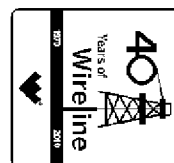




Weatherford

**Cement Bond Log
Compensated Neutron
Gamma Ray**

COMPANY **XTO Energy**
WELL **Golden Eagle 30-08**
FIELD **Purgatoire River**
PROVINCE/COUNTY **Las Animas County**
COUNTRY/STATE **U.S.A. / Colorado**
LOCATION **2132' FWL & 1060' FEL**



FINAL PRINT

SEC **30** TWP **33S** RGE **67W** Other Services
API Number **05-071-09853**
Permit Number

Permanent Datum Ground Level, Elevation 7721.00 feet
Log Measured From Ground Level, 0 feet above Permanent Datum
Drilling Measured From Ground Level

Elevations:
KB 7726.50
DF 7726.00
GL 7721.00

Date	22-JUN-2011	
Run Number	One	
Depth Driller	2313.00	feet
Depth Logger	2312.00	feet
First Reading	2312.00	feet
Last Reading	0.00	feet
Casing Driller	2313.00	feet
Casing Logger	2312.00	feet
Bit Size	5.500	inches
Hole Fluid Type	Fresh Water	
Density / Viscosity		
PH / Fluid Loss		
Sample Source		
Rm @ Measured Temp		
Rmf @ Measured Temp		
Rmc @ Measured Temp		
Source Rmf / Rmc		
Rm @ BHT		
Time Since Circulation	7 Hrs.	
Max Recorded Temp	108.00	deg F
Equipment Name	Compact	
Equipment / Base	13096	Lib
Recorded By	Joey Browning	
Witnessed By	Eddie Haught	
Field Ticket	3529231	

BOREHOLE RECORD

Last Edited: 22-JUN-2011 16:57

Bit Size inches	Depth From feet	Depth To feet
5.500	0.00	2312.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
Product	5.500	0.00	2312.00	13.00

REMARKS

Tools Ran: SHA, MCG, MDN, MSS, MIS, MAI
Service Order # 3529231
Rig: Franks Mobil Service Rig # 658
Last Reading at 0 feet per clients request

****ESTIMATED TOP OF CEMENT AT 600 FEET.****

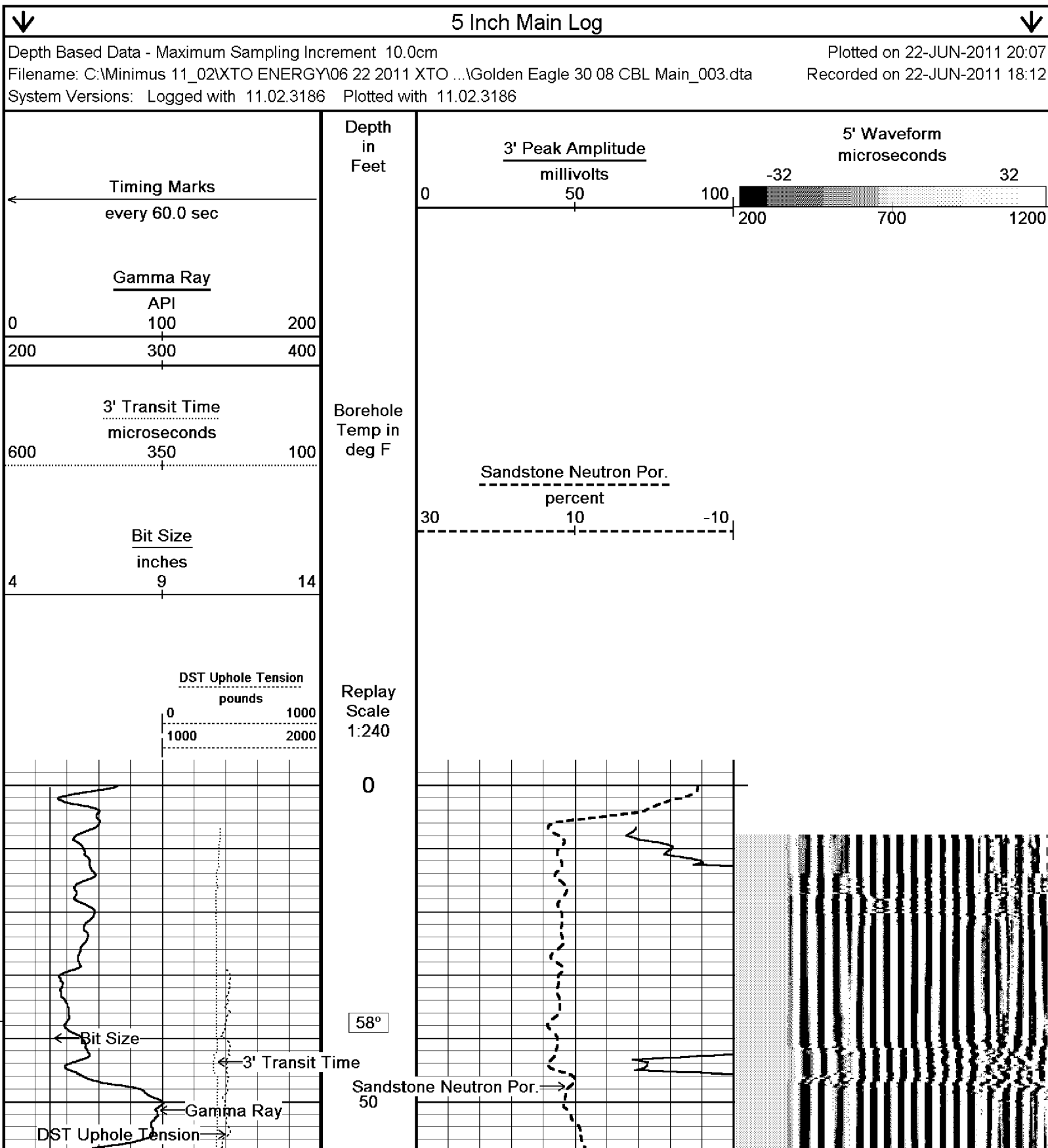
****ESTIMATED DV TOOL AT 1628 FEET.****

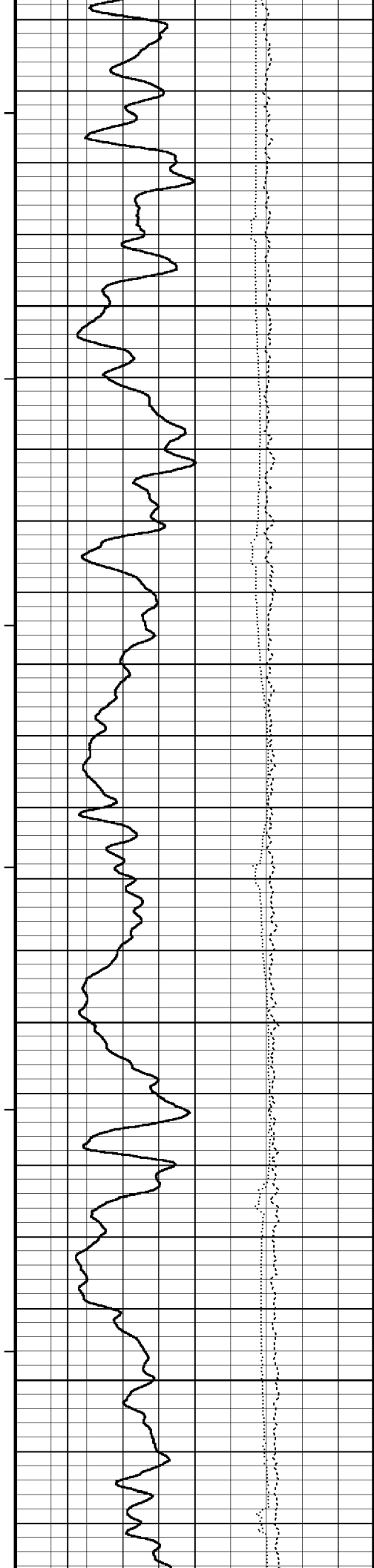
****ESTIMATED EXTERNAL CASING PACKER AT 1631****

****ESTIMATED FLOW BACK SHOE AT 2312.****

Thank you for choosing Weatherford Wireline Services

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.





55°

100

55°

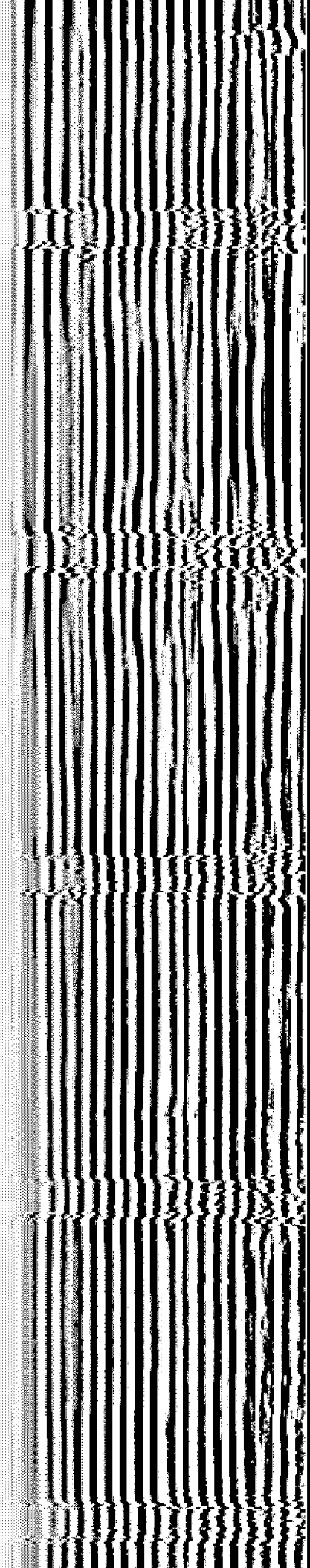
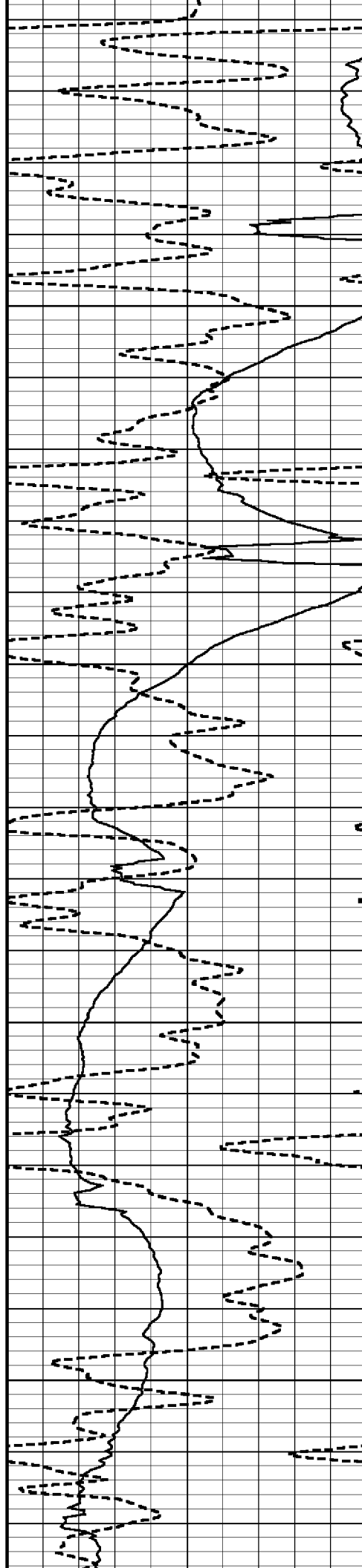
150

