



DUAL LATEROLOG - GR  
DENSITY - NEUTRON  
1:200 TVD

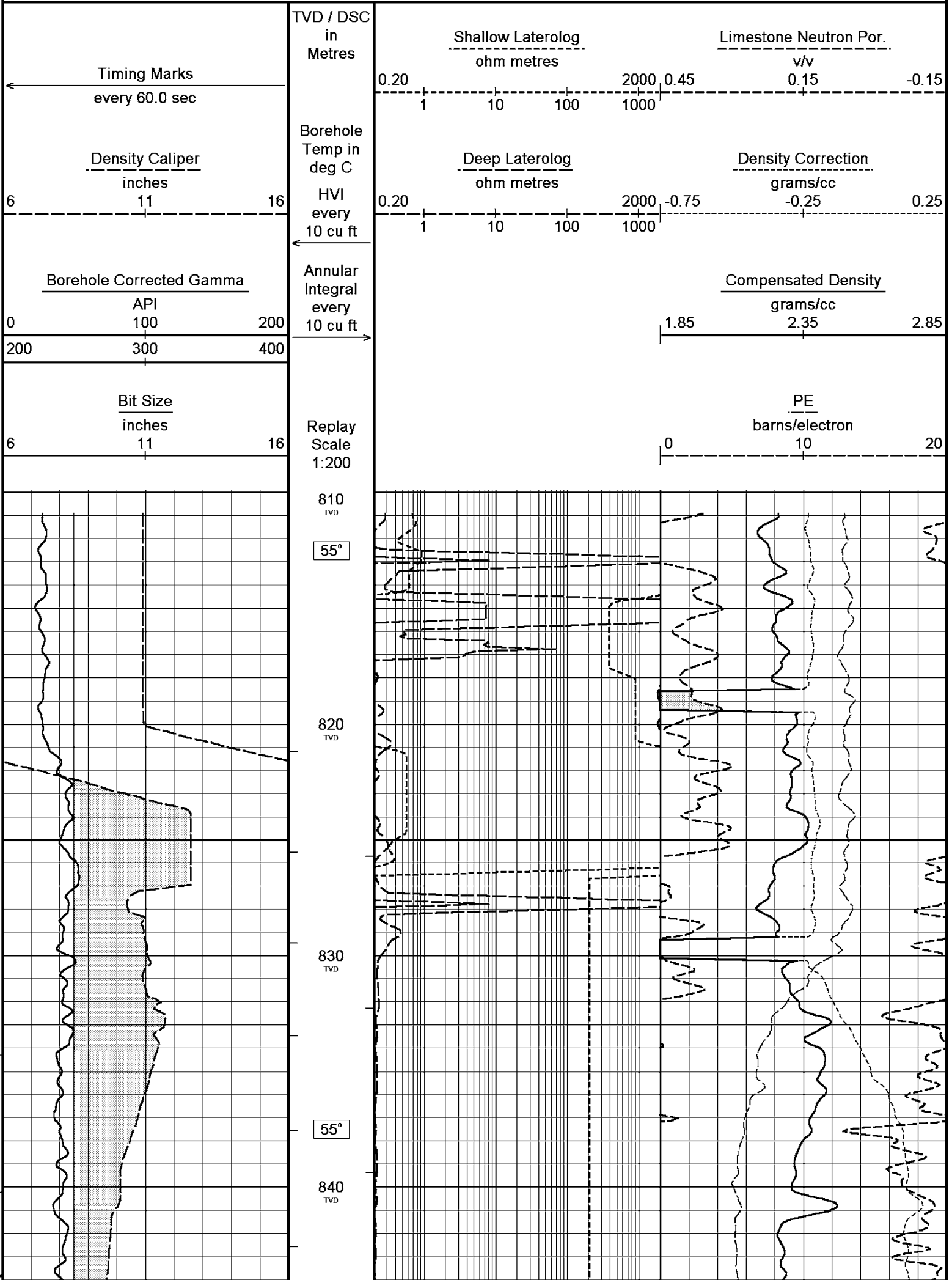
COMPANY	ESSO AUSTRILIA PTY LTD		
WELL	BREAM A5A		
FIELD	BREAM		
PROVINCE/COUNTRY	BASS STRAIT		
COUNTRY/STATE	AUSTRALIA		
LOCATION	S 38 29 58.778, E 147 46 20.334 N 5738461.680 m, E 567345.000 m		
LSD	SEC	TWP	RGE
API Number		Other Services	
Permit Number		COMPENSATED SONIC	
Permanent Datum MSL			Elevation 0.0 metres
Log Measured From RT @ 32.82m			above Permanent Datum
Drilling Measured From RT			Elevations: KB 32.82 metres DF 32.82 metres GL -59.40 metres
Date	16-JUN-2005		
Run Number	ONE		
Depth Driller	1994.50 metres		
Depth Logger	1991.30 metres		
First Reading	1984.00 metres		
Last Reading	853.30 metres		
Casing Driller	853.70 metres		
Casing Logger	853.30 metres		
Bit Size	8.50 inches		
Hole Fluid Type	KCI/POLY/GYL		
Density / Viscosity	10.10 lb/USg 28.00 cP		
PH / Fluid Loss	9.10 2.80 ml/30Min		
Sample Source	FLOWLINE		
Rm @ Measured Temp	0.115 @ 25.0 ohm-m		
Rmf @ Measured Temp	0.089 @ 25.0 ohm-m		
Rmc @ Measured Temp	0.181 @ 25.0 ohm-m		
Source Rmf / Rmc	PRESS PRESS		
Rm @ BHT	0.052 @ 83.0 ohm-m		
Time Since Circulation	27 HOURS		
Max Recorded Temp	83.00 deg C		
Equipment Name	CWS/CML		
Equipment / Base	1 SALE		
Recorded By	R. TENCH, B. MOSS		
Witnessed By	TREVOR LOBO		
CIRC STOPPED	16:30 15-Jun		

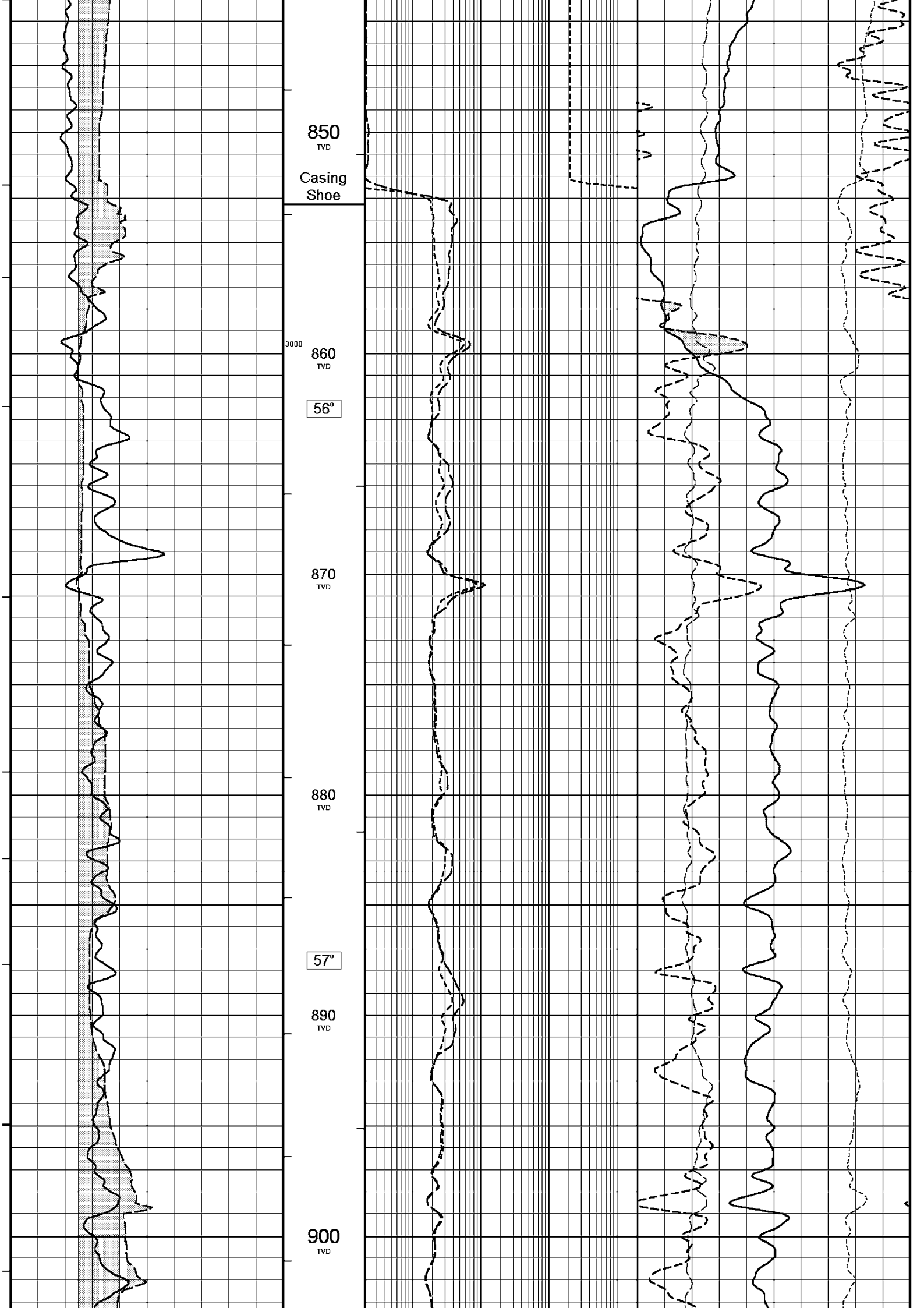
BOREHOLE RECORD		
Bit Size inches	Depth From metres	Depth To metres
8.500	895.00	2810.00

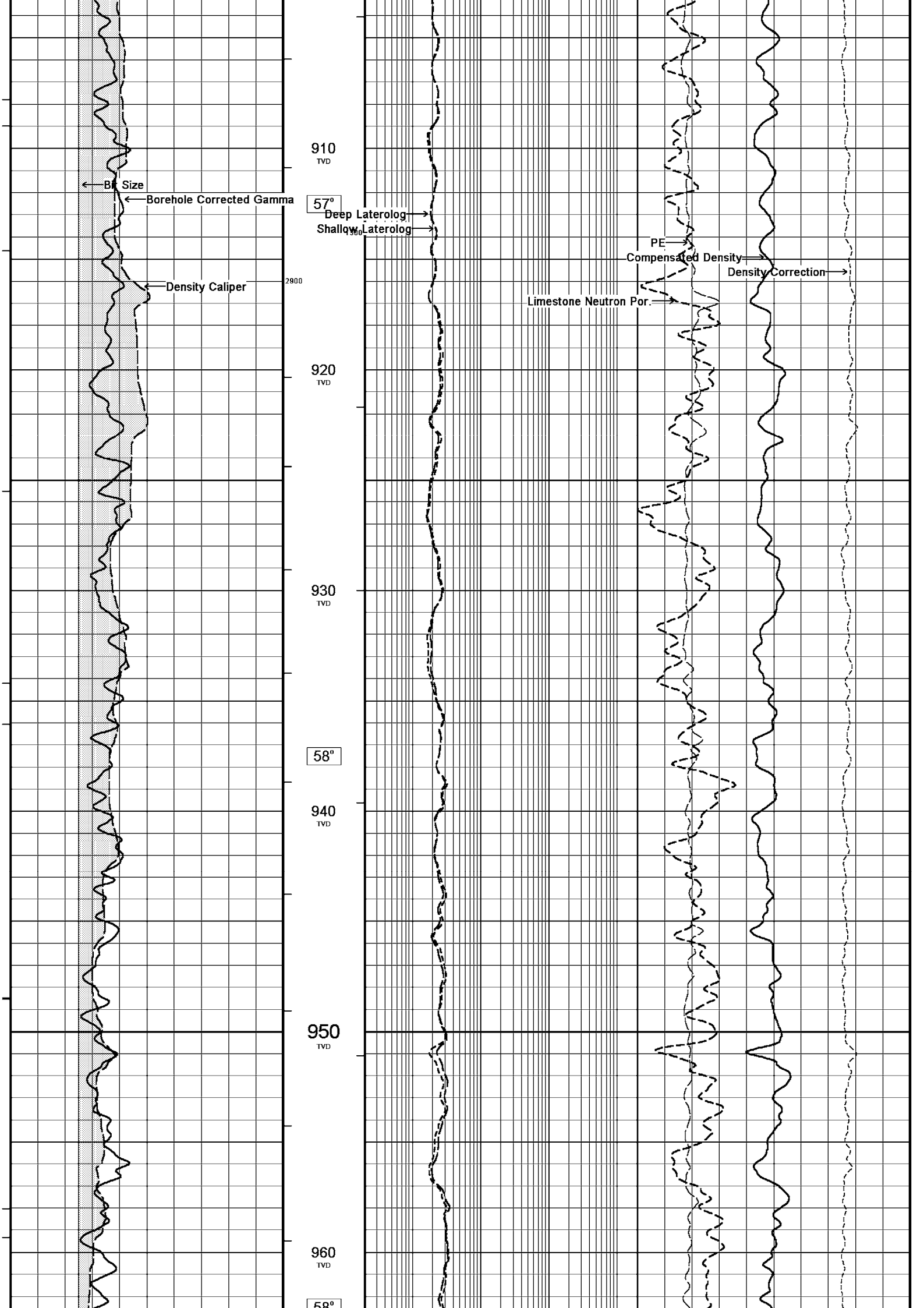
CASING RECORD				
Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K-55	13.375	0.00	895.00	54.50

