

TERTIARY DEVELOPMENT OF THE BROAD FOURTEENS BASIN, THE NETHERLANDS

WONG, TH. E., PARKER, N. and HORST, P. A. NITG-TNO, PO. Box 80015, 3508 TA Utrecht, The Netherlands

The Broad Fourteen Basin is a NW-SE trending Mesozoic structural element in the Dutch offshore area that was affected by inversion movements during the Late Cretaceous (Sub-Hercynian Phase) and Early Tertiary (Laramide Phase). To successfully model the complete geological history of this area also knowledge of the, relatively little studied, overlying Tertiary section is needed. Therefore a first study of this Tertiary succession was initiated, using mainly well-log data. The Tertiary sedimentary section (maximum thickness up to ± 800 m) consists of siliciclastic rocks that in general correlate well with the litho-stratigraphical framework of the Netherlands. However, the highly variable thicknesses of these units in this area reflect both the intricate pattern of differential vertical movements and the ensuing erosion that took place in this tectonically active area. As a consequence only the 2nd order and some 3rd order global sealevel movements could be identified and correlated with the standard sealevel curves in this sedimentary section.