

ENERGY COUNTRY REVIEW

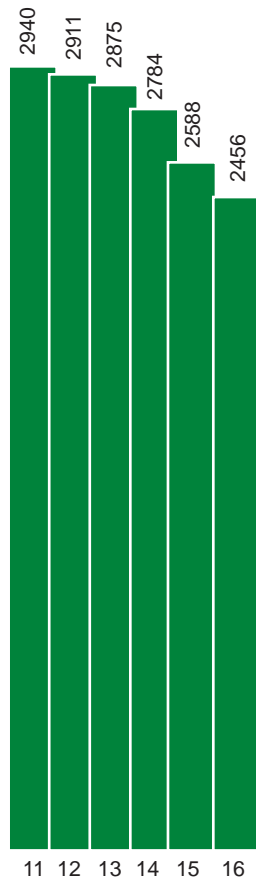
Mexico

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Country Review Mexico

Mexico Oil Production

Thousand barrels per day



Source: BP Statistical Review

Mexico straddles the southern part of North America, with coastal plains along the Pacific and Atlantic coasts rising to a central plateau. Northern Mexico is desertlike, while the south is a mountainous jungle containing Maya and Aztec ruins. Most people live in the densely populated waist of the country, including the cities of Veracruz, Mexico City, and Guadalajara. Most Mexicans are of mixed Spanish and Indian descent, but about 30 percent are Indian-and millions still speak Indian languages in the southeast.

Mexico was independent from Spain in 1821. Instability, including cession to USA, led to Revolution in 1910 and establishment of the 1917 Constitution. The Mexican Eagle Petroleum Company was nationalised in 1938 and the state-owned oil company, Pemex, was created.

Oil production began in 1901 from the Northern Region and had commenced in many areas bordering the Gulf of Mexico by the 1960s. Onshore output has been in decline since 1979. Offshore the most productive area is shallow waters of Campeche Bay where the giant Cantarell complex began producing in 1979. Smaller fields on the west margin of the Gulf were developed after 1972. Cantarell is now declining but other field complexes, such as Ku-Zaap-Maloob, replaced some shortfall. Deep water exploration began in 2004 and new output is expected. Gas comes from the onshore Burgos basin, the Golden Lane area west of the Gulf and Campeche Bay.

Mexico is now one of the largest producers of petroleum and other liquids in the world, the fourth-largest producer in the Americas after the United States, Canada, and Brazil, and an important partner in U.S. energy trade. In 2014, Mexico accounted for 781,000 b/d, or 11% of U.S. crude oil imports.

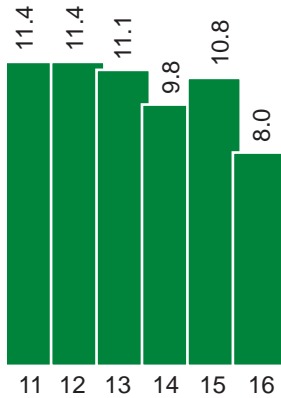
Country Key Facts

Official name:	Estados Unidos Mexicanos
Capital:	Mexico City
Population:	128.02 million (2016)
Area:	1,964,375 square kilometers
Form of government:	Federal Republic
Language:	Spanish, various Mayan, Nahuatl, and other indigenous languages
Religions:	Roman Catholic, Protestant
Currency:	Mexican Peso
Calling code:	+52

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Mexico year end oil reserves

Billion barrels



Source: BP Statistical Review

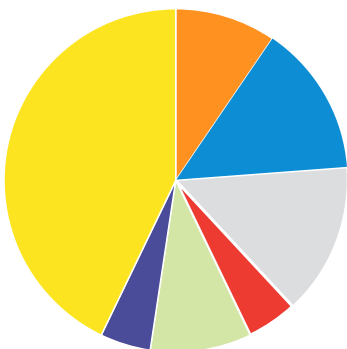
Energy Reforms

Mexico nationalized its oil sector in 1938, and PEMEX was created as the sole oil operator in the country. PEMEX is the largest company in Mexico and one of the largest oil companies in the world. Mexico's energy sector is regulated by the Secretaría de Energía (SENER). Comisión Nacional de Hidrocarburos (CNH) provides additional oversight of PEMEX and its oil and natural gas activities.

After years of declining production, Mexico instituted significant energy reforms. In December 2013, the Mexican government enacted constitutional reforms ending PEMEX's monopoly on the oil and natural gas sector and opening the industry to greater foreign investment. The reforms allow for new exploration and production contract models: licenses, production-sharing, profit-sharing, and service contracts. Previously, only service contracts, in which companies were paid for services and were not allowed shares or profits derived from the hydrocarbon resources, were allowed for foreign firms.

