YPF SOCIEDAD ANONIMA
Form 20-F
April 07, 2017
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 20-F

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)

OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2016

Commission file number: 1-12102

YPF Sociedad Anónima

(Exact name of registrant as specified in its charter)

Republic of Argentina

(Jurisdiction of incorporation or organization)

Macacha Güemes 515

C1106BKK Ciudad Autónoma de Buenos Aires, Argentina

(Address of principal executive offices)

Diego M. Pando

Tel: (011-54-11) 5441-1276

Facsimile Number: (011-54-11) 5441-3726

Macacha Güemes 515

C1106BKK Ciudad Autónoma de Buenos Aires, Argentina

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
American Depositary Shares, each representing one Class D Share, par value 10 pesos per share	New York Stock Exchange
Class D Shares	New York Stock Exchange*

* Listed not for trading but only in connection with the registration of American Depositary Shares.

Securities registered or to be registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

The number of outstanding shares of each class of stock of YPF Sociedad Anónima as of December 31, 2016 was:

Class A Shares	3,764
Class B Shares	7,624
Class C Shares	40,422
Class D Shares	393,260,983
	393,312,793

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities

Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Note Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP International Financial Reporting Standards as issued by the International Accounting Standards Board: Other

Indicate by check mark which financial statement item the registrant has elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes No

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Conversion Table

1 ton = 1 metric ton = 1,000 kilograms = 2,204 pounds

1 barrel = 42 U.S. gallons

1 ton of oil = approximately 7.3 barrels (assuming a specific gravity of 34 degrees API (American Petroleum Institute))

1 barrel of oil equivalent = 5,615 cubic feet of gas = 1 barrel of oil, condensate or natural gas liquids

1 barrel of oil, condensate or natural gas liquids = 0.159 cubic meters

1 kilometer = 0.63 miles

1 million Btu = 252 termies

1 cubic meter of gas = 35.3147 cubic feet of gas

1 cubic meter of gas = 10 termies

1,000 acres = approximately 4 square kilometers

References

YPF Sociedad Anónima is a stock corporation organized under the laws of the Republic of Argentina (Argentina). As used in this annual report, YPF, the Company, we, our and us refer to YPF Sociedad Anónima and its controlled companies or, if the context requires, its predecessor companies. YPF Sociedad Anónima refers to YPF Sociedad Anónima only. Repsol refers to Repsol S.A., its affiliates and consolidated companies. We maintain our financial books and records and publish our financial statements in Argentine pesos. In this annual report, references to pesos or Ps. are to Argentine pesos, and references to dollars, U.S. dollars or U.S.$ are to United States dollars.

Disclosure of Certain Information

In this annual report, references to Audited Consolidated Financial Statements are to YPF s audited consolidated statement of financial position as of December 31, 2016, 2015 and 2014, YPF s audited consolidated statements of comprehensive income for the years ended December 31, 2016, 2015 and 2014, YPF s audited consolidated statements of cash flows for the years ended December 31, 2016, 2015 and 2014, YPF s audited consolidated statements of changes in shareholders equity for the years ended December 31, 2016, 2015 and 2014 and the related notes thereto.

Unless otherwise indicated, the information contained in this annual report reflects:

- for the subsidiaries that were consolidated using the global integration method at the date or for the periods indicated, 100% of the assets, liabilities and results of operations of such subsidiaries without excluding minority interests, and for those joint operations whose results were consolidated using the proportional integration method, a *pro rata* amount of the assets, liabilities and results of operations for such joint operations at the date or for the periods indicated.

For information regarding consolidation, see Notes 2.a and 2.b.5 to the Audited Consolidated Financial Statements.

Certain monetary amounts and other figures included in this annual report have been subject to rounding adjustments. Any discrepancies in any tables between the totals and the sums of the amounts are due to rounding.

Forward-Looking Statements

This annual report, including any documents incorporated by reference, contains statements that we believe constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements may include statements regarding the intent, belief or current expectations of us and our management, including statements with respect to trends affecting our financial condition, financial ratios, results of operations, business, strategy, geographic concentration, reserves, future hydrocarbon production volumes

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and the Company s ability to satisfy our long-term sales commitments from future supplies available to the Company, our ability to pay dividends in the future and to service our outstanding debt, dates or periods in which production is scheduled or expected to come on-stream, as well as our plans with respect to capital expenditures, business, strategy, geographic concentration, cost savings, investments and dividends payout policies. These statements are not a guarantee of future performance and are subject to material risks, uncertainties, changes and other factors which may be beyond our control or may be difficult to predict. Accordingly, our future financial condition, prices, financial ratios, results of operations, business, strategy, geographic concentration, production volumes, reserves, capital expenditures, cost savings, WACC (weighted average cost of capital) investments and ability to meet our long-term sales commitments or pay dividends or service our outstanding debt could differ materially from those expressed or implied in any such forward-looking statements. Such factors include, but are not limited to, currency fluctuations, inflation, the price of petroleum products, the domestic and international prices for crude oil, the ability to realize cost reductions and operating efficiencies without unduly disrupting business operations, replacement of hydrocarbon reserves, environmental, regulatory and legal considerations, including the imposition of further government restrictions on the Company s business, changes in our business strategy and operations, our ability to find partners or raise funding under our current control, the ability to maintain the Company s concessions, and general economic and business conditions in Argentina, as well as those factors described in the filings made by YPF and its affiliates with the Securities and Exchange Commission, in particular, those described in Item 3. Key Information Risk Factors and Item 5. Operating and Financial Review and Prospects. YPF does not undertake to publicly update or revise these forward-looking statements even if experience or future changes make it clear that the projected results or condition expressed or implied therein will not be realized.

Oil and Gas Terms

Oil and gas reserves definitions used in this annual report are in accordance with Regulations S-X and S-K, as amended by the U.S. Securities and Exchange Commission s (SEC) final rule, Modernization of Oil and Gas Reporting (Release Nos. 33-8995; 34-59192; FR-78; File No. S7-15-08; December 31, 2008) and relevant guidance notes and letters issued by the SEC s Staff.

The reported reserves contained in this annual report include only our proved reserves and do not include probable reserves or possible reserves.

The following terms have the meanings shown below unless the context indicates otherwise:

acreage : The total area, expressed in acres or km2, over which YPF has interests in exploration or production. Net acreage is YPF s interest in the relevant exploration or production area.

basin : A depression in the crust of the Earth formed by plate tectonic activity in which sediments accumulate. Continued sediment accumulation can cause further depression or subsidence.

block : Areas defined by concession contracts or operating contracts signed by YPF.

concession contracts : A grant of access for a defined area and time period that transfers certain entitlements to produce hydrocarbons from the host country to an enterprise. The company holding the concession generally has rights and responsibilities for the exploration, development, production and sale of hydrocarbons, and typically, an obligation to make payments at the signing of the concession and once production begins pursuant to applicable laws and regulations.

crude oil : Crude oil with respect to YPF s production and reserves includes condensate.

field : One or more reservoirs grouped by or related to the same general geologic structural feature or stratigraphic condition.

formation : The fundamental unit of lithostratigraphy. A body of rock that is sufficiently distinctive and continuous that it can be mapped.

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gas : Natural gas.

hydrocarbons : Crude oil, natural gas liquids and natural gas.

surface conditions : Represents the pressure and temperature conditions at which volumes of oil, gas, condensate and natural gas liquids are measured for reporting purposes. It is also referred to as standard conditions. For YPF these conditions are 14.7 psi for pressure and 60 degrees Fahrenheit for temperature. All volume units expressed in this report are at surface conditions.

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Abbreviations:

bbl	Barrels.
bbl/d	Barrels per day.
bcf	Billion cubic feet.
bcf/d	Billion cubic feet per day.
bcm	Billion cubic meters.
bcm/d	Billion cubic meters per day.
boe	Barrels of oil equivalent.
boe/d	Barrels of oil equivalent per day.
cm	Cubic meter.
cm/d	Cubic meters per day.
dam3	Cubic decameters (thousand cubic meters).
GWh	Gigawatt hours.
HP	Horsepower.
km	Kilometers.
km2	Square kilometers.
liquids	Crude oil, condensate and natural gas liquids.
LNG	Liquefied natural gas.
LPG	Liquefied petroleum gas.
m	Thousand.
mbbl	Thousand barrels.
mbbl/d	Thousand barrels per day.
mcf	Thousand cubic feet.
mcf/d	Thousand cubic feet per day.
mcm	Thousand cubic meters.
mcm/d	Thousand cubic meters per day.
mboe	Thousand barrels of oil equivalent.
mboe/d	Thousand barrels of oil equivalent per day.
mm	Million.
mmbbl	Million barrels.
mmbbl/d	Million barrels per day.
mmboe	Million barrels of oil equivalent.
mmboe/d	Million barrels of oil equivalent per day.
mmBtu	Million British thermal units.
mmcf	Million cubic feet.
mmcf/d	Million cubic feet per day.
mmcm	Million cubic meters.
mmcm/d	Million cubic meters per day.
mtn	Thousand tons.
MW	Megawatts.
NGL	Natural gas liquids.
psi	Pound per square inch.
WTI	West Texas Intermediate.

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PART I

ITEM 1. Identity of Directors, Senior Managers and Advisers

Not applicable.

ITEM 2. Offer Statistics and Expected Timetable

Not applicable.

ITEM 3. Key Information

Selected Financial Data

The following tables present our selected financial data. This information should be read in conjunction with our Audited Consolidated Financial Statements, and the information under Item 5. Operating and Financial Review and Prospects included elsewhere in this annual report.

Our Audited Consolidated Financial Statements are prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

In this annual report, except as otherwise specified, references to $, U.S.$ and dollars are to U.S. dollars, and references to Ps. and pesos are to Argentine pesos. Solely for the convenience of the reader, peso amounts as of and for the year ended December 31, 2016 have been translated into U.S. dollars at the exchange rate quoted by the Argentine Central Bank (*Banco Central de la República Argentina*) (the Central Bank) on December 31, 2016 of Ps. 15.85 to U.S.$1.00, unless otherwise specified. The exchange rate quoted by the Central Bank on March 31, 2017 was Ps. 15.38 to U.S.$1.00. The U.S. dollar equivalent information should not be construed to imply that the peso amounts represent, or could have been or could be converted into U.S. dollars at such rates or any other rate. See Exchange Rates.

