Development of an analytical simulation tool for storage capacity estimation of saline aquifers

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Abstract

An enhanced analytical simulation tool (EASiTool) was developed to estimate CO_2 storage capacity in saline aquifers. The tool provides a quantitative estimate of storage capacity for multi-well injection/extraction systems by applying novel analytical models for both closed- and open-boundary saline aquifers and analyzes the potential of enhancing storage efficiency by integrating active brine management (brine extraction technology). EASiTool includes a user-friendly interface and can be used to provide reservoir and basin-scale storage capacity estimates. The software and user manual are available for download at: http://www.beg.utexas.edu/gccc/EASiTool/.