St. Francis Xavier University

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Measuring Methane Emissions from Offshore Oil and Gas Platforms

Summary

Target Emission Source: **Fugitive Methane Emissions**

Emission Reduction Strategy: **Methane Measurement**

Project Type: **Related Science Activity**

Project Completed: **2022**

Field Trial Required: **Yes**

The Project

This project involved collecting aircraft-based measurements of methane around oil production facilities offshore Newfoundland and Labrador to quantify and verify methane emission levels. Results were compared to measured values of other offshore platforms in the North Sea and Gulf of Mexico, and to Canadian onshore environments which are thought to have higher methane intensity. The study provided comparisons between offshore operations, and suggestions for government regulations and policy regarding GHG emissions.

Benefits

- Aerial methane measurements conducted for first time offshore Canada, improving detection of fugitive emissions
- Measurements validated previously-reported emissions and confirmed Canada's offshore production is among the least methane-intensive in Canada and United States

Opportunities & Next Steps

- Measure offshore facility's flare tip emissions for efficiency
- Pursue new, active research collaborations with service providers (aerial, satellite, drone)
- Conduct research to enhance satellite measurement of offshore methane
- Update national inventory of onshore and offshore methane measurements

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