

Topic: Deep Geothermal Energy

GIS-based spatial assessment of well-to-well interference in deep geothermal reservoirs

Description: This Bachelor's thesis investigates well-to-well interference in deep geothermal reservoirs using a GIS-based spatial analysis approach. Pre-compiled geothermal well and interference test datasets are used to create basin-scale visualisations of interference relationships between neighbouring wells. The focus is on mapping and interpreting interference test outcomes and assessing how geological features such as stratigraphy, fault structures, and karst systems influence the occurrence or absence of interference. Geographic Information System (GIS) tools are applied to visualise tested and untested wells, neighbouring well connections, and confirmed versus non-observed interference. Geological layers are integrated to support the interpretation of subsurface connectivity and to provide spatial insight relevant for basin-scale geothermal assessment and dynamic reservoir modelling.

Tasks:

- Visualisation of geothermal well interference data in GIS
- Map-based interpretation of geological controls (stratigraphy, faults, karst) on well interference

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