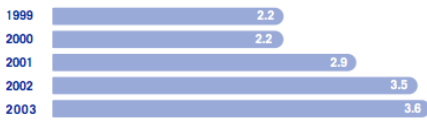


Abu Dhabi NOC, United Arab Emirates

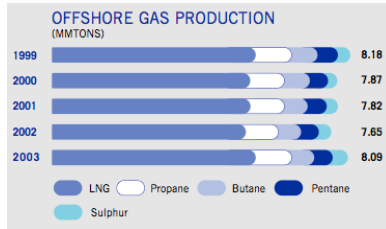
UAE total oil & gas production

Year	Crude Oil & NGL			Natural Gas		
	Net production	Net production	Net production	Gross production	Gross production	Marketed production
	Thousand bbl /d	Million bbl /yr	Million bbl /yr	Million cf/d	Billion cf/yr	Percent

ONSHORE GAS PROCESSING (BDSCF)



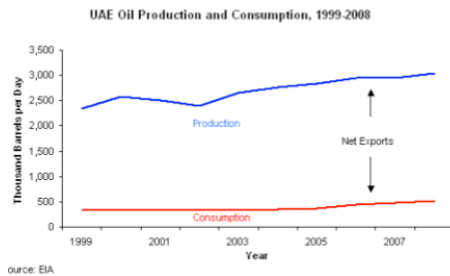
ADNOC (2005) Five Year Achievement Rpt, p. 14.



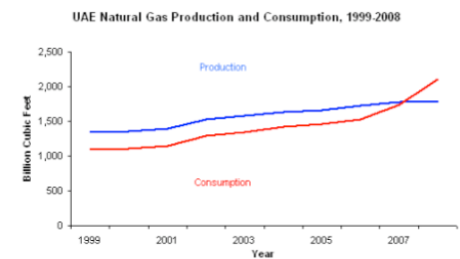
ADNOC (2005) Five Year Achievement Rpt, p. 12.



Year	UAE total prod thousand bbl /day	UAE total prod'n million bbl /yr
1945		
1946		
1947		
1948		
1949		
1950		
1951		
1952		
1953		
1954		
1955		
1956		
1957		
1958		
1959		
1960		
1961		
1962		
1963	10	4
1964	50	18
1965	190	69
1966	280	102
1967	360	131
1968	380	139
1969	500	183
1970	630	230
1971	780	285
1972	1,060	387
1973	1,203	439
1974	1,533	559
1975	1,679	613
1976	1,664	607
1977	1,936	707
1978	1,999	730
1979	1,831	668
1980	1,831	668
1981	1,744	637
1982	1,534	560
1983	1,340	489
1984	1,269	463
1985	1,276	466
1986	1,353	494
1987	1,515	553
1988	1,686	615
1989	1,695	619
1990	1,990	726
1991	2,252	822
1992	2,532	924
1993	2,410	880
1994	2,305	841
1995	2,343	855
1996	2,393	873
1997	2,438	890
1998	2,476	904
1999	2,515	918
2000	2,329	850
2001	2,568	937
2002	2,495	911
2003	2,382	869
2004	2,658	970
2005	2,757	1,006
2006	2,835	1,035
2007	2,936	1,072
2008	2,938	1,072
2009	3,037	1,108
2010	2,786	1,017
2011	2,804	1,023
2012	3,204	1,170
2013	3,389	1,237
2014	3,429	1,252
2015	3,531	1,289
2016	3,660	1,336
2017	3,753	1,370
2018	3,708	1,353
2019	3,770	1,376



