



**Weatherford**

**ARRAY INDUCTION  
SHALLOW FOCUSED  
ELECTRIC LOG**

COMPANY	<b>M &amp; M EXPLORATION, INC.</b>		
WELL	<b>STUTZMAN #1</b>		
FIELD	<b>KISIWA</b>		
PROVINCE/COUNTY	<b>HARVEY</b>		
COUNTRY/STATE	<b>U.S.A. / KANSAS</b>		
LOCATION	<b>1381' FNL &amp; 2350' FEL</b>		
SEC 15	TWP 24S	RGE 2W	Other Services
Latitude			MDN/MPD
Longitude			MML
API Number	15-079-20715		
Permanent Datum GL, Elevation	1402 feet		
Log Measured From KB, 8.00 feet above Permanent Datum			
Drilling Measured From KB			
Date	30-OCT-2017		
Run Number	ONE		
Service Order	4558-196549519		
Depth Driller	4000.00 feet		
Depth Logger	4000.00 feet		
First Reading	3997.00 feet		
Last Reading	267.00 feet		
Casing Driller	266.00 feet		
Casing Logger	267.00 feet		
Bit Size	7.875 inches		
Hole Fluid Type	CHEMICAL		
Density / Viscosity	9.10 lb/USg	52.00 CP	
PH / Fluid Loss	9.50	8.00 ml/30Min	
Sample Source	FLOWLINE		
Rm @ Measured Temp	0.89 @ 75.0	ohm-m	
Rmf @ Measured Temp	0.71 @ 75.0	ohm-m	
Rmc @ Measured Temp	1.07 @ 75.0	ohm-m	
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	0.59 @ 114.0	ohm-m	
Time Since Circulation	4 HOURS		
Max Recorded Temp	114.00	deg F	
Equipment / Base	13096	LIB	
Recorded By	ADAM SILL		
Witnessed By	JUSTIN CARTER		

Elevations:	feet
KB	1410.00
DF	1408.00
GL	1402.00

BOREHOLE RECORD			Last Edited: 30-OCT-2017 12:40
Bit Size inches	Depth From feet	Depth To feet	
7.875	266.00	4000.00	
CASING RECORD			
Type	Size inches	Depth From feet	Shoe Depth feet
SURFACE	8.625	0.00	266.00
			Weight pounds/ft
			24.00

**REMARKS**

- SOFTWARE ISSUE: WLS 17.03.9700.

- RUN ONE: MCG, MML, MDN, MPD, MFE, MAI RUN IN COMBINATION.  
 - HARDWARE: DUAL BOWSPRING USED ON MDN.  
 0.5 INCH STANDOFF USED ON MFE.  
 0.5 INCH STANDOFF USED ON MAI.

- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.

- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.

- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 1685 CU.FT.

- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO 3000 FEET: 179 CU.FT.

- RIG: DISCOVERY #2

- ENGINEER: A. SILL.

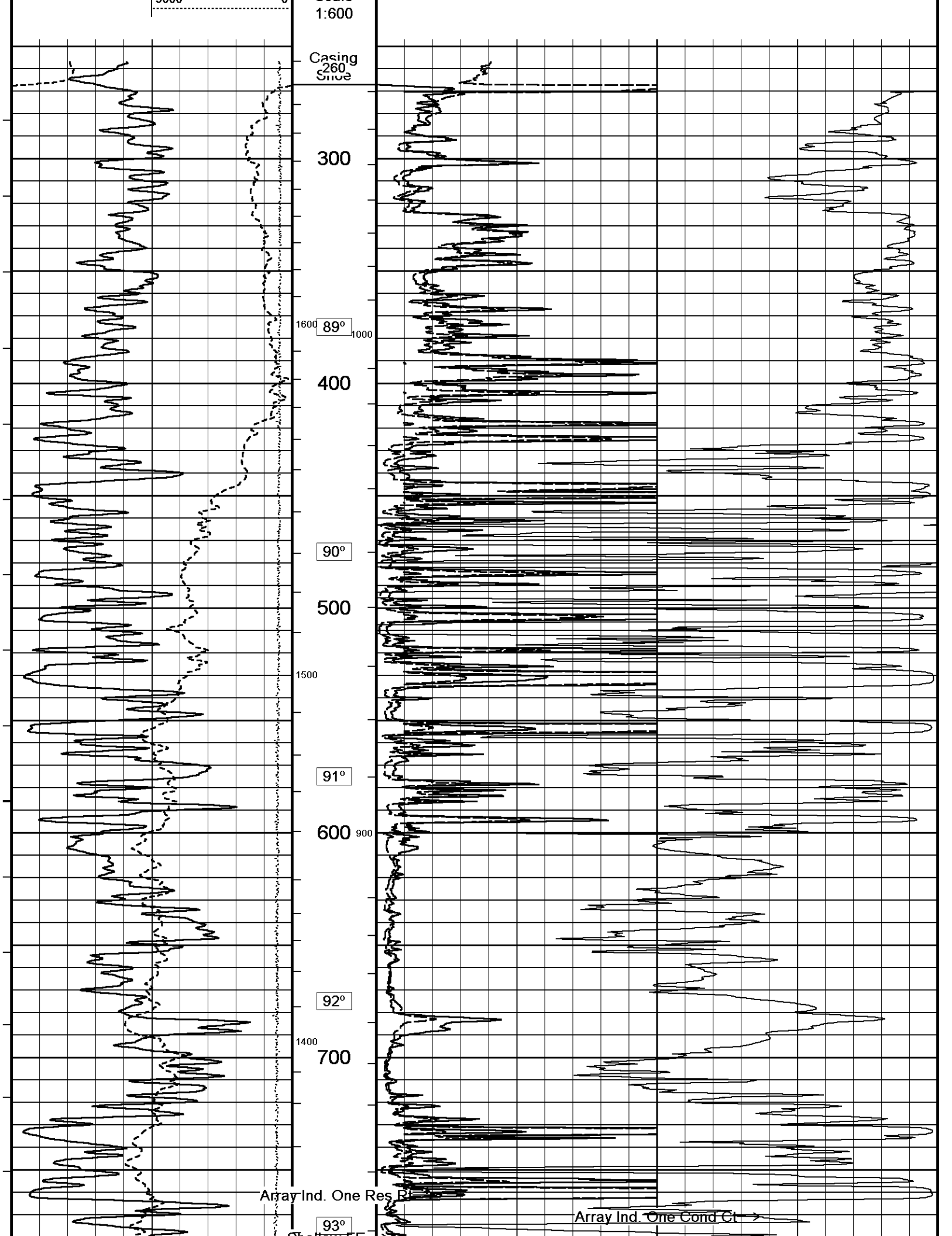
- OPERATOR: B. TOVAR.

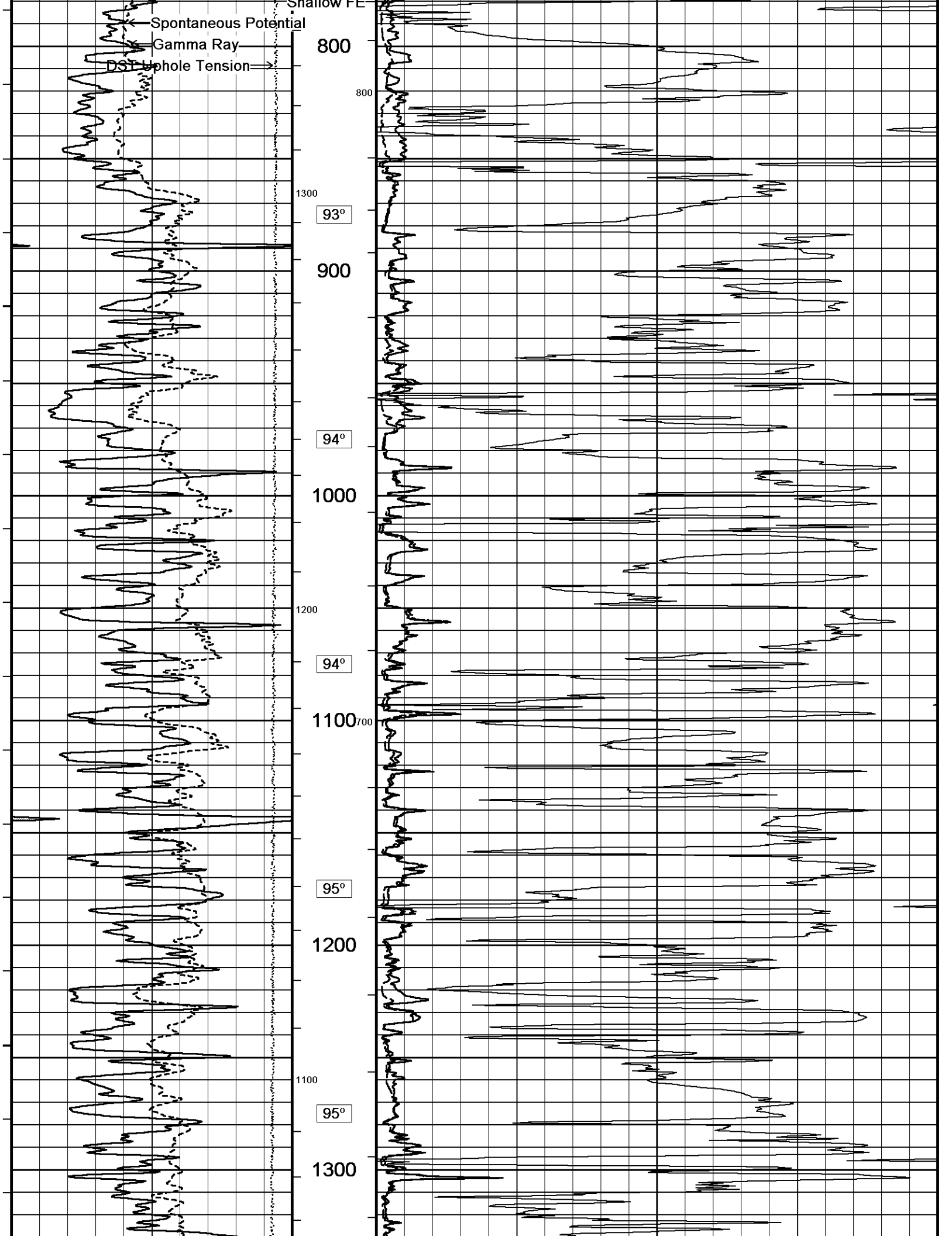
In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.

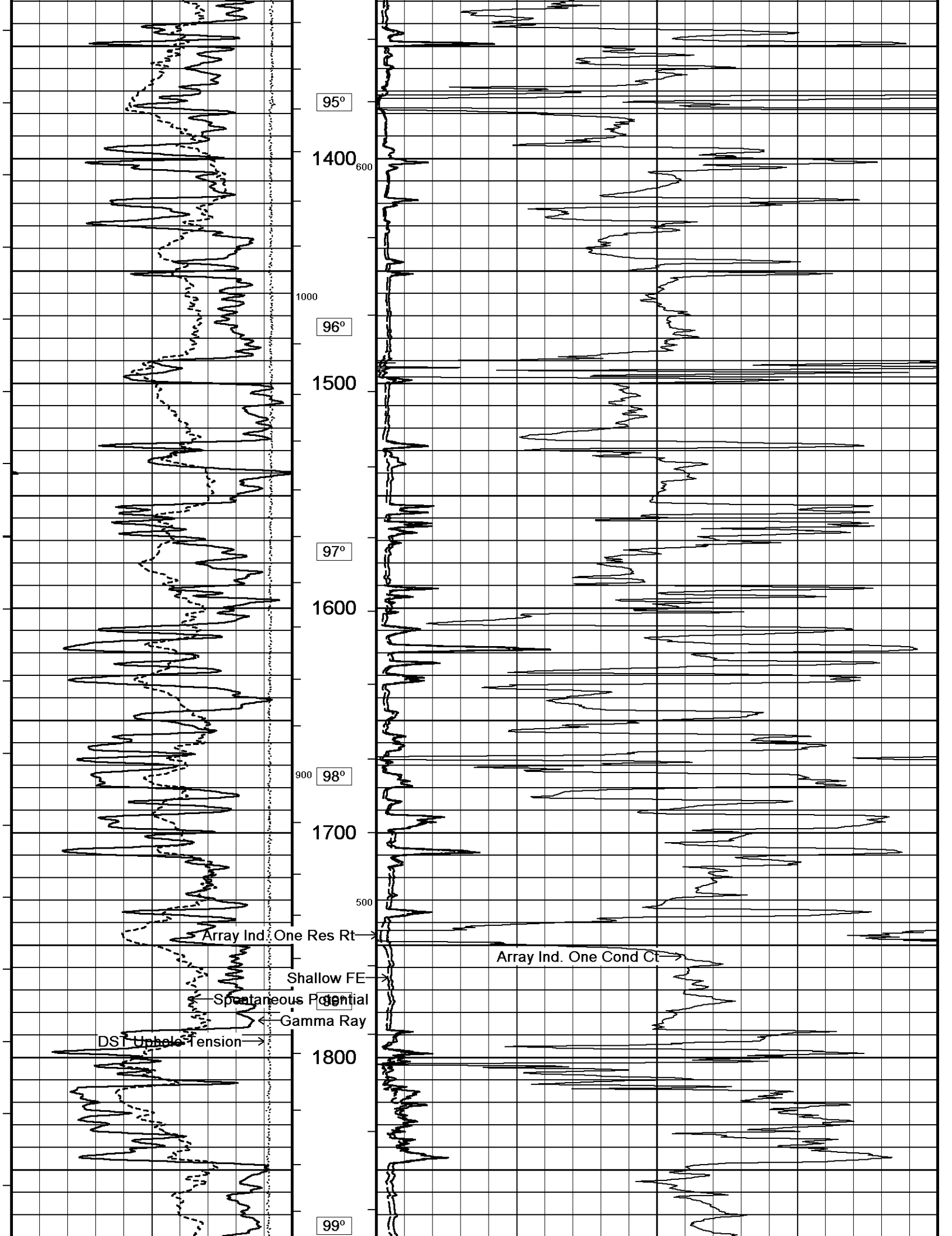
**2 INCH MAIN**

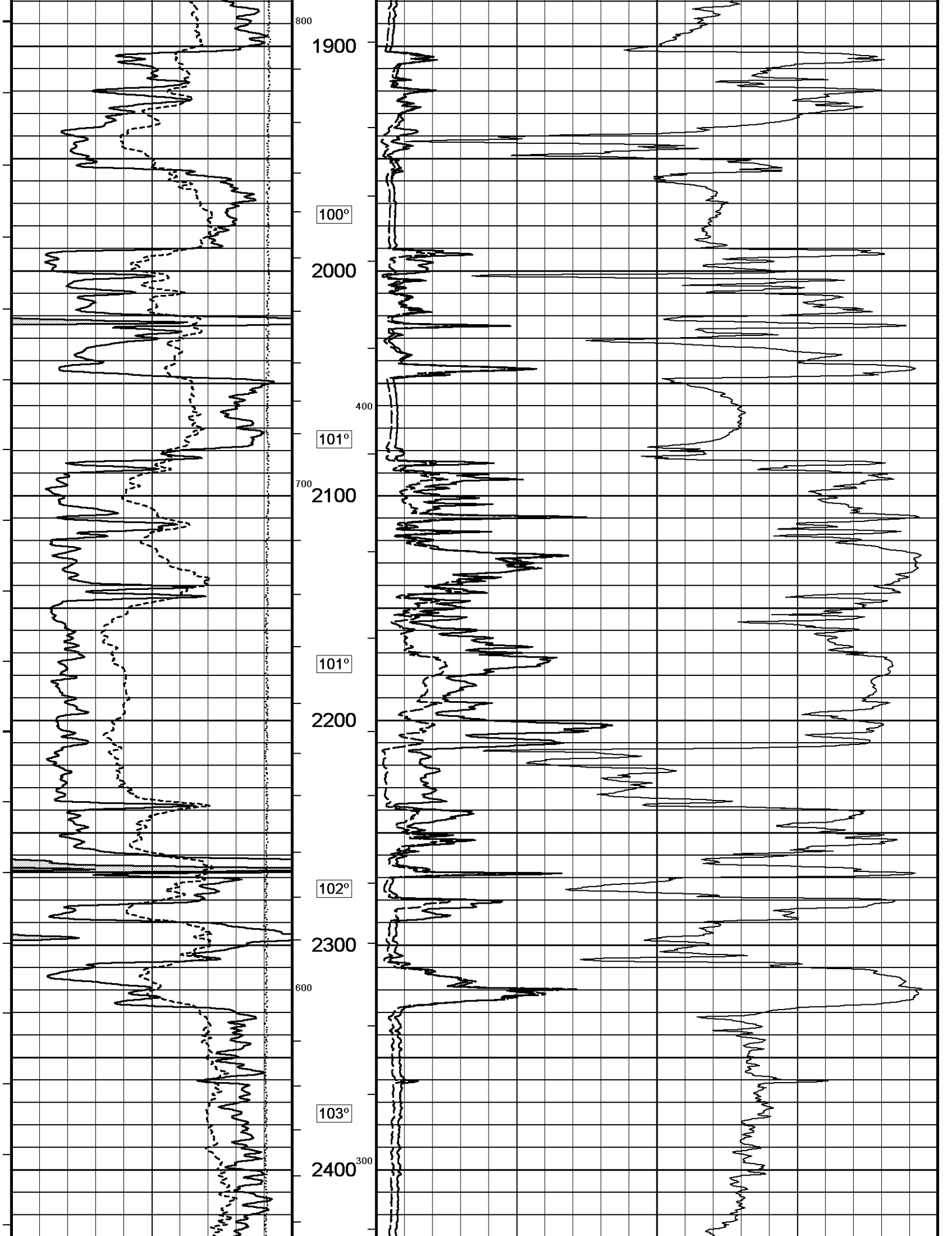
Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 30-OCT-2017 16:29  
 Filename: C:\Minimus 17.03.9700\Data\M&M Stutzman#1\M&M Stutzman#1\_002.dta Recorded on 30-OCT-2017 13:39  
 System Versions: Logged with 17.03.9700 Plotted with 17.03.9700

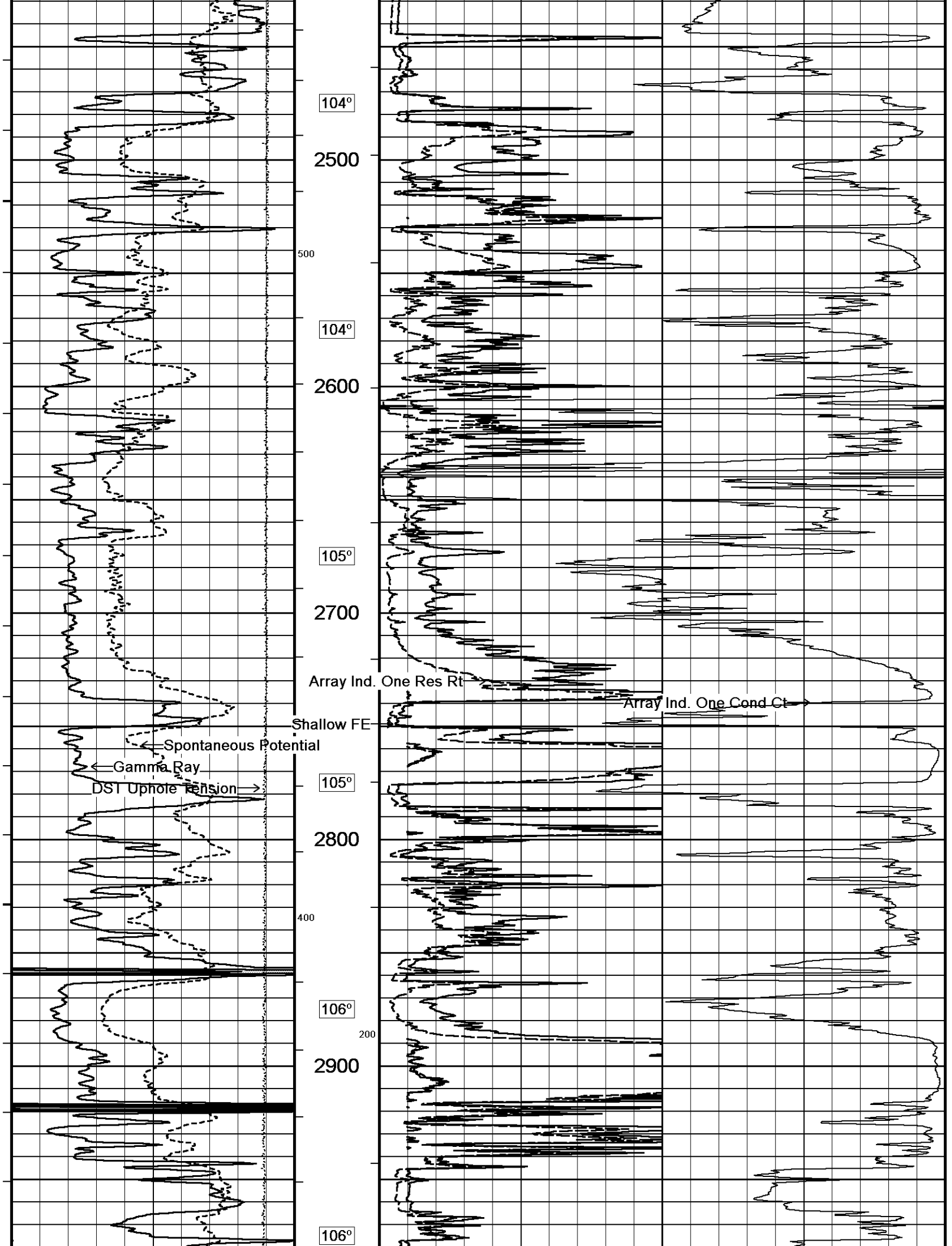
	Depth In Feet	<u>Array Ind. One Cond Ct</u> mmhos/metre				
← Timing Marks every 60.0 sec		1000	750	500	250	0
<u>Gamma Ray</u> API		2000	1750	1500	1250	1000
0                      75                      150		----- ----- ----- ----- -----				
150                    225                    300	Borehole Temp in deg F					
----- <u>Spontaneous Potential</u> millivolts - - ->   20   <- - +		<u>Shallow FE</u> ohm metres				
	HVI every 10 cu ft	0	25	50		
		0	250	500		
	← Annular Integral every 10 cu ft →					
		<u>Array Ind. One Res Rt</u> ohm metres				
		0	25	50		
		0	250	500		
----- <u>DST Uphole Tension</u> pounds	Replay Scale					
5000                      0						

