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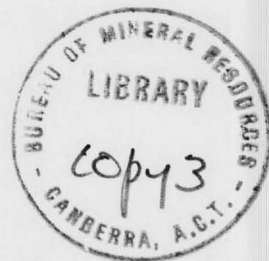
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COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT

BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

Record No. 1969 / 55



Micropalaeontological Examination of
Samples from
A.O.G. Scout Bores. No. 1
and No. 2 Talbalba, Thallon Basin,
Queensland

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 It may not be published in any form or used in a company prospectus or statement without the permission in writing of the Director, Bureau of Mineral Resources, Geology & Geophysics.



MICROPALAEONTOLOGICAL EXAMINATION OF SAMPLES FROM A.O.G.
SCOUT BORES No.1 and No.2 TALBALBA, THALLON BASIN, QUEENSLAND.

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Cutting samples from these two bores forwarded for examination by Australian Oil and Gas Corporation Ltd., have been previously examined by D.J. Belford (Records 1958/2).

Additional samples have been examined recently and a close correlation between the bores has been established.

Talbalba No. 1 bore, located at 146° 34" E. long., 28° 58" S lat., reached a depth of 774 feet. Beds of a middle to lower Albian age between 290 and 479 feet and of Aptian age from 511-760 feet were penetrated in this bore. (See Figure 1).

Talbalba No. 2 bore, located 600 feet north-east from No. 1, reached a depth of 1000 feet. Beds of a middle-lower Albian age occur between 336 and 489 feet and beds of an Aptian age occur from 489 to 995 feet in this bore. (See Figure 1).

Results of the examination of the cutting samples are as follows:-

A.O.G. Talbalba Scout Bore No. 1

7 - 17 feet	Reddish sandstone - Unfossiliferous
27 - 36 feet	Reddish sandstone - Unfossiliferous
56 - 58 feet	White sandstone - Unfossiliferous
66 - 76 feet	White sandstone - Unfossiliferous
110 - 120 feet	Clay and siltstone - Unfossiliferous
160 - 170 feet	Glaucinitic sandstone - Unfossiliferous
210 - 220 feet	Siltstone with pyrite - Unfossiliferous
240 - 250 feet	Siltstone with pyrite - Unfossiliferous

260 - 270 feet	Glauconitic, pyritic siltstone Unfossiliferous
290 - 300 feet	Pyritic shaly siltstone <u>Hoeglundina australiensis</u> (Crespin, 19 ⁵³ 66) <u>Lenticulina dalhousiensis</u> Ludbrook 1966 <u>Lenticulina gaultina</u> (Berthelin, 1880) <u>Saracenaria</u> sp. Megaspores sp.
310 - 315 feet	Pyritic siltstone <u>Lenticulina dalhousiensis</u> Ludbrook 1966 <u>Dentalina</u> sp. Megaspores sp.
325 - 330 feet	Pyritic siltstone <u>Marginulinopsis arimensis</u> Ludbrook 1966 Megaspores
330 - 340 feet	Grey shale and siltstone <u>Ammodiscus cretaceus</u> (Reuss, 1845) <u>Astacolus</u> sp <u>Gavelinella parvula</u> (Crespin, 19 ⁴⁴ 66) <u>?Glomospirella</u> sp. <u>Haplophragmoides</u> sp. <u>Lenticulina dalhousiensis</u> Ludbrook 1966 <u>Lenticulina</u> sp. <u>Verneuilinoides crespinae</u> Ludbrook 1966 Molluscan fragments Megaspores
365 - 368 feet	Grey siltstone <u>Marginulinopsis tilchae</u> Ludbrook 1966 <u>Lenticulina</u> sp.

