ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG

Weatherford®

COMPANY	SANDRIDGE EXPL. & PRODUCTION LLC
WELL	ETHAN JOHN # 1-5 SWD
FIELD	WALDRON WEST
PROVINCE/COUNTY	HARPER
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	1226' FNL & 253' FEL NE/4

40 Years of Wireline 1970 2010

SEC	TWP	RGE
5	33S	6W

Other Services
MPD/MDN
MML

API Number 15-077-21798
Permit Number

Permanent Datum G.L., Elevation 1361 feet
Log Measured From KB
Drilling Measured From 1381

Elevations:	feet
KB	1381.00
DF	1379.00
GL	1361.00

Date	08-FEB-2012				
Run Number	ONE				
Depth Driller	5178.00	feet			
Depth Logger	5162.00	feet			
First Reading	5159.00	feet			
Last Reading	689.00	feet			
Casing Driller	700.00	feet			
Casing Logger	689.00	feet			
Bit Size	8.750	inches			
Hole Fluid Type	CHEMICAL				
Density / Viscosity	8.90	lb/USg	48.00	CP	
PH / Fluid Loss	11.00		5.60	ml/30Min	
Sample Source	FLOWLINE				
Rm @ Measured Temp	1.19 @ 55.0	ohm-m			
Rmf @ Measured Temp	0.95 @ 55.0	ohm-m			
Rmc @ Measured Temp	1.43 @ 55.0	ohm-m			
Source Rmf / Rmc	CALC		CALC		
Rm @ BHT	0.49 @140.0	ohm-m			
Time Since Circulation	8 HOURS				
Max Recorded Temp	140.00	deg F			
Equipment Name	COMPACT				
Equipment / Base	13096		LIB		
Recorded By	A. GIAMBALVO				
Witnessed By	DOUG LANGLEY				
S.O. / JOB #	3534701		LB12-028		

BOREHOLE RECORD

Last Edited: 08-FEB-2012 15:38

Bit Size inches	Depth From feet	Depth To feet
8.750	689.00	5162.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	689.00	36.00

REMARKS

Tools Ran: MCG, MML, MDN, MPD, SKJ, MFE, MAI.
Hardware Used: MDN Dual Eccentralizer used. MPD 8 inch profile plate used. MFE and MAI 0.5 inch standoffs used.
2.71 g/cc Limestone Density Matrix used to calculate porosity.
All intervals logged and scaled per customer's request.
Annular volume with 7 inch production casing calculated from TD to 3000 ft = 285 cu. ft.
Service order # 3534701
Rig: Tomcat Drilling Rig # 3
Engineer: A. Giambalvo
Operator(s): K. Rinehart

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

2 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 08-FEB-2012 16:22
Filename: C:\Minimus 11_03_4044\Data\SandRidge Ethan ...\SandRidge Ethan John 1-5 SWD_003.dta
Recorded on 08-FEB-2012 13:09
System Versions: Logged with 11.03.4044 Plotted with 11.03.4044

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150

Spontaneous Potential
millivolts
− 20 +

DST Uphole Tension
pounds
5000 0

Depth in Feet

Borehole Temp in deg F

Replay Scale 1:600

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

Shallow FE
ohm metres
0 25 50
0 250 500

Array Ind. One Res Rt
ohm metres
0 25 50
0 250 500

Shoe

700

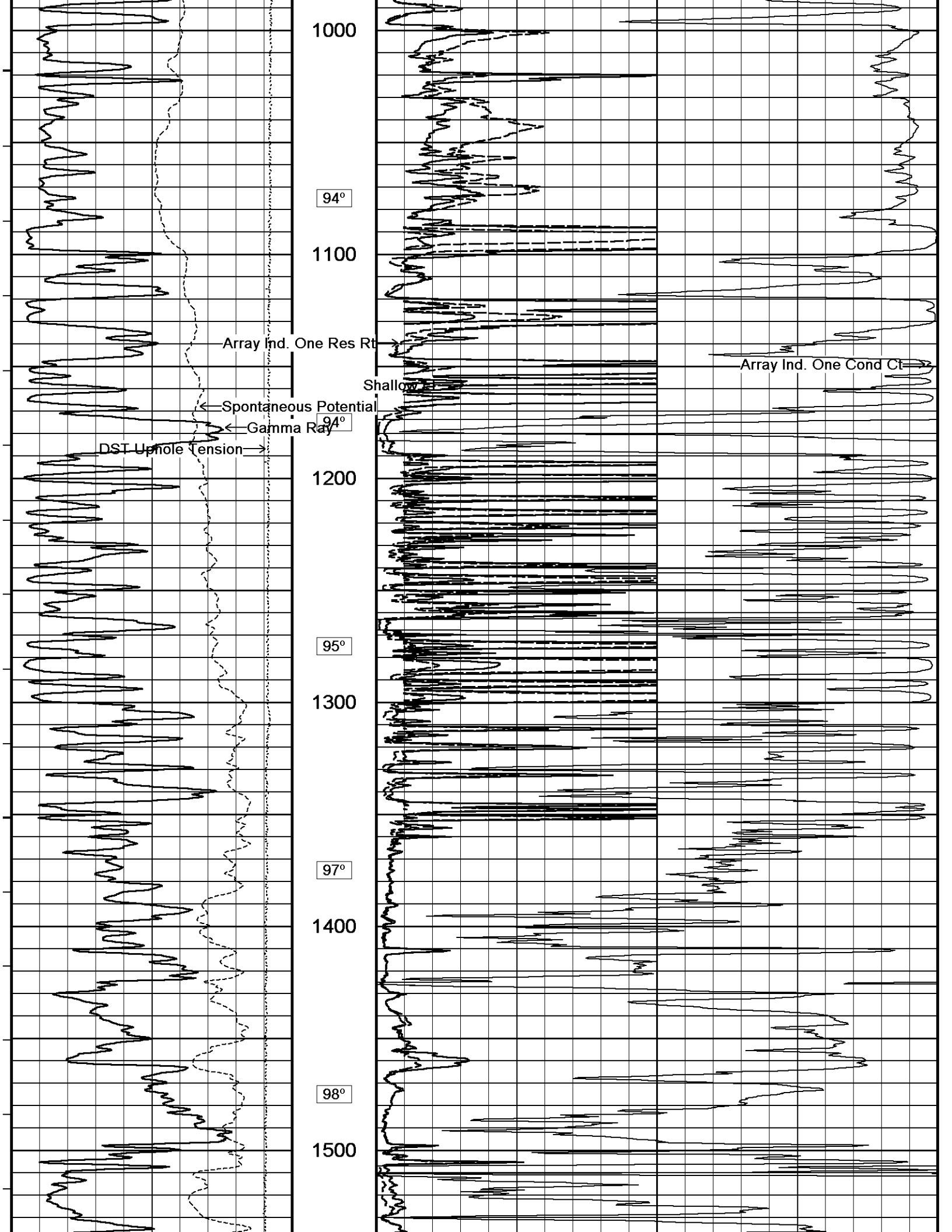
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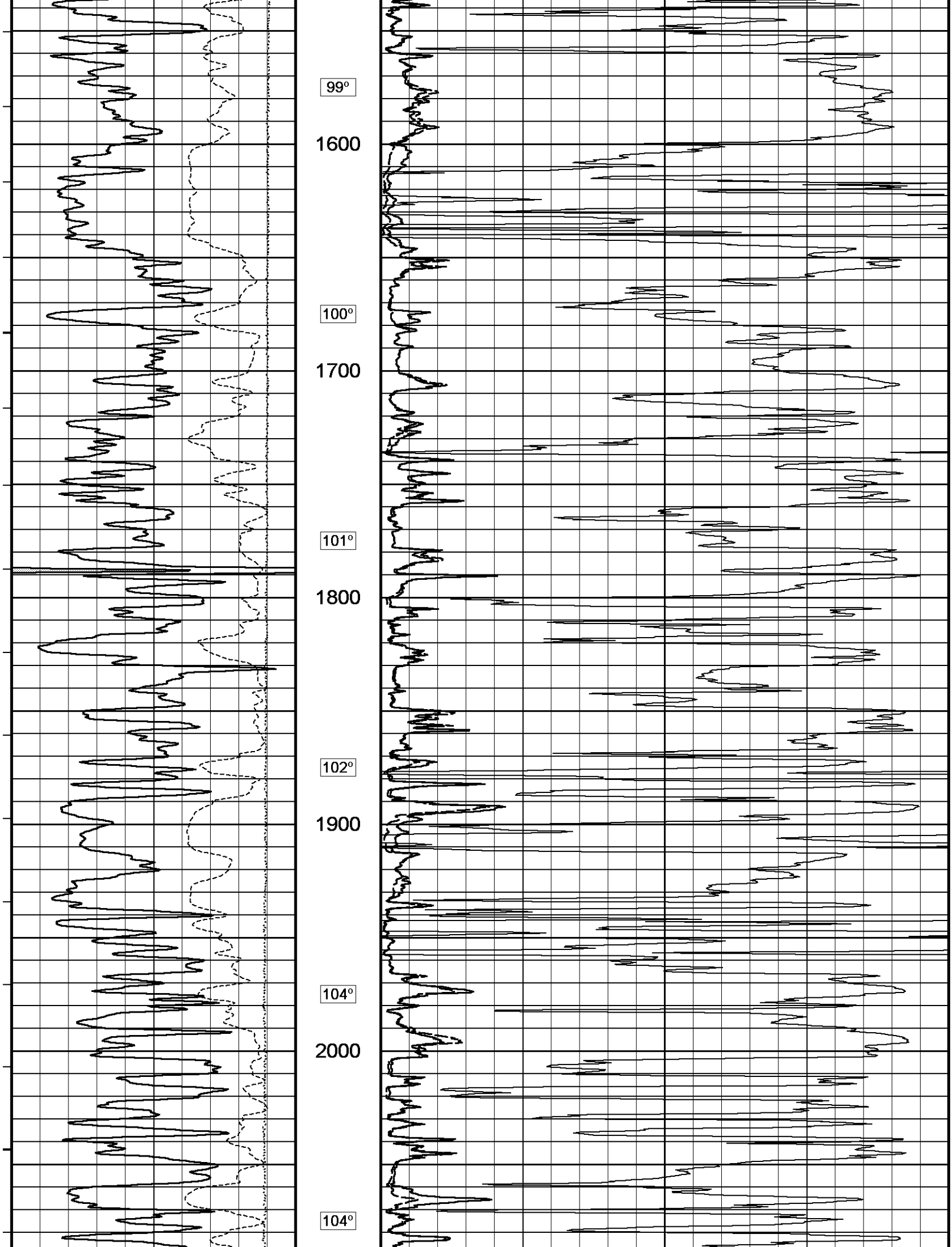
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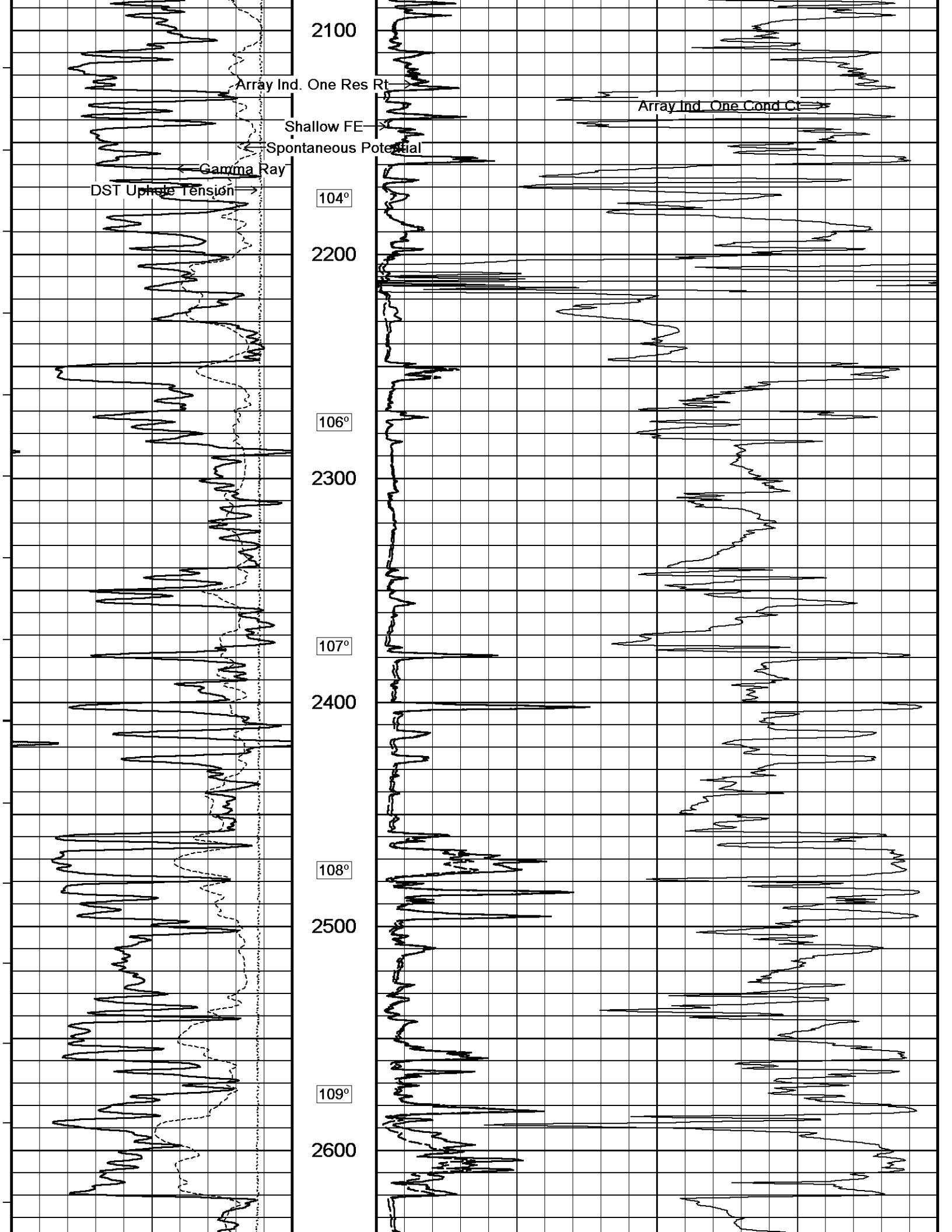
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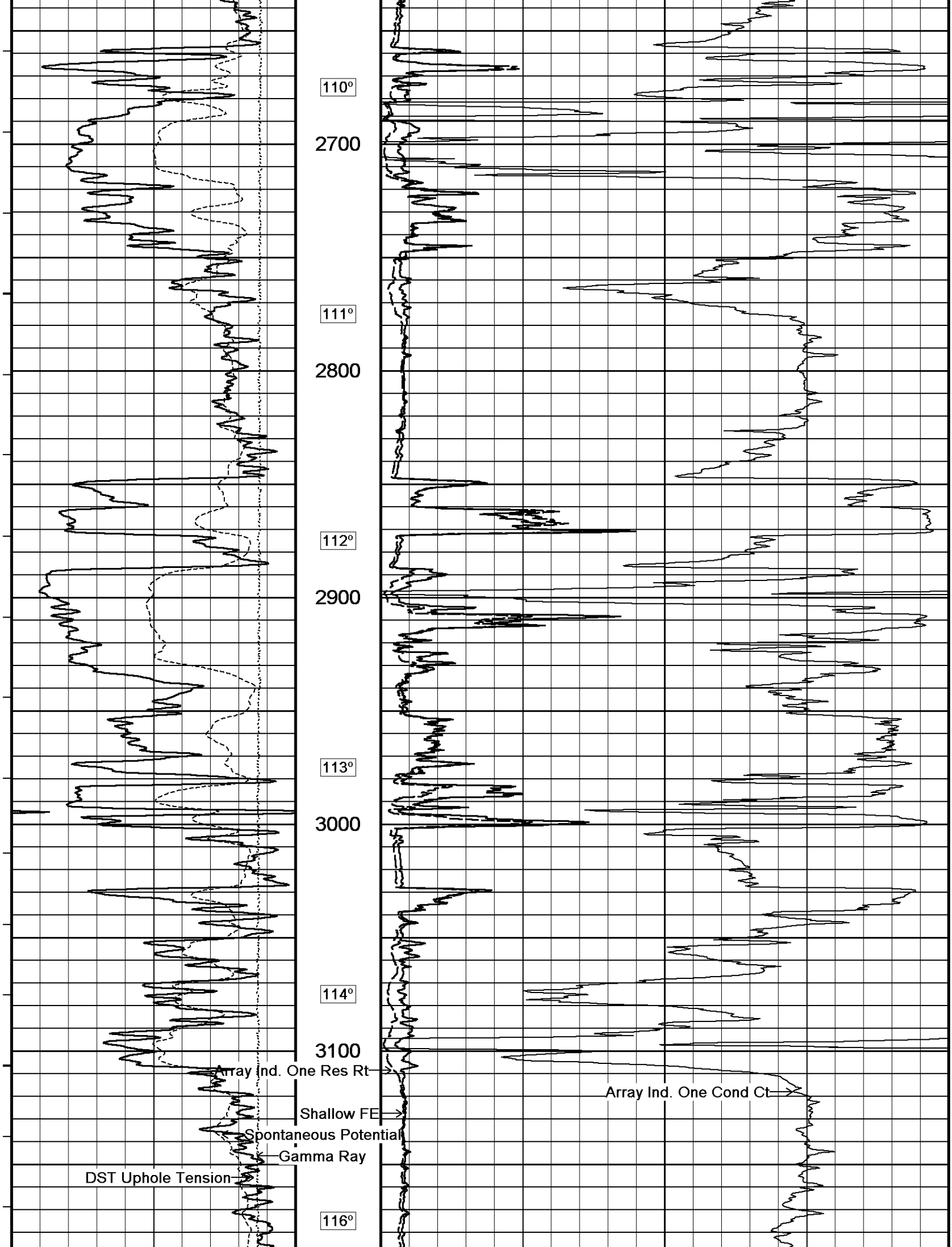
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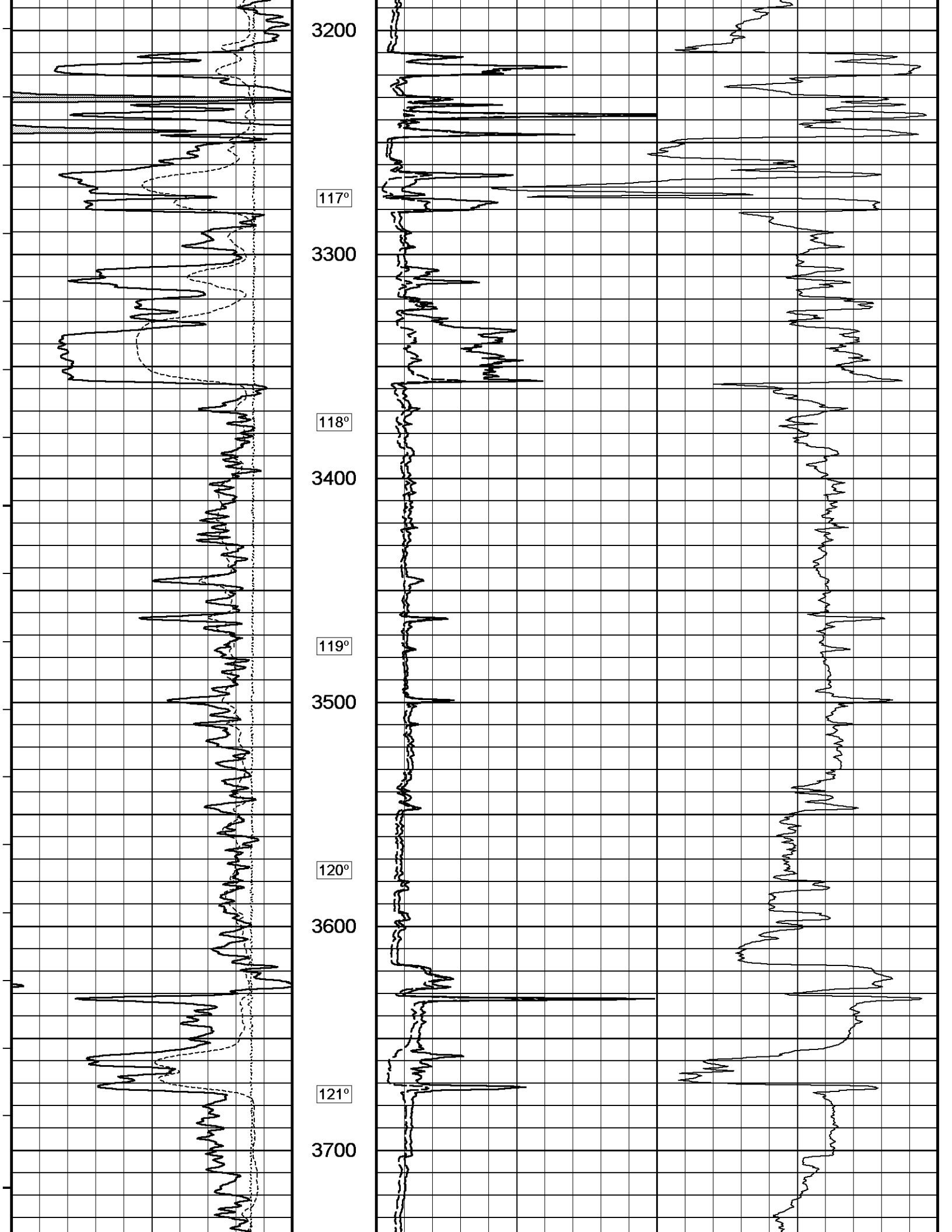
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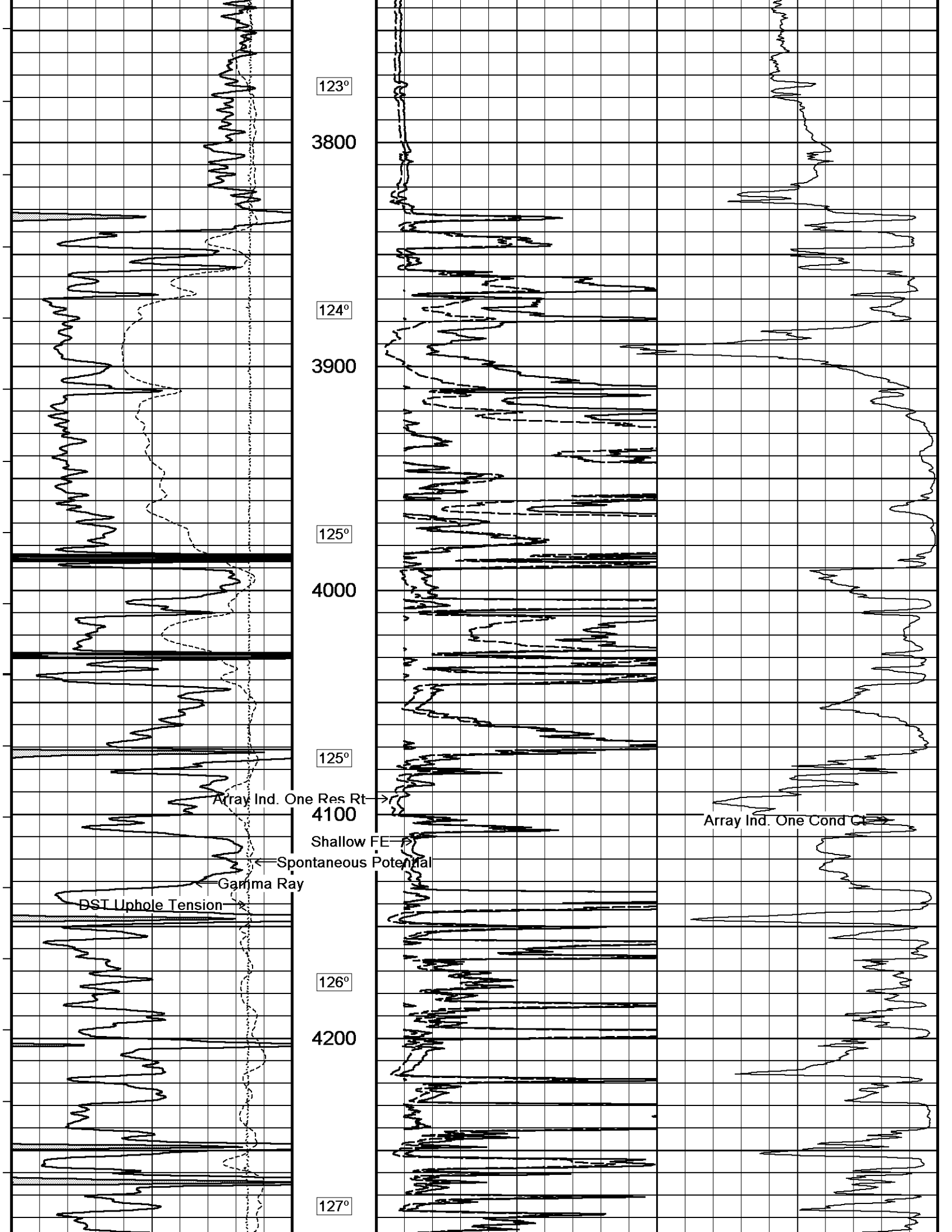

