ARRAY INDUCTION SHALLOW FOCUSED ELECTRIC LOG

Weatherford®

COMPANY	FUTURE PETROLEUM COMPANY LLC
WELL	WEST MADDIX UNIT NO. 3
FIELD	WEST MADDIX UNIT
PROVINCE/COUNTY	COWLEY
COUNTRY/STATE	USA/KANSAS
LOCATION	1962' FNL & 1803' FEL

40 Years of Wireline 1970 2010

SEC	TWP	RGE	Other Services
10	33S	5E	MPD/ MDN
			MML

API Number 15-035-24421
Permit Number

Permanent Datum G.L, Elevation 1270 feet
Log Measured From K.B 10 FEET above Permanent Datum
Drilling Measured From K.B

Elevations:	feet
KB	1280.00
DF	1278.00
GL	1270.00

Date	25-JUN-2011			
Run Number	ONE			
Depth Driller	3204.00	feet		
Depth Logger	3206.00	feet		
First Reading	3203.00	feet		
Last Reading	200.00	feet		
Casing Driller	213.00	feet		
Casing Logger	213.00	feet		
Bit Size	7.875	inches		
Hole Fluid Type	CHEMICAL			
Density / Viscosity	9.10 g/c3		65.00 CP	
PH / Fluid Loss	9.00		9.20 ml/30Min	
Sample Source	FLOWLINE			
Rm @ Measured Temp	1.40 @ 94.0	ohm-m		
Rmf @ Measured Temp	1.20 @ 94.0	ohm-m		
Rmc @ Measured Temp	2.52 @ 94.0	ohm-m		
Source Rmf / Rmc	CALC		CALC	
Rm @ BHT	0.82 @109.0	ohm-m		
Time Since Circulation	4 HOURS			
Max Recorded Temp	109.00	deg F		
Equipment Name	COMPACT			
Equipment / Base	13226		OKC	
Recorded By	MIKE GARRISON			
Witnessed By	TERRY MADDEN			

BOREHOLE RECORD

Last Edited: 25-JUN-2011 17:32

Bit Size inches	Depth From feet	Depth To feet
7.875	214.00	3206.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	213.00	32.00

REMARKS

TOOLS RAN: SHA 45, MCG 31, MML 1, MDN 10, MPD 3, MFE 65, MAI 11 RAN IN COMBINATION

HARDWARE: MAI: TWO 0.5 INCH STANDOFFS USED.
MDN: DUAL NEUTRON BOW SPRINGS USED.
MPD: 8 INCH PROFILE PLATE USED.

2.71 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY
ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

TOTAL HOLE VOLUME FROM TD TO 200' = 1380CU.FT.
ANNULAR HOLE VOLUME WITH 4.5 INCH PRODUCTION CASING FROM TD TO 200' = 1060CU.FT.

SERVICE ORDER # 3531727
RIG: VAL 3

ENGINEER: MIKE GARRISON
OPERATOR(S):PHILLIP BURGER

2 INCH MAIN LOG

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 25-JUN-2011 18:19
Filename: C:\Program Files\Weatherford\WLS 11.02\Data\FUTURE(WEST MADDIX...\WMU3 _003.dta
Recorded on 25-JUN-2011 16:58
System Versions: Logged with 11.02.2782 Plotted with 11.02.2782

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
– 20 +

DST Uphole Tension
pounds
10000 0

Depth in Feet

Replay Scale 1:600

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

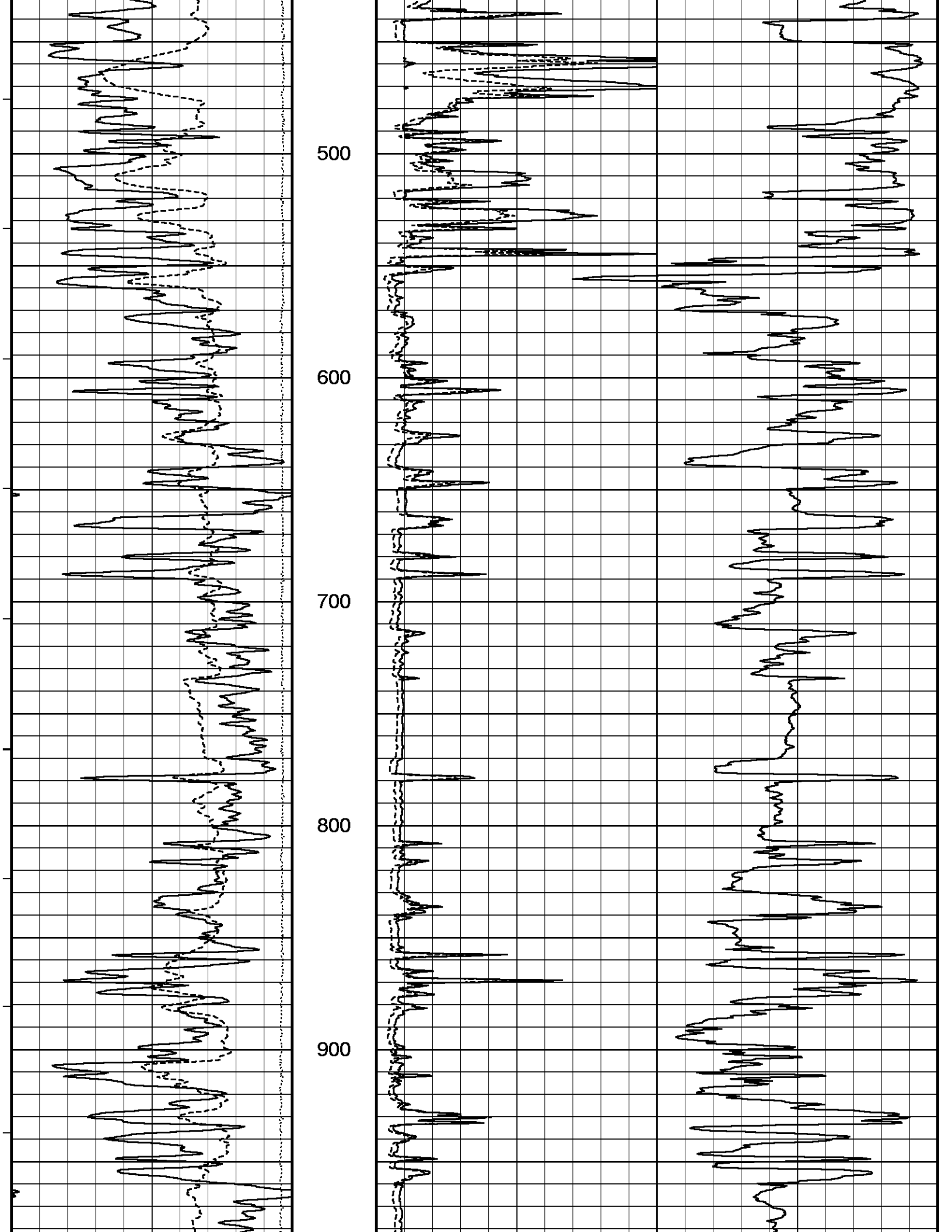
Shallow FE
ohm metres
0 25 50
0 250 500

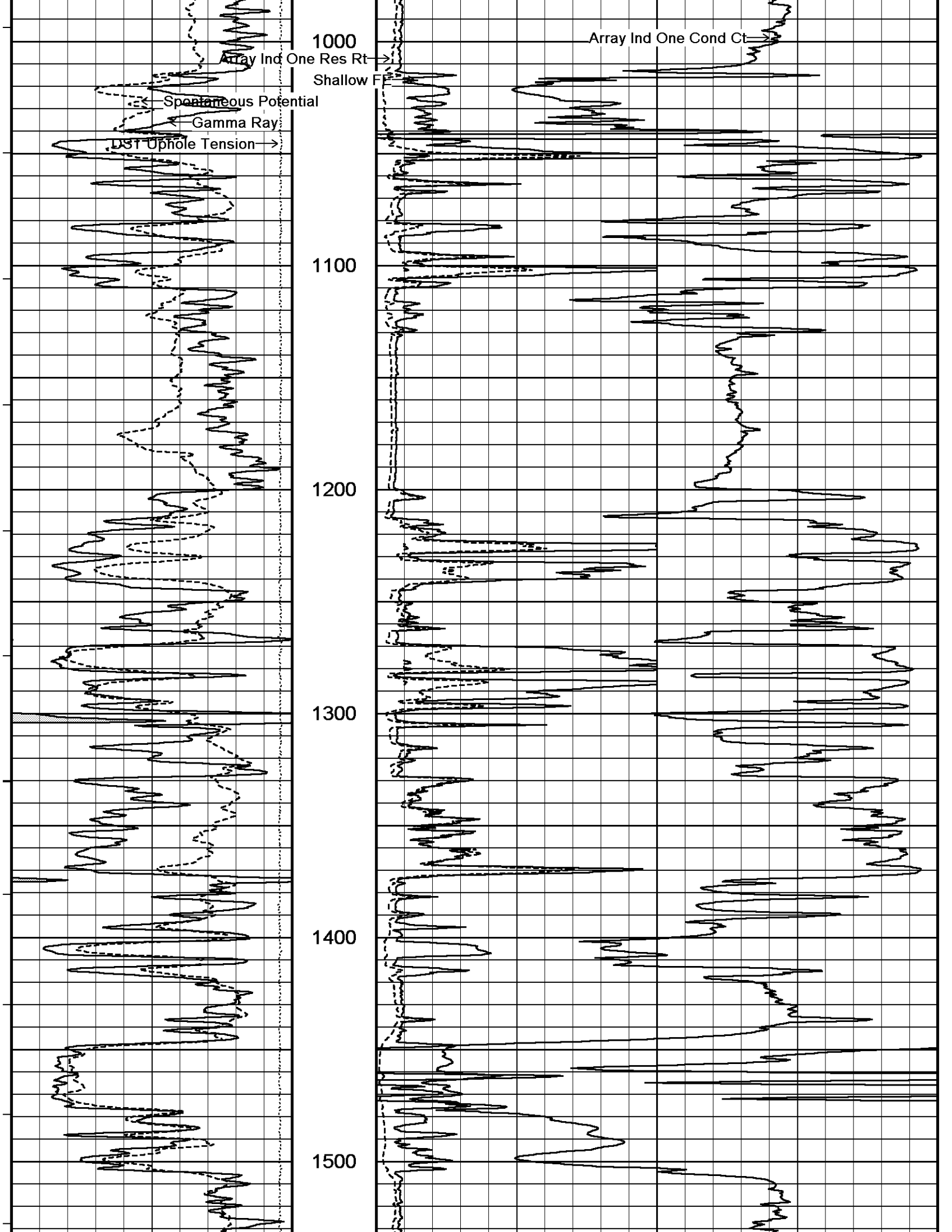
Array Ind One Res Rt
ohm metres
0 25 50
0 250 500

