Reeves

PHOTO DENSITY
COMPENSATED NEUTRON
1:500 MD

COMPANY	ESSO AUSTRALIA PTY. LTD.
WELL	FLOUNDER A-18a
FIELD	GIPPSLAND BASIN
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA
LOCATION	5758711.43 m N, 625855.81 m E
	38°18'39.155" S, 148°26'22.358" E

LSD	SEC	TWP	RGE

API Number
Permit Number

Other Services
DUAL LATEROLOG
MICRO LATEROLOG
COMPENSATED SONIC

Permanent Datum MSL , Elevation 0 metres
Log Measured From RT@33.85 metres above Permanent Datum
Drilling Measured From RT

Elevations:

KB		metres
DF	33.85	metres
GL	-93.00	metres

Date	30-Jun-2003		
Run Number	2		
Depth Driller	3737.00	metres	
Depth Logger	3736.85	metres	
First Reading	3736.00	metres	
Last Reading	3577.00	metres	
Casing Driller	3329.50	metres	
Casing Logger	3329.00	metres	
Bit Size	6.00	inches	
Hole Fluid Type	KCl/PHPA/GLY		
Density / Viscosity	9.90 lb/USg	75.00 sec/qt	
PH / Fluid Loss	9.00	2.60 ml/30Min	
Sample Source	FLOWLINE		
Rm @ Measured Temp	0.118 @ 25.0	ohm-m	
Rmf @ Measured Temp	0.103 @ 25.0	ohm-m	
Rmc @ Measured Temp	0.28 @ 25.0	ohm-m	
Source Rmf / Rmc	PRESS	PRESS	
Rm @ BHT	0.044 @106.5	ohm-m	
Time Since Circulation	15 HRS		
Max Recorded Temp	106.50	deg C	
Equipment Name	COMPACT		
Equipment / Base	1	SALE	
Recorded By	M.Barnes, P.Hodges		G.McManus, S.Mooney
Witnessed By	E.Espiritu		
Circ.Stopped	2300 29Jun03		

BOREHOLE RECORD

Bit Size inches	Depth From metres	Depth To metres
8.500	1225.00	3337.40
6.000	3329.50	3736.00

CASING RECORD

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K-55	10.750	0.00	1225.00	0.00
R3	7.000	0.00	3329.50	26.00

REMARKS

DRILLING RIG: NABORS (ISDL) 453.

REEVES COMPACT WIRELINE TOOLS RUN ON SCHLUMBERGER UNIT.

HTHP: 9.2 ml/30 min @ 121°C

MAX DEVIATION: 57.5° @ 1307 m MD.
MAX DOG LEG SEVERITY: 5.57°/30 m MD.

REEVES CREW: M.BARNES, G.MCMANUS, S.MOONEY, P.HODGES.

MAIN LOG 1:500

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Data\FLA A18a TD\B & W Replay\Mpd\FLA_A18a_Main_Log.dta

Plotted on 12-AUG-2003 12:23
Recorded on 30-JUN-2003 14:31

System Configuration Dates: Logged 23-OCT-2002: Plotted 23-OCT-2002:

