



DUAL LATEROLOG - GR  
DENSITY - NEUTRON

1:500 TVD

**Compact**

COMPANY ESSO AUSTRALIA PTY LTD

WELL BREAM A9B

FIELD BREAM

PROVINCE/COUNTY BASS STRAIT

COUNTRY/STATE AUSTRALIA

LOCATION 38DEG 29' 58.800"S 147DEG 46' 20.685"E

5738460.920 N 567353.500 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 05-MAR-2006

Run Number ONE

Depth Driller 1994.35 metres

Depth Logger 1991.89 metres

First Reading 1986.10 metres

Last Reading 1567.70 metres

Casing Driller 1567.70 metres

Casing Logger 1567.70 metres

Bit Size 8.50 inches

Hole Fluid Type KCL/GYLPOLY

Density / Viscosity 10.00 lb/USg 75.00 CP

PH / Fluid Loss 8.90 2.80

Sample Source FLOWLINE

Rm @ Measured Temp 0.095 @ 25.0 ohm-m

Rmf @ Measured Temp 0.072 @ 25.0 ohm-m

Rmc @ Measured Temp 0.099 @ 25.0 ohm-m

Source Rmf / Rmc PRESS PRESS

Rm @ BHT 0.043 @ 82.4 ohm-m

Time Since Circulation 0.5 HRS

Max Recorded Temp 82.40 deg C

Equipment Name 5" CWS/CML

Equipment / Base 1 SALE

Recorded By R. TENCH, B. MOSS

Witnessed By TREVOR LOBO

CIRC STOPPED 22:00 4/03

BOREHOLE RECORD

Bit Size inches	Depth From metres	Depth To metres
8.500	1756.00	2283.00

CASING RECORD

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K-55	13.375	0.00	797.00	54.50
K-55	9.625	797.00	1756.00	47.00

REMARKS

RIG: NABORS 453

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

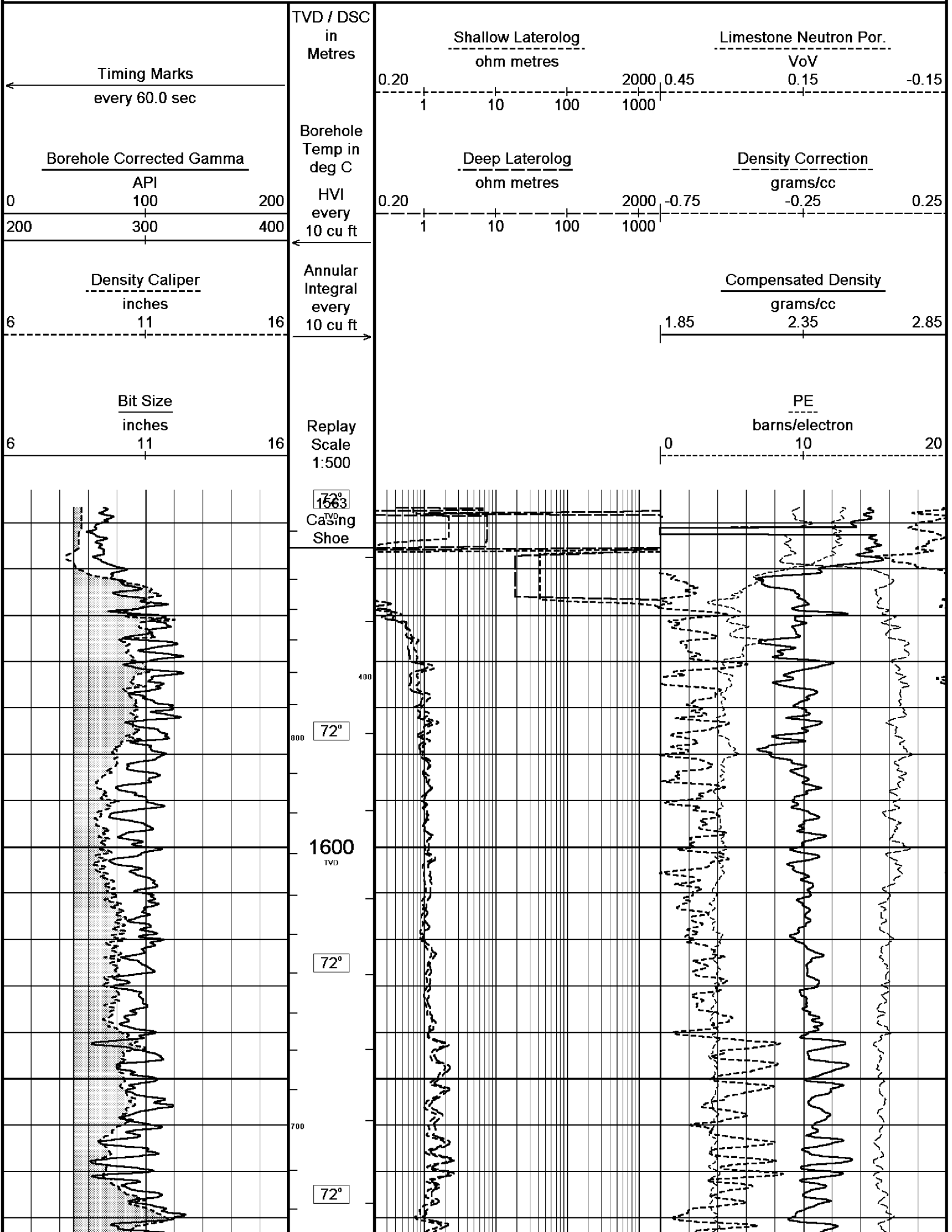
FIELD FINAL LOGS TO BE CORRELATED TO ANADRILL GAMMA LOG.