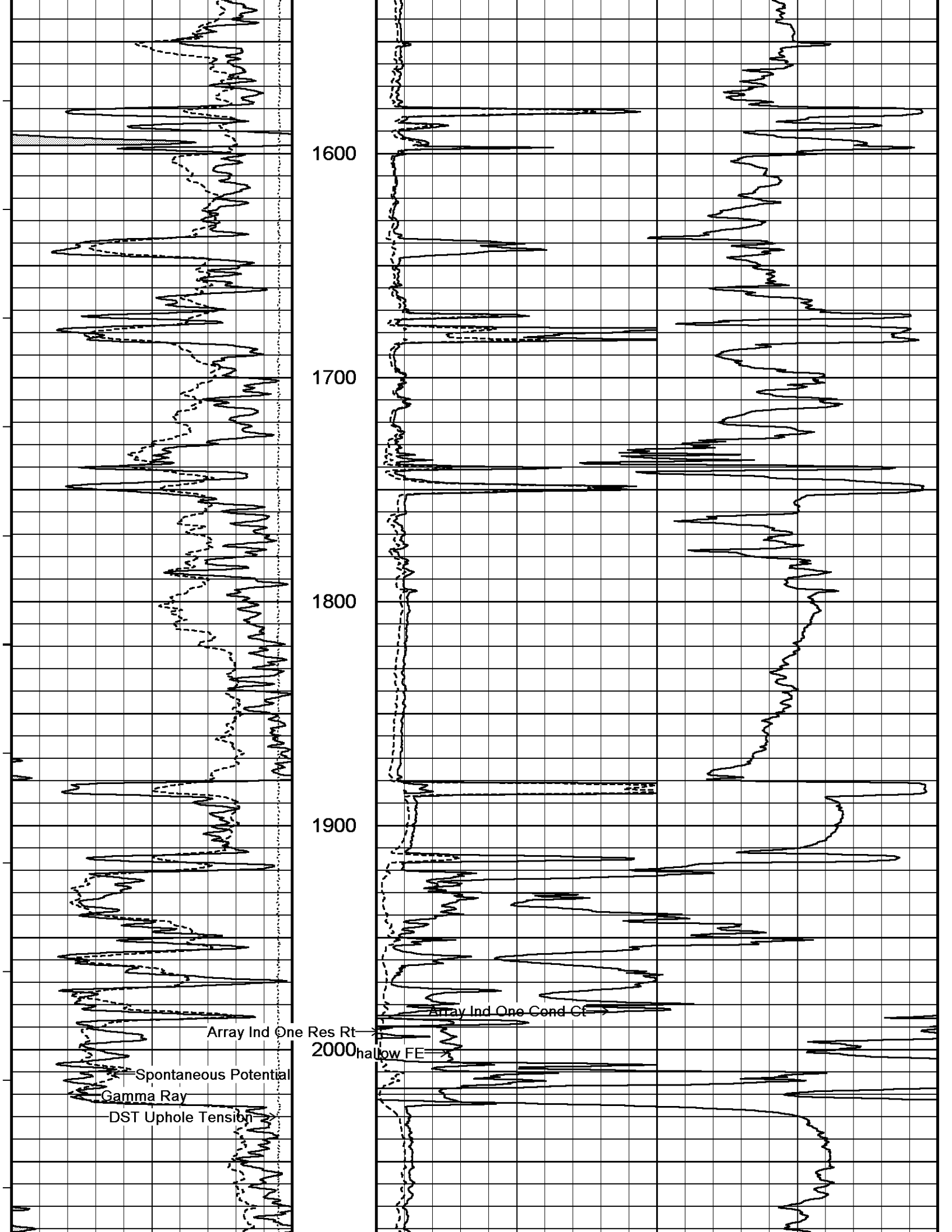
200 Shoe

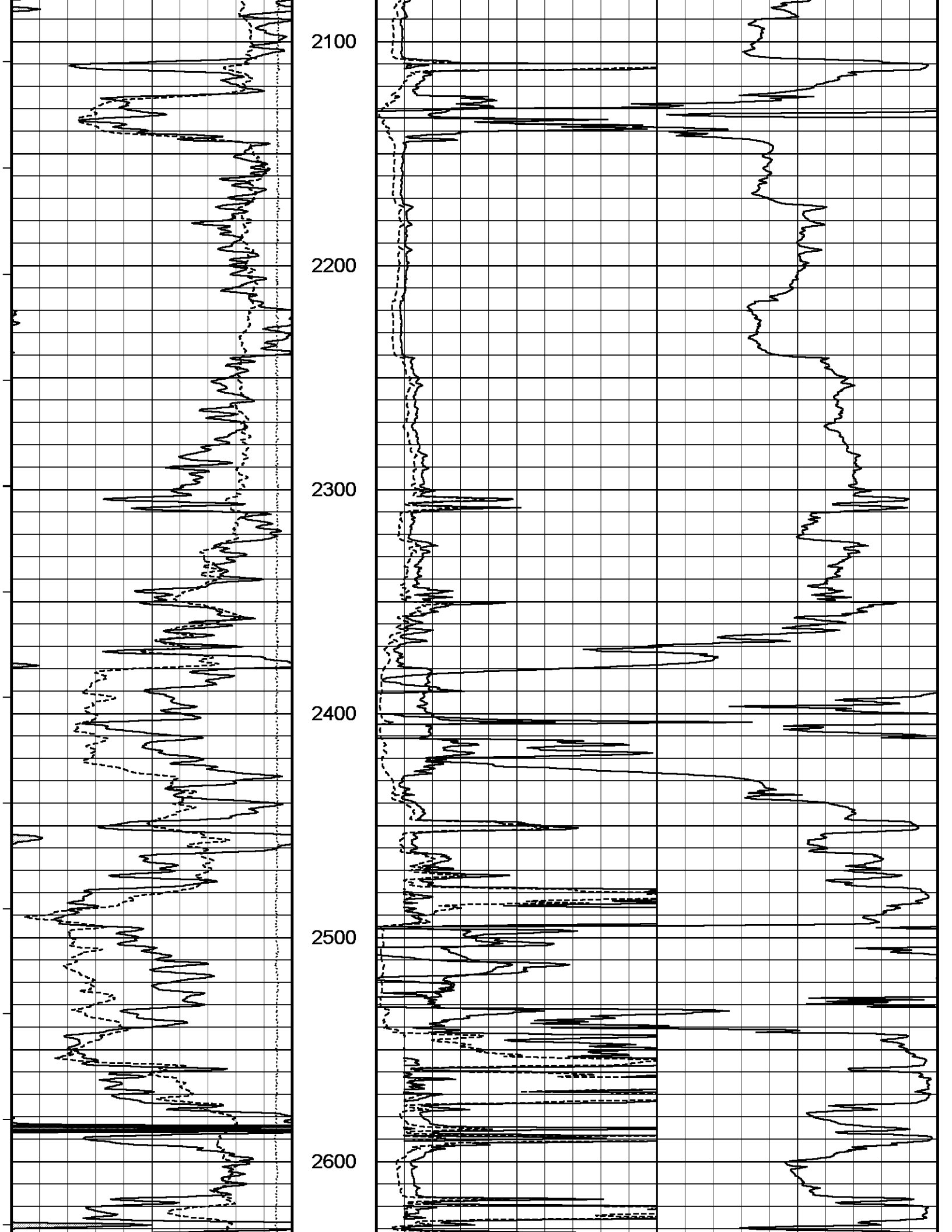
300

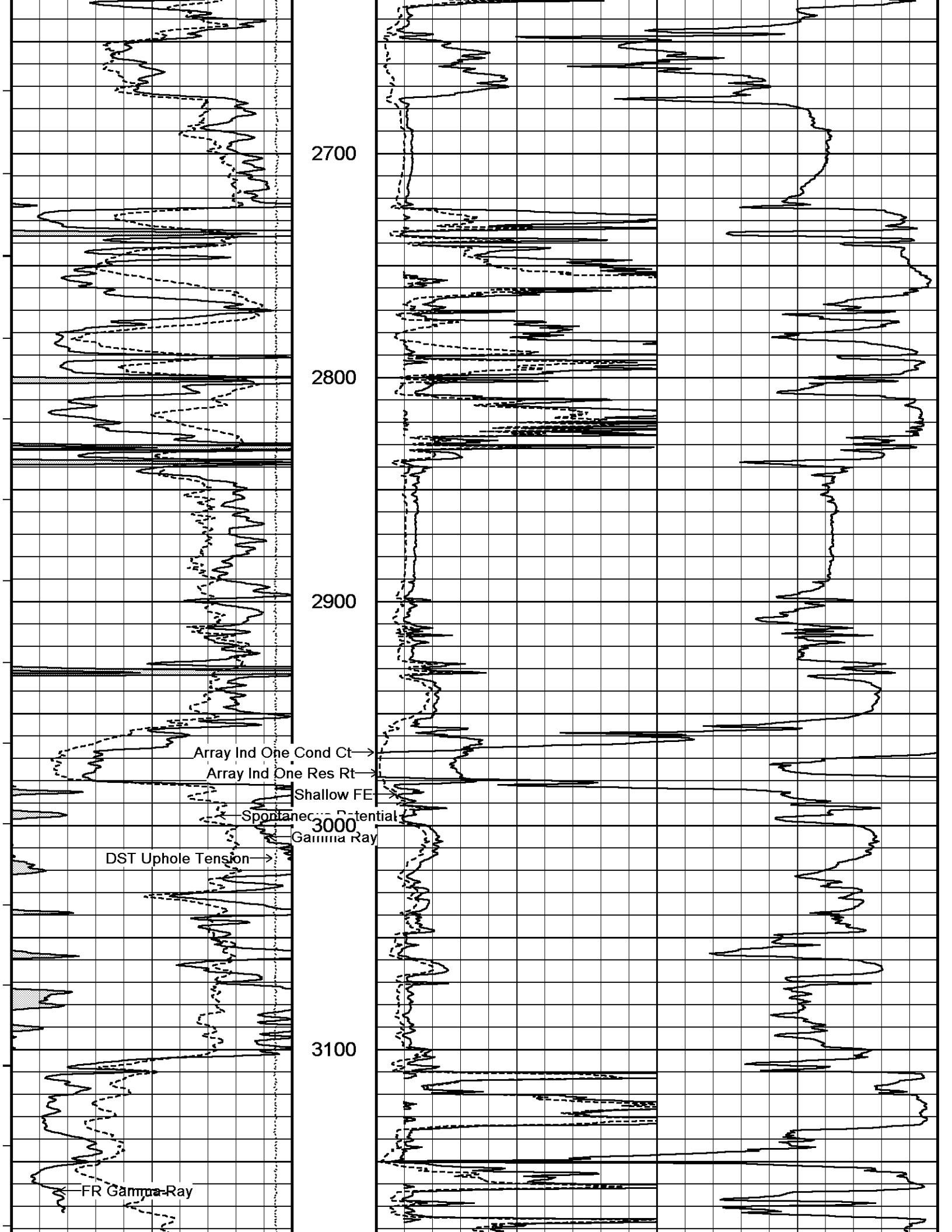
400

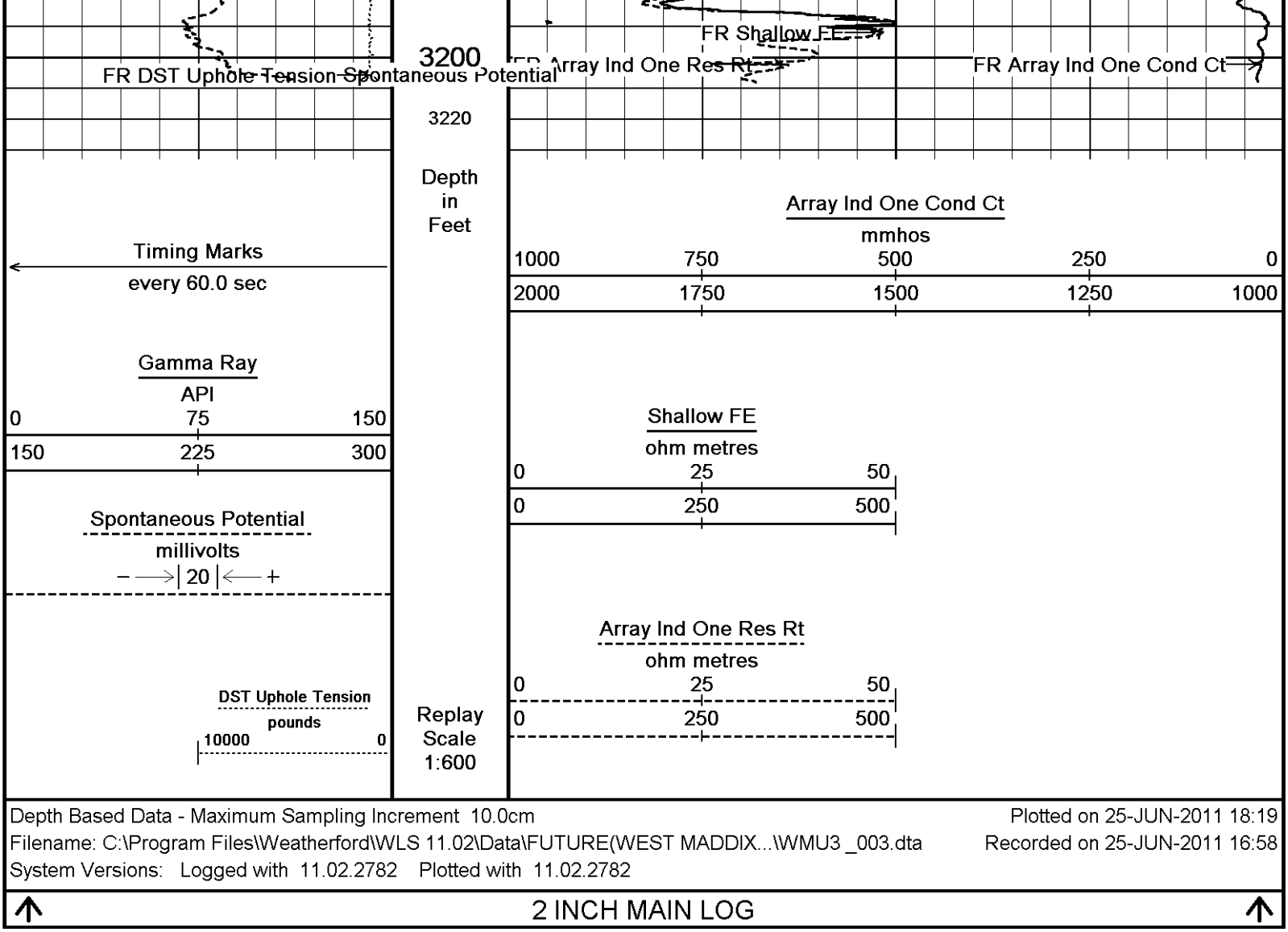

500
600
700
800
900


1000
1100
1200
1300
1400
1500
Array Ind One Res Rt
Shallow Fo
Spontaneous Potential
Gamma Ray
DST Uphole Tension
Array Ind One Cond Ct


1600
1700
1800
1900
2000
Array Ind One Cond Ct
Array Ind One Res Rt
hallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension


2100
2200
2300
2400
2500
2600


2700
2800
2900
3000
3100
Array Ind One Cond Ct
Array Ind One Res Rt
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
FR Gamma-Ray



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 25-JUN-2011 18:19
Filename: C:\Program Files\Weatherford\WLS 11.02\Data\FUTURE(WEST MADDIX...\WMU3 _003.dta — Recorded on 25-JUN-2011 16:58
System Versions: Logged with 11.02.2782 Plotted with 11.02.2782

