



# **ANNUAL STATEMENT OF RESERVES 2007 DNO INTERNATIONAL ASA**

Oslo, 18 April 2008

Helge Eide  
*President and Managing Director*

## ANNUAL STATEMENT OF RESERVES 2007 DNO INTERNATIONAL ASA

### Table of contents:

<i>1 Introduction and summary</i> .....	3
1.1 Highlights 2007 .....	3
<i>2 MD&amp;A</i> .....	4
2.1 Disclaimer.....	4
2.2 Assumptions and methodology.....	4
2.3 Ownership .....	5
<i>3 Reserves per field</i> .....	7
3.1 Yemen.....	7
3.2 Kurdistan region of Iraq .....	8
3.3 Northern Europe .....	9
<i>4 Contingent Resources</i> .....	9
<i>5 Annex</i> .....	11
Table 1 Remaining reserves per field as of 31.12.2007 working interest* .....	11
Table 2 Remaining reserves per field as of 31.12.2007 net entitlement .....	12
Table 3 Reserve development (working interest) .....	13

## **1 Introduction and summary**

This report has been prepared in accordance with the disclosure requirements of the Oslo Stock Exchange. The report provides the status of hydrocarbon reserves and contingent resources as at 31.12.2007 for DNO International ASA s ( DNO ) license portfolio.

As outlined in table 1, the reported 2P/P50 reserves for DNO as of 31.12.2007 are 151,8 million barrels of oil equivalents, with addition of 2,9 million as associated reserves, totalling 154,7 million barrels of oil equivalents.

The total P50 reserves and contingent resources, corresponding to class 1-5 (Norwegian Petroleum Directorate classification) are 153,3 million barrels, on a working interest basis. In addition comes DNO s share of reserves and contingent resources in Det norske oljeselskap ASA which is estimated to 31,4 million barrels of oil equivalents (36,92% share), hence DNO s total reserves and contingent resources are estimated to 184,7 million barrels of oil equivalents.

### **1.1 Highlights 2007**

A key value driver for DNO is to deliver profitable long-term growth through efficient investment programs and competitive reserve economics. In line with DNO s smart exploration strategy, cash flow generated from high margin production is reinvested in exploration aimed at increasing the reserve and resource base at low cost.

#### **Field development Kurdistan region of Iraq**

During 2007, Tawke Phase I development has been completed including the Central Processing Facility (CPF). The Tawke facilities deliver crude oil to domestic market for the time being, but production at full capacity is expected once the export permission has been granted and tie-in to the export pipeline is completed.

Continued delineation drilling at the Tawke oil field has resulted in an increased reserve base. Extended well testing both long-term and drill stem tests have demonstrated high production capacity from the field. As of 31.12.2007, the Tawke field has been estimated to contain ultimate gross reserves of 230 million barrels of oil, and this represents an increase of 130% compared to the initial reserves reported in last year s report.

#### **Exploration**

2007 was another year with high level of exploration activity and DNO participated in the drilling of a total of 9 exploration wells in addition to two wells ongoing by year end. During the fourth quarter in 2007, DNO commenced drilling of two exploration wells in the Kurdistan PSC areas. The Hawler #1 well in the Erbil license area encountered strong oil shows and testing is currently in progress. In Yemen, one oil discovery was made by well Bayoot South West #3 in block 53.

In November 2007, the Norwegian subsidiary NOIL Energy ASA was combined with former Pertra ASA to establish the new #2 Norwegian E&P company on the Norwegian Continental Shelf. DNO had at 31.12.2007 an ownership share of the new company (renamed to Det norske oljeselskap ASA) of 36,9 %. The reserves at 31.12.2006 in the former subsidiary have been presented as disposals in table 3, and the associated reserves are added as a footnote in table 1, 2 and 3.

