

## SAKHALIN II OIL FIELD

OUR CLIENT SHELL  
OPERATORS SAKHALIN ENERGY - RUSSIA

**SHORT DESCRIPTION OF THE PROJECT**

Sakhalin II is Russia's first offshore oil and gas development.

On Sakhalin Island in the Russian Far East, Royal Dutch Shell is building what is probably the world's most expensive oil and gas subsidiary. Shell's subsidiary, Sakhalin Energy, is developing two fields—one oil and one gas. The fields lie off the island's north-east coast. The oil and gas will be brought onshore and then transported by two buried pipelines to facilities at the island's southern end. There the oil will be put on tankers and the gas supercooled into liquefied natural gas, loaded onto ships, and transported to world markets.

The two fields together contain in place reserves of approximately 140 million tonnes (1-billion) barrels of oil and 550 billion cubic metres (20 trillion cubic feet) of natural gas.

**CHALLENGE**

Location - The platforms will be offshore Sakhalin Island which is located on the east coast of Russia, North of Japan in waters which are frozen except for two months in the summer.

Weather conditions - extremely harsh with temperatures dropping to -40,0 deg C and 1000 year "design level earthquake". During the most extreme winter conditions the platforms will be abandoned and left to "freeze" in.

The equipment is of very high quality, reliable and durable, the platform life time being 30 years. Special focus is on easy maintenance.

Equipment has been fully performance tested prior to being shipped to South Korea for installation on the platforms, prior to being delivered to Sakhalin Island.

Equipment engineering is performed together with AMEC Engineering in Croydon, London.

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

This contract is one of the largest ever received by the offshore department of Novenco.

**SOLUTION**

Novenco's scope of supply consists of design and manufacture of 38 very large air handling units built as containers in stainless steel to withstand the extreme seismic and environmental conditions. Air handling units air flow is up to 39 m<sup>3</sup>/s. Our deliveries also include steam humidification.

### PERFORMANCE TESTING

Performance testing of the units was carried out in 2004 at YORK Novenco's factory in Naestved, Denmark. The test went according to plan and the customer SEIC (Sakhalin Energy Investment Corporation) represented by AMEC Engineering and SEIC personnel were satisfied with the result.

### ONE OF THE AHU'S IN STAINLESS STEEL



### CENTRIFUGAL FANS WILL BE BUILT INTO THE AHU'S



### AHU'S UNDER TEST



### AHU'S UNDER TEST

