



COMPENSATED SONIC

COMPANY			PARAMOUNT RESOURCES LTD.		
WELL			PARAMOUNT ET AL CAMERON J-04		
FIELD			CAMERON HILLS		
PROVINCE/COUNTY			NORTH WEST TERRITORIES		
COUNTRY/STATE			CANADA		
LOCATION			300/J-04-60-10-117-30		
			FIELD PRINT		
LSD	SEC	TWP	RGE	Other Services	
API Number			MICROLOG		PHOTO DENSITY DUAL SPACED NEUTRON
Permit Number 1159			ARRAY INDUCTION		
Permanent Datum GROUND LEVEL, Elevation 765.20 metres					
Log Measured From 4.00 M above Permanent Datum					Elevations: metres
Drilling Measured From KB					KB 769.20
					DF GL 765.20
Date	15-FEB-2007				
Run Number	1				
Depth Driller	1449.00 metres				
Depth Logger	1449.50 metres				
First Reading	1445.50 metre				
Last Reading	352.00 metre				
Casing Driller	430.00 metres				
Casing Logger	429.80 metres				
Bit Size	200.00 mm				
Hole Fluid Type	GELCHEM				
Density / Viscosity	1060.0 kg/M3 93.00 CP				
PH / Fluid Loss	11.00 11.00 ml/30Min				
Sample Source	FLOWLINE				
Rm @ Measured Temp	1.18 @ 25.0 ohm-m				
Rmf @ Measured Temp	1.04 @ 25.0 ohm-m				
Rmc @ Measured Temp	1.32 @ 25.0 ohm-m				
Source Rmf / Rmc	PRESS FILTER				
Rm @ BHT	0.78 @ 48.0 ohm-m				
Time Since Circulation	6 HRS				
Max Recorded Temp	48.00 deg C				
Equipment Name	COMPACT				
Equipment / Base	13124 GPR				
Recorded By	G. SINGER				
Witnessed By	A. AHMED				
CIRC. STOP TIME	01:30-FEB-15				Last Line

BOREHOLE RECORD

Last Edited: 15-FEB-2007 05:01

Bit Size millimetres	Depth From metres	Depth To metres
311.000	0.00	430.00
200.000	430.00	1449.00

CASING RECORD

Type	Size millimetres	Depth From metres	Shoe Depth metres	Weight Kg/metre
SURFACE	219.100	0.00	430.00	35.72

REMARKS

- 1) SOFTWARE ISSUE: WLS 7.01.0195.
- 2) CUSTOMER SCALES AND LOGGED INTERVALS USED
- 3) TOOLS RUN: MAI, MSS, MPD, MDN, MML, ISC, MGS, MTC, MFE, MCG RUN IN COMBINATION
- 4) HARDWARE: MAI: TWO 25.4 MM STANDOFFS
MSS: THREE 25.4 MM STANDOFFS
MDN: DUAL BOWSPRING AND INTERSONIC CRANK
MTC: SIX LEAF CENTRALIZER

- 5) SERVICE ORDER #: 30073028 SAP #: 4147101 # FIELD PRINTS = 3
- 6) RIG: PD 129

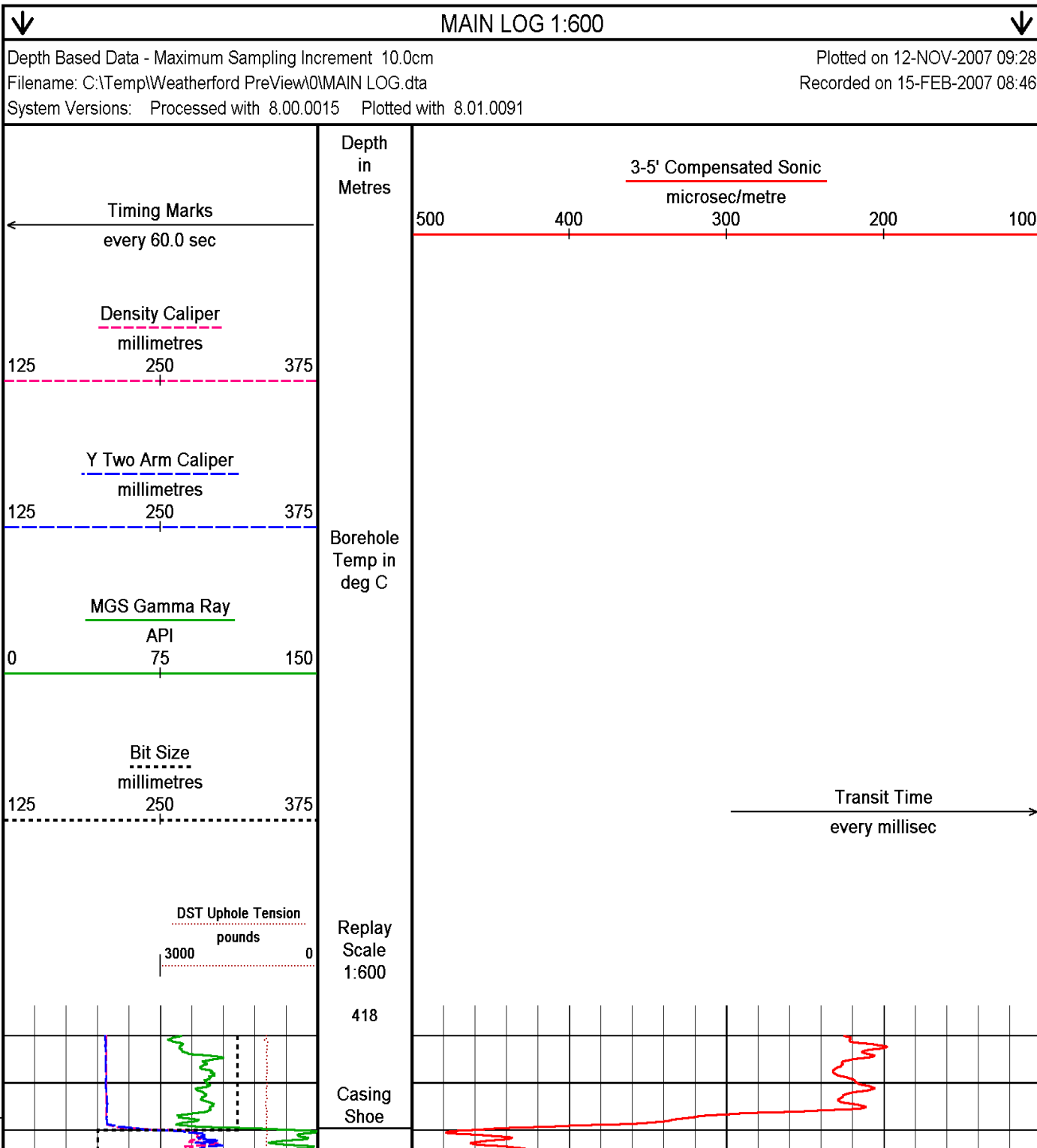
7) HOLE AND CEMENT VOLUMES CALCULATED USING DENSITY AND 2-ARM CALIPERS :

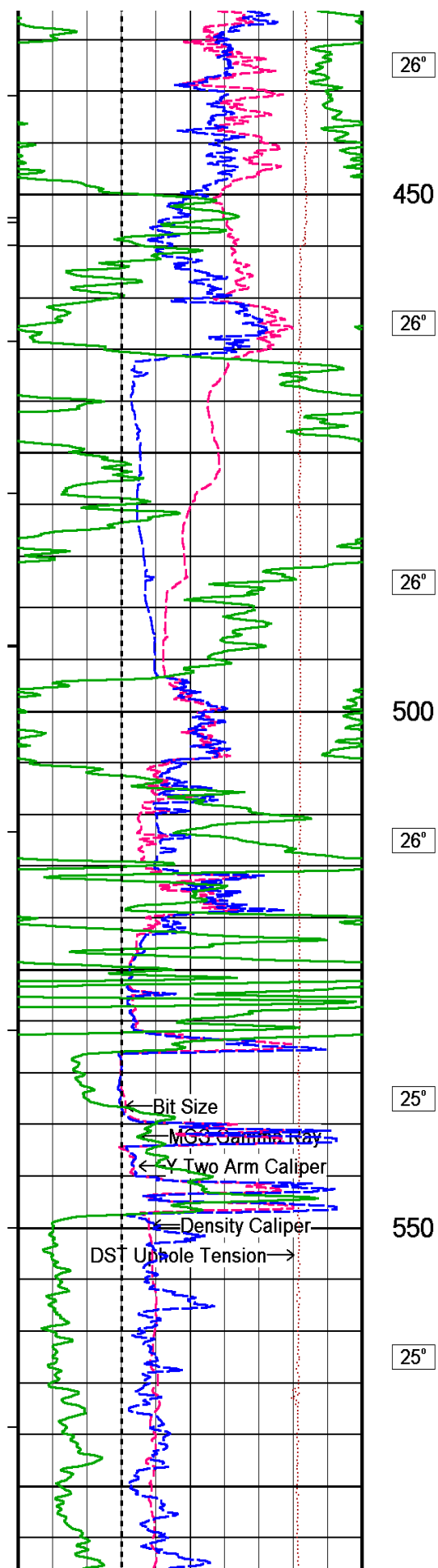
HOLE VOLUME = 37.4 CU.M.

ANNULAR VOLUME USING 139.7 MM PRODUCTION CASING = 21.8 CU.M

8) SONIC FREE PIPE FOUND FROM 352M - 357M

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.





26°

450

26°

26°

500

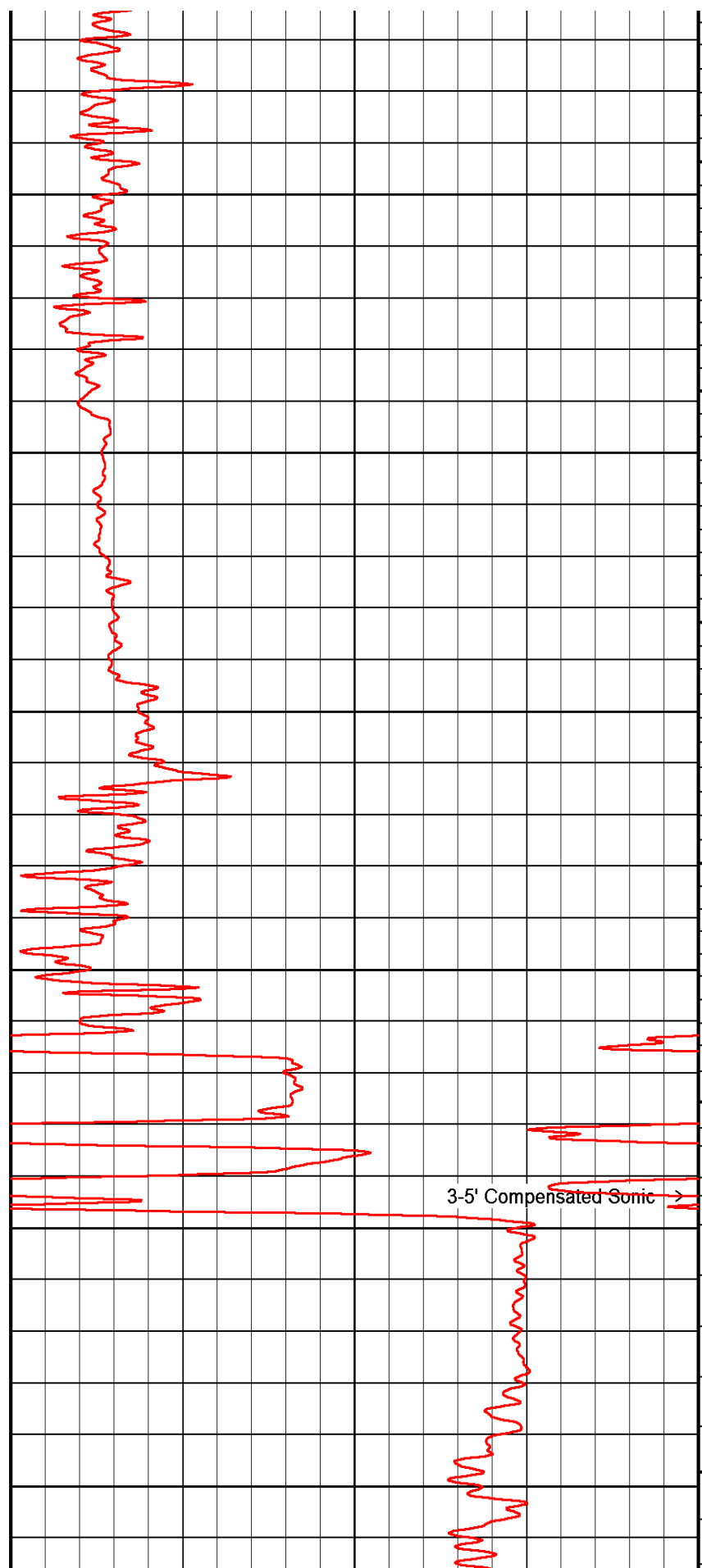
26°

25°

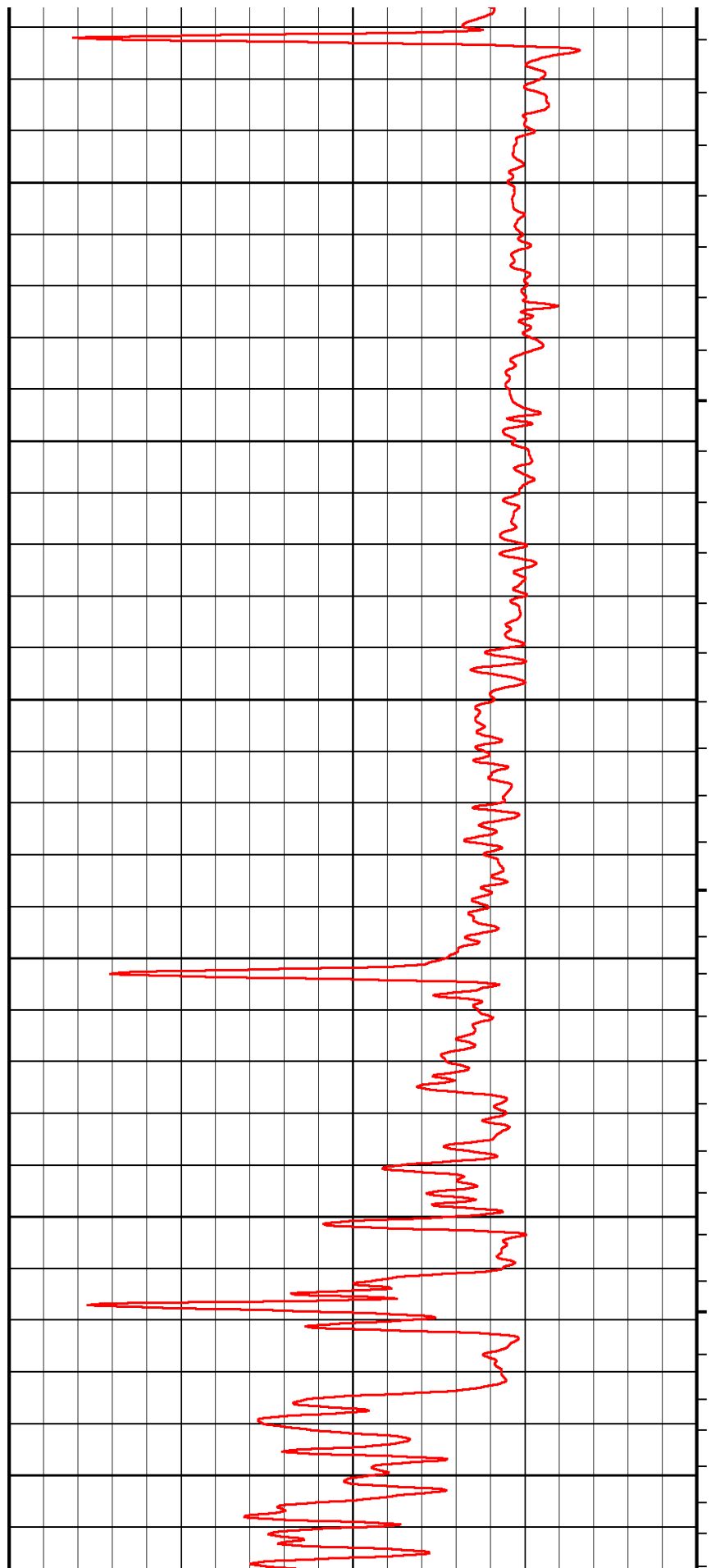
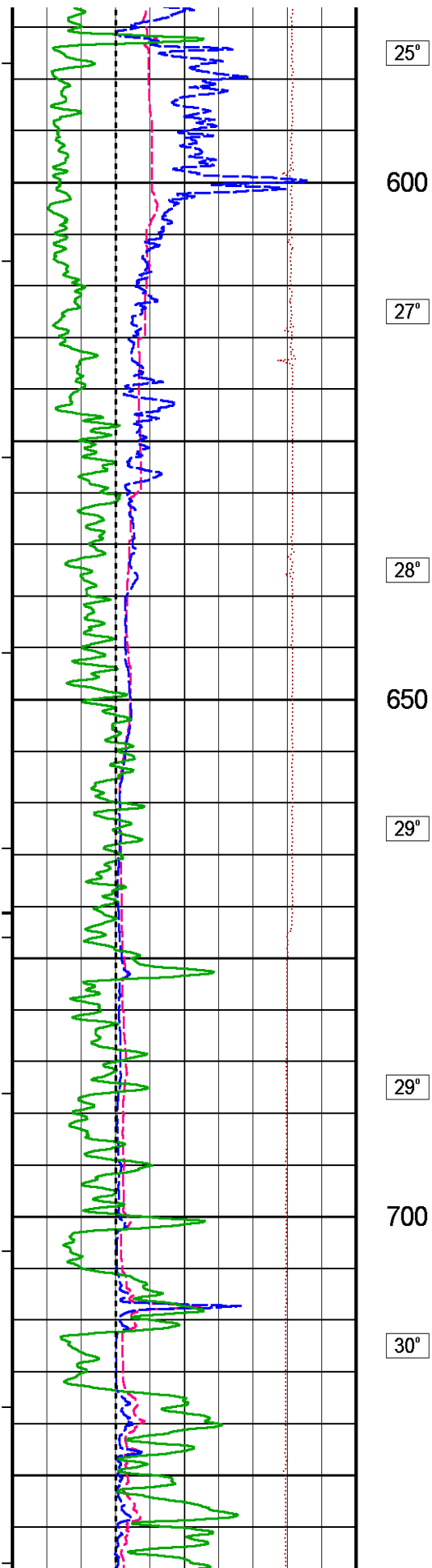
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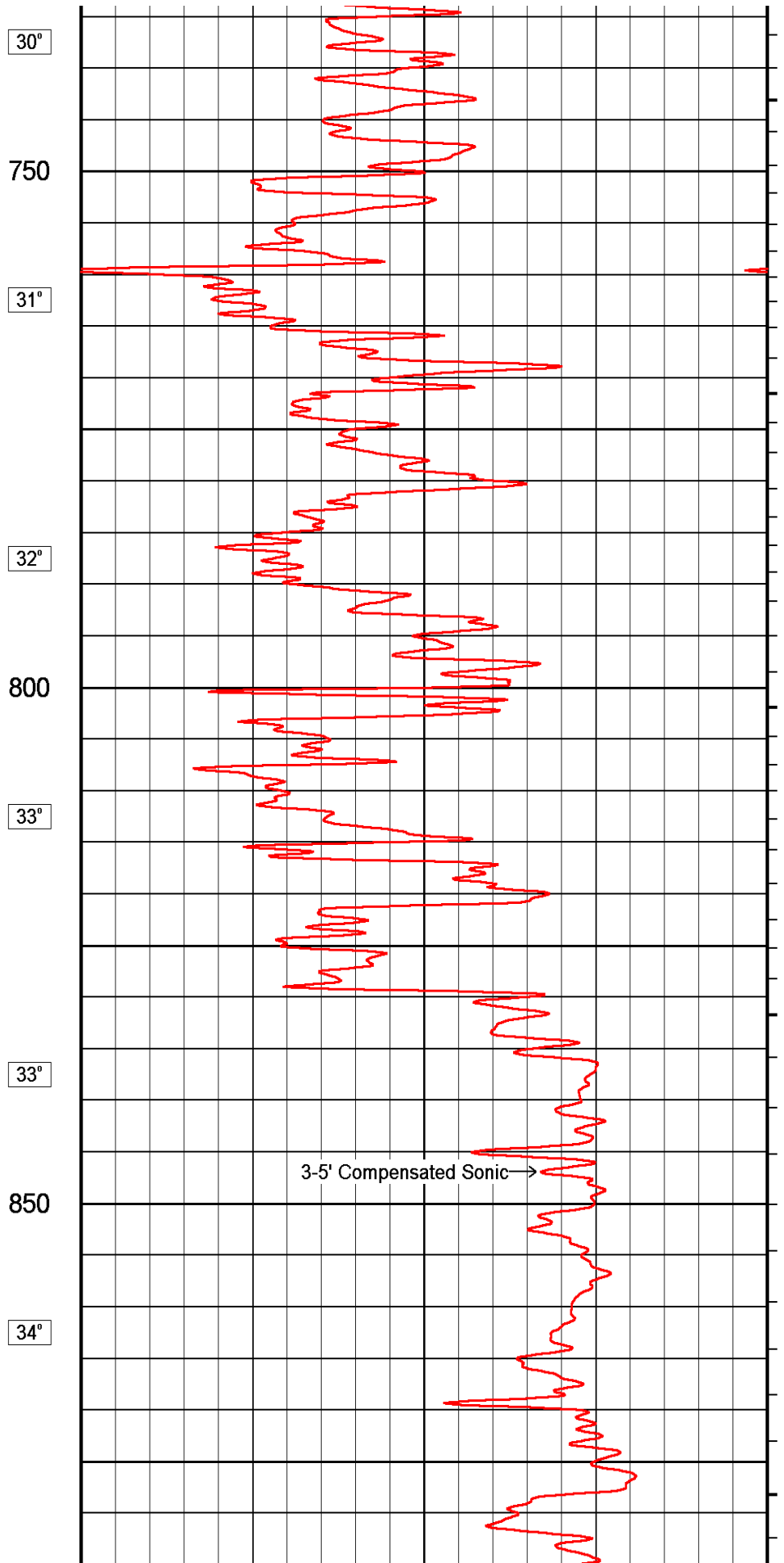
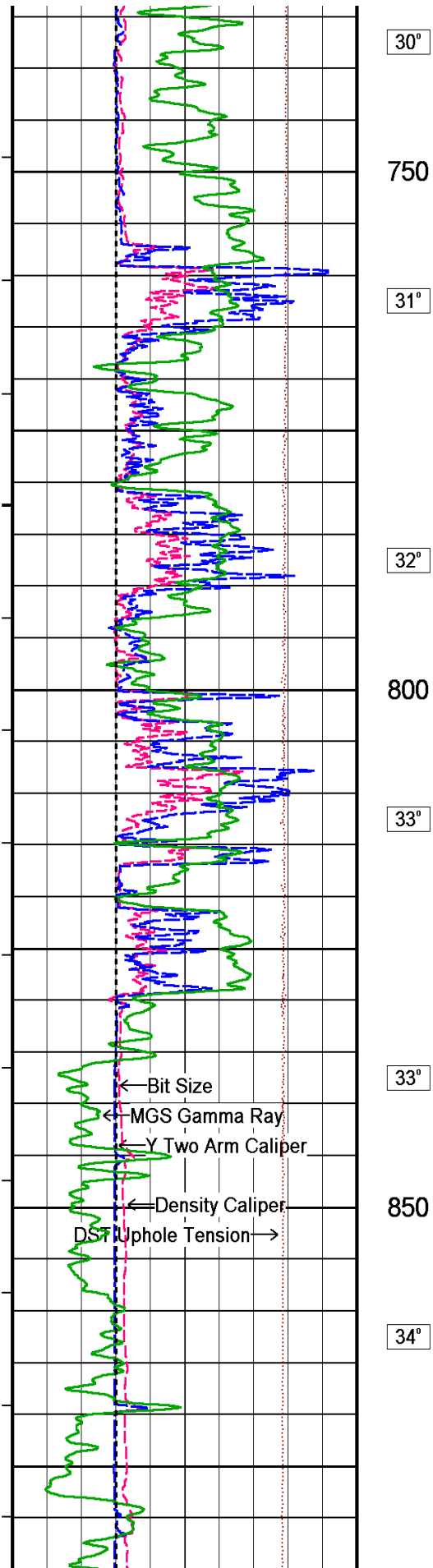
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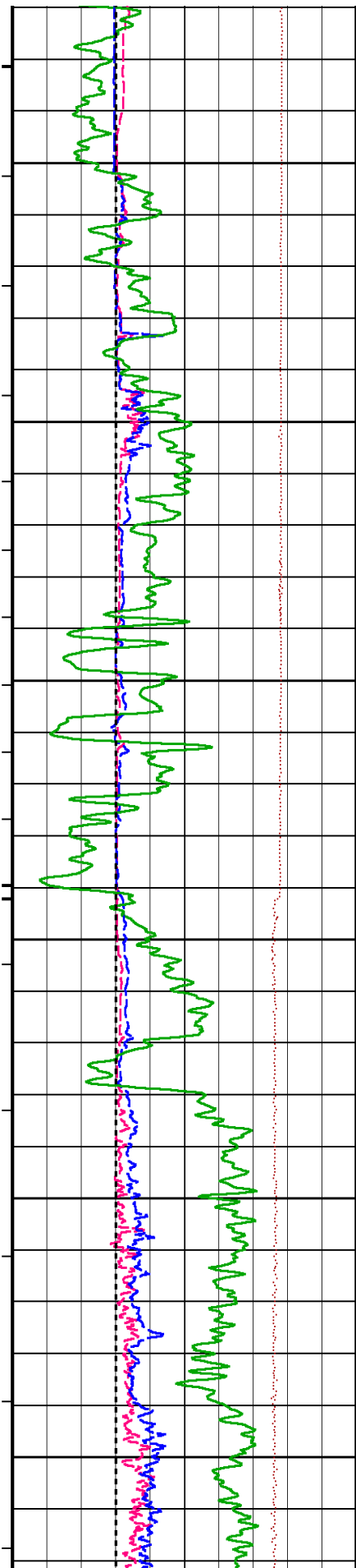
Bit Size
MG3 Gamma Ray
Y Two Arm Caliper
Density Caliper
DST Uphole Tension



3-5' Compensated Sonic







34°

900

35°

35°

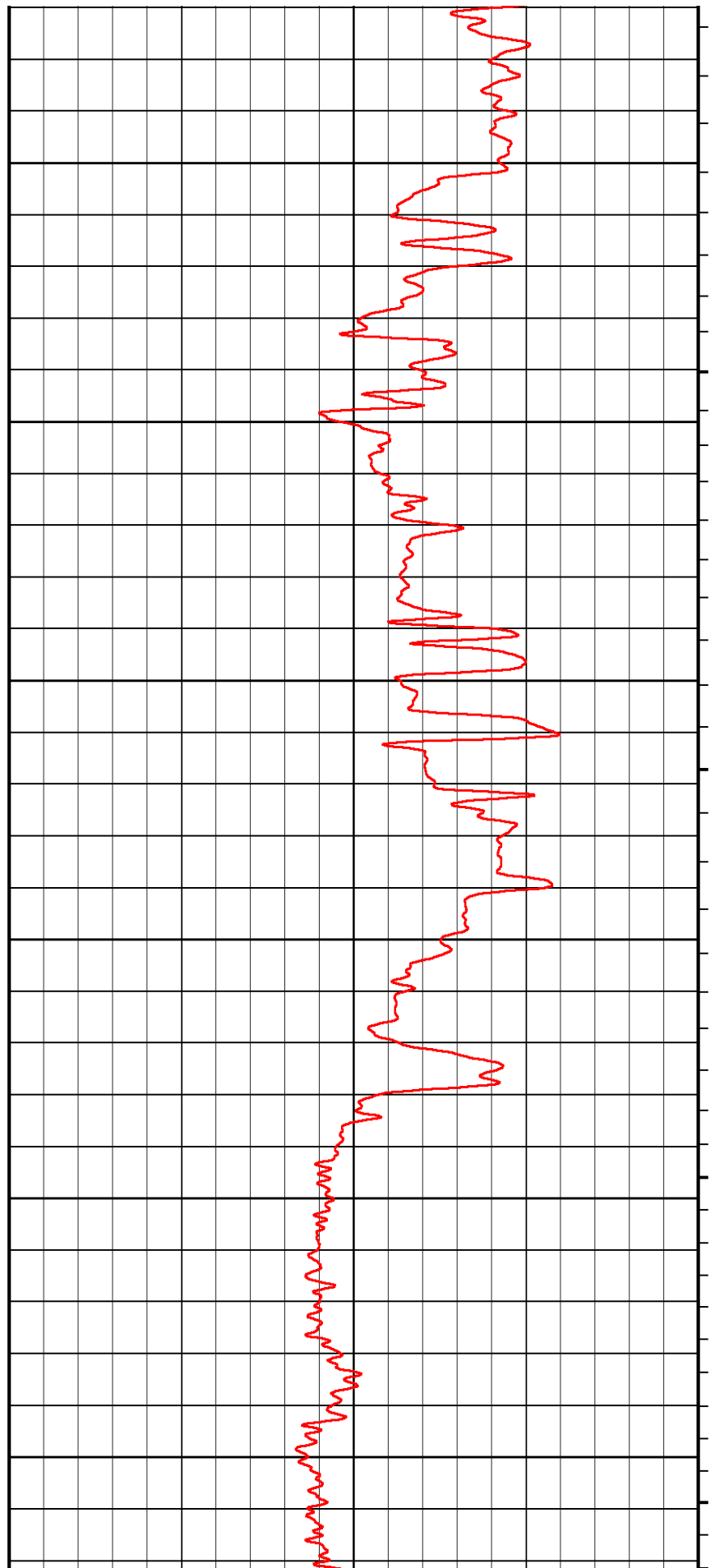
950

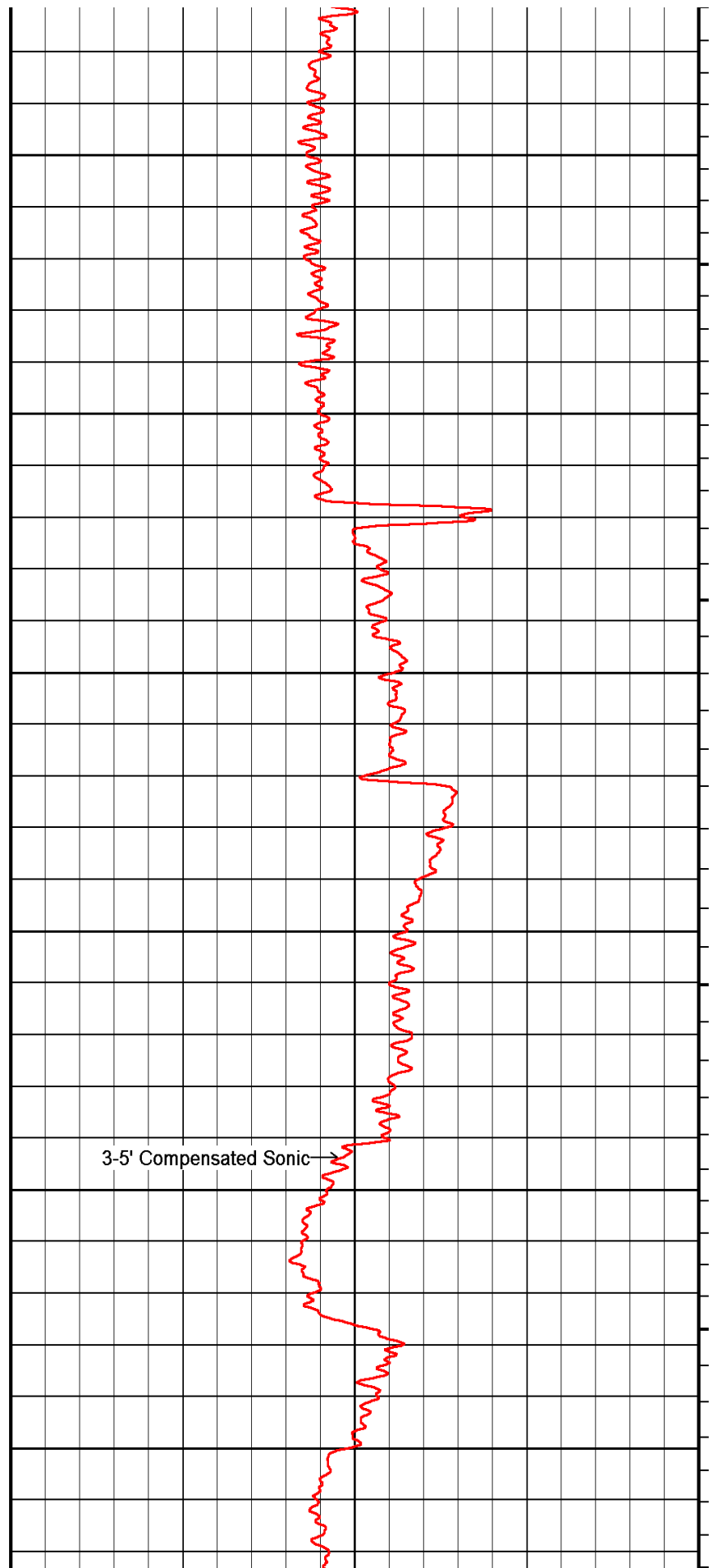
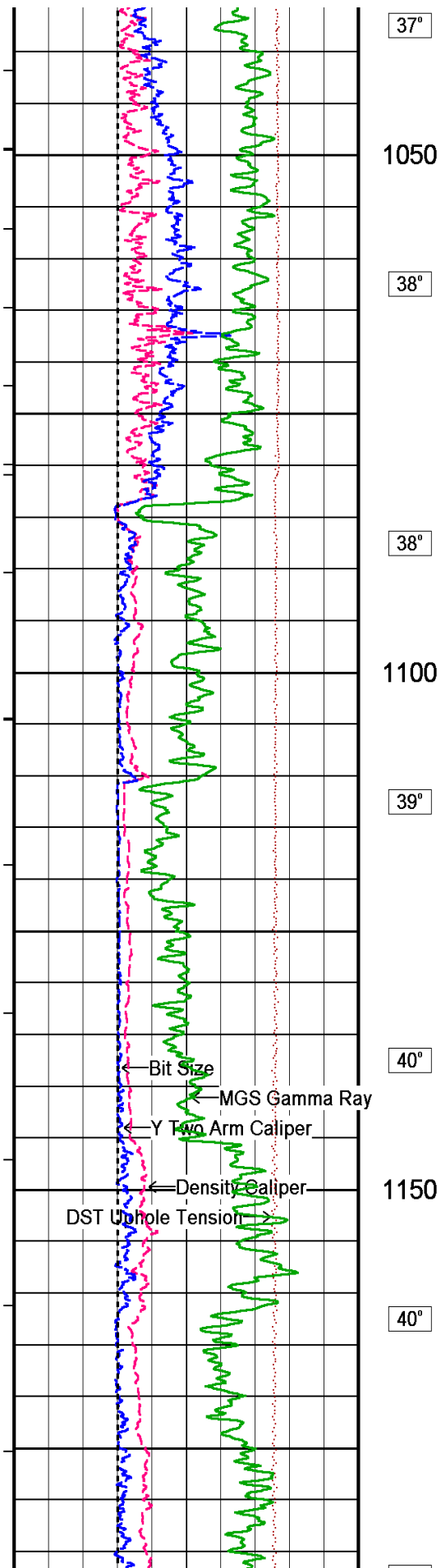
36°

