



www.gondwanas.org.in

JGSR
Journal of Geosciences Research
Vol. 6, No.1, January, 2021
pp. 77-86

Grain Size Distribution and Statistical Parameters of Barakar and Motur Sediments, Satpura-Gondwana Basin, Central India

A.M. Pophare*, B.H. Raut and I.K. Sheikh

*Department of Geology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur-440 001 (MS), India
(*Corresponding author, E-mail: apophare@gmail.com)*

Abstract

Grain size analysis of 40 samples of Barakar and Motur sandstone in Satpura-Gondwana basin, Central India was carried out by sieving analysis and employing statistical technique. The Barakar and Motur sediments are mostly medium grained, poorly to moderately sorted, very fine skewed to very coarse skewed and leptokurtic to mesokurtic in nature. Statistical parameter and their interrelationship of grain size reveal bimodal nature of sediments influenced by fluvial depositional environments. The CM pattern indicates Barakar and Motur sediments were transported by dominantly rolling and subordinately by suspension process. The sign of statistical parameter and their variation reveals attainment of rapid sedimentation rate in fluvial depositional environments with deltaic and bed load channel depositional process for Barakar and Motur sediments in Satpura-Gondwana basin.

Keywords: Satpura-Gondwana basin, Barakar and Motur sandstone, Grain size analysis, Statistical parameter, Fluvial environments, Central India.