Timing Marks every 60.0 sec

Depth in Metres

Limestone Neutron Por.
v/v
0.45 0.30 0.15 0 -0.15

Borehole Corrected Gamma
API
0 100 200
200 300 400

Borehole Temp in deg C

HVI every 0.1 cu m

Compensated Density
grams/cc
1.85 2.10 2.35 2.60 2.85

Density Caliper
inches
4 9 14

Annular Integral every 0.1 cu m

PE
barns/electron
0 5 10 15 20

Bit Size
inches
4 9 14

Replay Scale 1:500

Density Correction
grams/cc
-0.25 0 0.25

100°

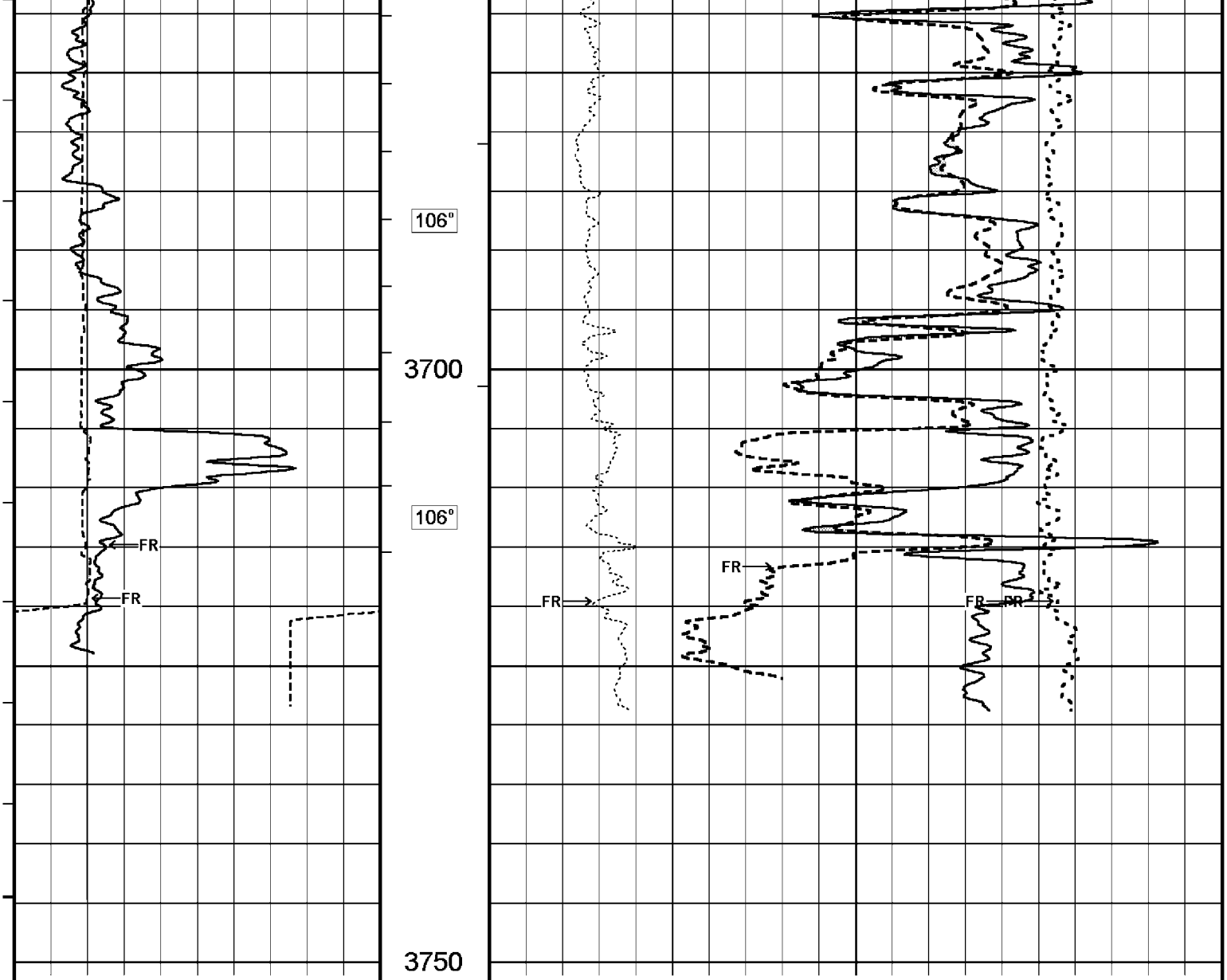
3600

101°

103°

3650

104°



Depth in Metres

Timing Marks every 60.0 sec

Borehole Corrected Gamma
API
0 100 200
200 300 400

Density Caliper
inches
4 9 14

Bit Size
inches
4 9 14

Borehole Temp in deg C

HVI every 0.1 cu m

Annular Integral every 0.1 cu m

Replay Scale 1:500

Limestone Neutron Por.
v/v
0.45 0.30 0.15 0 -0.15

Compensated Density
grams/cc
1.85 2.10 2.35 2.60 2.85

PE
barns/electron
0 5 10 15 20

Density Correction
grams/cc
-0.25 0 0.25

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Data\FLA A18a TD\B & W Replay\Mpd\FLA_A18a_Main_Log.dta
System Configuration Dates: Logged 23-OCT-2002: Plotted 23-OCT-2002:

Plotted on 12-AUG-2003 12:23
Recorded on 30-JUN-2003 14:31

MAIN LOG 1:500

REPEAT SECTION 1:500

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Data\FLA A18a TD\B & W Replay\Mpd\FLA_A18a_Repeat.dta
System Configuration Dates: Logged 23-OCT-2002: Plotted 23-OCT-2002:

