WELL ELEMENTARY
MUMBANNAR-1
(W369)

WELL ELEMENTARY MUMBANNAR-1 (W369)

CONTENTS.....

Section :

SECTION (1)

WELL CARD

PE904080

This is an enclosure indicator page.
The enclosure PE904080 is enclosed within the container PE904079 at this location in this document.

The enclosure PE904080 has the following characteristics:

ITEM_BARCODE	= PE904080
CONTAINER_BARCODE	= PE904079
NAME	= well card
BASIN	= OTWAY
PERMIT	=
TYPE	= WELL
SUBTYPE	= WELL_CARD
DESCRIPTION	= well card Mumbannar 1
REMARKS	=
DATE_CREATED	= 01/01/1926
DATE_RECEIVED	=
W_NO	= W369
WELL_NAME	= Mumbannar-1
CONTRACTOR	= Mersey Valley Oil Co
CLIENT_OP_CO	= Mersey Valley Oil Co

(Inserted by DNRE - Vic Govt Mines Dept)

Mersey Valley Oil Co. Mumbannar No 1

Spudded. 1926 El. 200 ± Ph. Malanganee

Abandoned T.D. 1100

Location. 37°51'10"S. Long. 141°02'40"E. S.W. Cnr. allot. 3A (5.?). Ph. Malanganee., Limestone Ridge

Limestone + marl 0-800'

Light grey sandstone clays 800-1100.

Cmded

SECTION (2)

LITHOLOGY

Mersey Valley Oil Co. No. 1. ("Mumbannar") 1926.

Parish: Malangance

Elevation: Approx. 200'

T.D.: 1100'

Location: Southwest corner allotment 3A. Ph. Malangance, Limestone Ridge. Lat. 37° 51' 10" S. Long. 141° 02' 40" E.

Lithologic Log	Depth Struck
Sand	0
Loose sand with bands hard limestone	18
Hard Limestone	36
Sandy limestone	50
Sand with fossils	90
Dark caving sand	108
Dark sandy clay	115
Limestone, polyzoal	125
Sandstone and sandy clay bands	181
Sand with shells	487
Clay with grit and shells	498
Sticky clay	505
Sandy clay with sandstone seams	520
Marl, clayey	574
Limestone, polyzoal	637
Marl clayey	669
Limestone, polyzoal	698
Marl, grey	740
Sandstone and marl layers	786
Conglomerate with clay	798
Clay, dark brown	825
Shale black	862
Shale, brown, coaly	870
Sandstone	877
Grit	880
Sandstone, grit and conglomerate	906
Conglomerate	934
Sandstone	954

.../2.

Shale brown	970
Shale, dark brown	978
Shale dark with sandstone layers	1005
Shale dark brown with sandstone and conglomerate bands	1028

Further Reference.

Ward (1926) S.A. Mining Review No. 43. p. 50.

No electric logs or mechanical logs were run on this bore.

MUMBANNAR-1.

MERSEY VALLEY OIL COMPANY: The Mersey Valley Oil Company is operating at Mumbannar about midway between Dartmoor on the Glenelg River and Mt. Gambier.

A depth of @ 1100 feet has been reached by boring and the Company has temporarily suspended operations. The area is one where from a geological standpoint, it is extremely difficult to forecast what may be met with in drilling on account of the lack of surface evidence and consequent lack of data regarding underground structure. Recently I had an opportunity of going into the matter with Dr. Wade, Petroleum Advisor to the Federal Govt. and the conclusion was that while there was no evidence in favour of the existence of an oilfield, there was no evidence available that would militate against such occurring and he strongly recommended a geological and palaeontological survey being made of the whole of the area in the south-west portion of the State.

Owing to lack of staff this work has not yet been taken in hand and the position stands as it did when visited last year so far as surface work is concerned. But the boring results have disclosed detail of importance regarding the geological ~~sections~~ sequence of the Tertiary strata.

From the scientific as well as the economic aspect it is desirable that boring operations be continued as the depth attained is the greatest reached within a radius of 20 miles and the deepening of the bore another 1000 or 1500 feet would supply evidence either for or against expenditure of capital in the locality. Thus, while it is not possible to say an oil field will be indicated, there is at present no evidence on which to say that further boring is not warranted. (Signed) W. Baragwanath, 22/3/1938.

Boring Log supplied by Goldfields Diamond Drilling Co.

No. 1. Hole Mumbannar.

