OMEO NO. 1
WELL COMPLETION REPORT
VIC-P17
OFFSHORE GIPPSLAND BASIN

W788

PG/191/83

BOX 1 OF 3

WCR
OMEO-1
(W788)

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

OMEO NO. 1

WELL COMPLETION REPORT

VIC/P17

OFFSHORE GIPPSLAND BASIN

PG/191/83 P.N.K. CHAN

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Approved By:.....

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ATTACHMENT 7

OMEO-1

SET OF WIRELINE LOGS — BOX NO. 3

RUN 1	:	11 ✓ ISF-SLS-GR-SP-CAL	1:200
210-1319m		10 ✓ LDL-GR-CAL	1:200
RUN 2	:	9 ✓ DLL-MSFL-GR-SP-CAL	1:200
1310-2983m		8 ✓ LDL-CNL-GR-CAL	1:200
		7 ✓ SLS-GR	1:200
		6 ✓ RFT 1	
		5 ✓ RFT 2	
		4 ✓ RFT 3	
RUN 3	:	3 ✓ ISF-SLS-MSFL-CNL-GR	1:200
2609-2986m		2 ✓ "CYBERLOOK"	1:200
RUN 4	:	1 ✓ DLL-MSFL-GR-SP-CAL	1:200
2986-3170m		16 ✓ LDL-CNL-CR-CAL	1:200
		X SLS-GR	1:200
		14 ✓ HDT	
		13 ✓ "CYBERLOOK"	
		12 ✓ "CYBERDIP"	
		27 ✓ "CLUSTER PLOT"	
		26 ✓ "GEO DIP"	
RUN 5	:	15 ✓ BHC-GR	1:200
2987-3379m		25 ✓ DLL-MSFL-GR-SP-CAL	1:200
		24 ✓ LDL-CNL-GR-CAL	1:200
		23 ✓ HDT	1:200
		22 ✓ "CYBERLOOK"	1:200
		21 ✓ "CYBERDIP"	1:200
		20 ✓ RFT-HP	
		19 ✓ "CLUSTER PLOT"	
		18 ✓ "GEO DIP"	
		17 ✓ "GLOBAL"	
		28 ✓ "GLOBAL"	
RUN 1		29 ✓ RFT - HP SUITE #1 RUN #3	
RUN 3		30 ✓ NEUTRON COUNTRATE PLAYBACK	
RUN 4		31 ✓ RFT HP GR. SUITE FOUR. 3378 - 2987 m	
		32 ✓ BHC - G	

I. SUMMARY

Omeo No. 1 was spudded on 2nd November 1982, and reached a total depth of 3379m RKB on 25th January, 1983 in sediments of the Early Cretaceous Strzelecki Group.

During intermediate logging in the 12-1/4" hole, the RFT tool become stuck at 2936m RKB due to a cable malfunction which prevented pad retraction. The cable broke prematurely under tension 6.5m above the weak point. Fishing with overshot was unsuccessful leading to plug-back and sidetracks. An 8-1/2" hole side track was accomplished after setting the 9-5/8" casing at 2606m RKB. The 7" liner was set at 2984m RKB and drilling continued with a 6" hole to T.D.

The Latrobe Group was penetrated from 2188m RKB with the top of the coarse clastics at 2347m RKB. The Group overlies the low permeability lithic sands of the Early Cretaceous Strzelecki Group at 3195m RKB.

No hydrocarbon was indicated in the top Latrobe sands. The first significant gas show was detected at 2846m RKB. RFT's recovered water and gas at 2849.8m RKB and at 3125m RKB with a thin film of oil/condensate. A DST over the interval 2918m - 2939m RKB indicates a tight zone with no flow to surface. Mud and water were recovered by reverse circulation with 18.2 CF gas trapped in the APR chamber of the bottom hole assembly.

Due to problems associated with the RFT 3, shows in the 6" hole were not evaluated fully to define the nature of hydrocarbons and the net potential by drill stem tests. Log interpretation is hampered by varying water salinity preventing an accurate determination of Rw, Sxo and Sw. However, based on RFT pressure plots and an interpreted water gradient, the logs indicate 33m of net gas pay in a series of 5-7m sands within the Late Cretaceous intra Latrobe sands of fair porosity.

The well was plugged and abandoned, and rig released on 10th February, 1983.

II. INTRODUCTION

Omeo No. 1 is the second well drilled in VIC/P17 by the operator, Australian Aquitaine petroleum Pty. Ltd., and formed part of the first two years permit commitments.

Prior to drilling, the GA-81 seismic survey was carried out and a total of 3,536 line-km of seismic was shot. This comprised a 1.5km x 1.5 km grid over much of the permit area, with a wider spaced grid over the basement high in the southwestern part of the permit. Based on the interpretation of this survey and regional stratigraphic correlation with nearby wells, the locations of Edina No. 1 and Omeo No. 1 was chosen.

The semi-submersible "Ocean Digger" was contracted to carry out drilling operations, with a supply and logistics base established in Port Welshpool by Aquitaine in association with Phillips and Shell.

The Omeo structure is formed by a roll-over within the Latrobe Group sediments on the northeast (downthrown) side of a normal fault. The well was proposed to test the play concept of intra-Latrobe accumulations sealed vertically by shales and coals of the fluvio-deltaic and marsh facies. The play also required a lateral seal of the Strzelecki Group sediments on the southwest (upthrown) side against which the Latrobe sediments are juxtaposed.

There is no Top-Latrobe closure at Omeo. Closure is mapped at the intra-Latrobe Green Horizon with spill point predicted at 2690m (M.S.L.); area of closure is 4.2 sq.km., and the Orange Horizon (2.6 sq. km.,at 2900m M.S.L.)

On the negative side it must be stated that the greatest potential for intra-Latrobe seals is within the Upper Latrobe marsh facies. Down to the level of the Green Horizon, facies of the fluvio-deltaic sequences are predominantly clastics. Thus sealing mechanism must rely on the thin shale sequences

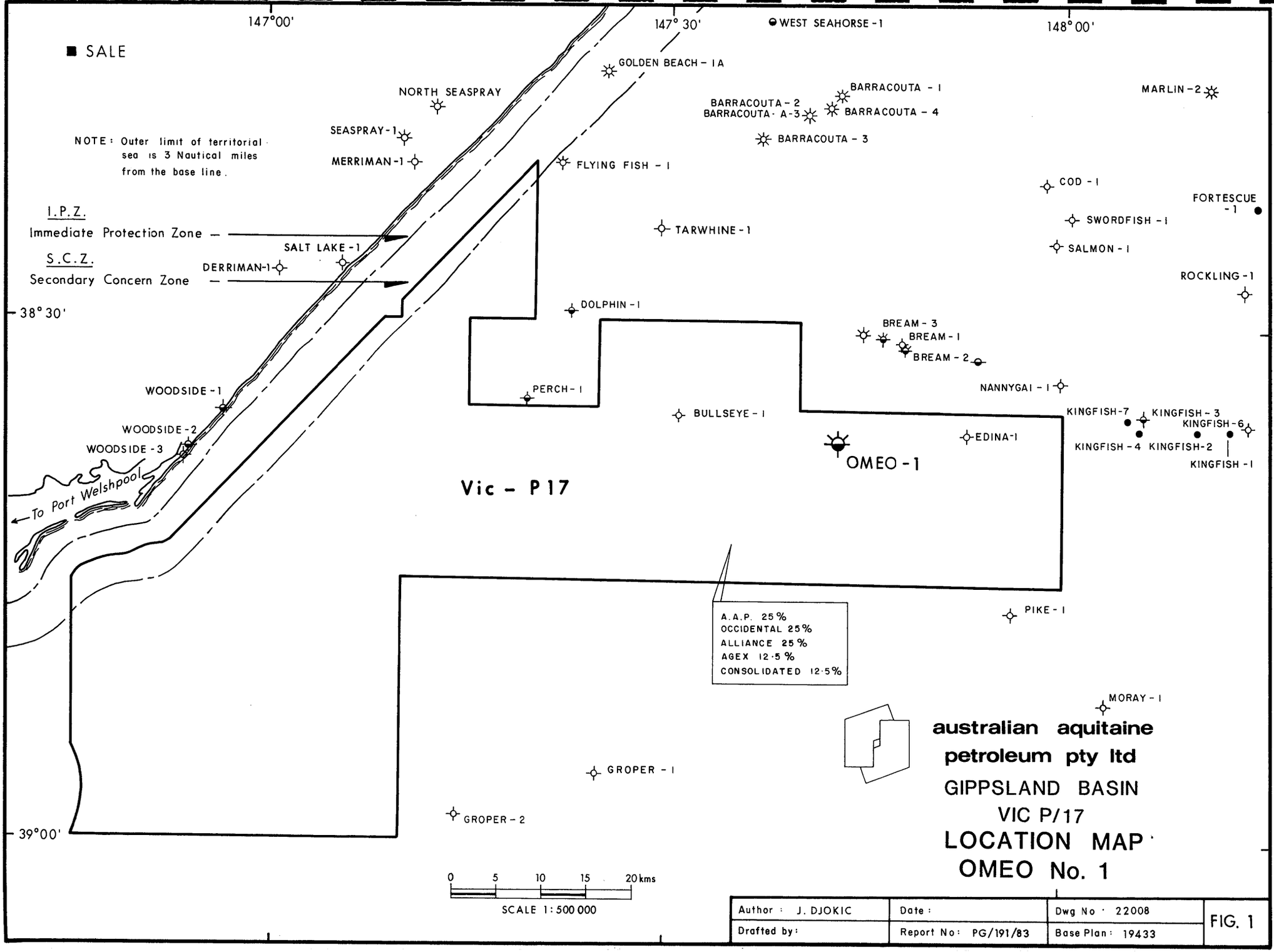
Location of Omeo No. 1 was chosen as high up on the structure as possible, and to intersect the major fault at a resonable depth. The well is located 14km. south-southwest of the nearest economic hydrocarbon accummulations at Bream.

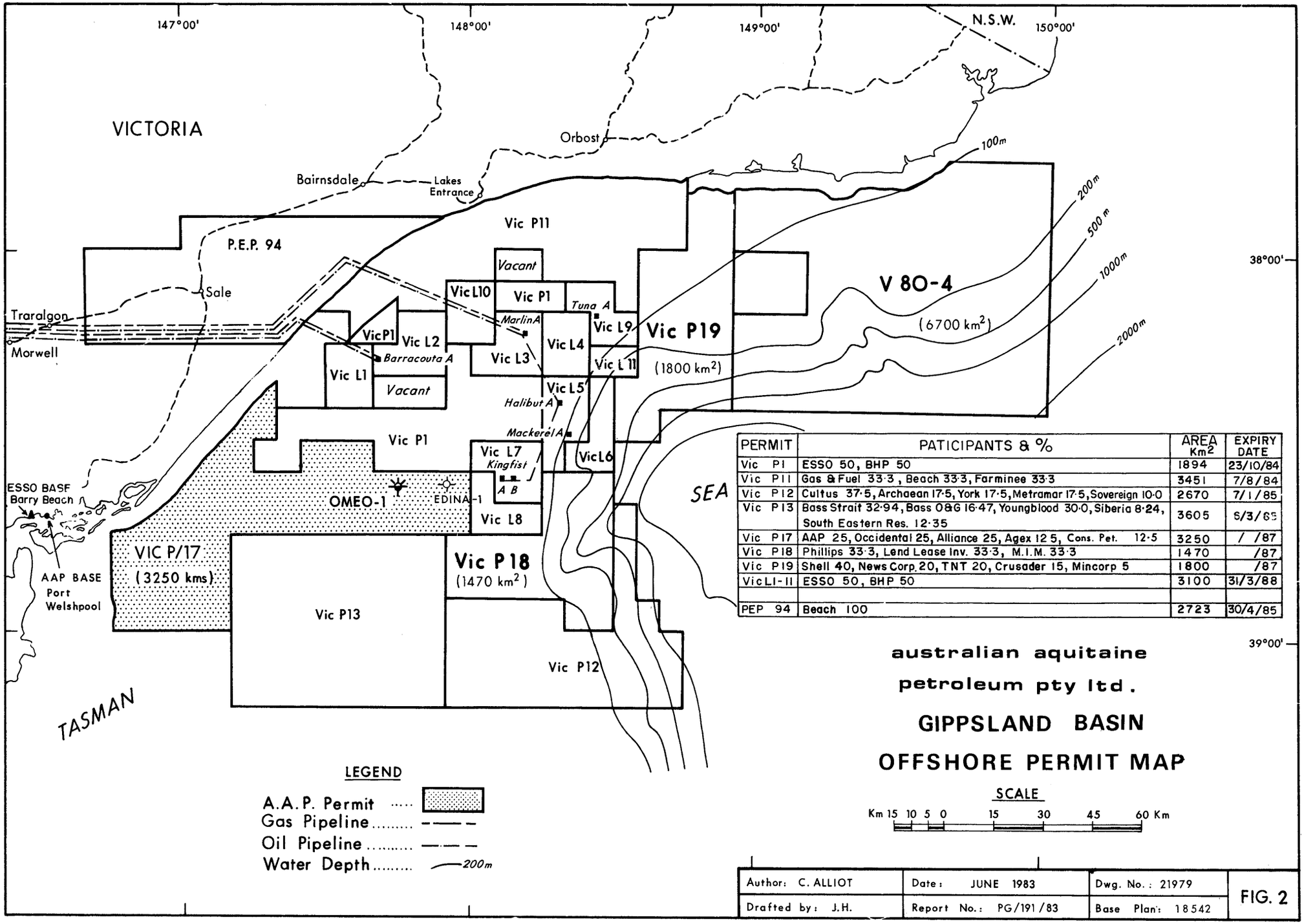
III. WELL HISTORY

A. GENERAL DATA

(i)	Well Name & Number:	Omeo No. 1
(ii)	Name & Address of Operator:	Australian Aquitaine Petroleum P/L. 99 Mount Street, NORTH SYDNEY NSW 2060
(iii)	Name & Address of Titleholder:	Australian Aquitaine Petroleum P/L. 99 Mount Street, NORTH SYDNEY NSW 2060. Australian Occidental P/L. 66 Berry Street, NORTH SYDNEY NSW 2060 Alliance Resources P/L 15th Floor, Collins Tower, 35 Collins Street, MELBOURNE VIC 3000. Consolidated Petroleum Aust. N.L. Hartogen House, 15 Young Street, SYDNEY NSW 2000 Agex Pty. Ltd. 16th Floor, AGL Building, 111 Pacific Highway, NORTH SYDNEY NSW 2060.
(iv)	Petroleum Title:	Permit VIC-P17
(v)	District:	Gippsland Basin
(vi)	Location:	SP:No. 920 Line GA81-33 Latitude: 38°36'45.01"S Longitude: 147°43'02.24"E Northings: 5725964 Eastings: 562449
	Elevation:	Water Depth:- 62.7m m.s.l. Sea level: 30.5m RKB
(viii)	Total Depth:	3379m RKB

(ix)	Date Drilling Commenced:	2nd November, 1982.	
(x)	Date Total Depth Reached:	25th January, 1983.	
(xi)	Date Well Abandoned:	10th February, 1983.	
(xii)	Date Rig Released:	10th February, 1983.	
(xiii)	Drilling Time in days to TD:	85 days	
(xiv)	Status:	Plugged and abandoned	GAS Show + oil recovered
(xv)	Total Cost (by Technical Cost Control)	$19,542,306	


147°00'
147° 30'
148° 00'
38° 30'
39°00'
SALE
WEST SEAHORSE - 1
GOLDEN BEACH - 1A
NORTH SEASPRAY
SEASPRAY - 1
MERRIMAN - 1
BARRACOUTA - 1
BARRACOUTA - 2
BARRACOUTA - A - 3
BARRACOUTA - 4
BARRACOUTA - 3
MARLIN - 2
FLYING FISH - 1
COD - 1
FORTESCUE - 1
SWORDFISH - 1
SALMON - 1
TARWHINE - 1
ROCKLING - 1
NOTE : Outer limit of territorial sea is 3 Nautical miles from the base line.
I.P.Z.
Immediate Protection Zone
S.C.Z.
Secondary Concern Zone
SALT LAKE - 1
DERRIMAN - 1
DOLPHIN - 1
BREAM - 3
BREAM - 1
BREAM - 2
WOODSIDE - 1
PERCH - 1
NANNYGAI - 1
KINGFISH - 7
KINGFISH - 3
KINGFISH - 6
KINGFISH - 4
KINGFISH - 2
KINGFISH - 1
BULLSEYE - 1
EDINA - 1
WOODSIDE - 2
WOODSIDE - 3
OMEO - 1
To Port Welshpool
Vic - P17
A.A.P. 25 %
OCCIDENTAL 25 %
ALLIANCE 25 %
AGEX 12·5 %
CONSOLIDATED 12·5 %
PIKE - 1
MORAY - 1
GROPER - 1
GROPER - 2
0 5 10 15 20 kms
SCALE 1 : 500 000
australian aquitaine petroleum pty ltd
GIPPSLAND BASIN
VIC P/17
LOCATION MAP
OMEO No. 1
Author : J. DJOKIC
Date :
Dwg No · 22008
Drafted by :
Report No : PG/191/83
Base Plan : 19433
FIG. 1



PERMIT	PATICIPANTS & %	AREA Km²	EXPIRY DATE
Vic P1	ESSO 50, BHP 50	1894	23/10/84
Vic P11	Gas & Fuel 33·3, Beach 33·3, Farminee 33·3	3451	7/8/84
Vic P12	Cultus 37·5, Archaean 17·5, York 17·5, Metramar 17·5, Sovereign 10·0	2670	7/1/85
Vic P13	Bass Strait 32·94, Bass O&G 16·47, Youngblood 30·0, Siberia 8·24, South Eastern Res. 12·35	3605	6/3/85
Vic P17	AAP 25, Occidental 25, Alliance 25, Agex 12·5, Cons. Pet. 12·5	3250	/ /87
Vic P18	Phillips 33·3, Land Lease Inv. 33·3, M.I.M. 33·3	1470	/87
Vic P19	Shell 40, News Corp. 20, TNT 20, Crusader 15, Mincorp 5	1800	/87
Vic L1-11	ESSO 50, BHP 50	3100	31/3/88
PEP 94	Beach 100	2723	30/4/85

australian aquitaine petroleum pty ltd.

GIPPSLAND BASIN OFFSHORE PERMIT MAP

SCALE

Km 15 10 5 0 15 30 45 60 Km

Author: C. ALLIOT	Date: JUNE 1983	Dwg. No.: 21979	FIG. 2
Drafted by: J.H.	Report No.: PG/191/83	Base Plan: 18542	

B DRILLING DATA

(i) Drilling Contractor: Australian Odeco P/L.
14th Floor, CAGA Centre,
256 Adelaide Terrace,
PERTH WA 6000.

(ii) Drilling Plant: Semi Submersible rig "Ocean Digger" designed to drill to a depth of 5500 metres in water depths from 36 to 183 metres.

Power - Three Fairbanks - Morse. Model 38-D-8-1/8" diesel engines rated at 1800HP each.

Mooring System - Ten Baldt LWT 30,000lb anchors with 3,000 feet of 2 1/2" chain.

Mast - Lee C. Moore 40' x 40' x 142' 1,000,000lb static capacity.

Drawworks - Emsco A 1500 E.

Mud Pumps - 2 of Emsco D-1350.

Mud Tanks - 1020 barrels capacity

Drill String - 5" 19.5 lb/ft drill pipe. 9 1/2", 7 3/4" + 6 1/2" drill collars.

(iii) Blowout Preventer Equipment

18 3/4" 10,000 psi WP BOP stack consisting of:-

- 1 x CIW type "U" triple ram type preventer 10,000 psi WP' with 6 side outlets. Blind Shear Rams on top, 5" Pipe Rams in bottom and middle unit.
- 2 x CIW Collet Connectors 18 3/4" 10,000 psi.
- 1 x Hydril Type GL, 5,000 psi bag preventer.
- 1 x 18 3/4" Vetco pressure balanced ball joint.
  4 x 3 1/8" Shaffer 10,000 psi Fail Safe Valves.
- 2 x 3" 10,000 psi safety pressure lines to surface. One as Choke Line, one as Kill Line.
- Payne 320 gallon BOP Control System.
- 600 feet of 22" OD x 0.50" Regan integral marine riser with 45 foot stroke Slip Joint.
- Regan KFDS Diverter.
- 10,000 psi WP surface choke manifold. Two hand adjustable, two fixed and one remote controlled chokes - all CIW.

(iv) Hole Sizes & Depths

Size		93.2m = Seabed (RKB)
26"	to	220m
17 1/2"	to	1320m
12 1/4"	to	2985m plugged back to 2674m
8 1/2"	to	2985m
6"	to	3379m T.D.

(v) Casing & Cementing Details

Size	Weight	Grade	Shoe Depth	Cement	Cement To
20"	133lb.ft	X56	210m	72T	Seabed
13 3/8"	68lb.ft	K55	1310m	77T	825m
9 5/8"	47lb.ft	N80	2606m	92T	2179m
7"	26lb.ft	N80	2984m	18T	2498.5m (HANGER)

(vi) Drilling Fluid

26" Hole: High viscosity spud mud, with returns to seafloor. Viscosity Marsh, 100 plus.

17 1/2" Hole: Type: Sea water/Q. Mix.

Average properties:-
SG : 1.15
VIS (Marsh) : 40
GELS : 18/25
PV : 6
YP : 20
WL : 15
pH : 9.5
Clna : 18,500 ppm.

12 1/4" Hole: Type: Seawater Polymer

Average properties:-
SG : 1.15
VIS : 50
GELS : 5/18
PV : 25
YP : 25
WL : 4
pH : 9.5
Clna : 23,000 ppm

8 1/2" Hole: Type: Seawater/gel/polymere

Average properties:-
SG : 1.19
VIS : 60
GELS : 7/24
PV : 28
YP : 20
WL : 5.6
pH : 10.5
Clna : 13,000 ppm

6" Hole: Type: Seawater/gel/polymere

Average properties:-
SG : 1.11
VIS : 48
GELS : 4/16
PV : 20
YP : 16
WL : 5
pH : 9.5
Clna : 17,000 ppm

Note: SG of mud was increased to SG 1.28 after gas kick at 3379m. T.D.

(vii) Water Supply

Potable water distilled on board drilling vessel. Fresh drill water from Welshpool.

(viii) Perforation & Shooting Record

9-5/8" Casing:	4 shot/Ft.	: 2918-2925m interval
		: 2932-2939m interval
	Purpose	: Carry out DST No. 1

(ix) Plug back & squeeze jobs: abandonment.

Cement plugs:	3349	to	3280m	
	3220	to	3045m	
	3030	to	2960m	(Tested 3000 PSI)
	2950	to	2880m	(Over perforations)
	2530	to	2440m	
	290	to	200m	(Tested 900 PSI)
	170	to	Seabed	

Mud S.G in uncemented intervals : 1.28 S.G.
Well head cut and recovered.

(x) Fishing Operations

1) 28.6m of Bottom hole Assy. were left in hole whilst reaming a bridge after 7-3/4" DC backed-off immediately above top 12-1/4" stabilizer.

2) During intermediate logging RFT tool stuck in hole whilst sampling at 2936m, Schlumberger cable broke 6.5m above the weak point. Cable and weak point upper connection were recovered. Fishing with overshot was unsuccessful leading to plug-back and sidetrack(s)

3) During final logging the RFT tool stuck in hole whilst testing at 3125m. Cable was separated at weak point. Fishing with overshot was successful and RFT samples were recovered.

(xi) Side Tracked Hole

1) First attempt to kick off : Cement plug back to 2680m in 12-1/4" hole with down hole motor
Second attempt : Cement plug back to 2660m. Attempt abandoned to run 9-5/8" casing.

2) The above side track was accomplished after running 9-5/8" casing. In 8-1/2" hole using down hole motor and 2 bent sub kick-off point was 2674m.

(xii) Communications

VHF + UHF Radio link.
Ship to shore telex.
Telephone line with Facsimile.

(xiii) Base of Operations

Welshpool Victoria.

LOCATION

(i) Site Investigations

Pre-drill & Post-drill seabed inspection carried out by Side-Scan Sonar. (see "Other Surveys" Section D of this chapter)

(ii) Anchoring Methods

Rig anchors, (10) positioned approximately 600 metres from rig. Marked by special buoys.

(iii) Transportation

From Welshpool Base to rig location
1 x 5,600 HP + 1 x 5,400 HP Supply, anchor handling towing vessels. Landing, towing vessel.
1 x Standby vessel.
1 x Puma SA 330J helicopter.
1 x Bell 412 helicopter.

C. FORMATION SAMPLING

(i) Ditch Cuttings

Lagged samples were collected from rig shale shakers by the mud logging personnel (Geoservices). These samples were collected at 10 metre intervals from 20" casing depth 210m to 1800 metres, 5 metre intervals to 2200 metres and 3 metre intervals thereafter to total depth at 3379m.

Four sets of washed and dried cuttings were collected. One complete set was deposited with B.M.R's core and cuttings laboratory in Fyshwick, A.C.T and another with the Mines Department Store, Oil & Gas Division, Port Melbourne. One complete set of cuttings was kept by Aquitaine in their Artarmon store in Sydney and one set was sent to SNEA(P) in Pau - France for analysis. In addition, two sets of unwashed and air dried cuttings were collected and kept by Aquitaine in the Artarmon warehouse in Sydney.

(ii) Coring

Two cores were cut with a Christensen core barrel 6-3/4" Stratapax core head.

Core No.	Interval	Meters Cut	Recovered
1	2348.0m-2366.0m	18m	14.5m (80%)
2	3031.2m-3040.4m	9.2m	2.85m (31%)

Cores were photographed (Attachment No. 5) and one inch plugs were taken for analysis by AUSCORE. Complete descriptions and analyses of cores are presented in Appendix No. 3.

Cores were slabbed longitudinally and quarter portion were respectively dispatched to B.M.R's core and cuttings laboratory in Fyshwick - A.C.T. and the Mines Department Store - Oil and Gas Division, in Port Melbourne, Victoria. Half portions were retained by Aquitaine in the Artarmon warehouse in Sydney.

Selected core chips were dispatched for source rock and dating analysis from the SWC's.

(iii) Side Wall Cores

No side wall cores were run in the 12-1/4" hole on account of the RFT tool being stuck in the hole.

Only one CST-V was run in the final logging run of the 6" hole, 18 misfired and 3 were shot and recovered.

Recovered sidewall cores were sent to David Taylor (Paltech) and Wayne Harris (W.M.C) for palaeontological and palynological analyses respectively.

Complete descriptions of sidewall cores are presented in Appendix No. 2

(iv) Canned Cuttings

Canned cuttings were collected for the Bureau of Mineral Resources for head space analysis of C1-C5.

One litre paint tins were used and samples were collected from 2030m to 3360m at 30 metre intervals. Results are shown in Appendix 6.

D. LOGGING AND SURVEYS

(i) Electric and Wireline Logging

Schlumberger ran the following logs.

DEPTH METRES KB	DATE	LOGS	ADDITIONAL SERVICES
210m TO 1319m	9-11-82 11-11-82	1. ISF-SLS-GR-SP-CAL LDL-GR-CAL	HRT (TEMP LOG)
1310m TO 2983m	3-12-82	2. DLL-MSFL-GR-SP-CAL LDL-CNL-GR-CAL SLS-GR	RFT 1,2,3 (RFT 3 STUCK IN HOLE)
2609m TO 2986m	2-1-83	3. ISF-SLS-MSFL-CNL-GR	CYBERLOOK
2986m TO 3170m	19-1-83	4. DLL-MSFL-GR-SP LDL-CNL-GR-CAL SLS-GR HDT VELOCITY SURVEY (VSP)	CBL/VDL * CYBERLOOK CYBERDIP CLUSTER GEODIP GLOBAL
2986m TO 3379m	28-1-83	5. BHC GR DLL-MSFL-GR-SP-CAL LDL-CNL-GR-CAL HDT RFT CST-V (SHOT 21, REC 3)	* CYBERLOOK CYBERDIP CLUSTER GEODIP GLOBAL *PROCESSED LOGS

Details of Log interpretation are listed in Attachment No. 3.

SUMMARY OF WIRELINES SERVICES

DATE	SUITE	LOGS	INTERVAL (M)	TIME CIRC STOPPED (HRS)	TIME LOGGER ON BOTTOM (HRS)	MAX REC TEMP (BHT) °C	RM BHT ohm-m	RMF BHT ohm-m	RMC BHT ohm-m	SCALE 1:200	SCALE 1:500	HOLE SIZE
9-11-83	1	ISF-SLS-GR-SP-CAL	210-1317 GR to 95	0400/9th	0830/9th	49.7°	0.202	0.142	0.242	X	X	17-1/2" Extrapolated
		LDL-GR-CAL	210-1317	0400/9th	1230/9th	51.7°	0.196	0.138	0.236	X	X	BHT 53.5°C
3-12-82	2	DLL-MSFL-GR-SP-CAL	1310-2978	0030/3rd	0830/3rd	95.5°	0.091	0.081	0.099	X	X	12-1/4"
		LDL-CNL-GR-CAL	1310-2979	0030/3rd	1330/3rd	105°	0.084	0.075	0.092	X	X	
		SLS-GR	1310-2977	0030/3rd	1915/3rd	107.8°	0.082	0.073	0.090	X	X	Extrapolated
4-12-82		RFT-1,2,3 (HP)								X		BHT 115°C
2-1-83	3	ISF-SLS-MSFL-CNL-GR	2609.5-2985.5	0130/2nd	1300/2nd	100°	0.124	0.092	0.124	X	X	8-1/2"
		*CYBERLOOK	2609.5-2985.5							X		
		*NEUTRON COUNTRATE PLAYBACK	2609.5-2985.5							X		
19-1-83	4	DLL-MSFL-GR-SP-CAL	2986.7-3169.5	2100/18th	0345/19th	105.5°	0.111	0.077	0.148	X	X	6"
		LDL-CNL-GR-CAL	2690-3173	2100/18th	0715/19th	112.2°	0.106	0.073	0.140	X	X	Extrapolated
		BHC-GR	2986.7-3172	2100/18th	1015/19th	115.5°	0.103	0.071	0.137	X	X	BHT 122°C
		*CYBERLOOK	2986.7-3169.5							X		
21-1-83		HDT	2986.7-3169.5	2100/18th	0300/20th	117.8°	0.102	0.070	0.135	X	1:40	
		*CYBERDIP	2986.7-3169.5							X	X	
		*CLUSTER-PLOT	2986-3151							X	X	
		*GEODIP	2987-3153							X	1:40	
		VELOCITY SURVEY (VSP)										
28-1-83	5	BHC-GR	2987-3377.5	1700/28th	0135/29th	128.9°	0.079	0.056	0.141	X	X	6"
		DLL-MSFL-GR-SP-CAL	2987-3376	1700/28th	0530/29th	132.2°	0.078	0.055	0.138	X	X	
29-1-83		LDL-CNL-GR-CAL	2987-3379	1700/28th	0900/29th	132.2°	0.078	0.055	0.138	X	X	
		*CYBERLOOK	3125-3378							X		Extrapolated
30-1-83		HDT	2987-3379	1700/28th	0230/30th	130°	0.079	0.056	0.140	X	1:40	BHT 138°C
		*CYBERDIP	2987-3379							X	X	
31-1-83		RFT-4 (HP)	3077.5-3147.5		1900/31st	113.3°	0.089	0.063	0.157	X		
		*CLUSTER-PLOT	3102-3376							X	X	
		*GEODIP	3153-3379							X	1:40	
		*GLOBAL	2800-3376									

* COMPUTER PROCESSED LOGS

NOTE: Extrapolated BHT are calculated using Horner's Plot. Assuming 10°C for sea-bed temperature, a temperature gradient of 0.036°C/m exists from top to 3170m, and 0.039°c/m from 3170m to T.D.

(ii) Mud Log and Composite Log

The ditch gas was continuosly monitored by Geoservices and the master log prepared by the Geoservices personnel is included in Enclosure 4.

A Field Wellsite Log was prepared by Aquitaine Geologists and has been incorporated into the composite log, Enclosure 3.

(iii) Velocity Survey

The velocity survey was conducted by Seismograph Services Limited shooting every 30 metres from 300m to 3150m (K.B). All relevent records of this survey (VSP) are retained in Australian Aquitaine Petroleum office, North Sydney, The velocity survey and calibrated log data have been incorporated in Enclosure 5.

(iv) Deviation Surveys

The deviation of hole from vertical was measured by Totco Survey equipment and by multishot/singleshot survey in sidetrack.

TOTCO			SIDETRACK SURVEY			
No.	Depth(M)	deg^{o}	No.	Depth(M)	deg^{o}	Azimut h
1	220	1/2	1	2638	2-1/2	S63W
2	518	1/2	2	2676	1-3/4	S45W
3	851	Miss	3	2686	1	S50W
4	1320	1/2	4	2695	0	----
5	1512	1/2	5	2710	1-3/4	N12E
6	1847	3/4	6	2744	1-3/4	N1E
7	2348	1	7	2761	1-3/4	N05E
8	2521	3	8	2791	1	N02E
9	2648	2	9	2837	1	N08E
10	2798	2	10	2903	1	N53E
11	2950	2-3/4	11	2973	1	N73E
12	3032	2-3/4				
13	3115	6				

(v) Temperature Survey HRT (See Electric Logs).

