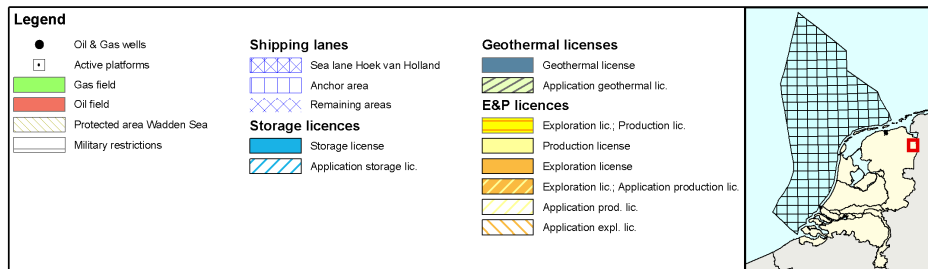
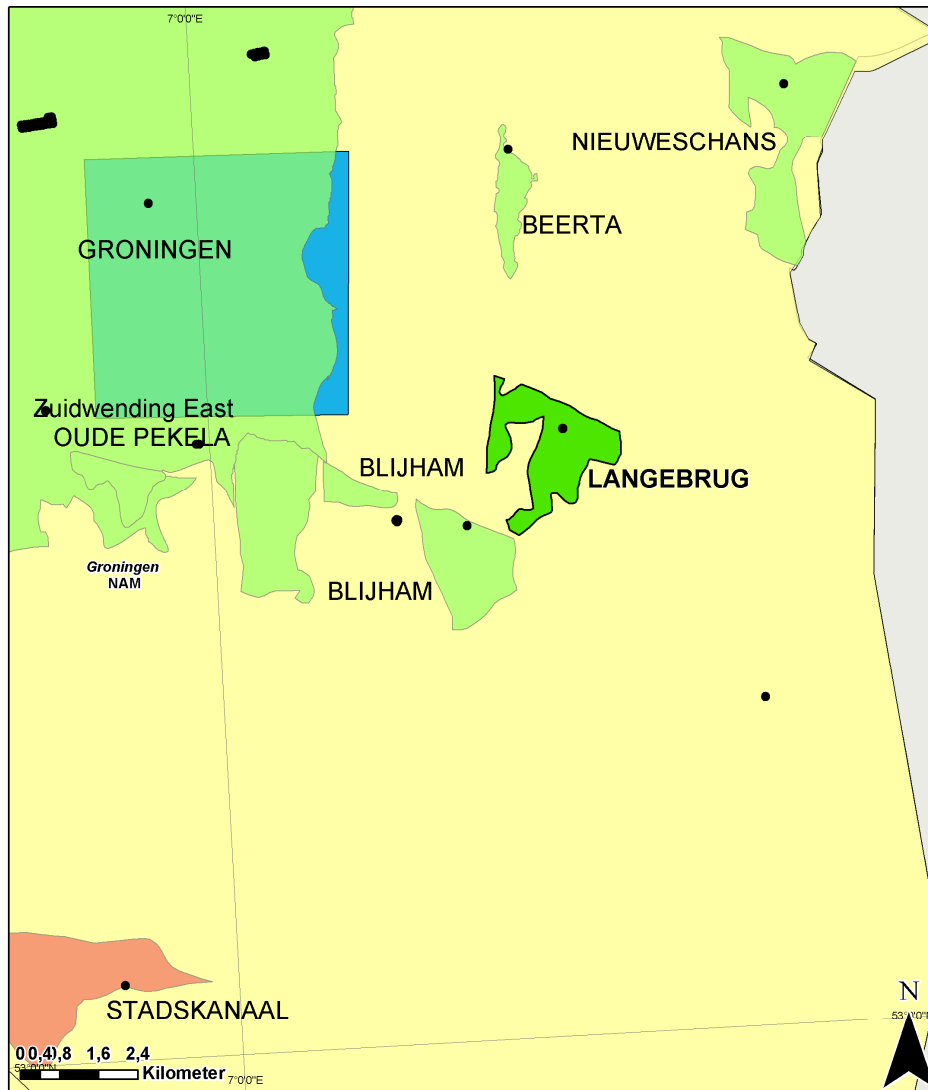