Source: EIA



Source: EIA

UAE	Gross NatGas Prod Bcf per year	UAE Prod Market Gas Bcf per year	UAE Rejected NatGas Bcf per year	Vented & Flared of gross		UAE Dry NatGas Prod Bcf per year	ADNOC attributed gas Bcf/yr
				UAE %	UAE Bcf per year		
NA		NA	-		269	200	
NA		NA	-		152	230	
NA		NA	-		181	200	
NA		NA	-		216	270	
NA		NA	-		236	344	
NA		NA	-		224	484	
NA		NA	-		175	537	
NA		NA	-		82	682	
NA		NA	-		89	660	
NA		NA	-		57	812	
	1,053	780	127	4%	42	780	398 74.1%
	1,163	1,024	120	2%	18	916	522 78.8%
	1,295	1,138	127	2%	30	1,023	580 79.0%
	1,292	1,078	196	1%	18	937	550 72.5%
	1,213	1,047	153	1%	14	912	534 75.1%
	1,443	1,218	212	1%	13	1,106	621 73.7%
	1,622	1,308	301	1%	14	1,194	667 73.6%
	1,698	1,397	247	3%	54	1,282	713 75.5%
	1,730	1,424	253	3%	53	1,309	862 75.7%
	1,776	1,462	263	3%	51	1,343	1,026 75.6%
	1,784	1,474	265	3%	46	1,355	1,034 76.0%
	2,084	1,544	516	1%	24	1,390	1,084 66.7%
	2,254	1,701	537	1%	17	1,532	1,194 68.0%
	2,305	1,756	516	1%	34	1,582	1,232 68.6%
	2,402	1,814	558	1%	32	1,635	1,273 68.0%
	2,410	1,828	551	1%	31	1,659	1,283 68.9%
	2,561	1,916	611	1%	34	1,723	1,345 67.3%
	2,649	1,995	623	1%	31	1,778	1,400 67.1%
	2,827	1,976	817	1%	35	1,774	1,386 62.8%
	2,678	1,865	779	1%	35	1,724	1,308 64.4%
	2,817	1,992	791	1%	34	1,811	1,398 64.3%
	2,912	2,030	847		35	1,847	1,424 63.4%
	2,913	2,044	791		36	1,918	1,435 65.8%
	2,959		819		36	1,928	- 65.2%
	2,956		827		36	1,916	- 64.8%
	3,179		836		37	2,125	- 66.9%
NA		-	-	-	-	2,157	
NA		-	-	-	-	2,190	

Updated June 2019
Crude oil, condensate, & NGPL

Updated June 2019

Updated June 2019

Updated June 2019
(dry gas, EIA stat to 2017)

average dry gas of gross



Table 4: Production and Exports of Liquefied Natural Gas Products by product type
(Thousand metric ton)

Year	2012		2013		2014		2015	
	Production	Exports	Production	Exports	Production	Exports	Production	Exports
LNG	5,760	5,601	5,531	5,441	6,050	5,856	5,929	5,728
Propane	4,734	4,643	4,885	3,672	5,146	4,509	5,621	4,880
Butane	4,317	4,239	4,447	3,375	4,627	4,089	5,025	4,426
Pentane (plus)	2,888	2,835	3,024	2,143	3,352	2,876	3,808	3,332
Others (Sulfur)	1,958	1,956	2,117	2,187	2,579	2,490	4,597	4,617
Total	19,656	19,274	20,003	16,818	21,754	19,821	24,981	22,984

Source: Abu Dhabi National Oil Company - ADNOC.
Note: Excluding condensates

Table 3: Natural gas production
(Million Cubic feet)

Year	2011	2012	2013	2014	2015
Annual Production	2,305,798	2,791,815	2,756,207	2,799,202	2,733,804
Daily production	6,317	7,628	7,551	7,669	7,490

Source: Abu Dhabi National Oil Company - ADNOC.

Table 1: Crude oil production and exports
(Thousand barrels)

Year	2011	2012	2013	2014	2015
Production *	913,191	948,200	996,928	1,002,179	1,068,575
Exports	833,070	873,515	920,687	808,131	892,230

Source: Abu Dhabi National Oil Company - ADNOC.
* Production excludes condensates.

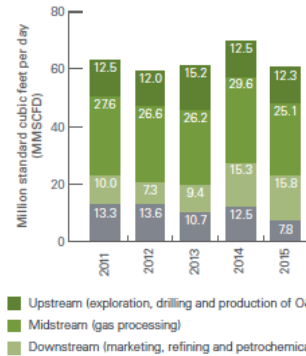
Abu Dhabi Emirate (2016) Energy & Water in Figures, www.scad.ae, Nov.