The financial data contained in this annual report as of and for the years ended December 31, 2016, 2015 and 2014 has been derived from our Audited Consolidated Financial Statements included in this annual report. The financial data contained in this annual report as of December 31, 2013 and 2012 and for the years ended December 31, 2013 and 2012 have been derived from our audited consolidated financial statements as of and for the years ended December 31, 2013 and 2012 not included in this annual report.

	As of and for the year ended December 31,				
	2016	2015	2014	2013	2012
	(in millions of pesos, except for per share and per ADS data)				
Consolidated Statement of Comprehensive Income Data[1] :					

Revenues [2]	210,100	156,136	141,942	90,113	67,174
Gross profit	32,796	36,599	37,450	22,019	16,907
Administrative expenses	(7,126)	(5,586)	(4,530)	(2,686)	(2,232)
Selling expenses	(15,212)	(11,099)	(10,114)	(7,571)	(5,662)
Exploration expenses	(3,155)	(2,473)	(2,034)	(829)	(582)
Impairment of property, plant and equipment and intangible assets	(34,943)	(2,535)			
Other operating results, net	3,394	1,682	(1,030)	227	(528)
Operating income	(24,246)	16,588	19,742	11,160	7,903
Income on long-term investments	588	318	558	353	114
Interest expense	(21,268)	(10,605)	(7,336)	(3,833)	(1,557)
Other financial income (expense), net	15,122	22,762	9,108	6,668	2,105
Income before income tax	(29,804)	29,063	22,072	14,348	8,565
Income tax	1,425	(24,637)	(13,223)	(9,269)	(4,663)
Net income	(28,379)	4,426	8,849	5,079	3,902
Total other Comprehensive income	27,414	43,758	16,276	12,031	4,241
Total comprehensive income	(965)	48,184	25,125	17,110	8,143
Earnings and dividends per share and per ADS					
Earnings per share and per ADS [4]	(72.13)	11.68	22.95	13.05	9.92
Dividends per share and per ADS (in pesos)	2.26	1.28	1.18	0.83	0.77
Dividends per share and per ADS[5] (in U.S. dollars)	0.15	0.14	0.14	0.13	0.16
Consolidated Statement of Financial Position Data					

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	As of and for the year ended December 31,				
	2016	2015	2014	2013	2012
	(in millions of pesos, except for per share and per ADS data)				
Cash	10,757	15,387	9,758	10,713	4,747
Working capital (3)	4,760	(2,818)	(11,266)	1,706	(2,582)
Total assets	421,139	363,453	208,554	135,595	79,949
Total loans (6)	154,345	105,751	49,305	31,890	17,104
Shareholders equity (7)	118,661	120,461	72,781	48,240	31,260
Other Consolidated Financial Data					
Fixed assets depreciation and intangible assets amortization	45,469	27,008	20,405	11,433	8,281
Cash used in fixed asset acquisitions and intangible assets	64,160	63,774	50,213	27,639	16,403

(1) The consolidated financial statements reflect the effect of the application on the functional and reporting currency. See Note 2.b.1 to the Audited Consolidated Financial Statements.
(2) Revenues are net of payments on account of fuel transfer taxes and turnover taxes. Customs duties on hydrocarbon exports are disclosed in taxes, charges and contributions, as indicated in Note 21 to the Audited Consolidated Financial Statements. Royalties with respect to our production are accounted for as a cost of production and are not deducted in determining revenues. See Note 2.b.15 to the Audited Consolidated Financial Statements.
(3) Working capital consists of consolidated total current assets minus consolidated total current liabilities as of December 31, 2016, 2015, 2014, 2013 and 2012.
(4) Information has been calculated as detailed in Note 26 to the Audited Consolidated Financial Statements. Each ADS represents one Class D share.
(5) Amounts expressed in U.S. dollars are based on the exchange rate as of the date of the dividend payment.
(6) Total loans include non-current loans of Ps. 127,568 million, Ps. 77,934 million, Ps. 36,030 million, Ps. 23,076 million and Ps. 12,100 million as of December 31, 2016, 2015, 2014, 2013 and 2012, respectively, and current loans of Ps. 26,777 million, Ps. 27,817 million, Ps. 13,275 million, Ps. 8,814 million and Ps. 5,004 million as of December 31, 2016, 2015, 2014, 2013 and 2012, respectively. See Note 16 to the Audited Consolidated Financial Statements.
(7) Our subscribed share capital as of December 31, 2016 is represented by 393,312,793 shares of common stock and divided into four classes of shares, with a par value of Ps. 10 and one vote per share. These shares are fully subscribed, paid-in and authorized for stock exchange listing. See Item 6. Directors, Senior Management and Employees Compensation of members of our Board of Directors and Supervisory Committee, Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers and Note 2.b.10.iii to the Audited Consolidated Financial Statements in relation to shares purchased by YPF and allocated to our employees as part of our employee compensation plans.

For information regarding macroeconomic conditions such as exchange rates and inflation rates that affected our results of operations, see Item 3. Key Information Selected Financial Data Exchange Rates and Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions. In addition, for an explanation of our results of operations, see Item 5. Operating and Financial Review and Prospects Principal Income Statement Line Items Results of Operations.

Exchange Rates

From April 1, 1991 until the end of 2001, the Convertibility Law (Law No. 23,928) established a fixed exchange rate which required the Central Bank to sell U.S. dollars at one peso per U.S. dollar. On January 6, 2002, the Argentine congress enacted the Public Emergency and Foreign Exchange System Reform Law (Law No. 25,561, the Public Emergency Law), formally putting an end to the Convertibility Law regime and abandoning the U.S. dollar-peso parity. The Public Emergency Law, which has been extended until December 31, 2017 by Law No. 27,200, grants the National Executive Office the power to set the exchange rate between the peso and foreign currencies and to issue regulations related to the foreign exchange market. Following a brief period during which the Argentine government established a temporary dual exchange rate system pursuant to the Public Emergency Law, the peso has been allowed to float freely against other currencies since February 2002, although the government has the power to intervene by buying and selling foreign currency for its own account, a practice in which it engages on a regular basis. The annual rate of devaluation of the peso was approximately 21.9% from December 31, 2015 to December 31, 2016, based on the period-end exchange rates for U.S. dollars as of December 31, 2016 and 2015. See Risk Factors Risks Relating to Argentina Our business is highly dependent upon economic conditions in Argentina.

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The following table sets forth the annual high, low, average and period-end exchange rates for U.S. dollars for the periods indicated, expressed in nominal pesos per U.S. dollar, based on rates quoted by the Central Bank. The Federal Reserve Bank of New York does not report a noon buying rate for Argentine pesos.

	Low	*High*	*Average* (1)	*Period End*
		(pesos per U.S. dollar)		
Year ended December 31,				
2012	4.30	4.92	4.58	4.92
2013	4.92	6.52	5.54	6.52
2014	6.54	8.56	8.23	8.55
2015	8.73	13.76	9.39	13.01
2016	13.07	16.04	14.78	15.85
Month				
September 2016	14.88	15.40	15.10	15.26
October 2016	15.12	15.23	15.18	15.17
November 2016	15.02	15.84	15.34	15.84
December 2016	15.52	16.04	15.83	15.85
January 2017	15.81	16.05	15.91	15.91
February 2017	15.37	15.84	15.60	15.46
March 2017 (2)	15.38	15.67	15.52	15.38

Source: Central Bank

(1) Represents the average of the exchange rates on the last day of each month during the period.
(2) Through March 31, 2017.

No representation is made that peso amounts have been, could have been or could be converted into U.S. dollars at the foregoing rates on any of the dates indicated.

Exchange Regulations

Prior to December 1989, the Argentine foreign exchange market was subject to exchange controls. From December 1989 until April 1991, Argentina had a freely floating exchange rate for all foreign currency transactions, and the transfer of dividend payments in foreign currency abroad and the repatriation of capital were permitted without prior approval of the Central Bank. From April 1, 1991, when the Convertibility Law became effective, until December 21, 2001, when the Central Bank closed the foreign exchange market, the Argentine peso was freely convertible into U.S. dollars.

On December 3, 2001, the Argentine government imposed a number of monetary and currency exchange control measures through Decree 1570/01, which included restrictions on the free disposition of funds deposited with banks and tight restrictions on transferring funds abroad (including the transfer of funds to pay dividends) without the Central Bank s prior authorization subject to specific exceptions for transfers related to foreign trade. In June 2003, the Argentine government set restrictions on capital flows that came into Argentina, which mainly consisted of a prohibition against the transfer abroad of any funds until 180 days after their entry into the country.

In June 2005, the government established new regulations on capital flows into Argentina, including increasing the period that certain incoming funds must remain in Argentina to 365 calendar days and requiring that 30% of incoming funds be deposited with a bank in Argentina in a non-assignable, non-interest-bearing account for 365 calendar days (the Mandatory Deposit). However, in December 2015, the Ministry of Treasury reduced the period in which the incoming funds must remain in Argentina from 365 calendar days to 120 calendar days and also reduced the Mandatory Deposit from 30% to 0%. Moreover, in January 2017, the Ministry of Treasury reduced the holding period of the Mandatory Deposit from 120 calendar days to 0 calendar days. As a result of these two changes to the regulations, the Mandatory Deposit is currently not required.

In August 2016, the Argentine Central Bank structurally modified the existing foreign exchange regulations, lifting many of the restrictions imposed on the transfer of funds abroad and on capital flows into Argentina. In this regard, the Argentine Central Bank s regulations provide that Argentine individuals and legal entities do not need the Central Bank s prior approval to acquire foreign currency used for investments abroad. This includes investment in real estate located abroad, loans to non-residents, direct investments made by Argentine residents abroad, portfolio investments made by Argentine residents abroad, other investments abroad made by Argentine residents, portfolio investments made by legal entities abroad, the purchase of foreign currency in Argentina, and the purchase of travelers checks and donations. Under the exchange regulations currently in force, there are no restrictions in respect of the repatriation of funds or investments by non-Argentine residents. The transfer abroad of dividend payments is currently authorized by applicable regulations to the extent that such dividend payments are made in connection with audited financial statements and are approved by a shareholders meeting. See Risk Factors Risks Relating to Argentina We could be subject to exchange and capital controls.

