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Kinematics of Plio-Pleistocene Oblique faults in the Gulf of Suez Rift, West Central Sinai, Egypt

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Detailed field mapping and structural studies on a segment of the Gulf of Suez rift in the west central part of Sinai Peninsula indicate the presents of a set of WNW-ESE striking dextral faults cutting another set of NNE-SSE striking sinistral fault. Both fault sets cut and obliterate an older fault set striking NW-SE. The NW-SE striking fault set is known to be of Oligo-Miocene time. The WNW-ESE and the NNE-SSW striking fault affect Pliocene and Pleistocene sediments. Therefore these two fault sets are younger. These angle between these two fault sets are in the range of 60-80 degrees and are believed to be a conjugate fault set that they are temporally associated. These observations indicate that the rifting is still active. This observation is confirmed by earthquake activity at the same area.