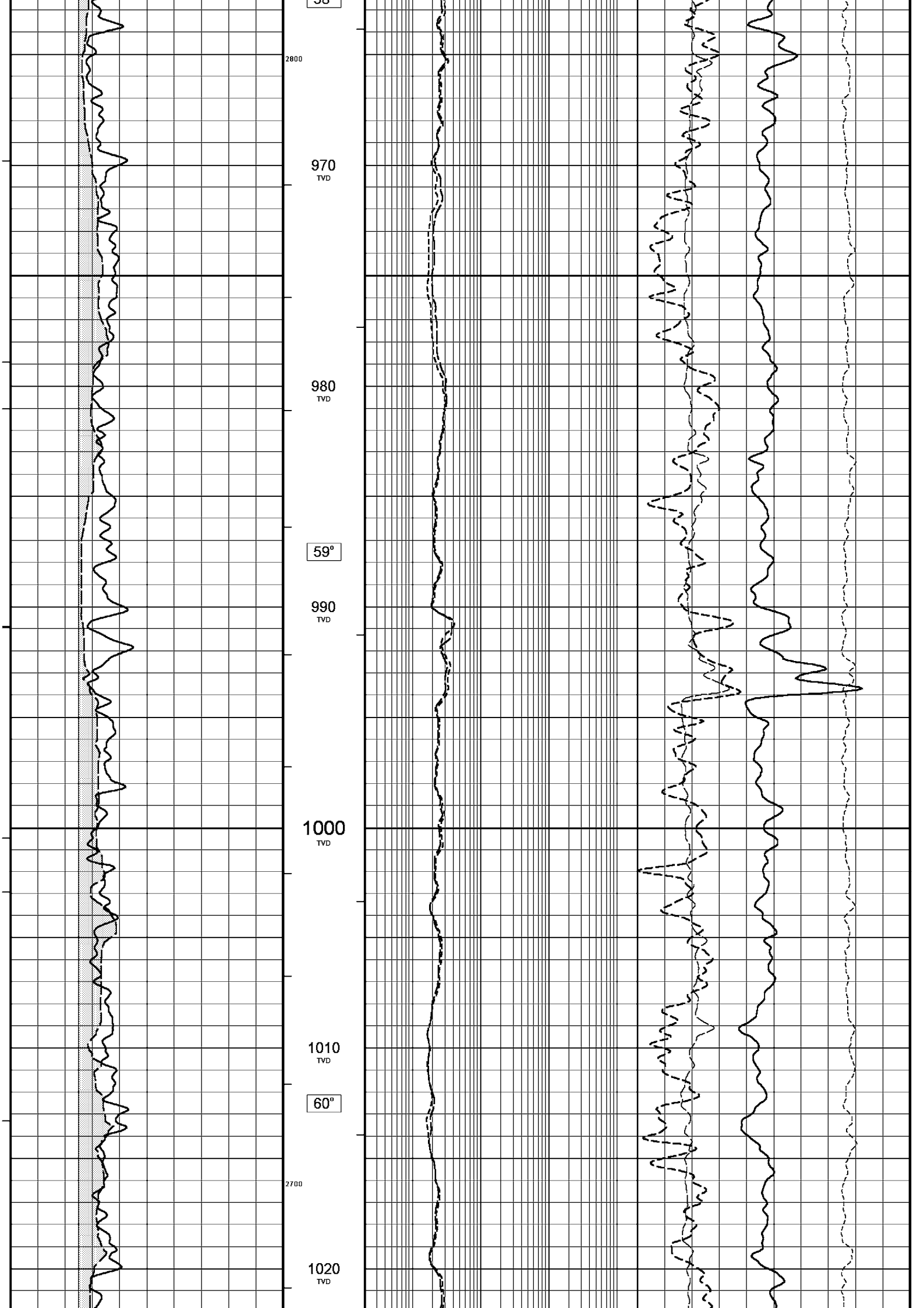
REMARKS
RIG: NABORS 453
5" SHUTTLE/MEMORY COMPACT OPERATION. CREW: R TENCH , B MOSS , B GOODWIN, K LUCIEER.
ALL LOGS DEPTH CORRELATED TO ANADRILL GAMMA LOG.
DURING TRIP IN, DRILL PIPE BRIDGED AT 2071m, REQUIRED 30RPM AND 10BLS FLOW TO REACH TD
MAX. TEMPERATURE: 83 DEG C AT 2763m MD MAX. INCLINATION: 58.40 DEG AT 2810.0m MD MAX. DOGLEG SERVERITY: 6.21 DEG/30m AT 1160.6m MD DEPLOYMENT ANGLE: 58 DEG
HVOL: 3000 FT^3 AVOL: 1330 FT^3

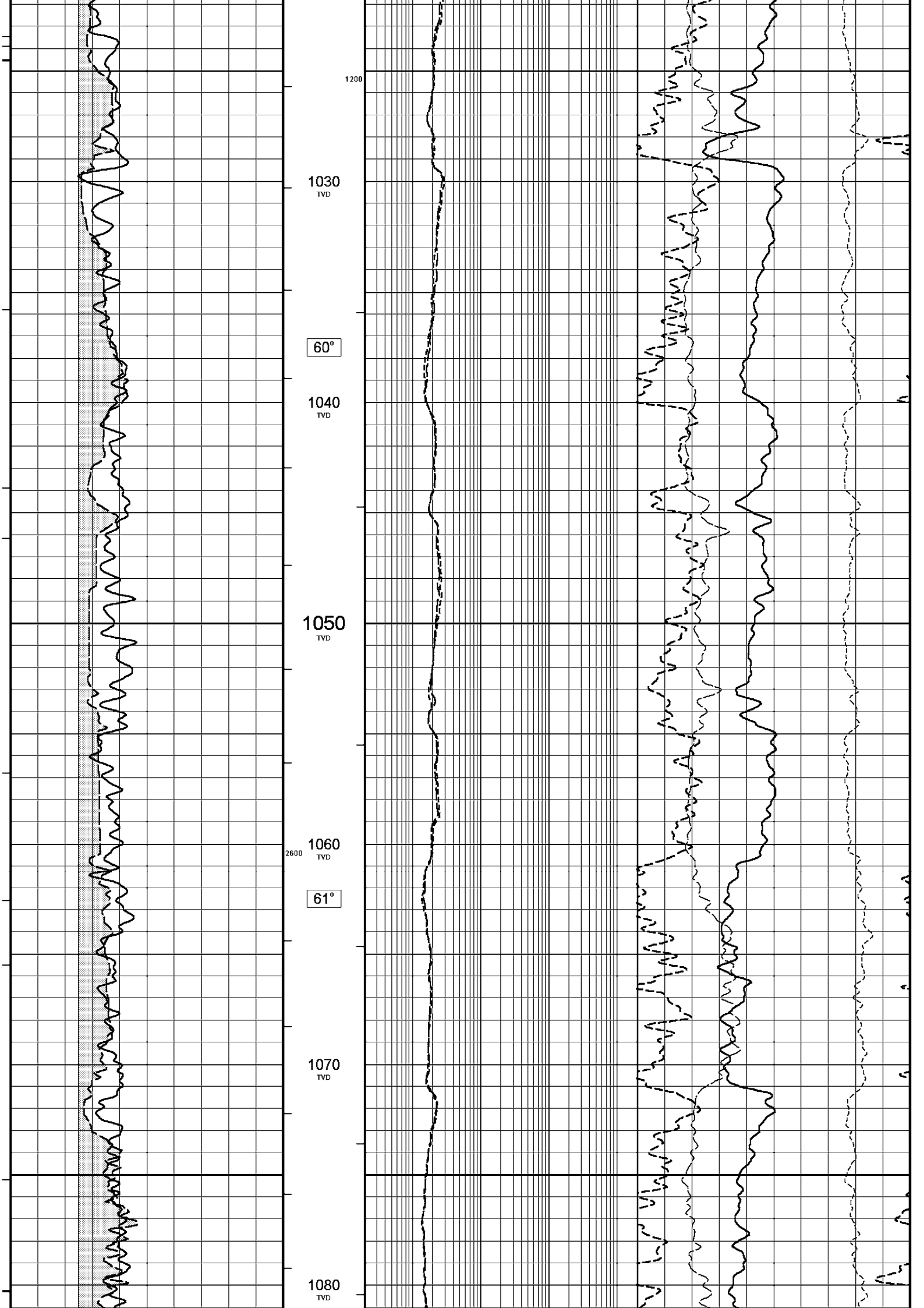
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

