

# Oil, gas, & coal extraction data

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 Climate Mitigation Services  
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## Sinopec, China Petroleum & Chemical Corporation

yellow column indicates original reported units **75.84 percent state-owned**

<http://www.sinopecgroup.com/group/en/> Beijing

### Production / Extraction data

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



Sinopec AnnRpt 2011 p. 13.



Sinopec AnnRpt 2011 p. 13.

Operations Performance Highlights (2004-2007; not all years or data reported)	
Upstream: Average Proved Oil Reserves (MM Barrels)	3,285
Upstream: Average Proved Gas Reserves (BCF)	2,947
Upstream: Average Annual Oil Production (MM Barrels)	279
Upstream: Average Annual Natural Gas Production (BCF)	229
Downstream: Average Annual Refinery Production (MM Barrels)	876
Financial Performance Highlights (2004-2007; not all years or data reported)	
Consolidated Average Total Revenues (\$Millions)	103,314
Consolidated Average Total Assets (\$Millions)	66,116
Consolidated Average EBIT (\$Millions)	11,375
Consolidated Average Net Income (\$Millions)	5,807

World Bank (2008b) A Citizen's Guide to National Oil Companies, Part B: Data Directory, page 58.

#### Output of Oil & Gas at Home

	2011	2010	2009	2008	2007
Crude oil (million tons)	42.73	42.56	42.42	41.80	41.08
Natural gas (billion m³)	14.64	12.50	8.47	8.30	8.00

Sinopec AnnRpt 2011, page 9.

Plus international equity production (2011): 22.07 million tons crude oil  
 994 million m³ natgas

#### Sinopec established in July 1998

Year	OGJ100		OGJ100	
	backcast: 1999*0.48	116	backcast: 1999*0.48	38
1998	241.5	241	78.6	79
1999	247.4	247	80.3	80
2000	269.2	269	162.8	163
2001	269.8	270	178.8	179
2002	271.0	271	187.7	188
2003	274.2	274	207.0	207
2004	278.8	279	221.9	222
2005	285.2	285	256.5	257
2006	291.7	292	282.6	283
2007	332.0	332	293.1	293
2008	327.6	328	299.0	299
2009	327.9	328	441.4	441
2010	321.7	322	517.1	517
2011	899	513	598.0	714
2012	921	566	1,637	914
2013	989	577	1,808	996
2014		581	1,962	1,050
2015		518		1,127
2016	303.5	295	766.1	913
2017	294.7	289	912.5	977
2018	288.5		977.3	

#### Exploration & Production:

	2011	2010	2009	Change from 2010 to 2011(%)
Crude Oil Production (MMbbl)	321.73	327.85	327.62	(1.9)
In which China	303.37	302.18	301.15	0.4
Africa	18.36	25.67	26.47	(28.5)
Natural Gas Production (bcf)	517.07	441.39	299.01	17.1
Oil & Gas Production (MM boe)	407.89	401.42	377.45	1.6
Proved reserves Crude Oil Reserves (MMbbl)	2848	2,888	2,920	(1.4)
Proved reserves Natural Gas Reserves (bcf)	6709	6,447	6,739	4.1
Proved reserves Oil & Gas Reserves (MM boe)	3966	3,963	4,043	0.1

english.sinopec.com/about\_sinopec/our\_business/exploration\_oil\_production/

Sinopec AnnRpt 2016  
 Sinopec AnnRpt 2016  
 Sinopec AnnRpt 2016  
 Sinopec AnnRpt 2016  
 Sinopec AnnRpt 2018  
 Sinopec AnnRpt 2018

<b>Total</b>	na	<b>5,285</b>	<b>7,193</b>	na	<b>7,121</b>	<b>9,935</b>
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A B C D E F G H I J K L M N O P

**Summary of Operations for the Exploration and Production Segment**

	2018	2017	2016
Oil and gas production (mmboe)	451.46	448.79	431.29
Crude oil production (mmbbls)	288.51	293.66	303.51
China	248.93	248.88	253.15
Overseas	39.58	44.78	50.36
Natural gas production (bcf)	977.32	912.50	766.12

Sinopec Annual Report 2018, page 10.