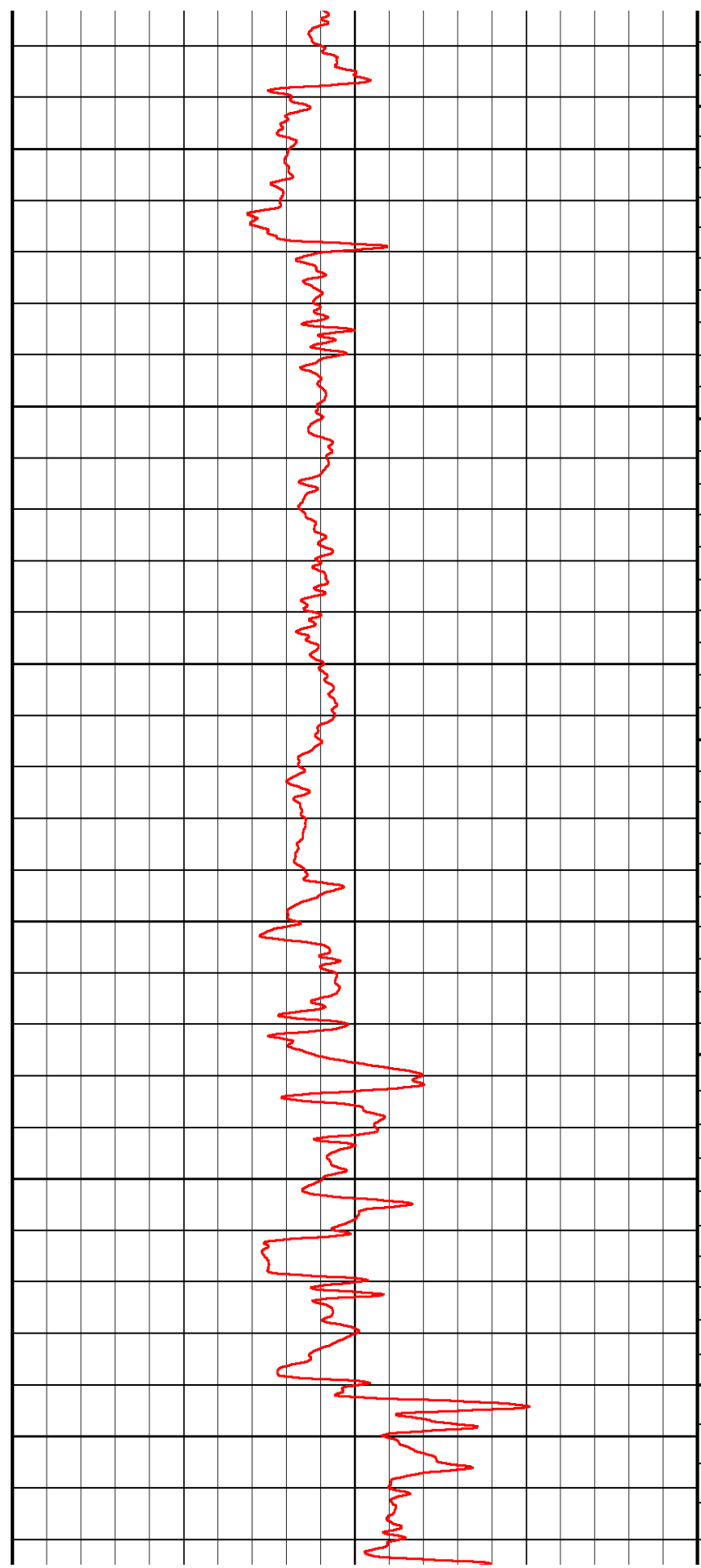
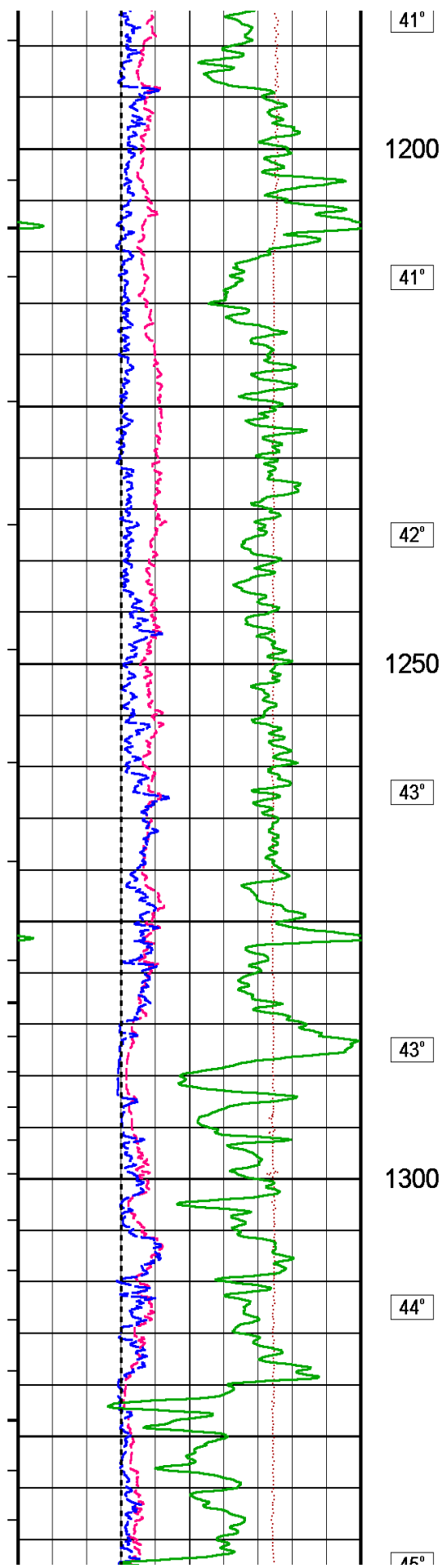
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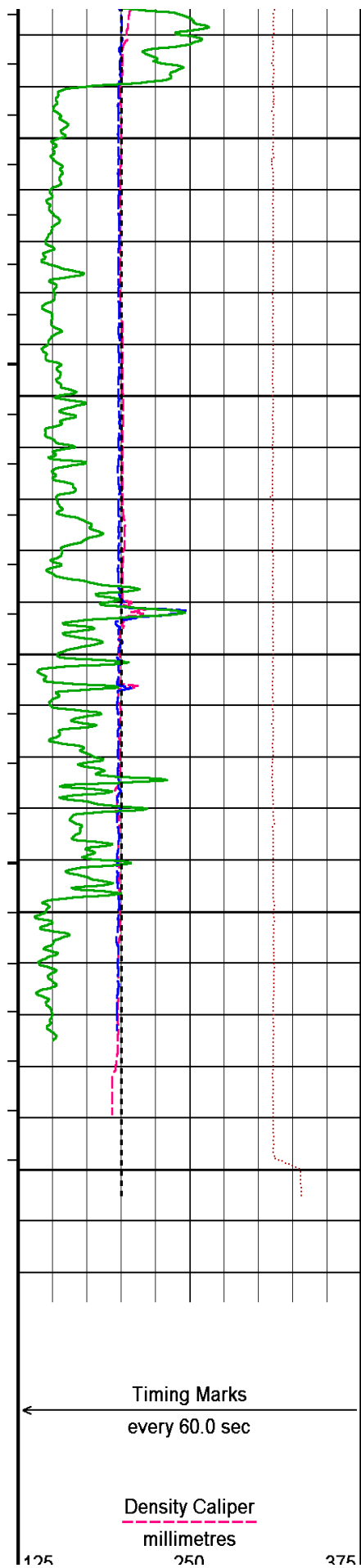
1000

37°









45

1350

45°

46°

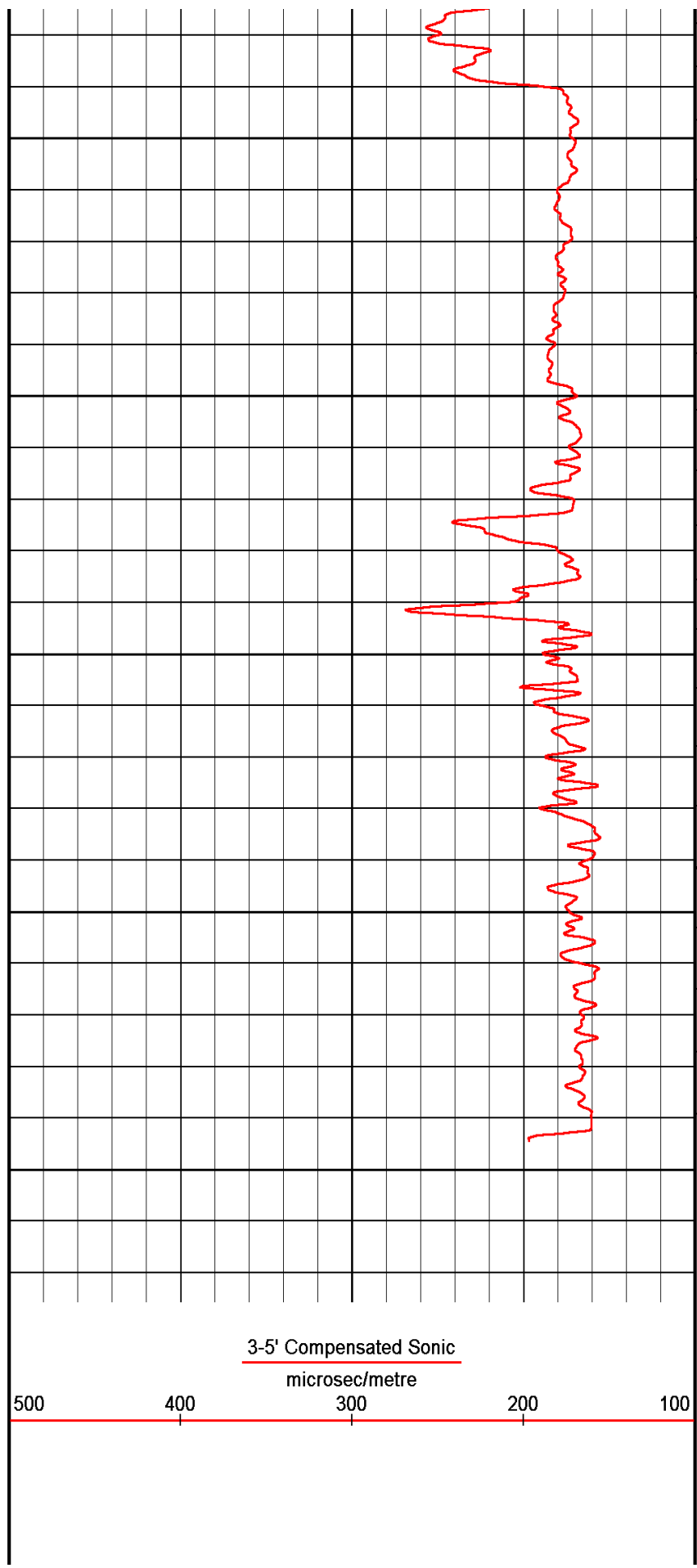
1400

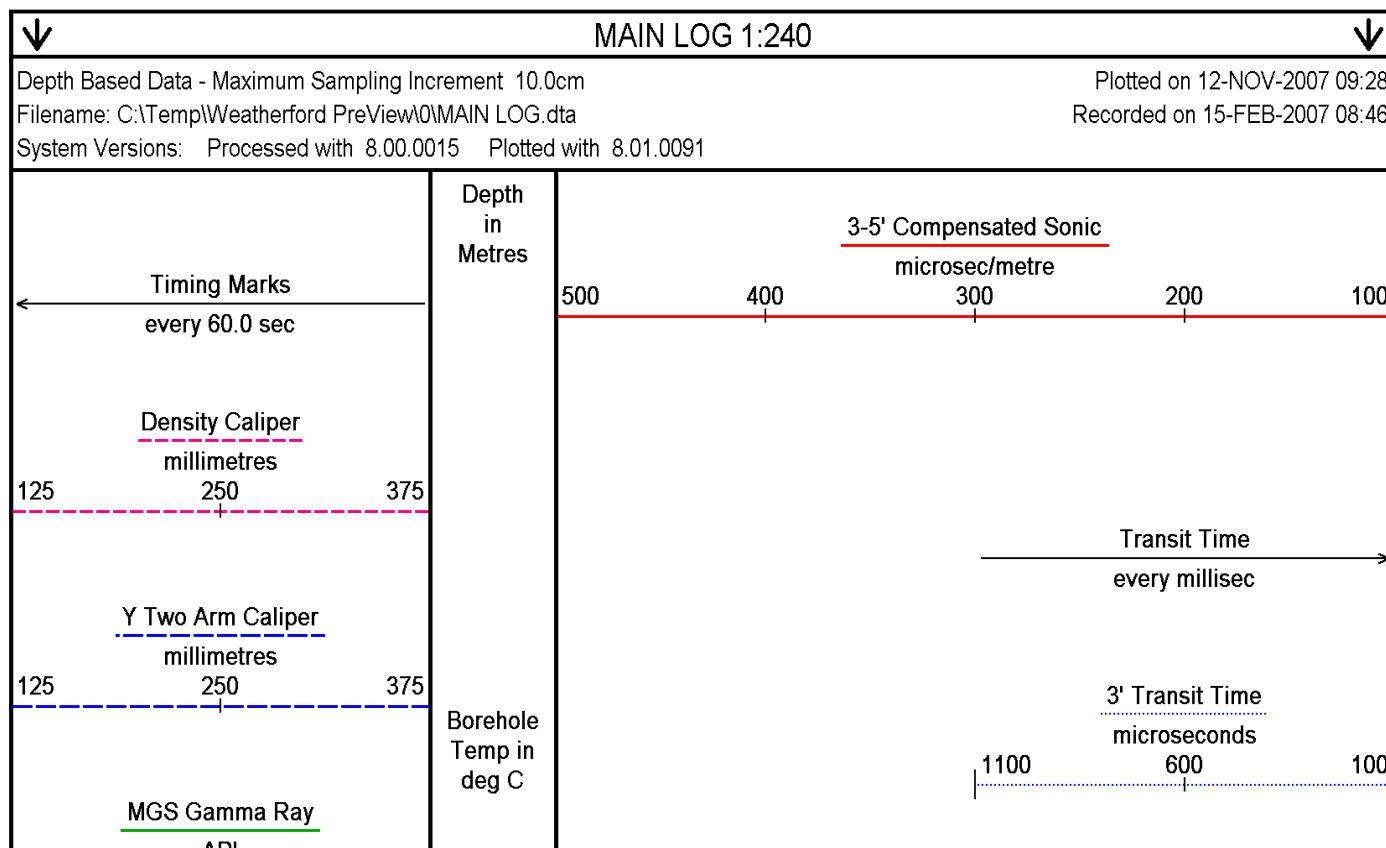
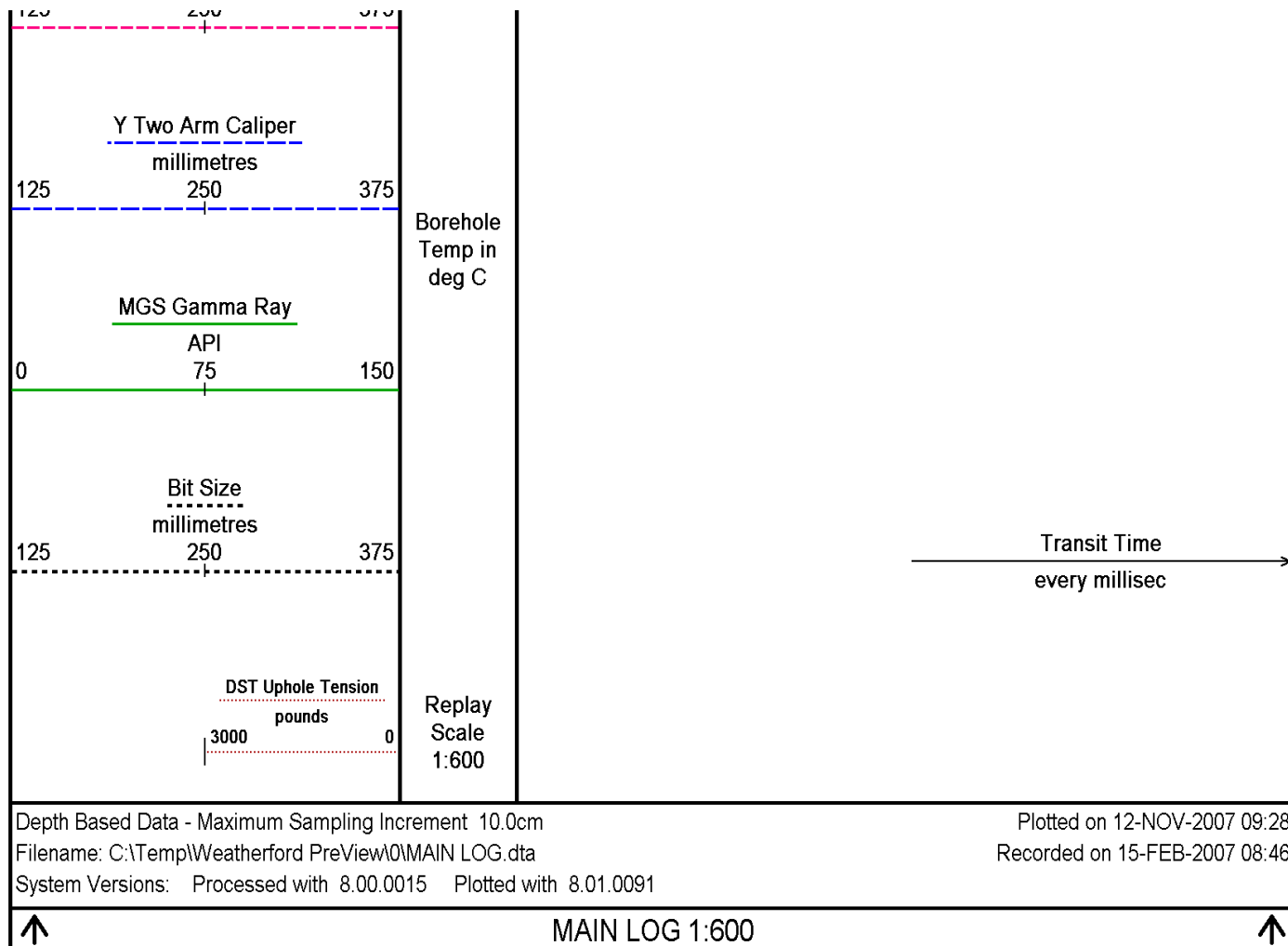
48°

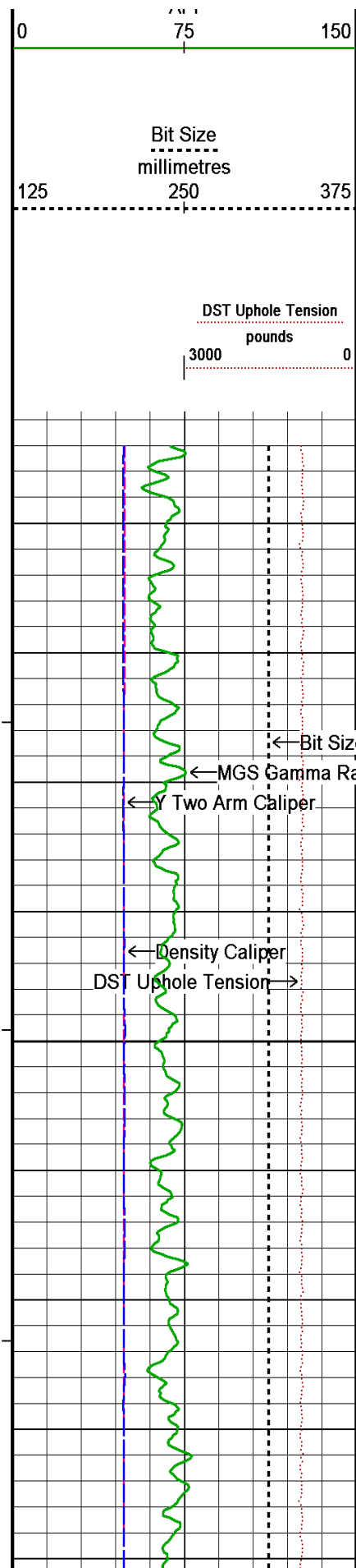
1450

1461

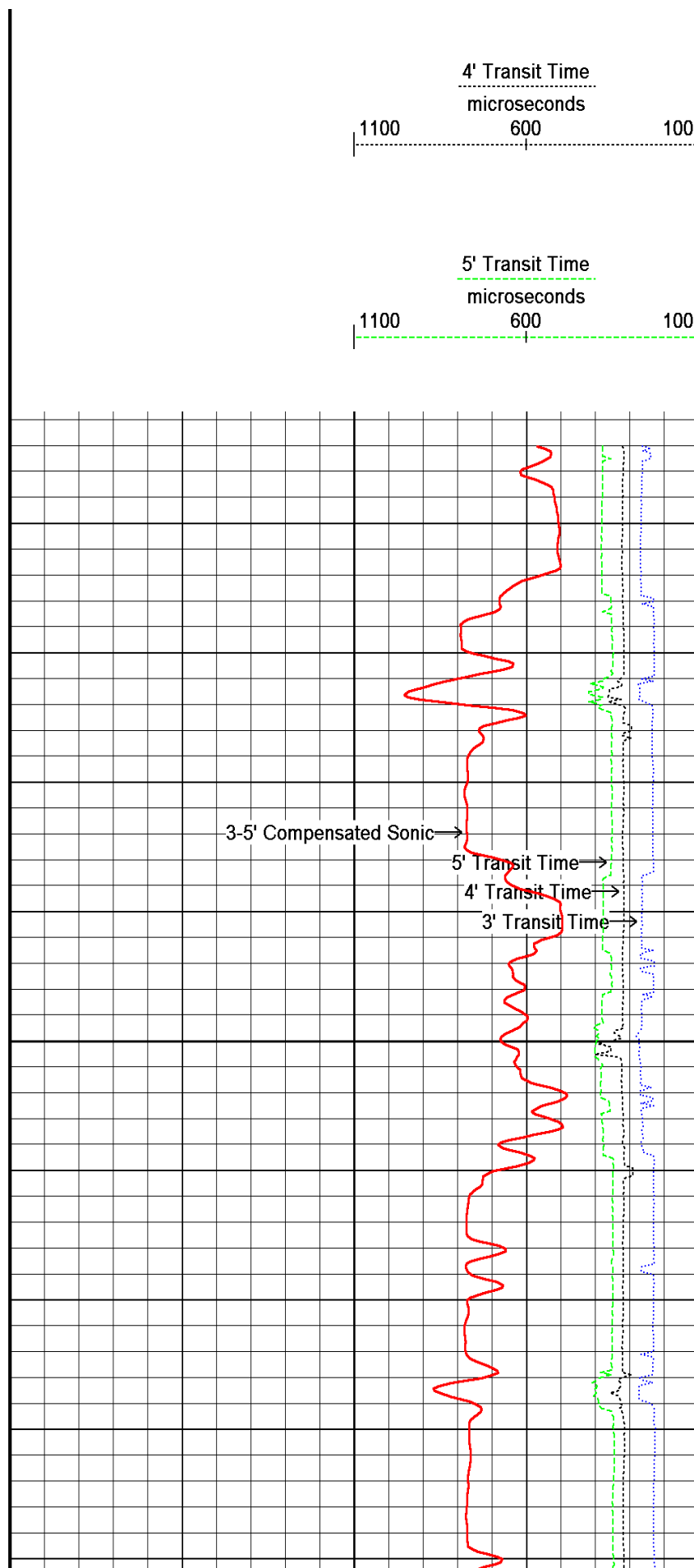
Depth
in
Metres

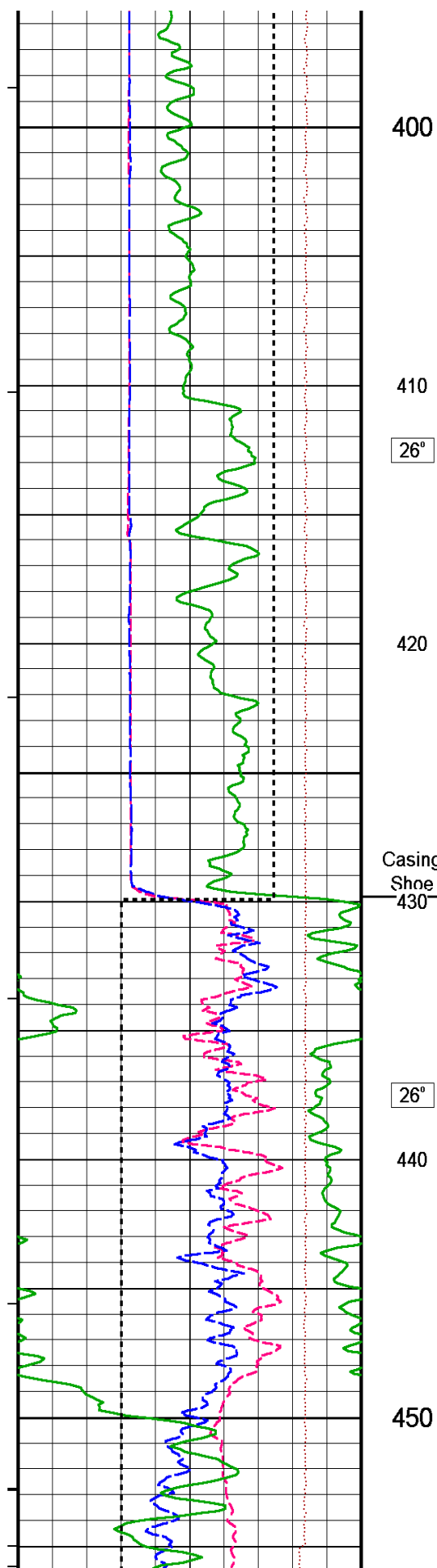






Replay
Scale
1:240





400

410

26°

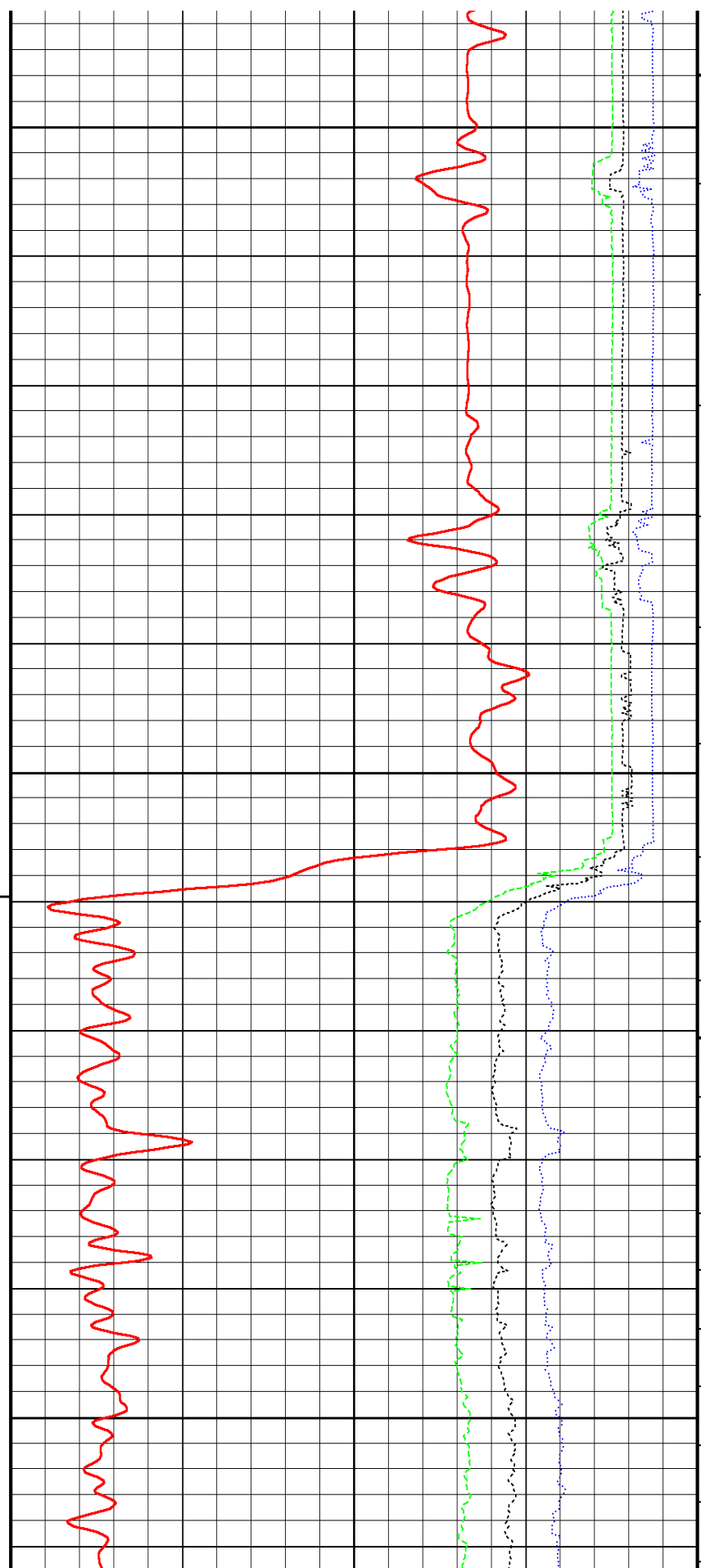
420

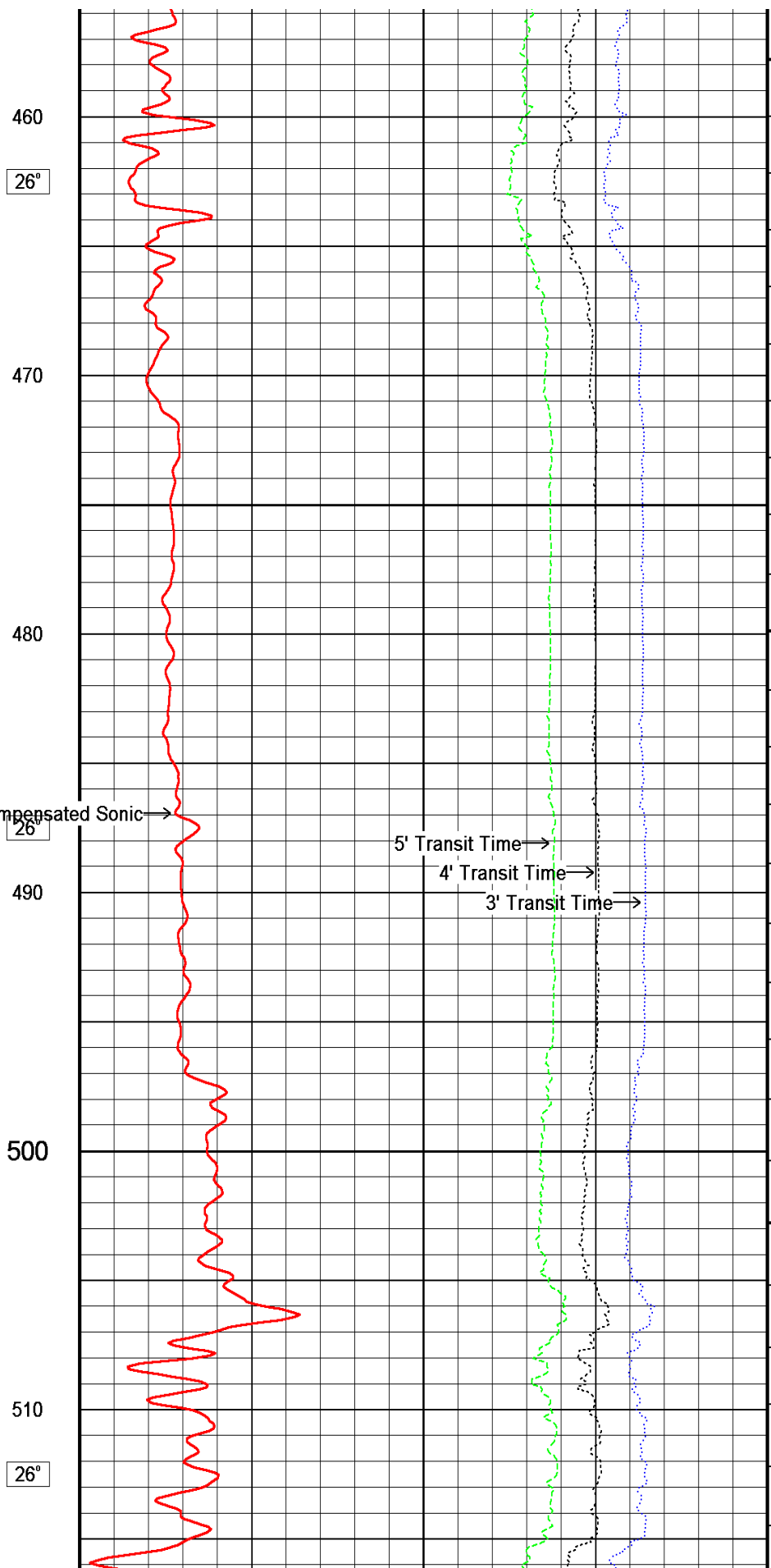
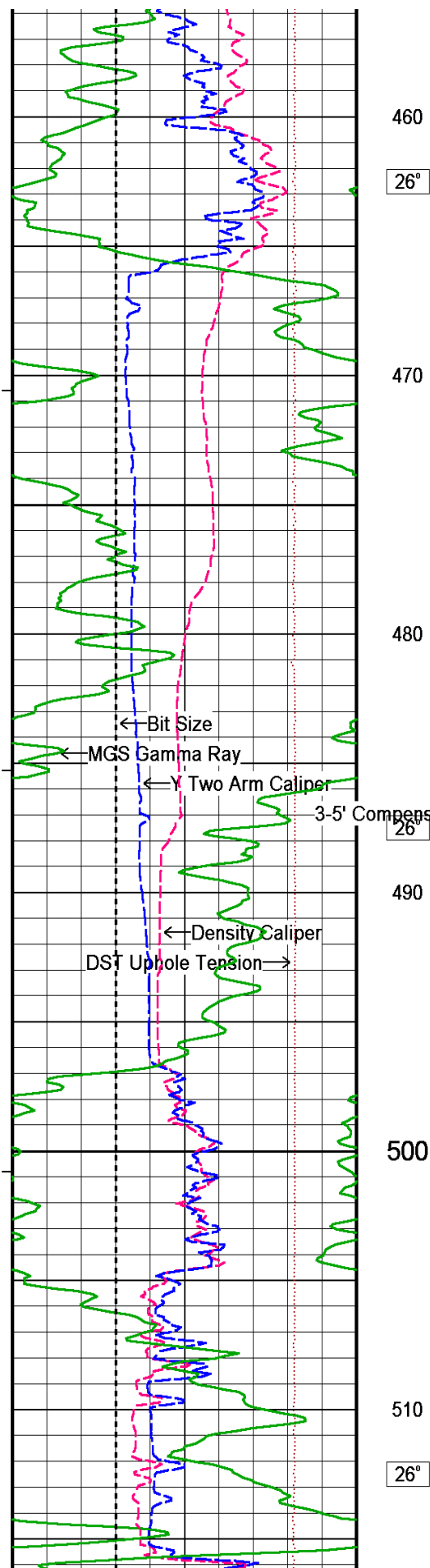
Casing
Shoe
430