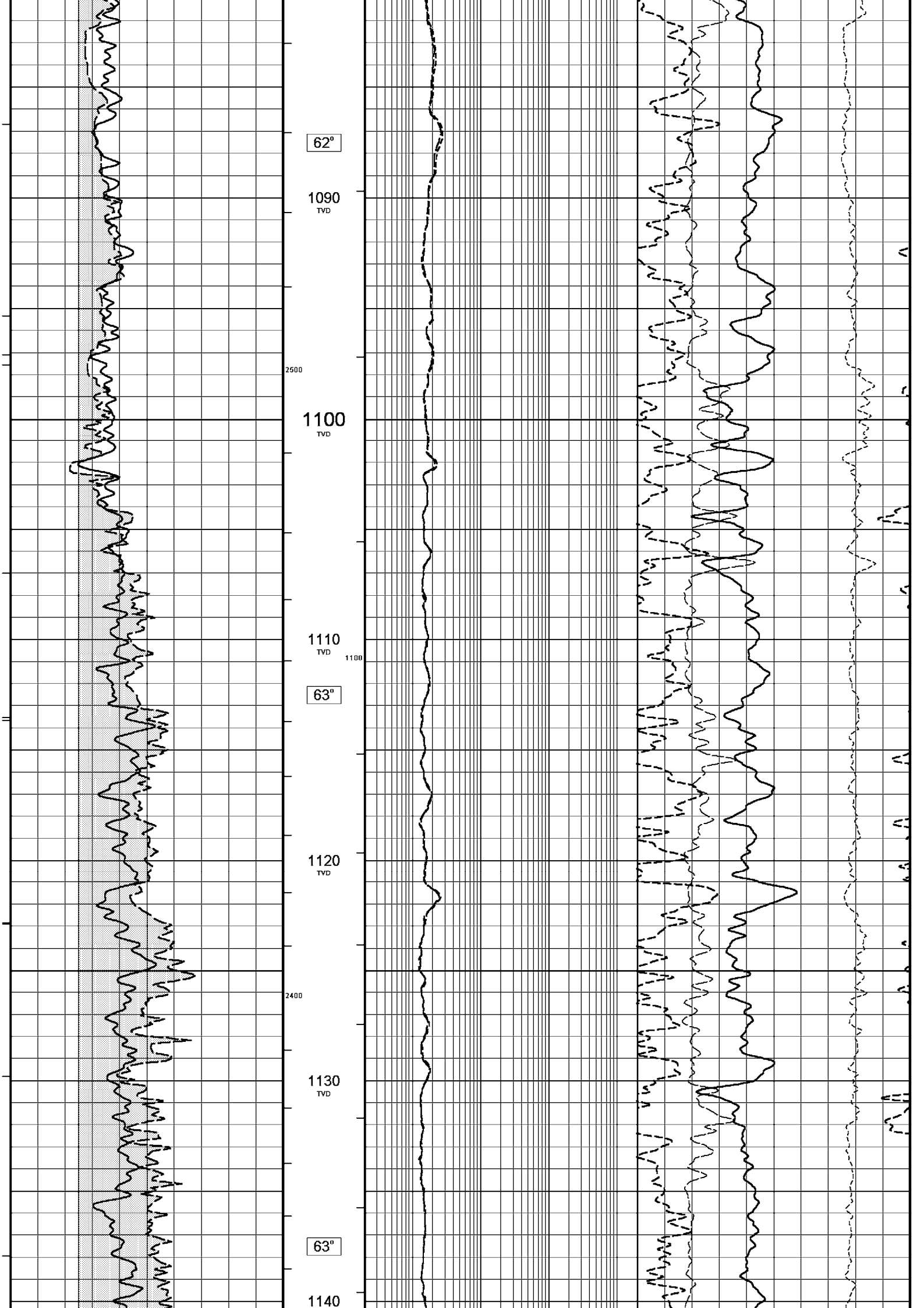


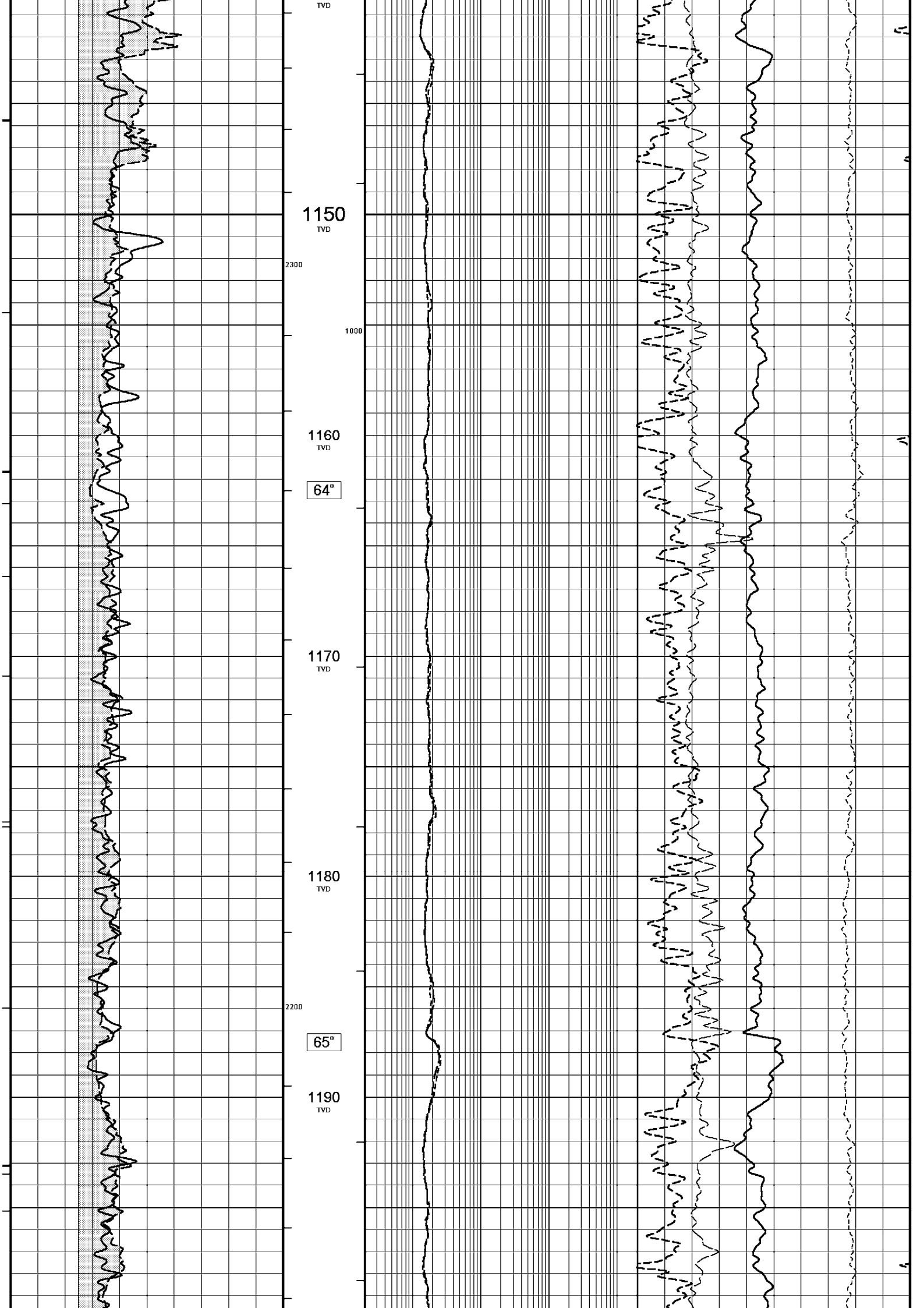




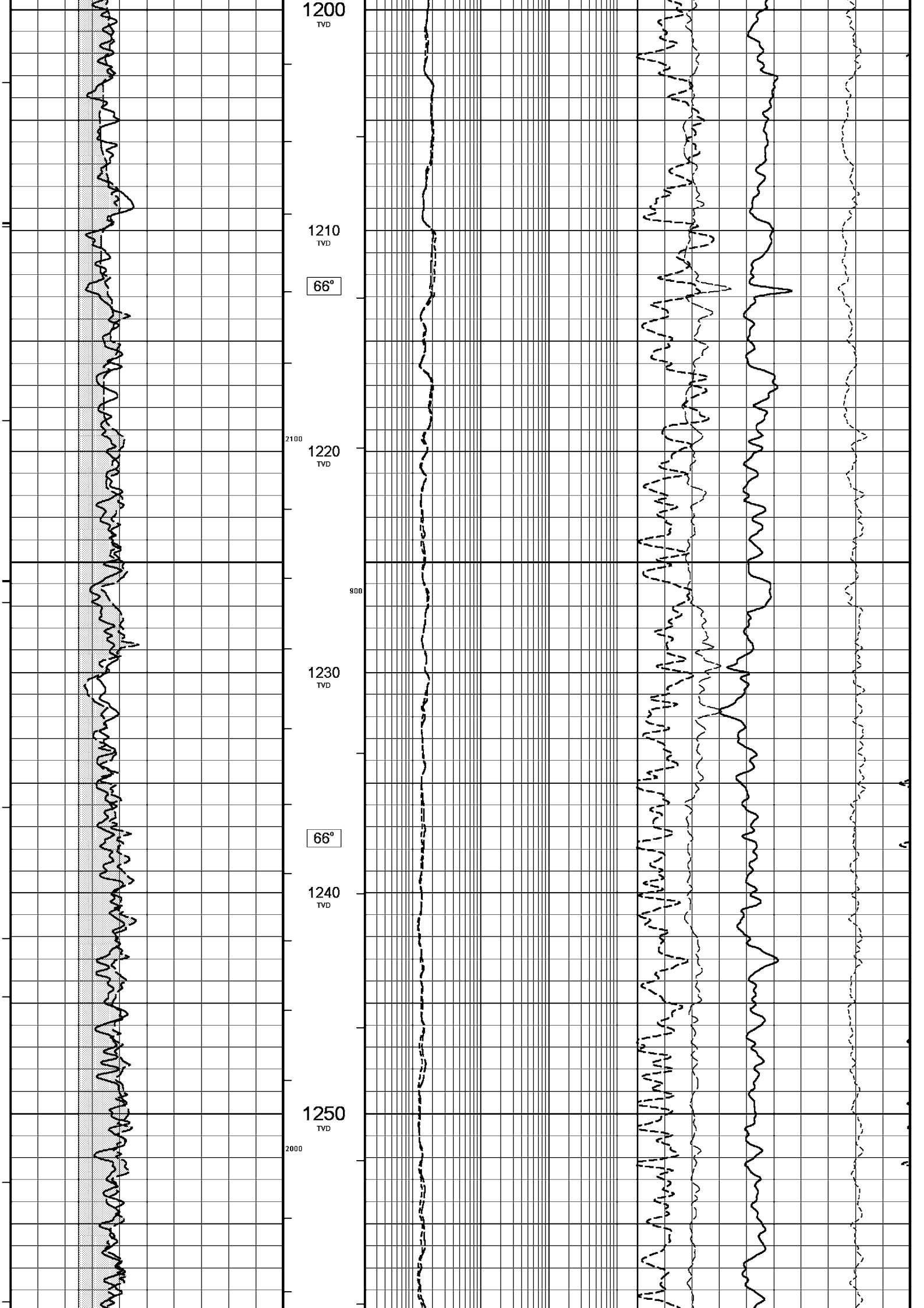


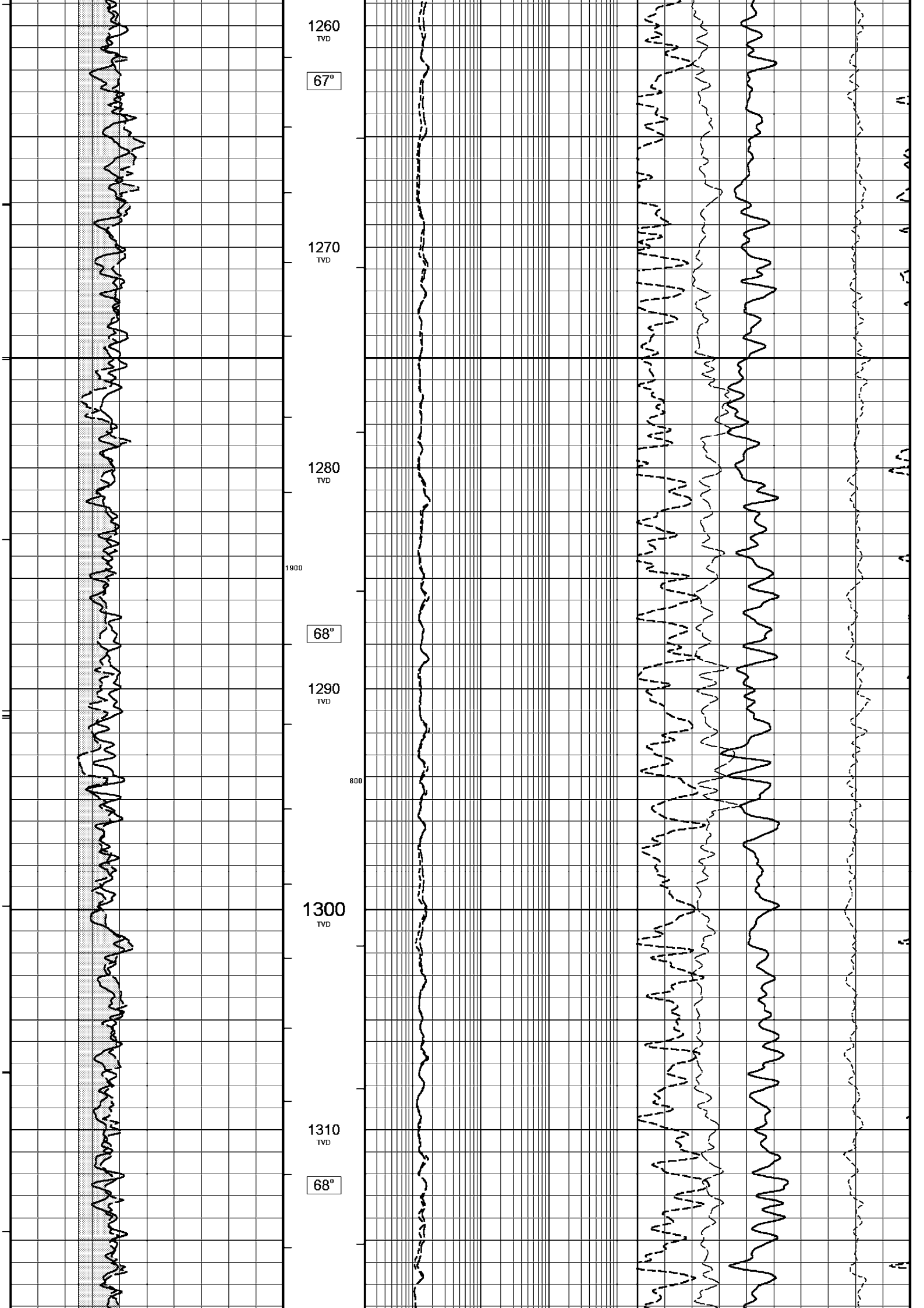


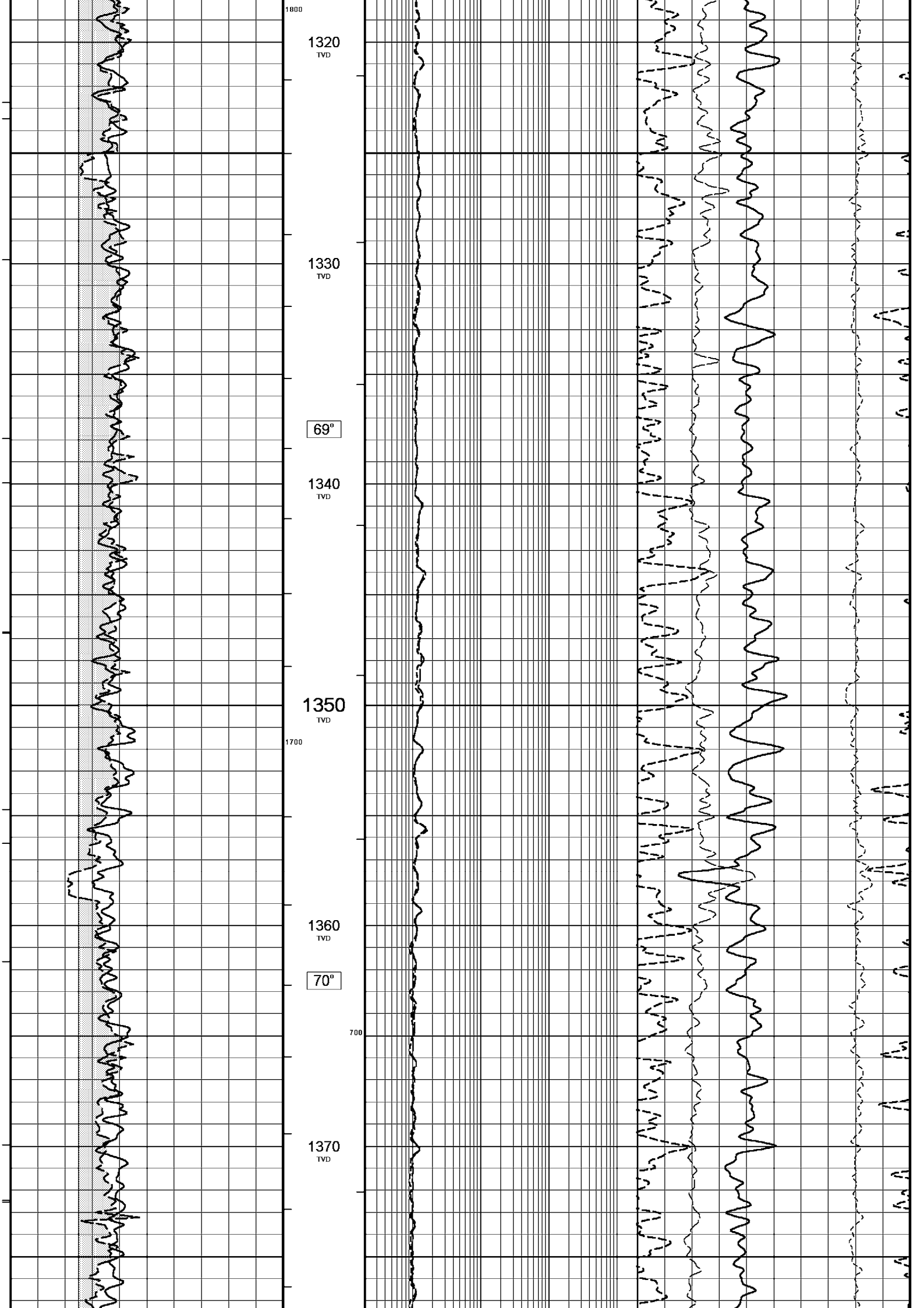


