

# Reeves

## DUAL LATEROLOG

GAMMA RAY  
1:200 TVD

COMPANY			ESSO AUSTRALIA PTY. LTD.		
WELL			TUNA A10a		
FIELD			GIPPSLAND BASIN		
PROVINCE/COUNTY			BASS STRAIT		
COUNTRY/STATE			AUSTRALIA		
LOCATION			AMG X 624224.99m E AMG Y 5774222.49m N LAT:38°10'16.394"S LONG:148°25'05.413"E		
LSD	SEC	TWP	RGE	Other Services	
				COMPENSATED SONIC	
API Number				PHOTO DENSITY	
Permit Number				COMPENSATED NEUTRON	
Permanent Datum MSL			, Elevation 0		metres
Log Measured From 31.32, Metres			above Permanent Datum		
Drilling Measured From Drill Floor, RT					
Date	12-OCT-2002				
Run Number	1				
Depth Driller	1446.70		metres		
Depth Logger	1446.70		metres		
First Reading	1445.00		metres		
Last Reading	1346.00		metres		
Casing Driller	625.90		metres		
Casing Logger					
Bit Size	8.50		inches		
Hole Fluid Type	KCL PHPA				
Density / Viscosity	10.30 lb/USg		57.00		
PH / Fluid Loss	8.90		3.40 ml/30Min		
Sample Source	FLOWLINE				
Rm @ Measured Temp	0.126 @ 25.0		ohm-m		
Rmf @ Measured Temp	0.097 @ 25.0		ohm-m		
Rmc @ Measured Temp	0.191 @ 25.0		ohm-m		
Source Rmf / Rmc	PRESS		FILTER		
Rm @ BHT	0.07 @ 63.0		ohm-m		
Time Since Circulation	0.65 HRS				
Max Recorded Temp	63.00		deg C		
Equipment Name	SHUTTLE				
Equipment / Base	1		CML		
Recorded By	MATT BARNES				
Witnessed By	BRUCE MENZEL				
Last Title					

### BOREHOLE RECORD

Bit Size inches	Depth From metres	Depth To metres
8.500	661.20	2312.00

### CASING RECORD

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
	9.625	0.00	661.20	40.00

### REMARKS

DRILLING RIG: NABORS (ISDL) RIG 453.

COMPACT WIRELINE TOOLS DEPLOYED BY COMPACT WELL SHUTTLE TECHNIQUE.

MESSENGER DEPLOYED WITH HALLIBURTON CEMENT PUMP, MESSENGER DEPLOYED AT 14:35 12-OCT.  
RING SHEARED AT 15:08 12-OCT.

