



**TANJIL POINT ADDIS-2  
(W418B)**

**Well Summary Report**

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# WELL SUMMARY

W418B

WELL SUMMARY

Well: TANJIL - Pt. ADDIS NO. 2.

Company: Tanjil - Pt. Addis Co.

Location: Lat: 38° 14' 58" S  
 Long: 147° 10' 09" E

Parish: GLENCOE SOUTH Allot. \_\_\_\_\_

Elevation: G.L. 136' Datum. \_\_\_\_\_

Total Depth: 2760'

Casing: \_\_\_\_\_

Drilled: \_\_\_\_\_

Post - JEMMYS POINT FORMATION: ?		
JEMMYS POINT FORMATION:	176-252 ft.	
TAMBO RIVER FORMATION:	273-295 ft.	if present
GIPPSLAND LIMESTONE:	300-1127 ft.	with the " <u>Lepido-</u> <u>cyclina</u> beds" from 560-650 ft.
LAKES ENTRANCE FORMATION:	1127-1303 ft.	
		1127-1288' marly unit
		1303' sandy uni-
LATROBE VALLEY COAL MEASURES:	1303-?2640 ft.	
STRZELECKI GROUP:	?2640-2760 ft.	

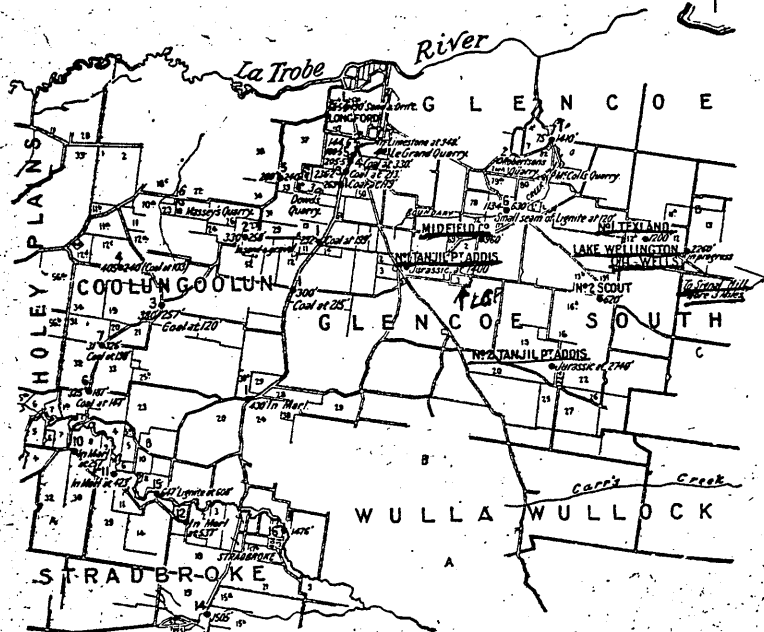
Reference.  
 Hocking, JB. 1968.

## BORING AT LONGFORD DISTRICT

Scale of Miles  
0 1 2 3 4

REFERENCE

Height above sea Level 280' 290' Depth of Bore.

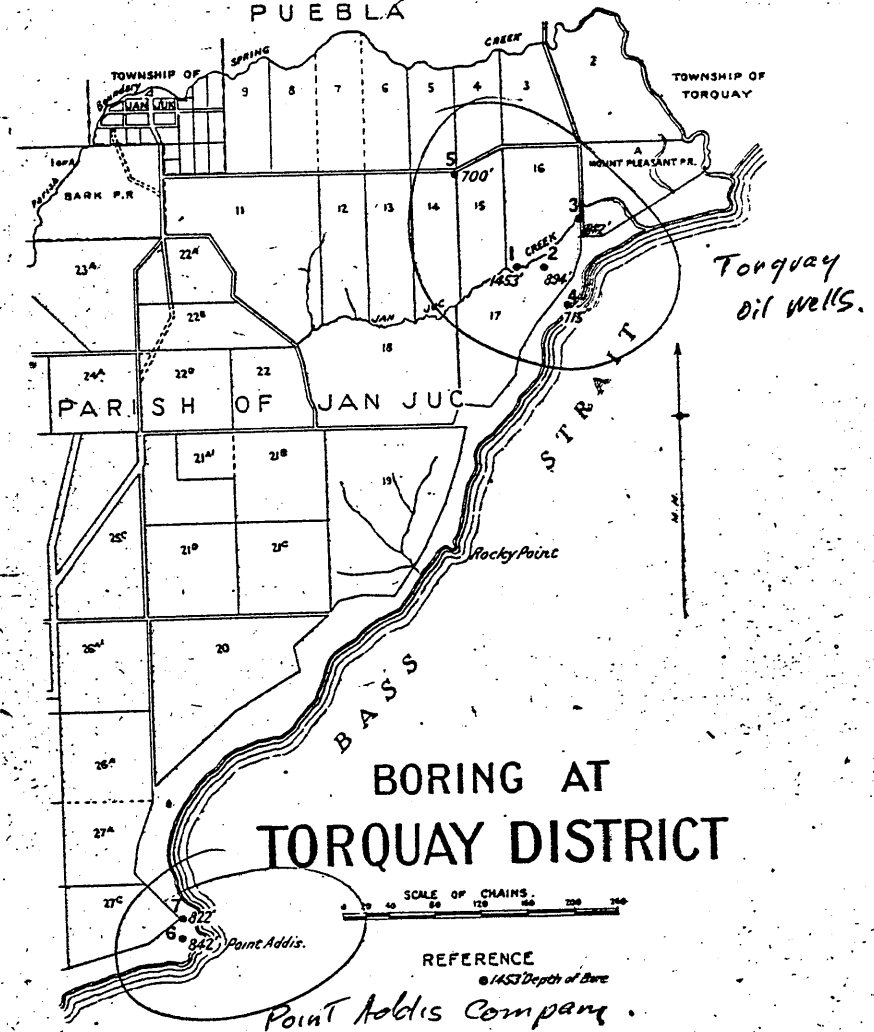


Although the following three districts are not situated in Gippsland, particulars are given of the boring done in the search for oil, as they comprise (in conjunction with eastern Gippsland), the principal areas in the State in which drilling for oil has been carried out.

### Sorrento.

At Sorrento, about 25 miles east of Torquay, a deep bore was drilled to 1,696 feet into lower Tertiary beds. Boring was stopped while still in these beds owing to the limit of the available plant being reached. This bore was put down by the Mines Department to investigate the possible economic resources and geological sequence.

## PUEBLA



## BORING AT TORQUAY DISTRICT

SCALE OF CHAINS  
0 50 100 150 200

REFERENCE

ASCS Depth of Bore

Point Addis Company

### Torquay.

About 1924, the Point Addis Company commenced operations at Point Addis, about 7 miles from Torquay, drilling two holes (Nos. 6 and 7) to 842 and 922 feet respectively without reaching bedrock, the strata penetrated to this depth being clay, limestone sand, and lignitiferous beds.

