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Title: Modeling Radionuclide Transport in Fractured Rock for Next Generation
Nuclear Waste Repository Performance Assessments

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Intended for: Report

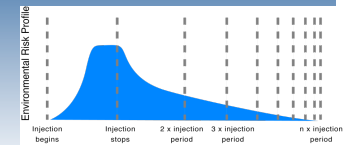
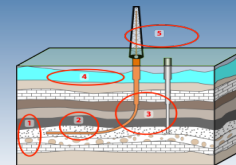
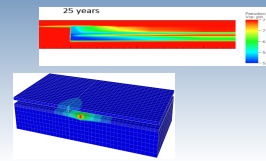
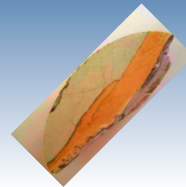
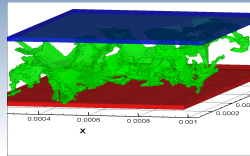
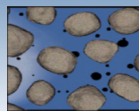
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Modeling Radionuclide Transport in Fractured Rock for Next Generation Nuclear Waste Repository Performance Assessments

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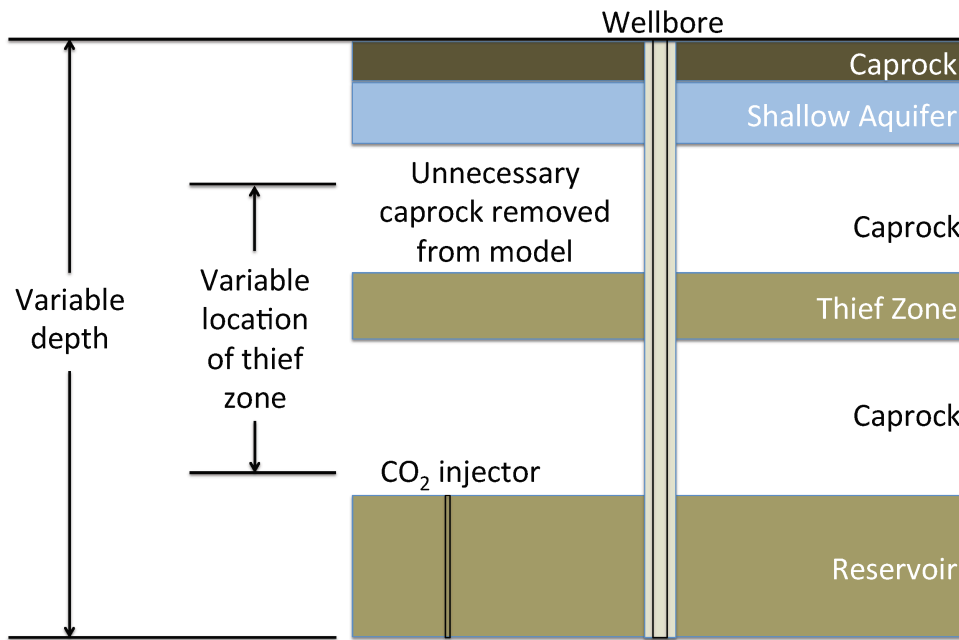


National Risk Assessment Partnership (NRAP)

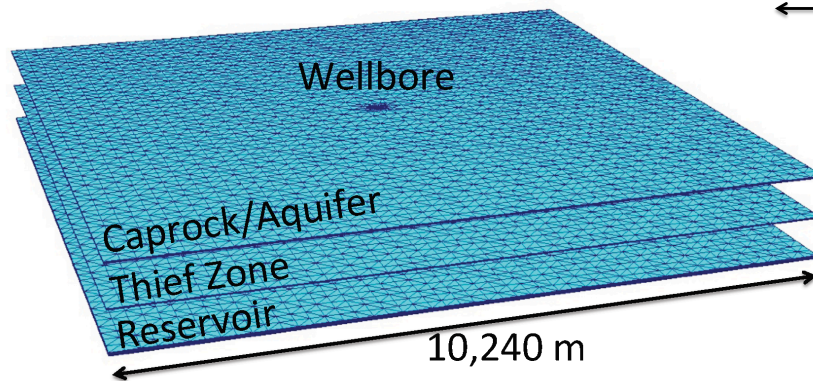
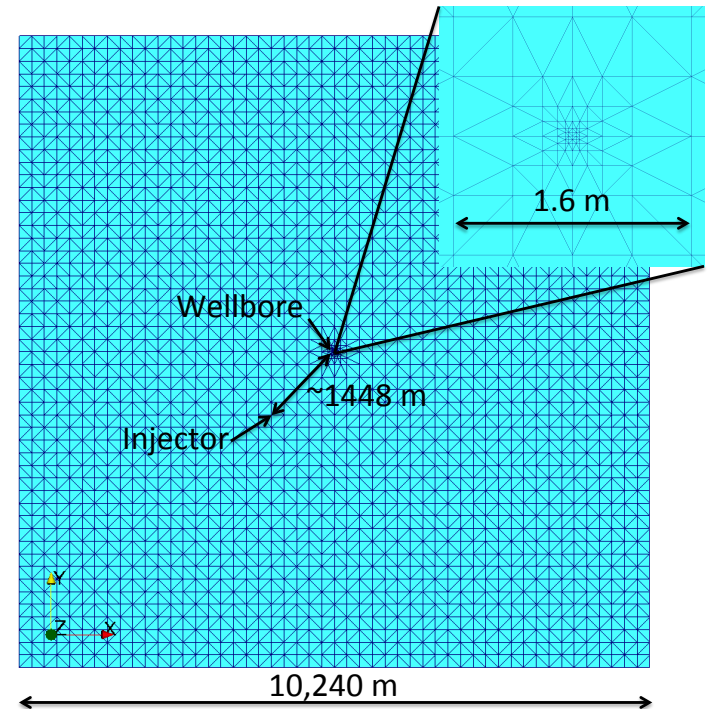
To accelerate the path to CCUS deployment through the use of science-based prediction to quantify storage-security relationships, thereby building confidence in key decisions.

Multi-Phase Flow Model

Conceptual Model



Mesh Plan View



- Conservative simplifications:
1. No dissolution
 2. No residual saturations
 3. Brine density not considered

Simulation Results of CO₂ Leakage Along a Cemented Wellbore

