599001

Farmout Package
T14 and 18P
Bass Basin Tasmania

Bass Strait Oil and Gas (Holdings) NL
Cue Minerals NL
Petrecon Australia Proprietary Limited

OR-0469

CONTENTS

599003

PETRECON AUSTRALIA PTY. LTD.

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Dear

Petrecon Australia Pty Ltd. has prepared a farmout package for permits T14P and T18P in the Bass Basin, offshore northern Tasmania on behalf of Cue Minerals N.L. (Cue) and Bass Strait Oil & Gas N.L. (B.S.O.G.) (Figure 1)

The basic statistics, interests and permit obligations are outlined below:

PERMIT T14P

Area:	2,730 sq km approx.
Water depth:	60-90 m
Distance from shore:	80-140 km
Date granted:	10th January, 1980
Expiry date:	9th January, 1986

Equity Interests

Cue Minerals N.L. (operator)	40%
Cue Petroleum Pty Ltd.	20%
Setright Oil & Gas Pty Ltd.	20%
Romsey Resources Pty Ltd.	10%
Galveston Mining Corp. Pty Ltd.	10%

Permit Commitments

	Permit Expenditure $	Work Programme
Year 1, Jan.1980-81	75,000	Preliminary investigation.
Year 2, Jan.1981-82	160,000	400 km seismic
Year 3, Jan.1982-83	2,200,000	1 well
Year 4, Jan.1983-84	250,000	250 km seismic & evaluation.
Year 5, Jan.1984-85	2,500,000	1 well
Year 6, Jan.1985-86	200,000	Assessment.
	5,385,000	

Year 1 and 2 commitments have been met by the BCS 81 seismic survey (550 km).

PERMIT T18P

Area:	7,690 sq km approx.
Water depth:	60-80 m
Distance from shore:	30-130 km
Date granted:	23rd July, 1980
Expiry date:	22nd July, 1986

Equity Interests

Bass Strait Oil & Gas N.L. (operator)	35%
Tasmanian Oil & Gas N.L.	32.5%
Hampton Oil & Gas Group Pty Ltd.	27.5%
Terrex Resources N.L.	5%

Permit Commitments

	Permit Expenditure $	Work Programme
Year 1, July 1980-81	205,000	250km seismic & evaluation
Year 2, July 1981-82	410,000	200km seismic + commence 1 well
Year 3, July 1982-83	2,000,000	Complete first well
Year 4, July 1983-84	3,000,000	250km seismic + well no. 2
Year 5, July 1984-85	2,700,000	Well no. 3
Year 6, July 1985-86	3,000,000	Well no. 4
	11,315,000	

Year 1 and 2 commitments have been met by the BBS 81 seismic survey (730 km).

Cue and B.S.O.G. are offering your company the opportunity to farmin on either or both permits. Cue and B.S.O.G. have the authority to negotiate on behalf of all parties in the permits. Each permit has a conventional Operating Agreement.

T14P The farminee will be required to undertake the commitments for years 3, 4, 5 and 6 and will be expected to operate the permit. On completion of the year 3 commitment well, the farminee will have earned a 40% net interest in the permit. The present permit holders will have the right to maintain, wholly or in part, a pro rata interest. On completion of the year 4 seismic commitment, the farminee's interest will increase to 45%; at the end of year 5, interest will increase to 75% and will reach a maximum of 80% at the completion of the permit term.

<u>T18P</u>: The Designated Authority for Tasmania has postponed the second year permit obligation and revised the third year obligation to allow the drilling of the first well at any time in the third year. The farminee will undertake the commitment for years 3, 4, 5 and 6 and will be expected to operate the permit. On the completion of the year 3 commitment well, the farminee will have earned a 30% net interest. The present permit holders will have the right to maintain, wholly or in part, a pro rata interest. Subsequent interest earnings on completion of the obligation work programmes will be 50% after the fourth year, 70% after the fifth and 80% after the sixth year.

The enclosure is a summary of the exploration status of the Bass Basin. Please contact us if you require further geological or seismic information.

Yours faithfully,

J.K.Davidson.
DIRECTOR.

599006

SUMMARY OF THE EXPLORATION STATUS OF THE FARMOUT AREAS, T14P AND T18P, BASS BASIN, TASMANIA.

Previous Exploration

In 1962, B.H.P. commenced the first regional seismic survey and to date fourteen seismic surveys, comprising some 16,000 km have been conducted in the Bass Basin. The most recent seismic work, the BCS 81 (T14P) and BBS 81 (T18P) surveys of 550km and 730km respectively, were shot by Cue Minerals N.L. and Bass Strait Oil & Gas N.L. in 1981. These surveys were of a regional nature and tied most of the wells in the basin. There is now a less than 4km grid seismic coverage, on average, over T14P and T18P.

Between 1965 and 1973, seventeen wells were drilled. Ten of the wells are located within the area now covered by T14P and T18P.

The seismic and drilling has provided considerable data concerning hydrocarbon potential of the basin. Fig. 1 is a location map and shows the generalised structure at the top of the main reservoir unit (Eastern View Group). The basin has a N.W. to N.N.W. orientation. The basin is bounded by basement (granitic) highs which separate it to the east, from the Gippsland Basin, and to the west, from the Otway Basin. Although these three basins have a similar stratigraphic history, differing structural and exploration histories must be invoked to account for the prolific oil and gas production in Gippsland, compared to the lack of success, to date, in Bass and Otway.

Hydrocarbon Shows

Although none of the Bass Basin wells has encountered commercial hydrocarbons, significant encouraging shows are ubiquitous. The major shows are depicted on the stratigraphic column, Fig. 2. All shows have occurred in the Paleocene-Eocene Eastern View Group. This sequence is equivalent to the Latrobe Group, the reservoir unit in Gippsland Basin.

In Cormorant -1, 22 litres of oil was recovered at 1550 metres from an Eocene sand, together with condensate recoveries deeper in the section. An F.I.T. at Bass -3 recovered 0.8 litres of condensate and 820 litres of gas from Paleocene sands at 2055 metres. This sample is equivalent and can be considered a light oil show with a G.O.R. of 1200. Gas and condensate shows and F.I.T. tests over the intervals 2468 metres to 3178 metres (T.D.) in Pelican -1, and 2773 metres to 3068 metres (T.D.) in Pelican -2. Recoveries included 3900 litres of gas and 0.6 litres condensate in Pelican -2 (2880 m). Sand quality was variable between the two wells but the in-place reserves are probably in excess of two trillion cu. ft. of gas plus 300 million bbls. of liquids. Although uncommmercial similar volumes of hydrocarbon in improved reservoirs rocks constitute a prime exploration target. Aroo -1, Dondu -1, Pelican -3 and Poonboon -1 wells have also recorded gas and condensate tests.

CONCLUSIONS

(a) Plays

The principle exploration target in Bass Basin has been the Upper Cretaceous to Eocene Top Eastern View Group, which is equivalent to the Latrobe Group clastic sequence in the Gippsland Basin. No hydrocarbons have been encountered at the Top Eastern View. Oil has been recovered from the sand prone Middle Eocene and gas and condensate (with large in place volumes) from the shale-prone Lower Eocene and Paleocene. The Base Tertiary play has received no attention by past explorers. With the very good potential for an Upper Cretaceous oil source as in Gippsland, this farmout package emphasises the Base Tertiary play which comprises Upper Cretaceous reservoir and source and Base Tertiary seal. Further in our opinion no well has tested a Top Eastern View (top porosity) closure.

(b) Structure

The basin is a structurally simple elongated depression with most wells having been located on normal fault blocks in the deeper parts of the basin. With two possible exceptions, no compressional features have been tested. We have mapped three compressional features in the southern part of T18P. These could be attractive as the Top Latrobe structural style is one of compressional anticlines.

(c) Reservoir

The Top Eastern View comprises high porosity, sands (high twenties) with net sand to gross section ranges from 40 to 90% and many sand bodies in excess of 100ft. The Lower Eocene and Paleocene is shale prone with considerable volumes of gas and condensate trapped in overpressured sands. This section appears to form a barrier to vertical migration of hydrocarbons to the top porosity near the basin deep. This is not the case nearer the margins where net sand increases to 30% and more above the Mid Paleocene. The Upper Cretaceous has only been encountered near the basin margins where it is sand prone. Porosities are commonly in excess of 20%.

(d) Seal/Source

The regional top porosity seal is the Eocene Demons Bluff which disconformally overlies the Eastern View. The Lower Paleocene is very shale prone and will seal the Upper Cretaceous over the greater part of the basin. The most prospective rocks, as in Gippsland, are the Upper Cretaceous. Three out of four core samples have been rated as good to very good oil sources. The Paleocene and Lower Eocene have proven potential for large volumes of gas and condensate while the Middle Eocene appears to have generated some oil and could have good potential if buried more deeply.

The most significant play area is the basin margin where heat flow is highest and the Upper Cretaceous idealy placed for maturation. No closures have been drilled in this area. We have mapped eight structures near the basin margin and more are likely as this previously neglected area is explored.

(e) Economics/Politics

Australia has a short fall in crude production of some 250,000 BOPD and which will increase to over 400,000 BOPD by 1990.

Oil receives world parity price and while the shortfall in production exists a market is assured for 100% of crude produced.

Gas condensate is sold on a free market and will generally attract a A$2 per BBL premium over crude.

LPG's are marginally restricted for export, the net result being that price received averages some 85% of world parity.

Ethane can be sold without restriction locally or overseas, noting there is no feedstock ethane market at present.

Natural gas throughout Australia is sold under arms length contracts, prices ranging from 30 cents to more than $3.50 per MCF. Although Tasmania is a small industrial market it is in need of base load electricity generation; a potentially large and easily serviced market.

Government royalties are 10% and there are no other relevant petroleum taxes or royalties.

Although Government policy is to limit foreign investment to 50% at the production stage there are many instances or production licences being granted with more than 50% foreign equity. (e.g.NW Shelf, Dongara, Woodada).

INTRODUCTION

The available well data in the Bass Basin has been studied in order to gain a prespective of the broad sedimentation and geochemical patterns prevailing in the basin during the Paleocene Eocene. Isopachs and net sand/gross section maps were prepared for three periods of time during the Paleocene-Eocene and were incorporated in interpreting the present day heat flow distribution. Regional cross-sections encompassing the wells in the basin have been combined with vitrinite reflectance and total organic carbon measurement in order to define the prospective regions within the basin. The features mapped in T14 and T18P are considered well located in the mature oil generating parts of the basin.

Reservoir Distribution

L. balmei Isopach and Net Sand/Gross Section (Fig.3).

Partridge (1976) defined two spore pollen assemblage zones which almost entirely span the Paleocene. These zones were the Upper and Lower Lygistepollenites balmei zones. The zones were combined in this study in order to establish a net sand/gross section map (Fig.3). Net sand was considered to be any sandy interval with sonic log or donductivity response indicating porosity greater than 10%.

Even though the L. balmei section was not reached in Bass -1, Cormorant -1, and Toolka -1 and only 480 metres was penetrated in Pelican -3 to the southwest, there is sufficient evidence to postulate a major south-westerly trending depositional trough in the eastern part of the basin. Interpretation of the BCS81 seismic survey suggests there could be greater than 3000 metres of L. balmei age sediments near Dondu -1 which is near this depocentre.

Net sand/gross section data are also sparse but sufficient to indicate a large sand source from the southeast near Durroon -1 with less prominent basin flank source from the east and west. Essentially no sand reached the present basin axial position, nor does there appear to be any evidence of a sand source from the north. Indeed, the shaling of the unit to the north seems well established and one would anticipate that the unit would be almost entirely shale, albeit geochemically mature (as with the overlying unit at Cormorant -1) over the large northern portion of the basin. The 10% value at Nangkero -1 located between two lower values at Dondu -1 and Poonboon -1 suggest the relatively simple depositional pattern described above may have been influenced by uplift providing local sources of sand. However, this appears to be a minor influence with Nangkero -1 type sands not providing particularly good reservoir potential.

Lower M. diversus Isopach and Net Sand/Gross Section (Fig. 4).

Partridge (1976) indicated the Lower Malvacipollis diversus spore-pollen zone to be of Late Paleocene-Early Eocene age and the Upper Malvacipollis diversus zone to be of Early Eocene age. Several of the wells in Bass Basin have a zone identified as

Middle *M. diversus*. For convenience the latter zone was combined with the Lower *M.diversus* zone to form fig. 4. It must be recognised that the isopach of the Lower plus Middle *M.diversus* will be a little misleading as one of the major unconformities within the Eastern View Group occurred during Middle *M.diversus* time.

The isopach of fig. 4 is considered accurate enough to indicate that the depositional axis changed from that of *L.balmei* time to one located in a more central north-south position. In fact, the absence of the unit at Pelican -3 and Bass -3 suggests there was quite a rift valley in the Pelican -1 and 2 and Narimba -1 area. Aroo -1 may have constituted a major horst within the rift which turned north between Bass -3 and Tarook -1 to the Cormorant -1/Toolka -1 region.