LITHOLOGY

BASIC INFORMATIONCompany: Tanjil Pt. Addis Co.Date Drilled: 1939Location: Parish of Glencoe South; 38<sup>0</sup>14'58", 147<sup>0</sup>10'09"Elevation: 136 ft. a.s.l.Total Depth: 2760 ft.Present Sample Availability: NilSource of Log: Adapted from Unpublished Report No. 55 of F. Chapman (copy stored by the Geological Survey).LOG

Based on the retrieved samples only:-

- 176-180 ft: Lithology not specified; sample contains a shelly marine fauna
- 200 ft: Loose shelly quartz grit with abundant glauconite, also echinoid spines, bryozoan fragments and forams
- 252 ft: Shelly gravel
- 273-276 ft: Grey fossiliferous marly limestone with Ostrea
- 290-295 ft: Hard grey limestone with mollusca and bryozoa
- 300 ft: Grey marly limestone containing a few quartz pebbles, also bryozoa, forams and ostracods
- 300-334 ft: As above, hard, with shell and echinoid fragments, also bryozoa and forams
- 334-500 ft: Light grey sandy marl with glauconite grains, bryozoa, mollusca, forams and ostracods
- 500-520 ft: Grey marl with shell fragments (including Ostrea), also bryozoa, Ditrupa tubes, forams and ostracods
- 520-524 ft: Hard, pale ochreous limestone with bryozoa and shell fragments
- 524-533 ft: Greenish grey marly limestone with bryozoa, forams and shell fragments
- 533-560 ft: Pale grey marl with bryozoa and forams
- 560-650 ft: As above, with glauconite grains; the forams include Lepidocyclina
- 716 ft: Grey limestone with bryozoa, forams and ostracods
- 768-775 ft: As above
- 805 ft: " "
- 860 ft: Grey compact bryozoal marl with mica, also some echinoid spines and forams
- 900 ft: Grey bryozoal marl
- 968 ft: Grey slightly micaceous marl with quartz pebbles, bryozoa, forams and ostracods
- 968-988 ft: Grey shelly marl with frondose bryozoa, some glauconite grains, also sponge spicules, forams and ostracods
- 988-992 ft: Grey marl, with quartz pebbles, pyrite, and forams
- 992-1000 ft: Dark grey fossiliferous marl
- 1000-1016 ft: Hard grey marl with bands of decomposed bryozoa, also sponge spicules, forams and ostracods
- 1016-1022 ft: Grey fossiliferous marl
- 1057 ft: Grey foraminiferal and bryozoal marl with quartz pebbles



1070 ft:	As above
1080 ft:	" "
1090 ft:	" "
1090-1110 ft:	" "
1110-1120 ft:	Sticky grey marl with forams, ostracods, bryozoa, echinoid spines, and sponge spicules
1120-1127 ft:	As above
1127-1137 ft:	Greenish grey foraminiferal marl
1137-1146 ft:	As above
1146-1156 ft:	" "
1159-1176 ft:	" "
1176-1186 ft:	Dark grey foraminiferal marl
1197 ft:	Grey foraminiferal marl
1206 ft:	Pale grey foraminiferal marl
1230 ft:	As above with patches of glauconite, also with ostracods and sponge spicules
1242 ft:	Dark grey marl with patches of glauconite
1250 ft:	As above
1253 ft:	Dark greenish grey glauconitic marl with forams
1270-1281 ft:	Dark grey foraminiferal marl
1282 ft:	As above
1283-1285 ft:	As above, with rounded quartz grains and pebbles, pyrite and glauconite, also molluscan shell fragments
1285-	
1287.5 ft:	Hard glauconitic limestone with pyrite, molluscan shell fragments and forams
1288 ft:	Dark grey foraminiferal marl
1303 ft:	Dark greenish grey glauconitic sandy marl with pyrite, quartz, mica, and forams

NOTE: In samples from 1303-07 ft almost to total depth Chapman records glauconite, forams, <sup>and</sup> other marine fauna. The present writer believes that these are due to mud-cake contamination which Chapman washed together with the sample proper. This opinion is based on (i) the prevalence of the marine elements in unconsolidated samples, (ii) the occurrence of species normally restricted to the Gippsland Limestone, and (iii) comparison with the corresponding part of the section in adjacent wells. References to these suspect marine elements have thus been excluded from the descriptions below, although it is suggested that others using this log check Chapman's original for themselves.

L.V.G. ↓	1303-1307 ft:	Brown coal ( "containing large polished quartz grains"(?))
	1307-1330 ft:	Brown coal
	1334-1340 ft:	Fine and coarse angular to subangular sand
	1340-1345 ft:	Greyish brown fine-grained micaceous sandrock (with "siderite"(?))
	1345-1354 ft:	As above
	1354-1378 ft:	Brown micaceous sandrock with fine and coarse quartz sand





- 1378-1389 ft: Carbonaceous sandy clay
- 1389-1397 ft: Greyish brown micaceous sandrock (with "siderite"(?))
- 1437 ft: Loose quartz sand
- 1447 ft: Lignite with fine sandy streaks
- 1447-1453 ft: Lignitic sandy clay
- 1453-1470 ft: Lignite
- 1470-1476 ft: As above
- 1476-1484 ft: " " [ ?sandy]

NOTE: The comments made on p.2 regarding contamination can be further extended to the suspected intraformational sand contamination, the sample above being an example. The writer suggests that the frequent references by Chapman to sand occurrence in lignites and clays be regarded with some doubt.

- 1484-1486 ft: Loose coarse gritty quartz sand
- 1486-1490 ft: Dark lignitic clay
- 1490-1500 ft: As above
- 1531-1541 ft: (?)As above
- 1547-1550 ft: Loose quartz grit
- 1584-1615 ft: Pale grey fine-grained sandy clay with mica
- 1615-1622 ft: Black to brown lignite
- 1625 ft: Loose fine quartz sand
- 1682 ft: Fine quartz sand, chiefly angular
- 1710-1725 ft: Dark brown lignitiferous clay
- 1730 ft: As above, with mica
- 1730-1743 ft: " " , also with fine sand and pyrite
- 1745 ft: " "
- 1755 ft: Loose quartz sand, coarse and fine, with lignitic particles
- 1758 ft: Dark brown sandy and lignitic clay
- 1764 ft: Dark grey micaceous sandy clay
- 1771 ft: As above
- 1781 ft: Greyish brown sandy clay, with lignite
- 1788 ft: Greyish brown lignitic clay
- 1801 ft: Loose, fine and coarse, quartz sand, sharply angular, with lignitic particles
- 1806 ft: Brown lignitic sandy clay
- 1833 ft: Loose, coarse and fine, angular sand
- 1855 ft: Greenish brown carbonaceous mudstone
- 1875-1897 ft: As above
- 1897-1903 ft: Brown carbonaceous clay
- 1903-1904 ft: Brown coal
- 1904-1905 ft: Grey fine-grained micaceous sandy mudstone, with particles of brown coal
- 1916-1921 ft: Hard carbonaceous mudstone with angular quartz and "calclitic" [could be dolomitic] veins



- 1921-1928 ft: Loose quartz sand with lignite and mica flakes
- 1928-2008 ft: Chocolate brown carbonaceous mudstone
- 2008-2040 ft: White to pale grey steatic clay [?sandy]
- 2040-2050 ft: Alternating seams of chocolate brown carbonaceous mudstone and loose angular quartz sand with lignitic fragments
- 2050-2065 ft: White to pale grey steatitic clay with particles of lignite
- 2065-2078 ft: Grey fine sandy mudstone
- 2078-2085 ft: Loose sand, more or less angular\*
- 2085-2100 ft: Pale grey fine-grained siliceous mudstone
- 2100-2110 ft: Loose, fine and coarse, angular quartz sand with muscovite
- 2110-2112 ft: Grey sandy mudstone with some quartz pebbles
- 2112-2120 ft: Quartz grit, subrounded to subangular, with pyrite
- 2120-2136 ft: As above
- 2136-2142 ft: " "
- 2142-2150 ft: As for 2085-2100 ft, but darker in color
- 2158 ft: Greyish brown sandy mudstone with whitish patches and mica
- 2165 ft: As above
- 2170-2180 ft: Fine and coarse quartz sand
- 2180-2182 ft: Grey fine-grained siliceous clay
- 2182-2206 ft: (a) Grey fine-grained micaceous siliceous mudstone, with common fine angular quartz sand, also mica and pyrite
- (b) Loose, fine and coarse, sand with some pyrite
- 2206-2209 ft: Coarse sand, mainly milky quartz, with some pyrite
- 2209-2232 ft: As above, but fine-grained
- 2262-2295 ft: As above
- 2310 ft: Fine to coarse quartz sand, chiefly angular
- 2310-2330 ft: As above
- 2340-2355 ft: " " , some jasper and pyrite
- 2355-2390 ft: " "
- 2390-2402 ft: Very fine whitish sandstone with quartz pebbles
- 2402-2436 ft: Fine grey mudstone with bands of coarse quartz grains; also loose sand consisting of coarse and fine quartz
- 2450-2482 ft: Fine quartz sand, angular to subangular, with a few rounded grains; some jasper and limonite
- 2482-2495 ft: Loose quartz sand, coarse and fine, the former with some rounding
- 2495-2530 ft: As above
- 2530-2570 ft: Fine angular quartz sand with some mica and limonite
- 2570-2600 ft: As above, cemented by kaolin

.. /5

\* metamorphic rock fragments are recorded in many of the sands between this depth and 2232 ft.

