

A B C D E F G H I J K L M N

Oil & natural gas extraction data

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Climate Mitigation Services
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Noble Energy, USA

yellow column indicates original reported units investor-owned

Production / Extraction data

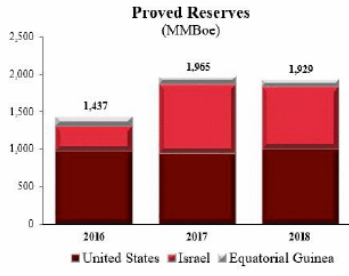
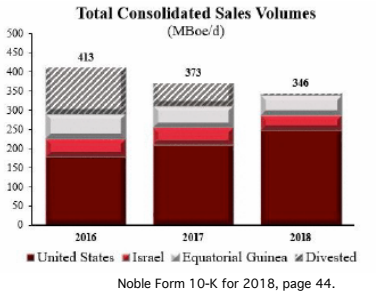
Year	Crude Oil & NGL			Natural Gas				
	Net production	Net production	Net production	Net production	Net production	Net production		
	Thousand bbl /d	Million bbl /yr	Million tonnes/yr	Million cf/d	Million SCM/d	Billion cf/yr	Million tons/yr	Million tonnes/yr

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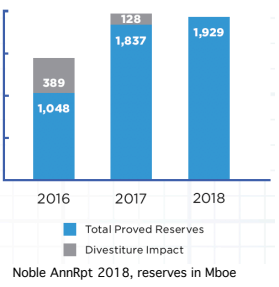
Noble Affiliates established 1932



Noble Annual Report 2014, page 4.



Year	Crude oil & cond	NGL	Liquids	Natural Gas	Natural Gas
	thousand bpd	thousand bpd	Mb	million cfpd	Bcf
1992-2001	Mb/y			Bcf for 1992-	
1992	6.36		6	75.14	75
1993	6.92		7	73.29	73
1994	8.08		8	87.73	88
1995	9.14		9	96.98	97
1996	12.60		13	171.80	172
1997	14.00		14	206.40	206
1998	13.60		14	206.80	207
1999	11.00		11	166.10	166
2000	9.40		9	148.70	149
2001	11.20		11	154.20	154
2002	29.1	thousand bpd	11	341.0	124
2003	36.0		13	336.6	123
2004	45.4		17	367.0	134
2005	60.2		22	508.2	185
2006	82.9		30	622.9	227
2007	84.3		31	687.4	251
2008	71.0	15.0	31	767	280
2009	64.0	16.0	29	781	285
2010	66.0	19.0	31	787	287
2011	78.0		28	806	294
2012	109.0		40	774	283
2013	123.0		45	901	329
2014	133.0		49	992	362
2015	158.0		58	1,187	433
2016	127.0	59.0	68	1,397	510
2017	131.0	64.0	71	1,118	408
2018	132.0	67.0	73	922	337



Total	na	na	748	na	na	6,240
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	2018	2017	2016	2015
OPERATING DATA				
Year-end Proved Reserves				
Liquids (MMBbls)	723	686	552	496
Natural Gas (Bcf)	7,231	7,680	5,308	5,549
Total (MMBoe)	1,929	1,965	1,437	1,421
Sales Volumes from Continuing Operations				
Liquids (MBbl/d) ¹	199	195	186	158
Natural Gas (MMcf/d)	922	1,118	1,397	1,187
Total (MBoe/d)	353	381	420	355

Noble Energy AnnRpt 2018, page 8.

