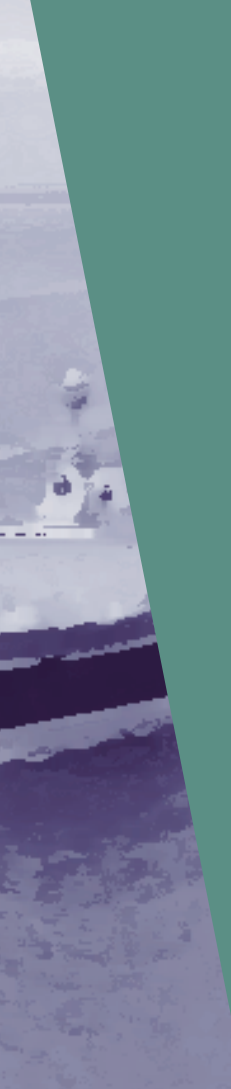


13 Fields and projects under development

(Approved developments regarded as an upgrade to existing fields are covered in chapter 12, even if the project has required separate approval of a plan for development and operation.)

Fram	131
Grane	131
Kristin (Halten Bank West)	132
Kvitebjørn	132
Mikkel	133
Skirne (incl Byggve)	133
Snøhvit (incl Albatross and Askeladd)	134



Fram

Block and production licence	Block 35/11 - production licence 090. Awarded 1984.	
Progress	Government approval: March 2001 Planned production start-up: October 2003	
Operator	Norsk Hydro Produksjon a.s	
Licensees	Norsk Hydro Produksjon a.s	25%
	Mobil Development Norway AS	25%
	Statoil ASA	20%
	Gaz de France Norge AS	15%
	Idemitsu Petroleum Norge AS	15%
Resources	Oil: 16.1 mill scm Gas: 3.7 bn scm NGL: 0.1 mill tonnes	
Investment	Total investment is likely to be NOK 7.4 bn (2003 value)	

Fram lies in the northern North Sea, about 22 km north of Troll C. This development embraces a reservoir in the Fram/Gjøa area and involves two subsea templates tied back to Troll C, where the wellstream will be processed and oil sent to Mongstad through Troll Oil Pipeline II. Associated gas will initially be injected back into the reservoir, and later exported via Troll A to Kollsnes. In the production phase, Fram operations will be integrated with Troll C, which is also operated by Norsk Hydro.

Grane

Blocks and production licences	Block 25/11 - production licence 001. Awarded 1965. Block 25/11 - production licence 169 B1. Awarded 1991, carve-out 2000. Block 25/11 - production licence 169 B2. Awarded 1991, carve-out 2000.	
Progress	Government approval: June 2000 Planned production start-up: 4th quarter 2003	
Operator	Norsk Hydro Produksjon a.s	
Licensees	Norsk Hydro Produksjon a.s	38.0%
	Petoro AS ¹	30.0%
	Esso Expl & Prod Norway AS	25.6%
	Norske Conoco A/S	6.4%
Recoverable reserves	Oil: 120 mill scm	
Investment	Total investment is likely to be NOK 14.4 bn (2003 value)	

¹ Petoro AS serves as the licensee for the SDFI.

Proven in 1991, Grane lies in 127 metres of water east of Balder in the North Sea. Plans call for production to start in the autumn of 2003 and reach a plateau oil output of just over 200 000 b/d in 2005-09.

Oil in the field is heavy and complicated to recover. Development is based on an integrated production, drilling and quarters platform, with oil due to be transported by the Grane Oil Pipeline to the Sture terminal for storage, metering and export.

Natural gas will be used as the drive mechanism for oil production. Since the field contains very little associated gas, injection volumes must be acquired elsewhere and a pipeline will accordingly be laid from Grane to Heimdal.

