

FACIES ANALYSIS AND SOURCE ROCK INVESTIGATION OF GRIESBACHIAN-SPATHIAN MIANWALI FORMATION IN KHISOR AND SURGHAR RANGES, UPPER INDUS BASIN PAKISTAN

Ahmad Zeeshan¹, Irfan U. Jan¹, and Muhammad Hanif¹

National Centre of Excellence in Geology, University of Peshawar

ahmadzeeshan@uop.edu.pk

Abstract

The Greisbachian-Spathian Mianwali Formation is studied at Narmia, Sayiduwali, and Paniala sections of Trans-Indus Khisor Range and Surghar ranges. Field investigations along with microscopic studies were performed, which resulted into identification of five different lithofacies; 1. Dolomite facies, 2. Packstone-wackestone limestone facies, 3. Shale facies, 4. Laminated sandstone facies and 5. Sandstone and shale facies. Based on facies association, it is concluded that Mianwali Formation has been deposited from open marine to beach shallow marine environment. The Total Organic Carbon (TOC) revealed that the Mianwali Formation has poor to moderate hydrocarbon generation potential.