Lessons learned from injection into sedimentary geothermal aquifers

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Reasons for injectivity decline were investigated at different geothermal sites in Europe. Due to low injectivities, production rates have to be reduced and the site faces negative commercial implications. In addition to historical operation data, fluid and rock samples were investigated in the laboratory. Analysis and experiments focus on physical, chemical and biological processes and their interaction. Results show different processes being responsible for injection-triggered occlusion of flow pathways, e.g. fines migration, precipitation, micro-biological activity, aquifer properties, corrosion or $O_2$ inflow.

Lessons learned will be shown, from preparation of large-scale projects, from monitoring programmes towards sustainable operation.

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