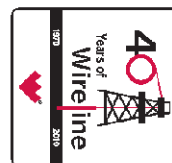




Weatherford®

ARRAY INDUCTION SHALLOW FOCUSED ELECTRIC LOG

COMPANY FUTURE PETROLEUM CO.,LLC
WELL WEST MADDIX UNIT 2
FIELD WEST MADDIX UNIT
PROVINCE/COUNTY COWLEY
COUNTRY/STATE U.S.A. / KANSAS
LOCATION 915' FNL & 1764' FEL
NW SE NW NE



SEC TWP RGE Other Services
10 33S 5E MPD/ MDN
API Number 15-035-24420 ML
Permit Number

Permanent Datum G.L., Elevation 1272 feet
Log Measured From K.B. @ 9 FEET above Permanent Datum
Drilling Measured From K.B.

Elevations: feet
KB 1281.00
DF 1279.00
GL 1272.00

Date	18-JUN-2011	
Run Number	ONE	
Depth Driller	3205.00	feet
Depth Logger	3203.00	feet
First Reading	3200.00	feet
Last Reading	212.00	feet
Casing Driller	213.00	feet
Casing Logger	212.00	feet
Bit Size	7.875	inches
Hole Fluid Type	WBM	
Density / Viscosity	9.40 lb/USg	50.00 CP
PH / Fluid Loss	9.00	10.60 ml/30Min
Sample Source	MUDPIT	
Rm @ Measured Temp	1.20 @ 79.0	ohm-m
Rmf @ Measured Temp	0.96 @ 79.0	ohm-m
Rmc @ Measured Temp	1.44 @ 79.0	ohm-m
Source Rmf / Rmc	CALC	CALC
Rm @ BHT	0.89 @ 110.0	ohm-m
Time Since Circulation	6 HOURS	
Max Recorded Temp	110.00	deg F
Equipment Name	COMPACT	
Equipment / Base	13226	OKC
Recorded By	D. DAVIS	
Witnessed By	T. MADDEN	
Service Order	3531722	

BOREHOLE RECORD

Last Edited: 18-JUN-2011 11:30

Bit Size inches	Depth From feet	Depth To feet
7.875	213.00	3205.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	213.00	24.00

REMARKS

TOOLS RAN: SHA, MCG, MML, MDN, MPD, MFE, MAI 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.

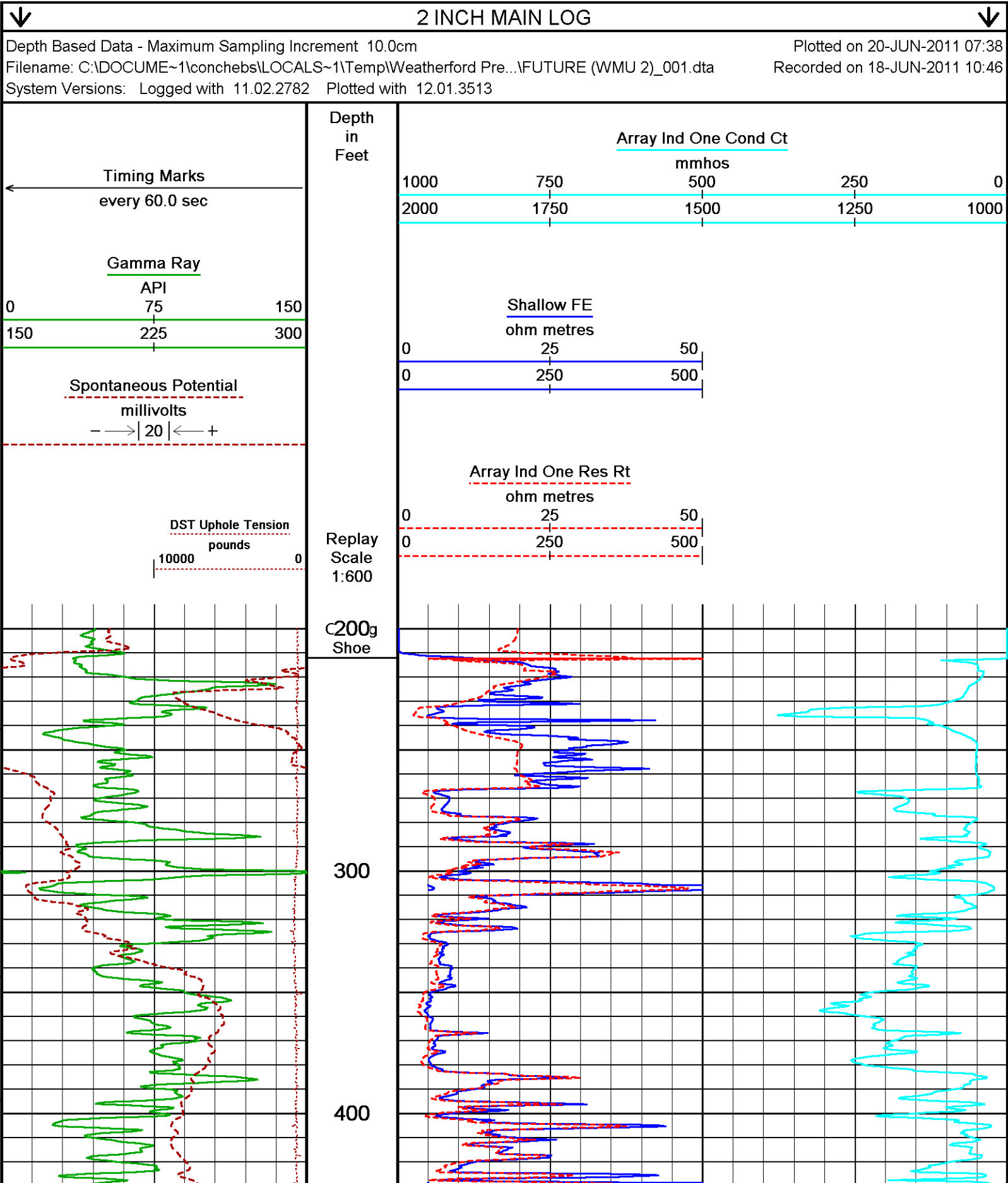
TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 1180CU.FT.
ANNULAR HOLE VOLUME WITH 4.5 INCH PRODUCTION CASING FROM TD TO SURFACE CASING = 850CU.FT.

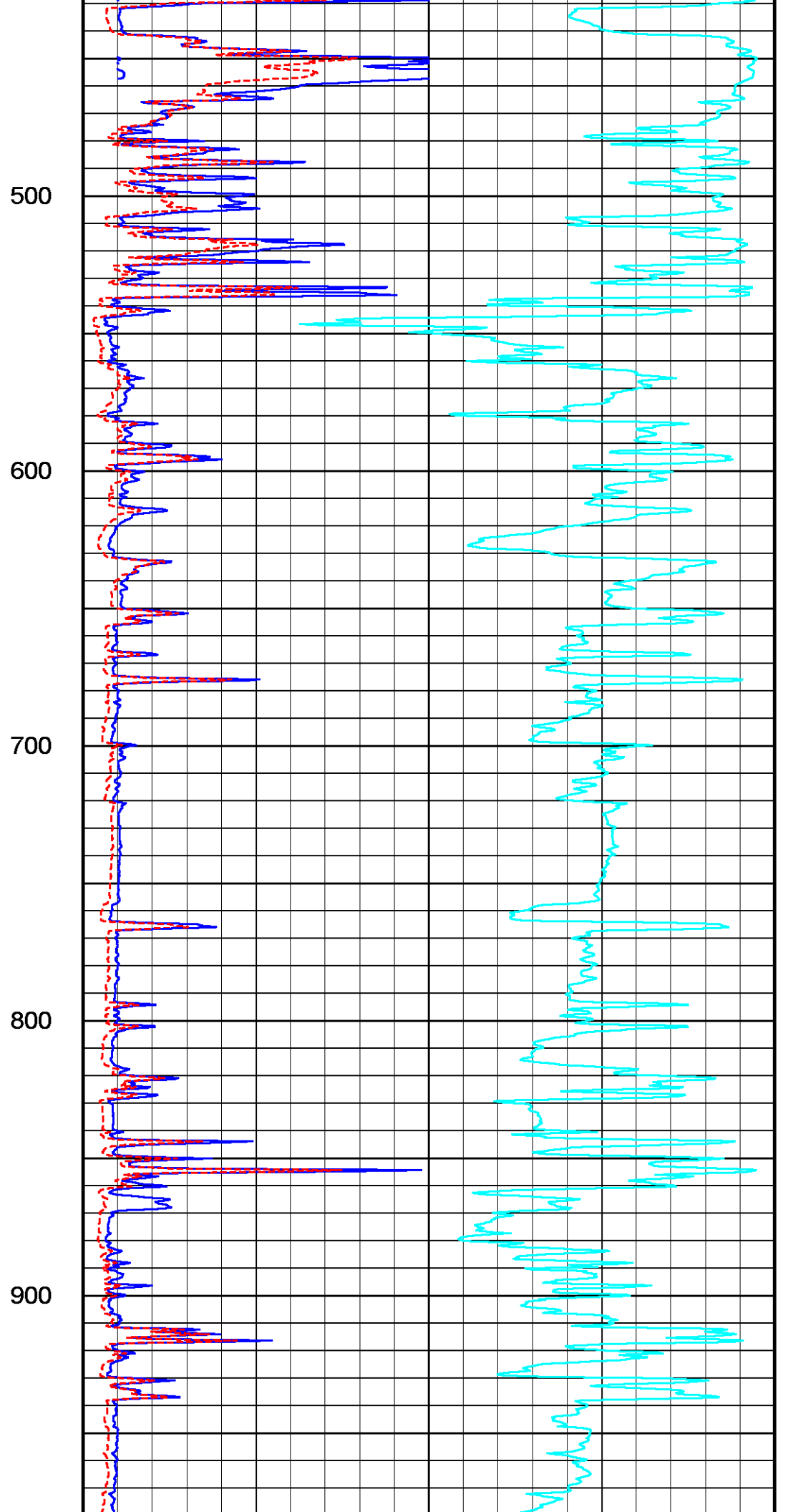
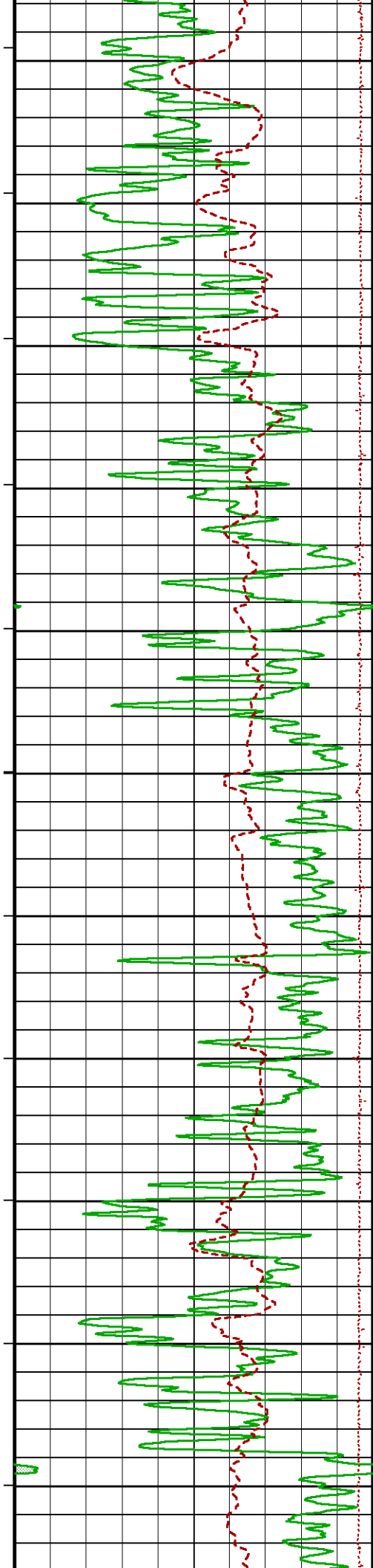
SERVICE ORDER # 3531722
RIG: VAL ENERGY #3

