# **DNO ASA**

# ANNUAL STATEMENT OF RESERVES AND RESOURCES

2020

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## DNO ASA ANNUAL STATEMENT OF RESERVES AND RESOURCES 2020

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## 1 Introduction

This reserves and resources evaluation report has been prepared in accordance with Oslo Stock Exchange listing and disclosure requirements, Circular No. 1/2013.

The report provides the status of hydrocarbon reserves and contingent resources at yearend 2020 for DNO ASA ("DNO"). International petroleum consultants DeGolyer and MacNaughton (D&M) carried out an independent assessment of the Tawke license (containing the Tawke and Peshkabir fields) and the Baeshiqa license (containing the Baeshiqa and Zartik structures) in the Kurdistan region of Iraq. International petroleum consultants Gaffney, Cline & Associates (GCA) carried out an independent assessment of DNO's licenses in Norway and the United Kingdom (UK). The Company internally assessed Yemen Block 47.

## 2 Overview

Volumes classified as reserves are those quantities of oil and gas anticipated to be commercially recovered from known accumulations from a given date to the end of the field life and within the license period.

Contingent resources are those quantities of oil and gas estimated on a given date to be potentially recoverable from known accumulations, but not currently considered to be commercially recoverable or where a field development plan has not yet been submitted. Under the Norwegian Petroleum Directorate (NPD) classification system, DNO's recorded contingent resources are included as class 4 (in the planning phase), class 5 (development likely but undecided), class 6 (development unlikely) and class 7 (not yet evaluated).

In the attached Annex, Table 1 shows a summary of remaining proven (1P), proven and probable (2P) and proven, probable and possible (3P) reserves on a gross, Company Working Interest (CWI) and Net Entitlement (NE) basis at yearend 2020. Table 2 shows changes in CWI reserves between yearend 2019 and yearend 2020. Table 3 shows a summary of remaining contingent (2C) resources on a gross and CWI basis at yearend 2020.

## 2.1 DNO's Company Working Interest Reserves, Resources and Production

At yearend 2020, DNO's CWI 1P reserves stood at 201.0 million barrels of oil equivalent (MMboe), compared to 205.6 MMboe at yearend 2019, after adjusting for production during the year and upward technical revisions. On a 2P reserves basis, DNO's CWI reserves stood at 332.3 MMboe, compared to 344.8 MMboe at yearend 2019. On a 3P reserves basis, DNO's CWI reserves were 506.8 MMboe, compared to 539.9 MMboe at yearend 2019. DNO's CWI 2C resources were 151.7 MMboe, compared to 187.8 MMboe at yearend 2019.

DNO's CWI production in 2020 totaled 34.8 MMboe (of which 28.5 million barrels of oil (MMbbls) in Kurdistan, 6.0 MMboe in Norway and the balance in the UK), compared to 38.2 MMboe in 2019 (of which 31.9 MMbbls in Kurdistan, 6.0 MMboe in Norway and the balance in the UK).

The Company's CWI yearend 2020 Reserve Life Index (R/P) stood at 5.8 years on a 1P reserves basis, 9.6 years on a 2P reserves basis and 14.6 years on a 3P reserves basis.

## 2.2 Kurdistan Region of Iraq

On a CWI basis at yearend 2020, 1P reserves in the Company's Kurdistan portfolio totaled 159.9 MMbbls (156.9 MMbbls at yearend 2019), 2P reserves totaled 267.8 MMbbls (274.7 MMbbls at yearend 2019) and 3P reserves totaled 410.9 MMbbls (437.9 MMbbls at yearend 2019). The CWI 2C resources were 27.3 MMbbls, compared to 33.5 MMbbls at yearend 2019.

#### 2.2.1 Tawke License

At the Tawke license containing the Tawke and Peshkabir fields, at yearend 2020 gross 1P reserves stood at 234.4 MMbbls (159.9 MMbbls on a CWI basis), compared to 227.6 MMbbls (156.9 MMbbls on a CWI basis) at yearend 2019. At yearend 2020 gross 2P reserves stood at 393.9 MMbbls (267.8 MMbbls on a CWI basis), compared to 400.0 MMbbls (274.7 MMbbls on a CWI basis) at yearend 2019. At yearend 2020 gross 3P reserves stood at 604.9 MMbbls (410.9 MMbbls on a CWI basis), compared to 640.7 MMbbls (437.9 MMbbls on a CWI basis) at yearend 2019.