Risk Factors

The risks and uncertainties described below are those known by us as of the date of this report. However, such risks and uncertainties may not be the only ones that we could face. Additional risks and uncertainties that are unknown to us or that we currently think are immaterial also may impair our business operations.

Risks Relating to Argentina

The Argentine Republic owns 51% of the shares of the Company.

The Argentine Republic owns 51% of the shares of the Company (see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law), and consequently, the federal government is able to determine all matters requiring approval by a majority of shareholders, including the election of a majority of directors. We cannot assure you that the decisions taken by our controlling shareholder would not differ from your interests as a shareholder. In addition, according to the Argentine Constitution, presidential elections take place every four years. Accordingly, changes in government or its policies may occur. We cannot assure you if and when any such changes may occur, nor the impact they may have on our business.

Our business is largely dependent upon economic conditions in Argentina.

Most of our operations, properties and customers are located in Argentina, and, as a result, our business is to a large extent dependent upon economic conditions prevailing in Argentina. The changes in economic, political and regulatory conditions in Argentina and measures taken by the Argentine government have had and are expected to continue to have a significant impact on us. You should make your own assessment about Argentina and prevailing conditions in the country before taking an investment decision in us.

The Argentine economy has experienced significant volatility in past decades, including numerous periods of low or negative growth and high and variable levels of inflation and currency devaluation. No assurances can be given that the rate of growth experienced over past years will be achieved in subsequent years or that the national economy will not suffer recession. If economic conditions in Argentina were to slow down, or contract, if inflation were to accelerate further, or if the Argentine government s measures to attract or retain foreign investment and international financing in the future are unsuccessful, such developments could adversely affect Argentina s economic growth and in turn affect our financial health and results of operations.

Argentina has confronted and continues to confront inflationary pressures. According to inflation data published by the National Statistics Institute (*Instituto Nacional de Estadística y Censos*) (INDEC), from January to April, the Argentine alternative consumer price index (CPI) in 2016 increased 4.1%, 4.0%, 3.3% and 6.5%, respectively, and from May to December, a new CPI was published that showed increases of 4.2%, 3.1%, 2.0%, 0.2%, 1.1%, 2.4%, 1,6% and 1.2%, respectively. High or increased rates of inflation in Argentina could increase our costs of operation, and may negatively impact our results of operations and financial health. There can be no assurance that inflation rates will not increase in the future.

Argentine economic conditions are dependent on a variety of factors, including, but not limited to, the following:

- international demand for Argentina s principal exports;
- international prices for Argentina s principal commodity exports;
- stability and competitiveness of the Argentine peso against foreign currencies;
- competitiveness and efficiency of domestic industries and services;
- levels of consumer consumption and foreign and domestic investment and financing; and
- the rate of inflation.

The Argentine economy is also particularly sensitive to local political developments. In spite of certain measures that the Argentine government, elected December 10, 2015, has already taken, such as the elimination of exchange restrictions, the partial adjustment of gas and electricity prices and the elimination or reduction of export taxes for certain products, it continues to face challenges in respect of Argentina s economy. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions.

Argentina s economy is also vulnerable to adverse developments affecting its principal trading partners. A continued deterioration of economic conditions in Brazil, Argentina s main trading partner, and a deterioration of the economies of Argentina s other major trading partners, such as China or the United States, could have a material adverse impact on Argentina s balance of trade and adversely affect Argentina s economic growth and may consequently adversely affect our financial health and results of operations. Furthermore, a significant devaluation of the currencies of our trading partners or trade competitors may adversely affect the competitiveness of Argentina and consequently adversely affect Argentina s economic and our financial health and results of operations.

As part of the challenging macroeconomic landscape in Argentina, including peso devaluation and increasing inflation, despite an increase of 35% and 10.0% in our net revenue in 2016 and 2015, to Ps. 210,100 million in 2016 compared to Ps. 156,136 million in 2015 and Ps. 141,942 million in 2014, our operating income decreased by 246% and 16% in 2016 and 2015, to an operating loss of Ps. 24,246 million in 2016, including an impairment for property, plant and equipment and intangible assets of Ps. 34,943 million, compared to operating income of Ps. 16,588 million in 2015, including an impairment for property, plant and equipment and intangible assets of Ps. 2,535 million, and operating income of Ps. 19,742 million in 2014, and our net income decreased by 741% and 50.0% in 2016 and 2015, to a net loss of Ps. 28,379 million in 2016, including an impairment for property, plant and equipment and intangible assets of Ps. 34,943 million, compared to net income of Ps. 4,426 million in 2015, including an impairment for property, plant and equipment of Ps. 2,535 million, and net income of Ps. 8,849 million in 2014.

In 2005, Argentina restructured a substantial portion of its bond indebtedness with approximately 76% of its bondholders, and in 2006 it settled all of its debt with the International Monetary Fund (IMF). In June 2010, Argentina restructured additional defaulted bond indebtedness that was not swapped in 2005. As a result of the 2005 and 2010 debt swaps, over 92% of the bond indebtedness on which Argentina had defaulted in 2002 has been restructured (Exchange Bonds).

Certain holders of bonds that were not swapped in the debt restructuring sued Argentina for payment (Holdout Bondholders). On December 7, 2011, the U.S. District Court for the Southern District of New York held that Argentina was required by the *pari passu* clause in the 1994 Fiscal Agency Agreement governing the defaulted bonds to rank its payment obligations to the Holdout Bondholders equally with those of its other debt, including the Exchange Bonds. On February 23, 2012, the District Court enjoined Argentina from making payments on the Exchange Bonds without making ratable payments on the defaulted debt, and on October 2012, the District Court s injunction was affirmed by the U.S. Court of Appeals for the Second Circuit.

In February 2016, Argentina negotiated and reached agreements in principle with respect to a substantial number of the Holdout Bondholders. On February 19, 2016, the District Court issued an indicative ruling stating that in light of Argentina s settlement proposal it would grant a motion to vacate the injunctions in all cases upon the occurrence of two conditions: (1) Argentina s repeal of the legislative obstacles to settlement and (2) Argentina s payment to all Holdout Bondholders that entered into agreements in principle with Argentina on or before February 29, 2016. On March 2, 2016, the District Court vacated the injunctions on all actions upon the occurrence of the conditions set forth in the indicative ruling.

On March 31, 2016, the Argentine Congress repealed the legislative obstacles to the settlement and approved the settlement proposal. On April 22, 2016, Argentina issued U.S.$16.5 billion of new debt securities in the international capital markets, and applied U.S.$9.3 billion to satisfy settlement payments on agreements with holders of approximately U.S.$8.2 billion principal amount of defaulted bonds. The District Court ordered the vacatur of all *pari passu* injunctions upon confirmation of such payments. For additional information related to the evolution of the Argentine economy see Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions.

Certain risks are inherent in any investment in a company operating in an emerging market such as Argentina.

Argentina is an emerging market economy, and investing in emerging markets generally carries risks. These risks include political, social and economic instability that may affect Argentina s economic results which can stem from many factors, including the following:

- high interest rates;
- abrupt changes in currency values;
- high levels of inflation;
- exchange controls;
- wage and price controls;
- regulations to import equipment and other necessities relevant for operations;
- changes in governmental economic or tax policies; and
- political and social tensions.

In particular, we continue to actively manage our schedule of work, contracting, procurement and supply-chain activities to effectively manage costs. However, price levels for capital and exploratory costs and operating expenses associated with the production of crude oil and natural gas can be subject to external factors beyond our control including, among other things, the general level of inflation, commodity prices and prices charged by the industry s material and service providers, which can be affected by the volatility of the industry s own supply and demand for such materials and services. In recent years, we and the oil and gas industry generally experienced an increase in certain costs that exceeded the general trend of inflation. We cannot guarantee that these cost pressures will lessen as result of the decline in prices of crude oil and other commodities in the global and domestic market in the recent past.

Any of these factors, as well as volatility in the capital markets, may adversely affect our financial condition and results of operations or the liquidity, trading markets and value of our securities.

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The Argentine economy has been adversely affected by economic developments in other markets.

Financial and securities markets in Argentina, and also the Argentine economy, are influenced by economic and market conditions in other markets worldwide. Argentina s economy remains vulnerable to external shocks, including those relating to or similar to the global economic crisis that began in 2008 and the uncertainties surrounding European sovereign debt. Although economic conditions vary from country to country, investors perceptions of events occurring in one country may substantially affect capital flows into and investments in securities from issuers in other countries, including Argentina. Consequently, there can be no assurance that the Argentine financial system and securities markets will not continue to be adversely affected by events in developed countries economies or events in other emerging markets, which could in turn, adversely affect the Argentine economy and, as a consequence, the Company s results of operations and financial condition.

The implementation of new export duties, other taxes and import regulations could adversely affect our results.

Since 2002, new duties have been implemented on exports, and have been progressively increased over the years. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation. As a result of the aforementioned export tax increases, we may be, and in certain cases have already been, forced to seek the renegotiation of export contracts that had previously been authorized by the Argentine government. We cannot provide assurances that we will be able to renegotiate such contracts on terms acceptable to us.

In addition, in 2012, the Argentine government adopted an import procedure pursuant to which local authorities must pre-approve any import of products and services to Argentina as a precondition for the importer to have access to the foreign exchange market to pay for the imported products and services. This procedure was then modified by the new administration through Resolution No. 3823/15, which set forth the Comprehensive Monitoring System of Imports, known as SIMI, to provide statistical information in advance of an importation, in order to allow timely analysis of Argentina s imports, analyze trade defense measures and avoid delays in delivering imported items to various industries. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation.

In addition, the Argentine government recently eliminated export taxes to hydrocarbon products, including crude oil. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation.

We cannot assure you that these taxes and import regulations will not be modified in the future or that other new taxes or import regulations will not be imposed.

