

Reeves

PHOTO DENSITY COMPENSATED NEUTRON 1:200 TVD

COMPANY				ESSO AUSTRALIA PTY. LTD.			
WELL				TUNA A-05A			
FIELD				GIPPSLAND BASIN			
PROVINCE/COUNTY				BASS STRAIT			
COUNTRY/STATE				AUSTRALIA			
LOCATION				X: 624233.40 m E, Y: 5774225.83 m N 38°10'16.282" S, 148°25'05.756" E			
LSD	SEC	TWP	RGE	Other Services			
API Number				COMPENSATED SONIC			
Permit Number				DUAL LATEROLOG			
Permanent Datum MSL, Elevation 0 metres						Elevations:	
Log Measured From DF@ 31.32 metres above Permanent Datum						KB	metres
Drilling Measured From DF						DF	31.32 metres
Date						GL	-59.40 metres
Run Number	1						
Depth Driller	1450.68					metres	
Depth Logger	1450.68					metres	
First Reading	1448.70					metres	
Last Reading	1319.80					metres	
Casing Driller	652.00					metres	
Casing Logger							
Bit Size	8.50					inches	
Hole Fluid Type	KCOL/PPH/AGLY						
Density / Viscosity	10.30 lb/USg					64.00 secs/ct	
PH / Fluid Loss	9.00					3.20 ml/30Min	
Sample Source	FLOWLINE						
Rm @ Measured Temp	0.118 @ 25.0					ohm-m	
Rmf @ Measured Temp	0.085 @ 25.0					ohm-m	
Rmc @ Measured Temp	0.193 @ 25.0					ohm-m	
Source Rmf / Rmc	PRESS					FILTER	
Rm @ BHT	0.059 @ 73.0					ohm-m	
Time Since Circulation	36:15 hrs						
Max Recorded Temp	73.00					deg C	
Equipment Name	SHUTTLE						
Equipment / Base	1					CML	
Recorded By	M. BARNES, B. ARNOLD					D. MACHIN, G. MCMANUS	
Witnessed By	G. SMITH						
Circ. Stopped	09:00 25-Dec						

BOREHOLE RECORD

Bit Size inches	Depth From metres	Depth To metres
12.250	218.00	841.00
8.500	841.00	3257.00

CASING RECORD

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
	9.625	0.00	836.41	47.00

REMARKS

DRILLING RIG: NABORS (ISDL) RIG 453.

COMPACT WIRELINE TOOLS DEPLOYED BY COMPACT WELL SHUTTLE TECHNIQUE.

MESSENGER DEPLOYED WITH RIG MUD PUMPS.

RING SHEARED AT 21:10 26-DEC-02.

SHEARING PRESSURE WAS 1200 PSI.

HTHP FILTER LOSS = 10.8 ml/30min.

CASING DETAILS:

20" 133.0 lb/ft from surface to 164.60 m.

13 3/8" 54.5 lb/ft from surface to 609.65 m (window milled from 210.39 m to 218.39 m).

9 5/8" 47.0 lb/ft from surface to 836.41 m.

CALIPER READING 8.68" ON TIME LOG IN 9 5/8" 47 LB/FT CASING.

