

Securing the Delivery of Energy Supplies to Europe

Monitoring the 1,850km Trans-Anatolian Natural Gas Pipeline



With combined experience and capacity, OptaSense and Optilan collaborate to deliver the optimal solution for TANAP.

Running from Azerbaijan to Europe, the Trans-Anatolian Natural Gas Pipeline (TANAP) will form a central part of the Southern Gas Corridor, connecting the giant Shah Deniz gas field to European markets. With TANAP scheduled for completion in 2018, the project is of major strategic importance for the region, enabling the first Azerbaijani gas exports into Europe while strengthening Turkey's role as a regional energy hub. Given its importance, it is vital the pipeline's security is assured at all times and at all points. Guaranteeing TANAP remains operational, without incident and disruption, is paramount.

Providing integrated leak detection and security monitoring

TANAP awarded a US\$35 million contract to OptaSense, working in partnership with international communications and security systems provider Optilan, to deliver the world's largest fiber distributed sensing project. Deploying unique Distributed Acoustic Sensing (DAS) technology, OptaSense Fiber Optic Pipeline Monitoring will provide leak detection and security monitoring for more than 1,850km of pipeline, including perimeter security for all facilities.

TANAP solutions include pipeline leak detection, third party intrusion and other security functionality, all delivered via a single fiber-optic cable that 'listens' to the pipeline to provide detailed data on its status. Changes feed to an interrogator unit in real time, enabling any issues or threats to be identified and addressed early to maintain the highest levels of pipeline integrity.

Delivering peace of mind

The system has provided the customer security and peace of mind. This is, by definition, revenue assurance. OptaSense has been involved with TANAP from its early stages to help ensure security is efficient and that the pipeline remains operational 365 days a year.

OptaSense is the trusted partner for DAS solutions worldwide, supporting customers in more than 50 countries and more than 37,000km of assets under contract.

Background

- Trans-Anatolian Natural Gas Pipeline
- 1,850km of pipeline
- Running from Azerbaijan through Georgia and Turkey, to Europe

Solution

- OptaSense Fiber Optic Pipeline Monitoring
 - Leak Detection
 - Security Monitoring
 - Third-Party Intrusion
 - Right of Way
 - Perimeter Security for in-line facilities

Value Delivered

- A single pipeline monitoring solution that delivers multiple detector applications using a single fiber:
 - Four mode leak detection (temperature, acoustics, ground strain and pressure)
 - External interference and damage prevention monitoring
 - Lower installation costs
 - Real-time, 24/7 peace of mind and security