

VAN DIEMAN'S LAND RESOURCES N.L.
17-23 QUEENSBRIDGE STREET,
SOUTH MELBOURNE .. VIC .. 3205.

T/17P part 4

111001

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ANNUAL REPORT, YEAR 2, T17P

OTWAY BASIN, TASMANIA

FOR

VAN DIEMAN'S LAND RESOURCES N.L.

CONSORTIUM.

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INTRODUCTION

This report relates to work carried out by Van Dieman's Resources N.L. as Operator for the Consortium which hold title to T17P for the period 8th May, 1982 to 7th August, 1982. This is the final quarterly report for the second permit year.

GEOLOGICAL PROGRAMMES

Van Dieman's Land Resources N.L. in association with Bass Strait Oil & Gas (Holdings) N.L. are currently conducting a burial and thermal geohistory study in the Central Otway Basin region and encompassing the Prawn - 1 well in T17P. Samples have been collected and submitted to Keiraville Konsultants (Prof. A. Cook, Wollongong University) for vitrinite reflectance determination and Paltech Pty. Ltd. (Dr. I. Deighton) for geohistory studies. Vitrinite reflectance data for the Prawn - 1 and also the neighbouring Mussel - 1 and Whelk - 1 wells are included (Appendix 1). The stratigraphic table combined with the vitrinite reflectance data (Appendix 2) show that the lower Upper Cretaceous and the Lower Cretaceous Otway Group are within the oil generation window. The comprehensive study should be available during the next quarter.

GEOPHYSICAL PROGRAMMES

During permit year 1, 137 line kilometres of 48 fold seismic data were collected and processed. These regional lines tied the Prawn A - 1 well within the permit to the Mussel - 1 well to the northwest and provided good quality data to assist in the re-interpretation of the previous H03 and H04 seismic data collected by Hematite Petroleum Pty. Ltd. These data were interpreted during the first quarter and the results were outlined in the report "Seismic Interpretation Report on a Marine Seismic Survey of T17P, Tasmania." A time structure contour map of the Top of the Sherbrook Unconformity is enclosed (Figure 1). Since the deeper data recorded by the H03 and H04 surveys were very poor and the grid of the 1981 survey was widely spaced, no structure contour maps of the deeper horizons were prepared. However, several prospective leads in the deeper section have been out-lined and shown on Enclosure 2.

The Prawn structure (Anomaly A) shows that the Prawn A - 1 well location to be off structure and incorporating the interval velocity of 3500/sec at the top of the Otway Group, would imply that the well was over 150 metres below the crest at this level.

Anomaly B is shown as a closed anticline at or near the top of the Otway Group. Its culmination has been mapped to the north fo the T17P boundary, although further detailed seismic map reveal smaller closed structures along the crest.

From March 1 to May 3, 1982, the permit holders of Vic P16, together with the Consortium in Tasmanian Permits T17P and T20P conducted a seismic survey to provide further information over Anomaly B. 22.5 line kilometres of 48 fold data was collected on T17P, 15 line kilometres on T20P and 88 line kilometres over the structure was gathered on Vic P16.

4.

These data were processed by G.S.I. at their Sydney processing centre and some final film displays were available at the end of the report period. Processing and interpretation should be complete during the next permit year. Paper prints of lines OMQ82A - 01, OMQ82A - 10, OMQ82A - 12 and OMQ82A - 14 which extend onto T17P are enclosed.

VAN DIEMAN'S LAND RESOURCES N.L.EXPENDITURE REQUIREMENTS - T17P

First Year	\$60,000	Preliminary investigation.
Second Year	\$100,000	Initial seismic programme.
Third Year	\$45,000	Interpretation and seismic reprocessing.

ACTUAL EXPENDITURE - T17P

First Year	\$81,768
Second Year	\$46,807
	<hr/>
	<u>\$128,575</u>

The second year expenditure has been calculated to June 30th, 1982.

WORK PROGRAMME FOR YEAR THREE

The geological and geophysical data search and collation which was programmed for the first year has been accomplished. Interpretation and evaluation of data enabled the company to prepare a traverse grid for the initial marine seismic survey planned for the second year but not in the first year. A total of 137kms of 48 fold seismic data were collected between February 1 and February 2, 1981. These data were subsequently processed and interpreted during the second permit year and several leads were defined. The most significant lead traversed neighbouring permits Vic P16 and T20P. In order to further delineate this structure an extra 22.5 kms of 48 fold data were gathered in T17P during the second permit year. During the third permit year the 1981 and 1982 data will be intergrated with earlier data. Reprocessing will be required for lead and prospect definition. Geological evaluation, particularly of heat flow and geochemical data, will be necessary to mature one or more of these leads and prospects.

7.

REPORTS SUBMITTED DURING THE SECOND PERMIT YEAR

Quarterly Report for the period 8th August to 7th November, 1981.

Quarterly Report for the period 8th November to 7th February, 1982.

Seismic Interpretation Report on a Marine Seismic Survey of T17P Tasmania.

Third Quarter Report, Year2, T17P.

APPENDIX 1.

WHELK No. 1

K.K. No.	Depth (m)	\bar{R}_V max	Range	N	Exinite Fluorescence (Remarks)
PEMBER FORMATION					
15756	1091 Ctgs	0.39	0.31-0.49	16	Rare sporinite, dinoflagellates and resinite, yellow to orange. (Siltstone>sandstone, d.o.m. sparse, I>V>E. Inertinite and vitrinite rare. Some coal clasts are present. These contain I and suberinite in addition to V and resinite.)
TIMBOON FORMATION					
15755	1131 Ctgs	0.41	0.25-0.50	20	Exinite is similar to 15756. (Sandy claystone and rare sandstone. D.o.m. rare, I>V=E. V and I both rare. Coal fragments present. Very similar to 15756.)
BELFAST MUDSTONE					
15757	1250 Ctgs	0.45	0.36-0.58	26	Abundant sporinite, yellow to orange, sparse cutinite, common resinite and bituminite/suberinite. (Coal>siltstone>claystone=sandstone. Coal is dominantly duroclarite and vitrite but includes some canneloid liptite. The facies of the coals is similar to some of the coal types found in the Eastern View Coal Measures.)
FLAXMAN FORMATION					
15758	1292 Core	0.58	0.53-0.65	8	Rare cutinite, sporinite and resinite, orange, and rare dinoflagellates yellow to orange. (Clay-rich siltstone, d.o.m. common, I>>V=E. Inertinite sparse to common. Vitrinite rare.)
15759	1309 Ctgs	0.48	0.32-0.60	14	Rare sporinite, cutinite and resinite, yellow to orange. (Siltstone>claystone>sandstone>coal. D.o.m. rare to sparse, I>V>E. V>E>I in coal. Sample had been heat-altered during drying, but the results should not have been markedly affected by this artefact. Pyrite sparse. Inertinite sparse, and vitrinite rare.)
15760	1314 Ctgs	0.44	0.34-0.54	18	Rare sporinite and cutinite, yellow to orange. (Siltstone>claystone>sandstone, and rare coal, d.o.m. sparse, I>V>E. Coal chiefly clarite and duroclarite, V=E>>I. Fluorescing wood tissue present, presumed to be a drilling-mud additive.)
15761	1368 Core	0.47	0.39-0.55	21	Rare sporinite and cutinite, yellow orange to orange. Rare fluorinite, green and suberinite, dull brown. (Sandstone with d.o.m. abundant, V>I>E. Vitrinite abundant occurring as large phytoclasts, inertinite common to abundant, occurring as both large and small phytoclasts. Rare coal clasts with sporinite and bituminite.)

APPENDIX 1.

PRAWN No.1

K.K. No.	Depth (m)	\bar{R}_V max	Range	N	Exinite Fluorescence (Remarks)
15762	1306 Core	0.35	0.22-0.47	12	Rare cutinite and sporinite, yellow to orange. (Sandstone, silty with d.o.m. sparse to common, I>V>E. Inertinite sparse, vitrinite rare. Inertinite as large clasts, vitrinite as smaller and less abundant clasts.)
15763	2343 Core	0.49	0.44-0.61	20	Rare sporinite, cutinite and resinite, yellow orange to orange. (Fine sandstone, mudstone and carbonaceous claystone, d.o.m. common, V>I>E. The mudstone contains numerous small inertinite clasts. Vitrinite and inertinite, both common. Vitrinite typically as large clasts.)
15764	2831 Core	0.75	0.62-0.82	20	Rare cutinite and sporinite, orange to dull orange. (Siltstone with d.o.m. common, V>I>E. Vitrinite as extensive layers, possibly derived from <u>in situ</u> root tissue. Vitrinite common, inertinite sparse to common. Pyrite locally common as a replacement mineral in vitrinite and as frambolds.)
15765	3008 Core	0.94	0.73-1.10	22	Cutinite>sporinite, rare overall but common in rare layers of clarite, orange to dull orange. (Sandstone with large phytoclasts of vitrinite and semifusinite. Thin layers of cutinite-rich clarite and duroclarite. The majority of the vitrinite occurs as isolated layers, but the presence of the coal suggests that the facies is transitional to coal. D.o.m. abundant V>I>>E. Vitrinite abundant, inertinite common.)
15766	3190 Core	0.90	0.79-1.10	20	Sporinite>cutinite, rare overall but locally abundant, orange to dull orange. (Sandstone with thin layers of claystone and vitrinite dominantly as large phytoclasts. Some micrinite present in the telocollinite. Inertinite rare, vitrinite abundant. V>>E>I.)