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

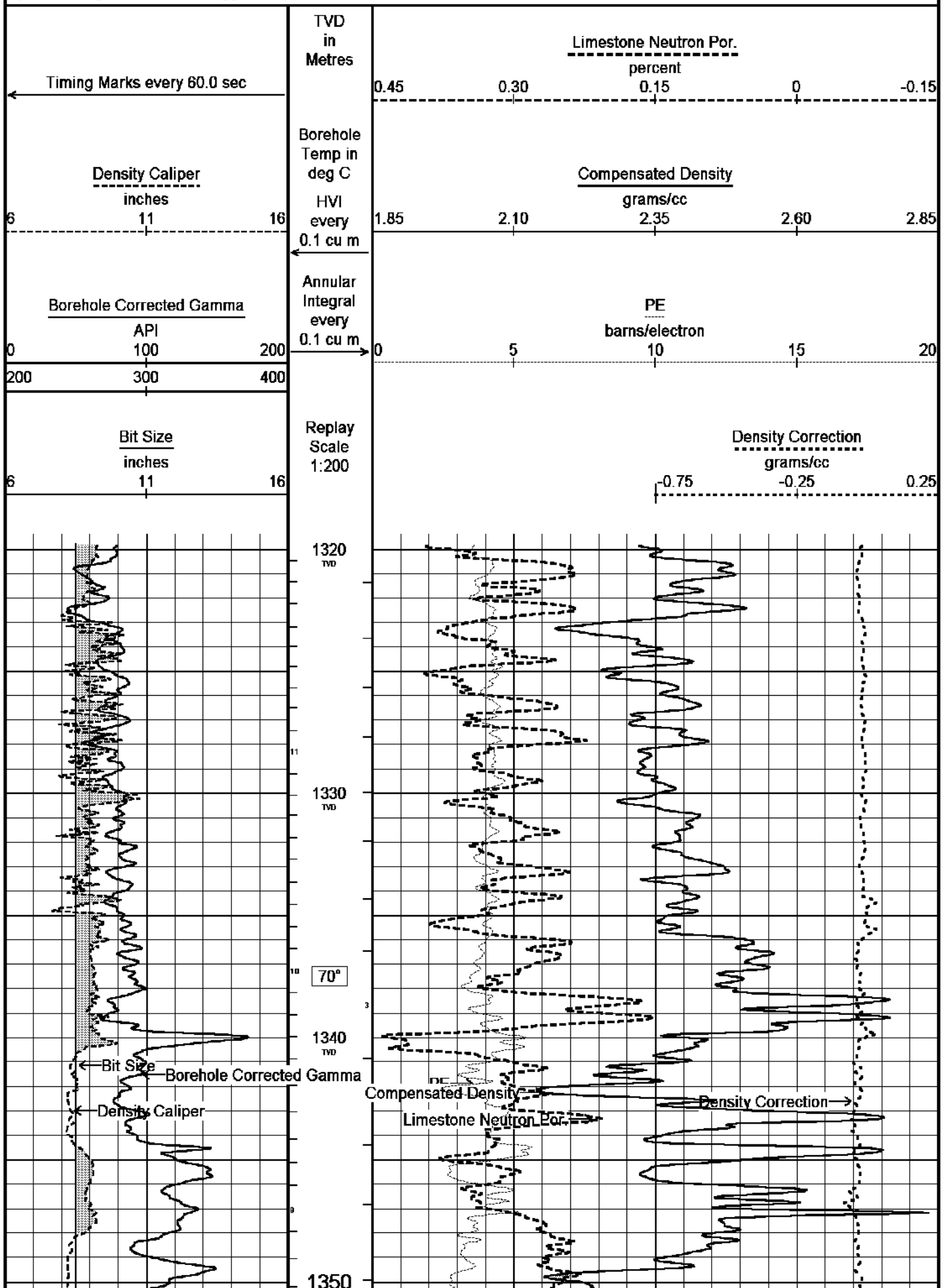
Depth Based Data - Maximum Sampling Increment 10.0cm

