



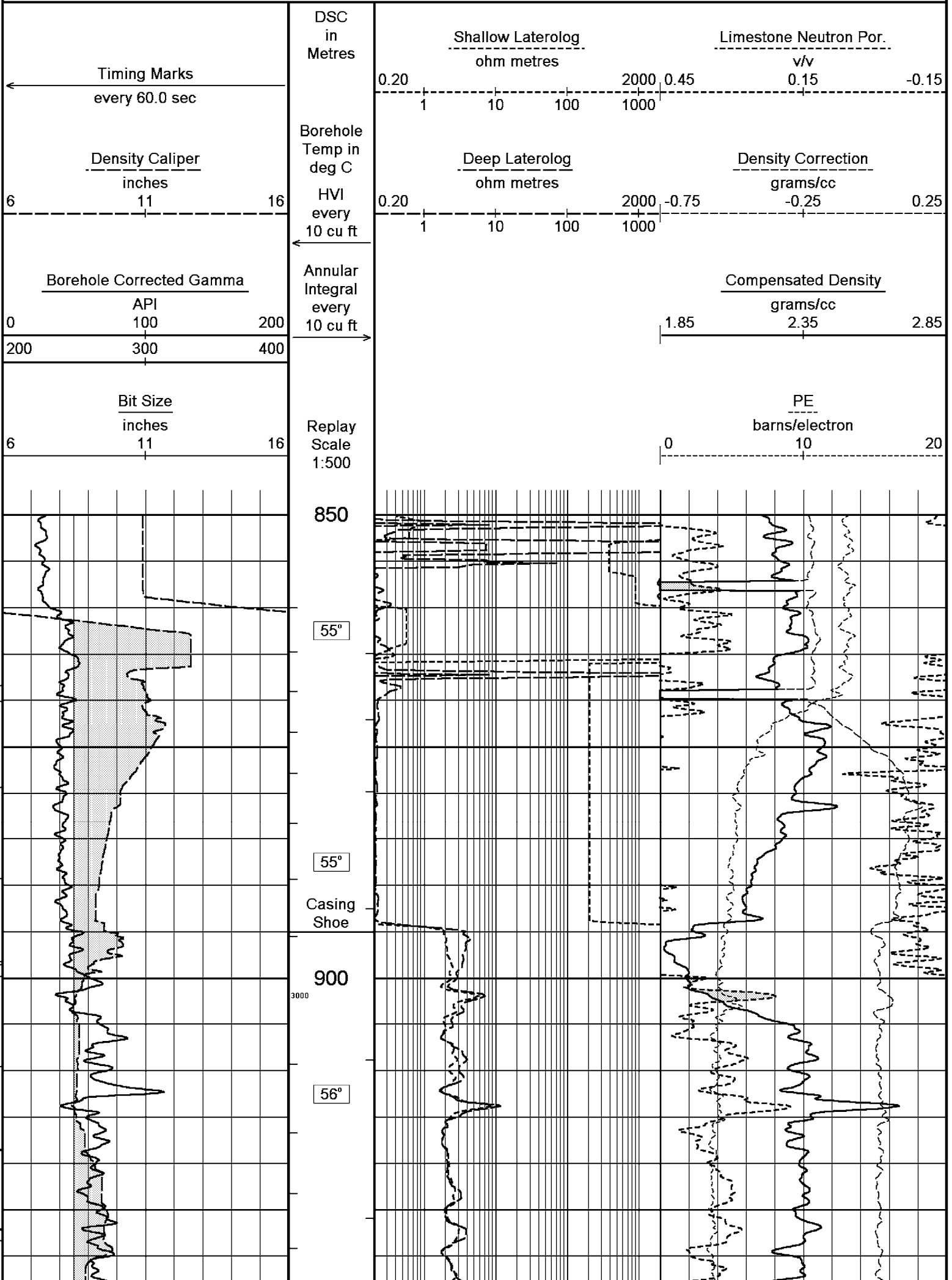
DUAL LATEROLOG - GR
DENSITY - NEUTRON
1:500 MD

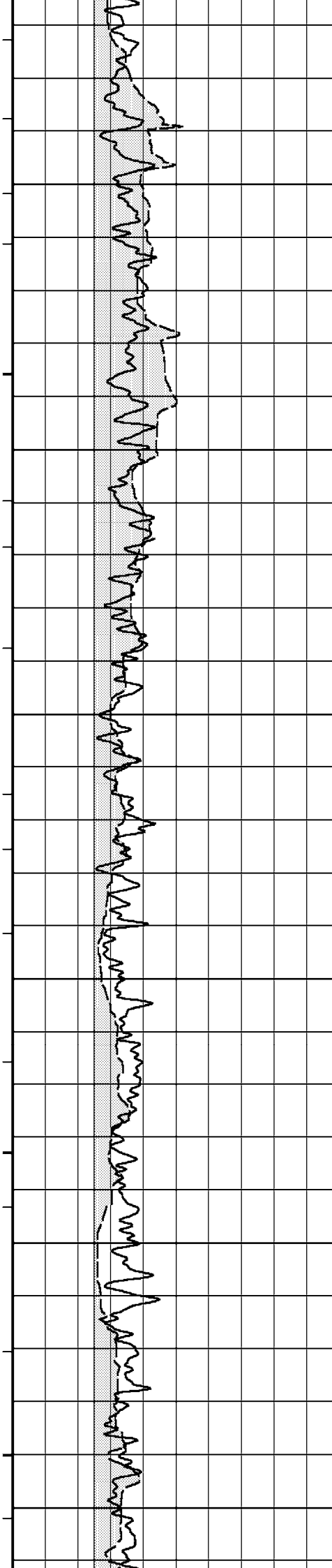
COMPANY	ESSO AUSTRILIA PTY LTD		
WELL	BREAM A5A		
FIELD	BREAM		
PROVINCE/COUNTRY	BASS STRAIT		
COUNTRY/STATE	AUSTRALIA		
LOCATION	S 38 29 58.778, E 147 46 20.334 N 5738461.680 m, E 567345.000 m		
LSD	SEC	TWP	RGE
API Number	Other Services		
Permit Number	COMPENSATED SONIC		
Permanent Datum MSL	, Elevation 0.0 metres		
Log Measured From RT @ 32.82m	above Permanent Datum		
Drilling Measured From RT			
Date	16-JUN-2005	Elevations: KB 32.82 metres DF 32.82 metres GL -59.40 metres	
Run Number	ONE		
Depth Driller	2810.00	metres	
Depth Logger	2803.90	metres	
First Reading	2790.10	metres	
Last Reading	895.00	metres	
Casing Driller	895.50	metres	
Casing Logger	895.00	metres	
Bit Size	8.50	inches	
Hole Fluid Type	KCl/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