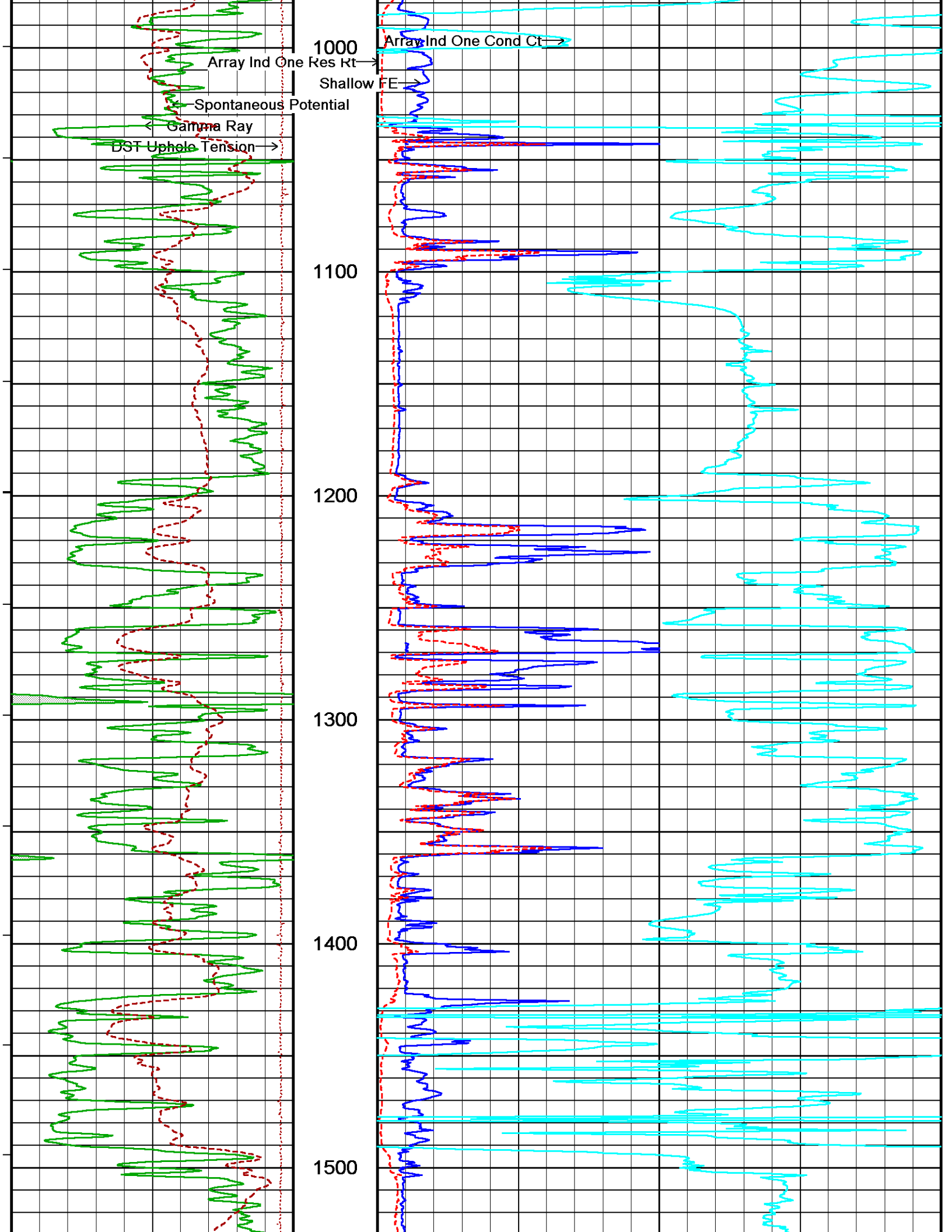
ENGINEER: D. DAVIS

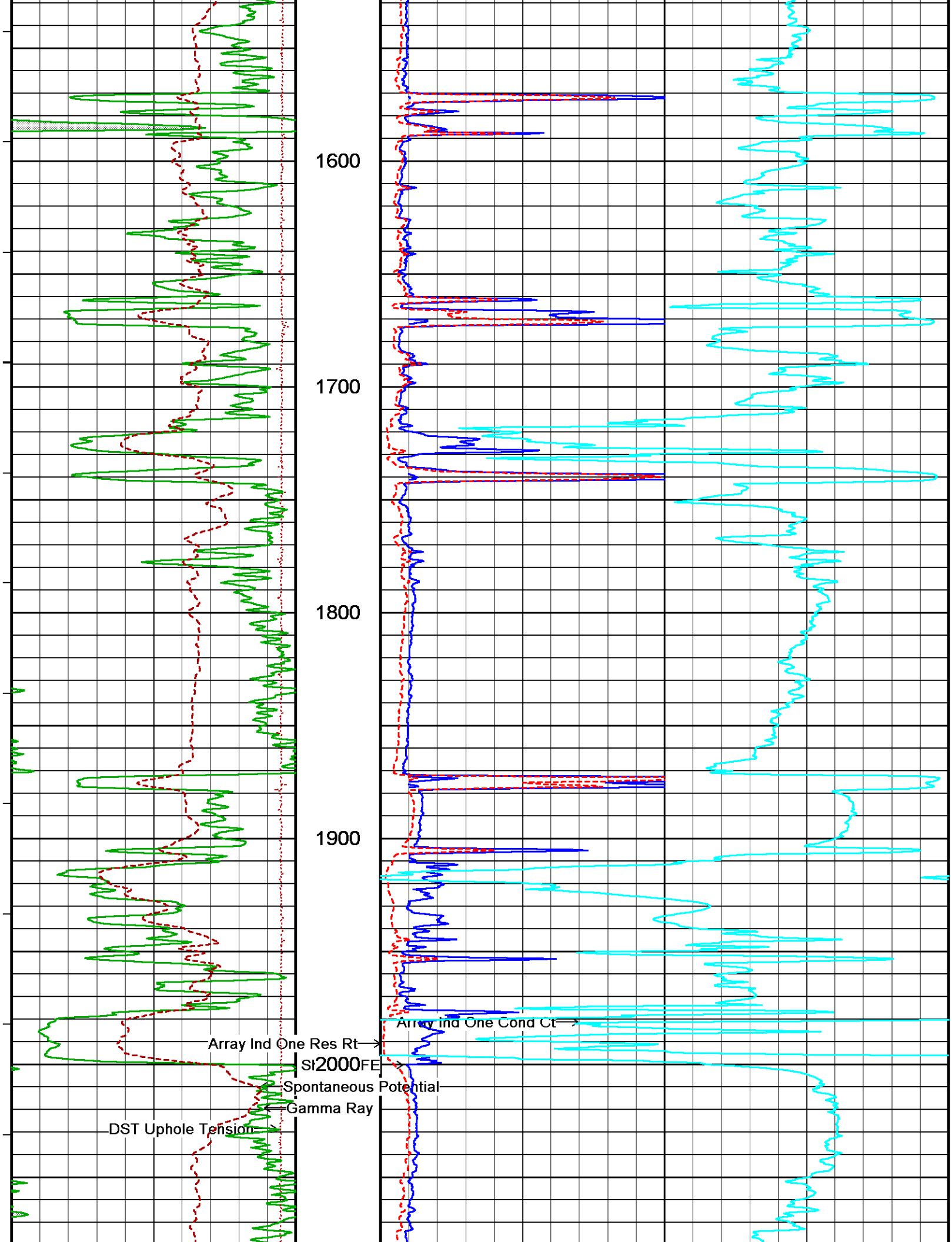
OPERATOR(S): D. JONES, C. MCALULIFF

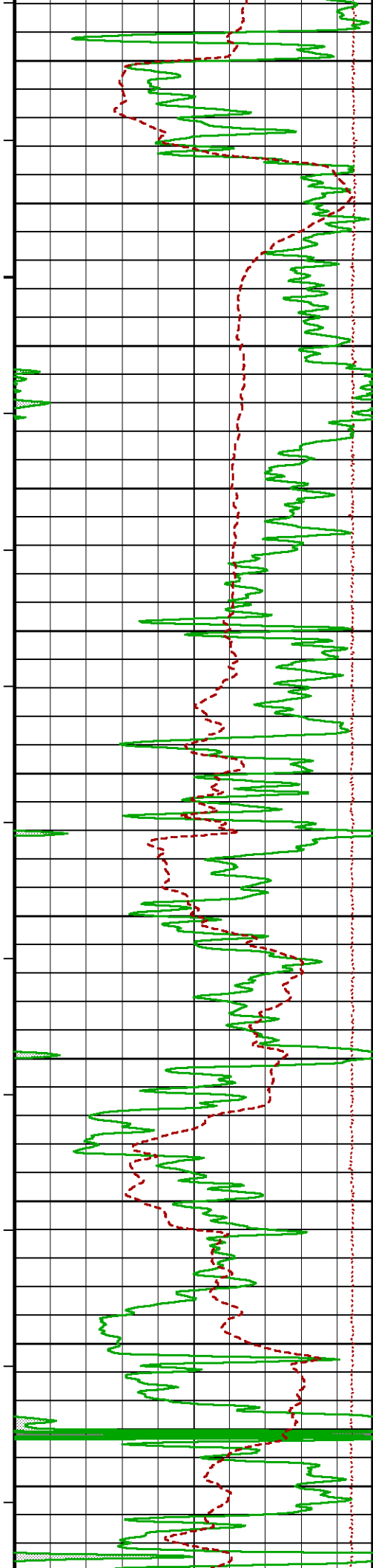
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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



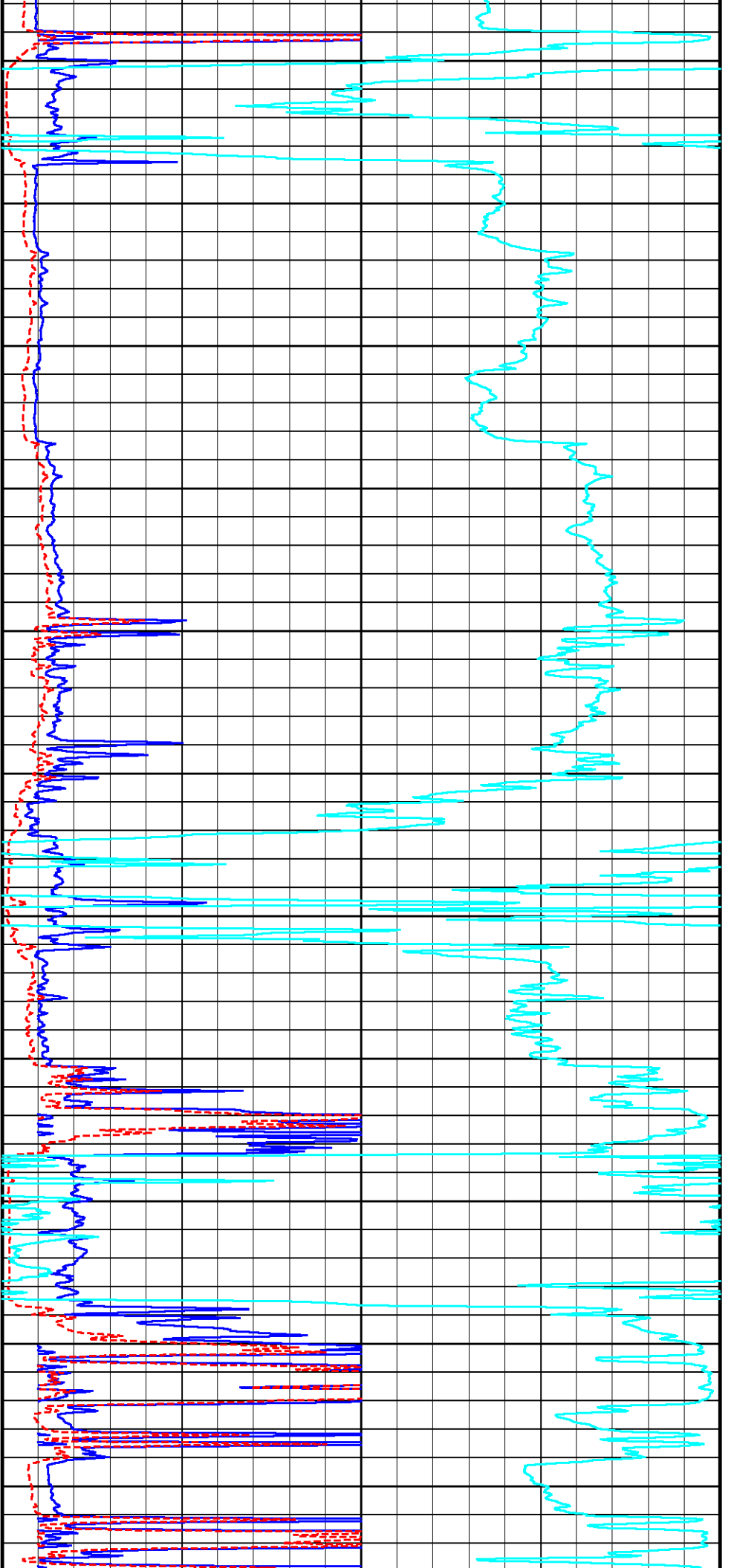


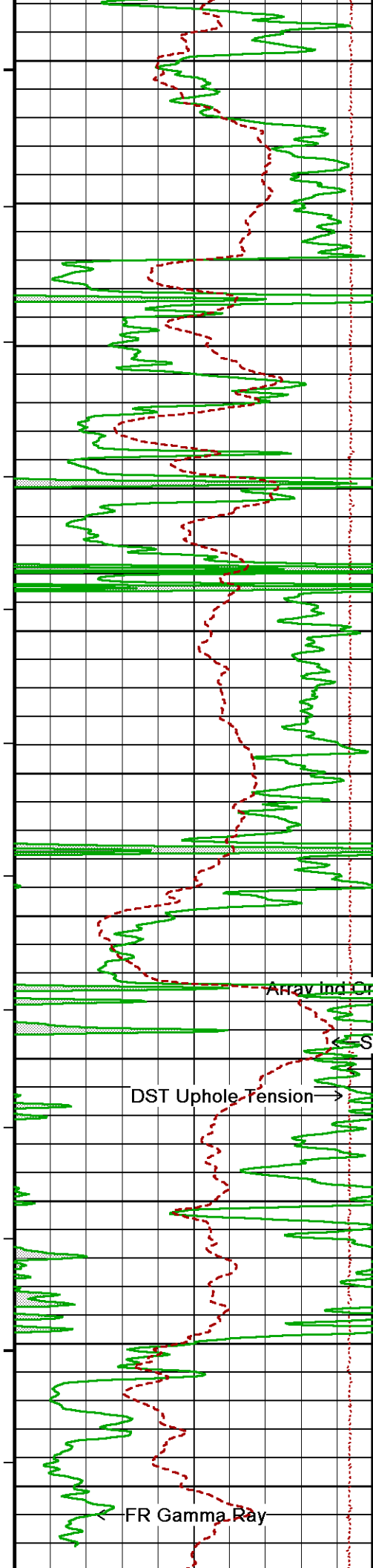






2100
2200
2300
2400
2500
2600





2700

2800

2900

3000

3100

DST Uphole Tension →

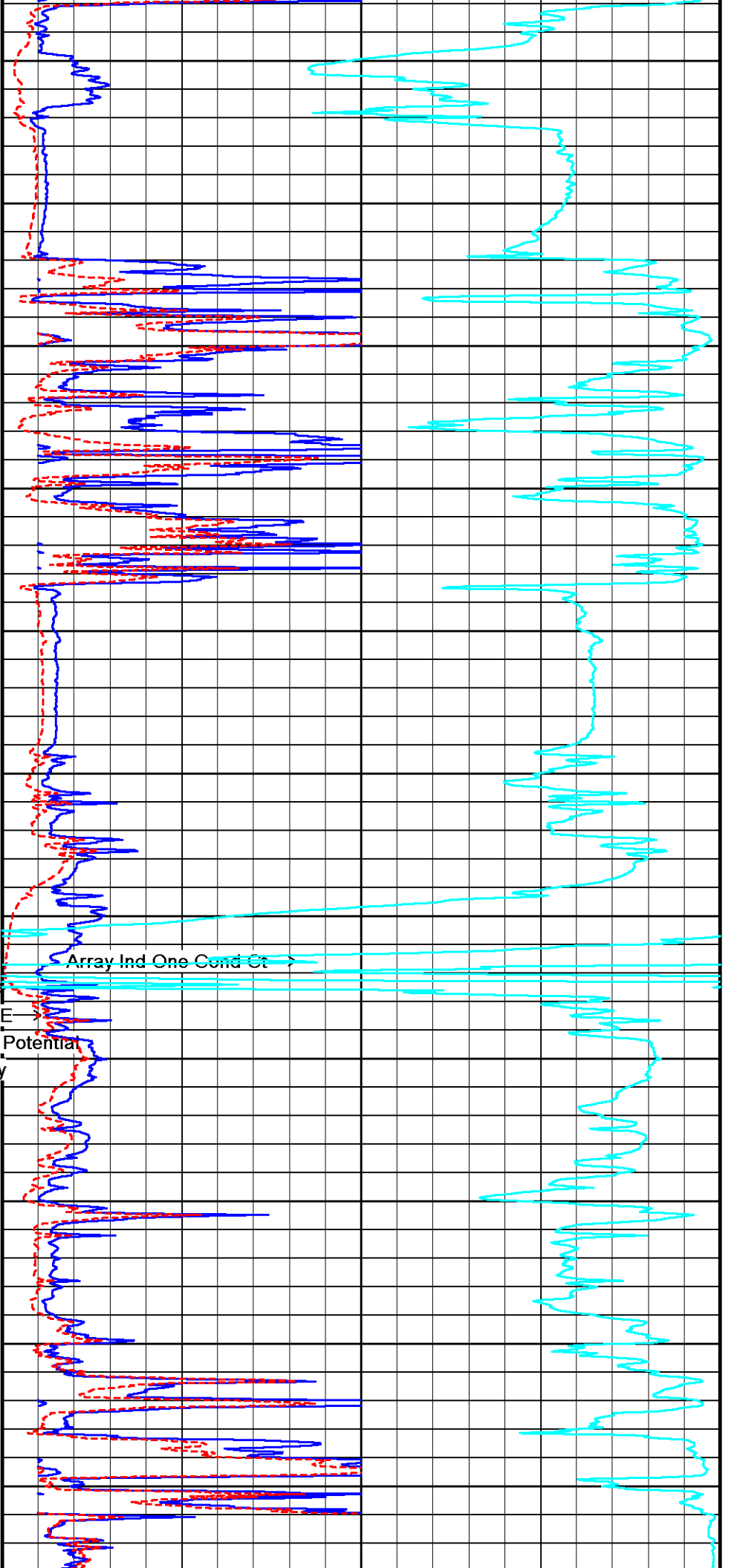
Array Ind One Res Rt

Shallow FE

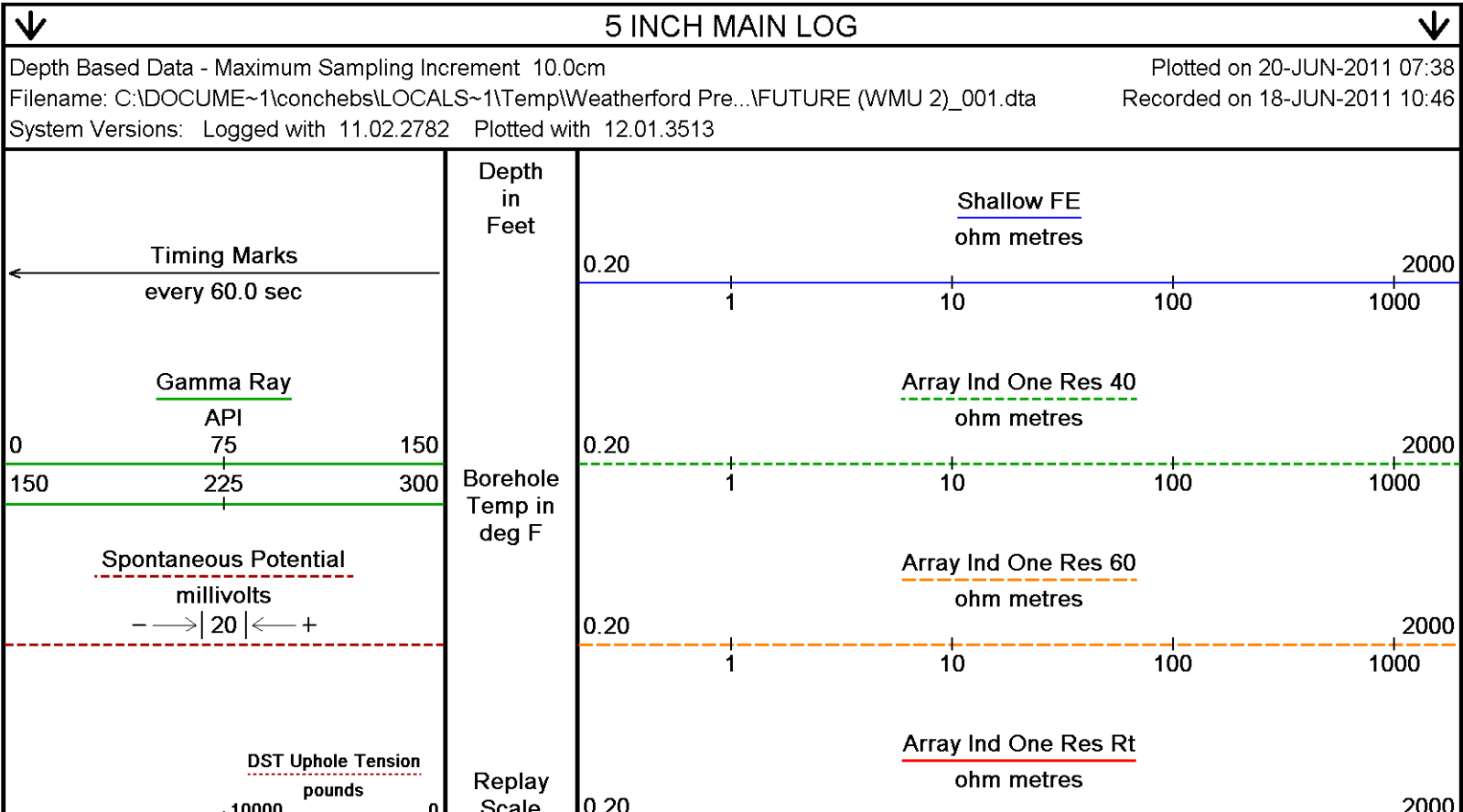
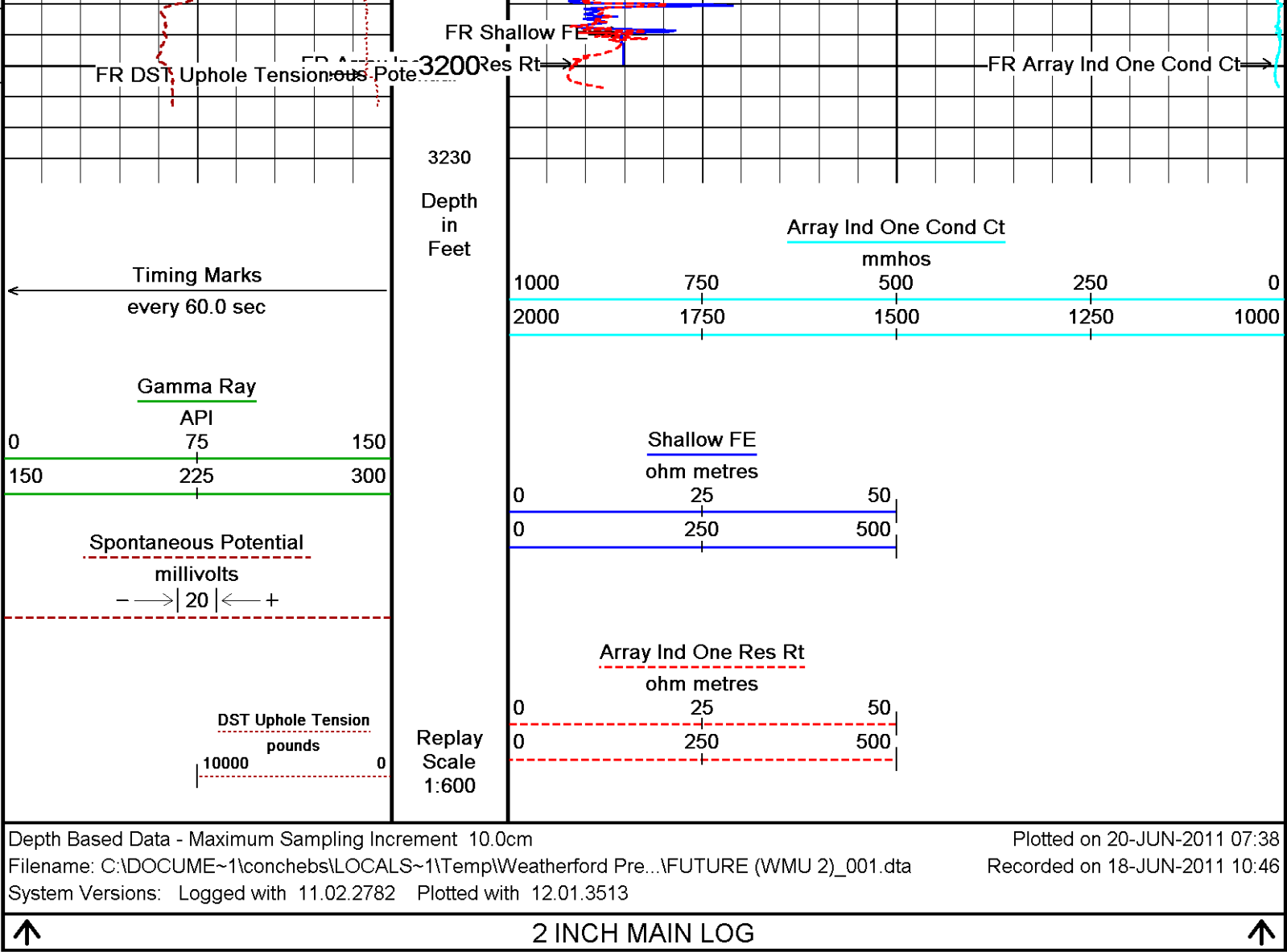
Spontaneous Potential