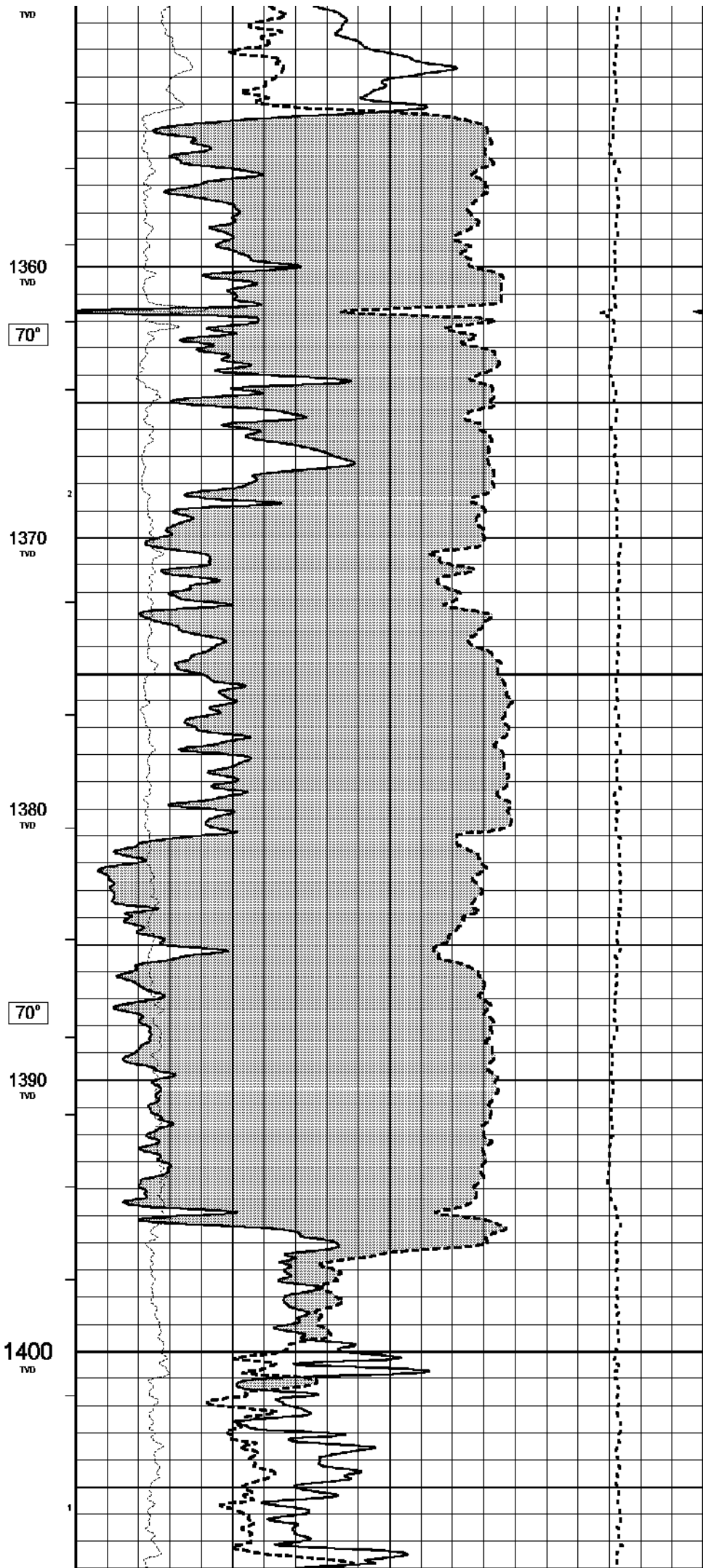
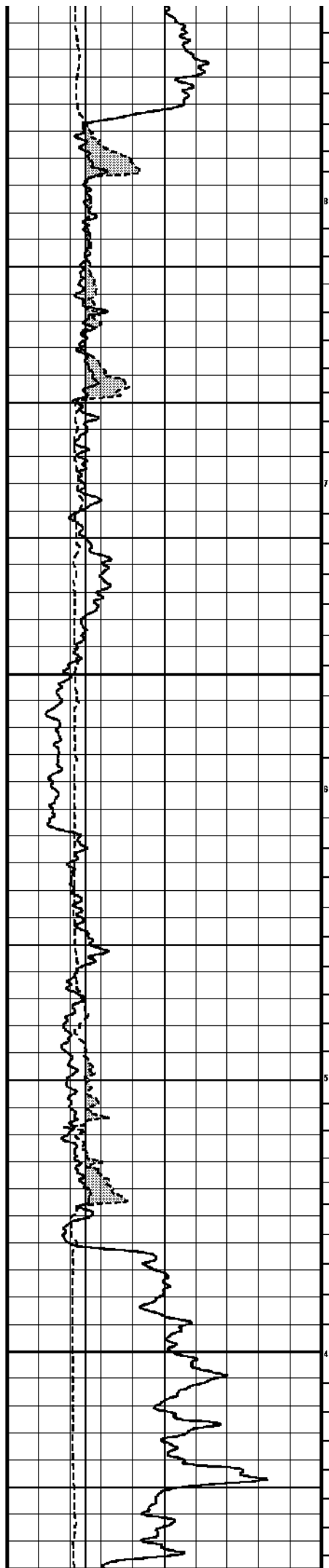
Plotted on 02-MAR-2003 18:39