**Operation Summary of Exploration and Production Segment**

	2010	2009	2008	Change from 2009 to 2010 (%)
Crude oil production (mmbbls)	327.85	327.62	322.02	0.1
Including: China	302.18	301.15	296.80	0.3
Africa	25.67	26.47	25.22	(3.0)
Natural gas production (bcf)	441.39	299.01	293.07	47.6
Total oil and gas production (mmboe)	401.42	377.45	370.87	6.4

As at 31 December, 2010	As at 31 December, 2009	As at 31 December, 2008	Changes at the year end and of the report period compared with that at the end of the last year (%)	
Proved reserve of crude oil (mmbbls)	2,888	2,920	2,961	(1.1)
Proved reserve of natural gas (bcf)	6,447	6,739	6,959	(4.3)
Proved reserve of crude oil and natural gas ( mmboe)	3,963	4,043	4,121	(2.0)

Note: 1. Inclusive of 100% of production and reserve of SSI.  
2. For crude oil produced in China, 1 tonne=7.1 barrels; for natural gas, 1 cubic meter=35.31 cubic feet; for crude oil produced in Africa, 1 tonne=7.27 barrels.

Sinopec Annual Report 2010, page 13.

**Summary of Operations of the Exploration and Production Segment**

	2007	2006	2005	Change from 2006 to 2007 (%)
Crude oil production (mmbbls)	291.67	285.19	278.82	2.3
Natural gas production (bcf)	282.6	256.5	221.9	10.2
Newly added proved reserves of crude oil (mmbbls)	21	286	306	(92.7)
Newly added proved reserves of natural gas (bcf)	3,756.7	1,611.5	140.6	2,226.1
Year-end proved reserves of crude oil (mmbbls)	3,024	3,295	3,294	(8.2)
Year-end proved reserves of natural gas (bcf)	6,330.8	2,856.7	2,951.7	121.6
Year-end proved reserves of crude oil and natural gas ( mmboe)	4,079	3,771	3,786	8.2

Sinopec Annual Report 2007, page 15.

**Summary of Operations of the Exploration and Production Segment**

	2004	2003	2002	Changes from 2003 to 2004 (%)
Crude oil production (mmbbls)	274.15	270.96	269.80	0.18
Natural gas production (bcf)	207.0	187.7	178.8	10.29
Newly added proved reserves of crude oil (mmbbls)	284	208	375	36.54
Newly added proved reserves of natural gas (bcf)	352.0	(254.3)	20.2	N/A
Year end proved reserves of crude oil (mmbbls)	3,267	3,257	3,320	0.31
Year end proved reserves of natural gas (bcf)	3,033.0	2,887.6	3,329.4	5.04
Year end proved reserves of crude oil and natural gas ( mmboe)	3,773	3,738	3,875	0.94

**Summary of Production and Operations of Shengli Oil Field**

	2004	2003	2002	Changes from 2003 to 2004 (%)
Crude oil production (mmbbls)	189.88	189.25	189.68	0.33
Natural gas production (bcf)	31.8	28.6	26.5	11.19
Newly added proved reserves of crude oil (mmbbls)	225	196	240	14.80
Newly added proved reserves of natural gas (bcf)	79.9	70.1	(5.1)	13.98
Year end proved reserves of crude oil (mmbbls)	2,306	2,271	2,264	1.54
Year end proved reserves of natural gas (bcf)	357.1	308.9	267.4	15.60
Year end proved reserves of crude oil and natural gas ( mmboe)	2,366	2,322	2,308	1.89

Sinopec Annual Report and Accounts, 2004, China Petroleum and Chemical Corporation, page 20.

**Production Summary of the Refining Segment**

	2010	2009	2008	Change from 2009 to 2010 (%)
Refinery throughput (million tonnes)	211.13	186.58	175.73	19.2
Gasoline, diesel and kerosene production (million tonnes)	124.38	113.69	107.36	9.4
including: Gasoline (million tonnes)	35.87	34.43	29.65	10.5
Diesel (million tonnes)	76.09	68.86	69.74	10.5
Kerosene (million tonnes)	12.42	10.39	7.99	19.5
Light chemical feedstock (million tonnes)	35.00	26.87	23.12	30.3
Light products yield (%)	75.79	75.54	74.75	Up by 0.25 percentage point
Refining yield (%)	94.83	94.53	94.05	Up by 0.30 percentage point

Note: 1. Refinery throughput includes natural gas condensates and heavy oil throughput. The data of 2008 and 2009 were adjusted retrospectively. For unit conversion of refinery throughput, 1 tonne=7.35 barrels;  
2. The operation data include 100% of the production of the joint venture.