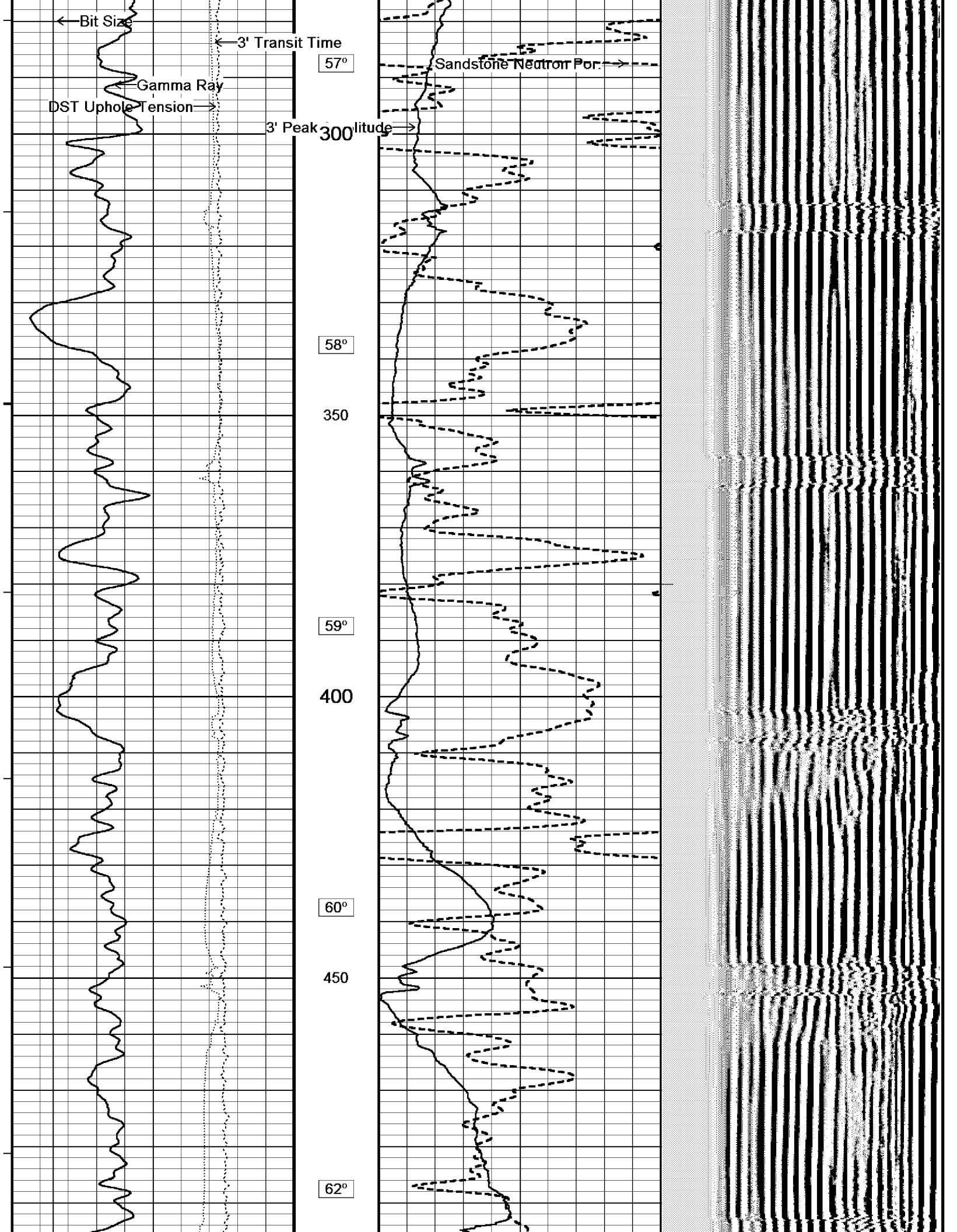
55°

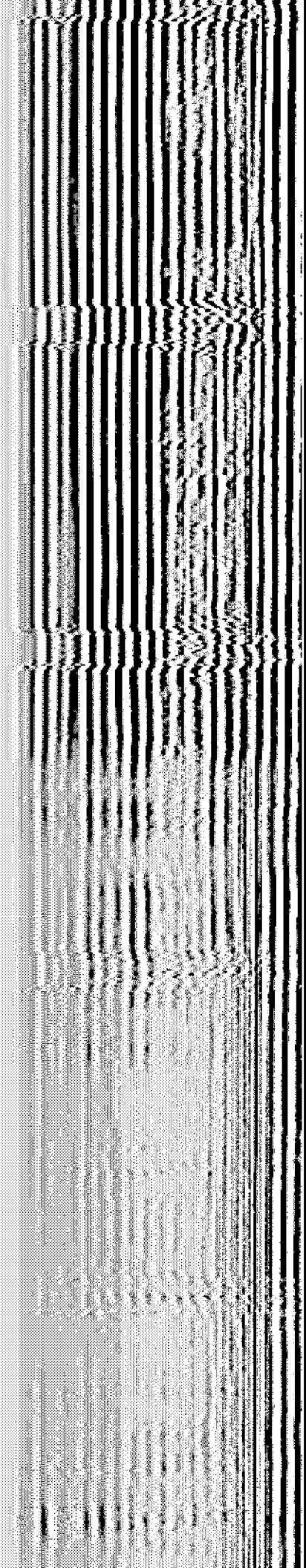
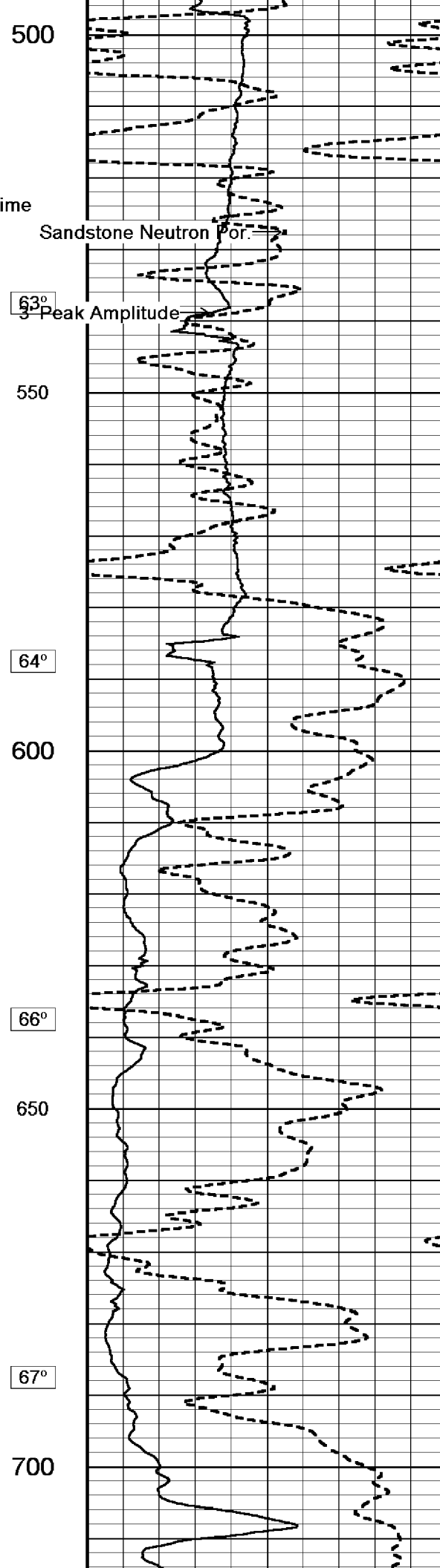
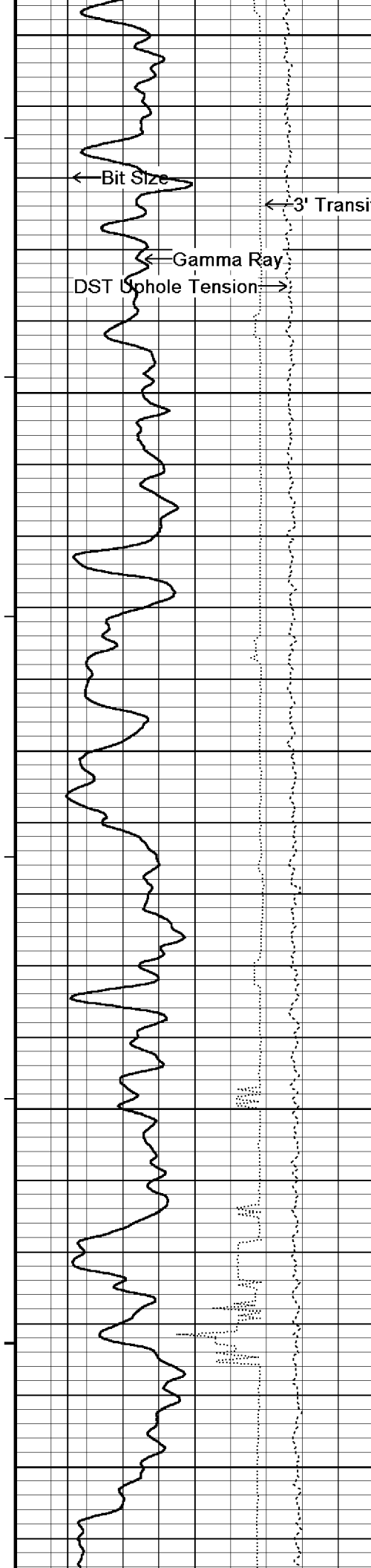
200