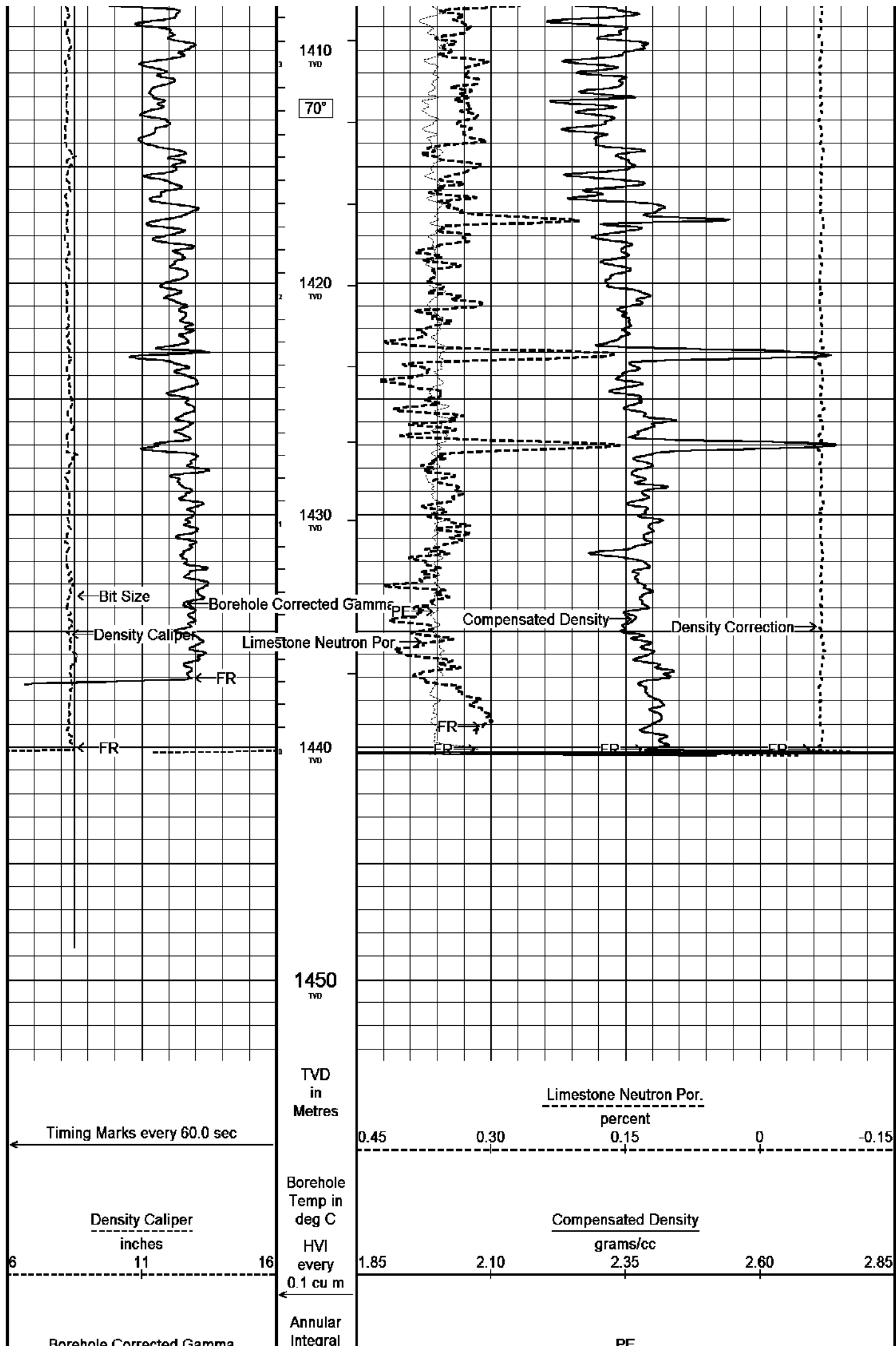
Filename: C:\Data\Tuna A05A\MAIN LOG DSC.dta