Sinopec Annual Report 2010, page 14.

**Production Summary of Major Chemical Products**

	2010	2009	2008	Change from 2009 to 2010 (%)
Ethylene	9,059	6,713	6,289	34.9
Synthetic resin	12,949	10,287	9,643	25.9
Synthetic rubber	967	884	834	9.4
Synthetic fiber monomers and polymers	8,864	7,798	7,264	13.7
Synthetic fiber	1,393	1,302	1,260	7.0
Urea	1,223	1,752	1,649	(30.2)

Note: 100% production of joint ventures was included.

Sinopec Annual Report 2010, page 15.

**Summary of Operations for the Exploration and Production Segment**

	2018	2017	2016	Change from 2017 to 2018 (%)
Oil and gas production (mmboe)	451.46	448.79	431.29	0.6
Crude oil production (mmbbls)	288.51	293.66	303.51	(1.8)
China	248.93	248.88	253.15	0.02
Overseas	39.58	44.78	50.36	(11.6)
Natural gas production (bcf)	977.32	912.50	766.12	7.1

**Summary of Reserves of Crude Oil and Natural Gas**

Items	Crude oil reserves (mmbbls)	
	31 December 18	31 December 17
Proved reserves	1,666	1,599
Proved developed reserves	1,533	1,459
China	1,244	1,124
Consolidated subsidiaries	1,244	1,124
Shengli	910	811
Others	334	313
Overseas	289	305
Consolidated subsidiaries	27	52
Equity accounted entities	261	273
Proved undeveloped reserves	134	170
China	96	137
Consolidated subsidiaries	96	137
Shengli	16	49
Others	80	88
Overseas	38	33
Consolidated subsidiaries	0	0
Equity accounted entities	38	33

**Summary of Operations for the Exploration and Production Segment**

	2013	2012	2011	Change from 2012 to 2013 (%)
Oil and gas production (mmboe)	442.84	427.95	407.91	3.48
Crude oil production (mmbbls)	332.54	328.28	321.73	1.30
China	310.94	306.60	303.37	1.38
Overseas	21.70	21.68	18.36	0.09
Natural gas production (bcf)	660.18	598.01	517.07	10.40

Sinopec Annual Report 2013, page 13.

**Summary of Proved Reserves of Crude Oil and Natural Gas**

	Reserves of Crude Oil (mmbbls)	
	31 December 2013	31 December 2012
Proved Reserves	3,130	2,843
Proved Developed Reserves	2,821	2,577
Shengli	1,944	1,974
Others	557	539
China	2,501	2,519
Overseas	320	64
Proved Undeveloped Reserves	309	266
Shengli	110	84
Others	162	174
China	272	258
Overseas	37	8

	Reserves of Natural Gas (bcf)	
	31 December 2013	31 December 2012
Proved Reserves	6,520	6,730
Proved Developed Reserves	5,805	5,439
Pujiang	2,939	3,605
Others	2,942	1,834
China	5,781	5,439
Overseas	24	—
Proved Undeveloped Reserves	715	1,291
Pujiang	—	—
Others	712	1,291
China	712	1,291
Overseas	8	—

Sinopec Annual Report 2013, page 13.

**Summary of Operations of the Exploration and Production Segment**

	2000	1999		
	(Sinopec National)	(Sinopec Star excluded)	(Sinopec National Star excluded)	% change in compared to 2000
Crude oil production (mmbbls)	269.16	247.35	241.45	8.8
Natural gas production (bcf)	162.8	80.3	78.6	103
Newly added proved crude oil reserves (mmbbls)	316	318	443	-0.6
Newly added proved gas reserves (bcf)	309	297.0	284.0	4.0
Year end proved reserves of crude oil (mmbbls)	3,215	2,952	2,881	8.9
Year end proved reserves of natural gas (bcf)	3,488	999.0	782.0	249.2
Year end proved reserves of oil and gas ( mmboe)	3,796	3,118	3,011	21.7

Sinopec Annual Report and Accounts, 2001, China Petroleum and Chemical Corp., p. 19.

