



Compact

**DUAL LATEROLOG - GR
DENSITY - NEUTRON
1:500 TVD**

COMPANY **ESSO AUSTRALIA PTY LTD**

WELL **BREAM A6A**

FIELD **BREAM**

PROVINCE/COUNTY **BASS STRAIT**

COUNTRY/STATE **AUSTRALIA**

LOCATION **38DEG 29' 58.784"S 147DEG 46' 20.421" E**

5738461.490 N 567347.120 E **FIELD PRINT**

LSD SEC TWP RGE Other Services
COMPENSATED SONIC

API Number
Permit Number

Permanent Datum MSL , Elevation 0.0 metres

Log Measured From RT @ 32.82 M above Permanent Datum

Drilling Measured From RT

Elevations:
KB 32.82 metres
DF 32.82 metres
GL -59.40 metres

Date	14-FEB-2006	
Run Number	ONE	
Depth Driller	1994.67	metres
Depth Logger	1993.29	metres
First Reading	1990.08	metres
Last Reading	803.75	metres
Casing Driller	803.75	metres
Casing Logger	803.75	metres
Bit Size	8.50	inches
Hole Fluid Type	KCL/GYL/POLY	
Density / Viscosity	10.05 lb/USg	59.00 CP
PH / Fluid Loss	9.30	2.90
Sample Source	FLOWLINE	
Rm @ Measured Temp	0.108 @ 25.0	ohm-m
Rmf @ Measured Temp	0.086 @ 25.0	ohm-m
Rmc @ Measured Temp	0.153 @ 25.0	ohm-m
Source Rmf / Rmc	PRESS	PRESS
Rm @ BHT	0.046 @ 88.0	ohm-m
Time Since Circulation	45.3 hrs	
Max Recorded Temp	91.20	deg C
Equipment Name	5" CWS/CML	
Equipment / Base	1	SALE
Recorded By	R. TENCH, B. MOSS	
Witnessed By	TREVOR LOBO	
CIRC STOPPED	12:10 12/02	

BOREHOLE RECORD

Bit Size inches	Depth From metres	Depth To metres
8.500	850.50	3256.00

CASING RECORD

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K-55	10.750	0.00	850.50	40.50

REMARKS

RIG: NABORS 453

5" SHUTTLE/MEMORY COMPACT OPERATION.
CREW: R TENCH , B MOSS , B GOODWIN, M KOLCZE.

FIELD FINAL LOGS TO BE CORRELATED TO ANADRILL GAMMA LOG.

MAX. TEMPERATURE: 91.2 DEG C AT 3211.7 m MD
MAX. INCLINATION: 68.2 DEG AT 1656.24m MD
MAX. DOGLEG SERVERITY: 7.6 DEG/30m AT 881.48 m MD
DEPLOYMENT ANGLE: 67.28 DEG