Plotted on 12-AUG-2003 12:23
Recorded on 30-JUN-2003 14:04

Timing Marks every 60.0 sec

Depth in Metres

Limestone Neutron Por.
v/v
0.45 0.30 0.15 0 -0.15

Borehole Temp in deg C

Borehole Corrected Gamma
API
0 100 200
200 300 400

HVI every 0.1 cu m

Compensated Density
grams/cc
1.85 2.10 2.35 2.60 2.85

Annular Integral every 0.1 cu m

Density Caliper
inches
4 9 14

PE
barns/electron
0 5 10 15 20

Bit Size
inches
4 9 14

Replay Scale 1:500

Density Correction
grams/cc
-0.25 0 0.25

3650

104°

105°

3700

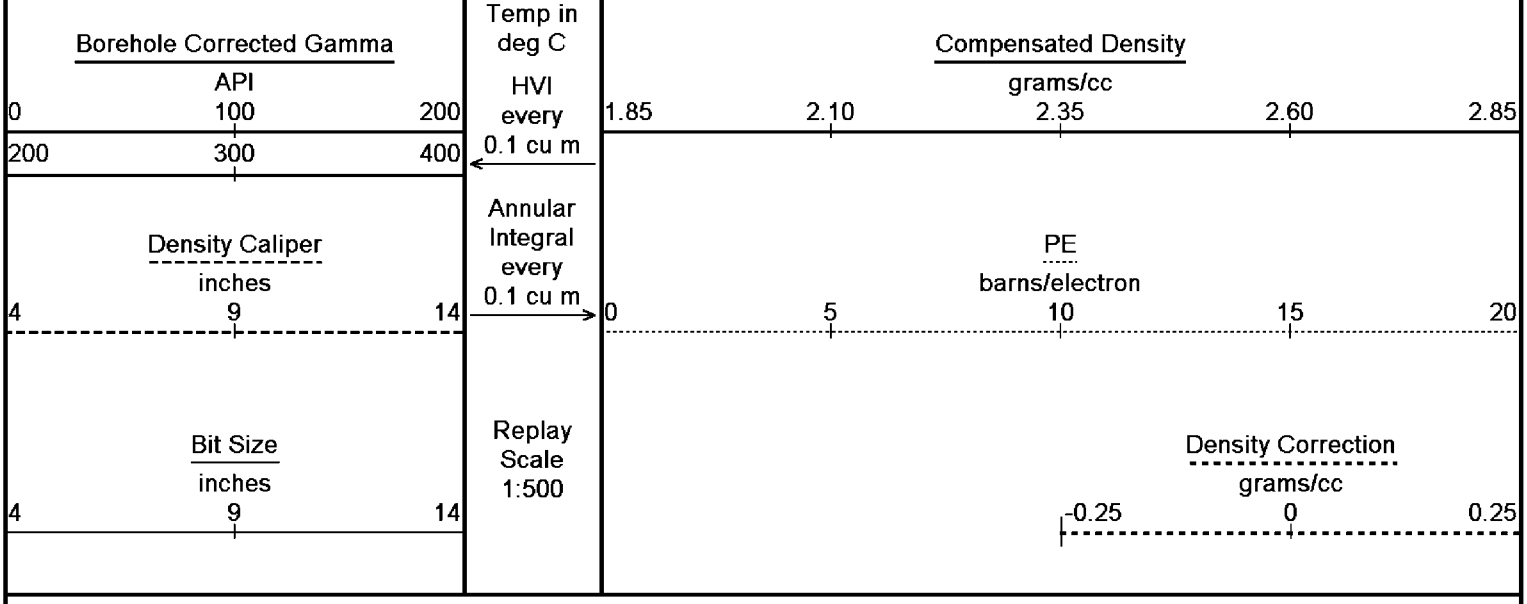
105°

Depth in Metres

Limestone Neutron Por.
v/v
0.45 0.30 0.15 0 -0.15

Timing Marks every 60.0 sec

Borehole



Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 12-AUG-2003 12:23
Filename: C:\Data\FLA A18a TD\B & W Replay\Mpd\FLA_A18a_Repeat.dta
Recorded on 30-JUN-2003 14:04
System Configuration Dates: Logged 23-OCT-2002: Plotted 23-OCT-2002:

REPEAT SECTION 1:500

BEFORE SURVEY CALIBRATION

C:\Data\FLA A18a TD\B & W Replay\Mpd\FLA_A18a_Main_Log.dta

General Constants All 000

General Parameters		
Mud Resistivity	0.05	ohm-metres
Mud Resistivity Temperature	100.00	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	5.00	inches
Caliper for Differential Caliper	None	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Deep Laterolog	
RWA Constant A	0.61	
RWA Constant M	2.15	