1000
94°
1100
Array Ind. One Res Rt
Array Ind. One Cond Ct
Shallow Rt
Spontaneous Potential
94°
Gamma Ray
DST Upnole Tension
1200
95°
1300
97°
1400
98°
1500

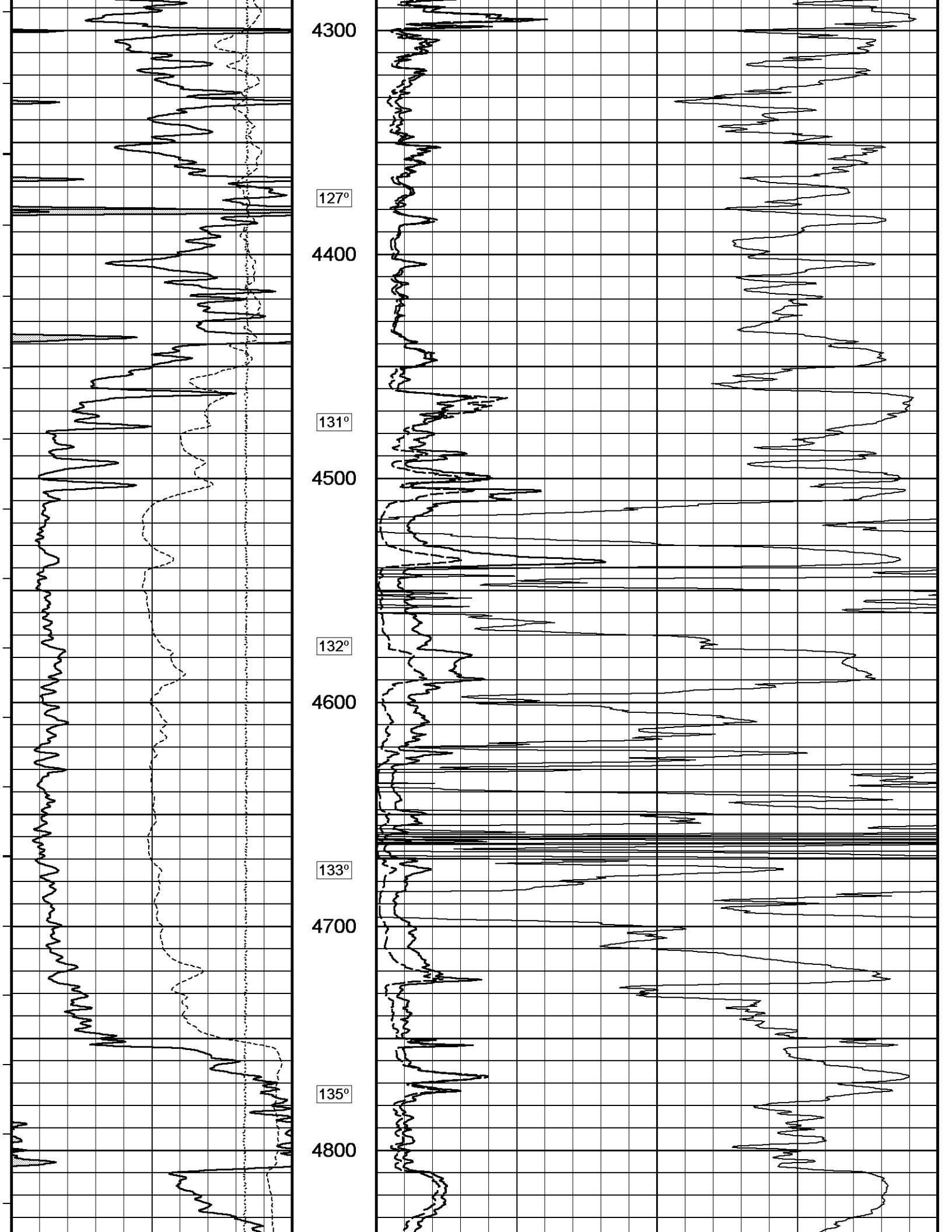

99°
1600
100°
1700
101°
1800
102°
1900
104°
2000
104°

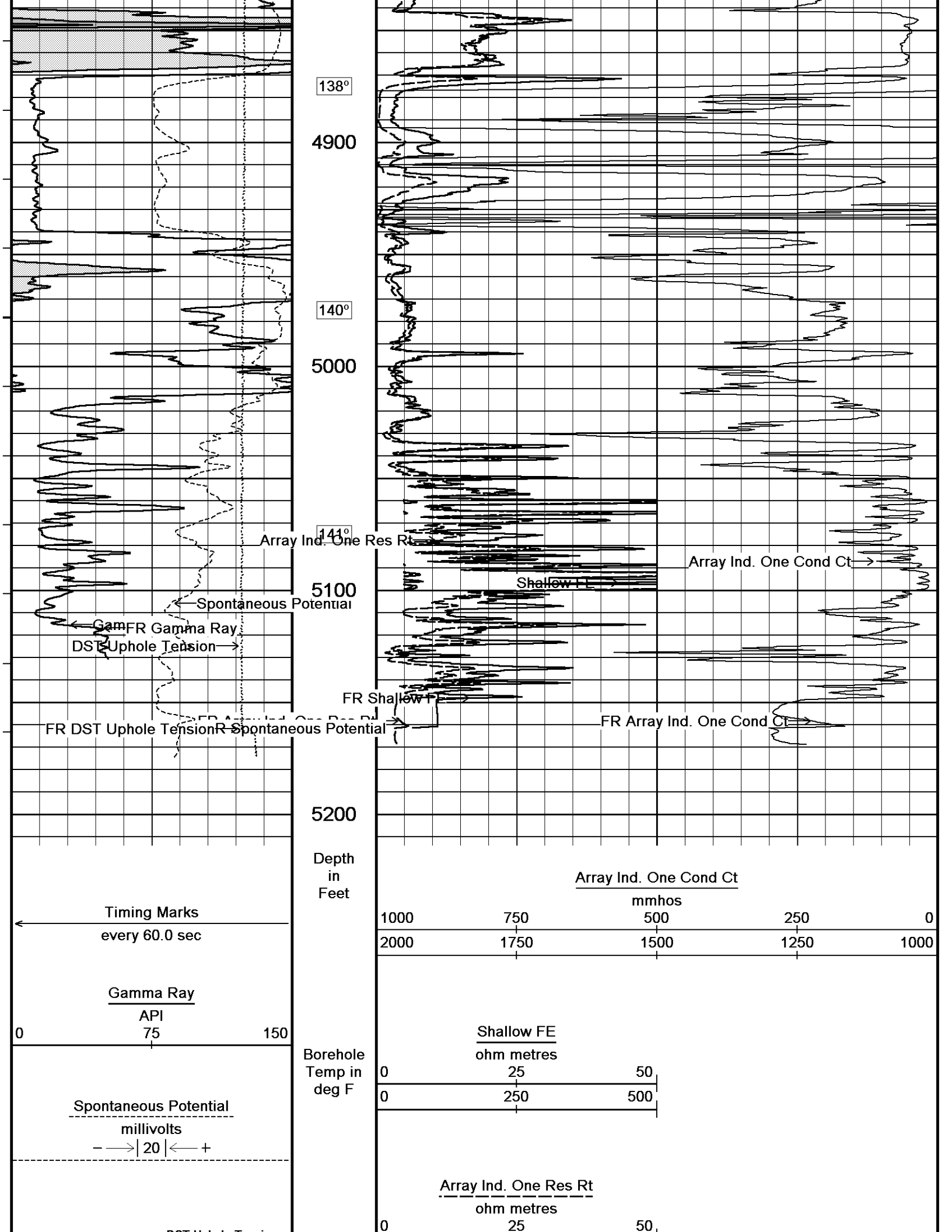

2100
Array Ind. One Res Rt
Array Ind. One Cond Ct
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
104°
2200
106°
2300
107°
2400
108°
2500
109°
2600


110°
2700
111°
2800
112°
2900
113°
3000
114°
3100
116°
Array Ind. One Res Rt
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
Array Ind. One Cond Ct


3200
117°
3300
118°
3400
119°
3500
120°
3600
121°
3700


123°
3800
124°
3900
125°
4000
125°
Array Ind. One Res Rt
4100
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
126°
4200
127°
Array Ind. One Cond Ct


4300
127°
4400
131°
4500
132°
4600
133°
4700
135°
4800


138°
4900
140°
5000
141°
5100
5200
Array Ind. One Res Rt
Array Ind. One Cond Ct
Shallow FE
Spontaneous Potential
Gamma Ray
FR Gamma Ray
DST Uphole Tension
FR Shallow FE
FR DST Uphole Tension
FR Spontaneous Potential
FR Array Ind. One Cond Ct
Depth in Feet
Timing Marks
every 60.0 sec
Gamma Ray
API
0
75
150
Spontaneous Potential
millivolts
20
Borehole Temp in deg F
Array Ind. One Cond Ct
mmhos
1000
750
500
250
0
2000
1750
1500
1250
1000
Shallow FE
ohm metres
0
25
50
0
250
500
Array Ind. One Res Rt
ohm metres
0
25
50

DST Uphole Tension
pounds
5000 0

Replay
Scale
1:600

0 250 500

Depth Based Data - Maximum Sampling Increment 10.0cm
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2 INCH MAIN

5 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 08-FEB-2012 16:22
Filename: C:\Minimus 11_03_4044\Data\SandRidge Ethan ...\SandRidge Ethan John 1-5 SWD_003.dta
Recorded on 08-FEB-2012 13:09
System Versions: Logged with 11.03.4044 Plotted with 11.03.4044