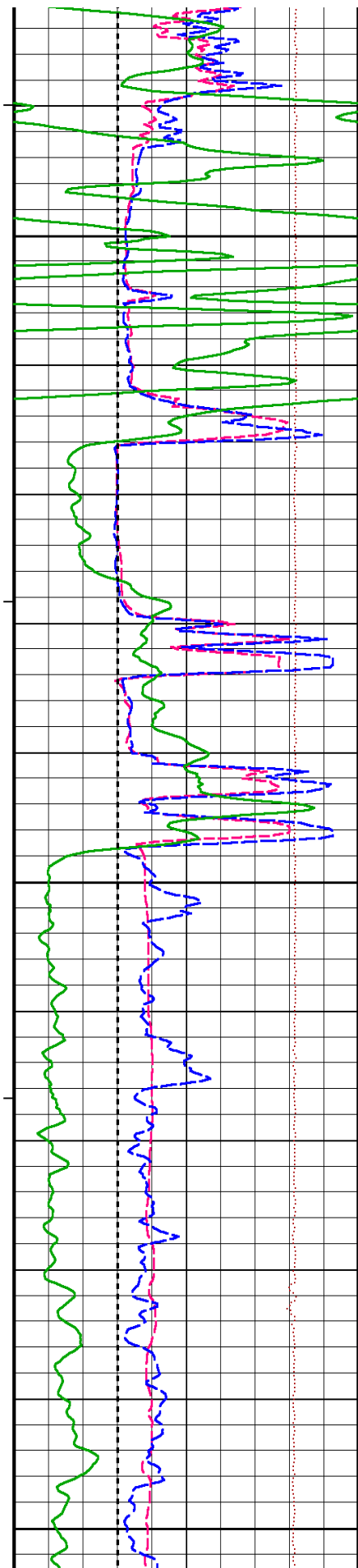
26°

440

450







520

530

25°

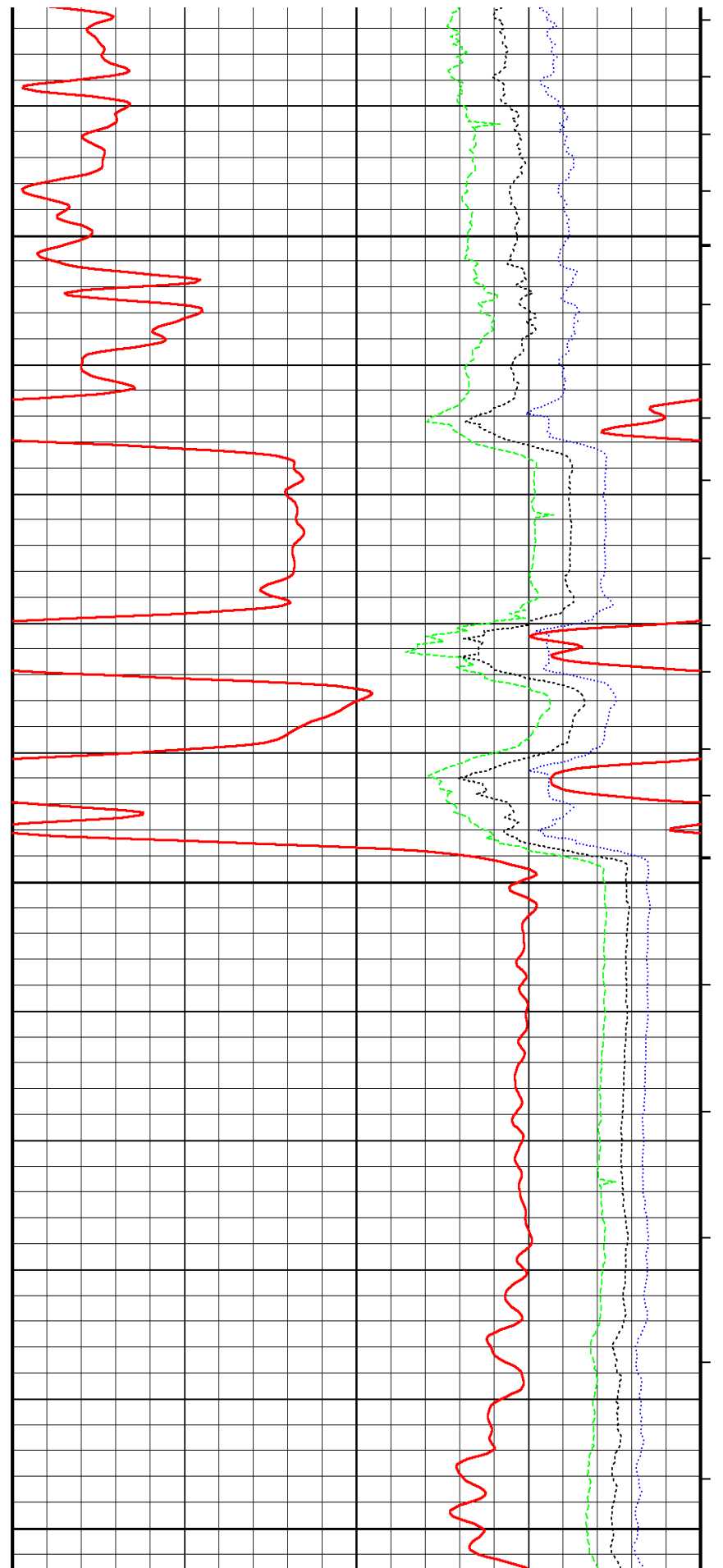
540

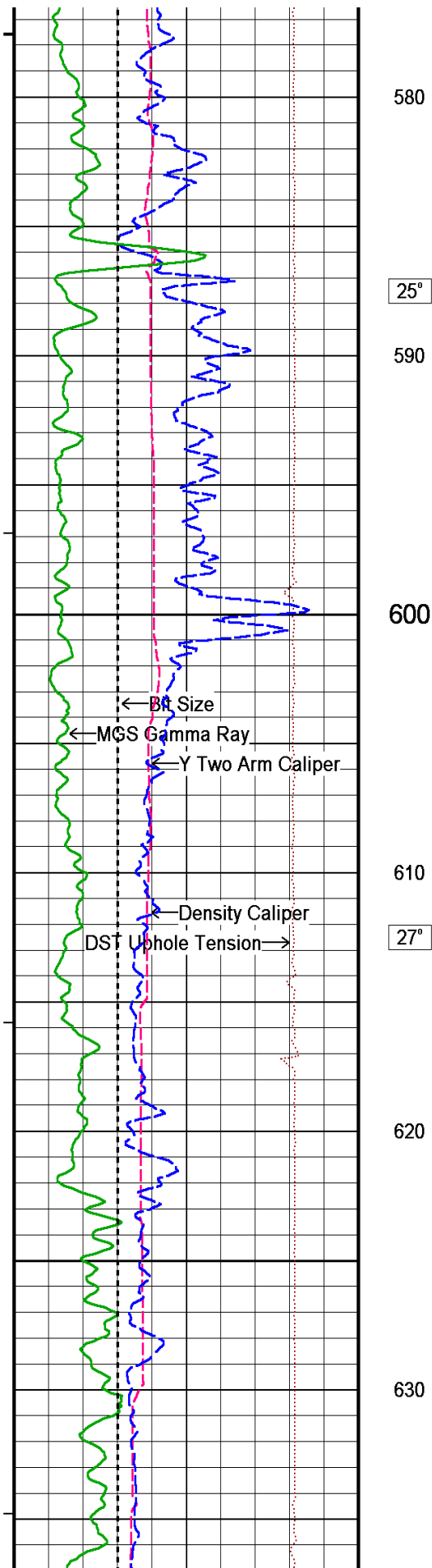
550

560

25°

570





580

25°

590

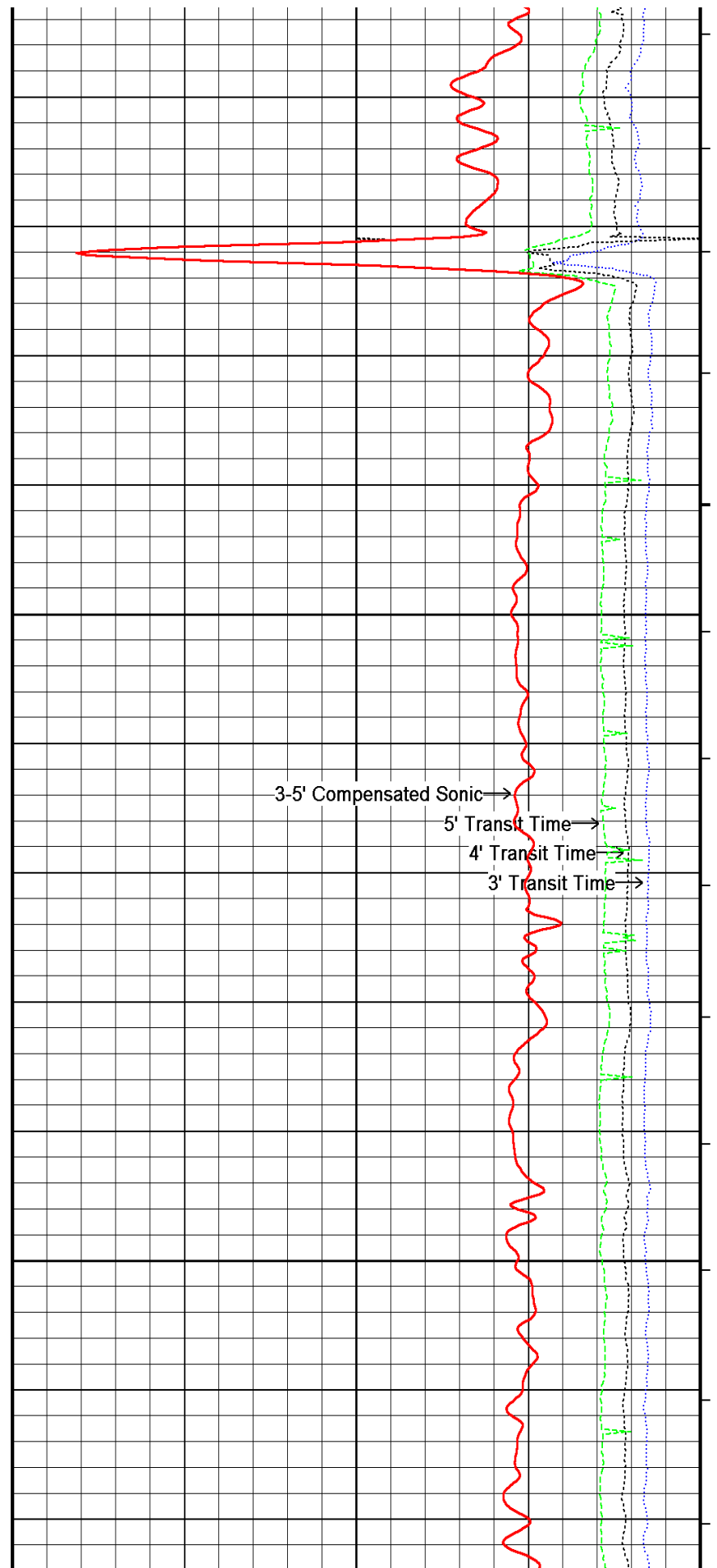
600

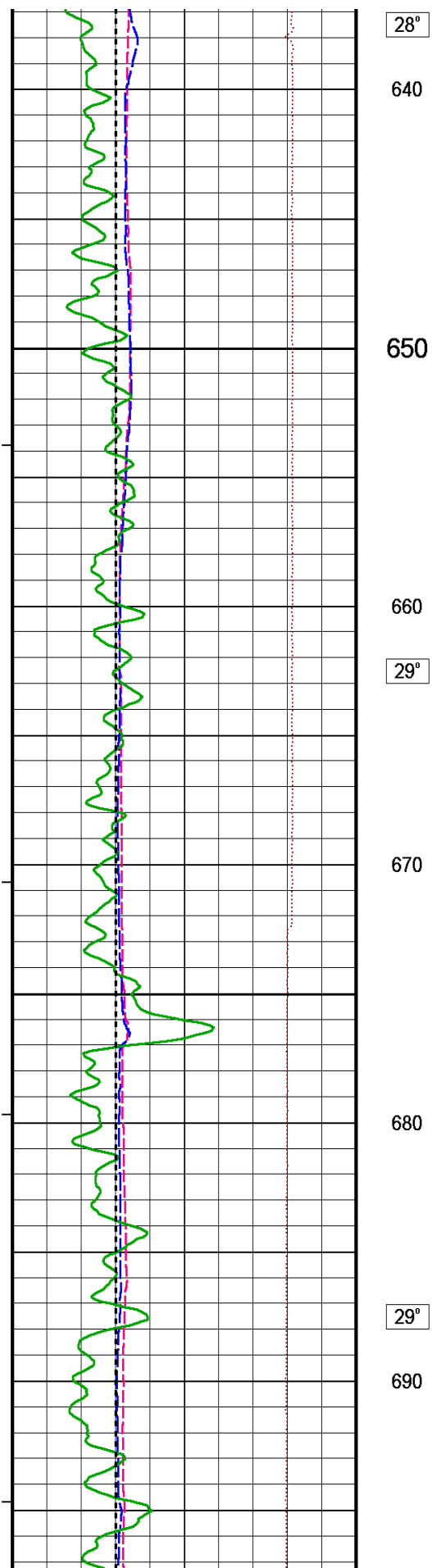
610

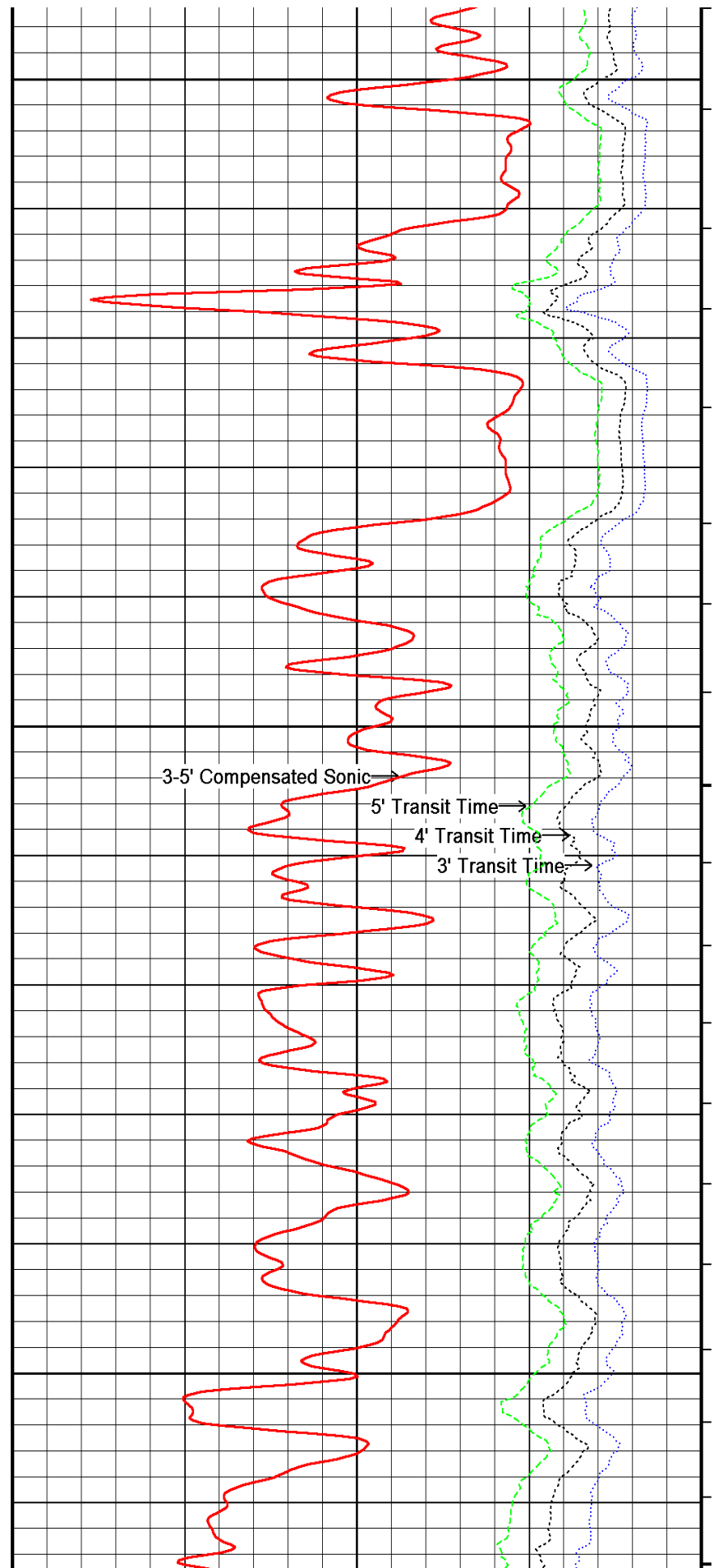
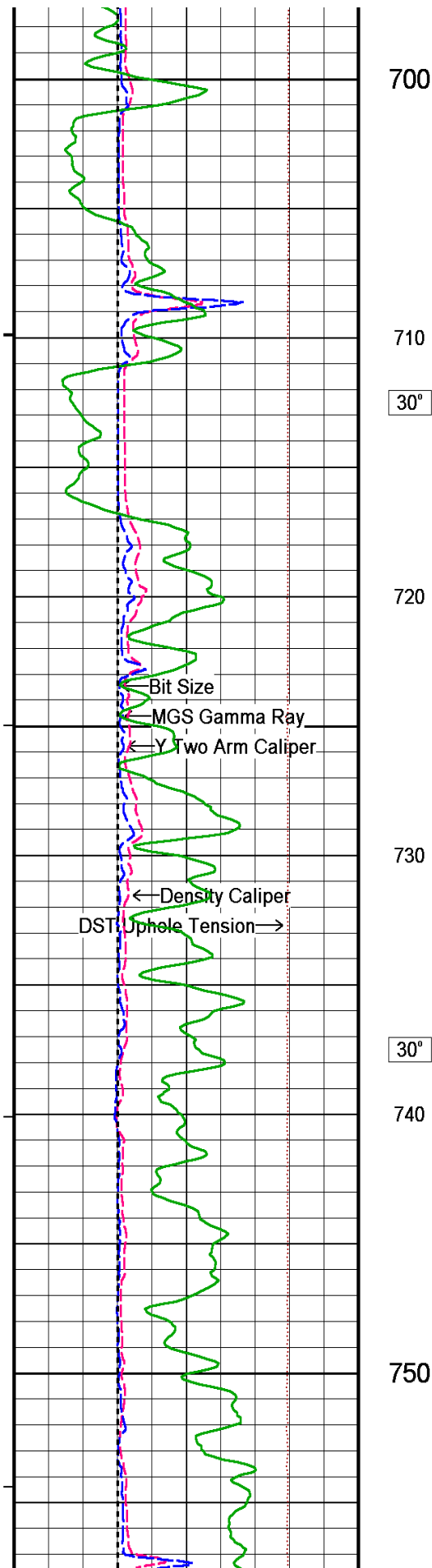
27°

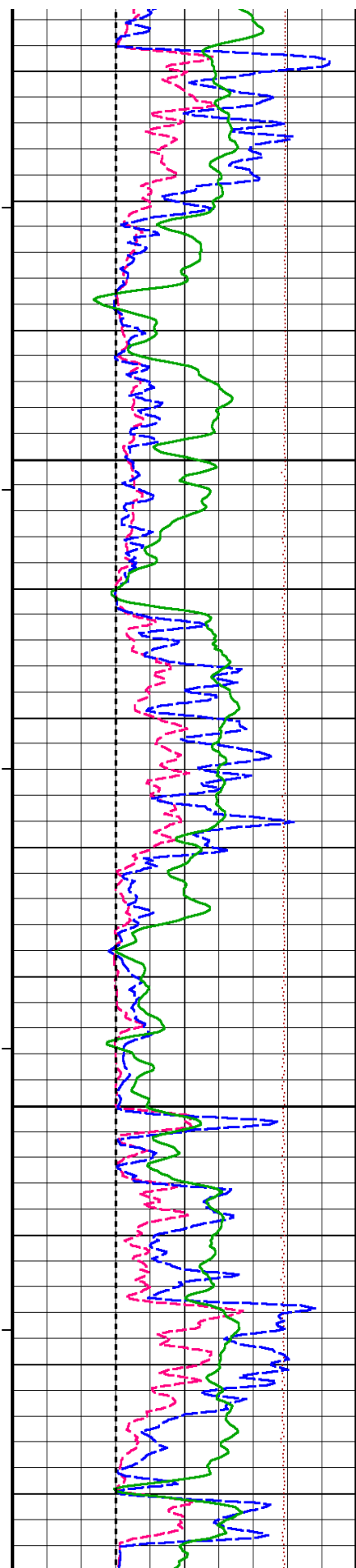
620

630









760

31°

770

780

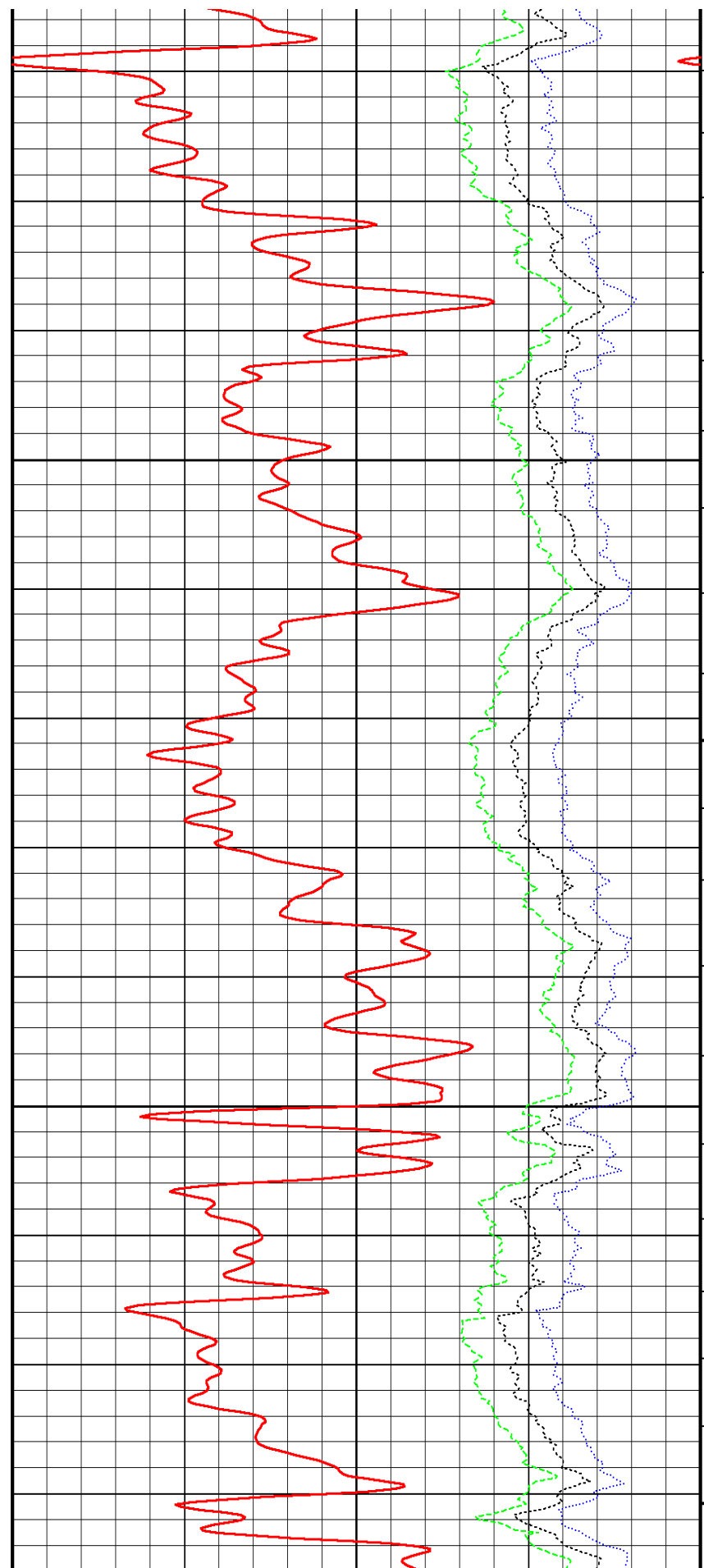
32°

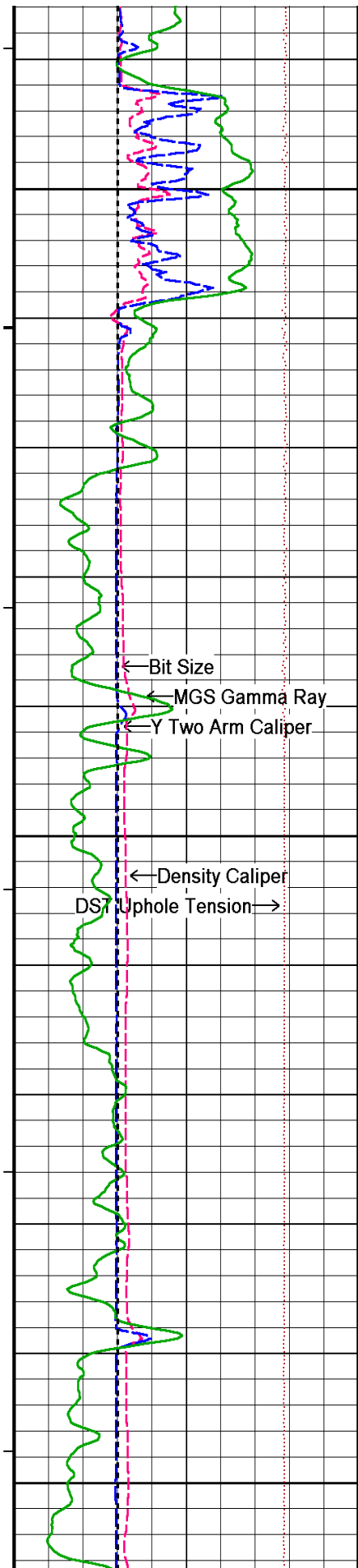
790

800

810

33°





820

830

33°

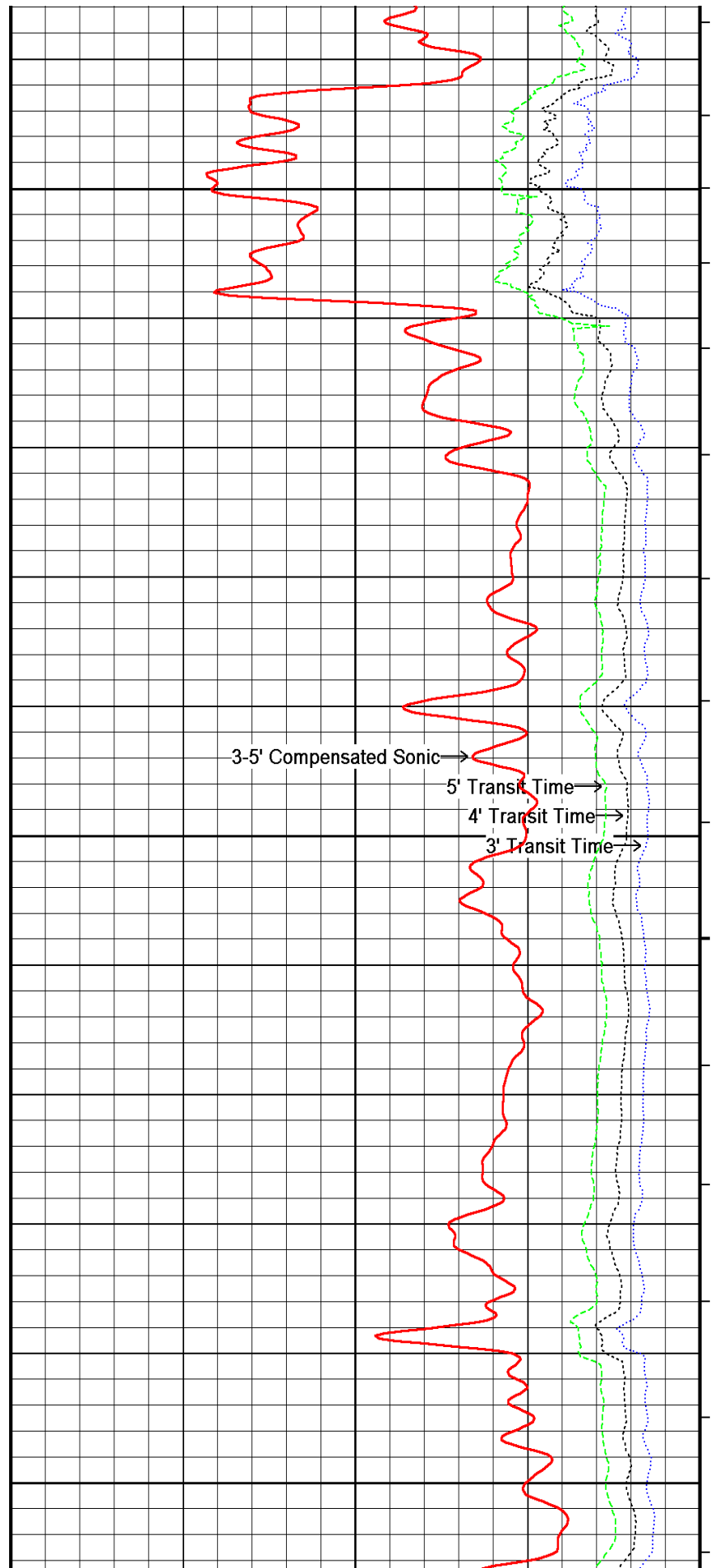
840

850

860

34°

870

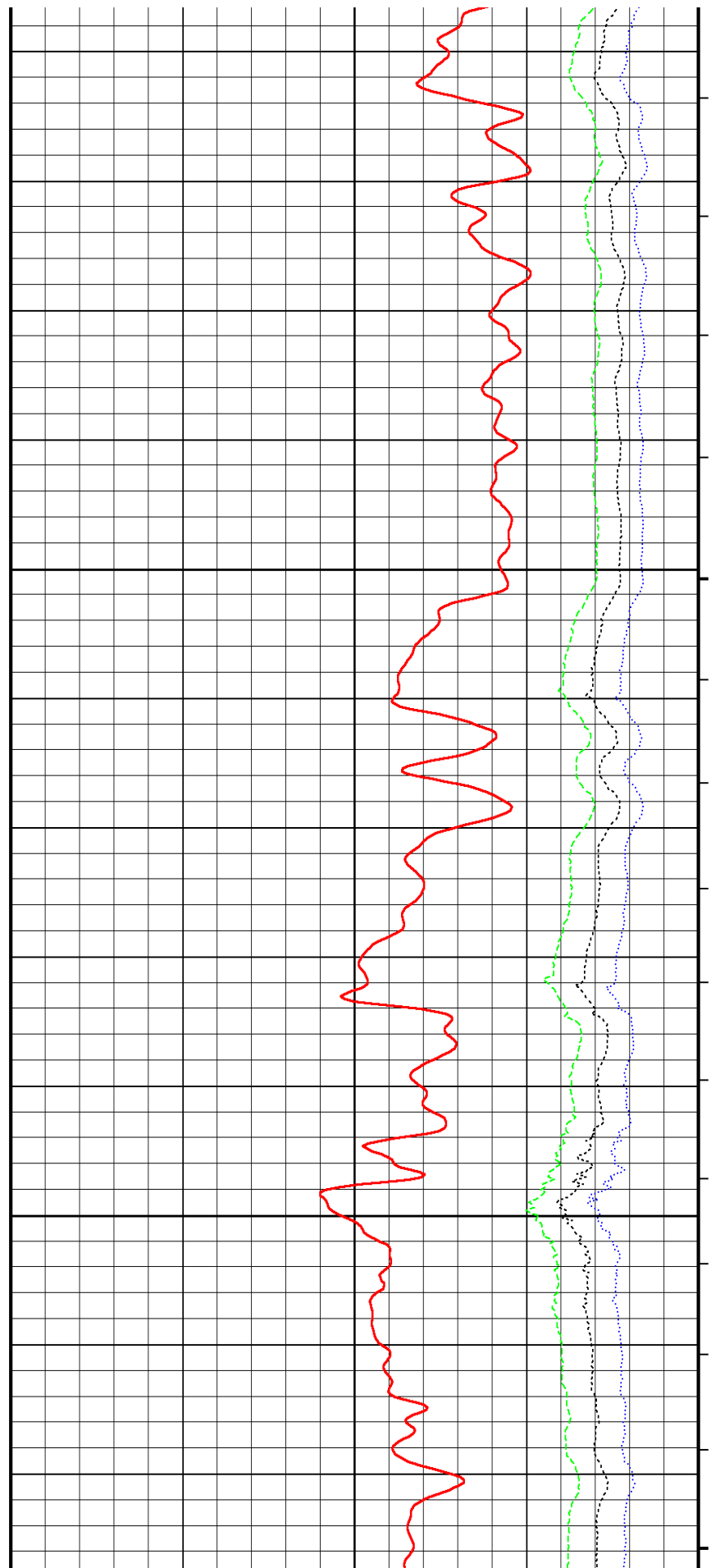
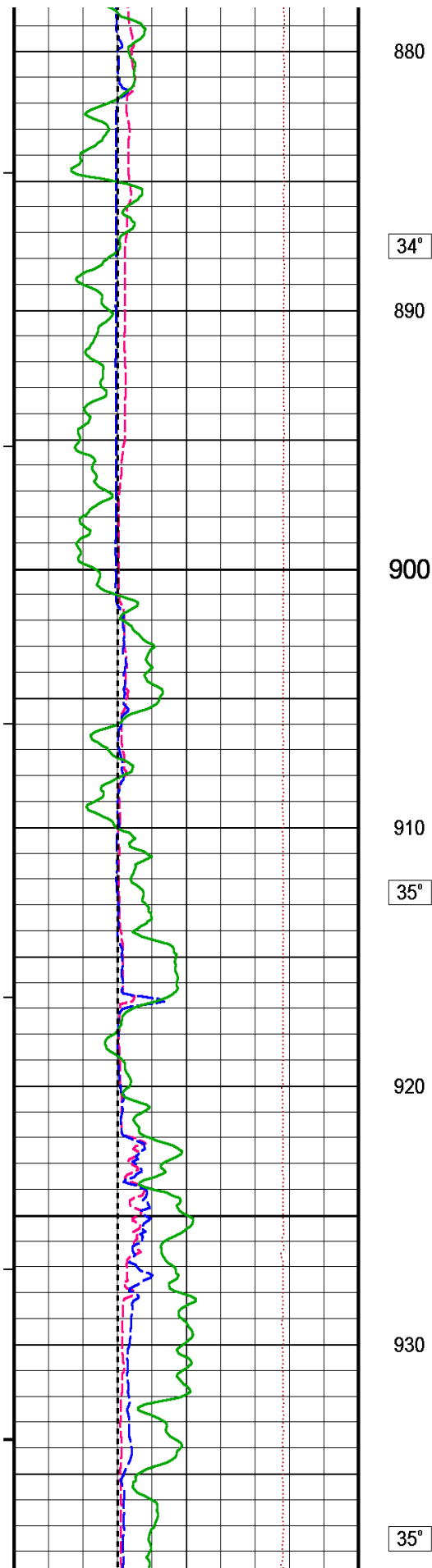