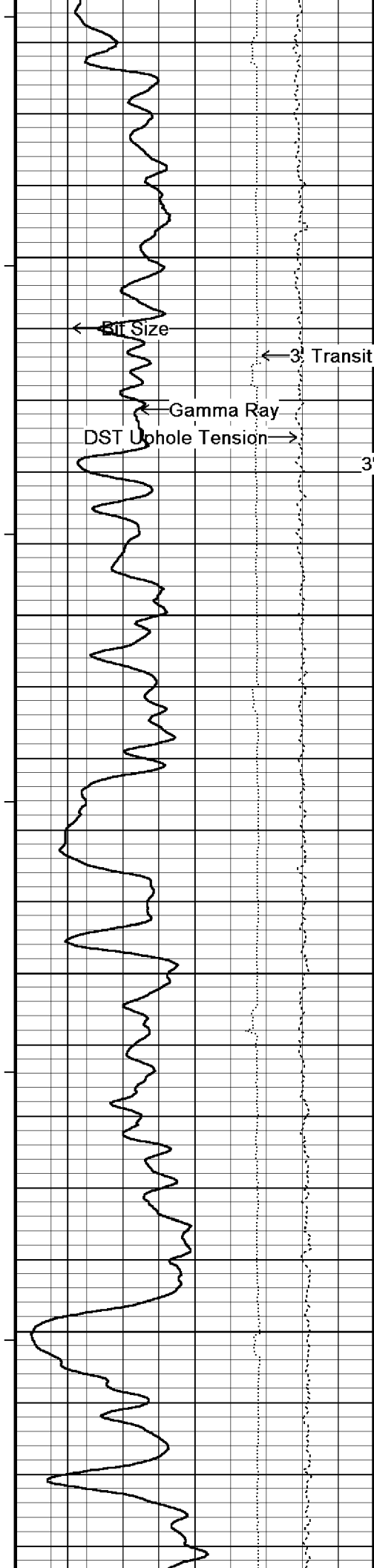
56°

250









68°

750

← Bit Size

← 3' Transit Time

← Gamma Ray

DST Uphole Tension →

Sandstone Neutron Por. →

3' Peak Amplitude →

70°

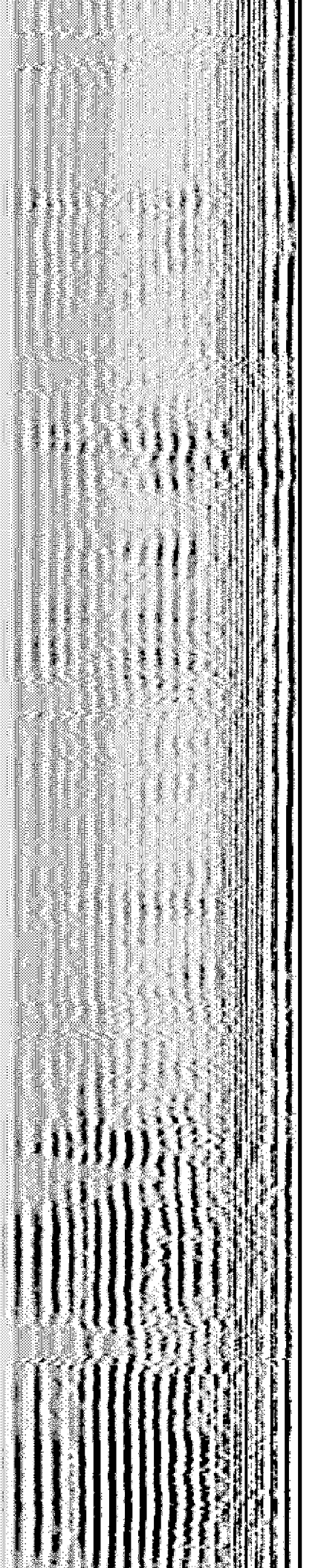
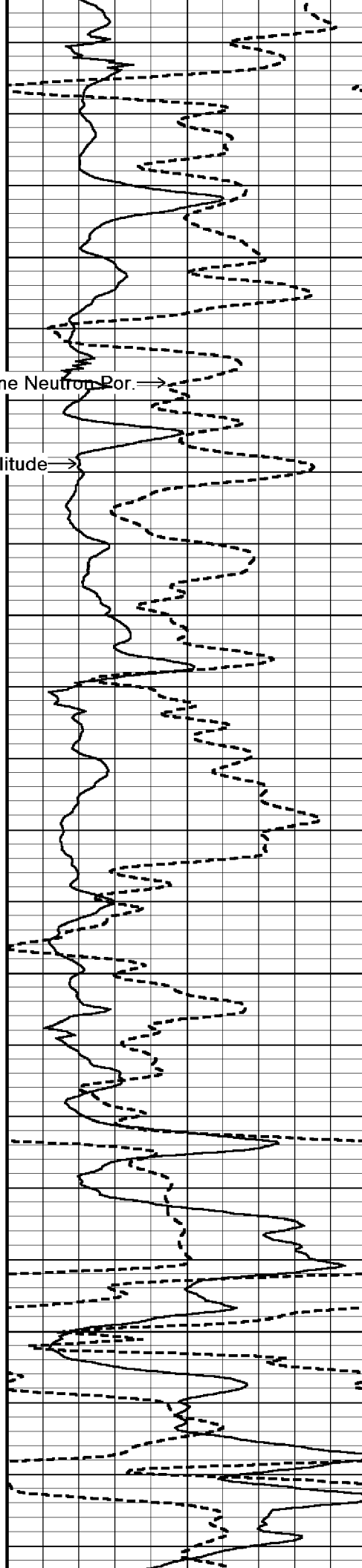
800

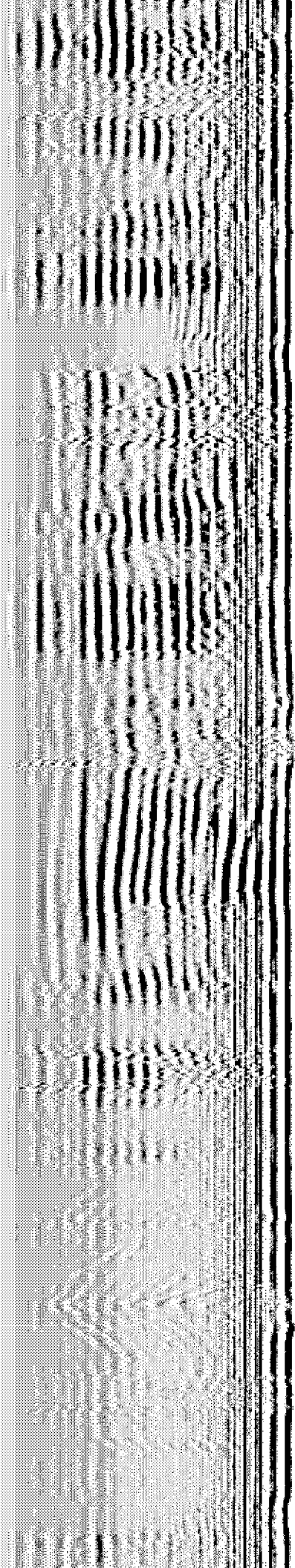
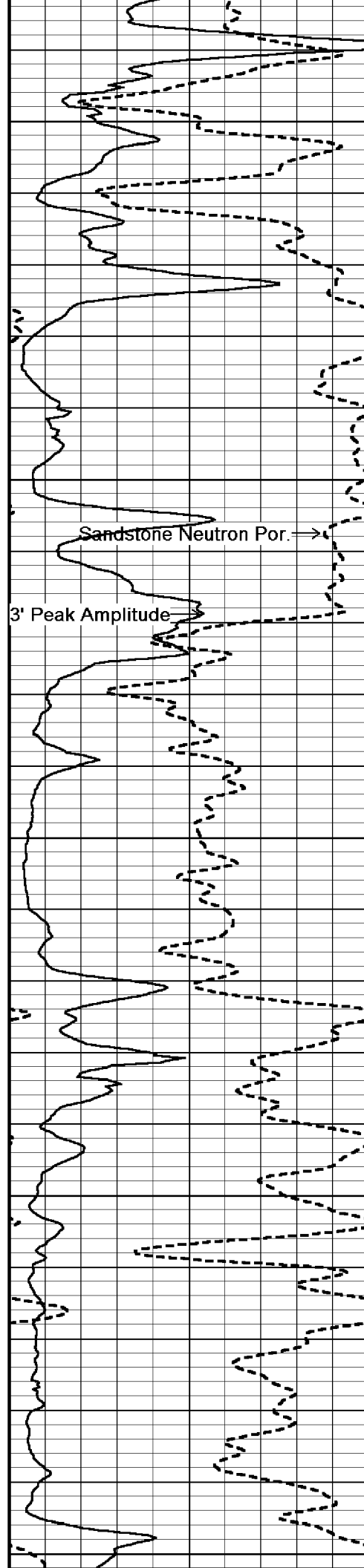
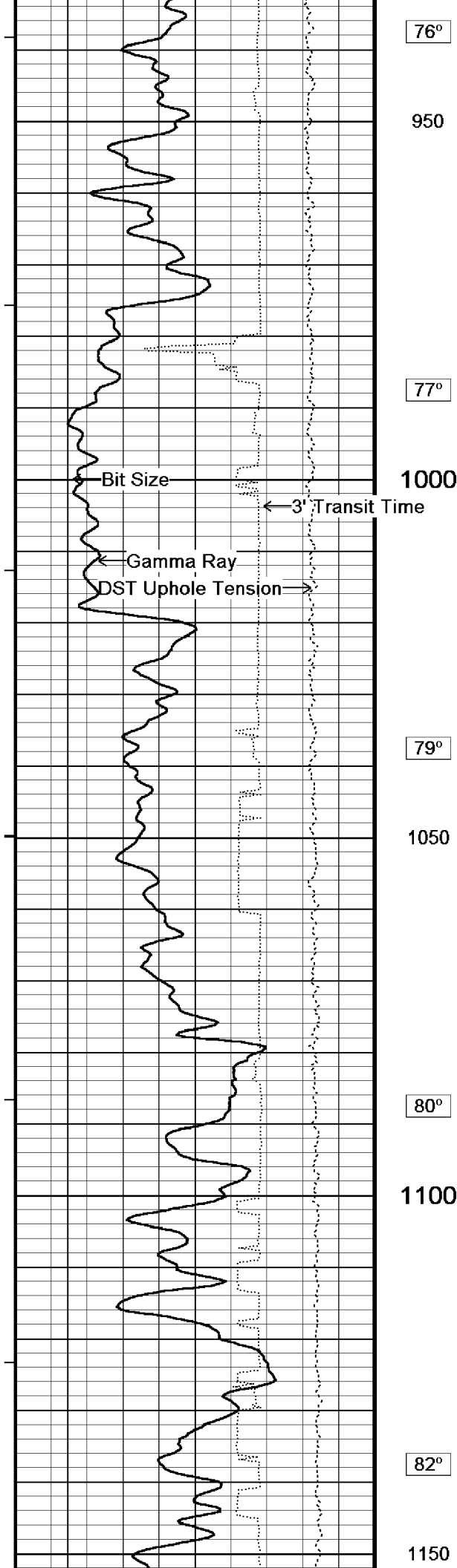
72°