Despite the absence of sand at Durroon -1 due to erosion, the sand source distribution is rather similar to the previous *L.balmei* unit. However, relatively greater proportions of sand were entering the basin suggesting increased uplift of the margins and particularly of northern Tasmania.

Upper Eastern View (Upper M.diversus to Upper N. asperus) Isopach and Net Sand/Gross Section (Fig. 5).

Partridge (1976) assigned the Upper *M.diversus* to Upper *N.asperus* zones to the Early Eocene through Early Oligocene. The BBS and BCS81 seismic data exhibit onlap of the base of the unit onto the often truncated Middle M. diversus unit.

The isopach of Fig. 5 indicates a return to the general form of that of the Paleocene L. balmei. However, there is no seismic expression of a deep trough to the east near Dondu; rather the depocentre may have been in the Pelican-Narimba region.

Even greater proportions of sand entered the basin at this time and were derived from essentially the total basin perimeter. Despite the uplift of the basin, the lower sand percentages were still located in the north-central area.

NE - SW Cross Section

The NE-SW cross section (Fig. 8) through the Bass Basin indicates the two major half graben trough systems of the L. balmei and lower M. diversus ages which contrasts with the broad, more uniform simple depression infill sedimentation of the Upper Eastern View sediments.

The reservoir potential of each sand body has not been mapped. The relevant parts of the well completion logs of Bass -1 and Bass -3 are enclosed (Figs. 6 and 7). These logs have a sonic curve from which a porosity value can be derived. In order to remove the effects of a sonic derived porosity value, available core derived porosities are included. The core derived permeabilities for the same samples are also shown.

(As is the case with seismic information, more data can be provided as required).

Heat Flow (Fig. 9)

The heat flow distribution was determined by calculating the thermal conductivity from the average bed porosity for intervals over which the temperature gradient can be measured from well-log data.

The heat flow distribution is characterised by two north-westerly trending highs near the basin margins separated by a relatively low heat flow trend about the central basin axis. The heat flow high trends overlie the L. balmei and Lower M. diversus depositional axes. This is highly significant as the areas of highest sand percentage and highest heat flow are essentially coincident which indicates that these areas can develop maturation more shallow where porosity is preserved.

Regional Cross-sections and Geochemistry (Figs. 10 & 11).

Regional cross-sections in the NW-SE and SW-NE directions have been constructed for the Paleocene-Eocene periods by datuming the well logs on the Top Eastern View event. The palaeontological information have been included and the N. asperus, P.asperopolus, M.diversus, L.balmei, T.longus and T.lilliei zones are defined. The known hydrocarbon occurrences have been indicated and can be summarised as follows:-

In Pelican 1 and 2 condensate was recovered during formation interval testing (F.I.T.) of thin sandstones at various levels within the Early Eocene sections. In Pelican -1, a maximum recovery of 3.9m^3 of gas and 600 cm^3 of condensate was made from an F.I.T. at 2661m. and in Pelican 2 an F.I.T. at 2880m recorded a maximum recovery of $1.05m^3$ of gas and 750 cm^3 of condensate; while in Pelican 3, minor gas, but no condensate was detected in sandstones of Paleocene age below 2800m. Abnormal pressures were encountered below this depth in the Pelican area.

In Bass 3, $0.82m^3$ of gas and 800 cm^3 of condensate were recovered from an F.I.T. at a depth of 2055m. The reservoir was a 15m thick sandstone in the Paleocene (L.balmei zone) section.

In Cormorant 1, an F.I.T. at a depth of 1550m recovered 22 litres of oil from a thin sandstone in the Upper Eastern View Coal Measures. Hydrocarbon shows also occurred in four thin sands between 1828m and 2347m.

In Aroo 1 hydrocarbon indications occur in the L.balmei zone, while indications in Dondu 1, Pelican 3 and Poonboon 1 were found in thin, tight sands below 2740m.

Three geochemical parameters have been included on the two plates. These data have been taken from the BMR study by Nicholas et al. and it should be noted that this information has significantly upgraded the basin potential. Firstly, vitrinite reflectance values indicate maturation levels at which oil and gas may be generated occur below M.diversus level everywhere except in the far eastern portion of the basin.

The second parameter is the quantity of organic matter. If minimum total organic carbon (TOC) content of 0.5 percent is necessary for a clastic rock to have hydrocarbon source potential, all of the samples for the Eastern View Coal Measures have reached or exceeded this value, the majority of the samples exceeded 1.5 percent. The highest value, 20.1 percent, is from a shale of Paleocene age (L. balmei zone) from Bass -3 and a value of 10.1 percent was obtained from an Eocene shale from Cormorant -1. Other potentially rich samples in excess of 2 percent are common.

The third parameter, the hydrogen/oxygen ratio, related to amounts of generated residual hydrocarbon and reflects the elemental composition of the source rocks kerogen and hence source type; gas or oil. The data suggests a predominantly gas condensate source but the Upper Cretaceous and lowest Paleocene have a marked proponderance of oil prone samples. This is considered highly significant as Dr. Saxby from the C.S.I.R.O. has shown the Upper Cretaceous to be the principle Gippsland oil source.

Paipan Prospect T14P

The Paipan Prospect is a Top Eastern View trapdoor normal fault block on T14P, 10 km SE of Bass -1 (see Fig. 12).

Bass -1, the first well spudded in the Bass Basin (1965) had a reef as its target. The section was confirmed as Miocene volcanics but the well penetrated the Top Eastern View at 5930' and continued off structure, as a stratigraphic test to 7717'. As Fig. 12 indicates, Paipan is considerably up dip from Bass. This is further illustrated on seismic line BCS81-12 (Fig.13). Seismic line BCS81-5 (Fig. 14) intersects line 12 and runs NE over the crest of the trapdoor.

North of the high, the Top Eastern View is shown as forming a ridge at 1500 msec. This ridge is a velocity anomaly of some 40-50 msec caused by the Miocene volcanics. Thus the closure is some 60 msec from 1480 to 1540 msecs which is of the order of 300'.

Growth faults can be seen on line 5 (Fig. 4) and it is felt that these faults would form condults for vertical migration of oil from the Upper Cretaceous to the Top Eastern View. The geochemical results from Bass -2 to the SE support the generative capacity of the Upper Cretaceous. Further, the section of the Upper Eastern View from which oil was recovered in Cormorant to the NW is buried some 300 msec deeper which allows for significant Eocene generation at Paipan.

BHP shot a survey in 1973 which identified the crest of the feature but which missed the high as it extends to the south. The 1981 shooting by Cue confirmed the geometry of the feature and the 1982 shooting has detailed the prospect to the present drillable status.

The most significant aspect of the prospect is that if drilled, it would be the first Top Eastern trap which would hold up under close scrutiny. This is somewhat incredible since, if it is the next well drilled, it will be the 19th in the basin and yet the first to validly test the Top Latrobe equivalent.

T18P, Top Eastern View

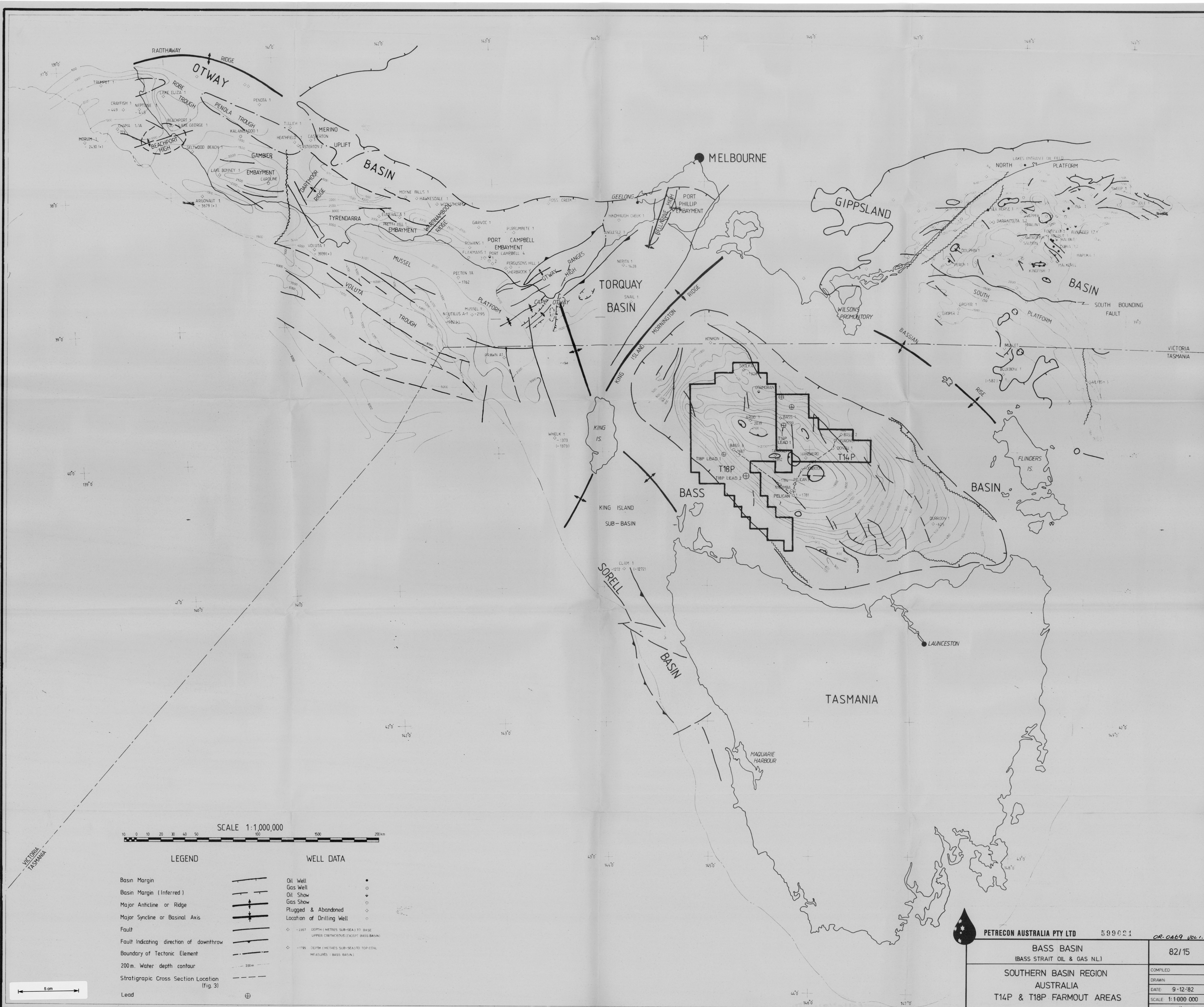
Fig. 15 is a time structure map at the Top Eastern View in the southern panhandle portion of T18P. The map shows a normal fault closure in the far NW. Another similar feature has been mapped a little further to the NW of the figure. These features are structurally similar to that at Bass -3 to the SE except that both appear to have a thicker sedimentary section. Bass -3 drilled a doubtful to minimal closure with an Upper Cretaceous section resting on basement. Following the Bass -3 high to the south, the sedimentary section thickens and the effects of compression are apparent. Three compressional anticlines are mapped. The most prominent being the middle one shown on line BBS81-15 (Fig. 16). The feature has clear 4-way dip and is probably updip from the anticline immediately to the NW which in turn is updip from the light oil show in the Paleocene at Bass -3.