In July 2015, the first auction phase of Round One offered 14 offshore blocks for exploration and production to private investors. Because of low crude oil prices and the terms of the contracts, only 2 of the 14 blocks received adequate bids to be awarded. A consortium of three companies, Sierra Oil & Gas, Talos Energy, and Premier Oil, was awarded the second and seventh block of the auction. Subsequent phases of Round One were postponed as CNH adjusted rules surrounding the auctions to promote more bidding on the offerings.

Mexico crude oil production by field, 2015 (million barrels per day)



- Cantarell (0.2)
- Coastal Tabasco (0.3)
- Abkatun-Pol-Chuc (0.3)
- Samaria-Luna (0.1)
- Other onshore (South Region) (0.2)
- Other Onshore (North Region) (0.1)
- Ku-Maloob-Zaap (0.9)

Source: PEMEX, Comisión Nacional de Hidrocarburos

Oil & gas overview

Mexico is also the fourth-largest producer in the Americas after the United States, Canada, and Brazil, and an important partner in U.S. energy trade. In 2015, Mexico accounted for 688,000 barrels per day (b/d), or 9%, of U.S. crude oil imports.

Mexico's oil production has steadily decreased since 2005 as a result of natural production declines from Cantarell and other large offshore fields. In August 2014 in an effort to address the declines of its domestic oil production, the Mexican government enacted constitutional reforms that ended the 75-year monopoly of Petroleos Mexicanos (PEMEX), the state-owned oil company.

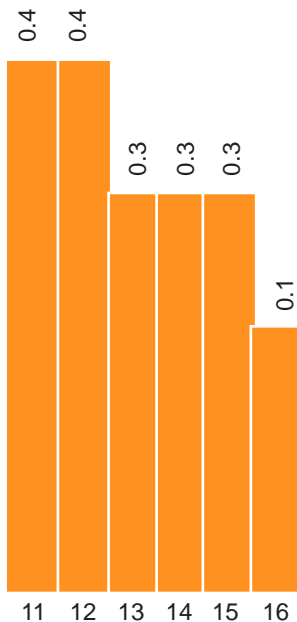
Petroleum and other liquids

Mexico produced an average of 2.6 million barrels per day (b/d) of petroleum and other liquids in 2015. Crude oil accounted for 2.3

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Mexico year end proved gas reserves

Trillion cubic metres



Source: BP Statistical Review

million b/d, or 86%, of total output, with the remainder attributed to lease condensate, natural gas liquids, and refinery processing gain. Mexico's total oil production has declined substantially, falling 32% from its peak in 2004. Notably, crude oil production in 2015 was at its lowest level since 1981 and has continued to decline in 2016. Mexico is a significant crude oil exporter, the third largest in the Americas, but the country is a net importer of refined petroleum products. The United States, is the destination for most of Mexico's crude oil exports and the source of most of its refined product imports.

Reserves

According to the Oil & Gas Journal (OGJ), Mexico had 9.7 billion barrels of proved oil reserves as of the end of 2015. Most reserves consist of heavy crude oil varieties, with the largest concentration occurring offshore of the southern part of the country, particularly the Campeche Basin. There are also sizable reserves in onshore basins in the northern parts of Mexico.

Offshore

Nearly half of Mexico's oil production comes from two offshore fields in the northeastern region of the Bay of Campeche - Ku-Maloob-Zaap (KMZ) and Cantarell. Another important source of oil production is southwest in the same bay, offshore the state of Tabasco. Most of the oil produced at KMZ and Cantarell is heavy and marketed as Maya blend (API specific gravity of 21 to 22 degrees), while the oil produced offshore Tabasco is a lighter grade.

Onshore

Onshore fields account for roughly 25% of Mexico's total crude oil production. Most of this production is of light or extra-light crude oil from the southern part of the country. The largest oilfield in the south of Mexico is Samaria-Luna, which produced about 145,000 b/d in 2015.

Natural gas

Mexico has considerable natural gas resources, but its production is modest relative to other North American countries. The development of Mexico's shale gas resources is proceeding slowly, while consumption is projected to increase 31% from 2015 to 2029. Mexico's import needs are rising as domestic production stagnates and as demand increases, particularly in the electricity sector. Consequently, Mexico will rely on increased pipeline imports of natural gas from the United States and liquefied natural gas (LNG) imports from other countries.

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Mexico Gas Production

Billion cubic meters



Source: BP Statistical Review

Reserves

According to the Oil & Gas Journal, Mexico had 15.3 trillion cubic feet (Tcf) of proved natural gas reserves at the end of 2015.

Although the southern region of the country contains the largest share of proved reserves, the Burgos region in the north has the potential to be the center of growth in future reserves.

Exploration and production

Mexico produced an estimated 1.4 Tcf of dry natural gas in 2015, a modest decline from the year before. Part of the decline is in response to the higher price of crude oil relative to the price of natural gas, which encouraged PEMEX to favor development of oil.

2017 Licensing Rounds

With the first four stages of Round One out of the way, mid-2017 will see the initiation of the National Hydrocarbons Commission's second leg of licensing rounds: Round 2.1, 2.2 and 2.3. The success of December's deepwater round is still fresh and hopes are high for the onshore and shallow water rounds to be held this year. Below is a breakdown of the licensing rounds planned for 2017.