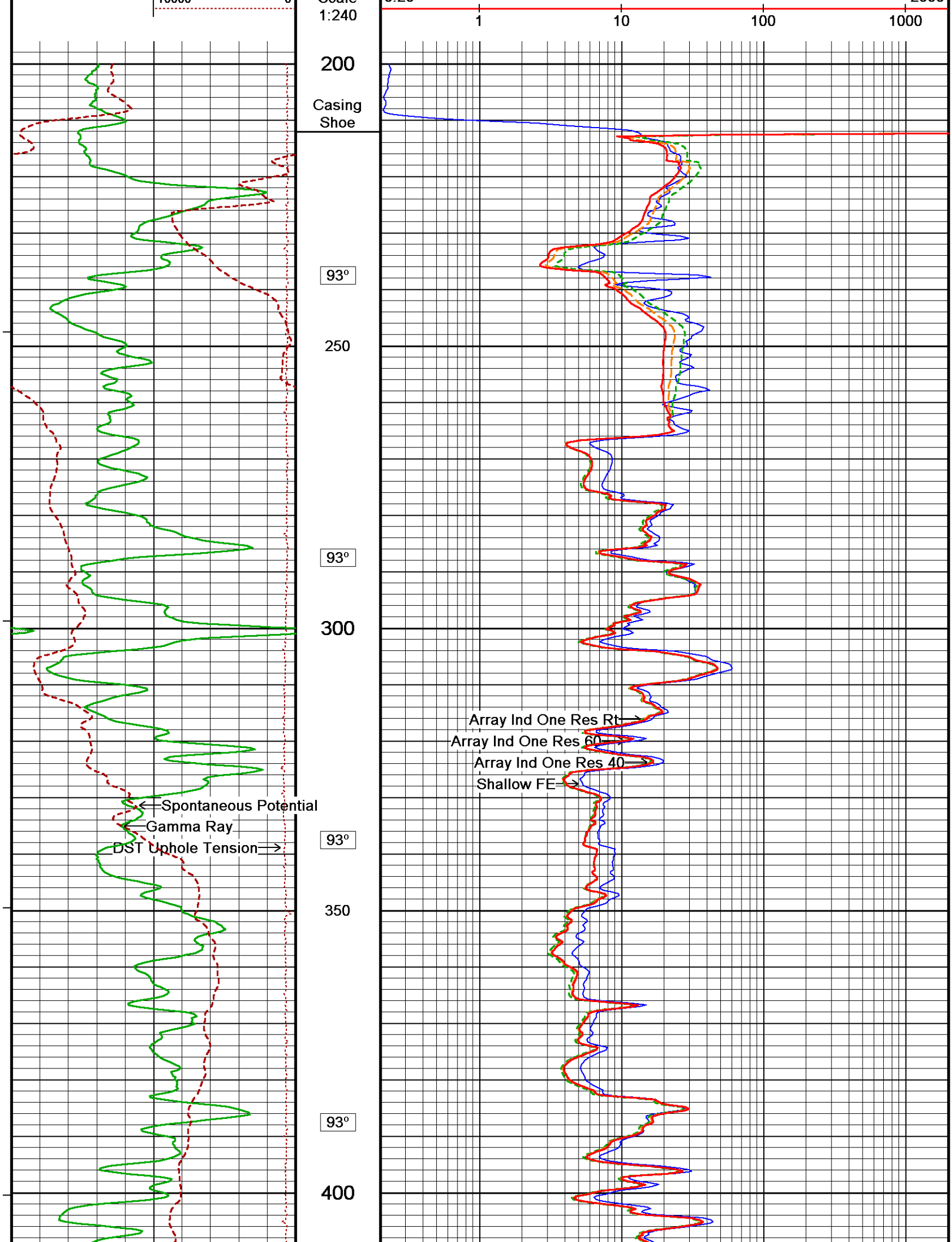
Gamma Ray

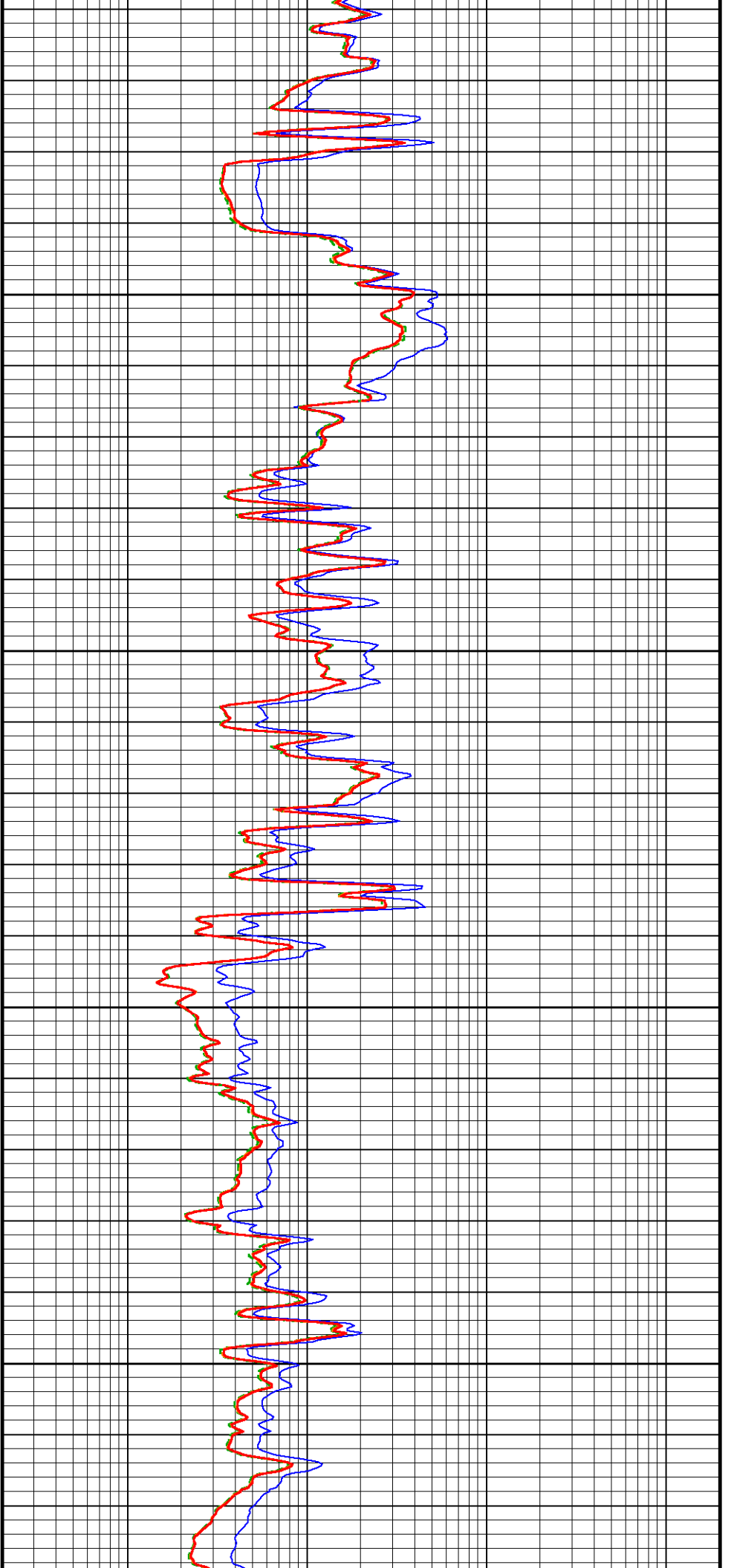
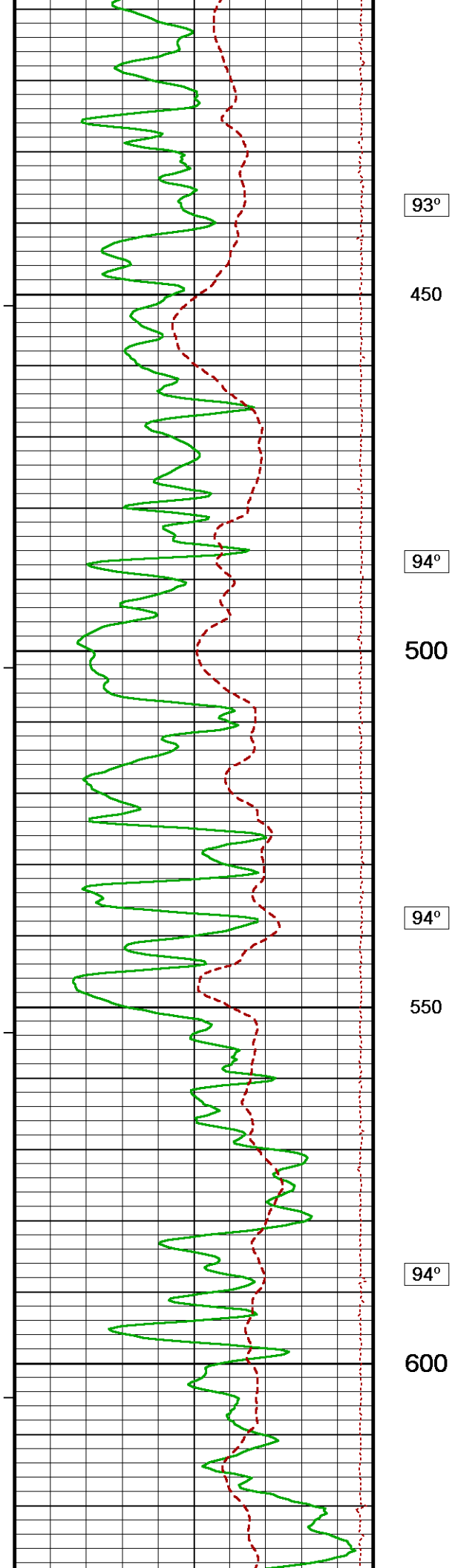
FR Gamma Ray

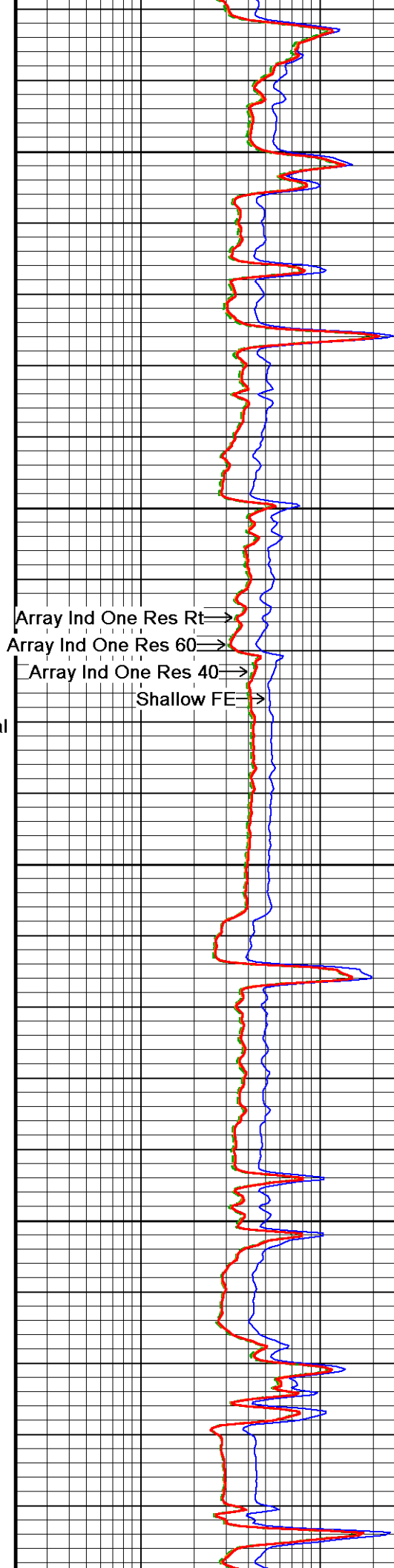
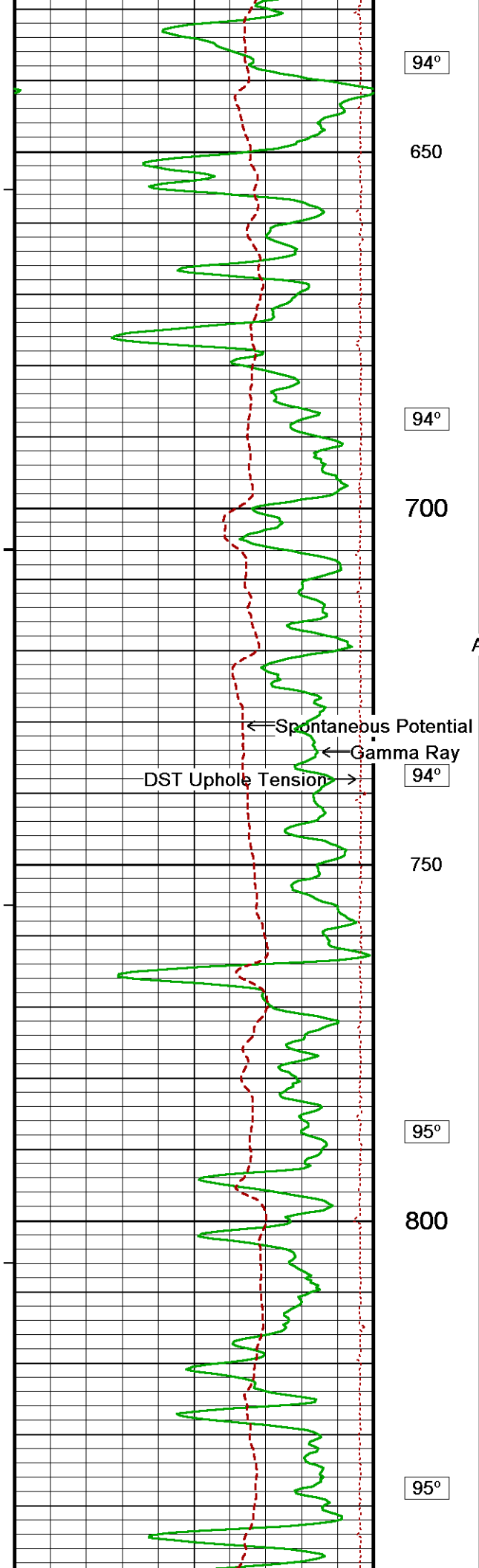


