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US Energy Information Administration, International Energy Statistics

www.eia.gov/emeu/international/energy.html

	Colombia		Colombia		Vented & Flared of			
	Crude oil, condensate, & NGPL k bbl per day	million bbl per yr	Gross NatGas Prod Bcf per year	Prod Market Gas Bcf per year	Colombia Reinjected NatGas Bcf per year	gross %	Colombia Vented & Flared Bcf per year	Colombia Dry NatGas Prod Bcf per year
1980	132	48	NA	NA	-	-	27	99
1981	131	48	NA	NA	-	-	28	106
1982	147	54	NA	NA	-	-	28	106
1983	156	57	NA	NA	-	-	26	102
1984	172	63	NA	NA	-	-	24	143
1985	180	66	NA	NA	-	-	21	144
1986	310	113	NA	NA	-	-	18	144
1987	391	143	NA	NA	-	-	18	140
1988	382	139	NA	NA	-	-	11	146
1989	411	150	NA	NA	-	-	9	146
1990	448	164	183	157	-	19 4%	7	151
1991	425	155	186	161	-	18 4%	7	155
1992	439	160	187	158	-	16 10%	19	151
1993	461	168	189	163	-	19 4%	7	157
1994	455	166	195	168	-	20 4%	7	162
1995	590	215	271	168	-	87 6%	16	161
1996	633	231	333	176	-	139 5%	17	167
1997	656	240	453	222	-	214 4%	18	211
1998	737	269	508	233	-	254 4%	20	221
1999	821	300	534	195	-	318 4%	21	183
2000	694	253	513	213	-	283 3%	18	201
2001	627	229	529	229	-	283 3%	18	215
2002	579	211	534	233	-	283 3%	18	218
2003	545	199	513	231	-	265 3%	18	215
2004	533	194	505	235	-	247 3%	16	225
2005	531	194	555	253	-	290 2%	12	236
2006	540	197	783	273	-	498 2%	12	255
2007	538	196	932	302	-	618 1%	12	270
2008	596	218	1,026	357	-	653 2%	16	318
2009	684	250	1,197	425	-	750 2%	21	370
2010	799	292	1,124	454	-	646 2%	24	398
2011	932	340	1,115	466	-	623 2%	25	387
2012	963	351	1,110	-	-	593 2%	27	421
2013	1,022	373	1,101	-	-	501 3%	31	452
2014	1,008	368	1,043	-	-	454 3%	28	448
2015	1,023	373	979	-	-	396 3%	29	421
2016	905	330	NA	-	-	-	-	383
2017	873	318	NA	-	-	-	-	354
2018	883	322	NA	-	-	-	-	-

Updated June 2019
Crude oil, condensate, & NGPL

Updated June 2019

Updated June 2019

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

The following information corresponds to net proved reserves owned by Ecopetrol in 2013, 2012, which correspond to official balanced of reserves prepared by the company:

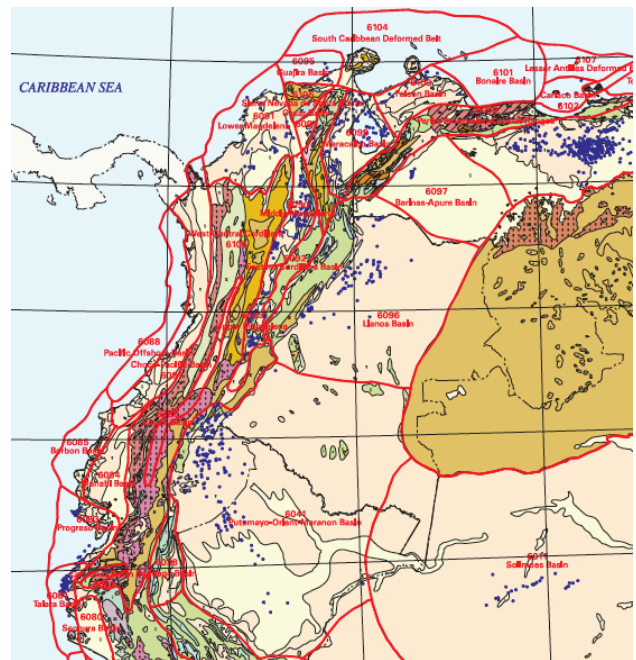
	2013			2012		
	Oil (Mbls)	Gas (Gcf)	Oil equivalent (Mbe)	Oil (Mbls)	Gas (Gcf)	Oil equivalent (Mbe)
Proved reserves as at January 1	1,370.3	2,886.4	1,876.7	1,371.0	2,768.4	1,856.7
Revisions	172.7	337.5	231.9	42.7	8.8	44.2
Minerals purchases	7.5	11.0	9.4	0.0	0.0	0.0
Improved recovery	23.2	19.9	26.7	65.3	0.0	65.3
Extensions and discoveries	66.2	49.3	74.9	90.5	298.5	142.9
Sales	(0.6)	(12.3)	(2.8)	-	-	-
Production	(205.7)	(223.5)	(244.9)	(199.2)	(189.3)	(232.4)
Net reserves proved at the end of the period	1,433.6	3,068.4	1,971.9	1,370.3	2,886.4	1,876.7