We may be exposed to fluctuations in foreign exchange rates.

Our results of operations are exposed to currency fluctuations, and any devaluation of the peso against the U.S. dollar and other hard currencies may adversely affect our business and results of operations. The value of the peso has fluctuated significantly in the past, such as in January 2014 when the Argentine peso declined approximately 23% against the U.S. dollar and in December 2015 when the Argentine peso declined approximately 40% against the U.S. dollar. The peso may fluctuate in the future. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions for additional information. The main effects of the devaluation of the Argentine peso on our net income are related to the accounting treatment of (i) deferred income tax related mainly to fixed assets, which we expect would have a negative effect; (ii) current income tax, which we expect would have a positive effect; (iii) increased depreciation and amortization resulting from the remeasurement in pesos of our fixed and intangible assets; and (iv) exchange rate differences as a result of our exposure to the peso, which we expect would have a positive effect due to the fact that our functional currency is the U.S. dollar. In addition, the majority of our debt is denominated in currencies other than the peso; consequently, a devaluation of the peso against such currencies will increase the amount of pesos we need to cope with in the terms of loans.

We are unable to predict whether, and to what extent, the value of the peso may further depreciate or appreciate against the U.S. dollar and how any such fluctuations would affect our business.

Variations in interest rates and exchange rate on our current and/or future financing arrangements may result in significant increases in our borrowing costs.

Under our financing arrangements, we are permitted to borrow funds to finance the purchase of assets, incur capital expenditures, repay other obligations and finance working capital. As of December 31, 2016, part of our total debt is sensitive to changes in interest rates, mainly those prevailing in the domestic market. See Item 11. Quantitative and Qualitative Disclosures about Market Risk Interest rate exposure. Consequently, variations in interest rates could result in significant changes in the amount required to cover our debt service obligations and in our interest expense, thus affecting our results and financial condition. In addition, interest and principal amounts payable pursuant to debt obligations denominated in or indexed to U.S. dollars are subject to variations in the Argentine peso/U.S. dollar exchange rate that could result in a significant increase in peso terms in the amount of the interest and principal payments in respect of such debt obligations.

We could be subject to exchange and capital controls.

In the past, Argentina imposed exchange controls and transfer restrictions substantially limiting the ability of companies to retain foreign currency or make payments abroad. Beginning in 2011, additional foreign exchange controls have been imposed that restrict or limit purchases of foreign currency and transfers of foreign currency abroad. Since 2011, oil and gas companies (including YPF), among other entities, were required to repatriate 100% of their foreign currency export receivables. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Repatriation of Foreign Currency. In December 2015, the new administration eliminated certain exchange controls imposed by the previous administration, such as (i) the requirement that foreign currency be deposited and exchanged in Argentina in respect of finance transactions outside Argentina, and (ii) the requirement that 30% of funds in U.S. dollars held in Argentina be frozen pursuant to Decree No. 616/05. Following these changes, the peso fell to Ps. 12.99 per U.S.$1.00, as of December 31, 2015, a decrease of approximately 52% compared to December 31, 2014. Between December 16, 2015 and December 31, 2015, the peso decreased approximately 40% against the U.S. dollar. As of March 31, 2017, the peso fell to Ps. 15.38 per U.S.$1.00, an increase of approximately 3.0% compared to December 31, 2016. There can be no assurance that future regulatory changes related to exchange and capital controls will not adversely affect our financial condition or results of operations, our ability to meet our obligations denominated in foreign currency or our ability to execute our financing and capital expenditure plans.

Our access to international capital markets and the market price of our shares are influenced by the perception of risk in Argentina and other emerging economies.

International investors consider Argentina to be an emerging market. Economic and market conditions in other emerging market countries, especially those in Latin America, influence the market for securities issued by Argentine companies. Volatility in securities markets in Latin America and in other emerging market countries may have a negative impact on the trading value of our securities and on our ability and the terms on which we are able to access international capital markets. Moreover, regulatory and policy developments in Argentina that occurred in recent years, including the enactment of the Expropriation Law, as well as the litigation of the Argentine government with Holdout Bondholders have led to considerable volatility in the market price of our shares and ADSs. See Our business is largely dependent upon economic conditions in Argentina. We cannot assure that the perception of risk in Argentina and other emerging markets may not have a material adverse effect on our ability to raise capital, including our ability to refinance our debt at maturity, which would negatively affect our investments plans and consequently our financial condition and results of operations, and also have a negatively impact on the trading values of our debt or equity securities. We can give no assurance as to potential adverse impact of the factors discussed above on our financial condition and/or results of operations. See Item 4. Information on the Company History and Development of YPF.

Risks Relating to the Argentine Oil and Gas Business and Our Business

Our domestic operations are subject to extensive regulation.

The Argentine oil and gas industry is subject to government regulation and control. As a result, our business is to a large extent dependent upon regulatory and political conditions prevailing in Argentina and our results of operations may be adversely affected by regulatory and political changes in Argentina. Therefore, we face risks and challenges relating to government regulation and control of the energy sector, including those set forth below and elsewhere in these risk factors:

limitations on our ability to increase local prices or to reflect the effects of higher domestic taxes, increases in production costs or increases in international prices of crude oil and other hydrocarbon fuels and exchange rate fluctuations on our domestic prices. See Limitations on local pricing in Argentina may adversely affect our results of operations ;

new or higher taxes on exports of hydrocarbons;

restrictions on hydrocarbon export volumes, driven mainly by the requirement to satisfy domestic demand;

in connection with the Argentine government s policy to provide absolute priority to domestic demand, regulatory orders to supply natural gas and other hydrocarbon products to the domestic retail market in excess of previously contracted amounts;

in connection with the former and current incentive programs established by the Argentine government for the oil and gas industry, such as the Natural Gas Additional Injection Stimulus Program (Gas Plan) (see A significant percentage of our cash flow from operations is derived from counterparties that are governmental entities) and cash collection of balances with the Argentine government;

legislation and regulatory initiatives relating to hydraulic stimulation and other drilling activities for unconventional oil and gas hydrocarbons, which could increase our cost of doing business or cause delays and adversely affect our operations;

restrictions on imports of products which could affect our ability to meet our delivery commitments or growth plans, as the case may be; and

the implementation or imposition of stricter quality requirements for petroleum products in Argentina.

In recent years, the Argentine government has made certain changes in regulations and policies governing the energy sector to give absolute priority to domestic supply at stable prices in order to sustain economic recovery. As a result of the above-mentioned changes, for example, on days during which a gas shortage occurs, exports of natural gas (which are also affected by other government curtailment orders) and the provision of gas supplies to industries, electricity generation plants and service stations selling compressed natural gas are interrupted for priority to be given to residential consumers at lower prices. The Expropriation Law has declared achieving self-sufficiency in the supply of hydrocarbons as well as in the exploitation, industrialization, transportation and sale of hydrocarbons, a national public interest and a priority for Argentina. In addition, its stated goal is to guarantee socially equitable economic development, the creation of jobs, the increase of the competitiveness of various economic sectors and the equitable and sustainable growth of the Argentine provinces and regions. See Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law, and Risks Relating to Argentina The Argentine Republic owns 51% of the shares of the Company. Moreover, we cannot assure you that changes in applicable laws and regulations, or adverse judicial or administrative interpretations of such laws and regulations, will not adversely affect our results of operations. See Item 4. Information on the Company Legal and

Regulatory Framework and Relationship with the Argentine Government.

Limitations on local pricing in Argentina may adversely affect our results of operations.

Due to regulatory, economic and government policy factors, our domestic gasoline, diesel, natural gas and other fuel prices have differed substantially from prevailing international and regional market prices for such products, and our ability to increase prices in connection with international price increases or domestic cost increases, including those resulting from the peso devaluation, has been limited from time to time. In addition, revenues we obtain as a result of selling natural gas in Argentina (including amounts received through the Gas Plan, see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Natural gas) are subject to government regulations and could be negatively affected, principally considering the evolution of gas prices for residential consumers. In

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addition, a new stimulus program for natural gas production from non-conventional reservoirs was created (see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government MINEM Resolution No. 46/2017). The prices that we are able to obtain for our hydrocarbon products affect the viability of investments in new exploration, development and refining and, as a result, the timing and amount of our projected capital expenditures for such purposes. We budget capital expenditures by taking into account, among other things, market prices for our hydrocarbon products. For additional information on domestic pricing for our products, see Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation. We cannot provide any assurances that we will be able to increase the domestic prices of our products to reflect the effects of increased production costs, domestic taxes and exchange rate fluctuations, as well as to reflect the variations in international prices in case the domestic market for oil and gas products finally result in an import/export parity industry. Limitations on our ability to do so would adversely affect our financial condition and results of operations. Similarly, we cannot assure you that hydrocarbon prices in Argentina will match the increases or decreases in hydrocarbon prices at the international or regional levels.

A significant percentage of our cash flow from operations is derived from counterparties that are governmental entities.

In the normal course of business, and considering that we are the primary oil and gas company in Argentina, its portfolio of clients and suppliers includes both private sector and governmental entities. All material transactions and balances with related parties as of December 31, 2016 are set forth in Note 31 to the Audited Consolidated Financial Statements, including those related to the Natural Gas Additional Injection Stimulus Program. As of December 31, 2016, the accounts receivable balance corresponding to the Natural Gas Additional Injection Stimulus Program reflects eight months of accrued, unpaid payments, representing Ps. 10.9 billion. As of the date of this annual report, we have received Ps. 4.5 billion in additional payments related to amounts accrued and unpaid as of December 31, 2016 under such programs. If certain governmental counterparties were (i) not able to pay or redeem such accrued amounts in cash or cash equivalents, or (ii) not able to make such payments or redemptions according to our estimated schedule, our financial condition and results of operations would be adversely affected.

We are subject to direct and indirect import and export restrictions, which have affected our results of operations and caused us to declare force majeure under certain of our export contracts.

The Argentine Hydrocarbons Law, Law No. 17,319, allows for hydrocarbon exports as long as they are not required for the domestic market and are sold at reasonable prices. In the case of natural gas, Law No. 24,076 and related regulations require that the needs of the domestic market be taken into account when authorizing long-term natural gas exports.