- 2608-2610 ft: Dark grey sandy mudstone with some "pipe clay"
- 2610-2639 ft: Loose quartz sand, angular to subrounded, and grey sandy clay
- 2639-2640 ft: Rounded pebbles of white and grey milky vein quartz
- 2640-2658 ft. }  
 2658-2700 ft. } Recorded as "sandy marl", with washings of fine  
 2700-2720 ft. } quartz sand, limonite, and concreted sand
- Note: The present writer believes the marl referred to above to be contamination. The "concreted sand" may well be the true lithology and could be a Strzelecki Group arkose. It is pertinent to note that in the nearby North Seaspray 1 well a basal gravel overlies Strzelecki Group arkose and mudstone.
- 2720-2740 ft: Fine-grained grey plastic mudstone with carbonaceous remains on broken surfaces; residue indicates kaolin with some quartz grains
- 2760 ft: As above

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#### STRATIGRAPHIC SUBDIVISION

Based on the above log, and the faunal lists given in Chapman's report, an approximate stratigraphic subdivision is as follows:

- Post-JEMMYS POINT FORMATION: ?
- JEMMYS POINT FORMATION: 176-252 ft.
- TAMBO RIVER FORMATION: if present, then 273-295 ft.
- GIPPSLAND LIMESTONE: 300-1127 ft, with the "Lepidocyclina beds" from 560-650 ft.
- LAKES ENTRANCE FORMATION: 1127-1303 ft.  
 'marly unit' - 1127-1288 ft.  
 'sandy unit' - 1303 ft.
- LATROBE VALLEY COAL MEASURES: 1303-?2640 ft.
- STRZELECKI GROUP: ?2640-2760 ft.
- 

Barry Hocking

J.B. HOCKING,  
Geologist  
 22.7.68



TANJIL OIL CO. N.L.; POINT ADDIS OIL WHEELS N.L.; TANJIL OIL NO. 2. CO. N.L.

Joint Bore, Longford, Gippsland.

TANJIL-PT ADDIS-2. ?

Depth Ft.

Formation

Depth Ft.	Formation
48	Clay
103	Limestone and clay bands.
144	Marl
300	Lignite and ligneous clay
304	Sand drift
378	Lignite and ligneous clay
480	Clay
485	Sand drift
511	Cemented sand
521	Clay
592	Hard cemented sand and gravel
612	Sand, bands of clay
626	Firm cemented sand
628	Cement to harden
637	Clay
639	Drift sand
661	Hard cemented sand
661-673	Hard cemented sand
673-676	Extremely hard cemented sand
676-745	Lignite, hard
745-756	Lignite, with bands of angular cement
756-760	Sand, medium to coarse
760-768	Seams of lignite, coarse cemented sand
766-768	Very sticky ligneous clay
768-777	Seams of putty and chocolate-colored clay
777-779	Lignite
779-784	Stiff putty-colored clay
784-792	Very sticky putty-colored clay
792-793	Lignite
793-798	Ligneous clay
798-800	Soft micaceous clay with thin seams of pyrites
809	Quartz sand
803-816	" "
852	Coarse sand and lignite
871	Grey clay
874	" "
876-878	" "
886	" "
914	Sandy ligneous mud
926-930	Grey clay
932-941	Grey clay
948-952	Grit
966-979	"
988	Loose coarse sand
991-994	" " "
994	" " "
1020	" " "
1035	" " "
1041	Loose fine sand
1042	"
1051-1056	"
1074	"
1083	"
1146	"
1153-1156	"
1177-1181	"
1204-1207	"
1380-1390	"
1410	"
1480-1500	"
1518	"
1556	"
1560	"

L.E.F.?  
L.V.C.M.

S.S.M. Ref. no.

32743(a)  
45  
46  
47  
47(a)  
48  
49  
32750  
51  
52  
53  
54  
55  
56  
57  
58  
32759  
33008  
33009  
33010  
33011  
12  
13  
14  
15  
16  
17  
18  
33019

S.S.M. Ref. no.

33020  
33021  
33022

Foot.

1566-1567  
1575  
1591

R.

TANJIL OIL CO. N.L.; POINT ADDIS OIL WHEELS N.L.; TANJIL OIL NO. 2. CO. N.L.

Joint Bore, Longford, Gippsland.

Tanjil Pt Addis No 1

Depth ft.	Formation
48	Clay
103	Limestone and clay bands.
144	Marl
300	Lignite and ligneous clay
304	Sand drift
372	Lignite and ligneous clay
480	Clay
485	Sand drift
511	Cemented sand
521	Clay
592	Hard cemented sand and gravel
612	Sand. bands of clay
626	Firm cemented sand
628	Cement to harden
637	Clay
639	Drift sand
661	Hard cemented sand
661-673	Hard cemented sand
673-676	Extremely hard cemented sand
676-745	Lignite, hard
745-756	Lignite, with bands of angular cement
756-760	Sand, medium to coarse
760-766	Seams of lignite, coarse cemented sand
766-768	Very sticky ligneous clay
768-777	Seams of putty and chocolate-colored clay
777-779	Lignite
779-784	Stiff putty-colored clay
784-792	Very sticky putty-colored clay
792-793	Lignite
793-798	Ligneous clay
798-800	Soft micaceous clay with thin seams of pyrites
809	Quartz sand
803-816	" "
852	" "
871	Coarse sand and lignite
874	Grey clay
876-878	" "
886	" "
914	" "
926-930	Sandy ligneous mud
932-941	Grey clay
948-952	" "
966-979	Grit
988	"
991-994	Loose coarse sand
994	" " "
1020	" " "
1035	" " "
1041	Loose fine sand
1042	"
1051-1056	"
1074	"
1083	"
1146	"
1153-1156	"
1177-1181	"
1204-1207	"
1280-1390	"
1410	"
1480-1500	"
1518	"
1556	"
1560	"

In report for week ending 23<sup>rd</sup> Aug 1931 by H.R. McKewen.

S.M. Ref. no.

32743(a)

4

45

46

47

47(a)

48

49

32750

51

52

53

54

55

56

57

58

32759

33008

33009

33010

33011

12

13

14

15

16

17

18

33019

S.M. Ref. no.

Frst.

33020

1566-1567

33021

1575

33022

1591

# STRATIGRAPHY

WB/MG

September 8th, 1933.

Dear Sir/

I am in receipt of report by Mr. F. Chapman, Commonwealth Palaeontologist, as a result of his examination of the various cores submitted by you during the progress of boring.

A summary of the conclusions is as follows:-

The horizons represented in the bore are -

Lower Pliocene (Kalimnan)	.. ..	176 to 295 ft.
	C2 =	176 " 180 "
Middle Miocene	.. ..	310 to 524 "
Lower Miocene	.. ..	524 " 900 "
	B3 =	524 " 560 "
	B2 =	560 " 650 "
	B1 =	716 " 900 "
Upper Oligocene	.. ..	968 " 1303 "
Lower Oligocene	.. ..	1303 " 2725 "
Probably Jurassic	.. ..	2725 " 2760 "
		(base of bore).

The material above 176 ft. consisted of quartz sand, representing the "Torrent Gravels" which are so widespread in the Sale-Bairnsdale area.

Lower Pliocene (Kalimnan). This series was represented by fossiliferous beds, those from 176 to 276 ft. being of a friable to loose nature, whilst the bed from 290 to 295 ft. was a hard, grey, shelly limestone. Upper Miocene was apparently absent in this bore.

