

Decarbonatization While Increasing Oil Production Using CO₂

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Abstract: Carbon capture utilization and storage (CCUS) provides a key opportunity to reach climate change goals and enhance US energy security. One example of such a project is the PetraNova installation in Texas. PetraNova has installed post combustion CO₂ capture on a 240 MW coal fired unit at the Parish power plant near Houston, Texas where 80 MMCF/D of captured CO₂ is transported and used for EOR in the West Ranch oil field. There is an estimate of 1.6 MMtons/year CO₂ emission captured and stored with over 60 MMbbls of oil produced in 10 years. The ability to efficiently model and predict the storage capacity and oil recovery potential will have a monumental impact in the future CCUS projects. We have the modeling capabilities to demonstrate the feasibility of storage and co-optimize the stored volume and produced oil recovery for specific geological storage sites.