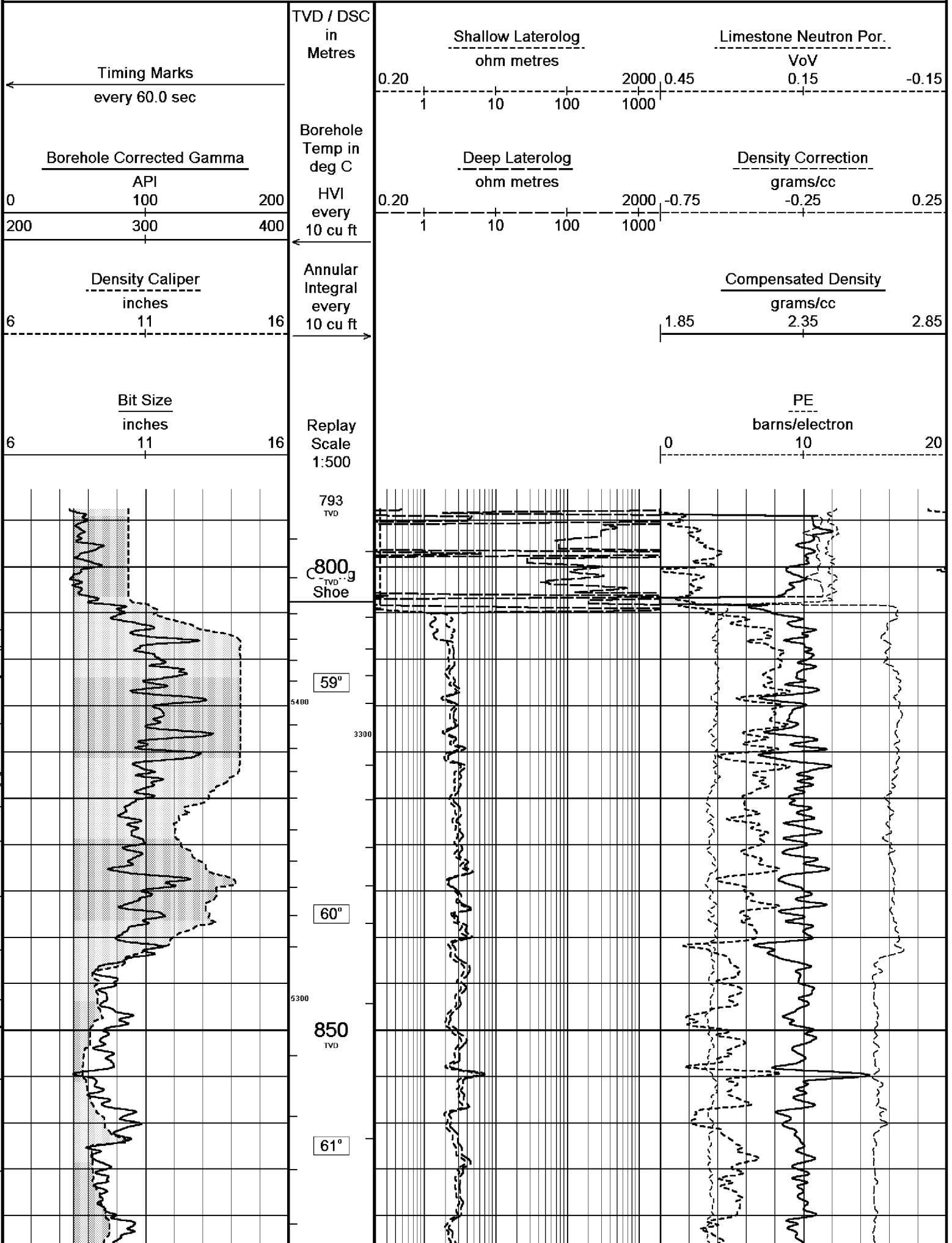
HVOL: 5444 FT^3
AVOL: 3342 FT^3

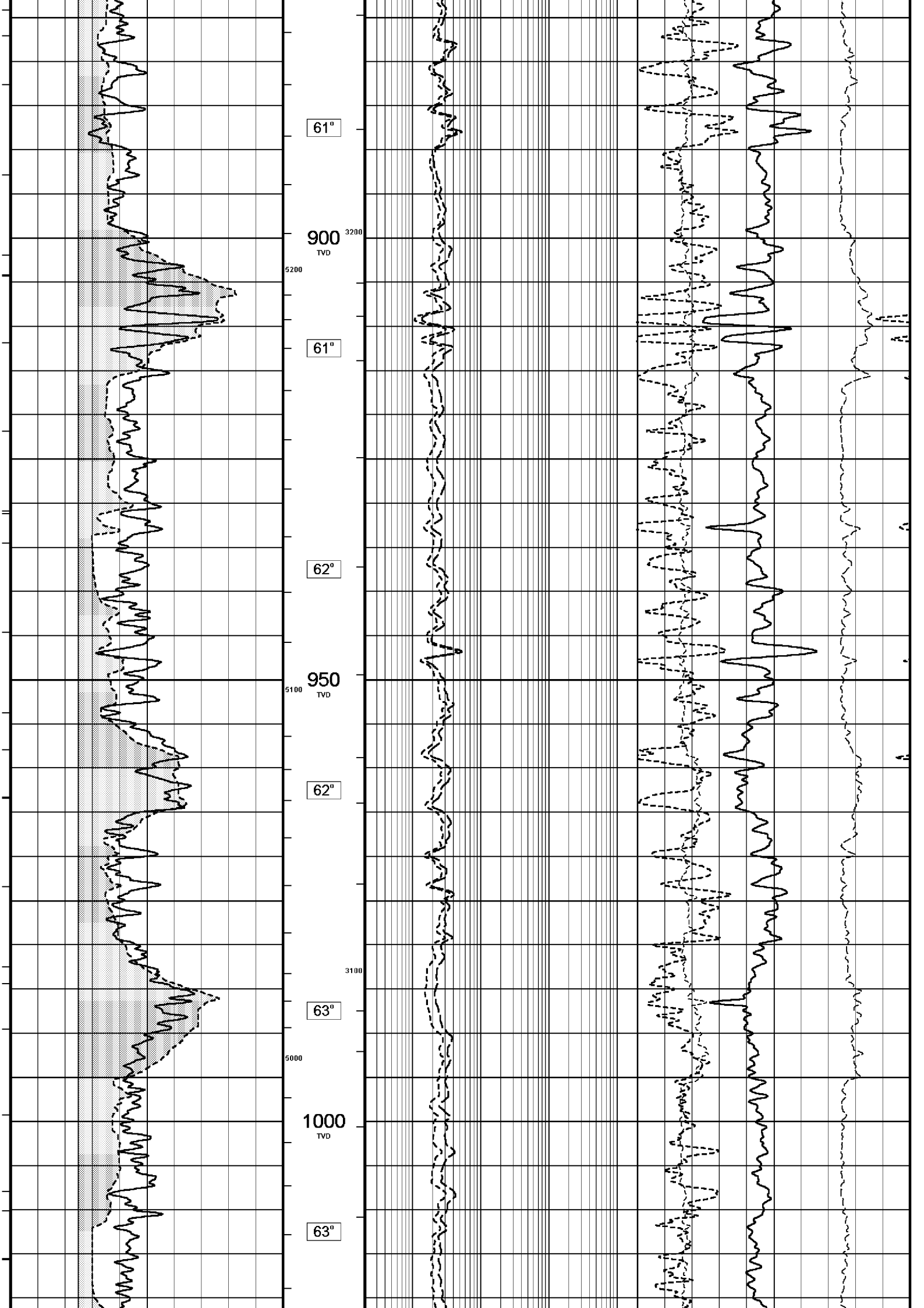
HVOL (TO 2200mMD) : 2015 FT^3
AVOL (TO 2200mMD) : 1106 FT^3