Middle Miocene. This series extended from 310 down to 524 ft., and consisted mainly of hard to friable, polyzoal, marly limestone.

Lower Miocene. This horizon was met with at 524 ft. and continued until 900 ft., the exact depth not being known as there were no samples between 900 and 968 ft. It consisted of grey fossiliferous marls.

Upper Oligocene. The first sample received after 900 ft. was at 968 ft. and this contained typical Upper Oligocene fossils. The bore continued in this series until 1303 ft.

Lower Oligocene. This series extended from 1303 to 2725 ft. and consisted, firstly, of 30 ft. of brown coal followed by alternating bands of fine and coarse quartz sand containing a few foraminifera and lignitic material, then nearly 1000 ft. of beds of loose quartz sand and sandy mudstones

Jurassic. The bore entered this horizon at 2725 ft. and was still in it at 2760 ft.

~~Correlation with other bores.~~

~~The following table shows the relative depths of the various formations met with in the different bores in the~~

neighbourhood:-

	Tanjil-Pt. Addie No.2 ft.	No.2 Scout bore ft.	Houghton's Texland bore ft.	No.7,P. of Glencoe ft.	No.16 Stradbroke ft.
Torrent Gravels	0 - 176	-	0 - 190	0 - 120	-
Kalimnan	176 - 295	-	-	120 - 210	200 - 480
Upper Miocene.	not present	-	-	220 - 230	490 - 500
Middle "	310 - 524	-	-	236 - 467	510 - 580
Lower "	524 - 900(?)	500 - 927 <sup>x</sup>	250 - 765 <sup>x</sup>	477 - 1259	590 - 990
Upper Oligocene	968 - 1303	-	-	1259 - 1380 <sup>x</sup>	1000 - 1476 <sup>x</sup>
Lower "	1303 - 2725	-	-	-	-
Classic	2725 <sup>x</sup>	-	-	-	-

<sup>x</sup> Still in formation.

Yours faithfully,

SECRETARY FOR MINES.

H.E.Connolly, Esq.,

54 Market St.,

M E L B O U R N E.



*P. of Glenelg South.*

STRATIGRAPHICAL NOTES ON NO.2 BORE, TANJIL-POINT ADDIS, LONGFORD,  
EAST GIPPSLAND.

In view of the method of boring used in Tanjil-Pt. Addis No.2 Bore, the samples were very clean. It is only in a few cases where the gaps between the samples are fairly large that the limits of the various horizons are not quite exact. Such cases are seen in the limiting depth of the E2 zone and the top of the E1 zone of the Lower Miocene and between the base of the Lower Miocene and the top of the Upper Oligocene. Also the E2 zone of the Lower Miocene is probably thicker than it should be owing to only one large sample from 560-650 feet being collected.

The following horizons are represented in the bore: -

Lower Pliocene (Kalimnan) ..	..	..	176 to 295 feet
			C2 = 176 to 180 "
Middle Miocene ..	..	..	310 to 524 "
Lower Miocene ..	..	..	524 to 900 "
			E3 = 524 to 560 "
			E2 = 560 to 650 "
			E1 = 716 to 900 "
Upper Oligocene ..	..	..	968 to 1303 "
Lower Oligocene ..	..	..	1303 to 2725 "
Probably Jurassic ..	..	..	2725 to 2760 "
			(Base of Bore).

The material above 176 feet consisted of quartz sand, representing the "Torrent Gravels" which are so widespread in the Sale and Bairnsdale areas.

Lower Pliocene (Kalimnan) - The Kalimnan series was represented by fossiliferous beds, those from 176 to 276 feet being of a friable to loose nature, whilst the bed from 290 to 295 feet was a hard, grey shaly limestone. The highly fossiliferous

# BIOSTRATIGRAPHY

COMMONWEALTH OF AUSTRALIA.

COMMONWEALTH PALAEOLOGIST,  
NATIONAL MUSEUM,  
MELBOURNE.

29th August, 1933.

Glence South  
Dist. 13.56.

REPORT ON TANJIL-POINT ADDIS NO. 2 BORE. (LONGFORD, GIPPSLAND, VICTORIA.)

Received from Tanjil-Pt. Addis  
Co. through the Victorian Mines  
Department on and after  
19th May, 1932.

176-180 ft.- PELECYPODA -

Neotrignonia howitti; Corbula ephamilla;

Cucullaea coriocoensis.

SCAPHOPODA -

Dentalium subfissura; D. of. mantelli.

GASTEROPODA -

Turritella conspicabilis; T. of. conspicabilis;

Marginella hordeacea; Tylospira coronata; Liopyrga quad-  
ricingulata.

200 ft.-

Loose, shelly grit. Washings contain mollusca,  
echinoid spines, fragments of polynoa, foraminifera, quartz  
pebbles and abundant glauconite grains.

FORAMINIFERA -

Elphidium macellum.

POLYZOA -

Selenaria concinna.

PELECYPODA -

Neotrignonia howitti; Venericardia sp.;

Crassatellites communis; Cuna polita; Antigona sp.

GASTEROPODA -

Turritella tristira; T. of. conspicabilis;

Tylospira coronata; Hipponyx sp.; Cymatium sp.

CIRRIPIEDIA -

Balanus amphitrite var. acutus.

252 ft.-

Shelly gravel containing Limopsis beaumaricensis.  
Clausinella subroborata; Spondylus sp.; Turritella conspicabilis.  
and Tylospira sp.

Tanjil-St. Addis No. E. Bore.

273-276 ft.-

Grey fossiliferous marly limestone with Ostrea cf. arenicola.

290-295 ft.-

Hard, grey, fossiliferous limestone with Cellepora fossa, Tubiporella magnirostris, Chlamys meringae, Neotrigonia howitti, Spondylus sp., Turritella tristira and Tylospira sp.

300 ft.-

Grey, fossiliferous, marly limestone. Washings contain foraminifera, polyzoa, ostracoda and a few quartz pebbles.

FORAMINIFERA -

Quinqueloculina vulgaris; Clavalina communis; Lagena acuticosta; Lenticulina vulgaris; Globulina gibba; Guttulina problema; Glandulina sp.; Gibicides ungerianus; Elphidium crispum; E. imperatrix; E. verruculatum.

POLYZOA -

Cellaria australis; Conescharella philippinensis; Entalophora longipora; Hornera striata; H. tuberculata.

PELECYPODA -

Spondylus sp.

OSTRACODA -

Aglaia clavata; Bairdia amygdaloides; B. subdeltoides; Cythere dictyon; C. caudispinosa; C. ovalis; C. scutigera; Xestoleberis variegata; Loxocoelha australis.

300-334 ft.-

Hard, grey, marly limestone, with shell fragments (Ostrea), spatangoid tests, polyzoa (Cellepora sp.) and foraminifera.

334-500 ft.-

Light grey, fossiliferous sandy marl. Washings contain foraminifera, ostracoda, Mopses joints, shell fragments and glauconite grains.

FORAMINIFERA -

Textularia abbreviata; T. sagittula; T. siphonifera; Caudryina rugosa; Bulimina pupoides; Cassidulina subglobosa; Lagena acuticosta; L. aspera; L. hexagona; Guttulina

Tanjil-Ft. Addis No. 2 Bore.

334-500 ft.-  
(Contd.).

regina; Globigerina bulloides; Cibicides lobatulus; Cibicides  
variabilis; Cancris oblonga; Rotalia clathrata.

ANTHOZOA -

Mopsea tenisoni.

POLYZOA -

Melicerita angustiloba; Cellaria rigida;  
C. rigida var. per ampla; Membranipora macrostoma; Conescharellina  
philippinensis; Mecynocelia proboscidea; Idmonea contorta.

PELECYPODA -

Chlamys cf. meringae.

OSTRACODA -

Bairdia amygdaloides; Bythocypris tumefacta;  
Macrocypris decora; Cythere caudispinosa; C. dictyon; C. lactea;  
C. flexicostata; C. flabellucostata; Cytherella sp. nov.;  
C. auricula; C. lata; Cytheropteron fenestratum; Xestoleberis  
variegata; Loxoconcha australis; L. alata.