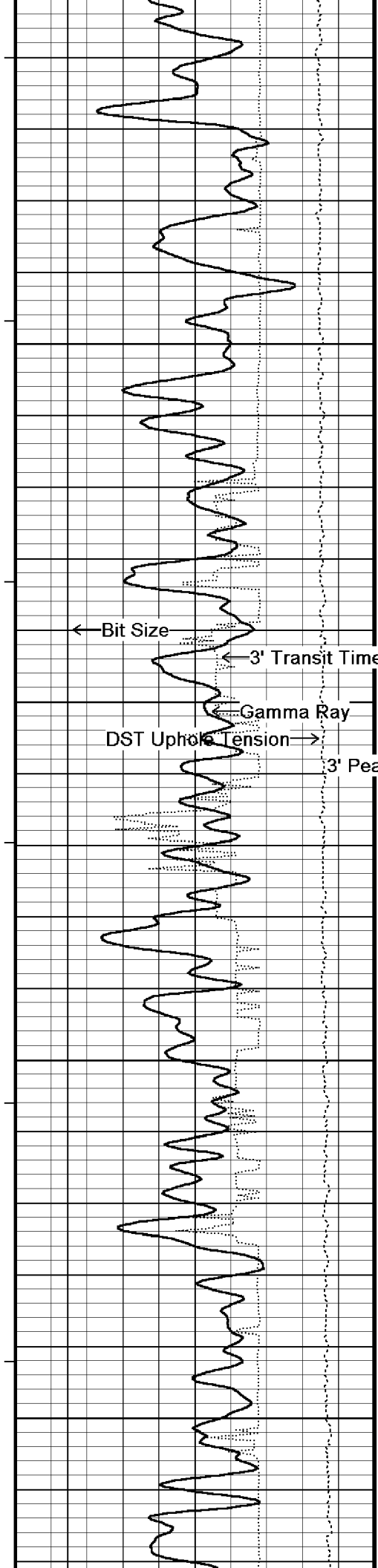
850

74°

900







83°

1200

84°

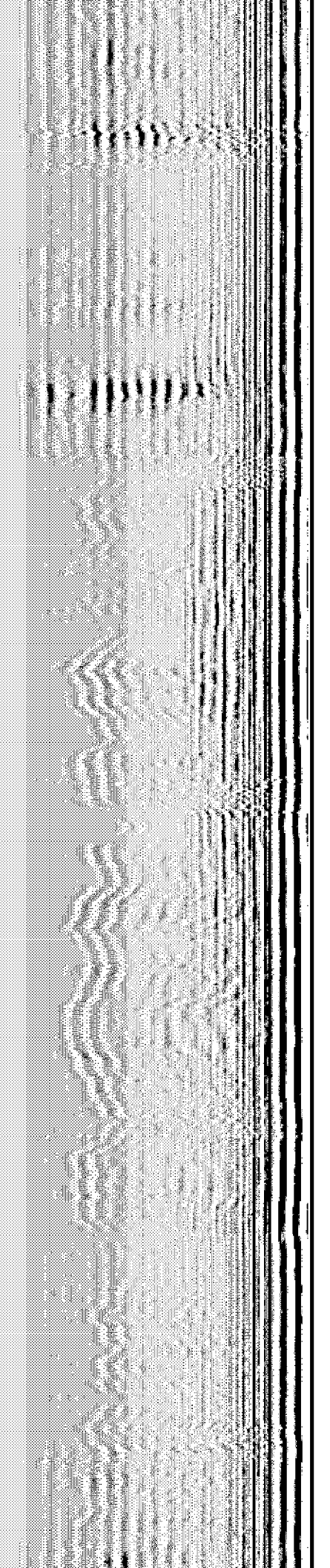
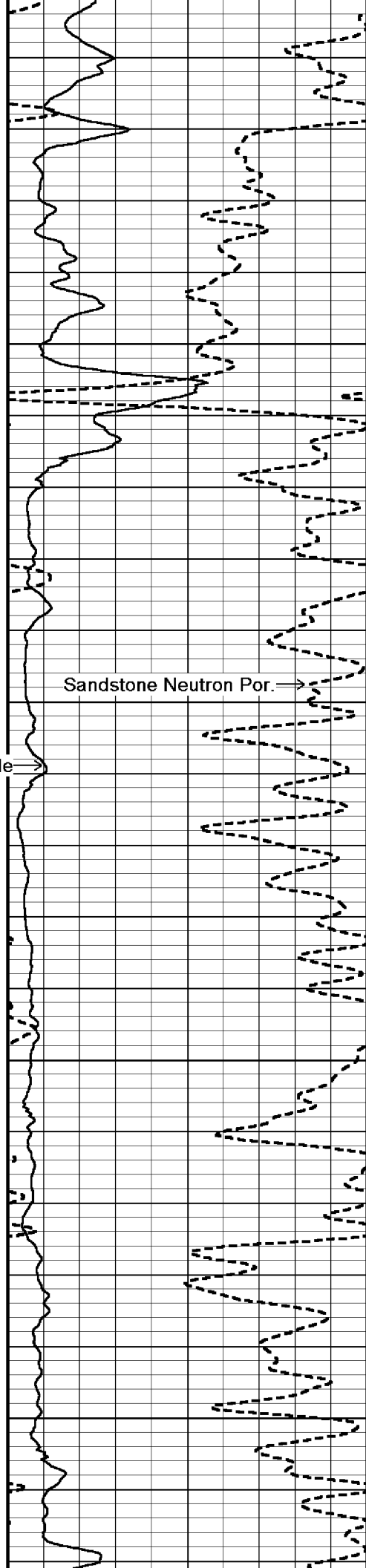
1250

86°

1300

87°

1350



88°

1400

89°

1450

90°

91°

93°

← Bit Size

← 3' Transit Time

Sandstone Neutron Por.