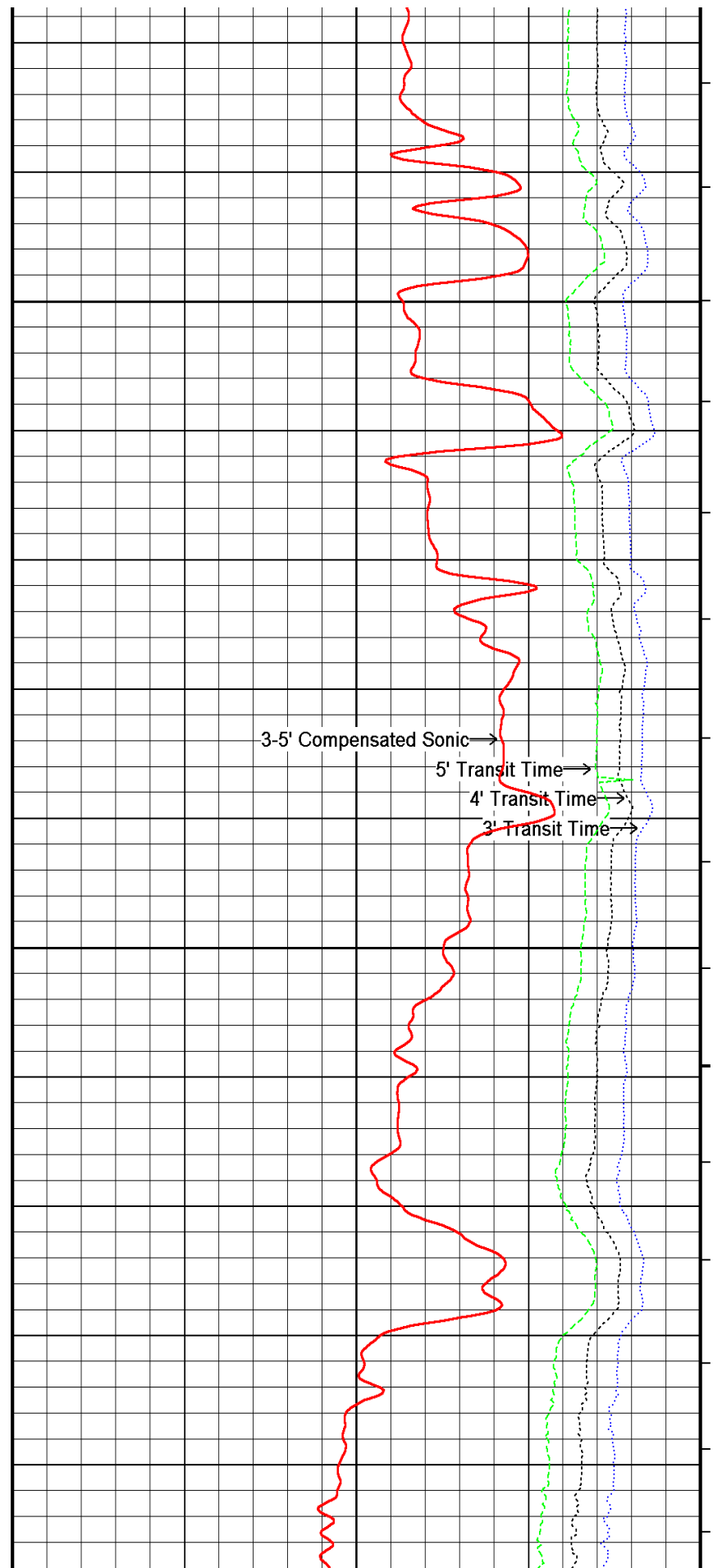
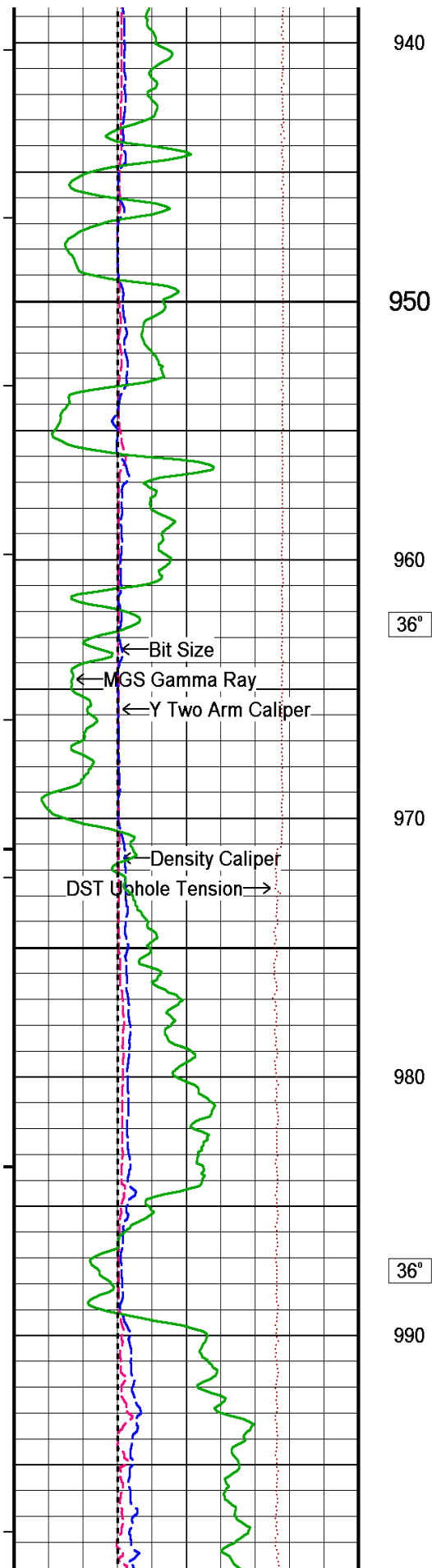
3-5' Compensated Sonic

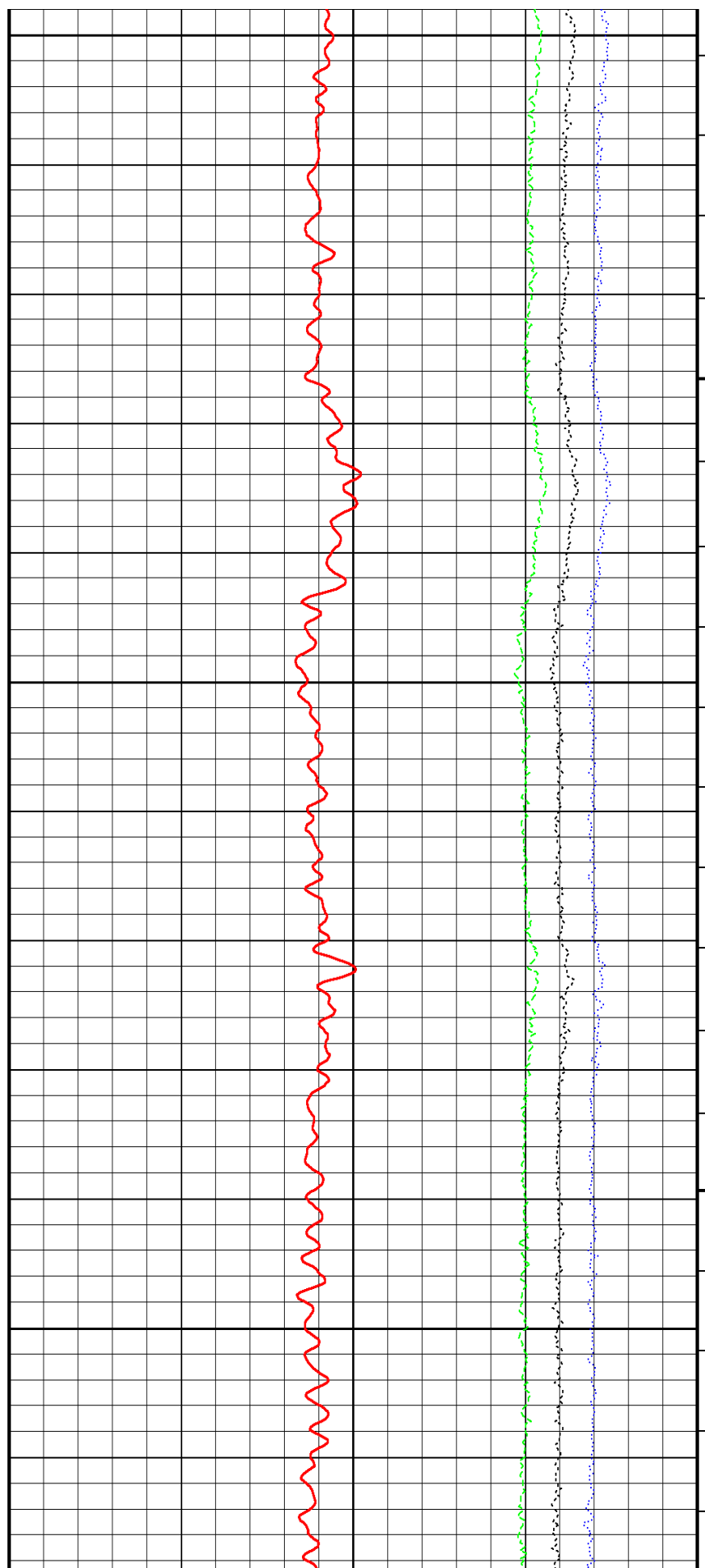
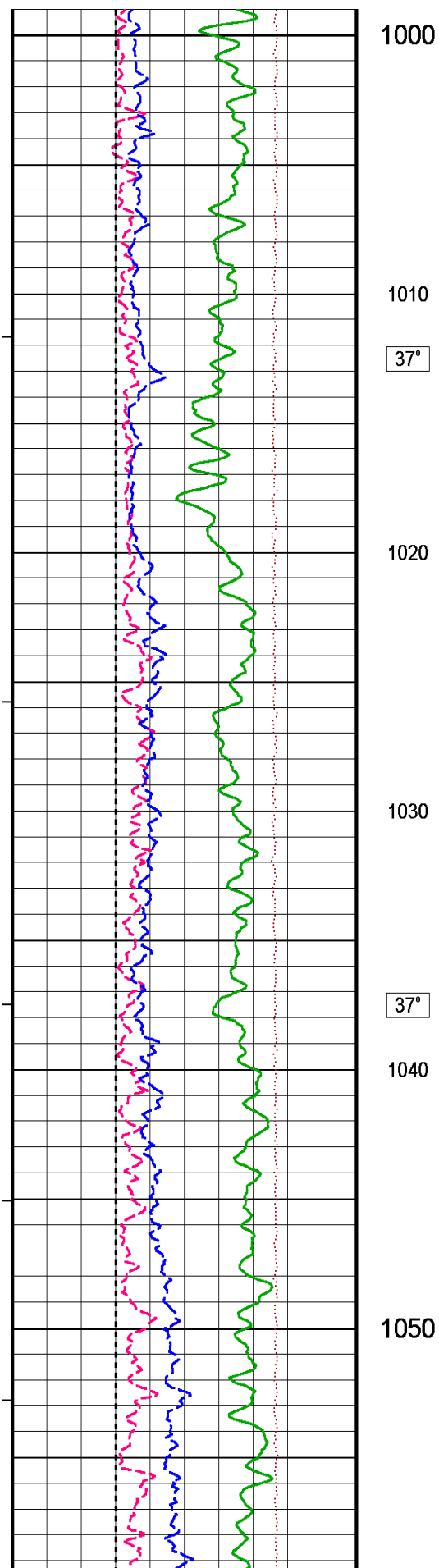
5' Transit Time

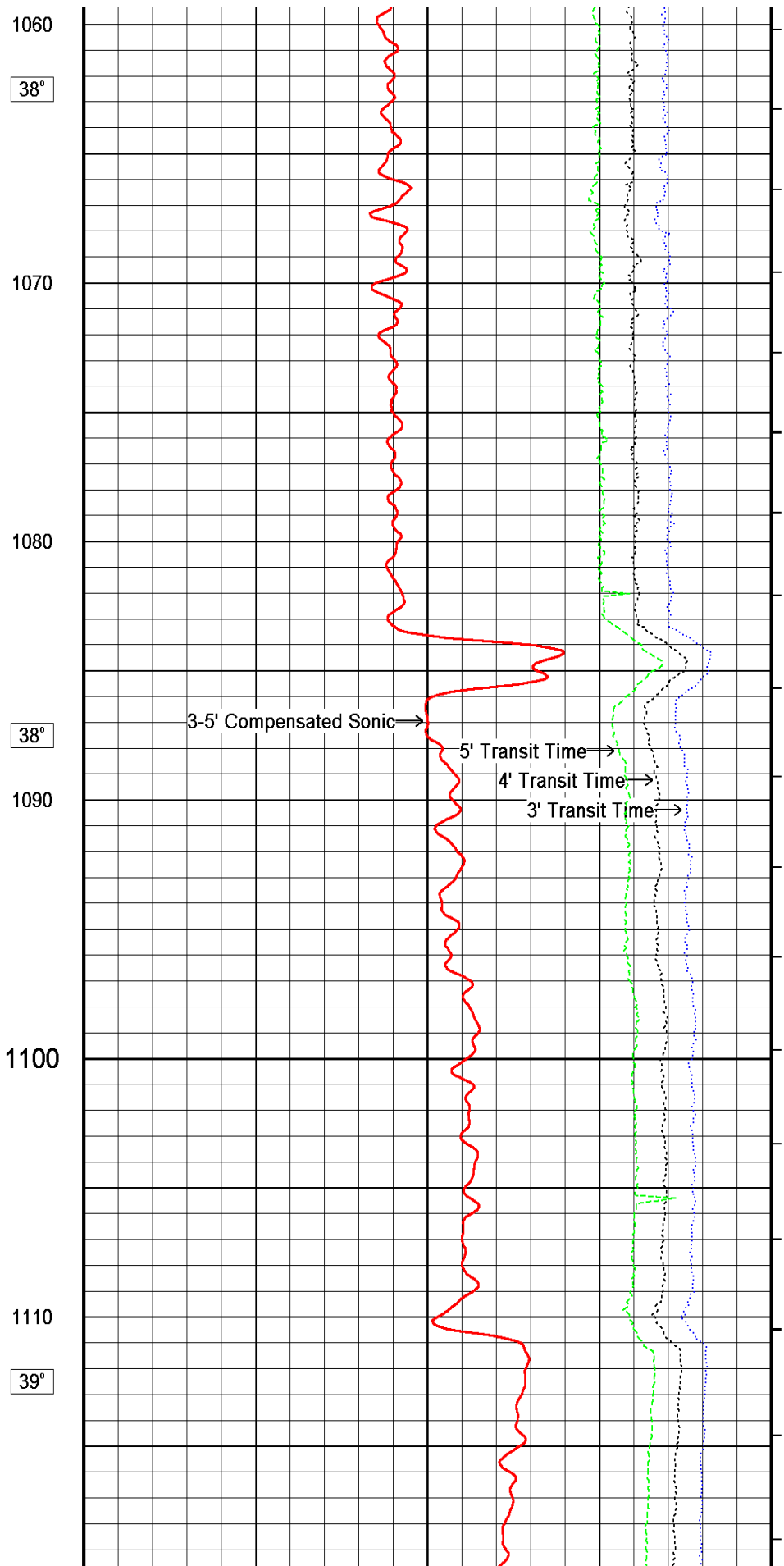
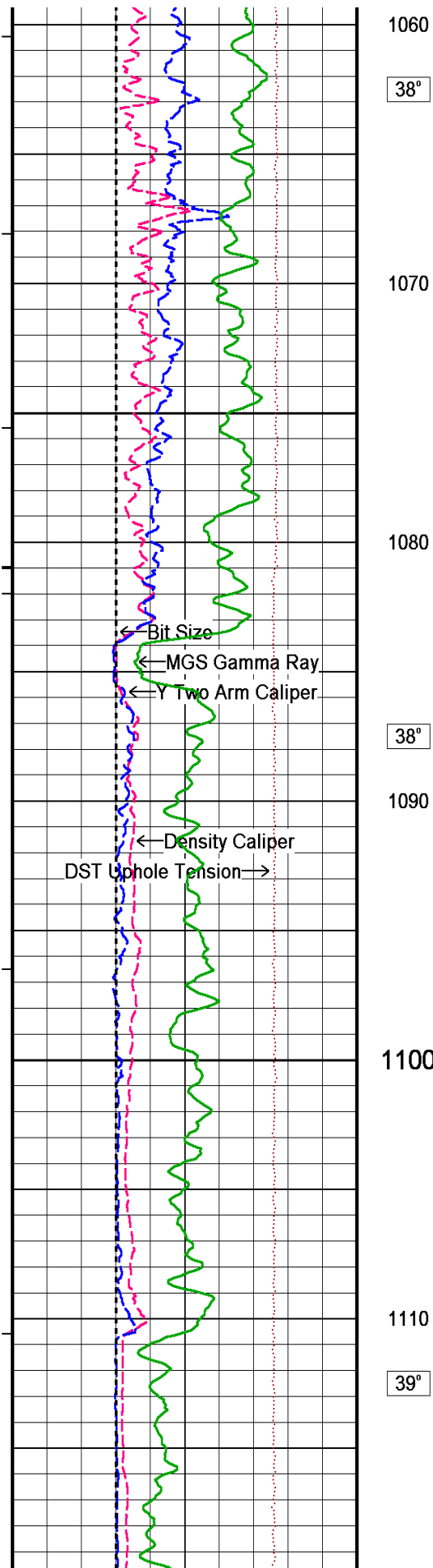
4' Transit Time

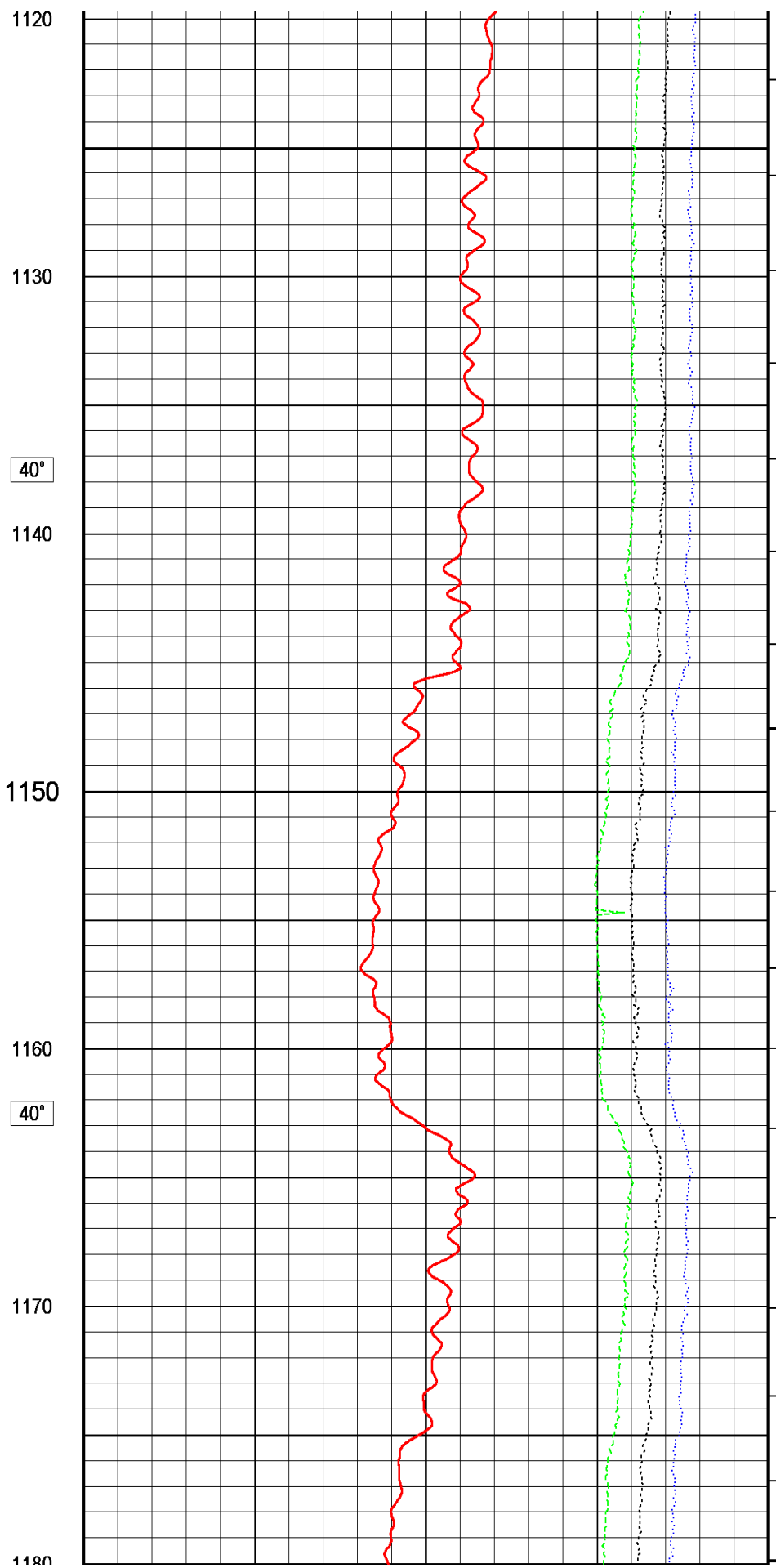
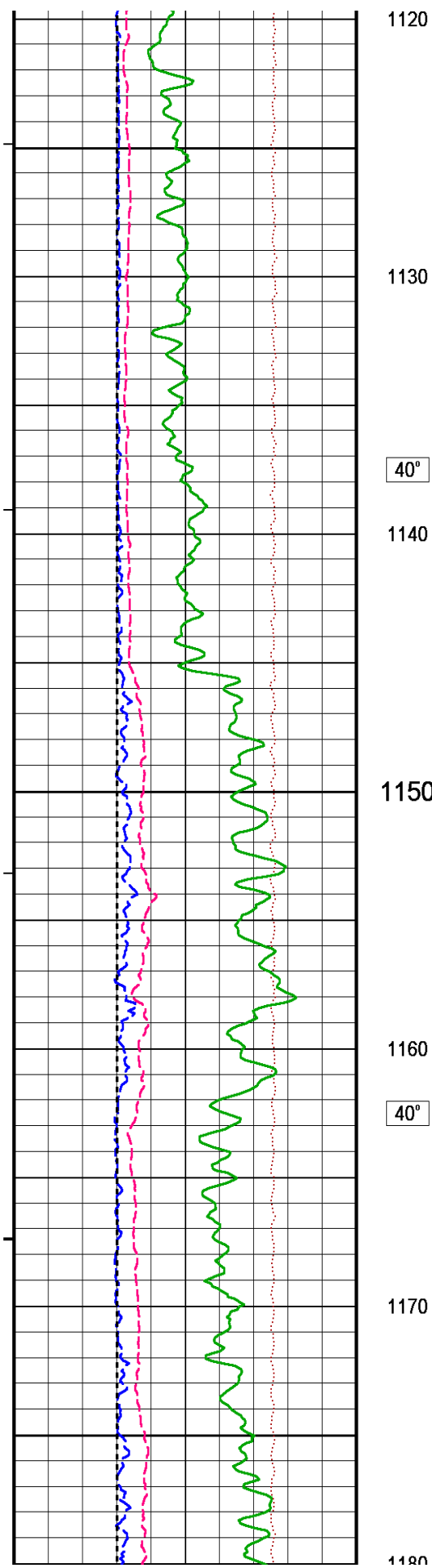
3' Transit Time

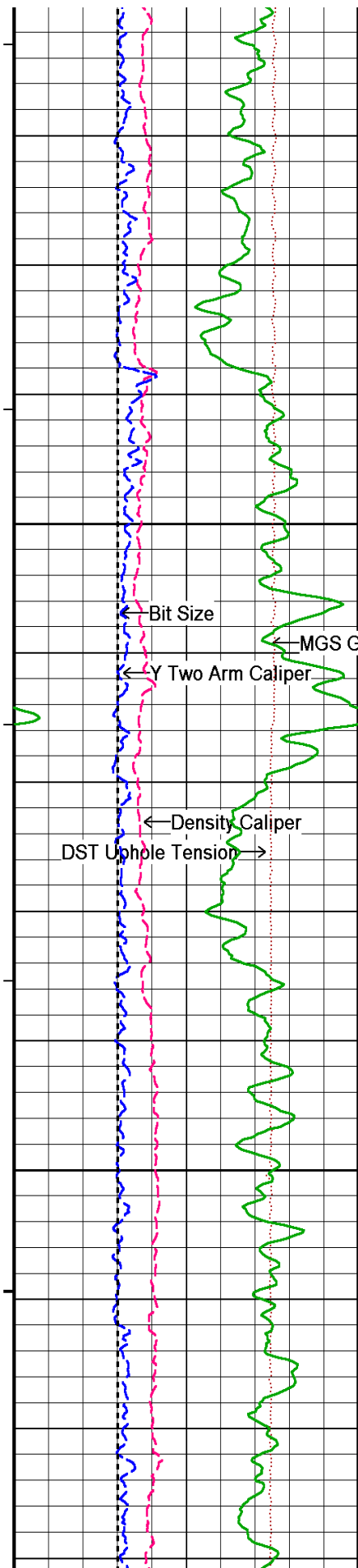




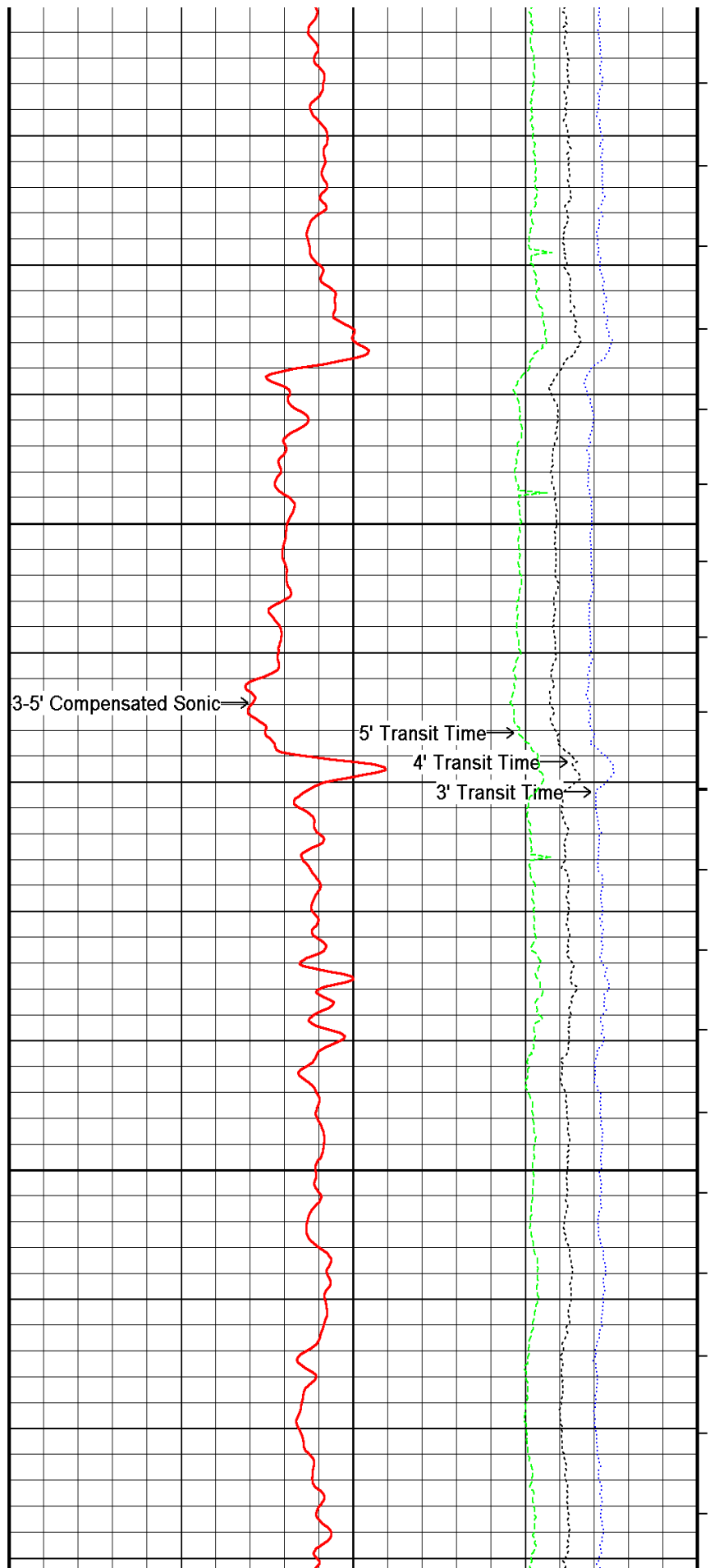


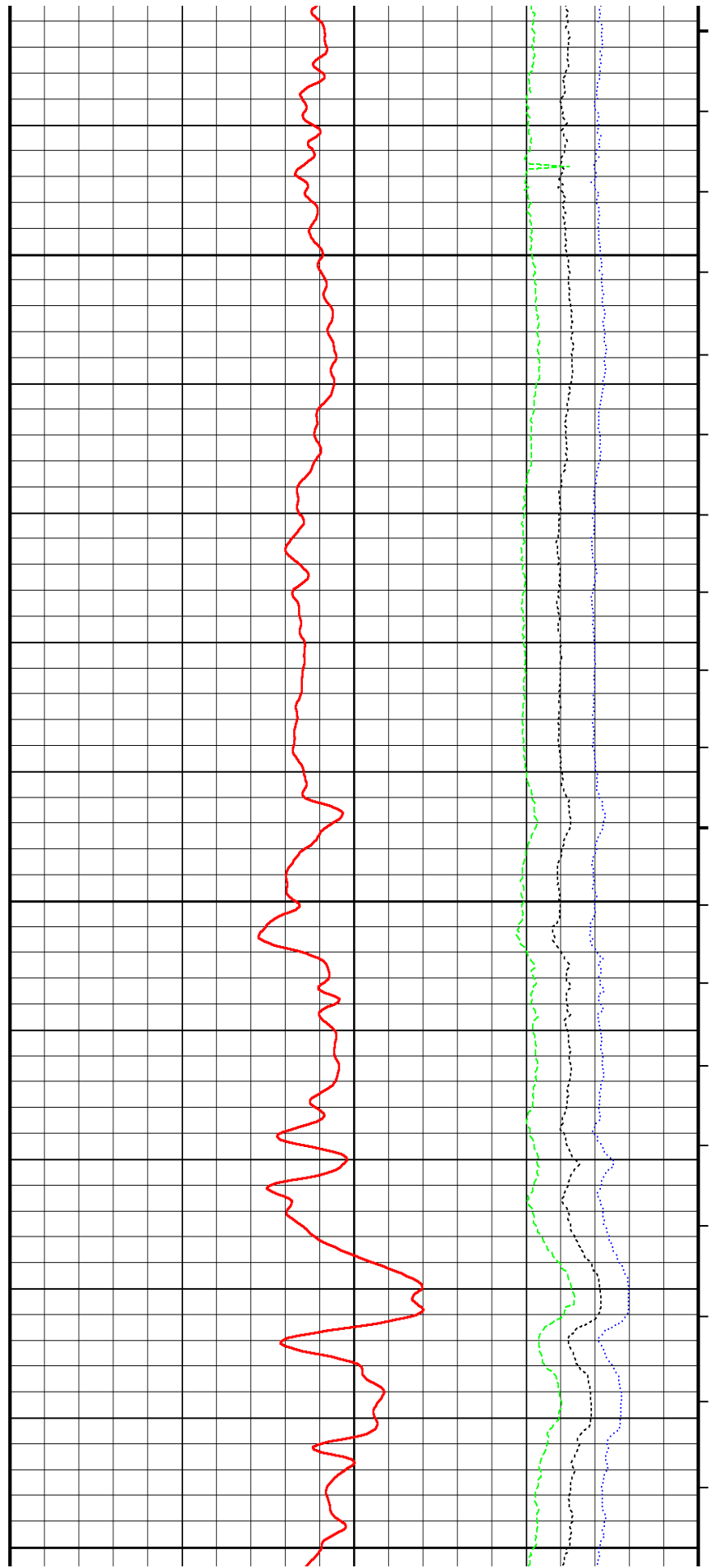
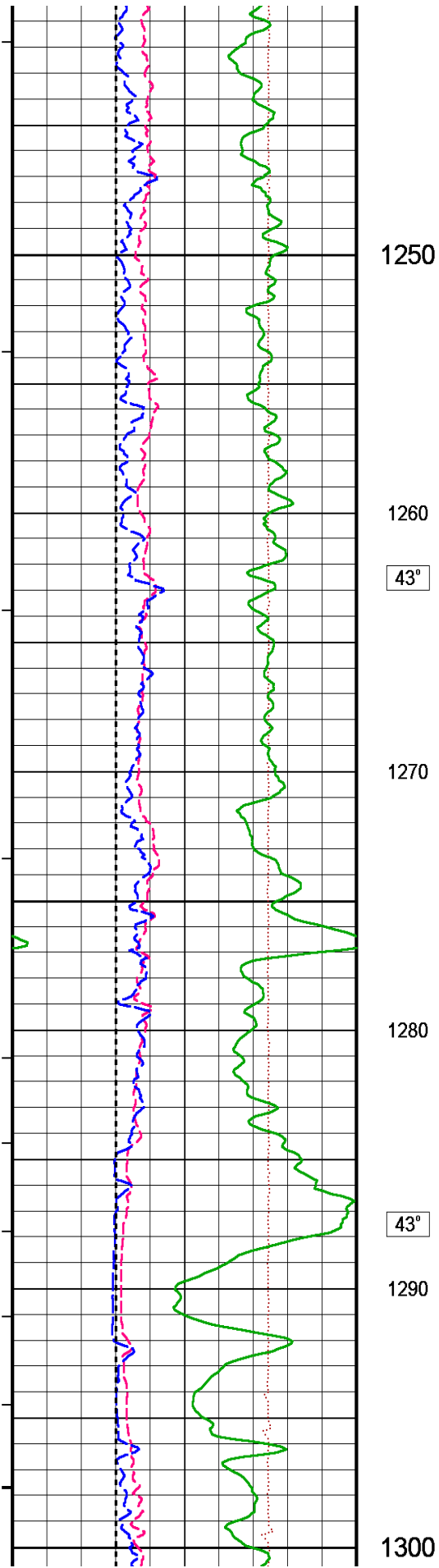