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150

Spontaneous Potential
millivolts
– → | 20 | ← +

Depth
in
Feet

Borehole
Temp in
deg F

Shallow FE
ohm metres
0.20 1 10 100 1000 2000

Array Ind. One Res 40
ohm metres
0.20 1 10 100 1000 2000

Array Ind. One Res 60
ohm metres
0.20 1 10 100 1000 2000

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

DST Uphole Tension
pounds
5000 0

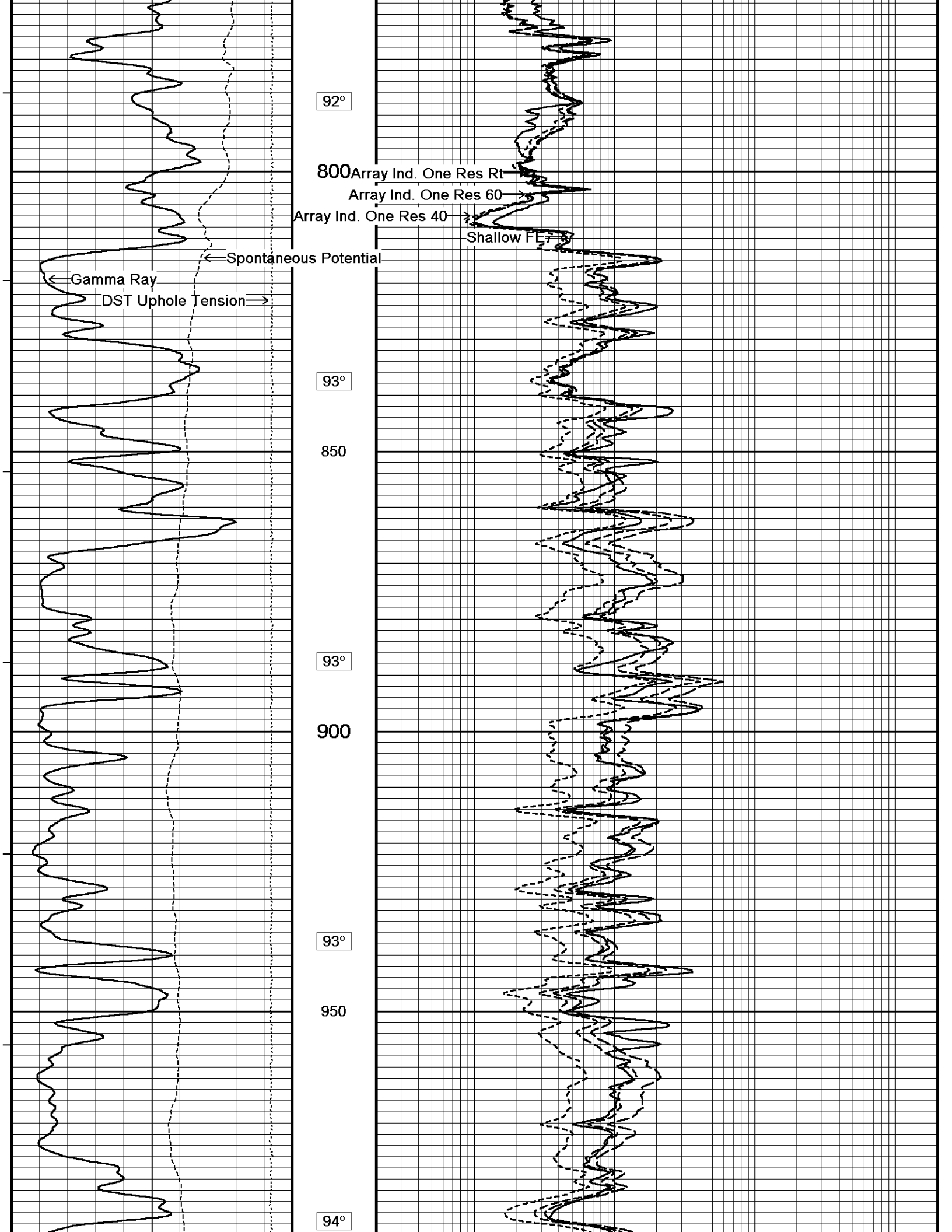
Replay
Scale
1:240

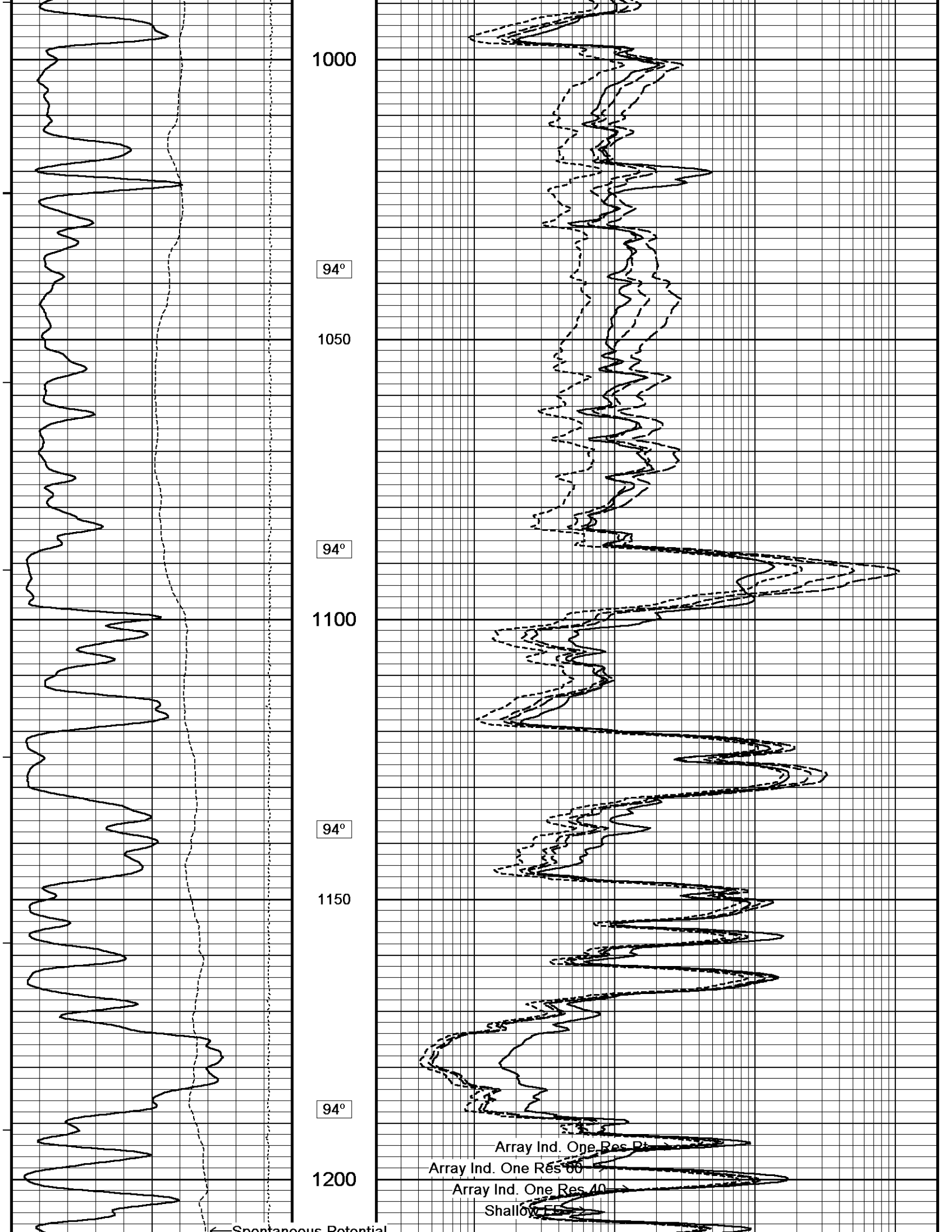
686
Shoe

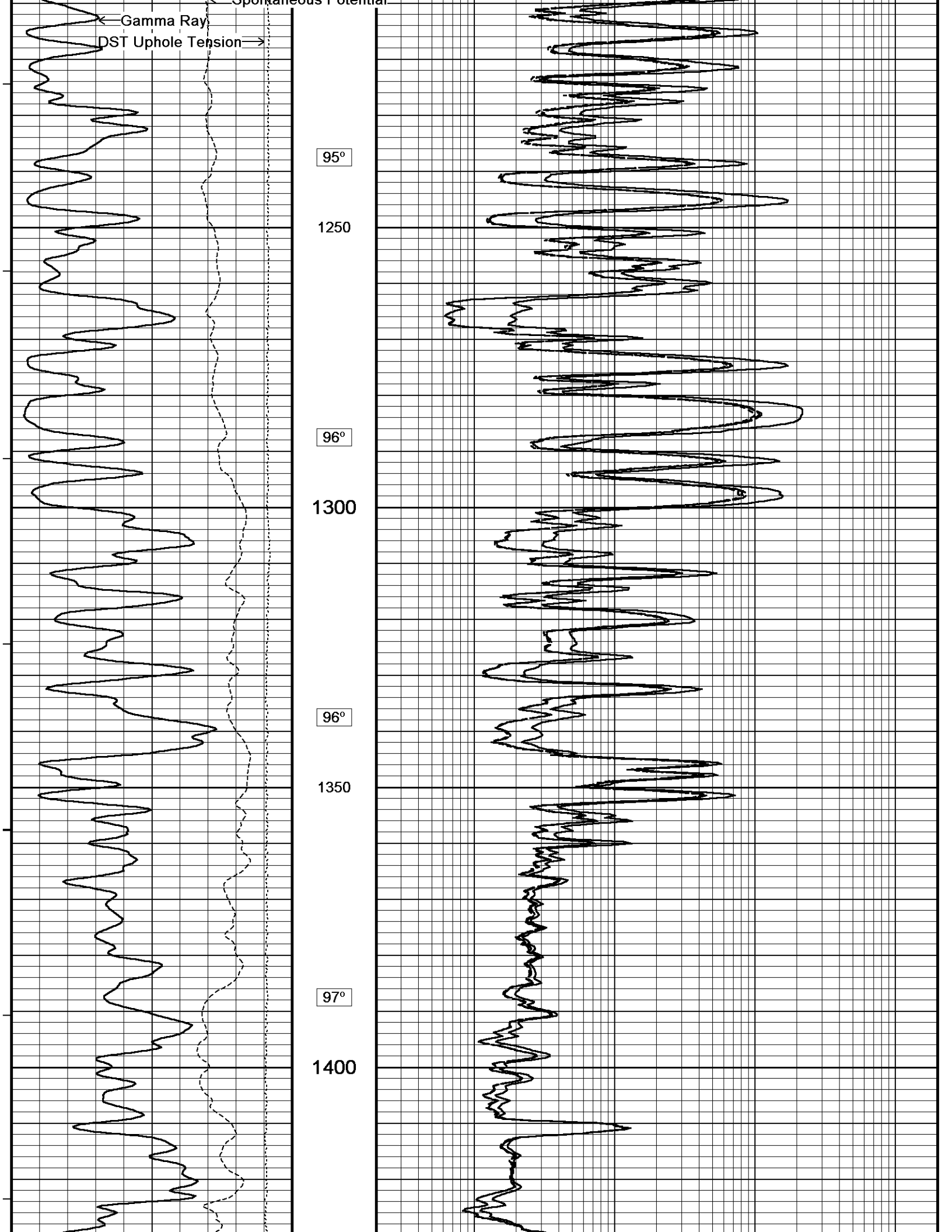
700

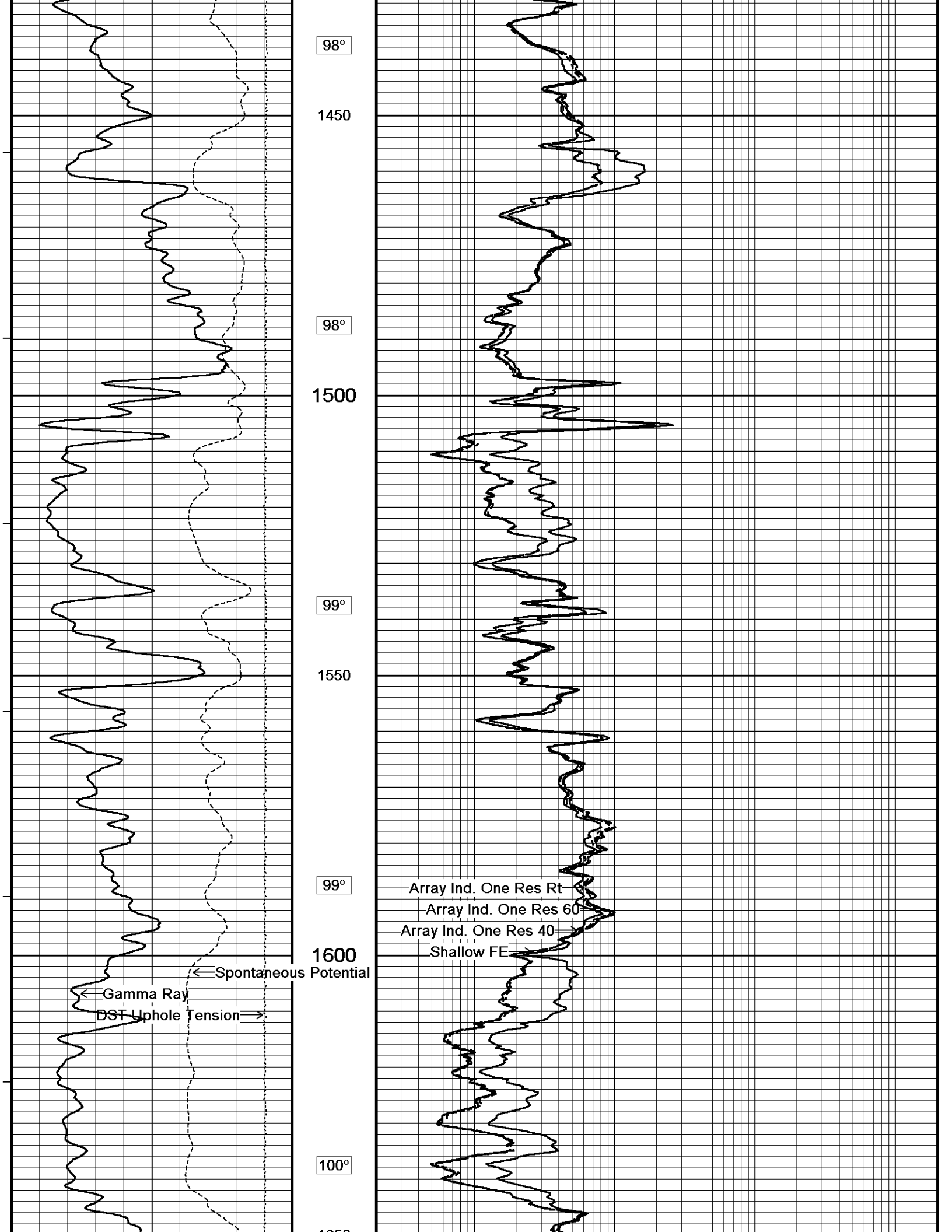
92°

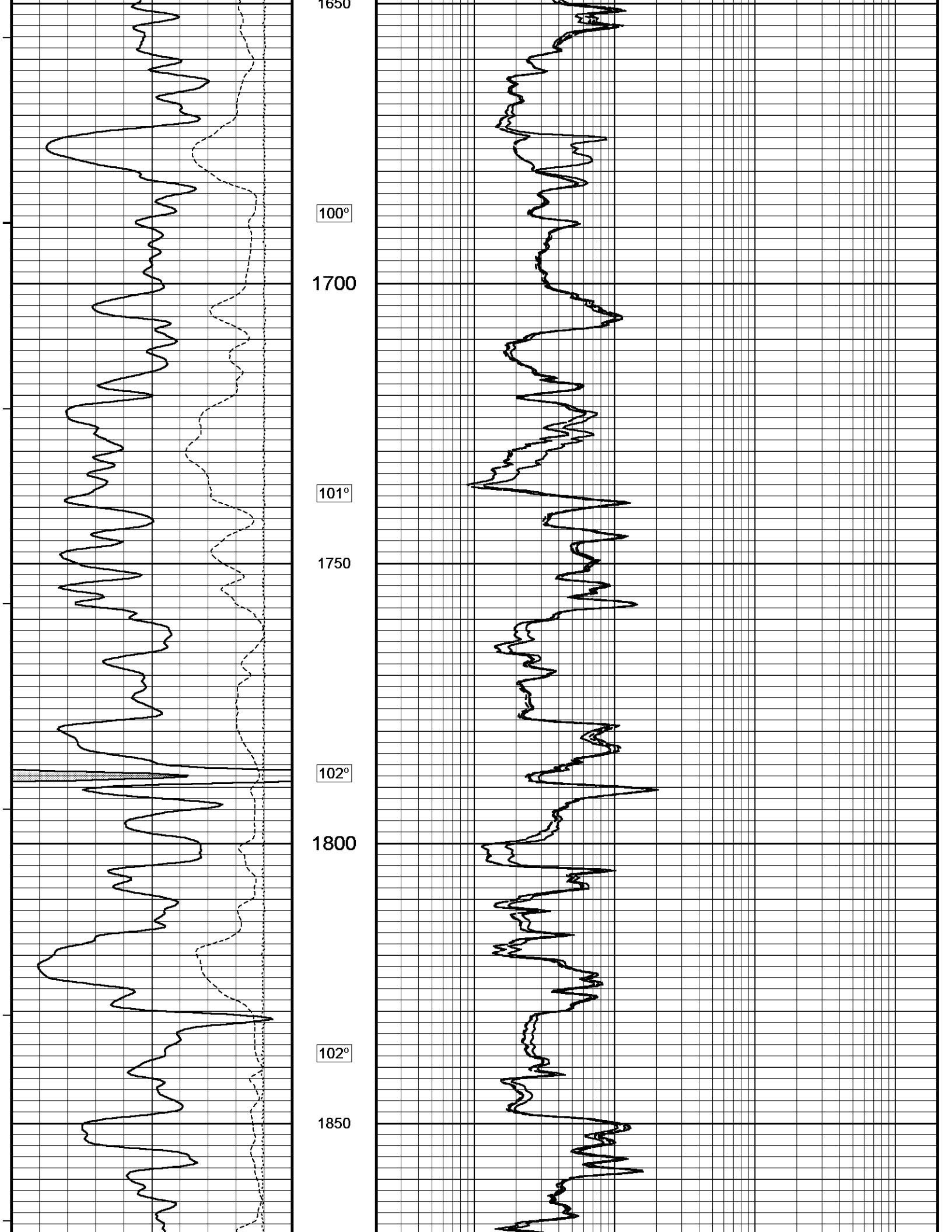
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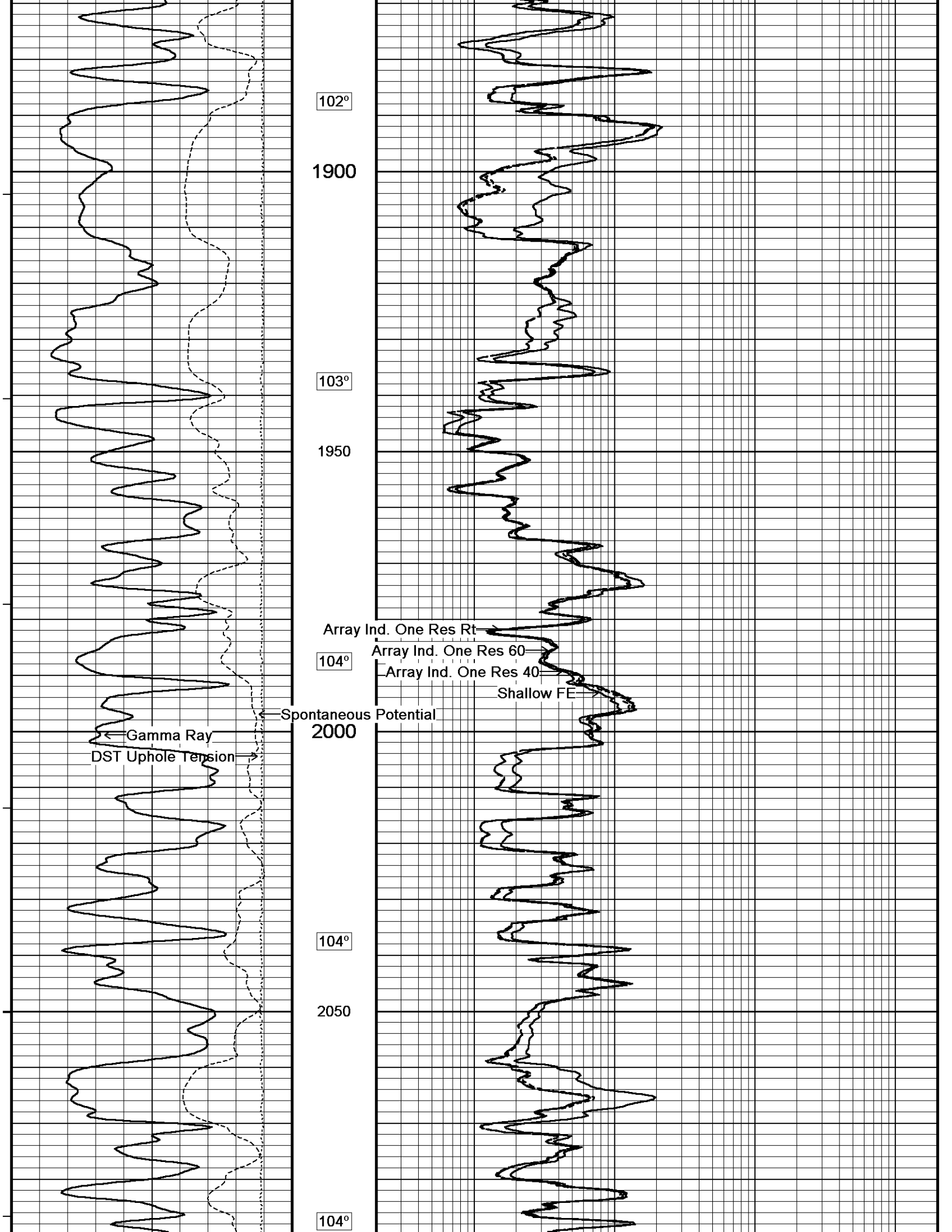

92°
800
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
93°
850
93°
900
93°
950
94°

