OR-0332

330114

FIG. 3

ESSO EXPLORATION AND PRODUCTION AUSTRALIA INC.

WELL COMPLETION LOG
ESSO BASS – 3

ESSO BASS – 3

CONCESSION : E.L. 1/60 STATE : TASMANIA BASIN : BASS BASIN

LOCATION : Lat. 39° 59' 51"S Long. 145° 16' 57"E

ELEVATION : K.B. 31' G.L. M.S.L. WATER DEPTH : 202'

SPUDDED : 11–2–67 COMPLETED : 2–4–67 DRILLED BY : GLOBAL MARINE AUSTRALASIA, PTY. LTD.

CLASSIFICATION : EXPLORATORY TEST STATUS : PLUGGED AND ABANDONED

TOTAL DEPTH : 7978'

5 cm

STRUCTURE, REASONS FOR DRILLING, OBJECTIVE, ETC.

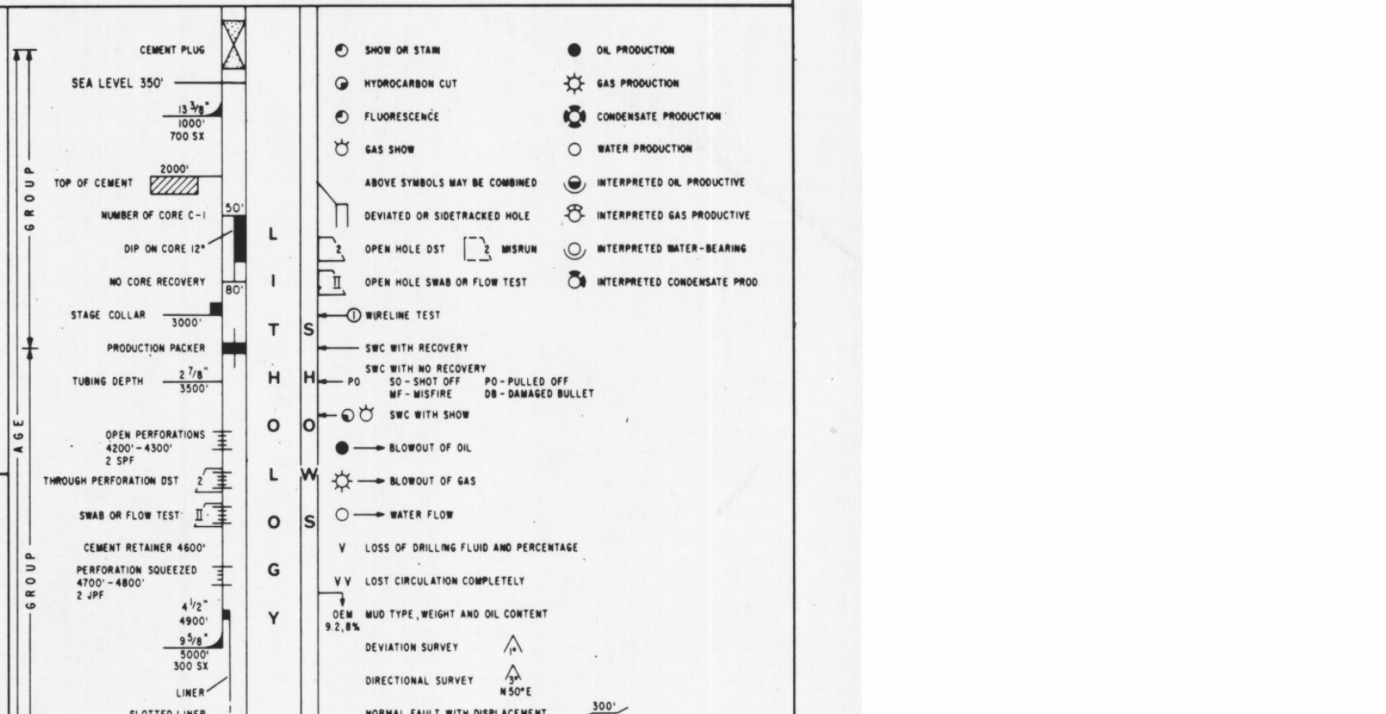
THE WELL WAS DRILLED ON THE CREST OF A WELL DEFINED NORTHWEST – SOUTHEAST CLOSED ANTICLINAL FEATURE AS MAPPED BY SEISMIC. IT WAS DESIGNED TO TEST THE HYDRO-CARBON POTENTIAL AND STRATIGRAPHY OF AN UNKNOWN AREA WITHIN THE BASS BASIN.