- Ostracoda sp.
Molluscan fragments
- 374 - 384 feet Grey shale and siltstone
- Lenticulina gaultina (Berthelin, 1880)
Haplophragmoides chapmani Crespin 1944.
Marginulina innaminckae Ludbrook 1966
Marginulinopsis santoodnae Ludbrook 1966
Valvulineria crespinae Ludbrook 1966
Molluscan fragments
Megaspores.
- 415 - 430 feet Grey glauconitic and pyritic siltstone
- Haplophragmoides chapmani Crespin 1944
Valvulineria crespinae Ludbrook 1966
- 452 - 461 feet Grey glauconitic and pyritic siltstone
- Gavelinella parvula (Crespin, 19⁴⁴~~66~~)
?Glomispirella sp.
Haplophragmoides sp.
Lenticulina sp.
Marginulinopsis sp.
Megaspores
- 479 - 485 feet Grey sandstone - Unfossiliferous
- 511 - 516 feet Grey pyritic siltstone and limestone
- Bigenerina loeblichae Crespin 1953
Trochammina minuta Crespin 1953
Radiolaria sp.
- 525 - 527 feet Grey siltstone and limestone
- Haplophragmoides sp.
?Hyperammina sp.
Robulus warregoensis (Crespin) 1953
Trochammina minuta Crespin 1953

532 - 540 feet	Pyritic and glauconitic siltstone <u>Bigenerina loeblichae</u> Crespin 1953 <u>Haplophragmoides</u> sp. <u>Trochammina</u> sp. <u>Radiolaria</u> sp.
545 - 553 feet	Sandstone and siltstone - Unfossiliiferous
576 - 581 feet	Grey pyritic siltstone <u>Haplophragmoides</u> sp.
596 - 603 feet	Sandstone and lignitic sandstone Unfossilliferous
626 - 631 feet	Pyritic and glauconitic siltstone Unfossiliiferous <u>Bigenerina loeblichae</u> Crespin 1953 <u>Haplophragmoides</u> sp.
643 - 650 feet	Glauconitic siltstone and shale <u>Bigenerina loeblichae</u> Crespin 1953 <u>Lenticulina</u> sp. <u>Trochammina</u> sp. Shell remains
664 - 668 feet	Grey lignitic siltstone - Megaspores sp.
675 - 678 feet	Grey siltstone - Molluscan fragments
692 - 696 feet	Lignitic dark grey siltstone - Unfossiliiferous
716 - 721 feet	Glauconitic siltstone with lignite - Unfossiliiferous
728 - 736 feet	Pyritic, glauconitic siltstone and shale <u>Bigenerina loeblichae</u> Crespin 1953 <u>Hyperammina</u> sp. <u>Lenticulina</u> sp.

Marginulina subcretacea Crespin 1944

Pseudonodosaria sp.

Trochammina minuta Crespin 1953

Radiolaria sp.

741 - 745 feet

Glauconitic siltstone and shale

Ammobaculites sp.

Bigenerina loeblichae Crespin 1953

Lenticulina sp.

Marginulina subcretacea Crespin 1944

Robulus warregoensis (Crespin) 1953

Radiolaria sp.

750 - 759 feet

Glauconitic siltstone and shale

Bigenerina loeblichae Crespin 1953

Haplophragmoides chapmani Crespin 1944

Marginulina subcretacea Crespin 1944

Robulus warregoensis (Crespin) 1953

Radiolaria sp.

759 - 760 feet

Grey glauconitic siltstone

Haplophragmoides sp.

Trochammina sp.

A.O.G. Talbalba Scout Bore No. 2

6 - 10 feet	White sandstone - Unfossiliferous
20 - 30 feet	White sandstone - Unfossiliferous
60 - 80 feet	White sandstone - Unfossiliferous
102 - 108 feet	White sandstone - Unfossiliferous
122 - 135 feet	Brownish siltstone - Unfossiliferous
169 - 175 feet	Grey siltstone - Unfossiliferous

186 - 209 feet	Grey siltstone - Unfossiliferous
229 - 239 feet	Grey siltstone - Unfossiliferous
248 - 272 feet	Grey siltstone - Unfossiliferous
336 - 345 feet	Pyritic siltstone and limestone <u>Gavelinella parvula</u> (Crespin, 19 ⁴⁴ 66) <u>Lenticulina</u> sp. <u>Hoeglundina australiensis</u> (Crespin) 19 ⁵³ 66 Ostracoda :- <u>Loxoconcha</u> sp.
364 - 372 feet	Reddish brown siltstone <u>Gavelinella parvula</u> (Crespin, 19 ⁴⁴ 66) <u>Lenticulina</u> sp. <u>Verneuilinoides crespinae</u> Ludbrook 1966 <u>Valvulineria crespinae</u> Ludbrook 1966
388 - 390 feet	Grey siltstone <u>Gavelinella parvula</u> (Crespin, 19 ⁴⁴ 66) <u>Glandulina</u> sp. <u>Trochammina</u> sp. Ostracoda:- <u>Cytherella</u> sp.
397 - 400 feet	Glauconitic siltstone <u>Trochammina minuta</u> Crespin 1953
412 - 420 feet	Glauconitic siltstone with lignite Megaspores sp.
432 - 443 feet	Grey siltstone <u>Haplophragmoides</u> sp. Megaspores sp.
472 - 479 feet	Grey siltstone and pyritic shale <u>Trochammina minuta</u> Crespin 1953 Radiolaria sp.