Kristin (Halten Bank West)

Blocks and production licences	Block 6506/11 - production licence 134B. Awarded 1987, carve-out 2000. Block 6406/2 - production licence 199. Awarded 1993. Blocks 6406/1 and 6406/5 - production licence 257. Awarded 2000.	
Progress	Government approval: December 2001 Planned production start-up: October 2005	
Operator	Statoil ASA	
Licensees	Statoil ASA	46.6 %
	Petoro AS ¹	18.9 %
	Norsk Hydro Produksjon a.s	12.0 %
	Mobil Development Norway A/S	10.5 %
	Norsk Agip AS	9.0 %
	TotalFinaElf Exploration Norge AS	3.0 %
Resources (Kristin)	Gas: 34.9 bn scm NGL: 8.5 mill tonnes Condensate: 34.6 mill scm	
Investment (Kristin)	Total investment is likely to be NOK 17.1 bn (2003 value)	

¹ Petoro AS serves as the licensee for the SDFI.

Halten Bank West embraces the production licences which contain Kristin and the Lavrans, Erlend, Morvin and Ragnfrid discoveries. Found in 1997, Kristin lies about 20 km south-west of Åsgard's Smørbukk deposit. The plan for development and operation was approved in December 2001.

Development of this field is based on a subsea production facility tied back to a semi-submersible production platform. Plans call for the rich gas to be piped through the Åsgard Transport trunkline to Kårstø for separation of the NGLs, while condensate will be piped to Åsgard C for storage and export by shuttle tanker.

Kvitebjørn

Block and production licence	Block 34/11 - production licence 193. Awarded 1993.	
Progress	Government approval: June 2000 Planned production start-up: October 2004	
Operator	Statoil ASA	
Licensees	Statoil ASA	50%
	Petoro AS ¹	30%
	Norsk Hydro Produksjon a.s	15%
	TotalFinaElf Exploration Norge AS	5%
Recoverable reserves	Gas: 51.8 bn scm NGL: 0.5 mill tonnes Condensate: 20.4 mill scm	
Investment	Total investment in field and pipelines is likely to be NOK 9.5 bn (2003 value)	

¹ Petoro AS serves as the licensee for the SDFI.

Kvitebjørn was proven in 1994 and lies south-east of Gullfaks. It is being developed with a fixed production platform carrying drilling package, processing facilities and quarters module. The top-side is being fabricated at ABB in Haugesund, the quarters module by Leirvik Sveis, the drilling package by Heerema Tønsberg and the jacket by Aker Verdal. The platform is due to be assembled offshore in the spring of 2003.

All production wells will be drilled from the platform. Four of 11 gas producers are due to be ready to begin production in October 2004. The facilities are dimensioned for a daily output of 20.7 mill scm of rich gas and 10 000 scm of condensate. Rich gas will be piped through a new line to Kollsnes for further processing and export. Stabilised condensate will be transported to the crude oil terminal at Mongstad in the new Kvitebjørn Oil Pipeline and a tie-in to Troll Oil Pipeline II.

Mikkel

Blocks and production licences	Block 6407/6 - production licence 092. Awarded 1984. Block 6407/5 - production licence 121. Awarded 1986.
Progress	Government approval: September 2001 Planned production start-up: October 2003
Operator	Statoil ASA
Licensees	Statoil ASA 41.62% Mobil Development Norway A/S 33.48% Norsk Hydro Produksjon a.s 10.00% Norsk Agip AS 7.90% Fortum Petroleum AS 7.00%
Resources	Gas: 19.8 bn scm NGL: 4.2 mill tonnes Condensate: 5.5 mill scm
Investment	Total investment is likely to be NOK 2.5 bn (2003 value)

Proven in 1987, Mikkel lies in 220 metres of water on Halten Bank East, about 40 km south of Åsgard's Midgard deposit and 40 km north of Draugen. The plan for development and operation was approved in September 2001.