(vi) Other Surveys

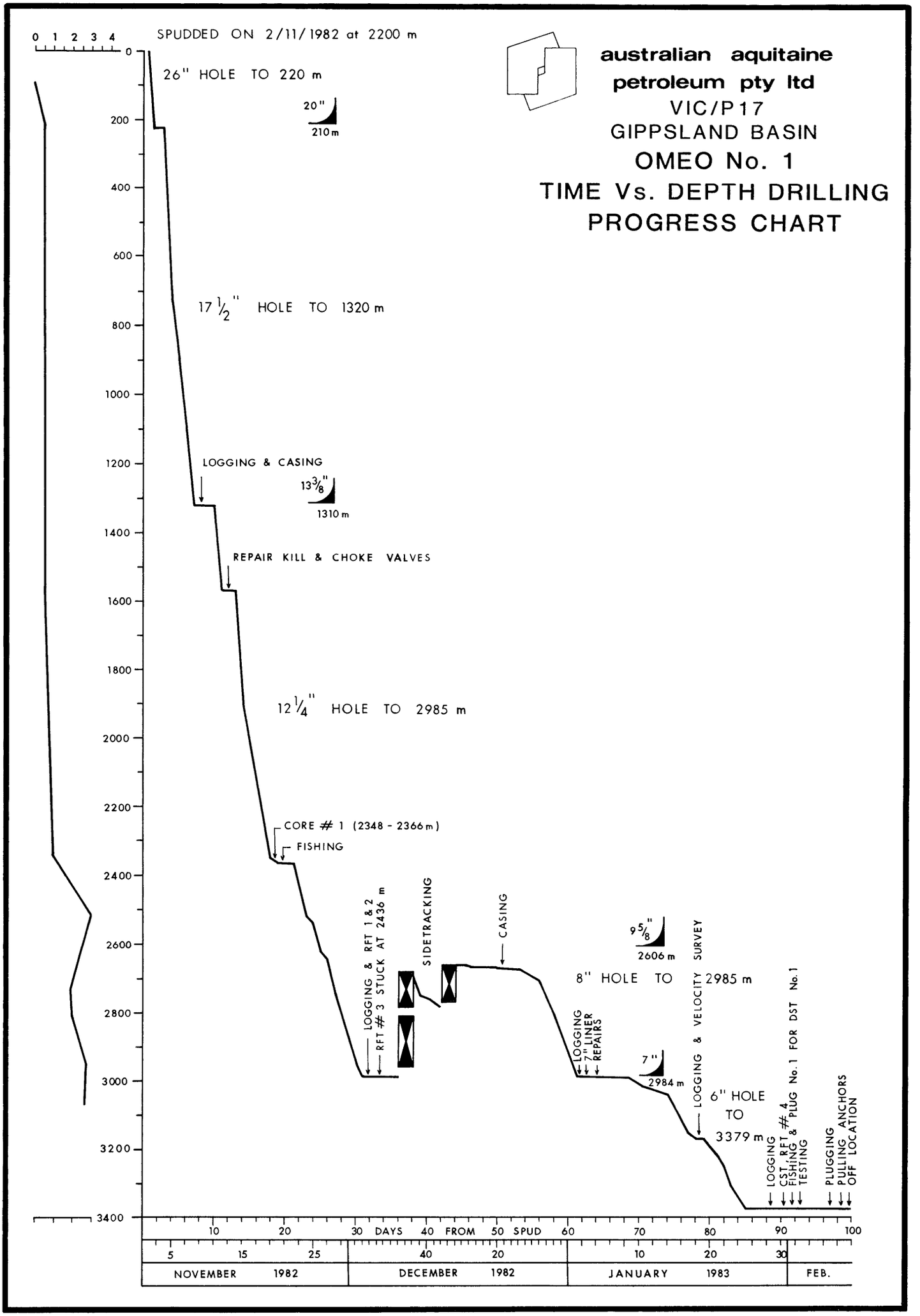
Seabed inspection

Prior to moving the rig on location and after the rig had moved away from Omeo No. 1 location a Side Scan survey was conducted by Racal-Decca to investigate the sea-floor for any foreign objects. An area of 2 x 2.8km was surveyed to cover the wellsite and the anchor pattern (see Attachment 2).

No debris was detected at the site except for a minor anomaly on Line 14.5 which indicated a possible object near the seabed, approximately one metre in diameter. The proximity of it to the site of the No. 3 anchor marker buoy indicate the liklehood of the object being a sunken marker buoy. These inflatable buoys, approximately 25 x 60 x 60cm in size are designed to hold a 3m x 0.5cm alluminium pipe with a small flashing light and flag.

Navigation Survey

The rig was positioned using an "Oasis and TMR-HA" positioning system. The survey was conducted by Racal-Decca. Results are summarised in Attachment 2.



australian aquitaine petroleum pty ltd

VIC/P17

GIPPSLAND BASIN

OMEO No. 1

TIME Vs. DEPTH DRILLING PROGRESS CHART

DWG. No. 21989

E TESTING

The RFT (Schlumberger) testing programme was designed to measure the pressure gradient of the reservoir fluid and if possible the recovery of representative fluids from zones indicated to be hydrocarbon bearing.

Four runs of RFT were carried out, and the results are summarised in the following Tables 1 and 2 and also incorporated in the composite log.

A DST (drill stem test) was carried out through perforations in the 7" casing over the interval 2918 - 2938m KB. Water was recovered in the drill string with 18.2 CF gas recovered from the APR valve.

Results are shown in Attachment 6 and 1, (Final Technical Report) page F4 bis A,B and C.

TABLE 1

RFT RESULTS - OMEO NO. 1

LOG SUITE 2 (3-12-1982) RFT 1

TEST	DEPTH(m) RKB	DEPTH (m) MSL	PRESSURE PSIG CORRECTED	PRESSURE Kg/cm²	PERMEABILITY QUALITATIVE
1	2349	2318.5	3300	232.1	> 100md
2	2371.5	2341	3341	234.9	~ 10md
3	2387	2356.4	3352	235.7	~ 10md
4	2427	2396.5	3428	241.1	~ 10md
5	2461	2430.5	3469	244.0	~ 10md
6	2590	2559.5	3646	256.4	~ 10md
7	2695	2664.5	3803	267.4	~ 10md
8	2705	2674.6	3825	269.0	~ 10md
9	2725	2694.5	3856	271.2	~ 10md
10	2805	2774.5	3963	278.7	~ 10md
11	2850	2819.5	Seal Failure (SF)	-	-
12*	2849.8	2819.3	4101	288.4	-
13	2854	2823.5	4104 - 4128	min 288.6	~ 10md
14	2858	2827.5	4106 - 4135	min 288.7	~ 10md
15	2879	2848.5	(SF)	-	-
16	2878.5	2848.0	(SF)	-	-
17	2878	2847.5	4351	306.0	less than 1md SUPERCHARGED?
18	2893	2862.5	(SF)		-
19	2893.5	2863	(SF)		-
20	2903	2872.5	(SF)		-
21	2902.5	2872	(SF)		-
22	2900	2869.5	-		Tight
23	2899.5	2869	-		Tight
24	2899.5	2868.5	-		Tight
25	2906	2875.5	(SF)		-

* Sample at 2849.8m RKB

a) Fill Lower 10,400cc Chamber in 10.7 minutes; 4102 FISP
Recovery: 5.6CF Gas: Zero Surface Pressure
9000 cc Water, 0.24 at 60°F (33,000 ppm NACL)

b) Fill Upper 10,400 cc Chamber in 6 minutes 4105 FSIP
Recovery: 30 CF Gas: 29PSI Chamber Pressure
5000cc water, 0.23 at 60°F (35,000 ppm NACL)
plus clear scum of oil or condensate

Note: Mud Filtrate: 0.26 at 60°F (30,000 ppm NACL)

LOG SUITE 2 (3-12-1982) RFT 2

TEST	DEPTH(m) RKB	DEPTH (m) MSL	PRESSURE PSIG CORRECTED	PRESSURE Kg/cm²	PERMEABILITY QUALITATIVE
26	2936.5	2906	4219	296.7	~ 0.1md
27	2936.5	2906	4219	296.7	~ 0.1md
28	2948	2917.5	4282	301.1	~ 0.1md
29	2947.5	2917	4291	301.8	~ 0.1md
30	2947	2916.5	-	-	~ 0.1md
31*	2952	2921.5	4300	302.4	> 100md
32	2959	2928.5	4248 - 4329	min 298.8	1md
33	2899	2868.5	-	-	Tight
34	2805	2774.5	3961	278.5	100md

* Sample at 2952 m RKB

a) Fill lower 10400 cc Chamber in 9.9 minutes; 4300 FSIP
Recovery = 0 Gas. Zero Surface Pressure
9750cc of water 0.242 at 62°F (32,000 ppm NACL)

b) Fill Upper 10400 cc Chamber in 8.4 minutes; 4299 FSIP
Recovery = 0 Gas. Zero Surface Pressure
9500cc of water, 0.277 at 62°F (28,000 ppm NACL)

Note: Measured Mud Filtrate = 0.26 at 60°F (30,000 ppm NACL)

LOG SUITE 2 (3-12-1983) RFT 3

36	2936.2		(SF)	REMARKS:	
37	2935.9		(SF)	Gamma ray not working at bottom, assume sample taken at 2936.5m	
38	2935.6		(SF)		
39	2936.8		(SF)		
40	2937.1		(SF)		
41	2937.4		(SF)		
42	2937.7		(SF)		
43	2938.0		(SF)	Fill 22,700 cc Lower Chamber in 7 minutes, 4344.5 FSIP	
44	2938.2		(SF)		
45	2938.4		(SF)		
46	2938.6		(SF)		
47	2938.8		(SF)	Attempt to fill Upper Chamber, unable to retract tool, with cable breaking 20 feet above tool	
48	2939.0		(SF)		
49	2939.2		~		1md
50	2939.4		(SF)		
51	2939.6		(SF)		
52	2939.8		(SF)		
53	2939.3		(SF)		
54	2939.2	2908.7	4351.5	306.0	~ 1md

TABLE 2

RFT RESULTS

LOG SUITE 5 (31/1/1983) RFT 4

TEST	DEPTH(M) RKB	DEPTH(M) MSL	PRESSURE PSIG CORRECTED	PRESSURE Kg/cm²	PERMEABILITY QUALITATIVE
55	3077.5	3047	4424.9	311.2 *	10 md
56	3096	3065.5	4447	312.7 *	5 md
57	3104	3073.5	4449.1	312.9 *	10 md
58	3131.5	3101	4571.1	321.5 *	1 md
59	3126.5	3096	4504.9	316.8 *	1 md
60	3147.5	3117	-		-
61	3125 +	3094.5	4501.2	316.5 *	>100 md

+ Sample at 3125 metres RKB

a) Fill lower 10400 cc chamber. 1250 PSIG surface pressure
20,000 cc gas at 180 PSIG, 1.5 CF gas at STP.
7500 cc water; 0.234 at 82°F (24 500 ppm NACL)
plus thin film of condensate/oil

b) Fill upper 10400 cc chamber. 1750 PSIG surface pressure
20,000 cc gas at 460 PSIG, 6 CF gas at STP.
3750 cc water; 0.245 at 80°F (24000 ppm NACL)
plus thick film of condensate/oil.

NOTE: Mud Filtrate: 0.21 at 66°F (35000 ppm NACL)

DST RESULTS

PERFORATED INTERVAL 2918m – 2325m and 2932m – 2939m RKB

PACKER SET AT 2888.5m

CEMENT PLUG TO 2960m

	AMERADA	HALLIBURTON	HALLIBURTON	HALLIBURTON
DEPTH	2912.5m	2895.0m	2882.0m	2873.3m
I HP	4616	4481	4466	-
F P	3531	3532	3521	3489
FSI P	4018	4025	4012	3484
FFP	3578	3683	3671	3629
FFSIP	3970	3986	3976	4524
FHP	4415	4482	4473	4507

All pressures are final calculated values in PSIG.
No flow to surface.
9465 feet of muddy water were recovered by reverse circulation:
0.403 ohm-m at 74°F, 15000 ppm NACL.

18.2 CF gas in the APR chamber.

Extrapolated initial static pressure: 4100 psi (288.3kg/cm²)
Bottom hole temperature 250°F at 2912m.

* Pressure Readings taken by RFT-HP, all others strained gauges.

IV. GEOLOGY

A. Previous Exploration and Surveys

The Gippsland Basin has been a target for oil exploration since the nineteen-thirties with early drilling activities concentrated in the onshore section of the basin where oil seeps are known. The first offshore drilling did not take place until 1965 when Esso drilled "Gippsland Shelf No. 1" which was renamed Barracouta No. 1. In this year both Barracouta and Marlin fields were discovered; the discovery wells were Gippsland Shelf No. 1 and No. 4 respectively. The history of exploration in offshore Gippsland is summarised in Table 3.

Production from the Gippsland Basin is now entering its twelfth year. The major oil and gas prospects have been defined and five oil and two gas fields have been developed. Further development of known fields is continuing and platforms are being designed or fabricated for Cobia, Fortescue, Flounder and Bream.

Exploration by Australian Aquitaine Petroleum and its partners commenced in November, 1981 after the granting of permit VIC/P17. During November the GA-81 seismic survey was carried out and a total of 3536 line km was shot.

During June 1982, the GA-82 seismic survey was carried out and an additional 403 km of seismic were shot.

Edina No. 1 was spudded on the 26th September 1982, and was plugged and abandoned without encountering any hydrocarbons. The rig was released on the 1st November 1982, before moving to Omeo No. 1 Location.

TABLE 3

GIPPSLAND BASIN EXPLORATION HISTORY

SIGNIFICANT DATES

1951 - 1956	BMR runs regional gravity and aeromag.
1960	BHP granted PEP 38 and 39 over the whole basin.
1961 - 1962	BHP runs aeromag surveys.
1962 - 1963	BHP reconnaissance seismic survey.
May 1964	Esso-BHP Farmout Agreement.
1965	Barracouta, Marlin discoveries.
1966	Marlin delineation.
1967	Kingfish, Halibut discoveries.
1968	Tuna, Snapper discoveries.
1969	Mackerel discovery, Barracouta on production.
1970	Halibut, Marlin on production.
1971	Kingfish on production.
1972	Mackerel delineation wells.
1974	First major relinquishment.
1975	Shell relinquishment.
1976	Second round of relinquishments.
1978	Mackerel on production, Fortescue discovery.
1979	Tuna on production.
1980	Final relinquishments.

TABLE 4

SURVEYS IN GIPPSLAND BASIN

YEAR	NAME OF SURVEY	BY	TYPE
1944	Morwell Brown Coal Field	B.M.R.	Onshore Gravity
1948	Morwell Brown Coal Field	B.M.R.	Onshore Gravity
1948-59	Traralgon South	B.M.R.	Onshore Gravity
1951	Yallourn - Morwell - Traralgon	B.M.R.	Onshore Gravity
1951	East Gippsland	B.M.R.	Onshore Gravity
1951-52	Gippsland	B.M.R.	Onshore Magnetic
1952	Avon Area	B.M.R.	Onshore Seismic
1952	Darriman	B.M.R.	Onshore Gravity
1952-53	Gippsland	B.M.R.	Onshore Gravity
1954	Darriman	B.M.R.	Onshore Seismic
1955	"Seven Mile" Nowa Nowa	B.M.R.	Onshore Magnetic
1956	Gippsland Offshore	B.M.R.	Onshore Magnetic
1958	Baragwarrath Anticline	B.M.R.	Onshore Gravity
1959	Latrobe Valley	B.M.R.	Onshore Seismic
1960	Bairnsdale - Sale (E. Gippsland) Woodside.		Onshore Seismic
1960	Bass Strait	B.H.P.	Offshore Magnetic
1960	Longford	B.M.R.	Onshore Gravity
1961	Anderson's Inlet	Oil Dev.	Onshore Magnetic
1961	Bass Strait & Encounter Bay	Hematite	Onshore Magnetic
1961	Gippsland Basin	B.M.R.	Onshore Gravity
1961	Rosedale	B.M.R.	Onshore Seismic

1961	Sale - Lake Wellington	Woodside	Onshore Seismic
1962	Sale (Extended)	Arco (Woodside)	Onshore Seismic
1962-63	Flinders Island	Hematite	Offshore Seismic
1962-63	Ninety Mile Beach	ARCO Woodside	Offshore Seismic
1963	Gormandale	A.P.M.	Onshore Seismic
1964	Gippsland Shelf (EG)	Esso	Offshore Seismic
1964	Seaspray	AROC	Offshore Seismic
1965	Offshore Gippsland Basin	Shell	Offshore Seismic
1965	Paynesville	Woodside	Onshore Seismic
1965	Woodside - Paynesville	Woodside	Onshore Seismic
1966	ET 66 G.B.	Esso	Offshore Seismic
1966	Rosedale	A.P.M.	Onshore Gravity
1966	Stockyard Hill	Woodside	Onshore Gravity
1966-67	Hydrosonds Survey	B.O.C.	Onshore Seismic
1967	Eastern & Western Bass Strait	Magellan	Aeromagnetic
1967	Ex-67 G.B.	Esso	Offshore Seismic
1967	EC-67 G.B.	Esso	Offshore Seismic
1967	Golden Beach	B.O.C.	Offshore Seismic
1967	Sole Sparker	Shell	Sparker offshore Seismic
1967	Venus Bay	Alliance	Sparker Offshore Seismic
1968	EH-68 G.B.	Esso	Sparker Offshore Seismic
1968	Tarwin	AOD	Onshore Seismic
1968	Toongabbie	APM	onshore Seismic
1968-69	East Gippsland	Magellan	Seis & Magnetic

1968-69	G69A	Esso	Offshore Seis & Meg
1969	Bemm River	WYP Dev.	Onshore Gravity & magnetic
1969	Cape Patterson	Alliance Oil	Onshore Gravity & Seismic
1969	Gippsland Basin Onshore	Woodside	Onshore Seismic
1969	Lakes Entrance Offshore	BOC & Woodside	Offshore Seismic
1969	Tasman - Bass Strait	Magellan	Offshore Seismic Sparker & Magnetic
1970	Bemm River	YPO Dev.	Onshore Seismic
1970	G69B (Sole Structure)	Hematite	Offshore Seismic
1970	G70A (Tuna Structure)	Hematite	Offshore Seismic
1970	Seaspray	Woodside Planet Etc.	Offshore Seismic
1970	Central High Survey	Shell	Offshore Seismic
1970	Tarwin	A.O.D.	Onshore Seismic
1970-73	Continental Margin	B.M.R.	Offshoe Seismic
1971	G71A	Esso	Offshore Seismic
1971	G71B	Esso	Offshore Seismic
1972	G72A	Esso	Offshore Seismic
1972-73	Continental Margin	Shell	Offshore Geophysical
1973	North East Furneaux	Magellan	Offshore Seismic
1973	G73A	Esso	Offshore Seismic
1973	G73B	Esso	Offshore Seismic
1973	Offshore Gippsland Basin Survey	Shell	Offshore Seismic
1974	G74A	Esso	Offshore Seismic
1976	G76A	Esso	Offshore Seismic
1977-78	G77A	Esso	Offshore Seismic

1980	G80A	Esso	Offshore Seismic
1980	GB-79	Beach	Offshore Seismic
1980	GBS-80	Bass Strait O & G	Offshore Seismic
1980	GC-80	Cultus Pacific	Offshore Seismic
1980	MGS-80	Mincorp	Airborne Geochemical
1980	MSI-80	Mincorp	Airborne Geochemical
1981	GB-81	Beach	Offshore Seismic
1981	GBS-81	Bass Strait O & G	Offshore Seismic
1981	G81A	Esso	Offshore Seismic
1981	GM81A	Mincorp	Onshore Seismic
1981	GB81A	Beach	Onshore Seismic
1981	GA81A	Aust. Aquitaine	Offshore Seismic
1981	GA81A Ext.	Bass Strait O & G	Offshore Seismic
1981	GP81A	Phillips	Offshore Seismic
1981	GC82A	Cultus Pacific	Offshore Seismic
1981-82	GS81A	Shell	Offshore Seismic
1981-82	G82A	Esso	Offshore Seismic
1981-82	G82B	Esso	Offshore Seismic
1982	CSR-82A	Sion Resources	Onshore Seismic
1982	GH82A	Hudbay	Offshore Seismic
1982	GB82A	Beach	Onshore Seismic
1982	G82C	Esso	Offshore Seismic
1982	GA82B	Aust. Aquitaine	Offshore Seismic.

IV. B. REGIONAL GEOLOGY

The Gippsland Basin formed as the result of two separate phases of continental separation along new plate boundaries. Initial formation has been related to a phase of intra-cratonic rifting between the Tasmanian block and the Australian mainland which occurred between 140 and 100 MY BP (Elliot; 1972). This rift extended from the Otway Basin to the Bellona Gap on the Lord Howe Rise to the East.

The boundary of the Gippsland Basin is marked to the south by the marginal fault system which brings basement rocks of the Bassian Rise in contact with basinal sediments. The northern boundary is an unconformable contact between basin sediments and rocks of the Tasman Fold Belt, while the western boundary with the Otway Basin is marked by the Selwyn Fault on Mornington Peninsula.

Initial sedimentation occurred in the latest Jurassic or Early Cretaceous with a sequence of entirely non-marine greywackes, chloritic mudstones and occasional coals being deposited. Much of the coarse clastic component of these sediments was derived from contemporaneous acid to intermediate volcanics which are inferred to have a southerly provenance. These sediments are collectively termed the Strzelecki Group and appear to have limited hydrocarbon source and reservoir potential.

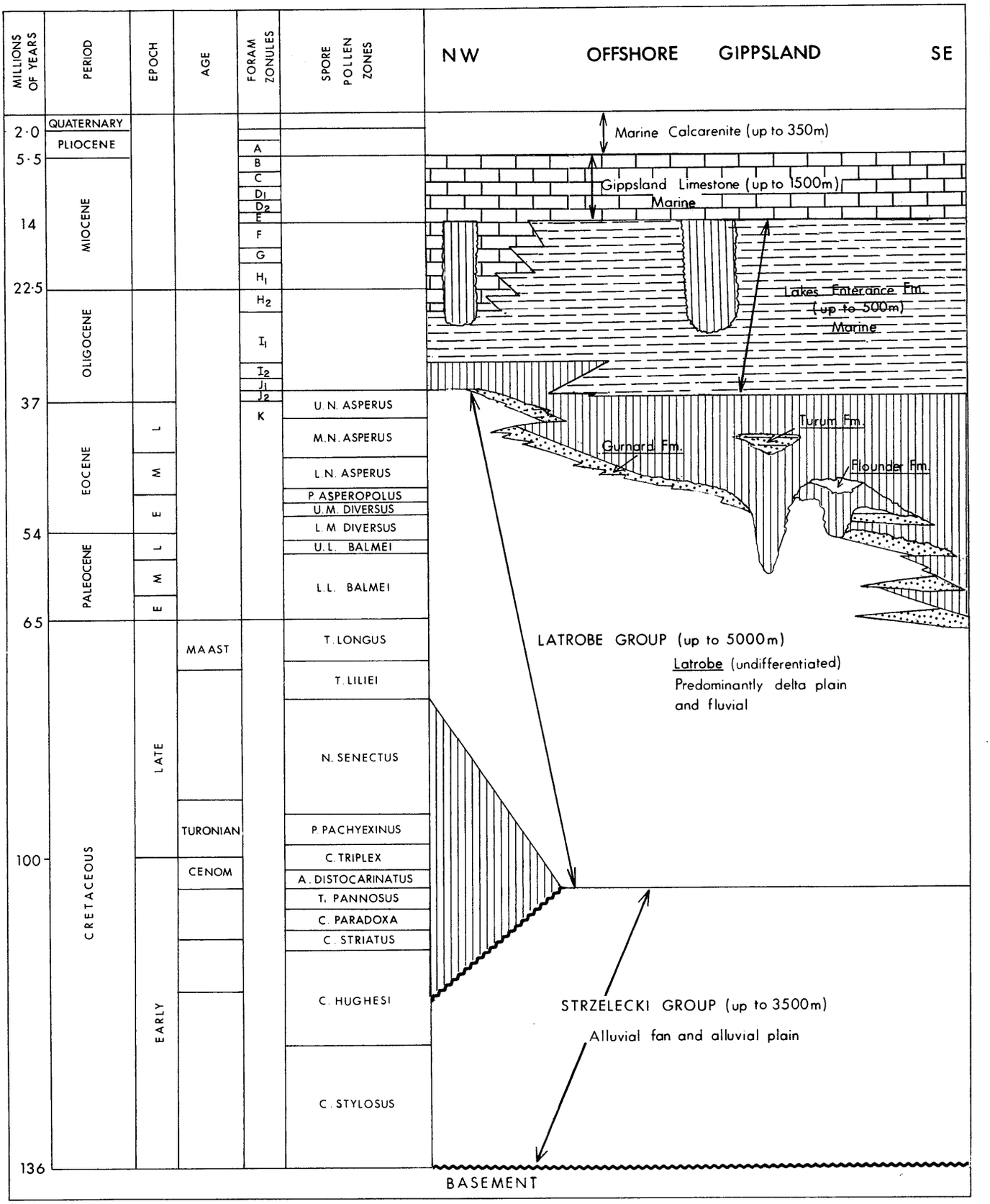
The separation of the Lord Howe Rise and New Zealand from eastern Australia abound 80 MY to 60 MY BP marked a general increase in the rate of subsidence within the Gippsland Basin. Fluviatile sedimentation continued in the Late Cretaceous but gave way to prograding deltaic complexes during the Palaeocene and Eocene. Individual complexes have yet to be delineated by well and seismic data although Loutit and Kennett (1981) have related sedimentary cycles within the Gippsland Basin to global eustatic and sea level changes. These depositional cycles are recognisable from the Late Cretaceous to Late Eocene Latrobe Group through to the Oligocene to Early Miocene Lakes Entrance Formation (Figure 4). At the top of the Latrobe Group a regional transgression inundated the basin and caused the formation of a series of barrier systems during periods of stillstand. Associated with these barrier systems are glauconitic, nearshore marine facies together with lagoonal and marsh facies in which coal-forming carbonaceous sediments were laid down. This transgressive sequence, which marks the final phase of Latrobe sedimentation, is termed the Gurnard Formation; although this classification is still informal.

The Latrobe sequence, containing many channel, point bar and barrier sand bodies, is the primary reservoir sequence within the Gippsland Basin. Intra-Latrobe seals are formed by siltstone and coal sequences of the marsh facies while the top of the Latrobe Group is sealed by the glauconitic siltstone of the Gurnard Formation and the calcareous siltstones and claystones of the Lakes Entrance Formation.

The transgressive phase which resulted in the formation of the Gurnard and Lakes Entrance sediments has been related to the separation of Antarctica from southern Australia, which began about 45 MY BP. During this period and the Late Miocene en echelon anticlines and shear faults were generated. This pattern of faults and northeast-southwest trending anticlines is compatible with the existence of a dextral wrench couple operating in the region at the time. It is this phase of structuration which acted upon the Latrobe sediments and formed the major structural targets for hydrocarbon exploration within the basin.

During the Oligocene and into the Early Miocene, deposition of shale and marl occurred throughout the basin and onlapped the basin margins and structural "highs". Miocene sedimentation gradually changed in style from the shales and marls of the Lakes Entrance Formation to the bryozoan limestone and marl of the Gippsland Limestone. This limestone sequence is characterised offshore by two major depositional features. On the southern platform a massive linear slump zone occurs which can be traced seismically for more than 130km. Over the remainder of the basin complex channeling is in evidence caused by structural movements and eustatic sea level changes.

The final period of basin development was marked by a return to continental clastic sedimentation in southern Gippsland with marine sedimentation continuing on the continental shelf. The highland region north of the basin and the South Gippsland Hills along the western margin were uplifted during the Kosciusko uplift in the Late Pliocene.



australian aquitaine petroleum pty. ltd.

Gippsland Basin VIC/P17

STRATIGRAPHY

OFFSHORE GIPPSLAND BASIN

N.B. MODIFIED FROM THRELFALL ET AT., 1976

Dwg No: 20375

C. (i) REGIONAL STRATIGRAPHY

The Stratigraphy of the offshore Gippsland Basin is summarised in Figure 4.

Basement

The basement is composed of slighlty metamorphosed Paleozoic sediments of the Tasman Geosyncline. These rocks are exposed in the Victorian Ranges to the north and form islands along the Bassian Rise to the south. The geosyncline sediments are composed of deformed siltstones, shales, sandstones and igneous rocks of Ordovician and Silurian age which are overlain by Devonian - Carboniferous red beds made up of conglomerates, sandstones and pebbly sandstones with interbedded rhyolite, rhyodacite and trachytes (Threlfall et al., 1976). These Devonian - Carboniferous rocks are believed to have been the major source of coarse clastic sediments in the Gippsland Basin.

Four wells (Groper 1, Groper 2, Bluebone 1 and Mullet 1), located along the southern margin of the basin, reached basement rocks in granite and in red siltstones and sandstones. Although the basin centre has never been reached by drilling, aeromagnetic surveys suggest that basement rock will be similar to those found onshore.

Early Cretaceous (Strzelecki Group)

The Strzelecki Group represents the first sediments to have deposited in the Basin. The group consists of non-marine, immature greywackes, shales and coals. The greywackes are medium-grained and composed of quartz, rock fragments and feldspar grains held together by abundant chloritic and kaolinite clay matrix and minor calcareous cement. The shales are micaceous and slightly carbonaceous. The rocks are interpreted to have been deposited in alluvial fan and alluvial plain environments in a rapidly subsiding basin. The sandstones contain much volcanic material and have poor reservoir characteristics. Therefore, the group has been generally regarded as economic basement in the offshore area. The maximum thickness of the Group is estimated to be more than 3,500m (James and Evans, 1971).

The Strzelecki Group is exposed onshore at Narracan and Balook Highs. Offshore, in the areas where the group is reached by drilling or recognised seismically, it is separated from the overlying Latrobe by an angular unconformity.

Late Cretaceous - Eocene (Latrobe Group)

Latrobe undifferentiated: This sequence refers to the Late Cretaceous-Eocene sediments offlapping the Strzelecki Group and which contain major hydrocarbon accumulations. The maximum thickness of the sequence is estimated to be approximately 5,000m. In the western and central basin, non-marine deposition was predominant from Late Cretaceous to Early Eocene with the formation of alluvial and delta plain deposits comprising quartzose sandstone, coal, mudstone, siltstone and shale. Sand grains range from very fine to very coarse. Volcanic rock fragments and feldspars are less abundant than in the Strzelecki Group. The sandstones are poorly sorted but more mature than the underlying Strzelecki sandstones. At the end of the Late Cretaceous the southeastern side of the basin was encroached by a marine shoreline, but the centre of the basin was still largely a site of non-marine deposition. The upper section of Paleocene-Eocene age shows numerous point bar sandstones embedded in swamp deposits. The paleocurrent direction, as determined from the variation of these sandstones, is from the northwest (Threfall et al., 1976).

Gurnard Formation: This formation refers to the reworked sediments which were formed during the major transgression of the Eocene. These sediments vary from nearshore muds containing glauconite, to shoreline deposits including beach sand and backswamp coal. The unit, which has an erosional contact with the underlying deltaic sediments, is in turn overlain by marine sediments of the Lakes Entrance Formation.

Flounder Formation: This occurs only in the eastern side of the basin (outside of VIC/P17) and is composed of marginal marine to marine sediments which filled the channels cut during the Early Eocene time. The fill of up to 500m thick (as encountered at Flounder No. 1) consists of clayey siltstone containing varying amounts of coarse clastics. The siltstone is grey-brown in colour, micaceous, pyritic, and contains both benthonic and planktonic foraminifera.

Turrum Formation: This also occurs only in the eastern side of the basin where, during the Late Eocene, the area was eroded by the Marlin channel and later filled with marine shales of latest Eocene age. The shales are up to 350m thick, dark grey-brown in colour, slightly calcareous, slightly pyritic and micaceous.

Oligocene - Miocene

The Oligocene-Miocene sequence consists of two formations: the Lakes Entrance Formation and the Gippsland Limestone (figure 4). Although these two formations represent two separate units onshore, their offshore contact is gradational. The Lakes Entrance Formation refers to the

maximum 500m thick unit of marine mudstone overlying the Latrobe Group. The mudstone is light olive-green in colour, sometimes grey with a variable argillaceous and calcareous content. It contains pyrite, glauconite and marine fauna.

The Gippsland Limestone was first used to describe the onshore Miocene limestones and marls which overlie the Lakes Entrance Formation. Offshore, the Lakes Entrance Formation grades upward to a unit of 1500m of Miocene limestone, calcarenite and marl with occasional coarse clastics of mudstone. Slumping and sub-marine channelling are common in the Miocene and are probably related to the tectonic and structural movements in the basin and sea level changes.

Pliocene - Recent

Up to 350m of marine calcarenites lie between the Miocene Gippsland Limestone and the sea floor. Stratigraphic data on this uppermost sequence are generally lacking, although foraminiferal assemblages suggest that the lower part of the sequence may belong to Late Miocene.

(ii) STRATIGRAPHY OF SEDIMENTS PENETRATED

The stratigraphy and thickness of sediments penetrated in Omeo No. 1 are summarised in Figure 5 and Table 5.

TABLE 5

AGE		FORAM ZONULES	FORMATION		ASSOC. HORIZON	FORMATION TOPS (RKB)	THICKNESS (M)	
PLIOCENE TO RECENT			UNDIFFERENTIATED			93	117	
MIOCENE	LATE	B TO D_2	GIPPSLAND LIMESTONE	U MBR		210	1211	1672
				L MBR		1421	461	
	EARLY	D_2 TO H_2	LAKES ENTRANCE			1882	306	
OLIGOCENE		J_2	LATROBE GROUP	GREENSAND GURNARD a		2188	78	159
				b	BROWN	2266	81	
EOCENE	LATE	K		LATROBE CLASTICS	YELLOW	2347	103	
	EARLY	PRE-K			PURPLE			
?				UNDIFF. LATROBE	GREEN ORANGE	2450	745	
PALEOCENE								
CRETACEOUS	LATE							
	EARLY		STRZELECKI			3195	184	

*NOTE:- Formations tops are picked from logs correlating with Edina No. 1 Due to nature of cuttings; the log tops have precedence over foram zonules.

