

Structure of the area between Surghar and the Western Salt Range, NW of Kalabagh District, Mianwali, Punjab, Pakistan

Irshad Ahmad¹; Nazir Rehman² and Sajjad Ahmad³

¹*National Centre of Excellence in Geology, University of Peshawar*

²*Pakistan Atomic Energy Commission (PAEC)*

³*Department of Geology, University of Peshawar*

ahmadirshadpk@yahoo.com

Abstract

The Surghar Range and the Kalabagh hills are the extension of the Western Salt Range and are comprised of Precambrian to Mesozoic Platform and Plio-Pleistocene fluvial sediments. The Eastern Surghar Range is a thin-skinned deformed structural province characterized by contractile structures. The dominant structural geometry in the range includes south-verging frontal thrust & folds, and steeply south dipping back thrusts. This geometry developed as a result of ramping from a basal décollement at the base of Cambrian or Precambrian rocks. The contractile deformation systematically changes to transpressional deformation in the east along the Kalabagh Fault and a combination of salt tectonics and contractile deformation in the vicinity of the Kalabagh Hills. The structures related to salt intrusions include the development of normal fault in the vicinity of Kalabagh Hills that are believed to be gravitational collapse caused by the flowage and up section migration of Precambrian Salt Range Formation.