

## ABSTRACT

The Sandersville Limestone Member of the Tobacco Road Sand is a thin (< 6 m), compact, cream to white-colored fossiliferous limestone containing small (<2 cm diameter) clay and chert nodules. The Sandersville Member is middle Jacksonian (Eocene) in age based on the presence of prominent index fossils such as: the echinoid, *Periarchus quinquefarius*; the giant oyster *Crassostrea gigantissima*; and, the bryozoa species, *Crisia edwardsi*, *Perigastrella rhomboidalis*, and *Spiropora majuscula*. Based on the presence of one or more characteristic facies for Eocene rocks in the Atlantic Coastal Plain, per Harris et al. (1997), the Sandersville Member is correlated lithostratigraphically from its type locality in Washington County to facies within the Ocmulgee Formation of central Georgia and to facies within a silicious section in eastern Georgia near Louisville.

The Sandersville Limestone Member has undergone various diagenetic processes since deposition. These processes include: dissolution, silicification, and precipitation of iron phases by iron fixing bacteria. Overall, the deposition of the Sandersville Member shows a deepening of the depositional environment from a calm shelf to a deeper marine shelf with pelagic organisms. This finding correlates with the late Eocene global warming and an increase in sea level due to eustatic sea level rise.