BP Stat Rev 2018	
Crude oil & NGL	
thousand bpd	Mb

BP Stat Rev 2018	
Natural Gas	
Bcf/d	Bcf

1970	2.6	1	0.08	29	187.7%
1971	3.0	1	0.14	51	144.1%
1972	3.9	1	0.14	51	155.3%
1973	6.1	2	0.16	60	162.9%
1974	8.4	3	0.16	60	162.6%
1975	13.5	5	0.16	57	150.3%
1976	19.5	7	0.18	67	146.8%
1977	28.3	10	0.37	134	108.1%
1978	31.0	11	0.54	197	97.1%
1979	42.2	15	0.58	210	96.0%
1980	99.3	36	0.71	258	98.5%
1981	109.6	40	0.84	305	102.5%
1982	121.8	44	0.90	327	100.7%
1983	123.2	45	0.79	288	108.0%
1984	140.2	51	1.03	378	94.1%
1985	172.0	63	1.25	456	84.6%
1986	207.2	76	1.44	524	75.8%
1987	227.2	83	1.59	582	70.3%
1988	270.9	99	1.63	596	70.4%
1989	285.4	104	1.92	702	65.8%
1990	300.5	110	1.90	692	70.5%
1991	365.4	133	2.25	820	67.7%
1992	366.7	134	2.09	761	77.1%
1993	381.6	139	2.17	792	75.7%
1994	399.0	146	2.44	889	78.3%
1995	399.7	146	2.95	1,078	57.6%
1996	385.3	141	3.18	1,161	57.5%
1997	392.9	143	3.43	1,250	57.0%
1998	391.1	143	3.50	1,276	67.5%
1999	383.2	140	3.63	1,325	77.2%
2000	380.6	139	3.61	1,318	78.3%
2001	381.0	139	3.71	1,355	79.8%
2002	413.1	151	4.09	1,494	79.7%
2003	453.9	166	4.23	1,542	79.7%
2004	485.4	177	4.35	1,589	79.9%
2005	501.9	183	4.51	1,645	77.8%
2006	539.5	197	4.60	1,680	79.8%
2007	576.1	210	4.74	1,732	80.6%
2008	602.8	220	4.73	1,725	80.2%
2009	605.6	221	4.61	1,682	77.6%
2010	654.0	239	4.84	1,766	79.0%
2011	734.7	268	4.93	1,801	89.8%
2012	773.3	282	5.11	1,865	105.1%
2013	852.1	311	5.15	1,880	102.9%
2014	879.9	321	5.12	1,868	105.2%
2015	957.1	349	5.68	2,072	92.6%
2016	1,022.7	373	5.82	2,124	92.5%
2017	964.4	352	6.00	2,189	97.3%
2018	991.5	362	6.26	2,284	109.9%

Flaring



GHG Emissions (Scope 1 & 2)



ADNOC GROUP SUSTAINABILITY REPORT 2015

Alternate production estimate for 2008			
2008	Thousand bbl /d	Million bbl /yr	Bcf.yr
	1,993	727	1,286

Source: Hults, & Thurber, 2012, Introduction, Table 1.1, page 24, in Victor et al, eds, 2012, *Oil and Governance*.
Table 1.1 is based on information from Wood Mackenzie's Pathfinder Database; www.woodmacresearch.com



s prodn 1990-2015

BP Stat Rev Jun19

BP Stat Rev Jun19

94.6% average CAI Adnoc dataseries / BP

Cell: J9**Comment:** Rick Heede:

ADNOC was built from the the Petroleum Development in Trucal Coast Ltd (PDTC, formed in 1935 by Anglo-Persian, now BP, Shell, CFP, now Total SA, Exxon, and Mobil as partners, and granted a 75-year concession as of 11 January 1939). Abu Dhabi determined in 1951 that the concessions to PDTC did not include offshore areas, which subsequently lead to the creation of Abu Dhabi Marine Areas Ltd (ADMA, in 1954, owned two-thirds by BP and one-third by CFP). Abu Dhabi is the largest emirate in the confederation that became United Arab Emirates when the United Kingdom announced in 1968 (reaffirmed in March 1971 by Prime Minister Edward Heath) that the British-Trucial Sheikdoms Treaty would expire on 1 December 1971. Abu Dhabi and Dubai started the process of forming the United Arab Emirates in mid-1971; five additional smaller sheikdoms joined the confederation of the UAE by February 1972 (Qatar and Bahrain, also under the previous protection of the United Kingdom, were invited to join the UAE but declined). ADNOC was formed as a state-owned company in 1971, began nationalizing, and acquired a 25 percent interest its existing PDTC concessions following the creation of OPEC on 1 January 1973. This was raised to a 60 percent interest on 1 January 1974. ADNOC continues to invite IOC participation in exploration and production both onshore and offshore Abu Dhabi, and generally retains a 60 percent stake. See: Rai, Varun, & David G. Victor (2012) *Awakening giant: strategy and performance of the Abu Dhabi National Oil Company (ADNOC)*," in Victor et al, eds, *Oil & Governance*, pp. 478-556. And Yergin, Daniel (1991) *The Prize: The Epic Quest for Oil, Money, and Power*, Simon & Schuster, 899 pp.

Cell: M9**Comment:** Rick Heede:

World Bank, 2008b, page 520: "ADNOC is fully owned by the government (supervised by The Supreme Petroleum Council). Upstream affiliated companies are minority-owned by foreign companies."
World Bank (2008b) *A Citizen's Guide to National Oil Companies, Part B: Data Directory*, World Bank, Washington, & Center for Energy Economics, Bureau of Economic Geology Jackson School of Geosciences University of Texas, Austin, 764 pp.

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 OGJ100 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.

Cell: D31**Comment:** Rick Heede:

Oil and gas production data is available from Annual Reports provided by the University of Exeter's Arab World Documentation Unit, www.exeter.ac.uk/awdu/ktlad.htm#5:
Abu Dhabi National Oil Company (ADNOC)
- Annual reports:* 1975 (report on 1st 5yrs), 1976 - 1985, 1992, 1993, 1994.
- Seventeen years of progress 1971-1988.

Cell: J31**Comment:** Rick Heede:

We use ADNOC reported gas production for 1962 to 1994, Oil & Gas Journal for 1995-2004, and estimated for 2005-2010 on the basis of a constant gas to oil production ratio for 2004 extended to 2005-2010. ADNOC's ownership of natural gas production is not fully transparent. Rai & Victor (2012, page 489) that "ADNOC owned 51 percent of ADGAS until June 1997, when it increased its holding to 70 percent." ADNOC's two main gas processing subsidiaries -- Abu Dhabi Gas Industries Ltd (GASCO) and Abu Dhabi Gas Liquefaction Company Ltd (ADGAS). GASCO is a joint venture of ADNOC (68 percent), Total (15%), Shell (15%), and Partex (2%) and was formed in 1978. Rai, Varun, & David G. Victor (2012) "Awakening giant: strategy & performance of the Abu Dhabi National Oil Company (ADNOC)," in Victor et al, eds, *Oil and Governance*, pp. 478-514.

Cell: F32**Comment:** Rick Heede:

CMS does not have production estimates for ADNOC 1960-1986. CMS attributes 60 percent of total UAE crude oil & NGL production to ADNOC production on the basis of 1988 fraction of known ADNOC to UAE total production. ADNOC annual reports show total production in Abu Dhabi. "According to the Participation Agreement signed in 1974 with the major foreign companies operating in the Emirate, 60% of the production of crude oil is owned by Abu Dhabi, and marketed by ADNOC. The remaining 40% constitute the share of the foreign oil companies." (Quoted from ADNOC Annual Report 1975, p. 12.) CMS reports ADNOC production from Oil & Gas Journal OGJ100 for 1986-2008, which presumably deducts royalty and IOC production. Rai & Victor (2012, page 487) detail ADNOC's three operating subsidiaries -- Abu Dhabi Company for Onshore Oil Operations (ADCO), Abu Dhabi Marine Operating Company (ADMA, for onshore ops), and Zakum Development Company (ZADCO, for offshore ops). ADNOC owned 60 percent of ADCO, and the other partners are BP (9.5%), Shell (9.5%), Total (9%), and Partex (2%). ADNOC owned 60 percent of ADMA, with BP (14.67%), Total (13.33%), and Japan Oil Development Company (12%). Rai, Varun, & David G. Victor (2012) "Awakening giant: strategy & performance of the Abu Dhabi National Oil Company (ADNOC)," in Victor et al, eds, *Oil and Governance*, pp. 478-514.