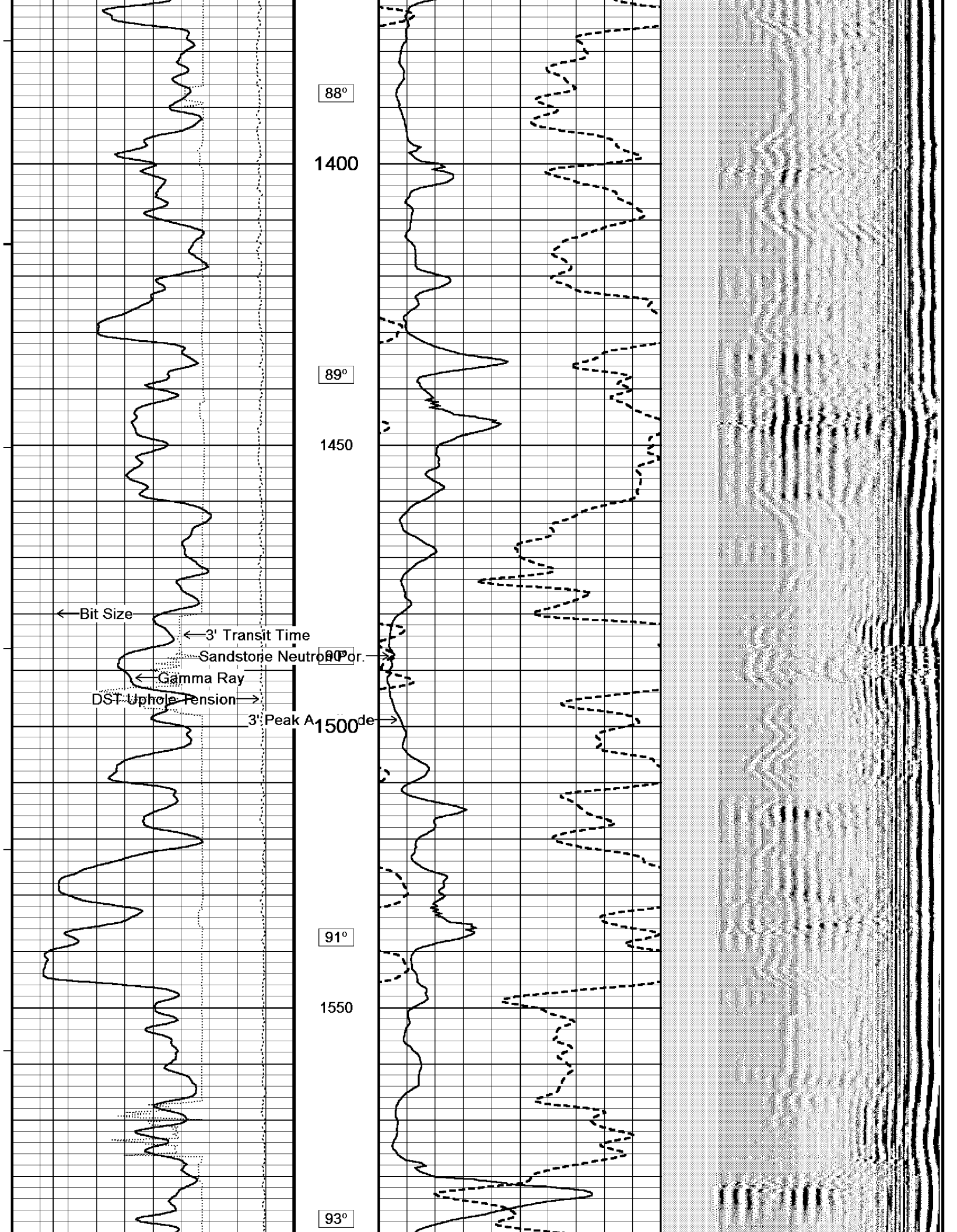
← Gamma Ray

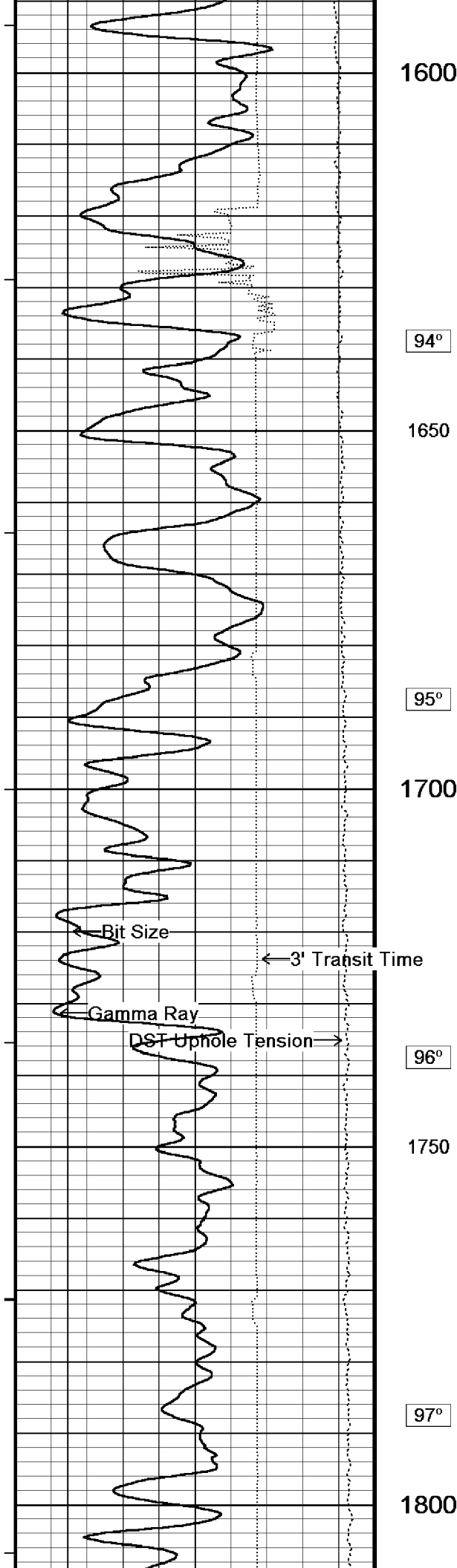
DST Uphole Pressure →

3' Peak A →

1500

1550





1600

94°

1650

95°

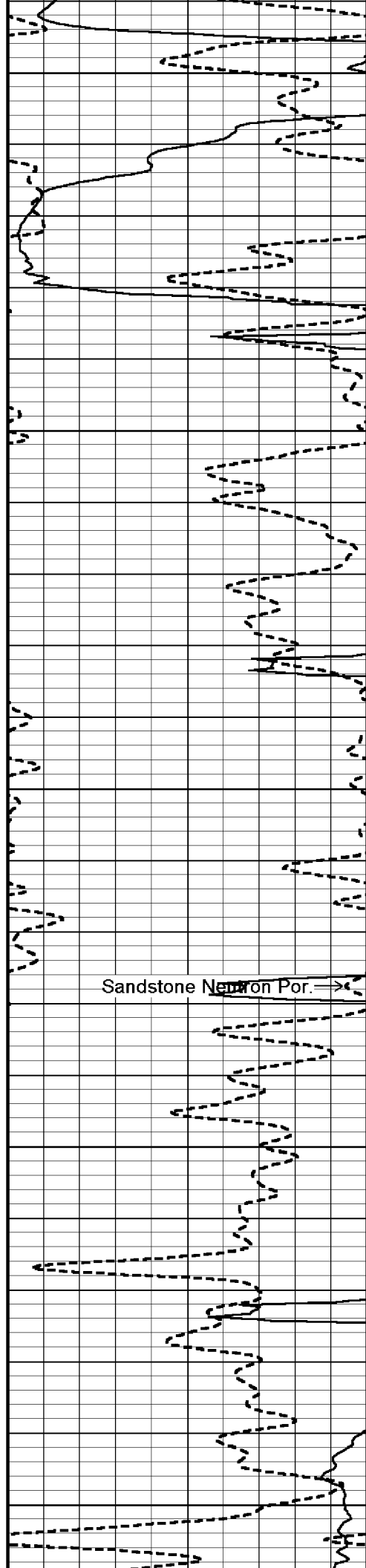
1700

96°

