

REPT.BK. NO. 82/45
LATE PALAEOZOIC PALYNOLOGY
OF SADME KONKABY BORE 2,
MULGATHING TROUGH

GEOLOGICAL SURVEY

by

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MULGATHING TROUGH

ABSTRACT

Latest Carboniferous and earliest Permian ages are determined for three core samples from SADME Konkaby No. 2, Mulgathing Trough.

INTRODUCTION

Three core samples were submitted by S. Daly, Regional Geology Section, for palynological examination.

The only other palynological report available for the Late Palaeozoic of the Mulgathing Trough is an unpublished report by Cooper (1980) for Samedan of Australia, which has recently been placed on open file. This deals with the palynology of Samedan Bulgunnia BDH 1.

LOCATION

SADME Konkaby Bore 2, Mulgathing Trough

Tarcoola 1:250 000 sheet (SH 53-10)

Carnding 1:100 000 sheet (5737-III)

Borehole unit No. 5737000SW00139

Photo no. 1991/462

4.5 km north of E-W fence leading from Ambrosia

Out-Station, along Commonwealth Hill Road, 27.5 km north of Malbooma. Lat. 30°26'S Long. 134°12'E

SAMPLING

1. Palynological Sample S5045:
a black, slightly silty, carbonaceous clay from 37.4 m depth.
2. Palynological Sample S5046:
a black carbonaceous silty claystone from 102.72 m depth.
3. Palynological Sample S5047:
a pale grey, silty and sandy, claystone from 155.3 m depth.

RESULTS

1. Palynological Sample S5045 (37.4 m)

Microflora:

Lophotriletes sp. cf. L. scotinus SegrovesMarsupipollenites triradiatus Balme & HennellyMicrobaculispora directa (Balme & Hennelly) AndersonM. tentula TiwariParasaccites gondwanensis (Balme & Hennelly) SegrovesPunctatisporites gretensis Balme & HennellyVerrucosisporites pseudoreticulatus Balme & Hennelly

Correlation:

The microflora is typical of late Stage 3a using the informal palynological stages as revised by Kemp et al. (1977). Using Cooper (1981) an age of earliest Permian or Late Tamarian (using the Tasmanian stages) is suggested. This sample correlates with topmost Stuart Range Formation or the Mount Toondina Formation in the Lake Phillipson Bore, Arckaringa Basin.

2. Palynological Sample S5046 (102.72 m)

Microflora:

Cycadopites cymbatus (Balme & Hennelly) HartHorridotriletes ramosus (Balme & Hennelly) Bharadwaj & SalujhaMicrobaculispora tentula TiwariParasaccites gondwanensis (Balme & Hennelly) SegrovesPunctatisporites gretensis Balme & Hennelly

Correlation:

Using the informal palynological stages, this is a late Stage 2 microflora. It can be correlated with the latest Carboniferous and early Tamarian using the Tasmanian stages. In the Lake Phillipson bore in the Arckaringa Basin, this microflora is typical for the lower half of the Stuart Range Formation.

3. Palynological Sample S5047 (155.3 m)

Microflora:

Cycadopites cymbatus (Balme & Hennelly) Hart

Horridotriletes ramosus (Balme & Hennelly) Bharadwaj & Salujha

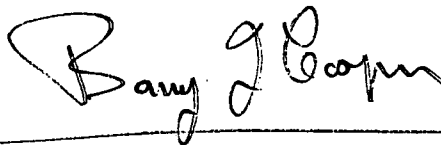
Microbaculispora micronodosa (Balme & Hennelly) Anderson

M. tentula Tiwari

Punctatisporites gretensis Balme & Hennelly

Correlation:

Similar to Sample S5046.



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REFERENCES

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- Kemp, E.M., Balme, B.E., Helby, R.J., Kyle, R.A., Playford, G. and Price, P., 1977. Carboniferous and Permian palynostratigraphy in Australia and Antarctica: a review. BMR J. Aust. Geol. Geophys., 2: 177-208.