HORIZON TOPS AND DEPTHS

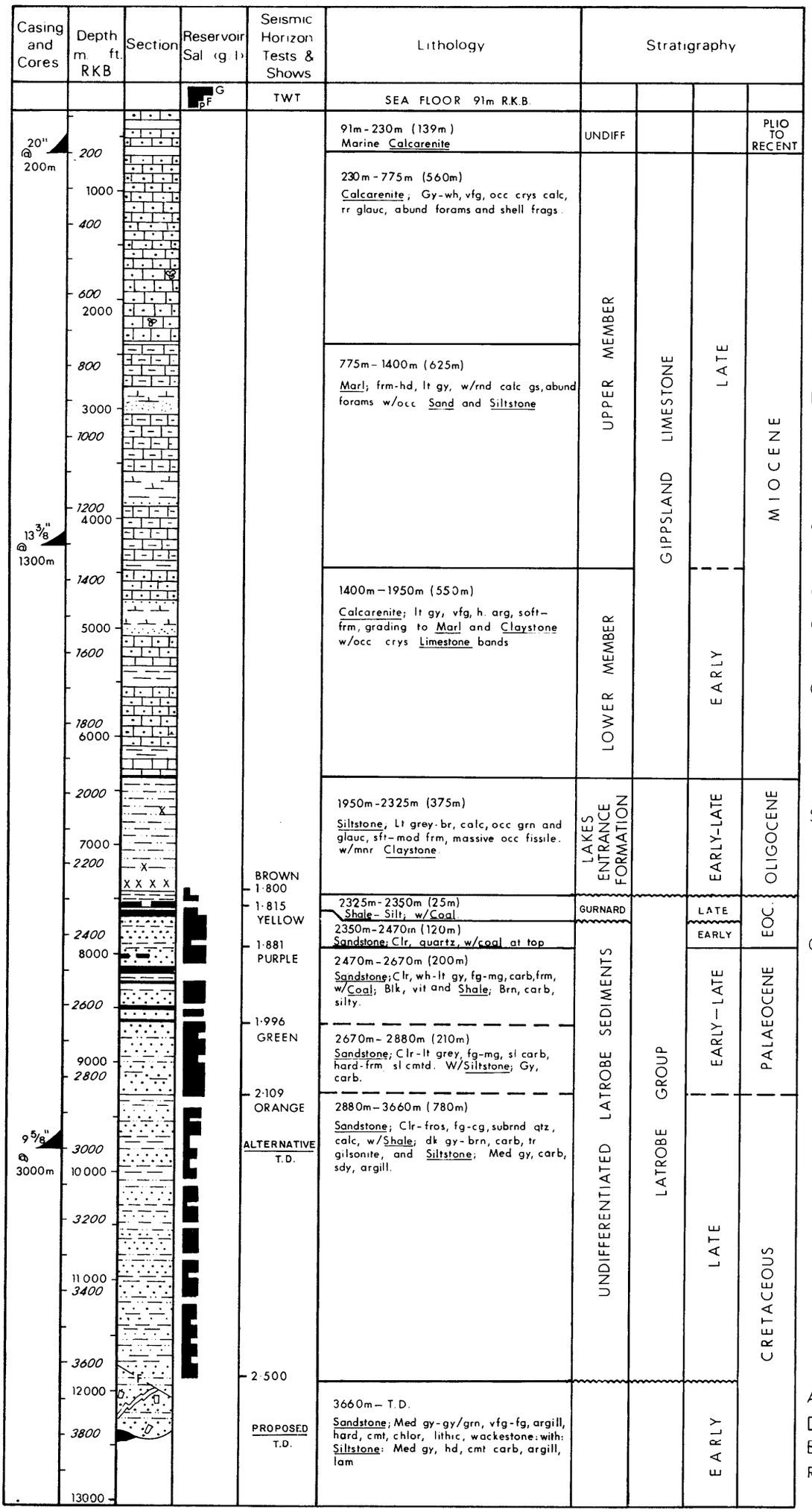
HORIZON	T.W.T.	M.S.L. (M)	R.K.B. (M)	ASSOCIATED FM.
BROWN	1.774	-2284	2314	Mid Gurnard
YELLOW	1.788	-2317	2347	Top of Latrobe Clastics
PURPLE	1.874	-2420	2450	Base of Coal
GREEN	1.971	-2640	2670	In thick coals near Paleocene unconformity
ORANGE	2.062	-2815	2845	Mid Paleocene

FIG. 5

AUSTRALIAN AQUITAINE PETROLEUM PTY. LIMITED

OMEO No. 1

PREDICTED SECTION



Permit Vic/P17

Location Line GA 81-33

Latitude SP 920
38° 36' 45·6" S

Longitude 147° 43' 02·5" E

Rig "Ocean Digger"

K B 30m

M.S.L. 61 m

P.T.D 3800m R.K.B (or 3000m)*

Status New Field Wildcat

Spudded

Operator A.A.P.

Cost

Cost/ft.

Objectives
1. Possible intra-Latrobe hydrocarbon accumulations below the Green Horizon.
2. Stratigraphic test of Strzelecki Group.

Structure
Roll-over on NE (down-thrown) side of normal fault which forms southern closure, with Latrobe Grp. closing against Strzelecki Grp. Closure mapped on Purple, Green and Orange Horizons.

Comments
1. Stratigraphy based on ties to Bream-3, Bullseye-1 and Gurnard-1
2. Depths to horizons calculated using HVA from GA81 survey.
3. Areas of Closure:
a) Purple Horizon - 4·82 km² @ 2470m M.S.L.
b) Green Horizon - 4·2 km² @ 2690m M.S.L.
c) Orange Horizon 2·6 km² @ 2900m M.S.L.
* 4. T.D. may be set at 3000m if formation is unsuitable for intra-Latrobe hydrocarbon accumulations

Author: S. FORDER

Date: SEPTEMBER 1982

Base Map No 9112

Reference No. 20625

FIG.6

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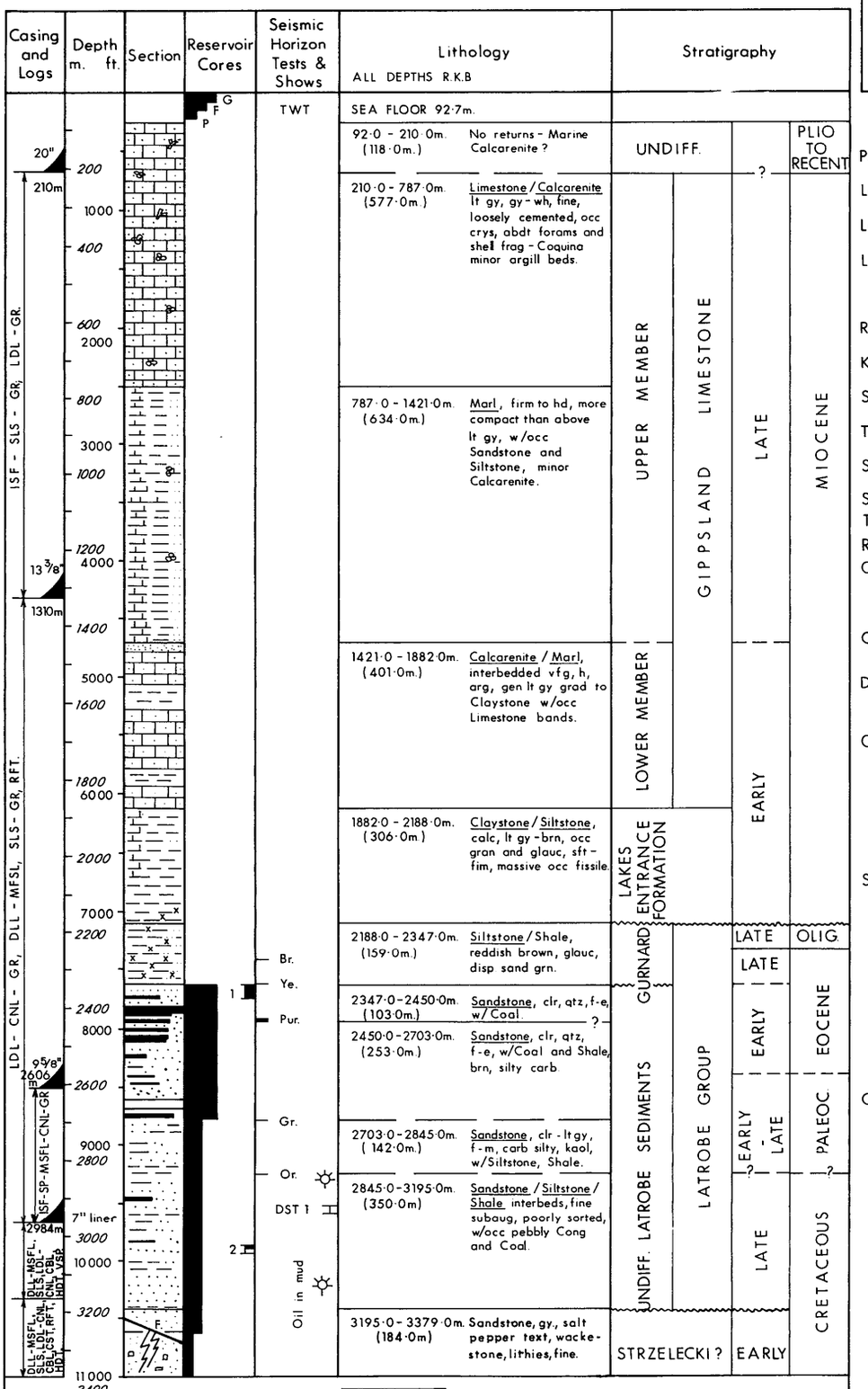
OMEO N°·1

COMPLETED SECTION



Core 1. 2348·0 - 2366·0m. Rec. 80%

Core 2. 3031·0 - 3040·0m. Rec. 31%

RFT 1 2849·8m. FSIP 4114 PSIA.
LC: 9000cc water; 5·6 CF Gas
UC: 5000cc water; 30 CF Gas.
0·23 ohm-m at 60°F, Scum of oil/condensate.

RFT 2 2952·0m. FSIP 4322 PSIA.
LC: 9750cc water; No Gas
UC: 9500 cc water.
0·277 ohm - m at 62°F, 28,000 ppm. CL.

RFT 3 2936·5m. FSIP 4344·5 PSIA.
Stuck in hole.

RFT 4 3125 0m. FSIP 4517 PSIA.
UC: 3750cc fluid, 2000cc Gas at 460 psig
LC: 7500cc fluid, 2000cc Gas at 180 psig
0·091 ohm-m at 222°F, film of oil/condensate

SEISMIC HORIZONS

	TWT	RKB(m)
BROWN	1·774	2314
YELLOW	1·788	2347
PURPLE	1·847	2450
GREEN	1·971	2670
ORANGE	2·062	2845

Permit	VIC P17
Location	S.P. 920 Line GA81-33
Latitude	38° 36' 45·0" S
Longitude	147° 43' 02·24" E
Rig	OCEAN DIGGER
K. B.	30·5m. A.M.S.L.
S. B.	62·7m. B.M.S.L.
T. D.	3379·0m. R.K.B.
Status	P & A With Gas Shows
Spudded	2. 11. 82.
T.D. Reached	JANUARY 25, 1983
Rig Released	FEBRUARY 10, 1983
Operator	AAP
Cost	Approx. $21,500,000
Drilling Time	85 DAYS

Objectives
(1) Intra - Latrobe below green Horizon.
(2) Stratigraphic test of Strzelecki Group.

Structure
Roll - over on NE (down - thrown) side of normal fault which forms southern closure, with Latrobe Group closing against Strzelecki Group. Closure mapped on Purple, Green and Orange Horizons.

Comments
(1) RFT stuck at 2936·0m., resulting in an attempt to sidetrack from 2666·0m., 9 5/8" CSG set at 2606·0m to continue 8 1/2" hole sidetrack from 2674·0m to 2985·0m.

(2) Set 7" linear at 2984·0m. DA 6" hole to 3173·0m. Show on logs prompt DA to 3379·0m.

(3) Oil / condensate (0·005%) in mud only on wiper trips prior to logging, assoc. 20 - 30% TG.

(4) Short DST over 2918·0 - 2925·0m ; 2932·0 - 2939·0m. in 7" liner. No flow to surface. Mud and water recovered by reverse circ. 18·2 CF gas in APR. chamber.

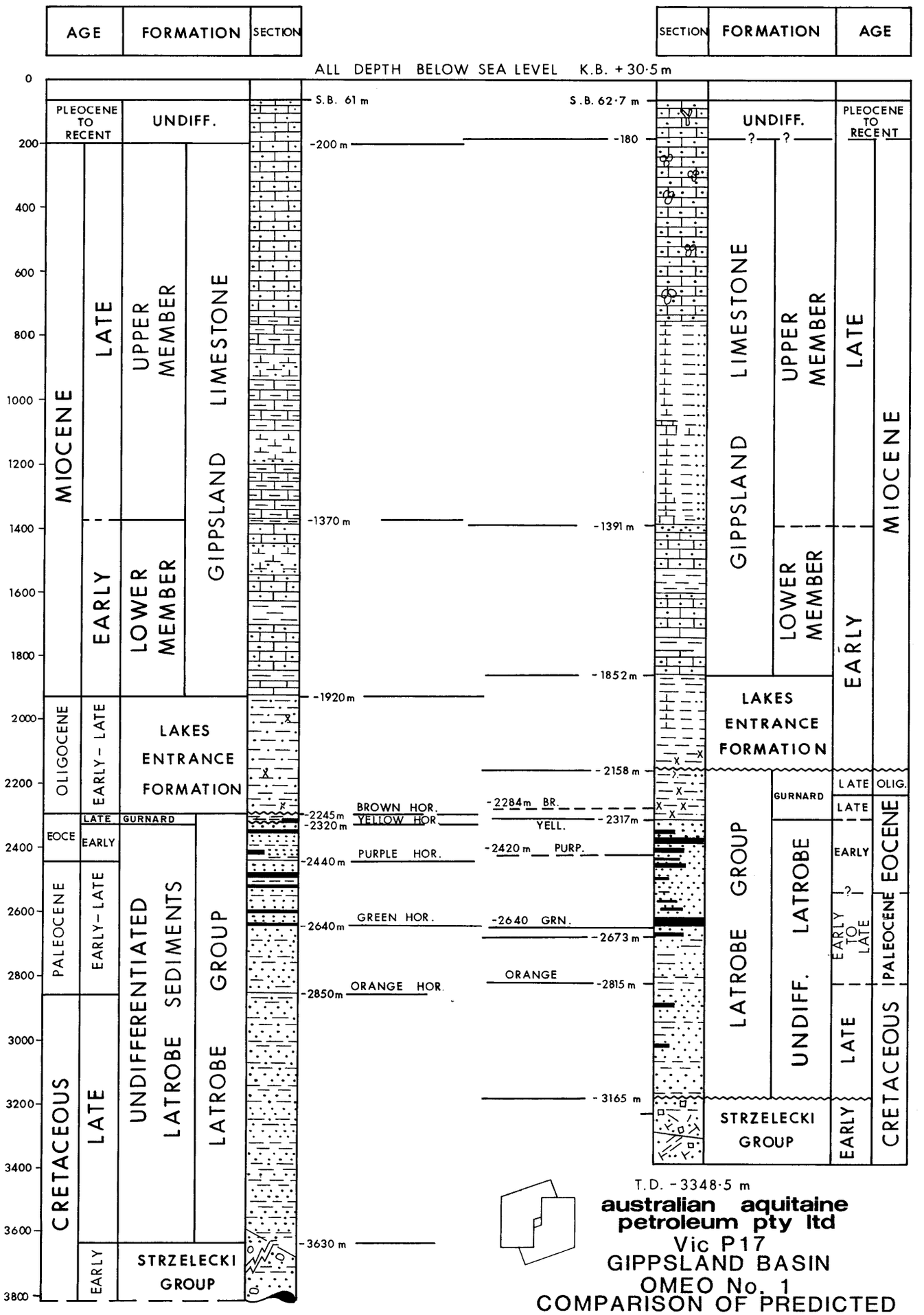
(5) Major fault zone at 3310 - 3319m KB.

Author : P. Chan

Date : Feb. 1983.

Base Map No 9112

Reference No 21978


PREDICTED SECTION
ACTUAL SECTION
AGE
FORMATION
SECTION
ALL DEPTH BELOW SEA LEVEL K.B. + 30·5 m
S.B. 61 m
S.B. 62·7 m
PLEOCENE TO RECENT
UNDIFF.
MIOCENE
LATE
EARLY
UPPER MEMBER
LOWER MEMBER
GIPPSLAND LIMESTONE
-200 m
-180
-1370 m
-1391 m
-1852 m
-1920 m
OLIGOCENE
EARLY - LATE
LAKES ENTRANCE FORMATION
-2158 m
EOCE
LATE
GURNARD
EARLY
-2245 m
BROWN HOR.
-2284 m BR.
-2320 m
YELLOW HOR.
YELL.
-2317 m
-2420 m PURP.
-2440 m
PURPLE HOR.
PALEOCENE
EARLY - LATE
UNDIFFERENTIATED LATROBE SEDIMENTS
LATROBE GROUP
-2640 m
GREEN HOR.
-2640 GRN.
-2673 m
ORANGE
-2815 m
-2850 m
ORANGE HOR.
CRETACEOUS
-3165 m
STRZELECKI GROUP
-3630 m
T.D. -3348·5 m
australian aquitaine petroleum pty ltd
Vic P17
GIPPSLAND BASIN
OMEO No. 1
COMPARISON OF PREDICTED TO FINAL DRILLED SECTION

DWG. No. 21988

Recent - Pliocene (seafloor to 210m)

These recent sediments are comprised mainly of marine calcarenites and associated coquina beds of bryozoa, brachiapods and foraminiferas. The calcarenites grade to biomicrites and are generally light grey to grey white, tan, chalky with minor sparry calcite, friable with good vugular porosity. Stratigraphic data on this sequence are underterminative on account of lack of returns to surface; the base of Pliocene sediments being undifferentiated from Late Miocene sediments.

Miocene (210m - 2188m?)

The Gippsland Limestone was first applied to the onshore Miocene limestone and marls which overlie the silts and marls of the Lake Entrance Formation. Offshore it is common for the Miocene limestones to grade into the siltstones and marls of the Lake Entrance sediments. Generally the sequences are time trangressive. For the wells in VIC/P17, based on seismic, logs and age data, the sequences are defined as follows.

a) The Gippsland Limestone (210-1822m) is comprised dominantly of interbeds of calcarenite and marls. Slumping and submarine channeling are common, with local silty and arenaceous facies distribution. It has been subdivided into an Upper and Lower member.

The Upper member - Middle to Late Miocene (210-1421m) is dominant limestone/calcarenite with marl and very calcareous claystone towards the base.

The argillaceous fractions are dispersive, soft, blocky and sticky.

The Lower Member - Early Miocene (1421-1882m) is comprised of calcareous claystone, light grey to green grey, soft to firm, less sticky in part, locally subfissile, grading to siltstone, minor limestone and arenaceous interbeds

b) The Lakes Entrance Formation (1882m - 2188m). The top is gradational; on logs it is picked as a more compact sequence of marine claystone, less calcareous than the marls above, the clay fraction is slightly dispersive, also locally subfissile and splintery in part. Minor siltstone and arenaceous beds are common.

Onshore, the name Lakes Entrance Formation is applied to a marine shale or marl which is entirely of Oligocene age. Offshore, the upper boundary is time trangressive into the Early Miocene.

Oligocene - Late Eocene (2188m - 2347m)

Sea level rise continued through the Late Eocene into Early Oligocene. As the shoreline encroached over the eroded Latrobe clastics, a destructional shallow marine facies of silty, sandy glauconitic shale accumulated. This is termed the Gurnard Formation.

In Omeo No. 1, the term Gurnard Formation is applied to the highly glauconitic sands and silts above the coarse clastics. There are two distinct units in this formation. The lower unit is highly glauconitic, arenaceous in part and dominant rusty brown to reddish in colour. The boundary at 2266m is marked by earthy brown to reddish oxidised glauconitic sands and silts. It is thought to be equivalent to a weathering surface caused by a sea-level drop at the end of Eocene with a consequent erosional sequence on the basin margins and over the crests of most anticlines. Sea-level rose again and the upper unit is comprised mainly of marginal marine glauconitic silts and rejuvenated sediments of the lower unit. The top is marked by a highly calcareous sandy claystone grading to Calcarenite. This unit is onlapped by the wholly marine shales and marls of the Lakes Entrance.

Early Eocene - Late Cretaceous: Latrobe Undifferentiated (2347m-3195m).

The first sands were encountered from 2347m; a detailed lithological description is given in Core 1 (2348m to 2366.0m). The sands are generally clean, quartzose, coarse to very coarse, subrounded, very good porosity and excellent permeability. The upper sediments are dominantly marginal marine deposits, barrier, point bar sands, deltaic crevasse splays with interludes of marsh coal and carbonaceous shale deposits.

Below the massive coal beds from 2652 - 2687m, the sands are more poorly sorted; of fine to pebbly quartz grains in a clay matrix; and interbedded silts with fine grained sandstones. These are predominant non marine fluvial braided stream and alluvial deposits. This sequence reflects the Paleocene sedimentary non marine deposits; the top is picked at 2541m KB. A distinct mid Paleocene unconformity occurs at 2703m KB.

The basal sequence which constitutes the hydrocarbon bearing zones is composed of a complex system of alluvial and delta plain deposits. The sequence of thinly bedded shales, poorly sorted sands with minor coals and carbonaceous shales constitute much of the sequence. The age of this sequence is placed in the Late Cretaceous with the top picked at 2845m KB. from logs and well correlations.

It is postulated that adjacent to tilted fault blocks such as Omeo, sediments deposited on the downthrown side of the fault form a transition zone between the Strzelecki sediments and the Latrobe Group proper. Much of the sediments would be reworked deposits of the Strzelecki greywackes in an alluvial fan complex.

Early Cretaceous - Strzelecki Group (3195m - 3379m)

The top of the Strzelecki Group is picked at 3195m on the first appearence of fine grained mottled lithic sandstones with a characteristic "salt and pepper" texture. A major fault zone is evident on the dipmeter and log evidence from 3310m - 3319m. Dips below the fault are 8-12°SW. These dips can be clearly seen to correspond to the regional dip seen on seismic sections within Strzelecki fault blocks (see enclosures 1 & 2).

Dips in the interval 3195 - 3310m are 12-27°NE. Although assigned to the Strzelecki Group on the basis of lithology, this interval may represent a transitional sequence between the Strzelecki and Latrobe. The depositional system is inferred to be a series of interlocking alluvial fan and alluvial plain complex.

D STRUCTURE

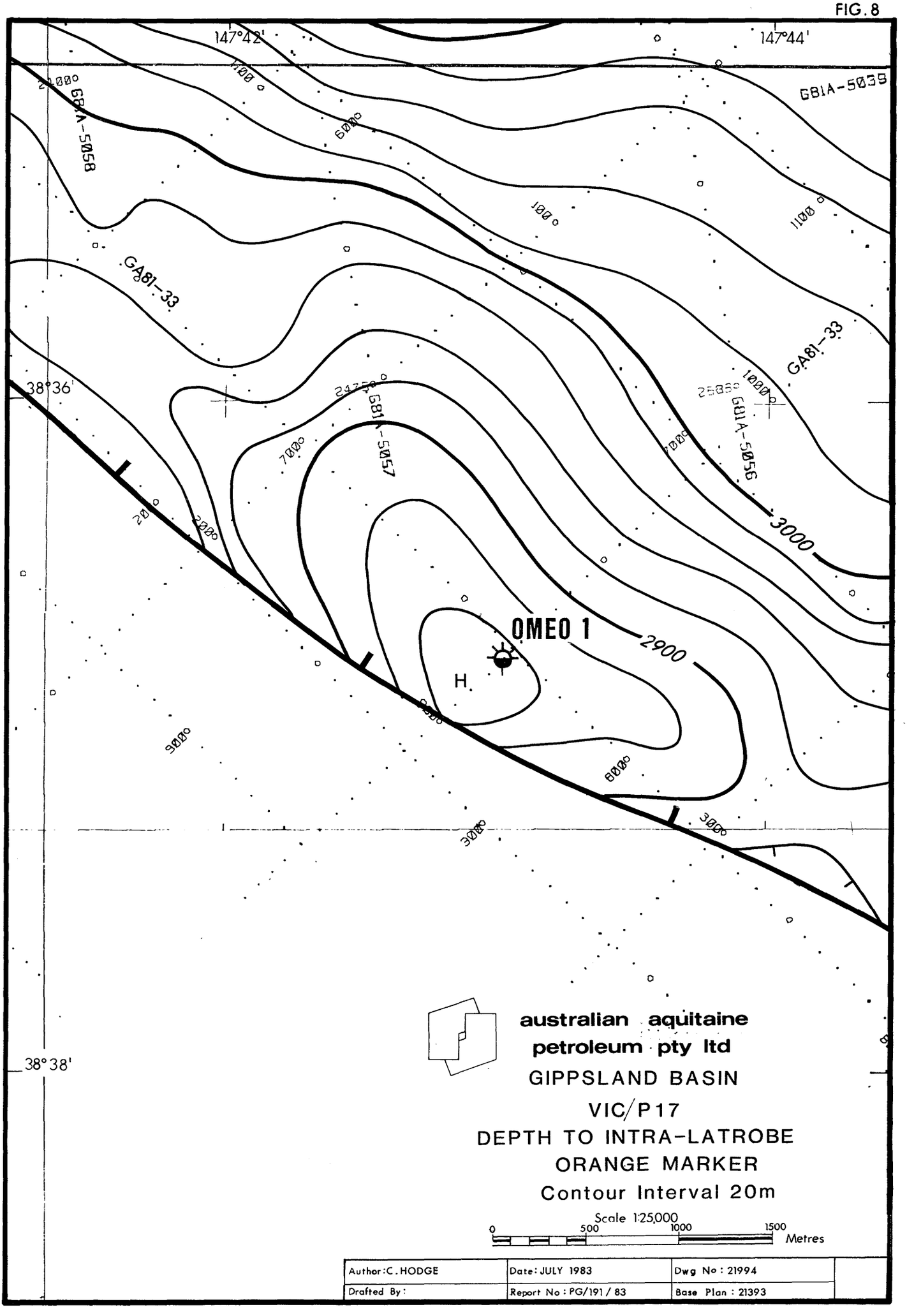
"Omeo" is the second structure in VIC/P17 for which final depth maps have been prepared, using spatially-filtered Vnmo profiles on the Brown Horizon (Top Latrobe Group). A constant Intra-Latrobe interval velocity of 3540m/sec was used to calculate depths from the Brown Horizon to the Intra-Latrobe Purple and Green markers. Below the Green Horizon a constant interval velocity of 3690 m/sec was used to calculate depth to the Orange Horizon.

The "Omeo" structure is formed by a roll-over within the Latrobe Group sediments on the northeast (downthrown) side of a normal fault. This fault penetrates to the level of the Intra-Latrobe "Purple Horizon" and the structure has its highest mappable closure of 4.82 km^2 at this level (2470m). However, this closure is not independant of faulting and, as there would be no seal on the southwest side of the fault at this level, the Purple Horizon is not prospective at this location. Two other Intra-Latrobe markers have been mapped at this location, the Green and the Orange, with areas of closure of 4.2 km^2 at 2690m and 2.6 km^2 at 2900m.

The normal fault is interpreted to have Strzelecki Group sediments upon its southwest (upthrown) side juxtaposed against Latrobe Group on the northeast side. The "Omeo" play concept is reliant upon these Strzelecki sediments forming a lateral seal to the Intra-Latrobe reservoir sequence. The Purple Horizon is, therefore, not a potential target over this structure as only the Green and Orange mapped horizons close against the Strzelecki.

The structure, as mapped, has two separate culminations named 'Omeo' and 'Omeo East'. The decision to drill 'Omeo' rather than 'Omeo East' was based on the calculated areas of closure at the 'Green' and 'Orange' horizons, and relevant reserves calculations. Also 'Omeo' is a better defined structure from the seismic interpretation.

FIG. 8



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GIPPSLAND BASIN

VIC/P17

DEPTH TO INTRA-LATROBE ORANGE MARKER

Contour Interval 20m

Scale 1:25,000

0 500 1000 1500 Metres

Author: C. HODGE	Date: JULY 1983	Dwg No: 21994
Drafted By:	Report No: PG/191/83	Base Plan: 21393

E RESERVOIR ROCKS

The main prospective reservoir sequence in the Gippsland Basin is the Late Cretaceous to Late Eocene Latrobe Group. These sediments may be divided into three distinct sequences. The lowermost sequence consists of fluviatile sediments similar in depositional environment to the underlying Strzelecki Group, but with a quartzose instead of a volcanic-derived lithic framework. Overlying this is a thick sequence of cyclic deltaic deposits of predominantly non-marine origin with minor marine incursions marked by dinoflagellate zones. Finally a transgressive sequence of lagoonal sediments, barrier bar sands and nearshore glauconitic siltstones was laid down prior to deposition of the marine Lakes Entrance siltstones and marls.

To date, exploration has been primarily concerned with the sand sequence at the top of the Latrobe Group as a Top-Latrobe seismic horizon may be mapped with good degree of certainity throughout the basin, and numerous large anticlinal structures have been mapped at this level. Porosities and permeabilities within these sediments are very good. Statistical analyses of core porosities give a mean porosity of 21% with a standard deviation of less than 5%. However, shale bands can greatly affect both porosity and permeability values and in the Kingfish field porosities may range from 7% to 30%. Permeabilities vary greatly but average out at 700 millidarcies (horizontal) and 320 millidarcies (vertical); the vertical permeabilities being subject to greater variation due to thin shale laminae. In Kingfish (approximately 35 km east of Omeo) permeabilities range from 50 to 60 millidarcies, while the highest permeability measured is in the Halibut field where a value of three darcies was recorded in core analysis.

Oil production from the Kingfish reservoir averages 8,000 BOPD from each "A" Platform well and 3,750 BOPD from each "B" Platform well, while in Halibut nineteen wells are delivering at an average rate of 8,580 BOPD from each platform well.

Considerable potential for Intra-Latrobe accumulations exists where thick deltaic shale and coal sequences may act as barriers to vertical migration. In Bream, three hydrocarbon zones are detected on log and F.I.T. data; a Top-Latrobe accumulation from 1922m-1956m KB and two Intra-Latrobe accumulations from 2228m-2259m KB and 2579m-2588m KB.

In Omeo No. 1, the top of the Latrobe clastics was cored from 2348m to 2366m (with 80% recovery). As is common with most Gippsland wells, the coarse clastics have excellent reservoir characteristics. Whole core analysis in the sands show porosities ranging from 20.7% to 26% and permeabilities ranging from 689 - 6111 md.

Core No. 2 (3031-3040m : Rec. 31%) was taken in the lower Intra-Latrobe sequence. Sediments here are predominantly fluvial-alluvial facies type with finer-grained sands or poorly sorted coarse-grained sands in a clay matrix; the clays (detrital and diagenetic) having a detrimental effect on porosities and permeabilites. Measured core porosities ranged from 11.3% to 16.7%, and permeabilities from 3.1 - 100 md.

The "Omeo" play is an Intra-Latrobe prospect, the limiting factor for hydrocarbon accumulations being the presence of suitable seals and closure. The first significant hydrocarbon show occurs at 2848m on logs (gas peak at 2846m - mud log). The logs do not show a shaly seal on top, but a low gamma ray, tight sand. The seal mechanism is probably a combination of vertical permeability barriers of a high clay matrix clogging up pore throats; and a capillary pressure type trapping mechanism with a silty shale sequence on top.

Log interpreted porosities in zones below 2880m show an average value of 13-15% porosity. Qualitative permeabilities, as inferred from RFT pretest results, ranged from 0.9 - 93 md; averaging 10 md. DST No. 1 at 2918m - 2939m indicated a drawdown of 8 md from the pressure build up curves.

In the Strzelecki sediments below 3195m, log porosities range from 5 to 18% and average 10 - 13%. It is inferred that permeabilities will be very low due to the high clay matrix and the kaolinitic-lithic composition of the rock.

F. SOURCE ROCKS

It is generally believed that hydrocarbons in the Gippsland Basin are generated from the non-marine sediments of the lower section of the Latrobe Group or possibly Strzelecki Group, as a result of the burial and subsequent diagenesis of land plant material, consisting of exinite and vitrinite associated with carbonaceous mud and coal (Shibaoka et al., 1978, Saxby, 1980). Saxby (1980), suggests that oil has derived from thermal cracking of exinite, while gas and limited oil is the major product of vitrinite. This transformation occurs at temperatures higher than 130°C (at depths greater than 4,000m). Recent work on vitrinite reflectance in the Gippsland Basin also indicates that commercial hydrocarbon generation did not take place until Late Eocene, or even later, and seems to be occurring at the present time when the carbonaceous sediments of the lower section of the Latrobe Group have entered into the hydrocarbon generation zone. Vertical migration is probably assisted at times by the numerous faults in the Latrobe Group until the hydrocarbons are trapped under a local Intra-Latrobe seal or beneath the marine shales or marls of the Lakes Entrance Formation.

Source rock evaluation of samples in Omeo No. 1 are detailed in Attachment 4 which includes total organic carbon, Rock-Eval pyrolysis, vitrinite reflectance, organic petrology, solvent extraction, liquid chromatography of extract, gas chromatography of saturates and analyses of fluid samples.

Vitrinite reflectance data suggest the top of the oil generation window for resinite-poor terrigenous organic matter (VR = 0.7%) coincides with the Latrobe - Strzelecki contact at 3195m KB in Omeo No. 1. However, with the possible exception of coal from 3309m KB, none of the samples in the Strzelecki Group examined in routine organic petrology seem to have any oil source potential. The high hydrogen index obtained by Rock-Eval pyrolysis is indicative of migrated asphaltic bitumen. Present data indicate that sediments of the Strzelecki are gas prone with gas generation commencing at 3000 metres (VR = 0.6%).

Undifferentiated Latrobe sediments in the interval 2540m - 3000m are sufficiently mature (VR = 0.45 - 0.6%) for the genesis of immature oil and condensate from land plant resin and essential oil precursors (resinite, fluorinite). Coals and carbonaceous shales of the Latrobe Group (2400m - 2695m, 3030m - 3180m) contain oil prone Type III organic matter rich in vitrinite (20 - 70%) and exinite (15 - 30%). Bulk cuttings samples from these intervals have hydrogen indices (HI = 175-320 mg HC/g TOC) and potential hydrocarbon yields ($S_1 + S_2$ = 7-51 kg/tonne) characteristic of good to very good oil source rocks.

However the abundance of these thermally labile exinite (at best, 1% by volume of cuttings from 2401m) may be too low to produce significant quantities of liquid hydrocarbons.

The 'oil shows' associated with the fluid samples at 2918 - 2939m (DST No. 1), 3125m (RFT No. 4), 3369 - 3372m (mud sample) originated from terrigenous organic matter similar to that present in the samples of the Undifferentiated Latrobe and Strzelecki Group sediments analysed. These oil shows are bona fide as distinguished from mud contaminants examined.

Analyses of the oil extracts indicate the possible existence of three oil families. The $C_{12}+$ hydrocarbon distribution of the RFT samples is similar to that of a typical waxy paraffinic crude oil, whereas the DST 1 hydrocarbons are more condensate like. High pristane/plytane ratios (DST 1, pr/ph = 4.5; RFT 4, pr/ph = 5-6) are indicative of an ultimate derivation from terrigenous woody-herbaceous organic matter. In the case of RFT 4, the mean pristane/phytane ratio is almost indentical to those of top-Latrobe oils from the nearby Bream-4A and Dolphin-1 wells. The higher pristane/phytane ratios of the hydrocarbons found in the mud and water samples collected at 3379m suggest the possible existence of a third oil family.

However the present available geochemical data do not provide a conclusive answer as to the correlation of the oil to source and maturity.