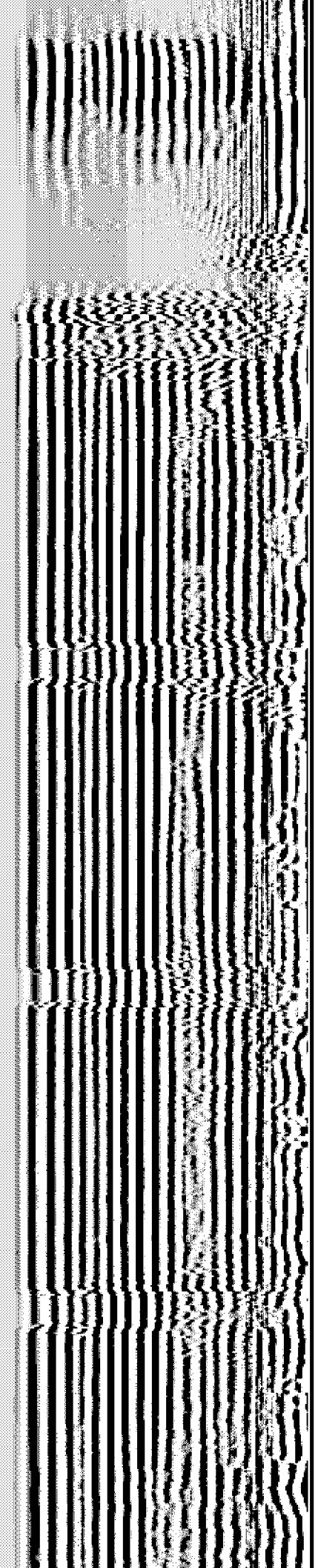
1750

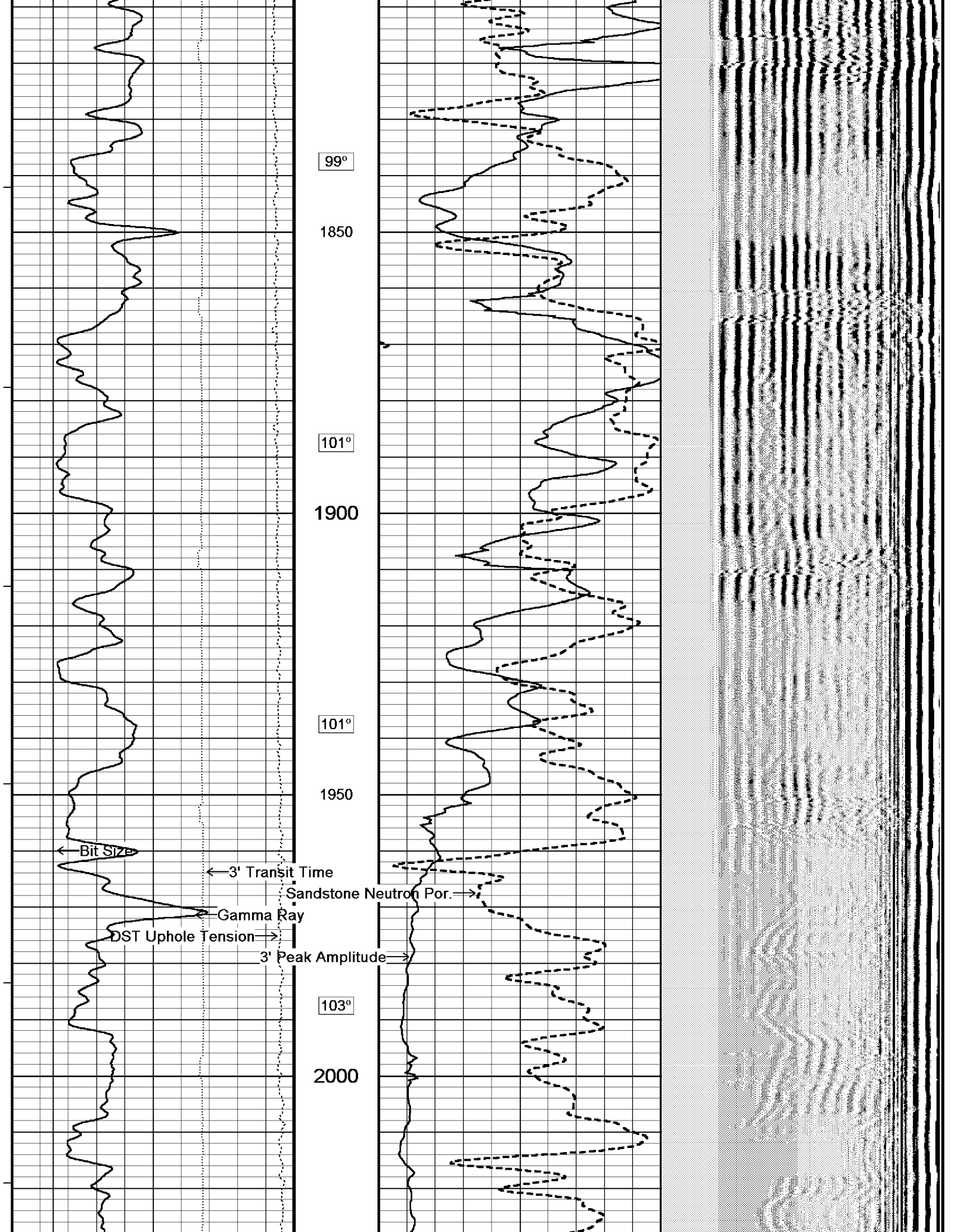
97°

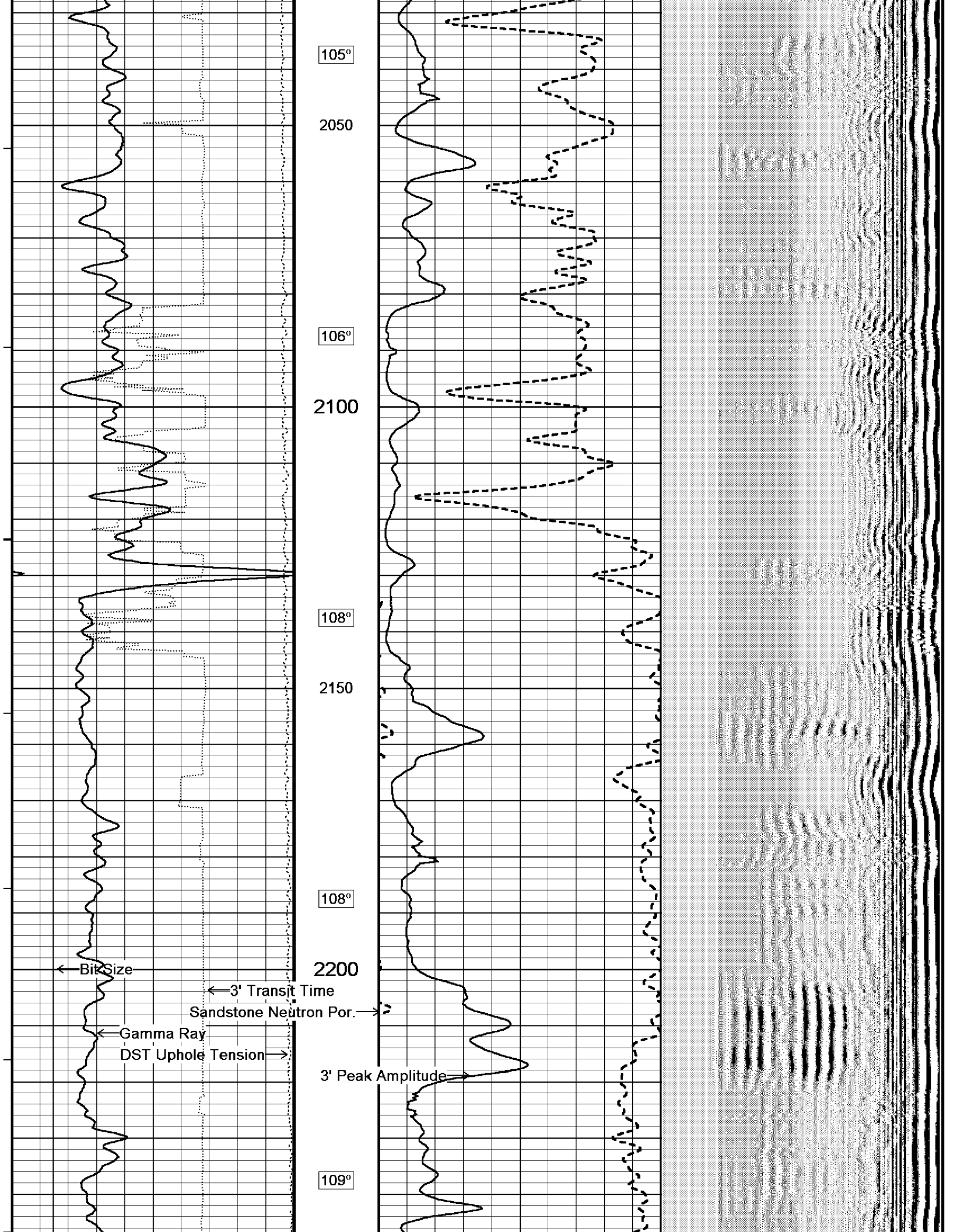
1800

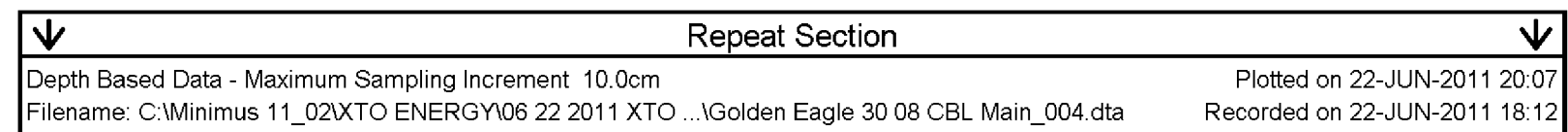
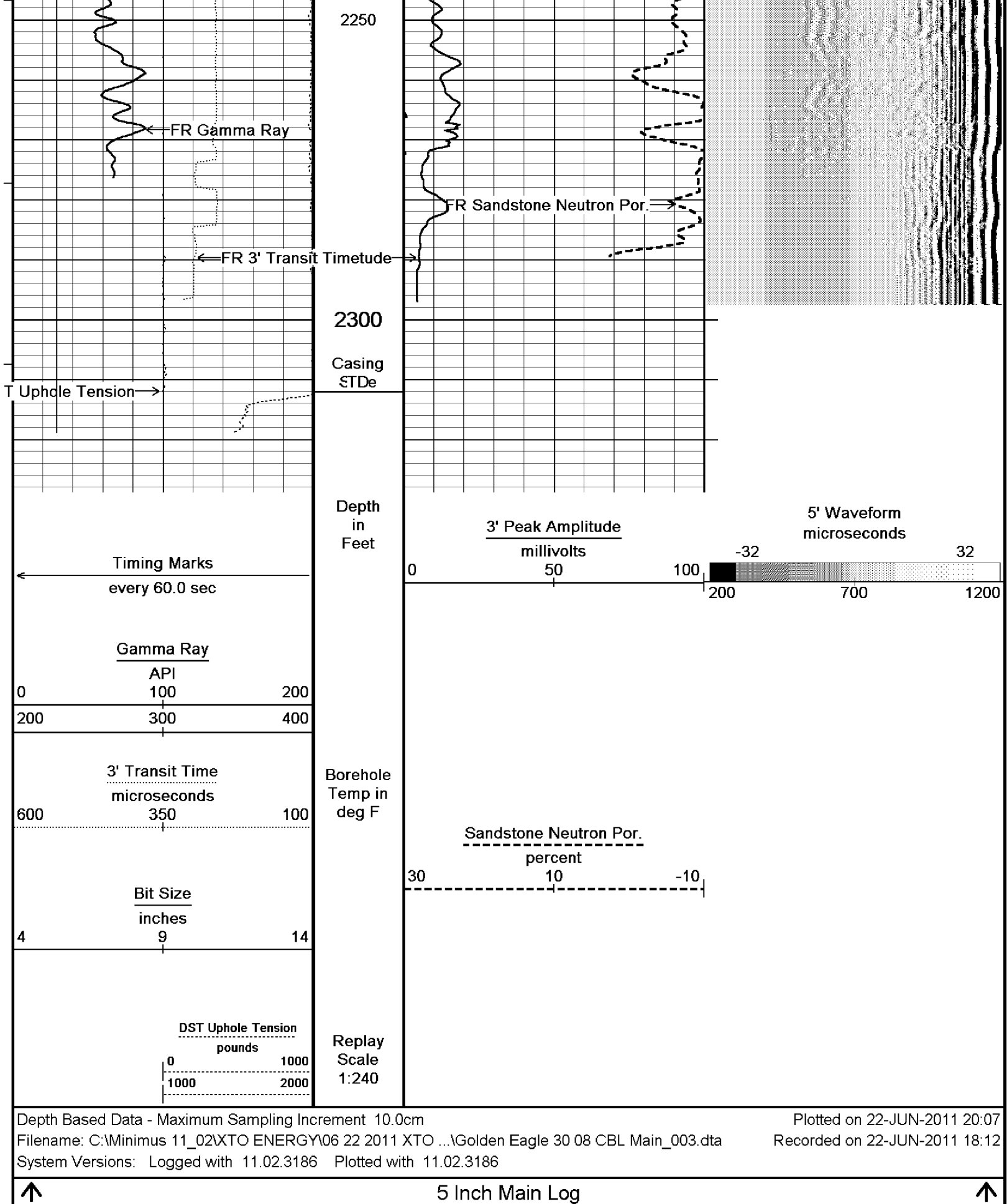


