

Carbon Capture Storage at a Glance

Accelerated CO₂ Emissions Reductions

- 1 Source of carbon dioxide (CO₂) emissions from industrial or energy plants. With carbon capture and storage (CCS), large amounts of CO₂ will be captured, recycled, and permanently stored.
- 2 Flue gas is captured and CO₂ is separated into a liquid, dense or supercritical phase for transportation and storage.
- 3 CO₂ is transported by pipeline, truck, rail or ship depending on the infrastructure available.
- 4 The CO₂ is sent deep underground for:
 - a. Enhanced Oil Recovery (EOR) when CO₂ is injected to produce oil. The CO₂ is produced at the wellhead with the oil during production, recaptured and recycled and over time permanently stored safely in depleted oil and gas formations.
 - b. Permanent storage into porous rock formations, typically at depths exceeding 800M. Sites are carefully selected and evaluated to ensure the CO₂ can be injected at the amounts required, that the formation has the capacity to store the CO₂ and that the CO₂ will be contained beneath impermeable caprock.
- 5 Measurement, Monitoring and Verification (MMV) activities are required before drilling a well, during injection and after a project is complete. MMV ensures the CO₂ is behaving as expected.

* The deep sandstone formation has microscopic spaces between its individual sand grains, or porosity, which allows it to hold high salinity water – that is 10 times more salty than the ocean. Due to the presence of this very salty brine, geologists refer to this type of formation as saline aquifer.