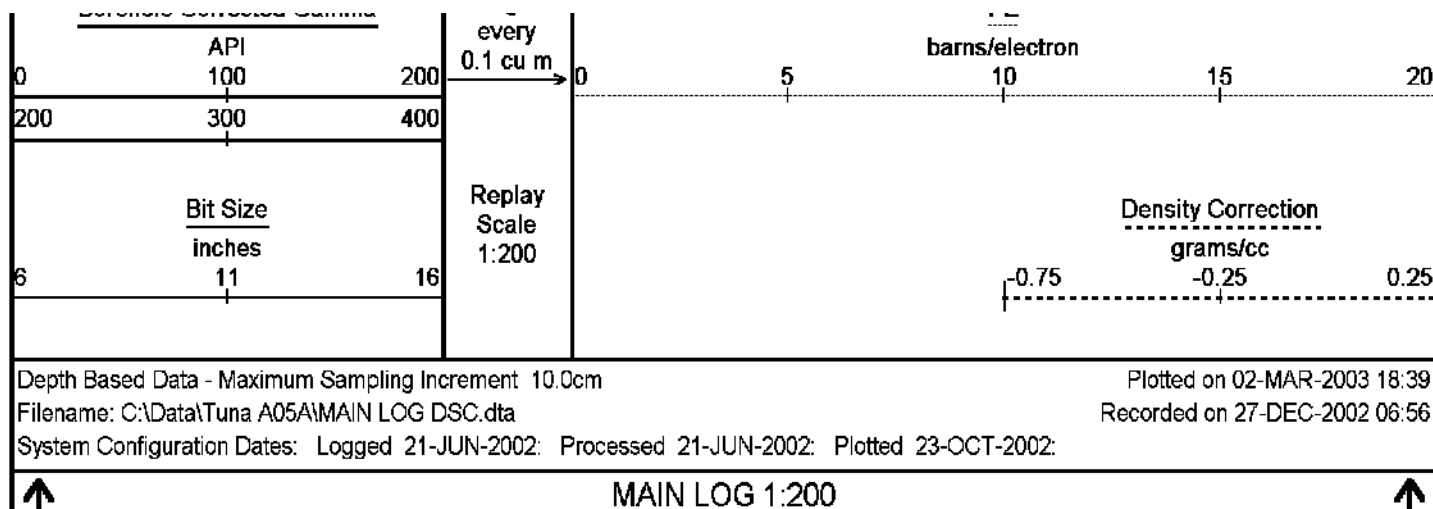
Recorded on 27-DEC-2002 06:56

System Configuration Dates: Logged 21-JUN-2002: Processed 21-JUN-2002: Plotted 23-OCT-2002:









BEFORE SURVEY CALIBRATION				C:\Data\Tuna A05A\MAIN LOG DSC.dta
General Constants All 000				
General Parameters				
Mud Resistivity	0.06	ohm-metres		
Mud Resistivity Temperature	73.00	degrees C		
Water Level	0.00	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	7.00	inches		
Caliper for Differential Caliper	0			
Rwa Parameters				
Porosity used	Base Density Porosity			
Resistivity used	Deep Induction			
RWA Constant A	0.61			
RWA Constant M	2.15			
Gamma Calibration MCG 044				Field Calibration on 24-DEC-2002 10:04
	Measured	Calibrated (API)		
Background	11	7		
Calibrator (Gross)	1439	916		
Calibrator (Net)	1428	909		
Gamma Constants MCG 044				
Gamma Calibrator Number	060			
Mud Density	1.24	gm/cc		
Caliper Source for Processing	Density Caliper			
Tool Position	Eccentred			
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			
Neutron Calibration MDN 068				Base Calibration on 5-DEC-2002 18:20 Field Check on 24-DEC-2002 10:24
Base Calibration				
	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	2886	90	3714	110
Ratio	32.026		33.764	

