EAST BASS BASIN - Part III TPR OR-039.

021001

ESSO EXPLORATION AUSTRALIA, INC. SYDNEY, N.S.W.

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GIPPSLAND SHELF MARINE SEISMIC SURVEY (EG)

FINAL REPORT

GI/1

by

E.B. Stanford, K.A. Richards, W.C. Presley

Esso Exploration Australia, Inc.
Sydney, N.S.W. Australia.
April 7th, 1965.

ESSO EXPLORATION AUSTRALIA, INC. SYDNEY, N.S.W.

ABSTRACT

This report presents the results of the Esso Gippsland Shelf Seismic Survey.

Reflection quality was generally excellent. A network of very good seismic structural and stratigraphic control has been established. Nine structural prospects have been mapped.

On the shallow horizon "A", only one structural closure was mapped, but the lower horizons were uplifted much more. Appreciable closure on horizon "B" is present on seven separate prospects, and good stratigraphic traps of the wedgeout type are present in the "B"-"C" interval.

The most reliable horizon, "C", has appreciable closure on seven structural anomalies. Two horizon "C" prospects have closure that is partially due to erosion, thus they can be classified as preserved topographic highs.

While the survey technique was originally designed to explore the Tertiary section, a "bonus" of good pre-Tertiary data has been obtained.

On the eastern boundary of the survey a buried submarine canyon was mapped. The canyon in places appears to have eroded through the Eocene section and to be filled with marine sediments.

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LIST OF ILLUSTRATIONS

Bound in Text:

Figure 1 Location Map - (in text)

Separate Maps at Scale 1:100,000

Plate I A, B, C, D. Structure Contour Map of Horizon "A" (Postulated near Top of Gippsland Limestone)

Plate II A, B, C, D. Structure Contour Map of Horizon "B" (Postulated Top of Lakes Entrance Formation)

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Plate V A, B. Structure Contour Map of Horizon "E" (Postulated within the Otway)

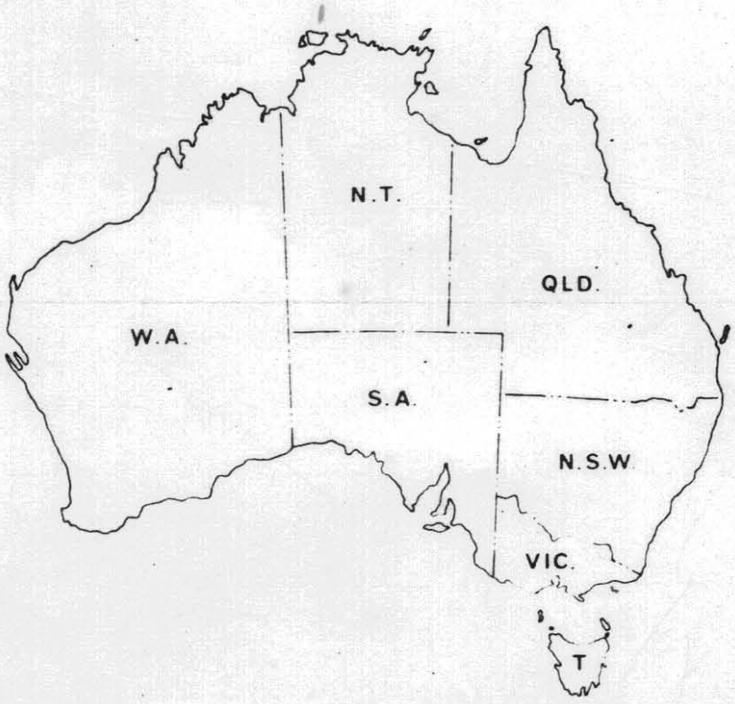
Plate VI A, B, C, D. Thickness Map of the Interval Horizon "A" to Horizon "B".

Plate VII A, B, C, D. Thickness Map of the Interval Horizon "B" to Horizon "C".

Variable Area Sections EG 23 through EG 47.

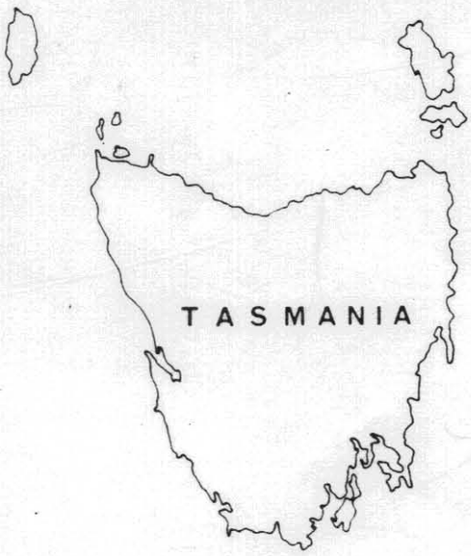
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AUSTRALIA



VICTORIA





5 cm

Seismic survey area

ESSO EXPLORATION AUSTRALIA INC.

LOCALITY MAP

OF

GIPPSLAND MARINE SEISMIC SURVEY

INTRODUCTION

The Esso Gippsland Seismic Survey contains 5,351 profiles for a total of 722 miles of subsurface coverage, of which 641 miles is 6-fold C.D.P. and 81 miles single-fold coverage. All recording equipment used during the survey was to Esso's specifications. Western Geophysical Co. was Esso's contractor for both the field recording and playback processing. Appendix I contains a summary of the field operations.

Shotpoints for the new seismic work and the previous Haematite shooting are indicated on each of the maps.

Primarily as a result of the C.D.P. shooting procedure, the reflection quality is excellent. This results in a network of reliable seismic structural and stratigraphic control. The earlier Haematite seismic work has been integrated into this network of C.D.P. data; thus the enclosed interpretations represent a study of all available seismic data.

Esso personnel closely supervised the recording and playback procedures. The interpretive portion of this final report was prepared by Esso, and the statistical portion by Western.

VELOCITY CONTROL

Uphole velocity surveys and sonic logs from Arco-Woodside's Merriman-1, Wellington Park-1, North Seaspray-1, and Carr's Creek-1 wells were used. Western, with Esso supervision, made a regional T $\triangle$ T analysis of selected Haematite seismic records. This study indicated a generally constant increase in velocity with depth to top of the horizon "C" over the basin area. The resulting moveout calculated from this study was very successful in C.D.P. stacking which indicates the validity of this velocity curve. For purposes of interpretation, we have plotted velocity as a function of time vs. depth to horizon "C". This velocity curve has been used to convert time to depth on all horizons mapped above and including horizon "C". The function is tabulated in Appendix I.

Velocity distribution below horizon "C" is another matter. Because deeper intervals change thickness so rapidly we presently feel incapable of reliably interpreting the regional average velocity distribution. This has led to structure mapping of the horizon below horizon "C" in time. The following chart indicates the mapping methods used.

Maps

Depth	Time
Horizon "A"	
Horizon "B"	
Horizon "C"	
	Horizon "D"
	Horizon "E"

REFLECTING UNITS

Ties to available land well control were not used as an interpretation starting point. It is significant however that the mapped seismic units can be closely correlated with known subsurface geological units. The seismic data can be divided into four units on the basis of reflection character, and the interpretation has been based largely on recognition of these seismic units.

(a) Horizon "A" to Horizon "B" (Postulated Gippsland Limestone)

The sonic logs indicate a steady increase in velocity through this unit. Though no major velocity variations which would give strong reflections are present, there are numerous minor variations. This velocity situation results in seismic data comprised primarily of discontinuous high frequency reflections.

The reflection mapped as horizon "A" is observed best in the shelf portions of the basin. Where it is not too shallow to be affected by the first break suppression, the reflection is observed to be continuous, high amplitude, and of fairly high frequency. The short (600 m) spread single fold sections generally are of better quality for the shallow reflections due to the first break suppression of the longer C.D.P. spreads, and were in most cases used in constructing the horizon "A" map. There is a marked deterioration in this interval's quality to the northeast. It becomes similar to the rest of the reflections in and above this unit suggesting a possible absence of any depositional break at this horizon in this portion of the basin.

