

# Stranded fields in the Netherlands

## Undevelopped resources

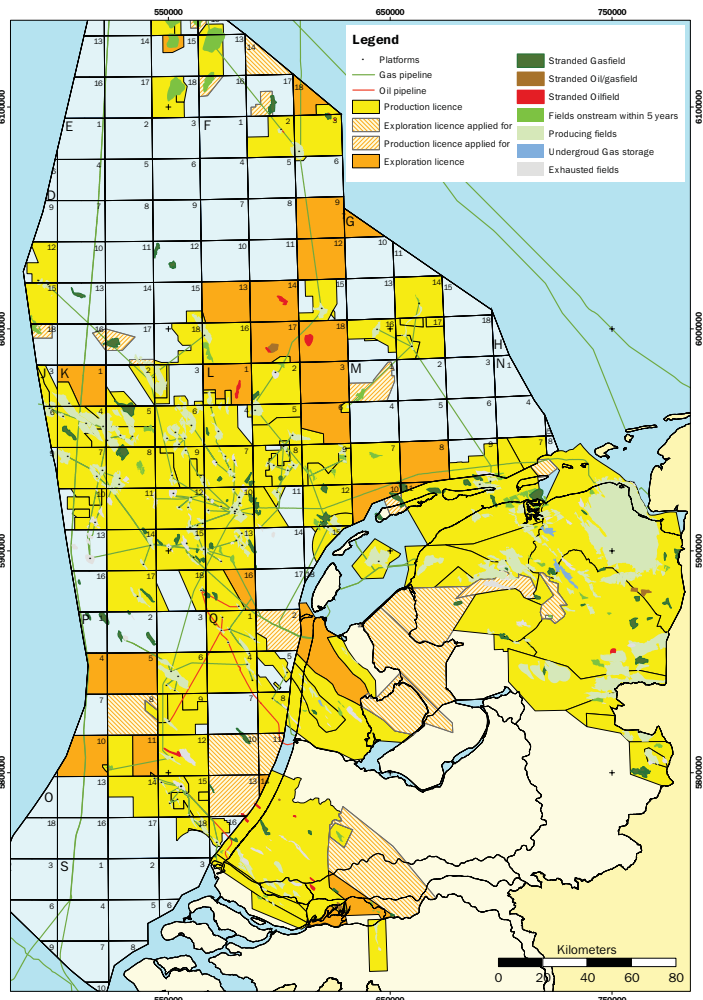
Stranded fields are currently defined as: “discovered gas accumulation for which no production plans are known to the government of the Netherlands”. Presently some 103 field are in this category; they are listed in the publication Oil and Gas in the Netherlands, Exploration and Production 2005 and prognosis 2006-2015. Total GIIP may add up to 130 bcm. Stranded fields include fields: with tight reservoir, poor gas quality, low GIIP and/or reserves and fields in restricted areas. A cautious estimate of the reserves of this stranded fields class is some 30 bcm.

Status of accumulations	Onshore Territory	Continental Shelf	Total
I. Developed			
a. producing	82	106	188
b. gas-storage facility	3	0	3
II. Undevelopped			
a. start of production 2005-2010	19	20	39
b. others	43	60	103
III. Production ceased	25	34	59

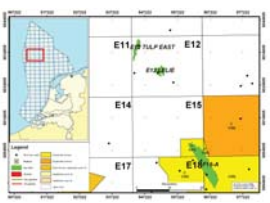
Number of proven natural gas accumulations sorted by status as at 1 Januari 2006

Information on stranded fields can be found on the [www.NLOG.nl](http://www.NLOG.nl) website:

- 1) A list of stranded fields with basic attributes.
- 2) Fact sheets of a selection of stranded fields.



**Fact sheet E12-Tulp East field**



*Location map of the E12-TE field*

**General information**  
 The E12-Tulp East gas field (E12-TE) was discovered in 1991 with exploration well E12-03. The gas is contained in sandstone of the Millstone Grit Formation (DCGM). The field has not been developed and currently lies in open areas.

Data presented in this fact sheet are partly taken from an evaluation study on the E12-TE gas field. This study was completed by TNS-NITG on behalf of the MEA in 1998.

The E12-TE field is defined by a N-S elongated structure, dipping to the east. It is confined by a fault on its western side, and by a dip closure on the other sides. The gas bearing rock is of Carboniferous age, and belongs to the Millstone Grit Formation (DCGM). The reservoir rock consists of a heterogeneous sequence of fine to medium fine grained sandstone beds and thick clay bodies. The clay bodies constitute barriers against vertical flow.