300-520 ft.-

Grey, fossiliferous marl, with shell fragments  
(Ostrea sp.). Washings contain polyzoa, Ditrupea tubes, shell  
fragments, foraminifera and ostracoda.

FORAMINIFERA -

Quinqueloculina lamarekiana; Clavulina sp.;  
Bolivina dilata; B. limbata; Lagena acuticosta; L. laevis;  
Nodosaria subscalaris var. paucicostata; Sigmoidella elegantissima;  
Glandulina laevigata; Globigerina triloba; Anomalina ammonoides;  
A. nonionoides; Nonion umbilicatulata; Cibicides ungerianus;  
C. mandulus; Siphonina australis; Rotalia clathrata; Elphidium  
crispum.

OSTRACODA -

Bairdia amygdaloides; Pontocypris trigonella;  
Cythere viminea; C. lactea; C. canaliculata; Krithe exzeri;  
Xestoleberis margaritica.

320-524 ft.-

Hard, pale ochreous limestone, with polyzoa and  
shell fragments (Ostrea sp.).

524-533 ft.-

Greenish grey, marly limestone. Washings contain numerous foraminifera, Mopsea joints, polyzoa and shell fragments.

FORAMINIFERA -

Textularia gibbosa; T. sagittula; Dentalina obliqua; Lenticulina orbicularis; L. vortex; Sigmoidella elegantissima; Gattulina problema; Globigerina triloba; Carpenteria rotaliformis; Cibicides haidingerii; Rotalia clathrata; Eponides repandus; Gypsinina howchini; Operculina orbata; O. sp.; Amphistegina lessonii; Elphidium craticulatum.

ANTHOZOA -

Mopsea tenisoni.

POLYZOA -

Conescharrellina cancellata; Meocynoecia proboscidea; Idmonea contorta; I. milneana; I. hochstetteri; Hornera striata.

BRACHIOPODA -

Murravia catinuliformis; M. flindersi.

OSTRACODA -

Bairdia amygdaloides; B. subdeltoidea; Cythere viminea; C. parallelogramma; Cytheropterton batesfordiense; Cytherella subtruncata; Loxococoncha aff. australis.

533-560 ft.-

Pale grey marl with polyzoa and foraminifera (Amphistegina sp.).

560-650 ft.-

Pale grey foraminiferal marl. Washings contain foraminifera (Lepidocyclus), echinoid spines, sponge spicules, Mopsea joints and glauconite grains.

FORAMINIFERA -

Dentalina obliqua; Lenticulina orbicularis; Anomalina cf. grosserugosa; Cibicides lobatulus; C. haidingerii; Rotalia clathrata; Eponides repandus; Hofkerina semiornata; Operculina granulosa; Amphistegina lessonii; Planorbulinella larvata; Cyloclypeus communis; C. pustulosus; Lepidocyclus

560-650 ft.-

borneensis; L. marginata; L. radiata; L. sumatrensis; L. tournoueri.

SPONGIDA -

Ecionema newberyi.

ECHINODERMA -

Oidaroid spines.

POLYZOA -

Macropora clarkii; Cellepora fonsa; Schizomavella phymatopora; Hornera tuberculata.

OSTRACODA -

Bairdia subdeltoidea; Krithe eggertii.

716 ft.-

Grey fossiliferous limestone, with Amphistegina and polyzoa. Washings contain abundant foraminifer, polyzoa and ostracoda.

FORAMINIFERA -

Haddonina sp.; Textularia sagittula; T. sagittula var. fistulosa; T. gibbosa; Lagena orbignyana; Dentalina consobrina; D. fissicostata; Lenticulina convergens; Sigmoidella elegantissima; Glandulina laevigata; Sphaeroidina bulloides; Carpenteria rotaliformis; Anomalina cf. grosserugosa; A. ammonoides; Discorbis valvulata; Rotalia clathrata; Elphidium crispum; Gypsina howchini; Planorbulina plana; Operculina bartschi; Amphistegina lessonii.

ANTHOZOA -

Mopsea tenisoni.

POLYZOA -

Smittina tatei; Steganoporella sp.; Retepora sp. Spiropora verticillata; Mecynococia proboscidea; Ismonea milneana; I. trigona.

OSTRACODA -

Bairdia crosskeiana; B. subdeltoidea; Bythocypris tumefacta; Cythere caudispinosa; C. sp.; Cytherella lata; Cytherura sp.; Xestoleberis margaritica.

768-775 ft.-

Grey, fossiliferous limestone with Amphistegina and polyzoa.

Tanjil-Pt. Addis No. E Bore.

805 ft.-

Similar to 768-775 feet.

860 ft.-

Grey, compact, polyzoal marl, with mica. Washings contain decomposed polyzoa, echinoid spines and a few small foraminifera (Amphistegina).

900 ft.-

Grey, polyzoal marl. Washings contain foraminifera (Dentalina soluta, Anomalina ammonoides), polyzoa and quartz pebbles.

968 ft.-

Grey, fossiliferous marl, slightly micaceous. Washings contain foraminifera, polyzoa, ostracoda and quartz pebbles.

FORAMINIFERA -

Cyclammina incisa; Lagena orbignyana; L. marginata; Nodosaria raphanistrum; Dentalina obliqua; Lenticulina cultrata; Sphaeroidina austriaca; Anomalina cf. grosserugosa; Cibicides mundulus; C. lobatulus; Lamarckina glencoensis; Rotalia clathrata; Eponides scabriculus; Elphidium crispum.

OSTRACODA -

Bairdia subdeltoides.

968-988 ft.-

Pale grey, shelly marl with frondose polyzoa. Washings contain abundant sponge spicules, foraminifera, ostracoda and glauconite grains.

FORAMINIFERA -

Cyclammina incisa; Clavulina angularis; Bolivina limbata; Lagena orbignyana; Dentalina farcimen; D. obliqua; Vaginulina legumen; Lenticulina rotulata; L. orbicularis; Glandulina laevigata; Lingulina bartrami var. metangensis; Globigerina bulloides; Sphaeroidina bulloides; Anomalina cf. grosserugosa; Cibicides lobatulus; C. ungerianus; Lamarckina glencoensis; Rotalia clathrata; Gyroldina soldanii.

SPONGIDA -

Ecionema newberyi.

OSTRACODA -

Bairdia subdeltoides; Cythere lactea.



880-992 ft.-

Grey fossiliferous marl. Washings contain foraminifera, quartz pebbles and particles of pyrites.

992-1000 ft.-

Dark grey fossiliferous marl.

1000-1016 ft.-

Hard grey marl, with bands of decomposed polyzoa. Washings contain foraminifera, sponge spicules and ostracoda.

FORAMINIFERA -

Cyclammina incisa; C. longicompressa; Lagena orbignyana; Dentalina obliqua; Lenticulina convergens; L. rotulata; Glandulina laevigata; Sphaeroidina bulloides; Anomalina cf. grosserugosa; Cibicides mundulus; C. ungerianus.

SPONGIDA-

Ecionema newberyi.

OSTRACODA -

Cythere flexicostata; Cytherella lata; Krithe egeri.

1016-1022 ft.-

Grey marl. Washings contain foraminifera, (Cyclammina incisa, Lagena orbignyana, L. sulcata, Dentalina consobrina, D. obliqua, Lenticulina rotulata, Globulina gibba, Sphaeroidina bulloides, Rotalia clathrata and Lamarckina sp.), sponge spicules (Ecionema), polyzoa (Cellepora) and ostracoda (Cytherella lata).

1057 ft.-

Grey foraminiferal and polyzoal marl. Washings contain quartz pebbles and foraminifera.

1070 ft.-

Similar to 1057 feet.

1080ft.-

Similar to 1057 feet. Washings contain foraminifera, ostracoda and quartz pebbles.

