

OUR CLIENT AKER KVÆRNER  
OPERATORS AGIP KCO



#### DESCRIPTION OF THE PROJECT

The area of Atyrau, Kazakhstan holds the Kashagan oil fields, some of the most promising hydrocarbon deposits in the world. The Caspian hides a wealth of natural gas and oil deposits, but it is still largely unexplored and untapped. Assessment drills suggest that the Kashagan fields alone could someday yield more than 7 billion barrels of recoverable oil.

Agip KCO, a consortium of seven international oil companies, selected Bechtel and its longtime Turkish partner Enka are taking the challenge in this area.

During the next 10-15 years, the Kashagan field will be exposed to comprehensive development.

Aker Kvaerner are performing the fabrication, outfitting and testing of seven barges for oil production in Kashagan oilfield. Novenco have the contract for design, manufacturing and delivery of all HVAC equipment for Barge 9 and Barge 10 with a possibility to also cover the main HVAC logic control system.

#### CHALLENGES

Weather conditions - extremely harsh with temperatures dropping to  $-36,0^{\circ}\text{C}$  including snow, wind and icing.

The equipment is of very high quality, reliable and durable, the platform life time being 40 years. Special focus is winterization of the equipment.

Equipment must be been fully tested prior to being shipped to Egersund in Norway and Astrakhan in Russia for installation on the barges, prior to being delivered to Kashagan.

The equipment must meet the requirements of the Russian design institutes. Much of the documentation must be in two languages.

This contract is one of Novenco's largest contracts ever received by the offshore department and also one of the most challenging.

#### SOLUTION

Novenco's scope of supply consists of design and manufacture of some very complex air handling units with DX refrigeration and air cooled condensers.

Outdoor units in stainless steel suitable for Zone 1, ATEX certified to withstand the extreme seismic and demanding environmental and ex-zone conditions. Cooling capacity is 501 KW on the largest system.

Due to the very demanding environment requirement and the specifications requirements, all units are custom-made.

### SCOPE OF WORK:

#### TYPE OF COMPONENTS

14 off complex air handling units with DX refrigeration units and air cooled condensers  
 27 off regular air handling units  
 30 off special designed air intakes with trace heating  
 22 off louver sand traps with filter systems  
 25 off free standing axial fans  
 20 off SCU local DX units with cooling/heating and air cooled condenser

#### TYPE OF COMPONENTS

More than 220 dampers  
 18 off electric Exheaters  
 24 off intake/extract louver houses  
 7 off steam humidifiers  
 8 off sound attenuators  
 21 off shock valves

#### STAINLESS STEEL EXTRACT HOUSING



#### COMPRESSOR UNITS