# Fact sheet Langebrug

## Stranded fields - Q4 2009



Location map of the Langebrug gas field

### ***General information***

The Langebrug gas field was discovered in 1998 by NAM by well Langebrug-01 (LNB-01). The gas field is situated to the East of the Groningen field, approximately 6 kilometer of the Dutch border. The Langebrug field lies in the Lower Saxony Basin, close to the Groningen High in the North. The field is not producing and situated in the Groningen concession of NAM. The field is considered uneconomic due to the poor reservoir quality.

The field contains gas in the Slochteren Formation. The LNB-01 well is drilled in the Rotliegend prospect Langenbrug. The field is tested at several reservoir levels in de Slochteren Formation. Complete results of RFT's are available on the composite well log.

For general information on the regional geology of the Langebrug field area reference is made to the Geological atlas of the Netherlands, map sheet III Rottumeroog-Groningen and VI Veendam-Hoogeveen.

### ***Sequence of events***

Date	Event
30-05-1963	NAM production license Groningen
28-10-1998	Spud date Langebrug-01
21-12-1998	RFT's 3881.0-3901.0 m ah
21-12-1998	RFT sample 3855.5 m ah (ROSL Rotliegend)
11-12-1998	TD reached 3942.0 m ah

### ***Plug data***

Depth m	Porosity %	Hor. Permeability	Density g/cm <sup>3</sup>
3824.30	4.20		2.752
3827.90	4.70	0.03	2.708
3838.55	5.80	0.11	2.715
3846.10	12.70	0.39	2.678
3846.40	11.50	1.36	2.689
3848.35	17.90	1.69	2.674
3849.15	12.30	1.68	2.698
3850.30	17.50	3.10	2.679
3851.85	15.80	0.37	2.688
3853.50	14.00	1.32	2.692
3855.90	19.10	0.74	2.679
3858.55	17.50	0.62	2.682
3862.45	14.50	0.35	2.684
3865.80	13.30	0.64	2.684
3867.80	11.00	0.69	2.686

### ***Reservoir data***

Geological unit RGD & NOGEP (1993)	Top m ah	Base m ah	Net m ah	N/G %	Porosity %
Slochteren Formation (ROSL)	3850	3925		85	13

### ***Hydrocarbon specifications***

<b>Reservoir</b>	<b>GHV MJ/m<sup>3</sup></b>
Upper Rotliegend Formation (ROSL)	35.17

### ***Volumes***

<b>Reservoir</b>	<b>GIIP 10<sup>9</sup> m<sup>3</sup></b>	<b>Reserves 10<sup>9</sup> m<sup>3</sup></b>		
		<b>Proven</b>	<b>Expected</b>	<b>Possible</b>
Rotliegend Group (RO)	1-2			

### ***Productivity***

<b>Test depth</b>	<b>Reservoir pressure bar</b>
RFT 3878.0 m	463.2
RFT 3855.0 m	462.58
RFT 3855.5 m	462.72
RFT 3901.5 m	468.82
RFT 3881.0 m	463.88
RFT 3855.0 m	462.12
RFT 3878.5 m	462.21
RFT 3881.5 m	465.55

<b>Test depth</b>	<b>Q well production at s.c. m<sup>3</sup>/d</b>
Slochteren Sandstone 3881.0-3901.0 m-RT	50000

### ***Well status***

The well LNB-01 is suspended since July 2005.

### ***Infrastructure***

The nearest production facility is located approximately six kilometers to the west.

### ***Public References***

RGD 1995. Geological Atlas of the Deep subsurface of the Netherlands. Map sheet III: Rotumeroog-Groningen, Haarlem.

TNO-NITG 2000. Geological Atlas of the Deep subsurface of the Netherlands. Map sheet VI: Veendam-Hoogeveen. Utrecht.

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

NAM 1998: Composite well log. *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](http://www.nlog.nl/nl/pubs/maps/geologic_maps/NCP1.html)

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