



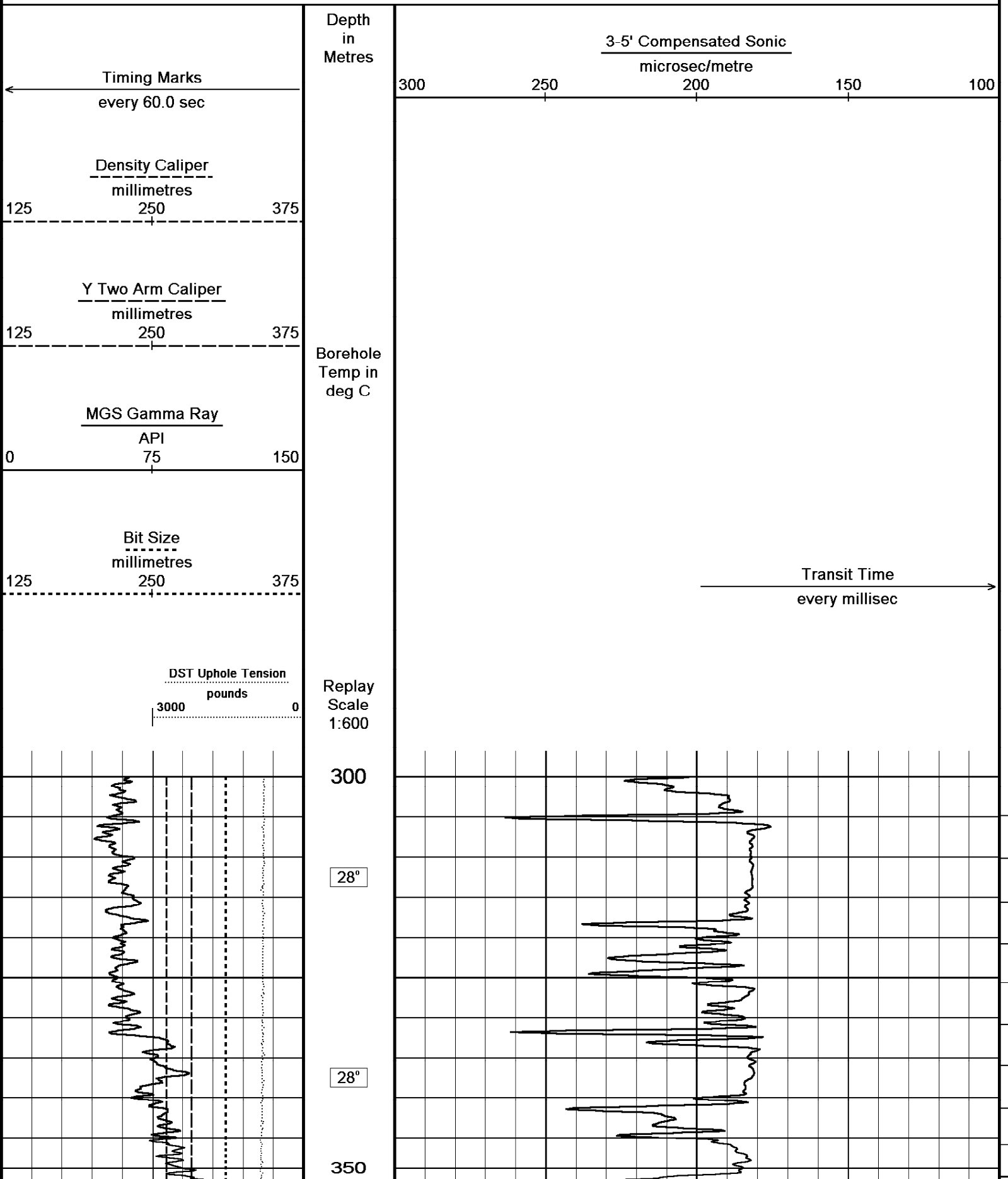
MEASURED DEPTH COMPENSATED SONIC

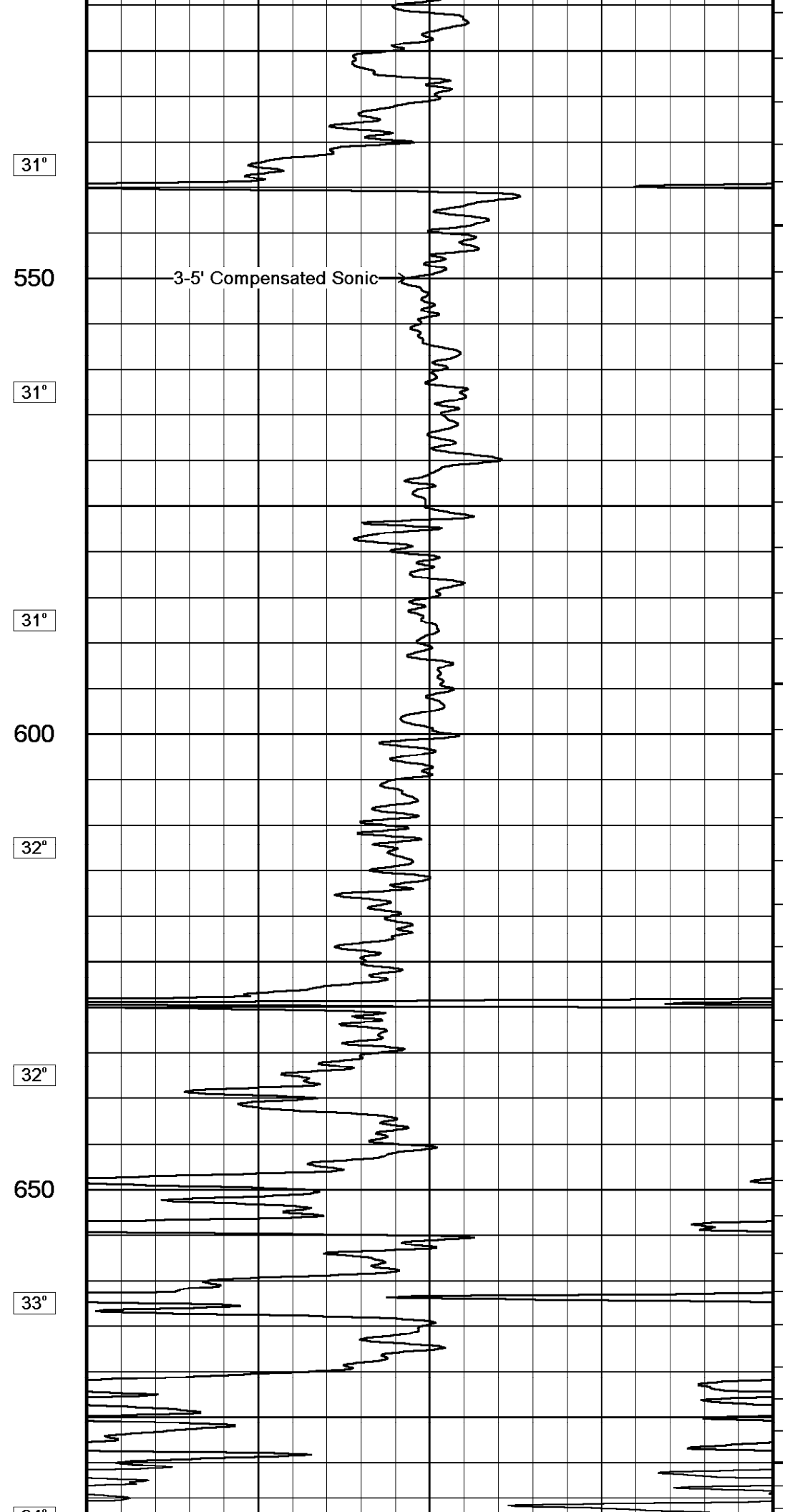
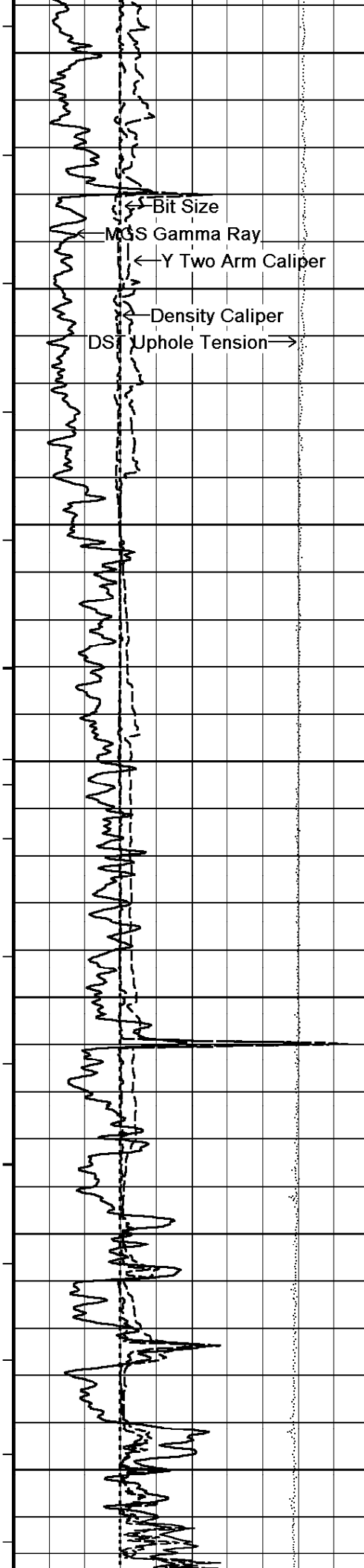
COMPANY	PARAMOUNT RESOURCES LTD.			
WELL	PARA ET AL CAMERON L40			
FIELD	CAMERON HILLS			
PROVINCE	NORTHWEST TERRITORIES			
COUNTRY	CANADA			
LOCATION	300L406010117300			
LSD	SEC	TWP	RGE	Other Services
API Number	Permit Number 2045		MICROLOG	
Permanent Datum	OUND LEVEL, Elevation 684.70 metres			PHOTO DENSITY
Log Measured From	5.4 Mabove Permanent Datum			DUAL SPACED NEUTRON
Drilling Measured From	KELLY BUSHING			
Date	24-JAN-2007			Elevations: KB 690.10 metres DF 684.70 metres GL
Run Number	1			
Depth Driller	1453.00			metres
Depth Logger	1453.30			metres
First Reading	1448.80			metre
Last Reading	425.10			metre
Casing Driller	425.00			metres
Casing Logger	425.10			metres
Bit Size	200.00			mm
Hole Fluid Type	GELCHEM			
Density / Viscosity	1110.0 kg/M3			85.00 sec/L
PH / Fluid Loss	10.00			13.00 ml/30Min
Sample Source	FLOWLINE			
Rm @ Measured Temp	0.60 @ 25.0			ohm-m
Rmf @ Measured Temp	0.41 @ 25.0			ohm-m
Rmc @ Measured Temp	0.83 @ 25.0			ohm-m
Source Rmf / Rmc	PRESS			FILTER
Rm @ BHT	0.40 @ 48.0			ohm-m
Time Since Circulation	6 HRS			
Max Recorded Temp	48.00			deg C
Equipment Name	3424			
Equipment / Base	QUINT			GPR
Recorded By	M. SURKA / M. BONNELL			
Witnessed By	B. POWELL			
CIRC. STOP	12.45 JAN 24			Last Line

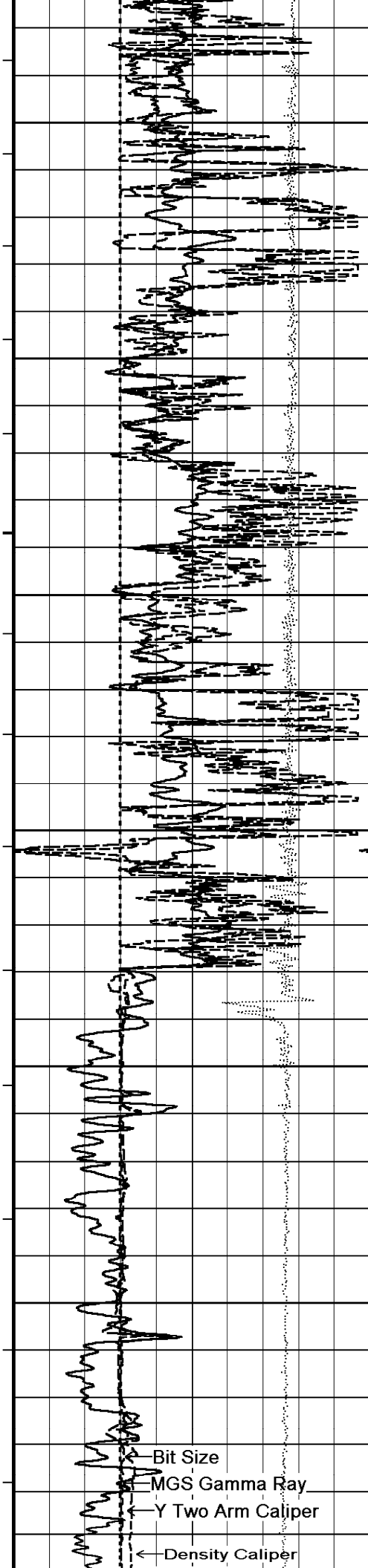
BOREHOLE RECORD			Last Edited: 24-JAN-2007 18:55	
Bit Size millimetres	Depth From metres	Depth To metres		
311.000	0.00	425.00		
200.000	425.00	1453.00		
CASING RECORD				
Type	Size millimetres	Depth From metres	Shoe Depth metres	Weight pounds/ft
SURFACE	219.100	0.00	425.00	24.00

REMARKS
1) SOFTWARE ISSUE: WLS 7.01.0195
2) CUSTOMER SCALES AND INTERVALS LOGGED.
3) MAI, MSS, MPD, MDN, MMR, ISC, MGS, MTC, MCG RAN IN COMBINATION.
4) HARDWARE: MAI: TWO 25.4 MM STANDOFFS MDN: DUAL NEUTRON BOWSPRING MTC: ONE SIX-LEAF CENTRALIZER MSS: THREE 25.4 MM STANDOFFS
5) SAP# 4145923 # FIELD PRINTS = 2
6) RIG: PD 220
7) HOLE_CEMENT VOLUMES CALCULATED USING DENSITY CALIPER AND TWO ARM CALIPER IN COMBINATION : HOLE VOLUME = 39.4 CU.M. ANNULAR VOLUME USING 139.7 MM PRODUCTION CASING = 23.8 CU.M
8) SONIC FREE PIPE SIGNAL FOUND FROM 305-318M.
9) MAXIMUM DEVAITION OF 12.3 DEGREES AT 1230.7 M

