

# OIL AND GAS FIELDS IN NORWAY

## INDUSTRIAL HERITAGE PLAN



NORSK OLJEMUSEUM

# GJØA, VEGA AND VEGA SOUTH

## Gjøa

Proven in 1989, this oil and gas field lies in 360 metres of water west of Florø and north of Troll. It was developed by Statoil, which GDF Suez E&P Norge taking over as operator when production started. Logistics functions, the supply base and the heliport for Gjøa are located at Florø in Sogn og Fjordane county, with the operations organisation in Stavanger.

### Reservoir and recovery strategy

The reservoir contains gas over a relatively thin oil zone in middle and late Jurassic sandstones. Production is based on natural pressure reduction.

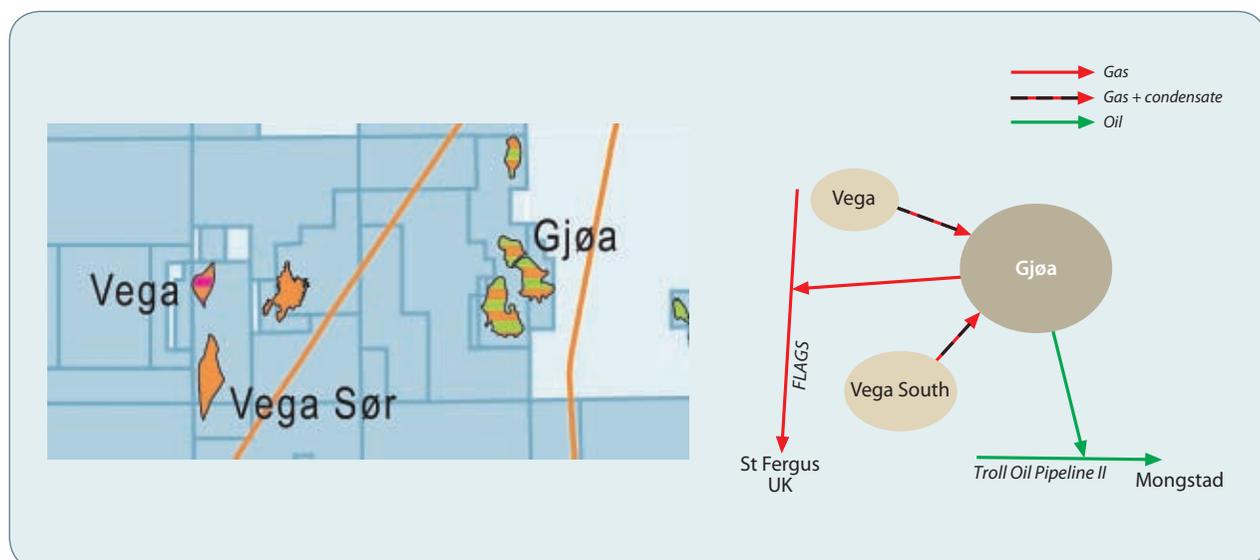
### Transport

Stabilised oil is piped through a new 55-kilometre line tied into Troll Oil Pipeline II for onward transport to Mongstad. The gas is exported to St Fergus via a new 130-kilometre pipeline tied into Britain's Flags gas gathering system. The platform is powered directly from shore.



### Development solution

Five subsea templates are being tied back to a semi-submersible production and processing platform. Four wells for gas and eight-10 for oil are planned.



**Gjøa**

Blocks	35/9 and 36/7	Development operator	Statoil
Production licence	153		
Awarded	1988	Production operator	GDF Suez E&P Norge
Discovery year	1989		
Approved for development	14 Jun 2007		
On stream	07 Nov 2010		
		<b>Licensees</b>	
Total recoverable reserves	70 mill bbl oil	GDF Suez E&P	30%
	32.6 bn scm gas	Petoro	30%
	5.6 mill tonnes NGL	Statoil	20%
		Norske Shell	12%
		RWE Dea	8%

## Vega

This gas and condensate field lies in about 370 metres of water west of Gjøa and north of Troll. The discovery embraces two separate gas/condensate deposits proven in 1981 and 1982. Statoil is the operator.

**Reservoir**

Both reservoirs belong to the middle Jurassic Brent group and feature high pressure, high temperature and relatively low permeability. The field is estimated to contain 9.4 billion scm of gas, 1.7 million scm of condensate, and 500 000 tonnes of NGL.

**Development solution**

Vega was developed with two subsea templates tied back to the processing platform on Gjøa. Gas is piped from there via Britain's Flags system to the UK, with condensate carried by ship for processing at Mongstad. As on Gjøa, Mongstad also supplies power for the offshore installations. The development of Gjøa and Vega called for a new 17-inch pipeline running for 55 kilometres to a tie-in with Troll Oil Pipeline II, which goes to Mongstad.



The Gjøa platform 2011. Photo: Jan Inge Haga

## Vega South

This gas and condensate field lies in roughly 370 metres of water and was proven in 1987.

### Reservoir

Vega South is a gas/condensate discovery with an oil zone in the upper Brent. It is estimated to contain 7.4 million billion scm of gas, 2.4 million scm of condensate and 400 000 tonnes of NGL.

### Development solution

The gas/condensate field was developed with a sub-sea template tied back to Vega and the Gjøa platform. Development of the oil zone will be assessed in connection with a discovery in 35/11-13, which lies to the east of Vega South.

### Vega og Vega South

The PDO was approved by the Storting in June 2007. Production started in December 2010 and production is expected to last for an estimated 15 years. The maximum design life of the subsea installations is 20 years.

#### Licensees on the Vega field

	PL 248 Vega	PL 090 C Vega South
Statoil	60 %	45 %
Petoro	40 %	
Bayerngas Norge		25 %
Idemitsu Petroleum Norge		15 %
Gaz de France Norge		15 %