At the Tawke field, gross 1P reserves stood at 173.2 MMbbls (117.8 MMbbls on a CWI basis) at yearend 2020, compared to 176.3 MMbbls (121.3 MMbbls on a CWI basis) at yearend 2019. The year-to-year change in gross volumes was due to the net effect of 2020 field production of 21.1 MMbbls and an upward technical revision of 18.0 MMbbls. Tawke field cumulative production since inception stood at 301.1 MMbbls at yearend 2020.

Gross 2P reserves at the Tawke field stood at 268.5 MMbbls (182.2 MMbbls on a CWI basis) at yearend 2020, compared to 283.9 MMbbls (194.4 MMbbls on a CWI basis) at yearend 2019, after adjusting for 2020 field production and an upward technical revision of 5.7 MMbbls.

Gross 3P reserves at the Tawke field stood at 404.1 MMbbls (274.1 MMbbls on a CWI basis) at yearend 2020, compared to 420.6MMbbls (287.1 MMbbls on a CWI basis) at yearend 2019, after adjusting for 2020 field production and an upward technical revision of 4.6 MMbbls.

Gross 2C resources at the Tawke field were recorded at 17.7 MMbbls (12.0 MMbbls on a CWI basis) at yearend 2020, compared to 49.6 MMbbls (33.5 MMbbls on a CWI basis) at yearend 2019.

At the Peshkabir field, at yearend 2020 gross 1P reserves stood at 61.2 MMbbls (42.1 MMbbls on a CWI basis) up from 51.3 MMbbls (35.6 MMbbls on a CWI basis) at yearend 2019. The year-to-year change in gross volumes was due to the net effect of 2020 field production of 19.3 MMbbls and an upward technical revision of 29.2 MMbbls. Peshkabir field cumulative production since inception stood at 50.9 MMbbls at yearend 2020.

Gross 2P reserves at the Peshkabir field stood at 125.4 MMbbls (85.6 MMbbls on a CWI basis) at yearend 2020, up from 116.1 MMbbls (80.3 MMbbls on a CWI basis) at yearend 2019, after adjusting for 2020 field production and an upward technical revision of 28.6 MMbbls.

Gross 3P reserves at the Peshkabir field stood at 200.7 MMbbls (136.8 MMbbls on a CWI basis) at yearend 2020, compared to 220.0 MMbbls (150.8 MMbbls on a CWI basis) at yearend 2019, after adjusting for 2019 field production.

No 2C resources were recorded for the Peshkabir field at yearend 2020. Notwithstanding the discovery of a gas cap and existence of solution gas at the Peshkabir field, no gas reserves or contingent resources are booked as the Company is utilizing this gas for enhanced oil recovery at the Tawke field. Following commissioning the Peshkabir-to-Tawke gas capture and reinjection project in midyear 2020, a total of 2.4 billion standard cubic feet (Bscf) of Peshkabir field gas was reinjected at the Tawke field in 2020.

Effective from 1 August 2017, DNO was assigned the 20 percent interest in the Tawke license held by the Kurdistan Regional Government as part of a landmark settlement of receivables owed to the Company for past oil deliveries. Following the settlement, DNO holds a 75 percent interest in the Tawke license containing the Tawke and Peshkabir fields. DNO's share of profit oil increased from 55 percent to 75 percent, while its share of the cost oil remained 75 percent. This is in addition to three percent of aggregate Tawke license revenues payable from 1 August 2017 until 31 July 2022. DNO's CWI and NE reserves and resources reflect this settlement agreement.

## 2.2.2 Baeshiqa License

The Baeshiqa license contains two large structures with multiple independent stacked target reservoirs, including in the Cretaceous, Jurassic and Triassic formations.

At the Baeshiqa structure and following a discovery in 2019, testing and appraisal of the Baeshiqa-2 exploration well was concluded in 2020. The well tested hydrocarbons to surface from multiple Jurassic and Triassic zones. Gross 2C resources at the Baeshiqa structure were recorded at 37.8 MMbbls (13.6 MMbbls on a CWI basis) at yearend 2020. No 2C resources were recorded for the Baeshiqa structure at yearend 2019.

At the Zartik structure, the Company completed drilling and testing of Zartik-1 exploration well in 2020. The well tested hydrocarbons to surface from several Jurassic zones. Gross 2C resources at the Zartik structure were recorded at 4.7 MMbbls (1.7 MMbbls on a CWI basis) at yearend 2020. No 2C resources were recorded for the Zartik structure at yearend 2019.