**Sources of Crude Oil Processed by the Company**

	2010	2009	2008	Change from 2009 to 2010 (%)
Company produced crude oil in China	39.13	35.22	34.57	(3.3)
PetroChina	5.10	7.05	6.13	(27.7)
CNOOC LIMITED	6.91	6.49	9.04	6.5
Import	165.00	138.82	128.38	18.9
Total	212.14	187.58	178.13	13.1

Sinopec Annual Report 2010, page 13.

Sinopec Shengli Oilfield

People's Daily Online -- Shengli Oil Field tightens security

More Efforts in R&D to Fight Against Climate Change  
[www.sinopecgroup.com/english/socialresponsibility/safegreen/tsafe/Pages/default.aspx](http://www.sinopecgroup.com/english/socialresponsibility/safegreen/tsafe/Pages/default.aspx)  
 Low-Carbon Lifestyle

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

China Petrochemical Corporation (Sinopec Group) is a super-large petroleum and petrochemical enterprise group established in July 1998 on the basis of the former China Petrochemical Corporation. Sinopec Group is a state-owned company solely invested by the State, functioning as a state-authorized investment organization in which the state holds the controlling share. Headquartered in Beijing, Sinopec Group has a registered capital of RMB 182 billion.

Sinopec Group executes the investor rights over related state assets owned by its full subsidiaries, controlled companies and share-holding companies. These rights include receiving returns on assets, making major decisions and appointing management teams. The Group operates, manages and supervises state assets according to related laws, and shoulders the corresponding responsibility of maintaining and increasing the value of state assets. China Petroleum & Chemical Company (Sinopec Corp.), controlled by Sinopec Group, issued H-shares and A-shares at overseas and home respectively in October 2000 and August 2001 and was listed on stock markets in Hong Kong, New York, London and Shanghai. The total number of shares of Sinopec Corp. was 86.7 billion, in which Sinopec Group owns 75.84%, international investors own 19.35% and domestic investors own 4.81%.

Sinopec Group's key business activities include: industrial investment and investment management; the exploration, production, storage and transportation (including pipeline transportation), marketing and comprehensive utilization of oil and natural gas; oil refining; the wholesale of gasoline, kerosene and diesel; the production, marketing, storage, transportation of petrochemicals and other chemical products; the design, construction and installation of petroleum and petrochemical engineering projects; the overhaul and maintenance of petroleum and petrochemical equipments; the manufacturing of electrical and mechanical equipments; the research, development, application and consulting services of technology, information and alternative energy products, the import and export of commodities and technologies both for the Group and as a proxy (with the exception of those commodities and technologies that are either banned by the State or to be carried out by the state-designated companies).

Sinopec Group ranked the 5th in Fortune Global 500 in 2011.

Source: About Sinopec, [www.sinopecgroup.com/english/Pages/guanyu\\_gsjs.aspx](http://www.sinopecgroup.com/english/Pages/guanyu_gsjs.aspx)[www.sinopecgroup.com/english/Pages/guanyu\\_gsjs.aspx](http://www.sinopecgroup.com/english/Pages/guanyu_gsjs.aspx)

(2Mar17): China Petrochemical Corporation (Sinopec Group) is a super-large petroleum and petrochemical enterprise group established in July 1998 on the basis of the former China Petrochemical Corporation. Sinopec Group is a state-owned company solely invested by the State, functioning as a state-authorized investment organization in which the state holds the controlling share. <http://www.sinopecgroup.com/group/en/business/>

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

World Bank, 2008, page 57: Sinopec is a joint stock company incorporated in the PRC. It is a subsidiary of Sinopec Group Company (SGC). The government owns 100% of SGC share capital, which owns 75.84% of Sinopec. 23.49% of the share capital is traded on 4 stock exchanges, while the residual 0.67% is owned by a state-owned security entity.

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:** E63**Comment:** Rick Heede:

No data on Sinopec (or China Petroleum & Chemical Corp) for 1988-1998.

**Cell:** I63**Comment:** Rick Heede:

No data on Sinopec (or China Petroleum & Chemical Corp) for 1988-1998.

**Cell:** E77**Comment:** Rick Heede:

Sinopec AnnRpt 2013, page 12: Crude oil production in China plus overseas (311 and 22 million bbl in 2013, respectively).