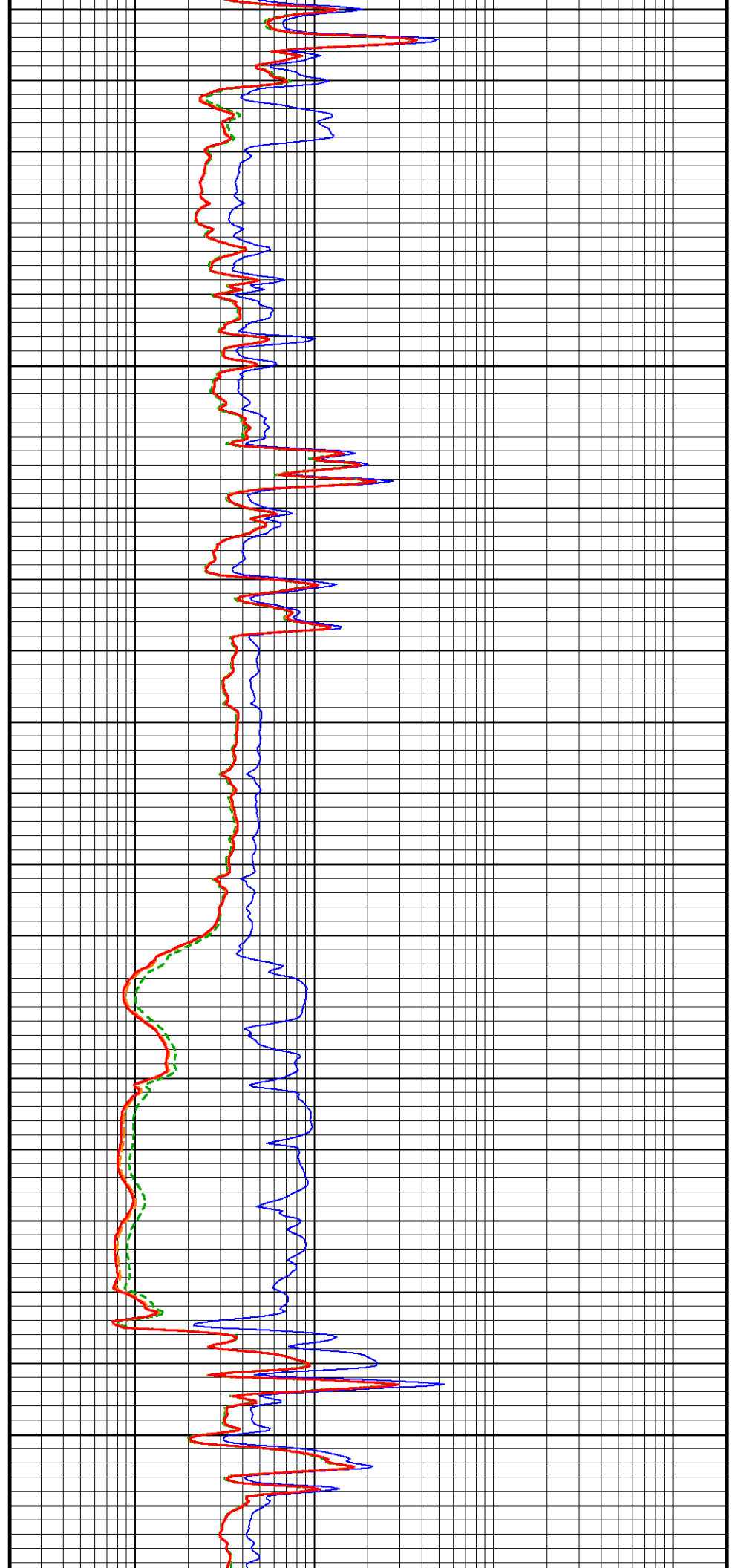
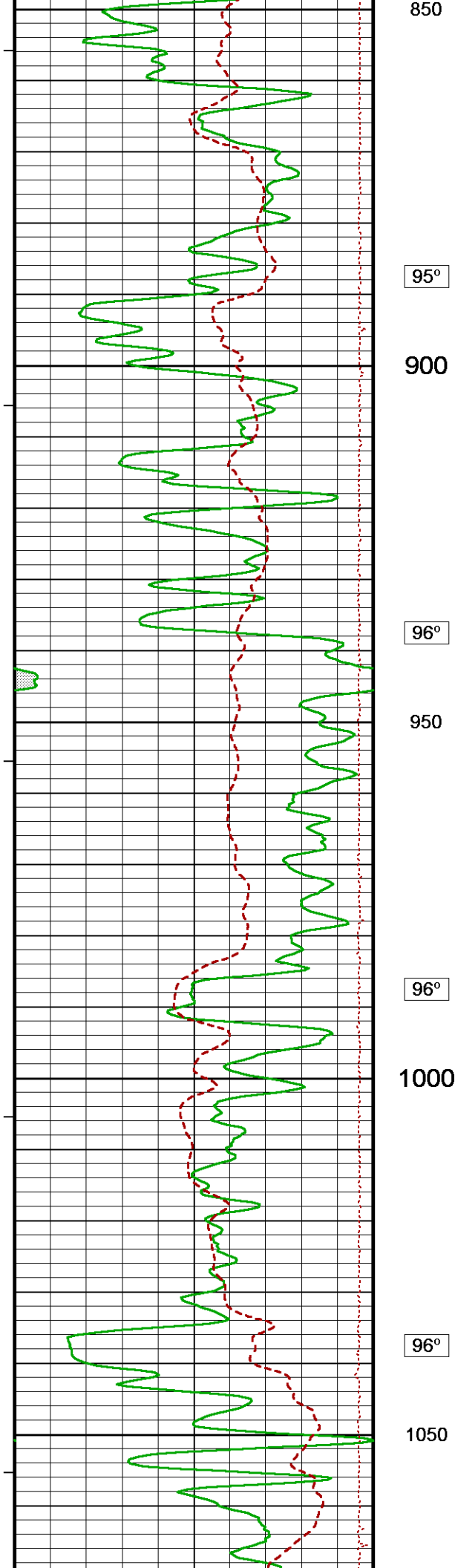
Array Ind One Cond Ct →

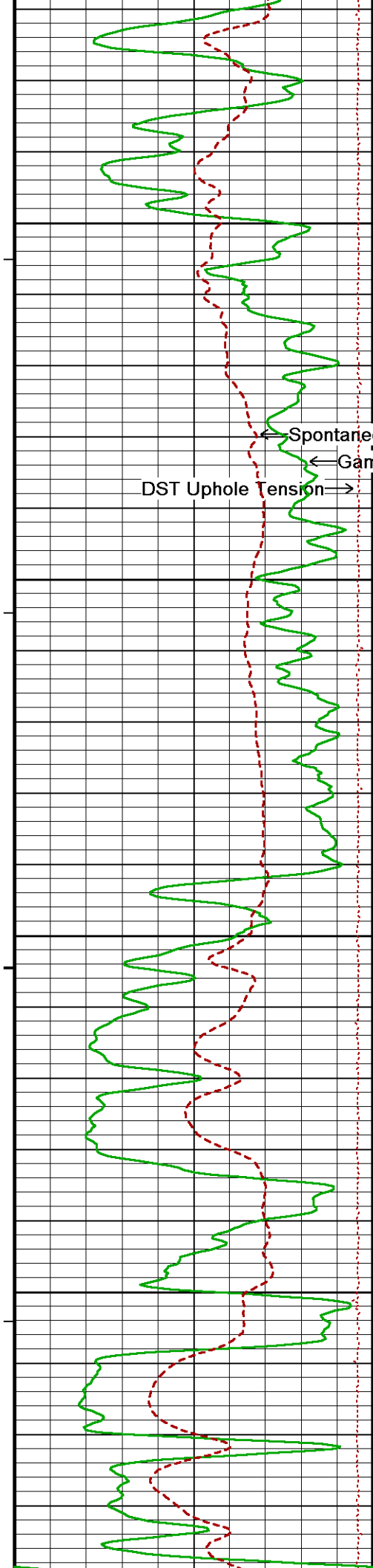












96°

1100

Array Ind One Res Rt→

Array Ind One Res 60→

Array Ind One Res 40→

Shallow FE→

← Spontaneous Potential

← Gamma Ray

DST Uphole Tension→

97°

1150

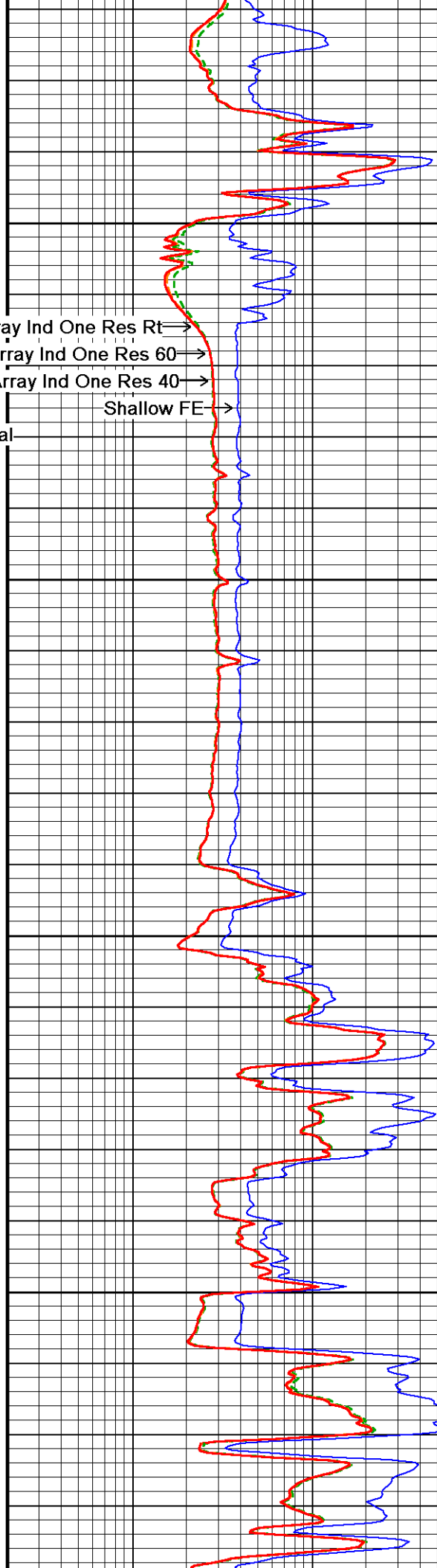
97°

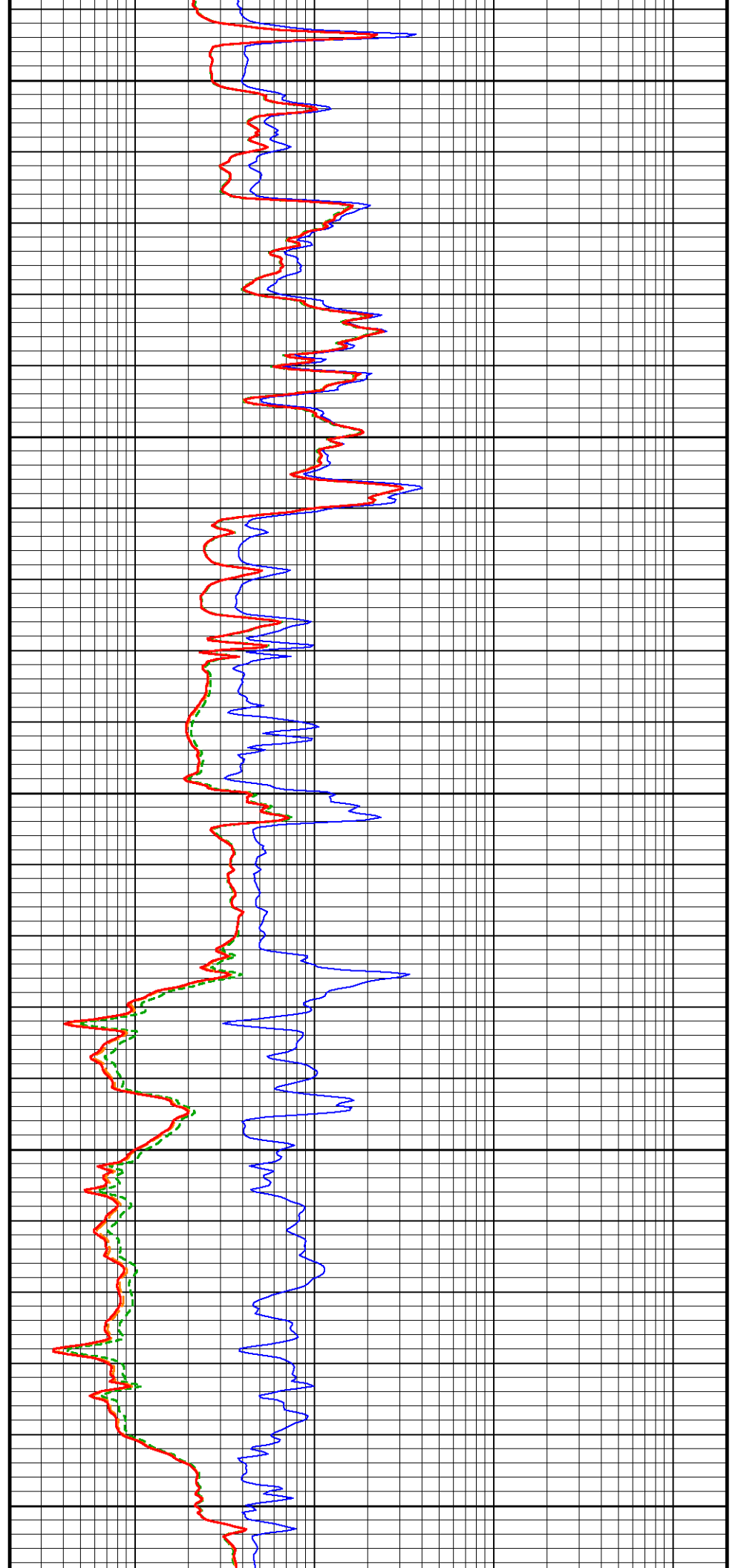
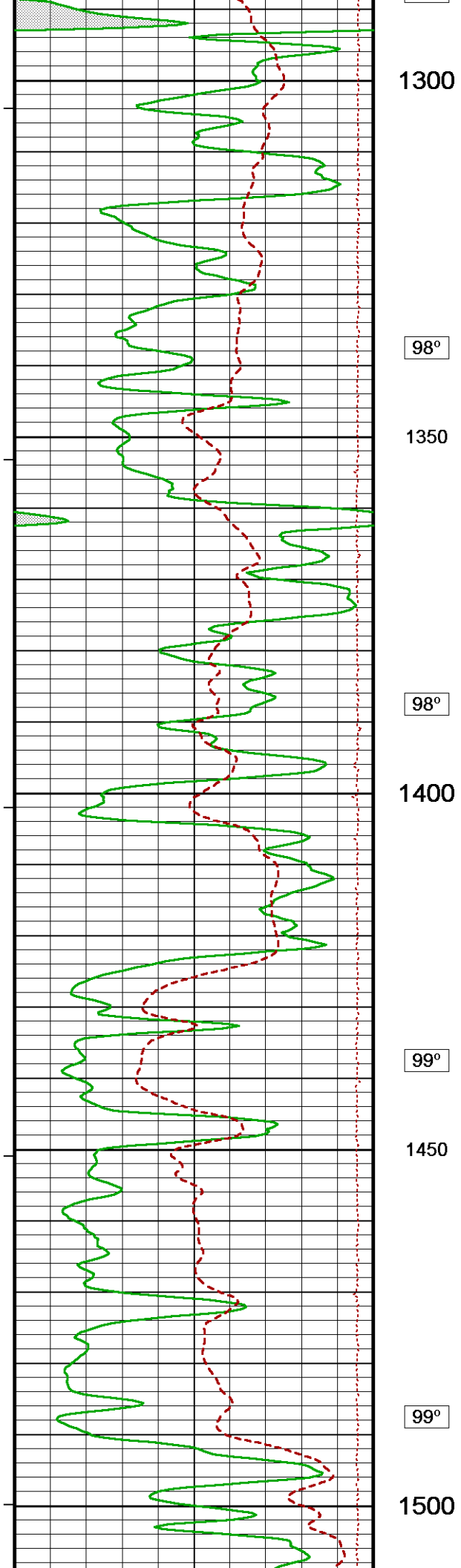
1200