2 INCH MAIN LOG

5 INCH MAIN LOG

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 25-JUN-2011 18:19
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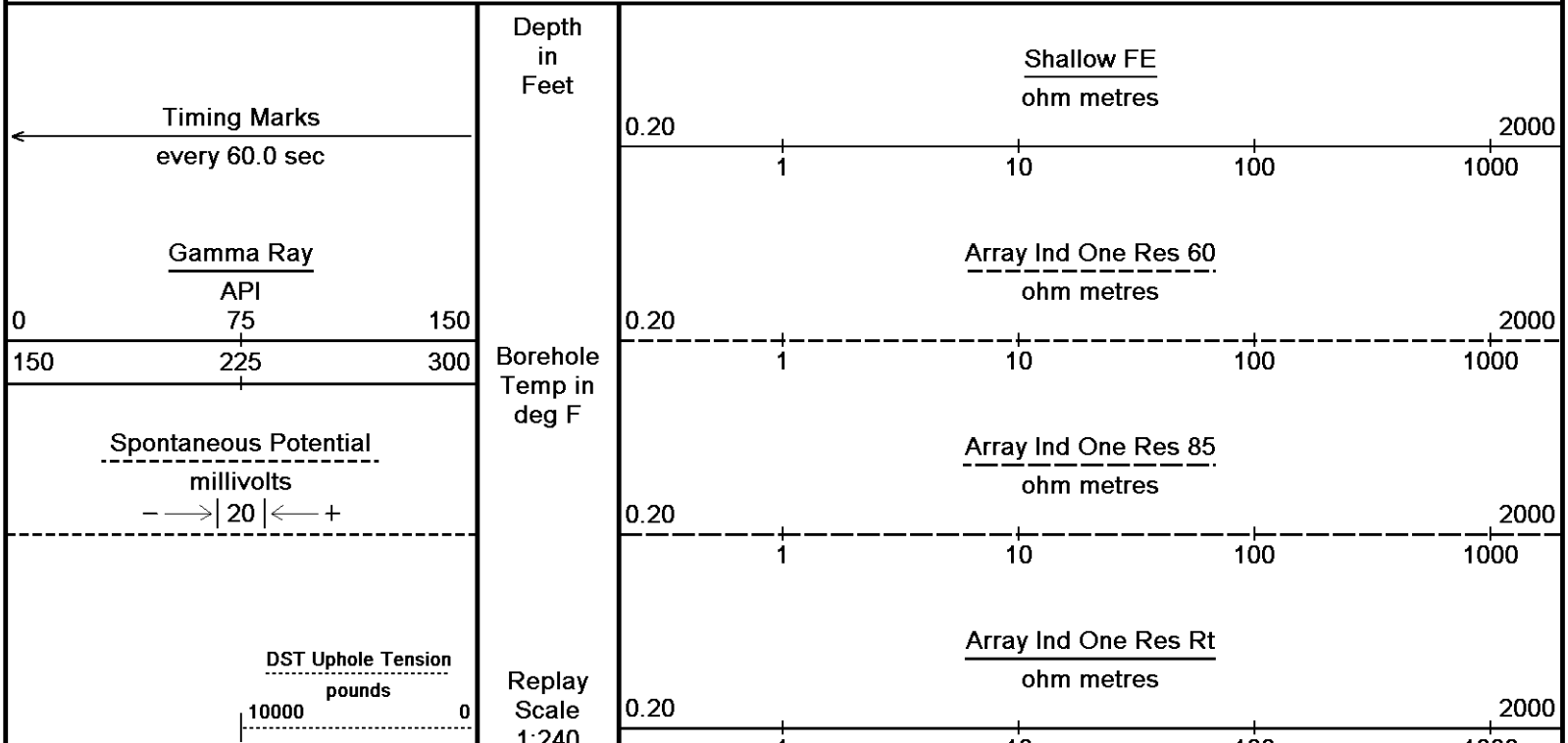
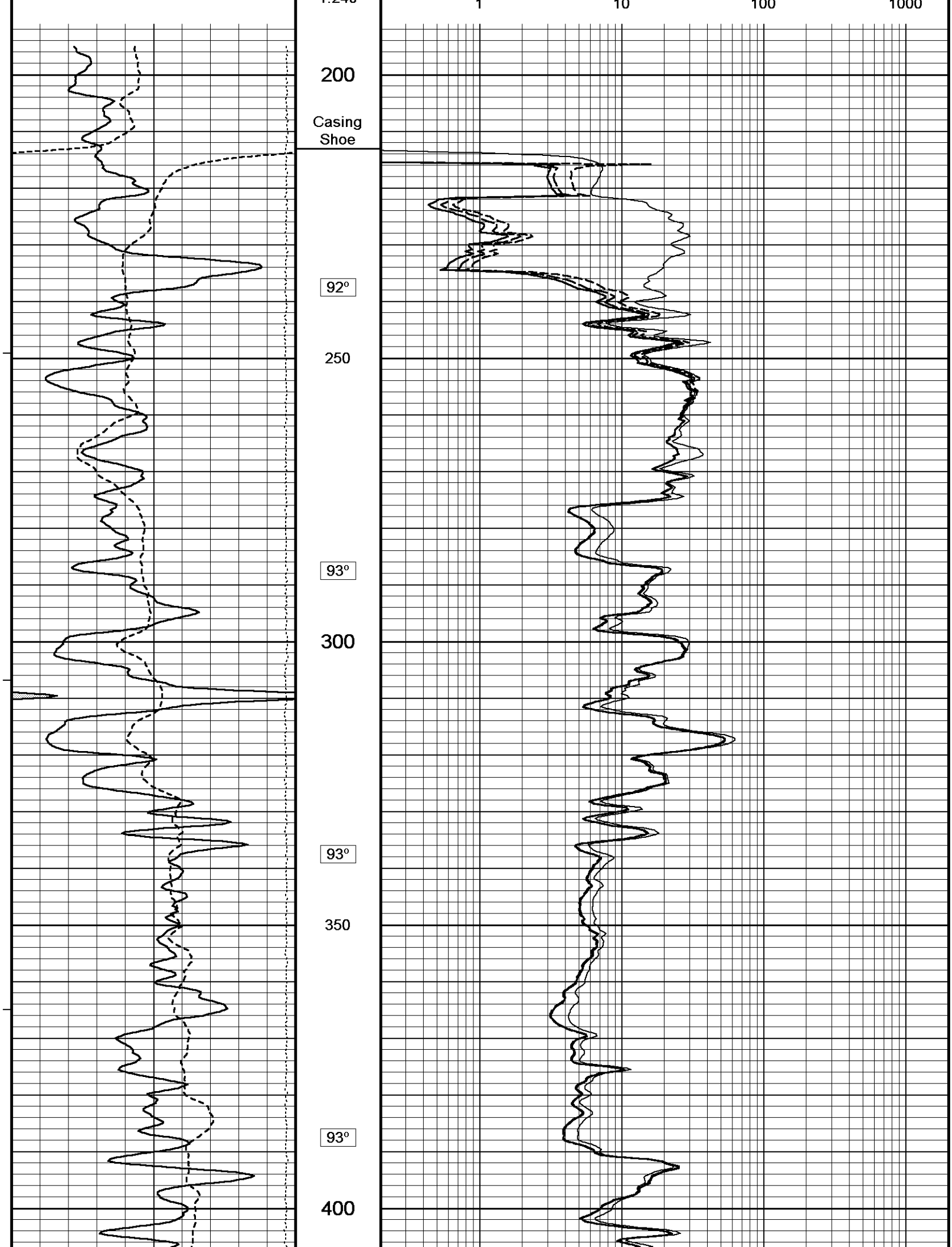
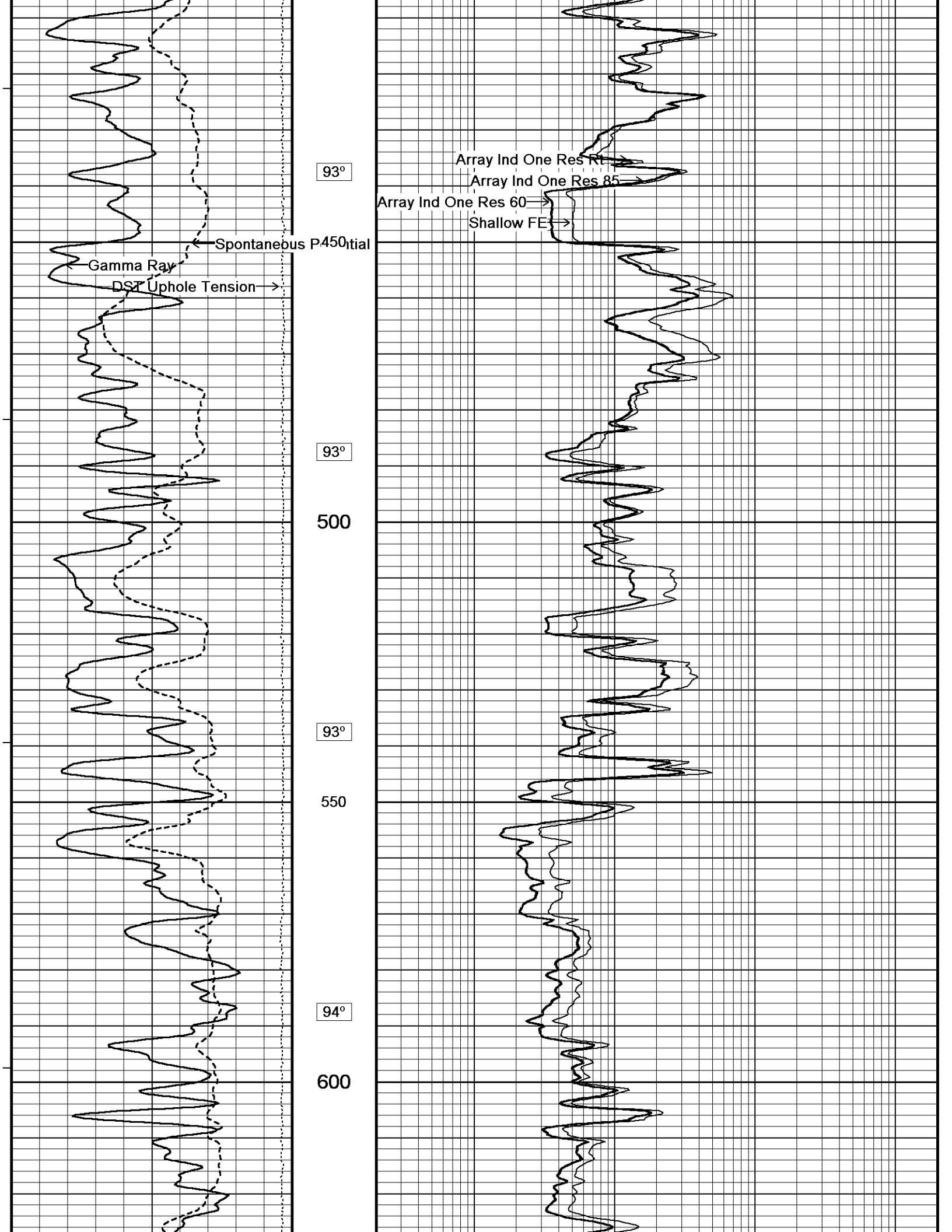
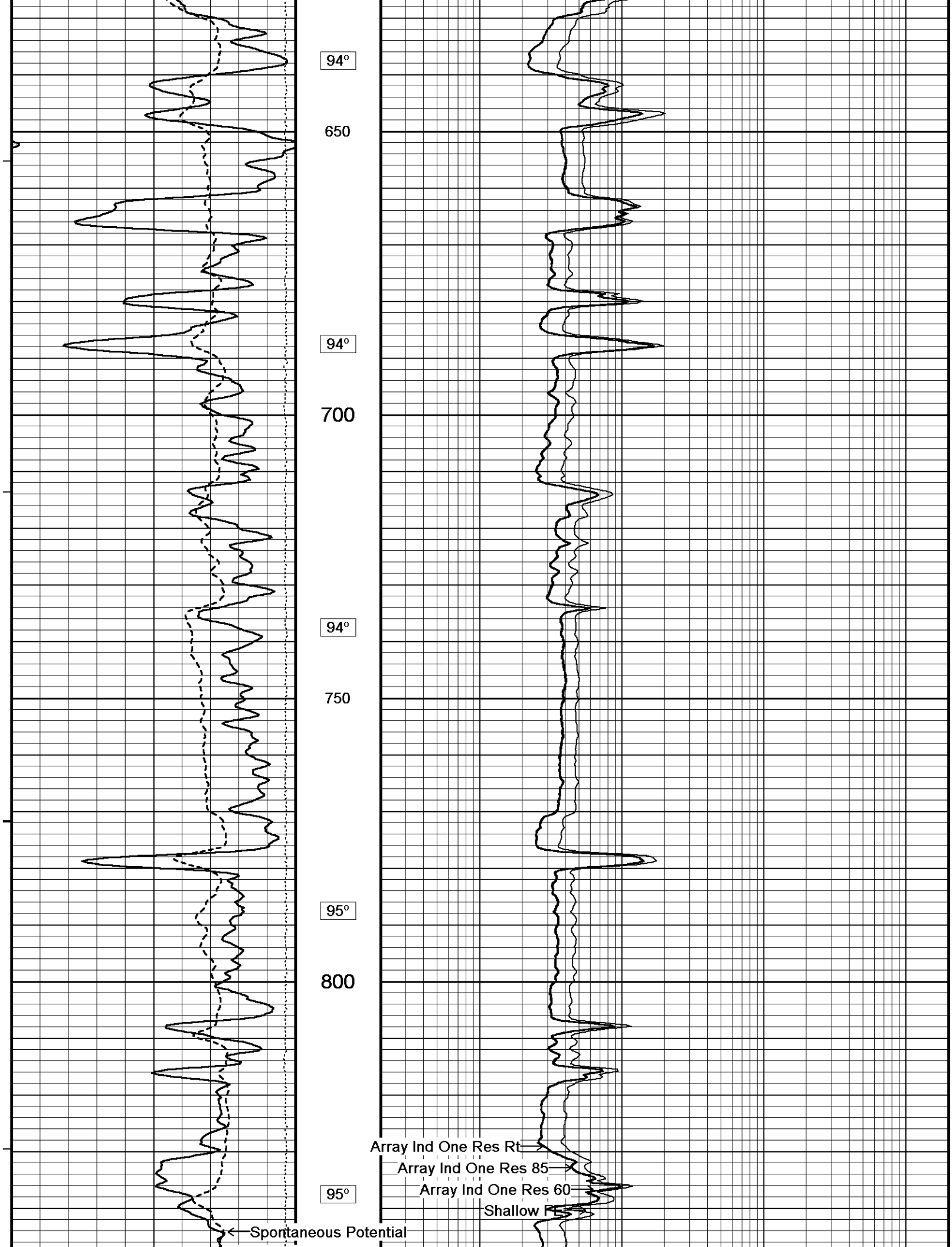
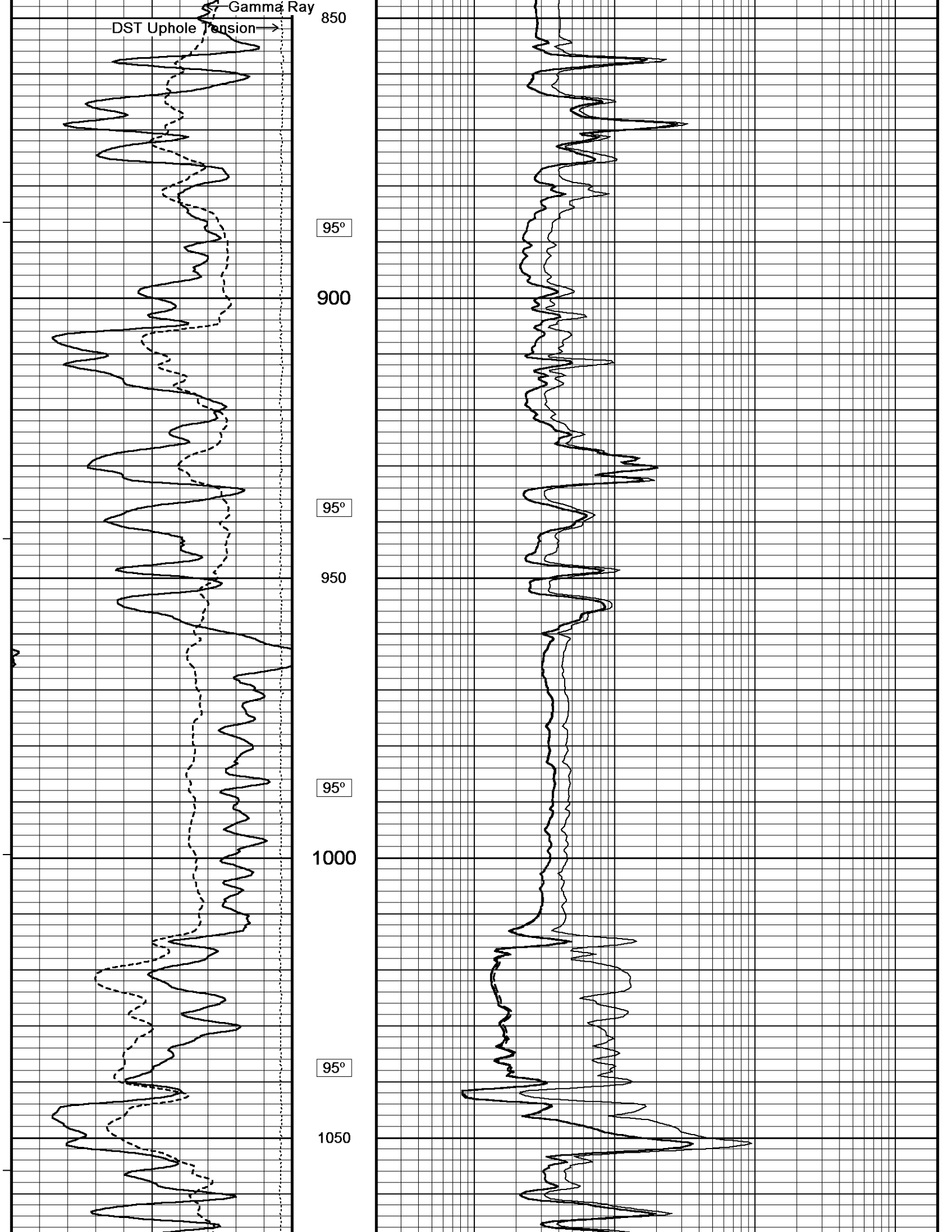
System Versions: Logged with 11.02.2782 Plotted with 11.02.2782