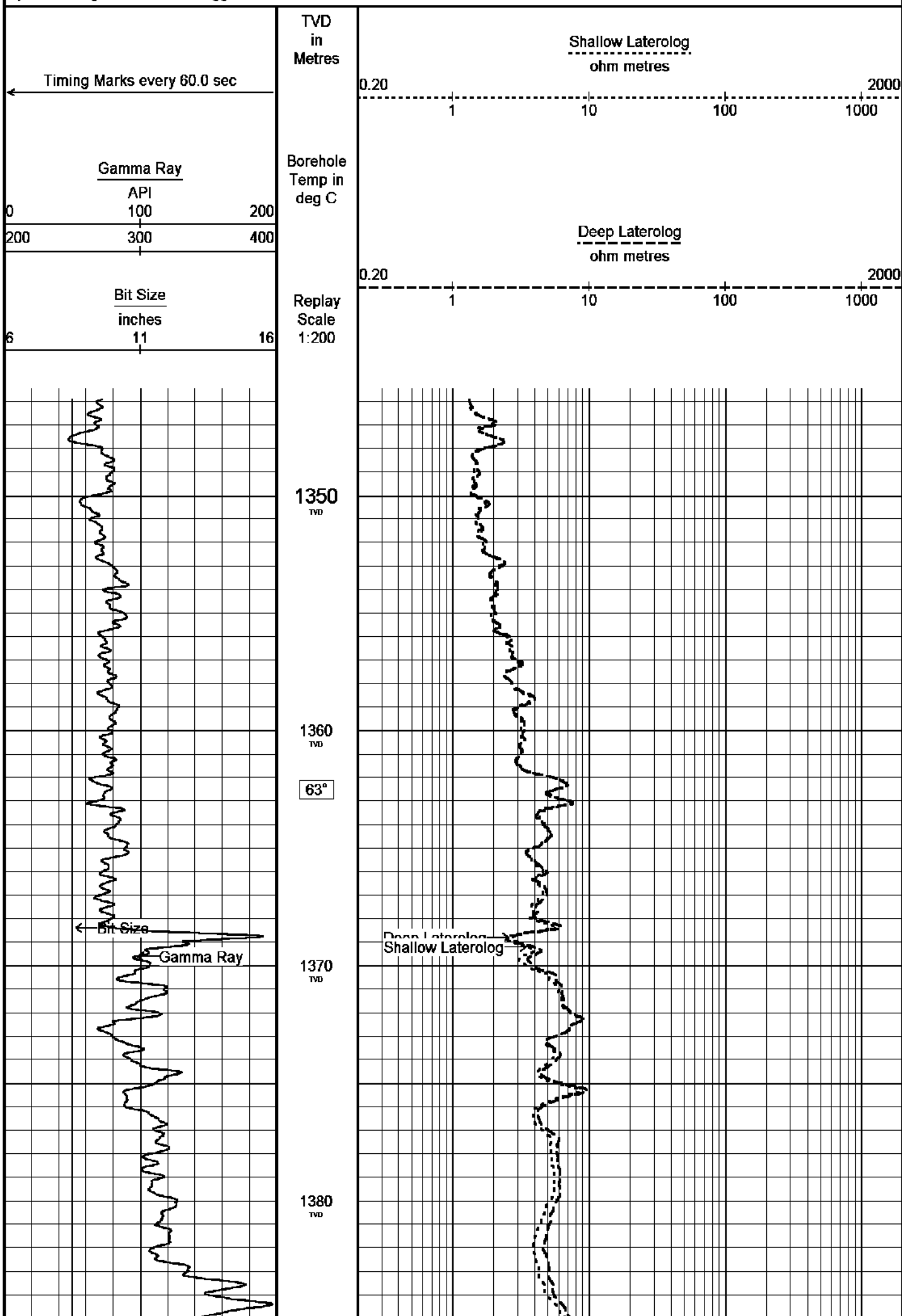
DENSITY CALIPER DID NOT OPEN, LOGS PROCESSED USING BITSIZE FOR CALIPER CORRECTIONS.

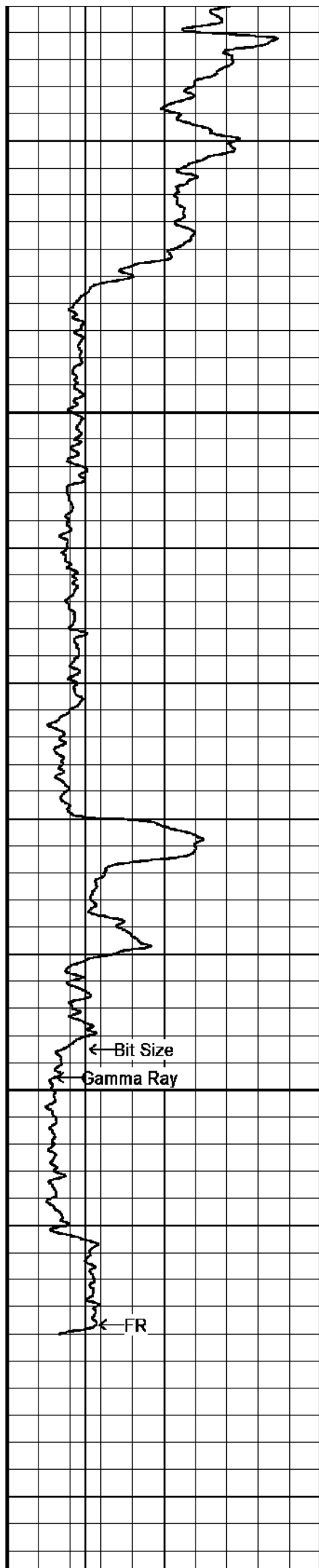
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