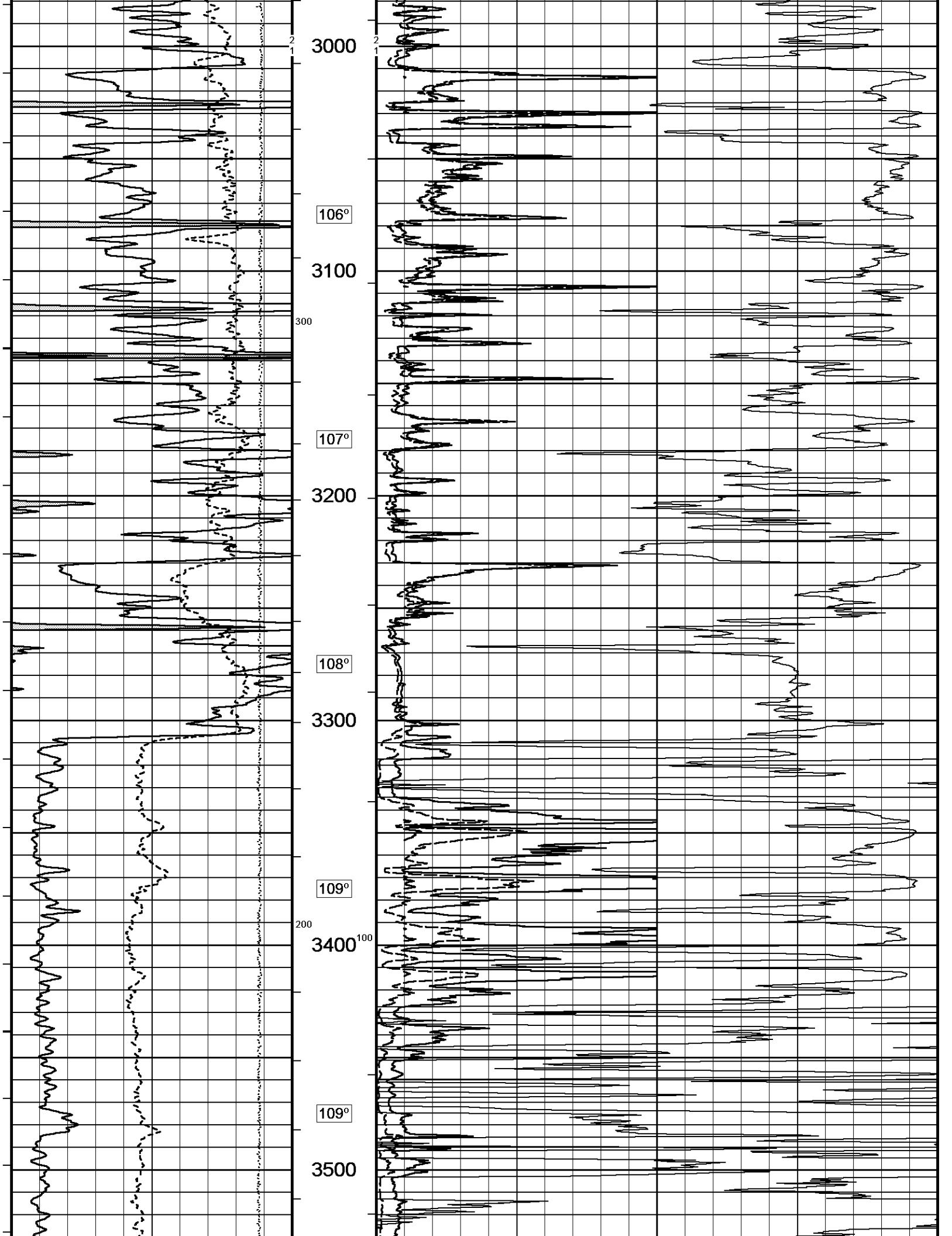




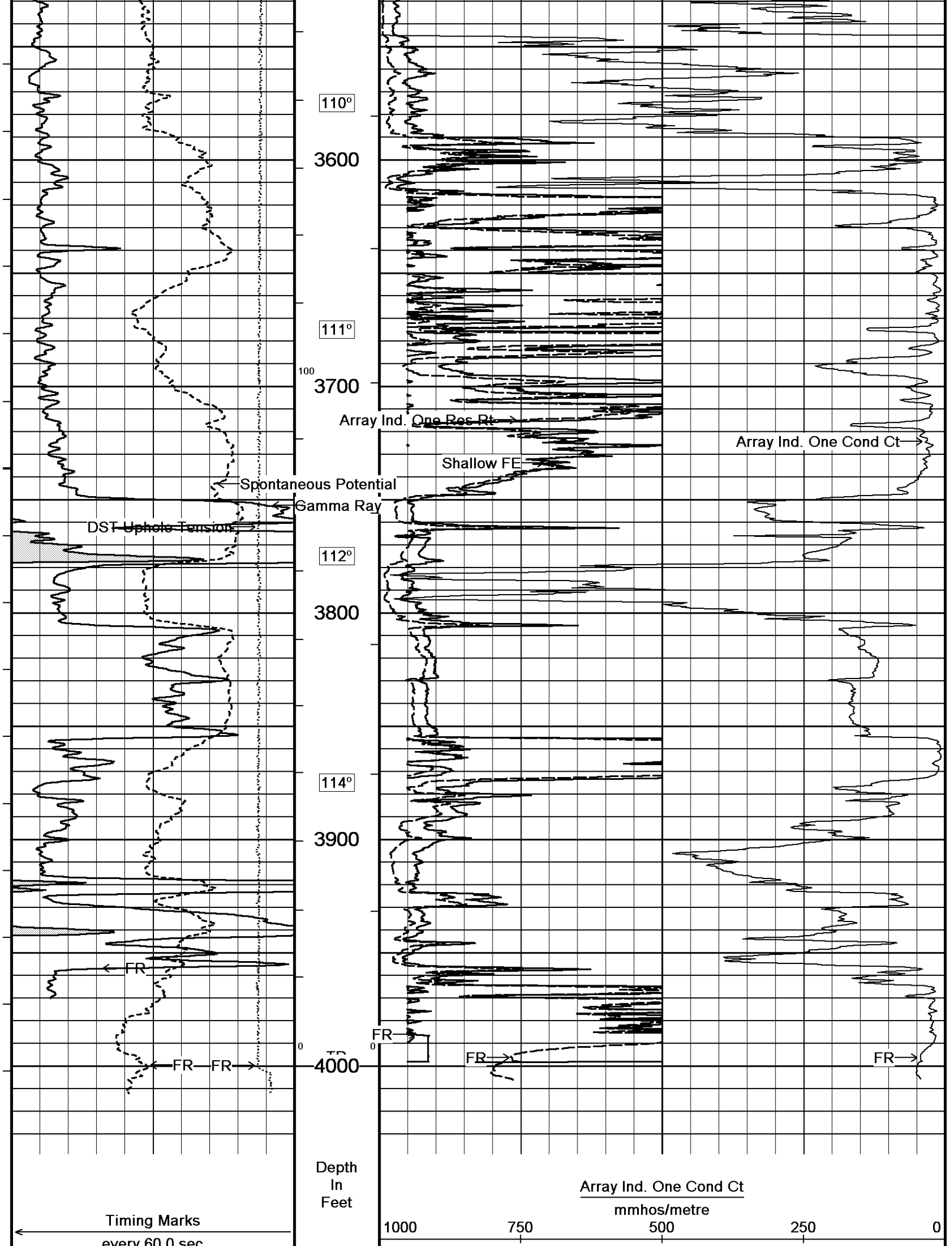


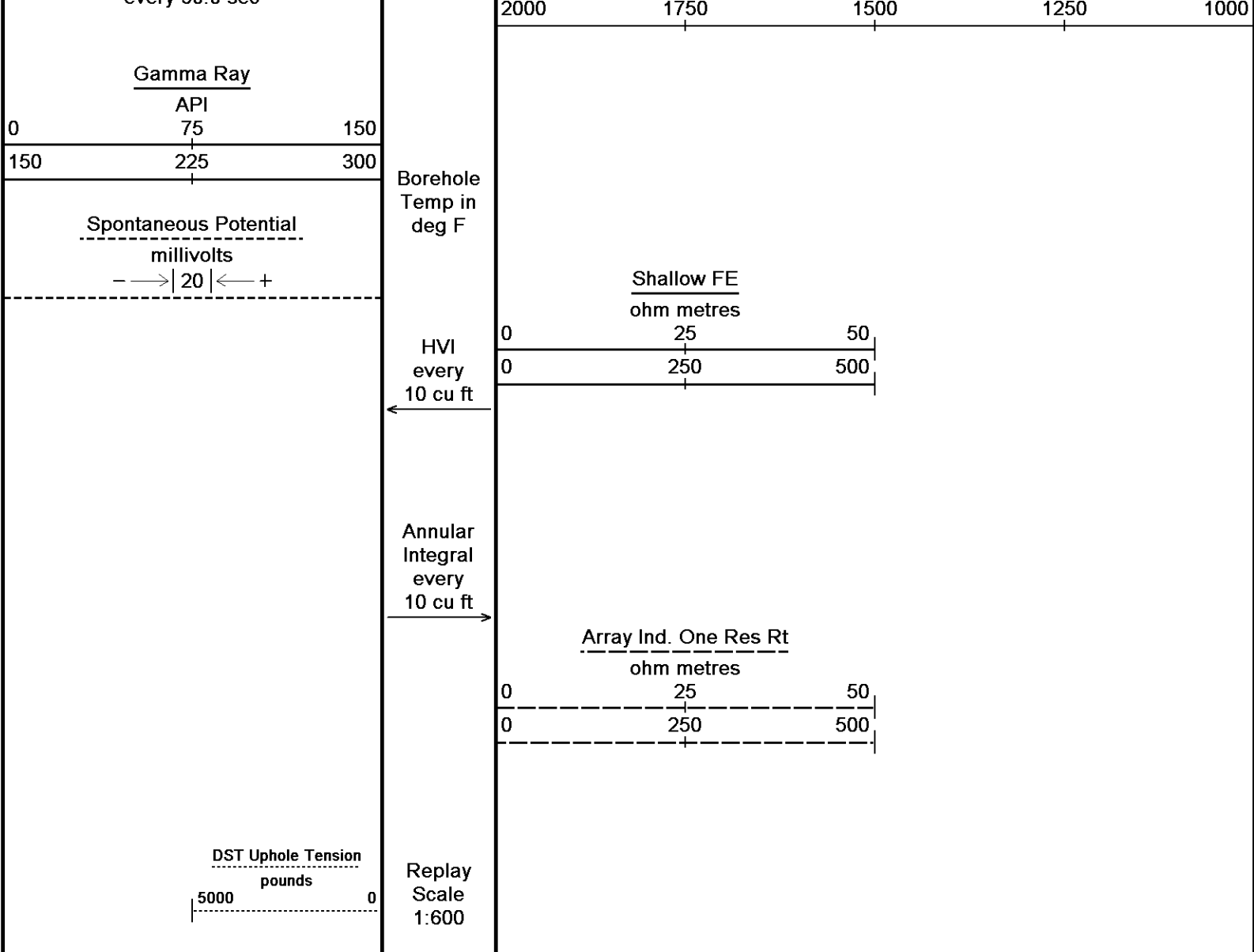










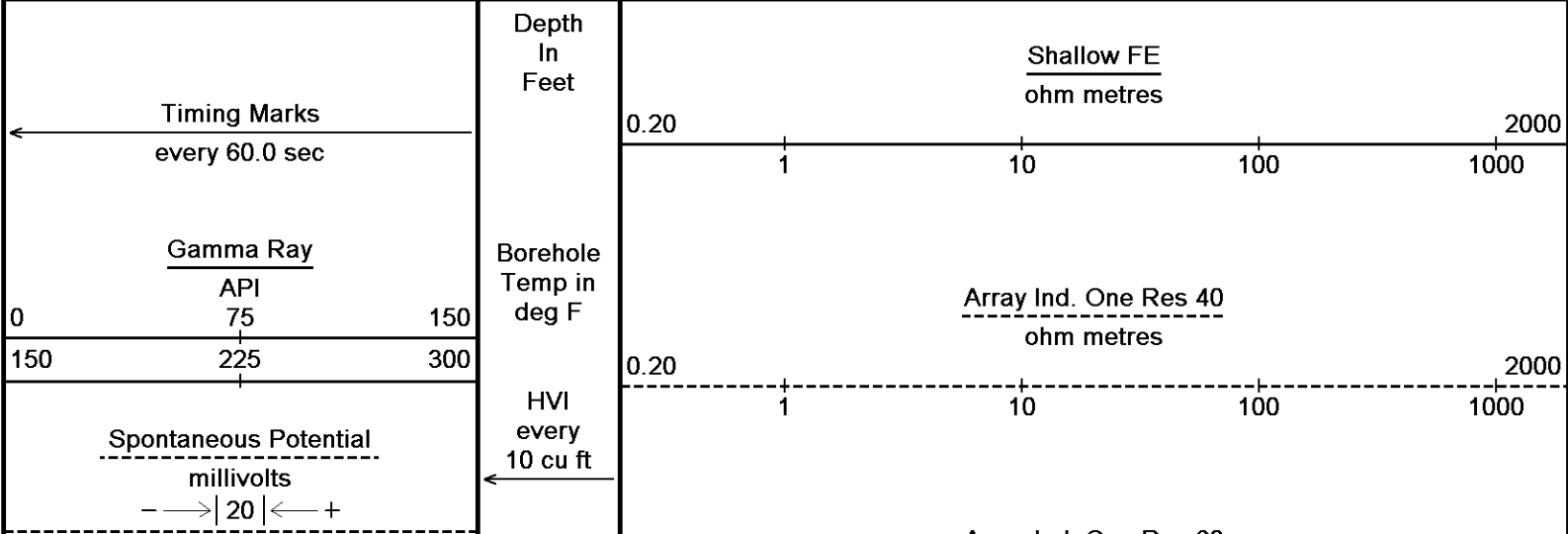


Depth Based Data - Maximum Sampling Increment 10.0cm  
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↑ 2 INCH MAIN ↑

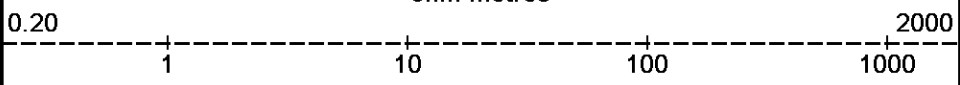
↓ 5 INCH MAIN ↓

Depth Based Data - Maximum Sampling Increment 10.0cm  
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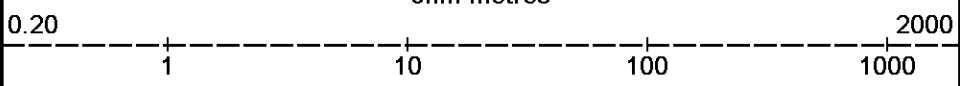


Annular  
Integral  
every  
10 cu ft

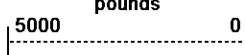
Array Ind. One Res 60  
ohm metres



Array Ind. One Res Rt  
ohm metres



DST Uphole Tension  
pounds



Replay  
Scale  
1:240

256  
Casing  
Shoe

300

90°

350

Spontaneous Potential

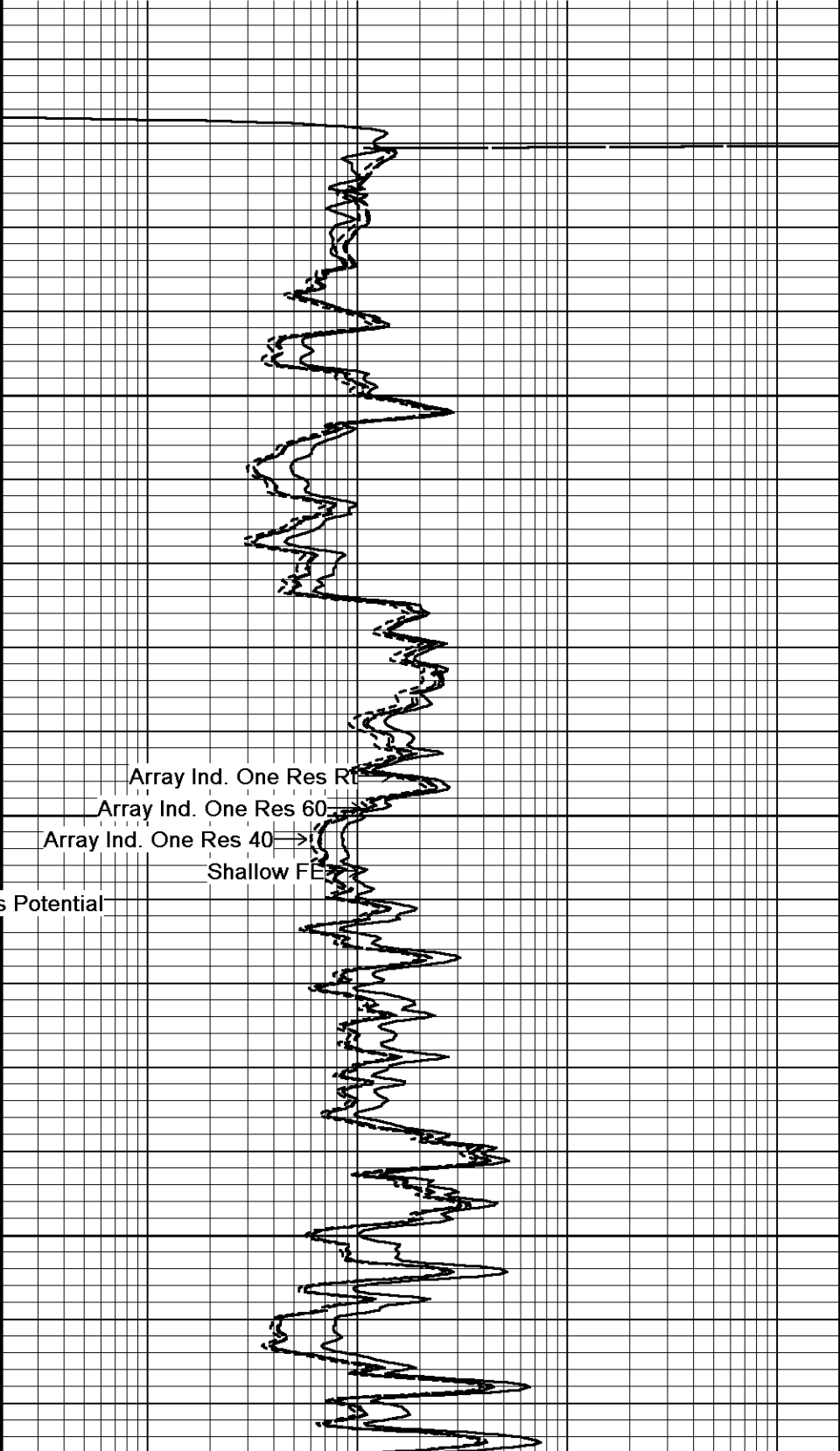
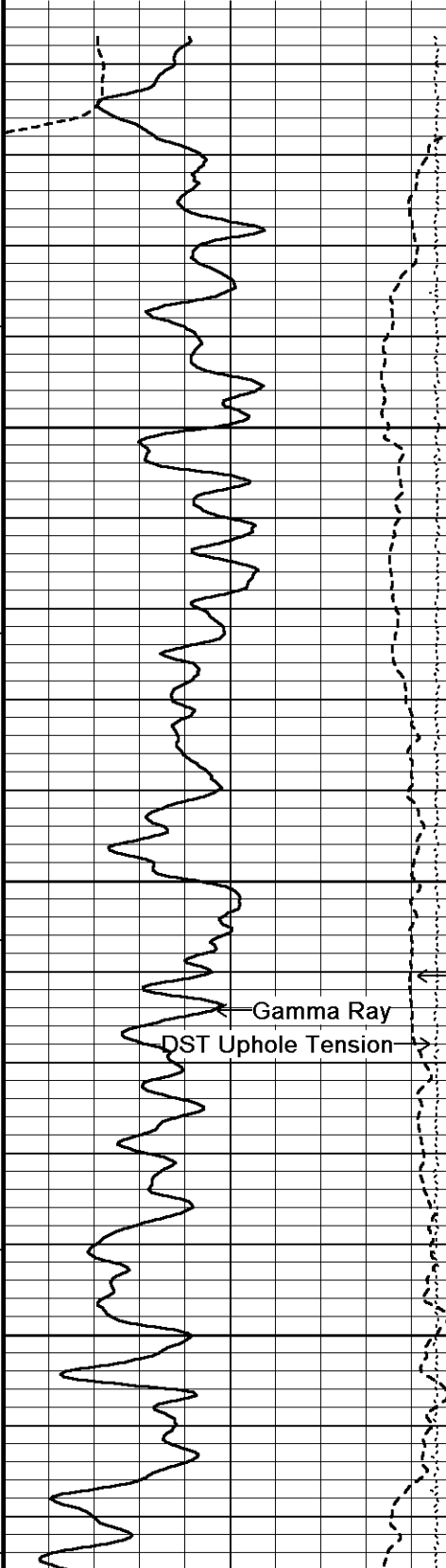
Gamma Ray  
DST Uphole Tension