(b) Horizon "B" to Horizon "C" (Postulated Lakes Entrance Formation)

This zone onshore has an interval velocity between 1500 and 2000 ft/sec. less than that of the overlying postulated Gippsland Limestone. This inversion gives rise to continuous, generally higher amplitude, lower frequency events that are observed in the limestone.

Probably the most gratifying seismic result of this survey was the way in which reflection quality from this interval improved as a result of C.D.P. multiple cancellation. The reflection character varied over the mapped area and four distinct character types could be distinguished. Possible correlation of these reflection types with stratigraphy will be discussed under "Interpretation".

(c) Horizon "C" to Horizon "D" (Postulated Latrobe Valley Coal Measures)

Velocity inversions persist throughout the upper portion of this interval where coal is the dominant rock type. This unit is characterised by a zone of extremely high amplitude, low frequency reflections which are often discontinuous due to facies variations and unconformity truncation. However their quality is so good that they make mapping a practical undertaking, which would otherwise be an almost impossible task. There is generally no reflection from the actual unconformity surface; in many instances there is the appearance of one, due primarily to the abrupt erosion of these strong coal reflectors.

Where the dominant rock type of this unit becomes sand and gravel instead of coal, the interval velocities increase by about 2000 ft/sec. Velocity variations persist through the gravels, though not to the extent they do in the coal. The resultant reflection character is one of similar low frequency, but lower amplitude when compared to the predominantly coal bearing interval.

Maps have been constructed at the top and base of this interval based primarily on recognition of these various reflection characteristics.

(d) Horizon "D" through Horizon "E" (Postulated Otway Group)

Possibly the most dramatic improvement the C.D.P. data has made is the recognition, for the first time in the Gippsland Basin, of what are almost certainly valid reflections from within this unit. These reflections vary in character depending on the amount of the coal unit directly above them. Where there is no coal, such as in the "canyon", the reflections below horizon "D" are high amplitude low frequency events. One reflection from within this interval has been mapped. Where the overlying coal is thick, the reflections become distinctly higher frequency and lower amplitude.

INTERPRETATION

In every instance the horizons were mapped as far as the data quality permitted.

(a) Structure Contour Map: Horizon "A" (Postulated near top of the Gippsland Limestone) Plate I

There is good seismic evidence of shelfward onlap of the overlying formation onto this horizon. This probable disconformity is believed to represent the last period of tilting prior to the Pliocene uplift which resulted in the present geomorphic expression.

Closure at this horizon is found only on the (A-2)* anomaly. Strong nosing is apparent over the (A-1) and (H) anomalies. Slight nosing is present over the (C) and (D) anomalies.

(b) Structure Contour Map: Horizon "B" (Postulated top of the Lakes Entrance Formation) Plate II

This horizon was mapped at the top of an increase in reflection amplitude and lowering of reflection frequency. This is a continuous horizon which carries very well over the area mapped. There are definite indications, in places, that some angular discordance may occur at this horizon. Thus the horizon mapped is considered to represent a disconformity.

* Note Letter designations for anomalies do not infer prospect rating, but are merely for reference in the Report.

We consider this horizon to be very reliable, in the area of the C.D.P. control. Definite structural closure has been established on anomalies (B) (C) (D) (E) and (F).

Faulting appears on most of the C.D.P. sections to die out within or just above this unit (horizon "B" to horizon "C"). No reliable fault closure for this horizon has been mapped.

(c) Structure Contour Map: Horizon "C" (Postulated Eocene Unconformity) Plate III

Our previous interpretation of Haematite seismic data indicated the presence and general stratigraphic position of an Eocene unconformity which has now been mapped in detail with the C.D.P. control.

This unconformity surface has proved to be in many cases fairly rugged. Probably the most startling result to come out of the C.D.P. shooting is a very obvious canyon found running north-south just east of anomaly (B). The canyon ranges from 500 to 2500 feet in depth, is postulated to be filled with marine sediment, and breaches the underlying stratigraphic section well into the predicted Mesozoics.

Several different types of anomalies may be seen on this horizon:

(i) Anticlines - Where the unconformity is fairly parallel to underlying beds, the structural map generally presents postulated Latrobe structure. Such anomalies are (A-1) (A-2) (C) (D) (E) (F) (H).

(ii) Topographic Highs - In at least two instances, B and G, erosion provides the closure on at least one flank. Anomaly B was an anticline of horizon "C" age and was breached by canyon erosion, producing the east flank closure. Anomaly (G) appears to have been a regionally west plunging nose prior to erosion. Subsequently the canyon erosion cut across the nose producing the east closure. In both these cases additional favourable stratigraphic conditions must be present before they would be considered prospective and drillable anomalies. In the case of (B) we predict very porous reservoir rocks, Latrobe formation, to be surrounded by probable Lakes Entrance source beds. This stratigraphic and structural relationship resembles a reef in general geometric effect. (See line EG 39).

(iii) Fault Closure - Two regional fault systems may be seen on this horizon. One system trends almost east-west, is immediately north of the (A) anomaly trend, and is downthrown to the north. This fault produces no prospective structural closure.

The other major fault trend is along the southwest flank of the basin, and is downthrown to the northeast. This fault was most active during the pre-horizon "D" deposition, but extends up through horizon "C" and in some cases appears to have broken horizon "B" (see line EG 28). There is good seismic evidence that the fault system is en echelon. This offset pattern has proved detrimental to structural closure; detailed shooting would be necessary to find good lateral closure on the individual faults.

Faulting is associated with local structures such as (C) (A-1) and (E). These faults may be very significant if the unit represented by this horizon proves to be prospective.

(d) Structure Contour Map: Horizon "D" (Postulated near Base of Eocene Latrobe Valley Coal Measures) Plate IV

This horizon was picked at the base of the high amplitude reflections. Also in many cases good dip evidence indicates the reflection is from an unconformity. (See line 44). Except in the northeast portion of the mapped area where the overlying unit is very thin, this horizon was contoured only in those areas of C.D.P. coverage.

The breached anticline characteristic of anomaly (B) is very clear at this horizon. Good anticlinal closure has been mapped on (A-1) (A-2) (C) (D) (E) and (F) anomalies.

(e) Structure Contour Map: Horizon "E" (Postulated from within Otway) Plate V

Only C.D.P. control was used in constructing this map. In this area where the overlying coal beds have been eroded away, such as in the canyon, very good reflections are recorded from within this unit. Horizon "E" is one of those reflections. Where the coal becomes thick the quality deteriorates; consequently this map for the most part should be considered a dip map. We feel confident that dip direction is in every case valid, but the magnitude could be in error.

Several large structures are present at this horizon. Anomaly (B) and (C) appear to be on the same structure at this depth, and the very large structural nose near (G) possibly closes to the east.

Good seismic evidence is present for all of the faulting, except for the fault immediately south of the (A) anomaly trend. In this case a very large mistie exists, and there is some seismic evidence that part of the discrepancy is due to a large dip gradient rather than a fault. Regardless of the nature of this south flank, the (A) anomalies have the largest structural expression for Mesozoic rocks in this basin.

(f) Thickness Map: Horizon "A" to Horizon "B" Plate VI

This map was constructed primarily to restore a picture of the regional structure at the top of horizon "B" prior to recent tilting and uplift.

In general, the map indicates that most of the present uplifts were in existence by the end of horizon "B" deposition. Present relief at horizon "A" is probably due to recent structural movement along the old trends and to some draping over the old highs.

This unit thickens regionally to the east and northeast displaying its thickest interval at the southeast end of line EG 44. Anomalous thickening is present north of line EG 23 and at the southwest end of line EG 27. Closed thins are found on the (B) (D) (E) and (F) structures. Thin noses trend over the (A-1) (A-2) and (H) structures, indicating that these features were positive prior to deposition of this interval. Lack of significant expression of the (C) anomaly may indicate recent growth of this feature, but is more probably due to horizon "A" reflection deterioration.

(g) Thickness Map: Horizon "B" to Horizon "C" (Postulated Top of Lakes Entrance to Eocene Unconformity) Plate VII

(i) Structural Observations - The isopach thin anomalies contained on this map almost in every instance coincide with present-day structure. This indicates that much of the present structural expression had its origin contemporaneous with or just prior to the deposition of this interval.

The dominant feature on this map is the large thin trend that traverses the area and includes (H) (A-1) (A-2) and (B) anomalies. Various amounts of pre-horizon "B" structural growth can also be seen at anomalies (C) (E) and (F).