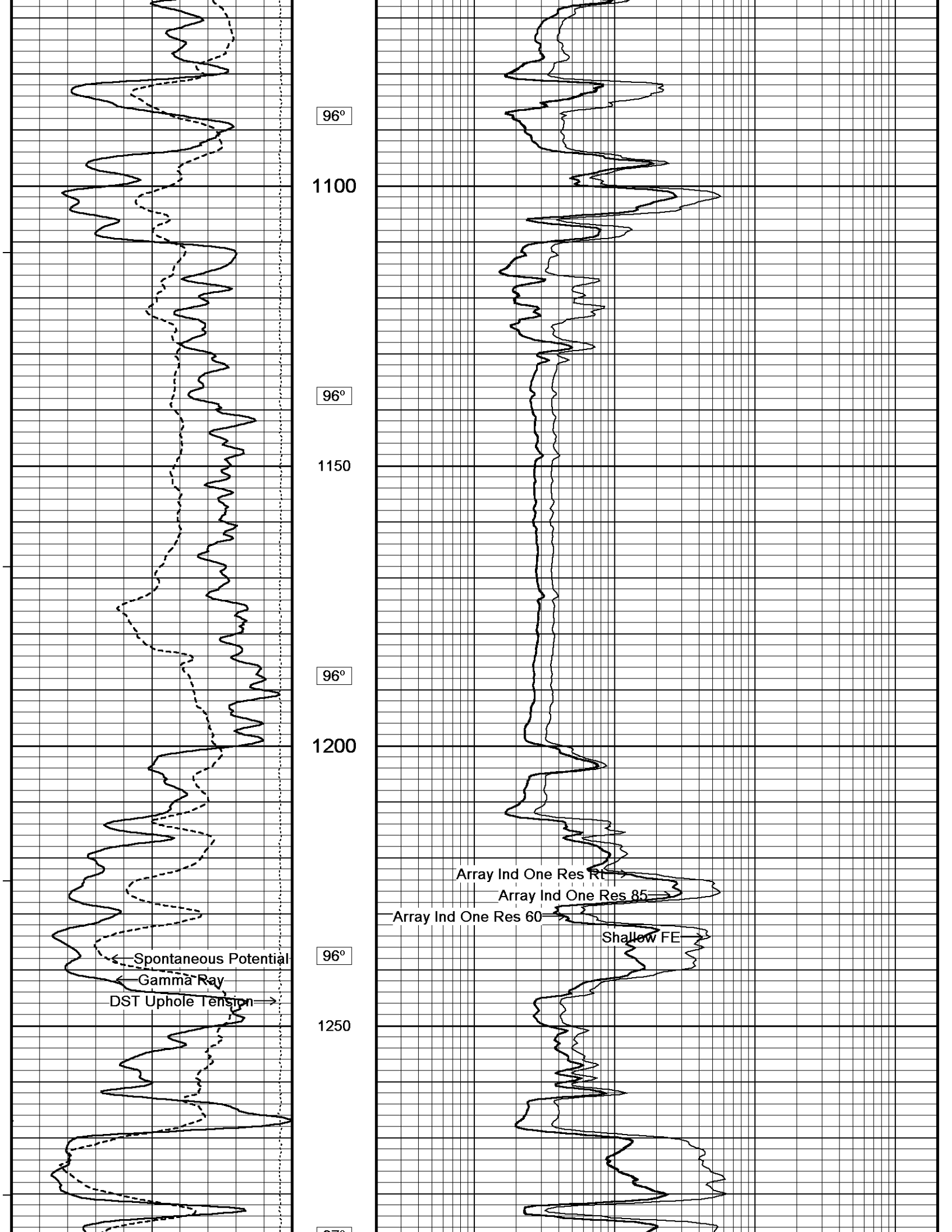


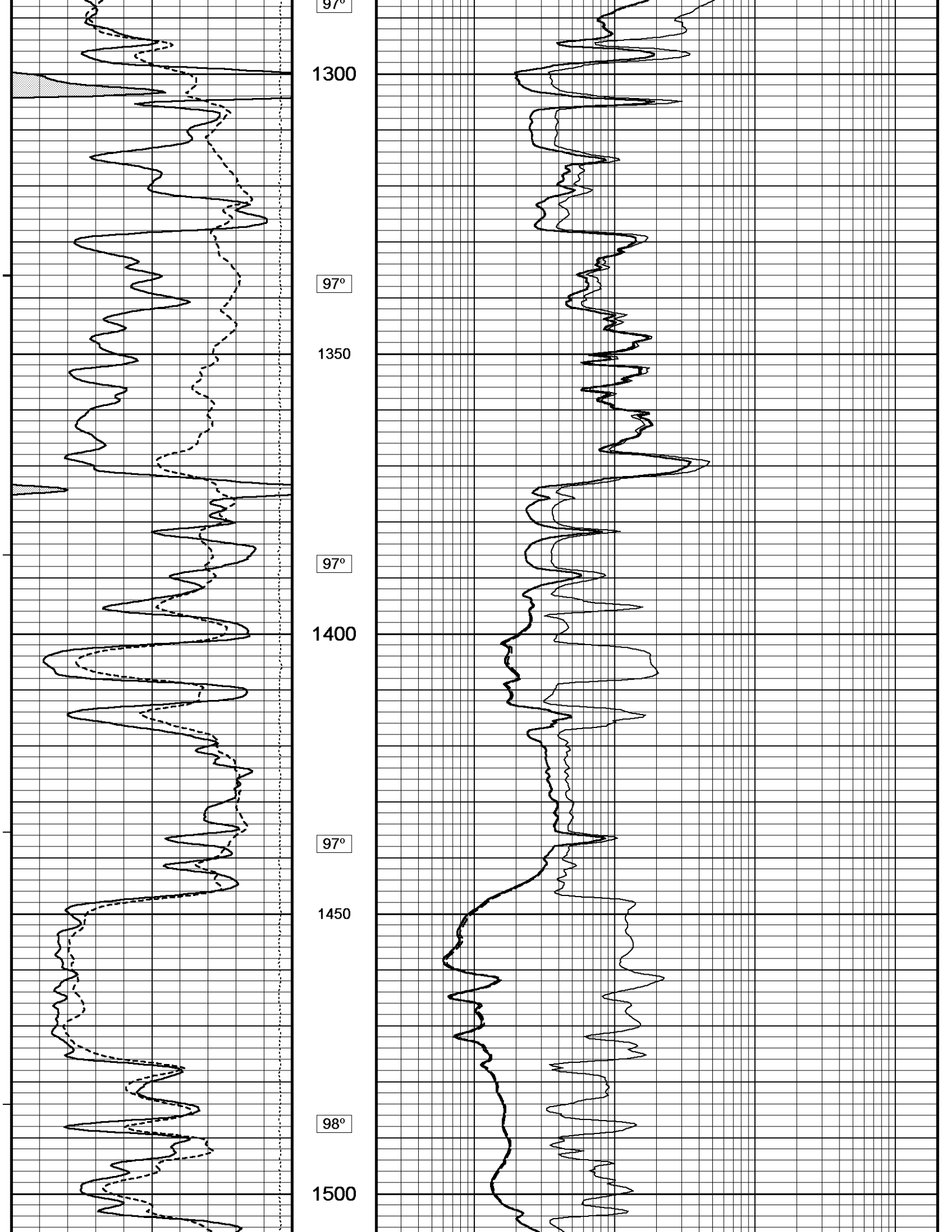

1
10
100
1000
200
Casing
Shoe
92°
250
93°
300
93°
350
93°
400

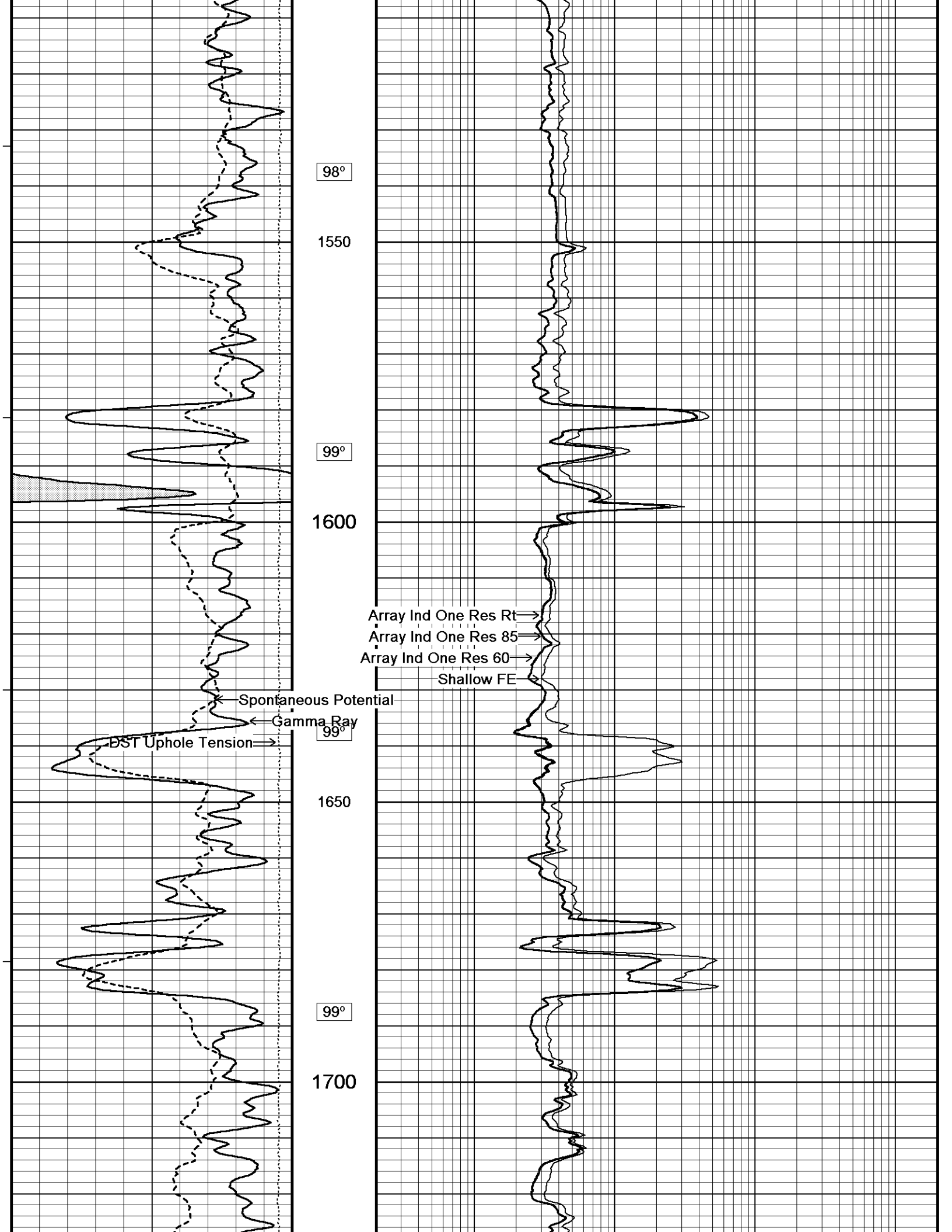

Array Ind One Res Rt
Array Ind One Res 85
Array Ind One Res 60
Shallow FE
93°
Spontaneous P450itial
Gamma Ray
DST Uphole Tension
93°
500
93°
550
94°
600

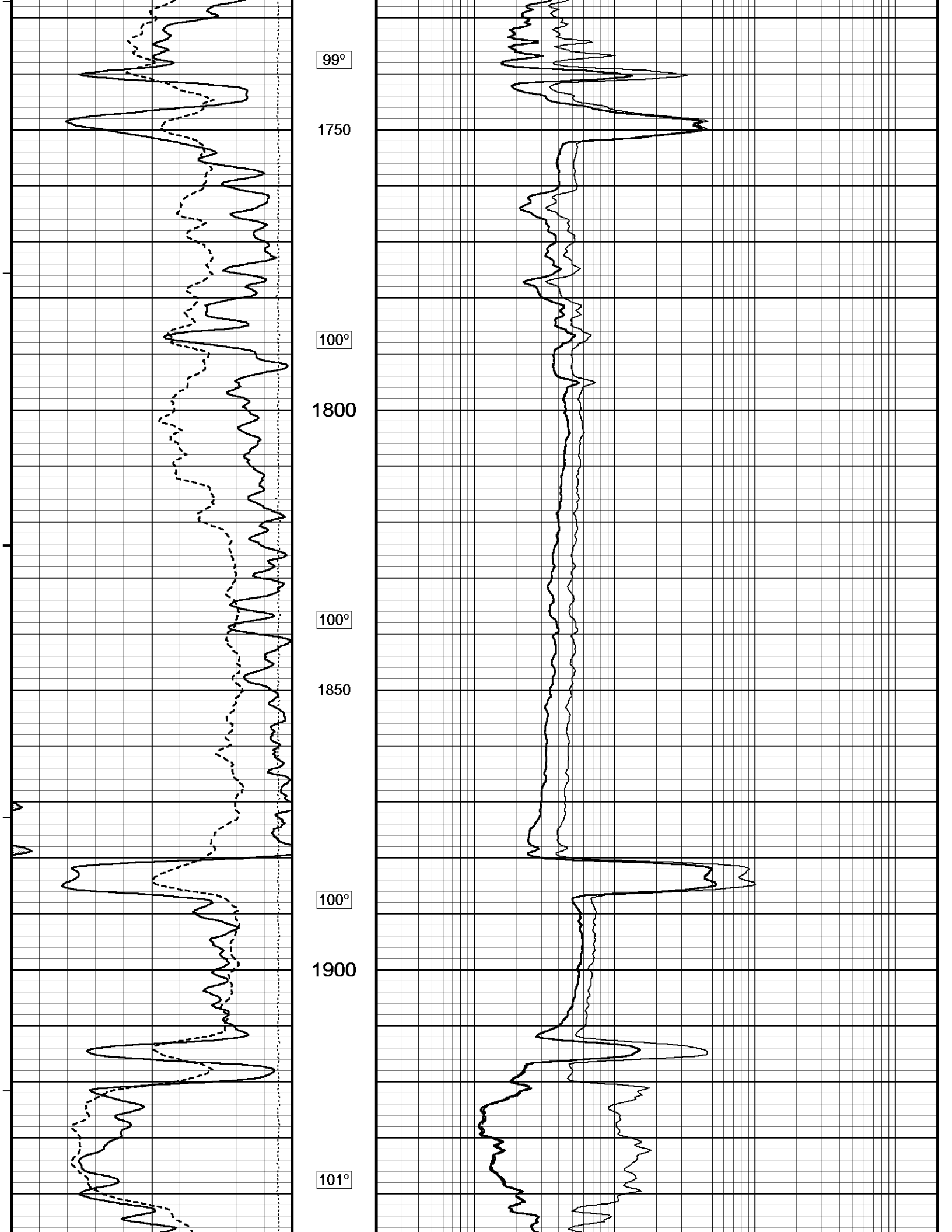

94°
650
94°
700
94°
750
95°
800
95°
Array Ind One Res Rt
Array Ind One Res 85
Array Ind One Res 60
Shallow RES
Spontaneous Potential