At the license level and at yearend 2020, gross 2C resources stood at 42.5 MMbbls (15.3 MMbbls on a CWI basis).

The structures at Baeshiqa and Zartik have the potential to be part of a single accumulation of hydrocarbons at one or more of the geological formation intervals. This potential has not been established by the exploration and appraisal activities to date and so is excluded from the resource figures.

No reserves were recorded at the Baeshiqa license at yearend 2020, pending conclusion of the ongoing appraisal activities to determine commerciality.

#### 2.3 Norway and United Kingdom

At yearend 2020, DNO held 76 licenses in Norway in various stages of exploration, development and production. Across its Norway portfolio and on a CWI basis, DNO's 1P reserves totaled 40.0 MMboe, 2P reserves stood at 63.1 MMboe, 3P reserves totaled 94.0 MMboe and 2C resources stood at 118.7 MMboe. In 2020, DNO had an active exploration and appraisal program in Norway resulting in the Bergknapp discovery in License PL836 S. Gross 2C resources at this license stood at 59.4 MMboe (17.8 MMboe on a CWI basis).

At yearend 2019, on a CWI basis DNO's portfolio of 87 licenses in Norway held 1P reserves of 47.5 MMboe, 2P reserves of 68.3 MMboe, 3P reserves of 99.5 MMboe and 2C resources of 138.9 MMboe.

In the UK at yearend 2020, DNO held 16 licenses. Across its UK portfolio on a CWI basis, DNO's 1P reserves totaled 1.0 MMboe, 2P reserves stood at 1.4 MMboe, 3P reserves totaled 1.9 MMboe and 2C resources stood at 0.9 MMboe.

At yearend 2019, DNO held 12 licenses in the UK with 1P reserves of 1.2 MMboe, 2P reserves of 1.8 MMboe, 3P reserves of 2.6 MMboe and 2C resources of 10.5 MMbbls on a CWI basis.

#### 2.4 Yemen

Production start-up at the Yaalen field at Block 47 in Yemen, currently under force majeure, remains on hold. At yearend 2020, gross 2C resources at Block 47 stood at 6.2 MMbbls (4.8 MMbbls on a CWI basis), unchanged from yearend 2019.

## 3 Management Discussion and Analysis

## 3.1 Disclaimer

The report, including this Management's Discussion and Analysis (MD&A), contains and was prepared, inter alia, on the basis of forward-looking information and statements. Such information and statements are based on management's current assumptions, expectations, estimates and projections and are therefore subject to risks and uncertainties that could cause actual results, performance or events to differ materially. The Company can give no assurance that those assumptions, expectations, estimates and projections will occur or be realized and readers should not place undue reliance on forward-looking statements. Forward-looking statements are generally identifiable by their use of terms such as "expect", "believe", "estimate", "may", "plan", "could", "will", "intend", "schedule" and similar terms or expressions. There are a number of factors that could cause actual results or events to differ materially from those underlying forward-looking information and statements. These factors include, among others: technical, geological and geotechnical conditions; economic and market conditions in or affecting the geographic areas and industries that are or will be major markets for DNO; oil and gas price fluctuations; market acceptance of new products and services; changes in laws and governmental regulations; political risks, including the risks of expropriation and renegotiation of the terms of contracts with governmental entities; delays or advancements in the approval of projects and delays in the reimbursement for shared costs; the risk of doing business in developing countries and countries subject to national or international sanctions; fluctuations in interest rates or currency exchange rates; and other such factors that may be discussed from time to time in the MD&A. All forward-looking statements contained in the report, including this MD&A, are expressly gualified in their entirety by the cautionary statements contained in this disclaimer. Additionally, DNO makes no representation or warranty, expressed or implied, as to the accuracy, reliability or completeness of these forward-looking statements and the MD&A, and neither DNO nor any of its directors, officers or employees will have any liability to the readers resulting from reliance on these forward-looking statements and this MD&A.

## 3.2 Assumptions and Methodology

DNO's reserves updates are completed in accordance with standard guidelines advised by the Society of Petroleum Engineers (SPE)<sup>1,2</sup> and comply with Oslo Stock Exchange disclosure requirements, Circular No. 1/2013.

Reported reserves fall within class 1-3 of the NPD classification and 2C resources fall within class 4-7 of the NPD classification.

The estimation and auditing of reserves are undertaken in accordance with generally accepted engineering and evaluation principles. It should be noted that reserves information is imprecise due to inherent uncertainties in—and the limited nature of—data upon which the reserves are predicated.