FORAMINIFERA -

Cinqueloculina agglutinans; Cyclammina incisa; Clavulina angularis; C. antipodum; Lagena orbignyana; Dentalina consobrina; D. mucronata; D. soluta; Lenticulina cultrata; Lingulina carinata; Glandulina laevigata; Guttulina problema;

1000 ft.-  
Contd.

G. communis; Vaginulina bruckenthali; Carpenteria sp.; Anomalina cf. grosserugosa; Cibicides mundulus; Eponides karsteni.

OSTRACODA -

Bairdia subdeltoidea; Bythocypris tumefacta; Cytherella lata; C. punctata.

1090 ft.-

Similar to 1057 feet.

1090-1110 ft.-

Similar to 1057 feet.

1110-1120 ft.-

Sticky grey marl. Washings contain foraminifera (pelagic abundant), minute spatangoid spines, polyzoa (Cellepora), sponge spicules and ostracoda.

FORAMINIFERA -

Quinqueloculina lamarkiana; Triloculina tricarinata; Cyclammina sp.; Textularia gibbosa; Clavulina antipodum; C. angularis; Cassidulina subglobosa; Lagena laevis; L. orbignyana; L. marginata; Lenticulina cultrata; L. rotulata; Glandulina laevigata; Guttulina lactea; G. problema; Globigerina bulloides; G. triloba; Sphaeroidina bulloides; Cibicides culter; C. mundulus; C. lobatulus; Siphonina australis; Victoriella plecte; Eponides karsteni; Epistomina elegans; Elphidium verriculatum.

SPONGIDA -

Ecionema newberyi.

OSTRACODA -

Bairdia subdeltoidea; Macrocypris tumida; Cytherella lata; Cytheropteron sp.; Krithe egeri.

1120-1127 ft.-

Similar to 1110-1120 feet.

1127-1137 ft.-

Greenish grey foraminiferal marl.

1137-1146 ft.-

Similar to 1127-1137 feet.

1146-1156 ft.-

Similar to 1127-1137 feet.

1176 ft.-

Pale greenish grey marl. Washings contain abundant foraminifera, sponge spicules and ostracoda.

FORAMINIFERA -

Quinqueloculina lamareckiana; Q. vulgaris;  
Spiroloculina tenuiseptata; Cornuspira crassisepta; C. involvens;  
Cyclammina incisa; C. longicompressa; C. rotundata; Textularia  
gramen; T. gibbosa; Clavulina communis; C. antipodum; Gaudryina sp.;  
Lagena orbignyana; L. sulcata var.; L. scottii; Dentalina  
fissicostata; D. consobrina; D. obliqua; D. soluta; Lenticulina  
cultrata; Vaginulina gippeslandica; Glandulina laevigata;  
Guttulina regina; G. lactea; Sigmoidella elegantissima; Globi-  
gerina bulloides; G. triloba; Sphaeroidina bulloides; Pullenia  
quinqueloba; Pulleniatina obliquiloculata; Anomalina cf.  
ammonoides; Cibicides mundulus; C. lobatulus; C. ungerianus;  
Cibicidella variabilis; Siphonina australis; Cyroidina soldanii;  
Eponides karsteni; Epiatamina elegans.

SPONGIDA -

Ecionema newberyi.

OSTRACODA -

Bairdia amygdaloides; Bythocypris tumefacta;  
Macrocypris decora; M. tumida; Cytherella lata; C. punctata.

1186 ft.-

Dark grey, foraminiferal marl.

1197 ft.-

Grey foraminiferal marl.

1206 ft.-

Pale grey, foraminiferal marl.

1230 ft.-

Pale grey marl, with patches of glauconite. Washings contain foraminifera, ostracoda, sponge spicules and glauconite.

FORAMINIFERA -

Clavulina antipodum; C. communis; Verneuilina  
triquetra; Gaudryina oxycona; Textularia carinata; Lagena  
acuticosta; L. globosa; L. semistriata; L. striata; Nodosaria  
affinis; Lenticulina gyroscalprum; L. orbicularis; L. articulata;  
Vaginulina bruckenthalii; V. gippeslandica; V. hochstetteri;

1230 ft.-

Globulina gibba; Guttulina lactea; G. problema; Sigmoidella elegantissima; Lingulina sp.; Globigerina bulloides; Sphaeroidina bulloides; Anomalina cf. grosserugosa; Cibicides mundulus; C. lobatulus; Gyroldina soldanii; Rotalia compressiuscula; Eponides karsteni; Elphidium macellum.

SPONGIDA -

Ecionema sp.

GSTRACIDA -

Krithe eggeri.

1242 ft.-

Dark grey marl, with patches of glauconite.

1250 ft.-

Similar to 1242 feet.

1253 ft.-

Dark greenish grey glauconitic marl. Washings are composed almost wholly of glauconite as casts of foraminifera and a few shelly foraminifera.

FORAMINIFERA-

Pyrgo contraria; Clavulina antipodum; Cassidulina cf. subglobosa; Lagena laevis; Nodosaria vertebralis; Lenticulina crepidula; Saracenaria italica; Vaginulina gippslandica; Globigerina bulloides; Anomalina cf. ammonoides; Cibicides mundulus; Siphonina australis; Elphidium macellum.

1270-1281ft.-

Dark grey, foraminiferal marl.

1282 ft.-

Similar to 1270-1281 feet.

1283-1285 ft.-

Dark grey, foraminiferal marl. Washings contain foraminifera, molluscan shell fragments, glauconite, ovoid pellets in glauconite, pyrites, rounded quartz grains and pebbles.

FORAMINIFERA -

Clavulina antipodum; Lenticulina cultrata; Vaginulina bruckenthali; Cibicides lobatulus; C. mundulus; Gyroldina soldanii; Rotalia compressiuscula; Epistomina sp.;

1283-1285 ft.- Eponides karsteni; Elphidium macellum.  
Contd.

SCAPHOPODA - Dentalium sp.

GASTEROPODA - Limacina sp.

1285-1287'6"

Hard, glauconitic limestone chips with pyrites. Washings contain molluscan shell fragments, foraminifera, glauconite and pyrites.

FORAMINIFERA - Clavulina communis; Textularia gibbosa; Vernuculina triquetra; Cassidulina subglobosa; Dentalina consobrina; D. obliqua; Lenticulina cultrata; L. orbicularis; Vaginulina gibbslandica; V. bruckenthali; Marginulina asperocostulata; Sigmoidella elegantissima; Globulina gibba; Globigerina triloba; Pullenia sphaeroides; Cibicides ungerianus; C. mundulus; Nonion depressulus; Rotalia compressiuscula; Gyroldina soldanii; Eponides karsteni; E. scabriculus.

1288 ft.-

Dark grey, foraminiferal marl.

1303 ft.-

Dark greenish grey, glauconitic, sandy marl, with pyrites. Washings contain foraminifera, glauconite, quartz grains, and mica.

FORAMINIFERA- Cassidulina subglobosa; Lagena orbignyana; Lenticulina rotulata; Anomalina cf. grosserugosa; Cibicides mundulus; C. ungerianus; Rotalia compressiuscula.

OSTRACODA - Bythocypris sp.

1303-1307 ft.-

Brown coal, containing large polished quartz grains. Washings consist of minute foraminifera (Globigerina bulloides, G. triloba, Cibicidella variabilis, Discorbis pileolus, and Rotalia compressiuscula), sponge spicules (Ecionema), occasional glauconite grains and coarse, subangular to rounded quartz grains.

The excessively fine sand grains are doubly terminated quartz crystals.

1307-1330 ft.- Brown coal, with sand and pebbles, pyrites and patches of glauconitic marl. Washings contain glauconitic casts and a few test of foraminifera, quartz grains, ovoid mud pellets, numerous glauconitic pellets, pyrites and fragments of brown coal.

1334-1340 ft.- Fine and coarse, angular to subangular sand, with a little glauconite. Washings contain a few molluscan fragments, tests of foraminifera, also casts in glauconite. (Cibicides mundulus, C. ungerianus and Discorbis pileolus).