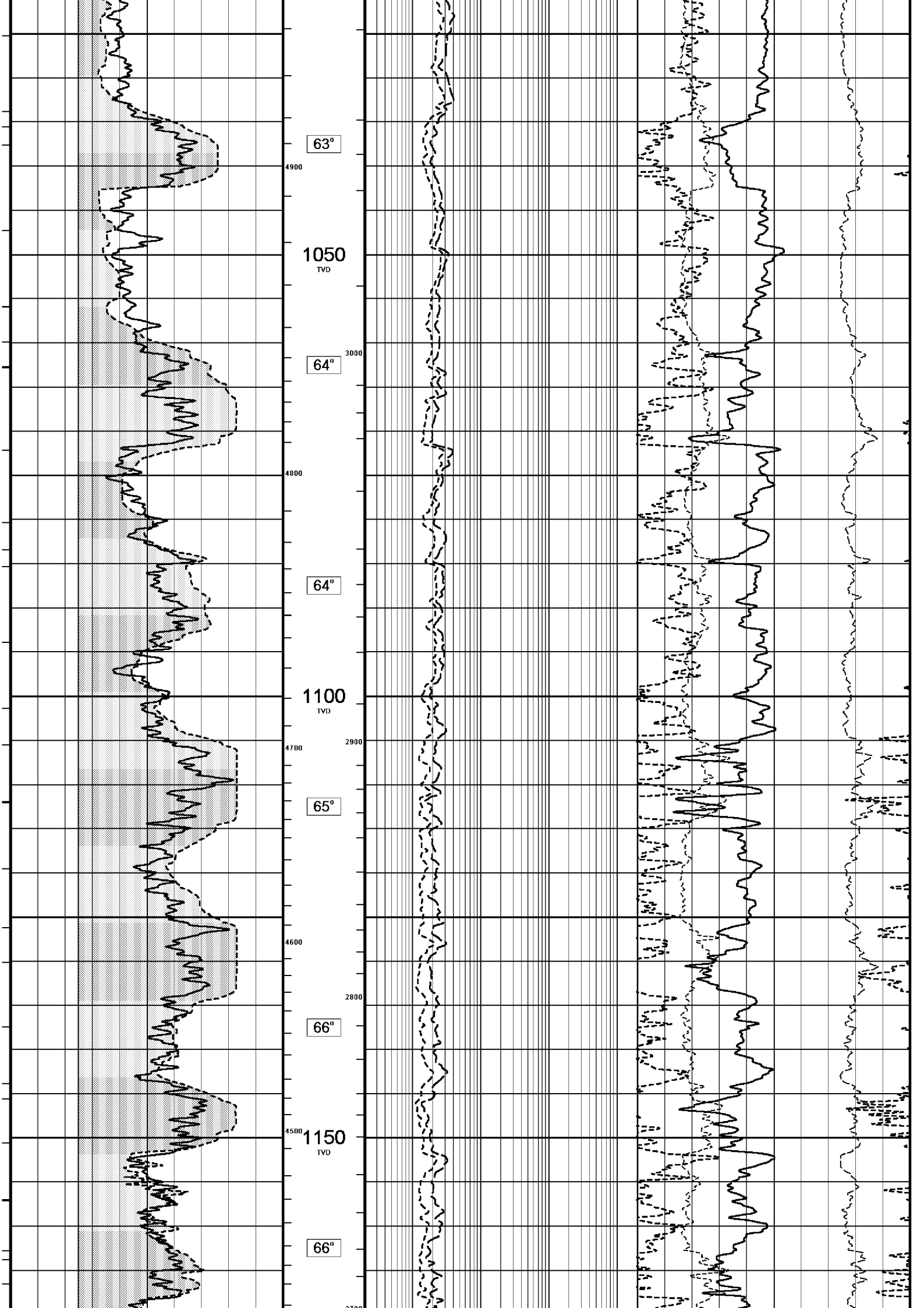
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or