DNO has a reserves review committee consisting of competent professional geoscientists, engineers and economists to facilitate the review and reporting process and ensure compliance with standards and procedures. The committee collects and coordinates the review of all technical data and provides a full report of the Company's reserves and resources to the Managing Director for review and approval.

Economically recoverable reserves have been calculated based on input for the technical reserves and economic parameters such as license terms and projected future oil and gas prices. The reserves reported here are restricted to those volumes expected to be economically recovered prior to the expiry date of the respective licenses.

<sup>&</sup>lt;sup>1</sup> For a full description of these guidelines and definitions, see <u>www.spe.org</u>

<sup>&</sup>lt;sup>2</sup> <u>https://www.spe.org/en/industry/petroleum-resources-management-system-2018/</u>

## 3.3 Oil and Gas Prices

D&M and GCA generate and utilize oil and gas price forecasts as the basis for their independent calculations of remaining DNO reserves and resources.

## 3.4 Ownership

DNO's participation in certain licenses is governed by a Production Sharing Contract (PSC), which sets out the manner in which oil and gas production is shared between the government and the license holder.

DNO and its joint venture partners typically bear all risks and costs of exploration, development and production in these licenses. In return, if exploration is successful, DNO and its partners recover their share of investments and operating costs from what is referred to as "cost oil", being a percentage of oil and gas produced and sold after deduction of the government royalty (if any). In addition to cost oil, DNO and its partners are entitled to receive a share of the remaining production, after payment of the royalty (if any) and deduction of cost oil, which is referred to as "profit oil". Profit oil is shared among the government, DNO and its partners in accordance with the percentages set out in each PSC.

DNO's NE reserves in the licenses governed by a PSC comprise the Company's entitlement to cost oil and profit oil. DNO's entitlement to cost oil includes its advances towards the government carried interest (if any). NE reserves are based on economic evaluation of the license agreements, incorporating projections of future production, costs and oil and gas prices. NE volumes may therefore fluctuate over time, even though there are no changes in the underlying gross and CWI volumes.

The government may also have a participating interest in the license through a government-controlled enterprise. If so, the government will receive a corresponding share of cost oil (unless the government's share of costs is advanced or carried by the other partners) and profit oil through the government-controlled enterprise.

DNO believes that reporting CWI volumes facilitates the comparison of reserves and resources across countries and regions that have different tax regulations or tax regimes. CWI volumes include DNO's additional share of cost oil resulting from recovery of its advances towards the government carried interest (if any).

At yearend 2020, all of the Company's interests in licenses in Kurdistan and Yemen were governed by PSCs.