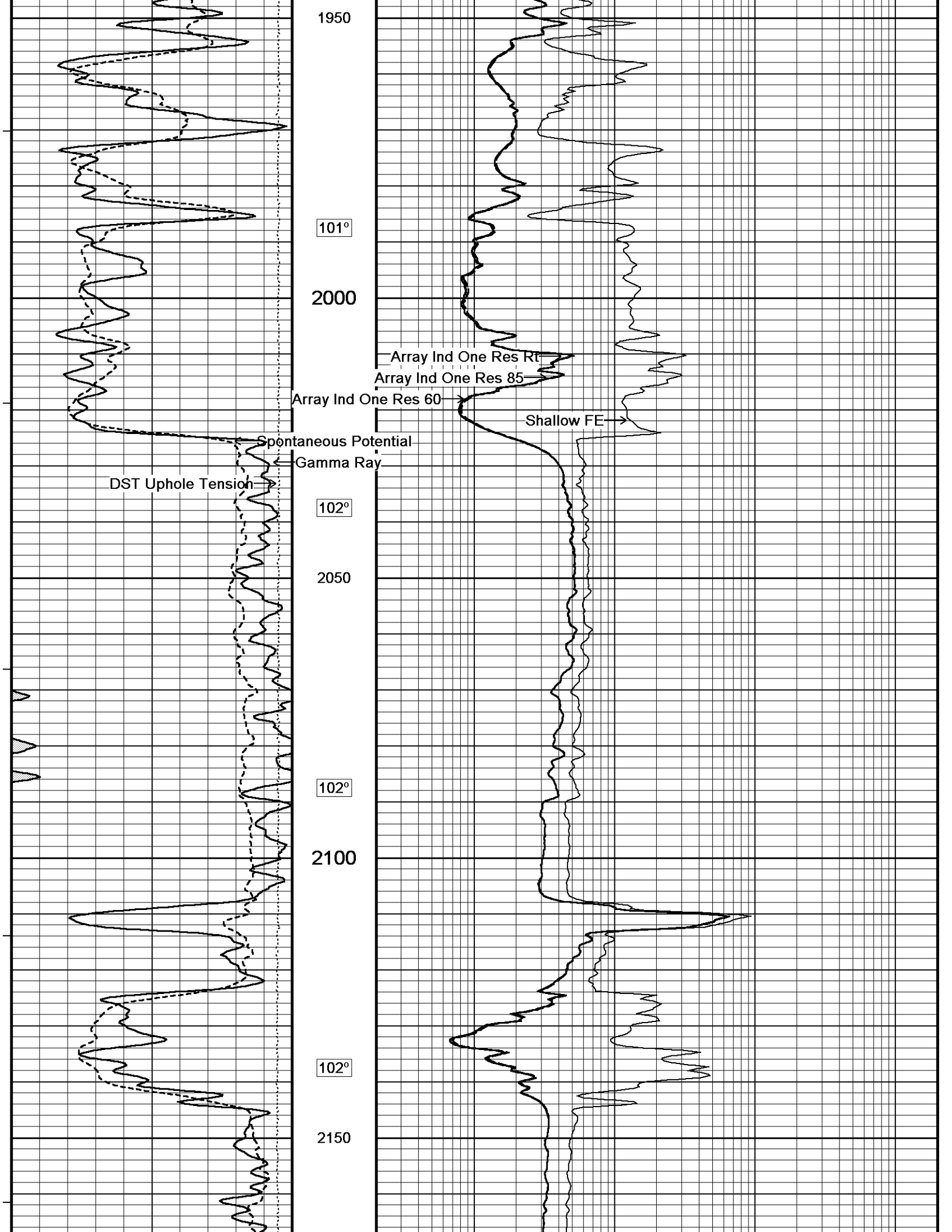

Gamma Ray
DST Uphole Tension
850
95°
900
95°
950
95°
1000
95°
1050

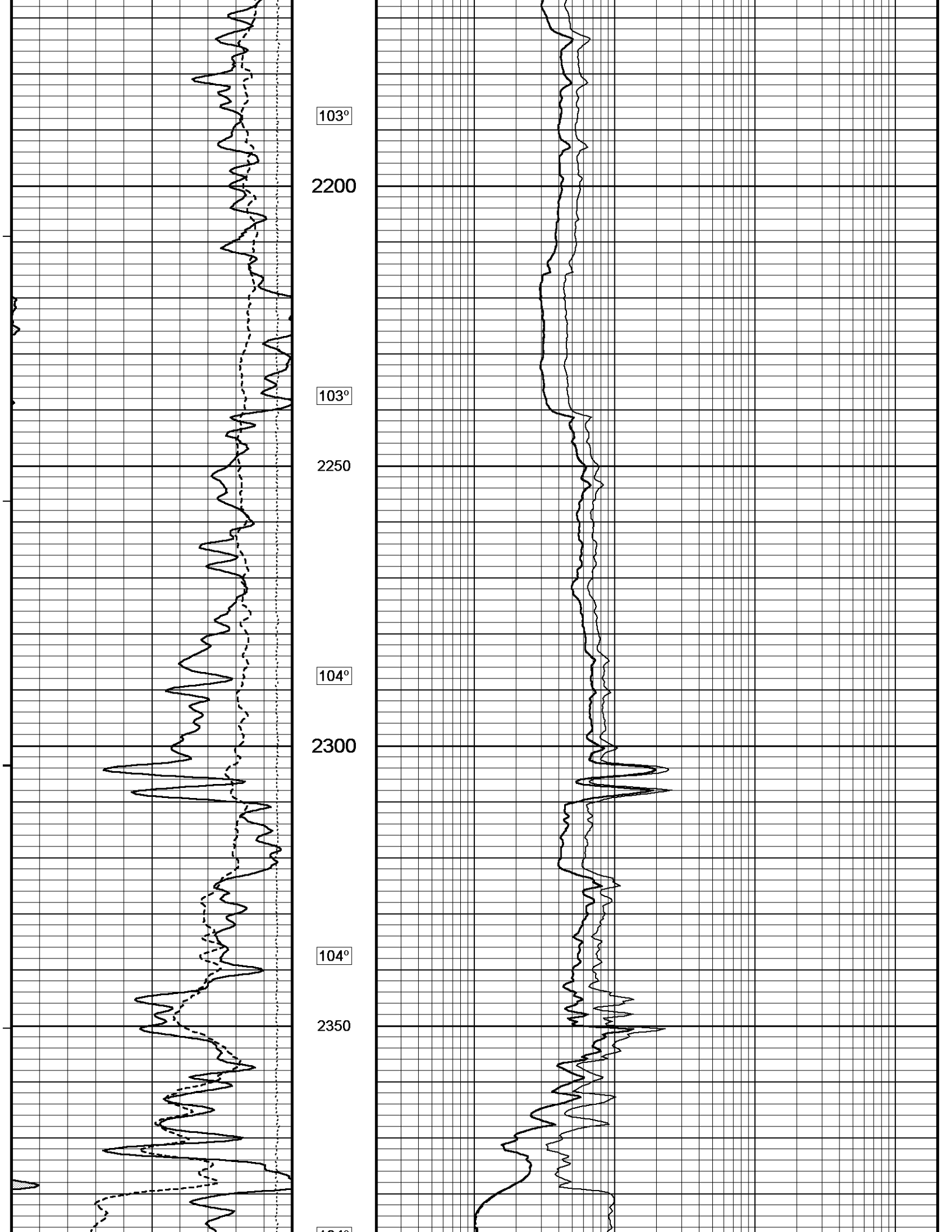

96°
1100
96°
1150
96°
1200
96°
1250
Array Ind One Res Rt
Array Ind One Res 85
Array Ind One Res 60
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension

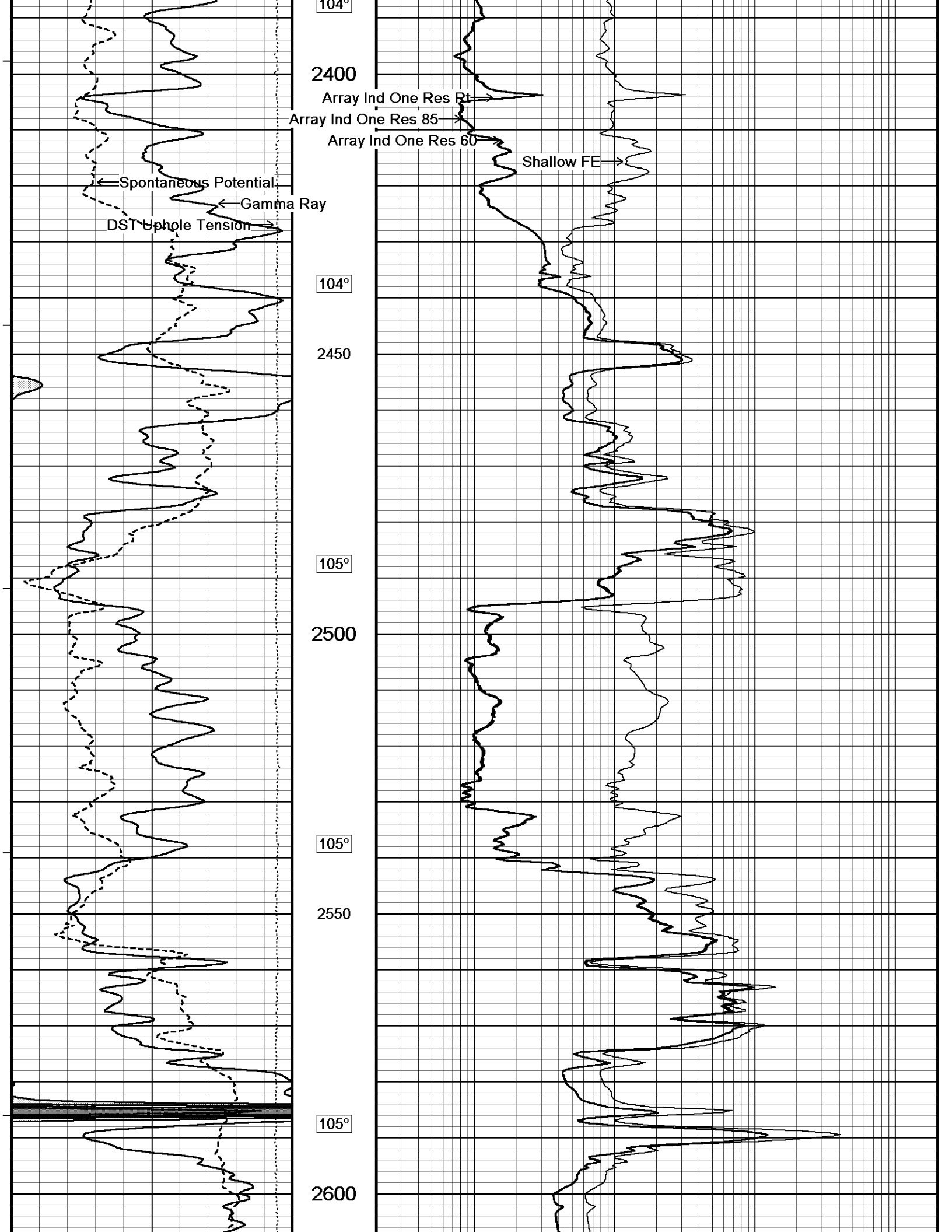

97°
1300
97°
1350
97°
1400
97°
1450
98°
1500

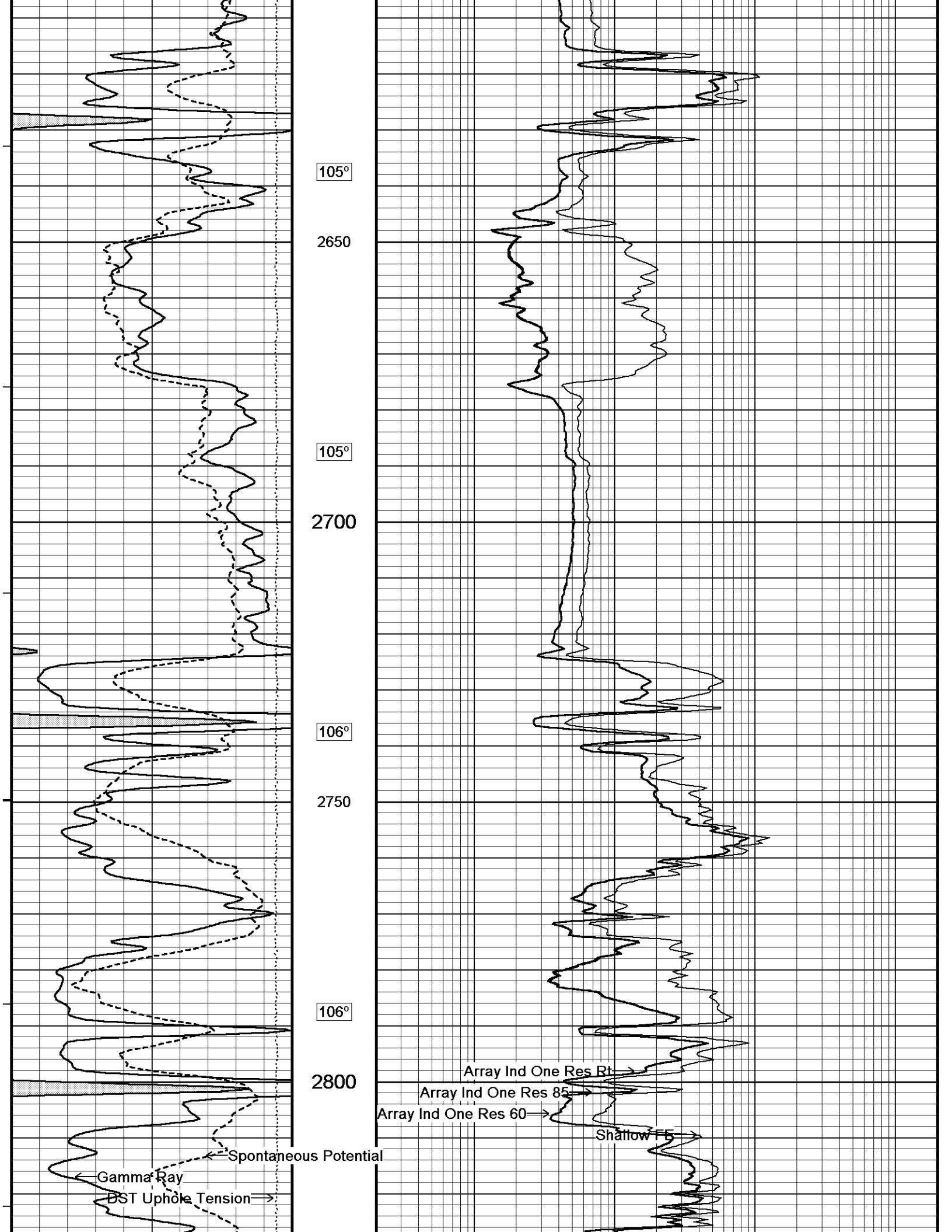

98°
1550
99°
1600
Array Ind One Res Rt
Array Ind One Res 85
Array Ind One Res 60
Shallow FE
Spontaneous Potential
Gamma Ray
99°
DST Uphole Tension
1650
99°
1700