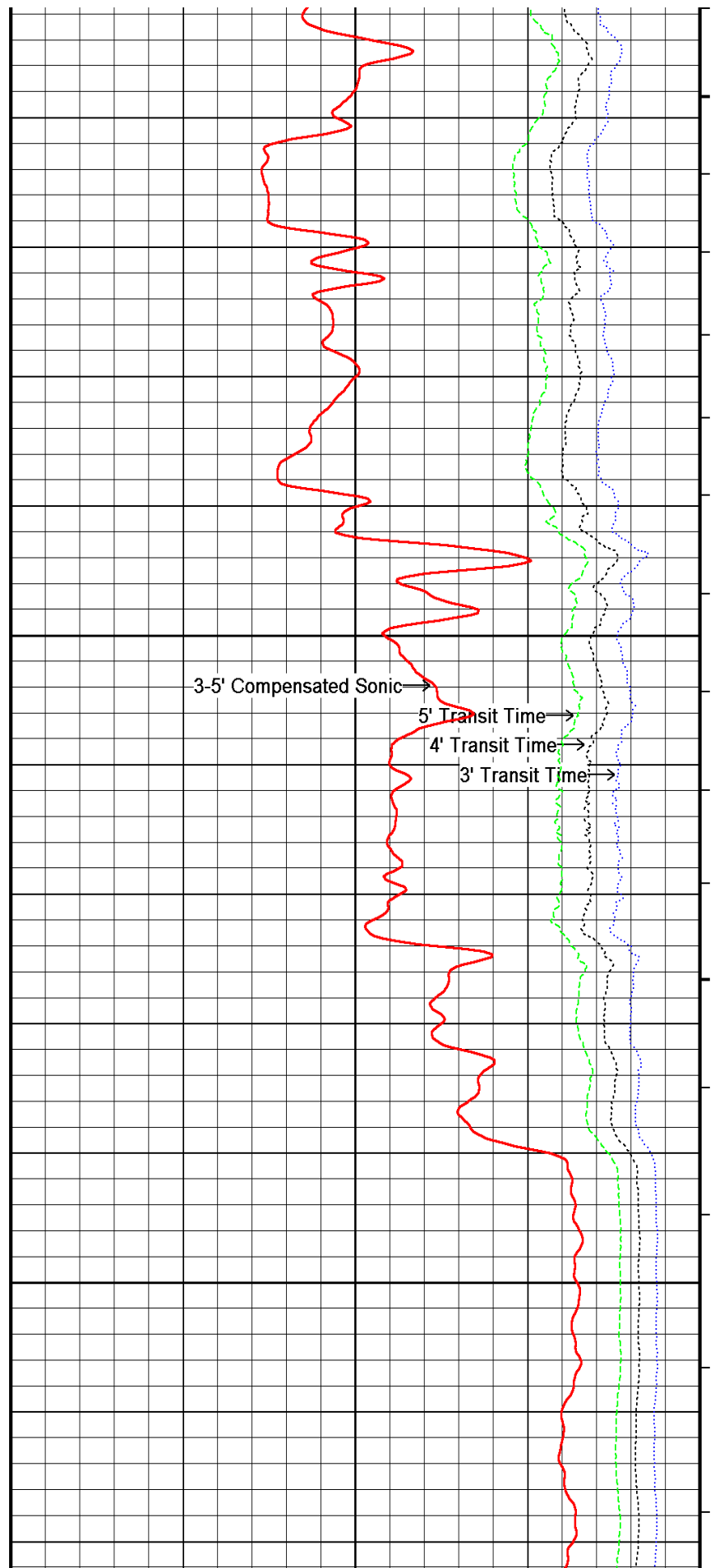
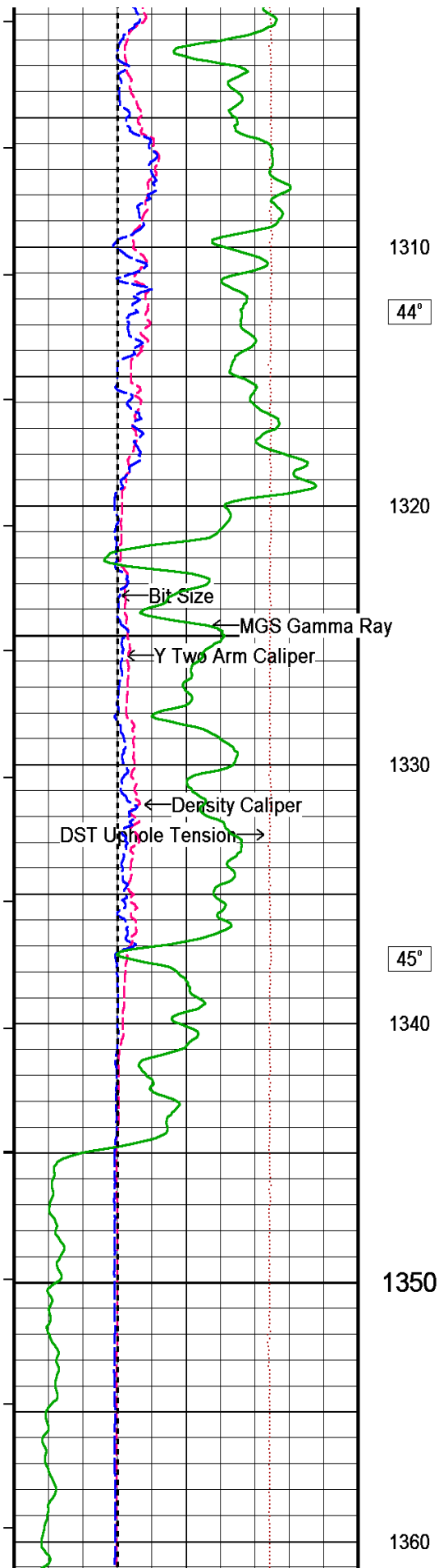


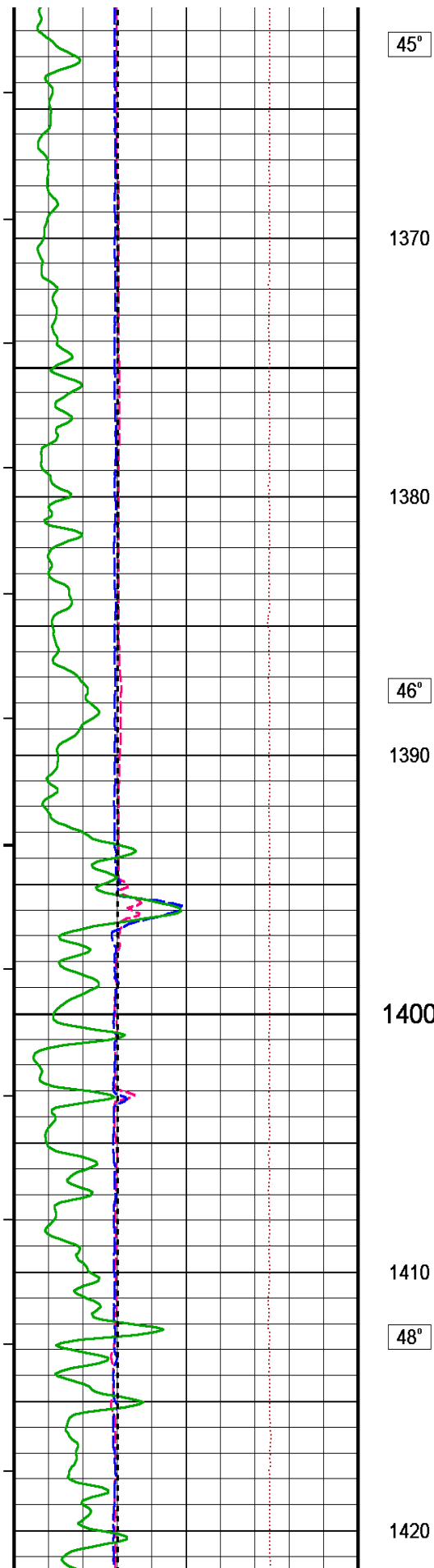


1180
41°
1190
1200
1210
41°
1220
1230
42°
1240









45°

1370

1380

46°

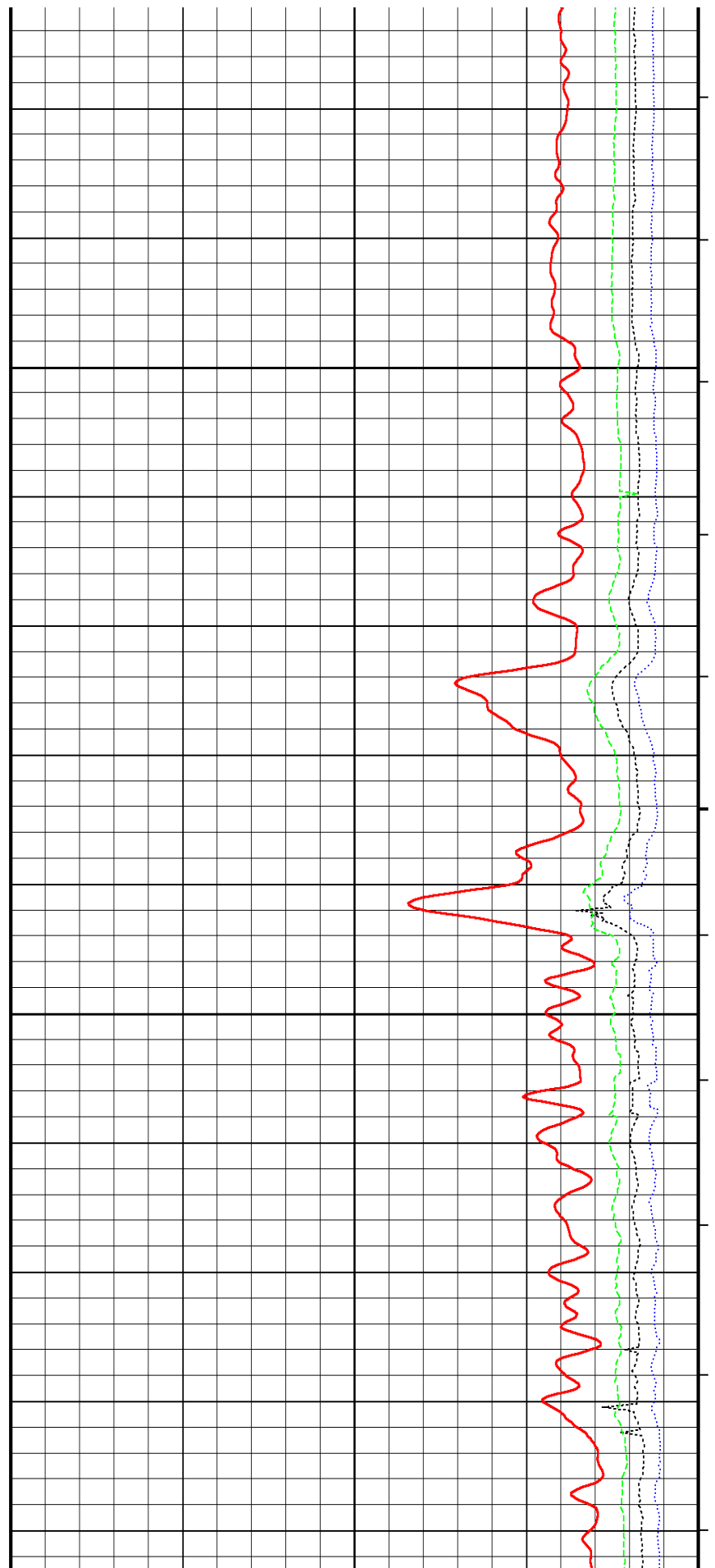
1390

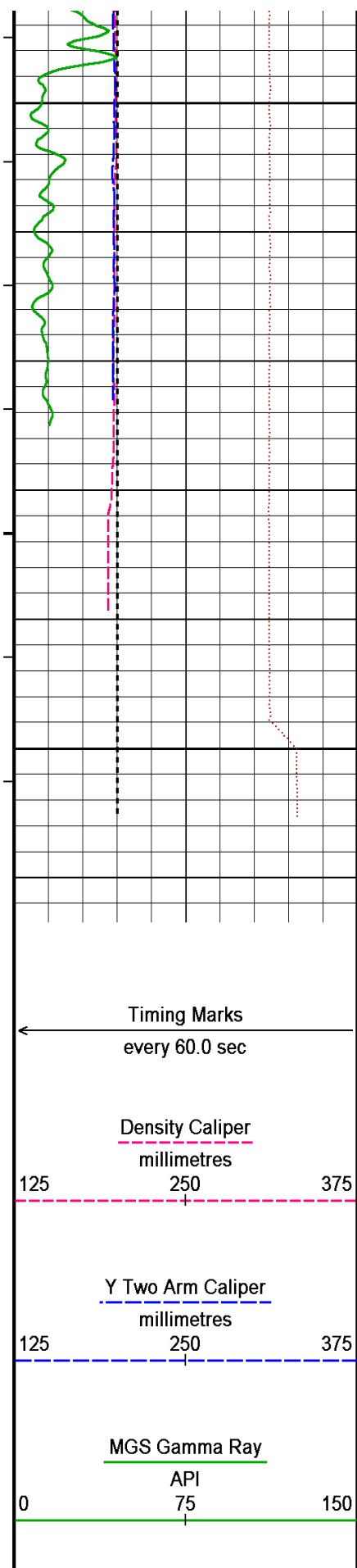
1400

1410

48°

1420





1430

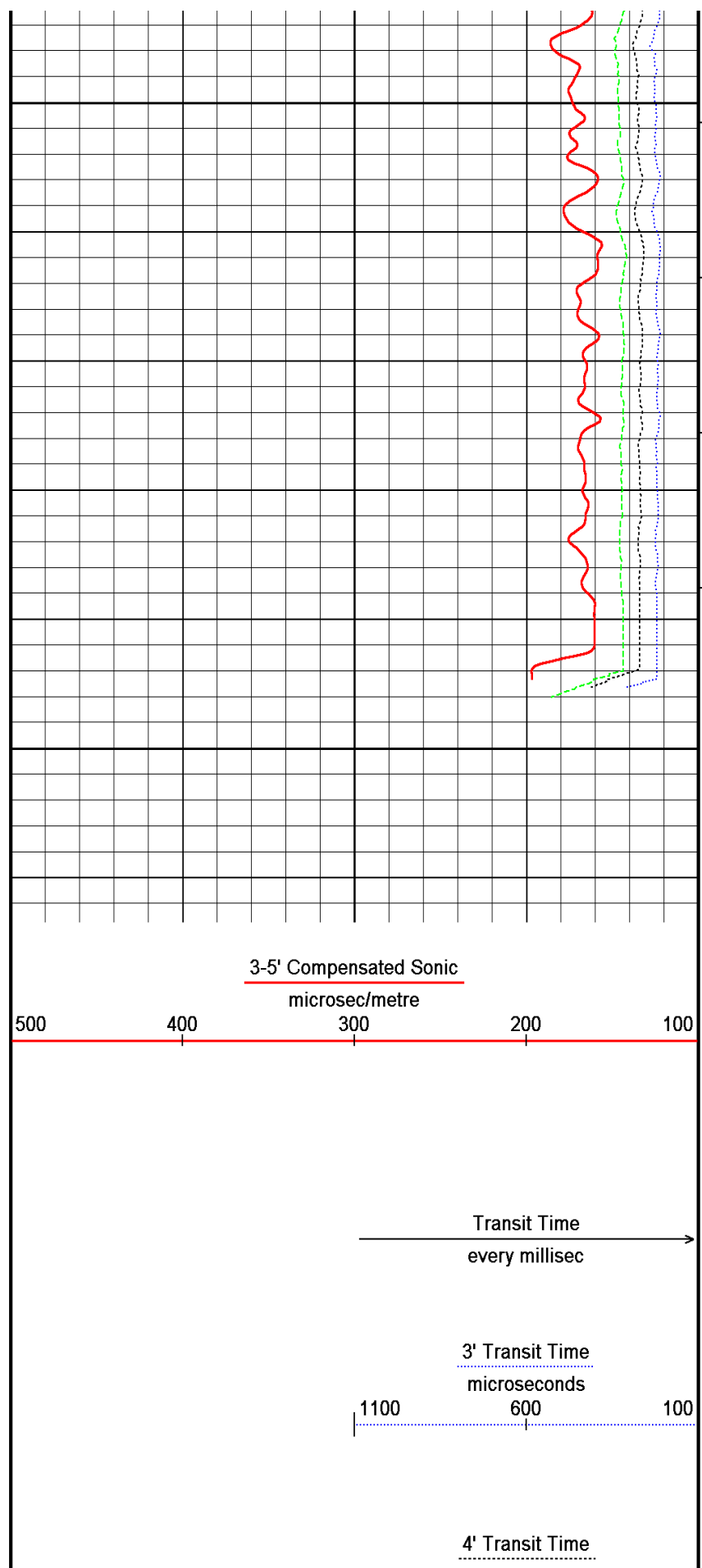
1440

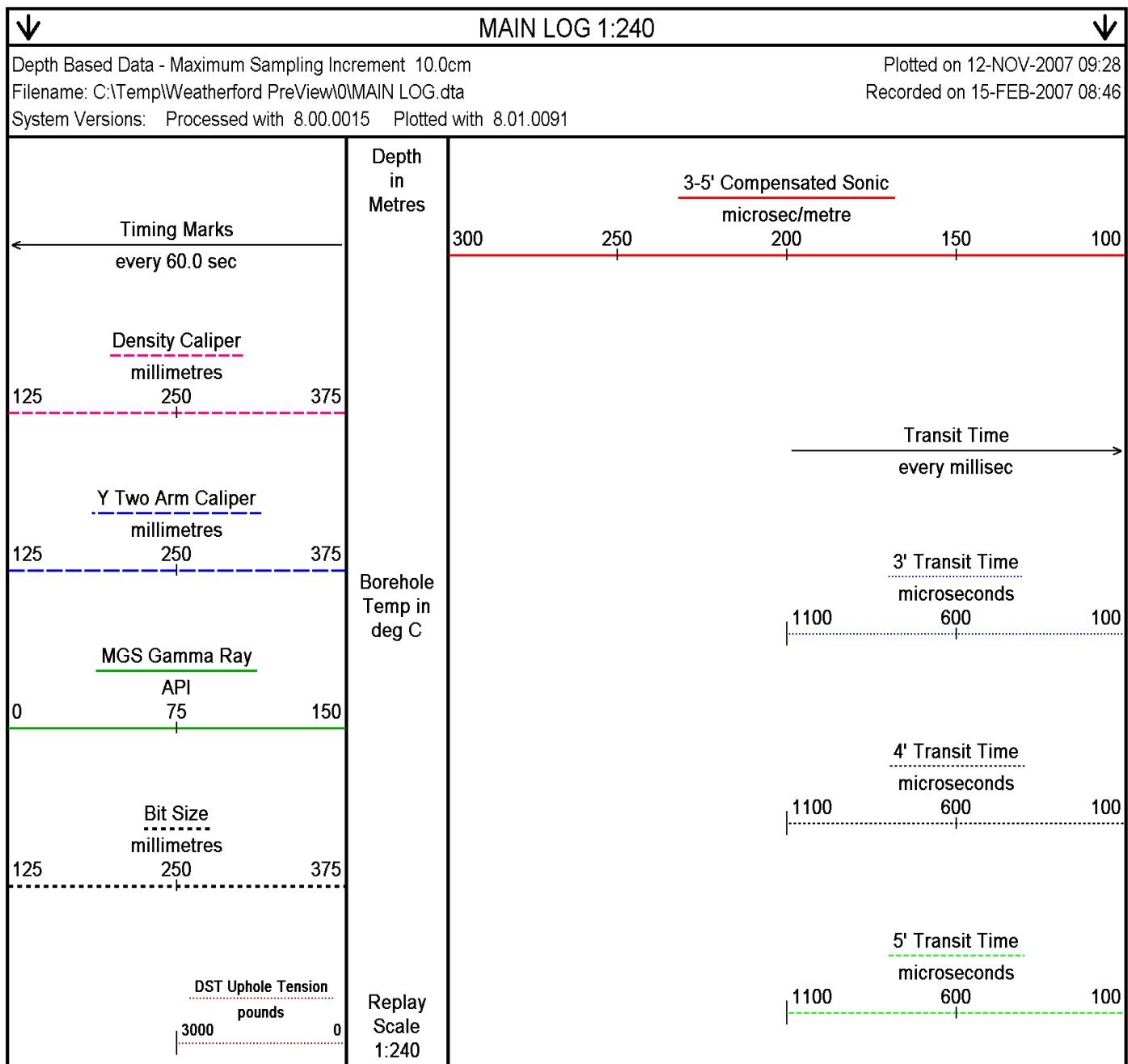
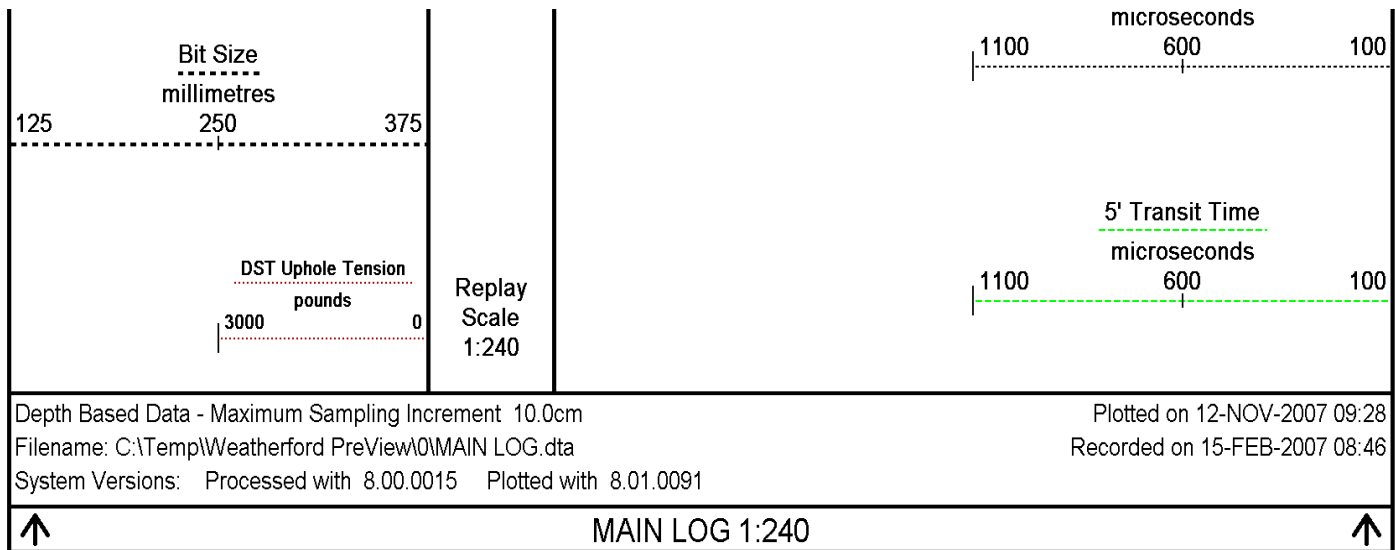
1450

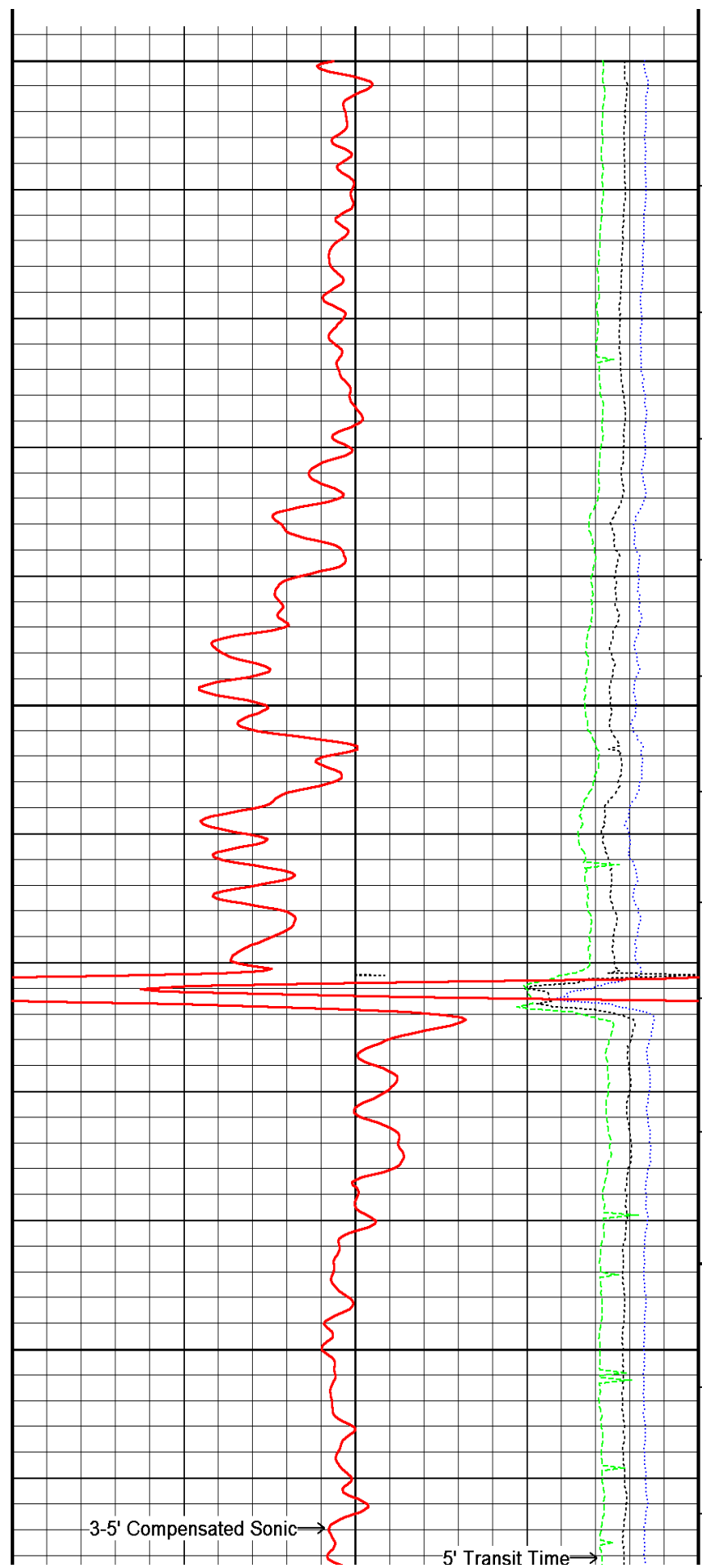
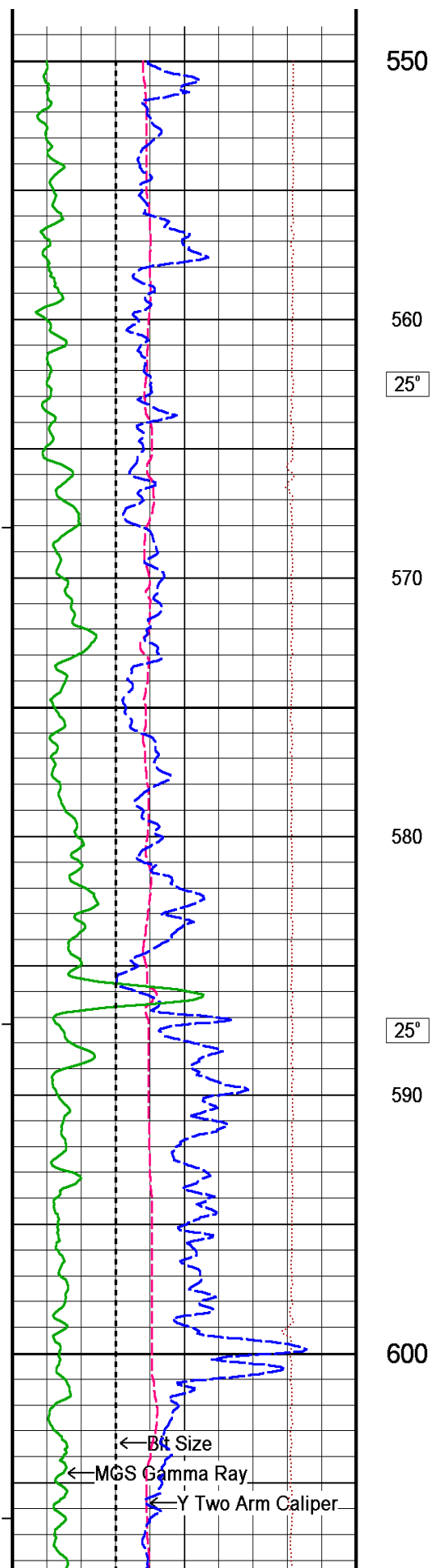
1456

