

PETROGRAPHY AND MAJOR ELEMENT GEOCHEMISTRY OF PALAEOGENE SANDSTONES, SOUTH OF KOHIMA TOWN, NAGALAND

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Abstract

Sandstones in the study area are hard and compact in nature and range between very fine to coarse sand fractions. They belong to the sub-litharenite category, the overall composition being Q-85.83 %, F-1.39%, and L-12.26%. Majority of grains are subangular to subrounded. In addition, a few angular and rounded grains have also been observed. Quartz is the dominant framework mineral followed by rock fragments and feldspar. Of the two feldspars, plagioclase is the dominant one. There siliciclastics of the study area are enriched in SiO₂ and depleted in Na₂O, CaO and TiO₂ content. Petrographic evidence coupled with geochemical studies indicate a transitional tectonic regime, semi-humid/humid climate and a mixed provenance.

Keywords: Petrography, Major elements, Palaeogene, Kohima, Nagaland.