



**British  
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

# The micropalaeontology of two samples of London Clay from the Newbury District (1:50K sheet 267)

Internal Report IR/03/039



BRITISH GEOLOGICAL SURVEY

INTERNAL REPORT IR/03/039

# The micropalaeontology of two samples of London Clay from the Newbury District (1:50K sheet 267)

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## Summary

This report describes the microfossils of two samples of London Clay collected from the Newbury district. MPA 51707 (DTA687; Field number SU46SW/1) proves to be Early Eocene in age and possibly basal Division E of KING (1984). MPA51708 (DTA688; Field number SU46SW/2) lacked biostratigraphically useful foraminifera, but the presence of radiolaria '*Cenosphaera*' sp, is used tentatively to suggest the early Eocene.

# 1 Introduction

Two samples of London Clay (MPA 51707-51708; collectors number DTA687-688; field numbers respectively, SU46SW/1 and SU46SW/2) were submitted for biostratigraphical analysis. Both came from the same locality, a temporary exposure 320 m NW of the bridge where the A343 crosses the Enborne River (National Grid Reference SU 45060 63525). Foraminifera, Ostracoda and siliceous microfossils were present, although rare and poorly preserved.

## 2 Sample details and faunal list

### 2.1 MPA51707 DTA687

Wood debris common

Foraminifera:

*Pullenia quinqueloba* (very rare)

*Virgulina cf. schreibersi* (rare)

*Bulimina* sp (rare)

Ostracoda:

*Krithe londinensis* (very rare)

?*Cytheretta multicostata* (very rare)

Radiolaria:

'*Cenosphaera*' sp (rare)

### 2.2 MPA51708 DTA688

A bivalve was noted in the sample by the collector.

Foraminifera:

Barren

Ostracoda

Barren

Radiolaria:

'*Cenosphaera*' sp

Discoidal form

Diatoms

?*Coscinodiscus*

### 3 Conclusions

MPA51707 contained a sparse foraminiferal assemblage comprising decalcified, pyrite moulds. *Pullenia quinqueloba* is a long ranging species found in the Thanet Formation and London Clay Formation in south eastern England. *Virgulina cf schreibersi* is the most prolific species present. This latter species is similar to the Recent form, although it probably is a different species and only tentatively assigned to that species here. KING (1984) recorded the species at the base of his Division E of the London Clay. The rare pyritised Ostracoda are sufficient to place the sample into Ostracod Zone 6 of KEEN (1978) and *K. londinensis* ranges from the top of ostracod subzone 6a, through 6b and into the base of 6c which places the association within the Ypresian. The presence of pyritised '*Cenosphaera*' is consistent with the early Eocene age. In the North Sea it disappears at the top of zone NSP6 in the very basal Lutetian (KING, 1989).

MPA51708 cannot be stratigraphically located due to the absence of a calcareous microfauna. However, the presence of rare, pyritised *Cenosphaera* and '*Coscinodiscus*' suggests an early Eocene age.

### References

- KEEN, M.C. 1978. The Tertiary-Palaeogene. *In*: Bate, R. & Robinson, E. (eds) A stratigraphical index of British Ostracoda. *Geological Journal Special Issue* No. 8, 385-450.
- KING, C. 1984. The stratigraphy of the London Clay Formation and Virginia Water Formation in the coastal sections of the Isle of Sheppey (Kent, England). *Tertiary Research*, 5, 121-160.
- King, C. 1989. Cenozoic of the North Sea. *In*: Jenkins, D.G. & Murray, J.W. (eds) *Stratigraphical atlas of fossil foraminifera, second edition*. 418-489 [Ellis Horwood, Chichester].