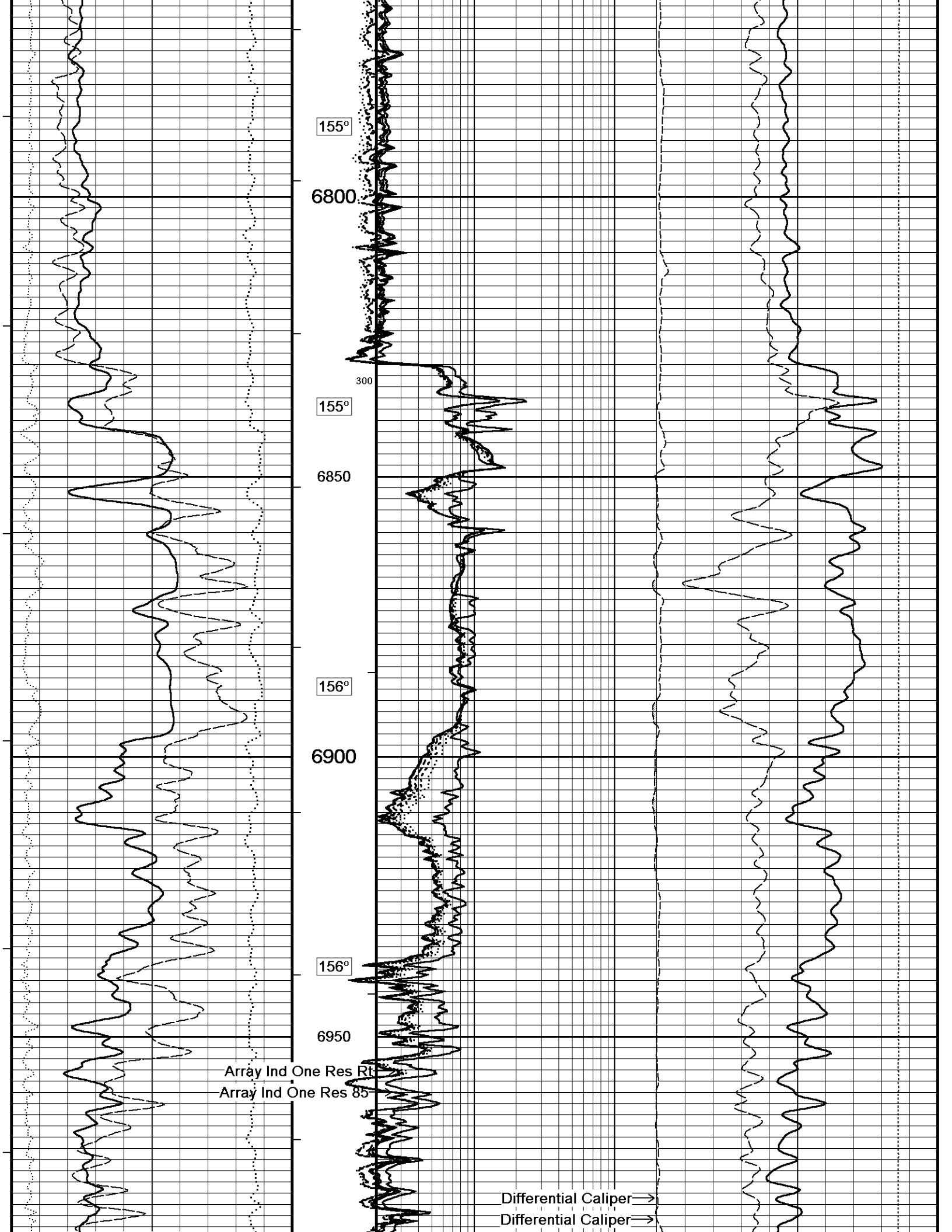


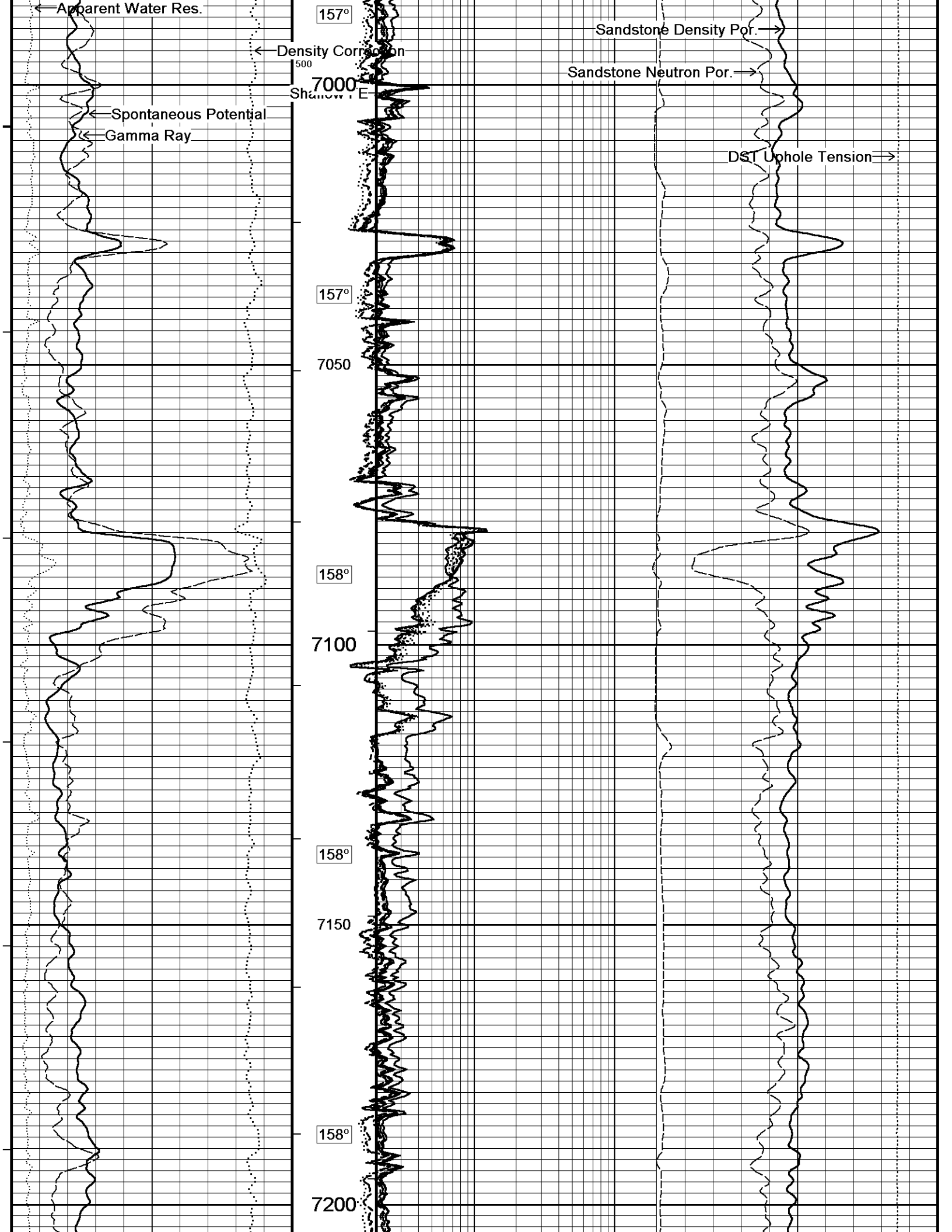


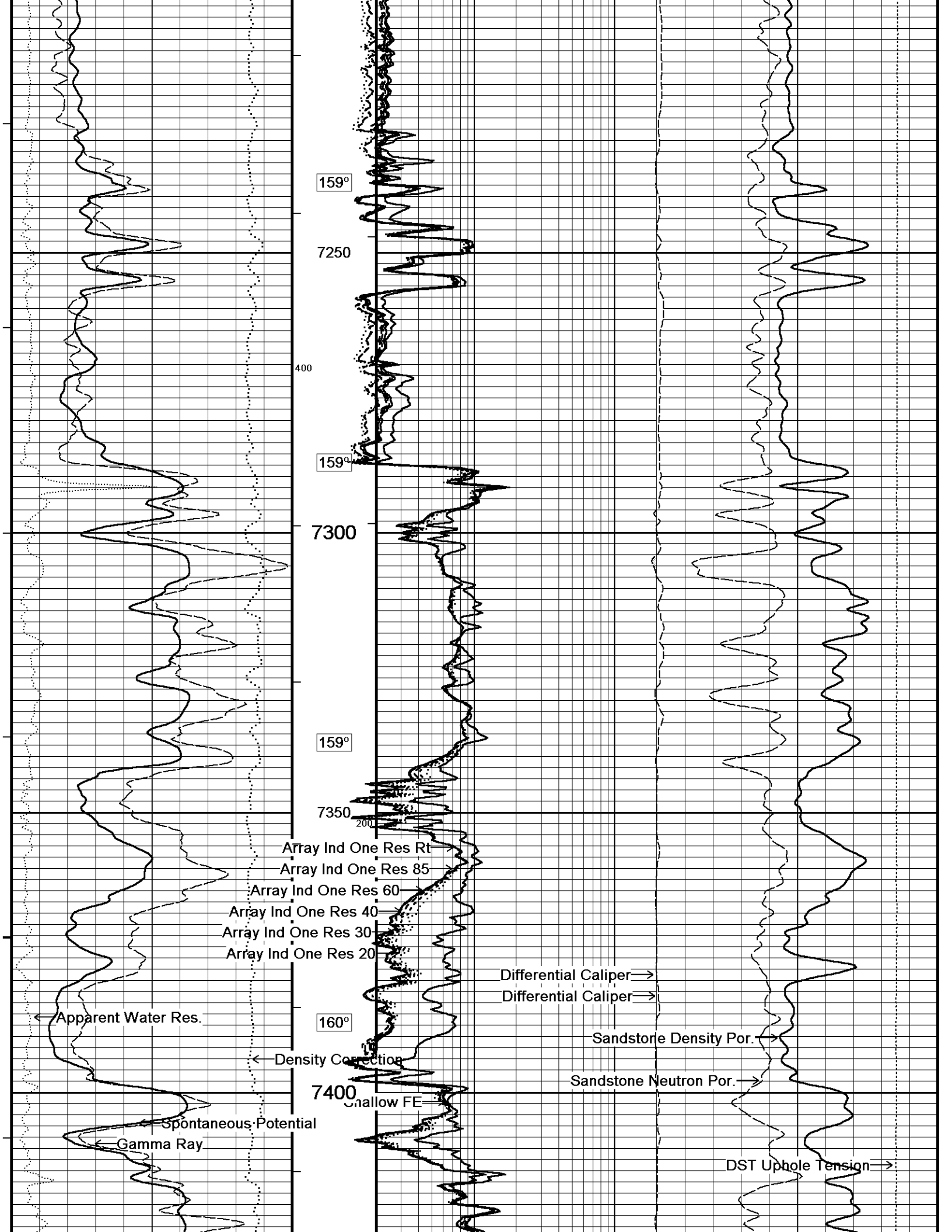


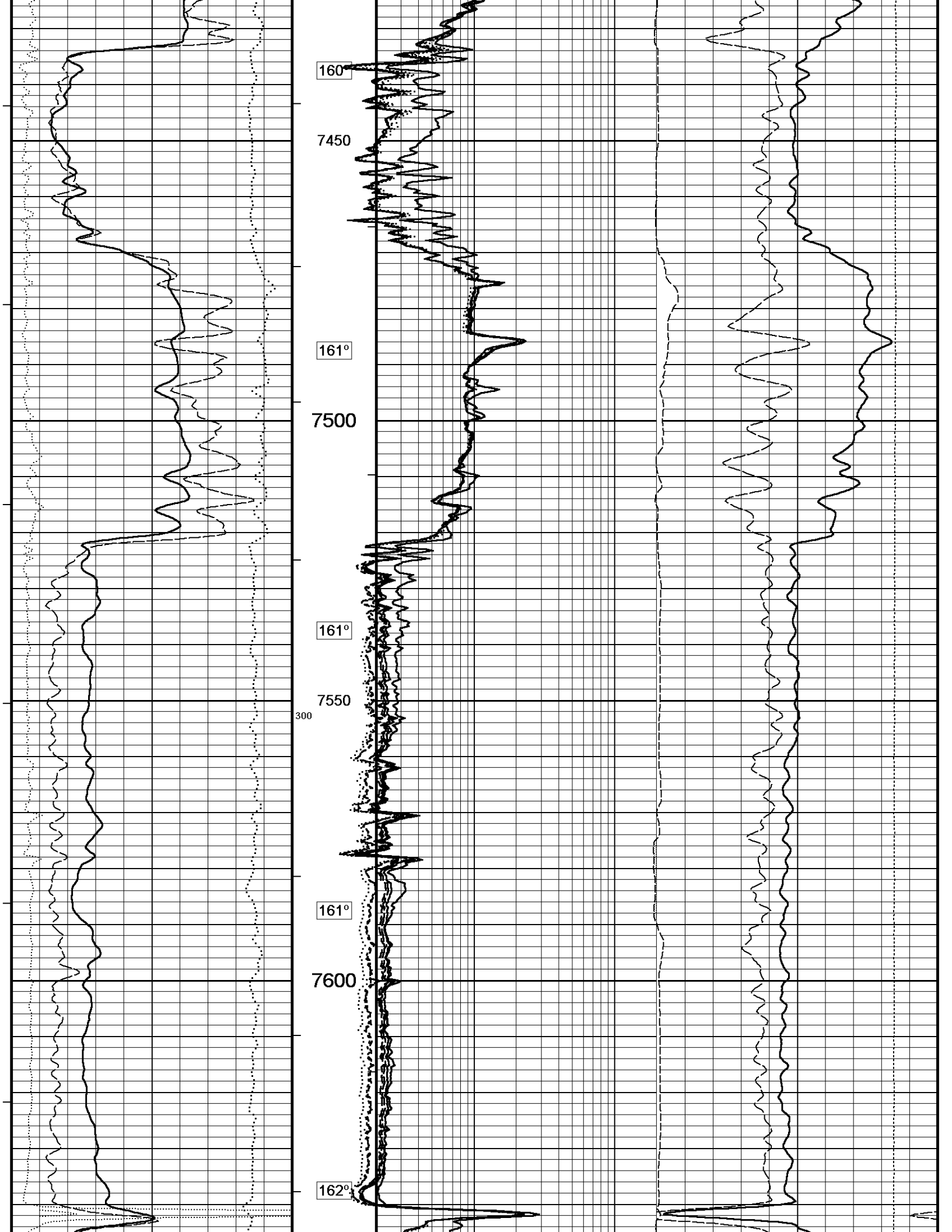