489 - 491 feet

Grey siltstone

Bigenerina loeblichae Crespín 1953

Marginulinopsis australis Crespín 1953

Haplophragmoides sp.

521 - 530 feet

Glauconitic shale and siltstone
with lignite

Bigenerina loeblichae Crespín 1953

Lenticulina sp.

541 - 543 feet

Grey glauconitic siltstone -
Unfossiliferous

590 - 598 feet

Grey glauconitic sandstone -
Unfossiliferous

626 - 635 feet

Grey glauconitic siltstone with
lignite Unfossiliferous

642 - 653 feet

Grey siltstone

Bigenerina loeblichae Crespín 1953

Trochammina minuta Crespín 1953

Lenticulina sp.

676 - 682 feet

Glauconitic, lignitic sandstone
Unfossiliferous

695 - 700 feet

Grey silty sandstone - Unfossiliferous

745 - 758 feet

Grey siltstone and shale

Bigenerina loeblichae Crespín 1944

Haplophragmoides chapmani Crespín 1944

?Hyperammina sp.

784 - 804 feet	Grey siltstone <u>Bigenerina loeblichae</u> Crespin 1953 <u>Haplophragmoides chapmani</u> Crespin 1944 <u>Haplophragmoides</u> sp. <u>?Hyperammina</u> sp. <u>Lenticulina</u> sp. <u>Marginulina</u> sp. <u>Radiolaria</u> sp.
830 - 847 feet	Grey pyritic siltstone and shale <u>Bigenerina loeblichae</u> Crespin 1953 <u>Haplophragmoides</u> sp. <u>Lenticulina</u> sp.
874 - 893 feet	Grey pyritic siltstone <u>Bigenerina loeblichae</u> Crespin 1953
907 - 915 feet	Glaucinitic shale and limestone <u>?Hyperammina</u> sp. <u>Radiolaria</u> sp.
941 - 950 feet	Grey glauconitic sandstone <u>Trochammina minuta</u> Crespin 1953
972 - 988 feet	Grey glauconitic siltstone <u>Bigenerina loeblichae</u> Crespin 1953 Ostracoda sp Shell remains
988 - 995 feet	Grey siltstone <u>Haplophragmoides</u> sp.

Stratigraphy

The species identified are listed below and their stratigraphical ranges in the Lower Cretaceous as indicated by Dr. Ludbrook (1966) are shown. These ranges are mainly based on material from South Australia.

Ammodiscus cretaceus Albian and Aptian
Bigenerina loeblichae Aptian
Gavelinella parvula Lower Albian and Aptian
Haplophragmoides charmani Albian and Middle-
Upper Aptian
Hoeglundina australiensis Albian and Aptian
Lenticulina dalhousiensis Lower Albian and
Aptian
Lenticulina gaultina Albian (rare Aptian)
Marginulina innaminckae Albian and Aptian
Marginulina subcretacea Aptian
Marginulinopsis arimensis L. Albian and U.
Aptian
Marginulinopsis australis Aptian
Marginulinopsis tilchae Albian
Marginulinopsis santoodnae Albian and Aptian
Trochammina minuta ? Albian and Aptian
Valvulineria crespina Albian and Aptian
Verneulinoides crespina Albian and Aptian

The beds of Aptian ages in Talbalba No. 1 (511 - 760 feet) and in Talbalba No. 2 (489 - 995 feet) contain species such as Bigenerina loeblichae, Marginulina subcretacea and Marginulinopsis australis restricted to the Aptian. Overlying these beds in Talbalba 1 (290 - 479 feet) and in Talbalba No. 2 (336 - 489 feet) the sediments contain species known to occur in beds of Albian and Aptian age. These beds presumably are to be assigned a Middle to Lower Albian age.

