

**Biostratigraphy and Paleoenvironmental
Analysis of Strata Penetrated by
Igbomoturu-I-Well, Niger Delta.**

Oboh, Francisca Emiede

M.Sc. Applied Geology

Department of Geology

Obafemi Awolowo University, Ile Ife, Nigeria

1986.

Abstract:

Palynological investigations were carried out on the subsurface strata of the Igbomotoru-1-Well in the Niger Delta. A lithostratigraphical interpretation of the Well resulted in the delineation of four informal units referred to as P, P, C and I these units show lithologic characters of the Benin and Agbada Formations.

The studied interval (1,123-3,583 metres) was assigned an Upper Miocene age on the basis of its palynological assemblage. These diagnostic forms were *Crassoretitriletes anraadshooveni*, *Peregrinipollis nigericus*, *Zonocostites ramonae* and *Multiareolites formosus*. Of the 207 recognised palynomorph species representing 45 spore and 162 pollen species, only 11 were selected for biostratigraphical interpretation.

This was as a result of the poor and irregular distribution of the species, many of which were usually corroded. The selected forms included the earlier named species and *Pachydermite diederixi*, *Polypodiaceisporites* sp., *Magnastritites howardi*, *Clavamonocolpites* sp. and *Fetitricolpites* sp.]. Systematic descriptions were attempted for 50 species whose morphological features were clearly discernible.

Three palynological zones which were from top to bottom were established. These zones are:
Fereorinipollis nioericus Zone;
Petitricolpites Sp.1 Zone;
Clavamonocolpites Sp. Zone.

These zones are subdivisions of the *Crassoretitriletes vanraadshocveri* zone previously named by earlier workers in the area. Environmental interpretation based on the palynomorph assemblage and lithological characters indicated a transitional depositional environment. However, the relative abundance of *Zonocostites ramonae* at some intervals within the studied section pointed to a dominantly mangrove swamp environment.

Keywords: Biostratigraphy/ strata

Supervisor: M. B. Salami