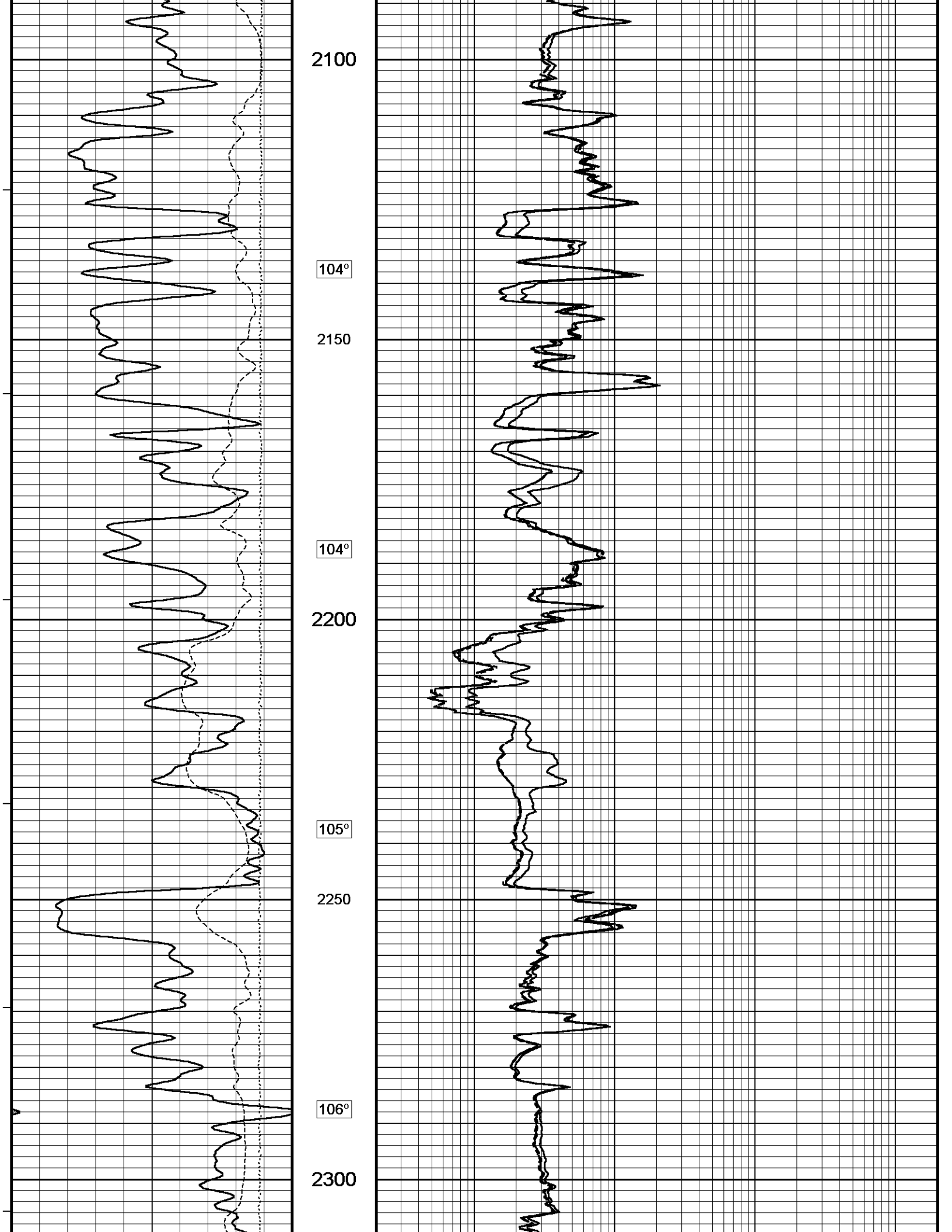

1000
94°
1050
94°
1100
94°
1150
94°
1200
Array Ind. One Res 80
Array Ind. One Res 60
Array Ind. One Res 40
Shallow Ind.
←Spontaneous Potential

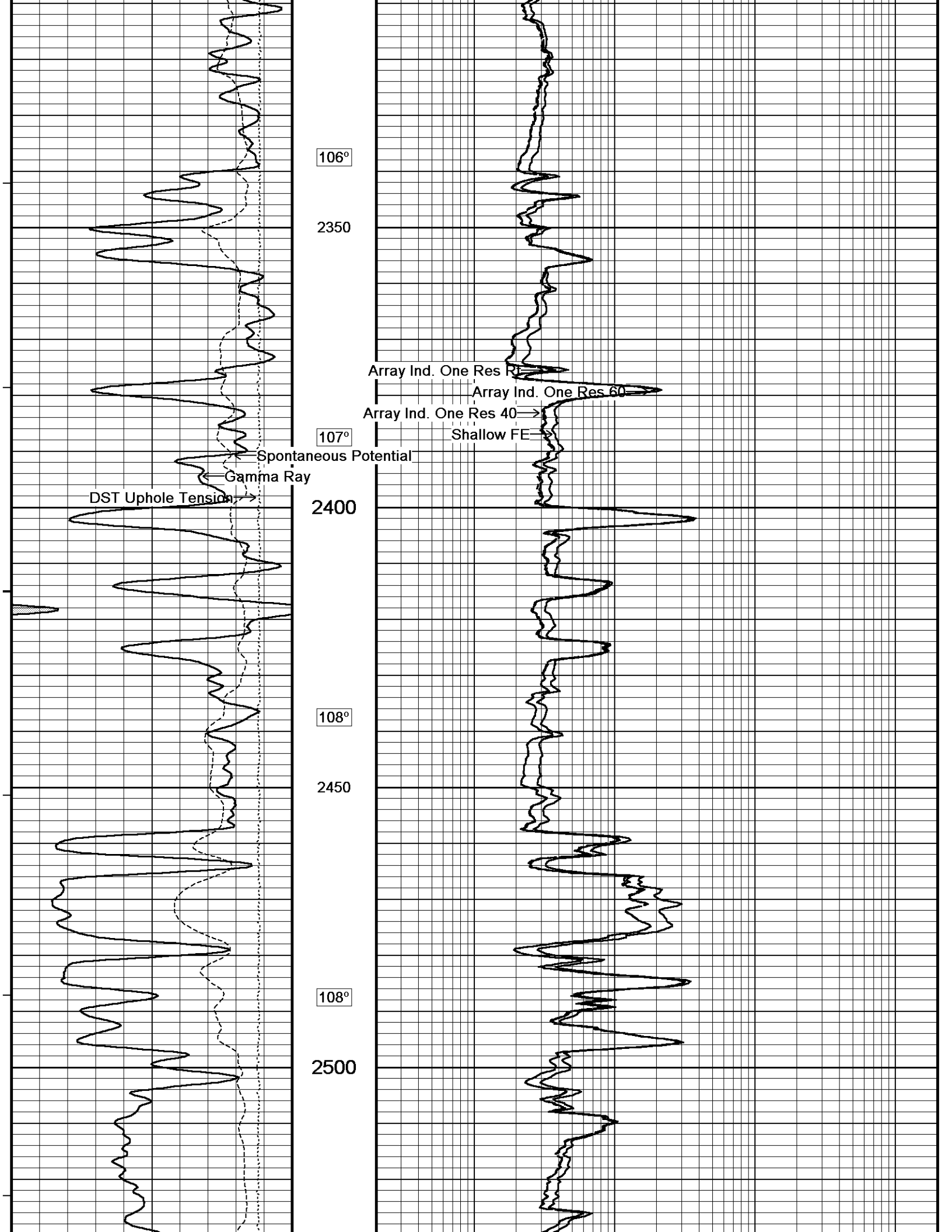

Spontaneous Potential
Gamma Ray
DST Uphole Tension
95°
1250
96°
1300
96°
1350
97°
1400

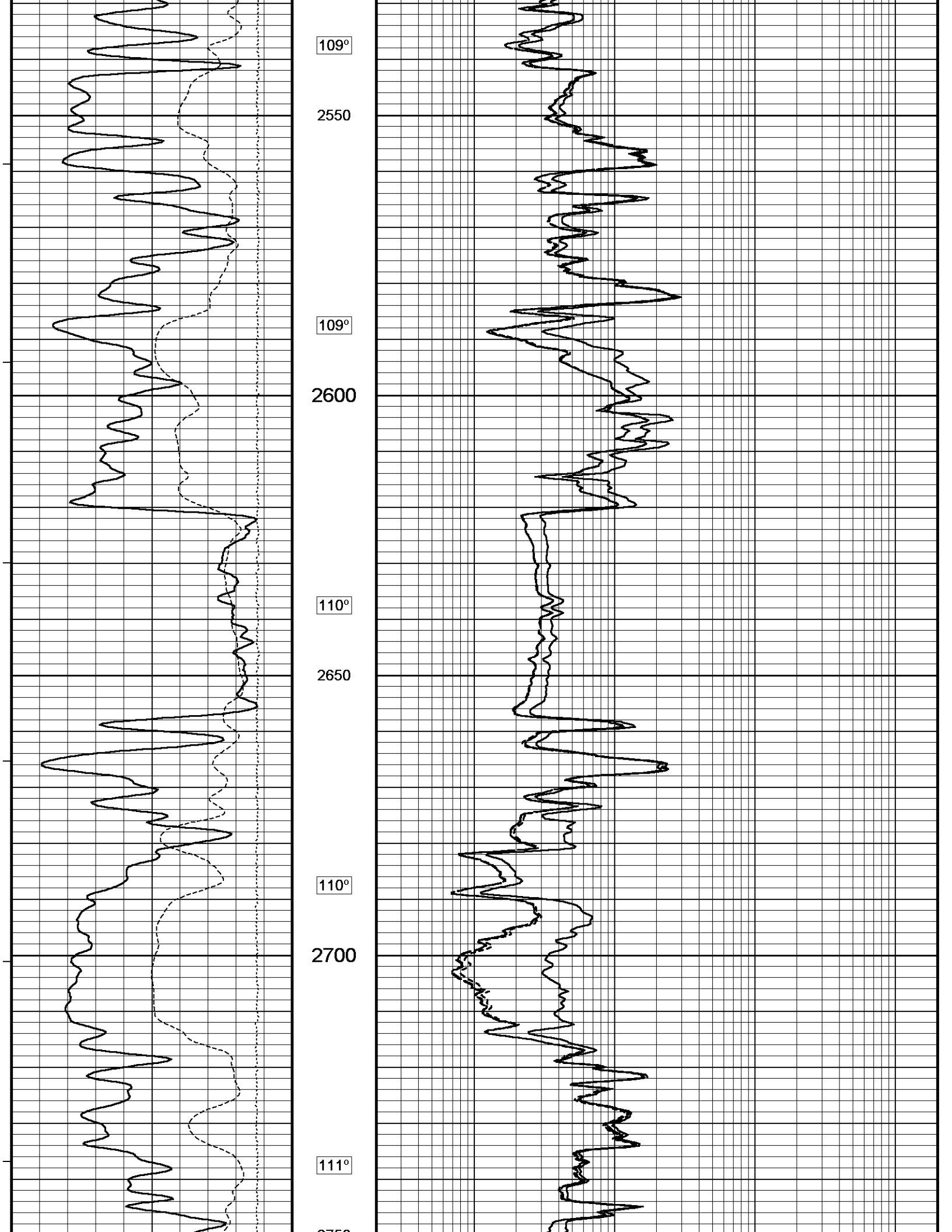

98°
1450
98°
1500
99°
1550
99°
1600
100°
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension

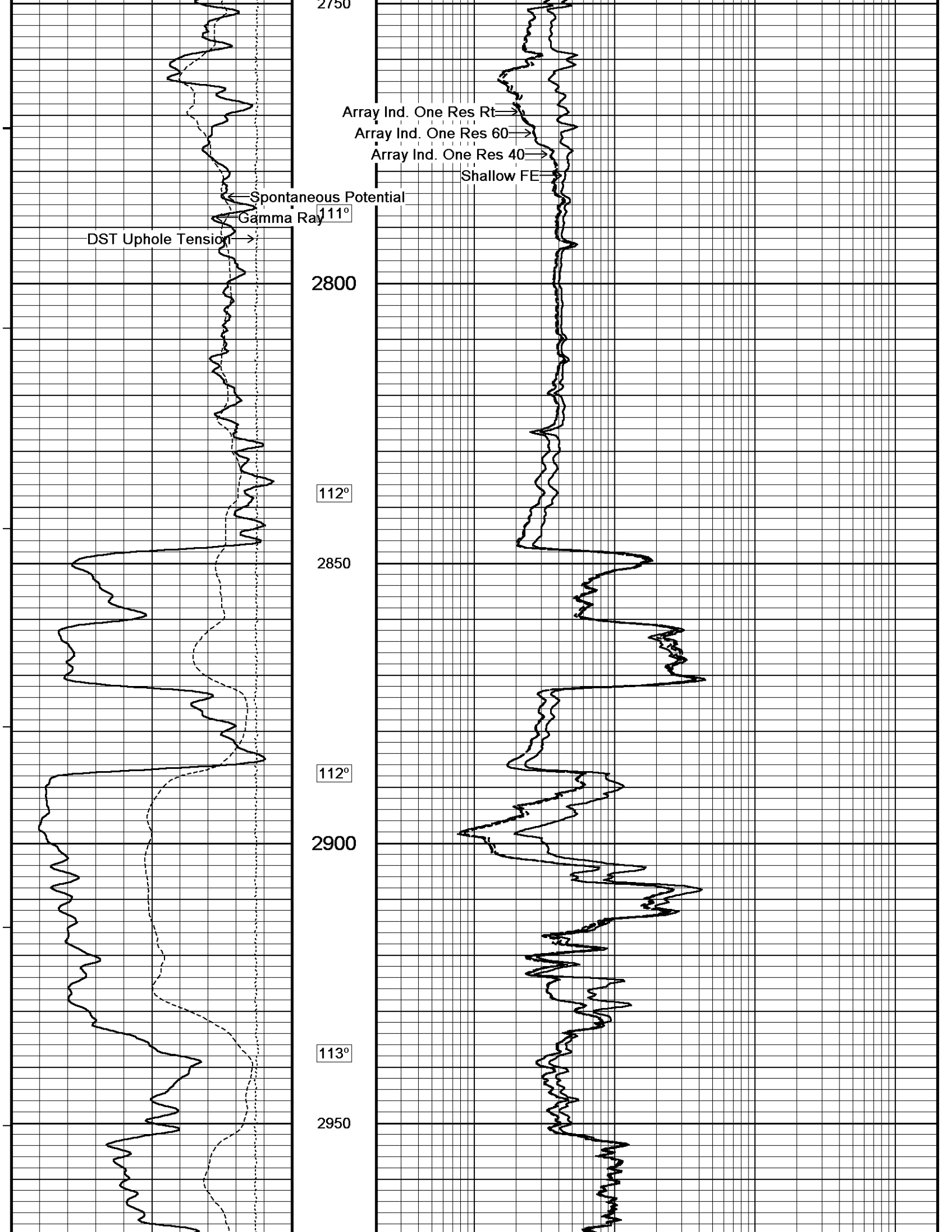

1650
100°
1700
101°
1750
102°
1800
102°
1850

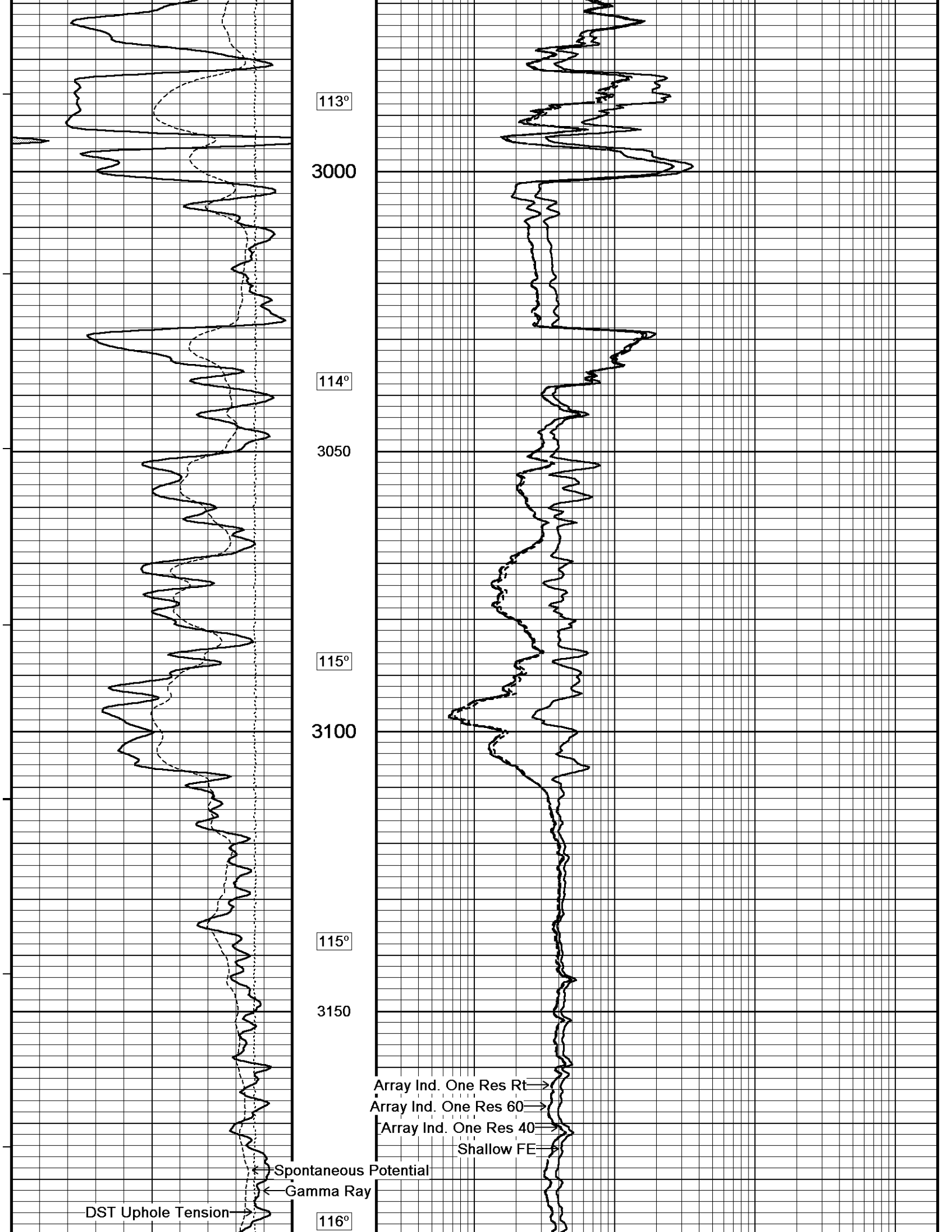

102°
1900
103°
1950
Array Ind. One Res Rt
Array Ind. One Res 60
104°
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
2000
Gamma Ray
DST Uphole Tension
104°
2050
104°

