

Zeolite zonation in Deccan Traps of Killar, Latur district, Maharashtra, India.

¹PARTHASARATHY, G., ¹SRINIVASAN, R. and ²CHOUDARY, B.M. ¹National Geophysical Research Institute, ²Indian Institute of Chemical Technology, Hyderabad- 500 007 , India.

Drilling investigations close to the surface rupture developed in the wake of the Latur earthquake, revealed a 338m thick Deccan Trap cover the Precambrian basement. The top cover consists of eight lava flows in addition to the partially eroded flow exposed at the surface. The lower four flows below 177m have been assigned to Poladpur Formation and the rest of the upper flows to the Ambenali Formation.

We report here the new results on powder x-ray diffraction, DTA /TG and fourier transform spectroscopic studies on amygdaloidal zeolites from the Killari borehole. Our results indicate that the Ambenali flows are rich in chabazite, which is associated with heulandite and minor amount of stilbite. The Poladpur flows show natrolite and mordenite rich assemblage. The basal part of the lowest flow shows presence of laumontite. The water content estimated from FTIR spectroscopic method is found to decrease with the increase of depth. The investigations show dominance of sodium zeolites in Poladpur Formation.