MAIN LOG 1:200

Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 31-OCT-2002 20:26





63°

1390  
TVD

1400  
TVD

1410  
TVD

61°

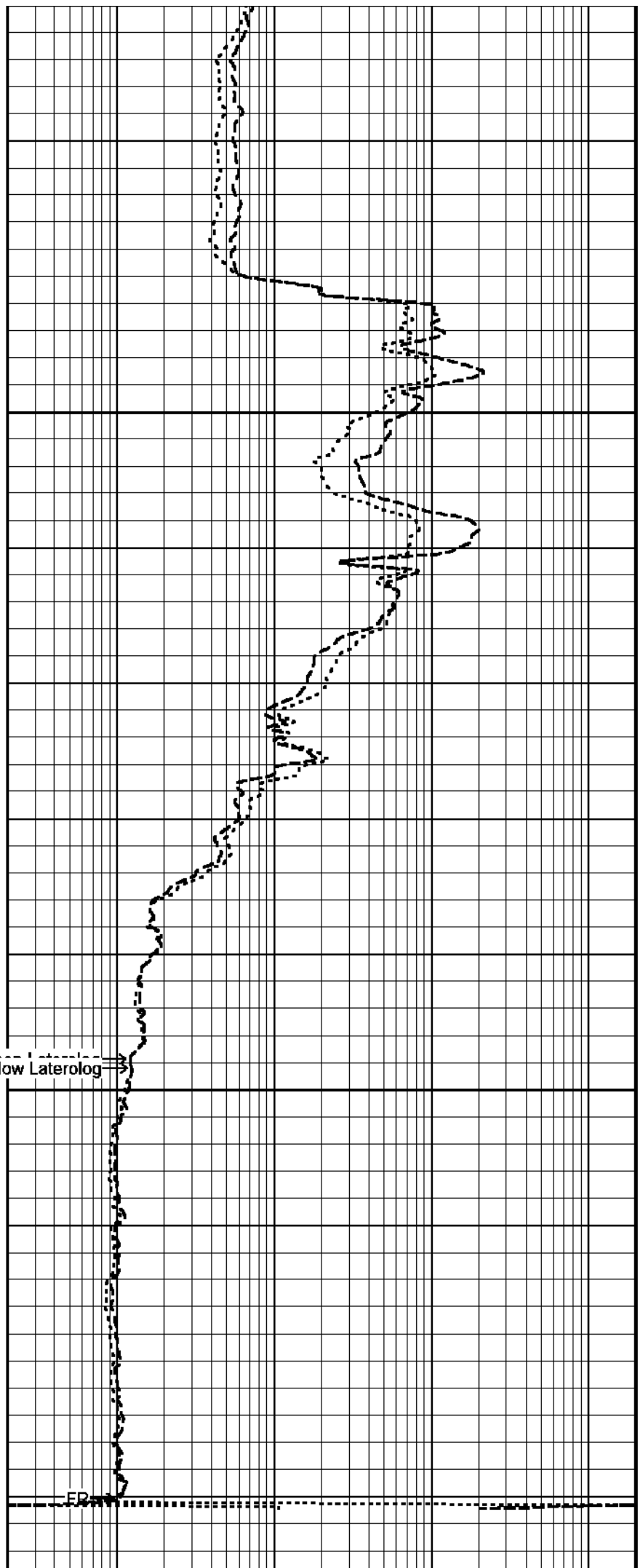
1420  
TVD

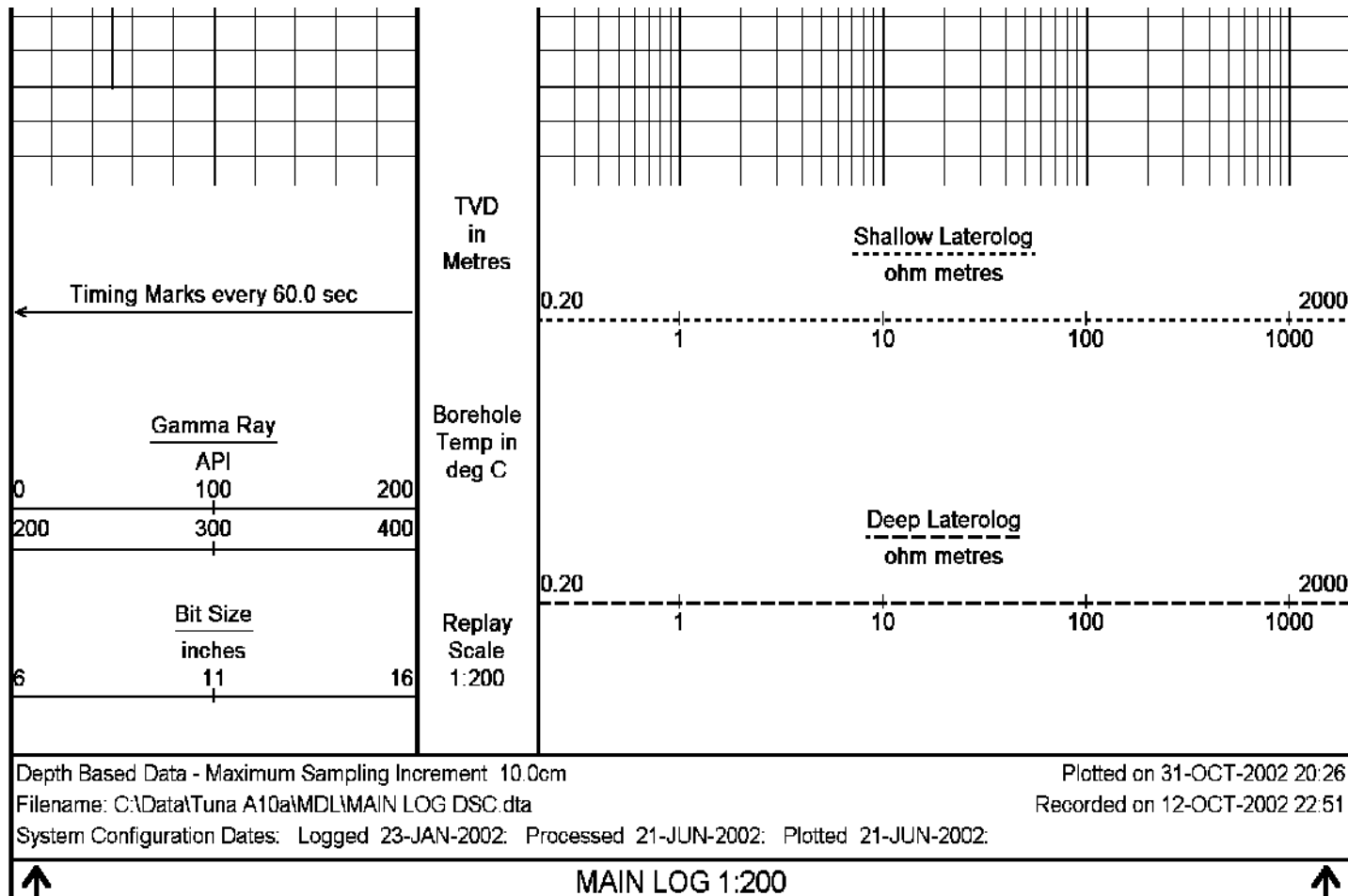
Shallow Laterolog

1430  
TVD

1440  
TVD

FR





BEFORE SURVEY CALIBRATION			
C:\Data\Tuna A10a\MDL\MAIN LOG DSC.dta			
General Constants All 000			
General Parameters			
Mud Resistivity	0.07	ohm-metres	
Mud Resistivity Temperature	63.00	degrees C	
Water Level	0.00	metres	
Density/Neutron Processing	Wet Hole		
Hole/Annular Volume Parameters			
HVOL Caliper 1	Density Caliper		
HVOL Caliper 2	None		
Annular Volume Diameter	7.00	inches	
Rwa Parameters			
Porosity used	Base Density Porosity		
Resistivity used	Deep Laterolog		
RWA Constant A	0.61		
RWA Constant M	2.15		
Gamma Calibration MCG 044			
			Field Calibration on 10-OCT-2002 15:55
	Measured	Calibrated (API)	
Background	12	8	
Calibrator (Gross)	1440	917	
Calibrator (Net)	1428	909	
Gamma Constants MCG 044			
Gamma Calibrator Number	060		
Mud Density	1.24	gm/cc	
Caliper Source for Processing	Bit Size		
Tool Position	Centred		
Concentration of KCl	0.00	kppm	
High Resolution Temperature Calibration MCG 044			
			Field Calibration on 4-SEP-2002,14:58
	Measured	Calibrated(Deg C)	