## 2 MD&A

### 2.1 Disclaimer

This Management's Discussion and Analysis ("MD&A") includes and is based, inter alia, on forward-looking information and statements that are subject to risks and uncertainties. We wish to caution you that this information and these statements and estimates are only predictions and that actual events or results may differ materially. These statements and this MD&A are based on current expectations, estimates, and projections about technical, geological, geotechnical and economic assumptions on which the reserve and resource estimates are made as well as global economic conditions, the economic conditions of the regions and industries that are major markets for DNO (including subsidiaries and affiliates) and its lines of business. These expectations, estimates and projections are generally identifiable by statements containing words such as expects, believes, estimates or similar expressions. Important factors that could cause actual results to differ materially from those expectations include, among others, technical, geological and geotechnical conditions, economic and market conditions in the geographic areas and industries that are or will be major markets for DNO's businesses, oil prices, market acceptance of new products and services, changes in governmental regulations, interest rates, fluctuations in currency exchange rates and such other factors as may be discussed from time to time in the MD&A. Although DNO believes that its expectations and this MD&A are based upon reasonable assumptions, however it can give no assurance that those expectations will be achieved or that the actual results will be as set out in the MD&A. DNO makes no representation or warranty, expressed or implied, as to the accuracy, reliability or completeness of the MD&A, and neither DNO nor any of its directors, officers or employees will have any liability to the readers of this MD&A.

### 2.2 Assumptions and methodology

DNO reserve updates are done in accordance with standard guidelines advised by the Society of Petroleum Engineers (SPE)<sup>1</sup> and comply with the procedures from Oslo Stock Exchange.

DNO has established a Reserve Board which consists of representatives from the geological and reservoir departments, as well as a member from the financial reporting unit. The Reserve Board collects and coordinates with the license responsible persons all technical data in connection with the updates, and reports the total portfolio of reserves and resources to the Managing Director and the Board.

DNO has applied several methods to calculate the reserves. In addition to stochastic monte carlo simulation, deterministic methods, or scenario based methods to arrive at the low case and the best estimate for reserves have been applied. The best estimate (2P) of the recoverable reserves is considered to represent the most probable quantity of oil and gas that will be recovered from a reservoir given the information available at that time. The low estimate (1P, Proved reserves) is best represented by a do nothing case, which infers a harvest case without any further technological application or financial investments. We have used the low value of a probabilistic determination of a do nothing case reserves as 1P (P90). The scenarios (i.e. low estimate and best estimate) are chosen to represent a realistic combination of the parameters used in the reserve calculations including duration of periods and minimum economic oil rate. However, it is important to stress that the uncertainty span is larger for fields/reservoirs with limited field information and production history compared to fields/reservoirs with long production history.

The scenario based deterministic results has been substantiated with the results from the stochastic monte carlo simulations.

---

<sup>1</sup> For a full description of these guidelines and definitions, see [www.spe.org](http://www.spe.org)

Basically the following comparison can be made:

- P90 (low estimate 1P),
- P50 (base estimate 2P)
- P10 (high estimate 3P).

These estimates denote that there should be at least 90%, 50% and 10% probability that the actual reserves will be economically recoverable.

The reserves have been further subdivided into developed (producing), under development (currently being developed) and non-developed assets (where development is committed).

The reserves are furthermore restricted to those volumes that are expected to be produced prior to the termination date of the current license.

An oil price of approximately USD 90 bbl at year end 31.12.2007 has been used for economic evaluation of the reserves, and calculation of net entitlement reserves. At year end 2007, the oil from the Tawke field was sold at a considerably lower price, as it was sold to the local market. When the export permit is given, oil will be exported and sold at international market prices.

### **2.3 Ownership**

DNO's operations in Yemen and Kurdistan region of Iraq are regulated by the governments through Production Sharing Agreements (PSAs) and Production Sharing Contracts (PSCs) respectively. Under these agreements/contracts, the ownership to unexploited petroleum resources remains with the government, whereas exploration and production is carried out by international oil companies. The PSA/PSC typically is a contract between an oil producing company and the host government which governs the rights and duties of both parties in respect of the operations of a producing block/area, and in particular governs how the revenues from oil produced are shared between the government and the contracting oil producers.