1600

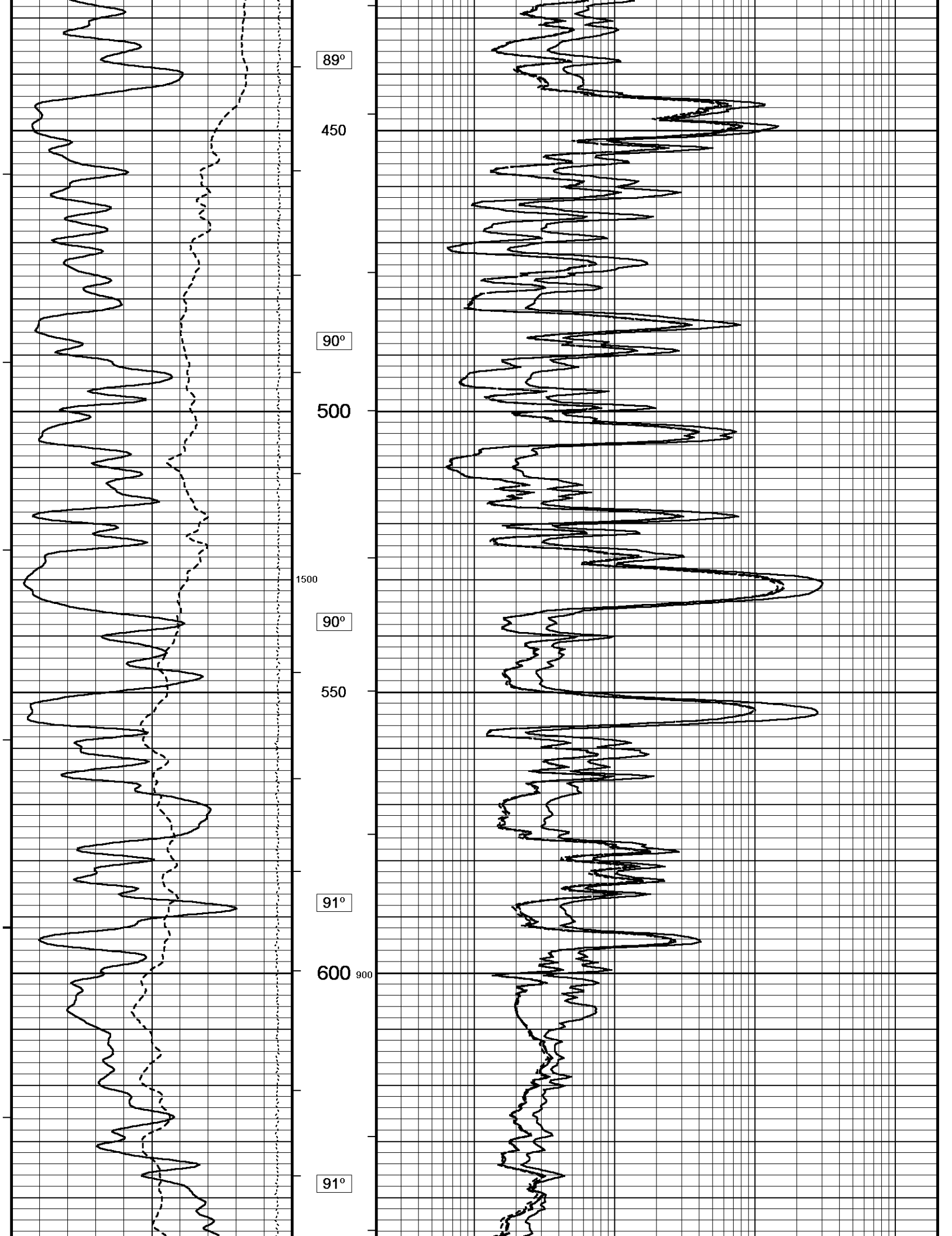
1000

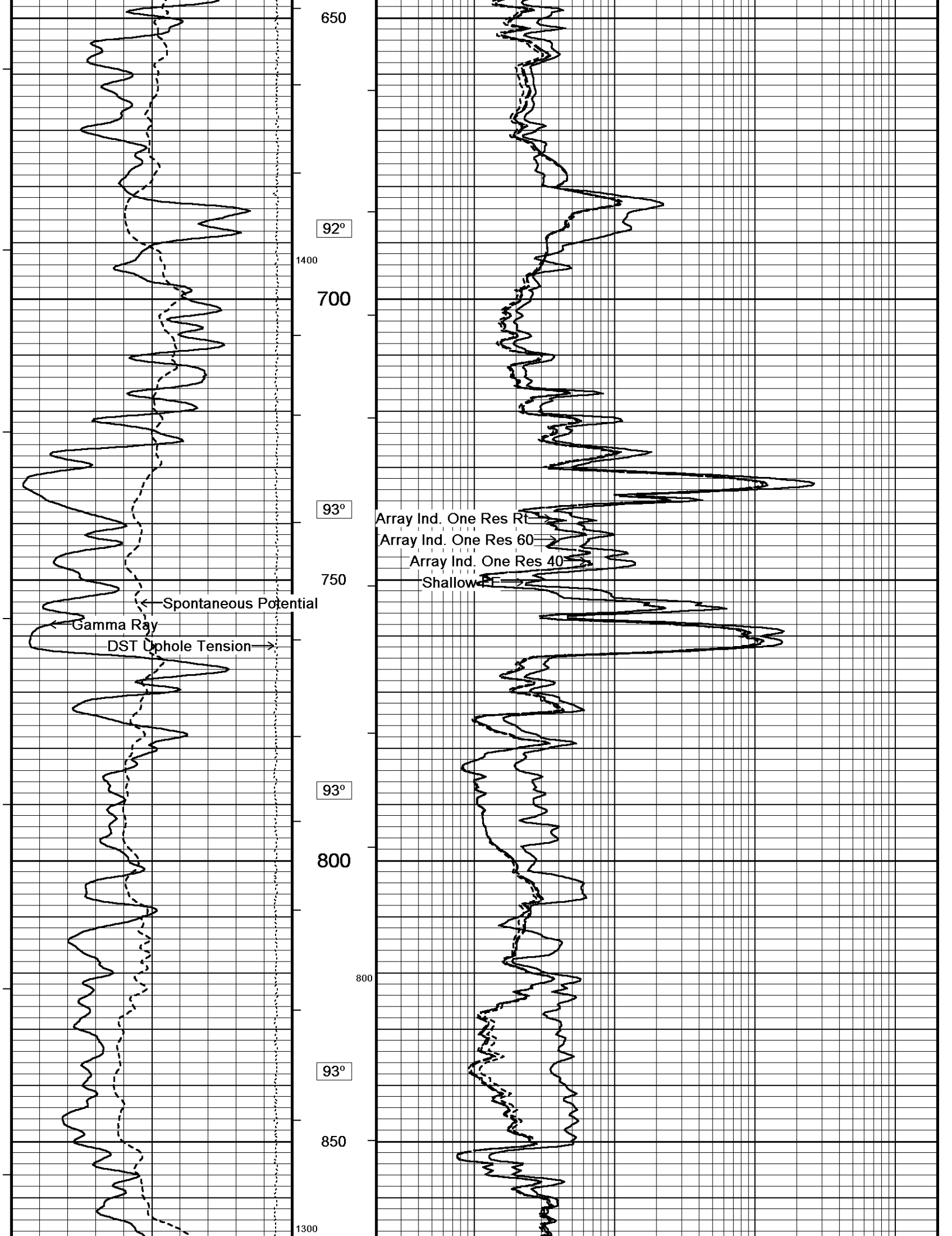
89°

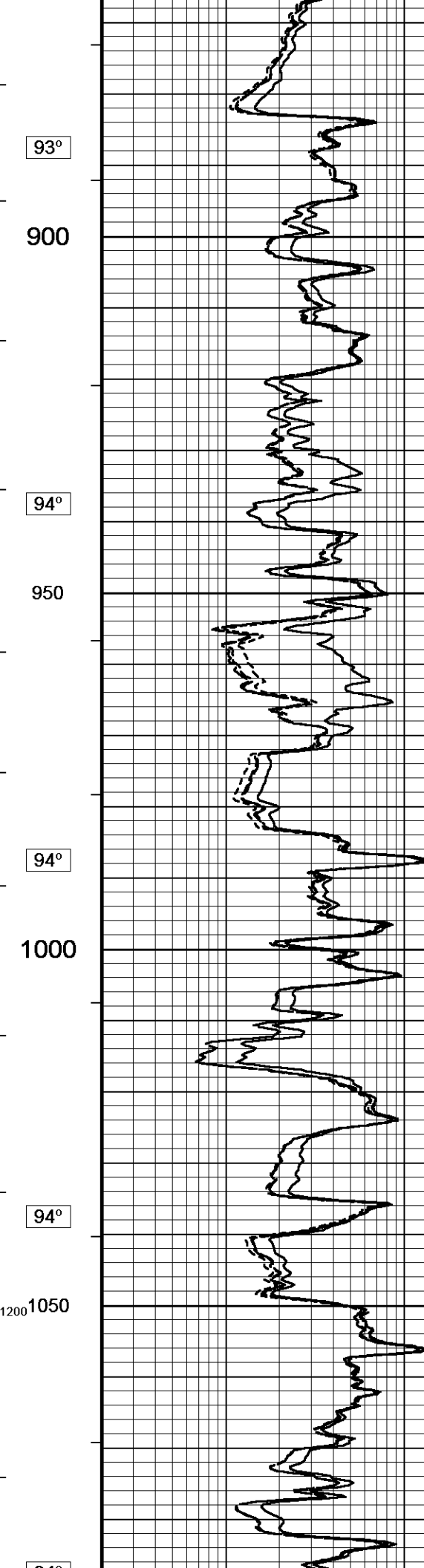
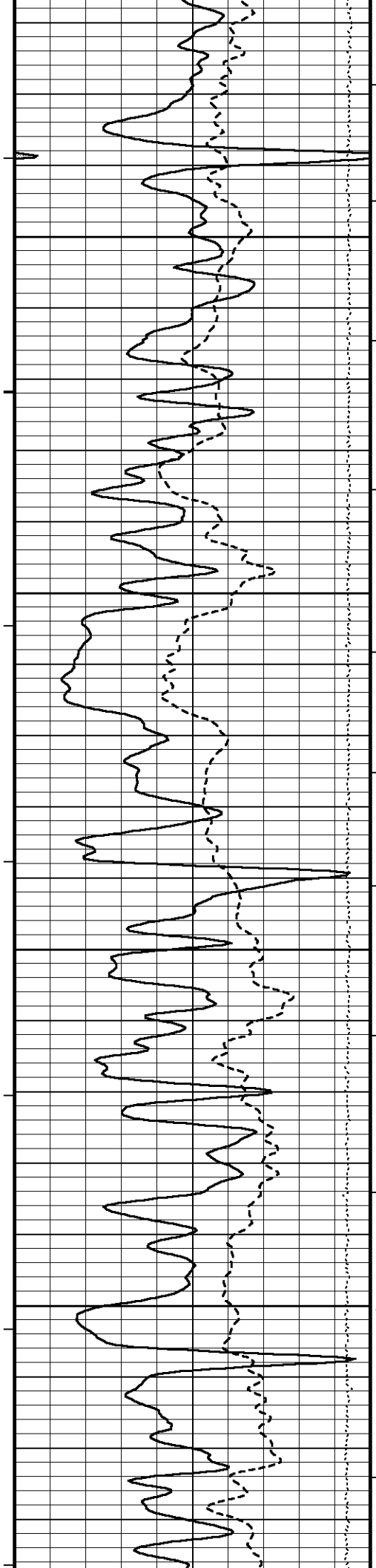
400

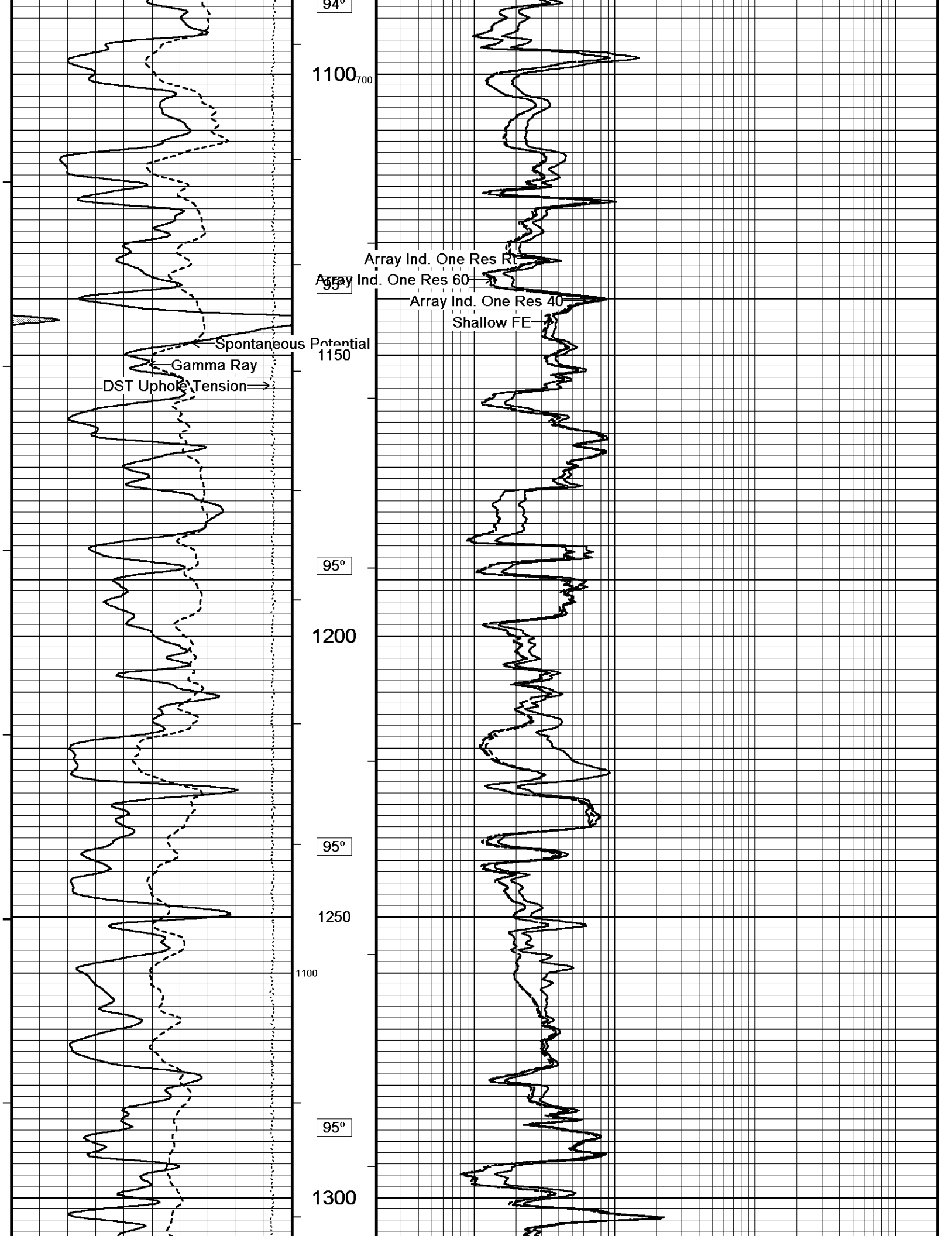


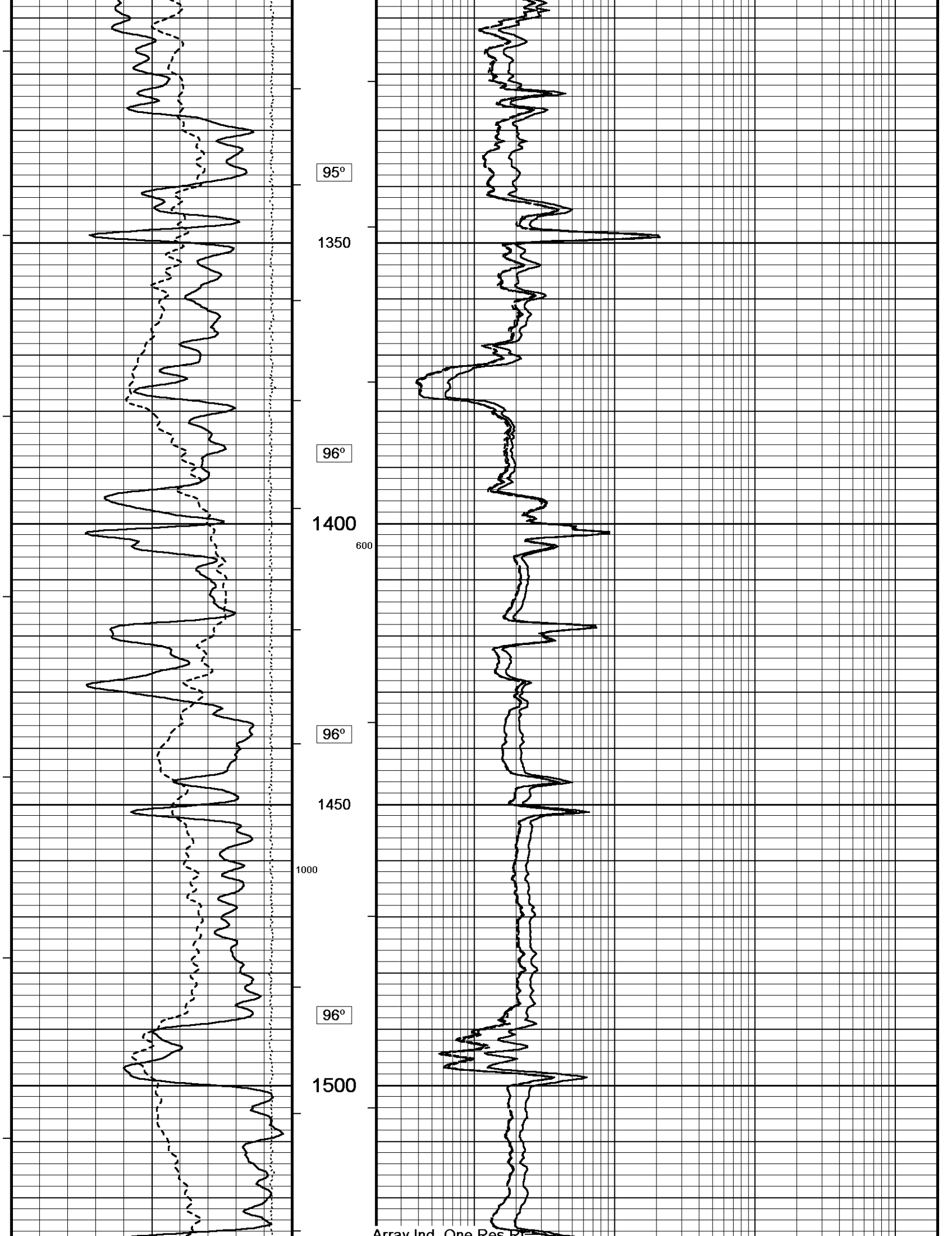
Array Ind. One Res Rt  
Array Ind. One Res 60  
Array Ind. One Res 40  
Shallow FE