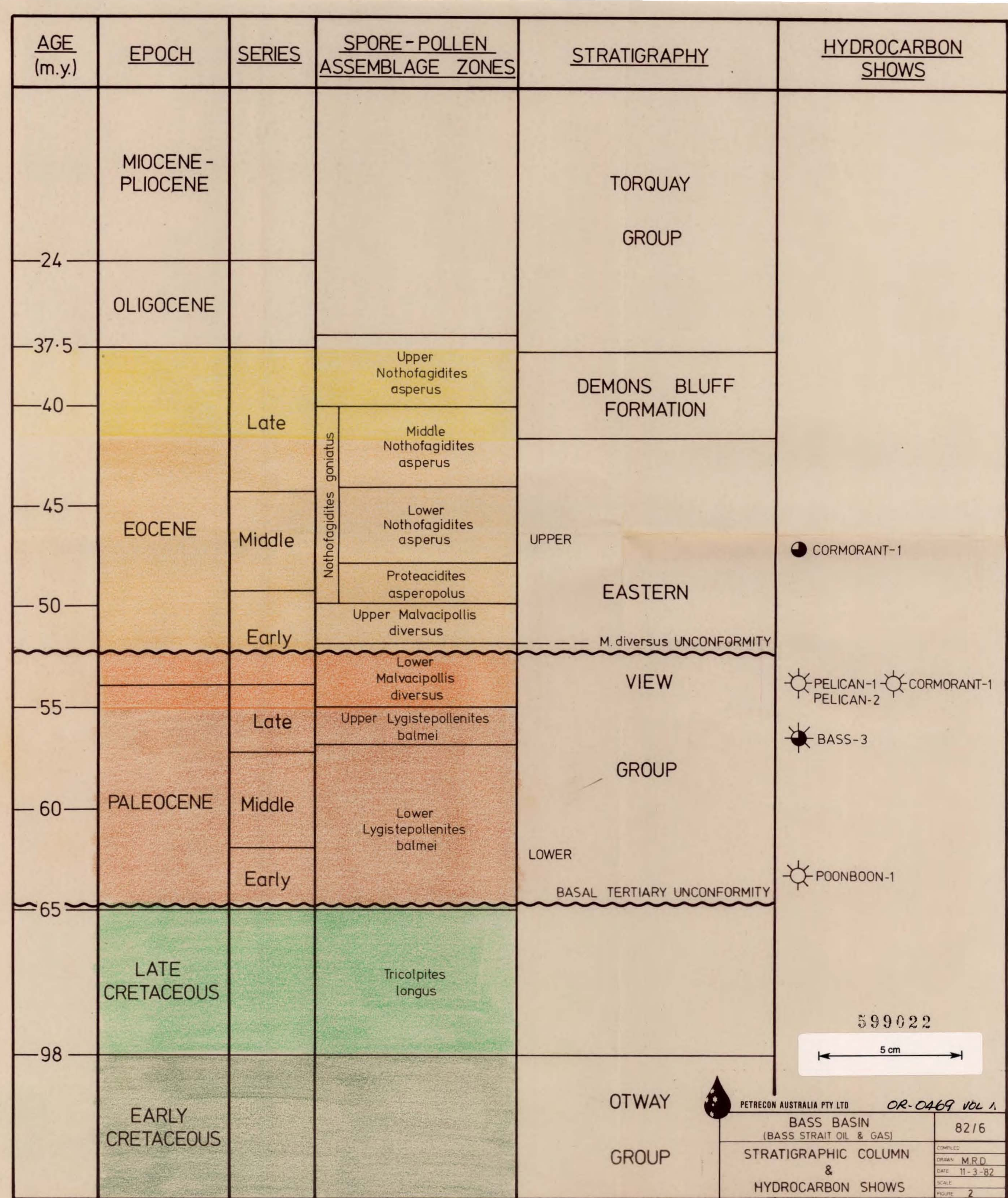
T18P, Base Tertiary

Fig. 17, the time structure map near the Base Tertiary, is located near the centre of Fig. 15. Two highs are mapped on the horst blocks.

If the spill point is at 1850 msec the structure forms a single feature, the geometry of which is displayed on line BB82A - 13 (Fig. 18). The merits of this prospect in terms of the Upper Cretaceous source and reservoir have been mentioned above. Further structures are evident both to the NW and SE and it would appear that the lack of exploration in this part of the basin was due to the fact that the prominent Base Tertiary event was previously considered as basement section (like Bass -3). However, Fig. 18 shows that there is considerable section beneath the Base Tertiary and plenty of section from which to generate and reservoir oil.

LIST OF FIGURES


OTWAY
BASIN
RAOTHAWAY RIDGE
ROBE TROUGH
PENOLA TROUGH
BEACHPORT HIGH
GAMBIER EMBAYMENT
MERINO UPLIFT
DARTMOOR RIDGE
TYRENDARRA EMBAYMENT
WARRNAMBOOL RIDGE
PORT CAMPBELL EMBAYMENT
MUSSEL PLATFORM
VOLUTA TROUGH
OTWAY RANGES HIGH
CAPE OTWAY
TORQUAY BASIN
MELBOURNE
GEELONG
PORT PHILLIP EMBAYMENT
BELLARINE HIGH
MORNINGTON RIDGE
KING ISLAND
KING IS.
KING ISLAND SUB-BASIN
GIPPSLAND BASIN
NORTH PLATFORM
SOUTH PLATFORM
SOUTH BOUNDING FAULT
WILSONS PROMONTORY
BASSIAN RISE
VICTORIA
TASMANIA
T14P
T18P
T14P LEAD 1
T18P LEAD 1
T18P LEAD 2
BASS BASIN
FLINDERS IS.
SORELL BASIN
LAUNCESTON
MAQUARIE HARBOUR
TASMANIA
SCALE 1:1,000,000
LEGEND
Basin Margin
Basin Margin (Inferred)
Major Anticline or Ridge
Major Syncline or Basinal Axis
Fault
Fault Indicating direction of downthrow
Boundary of Tectonic Element
200m. Water depth contour
Stratigrapic Cross Section Location (fig. 3)
Lead
WELL DATA
Oil Well
Gas Well
Oil Show
Gas Show
Plugged & Abandoned
Location of Drilling Well
DEPTH (METRES SUB-SEA) TO BASE UPPER CRETACEOUS (EXCEPT BASS BASIN)
DEPTH (METRES SUB-SEA) TO TOP COAL MEASURES (BASS BASIN)
PETRECON AUSTRALIA PTY LTD
599021
OR-0469 VOL 1.
BASS BASIN
(BASS STRAIT OIL & GAS N.L.)
82/15
SOUTHERN BASIN REGION
AUSTRALIA
T14P & T18P FARMOUT AREAS
COMPILED:
DRAWN:
DATE: 9-12-'82
SCALE: 1:1 000 000
FIGURE: 1



(after Brown 1976, Partridge 1976)

PETRECON AUSTRALIA PTY LTD

BASS BASIN

L balmei

ISOPACH & NET SAND / GROSS SECTION

COMPILED: J.K.D	SCALE: 1:250,000	FIGURE: 3
DATE: MAR 82	DRAWN: V.V	PLAN No.

599023

OR-0469
VOL 1.

PETRECON AUSTRALIA PTY LTD

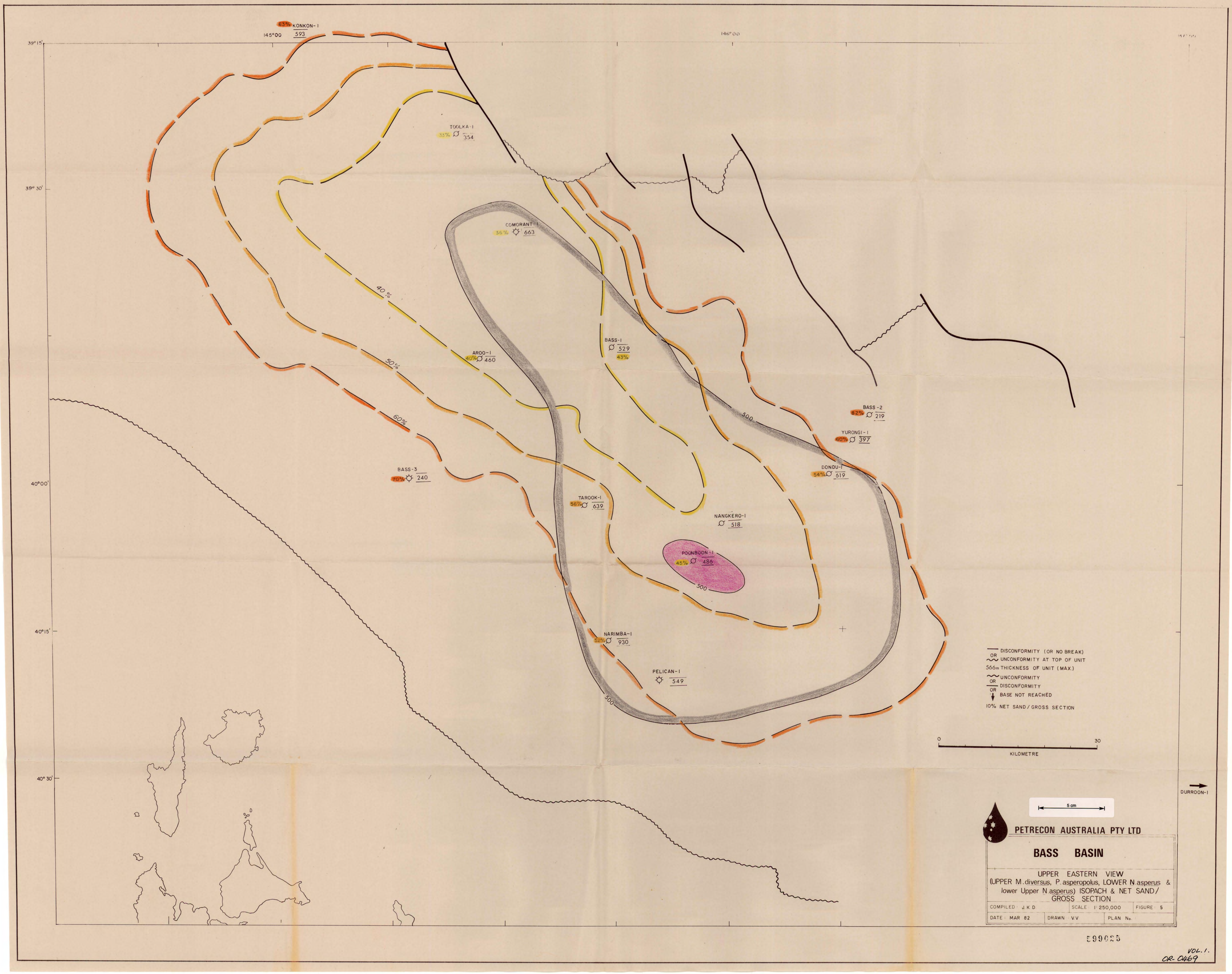
BASS BASIN

LOWER M diversus
(INCLUDING MIDDLE M diversus WHERE RECOGNISED)
ISOPACH & NET SAND/ GROSS INTERVAL

COMPILED : J. K. D.	SCALE : 1: 250,000	FIGURE : 4
DATE : MAR 82	DRAWN : V.V	PLAN No. :

599024

OR-0469
VOL 1.



PETRECON AUSTRALIA PTY LTD

BASS BASIN

UPPER EASTERN VIEW
(UPPER M.diversus, P.asperopolus, LOWER N.asperus & lower Upper N.asperus) ISOPACH & NET SAND/ GROSS SECTION

COMPILED: J.K.D	SCALE: 1:250,000	FIGURE: 5
DATE: MAR 82	DRAWN: V.V	PLAN No.

E99025

VOL. 1.
OR-0469

OR. 0469 VOL. 1.

5 cm

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

599026 FIG. 6

COMPOSITE WELL LOG OF ESSO BASS-1

PETROLEUM TENEMENT E.L. 1/64 STATE: TASMANIA 4 MI. SHEET: KING ISLAND BASIN: BASS WELL STATUS: DRY AND ABANDONED

LOCATION Lat 39° 48' 18" Long 145° 44' 53" ELEVATION 3?' above M.S.L. (R.T.) Permanent datum M.S.L. Water depth 285' DATE SPUDDED July 21, 1965 DATE DRILLING STOPPED Sept. 8, 1965 DATE RIG OFF Sept. 14, 1965 TOTAL DEPTH 7717' (Driller) 7709' (I.E.S.)

DRILLED BY GLOBAL MARINE AUSTRALASIA PTY LTD GLOMAR
DRILLING METHOD ROTARY
MUD LOGGING CORE LAB
LOGGED BY SCHLUMBERGER
CEMENTED BY HALLIBURTON
WELL HEAD FITTINGS WELL HEAD REMOVED AFTER PLUGGING

HOLE SIZE

SIZE	FROM	TO
36"	289	424'
26"	424	820'
17½"	820'	2304
12¼"	2304	7602'
8⅝"	7602'	7717'

CASING

SIZE	WEIGHT	GRADE	DEPTH	CEMENT	CEMENTED TO
30"	196 lbs 310 lbs	B	398	350 +13% CaCl₂	Ocean Floor
20"	129 lbs	B	768'	140	Ocean Floor
13⅜"	54 lbs	[illegible]	2258'	470	Ocean Floor

PERFORATIONS

TYPE	FROM	TO	No (?)

