

# Statoil Heidrun Nordflanken

Norway Blocks 6507/7 & 6507/8



## Landmark: Statoil's First Field That Can Handle Produced Water Without Environmentally Harmful Discharges

### Project Overview

Contract Award: 1998  
Sales: Kongsberg, Norway  
Fab. Trees: Dunfermline, U.K.  
Fab. Controls: Kongsberg, Norway  
Service Base: Bergen, Norway  
Host Type: TLP  
Contract Type: Frame Agreement

### Project Characteristics

No. Trees: 13  
Water Depth: 350 m (1,150 ft)  
Tree Type: Horizontal  
Tree Pressure: 10,000 psi  
Tree Bore Size: 7"x2"  
Hydrocarbon: Oil and Gas

### Project Ownership

Petoro 64%  
ConocoPhillips 18%  
Statoil 13%  
ENI 5%

## Scope of Work

- ▶ Thirteen (13) horizontal 7"x2" 10,000 psi subsea trees
- ▶ UWD-15 subsea wellheads
- ▶ All-metal sealing internal tree cap
- ▶ ROV interface/override facilities
- ▶ Diverless make-up of flowline and control umbilicals
- ▶ Multiplexed electro-hydraulic control system
- ▶ Diverless workover
- ▶ Four (4) 4-slot templates with manifolds
- ▶ 35 km (22 miles) of subsea control umbilical
- ▶ System integration, testing, installation assistance, service and maintenance

## Comments

Heidrun was discovered in 1985 by Conoco, which served as operator for the exploration and development phase. Statoil took over in 1995 as production operator. The north bank of Heidrun was brought onstream in August 2000, which helped maintain the plateau production for a further four (4) years until 2004.

Oil from the field is primarily shipped by shuttle tanker to Statoil's Mongstad crude oil terminal near Bergen for continued transport to customers. Gas from Heidrun is piped to Tjeldber-godden in mid-Norway and provides the feedstock for the Statoil methanol plant. From 2001, the field has also been tied to Åsgard Transport. Heidrun gas is piped through this trunkline to Kårstø, north of Stavanger and on to Dornum in Germany a total distance of roughly 1,400 km (870 miles).

Heidrun has become the first Statoil field that can handle all produced water without any environmentally harmful discharges. The field partners have invested in a plant for the injection water. Any oil or chemical residues the outflow contains are injected back into the reservoir. Under normal operations, there are neither harmful discharges into the water nor additional emissions into the air. The injected water serves as pressure support to improve oil recovery.



Worldwide Headquarters:  
FMC Technologies  
1803 Gears Road  
Houston, TX 77067 USA  
Phone: +1 (281) 591 4000  
Fax: +1 (281) 591 4291

Regional Sales Office:  
FMC Technologies  
Kirkegårdsveien 45  
NO-3601 Kongsberg, Norway  
Phone: +47 3228 6700  
Fax: +47 3228 6750

[www.fmctechnologies.com](http://www.fmctechnologies.com)

