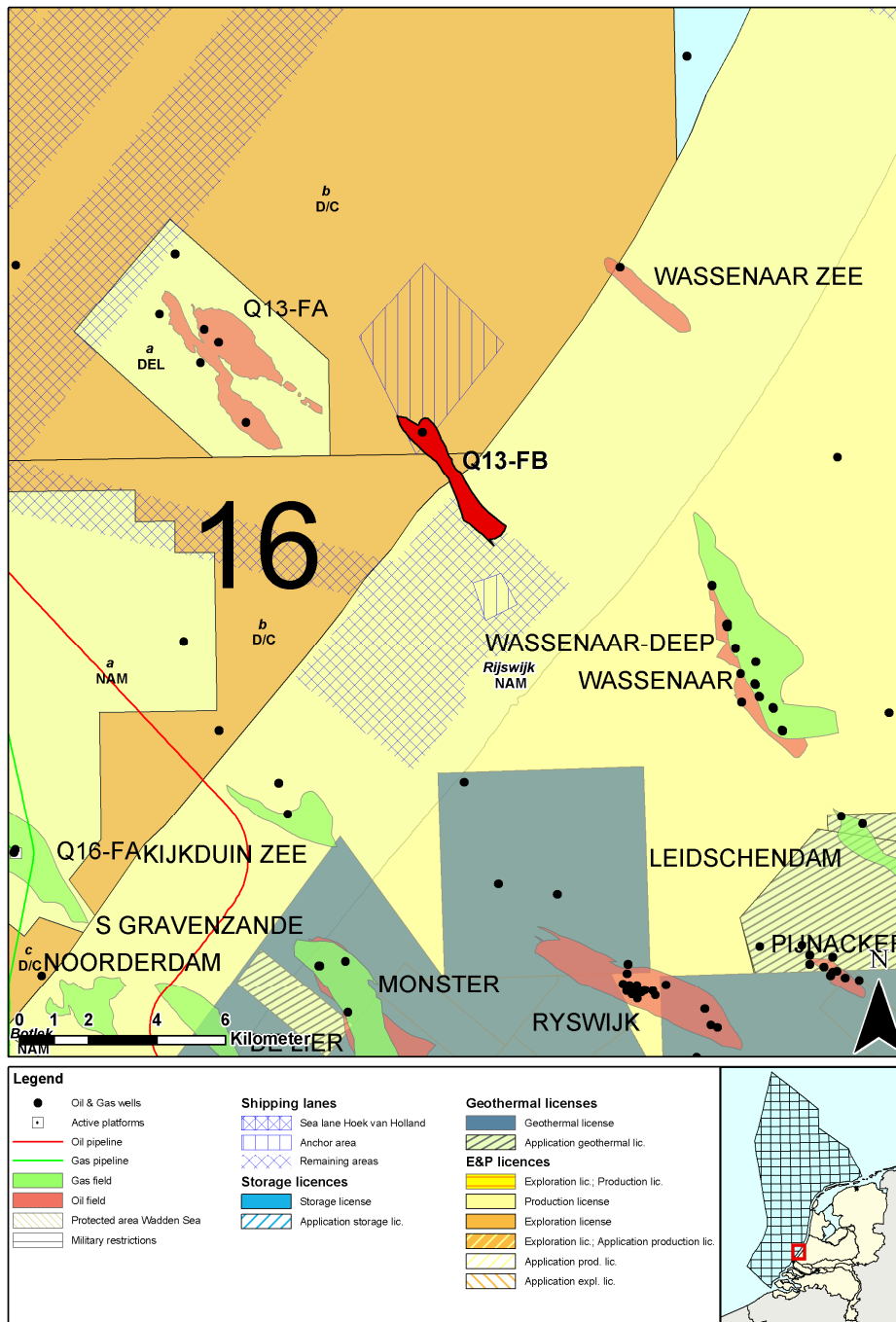




Fact sheet Q13-FB field

Stranded fields - Q4 2009



Location map of the Q13-FB oil field

General information

The Q13-FB oil field was discovered in 1985 with exploration well Q13-04. Oil was tested in the Vlieland Sandstone Formation (KNNS) and in the Delfland Subgroup (SLDNR and SLDNA). The field has not been developed. The field is located over three licenses: Q13b and Q16d of Delta Hydrocarbons and the Rijswijk production license.