fact\_sheet\_E12-TE.doc November 2006

**Sequence of events**

Date	Event
1991	Discovery of the field
1991	Exploration well E12-03
1991	Exploration well E12-04
1991	Exploration well E12-05
1991	Exploration well E12-06
1991	Exploration well E12-07
1991	Exploration well E12-08
1991	Exploration well E12-09
1991	Exploration well E12-10
1991	Exploration well E12-11
1991	Exploration well E12-12
1991	Exploration well E12-13
1991	Exploration well E12-14
1991	Exploration well E12-15
1991	Exploration well E12-16
1991	Exploration well E12-17
1991	Exploration well E12-18
1991	Exploration well E12-19
1991	Exploration well E12-20
1991	Exploration well E12-21
1991	Exploration well E12-22
1991	Exploration well E12-23
1991	Exploration well E12-24
1991	Exploration well E12-25
1991	Exploration well E12-26
1991	Exploration well E12-27
1991	Exploration well E12-28
1991	Exploration well E12-29
1991	Exploration well E12-30
1991	Exploration well E12-31
1991	Exploration well E12-32
1991	Exploration well E12-33
1991	Exploration well E12-34
1991	Exploration well E12-35
1991	Exploration well E12-36
1991	Exploration well E12-37
1991	Exploration well E12-38
1991	Exploration well E12-39
1991	Exploration well E12-40
1991	Exploration well E12-41
1991	Exploration well E12-42
1991	Exploration well E12-43
1991	Exploration well E12-44
1991	Exploration well E12-45
1991	Exploration well E12-46
1991	Exploration well E12-47
1991	Exploration well E12-48
1991	Exploration well E12-49
1991	Exploration well E12-50
1991	Exploration well E12-51
1991	Exploration well E12-52
1991	Exploration well E12-53
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1991	Exploration well E12-60
1991	Exploration well E12-61
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1991	Exploration well E12-64
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1991	Exploration well E12-66
1991	Exploration well E12-67
1991	Exploration well E12-68
1991	Exploration well E12-69
1991	Exploration well E12-70
1991	Exploration well E12-71
1991	Exploration well E12-72
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1991	Exploration well E12-80
1991	Exploration well E12-81
1991	Exploration well E12-82
1991	Exploration well E12-83
1991	Exploration well E12-84
1991	Exploration well E12-85
1991	Exploration well E12-86
1991	Exploration well E12-87
1991	Exploration well E12-88
1991	Exploration well E12-89
1991	Exploration well E12-90
1991	Exploration well E12-91
1991	Exploration well E12-92
1991	Exploration well E12-93
1991	Exploration well E12-94
1991	Exploration well E12-95
1991	Exploration well E12-96
1991	Exploration well E12-97
1991	Exploration well E12-98
1991	Exploration well E12-99
1991	Exploration well E12-100

**Recovery data**

Parameter	Unit	Value
Original gas in place	10 <sup>9</sup> m <sup>3</sup>	1000
Gas produced	10 <sup>9</sup> m <sup>3</sup>	100
Gas remaining	10 <sup>9</sup> m <sup>3</sup>	900
Gas recovery	%	10

**Reservoir data**

Parameter	Value
Porosity	0.15
Permeability	0.1 Darcy
Reservoir thickness	100 m
Reservoir pressure	20 MPa

**Production**

Parameter	Value
Production rate	1000 m <sup>3</sup> /d
Production volume	1000000 m <sup>3</sup>

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**Public Reference**  
 REEF & NOKEPA 1995. Stratigraphic nomenclature of the Netherlands. Mededelingen Rijks Geologische Dienst, Nr. 50  
 Sothé 1991. Process Verhaal nr. 419. Official Report of the State Supervision of the Mines on the proven occurrence of gas (in a well)  
 TNS-NITG 1998. Advies Waarschuwingscommissie (E12). Report NITG 98-149-C (Advice production licence application E12). Scrivend version on open file.  
 E12-03. Composite log of well. On open file

For more information stranded O&G/Gas fields in the Netherlands and other E&P issues and information: <http://www.nlog.nl>

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fact\_sheet\_E12-TE.doc

Field code	E12-TE
Field name	E12 TULP EAST
Hydrocarbon type	G
Reservoir stratigraphy	DC
Discovery year	1991
Discovery well	E12-03
UWI	3035
Well status	DC
X	544691,3712
Y	6035816,369
Area (km <sup>2</sup> )	5,906820516
Onshore/offshore	Offshore
License or block name	E12
Operator	-
License-status	Open area
Range mid value HCIP	1.17 bcm
Range mid value reserves	0.68 bcm
CH <sub>4</sub>	63.30%
CO <sub>2</sub>	2.66%
N <sub>2</sub>	32.47%
GHV	26.2151 MJ/m <sup>3</sup>
Test	y
Q well production at s.c. m <sup>3</sup> /d	-
Drawdown bar	-
Q50 calculated in m <sup>3</sup> /d at 50 bar drawdown	100000
Reservoir pressure in bar abs	404
Test data	Q50: 100000 m <sup>3</sup> /d
Qualitative indication productivity (various sources)	-
REMARKS	-
Factsheet	y

Example of a stranded field fact sheet

For information on Exploration and Production issues and E&P data see the Netherlands Oil and Gas Portal [www.nlog.nl](http://www.nlog.nl)

Example of attributes in the stranded fields list