

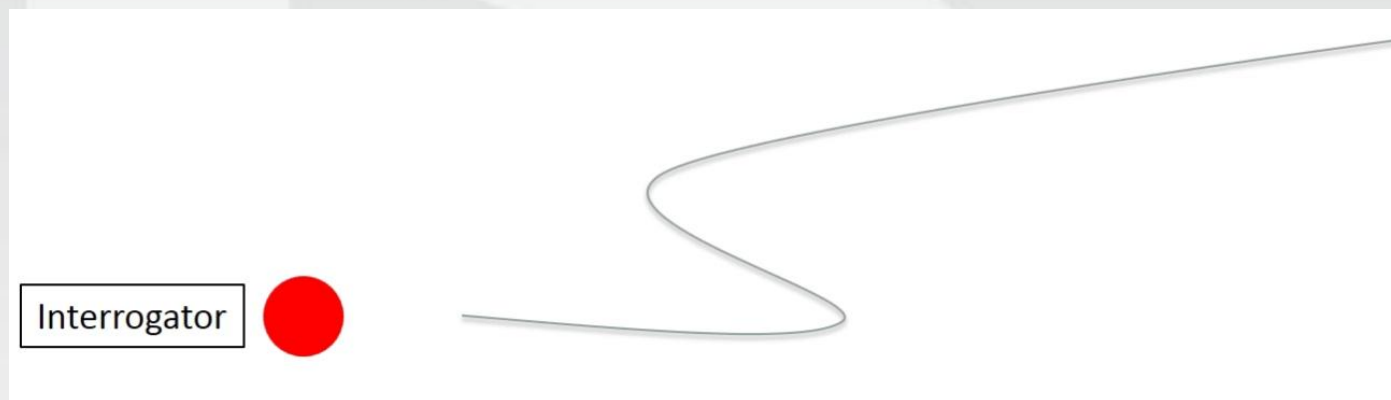
Geothermal4PL

Wsparcie zrównoważonego rozwoju i wykorzystania płytkiej energii geotermalnej na terenie obszarów objętych programem Mieszkanie Plus w Polsce

Państwowy Instytut Geologiczny – Państwowy Instytut Badawczy
Christian Michelsen Research AS
25 października 2017r., Warszawa