Round 2.1

Fifteen shallow water exploration and extraction blocks will be auctioned in the first stage of Round Two, with the final results due to be announced on June 19. By early February, 23 companies had qualified to access the data room.

Ten of the 15 fields, which are spread along the coast of Veracruz, Tabasco and Campeche, contain crude oil and gas reserves, while the remaining five contain gas reserves only. They range in area from 466km² to 972km², with an average size of 595km².

Interested parties have had since Aug. 1 to access the data room where seismic studies are available for viewing. They have until March 24 to subscribe for prequalification in the round.

Possible Farm-out With Round 2.1

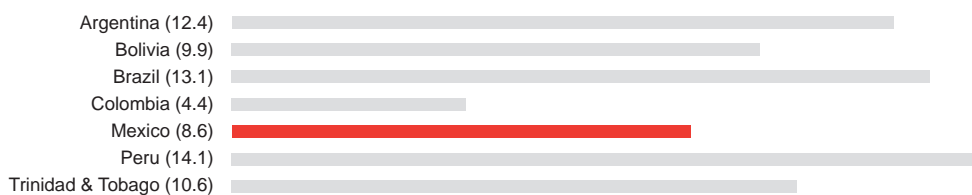
On Oct. 18, 2016, PEMEX sent an application to SENER for approval to farm out its Ayin and Batsil shallow water oilfields, following its first such farm-out of the deepwater Trion block in December, which was won by BHP Billiton. Information on the Ayin and Batsil area is now available for third party viewing through CNH's website and it could be auctioned on June 19, together with the 15 blocks in Round 2.1.

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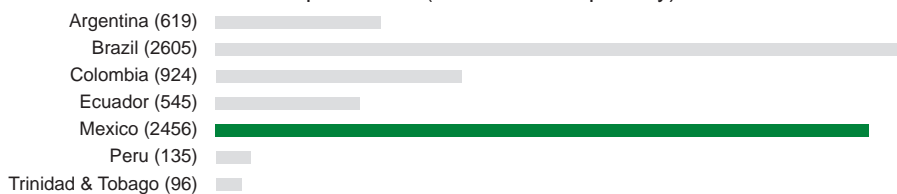
Proved oil reserves at 2016 year end (billion bbls)



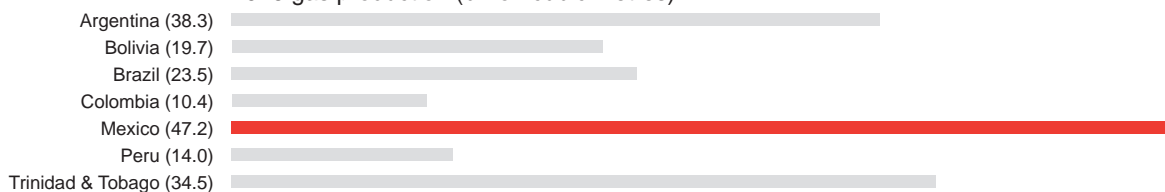
Proved gas reserves at 2016 year end (trillion cubic feet)



2016 oil production (thousand bbls per day)



2016 gas production (billion cubic metres)



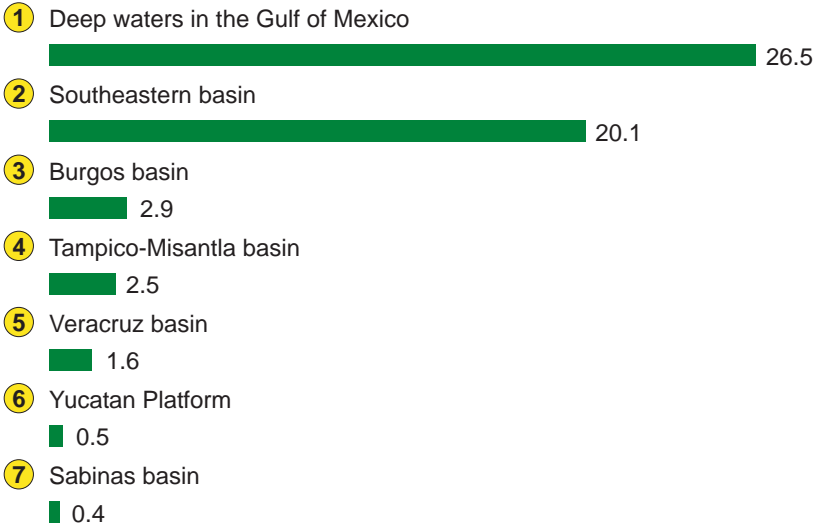
Source: BP Statistical Review

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Map: EKF

Prospective Resources (billions of barrels of oil equivalent)



Source: PEMEX, The Wall Street Journal