Under the PSAs/PSCs, DNO, along with other working interest holders typically bears all risks and costs of exploration, development and production. In return, if exploration is successful, DNO recovers the investments and operating costs from the Cost Oil term of the PSA/PSC which is a percentage of the produced and sold quantities after deduction of royalty. DNO is also entitled to receive a share of the produced quantities in addition to the Cost Oil element, which is referred to as Profit Oil or Production Sharing Oil. The sharing of Profit Oil is a direct function of the working interest of the parties to the PSA including the government.

The sum of the Cost Oil entitlement (which may be equal to DNO's working interest, but can also include working interests of other parties if such other parties have their costs carried by DNO) and the Profit Oil entitlement attributable to DNO's working interest represent the total entitlement to DNO of the oil produced under a PSA/PSC. The government typically is entitled to its share of oil produced firstly by a Royalty percentage, and then by its share of the Profit Oil after the Cost Oil entitlement to the paying partners is deducted from the produced oil. In certain cases the government may have a working interest of a PSA/PSC (typically Carried Interest) through a government controlled enterprise, and in which case the government will receive its share of the Profit Oil in line with the other interest holders of the PSA. The sum of Royalty, government share of Profit Oil, and government controlled enterprise share of Profit Oil (if any), represents the government take of oil produced under a PSA/PSC.

In table 1 and 3, working interest estimates for the Yemen and Kurdistan fields include DNO's share of cost oil resulting from carried interest.

The net entitlement figures in table 2 are based on economic evaluations of the PSAs/PSCs regulating DNO s operations, and include a volume related to the notional tax paid on behalf of the contractors by the government.

DNO is of the opinion that working interest figures are better for comparison of hydrocarbon reserves across countries and regions which have different tax regulations or tax regimes. The reserve development figures shown in table 3 are therefore based on working interest. Net entitlement figures are based on forecasts concerning Cost Oil and Profit Oil, therefore these volumes are more impacted by estimates related to future costs and oil prices. The net entitlement figures will therefore fluctuate over time, without any changes in the underlying reserve figures (discoveries, revisions and production).

### **3 Reserves per field**

Volumes classified as reserves are those quantities of petroleum which are anticipated to be commercially recovered from known accumulations from a given date forward to the end of the field life.

A summary of the remaining proved and probable reserves per field as of 31.12.2007 is given in table 1 (working interest) and table 2 (net entitlement). Table 3 shows a reconciliation of the changes in the reserves from 31.12.2006 (working interest).

#### **3.1 Yemen**

Yemen is a core area for DNO and the company currently holds 8 blocks/licenses in the country, of which DNO is operator for 7. Currently, five fields in three blocks are in production.

##### **3.1.1 Block 32**

###### **3.1.1.1 Tasour**

In the DNO operated block 32, the Tasour field has been producing since November 2000. Several new appraisal and development wells have been drilled over the years resulting in increased reserves and production. Gross ultimate reserves are now estimated at 35,9 million barrels of oil, with remaining economic gross reserves as of 31.12.2007 of 4,9 million barrels of oil.

The exploration well Tasour #23 proved oil to surface from the Naifa Formation in 2006. Testing was undertaken in 2007, but the well proved no commercial flow.

###### **3.1.1.2 Godah**

The Godah field was discovered in the first quarter of 2006, and two appraisal wells were drilled late the same year. In 2007, five more wells were drilled into the structure. The estimated gross ultimate recoverable reserves is now reduced to 2,4 million barrels oil. The reserves adjustment is explained by dynamic data from production and more 3D seismic data. The remaining economic gross reserves per 31.12.2007 were 1,8 million barrels oil.

##### **3.1.2 Block 43**

###### **3.1.2.1 Nabrajah**

Block 43 is operated by DNO. The Nabrajah field has been in production since July 2005. Oil is produced both from the Qishn formation sandstone reservoirs and from deeper fractured Naifa formation carbonates and fractured basement. The well Nabrajah #5 is the only well producing from the deep reservoirs. In 2007 two more wells were drilled in the vicinity of the producing Nabrajah #5. Both wells failed to find commercial oil in the carbonate and basement. The reserves potential in fractured basement and carbonate is therefore based on decline analysis based on the production history from Nabrajah #5 only and a reduction in ultimate reserves for the basement reservoir is reported.