CEMENT PLUGS

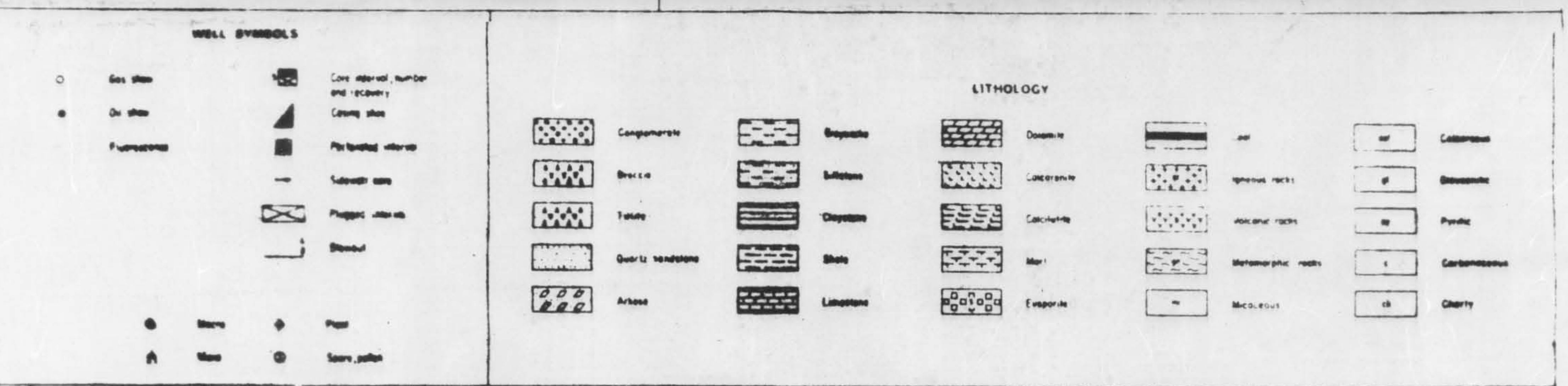
FROM	TO	CEMENT
320'	520'	150 + 1% CaCl₂
2100'	2400'	250 + 1% CaCl₂
3800'	4000	140
5980'	6400'	140

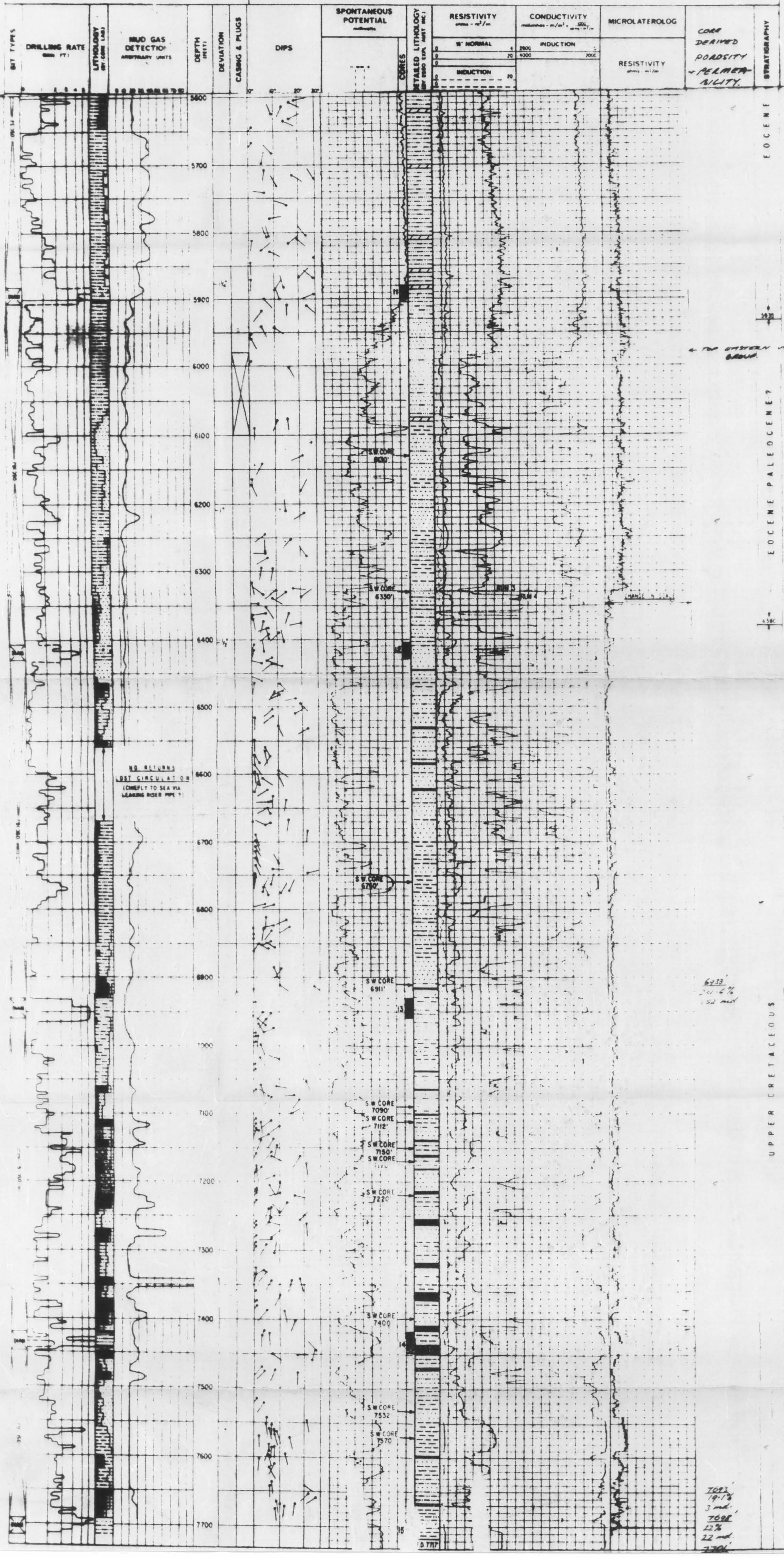
INDUCTION LOG DATA

RUN NUMBER	1	2	3	4
DATE	5 AUG, 1965	23 AUG, 1965	30 AUG, 1965	8 SEPT 1965
FOOTAGE LOGGED	1530	1738	2606	1808
LOGGED FROM	2300	4001	6407	7708
LOGGED TO	770	2263	3801	5900
TOTAL DEPTH - ELECTRIC LOG	2300	4002	6408	7709
TOTAL DEPTH - DRILLER	2304	4405	6405	7717
CASING SHOE - ELECTRIC LOG	770	2263	2263	2263
CASING SHOE - DRILLER	768	2258	2258	2258
BIT SIZE	12¼"	12¼"	12¼"	12¼"
MUD - TYPE	Bentonite Spersene XP-20 Caustic			
TREATMENT				
WATER LOSS ccs/30min	12	7	8	5
WEIGHT lbs/gal	10·1	10·2	10·4	10·8
VISCOSITY	48	42	52	40
pH	10·3	10·0	10·0	11·0
Rm	0·80 at 66	1·77 at 62	1·65 at 92	1·28 at 86
RESISTIVITY Ω m²/m and TEMP °F at B.H.T.	0·39 at 104	0·98 at 127	0·91 at 167	0·53 at 206
Rmf	0·48 at 61	1·17 at 58	1·51 at 56	1·06 at 57
Rmc	1·88 at 61	2·63 at 53	2·42 at 86	2·78 at 57
MAX RECORDED TEMP °F	104	127	167	206
RECORDED BY	I. Stracher	I. Stracher	I. Stracher	I. Stracher

OTHER LOGS

SONIC GAMMA RAY CALIPER	770 - 7704	RUNS 1 - 4
MICROLATEROLOG	770 - 7696	RUNS 1 - 4
CONTINUOUS DIPMETER	770 - 7681	RUNS 1 - 3





599027 FIG. 7

OR-0469 VOL 1.

5 cm

ESSO EXPLORATION AND PRODUCTION AUSTRALIA INC

WELL COMPLETION LOG
ESSO BASS – 3

ESSO BASS – 3

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

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

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

SPUDDED : 11-2-67   COMPLETED : 2-4-67   DRILLED BY : GLOBAL MARINE AUSTRALASIA PTY LTD

CLASSIFICATION : EXPLORATORY TEST   STATUS : PLUGGED AND ABANDONED

TOTAL DEPTH : 7978'

STRUCTURE, REASONS FOR DRILLING, OBJECTIVE ETC

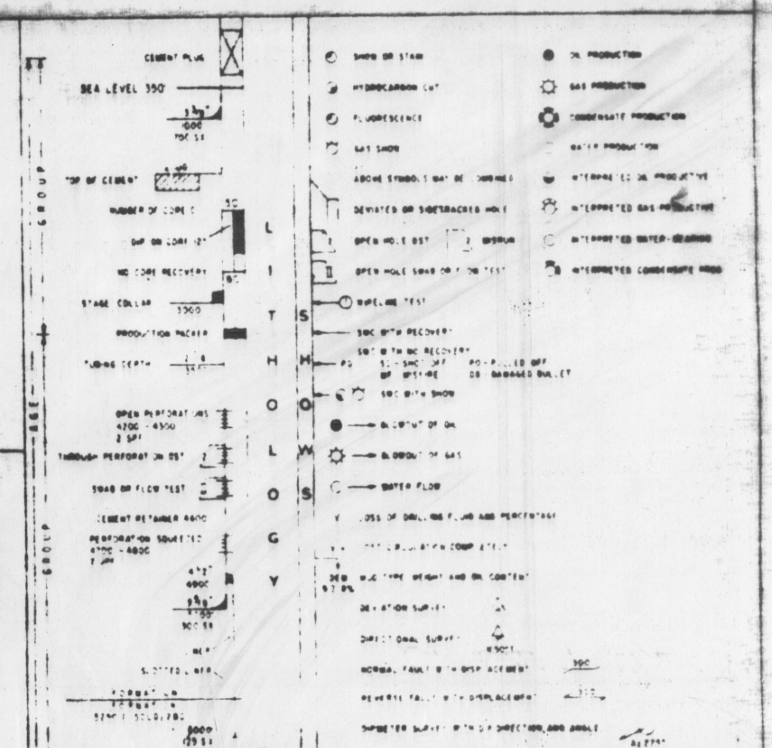
THE WELL WAS DRILLED ON THE CREST OF A WELL DEFINED NORTHWEST – SOUTHEAST CLOSED ANTICLINAL FEATURE AS MAPPED BY SEISMIC. IT WAS DESIGNED TO TEST THE HYDRO-CARBON POTENTIAL AND STRATIGRAPHY OF AN UNKNOWN AREA WITHIN THE BASS BASIN

RESULTS

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

LITHOLOGY

Calcarenite to fine calcirudite
Argillaceous micritic limestone
Finely crystallized limestone
Sandstone
Shale
Marl
Mudstone
Siltstone
Silty mudstone
Coal
Basement



CASING AND TUBING / PLUGS / PERFORATIONS

SIZE	SET AT	SX CMT	FORMATION	PLUGS FROM	PLUGS TO	PLUGS SX CMT	PERFORATIONS FROM	PERFORATIONS TO	No FT
30"	336	350	PLIO-MIOCENE	6850	6650	140			
[illegible]	721	1221	PLIO-MIOCENE	5400	5200	40			
[illegible]	2750	1550	TORQUAY GRP	2900	2610	250			

TESTS

WIRELINE TESTS

Nº 1 at 6740 Recovered 29 cu ft of gas, 12,250 cc of water, 800 cc of condensate. Sampling pressure 3025 psi. SIP 3125 psi. Predominantly C1 with traces C2 and CO2. Rw = 1.78 at 74°. NaCl (chem) = 2100 ppm

Nº 2 at 5737 Recovered 20,000 cc of water. No reliable pressure data. Rw = 1.27 at 78° F. NaCl (chem) = 2150 ppm

Nº 3 at 5409 Recovered 20,000 cc of water. Sampling pressure 2300 psi. SIP 2400 psi. Rw = 0.34 at 74° F. NaCl (equiv) = 20,500 ppm

Nº 4 at 5736 Recovered 20,000 cc of mud. No reliable pressure data.

WIRE LINE LOGGING SERVICES

COMPANY	TYPE OF LOG	FROM	TO
SCHLUMBERGER	INDUCTION - ELECTRIC	721	TD
"	SONIC - GAMMA RAY - CALIPER	72	7976
	MICROLATEROLOG	2753	7979
	FORMATION DENSITY	2753	7984
	CONTINUOUS DIPMETER	721	7978