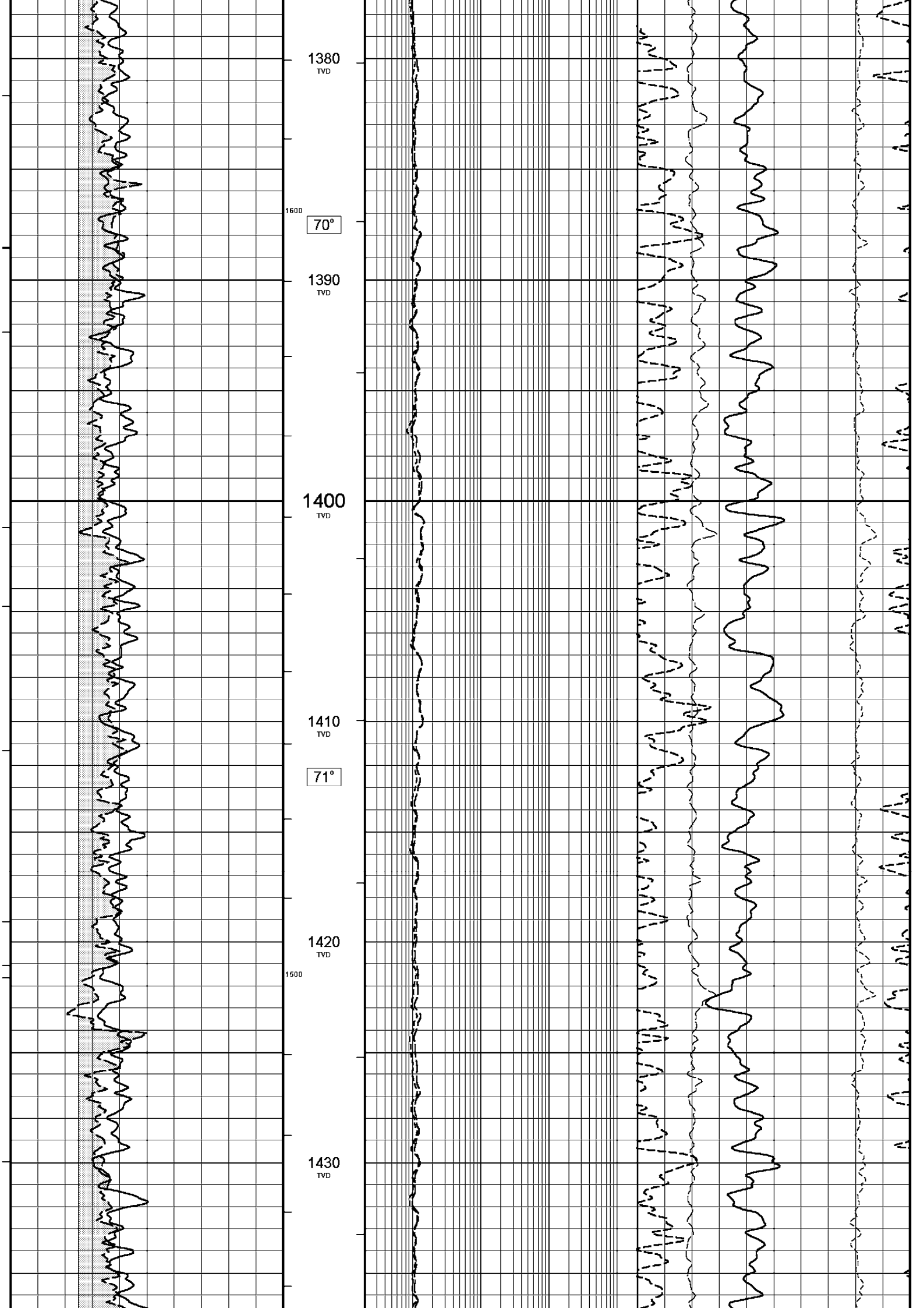


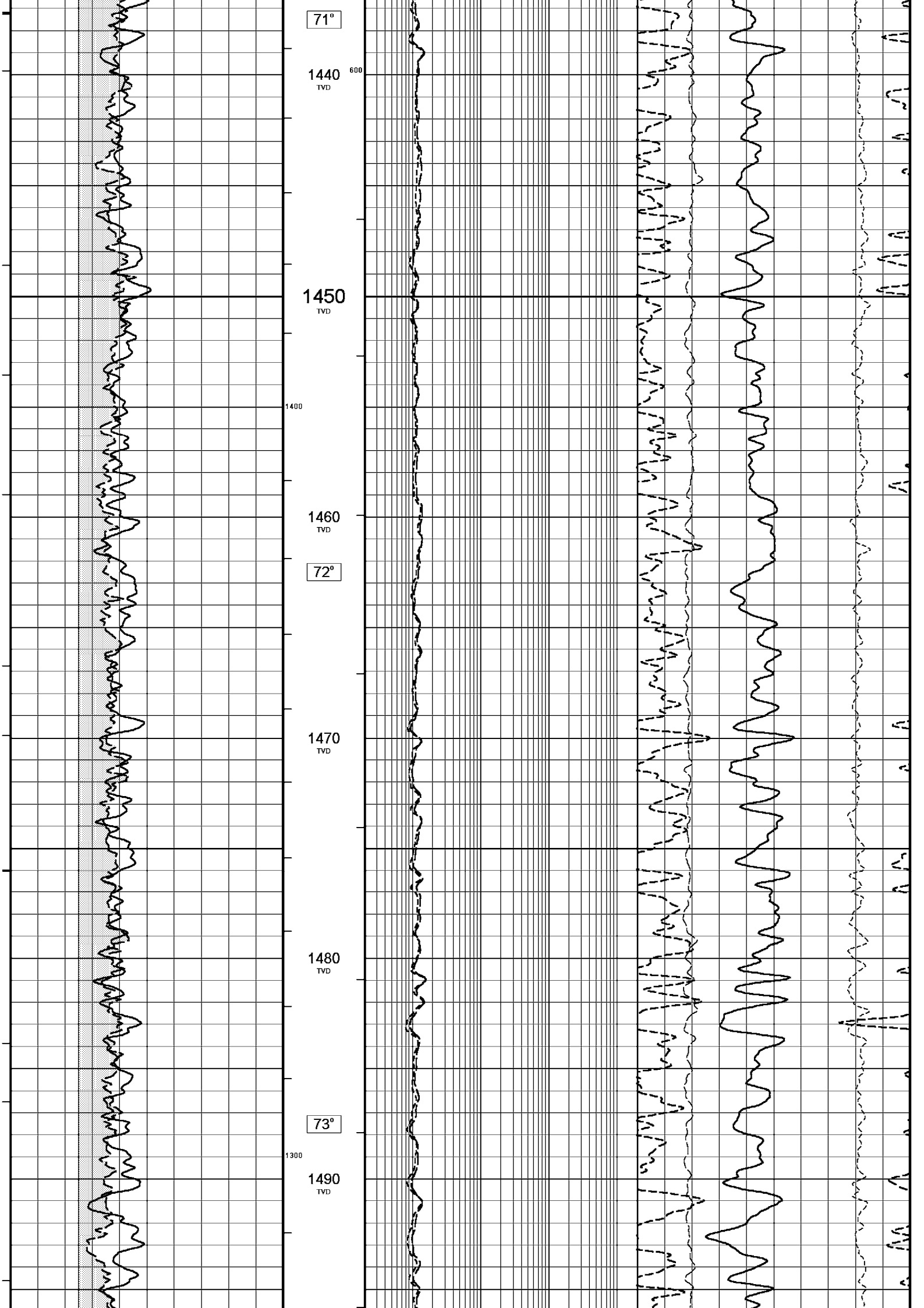


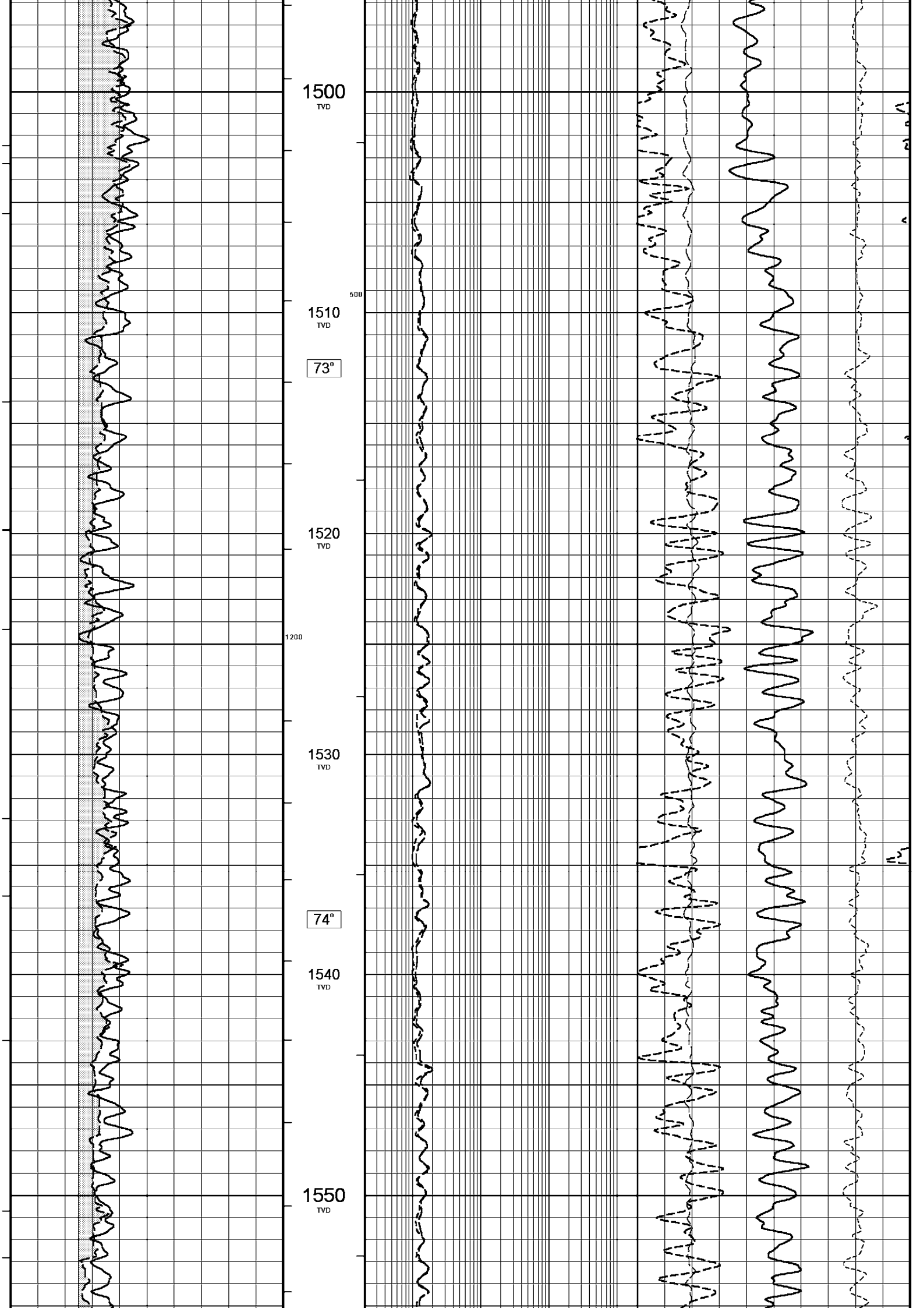


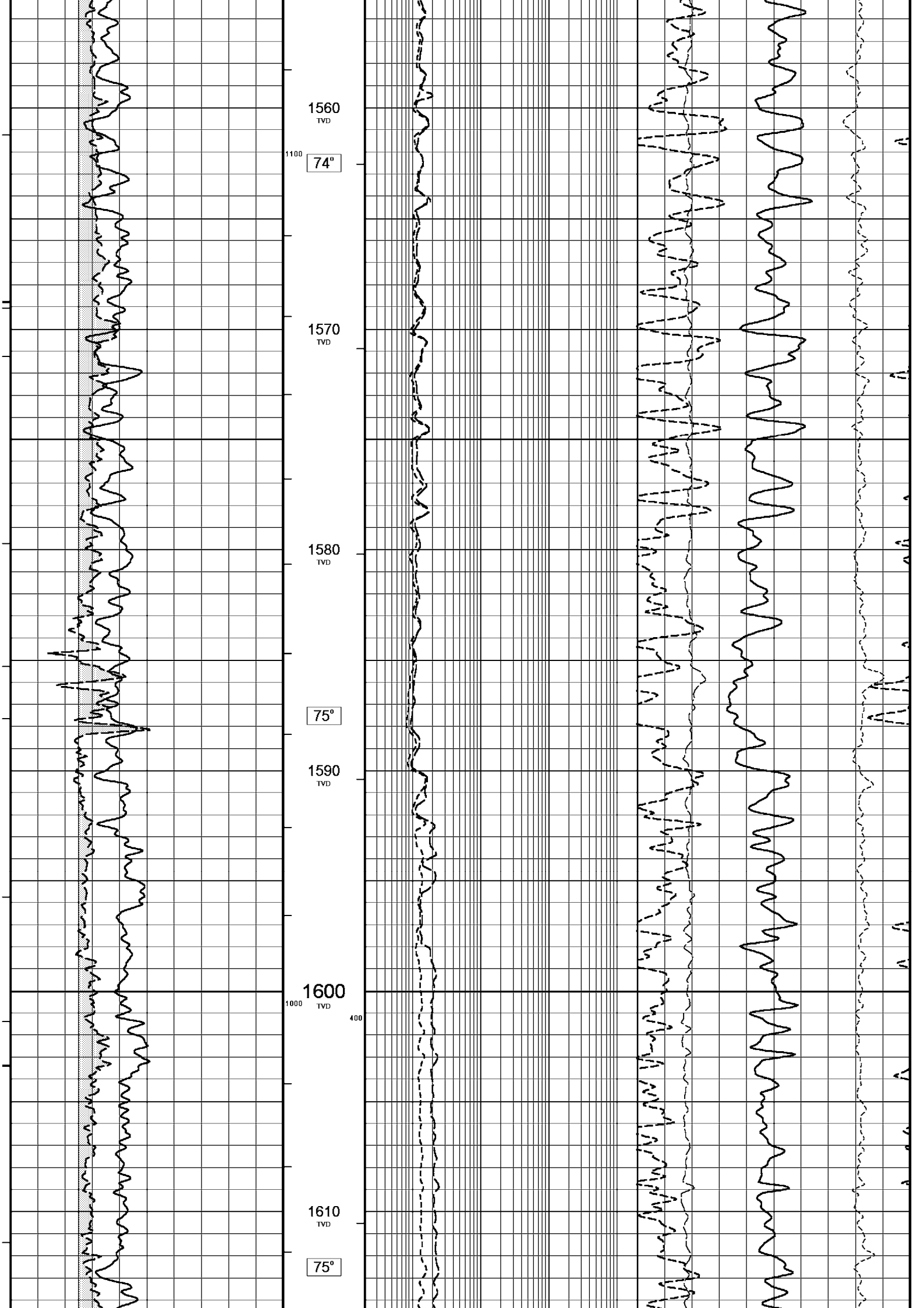


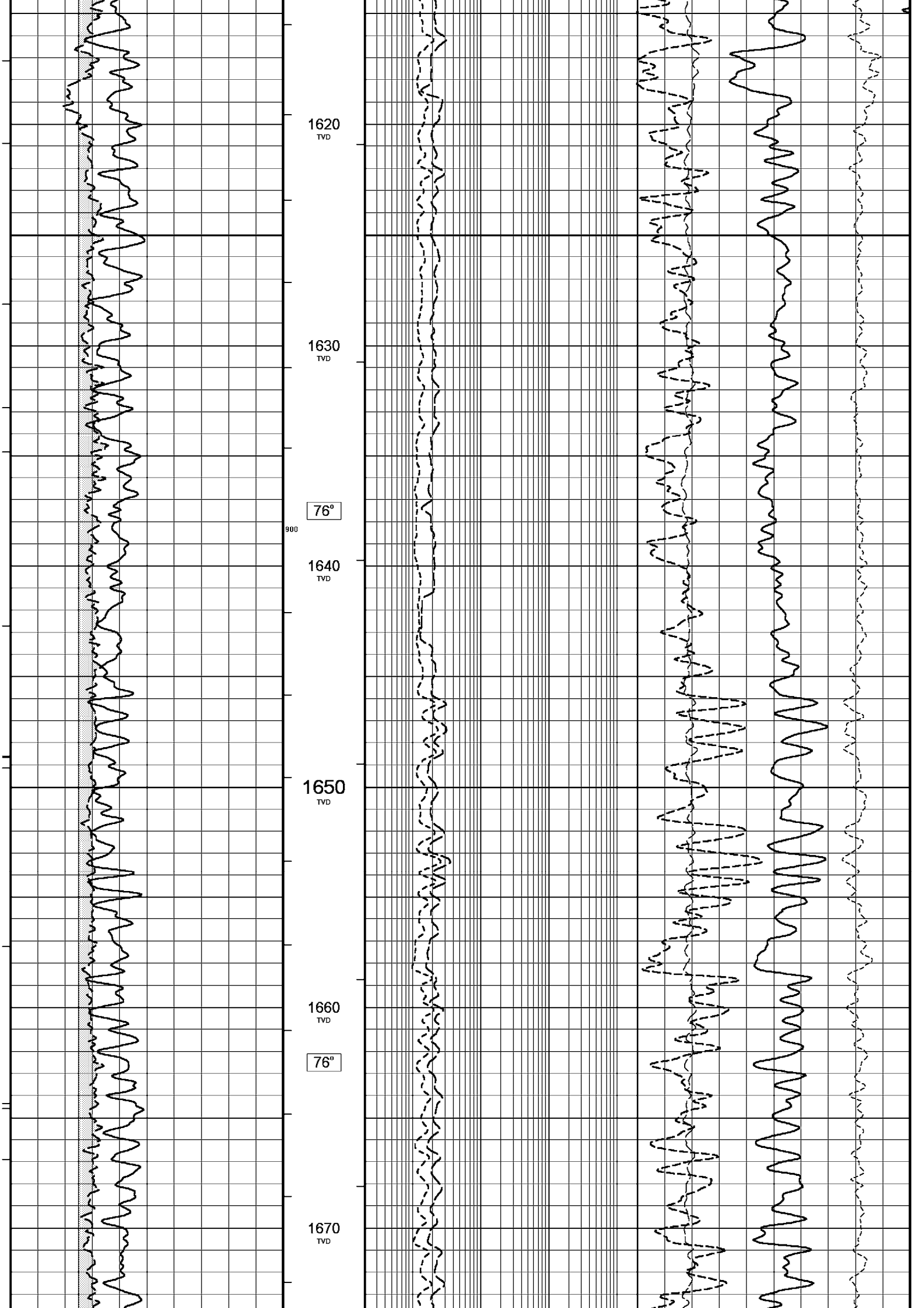