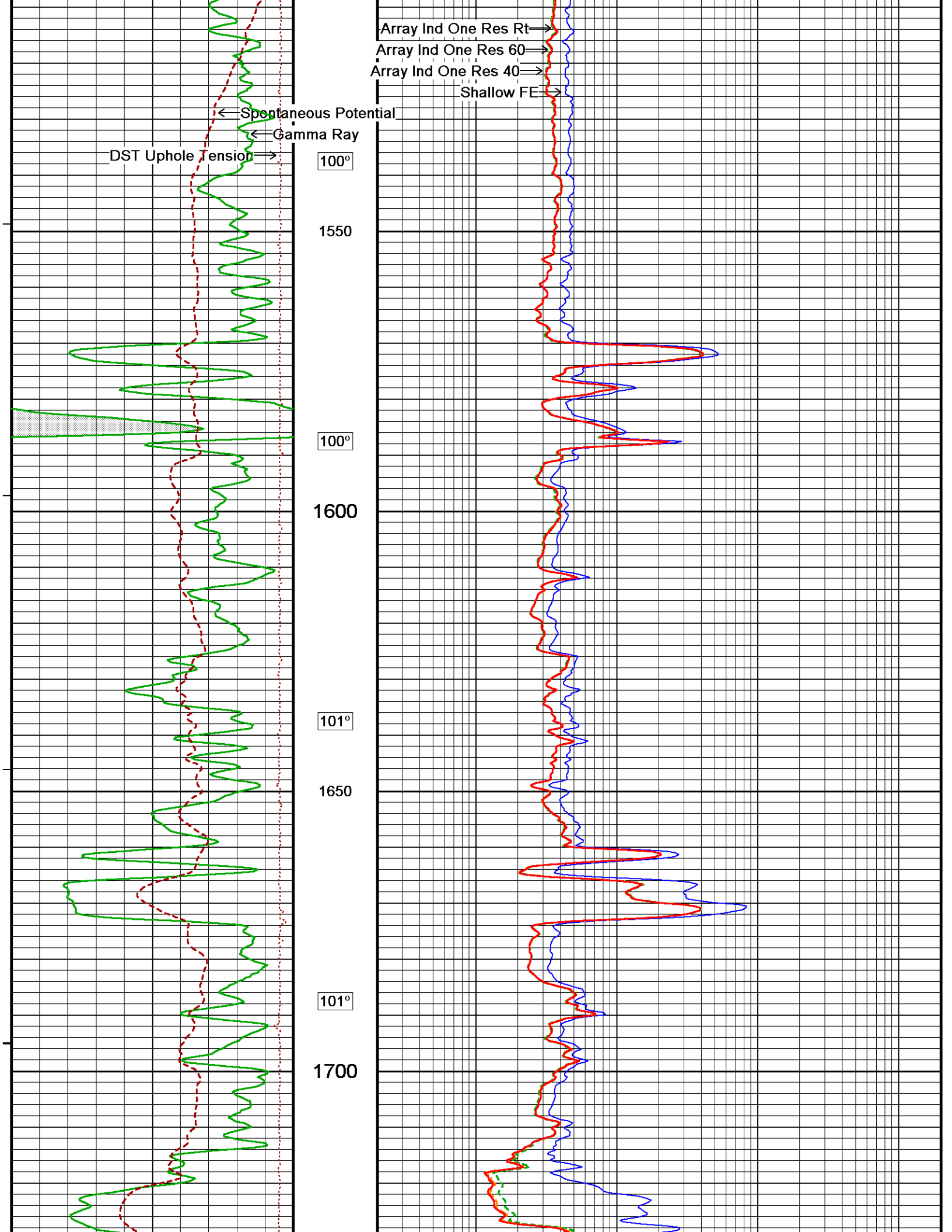
98°

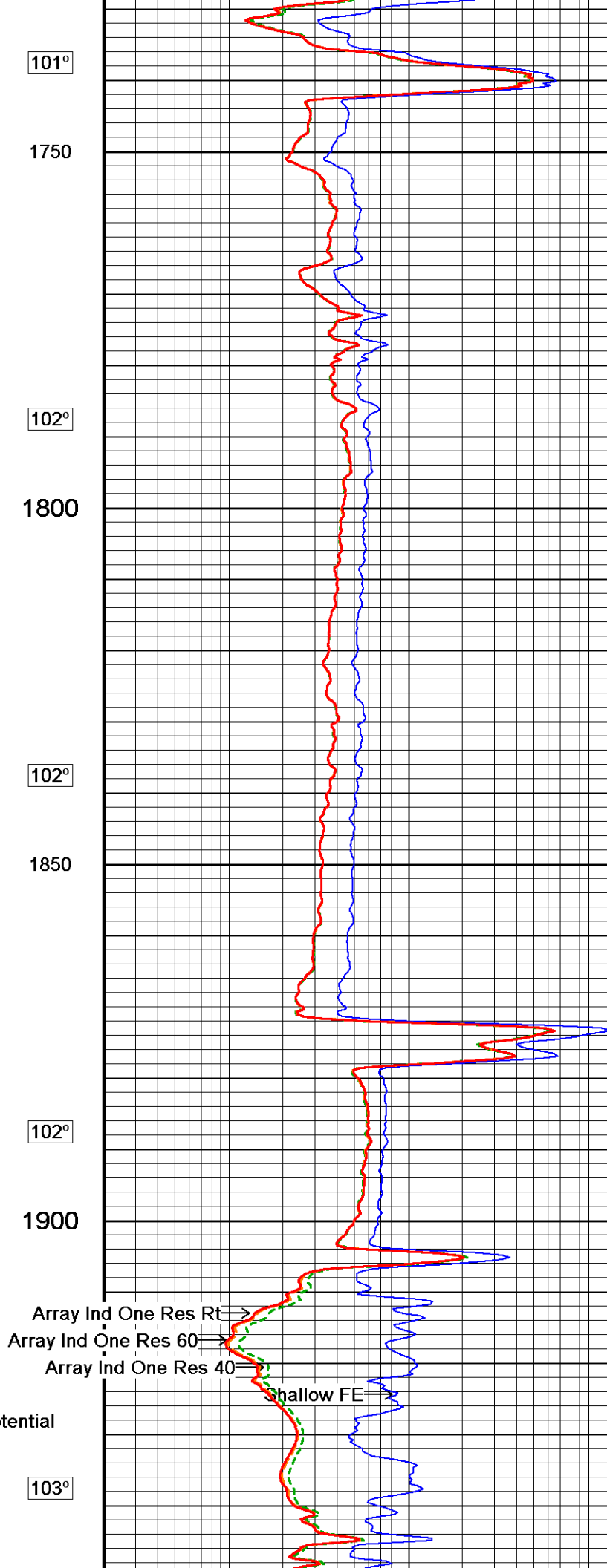
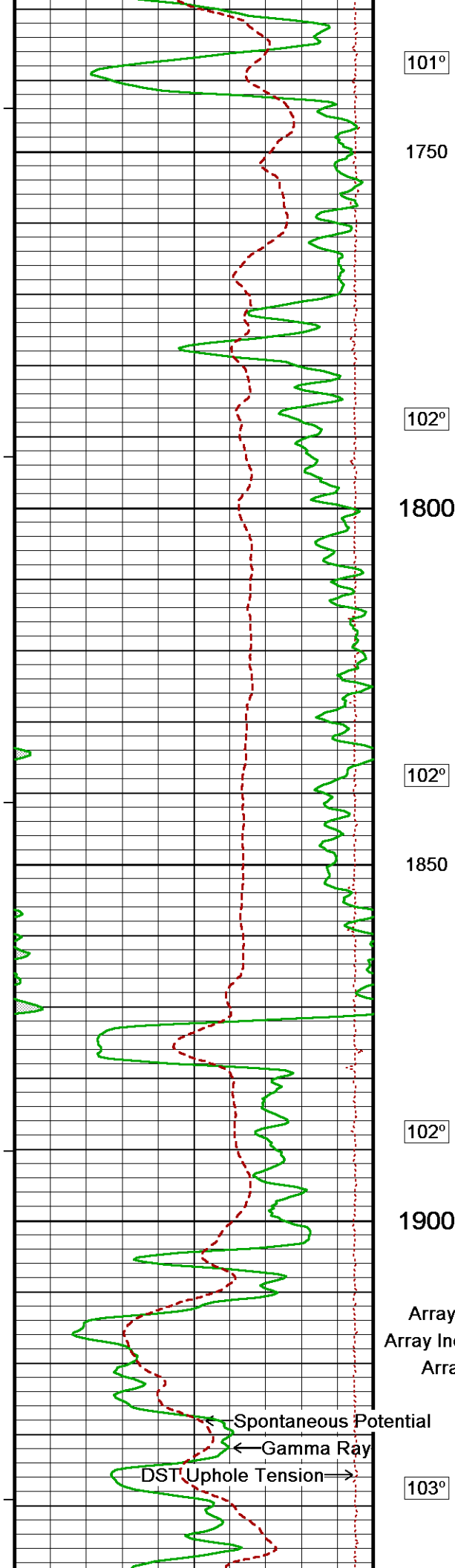
1250

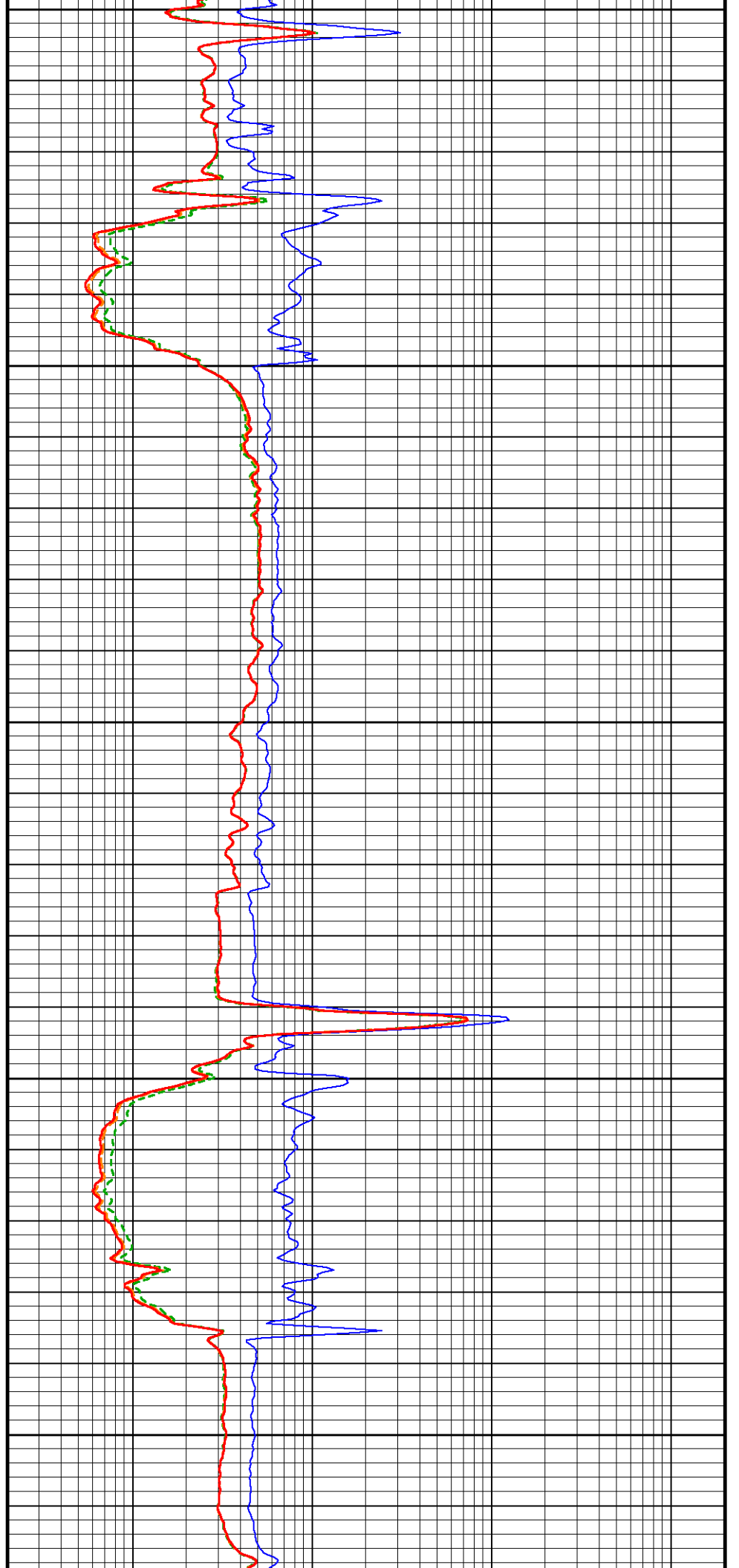
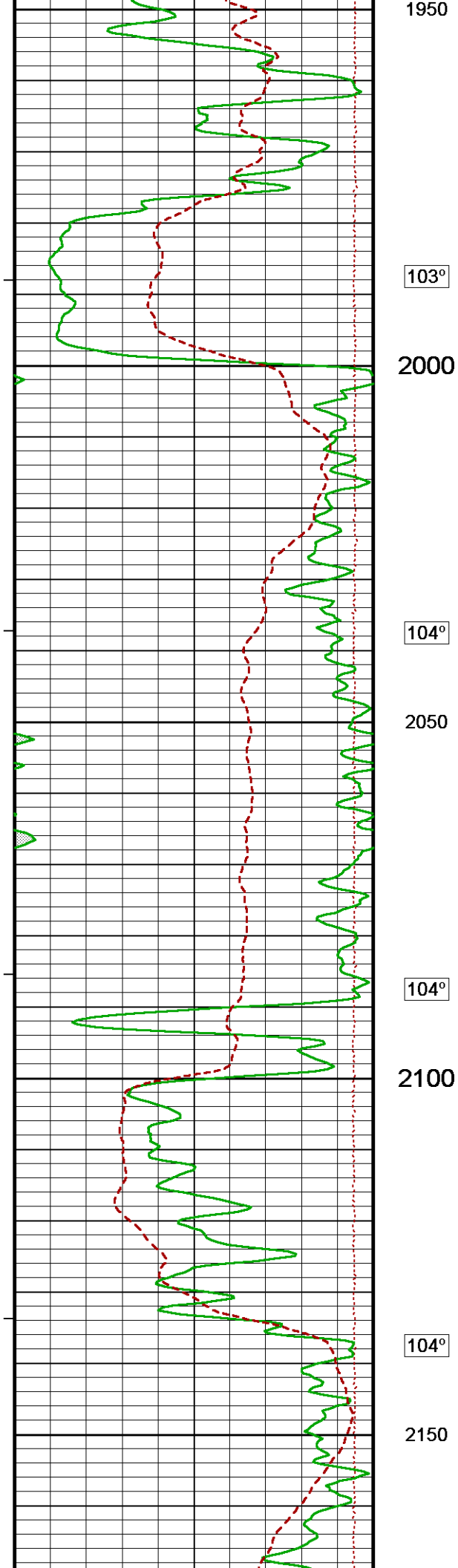
98°

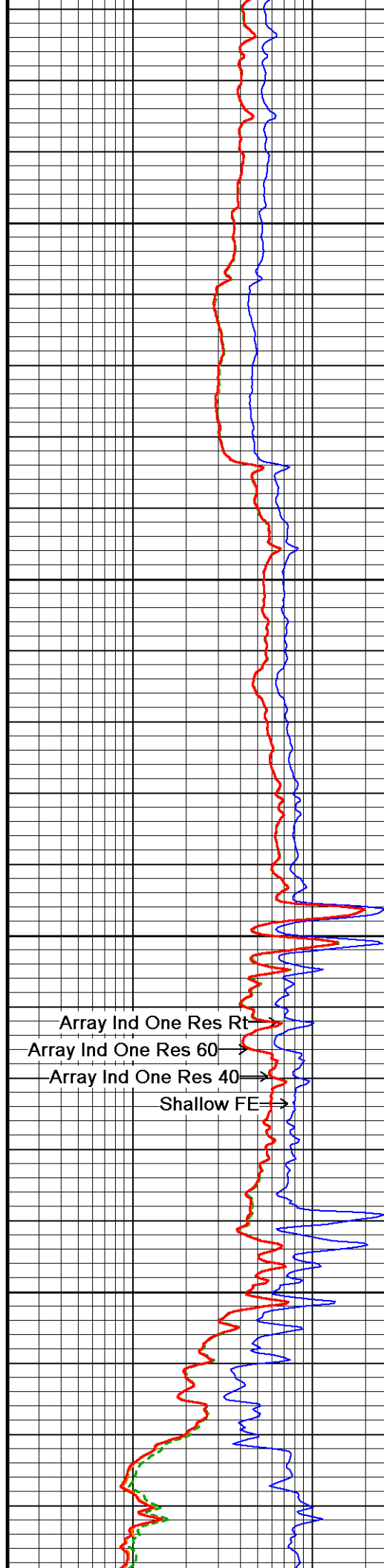
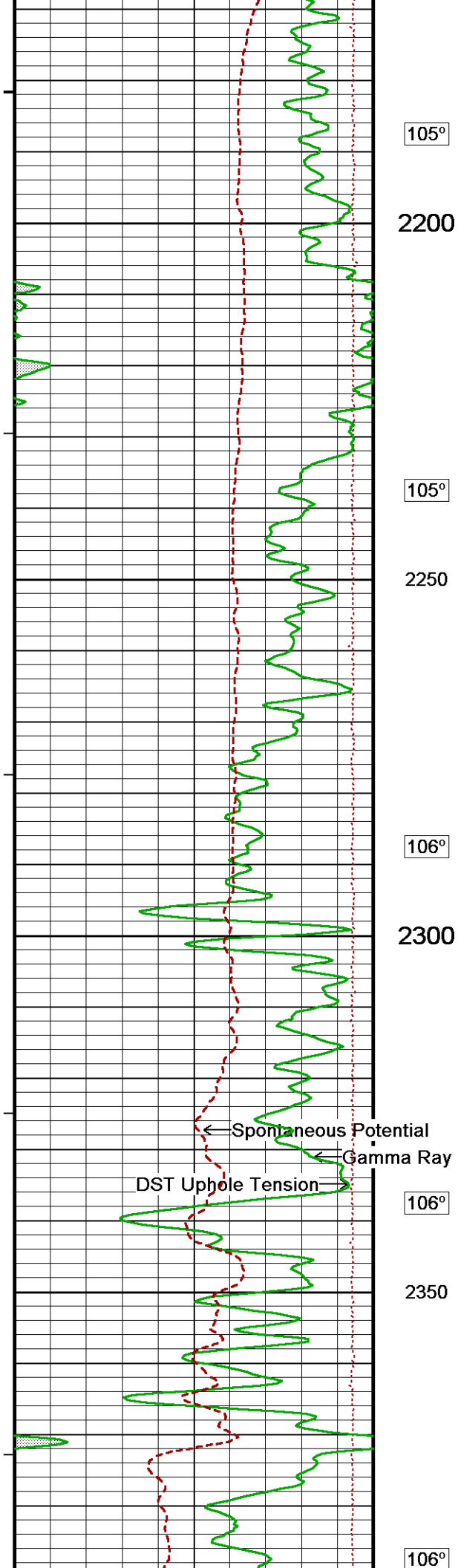


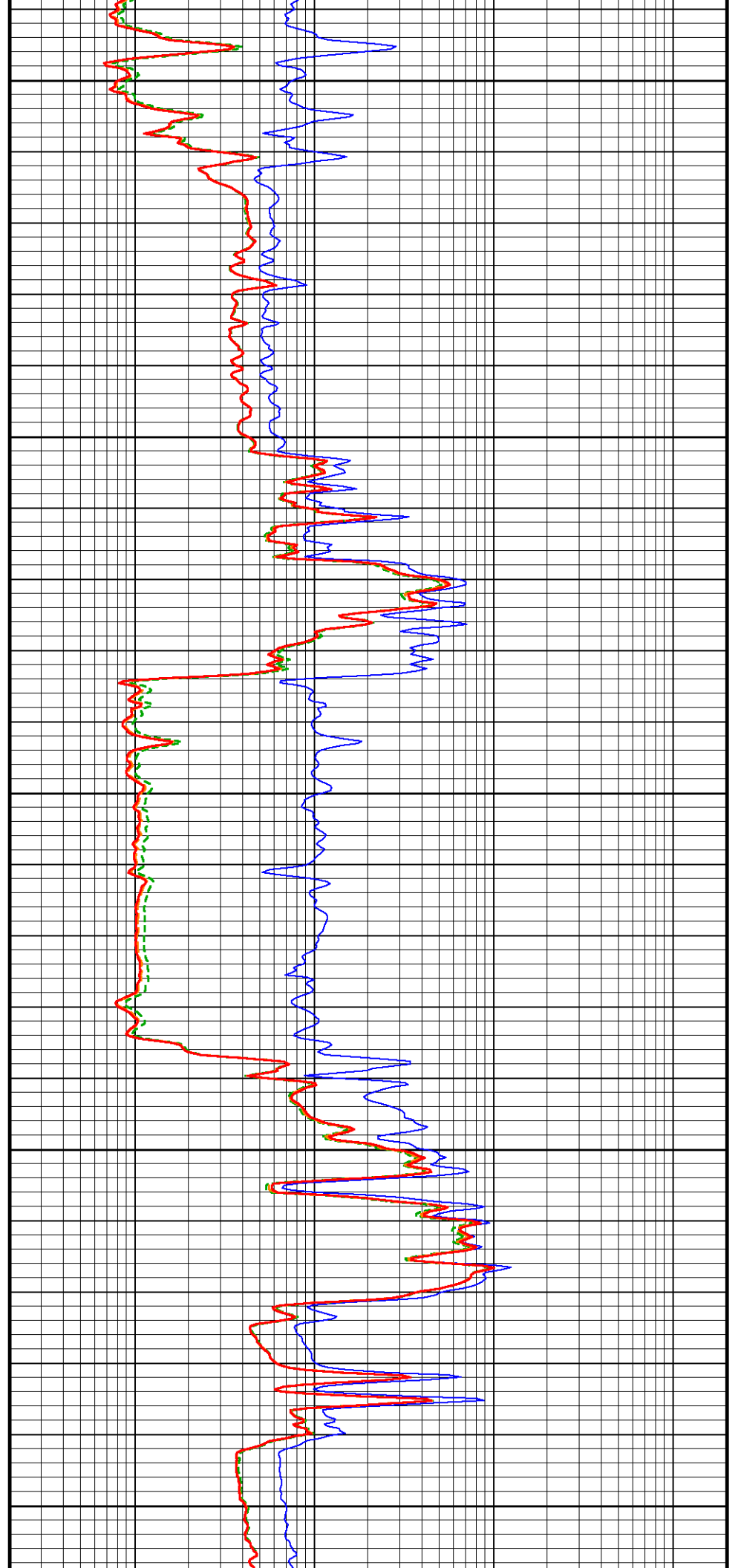
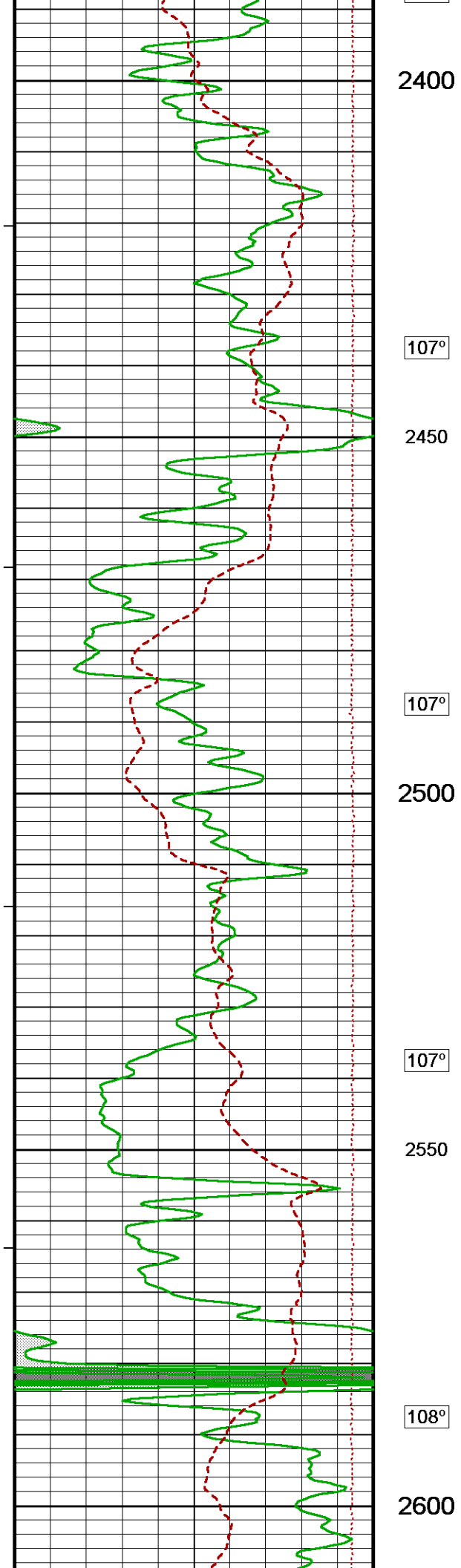


