

Oil and natural gas extraction data

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Apache Oil Corporation, USA
 www.apachecorp.com Houston

yellow column indicates original reported units

Private

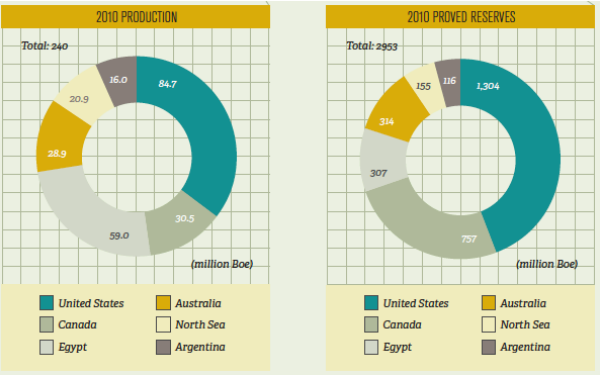
Production / Extraction data

Year	Crude Oil & NGL					Natural Gas				
	Company 1	Company 2	Company 1	Company 2	Sum production	Company 1	Company 2	Company 1	Company 2	Sum production
	Thousand bbl/d	Thousand bbl/d	Million bbl/yr	Million bbl/yr	Million bbl/yr	Million cf/d	Million cf/d	Billion cf/yr	Billion cf/yr	Billion cf/yr
	Apache		Apache	Dekalb Energy merger 1994	Sum			Apache gas leak	Dekalb Energy merger 1994	Sum

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Founded 1954.



Apache AnnRpt 2010, page 27.

Year Ended December 31,	Production		
	Oil (MMbbls)	NGL (MMbbls)	Gas (Bcf)
2018			
United States	38.3	21.0	216.5
Egypt ⁽¹⁾	34.2	0.3	119.3
North Sea ⁽²⁾	17.1	0.4	16.6
Total	89.6	21.7	352.4
2017			
United States	33.4	17.8	143.9
Canada ⁽³⁾	2.4	1.0	48.0
Egypt ⁽¹⁾	35.5	0.3	141.0
North Sea ⁽²⁾	17.9	0.4	16.6
Total	89.2	19.5	349.5
2016			
United States	38.0	19.8	145.0
Canada	4.8	2.1	88.8
Egypt ⁽¹⁾	37.9	0.4	143.4
North Sea ⁽²⁾	20.0	0.6	26.3
Total	100.7	22.9	403.5

Apache Corp. 2018 SEC Form 10-K, page 7.

23.36 CO2-eq (million tonnes over the 16 month event)

Note: we have not added Apache and Apache Offshore (Offshore is typ larger prod)

	OGJ100			
1985	2.0		2.0	2.0
1986	2.0		2.0	2.0
1987	2.0		2.0	2.0
1988	2.3		2.3	2.3
1989	3.1		3.1	3.1
1990	3.4	no data	3.4	3.4
1991	8.4	no data	8.4	8.4
1992	12.6	no data	12.6	12.6
1993	12.8	1.0	13.8	13.8
1994	13.6	1.0	14.6	14.6
1995	19.1		19.1	19.1
1996	20.2		20.2	20.2
1997	25.1		25.1	25.1
1998	19.0	erroneous?	19.0	19.0
1999	34.7		34.7	34.7
2000	44.5		44.6	44.6
2001	56.9		57.0	57.0
2002	-	58.9	58.9	58.9
2003	215		78.3	78.5
2004	242		88.3	88.3
2005	244		89.1	89.1
2006	236		86.3	86.1
2007	262		95.6	95.6
2008	265		96.9	96.7
2009	290		98.3	105.9
2010	343		125.1	125.2
2011	371		135.4	135.4
2012	396		144.5	140.5
2013	411		123.1	145.9
2014	367		134.0	141.4
2015	347		126.7	128.4
2016	275	123.4	62.7	123.4
2017	244	108.7	53.5	108.7
2018	245	111.3	59.6	111.3

		Biggest gas leak: (see note above) Add to fugitive CH4	
		16.8	386.4 Bcf CO2-eq
	OGJ100		
1985	38.7		38.7
1986	38.7		38.7
1987	40.9		40.9
1988	53.0		53.0
1989	85.0		85.0
1990	94.6	no data	94.6
1991	104.6	no data	104.6
1992	96.0	no data	96.0
1993	110.6	21.0	131.6
1994	155.9	20.5	176.4
1995	210.6		210.6
1996	205.3		205.3
1997	222.2		222.2
1998	64.1	erroneous?	64.1
1999	239.5		239.5
2000	831		303.3
2001	1,127		411.4
2002	-		411.4
2003	1,217		394.3
2004	1,235	444.2	444.3
2005	1,264	450.8	452.0
2006	1,589	461.4	516.0
2007	1,796	580.0	580.0
2008	1,618	655.5	204.9
2009	1,759	590.6	592.0
2010	1,889	642.0	642.0
2011	2,262	689.5	689.5
2012	2,293	825.6	825.6
2013	2,097	836.9	836.9
2014	1,340	765.4	765.4
2015	1,131	567.3	567.3
2016	1,103	412.8	412.8
2017	958	402.4	402.4
2018	966	349.5	349.5
		352.4	352.4