(ii) Stratigraphic Conclusions - Reflections originating from the interval horizon "B" - "C" may be divided into several reflection character types. We have classified these types on this map by using the following colours:

(a) Tan - none of the "B" to "C" interval present.

(b) Orange - reflections from within canyon. Generally these reflections vary in continuity and frequency and are of a lower amplitude than those located near the canyon. We interpret this to indicate a turbidite facies.

(c) Yellow - reflections from this area are good, low in frequency and high in amplitude. A maximum of eight cycles is recorded and the section thins by these discreet reflections overlapping the unconformity surface. We interpret this to indicate a thick interbedded sand and shale facies, although interbedded limestone and shale could be the sequence.

(d) Dark Green - This represents an area of fair reflections. Reflections have highly varied amplitude, generally a low frequency, and poor continuity. We interpret this to indicate a stratigraphic section predominantly shale with thin interbedded sand or limestone.

(e) Light Green - This represents an area of poor reflections. In this area the reflections are low amplitude, high frequency, and in areas outside of C.D.P. control, the quality was extremely poor. We interpret this to indicate a fairly homogeneous section of marl or shale.

(f) The area not coloured but containing this interval is indeterminable because of the very thin section present or the lack of C.D.P. control.

CONCLUSIONS

Because of the excellent velocity contrasts found in the stratigraphic section of the Gippsland Basin, good quality reflections can be recorded even by the conventional seismic method. However, using C.D.P. techniques, excellent data have been obtained. Improved structural control and stratigraphic indications obtained as a result of this survey are considered to be compensatory for the high effort factor this survey utilized.

APPENDIX I

TWO WAY TIME CHART FOR HORIZON "C"

DATUM SEA LEVEL

Depth	Time	Depth	Time	Depth	Time
100	.040	3400	.855	6700	1.470
200	.075	500	.870	800	1.490
300	.110	600	.890	900	1.505
400	.145	700	.910	7000	1.525
500	.176	800	.930	100	1.545
600	.207	900	.950	200	1.535
700	.237	4000	.970	300	1.580
800	.266	100	.990	400	1.600
900	.300	200	1.010	500	1.615
1000	.320	300	1.030	600	1.630
100	.350	400	1.050	700	1.650
200	.375	500	1.066	800	1.665
300	.404	600	1.085	900	1.680
400	.430	700	1.105	8000	1.700
500	.455	800	1.120	100	1.715
600	.475	900	1.140	200	1.735
700	.505	5000	1.155	300	1.750
800	.525	100	1.175	400	1.770
900	.550	200	1.190	500	1.785
2000	.570	300	1.215	600	1.805
100	.590	400	1.235	700	1.820
200	.610	500	1.250	800	1.835
300	.630	600	1.270	900	1.855
400	.655	700	1.290	9000	1.870
500	.675	800	1.305	100	1.885
600	.700	900	1.325	200	1.905
700	.715	6000	1.345	300	1.920
800	.740	100	1.360	400	1.940
900	.755	200	1.380	500	1.955
3000	.775	300	1.400	600	1.970
100	.795	400	1.415	700	1.990
200	.815	500	1.435		
300	.835	600	1.455		

APPENDIX II

SUMMARY OF OPERATIONAL STATISTICS

PREPARED BY WESTERN

I. Operations:

A. Shot Point positioning was provided by Offshore Navigation Inc., using the Shoran system of electronic positioning.

B. Equipment Used:

1. Major Boat Equipment -

a. Recording Boat: M.V. "Miss Freeport," a 120 foot steel hulled twin screw vessel, equipped with recording instruments, Shoran mobile station, radar, ship-to-ship and ship-to-shore radio communications.

b. Shooting Boat: M.V. "F.B. Walker," a 90 foot steel hulled twin screw vessel capable of carrying 60 tons of explosives, equipped with radar and radio communications.

2. Recording Equipment -

a. One complete set each of Western FA-40 and FA-40-A seismograph instruments, embodying Programmed Gain amplification.

b. Special "water break" amplifiers on traces, 1, 4, 7, 10, 15, 18, 21 and 24 of the long spread.

c. Conventional and Variable Area Cameras.

d. One dual purpose floating type detector cable capable of recording simultaneously 24 groups of 600-600 meter coverage and 24 groups of 1200-1200 meter coverage, utilising four dual dynamic pressure geophones per group.

e. Two complete Western-Techno 26-track magnetic tape recording units.

f. Bendix Depth Recorder.

3. Shooting Technique -

a. The conventional two-boat method of continuous reflection shooting was employed.

b. Originally, the entire program was planned to use 200 meter shot point spacing to provide 600% overlapping subsurface coverage, but during the late stages of the project it was decided to increase this interval to 600 meters on some of the less critical lines.

c. Following instructions of the client representative, an explosive charge of 100 pounds was used for each shot.

d. No reversing plugs were used during the recording operations, but they were used during the final processing in order to have the eastern or northern component of each line on the right of the record section.

4. Data Recorded -

a. Two magnetic tapes were recorded at each shot point. The long spread tape was recorded in Tape AVC, while the short spread tape was recorded in Programmed Gain. Broad band filtering was applied through use of Western Plug-in filters. The standard FL filter, with a 50% overall amplitude response at 17 and 72 cycles per second, was used for the short spread tapes; a special 8.5 - 55 filter was used for the long spread tapes.

b. One paper monitor record showing the 24 traces of each spread, plus the 8 water break traces on the long spread was taken at each shot point.

c. One uncorrected Variable Area film playback was made of every third short spread tape where 200 meter spacing was used, and of every short spread tape for the 600 meter intervals. 8.5 - 55 filtering was applied.

d. A continuous fathometer recording was made during recording operations.

5. Data Processing -

a. All magnetic tapes were forwarded to Western's Data Processing Centre in Perth, where fully corrected Variable Area record sections were produced. The long spread tapes providing overlapping subsurface coverage were processed by the stacking technique, with Constant Gain and no additional filtering applied. Playbacks for the short spread sections were made through a 5 - 75 filter with Tape AVC.

b. Aboard the recording boat the film playbacks were assembled into uncorrected record sections. Two blackline prints of each section were made; one to be used in the preliminary interpretation being made on a concurrent basis by a Western seismologist, and one to be used by the Perth office.

II. Statistics:

A. Lines Shot:

1. 200 Meter Shot Spacing - 600% Subsurface Coverage -

Line No:	Shot Point Nos:	Total Profiles:
EG-23	1-122,117A-221,216A-385	397
EG-24	1-18,15A-185,180A-423, 418A-445,440A-563	585
EG-26	1-106,89A-147	165
EG-27	1-32,27A-112,107A-160	172
EG-28	1-358	358
EG-29	1-11,6A-50,45A-374,370A-580, 578-633,628A-701	727
EG-30	1-18,15A-122	126
EG-31	1-78,73A-144	150
EG-32	1-93	93
EG-33	1-125	125
EG-34	1-187	187
EG-35	1-109,104A-169	175
EG-36	1-96	96
EG-37	1-101	101
EG-38	1-13,8A-126	132
EG-39	1-35,30A-163	169
EG-40	1-85,67A-82A,171-256	187
EG-41	1-25,20A-275	281
EG-42	48-166	119
EG-43	1-25,20A-219	225
EG-44	1-259	259
EG-45	1-19,14A-142	148
EG-46	1-33	33
EG-47	1-125	125
	TOTAL	5135

2. 600 Meter Shot Spacing - 200% Subsurface Coverage -

Line No:	Shot Point Nos:	Total Profiles:
EG-25	1-12,11A-43	45
EG-27	161-170,169A-196	38
EG-40	85A-170	86
EG-42	1-47	47
	TOTAL	216
	Total all Profiles	5351

B. Mileage:

1. 200 meter shot spacing:

Profiles 5135 x 0.125 mile/profile = 641.875 mi.

2. 600 meter shot spacing:

Profiles 216 x 0.375 mile/profile = 81.000 mi.

Total miles traversed: 722.875 mi.