During the last several years, the Argentine authorities have adopted a number of measures that have resulted in restrictions on exports of natural gas from Argentina. Due to the foregoing, we have been obliged to sell a part of our natural gas production previously destined for the export market in the local Argentine market and have not been able to meet our contractual gas export commitments in whole or, in some cases, in part, leading to disputes with our export clients and forcing us to declare force majeure under our export sales agreements. We believe that the measures mentioned above constitute force majeure events, although no assurance can be given that this position will prevail.

See Item 4. Information on the Company Exploration and Production Delivery commitments Natural gas supply contracts, Item 4. Information on the Company Exploration and Production The Argentine natural gas market, and Item 8. Financial Information Legal Proceedings.

Crude oil exports, as well as the export of most of our hydrocarbon products, currently require prior authorization from the Argentine Secretariat of Energy pursuant to the regime established under S.E. Resolution No. 1679/04, as amended and supplemented by other regulation. Oil companies seeking to export crude oil or LPG must first demonstrate that the local demand for such product is satisfied or that an offer to sell the product to local purchasers has been made and rejected. Oil refineries seeking to export diesel must also first demonstrate that the local demand for diesel is duly satisfied. Because domestic diesel production does not currently satisfy Argentine domestic consumption needs, we have been prevented since 2005 from selling diesel production in the export market, and we are obliged to sell in the local market at prevailing domestic prices.

In addition, on March 21, 2017, Decree No. 192/2017 was published in the Official Gazette of the Republic of Argentina, which created the Oil and its Byproducts Import Operations Registry (the Registry), which authority of application is MINEM (through the Secretariat of Hydrocarbon Resources). The Registry involves import operations of: (i) crude oil and (ii) certain other specific byproducts listed in section 2 of the decree. By means of this regulation, any company that wishes to perform such import operations is obligated to register such operation in the Registry and obtain authorization from MINEM before the import takes place. The registration of the operation with MINEM will be filed in accordance with a specific proceeding that MINEM will establish for such purpose. According to this decree, MINEM will also set the methodology applicable to issue import authorizations, which will be based in the following criteria: (a) lack of crude oil with the same characteristics offered in the domestic market; (b) lack of additional treatment capacity in domestic refineries with domestic crude oil; and (c) lack of byproducts listed in section 2 of the decree offered in the domestic market. This regime excepts any import by CAMMESA in order to supply power plants with the main purpose of technical supply to the Inter-connection Argentinean System (*Sistema Argentino de Interconexión* or SADI).

We are unable to predict how long these import and export restrictions will be in place, or whether any further measures will be adopted that adversely affect our ability to export or import gas, crude oil and diesel or other products and, accordingly, our results of operations.

Oil and gas prices, including the recent decline in global prices for oil and gas, could affect our business.

We budget capital expenditures related to exploration, development, refining and distribution activities by taking into account, among other things, current and expected local and international market prices for our hydrocarbon products.

The international price of crude oil has fluctuated significantly in the past and may continue to do so in the future. During 2015 and 2016, the international price of a barrel of Brent fluctuated to an average price of U.S.$52.30 and U.S.$43.70, respectively, well below the average price of previous years. While in the past, domestic oil prices in Argentina have not reflected increases or decreases in international oil prices, the significant decline discussed above resulted in an approximately U.S.$7.00 reduction during 2015 of the domestic price per barrel compared to the price in effect on December 31, 2014, an approximately 10% reduction in January 2016 compared to the price in effect on December 31, 2015 and an additional approximately 6% gradual reduction (2% monthly as of August 2016) in the second half of 2016. In addition, recently, an agreement between relevant players of the oil and gas domestic market was reached, with the objective of matching domestic prices with those in international markets (see Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions). If international crude prices remain at current levels or continue to drop for an extended period of time and this is finally reflected in the domestic price of oil, which we cannot control, it could cause the economic viability of drilling projects to be reduced. This could lead to changes to our development plans, which could in turn lead to the loss of proved developed reserves and proved undeveloped reserves. It could also affect our assumptions and estimates and, as a result, affect the recovery value of certain assets. Furthermore, if these conditions are reflected in the domestic prices of our refined products, our ability to generate cash and our results of operations could be adversely affected.

In light of the above and assuming current domestic prices for certain products do not match cost increases (including those related to the increase in the value of the U.S. dollar against the Argentine peso) in accordance with higher and more complex investments, mainly as a result of the development of unconventional resources, and also with evolution of the economy, our ability to improve our hydrocarbon recovery rates, find new reserves, develop unconventional resources and carry out certain of our other capital expenditure plans could be adversely affected, which in turn would have an adverse effect on our financial condition and results of operations.

Furthermore, we may be required to further write down the carrying value of our properties if estimated oil prices decline or if we have substantial downward adjustments to our estimated proved reserves, increases in our operating costs, increases in the discount rate of return, among others. See additionally Item 5. Operating and Financing Review and Prospects Critical Accounting Policies for information regarding our sensitivity analysis related to impairment. In addition, if a reduction in our capital expenditures materializes, including the capital expenditures of our domestic competitors, it would likely have a negative impact on the number of active drilling rigs, workovers and pulling equipment in Argentina, including related services, thus affecting the number of active workers in the industry. We are unable to predict whether, and to what extent, the potential consequences of such measures would affect our business, mainly the impact on our production and consequently our financial condition and results of operations. See We could be subject to organized labor action.

Our reserves and production are likely to decline.

Most of our existing oil and gas producing fields in Argentina are mature and, as a result, our reserves and production are likely to decline as reserves are depleted. Our production remained stable in 2016 compared to 2015 and our reserves replacement ratio (increases in reserves in the year, net divided by the production of the year) was 46% in 2016.

We face certain challenges in order to replace our proved reserves with other categories of hydrocarbons. However, the continuous comprehensive technical review of our oil and gas fields allows us to identify opportunities to rejuvenate mature fields and optimize new field developments in Argentine basins with the aim of achieving results similar to those achieved by mature fields in other regions of the world (which have achieved substantially higher recovery factors with the application of new technology). Additionally, we have been completing the renewal of most of our concessions, allowing us to develop certain strategic projects related to water-flooding, enhanced oil recovery and unconventional resources, which represent an important opportunity not only for us but also for Argentina. We expect that unconventional development will require higher investment in future years, principally in connection with the Vaca Muerta formation. These investments are expected to yield economies of scale and to significantly increase recovery rates from this resource play. Other resource plays, unconventional prospects, exist in Argentina and have positioned the country amongst the most attractive in terms of worldwide unconventional resource potential. Nevertheless, the financial viability of these investments and reserve recovery efforts will generally depend on the prevailing economic and regulatory conditions in Argentina, as well as the market prices of hydrocarbon products, and are also subject to material risks inherent to the oil and gas industry and may prove unsuccessful. See Our business plan includes future drilling activities for unconventional oil and gas reserves, such as shale oil and gas extraction, and if we are unable to successfully acquire and use the necessary new technologies and other support as well as obtain financing and venture partners, our business may be adversely affected.

Our oil and natural gas reserves are estimates.

Our oil and gas proved reserves are estimated using geological and engineering data to determine with reasonable certainty whether the crude oil or natural gas in known reservoirs is recoverable under existing economic and operating conditions. The accuracy of proved reserve estimates depends on a number of factors, assumptions and variables, some of which are beyond our control. Factors susceptible to our control include drilling, testing and production after the date of the estimates, which may require substantial revisions to reserves estimates; the quality of available geological, technical and economic data used by us and our interpretation thereof; the production performance of our reservoirs and our recovery rates, both of which depend in significant part on available technologies as well as our ability to implement such technologies and the relevant know-how; the selection of third parties with which we enter into business; and the accuracy of our estimates of initial hydrocarbons in place, which may prove to be incorrect or require substantial revisions. Factors mainly beyond our control include changes in prevailing oil and natural gas prices, which could have an effect on the quantities of our proved reserves (since the estimates of reserves are calculated under existing economic conditions when such estimates are made); changes in the prevailing tax rules, other government regulations and contractual conditions after the date estimates are made (which could make reserves no longer economically viable to exploit); and certain actions of third parties, including the operators of fields in which we have an interest.

Information on net proved reserves as of December 31, 2016, 2015 and 2014 was calculated in accordance with SEC rules and FASB s ASC 932, as amended. Accordingly, crude oil prices used to determine reserves were calculated each month, for crude oils of different quality produced by us.

As previously discussed, domestic prices for oil and gas products and derivatives have demonstrated in recent years they do not follow international prices both negatively and positively, mainly as a result of domestic economic variables affecting Argentina, such as regulations, labor costs, labor unions, political, economic and social constraints, among others. Accordingly, for calculations of our net proved reserves as of December 31, 2016, we considered the realized prices for crude oil in the domestic market, which are higher than those prevailing in the international market, taking into account the unweighted average price for each month within the twelve-month period ending December 31, 2016.

Commodity prices in general have declined significantly since 2014. If these prices do not increase significantly, and domestic prices for crude oil were reduced in line with international prices, our future calculations of estimated proved reserves would be based on lower prices (see additionally Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions in connection with the recent agreement between domestic players of the oil and gas industry). This could result in our having to remove non-economic reserves from our proved reserves in future periods. Holding all other factors constant, if commodity reference prices used in our year-end reserve estimates were decreased for crude oil to match a price of approximately U.S.$57.50 per barrel for WTI equivalent quality (the approximate average of crude oil prices for 2017 in the domestic market, according to our estimates), our total proved reserves as of December 31, 2016 would decrease by approximately 5%. In addition, as a result of the prices used to calculate the present value of future net revenues from our proved reserves, in accordance with SEC rules, which are similar to the calculation of proved reserves described above, the present value of future net revenues from our proved reserves will not necessarily be the same as the current market value of our estimated crude oil and natural gas reserves. In particular, they may be reduced if commodity prices do not increase significantly and domestic prices were reduced in line with international prices.

