

Gravity surveys in southwestern part of the Kirishima volcanic area

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Laboratory of Geothermics, Kyushu University conducted gravity surveys in the hot springs area, mainly the Maruo and Hayashida hot springs, in southwestern part of the Kirishima volcanic area in order to reveal the shallow subsurface structure of the hot springs area. And we drew a Bouguer anomaly map of this area by using the measured gravity values and the data of the gravity database (AIST, 2013).

The Bouguer anomaly map shows a gravitational steep incline, which has a strike of NE-SW direction, near the Kirishima Rehabilitation Center of Kagoshima University in the Maruo hot springs. It is explained that this steep incline indicates a fault structure. And a low Bouguer anomaly area exists at the western part of the steep incline. So it is inferred that this is a depression structure filled with some low density layers and can be a hot spring aquifer. We are grateful to Mr. Yusaku Yonekura who had progressed this study.

AIST (2013) Gravity Database of Japan, DVD.

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