C. Explosives Used:

540,000 pounds

D. Number of Days Worked:

30 days

E. Average Profiles per Working Day:

178

F. Time Lost Due to Rough Weather:

15½ days

III. Key Personnel:

A. Western Geophysical Company of America:

Supervisor	V.C. Boyd Jnr.
Operations Manager	A. Brenda
Seismologist	J.A. Dees
Operations Co-ordinator	V.B. David
Observer	L. Schmidt
Observer	J. Humerickhouse
Shooter	J. Clingan
Shooter	D. Sutcliffe

B. Offshore Navigation Inc:

Supervisor	W. Watson

146°45' 147°00' 15' 30' 147°45'

37°45'

38°00'

15'

30'

38°45'

BAIRNSDALE

LAKE KING

MAFFRA

SALE

LAKE VICTORIA

LAKE WELLINGTON

LAKE REEVE

LAKE REEVE

ESSO Gippsland Shelf - 1

A-1

H

PEP 38

PEP 39

WOODSIDE

ST. MARGARET ISLAND

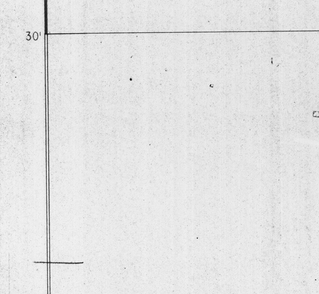
ESSO-HAEMATITE

WOODSIDE ESSO-HAEMATITE

T A S M A N S E A

-1250 -1500 -1750 -2000 -2250 -2500 -2750 -3000 -3250 -3500 -3750 -4000

MAP INDEX



LEGEND

- Esso Gippsland Shelf - 1
- -2250- Structure contour
- U/D Fault "U" upthrown side "D" downthrown side
- Esso conventional single fold seismic shot point
- Esso six fold C.D.P. seismic shot point
- Haematite conventional single fold seismic shot point
- Petroleum tenement boundary
- H Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN - Part 1 (G.J.IA)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "A"

G1/2

Contour Interval: 250 Feet

Datum: Sea Level

Scale 1:100,000

1 0 2 4

MILES

5 cm

AUTHOR: W. C. PRESLEY

DRAFTED BY M.F. WEETMAN A.F. STRAHAN

SHEET 1

PLATE 1A

021019

OR-039

Dwg 932/0012

1

147°45' 148°00' 15' 30' 148°45'

37°45'

38°00'

15'

30'

38°45'

PEP 42

PEP 38

PEP 39

LAKES ENTRANCE

LAKE KING

CAPE CONRAN

WOODSIDE

ESSO-HAEMATITE

ESSO-HAEMATITE

A-2

B

C

D

E

F

G

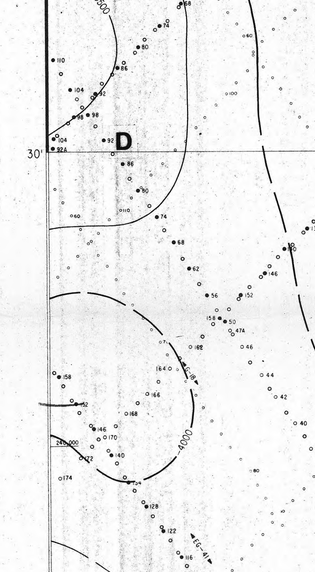
T A S M A N S E A

-2000 -2250 -2500 -2750 -3000 -3250 -3500 -3750 -4000 -4250 -4500 -4750 -5000 -5250 -5500

340,000 320,000 300,000 280,000 260,000 240,000 220,000

660,000 680,000 700,000 720,000

MAP INDEX



LEGEND

—4500— Structure contour

U / D Fault "U" upthrown side "D" downthrown side

Esso conventional single fold seismic shot point

Esso six fold C.D.P. seismic shot point

Haematite conventional single fold seismic shot point

Petroleum tenement boundary

Esso–Haematite farm in boundary

H Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN - Pmt 3 (p.11, 18)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "A"

G1/3

Contour Interval : 250 Feet Datum : Sea Level

Scale 1:100,000

1 0 2 4

MILES

021020

AUTHOR W. C. PRESLEY

DRAFTED BY M.F.WEETMAN, A.F. STRAHAN

SHEET II

5 cm

PLATE 1B

OR-039

Dwg. 932/00/3

(2)

146°45' 147°00' 15' 30' 147°45'

38°45'

39°00'

30'

15'

39°45'

PEP 39

EL 1/60

ESSO-HAEMATITE

VICTORIA
TASMANIA

HOGAN GROUP
HOGAN IS.

KENT GROUP
ERITH IS.
DOVER IS.
DEAL IS.

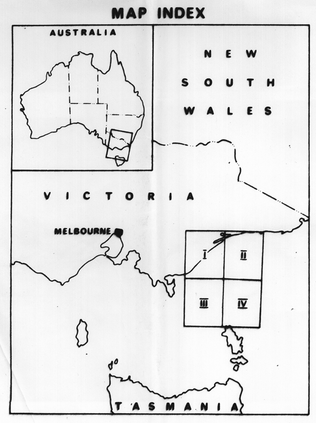
B A S S S T R A I T

-1250 -1500 -1750 -2000 -2250 -2500 -2750 -3000

ESSO-HAEMATITE

HAEMATITE

MAP INDEX



LEGEND

—1·65— Structure contour

Fault "U" upthrown side "D" downthrown side

Esso conventional single fold seismic shot point

Esso six fold C.D.P. seismic shot point

Haematite conventional single fold seismic shot point

Petroleum tenement boundary

Esso-Haematite farm in boundary

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN Part 1/14 (plus 1c)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "A"

G1/4

Contour Interval: 250 Feet

Datum: Sea Level

021021

Scale 1:100,000

1 0 2 4

MILES

AUTHOR W.C. PRESLEY

DRAFTED BY M.F. WEETMAN

REVISED A.F. STRAHAN

5 cm

SHEET III

PLATE Ic

932/op/4 OR-039

(3)

147°45' 148°00' 15' 30' 148°45'

38°45' 39°00' 15' 30' 39°45'

PEP 39

EL 1/60

ESSO-HAEMATITE

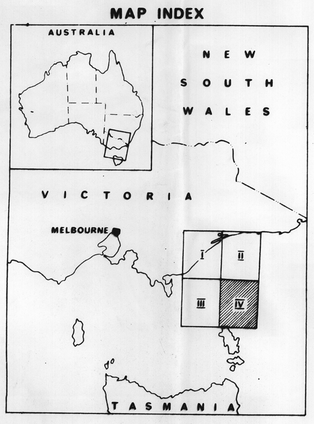
VICTORIA
TASMANIA

T A S M A N S E A

HAEMATITE FLINDERS IS. ESSO-HAEMATITE

147°45' 149°00' 15' 30' 148°45'

MAP INDEX



LEGEND

—165— Structure contour

U / D Fault "U" upthrown side "D" downthrown side

Esso conventional single fold seismic shot point

Esso six fold C.D.P. seismic shot point

Haematite conventional single fold seismic shot point

Petroleum tenement boundary

Esso-Haematite farm in boundary

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN
Pmk 115 (plus TD)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "A"

G1/5

Contour Interval: 250 Feet Datum: Sea Level

Scale 1:100,000

1 0 2 4

MILES

AUTHOR: W.C. PRESLEY

SHEET IV

5 cm

021022

DRAFTED BY M.F.WEETMAN
REVISED A.F.STRAHAN

PLATE I D

362/0115 OR-039

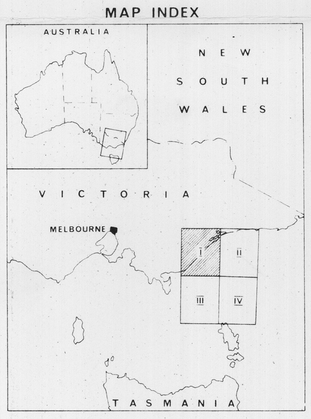
146°45'
147°00'
15'
30'
147°45
37°45'
38°00'

BAIRNSDALE
MAFFRA
SALE
LAKE KING
LAKE VICTORIA
LAKE WELLINGTON
LAKE REEVE
LAKE REEVE
ESSO Gippsland Shelf-1
A-1
H
PEP 38
PEP 39
WOODSIDE
ST. MARGARET ISLAND
ESSO-HAEMATITE
WOODSIDE
ESSO-HAEMATITE

-2500 -2800 -3000 -3500 -4000 -4500 -5000 -5500 -6000 -6500

T A S M A N S E A

MAP INDEX



LEGEND

- Esso Gippsland Shelf-1
- 3500 — Structure contour
- U / D — Fault "U" upthrown side, "D" downthrown side
- Esso conventional single fold seismic shot point
- Esso six fold C.D.P. seismic shot point
- Haematite conventional single fold seismic shot point
- Petroleum tenement boundary
- H — Prospective area
- Area in which horizon is missing, edge of onlap

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST GIPPSLAND BASIN
Part 1/16 (Pkt. 11A)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "B"

G1/6

Contour Interval: 500 Feet

Datum: Sea Level

Scale 1:100,000

1 0 2 4

MILES

021023

AUTHOR: K.A. RICHARDS.