	Sales Volumes ⁽¹⁾				Average Realized Sales Prices ⁽¹⁾		
	Crude Oil & Condensate (MBbl/d)	NGLs (MBbl/d)	Natural Gas (MMcf/d)	Total (MBoe/d)	Crude Oil & Condensate (Per Bbl)	NGLs (Per Bbl)	Natural Gas (Per Mcf)
Year Ended December 31, 2018							
United States ⁽²⁾	114	62	472	255	\$ 61.12	\$ 25.88	\$ 2.53
Eastern Mediterranean	—	—	237	40	—	—	5.47
West Africa ⁽³⁾	16	—	213	51	68.53	—	0.27
Total Consolidated Operations	130	62	922	346	62.01	25.88	2.76
Equity Investees ⁽⁴⁾	2	5	—	7	68.99	42.14	—
Total	132	67	922	353	\$ 62.10	\$ 27.18	\$ 2.76
Year Ended December 31, 2017							
United States	111	58	607	270	\$ 49.11	\$ 23.40	\$ 3.02
Eastern Mediterranean	—	—	272	46	—	—	5.32
West Africa ⁽³⁾	18	—	239	57	53.68	—	0.27
Total Consolidated Operations	129	58	1,118	373	49.73	23.40	3.01
Equity Investees ⁽⁴⁾	2	6	—	8	55.13	38.48	—
Total	131	64	1,118	381	\$ 49.84	\$ 24.81	\$ 3.01
Year Ended December 31, 2016							
United States	99	54	881	301	\$ 39.59	\$ 14.92	\$ 2.11
Eastern Mediterranean	—	—	281	47	—	—	5.21
West Africa ⁽³⁾	26	—	235	65	43.54	—	0.27
Total Consolidated Operations	125	54	1,397	413	40.39	14.92	2.42
Equity Investees ⁽⁴⁾	2	5	—	7	45.44	26.30	—
Total	127	59	1,397	420	\$ 40.46	\$ 15.96	\$ 2.42

Noble Energy 10-K for 2018, page 50. No details on total production vs sales

OPERATING DATA	2015	2014	2013	2012	2011
Year-end Proved Reserves					
Liquids (MMBbls)	496	432	435	357	369
Natural Gas (Bcf)	5,549	5,833	5,828	4,964	5,043
Total (MMBoe)	1,421	1,404	1,406	1,184	1,209
Sales Volumes from Continuing Operations					
Liquids (MBbl/d) ⁽¹⁾	158	133	123	109	78
Natural Gas (MMcf/d)	1,187	992	901	774	806
Total (MBoe/d)	355	298	273	239	213

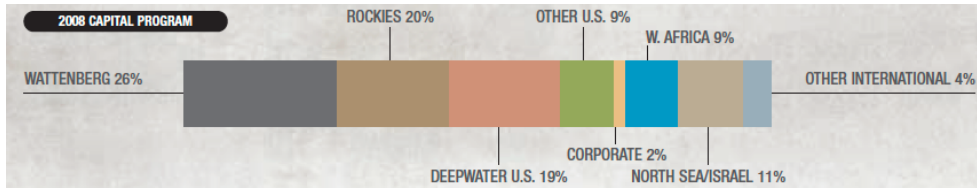
Noble Annual Report 2015, page 6.

OPERATING & FINANCIAL DATA - 2007 ANNUAL REPORT					
OPERATING DATA	2007	2006	2005	2004	2003
YEAR-END PROVED RESERVES					
Natural Gas (Bcf)	3,307	3,231	3,091	1,987	1,642
Liquids (MMBbls)	329	296	291	293	183
Total (MMBoe)	880	835	806	525	457
SALES VOLUMES					
Natural Gas (Bcf)	251	227	186	134	123
Liquids (MMBbls) [1]	31	30	22	17	13
Total (MMBoe)	73	68	53	39	34

Noble Annual Report 2007, page 13.

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Noble Annual Report 2007, page 2.

	Year Ended December 31,							
	2007			2006			2005	
	Production ⁽¹⁾	Sales		Production ⁽¹⁾	Sales	Sales ⁽²⁾		
	Bopd	Bopd	\$/Bbl	Bopd	Bopd	\$/Bbl	Bopd	\$/Bbl
United States ⁽³⁾	42,332	42,332	\$ 53.22	45,798	45,798	\$ 50.68	25,941	\$ 46.67
West Africa ⁽⁴⁾	15,523	15,070	71.27	17,326	17,860	62.51	17,786	42.51
North Sea	12,813	12,505	76.47	3,988	3,717	67.43	5,380	52.68
Other International ⁽⁵⁾	6,806	6,674	53.69	7,491	7,540	52.05	7,851	42.37
Total Consolidated Operations	77,474	76,581	60.61	74,603	74,915	54.47	56,958	45.35
Equity Investees ⁽⁶⁾	8,014	7,684	55.09	7,531	8,032	45.83	3,240	43.43
Total	85,488	84,265	\$ 60.10	82,134	82,947	\$ 53.64	60,198	\$ 45.25

Noble Energy 10-K for 2007, page 41.