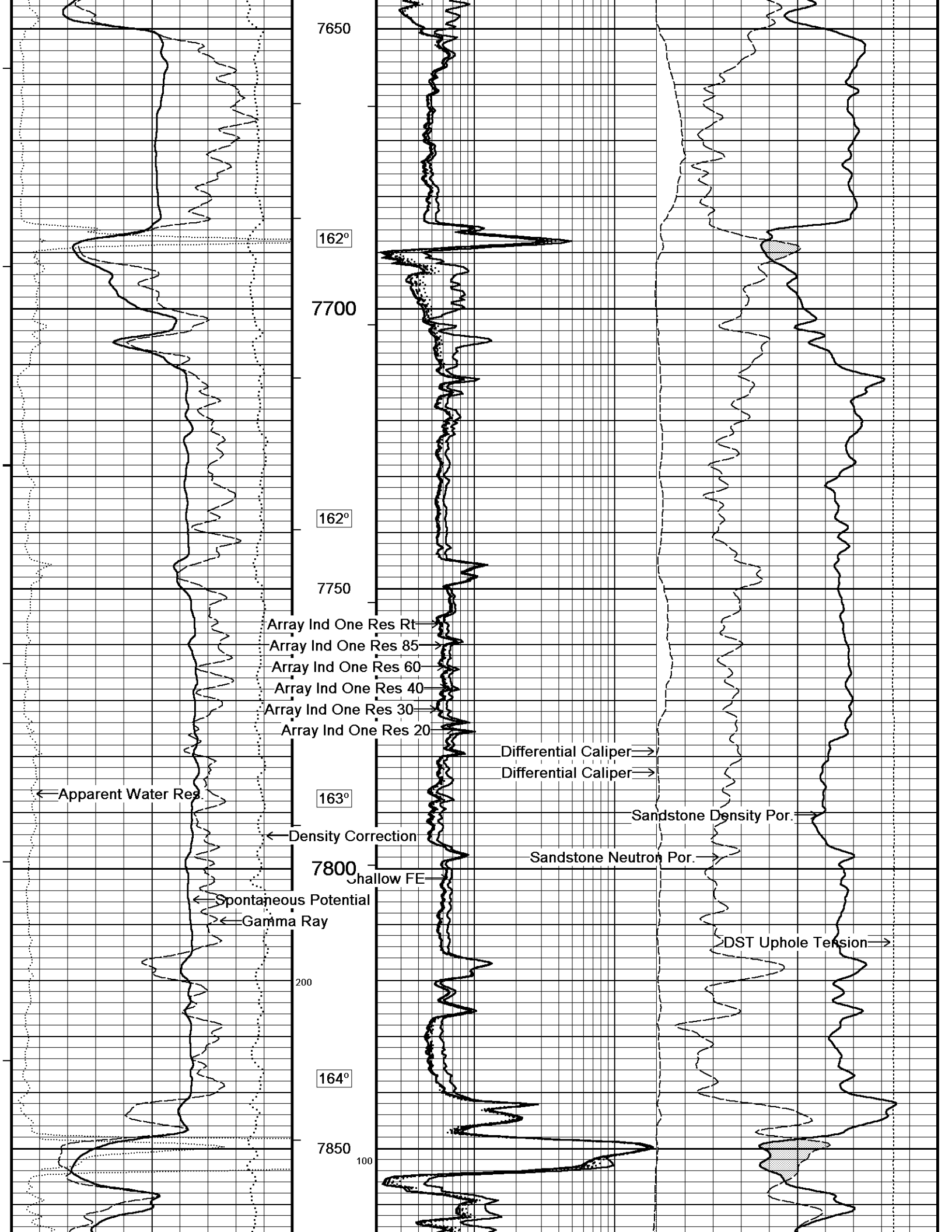


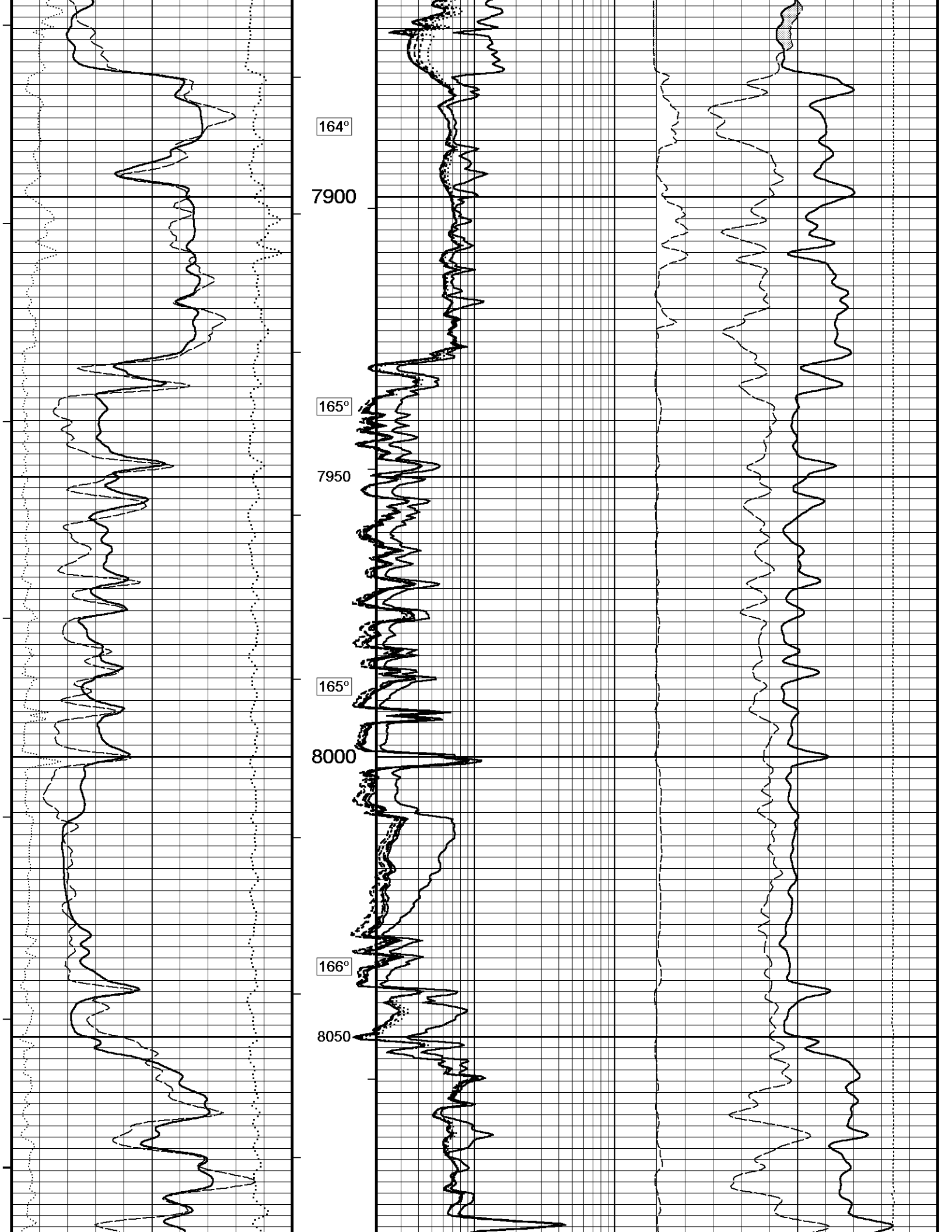


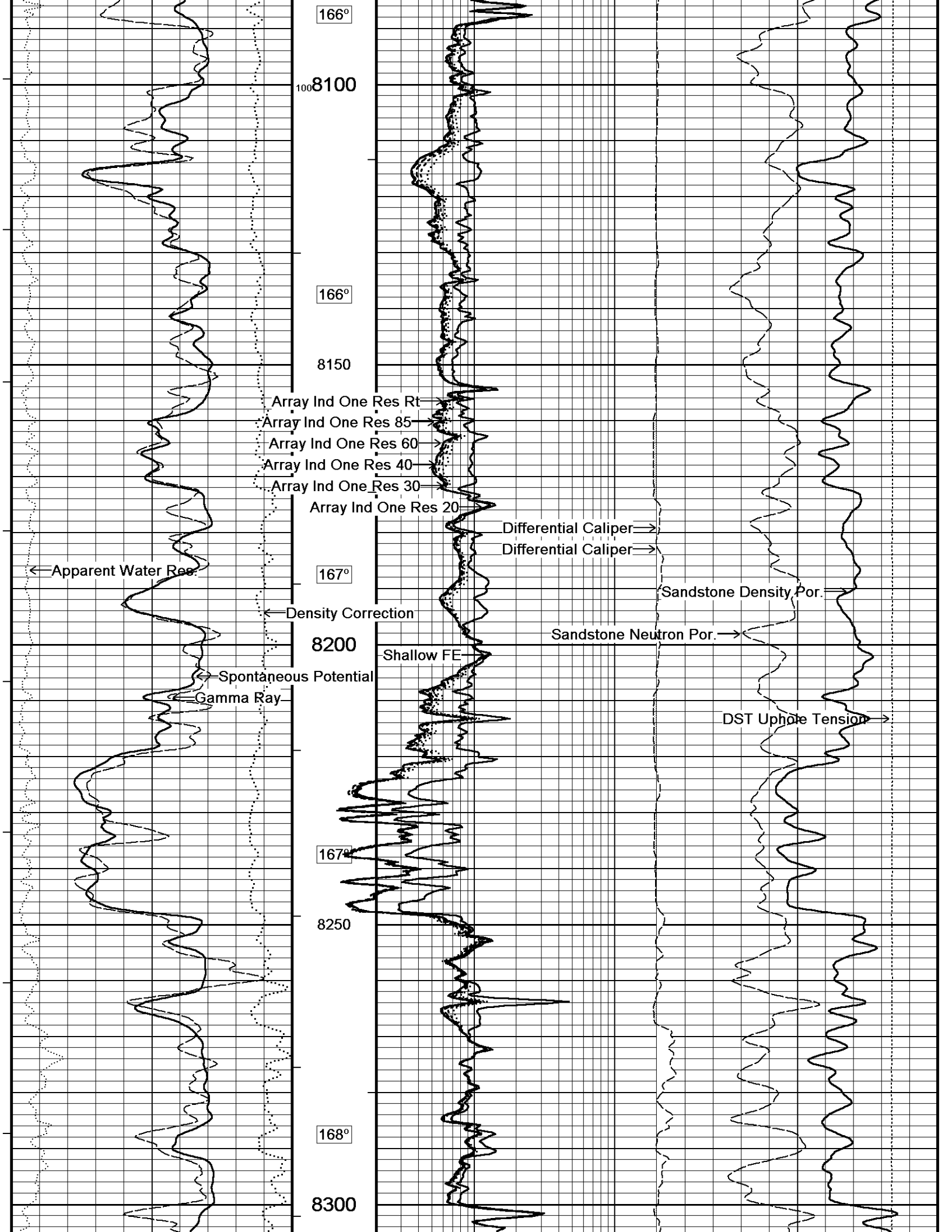












166°

100  
8100

166°

8150

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

Differential Caliper  
Differential Caliper

← Apparent Water Res.

167°

← Density Correction

Sandstone Density Por.

8200

Sandstone Neutron Por.