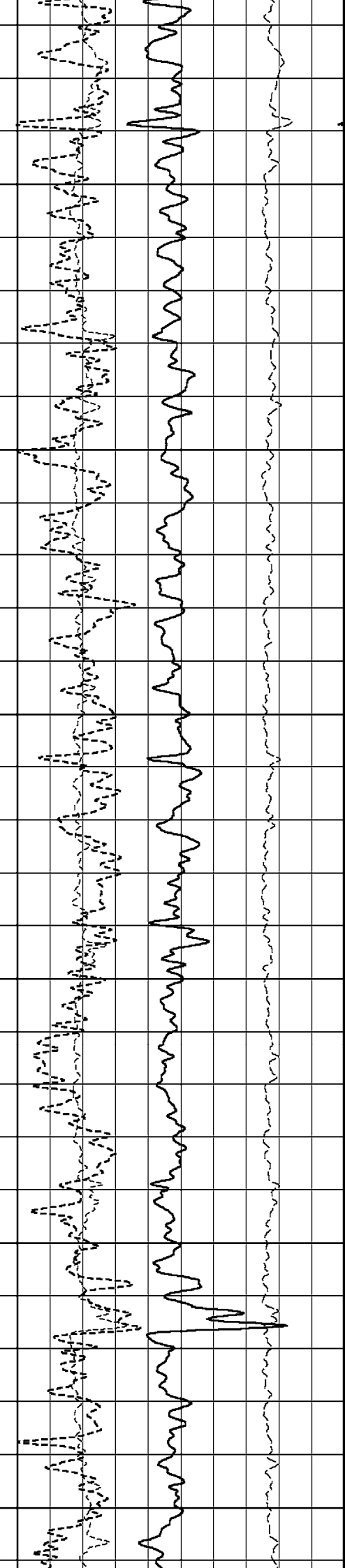
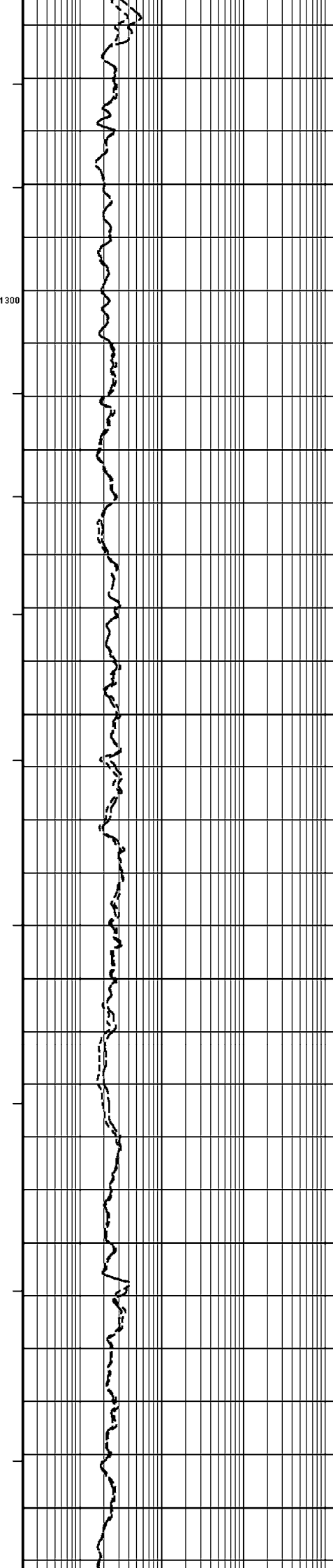
REMARKS
RIG: NABORS 453
5" SHUTTLE/MEMORY COMPACT OPERATION. CREW: R TENCH , B MOSS , B GOODWIN, K LUCIEER.
ALL LOGS DEPTH CORRELATED TO ANADRILL GAMMA LOG.
DURING TRIP IN, DRILL PIPE BRIDGED AT 2071m, REQUIRED 30RPM AND 10BLS FLOW TO REACH TD
MAX. TEMPERATURE: 83 DEG C AT 2763m MD MAX. INCLINATION: 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

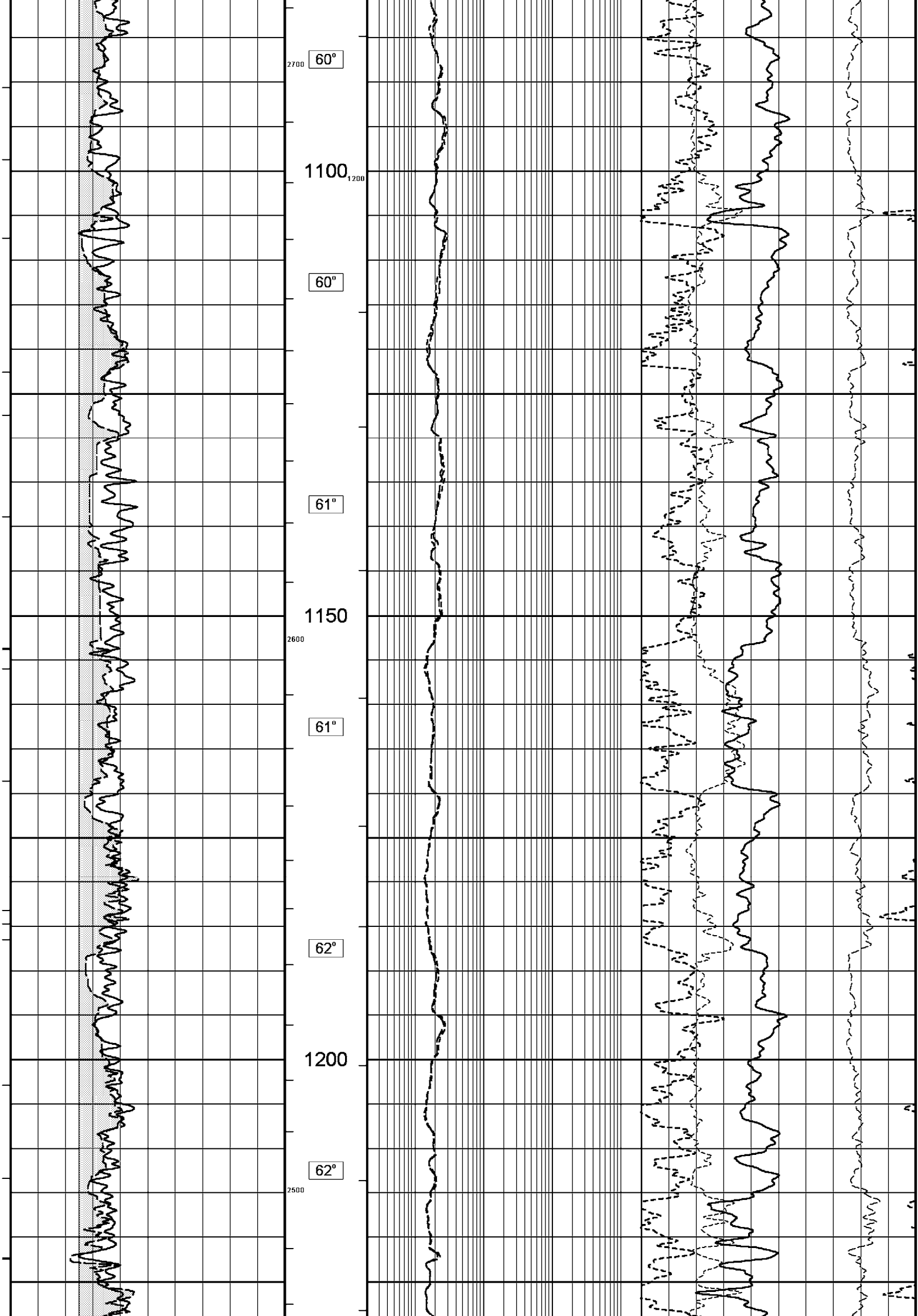
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

