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Subsurface imaging and recent crustal movement

around Kalabsha fault , Aswan-Egypt

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Aswan seismicity patterns were analyzed during period (1982-2006) after 25 years of the M 5.4 event, 14 November 1981 which occurred below Aswan reservoir. Detailed land magnetic survey was carried out in profiles around the active fault zone of Kalabsha. The analysis of the magnetic data is imaging the fault plane where the basement rocks are shallow. Study of recent crustal movements in the region of artificial reservoir is carried out. This observation is important for studying the effect of the change in water loading on the stability of the area around reservoir. In the present work, Integrated studies between the results of seismicity, geodetic measurements at the Kalabsha fault (active fault in the area) around Aswan Lake, and from magnetic data.

Keyword: recent crustal movement, seismicity analysis around active fault and detailed land magnetic survey.