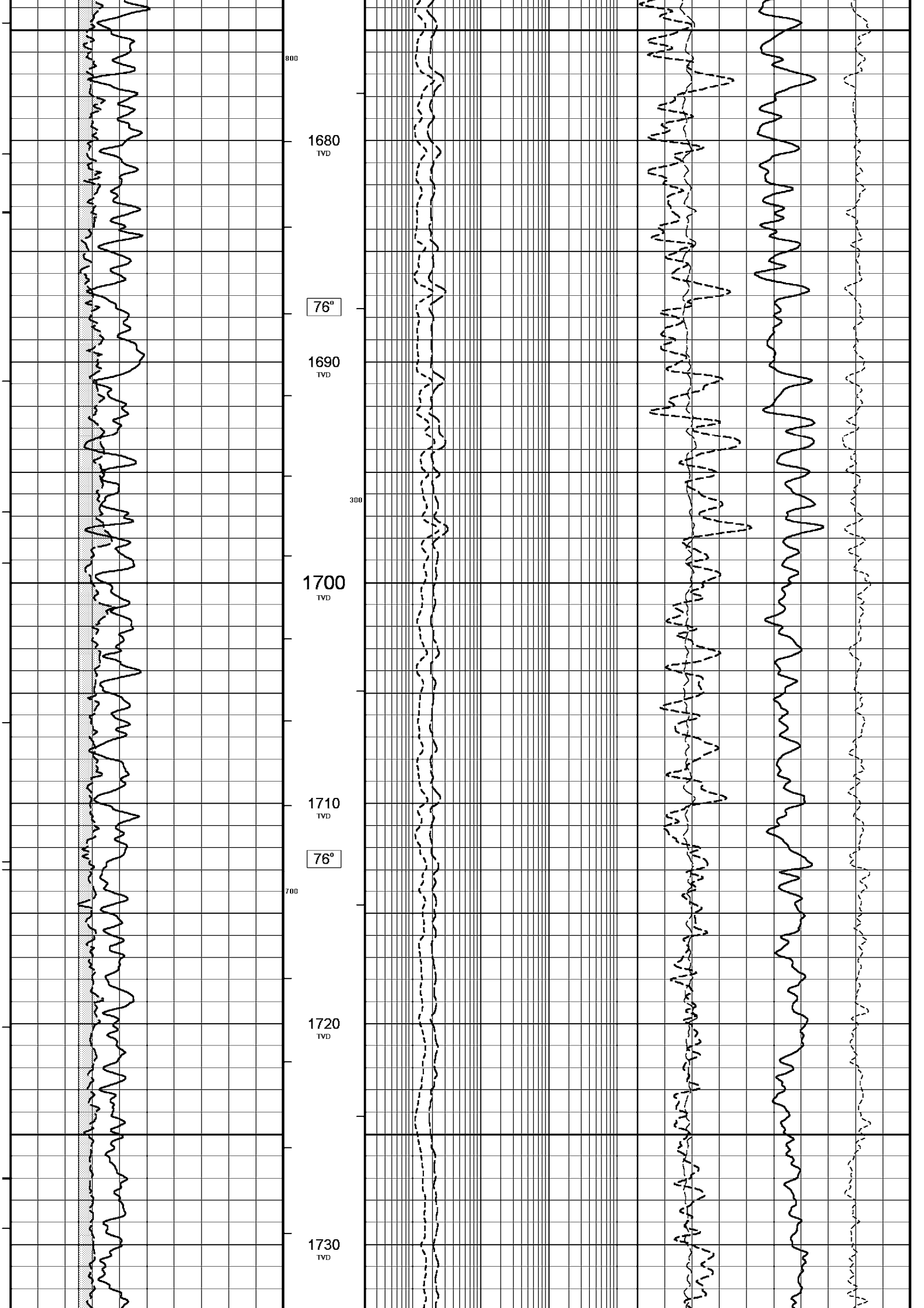


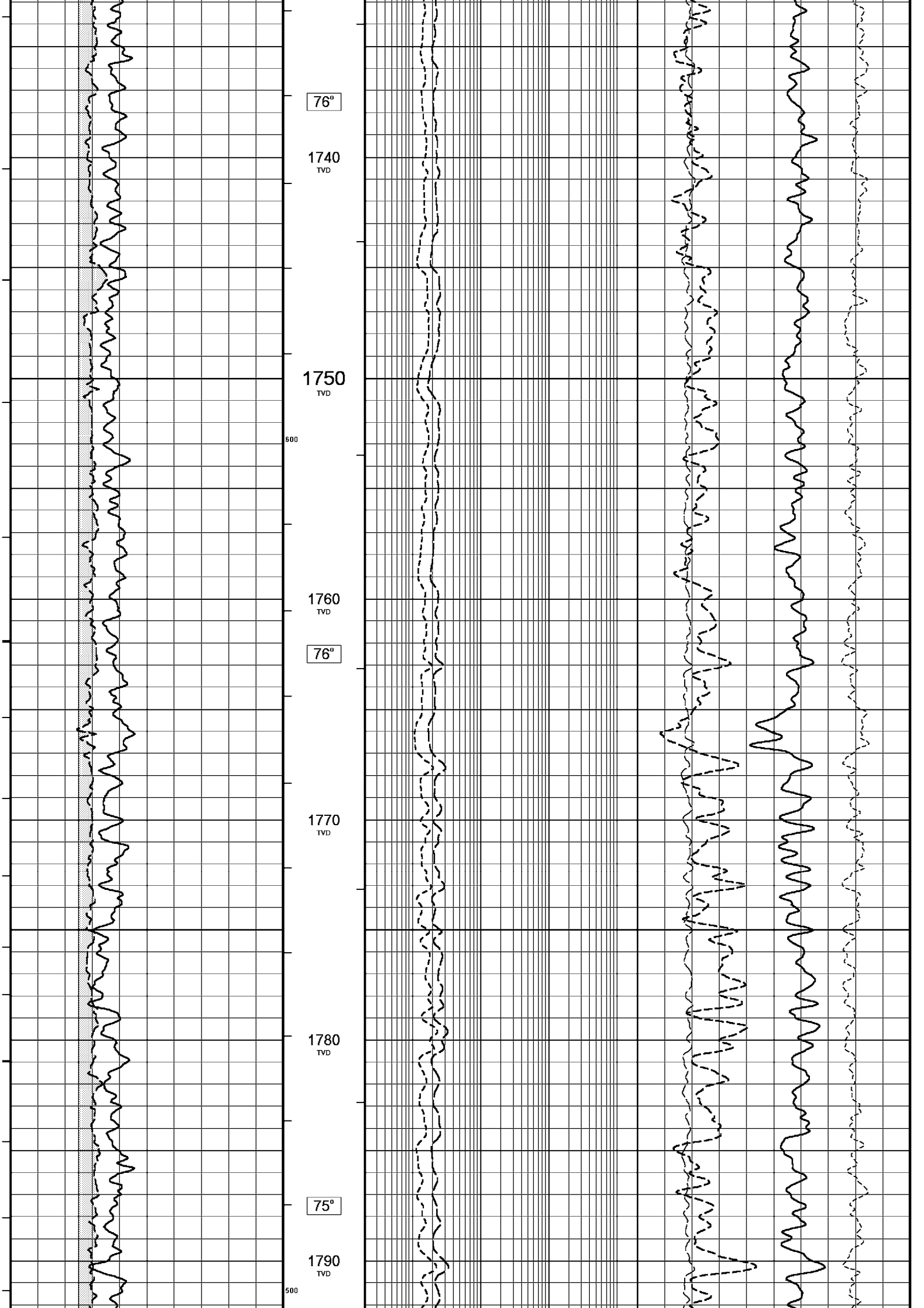


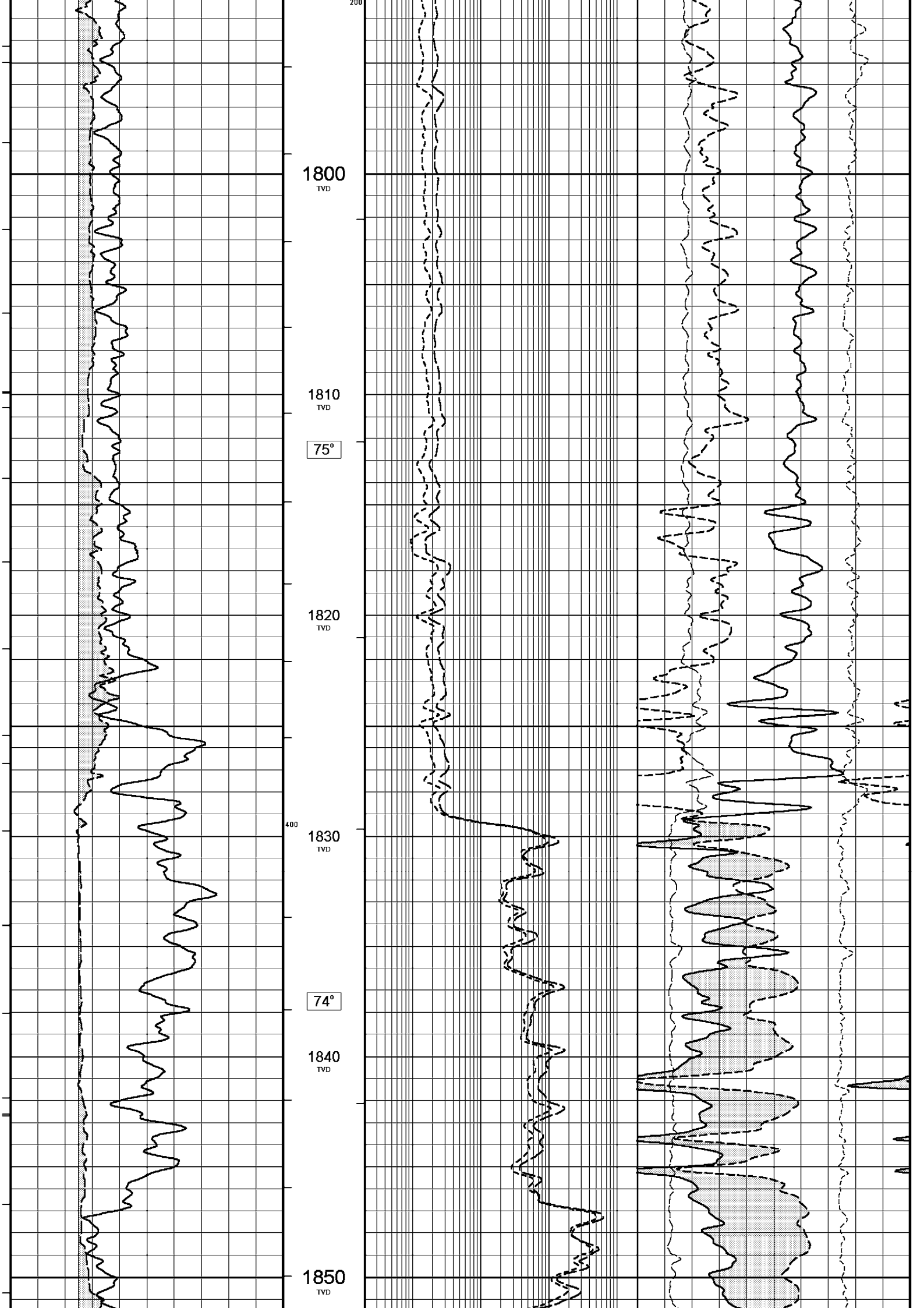


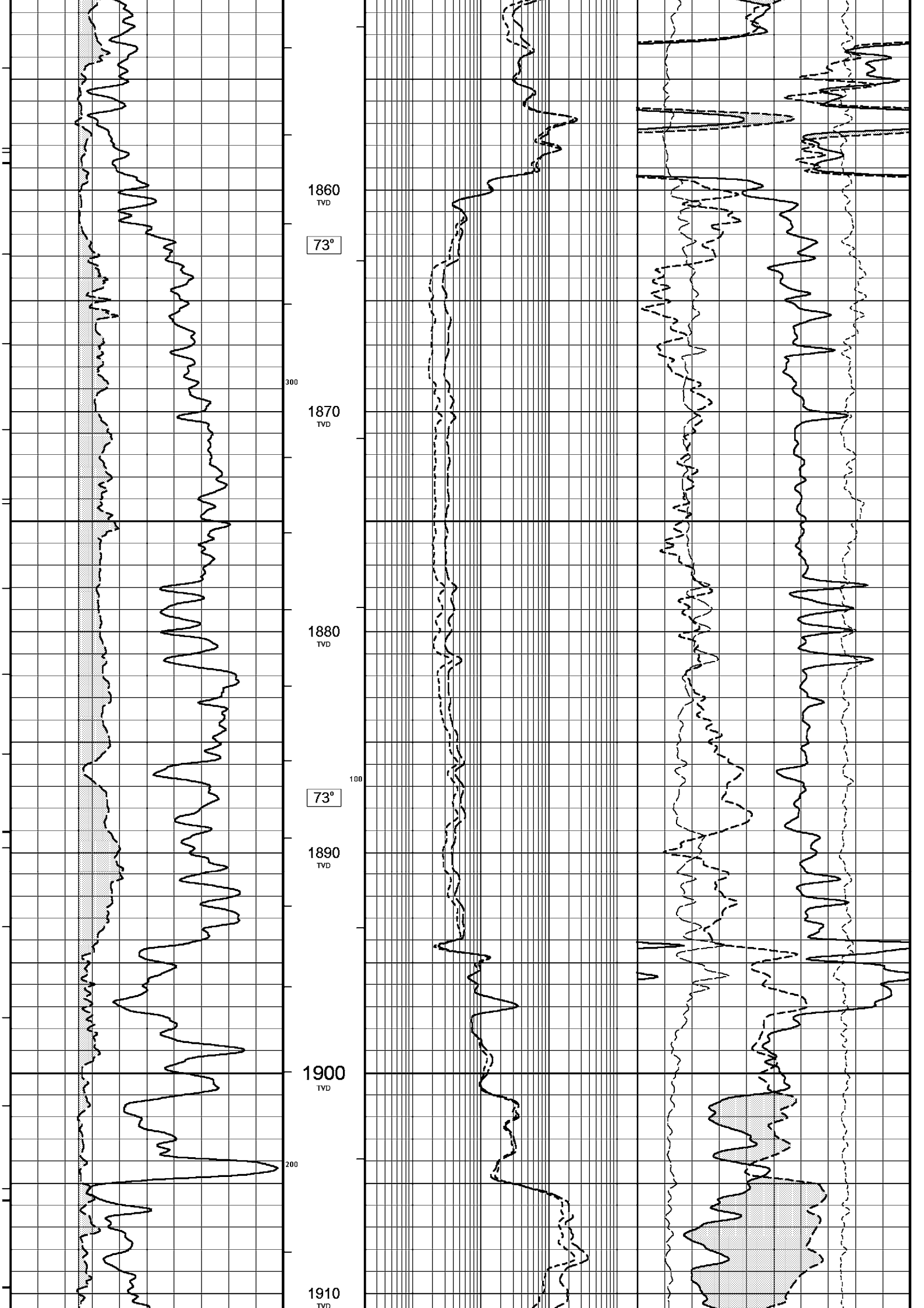