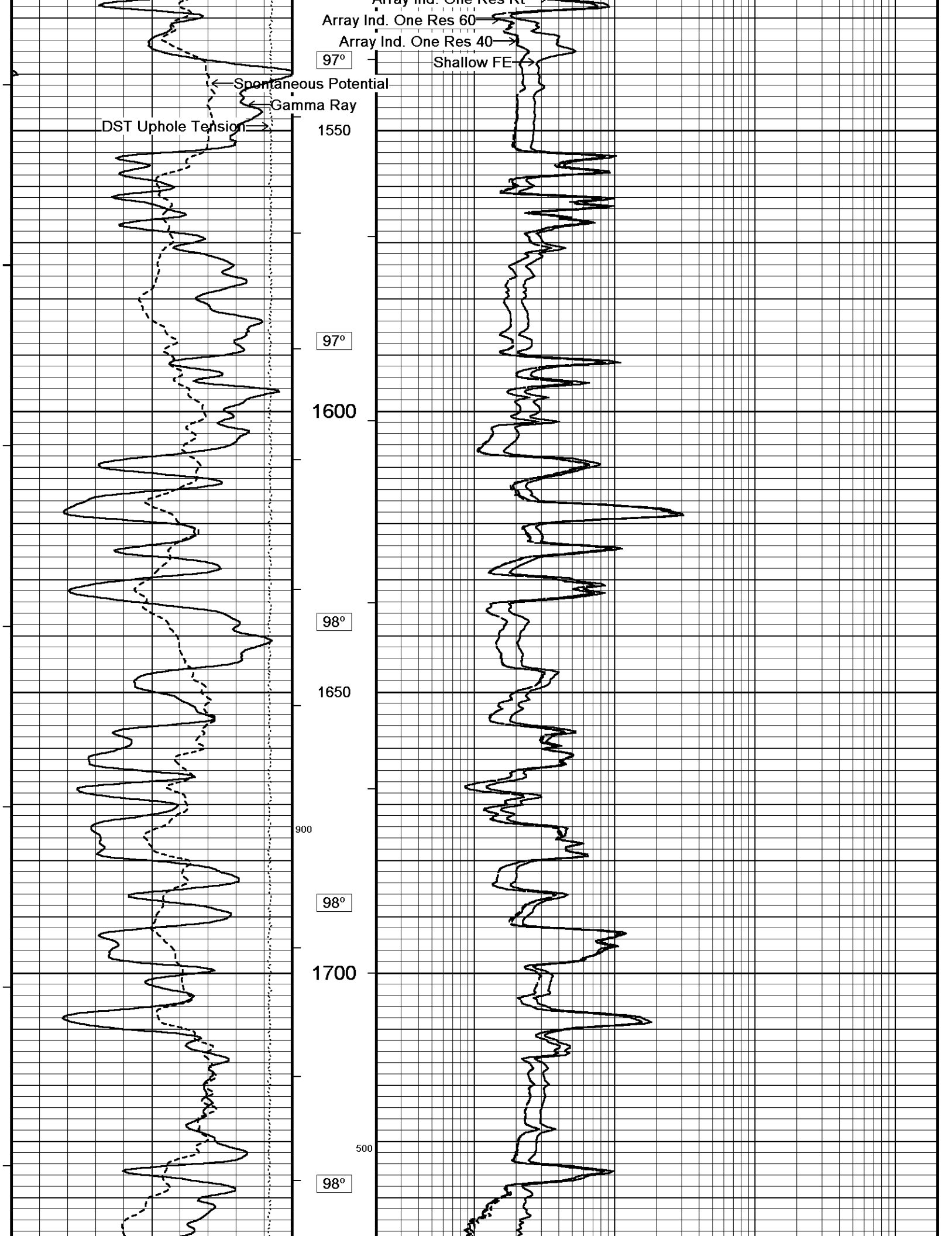


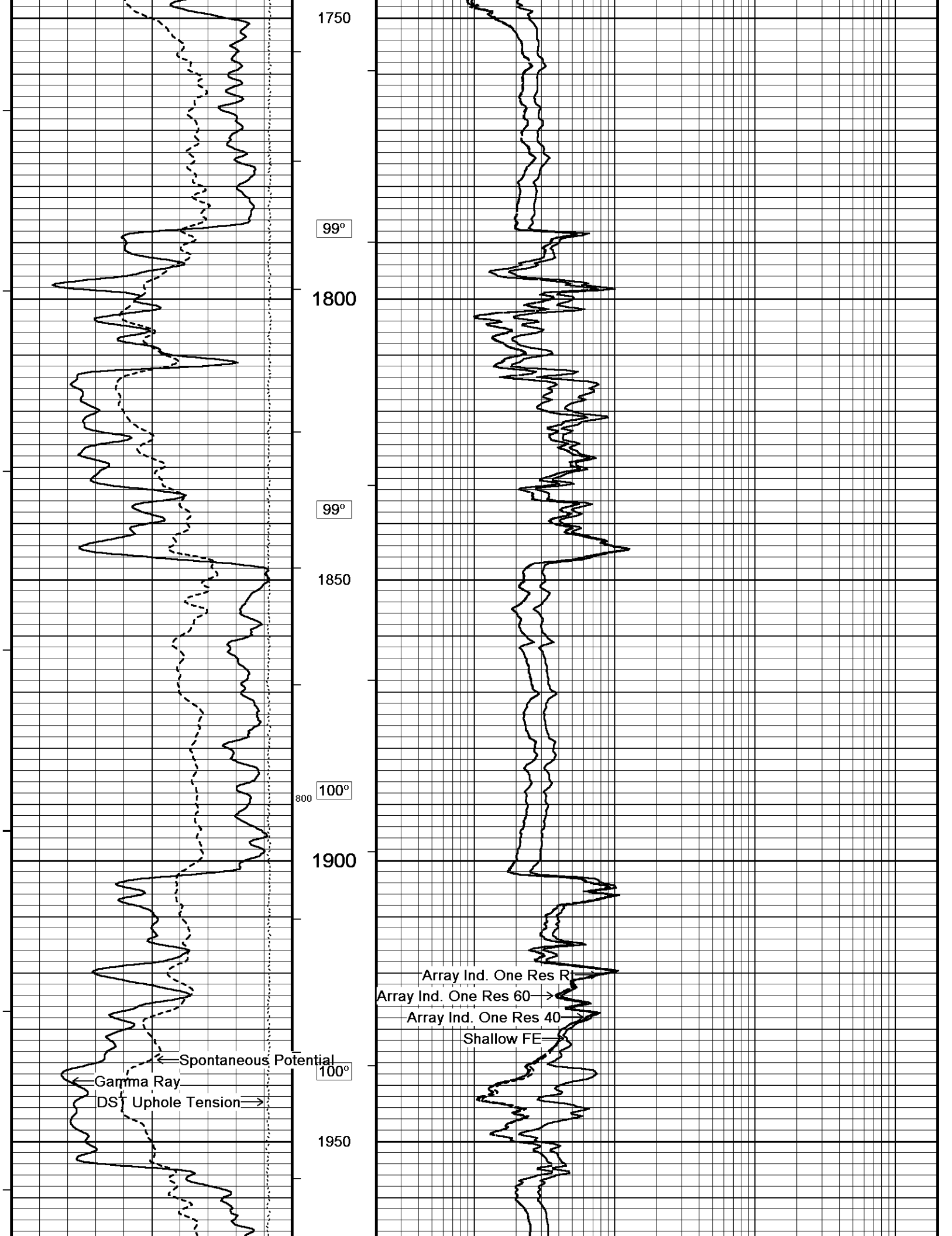


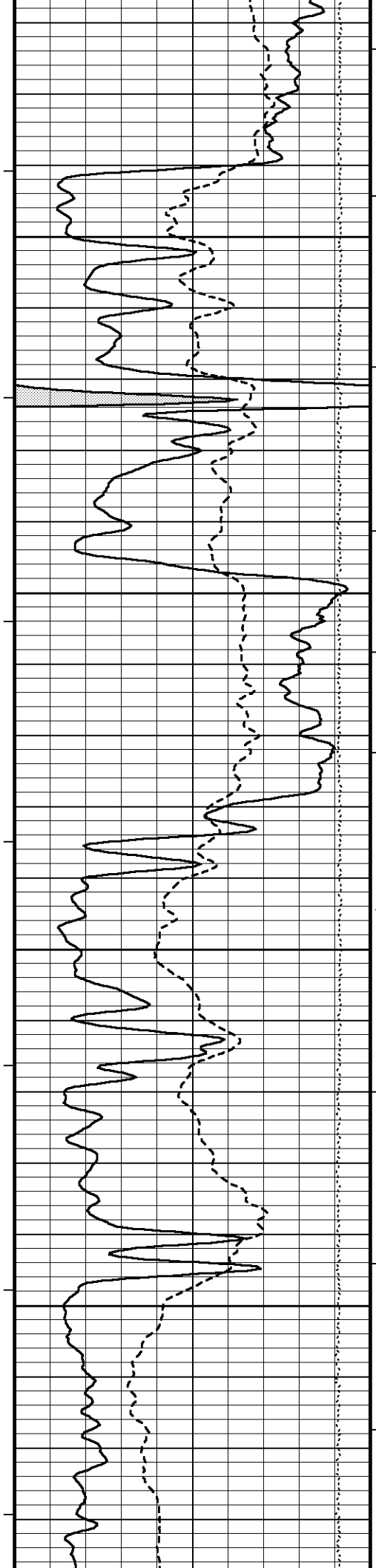




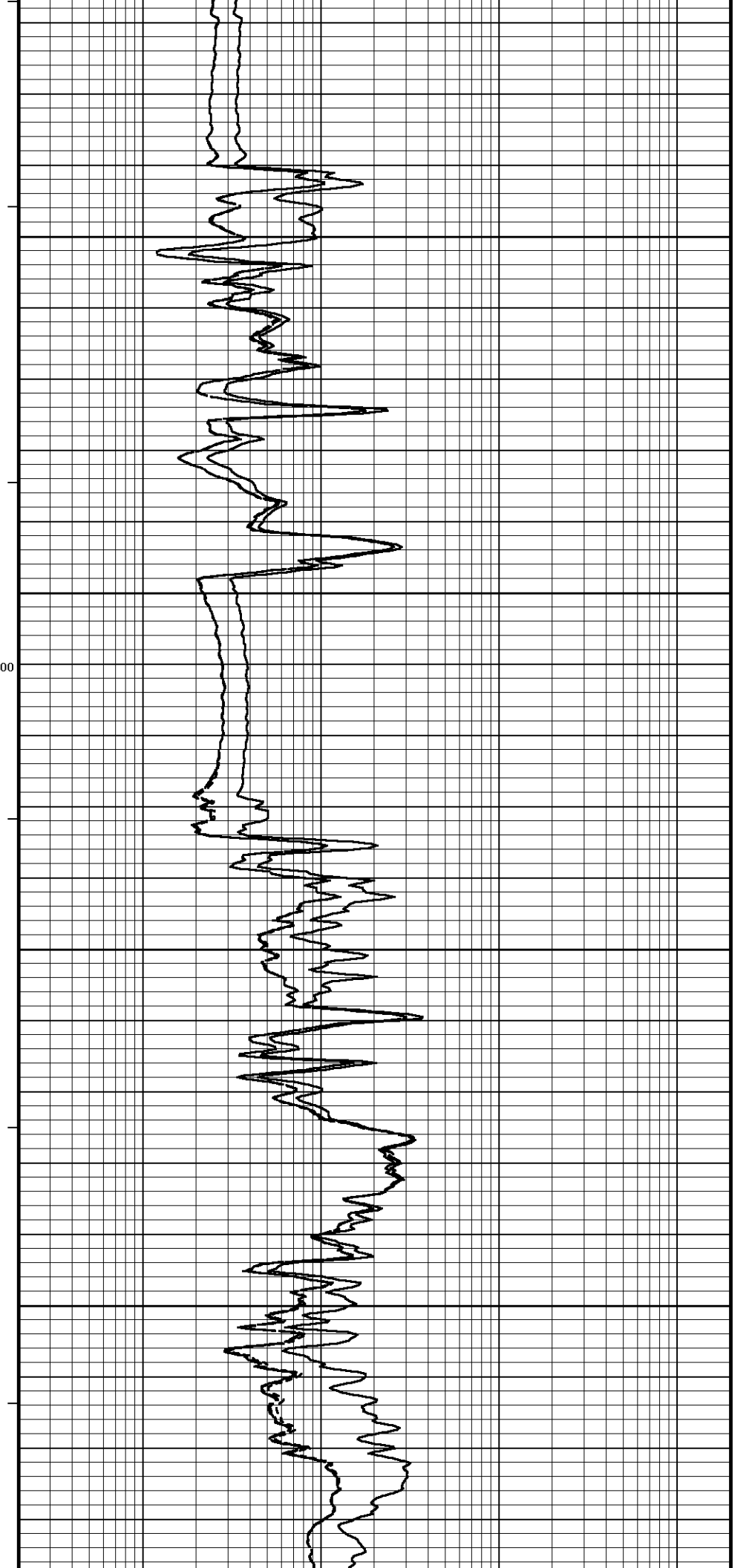


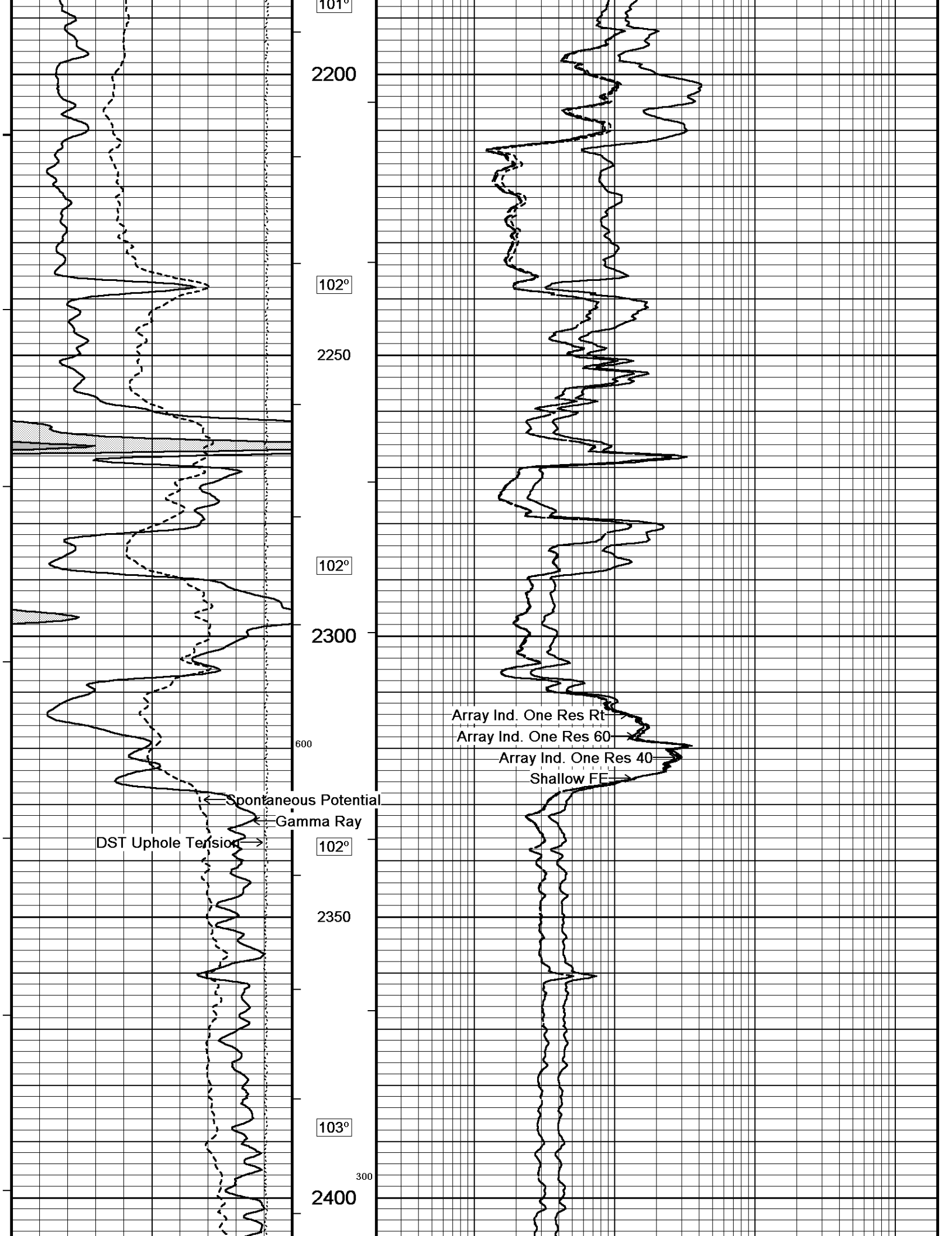


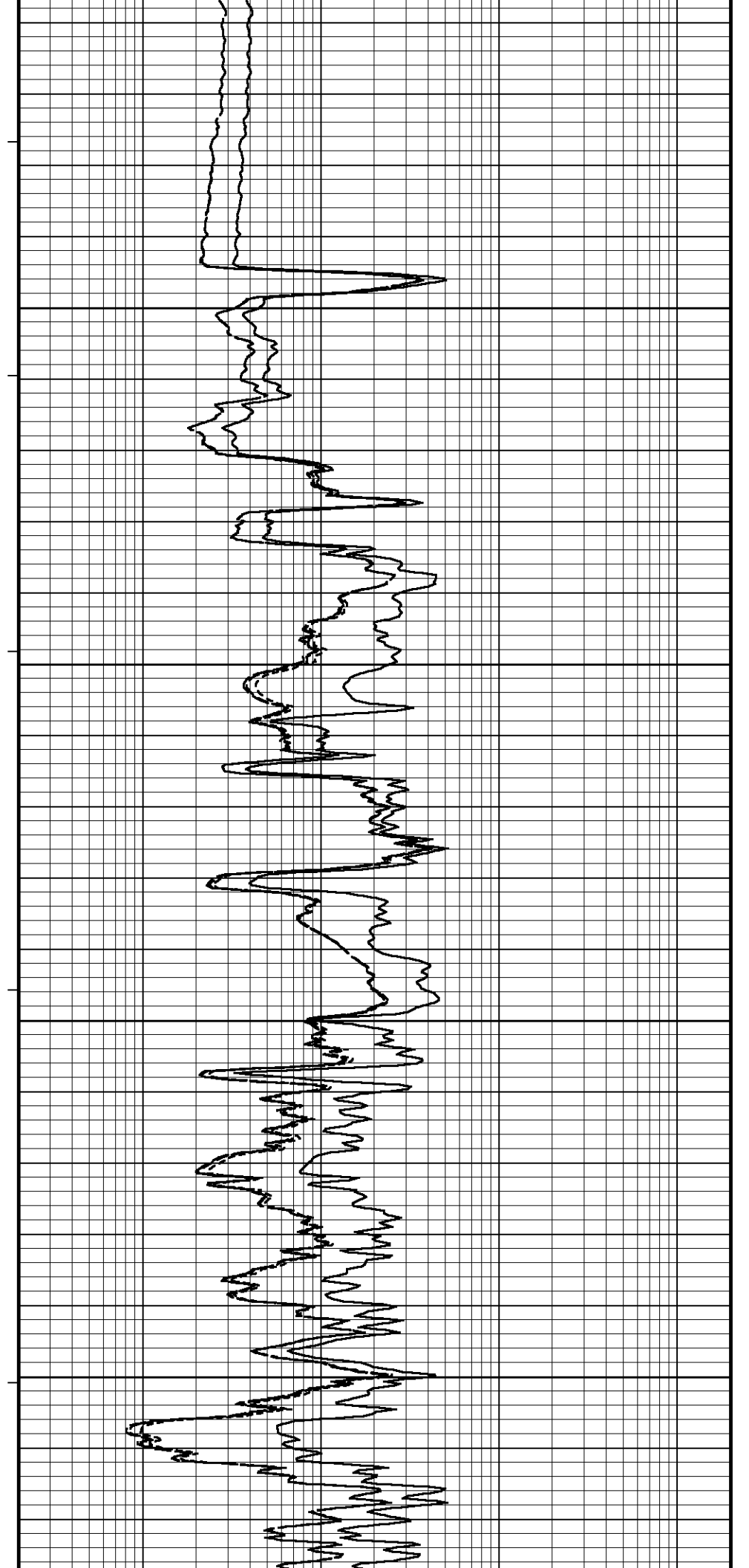
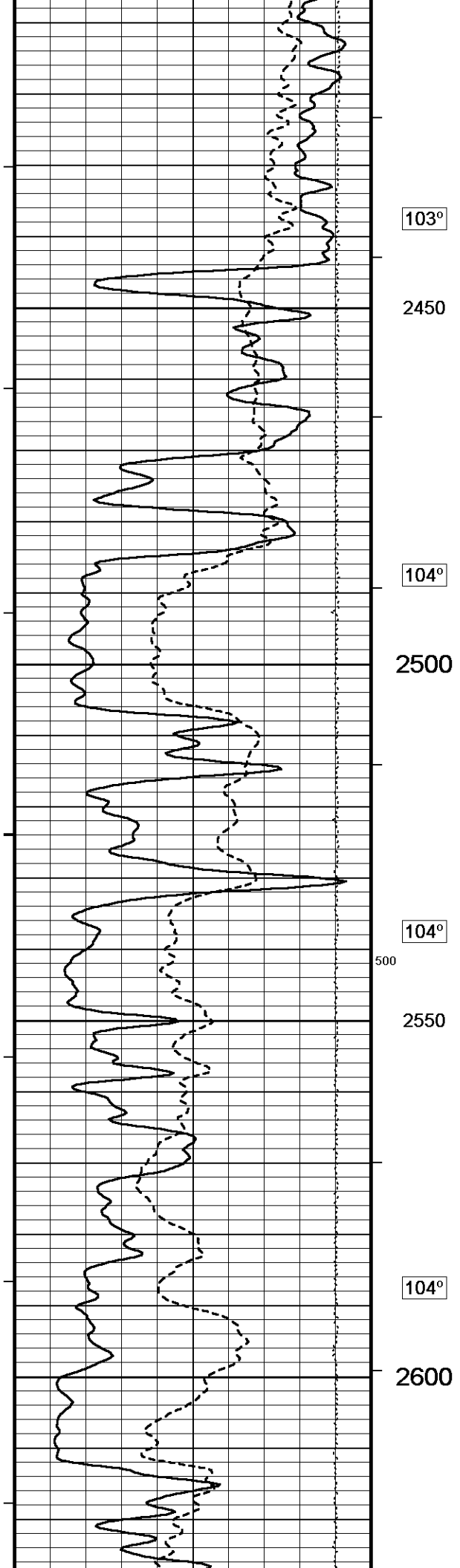