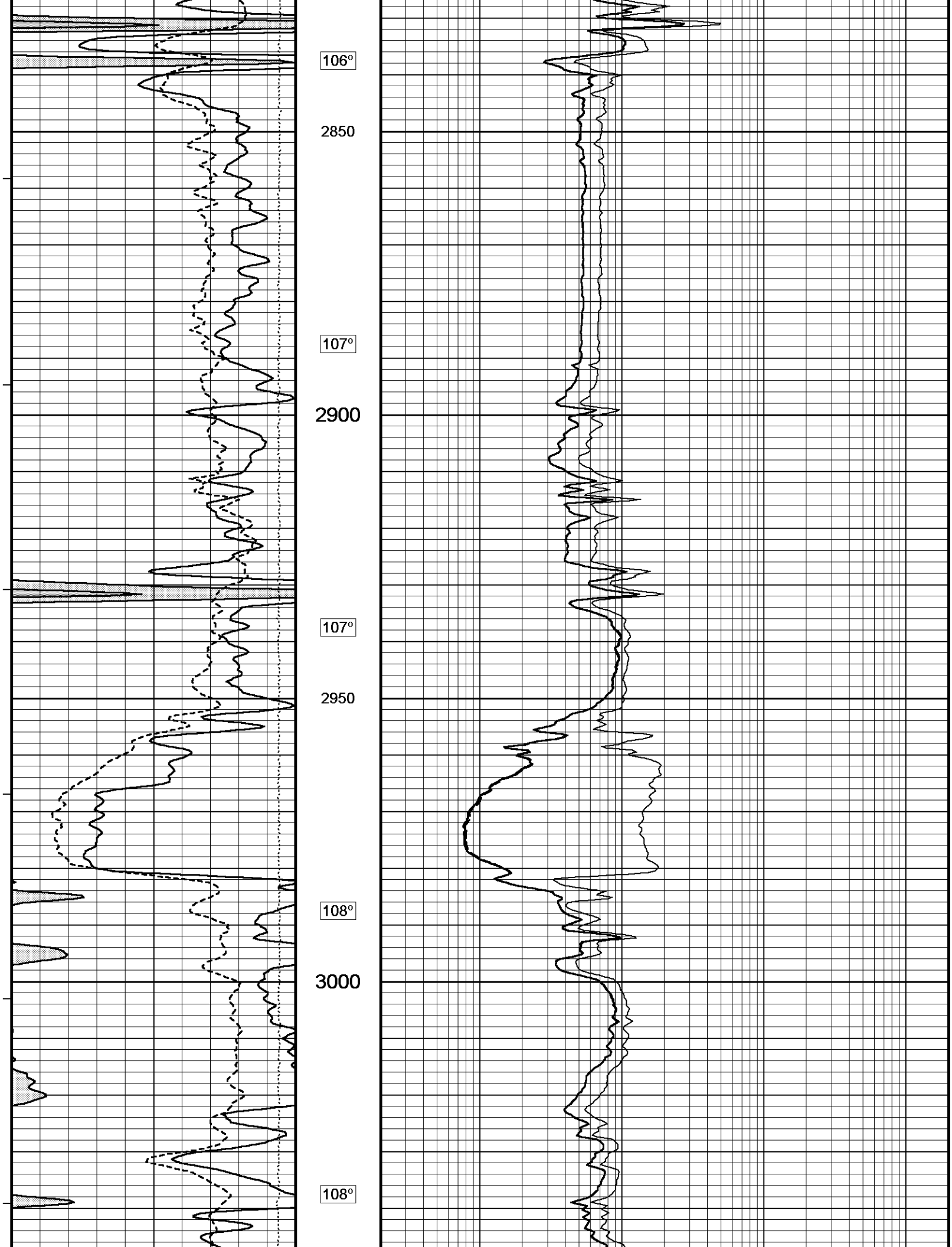

99°
1750
100°
1800
100°
1850
100°
1900
101°

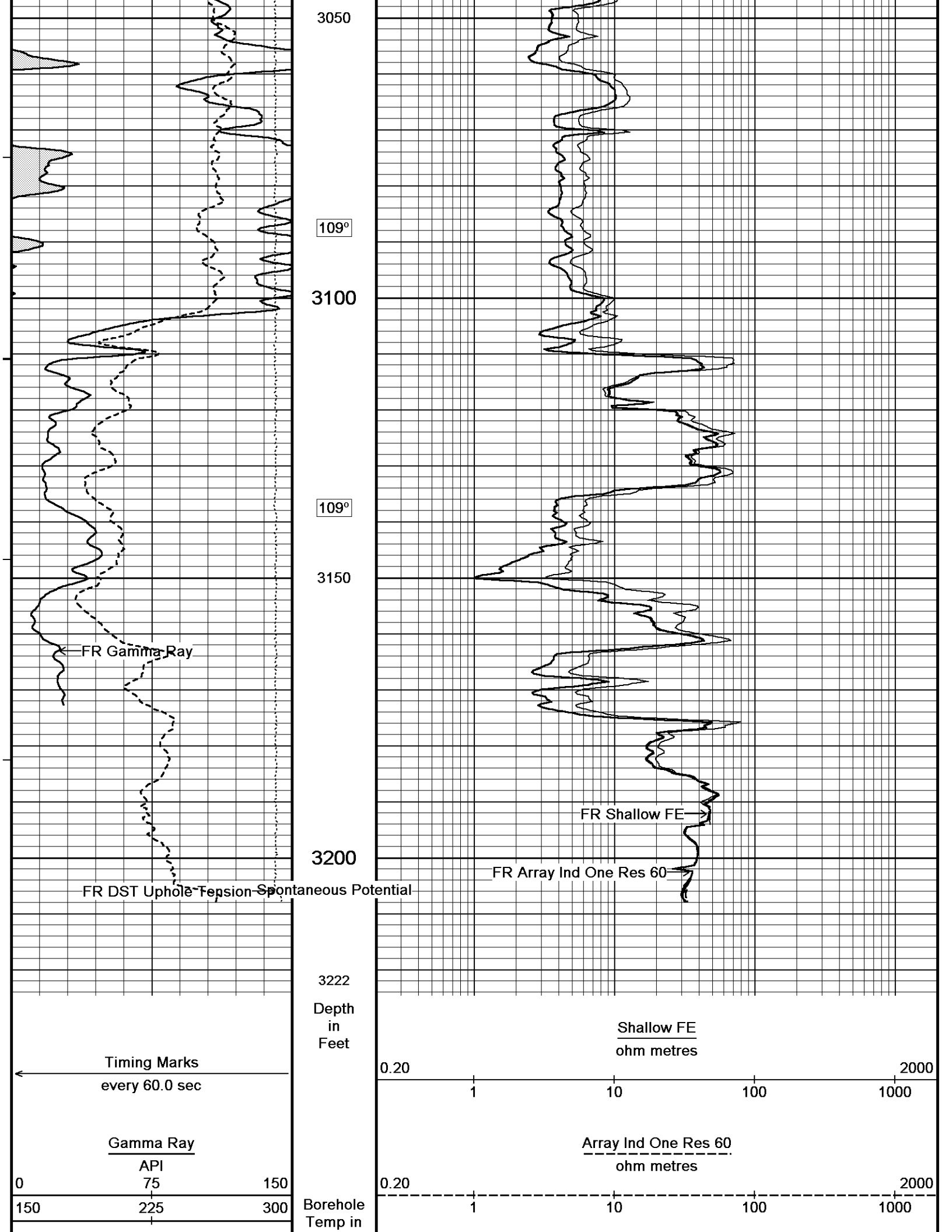

1950
101°
2000
Array Ind One Res Rt
Array Ind One Res 85
Array Ind One Res 60
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
102°
2050
102°
2100
102°
2150


103°
2200
103°
2250
104°
2300
104°
2350


104°
2400
Array Ind One Res Rt
Array Ind One Res 85
Array Ind One Res 60
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
104°
2450
105°
2500
105°
2550
105°
2600


105°
2650
105°
2700
106°
2750
106°
2800
Array Ind One Res Rt
Array Ind One Res 85
Array Ind One Res 60
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension


106°
2850
107°
2900
107°
2950
108°
3000
108°


3050
109°
3100
109°
3150
3200
3222
FR Gamma Ray
FR DST Uphole Tension
Spontaneous Potential
FR Shallow FE
FR Array Ind One Res 60
Depth
in
Feet
Timing Marks
every 60.0 sec
Gamma Ray
API
0
75
150
150
225
300
Borehole
Temp in
Shallow FE
ohm metres
0.20
1
10
100
1000
2000
Array Ind One Res 60
ohm metres
0.20
1
10
100
1000
2000

Spontaneous Potential
millivolts
− → | 20 | ← +

DST Uphole Tension
pounds
10000 0

deg F

Replay
Scale
1:240

Array Ind One Res 85
ohm metres
0.20 1 10 100 2000

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

Depth Based Data - Maximum Sampling Increment 10.0cm
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System Versions: Logged with 11.02.2782 Plotted with 11.02.2782

↑ 5 INCH MAIN LOG ↑

↓ 5 INCH REPEAT ↓

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 25-JUN-2011 18:19
Filename: C:\Program Files\Weatherford\WLS 11.02\Data\FUTURE(WEST MADDIX...\WMU3 _002.dta
Recorded on 25-JUN-2011 16:47
System Versions: Logged with 11.02.2782 Plotted with 11.02.2782