**Cell:** I77**Comment:** Rick Heede:

Sinopec AnnRpt 2013, page 12.

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

China Petroleum & Chemical Corp (Sinopec) SEC Form 20-F for 2014.

**Cell:** F78**Comment:** Rick Heede:

Sinopec AnnRpt 2016, pages 16 and 32 (domestic and international equity production), in Mt per year, converted to Mb, for 2012-2016.

**Cell:** H78**Comment:** Rick Heede:

China Petroleum & Chemical Corp (Sinopec) SEC Form 20-F for 2014.

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

Sinopec AnnRpt 2016, pages 16 and 32 (domestic and international equity production), in Bcm per year, converted to Bcf, for 2012-2016.

**Cell:** E82**Comment:** Rick Heede:

Sinopec Annual Report for 2018, page 10. Crude oil production for 2016 to 2018 shows much lower production than reported in 2016 (crude prodn then reported as 518 Mb), whereas the 2018 report shows 303.5 Mb in 2016, and 288.5 Mb in 2018. CAI did not find discussion of asset divestment that would explain this decrease. Gas production also shows discontinuity.

**Cell:** I82**Comment:** Rick Heede:

Sinopec Annual Report for 2018, page 10. Natural gas production for 2016 to 2018 shows much lower production than reported in 2016 (natgas prodn then reported as 1,127 Bcf), whereas the 2018 report shows 766 Bcf in 2016, and 977 Bcf in 2018. CAI did not find discussion of asset divestment that would explain this decrease.

**Cell:** D102**Comment:** Rick Heede:

Sinopec Annual Report 2010, page 13.  
[english.sinopec.com/download\\_center/reports/2010/20110328/download/2010AnnualReport.pdf](http://english.sinopec.com/download_center/reports/2010/20110328/download/2010AnnualReport.pdf)

**Cell:** D123**Comment:** Rick Heede:

Sinopec Annual Report 2010, page 13.  
[english.sinopec.com/download\\_center/reports/2010/20110328/download/2010AnnualReport.pdf](http://english.sinopec.com/download_center/reports/2010/20110328/download/2010AnnualReport.pdf)

**Cell:** J185**Comment:** Rick Heede:

Produced more than One Billion Tons of Oil in 50 Years Shengli Oilfield is the largest oilfield of our company and also China's second largest oilfield. In 29 consecutive years from 1983 to 2011, Shengli Oilfield achieved more than 100 million tons of new verified geological oil reserves per year and 5.19 billion tons of accumulative verified geological oil reserves in the half century from 1961 to 2011. From 1996 to 2011, the Oilfield achieved an annual crude oil production of more than 27 million tons for 16 consecutive years and produced 1.02 billion tons of crude oil in total, accounting for 1/5 of China's total crude oil production in the same period. Sinopec AnnRpt 2011, page 11.

**Cell:** J188**Comment:** Rick Heede:

"Our objective is to enhance our ability of low-carbon growth by reinforcing our mid-term and long-term strategic low-carbon technology preparation. We plan to focus on R&D of technologies that help with energy saving and efficiency improvement, development of renewable and alternative energy sources, emission control, treatment and utilization of GHG like CO2 and CH4, biological and engineering carbon sequestration, clean and efficient development and utilization of coal, oil and natural gas, CO2 capturing and sequestration, CO2 flooding, comprehensive utilization of high purity CO2 and fuel production via microalgal CO2 fixation." Sinopec.com / Social responsibility.

**Cell:** J190**Comment:** Rick Heede:

"To preserve and ameliorate the environment is regarded by Sinopec as an important social responsibility and a major way to improve production and living conditions for employees. Aiming to build up a garden-like energy company, we motivate our staff to take part in activities for public good like national mandatory tree-planting campaign. In 2011, 520,000 person times in Sinopec took part in the campaign, planted 1.56 million trees, and thus 90% of our tree-planting obligations fulfilled.

We spread information about climate change among employees, consumers, suppliers, contractors and other stakeholders, calling for changes in mode of production, way of life and habit of consumption, and for stronger

Sinopec

sense of social responsibility and keener awareness to protect the environment."

We only purchase materials and equipments in conformity with green, energy-saving and low-carbon standards. In this way, we are trying to lead our suppliers and contractors on the right track of green and low-carbon growth.

**Cell:** M190

**Comment:** Rick Heede:

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