The Q13-FB field sits on top of a NW-SE oriented horst block that dips to the west. This block is bounded by faults on its NE and SE sides. A combination of a fault and a 'dip-closure' makes up the SW boundary. The NW boundary is a 'dip-closure'. The field is subdivided into two compartments separated by a NW-SE oriented fault. Exploration well Q13-04 was drilled in the lowest compartment near to the fault. The well trajectory crosses the fault in the Delfland Subgroup. The spill-point of the Q13-FB field is located at the SE side of the field at depth of 1520 m. The surface area of the field is approximately 2.4 km².

Sequence of events

Date	Event
03-01-1955	Production license Rijswijk granted (NAM)
20-03-1957	Production license area expanded with ca 1900 km ² (NAM)
19-03-1968	Amoco exploration license Q13
19-03-1978	Amoco exploration license Q13b relinquished, Q10a still of Amoco
07-06-1979	Production license area expanded with ca 25 km ² (NAM)
26-11-1980	Amoco exploration license Q13b
05-04-1984	Exploration license application Q13a by NAM
19-02-1985	Award exploration license Q13a to NAM
15-04-1985	Exploration license Q13a to NAM effective
11-08-1985	Spud date well Q13-04 (NAM)
18-12-1985	Completion date well Q13-04
15-04-1991	NAM exploration license Q13a relinquished
16-01-1994	Wintershall exploration license Q13b
23-01-1995	Production license application Q13a by NAM
10-02-1998	Withdrawal of production license application Q13a and subsequent expiration of exploration license Q13a
19-10-2000	Production license application Q13a by Vanco Netherlands
2003	Production license application Q13a withdrawn by Gaz de France
23-12-2008	Island Netherlands exploration license Q13b-deep
29-12-2008	New Operator: Delta Hydrocarbons

Reservoir data

Below are summaries of a log evaluation per reservoir by NITG (1997); data represent expected values.

Geological unit RGD & NOGEPa (1993)	GRV 10 ⁶ m ³	N/G	Av. Porosity%	So	FVF	RF
KNNS	15.4	0.273	16.3	0.520	0.81	0.33
SLDNR	13.1	0.409	13.7	0.573	0.81	0.33
SLDNA	5.2	0.273	13.2	0.518	0.81	0.33

Contacts

Top structure m TVD/MSL	OWC m TVD/MSL	Spillpoint m TVD/MSL
Approx. 1420	1524	1520

Hydrocarbon specifications

Reservoir	Rel. density	API °
KNNS	0.891	27

Volumes

STOIP in 10 ⁶ m ³ (st)		Reserves in 10 ⁶ m ³ (st)			
P90 (1P)	Exp.	P10 (3P)	P90 (1P)	Exp.	P10 (3P)
0.59	0.72	0.86	0.17	0.22	0.26

Productivity

Below are results of drill stem tests in exploration well Q13-04.

DST	Reservoir	Depth interval m TVD ss	Production rates	K mD	Skin	P _{ini} bara	PI m ³ /bar/d
#1	SLDNA	1966-1976	oil: 84 m ³ /d			≥ 176	3.8
#2	SLDNR	1484-1513	oil: 152 m ³ /d gas: 8600 m ³ /d (st)	28	-2	148	1.9
#3	KNNS	1463-1465	oil: 90 m ³ /d gas: 3400 m ³ /d (st)	136	-0.8	145	1.2

Well status

Q13-04, Plugged and abandoned

Infrastructure

The oil pipeline P15c-Hoek van Holland lies approximately eleven kilometers to the southwest. The closest platform is P18-A (gas facility).

References

RGD & NOGPA 1993, Stratigraphic nomenclature of the Netherlands, Mededelingen Rijks Geologische Dienst, Nr. 50

SodM 1985, Proces-Verbaal nrs. 014133 and 014151. (Official Report of the State Supervision of the Mines on the proven occurrence of gas/oil in a well)

TNO-NITG 1997, Advies winningsvergunning Q13a, TNO-rapport NITG 97-41. (Advice production license application Q13a. *Screened version on open file.*)

NAM 1985: Composite well log, Q13-04. *On open file*

For more information stranded Oil&Gas fields in the Netherlands:

<http://www.nlog.nl/nl/reserves/reserves/stranded.html>

For released Well data and Seismic data contact DINOloket:

<http://www.dinoloket.nl>

For geological maps of the deep subsurface of the Netherlands:

http://www.nlog.nl/nl/pubs/maps/geologic_maps/NCP1.html

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