5 cm

DRAFTED BY M.I. WEETMAN, A.F. STRAHAN.

SHEET I

PLATE IIA

OR-039

Dwg 932/OP/6

5

147°45' 148°00' 15' 30' 148°45'

37°45'

38°00'

15'

30'

38°45'

LAKES ENTRANCE

LAKE KING

CAPE CONRAN

WOODSIDE

PEP 42

PEP 38

PEP 39

ESSO-HAEMATITE

ESSO-HAEMATITE

A-2

B

C

D

E

F

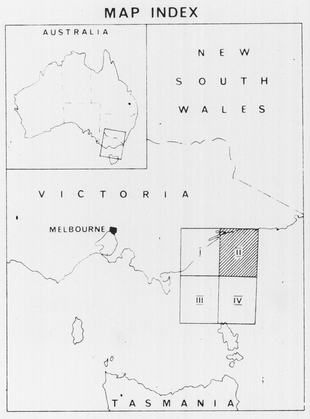
G

T A S M A N S E A

-3000 -3500 -4000 -4500 -5000 -5400 -5500 -6000 -6200 -6500 -7000 -7200 -7300 -7500 -8000 -8500

340,000 320,000 300,000 280,000 260,000 240,000 220,000 200,000 180,000 160,000 140,000 120,000 100,000

MAP INDEX



LEGEND

-5500- Structure contour

U / D Fault "U" upthrown side "D" downthrown side

Esso conventional single fold seismic shot point

Esso six fold C.D.P. seismic shot point

Haematite conventional single fold seismic shot point

Petroleum tenement boundary

Area in which horizon is missing, edge of onlap

H Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN
pack 1/7 (plate IIB)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "B"

G1/7

Contour Interval: 500 Feet

Datum: Sea Level

Scale 1:100,000

1 0 2 4

MILES

021024

AUTHOR K.A.RICHARDS.

DRAFTED BY M.F.WEETMAN, A.F. STRAHAN

SHEET II

5 cm

PLATE II B

OR: 039

Dwg 952/001/7

146°45' 147°00' 15' 30' 147°45'

38°45'

PEP 39

39°00'

ESSO-HAEMATITE

VICTORIA
TASMANIA

HOGAN GROUP
HOGAN IS.

15'

B A S S S T R A I T

KENT GROUP
ERITH IS.
DOVER IS.
DEAL IS.

30'

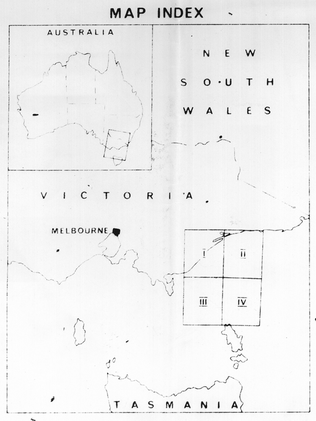
ESSO-HAEMATITE

EL 1/60

HAEMATITE

39°45' 146°45' 147°00' 15' 30' 147°45'

MAP INDEX



LEGEND

-3500- Structure contour

Fault "U" upthrown side "D" downthrown side

Esso conventional single fold seismic shot point

Esso six fold C.D.P. seismic shot point

Haematite conventional single fold seismic shot point

Petroleum tenement boundary

Esso - Haematite farm in boundary

Area in which horizon is missing, edge of onlap

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN Part 1/8 (plate IIc)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "B"

G1/8

Contour Interval: 500 Feet

Datum: Sea Level

Scale 1:100,000

1 0 2 4

MILES

021025

AUTHOR K. A. RICHARDS

SHEET III

5 cm

DRAFTED BY M.F. WEETMAN
A.F. STRAHAN
REVISED

PLATE IIc

932/OP/8

OR038

7

147°45' 148°00' 15' 30' 148°45'

38°45'

39°00'

PEP 39

ESSO-HAEMATITE

VICTORIA
TASMANIA

T A S M A N S E A

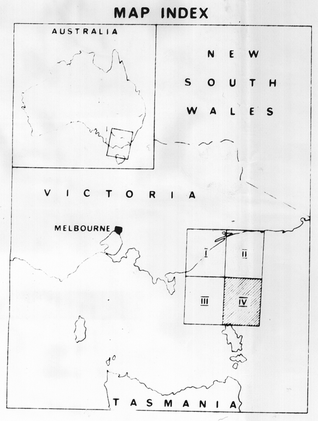
EL 1/60

39°45'

HAEMATITE FLINDERS IS. ESSO-HAEMATITE

147°45' 149°00' 15' 30' 148°45'

MAP INDEX



LEGEND

-3500- Structure contour

U / D Fault "U" upthrown side "D" downthrown side

Esso conventional single fold seismic shot point

Esso six fold C.D.P. seismic shot point

Haematite conventional single fold seismic shot point

Petroleum tenement boundary

Esso - Haematite farm in boundary

Area in which horizon is missing, edge of onlap

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN Part 1/9 (pl. II D)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "B"

G1/9

Contour Interval: 500 Feet

Datum: Sea Level

Scale 1:100,000

1 0 2 4

MILES

021026

AUTHOR: K. A. RICHARDS

SHEET IV

5 cm

DRAFTED BY M.F.WEETMAN
A.F. STRAHAN

REVISED

PLATE II D

OR039

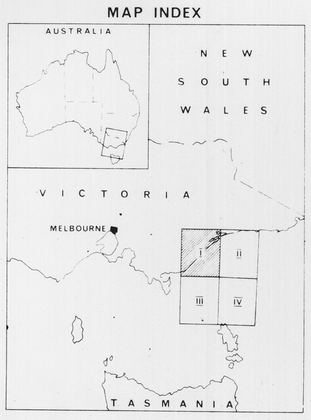
932/pp/9

(8)

146°45'
147°00'
15'
30'
147°45
37°45'
38°00'
340,000
320,000
300,000
280,000
260,000
240,000
100,000
120,000
140,000
160,000
330,000
350,000
370,000

BAIRNSDALI
LAKE KING
LAKE VICTORIA
LAKE WELLINGTON
LAKE REEVE
MAFFRA
SALE
WOODSIDE
ST. MARGARET ISLAND
ESSO-HAEMATITE
TASMAN SEA
PEP 38
PEP 39
ESSO Gippsland Shelf-1
A-1
H
D
U
-3000
-3500
-4000
-4500
-5000
-5500
-6000
-6500
-7000
-7500
-8000

MAP INDEX



LEGEND

- Esso Gippsland Shelf-1
- —6000— Structure contour
- U / D Fault "U" upthrown side "D" downthrown side
- Esso conventional single fold seismic shot point
- Esso six fold C.D.P. seismic shot point
- Haematite conventional single fold seismic shot point
- Petroleum tenement boundary
- H Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN
Part 1/10 (plate III A)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "C"

G1/10

Contour Interval: 500 Feet

Datum: Sea Level

Scale 1:100,000

1 0 2 4

MILES

021027

AUTHOR : E B STANFORD

DRAFTED BY M F WEETMAN, A F STRAHAN

SHEET 1

5 cm

PLATE III A

CR-039

Pwg. 932/OP/10

9

147°45' 148°00' 15' 30' 148°45'

37°45' 38°00' 15' 30' 38°45'