T.D. 3193m

APPENDIX 1.

MUSSEL No. 1				
K.K. No.	Depth (m)	\bar{R}_{Vmax}	Range	Exinite Fluorescence N (Remarks)
WANGERRIP GROUP				
PEMBER/RIVENOOK 1242m				
15358	1260 Ctgs	0.39	0.32-0.45	20 Rare dinoflagellates, cutinite and sporinite, yellow to orange. (Siltstone with minor limestone and sandstone. D.o.m. rare, V>E>I. Vitrinite phytoclasts typically small, some ?reworked coal. Sparse pyrite.)
PEBBLE POINT 1296m				
15359	1385 Ctgs	0.40	0.32-0.45	20 Rare dinoflagellates yellow to orange, rare sporinite in claystone, orange, rare resinite orange. (Claystone, siltstone, sandstone and limestone. D.o.m. rare to sparse, I>V>E. Phytoclasts small. Pyrite abundant.)
BELFAST MUDSTONE 1400m				
15360	1483 Ctgs	0.63 0.44	0.53-0.78 0.41-0.47	15 Rare sporinite, cutinite and resinite, orange. Rare 8 dinoflagellates, yellow to orange. (Siltstone>sandstone, some limestone. D.o.m. sparse, I>E. Two populations are present which could be referred to vitrinite. In total abundance they approximately equal inertinite. Either mode may represent the maturation level at the horizon sampled. The higher mode may represent a weakly oxidized vitrinite population, or the lower mode may represent a cavings population. The reflectance found for 15359 suggests that the lower mode is more likely to be representative.)
SHERBROOK GROUP				
FLAXMAN FORMATION 2010m				
15361	2013 Ctgs	0.50	0.40-0.55	23 Rare dinoflagellates, yellow, probably from the Belfast Mudstone. (Silty mudstone with minor sandstone and some limestone. D.o.m. sparse, I>E>?V. Much of the sample appears to be derived from the Belfast Mudstone. Thucholitic bitumen found, dull orange fluorescence on rim, rim reflectance 0.42%. Core is of low reflectance and is not zircon. Pyrite common.)
WARRE FORMATION 2084m				
15362	2102 Core	0.50	0.41-0.59	14 Sparse cutinite and sporinite yellow orange to orange. Rare fluorinite/resinite, green to yellow. (Sandstone with d.o.m. rare and siltstone abundant, I>E>V. Inertinite abundant, vitrinite rare, but vitrinite population well-defined.)
OTWAY GROUP 2225m				
15363	2238 Core	0.64	0.56-0.73	25 Sparse cutinite and rare sporinite, yellow to orange. Rare fluorinite/resinite, green to orange. (Siltstone with d.o.m. abundant, V>I>E. Vitrinite abundant, typically structured. Pyrite sparse.)
T.D. 2450m				

Appendix 2.

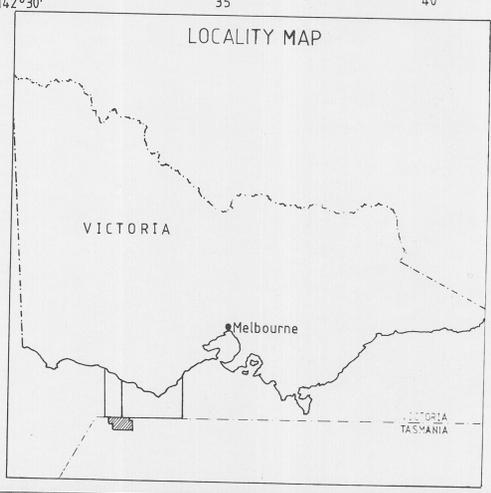
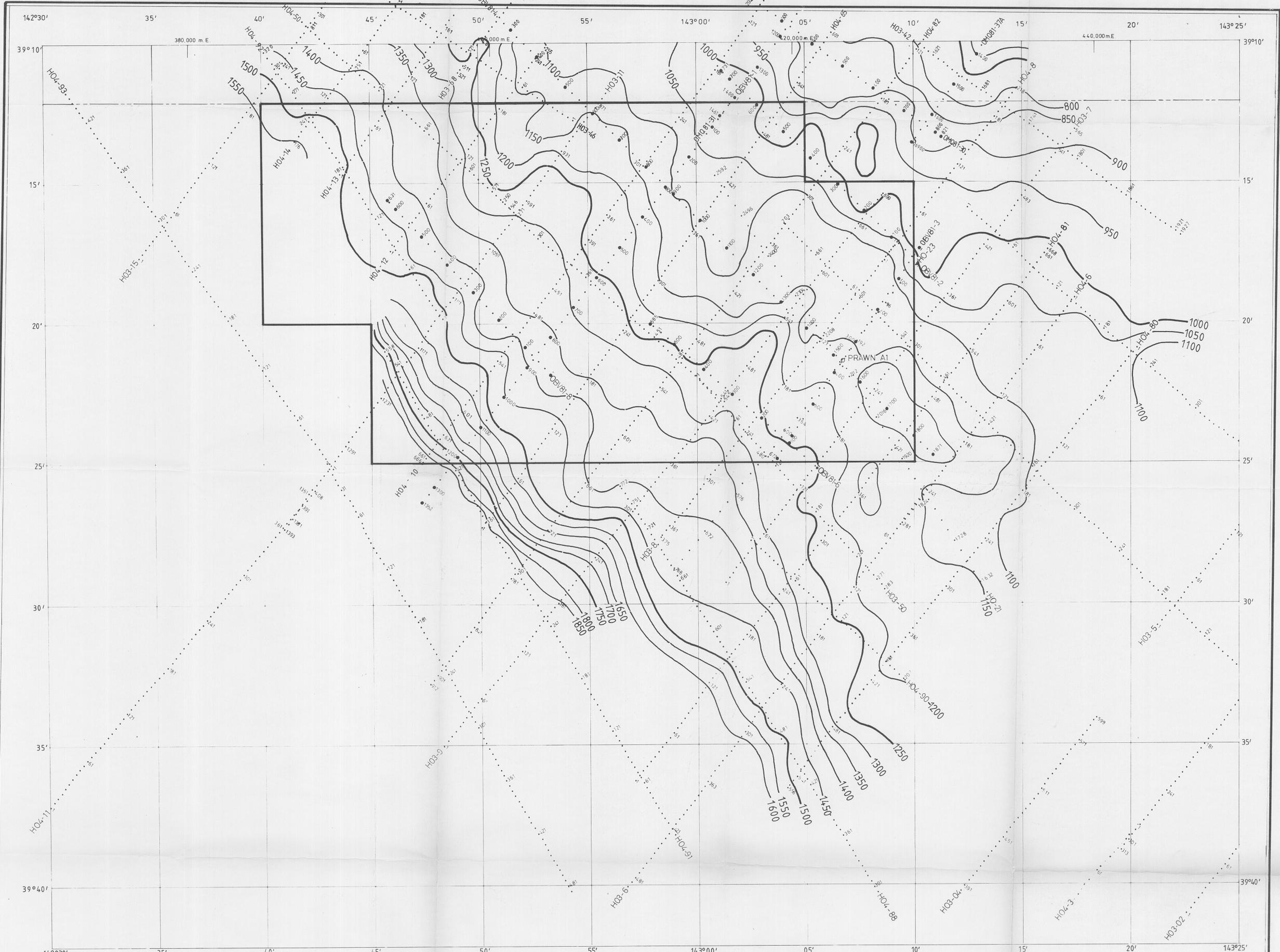
STRATIGRAPHIC TABLE PRAWN A - 1

111014

Water depth 108m

Depths are relative to R.T. (subtract 27m for M.S.L.)

<u>Age and Formation</u>	<u>Depth</u>	<u>Thickness</u>	<u>Lithology</u>	<u>Depth</u>	<u>Vitrinite Reflectance</u>	<u>Range</u>
<u>Miocene-Oligocene:</u>						
Gellibrand Marl	108 - 735	627	Marl interbedded with limestone: calcareous sandstones and siltstones.			
<u>Oligocene:</u>						
Clifton limestone	735 - 752	17	Skeletal Limestone: Slightly sandy.			
<u>Upper Eocene:</u>						
Narrawaturk Marl	752 - 922	170	Marl interbedded with limestone			
<u>Oocene-Paleocene:</u>						
Mepunga and Dilwyn	922 - 1186	264	Sand and sandstone: pyritic, carbonaceous.			
<u>Paleocene:</u>						
Rivernook	1186 - 1206	20	Silty mudstone			
Pebble Point	1206 - 1265	59	Sand and conglomerate			
Unconformity						
<u>Upper Cretaceous:</u>						
Sherbrook Group						
Curdies-Paaratte	1265 - 2175	910	Sandstone with occasional thin interbeds of shale.	1306	0.35	0.22 - 0.47
Belfast	2175 - 2228	53	Shale			-
Belfast-Flaxmans	2228 - 2857	628	Calcareous sandstones	2343	0.49	0.44 - 0.61
Waarre	2857 - 2444	88	Conglomerate	2831	0.75	0.62 - 0.82
Unconformity						
<u>Lower Cretaceous:</u>						
Otway Group	2944 - 3193	249+	Lithic sandstones	3008 3190	0.94 0.90	0.73 - 1.10 0.79 - 1.10



VAN DIEMEN'S LAND RESOURCES NL.

