TOP-DOWN MEASUREMENT & ROOT CAUSE ANALYSIS OF EMISSIONS IN BRITISH COLUMBIA

Combining aerial and on-site measurements to determine causes, frequency and extent of methane emissions in British Columbia.

DONOR:
European Commission

BENEFITTING COUNTRIES OR REGIONS:
Canada

SECTOR:
Oil & Gas

Subsector, if applicable:
-

STATUS:
Analysis ongoing

TIMELINE:
Measurements 2023 to 2024

IMEO SCIENCE OBJECTIVE:

→ **Advance reconciliation and data integration approaches for multi-scale emissions data**

KEY FINDINGS

This study will establish robust procedures for producing quantitative, measurement-based methane inventories backed by robust uncertainty analysis, while supporting development of comprehensive measurement, reporting and verification protocols.

RATIONALE

British Columbia is Canda's second largest natural gas-producing province underscoring the need for credible data to manage associated methane emissions. A measurement-based inventory of emissions is needed to improve understanding of where emissions are coming from and how extensive they are so that stakeholders can deploy solutions.

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For more information, please contact imeo@un.org

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RELATED PUBLICATIONS

In progress

CATALYZING ACTION

The approaches developed in this study are also being used to further understanding of emissions in Colombia as part of subsequent IMEO projects, including multi-scale measurements of oil and gas production in Colombia and a Baseline study of emissions across sectors in Colombia.

SIGNIFICANCE FOR DECISIONMAKERS

Policymakers: This study is being undertaken in close collaboration with the government of British Columbia (BC), Canada to produce a measurement-based oil and gas sector methane inventory and perform root cause analysis which is critical to accurately track progress on methane emission reductions.

Industry: The findings will help highlight the extent of O&G industry emissions and incentivize reductions in response to recently introduced regulations. In addition, the study will provide validation of measurement approaches that can enhance industry confidence in the use of measurement data.

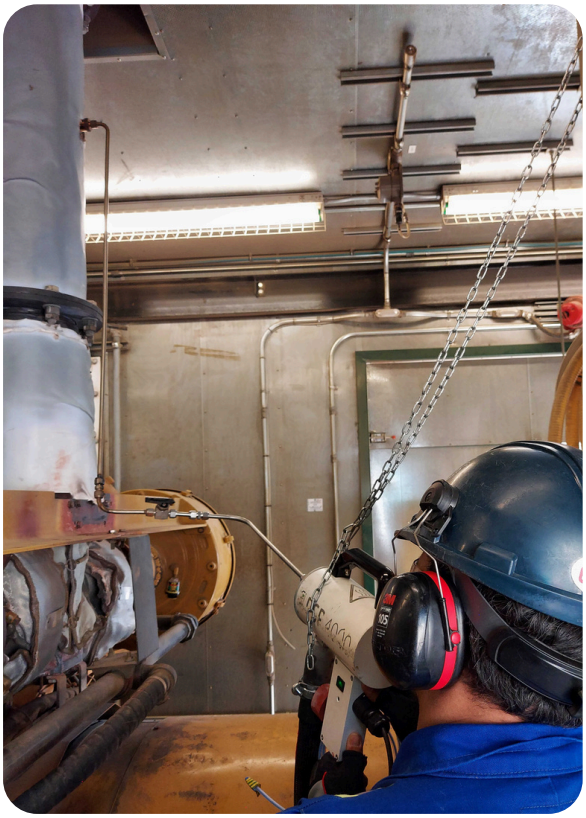
OTHER SUPPORTERS/STAKEHOLDERS

Principal Investigator: **Carleton University, Canada**

Revision History: **25/10/24**

STUDY APPROACH/ACTIVITIES

This study builds on previous work to expand the measurement of oil and gas sites in British Columbia (BC), Canada using aerial Gas Mapping LiDAR and ground-based investigations. The measurements will cover approximately 500 production sites in BC to derive a comprehensive measurement-based methane emissions inventory, that will improve understanding of the specific equipment responsible for emissions and the proliferation of those sources.



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The UN Environment Programme's International Methane Emissions Observatory (IMEO) exists to provide open, reliable, and actionable data to the individuals with the agency to reduce methane emissions. IMEO does this by integrating and reconciling data across sources, including its global methane science studies. IMEO supports measurement and research studies around the world to close the knowledge gap on methane emissions and provide policy-relevant insights to decisionmakers.

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