Mbls = Millions of barrels
Mbe = Millions of barrels equivalent
Gpc: Millions of barrels equivalent

Ecopetrol Consolidated Financial Report 2013, page 66



Ecopetrol, Integrated Sustainable Management Rpt 2012, page 106.



geologic basins of Colombia, USGS, 1997.

Cell: I9**Comment:** Rick Heede:

Wiki: Ecopetrol, formerly known as Empresa Colombiana de Petróleos S.A. is the largest and primary petroleum company in Colombia. As a result of its continuous growth, Ecopetrol forms part of the Fortune Global 500 and is ranked 303, it belongs to the group of the 25 largest petroleum companies in the world, and it is one of the four principal petroleum companies in Latin America.

The reversion of "De Mares Concession" ("Concesión De Mares") to the Colombian State on August 25, 1951 gave way to the Empresa Colombiana de Petróleos, which had been created in 1948 by means of Law 165 of that same year. The growing company assumed the reverted assets of the Tropical Oil Company that began oil activities in 1921 in Colombia with the implementation of the Cira-Infantas Field in the Middle Magdalena River Valley, located some 300 kilometers northeast of Bogotá. Ecopetrol undertook activities in the oil chain as a State-owned Industrial and Commercial Company in charge of administering the nations hydrocarbon resources, and grew as other concessions reverted and became part of its operation.

In 1961, it assumed the direct management of the Barrancabermeja Refinery. Thirteen years later, it purchased the Cartagena Refinery, built by Intercol in 1956. In 1970, it adopted its first by-laws, which ratified its nature as a State-owned Commercial and Industrial Company, linked to the Ministry of Mines and Energy, fiscally supervised by the General Comptrollership of the Republic of Colombia. In September 1983, the best news for the history of Ecopetrol and some of the best news for Colombia was given: the discovery of the Cano Limón Field in association with OXY, a reservoir with reserves estimated at 1.1 billion barrels (170,000,000 m³). Thanks to this field, the Company began a new era and in the year 1986, Colombia began to export oil again. During the 1990s, Colombia extended its oil self-sufficiency with the discovery of the Cusiana and Cupiagua giants in the Foothills of the Plains region, in association with the British Petroleum Company.

In 2003, the Colombian government restructured the Empresa Colombiana de Petróleos, in order to internationalize it and make it more competitive in the framework of the world hydrocarbon industry. Decree 1760 / June 26, 2003 (available only in Spanish) modified the organic structure of the Empresa Colombiana de Petróleos and made it Ecopetrol S.A., a public stock-holding corporation, one hundred percent state-owned, associated with the Ministry of Mines and Energy, and governed by its by-laws contained in Notarized Document No. 2931 / July 7, 2003, issued by the Second Notary Public of the Bogotá D.C. Circle. The transformation of the Empresa Colombiana de Petróleos into the new Ecopetrol S.A., released the Company from State functions as the administrator of the oil source and the ANH (Agencia Nacional de Hidrocarburos) [National Hydrocarbons Agency] was created to carry out the function.

As of 2003, Ecopetrol S.A. began an era in which, with more autonomy, it has accelerated its exploratory activities, its capacity to obtain results with a business and commercial vision and the interest in improving its competitiveness on the world oil market. Wikipedia "Ecopetrol" accessed April 2013.

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

World Bank, 2008b, page 329: "State- owned, public stock-holding corporation. Shares Controlled by Government: 80%."

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: D11**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 U.S. or metric tonnes per year.

Note: the carbon content of the extracted resources is adjusted by a number of factors before emissions estimates are made in the worksheet 1 to the left. Most important is the subtraction of the fraction typically sequestered in petrochemicals and other non-combusted uses such as road oils, waxes, lubricants, greases, etc. See the comment for each extracted resource for detailed discussions of the combusted vs sequestered fractions.

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 gross production (before royalty production is netted out). More often, however, oil companies report production net of royalty production.