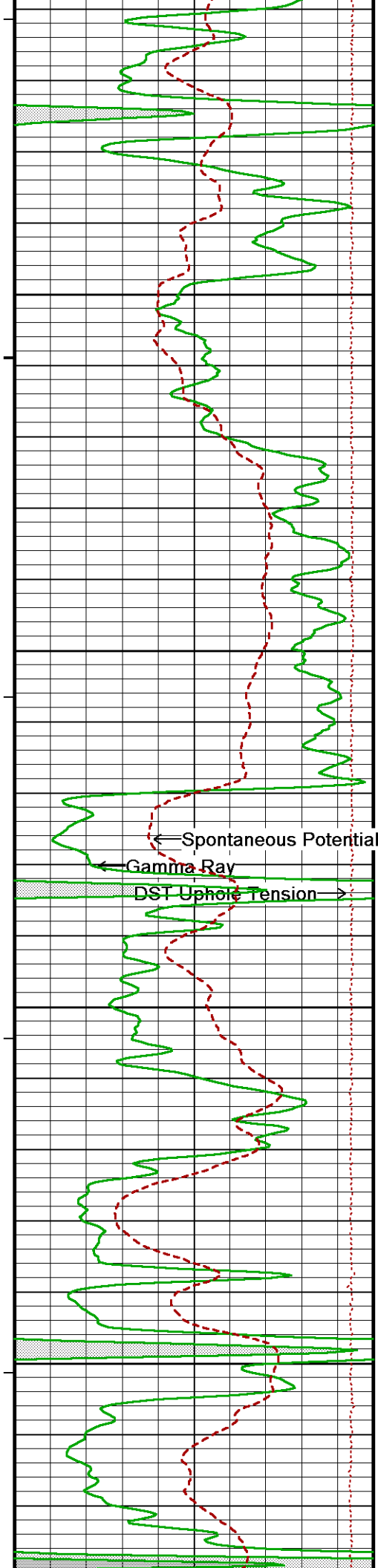












108°

2650

108°

2700

← Spontaneous Potential

← Gamma Ray

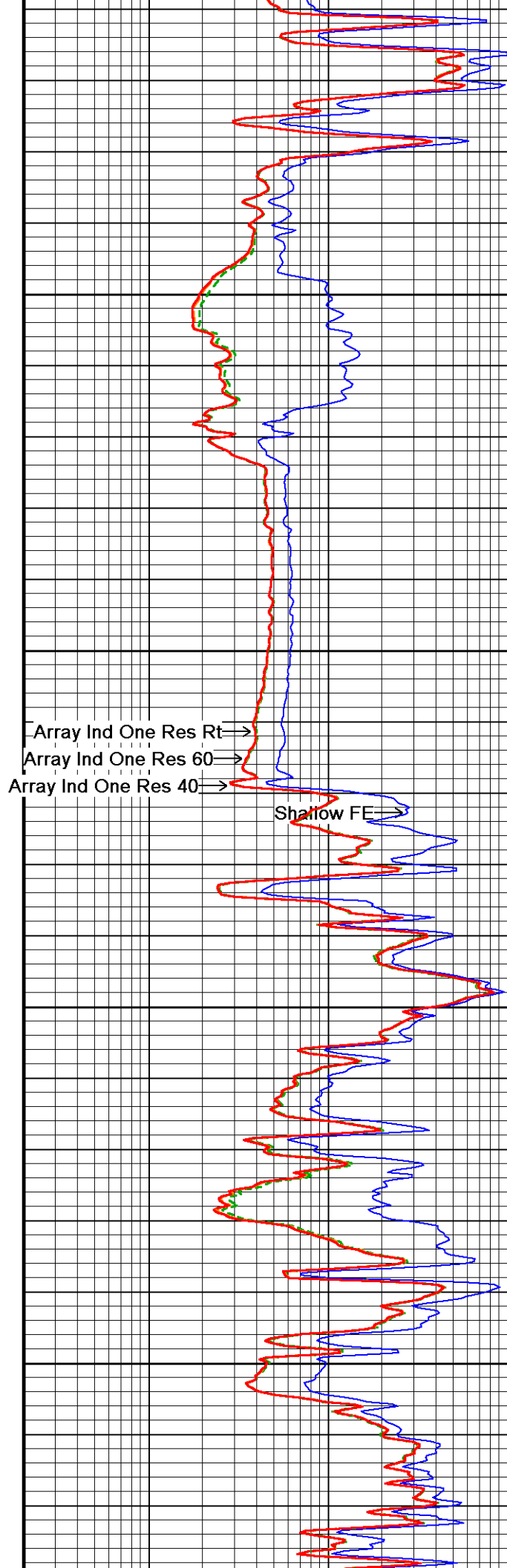
DST Uphole Tension →

109°

2750

109°

2800

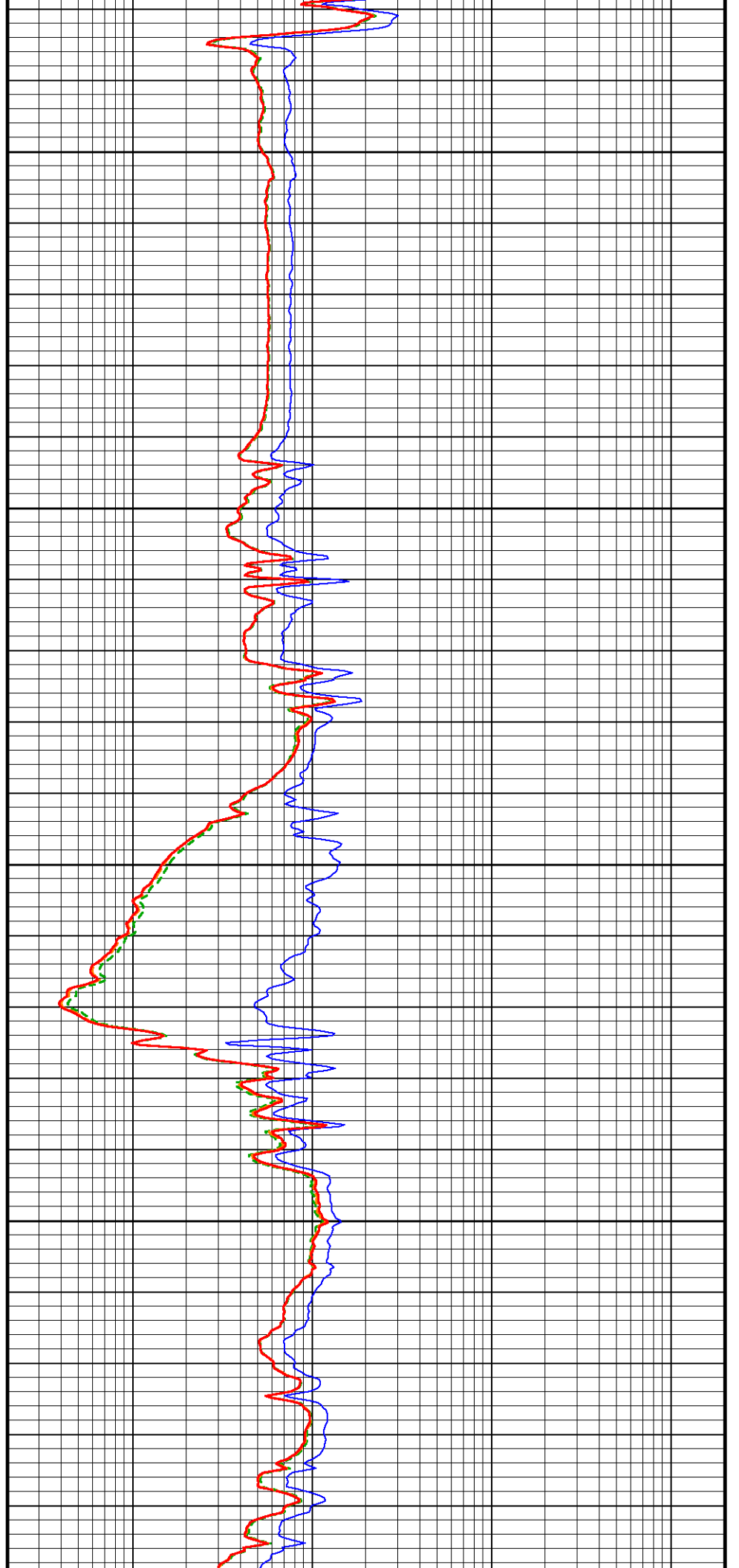
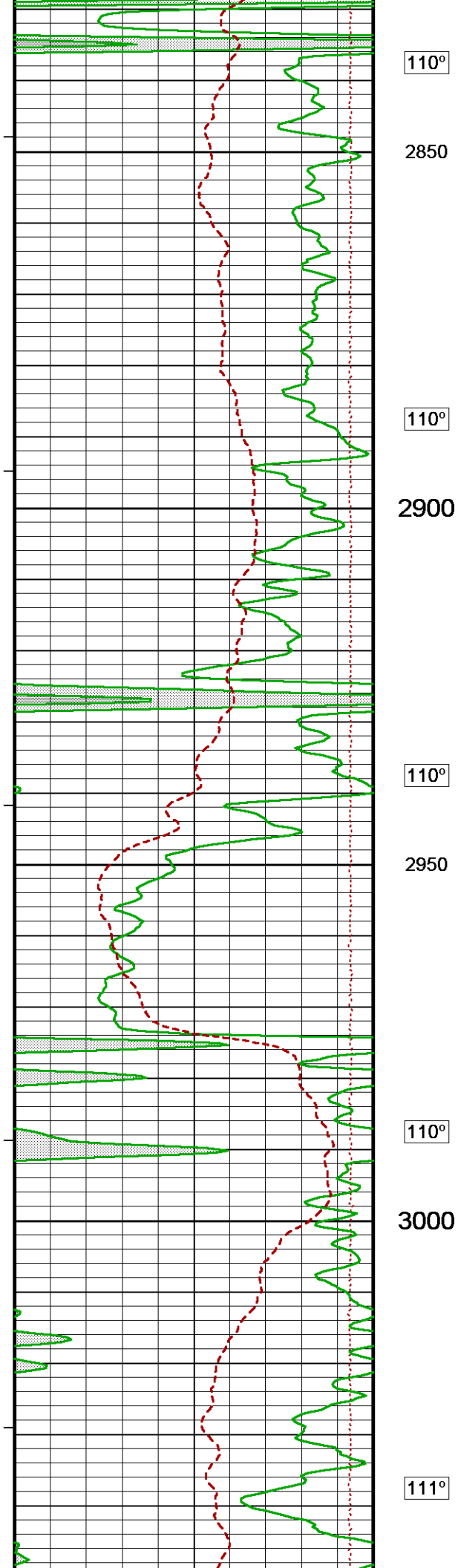


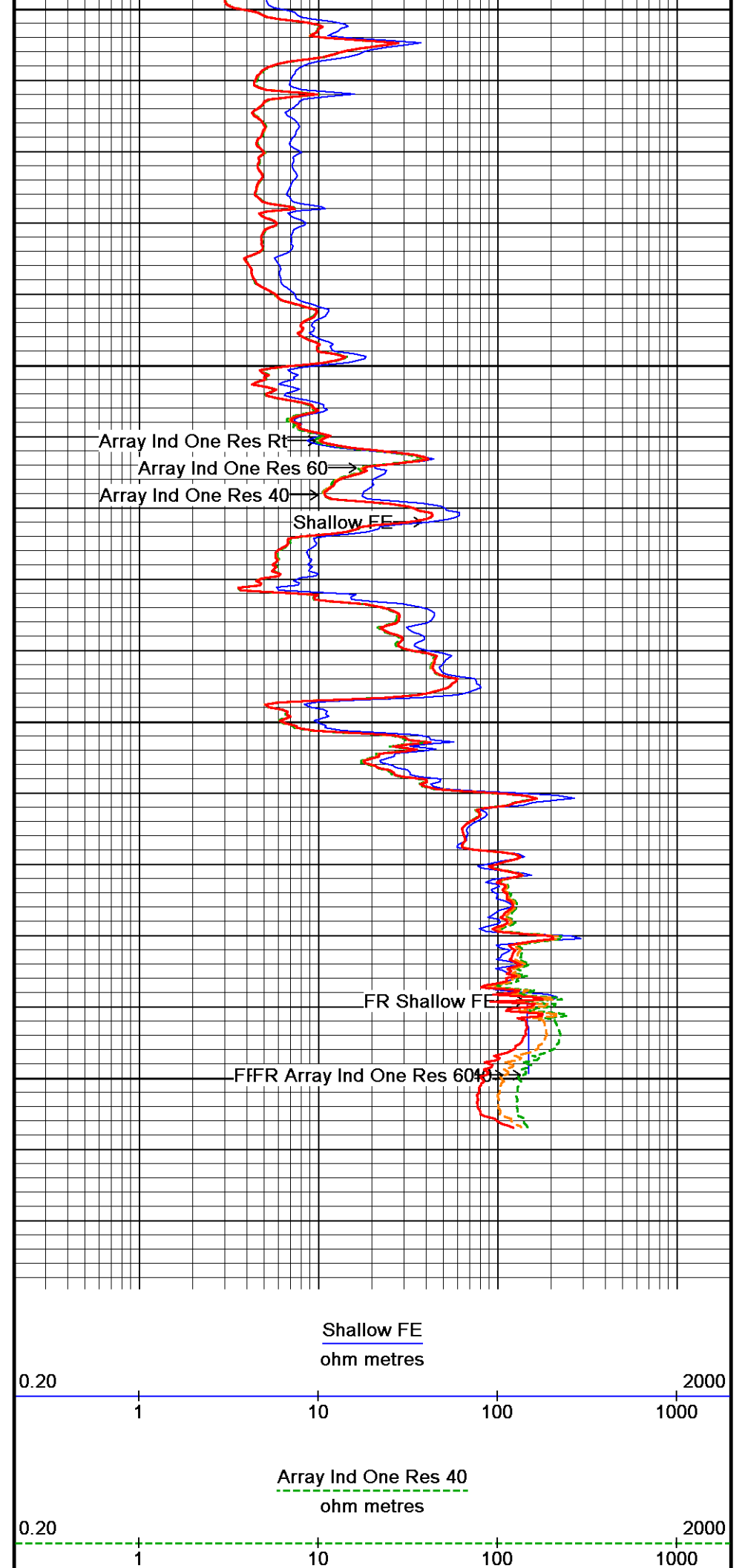
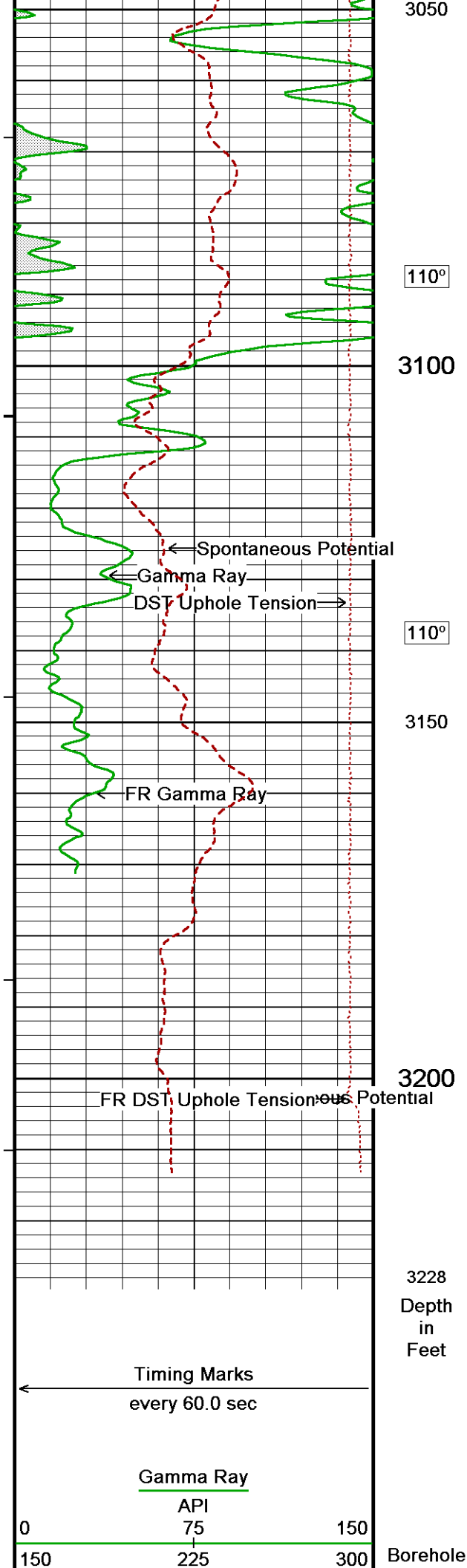
Array Ind One Res Rt →