Average daily natural gas sales volumes and average realized sales prices were as follows:

	Year Ended December 31,					
	2007		2006		2005	
	Mcfpd	\$/Mcf	Mcfpd	\$/Mcf	Mcfpd	\$/Mcf
North America ⁽¹⁾	412,212	\$ 7.51	451,712	\$ 6.61	343,953	\$ 7.43
West Africa ⁽²⁾	132,464	0.29	45,422	0.37	65,581	0.25
North Sea	6,235	6.54	8,130	8.00	9,299	5.93
Israel	110,820	2.79	92,894	2.72	66,377	2.68
Ecuador ⁽³⁾	25,713	-	24,475	-	22,795	-
Other International	-	-	294	0.96	190	1.10
Total	687,444	\$ 5.26	622,927	\$ 5.55	508,195	\$ 5.78

Noble Energy 10-K for 2007, page 40.

PRODUCTION ACTIVITIES

As of December 31, 1993, Samedan owned approximately 1,809 net producing oil and gas wells in the United States and Canada and approximately 4 net producing oil and gas wells in other foreign jurisdictions. Net production of oil (including condensate and natural gas liquids), excluding royalty sales, totaled 6,916,767 bbls in 1993 compared to 6,362,593 bbls in 1992. Net production of natural gas, excluding royalty sales, totaled 75,139,423 Mcf in 1993 compared to 73,292,461 Mcf in 1992.

Samedan operates approximately 28 percent of the gross oil and gas wells in which it has an interest, with the remainder operated by others under operating agreements customarily used in the industry.

Samedan Oil 10-K for 1994, page 4.



Noble Annual Report 2018, p. 5.

Cell: M11**Comment:** Rick Heede:

On this worksheet we report extractive data for each company or state-owned enterprise. Three columns under crude oil and natural gas allow for data reported in one of three formats (e.g., thousand barrels per day, or million barrels per year, or million tonnes per year). Coal is normally reported in short tons or metric tonnes per year. The subtraction of the fraction typically sequestered in petrochemicals and other non-combusted uses such as road oils, waxes, lubricants, greases, etc. Non-fuel uses are accounted for in the emission factors and applied to each entity in the oil, gas, and coal summary worksheets.

Cell: F12**Comment:** Rick Heede:

Total net worldwide crude oil plus natural gas liquids produced by each company or state-owned enterprise. Where data is available, we list net production (after royalty production is deducted). We rely on company annual reports, Form 10-K, or other company data where available. In some cases -- particularly for state-owned oil and gas companies -- we use production data from the Oil & Gas Journal in its OGJ150 and OGJ100. Crude production includes natural gas liquids (NGL) unless noted.

Cell: J12**Comment:** Rick Heede:

Natural gas is typically reported as dry gas; natural gas liquids are reported under crude oil. Carbon dioxide is normally removed from the gas flow at the production site (see "Vented Carbon Dioxide"). "SCM/d" = standard cubic meters per day. "cf/d" = cubic feet per day. Net production typically excludes a number of diverted gas streams. Quantities and fractions vary; ExxonMobil's exclusions are typical of the industry: "Net production available for sale quantities are the volumes withdrawn from ... natural gas reserves, excluding royalties and volumes due to others when produced, and excluding gas purchased from others, gas consumed in producing operations, field processing plant losses, volumes used for gas lift, gas injections and cycling operations, quantities flared, and volume shrinkage due to the removal of condensate or natural gas liquids production." ExxonMobil Corporation (2004) 2003 Financial and Operating Review, www.exxonmobil.com, p. 55.

Cell: D59**Comment:** Rick Heede:

Noble Affiliates Inc (Samedan Oil) Form 10-K for 1993, page 4: "As of December 31, 1993, Samedan owned approximately 1,809 net producing oil and gas wells in the United States and Canada and approximately 4 net producing oil and gas wells in other foreign jurisdictions. Net production of oil (including condensate and natural gas liquids), excluding royalty sales, totaled 6,916,767 bbls in 1993 compared to 6,362,593 bbls in 1992. Net production of natural gas, excluding royalty sales, totaled 75,139,423 Mcf in 1993 compared to 73,292,461 Mcf in 1992.