G. RELEVANCE TO THE OCCURRENCE OF HYDROCARBONS

(i) There is no structural closure at the top of the Latrobe clastics. The only indication of hydrocarbons near the top was some residual gas odour from Core 1 (2348m - 2366m) which dissipated with exposure. The minor ditch gas peaks recorded are associated with coals and carbonaceous layers.

(ii) Prior to drilling, one of the negative aspects of the Omeo prospect was the possible lack of seals in the Intra Latrobe sequence. Logs run indicated an interbedded sequence of sands and shale from 2703m to 3195m (KB) with sands the more predominant. The shales are seldom more than five metres thick. As summarised in (vii), in the Intra Latrobe sequence, net pay does not exceed 8 metres; the zones are either separated by a thin shaly sequence or a permeability barrier. Entrapment conditions are more conducive to isolated stacked reservoirs with differing gas-water contacts. Such features are noted in the Tuna Field Intra Latrobe sequences.

(iii) The first ditch gas peak associated with sands occurred at 2846m (maximum of 4.2% total gas over a background of 0.3%). However no core was cut due to the absence of fluorescence and lack of an oil show. Subsequent logs and RFT results confirmed this was a gas zone.

(iv) No shows were recorded while drilling in the 12-1/4" and 8" hole section. The high amount of 'soltex' used in the 6" hole section has masked some shows in the 6" hole section. It was only later on review of some samples and chips from stabilisers that direct fluorescence was confirmed in some cuttings from 3100 metres. A yellow-blue instant streaming cut was also associated with bituminous, carbonaceous shale partings which did not have a direct fluorescence.

(v) Oil in the mud was recovered on wiper trips prior to logging at 3379m. Traces were recovered as a scum (.005%) after extraction in the mud still. A scum of oil/condensate was also recovered in RFT 1 and 4. Analysis of the oil (Attachment 4) indicates a type similar to oil from Mackeral and Tuna Fields. To date the source of the oil in Omeo recovered in the wiper trips has not been established. Several possibilities exist:

a) The oil may have been generated from sediments below the fault zone at 3319m and entered the mud system when the annulus was packed off around 3335m during the stuck pipe problem at 3379m (see Technical Report)

b) The oil may come via the fault zone from a deeper or laterally adjacent source.

c) With time constraints and slower migration of formation fluids into the bore hole, the oil recovered may have entered the bore hole from the upper hydrocarbon zones of 3073m to 3187m. A lower hydrostatic head associated with gas-cut mud and swabbing could have facilitated the entry.

d) The oil may be partial retrograde condensation of the gas mixture in the mud system

(vi) Full evaluation of the bottom nine metres (3370-3379m KB) is not possible due to the length of the wireline tool. The major gas peak (15%C_1) occurs at 3370m and continues to 3379m with a maximum of 32% total gas. Four circulations with mud weights up to 1.28 SG were required to cut down the high gas readings, and trip gas of greater than 20% total gas was continously recorded. Significance of the high gas readings can be attributed to the following possibilities:

(a) a locally abnormal, low permeability pressured zone related to adjacent tectonics.
(b) a higher pressure regime related to lower zones through faulted and fractured conduits.

(vii) Detailed log interpretation results are listed in Attachment 3 and the Global processed log. The following Table 6 is a summary of the main hydrocarbon zones as interpreted by the author. This is based on a review of GLOBAL results, log evaluation by J. Bowler, RFT results and hand computation. More weight is placed on GLOBAL interpretation techniques.

Formation evaluation is hampered by a poor Rxo log due to poor hole conditions. Similarly, the high amounts of clay matrix, the clay types and their effect on the logs are not totally known. An interesting characteristic is the high resistive reading associated with the shales. This is believed to be the effect of carbonaceous matter or perhaps residual hydrocarbons bound in the clay interstices (Note: clay partings recovered have an instant solvent cut. Shales in the hydrocarbon zones have a rich source potential, see Attachment 4)

Both density and neutron readings are also affected by shale, fluid and mineralogical content. In the normal procedure of estimating hydrocarbon density, relating Shr (1-Sxo) to corrected density and neutron readings, computations will be questionable. Evaluations by J. Bowler inferred zones 2-5 (Table 6) to be light oil bearing (Attachment 3). However the author believes most of the neutron readings to be over-corrected and that all the zones are gas-bearing with the exception of zone 5 (3130-3137m) which appears to contain heavier hydrocarbons.

TABLE 6

Interval MRKB	Nett pay (M)	Average Log O	Average SW (±5%)	Rw Form Temp	Associated Max Gas Peak	Possible Fluid Type	Remarks
2460-2463	3	21	70?	.07	0.3%	RESIDUAL GAS	HIGH SHALE EFFECTS ON RESISTIVITY READINGS
ZONE 1 2845-2859*	6	13	60	.07	4.2%	GAS	POSSIBLE LAMINATED SHALE
2859-2925	?	11	80	.07	0.9%	RESIDUAL GAS/WATER	BAD HOLE CONDITIONS, SHALE EFFECTS
2926-2954	?	13	75	.07	0.6%	RESIDUAL GAS	BAD HOLE HIGH SHALE EFFECTS
2957-2968	7	14	75	0.16	1.9%	RESIDUAL GAS	SHALE EFFECT
ZONE 2 3073-3081*	7	15	45	0.2	2.2%	GAS	LAMINATED SHALE EFFECT
ZONE 3 3090-3099*	6	12	60	0.2	2.04%	GAS	DISPERSED SHALE LAMINATED
3100-3107	5	9	75	0.2	0.64%	GAS/WATER	DISPERSED SHALE LAMINATED
ZONE 4 3121-3128*	7	13	50	0.2	2.92%	GAS	LAMINATED SHALE /SHALE EFFECT
ZONE 5 3130-3137*	6	16	60	0.2	2.25%	GAS/LIGHT OIL	POSSIBLE LAMINATED SHALE/SHALE EFFECT
3141-3152	7	9	75	0.2	0.33%	GAS/WATER	SHALY/LAMINATED
3154-3160	4	12	75	0.2	0.4%	GAS/WATER	RUGOSE HOLE
3171-3187	8	17	65	0.2	1.07%	GAS/WATER	BAD HOLE/ RUGOSITY
3319-3344	2?	12%	75	0.2	6.16%	GAS/RESIDUAL OIL	POOR PERMEABILITY HIGH DISPERSED SHALE
3354-3379	3 ?	12%	80	0.2	32%	GAS/RESIDUAL OIL ?	POOR PERMEABILITY HIGH DISPERSED SHALE (CLAY MATRIX) LAMINATED SHALE.

* ZONES INTERPRETED TO BE PRODUCTIVE BASED ON A CUT OFF OF SW = 60%

a) Nett pay is a summation of porous zones greater than 8% porosity, Sw less than 60%, fair Rt and Rxo separation.

b) Pay in the bad hole sections is not classified due to the uncertainties.

c) Porosity values are weighted from GLOBAL results.

d) Rw is computed from crossplots and used in conjunction with J. Bowler's calculations.

It is also interpreted that there are zones of varying salinity, hence the computation of a representive Rw is different. The only representative formation water was recovered due to an influx of low viscosity formation fluids after regaining circulation from the 'packed' annulus at 3379m. The water measured 0.43 ohm-m at 69°F (0.15 ohm-m at 220°F, 14,000 ppm NaCL equivalent).

Similar water recovered from DST No. 1 measured 0.403 ohm-m at 74°F (0.14 ohm-m at 220°F; 15,000 ppm NaCL equivalent). As salt water (average 30,000 ppm NaCl equivalent) was used in drilling, Rw must be a minimum of 0.15 ohm-m at formation temperature or a value fresher than 0.15 ohm-m.

In summary, 33m of net gas pay is interpreted to be present in the lower Latrobe over the interval 2845 - 3137m. Average porosity is 13% and average Sw is 50%.

(viii) Interpretation of RFT data

The following tables 7 and 8 list the pressure measurements taken and Fig 9 represents an interpretative gradient plot by the author.

All the depth values are corrected to M.S.L. plotted against kg/cm^2 (PSIG). It is assumed that the hydrostatic head is relative to M.S.L. in an offshore well. Onshore outcrop of the unit could displace the water gradient with respect to MSL, as could hydrocarbon production from nearby fields.

The upper Latrobe sands in Edina No. 1 (pts. 2-16) and Omeo No. 1 (pts. 1-7) plots in fall on the 1.0 gm/cc (equivalent density) hydrostatic line. The problem arises in defining a representative water line in the hydrocarbon zones in the lower Latrobe below 2800m KB.

Of the 8 pressure points below 2800m which are considered to be reliable, none fall on the 1.0 gm/cc equivalent line. Apart from the effect of hydrocarbons in source zones, water saturated sands appear to have pressures indicative of a displacement of the line to be equivalent to 1.01 gm/cc (Fig. 9). Permeability barriers are thought to be the cause and logs indicate fresher water in this interval. Thus between points 7 & 8, a permeability barrier is inferred to be present. This is coincident with the Paleocene unconformity at 2703m RKB)

It is interesting to note that in the Tuna Field, a similar situation arises with a permeability barrier occurring in Esso's Mid-Paleocene marker with a 10 psi displacement (increase) in the water gradient below.

Thus the equivalent mud weight (EMW) displaced water gradient equivalent to 1.01 gm/cc EMW on the plot, is partly interpretive and based on:

a) the existing upper water line and pressure variation at points 7,8,9.

b) recovered water salinity of 15000 ppm NaCl equivalent (1.008 gm/cc density equivalent) from DST No. 1.

c) assuming onshore subcropping of the reservoir has displaced the relative water gradient, the 1.01 gm/cc equivalent will result in a relative 30 metres of hydraulic head above sea-level.

The extrapolated DST No. 1 static pressure of 4100 psig is not authenticated due to the short testing period and poor pressure build-up.

Points 12,13,14, show a distinct gas gradient. This is verified by RFT No. 1 at 2849.8m which recovered gas.

The drift of the RFT pressure readings from point 26-32 has created a doubtful value on the validity of the points.

Points 55-61 (RFT 4) are controversial with respect to the correlation of the pressure points. Two alternatives are possible; an oil gradient of 0.6 gm/cc (density equivalent) or 3 separate gas zones with a gradient of 0.3 gm/cc equivalent or less. The latter is preferred by the author based on the reservoir characteristics and log interpretations discussed earlier.

Based on hydrostatic gradient of 1.01 gm/cc (see Fig. 9) the RFT pressures recorded in the gas sand interpreted from the logs indicate a gas column ranging from 46m at zone/ (gas sand 2845-2859m) to 59m at zone 5 (gas sand 3130-3137m). If this interpretation is correct, the structure is full to spill point (see Fig. 8) proving that the Latrobe is sealed against the Strzelecki upthrown fault block to the southwest.

However, any displacement of the 1.01 gm/cc water gradient to the right on fig. 9 would reduce the gas column associated with each pay sand.

TABLE 7 RFT RESULTS - OMEO NO. 1

LOG SUITE 2 (3-12-1982) RFT 1

TEST	DEPTH(m) RKB	DEPTH (m) MSL	PRESSURE PSIG CORRECTED	PRESSURE Kg/cm²	PERMEABILITY QUALITATIVE
1	2349	2318.5	3300	232.1	> 100md
2	2371.5	2341	3341	234.9	~ 10md
3	2387	2356.4	3352	235.7	~ 10md
4	2427	2396.5	3428	241.1	~ 10md
5	2461	2430.5	3469	244.0	~ 10md
6	2590	2559.5	3646	256.4	~ 10md
7	2695	2664.5	3803	267.4	~ 10md
8	2705	2674.6	3825	269.0	~ 10md
9	2725	2694.5	3856	271.2	~ 10md
10	2805	2774.5	3963	278.7	~ 10md
11	2850	2819.5	Seal Failure (SF)	-	-
12*	2849.8	2819.3	4101	288.4	-
13	2854	2823.5	4104 - 4128	min 288.6	~ 10md
14	2858	2827.5	4106 - 4135	min 288.7	~ 10md
15	2879	2848.5	(SF)	-	-
16	2878.5	2848.0	(SF)	-	-
17	2878	2847.5	4351	306.0	less than 1md SUPERCHARGED?
18	2893	2862.5	(SF)		-
19	2893.5	2863	(SF)		-
20	2903	2872.5	(SF)		-
21	2902.5	2872	(SF)		-
22	2900	2869.5	-		Tight
23	2899.5	2869	-		Tight
24	2899.5	2868.5	-		Tight
25	2906	2875.5	(SF)		-

* Sample at 2849.8m RKB

a) Fill Lower 10,400cc Chamber in 10.7 minutes; 4102 FISP
Recovery: 5.6CF Gas: Zero Surface Pressure
9000 cc Water, 0.24 at 60°F (33,000 ppm NACL)

b) Fill Upper 10,400 cc Chamber in 6 minutes 4105 FSIP
Recovery: 30 CF Gas: 29PSI Chamber Pressure
5000cc water, 0.23 at 60°F (35,000 ppm NACL)
plus clear scum of oil or condensate

Note: Mud Filtrate: 0.26 at 60°F (30,000 ppm NACL)

LOG SUITE 2 (3-12-1982) RFT 2

TEST	DEPTH(m) RKB	DEPTH (m) MSL	PRESSURE PSIG CORRECTED	PRESSURE Kg/cm²	PERMEABILITY QUALITATIVE
26	2936.5	2906	4219	296.7	~ 0.1md
27	2936.5	2906	4219	296.7	~ 0.1md
28	2948	2917.5	4282	301.1	~ 0.1md
29	2947.5	2917	4291	301.8	~ 0.1md
30	2947	2916.5	-	-	~ 0.1md
31*	2952	2921.5	4300	302.4	> 100md
32	2959	2928.5	4248 - 4329	min 298.8	1md
33	2899	2868.5	-	-	Tight
34	2805	2774.5	3961	278.5	100md

* Sample at 2952 m RKB

a) Fill lower 10400 cc Chamber in 9.9 minutes; 4300 FSIP
Recovery = 0 Gas. Zero Surface Pressure
9750cc of water 0.242 at 62°F (32,000 ppm NACL)

b) Fill Upper 10400 cc Chamber in 8.4 minutes; 4299 FSIP
Recovery = 0 Gas. Zero Surface Pressure
9500cc of water, 0.277 at 62°F (28,000 ppm NACL)

Note: Measured Mud Filtrate = 0.26 at 60°F (30,000 ppm NACL)

LOG SUITE 2 (3-12-1983) RFT 3

36	2936.2		(SF)	REMARKS:	
37	2935.9		(SF)	Gamma ray not working at bottom, assume sample taken at 2936.5m	
38	2935.6		(SF)		
39	2936.8		(SF)		
40	2937.1		(SF)		
41	2937.4		(SF)		
42	2937.7		(SF)		
43	2938.0		(SF)	Fill 22,700 cc Lower Chamber in 7 minutes, 4344.5 FSIP	
44	2938.2		(SF)		
45	2938.4		(SF)		
46	2938.6		(SF)		
47	2938.8		(SF)	Attempt to fill Upper Chamber, unable to retract tool, with cable breaking 20 feet above tool	
48	2939.0		(SF)		
49	2939.2		~		1md
50	2939.4		(SF)		
51	2939.6		(SF)		
52	2939.8		(SF)		
53	2939.3		(SF)		
54	2939.2	2908.7	4351.5	306.0	~ 1md

TABLE 8

RFT RESULTS

LOG SUITE 5 (31/1/1983) RFT 4

TEST	DEPTH(M) RKB	DEPTH(M) MSL	PRESSURE PSIG CORRECTED	PRESSURE Kg/cm²	PERMEABILITY QUALITATIVE
55	3077.5	3047	4424.9	311.2 *	10 md
56	3096	3065.5	4447	312.7 *	5 md
57	3104	3073.5	4449.1	312.9 *	10 md
58	3131.5	3101	4571.1	321.5 *	1 md
59	3126.5	3096	4504.9	316.8 *	1 md
60	3147.5	3117	-		-
61	3125 +	3094.5	4501.2	316.5 *	>100 md

+ Sample at 3125 metres RKB

a) Fill lower 10400 cc chamber. 1250 PSIG surface pressure
20,000 cc gas at 180 PSIG, 1.5 CF gas at STP.
7500 cc water; 0.234 at 82°F (24 500 ppm NACL)
plus thin film of condensate/oil

b) Fill upper 10400 cc chamber. 1750 PSIG surface pressure
20,000 cc gas at 460 PSIG, 6 CF gas at STP.
3750 cc water; 0.245 at 80°F (24000 ppm NACL)
plus thick film of condensate/oil.

NOTE: Mud Filtrate: 0.21 at 66°F (35000 ppm NACL)

DST RESULTS

PERFORATED INTERVAL 2918m - 2925m and 2932m - 2939m RKB

PACKER SET AT 2888.5m

CEMENT PLUG TO 2960m

	AMERADA	HALLIBURTON	HALLIBURTON	HALLIBURTON
DEPTH	2912.5m	2895.0m	2882.0m	2873.3m
I HP	4616	4481	4466	-
F P	3531	3532	3521	3489
FSI P	4018	4025	4012	3484
FFP	3578	3683	3671	3629
FFSIP	3970	3986	3976	4524
FHP	4415	4482	4473	4507

All pressures are final calculated values in PSIG.
No flow to surface.
9465 feet of muddy water were recovered by reverse circulation:
0.403 ohm-m at 74°F, 15000 ppm NACL.

18.2 CF gas in the APR chamber.

Extrapolated initial static pressure: 4100 psi (288.3kg/cm²)
Bottom hole temperature 250°F at 2912m.

* Pressure Readings taken by RFT-HP, all others strained gauges.

PE906188

This is an enclosure indicator page.
The enclosure PE906188 is enclosed within the container PE902613 at this location in this document.

The enclosure PE906188 has the following characteristics:

ITEM_BARCODE	= PE906188
CONTAINER_BARCODE	= PE902613
NAME	= Pressure Depth Diagram
BASIN	= GIPPSLAND
PERMIT	= VIC/P17
TYPE	= WELL
SUBTYPE	= DIAGRAM
DESCRIPTION	= Pressure Depth Diagram (RFT Pressure Plots)from WCR for Omeo-1
REMARKS	=
DATE_CREATED	=
DATE_RECEIVED	= 11/08/83
W_NO	= W788
WELL_NAME	= OMEO-1
CONTRACTOR	=
CLIENT_OP_CO	= AUSTRALIAN AQUITAINE PETROLEUM

(Inserted by DNRE - Vic Govt Mines Dept)

H. CONTRIBUTION TO GEOLOGICAL CONCEPTS RESULTING FROM DRILLING

(i) Omeo No. 1 has shown that Intra Latrobe sands can be hydrocarbon-bearing in a fault trap sealed by Strzelecki Group sediments. Log and RFT data show that vertical seals, a few metres thick, can separate water sand from underlying hydrocarbon zones.

A total net pay of 33m of 13% porosity, 50% Sw, in the Intra Latrobe sands has been interpreted from the logs; each sand apparently having its own gas-water contact and showing a vertical gas column equivalent to the mapped structural closure.

(ii) High gas shows below 3370m required substantially increased mud weight to bring the well under control. Although this could be due to local low permeability high pressure zones, it could be due to a substantial gas column extending below TD of the well. Migration of hydrocarbons from deeper in the Strzelecki and subadjacent Latrobe may have entered the well via the fault zone intersected in the interval 3310 - 3319m.

(iii) The lithology of the lower Latrobe, especially in the interval 2859m to 2950m RKB, is suggestive of a wet alluvial fan sequence. The origin of the Omeo structure may be due to compaction and drape over an alluvial fan deposited on the downthrown side of a major fault which was active throughout the Late Cretaceous. This fault probably marked the southwest margin of the Gippsland Basin throughout the Late Cretaceous.

(iv) Vitrinite reflectance data suggest the top of the oil generation window for resinite-poor terrigenous organic matter (VR = 0.7%) coincides with the Strzelecki-Latrobe contact at 3195m KB. However organic petrology studies show an abundance of vitrinite and lack of oil prone exinite macerals suggesting that the Strzelecki sediments are more gas prone, with gas generation commencing at 3000m (VR = 0.6%). It is believed that the oil globules associated with the asphaltic bitumen and also the oil shows from the mud samples at 3379m are components of migrated hydrocarbons from deeper sources or lateral Latrobe sediments.

(v) Maturation levels appropriate for the early generation of light naphthenic oil and /or condensate from resinite - rich DOM (VR = 0.45 - 0.6%) have been attained by Latrobe Group sediments between 2540m and 3000m. Although thermally labile resinite is present as the major exinite maceral of the oil prone Type III organic matter, its relative abundance is insufficient to impart significant source potential for immature oil and condensate.

APPENDIX 1

APPENDIX I

LITHOLOGICAL DESCRIPTIONS - CUTTINGS SAMPLES

OMEO NO. 1

LITHOLOGICAL DESCRIPTIONS - CUTTINGS SAMPLES

OMEO NO. 1

All depths related to Rotary Kelly Bushing at zero tide datum (Low Water Indian Springs) which is 93 metres above seabed.

RKB: 30.5m amsl. Depth : -62.7 m bms l.

Seafloor to: 220m No Returns - Samples to seabed.

GIPPSLAND LIMESTONE

220m - 260m : Limestone: white, tan, cream, cryptocrystalline, hard, dense, and calcarenite, tan, orange, moderate, hard, associated with abundant fossil fragments of shell and coral debris, foraminifera, with calcareous claystone, marl, light grey, grey, silty, loose calcite grains, minor silt.

260m - 320m : Associated coquina beds with abundant bryozoa and foraminifera with calcarenite.

320m - 420m : Limestone: calcarenite, light grey, fine to medium, vugular porosity, slightly argillaceous and minor micritic, cryptocrystalline fragments, associated fossil debris.

420m - 787m : Calcareous Claystone/marl: light grey to grey, soft, sticky, dispersive with good fraction washed out, associated fossil fragments and loose calcite grains, minor silt, trace carbonaceous material and fine trace glauconite. Minor thin limestone, calcarenite beds, grading to calcilutite.

787m - 996m : Calcareous Claystone/marl: medium grey, occasionally dark grey, brown, soft, sticky, very dispersive, silty, interbedded with thin calcarenite/calcilutite beds.

996m - 1150m : Calcareous Claystone: light grey, very soft, soluble, firmer in part than above sediments, silty with trace to 10% calcilutite, dark grey, soft to hard, silty, 40% argillaceous material, trace glauconite and pyrite, minor fossil fragments.

1150m - 1235m : Calcareous Claystone: light grey to medium grey, soft to firm, sub-fissile in part, minor sandstone, clear to white, fine to very fine, well sorted siliceous cement; minor trace pyrite and fossil fragments.

1235m - 1505m : Calcareous claystone, light grey to grey, soft to firm, becoming less sticky in part, minor carbonaceous material, local argillaceous siltstone, medium grey, firm to hard, general decreasing fossil traces.

1505m - 1820m : Calcareous claystone, light grey, green grey, soft locally firm, silty in part, blocky and subfissile, minor splintery, gradational to argillaceous siltstone minor Limestone, tan, micritic, hard, dense, fine trace sand grains and trace glauconite, with interbeds.

1820m - 1882m : Claystone gradational to Siltstone, calcareous, light grey, soft, very dispersive up to 80% clay fraction washed out, trace calcite grains.

Lakes Entrance Formation ?

1882m - 2025m : Claystone, calcareous, light grey, dispersive (75% washed out), interbedded with non calcareous claystone, medium grey to grey, green grey, blocky, subfissile, locally splintery, lustrous in part, silty, minor Siltstone, light brown, grey soft, grading to very fine sandstone, very fine trace limestone fragments, cream, hard, microcrystalline, trace pyrite and fossils.

2025m - 2075m : Claystone, calcareous (38% $CaCo_3$), light grey to brown grey, softer fraction (50%), dispersive, 5-10% cavings, firm, silty fractious are subfissile in part, elongated and slightly splintery, minor silty arenaceous layers, trace forams, minor planktonic, trace pyrite infilling worm burrows.

2075m - 2100m : Claystone, calcareous, light brown grey to cream, silty, sticky and dispersive in part, minor grey soft blocky fragments associated with chlorite and trace glauconite, dark grey clay laminae, also silty arenaceous laminae dispersed in clay matrix, associated microforams, minor planktonic, yellowish stained forams

2100m - 2188m : Claystone, calcareous, increasing brown grey fraction (50-60% clay washed out), decreasing chlorite and rare glauconite, darker grey brown fraction, blocky, subfissile, silty and arenaceous, minor calcispheres, white chalky calcareous fragments with dark clay laminae, rounded pyritised pellets.

Gurnard Formation

2188m - 2218m : Calcarenite (20%), brown grey, green, mottled with dark green glauconite grains, firm to hard, fine, subangular, poorly sorted, argillaceous matrix with dispersed silt, associated chloritic clay laminae, dull-green and soft, Claystone (80%), light grey to

cream, brown grey, soft, dispersive in part, firmer fraction grading to siltstone.

2218m - 2268m : Claystone, calcareous, soft, brown grey, light brown to cream, blocky, soft, dispersive, 50% washed out, silty and arenaceous in part, trace calcareous fragments associated with chlorite and fine lithics (fault material-mylonite?).

2268m - 2280m : Sandstone (30%), rusty brown, brown grey to earthy brown, firm to brittle, silty, mottled with fine to medium rounded glauconite grains, poorly sorted, argillaceous matrix slightly calcareous and well cemented, associated silty Claystone (40%) brown to earthy brown, minor red brown (ferruginous staining), soft to firm, gradational to siltstone (30%).

2280m - 2337m : Siltstone, (40%), rusty brown, becoming more earthy brown, firm blocky, arenaceous in part with fine to medium glauconite grains, locally well rounded, minor calcareous lithic grains, slightly dolomitic from 2320m, trace fine mica.

2337m - 2348m : Siltstone, Claystone, rusty brown to brown grey, soft to firm, mottled with glauconite and chlorite, first appearance of loose, rounded, frosty, coarse quartz grains (5-10% of sample), locally fractured and angular.

LATROBE FORMATION

2348m - 2352.3m: Sandstone, white to light brown, greyish, coarse to very coarse, sub rounded, clean, well sorted, coarsening downwards sequence, very good porosity and permeability, trace gaseous odour increasing downwards, rare to trace patchy (pinpoint) pale yellow fluorescence with crush yellow cut only, yellowish residue.

2352.3m - 2352.5m : Coal, black brittle, conchoidal, locally argillaceous and pyritic laminae.

2352.5m - 2354m : Claystone, grey, massive firm, indurated, very slightly calcareous, fractured zone with slickensides.

2354m - 2358m : Claystone, grey, firm indurated, massive, no visible structures, minor laminae, increasing white dolomitic layers (2-5cm) towards base, crystalline, quartzitic with recrystallized grain edges, micaceous.

2358 - 2362.5m : Conglomerate/Sandstone, top section is well cemented with dolomite partly siliceous, with argillaceous and finer grains filling pore spaces, pebbly (0.5cm-2cm) mineral fluorescence only, grading to better sorted sand from 2360.3m, dominant coarse to very coarse, sublabile to friable, local pebbles, good to very good porosity, weak gaseous odour, trace (pinpoint) dull yellow fluorescence with crush cut only.

2362m - 2396m : Interbedded Sandstone/Conglomerate dominant, quartzose, clear to frosty, medium to very coarse, locally pebbly, poorly sorted, subrounded to rounded, good porosity. No fluorescence with minor thin coal seams (1 metre) and claystone, light grey, firm, blocky, massive, slightly calcareous, silty matrix, minor silty, carbonaceous laminae.

2396m - 2401m : Coal, black, hard, brittle, also firm and lignite in part with silty laminae and pyrite.

2401m - 2447m : Interbedded Claystone (max 2 metres), carbonaceous, grey, subfissile in part massive, non calcareous with coarse grained sandstone (60%), loose, clean, quartzose, locally fractured grains with minor Coal seams (more 1 metre) at 2405m, 2417m, 2422m, 2431m, 2443m.

2447m - 2458m : Coal black, hard, vitreous, conchoidal, grading to carbonaceous shale (20%) near the base from 2451m.

2458m - 2465m : Sandstone, clear to frosty, medium to coarse, loose, poorly sorted, subangular to subrounded, with minor interbeds of very fine Sandstone and Siltstone (20%) from 2454 to 2458m occ with clay laminae, no show.

2465m - 2468m : Coal, black, hard, brittle, vitreous.

2468m - 2481m : Siltstone, grey to brown grey, firm, blocky, carbonaceous and mica specks, intercalated with very fine sandstone (20%), off white, moderate sorted, subangular, cemented, also thin beds (approx. 1m) silty claystone and minor carbonaceous shale.

2481m - 2488m : Claystone, grey to brown grey, firm blocky, massive also subfissile to fissile shale, dark brown grey, carbonaceous laminae, and silty in part (20%). Trace pyrite, minor coal and lignite (approx. 10%).

2488m - 2502m : Dominant Sandstone (50%), loose, medium to coarse locally very coarse, poorly sorted with intercalations of cemented very fine Sandstone and Carbonaceous siltstone, with thin carbonaceous shale/claystone beds at 2490m, 2492m, 2497m and 2502m.

2502m - 2526m : Dominant Siltstone (30%), grey to brown grey, firm, subfissile, carbonaceous and micaeous specks, slightly calcareous in part, minor intercalation very fine sands (10%), carbonaceous Shale (40%), massive amorphous Claystone (20%), minor coal/lignite at 2510m, 2515m, 2520m, 2523m.

2526m - 2536m : Sandstone/Siltstone gradational, grey, off white, fine to very fine coarsening downwards to coarse, subangular, poor to moderate sorting, fine fraction generally cemented.

2538m - 2541 : Coal, black, brittle, vitreous, conchoidal with silty arenaceous dolomitic layers, minor carbonaceous siltstone, shale, dark grey brown, micromicaceous, carbonaceous with lignitic streaks, with very fine dolomitic, sandy laminae, good trace pyrite.

2541 - 2558 : Sandstone, off white, light grey brown, very fine to fine, firm, moderate sorted, subangular, well cemented, generally coarsening downwards to poorly sorted, uncons quartz sand, medium to coarse, intercalated siltstone, grey, carbonaceous, micaceous specks, argillaceous matrix, lignitic streaks, local loose very coarse quartz grains.

2558m - 2586m : Shale (80%) dark grey brown, firm, fissile and splintery in part, carbonaceous and micaceous laminae, silty, local firm, cream,massive, Claystone with intercalated Siltstone, grey, firm, blocky, carbonaceous, clay matrix, in part grading to very fine Sandstone (20%) thinly interbedded throughout interval, minor coal seams from 2569-2571m, associated trace pyrite.

2586m - 2592m : Sandstone dominant loose, clear to translucent, medium to coarse, angular to subangular, moderate sorted 5-10% fine cemented fraction, minor white (kaolinitic) laminae, associated minor coal, silty carbonaceous streaks.

2592m - 2628m : Dominant Shale (50-60%), dark grey brown, firm, carbonaceous and micaceous laminae, in part grading to Siltstone (30%), lignitic and sandy, associated thin arenaceous beds, generally fine grained and micaceous, minor coal beds at 2596m, 2608m, good trace pyrite and mica imparting lustrous sheen to shaly fragments.

2628m - 2631m : Sandstone, loose, quartzose, medium to coarse, angular poorly sorted, associated with coal near base.

2631m - 2642m : Shale (80%), dark grey brown, firm, massive, carbonaceous, common lignitic streaks, intercalations of Siltstone.

2642m - 2646m : Sandstone, light grey, off white, very fine to fine, subangular, poor to moderate sorting, cemented, kaolinitic cement, fair to good porosity. No fluorescence.

2646m - 2652m : Shale (40%), dark grey brown, firm, carbonaceous, silty, common lignitic streaks, common intercalations of Siltstone (30%), grey firm to hard, subfissile to blocky, non calcareous, common mica and carbonaceous material, minor very fine sandy layers (10%), with argillaceous matrix associated firm blocky, massive Claystone (20%)

2652m - 2687m : Coal (80-100%), black, hard, vitreous, conchoidal, minor woody and laminated with thin carbonaceous silty shale interbeds at 2669 and 2676m, 2678m, 2685m, dark grey brown, firm carbonaceous, silty.

2687m - 2703m : Sandstone (50%), loose, quartose, fine to medium, coarsening downwards to coarse, moderate to poor sorting, subangular, high silt and clay content, 20% friable, cemented fraction, non calcareous, associated carbonaceous laminae and pyrite, in part gradational to Siltstone (50%) with mica and carbonaceous specks.

2703m - 2727m : Sandstone (100%), loose, clear to translucent, medium to very coarse, subang to subrounded, local very coarse, angular fractured grains from granule and pebble size grains (recovered rounded pebbles, averaged 5mm). Believed to be associated with very high torque from 2701m. Associated white clay, kaolinitic coating on grain surfaces, generally clean and coarsening downwards sequence, no fluorescence and cut.

2727m - 2749m : Sandstone (80%), loose, medium to very coarse, subangular, poorly sorted local very coarse angular grains, (granules), inferred good porosity, associated hard cemented fraction (20%) off white, fine to medium with silty, argillaceous matrix, poorly sorted, minor mica and lithic specks, minor white clay partings with carbonaceous laminae, argillaceous layers from 2703 to 2735m, 2740m.

2749m - 2757m : Siltstone, light grey, blocky, argillaceous matrix, local white soft dispersed clay 20% light greyish clay, generally soluble with rounded granules (river clay), coarsening downwards sequence.

2757m - 2762m : Sandstone, loose, fine to very coarse, dominant coarse, subangular, grey clay coatings on grain surfaces imparting dirty appearance, 10-20% fine cemented fraction with silty clay intercalations.

2762m - 2767m : Siltstone and Claystone interbeds with local sandy layers, mottled with dark clay streaks and mica 30%, soft white-greyish clay dispersing in mud system.

2767m - 2812m : Sandstone (50%) loose, medium to very coarse, subangular, occassional rounded granules, common clay coatings on grains, probably cemented in part.

Sandstone (30%) grey-white, hard, dominant fine to medium, subangular, high clay content, poorly sorted well cemented, non-calcareous, fair porosity, destroyed by clay and silt filling interstices, also mottled with mica and dark lithics, minor thin siltstone/claystone intercalations (20%) at 2776m to 2779m, 2781m to 2786m.

2812m - 2847m : Sandstone (60-80%), loose, dominant fine to coarse becoming very coarse near base, angular to subangular, argillaceous, common siliceous cement coating on grain surface, highly cemented in part, possibly no visible porosity, with coarse quartz rounded pebbles embedded in cemented argillaceous matrix, common smoky quartz, minor chert fragments, local greyish lithics, very hard, silty (wackestone) siliceous, non calcareous abundant trace pyrite, interbeds siltstone/claystone, firm, light grey brown. Amorphous (20%) near base.