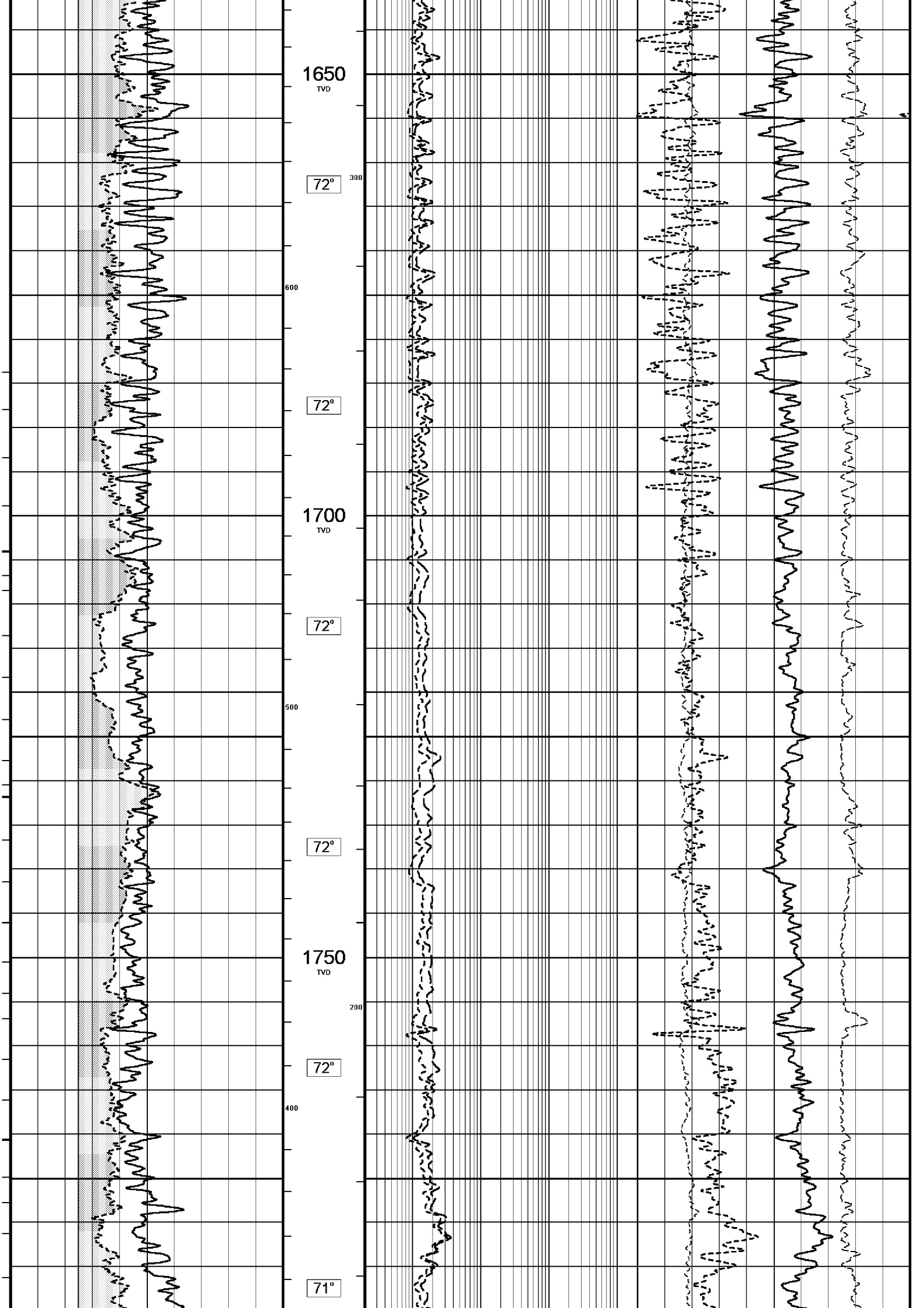
MAX. TEMPERATURE: 82.4 DEG C AT 2226.5 m MD  
MAX. INCLINATION: 47.9 DEG AT 1750 m MD  
MAX. DOGLEG SERVERITY: 6.15 DEG/30m AT 1802.19 m MD  
DEPLOYMENT ANGLE: 33.7 DEG