RESULTS

THE OBJECT OF TESTING THE STRATIGRAPHY IN THIS PART OF THE BASIN WAS ACCOMPLISHED. HOWEVER, THE POTENTIALLY MOST PROSPECTIVE RESERVOIR HORIZON WAS FOUND TO BE WATER-WET. SECONDARY RESERVOIR TARGETS WITHIN THE SANDS OF THE DELTA COMPLEX BELOW THE EOCENE UNCONFORMITY WERE ALSO WATER-WET. ONE SMALL NON-COMMERCIAL GAS SHOW WAS FOUND OVER THE INTERVAL 6739' – 6744'. DUE TO SLIGHTLY GREATER VELOCITIES THAN ANTICIPATED FORMATION TOPS RAN CONSISTENTLY LOWER THAN THOSE PREDICTED BY SEISMIC. BUT THE ORIGINAL STRUCTURAL PICTURE OF A CLOSED ANTICLINAL FEATURE REMAINS VALID.

LITHOLOGY

▦	Calcarenite to fine calcirudite.	▤	Mudstone.
▦	Argillaceous micritic limestone.	▤	Siltstone.
▦	Finely crystallized limestone.	▤	Silty mudstone.
▨	Sandstone.	■	Coal.
▤	Shale.	▨	Basement.
▤	Marl.		



CASING AND TUBING				PLUGS			PERFORATIONS		
SIZE	SET AT	SX. CMT.	FORMATION	FROM	TO	SX. CMT.	FROM	TO	No. FT.
30"	336'	350'	PLIO-MIOCENE	6850'	6650'	140'			
20"	721'	1221'	PLIO-MIOCENE	5400'	5200'	140'			
13 3/8"	2750'	1550'	TORQUAY GRP.	2900'	2600'	250'			

TESTS

WIRELINE TESTS:

N° 1 at 6740'	Recpvered	29 cu. ft. of gas, 12,250 cc. of water, 800 cc. of condensate. Sampling pressure 3025 psi. S.I.P. 3125 psi. Predominantly C_1 with traces C_5 and CO_2. Rw. = 1·78 at 74°. NaCl (chem.) = 2100 ppm.
N° 2 at 5737'	Recovered	20,000 cc. of water, No reliable pressure data. Rw. = 1·27 at 78° F. NaCl (chem.) = 2150 ppm.
N° 3 at 5409'	Recovered	20,000 cc. of water, Sampling pressure 2300 psi. S.I.P. 2400 psi. Rw. = 0·34 at 74° F. NaCl (equivs.) = 20,500 ppm.
N° 4 at 5736'	Recovered	20,000 cc. of mud. No reliable pressure data.

WIRE LINE LOGGING SERVICES

COMPANY	TYPE OF LOG	FROM	TO
SCHLUMBERGER	INDUCTION – ELECTRIC	721'	T.D.
"	SONIC – GAMMA RAY – CALIPER	721'	7976'
"	MICROLATERLOG	2753'	7979'
"	FORMATION DENSITY	2753'	7984'
"	CONTINUOUS DIPMETER	721'	7978'

WELL-SITE GEOLOGISTS: B.R.G., W.D.L., W.F.T. LITHOLOGY INTERPRETED BY: W.F.T. DATE: 20-6-67

MUD LOGGING BY: CORE LABORATORIES AUSTRALIA LTD.

