

Oil & natural gas extraction data

Richard Heede
 Climate Mitigation Services
 File started: 14 June 2019
 Last modified: June 2019

Copyright Climate Accountability Institute

Santos Ltd.

yellow column indicates original reported units

www.santos.com

Production / Extraction data

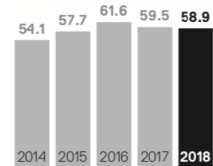
Year	Crude Oil & NGL			Natural Gas				
	Net production	Net production	Net production	Net production	Net production	Net production		
	Thousand bbl /d	Million bbl /yr	Million tonnes/yr	Million cf/d	Million SCM/d	Billion cf/yr	Million tons/yr	Million tonnes/yr

- 17 1950
- 18 1951
- 19 1952
- 20 1953
- 21 1954
- 22 1955
- 23 1956
- 24 1957
- 25 1958
- 26 1959
- 27 1960
- 28 1961
- 29 1962
- 30 1963
- 31 1964
- 32 1965
- 33 1966
- 34 1967
- 35 1968
- 36 1969
- 37 1970
- 38 1971
- 39 1972
- 40 1973
- 41 1974
- 42 1975
- 43 1976
- 44 1977
- 45 1978
- 46 1979
- 47 1980
- 48 1981
- 49 1982
- 50 1983
- 51 1984
- 52 1985
- 53 1986
- 54 1987
- 55 1988
- 56 1989
- 57 1990
- 58 1991
- 59 1992
- 60 1993
- 61 1994
- 62 1995
- 63 1996
- 64 1997
- 65 1998
- 66 1999
- 67 2000
- 68 2001
- 69 2002
- 70 2003
- 71 2004
- 72 2005
- 73 2006
- 74 2007
- 75 2008
- 76 2009
- 77 2010
- 78 2011
- 79 2012
- 80 2013
- 81 2014
- 82 2015
- 83 2016
- 84 2017
- 85 2018

Santos established in

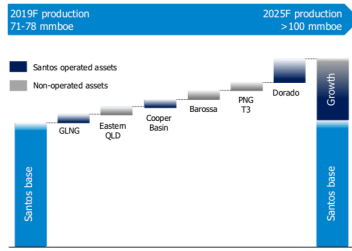
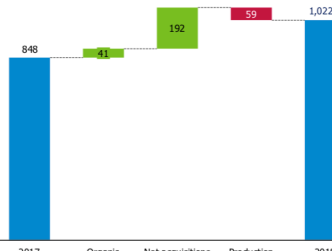


Santos Annual Rpt 2018, p. 2, prodn Mboe.



Santos Annual Rpt 2018, p. 2, prodn Mboe.

2018 production energy	2018 production Mboe	2018 production Percent of total
Natural gas & ethan	25.7	43.6%
LNG	23.1	39.2%
Crude oil	5.9	10.0%
Condensate	3.0	5.1%
LPG	1.2	2.0%
Total	58.9	100.0%
Natural gas	25.7	43.6%
Liquids	33.2	56.4%



Santos 2018 Results: 2P reserves

Santos 2018 Results: 2025 target portfolio

Year	OGJ100		OGJ100		OGJ100	
	Actual production Mboe	Oil Mb	Calculated liquids Mb	Calculated gas sales Bcf	Gas Bcf	Calculated gas sales Bcf
1991		3.0	3		40.5	41
1992		2.7	3		37.5	38
1993		20.5	21		110.2	110
1994		38.3	38		182.8	183
1995		38.3	38		185.3	185
1996		12.3	12		149.2	149
1997		9.4	9		163.6	164
1998		11.4	11		184.9	185
1999		12.1	12		202.0	202
2000		13.0	13		215.0	215
2001		12.6	13		207.8	208
2002		12.2	12		200.5	201
2003		13.2	13		193.3	193
2004		14.2	14		186.0	186
2005		22.1	22		179.6	180
2006		20.5	21		226.2	226
2007		17.7	18		233.0	233
2008		14.6	15		231.3	231
2009	54.4	30.7	31	142.4	142	142
2010	49.9	28.1	28	130.6	131	131
2011	47.2	26.6	27	123.6	124	124
2012	52.1	29.4	29	136.4	136	136
2013	51.0	28.7	29	133.5	134	134
2014	54.1	30.5	30	141.6	142	142
2015	57.7	32.5	33	151.1	151	151
2016	61.6	34.7	35	161.3	161	161
2017	59.5	33.5	34	155.8	156	156
2018	58.9	33.2	33	154.2	154	154
Total	na	na	596	na	na	4,559

Year	OGJ100		OGJ100	
	Oil Mb	Gas Bcf	Oil Mb	Gas Bcf
1991	3.0	40.5		
1992	2.7	37.5		
1993	20.5	110.2	interpolated	
1994	38.3	182.8		
1995	38.3	185.3		
1996	12.3	149.2		
1997	9.4	163.6		
1998	11.4	184.9		
1999	12.1	202.0		
2000	13.0	215.0		
2001	12.6	207.8	interpolated	
2002	12.2	200.5	interpolated	
2003	13.2	193.3	interpolated	
2004	14.2	186.0		
2005	22.1	179.6		
2006	20.5	226.2		
2007	17.7	233.0		
2008	14.6	231.3	interpolated	
2009	11.4	229.6		
2010	6.5	na		
2011				
2012				
2013				
2014				
2015				
2016				
2017	12.0	271.0		
2018	9.0	269.2		

Cell: N11**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: D72**Comment:** Rick Heede:

Santos reports (in its Annual Report for 2018) production of oil, NGL, condensate, LPG, ethane, and natural gas as one number, in Mboe per year. CAI allocates to liquids and gas production on the basis of reported production by fuel (see table, this page), by percent. Thus liquids are 56.4% and gas is 43.6%. While this fraction varies over time, Santos' proportion is relative stable.

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

Santos reports (in its Annual Report for 2018) production of oil, NGL, condensate, LPG, ethane, and natural gas as one number, in Mboe per year. CAI allocates to liquids and gas production on the basis of reported production by fuel (see table, this page), by percent. Thus liquids are 56.4% and gas is 43.6%. While this fraction varies over time, Santos' proportion is relative stable.

Cell: D76**Comment:** Rick Heede:

Santos Ten-Year Summary, 2009-2018, production only reported in Mboe per year; <https://www.santos.com/media/4665/2018-10-year-summary.pdf>
Santos does not post Annual reports earlier than its 2013 report on its website. This column will be revised if printed Annual Reports are made available.