High Resolution Temperature Calibration MCG 044

Field Calibration on 28-MAR-2003,17:35

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

High Resolution Temperature Constants MCG 044

Pre-filter Length	11

Gamma Calibration MCG 044

Field Calibration on 26-JUN-2003 23:43

	Measured	Calibrated (API)
Background	13	8
Calibrator (Gross)	1453	917
Calibrator (Net)	1439	909

Gamma Constants MCG 044

Gamma Calibrator Number	060	
Mud Density	1.19	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

Neutron Calibration MDN 068

Base Calibration on 30-MAY-2003 09:57
Field Check on 27-JUN-2003 01:03

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	2738	85	3714	110
Ratio	32.377		33.764	

Field Calibrator at Base	Calibrated (cps)	
	1911	2814
Ratio	0.679	

Field Check	Calibrated (cps)	
	1878	2717
Ratio	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	1.19	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 067

Base Calibration on 30-JUN-2003,13:57
Field Calibration on 30-JUN-2003,13:58

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14801	4.61
2	24384	6.59
3	34288	8.58
4	44305	10.54
5	55264	12.61
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.99	5.99

Photo Density Calibration MPD 067

Base Calibration on 6-MAY-2003 15:04
Field Check on 27-JUN-2003 01:09

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	57806	19943	53282	19349
Reference 2	27010	2601	25298	2555

Field Check at Base		
	953.2	1156.3

Field Check		
	944.2	1149.1

PE Calibration

Base Calibration	Measured			Calibrated
	WS	WH	Ratio	Ratio
Background	180	826		
Reference 1	18413	57614	0.321	0.318
Reference 2	7218	26872	0.270	0.273

Field Check at Base		
	179.8	825.6

Field Check		
	177.9	819.9

Density Constants MPD 067

Density Source Id	226

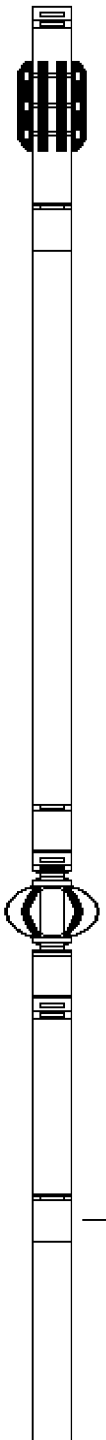
Density Source Id	226	
Nylon Calibrator Number	517	
Aluminium/Fe Calibrator Number	517	
Density Shoe Profile	4 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.19	gm/cc
Mud Density Z/A Correction	1.11	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud 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	

DOWNHOLE EQUIPMENT

All measurements relative to tool zero.

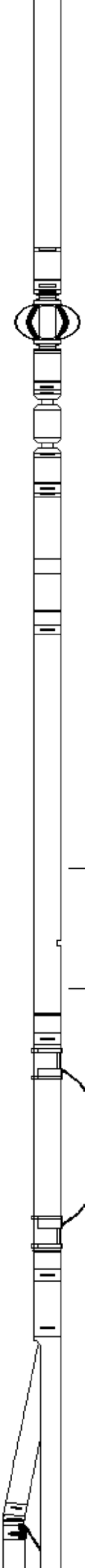
Compact Stiff Bridle Electrode Sub.
MBE 9 Length: 3.76 m Weight: 94.80 lb



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

27.65 m SPDL - Spontaneous Potential



Compact Inline Standoff B
MIS 31 Length: 0.65 m Weight: 15.43 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 Gamma
MCG 44 Length: 2.65 m Weight: 63.93 lb