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
− → | 20 | ← +

DST Uphole Tension
pounds
10000 0

Depth
in
Feet

Borehole
Temp in
deg F

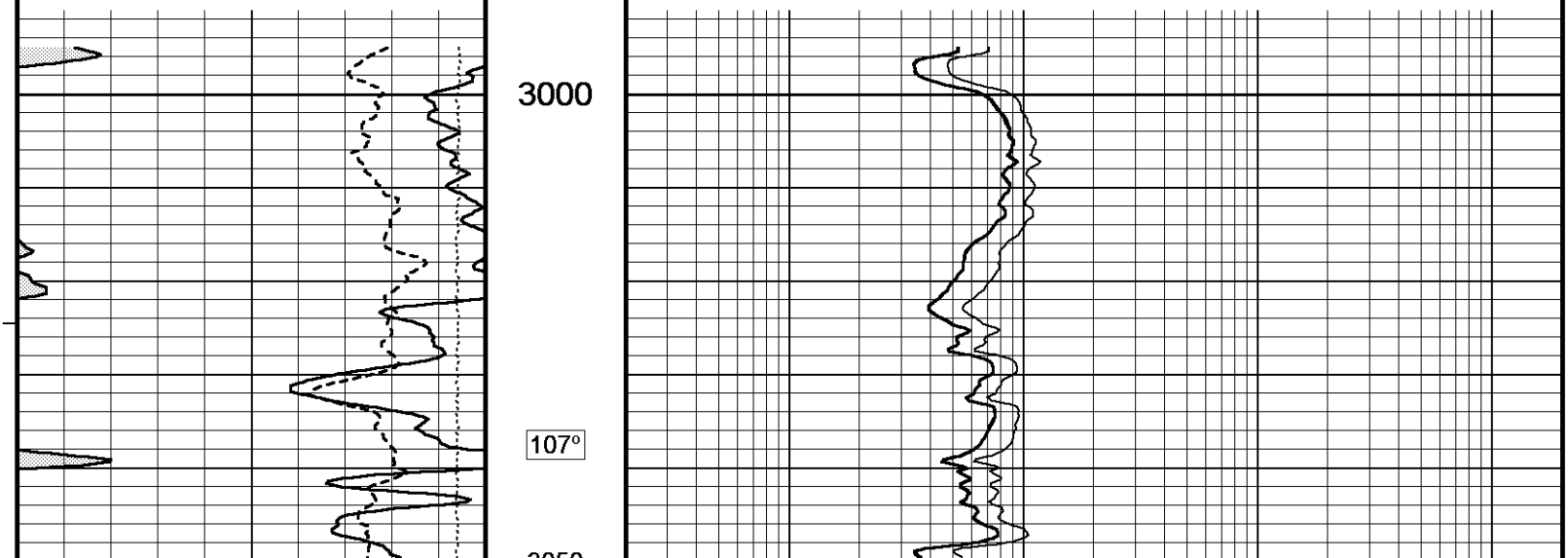
Replay
Scale
1:240

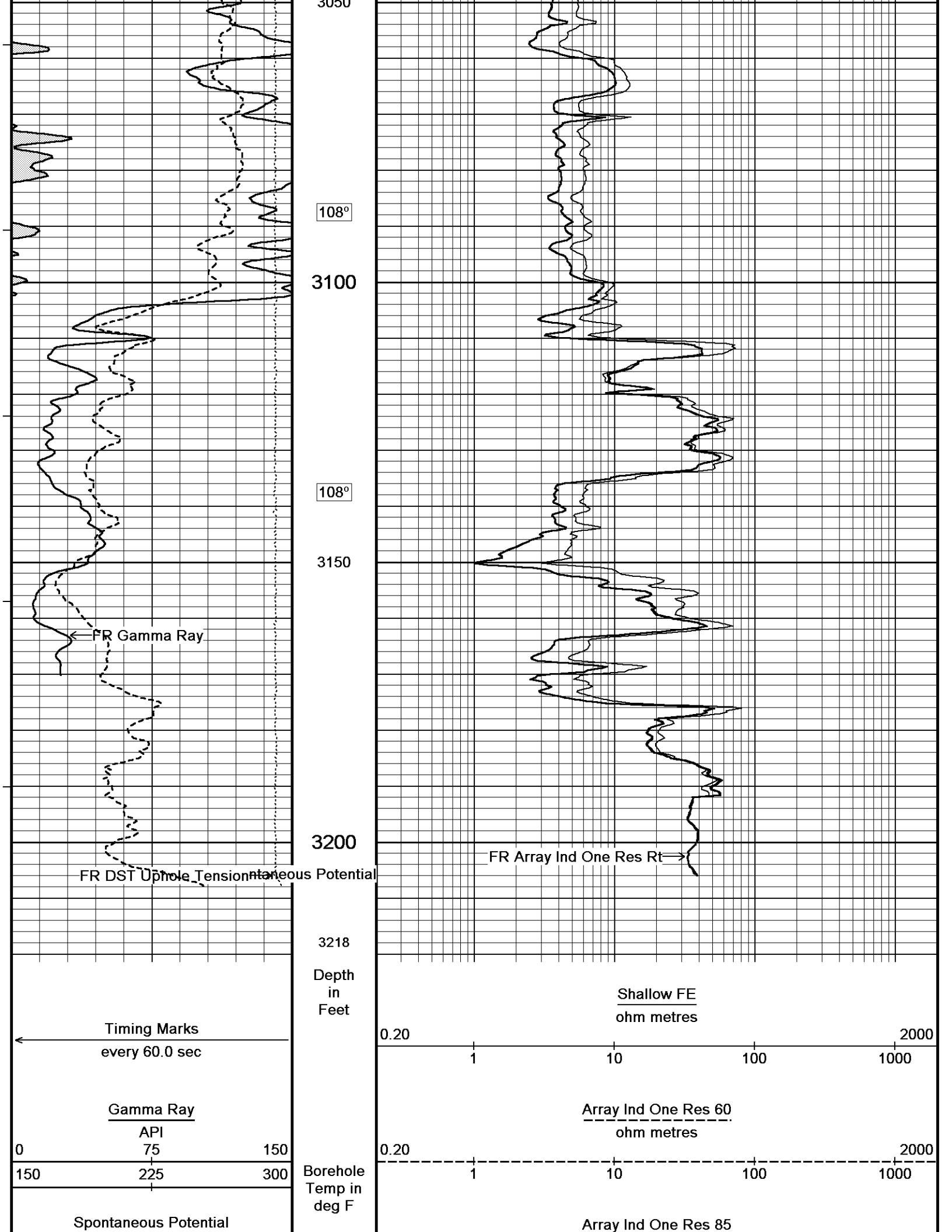
Shallow FE
ohm metres
0.20 1 10 100 2000

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

Array Ind One Res 85
ohm metres
0.20 1 10 100 2000

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




3050
108°
3100
108°
3150
3200
3218
FR Gamma Ray
FR DST Uphole Tension
ntaneous Potential
FR Array Ind One Res Rt
Depth
in
Feet
Timing Marks
every 60.0 sec
Gamma Ray
API
0
75
150
150
225
300
Spontaneous Potential
Borehole
Temp in
deg F
Shallow FE
ohm metres
0.20
2000
1
10
100
1000
Array Ind One Res 60
ohm metres
0.20
2000
1
10
100
1000
Array Ind One Res 85

millivolts
− ⟶| 20 |⟵ +

ohm metres
0.20 — 1 — 10 — 100 — 2000

DST Uphole Tension
pounds
10000 — 0

Replay Scale 1:240

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

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 25-JUN-2011 18:19
Filename: C:\Program Files\Weatherford\WLS 11.02\Data\FUTURE(WEST MADDIX...\WMU3 _002.dta — Recorded on 25-JUN-2011 16:47
System Versions: Logged with 11.02.2782 Plotted with 11.02.2782

↑ 5 INCH REPEAT ↑

BEFORE SURVEY CALIBRATION

C:\Program Files\Weatherford\WLS 11.02\Data\FUTURE(WEST MADDIX UNIT 3)\WMU3 _001.dta

General Constants All 000

Last Edited on 25-JUN-2011,15:38

General Parameters		
Mud Resistivity	1.400	ohm-metres
Mud Resistivity Temperature	94.000	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	Limestone Density Por.	
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 20-JUN-2011 00:17

Reading No	Measured	Calibrated (lbs)
1	12934.36	0.00
2	15091.67	515.00

Gamma Calibration MCG-B 31

Field Calibration on 25-JUN-2011,15:34

	Measured	Calibrated (API)
Background	54	37
Calibrator (Gross)	1868	1298
Calibrator (Net)	1815	1261

Gamma Constants MCG-B 31

Last Edited on 25-JUN-2011,15:34

Gamma Calibrator Number	46	
Mud Density	1.13	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

SP Calibration MCG-B 31

Field Calibration on 25-JUN-2011,15:35

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

High Resolution Temperature Calibration MCG-B 31

Field Calibration on 25-JUN-2011,15:35

	Measured	Calibrated(Deg F)

Lower	50.00	50.00
Upper	100.00	100.00

High Resolution Temperature Constants MCG-B 31

Last Edited on 30-APR-2011,09:49

Pre-filter Length	11

Caliper Calibration MML-A 1

Base Calibration on 31-MAY-2011 11:18
Field Calibration on 25-JUN-2011,15:35

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	15437	5.96
2	18939	7.99
3	22098	9.86
4	26125	11.92
5	0	0.00
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
8.77	8.92

Micro Normal and Micro Inverse Calibration MML-A 1

Base Calibration on 31-MAY-2011 11:05
Field Check on 25-JUN-2011,15:36

Base Calibration

	Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Micro Normal	11.8	59.1	2.6	12.8
Micro Inverse	15.6	76.8	1.7	8.4

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	0.0	32.6
Micro Inverse	0.0	16.7

Micro Normal and Micro Inverse Constants MML-A 1

Last Edited on 24-JUN-2011,23:23

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.A 10

Base Calibration on 12-MAY-2011,18:29
Field Check on 25-JUN-2011,15:36

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	3130	98	3714	110
Ratio	31.818		33.764	

Field Calibrator at Base

	Calibrated (cps)	
	1248	1792
Ratio	0.696	

Field Check

	Calibrated (cps)	
	1248	1792
Ratio	0.696	

Neutron Constants MDN-A.A 10

Last Edited on 24-JUN-2011,23:23

Neutron Source Id	708	
Neutron Jig Number	13226	
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	MCG External Temperature	
Temperature	N/A	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 65

Base Calibration on 12-MAY-2011,02:46
Field Check on 25-JUN-2011,15:37

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	952.1	126.8
Base Check		284.0
Field Check		284.0

FE Constants MFE-A.A 65

Last Edited on 24-JUN-2011,23:23

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-A.A 11

Field Calibration on 24-JUN-2011,23:24

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MAI-A.A 11

Last Edited on 23-JUN-2009,12:59

Pre-filter Length	11

Induction Calibration MAI-A.A 11

Base Calibration on 20-NOV-2009,13:14
Field Check on 25-JUN-2011,15:37

Base Calibration

Test Loop Calibration

Channel	Measured Low	Measured High	Calibrated (mmho/m) Low	Calibrated (mmho/m) High
1	14.9	441.9	9.3	966.2
2	5.1	355.2	7.6	821.4
3	3.0	242.9	5.2	566.0
4	1.5	126.7	2.6	279.2
Array Temperature		70.3	Deg F	

Channel	Base Check (mmho/m) Low	Base Check (mmho/m) High	Field Check (mmho/m) Low	Field Check (mmho/m) High	
1	0.0	0.0	19.8	4056.1	
2	0.0	0.0	34.4	3744.4	
3	0.0	0.0	31.2	3214.3	
4	0.0	0.0	21.2	2150.0	
Deep	0.0	0.0	18.5	2052.8	
Medium	0.0	0.0	45.1	4280.0	
Shallow	0.0	0.0	52.5	5594.5	
Array Temperature		0.0		100.5	Deg F

Induction Constants MAI-A.A 11

Last Edited on 24-JUN-2011,23:24

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	0.0060	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-A 3

Base Calibration on 31-MAY-2011 12:35
Field Calibration on 25-JUN-2011,15:37

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	19249	3.98
2	27520	5.95
3	36080	7.97
4	44112	9.84
5	53198	11.91
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
8.90	8.92

Photo Density Calibration MPD-A 3

Base Calibration on 31-MAY-2011 12:51
Field Check on 25-JUN-2011,15:36

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	46067	24828	59869	31110
Reference 2	19666	2824	24557	2522

Field Check at Base

1315.1	1658.6

Field Check

1317.1	1669.0

PE Calibration

Base Calibration	Measured			Calibrated
	WS	WH	Ratio	Ratio
Background	238	1164		
Reference 1	17840	45865	0.394	0.369
Reference 2	5288	19511	0.275	0.271

Field Check at Base

237.9	1164.2

Field Check

239.0	1164.9

Density Constants MPD-A 3

Last Edited on 25-JUN-2011,15:36

Density Source Id	260

Nylon Calibrator Number	633	
Aluminium Calibrator Number	633	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.13	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:\Program Files\Weatherford\WLS 11.02\Data\FUTURE(WEST MADDIX UNIT 3)\WMU3 _001.dta

SHA-F Compact Swivel Head Adaptor
SHA-F 45 LG: 2.74 ft WT: 26.5 lb OD: 2.24 in

Compact Comms Gamma
MCG-B 31 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-log
MML-A 1 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

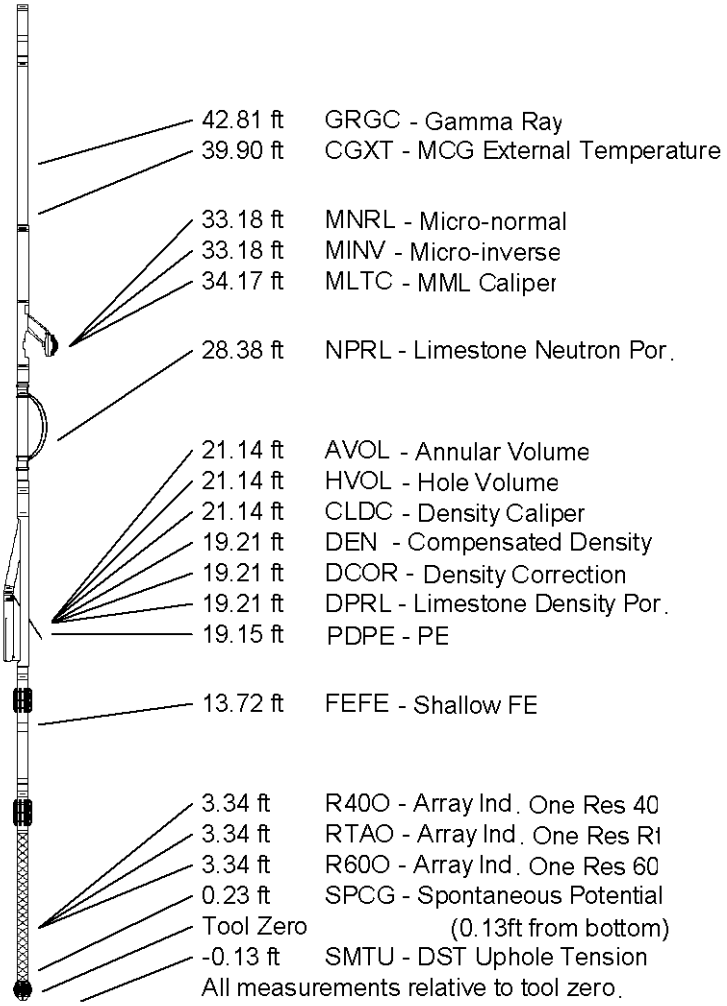
Compact Neutron
MDN-A.A 10 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
MPD-A 3 LG: 9.53 ft WT: 90.4 lb OD: 2.45 in

Compact Focussed Electric
MFE-A.A 65 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction
MAI-A.A 11 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 50.83 ft Weight: 410.1 lb



COMPANY	FUTURE PETROLEUM COMPANY LLC
WELL	WEST MADDIX UNIT NO. 3
FIELD	WEST MADDIX UNIT

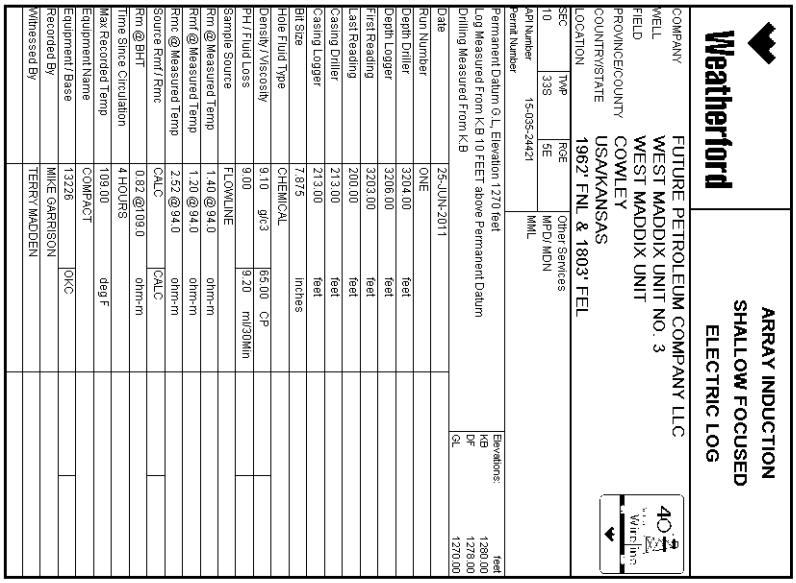
PROVINCE/COUNTY	COWLEY
COUNTRY/STATE	USA/KANSAS

Elevation Kelly Bushing	1280.00	feet	First Reading	3203.00	feet
Elevation Drill Floor	1278.00	feet	Depth Driller	3204.00	feet
Elevation Ground Level	1270.00	feet	Depth Logger	3206.00	feet

