

ANALYSIS OF QUETTA-ZIARAT EARTHQUAKE OF 29TH OCTOBER, 2008 IN PAKISTAN

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ABSTRACT: An earthquake of magnitude 6.5 Mb occurred on 29th October 2008 near Chiltan hills, Balochistan province in Pakistan with a foreshock of magnitude 5.0 Mb. Depths of events were 15Km and 12 km respectively. The intensity of main shock was VIII in and around the Ziarat-Pashin areas while Peak Ground Acceleration recorded at Quetta (60Kms) was 0.17m/sec^2 (horizontal component) and 0.06 (vertical Component).

For this study 1185 aftershocks ranging from 2.2 Mb to 4.8 Mb were recorded till end of January 2009 using four portable instruments (1Sec) installed in radius of 40Km around epicenter. As no surface rupture was found, source mechanism and aftershocks were only tools for finding fault dimensions. Source mechanism was found to be strike slip for both events and aftershock trend was NW-SE suggesting strike slip nature of the fault. These results disagreed with the existing description of fault system in area which was previously thought to be thrust in nature.