2847m - 2859m : Sandstone (30%) loose, quartzose, medium to very coarse, poorly sorted, angular to subangular. Sandstone (30%), light brown, hard, fine, subangular, poorly sorted, fair porosity, slightly argillaceous matrix, in part grading to siltstone (20%), light brown grey, mottled with minor lignite and mica (muscovite) and very fine dark lithics, clay laminae, abundant trace (5%) pyrite, minor trace lithics, chert fragments, white cream clay partings, soft and kaolinitic in part (10%) massive, firm to hard, amorphous claystone. Mineral fluorescence only.

2859m - 2953m : Sandstone (80-100%) quartzose clear to translucent, clean to white, dominant medium to coarse, angular to subangular, poor to moderate sorting, also white cemented fraction, fine siliceous, poor visual porosity, abundant white clay partings (10%) chalky and friable in appearance, non calcareous, siliceous and kaolinitic good, trace pyrite, minor chert fragments very fine tract to nil lithics, no fluorescence. Generally coarsening downwards sequence.

2953m - 2957m : Shale, light grey to brown, blocky in part, subfissile locally silty.

2957m - 2984m : Sandstone, dominant white, clear, quartzose, medium to coarse, subrounded to subangular, pyritic in part, locally loose and angular, minor fine well cemented, argillaceous fraction, thin interbeds of argillaceous siltstone (5%), light grey, light brown, firm, non calcareous.

2984m - 3005m : Shale, medium to dark grey-brown, moderately hard, carbonaceous, pyritic, silty or sandy interbedded with 50% sandstone, grey white, light grey, quartzose, fine to very coarse, subangular, partly sorted, mostly consolidated with clay infill in intergranular spaces.

3005m - 3019m : Sandstone, Grey-white, light grey, occ. light brown, quartzose, fine to very coarse occ. granule, poorly sorted, subangular frosted surfaces, mostly consolidated with clay infill of intergranular spaces, moderately hard, occ carbonaceous pyritic, becoming unconsolidated and consisting of quartz grains and fragments to granule size towards base of interval. Sand grains often coated with clay. pyrite quite common towards base of interval. The sand stone sometimes has the appearance of sand grains welded with quartz cement and pyrite.

3019m - 3032m : Sandstone, grey-white, occassionally light brown, quartzose, fine to very coarse, occasional granule, poorly sorted, subangular, frosted surfaces poor intergranular porosity quartz cement, pore spaces infilled with clay, pyrite, with 50% Siltstone or Silty Shale, and coal seams at 2028m.

3032m - 3055m : Core recovered, indicated shale with conglomerate, pebbles to 6cm in diameter in matrix of coarse to very coarse Sandstone with granules, quartzose, also shale inclusions porosity plugged with white clay and pyrite, ROP's suggest lower part of core to be more subliable Sandstone.

3055m - 3072m : Shale, dominant, dark grey brown, silty, carbonaceous and moderately hard, thin coal beds, and minor silty sandstone, quartzose, fine, poorly sorted, subangular, frosted surfaces, locally consolidated in samples with grains cemented by silica and pyrite.

3072m - 3082m : Sandstone, grains and fragments, grey white, light grey, quartzose, fine to very coarse, occasional granule, poorly sorted, subangular, frosty, consolidated in samples with silica cement and pyrite. No fluorescence reported. On reviews of samples after logs, indicated minor gold fluorescence?

3082m - 3090m : Shale, dark grey brown, silty, carbonaceous, minor coal, lignitic laminae.

3090m - 3110m : Sandstone, quartzose, conglomeritic dominant? Grey white, fine to very coarse, poorly sorted, argillaceous matrix. DB at 3091 to 3107m; from 31m/m to 10m/m.

3110 - 3120m : Shale, medium to dark grey-brown, carbonaceous, blocky, moderately hard, silty.

3120m - 3160m : Sandstone, sand grains and fragments, grey white, light grey, quartzose, fine to very coarse, occasional granule, pebbly, poorly sorted, subangular, well cemented, 50% white clay in pore spaces, minor Shale 5-15% at 3128m and 3138m, trace coal. Drilling breaks are probably from a well cemented to less well cemented sandstone with changes in grain size.

3160m - 3171m : Shale, medium to dark grey brown, carbonaceous, blocky, moderately hard, silty, abundant pyrite (5%), and coal, brown-black, shiny, conchoidal, fracturing 2%.

3171m - 3195m : Sandstone (90%), sand grains, fine to very coarse, dominant fragments or chips from pebble size elements, partly silica cemented with pyrite inclusions; Shale (10%), trace coal, scattered direct gold fluorescence with very faint cut.

3195m - 3215m : Sandstone sand grains and fragments, as above to 55%, with silty and clayey, Sandstone, mottled, white with darker grains, salt and pepper texture, grey and occasional with a greenish tinge, blocky, fine grained moderately hard, irregular inclusions of clay and minor lithics.

Brown bituminous Shale and minor pyritic Claystone with brown mica, slightly calcareous.

3215 - 3234m : Shale 70%, silty medium grey, micromicaceous, blocky, moderately hard with silty, argillaceous Sandstone mottled white with darker grains, medium grey, fine to coarse grained, quartz grains and minor argillaceous inclusions (lithics), trace pyrite, mica, detrital grains, bituminous Shale and calcite, common coal/lignitic laminae.

3234m - 3250m : Shale 60% carbonaceous, firm, medium brown-grey and silty in part with blocky Claystone (40%), dirty white, mottled, soft, arenaceous and silty, gradational to Siltstone.

3250m - 3310m : Sandstone grey-white to light grey, light coloured grains, quartz with darker clay grains and detrital lithics, fine to medium grained, poorly sorted, slightly calcareous, blocky, moderately hard, matrix of white clay and silica, micaceous, trace pyrite, with a general salt and pepper texture, 20-30% Shale, blocky, medium grey-brown, micromicaceous, generally not carbonaceous.

3310m - 3319M : Shale, medium to dark grey, smooth textured with a greasy lustre, slickensides? Non carbonaceous, fault zone?

3319m - 3344m : Sandstone, salt and pepper texture, fine to medium, guartzose and lithics and dark clay grains floating in a clay matrix, poor visible porosity, interbedded with minor shale stringers. Trace of dull yellow fluorescence with good streaming yellow-white cut, dull yellow residue.

3344m - 3354m : Shale, dominant 60-80%, medium grey, medium brown-grey, smooth textured, greasy lustre, generally non-carbonaceous, locally carbonaceous towards base of interval, with 20% stringers of Sandstone, fine to medium grains with grains and detrital lithics floating in white clay matrix, no visible porosity (10%), about 5% Siltstone, trace dull yellow fluorescence with fast yellow white cut.

3354m - 3379m : Shale (50%), Siltstone (10%), Sandstone (30-40%) Shale grey, medium brown grey, blocky, silty, lustrous Sandstone, mottled, salt and pepper texture, fine to very fine, occasionally medium, subangular, poor to moderate sorted, slightly calcareous, well cemented with lithics (5-20%), white clay (weathered feldspar), brown mica, minor woody, resinous material, poor to nil visible porosity. 4-10% gives a dull yellow fluorescence, 5% gives a bright yellow to blue instant streaming cut.

NOTE: Bright blue-yellow instant streaming cut are also associated with carbonaceous, dark grey silty cuttings and chips from stabilizers and bit. These chips do not have a direct fluorescence.

APPENDIX 2

APPENDIX 2

SIDEWALL CORES DESCRIPTION

APPENDIX II - OMEO NO. 1

SIDEWALL CORES DESCRIPTIONS -

No sidewall cores were run in the 12½" hole on account of the RFT tool being stuck in the hole.

Only one CST-V was run in the final logging run of the 6" hole of which 18 misfired, 3 shot and recovered; and the descriptions listed below.

1. 3376m : Sandstone, white grey, mottled, salt and pepper texture, 5-15% lithics, firm, fine to very fine, silty, argillaceous matrix, subangular, poorly sorted, well cemented with white clay, kaolinite and silica, slightly calcareous, poor visible porosity very fine, less than 1% pin point dull yellow fluorescence. No cut.

2. 3365m : Sandstone, lithology as above, less silty in part, increase (2%) pin point fluorescence with very slow dispersive pale blue white cut.

3. 3361m : Sandstone, lithology as above, occ shaly and silty, minor lignitic, resinous streaks, trace brown staining associated with 5-10% patchy dull yellow flourescence. Slow streaming blue, white cut, yellow residue.

APPENDIX 3

APPENDIX 3

CORE DESCRIPTIONS AND ANALYSES

CORE 1 (2348 - 2366M)
80% RECOVERY

CORE 2 (3031.2 - 3040.4M)
31% RECOVERY

CORE DESCRIPTION

AAP

PERMIT VIC P-17

BASIN GIPPSLAND BASIN

CORING INTERVAL 2348·0 - 2366·2m

RECOVERY LENGTH 14·5m

% RECOVERY 80%.

OPERATION DATE 20-11-1982

CORE BARREL TYPE CHRIS RC4 DIA 6¾ x 4½

MUD GEL-POLYMER

WELL OMEO No.1

CORE NO. 1

TOP	2348 m
BASE	2352 m

GEOLOGIST P. CHAN

DEPTH (m)	AS RECOV.	GRAINS	Ø	CO_3	SECT.	Fluo. Dir	STRS.	LITHOLOGICAL DESCRIPTION
2348·0			22.2					SANDSTONE, white to light brown, quartzose, coarse to very coarse, subrounded, clean, well sorted, coarsening downwards sequence, very good porosity and permeability, trace gaseous odour
			21.1			WEAK		increasing downwards, rare to trace patchy pale yellow fluorescene with crush pale
			22.3					yellow cut only. yellowish residue
							≈	(Sand is generally clean and well winnowed, sublabile) massive, probable back shore barrier sand
2349			21.2	0%				
			19.5				≈	minor argillaceous laminations, no visible structure
			22.2					
			22.7					SANDSTONE, greyish, quartzose, very coarse, subrounded, moderate to poor sorting, becoming
2350				0%				more argillaceous with clay filling interstices
			21.4					strong gaseous odour on catching core, decreasing with exposure, rare to trace
			20.9			STRONG GASEOUS ODOUR		dull yellow fluorescence with crush cut only.
			19.1					
2351				0%			≈	Becoming pebbly, poorly sorted with thin coal seams, coarser grains are well rounded
			22.6					in part, coarsening with depth
			22.4			PINPOINT FLUORESCENE		
			23.4					Pebbly and poorly sorted, rounded quartz and cherty granules, basal channel-type
2352								erosional surface.

Dwg. No.: 19913

CORE DESCRIPTION

AAP

PERMIT VIC P-17

BASIN GIPPSLAND BASIN

CORING INTERVAL 2348m - 2366·2m

RECOVERY LENGTH 14·5m

% RECOVERY 80%.

OPERATION DATE 20-11-1982

CORE TYPE CHRIS RC4 BARREL 60' DIA 6½ x 4½

MUD GEL - POLYMER

WELL OMEO No. 1

CORE NO. 1

TOP 2352 m

BASE 2354 m

GEOLOGIST P. CHAN

DEPTH (m)	AS RECOV.	GRAINS	Ø	CO_3	SECT.	Fluo. Dir	STRS.	LITHOLOGICAL DESCRIPTION
2352			21·4	0%				Strong gaseous odour, trace yellow fluorescence with slow pale yellow streaming cut
			21·6					2352·27 to 2352·5m.
								COAL, black, dense, brittle, conchoidal fractures becoming more amorphous and argillaceous towards base with argillaceous and pyrite laminations
								2352·5 to 2354·0m
								CLAYSTONE, grey, massive, firm, indurated, very slightly calcareous, fractured zone with slickensides.
2353				0%				
								FROM 2354 m
2354			2.4	0%				CLAYSTONE, grey, firm, indurated, massive, no visible structures, minor microlaminations, generally amorphous with slightly microcrystalline cherty appearence, conchoidal fractures
2355				0%				
								Increasing laminations, grey white, hard, dense, crystalline and dolomitic, micromicaceous in part.
			2.7	30% Mg				
2356				0%				

Dwg. No.: 19913

CORE DESCRIPTION

AAP

PERMIT VIC P-17

BASIN GIPPSLAND BASIN

CORING INTERVAL 2348m-2366.2m

RECOVERY LENGTH 14.5m

% RECOVERY 80%

OPERATION DATE 20-11-1982

CORE TYPE CHRIS RC4 BARREL 60' DIA 6 1/16 × 4 1/2

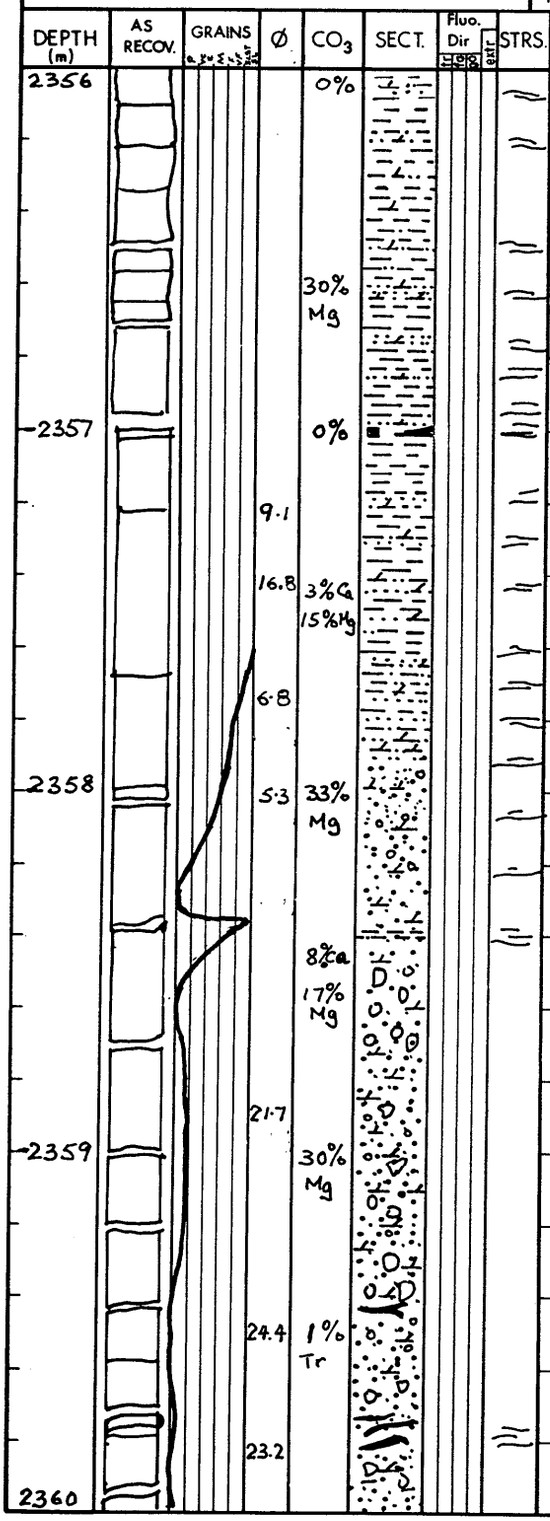
MUD GEL-POLYMER

WELL OMEO No. 1

CORE NO. 1

TOP	2356 m
BASE	2360 m

GEOLOGIST P. CHAN



LITHOLOGICAL DESCRIPTION

becoming more laminated and dolomitic

At 56.65m, Dolomitic layer (5cm), crystalline, hard, dense, quartzitic with recrystalized grain edges and fracturing across grains, dominant medium grained, micromicaceous

CLAYSTONE, grey, firm, indurated, amorphous with minor carbonaceous laminae, micromicaceous

SANDSTONE, white grey, quartzose, sublabile, medium to coarse, subangular to subrounded with subrounded coarser grains, moderate sorted fair porosity, partially cemented with dolomite and white siliceous cement. Dominant dull yellow mineral fluorescene only.

CONGLOMERATE (average 0.5 cm to 2cm), hard, well cemented in part with dolomite, partly siliceous, well rounded to subrounded opaque white pebbles, minor grey chert pebbles, poorly sorted, poor intragranular porosity with dolomitic argillaceous material filling interstices, locally very well cemented with recrystalised grain boundaries Mineral fluorescence only. (* SLOW ROP).

Minor coal and lignitic laminations with better sorted coarse sand, sublabile in part.

Dwg. No.: 19913

CORE DESCRIPTION

AAP

PERMIT VIC P-17

BASIN GIPPSLAND BASIN

CORING INTERVAL 2348m - 2366.2m

RECOVERY LENGTH 14.5m

% RECOVERY 80%

OPERATION DATE 20-11-1982

CORE TYPE CHRIS RC4 BARREL 60' DIA 6 1/8 x 4 1/4

MUD GEL - POLYMER

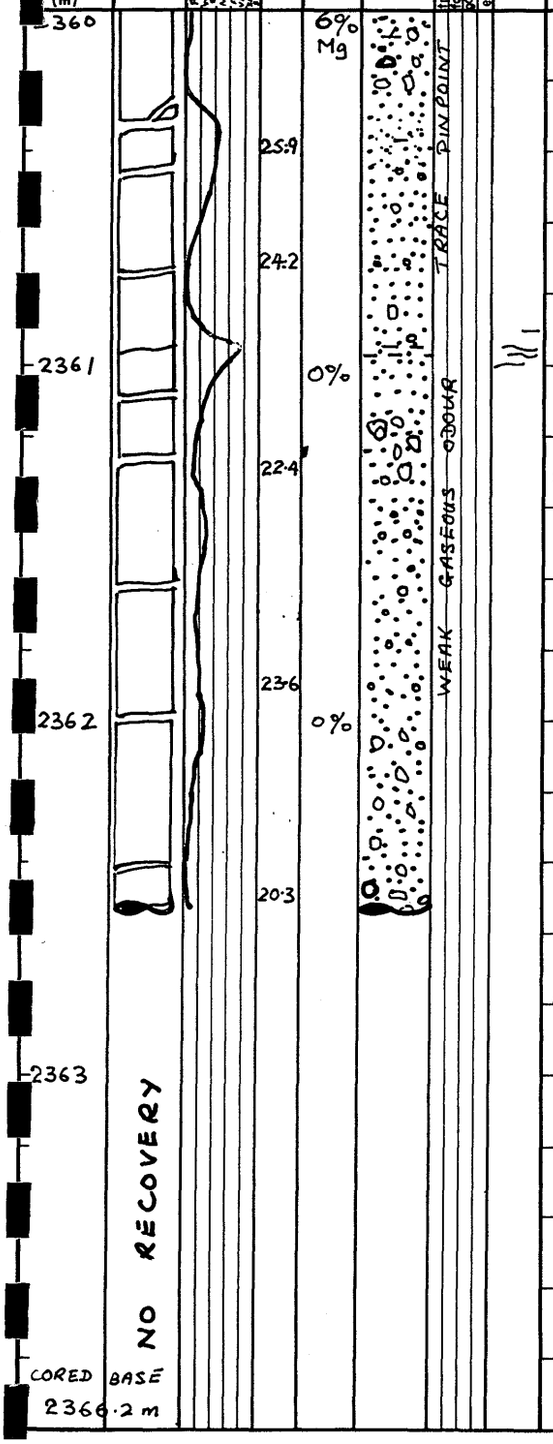
WELL OMEO No.1

CORE NO. 1

TOP 2360m

BASE 2362.5m

GEOLOGIST P. CHAN



LITHOLOGICAL DESCRIPTION
Pebbles averaging 2cm.
SANDSTONE, light brown grey, friable, loose, quartzose, subangular, rounded in part, poorly sorted with clay and silt filling interstices, dominant very coarse, good to very good porosity, weak gaseous odour Mineral fluorescence only
MORE consolidated and argillaceous in part.
SANDSTONE, brown grey, locally clean, quartzose coarse to very coarse, subangular with rounded pebbles, rare chert grains, moderate sorting, locally cemented with silica and white argillaceous material (kaolinite), gen good porosity with minor porosity destroyed by clay filling pore spaces. Weak gaseous odour, trace yellow fluorescence (pinpoint) with crush cut only.
Becoming coarser and pebbly, coarsening downwards sequence.
NOTE: ON ACCOUNT OF GASEOUS ODOUR ON CATCHING CORE SAMPLES, THE CORES ARE SEALED WITH LEAST EXPOSURE. NO DETAILED SEDIMENTOLOGICAL DESCRIPTION IS MADE ACCOUNTING FOR LACK OF STRUCTURES SEEN.
PROVISIONAL ENVIRONMENTAL DEPOSITION: MARGINAL MARINE WITH FLUVIAL INFLUENCE PROGRADING UPWARDS TO RESTRICTED MARINE NEAR SHORE FACIES TO BARRIER SAND FACIES.
(HIGH INVASION OF DRILLING FLUIDS IN PERMEABLE POROUS SANDS.)

Dwg. No: 19913

Form AO-00052

AUSCORE PTY. LTD.

THE SMALL AUSTRALIAN

Company: A. ST. AQUITAINE PET. Country: AUSTRALIA Date: DECEMBER 1982

Well: OMEO NO.1 State: VICTORIA ~~Elevation~~: CORE NO.1

Field: WILDCAT Location: OFFSHORE File No. CA3-CA3

The AusOil Group of Companies United Tool Service Pty Ltd AusLog Pty Ltd AusCore Pty Ltd

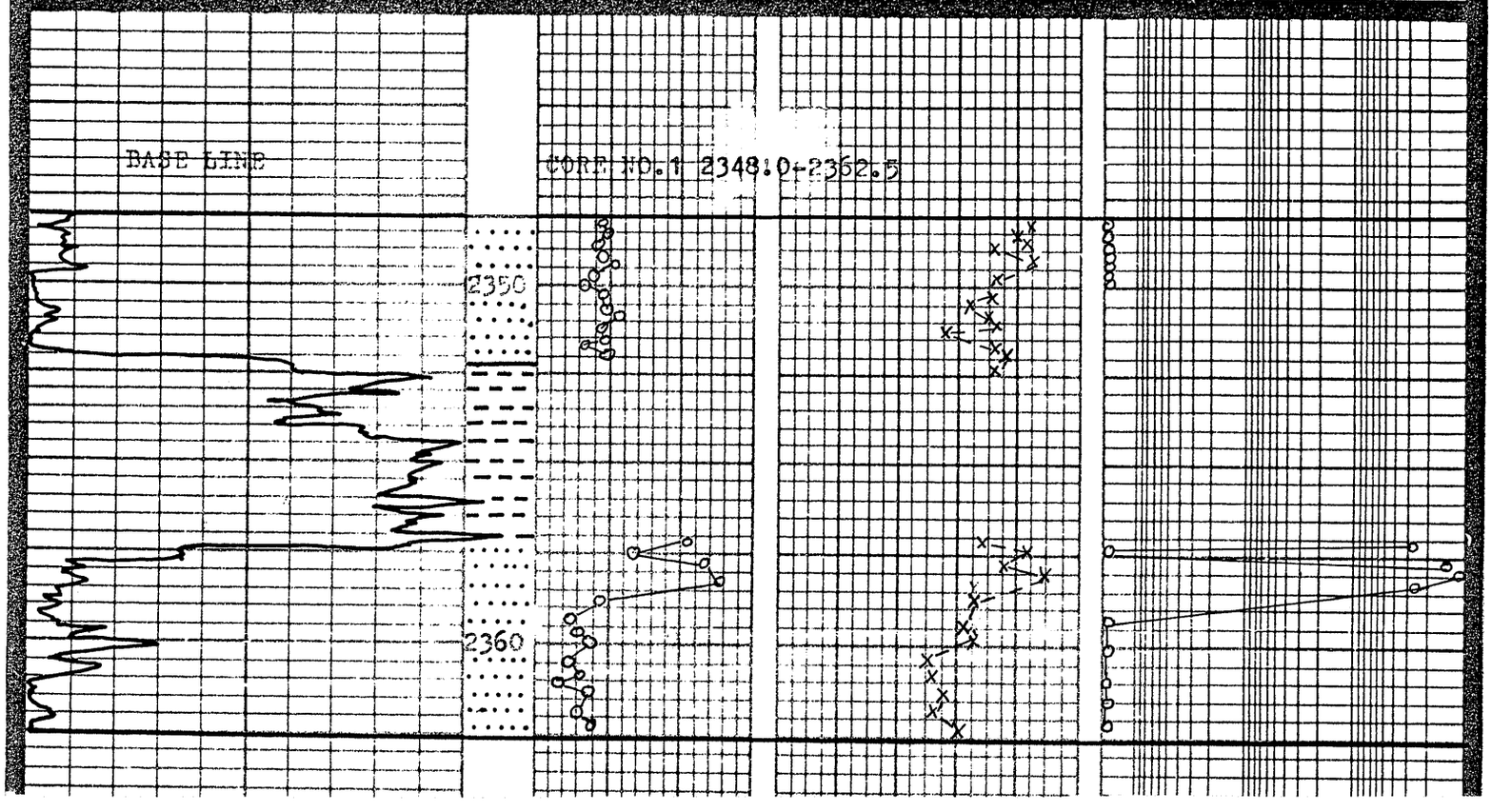
Gamma Log (Increasing) →

Porosity (Percent) 30 20 10 0

Total Water Saturation-X 100 80 60 40 20 0

Oil Saturation-O 0 20 40 60 80 100

Permeability (Millidarcys) 100.0 10.0 1.0



CONVENTIONAL CORE ANALYSIS
FINAL DATA REPORT

Company: Aust. Aquitaine Petroleum Pty.Ltd. Country: Australia Date: 29 November 1982

Well: Omeo #1 State: Victoria Elevation:

Field: Wildcat Location: Offshore File: C.A.3 - C.A.3

Sample No.	INTERVAL from - to	POROSITY (%)	Grain DENSITY	PERM (md) to air	Residual SATURATION (% pore vol)	
					OIL	WATER
1	2348.1	22.2	2.63	1641	-	85.1
2	2348.4	21.1	2.58	4188	-	79.1
3	2348.7	22.3	2.64	3770	-	81.3
4	2349.0	21.2	2.64	2693	-	71.4
5	2349.3	19.5	2.64	1644	-	60.8
6	2349.7	22.2	2.72	4541	-	84.2
7	2349.9	22.7	2.59	6774	-	73.0
8	2350.15	21.4	2.59	-	-	70.6
9	2350.5	20.9	2.62	-	-	63.2
10	2350.8	19.1	2.55	-	-	74.8
11	2351.1	22.6	2.66	-	-	70.4
12	2351.4	22.4	2.89	-	-	55.8
13	2351.7	23.4	2.79	-	-	61.9
14	2352.0	21.4	2.62	-	-	66.8
15	2352.25	21.6	2.66	-	-	61.6
16	2354.0	2.4	2.60	-	-	-
17	2355.5	2.7	2.78	-	-	-
18	2357.10	9.1	2.69	1.94	-	68.4
19	2357.4	16.8	2.68	163.0	-	83.9
20	2357.7	6.8	2.76	.48	-	75.0
21	2358.0	5.3	2.78	.08	-	90.0
22	2358.9	21.7	2.79	-	-	64.5
23	2359.5	24.4	2.81	-	-	62.7
24	2359.8	23.2	2.75	-	-	64.6
25	2360.4	25.9	2.87	-	-	50.9

CONVENTIONAL CORE ANALYSIS
FINAL DATA REPORT

Company: Australian Aquitaine Petroleum Pty.Ltd. Country: Australia Date: 5 December 1982

Well: Omeo #1 State: Victoria Elevation: _____

Field: Wildcat Location: _____ File: C.A.3 - C.A.3

Sample No.	INTERVAL from - to	POROSITY (%)	Grain DENSITY	PERM (md) to air	Residual SATURATION (% pore vol)	
					OIL	WATER
26	2360.7	24.2	2.82	-	-	51.2
27	2361.3	22.4	2.76	-	-	56.2
28	2361.9	23.6	2.78	-	-	52.5
29	2362.5	20.3	2.77	-	-	60.6

CONVENTIONAL CORE ANALYSIS
FINAL DATA REPORT

Company: Australian Aquitaine Petroleum Pty.Ltd. Country: Australia Date: 5th December 1982

Well: Omeo #1 State: Victoria Elevation:

Field: Wildcat Location: File: C.A.3 - C.A. 3

Sample No.	INTERVAL from - to	POROSITY (%)	Grain DENSITY	PERM (md) to air Vertical	Residual SATURATION (% pore vol)	
					OIL	WATER
NOTE:	WHOLE CORE ANALYSIS					
1	2350.0 - 50.60	21.3	2.63	2961		
2	2350.4 - .45	23.6	2.72	3368		
3	2350.70- .81	21.3	2.59	4922		
4	2350.90- .99	23.8	2.65	4432		
5	2351.20- .30	22.8	2.67	4754		
6	2351.40- .45	24.7	2.75	3941		
7	2351.75- .79	26.0	2.76	3663		
8	2352.00- .06	22.6	2.66	4380		
9	2358.20- .25	11.6	2.77	34.3		
10	2358.5 - .58	7.1	2.82	1.77		
11	2359.3 - .36	25.7	2.87	2051		
12	2360.00- .06	20.7	2.89	689		
13	2360.9 - .96	27.0	2.77	3308		
14	2361.35- .47	25.4	2.85	6111		
15	2362.2 - .28	22.2	2.81	3952		

CORE DESCRIPTION

AAP

PERMIT Vic/P17

BASIN Gippsland

CORING INTERVAL 9.14m

RECOVERY LENGTH 2.85m

% RECOVERY 31

OPERATION DATE 14.1.83

CORE BARREL 30Ft TYPE Christ. DIA $3\frac{3}{4}$"x$2\frac{5}{8}$" MUD Saltwater Gel/Polymer

WELL Omeo #1

CORE NO. 2

TOP 3031.24

BASE 3040.38

GEOLOGIST A. Falloon

DEPTH	AS RECOV.	GRAINS	Ø	CO_3	SECT.	Fluo. Dir	STRS.	LITHOLOGICAL DESCRIPTION
~~3031~~								
3031.24								3031.24 – 3032.36m
								Shale medium grey-brown, silty, blocky, moderately hard, occ pyrite, core breaks occ. across polished surfaces which slope steeply in several directions. White powdery deposits occur on polished surfaces (Slickensides?)
3032				1%				
								3032.36 – 3032.62m
			15.8					Conglomerate, ~~pebbles to 6cm in diameter in a~~ matrix of coarse to very coarse sandstone with granules. ~~Pebbles, quartz mostly white but also grey~~ black, light green; subrounded, also shale inclusions, light green-grey, light grey; Sandstone, grey-white quartzose, grains subangular, poorly sorted, occ carbonaceous trace of v. poor intergranular porosity, ~~porosity plugged with white clay.~~ Considerable quartz cement. Occ. pyrite
3033								3032.62 – 3033.26m Shale A/A
			14.1					3033.26 – 3034.02m Sandstone with occ 'inclusions' of sandstone with most of the ~~intergranular space filled with pyrite~~ Thin shale interbeds towards base of interval.
			16.7					
			11.3	1%				
3034			13.9					3034.02 – 3034.09m Conglomerate A/A
3034.09								3034.09 – 3040.38m R.O.P.S suggest that the upper part ~~of the core was recovered and~~ that relatively soft sandstone? in bottom of cored interval was ~~washed out.~~
to								
3048.38								* No oil staining or fluorescence in core – the sandstone/conglomerate looks wet
Not Recovered								

Dwg. No: 19913

Form AO-00052

AUSCORE PTY. LTD.

THE SMALL AUSTRALIAN

Company:	Aust. Aquitaine	Country.	Australia	Date:	16-1-1983
Well:	Omeo No.1	State:	Victoria	Elevation:	Core No.2
Field:	Wild Cat	Location:	Offshore	File No.	CA3-CA3

The AusOil Group of Companies United Tool Service Pty Ltd AusLog Pty Ltd AusCore Pty Ltd

Gamma Log *(Increasing)* →

Porosity *(Percent)*

Total Water Saturation-X

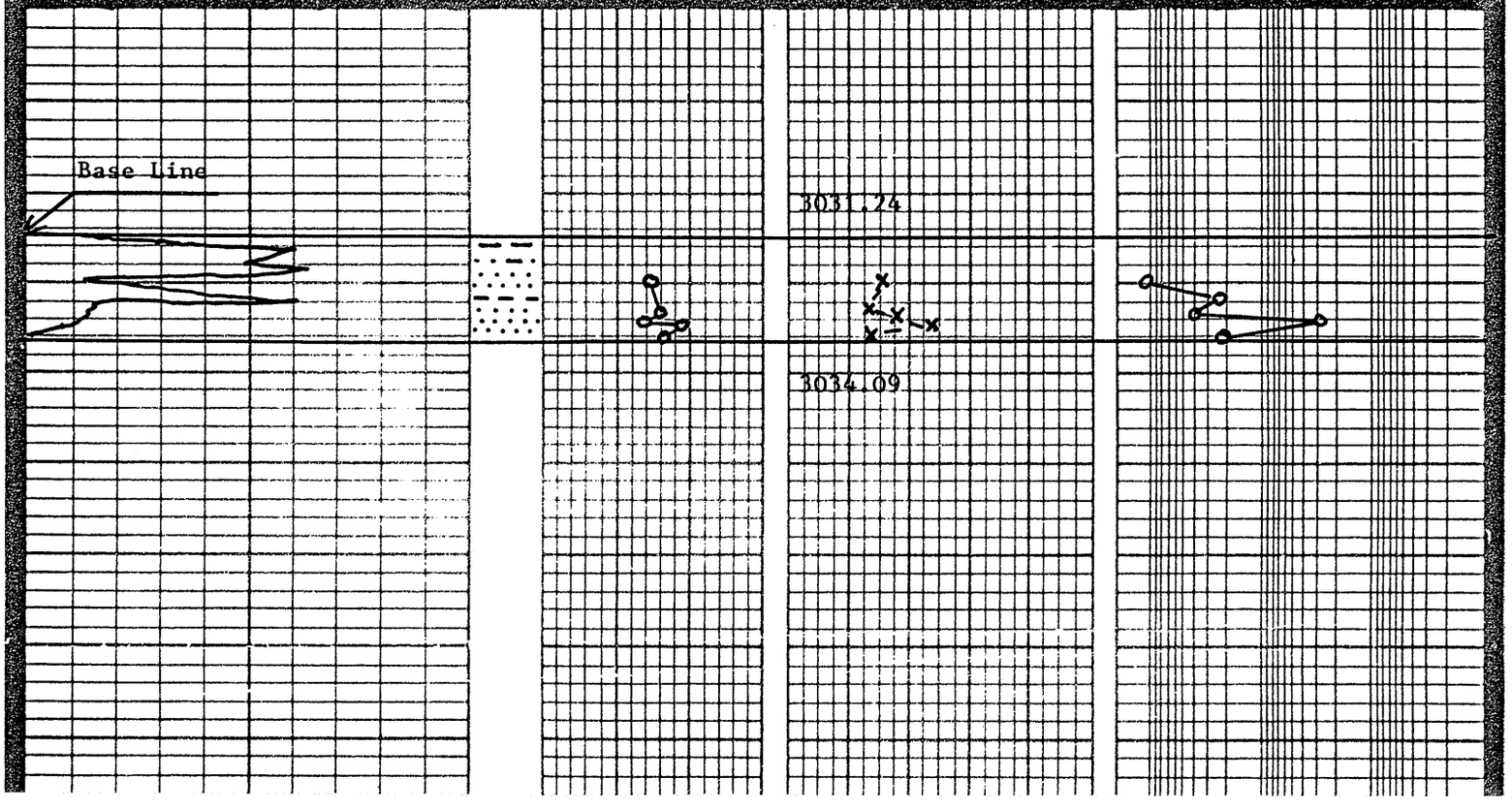
100 80 60 40 20 0

Oil Saturation-O

30 20 10 0 0 20 40 60 80 100

Permeability *(Millidarcys)*

100.0 10.0 1.0



CONVENTIONAL CORE ANALYSIS
FINAL DATA REPORT

Company: Aust. Aquitaine Country: Australia Date: 15-1-83

Well: OMEO #1 State: Victoria Elevation: Core No.2

Field: Wildcat Location: Offshore File: CA3-CA3

Sample No.	INTERVAL from - to	POROSITY (%)	Grain DENSITY	PERM (md) to air	Residual SATURATION (% pore vol)	
					OIL	WATER
30	3032.45	15.8	2.67	100°	0.0	70.2
31	3033.35	14.1	2.66	24.9	0.0	72.6
32	3033.55	16.7	2.70	43.3	0.0	64.9
33	3033.75	11.3	2.65	3.1	0.0	53.4
34	3033.95	13.9	2.63	22.8	0.0	73.3

APPENDIX 4

APPENDIX 4

FORAMINIFERAL SEQUENCE IN OMEO NO. 1

D. TAYLOR

THE FORAMINIFERAL SEQUENCE
in
OMEO # 1,
GIPPSLAND BASIN.

for: AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

May 5, 1983.

