

Department of Mines  
South Australia

Rept.Bk.No. 77/53  
G.S. No. 5879  
Biostrat.No. 10/77  
D.M. No. 625/76

SADM MURNAROO No. 1: MICROPALAEONTOLOGICAL INVESTIGATION

Location:

Murnaroo No. 1 was drilled in November-December 1976 in the eastern Officer Basin, Lat.  $29^{\circ}01'25''$  Long.  $132^{\circ}01'35''$ , TALLARINGA 1:250 000 sheet, MURNAROO (5339) 1:100 000 sheet.

Stratigraphic Information:

The bore penetrated over 600 m of probable Lower Palaeozoic sediments. The top 200 m of this succession include thick calcareous intervals and are referred by C.G. Gatehouse (pers. comm., May, 1977) to the Observatory Hill Beds of (?) Cambrian age.

Sampling:

Core samples were collected by B.J. Cooper and C.G. Gatehouse from the Observatory Hill Beds interval at the following depths:-

- |                      |                                     |
|----------------------|-------------------------------------|
| (1) 56.00m - 56.07m  | Grey, calcareous, siltstone         |
| (2) 56.24m - 56.30m  | Dark brown micaceous siltstone      |
| (3) 56.49m - 56.53m  | Grey Silty Limestone                |
| (4) 158.71m -158.73m | Carbonaceous shale                  |
| (5) 167.65m -167.71m | Pyritic, dolomitic limestone        |
| (6) 204.70m -204.90m | Grey, slightly calcareous siltstone |

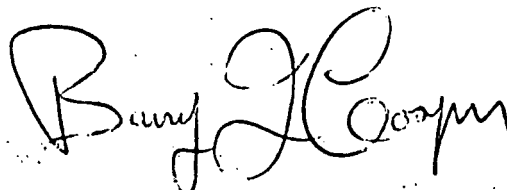
Results:

Samples 1, 2, 3, 5, and 6 were treated in 15% acetic acid in an effort to recover phosphatic microfossils. The residues from the resulting very slow reactions were concentrated using heavy-liquid and electromagnetic-separation techniques. No organic material was picked from these residues.  
(B.J. Cooper).

Samples 2 and 4 were treated with hydrochloric, cold hydrofluoric and nitric acids in the hope of obtaining organic-walled microfossils.

No organic material was found in these preparations either. (W.V. Preiss).

The samples therefore provide no palaeontological evidence as to age.

A handwritten signature in cursive script, appearing to read 'B.J. Cooper'.

B.J. Cooper

24th May, 1977  
BJC:WVP:JK

A handwritten signature in cursive script, appearing to read 'W.V. Preiss'.

W.V. Preiss

Biostratigraphy Division