CAPE CONRAN

LAKES ENTRANCE

LAKE KING

WOODSIDE

PEP 42

PEP 38

PEP 39

ESSO-HAEMATITE

ESSO-HAEMATITE

A-2

B

C

D

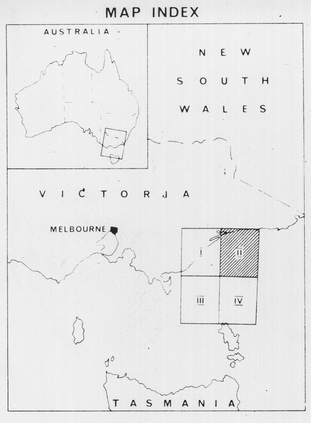
E

F

G

T A S M A N S E A

MAP INDEX



LEGEND

—2500— Structure contour

U / D Fault "U" upthrown side "D" downthrown side

Esso conventional single fold seismic shot point

Esso six fold C.D.P. seismic shot point

Haematite conventional single fold seismic shot point

Petroleum tenement boundary

Canyon area

H Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN
Part 1/11 (plate III B)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "C" G1/11

Contour Interval: 500 Feet

Datum: Sea Level

Scale 1:100,000

1 0 2 4

MILES

021028

AUTHOR E. B. STANFORD

DRAFTED BY M.F.WEETMAN, A.F. STRAHAN

SHEET II

5 cm

PLATE III B

CR-039

Dwg 932/00/11

146°45' 147°00' 15' 30' 147°45

37°45' 37°45'

38°00' 38°00'

15' 15'

30' 30'

38°45' 38°45'

340,000 360,000 380,000 400,000 420,000

320,000 340,000 360,000

300,000 320,000

280,000 300,000

260,000 280,000

240,000 260,000

BAIRNSDALE

MAFFRA

SALE

WOODSIDE

ST. MARGARET ISLAND

LAKE KING

LAKE VICTORIA

LAKE WELLINGTON

LAKE REEVE

LAKE REEVE

ESSO Gippsland Shelf - 1

A-1

DRU

H

PEP 42

PEP 38

PEP 39

T A S M A N S E A

ESSO-HAEMATITE

WOODSIDE ESSO-HAEMATITE

MAP INDEX



LEGEND

- Esso Gippsland Shelf - 1
- —165— Structure contour
- Fault "U" upthrown side, "D" downthrown side
- Esso conventional single fold seismic shot point
- Esso six fold C.D.P. seismic shot point
- Haematite conventional single fold seismic shot point
- Petroleum tenement boundary
- H Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN
Part 1/12 (plus NA)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "D"

G1/12

Contour Interval : 0·05 seconds (= BASE (MARKS) Datum : Sea Level

(TWO WAY)

Scale 1:100,000

1 0 2 4

MILES

021029

AUTHOR : E.B. STANFORD

DRAFTED BY M.F.WEETMAN

SHEET 1

5 cm

PLATE IVA

OR-037

Dwg. 932/OP/14

(11)

147°45' 148°00' 15' 30' 148°45'

37°45'

CAPE CONRAN

PEP 42

LAKES ENTRANCE

LAKE KING

38°00'

A-2

B

C

D

E

F

G

T A S M A N S E A

PEP 38

PEP 39

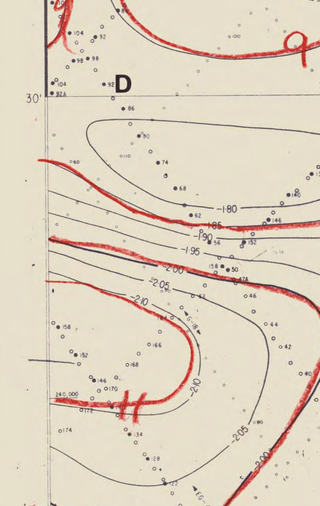
ESSO-HAEMATITE

ESSO-HAEMATITE

38°45'

147°45 148°00' 15' 30' 148°45'

MAP INDEX



LEGEND

H	Prospective area
—I·65—	Structure contour
U / D	Fault "U" upthrown side "D" downthrown side
	Esso conventional single fold seismic shot point
	Esso six fold C.D.P. seismic shot point
	Haematite conventional single fold seismic shot point
	Petroleum tenement boundary
	Esso – Haematite farm in boundary
	Area in which Horizon "D" is missing

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN
Part 1/13 (pdk. no 8)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "D"

G1/13

Contour Interval : 0·05 seconds (TWO WAY) (= BASE LATROBE) Datum : Sea Level

Scale 1:100,000

1 0 2 4 MILES

021030

AUTHOR E. B. STANFORD DRAFTED BY M.F.WEETMAN

SHEET II 5 cm PLATE IVB

OR-039

Dwg 952/10/15

147°45' 148°00' 15' 30' 148°45'

38°45' 38°45'

39°00' 39°00'

PEP 39

ESSO-HAEMATITE

VICTORIA
TASMANIA

15' 15'

T A S M A N S E A

30' 30'

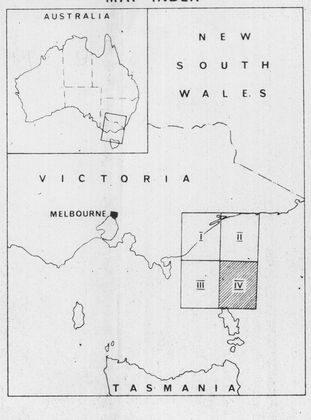
EL 1/60

HAEMATITE FLINDERS IS. ESSO-HAEMATITE

39°45' 39°45'

147°45' 149°00' 15' 30' 148°45'

MAP INDEX



LEGEND

- —I·65— Structure contour
- U / D Fault "U" upthrown side, "D" downthrown side
- Esso conventional single fold seismic shot point
- Esso six fold C.D.P. seismic shot point
- Haematite conventional single fold seismic shot point
- Petroleum tenement boundary
- Esso-Haematite farm in boundary

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN Part 1/14 (plate IVc)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "D"

G1/16

Contour Interval : 0·05 seconds

Datum : Sea Level

Scale 1:100,000

1 0 2 4

MILES

021031

AUTHOR : E.B. STANFORD.

DRAFTED BY M.F. WEETMAN

SHEET IV

5 cm

PLATE IVc

OR-039

Dwg 952/OP/16

13

146°45' 147°00' 15' 30' 147°45

37°45' 38°00' 15' 30' 38°45'

140,000 320,000 300,000 280,000 260,000 240,000

450,000 350,000 340,000 360,000

MAFFRA

SALE

BAIRNSDALE

LAKE KING

LAKE VICTORIA

LAKE WELLINGTON

LAKE REEVE

LAKE REEVE

A-1

H

PEP 42

PEP 38

PEP 39

WOODSIDE

ST. MARGARET ISLAND

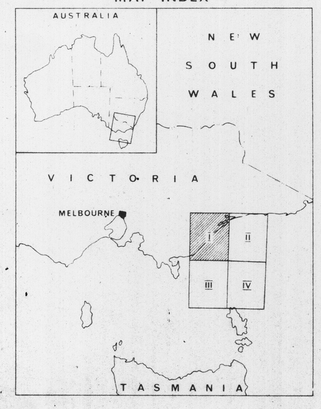
ESSO-HAEMATITE

ESSO-HAEMATITE

WOODSIDE

T A S M A N S E A

MAP INDEX



LEGEND

- Esso Gippsland Shelf-I
- 1·65 — Structure contour
- U / D — Fault "U" upthrown side, "D" downthrown side
- Esso conventional single fold seismic shot point
- Esso six-fold C.D.P. seismic shot point
- Haematite conventional single fold seismic shot point
- Petroleum tenement boundary
- Esso-Haematite farm in boundary
- H — Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN
Part 1/15A (plate VA)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "E"

G1/15A

Contour Interval : 0·05 seconds

Datum : Sea Level

Scale 1:100,000

1 0 2 4

MILES

021032

AUTHOR : E.B.STANFORD

DRAFTED BY M.F.WEETMAN

SHEET I

5 cm

PLATE V A

CR-039

Dwg: 932/OP/17

19

147°45' 148°00' 15' 30' 148°45'

37°45'

38°00'

38°45'