David Taylor,
23 Ballast Point Road, Birchgrove 2041
AUSTRALIA (02) 82 5643

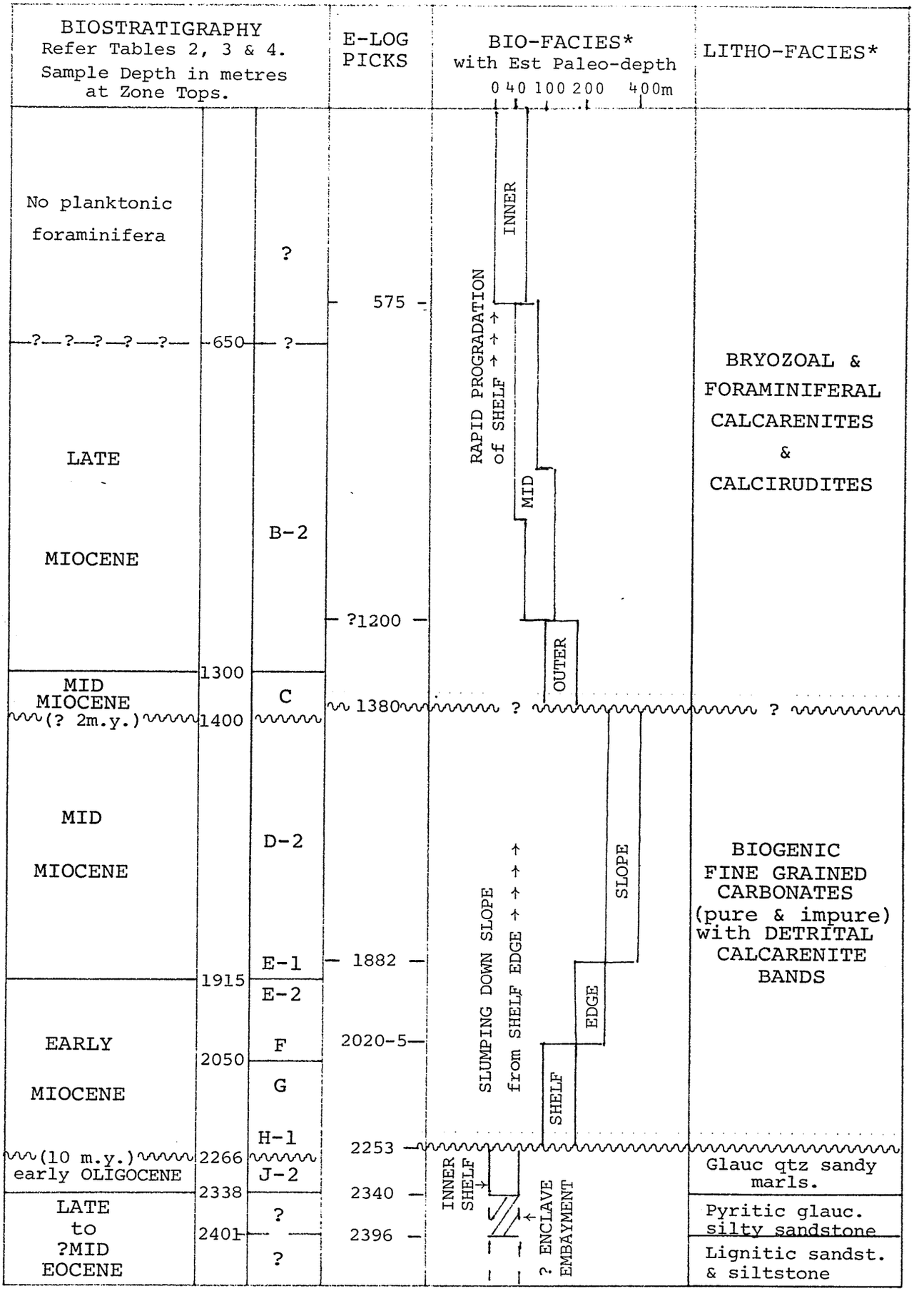


TABLE 1: INTERPRETED FORAMINIFERAL SEQUENCE for OMEO # 1
on Ditch Cutting Samples only.

Note offset between sample depth & E-log picks ∿∿∿(10 m.y.)∿∿∿ Hiatus with time span

*refer Factual Data - Table 5.

David Taylor, May 5, 1983.

INTRODUCTION.

Forty two samples of ditch cuttings were submitted for examination from OMEO # 1. Unfortunately, no sidewall cores were available, so all interpretations had to be based on first appearances downhole (= *range tops*). Downhole contamination increased with depth, due not only to cavings but also to the fact that the fine grained Miocene carbonates of the Gippsland Basin are readily incorporated in the mud. This mud contamination shows a cyclity of appearance in ditch cutting samples which could be correlated with circulation rate. For instance, the spherical planktonic foraminifera *Orbulina universa* and *O. suturalis* occur sporadically below 1915m; this depth is interpreted as being the base of range of these forms (compare Factual Distribution Chart of Table 4 with Interpreted Biostratigraphy of Table 2).

The biostratigraphy presented on Table 2, was abstracted from the factual data (Table 4), by applying the known sequence of *range tops* for Gippsland as well as documentation by Jenkins (1971), Kennett (1980) and Srinivasan & Kennett (1981) for the Tasman Sea Region. *Range tops* of benthonic foraminifera and other fossil indicators were utilized in designating facies units and estimating paleo-depths. Accumulated data from fossil and extant Gippsland facies sequences were applied for those interpretations as well as information from the Tasman Sea Region published by Hornibrook (1968) and Hayward & Buzas (1979). Depths cited for significant facies changes were adjusted after perusal of E-logs; compare Factual Data of Table 5 with the Interpretation of Table 1. The poignant features of the sequence are briefly discussed below in ascending, time-stratigraphic order.

EOCENE - 2340m to 2396m to ? from E-logs; 2401m to 2569m from samples.

A distinctly Eocene assemblage was first encountered in ditch cuttings at 2401m and a biostratigraphic position in the vicinity of the Mid/Late Eocene boundary was confirmed by the presence of *Globigerinatheka barri* and *Globorotalia turgida* at 2455m. These assemblages are mixed with obvious downhole contaminants, but the Eocene faunas may in fact be cavings, as these faunas are associated with lignitic sands rather than their anticipated host lithology of pyritic, glauconitic silty sandstones, which were present immediately above 2340m. Distinctly Eocene benthonic

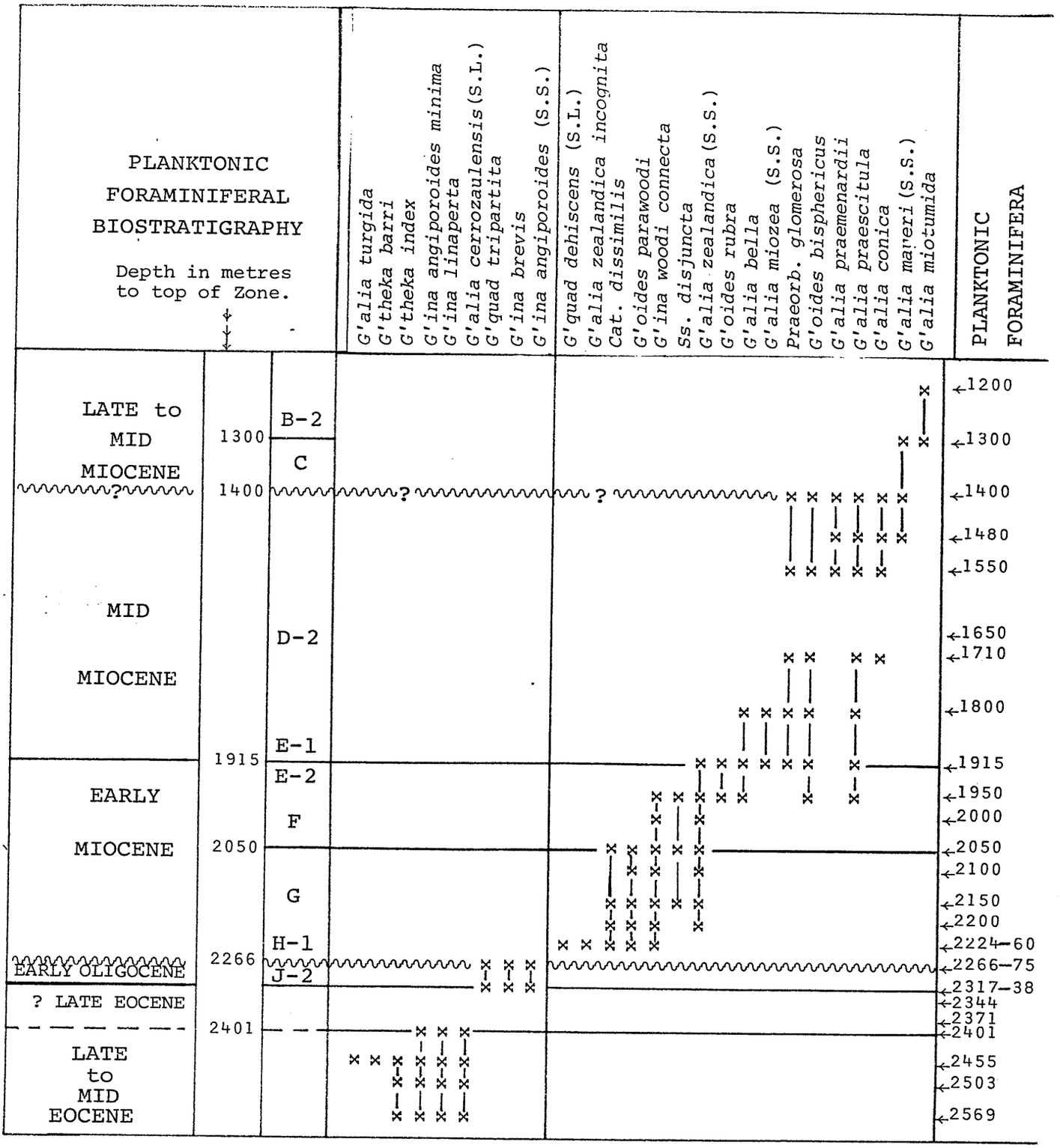


TABLE 2 : INTERPRETED BIOSTRATIGRAPHY - OMEO # 1

As only DITCH CUTTINGS available, range tops of selected planktonic foraminiferal species were utilized. Refer TABLE 4 (back of report) for FACTUAL DISTRIBUTION CHART.
Range tops = first appearance downhole in ditch cuttings.

David Taylor, May 3, 1983.

assemblages could not be designated as all species were present above the Eocene planktonic *range tops*.

Alas, this inability to deduce the nature and extent of the marine Eocene sediments is inauspicious, as the Omeo # 1 samples contain the best examples of Late/Mid Eocene planktonic faunas yet seen in the Gippsland Basin. The planktonic specimens appear to be more numerous and specifically more diverse than those in recognised developments of Late/Mid Eocene sediments in adjacent wells (e.g. the Bream and Gurnard wells). These observations would suggest that Omeo # 1 was in the most marine location, being axially situated in a depression. Edina # 1 was probably on the extreme margins of such a facies regime. Similar depressions formed enclaves for Eocene deposition elsewhere in Southern Australia and New Zealand. A feature of such enclave is the traceable facies progression from shallow to deeper water, such as in the Otway Basin (Taylor, 1971). So not only were the sediments preserved structurally, but originally sedimentation was controlled by structural configuration and not merely the response to the eustatic sea level high which occurred at the Mid/Late Eocene boundary (refer Loutit & Kennett, 1951).

EARLY OLIGOCENE - 2253m to 2340m from E-logs; 2266m to 2338m from samples.

Typical early Oligocene (Zone J-2) *Globigerina* assemblages, without associated deep water *Globorotalia* spp. (e.g. *G. gemma*). The shallow water aspect is confirmed by the benthonic fauna and the glauconitic, quartz sandy marl lithology.
No comment can be made regarding the relationship with the underlying Mid/Late Eocene faunas.

EARLY to MID MIOCENE - 1380m to 2253m from E-logs; 1400m to 2260m from samples.

The total absence of late Oligocene forms as well as the close proximity of Zone H-1 assemblage *range tops* above Zone J-2 *range tops* indicate a hiatus during the Oligocene which has been identified in many other Gippsland offshore sections. Deposition deepened with obvious slumping of outer shelf accumulation, down slope.

MID to LATE MIOCENE - ? to 1380m from E-logs; ? to 1300m from samples.

The short time span, occupied by Zone D-1 of the Mid Miocene, appears to be missing. Rapid progradation of the continental shelf was evident at the resumption of deposition. Planktonic foraminifera were either sparse or absent above 650m, where the robust nature of the bryozoal skeleton indicates high energy conditions. It could not be determined whether Pliocene was present.

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NOTE: NEXT PAGE IS FOOLSCAP

TABLE 3 DAVID TAYLOR, MAY 3, 1983

MICROPALEONTOLOGICAL DATA SHEET

BASIN: GIPPSLAND ELEVATION: KB: 30m GL: -62.6m

WELL NAME: OMEO # 1 TOTAL DEPTH:

AGE		FORAM. ZONULES	HIGHEST DATA					LOWEST DATA				
			Preferred Depth	Rtg	Alternate Depth	Rtg	Two Way Time	Preferred Depth	Rtg	Alternate Depth	Rtg	Two Way Time
PLEISTOCENE		A_1										
		A_2										
PLIOCENE		A_3										
		A_4										
		B_1										
MIOCENE	LATE	B_2						1200	3			
		C	1300	3				1300	3			
	MIDDLE	D_1										
		D_2	1400	3				1800	4			
		E_1	1800	4				1800	4			
		E_2	1915	3				1915	3			
	EARLY	F	1950	3				2000	3			
		G	2050	3				2200	3			
		H_1	2224					2260	3			
OLIGOCENE	LATE	H_2										
		I_1										
		I_2										
	EARLY	J_1										
		J_2	2266	3				2338	3			
EOCENE		K										
		Pre-K	2401	4				2569	4			

COMMENTS: ONLY DITCH CUTTINGS SUBMITTED

Pre-K - Mid/Late Eocene assemblages probably displaced downhole. Probable interval was between 2340 & 2396m from lithology and E-logs.

CONFIDENCE RATING:

0:	SWC or Core	-	Complete assemblage (very high confidence).
1:	SWC or Core	-	Almost complete assemblage (high confidence).
2:	SWC or Core	-	Close to zonule change but able to interpret (low confidence).
3:	Cuttings	-	Complete assemblage (low confidence).
4:	Cuttings	-	Incomplete assemblage, next to uninterpretable or SWC with depth suspicion (very low confidence).

NOTE: If an entry is given a 3 or 4 confidence rating, an alternative depth with a better confidence rating should be entered, if possible. If a sample cannot be assigned to one particular zone, then no entry should be made, unless a range of zones is given where the highest possible limit will appear in one zone and the lowest possible limit in another.

DATA RECORDED BY: David Taylor DATE: May 3, 1983.

DATA REVISED BY: DATE:

PE906189

This is an enclosure indicator page.
The enclosure PE906189 is enclosed within the container PE902613 at this location in this document.

The enclosure PE906189 has the following characteristics:

ITEM_BARCODE	= PE906189
CONTAINER_BARCODE	= PE902613
NAME	= Planktonic Foraminiferal Distribution Chart
BASIN	= GIPPSLAND
PERMIT	= VIC/P17
TYPE	= WELL
SUBTYPE	= DIAGRAM
DESCRIPTION	= Factual Data of Planktonic Foraminiferal Distribution, from WCR for Omeo-1
REMARKS	=
DATE_CREATED	= 28/04/83
DATE_RECEIVED	= 11/08/83
W_NO	= W788
WELL_NAME	= OMEO-1
CONTRACTOR	=
CLIENT_OP_CO	= AUSTRALIAN AQUITAINE PETROLEUM

(Inserted by DNRE - Vic Govt Mines Dept)

PE906190

This is an enclosure indicator page.
The enclosure PE906190 is enclosed within the container PE902613 at this location in this document.

The enclosure PE906190 has the following characteristics:

ITEM_BARCODE	= PE906190
CONTAINER_BARCODE	= PE902613
NAME	= Benthonic Foraminiferal Distribution Chart
BASIN	= GIPPSLAND
PERMIT	= VIC/P17
TYPE	= WELL
SUBTYPE	= DIAGRAM
DESCRIPTION	= Factual Data of Benthonic Foraminiferal Distribution and Sediment Grain Analysis , from WCR for Omeo-1
REMARKS	=
DATE_CREATED	= 4/05/83
DATE_RECEIVED	= 11/08/83
W_NO	= W788
WELL_NAME	= OMEO-1
CONTRACTOR	=
CLIENT_OP_CO	= AUSTRALIAN AQUITAINE PETROLEUM

(Inserted by DNRE - Vic Govt Mines Dept)

APPENDIX 5

APPENDIX 5

PALYNOLOGICAL EXAMINATION OF

SELECTED SAMPLES

W.K. HARRIS

OMEO NO. 1 WELL, GIPPSLAND BASIN

PALYNOLOGICAL EXAMINATION OF SELECTED SAMPLES

by

W.K. Harris

Palynological Report

Client : Australian Aquitaine Petroleum

Study : Omeo No. 1 Well, Gippsland Basin

Aims : Determination of age, selected samples

INTRODUCTION

Two core and six cuttings samples from Omeo No. 1 Well drilled in the Gippsland Basin at Latitude 30°36'45.6"S, Longitude 147°43'02.5"E in Victoria P17 were processed by normal palynological procedures. The basis for the biostratigraphy and consequent age determinations are based on Stover & Partridge (1973), Partridge (1976) and Dettmann & Playford (1969).

OBSERVATIONS

Two core samples were examined. The bottom core at 3036.5 m yielded the following assemblage:

Cyathidites australis
Cycadopites sp.
Gambierina rudata
aff Haloragacidites sp.
Lygistopollenites florinii
Phyllocladidtes mawsonii
Podocarpidites sp.
Proteacidites spp.

The yield was very low and preservation was very poor.

Likewise the organic yield was very low and the kerogens were composed of the following macerals: Amorphogen, 5%; Phyrogen, 10% hylogen 5% and melanogen 80%.

No TAI determinations was made because of the very low yield. Core 1 at 2357 m yielded the following assemblage

Banksiaeidites arcuatus
Cyathidites splendens
Ericipites sp.
Haloragacidites harrisii
Lygistepollenites florinii
Micrantheum sp.
Myrtaceidites parvus/mesonesus
Nothofagidites brachyspinulosa
N. Emarcidus
N. flemingii
N. vansteenisi
Periporopollenites sp.
Podocarpidites sp.
Proteacidites parvus
P. recavus
Phyllocladidites mawsonii

Simplicepollis meridianus
Stereisporites (Tripunctisporis) sp.
Tricolporites adelaidensis
T. sphaerica

The microfossil yield was very low and preservation poor. Similarly the organic yield was low and the kerogens are comprised of the following macerals: Amorphogen, 90%, hylogen, 5%, phyrogen, 5%. The TAI was determined at 2+.

Six cuttings samples from the following intervals were examined:

3174m
3209
3219
3237
3249
3351

With the exception of the two highest samples all yield similar assemblages. The microfossil yield was low and preservation poor. The assemblage comprised:

Baculatisporites comaumensis
Cicatricosisporites australiensis
Cycadopites sp.
Cyathidites australis
Falcisporites spp.
Microcachyridites antarcticus
Podocarpidites spp.
Podosporites microsaccatus
Stereisporites antiquasporites.

In addition the two highest samples contained Phyllocladidites mawsonii.

INTERPRETATION

Core 2 at 3036.5m

Because of its low diversity and poor preservation the assemblage can only be determined as Late Cretaceous undifferentiated. the presence of G. rudata and L. florinii would suggest that the age is no older than the N. senectus zone but it may be younger.

Core 1 at 2357m

This assemblage although it does not contain all of the diagnostic species, such as Nothofagidites asperus or N. falcata, of the N. asperus zone is sufficiently diverse to permit this correlation. Further subdivision is not forthcoming, but the assemblage has some affinity with those from the middle and late N. asperus sub-zone. The sample is non marine.

Cuttings Samples

The bottom four samples although they are poorly preserved and low in diversity have affinities with undifferentiated early Cretaceous assemblages. There is nothing in the assemblages to permit finer zonation.

The top two samples that contain P. mawsonii may be of Late Cretaceous age but because the assemblages are derived form cuttings the species maybe from down hole contamination.

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W.K. Harris
Consulting Geologist - Petroleum

APPENDIX 6

APPENDIX 6

HEAD SPACE GAS ANALYSIS

OF CANNED CUTTINGS

- B.M.R. -

OMEO NO. 1 GAS CONCENTRATION (VOLUME GAS PER MILLION VOLUMES CUTTINGS) GAS COMPOSITION (PERCENT)

DEPTH m	METHANE C1	ETHANE C2	PROPANE C3	IBUTANE iC4	NBUTANE nC4	TOTAL C1-C4	WET/TOTAL PERCENT (%)	TOTAL GAS M	E	P	iB	nB
2030.0	800.564	46.640	76.395	56.106	23.931	1003.546	20.226	79.8	4.6	7.6	5.6	2.4
2060.0	758.944	52.824	93.768	98.077	44.517	1048.130	27.591	72.4	5.0	8.9	9.4	4.2
2120.0	535.294	49.084	93.476	139.749	48.499	866.101	38.195	61.8	5.7	10.8	16.1	5.6
2150.0	347.747	32.268	45.201	52.613	17.977	495.806	29.862	70.1	6.5	9.1	10.6	3.6
2180.0	367.445	38.587	63.625	94.377	30.693	594.728	38.216	61.8	6.5	10.7	15.9	5.2
2210.0	30565.027	0.010	52.357	58.457	15.874	30691.725	0.413	99.6	0.0	0.2	0.2	0.1
2240.0	1710.910	36.890	59.935	102.507	22.203	1932.445	11.464	88.5	1.9	3.1	5.3	1.1
2270.0	505.409	197.866	192.923	138.287	37.330	1071.814	52.846	47.2	18.5	18.0	12.9	3.5
2300.0	202.700	86.934	101.790	81.646	22.552	495.622	59.102	40.9	17.5	20.5	16.5	4.6
2330.0	352.840	114.454	207.473	114.028	65.267	854.061	58.687	41.3	13.4	24.3	13.4	7.6
2360.0	680.375	377.052	382.632	99.063	107.758	1646.881	58.687	41.3	22.9	23.2	6.0	6.5
2390.0	1307.137	723.299	714.302	172.717	191.329	3108.783	57.953	42.0	23.3	23.0	5.6	6.2
2420.0	792.503	309.574	216.549	51.879	54.627	1425.132	44.391	55.6	21.7	15.2	3.6	3.8
2450.0	5546.393	1529.113	439.971	102.043	38.223	7655.744	27.553	72.4	20.0	5.7	1.3	0.5
2510.0	8383.418	864.698	185.245	56.209	17.049	9506.619	11.815	88.2	9.1	1.9	0.6	0.2
2540.0	5837.236	1290.213	569.441	119.997	77.517	7894.403	26.059	73.9	16.3	7.2	1.5	1.0
2570.0	11504.431	1792.058	622.270	114.746	70.538	14104.043	18.432	81.6	12.7	4.4	0.8	0.5
2600.0	39947.447	6620.753	1861.719	213.636	151.631	48795.186	18.132	81.9	13.6	3.8	0.4	0.3
2630.0	14939.255	1693.699	501.083	67.960	57.588	17259.584	13.444	86.6	9.8	2.9	0.4	0.3
2660.0	29774.114	2703.106	745.386	124.943	73.265	33420.814	10.911	89.1	8.1	2.2	0.4	0.2
2692.0	33118.705	3916.008	1186.777	162.691	119.905	38504.086	13.987	86.0	10.2	3.1	0.4	0.3
2719.0	8.400	1.528	0.785	0.003	0.004	10.720	21.644	78.4	14.3	7.3	0.0	0.0
2730.0	608.907	455.012	449.670	99.813	143.810	1757.212	65.348	34.7	25.9	25.6	5.7	8.2
2752.0	5105.921	751.851	587.408	121.286	129.819	6696.284	23.750	76.3	11.2	8.8	1.8	1.9
2766.0	721.815	186.383	169.362	35.712	61.689	1174.962	38.567	61.4	15.9	14.4	3.0	5.3
2779.0	1298.952	628.597	587.231	128.044	173.976	2816.800	53.886	46.1	22.3	20.8	4.5	6.2
2790.0	1720.648	991.169	761.557	153.565	206.280	3833.219	55.112	44.9	25.9	19.9	4.0	5.4
2820.0	660.854	433.734	354.830	74.507	121.413	1645.338	59.835	40.2	26.4	21.6	4.5	7.4
2839.0	757.051	328.509	256.120	60.607	80.148	1482.435	48.932	51.1	22.2	17.3	4.1	5.4
2850.0	2182.554	510.130	245.563	62.210	80.802	3081.258	29.167	70.8	16.6	8.0	2.0	2.6
2872.0	3991.098	627.284	278.794	51.433	48.727	4997.336	20.135	79.9	12.6	5.6	1.0	1.0
2880.0	241.543	46.073	29.694	6.321	8.841	332.471	27.349	72.7	13.9	8.9	1.9	2.7
2910.0	396.109	140.663	86.426	13.589	22.786	659.573	39.945	60.1	21.3	13.1	2.1	3.5
2911.0	2718.841	452.724	185.463	30.695	29.929	3417.651	20.447	79.6	13.2	5.4	0.9	0.9
2940.0	424.515	138.804	132.606	27.344	45.300	768.570	44.766	55.2	18.1	17.3	3.6	5.9
2941.0	2797.339	441.356	173.367	23.599	24.794	3460.455	19.163	80.8	12.8	5.0	0.7	0.7
2970.0	2879.999	742.235	326.715	62.895	54.309	4066.153	29.171	70.8	18.3	8.0	1.5	1.3
2971.0	17697.408	823.836	364.324	54.858	48.323	18988.750	6.801	93.2	4.3	1.9	0.3	0.3
~~2971.0~~	~~1256.326~~	~~252.139~~	~~83.735~~	~~11.389~~	~~15.323~~	~~2067.662~~	~~8.026~~	~~6.1~~	~~12.2~~	~~4.0~~	~~0.1~~	~~0.1~~
3000.0	1123.156	244.978	84.141	12.928	16.214	1481.417	24.184	75.8	16.5	5.7	0.9	1.1
3030.0	54156.543	3740.319	618.330	71.392	55.520	58642.103	7.649	92.4	6.4	1.1	0.1	0.1
3060.0	59740.773	4094.109	815.920	117.751	87.450	64856.002	7.887	92.1	6.3	1.3	0.2	0.1
3108.0	85280.753	1599.868	304.610	44.990	39.304	87269.525	2.279	97.7	1.8	0.3	0.1	0.0
3120.0	59069.398	3672.817	844.837	177.456	98.914	63863.423	7.507	92.5	5.8	1.3	0.3	0.2
3150.0	78891.296	5272.781	1232.082	237.918	150.288	85784.365	8.035	92.0	6.1	1.4	0.3	0.2
3180.0	14514.513	1330.130	306.858	54.736	38.293	16244.531	10.650	89.4	8.2	1.9	0.3	0.2
3210.0	8746.235	741.704	151.835	37.658	23.037	9700.470	9.837	90.2	7.6	1.6	0.4	0.2
3240.0	10434.420	1467.179	538.808	239.213	116.389	12796.010	18.456	81.5	11.5	4.2	1.9	0.9
3270.0	8264.869	995.696	359.851	188.100	69.470	9867.986	16.246	83.8	10.0	3.6	1.9	0.7
3300.0	9040.923	1066.651	297.088	100.201	43.952	10548.815	14.294	85.7	10.1	2.8	0.9	0.4
3330.0	3972.155	975.099	471.234	114.751	64.126	5597.364	29.035	71.0	17.4	8.4	2.1	1.1

Values shown as zero are too small for inclusion in computation

3360.0	6852.398	1233.651	641.946	192.991	107.471	9028.457	24.102	75.9	13.7	7.1	2.1	1.2

APPENDIX 7

APPENDIX 7

WEEKLY WELL SUMMARY

OMEO NO. 1

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: .....OMEO NO. 1..... REPORT NO.: .....1.....

PERIOD: FROM: .1ST.NOVEMBER,.1982..... TO: ..4TH.NOVEMBER,.1982.....

All depths relate to Rotary Kelly Bushings at zero tide-datum (Low Water Indian Springs) which is ..93.... metres above seabed.
NOTE: WATER DEPTH: 63M RKB: SEALEVEL: 30M
WELL SPUDDED 2200 HRS 2ND NOVEMBER 1982.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	
	DEPTH (m)	N/A	220	270	--	--	
CASING	SIZE	N/A	20"	13 3/8"	9 5/8"	7"	
	DEPTH (m)	N/A	210	--	--	--	
DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS				
1.11.82	--	--	DEPART EDN 1 LOCATION 2100 HRS. MOVE TO OME1. DROP NO.9 ANCHOR AT 2240 HRS, NO.4 AT 2245HRS. NO.3 AT 2330 HRS.				
2.11.82	148M	55M 2HRS.	RUN & ANCHORS. POSITION & DEBALLAST RIG. TENSION ANCHORS. RUN GUIDE BASE. RIH 26" BHA. SPUD WELL AT 2200 HRS. DRILL 26" HOLE.				
3.11.82	220M	72M 3HRS.	DRILL 26" HOLE. WIPER TRIP. POOH. RUN 20" CSG. CEMENT W/1700 SAX CLASS 'G' + 2% $CACL_2$. AVERAGE SLURRY WEIGHT S.G. 1.87. DISPLACE WITH MUD S.G. 1.50 FLOAT HELD. POOH R/TOOL. RIG TO RUN BOP (PREVIOUSLY TESTED ON TEST STUMP TO 7500 PSI). DIVERS FOUND TRACES CEMENT ON SEABED (NOTE. CEMENTED W/225% EXCESS) DEVIATION ½DEG/ 220M				
4.11.82	270M	50M 2½HRS.	RUN BOP STACK, TESTING C & K LINES 5000 PSI. LAND & LATCH BOP. TEST 20" CASING TO 500 PSI. TEST BOP STACK 2500 PSI. RIH 17½" BHA. TOC 203M. DRILL OUT CEMENT & SHOE. DRILL 20M OF NEW HOLE. PERFORM LOT. DENSITY EQUIVALENT 1.08 S.G. DRILL 17½" HOLE. MUD S.G. 1.09 VIS: 36 YP: 8 WL: 15				

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 PERIOD: FROM: 1.11.82 TO: 4.11.82

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring	23	23
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time	8	8
F2	Trips for new bit	4	4
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.	2½	2½
F4	Casing and Cementing	37½	37½
G:	FORMATION SURVEYS		
G1	Coring		
G2	Related Coring Operations, incl. tripping etc.		
G3	Tests and associated operations		
G4	Electric Logging Operations		
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations		
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs		
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests		
C2	Abandonment of Well		
C3	WOW during completion, plugging, testing		
C4	Other Waiting time		
	TOTAL TIME:	75	75

DOWN TIME: HOURS NIL PERCENTAGE

[redacted]

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
1	SAS656	SMI	DGJ	3x24	93	220	127	5	25.4	2-2-I 26"
		NOTE -	BIT NO. 1 EX	EDINA NO. 1	TOTAL DRILLED		TOTAL HOUSE:			
2	XA7181	SMI	DSJ	3x18	220	270	50	3	16.67	DRILLING 17½"

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"		72000	72000		$CACL_2$		550	550	
BARYTES		47184	47184						
BENTONITE		16631	16631						
CAUSTIC		610	610						
SODA ASH		850	850						
LIME		195	195						
Q.BROXIN		75	75						
CMC HV		250	250						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: OMEO NO. 1 ..... REPORT NO.: 2

PERIOD: FROM: 5TH NOVEMBER, 1982 ..... TO: 11TH NOVEMBER, 1982

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is 93 ... metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	
	DEPTH (m)	N/A	220	1320			
CASING	SIZE	N/A	20"	13-3/8"			
	DEPTH (m)	N/A	210	1310			

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
5-11-82	719	449m 19hrs	Drill, Survey, Wiper trip, drill. Deviation = ½ deg/518m. Mud-SG = 1.10, VIS = 35, YP = 13 WL = 19, Test Degasser, Function Auto Choke.
6-11-82	897m	178m 16hrs	Drill to 851m. Change bit (survey missrun). Drill. Mud-SG = 1.10, Vis = 35 YP = 20 WL=15.
7-11-82	1098m	201m 19hrs	Drill to 994m. Wiper trip. Drill. wiper trip Hole sticky in spots. Mud-SG = 1.15, Vis = 38, YP = 24, WL = 15
8-11-82	1320m	222m 17hrs	Drill to 1221m. Wiper trip. Drill to 1320m Survey, POOH to shoe. Deviation = ½ deg/1320m Mud-SG = 1.14, Vis = 44, YP = 24, WL = 14.6
9-11-82	1320m	-	Wiper trip. Circulate. POOH. Run electric logs: ISF-SLS-GR and IDL-GR-CAL. Make up 13-3/8" hanger. RIH to control hole. Mud-SG = 1.14, Vis = 44, YP = 21, WL = 15.6
10-11-82	1320m	-	Circulate - POOH - Run and cement 13-3/8" casing - shoe at 1310m
11-11-82	1320m	-	Complete displacing cement. Run seal assy. Run Temperature survey top of cement in annulus at 825m. Test BOP's - RIH tag cement at 1272m.