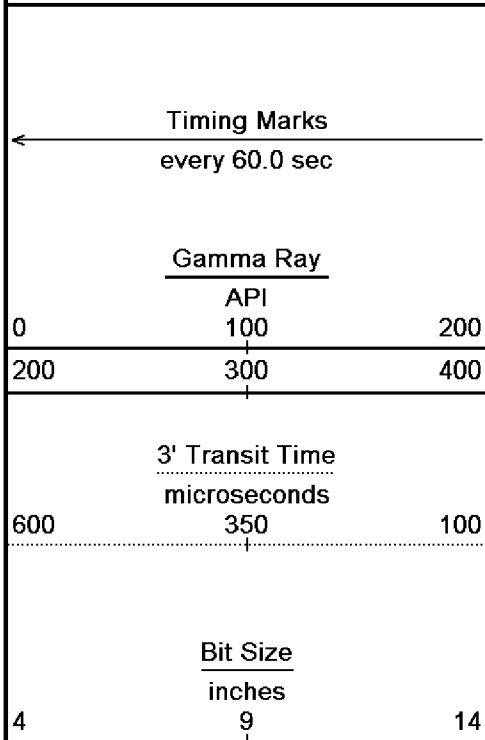
Sandstone Neutron Por. →











Depth
in
Feet

Borehole
Temp in
deg F

Replay
Scale
1:240

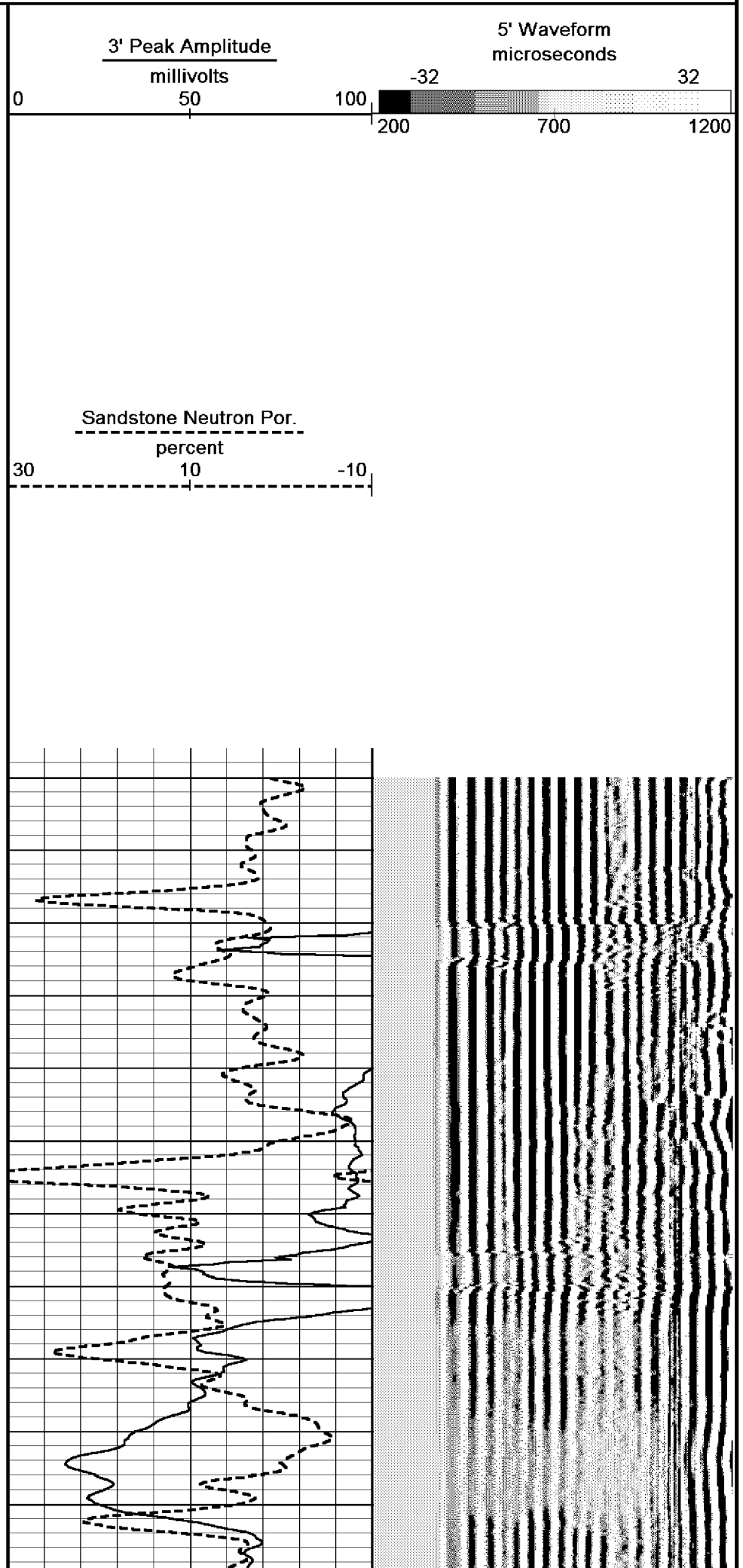
1750

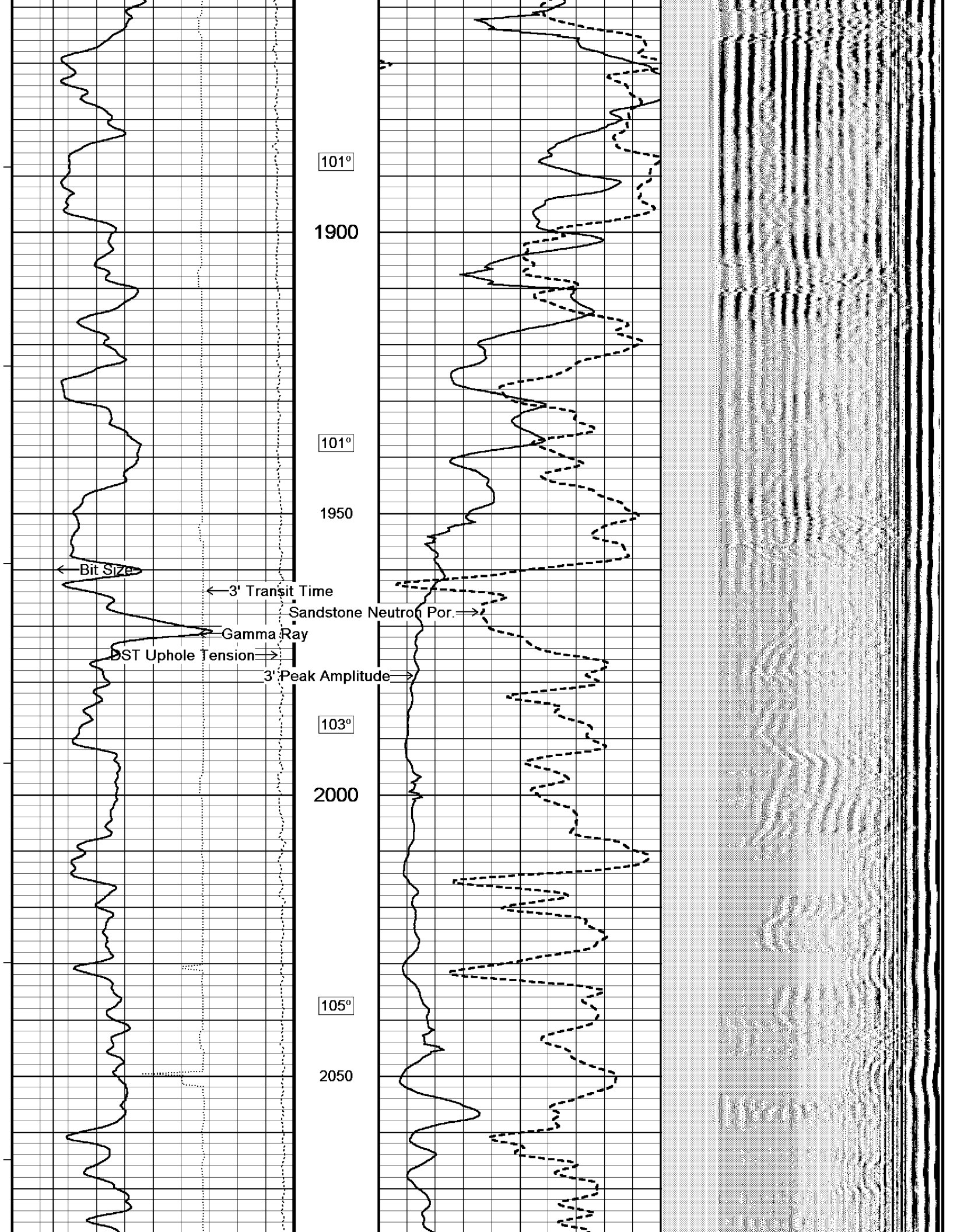
97°

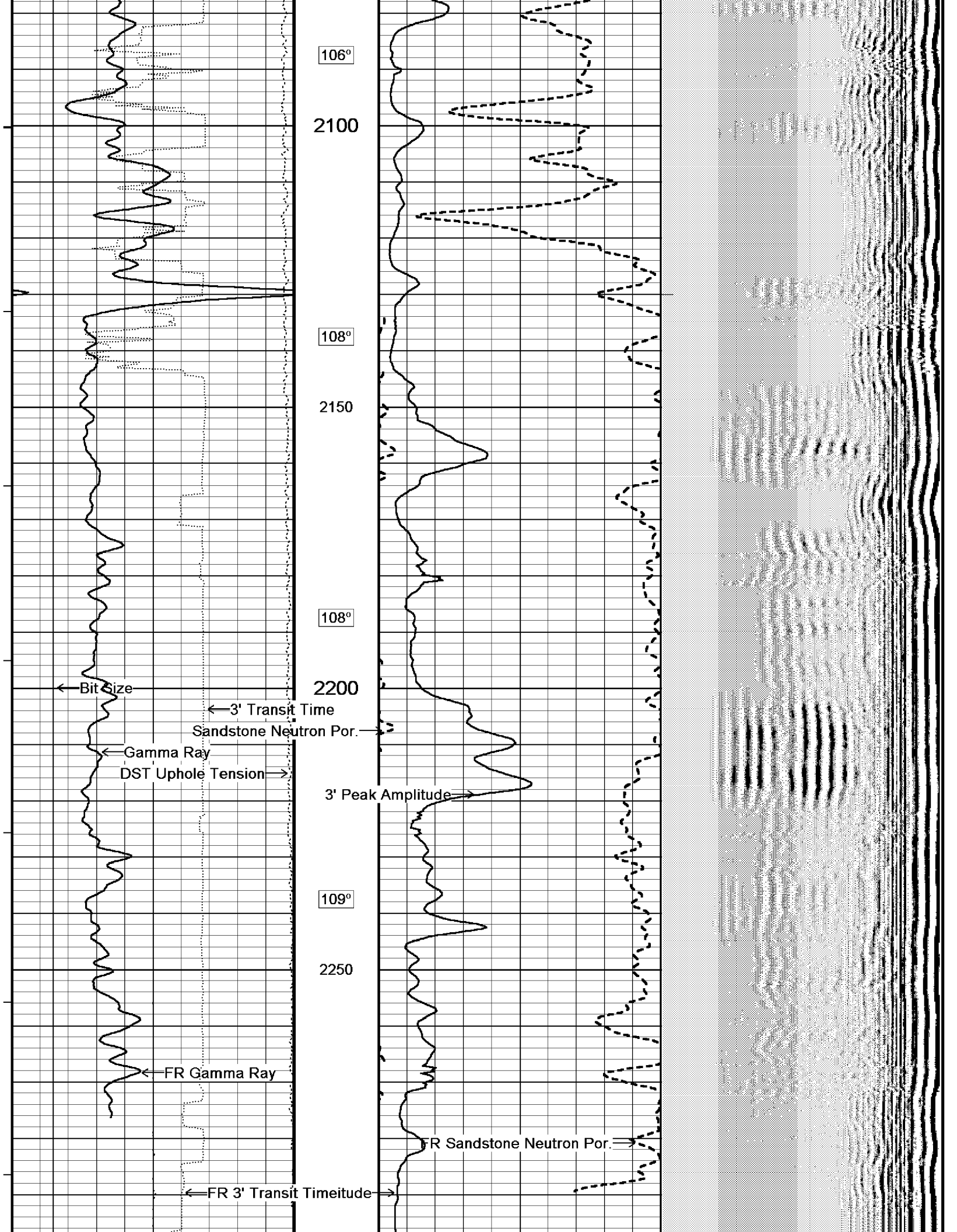
1800

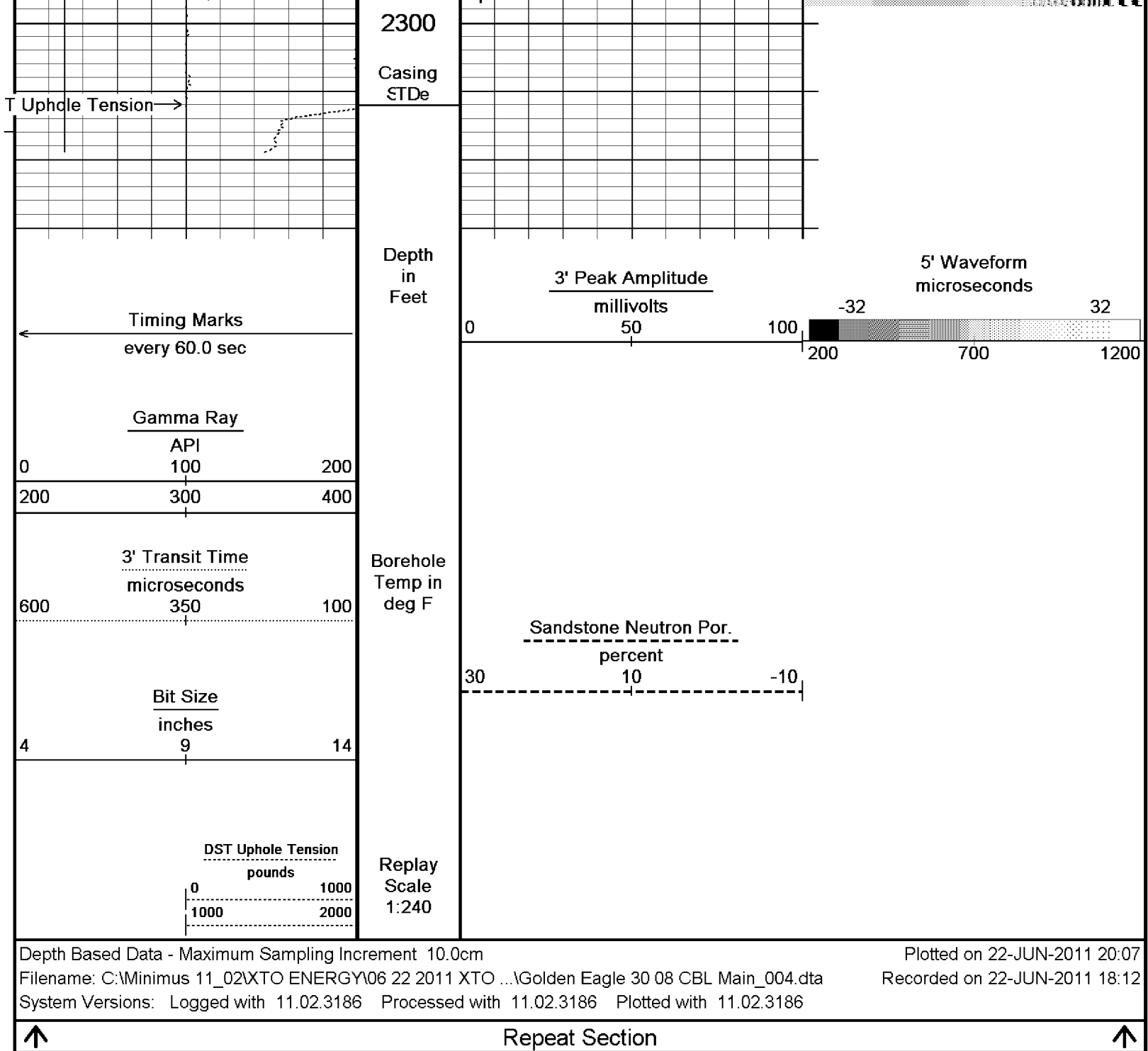
99°

1850









BEFORE SURVEY CALIBRATION

C:\Minimus 11_02\XTO ENERGY\06 22 2011 XTO Energy Golden Eagle 30 08 CBL\Golden Eagle 30 08 CBL Main_003.dta