Cell: L32**Comment:** Rick Heede:

ADNOC annual reports show total production in Abu Dhabi. "the Government of Abu Dhabi promulgated Law Nr. 4 war establishing that all gas resources within the Emirate shall be solely owned by the Emirate. ... ADNOC has been assigned the right to exploit and use all such gas. The company may, if it so desires, undertake the exploitation of the gas in partnership with other parties, provided that it retains a minimum of 51% shareholding in any joint venture." (Quoted from ADNOC Annual Report 1975, p. 12. ADNOC also reports that "a large quantity of gas is still flared off, some 11% of of the natural gas from onshore fields and 39% of that from the offshore fields, is used, principally in pumping stations and power generation in the oil fields." CMS calculates that ADNOC thus flared 406 billion cubic feet of gas of the total 484 Bcf produced in 1976, -- a utilization rate of 20.2 percent. Note: the utilization rate increased to 40 percent in 1978.

Cell: V32**Comment:** Rick Heede:

Energy Information Administration *International Energy Annual 2003*, Table G.1 World Production of Crude Oil, NGL, and Other Liquids, 1980-2003. Also Table 4.1c World Crude Oil Production (Including Lease Condensate), 1970-1979 (detailed in Columns L and M).

Cell: G33**Comment:** Rick Heede:

ADNOC annual reports show total production in Abu Dhabi. "According to the Participation Agreement signed in 1974 with the major foreign companies operating in the Emirate, 60% of the production of crude oil is owned by Abu Dhabi, and marketed by ADNOC. The remaining 40% constitute the share of the foreign oil companies." (Quoted from ADNOC Annual Report 1975, p. 12. CMS interpretes this to mean that the quantity of crude oil production attributable to ADNOC is 60 percent of the total reported production. ADNOC was built from the the Petroleum Development in Trucal Coast Ltd (PDTC, formed in 1935 by Anglo-Persian, now BP, Shell, CFP, now Total SA, Exxon, and Mobil as partners, and granted a 75-year concession as of 11 January 1939). Abu Dhabi determined in 1951 that the concessions to PDTC did not include offshore areas, which subsequently lead to the creation of Abu Dhabi Marine Areas Ltd (ADMA, in 1954, owned two-thirds by BP and one-third by CFP). Abu Dhabi is the largest emirate in the confederation that became United Arab Emirates when the United Kingdom announced in 1968 (reaffirmed in March 1971 by Prime Minister Edward Heath) that the British-Trucial Sheikdoms Treaty would expire on 1 December 1971. Abu Dhabi and Dubai started the process of forming the United Arab Emirates in mid-1971; five additional smaller sheikdoms joined the confederation of the UAE by February 1972 (Qatar and Bahrain, also under the previous protection of the United Kingdom, were invited to join the UAE but declined). ADNOC was formed as a state-owned company in 1971, began nationalizing, and acquired a 25 percent interest its existing PDTC concessions following the creation of OPEC on 1 January 1973. This was raised to a 60 percent interest on 1 January 1974. ADNOC continues to invite IOC participation in exploration and production both onshore and offshore Abu Dhabi, and generally retains a 60 percent stake. See: Rai, Varun, & David G. Victor (2012) *Awakening giant: strategy and performance of the Abu Dhabi National Oil Company (ADNOC)*," in Victor et al, eds, *Oil & Governance*, pp. 478-556. And Yergin, Daniel (1991) *The Prize: The Epic Quest for Oil, Money, and Power*, Simon & Schuster, 899 pp. We therefore attribute a 25 percent interest as of 1Jan73, and a 60 percent interest as of 1Jan74 forward. Further research or detailed information from ADNOC and/or its IOC partners may cause this to be revised, particularly offshore, where ADNOC sometimes holds a 51 percent share. We assume that a ten percent share of production is attributable to ADNOC for years prior to 1973 as royalty production provided by the previous concessions to Petroleum Development in Trucal Coast Ltd (PDTC).