← Spontaneous Potential  
← Gamma Ray

Shallow FE

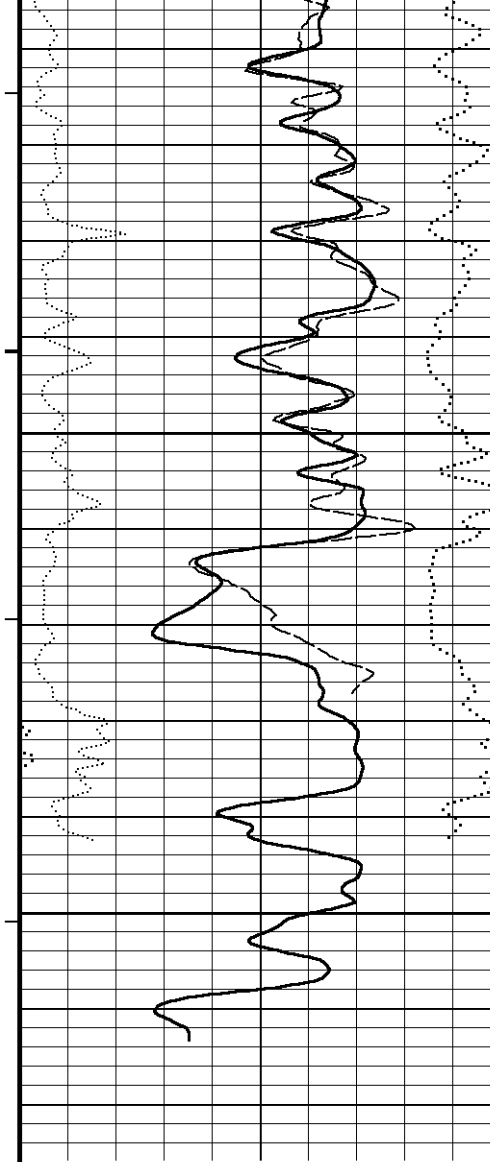
DST Uphole Tension →

167°

8250

168°

8300



169°

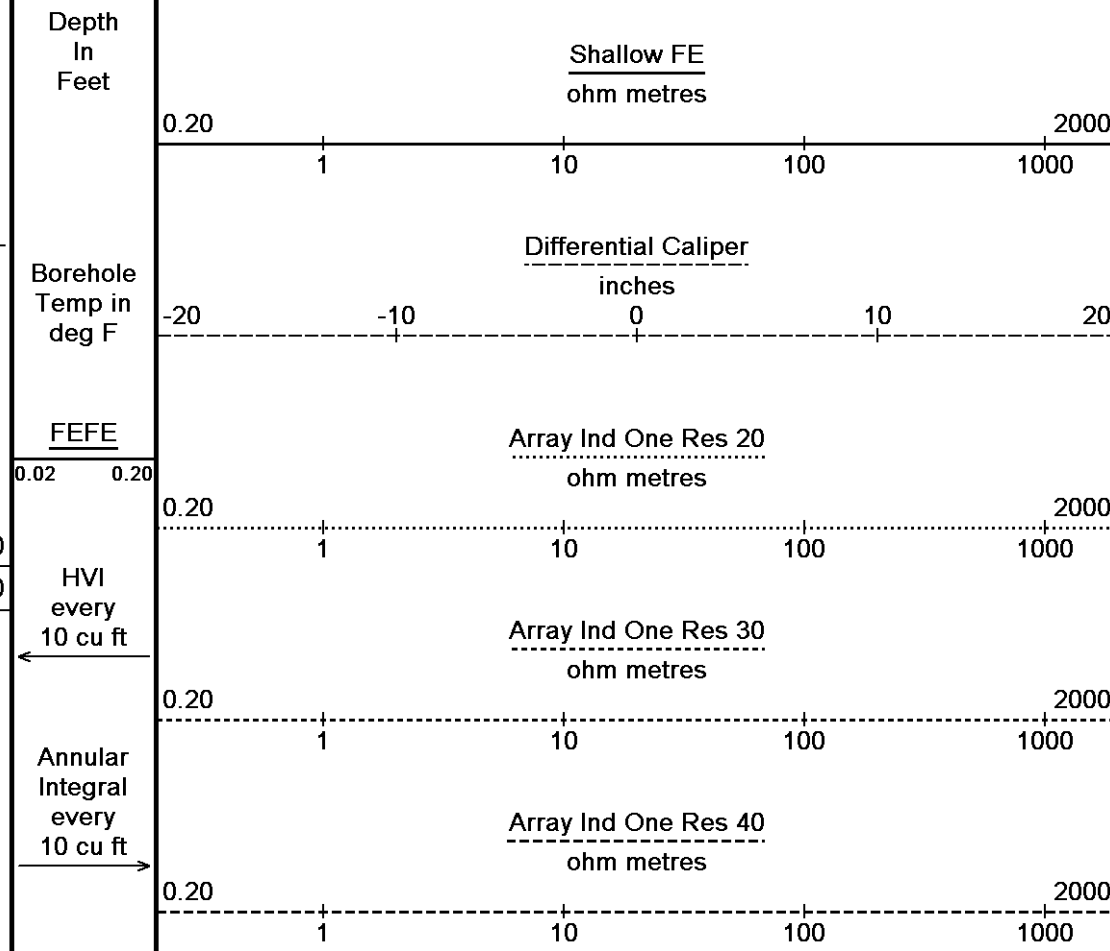
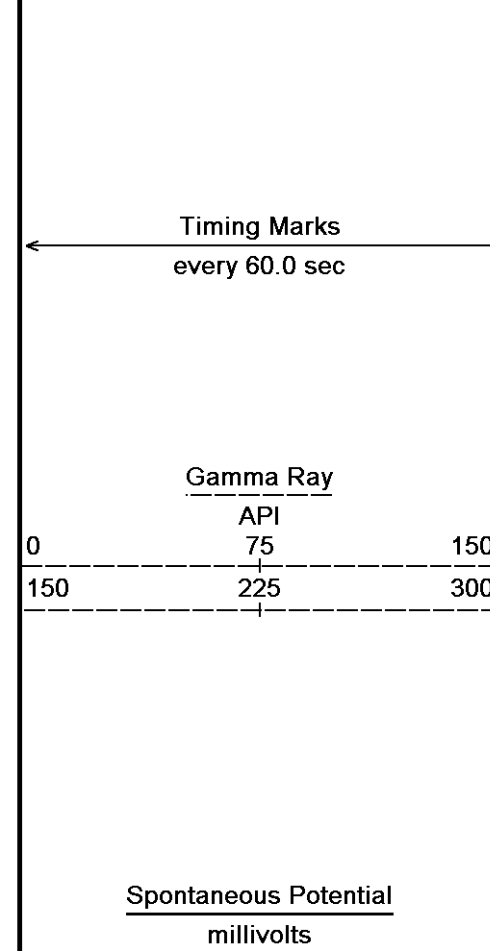
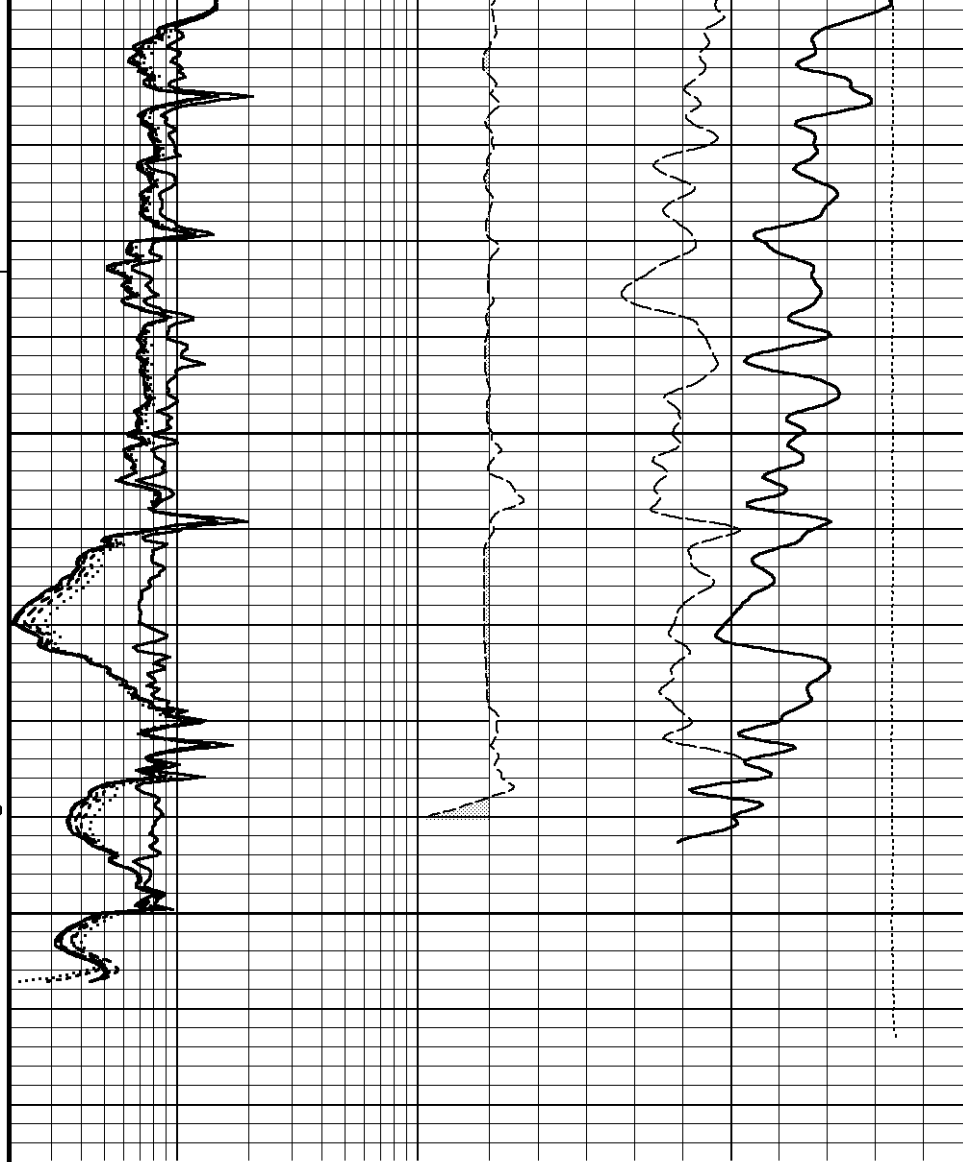
8350