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







34°

700

34°

35°

750

36°

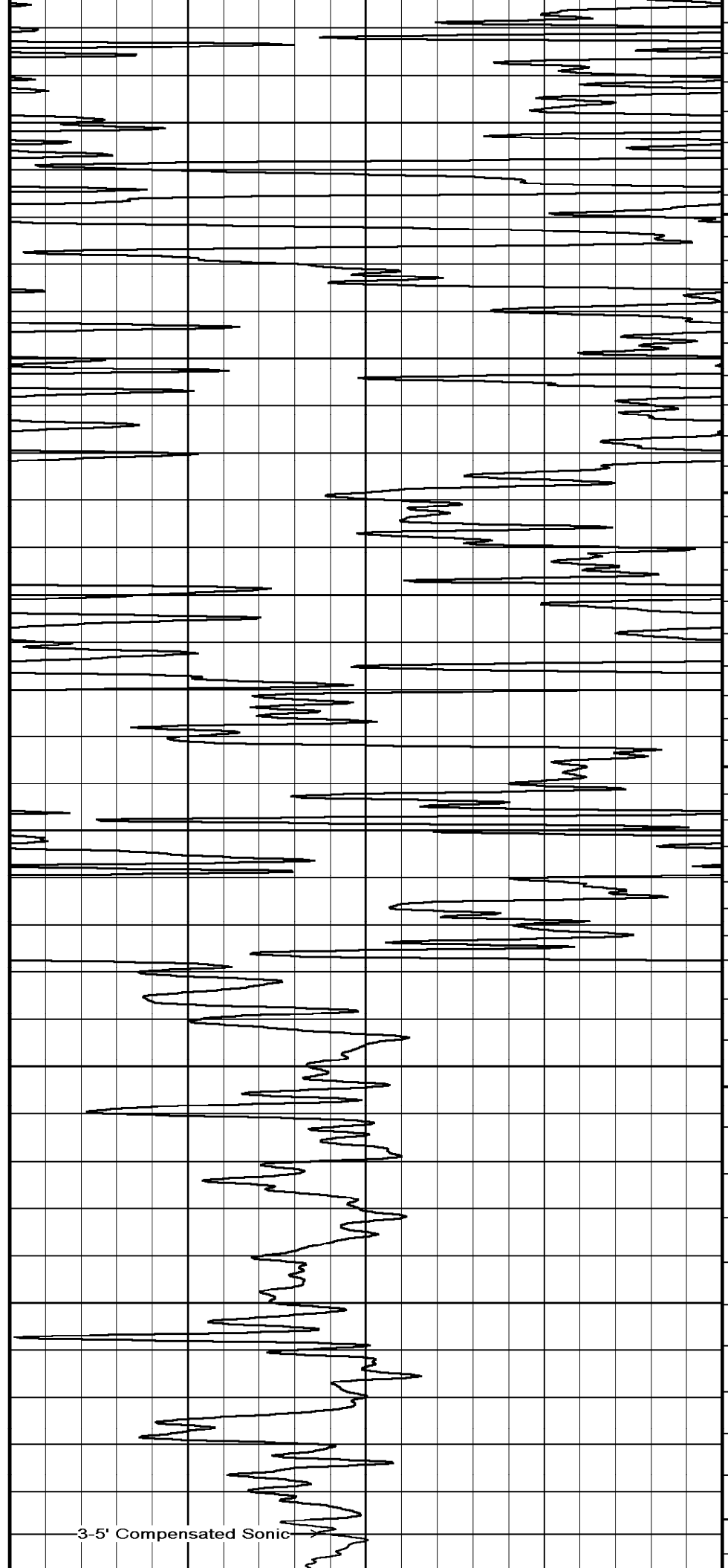
35°

800

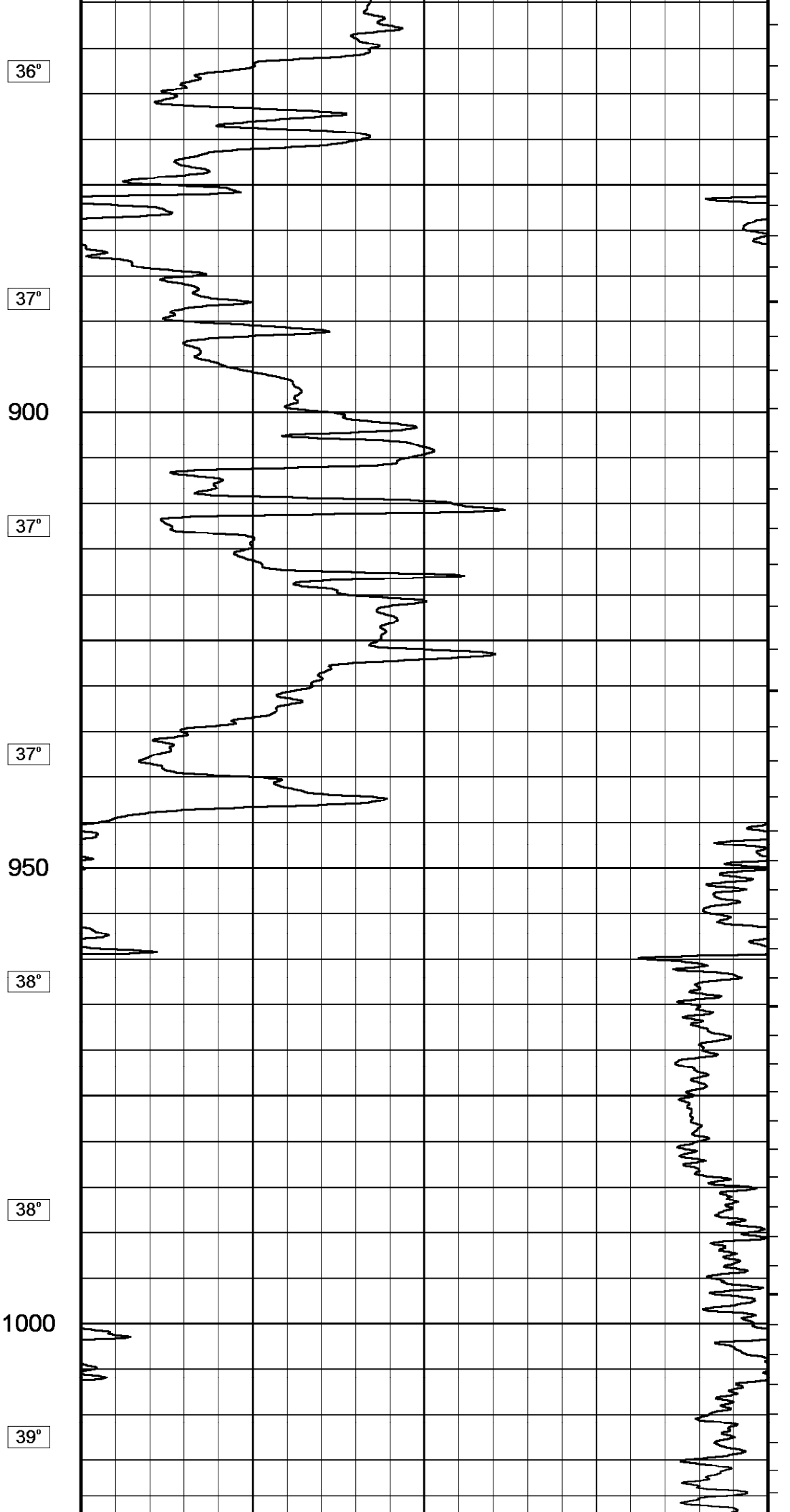
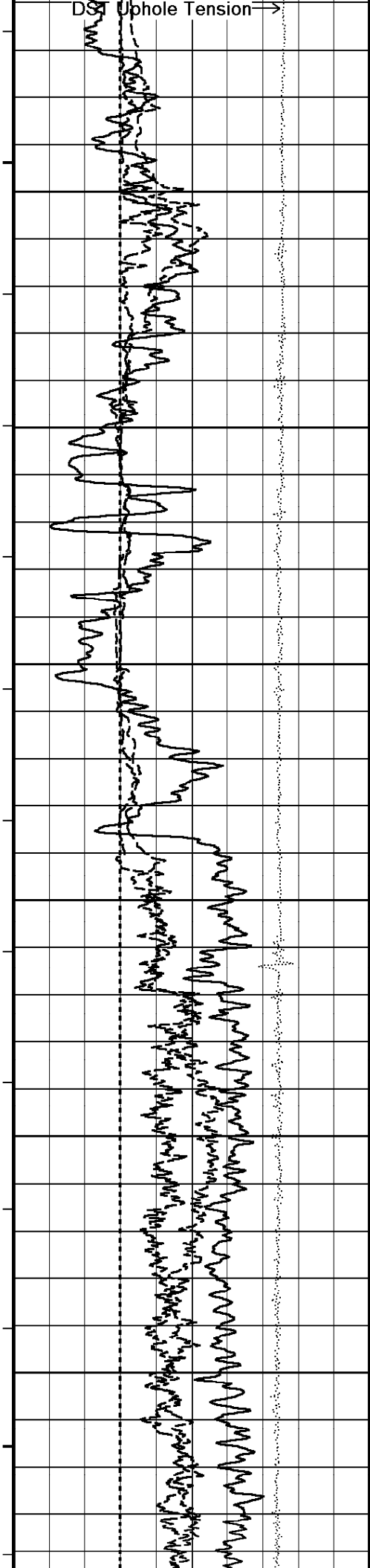
36°