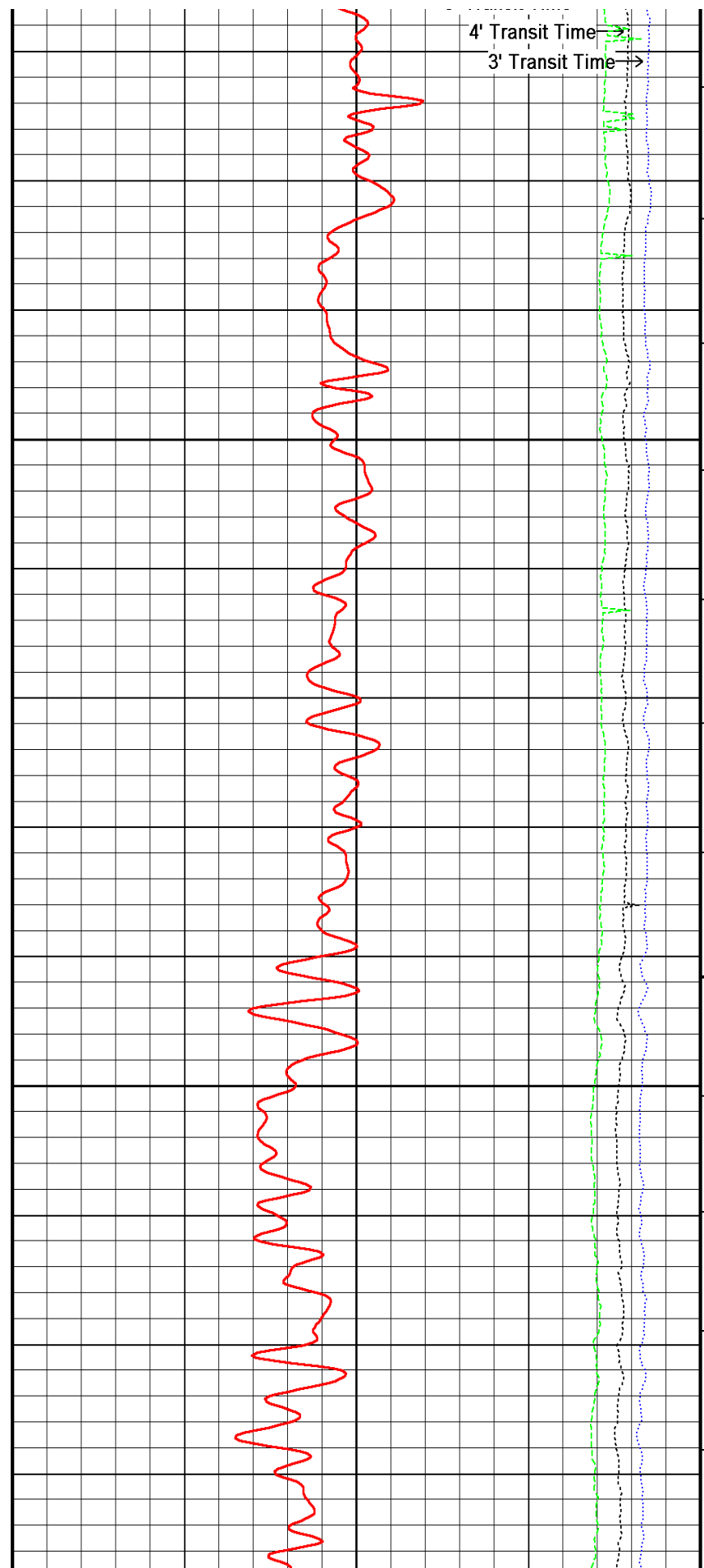
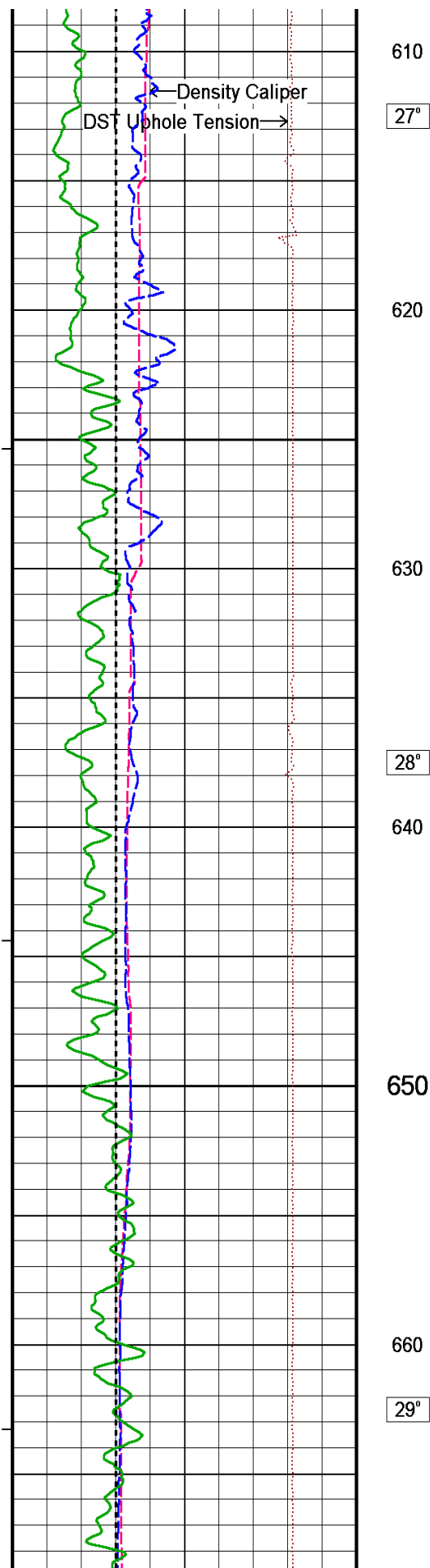
Depth in Metres

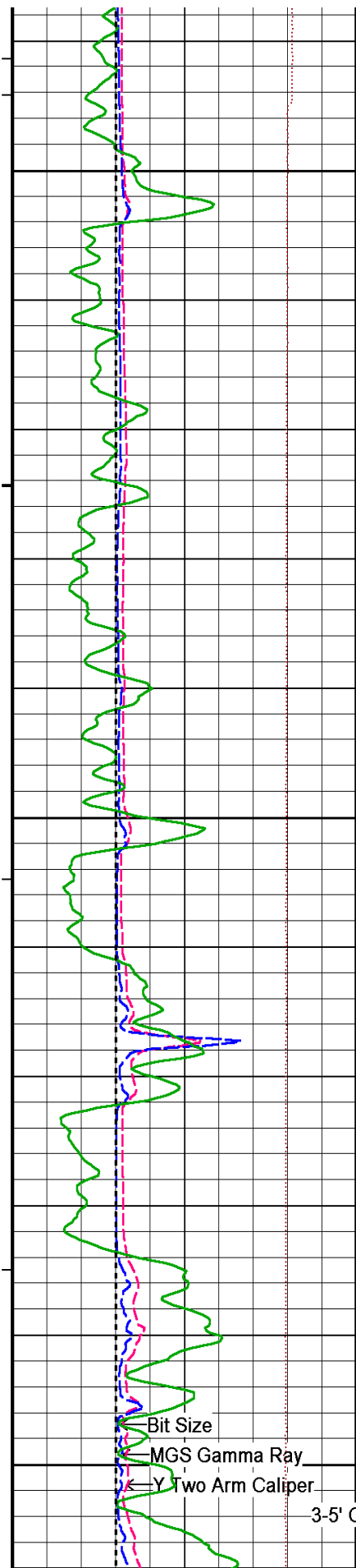
Borehole Temp in deg C











670

680

29°

690

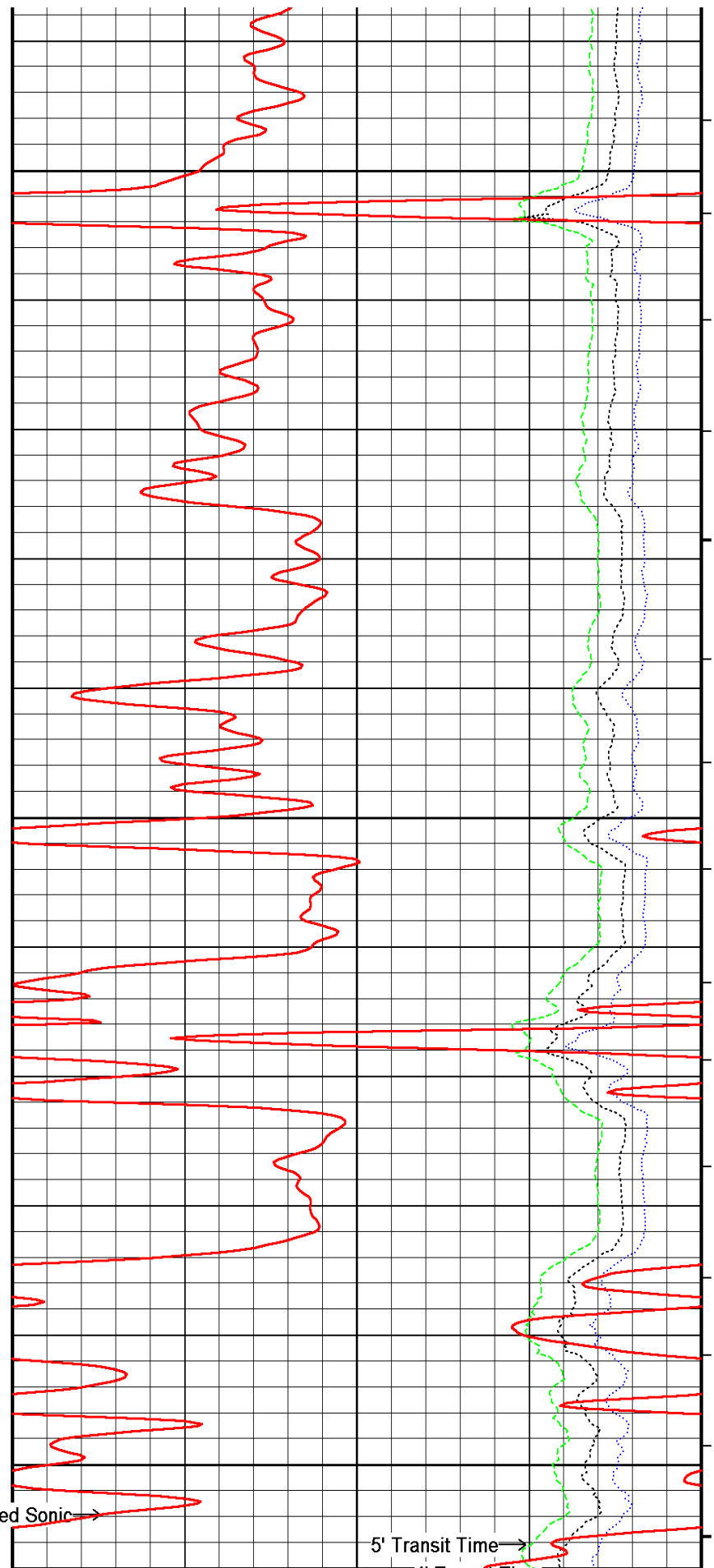
700

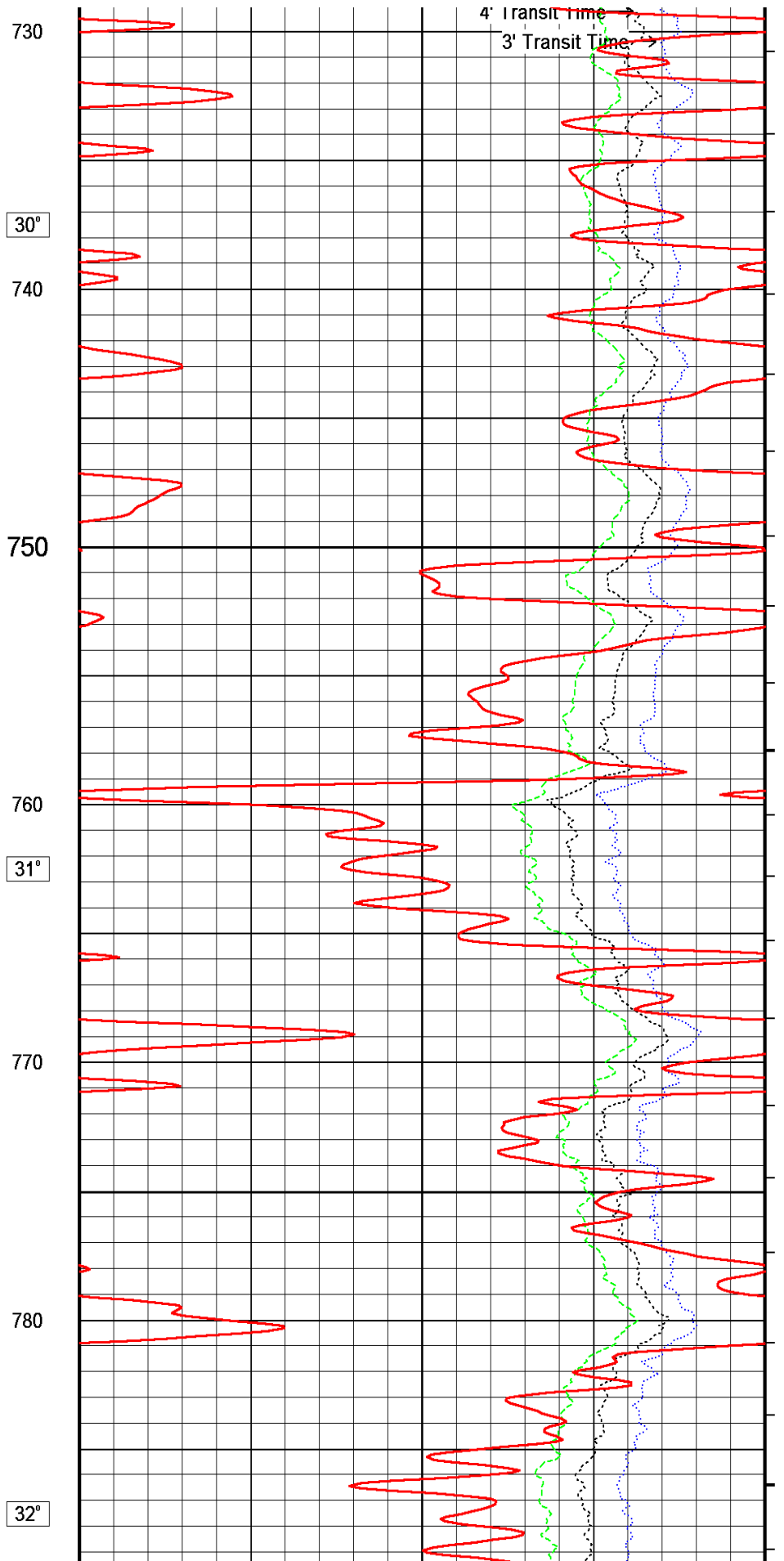
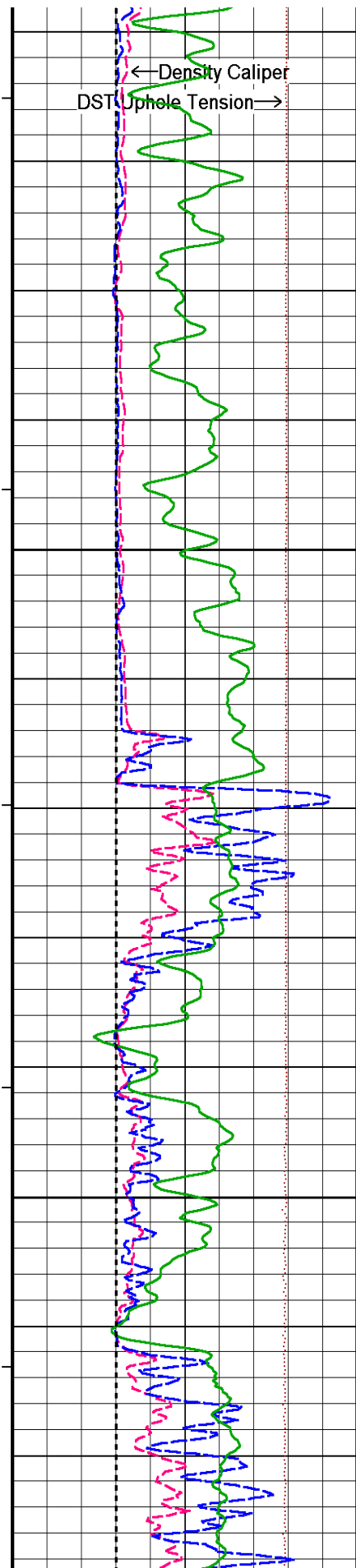
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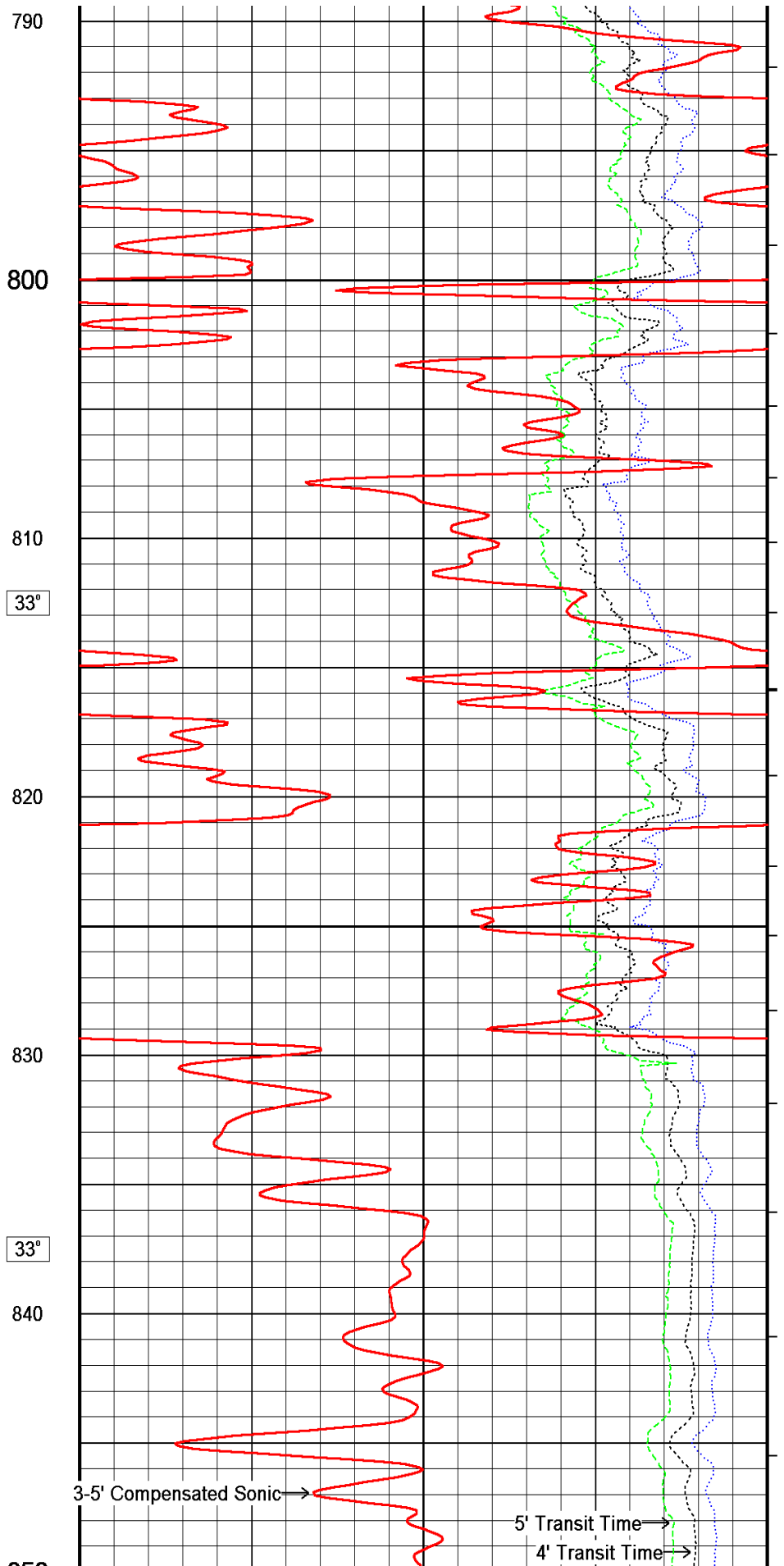
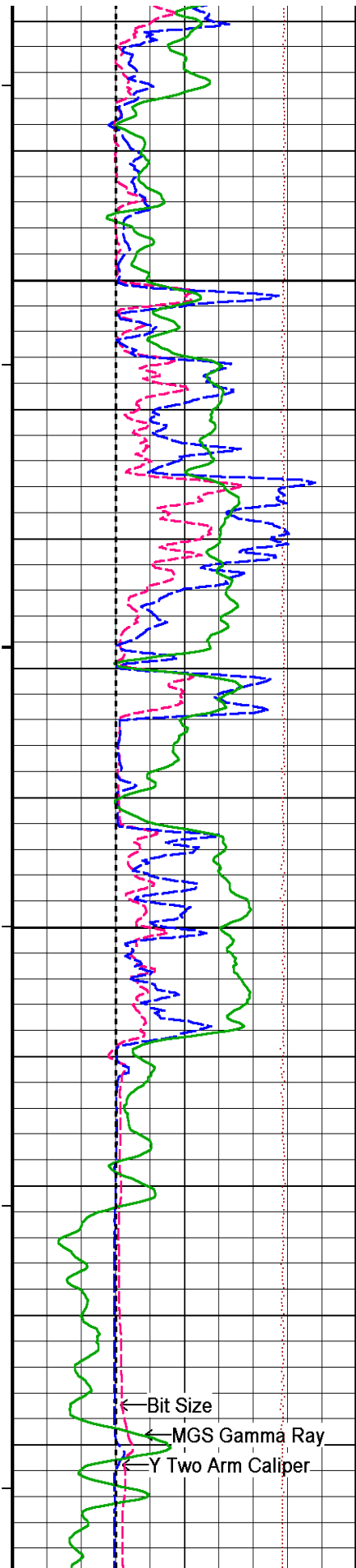
30°

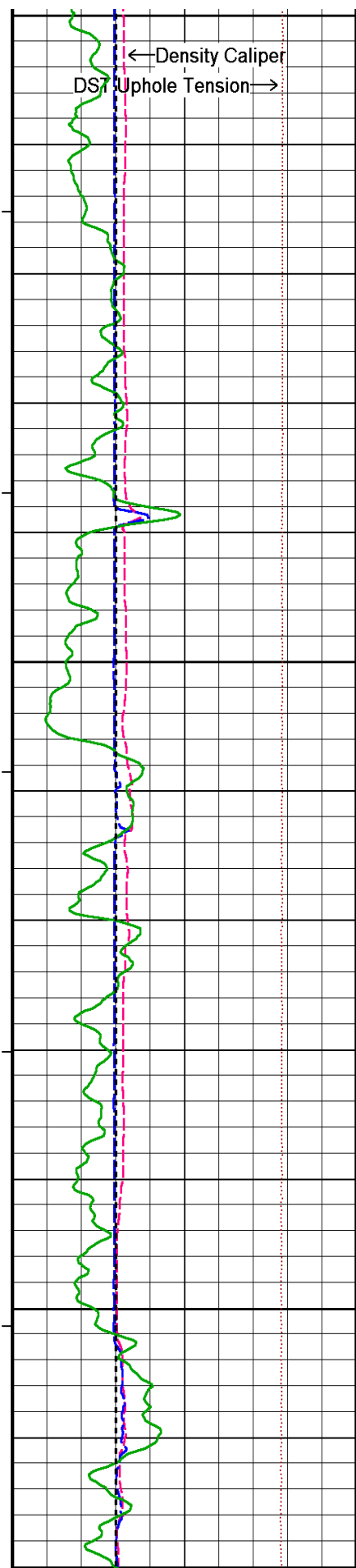
720

3-5' Compensated Sonic →









850

860

34°

870

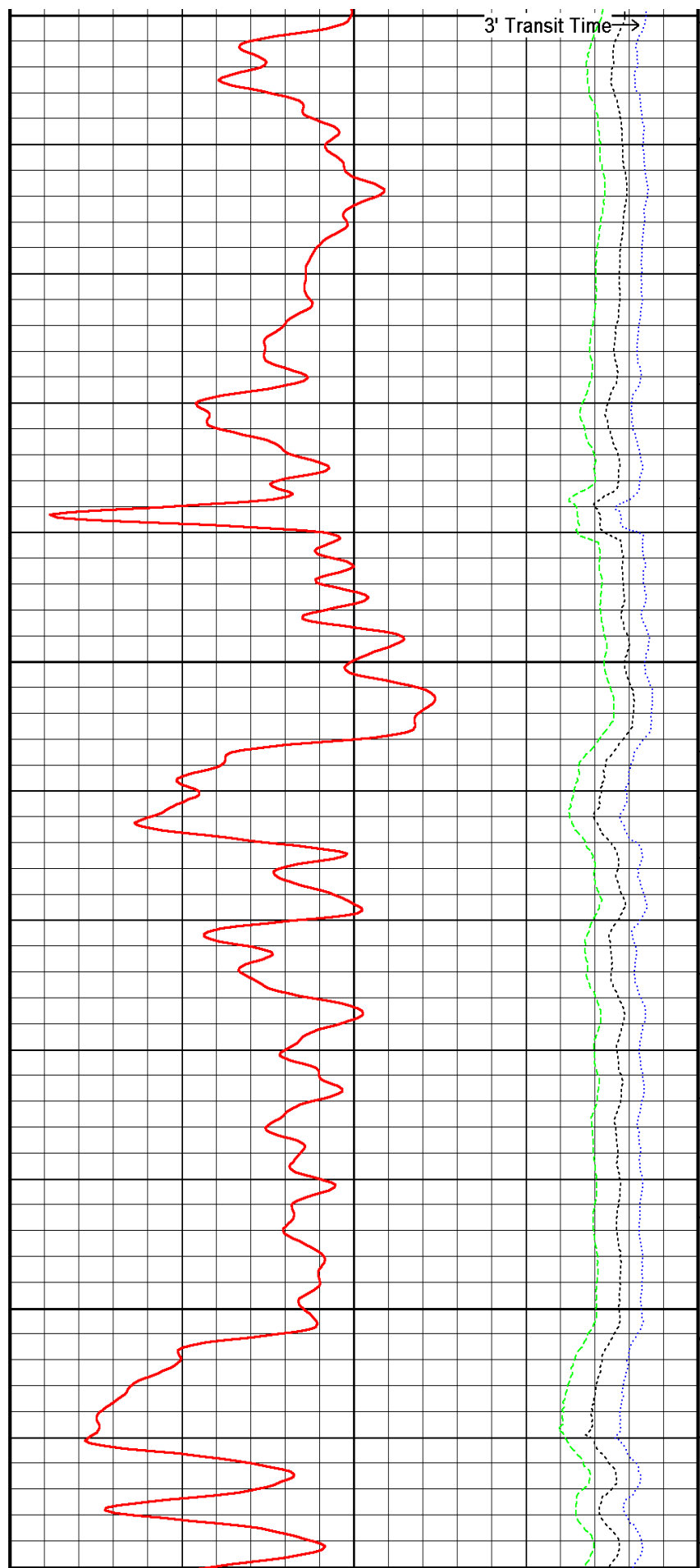
880

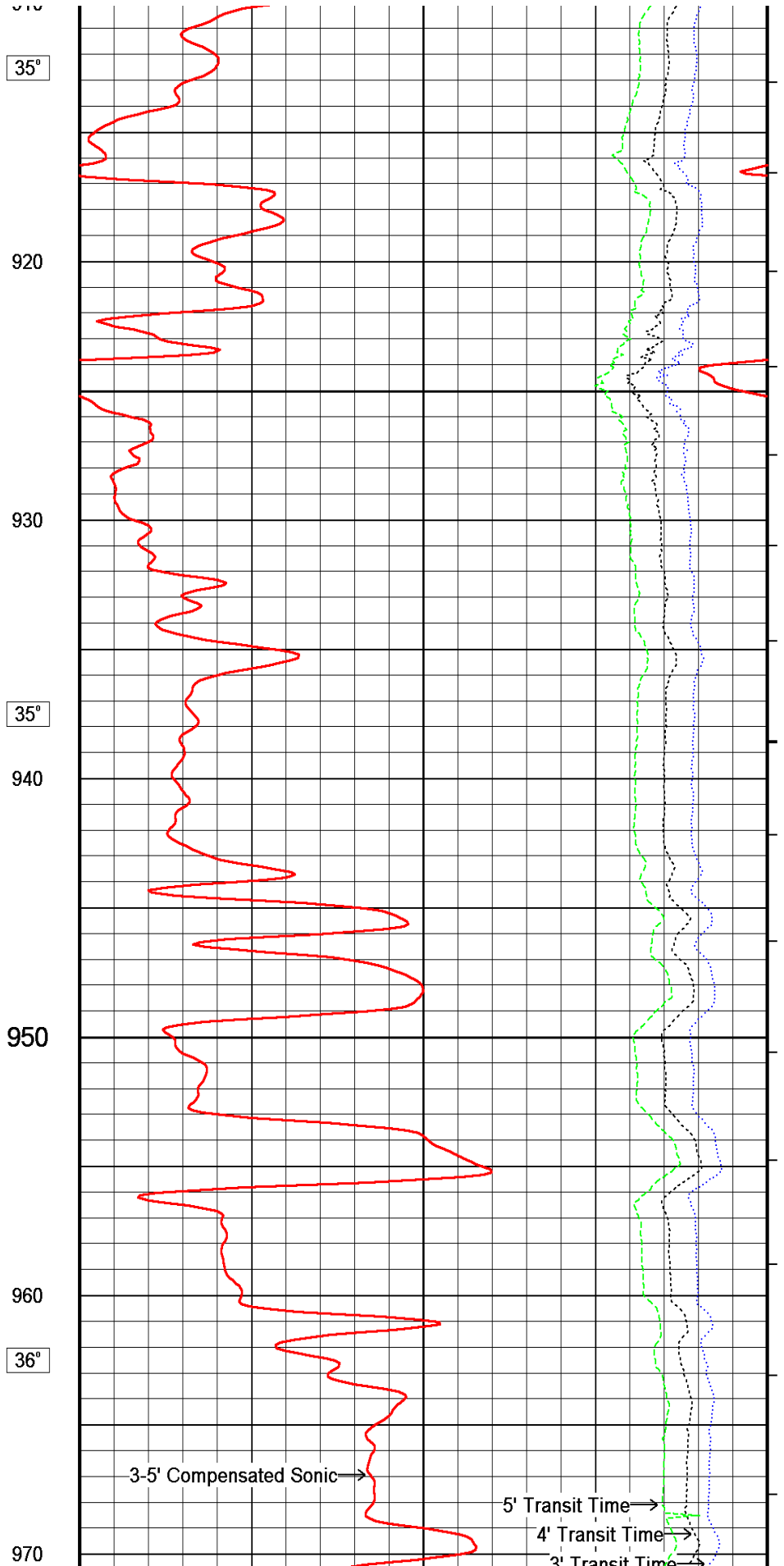
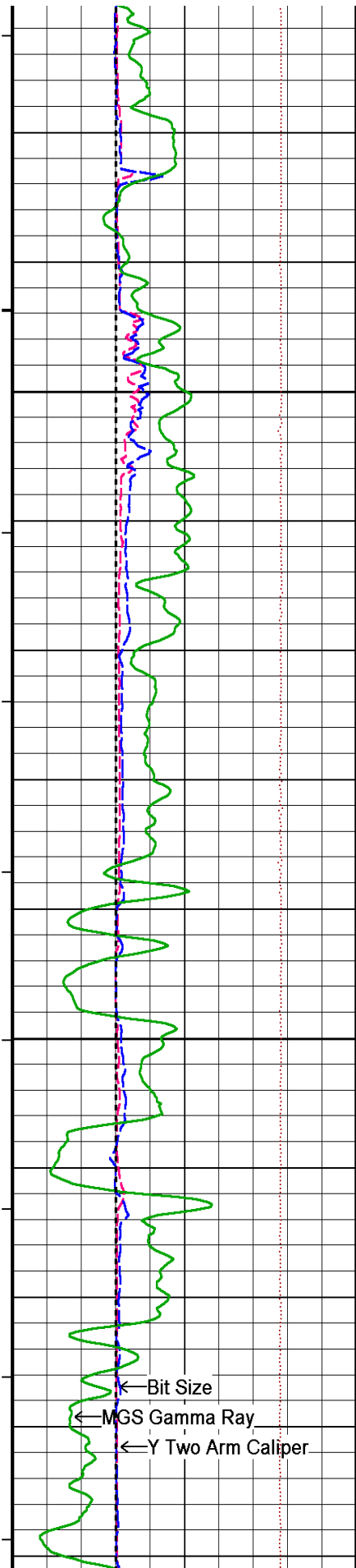
34°

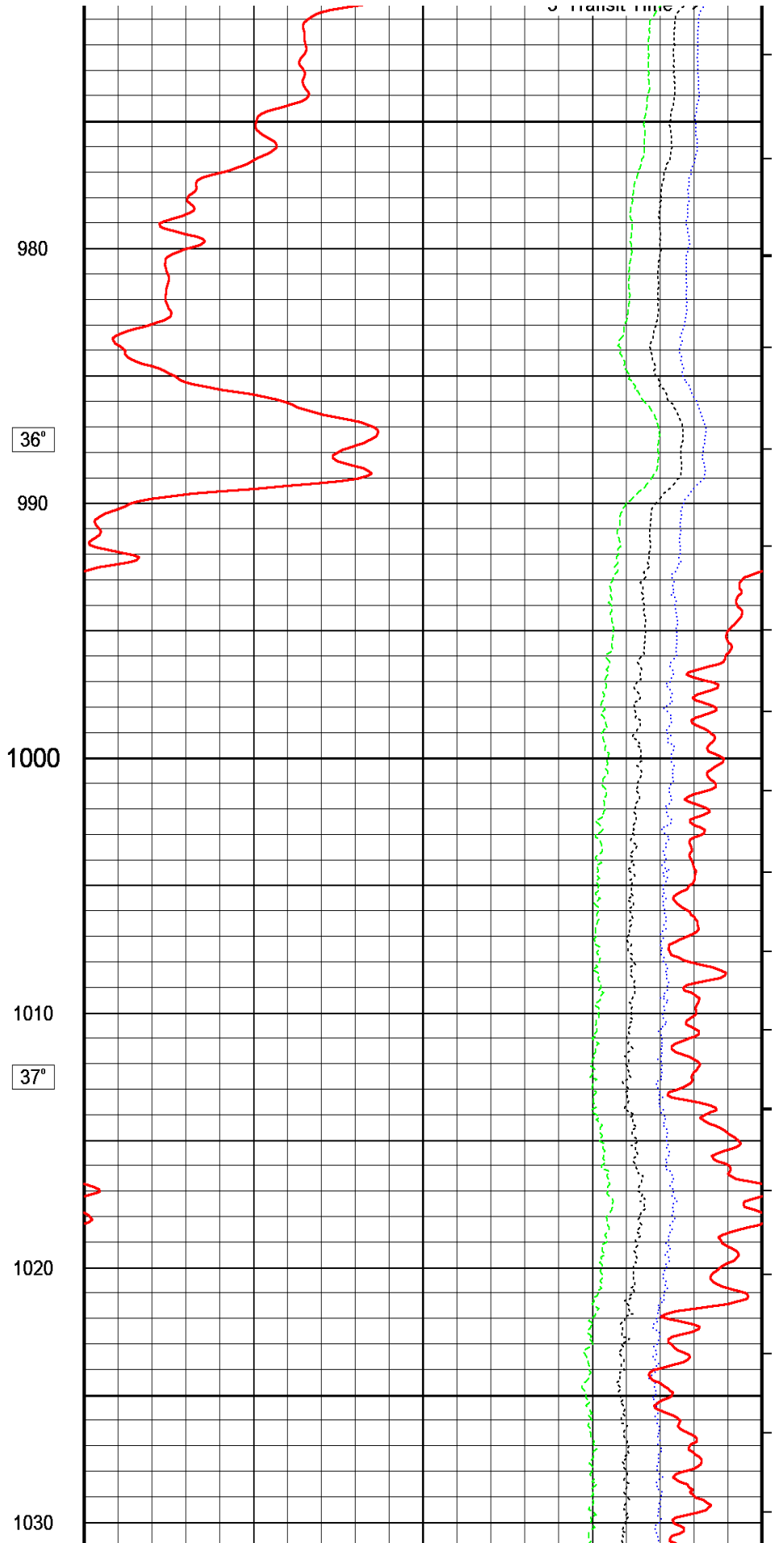
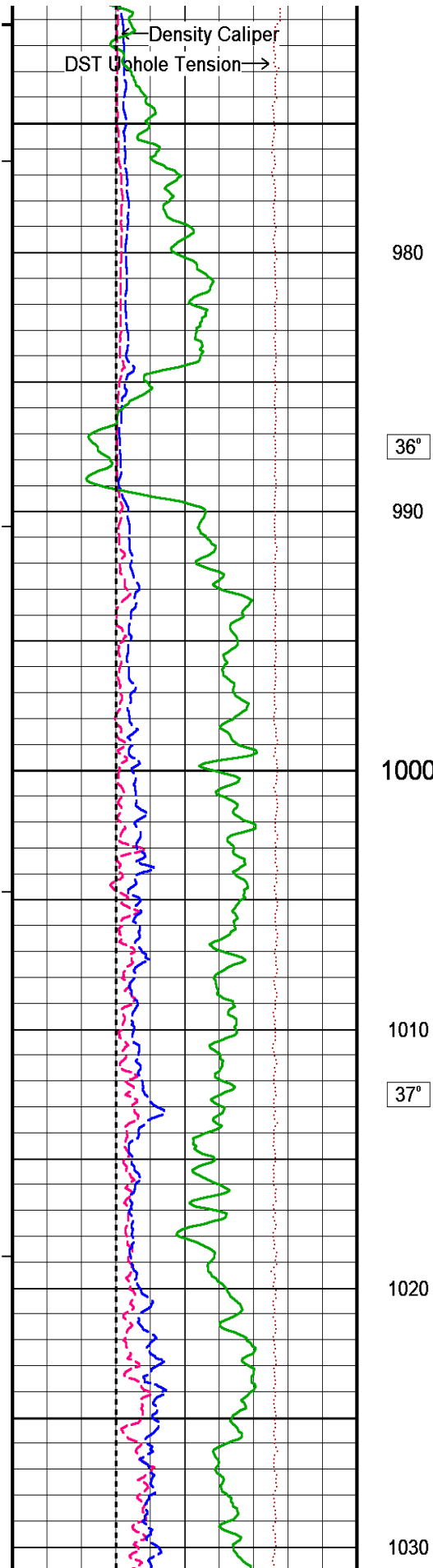
890