T-17P
OTWAY BASIN
SEISMIC MAP

TOP OF SHERBROOK UNCONFORMITY
111015

5 cm

Datum: Sea Level Contour Int.: 50m sec

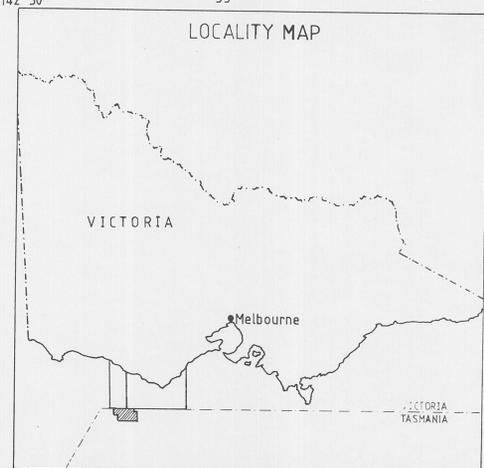
Scale 1:100,000

0 1 2 3 4 5 6 7 8 9 10
Kilometres

Author: E. R.D. Date: Oct,81 Enclosure: 1

CR-0116

VOL. 2



VAN DIEMEN'S LAND RESOURCES NL

T-17P
OTWAY BASIN
SEISMIC MAP

PROSPECTIVE LEADS

5 cm

111016

Datum: Sea Level Contour Int.:

Scale 1:100,000

0 1 2 3 4 5 6 7 8 9 10
Kilometres

Author: E.R.D. Date: Dec, 81 Enclosure: 2

CR-0116

VER 1.

111017

LINE OMQ82A-01 S.P. 1 TO 391

BASS STRAIT OIL GAS (HOLDINGS) N.L. PROSPECT (VIC P16) SYDNEY PROCESSING CENTRE



STACK DAS/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 - SEC B 1600 BPI PHASE ENCODED
- RECORD LENGTH / SAMPLE RATE - 4075 CU IN AIRGUN ARRAY OPERATING AT 2000 PSI
- ENERGY SOURCE - 51 2 MILLI SECONDS
- GUN DELAY - 6 METRES AVERAGE
- SOURCE DEPTH - 33.3 METRES 1 POP PER SHOTPOINT
- SOURCE TO ANTENNA DISTANCE - 3200 METRES 96 GROUPS
- SHOTPOINT INTERVAL - 13 METRES AVERAGE
- SHOTPOINTS ANNOTATED AT SOURCE POSITION - 13 METRES AVERAGE
- CABLE LENGTH - 20 PER GROUP
- CABLE DEPTH - 49 FOLD 96 TRACE
- GEOPHONES - MAXIRAN
- COVERAGE - GEONAV
- PRIMARY NAVIGATION SYSTEM - GEONAV
- BACKUP NAVIGATION SYSTEM - GEONAV

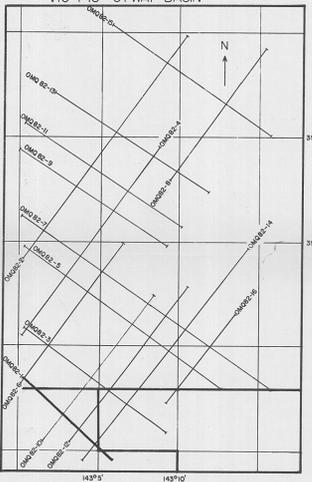
SPREAD DIAGRAM



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
 - TRUE AMPLITUDE RECOVERY - AIRGUN DELAY 51.2 MILLISECONDS
 - PRE DECONVOLUTION MUTE - 7.0 DB PER SECOND FROM 0 TO 5.0 SECONDS
 - SPHERICAL DIVERGENCE CORRECTIONS APPLIED - RAMP LENGTH = 96 MSEC
- | OFFSET(M) | START TIME(MSEC) |
|-----------|------------------|
| 427 | 0 |
| 160 | 350 |
| 1694 | 1500 |
| 3493 | 3000 |
- VELOCITY FILTERING - DIPS -11/-4 MS/TRACE
 - DESIGNATURE - V4
 - STANDARD MARINE JAVELET
 - A STRAIGHT DECIAMATION TO 48 TRACE 48 FOLD DATA
 - USING 5 DEPTH POINT KELSCHAN ANALYSES
 - LOCATED 1 EVERY 3 KMS
 - USING ANNOTATED VELOCITIES (CHOSEN BY CLIENT)
 - START TR 2 AT 0 MSEC
 - START TR 7 AT 600 MSEC
 - START TR 28 AT 3000 MSEC
 - START TR 48 AT 3400 MSEC
 - COMMON DEPTH POINT STACK
 - RECONVOLUTION - 48 FOLD CDP STACK
 - 2 X 236 MSEC ACTIVE FILTER LENGTH
 - DESIGN GATE (25 PERCENT OVERLAP)
 - CAP = 24 MSEC
- | FREQUENCY (HZ) | TIME (MSEC) |
|----------------|-------------|
| 15 - 60 | 0 |
| 15 - 60 | 600 |
| 12 - 50 | 1000 |
| 10 - 45 | 2000 |
| 10 - 40 | 3000 |
| 10 - 35 | 5000 |
- TIME VARIANT FILTERING - USING 2 X 200, 2 X 2000 MSEC GATES
 - START TIME = 100 MSEC

VIC P16 OTWAY BASIN



DISPLAY

- HORIZONTAL SCALE - 24.0 TR/IN 30.00306 TR/KM
- VERTICAL SCALE - 10.0 CM / SEC
- POLARITY - NORMAL
- TRACE TYPE - BIAS 10.0 PERCENT
- DATUM - SEA LEVEL
- DISPLAY UNIT - 0.677333 CM

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01	01	00	00
02	01	00	00
03	01	00	00
04	01	00	00
05	01	00	00
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07	01	00	00
08	01	00	00
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10	01	00	00

23 JUL 1982
23 41 19

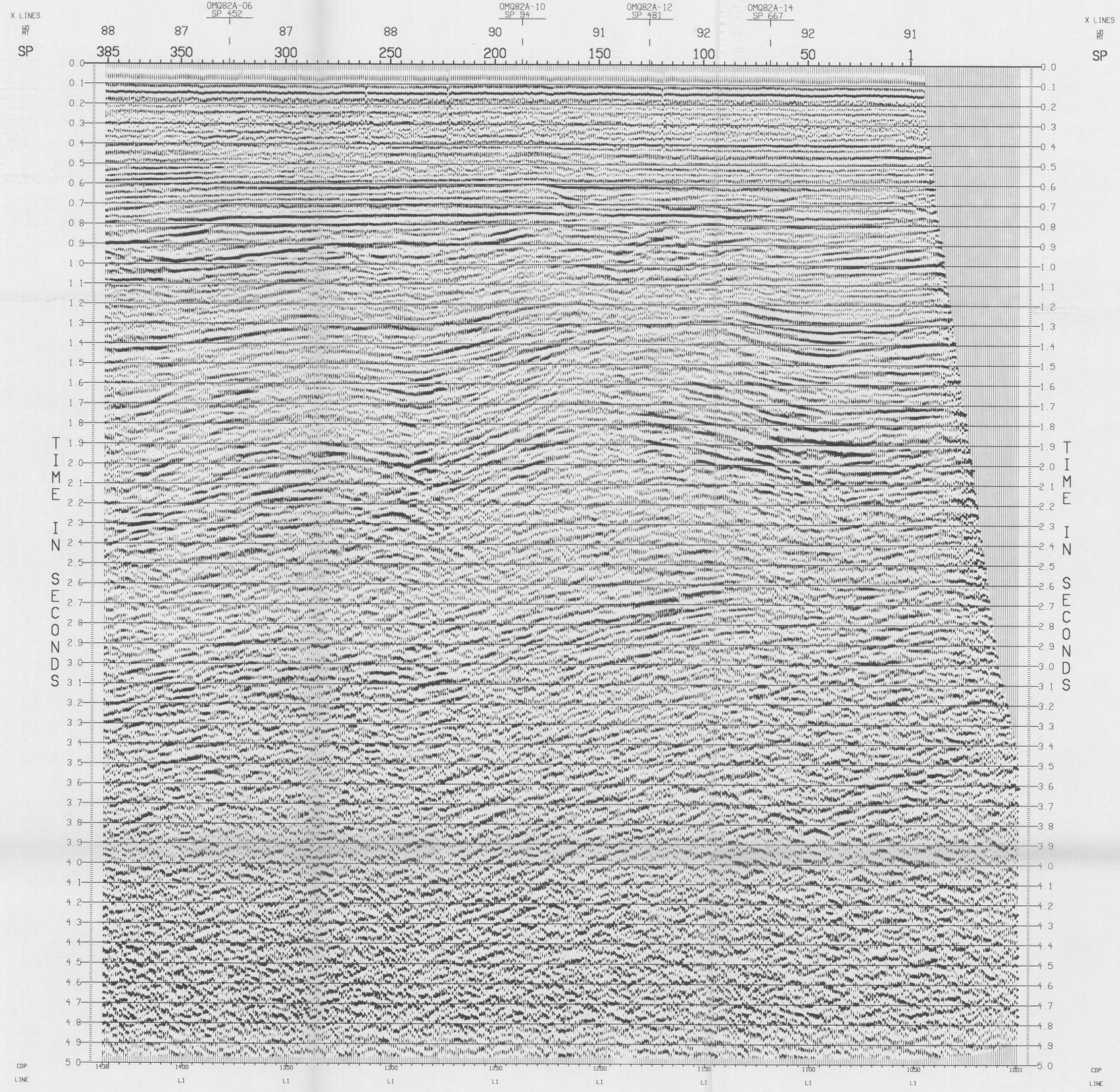
PARTY 6860



GEOPHYSICAL SERVICE INTERNATIONAL

(A DIVISION OF TEXAS INSTRUMENTS LTD)