Lower	1.00	1.00		
Upper	150.00	150.00		
High Resolution Temperature Constants MCG 044				
Pre-filter Length	11			
Laterolog Calibration MLE 015		Base Calibration on 4-SEP-2002,14:40 Field Check on 11-OCT-2002,11:33		
Base Calibration				
	Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Shallow	0.0	972.3	0.0	1327.3
Deep	0.0	972.9	0.0	852.7
Groningen	0.0	996.2	0.0	852.7
	Base Check (ohm-m)		Field Check (ohm-m)	
Channel				
Shallow	49.1		49.1	
Deep	31.5		31.5	
Groningen	246.3		246.3	
Laterolog Constants MLE 015				
Squasher Start	40000	ohm-m		
Shallow Laterolog K Factor	1.3273			
Deep Laterolog K Factor	0.8527			
Groningen Laterolog K Factor	0.8527			
Interference Rejection	50 Hz			
SP Connection	SP Bridle Electrode			
Groningen Connection	Groningen Electrode			

DOWNHOLE EQUIPMENT  
All measurements relative to tool zero.

Compact Battery Sub.  
MBS 99 Length: 4.34 m Weight: 44.09 lb

Compact Knuckle Joint  
SKJ 47 Length: 0.66 m Weight: 24.25 lb

Compact Inline Standoff  
MIS 52 Length: 0.65 m Weight: 30.86 lb

Compact Stiff Bridle Electrode Sub.  
MBE 9 Length: 3.76 m Weight: 94.80 lb



Compact Inline Standoff  
MIS 77    Length: 0.65 m    Weight: 30.86 lb

Compact Stiff Bridle Electrode Sub.  
MBE 5    Length: 3.76 m    Weight: 94.80 lb

Compact Inline Standoff  
MIS 31    Length: 0.65 m    Weight: 30.86 lb

Compact Knuckle Joint  
SKJ 44    Length: 0.66 m    Weight: 24.25 lb

Compact Gamma  
MCG 44    Length: 2.65 m    Weight: 63.93 lb



Compact Knuckle Joint  
SKJ 48    Length: 0.66 m    Weight: 24.25 lb

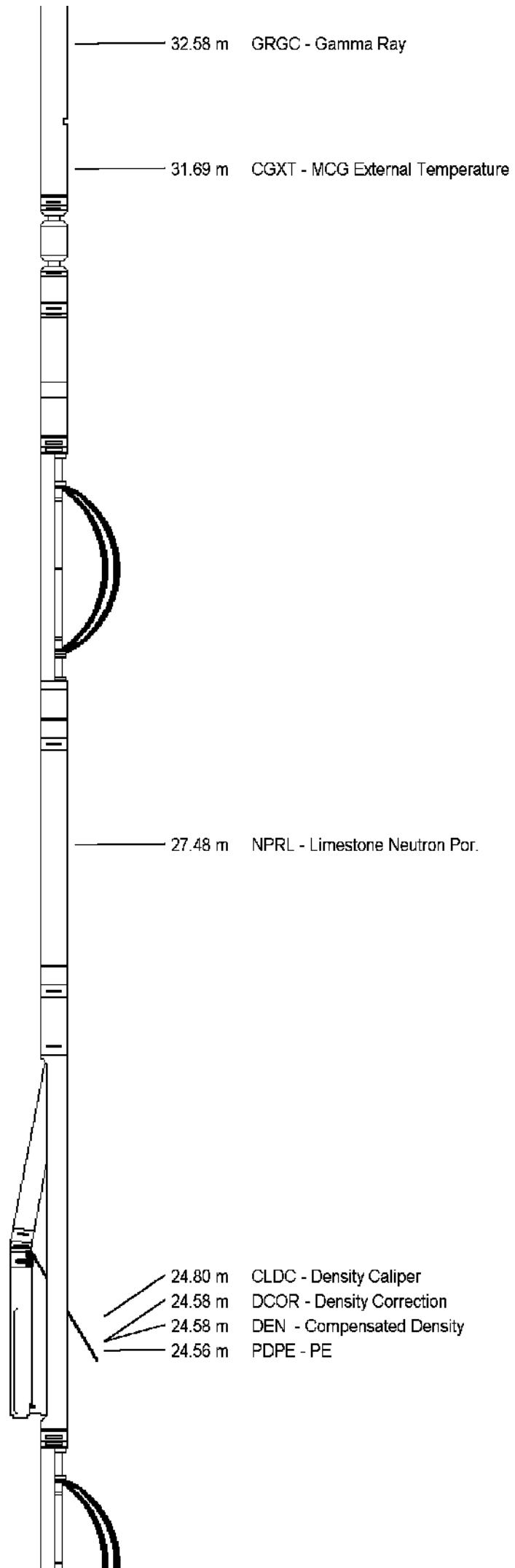
Compact Swivel Head Adaptor  
SHA 27    Length: 0.83 m    Weight: 26.46 lb