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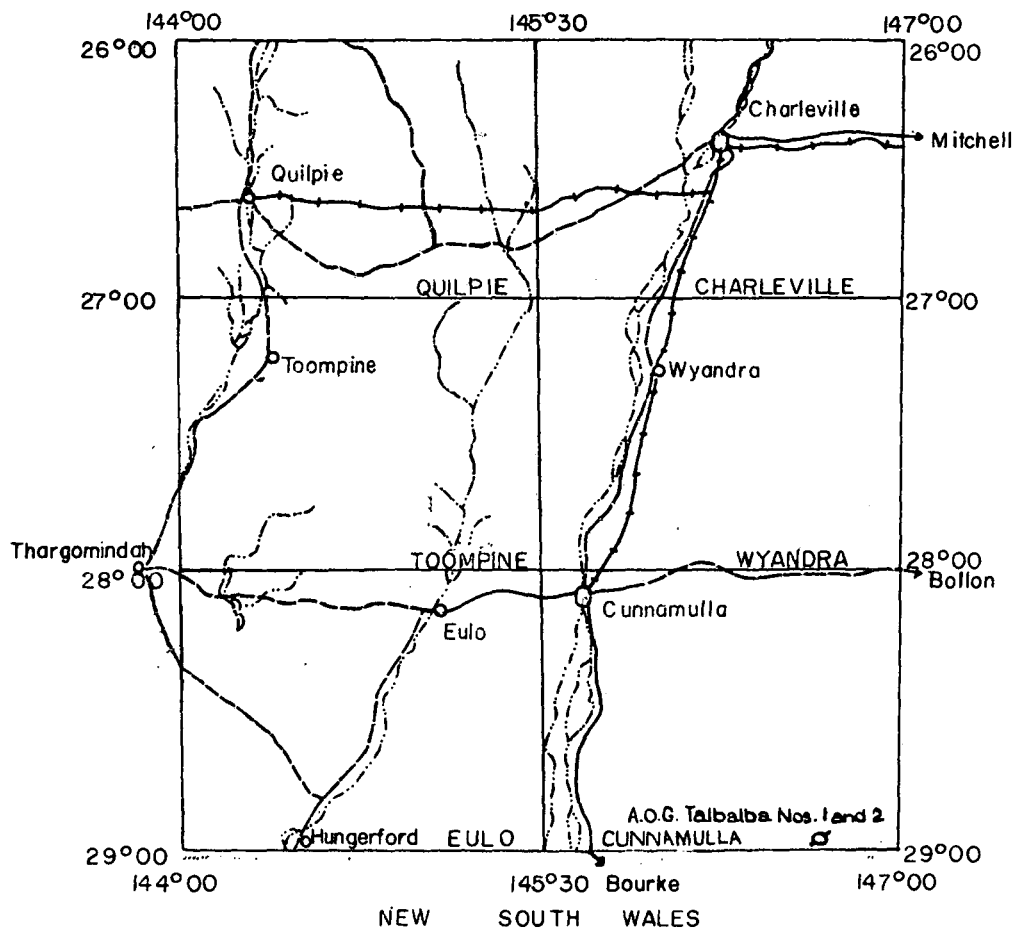
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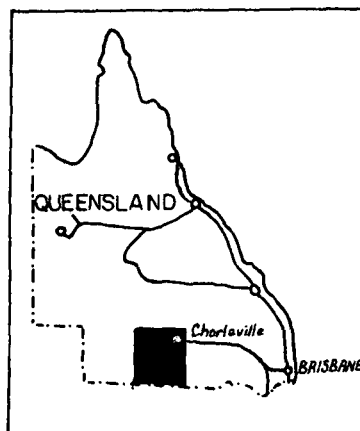
RUESS, A.E., 1845 - Die Versteinerungen der Boehmischen Kreideformation Stuttgart 1.

FIG. 1

LOCALITY DIAGRAM



- Town
- Township
- Road sealed, gravel
- +— Railway
- ⊠ Oil exploration well



To accompany record 1969/55

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