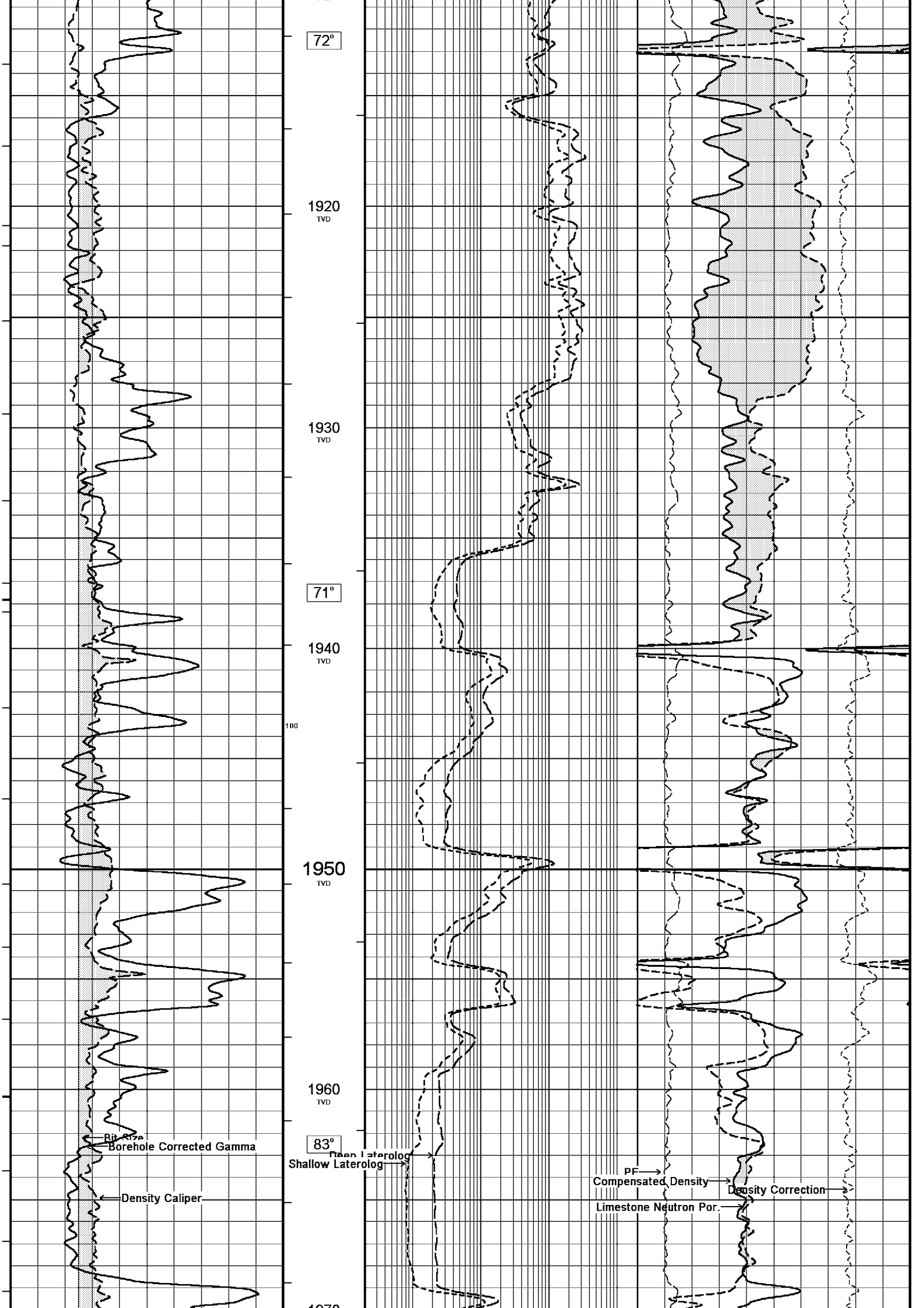


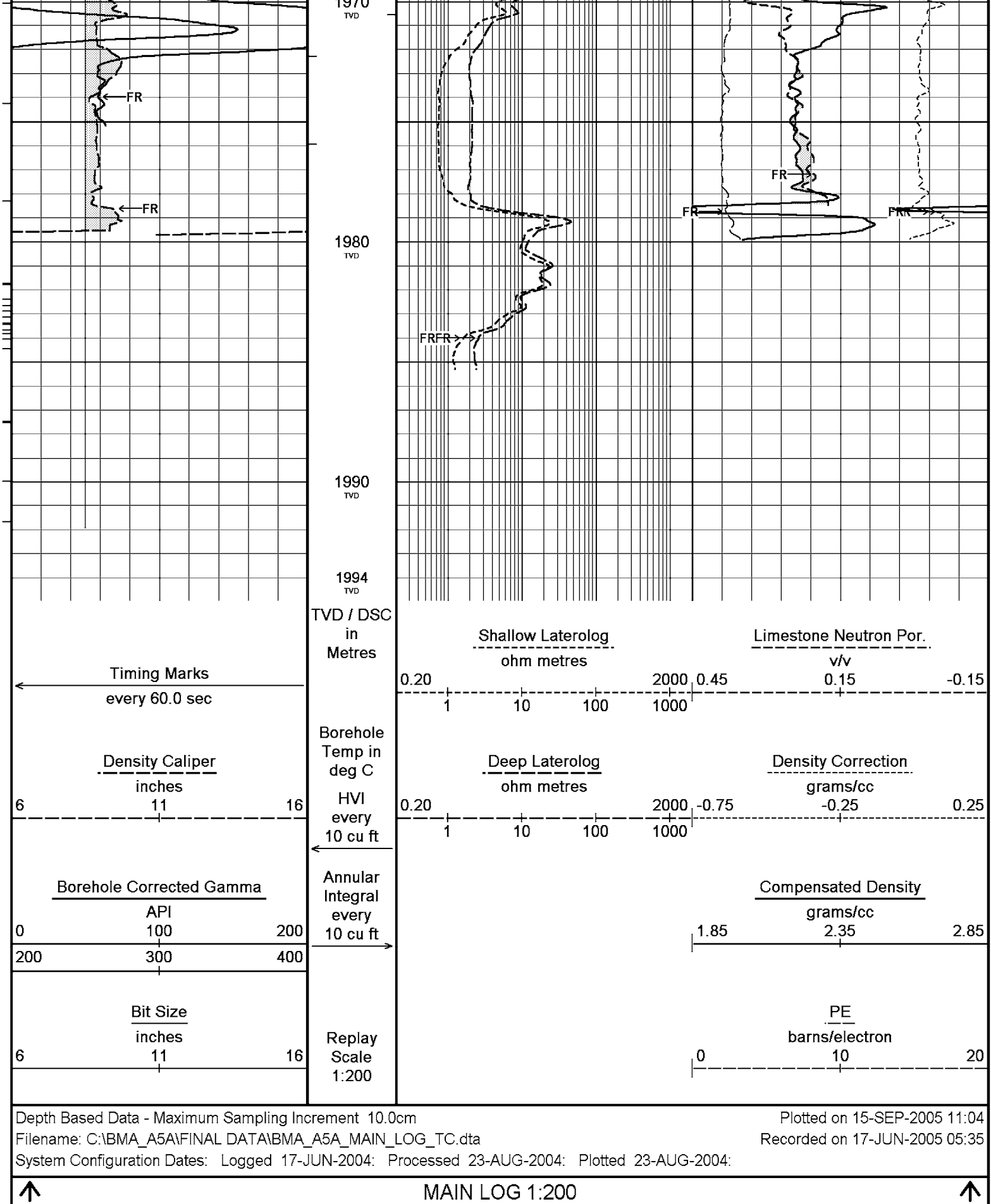












## BEFORE SURVEY CALIBRATION

C:\BMA\_A5A\FINAL DATA\BMA\_A5A\_MAIN\_LOG\_TC.dta

### General Constants All 000

#### General Parameters

Mud Resistivity	0.115	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	Density Caliper	
Annular Volume Diameter	7.000	inches
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 098