Field Calibrator at Base		Calibrated (cps)	
Ratio		1833	2640
		0.694	
Field Check		Calibrated (cps)	
Ratio		1849	2675
		0.691	
Neutron Constants MDN 068			
Neutron Source Id		724	
Neutron Jig Number		52	
Epithermal Neutron		No	
Caliper Source for Processing		Density Caliper	
Stand-off		0.00	inches
Mud Density		1.24	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		20.00	degrees C
Mud Salinity		56.00	kppm
Formation Fluid Salinity Source		None	
Formation Fluid Salinity		N/A	kppm
Barite Mud Correction		Not Applied	
Caliper Calibration MPD 066		Base Calibration on 27-DEC-2002,09:09 Field Calibration on	
Base Calibration			
Reading No		Measured	Calibrator Size (in)
1		11999	4.31
2		20143	6.29
3		28915	8.28
4		37314	10.24
5		46672	12.31
6		N/A	N/A
Field Calibration			
		0	0
		0.00	0.00
Photo Density Calibration MPD 066		Base Calibration on 4-DEC-2002 16:29 Field Check on 26-DEC-2002 05:42	
Density Calibration			
Base Calibration			
		Measured	Calibrated (sdu)
		Near Far	Near Far
Reference 1	54476	19731	53282 19349
Reference 2	29983	2875	25298 2555
Field Check at Base			
	993.0	1165.2	
Field Check			
	990.1	1159.3	
PE Calibration			
Base Calibration			
	WS	Measured WH	Ratio
Background	189	869	
Reference 1	17146	54295	0.317 0.318
Reference 2	7927	29843	0.267 0.273
Field Check at Base			
	189.1	868.6	
Field Check			
	187.7	868.8	
Density Constants MPD 066			
Density Source Id		226	
Nylon Calibrator Number		517	

Aluminium/Fe Calibrator Number	51 /	
Density Shoe Profile	4 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.24	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	

DOWNHOLE EQUIPMENT

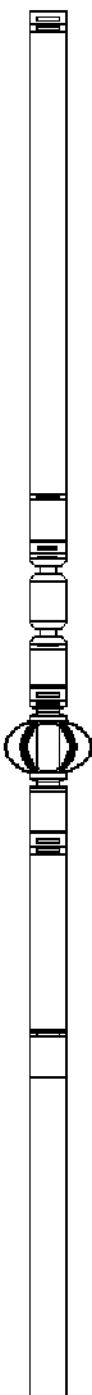
All measurements relative to tool zero.

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

Compact Knuckle Joint
SKJ 47 Length: 0.68 m Weight: 24.25 lb

Compact Inline Standoff B
MIS 52 Length: 0.65 m Weight: 15.43 lb

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



Compact Inline Standoff B
MIS 77 Length: 0.65 m Weight: 15.43 lb

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

Compact Inline Standoff B
MIS 31 Length: 0.65 m Weight: 15.43 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



33.53 m GRGC - Gamma Ray

32.64 m CGXT - MCG External Temperature

Compact Memory Sub.
MMS 24 Length: 0.95 m Weight: 22.05 lb

Compact Knuckle Joint
SKJ 46 Length: 0.66 m Weight: 24.25 lb

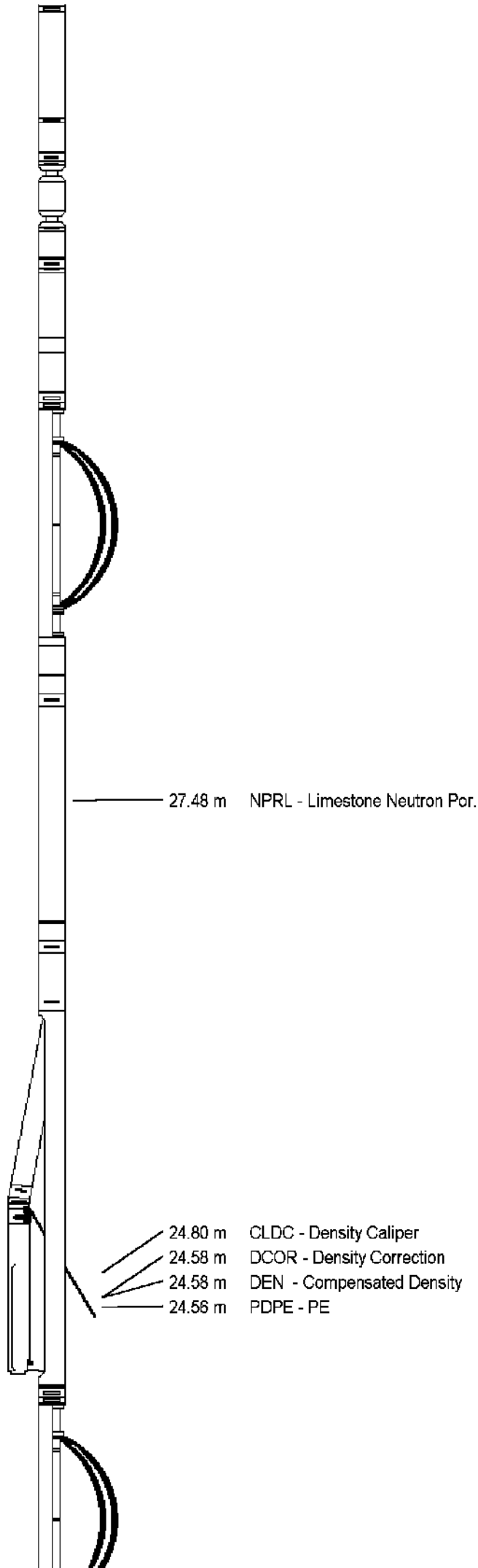
Compact Swivel Head Adaptor
SHA 27 Length: 0.83 m Weight: 26.46 lb

