# Characterization and evaluation of supercritical geothermal resources in Tohoku District , Japan

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Supercritical geothermal resources in Tohoku District , Japan could be characterized by GIS, which includes geological approaches (caldera database Hot spring Data base, hydrothermal alteration Data base, Mine data base, granite data base) and by geophysical approaches (gravity survey, magneto telluric survey, seismic survey)
Supercritical geothermal resources could be evaluated in terms of present volcanic activities, thermal structure, dimension of hydrothermal circulation, properties of fracture system, depth of heat source, depth of brittle factures zone, dimension of geothermal reservoir.
On the basis of the GIS, potential of supercritical geothermal resources could be characterized into the following four categories. 1. Promising: surface manifestation d shallow high temperature, 2 Probability: high geothermal gradient, 3 Possibility: Aseismic zone which indicates an existence of melt, 4 Potentia : low velocity zone which indicates magma input.

Keywords: supercritical geothermal, seismic activity, volcanic activity

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