

**LITHOFACIES AND FRACTURE ANALYSES OF
MURREE FORMATION SHAH ALLA DITTA,
ISLAMABAD**



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ABSTRACT

The basic intent of this study was to collect information about the fractures of Shah Alla Ditta Islamabad and the depositional features of Murree formation. The main focus was on Shah Alla Ditta and D-12 sector (Islamabad) although the last station of research was Kashmir Highway Islamabad. For fracture analysis circle inventory method was used. The aim was to know about the deformational events that had occurred in the past and also to find out fractured porosity and permeability of Murree formation. Two types of data were collected i.e. Fracture orientation data (strike), and basic information's of Fractures. The basic information includes length and which type of fracture (open or closed). The basic information was used to find out the fractured porosity and permeability. The orientation of fractures was used to find out how many deformation events had occurred in the past. Geo Rose was used to generate rose diagram, through that rose diagram we concluded how many deformational events had occurred in the past.

For Lithofacies analysis Murree Formation was observed carefully from top to bottom. Physical appearance, grain size distribution and sedimentary features were observed. After all this lithological column was drawn using Photoshop and than by looking at all the factors i.e. Color, Grain size distribution, Sedimentary features end conclusion was made. Top of the investigation area was Shah Alla Ditta and the bottom was Kashmir Highway Islamabad. The formation was mostly covered with alluvium.

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