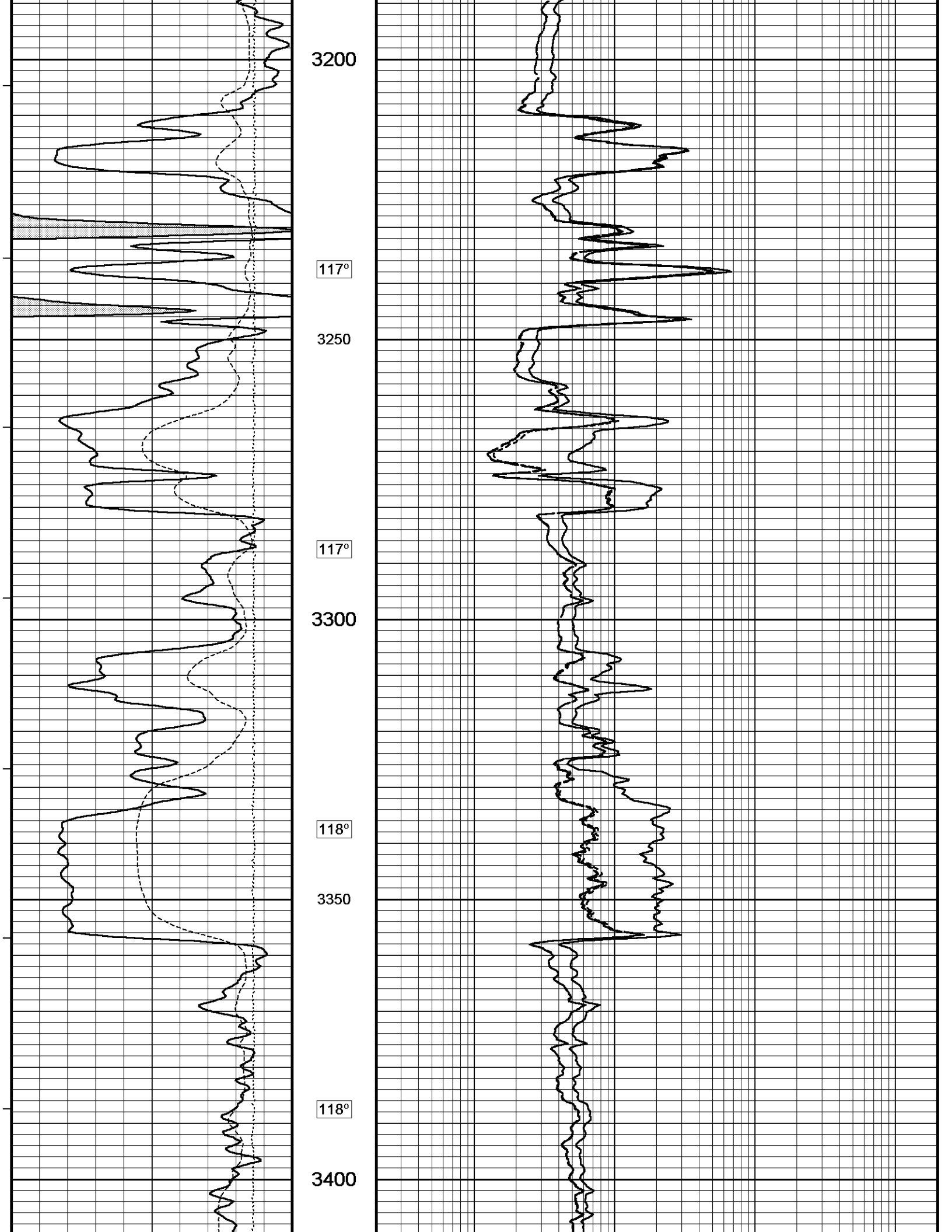

2100
104°
2150
104°
2200
105°
2250
106°
2300

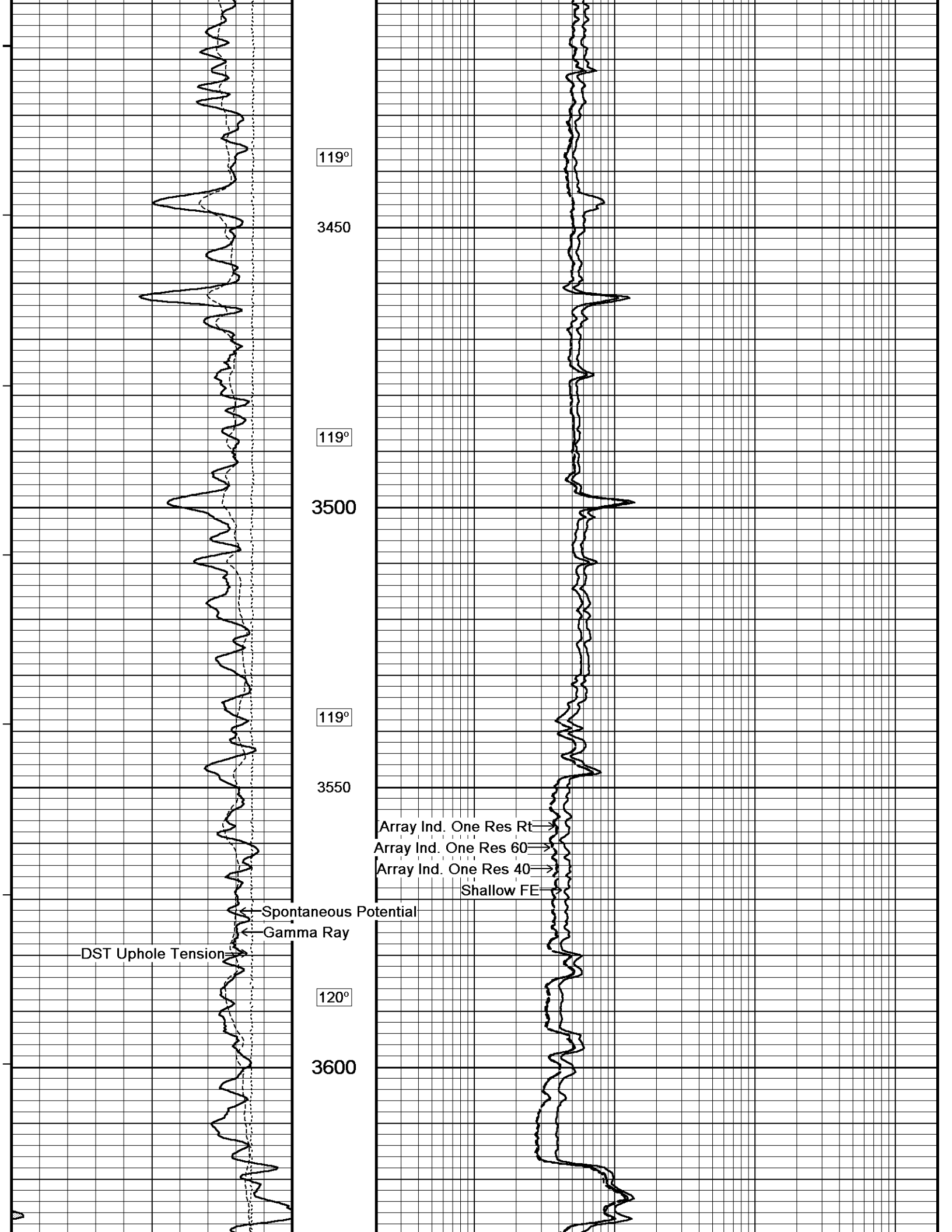

106°
2350
Array Ind. One Res RI
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
107°
Spontaneous Potential
Gamma Ray
DST Uphole Tension
2400
108°
2450
108°
2500

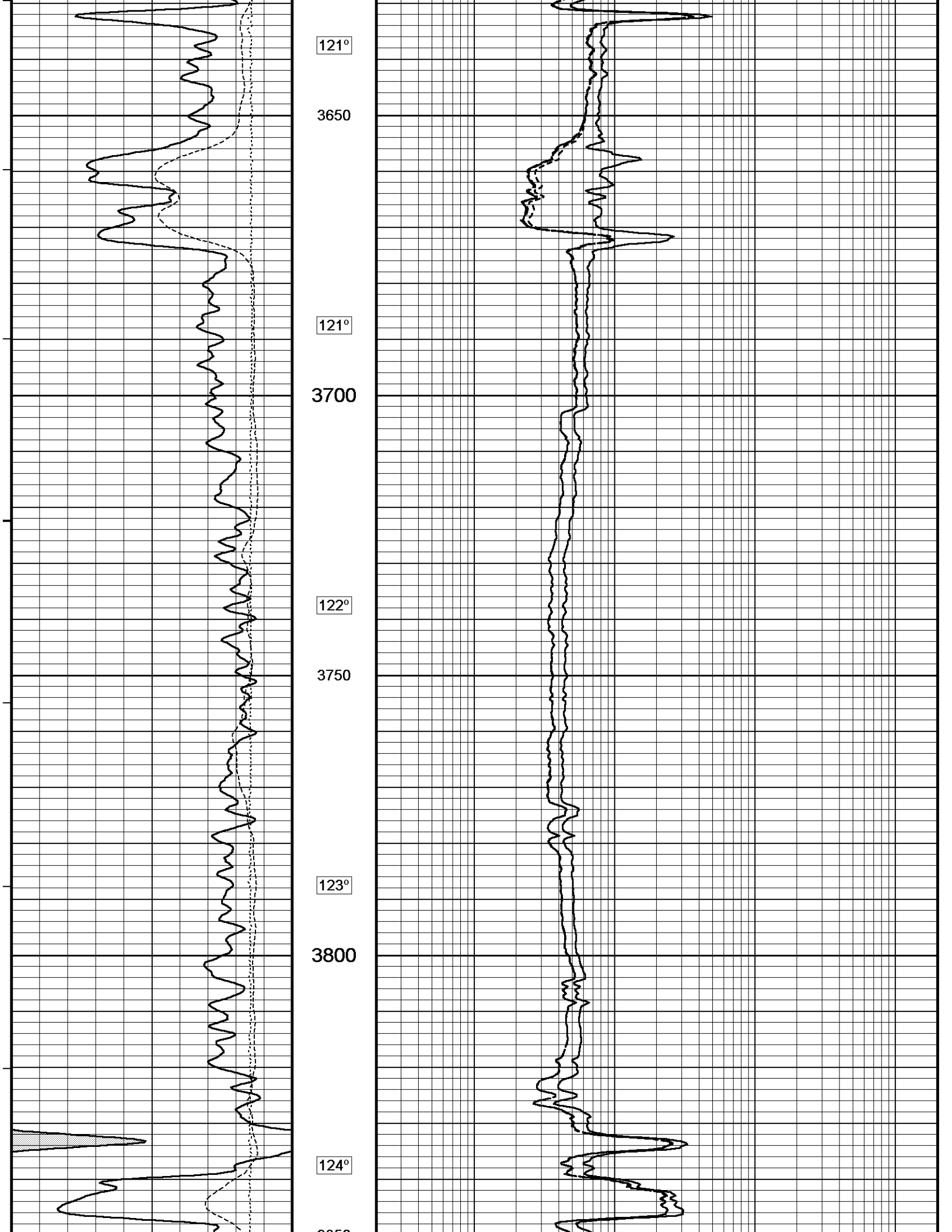

109°
2550
109°
2600
110°
2650
110°
2700
111°

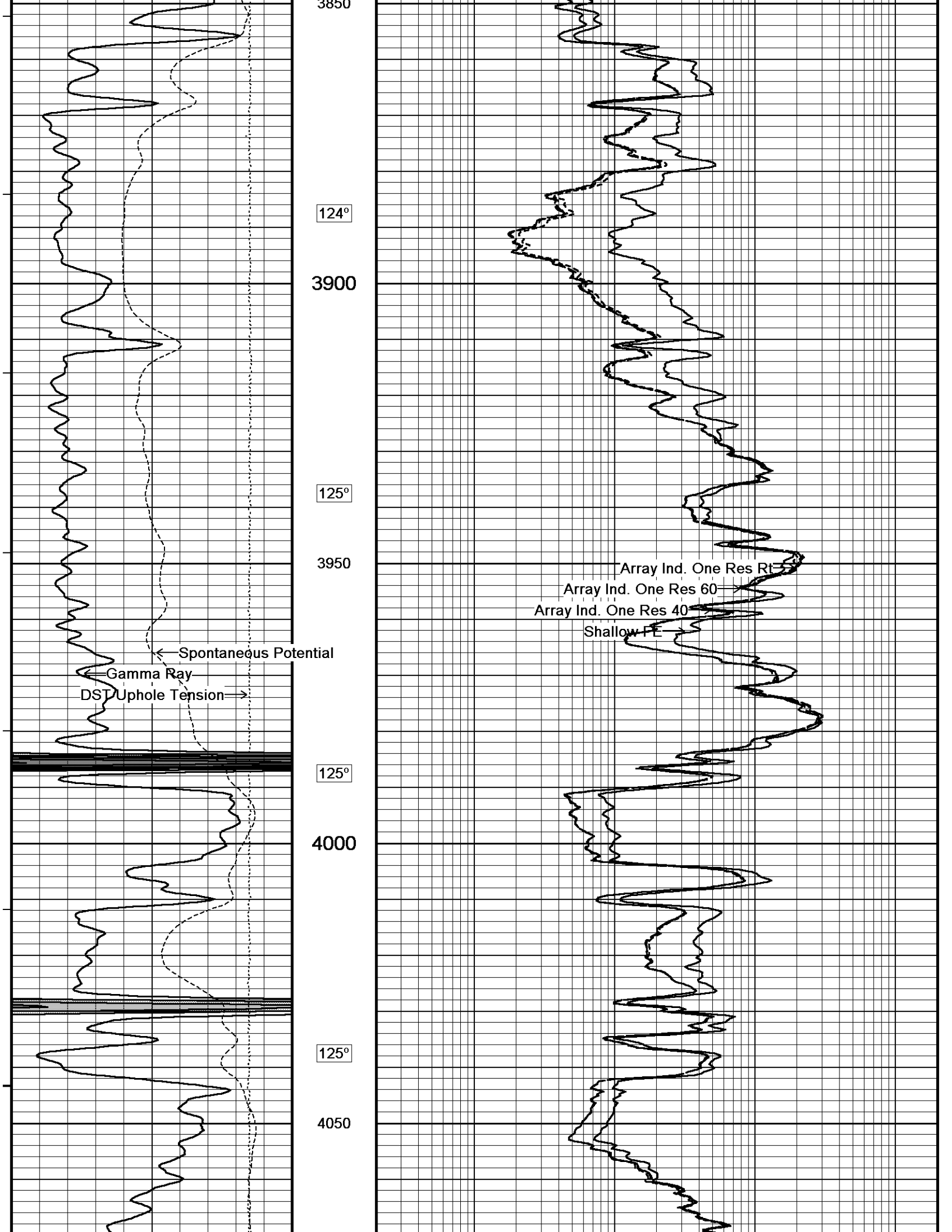

2750
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
111°
DST Uphole Tension
2800
112°
2850
112°
2900
113°
2950

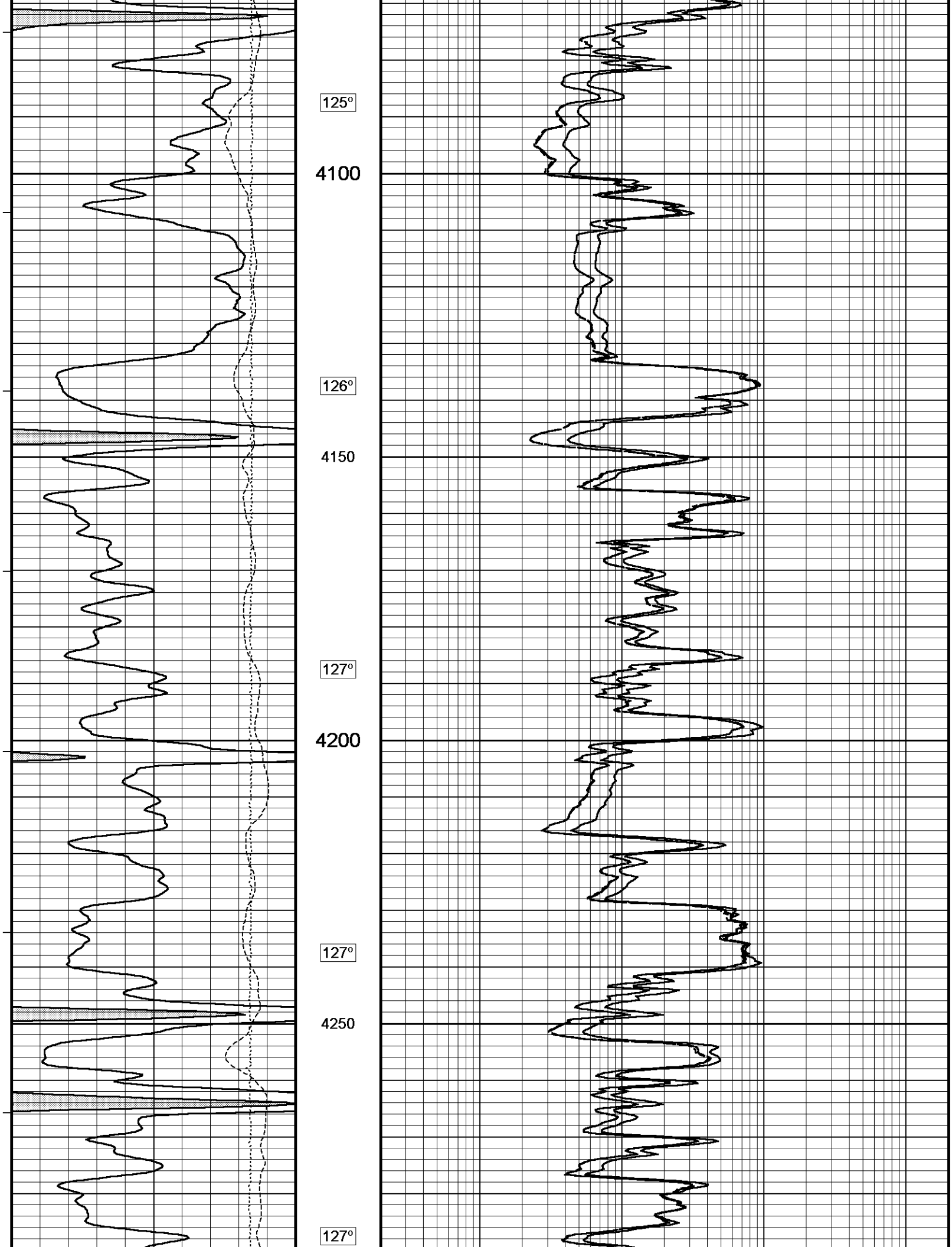

113°
3000
114°
3050
115°
3100
115°
3150
116°
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension

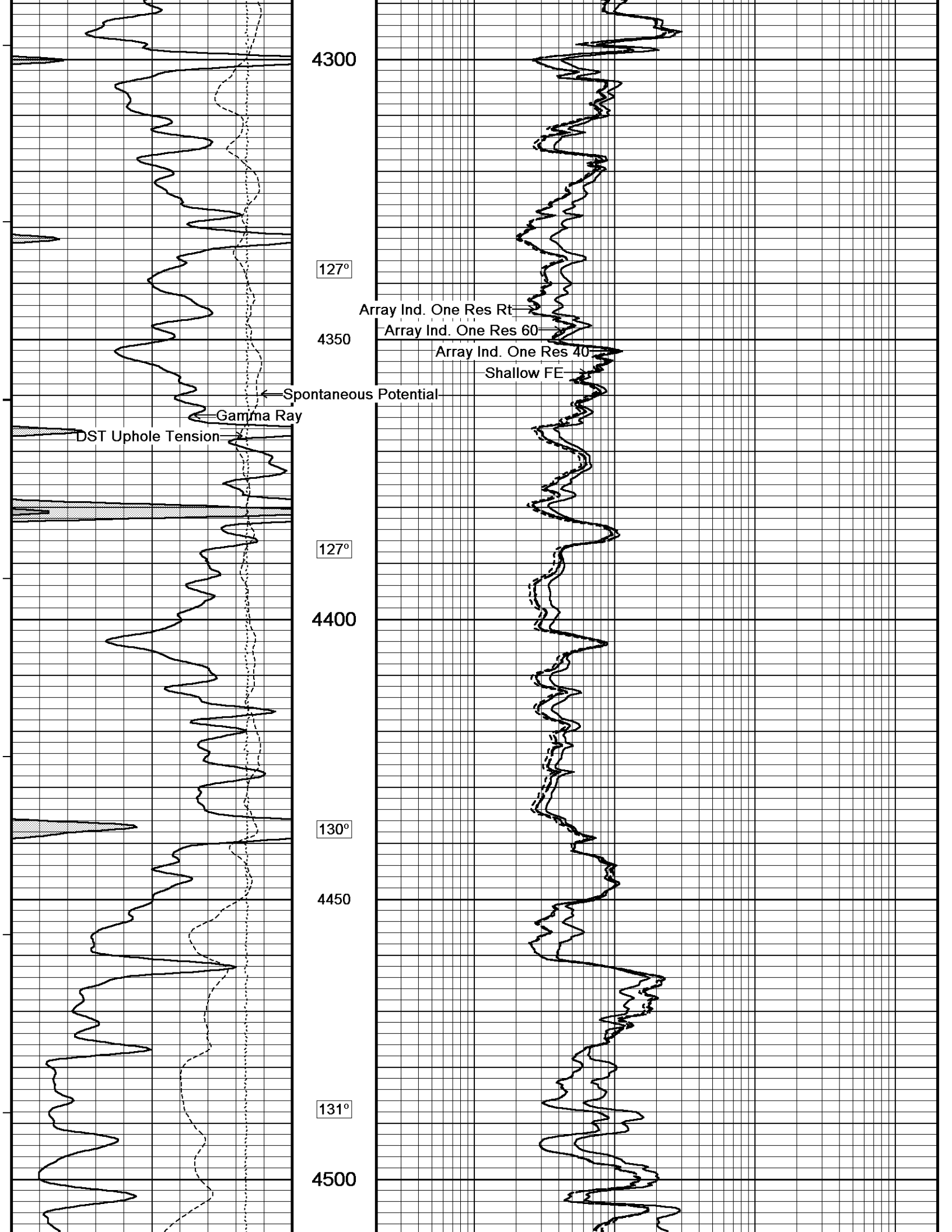

3200
117°
3250
117°
3300
118°
3350
118°
3400

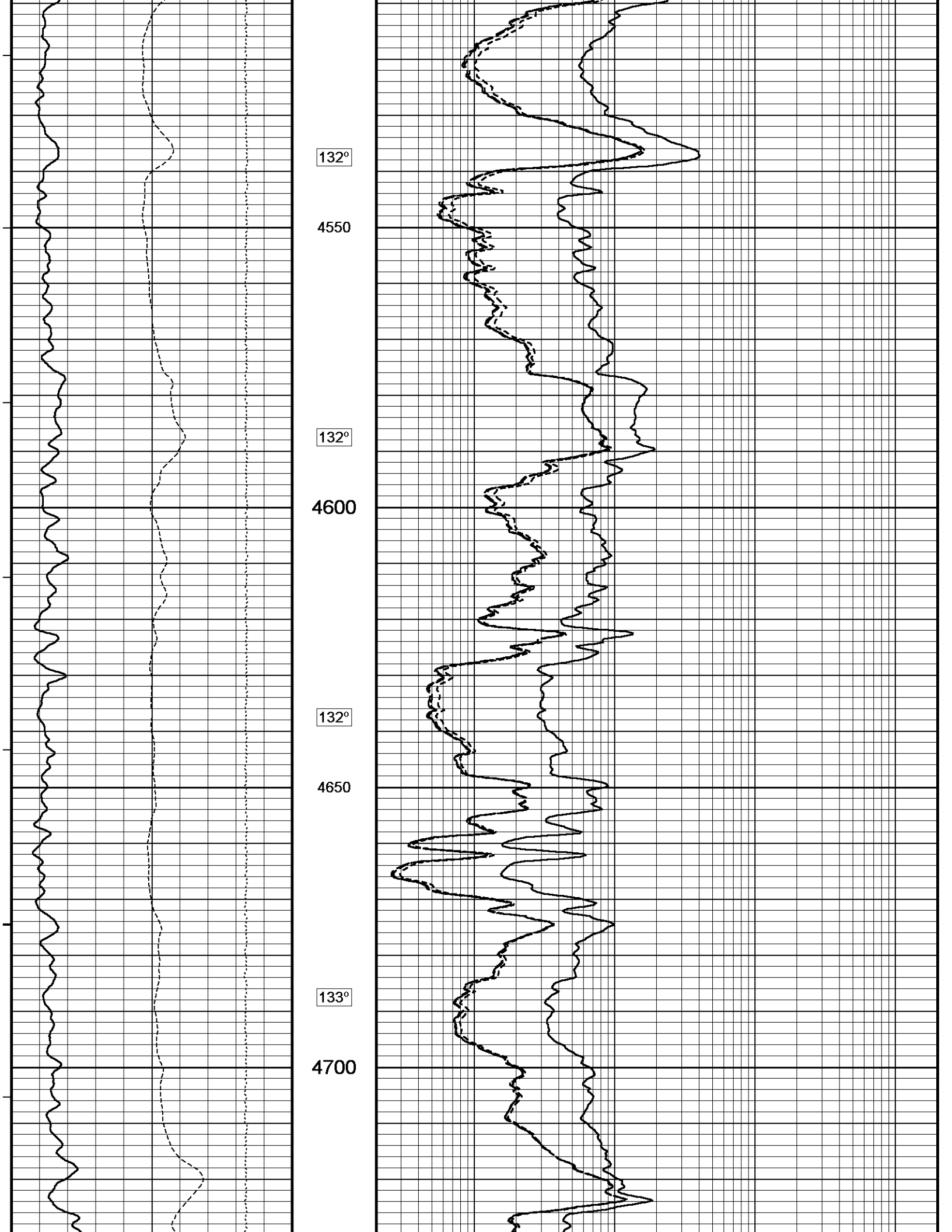

119°
3450
119°
3500
119°
3550
120°
3600
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension

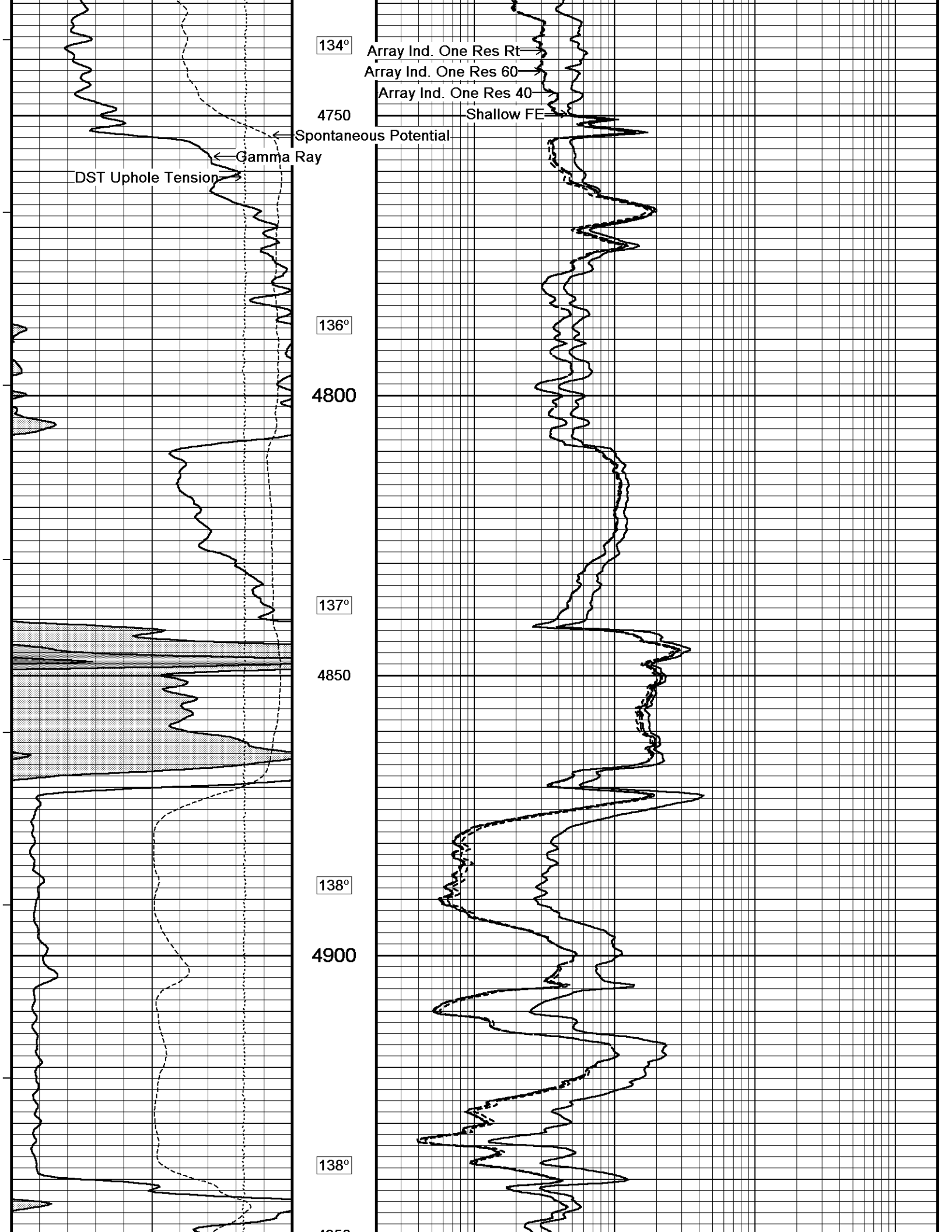

121°
3650
121°
3700
122°
3750
123°
3800
124°

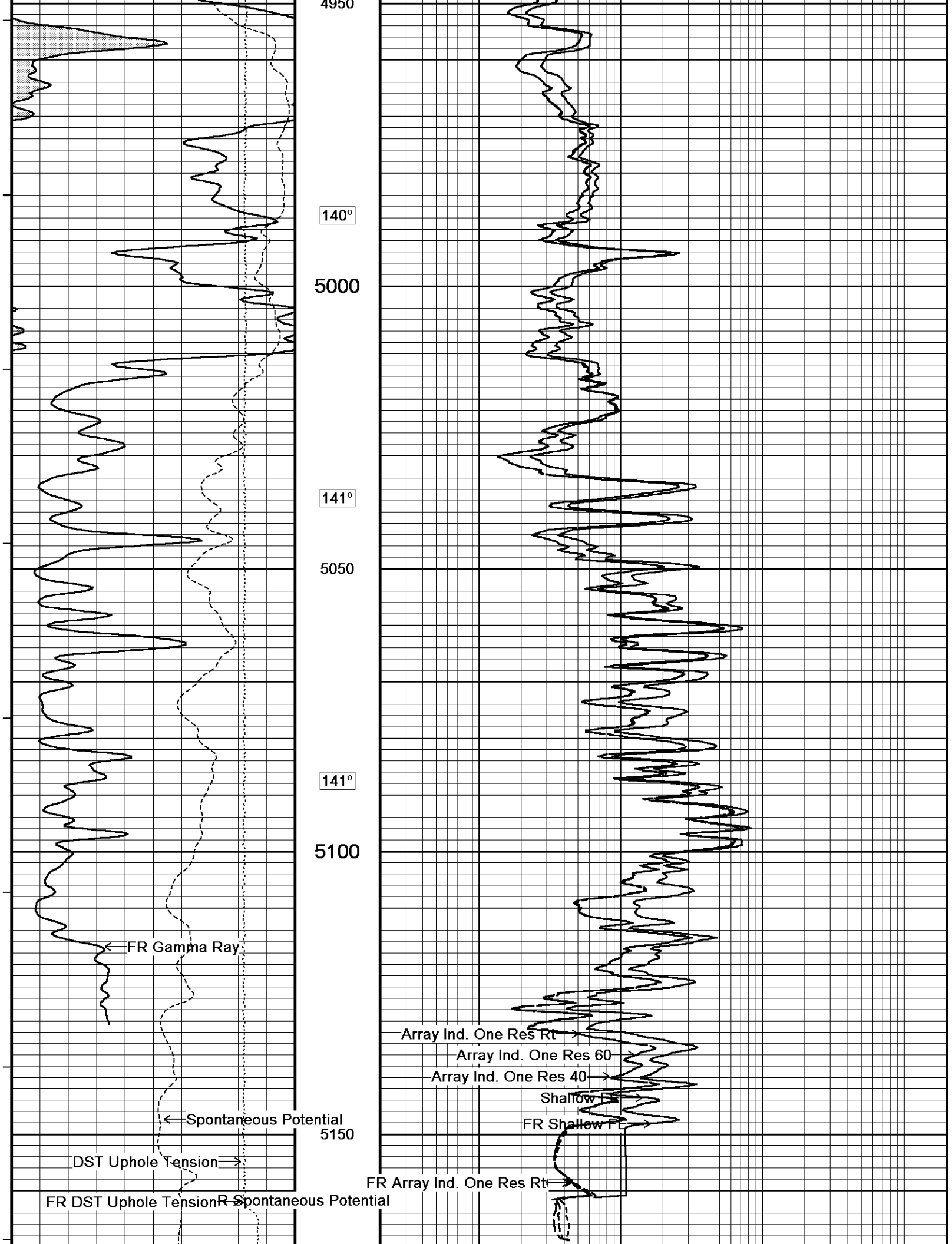

3850
124°
3900
125°
3950
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
125°
4000
125°
4050

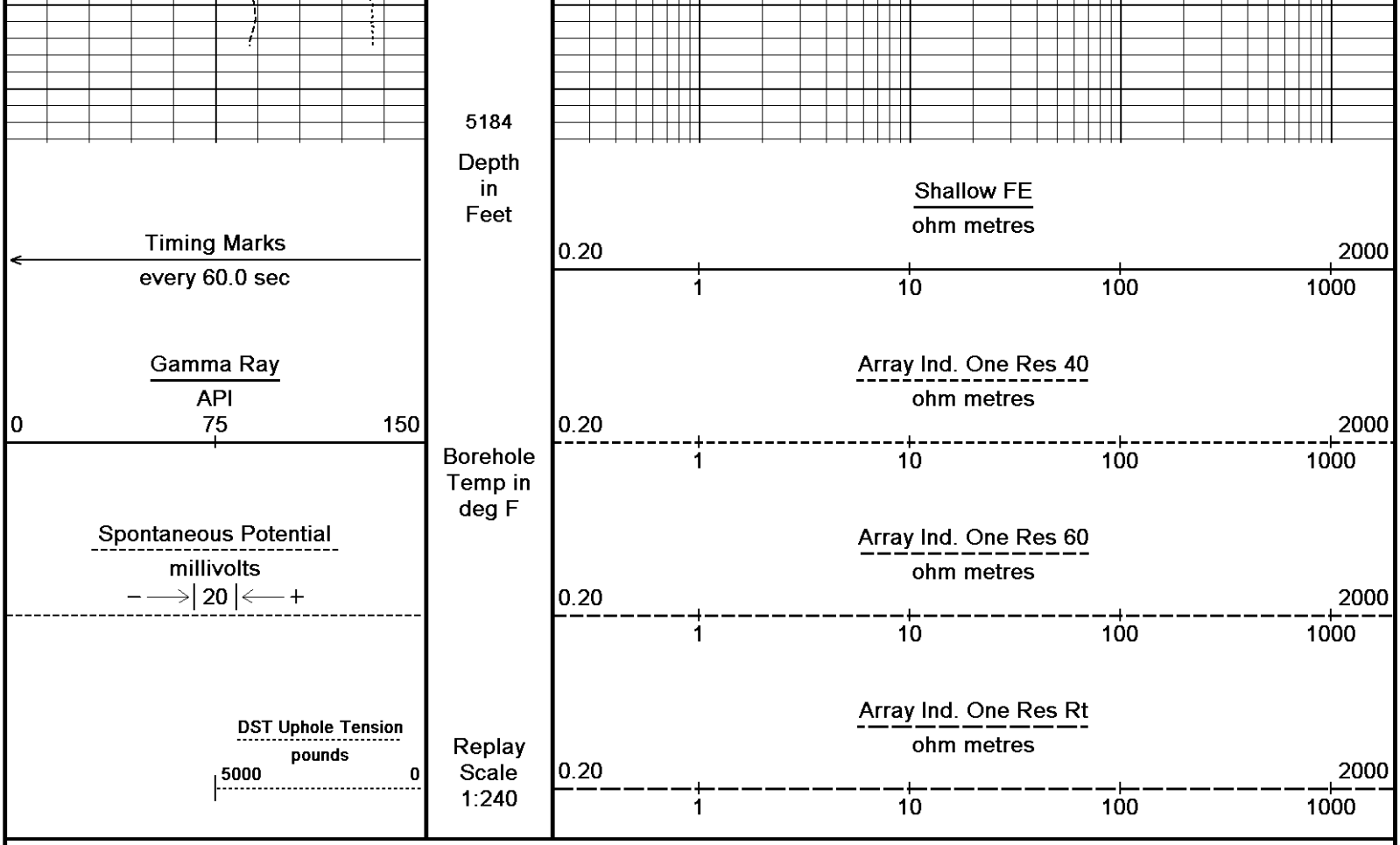

125°
4100
126°
4150
127°
4200
127°
4250
127°


4300
127°
Array Ind. One Res Rt
Array Ind. One Res 60
4350
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
127°
4400
130°
4450
131°
4500


132°
4550
132°
4600
132°
4650
133°
4700


134°
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
4750
Spontaneous Potential
Gamma Ray
DST Uphole Tension
136°
4800
137°
4850
138°
4900
138°


4950
140°
5000
141°
5050
141°
5100
5150
FR Gamma Ray
Spontaneous Potential
DST Uphole Tension
FR DST Uphole Tension
R Spontaneous Potential
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
FR Shallow FE
FR Array Ind. One Res Rt

