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Forfeited \$1500  
30. Jun. 1983.

AVOCA TRANSPORT CO. PROPRIETARY LIMITED

EXPLORATION LICENCE 16/79

RELINQUISHMENT REPORT 1982

by

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Tasmania 7250

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## 1. INTRODUCTION

### 1.1 Scope

This report details the results of exploration carried out in EL 16/79.

### 1.2 Tenure

EL 16/79 has been held by Avoca Transport Co. Proprietary Limited since April 1980 until the licence was allowed to expire on the 31st. October, 1982.

### 1.3 Location and Access

EL 16/79 occupies an area of 102 square kilometres generally to the east of Georgetown (Fig. 1) in Northern Tasmania and bounded by coordinates commencing at the Datum 487000E 54498N, grid north to 54520N, grid west to 484000E, grid north to coast, then east along the coast to 495000E, grid south to 54575N, grid east to 497000E then grid south to 54490N then grid west to Datum.

A network of public and private gravel roads provides reasonable access to the north western half of the area and the remainder is fractured by some poor logging roads.

### 1.4 Topography and Climate

The topography is dominated in the north west section by undulating coastal plains and the remainder is undulating to steep, dominated by Mt. George.

The temperature and rainfall is dominated by the areas close proximity to Bass Strait.

Access is generally confined to the months of September to May.

## 2. GEOLOGY

A literature search and a field survey by a consulting geologist ( T.G. Summons) has defined the following stratigraphic sequences of interest.

a) The Parmeener Super Group Lower Freshwater Sequence ( Liffey Sandstone)

This sequence occurs in the Beaconsfield and Lefroy areas; it is well sorted, cross bedded brown quartz sandstone, with the upper zone consisting of dark brown to carbonaceous shale. No coal is recorded from this unit.

b) The Parmeener Super Group Upper Freshwater Sequence

(i) Clog Tom Sandstone (Permian)

This unit is a correlate of the Cygnet Coal Measure and is a thickly bedded micaceous quartz sandstone, with minor thin mudstone bands "resembling cannel coal" ( Gee and Legge, 1974) due east of Mt. George.

(ii) Lithic Sandstone (Triassic)

Nolithic sandstones are recorded in the area, the Triassic being separated by approx. 275m. of massive quartz sandstone.

c) Tertiary Pre and Intra Basalt Sediments

These sediments consist of conglomerate, sand, and clay, with minor lignitic clay. Two thin lignitic beds up to 0.3m. thick and of restricted extent occur S.E. of Mt. George. Field reconnaissance failed to locate these deposits and opinions on the age of these beds have ranged from Permian to Tertiary.

### 3. EXPLORATION

#### 3.1 Objective

An extensive programme of costeaning and auger drilling was undertaken by the company. The aim was to locate possible targets for a further drilling programme.

#### 3.2 Programme

The locations of the 64 costeans (to an average depth of approx. 3m.) on the flat coastal plain S.W. of the Two Mile Bluff is shown on Figure 2. Also shown are the 19 auger holes which were drilled in a belt extending N.W. from George Town Sugarloaf. Logs are shown in Table 1.

Although approximately 15 costeans and 5 angle holes were sunk over the inferred subsurface Clog Tom Sandstone, only a few bottomed in sandstone, and most finished in clay. Some minor occurrences of peat were located in costeans located in the coastal plain near Two Mile Bluff. Several costeans were sunk over inferred subsurface Liffey sandstone, but only similar results were obtained.

#### 3.3 Conclusions

The exploration work was only of limited value, since maximum depth was approximately nine metres. However, minor amounts of peat appear to have been located in Cainozoic age rocks.

The Clog Tom Sandstone outcrops extensively on both sides of the Tamar River and is barren of coal south of Mt. George. However, east of Mt. George carbonaceous mudstone bands (cannel coal) occur, and the coal potential of this unit further north still remains to be tested. Therefore there is a

potential coal resource in the south western half of EL.

