

G E O C E A N

REFERENCES



SAKHALIN 1 Phase 1

EPC2 – Pipeline & Export Terminal Project

SHALLOW WATER PIPE LAYING in SAKHALIN island, Russia - 2005

Company: EXXON NEFTEGAS Ltd.
Main Contractor: NIPPON STEEL Corporation
Consortium: VAN OORD ACZ and GEOCEAN SAS



THE PROJECT

The Exxon Mobil project was to install a 24” export pipeline from the field Sakhalin 1 on the East of the island to an export Terminal in De Kastrie on Russian main land. Nippon Steel has been awarded an EPC contract for the full offshore pipeline and has subcontracted the Tatar Strait Crossing between Sakhalin and Russian main land to a Consortium made of Van Oord Acz and Geoccean. Van Oord was in charge of pipe pulling and burying and Geoccean of the 20 km shallow water pipe laying.

WORLD FIRST OFFSHORE “HIGH STRAIN” PIPELINE WELDING

The line pipe was designed to sustain to up to a 4% global plastic bending strain during service (“high strain” service). GEOCEAN carried out successfully the world first offshore “high strain” pipeline welding with SERIMER DASA automatic welding equipment. At the end of the pipe laying operation in the Tatar Strait, the 28th August 2005, GEOCEAN welders have been called by NIPPON STEEL onboard their barge on the east side of the project.



SAKHALIN 1 Phase 1 Project

20 km Shallow Water Pipeline Installation

MASTERY OF THE MOBILISATION OF SHALLOW WATER PIPELAY BARGE



Arrival of a 280' flat deck barge
in GEOCEAN Batam yard:
20th March 2005



Departure of the lay spread to
Sakhaline: 8th May 2005

PIPE DATA

617.3 mm (24''), 15.63mm thickness
635 µm Fusion Bonded Epoxy (FBE)
Concrete coating 76mm density 2243 kg/m³

OFFSHORE CONSTRUCTION

Automatic welding up to 1 km/day
Automatic Ultrasonic Test
Field joint coating by Fusion Bonded Epoxy
Field joint foam filling



BAD WEATHER & SHALLOW WATER

Ice-free from June to early November
Regular gales 7 to 8 Beauforts
Some storms above 50 knots
Current stream up to 3.5 knots
Regular fog
Pipe laying in depth from -0.7 to -18m LAT

SAFETY

250 000 man hours
50 000 boat to boat transfert without incident
Congratulations from the Client



LOGISTIC

Isolated area. Coastal site 600 km away from
first international airport and facilities
Mobilisation of 200 men by plane in 2 days

MARINE SPREAD

280' pipe lay barge, 1.8m max draft
AHT 4000 HP
Two shallow water AHT 500HP and 400HP
Crew boat 80 passengers, 80cm draft
92m accommodation vessel, 250 MOB
Two fast water jet fibreglass boats



520, avenue de Jouques 13685 Aubagne Cedex - France

Tel: +33.4.42.18.02.18 - Fax: +33.4.42.18.02.20

e-mail: info@geocean.fr - Web site: www.geocean.fr

