

# Used Fuel Disposition Campaign

## Cement Interaction (CI) Experiment at Mont Terri

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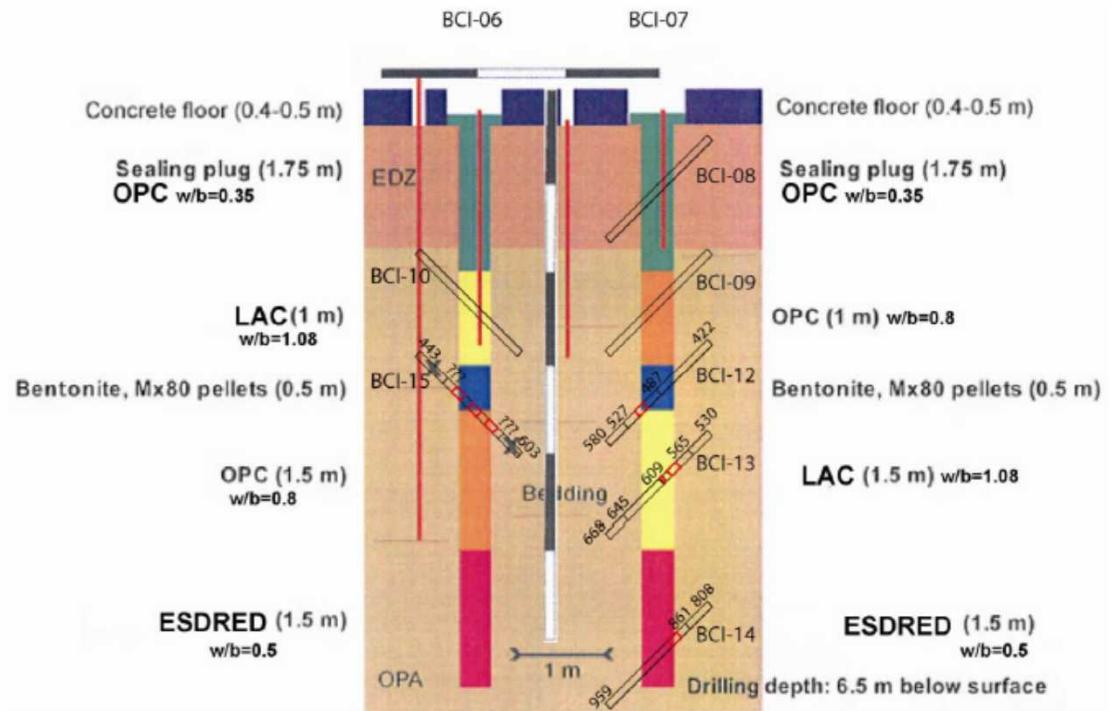
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# Used Fuel Disposition

## Opalinus Clay interaction (CI) is a long-term experiment at Mont Terri

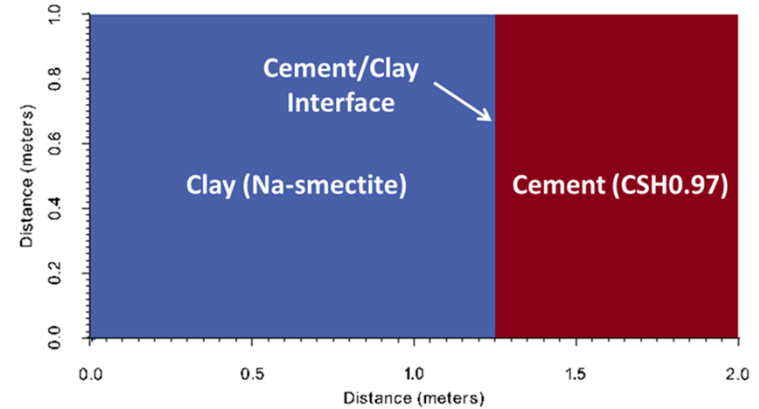
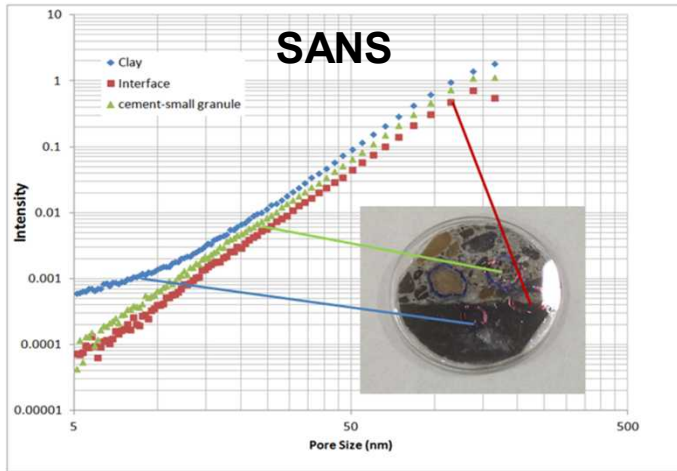
- Long-term experiment designed to supplement current knowledge on the influence of cement on Opalinus Clay (OPA) in a deep geological repository
- Sample of the interface between OPA and ordinary Portland cement (OPC) was obtained by SNL and LANL to conduct small-angle neutron scattering (SANS) studies
- UFD work not supported in this FY14.
- However, utilizing reactive transport model:
  - To evaluate the effects of using different thermodynamic databases
  - To evaluate the effects of secondary mineral precipitation on seal performance



Schematic diagram after Mader et al. 2013  
(Project Communication)

# Used Fuel Disposition

# Cement Phase Equilibria, Reactive Transport, and SANS Analysis



## PFLOTRAN Modeling