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 ..... PERIOD: FROM: 5-11-82 ..... TO: 11-11-82.....

TIME ANALYSIS (HOURS)	FOR WEEK	TOTAL
D: MOVING		
D1 Moving of rig, rigging up/down, anchoring		23
D2 Waiting on weather during moving		
D3 Other waiting time		
F: DRILLING - CASING		
F1 Drilling on bottom, incl. connection time	71	79
F2 Trips for new bit	5	9
F3 Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.	15	17½
F4 Casing and Cementing	61½	99
G: FORMATION SURVEYS		
G1 Coring		
G2 Related Coring Operations, incl. tripping etc.		
G3 Tests and associated operations		
G4 Electric Logging Operations	15½	15½
A: INTERRUPTION OF OPERATIONS UNDER F OR G		
A1 Stuck Pipe and Fishing Operations		
A2 Mud-Losses, Flows, Treatment		
A3 Waiting on Weather		
A4 Other waiting time - Repairs		
C: COMPLETION - PLUGGING		
C1 Completion, Stimulation, Production Tests		
C2 Abandonment of Well		
C3 WOW during completion, plugging, testing		
C4 Other Waiting time		
TOTAL TIME:	168	243

DOWN TIME: HOURS PERCENTAGE

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

KLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
2	XA181	SMI	DSJ	18-18-18	220	851	631	33	19.12	2 - 7 - IN
3	303SR	HUG	OSC3AJ	18-18-18	851	1320	469	41	11.43	3 - 7 - IN
5R(EDN)	XA194	SMI	DSJ	18-18-18	RA					

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"		77,000	149,000		$CACL^2$			550	
BARYTES		13,328	60,512						
BENTONITE		21,318	37,949						
CAUSTIC		1,910	2,520						
SODA ASH		2,910	3,760						
CMC HV		500	750						
Q. BROXIN		775	850						
DEXTRID		4,723	4,723						
CONDET	LITRE	410	410						
PAC-R		950	950						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: OMEO NO. 1 REPORT NO.: 3

PERIOD: FROM: 12TH NOVEMBER, 1982 TO: 18TH NOVEMBER, 1982

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is 93 metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	
	DEPTH (m)		220	1320	2259		
CASING	SIZE		20"	13-3/8"			
	DEPTH (m)		210	1310			
DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS				
12-11-82	1572	252m 13½hrs	Drill cement out, drill to 1330m. Leak off test: equivalent SG = 1.74 - Drill 12¼" to 1572m - Kill and Choke lines plugged - Attempt to clear with 8 to 10,000 PSI no success - Mud SG = 1.07, Vis = 44, YP = 18, WL = 6.8					
13-11-82	1572	-	Survey, POOH, set and test cement plug 1210 - 1150m. Pull BOP, repair to choke and kill valves					
14-11-82	1572	-	Repair C&K fail safe valves, run and land BOP's. Test valves & BOP. Drill out cement plug. RIH reaming tight spots.					
15-11-82	1901	329m 16½hrs	Drill, wiper trip, survey, drill Deviation at 1847m = 3/4°. Mud SG = 1.13, Vis = 45, YP = 23, WL = 4.5					
16-11-82	2020	119m 8½hrs	Drill, POOH for DP pressure loss. Change bit. RIH, wash and ream. Drill. Mud SG = 1.17, Vis = 50, YP = 25, WL = 4.2					
17-11-82	2135	115m 14hrs	Drill to 2028, POOH for DP pressure loss. Change bit (washout centre nozzle) - RIH ream and Drill. Mud SG = 1.14, Vis = 50, YP = 18, WL = 4.0					
18-11-82	2259	124m 17½hrs	Drill to 2200, Wiper trip to 2020, Drill to 2259, Wiper trip to casing shoe. Mud SG = 1.14 Vis = 50, YP = 20, WL = 3.8					

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 PERIOD: FROM: 12-11-82 TO: 18-11-82

TIME ANALYSIS (HOURS)	FOR WEEK	TOTAL
D: MOVING		
D1 Moving of rig, rigging up/down, anchoring		23
D2 Waiting on weather during moving		
D3 Other waiting time		
F: DRILLING - CASING		
F1 Drilling on bottom, incl. connection time	70	149
F2 Trips for new bit	2	11
F3 Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.	18	35½
F4 Casing and Cementing	7½	106½
G: FORMATION SURVEYS		
G1 Coring		
G2 Related Coring Operations, incl. tripping etc.		
G3 Tests and associated operations		
G4 Electric Logging Operations		
A: INTERRUPTION OF OPERATIONS UNDER F OR G		
A1 Stuck Pipe and Fishing Operations		
A2 Mud-Losses, Flows, Treatment		
A3 Waiting on Weather		
A4 Other waiting time - Repairs	70½	86
C: COMPLETION - PLUGGING		
C1 Completion, Stimulation, Production Tests		
C2 Abandonment of Well		
C3 WOW during completion, plugging, testing		
C4 Other Waiting time		
TOTAL TIME:	168	411

DOWN TIME: HOURS PERCENTAGE

[redacted]

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
5	CH3774	SMI	SDS	12,12,12,8	1320	1572	252	13½	18.66	2 - 2 - I
6	CH3645	SMI	SDS	12,12,12,8	1572	2003	431	23	22.36	2 - 2 - I
7	CH3410	SMI	SDS	12,12,12,8	2003	2028	25	2½	10	CENTRE NOZZLE WASHEDOUT 1 - 1 - I
8	CD9044	SMI	SDS	13,13,13	2028	2259	231	31	7.45	IN HOLE

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"		6,000	155,000		SOLTEX		2,383	2.383	
BARYTES		50,849	111,361		SOD. NITRATE		200	200	
BENTONITE		--	37,949						
CAUSTIC		2,790	5,310						
SODA ASH		920	4,680						
CMC HV		--	750						
Q.BROXIN		50	900						
DEXTRID		9,873	14,596						
CONDET	(L)	820	1,230						
PAC-R		2,325	3,275						
BICARB		920	920						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: .....OMEO.NO..1..... REPORT NO.: .....4.....

PERIOD: FROM: .19TH.NOVEMBER,.1982..... TO: ..25TH.NOVEMBER,.1982.....

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is ..93.... metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	
	DEPTH (m)	NA	220	1320	2542	--	
CASING	SIZE	NA	20"	13 3/8"	9 5/8"	7"	
	DEPTH (m)	NA	210	1310	--	--	

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
19.11.82	2348M	29M 13½HRS.	DRILL TO 2348M. CIRCULATE SAMPLE. SURVEY. POOH. RIH CORE BARREL. DEVIATION: 1 DEG/2348. MUD - S.G.: 1.14 VIS: 46 YP: 18 WL: 3.9
20.11.82	2366M	18M 3HRS.	RIH. CUT CORE NO. 1 POOH. RECOVER CORE - 80%. RIH BIT. HELD UP AT 2209M. PIPE BACKED OFF ABOVE UPPER STABILISER. POOH. MUD S.G.: 1.14 VIS: 45 YP: 20 WL: 4
21.11.82	2366M	0M	POOH. LEFT 28.6M FISH IN HOLE. RIH OVERSHOT. WASH & PUSH FISH. WORK OVER FISH. POOH - NO RECOVERY. REDRESS OVERSHOT. RIH. ENGAGE FISH UNLATCHED FROM OVERSHOT. POOH. MUD S.G.: 1.14 VIS: 45 YP: 21 WL: 3.8
22.11.82	2366M	0M	POOH OVERSHOT. RIH OPEN END 7 3/4" D/C. PUSH FISH 2268-2308M. SCREW INTO FISH. CIRCULATE. POOH. RIH NEW BIT. REAM 2261-2348M. OPEN CORE HOLE . MUD S.G.: 1.16 VIS: 40 YP: 20 WL: 3.5
23.11.82	2436M	70M 21HRS.	OPEN 8½" CORE HOLE TO 12¼". DRILL 12¼" HOLE MUD S.G.: 1.14 VIS: 44 YP: 16 WL: 3.5
24.11.82	2518M	82M 23HRS.	DRILL TO 2440M. 6 STANDS WIPER TRIP. HOLE GOOD. DRILL TO 2518M. MUD S.G.: 1.14 VIS: 55 YP: 25 WL: 3.6
25.11.82	2542M	24M 6½HRS.	DRILL TO 2522M. POOH. TEST BOP STACK 5000 PSI. RIH. DRILL TO 2542M. DEVIATION: 3DEG/2521M MUD S.G.: 1.15 VIS: 47 YP: 15 WL: 4.2

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 PERIOD: FROM: 19.11.1982 TO: 25.11.1982

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring		23
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time	64	213
F2	Trips for new bit	10	21
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.	10	45½
F4	Casing and Cementing		106½
G:	FORMATION SURVEYS		
G1	Coring	3	3
G2	Related Coring Operations, incl. tripping etc.	39	39
G3	Tests and associated operations		
G4	Electric Logging Operations		
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations	42	42
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs		86
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests		
C2	Abandonment of Well		
C3	WOW during completion, plugging, testing		
C4	Other Waiting time		
	TOTAL TIME:	168	579

DOWN TIME: HOURS PERCENTAGE

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION	
8	CD9044	SMI	SDS	3 x 13	2028	2348	320	44½	7.19	7-5-0 5/8	12¼"
1KR	82B0932	CHRIS	RC4	CORE BIT	2348	2366	18	3	6		8½"
9	948497	REED	HS51	3 x 13	2366	2366	FISH.1 CONE LOCKED. BENT LEGS. PINCHED				12¼"
10	33971	REED	HS51	3 x 13	2348	2366	18	6	REAM CORE	HOLE	12¼"
10	33971	REED	HS51	3 x 13	2366	2522	156	47	3.32	7-8-0 3/8"	12¼"
11	BZ1154	SMI	F2	3 x 13	2522	--	20	3	6.67	IN HOLE	

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"	KG	--	155,000		SOLTEX	KG	--	2,383	
BARYTES	KG	62,001	173,362		SOD.NIT.	"	2,050	2,250	
BENTONITE	KG	--	37,949		W-300	LIT.	205	205	
CAUSTIC	KG	2,460	7,770						
SODA ASH.	KG	400	5,080						
CMC HV	KG	--	750						
Q.BROXIN	KG	375	1,275						
DEXTRID	KG	7,496	22,092						
CONDET	LIT	205	1,435						
PAC-R	KG	1,300	4,575						
SOD. BICARB	KG	1,300	920						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: OMEO NO. 1 REPORT NO.: 5

PERIOD: FROM: 26TH NOVEMBER, 1982 TO: 2ND DECEMBER, 1982

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is 93M metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	
	DEPTH (m)	NA	220	1320	2984	--	
CASING	SIZE	NA	20"	13 3/8"	9 5/8"	7"	
	DEPTH (m)	NA	210	1310	--	--	

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
26.11.82	2623M	81M 23 HRS.	DRILL 12¼" HOLE MUD S.G.: 1.15 VIS: 52 YP: 23 WL: 3.6
27.11.82	2648M	25M 6 HRS.	DRILL TO 2623M. PRESSURE LOSS. POOH. WASHOUT IN 7 3/4" D/C. RIH. DRILL 12¼" HOLE. MUD SG: 1.15 VIS: 52 YP: 28 WL: 3.6
28.11.82	2741M	93M 20½HRS.	CIRCULATE. SURVEY. WIPER TRIP. RETRIEVE SURVEY. DRILL WITH HIGH TORQUE. DEVIATION: 2 DEG/2648M. MUD SG: 1.14 VIS: 54 YP: 25 WL: 4.2
29.11.82	2799M	58M 20 HRS.	DRILL 12¼" HOLE. CIRCULATE SURVEY. POOH. DEVIATION: 2 DEG/2798M. MUD SG: 1.15 VIS: 56 YP: 25 WL: 4.1
30.11.82	2871M	72M 16½HRS.	POOH. CHANGE BIT. RIH. DRILL 12¼" HOLE. CIRCULATE SAMPLE AT 2852M. DRILL. MUD SG: 1.15 VIS: 47 YP: 21 WL: 4.2
1.12.82	2950M	79M 22 HRS.	DRILL TO 2950M. LOW ROP & TORQUE. POOH. DEVIATION: 2 3/4DEG/2950M. MUD SG: 1.16 VIS: 55 YP: 26 WL: 3.9
2.12.82	2984M	34M 10½HRS.	POOH. CHANGE BIT, + BHA. RIH. REAM 2943-2950M. DRILL. CIRCULATE SAMPLE AT 2959M. MUD SG: 1.15 VIS: 50 YP: 20 WL: 4.5

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 PERIOD: FROM: 26.11.82 TO: 2.12.82

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring		23
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time	119	332
F2	Trips for new bit	35	56
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.	11	56½
F4	Casing and Cementing		106½
G:	FORMATION SURVEYS		
G1	Coring		3
G2	Related Coring Operations, incl. tripping etc.	3	42
G3	Tests and associated operations		
G4	Electric Logging Operations		
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations		42
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs		86
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests		
C2	Abandonment of Well		
C3	WOW during completion, plugging, testing		
C4	Other Waiting time		
	TOTAL TIME:	168	747

DOWN TIME: HOURS PERCENTAGE

AU[redacted]LIA[redacted]QUI[redacted]E P[redacted]ROLEU[redacted]TY. [redacted]TD.

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
11	BZ1154	SMI	F2	3x13	2522	2623	101	26½	3.81	2-2-0 1/16 12¼
										POOH FOR WASHOUT
12	320SK	HTC	J22	3x13	2623	2799	176	48	3.67	6-8- 03/8 12¼
13	695FL	HTC	J22	2x12 1x13	2799	2950	151	38½	3.92	8-8- 0:2" 12¼"
14	BT4323	SMI	F3	2x12 1x13	2950	2984	34	10½	3.24	DRILLING 12¼"

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"	KG	--	155,000		SOLTEX	KG	--	2,383	
BARYTES	KG	27,190	200,552		SOD.NIT.	KG	100	2,350	
BENTONITE	KG	--	37,949		W-300	LIT	--	205	
CAUSTIC	KG	1,260	9,030						
SODA ASH	KG	880	5,960						
CMC HV	KG	--	750						
Q.BROXIN	KG	--	1,275						
DEXTRID	KG	4,000	26,492						
CONDET	LIT	--	1,435						
PAC-R	KG	1,725	4,575						
SOD. BICARB	KG	--	920						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: OMEO NO. 1 ..... REPORT NO.: 6 .....

PERIOD: FROM: 3RD DECEMBER, 1982 ..... TO: 9TH DECEMBER, 1982 .....

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is ...93... metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	
	DEPTH (m)	NA	220	1320	2686		
CASING	SIZE	NA	20"	13-3/8"	9-5/8"	7"	
	DEPTH (m)	NA	210	1310			

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
3-12-82	2985m	1m ½hr	Drill to 2985m. Lost 500psi. POOH. 7-3/4" DC washed out. Run Schlumberger logs. Run 1. DLL/MSFL/GR/SP/CAL. 1310m/2983m. Run 2. LDL/CNL/GR/CAL. 1310m/2983m. Run 3. BHC SONIC/GR. 1310m/2983m RIH bit to clean well.
4-12-82	2985m	-	RIH. Circulate and clean well. POOH. Run RFT. 17 pressure tests OK 7 negative. Take formation samples at 2849.8m. Run RFT No. 2
5-12-82	2985m	-	Run RFT. Take formation sample. Run RFT No. 3 Take samples at 2936.5m RFT tool stuck. Wire-line spear. Top fish at 2953m.
6-12-82	2985m	-	RIH Tristate wireline spear. POOH. Recover 6.5 m of Schlumberger cable (parted at weak point at top of RFT). RIH with Bowen Overshot. Work over RFT at 2960m. Pressure increase. POOH, pipe full. At 13-3/8" shoe, overpull 50,000lbs POOH. 10½" oversize guide on overshot stripped at threads. Left in hole oversize guide, cont-rol grapple, lower part spiral grapple and RFT. RIH Taper Tap.
7-12-82	2985m	-	RIH Taper Tap. Tag fish at 2959m. Work tap to 2968m.POOH. No recovery. RIH Bowen overshot. Work on top of fish. POOH. No recovery. RIH 12¼" bit to control hole.

8-12-82	2985m PBD 2680	-	Circulate and condition mud at 2960m. POOH RIH open end pipe. Cement Plug No. 1, 2958m/ 2810m. 430 sax class 'G' Cement Plug No. 2, 2780m/2680m. 273 sax Class 'G'. POOH.
9-12-82	2686m	6m ½hr	Test BOP stack. Rams 5000psi, Hydril 2500psi RIH 12¼" bit. Top cement at 2680m. Drill cement to 2686m (firm). POOH performing multi -shot survey. Drift direction 2 deg S56W. RIH Dyna Drill.

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 PERIOD: FROM: 3-12-82 TO: 9-12-82

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring		23
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time	½	332½
F2	Trips for new bit		56
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.		
F4	Casing and Cementing		106½
G:	FORMATION SURVEYS		
G1	Coring		3
G2	Related Coring Operations, incl. tripping etc.		42
G3	Tests and associated operations		
G4	Electric Logging Operations	61½	77
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations	106	148
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs		70½
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests		
C2	Abandonment of Well		
C3	WOW during completion, plugging, testing		
C4	Other Waiting time		
	TOTAL TIME:	168	915

DOWN TIME: HOURS PERCENTAGE

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WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
14	BT4323	SMI	F3	2x13 1x13	2950	2985	35	11	3.18	1-1-I 12¼"
15	CB7277	SMI	SDS	3x14	2680	2686	6	½	12	DRILL CEMENT PLUG IN 12¼"
16	108897	SEC	M4LG		RIH FOR SIDETRACK					

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"	KG	31,000	186,000		SOLTEX	KG	--	2,383	
BARYTES	KG	17,765	218,317		SOD.NIT.	KG	150	2,500	
BENTONITE	KG		37,949		W-300	LIT	--	205	
CAUSTIC	KG	210	9,240						
SODA ASH	KG	320	6,280						
CMC HV	KG	--	750						
Q.BROXIN	KG	--	1,275						
DEXTRID	KG	250	26,742						
CONDET	LIT	--	1,435						
PAC-R	KG	500	5,075						
SOD. BICARB	KG	200	1,120						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD:

WEEKLY WELL SUMMARY

WELL NAME: OMEO NO. 1 REPORT NO.: 7

PERIOD: FROM: 10TH DECEMBER, 1982 TO: 16TH DECEMBER, 1982

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is 93 metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	
	DEPTH (m)	N/A	220	1320	2660	PBD	
CASING	SIZE	N/A	20"	13 3/8"	9 5/8"	7"	
	DEPTH (m)	N/A	210	1310	--	--	

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
10.12.82	2749M SIDETRACK HOLE	63M 10HRS.	RIH DYNA DRILL TO 2677M. REAM TO 2686M. DRILL WITH DYNA DRILL TAKING SURVEYS TO 2749M. CEMENT IN RETURNS.
11.12.82	2759M SIDETRACK HOLE	10M 2HRS.	CHANGE BIT ON DYNA DRILL. REAM BACK TO 2749M. DRILL 12¼" HOLE. 55% CEMENT 45% FORMATION. SURVEY TOOL STUCK IN PIPE. SANDLINE PARTED. POOH. PIPE STUCK 2706/2696M. JAR FREE. POH.
12.12.82	2759M	--	POOH. CHANGE OUT SANDLINE. RIH DYNA DRILL WITH 2 DEGREE BENT SUB. REAM 2676/2679M. ORIENT TOOL REAM 2679M/2683M.
13.12.82	2782M	23M 4HRS.	REAM 2684/2740M. ORIENT TOOL. REAM 2750/2759M. DYNA DRILL TO 2769M. SURVEY. DYNA DRILL TO 2780M BROKE THRU TO OLD HOLE BETWEEN CEMENT PLUGS. POOH. PIPE STUCK AT 2392 + 1688M. RIH OPEN END D/P.
14.12.82	2660M	--	RIH OPEN END D/P. SET CEMENT PLUG 2760/2660M. 273 SAX CLASS 'G' PLUS 1 TONNE SAND. POOH TO 2657M. REVERSE CIRCULATE. POOH. RIH 12¼" BIT. REAM FROM 1619M TO 1788M.
15.12.82	2660M	--	REAM WITH DIFFICULTY 1768M/2120M. OVERPULL ON CONNECTIONS. WIPER TRIP TO 1580M. OVERPULL 15/125000 LBS. FROM 2110/1640M. RIH. STOOD UP 1690M. RIH. REREAM 2101/2111M.
16.12.82	2660M	--	REAM 2111/2139M, WITH DIFFICULTY. POOH TO 13 3/8 SHOE. AWU CREW MEMBERS TO SALE FOR UNION MEETING RETURNED AT 1500HRS. CHANGE BIT. RIH TO 2130M, REAM 2130/2140M. MUD SG: 1.20 VIS: 55 WL: 4 YP: 32 PV: 24.

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: .....OMEO NO. 1..... PERIOD: FROM: ...10.12.82..... TO: ...16.12.82.....

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring		23
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time		332½
F2	Trips for new bit		56
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.		56½
F4	Casing and Cementing		106½
G:	FORMATION SURVEYS		
G1	Coring		3
G2	Related Coring Operations, incl. tripping etc.		42
G3	Tests and associated operations		
G4	Electric Logging Operations		77
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations	147½	295½
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs	20½	91
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests		
C2	Abandonment of Well		
C3	WOW during completion, plugging, testing		
C4	Other Waiting time		
	TOTAL TIME:	168	1083

DOWN TIME: HOURS PERCENTAGE

[redacted] AUSTRALIAN [redacted] PETROLEUM PTY LTD [redacted]

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
16	108897	SEC	M4LG	OUT	2686	2749	63	10	6.3	PLUS DYNA DRILL
17	SW343	HTC	X3A	OUT	2749	2759	10	2	5	" " "
18	CD831	SMI	SDS	OUT	2759	2782	23	4	5.75	" " "

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"	KG	12000	198000		SOLTEX	KG	750	3133	
BARYTES	KG	18208	236525		SOD. NIT.	KG	800	3300	
BENTONITE	KG	2045	39994		W-300	LIT	--	205	
CAUSTIC	KG	350	9590		STARLOSS	KG	2225	2225	
SODA ASH	KG	800	7080						
CMC HV	KG	--	750						
Q.BROXIN	KG	--	1275						
DEXTRID	KG	2314	29506						
CONDET	LIT	--	1435						
PAC-R	KG	2063	7138						
SODA BICARB	KG	960	2080						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: OEMO NO. 1 ..... REPORT NO.: 8 .....

PERIOD: FROM: 17TH DECEMBER, 1982. ..... TO: 23RD DECEMBER, 1982. .....

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is 93 metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	
	DEPTH (m)	NA	220	1320	2674		
CASING	SIZE	NA	20"	13-3/8"	9-5/8"		
	DEPTH (m)	NA	210	1310	2606		
DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS				
17-12-82	2666m	6m ½ hr	Ream from 2140 to 2660m. Hole free 2204/2346, 2355/2511, 2536/2578. Drill cement plug from 2660/2666m. Wiper trip to 1580m. RIH to 2579m wash + ream to 2666m. POOH. Mud SG = 1.20 Vis = 58 WL = 4 YP = 35 PV = 28				
18-12-82	2666m	-	POOH. RIH with stabilised BHA (stabs at 10m + 30m above bit). Two tight spots at 1650 + 1945 m. Circulate at 2666m.POOH. 75/120000 lbs overpull from 2002/1640m. RIH Tight at 1820m. Ream 1820/2044m. High torque, firm reaming, difficult to make connections. Mud-SG = 1.21 Vis = 62 WL = 3.5 YP = 40 PV = 30.				
19-12-82	2666m	-	Ream from 2044/2666m. Hole free 2083/2112, 2179/2409, 2429/2457, 2472/2547. Reaming very difficult due to high torque + collapsing hole. Mud-SG=1.19 Vis=60 WL=3.4 YP=40 PV=28				
20-12-82	2666m	-	Circulate at 2666m. POOH lsowly, Tight spot at 1898m. POOH to 13 3/8" shoe. RIH. Work thru 1446/1474m, 2439/2454m, 2477/2501m, 2638/2666m. Circulate. POOH. No overpull RIH kick off assy.				
21-12-82	2674m	8m 7hrs	RIH. Start side track at 2666m. Drill with Dyna Drill to 2674m. POOH. RIH bit to control hole for 9 5/8" casing. Mud-SG = 1.19, Vis = 60 WL = 3.4 YP = 36 PV = 25				
22-12-82	2674m	-	RIH, to 2661m. Circulate. POOH. Rig and run 9-5/8" casing.				
23-12-82	2674m	-	Run 9 5/8" casing. 214 jts, 47lb/ft, N80. Shoe 2606.61m. Cement with 92T class G. Displace. Set + Test Seal Assembly + Bop Stack. Run temperature log. Top cement at 2179m. Run Wear Bushing.				

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OEMO NO. 1 PERIOD: FROM: 17-12-82 TO: 23-12-82

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring		23
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time		332½
F2	Trips for new bit		56
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.		56½
F4	Casing and Cementing		106½
G:	FORMATION SURVEYS		
G1	Coring		3
G2	Related Coring Operations, incl. tripping etc.		42
G3	Tests and associated operations		
G4	Electric Logging Operations		77
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations	167	462½
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs	1	92
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests		
C2	Abandonment of Well		
C3	WOW during completion, plugging, testing		
C4	Other Waiting time		
	TOTAL TIME:	168	1251

DOWN TIME: HOURS PERCENTAGE

[redacted]

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
19	HS522	HTC	JD3	3 x 14	DRILL 6m	CMT. REAM	687m in	44		1 - 2 - I 12¼
20	CB6084	SMI	SDS	2x14 1xOUT	2666	2674	8	7	1.14	PLUS DYNA DRILL

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"	KG	92000	290000		SOLTEX	KG	3200	6333	
BARYTES	"	20999	257524		SOD NIT	"	250	3550	
BENTONITE	"	4039	44033		W - 300	LIT	-	205	
CAUSTIC	"	1400	10990		STARLOSE	KG	1839	4064	
SODA ASH	"	240	7320						
CMC HV	"	-	750						
Q. BROXIN	"	-	1275						
DEXTRID	"	1430	30936						
CONDET	LIT	-	1435						
PAC-R	KG	1700	8838						
SOD BICARB	"	380	2460						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: OMEO NO. 1 ..... REPORT NO.: 9

PERIOD: FROM: 24TH DECEMBER, 1982 ..... TO: 30TH DECEMBER, 1982.....

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is 93 metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	
	DEPTH (m)	NA	220	1320	2674	2869	
CASING	SIZE	NA	20"	13-3/8"	9-5/8"		
	DEPTH (m)	NA	210	1310	2606		

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
24-12-82	2674m	-	RIH bit (8½") Drill float collar cement + shoe. Wash to 2674m. Perform FPT - Density Eqv:1.44 SG. POOH. RIH Posi Drill to shoe. Wash to 2670m Posi Drill plugged. POOH. Mud-SG = 1.19, Vis = 51, PV = 24, YP = 28, WL = 3.6
25-12-82	2687m	13m 11hrs	RIH new Posi Drill with 2 deg bent sub. Orientate tool. Drill 8½" side track hole. Survey No.1 = 2638m. 2½ deg S63W. Mud-SG = 1.19, Vis = 50/73, PV = 27, YP = 14, WL = 6.
26-12-82	2700m	13m 9½hrs	Drill 8½" side track with Posi Drill. Hole packing off on survey. POOH. Change bit. RIH. Survey No. 2 = 2676m. 1 3/4 deg S45W. Mud-SG = 1.19, Vis = 52/73, PV = 27, YP = 14, WL = 6.
27-12-82	2709m	9m 9hrs	Drill 8½" side track with Posi Drill. Survey. POOH. Lay down kick off assembly. Make up + RIH with packed hole drilling assembly. Ream 2684/2709. Survey. Tight hole. POOH to shoe, retrieve survey. Survey No.3 = 2686m 1 deg S50W Survey No.4 = 2695m. 0 deg. Mud-SG = 1.19, Vis = 50/52, PV = 24, YP = 13, WL = 6.2.
28-12-82	2770m	61m 16½hrs	Drill to 2728m. Survey. Hole packed off. Drill to 2756m Survey. Drill to 2770m. Survey No. 5 = 2710m. 1 3/4 deg N12E. Survey No.6 = 2744m 1 3/4 deg N1E. Mud-SG = 1.19, Vis = 53/57, PV = 25, YP = 17, WL = 5.8.
29-12-82	2804m	34m 8½hrs	Survey. Drill to 2804m. Survey. POOH. Retrieve Survey at shoe. POOH. Change bit. RIH. Survey No.7 = 2761m 1 3/4 deg N05W. Survey No. 8 = 2791m 1 deg N02W. Mud-SG = 1.19, Vis = 53/60, PV = 30, YP = 20, WL = 6.2.
30-12-82	2869m	65m 19 hrs	RIH. Drill 8½" hole to 2850m. Survey. Retrieve at 9-5/8" shoe. Ream from 2829m. Free stuck pipe. REam. Drill. Survey No. 9 = 2837m. 1 deg N08E. Mud-SG = 1.19, Vis = 64/68, PV = 29, YP = 24, WL = 5.2

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 ..... PERIOD: FROM: 24-12-82 ..... TO: 30-12-82 .....

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring		23
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time	53½	386
F2	Trips for new bit	28	84
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.	26	82½
F4	Casing and Cementing		106½
G:	FORMATION SURVEYS		
G1	Coring		3
G2	Related Coring Operations, incl. tripping etc.		42
G3	Tests and associated operations		
G4	Electric Logging Operations		77
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations	57½	520
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs	3	95
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests		
C2	Abandonment of Well		
C3	WOW during completion, plugging, testing		
C4	Other Waiting time		
	TOTAL TIME:	168	1419

DOWN TIME: HOURS PERCENTAGE

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
21	CC9527	SMI	SDS	3 x 12	2581	2674	93	3	DRILL CMT	2 - 8 - 0 8½"
22	CH0306	SMI	SDS	OUT	2674	2700	26	21	PLUS POSI DRILL	6 - 4 - 0¼ 8½"
23	BP6095	SMI	SDGH	OUT	2700	2709	9	9½	PLUS POSI DRILL	8 - 8 - 0½ 8½"
24	XA8788	SMI	F3	3 x 12	2709	2804	95	25	3.8	3 - 5 - 0½" 8½"
25	XA8888	SMI	F3	3 x 12	2804	2869	65	19	3.42	DRILL 8½"

MUD . PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"	KG	-	290000		SOLTEX	KG	825	7158	
BARYTES	"	39520	297044		SOD NIT.	"	150	3700	
BENTONITE	"	17611	61644		W - 300	LIT	-	205	
CAUSTIC	"	210	11200		STARLOSE	KG	-	4064	
SODA ASH	"	560	7880		LIME	"	100	295	
CMC HV	"	875	1625						
Q. BROXIN	"	975	2250						
DEXTRID	"	-	30936						
CONDET	LIT	-	1435						
PAC - R	KG	50	8888						
SOD. BICARB	"	80	2540						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: .....OMEO NO. 1..... REPORT NO.: .....10.....

PERIOD: FROM: ....31ST DECEMBER, 1982..... TO: .....6TH JANUARY, 1983...

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is ..93.... metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	
	DEPTH (m)	NA	220	1320	2674	2985	
CASING	SIZE	NA	20"	13 3/8"	9 5/8"	7"	
	DEPTH (m)	NA	210	1310	2606	2499 2984	

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
31.12.82	2917M	48M 9 HRS.	DRILL 8½" IN SIDETRACK. REAM CONNECTIONS. POOH OVERPULL 30/60,000LBS 2888/2795. TEST BOP. RIH. SURVEY NO. 10: 1 DEG N53E MUD S.G.: 1.19 VIS: 60/64 PV: 31 YP: 20 WL:5.8
1.1.83	2984.5M	67.5M 19HRS.	RIH. TEST SURFACE EQUIPMENT 5,000PSI. DRILL 8½" HOLE. OVERPULL 20,000lbs ON CONNECTIONS. MUD S.G.: 1.19 VIS: 60/70 PV: 28 YP: 24 WL: 5.2
2.1.83	2985M	0.5M ½HR.	DRILL TO 2985M. SURVEY. POOH TO 9 5/8" SHOE. OVERPULL 15/35,000LBS. RIH. CIRCULATE. POOH. RUN LOG ISF/SP/MSFL/CNL/GR/CAL., 2604/2984M. RIH BIT. CONDITION HOLE. SURVEY NO. 11: 1 DEG N73E MUD SG: 1.20 VIS: 60/70 PV: 29 YP: 22 WL: 5.4
3.1.83	2985M	--	POOH. OVERPULL 30,000LBS, 2835M. RUN 40 JTS. 7" 26LB/FT, N80, BTC, CASING AS LINER PLUS TIW HYDRO HANGER. SHOE AT 2984M. TOP TIE BACK SLEEVE AT 2499M. CIRCULATE. SET HANGER. START CEMENT - DELIVERY LINE PLUGGED. CIRCULATE. MUD SG: 1.19 VIS: 65 PV: 28 YP: 25 WL: 5.5
4.1.83	2985M	--	CEMENT 7" LINER WITH 18 TONNES CLASS 'G' - S.G. 1.90. DISPLACE & BUMP PLUG TO 3,000 PSI. REVERSE CIRCULATE. RECOVER 4M3 CEMENT SLURRY. SET PACKER (UNCERTAIN IF SET). POOH LINER RUNNING TOOL. LAY DOWN 8½" BHA. PULL BOP STACK.
5.1.83	2985M	--	CHANGE LOWER PIPE RAMS TO 3½". REPAIR KILL LINE VALVES. TEST RAMS TO 7,500PSI, HYDRIL 3500PSI. RIG TO RUN BOP & RISER.
6.1.83	2985M	--	RUN BOP, & LAND ON WELLHEAD. TEST 5" & 3½" RAMS 5000PSI, HYDRIL 3500PSI. LEAK IN UPPER COLLET CONNECTOR. TOOK 48 GALS INSTEAD OF 8 GALS TO OPEN COLLET. PULL UPPER RISER PACKAGE.