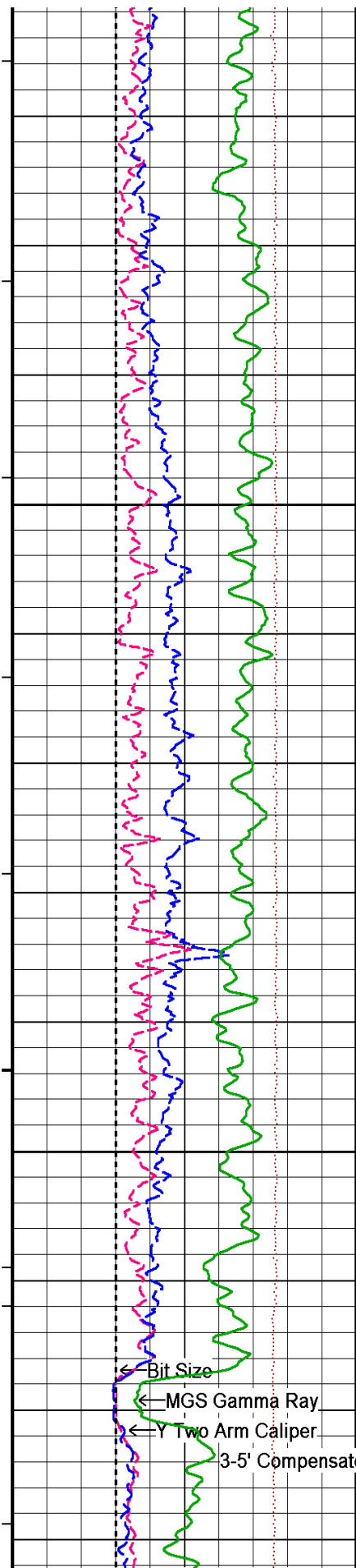
900

910









37°

1040

1050

1060

38°

1070

1080

← Bit Size

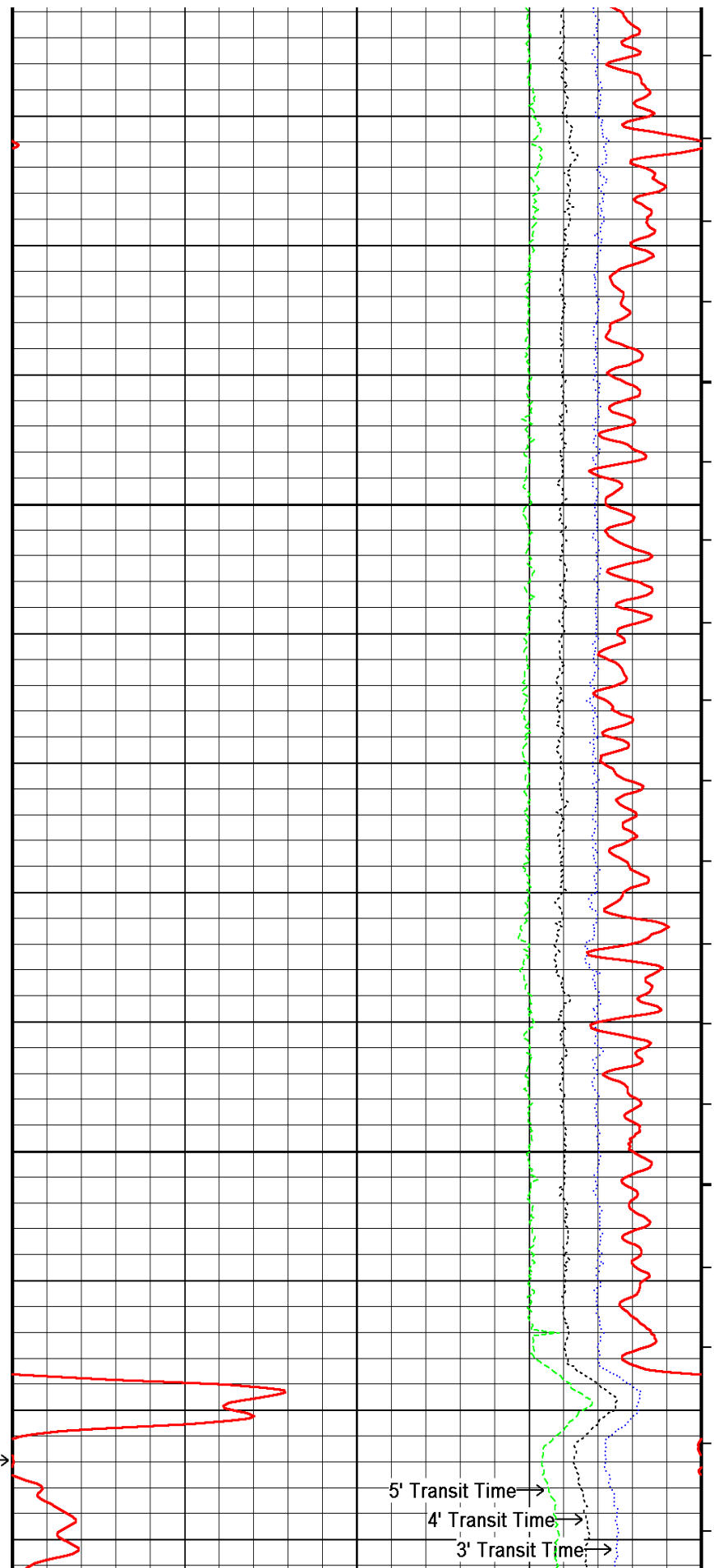
← MGS Gamma Ray

← Y Two Arm Caliper

← 3-5' Compensated Sonic →

38°

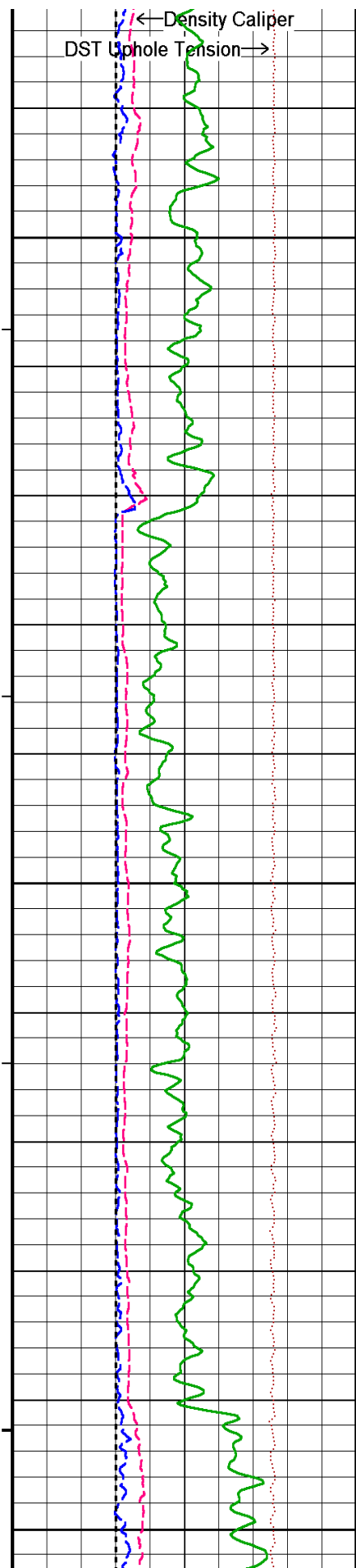
1090



5' Transit Time →

4' Transit Time →

3' Transit Time →



1100

1110

39°

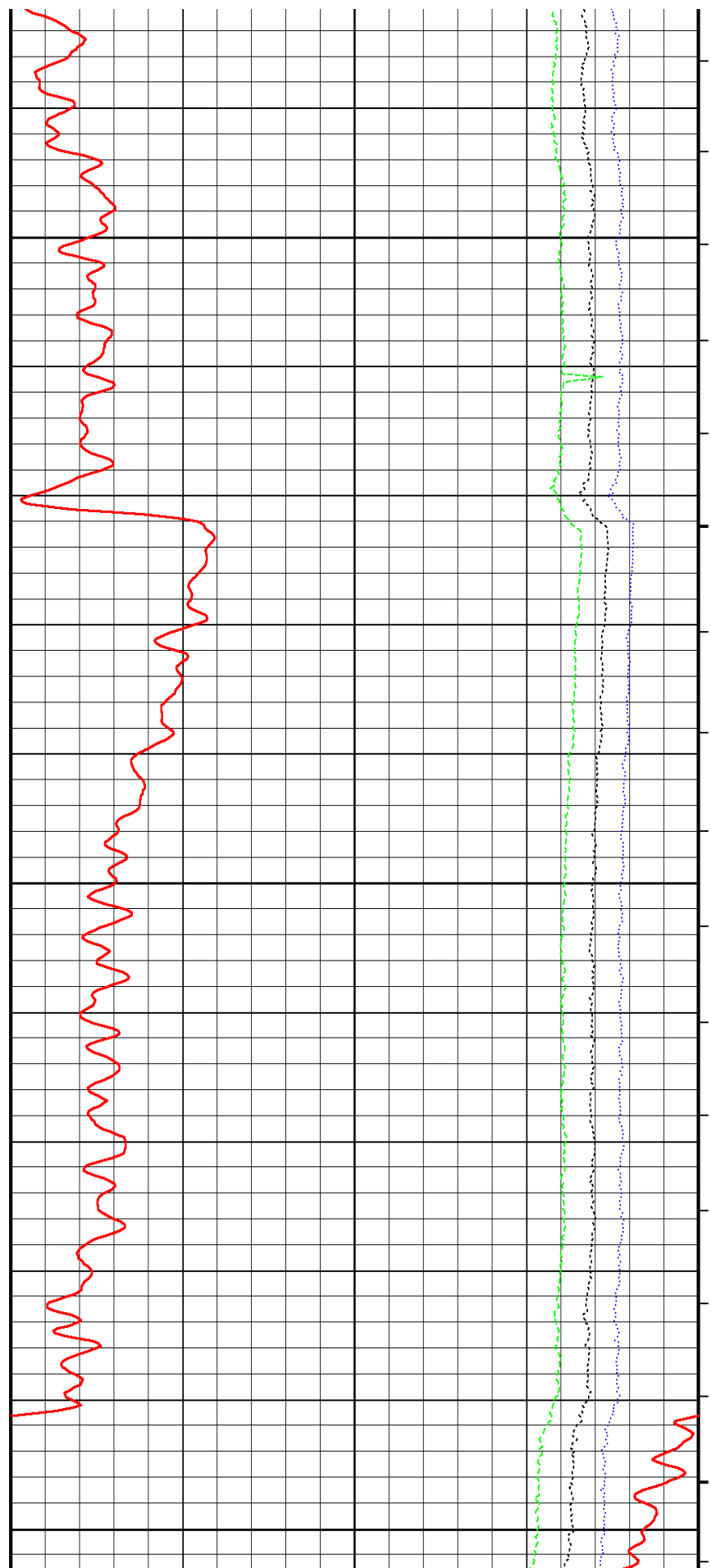
1120

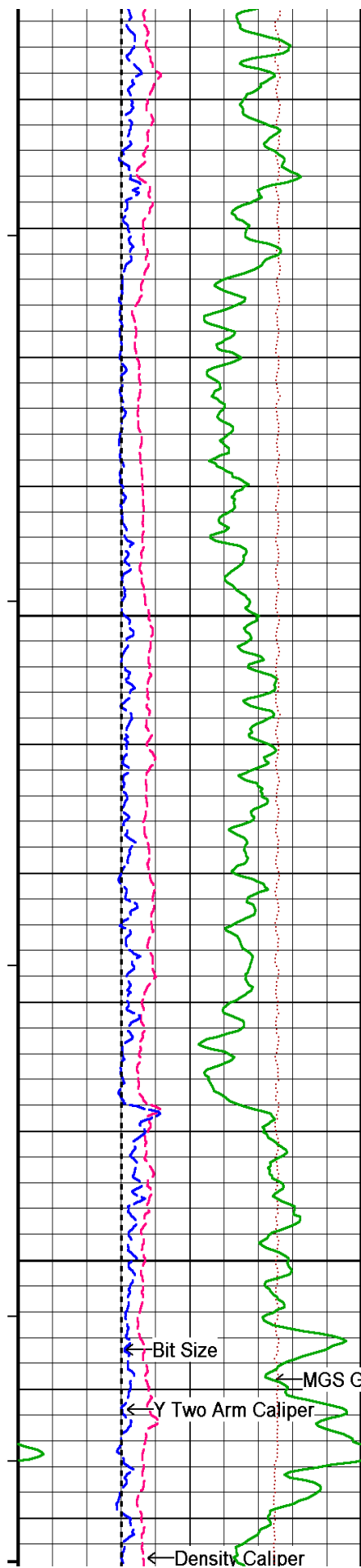
1130

40°

1140

1150





1160

40°

1170

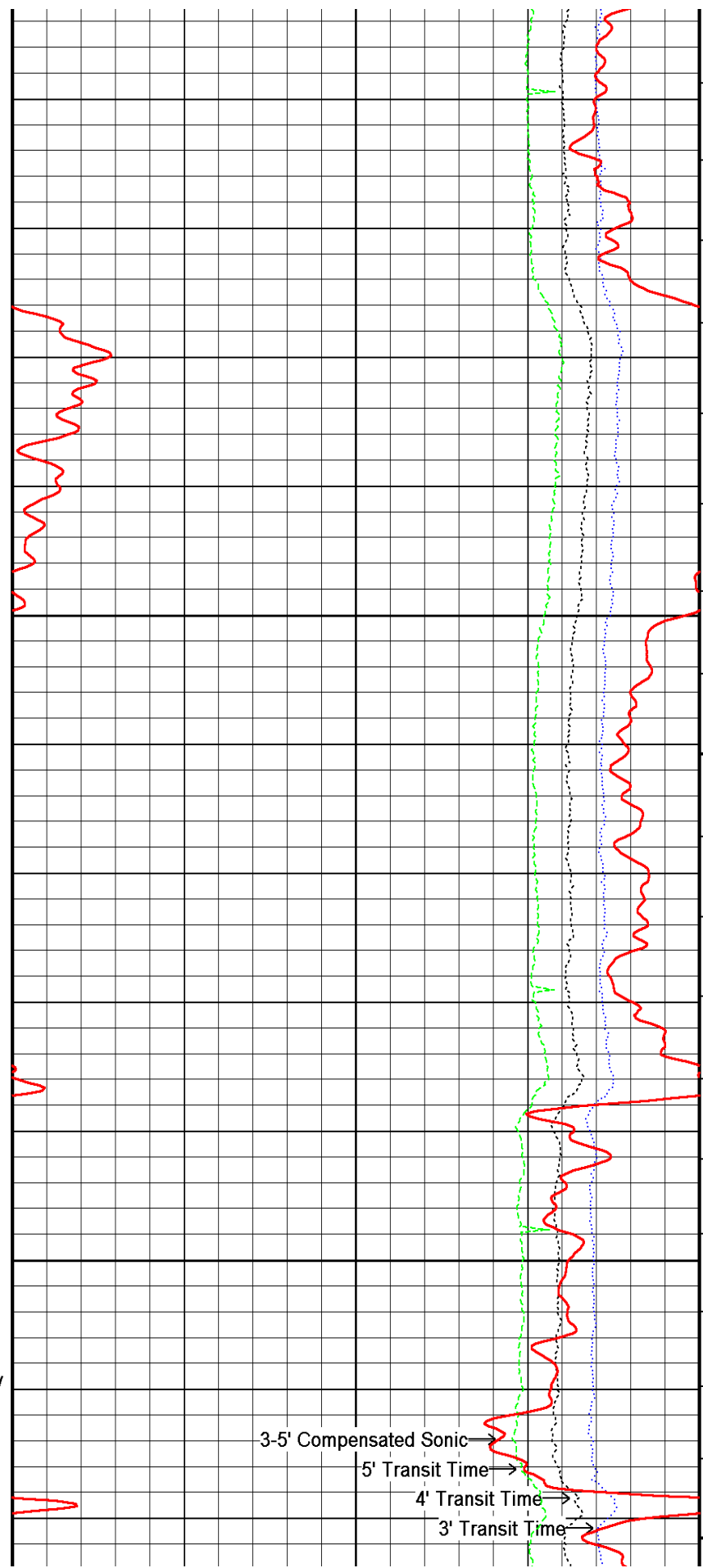
1180

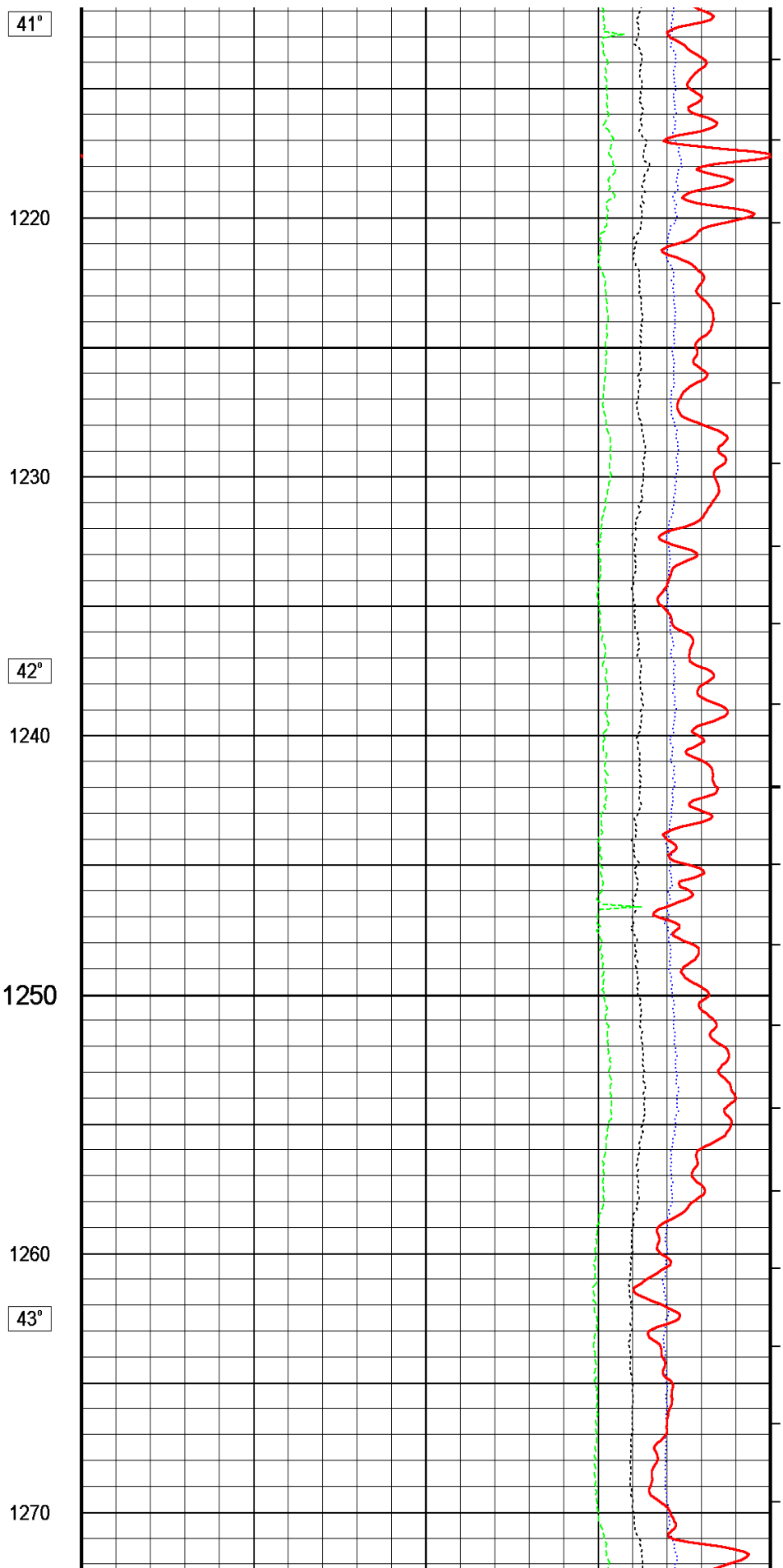
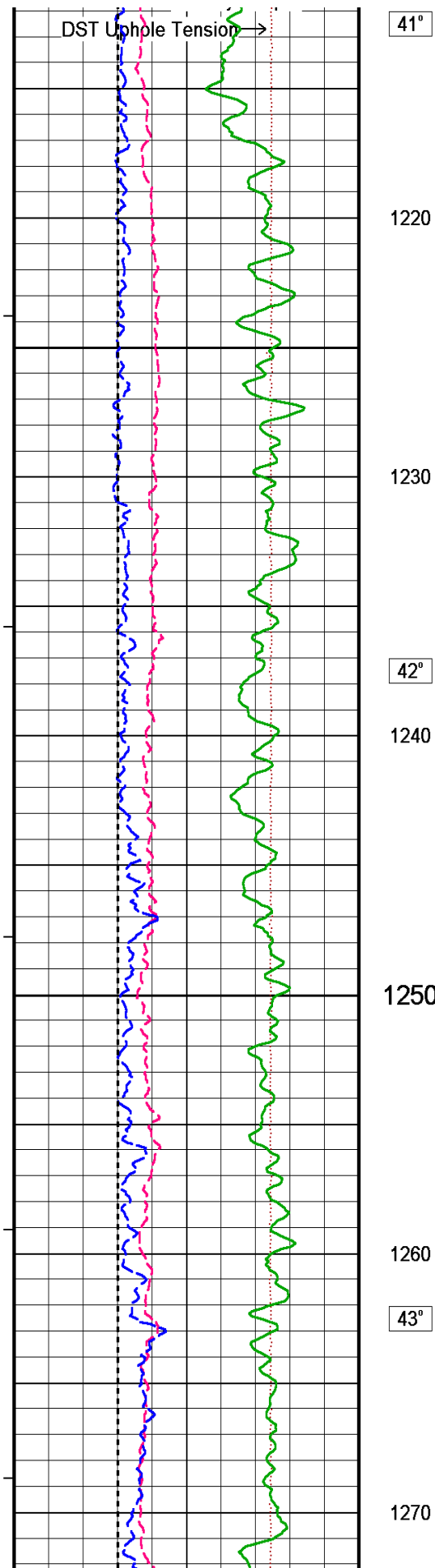
41°