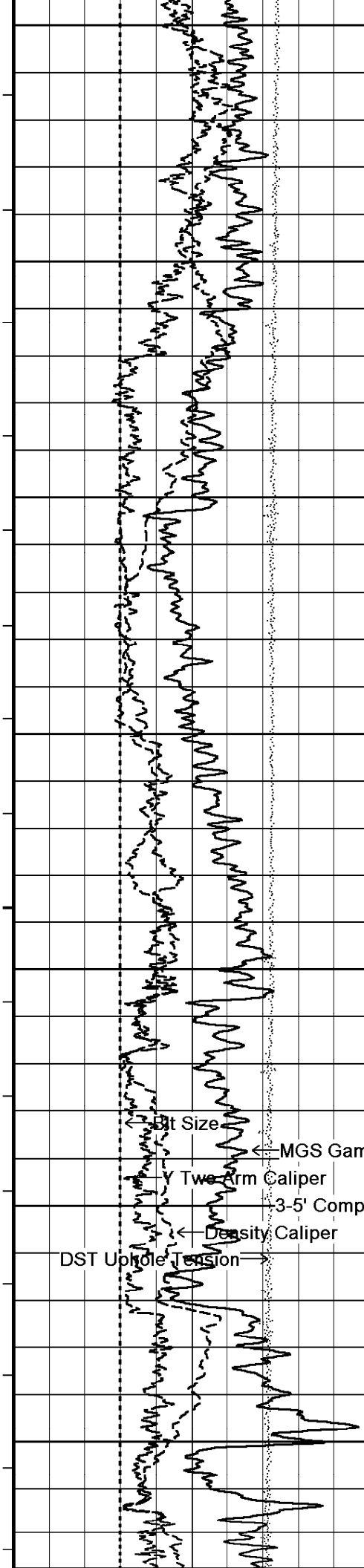
36°

850



3-5' Compensated Sonic





40°

1050

40°

41°

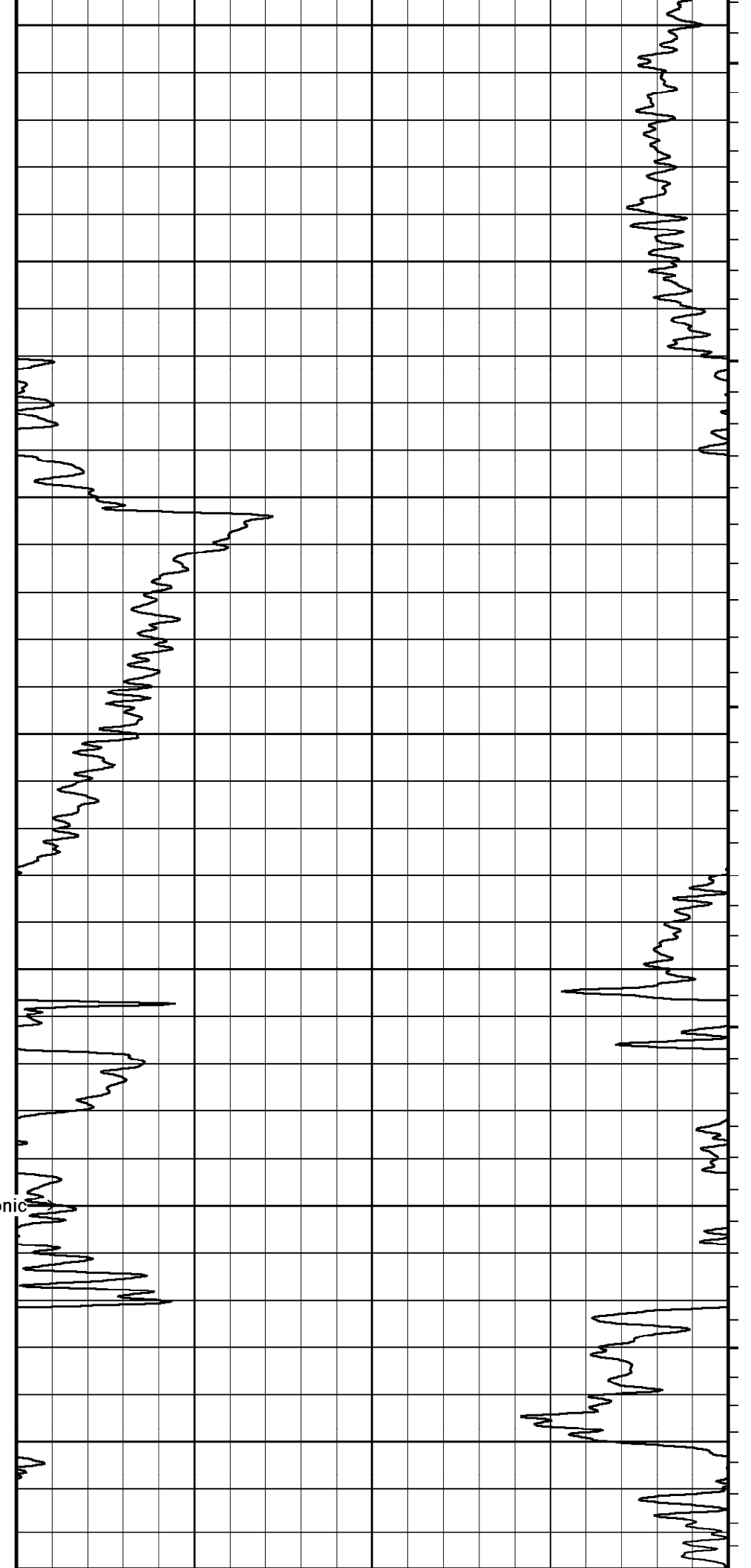
1100

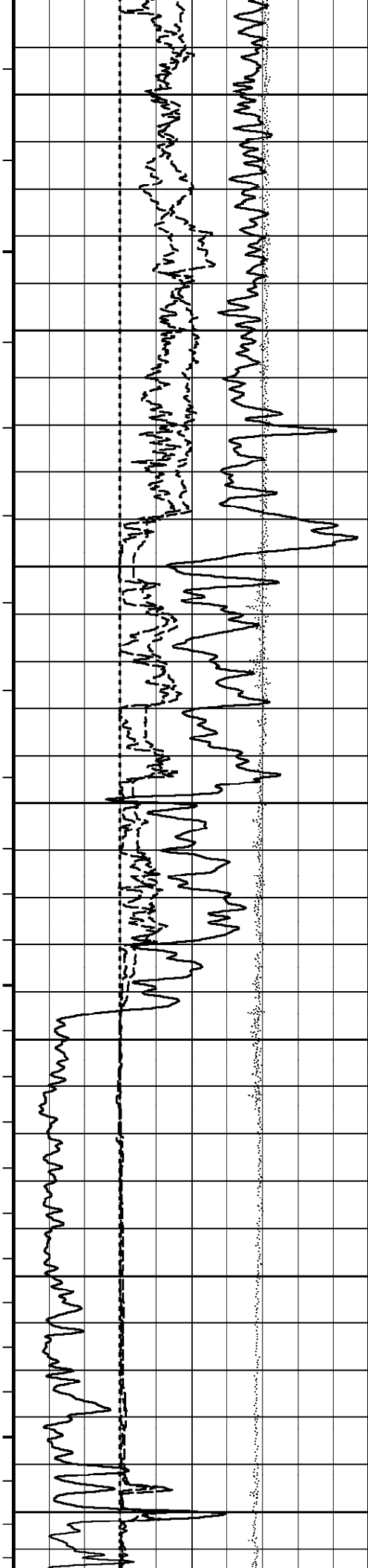
41°

42°

43°

43°





1200

44°

45°

1250

45°

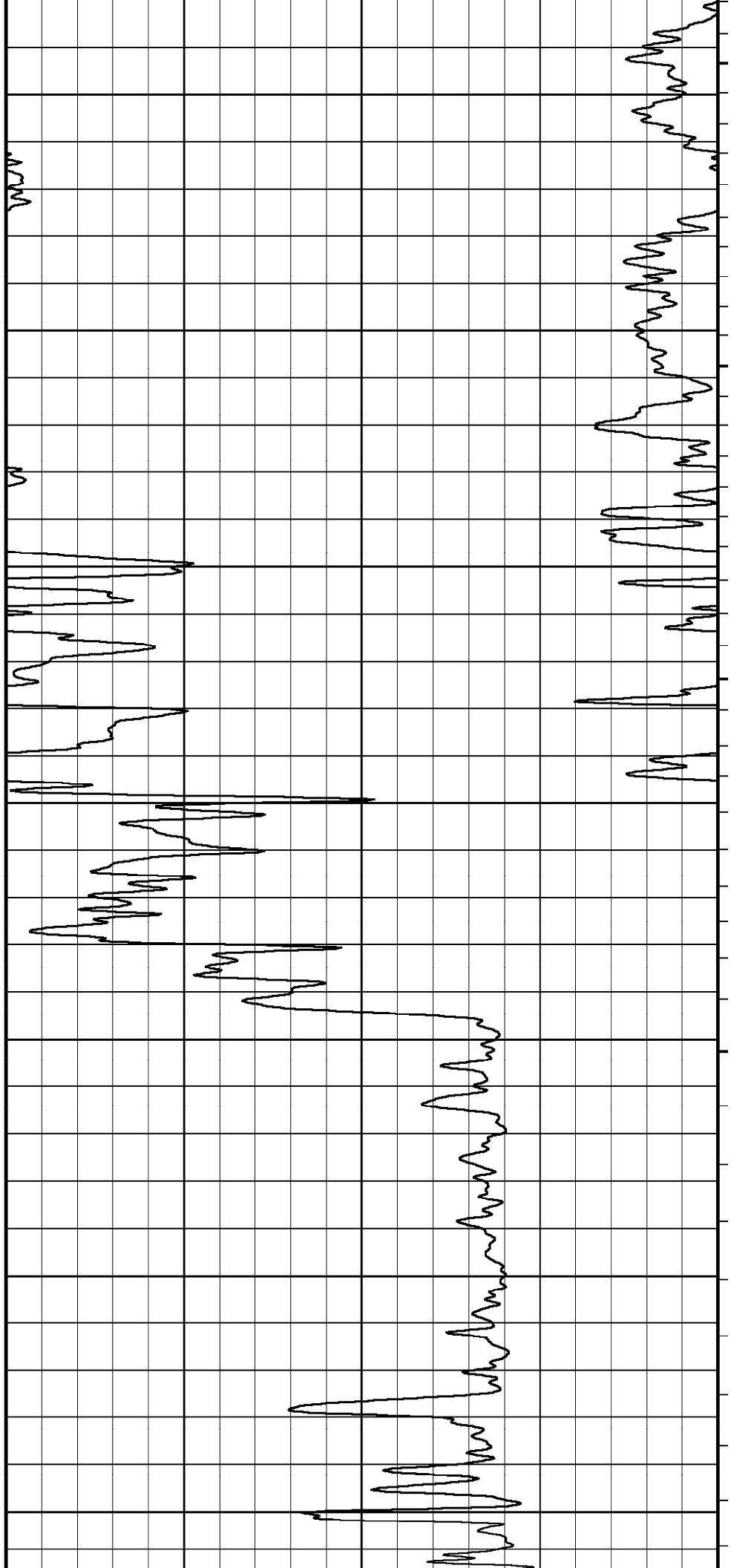
46°

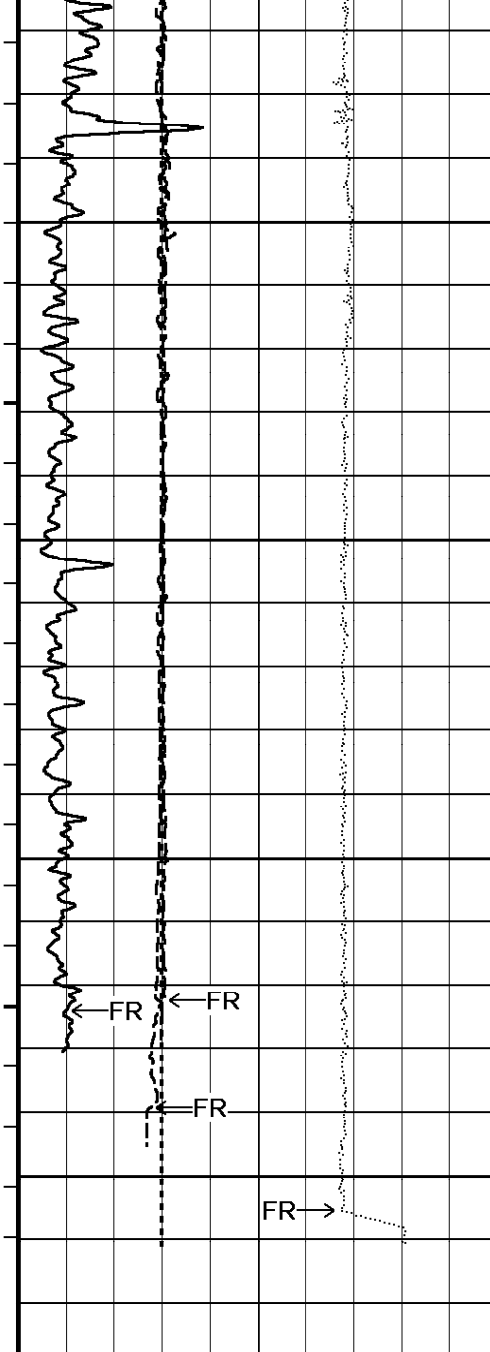
1300

46°

47°

1350





48°

48°

1400

48°

1450

1463
Depth
in
Metres

Timing Marks
every 60.0 sec

Density Caliper
millimetres

125 250 375

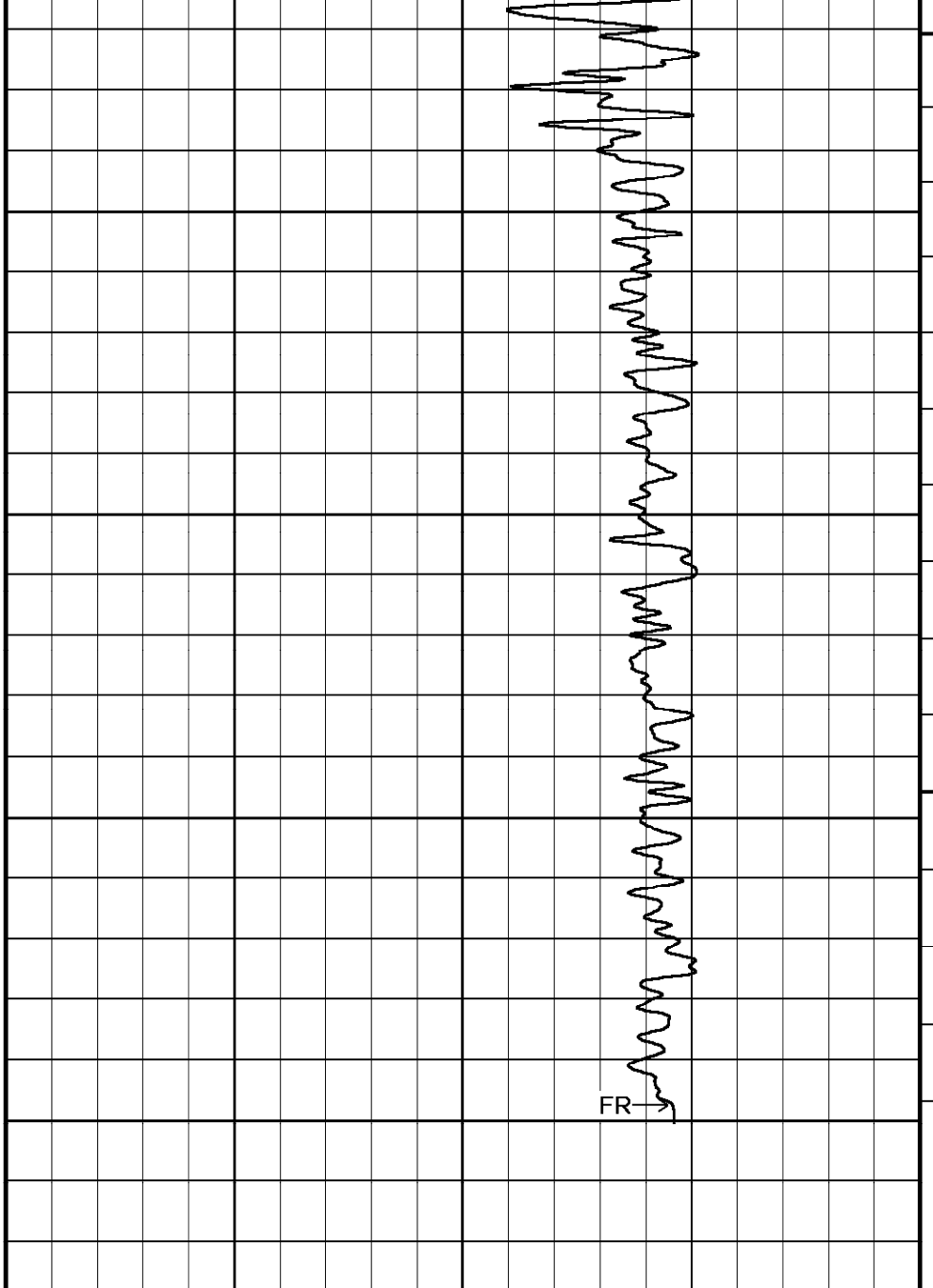
Y Two Arm Caliper
millimetres

125 250 375

MGS Gamma Ray

0 API 75 150

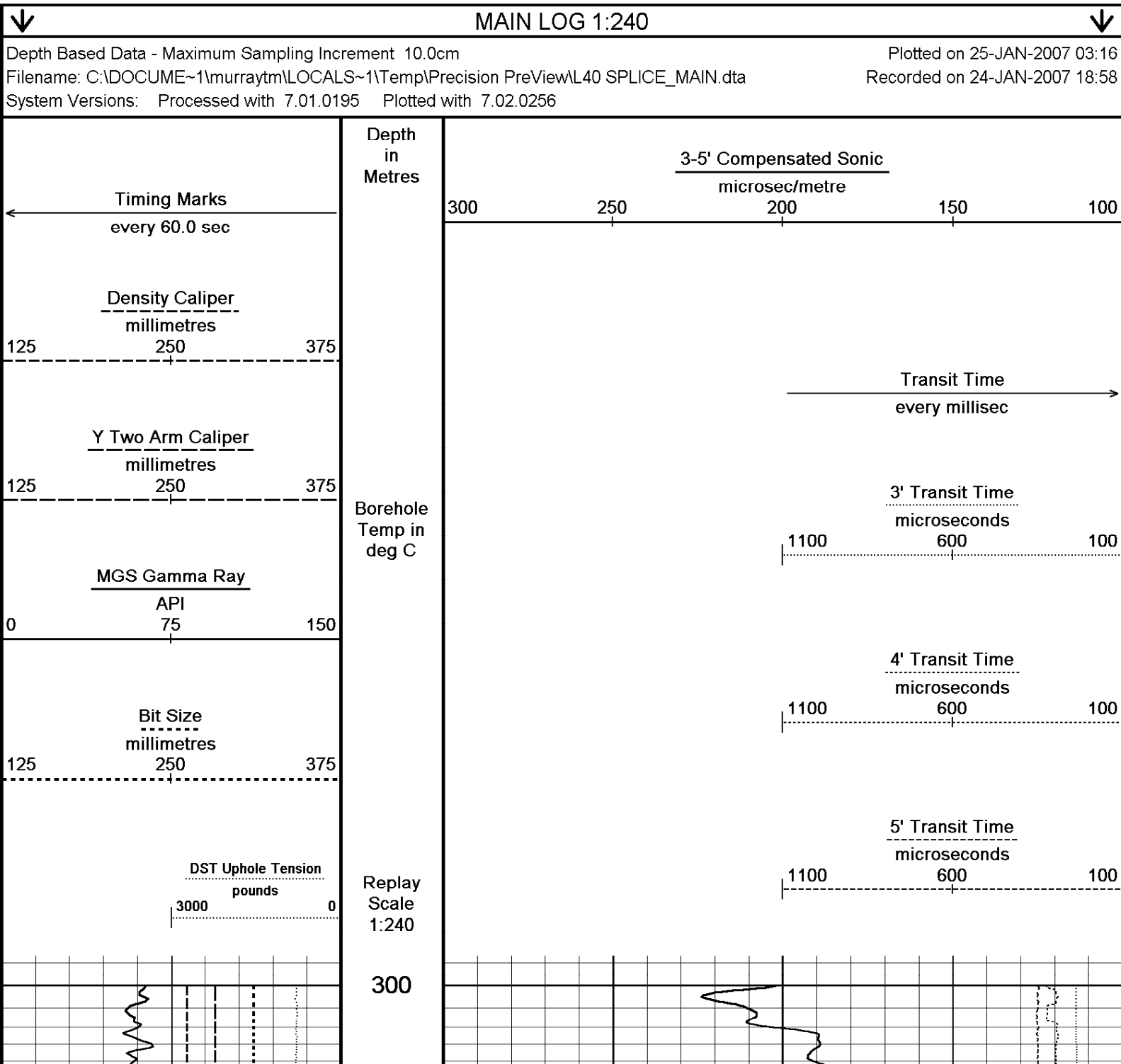
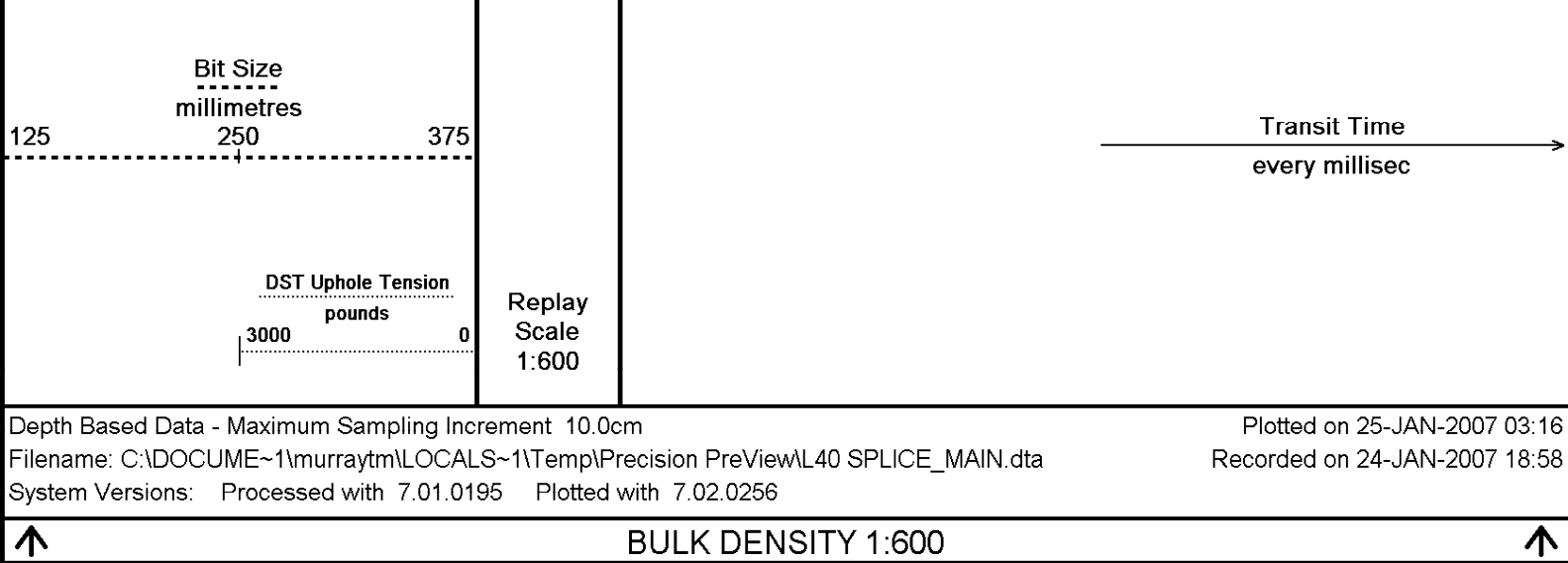
Borehole
Temp in
deg C

