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MICROPALAEONTOLOGICAL EXAMINATION OF CORES FROM CAPE CUVIER
NO. 1 BORE, AND ONE SAMPLE FROM MURCHISON RIVER AREA,
WESTERN AUSTRALIA.

by

D. J. Belford

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CORES FROM CAPE CUVIER BORE No. 1.

Fifteen cores from Cape Cuvier No. 1 Bore were forwarded by West Australian Petroleum Pty. Ltd.

The fauna found in each core, and the age of the beds are as follows:

Core No. 1 300-303 feet. Brown, medium grained, friable, calcareous, glauconitic sandstone.

Quinqueloculina sp.

Only one poorly preserved specimen has been found in this sample; age indefinite, possibly Lower Tertiary.

Core No. 2 303-309 feet. Brown, coarse grained, friable, calcareous, glauconitic sandstone. Unfossiliferous.

Core No. 4 395-400 feet. Dark green medium grained, friable, calcareous, glauconitic sandstone. Unfossiliferous.

Core No. 5 400-410 feet. Light grey soft friable calcilutite. A sudden lithological and faunal break occurs at 400 feet. Upper Cretaceous foraminifera are common in this sample, but are poorly preserved, and encrusted; the following species have been identified:-

Bolivina incrassata Reuss.
Globotruncana cf. arca (Cushman)
G. cf. stuarti (de Lapparent)
Vernerilina parri Cushman
Anomalina velascoensis Cushman

Age: Probably Maestrichtian.

Core No. 6 510-520 feet. Grey soft friable glauconitic calcarenite. Foraminifera common.

Vernerilina parri Cushman
Neoflabellina cf. reticulata (Reuss.)
Fronicularia mucronata Reuss
Stensioina sp. nov.
Planulina veltziana (d'Orbigny)
Bolivinoidea decorata (Jones) australis Edgell
Marssonella oxycona (Reuss)
Anomalina velascoensis Cushman
Globorotalites micheliniana (d'Orbigny)

Age: Campanian (definitely)

Core No. 7 640-650 feet. Light-grey hard calcarenite.
Foraminifera common.

Globotruncana arca (Cushman)
G. globigerinoides Brotzen
G. lapparenti Brotzen tricarinata (Quereau)
G. lapparenti Brotzen bulloides Vogler
Guenbelina globulosa (Ehrenberg)
Spiroplectammia grzybowskii Frizzell
Marssonella oxycona (Reuss)
Stensioina sp. nov.
Gibicidoides sp.
Planulina aff. taylorensis (Carsey)
Eponides sp.
Gyroldina sp.

Age: Campanian (definitely).

Core No. 8 840-850 feet. Light-grey, soft friable calcarenite.
Foraminifera abundant.

Globotruncana lapparenti lapparenti Brotzen
G. lapparenti Brotzen tricarinata (Quereau)
G. lapparenti Brotzen bulloides Vogler
G. ventricosa White
Globigerina cretacea d'Orbigny
Globigerinella aspera (Ehrenberg)
Guenbelina globulosa (Ehrenberg)
Goesella charmani Cushman
Clavulinoides trilaterus (Cushman)
Osangularia sp.
Fronclenularia planifolium Chapman
Pseudovalvulineria sp.
Marssonella oxycona (Reuss)
Verneuilina parri Cushman
Gibicides excavata Brotzen
Quadrinorphina allomorphinoides (Reuss)
Neoflabellina rugosa (d'Orbigny)
Gibicidoides sp.
Gyroldina sp.

Age: Santonian (definitely)

Core No. 9 1100-1110 feet. Dark grey soft siltstone, containing abundant pyrite.

This sample contains very rare arenaceous Foraminifera - Trochamminoides sp. and Haplophragmoides sp. Radiolaria are abundant, usually replaced with pyrite.

Age: Doubtfully Cenomanian. This core is thought to be a sample of the Gearle Siltstone.

Between this and the following cores there is another lithological and faunal break.

Core No. 10 1334-1337 feet. White medium grained medium-hard, calcareous sandstone. Moderately permeable. No Foraminifera. May be Birdrong Formation.

Core No. 11 1365-1366 feet. Grey fine-grained very hard sandstone. No Foraminifera.

Core No. 12 1411-1416 feet. Light grey medium grained hard porous limestone. No Foraminifera.

Core No. 13 1471-1476 feet. Dark grey hard fine to medium grained limestone. No Foraminifera.

Core No. 14 1476-1484 feet. Grey hard fine to medium grained sandy glauconitic limestone, with numerous aggregates of calcite crystals. No Foraminifera.

Core No. 15 1484-1494 feet. Dark grey hard fine to medium grained, sandy glauconitic shelly limestone. No Foraminifera.

The molluscan fauna of cores 12, 15 and 16 has been examined by J. M. Dickins, who places these samples in the Upper Devonian (report dated 10th November, 1955). It seems probable that the Upper Devonian would extend at least as high as Core No. 11.

SAMPLE FROM BIDGIE BIDGIE POINT, MURCHISON RIVER.

A sample, forwarded by West Australian Petroleum Ltd. from the Toolonga Calcilutite at Bidgie Bidgie Point, Murchison House Station, Murchison River consists of soft cream and pale green calcilutite containing foraminifera and few ostracods.

Globotruncana lapparenti Brotzen tricarinata
(Quereau)
G. lapparenti Brotzen bulloides Vogler
Guenbelina globulosa (Ehrenberg)
Globigerina cretacea d'Orbigny
Globigerinella aspera
Euvigerina aspera (Marsson)
Spiroplectammia grzybowski Frizzell
Quadrinorphina allemorphinoides (Reuss)
Dorothia bulletta (Carsey)
Cibicidoides sp.

In a previous report, (Records 1955/27), a sample from this locality was tentatively regarded as Maestrichtian in age, on the basis of the occurrence of the species Neoflabellina reticulata (Reuss). However, as there are records of the occurrence of this species in the Upper Campanian of Europe, and as definite Maestrichtian species are absent, both the present sample and the one previously examined are regarded as Campanian in age.

Canberra
20th January, 1956.