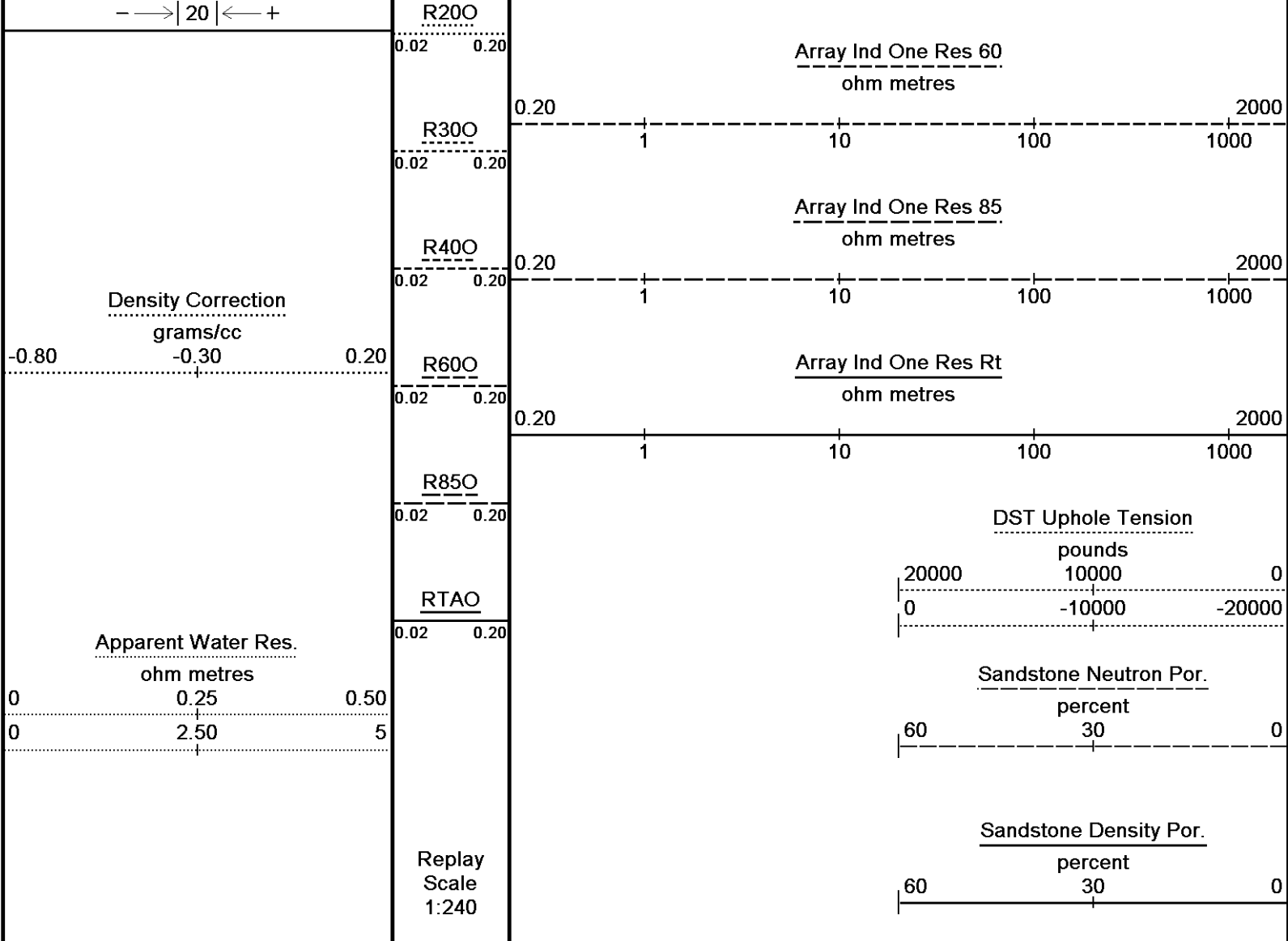
0

8400

8424

Depth In Feet



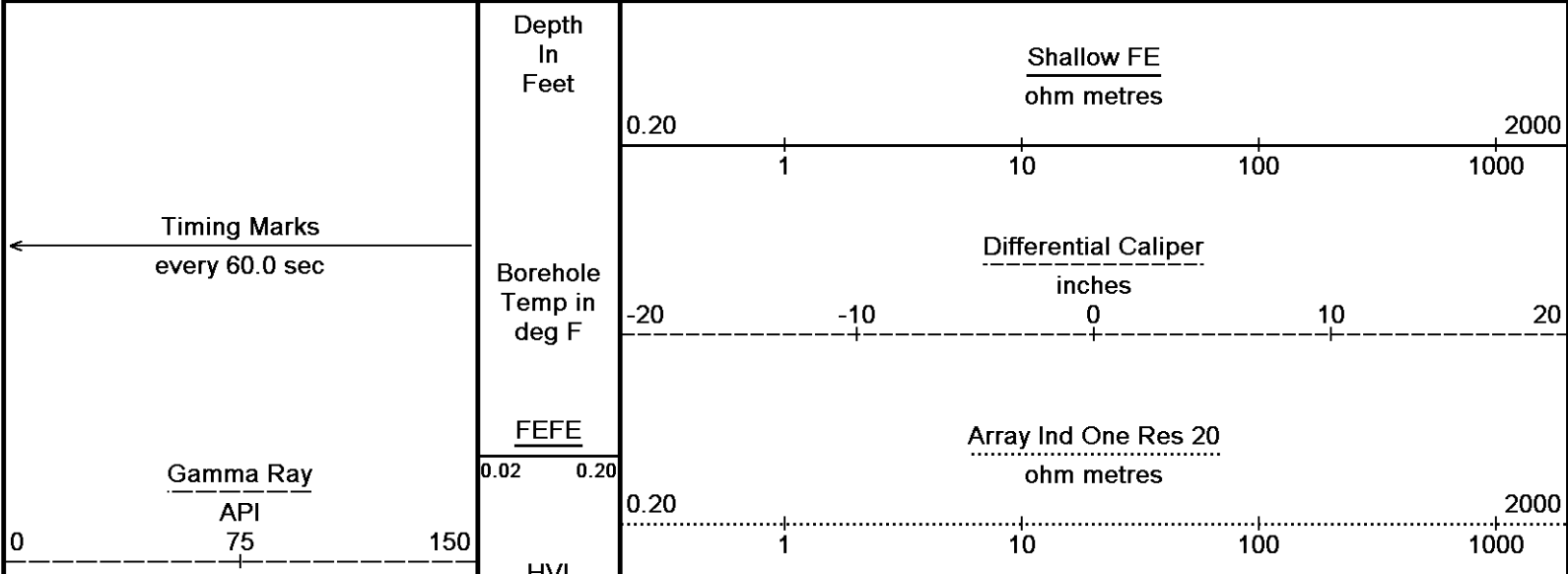


Depth Based Data - Maximum Sampling Increment 10.0cm  
 Plotted on 07-JUL-2011 05:53  
 Filename: C:\DATA\Guichard\_Smith Production\NR Broussard Landing #1\Main Pass2.dta  
 Recorded on 06-JUL-2011 22:54  
 System Versions: Logged with 11.02.2782 Processed with 11.02.2782 Plotted with 11.02.2782

↑
**5 INCH MAIN PASS**
↑

↓
**REPEAT SECTION**
↓

Depth Based Data - Maximum Sampling Increment 10.0cm  
 Plotted on 07-JUL-2011 05:53  
 Filename: C:\DATA\Guichard\_Smith Production\NR Broussard Landing #1\Repeat.dta  
 Recorded on 06-JUL-2011 20:37  
 System Versions: Logged with 11.02.2782 Processed with 11.02.2782 Plotted with 11.02.2782