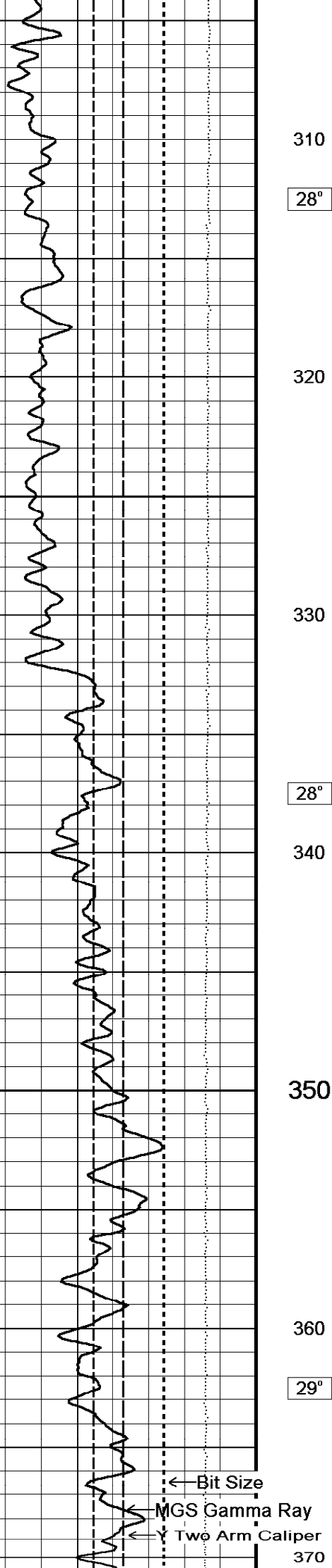


FR

3-5' Compensated Sonic
microsec/metre

300 250 200 150 100





310

28°

320

330

28°

340

350

360

29°

← Bit Size

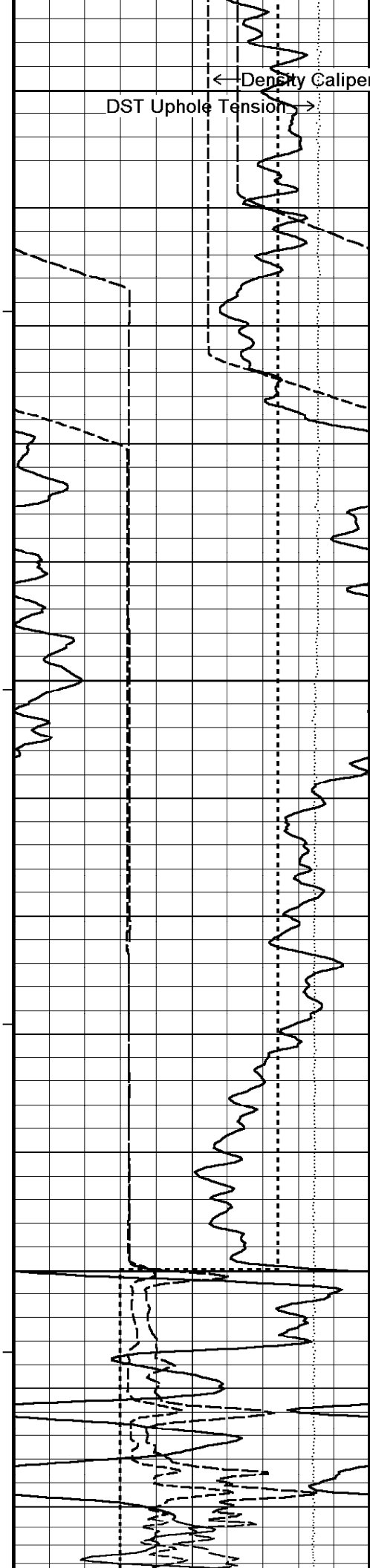
← MGS Gamma Ray

← Two Arm Caliper

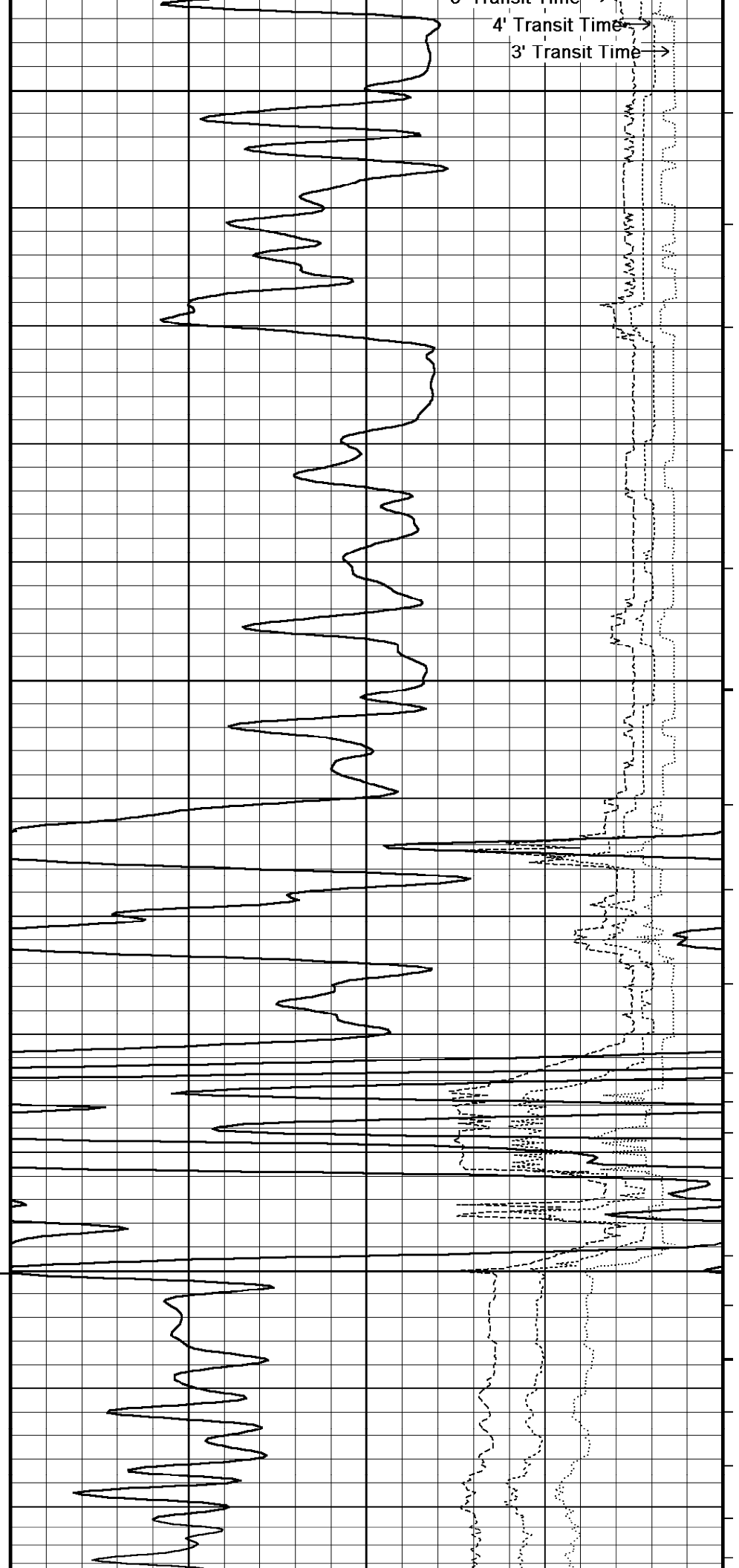
370

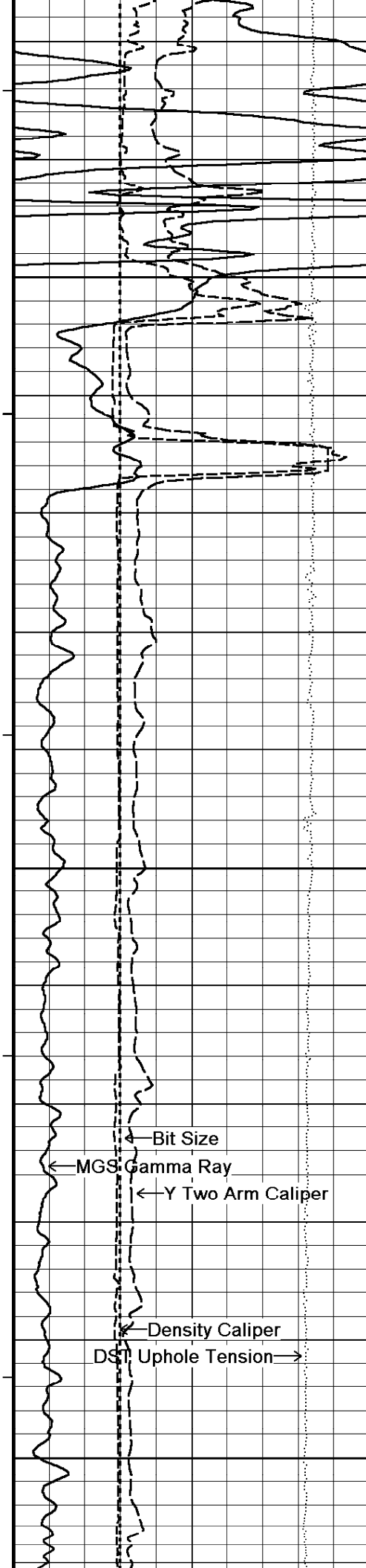
3-5' Compensated Sonic

5' Transit Time



380
30°
390
400
410
30°
420
Casing Shoe
430
30°





440

450

460

470

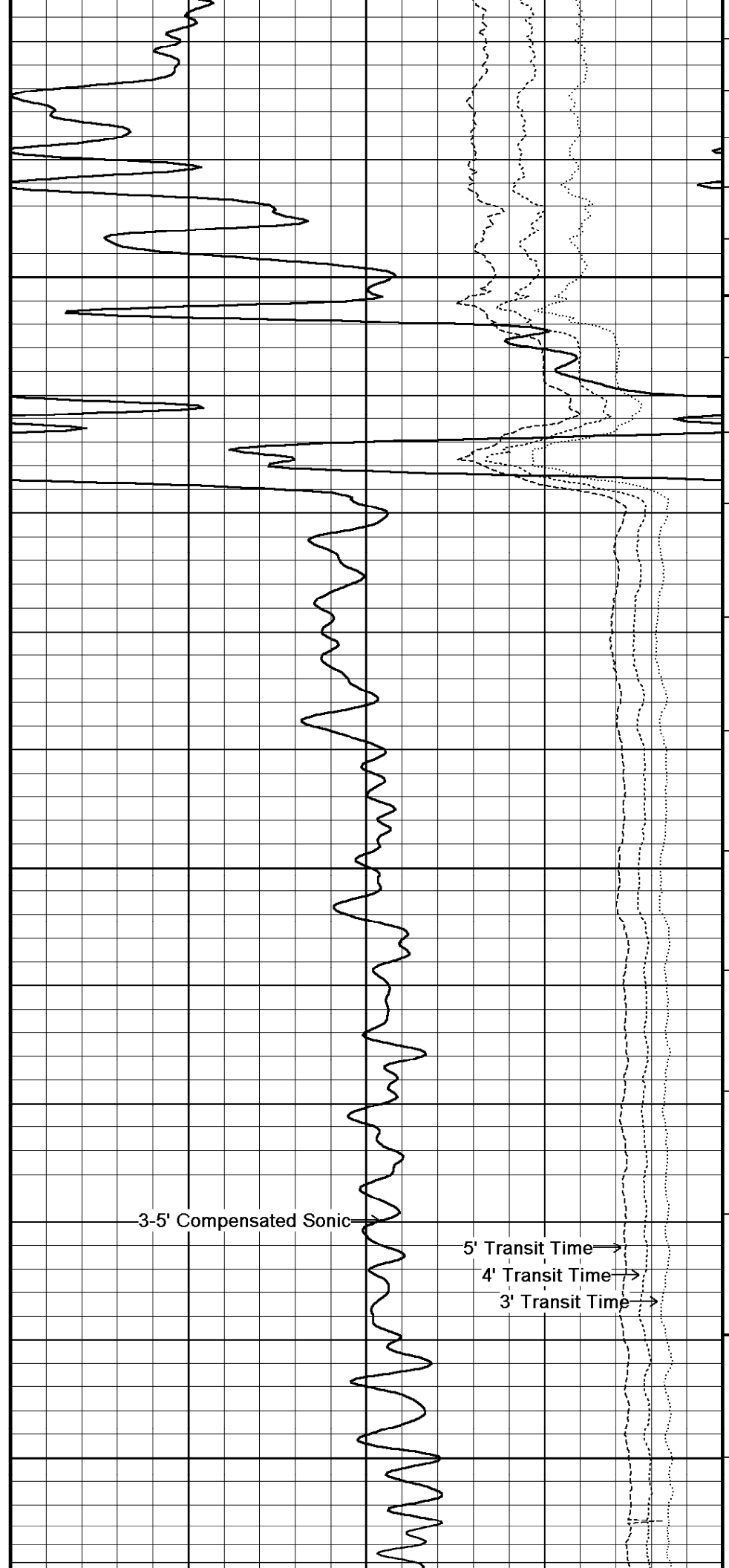
480

490

500

30°

30°



3-5' Compensated Sonic

5' Transit Time

4' Transit Time

3' Transit Time



510

30°

520

530

31°

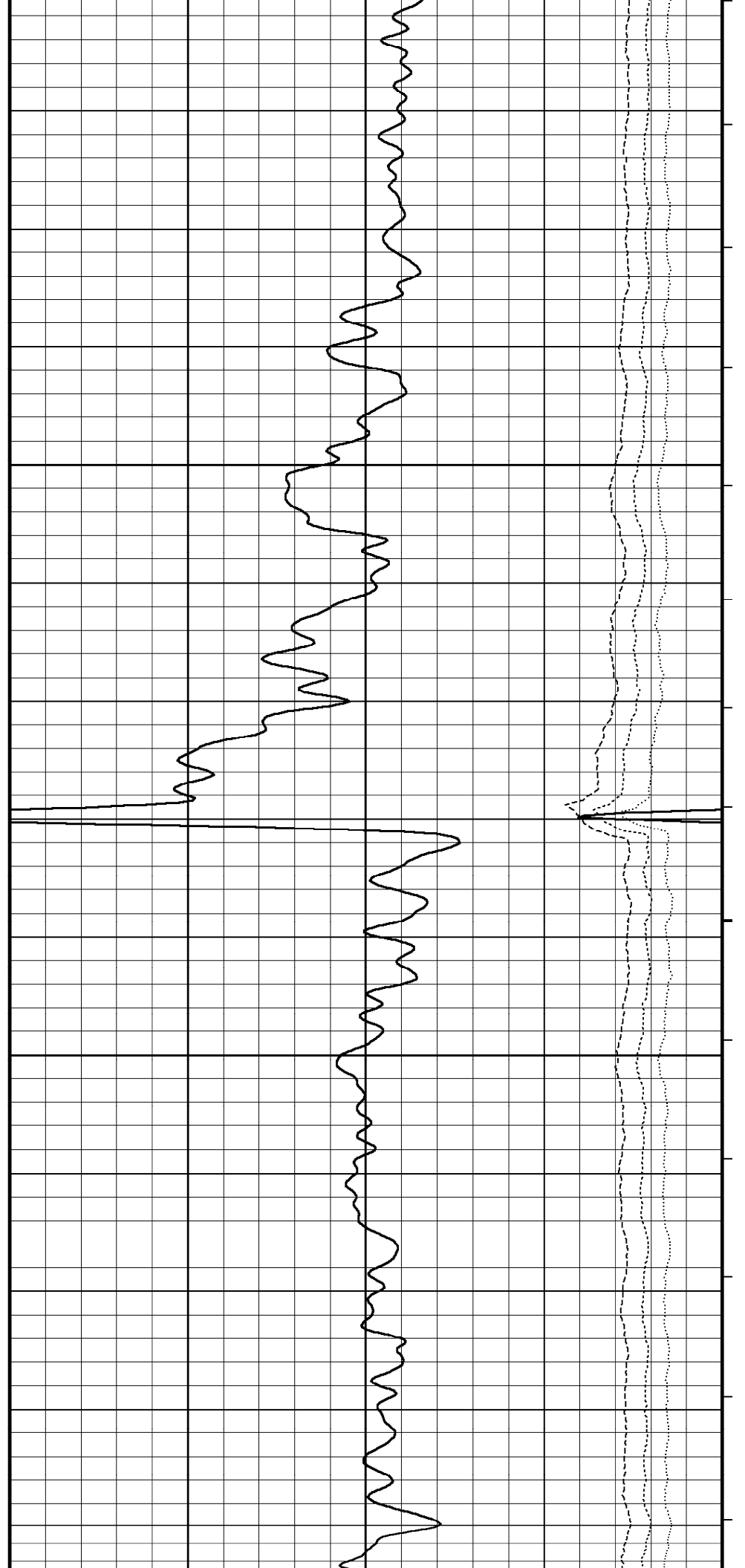
540

550

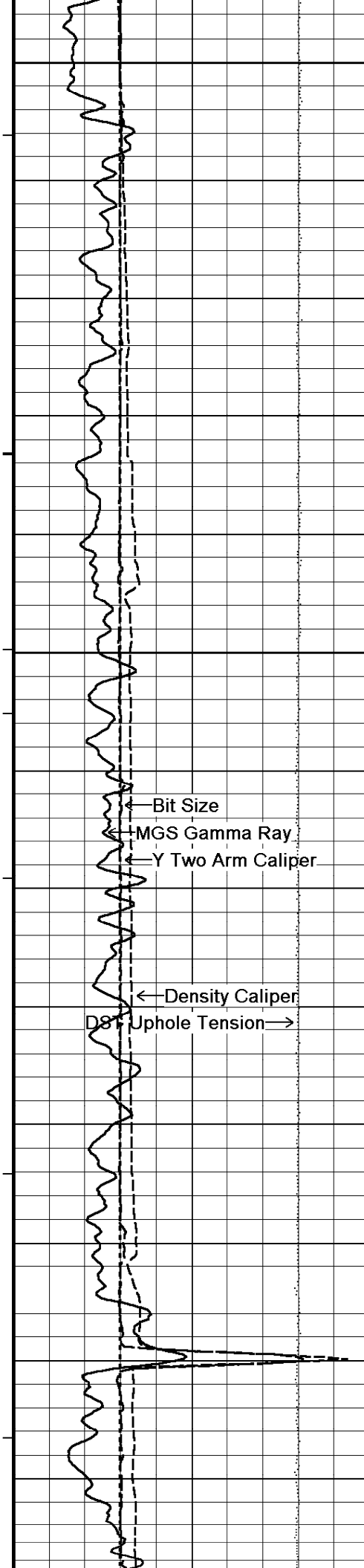
560

31°

570



540



580

31°

590

600

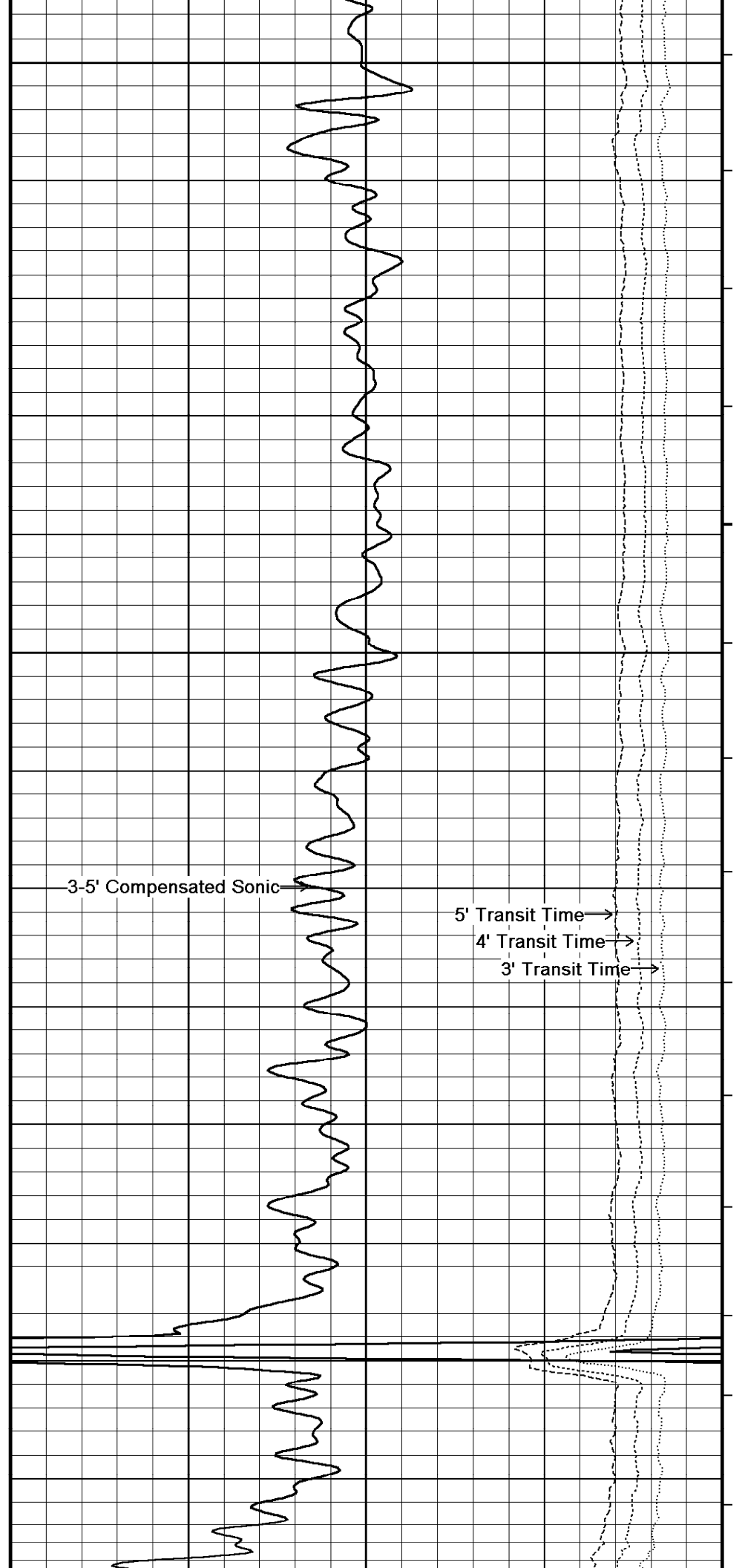
610

32°

620

630

32°

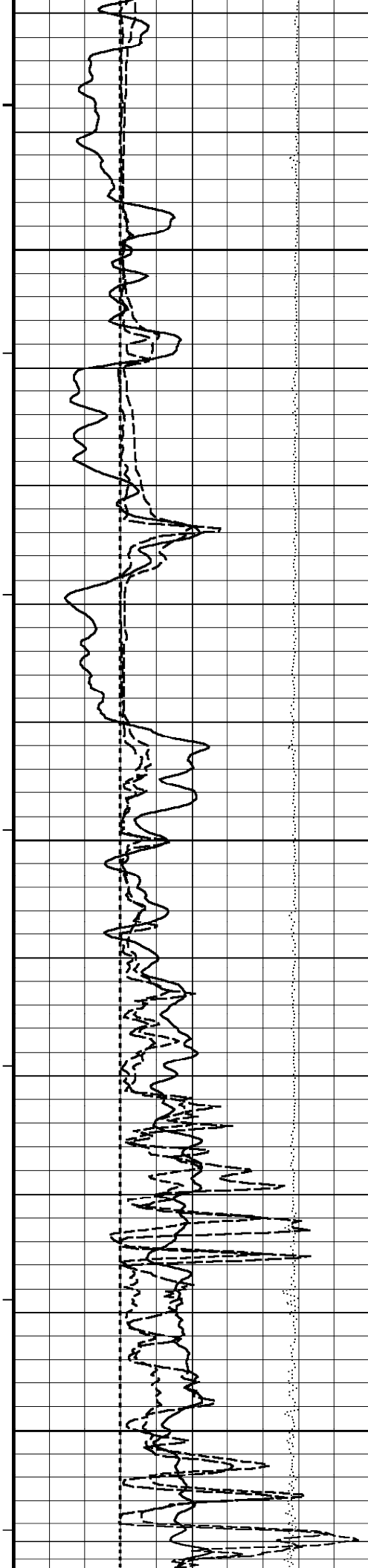


3-5' Compensated Sonic

5' Transit Time →

4' Transit Time →

3' Transit Time →



640

650

660

33°

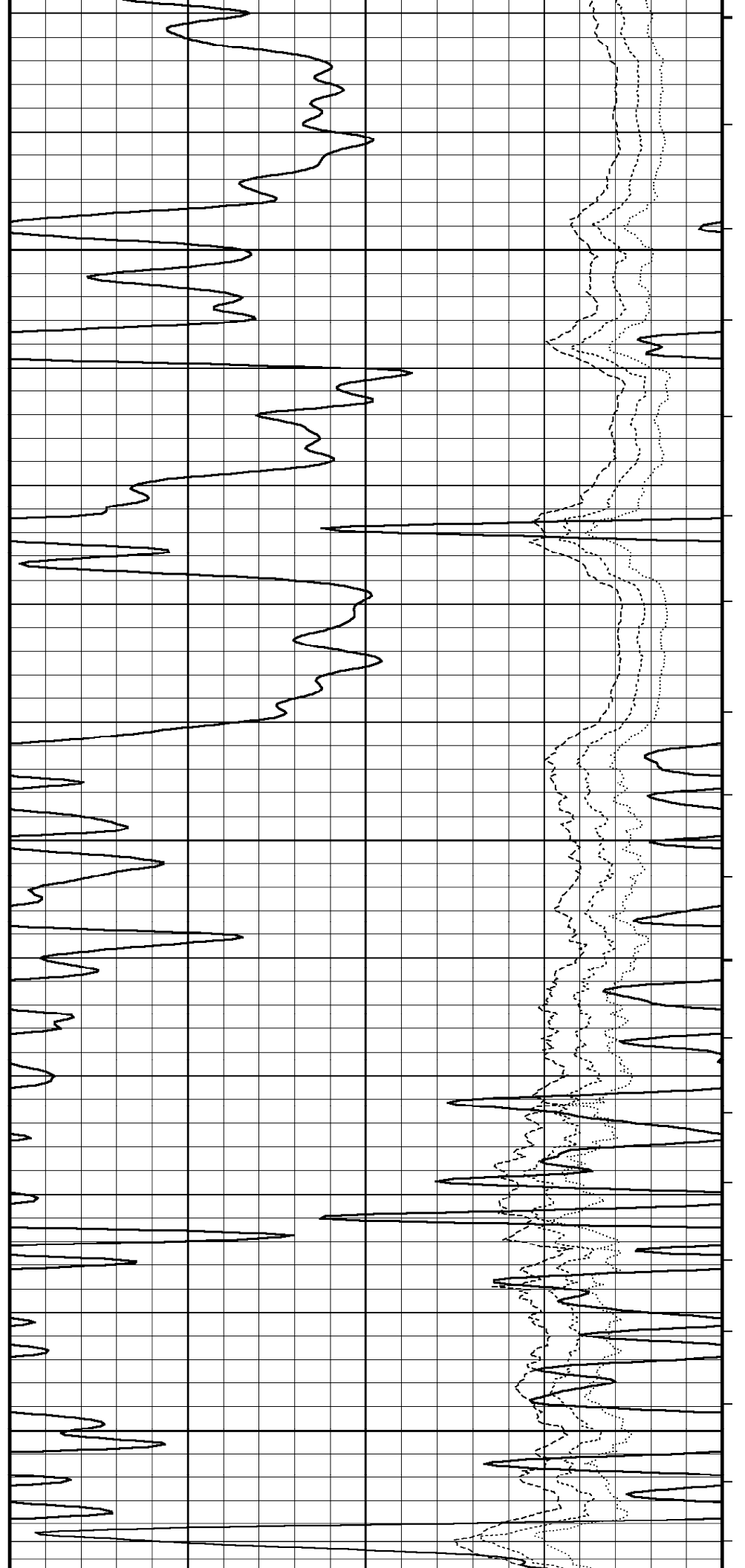
670

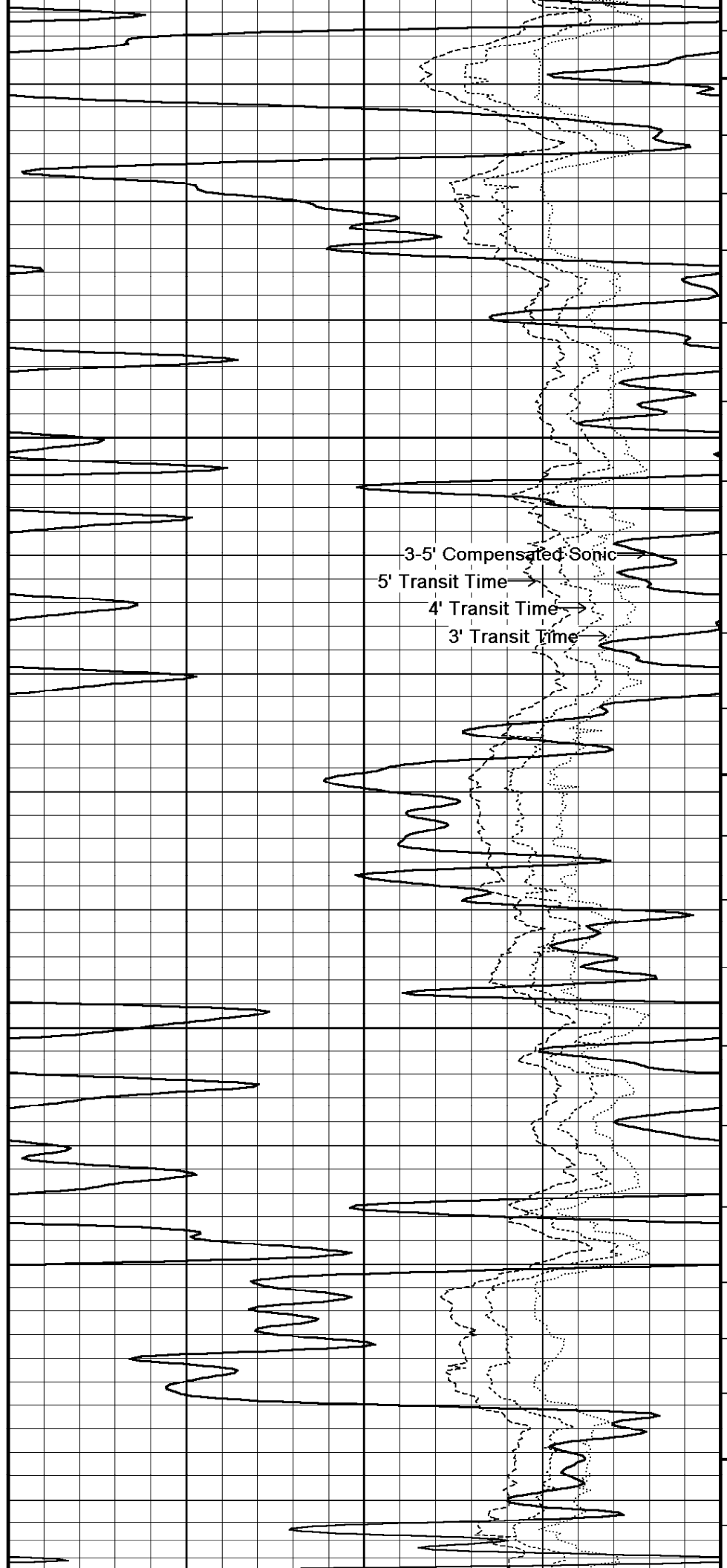
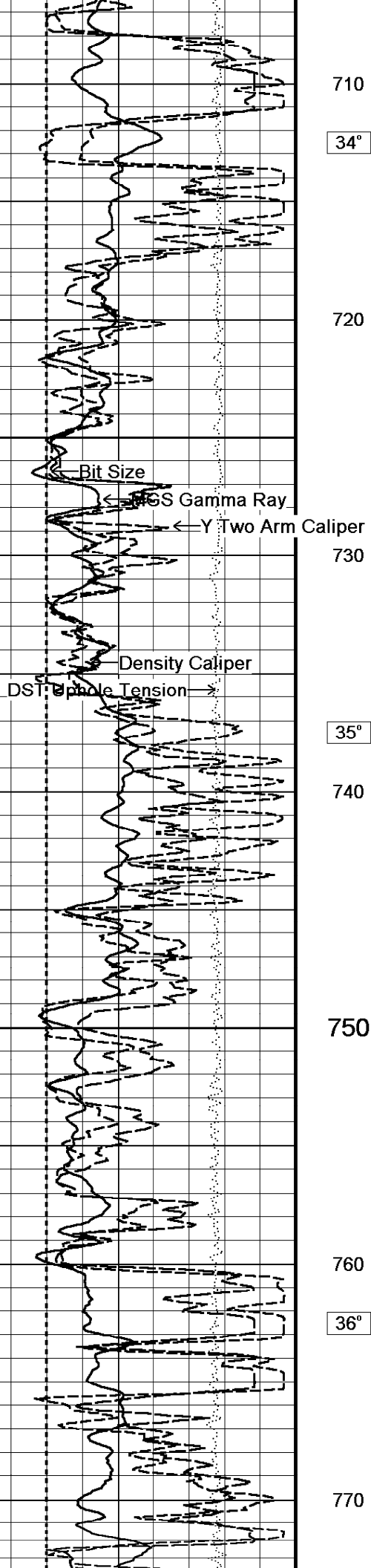
680