PEP 42

PEP 38

PEP 39

LAKES ENTRANCE

LAKE KING

CAPE CONRAN

WOODSIDE

A–2

B

C

D

E

F

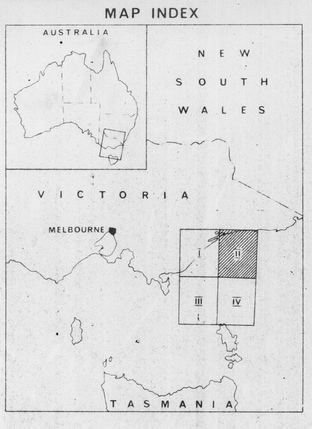
G

T A S M A N S E A

ESSO–HAEMATITE

ESSO–HAEMATITE

MAP INDEX



LEGEND

- Structure contour
- Fault "U" upthrown side, "D" downthrown side
- Esso conventional single fold seismic shot point
- Esso six fold C.D.P. seismic shot point
- Haematite conventional single fold seismic shot point
- Petroleum tenement boundary
- Esso–Haematite farm in boundary
- H Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST GIPPSLAND BASIN
Part 1 (1SB
(plate VB)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

STRUCTURE CONTOUR MAP OF HORIZON "E"

G1/15B

Contour Interval : 0·05 seconds

Datum : Sea Level

Scale 1:100,000

1 0 2 4

MILES

021033

AUTHOR E. B. STANFORD

DRAFTED BY M.F.WEETMAN

SHEET II

5 cm

PLATE V B

OR-039

Dwg 952/OP/18

146°45'
147°00'
15'
30'
147°45
37°45'
38°00'
38°45'

BAIRNSDALE
MAFFRA
SALE
WOODSIDE
ST. MARGARET ISLAND
ESSO-HAEMATITE

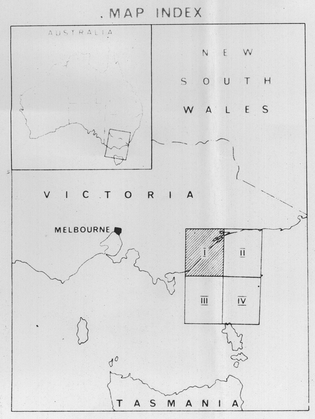
LAKE KING
LAKE VICTORIA
LAKE WELLINGTON
LAKE REEVE
LAKE REEVE

T A S M A N S E A

ESSO Gippsland Shelf - 1
A-1
H
PEP 38
PEP 39
ESSO-HAEMATITE
WOODSIDE

2500
2250
2000
1750
1500
1250
1000
750
500
250
3000
2750

MAP INDEX



LEGEND

- Esso Gippsland Shelf - I
- 2250 — Thickness contour
- Fault "U" upthrown side, "D" downthrown side
- Esso conventional single fold seismic shot point
- Esso six fold C.D.P. seismic shot point
- Haematite conventional single fold seismic shot point
- Petroleum tenement boundary
- H Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN Pmt 1/16 (plus via)

ESSO EXPLORATION AUSTRALIA INC. SYDNEY. NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

THICKNESS MAP OF THE INTERVAL HORIZON "A" TO HORIZON "B"

G1/16

Contour Interval : 250 Feet

Scale 1:100,000

1 0 2 4

MILES

021034

AUTHOR : W.C. PRESLEY

DRAFTED BY M.F.WEETMAN, A.F.STRAHAN

SHEET I

5 cm

PLATE VI A

OR-039

Dwg 932/08/19

16

147°45' 148°00' 15' 30' 148°45'

37°45'

38°00'

15'

30'

38°45'

PEP 42

PEP 38

PEP 39

LAKES ENTRANCE

LAKE KING

CAPE CONRAN

WOODSIDE

A-2

B

C

D

E

F

G

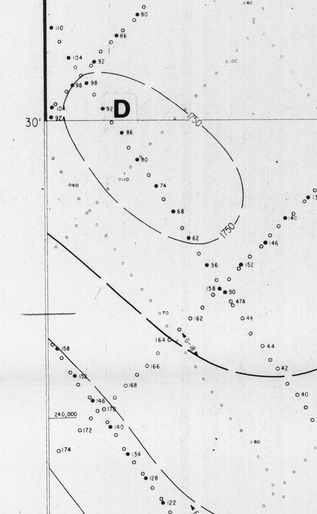
T A S M A N S E A

ESSO-HAEMATITE

ESSO-HAEMATITE

340,000 320,000 300,000 280,000 260,000 240,000 220,000

MAP INDEX



LEGEND

—2500— Thickness contour

U / D Fault "U" upthrown side "D" downthrown side

Esso conventional single fold seismic shot point

Esso six fold C.D.P. seismic shot point

Haematite conventional single fold seismic shot point

Petroleum tenement boundary

H Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN
part 1/17 (plus vii)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

THICKNESS MAP OF THE INTERVAL

HORIZON "A"

TO G1/17

HORIZON "B"

Contour Interval : 250 Feet

Scale 1:100,000

1 0 2 4

MILES

021035

AUTHOR W. C. PRESLEY

DRAFTED BY M.F.WEETMAN
A.F.STRAHAN

SHEET II

5 cm

PLATE VI B

OR-039

Dwg 932/OP/20

(17)

146°45' 147°00' 15' 30' 147°45'

38°45'

PEP 39

39°00'

ESSO-HAEMATITE

VICTORIA
TASMANIA

HOGAN GROUP
HOGAN IS.

15'

B A S S S T R A I T

KENT GROUP
ERITH IS.
DOVER IS.
DEAL IS.

30'

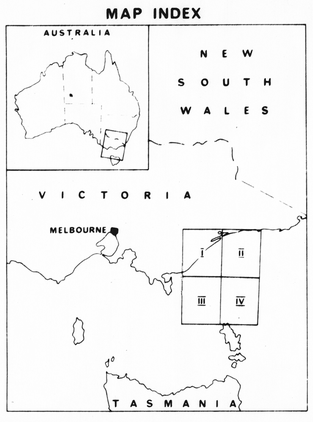
ESSO-HAEMATITE

EL 1/60

39°45' HAEMATITE

146°45' 147°00' 15' 30' 147°45'

MAP INDEX



LEGEND

—2500— Thickness contour

Fault "U" upthrown side
"D" downthrown side

Esso conventional single fold seismic shot point

Esso six fold C.D.P. seismic shot point

Haematite conventional single fold seismic shot point

Petroleum tenement boundary

Esso-Haematite farm in boundary

NOTE *Where C.D.P. and conventional shot points coincide only C.D.P. indicated*

EAST BASS BASIN
Part 1/10 (plate VIC)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

THICKNESS MAP OF THE INTERVAL

HORIZON "A"

TO

HORIZON "B"

G1/18

Contour Interval 250 Feet

Scale 1:100,000

1 0 2 4

MILES

5 cm

AUTHOR W.C. PRESLEY

DRAFTED BY M.F. WEETMAN

REVISED A.F. STRAHAN

SHEET III

PLATE VI C

932/OP/21

OR-039

18

147°45' 148°00' 15' 30' 148°45'

38°45' 38°45'

PEP 39

39°00' 39°00'

ESSO-HAEMATITE

VICTORIA
TASMANIA

15' 15'

T A S M A N S E A

30' 30'

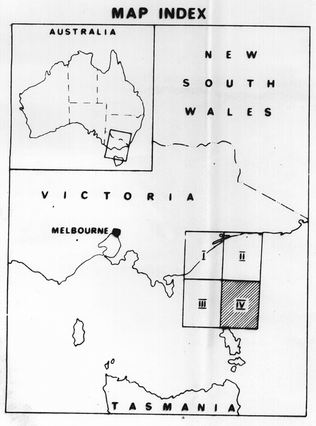
EL 1/60

HAEMATITE FLINDERS IS. ESSO-HAEMATITE

39°45' 39°45'

147°45' 149°00' 15' 30' 148°45'

MAP INDEX



LEGEND

—2500— Thickness contour

U / D Fault "U" upthrown side "D" downthrown side

Esso conventional single fold seismic shot point

Esso six fold C.D.P. seismic shot point

Haematite conventional single fold seismic shot point

Petroleum tenement boundary

Esso - Haematite farm in boundary

NOTE : Where C.D.P. and conventional shot points coincide only C.D.P. indicated.

