



# Natural Gas Pipeline Leak Rate Measurement System DTPH56-15-T-00015L

## PHMSA ACCOMPLISHMENTS

Pipeline and Hazardous Materials Safety Administration

Pipeline Safety Research and Development

Technology Development for Improved Leak Detection

### Project Abstract

This research enhanced capabilities to detect, locate, and quantify small natural gas pipeline leaks to prioritize remedial actions. The project assembled and evaluated via field tests a system comprising a cost-effective synthesis of side-scan lasers, sensitive laser-based point sampling, and advanced data processing algorithms installed on a mobile leak survey platform.

**PHMSA Funding:** \$226,794

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### Commercial Partner

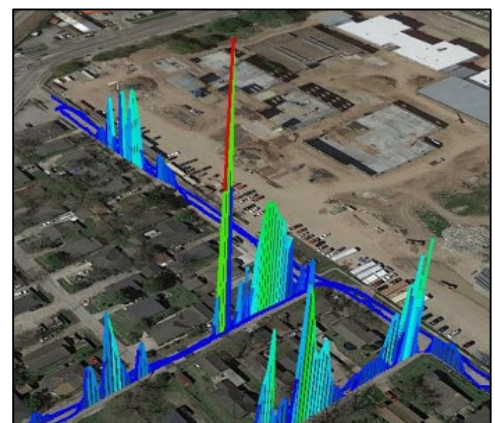
Heath Consultants Inc.  
<https://heathus.com/>



### NET Improvement

The project supported development of the Heath MobileGuard™ gas leak detection system which consists of a methane/ethane analyzer, GPS, a sonic anemometer and proprietary leak detection software that presents real-time geospatial maps of multiple gas concentrations. The Mobile-Guard laser-based sensor has a sensitivity and precision more than 3,000 times greater than legacy methods. This enables identification of leaks several hundred feet away from the source.

**US Patent under DOT Contract:** N/A



Pictures Courtesy Heath Consultants, Inc.