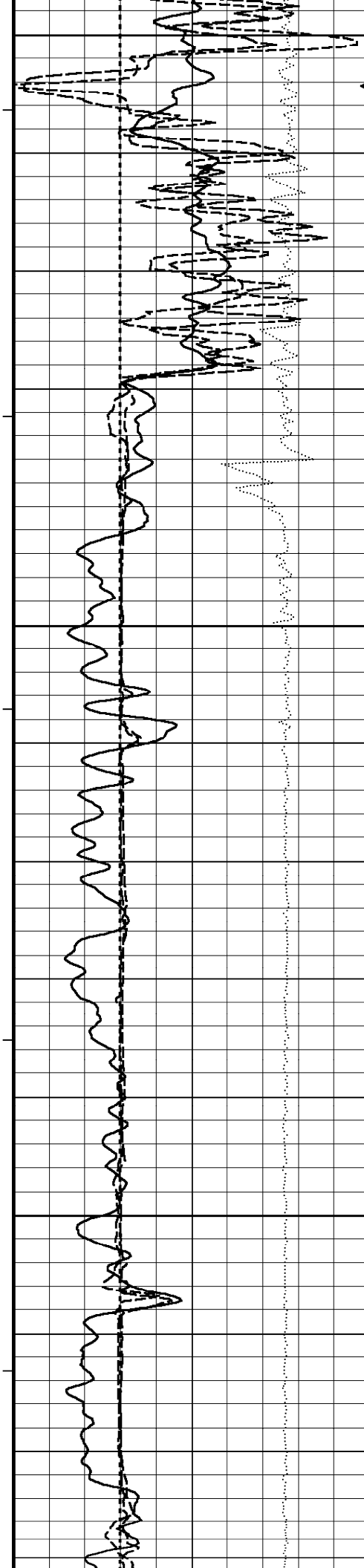
34°

690

700







780

35°

790

800

810

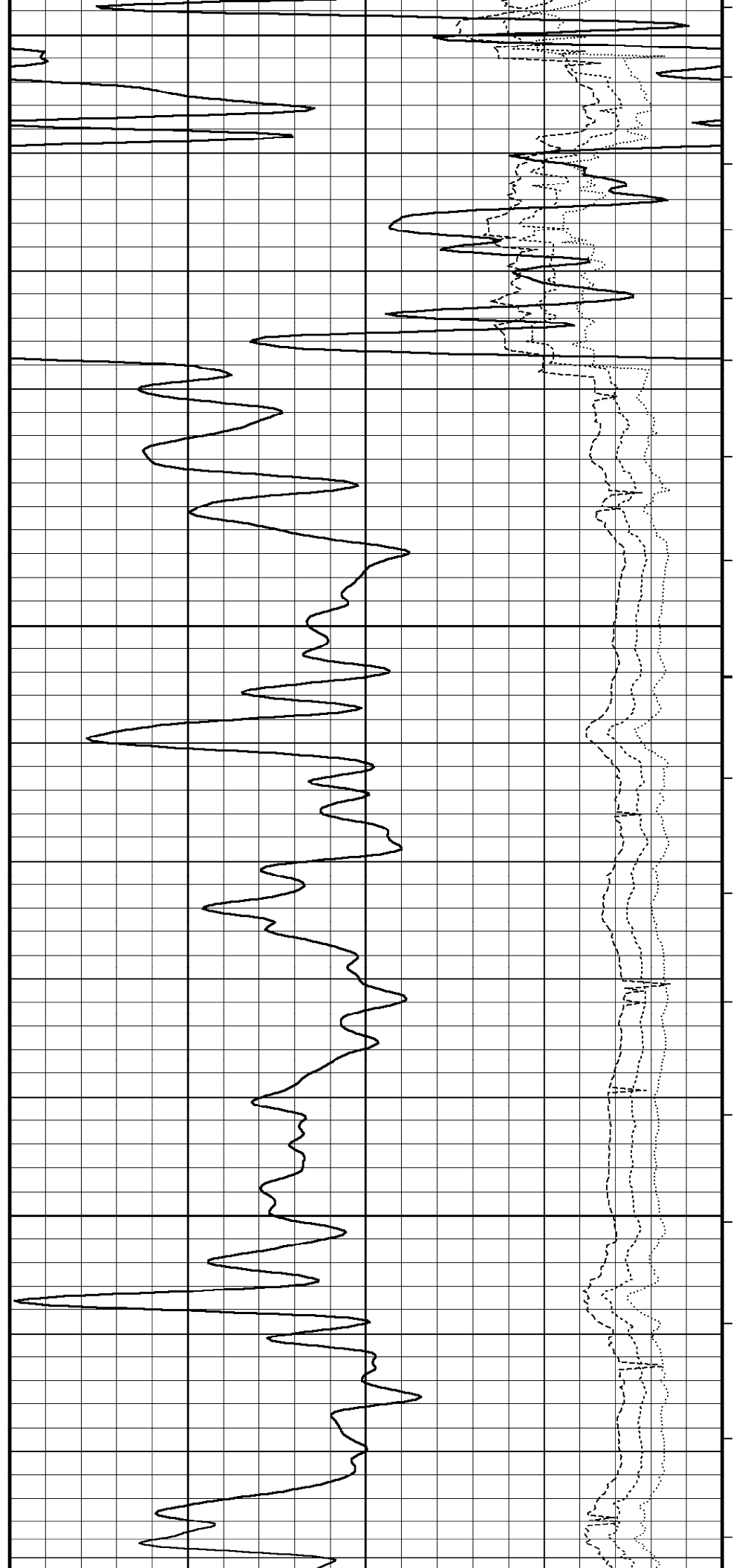
36°

820

830

36°

840



← Bit Size
MGS Gamma Ray
← Y Two Arm Caliper
← Density Caliper
DST Uphole Tension →

850

3-5' Compensated Sonic →

5' Transit Time →

4' Transit Time →

3' Transit Time →

860

36°

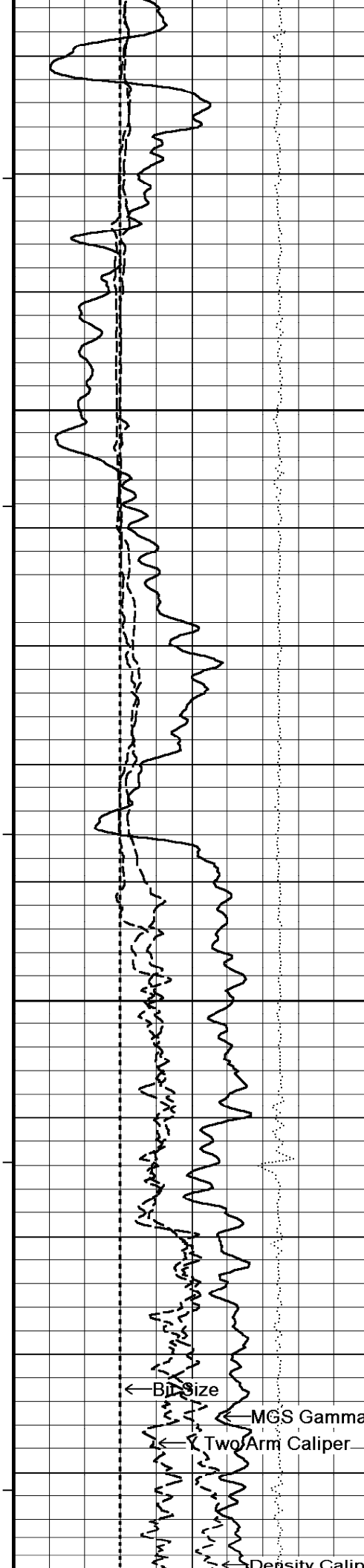
870

880

37°

890

900



910

37°

920

930

37°

940

950

960

38°

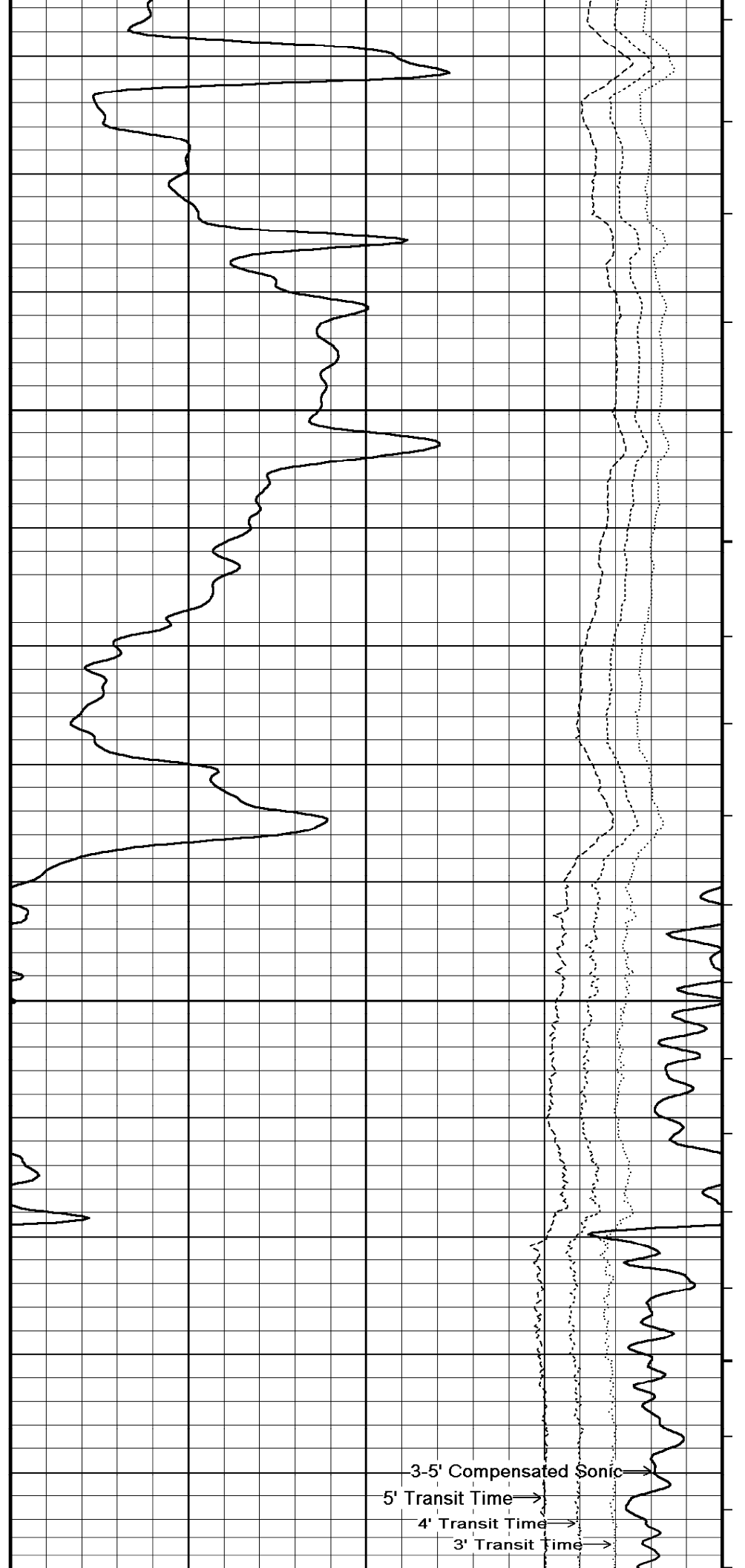
970

← B.P. Size

← MGS Gamma Ray

← Two Arm Caliper

← Density Caliper

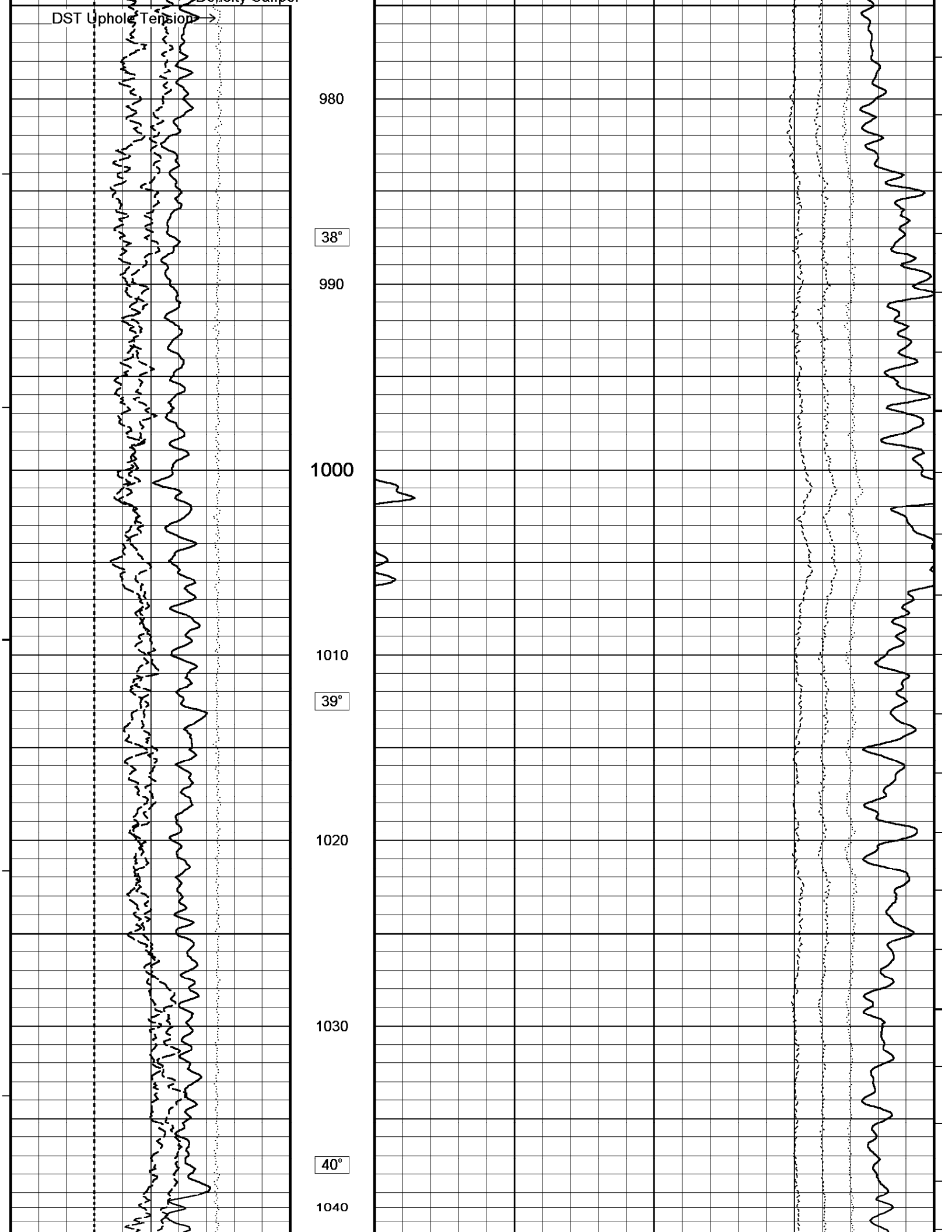


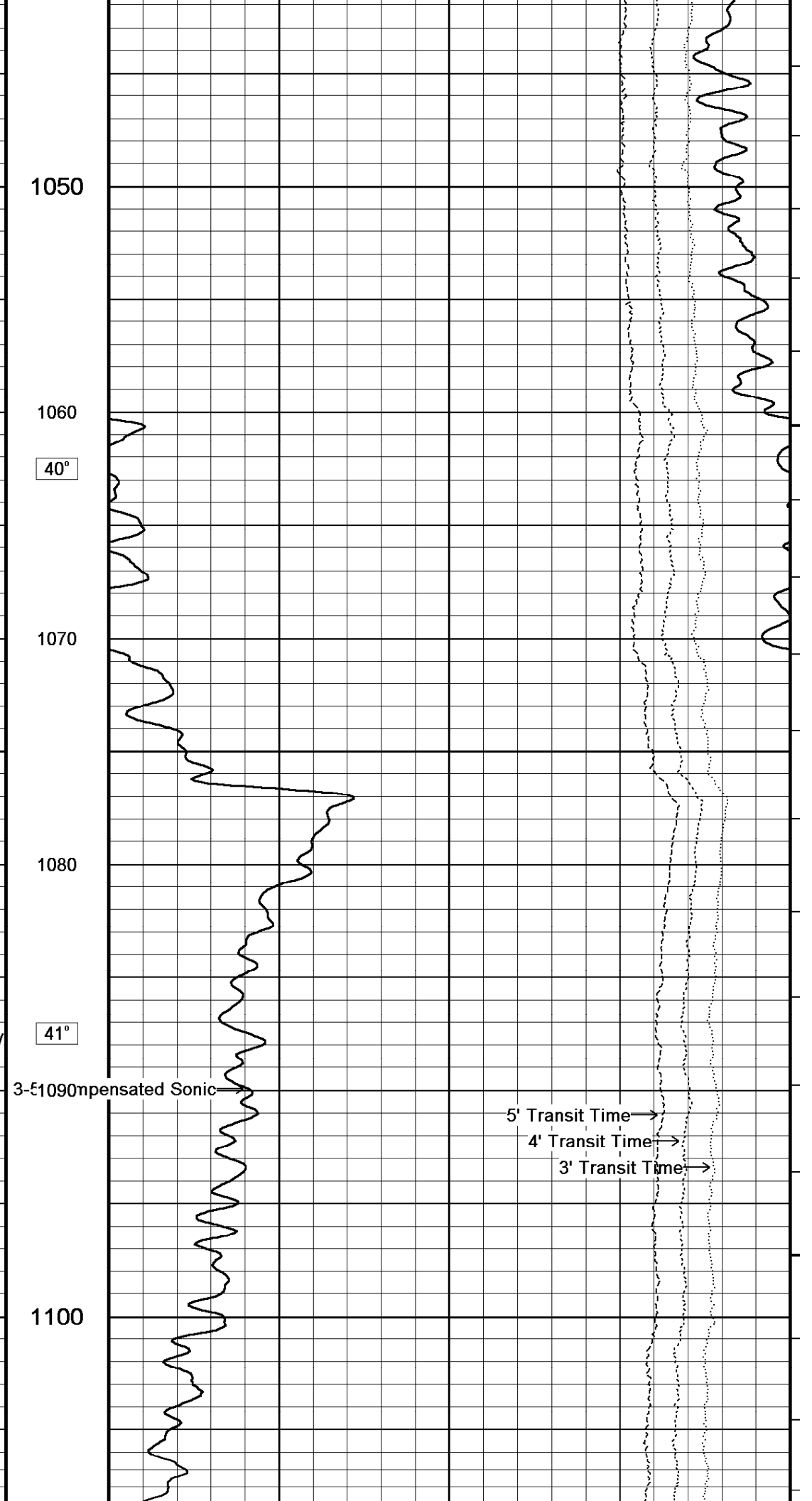
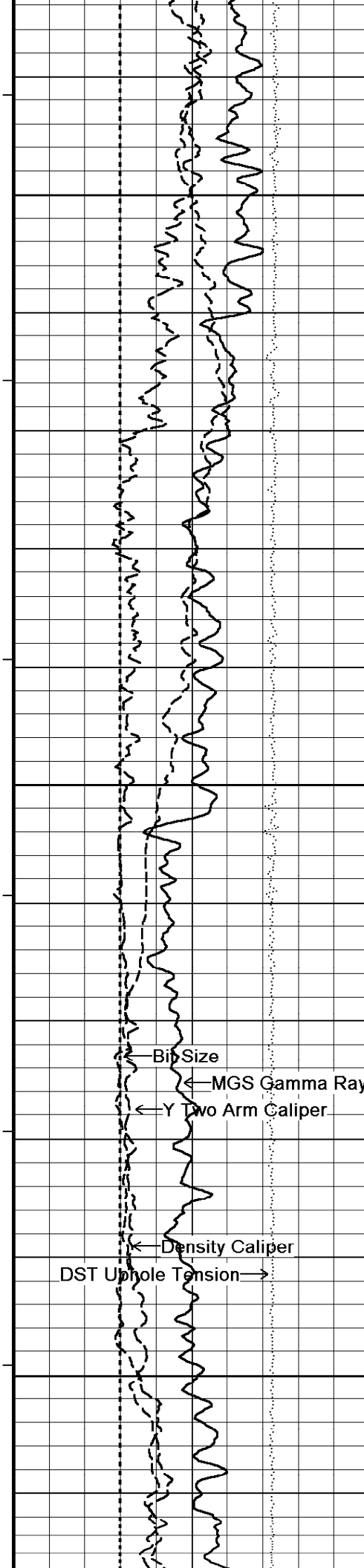
3-5' Compensated Sonic →