Distributed fiber optic temperature sensing - DTS

Distributed temperature sensing principle



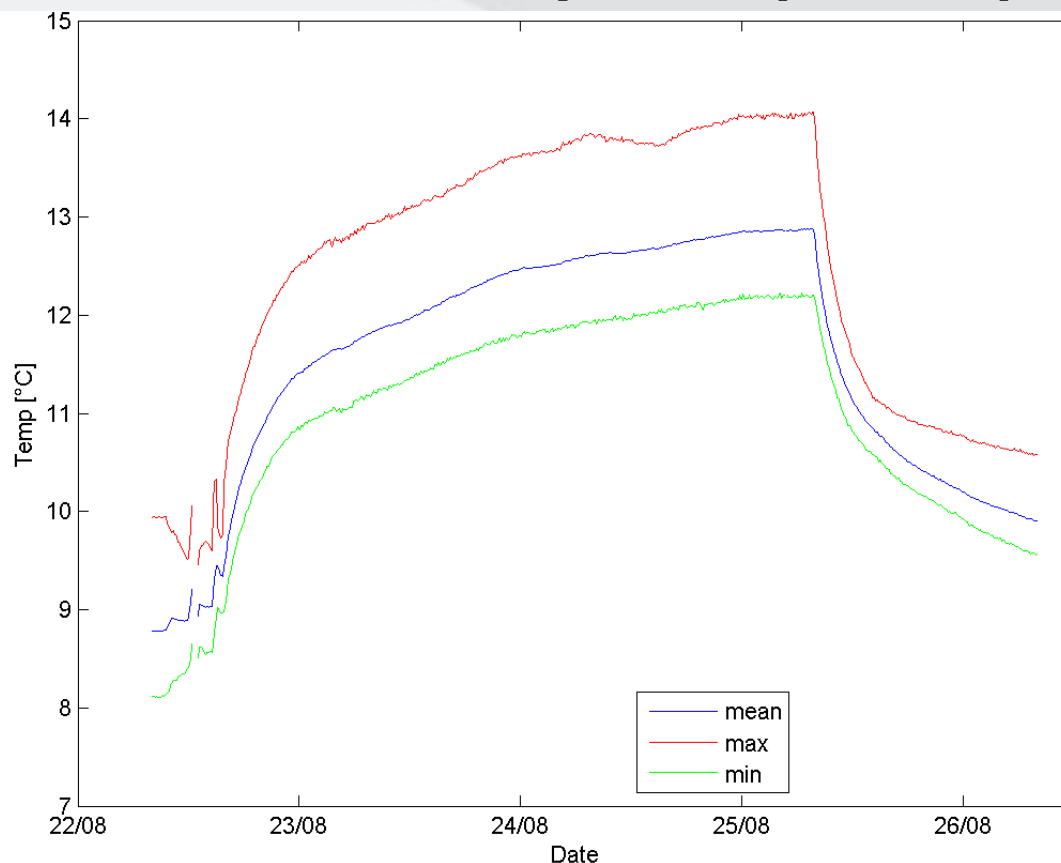
Install fiber in the borehole



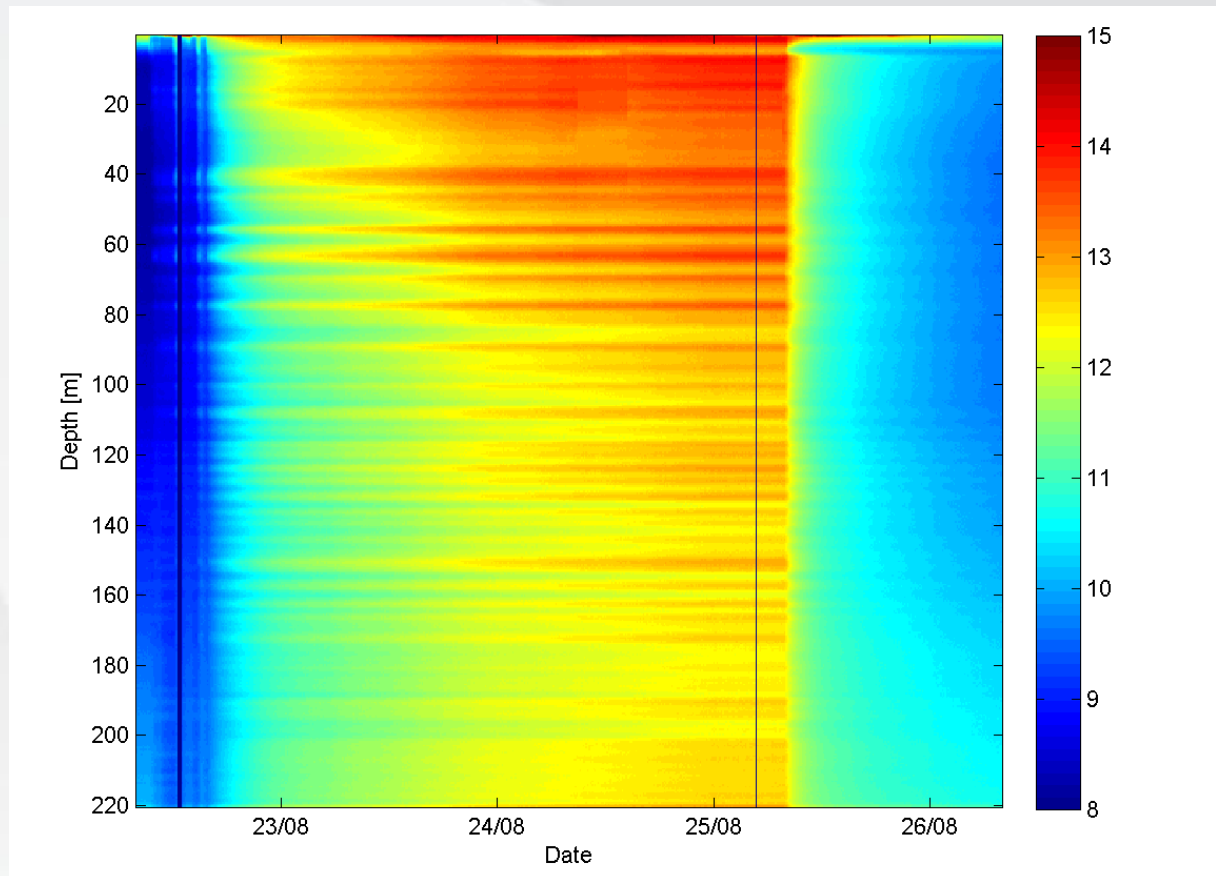
Fiber optic measurements



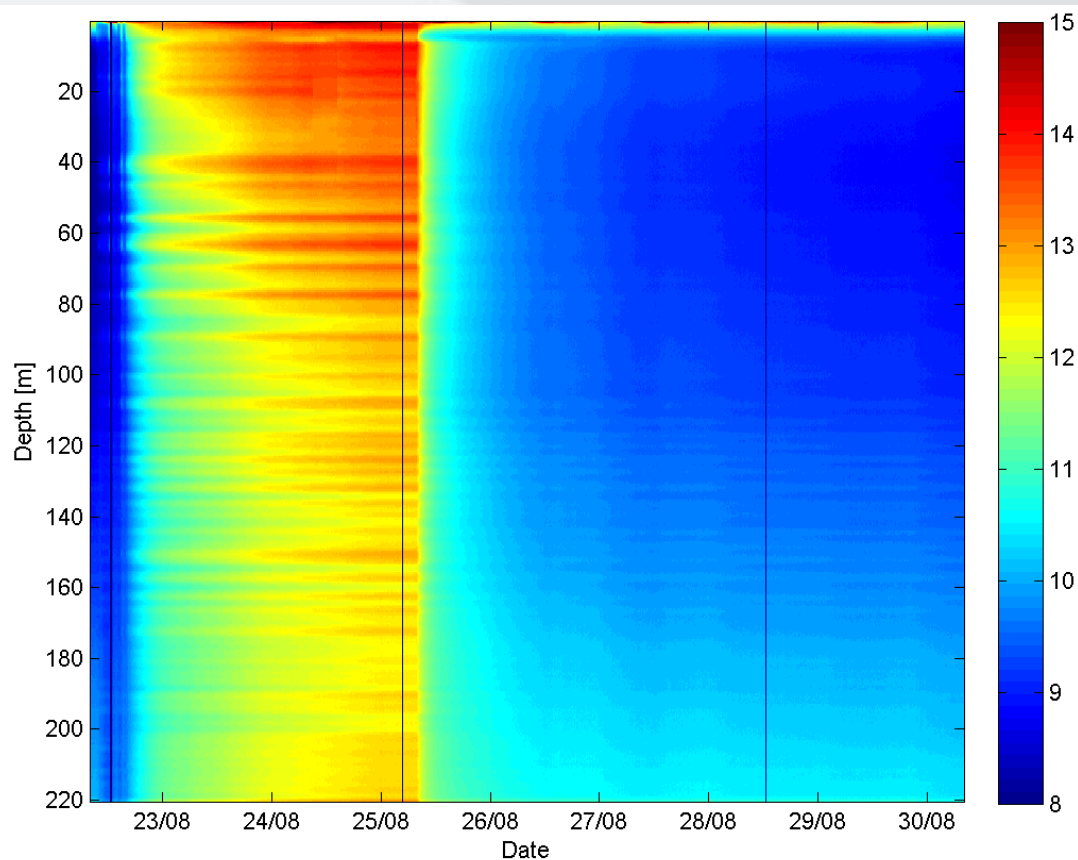
Temperature in the borehole during the TRT test measured by fiber optic temperature sensing



Temperature in the borehole during the TRT test measured by fiber optic temperature sensing



Temperature in the borehole after the TRT test measured by fiber optic temperature sensing



- Fiber optic monitoring is a important tool for understanding of the heat transfer mechanisms in the borehole
 - Effect of groundwater flow
 - Effect of thermal conductivities of rocks