

Gravity Analysis of Caracas Valley, Venezuela

Carlos Izarra and Eduardo Rodrigues
Universidad Simón Bolívar, Caracas, Venezuela
cizarra@usb.ve

Abstract/Excerpt

This study aims at analyzing the gravity anomalies on the valley area of Caracas, Venezuela. Gravity data used in this work is a compilation of an existing gravity database at Universidad Simón Bolívar (USB) and new datasets from recent local surveys carried out by Venezuelan Seismological Foundation (FUNVISIS). A residual anomaly gravity map for the study area was obtained using Krigging interpolation after editing and processing absolute gravity data. Three main low-gravity anomaly zones were identified: 1. northeastern zone in San Bernardino neighborhood; 2. northwestern zone in Altamira y Los Palos Grandes area; and 3. southeastern zone in Las Mercedes. All these zones are residential as well as commercially active. Residual gravity anomalies are as low as -2mgal for these zones.