

SLURRY INJECTION: THE FAST LANE ON THE ROAD TO REDUCED EMISSIONS

THE CHALLENGE

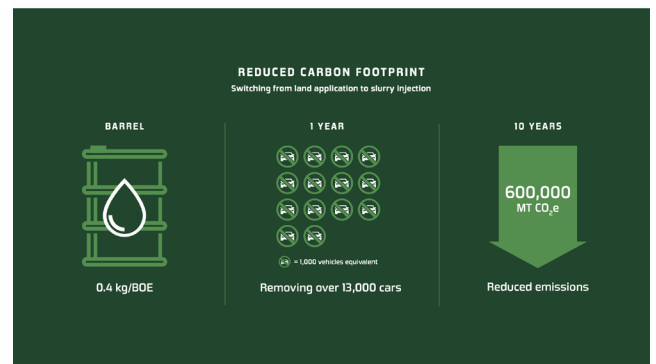
Energy companies are under increasing scrutiny to improve their ESG performance. Investors, regulators, and other stakeholders keep a watchful eye to ensure E&P operators define, measure, and perform on meaningful ESG metrics. Most have committed to net-zero carbon in the longer term and are measuring shorter-term progress with more granular metrics. The majority also are openly disclosing ESG results to the market.

Greenhouse gas (GHG) emissions intensity, measured as kg CO₂e/BOE, is among the most common metric being used by E&P companies today. It allows operators to focus on initiatives to reduce emissions (the top line) and provides a standard by which to directly compare operators of different scale. Initiatives to reduce emissions often include eliminating flaring and minimizing and capturing fugitive methane; but there remains some low-hanging fruit with the potential to materially reduce emissions, with no additional investment.

THE SOLUTION

Milestone’s slurry injection process can play an impactful role in reducing the carbon footprint of our E&P customers’ operations. We estimate that by using slurry injection, rather than land application, operators can reduce (i) their carbon impact of operations by approximately 0.4 kg CO₂e/BOE, and (ii) their gross direct emissions by approximately 600,000 MT CO₂e over a 10-year period, the equivalent of removing 13,000 vehicles from the road every year for 10 years.

If an operator maintains gross production of 400,000 BOE per day and is targeting a 25% reduction in its gross GHG emissions intensity over 10 years versus a baseline of 15 kg CO₂e/BOE, this customer will achieve approximately 11% of its emissions intensity target reduction simply by partnering with Milestone to inject the drilling mud and slurry waste from each new well, rather than burying waste in reserve pits or landfarming. Milestone would permanently sequester cumulative emissions of 600,000 MT CO₂e over the 10-year period.



CONCLUSIONS

- A policy of slurry injection, rather than land application of waste, can have a rapid and material impact on GHG emissions intensity.
- Where slurry injection infrastructure already exists, no additional investment is required on the part of operators.
- Based on a company’s plan for production, its decline rate, and required drilling cadence, Milestone can assess its potential impact on the operator’s emission intensity goals.
- With the ability to record and document an operator’s volume of sequestered carbon, the materiality of Milestone’s slurry injection can be measured, reported, and assessed for value.