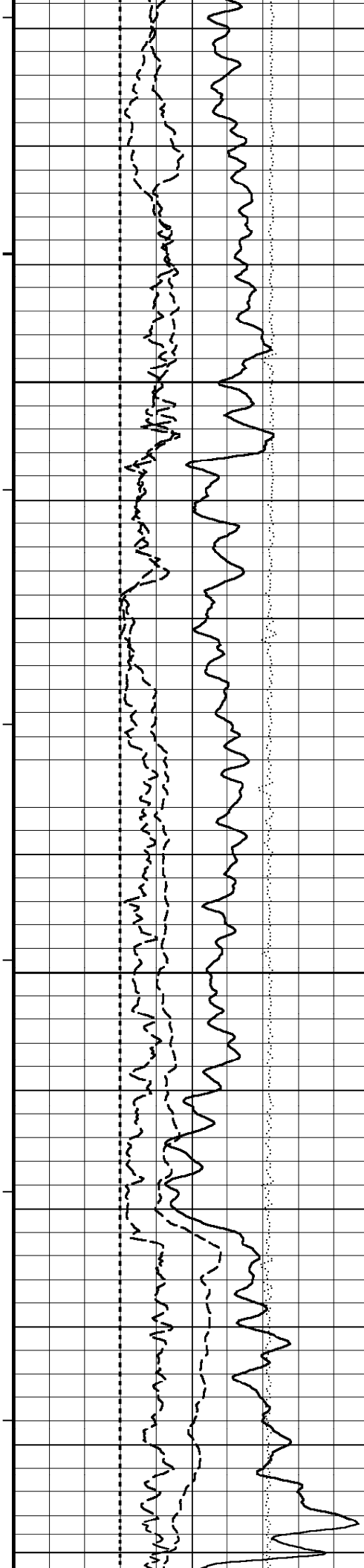
5' Transit Time →

4' Transit Time →

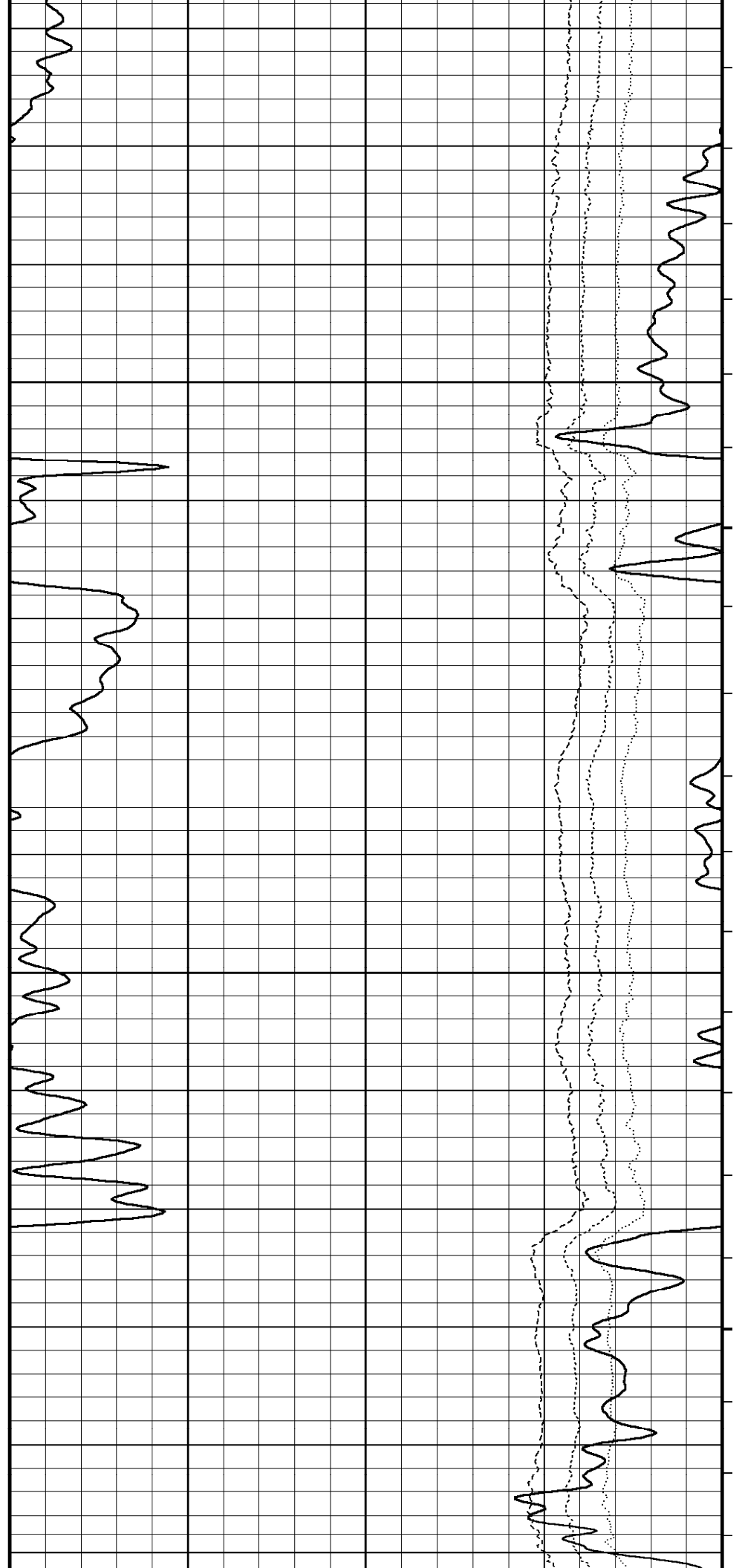
3' Transit Time →

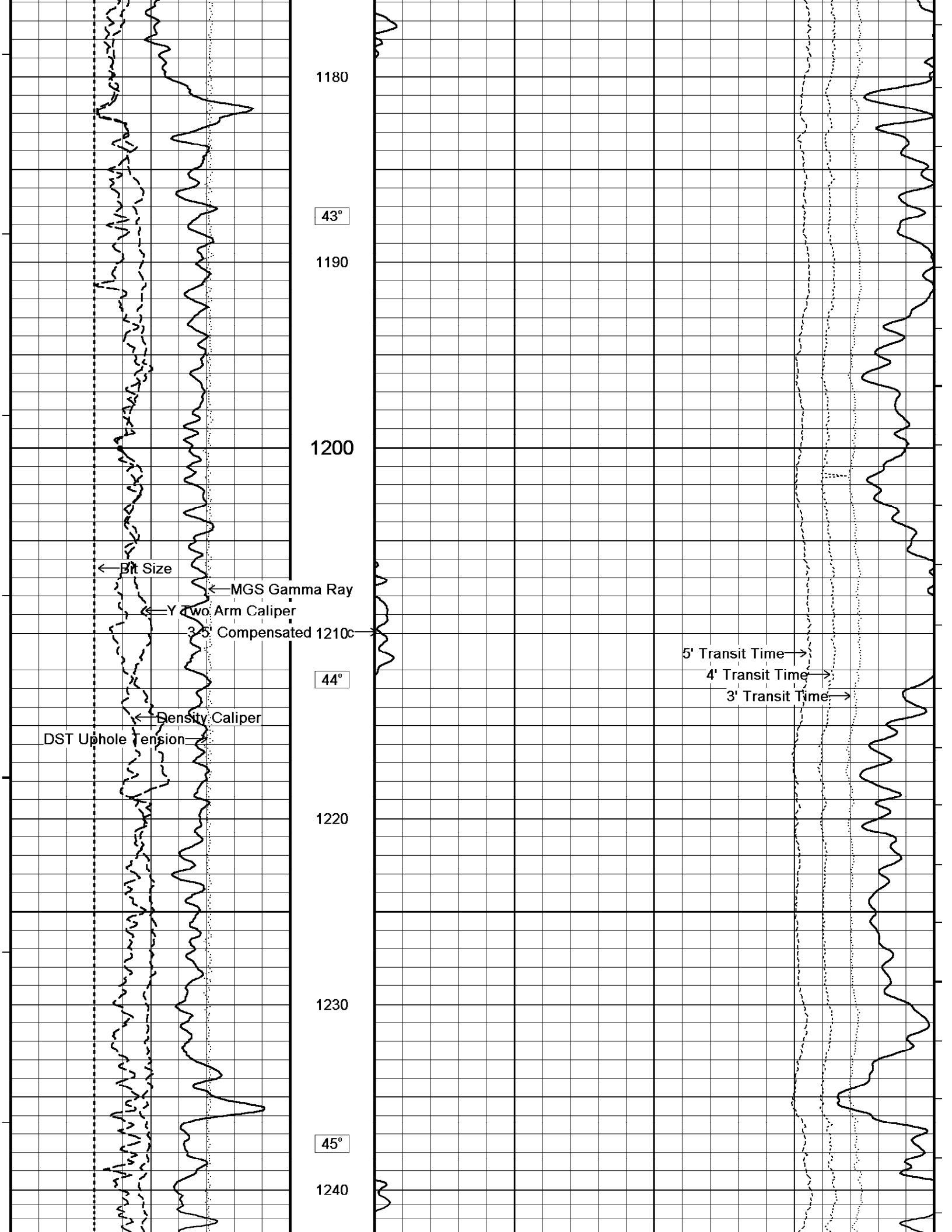


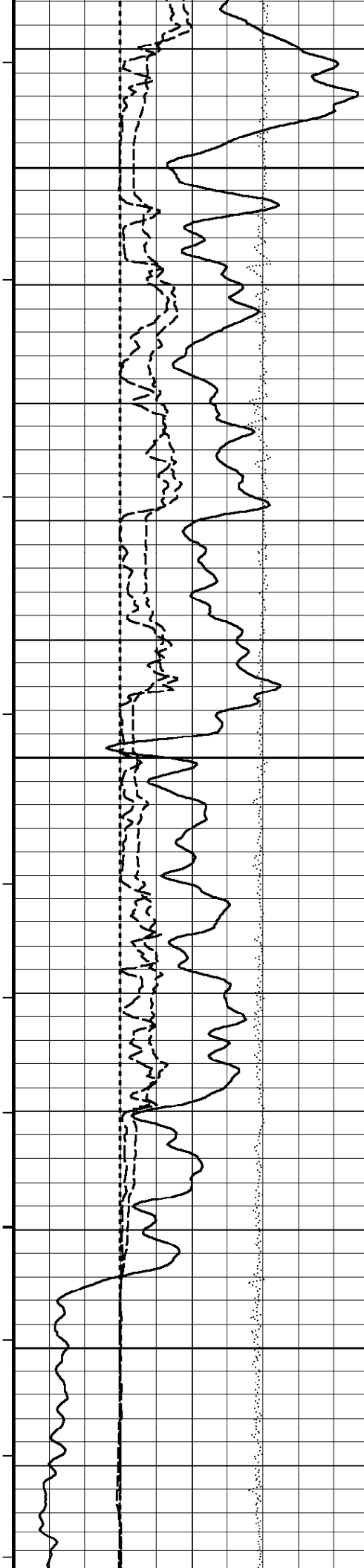




1110
41°
1120
1130
42°
1140
1150
1160
43°
1170







1250

1260

45°

1270

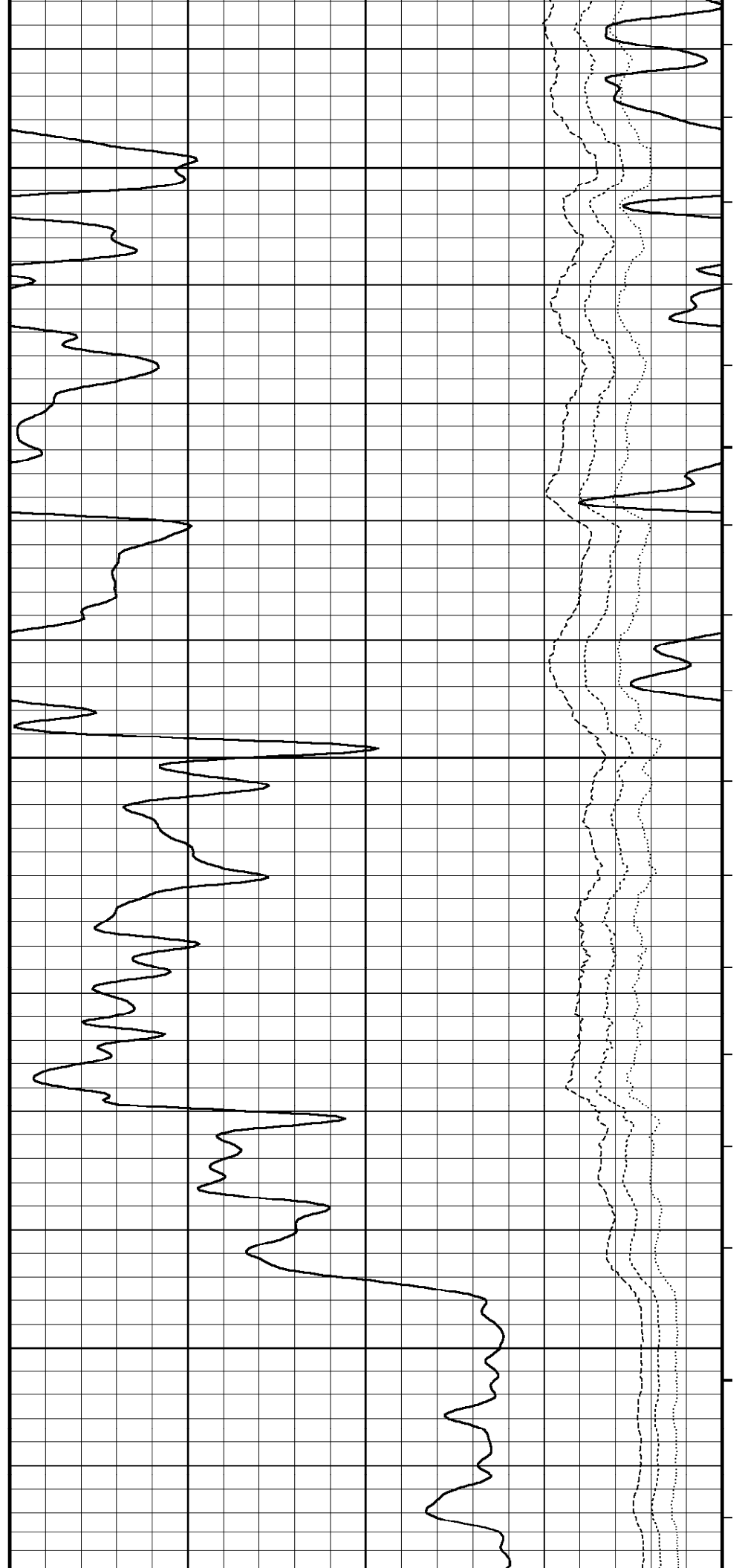
1280

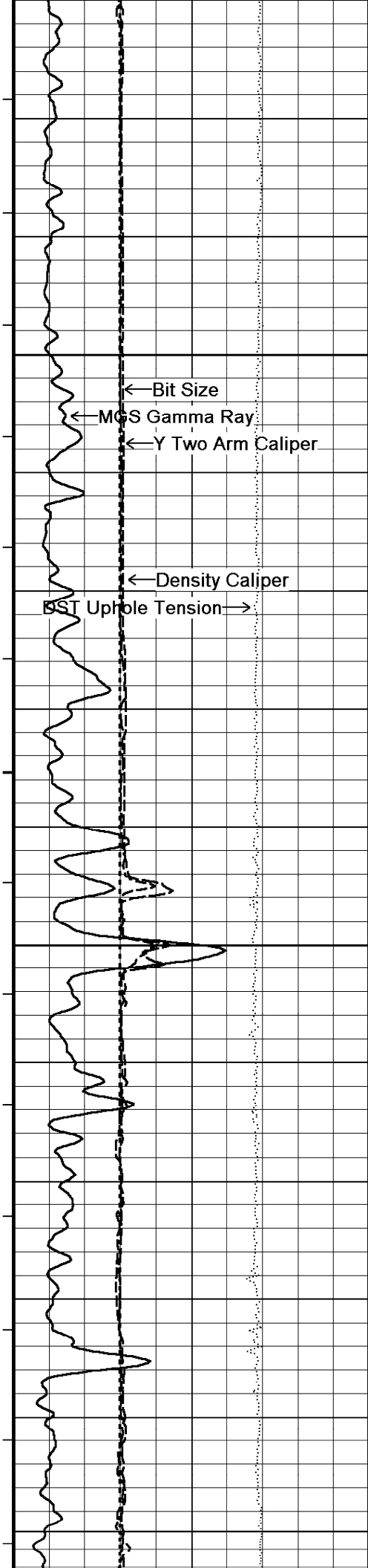
46°

1290

1300

1310





1310
46°

1320

1330

47°

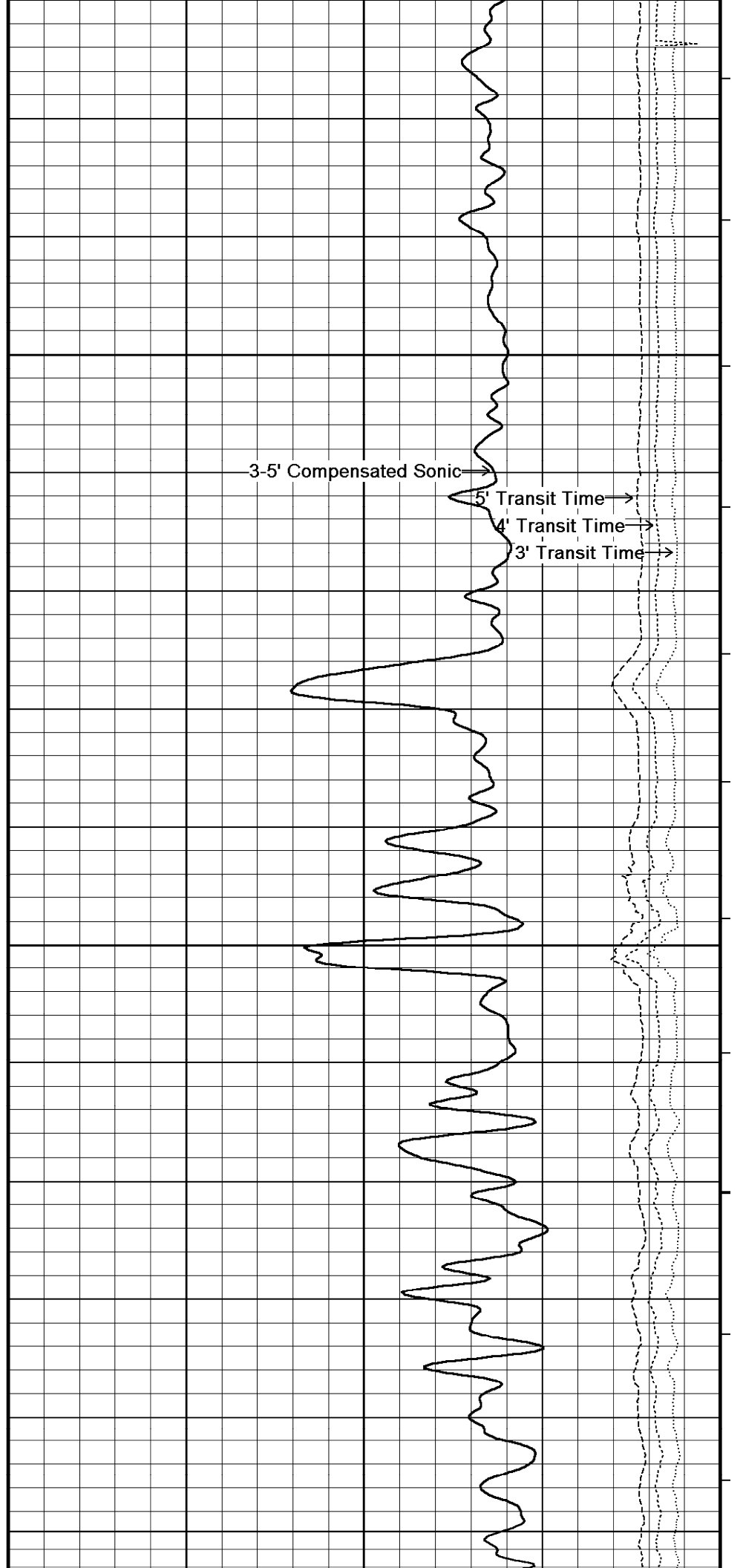
1340

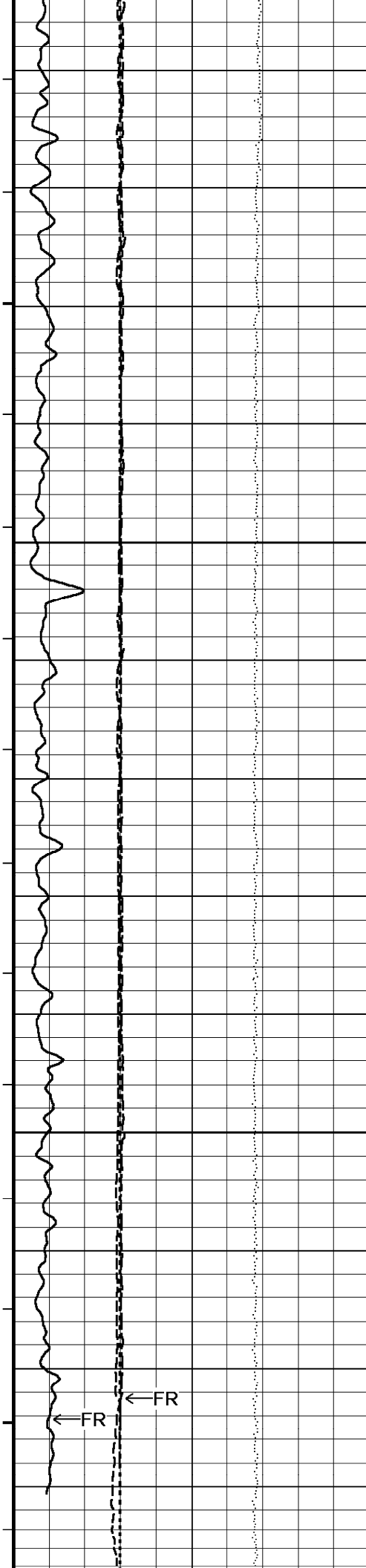
1350

1360

48°

1370





1380

48°

1390

1400

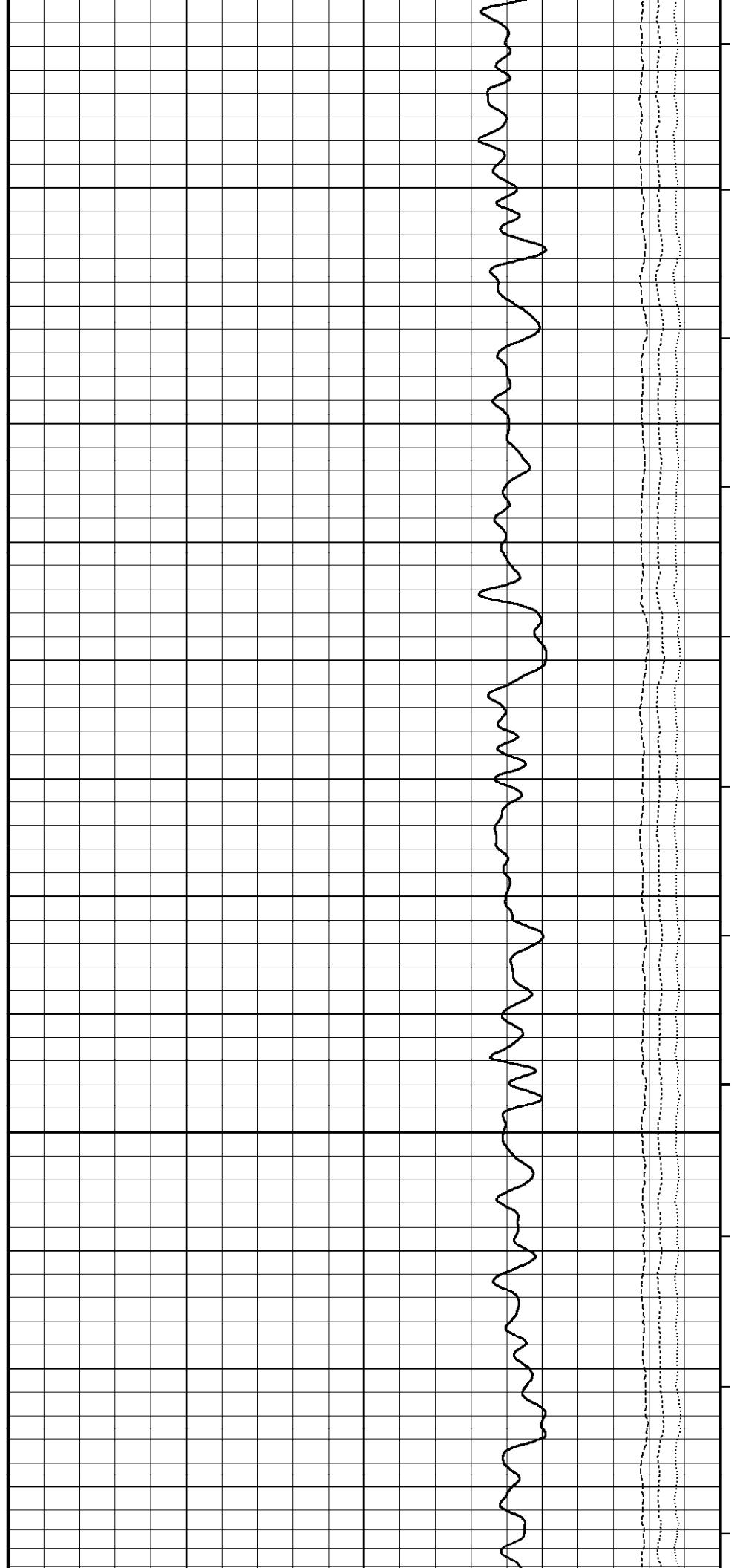
1410

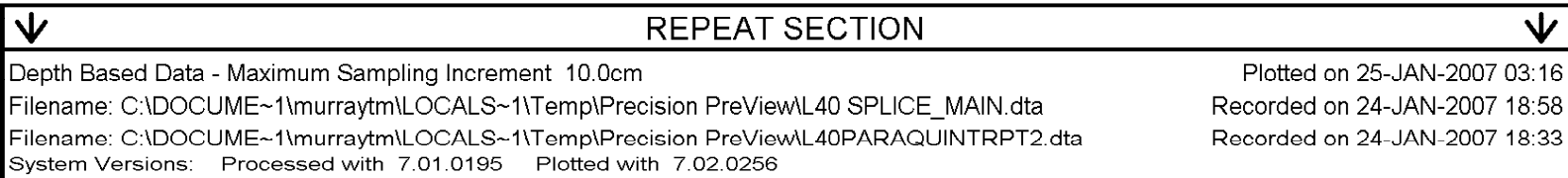
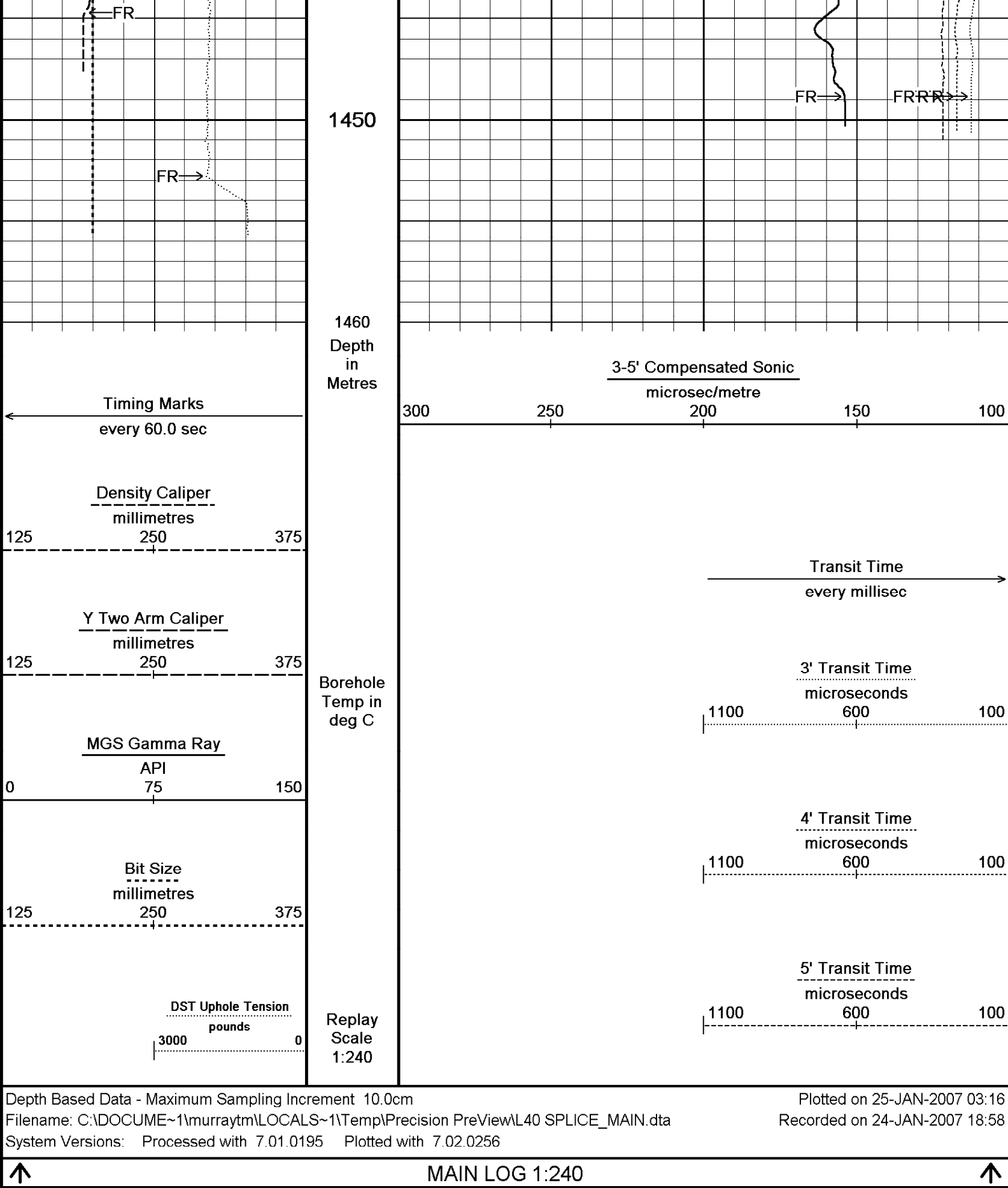