PROCESSING CHECKED BY - D.M. [Signature]



STACK DAS/TVF/TVS

LINE OMQ82A-01
S.P. 1 TO 391

BASS STRAIT OIL GAS (HOLDINGS) N.L.
PROSPECT (VIC P16)
SYDNEY PROCESSING CENTRE

STACK DAS/TVF/TVS

LINE OMQ82A-01
S.P. 1 TO 391

BASS STRAIT OIL GAS (HOLDINGS) N.L.
PROSPECT (VIC P16)
SYDNEY PROCESSING CENTRE



111018

LINE OMQ82A-10 S.P. 1 TO 550

BASS STRAIT OIL, GAS (HOLDINGS) N.L. PROSPECT (VIC P16) SYDNEY PROCESSING CENTRE



STACK DAS/TVF/TVS

FIELD DATA

DATA SHOT BY - GSI PARTY 2993 M V LADY VILMA
 DATE SHOT - APRIL 1982
 RECORDING INSTRUMENTS - HIGH FILTER AND SLOPE 128 HZ 72 DB/OCT
 RECORDING FILTERS - 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.
 SEC B 1500 BPT PHASE ENCODED

DIGITAL TAPE FORMAT
 RECORD LENGTH / SAMPLE RATE - 0.0 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 - 62.77 METRES
 SHOTPOINT INTERVAL - 33.3 METRES 1 POP PER SHOTPOINT
 SHOTPOINT ANNOTATION - 51.2 MILLISECONDS
 CABLE LENGTH - 3200 METRES 96 GROUPS
 CABLE DEPTH - 13 METRES AVERAGE
 GEOPHONES - 90 PER GROUP
 COVERAGE - 48 FOLD 96 TRACE
 PRIMARY NAVIGATION SYSTEM - MAXNAV
 BACKUP NAVIGATION SYSTEM - GEONAV



DIGITAL PROCESSING

POLARITY CONVENTION - THE POLARITY OF THE FIELD RECORDING WAS MAINTAINED THROUGHOUT THE PROCESSING AND DISPLAY
 PROCESSING RECORD LENGTH - 6 SECONDS
 RESAMPLE - MINIMUM PHASE RESAMPLE FROM 2 TO 4 HSEC
 PROCESSING SAMPLE RATE - 4 HSEC/SECONDS
 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 MSEC

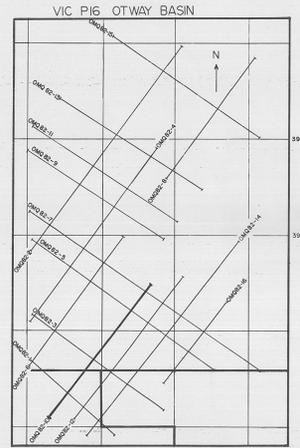
OFFSET(M)	START TIME(MSEC)
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460	350
1684	1500
3493	3000

VELOCITY FILTERING - DIPS - 117.4 MS/TRACE
 STANDARD MARINE WAVELET
 A STRAIGHT DECIMATION TO 48 TRACE 48 FOLD DATA
 USING 5 DEPTH POINT VELSCAN ANALYSES
 VELOCITY ANALYSIS - LOCATED 1 EVERY 3 KMS
 NORMAL MOVEOUT CORRECTION - USING ANNOTATED VELOCITIES (CHOSEN BY CLIENT)
 FIRST BREAK SUPPRESSION - START TR 2 AT 0 MSEC
 START TR 7 AT 600 MSEC
 START TR 38 AT 3000 MSEC
 START TR 48 AT 3400 MSEC

COMMON DEPTH POINT STACK DECONVOLUTION - 48 FOLD CDP STACK
 2 X 236 MSEC ACTIVE FILTER LENGTH
 DESIGN GATE (25 PERCENT OVERLAP)
 GAP - 24 MSEC

FREQUENCY (HZ)	TIME (MSEC)
15	60
15	600
12	1000
10	2000
10	3000
5	5000

TIME VARIANT SCALING - USING 2 X 200.2 X 2000 MSEC GATES
 START TIME - 100 MSEC



DISPLAY

HORIZONTAL SCALE - 24.0 TR/IN 30.00306 TR/KM
 VERTICAL SCALE - 10.0 CM / SEC
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 TRACE TYPE - UTWAR 10.0 PERCENT
 DATUM - SEA LEVEL
 DISPLAY UNIT - 0.677333 CM

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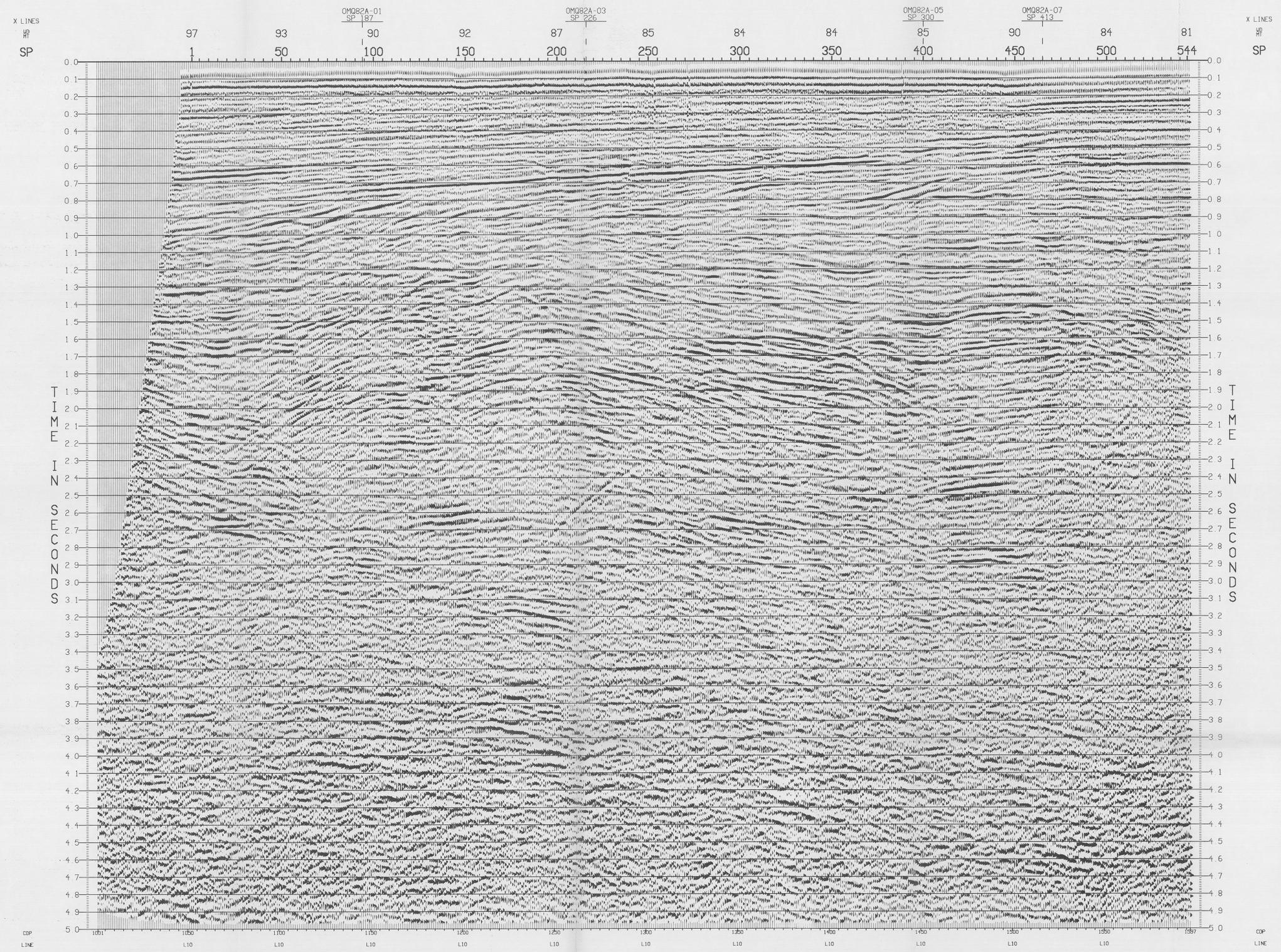
10 11
 12 13
 14 15
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24 JUL 1982
01:42:56

PARTY 6860

GEOPHYSICAL SERVICE INTERNATIONAL
(A DIVISION OF TEXAS INSTRUMENTS LTD)