1340-1345 ft.- Greyish brown, fine grained, micaceous sandrock. Washings contain coarse and fine sand grains, more or less recrystallised on surface, siderite, mica and a few glauconite casts of foraminifera and ovoid pellets.

1345-1354 ft.- Similar to 1340-1345 feet.

1354-1378 ft.- Brown, micaceous sandrock, with fine and coarse quartz sand.

1378-1389 ft.- Carbonaceous, sandy clay, with glauconite and mica. Washings contain siderite, pyrites, mica, angular and rounded quartz grains, glauconite grains and a few foraminifera (Textularia gibbosa).

1389-1397 ft.- Greyish brown, micaceous sandrock. Washings contain fragments of polyzoa (Hornera), a few glauconite pellets, and siderite.

1437 ft.-

Loose quartz sand, consisting of fine and moderately coarse grains, mostly sharply angular, pyrites, and foraminifera, some as glauconite casts and chiefly pelagic forms.

FORAMINIFERA -

Textularia gibbosa; Clavulina antipodum;  
Cassidulina subglobosa; Lagena orbignyana; Dentalina  
cf. boueana; Marginulina hochstetteri; Lenticulina cf.  
articulata; L. orbicularis; L. rotulata; L. vortex; L. cf.  
wetherellii; Polymorphina regularis; Guttulina problema;  
Signoidella sp.; Fyrulina sp.; Globigerina bulloides; G. triloba;  
Pullenia sphaeroides; Pulleniatina obliquiloculata; Sphaeroidina  
variabilis; Anomalina cf. ammonoides; Cibicides lobatulus;  
C. aknerianus; C. mandulus; Canceris auriculus; Cyroidina soldanii;  
Epistomina elegans.

SPONGIDA -

Ecionema spicula.

1447 ft.-

Lignite with fine sandy streaks and containing minute foraminifera and coarse quartz grains.

1447-1453 ft.-

Lignitic sandy clay. Washings contain fragments of lignite, pyrites and pebbly sand.

1453-1470 ft.-

Lignite, with coarse pebbly sand.

1470-1476 ft.-

Lignite, with some sandy material.

1476-1484 ft.-

Lignitic material, with coarse quartz grit and pyrites. Quartz grains are subangular to rounded.

1484-1486 ft.-

Loose, coarse, gritty, quartz sand.

1486-1490 ft.-

Dark lignitic clay.

- 1490-1500 ft. - Similar to 1486-1490 feet, with some quartz sand.
- 1531-1541 ft. - Grey, lignitiferous, sandy marl. Washings contain a few foraminifera, fragments of lignite, finely crystalline pyrites, a few rounded to angular quartz grains and mica.
- FORAMINIFERA - Triloculina sp.; Globigerina triloba; Anomalina cf. ammonoides; Cibicides mandulus; C. refulgens; C. ungerianus; Heronallenia lingulata; Rotalia compressiuscula; Elphidium verriculatum.
- 1550-1550 ft. - Loose, quartz grit, with subangular and rounded quartz grains and occasional glauconite particles.
- 1584-1615 ft. - Pale grey, fine grained, sandy clay. Washings contain fine sand and fragments of lignite and mica.
- 1615-1622 ft. - Black to brown lignite.
- 1625 ft. - Loose, fine quartz sand, with minute foraminifera, sponge spicules and a few glauconite grains.
- 1682 ft. - Fine quartz sand, chiefly angular and with foraminifera, sponge spicules, polyzoa and ostracoda.
- FORAMINIFERA - Cyclammina incisa; ? Haddonina sp.; Textularia gibbosa; Legena orbignyana; Dentalina boueana; D. filiformis; Lenticulina orbicularis; Guttulina problema; Globigerina bulloides; G. triloba; Pulleniatina obliquiloculata; Carpenteria rotaliformis; Cibicides mandulus; C. culter; C. lobatulus; Anomalina cf. ammonoides; Cyroidina sp.; C. soldanii; Elphidium macellum.
- SPONGIDA - Keionema sp.



ft. -

POLYZOA -

Idmona trigona.

OSTRACODA -

Bairdia subdeltoidea.

- 1710-1725 ft. - Dark brown, lignitiferous clay.
- 1730 ft. - Ditto, with mica.
- 1730-1743 ft. - Ditto, with fine sand, mica and pyrites.
- 1745 ft. - Dark brown, carbonaceous clay.
- 1755 ft. - Loose and coarse quartz sand, with lignitic particles, pyrites, shelly fragments, polyzoa and foraminifera (Lagena marginata, Anomalina cf. ammonoides, and Cibicides ungerianus); also fine sand more or less angular, the larger grains wind-polished.
- 1758 ft. - Dark brown sandy and lignitic clay.
- 1764 ft. - Dark grey, micaceous sandy clay.
- 1771 ft. - Similar to 1764 feet. Washings contain angular quartz grains, lignite particles, and minute foraminifera, (Haplophragmoides sp. and Cibicides ungerianus).
- 1782 ft. - Greyish brown sandy clay, with lignite.
- 1788 ft. - Greyish brown, lignitic clay.
- 1801 ft. - Loose, fine and coarse quartz, sharply angular, and with lignitic particles.

66 ft. -

Brown lignitic sandy clay, with patches of lighter material. Washings contain fine angular quartz sand, lignitic particles, mica, pyrites, polyzoa, foraminifera and glauconite casts of foraminifera.

FORAMINIFERA -

Cyclamina sp.; Bolivina limbata; B. punctata; Lenticulina articulata; L. orbicularis; Globigerina bulloides; G. triloba; Sphaeroidina variabilis; Pullenia sphaeroides; Pulleniatina obliquiloculata; Anomalina ammonoides; Cibicides culter; C. mundulus; C. ungerianus; C. refulgens; C. aknerianus; Cibicidella variabilis; Nonion umbilicatus; Gyroldina soldanii; Rotalia compressiuscula; Eponides karsteni; E. repandus; Elphidium crispum; Operculina sp.; Amphiategina lessonii.

POLYZOA -

Cellaria rigida var. perampla; Smittina tatei; Hornera sp.

833 ft. -

Loose, coarse and fine sand, with more or less angular grains.

855 ft. -

Greenish brown, carbonaceous mudstone, with a few included subangular quartz grains. Broken surface shows numerous small cavities. Washings contain fine quartz sand, shell fragments (Naucularia sp.) and a few foraminifera, (Clavulina sp., Sigmoidella elegantissima, Siphonina sp., Cibicides culter, Rotalia compressiuscula, Eponides repandus, and Operculina sp.).

75-1897 ft. -

Similar to 1855 feet.

37-1903 ft. -

Brown, carbonaceous clay.

03-1904 ft. -

Brown sand, with included fine sand.

1904-1905 ft. - Grey, fine grained, micaceous, sandy mudstone. Washings contain fine quartz sand, mica and particles of brown coal.

1916-1921 ft. - Hard, carbonaceous mudstone, with angular quartz and calcitic veins.

1921-1928 ft. - Loose quartz sand, with lignitic and mica flakes, also a few starved foraminifera and polyzoa.

FORAMINIFERA - Lenticulina orbicularis; Pullenia sphaeroides; Pulleniatina obliquiloculata; Cibicides mundulus; C. ungerianus; Siphonina sp.; Rotalia clathrata; Cyroidina soldanii; Epistomina elegans; Eponides karsteni; Operculina sp.; Amphistegina lessoni

ANTHOZOA - Mopsea sp.

POLYZOA - Tabucellaria cereoides.

1928-2008 ft. - Chocolate-brown carbonaceous mudstone. Washings contain a small proportion of angular quartz.

2008-2040 ft. - Whitish to pale grey steatitic clay. Washings contain a fair proportion of fine white sand grains, mostly subangular, flakes of muscovite and lignitic particles.

2040-2050 ft. - Alternating seams of chocolate-brown, carbonaceous mudstone and loose angular quartz sand with lignitic fragments, polyzoa (Catenicella sp.) and minute foraminifera (Haplophragmoides sp. and rotalines indeterminate).