150 225 300  
11V1  
every  
10 cu ft

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

Density Correction  
grams/cc  
-0.80 -0.30 0.20

Apparent Water Res.  
ohm metres  
0 0.25 0.50  
0 2.50 5

Annular  
Integral  
every  
10 cu ft

R200  
0.02 0.20

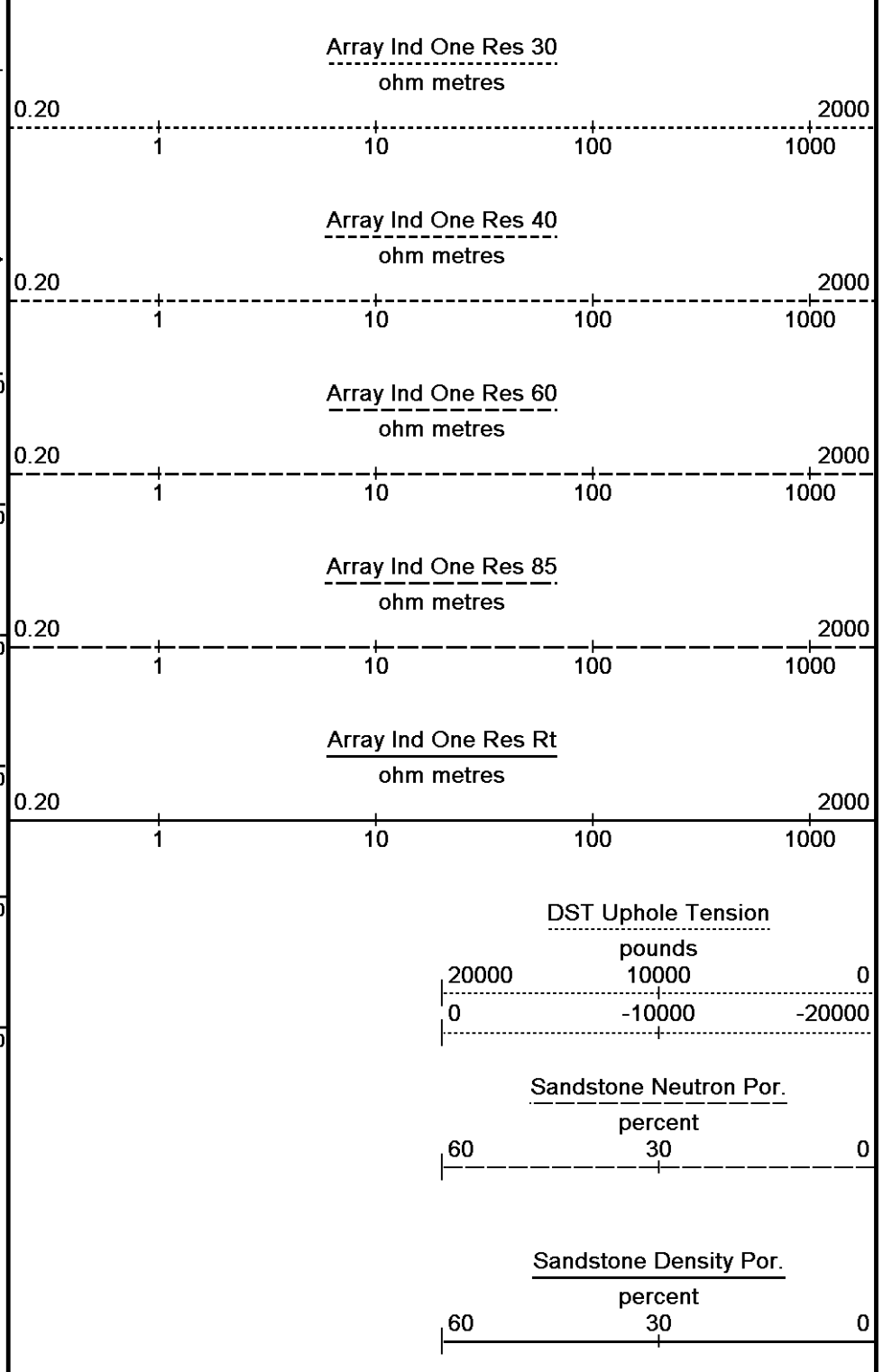
R300  
0.02 0.20

R400  
0.02 0.20

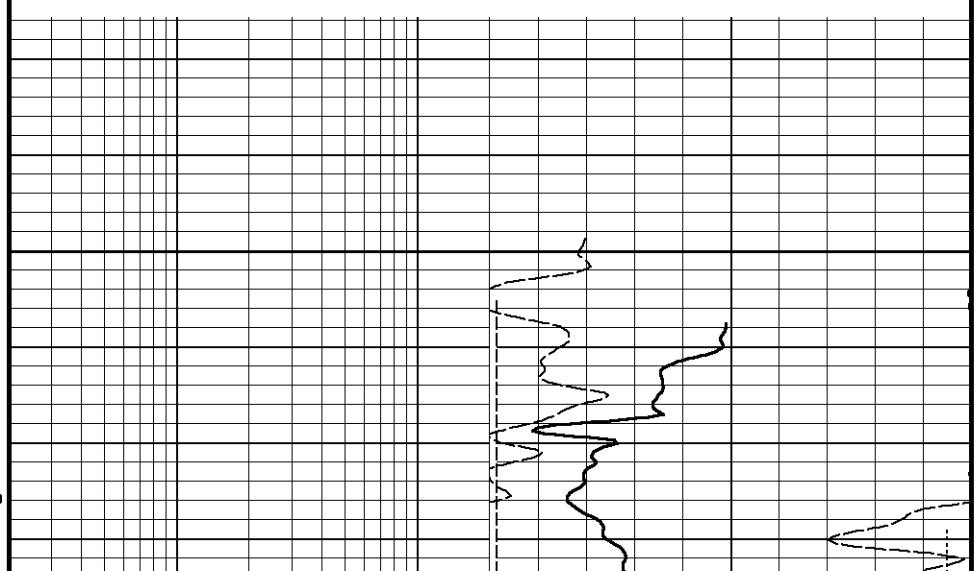
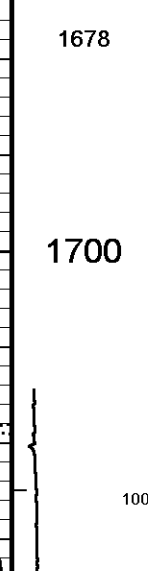
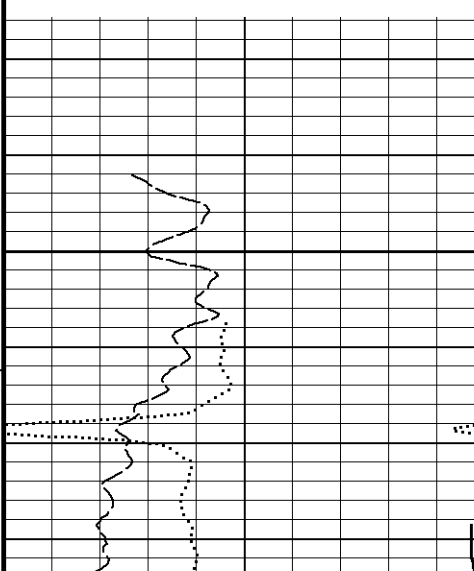
R600  
0.02 0.20