4. JOINT VENTURE PARTNERS AND RELINQUISHMENT

Due to the prevailing economic conditions, and in particular the poor state of the contracting industry, Avoca Transport Co. had not the resources to pursue any further work. The company tried to joint venture the area and approached C.R.A., Nicron Resources and Victor Petroleum. However, although interest was expressed the downturn in the demand for coal resulted in no satisfactory agreement being reached.

Avoca Transport Co. had no option but to relinquish the area and seek to gain title to more prospective areas with a confirmed coal resource.

5. REFERENCES

Gee, R.D. and Legge, P.J. , 1974 Beaconsfield Explanatory Notes, Tas. Dept. of Mines.

Hole 1. SampleDruger holes

300m N of aerodrome. 20m E of road.

Depth 0  
 Alluvial Sands 25'  
 2' clay band 2' 25'  
 Clay 2 carbonaceous 28'  
 Balls 3mm  $\phi$

Comments

Drilling Easy.  
 Hole Wet.  
 Penetration Good.

2. Nil

20m N of aerodrome due W of water tower

Depth 28'

Wet Clays.  
 Penetration Good.

3. Nil

300m W of side road.

Depth 16'

Clays dry.  
 Very tight.

4. Sample

150 N of 3.

Depth 16'

Clayey sands.  
 Wet

## 5.

Sands, dark clay 28'

100m N of sample 2.

Depth 28'

Green clay.  
 Sand.  
 Penetration Fair.

## 6.

Depth 17'

Clay dry.  
 Very tight.  
 Light tan clay last 2 feet

## 7.

Depth 13'

Clay dry.  
 Extremely tight.

## 8.

Depth 11'

Moist tan clay.  
 Very tight.

9.			
Depth	9'		Moist dark brown clay. Very tight.
10.			
Depth	16'		Wet tan clay. 100 metres S of fall tree showing sandstone.
11.			
Depth	7'		Black soil (very tight).
12.			
Depth	6'		Tan clay solid at bottom of hole.
		Hole done at bottom of Dolerite hill as couldn't get through up top.	
13.			
Depth	9'		Sand or something hard underneath.
		Over top of hill along side fence.	
14.			
Depth			No. 1. 2ft clay No. 2. 5ft clay 46 at 200m?
		Drilled two holes up the valley of No. 2 struck hard rock 14.2. About 4 metres NE of No. 1 as I thought I might have struck a floater first.	
15.			
100m N of 11.	0		Soil and sand.
	20		Clays.
	26		Wet clay, sands. Refusal.
16.	28'		As above.
17.	28'		As above.
18.	28'		As above.

Barkhae test pits

Hole No. 6.

- 0
- 1.0 Top soil and sand white.
- 4.2 Green sand. Clay Padded.

Hole No. 7.

- 0
- 1.0 Top soil and sand.
- 1.5 P. Clay.
- 3.5 Sandstone.

Hole No. 8.

- 0
- 1.0 Top soil & brown sand.
- 4.00 Green clay sand. W road.

Hole No. 9.

- 0
- 1.0 Top soil and sand.
- 1.6 Green clay sand.
- 2.0 Green sand clay with roots and white lines like shellfish.
- 4.0

Hole No. 10.

- 0
- 0.3 Topsoil.
- 3.2 P. Clay.
- 3.6 Green Clay.

Hole No. 11.

All white sand down to 2m. Only kept falling in.  
No samples.

Hole No. 12.

- 0
- 1.0 Topsoil & sand.
- 3.0 Clay green to dark green.
- 4.0 Very dark green clay with fragments .3- also contains a layer of Decomposed Roots (I think).

Hole No. 13.

- 0

4.0 Sand.  
Strong smell of sulphur from this hole.

Hole No. 14.

0  
0.7 Top soil.  
3.0 Sand  
3.6 Hard white sand.

Hole No. 15.

0  
0.6 Topsoil and sand.  
1.8 Clay  
3.00 Sandstone to hard rock bottom.

Hole No. 16.

Sand all the way. Kept falling in.  
No samples.

Hole No. 17.

0  
0.30 Topsoil Sand.  
2.2 Clay  
2.3 Hard stuff.  
Sample in Bag no. 17.

Hole No. 18.

0  
0.3 Topsoil.  
3.6 Sand.

Hole No. 19.

0  
1.6 Topsoil and sand. Loose. Units coarse.  
3.2 Hard sand.  
3.6 Sandstone (Rotten).

Hole No. 20.

0  
0.8 Topsoil and sand.  
4.0 Soft decomposed rock getting harder as is went down.

## Hole No. 21.

0

1.1 Topsoil and sand.

3.8 Decomposed soft rock getting harder with solid rock through it.

## Hole No. 22.

0

3.6 Topsoil and sand.

3.8 Layers of Black dirt with tree roots (like a pine).

## Hole No. 23.

0

0.6 Red soil.

1.2 Rocky.

3.8 Sand white and yellow.

## Hole No. 24.

0

3.0 Sand &amp; soil.

3.5 Layers of dirt and compost.

3.8 Sand.

## Hole No. 25.

Sand, kept falling in, too much water. No sample.

## Hole No. 26.

0

1.8 Sand. Kept falling in, too much water.  
No sample.

## Hole No. 27

0

1.2 Topsoil and sand.

2.3 Soft hardspan.

4.0 Sand, brown.

## Hole No. 28. (Creek)

0

1.2 Topsoil and sand.

3.6 Gravel

3.9 Shale 2 samples.

## Hole No. 29.

0

- 1.6 Topsoil & Sand.
- 2.2 Layers of gravel loose.
- 3.7 Stone & loose gravel - .450.
- 4.0 Soft shale grey.

## Hole No. 30.

0

- 1.0 Sand.
- 1.4 Topsoil. Black dirt.
- 2.2 Green Clay.
- 3.0 Decomposed rock. Rocks stopped going deeper.

## Hole No. 31.

0

- 0.5 Topsoil and sand.
- 1.8 Green clay P.
- 4.1 Green and black decomposed rock. Deeper it went the blacker it was. Solid stone was -.1.

## Hole No. 32.

0

- 1.0 Sand
- 3.0 Decomposed rock with green sand. Rock going from small to -.2 at the 3 metre level.

## Hole No. 33.

Same as No. 32. No sample.

## Hole No. 34.

0

- 1.5 Sand
- 2.6 Decomposed rock getting solidier.

## Hole No. 35.

0

- Topsoil
- 3.8 Sand.
- 3.9 Start of green sand and decomposed rock.

## Hole No. 36.

0

Fine sand.

## Hole No. 37.

0  
0.6 Topsoil & Sand.  
1.8 Plasticised green clay.  
3.9 Sand.

## Hole No. 38.

0  
0.4 Topsoil.  
1.6 Green clay P.  
4.0 White Sand to quartz.

## Hole No. 39.

0  
4.0 White to yellow sand.

## Hole No. 40.

0  
3.2 Sand white.  
3.7 Black sand.

## Hole No. 41.

0  
0.8 Sand.  
1.2 Black pucky dirt.  
2.2 Green clay P. going into white sand.  
2 samples.

## Hole No. 42.

0  
3.6 Sand. White.

## Hole No. 43.

0  
2.0 Sand kept falling in.

## Hole No. 44.

0  
0.3 Topsoil and sand.  
2.6 Green clay P/a.  
4.0 Sand.

## Hole No. 45.

0

0.5 Topsoil.

1.5 Clay. Brown.

3.8 Green sand.

## Hole No. 46

0

0.3 Topsoil.

3.7 Sand.

## Hole No. 47.

0

2.1 Sand.

2.4 Stone

(Stopped)

## Hole No. 48.

0

0.5 Topsoil.

1.1 Clay P.

3.0 Green sand.

## Hole No. 49.

Below Hill

0

0.4 Topsoil.

1.2 Brown clay.

2.1 Green sand.

32. Brown sandstone into decomposed rock and green sandstone at bottom.

## Hole No. 50.

0

0.1 Topsoil.

0.3 Sand.

0.7 Black dirt.

3.3 Sand white.

3.5 Hard green quartz sand. Stone.

## Hole No. 51.

013

Hole No. 52.

- 0
- 1.0 Sand.
- 2.5 Dark Sand.
- 3.3 Lighter. Dark sand.
- 4.0 Decomposed rock to green sand.

Hole No. 53.

- 0
- 2.5 All sand. Kept washing in.

Hole No. 54.

- 0
- 0.1 Topsoil.
- 2.1 Black dirt.
- 3.8 Green clay sand.

Hole No. 55.

- 0
- 3.0 Sand.
- 3.5 Black Dirt.
- 3.9 White sand.

Hole No. 56.

- 0
- 0.6 Topsoil and sand.
- 3.6 Sandstone.
- Solid.

Hole No. 57.

- 0
- 1.3 Sand.
- 1.6 Layer grey sand.
- 3.7 Green sand. Strong smell of sulphur.
- 4.0 Black sticky sand.

Hole No. 58.

- 0
- 3.0 Sand.
- 3.3 Dry green compacted sand.
- 3.5 Rock -.3.

## Hole No. 59.

0  
0.6 Sand.  
0.8 Topsoil.  
3.8 Sand and green sand.  
4.6 Decomposed rock and sand.

## Hole No. 60.

0  
3.8 Sand.  
4.0 Brown and green. Decay. Some rock -.2.

## Hole No. 61.

0  
1.4 Sand.  
3.7 Brown and green clay.

## Hole No. 62.

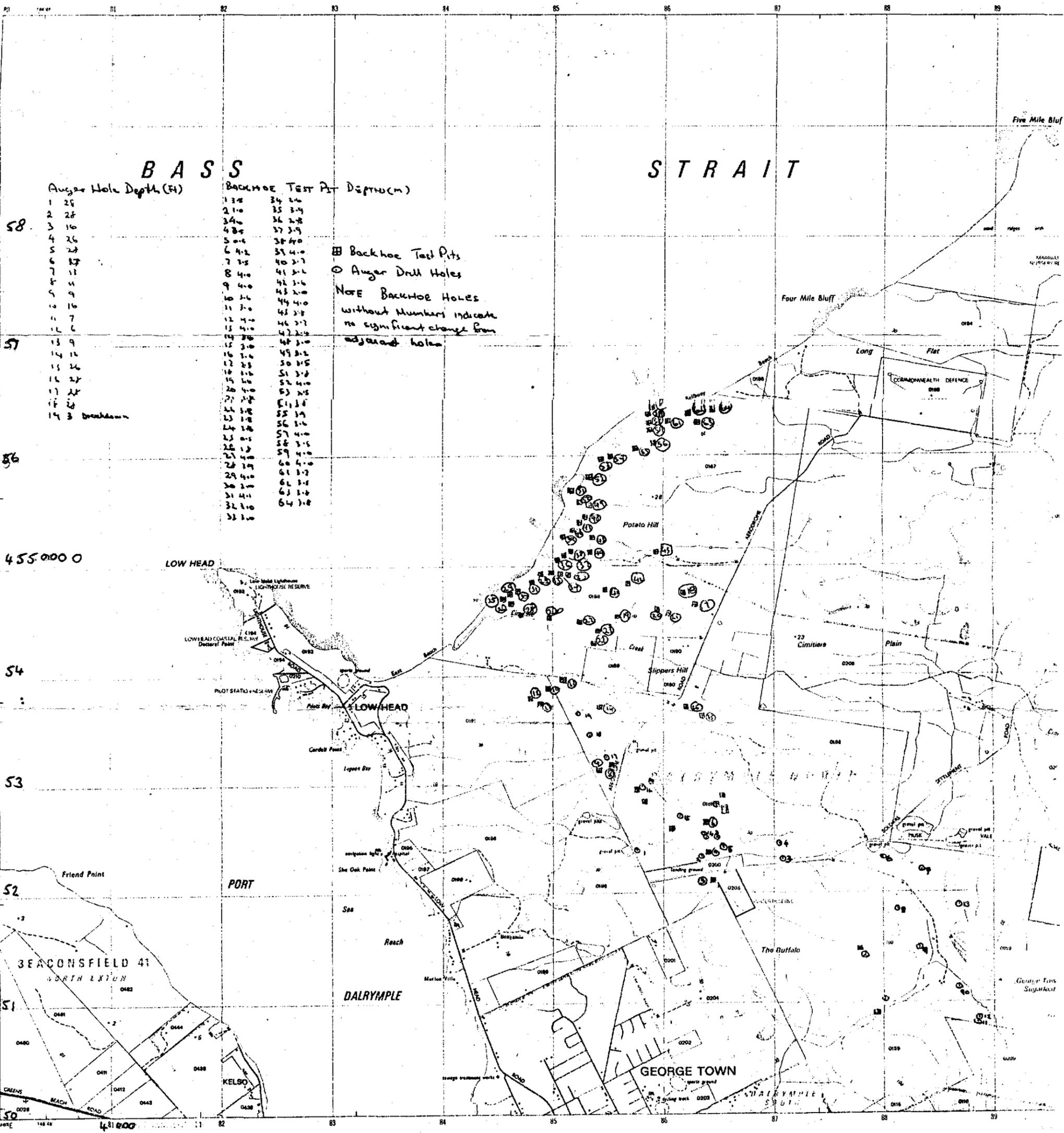
0  
1.4 Topsoil and sand.  
3.5 Brown sand.

