CO2 EOR Frequently Asked Questions

How does CO_2 flooding works? Water flooding leaves a significant amount of oil in the reservoir due to the immiscibility between water and oil. With CO2 flooding, CO2 and oil mix above a pressure known as the minimum miscibility pressure (MMP). At or above the MMP, CO2 acts as a solvent, providing a cleaner sweeping of the reservoir and leaving a small residue behind. At pressures below the MMP, CO_2 assists oil production by swelling the oil and reducing its viscosity.

Typical field size for CO_2 flood: original oil in place of more than 5 million barrels, and have more than 10 producing wells.

Expected oil recovery: Potential recovery varies between 8 % and 16 % of the original oil in place.

Time between CO_2 injection and increased oil production: Typically one to two years, depending on well spacingpacing.

Equipment upgrades: Minimal if currently use water flooding.

Successful CO_2 flooding projects currently in operation: Weyburn and Midale fields in Saskatchewan, Permian Basin in Texas, Oklahoma, Utah, the Rocky Mountain region, Hungary, Turkey and other locations.

Other benefits of CO_2 flooding: carbon reduction through CO_2 sequestration, carbon credits, jobs creation, additional taxes revenues, less dependence on foreign crude, less water consumption.