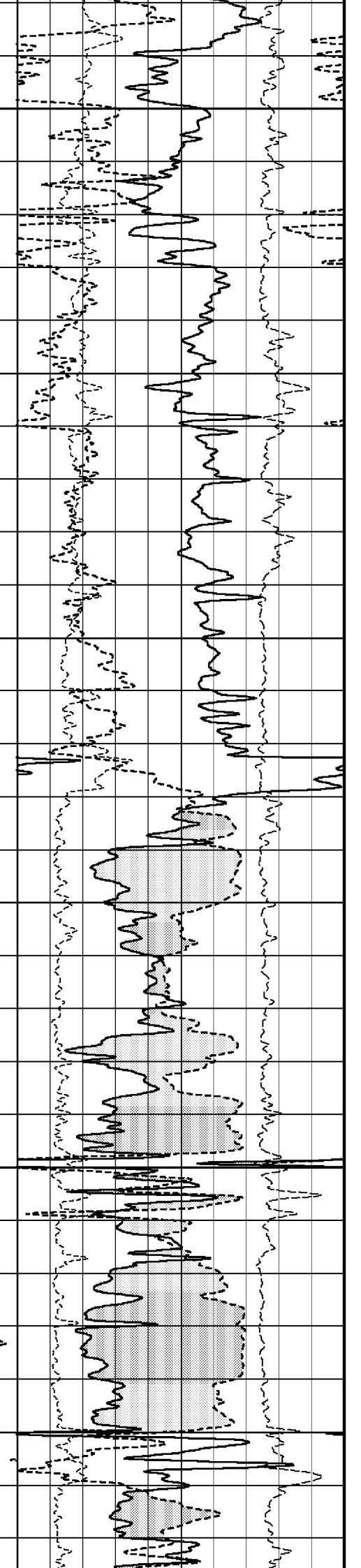
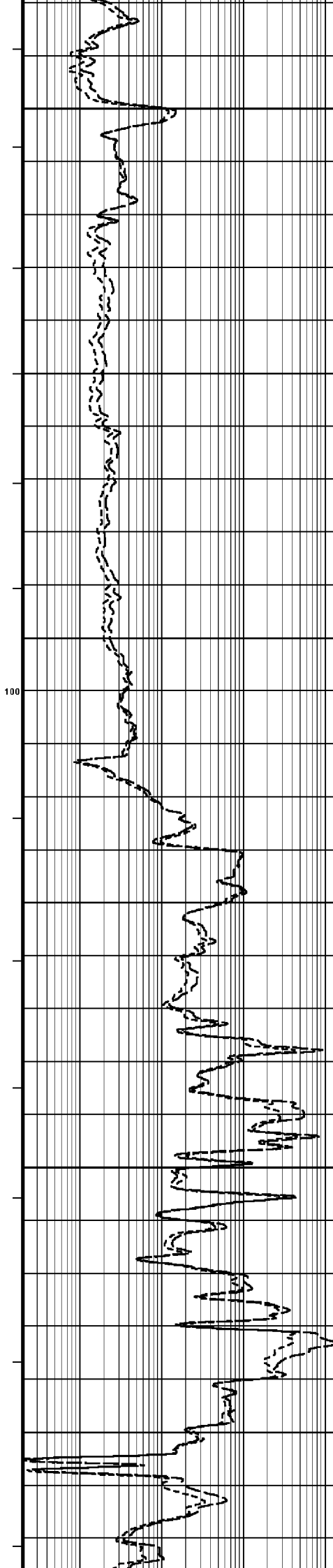
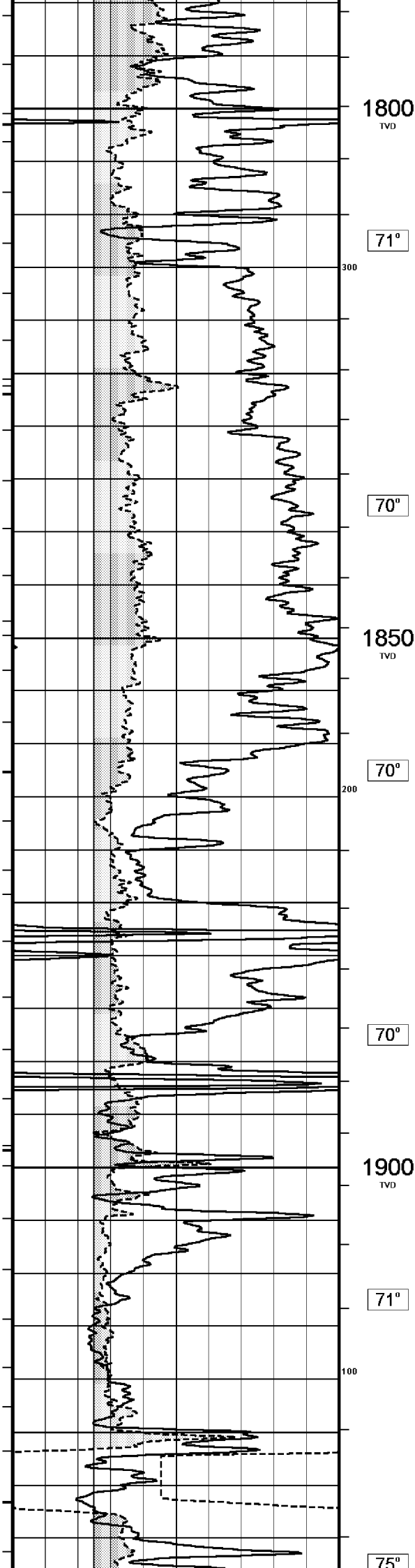
HVOL: 850 FT^3  
AVOL: 415 FT^3

