ACTIVE FAULT IN KHERRATA

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Keywords: Fault, Earthquake, Neotectonics, Kherrata, Geophysics

ABSTRACT

Kherrata Fault, also called Kherrata fold-fault (Roth, 1950) is located in the mountains of Babors at Kherrata (NE Algeria), it marks the beginning of the plain. It is oriented NE-SW fault whith north dipping. This fracture between two topographically and geologically distinct regions, with the folded limestone north Babors and dumped in the south of the country where the marl hills Senonian is almost horizontal. According to Rothé (1950), this fault is responsible for the earthquake in 1949. Besides Kherrata. Gabert (1984) believed that the creation of volumes in the mountainous region Kherrata is recent and may still be in progress during seismic events. Indeed, the Babors region has experienced several earthquakes in recent decades, the latest being that of Laalam in 2006. The geological and tectonic study in this work has shown evidences of neotectonic activity on this fault and Geophysical Electric Imaging contributed greatly to the knowledge of this active fault geometry. This work will further the understanding of seismotectonic model of North Algeria.

INTRODUCTION

The valleys are often located along major faults, the rocks are being weakened and more vulnerable to erosion. Rivers therefore generally follow those areas of weakness. This is the case of the valley where the Kherrata fault follows the west side of the valley in which grow quaternary terraces, already reported by Gabert (1984). Quaternary Kherrata Fault is a bit south of the break in slope between the Jebel Amar Redou (fig. 1) of the valley. This can be explained by the creation of new branches, same in Machane et al. (2008), which generate, the main flaw. However, field work, show a fault with a striated plan outlining all directions, since those strike-slip to those with pitches of 90 °. The recent game this flaw does not seem to express the surface, and it is probably a blind fault. Besides, Rothe (1950) who showed for the first time, talks about fold-fault, like the fold-fault Sahel highlighted by Meghraoui (1988). This structure Kherrata would be a of neotectonic displacement inherited from the ante-Neogene accidents. At Jebel Takoucht, rupture length of over a kilometer affects its northern flank.

Kherrata fault also called Kherrata fold-fault (Rothé, 1950) is in the Babors mountains at Kherrata (fig. 2), it marks the beginning of the plain. It is a NE-SW plunging northward fault. This fault has a dip steeply to the north at this point, showed streaks vertical pitch (90 °).