## Hole No. 63.

0  
0.5 Topsoil and sand.  
0.8 Dirt full of rotting matter.  
3.5 Plasticised green clay.  
3.8 Sand white.

## Hole No. 64.

0  
0.15 Topsoil.  
1.0 White sand.  
3.8 White and brown sand.



# BASS

# STRAIT

Auger Hole Depth (ft)	BACKHOE TEST PIT DEPTH (m)
1 28	34 2.4
2 28	35 3.4
3 16	34 2.4
4 26	48 3.9
5 28	50 4.0
6 27	6 4.2
7 11	7 2.5
8 11	8 4.0
9 4	9 4.0
10 16	10 3.0
11 7	11 2.0
12 6	12 4.0
13 9	13 4.0
14 12	14 3.0
15 26	15 3.0
16 27	16 3.6
17 27	17 3.6
18 28	18 3.6
19 3 breakdown	19 4.0
	20 4.0
	21 2.5
	22 3.8
	23 3.8
	24 3.8
	25 3.8
	26 3.8
	27 3.8
	28 3.8
	29 3.8
	30 3.8
	31 3.8
	32 3.8
	33 3.8

■ Backhoe Test Pits  
 ○ Auger Drill Holes  
 NOTE Backhoe Holes  
 without numbers indicate  
 no significant change from  
 adjacent holes

455 000 0

54

53

52

51

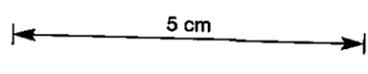
50

PROJECTION: Universal Transverse Mercator (UTM)  
 HORIZONTAL DATUM: Australian Geodetic Datum 1986  
 VERTICAL DATUM: Australian Height Datum (Tasmania) excepting  
 offshore islands where datum is mean sea level  
 Note: UTM zone 58E is used for the Bass Strait area

Built-up area with commercial centre  
 Roads maintained for continuous public use  
 Primary road  
 Secondary road, Bridge  
 Street

1000 750 500 250 0  
 METRES  
 1:25 000  
 Scale of map

3mm = 100m



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