PROCESSING CHECKED BY - D. Murray



STACK DAS/TVF/TVS

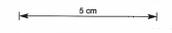
STACK DAS/TVF/TVS

LINE OMQ82A-10
S.P. 1 TO 550

LINE OMQ82A-10
S.P. 1 TO 550

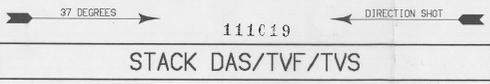
BASS STRAIT OIL, GAS (HOLDINGS) N.L.
PROSPECT (VIC P16)
SYDNEY PROCESSING CENTRE

BASS STRAIT OIL, GAS (HOLDINGS) N.L.
PROSPECT (VIC P16)
SYDNEY PROCESSING CENTRE



LINE OMQ82A-12 S.P. 1 TO 585

BASS STRAIT OIL/GAS (HOLDINGS) N.L.
PROSPECT (VIC P16)
SYDNEY PROCESSING CENTRE



FIELD DATA

DATA SHOT BY: GSI PARTY 2993 M.V. LADY VILMA
 DATE SHOT: APRIL 1982
 RECORDING INSTRUMENTS: DFG V
 RECORDING FILTERS: 33.3 HZ FILTER AND SLOPE 128 HZ 72 DB/OCT
 LOW FILTER AND SLOPE 8 HZ 18 DB/OCT
 RECORDING POLARITY: 4 POSITIVE PRESSURE AT THE GEOPHONE PRODUCES A NEGATIVE NUMBER ON TAPE AND A DOWNWARD DEFLECTION ON THE FIELD MONITOR RECORD
 DIGITAL TAPE FORMAT: SEC B 1600 BPI PHASE ENCODED
 RECORD LENGTH / SAMPLE RATE: 3.0 SECONDS AT 2 HILLISECOND SAMPLE RATE
 ENERGY SOURCE: 4075 CU. IN AIRGUN ARRAY OPERATING AT 2000 PSI
 GUN DELAY: 51.2 HILLISECONDS
 SOURCE DEPTH: 6 METRES AVERAGE
 SOURCE TO ANTENNA DISTANCE: 62.77 METRES
 SHOTPOINT INTERVAL: 29.3 METRES 1 POP PER SHOTPOINT
 SHOTPOINT ANNOTATION: SHOTPOINTS ANNOTATED AT SOURCE POSITION
 CABLE LENGTH: 3200 METRES 96 GROUPS
 CABLE DEPTH: 13 METRES AVERAGE
 COVERS: 20 PER GROUP
 PRIMARY NAVIGATION SYSTEM: 48 FOLD 96 TRACE
 BACKUP NAVIGATION SYSTEM: MAXIRAN
 GCONVY



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 HILLISECONDS
 STATIC CORRECTIONS: SHOT AND STREAMER STATIC 13 HILLISECONDS AIRGUN DELAY 51.2 HILLISECONDS
 TRUE AMPLITUDE RECOVERY: 7.0 DB PER SECOND FROM 0 TO 5.0 SECONDS
 SPHERICAL DIVERGENCE CORRECTIONS APPLIED
 PRE DECONVOLUTION MUTE: RAMP LENGTH 36 MSEC

OFFSETS (MS)	START TIME (MSEC)
427	0
460	350
1694	1500
1953	3000

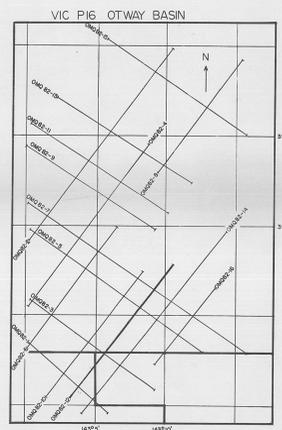
VELOCITY FILTERING: DIPS 11/1.4 MS/TRACE
 STANDARD MARINE GAVELLES
 A STRAIGHT DECIMATION TO 48 TRACE 48 FOLD DATA
 VELOCITY ANALYSIS: USING 5 DEPTH POINT VELSCAN ANALYSES

NORMAL MOVEOUT CORRECTION: USING ANNOTATED VELOCITIES (CHOSEN BY CLIENT)
 FIRST BREAK SUPPRESSION: START IR 6 AT 0 MSEC
 START IR 7 AT 600 MSEC
 START IR 39 AT 3000 MSEC
 START IR 48 AT 3400 MSEC

COMMON DEPTH POINT STACK DECONVOLUTION: 48 FOLD COP STACK
 2 X 236 MSEC ACTIVE FILTER LENGTH
 DESIGN GATE 125 PERCENT OVERLAP
 GAP 24 MSEC

FREQUENCY (HZ)	TIME (MSEC)
15 - 60	0
15 - 60	600
12 - 60	1000
10 - 45	2000
10 - 40	3000
10 - 35	5000

TIME VARIANT SCALING: USING 2 X 200 2 X 2000 MSEC GATES
 START TIME 100 MSEC

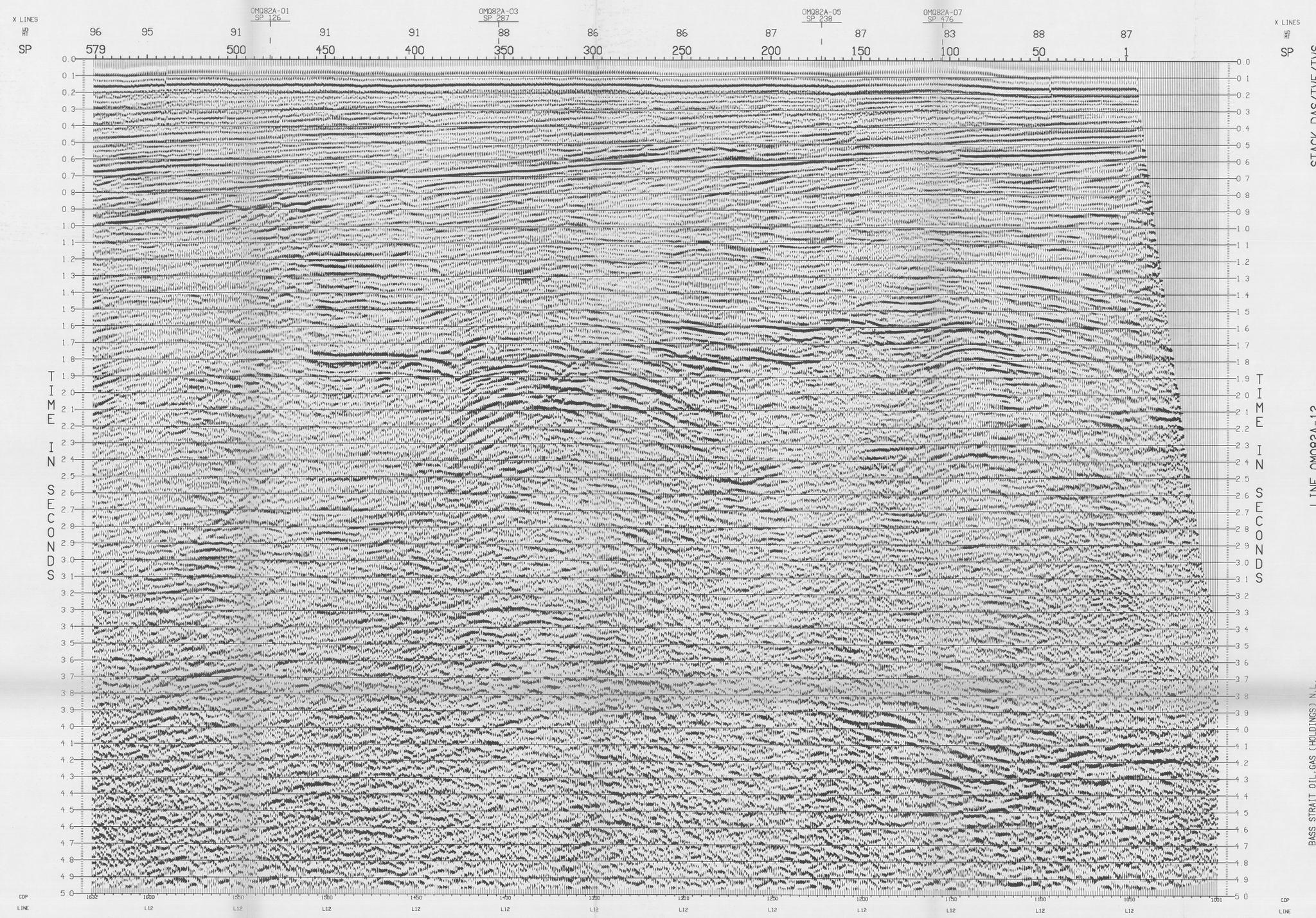


DISPLAY

HORIZONTAL SCALE: 24.0 TR/IN 30.003006 TR/KM
 VERTICAL SCALE: 10.0 CM / SEC
 POLARITY: NORMAL
 TRACE TYPE: 81AS UTVAR 10.0 PERCENT
 DATA: SEA LEVEL
 DISPLAY UNIT: 0.677333 CM

DISPLAY GAIN: 100 1000 10000 100000 1000000

24 JUL 1982 03 02:47
 PARTY 6860
 GEOPHYSICAL SERVICE INTERNATIONAL
 (A DIVISION OF TEXAS INSTRUMENTS LTD)
 PROCESSING CHECKED BY: D. Mumery