Total	na	na	858	2	2,143	na	na	5,658	42	11,943
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Cell: J9**Comment:** Rick Heede:

Apache Oil Corporation was founded in 1954 (in Minneapolis).

By Jun88, Apache sold the last of its non-oil-and-gas subsidiaries, exited the business of managing oil-and-gas- related investments, and announced its intention to restructure as a pure exploration and production company.

In June 1992, Apache completed its five-year stay in Denver and moved the company to its present headquarters in Houston. The catalyst for the relocation was Apache's 1991 acquisition of MW Petroleum from Amoco for \$546 million. That transaction doubled Apache's size and shifted the center of Apache's geographical mass from the mid-continent and the Rockies to the Gulf Coast and the Permian Basin.

Apache strengthened its Gulf of Mex presence with the \$114-million Hall-Houston acquisition in 1993.

Hall-Houston acquisition: On April 14, 1993, Apache's Australian subsidiary, with but a half-million barrels of oil on the books, announced a 420-billion-cubic-foot gas discovery at the East Spar concession in the Carnarvon Basin offshore Western Australia. Without operations and a contract for the gas, however, Apache was unable to book its 20-percent share of the reserves. Apache's Australian program was at a strategic crossroads. The company's 40-year history, Against the Grain, said it best: "As an absentee owner with no operating presence Down Under, Apache needed an Australian hub if it were to realize any value from its East Spar discovery or its 6.9 million acres of leases." Recognition of the challenge helped identify the opportunity and, when Hadson Corporation suggested that Apache purchase its subsidiary, Hadson Energy Resources Corp (HERC), the proposal fell on receptive ears. By year end, Apache completed the \$98 million merger.

In 1994, Apache announced a \$285 million merger with Canada-based DEKALB Energy Co. Total assets reached \$1.9 billion.

Apache cemented its reputation as the premiere "acquire and exploit" company in the industry. In 1994, Apache announced a \$285 million merger with Canada-based DEKALB Energy Co. Total assets reached \$1.9 billion.

In March 1995, Apache completed the \$567 million acquisition of properties from Texaco. At the time, the "Star" transaction was the largest in Apache's history. The Texaco acquisition encompassed 315 oil and gas fields in the Permian Basin, the Texas-Louisiana Gulf Coast, western Oklahoma, East Texas, the Rocky Mountains and the Gulf of Mexico. Acquisitions helped fuel Apache's performance in 1995: The company posted its 18th onsecutive year of production growth and record reserves of 420.6 million barrels of oil equivalent, a 56 percent increase from the preceding year and a 124 percent increase since the company moved its headquarters from Denver to Houston in 1992.

Apache's 1996 merger with The Phoenix Resource Companies established the company as Egypt's largest independent leaseholder-operator.

Although oil and gas prices dipped sharply in early 1999, Apache completed one of its most successful acquisitions when it acquired \$714 million in Gulf of Mexico properties from Shell Offshore Inc.

As the year drew to a close, Apache acquired the Plains Business Unit from Shell Canada, setting the stage for a new period of growth in Western Canada.

Cell: L15**Comment:** Rick Heede:

Website, viewed 12Mar05, www.apachecorp.com/about/hist_return.htm:

"Killing the Key No. 1 -- 'the world's biggest gas leak': "On Feb. 16, 1983, the company killed the gas flow from the Apache-operated Key No. 1, a well that had been "the world's biggest gas leak" since Oct. 4, 1981.

As much as any in the industry, Texans are partial to big statistics. "In the history of the state, the hands-down winner is undeniably the 100,000 barrels of oil that gushed daily from Spindletop when that now-fabled discovery came into being on January 10, 1901. Two days after it came in, a crowd of 10,000 persons had gathered near Beaumont to watch the mighty Spindletop heave oil 175 feet into the air."

Eighty years later, crowds gathered in Wheeler County to witness what was perhaps the largest gas well blowout in U.S. history. The well had tested at some 35 million cubic feet per day. The resultant uncontrolled gas flow could well have been a multiple.