21.16 m GGCE - Borehole Corrected Gamma

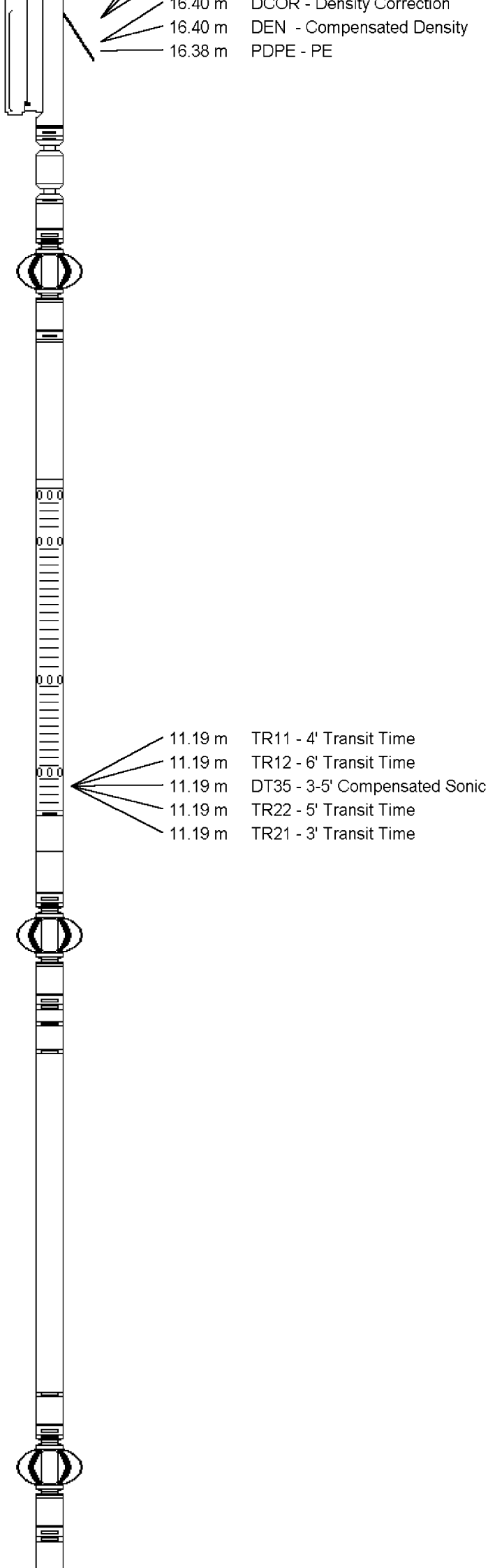
20.28 m CGXT - MCG External Temperature

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

19.30 m NPRL - Limestone Neutron Por.

Compact Density/Caliper
MPD 67 Length: 2.92 m Weight: 90.39 lb

16.61 m CLDC - Density Caliper
16.61 m HVOL - Hole Volume
16.61 m AVOL - Annular Volume



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

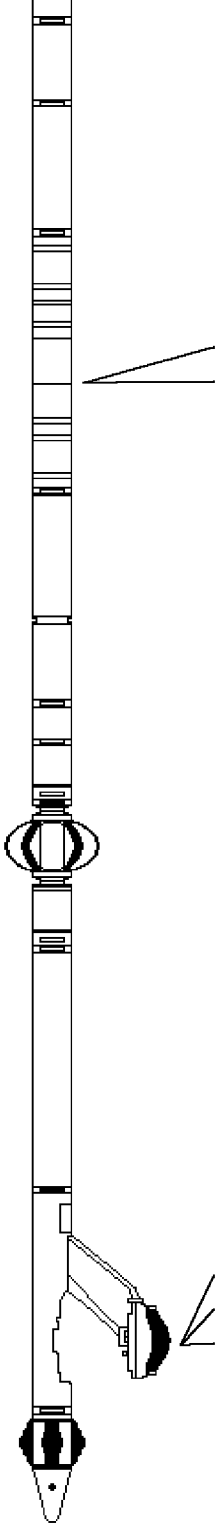
Compact Sonic
MSS 45 Length: 3.82 m Weight: 72.75 lb

Compact Inline Standoff B
MIS 75 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



4.58 m DSLL - Shallow Laterolog
4.58 m DDLL - Deep Laterolog

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

Compact Micro-Resistivity
MMR 15 Length: 2.62 m Weight: 81.57 lb

0.00 m MRRS - MicroRes Resistance (S)
0.00 m MATC - MMR Caliper
Tool Zero (0.85m from bottom)

Pressure Bung + Hole Finder
HFS 3 Length: 0.28 m Weight: 6.61 lb

Total Length: 33.90 m Total Weight: 884.05 lb

COMPANY	ESSO AUSTRALIA PTY. LTD.
WELL	FLOUNDER A-18a
FIELD	GIPPSLAND BASIN
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing		metres	First Reading	3736.00	metres
Elevation Drill Floor	33.85	metres	Depth Driller	3737.00	metres
Elevation Ground Level	-93.00	metres	Depth Logger	3736.85	metres

Reeves

PHOTO DENSITY
COMPENSATED NEUTRON
1:500 MD