48°

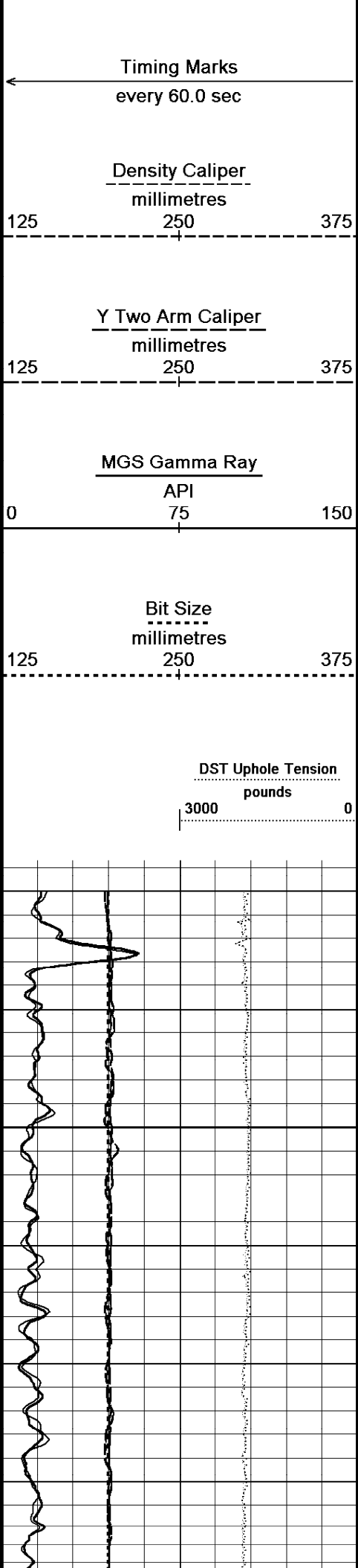
1420

1430

1440







Depth
in
Metres

Borehole
Temp in
deg C

Replay
Scale
1:240

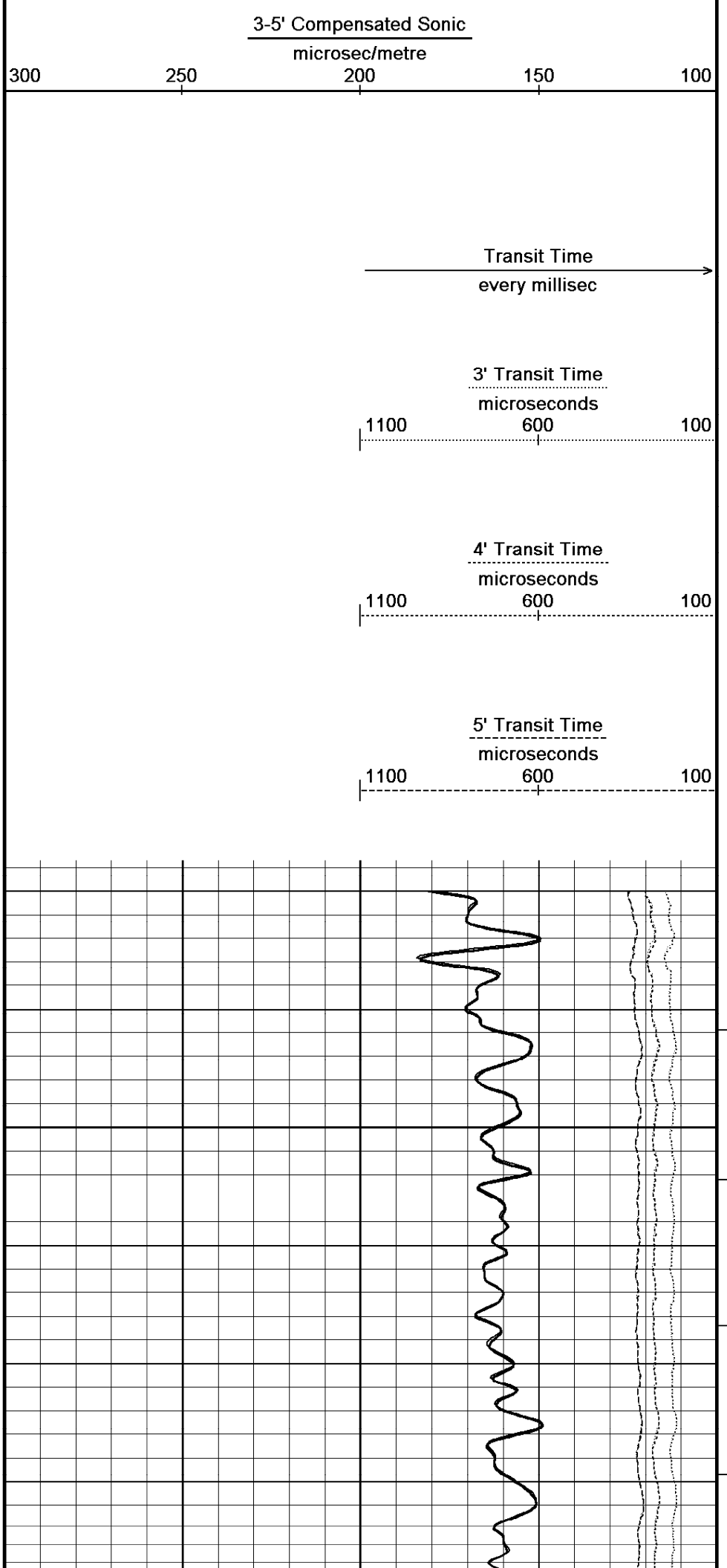
1365

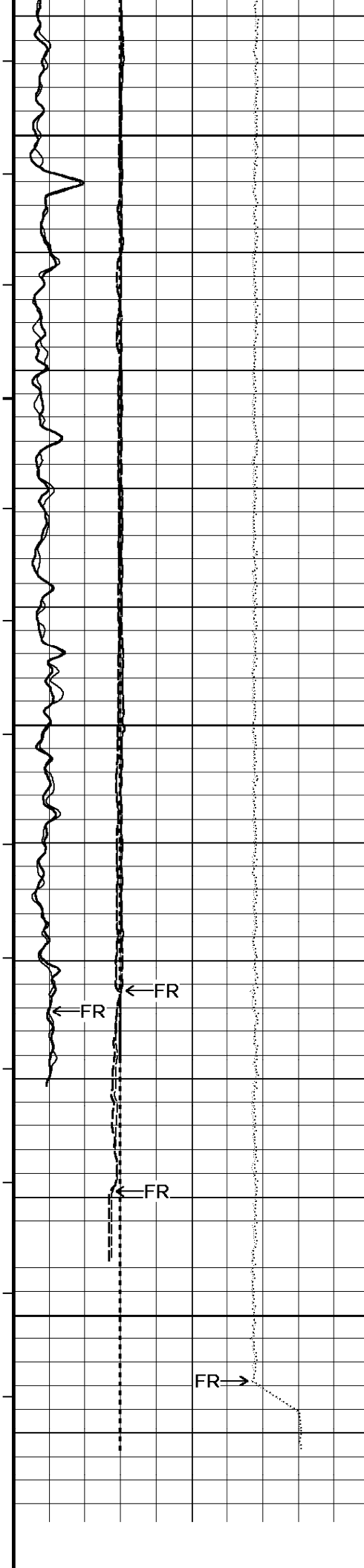
1370

1380

48°

1390





1400

1410

1420

1430

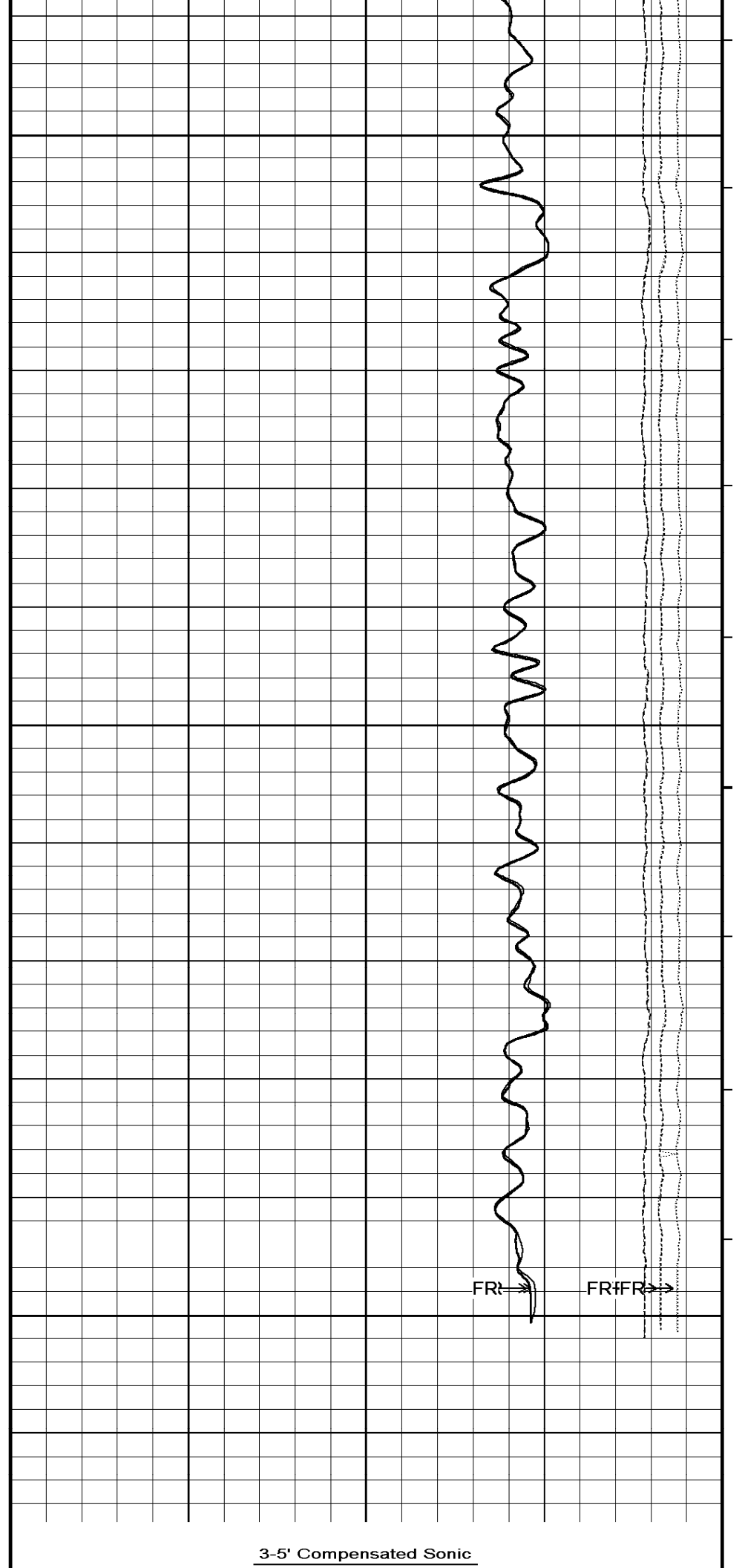
1440

1450

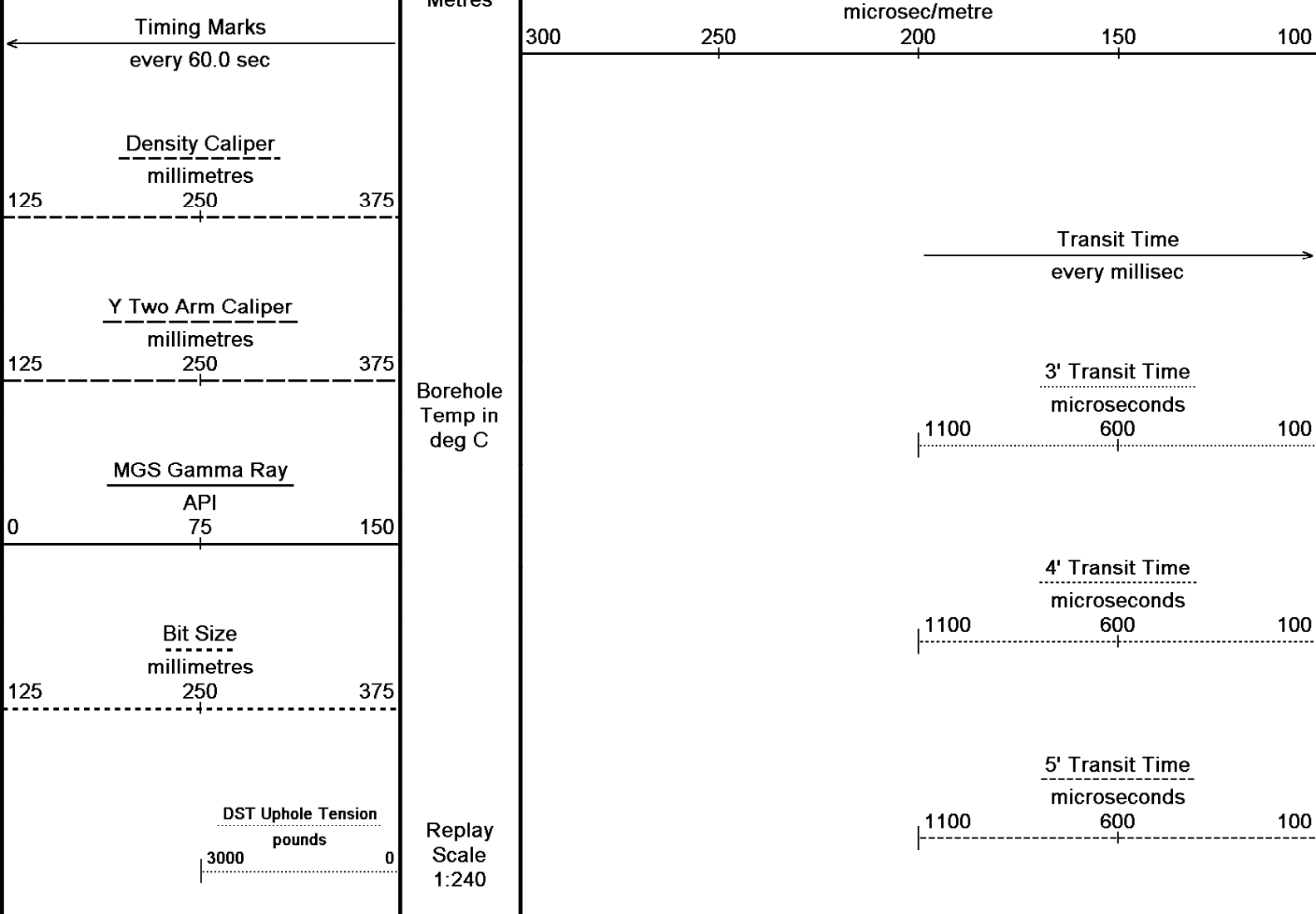
1458

Depth
in
Metres

48°



3-5' Compensated Sonic



Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\DOCUME~1\murraytm\LOCALS~1\Temp\Precision PreView\L40 SPLICE_MAIN.dta
Filename: C:\DOCUME~1\murraytm\LOCALS~1\Temp\Precision PreView\L40PARAQUINTRPT2.dta
System Versions: Processed with 7.01.0195 Plotted with 7.02.0256