2050-2065 ft. - White to pale grey steatitic clay, with particles of lignite. Washings contain angular quartz grains, mica and lignitic fragments, showing woody structure.

2075-2078 ft.-

Grey, fine, sandy mudstone, with quartz pebbles. Washings contain angular quartz grains and pyrites.

2078-2085 ft.-

Loose sand, more or less angular, with fragments of polyzoa and metamorphic material.

2085-2100 ft.-

Pale grey, fine grained, siliceous mudstone, with vesicular structure. Interior of vesicles lined with brown stain. Washings contain fine angular, quartz sand, muscovite, metamorphic particles and foraminifera (Trochammina sp. and Cibicides mundulus).

2100-2110 ft.-

Loose, fine and coarse, quartz sand, with mica and metamorphic particles. Fine quartz grains are sharply angular.

2110-2112 ft.-

Grey sandy mudstone with some quartz pebbles and somewhat cavernous in structure. Washings contain fine angular quartz sand, quartz pebbles, mica and lignitic particles.

2112-2120 ft.-

Quartz grit, with subrounded to subangular grains, also pyrites and metamorphosed rock.

2120-2136 ft.-

Quartz grit and sand, with mica, pyrites, polyzoa and foraminifera (Amphistegina).

2136-2142 ft.-

Loose quartz sand and grit, with some larger pebbles, foraminifera (Cibicides mundulus, Anomalina ammonoides, Elphidium verriculatum) and ostracoda (Bythocypris tumefacta).

2142-2150 ft.-

Similar to 2085-2100 feet, but darker in colour. Washings contain pyrites, metamorphosed particles, glauconite

2150 ft.

FORAMINIFERA -

Dentalina consobrina; Sigmoidella elegantissima;  
Globigerina bulloides; G. dutertrei; Sphaeroidina variabilis;  
Cibicides lobatulus; C. culter; C. mundulus; Gyroldina sp.;  
Rotalia clathrata; Eponides scabriculus; Epistomina elegans.

SPONGIDA -

Ecionema newberyi.

POLYZOA -

Entalophora sp.

2158 ft.

Greyish brown, sandy mudstone, with whitish patches and mica. Finer material partly hydrocarbonaceous.

2165 ft.

Similar to 2158 ft.

2170-2180 ft.

Fine and coarse quartz sand, with glauconite grains, pyrites, sponge spicules, and foraminifera (Cibicides culter, C. refulgens, C. ungerianus).

2180-2182 ft.

Grey, fine grained, siliceous clay.

2182-2206(a) ft.

Grey, fine grained, micaceous, siliceous mudstone. Washings contain large percentage of fine angular quartz sand and larger grains, also mica, particles of pyrites and a few minute foraminifera.

2182-2206(b) ft.

Loose, fine and coarse quartz sand, with a few pyritous particles.

2206-2209 ft.

Coarse quartz sand, mainly milky quartz, also aggregates of pyritic crystals and chalcopyrites.

2209-2232 ft.

Similar to 2206-2209 ft., but fine grained, with particles of metamorphosed rock (lydite).

2262-2295 ft.-

Fine, angular to rounded quartz sand.

2310 ft.-

Fine to coarse quartz sand, chiefly angular, with a few foraminifera, echinoid spines replaced by glauconite and worn shell fragments.

FORAMINIFERA -

Cassidulina sp.; Logena marginata; Pulleniatina obliquiloculata; Cibicides mundulus; O. sp.; Anomalina sp.  
Rotalia clathrata; Gyroidina truncatulinoides; Eponides karsteni.  
Rhithidium crispum; E. oweniana; Amphistegina lessonii.

2310-2330 ft.-

Similar to 2310 feet, with a few foraminifera (Pyrgo anomala, Cibicides mundulus and worn Operculina), also polyzoal fragments.

2340-2355 ft.-

Fine to coarse, angular to subangular quartz sand, with jasperoid particles, chalcopyrite, a few foraminifera (Cassidulina subglobosa, Cibicides mundulus) and worn fragments of polyzoa.

2355-2390 ft.-

Fine to coarse quartz sand, with pyrites, chlorite, minute foraminifera (Cassidulina sp., Cypsinia globulus), and fragments of polyzoa.

2390-2402 ft.-

Very fine, whitish sandstone, with quartz pebbles. Washings contain angular quartz grains, angular to rounded coarse quartz pebbles, and occasional obscure organisms.

2402-2436 ft.-

Fine grey mudstone with bands of coarse quartz grains and loose sand, with coarse and fine quartz grains, also fragments of foraminifera and polyzoa.

2450-2482 ft.-

Fine quartz sand, angular to subangular, with a

- 150-2482 ft.-  
(contd.) few rounded grains, also particles of jasper and limonite together with minute foraminifera (glauconitic cast of Cibicides)
- 2482-2495 ft.- Loose quartz sand, larger grains subangular to rounded small ones angular. No organisms.
- 2495-2530 ft.- Coarse to fine quartz sand, coarse grains polished to subrounded, also fragments of limonite.
- 2530-2570 ft.- Fine, sharp, angular quartz sand, with occasional mica flakes, limonitic particles and minute fragments of polyzoa.
- 2570-2600 ft.- Fine sandrock cemented with fine kaolin material. Washings contain fine angular quartz sand, and fragments of concretionary limonite.
- 2600-2610 ft.- Dark grey, sandy mudstone with some pipe clay.
- 2610-2639 ft.- Loose quartz sand, angular to subrounded, and grey sandy clay. Washings of clay contain fine angular quartz, with larger grains subrounded.
- 2639-2640 ft.- Rounded pebbles of white and grey milky vein quartz.
- 2640-2658 ft.- Sandy marl. Washings contain fine quartz sand.
- 2658-2700 ft.- Ditto. with a little chalcopyrite.
- 2700-2720 ft.- Grey, fine grained sandy marl. Washings contain angular quartz grains, limonite and concreted sand. No organisms present. Sample is similar to loose basal sandy bed of the Tertiaries.

WEEKLY REPORT AND CORRESPONDENCE



48 ft.	Clay	W 418 B ?
103 "	Limestone & clay bands	
144 "	Marl	
300 "	Lignite & lignous clay	
304 "	Sand drift	
372 "	Lignite & ligneous clay	
480 "	Clay	
485 "	Sand drift	
511 "	Cemented sand	
521 "	Clay	
592 "	Hard cemented sand and gravel	
612 "	Sand bands of clay	
626 "	Firm cemented sand	
628 "	Cement to harden.	
637 "	Clay	
639 "	Drift sand	
661 "	Hard cemented sand	

TANJIL OIL CO. N/L., PT. ADDIS OIL WELLS N/L., TANJIL OIL NO.2 CD. N/L.

Report for week ending 28th. Aug. 1931.

The bore has been advanced 95 ft. to 756 ft. in the following formations:-

From 661 ft.	to 673 ft.	- Hard cemented sand.
673 "	" 676 "	- Extremely hard cemented sand.
676 "	" 745 "	- Lignite: hard.
745 "	" 756 "	- Lignite, with bands angular cemented sand.

(Signed). M. R. McKeown.

Superintendent.

756	760	Sand medium to coarse
760	766	Seams lignite Coarse cemented sand
766	768	Very sticky aqueous clay
768	777	Seams of putty chocolate colored clay
777	779	Lignite
779	784	Stiff putty colored clay
784	792	Very sticky putty colored clay
792	793	Lignite
793	798	Lignous clay
798	800	Soft micaceous clay with thin seams lignite

WB/MG

September 5th, 33

Dear Sir/

I am in receipt of yours of 29th Aug., covering report on the Tanjil-Pt. Addie No. 2 bore, Longford. The results from this bore are decidedly interesting.

Many thanks for same.

Yours faithfully,



SECRETARY FOR MINES

Mr. F. Chapman,  
National Museum,  
MELBOURNE.

*Summary sent to Mr H E Conolly.  
as attached*