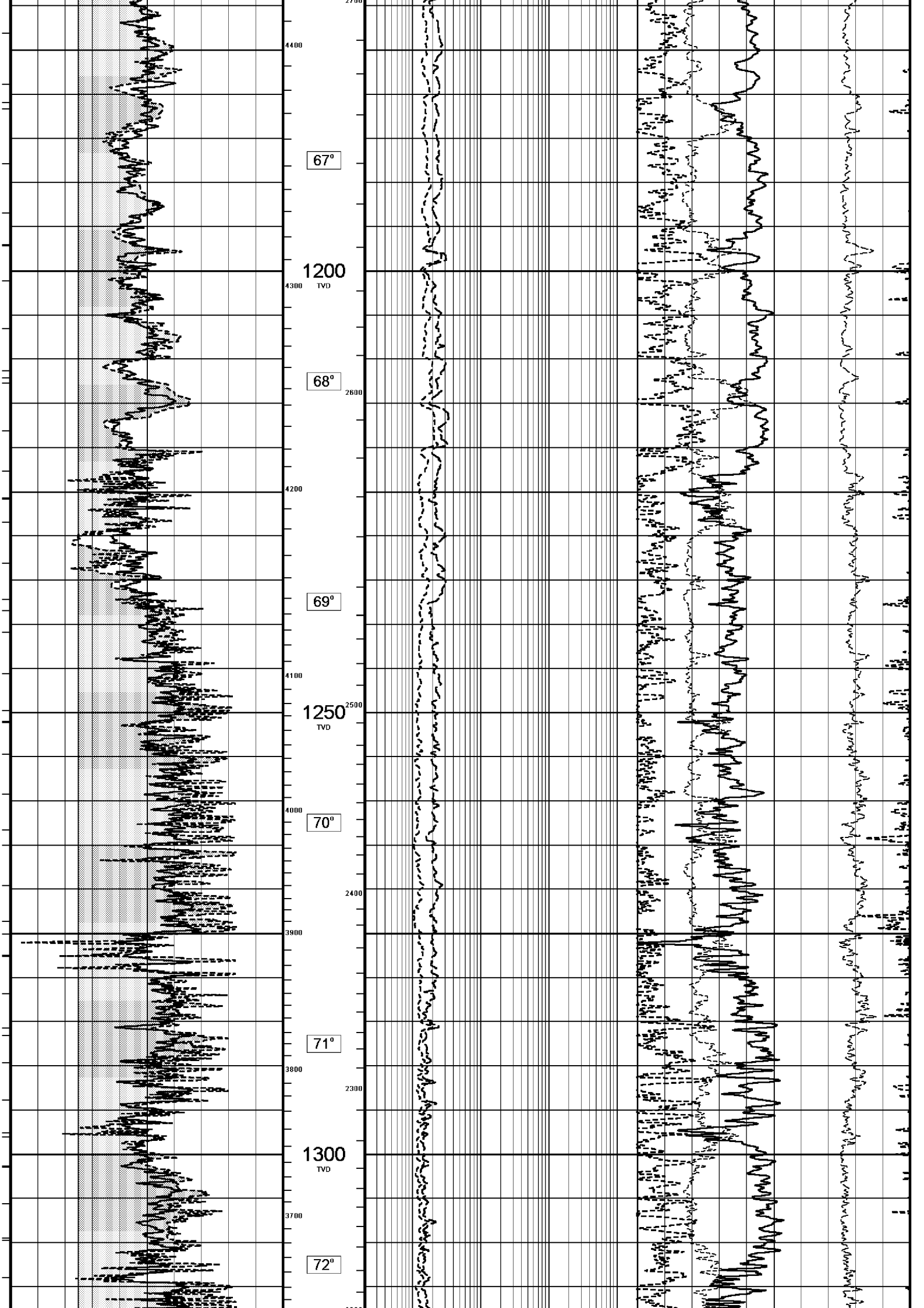
MAIN LOG 1:500

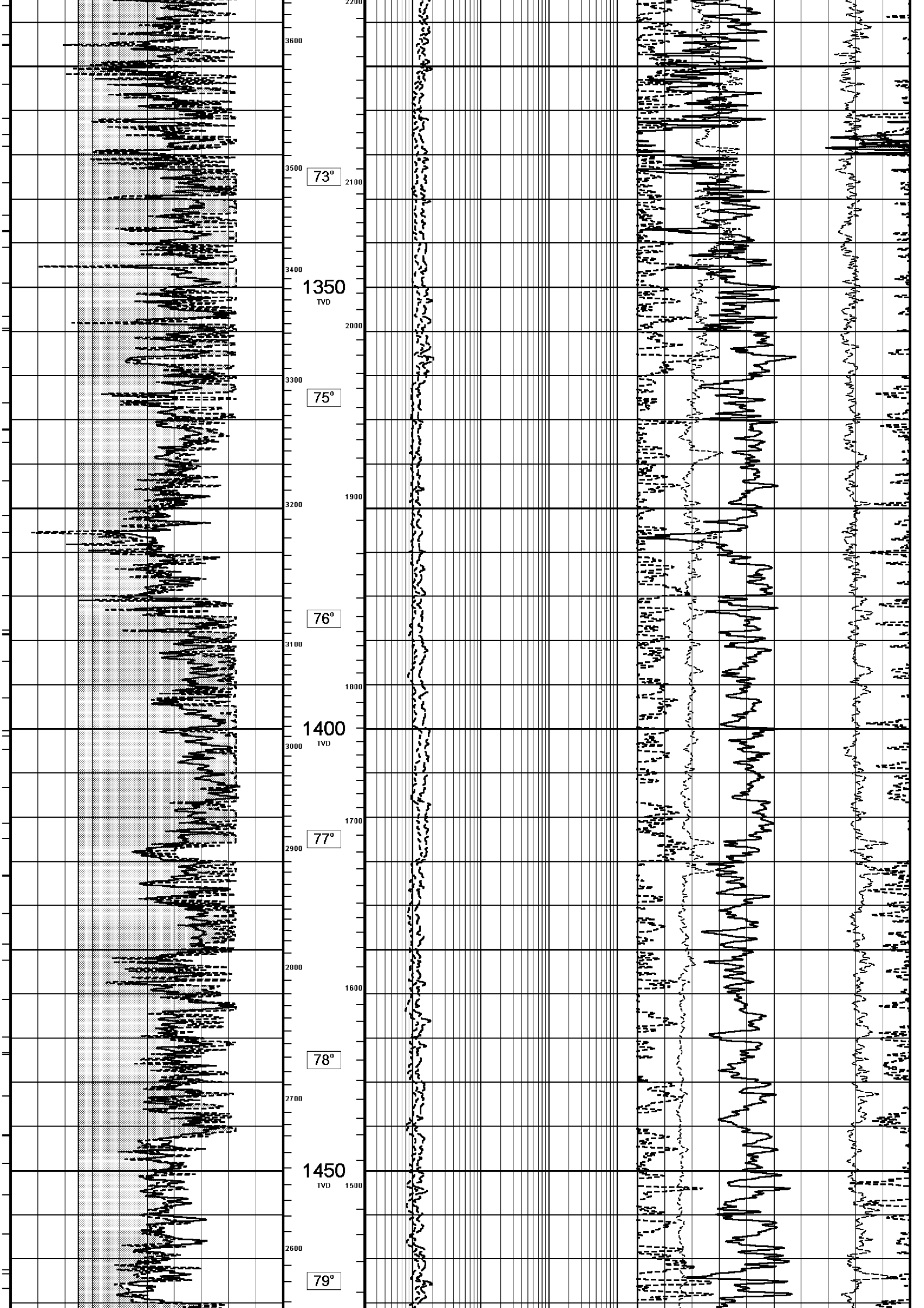
Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 15-FEB-2006 06:01
 Filename: C:\logs\BMA_A6A\FIELD DATA\BMA_A6A_MAIN_LOG2.dta
 Recorded on 14-FEB-2006 22:51
 System Configuration Dates: Logged 17-JUN-2004: Processed 17-JUN-2004: Plotted 17-JUN-2004:

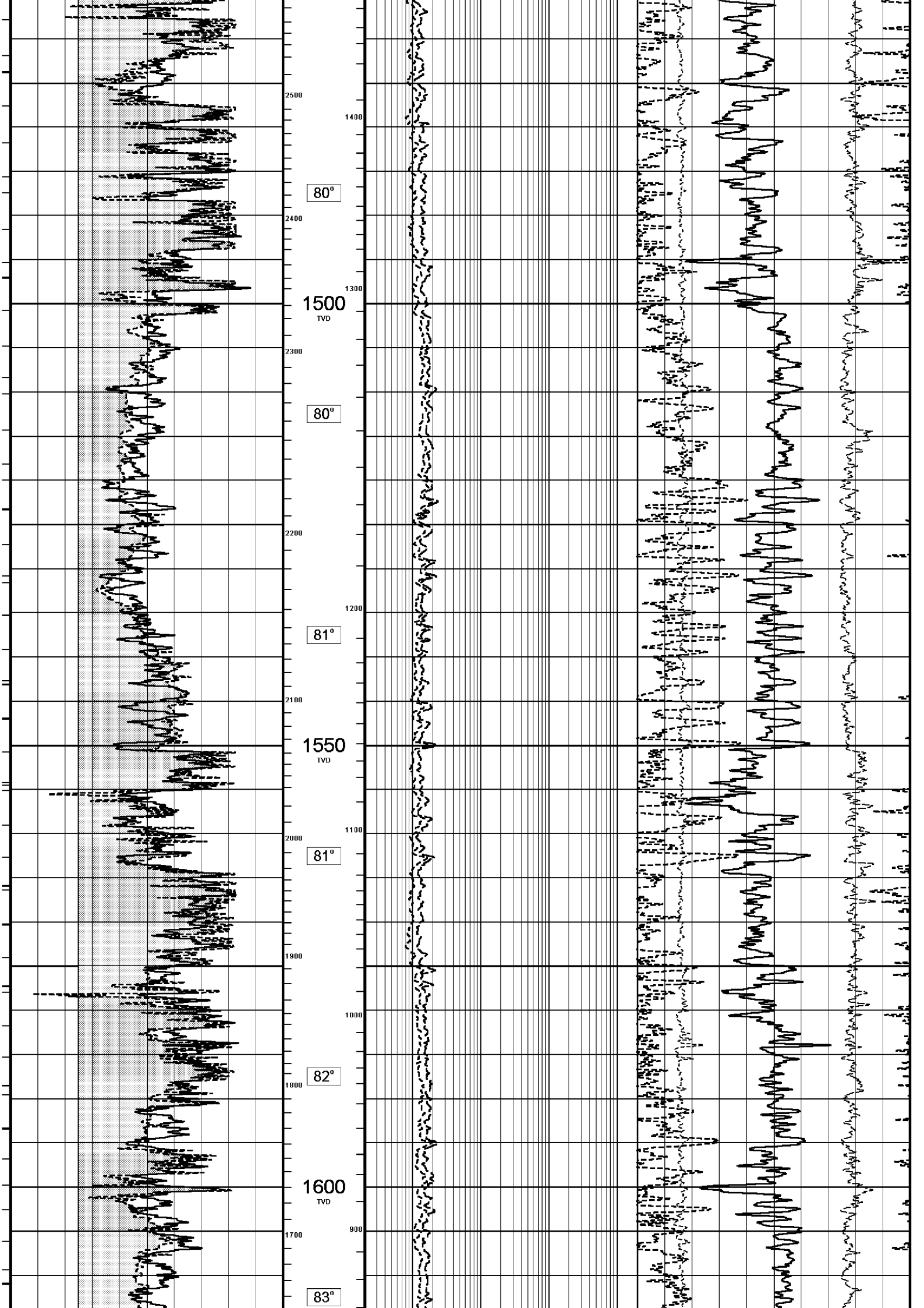


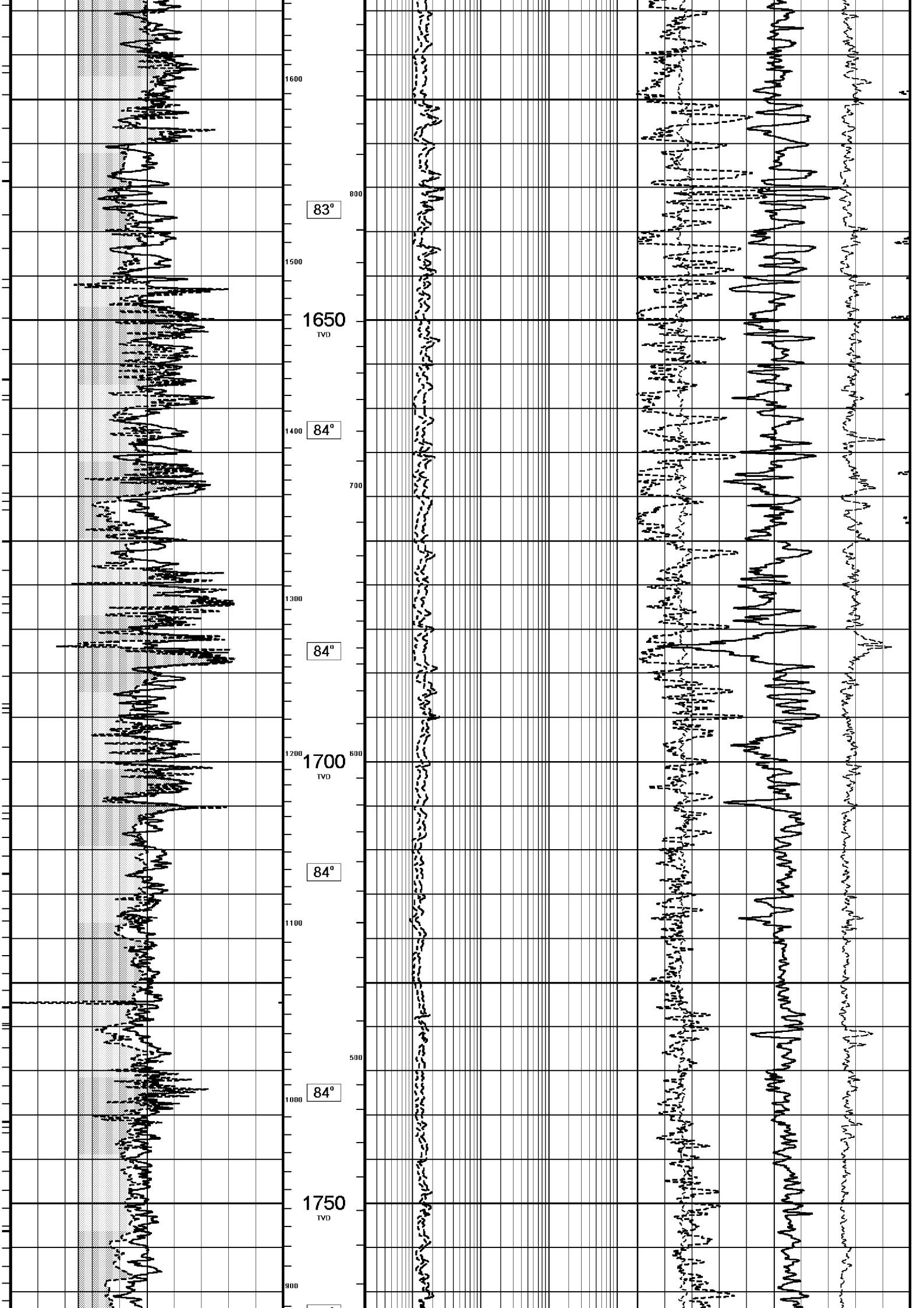


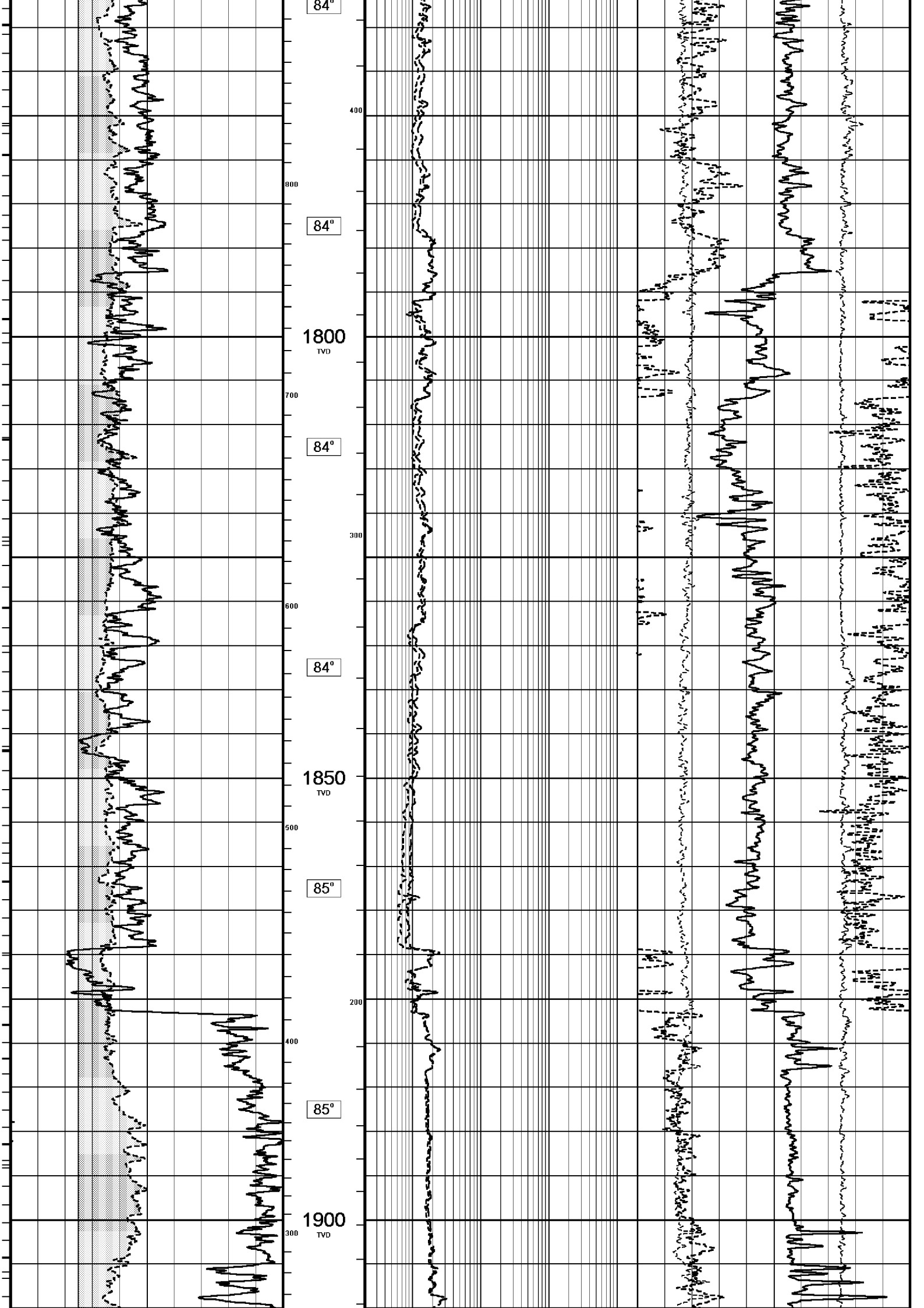


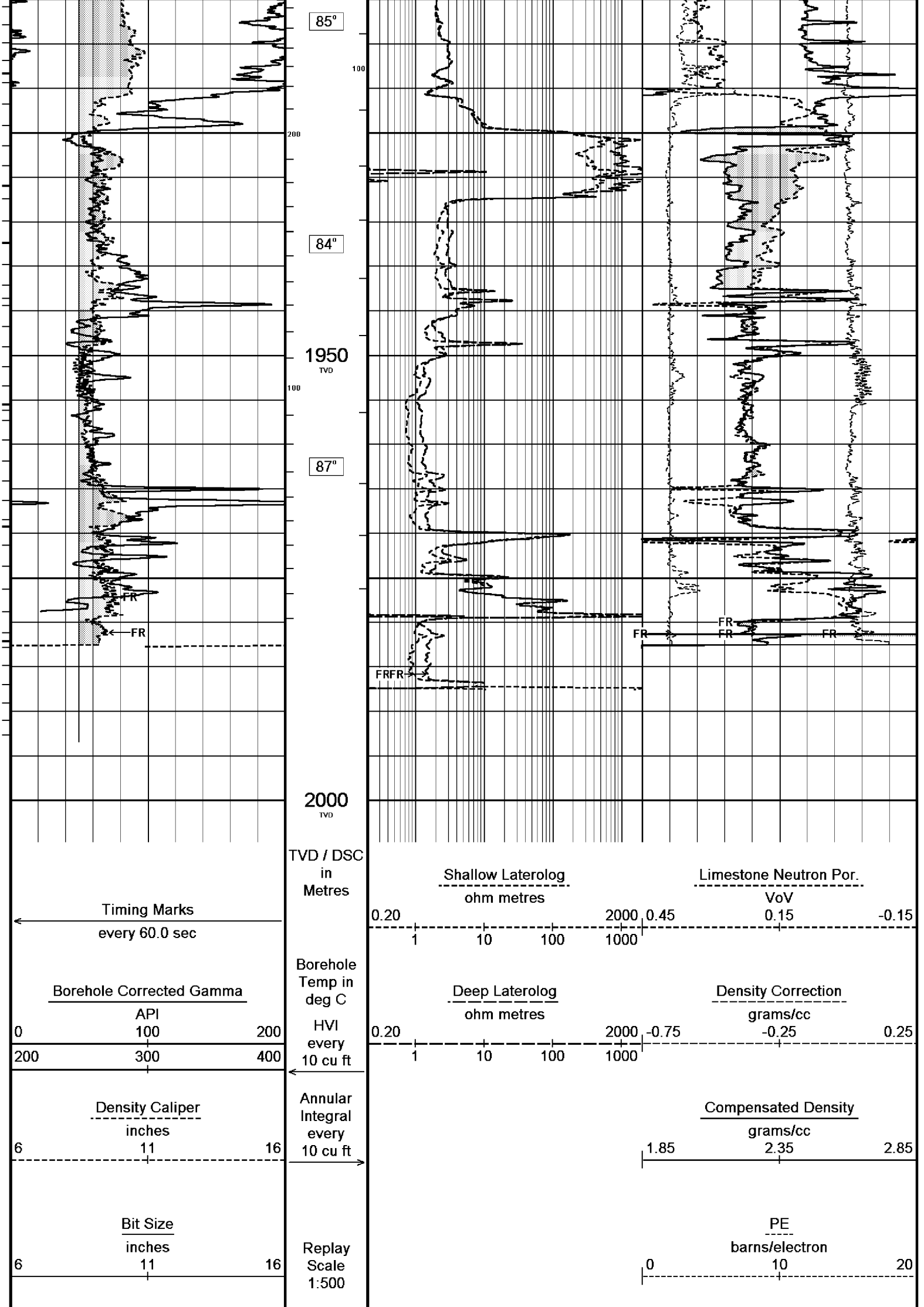












MAIN LOG 1:500

BEFORE SURVEY CALIBRATION

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General Constants All 000

General Parameters

Mud Resistivity	0.108	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	None	

Rwa Parameters

Porosity used	Limestone Sonic Porosity
Resistivity used	Deep Induction
RWA Constant A	0.610
RWA Constant M	2.150

High Resolution Temperature Calibration MCG 142

Field Calibration on 11-FEB-2006,19:18

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

High Resolution Temperature Constants MCG 142

Pre-filter Length	11
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Gamma Calibration MCG 142