Collar 18'

18'	to 36'	Loose brown calcareous sand with hard bands of limestone.
36'	to 50'	Hard bands of limestone.
50'	to 90'	Sandy limestone.
90'	to 108'	Sand mixed with fossils
108'	to 115'	Dark caving sand
115'	to 125'	Dark sandy clay
125'	to 181'	Coral
181'	to 392'	Bands of limestone and calcareous clay
392'	to 487'	Sandy clay with bands of limestone
487'	to 498'	Sand with shells
498'	to 505'	Clay with grit and shells.
505'	to 520'	Sticky clay
520'	to 574'	Sandy clay with seams of sandstone
574'	to 596'	Sticky clayey marl with bands of limestone
596'	to 637'	Grey clayey marl
637'	to 669'	Coraline limestone
669'	to 698'	Clayey marl
698'	to 740	Coraline limestone
740	to 786'	Grey marl
786'	to 798'	Alternate layers of sandstone and marl
x798'	to 803'	Cemented gravel conglomerate.
804'	to 817'	Cemented gravel with clay seams
817'	to 825'	Cemented gravel conglomerate
825'	to 862'	Dark brown clay
862'	to 870'	Black shale-like clay
870'	to 877'	Brown coaly shale
877'	to 880'	" " " darker in colour.
880'	to 887'	Cemented sand, hard
887'	to 906'	Cemented gravel

906'	to 934'	Alternate layers of brown clay and cemented sand and conglomerate
934'	to 942'	Conglomerate
942'	to 952'	Hard conglomerate
952'	to 954'	Conglomerate
954'	to 970'	Cemented sand
970'	to 978'	Brown clay
978'	to 1005'	Dark brown shaley clay
1005'	to 1028'	Brown clay with layers of cemented sand and conglomerate
1028'	to 1059'	Brown shale clay with few thin seams of cemented sand
1059'	to 1100'	Dark brown clay with occasional bands of cemented sand and conglomerate

Note: From an examination of the cores at this bore I find that from the surface to 800 ft. inclusive every sample effervesced freely with hydrochloric acid. Nothing effervesced below 800 ft. and there was no quartz sand present above 800 ft.

Examined with Prof Richards who afraid useless determinations WB

(Signed) W. Baragwanath.

Director of Geological Survey

25-1-26

Determinations from Small Samples at Bore (Incomplete)

To 108'		Duhe limestone
		? Oyster bed
115'	to 125'	Marl
125'	to 240'	Limestone with corals, hard, in places
240'	" 275'	Limestone, soft.
300'	" [illegible]	Fine grey limestone
487'	" [illegible]	Limestone with fragments of fossils
505'	" 540'	Fine grey limestone marls
540'	" 570'	Soft fossiliferous limestone
570	" 700'	Fine grey limestone and marl
700'	" 740'	Coralline limestone
740'	" 800'	Soft limestone and marl
800'	" 825'	Quartz sand
825'	" 862'	Lignitic clay
870'	" 877'	Black clay and lignite
877'	" 970'	Sand
970'	" 1080'	Lignitic clay
1020'	" 1025'	Crystal sand (siliceous)
1025'	" 1050'	Ligneous clay
1050'	" 1100'	Ligneous clay and sand

Tertiary limestones

Lignitous series

225A

459	Fragmentary basalt.
496	Sand and clay.
508	Shales and clay, fossilferous.
608	Travertine.
630	Lignitic clay.
1045	Dry quartz sand. (at 945 circulation water brought up fragments of black lignite.)

Boring still going on.

The foregoing shows that in both formations, Trias-Jura and Tertiary, the conditions for the formation of petroleum and its retention in porous beds are quite suitable. In fact, the records provide ample proof of the existence of petroleum in both formations.

e 41 Number of Bore-- 3V. MUMBANNAR - 1.

Company--Mersey Valley Oil Company Limited.

Location--Between Mumbannar and Gambier.

Elevation--

Depth to	Formation.
18	Sand.
36	Loose sand, with hard beds of limestone.
50	Hard limestone.
90	Sandy limestone.
108	Sand, with fossils.
115	Dark caving sand.
125	Dark sandy clay.
181	Coraline limestone.
487	Bands of sandstone and sandy clay.
498	Sand, with shells.
505	Ckay, with grit and shells.
520	Sticky clay.
574	Sandy clay with seams of sandstone.
637	Clayey marl.
669	Coraline limestone.
698	Clayey marl.
740	Coraline limestone.
786	Grey marl.
798	Layers of sandstone and marl. Base of Limestone also MB
825	Conglomerate with clay.
862	Dyak brown clay.
870	Black shale (Trias-Jura?). Lignite MB Tertiary
877	Brown coaly shale. Sample.
880	Sandstone,
906	Grit.
934	Layers of sandstone, grit and conglomerate.
954	Conglomerate.
970	Sandstone.
978	Brown Shale.
1005	Dark brown shale.
1028	Dark shale with layers of sandstone.
1100	Dark brown shale with bands of sandstone and conglomerate

SW-927

Number of Bore--3 V.