Oil & Gas Journal Data Book (our primary source for oil and gas production from 1988 through 2003) reports net production.

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: E53**Comment:** Rick Heede:

Oil & Gas Journal OGJ100 for Empresa Colombiana de Petroleos and Ecopetrol, various years.

Cell: J53**Comment:** Rick Heede:

Oil & Gas Journal OGJ100 for Empresa Colombiana de Petroleos and Ecopetrol, various years.

Cell: E64**Comment:** Rick Heede:

No report for EcoPetrol for 1998-1999. Instead production reported for Empresa Colombiana de Petroleos. Verify same company.

Cell: D66**Comment:** Rick Heede:

Oil and gas production data from Energy Intelligence (2003) Top 100: Ranking the World's Oil Companies, p. 136.

Cell: D70**Comment:** Rick Heede (Dec09):

Ecopetrol Annual Rpt 2008, data for 2004-2008, in thousand bbl per day.

CMS note: Oil & Gas Journal OGJ100 data is significantly lower: 112.0 million bbl in 2004, NA 2005, 115.7 million bbl in 2006, 119.5 million bbl in 2007, and 32.1 million bbl in 2008.

Cell: I70**Comment:** Rick Heede (Dec09):

EcoPetrol Annual Rpt 2008. Data for 2004-2008, in "Mpcd", which appears to be Spanish contraction for million cubic feet per day.

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

Ecopetrol Annual Report 2010 (see chart above) for 2006-2010.

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

Ecopetrol Annual Report 2010 (see chart above) for 2006-2010.

Cell: I75**Comment:** Rick Heede:

online annual report, reported production in Kbdpe; assumes 5,700 cf per barrel.

Cell: D77**Comment:** Rick Heede:

Ecopetrol, Integrated Sustainable Management Report 2012, page 93. Oil (presumably including NGLs) in thousand bbl per day. No data for 2013.

Cell: H77**Comment:** Rick Heede:

Ecopetrol, Integrated Sustainable Management Report 2012, page 93. In thousand BOE per day (Ecopetrol uses 5,700 cf per bbl).

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

Ecopetrol S.A. SEC rpt 40-F for 2014 shows gas production for 2012-2014, in thousand boe per day (at conversion rate of 5,700 cf per boe).

Cell: D79

EcoPetrol

Comment: Rick Heede:

Ecopetrol S.A. SEC rpt 40-F for 2014 shows oil production for 2012-2014. 2014 total: 579.7 thousand bbl per day, of which 44.5 kbbl is light oil, 198.5 is medium oil, and 336.6 kbbl is heavy oil.

Cell: E79

Comment: Rick Heede:

Ecopetrol Consolidated Financial Report 2013, page 66 (see page 2 below). No explicit production table available in Ecopetrols' SEC Form 20-F or annual report, nor in Oil & Gas Journal OGJ100 (NA), hence resort to debits from the Ecopetrol reserves table.

Cell: J79

Comment: Rick Heede:

Ecopetrol Consolidated Financial Report 2013, page 66 (see page 2 below). No explicit production table available in Ecopetrols' SEC Form 20-F or annual report, nor in Oil & Gas Journal OGJ100 (NA), hence resort to debits from the Ecopetrol reserves table.

Cell: D81

Comment: Rick Heede:

Ecopetrol Fourth Quarter and Full Year 2016 (and 2015), page 21. Crude oil and natural gas.

Cell: D82

Comment: Rick Heede:

Ecopetrol Q4 and full year 2017, page 17. Table 16: Gorss Production - Ecopetrol Business Group. (See table this page.)
Ecopetrol S.A.: 2017: 545 kbpd crude oil, plus Hocol, Equion, Savia, Ecopetrol America. Total group: 590.9 kbpd.

Cell: E84

Comment: Rick Heede:

Oil & Gas Journal OGJ100, September 2019, page 32. Oil production in 2018: 216.3 Mb. OGJ agrees with Ecopetrol Q data for 2017.

Cell: J84

Comment: Rick Heede:

Oil & Gas Journal OGJ100, September 2019, page 32. Gas production in 2018: 266.1 Bcf. OGJ agrees with Ecopetrol Q data for 2017.

Cell: L186

Comment: Rick Heede:

U.S. Geological Survey (1997) Maps Showing Geology, Oil and Gas Fields, and Geologic Provinces of the South America Region, Compiled by Christopher J. Schenk, Roland J. Viger, & Christopher P. Anderson, USGS Open File Rpt 97-470D, Denver, pubs.usgs.gov/of/1997/ofr-97-470/OF97-470D/index.html#TOP