Based on reprocessed version of the seismic 3D data and reservoir simulation studies new appraisal and development drilling targets for the Qishn reservoir at Nabrajah were identified and successfully drilled with the wells Nabrajah #12, #14, #15 and #16. This improved the Qishn production rate and has a slight positive impact on the ultimate reserves for the Qishn

reservoir. However, with the more substantial reduction of the carbonate/basement reserves, the total ultimate gross reserves have been reduced from 24 million barrels oil to 11,7 million barrels of which 5,4 million barrels were remaining as of 31.12.2007.

### **3.1.3 Block 53**

#### **3.1.3.1 Sharyoof**

Block 53 is operated by Dove Energy Ltd and contains the Sharyoof field and two new oil discoveries in the southern area of the block; the Bayoot and the Hekma structures. The Sharyoof production started in December 2001 based on an initial gross reserve estimate of 25 million barrels of oil. Successful appraisal and development drilling has contributed to increased production and reserves since the start of production. Four new production wells and one injection well were drilled on the Sharyoof field in 2007 which improved the production rate substantially. Total gross recoverable reserves in Sharyoof are estimated at 42,5 million barrels of oil equivalents. Remaining economic gross reserves as of 31.12.2007 were 5,5 million barrels of oil.

#### **3.1.3.2 Bayoot**

South of the Sharyoof field, oil was discovered in the three exploration wells Bayoot South West #2, Hekma #1 and Bayoot South #1. Oil production from Bayoot SW #2 commenced late in 2006 and production from Bayoot S #1 was added on in 2007. During 2007 the wells Bayoot SW #3 and #4 were drilled. Both wells proved oil in the Naifa carbonates formation and in fractured basement. Bayoot SW #3 was put on production in 2007. The oil is being trucked to the main facilities at Sharyoof. The ultimate gross reserves in Bayoot are estimated to 4,7 million barrels of oil and remaining gross reserves per 31.12.2007 are 4,3 million barrels.

## **3.2 Kurdistan region of Iraq**

### **3.2.1 Dohuk**

#### **3.2.1.1 Tawke**

The Tawke field was discovered in early 2006 by drilling of the exploration well Tawke #1, and a fast-track development plan was initiated with planned production start early 2007.

A total of 7 development wells have been drilled on the Tawke structure in 2007 plus one ongoing at yearend, whereof 2 wells as dedicated Tertiary formation producers and 5 as wells drilled into the lowermost Cretaceous formation. Two of the Cretaceous wells were temporarily abandoned, and will be re-entered and completed during first half of 2008. By year end also the re-entry operations in well #1 was ongoing.

During 2007 an extensive long term test program has been undertaken in order to gain knowledge about the dynamic behavior of the reservoirs. These tests revealed among other things a good pressure support in the uppermost Tertiary formation. The long term testing in the Cretaceous formation proved excellent communication within the reservoir.

A comprehensive well test program has been undertaken in each well in order to establish oil producing intervals and productivity for the various formations and total well capacity. From these tests an Oil Water Contact (OWC) was set at -1800 m (Mean Sea Level) Msl in the Cretaceous formation. Retesting of the Tawke #1 well delivered 23 000 bopd aggregated from three tests.



The reservoirs are fractured carbonates with high productive fractures and a relatively tight matrix. The drainage of the matrix is crucial for the overall recovery from the field, and several studies are ongoing in order to find the characteristics of the dynamic behavior during production. Fractured carbonate systems behave very differently from reservoir to reservoir and production history is therefore important to improve the reservoir models in order to give higher quality forecasts.

The Tawke field covers a large geographical area and delineation of the field has not been completed. Accordingly the reserve estimation is based on limited field data, and has a large spread. The strategy is to reduce the uncertainty through a systematic data gathering program and delineation through drilling.

The well tests in the Cretaceous formation proved oil gravity of 27 API with very low gas content. Reservoir engineering studies demonstrates the need for pressure support, and technical studies are ongoing in order to outline design basis for pressure support.

Currently the gross ultimate recoverable reserves (2P) have been estimated to approximately 230 million barrels of oil, whereof 1 million bbls was produced in 2007. DNO is operator with a working interest of 55 %. A 3<sup>rd</sup> party independent evaluation of the reserves has been undertaken confirming the reserve figures estimated by DNO.