Compact Inline Bowspring  
MIS 24    Length: 1.74 m    Weight: 33.07 lb

Compact Neutron  
MDN 68    Length: 1.53 m    Weight: 50.71 lb

Compact Density/Caliper  
MPD 66    Length: 2.92 m    Weight: 90.39 lb

Compact Inline Bowspring  
MIS 25    Length: 1.74 m    Weight: 33.07 lb



Compact Swivel Head Adaptor  
SHA 28    Length: 0.83 m    Weight: 26.46 lb

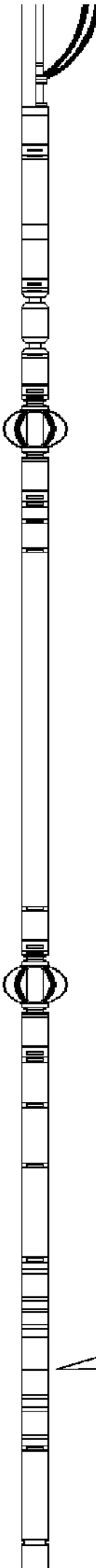
Compact Knuckle Joint  
SKJ 45    Length: 0.66 m    Weight: 24.25 lb

Compact Inline Standoff  
MIS 53    Length: 0.65 m    Weight: 30.86 lb

Compact Upper Guard Sub.  
MUG 17    Length: 2.74 m    Weight: 68.34 lb

Compact Inline Standoff  
MIS 49    Length: 0.65 m    Weight: 30.86 lb

Compact Laterolog Electrode Sub.  
MLE 15    Length: 3.76 m    Weight: 92.59 lb



14.66 m    DSL - Shallow Laterolog  
14.66 m    DGL - Groningen Laterolog



Compact Inline Standoff  
MIS 76    Length: 0.65 m    Weight: 30.86 lb

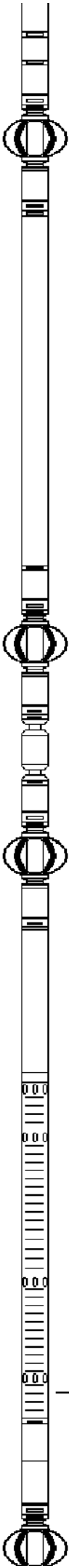
Compact Lower Guard Sub.  
MLG 7    Length: 2.44 m    Weight: 55.12 lb

Compact Inline Standoff  
MIS 73    Length: 0.65 m    Weight: 30.86 lb

Compact Knuckle Joint  
SKJ 48    Length: 0.66 m    Weight: 24.25 lb

Compact Inline Standoff  
MIS 75    Length: 0.65 m    Weight: 30.86 lb

Compact Sonic  
MSS 45    Length: 3.82 m    Weight: 72.75 lb



4.60 m    DT35 - 3-5' Compensated Sonic

Compact Inline Standoff  
MIS 76    Length: 0.65 m    Weight: 30.86 lb

MIS 30 Length: 0.65 m Weight: 30.86 lb

Compact Induction  
MAI 69 Length: 3.29 m Weight: 48.50 lb

Compact Hole Finder  
HFS 99 Length: 0.61 m Weight: 2.20 lb

Total Length: 49.93 m

Total Weight: 1296.32 lb



0.79 m RILM - Medium Induction  
0.79 m RILD - Deep Induction

Tool Zero (0.65m from bottom)

COMPANY	ESSO AUSTRALIA PTY. LTD.
WELL	TUNA A10a
FIELD	GIPPSLAND BASIN
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing	metres	First Reading	1445.00	metres
Elevation Drill Floor	31.32 metres	Depth Driller	1446.70	metres
Elevation Ground Level	-59.40 metres	Depth Logger	1446.70	metres

**Reeves**

DUAL LATEROLOG  
GAMMA RAY  
1:200 TVD