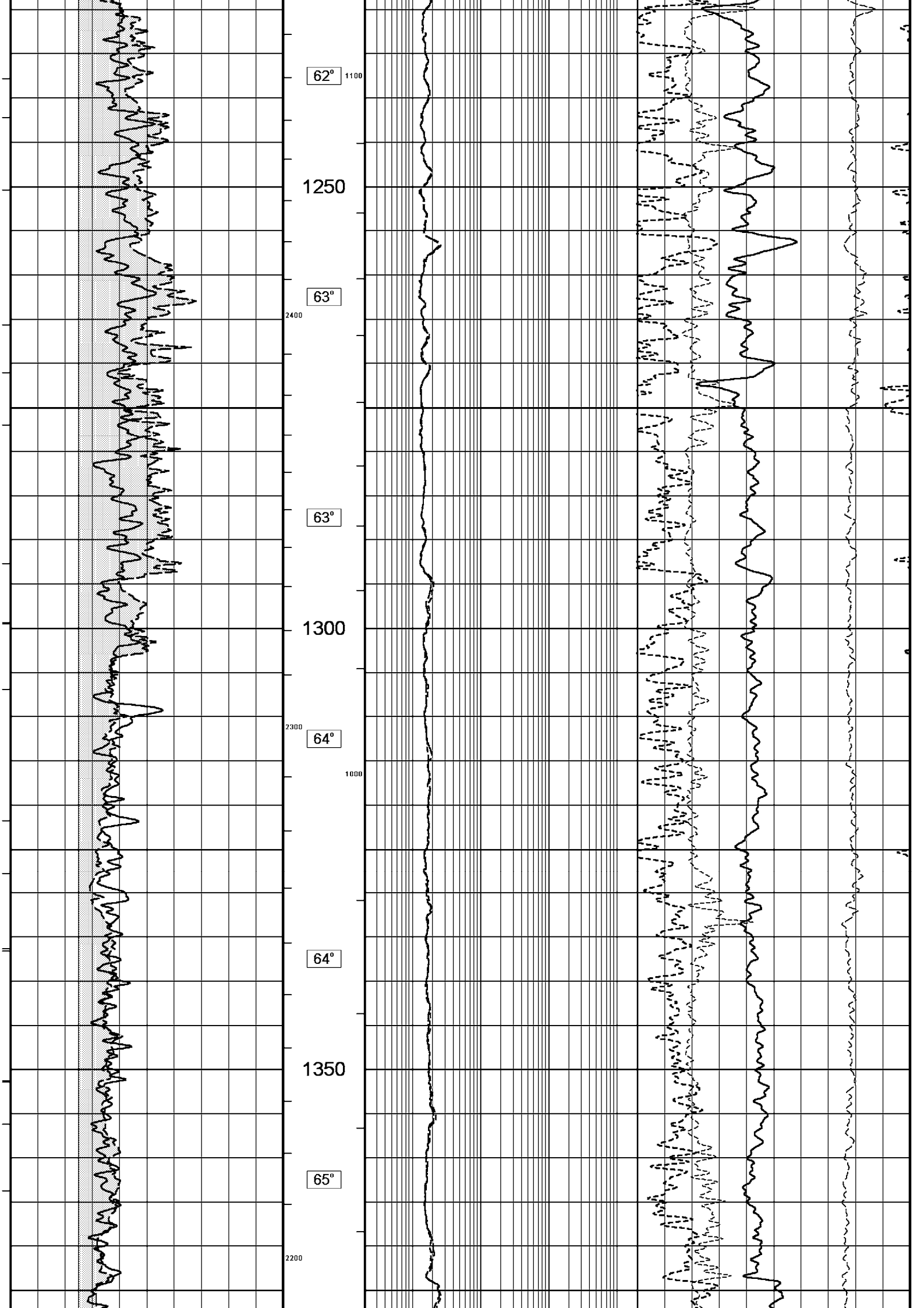


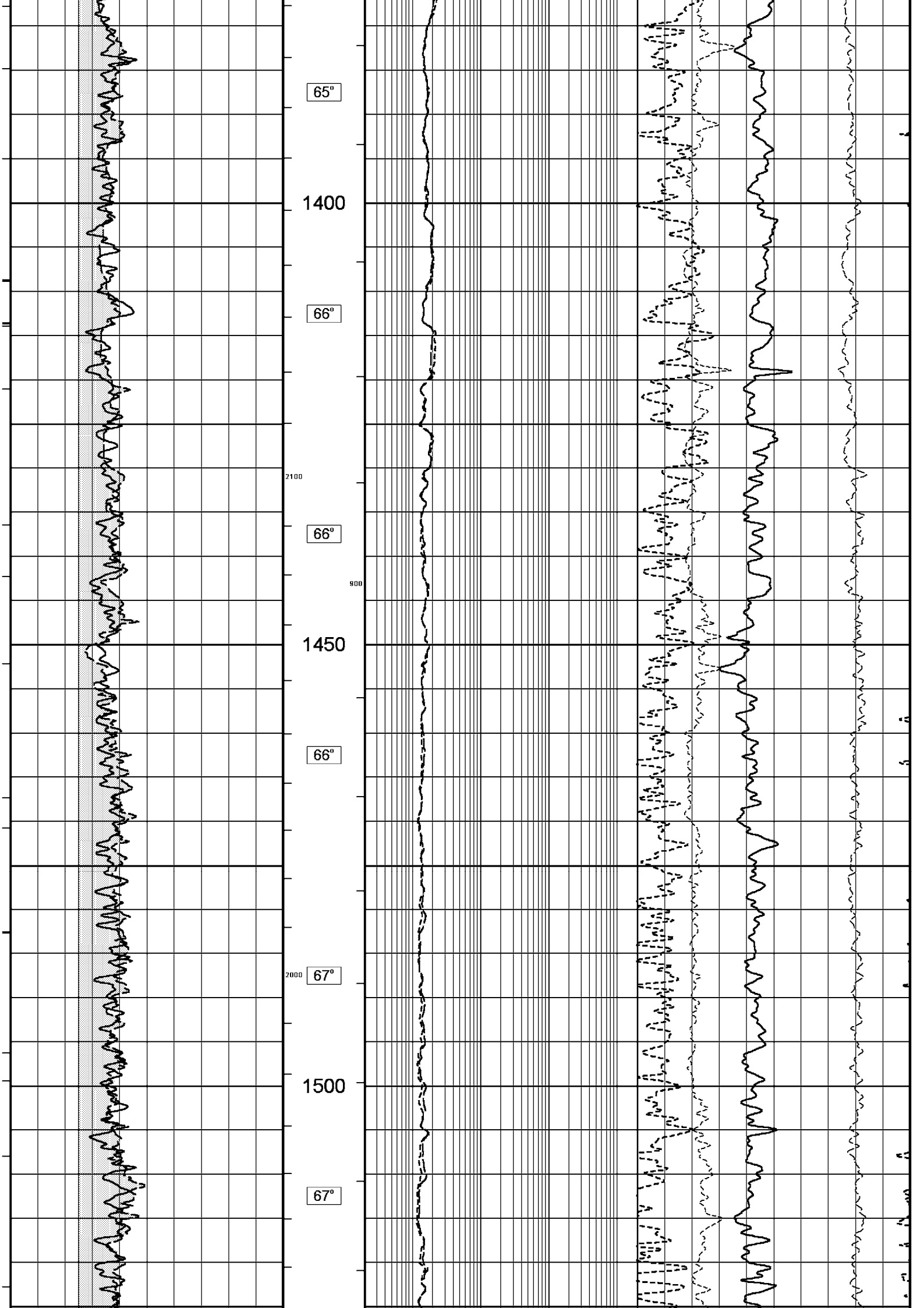


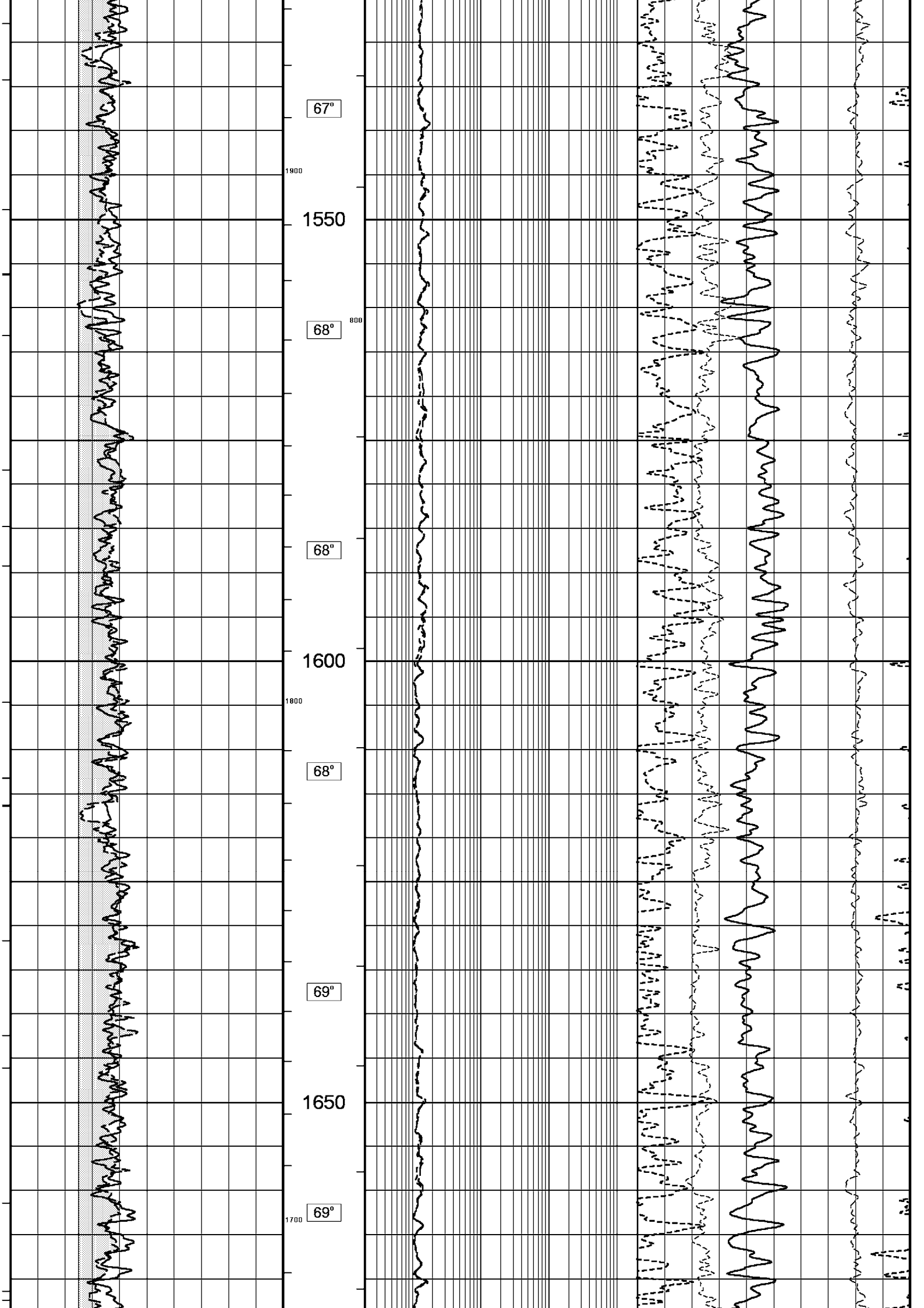
57°
950
2900 57°
58°
1000
58°
2800
58°
1050
59°

