

Microbial Influence on Seal Integrity During CO₂ Injection

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- Batch experiments were performed with SC CO₂ at 2500 psi and 50°C with seals and oxygenated brines from the Arbuckle aquifer, SE Kansas.
- Seals containing pyrite produced gypsum.
 - Chattanooga Shale
 - Single mineral, pyrite
- Gypsum precipitation during CO₂ injection may:
 - Heal microfractures that may form in seals, thereby increasing their integrity.
 - Clog porosity and decrease reservoir storage.
 - Clog porosity of injection zone as this zone is most likely to contain oxygenated brines.