Run No	Depth Scale	1	2"	2	2"	3	2"	4	2"		
Date		23–2–67		15–3–67		27–3–67		30–3–67			
First Reading		2801'		6235'		7911'		7985'			
Last Reading		721'		2753'		6235'		7911'			
Interval Measured		2080'		3482'		1676'		74'			
Casing Schlumberger		721'		2753'		—		—			
Casing Driller		721'		2750'		2750'		2750'			
Depth Reached		2802'		6236'		7912'		7986'			
Bottom Driller		2801'		6236'		7914'		7978'			
Mud Nature		GEL		GEL		GEL		GEL			
Density	Viscosity	10·1	35	10·8	45	10·7	62	10·8	53		
Mud Resistivity		0·87 at 76 °F		1·75 at 75 °F		1·81 at 65 °F		0·70 at 66 °F		at °F	
Mud Resistivity BHT		0·58 at 115 °F		0·75 at 182 °F		0·58 at 205 °F		0·57 at 208 °F		at °F	
pH	Fluid Loss	9	32 CC	9·6	9·3 CC	9·3	9·5 CC	9·0	7·8 CC		CC
Origin of Sample		CIRCULATED		CIRCULATED		FLOWLINE		FLOWLINE			
Rmf		0·6 at 73 °F		1·40 at 70 °F		1·67 at 72 °F		1·31 at 61 °F		at °F	
Rmc		1·40 at 72 °F		2·62 at 71 °F		4·1 at 70 °F		1·82 at 66 °F		at °F	
Bit Size 12 1/4	1	CSG to T.D.		CSG to T.D.		CSG to T.D.		CSG to T.D.		to	
	2	to		to		to		to		to	
Casing Size		20"		13 3/8"		13 3/8"		13 3/8"			
Opr. Rig Time		3 HRS.		2 HRS.		2 HRS.		2 1/2"			
Truck No.		2035		2035		2035		2035			
Recorded by		SCHNEIDER		SCHNEIDER		J. BOWLER		J. BOWLER			
Witness		B. GRIFFITH		B. GRIFFITH		B.GRIFFITH, D.LAPORTE		D. LAPORTE			

REMARKS

LOGGING DATA					EQUIPMENT DATA				
Run No.	1	2	3	4	Run No.	1	2	3	4
Type of Sonde	6FF40	6FF40	6FF40	6FF40	Panel	F-780	F-780	F-780	F-780
S N Spacing	16"	16"	16"	16"	Cartridge	F-707	F-707	F-707	F-707
Stand-off	1 1/2"	1 1/2"	1 1/2"	1 1/2"	Sonde	M-461	M-461	M-461	M-461
S B R	1	1	1	1	Test Loop	C-732	C-732	C-732	C-732

ABBREVIATIONS

NB = NEW BIT
NCB = NEW CORE BIT
CO = CIRCULATED OUT
DST = DRILL STEM TEST
LAT = LOGGED AFTER TRIP

TG = TRIP GAS
NR = NO RETURNS
DS = DIRECTIONAL SURVEY
DC = DEPTH CORRECTION

RESISTIVITY, OHM-METERS
Rm = MUD
Rmc = MUD CAKE
Rmf = MUD FILTRATE

MUD DATA
CK = CAKE THICKNESS 32nds
V = VISCOSITY API SECONDS
F = FILTRATE API CC'S
W = WEIGHT
S = SALINITY, ppm Cl

DEPTHS CORRESPOND TO DRILL PIPE MEASUREMENTS MEASURED FROM KELLY BUSHING

7900-7978'
QUARTZITE, A/A
SANDSTONE, DK GY-BLK, SILTY-VF GR, SET IN SECONDARY CEMENT.
SHALE, BLK, CARBN?.

MUD DATA.
0500 HRS - 7976'
W = 10.8 APV = 18.5
V = 53 PV = 17
WL = 7.8 YD = 3
CK = 2 GEL = 1/3
PH = 9.4 ALK = 0.30
CA = 600 NACL = 2107
SD = 0.5% RMF = 1.36 AT 77°F
NACL DRILL. WATER = 1050 PPM.

CORE No. 14
7974-7978' REC. 4'
SHALE, BLK, DENSE, HD, METAMORPHOSED. QUARTZITE, LT-DK GY, VF GR, V HD. TR CALCITE, TR PYRITE. DIP 40°.

7520-7760'
SHALE, DK GRN-GY BRN OCC BUFF, SILTY-SDY CALC, FOSSIL.
SANDSTONE, WH-LT GY VF-MED GR, SUBANG-SUBRNDED, POOR SRTD
SANDSTONE, UNCONS. CRSE-GRAN, SUBANG-RNDED, TR WH CLAY MATRIX, OCC DK GY CHERT PEBBLES.

7760-7850'
SANDSTONE, A/A. W/ MINOR DK GY MOTTLED ANG-RNDED META-QUARTZITE GRS, V HD DENSE.
SHALE, A/A.

7850-
QUARTZITE, DK GY-LT GY MOTTLED, ANG SPLINTERS, DENSE, HD FINE-CRYSTALLINE.

CORE No. 12
7877-7892' REC. NIL

CORE No. 13
7903-7914' REC. 5'
THINLY BANDED AND LAMINATED QUARTZITE SHALE, SILICIFIED BLK, SILTSTONE, BLK AND SANDSTONE, BLK, VF GR, SILTY. WEAKLY METAMORPHOSED (CONTACT), VERY VUGGY SEQUENCE.

T.D. 7978' DRY AND ABANDONED