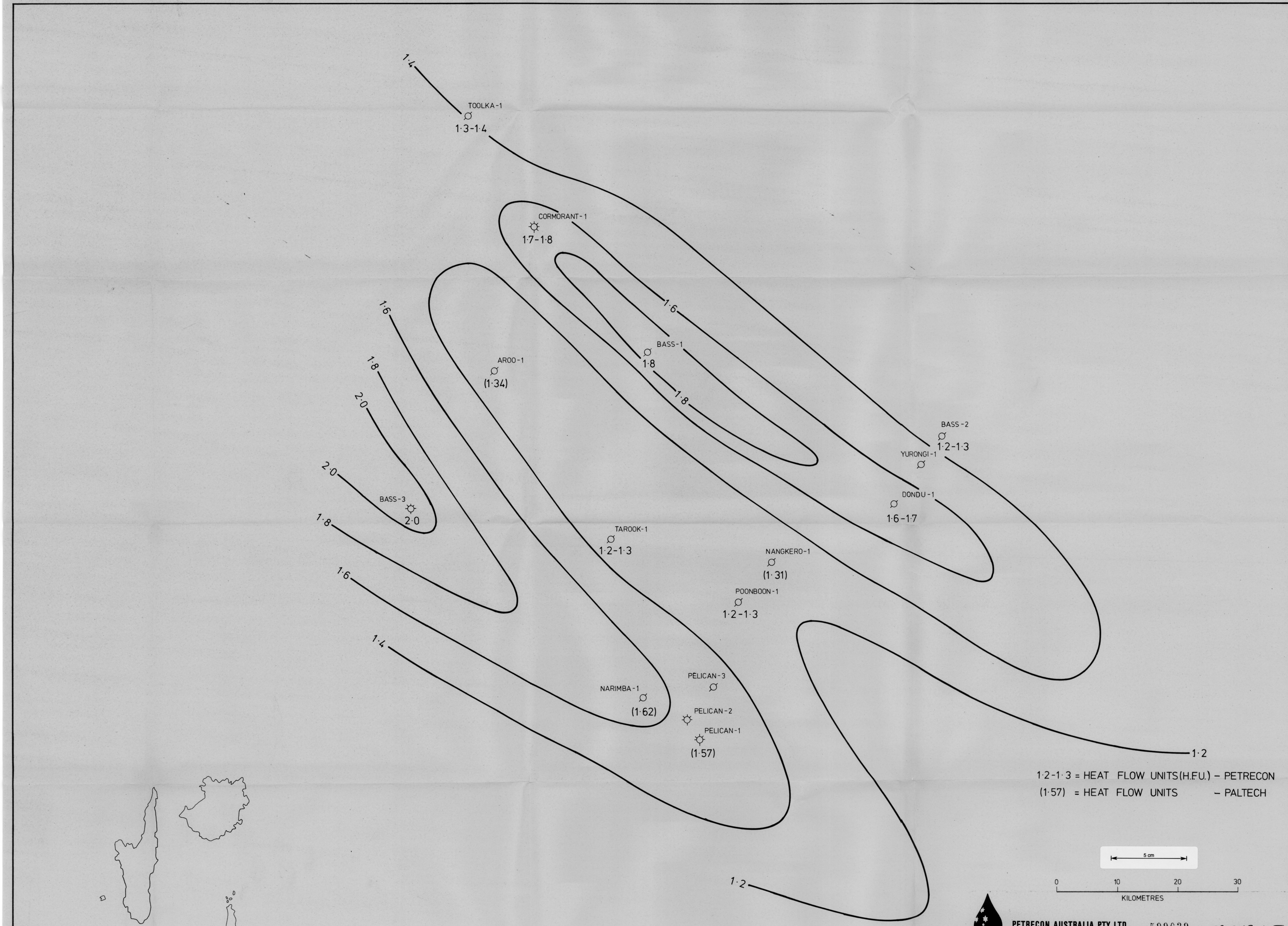
WELL-SITE GEOLOGISTS B.R.G., W.C.L., W.E.T. LITHOLOGY INTERPRETED BY W.E.T. DATE 20-6-67

MUD LOGGING BY CORE LABORATORIES AUSTRALIA LTD

ABBREVIATIONS

ALL PIPE MEASUREMENTS MEASURED FROM KELLY BUSHING

0
10
20km
HORIZONTAL SCALE 1 250 000
SW
NE
MEAN SEA LEVEL
TORQUAY GROUP
LEAD 1 T18P (FIG. 4)
Bass - 3
DEMONS BLUFF FORMATION
EASTERN VIEW GROUP
Narimba - 1
Pelican - 1
Pelican - 3
Poonboon - 1
LEAD 1 T14P (FIG. 5) (DISPLACED 30km TO THE NORTH)
Dondu - 1
Yurongi - 1
Bass - 2
1000m
500
0
VERTICAL SCALE 1:10 000
Palynological Zones
× N. asperus Mid-Late Eocene
+ P. asperopolus Mid Eocene
○ M. diversus Late Paleocene - Early Eocene
✱ L. balmei Paleocene
△ T. longus Late Cretaceous
Legend
UNCONFORMITY
BASEMENT
FAULT & DIRECTION OF THROW
GAS SHOW
OIL SHOW
FOR LOCATION OF CROSS SECTION SEE FIG 1
5 cm
599028
PETRECON AUSTRALIA PTY LTD
OR-0469 VOL 1.
BASS BASIN
BASS STRAIT OIL & GAS
82/9
NE-SW CROSS SECTION
KM
MRD
8



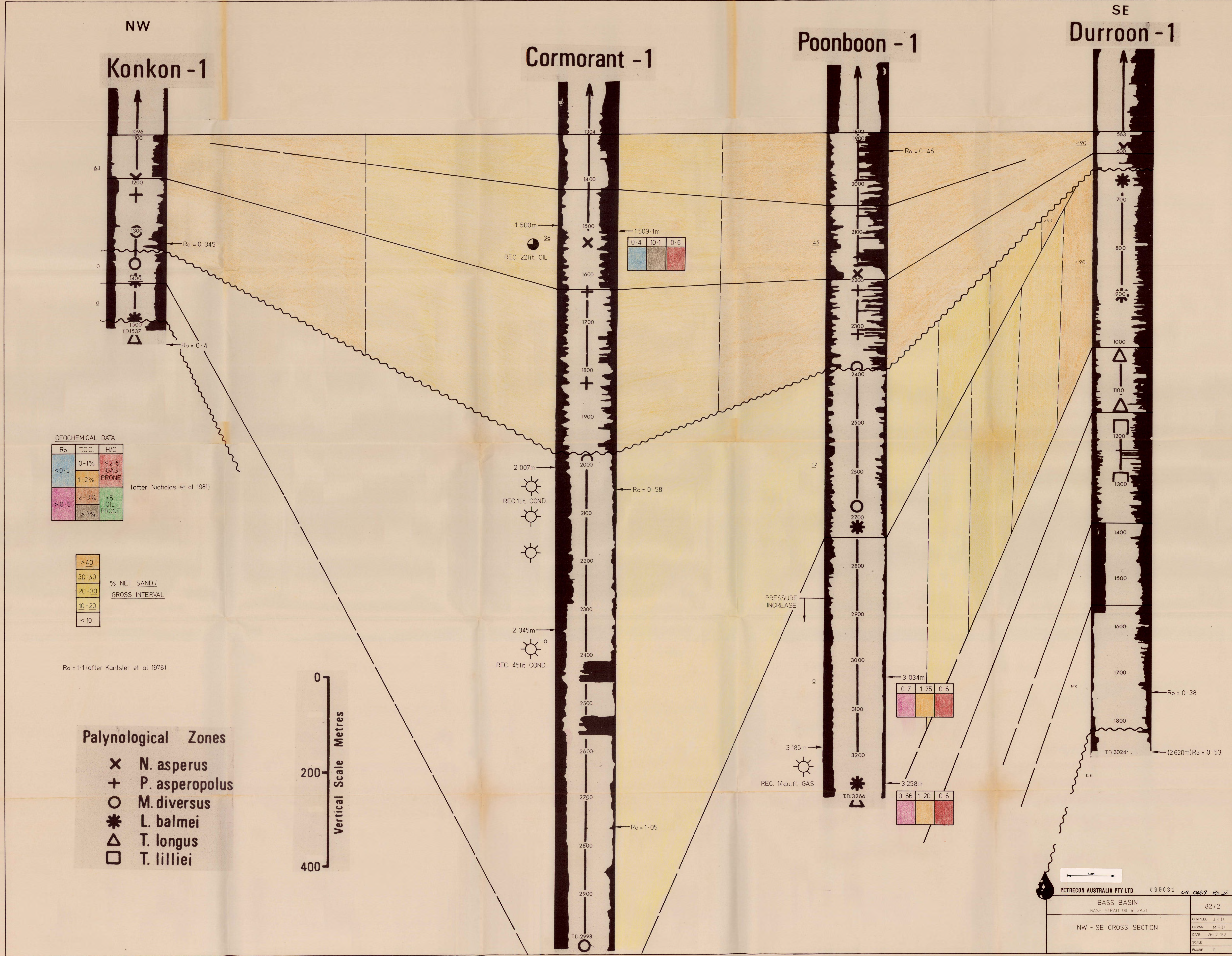
PETRECON AUSTRALIA PTY LTD 599029 OR-0469 VOL II

BASS BASIN
(BASS STRAIT OIL & GAS (HOLDINGS) N.L.)

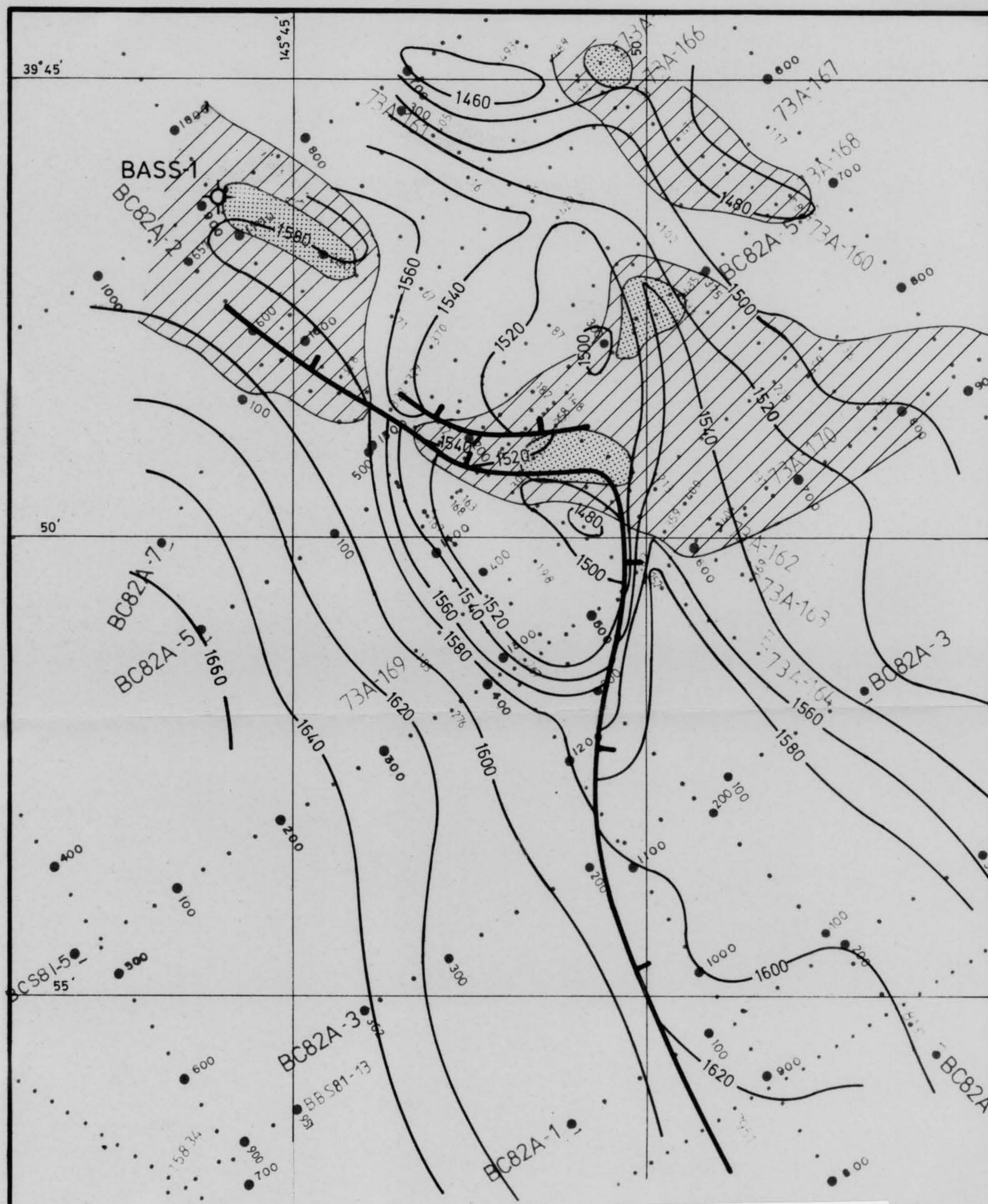
HEAT FLOW

	82 / 3
COMPILED	J.K.D.
DRAWN	M.R.D.
DATE	MAR '82
SCALE	1: 250 000
FIGURE	9

SW
NE
Bass - 3
Narimba - 1
Pelican - 1
Pelican - 3
Poonboon - 1
Donau - 1
Yurongi - 1
Bass - 2
Ro = 0·44
1 800·5
0·38 | 1·05 | 0·4
2 055m
REC. 820 lit. GAS
3·8 lit. COND.
(G.O.R. 1272 or
23 500 bbls /10⁶ cu.ft.)
2 104·6m
0·63 | 20·1 | 23
Ro = 0·64
2 265·6m
0·56 | 2·4 | 18
2 432m
0·6 | 0·1
T.D. 2432
T.D. 3354
2 833m
0·67 | 7·1 | 24
2 912·3m
0·62 | 0·85 | 0·3
2 972·3m
0·56 | 1·85 | 0·6
2 468m
2 551m
REC. 3 900 lit. GAS
0·6 lit. COND
(783 bbls /10⁶ cu.ft.)
Ro = 0·6
Ro = 0·7
Ro = 1·1
T.D. 3178
Ro = 0·48
PRESSURE INCREASE
3 034m
0·7 | 1·75 | 0·6
3 185m
REC. 14 cu.ft GAS
3 258m
0·66 | 1·20 | 0·6
T.D. 3266
Ro = 0·9
T.D. 2926
T.D. 2438
1 260·9m
0·36 | 3·55 | 11
Ro = 0·55
1 679m
0·35 | 2·40 | 14
T.D. 1801
GEOCHEMICAL DATA
Ro | T.O.C. | H/O
<0·5 | 0-1% | <2·5 GAS PRONE
1-2%
>0·5 | 2-3% | >5 OIL PRONE
>3%
(after Nicholas et al 1981)
>40
30-40
20-30
10-20
<10
% NET SAND / GROSS INTERVAL
Ro = 1·1 (after Kantsler et al 1978)
Vertical Scale in metres
0
200
400
Palynological Zones
× N. asperus
+ P. asperopolus
○ M. diversus
✱ L. balmei
△ T. longus
PETRECON AUSTRALIA PTY LTD
599030
BASS BASIN
82/1
SW - NE CROSS SECTION