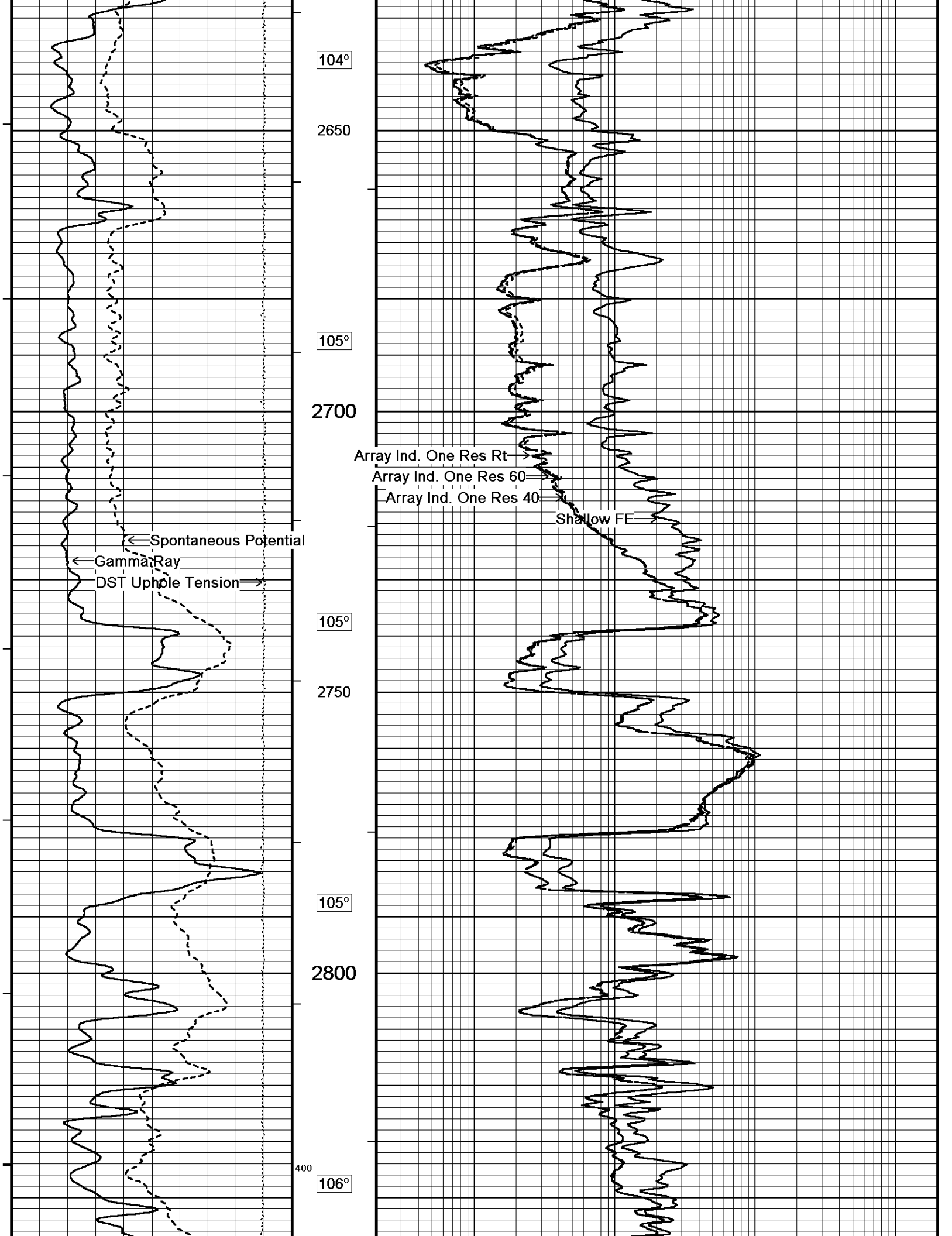


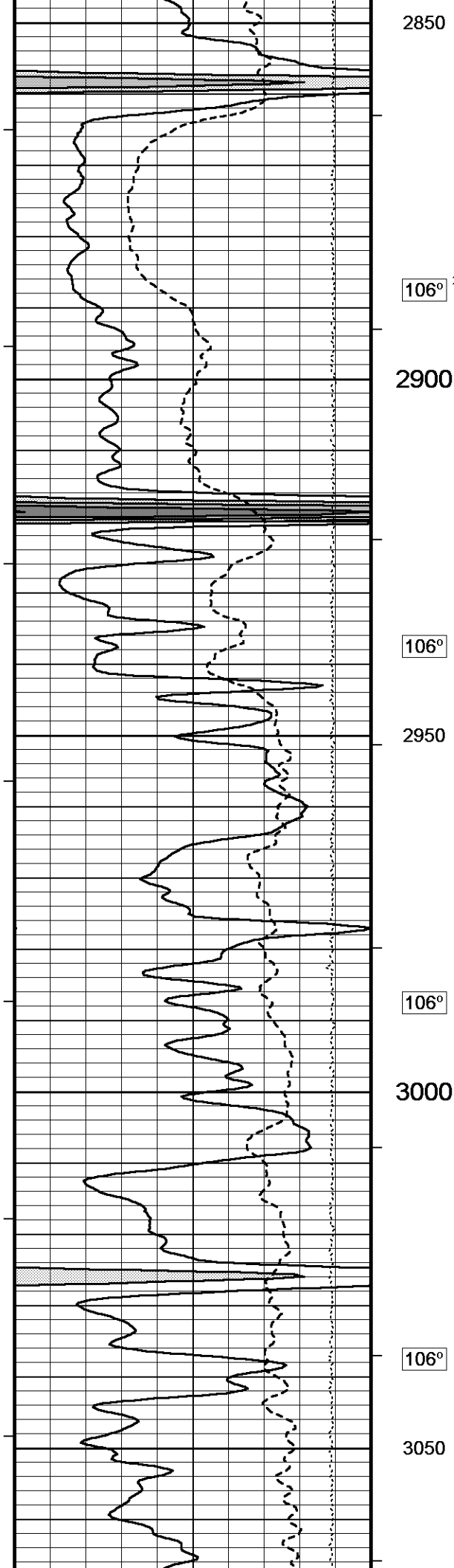
100°  
2000  
100°  
2050  
400  
101°  
700  
2100  
101°  
2150  
101°











2850

$106^\circ$

2900

$106^\circ$

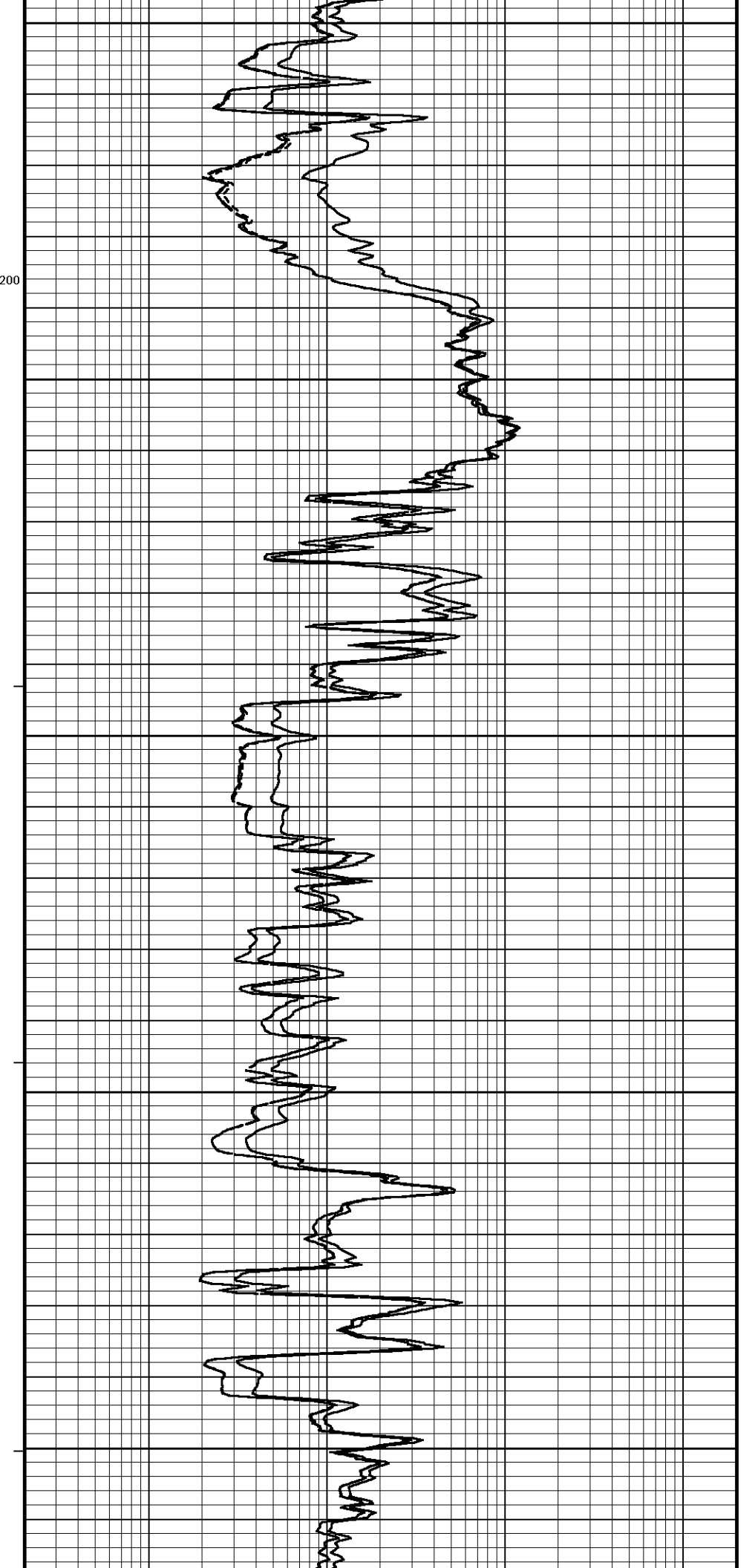
2950

$106^\circ$

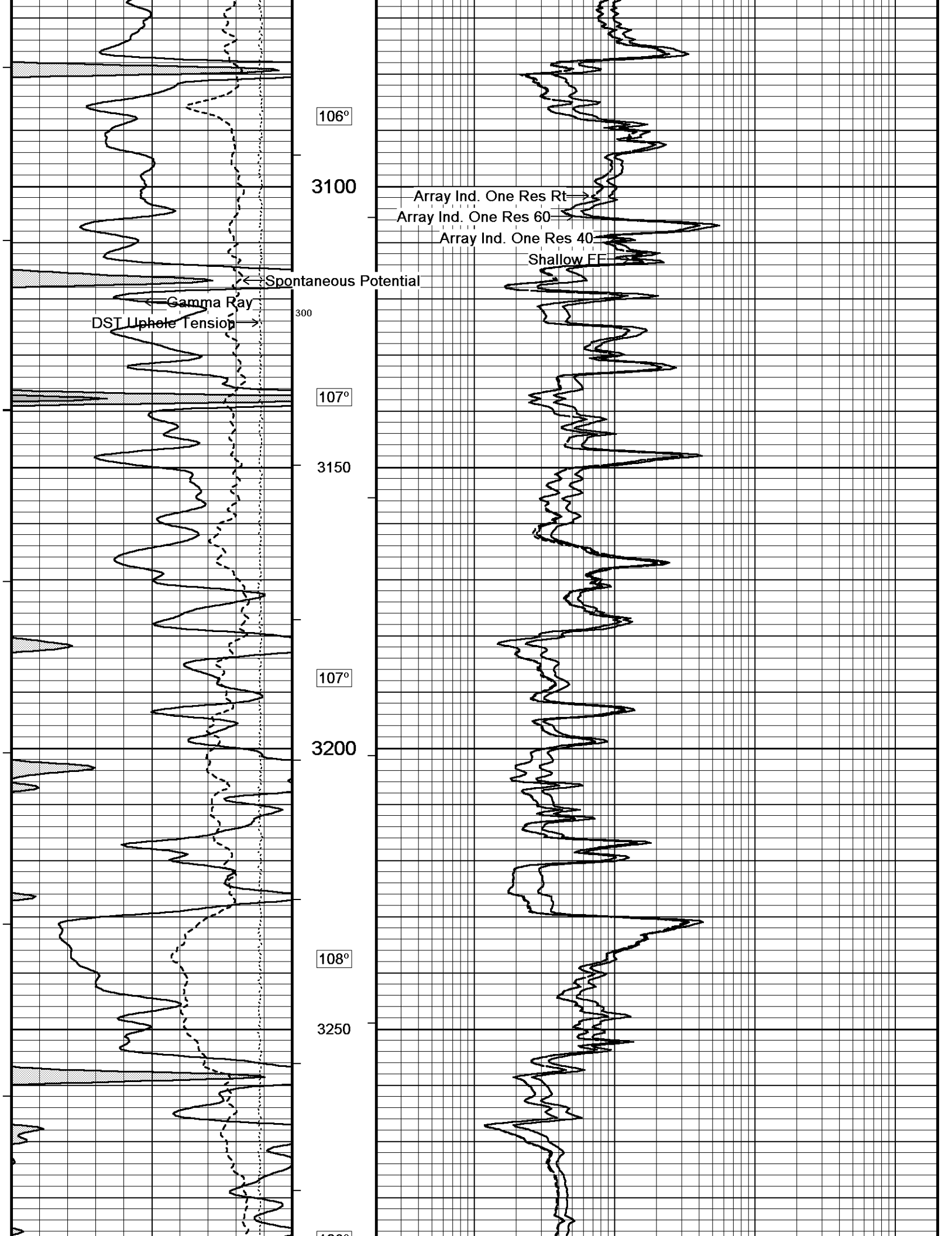
3000

$106^\circ$

3050



$106^\circ$  200



106°

3100

Array Ind. One Res Rt

Array Ind. One Res 60

Array Ind. One Res 40

Shallow FF

Spontaneous Potential

Gamma Ray

DST Uphoto Tension

300

107°

3150

107°

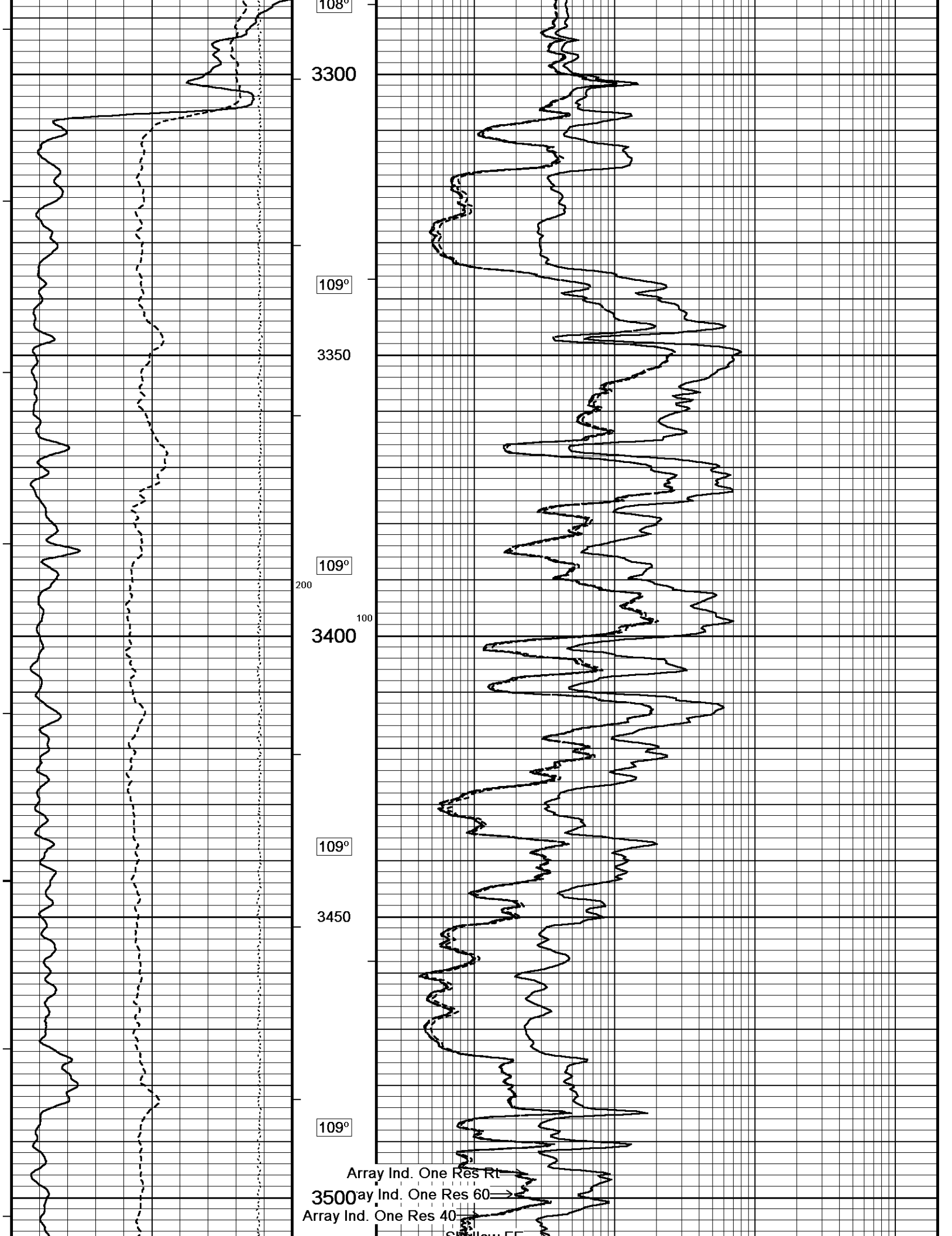
3200

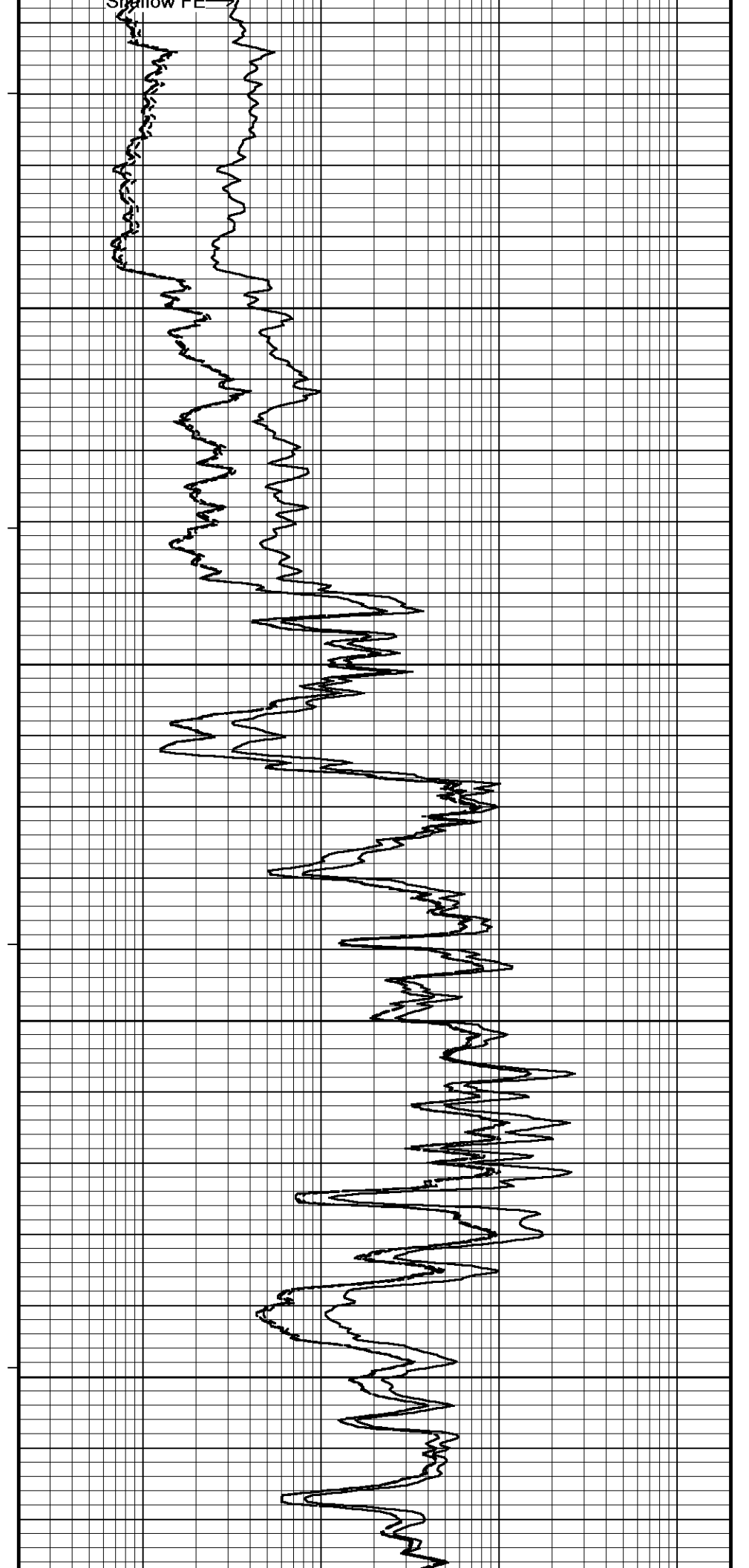
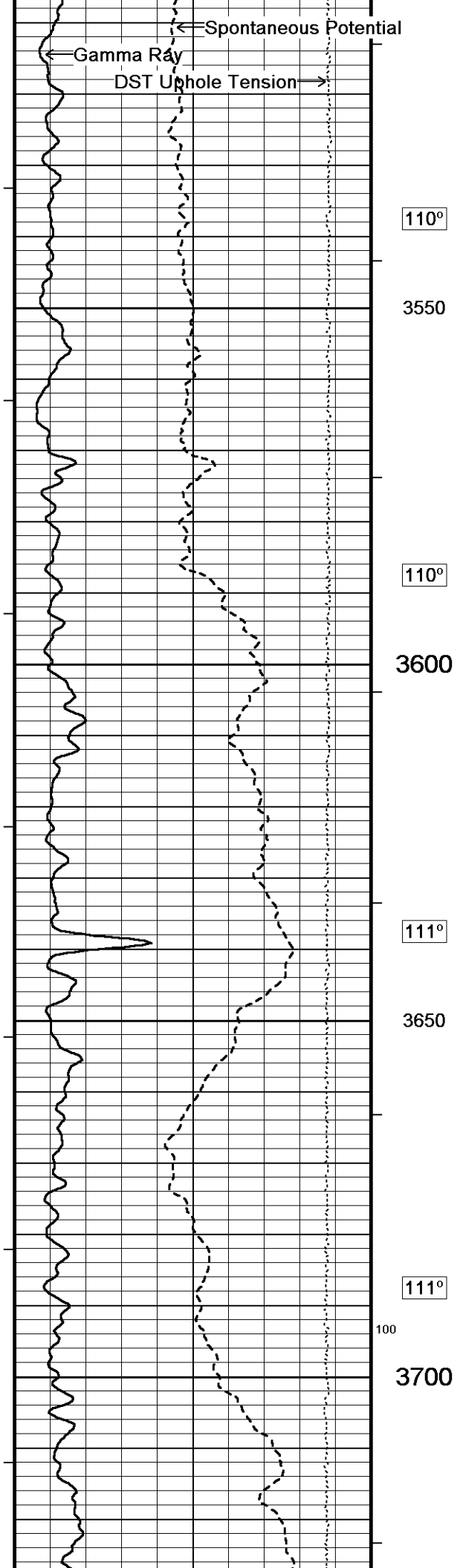
108°

