

Verification of Quantitative Optical Gas Imaging System

Lindsay Jackiw, Saskatchewan Research Council

17-ARPC-08

Having the ability to quantify leaks will enable industry to comply with new standards and regulations, while reporting the data to the regulators with confidence. With the upcoming national carbon tax, this method will allow industry to more easily quantify their emissions on site, and report to regulators. Emission quantification data can easily be acquired while performing routine Leak Detection and Repair (LDAR) programs. The technology can also be applied to the collection of reliable quantification data that could be used to supplement, improve, or replace the utilization of emission factors that have the potential to be inaccurate and/or overly conservative thereby resulting in an inaccurate portrayal of the emissions profile of the oil and gas industry.

The development and approval of the technology verification testing plan in consultation with various stakeholders, in addition to the validation of the execution of the testing activities by an independent third party will provide industry and regulators the confidence to accept this method of quantifying leaks and emissions. In addition to expediting the adoption and acceptance of quantitative optical gas imaging systems within the upstream oil and gas industry, this project will also provide a technology verification framework through which additional technologies can be verified in order to support their adoption by industry and acceptance by regulators. Developing the technology verification plan in compliance with the pending ISO 14034 standard will support the international recognition and acceptance of the technology verification results.

[Executive Summary Report](#)

[Final Report](#)

[Verification Report](#)

[Verification Statement](#)

[Best Practices Recommendations](#)