Field Calibration on 11-FEB-2006 19:18

	Measured	Calibrated (API)
Background	14	9
Calibrator (Gross)	1390	918
Calibrator (Net)	1376	909

Gamma Constants MCG 142

Gamma Calibrator Number	060	
Mud Density	1.20	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Centred	
Concentration of KCl	0.00	kppm

Neutron Calibration MDN 085

Base Calibration on 1-FEB-2006 16:54
Field Check on 11-FEB-2006 20:00

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	3219	99	3714	110
	32.471		33.764	

Field Calibrator at Base

	Calibrated (cps)	
Ratio	1634	2381
	0.686	

Field Check

	Calibrated (cps)	
Ratio	1505	2215
	0.679	

Neutron Constants MDN 085

Neutron Source Id	NSN-E-739
Neutron Jig Number	052
Epithermal Neutron	No
Caliper Source for Processing	Bit Size

Caliper Source for Processing	Bit Size	
Stand-off	0.00	inches
Mud Density	1.20	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	47.60	kppm
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

Caliper Calibration MPD 083

Base Calibration on 2-FEB-2006 16:03
Field Calibration on 11-FEB-2006 20:04

Base Calibration			
Reading No	Measured	Calibrator Size (in)	
1	13840	4.01	
2	22033	5.99	
3	30543	7.98	
4	38960	9.94	
5	48464	12.01	
6	N/A	N/A	

Field Calibration			
	Measured Caliper (in)	Actual Caliper (in)	
	7.79	7.98	

Photo Density Calibration MPD 083

Base Calibration on 2-FEB-2006 15:49
Field Check on 11-FEB-2006 20:09

Density Calibration					
Base Calibration					
		Measured	Calibrated (sdu)		
		Near	Far	Near	Far
Reference 1	55794	18595	53111	19310	
Reference 2	26195	2459	24951	2530	
Field Check at Base					
	945.3	1090.3			
Field Check					
	946.6	1090.8			

PE Calibration				
Base Calibration				
	WS	Measured	Calibrated	
		WH	Ratio	Ratio
Background	180	810		
Reference 1	17391	55601	0.314	0.320
Reference 2	6877	26048	0.265	0.273
Field Check at Base				
	179.5	810.3		
Field Check				
	179.8	811.1		

Density Constants MPD 083

Density Source Id	NSD-L-242	
Nylon Calibrator Number	DNC-D-536	
Aluminium/Fe Calibrator Number	DAC-D-536	
Density Shoe Profile	4 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.20	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
0.00	0.00

Laterolog Calibration MLE 031

Base Calibration on 3-FEB-2006 12:19
Field Check on 11-FEB-2006,20:25

Base Calibration

Channel	Measured		Calibrated (ohm-m)	
	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Shallow	9.8	976.2	13.2	1321.0
Deep	9.8	975.9	7.5	755.0
Groningen	9.8	976.1	8.5	854.0

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Shallow	48.6	48.6
Deep	27.8	27.8
Groningen	251.7	251.7

Laterolog Constants MLE 031

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

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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

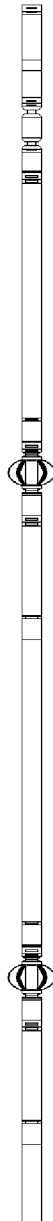
Compact Battery Sub.
MBS 99 Length: 4.41 m Weight: 44.1 lb

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 138 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

MBE21 - THIRD BRIDLE
MLK 111 Length: 3.76 m Weight: 30.9 lb

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

Compact Gamma
MCG 142 Length: 2.65 m Weight: 63.9 lb

Compact Memory Sub A.C
MMS 38 Length: 0.95 m Weight: 30.9 lb

Compact Knuckle Joint
SKJ 45 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

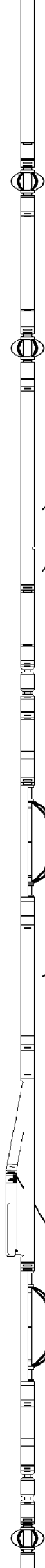
Compact Density/Caliper
MPD 83 Length: 2.92 m Weight: 90.4 lb

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 70 Length: 0.65 m Weight: 15.4 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

MIS 72	Length: 0.65 m	Weight: 15.4 lb
Compact Upper Guard Sub. MUG 30		
	Length: 2.74 m	Weight: 68.3 lb
Compact Inline Standoff B MIS 141		
	Length: 0.65 m	Weight: 15.4 lb
Compact Laterolog Electrode Sub. MLE 31		
	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 129		
	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 126		
	Length: 0.65 m	Weight: 15.4 lb
Compact Induction MAI 39		
	Length: 3.29 m	Weight: 48.5 lb
Pressure Bung + Hole Finder HFS 4		
	Length: 0.40 m	Weight: 6.6 lb
Total	Length: 54.01 m	Weight: 1201.5 lb



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

4.60 m TR22 - 5' Transit Time
4.60 m TR11 - 4' Transit Time
4.60 m TR21 - 3' Transit Time
4.60 m TR12 - 6' Transit Time

4.60 m DT35 - 3-5' Compensated Sonic

Tool Zero (0.44m from bottom)

All measurements relative to tool zero.

WELL BREAM A6A
FIELD BREAM
PROVINCE/COUNTY BASS STRAIT
COUNTRY/STATE AUSTRALIA

Elevation Kelly Bushing		metres	First Reading	1990.08	metres
Elevation Drill Floor	32.82	metres	Depth Driller	1994.67	metres
Elevation Ground Level	-59.40	metres	Depth Logger	1993.29	metres



DUAL LATEROLOG - GR
DENSITY - NEUTRON
1:500 TVD