Weatherford®

ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG

40 Years of Wireline 1970 2010



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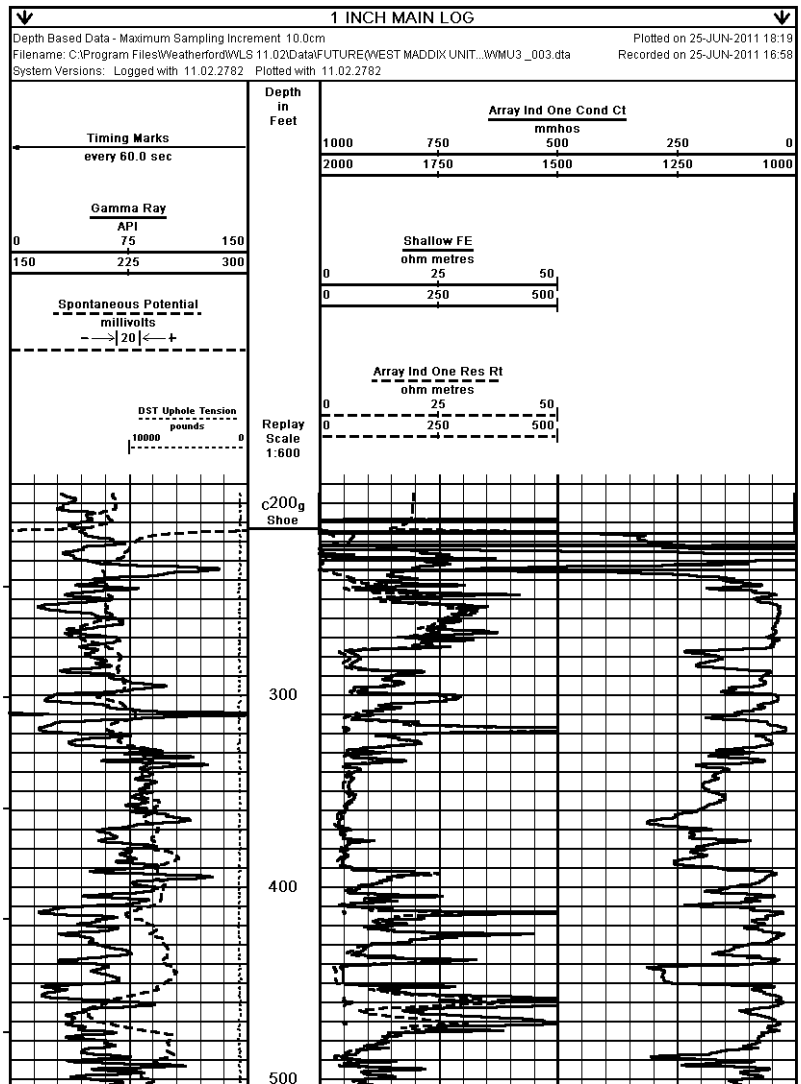
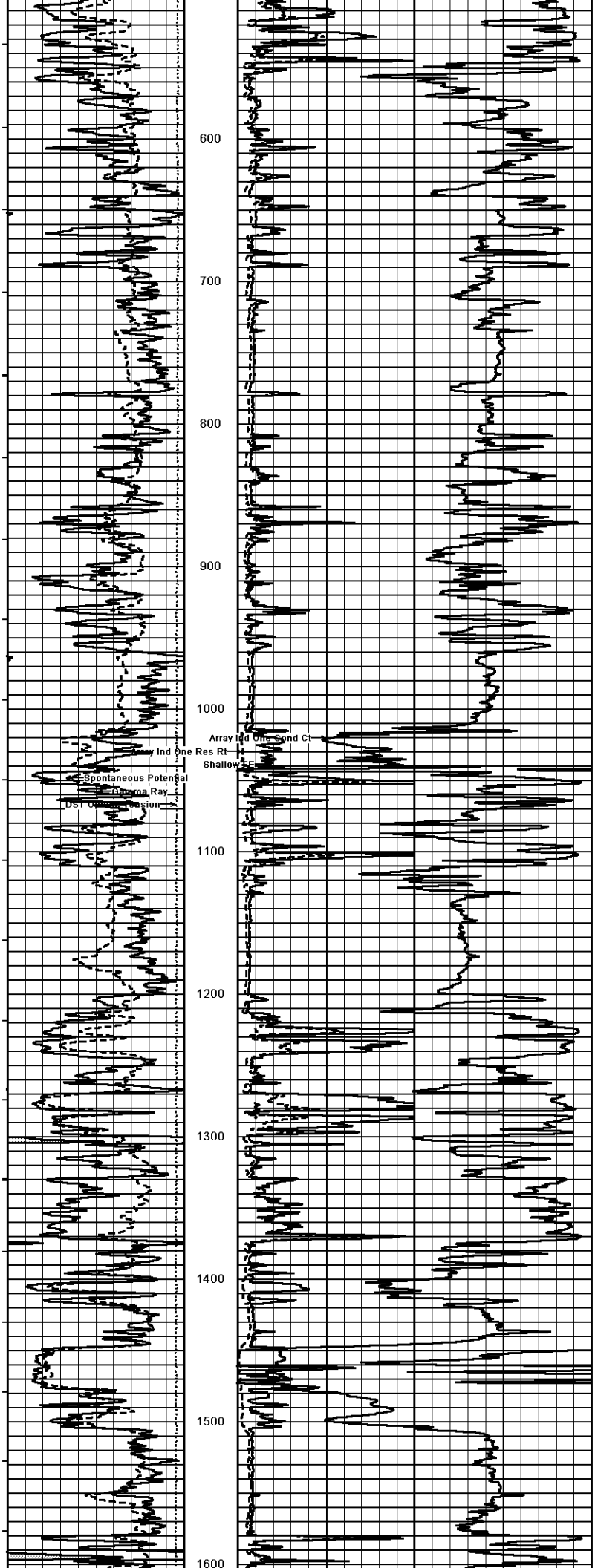
ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG

COMPANY	FUTURE PETROLEUM COMPANY LLC
WELL	WEST MADDIX UNIT NO. 3
FIELD	WEST MADDIX UNIT
PROVINCE/COUNTY	COWLEY
COUNTRY/STATE	USA/KANSAS
LOCATION	1962' FNL & 1803' FEL
SEC 10 / TWP 33S / RGE 5E	Other Services: MPD/ MDN, MML
API Number	15-035-24421
Permit Number	
Permanent Datum G.L. Elevation 1270 feet	Elevations: KB 1280.00 feet, DF 1278.00, GL 1270.00
Log Measured From K.B 10 FEET above Permanent Datum	
Drilling Measured From K.B	
Date	25-JUN-2011
Run Number	ONE
Depth Driller	3204.00 feet
Depth Logger	3206.00 feet
First Reading	3203.00 feet
Last Reading	200.00 feet
Casing Driller	213.00 feet
Casing Logger	213.00 feet
Bit Size	7.875 inches
Hole Fluid Type	CHEMICAL
Density / Viscosity	9.10 g/c3 65.00 CP
PH / Fluid Loss	9.00 9.20 ml/30Min
Sample Source	FLOWLINE
Rm @ Measured Temp	1.40 @ 94.0 ohm-m
Rmf @ Measured Temp	1.20 @ 94.0 ohm-m
Rmc @ Measured Temp	2.52 @ 94.0 ohm-m
Source Rmf / Rmc	CALC CALC
Rm @ BHT	0.82 @ 109.0 ohm-m
Time Since Circulation	4 HOURS
Max Recorded Temp	109.00 deg F
Equipment Name	COMPACT
Equipment / Base	13226 OKC
Recorded By	MIKE GARRISON
Witnessed By	TERRY MADDEN




600
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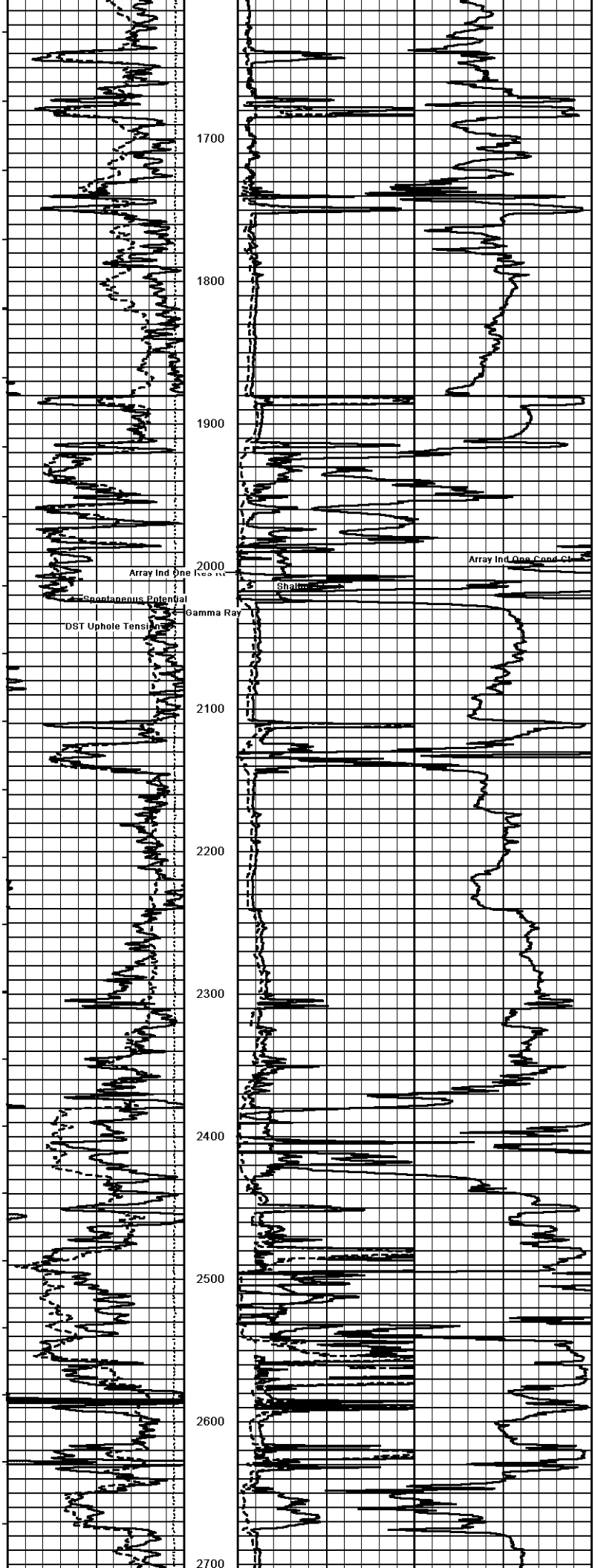
Array Ind One Cond Ct
Shallow
Spontaneous Potential
Gamma Ray
1100
1200
1300
1400
1500
1600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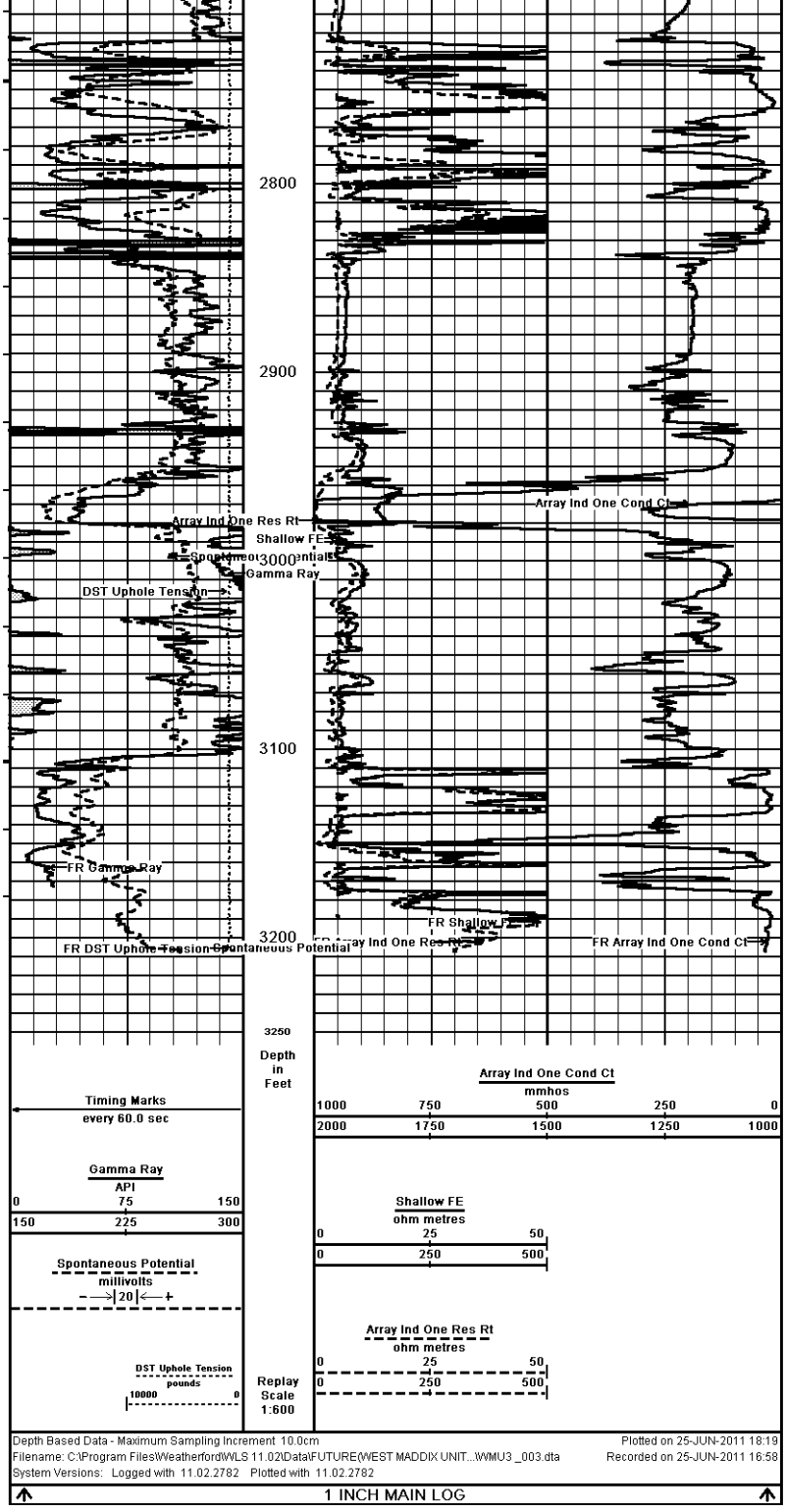
2700
Spontaneous Potential
Gamma Ray
DST Uphole Tension



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 25-JUN-2011 18:19

Filename: C:\Program Files\Weatherford\WLS 11.02\Data\FUTURE\WEST MADDIX UNIT...\WMU3 _003.dta — Recorded on 25-JUN-2011 16:58

System Versions: Logged with 11.02.2782 Plotted with 11.02.2782

1 INCH MAIN LOG

COMPANY	FUTURE PETROLEUM COMPANY LLC
WELL	WEST MADDIX UNIT NO. 3
FIELD	WEST MADDIX UNIT
PROVINCE/COUNTY	COWLEY
COUNTRY/STATE	USA/KANSAS

Elevation Kelly Bushing	1280.00	feet	First Reading	3203.00	feet
Elevation Drill Floor	1278.00	feet	Depth Driller	3204.00	feet
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