Company--Mersey Valley Oil Company Limited.

Location--Between Mumbannar and Gambier.

Elevation-- MUMBANNAR-1

Depth to	Formation.
18	Sand.
36	Loose sand, with hard beds of limestone.
50	Hard limestone.
90	Sandy limestone.
108	Sand, with fossils.
115	Dark caving sand.
125	Dark sandy clay.
181	Coraline limestone.
487	Bands of sandstone and sandy clay.
498	Sand, with shells.
505	Clay, with grit and shells.
520	Sticky clay.
574	Sandy clay with seams of sandstone.
637	Clayey marl.
669	Coraline limestone.
698	Clayey marl.
740	Coraline limestone.
786	Grey marl.
798	Layers of sandstone and marl.
825	Conglomerate with clay.
862	Dark brown clay.
870	Black shale (Trias-Jura?).
877	Brown coaly shale.
880	Sandstone.
906	Grit.
934	Layers of sandstone, grit and conglomerate.
954	Conglomerate.
970	Sandstone.
978	Brown shale.
1006	Dark brown shale.
1023	Dark shale with layers of sandstone.
1100	Dark brown shale with bands of sandstone and conglomerate.

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Bores 1 to 5 sunk for geological survey purposes in 1928.

Company--Government.

Location--5 chains south-east along road from north-east boundary of Dartmoor township.

Depth to	Formation.
10	Sand.
13	Sand and blue clay.
16	Clay, blue, plastic.
19	Shells with lime.
20	Limestone rubble.
24	Sand.
26	Sand and water worn rubble.
27	Sand, drift.
38	Sand, red.
46	Sand and gravel.
68	Clay, black.

Depth to	Formation.
115	Sand.
122	Sand and clay.
130	Clay, sandy.
169	Sand.
174	Sand and gravel.
220	Clay, sandy.
224	Sand and gravel.
225	Clay, sandy.
234	Sand.
236	Clay, sandy.
239	Clay, black.
267	Sand, drift.
301	Clay, black.
302	Gravel and sand.
309	Sand, drift.
331	Clay, black.
350	Sand, drift.
446	Clay and sand.
449	Sand, drift.
460	Clay, brown.
488	Sand.
494	Clay, brown pyritic.
513	Clay.
520	Sand and pyrites.
532	Clay, pyritic.
547	Sand and pyrites.
555	Clay.
564	Sand with abundant nodules of pyrites.

Brackish water struck at 88 feet, 168 feet and 550 feet, standing at 10 feet.

Although organisms are scarce in the material (477 feet to 555 feet) examined by F. Chapman, he found some specially minute forms of foraminifera, the assemblage in his opinion pointing quite conclusively to its relationship with the lignite series which underlies the Middle Miocene or Polyzoal Series in various parts of Victoria.

CHAPTER. 1V.

ECONOMIC GEOLOGY.

THE OIL LANDS.

The Western Petroleum Exploration Company No-Liability.

The Company holds under lease a number of sections in the Parishes of Tarragal, Mouzie, and Kentbruck in the County of Normanby, State of Victoria. The most important of these leases combine to form a large block 15 square miles in area and may be enumerated as follows:-

Mersey Valley Bore 6. Mumbannar No 1.
Bore log supplied by Goldfields Diamond Drilling 6.
Suspended at 1100'.
Collar 18'