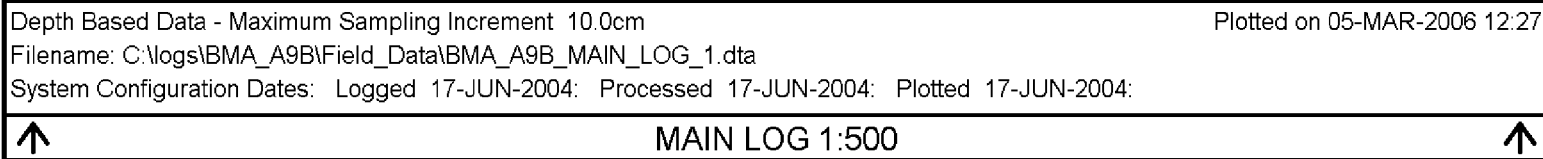
LOGGING SPEED 6M/MIN FROM TD TO 1937.52  
LOGGING SPEED 12M/MIN FROM 1937.52 TO 1735.6

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









C:\logs\BMA\_A9B\Field\_Data\DSC3.dta

Mud Resistivity	0.108	ohm-metres
Mud Resistivity Temperature	25.000	degrees C
Water Level	0.000	metres

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		
	Measured	Calibrated(Deg C)
Lower	0.00	0.00
Upper	100.00	100.00
Field Calibration on 3-MAR-2006,18:44		
High Resolution Temperature Constants MCG 142		
Pre-filter Length	11	
Gamma Calibration MCG 142		
	Measured	Calibrated (API)
Background	9	6
Calibrator (Gross)	1351	915
Calibrator (Net)	1342	909
Field Calibration on 3-MAR-2006 18:49		
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		Base Calibration on 26-FEB-2006 12:49
		Field Check on 3-MAR-2006 19:08
	Measured	Calibrated (cps)
	Near Far	Near Far
	3227 100	3714 110
Ratio	32.429	33.764
Field Calibrator at Base		Calibrated (cps)
		1596 2305
Ratio		0.693
Field Check		Calibrated (cps)
		1618 2365
Ratio		0.684
Neutron Constants MDN 085		
Neutron Source Id	NSN-E-739	
Neutron Jig Number	052	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
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	52.00	kppm
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	
Caliper Calibration MPD 083		
		Base Calibration on 26-FEB-2006 16:04
		Field Calibration on 3-MAR-2006 19:00

## Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14260	4.01
2	22438	5.99
3	30914	7.98
4	39296	9.94
5	48592	12.01
6	N/A	N/A

## Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.98	7.98

## Photo Density Calibration MPD 083

Base Calibration on 25-FEB-2006 16:41

Field Check on 3-MAR-2006 19:04

## Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	55488	18799	53111	19310
Reference 2	26049	2473	24951	2530

## Field Check at Base

943.9 1098.3

## Field Check

941.8 1097.2

## PE Calibration

Base Calibration	WS	Measured		Calibrated
		WH	Ratio	Ratio
Background	177	809		
Reference 1	17358	55293	0.315	0.320
Reference 2	6860	25903	0.266	0.273

## Field Check at Base

176.9 808.9

## Field Check

177.4 806.5

## 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

## Laterolog Calibration MLE 031

Base Calibration on 25-FEB-2006 11:11

Field Check on 3-MAR-2006,18:52

## Base Calibration

Channel	Measured		Calibrated (ohm-m)	
	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Shallow	9.9	975.5	13.2	1321.0
Deep	9.9	975.6	7.5	755.0
Groningen	9.9	975.9	8.5	854.0

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Shallow	48.5	48.5

Deep	27.7	27.7
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	None	

DOWNHOLE EQUIPMENT			C:\logs\BMA_A9B\Field_Data\DSC3.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: 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			



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

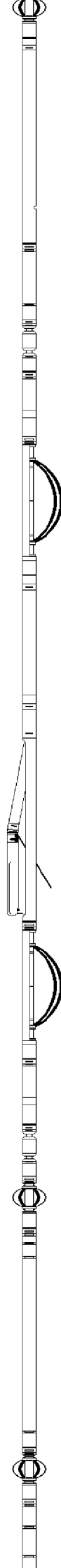
Compact Knuckle Joint  
SKJ 110 Length: 0.66 m Weight: 24.3 lb

Compact Inline Standoff B  
MIS 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



Tool Zero (0.44m from bottom)

All measurements relative to tool zero.

COMPANY	ESSO AUSTRALIA PTY LTD
WELL	BREAM A9B
FIELD	BREAM
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing	metres	First Reading	1986.10	metres	
Elevation Drill Floor	32.82	metres	Depth Driller	1994.35	metres
Elevation Ground Level	59.40	metres	Depth Logger	1991.89	metres



DUAL LATEROLOG - GR  
DENSITY - NEUTRON  
1-500 TVD