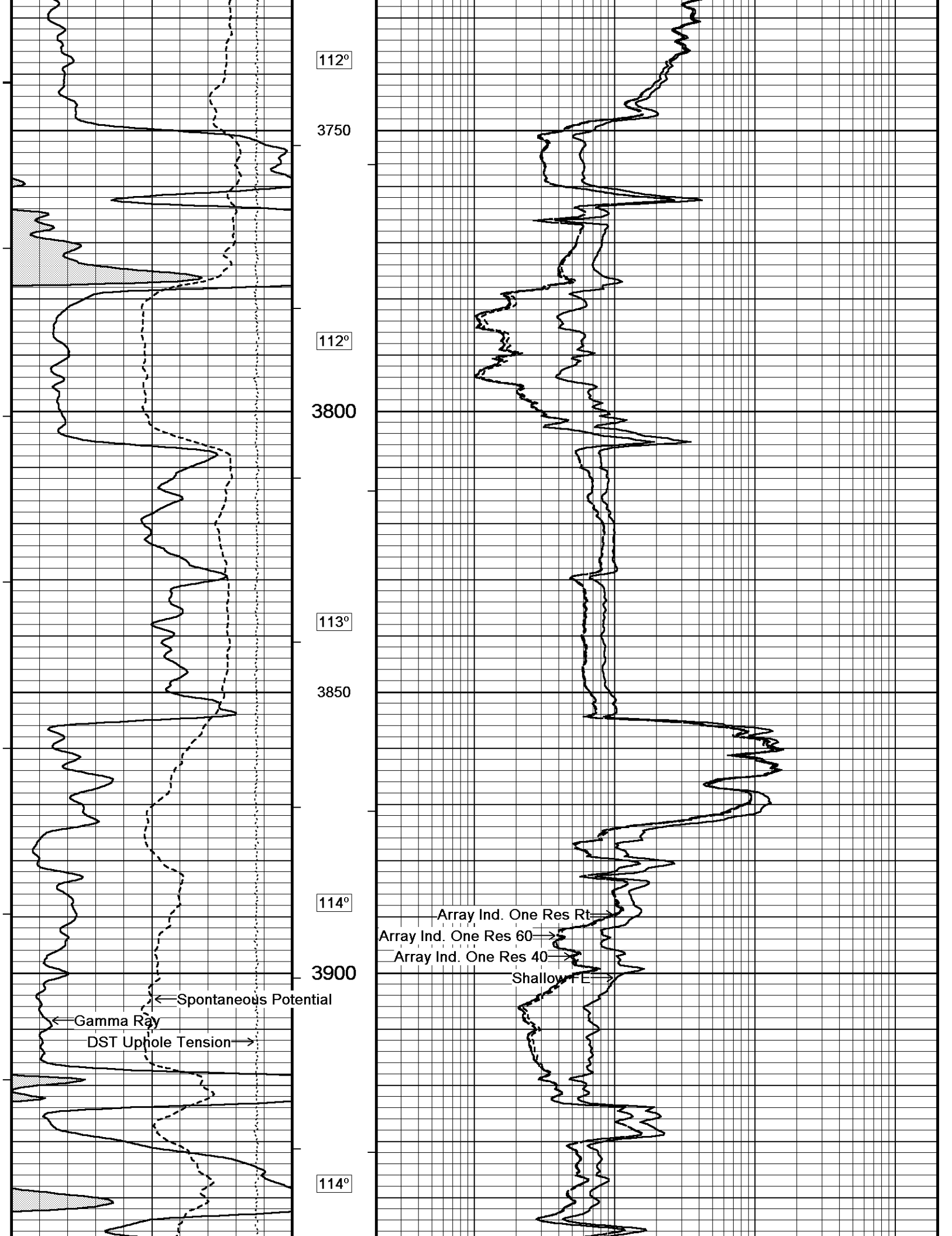
3250

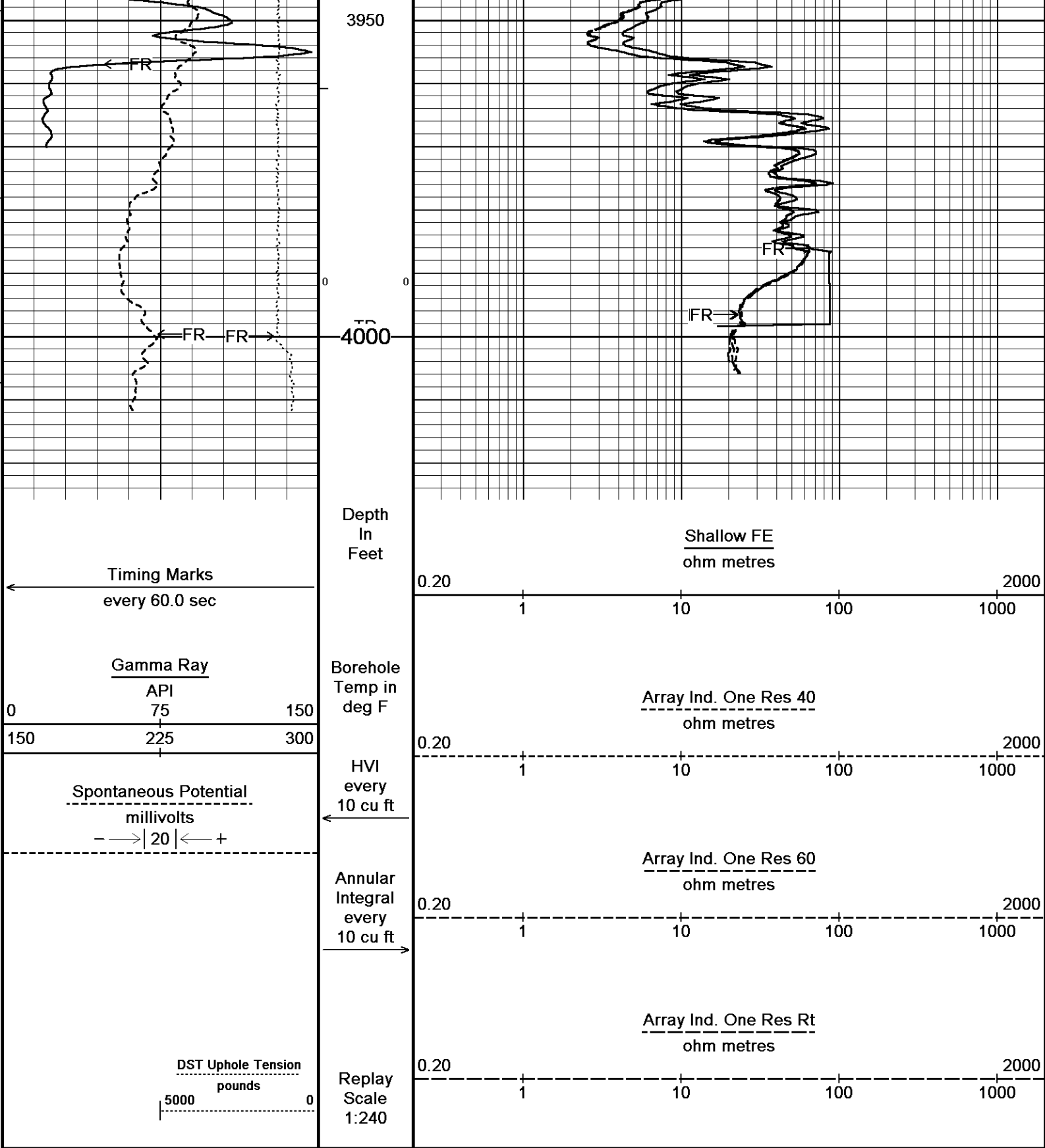
108°









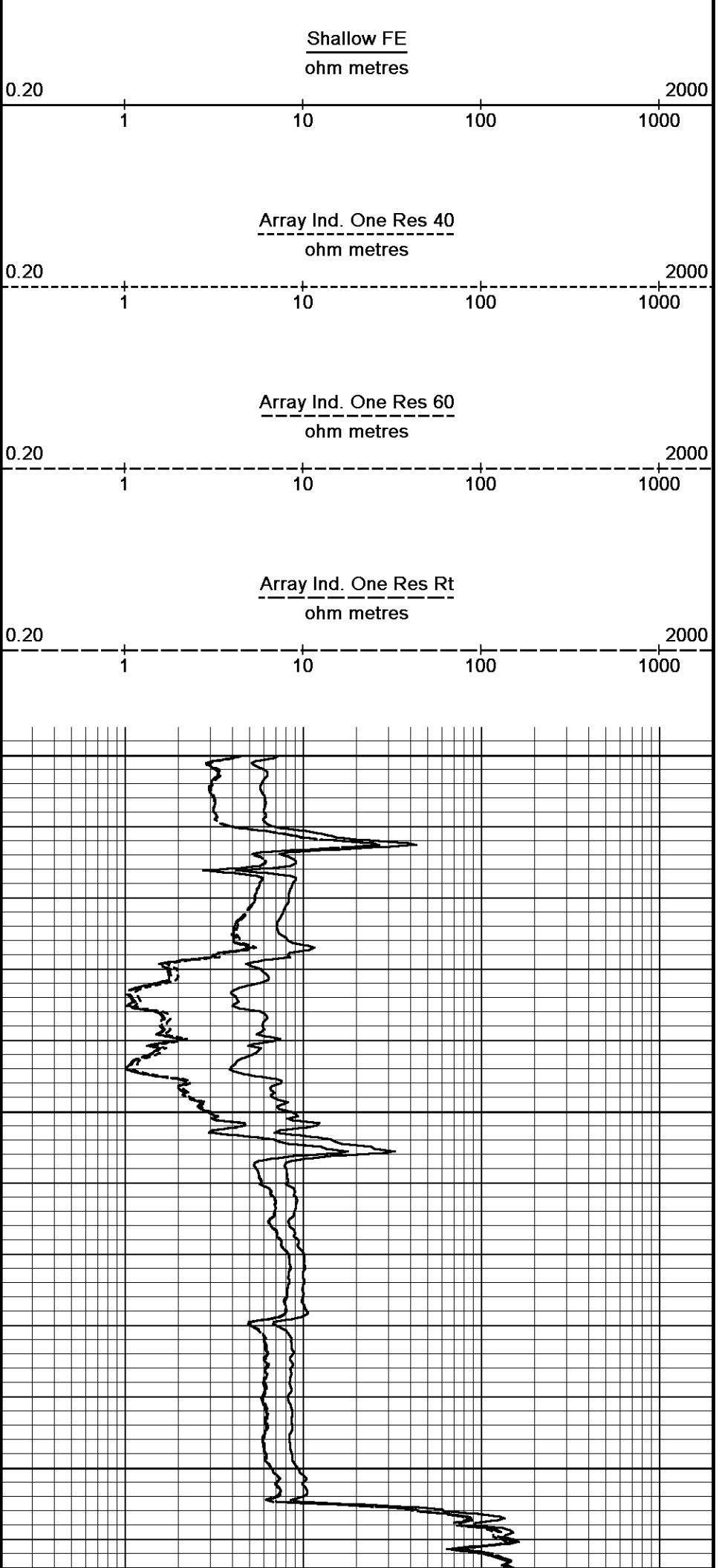
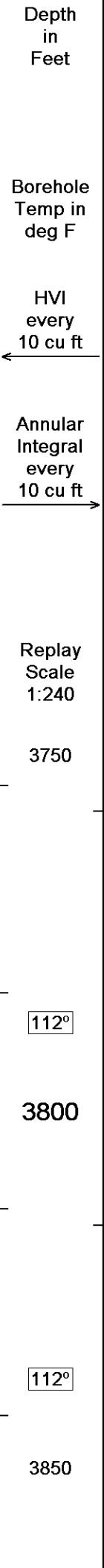
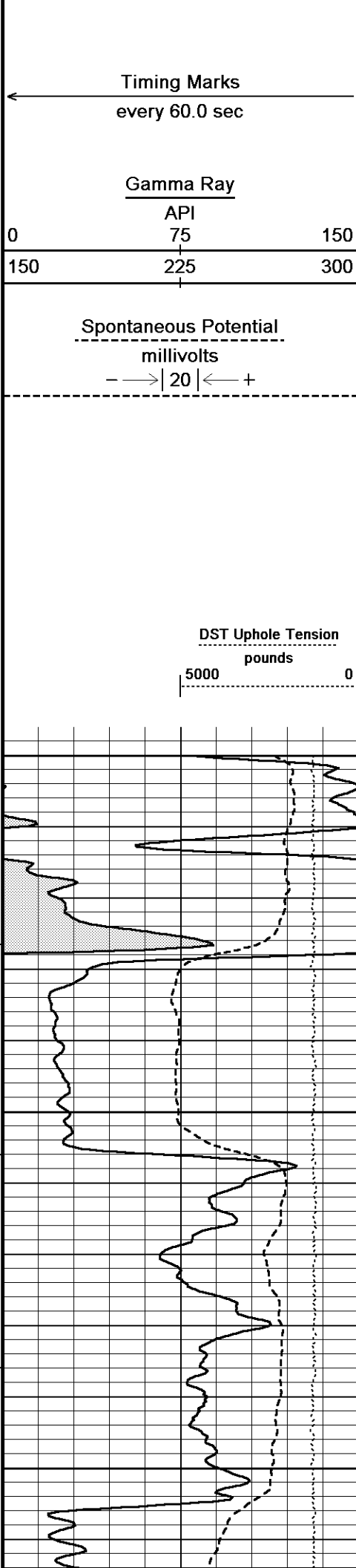