#### 4 Annex

#### Table 1 – Remaining reserves at yearend 2020 (Gross, CWI and NE)

	Proven (1P)			Proven + Probable (2P)			Proven + Probable + Possible (3P)		
Asset (Region, Field)	Gross	CWI	NE	Gross	CWI	NE	Gross	CWI	NE
	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)
Developed Assets									
Kurdistan, Tawke	83.6	57.2	25.3	90.1	61.7	26.8	126.6	86.4	35.2
Kurdistan, Peshkabir	58.7	40.4	17.9	60.4	41.6	18.0	96.4	65.9	26.8
Kurdistan Developed	142.3	97.6	43.2	150.5	103.3	44.8	223.0	152.3	62.0
Norway, Alve	20.7	6.6	6.6	29.3	9.4	9.4	43.0	13.8	13.8
Norway, Brage	12.1	1.7	1.7	19.5	2.8	2.8	27.3	3.9	3.9
Norway, Marulk	4.5	0.8	0.8	8.2	1.4	1.4	9.3	1.6	1.6
Norway, Oda	15.9	2.4	2.4	21.6	3.2	3.2	33.0	5.0	5.0
Norway, Ringhorne East	4.3	1.0	1.0	5.6	1.3	1.3	7.1	1.6	1.6
Norway, Tambar	10.2	4.6	4.6	17.5	7.9	7.9	29.4	13.2	13.2
Norway, Tambar East	0.0	0.0	0.0	0.5	0.2	0.2	0.7	0.3	0.3
Norway, Trym	3.4	1.7	1.7	6.8	3.4	3.4	17.8	8.9	8.9
Norway, Ula	19.7	4.0	4.0	38.1	7.6	7.6	63.0	12.6	12.6
Norway, Vilje	8.0	2.3	2.3	13.7	4.0	4.0	17.5	5.0	5.0
Norway Developed	98.8	25.0	25.0	160.7	41.1	41.1	248.2	65.9	65.9
UK, Blane	2.2	1.0	1.0	2.7	1.2	1.2	3.2	1.4	1.4
UK, East Foinaven	0.3	0.0	0.0	1.0	0.1	0.1	2.7	0.3	0.3
UK, Enoch	0.2	0.0	0.0	0.5	0.1	0.1	1.5	0.3	0.3
UK Developed	2.7	1.0	1.0	4.2	1.4	1.4	7.3	1.9	1.9
Total Developed		123.7	69.2	1	145.7	87.3	1	220.1	129.8
		Proven (1P)		Proven + Probable (2P)		(2P)	Proven + Probable + Possible (3P)		
Asset (Region, Field)	Gross	CWI	NE	Gross	CWI	NE	Gross	CWI	NE
	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)
Under Development Assets						1			1
Kurdistan, Tawke	89.6	60.5	25.5	178.4	120.6	38.0	277.5	187.7	42.2
Kurdistan, Peshkabir	2.6	1.7	0.7	65.0	44.0	13.9	104.4	70.9	15.9
Kurdistan Under Development	92.2	62.3	26.2	243.3	164.6	51.9	381.9	258.6	58.1
Norway, Brasse	24.9	11.8	11.8	35.3	16.7	16.7	45.4	21.6	21.6
Norway, Fenja	43.0	3.2	3.2	69.7	5.2	5.2	87.0	6.5	6.5
Norway Under Development	67.8	15.0	15.0	105.0	22.0	22.0	132.4	28.1	28.1
Total Under Development		77.3	41.2	]	186.5	73.9	]	286.7	86.1
		201.0	110 5	1	332.3	161.2	1	E06 8	216.0
TOTAL DNO ASA		201.0	110.5		332.3	161.2		506.8	216.0

CWI and NE reserves in DNO's licenses governed by PSCs (Kurdistan and Yemen) are net to DNO after royalty and include DNO's additional share of cost oil covering its advances towards the government carried interest (if any). CWI reserves reflect pre-tax shares while NE reserves reflect post-tax shares. NE reserves are based on economic evaluation of the license agreements, incorporating projections of future production, costs and oil and gas prices. NE reserves may therefore fluctuate over time, even if there are no changes in the underlying gross and CWI volumes.

CWI and NE reserves in DNO's licenses not governed by PSCs (Norway and the UK) are equivalent and reflect pre-tax shares.

Following the Kurdistan Receivables Settlement Agreement effective 1 August 2017, DNO's interest in the Tawke license increased to 75 percent plus three percent of aggregate license revenues until 31 July 2022. CWI and NE reserves in the table above include the reserves attributable to DNO from this settlement agreement.

## Table 2 – Reserves development 2019-2020 (CWI)

	Developed Assets			Under Development			TOTAL		
DNO ASA	1P	2P	3P	1P	2P	3P	1P	2P	3P
	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)	(MMboe)
Balance as of Yearend 2019	127.6	190.5	284.6	78.0	154.3	255.3	205.6	344.8	539.9
Production	-34.8	-34.8	-34.8				-34.8	-34.8	-34.8
Acquisitions									
Divestments									
Extentions and discoveries									
New developments									
Revision of previous estimates	30.8	-9.9	-29.7	-0.7	32.2	31.3	30.2	22.3	1.7
Balance as of Yearend 2020	123.7	145.7	220.1	77.3	186.5	286.7	201.0	332.3	506.8

CWI reserves in DNO's licenses governed by PSCs (Kurdistan and Yemen) are net to DNO after royalty and include DNO's additional share of cost oil covering its advances towards the government carried interest (if any).

CWI reserves in the table above include the reserves attributable to DNO from the Kurdistan Receivables Settlement Agreement.

## Table 3 – Contingent resources (2C) at yearend 2020 (Gross and CWI)

	2C Resources					
Asset	Gross	CWI				
	(MMboe)	(MMboe)				
Kurdistan	60.2	27.3				
Tawke PSC	17.7	12.0				
Baeshiqa PSC	42.5	15.3				
Norway	473.8	118.7				
UK	2.0	0.9				
Yemen	6.2	4.8				
TOTAL DNO ASA		151.7				

CWI 2C resources in DNO's licenses governed by PSCs (Kurdistan and Yemen) are net to DNO after royalty and reflect DNO's additional share of cost oil covering its advances towards the government carried interest (if any).