NW
SE
Konkon - 1
Cormorant - 1
Poonboon - 1
Durroon - 1
Ro = 0·345
Ro = 0·4
1 500m
REC. 22lit. OIL
1509·1m
0·4
10·1
0·6
Ro = 0·48
2 007m
REC. 1lit. COND.
Ro = 0·58
2 345m
REC. 45lit. COND.
Ro = 1·05
T.D. 2998
PRESSURE INCREASE
3 034m
0·7
1·75
0·6
3 185m
REC. 14cu.ft. GAS
3 258m
0·66
1·20
0·6
T.D. 3266
Ro = 0·38
T.D. 3024
(2620m)Ro = 0·53
GEOCHEMICAL DATA
Ro
T.O.C.
H/O
<0·5
0-1%
1-2%
<2·5 GAS PRONE
>0·5
2-3%
> 3%
>5 OIL PRONE
(after Nicholas et al 1981)
>40
30-40
20-30
10-20
< 10
% NET SAND / GROSS INTERVAL
Ro = 1·1 (after Kantsler et al 1978)
Palynological Zones
N. asperus
P. asperopolus
M. diversus
L. balmei
T. longus
T. lilliei
Vertical Scale Metres
0
200
400
5 cm
PETRECON AUSTRALIA PTY LTD
599031
OR. 0469 VOL II
BASS BASIN
(BASS STRAIT OIL & GAS)
82/2
NW - SE CROSS SECTION
COMPILED J K D
DRAWN M R D
DATE 26-2-82
SCALE
FIGURE 11



VOLCANIC CENTRES

DISTRIBUTION OF MIOCENE VOLCANICS

CONTOUR INTERVAL 20 MILLISECONDS T.W.T.

PETRECON AUSTRALIA PTY LTD OR-0469 VOL II

BASS BASIN (BASS STRAIT OIL & GAS)	82/12
T14P TIME STRUCTURE MAP TOP OF EASTERN VIEW GRP. PAIPAN PROSPECT	COMPILED G.J.B. DRAWN M.R.D. DATE 1-11-'82 SCALE 1: 100 000 FIGURE 12

599032

CUE MINERALS N.L.
BASS BASIN TAS T14P

LINE BCS81-12 SP.1-2211
FINAL STACK

ACQUISITION

BOAT	EUGENE MCDERMOTT II	PARTY 2931
SURVEY	NAVIGATION:	MAXIRAN
	SHOTPOINTS ANNOTATED	ON SOURCE
	SHOTPOINT INTERVAL	25 METRES
	POP INTERVAL	25 METRES
SOURCE	AIRGUN	23.76 LITRES
	AIR PRESSURE	13.8MPASCALS
	GUN DEPTH	7 METRES
	INSTRUMENTS DFS V	1 SYSTEM
	POLARITY:TROUGH=POSITIVE REFLEC.COEFF	
	FIELD FORMAT	SEG B
	SAMPLE RATE	2 MSEC
	FILTER: LO 8 HZ	18 DB/OCTAVE
	HI 128 HZ	72 DB/OCTAVE
CABLE	LENGTH	2423 METRES
	OFFSET	212 METRES
	NUMBER OF GROUPS	96
	GROUP INTERVAL	25 METRES
	HYDROPHONES/GROUP	15
	CABLE DEPTH	10-11 METRES
DATE SHOT	JAN/FEB 1981	

PROCESSING

1. TRUE AMPLITUDE RECOVERY
   ALPHA=6DB/SEC T2=3.5 SEC
1A. RESAMPLE 2 TO 4MS
2. AIRGUN DELAY: -51 MSEC
3. PREDECONVOLUTION RAMPING
4. TVD 2X200MSEC 24MSEC GAPPED OPERATORS
5. 48 FOLD CDP GATHER
6. SCALING 1 GATE 3000MSEC UNITY SCALERS
7. SHOT AND RECEIVER STATICS
8. VELSCAN VELOCITY ANALYSIS(1 PER 3.0 KM 11DPS)
9. NORMAL MOVEOUT
10. 48 FOLD CDP STACK
11. TVD 2X100MSEC 32MSEC GAPPED OPERATORS
12. FILTERING: 47 POINT OPERATOR

TIME(SEC)	PASSBAND(HZ)
0.5	15-60
0.8	12-60
1.2	10-55
2.2	10-55
4.0	10-40

13. SCALING 3X2.0SEC GATES 50% OVERLAP
    UNITY SCALERS

DISPLAY

NORMAL POLARITY
DISPLAY SCALES: HORIZ- 24 TRACE/INCH
VERT - 5 IN/SEC
DISPLAY MODE: WIGGLE TRACE/VAR ; 10% BIAS.

SCALE IN KILOMETRES
1:11811

0KM 1KM 2KM

PROCESSED BY GSI PARTY 6854
SYDNEY, NEW SOUTH WALES
MAY 1981

QUALITY CONTROL BY: CR

5 cm

PETRECON AUSTRALIA PTY LTD OR-0469 VOL II

BASS BASIN (BASS STRAIT OIL & GAS N.L.)	82/16
LINE BCS81-12 NE-SW OVER PAIPAN PROSPECT	COMPILED G.J.B.
	DRAWN M.R.D.
	DATE 15-12-'82
	SCALE 1:2500
	FIGURE 13

599033

CUE MINERALS N.L.

BASS BASIN TAS T14P

LINE BCS81-05 SP 1-1371
FINAL STACK

ACQUISITION

BOAT	EUGENE MCDERMOTT II	PARTY 2931
SURVEY	NAVIGATION	MAXIRAN
	SHOTPOINTS ANNOTATED	ON SOURCE
	SHOTPOINT INTERVAL	25 METRES
	POP INTERVAL	25 METRES
SOURCE	AIRGUN	23.76 LITRES
	AIR PRESSURE	13.8MPASCALS
	GUN DEPTH	7 METRES
	INSTRUMENTS DFS V	1 SYSTEM
	POLARITY TROUGH=POSITIVE REFLEC COEFF	
	FIELD FORMAT	SEG B
	SAMPLE RATE	2 MSEC
	FILTER: LO 8 HZ	18 DB/OCTAVE
	HI 128 HZ	72 DB/OCTAVE
CABLE	LENGTH	2423 METRES
	OFFSET	200 METRES
	NUMBER OF GROUPS	96
	GROUP INTERVAL	25 METRES
	HYDROPHONES/GROUP	15
	CABLE DEPTH	10-11 METRES
DATE SHOT	JAN/FEB 1981	

PROCESSING

1 TRUE AMPLITUDE RECOVERY
ALPHA=6DB/SEC T2=3.5 SEC
1A RESAMPLE 2 TO 4MS
2 AIRGUN DELAY -51 MSEC
3 PREDECONVOLUTION RAMPING
4 TVD 2X200MSEC 24MSEC GAPPED OPERATORS
5 48 FOLD CDP GATHER
6 SCALING 1 GATE 3000MSEC UNITY SCALERS
7 SHOT AND RECEIVER STATICS
8 VELSCAN VELOCITY ANALYSIS(1 PER 3.0 KM 110PS)
9 NORMAL MOVEOUT
10 48 FOLD CDP STACK
11 TVD 2X100MSEC 32MSEC GAPPED OPERATORS
12 FILTERING: 47 POINT OPERATOR

TIME(SEC)	PASSBAND(HZ)
0.5	15-60
0.8	12-60
1.2	10-55
2.2	10-55
4.0	10-40

13 SCALING 3X2.0SEC GATES 50% OVERLAP
UNITY SCALERS

DISPLAY

NORMAL POLARITY
DISPLAY SCALES: HORIZ- 24 TRACE/INCH
VERT - 5 IN/SEC
DISPLAY MODE: WIGGLE TRACE/VAR : 10% BIAS

SCALE IN KILOMETRES
1:11811

0KM 1KM 2KM

PROCESSED BY GSI PARTY 6854
SYDNEY, NEW SOUTH WALES
MAY 1981

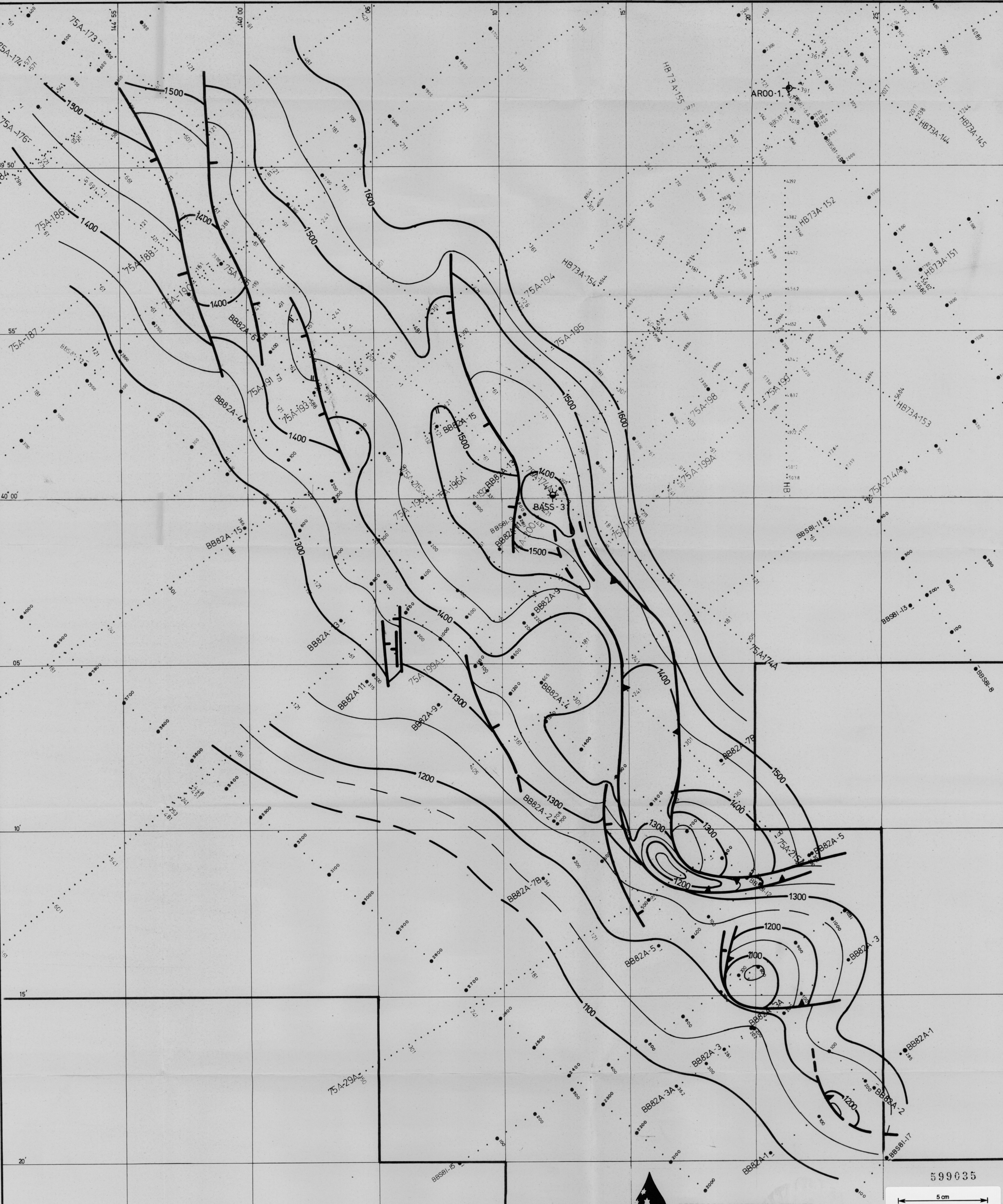
QUALITY CONTROL BY:

5 cm

PETRECON AUSTRALIA PTY LTD OR-0469 VOL II

BASS BASIN (BASS STRAIT OIL & GAS N.L.)	82/18
SEISMIC LINE BCS81-05 NE-SW OVER PAIPAN PROSPECT	COMPILED: O.J.R.
	DRAWN: M.R.D.
	DATE: 14-12-82
	SCALE: 1:2500
	FIGURE: 14

E99034



CONTOUR INTERVAL 50 MILLISECONDS T.W.T.