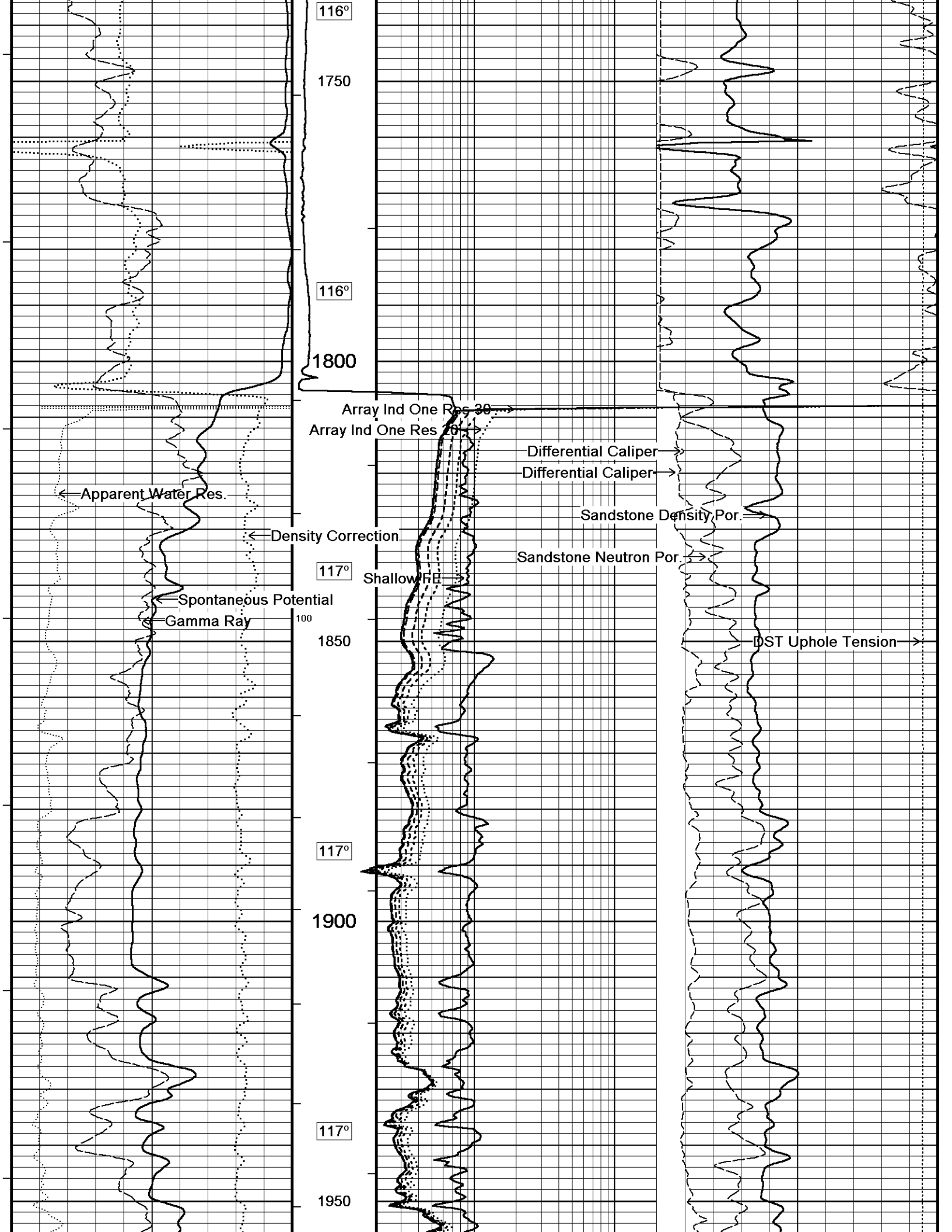
R850  
0.02 0.20

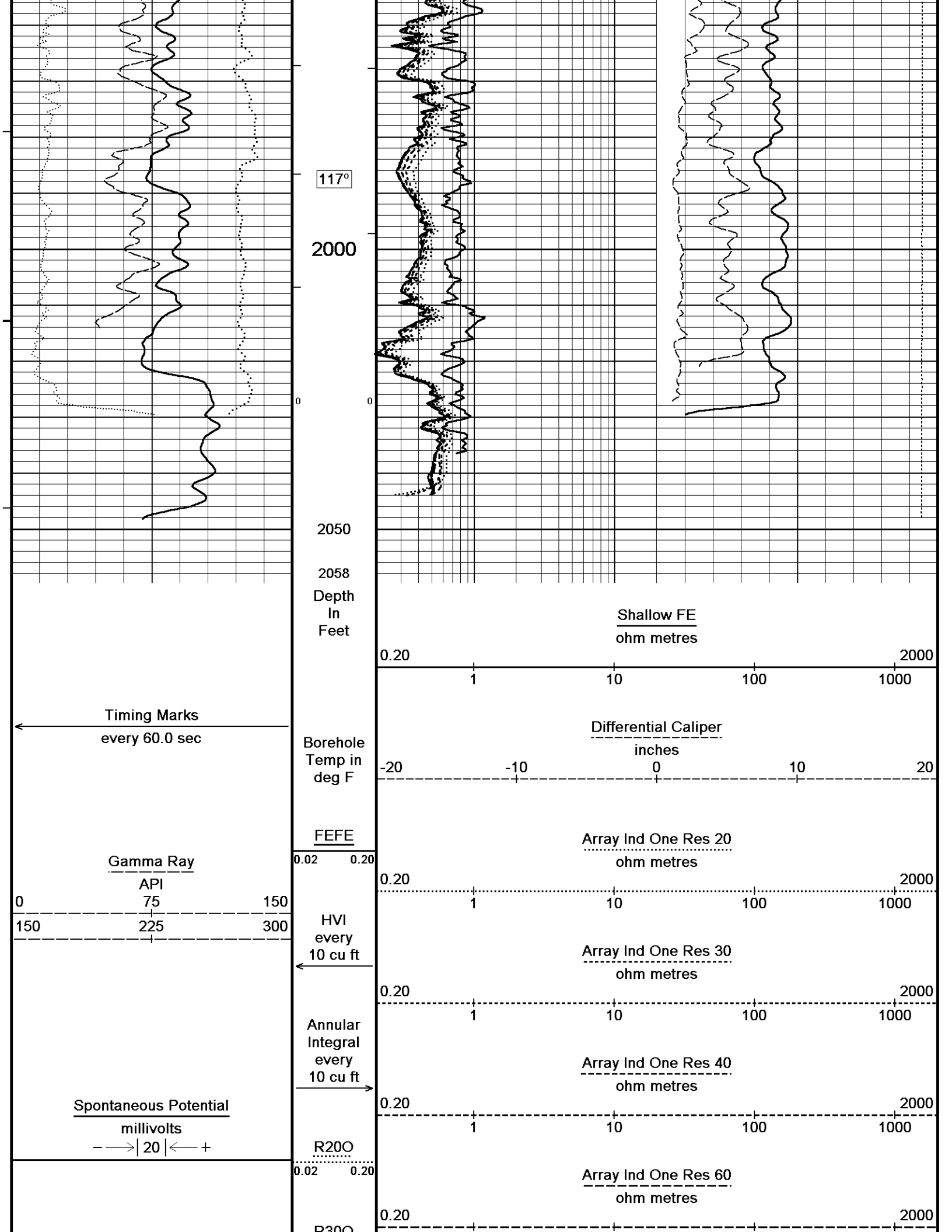
RTAO  
0.02 0.20



Replay  
Scale  
1:240







117°

2000

0

2050

2058

Depth  
In  
Feet

Shallow FE  
ohm metres

0.20

2000

Differential Caliper  
inches

-20

-10

0

10

20

FEFE

0.02

0.20

Array Ind One Res 20  
ohm metres

0.20

2000

Array Ind One Res 30  
ohm metres

0.20

2000

Array Ind One Res 40  
ohm metres

0.20

2000

Array Ind One Res 60  
ohm metres

0.20

2000

Timing Marks  
every 60.0 sec

Gamma Ray

API

0 75 150

150 225 300

HVI  
every  
10 cu ft

←

Annular  
Integral  
every  
10 cu ft

→

Spontaneous Potential

millivolts

- → | 20 | ← +

R200

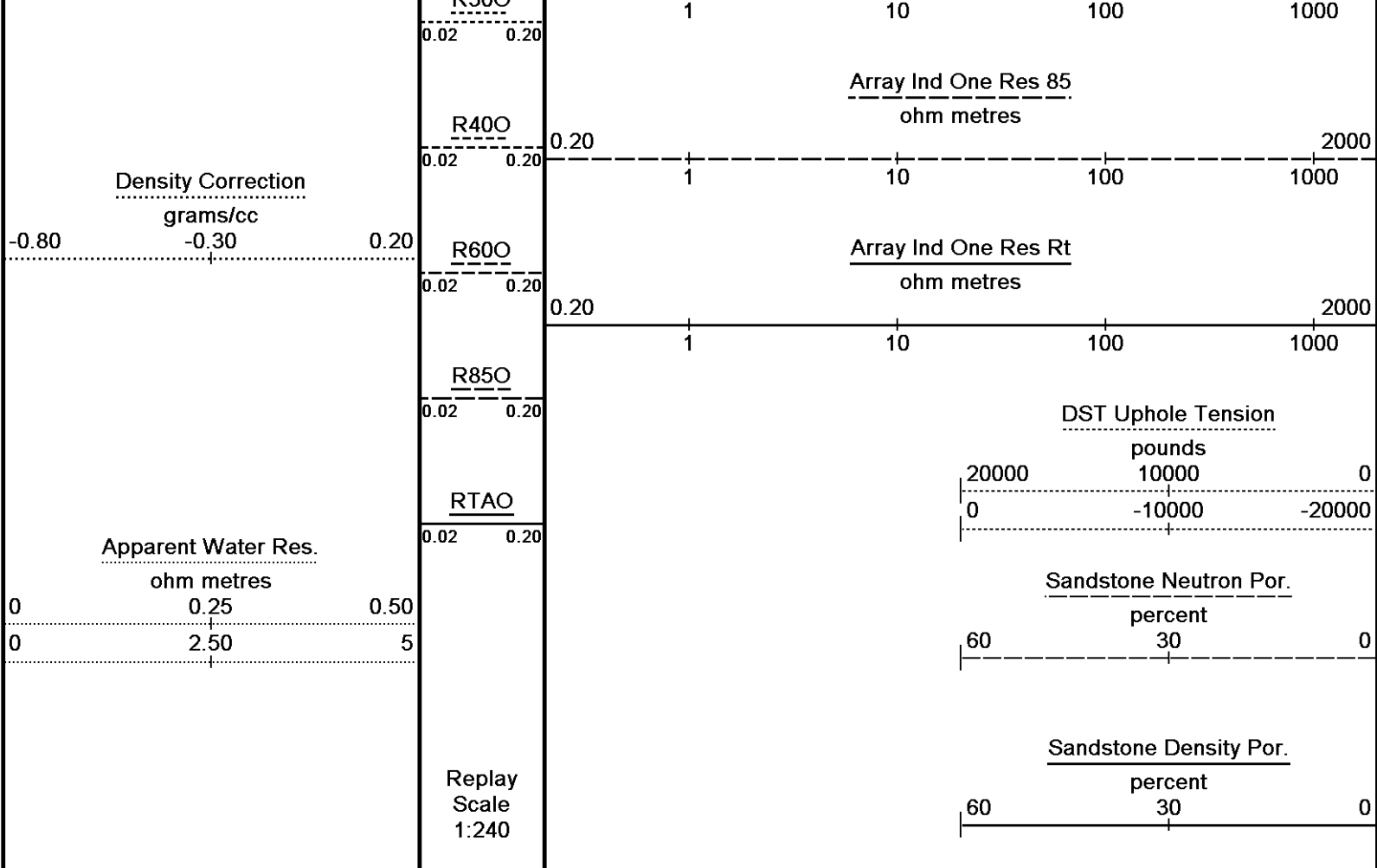
0.02

0.20

R300

0.02

0.20



Depth Based Data - Maximum Sampling Increment 10.0cm  
 Plotted on 07-JUL-2011 05:53  
 Filename: C:\DATA\Guichard\_Smith Production\NR Broussard Landing #1\Repeat.dta  
 Recorded on 06-JUL-2011 20:37  
 System Versions: Logged with 11.02.2782 Processed with 11.02.2782 Plotted with 11.02.2782

↑ REPEAT SECTION ↑

### BEFORE SURVEY CALIBRATION

C:\DATA\Guichard\_Smith Production\NR Broussard Landing #1\Main Pass2.dta

<b>Caliper Calibration All 000</b>		Base Calibration on 27-APR-2010 11:18	
		Field Calibration on 27-MAY-2010,10:02	
<b>Base Calibration</b>			
Reading No	Measured	Calibrator Size (in)	
1	18002	5.96	
2	24494	7.98	
3	30848	9.94	
4	37696	11.90	
5	0	0.00	
6	N/A	N/A	
<b>Field Calibration</b>			
	Measured Caliper (in)	Actual Caliper (in)	
	5.73	6.17	

<b>Photo Density Calibration All 000</b>		Base Calibration on 10-MAY-2010 12:23	
		Field Check on 27-MAY-2010,10:02	
<b>Density Calibration</b>			
<b>Base Calibration</b>			
	Near	Far	Calibrated (sdu)
			Near      Far
Reference 1	45910	16713	53331    19387
Reference 2	21707	2616	25398    2565
<b>Field Check at Base</b>			
	1234.1	1480.4	
<b>Field Check</b>			

## PE Calibration

Base Calibration	Measured	Calibrated
WS	WH	Ratio
Background	225	1097
Reference 1	15699	45726
Reference 2	6126	21562
		0.347
		0.288
Field Check at Base		
	224.6	1097.4
Field Check		
	223.8	1087.5