↑ REPEAT SECTION ↑

BEFORE SURVEY CALIBRATION		
C:\DOCUME~1\murraytm\LOCALS~1\Temp\Precision PreView\L40PARAQUINTRPT2.dta		
General Constants All 000		Last Edited on 23-JAN-2007,22:35
General Parameters		
Mud Resistivity	0.600	ohm-metres
Mud Resistivity Temperature	25.000	degrees C
Water Level	0.000	metres
Density/Neutron Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	Y Two Arm Caliper	
Annular Volume Diameter	139.700	mm
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Deep Induction	
RWA Constant A	0.610	
RWA Constant M	2.150	
Gamma Calibration MCG 131		Field Calibration on 8-JAN-2007,20:07

Background	Measured	46	Calibrated (API)	30
Calibrator (Gross)		1264		824
Calibrator (Net)		1219		794
Gamma Constants MCG 131			Last Edited on 24-JAN-2007,19:31	
Gamma Calibrator Number		GRC 095		
Mud Density		1110.00	kg/m3	
Caliper Source for Processing		Density Caliper		
Tool Position		Centred		
Concentration of KCl		0.00	kppm	
SP Calibration MCG 131			Field Calibration on 18-JAN-2007 08:47	
	Measured		Calibrated (mV)	
Reference 1	100.6		100.0	
Reference 2	-100.0		-100.0	
High Resolution Temperature Calibration MCG 131			Field Calibration on 15-DEC-2006,15:05	
	Measured		Calibrated(Deg C)	
Lower	1.00		1.00	
Upper	10.00		10.00	
High Resolution Temperature Constants MCG 131				
Pre-filter Length		11		
FE Calibration MFE 038			Base Calibration on 4-DEC-2006 15:24 Field Check on 23-JAN-2007,22:36	
Base Calibration				
	Measured		Calibrated (ohm-m)	
Reference 1	0.0		0.0	
Reference 2	974.1		126.8	
Base Check			278.0	
Field Check			278.7	
FE Constants MFE 038			Last Edited on 15-DEC-2006,13:39	
Caliper Source for FE correction		Density Caliper		
Rm Source for FE correction		Temperature Corr		
Temp. for Rm Corr.		MCG External Temperature		
Stand-off		Centred	millimetres	
Caliper Calibration MTC 037			Base Calibration on 11-JAN-2007 22:22 Field Calibration on 22-JAN-2007,06:17	
Base Calibration				
Reading No	Measured		Calibrator Size (mm)	
1	15375		110.00	
2	18236		162.00	
3	21038		212.00	
4	23830		262.00	
5	26651		311.00	
6	N/A		N/A	
Field Calibration				
	Measured Caliper (mm)		Actual Caliper (mm)	
	167.00		166.00	
Gamma Calibration MGS 029			Field Calibration on 18-JAN-2007,10:05	
	Measured		Calibrated (API)	
Background	58		38	
Calibrator (Gross)	1286		832	
Calibrator (Net)	1228		794	
Gamma Constants MGS 029			Last Edited on 24-JAN-2007,03:16	
Gamma Calibrator Number		GRCC095		
Mud Density		1110.00	kg/m3	
Caliper Source for Processing		Density Caliper		
Tool Position		Centred		

Tool Position	Centred	0.00	kppm
Concentration of KCl			
SP Calibration MGS 029			Field Calibration on 7-DEC-2006,17:01
	Measured	Calibrated (mV)	
Reference 1	100.0	100.0	
Reference 2	-100.0	-100.0	
High Resolution Temperature Calibration MGS 029			Field Calibration on 7-DEC-2006,17:01
	Measured	Calibrated(Deg C)	
Lower	1.00	1.00	
Upper	5.00	5.00	
High Resolution Temperature Constants MGS 029			
Pre-filter Length	11		
Micro Laterolog Constants MMR 031			
Micro Laterolog K Factor	0.0128		
Standoff Offset	0.0000	inches	
Borehole Correction Constants			
Mud Cake Source	Constant Value		
Mud Cake Thickness	0.4000	inches	
Mud Cake Thickness Caliper	0		
Mud Cake Resistivity	0.1500	ohm-m	
Caliper Calibration MMR 031			Base Calibration on 25-NOV-2006 12:45 Field Calibration on 6-JAN-2007,05:52
Base Calibration			
Reading No	Measured	Calibrator Size (mm)	
1	14823	162.00	
2	18001	212.00	
3	21431	262.00	
4	25325	311.00	
5	0	0.00	
6	N/A	N/A	
Field Calibration			
	Measured Caliper (mm)	Actual Caliper (mm)	
	200.60	205.70	
Micro Normal and Micro Inverse Calibration MMR 031			Base Calibration on 25-NOV-2006,12:58 Field Check on 23-JAN-2007 22:10
Base Calibration			
Channel	Resistor 1	Measured Resistor 2	Calibrated (ohm-m) Resistor 1 Resistor 2
Micro Normal	9.9	49.1	5.1 25.6
Micro Inverse	9.8	49.8	3.4 16.9
Channel	Base Check (ohm-m)		Field Check (ohm-m)
Micro Normal	94.7		94.7
Micro Inverse	61.5		61.5
Micro Normal and Micro Inverse Constants MMR 031			Last Edited on 25-NOV-2006,14:14
Micro Normal K Factor	0.5110		
Micro Inverse K Factor	0.3380		
Standoff Offset	0.0000	millimetres	
Neutron Calibration MDN 016			Base Calibration on 11-JAN-2007 20:47 Field Check on 23-JAN-2007 22:05
Base Calibration			
	Measured		Calibrated (cps)
	Near	Far	Near Far
	3219	98	3714 110
Ratio	32.703		33.764
Field Calibrator at Base			
			Calibrated (cps)
			2486 3648
Ratio	0.681		

Field Check	Calibrated (cps)	
	2511	3822
Ratio	0.657	

Neutron Constants MDN 016

Last Edited on 15-JAN-2007,07:16

Neutron Source Id	277	
Neutron Jig Number	N636	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	mm
Mud Density	1000.00	kg/m3
Limestone Sigma	7.10	cu
Sandstone Sigma	4.26	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	Constant Value	
Formation Pressure	0.00	kPa
Temperature Source	Constant Value	
Temperature	20.00	degrees C
Mud Salinity	0.00	kppm
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	

Photo Density Calibration MPD 093

Base Calibration on 19-JAN-2007,19:16
Field Check on 23-JAN-2007 22:00

Density Calibration				
Base Calibration		Measured	Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	71274	37606	60352	31615
Reference 2	29326	2540	25043	2540

Field Check at Base

0.0 0.0

Field Check

741.6 865.3

PE Calibration				
Base Calibration		Measured	Calibrated	
	WS	WH	Ratio	Ratio
Background	133	653		
Reference 1	29377	71091	0.415	0.400
Reference 2	7941	29220	0.273	0.272

Field Check at Base

133.0 649.2

Field Check

134.6 655.5

Density Constants MPD 093

Last Edited on 24-JAN-2007,03:16

Density Source Id	16151b	
Nylon Calibrator Number	608	
Aluminium/Fe Calibrator Number	608	
Density Shoe Profile	4 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1110.00	kg/m3
Mud Density Z/A Correction	1.11	
Mud Filtrate Density	1000.00	kg/m3
Dry Hole Mud Filtrate Density	1000.00	kg/m3
DNCT	0.00	kg/m3
CRCT	0.00	kg/m3
Matrix Density (kg/m3)	Depth (m)	
2710.00		
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 093			Base Calibration on 11-JAN-2007 21:58	
			Field Calibration on 22-JAN-2007,06:17	
Base Calibration				
Reading No	Measured	Calibrator Size (mm)		
1	15040	110.00		
2	23085	162.00		
3	31440	212.00		
4	40233	262.00		
5	49152	311.00		
6	N/A	N/A		
Field Calibration				
	Measured Caliper (mm)	Actual Caliper (mm)		
	166.00	165.00		

Sonic Constants MSS 075			Last Edited on 18-JAN-2007,10:05	
Maximum Boundary Contrast	328.08	micro-sec/m		
Fluid Transit Time	620.08	micro-sec/m		
Limestone Transit Time	155.84	micro-sec/m		
Sandstone Transit Time	182.09	micro-sec/m		
Dolomite Transit Time	142.72	micro-sec/m		
Sonic used for Porosities	3-5' Compensated Sonic			
Correction for Sonde Skew	Applied			
Cycle Stretch Algorithm	Applied			
MN3FT	N/A	micro-sec		
MX3FT	N/A	micro-sec		
Fixed Gate Parameters				
Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	N/A	
N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	
Down Hole Fixed Gate Parameters				
Gate Start	N/A	micro-sec		
Gate Width	N/A	micro-sec		
Initial Discriminator Level	0.0000	mVolts		
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 092				Base Calibration on 19-JAN-2007 19:26	
				Field Check on 23-JAN-2007 22:08	
Base Calibration					
Test Loop Calibration		Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High	
1	17.5	473.2	9.3	966.2	
2	5.9	374.5	7.6	821.4	

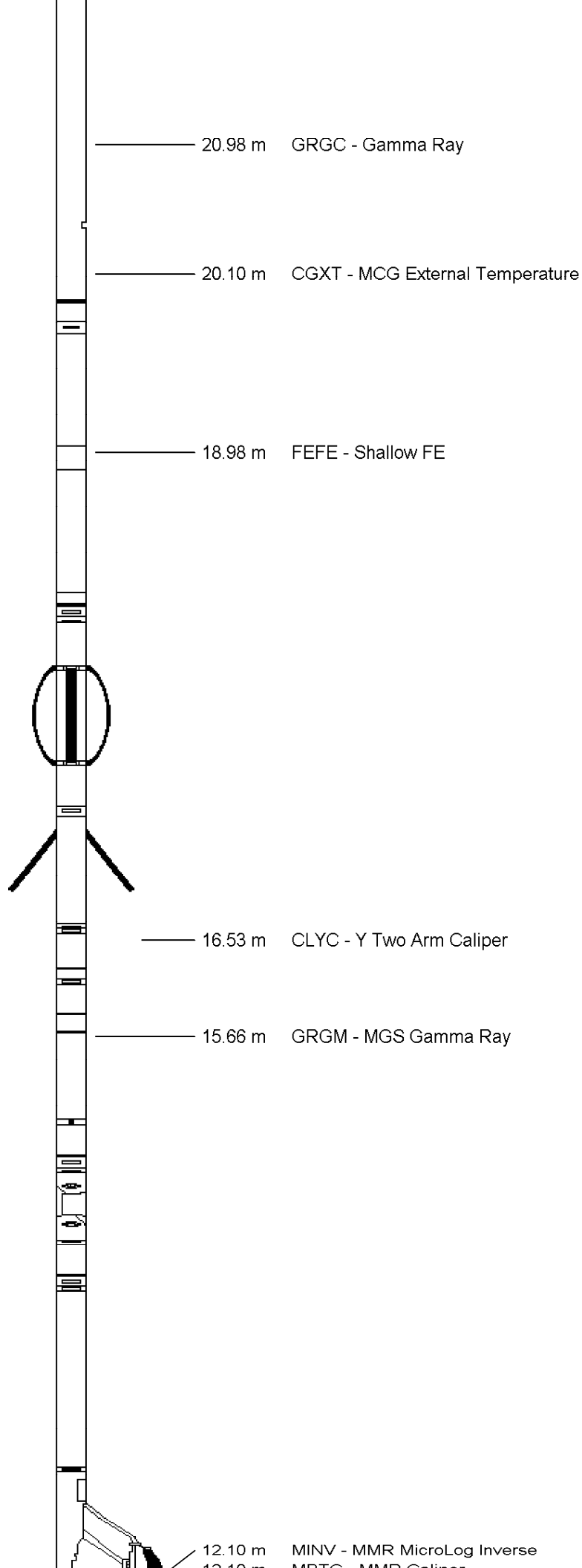
3	2.8	255.0	5.2	566.0
4	1.3	130.5	2.6	279.2
Array Temperature		23.9	Deg C	
Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1	10.3	3853.0	6.5	3842.8
2	30.0	3605.8	28.7	3599.3
3	29.7	3109.7	28.9	3103.7
4	20.7	2116.7	20.6	2113.5
Deep	19.0	2017.4	18.7	2013.4
Medium	43.3	4115.3	42.3	4107.3
Shallow	43.5	5343.3	41.2	5333.9
Array Temperature		11.6	-16.7	Deg C

Induction Constants MAI 092				Last Edited on 20-JAN-2007,04:19	
Induction Model		VECTAR			
Caliper for Borehole Corr.		Density Caliper			
Hole Size for Borehole Correction		N/A		millimetres	
Stand-off		25.40		millimetres	
Number of Fins on Stand-off		5.0000			
Stand-off Fin Width		12.7000		millimetres	
Borehole Corr. Rm Source		Temperature Corr			
Temp. for Rm Corr.		MCG External Temperature			
Squasher Start		0.0020		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		

High Resolution Temperature Calibration MAI 092			Field Calibration on 13-SEP-2005,13:50
	Measured	Calibrated(Deg C)	
Lower	1.00	1.00	
Upper	50.00	50.00	

High Resolution Temperature Constants MAI 092	
Pre-filter Length	11

DOWNHOLE EQUIPMENT	
C:\DOCUME~1\murraytm\LOCALS~1\Temp\Precision PreView\L40PARAQUINTRPT2.dta	
Compact Gamma MCG 131 Length: 2.65 m Weight: 63.9 lb	



Compact Focussed Electric
MFE 38 Length: 1.84 m Weight: 48.5 lb

Compact Two Arm Caliper
MTC 37 Length: 2.17 m Weight: 61.7 lb

Compact Short Gamma
MGS 29 Length: 1.04 m Weight: 24.3 lb

Compact InterSonde Crank
ISC 151 Length: 0.71 m Weight: 24.3 lb

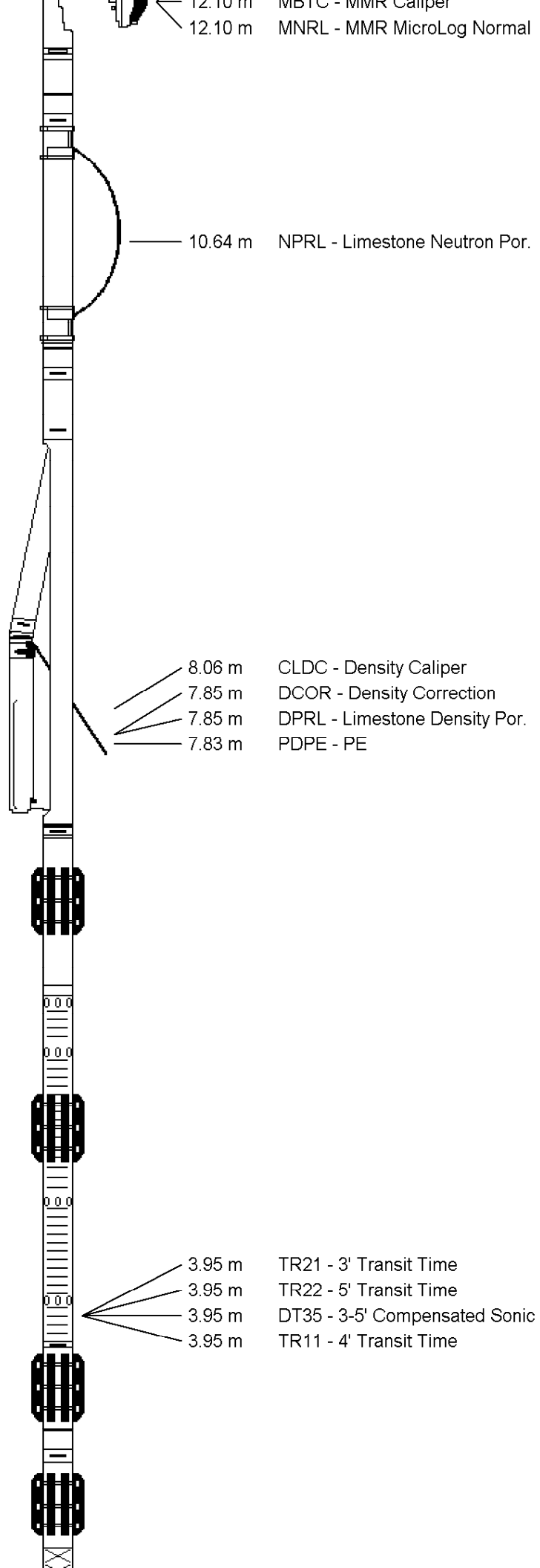
Compact Micro-Resistivity
MMR 31 Length: 2.62 m Weight: 81.6 lb

Compact Neutron
MDN 16 Length: 1.53 m Weight: 50.7 lb

Compact Density/Caliper
MPD 93 Length: 2.92 m Weight: 90.4 lb

Compact Sonic
MSS 75 Length: 3.82 m Weight: 72.8 lb

Compact Induction
MAI 92 Length: 3.29 m Weight: 48.5 lb





0.79 m RILM - Medium Induction
0.79 m RILD - Deep Induction
0.07 m SPCG - Spontaneous Potential
Tool Zero (0.28m from bottom)

Compact Hole Finder
HFS 1 Length: 0.24 m Weight: 2.2 lb
Total Length: 22.83 m Weight: 568.8 lb

All measurements relative to tool zero.

COMPANY	PARAMOUNT RESOURCES LTD.
WELL	PARA ET AL CAMERON L40
FIELD	CAMERON HILLS
PROVINCE	NORTHWEST TERRITORIES
COUNTRY	CANADA

Elevation Kelly Bushing	690.10	metres	First Reading	1448.80	metre
Elevation Drill Floor		metres	Depth Driller	1453.00	metres
Elevation Ground Level	684.70	metres	Depth Logger	1453.30	metres



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MEASURED DEPTH
COMPENSATED SONIC