

## **Sedimentary geology of the Ordovician Misri Banda Quartzite exposed in the Ambar Village, Peshawar Basin, Khyber Pakhtunkhwa, Pakistan**

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### **Abstract**

The Ordovician Misri Banda Quartzite is studied in detailed to work out its sedimentary characteristics. The Misri Banda Quartzite is lying above the Cambrian Ambar Formation, although the lower contact is not exposed while the upper contact is marked by recent deposits. A total of two stratigraphic sections were measured, logged and sampled in the Ambar village, Peshawar Basin. The thicknesses of outcrop sections are 63 m and 45 m respectively. The subject Formation is dominated by sandstone with subordinate quartzite, minor phyllite at certain intervals. An igneous intrusion in the form of dolerite sill is also present between the sedimentary units. Using hand-lens, the sandstone lithofacies identified includes quartz arenite, arkose arenite and quartzite. The sedimentary structures noticed include laminations, cross bedding, ripple marks, burrows, liesgang rings (?) and graded bedding. The other geological features include Manganese (Mn) dendrites, quartz veins and fractures.