EAST BASS BASIN - Part 1/19 (old. VID)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

THICKNESS MAP OF THE INTERVAL

HORIZON "A"

TO

HORIZON "B"

G1/19

Contour Interval 250 Feet

Scale 1:100,000

1 0 2 4

MILES

021037

AUTHOR: W. C. PRESLEY

SHEET IV

5 cm

DRAFTED BY M.F.WEETMAN, A.F.STRAHAN

REVISED

PLATE VI D

932/00/22

OR-039

146°45'
147°00'
15'
30'
147°45
37°45'
38°00'
38°15'

BAIRNSDALE
MAFFRA
SALE
WOODSIDE
ST. MARGARET ISLAND

LAKE KING
LAKE VICTORIA
LAKE WELLINGTON
LAKE REEVE
LAKE

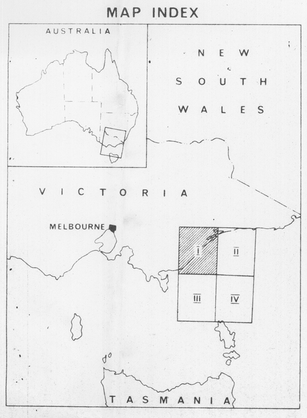
T A S M A N S E A

PEP 38
PEP 39

ESSO Gippsland Shelf-1
A-1
H

ESSO-HAEMATITE
WOODSIDE
ESSO-HAEMATITE

MAP INDEX



LEGEND

— 500 — Thickness contour	Esso Gippsland Shelf-1
U / D Fault "U" upthrown side "D" downthrown side	Area in which interval is missing
Esso conventional single fold seismic shot point	Canyon area
Esso six fold C.D.P. seismic shot point	Good reflection area
Haematite conventional single fold seismic shot point	Fair reflection area
Petroleum tenement boundary	Poor reflection area
	H Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN - Part 1/20 (pLJc VIIA)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

THICKNESS MAP OF THE INTERVAL

HORIZON "B"

TO G1/20

HORIZON "C"

Contour Interval : 500 Feet

Scale 1:100,000

1 0 2 4

MILES

021038

AUTHOR : E.B. STANFORD.

DRAFTED BY M.F. WEETMAN, A.F. STRAHAN.

SHEET 1

5 cm

PLATE VII A

OR-039

Dwg 952/01/25

147°45' 148°00' 15' 30' 148°45'

37°45' 38°00' 15' 30' 38°45'

LAKES ENTRANCE

LAKE KING

CAPE CONRAN

PEP 42

WOODSIDE

A-2

B

C

D

E

F

G

T A S M A N S E A

PEP 38

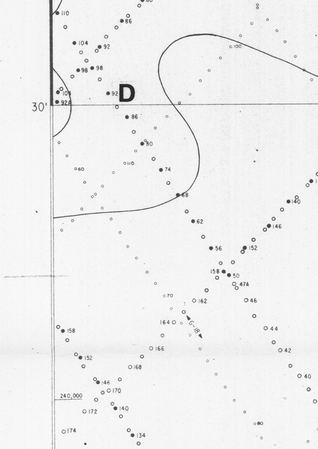
ESSO-HAEMATITE

ESSO-HAEMATITE

PEP 39

340,000 360,000 380,000 400,000 420,000 440,000 460,000 480,000 500,000 520,000 540,000 560,000 580,000 600,000 620,000 640,000 660,000 680,000 700,000 720,000

MAP INDEX



LEGEND

- 500 — Thickness contour
- U / D — Fault "U" upthrown side, "D" downthrown side
- Esso conventional single fold seismic shot point
- Esso six fold C.D.P. seismic shot point
- Haematite-conventional single fold seismic shot point
- Petroleum tenement boundary
- Area in which interval is missing
- Canyon area
- Good reflection area
- Fair reflection area
- Poor reflection area
- H — Prospective area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN - Pack 1/21 (p Ld. VIIB)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

THICKNESS MAP OF THE INTERVAL HORIZON "B" TO HORIZON "C"

G1/21

Contour Interval : 500 Feet

Scale 1:100,000

1 0 2 4

MILES

021039

AUTHOR E. B. STANFORD

DRAFTED BY M.F.WEETMAN A.F. STRAHAN

SHEET II

5 cm

PLATE VII B

OR 039

Dwg 952/09/24

21

146°45' 147°00' 15' 30' 147°45'

38°45' 39°45'

39°00'

30'

15'

PEP 39

EL 1/60

ESSO-HAEMATITE

VICTORIA
TASMANIA

HOGAN GROUP
HOGAN IS.

KENT GROUP
ERITH IS.
DOVER IS.
DEAL IS.

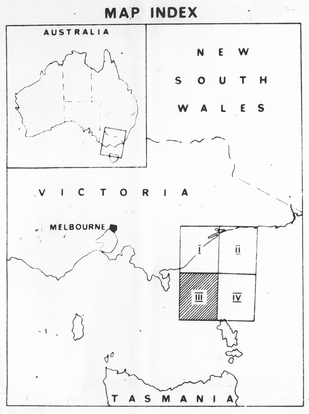
B A S S S T R A I T

ESSO-HAEMATITE

HAEMATITE

220,000 200,000 180,000 160,000 140,000 120,000 100,000 80,000 60,000 40,000 20,000

MAP INDEX



LEGEND

— 500 — Thickness contour

U / D Fault "U" upthrown side "D" downthrown side

Esso conventional single fold seismic shot point

Esso six fold C.D.P. seismic shot point

Haematite conventional single fold seismic shot point

Petroleum tenement boundary

Esso-Haematite farm in boundary

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

Area in which interval is missing

Canyon area

Good reflection area

Fair reflection area

Poor reflection area

EAST BASS BASIN-
Part 1/22 (plus VIIc)

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

THICKNESS MAP OF THE INTERVAL
HORIZON "B"
TO
HORIZON "C"

G1/22

Contour Interval : 500 Feet

Scale 1:100,000

1 0 2 4

MILES

021040

AUTHOR E. B. STANFORD

SHEET III

5 cm

DRAFTED BY M.F.WEETMAN
A. F. STRAHAN

REVISED

PLATE VII C

932/op/25

OR-039

(20)

147°45' 148°00' 15' 30' 148°45'

38°45' 38°45'

PEP 39

39°00' 39°00'

ESSO-HAEMATITE

VICTORIA
TASMANIA

15' 15'

T A S M A N S E A

30' 30'

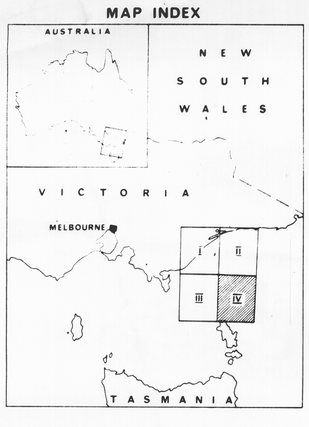
EL 1/60

HAEMATITE FLINDERS IS. ESSO-HAEMATITE

39°45' 39°45'

147°45' 149°00' 15' 30' 148°45'

MAP INDEX



LEGEND

- 500 — Thickness contour
- U / D — Fault "U" upthrown side, "D" downthrown side
- Esso conventional single fold seismic shot point
- Esso six fold C.D.P. seismic shot point
- Haematite conventional single fold seismic shot point
- Petroleum tenement boundary
- Esso-Haematite farm in boundary

Area in which interval is missing
Canyon area
Good reflection area
Fair reflection area
Poor reflection area

NOTE : *Where C.D.P. and conventional shot points coincide only C.D.P. indicated.*

EAST BASS BASIN
Part 1/23 (Vol. VII D)

G1/23

ESSO EXPLORATION AUSTRALIA INC., SYDNEY, NEW SOUTH WALES

THE GIPPSLAND BASIN AREA

VICTORIA

THICKNESS MAP OF THE INTERVAL
HORIZON "B"
TO
HORIZON "C"

Contour Interval : 500 Feet

Scale 1:100,000

1 0 2 4
MILES

021041

AUTHOR : E.B.STANFORD.

DRAFTED BY M.F.WEETMAN.
REVISED A.F.STRAHAN.

SHEET IV

5 cm

PLATE VII D

632/OP/26

OR-037

23