The first stage of the Tawke Early Development project has now been completed, and oil is being produced in limited volumes for sale to the local market. As soon as export permit is granted, the final hook-up to the export pipeline will be undertaken, and the full capacity of the field can be produced and sold to the international market. The remaining pipeline and other infrastructure facilities have been installed and are fully commissioned.

In March 2008, DNO signed revised agreements with the Kurdish Regional Government (KRG), amending the production sharing contract (PSC) for the Dohuk and Erbil license areas. The Dohuk area was divided into two license areas, one for the Tawke oil field and one for the remaining Dohuk area. The purpose of the amendments has been to bring the PSCs into conformity with the Oil and Gas Law of the Kurdistan Region of Iraq and the standard commercial terms published by the KRG last year, including royalty, cost recovery and profit sharing components. DNO's working interest share in the Tawke PSC is 55 %. The working interest reserves as of 31.12.2007 have taken into account the new and amended terms, including a share of cost oil related to carried interest, referred to in table 1. The KRG may, at its discretion, assign part or all of its interest to a third party, and DNO's share of oil related to such carried interest will then be adjusted accordingly.

DNO's interest is calculated to 68,75 % including share of the 20 % carried interest, which assumes that KRG assigns all of its non-carried interest (25 %) to a third party. In last years report, the 55 % working interest was applied as the final outcome of the PSC terms was not known at that time.

### **3.3 Northern Europe**

DNO's activity in Norway was in 2007 divested and is held through an ownership share of 36,9 % (as of 31.12.2007) in Det norske oljeselskap ASA ( Det norske ). Det norske drilled several exploration wells during the year and new oil discoveries were made. DNO's share of the reserves are included in table 1, 2 and 3.

## **4 Contingent Resources**

Contingent resources are those quantities of petroleum which are estimated, on a given date, to be potentially recoverable from known accumulations, but which are not currently considered to be commercially recoverable, or where a PDO has not yet been submitted.

DNO s reported contingent resources are included as resources class 4 (in planning phase) and class 5 (development likely) under NPD s classification system.

In Equatorial Guinea, DNO has an ownership share of 5 % in Block P. A plan for development and operations was filed in 2007, and the partnership is waiting for Government approval. The recoverable reserves for the Green Sand development are estimated to a total 33 million barrels (gross) based on a P50 or best estimate basis and are classified as resources in the planning phase. DNO s working interest share is 1,5 million barrels.

5 Annex

Table 1 Remaining reserves per field as of 31.12.2007 working interest\*

	1P / P90			2 P / P50			
	Oil		Net mdbl	Oil		Net mdbl	
	Gross (mdbl)	Interest *%		Gross (mdbl)	Interest *%		
<b>Developed assets</b>							
Block 32 Tasour	3,3	41,00 %	1,3	4,9	41,00 %	2,0	
Block 32 Godah	0,9	41,00 %	0,4	1,8	41,00 %	0,7	
Block 43 Nabrajah	4,8	66,67 %	3,2	5,4	66,67 %	3,6	
Block 53 Sharyoof	4,4	32,60 %	1,4	5,5	32,60 %	1,8	
Block 53 Bayoot	3,1	32,60 %	1,0	4,3	32,60 %	1,4	
Tawke	134,1	68,75 %	92,2	207,0	68,75 %	142,3	
<b>Total</b>			<b>99,6</b>			<b>151,8</b>	
<b>Under development</b>							
	Oil (mdbl)	mdbl	Interest %	Net mdbl	Oil (mdbl)	Interest %	Net mdbl
<b>Total</b>				<b>0</b>			<b>0</b>
<b>TOTAL</b>							
	Oil (mdbl)	mdbl	Interest %	Net mdbl	Oil (mdbl)	Interest %	Net mdbl
<b>All fields</b>				<b>99,6</b>			<b>151,8</b>

**Associated reserves (P50) in Det norske oljeselskap ASA 2,9**

**Total DNO International ASA 154,7**

\*All figures represent pre-tax share after royalty. Net figures to DNO include DNO s share of cost oil resulting from carried interest, refer to section 3.2 and table below:

	Working interest	DNO s share of carried interest	DNO share (paying interest) after carried interest (application of PSA/PSC terms)
Tawke	55 %	13,75 %	68,75 %
Block 32	38,95 %	2,05 %	41,00 %
Block 43	56,67 %	10,0 %	66,67 %
Block 53	24,45 %	8,15 %	32,60 %

**Table 2 Remaining reserves per field as of 31.12.2007 net entitlement**

<b>Reserves 2P (P50 estimate)</b>					
<b>Developed assets</b>					
	Oil Gross (mdbl)	Gas (bcm)	Oil Gross mdbl	Interest %	Net mdbl
<b>Block 32 Tasour</b>	3,2	-	3,2	41,00 %	1,3
<b>Block 32 Godah</b>	1,2	-	1,2	41,00 %	0,5
<b>Block 43 Nabrajah</b>	3,4	-	3,4	66,67 %	2,3
<b>Block 53 Sharyoof</b>	2,7	-	2,7	32,60 %	0,9
<b>Block 53 Bayoot</b>	1,9	-	1,9	32,60 %	0,6
<b>Tawke</b>	71,9	-	71,9	68,75 %	49,5
<b>Total</b>					<b>55,1</b>
<b>Under development</b>					
	Oil Gross (mdbl)	Gas (bcm)	Oil Gross mdbl	Interest %	Net mdbl
<b>Total</b>					<b>0</b>
	Oil Gross (mdbl)	Gas (bcm)	Oil Gross mdbl	Interest %	Net mdbl
<b>Total all fields</b>					<b>55,1</b>

**Associated reserves (P50) in Det norske oljeselskap ASA 2,9**

**Total DNO International ASA 58,0**

All figures represent pre-tax share excluding royalty.

The net entitlement reserves in Yemen and Kurdistan region of Iraq are based on economic evaluation of the Production Sharing Agreements/Contracts and include a volume related to the notional tax paid on behalf of the contractors by the Government. The estimates include DNO's share of cost oil resulting from carried interest.

**Table 3 Reserve development (working interest)**

Million BBL	Developed Assets		Under development (transitional assets)		TOTAL	
	1P/P90	2P/P50	1P/P90	2P/P50	1P/P90	2P/P50
<b>Balance as of 31.12.2006</b>	4,4	19,8	13,5	59,8	17,9	79,7
<b>Production</b>	- 5,3	- 5,3			- 5,3	- 5,3
<b>Acquisition/ disposals</b>	- 0,4	- 0,8	- 0,1	- 0,3	- 0,5	- 1,1
<b>Extensions and discoveries</b>						
<b>New developments</b>	+ 92,2	+ 143,3	- 11,0	- 55,0	+ 81,2	+ 88,3
<b>Revision of previous estimates</b>	+ 8,7	- 5,2	- 2,4	- 4,5	+ 6,3	- 9,8
<b>Balance as of 31.12.2007</b>	<b>99,6</b>	<b>151,8</b>	<b>0</b>	<b>0</b>	<b>99,6</b>	<b>151,8</b>

<b>Associated reserves (P50) in Det norske oljeselskap ASA</b>	<b>2,9</b>
--	------------

<b>Total DNO International ASA</b>	<b>154,7</b>
------------------------------------	--------------

Disposals relate to Glitne and Enoch field which were divested through the integration agreement between NOIL Energy ASA and former Pertra ASA.

New developments relate to reserve upgrade of the Tawke field in Kurdistan region of Iraq, which is also classified as developed assets in 2007, and under development the year before.

Revision of previous estimates is related to new and revised estimates in the Nabrajah field (block 43 in Yemen), Tasour and Godah field in block 32 in Yemen and the Sharyoof and Bayoot/Hekma fields in block 53 in Yemen.

The estimates are DNO s share pre-tax excluding royalty, and include DNO s share of cost oil resulting from carried interest (reference is made to section 3.2 and table on page 11). The estimate for Kurdistan region of Iraq in last years report did not take such carried interest into account as the final outcome of the PSC terms was not known at that time.