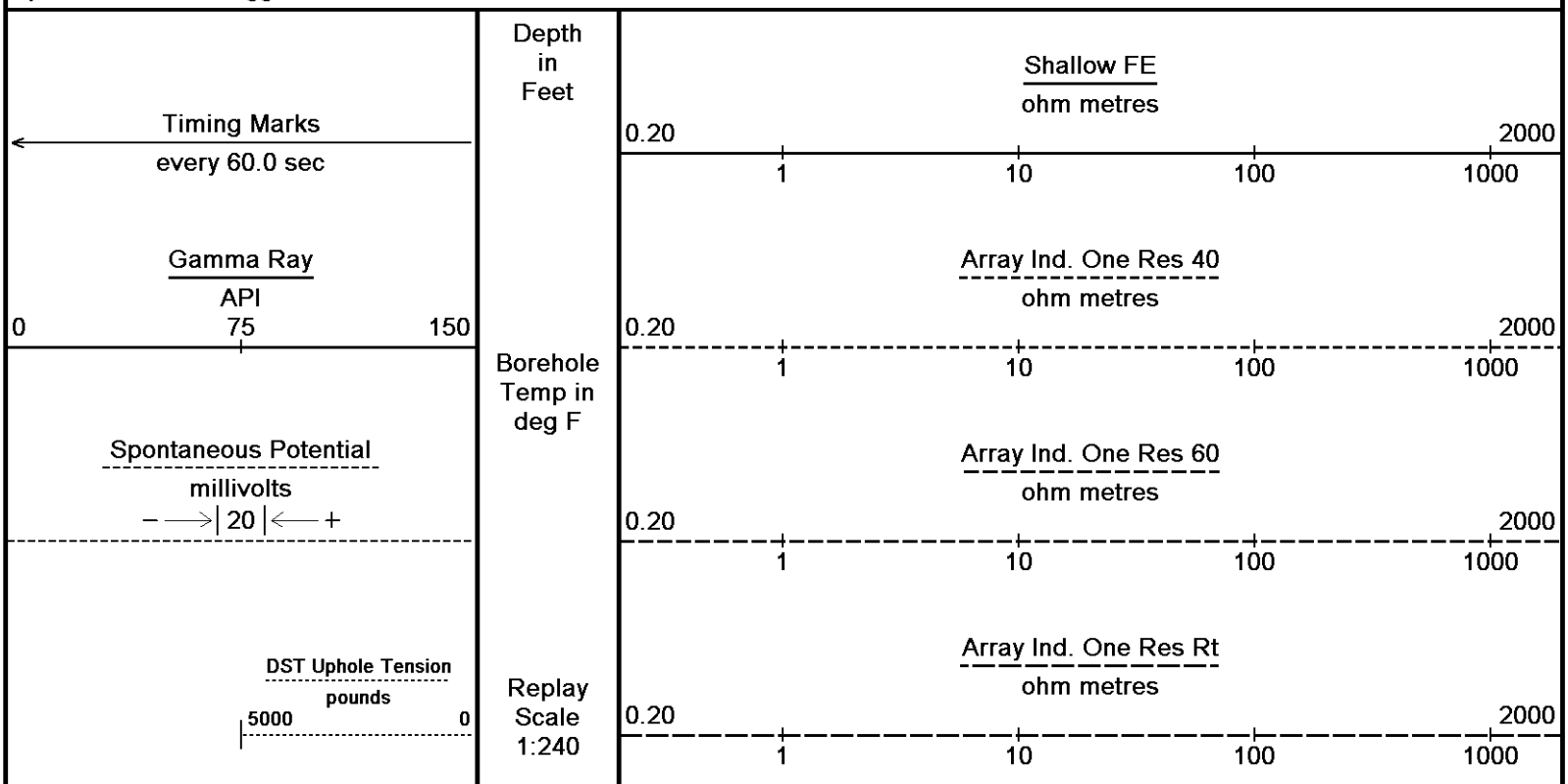


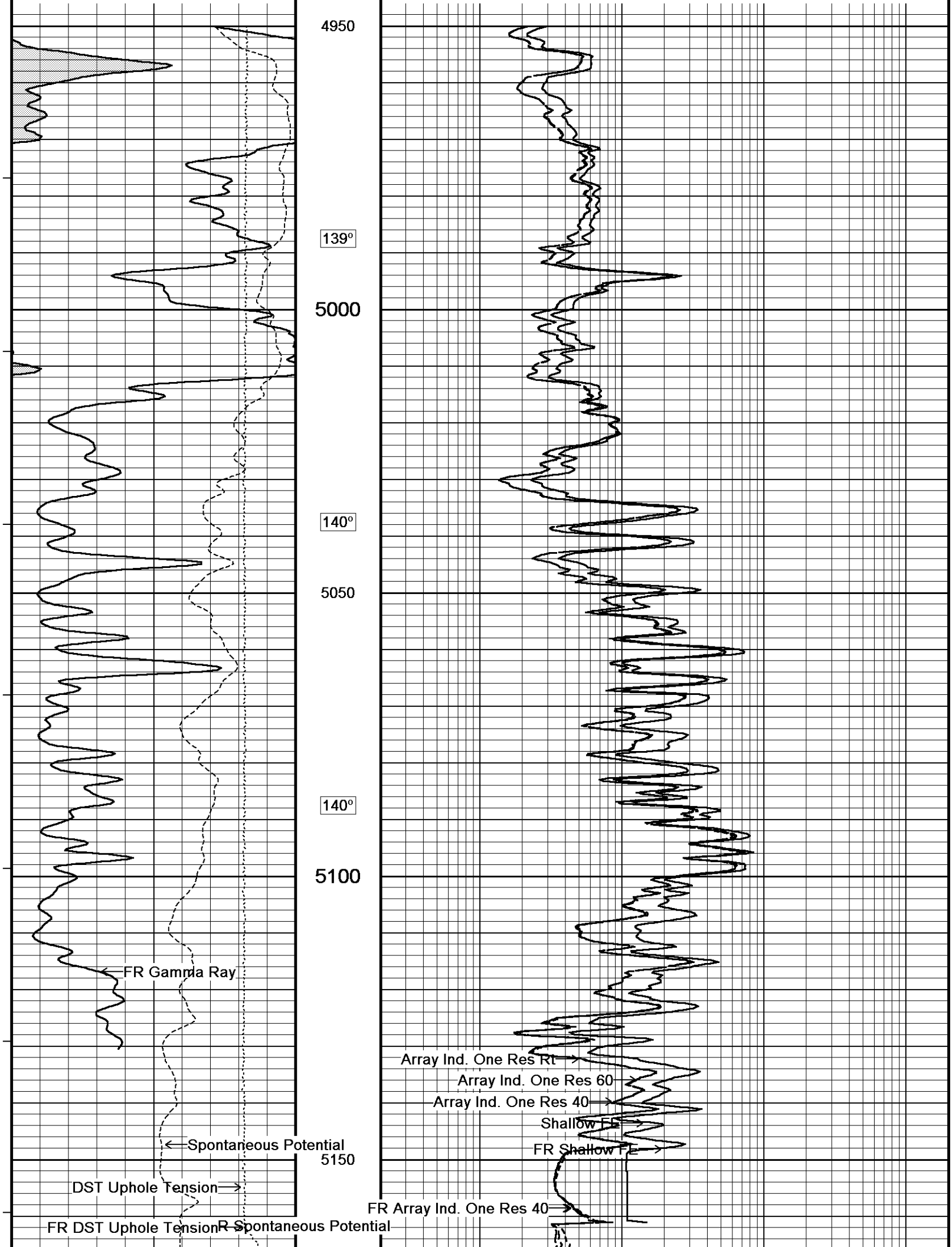
Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 08-FEB-2012 16:22
Filename: C:\Minimus 11_03_4044\Data\SandRidge Ethan ...\SandRidge Ethan John 1-5 SWD_003.dta — Recorded on 08-FEB-2012 13:09
System Versions: Logged with 11.03.4044 Plotted with 11.03.4044

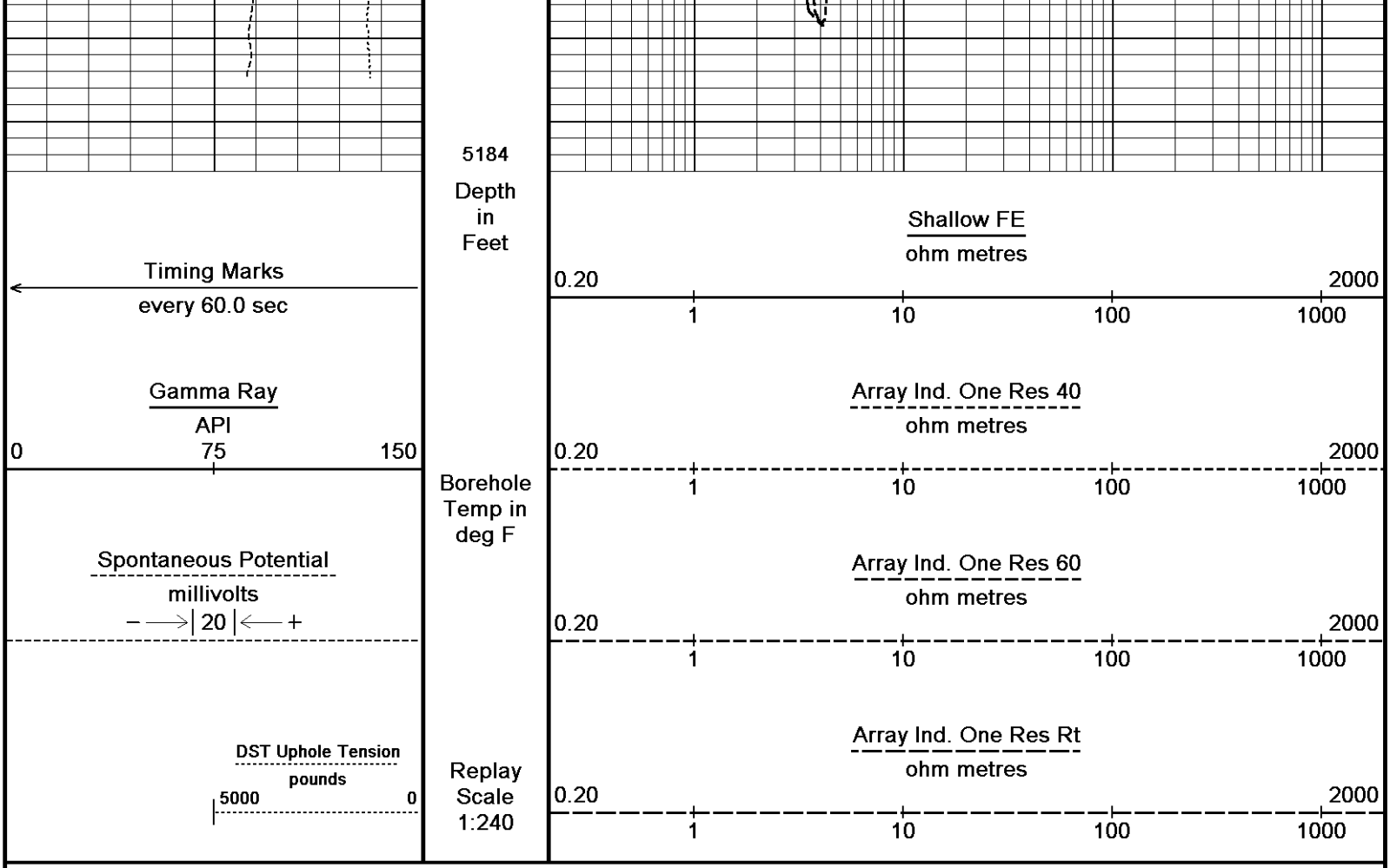
5 INCH MAIN

REPEAT SECTION

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 08-FEB-2012 16:22
Filename: C:\Minimus 11_03_4044\Data\SandRidge Ethan ...\SandRidge Ethan John 1-5 SWD_002.dta — Recorded on 08-FEB-2012 12:49
System Versions: Logged with 11.03.4044 Plotted with 11.03.4044




4950
139°
5000
140°
5050
140°
5100
5150
FR Gamma Ray
Spontaneous Potential
DST Uphole Tension
FR DST Uphole Tension
R Spontaneous Potential
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow Fc
FR Shallow Fc
FR Array Ind. One Res 40



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 08-FEB-2012 16:22

Filename: C:\Minimus 11_03_4044\Data\SandRidge Ethan ...\SandRidge Ethan John 1-5 SWD_002.dta — Recorded on 08-FEB-2012 12:49

System Versions: Logged with 11.03.4044 Plotted with 11.03.4044

REPEAT SECTION

BEFORE SURVEY CALIBRATION

C:\Minimus 11_03_4044\Data\SandRidge Ethan John 1-5 SWD\SandRidge Ethan John 1-5 SWD_003.dta

General Constants All 000

Last Edited on 08-FEB-2012,06:57

General Parameters		
Mud Resistivity	1.190	ohm-metres
Mud Resistivity Temperature	55.000	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	7.000	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 23-OCT-2011 03:19

Reading No	Measured	Calibrated (lbs)
1	12734.06	0.00
2	13523.27	454.00

Gamma Calibration MCG-D K 443

Gamma Calibration MCG-D.K 443

Field Calibration on 07-FEB-2012 10:33

	Measured	Calibrated (API)
Background	66	44
Calibrator (Gross)	747	500
Calibrator (Net)	681	456

Gamma Constants MCG-D.K 443

Last Edited on 08-FEB-2012,06:57

Gamma Calibrator Number	GRCC141	
Mud Density	1.07	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

SP Calibration MCG-D.K 443

Field Calibration on 01-FEB-2012 10:26

	Measured	Calibrated (mV)
Reference 1	100.9	100.0
Reference 2	-98.4	-100.0

High Resolution Temperature Calibration MCG-D.K 443

Field Calibration on 12-JAN-2012,09:06

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	100.00	100.00

High Resolution Temperature Constants MCG-D.K 443

Last Edited on

Pre-filter Length	11

Caliper Calibration MML-A 9

Base Calibration on 06-FEB-2012 09:52
Field Calibration on 06-FEB-2012 09:53

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	15071	5.98
2	18450	7.97
3	21808	9.86
4	25812	11.92
5	0	0.00
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
6.00	5.98

Micro Normal and Micro Inverse Calibration MML-A 9

Base Calibration on 06-FEB-2012 09:39
Field Check on 06-FEB-2012 09:41

Base Calibration

	Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Micro Normal	12.1	59.8	2.6	12.8
Micro Inverse	15.6	78.1	1.7	8.4

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	32.4	32.4
Micro Inverse	16.4	16.4

Micro Normal and Micro Inverse Constants MML-A 9

Last Edited on 06-FEB-2012,09:25

Pad Type	8-12 in Soft Rubber Inflatable 006-9011-159	
Micro Normal K Factor	0.5110	
Micro Inverse K Factor	0.3380	
Standoff Offset	N/A	inches

Neutron Calibration MDN-A.B 39

Base Calibration on 04-JAN-2012 14:55
Field Check on 01-FEB-2012 10:20

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	2756	86	3714	110
Ratio	32.152		33.764	

Field Calibrator at Base

Calibrated (cps)	
2384	2432

	2384	3452
Ratio		0.695

Field Check	Calibrated (cps)	
	2392	3445
Ratio		0.694

Neutron Constants MDN-A.B 39

Last Edited on 08-FEB-2012,06:58

Neutron Source Id	N-1095	
Neutron Jig Number	NECD117	
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	None	
Formation Pressure	N/A	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 67

Base Calibration on 06-FEB-2012 10:02
Field Check on 06-FEB-2012 10:09

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	959.8	126.8
Base Check		280.8
Field Check		280.8

FE Constants MFE-A.A 67

Last Edited on 08-FEB-2012,06:59

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

Induction Calibration MAI-A.A 188

Base Calibration on 04-JAN-2012,13:31
Field Check on 01-FEB-2012 09:56

Base Calibration

Test Loop Calibration

Channel	Measured Low	Measured High	Calibrated (mmho/m) Low	Calibrated (mmho/m) High
1	16.9	470.2	9.3	966.2
2	6.4	377.1	7.6	821.4
3	3.9	257.8	5.2	566.0
4	1.7	135.1	2.6	279.2
Array Temperature		66.3	Deg F	

Channel	Base Check (mmho/m) Low	Base Check (mmho/m) High	Field Check (mmho/m) Low	Field Check (mmho/m) High	
1	13.5	3868.4	13.5	3867.8	
2	30.0	3585.1	30.0	3584.8	
3	27.9	3079.3	27.9	3079.1	
4	19.8	2047.4	19.8	2047.2	
Deep	17.2	1955.7	17.2	1955.6	
Medium	40.4	4115.2	40.3	4115.0	
Shallow	44.8	5369.8	44.7	5369.2	
Array Temperature		65.2		65.2	Deg F

Induction Constants MAI-A.A 188

Last Edited on 08-FEB-2012,06:59

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	8.0000	
Stand-off Fin Angle	45.00	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 Calibration MAI-A.A 188

Field Calibration on 12-AUG-2011,21:41

	Measured	Calibrated(Deg F)
Lower	32.00	32.00
Upper	68.00	68.00

High Resolution Temperature Constants MAI-A.A 188

Last Edited on 21-JUN-2011,19:05

Pre-filter Length	11

Caliper Calibration MPD-B 65

Base Calibration on 06-FEB-2012 15:42
Field Calibration on 06-FEB-2012 15:43

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14246	3.99
2	22911	5.98
3	31473	7.97
4	39776	9.86
5	48992	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.96	5.98

Photo Density Calibration MPD-B 65

Base Calibration on 06-FEB-2012 16:03
Field Check on 06-FEB-2012 16:19

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	58421	27705	59556	30836
Reference 2	23654	2410	24941	2541

Field Check at Base

1233.9 1179.6

Field Check

1228.8 1176.4

PE Calibration

Base Calibration

	WS	Measured WH	Ratio	Calibrated Ratio
Background	226	1097		
Reference 1	21385	58213	0.370	0.371
Reference 2	6241	23505	0.268	0.272

Field Check at Base

225.7 1097.3

Field Check

223.7 1089.3

Density Constants MPD-B 65

Last Edited on 08-FEB-2012,06:59

Density Source Id	P57072B	
Nylon Calibrator Number	DNCE695	
Aluminium Calibrator Number	DACD698	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.07	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)
2.71	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	

DOWNHOLE EQUIPMENT

C:\Minimus 11_03_4044\Data\SandRidge Ethan John 1-5 SWD\SandRidge Ethan John 1-5 SWD_003.dta

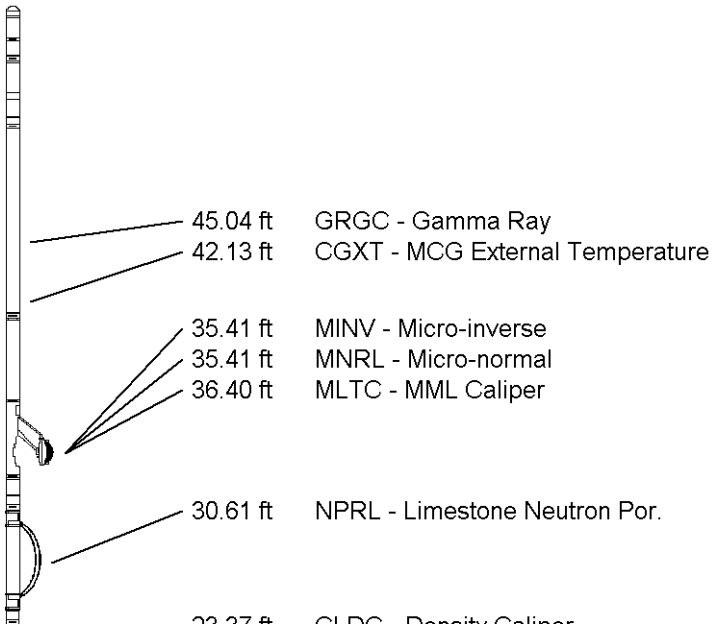
MCB-A 11B Tension Cablehead
MCB-A 162 LG: 2.18 ft WT: 19.8 lb OD: 2.24 in

SHA-F Compact Swivel Head Adaptor
SHA-F 88 LG: 2.74 ft WT: 26.5 lb OD: 2.24 in

Compact Comms Gamma
MCG-D.K 443 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-log
MML-A 9 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron
MDN-A.B 39 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in



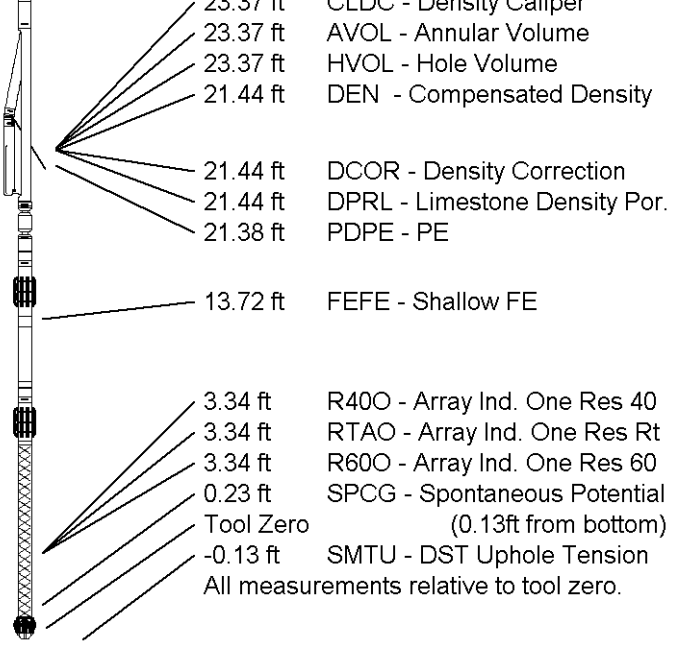
Compact Density/Caliper
MPD-B 65 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

SKJ-D.A Compact Knuckle Joint
SKJ-D.A 91 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Focussed Electric
MFE-A.A 67 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction
MAI-A.A 188 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 55.24 ft Weight: 454.2 lb



23.37 ft	CLDC - Density Caliper
23.37 ft	AVOL - Annular Volume
23.37 ft	HVOL - Hole Volume
21.44 ft	DEN - Compensated Density
21.44 ft	DCOR - Density Correction
21.44 ft	DPRL - Limestone Density Por.
21.38 ft	PDPE - PE
13.72 ft	FEFE - Shallow FE
3.34 ft	R40O - Array Ind. One Res 40
3.34 ft	RTAO - Array Ind. One Res Rt
3.34 ft	R60O - Array Ind. One Res 60
0.23 ft	SPCG - Spontaneous Potential
Tool Zero	(0.13ft from bottom)
-0.13 ft	SMTU - DST Uphole Tension

All measurements relative to tool zero.