As a result of the foregoing, measures of reserves are not precise and are subject to revision. Any downward revision in our estimated quantities of proved reserves could adversely impact our financial results by leading to increased depreciation, depletion and amortization charges or impairment, which would reduce earnings and shareholders equity. See Oil and gas prices, including the recent decline in global prices for oil and gas, could affect our business.

Oil and gas activities are subject to significant economic, environmental and operational risks.

Oil and gas exploration and production activities are subject to particular economic and industry-specific operational risks, some of which are beyond our control, such as production, equipment and transportation risks, as well as natural hazards and other uncertainties, including those relating to the physical characteristics of onshore and offshore oil or natural gas fields. Our operations may be curtailed, delayed or cancelled due to bad weather conditions, mechanical difficulties, shortages or delays in the delivery of equipment, compliance with governmental requirements, fire, explosions, blow-outs, pipe failure, abnormally pressured formations, and environmental hazards, such as oil spills, gas leaks, ruptures or discharges of toxic gases. In addition, we operate in politically sensitive areas where the native population has interests that from time to time may conflict with our production objectives. If these risks materialize, we may suffer substantial operational losses and disruptions to our operations and harm to our reputation. Drilling may be unprofitable, not only with respect to dry wells, but also with respect to wells that are productive but do not produce sufficient revenues to return a profit after drilling, operating and other costs are taken into account.

Our business plan includes future drilling activities for unconventional oil and gas reserves, such as shale oil and gas extraction, and if we are unable to successfully acquire and use the necessary new technologies and other support as well as obtain financing and venture partners, our business may be adversely affected.

Our ability to execute and carry out our business plan depends upon our ability to obtain financing at a reasonable cost and on reasonable terms. We have identified drilling locations and prospects for future drilling opportunities of unconventional oil and gas reserves, such as the shale oil and gas in the Vaca Muerta formation. These drilling locations and prospects represent a part of our future drilling plans. Our ability to drill and develop these locations depends on a number of factors, including seasonal conditions, regulatory approvals, negotiation of agreements with third parties, commodity prices, costs, access to and availability of equipment, services and personnel and drilling results. In addition, as we do not have extensive experience in drilling and exploiting unconventional oil and gas reserves, the drilling and exploitation of such unconventional oil and gas reserves depends on our ability to acquire the necessary technology and hire personnel and other support needed for extraction or obtain financing and venture partners to develop such activities. Furthermore, in order to implement our business plan, including the development of our oil and natural gas exploration activities and the development of refining capacity sufficient to process increasing production volumes, we will need to raise significant amounts of debt capital in the financial and capital markets. We cannot guarantee that we will be able to obtain the necessary financing or obtain financing in the international or local financial markets at reasonable cost and on reasonable terms to implement our new business plan or that we would be able to successfully develop our oil and natural gas reserves and resources (mainly those related to our unconventional oil and gas business plan). Because of these uncertainties, we cannot give any assurance as to the timing of these activities or that they will ultimately result in the realization of proved reserves or meet our expectations for success, which could adversely affect our production levels, financial condition and results of operations.

We may not have sufficient insurance to cover all the operating hazards to which we are subject.

As discussed under Oil and gas activities are subject to significant economic, environmental and operational risks and We may incur significant costs and liabilities related to environmental, health and safety matters, our exploration and production operations are subject to extensive economic, operational, regulatory and legal risks. We maintain insurance covering us against certain risks inherent in the oil and gas industry in line with industry practice, including loss of or damage to property and equipment, control-of well incidents, loss of production or income incidents, removal of debris, sudden and accidental seepage pollution, contamination and clean up and third-party liability claims, including personal injury and loss of life, among other business risks. However, our insurance coverage is subject to deductibles and limits that in certain cases may be materially exceeded by our liabilities. In addition, certain of our insurance policies contain exclusions that could leave us with limited coverage in certain events. See Item 4. Information on the Company Insurance. In addition, we may not be able to maintain adequate insurance at rates or on terms that we consider reasonable or acceptable or be able to obtain insurance against certain risks that materialize in the future. If we experience an incident against which we are not insured, or the costs of which materially exceed our coverage, it could have a material adverse effect on our business, financial condition and results of operations.

Argentine oil and gas production concessions and exploration permits are subject to certain conditions and may be cancelled or not renewed.

As modified by Law No. 27,007, the Hydrocarbons Law provides for oil and gas concessions to remain in effect for 25 years as from the date of their award, 35 years for unconventional concessions and 30 years for offshore concessions. It further provides that concession terms may be extended for periods of up to 10 years each. The authority to extend the terms of current and new permits, concessions and contracts has been vested in the governments of the provinces in which the relevant area is located (and the federal government in respect of offshore areas beyond 12 nautical miles). In order to be eligible for an extension of a concession, under the modifications of Law No. 27,007, concessionaires must (i) have complied with their obligations, (ii) be producing hydrocarbons in the concession under consideration and (iii) submit an investment plan for the development of such areas as requested by the competent authorities up to a year prior to the termination of each term of the concession. Under the Hydrocarbons Law, non-compliance with the obligations and standards set out therein may also result in the imposition of fines and in the case of material breaches, following the expiration of applicable cure periods, the revocation of the concession or permit.

We cannot provide assurances that any of our concessions will be extended as a result of the consideration by the relevant authorities of the investment plans we would submit in the future for the development of the areas as of the date of requesting the extension periods for our relevant areas, or other requirements will not be imposed on us in order to obtain extensions as of the date of expiration. Additional royalty payments of 3%, up to a maximum of 18%, are provided for in extensions under Law No. 27,007. The termination of, or failure to obtain the extension of, a concession or permit, or its revocation, could have a material adverse effect on our business and results of operations.

Our acquisition of exploratory acreage and crude oil and natural gas reserves is subject to heavy competition.

We face intense competition in bidding for crude oil and natural gas production areas, especially those areas with the most attractive crude oil and natural gas reserves. As a result, the conditions under which we are able to access new exploratory or productive areas could be adversely affected. In addition, fewer offerings of exploratory acreages available to be bid upon could affect our future results.

We may incur significant costs and liabilities related to environmental, health and safety matters.

Our operations, like those of other companies in the oil and gas industry, are subject to a wide range of environmental, health and safety laws and regulations in the countries in which we operate. These laws and regulations have a substantial impact on our operations and those of our subsidiaries, and could result in material adverse effects on our financial position and results of operation. In addition, we or YPF Holdings, our wholly-owned subsidiary, may have certain environmental liabilities through certain subsidiaries. See We may be responsible for significant costs and liabilities depending on the outcome of the reorganization proceedings involving our YPF Holdings subsidiaries and the alter ego claims. A number of events related to environmental, health and safety matters, including changes in applicable laws and regulations, adverse judicial or administrative interpretations of such laws and regulations, changes in enforcement policy, the occurrence of new litigation or development of pending litigation, and the development of information concerning these matters, could result in new or increased liabilities, capital expenditures, reserves, losses and other impacts that could have a material adverse effect on our financial condition and results of operations. See Item 8. Financial Information Legal Proceedings and Item 4. Information on the Company Legal and Regulatory Framework and Relationship with the Argentine Government Argentine Environmental Regulations.

Environmental, health and safety regulation and jurisprudence in Argentina is developing at a rapid pace and no assurance can be provided that such developments will not increase our cost of doing business and liabilities, including with respect to drilling and exploitation of our unconventional oil and gas reserves. In addition, due to concern over the risk of climate change, a number of countries have adopted, or are considering the adoption of, new regulatory requirements to reduce greenhouse gas emissions, such as carbon taxes, increased efficiency standards or the adoption of cap and trade regimes. Argentina recently issued new rules which began to phase-in more stringent regulations to lower the amount of sulfur contained in diesel and gasoline fuels that will result in an increase in our investments and relative costs for such production in following years, thus potentially affecting our results of operations depending on the future prices of fuels. Furthermore, if additional requirements were adopted in Argentina, these requirements could make our products more expensive as well as shift hydrocarbon demand toward relatively lower-carbon sources such as renewable energies.

We may be responsible for significant costs and liabilities depending on the outcome of the reorganization proceedings involving our YPF Holdings subsidiaries and the alter ego claims.

As discussed in Note 27 to the Audited Consolidated Financial Statements, on June 17, 2016, Maxus Energy Corporation, Tierra Solutions Inc., Maxus International Energy Company, Maxus (US) Exploration Company and Gateway Coal Company (collectively, the Maxus Entities), subsidiaries of YPF Holdings, Inc., filed for reorganization proceedings in Wilmington, Delaware under Chapter 11 of the U.S. Bankruptcy Code. In conjunction with those proceedings, the Maxus Entities entered into an agreement with YPF along with its subsidiaries YPF Holdings Inc., CLH Holdings Inc., YPF International S.A. and YPF Services USA Corp (collectively, the YPF Entities) to settle any and all claims held by Maxus against the YPF Entities, including any alter ego claims, all of which claims the YPF Entities believe are without merit, and to release the YPF entities of any and all claims held by the Maxus Entities (the Agreement).

The Agreement provided for a payment of U.S.$130 million to the Maxus Entities (Settlement Payment) and for the provision of a U.S.$63.1 million debtor-in-possession loan (DIP Loan) by YPF Holdings Inc.

However, on March 28, 2017, the Creditors Committees and the Maxus Entities submitted an alternative restructuring plan (the Alternative Plan) that does not incorporate the agreement with the YPF Entities, to settle any and all claims held by the Maxus Entities against the YPF Entities, including any alter ego claims, all of which claims the YPF Entities believe are without merit. Under the Alternative Plan, a liquidating trust (the Liquidating Trust) may pursue alter ego claims or any other estate claims against the Company and the YPF Entities. The Liquidating Trust will be funded by Occidental Chemical Corporation, a creditor of the Maxus Entities. As a consequence of the filing of the Alternative Plan, an event of default has occurred under the DIP Loan provided by YPF Holdings Inc. and YPF Holdings sent a notice of default accordingly.

We first acquired an interest in Maxus Energy Corporation in 1995, and did not cause any releases of contamination at issue in the civil litigation against the Maxus Entities associated with the Passaic River in New Jersey and other sites and alter-ego claims against YPF and the YPF Entities, which active contamination occurred years or decades prior to the acquisition. Since acquiring an indirect interest in the Maxus Entities, we have funded the Maxus Entities with hundreds of millions of dollars which allowed them to comply with their contractual obligations related to environmental liabilities.