Cell: D34**Comment:** Rick Heede:

Abu Dhabi National Oil Company Annual Report 1975, pp. 35-37 (data for 1962-1973 [offshore production] and 1964-1973 [onshore production] are estimated from bar charts; 1974 and 1975 are actuals.

Cell: H34

Comment: Rick Heede:

Abu Dhabi National Oil Company Annual Report 1975, pp. 35-37 (data for 1962-1975 [offshore production] and 1964-1975 [onshore production]) are estimated from bar charts.

Cell: J34

Comment: Rick Heede:

Gas production from ADNOC annual reports 1975-1994n (data for 1962-1994).

Cell: D47

Comment: Rick Heede:

Abu Dhabi National Oil Company Annual Report 1976, p. 12.

Cell: H47

Comment: Rick Heede:

Abu Dhabi National Oil Company Annual Report 1976, p. 12.

Cell: AE49

Comment: Rick Heede:

We use ADNOC reported gas production for 1962 to 1994, Oil & Gas Journal for 1995-2004, and estimated for 2005-2010 on the basis of a constant gas to oil production ratio for 2004 extended to 2005-2010. ADNOC's ownership of natural gas production is not fully transparent. Rai & Victor (2012, page 489) that "ADNOC owned 51 percent of ADGAS until June 1997, when it increased its holding to 70 percent." ADNOC's two main gas processing subsidiaries -- Abu Dhabi Gas Industries Ltd (GASCO) and Abu Dhabi Gas Liquefaction Company Ltd (ADGAS). GASCO is a joint venture of ADNOC (68 percent), Total (15%), Shell (15%), and Partex (2%) and was formed in 1978. Rai, Varun, & David G. Victor (2012) "Awakening giant: strategy & performance of the Abu Dhabi National Oil Company (ADNOC)," in Victor et al, eds, Oil and Governance, pp. 478-514.

Cell: AD50

Comment: Rick Heede:

Energy Information Administration (2009) International Energy Statistics, Dry Natural Gas Production, 1980-2011, Bcf.

Cell: D51

Comment: Rick Heede:

ADNOC Annual Report 1980, p. 27-28 (sum of major and minor fields).

Cell: H53

Comment: Rick Heede:

ADNOC Annual Report 1984, p. 41. Includes data on total production and utilization rates for 1980-1984.

Cell: D54

Comment: Rick Heede:

ADNOC Annual Report 1983 shows crude oil production from major fields only (to which CMS adds 100,000 bbl per day [average of 1980-1981]).

Cell: D56

Comment: Rick Heede:

ADNOC Annual Report 1985 shows crude oil production from major fields only (to which CMS adds 50,000 bbl per day [half of the average in 1980-1981]).

Cell: L56

Comment: Rick Heede:

Gas utilization was greatly improved with the ADGAS liquefaction plant at Das Island, which produced 2.03 to 2.12 million tonnes of LNG plus smaller amounts of propane, butane, and pentanes+ in 1980 to 1984, respectively.

Cell: F59

Comment: Rick Heede:

Oil & Gas Journal OGJ100 data for ADNOC 1986-2008. CMS assumes that the OGJ production data represents ADNOC's equity production, but this is not certain, and cannot be corroborated by ADNOC since the company is "famously secretive" (Rai & Victor, 2012, p. 478) and does not publish regular production data.

Cell: H60

Comment: Rick Heede:

ADNOC Annual Report 1992, p. 17, shows gas production (estimated from a bar chart) and utilization rates for 1988-1992.

Cell: H65

Comment: Rick Heede:

ADNOC Annual Report 1994,

Cell: O65

Comment: Rick Heede:

ADNOC's "ultimate goal" is to eliminate all flaring. ADNOC 2005, page 7. ADNOC (2005) ADNOC's Five Year Achievement Report, 45 pp., adnoc.ae/publications/AchievementReports/ADNOC_Five_Year_2004.pdf

Cell: L66

Comment: Rick Heede:

ADNOC Annual Report 1994 shows gas production, average utilization of 93 percent, and 93.7 million cf per day re-injected into onshore reservoirs, plus un-quantified offshore re-injection.