Technical personnel from Apache and the industry worked ceaselessly to first control and then kill the blowout. "A steady stream of mud, gas, water and rocks remained in permanent eruption as crews dug a pit over 106 feet below ground" in order to capture the gas flow at the point at which the tubing and casing had separated.

Two additional Key wells, one to kill the No. 1 and the other to replace it, were drilled simultaneously from nearby surface locations. The kill well ultimately found and penetrated the No. 1's 7 5/8" casing at a depth below 16,000 feet. The gas flow was halted 16 months after it began.

The blowout dramatized once again the risk element always so exceptionally present in oil and gas exploration. Yet throughout the long months when hundreds of workers and technicians labored at the site, and costly salvage vehicles rumbled through the mud and dust, no lives were lost and no serious injury or permanent property damage was sustained.

Responding to a crisis -- it was Apache at its finest."

26Jan06 estimate of the carbon dioxide-equivalent of this blow-out -- assuming all of the gas was vented and none of it was flared: The company reported a blow rate of 35 million cf per day, which we use as the average over the sixteen month event: 35 million cf/d = 0.0168 Tcf over 30d*16months = 0.01858 QBtu (at 1,106 Btu per cf for wet gas), which, at 14.92 MtC/QBtu, equals 0.2772 MtC (1.01581 MtCO2) and thus (at CH4 at 23xCO2) = 6.3762 MtC-eq (23.3636 MtCO2-eq). This represents a significant additional impact of Apache's total estimated emissions from natural gas and oil production.

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

Apache AnnRpts 2005 and 2008.

Cell: J65**Comment:** Rick Heede:

Apache AnnRpts 2005 and 2008.

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

Oil and gas production data from Energy Intelligence (2003) Top 100: Ranking the World's Oil Companies, p. 106.

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

Apache AnnRpt 2010, page 9: Oil & NGL production 2008-2010.

Cell: J75**Comment:** Rick Heede:

Apache AnnRpt 2010, page 9: Natural Gas production 2008-2010.

Cell: F77**Comment:** Rick Heede:

OGJ150 Oct11, page 38. Plus Gas Prodn of 689 Bcf.

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

Apache Corporation (2014) Annual Report: Visible Growth, page 0, Performance Highlights.

Cell: J78**Comment:** Rick Heede:

Apache Corporation (2014) Annual Report: Visible Growth, page 0, Performance Highlights.

Cell: F80**Comment:** Rick Heede:

APA Form 10-K for 2014 reports annual production for Oil and NGLs separately.

Cell: K81**Comment:** Rick Heede:

APA 10-K reports gas production in Bcf per year. Note: it also adjusts 2013 gas production downwards from its 2014 AnnRpt (then 765 Bcf) to 697 Bcf.

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

Apache Annual Report 2015, page 4: Oil & NGL production, 347 kbbl /day, 367 kbbl /day in 2014, and 380 kbbl /day in 2013.

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

Apache SEC 10-K for 2017, page 8. Sum of crude oil and NGL in 2016 and 2017.

2017: 89.2 Mb Oil + 19.5 Mb NGL, of which 51 Mb in US, 1 Mb in Canada, 0.3 Mb in Egypt, and 18.3 Mb in North Sea (Norway).

Decline from 2016 explained thus:

(1) During the third quarter of 2017, Apache completed the sale of its Canadian operations.

(2) Includes production volumes attributable to a one-third noncontrolling interest in Egypt.

Apache

(3) Sales volumes from the North Sea for 2017 and 2016 were 21.2 MMboe and 24.5 MMboe, respectively. Sales volumes may vary from production volumes as a result of the timing of liftings in the Beryl field.

Cell: J82

Comment: Rick Heede:

Apache Annual Report 2015, page 4: natural gas production: 1,131 mmcf/day, 1,340 mmcf/day in 2014, and 1,686 mmcf/day in 2013.

Cell: N82

Comment: Rick Heede:

Apache SEC 10-K for 2017, page 8. Natural Gas production 2016 and 2017.

2017: 349.5 Bcf, of which 144 Bcf in US, 48 Bcf in Canada, 141 Bcf in Egypt, and 16.6 Bcf in North Sea (Norway).

Cell: D83

Comment: Rick Heede:

Apache 10-K for 2081, p. 32. Data for Oil and NGL, in kbbl per day for 2016-2018.

Cell: J83

Comment: Rick Heede:

Apache 10-K for 2081, p. 32. Data for natural gas production for regions per day for 2016-2018. Gas prodn in US (593 Mcfpd), Egypt (327 Mcfpd), and North Sea (45 Mcfpd).

Cell: O87

Comment: Rick Heede:

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Cell: O88

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