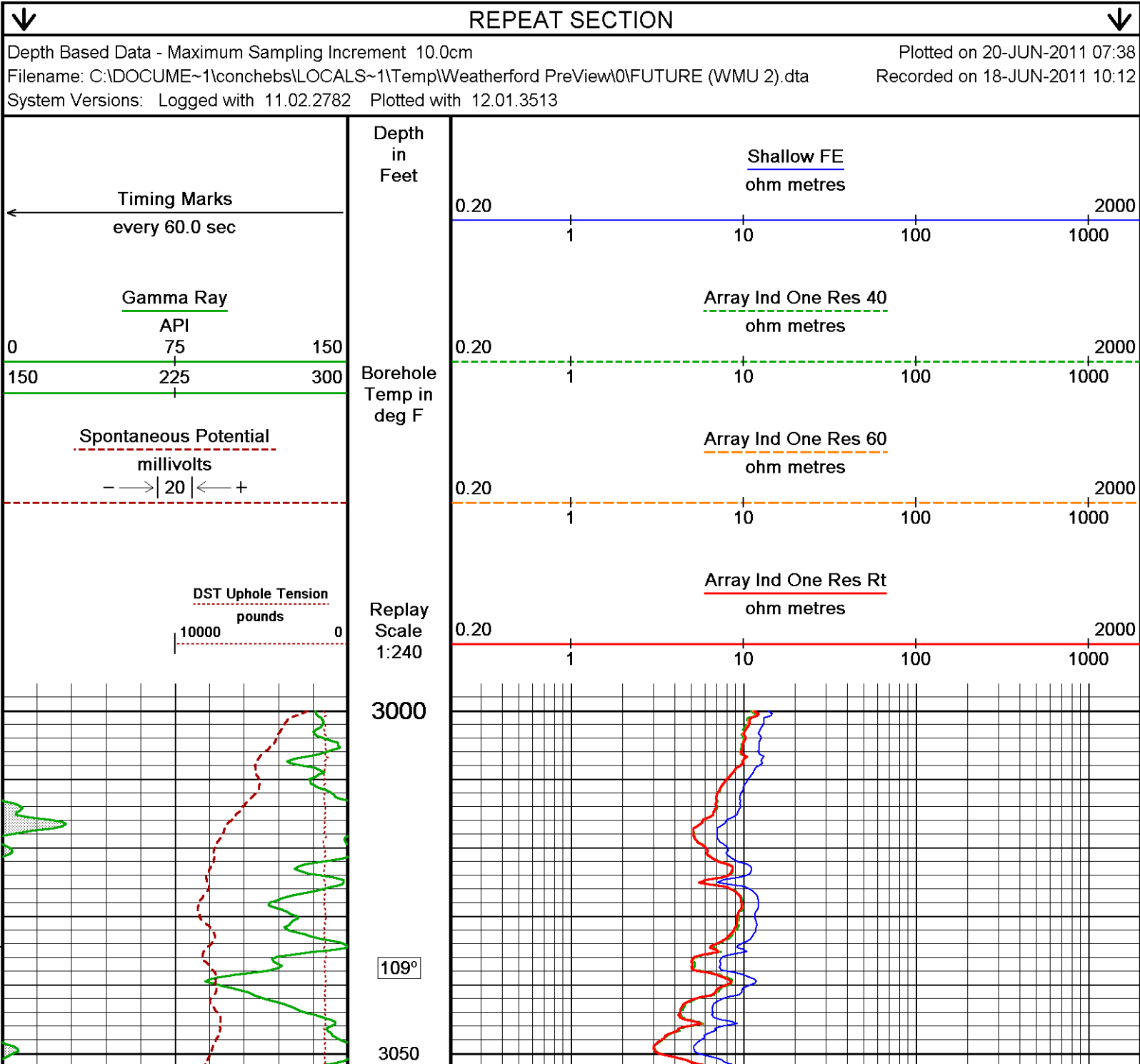
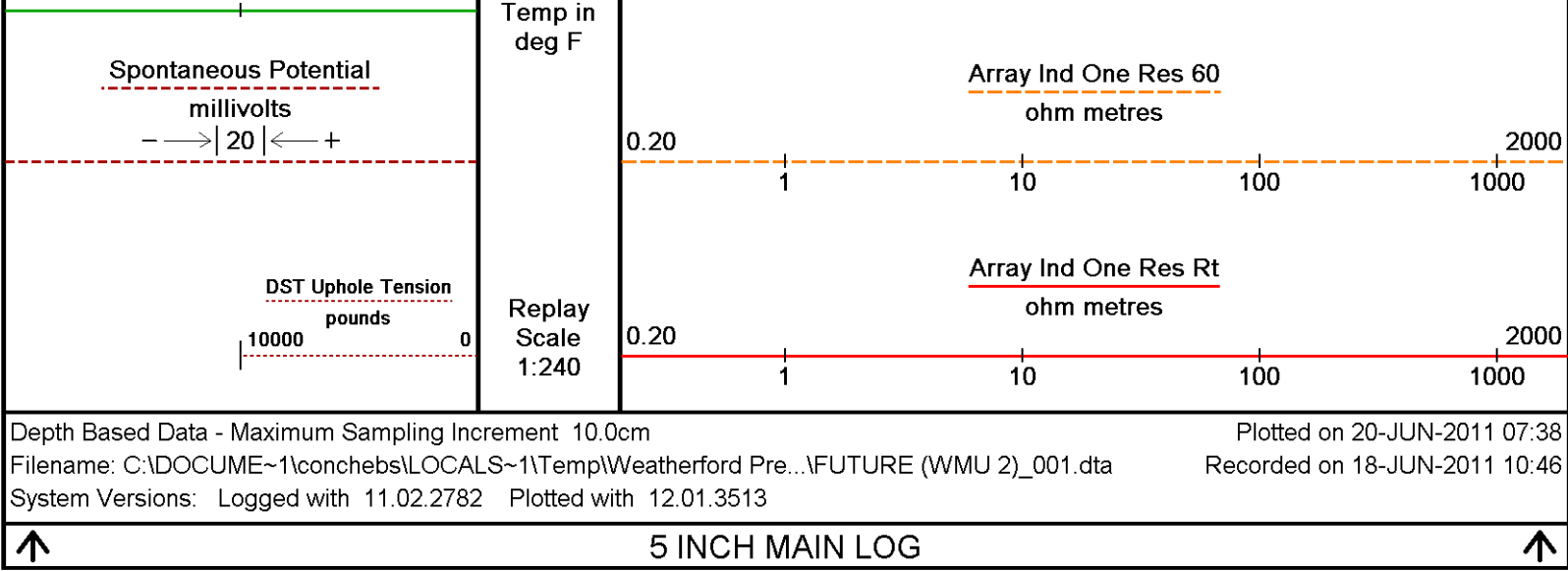
Array Ind One Res 60 →

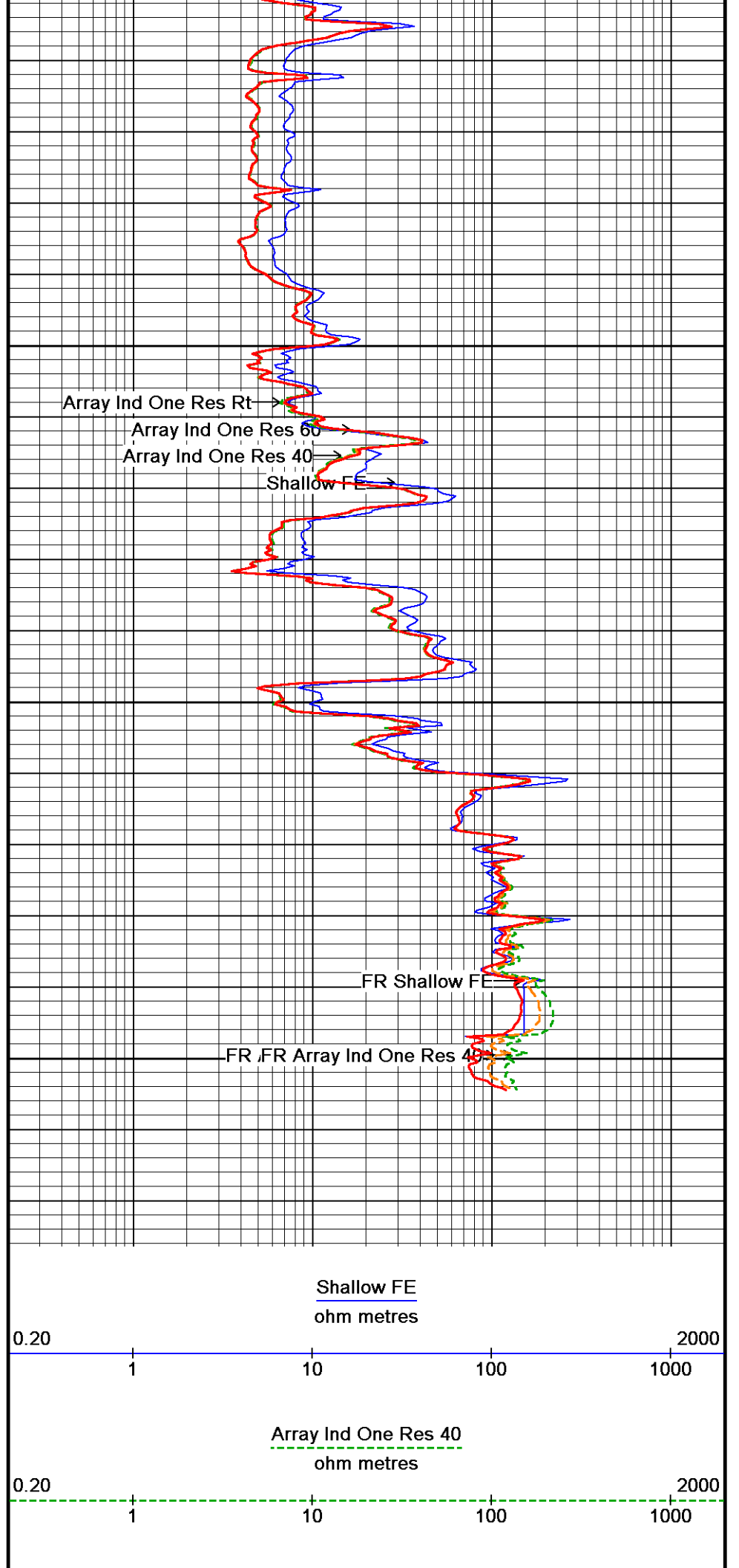
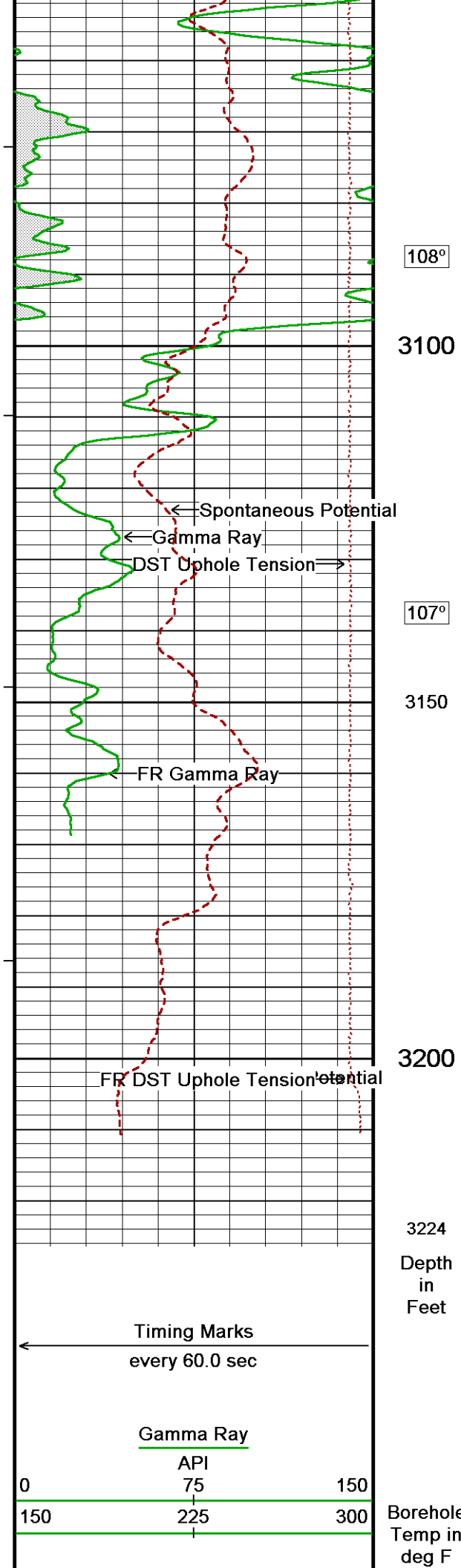
Array Ind One Res 40 →

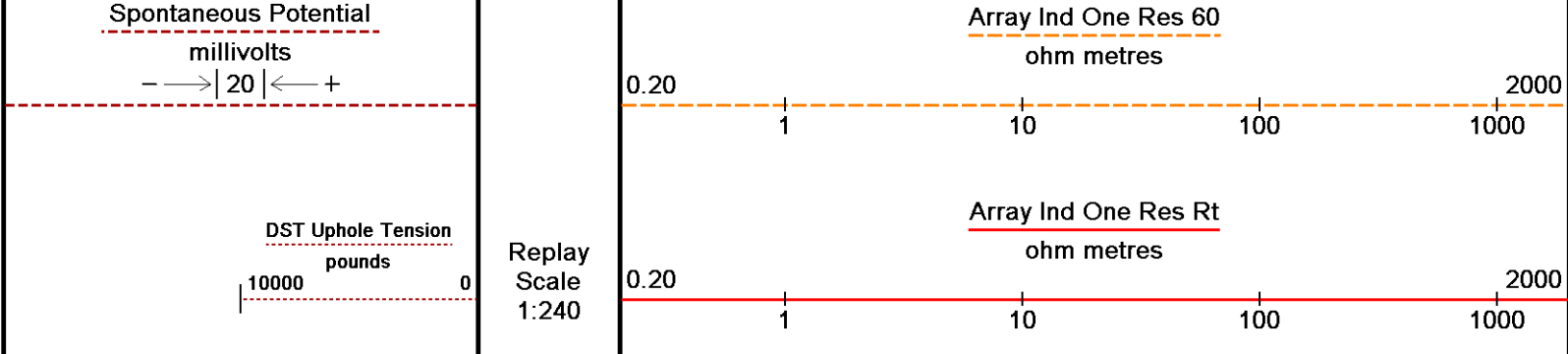
Shallow FE →











Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 20-JUN-2011 07:38
 Filename: C:\DOCUME~1\conchebs\LOCALS~1\Temp\Weatherford PreView\0\FUTURE (WMU 2).dta
 Recorded on 18-JUN-2011 10:12
 System Versions: Logged with 11.02.2782 Plotted with 12.01.3513

↑ REPEAT SECTION ↑

BEFORE SURVEY CALIBRATION
 C:\DOCUME~1\conchebs\LOCALS~1\Temp\Weatherford PreView\0\FUTURE (WMU 2).dta

General Constants All 000			Last Edited on 18-JUN-2011 10:30		
General Parameters					
Mud Resistivity	1.200	ohm-metres			
Mud Resistivity Temperature	79.000	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 18-APR-2011 16:08	
Reading No	Measured	Calibrated (lbs)	
1	17084.71	0.00	
2	18593.64	350.00	

Gamma Calibration MCG-B 31		Field Calibration on 17-JUN-2011 02:47	
	Measured	Calibrated (API)	
Background	54	37	
Calibrator (Gross)	1868	1298	
Calibrator (Net)	1815	1261	

Gamma Constants MCG-B 31		Last Edited on 18-JUN-2011 10:29	
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 18-JUN-2011 10:29	
	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 18-JUN-2011 10:29	
--	--	--	--

	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 10:49		
Pre-filter Length	11			
Caliper Calibration MML-A 1		Base Calibration on 31-MAY-2011 12:18 Field Calibration on 18-JUN-2011 10:29		
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)		
	8.20	8.10		
Micro Normal and Micro Inverse Calibration MML-A 1		Base Calibration on 31-MAY-2011 12:05 Field Check on 17-JUN-2011 02:47		
Base Calibration				
Channel	Resistor 1	Measured Resistor 2	Calibrated (ohm-m) 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 17-JUN-2011 02:48		
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 19:29 Field Check on 18-JUN-2011 10:29		
Base Calibration				
	Near	Measured Far	Near	Calibrated (cps) 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 17-JUN-2011 02:48		
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 03:46 Field Check on 18-JUN-2011 10:27
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 17-JUN-2011 02:48
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 18-JUN-2011 10:27
	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 13:59
Pre-filter Length	11	
Induction Calibration MAI-A.A 11		Base Calibration on 20-NOV-2009 13:14 Field Check on 18-JUN-2011 10:27
Base Calibration		
Test Loop Calibration		
Channel	Low High	Low 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)		Field Check (mmho/m)
	Low High	Low 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 18-JUN-2011 10:27
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 13:35