COMPANY	SANDRIDGE EXPL. & PRODUCTION LLC
WELL	ETHAN JOHN # 1-5 SWD
FIELD	WALDRON WEST
PROVINCE/COUNTY	HARPER
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	1381.00	feet	First Reading	5159.00	feet
Elevation Drill Floor	1379.00	feet	Depth Driller	5178.00	feet
Elevation Ground Level	1361.00	feet	Depth Logger	5162.00	feet

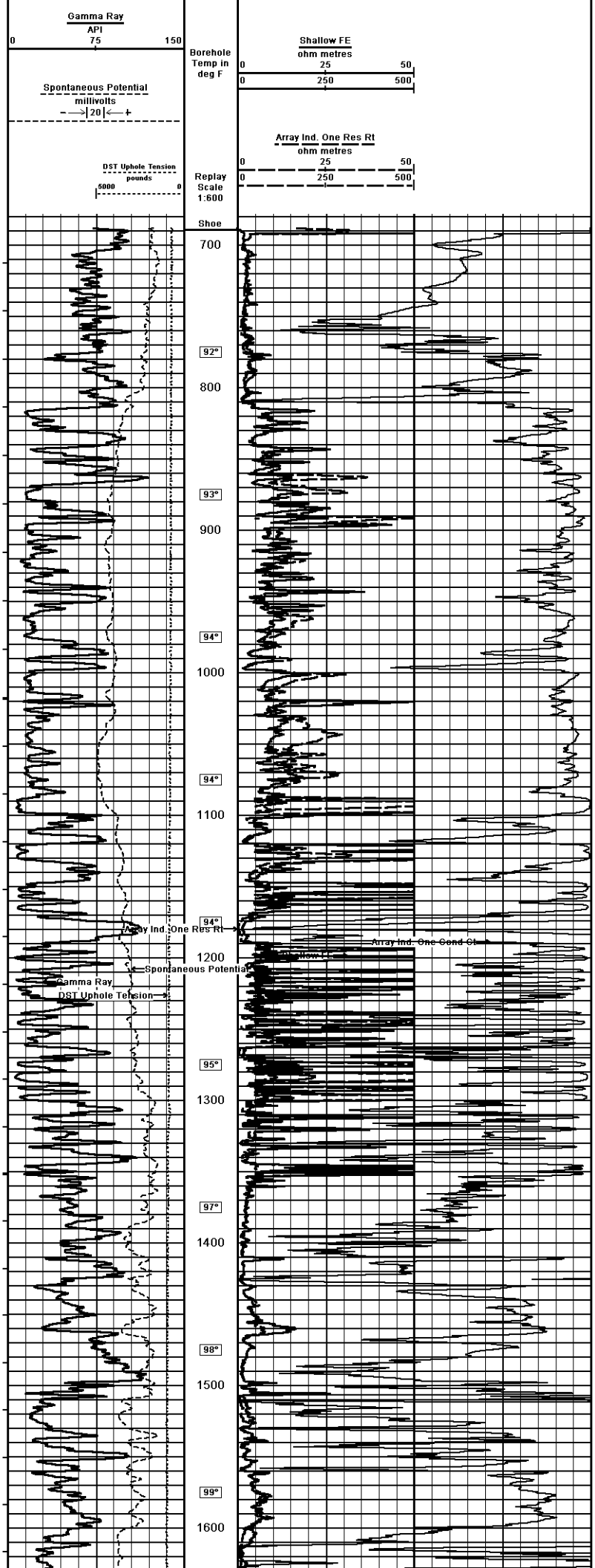
Weatherford®

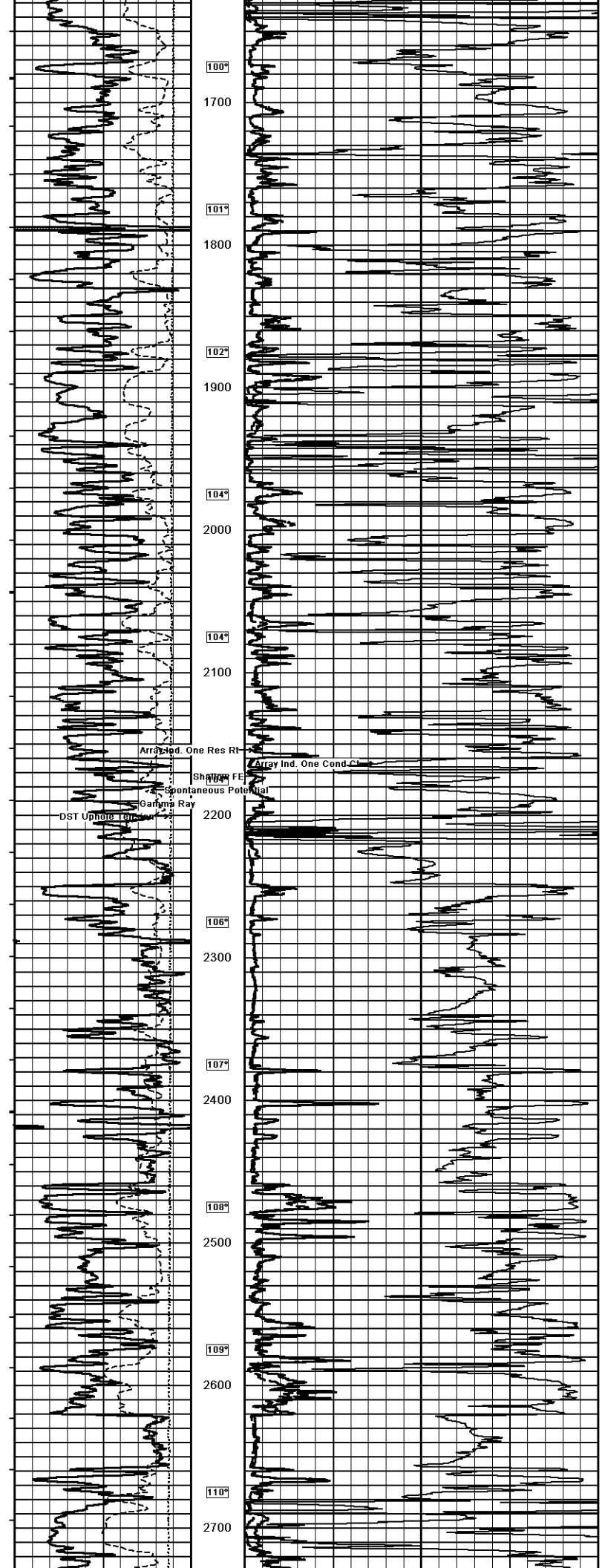
ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG

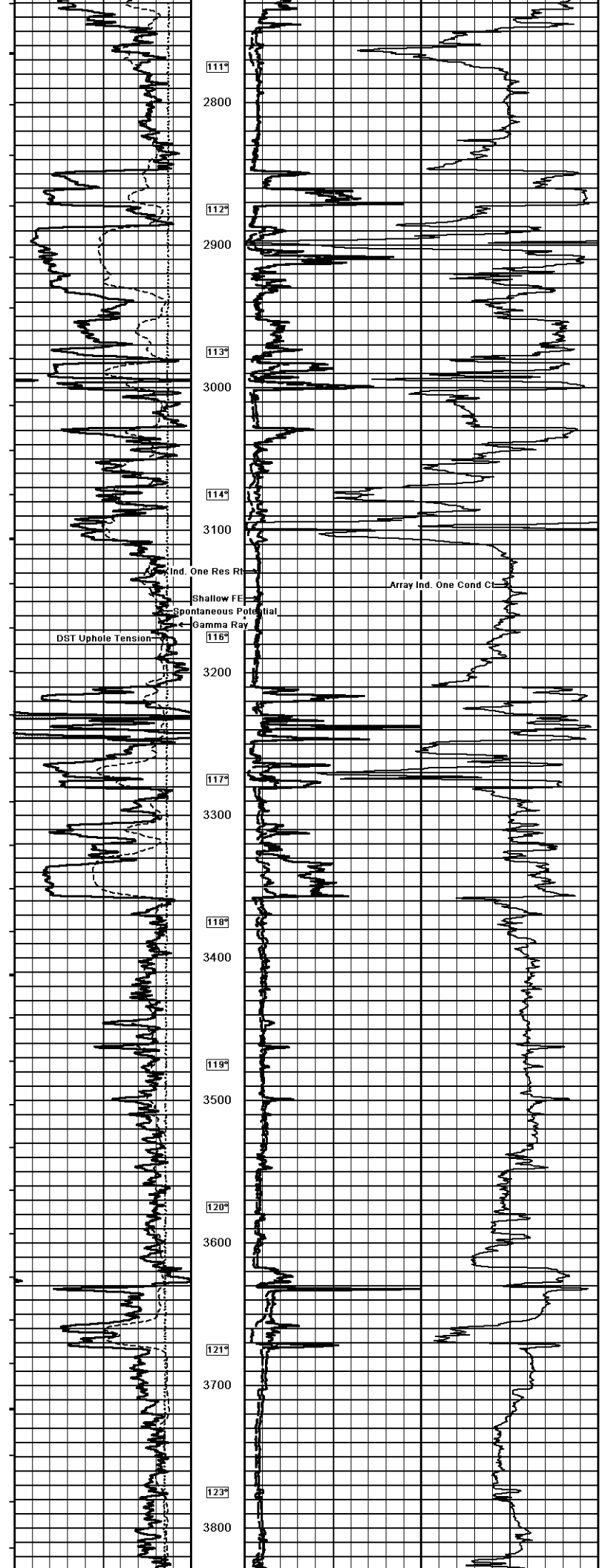
40 Years of Wireline 1970 2010

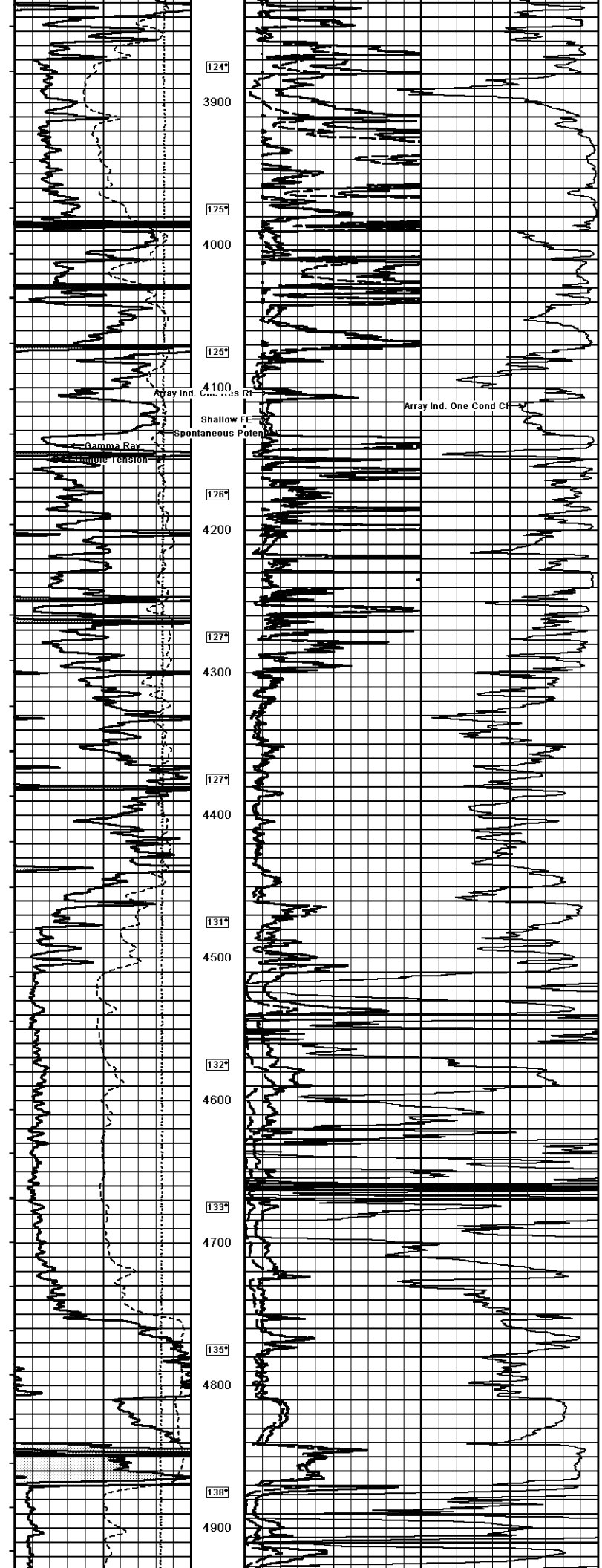
COMPANY	SANDRIDGE EXPL. & PRODUCTION LLC
WELL	ETHAN JOHN # 1-5 SWD
FIELD	WALDRON WEST
PROVINCE/COUNTY	HARPER
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	1226' FNL & 253' FEL NE/4
SEC	5
TWP	33S
RGE	6W
API Number	15-077-21798
Permit Number	
Other Services	MPD/MDN
	MML
Permanent Datum G.L. Elevation 1361 feet	
Log Measured From KB	
Drilling Measured From 1361	
Elevations: KB	1381.00 feet
DF	1379.00
GL	1361.00

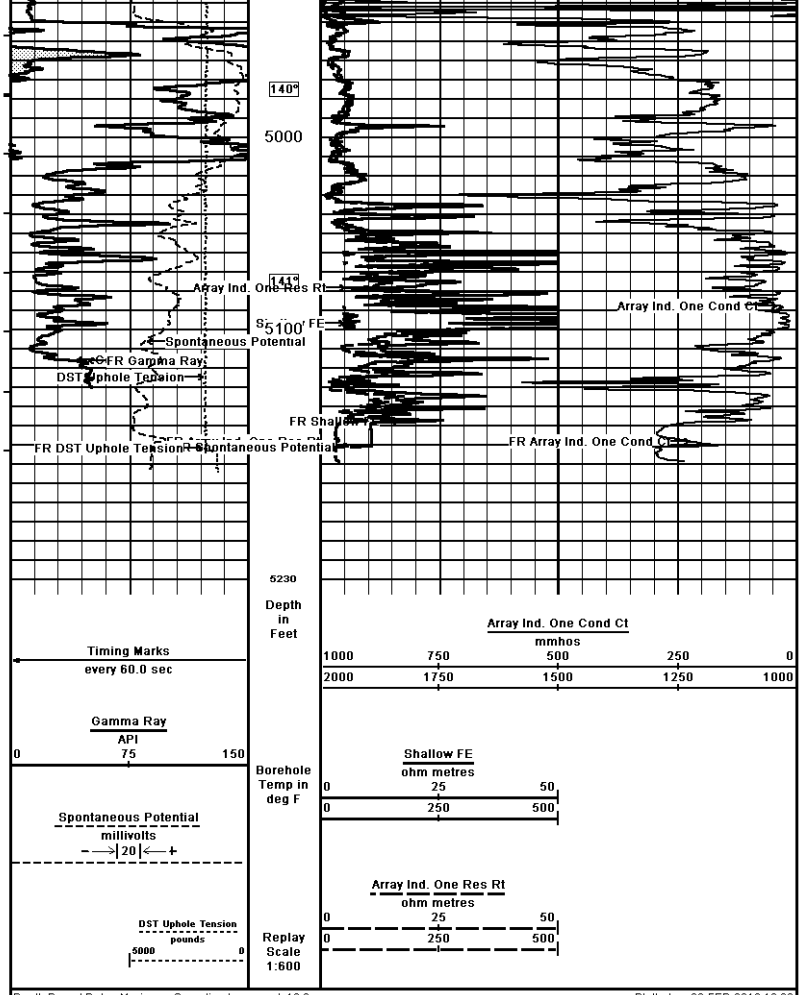
| | | | | |


Gamma Ray
API
0
75
150
Spontaneous Potential
millivolts
20
DST Uphole Tension
pounds
5000
0
Borehole Temp in deg F
Shallow FE
ohm metres
0
25
50
0
250
500
Array Ind. One Res Rt
ohm metres
0
25
50
0
250
500
Replay Scale 1:600
Shoe
700
92°
800
93°
900
94°
1000
94°
1100
94°
1200
95°
1300
97°
1400
98°
1500
99°
1600
Array Ind. One Res Rt
Array Ind. One Cond Ct
Spontaneous Potential
Gamma Ray
DST Uphole Tension


100"
1700
101"
1800
102"
1900
104"
2000
104"
2100
Array Ind. One Res Rt
Array Ind. One Cond Cha
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
2200
106"
2300
107"
2400
108"
2500
109"
2600
110"
2700


111"
2800
112"
2900
113"
3000
114"
3100
Array Ind. One Res Rt
Array Ind. One Cond Ct
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
116"
3200
117"
3300
118"
3400
119"
3500
120"
3600
121"
3700
123"
3800


124°
3900
125°
4000
125°
4100
Array Ind. One Res Rt
Array Ind. One Cond Ct
Shallow FE
Spontaneous Potential
Gamma Ray
Cable Tension
126°
4200
127°
4300
127°
4400
131°
4500
132°
4600
133°
4700
135°
4800
138°
4900



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 08-FEB-2012 16:22

Filename: C:\Minimus 11_03_4044\Data\SandRidge Ethan Joh...\SandRidge Ethan John 1-5 SWD_003.dta — Recorded on 08-FEB-2012 13:09

System Versions: Logged with 11.03.4044 Plotted with 11.03.4044

1 INCH MAIN

COMPANY	SANDRIDGE EXPL. & PRODUCTION LLC
WELL	ETHAN JOHN # 1-5 SWD
FIELD	WALDRON WEST
PROVINCE/COUNTY	HARPER
COUNTRY/STATE	U.S.A. / KANSAS

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Weatherford

ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG