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DEPARTMENT OF NATIONAL DEVELOPMENT.  
BUREAU OF MINERAL RESOURCES  
GEOLOGY AND GEOPHYSICS.

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MICROPALAEONTOLOGICAL EXAMINATION OF SAMPLES FROM WATER-BORES  
FROM THE NORTHERN TERRITORY

(Bores: F53/16-19; F53/16-22; G53/7-16; G53/3-2; G53/3-25;  
and G53/6-120)

by

G.R.J. Terpstra

The information contained in this report has been obtained by the Department of National Development, as part of the policy of the Commonwealth Government, to assist in the exploration and development of mineral resources. It may not be published in any form or used in a company prospectus without the permission in writing of the Director, Bureau of Mineral Resources, Geology and Geophysics.

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Introduction

Samples from six water-bores from the Northern Territory submitted by D. Woolley (refer letters 2.6.1964 and 8.7.1964, 151 NT.1.-. have been examined for Foraminifera. The results of the examination are given below. Some of these samples as far as suitable have also been examined for pollen and spores. A separate report on the results of the palynological examination will be issued at a later date.

Results

1. Bore F53/16-19.

Two samples from this bore-hole (previously known as No.2 Bore G.L. 1843) have been reported on in Records 1962/19. Lower Cretaceous microfossils were found at 100 feet. The present samples from 100- ? and ?-146 feet are very sandy and contain only a few fragments of tests of indeterminate arenaceous Foraminifera.

2. Bore G53/7-16.

This bore is situated 10 miles north of the Andado Station Homestead and is known as the Birthday bore. Samples from this bore between 0-560 feet were examined for microfossils previously. Lower Cretaceous faunas occur from 150-441 feet. (Records 1963/108).

The sample submitted recently was taken from the de Souza Sandstone at 560 feet. It does not contain Foraminifera.

3. Bore F53/16-22.

This bore is situated eight miles south of bore F53/16-19 on the Plenty River.

85'-100' weathered shale and sand, no Foraminifera.

100'-135' sand and some shale, much glauconite, no Foraminifera.

135'-175' sand, shale and glauconite.

The sample contains a poorly preserved fauna.

The following arenaceous Foraminifera are present:

Haplophragmoides sp.

Haplophragmoides dickinsoni Crespin 1953

cf. Verneuilinoides kansasensis Loeblich and Tappan 1950

The assemblage is of Lower Cretaceous age.

175'-200' grey shale, sand, some lignite and glauconite,  
no Foraminifera

200'-250' Shale, sand and glauconite.

The sample contains a few poorly preserved arenaceous Foraminifera:

Haplophragmoides sp.

Trochammina sp.

The few species present indicate probably still a Lower Cretaceous age.

250'-336' Five samples of glauconitic sand and sandstone from this interval have been examined. They proved to be barren.

#### 4. Bore G53/3-2.

The location of this bore on the Hale River, 1:250,000 Sheet area is approximately:

Latitude 24°27'S; Longitude 135°45'E.

130' Weathered shale and sand.

Ammodiscus glabratus Cushman and Jarvis 1928.

Trochammina minuta Crespin 1953

Trochammina cf. raggati Crespin 1944

Textularia wilgunyaensis Crespin 1963

Verneuilinoides kansasensis Loeblich and Tappan 1950

Radiolaria sp.

140' Weathered shale, sand and glauconite.

Ammodiscus glabratus Cushman and Jarvis 1928

Trochammina cf. minuta Crespin 1953

Radiolaria spp. including Dictyomitra cf. australis  
Hinde

150' Weathered shale and glauconite.

Ammodiscus glabratus Cushman and Jarvis 1928.

Trochammina cf. minuta Crespin 1953

Radiolaria sp.

This arenaceous fauna indicates a Lower Cretaceous age.

#### 5. Bore G53/3-25.

This bore is situated in the south-western portion of the Hale River 1:250,000 Sheet area, roughly six miles north-east of Malcolms bore.

Twenty-three samples have been examined from 60-280 feet taken at regular intervals of 10 feet.

60'-70' weathered sandy shale.

no Foraminifera

70'-80' weathered sandy shale with some glauconite.

Haplophragmoides sp.

Hyperammina sp.

- 80'-90' weathered sandy shale with pyrites and glauconite.  
Ammobaculoides romaensis Crespin 1953  
Trochammina sp.
- 90'-100' weathered sandy shale with pyrites and glauconite.  
Ammodiscus cretaceus (Reuss) 1845.  
Ammobaculoides romaensis Crespin 1953  
Hyperammina sp.  
Robulus sp.  
Trochammina cf. minuta Crespin 1953
- 100'-110' weathered sandy shale.  
Ammodiscus cretaceus (Reuss) 1845  
Dentalina sp.  
Haplophragmoides sp.  
Robulus sp.  
Textularia sp.
- 110'-160' glauconitic sandy shale.  
Haplophragmoides sp.  
Radiolaria sp.
- 160'-190' glauconitic sand  
 no Foraminifera
- 190'-220' glauconitic grey sandy shale with pyrites.  
Haplophragmoides sp.  
Hyperammina sp.
- 220'-230' grey sandy shale with glauconite  
 no Foraminifera
- 230'-260' grey sandy shale  
Ammodiscus glabratus Cushman and Jarvis 1928  
Dorothia cf. grandis Crespin 1963  
Haplophragmoides sp.  
Trochammina cf. minuta Crespin 1953
- 260'-270' glauconitic sand  
 no Foraminifera
- 270'-280' glauconitic sand  
Dorothia cf. grandis Crespin 1963  
Trochammina cf. minuta Crespin 1953  
 The deposits of the interval examined (60-280 feet)  
 are of Lower Cretaceous age. The faunas encountered in the  
 samples are poorly preserved.

6. Bore G53/6-120

This bore, the Easter Bore, is situated twenty-two miles north-west of bore G53/7-16, in the Finke 1:250,000 Sheet area.

Six samples have been examined between 320 and 522 feet, all with negative results.

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