General Constants All 000

Last Edited on 22-JUN-2011,16:28

General Parameters

Mud Resistivity	1.000	ohm-metres
Mud Resistivity Temperature	75.000	degrees F
Water Level	0.000	feet
Density/Neutron Processing	Wet Hole	

Hole/Annular Volume and Differential Caliper Parameters

HVOL Method	Single Caliper	
HVOL Caliper 1	Bit Size	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	None	

Rwa Parameters

RWA Parameters		Base Neutron Porosity	
Porosity used		Deep Induction	
Resistivity used			
RWA Constant A		0.610	
RWA Constant M		2.150	
Down-hole Tension Calibration SMS 0			
		Field Calibration on 16-JAN-2011 03:11	
Reading No	Measured	Calibrated (lbs)	
1	13988.76	0.00	
2	14559.57	423.30	
Gamma Calibration MCG-C 84			
		Field Calibration on 22-JUN-2011,16:38	
	Measured	Calibrated (API)	
Background	61	43	
Calibrator (Gross)	1092	768	
Calibrator (Net)	1031	725	
Gamma Constants MCG-C 84			
		Last Edited on 22-JUN-2011,16:38	
Gamma Calibrator Number	grc38		
Mud Density	1.00	gm/cc	
Caliper Source for Processing	Bit Size		
Tool Position	Eccentred		
Concentration of KCl	0.00	kppm	
SP Calibration MCG-C 84			
		Field Calibration on 22-JUN-2011,16:38	
	Measured	Calibrated (mV)	
Reference 1	106.3	100.0	
Reference 2	-96.0	-100.0	
High Resolution Temperature Calibration MCG-C 84			
		Field Calibration on 22-JUN-2011,16:38	
	Measured	Calibrated(Deg F)	
Lower	50.00	50.00	
Upper	75.00	75.00	
High Resolution Temperature Constants MCG-C 84			
		Last Edited on	
Pre-filter Length	11		
FE Calibration MFE-A.A 67			
		Base Calibration on 21-JUN-2011,19:02 Field Check on	
Base Calibration			
	Measured	Calibrated (ohm-m)	
Reference 1	0.0	0.0	
Reference 2	960.9	126.8	
Base Check	280.8		
Field Check	0.0		
FE Constants MFE-A.A 67			
		Last Edited on 22-JUN-2011,14:16	
Running Mode	No Sleeve		
MFE K Factor	0.1268		
Caliper Source for FE correction	Bit Size		
Caliper Value for FE correction	N/A		
Rm Source for FE correction	Temperature Corr		
Temp. for Rm Corr.	MCG External Temperature		
Stand-off	0.5		
Neutron Calibration MDN-A.B 39			
		Base Calibration on 21-JUN-2011,19:03 Field Check on	
Base Calibration			
	Measured	Calibrated (cps)	
	Near Far	Near Far	
	2892 91	3714 110	
Ratio	31.903 33.764		
Field Calibrator at Base			
		Calibrated (cps)	
		2281 3281	
Ratio	0.605		

Ratio	0.695
Field Check	Calibrated (cps)
	0 0
Ratio	0.000

Neutron Constants MDN-A.B 39			Last Edited on 22-JUN-2011,16:28		
Neutron Source Id	N1095				
Neutron Jig Number	NECD117				
Epithermal Neutron	No				
Caliper Source for Processing	Bit Size				
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	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				

Sonic Constants MSS-C.K 330			Last Edited on 22-JUN-2011,14:54		
Maximum Boundary Contrast	100.00		micro-sec/ft		
Fluid Transit Time	189.00		micro-sec/ft		
Limestone Transit Time	47.50		micro-sec/ft		
Sandstone Transit Time	55.50		micro-sec/ft		
Dolomite Transit Time	43.50		micro-sec/ft		
Sonic used for Porosities	3-5' Compensated Sonic				
Correction for Sonde Skew	Applied				
Cycle Stretch Algorithm	Applied				
MN3FT	0.00		micro-sec		
MX3FT	1500.00		micro-sec		
Hunt-Raymer Constant	83.13		micro-sec/ft		
Sonde Mode	Single Waveform				
Hole Type	Cased Hole				
Sonde Parameters					
	Measured	Calibrated			
Offset	0.0000	0.0000			
Free Pipe	0.0000	0.0000			
Peak Amplitude Source	0				
Waveform	Start Time (micro-sec)	Width (micro-sec)	Pre Gain	Start Gain	Discriminator (mV)
3'	170	25	1	16	4.883
4'	225	25	1	16	4.883
5'	285	25	1	16	2.441
6'	340	25	1	16	2.441
Processed Fixed Gate Parameters					
Waveform Used For Processing	5 foot				
Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	Depth (ft)		
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	0.00	0.00	0.00		
Full Waveform Parameters					
Use 3' Waveform to derive TR	N/A				
Use 4' Waveform to derive TR	N/A				
Use 5' Waveform to derive TR	N/A				
Use 6' Waveform to derive TR	N/A				

3' Waveform Discriminator Level	N/A	mV
4' Waveform Discriminator Level	N/A	mV
5' Waveform Discriminator Level	N/A	mV
6' Waveform Discriminator Level	N/A	mV
3' Waveform Filter	N/A	
4' Waveform Filter	N/A	
5' Waveform Filter	N/A	
6' Waveform Filter	N/A	
Semblance Level	N/A	
Semblance Window Width	N/A	micro-sec
Sonic 1 Despiker	N/A	N/A
Sonic 2 Despiker	N/A	N/A

Induction Calibration MAI-A.A 188

Base Calibration on 21-JUN-2011,19:04
Field Check on

Base Calibration

Test Loop Calibration

Channel	Measured		Calibrated (mmho/m)	
	Low	High	Low	High
1	16.5	472.3	9.3	966.2
2	6.0	378.3	7.6	821.4
3	3.5	260.7	5.2	566.0
4	1.1	135.1	2.6	279.2

Array Temperature 82.2 Deg F

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0
Deep	0.0	0.0	0.0	0.0
Medium	0.0	0.0	0.0	0.0
Shallow	0.0	0.0	0.0	0.0

Array Temperature 0.0 0.0 Deg F

Induction Constants MAI-A.A 188

Last Edited on 22-JUN-2011,14:16

Induction Model		ENHANCED	
Caliper for Borehole Corr.		Bit Size	
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		0.0000	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 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 21-JUN-2011,19:05

	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

DOWNHOLE EQUIPMENT

C:\Minimus 11_02\XTO ENERGY\06 22 2011 XTO Energy Golden Eagle 30 08 CBL\Golden Eagle 30 08 CBL Main_003.dta

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-C 84 LG: 8.70 ft WT: 63.9 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 Neutron

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

Compact Sonic

MSS-C.K 330 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

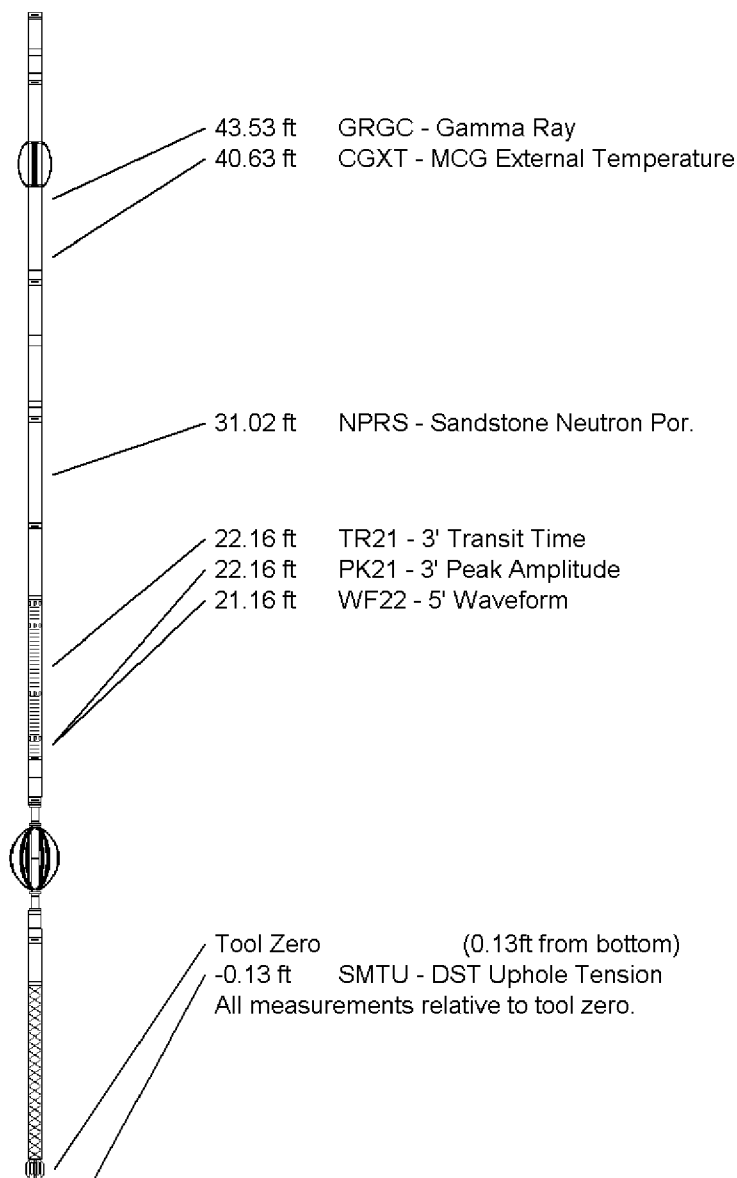
MIS-A Compact Inline Bowspring sub

MIS-A 268 LG: 5.70 ft WT: 33.1 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: 51.56 ft Weight: 343.9 lb



COMPANY

XTO Energy

WELL

Golden Eagle 30-08

FIELD

Purgatoire River

PROVINCE/COUNTY

Las Animas County

COUNTRY/STATE U.S.A. / Colorado

Elevation Kelly Bushing	7726.50	feet	First Reading	2312.00	feet
Elevation Drill Floor	7726.00	feet	Depth Driller	2313.00	feet
Elevation Ground Level	7721.00	feet	Depth Logger	2312.00	feet



Weatherford®

Cement Bond Log
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Gamma Ray