## Density Constants All 000

Last Edited on 22-MAY-2010,02:59

Density Source Id	216	
Nylon Calibrator Number	DNC-D-516	
Aluminium Calibrator Number	DAC-D-516	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.23	gm/cc
Mud Density Z/A Multiplier	1.11	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc
DNCT	0.05	gm/cc
CRCT	0.00	gm/cc
Density Z/A Correction	Hybrid	
Matrix Density (gm/cc)	Depth (ft)	
2.71	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	

## General Constants All 000

Last Edited on 07-JUL-2011,02:36

General Parameters		
Mud Resistivity	1.200	ohm-metres
Mud Resistivity Temperature	75.000	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	5.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Sandstone Density Por.	
Resistivity used	Array Ind. One Res Rt	
RWA Constant A	0.620	
RWA Constant M	2.150	

## Gamma Calibration MCG-D.A 257

Field Calibration on 06-JUL-2011,19:59

	Measured	Calibrated (API)
Background	38	25
Calibrator (Gross)	1297	846
Calibrator (Net)	1259	821

## Gamma Constants MCG-D.A 257

Last Edited on 06-JUL-2011,19:59

Gamma Calibrator Number	GRC-C-61
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Mud Density	1.20	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

High Resolution Temperature Constants MCG-D.A 257

Last Edited on

Pre-filter Length 11

Neutron Calibration MDN-A.B 73

Base Calibration on 29-JUN-2011 12:41  
Field Check on 06-JUL-2011,20:50

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	3216	103	3714	110
	31.365		33.764	

Field Calibrator at Base

	Calibrated (cps)
Ratio	1417 2031
	0.698

Field Check

	Calibrated (cps)
Ratio	1400 2036
	0.688

Neutron Constants MDN-A.B 73

Last Edited on 07-JUL-2011,02:09

Neutron Source Id	P44389B	
Neutron Jig Number	6071NE	
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	4.26	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	Constant Value	
Formation Pressure	0.00	kpsi
Temperature Source	Constant Value	
Temperature	68.00	degrees F
Mud Salinity	0.00	kppm
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	

FE Calibration MFE-A.A 82

Base Calibration on 10-MAY-2011,11:49  
Field Check on 06-JUL-2011,20:50

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	965.7	126.8
Base Check		280.8
Field Check		280.8

FE Constants MFE-A.A 82

Last Edited on 07-JUL-2011,02:09

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	0.0	inches

Induction Calibration MAI-B.A 218

Base Calibration on 05-NOV-2010,08:51  
Field Check on 24-JUN-2011,08:28

Base Calibration

Test Loop Calibration	Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High
1	17.6	488.3	9.3	966.2
2	6.5	392.4	7.6	821.4

3	3.8	270.5	5.2	566.0
4	2.0	134.8	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	8.9	3720.1
2	0.0	0.0	26.5	3439.0
3	0.0	0.0	25.0	2927.9
4	0.0	0.0	17.9	2054.0
Deep	0.0	0.0	15.2	1924.7
Medium	0.0	0.0	36.5	3815.6
Shallow	0.0	0.0	39.7	5074.3
Array Temperature	0.0		60.9	Deg F

Induction Constants MAI-B.A 218

Last Edited on 07-JUL-2011,02:08

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		

High Resolution Temperature Constants MAI-B.A 218

Last Edited on

Pre-filter Length	11
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Caliper Calibration MPD-B 168

Base Calibration on 29-JUN-2011 14:24  
Field Calibration on 06-JUL-2011,20:07

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	18887	3.99
2	28832	5.97
3	38960	7.96
4	48768	9.86
5	59440	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)  
7.95

Actual Caliper (in)  
7.96

Photo Density Calibration MPD-B 168

Base Calibration on 29-JUN-2011 14:00  
Field Check on 06-JUL-2011,20:04

Density Calibration

Base Calibration

	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	49175	16656	53331	19389
Reference 2	23074	2008	25398	2565

Field Check at Base

839.9      768.5

Field Check

845.6      764.8

PE Calibration

Base Calibration

	WS	Measured		Calibrated Ratio
		WH	Ratio	
Background	152	746		
Reference 1	17066	49032	0.350	0.317
Reference 2	6549	22964	0.288	0.275

Field Check at Base

152.1      746.0

Field Check

150.8      743.1

Density Constants MPD-B 168

Last Edited on 06-JUL-2011,20:00

Density Source Id	P44268B	
Nylon Calibrator Number	DNC-D-516	
Aluminium Calibrator Number	DAC-D-516	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.20	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)
2.65	
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

DOWNHOLE EQUIPMENT

C:\DATA\Guichard\_Smith Production\NR Broussard Landing #1\Main Pass2.dta

MCC-A 11C Tension Cablehead  
MCC-A 1 LG: 2.40 ft WT: 19.8 lb OD: 2.24 in

11C-11B MTA-A Compact Tool Adaptor  
MTA-A 1 LG: 1.53 ft WT: 13.2 lb OD: 2.24 in

SHA-H Compact Swivel Head Adaptor  
SHA-H 1 LG: 2.00 ft WT: 22.0 lb OD: 2.24 in



SHA-H 145 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in  
 Compact Comms Gamma  
 MCG-D.A 257 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Neutron  
 MDN-A.B 73 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

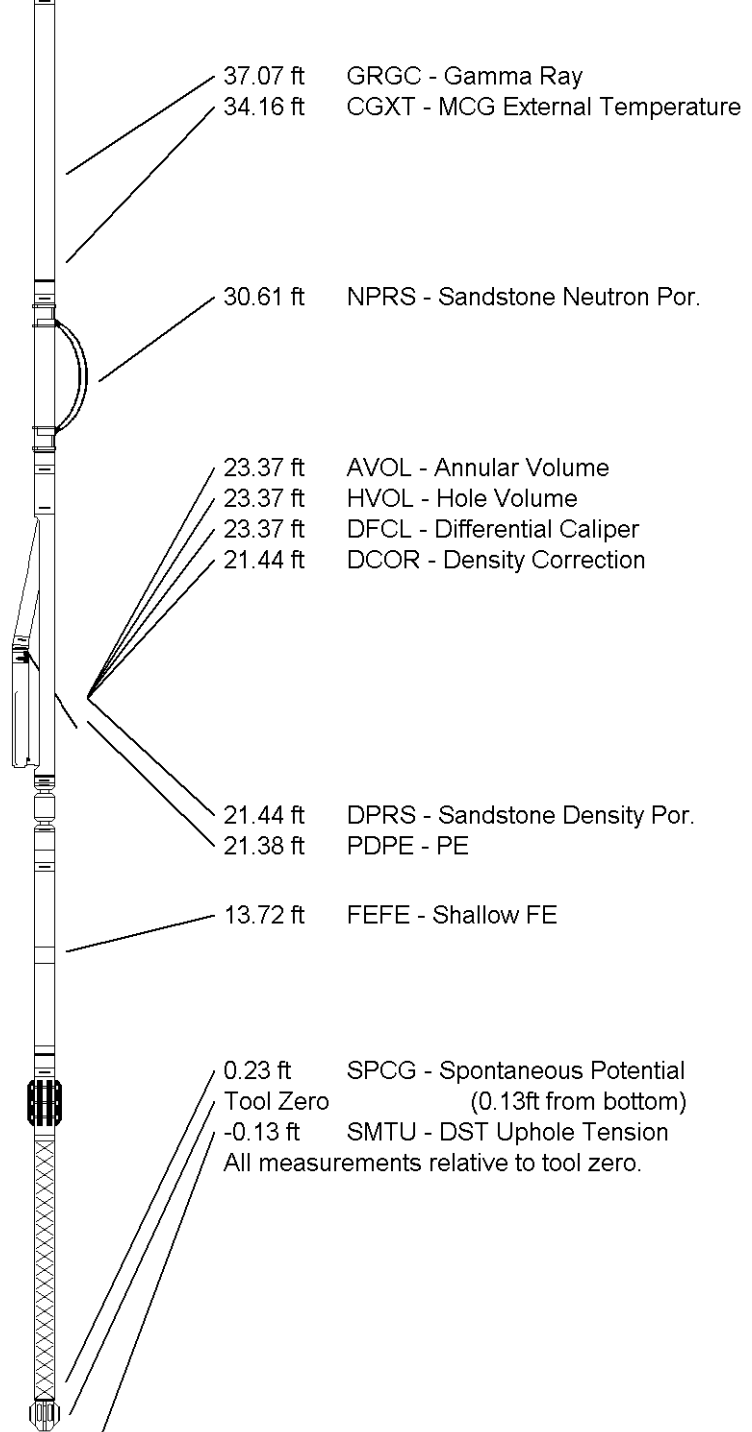
Compact Density/Caliper  
 MPD-B 168 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

SKJ-D.A Compact Knuckle Joint  
 SKJ-D.A 172 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Focused Electric  
 MFE-A.A 82 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction  
 MAI-B.A 218 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 48.58 ft Weight: 381.4 lb



COMPANY	SMITH PRODUCTION
WELL	N R BROUSSARD LANDING INC #1
FIELD	ABBEVILLE
PROVINCE/COUNTY	VERMILLION
COUNTRY/STATE	U.S.A. / LOUISIANA

Elevation Kelly Bushing	27.00	feet	First Reading	8400.00	feet
Elevation Drill Floor	26.00	feet	Depth Driller	8416.00	feet
Elevation Ground Level	10.00	feet	Depth Logger	8412.00	feet



ARRAY INDUCTION / RSFE  
 PHOTO-DENSITY / NEUTRON  
 GAMMA RAY LOG

