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BRI announces new leak detection service for mapping oil field gas leaks

Bubbleology Research International (BRI) announces SISTER2™, an air quality laboratory in a 1-ton box, available for advanced gas leak detection and assessment. SISTER2 deploys by a pickup truck, boat, or trailer and measures 14 gases, aerosols, and meteorology at up to highway speed. SISTER2 can support natural gas companies, the oil and gas industry, government, and research collaborations to protect our communities and the environment.

SISTER2 was successfully demonstrated in January in Bakersfield, CA while filming a Business Insider video on abandoned oil well gas emissions. SISTER2's extreme sensitivity allows the detection of very weak gas emissions, which are mostly colorless and odorless. These emissions can come from abandoned oil wells. Millions of abandoned oil wells across the US pose health, environmental, and climate risks.

“SISTER2 is the most advanced mobile air quality laboratory. Period. It's the result of a decade of development and field science surveys, with BRI working for agencies like NASA to protect our communities and environment,” said Ira Leifer, BRI's CEO and chief scientist.

In a soon-to-be-released study in the journal *Society for Petroleum Engineers: Production & Operations*, SISTER2 joined airborne methane remote sensing by Aerospace Corporation to map and characterize oil field methane plumes. A pattern in the methane leaks was revealed, suggesting the stress of unmapped geological faults on pipelines enhances leakage. This analysis can aid production through better maintenance schedule planning, higher natural gas production (lower leakage losses), and improving reservoir production models.

SISTER2's real-time display of methane, other gasses, and meteorology guides targeted air samples for detailed chemical profiles in the laboratory, including, for example, the carcinogenic gas benzene. The real-time display warns SISTER2 to return and slowly survey the most critical data - the invisible gas plume. Custom numerical models pinpoint the leak's location and strength. Accuracy was demonstrated by comparison with the gold standards: Airborne remote sensing for real-world leaks.

“We use custom tools on SISTER2 data to efficiently find leaks from oil wells, the natural gas system, and other industries to help address regulations,” added Leifer.

BRI is a small, flexible Greentech company dedicated to environmental consulting, instrumentation development, satellite analysis and validation, and environmental assessment. At BRI, we continuously adapt to change to meet the demands of our clients. Established in 2003, BRI handles complex projects for/with entities including Fortune 500 companies, universities, the United States Navy, NASA, ESA (European Space Agency), and other government agencies.



BRI's CEO Ira Leifer and the Business Insider videographer alongside SISTER2