Cell: I67

Comment: Rick Heede:

ADNOC gas production for 1995-2004 from Oil & Gas Journal OGJ100.

Cell: J67

Comment: Rick Heede:

ADNOC provides no gas production data. We estimate gas production attributed to ADNOC based on UAE total production of marketed natural gas (EIA data) times 51 percent ownership through June 1997 and 70 percent ownership from July 1997 forward. Rai & Victor (2012, page 489) that "ADNOC owned 51 percent of ADGAS until June 1997, when it increased its holding to 70 percent." ADNOC's two main gas processing subsidiaries -- Abu Dhabi Gas Industries Ltd (GASCO) and Abu Dhabi Gas Liquefaction Company Ltd (ADGAS). GASCO is a joint venture of ADNOC (68 percent), Total (15%), Shell (15%), and Partex (2%) and was formed in 1978. Rai, Varun, & David G. Victor (2012) "Awakening giant: strategy & performance of the Abu Dhabi National Oil Company (ADNOC)," in Victor et al, eds, Oil and Governance, pp. 478-514.

Cell: AV70

Comment: Rick Heede:

Pemex "working interest liquids production in 2008" at 3,257 thousand bbl per day.

Victor, Hulst, & Thurber, 2012, Introduction, Table 1.1, page 24, in Victor et al, eds, 2012, Oil and Governance. Table 1.1 is based on information from Wood Mackenzie's Pathfinder Database; www.woodmacresearch.com

Cell: AX70

Comment: Rick Heede:

Pemex "working interest natural gas production in 2008" at 3,953 thousand cf per day.

Victor, Hulst, & Thurber, 2012, Introduction, Table 1.1, page 24, in Victor et al, eds, 2012, Oil and Governance. Table 1.1 is based on information from Wood Mackenzie's Pathfinder Database; www.woodmacresearch.com

Cell: H72

Comment: Rick Heede:

ADNOC gas production estimates for 2000 (3.798 billion cf per day = 1.386 Tcf per yr) and 2001 (3.990 billion cf per day = 1.456 Tcf per yr).

Cell: F76

Comment: Rick Heede:

OGJ data for 2004. EIA's Country Study report for UAE lists 2004 crude oil production at 2.76 million bbl per day (1.007 billion bbl per year), with exports totaling 2.33 million bbl per day (0.8505 billion bbl). Thus ADNOC

is allocated $0.7136 / 0.8505 = 0.8388$ of UAE's crude production. (Note: EIA does not provide NGL data; except mentions 300-500 tons per day NGLs plus 35,000-55,000 tons per day condensate at the planned Habshan natural gas project at the Bab oil & gas field. Does not mention LNG, but may be the marketed commodity.)

Cell: I76

Comment: Rick Heede:

EIA Country Study, UAE: "Natural Gas Production (2002E): 1.53 Tcf. Natural Gas Consumption (2002E): 1.28 Tcf. Net Natural Gas Exports (2002E): 0.25 Tcf."

Cell: F77

Comment: Rick Heede (Dec09):

Oil & Gas Journal, 17Sep07, OGJ100, page 41, shows 894.3 million bbl for ADNOC in 2006, and 839.5 million bbl in 2005.

Cell: F79

Comment: Rick Heede (Dec09):

Oil & Gas Journal, 21Sep09, OGJ100, page 39, shows 894.3 million bbl for ADNOC in 2008, and 846.8 million bbl in 2007.

Cell: E80

Comment: Rick Heede:

ADNOC "working interest liquids production in 2008" at 1,993 thousand bbl per day, or 727.4 million bbl for the year. Compare OGJ estimate at right of 889 million bbl. Victor, Hults, & Thurber, 2012, Introduction, Table 1.1, page 24, in Victor et al, eds, 2012, Oil and Governance. Table 1.1 is based on information from Wood Mackenzie's Pathfinder Database; www.woodmacresearch.com

Cell: F80

Comment: Rick Heede:

OGJ100 6Sep2010 pg 69; note 2008 production is reported lower than previous report

Cell: I80

Comment: Rick Heede:

Hults, & Thurber, 2012, Introduction, Table 1.1, page 24, in Victor et al, eds, 2012, Oil and Governance. Table 1.1 is based on information from Wood Mackenzie's Pathfinder Database; www.woodmacresearch.com

Cell: F81

Comment: Rick Heede:

Oil & Gas Journal, OGJ 100, 30Oct11.