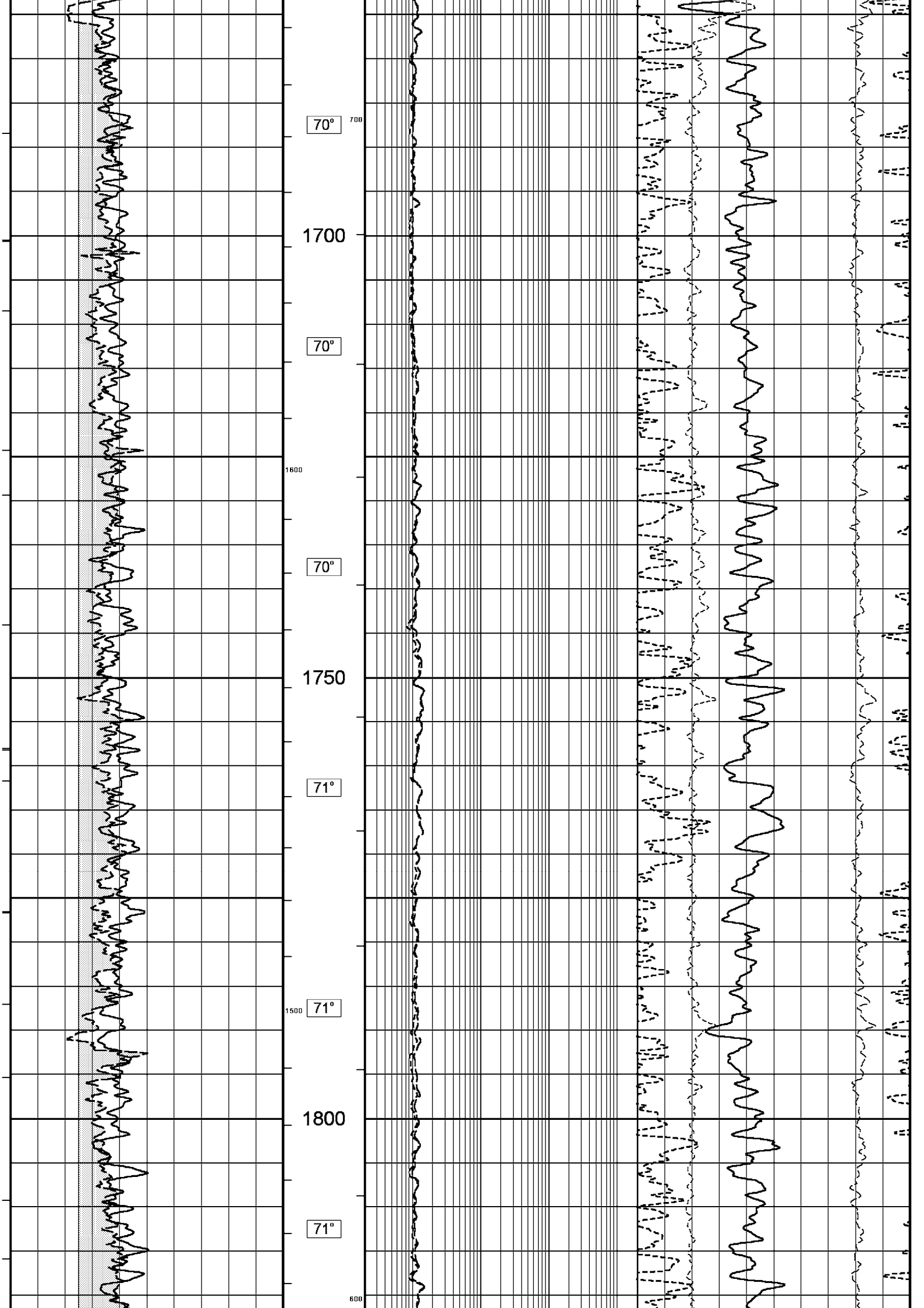


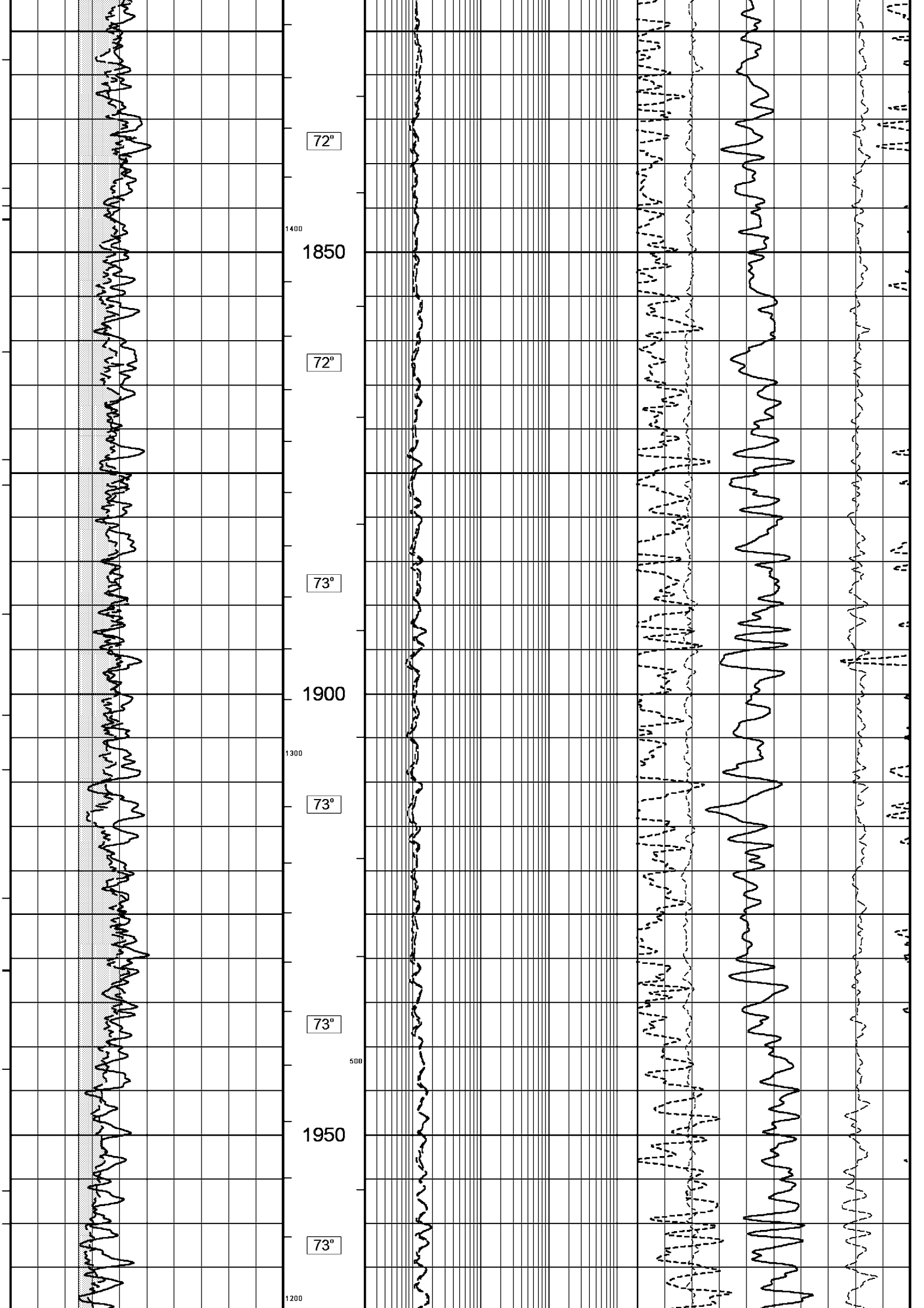


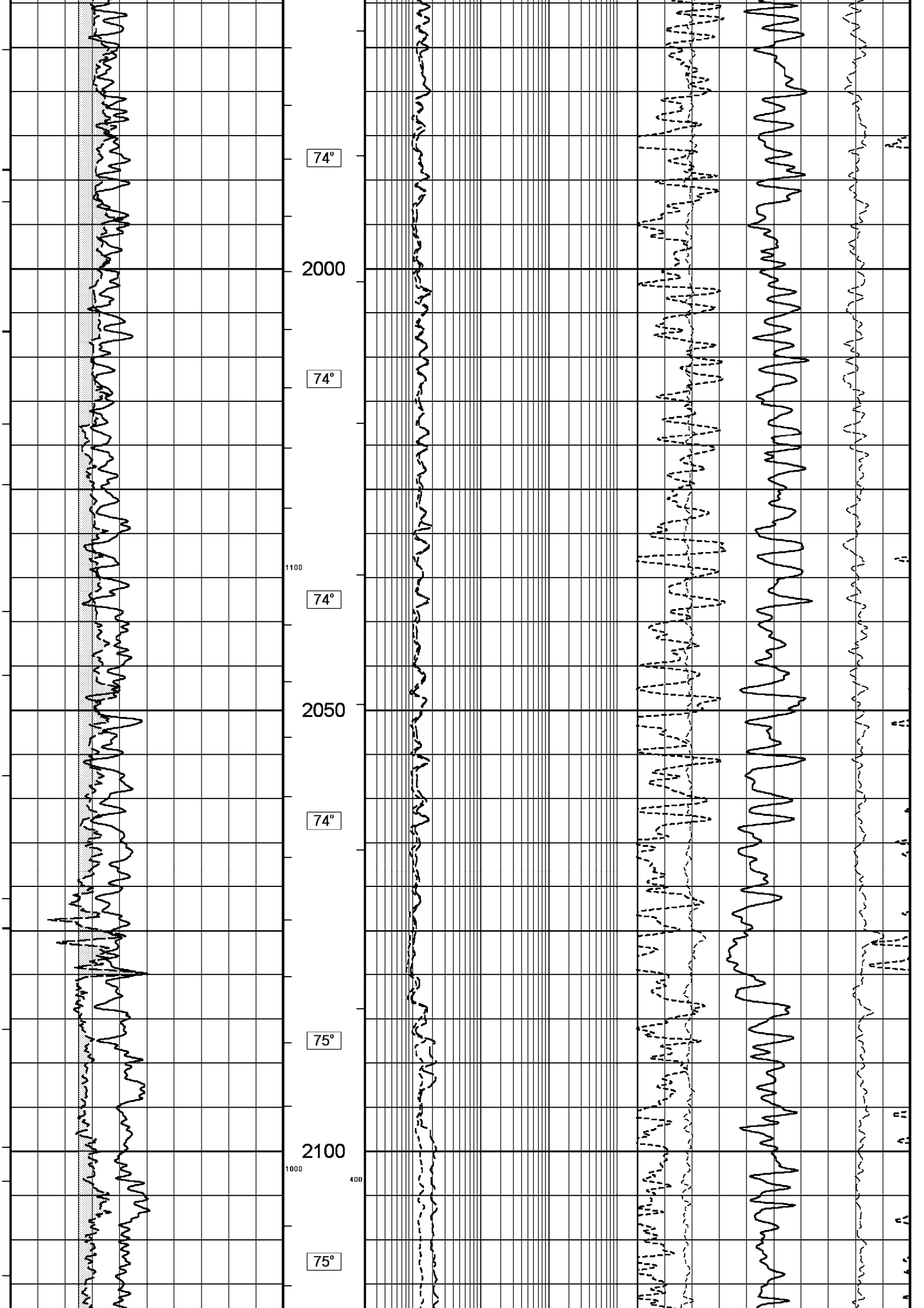


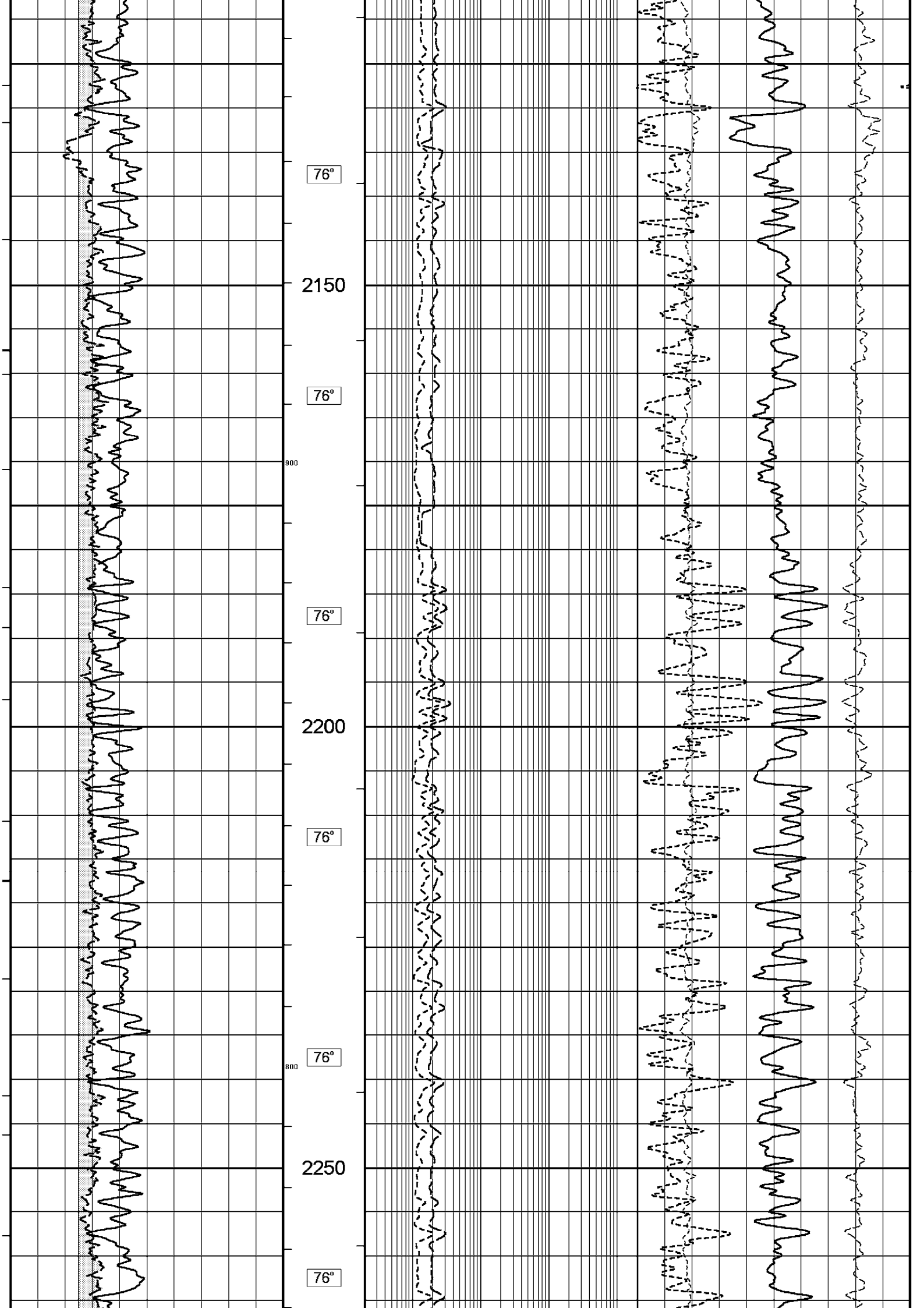


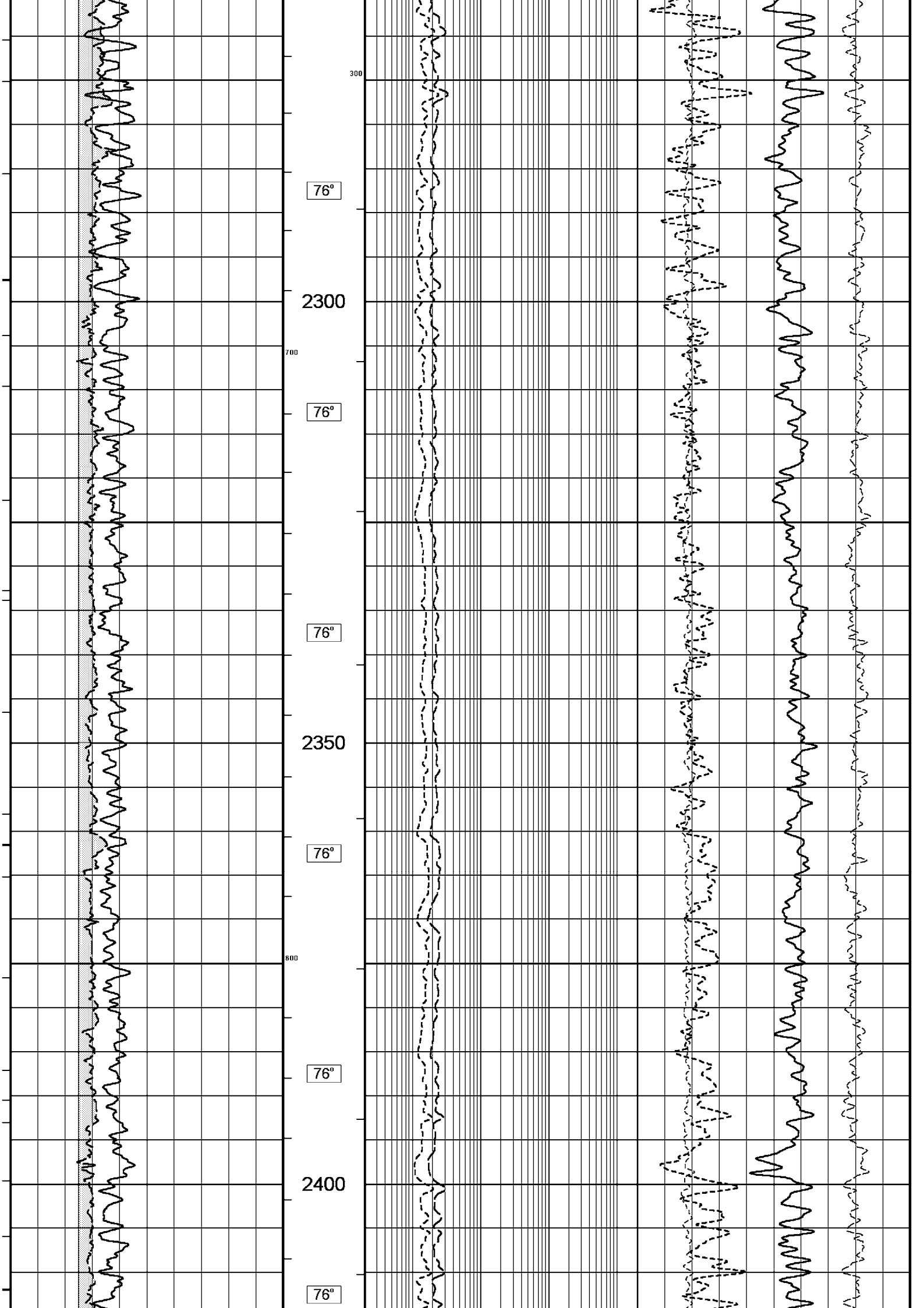


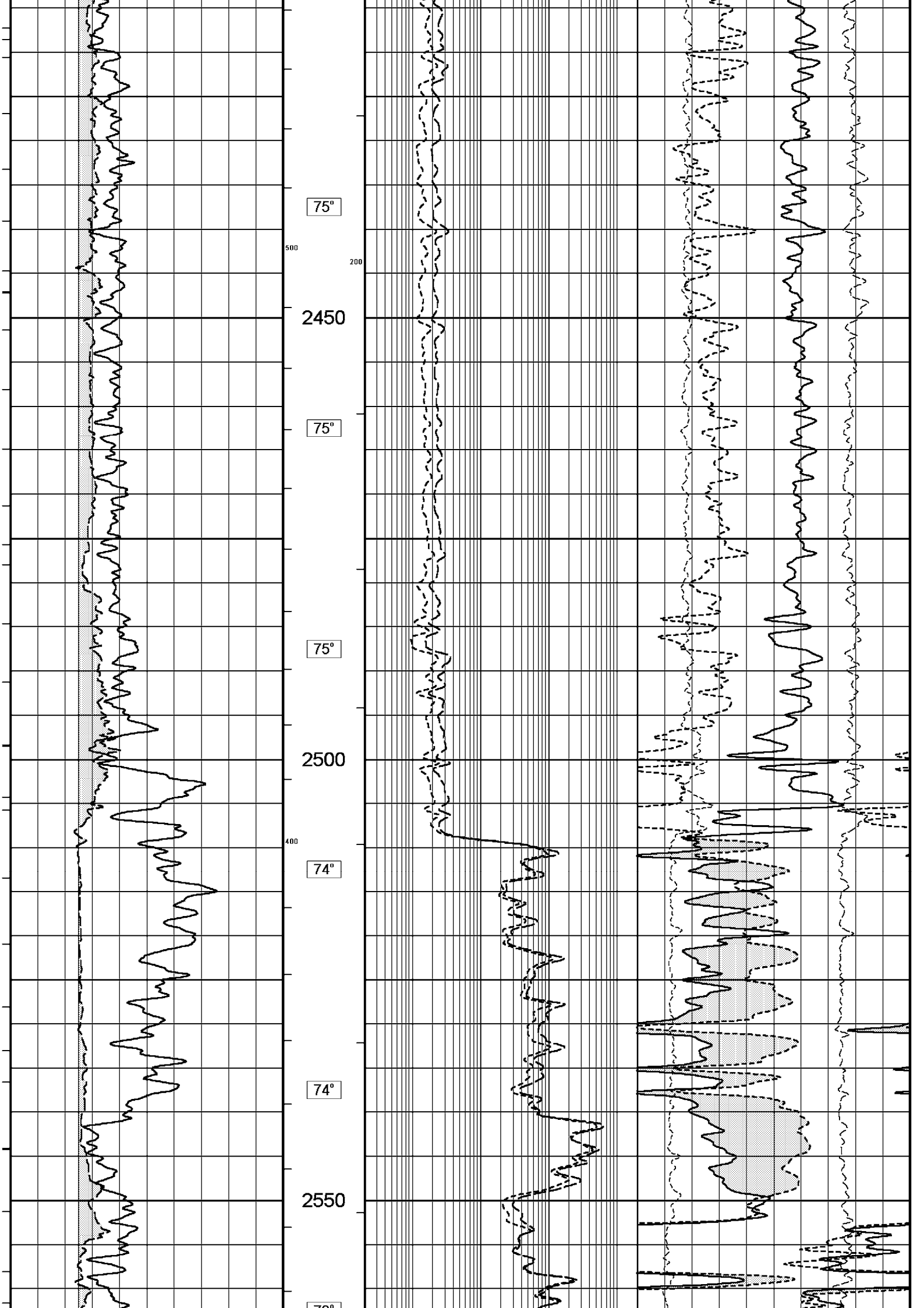


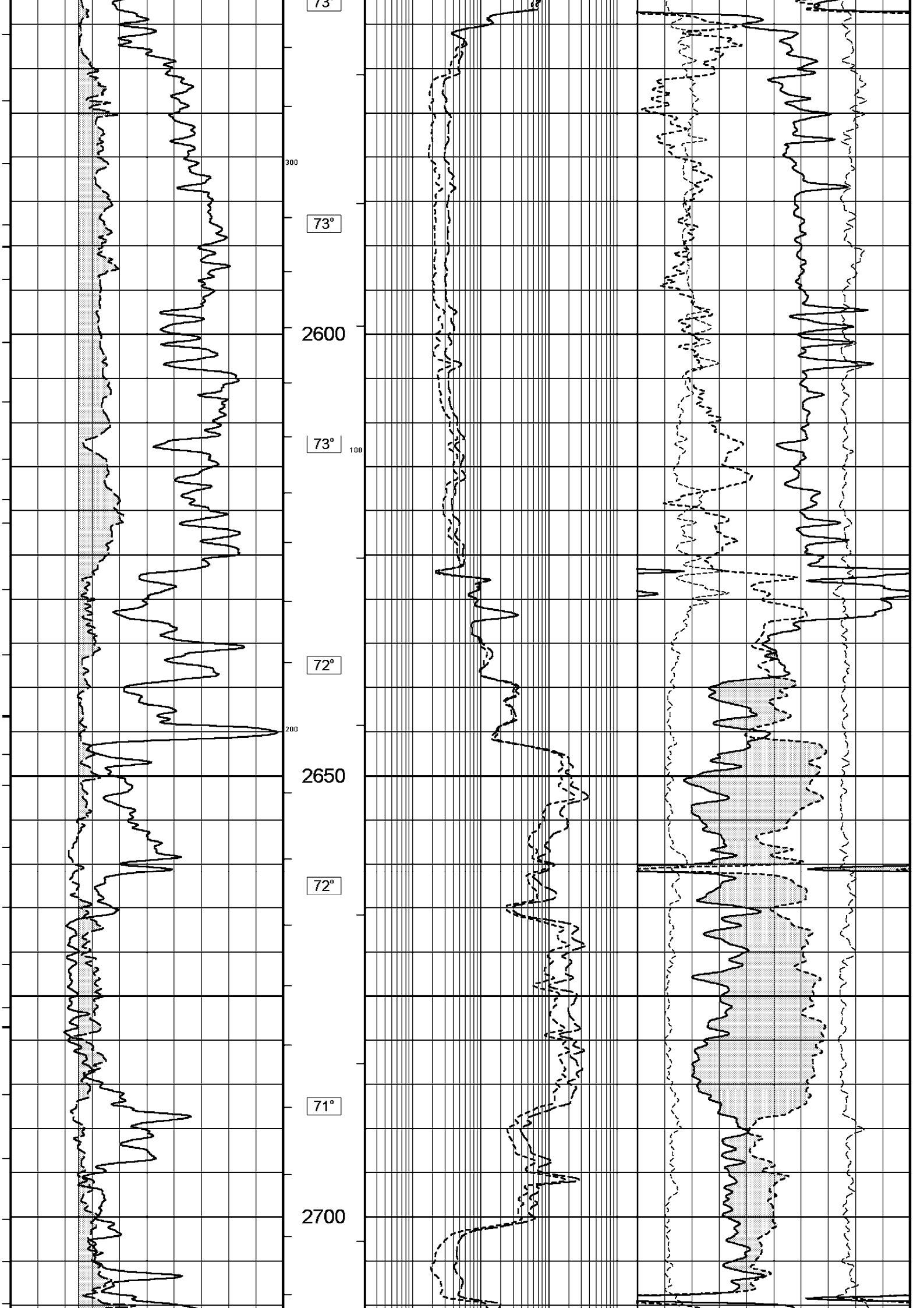


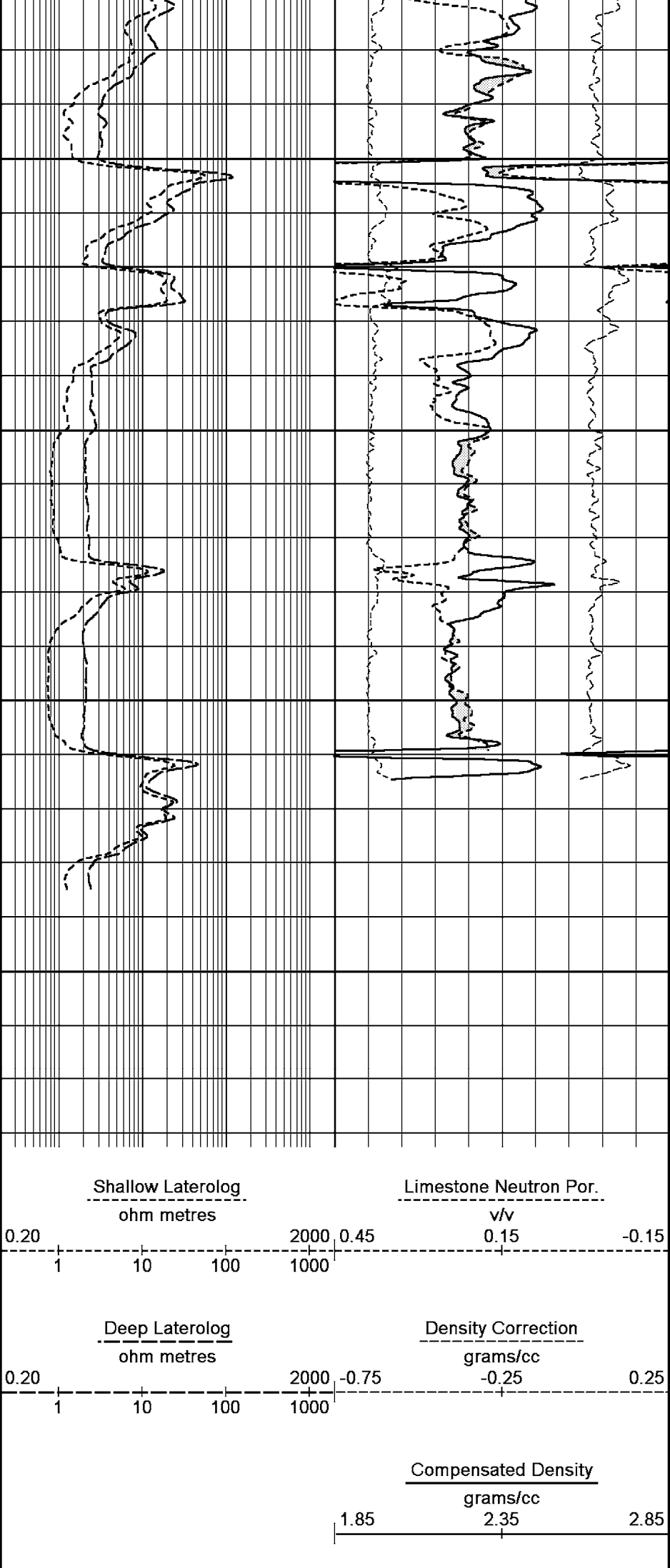
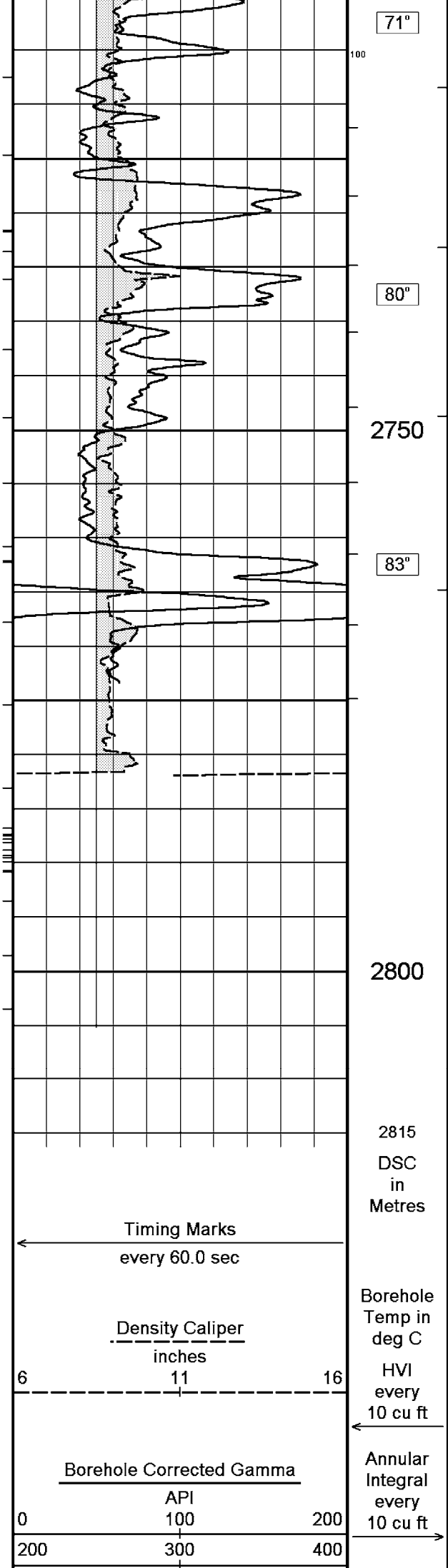












Bit Size

inches

61116

Replay Scale

1:500

PE

barns/electron

01020

Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 15-SEP-2005 11:09

Filename: C:\BMA_A5A\FINAL DATA\BMA_A5A_MAIN_LOG_TC.dta

Recorded on 17-JUN-2005 05:35