Depending on the final outcome of these matters, including the reorganization proceedings and the alter ego claims, our financial condition and results of operation could be materially and adversely affected. See Item 8. Financial Information Legal Proceedings.

We face risk relating to certain legal proceedings.

As described under Item 8. Financial Information Legal Proceedings, we are party to a number of labor, commercial, civil, tax, criminal, environmental and administrative proceedings that, either alone or in combination with other proceedings, could, if resolved in whole or in part adversely to us, result in the imposition of material costs, fines, judgments or other losses. While we believe that we have provisioned such risks appropriately based on the opinions and advice of our external legal advisors and in accordance with applicable accounting rules, certain loss contingencies, particularly those relating to environmental matters, are subject to change as new information develops and it is possible that losses resulting from such risks, if proceedings are decided in whole or in part adversely to us, could significantly exceed any accruals we have provided.

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In addition, we may be subject to undisclosed liabilities related to labor, commercial, civil, tax, criminal or environmental contingencies incurred by businesses we acquire as part of our growth strategy, that we may not be able to identify or that may not be adequately indemnified under our acquisition agreements with the sellers of such businesses, in which case our business, financial condition and results of operation may be materially and adversely affected.

Our business depends to a significant extent on our production and refining facilities and logistics network.

Our oil and natural gas field facilities, refineries and logistics network are our principal production facilities and distribution network on which a significant portion of our revenues depends. Although we insure our properties on terms we consider prudent and have adopted and maintain safety measures, any significant damage to, accident or other production stoppage at our facilities or network could materially and adversely affect our production capabilities, financial condition and results of operations.

For instance, on April 2, 2013, our facilities in the La Plata refinery were hit by a severe and unprecedented storm, recording over 400 mm of rainfall. The rainfall set a new record for the area and disrupted refinery systems, causing a fire that affected the Coke A and Topping C units in the refinery. This incident temporarily affected the crude processing capacity of the refinery, which had to be stopped entirely. Seven days after the event, the processing capacity was restored to about 100 mbbl/d through the commissioning of two distillation units (Topping IV and Topping D). By the end of May 2013, the Topping C unit resumed operations at full nominal capacity. The Coke A unit has been shut down permanently since the storm, affecting the volume of crude processed in the refinery, due to a reduction in conversion capacity. The storm resulted in a decrease in the volume of crude oil processed. YPF has an insurance policy that provides coverage for the loss of income and property damage due to incidents like the storm that affected the La Plata refinery. See Note 28.a to the Audited Consolidated Financial Statements for information regarding the amount recognized in our result of operations in connection with our insurance coverage.

In addition, on March 21, 2014, a fire occurred at the Cerro Divisadero crude oil treatment plant, located 20 kilometers from the town of Bardas Blancas in the province of Mendoza. The Cerro Divisadero plant, which has six tanks, four of which are for processing and two are for dispatch of treated crude oil, concentrates the production of ten fields in the Malargue area. This constitutes a daily production of approximately 9,200 barrels of oil as of the date of the incident. The new oil treatment plant was put into production in December 2016. See Note 28.a to the Audited Consolidated Financial Statements for information regarding the amount recognized in our results of operations in connection with our insurance coverage.

We could be subject to organized labor action.

Our operations have been affected by organized work disruptions and stoppages in the past and we cannot assure you that we will not experience them in the future, which could adversely affect our business and revenues, especially in the context of activity reduction. Labor demands are commonplace in Argentina s energy sector and unionized workers have blocked access to and damaged our plants in the recent past. Our operations were affected occasionally by labor strikes in recent years. See Oil and gas prices, including the recent decline in global prices for oil and gas, could affect our business and Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions.

We may not be able to pay, maintain or increase dividends.

On April 30, 2014, our shareholders approved a dividend of Ps. 464 million (Ps. 1.18 per share or ADS), which was paid during July 2014. On April 30, 2015, our shareholders approved a dividend of Ps.503 million (Ps.1.28 per share or ADS), which was paid during July 2015. On April 29, 2016, our shareholders approved a dividend of Ps. 889 million (Ps. 2.26 per share or ADS), which was paid during July 2016. On March 9, 2017, our Board of Directors proposed a dividend of Ps. 716 million. Our next shareholder s meeting, to be held on April 28, 2017, will consider this proposal.

Notwithstanding the foregoing, our ability to pay, maintain or increase dividends is based on many factors, including our net income, anticipated levels of capital expenditures and expected levels of growth. A change in any such factor could affect our ability to pay, maintain or increase dividends, and the exact amount of any dividend paid may vary from year to year.

Our performance is largely dependent on recruiting and retaining key personnel

Our current and future performance, the successful implementation of our strategy and the operation of our business are dependent upon the contributions of our senior management and our highly skilled team of engineers and other employees. Our ability to continue to rely on these key individuals is dependent on our success attracting, training, motivating and retaining key management and commercial and technical personnel with the necessary skills and experience. There is no assurance that we will be successful in retaining and attracting key personnel and the replacement of any key personnel who were to leave could be difficult and time consuming.

The Expropriation Law provides that the National Executive Office, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. Consequently, the Argentine government has the majority of votes which allows it to appoint the majority of members of our board of directors at the General Shareholder s meeting. See The Argentine Republic owns 51% of the shares of the Company and Our business is largely dependent upon economic conditions in Argentina. The loss of the experience and services of key personnel or the inability to recruit suitable replacements or additional staff could have a material adverse effect on our business, financial condition and our results of operations.

Our business has become increasingly dependent on digital technologies to conduct day-to-day operations, including oil, gas, electricity and petrochemical operations.

As dependence on digital technologies has increased, cyber incidents, including deliberate attacks or unintentional events, have also increased worldwide. Although we have extended our security policy to the industrial systems, reinforcing the defenses in case of denial of service and increasing the monitoring of suspicious activities, our technologies, systems, networks and those of our business associates have been and may continue to be the target of cyber-attacks or information security breaches, which could lead to disruptions in critical systems (such as SCADAs, DCS Systems), the unauthorized release of confidential or protected information, corruption of data or other disruptions of our business operations. In addition, certain cyber incidents, such as surveillance, may remain undetected for an extended period. To our knowledge, we have not experienced any material losses relating to cyber-attacks; however, as cyber-attacks continue to evolve, there can be no assurance that we will not suffer any cyber-attack in the future thus affecting our operations and/or our financial condition.

Risks Relating to Our Class D Shares and ADSs

The market price for our shares and ADSs may be subject to significant volatility

The market price of our ordinary shares and ADSs may fluctuate significantly due to a number of factors, including, among others, our actual or anticipated results of operations and financial condition; speculation over the impact of the Argentine government as our controlling shareholder on our business and operations, investor perceptions of investments relating to Argentina and political and regulatory developments affecting our industry or the Company. In addition, recent regulatory and policy developments in Argentina, including the passage of the Expropriation Law, as well as the litigation of the Argentine government with Holdout Bondholders (see Risks Relating to Argentina Our business is largely dependent upon economic conditions in Argentina), have led to considerable volatility in the market price of our shares and ADSs. For example, the price of our ADSs has varied from U.S.$54.58 on January 5, 2011 to U.S.$9.57 on November 16, 2012. The price hit a high closing price of U.S.$36.99 on July 1, 2014, but subsequently fell to U.S.$12.83 on January 20, 2016. See Item 9. The Offer and Listing. We cannot assure you that concerns about factors that could affect the market price of our ordinary shares as previously mentioned may have a material adverse effect on the trading values of our securities.

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Certain strategic transactions require the approval of the holder of our Class A shares or may entail a cash tender offer for all of our outstanding capital stock.

Under our by-laws, the approval of the Argentine government, the sole holder of our Class A shares, is required to undertake certain strategic transactions, including a merger, an acquisition that results in the purchaser holding 15% or more of our capital stock or an acquisition that results in the purchaser holding a majority of our capital stock, requiring consequently the approval of the National State (the holder of our Class A shares) for such decisions.

In addition, under our by-laws, an acquisition that results in the purchaser holding 15% or more of our capital stock would require such purchaser to make a public cash tender offer for all of our outstanding shares and convertible securities, which could discourage certain investors from acquiring significant stakes in our capital stock. See Item 10. Additional Information Certain Provisions Relating to Acquisitions of Shares.

Restrictions on the movement of capital out of Argentina may impair your ability to receive dividends and distributions on, and the proceeds of any sale of, the Class D shares underlying the ADSs.

The government is empowered, for reasons of public emergency, as defined in Article 1 of Law No. 25,561, to establish the system that will determine the exchange rate between the peso and foreign currency and to impose exchange regulations. Although the transfer of funds abroad in order to pay dividends currently does not require Argentine Central Bank approval, restrictions on the movement of capital to and from Argentina may, if imposed, impair or prevent the conversion of dividends, distributions, or the proceeds from any sale of Class D shares, as the case may be, from pesos into U.S. dollars and the remittance of the U.S. dollars abroad.

Under the terms of our deposit agreement with the depositary for the ADSs, the depositary will convert any cash dividend or other cash distribution we pay on the shares underlying the ADSs into U.S. dollars, if it can do so on a reasonable basis and can transfer the U.S. dollars to the United States. If this conversion is not possible for any reason, including regulations of the type described in the preceding paragraph, the deposit agreement allows the depositary to distribute the foreign currency only to those ADR holders to whom it is possible to do so. If the exchange rate fluctuates significantly during a time when the depositary cannot convert the foreign currency, you may lose some or all of the value of the dividend distribution.

Under Argentine law, shareholder rights may be different from other jurisdictions.

Our corporate affairs are governed by our by-laws and by Argentine corporate law, which differ from the legal principles that would apply if we were incorporated in a jurisdiction in the United States or in other jurisdictions outside Argentina. In addition, rules governing the Argentine securities markets are different and may be subject to different enforcement in Argentina than in other jurisdictions.

Actual or anticipated sales of a substantial number of Class D shares could decrease the market prices of our Class D shares and the ADSs.