Cell: E83

Comment: Rick Heede:

Oil & Gas Journal OGJ100, Sep2014.

Cell: F83

Comment: Rick Heede:

Abu Dhabi Emirate (2016) Energy & Water in Figures, www.scad.ae, November. Data for 2011-2015 cited here. "Excludes condensates."
<https://www.scad.ae/Release%20Documents/Energy%20and%20Water%20in%20Figures%202015%20-EN%20v02-new.pdf>

Cell: I83

Comment: Rick Heede:

Abu Dhabi Emirate (2016) Energy & Water in Figures, www.scad.ae, Nov.
 2. Natural Gas Statistics. The importance of natural gas stems from the variation of its uses in the Emirate of Abu Dhabi, such as liquefied fuel and other products such as propane, butane and pentane. It is also used in industries such as iron and steel, aluminum, cement. Natural gas is also re-injected in the oil wells to increase productivity and maintain pressure oil reservoir. The total production of Abu Dhabi Natural Gas in 2015 was 2,734 billion cubic feet, which is a decrease to 2.3% compared to 2014. CAI assumes that 29.8% of gas production is reinjected to maintain reservoir pressure, which then aligns dry production with OGJ data (only available for some years). Calculation based on EIA data for UAE 1990-2015, reinjected gas / gross nat gas prodn, average 1990-2015.

Cell: J85

Comment: Rick Heede:

Gas production attributed to ADNOC base on 2012 marketed production times increase in oil production in 2013 over 2012.

Cell: E88

Comment: Rick Heede:

"We produce around 3 million barrels of oil per day, and over 9.8 billion cubic feet of raw gas per day."
www.adnoc.ae/en/our-business/exploration-and-production
 No production in OGJ100 for 2014 and 2015, or 2016, or 2017, or 2018 (latest Sep2019: No data). OGJ reports reserves of 92.2 Gb oil, and 200 Tcf of gas.

Cell: I88

Comment: Rick Heede:

ADNOC natural gas production is not available for 2016 or 2017 from any known source, including OGJ, OPEC, EIA. CAI assumes that growth in gas production parallels planned growth in crude oil production (which, by the way, excludes condensate production, a large component of ADNOC's liquids production. Forty percent of gas production is assumed to be reinjected.

Cell: L88

Comment: Rick Heede:

"We produce around 3 million barrels of oil per day, and over 9.8 billion cubic feet of raw gas per day."
www.adnoc.ae/en/our-business/exploration-and-production
 No production in OGJ100 for 2014 and 2015, or 2016.

Cell: H89

Comment: Rick Heede:

ADNOC.ae, viewed 24 Apr 2019: "We produce around 3 million barrels of oil per day, and over 9.8 billion cubic feet of raw gas per day, which places us among the largest energy producers in the world. We are committed to producing a target of 3.5 million barrels of oil per day by 2018, with due consideration of prevailing market conditions, and are constantly researching, developing and implementing innovative technologies and approaches that will enable us to enhance recovery and ensure improved production efficiency."
<https://www.adnoc.ae/en/our-business/exploration-and-production>

Cell: D90

Comment: Rick Heede:

ADNOC.ae, viewed 24 Apr 2019: "We produce around 3 million barrels of oil per day, and over 9.8 billion cubic feet of raw gas per day, which places us among the largest energy producers in the world. We are committed to producing a target of 3.5 million barrels of oil per day by 2018, with due consideration of prevailing market conditions, and are constantly researching, developing and implementing innovative technologies and approaches that will enable us to enhance recovery and ensure improved production efficiency."
<https://www.adnoc.ae/en/our-business/exploration-and-production>

Cell: G90

Comment: Rick Heede:

ADNOC website: "Goal is to: Increase production capacity to 3.5m bpd in 2018."