System Configuration Dates: Logged 17-JUN-2004: Processed 23-AUG-2004: Plotted 23-AUG-2004:

↑

MAIN LOG 1:500

↑

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				
	Measured	Calibrated(Deg C)	Field Calibration on 15-JUN-2005,19:09	
Lower	0.00	0.00		
Upper	100.00	100.00		
High Resolution Temperature Constants MCG 098				
Pre-filter Length	11			
Gamma Calibration MCG 098				
	Measured	Calibrated (API)	Field Calibration on 15-JUN-2005 19:08	
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			Base Calibration on 8-JUN-2005,17:33	
			Field Check on 15-JUN-2005 17:51	
	Measured	Calibrated (cps)		
	Near Far	Near Far		
Ratio	3147 97	3714 110		
	32.530	33.764		
Field Calibrator at Base				
		Calibrated (cps)		
Ratio		1655 2423		
		0.683		
Field Check				
		Calibrated (cps)		
Ratio		1533 2252		
		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		
Reading No	Measured	Calibrator Size (in)
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)
2.71
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00

Depth (m)
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

Channel	Measured		Calibrated (ohm-m)	
	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

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Shallow	49.4	49.4
Deep	27.7	27.7
Groningen	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

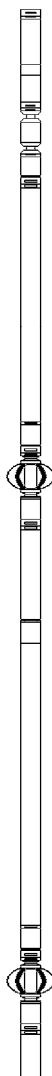
Compact Battery Sub.
MBS 99 Length: 4.41 m Weight: 90.4 lb

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 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



32.22 m GGCE - Borehole Corrected Gamma
31.33 m CGXT - MCG External Temperature

26.17 m NPRL - Limestone Neutron Por.

23.48 m AVOL - Annular Volume
23.48 m HVOL - Hole Volume
23.48 m CLDC - Density Caliper
23.27 m DEN - Compensated Density

23.27 m DCOR - Density Correction
23.25 m PDPE - PE

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

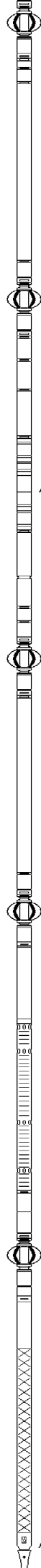
Compact Sonic
MSS 66 Length: 3.82 m Weight: 72.8 lb

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




13.35 m DSLL - Shallow Laterolog
13.35 m DDLL - Deep Laterolog

Tool Zero (0.44m from bottom)

All measurements relative to tool zero.

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

Elevation Kelly Bushing		metres	First Reading	2790.10	metres
Elevation Drill Floor	32.82	metres	Depth Driller	2810.00	metres
Elevation Ground Level	-59.40	metres	Depth Logger	2803.90	metres

	DUAL LATEROLOG - GR				
	DENSITY - NEUTRON				
	1:500 MD				