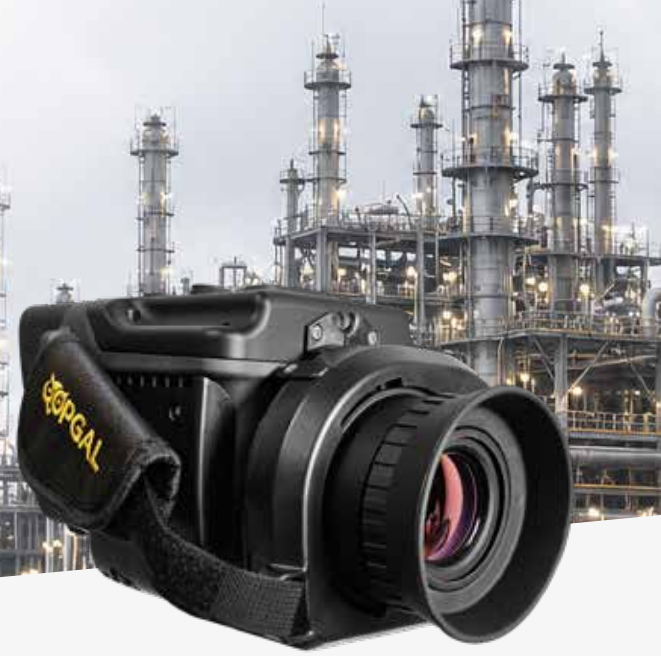
OPGAL

Technology Profile
Opgal's Built-In QOGI Solutions



Advanced Quantitative Optical Gas Imaging

Historically, quantifying remote, inaccessible emission sources (primarily vents) has been one of the biggest challenges for bottom-up tracking. Opgal's Quantitative Optical Gas Imaging (QOGI) software addresses these hurdles directly, providing a comprehensive solution that fulfills strict international regulatory requirements and framework standards.

Core Capabilities of Opgal's QOGI

Multiple Compounds

Allowing operators to easily select from a list of predefined gases, including methane.

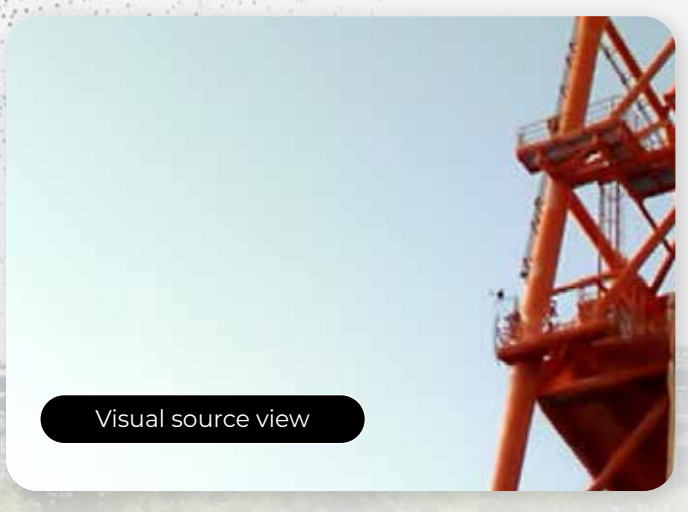
Emission Quantification

Accurately measures both the concentration and the mass flow of various Volatile Organic Compound (VOC) emissions.

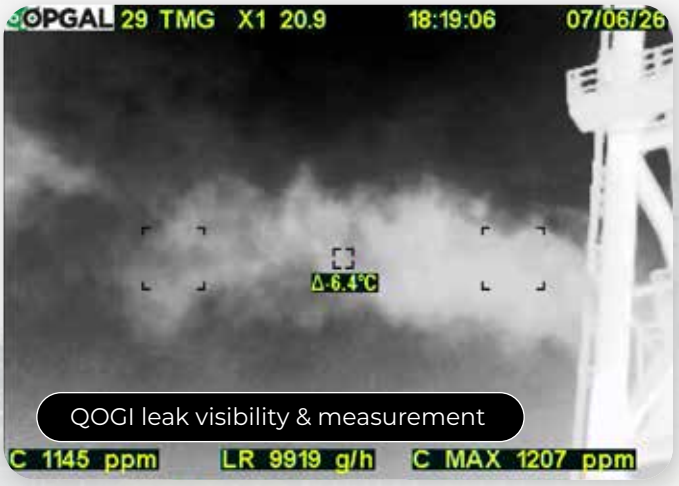
Real-Time Screening & Post-Analysis Validation

Features built-in capabilities to perform quantification on-site in real time and collect data for post-inspection verifications and operator training.

Real-Time Visualization



Visual source view



QOGI leak visibility & measurement

Performance Validation: The GERG Study

The real-world efficacy of this technology is backed by empirical data from a landmark European Gas Research Group (GERG) study titled "Assessment of current methane emissions quantification techniques for natural gas midstream applications." During this blind controlled-release campaign, Opgal's built-in QOGI solution (evaluated as OGI 1) demonstrated outstanding performance, achieving an exceptionally tight correlation near the ideal 1:1 parity line with actual leak rates.

This significantly outclassed alternative source-level quantification technologies featured in the study, including the Fixed 2 unmanned OGI camera system and the alternative OGI 2 handheld OGI camera system, both of which showed much wider estimation errors and lower accuracy (especially for remote vents), under identical testing conditions.

Regulatory Compliance & Field Application

Quantifying remote and inaccessible sources (primarily vents) has historically been a primary challenge for bottom-up tracking. Opgal's technology addresses these challenges directly across international regulatory and framework requirements:

Regulatory Alignment

Opgal's OGI and QOGI technology is fully compliant with both US and EU methane and VOC regulatory detection requirements.

Level 4 Validation

The QOGI software is validated as the Best Available Technology (BAT) for Level 4 source-level/bottom-up reporting of remote, major emission sources.

Environmental Adaptability

The software and validation process before reporting, successfully overcome shifting background conditions, such as cloudy skies, ensuring consistent data integrity under varying field environments.

Bridging to Site-Level Emissions

Reconciliation by accurately quantifying major source-level emissions. This closes the data gap required by advanced frameworks.