# **Kashagan Experimental Program**

### **Reliability in sub-zero temperatures**

The Kashagan Field in the Caspian Sea is considered the single most important discovery in the past 30 years and is the fifth largest oil field in the world. The giant field covers an area of 75 km x 45 km and it is currently estimated that the field holds up to 38 billion barrels of oil-in-place, of which 9 billion are potentially recoverable. With associated gas re-injection, it is estimated that recoverable reserves could increase to 11bn.

The offshore location of the field means that it is subject to harsh conditions, where sea ice is present during the winter months and temperatures can drop to -40°C. Due to such extreme conditions, Synectics has been working closely with Agip KCO, the operator for the consortium, on the Experimental Program design to ensure that the CCTV system solution provided can operate at such low temperatures.

To date, Synectics has provided an IP networked CCTV system for onshore, offshore, and pipeline monitoring totaling more than 300 COEX camera stations. This system has been fully integrated within Thales' carrier-grade, multiservice communication sub-system, which includes public address, general alarm, and mobile radio systems.

The IP networked CCTV was specifically designed for remote process plant monitoring from an onshore control room and incident management center, with networking and security monitoring from gatehouses, warehouses, and other facilities. The COEX camera stations – made up of both Ex d hazardous area and safe area – and encoders will transmit over the LAN to distributed servers and storage units. Video management software and virtual matrix capabilities provide operators with the flexibility to select, access, control, and view cameras locations through the plant, via dedicated workstations.

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## SYNECTICS



#### **PROJECT DETAILS**

**Client** Thales

**Location** Kazakhstan

For further information on the products, services, and systems offered by Synectics, visit synecticsglobal.com.

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#### **Complete command and control**

Synectics has also supplied the CCTV system for the 270MW, \$190m Combined Cycle Power Plant and associated utilities via Bateman Litwin, which will provide complete surveillance for the main generator buildings and outbuildings within the power station via a total of more than 30 COEX camera stations, with the control system able to link into the onshore and offshore CCTV systems. Synectics is currently working on further additions to the Experimental Program consisting of an additional 160+ COEX camera stations and control equipment, all of which will link back to the previously supplied CCTV solutions ensuring complete command and management by the operator.

As such, Synectics is completely involved and committed to this project for the foreseeable future, providing continuity to Agip for all its CCTV requirements. The whole project is estimated to cost \$136 billion and the Experimental Program is expected to commence production by 2012.

Synectics designs integrated end-to-end surveillance control systems for the world's most demanding security environments. We excel at complex projects that require innovative, tailored solutions with high reliability and flexibility, specifically for casinos, oil and gas, marine, public space, banking, transport and critical infrastructure applications. Synectics' Systems division is part of Synectics plc, a global leader in advanced surveillance, security and integration technologies and services.

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