18' - 36'	Loose brown calcareous sand with hard bands of limestone.
36' - 50'	Hard bands of limestone
50' - 90'	Sandy limestone.
90' - 108'	Sand mixed with fossils
108' - 115'	Dark caving sand
115' - 125'	Dark sandy clay.
125' - 181'	Coral.
181' - 392'	Bands of limestone & calcareous clay.
392' - 487'	Sandy clay with bands of limestone
487' - 498'	Sand with shells
498' - 505'	Clay with grit and shells.
505' - 520'	Sticky clay.
520' - 574'	Sandy clay with seams of sandstone
574' - 596'	Sticky clayey marl with bands of limestone
596' - 637'	Grey clayey marl
637' - 669'	Coralline limestone
669' - 698'	Clayey marl
689' - 740'	Coralline limestone
740' - 786'	Grey marl
786' - 798'	Alternate layers of sandstone & marl.
798' - 803'	Cemented gravel conglomerate
804' - 817'	" " with clay seams.
817' - 825'	" " conglomerate.
825' - 862'	Dark brown clay.
862' - 870'	Black shale-like clay.
870' - 877'	Brown & coaly shale
877' - 880'	" " " darker in colour.
880' - 887'	Cemented sand, hard.
887' - 906'	Cemented gravel
906' - 934'	Alternate layers of brown clay & cemented sand & conglomerate.
934' - 942'	Conglomerate

Cont.

Mumbannar No 1 – cont.

942' – 952'	Hard conglomerate
952' – 954'	Conglomerate.
954' – 970'	Cemented sand
970' – 978'	Brown clay
978' – 1005'	Dark brown shaley clay.
1005' – 1028'	Brown clay with layers of cemented sand & conglomerate
1028' – 1059'	Brown shale clay with few thin seams of cemented sand
1059' – 1100'	Dark brown clay with occasional bands of cemented sand and conglomerate.

Note by W. Baragwanath 25-1-26 – "From an examination of the core at this bore I find that from the surface to 800ft inclusive every sample effervesced freely with hydrochloric acid. Nothing effervesced below 800 ft. and there was no quartz sand present above 800ft".

Determined from small samples at Bore (Trowbridge)

To 108'	Dune limestone
	? Oyster bed.
115' – 125'	Marl
125' – 240'	Limestone with corals, hard, in place.
240' – 275'	Limestone, soft.
300' – 487'	Fine grey limestone.
487' – 505'	Limestone with fragments of fossils.
505' – 540'	Fine grey limestone marls.
540' – 570'	Soft fossiliferous limestone.
570' – 700'	Fine grey limestone and marl.
700' – 740'	Coralline limestone
740' – 800'	Soft limestone and marl
800' – 825'	Quartz sand
825' – 862'	Lignitic clay.
870' – 877'	Black clay & lignite
877' – 970'	Sand.
970' – 1020'	Lignitic clay.
1020' – 1025'	Crystal sand & siliceous
1025' – 1050'	Lignous clay.
1050 – 1100'	" " & sand

1+3

J Coulsell pls

Mersey Valley Oil Co. No 1. ("Mumbannar") 1926.

Parish: Malanganee.

Elevation: approx 200'

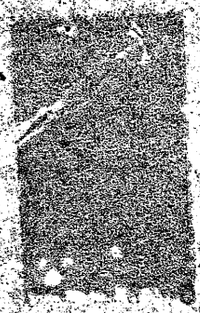
T.D: 1100'

Location: Southwest corner allotment 34 Ph. Malanganee, Limestone Ridge. Lat. 37°51'10"S Long. 141°02'40"E.

Lithologic Log	Depth struck.
Sand	0
Loose sand with bands hard limestone	18
Hard limestone	36
Sandy limestone	50
Sand with fossils	90
Dark caving sand	108
Dark sandy clay	115
Limestone, polyzoal.	125
Sandstone and sandy clay bands	181
Sand with shells	487.
Clay with grit and shells	498
Sticky clay	505
Sandy clay with sandstone seams	520
Marl, clayey	574
Limestone, polyzoal.	637
Marl clayey.	669
Limestone, polyzoal.	698
Marl, grey.	740
Sandstone and marl layers	786
Conglomerate with clay.	~~825~~ 798
Clay, dark brown	825
Shale black	862
Shale, brown, coaly	870
Sandstone	877
Grit	880
Sandstone, grit, and conglomerate	906
Conglomerate	934
Sandstone	954
Shale brown.	970
Shale, dark brown	978
Shale dark with sandstone layers	1005
Shale dark brown with sandstone and conglomerate bands.	1028

Further Reference. Ward. (1926) S.A. Mining Review No 43. P. 50.

No electric logs or mechanical logs were run on this bore.



Mersey Valley Oil Co. No. 1. ("Mumbannar") 1926.

Parish: Malangance

Elevation: Approx. 200'

T.D.: 1100'

Location: Southwest corner allotment 3A. Ph. Malangance, Limestone Ridge. Lat. 37° 51' 10" S. Long. 141° 02' 40" E.

