

# Pipe Dreams: Carbon Capture Pipelines

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Figure 1: Proposed map of the pipeline Source: Summit Carbon Solutions

**Background:** Summit Carbon Solutions has proposed a carbon capture pipeline. The proposal is that Summit would partner with more than 30 ethanol plants across Iowa, Minnesota, North Dakota, South Dakota, and Nebraska. The captured CO<sub>2</sub> will be compressed, liquified, and funneled underground. The pipeline would be buried and funneled toward underground storage locations in North Dakota. It will be permanently stored in these locations. However, Iowan farmers are staunchly opposed and threatening to take matters into their own hands if the government grants Summit farmer's land through emit domain.

**Abstract:** Summit Carbon Solutions has proposed a carbon capture pipeline that would span five states and 2,000 miles. This pipeline would transport liquified carbon dioxide collected from the smokestacks of ethanol refineries. The carbon would be pumped underground and stored in North Dakota. This pipeline spans most miles in Iowa, with staunch opposition to its development. Many farmers in Iowa are suspicious of Summit's claims and are concerned that pipeline leaks could result in asphyxiating plumes and harm soil quality. The pipeline companies claim that carbon capture and sequestration will help fight climate change and benefit the farmers.

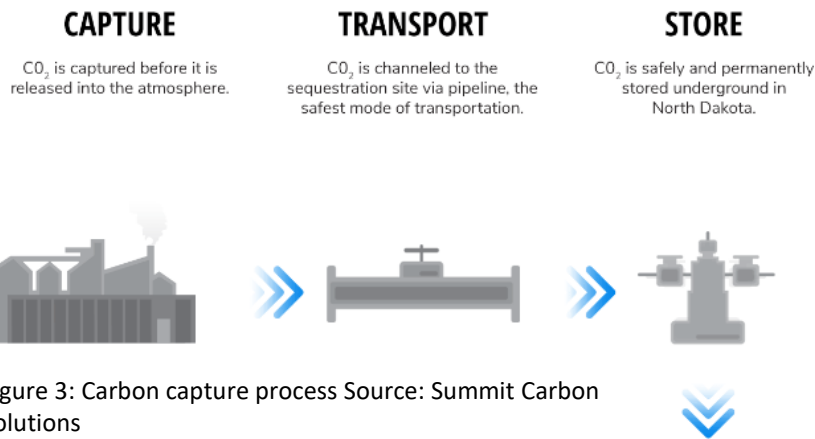


Figure 3: Carbon capture process Source: Summit Carbon Solutions



Figure 4: Farmers showing their opposition Source: AP News

## Data:

- The pipeline costs \$5.5 billion
- The pipeline would span 2000 miles across five states with most of the mileage in Iowa
- Can store up to 18 million tons of captured carbon – the equivalent of removing 3.9 million vehicles from the road
- Would collect carbon from 35 Midwest ethanol plants
- Would create 1,170 jobs annually and 11,427 during construction
- A coalition of 1,000 people organized by the Sierra Club met and expressed concerns about the pipeline

## Lesson Plan:

**Learning Objective:** Understand the underlying factors in the case study, including, the power of organizing, politics, and money.

**Pre Class:** Half the class will read articles that are pro pipeline and half will read articles that are anti.

**In Class:** The class will break up into two large groups and hold a town hall debating whether the pipeline should be created or not. One group will be pro and the other will be anti but within each group all stakeholders will be represented on either side of the argument.

Sources: Jones, A., & Lawson, A. (2022). Carbon Capture and Sequestration (CCS) in the United States. [Review of *Carbon Capture and Sequestration (CCS) in the United States.*]. Congressional Research Service. Congressional Research Service., *More hearings begin soon for Summit's proposed CO2 pipeline. Where does the project stand?* (2023, August 21). AP News. <http://apnews.com/article/summit-pipeline-co2-north-dakota-iowa-68bd3c9d4cd142a05666594a936f8db0..> Summit Carbon Solutions. (n.d.). Summit Carbon Solutions. <https://summitcarbonsolutions.com/>, *The Des Moines Register.* (n.d.). [www.desmoinesregister.com](http://www.desmoinesregister.com). Retrieved December 10, 2023, from <http://www.desmoinesregister.com/story/money/agriculture/2023/10/20/summit-carbon-solutions-pushes-back-start-of-carbon-capture-pipeline-across-iowa-north-south-dakota/71239984007/>

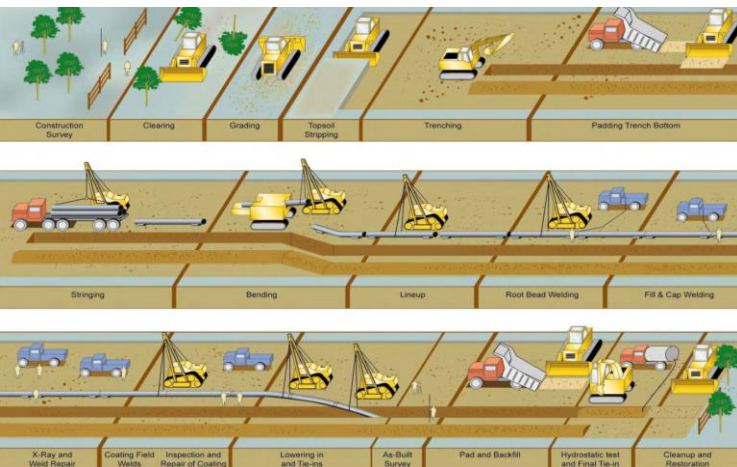


Figure 2: Installation process of the pipeline Source: Summit Carbon Solutions

## Conclusion:

The use of technological advances to perpetuate polluting activities is not the way to a more sustainable future. Though it will be difficult there must be industry shifts away from carbon emissions. The use of a carbon capture pipeline only serves to kick the can further down the road. Summit's proposed carbon capture pipeline has been stalled for now. This is mostly thanks to Iowan residents who have organized to voice their strong opposition to the pipeline. These people fear for their health and safety, as well as the health of their crops. This case is a testament to the power that people have when they organize. It also shows the relevance of politics in these decisions. Summit's pipeline and the clash created between working class Americans and industry posed a challenge for Republican politicians who had to weigh the importance of their working-class voter base and their pro industry positions. The case remains open, and many more questions must be answer as we work towards a more sustainable future. How do we best make changes while protecting people and jobs? We must work together to find the balance between reducing our emissions and protecting people.