SP	96	95	91	91	88	86	86	87	87	83	88	87	
OMQ82A-01	579		500	450	400	350	300	250	200	150	100	50	1

STACK DAS/TVF/TVS
LINE OMQ82A-12
S.P. 1 TO 585

STACK DAS/TVF/TVS
LINE OMQ82A-12
S.P. 1 TO 585

BASS STRAIT OIL/GAS (HOLDINGS) N.L.
PROSPECT (VIC P16)
SYDNEY PROCESSING CENTRE

BASS STRAIT OIL/GAS (HOLDINGS) N.L.
PROSPECT (VIC P16)
SYDNEY PROCESSING CENTRE

CR 0116 VOL 1 ENCL 6

STACK DAS/TVF/TVS

LINE OMQ82A-14
S.P. 1 TO 780

BASS STRAIT OIL GAS (HOLDINGS) N.L.
PROSPECT VIC P16
SYDNEY PROCESSING CENTRE

24 JUL 1982
03:43:40
PARTY 6860
GEOPHYSICAL SERVICE INTERNATIONAL
(A DIVISION OF TEXAS INSTRUMENTS LTD)
PROCESSING CHECKED BY - P. Murray

111020

LINE OMQ82A-14
S.P. 1 TO 780

BASS STRAIT OIL GAS (HOLDINGS) N.L.
PROSPECT (VIC P16)
SYDNEY PROCESSING CENTRE

38 DEGREES DIRECTION SHOT

STACK DAS/TVF/TVS

FIELD DATA

DATA SHOT BY: GSI PARTY 2993 M.V. LADY VILMA
DATE SHOT: APRIL 1982
RECORDING INSTRUMENTS: DIPS V
RECORDING FILTERS: HIGH FILTER AND SLOPE 128 HZ 75 DB/OCT
LOW FILTER AND SLOPE 8 HZ 18 DB/OCT
RECORDING POLARITY: A POSITIVE PRESSURE AT THE GEOPHONES PRODUCES A NEGATIVE NUMBER ON TAPE AND A POSITIVE DEFLECTION ON THE FIELD MONITOR RECORD
DIGITAL TAPE FORMAT: 560 B 1600 BPI PHASE ENCODED
RECORD LENGTH / SAMPLE RATE: 5.0 SECONDS AT 2 MILLISECOND SAMPLE RATE
GUN DELAY: 1070 CU. IN. AIRGUN ARRAY OPERATING AT 2000 PSI
ENERGY SOURCE: 51.2 MILLISECONDS
SOURCE DEPTH: 6 METRES AVERAGE
SOURCE TO ANTENNA DISTANCE: 64.77 METRES
SHOTPOINT INTERVAL: 33.3 METRES, 1 POP PER SHOTPOINT
SHOTPOINT ANNOTATION: SHOTPOINTS ANNOTATED AT SOURCE POSITION
CABLE LENGTH: 3500 METRES, 46 GROUPS
CABLE DEPTH: 13 METRES AVERAGE
GEOPHONES: 20 PER GROUP
COVERAGE: 48 FOLD, 96 TRACE
PRIMARY NAVIGATION SYSTEM: MAKIRAN
BACKUP NAVIGATION SYSTEM: GEONAV



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: 2 MILLISECONDS
TRUE AMPLITUDE RECOVERY: 7.0 DB PER SECOND FROM 0 TO 5.0 SECONDS
PRE DECONVOLUTION MUTE: SPHERICAL DIVERGENCE CORRECTIONS APPLIED
RAMP LENGTH = 86 MSEC

OFFSET (M)	START TIME (MSEC)
427	0
463	300
1684	1500
1893	3000

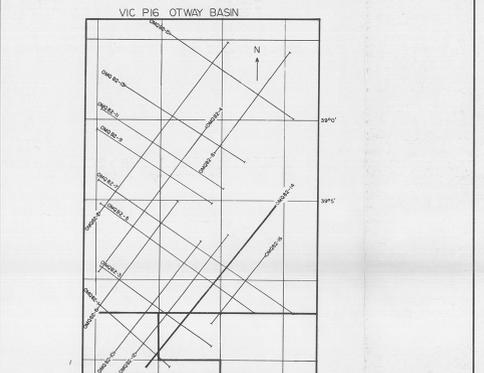
VELOCITY FILTERING: DIPS - 11/4 AS/TRACE
DESIGNATURE: STANDARD MARINE JAVELIN
DECIMATION: A STRAIGHT DECIMATION TO 48 TRACE 48 FOLD DATA
VELOCITY ANALYSIS: USING 5 DEPTH POINT VELOCAN ANALYSES
LOCATED EVERY 3 KMS
NORMAL MOVEOUT CORRECTION: USING ANNOTATED VELOCITIES (CHOSEN BY CLIENT)
FIRST BREAK SUPPRESSION: START 18 2 AT 0 MSEC
START 18 41 AT 600 MSEC
START 18 38 AT 900 MSEC
START 18 48 AT 3400 MSEC

COMMON DEPTH POINT STACK DECONVOLUTION: 8 FOLD CDP STACK
2 X 256 MSEC ACTIVE FILTER LENGTH
DESIGN GATE (25 PERCENT OVERLAP)
GATE = 24 MSEC

TIME VARIANT FILTERING: FREQUENCY (HZ) TIME (MSEC)

15	60
15	600
10	1000
10	2000
10	3000
10	40
10	3000
10	3000

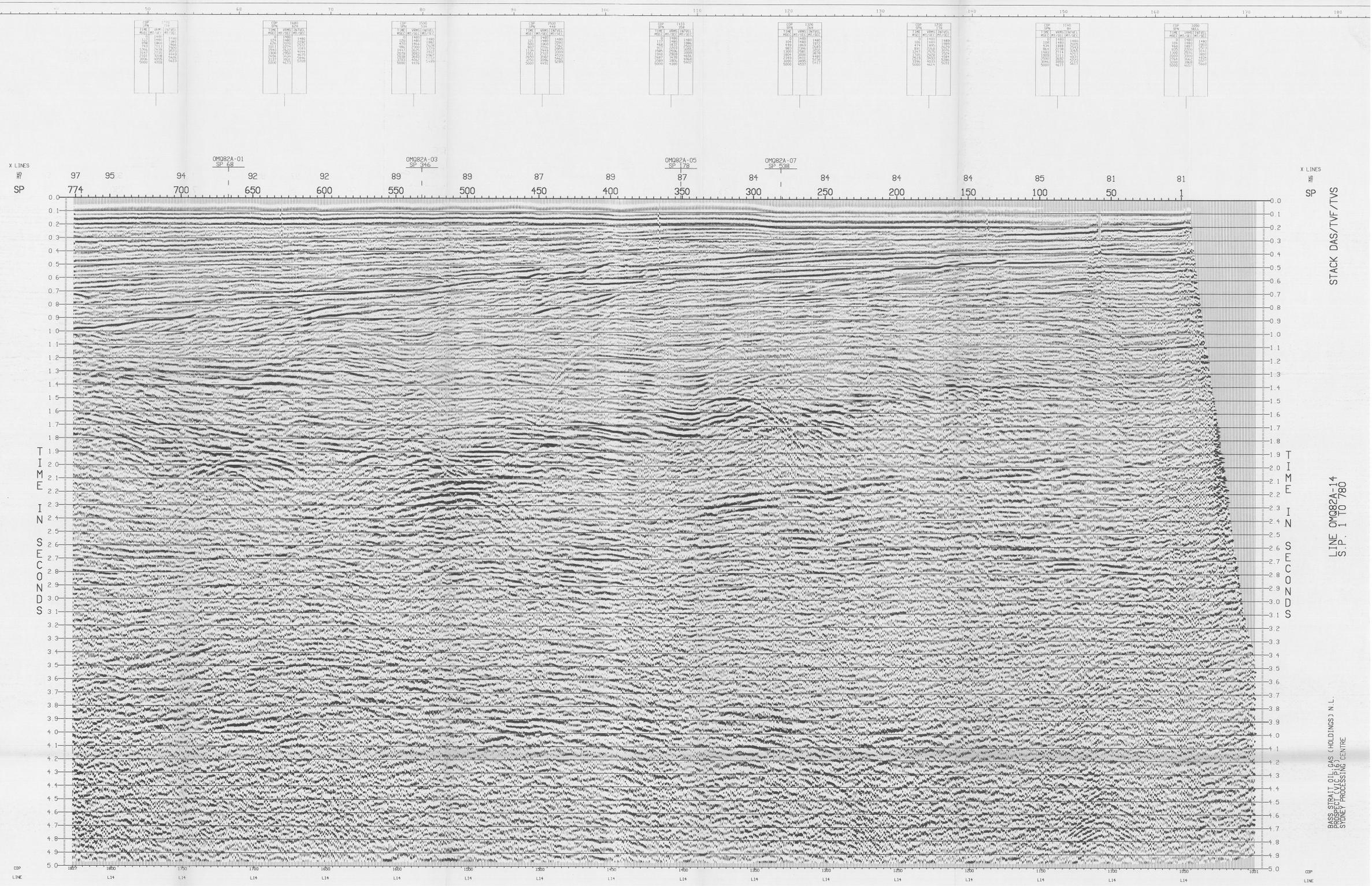
TIME VARIANT SCALING: USING 2 X 200, 2 X 2000 MSEC GATES
START TIME = 100 MSEC



DISPLAY

HORIZONTAL SCALE: 24.0 TR/IN CM / SEC TR/KM
VERTICAL SCALE: 1.0 SEC / SEC
POLARITY: NORMAL
TRACE TYPE: BIAS 10.0 PERCENT
DATUR: SEA LEVEL
DISPLAY UNIT: 0.677333 CM