The field is being developed with two subsea templates housing a total of four production wells tied back via Midgard to Åsgard B. Condensate will be separated on the platform, with the rich gas being piped through Åsgard Transport to Kårstø for separation of the NGLs. After being stabilised, condensate will be stored and shipped away together with Åsgard's own production.

Skirne (incl Byggve)

Block and production licence	Block 25/5 - production licence 102. Awarded 1985.
Progress	Government approval: 5 July 2002 Planned production start-up: March 2004
Operator	TotalFinaElf Exploration Norge AS
Licensees	TotalFinaElf Exploration Norge AS 40% Petro AS ¹ 30% Marathon Petroleum Norge AS 20% Norsk Hydro Produksjon a.s 10%
Resources	Oil: 1.7 mill scm Gas: 6.7 bn scm
Investment	Total investment is likely to be NOK 2.1 bn (2003 value)

¹ Petro AS serves as the licensee for the SDFI.

Skirne, proven in 1990, and Byggve, discovered the following year, lie about 20 km east of Heimdal. Their development comprises a wellhead platform on each discovery and a joint 24-km pipeline to Heimdal.

Snøhvit (incl Albatross and Askeladd)

Blocks and production licences	Blocks 7120/5 and 7121/5 - production licence 110. Awarded 1985. Block 7120/6 - production licence 097. Awarded 1984. Block 7120/7 - production licence 077. Awarded 1982. Block 7120/8 - production licence 064. Awarded 1981. Block 7120/9 - production licence 078. Awarded 1982. Block 7121/4 - production licence 099. Awarded 1984. Block 7121/7 - production licence 100. Awarded 1984.																
Progress	Government approval: 7 March 2002. Planned production start-up: 2006																
Operator	Statoil ASA																
Licensees	<table> <tr> <td>Petoro AS¹</td> <td>30.00%</td> </tr> <tr> <td>Statoil ASA</td> <td>22.29%</td> </tr> <tr> <td>TotalFinaElf Exploration Norge AS</td> <td>18.40%</td> </tr> <tr> <td>Gaz de France Norge AS</td> <td>12.00%</td> </tr> <tr> <td>Norsk Hydro Produksjon a.s</td> <td>10.00%</td> </tr> <tr> <td>Amerada Hess Norge AS</td> <td>3.26%</td> </tr> <tr> <td>RWE Dea Norge AS</td> <td>2.81%</td> </tr> <tr> <td>Svenska Petroleum Exploration AS</td> <td>1.24%</td> </tr> </table>	Petoro AS ¹	30.00%	Statoil ASA	22.29%	TotalFinaElf Exploration Norge AS	18.40%	Gaz de France Norge AS	12.00%	Norsk Hydro Produksjon a.s	10.00%	Amerada Hess Norge AS	3.26%	RWE Dea Norge AS	2.81%	Svenska Petroleum Exploration AS	1.24%
Petoro AS ¹	30.00%																
Statoil ASA	22.29%																
TotalFinaElf Exploration Norge AS	18.40%																
Gaz de France Norge AS	12.00%																
Norsk Hydro Produksjon a.s	10.00%																
Amerada Hess Norge AS	3.26%																
RWE Dea Norge AS	2.81%																
Svenska Petroleum Exploration AS	1.24%																
Recoverable reserves	Gas: 151.0 bn scm NGL: 5.1 mill tonnes Condensate: 17.9 mill scm																
Investment	Total investment, excl the gas liquefaction plant, is likely to be NOK 24.4 bn (2003 value)																

¹ Petoro AS serves as the licensee for the SDFI.

Discovered in 1984, Snøhvit lies about 140 km north-west of Hammerfest and comprises the Askeladd and Albatross finds as well as the main discovery.

The operator's development solution is based on subsea installations tied back to Melkøya outside Hammerfest by a pipeline for gas and condensate. The gas will be processed on land and transported to market in liquefied natural gas (LNG) carriers. Investment in the gas liquefaction plant is expected to total NOK 17 bn (2003 value). Gas production is due to start in 2006.