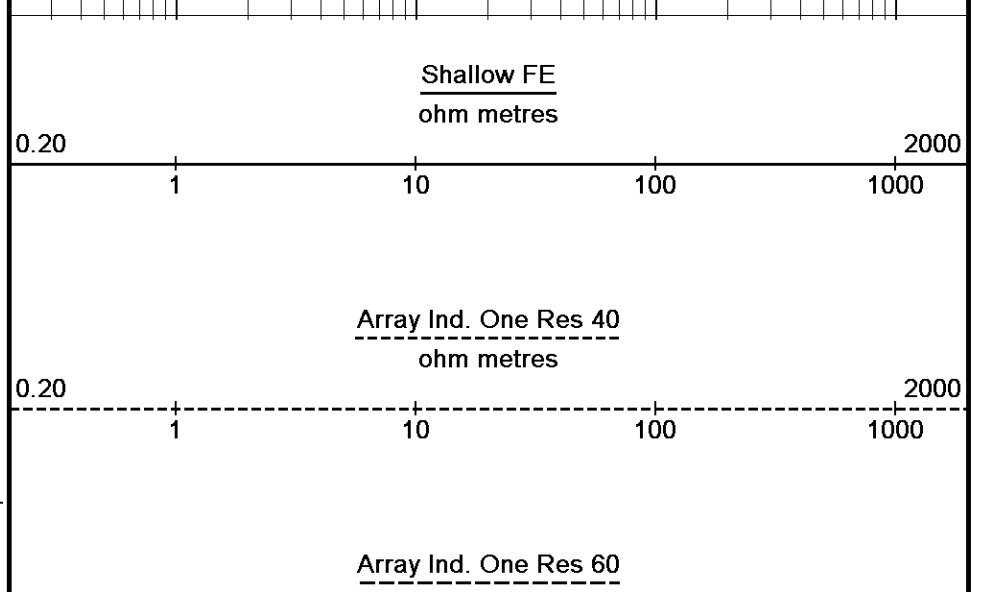
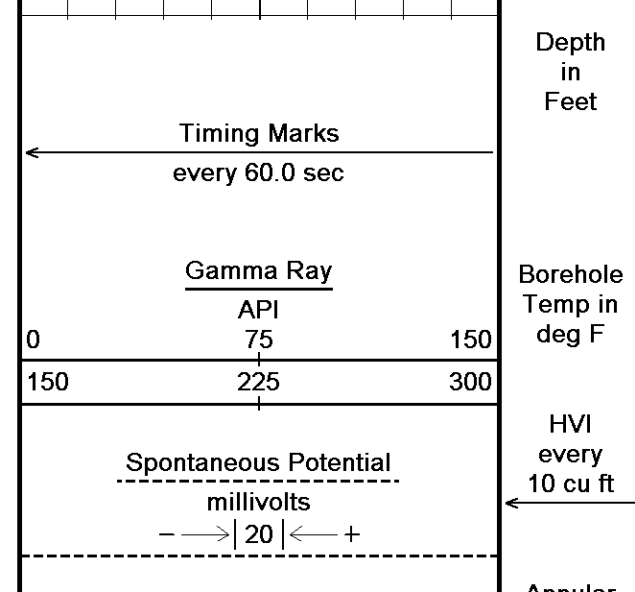
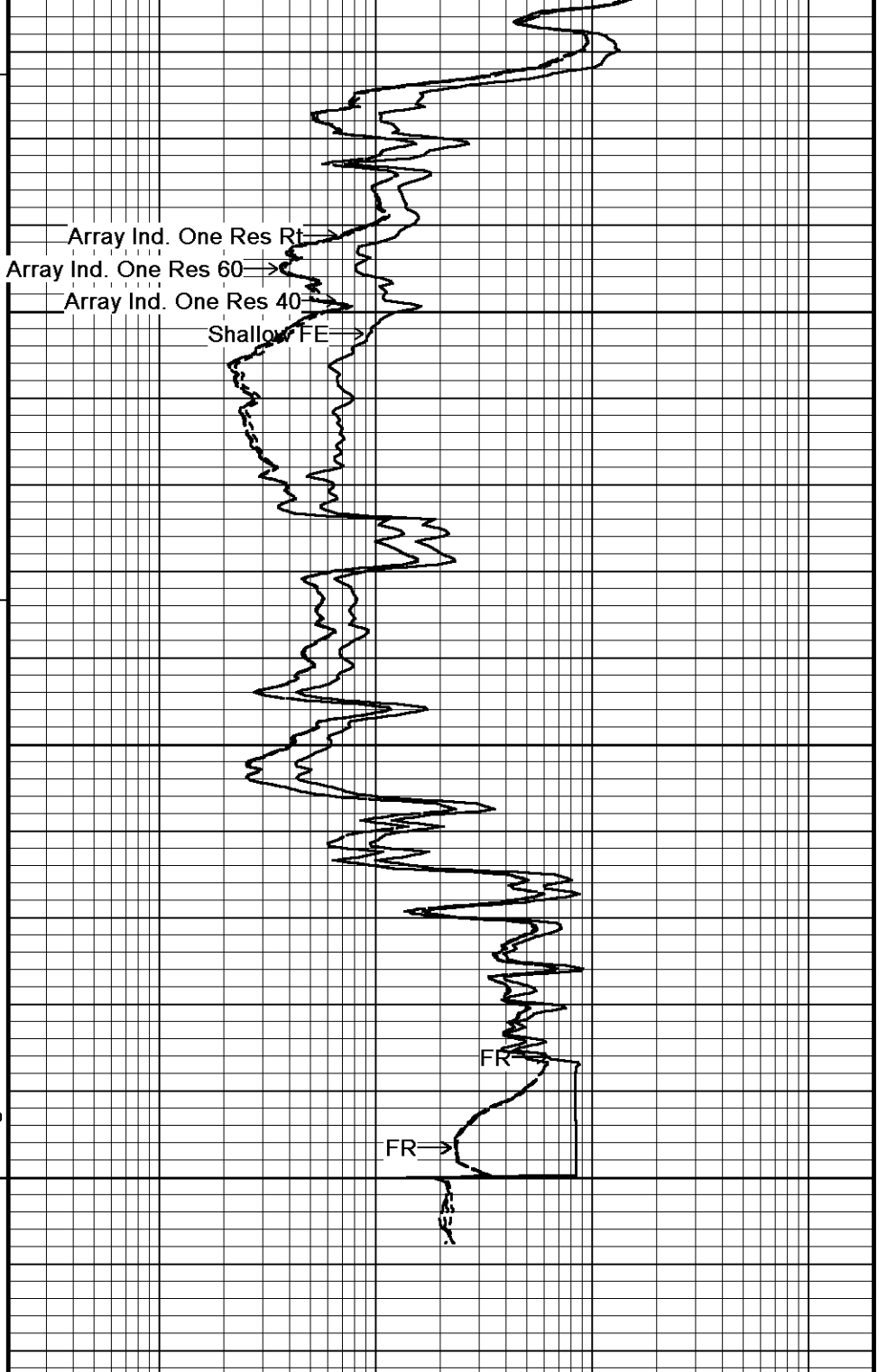
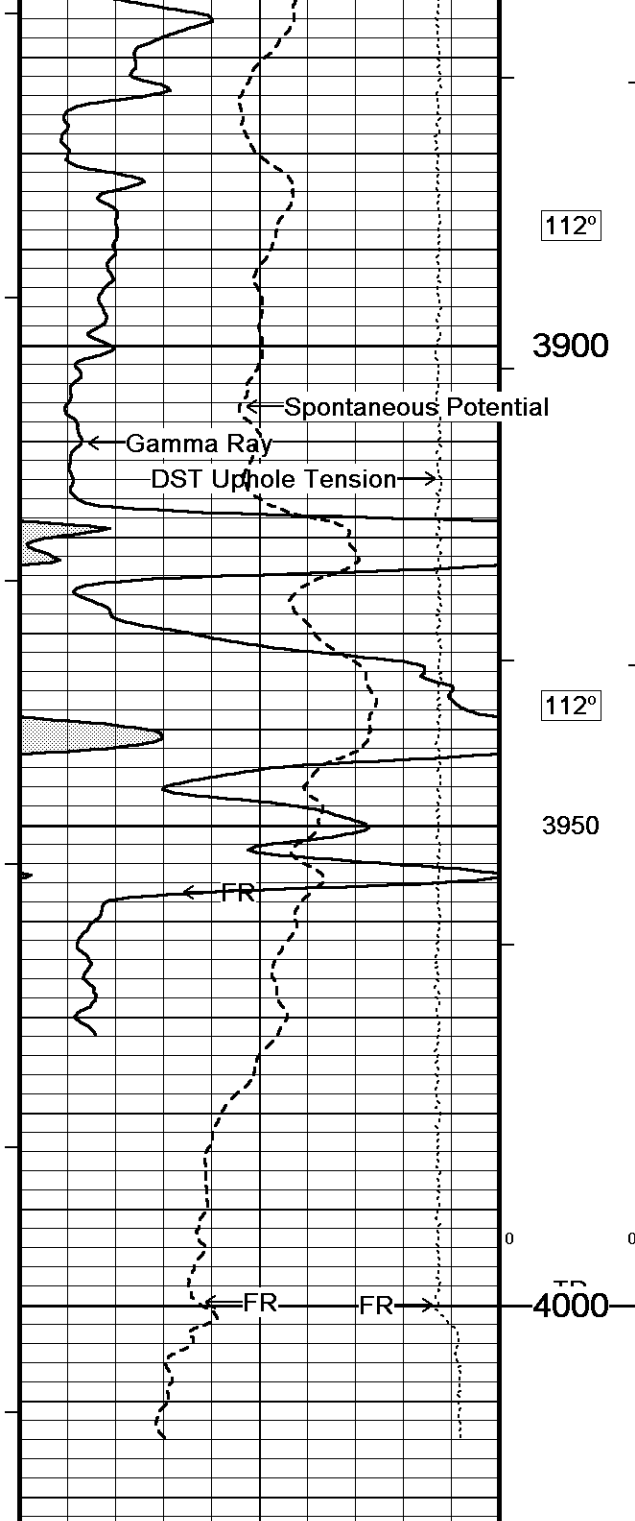
Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 30-OCT-2017 16:29  
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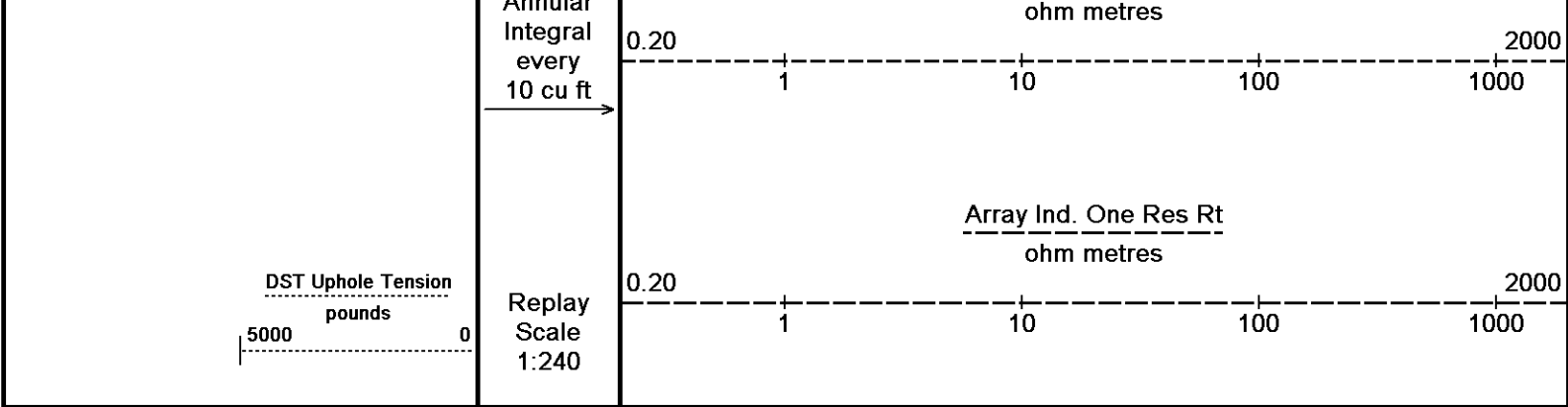
↑ 5 INCH MAIN ↑

↓ REPEAT SECTION ↓

Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 30-OCT-2017 16:29  
 Filename: C:\Minimus 17.03.9700\Data\M&M Stutzman#1\M&M Stutzman#1\_001.dta Recorded on 30-OCT-2017 13:19  
 System Versions: Logged with 17.03.9700 Plotted with 17.03.9700







Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 30-OCT-2017 16:29  
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↑ REPEAT SECTION ↑

**BEFORE SURVEY CALIBRATION**  
 C:\Minimus 17.03.9700\Data\M&M Stutzman#1\M&M Stutzman#1\_001.dta

General Constants All 000 Last Edited on 30-OCT-2017,12:50

<b>General Parameters</b>		
Mud Resistivity	0.890	ohm-metres
Mud Resistivity Temperature	75.000	degrees F
Water Level	0.000	feet
Borehole Fluid Processing	Wet Hole	
<b>Hole/Annular Volume and Differential Caliper Parameters</b>		
HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	None	
<b>Rwa Parameters</b>		
Porosity used	Crossplot Porosity	
Resistivity used	Array Ind. One Res Rt	
RWA Constant A	0.620	
RWA Constant M	2.150	
SW/APOR Tool Source	0.000	

Down-hole Tension Calibration SMS 0 Field Calibration on 08-OCT-2017 14:52

Reading No	Measured	Calibrated (lbs)
1	459.59	0.00
2	-1870.04	220.00

Gamma Calibration MCG-C 84 Field Calibration on 27-OCT-2017 07:35

	Measured	Calibrated (API)
Background	105	73
Calibrator (Gross)	762	529
Calibrator (Net)	657	456

Gamma Calibration Tolerances MCG-C 84



Gamma Constants MCG-C 84 Last Edited on 30-OCT-2017,11:37

Gamma Calibrator Number	MCGGRCC141	
GRC-M Calibrator Jig in Use?	NO	
Inactive Background Jig in Use?	NO	
Mud Density	1.09	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Potassium Equivalence	Chloride	

Potassium Equivalence Chloride  
 K Mud Concentration 0.00 %

**SP Calibration MCG-C 84** Field Calibration on 27-OCT-2017,07:20

	Measured	Calibrated (mV)
Reference 1	104.4	100.1
Reference 2	-95.8	-100.1

**High Resolution Temperature Calibration MCG-C 84** Field Calibration on 27-OCT-2017,07:21

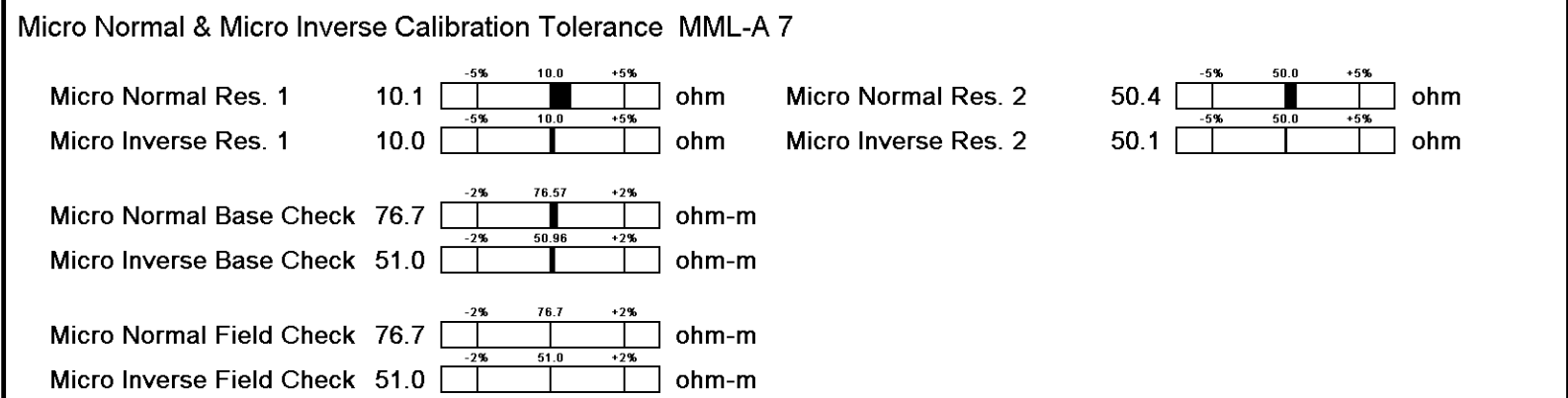
	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	212.00	212.00

**High Resolution Temperature Constants MCG-C 84** Last Edited on 30-AUG-2017,13:52

Pre-filter Length 11

**Micro Normal and Micro Inverse Calibration MML-A 7** Base Calibration on 23-OCT-2017 14:05  
Field Check on 30-OCT-2017 12:39

	Resistor 1 (ohm)	Resistor 2 (ohm)
Base Calibration	10.0	50.0
	Measured	Calibrated (ohm-m)
Micro Normal	10.1	50.4
Micro Inverse	10.0	50.1
	Field Check (ohm-m)	Field Check (ohm-m)
Micro Normal	76.7	76.7
Micro Inverse	51.0	51.0



**Micro Normal and Micro Inverse Constants MML-A 7** Last Edited on 30-OCT-2017,12:39

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

**Caliper Calibration MML-A 7** Base Calibration on 23-OCT-2017 13:59  
Field Calibration on 30-OCT-2017 12:38

Reading No	Measured	Calibrator Size (in)
1	14085	5.98
2	17580	7.97
3	20846	9.86
4	24750	11.92
5	0	0.00
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
8.00	8.10



**Neutron Calibration MDN-A.B 114** Base Calibration on 25-OCT-2017 16:20  
Field Check on 27-OCT-2017 07:40



Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	3039	94	3714	110
Ratio	32.458		33.764	

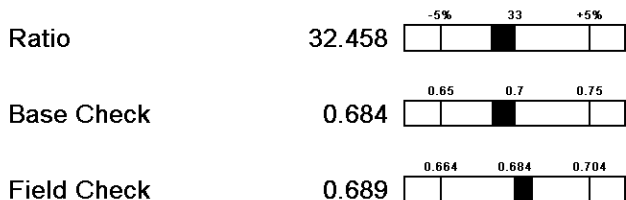
Field Calibrator at Base

	Calibrated (cps)
	2150
Ratio	0.684

Field Check

	Calibrated (cps)
	2143
Ratio	0.689

Neutron Calibration Tolerances MDN-A.B 114



Neutron Constants MDN-A.B 114

Last Edited on 30-OCT-2017,11:37

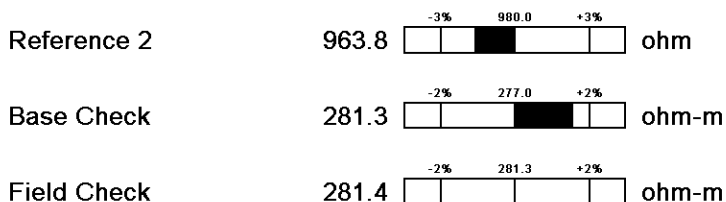
Neutron Source Id	P0204NN	
Neutron Jig Number	NJ5736	
Air Hole Processing	Modified Ratio	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.00	gm/cc
Limestone Sigma	7.10	cu
Sandstone Sigma	4.26	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	None	
Formation Pressure	N/A	kpsi
Temperature Source	Constant Value	
Temperature	68.00	degrees F
Mud Salinity	0.00	kppm
Salinity Correction	Not Applied	
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

FE Calibration MFE-B.J 352

Base Calibration on 23-OCT-2017 13:20  
Field Check on 30-OCT-2017 12:25

	Resistor 1 (ohm)	Resistor 2 (ohm)
	0.0	1000.0
Base Calibration		
	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	963.8	126.8
Base Check		281.3
Field Check		281.4

FE Calibration Tolerances MFE-B.J 352



FE Constants MFE-B.J 352

Last Edited on 30-OCT-2017,12:24

Running Mode	No Sleeve
MFE K Factor	0.1268

Borehole Correction Constants  
 Sonde Position 0.5 inches  
 Hole Size Source Density Caliper  
 Hole Size Constant Value N/A inches  
 Rm Source Global Value: Temperature Corrected  
 Temp. for Rm Corr. MCG External Temperature

High Resolution Temperature Calibration MAI-A.A 111

Field Calibration on 01-OCT-2017,14:58

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	212.00	212.00

High Resolution Temperature Constants MAI-A.A 111

Last Edited on 26-JUN-2014,15:06

Pre-filter Length 11

Induction Calibration MAI-A.A 111

Factory Loop Calibration 25-OCT-2017 15:40  
 Field Check on 30-OCT-2017 12:35

Factory Loop Calibration

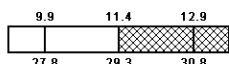
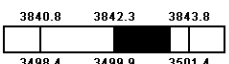
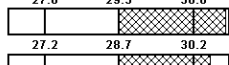
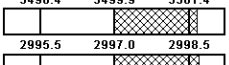
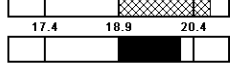
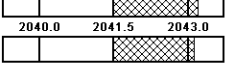

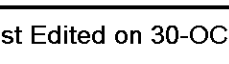
Low Conductivity Reference Resistor 3.3 ohm  
 High Conductivity Reference Resistor 333.3 ohm

Array	Measured Signal (unitless)		Reference Conductivity (mmho/m)		Calibration	
	Low	High	Low	High	Gain	Offset
1 (near)	17.6	473.6	9.3	966.2	0.0	0.0
2	6.4	385.9	7.6	821.4	0.0	0.0
3	3.2	264.0	5.2	566.0	0.0	0.0
4 (far)	2.1	135.5	2.6	279.2	0.0	0.0
Array Temperature	23.0		Deg F			

Tool Checks

Array	Factory Reference (mmho/m)		Before Survey (mmho/m)		Deg F
	Low	High	Low	High	
1 (near)	11.4	3842.3	13.8	3843.4	
2	29.3	3499.9	31.5	3501.6	
3	28.7	2997.0	30.6	2998.7	
4 (far)	18.9	2041.5	20.1	2043.1	
Array Temperature	90.7		69.6		Deg F

Induction Check Tolerances MAI-A.A 111

Low Array 1	13.8		mmho/m	High Array 1	3843.4		mmho/m
Low Array 2	31.5		mmho/m	High Array 2	3501.6		mmho/m
Low Array 3	30.6		mmho/m	High Array 3	2998.7		mmho/m
Low Array 4	20.1		mmho/m	High Array 4	2043.1		mmho/m

Induction Constants MAI-A.A 111

Last Edited on 30-OCT-2017,12:33

Induction Model RtAP-WBM

Borehole Correction Constants

Tool Centred No  
 Hole Size Source Density Caliper  
 Hole Size Constant Value N/A inches  
 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  
 Rm Source Global Value: Temperature Corrected  
 Temp. for Rm Corr. MCG External Temperature  
 Borehole Correction Method Default

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

Symmetrised Receiver Gains

Receiver 1	1.00
Receiver 2	1.00
Receiver 3	1.00
Receiver 4	1.00

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	

Photo Density Calibration MPD-C.A 216

Base Calibration on 23-OCT-2017 14:37

Field Check on 30-OCT-2017 12:24

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Background	1025	1218		
Reference 1	51146	24580	59556	30836
Reference 2	20383	2310	24941	2541

Field Check at Base

1024.7 1217.9

Field Check

1024.3 1212.0

PE Calibration

Base Calibration	Measured			Calibrated Ratio
	WS	WH	Ratio	
Background	187	916		
Reference 1	21227	50978	0.420	
Reference 2	5863	20269	0.293	

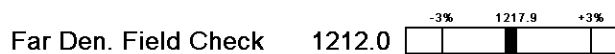
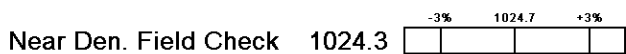
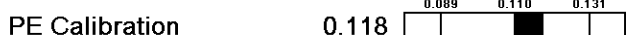
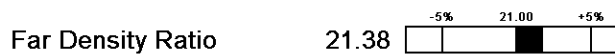
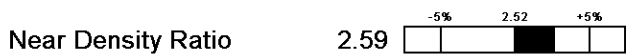
Field Check at Base

187.1 916.4

Field Check

186.0 916.1

Photo Density Calibration Tolerances MPD-C.A 216



Density Constants MPD-C.A 216

Last Edited on 30-OCT-2017,12:24

Density Source Id	P50557B
Nylon Calibrator Number	DNCE695
Aluminium Calibrator Number	DACD698
Density Shee Profile	2 inch

Density Slice Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.09	gm/cc
Mud Density Type		
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	
Precision Enhanced Density Processing	Not Applied	

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

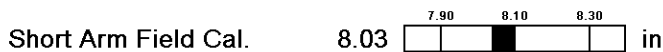
**Caliper Calibration MPD-C.A 216**

Base Calibration on 23-OCT-2017 14:16  
Field Calibration on 30-OCT-2017 12:36

Base Calibration Reading No	Measured	Calibrator Size (in)
1	16832	3.99
2	27040	5.98
3	37135	7.97
4	46864	9.86
5	58032	11.92
6	N/A	N/A

Field Calibration	Measured Caliper (in)	Actual Caliper (in)
	8.03	8.10

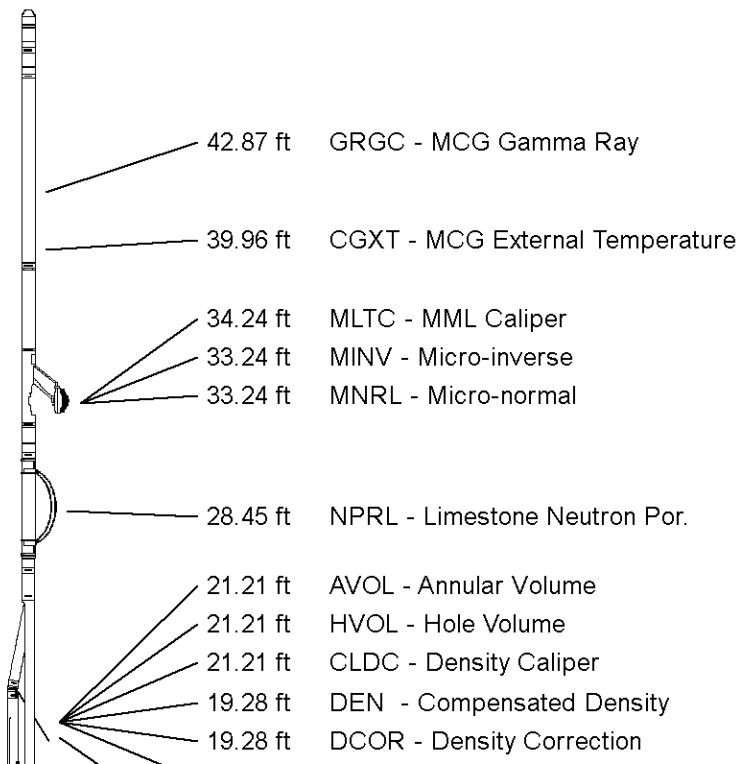
**Caliper Calibration Tolerances MPD-C.A 216**



**DOWNHOLE EQUIPMENT**

C:\Minimus 17.03.9700\Data\M&M Stutzman#1\M&M Stutzman#1\_001.dta

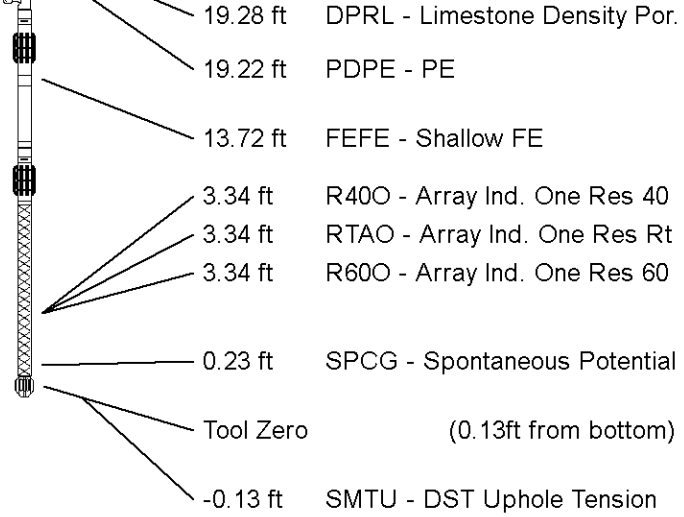
- Cablehead, 11 pin  
CBH-C 0 LG: 2.40 ft WT: 24.3 lb OD: 2.244 in
- Compact Comms Gamma  
MCG-C 84 LG: 8.70 ft WT: 63.9 lb OD: 2.244 in
- Compact Micro-log  
MML-A 7 LG: 7.97 ft WT: 81.6 lb OD: 2.244 in
- Compact Neutron  
MDN-A.B 114 LG: 5.04 ft WT: 50.7 lb OD: 2.244 in
- Compact Density/Caliper  
MPD-C.A 216 LG: 9.59 ft WT: 90.4 lb OD: 2.449 in



Compact Focussed Electric  
MFE-B.J 352 LG: 6.05 ft WT: 48.5 lb OD: 2.244 in

Compact Induction  
MAI-A.A 111 LG: 10.81 ft WT: 48.5 lb OD: 2.244 in

Total Length: 50.55 ft Weight: 407.9 lb



All measurements relative to tool zero.