Field Calibration on 17-JUN-2011 03:20

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)
	8.15	8.10

Photo Density Calibration MPD-A 3

Base Calibration on 31-MAY-2011 13:51

Field Check on 17-JUN-2011 02:48

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 18-JUN-2011 10:28

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	0.00
0.00	0.00

DOWNHOLE EQUIPMENT

C:\DOCUME~1\conchebs\LOCALS~1\Temp\Weatherford PreView\0\FUTURE (WMU 2).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

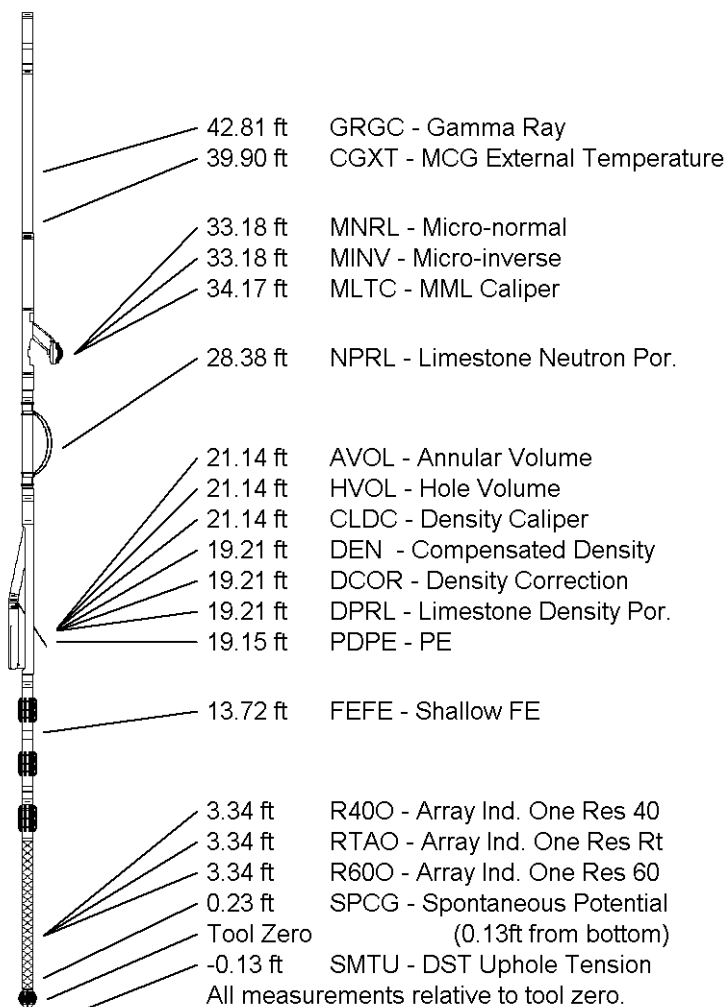
Compact Focussed Electric

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 CO.,LLC

WELL

WEST MADDIX UNIT 2

FIELD

WEST MADDIX UNIT

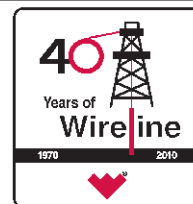
PROVINCE/COUNTY COWLEY
COUNTRY/STATE U.S.A. / KANSAS

Elevation Kelly Bushing	1281.00	feet	First Reading	3200.00	feet
Elevation Drill Floor	1279.00	feet	Depth Driller	3205.00	feet
Elevation Ground Level	1272.00	feet	Depth Logger	3203.00	feet

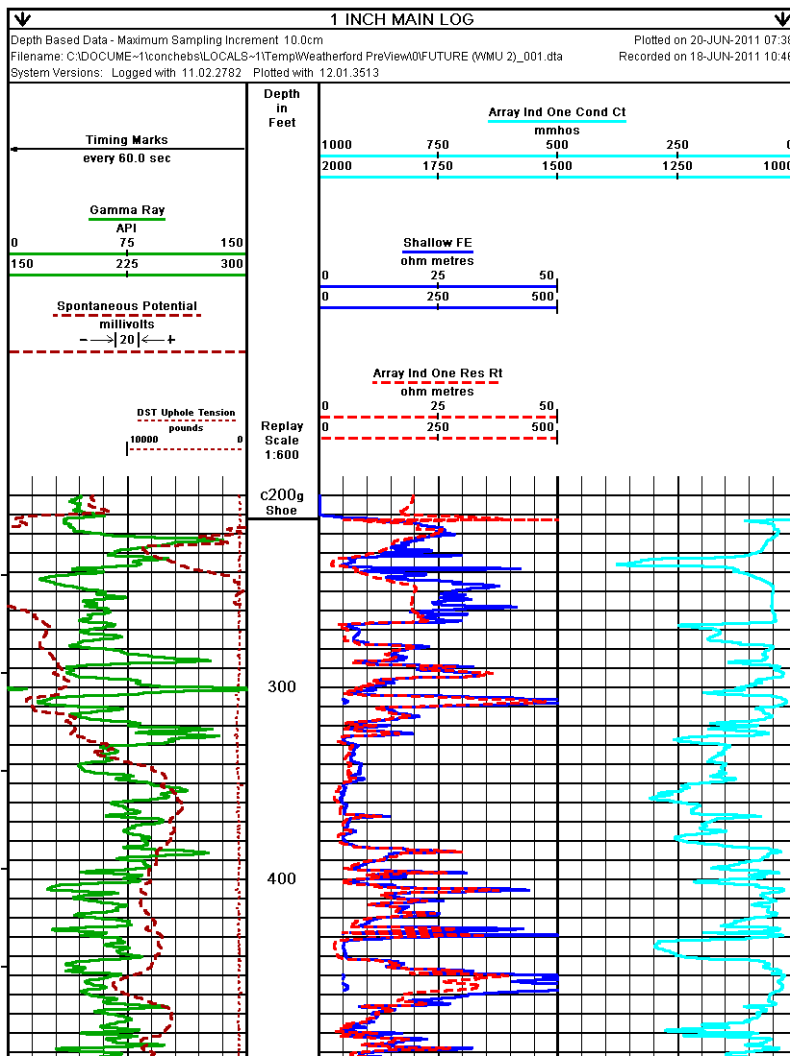


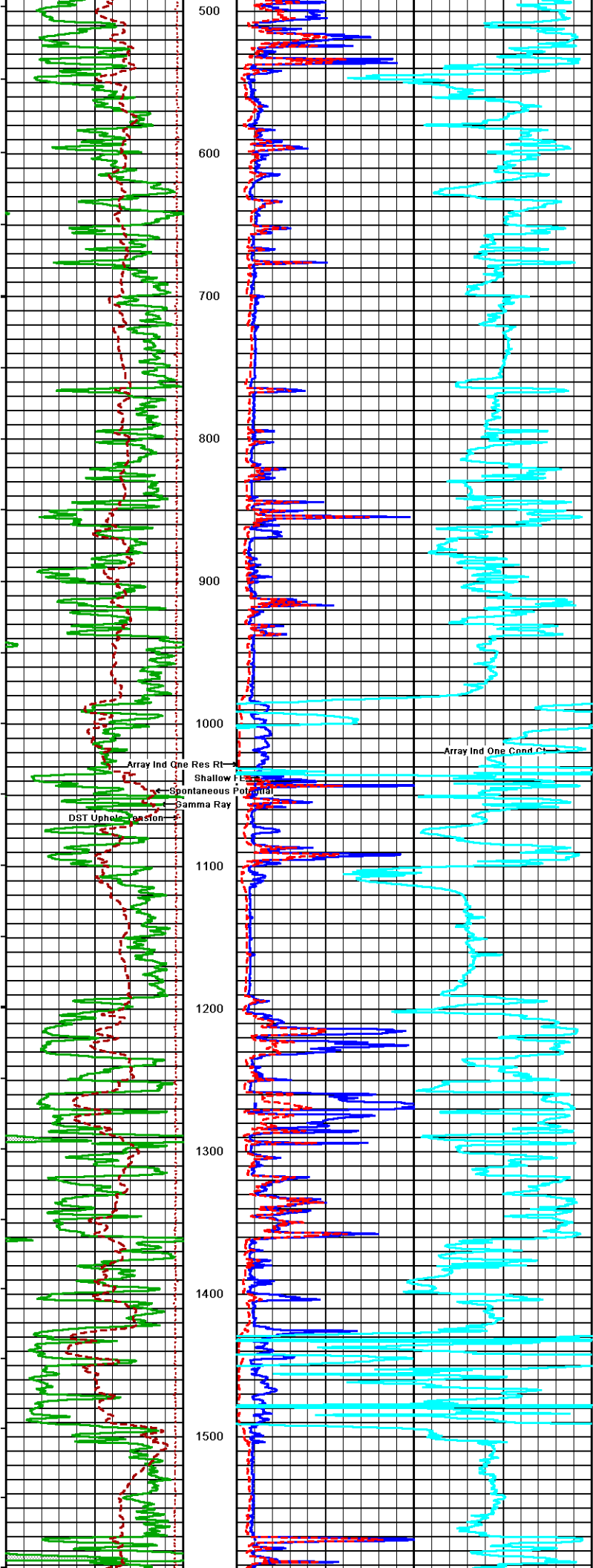
Weatherford®

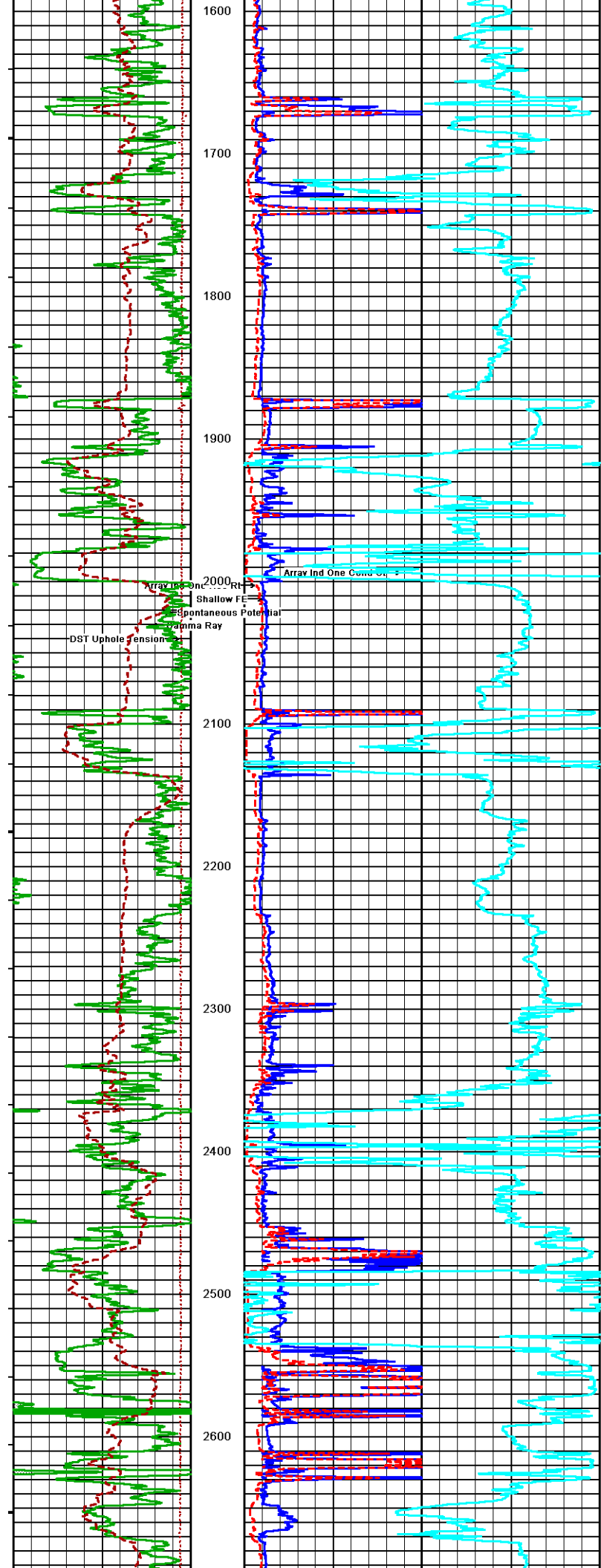
ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG

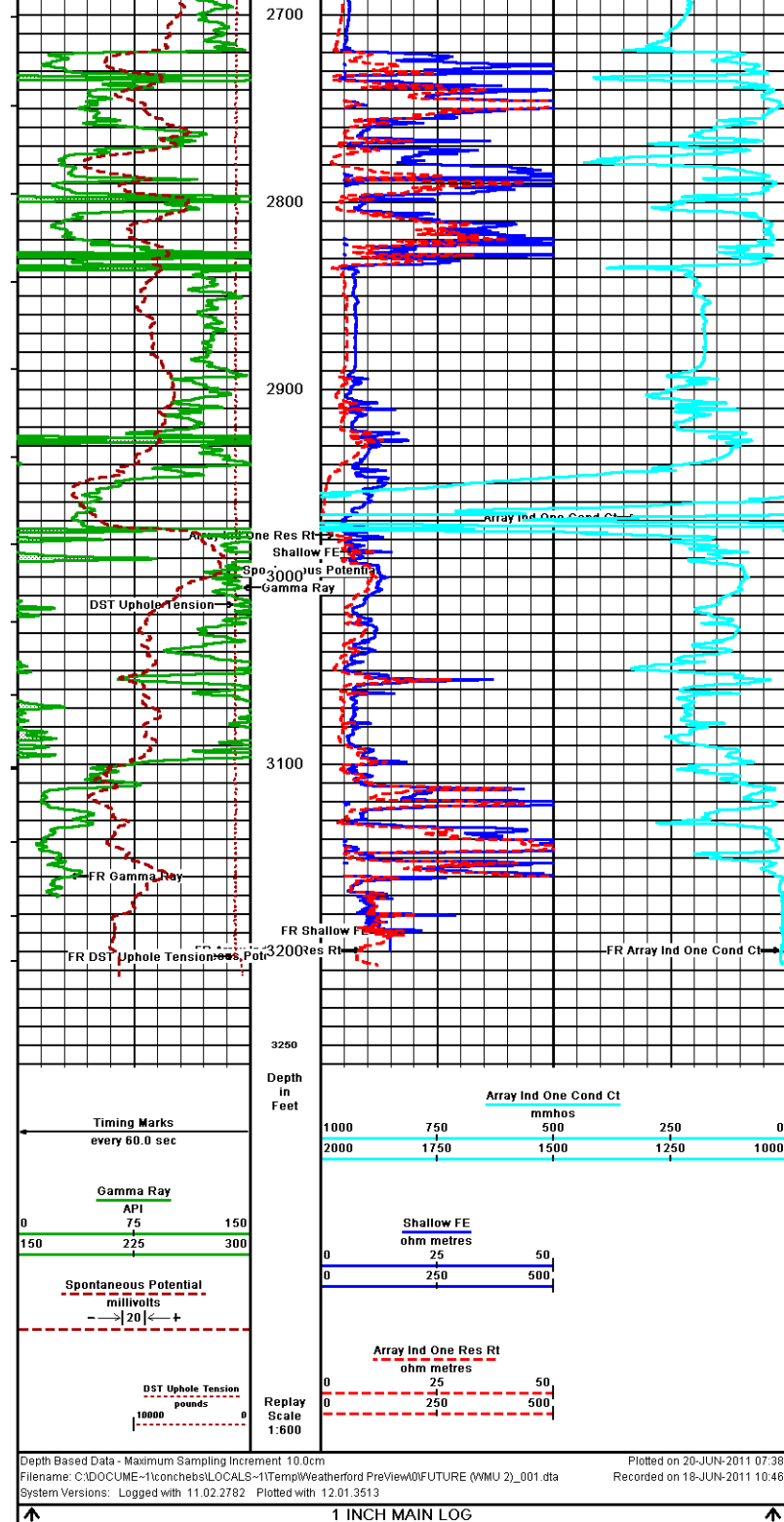


Weatherford		ARRAY INDUCTION SHALLOW FOCUSED ELECTRIC LOG	
COMPANY	FUTURE PETROLEUM CO., LLC	WELL	WEST MADDIX UNIT 2
FIELD	WEST MADDIX UNIT	PROVINCE/COUNTY	COWLEY
COUNTRY/STATE	U.S.A. / KANSAS	LOCATION	915 FWL & 1764 FEL NW SE NW NE
SEC	10	TYPE	338
API Number	15,035,24420	Other Services	ML
Permit Number	15,035,24420	SE	ML
Permanent Datum G.L. Elevation 1272 feet		Log Measured From K.B. @ 9 FEET above Permanent Datum	
Drilling Measured From K.B.			
DATE	18-JUN-2011	Revisions:	1281.00 1279.00 1272.00
Run Number	ONE		
Depth Driller	3205.00	feet	
Depth Logger	3203.00	feet	
First Reading	3200.00	feet	
Last Reading	212.00	feet	
Casing Driller	213.00	feet	
Casing Logger	212.00	feet	
Bit Size	7.875	inches	
Hole Fluid Type	WBW		
Density / Viscosity	9.40	lbm/gal	
PH / Fluid Loss	9.00	ml/30min	
Sample Source	MUDPRF		
Rm @ Measured Temp	1.20 @ 79.0	ohm-m	
Rm @ Measured Temp	0.96 @ 79.0	ohm-m	
Rm @ Measured Temp	1.44 @ 79.0	ohm-m	
Source Rm / Rm	CALC	CALC	
Rm @ BHT	0.89 @ 110.0	ohm-m	
Time Since Circulation	6 HOURS	deg F	
Max Recorded Temp	110.00	deg F	
Equipment Name	COMPACT		
Equipment / Base	13226	OKC	
Recorded By	D. DAVIS		
Witnessed By	T. MADSEN		
Service Order	3531722		









COMPANY	FUTURE PETROLEUM CO.,LLC			
WELL	WEST MADDIX UNIT 2			
FIELD	WEST MADDIX UNIT			
PROVINCE/COUNTY	COWLEY			
COUNTRY/STATE	U.S.A. / KANSAS			
Elevation Kelly Bushing	1281.00	feet	First Reading	3200.00 feet
Elevation Drill Floor	1279.00	feet	Depth Driller	3205.00 feet
Elevation Ground Level	1272.00	feet	Depth Logger	3203.00 feet
		ARRAY INDUCTION		
		SHALLOW FOCUSED		
		ELECTRIC LOG		
				