Lithologic Log	Depth Struck
Sand	0
Loose sand with bands hard limestone	18
Hard Limestone	36
Sandy limestone	50
Sand with fossils	90
Dark caving sand	108
Dark sandy clay	115
Limestone, polyzoal	125
Sandstone and sandy clay bands	181
Sand with shells	487
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Clay, dark brown	825
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Shale, brown, coaly	870
Sandstone	877
Grit	880
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Conglomerate	934
Sandstone	954

.../2.

Shale brown	970
Shale, dark brown	978
Shale dark with sandstone layers	1005
Shale dark brown with sandstone and conglomerate bands	1028

Further Reference.

Ward (1926) S.A. Mining Review No. 43. p. 50.

No electric logs or mechanical logs were run on this bore.

MERSEY VALLEY OIL CO.LTD.

Boring log supplied by Goldfields Diamond Drilling Co.Pty.Ltd.

No. 1 Hole Mumbannar.

Cellar 18'			
18'	to	36'	Loose brown calcareous sand with hard bands of limestone
36'	"	50'	Hard bands of limestone
50'	"	90'	Sandy limestone
90'	"	108'	Sand mixed with fossil
108'	"	115'	Dark caving sand
115'	"	125'	Dark sandy clay
125'	"	181'	Coral
181'	"	382'	Bands of limestone and calcareous clay
382'	"	487'	Sandy clay with bands of limestone
487'	"	498'	Sand with shells
498'	"	505'	Clay with grit and shells
505'	"	520'	Sticky clay
520'	"	574'	Sandy clay with seams of sandstone
574'	"	596'	Sticky clayey marl with bands of limestone
596'	"	637'	Grey clayey marl
637'	"	669'	Coraline limestone
669'	"	698'	Clayey marl
698'	"	740'	Coraline limestone
740'	"	786'	Grey marl
786'	"	798'	Alternate layers of sandstone and marl
x 798'	"	803'	Cemented gravel conglomerate
803'	"	817'	Cemented gravel with clay seams
817'	"	825'	Cemented gravel conglomerate
825'	"	862'	Dark brown clay
862'	"	870'	Black shale-like clay
870'	"	877'	Brown coaly shale
877'	"	880'	" " " ,darker in colour
880'	"	887'	Cemented sand,hard
887'	"	906'	Cemented gravel
906'	"	934'	Alternate layers of brown clay and cemented sand and conglomerate
934'	"	942'	Conglomerate
942'	"	952'	Hard conglomerate
952'	"	954'	Conglomerate
954'	"	970'	Cemented sand
970'	"	978'	Brown clay
978'	"	1005'	Dark brown shaley clay
1005'	"	1028'	Brown clay with layers of cemented sand and conglomerate
1028'	"	1059'	Brown shale clay with few thin seams of cemented sand
1059'	"	1100'	Dark brown clay with occasional bands of cemented sand and conglomerate

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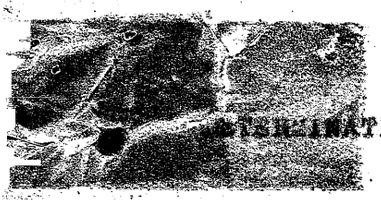
Note:- x From an examination of the cores at this bore I find that from the surface to 800 ft. inclusive every sample effervesced freely with hydrochloric acid. Nothing effervesced below 800 ft. and there was no quartz sand present above 800 ft.

HB

DIRECTOR OF GEOLOGICAL SURVEY
25/1/26.



DETERMINATIONS FROM SMALL SAMPLES AT BORE (INCOMPLETE)

To 108'			Dune limestone
			? Oyster bed
115'	to	125'	Marl
125'	"	240'	Limestone, with corals, hard, in places
240'	"	275'	Limestone, soft
300'	"	487'	Fine grey limestone
487'	"	505'	Limestone with fragments of fossils
505'	"	540'	Fine grey limestone marls
540'	"	570'	Soft fossiliferous limestone
570'	"	700'	Fine grey limestone and marl
700'	"	740'	Coralline limestone
740'	"	800'	Soft limestone and marl
800'	"	825'	Quartz sand
825'	"	862'	Lignitic clay
870'	"	877'	Black clay and lignite
877'	"	970'	Sand
970'	"	1020'	Lignitic clay
1020'	"	1025'	Crystal sand (siliceous)
1025'	"	1050'	Ligneous clay
1050'	"	1100'	Ligneous clay and sand