DISPLAY GAIN: 100

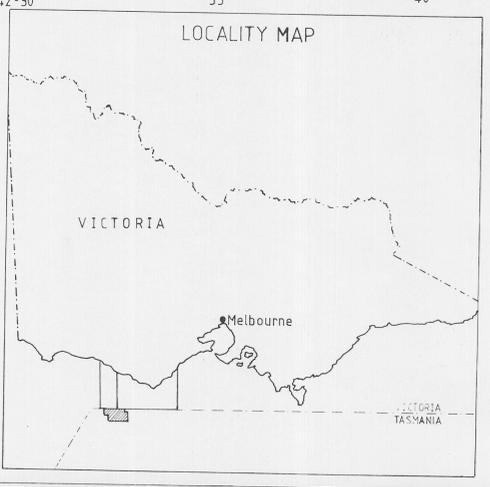
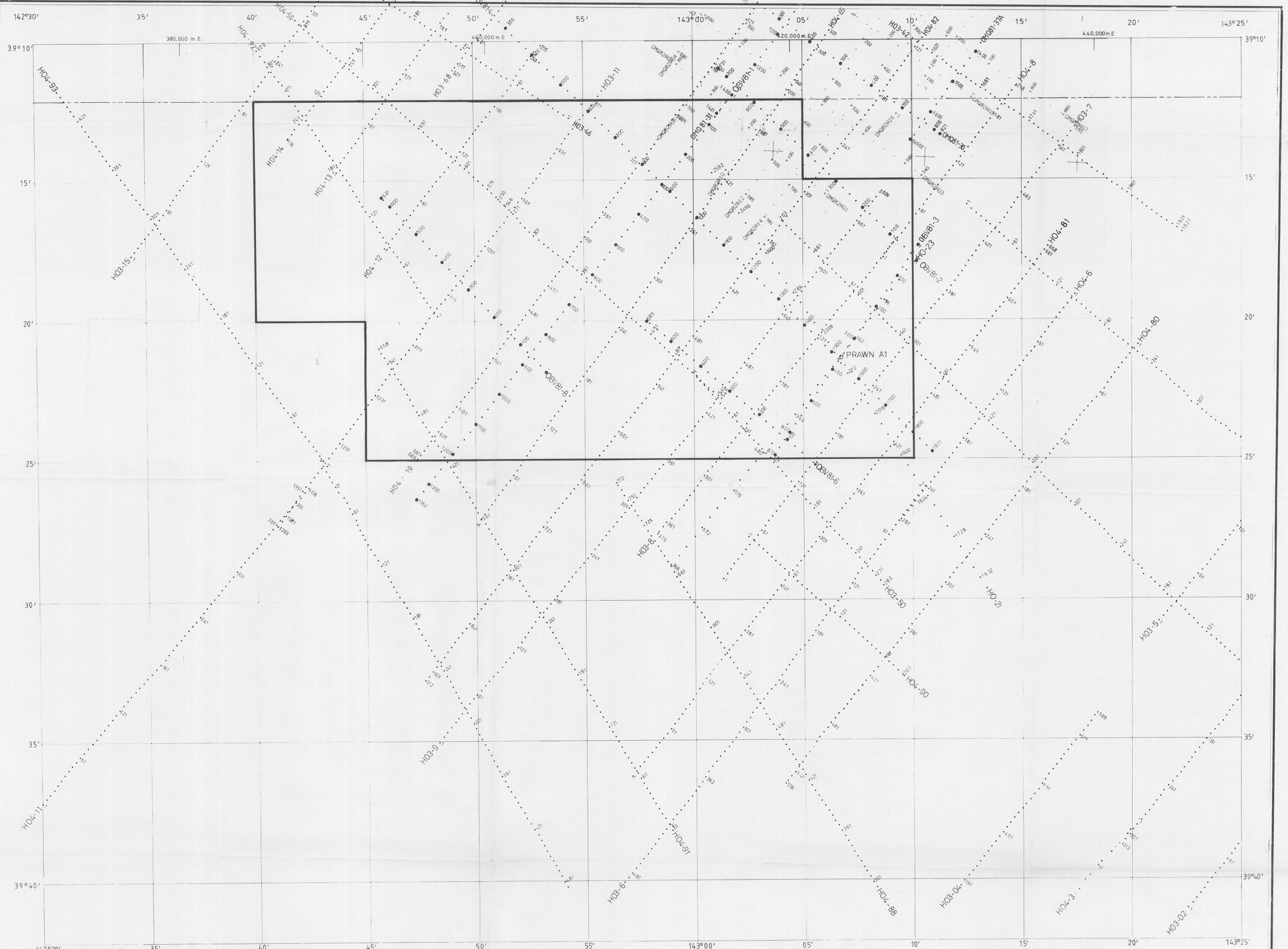


STACK DAS/TVF/TVS

LINE OMQ82A-14
S.P. 1 TO 780

BASS STRAIT OIL GAS (HOLDINGS) N.L.
PROSPECT VIC P16
SYDNEY PROCESSING CENTRE

24 JUL 1982
03:43:40
PARTY 6860
GEOPHYSICAL SERVICE INTERNATIONAL
(A DIVISION OF TEXAS INSTRUMENTS LTD)
PROCESSING CHECKED BY - P. Murray



VAN DIEMEN'S LAND RESOURCES NL.	
T-17P	
OTWAY BASIN	
SHOT POINT LOCATION	
111021	
Datum: Sea Level	Contour Int.:
Scale 1:100,000 	
Author: E. R.D.	Date: Dec, 81
Enclosure: 7	

OP-0116 VOL.1

Van Diemen's Land Resources N.L.
17-23 Queensbridge Street
South Melbourne, Vic. 3205

111022

REPORT No. 702/10

D of M	A.O.	C.G.	E.O.	D.S.M.E.
Received - 2 FEB 1982				Registrar
Answered				E & IL
DEPT. OF MINES				
REF. No. 866/82				

QUARTERLY REPORT
FOR THE PERIOD
8TH AUGUST TO 7TH NOVEMBER, 1981

ON

EXPLORATION PERMIT
FOR PETROLEUM
T/17P
OTWAY BASIN, TASMANIA

FOR

VAN DIEMEN'S LAND RESOURCES N.L.
CONSORTIUM

General Geological Services
Work Order: VAN 702

January, 1982

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3.1 Proposed Burial and Thermal Geohistory Analysis	
3.2 Support for B.M.R. Proposed Bass Strait Project	
4. EXPENDITURE	4
5. APPENDIX	
Data Processing Report (under separate cover) by Geophysical Services International (December, 1981)	

FILED UNDER
TPR
QR-113

1. INTRODUCTION

This quarterly report by General Geological Services, prepared on behalf of Van Diemen's Land Resources N.L., outlines work performed and planned in relation to offshore petroleum exploration in T/17P during the period 8th August to 7th November, 1981. This period represents the first quarter of the second permit year.

Van Diemen's Land Resources N.L. is the operator for the consortium holding title to the exploration permit. The permit covers 16 blocks in the Otway Basin and was granted on 8th August 1980 for a six-year tenure.

During the quarter, a Data Processing Report outlining the experimental processing tests and the production processing for the OBV-81 marine seismic survey has been prepared and is enclosed under separate cover.

Interpretation of processed results of the 137 km of seismic line shot during the OBV-81 survey was completed and a detailed account will be included with the next quarterly report.

2. OPERATIONS PERFORMED

2.1 Processing of OBV-81 Seismic Survey

The parameters for data processing were selected previously for the six lines completed in the OBV-81 marine seismic survey. The Data Processing Report (December, 1981), prepared for Van Diemen's Land Resources N.L. by Geophysical Services International, was received on 14 January 1982. The Operations Report (February, 1981) was submitted with Van Diemen's Land Resources' Quarterly Report 702/8.

The Data Processing Report has been prepared by Geophysical Services International and is forwarded under separate cover. It presents the experimental pre-processing and post-processing tests and the production processing details.

2.2 Interpretation of OBV-81 Seismic Survey

Geophysical interpretation of the seismic data was completed by Eric Denton and Associates. The study indicates five anomalies which are regarded as prospective leads requiring additional more closely spaced seismic survey. Details of this work will be included in the next quarterly report.

3. OPERATIONS PLANNED

3.1 Proposed Burial and Thermal Geohistory Analysis

Preliminary search for records of vitrinite reflection determinations in the Otway Basin is planned by Paltech Pty. Ltd.. An outline of the proposed study was presented in the last quarterly report. A project following on from this work will be the integration of results with palaeo-environmental studies so that a depositional model can be derived for the basin through the permit area.

3.2 Support for B.M.R. Proposed Bass Strait Project

Van Diemen's Land Resources N.L. has agreed to assist the Bureau of Mineral Resources (B.M.R.) with a view to sharing data in connection with their proposed geophysical investigation through the Bass Strait region. A meeting with B.M.R. personnel is planned in the next quarter.

4. EXPENDITURE

Van Diemen's Land Resources N.L.

