



## OptaSense® Project - KPO BV Export Pipeline

### Overview

Final Stage of implementation of surveillance and conditioning monitoring system for KPO BV export pipeline.

KPO Management always paid great attention to the control issues of technical condition of pipelines that are used to export hydrocarbons. As Brian Drinkhall, Operations & Maintenance Superintendent for KPO's KATS Export Pipeline said, "KPO takes pipeline security very seriously and illegal tap incidents can pose serious safety and environmental issues."

In the period of 2008 – 2009 the Company bought the pilot samples of 2 surveillance and condition monitoring systems of the world leading manufactures Future Fiber Technologies (Australia) and QinetiQ OptaSense® (UK). AVENCOM company performed the installation and commissioning of both systems in adjacent sections of export pipeline of 40 and 80 km length accordingly.

After two years of operation the OptaSense® technology showed a better level of adaptation for the local working condition than Australian one. KPO management made a decision to buy ten more interrogator units of the manufacture. AVENCOM company implemented this phase within the defined timeline and by the best quality standard.

The final phase of the project was completed in December 2012 when all 620 km of Export pipeline were covered by OptaSense® intrusion detection system. AVENCOM installed and commissioned additional 8 interrogation units and submitted them to the current production system.

### Location and Company



### Scope

- Site survey;
- Technical engineering solution;
- Detailed technical design;
- Engineering of system documentation;
- Engineering of system configuration;
- Equipment procurement;
- System assembly and FAT;
- Preparation of optical fiber;
- Installation and start up;
- System calibration;
- Customer personnel training;

### Key Facts

Location: West Kazakhstan,  
West Kazakhstan oblast  
Customer: KPO BV  
Incidents: 0  
Time elapse: 6 months

#### Manpower

Engineering: 1272 mh  
Installation: 1704 mh  
Delivery: 2012

#### Products used

OptaSense®,  
RackServers,  
Blackbox.