PETRECON AUSTRALIA PTY LTD

BASS BASIN

(BASS STRAIT OIL & GAS)

T18P

TIME STRUCTURE MAP

TOP EASTERN VIEW

	82/14
COMPILED	G.J.B.
DRAWN	M.R.D.
DATE	9-11-82
SCALE	1: 100 000
FIGURE	15

OR-0469 VOL II

LINE BB82A-15
S.P. 1 TO 366

BASS STRAIT OIL, GAS N.L.
T 18P
SYDNEY PROCESSING CENTRE

63 DEGREES — DIRECTION SHOT

MSTK TVD/TVF/TVS

FIELD DATA

DATA SHOT BY	- GSI PARTY 2993 M V LADY VILMA
DATE SHOT	- APRIL 1982
RECORDING INSTRUMENTS	- DFS V
RECORDING FILTERS	- HIGH FILTER AND SLOPE 128 HZ 72 DB/OCT LOW FILTER AND SLOPE 8 HZ 18 DB/OCT
RECORDING POLARITY	- A POSITIVE PRESSURE AT THE GEOPHONE PRODUCES A NEGATIVE NUMBER ON TAPE AND A DOWNWARD DEFLECTION ON THE FIELD MONITOR RECORD
DIGITAL TAPE FORMAT	- SEG B 1600 BPI PHASE ENCODED
RECORD LENGTH / SAMPLE RATE	- 5.0 SECONDS AT 2 MILLISECOND SAMPLE RATE
ENERGY SOURCE	- 4075 CU IN AIRGUN ARRAY OPERATING AT 2000 PSI
GUN DELAY	- 51 2 MILLISECONDS
SOURCE DEPTH	- 6 METRES AVERAGE
SOURCE TO ANTENNA DISTANCE	- 57 88 METRES
SHOTPOINT INTERVAL	- 33.3 METRES. 1 POP PER SHOTPOINT
SHOTPOINT ANNOTATION	- SHOTPOINTS ANNOTATED AT SOURCE POSITION
CABLE LENGTH	- 3200 METRES. 96 GROUPS
CABLE DEPTH	- 13 METRES AVERAGE
GEOPHONES	- 20 PER GROUP
COVERAGE	- 48 FOLD. 96 TRACE
PRIMARY NAVIGATION SYSTEM	- MAXIRAN
BACKUP NAVIGATION SYSTEM	- GEONAV

SPREAD DIAGRAM

3167 M

96 GEOPHONE GROUPS

DIGITAL PROCESSING

POLARITY CONVENTION	- THE POLARITY OF THE FIELD RECORDING WAS MAINTAINED THROUGHOUT THE PROCESSING AND DISPLAY
PROCESSING RECORD LENGTH	- 5.0 SECONDS
RESAMPLE	- MINIMUM PHASE RESAMPLE FROM 2 TO 4 MSEC
PROCESSING SAMPLE RATE	- 4 MILLISECONDS
STATIC CORRECTIONS	- SHOT AND STREAMER STATIC 13 MILLISECONDS AIRGUN DELAY 51 2 MILLISECONDS
TRUE AMPLITUDE RECOVERY	- 7 0 DB PER SECOND FROM 0 TO 5.0 SECONDS SPHERICAL DIVERGENCE CORRECTIONS APPLIED
PRE DECONVOLUTION MUTE	- RAMP LENGTH = 96 MSECS

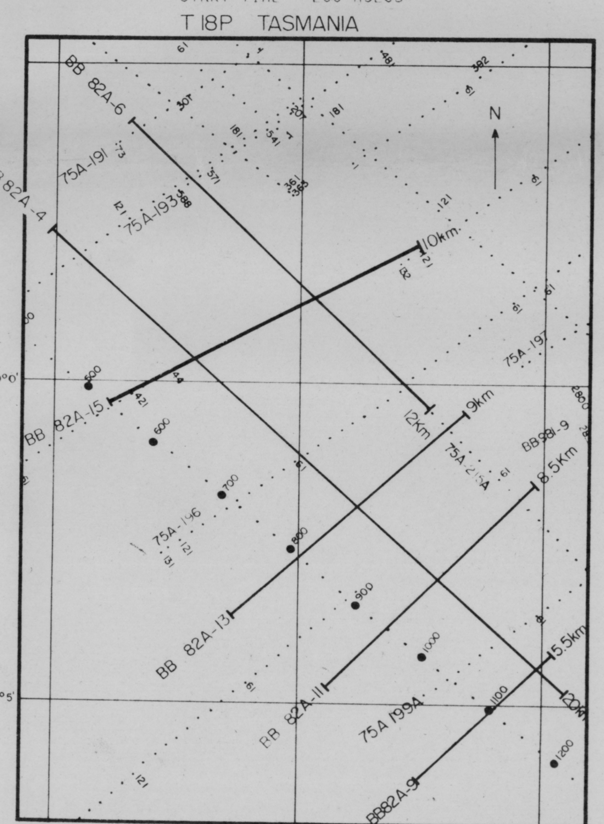
OFFSET(M)	START TIME(MSECS)
496	0
529	500
1896	1900
3495	3000

DESIGNATURE -V4	- STANDARD MARINE WAVELET
VELOCITY ANALYSIS	- USING 5 DEPTH POINT VELSCAN ANALYSES LOCATED 1 EVERY 3 KMS
NORMAL MOVEOUT CORRECTION	- USING ANNOTATED VELOCITIES (CHOSEN BY CLIENT)
FIRST BREAK SUPPRESSION	- START TR 2 AT 0 MSECS START TR 3 AT 500 MSECS START TR 21 AT 1800 MSECS START TR 48 AT 3400 MSECS
COMMON DEPTH POINT STACK	- 48 FOLD CDP STACK TO 5 0 SECONDS
MIGRATION STACK	- WAVE EQUATION - WIDE ANGLE TO 4 0 SECONDS
TIME VARIANT DECONVOLUTION	- GAPPED. 2 GATES. FILTER LENGTH 208MS + GAP 32MS START TIME 200MS
TIME VARIANT FILTERING	- FREQUENCY (HZ) / TIME (MSEC)

FREQUENCY (HZ)	TIME (MSEC)
15 - 65	0
15 - 60	800
12 - 50	1500
10 - 45	2200
10 - 40	3000
10 - 37	4000

TIME VARIANT SCALING	USING 2000 MSEC GATES START TIME 200 MSECS

T 18P TASMANIA



DISPLAY

HORIZONTAL SCALE	- 24 0 TR/IN 60.006012 TR/KM
VERTICAL SCALE	- 5 0 IN / SEC
POLARITY	- NORMAL
TRACE TYPE . BIAS	- WTVAR . 10 0 PERCENT
DATUM	- SEA LEVEL
DISPLAY UNIT	- 0 677333 CM

DISPLAY GAIN

5 cm

599036

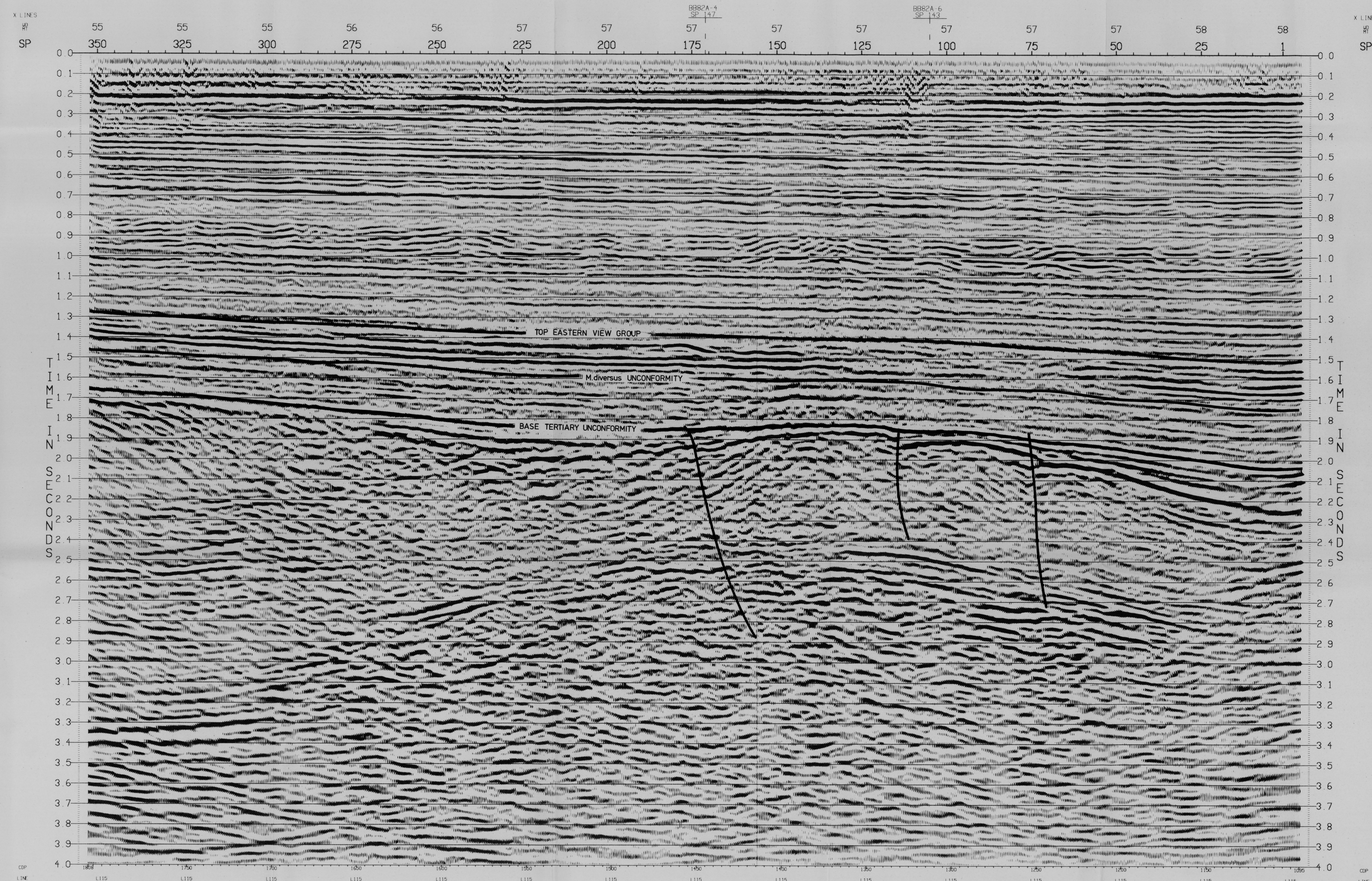
25 SEP 1982
00.59 59

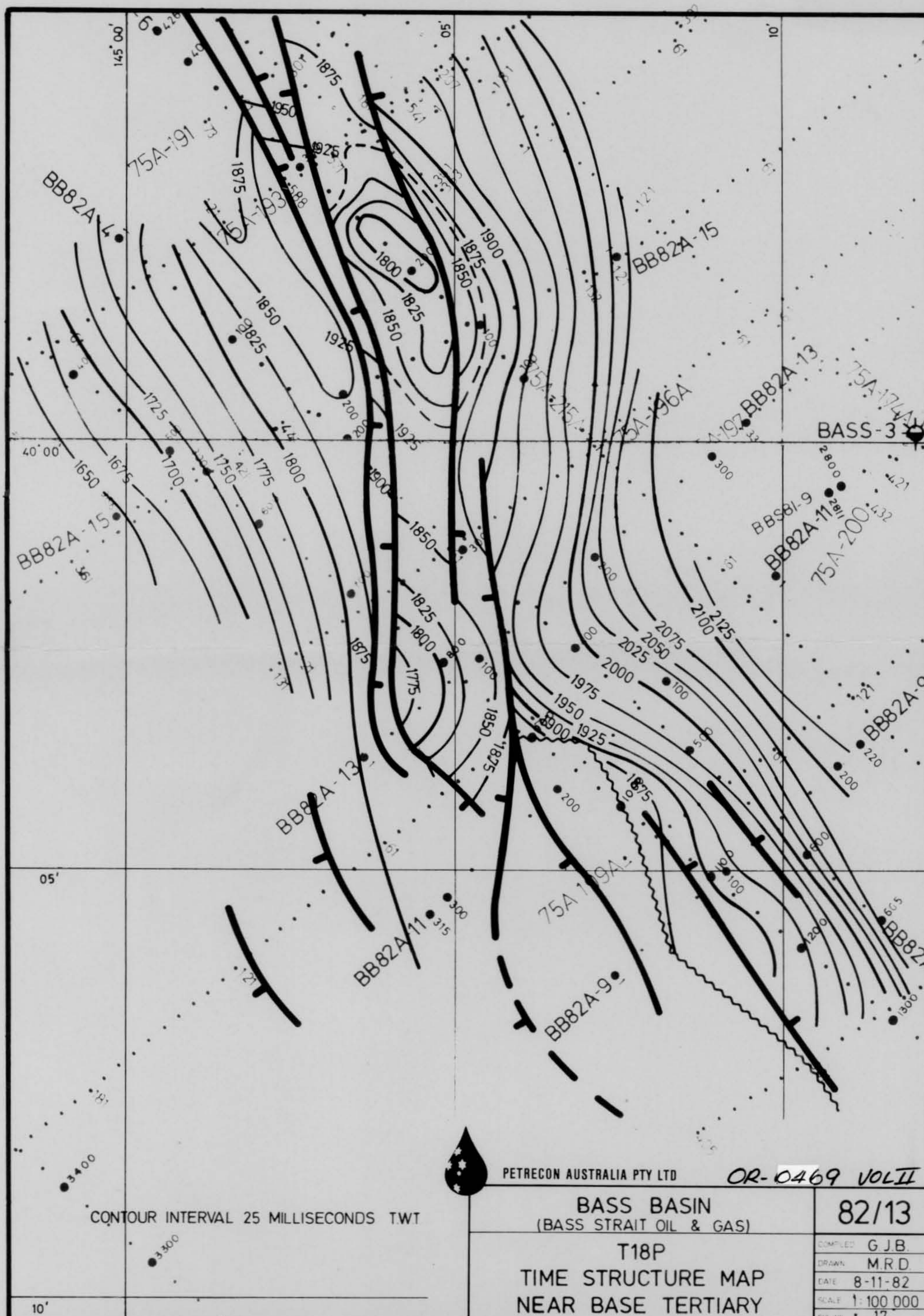
PARTY 6860

PETRECON AUSTRALIA PTY LTD

BASS BASIN (BASS STRAIT OIL & GAS N.L.)	82/17
LINE BB82A-15 NE-SW OVER TOP EASTERN VIEW PROSPECT	COMPILED G.J.B DRAWN DATE 10-12-'82 SCALE FIGURE 16

