A SINKHOLE GENESIS: "IL LAGHETTO"(ROMA). GRAVITY SURVEY."

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Preliminary gravity results are presented in a study carried out in the "Il Laghetto" area and in the surroundings. This area is situated in the NNE of Rome suburb near Via Palombarese among Guidonia town, which is in the east side, Mentana town, which is in the west side and S.Angelo Romano town, which is in the north side.

From a morphological point of view "Il Laghetto" area is a subcircular hole, 30 metres deep and 140 metres wide at the top and 120 metres wide at the bottom. In the 30 last years this place has been affected by anthropic buildings.

The first gravity data carried out in this place show that Bouguer and Residual anomalies are qualitatively similar, indicating a gravity minimum approximately in the hole’s center.

The surrounding area is characterized by two different fluvial trends; one of these is oriented in the N-S side and the other one in the NW-SE side. More specifically, these fluvial trends could indicate a general profile of tectonic structures in this area. At the same time, neither faults nor tectonic structures nor other geologic elements are evident in this place. This is a result of geologic rocks outcrop: Plio-Pleistocene clayes deposits, high-potassium volcanic rocks of the Roman Comagmatic Province (products erupted during the first Tuscolano-Artemisio caldera stage, Middle-Upper Pleistocene) and recent continental deposits.
In order to recognize other morphological holes, which should be re-covered by some metres thick recent continental deposits in this area, it has been thought to carry out gravity survey on a particular area situated in the north side of "Il Laghetto" area: the Fosso di Marco Simone.

REFERENCES


