Foraminiferal Biofacies and Depositional Environment of the Early Eocene (Ypresian), Sui Main Limestone, Sui Field, Middle Indus Basin, Pakistan.

Salma Rafi[1], S. H. Khursheed[2], and Syed Iqbal Mohsin[2]
[1]Department of Geology, University of Karachi-Pakistan
[2]NURION Petroservices Pvt. Ltd. Karachi-Pakistan

The characteristic microfossil assemblages within the Sui Main Limestone (SML) which is the main carbonate reservoir in the Middle Indus Basin of Pakistan have been investigated for its depositional environments. This study is based on fifty two thin sections of the reservoir rock in four wells of the Sui Filed.

Two distinctive fossil assemblages within SML are recognized. The lower part (>300m) is a carbonate facies of massive fossiliferous limestone dominated by Nummulites sp. in association with Alveolina sp, Discocyclina sp. and Miliolids. This assemblage suggest shallow depositional environment. The upper part (20m) consists of argillaceous fossiliferous limestone having Assilina sp. as the characteristic fossil with its associated assemblage, Discocyclina which indicate relatively deeper depositional conditions. This limestone is interbeded with calcareous shale layers, making a transition to the overlying Ghazij shales. The biofacies analysis leads to the better understanding of the depositional environment.