COMPANY M & M EXPLORATION, INC.  
WELL STUTZMAN #1  
FIELD KISIWA  
PROVINCE/COUNTY HARVEY  
COUNTRY/STATE U.S.A. / KANSAS

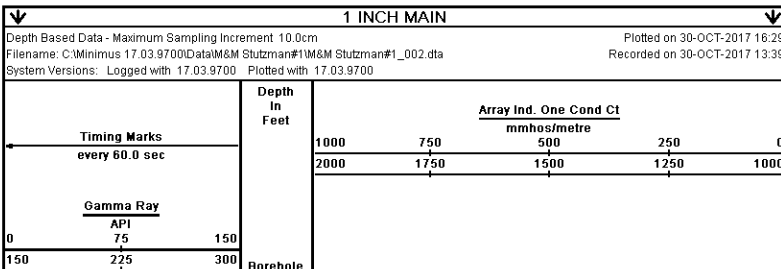
Elevation Kelly Bushing	1410	feet	First Reading	3997.00	feet
Elevation Drill Floor	1408	feet	Depth Driller	4000.00	feet
Elevation Ground Level	1402	feet	Depth Logger	4000.00	feet

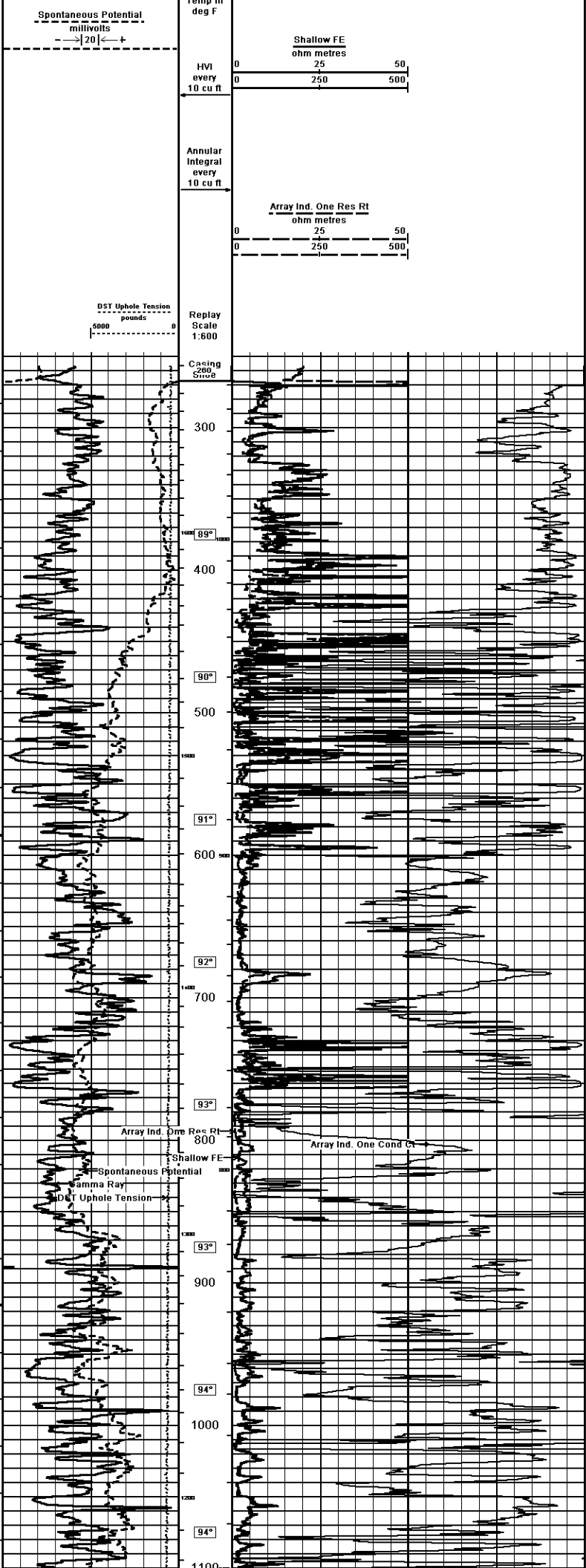


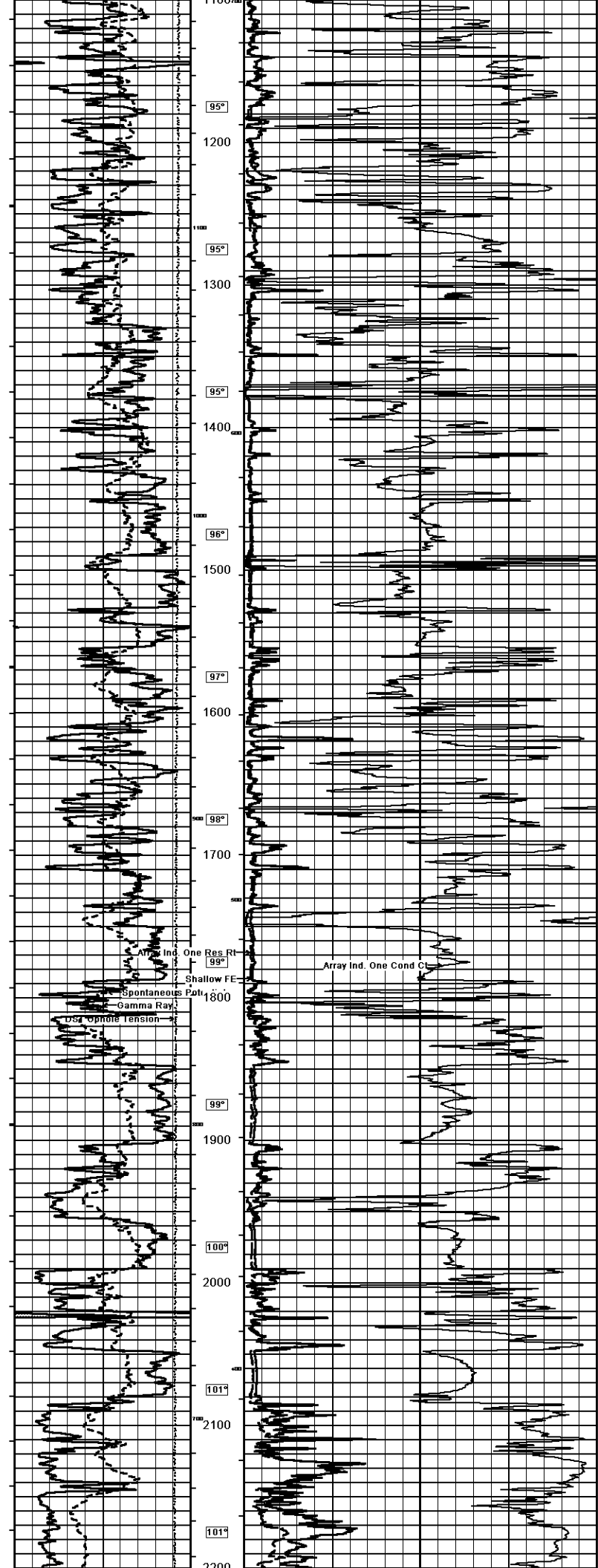
ARRAY INDUCTION  
SHALLOW FOCUSED  
ELECTRIC LOG

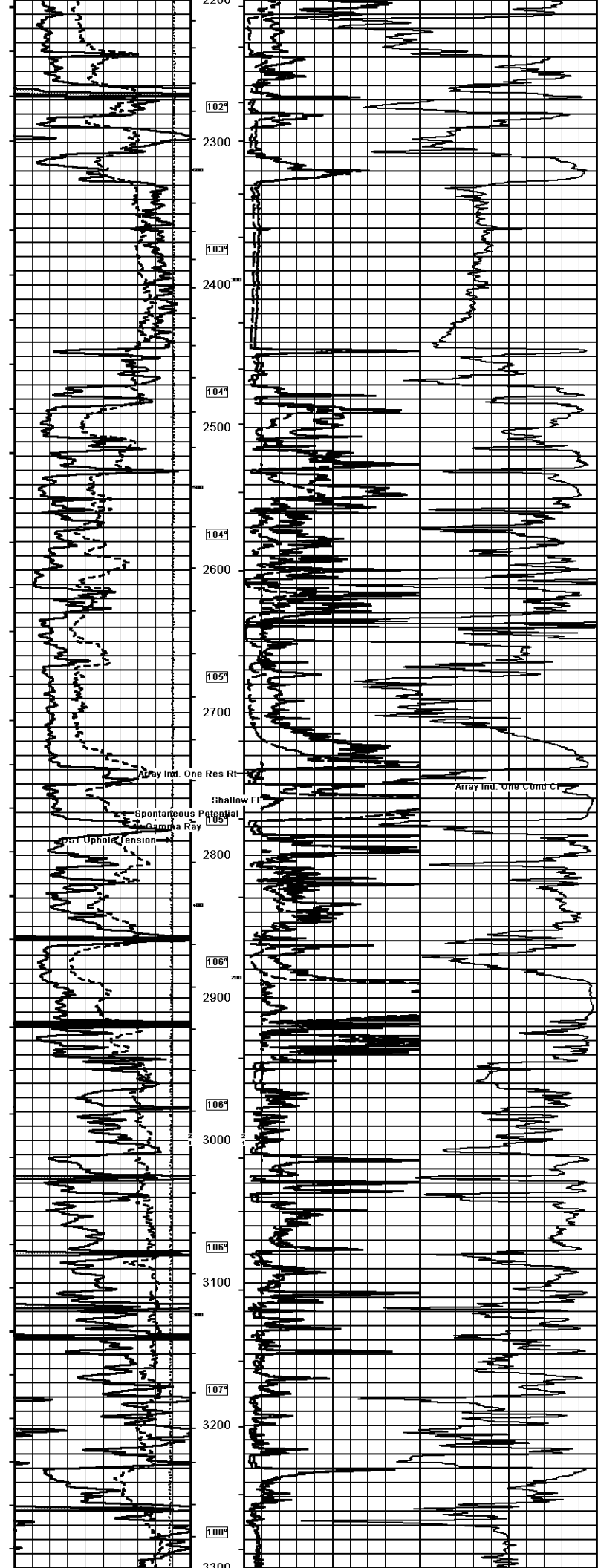
**Weatherford**<sup>®</sup>

<b>Weatherford</b>		<b>ARRAY INDUCTION SHALLOW FOCUSED ELECTRIC LOG</b>	
COMPANY	M & M EXPLORATION, INC.	Well	STUTZMAN #1
WELL	KISIWA	Field	KISIWA
PROVINCE/COUNTY	HARVEY	Country/State	U.S.A. / KANSAS
COUNTRY/STATE	U.S.A. / KANSAS	Location	13811 ENL & 2350' FEL
SEC 15	TWP 24S	R3E 24W	Oil & Gas Survey
Latitude	35.07928715	Longitude	-98.22111111
Permanent Datum OL Elevation	1402 feet	Permanent Datum	1410.00
Log Measured From KB	8.00 feet above Permanent Datum	Drilling Measured From KB	1408.00
Date	30-OCT-2017	Run Number	ONE
Service Order	4558-196548519	Depth Driller	4000.00 feet
Depth Logger	4000.00 feet	First Reading	3997.00 feet
First Reading	3997.00 feet	Last Reading	287.00 feet
Casing Driller	286.00 feet	Casing Logger	267.00 feet
Bit Size	7.875 inches	Bit Size	7.875 inches
Fluid Type	CHEMICAL	Density/viscosity	9.10 IBUS/g
PH/Fluid Loss	9.50	PH/Fluid Loss	8.00
Sample Source	FLOWLINE	Sample Source	FLOWLINE
Rm @ Measured Temp	0.89 @ 75.0 ohm-m	Rm @ Measured Temp	0.71 @ 75.0 ohm-m
Rm @ Measured Temp	1.07 @ 75.0 ohm-m	Rm @ Measured Temp	1.07 @ 75.0 ohm-m
Source Rm / Rmc	CALC	Source Rm / Rmc	CALC
Rm @ BHT	0.59 @ 114.0 ohm-m	Rm @ BHT	0.59 @ 114.0 ohm-m
Time Since Circulation	4 HOURS	Time Since Circulation	4 HOURS
Max Recorded Temp	114.00 deg F	Max Recorded Temp	114.00 deg F
Equipment/Case	13096 LIB	Equipment/Case	13096 LIB
Recorded By	ADAM SILL	Recorded By	ADAM SILL
Witnessed By	JUSTIN CARTER	Witnessed By	JUSTIN CARTER

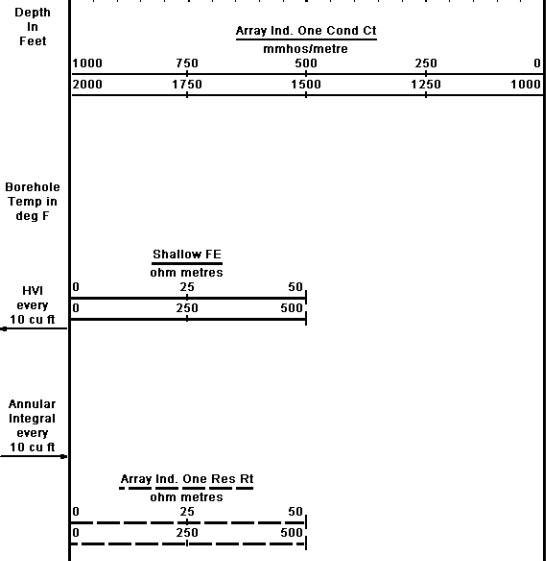
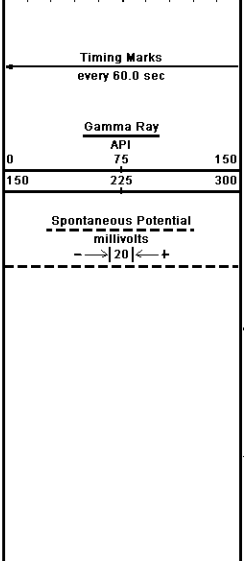
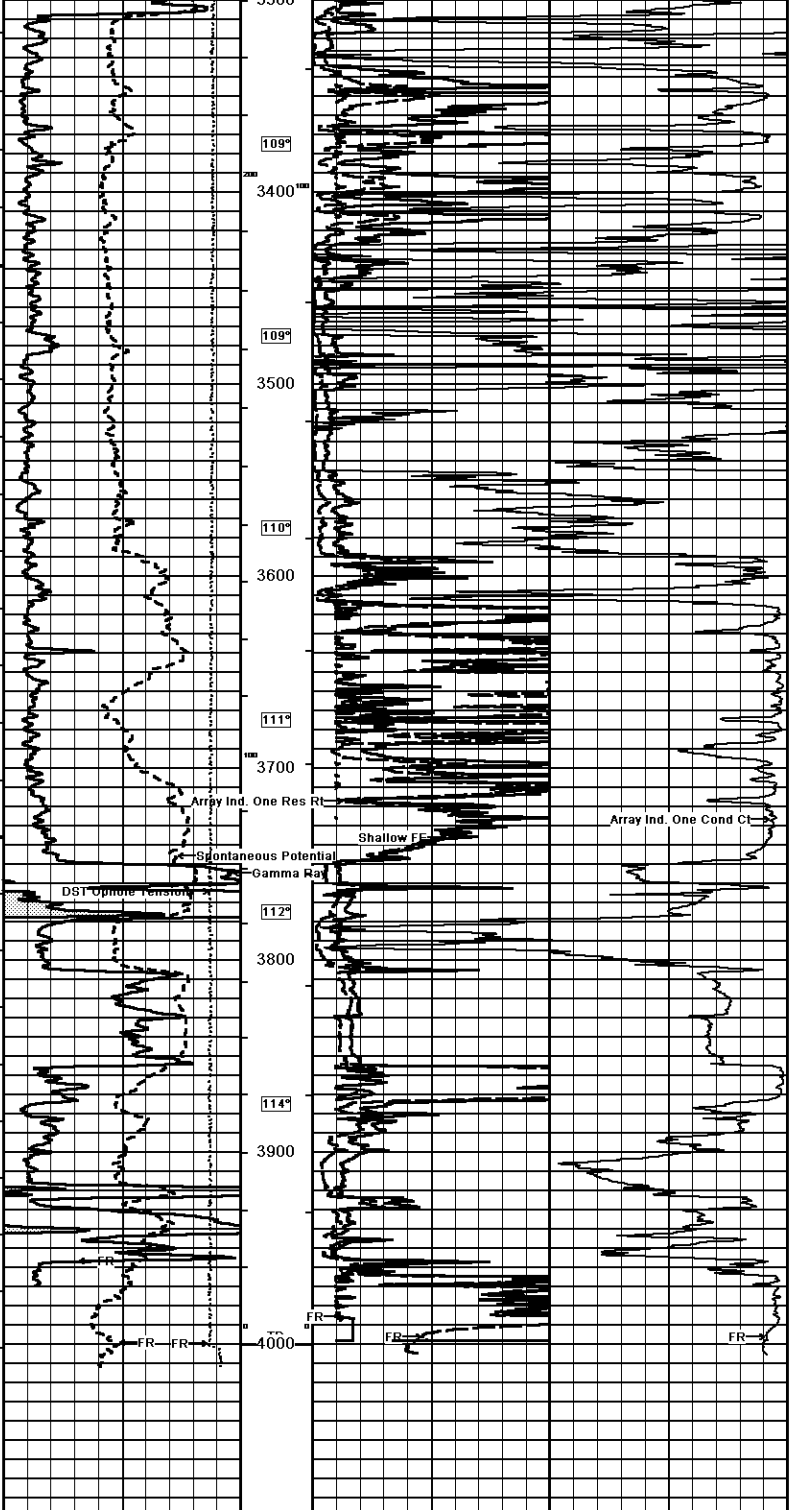












DST Uphole Tension  
pounds

Replay  
Scale  
1:600

5000

Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 30-OCT-2017 16:29


Filename: C:\Minimus 17.03.9700\Data\M&M Stutzman#1\M&M Stutzman#1\_002.dta Recorded on 30-OCT-2017 13:39

System Versions: Logged with 17.03.9700 Plotted with 17.03.9700

↑ 1 INCH MAIN ↑

COMPANY	M & M EXPLORATION, INC.
WELL	STUTZMAN #1
FIELD	KISIWA
PROVINCE/COUNTY	HARVEY
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	1410	feet	First Reading	3997.00	feet
Elevation Drill Floor	1408	feet	Depth Driller	4000.00	feet
Elevation Ground Level	1402	feet	Depth Logger	4000.00	feet



ARRAY INDUCTION  
SHALLOW FOCUSED  
ELECTRIC LOG