Permit T/17P

Quarterly Report - Expenditure

Period: 8 August to 7 November, 1981

Lease Fees (Rental)	Office Overhead	Office Studies	Field Work		
			Geological	Geophysical	Drilling
\$100 (22/9/81)	\$9,000	\$3,100	-	-	-

signed: D. Hill
D. Hill

5. APPENDIX

Data Processing Report

(under separate cover) - TPR OR-113

111029

Van Diemen's Land Resources N.L.
17-23 Queensbridge Street
South Melbourne, Vic. 3205

REPORT No. 702/11

of M	A.O.	C.G.	E.O.	D.S.M.E
				Registrar
Received Answered	25 FEB 1982			E & IL
DEPT. OF MINES				
REF. No.				

QUARTERLY REPORT

FOR THE PERIOD

8TH NOVEMBER, 1981 TO 7TH FEBRUARY, 1982

ON

EXPLORATION PERMIT
FOR PETROLEUM
T/17P
OTWAY BASIN, TASMANIA

FOR

VAN DIEMEN'S LAND RESOURCES N.L.

CONSORTIUM

General Geological Services
Work Order: VAN 702

February, 1982

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3. OPERATIONS PLANNED	3
3.1 Burial and Thermal Geohistory Analysis	
3.2 B.M.R. Proposed Bass Strait Project	
4. EXPENDITURE	4
5. APPENDIX	
Seismic Interpretation Report on a Marine Seismic Survey of T/17P, Tasmania (under separate cover) by E. R. Denton (December 1981)	<i>REFER TPR OR-116A</i>
6. ILLUSTRATION ACCOMPANYING REPORT	
Proposed B.M.R. Seismic Line in T/17P	

1. INTRODUCTION

This quarterly report by General Geological is presented on behalf of Van Diemen's Land Resources N.L.. It outlines the exploration activities performed and planned in connection with the offshore petroleum permit T/17P during the period 8th November 1981 to the 7th February 1982. The report covers the second quarter of the second permit year.

Van Diemen's Land Resources N.L. is the operator for the consortium holding title to the 16 blocks comprising T/17P in the south-central Otway Basin. The permit was granted on 8th August 1980 for a six-year period.

During the quarter, a report on a seismic interpretation of the OBV-81 survey was prepared. It is submitted now under separate cover.

Lithologic sample logs of wells in adjacent permit areas have been reviewed, and arrangement for sampling cores and cuttings for vitrinite reflection measurement are in progress.

2. OPERATIONS PERFORMED

2.1 Interpretation of OBV-81 Seismic Survey

A report by Eric Denton and Associates on their seismic interpretation, completed during the previous quarter, has now been prepared and is presented as an appendix under separate cover.

The study indicates the existence of five anomalies with anticlinal structure. The OBV-81 survey provided fair to good reflection records at the unconformity on the top of the Late Cretaceous Sherbrook Group, and the resulting structure contour map is considered to be reliable. This horizon is tied to both the Prawn-1 and Mussel-1 wells. Deeper seismic records were of higher quality than those from previous surveys, but will require velocity filtering when incorporated with data deriving from additional surveys to be planned in the future.

2.2 Burial and Thermal Geohistory Analysis

Following discussion with Paltech Pty. Ltd., arrangements have been made to carry out a burial and thermal geohistory analysis of well sections in and around T/17P. An outline of the proposed study is given in Section 3.1.

3. OPERATIONS PLANNED

3.1 Burial and Thermal Geohistory Analysis

Depending on the outcome of requests to the government authorities that hold the relevant core and cuttings material in storage, it is intended to sample from the following ten wells.

- | | |
|------------|-----------------|
| Pecten-1A | Snail-1 |
| Nautilus-1 | *Whelk |
| Mussel-1 | Port Campbell-1 |
| *Prawn-A1 | Flaxmans-1 |
| Nerita-1 | Sherbrook-1 |

(*Wells situated in Tasmanian waters)

This is considered to be the minimum number of wells required to make valid predictions on maturation and hydrocarbon prospects in the permit area. It is planned to take at least five samples from each well.

The suite of samples will be forwarded to Keiraville Konsultants Pty. Ltd. for vitrinite reflectance measurements. The results will be used by Paltech Pty. Ltd. in a proposed study of the burial and thermal geohistory of the Otway Basin in the region through and around T/17P.

3.2 B.M.R. Bass Strait Project

At a meeting between the personnel of the Bureau of Mineral Resources (B.M.R.) and General Geological Services in December, the proposed marine geophysical investigation through the Bass Strait basins was discussed. This project aims to extend regional concepts with respect to basin framework and development, and will provide useful data for interpretation of structural and depositional models in T/17P. The layout of a provisional seismic grid has already been planned by the B.M.R., and the part directly crossing T/17P is shown on the figure attached herein.

4. EXPENDITURE

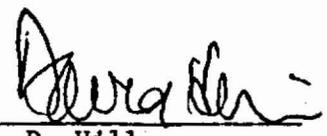
Van Diemen's Land Resources N.L.

Permit T/17P

Quarterly Report - Expenditure

Period: 8th November 1981 to 7th February 1982

Lease Fees (Rental)	Office Overhead	Office Studies	Field Work		
			Geological	Geophysical	Drilling
	\$9,000	\$2,100	-	-	-

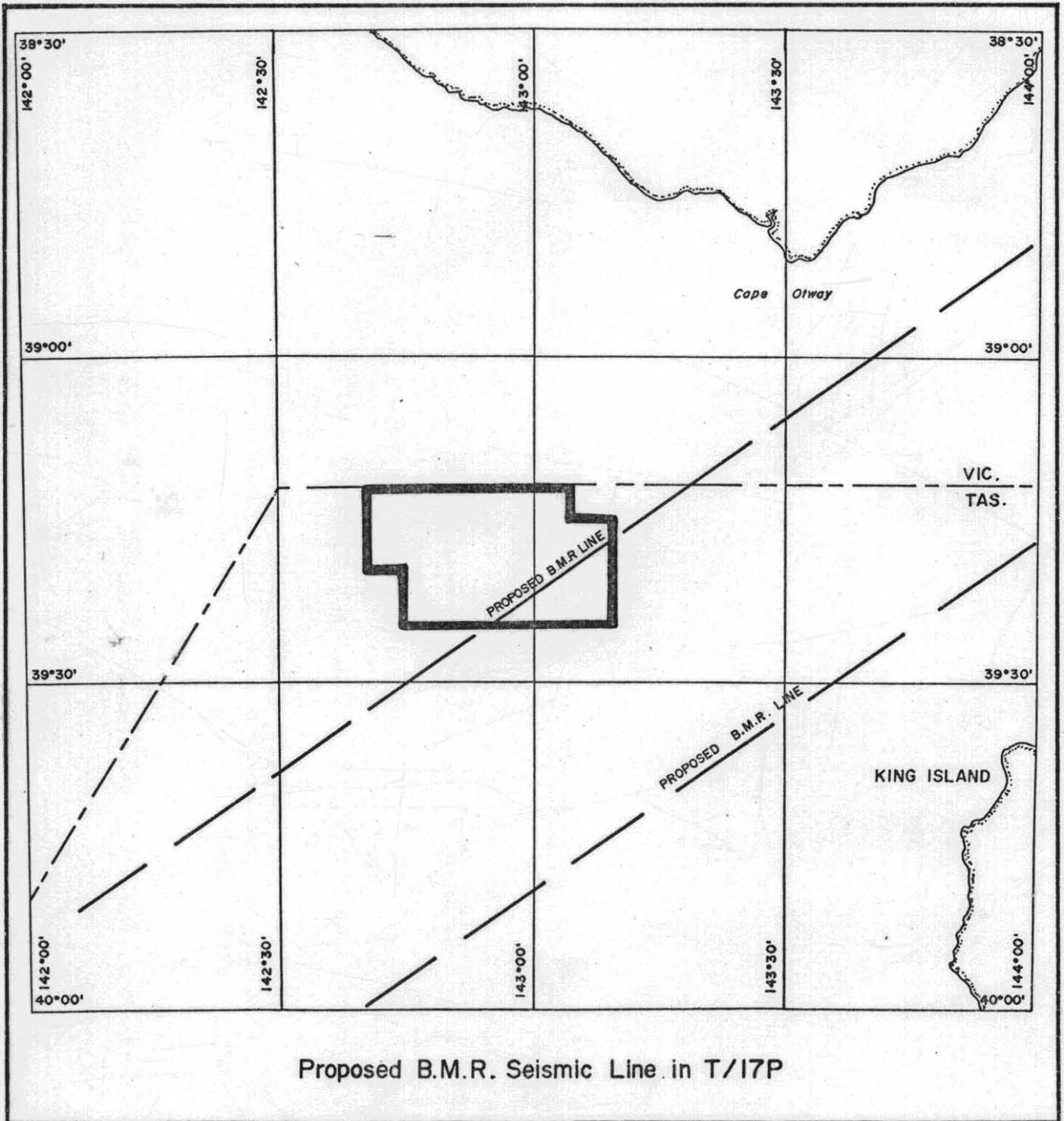
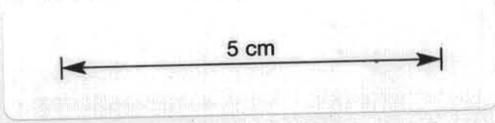
Signed: 
D. Hill

5. APPENDIX

Seismic Interpretation Report on a Marine
Seismic Survey of T/17P, Tasmania (under
separate cover) by E. R. Denton
(December 1981).

REFER TPR OR-116A

6. ILLUSTRATION ACCOMPANYING REPORT



Proposed B.M.R. Seismic Line in T/17P