

This abstract will be presented during LNG2023 conference on 10-13 July in Vancouver, Canada among many other innovative projects, ideas and outlooks. LNG2023 will provide a unique platform for the global LNG industry and key stakeholders to discuss, debate, and showcase the latest industry developments and opportunities.



## LEAD AUTHOR

**Ali Lashgari**  
Senior Data Scientist - Emissions & Regulations, Project Canary



## CO-AUTHORS

None

## METHANE DETECTION, LOCALIZATION, AND QUANTIFICATION USING CONTINUOUS EMISSION MONITORING SOLUTIONS

The federal and state regulatory agencies require oil and gas industry to perform methane leak detection and repair (LDAR) surveys using Optical gas imaging (OGI) on a frequent basis. This approach has been proven effective in reducing the environmental footprint of energy production. However, OGI provides a low-frequency snapshot view of site emissions. It tends to have high variability and is unsuitable for asset-level differentiation of emissions.

Alternative technologies such as continuous monitoring could offer the high-resolution measurements needed to characterize temporal methane emission variability from different continuous and intermittent sources. As an ongoing field of research, the ultimate goal of continuous methane monitoring and data analysis is to achieve accurate methane leak/release detection, localization, and emission rate quantification.

This presentation discusses recent regulatory developments related to methane emission quantification and reporting. Then different technologies for methane emission detection, localization, and measurement are introduced. The result of the field evaluation for Project Canary's methane leak detection, localization, and quantification using continuous emission monitoring solutions will be then presented, followed by a brief discussion around emission reconciliation.

To view the full conference agenda, visit <https://www.lng2023.org/lng-programme-overview>