OR-0469 Vol II




PETRECON AUSTRALIA PTY LTD
OR-0469 VOL II
BASS BASIN
(BASS STRAIT OIL & GAS)
82/13
T18P
TIME STRUCTURE MAP
NEAR BASE TERTIARY
COMPILED G.J.B.
DRAWN M.R.D.
DATE 8-11-82
SCALE 1: 100 000
FIGURE 17
CONTOUR INTERVAL 25 MILLISECONDS T.W.T.
BASS-3
BB82A-4
BB82A-15
BB82A-13
BB82A-11
BB82A-9
BBS81-9
75A-191
75A-193
75A-196A
75A-200
75A-174A
145°00'
05'
10'
40°00'
5 cm

599037

LINE BB82A-13
S.P. 1 TO 330

BASS STRAIT OIL, GAS N.L.
T 18P
SYDNEY PROCESSING CENTRE

49 DEGREES — DIRECTION SHOT

MSTK TVD/TVF/TVS

FIELD DATA

DATA SHOT BY	- GSI PARTY 2993 M V LADY VILMA
DATE SHOT	- APRIL 1982
RECORDING INSTRUMENTS	- DFS V
RECORDING FILTERS	- HIGH FILTER AND SLOPE 128 HZ 72 DB/OCT LOW FILTER AND SLOPE 8 HZ 18 DB/OCT
RECORDING POLARITY	- A POSITIVE PRESSURE AT THE GEOPHONE PRODUCES A NEGATIVE NUMBER ON TAPE AND A DOWNWARD DEFLECTION ON THE FIELD MONITOR RECORD
DIGITAL TAPE FORMAT	- SEG B 1600 BPI PHASE ENCODED
RECORD LENGTH / SAMPLE RATE	- 5 0 SECONDS AT 2 MILLISECOND SAMPLE RATE
ENERGY SOURCE	- 4075 CU IN AIRGUN ARRAY OPERATING AT 2000 PSI
GUN DELAY	- 51 2 MILLISECONDS
SOURCE DEPTH	- 6 METRES AVERAGE
SOURCE TO ANTENNA DISTANCE	- 57 88 METRES
SHOTPOINT INTERVAL	- 33 3 METRES. 1 POP PER SHOTPOINT
SHOTPOINT ANNOTATION	- SHOTPOINTS ANNOTATED AT SOURCE POSITION
CABLE LENGTH	- 3200 METRES. 96 GROUPS
CABLE DEPTH	- 13 METRES AVERAGE
GEOPHONES	- 20 PER GROUP
COVERAGE	- 48 FOLD. 96 TRACE
PRIMARY NAVIGATION SYSTEM	- MAXIRAN
BACKUP NAVIGATION SYSTEM	- GEONAV

SPREAD DIAGRAM

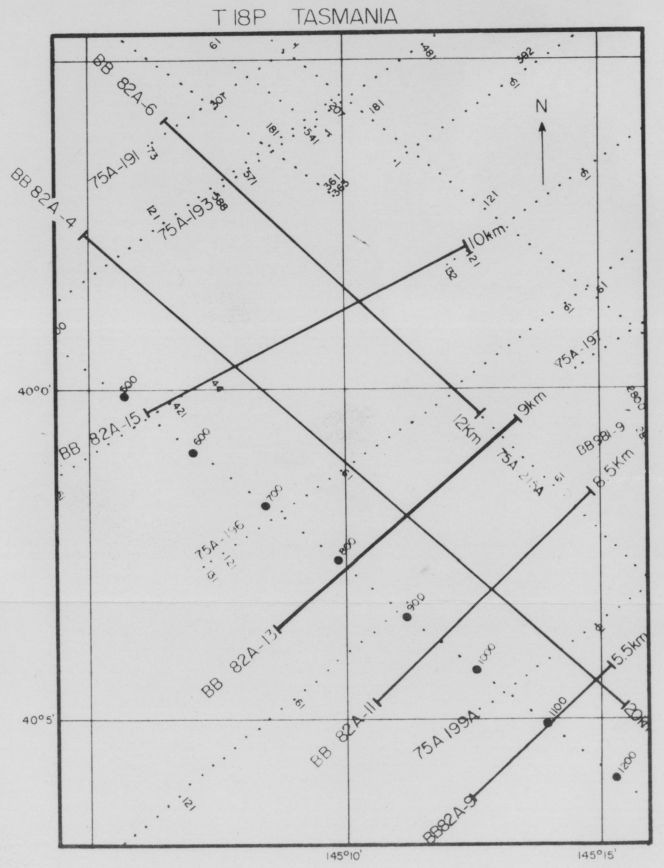
3167 M

96 GEOPHONE GROUPS

DIGITAL PROCESSING

POLARITY CONVENTION	- THE POLARITY OF THE FIELD RECORDING WAS MAINTAINED THROUGHOUT THE PROCESSING AND DISPLAY
PROCESSING RECORD LENGTH	- 5 0 SECONDS
RESAMPLE	- MINIMUM PHASE RESAMPLE FROM 2 TO 4 MSEC
PROCESSING SAMPLE RATE	- 4 MILLISECONDS
STATIC CORRECTIONS	- SHOT AND STREAMER STATIC 13 MILLISECONDS AIRGUN DELAY 51 2 MILLISECONDS
TRUE AMPLITUDE RECOVERY	- 7 0 DB PER SECOND FROM 0 TO 5 0 SECONDS SPHERICAL DIVERGENCE CORRECTIONS APPLIED
PRE DECONVOLUTION MUTE	- RAMP LENGTH = 96 MSECS OFFSET(M) START TIME(MSECS) 496 0 529 500 1896 1900 3495 3000
DESIGNATURE - V4	- STANDARD MARINE WAVELET
VELOCITY ANALYSIS	- USING 5 DEPTH POINT VELSCAN ANALYSES LOCATED 1 EVERY 3 KMS
NORMAL MOVEOUT CORRECTION	- USING ANNOTATED VELOCITIES (CHOSEN BY CLIENT)
FIRST BREAK SUPPRESSION	- START TR 2 AT 0 MSECS START TR 3 AT 500 MSECS START TR 21 AT 1800 MSECS START TR 48 AT 3400 MSECS
COMMON DEPTH POINT STACK	- 48 FOLD CDP STACK TO 5 0 SECONDS
MIGRATION STACK	- WAVE EQUATION - WIDE ANGLE TO 4 0 SECONDS
TIME VARIANT DECONVOLUTION	- GAPPED. 2 GATES. FILTER LENGTH 208MS - GAP 32MS START TIME 200MS
TIME VARIANT FILTERING	- FREQUENCY (HZ) TIME (MSEC) 15 65 0 15 60 800 12 50 1500 10 45 2200 10 40 3000 10 37 4000
TIME VARIANT SCALING	- USING 2000 MSEC GATES START TIME - 200 MSECS

T 18P TASMANIA

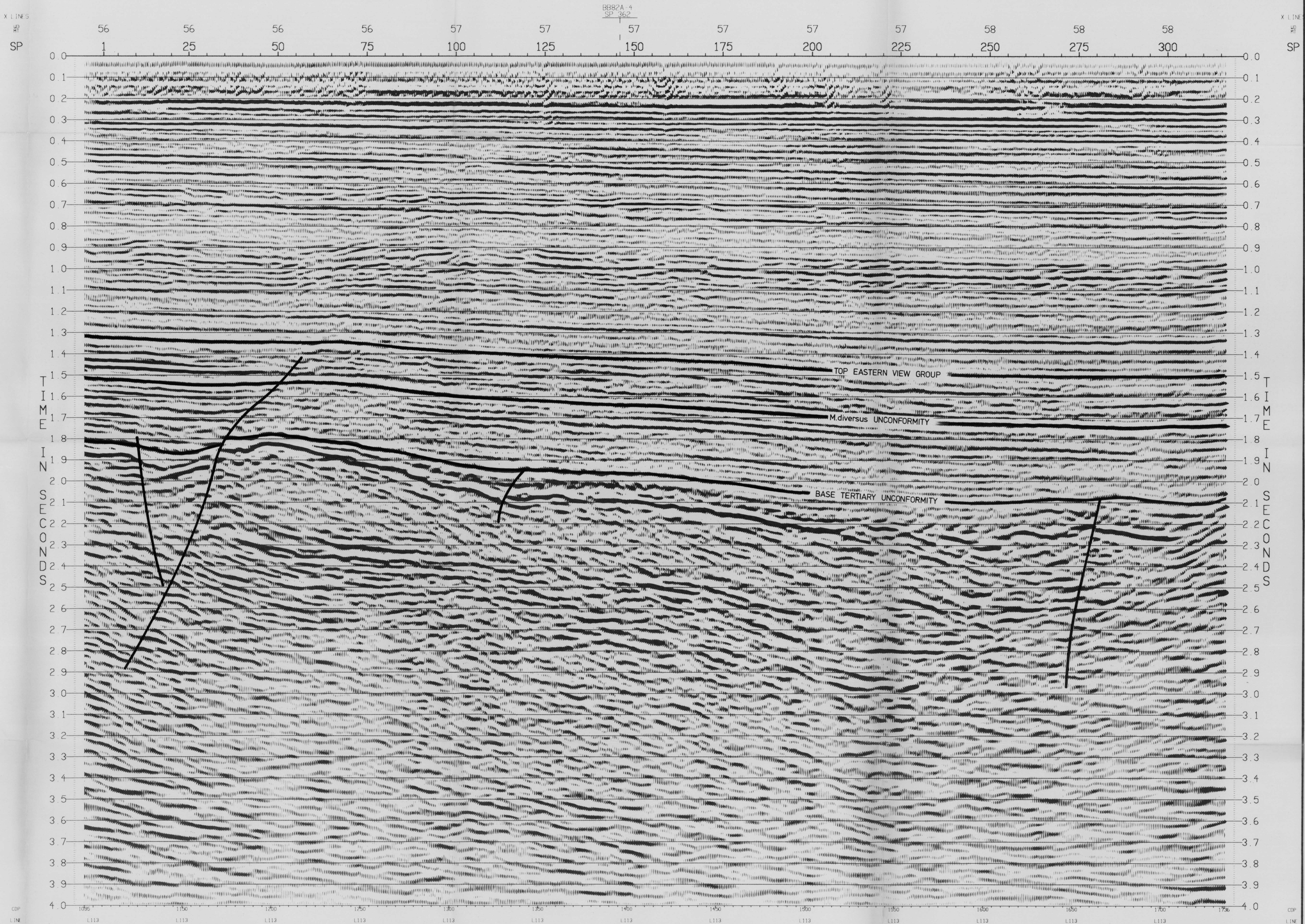


DISPLAY

HORIZONTAL SCALE	24 0 TR/IN 60 006012 TR/KM
VERTICAL SCALE	5 0 IN / SEC
POLARITY	NORMAL
TRACE TYPE . BIAS	WTVAR . 10 0 PERCENT
DATUM	SEA LEVEL
DISPLAY UNIT	0 677333 CM

DISPLAY GAIN

5 cm



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PARTY 6860

PETRECON AUSTRALIA PTY LTD

BASS BASIN (BASS STRAIT OIL & GAS N.L.)	82/18
LINE BB82A 13 NE-SW OVER BASE TERTIARY PROSPECT	COMPILED G.J.B. DRAWN DATE 10-12-82 SCALE FIGURE 18

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OR-0469 VOL II