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TCR 81-1544

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Six Monthly Report
For the Period Ending
22nd February, 1981
Exploration Licence 19/80
Scottsdale, Tasmania.

OPEN FILE

MICROFILMED

AAR Limited
M.V. Cowie
February, 1981

INTRODUCTION

Exploration Licence 19/80 was issued to AAR Limited of 10 Eagle Street, Brisbane on 20th August, 1980, and covers an area of 640 square kilometres in the Land District of Dorset in the vicinity of the Township of Scottsdale. A location plan is given in Figure I.

The area was applied for to explore the known Tertiary sediments in the area for oil shales. The Exploration Licence is issued for oil shales only. Although no oil shales are known in the Tertiary sediments in this area, the environment of deposition of part of the sedimentary sequence suggested that oil shales may have been deposited at the base of the Tertiary where a lacustrine environment is indicated.

Literature on the Tertiary sediments is very limited and the main source of information on the area was through discussions with geologists of the Department of Mines, Hobart who were responsible for hydrological investigations in the area and a Mines Department water bore programme.

Drill logs of the water bores from the area were obtained from the Mines Department and a reconnaissance drilling programme was planned to test part of the Tertiary sequence for oil shales.

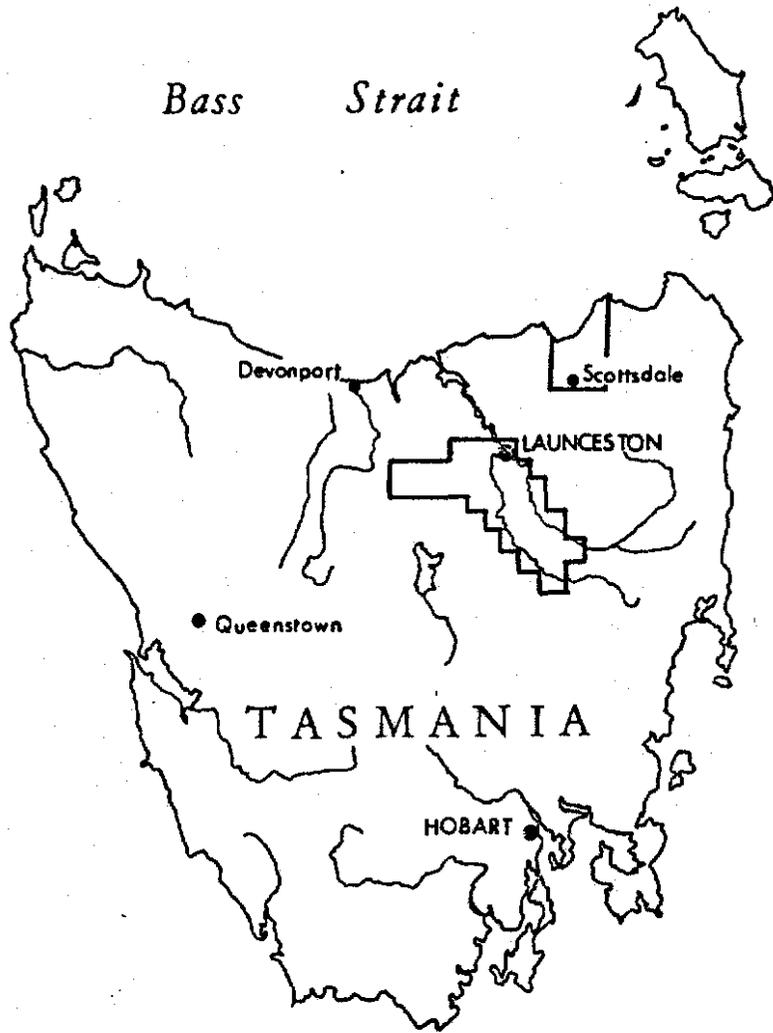
STRATIGRAPHY - Tertiary Sequence

The Tertiary sediments in the Scottsdale region were deposited in a fluviolacustrine environment developed on a granite/metamorphic basement. A shallow basin developed during the Tertiary to the north and east of Scottsdale Township in which in the order of 100 - 150 m of sediments were deposited.

Erosion has since reduced the thickness of sediments over most of the area except where they are capped by ferruginous laterites or as in the Scottsdale Township area, by younger Tertiary basalts.

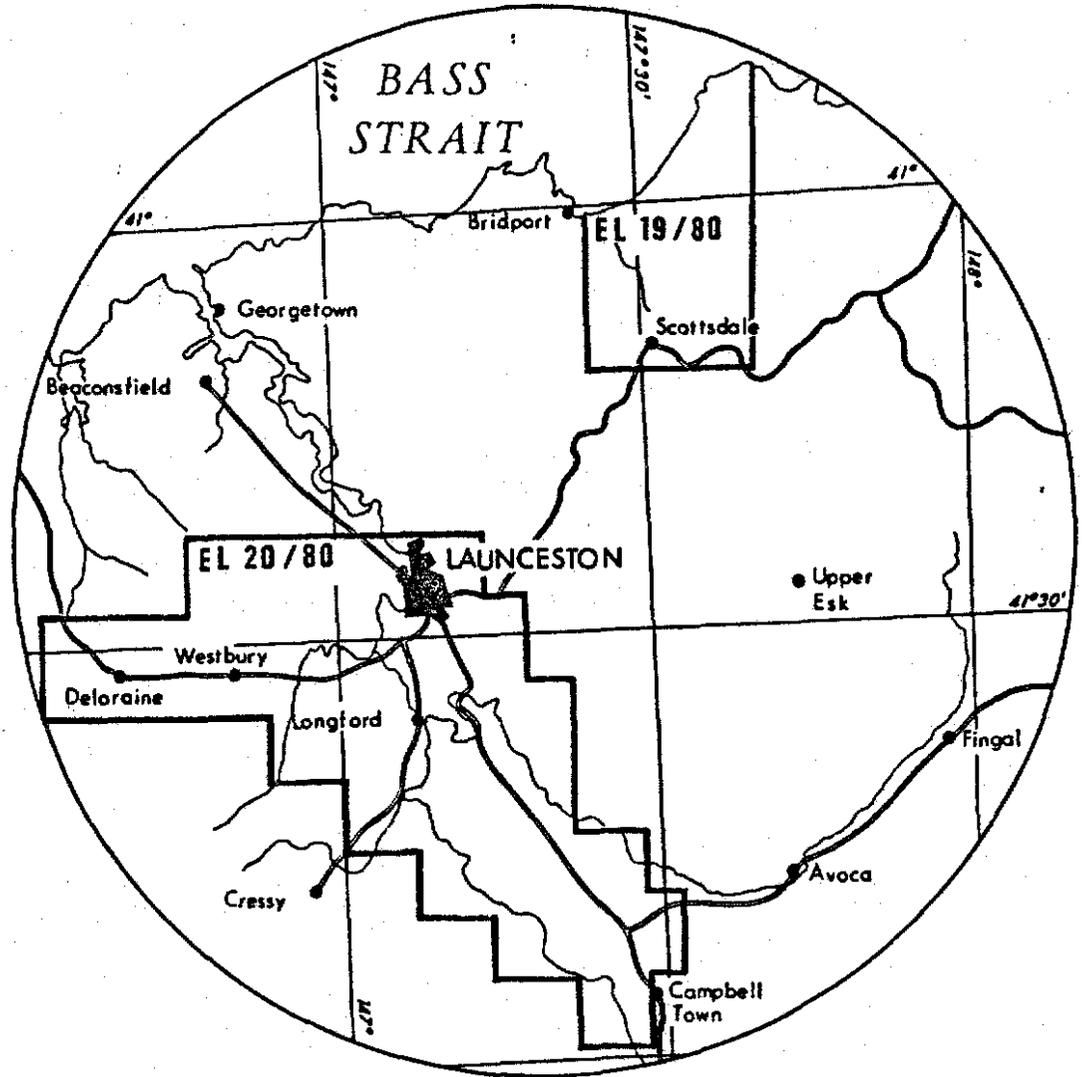
Deposition was mainly in a fluvial environment draining predominantly from the granite complex to the south. The sequence consists mainly of poorly consolidated fine to coarse sands, grits and pebbly conglomerates. Clay units are recorded within the sequence and wood fragments are not uncommon particularly in sand or silty clay horizons.

A dark carbonaceous clay horizon was noted by the Mines Department geologists in several of the water bores at the base of the Tertiary sequence. The



0 80 160 KM.

5 cm



**Oil Shale Prospects
E.L. 19/80 and E.L.20/80**

0 10 20 30 40 50 60 km

SCALE 1:1 000 000

Fig. 1.

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unit appears to be widespread although not continuous over the whole area. Its occurrence suggests an initial lacustrine period prior to the widespread fluvial sand and gravel deposition.

This horizon is the main target for the proposed reconnaissance drilling programme for oil shales.

PROPOSED RECONNAISSANCE DRILLING PROGRAMME

The proposed reconnaissance drilling programme involves three open rotary holes drilled near to the sites of the Mines Department water bore holes Nos. CT1, CT4 and CT12. The chips will be geologically logged and tested for oil shale in the field. Geophysical logs will also be run.

On the basis of these investigations provision has been made to redrill at least at two of these locations to core selected intervals.

The locations of the three proposed drill sites are shown on Figures 2 and 3.