Cell: D61**Comment:** Rick Heede:

Noble Affiliates Inc (Samedan Oil) Form 10-K for 1995, page 4: "As of December 31, 1995, Samedan owned approximately 1,895 net producing oil and gas wells in the United States and Canada and approximately 3.3 net producing oil and gas wells in other foreign jurisdictions. Net production of oil (including condensate and natural gas liquids), excluding royalty sales, totaled 9,136,312 bbls in 1995 compared to 8,081,047 bbls in 1994. Net production of natural gas, excluding royalty sales, totaled 96,984,816 Mcf in 1995 compared to 87,729,371 Mcf in 1994

Cell: D63**Comment:** Rick Heede:

Noble Affiliates Form 10-K for 1997, page 6 shows "Net Production. The following table sets forth Samedan's net production including royalty and working interest of oil and natural gas" for 1995 to 1997. Note: oil and gas production reported for 1995 is slightly higher (9.3 Mb and 99.4 Bcf) than reported in the 1995 10-K. Page 3: "The Company's wholly owned subsidiary, Samedan, has been engaged in the exploration, production and marketing of oil and gas since 1932. Samedan has exploration, exploitation and production operations in nine prominent areas: four domestic areas and five international areas. The domestic areas consist of: offshore in the Gulf of Mexico, the Gulf Coast (Texas and Louisiana), the Mid Continent (Oklahoma and Southern Kansas), and the Rocky Mountain division (Colorado, Montana, North Dakota, Wyoming and California). The international areas of operations include Argentina, China, Ecuador, Equatorial Guinea and the U.K. Sector of the North Sea.

Cell: D65**Comment:** Rick Heede:

Noble Affiliates Form 10-K for 1999, page 6 shows "Net Production of oil (Mb) and natural gas (Bcf).

Cell: D67**Comment:** Rick Heede:

Noble Affiliates Form 10-K for 2001, page 6 shows Net Production of oil (Mb) and natural gas (Bcf).

Cell: D69**Comment:** Rick Heede:

Noble Affiliates Inc Form 10-K for 2004, page 23 shows Operating Statistics for 2000 to 2004; production of crude oil (and presumably NGLs) and natural gas.

Cell: D72**Comment:** Rick Heede:

Noble Form 10-K for 2007, page 41 "Average daily crude oil sales volumes and average realized sales prices" (table reproduced below). This table shows both oil production and sales for 2007, though, for consistency with data entered for later years, we enter data for oil sales, total of Consolidated Operations and Equity Investees. Footnote 1: "The variance between production and sales volumes is attributable to the timing of liquid hydrocarbon tanker liftings.

Cell: H72**Comment:** Rick Heede:

Noble Form 10-K for 2007, page 41 "Average daily natural gas sales volumes and average realized sales prices" (table reproduced below). Of 2007 sales of 687 millio cfpd, 412 Mcfpd in USA, 132 Mcfpd from Equatorial Guinea (to methanol and LG plant and NGL facility), and 111 Mcfpd in Israel. See table below.

Cell: D75**Comment:** Rick Heede:

Noble Energy AnnRpt and 10-K for 2010, page 49, "Average daily sales volumes and average realized sales prices" for both crude oil and condensate and NGLs, in thousand bpd.

Cell: H75**Comment:** Rick Heede:

Noble Energy AnnRpt and 10-K for 2010, page 49, "Average daily sales volumes and average realized sales prices" for natural gas, in million cfpd. Note: Noble uses 6,000 cf per bbl conversion.

Cell: D78**Comment:** Rick Heede:

Noble Annual Report 2015, page 6. Sales volumes from continuing operations, in thousand bbl per day. 2011-2015.

Cell: D82**Comment:** Rick Heede:

Noble Energy AnnRpt 2018, page 8. Total liquids "sales volumes from continuing operations" in thousand bbl per day.

Cell: H82**Comment:** Rick Heede:

Noble Energy AnnRpt 2018, page 8. Total natural gas "sales volumes from continuing operations" in million cf per day.

Cell: E83**Comment:** Rick Heede:

Noble Annual report 2018 gives sales data from 2015 to 2018; the 10-K only gives detailed data, including NGLs, page 50, for 2016 - 2018.