Field Calibration on 15-JUN-2005,19:09

	Measured	Calibrated(Deg C)
Lower	0.00	0.00
Upper	100.00	100.00

## High Resolution Temperature Constants MCG 098

Pre-filter Length	11
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## Gamma Calibration MCG 098

Field Calibration on 15-JUN-2005 19:08

	Measured	Calibrated (API)
Background	12	8
Calibrator (Gross)	1353	917
Calibrator (Net)	1341	909

## Gamma Constants MCG 098

Gamma Calibrator Number	060	
Mud Density	1.21	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

## Neutron Calibration MDN 085

Base Calibration on 8-JUN-2005,17:33

Field Check on 15-JUN-2005 17:51

## Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	3147	97	3714	110
Ratio	32.530		33.764	

## Field Calibrator at Base

	Calibrated (cps)	
	1655	2423
Ratio	0.683	

## Field Check

	Calibrated (cps)	
	1533	2252
Ratio	0.681	

## Neutron Constants MDN 085

Neutron Source Id	NSN-E-739	
Neutron Jig Number	NEC-C-052	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.21	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 C
Mud Salinity	58.30	kppm
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

## Caliper Calibration MPD 083

Base Calibration on 8-JUN-2005,17:33

Field Calibration on 15-JUN-2005 17:39

## Base Calibration

Base Calibration		Measured	Calibrator Size (in)
Reading No			
1		13504	4.01
2		21630	5.99
3		30082	7.98
4		38559	9.94
5		48000	12.01
6		N/A	N/A
Field Calibration			
	Measured Caliper (in)	Actual Caliper (in)	
	8.00	7.99	

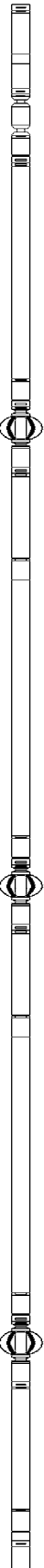
Photo Density Calibration MPD 083				Base Calibration on 8-JUN-2005,17:32	
				Field Check on 15-JUN-2005 17:38	
Density Calibration					
Base Calibration		Measured		Calibrated (sdu)	
		Near	Far	Near	Far
	Reference 1	54308	18863	53111	19310
	Reference 2	25580	2509	24951	2530
Field Check at Base					
		960.0	1111.9		
Field Check					
		951.7	1109.8		
PE Calibration					
Base Calibration		Measured		Calibrated	
	WS	WH	Ratio	Ratio	
	Background	181	824		
	Reference 1	17282	54115	0.321	0.320
	Reference 2	6883	25434	0.272	0.273
Field Check at Base					
	181.5	823.9			
Field Check					
	180.9	819.0			

Density Constants MPD 083			
Density Source Id		242	
Nylon Calibrator Number		536	
Aluminium/Fe Calibrator Number		536	
Density Shoe Profile		4 inch	
Caliper Source for Processing		Density Caliper	
PE Correction to Density		Not Applied	
Mud Density		1.21	gm/cc
Mud Density Z/A Correction		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
Matrix Density (gm/cc)		Depth (m)	
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	

Laterolog Calibration MLE 016				Base Calibration on 9-JUN-2005,19:41	
				Field Check on 15-JUN-2005,19:44	
Base Calibration					
		Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2	
Shallow	9.7	960.9	13.2	1321.0	
Deep	9.7	985.3	7.5	755.0	
Groningen	9.7	966.7	8.5	854.0	
Field Check					
Channel	Base Check (ohm-m)		Field Check (ohm-m)		
Shallow	49.4		49.4		
Deep	27.7		27.7		



254.2	254.2
Laterolog Constants MLE 016	
Squasher Start	40000 ohm-m
Shallow Laterolog K Factor	1.3210
Deep Laterolog K Factor	0.7550
Groningen Laterolog K Factor	0.8540
Interference Rejection	50 Hz
SP Connection	SP Bridle Electrode
Groningen Connection	Groningen Electrode

DOWNHOLE EQUIPMENT			C:\BMA_A5A\FINAL DATA\BMA_A5A_MAIN_LOG_TC.dta	
Compact Swivel Head Adaptor F SHA 71	Length: 0.83 m	Weight: 26.5 lb		
Compact Knuckle Joint SKJ 100	Length: 0.66 m	Weight: 24.3 lb		
Compact Battery Sub. MBS 99	Length: 4.41 m	Weight: 90.4 lb		
Compact Inline Standoff B MIS 73	Length: 0.65 m	Weight: 15.4 lb		
Compact Stiff Bridle Electrode Sub. MBE 18	Length: 3.76 m	Weight: 94.8 lb		
Compact Inline Standoff B MIS 139	Length: 0.65 m	Weight: 15.4 lb		
Compact Stiff Bridle Electrode Sub. MBE 19	Length: 3.76 m	Weight: 94.8 lb		
Compact Inline Standoff B MIS 136	Length: 0.65 m	Weight: 15.4 lb		
MBE 21 - THIRD BRIDLE MLK 111	Length: 3.76 m	Weight: 30.9 lb		
Compact Gamma MCG 00	Length: 0.05 m	Weight: 22.0 lb		
			32.22 m	GGCE - Borehole Corrected Gamma

MCG 98 Length: 2.65 m Weight: 63.9 lb

Compact Memory Sub A.C  
MMS 38 Length: 0.95 m Weight: 22.0 lb

Compact Knuckle Joint  
SKJ 46 Length: 0.66 m Weight: 24.3 lb

Compact Swivel Head Adaptor F  
SHA 64 Length: 0.83 m Weight: 26.5 lb

Compact Inline Bowspring A  
MIS 94 Length: 1.74 m Weight: 33.1 lb

Compact Neutron  
MDN 85 Length: 1.53 m Weight: 50.7 lb

Compact Density/Caliper  
MPD 83 Length: 2.92 m Weight: 90.4 lb

Compact Inline Bowspring A  
MIS 24 Length: 1.74 m Weight: 33.1 lb

Compact Swivel Head Adaptor  
SHA 28 Length: 0.83 m Weight: 26.5 lb

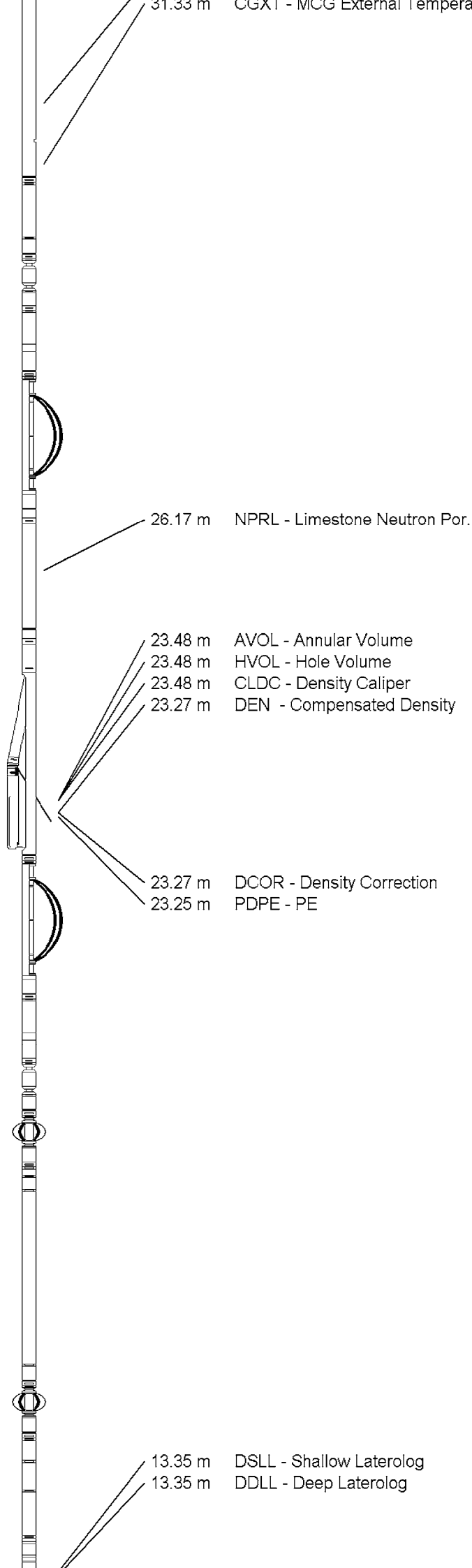
Compact Knuckle Joint  
SKJ 110 Length: 0.66 m Weight: 24.3 lb

Compact Inline Standoff B  
MIS 140 Length: 0.65 m Weight: 15.4 lb

Compact Upper Guard Sub.  
MUG 20 Length: 2.74 m Weight: 68.3 lb

Compact Inline Standoff B  
MIS 129 Length: 0.65 m Weight: 15.4 lb

Compact Laterolog Electrode Sub.  
MLE 16 Length: 3.76 m Weight: 92.6 lb



Compact Inline Standoff B  
MIS 127 Length: 0.65 m Weight: 15.4 lb

Compact Lower Guard Sub.  
MLG 7 Length: 2.44 m Weight: 55.1 lb

Compact Inline Standoff B  
MIS 133 Length: 0.65 m Weight: 15.4 lb

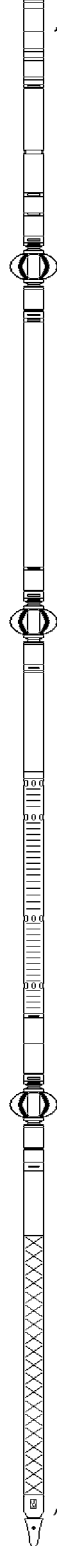
Compact Sonic  
MSS 66 Length: 3.82 m Weight: 72.8 lb

Compact Inline Standoff B  
MIS 128 Length: 0.65 m Weight: 15.4 lb

Compact Induction  
MAI 39 Length: 3.29 m Weight: 48.5 lb

Induction Standoff  
HFS 4 Length: 0.40 m Weight: 6.6 lb

Total Length: 53.36 m Weight: 1223.6 lb



Tool Zero (0.44m from bottom)

All measurements relative to tool zero.

COMPANY	ESSO AUSTRALIA PTY LTD
WELL	BREAM A5A
FIELD	BREAM
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing	metres	First Reading	1984.00	metres
Elevation Drill Floor 32.82	metres	Depth Driller	1994.50	metres
Elevation Ground Level -59.40	metres	Depth Logger	1991.30	metres



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