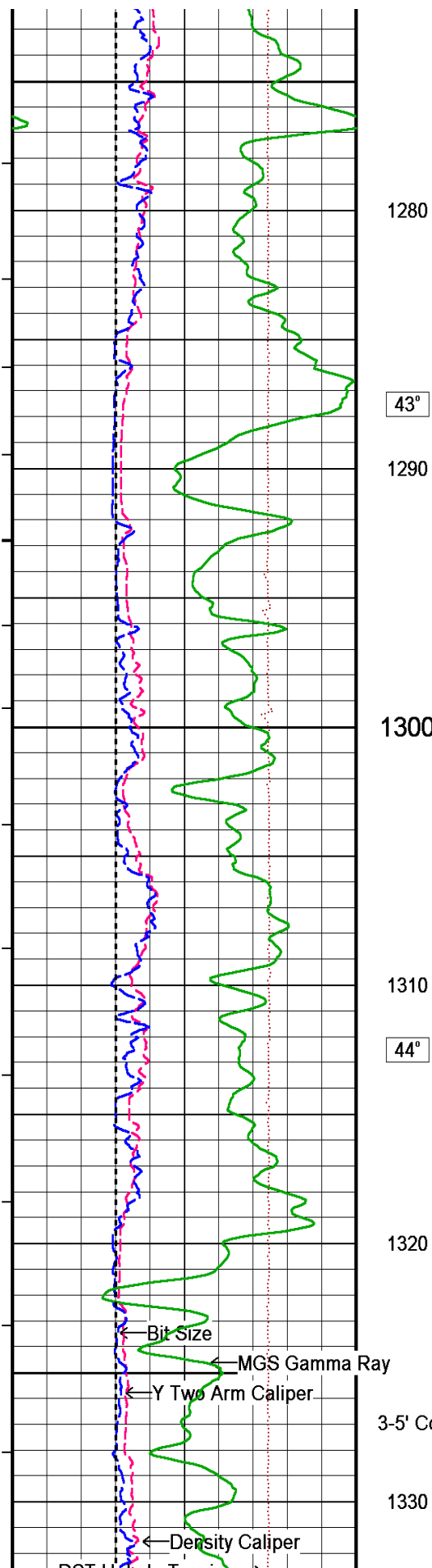
1190

1200

1210







1280

43°

1290

1300

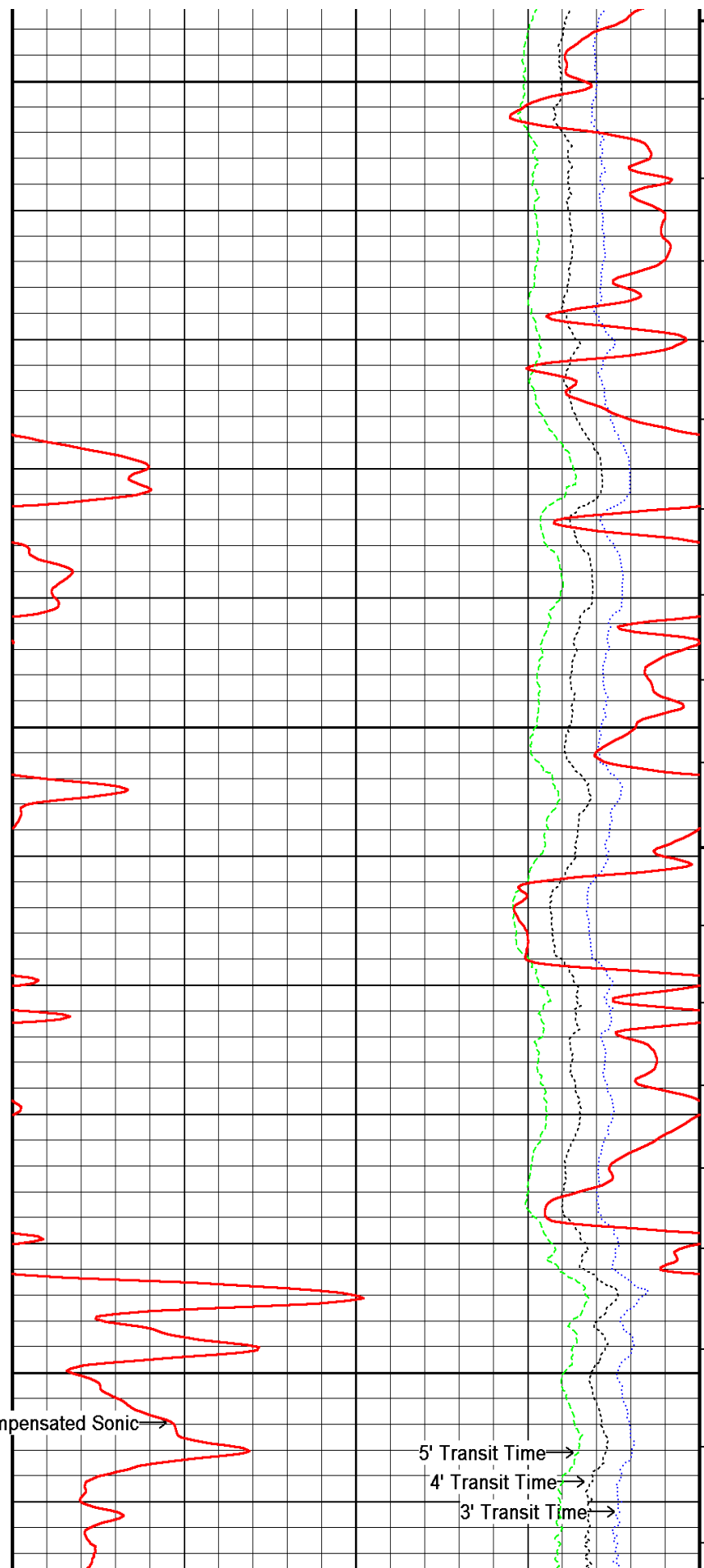
1310

44°

1320

3-5' Compensated Sonic →

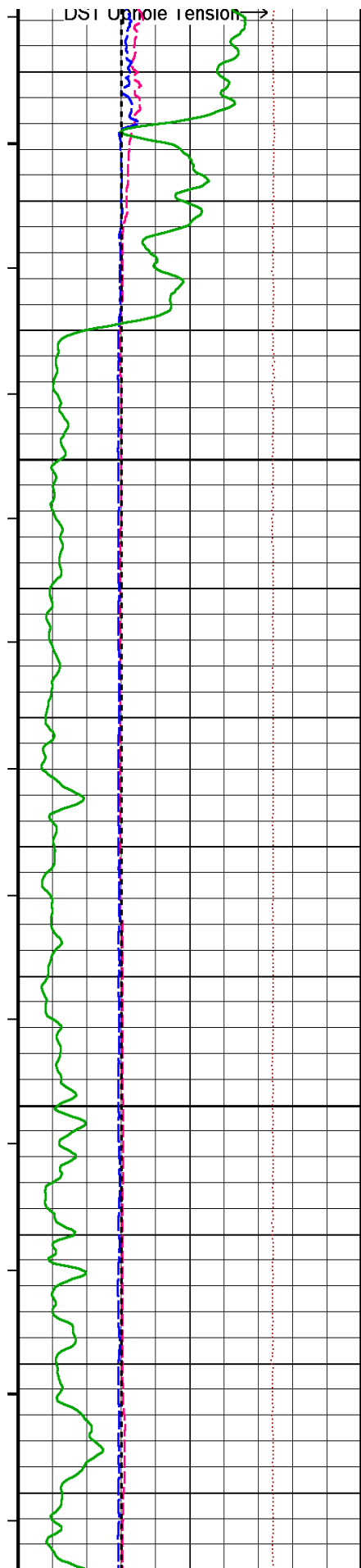
1330



5' Transit Time →

4' Transit Time →

3' Transit Time →



45°

1340

1350

1360

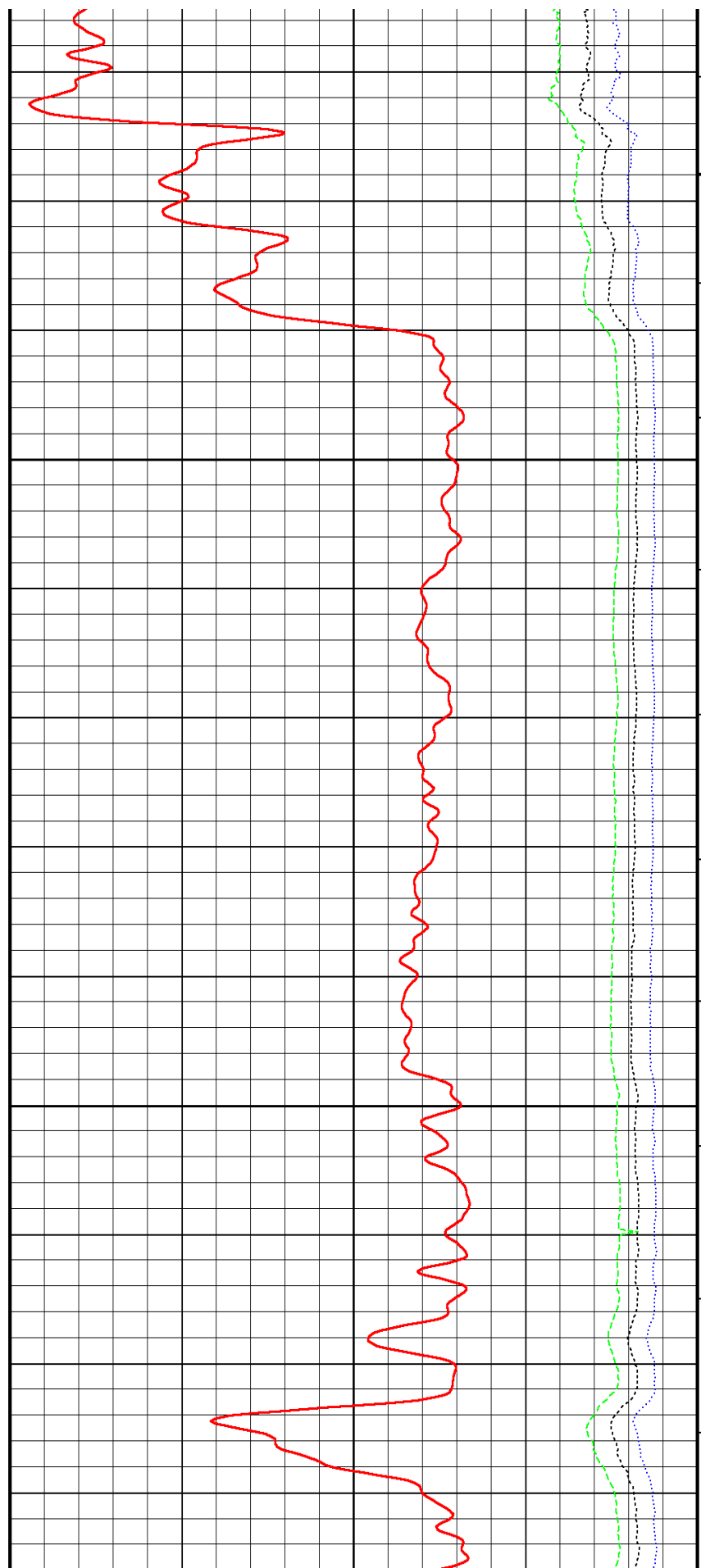
45°

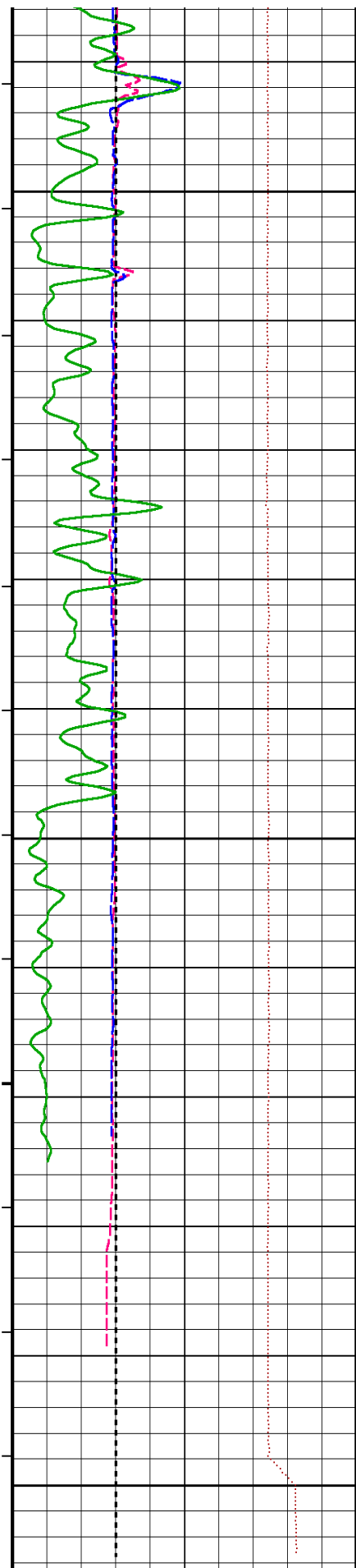
1370

1380

46°

1390





1400

1410

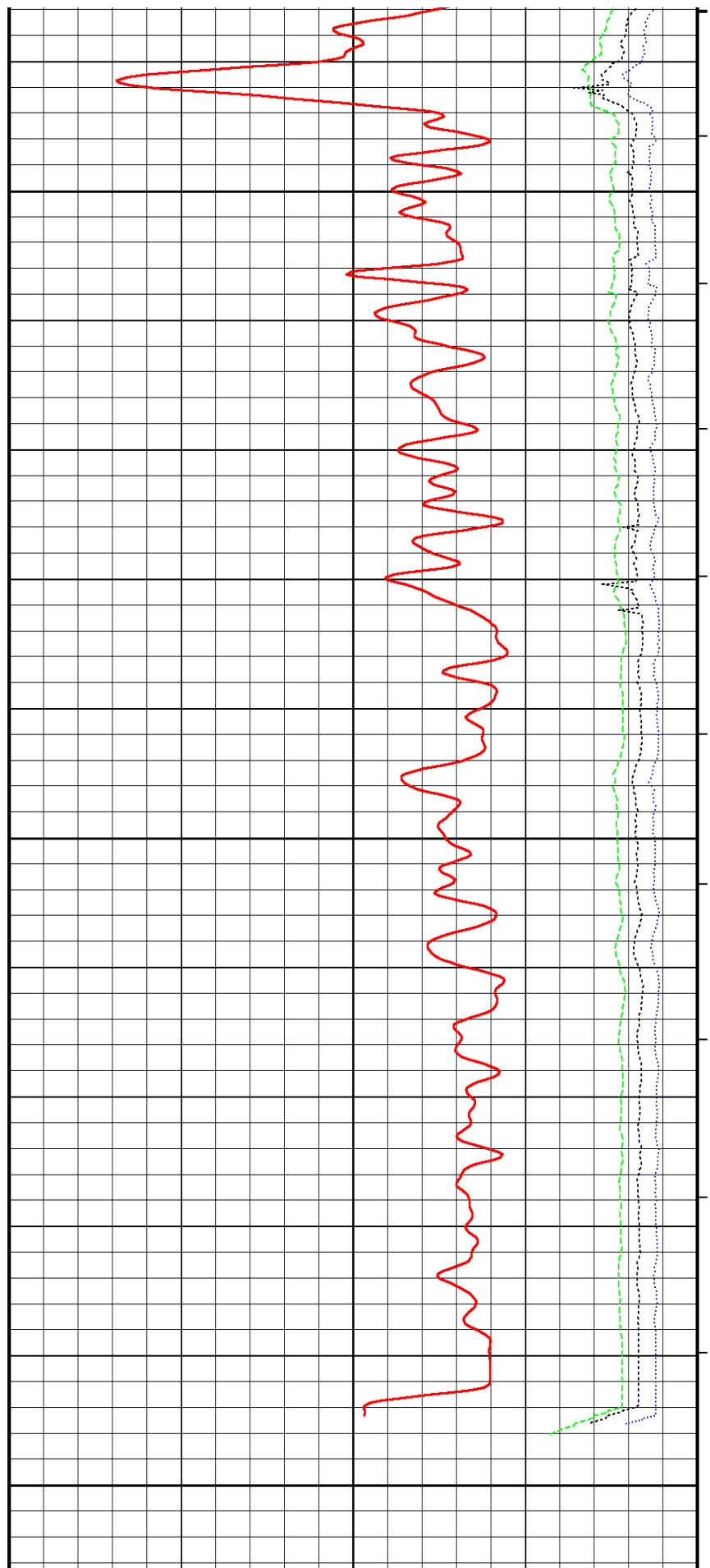
48°

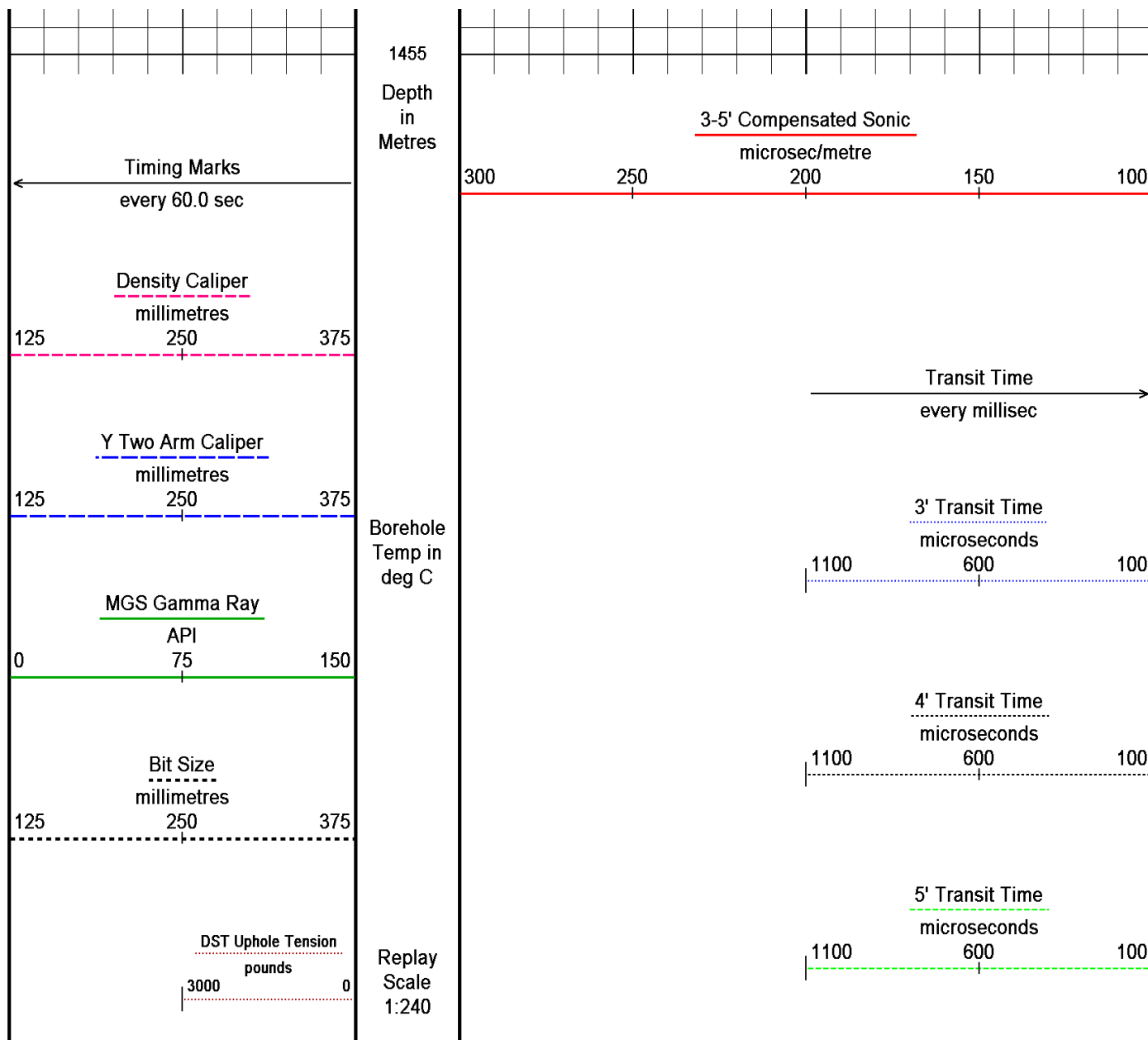
1420

1430

1440

1450





Depth Based Data - Maximum Sampling Increment 10.0cm

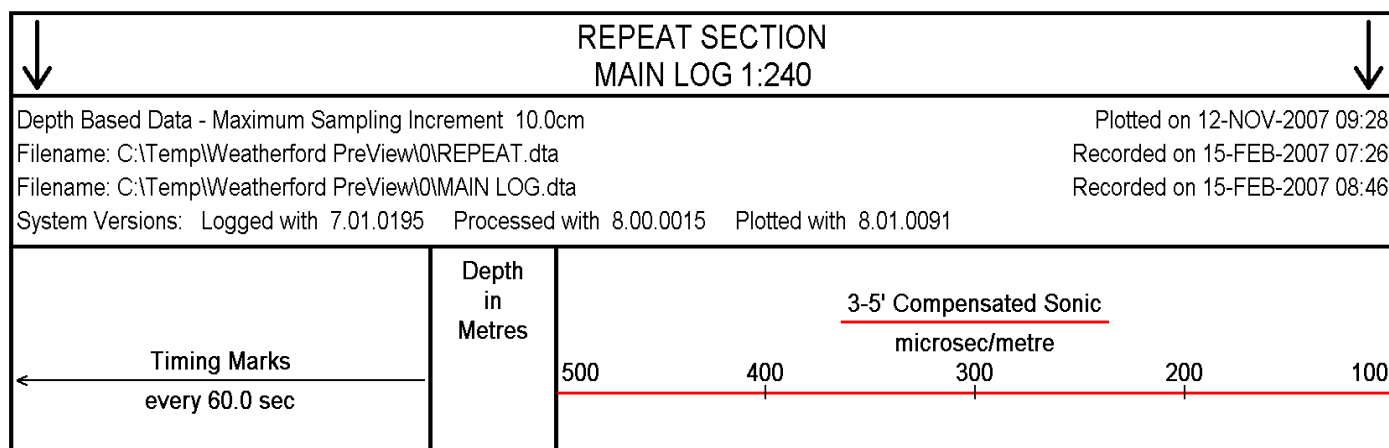
Plotted on 12-NOV-2007 09:28

Filename: C:\Temp\Weatherford PreView\0\MAIN LOG.dta

Recorded on 15-FEB-2007 08:46

System Versions: Processed with 8.00.0015 Plotted with 8.01.0091

↑ MAIN LOG 1:240 ↑



Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 12-NOV-2007 09:28

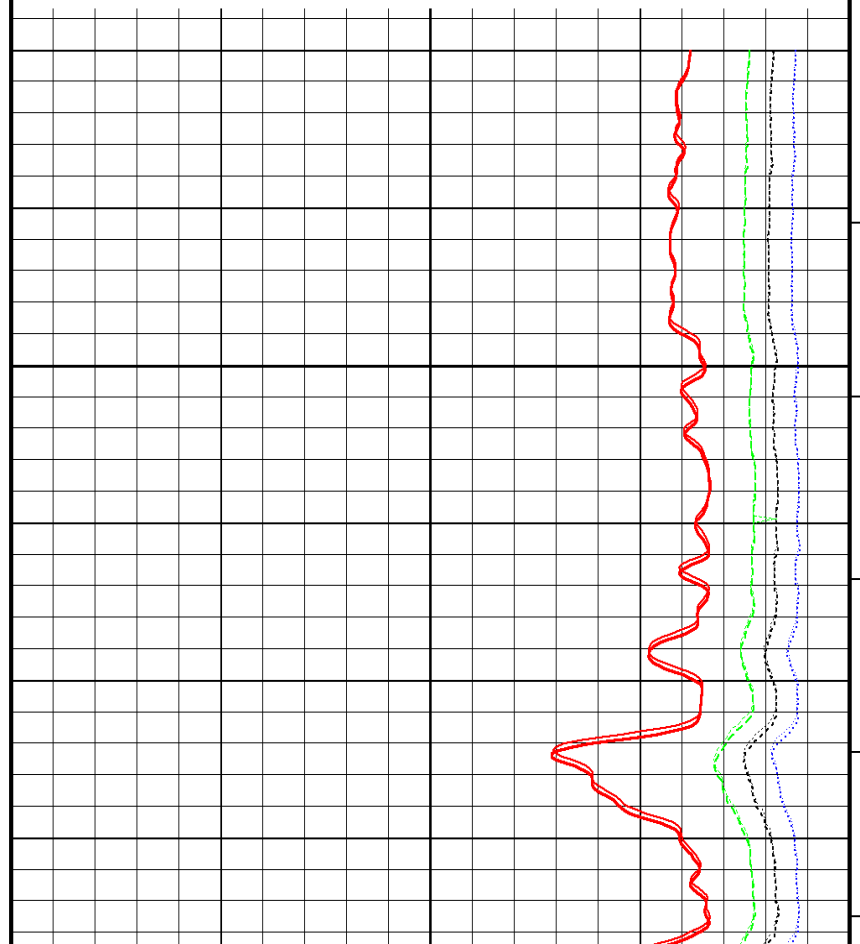
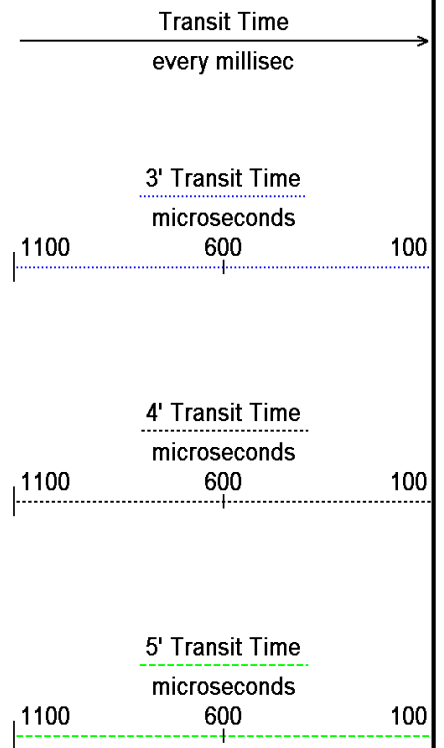
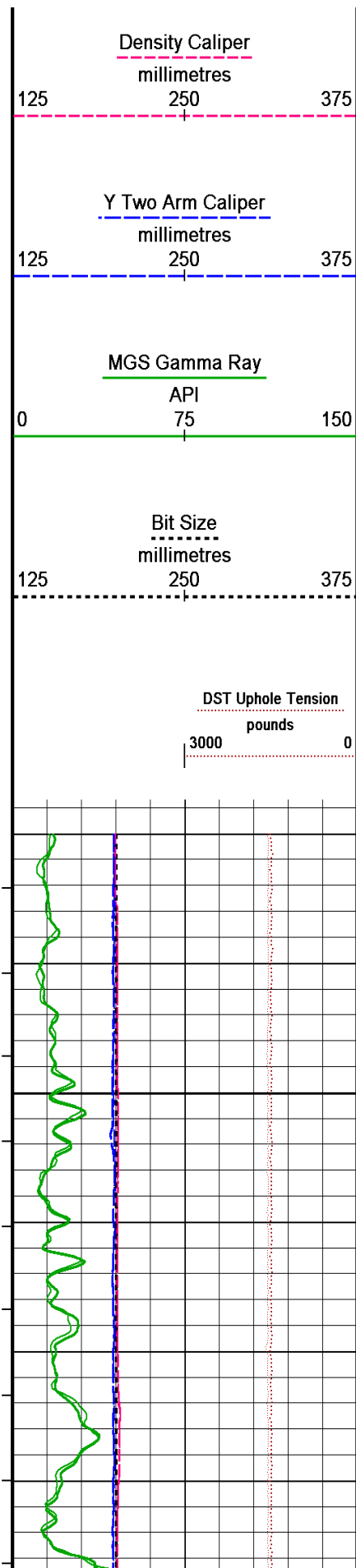
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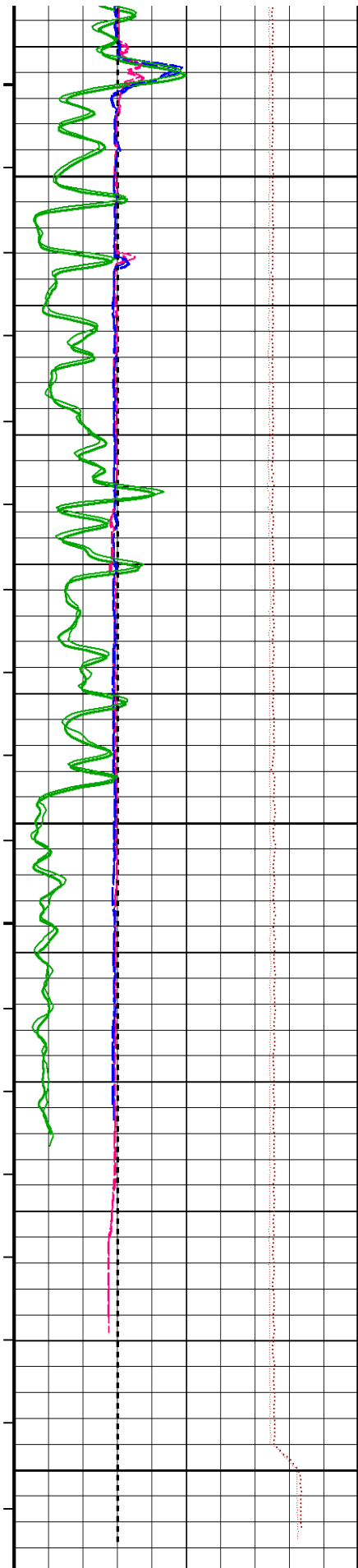
Recorded on 15-FEB-2007 07:26

Filename: C:\Temp\Weatherford PreView\0\MAIN LOG.dta

Recorded on 15-FEB-2007 08:46

System Versions: Logged with 7.01.0195 Processed with 8.00.0015 Plotted with 8.01.0091





1400

1410

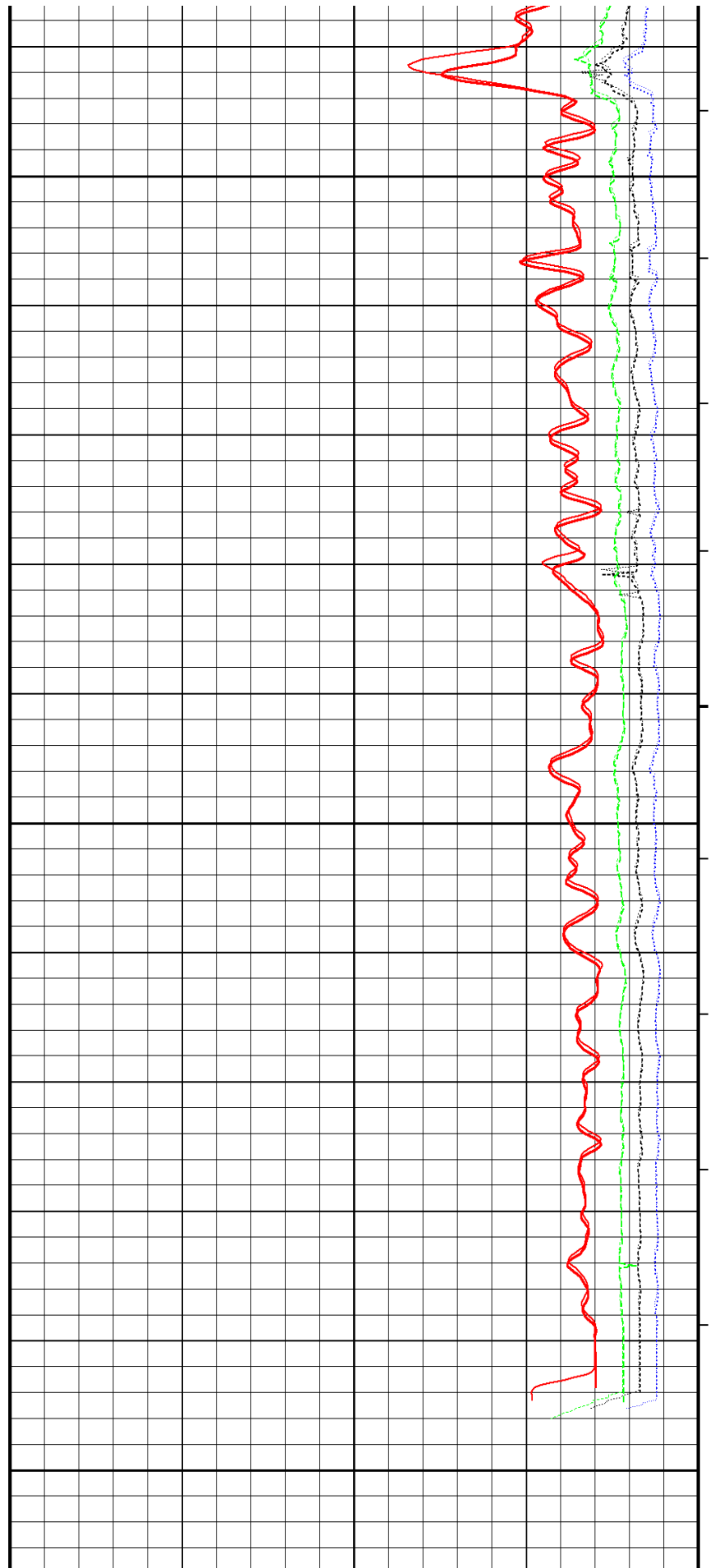
46°

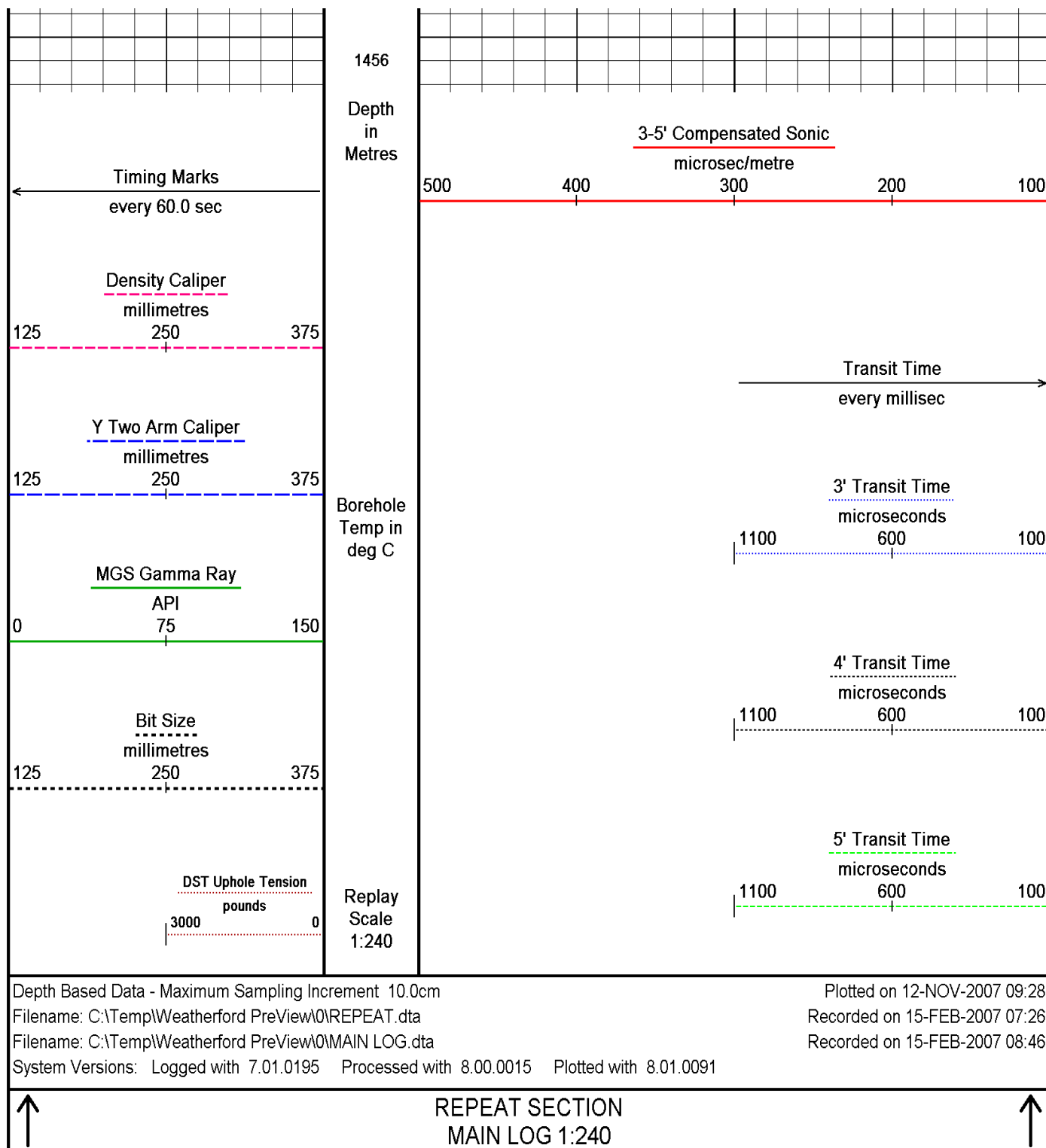
1420

1430

1440

1450





BEFORE SURVEY CALIBRATION		
C:\Temp\Weatherford PreView\0\REPEAT.dta		
General Constants All 000		Last Edited on 15-FEB-2007,06:48
General Parameters		
Mud Resistivity	1.180	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	

High Resolution Temperature Calibration MCG 159			Field Calibration on 28-NOV-2006,15:40
	Measured	Calibrated(Deg C)	
Lower	10.00	10.00	
Upper	50.00	50.00	

High Resolution Temperature Constants MCG 159			Last Edited on 28-NOV-2006,15:40
Pre-filter Length	11		

Caliper Calibration MTC 006			Base Calibration on 25-JAN-2007,18:14	Field Calibration on 10-FEB-2007,20:21
Base Calibration				
Reading No	Measured	Calibrator Size (mm)		
1	14734	110.00		
2	17539	162.00		
3	20248	212.00		
4	22990	262.00		
5	25897	311.00		
6	N/A	N/A		
Field Calibration				
	Measured Caliper (mm)	Actual Caliper (mm)		
	208.70	205.70		

Gamma Calibration MGS 010			Field Calibration on 7-FEB-2007,09:09
	Measured	Calibrated (API)	
Background	48	31	
Calibrator (Gross)	1256	825	
Calibrator (Net)	1208	794	

Gamma Constants MGS 010			Last Edited on 15-FEB-2007,06:48
Gamma Calibrator Number	grcc075		
Mud Density	1060.00	kg/m3	
Caliper Source for Processing	Density Caliper		
Tool Position	Centred		
Concentration of KCl	0.00	kppm	

Caliper Calibration MPD 036			Base Calibration on 23-JAN-2007 04:20	Field Calibration on 7-FEB-2007,11:28
Base Calibration				
Reading No	Measured	Calibrator Size (mm)		
1	18576	110.00		
2	28032	162.00		
3	37841	212.00		
4	48080	262.00		
5	57920	311.00		
6	N/A	N/A		
Field Calibration				
	Measured Caliper (mm)	Actual Caliper (mm)		

measured sample (mm) 166.10
 total sample (mm) 166.10

Sonic Constants MSS 060

Last Edited on 7-FEB-2007,10:50

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
Hunt-Raymer Constant	83.13	micro-sec/ft

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

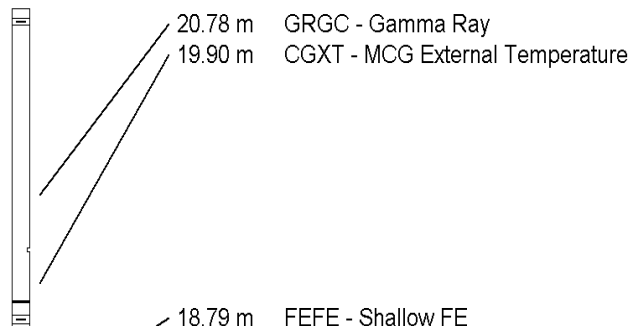
Full Waveform Parameters

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

DOWNHOLE EQUIPMENT

C:\Temp\Weatherford PreView\0\REPEAT.dta

Compact Gamma
 MCG 159 Length: 2.65 m Weight: 63.9 lb



Compact Focussed Electric

MFE 17 Length: 1.84 m Weight: 48.5 lb

Compact Two Arm Caliper
MTC 6 Length: 2.17 m Weight: 61.7 lb

Compact Short Gamma
MGS 10 Length: 1.04 m Weight: 24.3 lb

Compact InterSonde Crank
ISC 159 Length: 0.70 m Weight: 24.3 lb

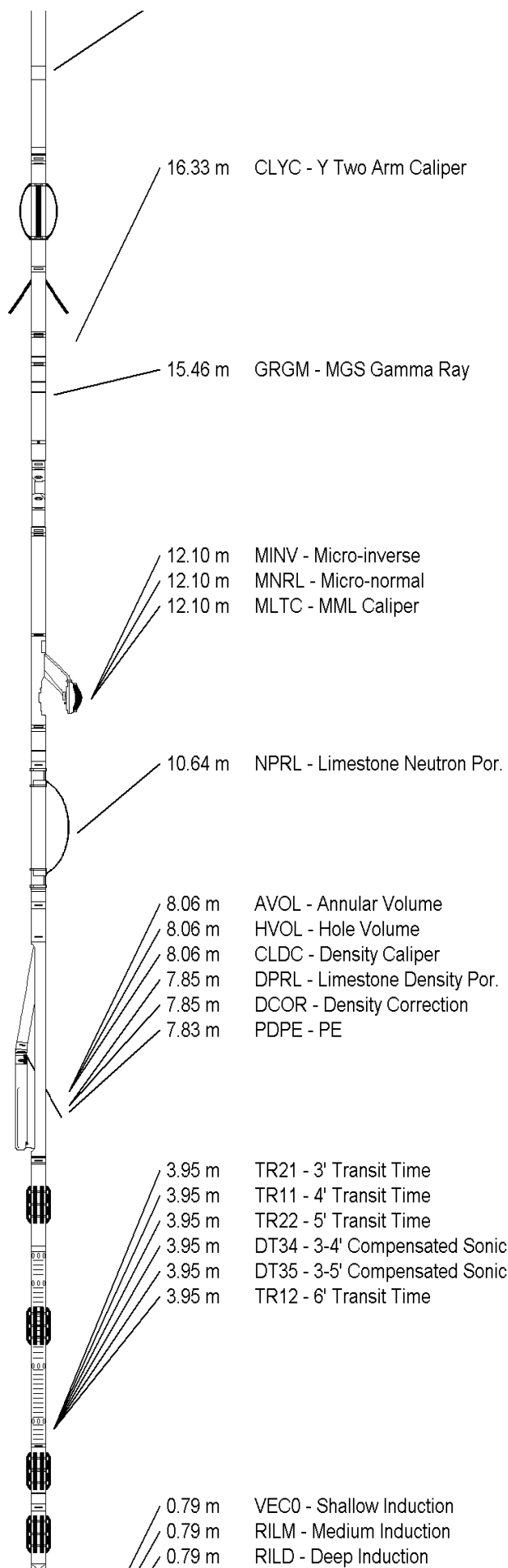
Compact Micro-log
MML 15 Length: 2.43 m Weight: 81.6 lb

Compact Neutron
MDN 144 Length: 1.53 m Weight: 50.7 lb

Compact Density/Caliper
MPD 36 Length: 2.92 m Weight: 90.4 lb

Compact Sonic
MSS 60 Length: 3.82 m Weight: 72.8 lb

Compact Induction
MAI 72 Length: 3.29 m Weight: 48.5 lb



Compact Hole Finder

HFS 1 Length: 0.24 m

Weight: 2.2 lb

Total Length: 22.63 m

Weight: 568.8 lb



0.07 m

Tool Zero

SPCG - Spontaneous Potential
(0.28m from bottom)

All measurements relative to tool zero.

COMPANY

PARAMOUNT RESOURCES LTD.

WELL

PARAMOUNT ET AL CAMERON J-04

FIELD

CAMERON HILLS

PROVINCE/COUNTY

NORTH WEST TERRITORIES

COUNTRY/STATE

CANADA

Elevation Kelly Bushing	769.20	metres
Elevation Drill Floor		metres
Elevation Ground Level	765.20	metres

First Reading	1445.50	metre
Depth Driller	1449.00	metres
Depth Logger	1449.50	metres



Weatherford®

COMPENSATED SONIC