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: ...OMEO NO. 1..... PERIOD: FROM: ...31.12.82..... TO: ...6.1.83.....

TIME ANALYSIS (HOURS)	FOR WEEK	TOTAL
D: MOVING		
D1 Moving of rig, rigging up/down, anchoring		23
D2 Waiting on weather during moving		
D3 Other waiting time		
F: DRILLING - CASING		
F1 Drilling on bottom, incl. connection time	29	415
F2 Trips for new bit	9½	93½
F3 Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.	9	91½
F4 Casing and Cementing	85	191½
G: FORMATION SURVEYS		
G1 Coring		3
G2 Related Coring Operations, incl. tripping etc.		42
G3 Tests and associated operations		
G4 Electric Logging Operations	17	94
A: INTERRUPTION OF OPERATIONS UNDER F OR G		
A1 Stuck Pipe and Fishing Operations	3½	523½
A2 Mud-Losses, Flows, Treatment		
A3 Waiting on Weather		
A4 Other waiting time - Repairs	15	110
C: COMPLETION - PLUGGING		
C1 Completion, Stimulation, Production Tests		
C2 Abandonment of Well		
C3 WOW during completion, plugging, testing		
C4 Other Waiting time		
TOTAL TIME:	168	1587

DOWN TIME: HOURS PERCENTAGE

[redacted]

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
25	XA8888	SMI	F3	3x12	2804	2917	113	28	4.04	7-3-0⅛ 8½"
26	XA8889	SMI	F3	3x14	2917	2985	68	20	3.40	6-6-0¼ 8½"
27	CE2649	SMI	SVH	OUT		CONDITION HOLE	FOR 7" LINER			1-1-I 8½"

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION WEEK	CONSUMPTION CUMULATIVE	STOCK	CHEMICAL	UNIT KG	CONSUMPTION WEEK	CONSUMPTION CUMULATIVE	STOCK
CEMENT "G"	KG	18,000	308,000		SOLTEX	KG	400	7,558	
BARYTES	KG	17,000	314,244		SOD.NIT.	KG	300	4,000	
BENTONITE	KG	--	61,644		W-300	LIT	--	205	
CAUSTIC	KG	--	11,200		STARLOSE	KG	953	5,017	
SODA ASH	KG	--	7,880		LIME	KG	--	295	
CMC HV	KG	425	2,050		AL STEARATE	KG	38	38	
Q.BROXIN	KG	225	2,475						
DEXTRID	KG	--	30,936						
CONDET	LIT.	--	1,435						
PAC-R	KG	--	8,888						
SOD. BICARB	KG	120	2,6[illegible]						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: ....OMEO NO. 1..... REPORT NO.: .....11.....

PERIOD: FROM: ..7TH JANUARY, 1982..... TO: ....13TH JANUARY, 1982....

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is ..93.... metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	6"
	DEPTH (m)	NA	220	1320	2674	2985	3032
CASING	SIZE	NA	20"	13 3/8"	9 5/8"	7"	
	DEPTH (m)	NA	210	1310	2606	2499 2984	

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
7.1.83	2985M	--	REPAIR HYDRAULIC SYSTEM IN UPPER COLLET CONNECTOR. RUN LMR PACKAGE. TEST C & K LINES 5000 PSI. LAY DOWN EXCESS 5" DRILL PIPE.
8.1.83	2989M	--	LAY DOWN 5" PIPE. PICK UP 3½" PIPE, + BHA. RIH 6" MILL. BALANCE OUT MUD SYSTEM, LOWER MUD WEIGHT FROM 1.19 TO 1.10 SG. MILL PLUGS AND LANDING COLLAR FROM 2948M.
9.1.83	2989M	4M 3HRS.	MILL OUT CEMENT & SHOE. DRILL WITH 6" MILL FROM 2985/2987. FPT-1.75 SG EQV. POOH. CHANGE BIT + BHA. RIH F3, 6". DRILL TO 2989M. NOTE: 5 3/4 STABS AT 1M, 10M + 30M ABOVE BIT. MUD SG: 1.11 VIS: 50/52 PV: 20 YP: 22 WL: 6.8
10.1.83	2997M	8M 12HRS.	DRILL TO 2994M. POOH. RIH WITH DIAMOND BIT & NAVI-DRILL TURBINE. DRILL 6" HOLE 2994/2997M. PENETRATION DROPPED TO ZERO. MUD SG: 1.10 VIS: 50/65 PV: 20 YP: 15 WL: 5.8
11.1.83	3012.5M	15.5M 7HRS.	DP PRESSURE INCREASE, POOH, NAVI-DRILL STATOR FAILURE, LAID DOWN, RIH WITH STRATAPAX DRILL BIT - DRILL - POOH. MUD SG: 1.10 VIS: 50/57 PV: 15 YP: 12 WL: 5.4
12.1.83	3018M	5.5M 6HRS.	POOH, MAKE UP BIT + BHA, RIH, DRILL TO 3018, POOH FOR BIT, PULL WEAR BUSHING TEST BOPs, C&K LINES TO 5000PSI, HYDRIL TO 3000PSI. RUN WEAR BUSHING. RIH. MUD SG: 1.09 VIS: 54 PV: 20 YP: 15 WL: 5.4
13.1.83	3032M	14M 12½HRS.	RIH, WASH AND REAM 3003-3018, DRILL, CIRCULATE BOTTOM-UP AFTER DRILL BREAK, DRILL, CIRCULATE, DROP SURVEY, DEVIATION 2 3/4" AT 3032M. POOH. MUD SG: 1.1 VIS: 47/53 PV: 14 YP: 16 WL: 5.3

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 PERIOD: FROM: 7.1.83 TO: 13.1.83

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring		23
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time	41	456
F2	Trips for new bit	53	146½
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.	45	136½
F4	Casing and Cementing	10½	202
G:	FORMATION SURVEYS		
G1	Coring		3
G2	Related Coring Operations, incl. tripping etc.		42
G3	Tests and associated operations		
G4	Electric Logging Operations		94
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations		523½
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs	18½	128½
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests		
C2	Abandonment of Well		
C3	WOW during completion, plugging, testing		
C4	Other Waiting time		
	TOTAL TIME:	168	1755

DOWN TIME: HOURS PERCENTAGE

[redacted]

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
28	E24G5	SERVCO	MILL	--	2948	2984	36	9½	3.78	MILL OUT 7" 6"
28	"	"	"	--	2985	2987	2	1½	1.33	90% WORN 6"
29	CL8796	SMI	F3	3x9	2987	2994.5	7.5	11½	0.65	3-4-0 1/8" 6"
30	82B0610	CHRIS	MD331		2994.5	2997	2.5	4	0.63	100% OK
31		CHRIS	R26	--	2997	3012.5	15.5	7	2.21	100% WORN OUT.
30R	82B0610	CHRIS	MD331	--	3012.5	3018	5.5	6	0.91	100% WORN OUT
32	CL9546	SMI	F3	3x9	3018	3032	14	12½	1.27	2-2-1/8

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"	KG	--	308,000		SOLTEX	KG	--	7,558	
BARYTES	KG	17,920	332,164		SOD. NIT.	KG	150	4,150	
BENTONITE	KG	11,074	72,718		W300	KG	--	205	
CAUSTIC	KG	350	11,550		STARLOSE	KG	2,247	7,264	
SODA ASH	KG	440	8,320		LIME	KG	--	295	
CMC HV	KG	550	2,600		AL STEARATE	KG	--	38	
Q.BROXIN	KG	682	3,157						
DEXTRID	KG	--	30,936						
CONDET	KG	--	1,435						
PAC-R	KG	--	8,888						
SODA BICARB	KG	1,240	3,900						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: OMEO NO. 1 REPORT NO.: 12

PERIOD: FROM: 14TH JANUARY, 1982 TO: 20TH JANUARY, 1982

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is .93M.... metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	6"
	DEPTH (m)	NA	220	1320	2674	2985	3191
CASING	SIZE	NA	20"	13 3/8"	9 5/8"	7"	
	DEPTH (m)	NA	210	1310	2606	2499 2984	

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
14.1.83	3040M	8M 3HRS.	POOH. RIH 4 3/4" CORE BBL. CUT CORE 3032/3040M. POOH. RECOVER CORE. RIH 6" BIT. WASH & REAM. MUD SG: 1.10 VIS: 52/58 YP: 17 PV: 18 WL: 5.2
15.1.83	3082M	42M 18HRS.	WASH & REAM 3029/3040M. DRILL 6" HOLE. CIRCULATE DRILLING BREAK AT 3076M. DRILL. MUD SG:1.09 VIS: 46/52 YP: 15 PV: 13 WL: 4.9
16.1.83	3115M	33M 13HRS.	DRILL TO 3091M. CIRCULATE SAMPLE. DRILL TO 3115M. POOH. DEVIATION: 3115M/6 DEG (OR MISSRUN MUD SG: 1.09 VIS: 45/49 YP: 15 PV: 14 WL: 4.9
17.1.83	3152M	37M 9HRS.	RIH. DRILL TO 3138M. AWU MEMBERS ON RIG ATTEND AWU MEETING IN SALE. CIRCULATE AT 7" SHOE (10HRS) DRILL TO 3143M. CIRCULATE SAMPLE. DRILL. MUD SG: 1.09 VIS: 48/54 YP: 15 PV: 14 WL: 5
18.1.83	3173M	21M 13HRS.	DRILL. CIRCULATE DRILG. BREAK 3152/3154M. DRILL TO 3173M. CIRCULATE. WIPER TRIP TO 7" SHOE. CIRCULATE. POOH FOR ELECTRIC LOGS. MUD SG: 1.10 VIS: 46/52 YP: 15 PV: 15 WL: 5
19.1.83	3173M	NIL	POOH. RUN SCHLUMBERGER LOGS. DLL/MSFL/SONIC/GR 3172/2984M. LDL/CNL/GR 3172/2984M. CBL/VDL 2984/2498M. VELOCITY SURVEY.
20.1.83	3193M	18M 7HRS.	SCHLUMBERGER LOG HDT. RIH 6" BIT. CIRCULATE TRIP GAS 2.5% C1, 0.07% C2, 0.02% C3, TRACE C4. WAIT ON ORDERS. VDME INSPECT LOGS. DRILL 6" HOLE. MUD SG: 1.10 VIS: 47/50 YP: 14 PV: 16 WL: 5

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 ..... PERIOD: FROM: 14.1.83 ..... TO: 20.1.83 .....

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring		23
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time	60½	516½
F2	Trips for new bit	15½	162
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.	16½	153
F4	Casing and Cementing		202
G:	FORMATION SURVEYS		
G1	Coring	3	6
G2	Related Coring Operations, incl. tripping etc.	12½	54½
G3	Tests and associated operations		
G4	Electric Logging Operations	48½	142½
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations		523½
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs	11½	140
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests		
C2	Abandonment of Well		
C3	WOW during completion, plugging, testing		
C4	Other Waiting time		
	TOTAL TIME:	168	1923

DOWN TIME: HOURS PERCENTAGE

[redacted]

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
33	82E0115	CHRIS	C-20	CORE BIT	3032	3040	8	3	2.67	60% 5 31/32"
34	BN7427	SMI	F3	3x9	3040	3115	75	31½	2.38	2-4-0 1/8"
35	CL7267	SMI	F3	3x9	3115	3173	58	22	2.64	3-4-I 6"
36	CN0154	SMI	F3	3x9	3173	3191	18	7	2.57	DRILL 6"

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"	KG	--	308,000		SOLTEX	KG	--	7,558	
BARYTES	KG	10,908	343,072		SOD.NIT.	KG	--	4,150	
BENTONITE	KG	1,455	74,173		W-300	LIT.	--	205	
CAUSTIC	KG	70	11,620		STARLOSE	KG	--	7,264	
SODA ASH	KG	360	8,860		LIME	KG		295	
CMC HV	KG	875	3,475		AL STEARATE	KG	25	63	
Q.BROXIN	KG	100	3,257						
DEXTRID	KG	--	30,936						
CONDET	LIT	--	1,435						
PAC-R	KG	200	9,088						
SODA BICARB	KG	--	3,900						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: OMEO NO. 1 ..... REPORT NO.: 13

PERIOD: FROM: 21ST JANUARY, 1983 ..... TO: 27TH JANUARY, 1983

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is .93..... metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	6"
	DEPTH (m)	NA	220	1320	2674	2985	3379
CASING	SIZE	NA	20"	13 3/8"	9 5/8"	7"	--
	DEPTH (m)	NA	210	1310	2606	2499 2984	--

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
21.1.83	3218M	27M 22HRS.	DRILL FROM 3191/3218M. POOH FOR BIT CHANGE. MUD SG: 1.09 VIS: 47/51 PV: 16 YP: 14 WL: 4.8
22.1.83	3250M	32M 15HRS.	POOH. CHANGE BIT. RIH. DRILL TO 3250M. TRIP GAS 10 MINUTES, MUD WEIGHT DOWN TO 1.06 SG. MUD SG: 1.09 VIS: 46/51 PV: 16 YP: 16 WL: 4.9
23.1.83	3312M	62M 21HRS.	DRILL TO 3278M WITH FLOW CHECK AT 3271M. CIRCULATE TO INVESTIGATE MUD WEIGHT LOSS PROBLEM. CHECK CHROMO. DRILL TO 3312M. MUD SG: 1.11/1.08 VIS: 44/50 PV: 16 YP: 16 WL: 4.8
24.1.83	3353M	41M 13½HRS.	DRILL TO 3324M. TIGHT SPOTS. WIPER TRIP TO 7" SHOE. DRILL TO -353M. EVACUATE GAS - 5.2%. CIRCULATE. PIPE STUCK. OVERPULL TO 34TONNES. WORK FREE. POOH. TEST BOP STACK. MUD SG: 1.11 VIS: 42/47 PV: 14 YP: 15 WL: 4.9
25.1.83	3379M	26M 6½HRS.	TEST BOP STACK 5000PSI. RIH. REAM 3312/3353M. HOLE PACKING OFF. TIGHT. DRILL 6" HOLE TO 3359 GAS 18%. DRILL TO 3379M. GAS TO 25%. FLOW CHECK SLIGHT FLOW. SHUT IN WELL. SIDPP 40PSI, SICP 120PSI. TRY TO HANG OFF. PIPE STUCK. BIT AT 3365M SIDPP 500PSI. MUD SG: 1.13 VIS: 44/47 PV: 16 YP: 14 WL: 5
26.1.83	3379M	NIL	PIPE STUCK. UNABLE TO CIRCULATE. OPEN ANNULAR PREVENTER. ANNULUS STABLE. SIDPP ROSE TO 1140 PSI. JAR PIPE. SIDPP TO 1500PSI. PUMP 27M3 SG: 1.50 MUD DOWN PIPE. PUMPING PRESSURE 3000 PSI. STABILIZED AT 2,000PSI AFTER PUMPING. JAR ON PIPE. BLEED OFF DRILL PIPE IN 3MIN INCREMENT BLEED 8M3 PIPE PRESSURE 190PSI. SHUT IN. PRESSURE ROSE TO 475PSI. SLIGHT FLOW IN ANNULUS. OPEN DRILL PIPE. FLOWED 1.5M3 PER HOUR. JAR PIPE. PIPE CAME FREE WITH 65TONNES OVERPULL. POOH TO 3352M. BIT PLUGGED. REGAIN CIRCULATION

			CIRCULATE AND BUILD WEIGHT FROM 1.13SG. TO 1.22SG. NOTE: JARRED WITH EARTHQUAKER JARS 243 TIMES. MUD SG: 1.20/1.22 IN VIS: 44/52 PV: 20 1.00/1.20 OUT YP: 18 WL: 5.5
27.1.83	3379M	NIL	WORK PIPE WHILE CIRCULATING. GAS ON 1ST CIRCULATION 20%, EVACUATE 12.7M3 FORMATION FLUID (PH: 6 CHLORATE: 9600PPM, GOLD FLUO) 2ND CIRCULATION 7%, 3RD 11-14%, 4TH 0.1% WITH 1.28 SG MUD. POOH. CHECK BHA. BY STRING INSPECTION PIPE WAS STUCK AT 3333M. MUD SG: 1.28/1.28 VIS: 45/54 PV: 26 YP: 16 WL: 4.6

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 PERIOD: FROM: 21.1.83 TO: 27.1.83

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring		23
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time	78	594½
F2	Trips for new bit	21	183
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.	19½	172½
F4	Casing and Cementing		202
G:	FORMATION SURVEYS		
G1	Coring		6
G2	Related Coring Operations, incl. tripping etc.		54½
G3	Tests and associated operations		
G4	Electric Logging Operations	9½	152
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations	40	563½
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs		140
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests		
C2	Abandonment of Well		
C3	WOW during completion, plugging, testing		
C4	Other Waiting time		
	TOTAL TIME:	168	2091

DOWN TIME: HOURS PERCENTAGE

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION
36	CN0154	SMI	F3	3x9	3173	3218	45	29	1.55	4-4-0 1/8" 6"
37	BN7421	SMI	F3	3x9	3218	3353	135	49½	2.73	3-6-0 1/8" 6"
38	AT6654	SMI	F3	3x15						

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"	KG	--	308000		SOLTEX	KG	3477	11035	
BARYTES	KG	66338	409410		SOD.NIT.	KG	--	4150	
BENTONITE	KG	4092	78265		W-300	LIT.	--	205	
CAUSTIC	KG	770	12390		STARLOSE	KG	--	7264	
SOD. ASH	KG	440	9300		LIME	KG	--	295	
CMC HV	KG	291	3548						
DEXTRID	KG	--	30936						
CONDET	LIT	--	1435						
PAC-R	KG	575	9663						
SOD. BICARB	KG	--	3900						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY

WELL NAME: OMEO NO. 1 REPORT NO.: 14

PERIOD: FROM: 28TH JANUARY, 1983 TO: 3RD FEBRUARY, 1983

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is 93M metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	6"
	DEPTH (m)	NA	220	1320	2674	2985	3379
CASING	SIZE	NA	20"	13 3/8"	9 5/8"	7"	2950PBTD
	DEPTH (m)	NA	210	1310	2606	2499 2984	

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
28.1.83	3379M	NIL	RIH BIT. REAM 3322 TO 3379M. CIRCULATE. TRIP GAS 21%. WIPER TRIP TO 7" SHOE. RIH TO BOTTOM. TRIP GAS 23%. POOH. MUD SG: 1.29 VIS: 52/61 PV: 25 YP: 20 WL: 4.8
29.1.83	3379M	NIL	RUN SCHLUMBERGER LOGS. BHC/GR, DLL/MSFL,LDL/CNL/GR. RIH BIT. CIRCULATE. TRIP GAS 42%. POOH. BHT 275 DEG F. MUD SG: 1.29 VIS: 51/61 PV: 26 YP: 19 WL: 5
30.1.83	3379M	NIL	RUN SCHLUMBERGER HDT. LEFT ONE PAD FROM TOOL IN HOLE. RIH BIT. TOOK WEIGHT 3369 & 3375M. RIH TO 3378M. TRIP GAS AFTER 10 MINS. CIRCULATION 22% FOR 1 3/4 HRS. POOH. RUN SCHLUMBERGER CST (2 MISRUNS). MUD SG: 1.29 VIS: 54/60 PV: 25 YP: 20 WL: 5.2
31.1.83	3379M	NIL	SERVICE CST TOOL & RERUN. 21 SHOTS, 18 MISSFIRES, 3 SHOTS RECOVERED (3361, 3365,3376M). RIH BIT CIRCULATE AT 3330M (12M BELOW GEOLOGICAL FAULT) TRIP GAS 24%, 1½ HRS. RIH TO 3378M. CIRCULATE. TRIP GAS 20%, 1¼ HRS. POOH. RUN RFT. SIX PRESSURES AT 3077, 3096, 3104, 3126.5, 3147.5M AND SAMPLE AT 3125M. RFT TOOL STUCK AT 3125M. ATTEMPT TO FREE TOOL. MUD SG: 1.29 VIS: 58 PV: 27 YP: 25 WL: 4.8
1.2.83	3379M		PART SCHLUMBERGER LINE AT WEAK POINT ON RFT TOOL. RIH OVERSHOT AND RECOVER TOOL. RIH OPEN END DRILL PIPE. CIRCULATE (24% GAS). CEMENT NO. 1 3349/3280M. 1.7 TONNES "G" CEMENT.
2.2.83	2950M PBTD		CEMENT PLUG NO. 2 3220/3045M. 4 TONNES "G". CEMENT PLUG NO. 3 3030/2950M. 1.75 TONNES "G" POOH. RIH 6" BIT + 7" SCRAPER. CIRCULATE & CONDITION MUD.

3.2.83	2950M PBTD	CIRCULATION & CONDITION MUD TO SG 1.10. TEST 9 5/8" + 7" CASING & CEMENT PLUG 3,000PSI. POOH TEST BOPS. RIG UP FLOPETROL EZ TREE FOR DUMMY RUN.

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 PERIOD: FROM: 28.1.83 TO: 3.2.83

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring		23
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time		594½
F2	Trips for new bit		183
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.		172½
F4	Casing and Cementing		202
G:	FORMATION SURVEYS		
G1	Coring		6
G2	Related Coring Operations, incl. tripping etc.		54½
G3	Tests and associated operations		
G4	Electric Logging Operations	109	261
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations		563½
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs		140
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests	48	48
C2	Abandonment of Well	11	11
C3	WOW during completion, plugging, testing		
C4	Other Waiting time		
	TOTAL TIME:	168	2259

DOWN TIME: HOURS PERCENTAGE

[redacted]

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"		7750	315750		SOLTEX		1121	12156	
BARYTES		24998	434408		SOD.NIT.		--	4150	
BENTONITE		12634	90899		W-300		--	205	
CAUSTIC		700	13090		STARLOSE		--	7264	
SODA ASH		520	9820		LIME		--	295	
CMC HV		775	4323		AL STEARATE		75	138	
DEXTRID		--	30936		MONPAC		150	150	
CONDET	LIT.	--	1435						
PAC-R		125	9788						
SODA BICARB		--	3900						
Q.BROXIN		472	3729						

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

WEEKLY WELL SUMMARY - FINAL

WELL NAME: OMEO NO. 1 ..... REPORT NO.: 15

PERIOD: FROM: 4TH FEBRUARY, 1983 ..... TO: 10TH FEBRUARY, 1983

All depths relate to Rotary Kelly Bushings at zero tide datum (Low Water Indian Springs) which is 93M..... metres above seabed.

HOLE	SIZE	36"	26"	17½"	12¼"	8½"	6"
	DEPTH (m)	NA	220	1320	2674	2985	3379
CASING	SIZE	NA	20"	13 3/8"	9 5/8"	7"	
	DEPTH (m)	NA	210	1310	2606	2499 2984	

DATE	DEPTH AT 2400 HRS.	PROGRESS	REMARKS
4.2.83	2950M	P.B.D.	DUMMY RUN WITH EZ SSTT. RIH OPEN END PIPE TO 2779M. PERFORATE 7" CASING 2932-3939 AND 2981-2925M, 4 SLOTS PER FOOT. POOH. PICK UP, MAKE UP & RIH HALLIBURTON TEST TOOLS.
5.2.83	2950M	P.B.D.	RIH TEST TOOLS. WATER CUSHION 1600M. TEST EACH JOINT PIPE TO 5000PSI. LAND SSTT IN WELLHEAD. TEST SURFACE EQUIPMENT TO 5000PSI. SET PACKER AT 2886 M. OPEN TEST TOOL. FLOW WELL FOR 4½HRS. NO RECOVERY AT SURFACE. SHUT IN WELL FOR BUILD UP.
6.2.83	2880M	P.B.D.	WELL SHUT IN FOR BUILD UP. REVERSE CIRCULATE. SQUEEZE 1M^3 TO FORMATION AT 1000PSI. POOH WITH TEST TOOLS. RIH OPEN END PIPE TO 2950M. CEMENT PLUG NO. 4 2950-2880M, 42 SAX (1.75T) CLASS "G".
7.2.83	200M	P.B.D.	CEMENT PLUG NO. 5 2530-2440M, 87 SAX (3.6T) CLASS "G". REVERSE CIRCULATE AT 2425M. LAY DOWN DRILL PIPE. TEST PLUG NO. 5 1000PSI. CUT 9 5/8" CASING AT 260M (RKB). RECOVER 9 5/8" CEMENT PLUG NO. 6 290-200M, 214SAX (10T). SQUEEZE 2M^3 CEMENT INTO 9 5/8" x 13 3/8" ANNULUS.
8.2.83	130M	P.B.D.	SQUEEZE CEMENT TO 9 5/8" x 13 3/8". WOC WITH 900PSI BACK PRESSURE. CUT 13 3/8" CASING AT 175M. RECOVER 13 3/8". SQUEEZE 2M^3 CEMENT (61 SAX "G") AT 170M TO 13 3/8" x 20" ANNULUS. RIH TO 200M. CEMENT PLUG NO. 7 200-130M 302SAX (12.6T). REVERSE CIRCULATE AT 130M. PULL & SECURE BOP. MAKE UP 20" CUTTING ASSEMBLY.
9.2.83	91M	SEABED	CUT 20" CASING 16M BELOW TOP OF PILE JOINT. RECOVER 20", + WELLHEAD ASSEMBLY. DIVERS INSPECT SEABED. DEBALLAST RIG. PULL ANCHORS 7,6,1,10,4, 8,3, and 4.

AUSTRALIAN AQUITAINE PETROLEUM PTY. LTD.

TIME SUMMARY

WELL NAME: OMEO NO. 1 ..... PERIOD: FROM: 4.2.83 ..... TO: 10.2.83 .....

TIME ANALYSIS (HOURS)		FOR WEEK	TOTAL
D:	MOVING		
D1	Moving of rig, rigging up/down, anchoring	20½	20½
D2	Waiting on weather during moving		
D3	Other waiting time		
F:	DRILLING - CASING		
F1	Drilling on bottom, incl. connection time		594½
F2	Trips for new bit		183
F3	Ancillary Drilling Operations, incl. Totco, reaming, hole cleaning, testing BOP or casing.		172½
F4	Casing and Cementing		202
G:	FORMATION SURVEYS		
G1	Coring		6
G2	Related Coring Operations, incl. tripping etc.		54½
G3	Tests and associated operations		261
G4	Electric Logging Operations		
A:	INTERRUPTION OF OPERATIONS UNDER F OR G		
A1	Stuck Pipe and Fishing Operations		563½
A2	Mud-Losses, Flows, Treatment		
A3	Waiting on Weather		
A4	Other waiting time - Repairs		140
C:	COMPLETION - PLUGGING		
C1	Completion, Stimulation, Production Tests	66	114
C2	Abandonment of Well	59	70
C3	WOW during completion, plugging, testing	1½	1½
C4	Other Waiting time	3½	3½
	TOTAL TIME:	150½	2409½

DOWN TIME: HOURS PERCENTAGE

10.2.83	--	--	PULL ANCHORS 2, 5 & 9. LAYD JANE NO. 4, SEA SAPPHIRE ON NO. 3 FOR STATIC TOW. RIG RELEASED FROM OMEO NO. 1 AT 0630HRS. 10TH FEBRUARY, 1983.

WEEKLY SUMMARY - BITS AND MUD

BIT AND CORE RECORD

BIT NO.	SERIAL NO.	MAKE	TYPE	NOZZLES	FROM	TO	METRES	HOURS	m/h	CONDITION

MUD PRODUCT

CHEMICAL	UNIT KG	CONSUMPTION		STOCK	CHEMICAL	UNIT KG	CONSUMPTION		STOCK
		WEEK	CUMULATIVE				WEEK	CUMULATIVE	
CEMENT "G"	KG	35000	350750		SOLTEX	KG	--	12156	
BARYTES	KG	--	434408		SOD.NIT.	KG	--	4150	
BENTONITE	KG	1363	92262		W-300	LIT.	--	205	
CAUSTIC	KG	70	13160		STARLOSE	KG		7264	
SODA ASH	KG	40	9860		LIME	KG	--	295	
CMC HV	KG	--	4323		AL STEARATE	KG	--	138	
DEXTRID	KG	--	30936		MONPAC	KG	--	150	
CONDET	LIT	--	1435						
PAC-R	KG	25	9813						
SODA BICARB	KG	--	3900						
Q.BROXIN	KG	68	3797						

PE601317

This is an enclosure indicator page.
The enclosure PE601317 is enclosed within the container PE902613 at this location in this document.

The enclosure PE601317 has the following characteristics:

ITEM_BARCODE	= PE601317
CONTAINER_BARCODE	= PE902613
NAME	= Composite Well Log
BASIN	= GIPPSLAND
PERMIT	= VIC/P17
TYPE	= WELL
SUBTYPE	= COMPOSITE_LOG
DESCRIPTION	= Composite Well Log (enclosure from WCR) for Omeo-1
REMARKS	=
DATE_CREATED	= 31/05/83
DATE_RECEIVED	= 11/08/83
W_NO	= W788
WELL_NAME	= Omeo-1
CONTRACTOR	= Australian Aquitane Petroleum
CLIENT_OP_CO	= Australian Aquitane Petroleum

(Inserted by DNRE - Vic Govt Mines Dept)

PE601318

This is an enclosure indicator page.
The enclosure PE601318 is enclosed within the container PE902613 at this location in this document.

The enclosure PE601318 has the following characteristics:

ITEM_BARCODE	= PE601318
CONTAINER_BARCODE	= PE902613
NAME	= Master log Mud Log
BASIN	= GIPPSLAND
PERMIT	= VIC/P17
TYPE	= WELL
SUBTYPE	= MUD_LOG
DESCRIPTION	= Master log Mud Log (enclosure from WCR) for Omeo-1
REMARKS	=
DATE_CREATED	= 25/01/83
DATE_RECEIVED	= 11/08/83
W_NO	= W788
WELL_NAME	= Omeo-1
CONTRACTOR	= Geoservices
CLIENT_OP_CO	= Australian Aquitane Petroleum

(Inserted by DNRE - Vic Govt Mines Dept)

PE902614

This is an enclosure indicator page.
The enclosure PE902614 is enclosed within the container PE902613 at this location in this document.

The enclosure PE902614 has the following characteristics:

ITEM_BARCODE	= PE902614
CONTAINER_BARCODE	= PE902613
NAME	= GA81-33 Seismic Survey
BASIN	= GIPPSLAND
PERMIT	= VIC/P17
TYPE	= SEISMIC
SUBTYPE	= SECTION
DESCRIPTION	= GA81-33 Seismic Survey, Final Stack Air Gun, (enclosure from WCR) for Omeo-1
REMARKS	=
DATE_CREATED	= 31/01/82
DATE_RECEIVED	= 11/08/83
W_NO	= W788
WELL_NAME	= Omeo-1
CONTRACTOR	= Australian Aquitane Petroleum
CLIENT_OP_CO	= Australian Aquitane Petroleum

(Inserted by DNRE - Vic Govt Mines Dept)

PE902615

This is an enclosure indicator page.
The enclosure PE902615 is enclosed within the container PE902613 at this location in this document.

The enclosure PE902615 has the following characteristics:

ITEM_BARCODE	= PE902615
CONTAINER_BARCODE	= PE902613
NAME	= GA81-32 Seismic Survey
BASIN	= GIPPSLAND
PERMIT	= VIC/P17
TYPE	= SEISMIC
SUBTYPE	= SECTION
DESCRIPTION	= GA81-32 Seismic Survey (enclosure from WCR) for Omeo-1
REMARKS	=
DATE_CREATED	= 31/01/82
DATE_RECEIVED	= 11/08/83
W_NO	= W788
WELL_NAME	= Omeo-1
CONTRACTOR	= Australian Aquitane Petroleum
CLIENT_OP_CO	= Australian Aquitane Petroleum

(Inserted by DNRE - Vic Govt Mines Dept)

PE906843

This is an enclosure indicator page.
The enclosure PE906843 is enclosed within the container PE902613 at this location in this document.

The enclosure PE906843 has the following characteristics:

ITEM_BARCODE	= PE906843
CONTAINER_BARCODE	= PE902613
NAME	= Drilling Penetration Chart
BASIN	= GIPPSLAND
PERMIT	= VIC/P17
TYPE	= WELL
SUBTYPE	= DIAGRAM
DESCRIPTION	= Drilling Penetration Chart (enclosure from WCR) for Omeo-1
REMARKS	= Also has interpretive geology along one side of the chart
DATE_CREATED	=
DATE_RECEIVED	= 7/09/82
W_NO	= W788
WELL_NAME	= OMEO-1
CONTRACTOR	=
CLIENT_OP_CO	= AUSTRALIAN AQUATAINE PETROLEUM PTY LTD

(Inserted by DNRE - Vic Govt Mines Dept)

PE601319

This is an enclosure indicator page.
The enclosure PE601319 is enclosed within the container PE902613 at this location in this document.

The enclosure PE601319 has the following characteristics:

ITEM_BARCODE	= PE601319
CONTAINER_BARCODE	= PE902613
NAME	= Well Velocity Log & Calibrated Log Data
BASIN	= GIPPSLAND
PERMIT	= VIC/P17
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Well Velocity Log & Calibrated Log Data (enclosure from WCR) for Omeo-1
REMARKS	=
DATE_CREATED	= 19/01/83
DATE_RECEIVED	= 11/08/83
W_NO	= W788
WELL_NAME	= Omeo-1
CONTRACTOR	= Seismograph Service England Limited
CLIENT_OP_CO	= Australian Aquitane Petroleum

(Inserted by DNRE - Vic Govt Mines Dept)