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



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

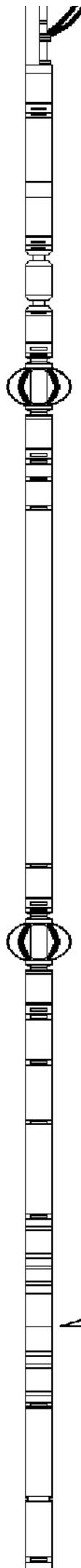
Compact Knuckle Joint
SKJ 45 Length: 0.66 m Weight: 24.25 lb

Compact Inline Standoff B
MIS 53 Length: 0.65 m Weight: 15.43 lb

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

Compact Inline Standoff B
MIS 49 Length: 0.65 m Weight: 15.43 lb

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



14.66 m DSLL - Shallow Laterolog
14.66 m DGLL - Groningen Laterolog

Compact Inline Standoff B
MIS 76 Length: 0.65 m Weight: 15.43 lb

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

Compact Inline Standoff B
MIS 73 Length: 0.65 m Weight: 15.43 lb

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

Compact Inline Standoff B
MIS 75 Length: 0.65 m Weight: 15.43 lb

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



4.60 m DT35 - 3-5' Compensated Sonic

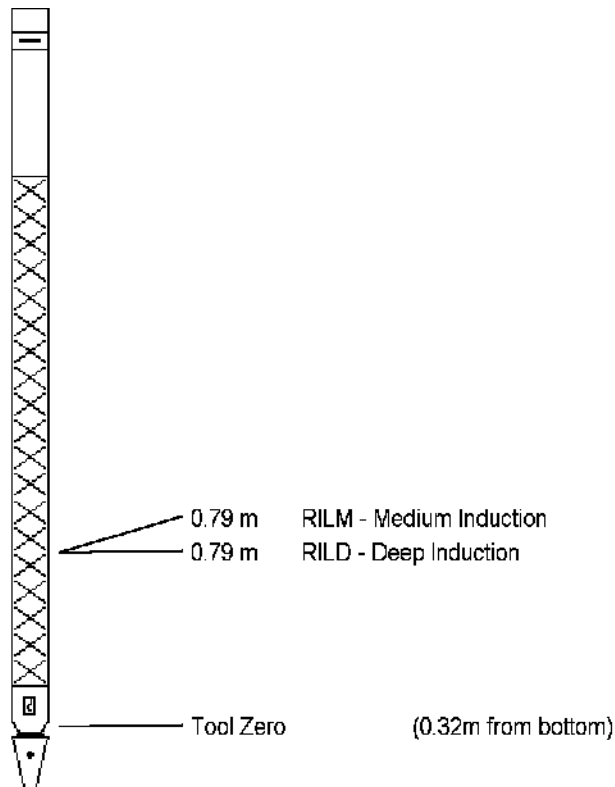
Compact Inline Standoff B
MIS 30 Length: 0.65 m Weight: 15.43 lb

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

Pressure Bung + Hole Finder
 HFS 99 Length: 0.28 m Weight: 6.61 lb

Total Length: 50.55 m

Total Weight: 1183.88 lb



COMPANY	ESSO AUSTRALIA PTY. LTD.
WELL	TUNA A-05A
FIELD	GIPPSLAND BASIN
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing		metres	First Reading	1448.70	metres
Elevation Drill Floor	31.32	metres	Depth Driller	1450.68	metres
Elevation Ground Level	-59.40	metres	Depth Logger	1450.68	metres



PHOTO DENSITY
COMPENSATED NEUTRON
1:200 TVD