Sales of a substantial number of Class D shares or ADSs by any present or future relevant shareholder could decrease the trading price of our Class D shares and the ADSs.

You may be unable to exercise preemptive, accretion or other rights with respect to the Class D shares underlying your ADSs.

Holders of ADSs may not be able to exercise the preemptive or accretion rights relating to the shares underlying the ADSs (see Item 10. Additional Information Preemptive and Accretion Rights) unless a registration statement under the U.S. Securities Act of 1933 (the Securities Act) is effective with respect to those rights or an exemption from the registration requirements of the Securities Act is available. We are not obligated to file a registration statement with respect to the shares relating to these preemptive rights, and we cannot assure you that we will file any such registration statement. Unless we file a registration statement or an exemption from registration is available, holders may receive only the net proceeds from the sale of their preemptive rights by the depositary or, if the preemptive rights cannot be sold, they will be allowed to lapse. As a result, U.S. holders of Class D shares or ADSs may suffer dilution of their interest in our company upon future capital increases.

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In addition, under the Argentine Corporations Law, foreign companies that own shares in an Argentine corporation are required to register with the Superintendency of Corporations (*Inspección General de Justicia*) (IGJ) in order to exercise certain shareholder rights, including voting rights. If you own our Class D shares directly (rather than in the form of ADSs) and you are a non-Argentine company and you fail to register with IGJ, your ability to exercise your rights as a holder of our Class D shares may be limited.

You may be unable to exercise voting rights with respect to the Class D shares underlying your ADSs at our shareholders meetings.

The depositary will be treated by us for all purposes as the shareholder with respect to the shares underlying ADSs. A holder of ADRs representing the ADSs being held by the depositary will not have direct shareholder rights and may exercise voting rights with respect to the Class D shares represented by the ADSs only in accordance with the deposit agreement relating to the ADSs. There are no provisions under Argentine law or under our by-laws that limit the exercise by ADS holders of their voting rights through the depositary with respect to the underlying Class D shares. However, there are practical limitations on the ability of ADS holders to exercise their voting rights due to the additional procedural steps involved in communicating with these holders. For example, holders of our shares will receive notice of shareholders meetings through publication of a notice in an official gazette in Argentina, an Argentine newspaper of general circulation and the bulletin of the Buenos Aires Stock Exchange, and will be able to exercise their voting rights by either attending the meeting in person or voting by proxy. ADS holders, by comparison, will not receive notice directly from us. Instead, in accordance with the deposit agreement, we will provide the notice to the depositary. If we ask it to do so, the depositary will mail to holders of ADSs the notice of the meeting and a statement as to the manner in which instructions may be given by holders. To exercise their voting rights, ADS holders must then instruct the depositary as to voting the Class D shares represented by their ADSs. Due to these procedural steps involving the depositary, the process for exercising voting rights may take longer for ADS holders than for holders of Class D shares, and Class D shares represented by ADSs may not be voted as you desire. Class D shares represented by ADSs for which the depositary fails to receive timely voting instructions may, if requested by us, be voted as we instruct at the corresponding meeting.

Shareholders outside of Argentina may face additional investment risk from currency exchange rate fluctuations in connection with their holding of our Class D shares or the ADSs.

We are an Argentine company and any future payments of dividends on our Class D shares will be denominated in pesos. The peso has historically and recently fluctuated significantly against many major world currencies, including the U.S. dollar. A devaluation of the peso would likely adversely affect the U.S. dollar or other currency equivalent of any dividends paid on our Class D shares and could result in a decline in the value of our Class D shares and the ADSs as measured in U.S. dollars.

ITEM 4. Information on the Company

History and Development of YPF

Overview

YPF is a corporation (*sociedad anónima*), incorporated under the laws of Argentina for a limited term. Our address is Macacha Güemes 515, C1106BKK Ciudad Autónoma de Buenos Aires, Argentina and our telephone number is (011-54-11) 5441-2000. Our legal name is YPF Sociedad Anónima and we conduct our business under the commercial name YPF.

We are Argentina s leading energy company, operating a fully integrated oil and gas chain with leading market positions across the domestic upstream, downstream and gas and power segments. Our upstream operations consist of the exploration, development and production of crude oil, natural gas and LPG. Our downstream operations include the refining, marketing, transportation and distribution of oil and a wide range of petroleum products, petroleum derivatives, petrochemicals, LPG and bio-fuels. Additionally, we are active in the gas separation and natural gas distribution sectors both directly and through our investments in several affiliated companies and in power generation through YPF Energía Eléctrica. In 2016, we had consolidated revenues of Ps. 210,100 million and consolidated net loss of Ps. (28,379) million. Due to decreased export volumes, the portion of our revenues derived from exports has decreased steadily in recent years. Exports accounted for 7.8%, 7.9% and 17.1% of our consolidated net revenues in 2016, 2015 and 2014, respectively.

Beginning in the 1920s and until 1990, both the upstream and downstream segments of the Argentine oil and gas industry were effectively monopolies of the Argentine government. During this period, we and our predecessors were owned by the state, which controlled the exploration and production of oil and natural gas, as well as the refining of crude oil and marketing of refined petroleum products. In August 1989, Argentina enacted laws aimed at the deregulation of the economy and the privatization of Argentina s state-owned companies, including us. Following the enactment of these laws, a series of presidential decrees were promulgated, which required, among other things, us to sell majority interests in our production rights to certain major producing areas and to undertake an internal management and operational restructuring program.

In November 1992, the Argentine government enacted the Privatization Law (Law No. 24,145), which established the procedures for our privatization. In accordance with the Privatization Law, in July 1993, we completed a worldwide offering of 160 million Class D shares that had previously been owned by the Argentine government. As a result of that offering and other transactions, the Argentine government s ownership interest in our capital stock was reduced from 100% to approximately 20% by the end of 1993.

In January 1999, Repsol YPF acquired 52,914,700 Class A shares (14.99% of our shares) which were converted to Class D shares. Additionally, on April 30, 1999, Repsol YPF announced a tender offer to purchase all outstanding Class A, B, C and D shares (the Offer). Pursuant to the Offer, in June 1999, Repsol YPF acquired an additional 82.47% of our outstanding capital stock. Repsol YPF acquired additional stakes in us from minority shareholders and other transactions in 1999 and 2000.

Repsol YPF owned approximately 99% of our capital stock from 2000 until 2008, when Petersen Energía (PEISA) purchased 58,603,606 of our ADSs on February 21, 2008, representing 14.9% of our capital stock, from Repsol YPF for U.S.$2,235 million. In addition, Repsol YPF granted certain affiliates of PEISA options to purchase up to an additional 10% of our outstanding capital stock within four years. On May 20, 2008, PEISA exercised an option to purchase shares representing 0.1% of our capital stock. Additionally, PEISA launched a tender offer to purchase all of the shares of YPF that were not already owned by them at a price of U.S.$49.45 per share or ADS. Repsol YPF, pursuant to its first option agreement with PEISA, had stated that it would not tender YPF shares to PEISA. A total of 1,816,879 shares (including Class D shares and ADSs), representing approximately 0.462% of our total shares outstanding, were tendered. On May 3, 2011, PEISA exercised an option to acquire, from Repsol YPF, shares or ADSs representing 10.0% of our capital stock and on May 4, 2011, Repsol YPF acknowledged and accepted such exercise. See Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law and Item 7. Major Shareholders and Related Party Transactions, for a detail of our current major shareholders.

On May 3, 2012, the Argentine congress passed the Expropriation Law. Among other matters, the Expropriation Law provided for the expropriation of 51% of the share capital of YPF represented by an identical stake of Class D shares owned, directly or indirectly, by Repsol YPF and its controlled or controlling entities. The shares subject to expropriation, which have been declared of public interest, will be assigned as follows: 51% to the Argentine Republic and 49% to the governments of the provinces that compose the National Organization of Hydrocarbon Producing States. See Item 3. Key Information Risk Factors Risks Relating to Argentina The Argentine Republic owns 51% of the shares of the Company. As of the date of this annual report, the transfer of the shares subject expropriation between the National Executive Office and the provinces that compose the National Organization of Hydrocarbon Producing States was still pending. According to Article 8 of the Expropriation Law, the distribution of the shares among the provinces that accept their transfer must be conducted in an equitable manner, considering their respective levels of hydrocarbon production and proved reserves. To ensure compliance with its objectives, the Expropriation Law provides that the National Executive Office, by itself or through an appointed public entity, shall exercise all the political rights associated with the shares subject to expropriation until the transfer of political and economic rights to the provinces that compose the National Organization of Hydrocarbon Producing States is completed. In addition, in accordance with Article 9 of the Expropriation Law, each of the Argentine provinces to which shares subject to expropriation are allocated must enter into a shareholder s agreement with the federal government that will provide for the unified exercise of its rights as a shareholder. See Legal and Regulatory Framework and Relationship with the Argentine Government The Expropriation Law, Item 7. Major Shareholders and Related Party Transactions. See Item 3. Key Information Risk Factors Risks Relating to the Argentine Oil and Gas Business and Our Business We face risk relating to certain legal proceedings for a description of the Repsol Agreement relating to compensation for the expropriation of 51% of the share capital of YPF owned, directly or indirectly, by Repsol.

In addition, on February 25, 2014, the Republic of Argentina and Repsol reached an agreement (the Repsol Agreement) in relation to compensation for the expropriation of 200,589,525 of YPF s Class D shares pursuant to the Expropriation Law under the Repsol Agreement. Repsol accepted U.S.$5.0 billion in sovereign bonds from the Republic of Argentina and withdrew judicial and arbitral claims it had filed, including claims against YPF, and waived additional claims. YPF and Repsol also executed a separate agreement (the Repsol Arrangement) on February 27, 2014, pursuant to which YPF and Repsol each withdrew, subject to certain exclusions, all present and future actions and/or claims based on causes occurring prior to the date of execution of Repsol Arrangement arising from the expropriation of the YPF shares owned by Repsol pursuant to the Expropriation Law, including the intervention and temporary possession for public purposes of YPF s shares. YPF and Repsol agreed to withdraw reciprocal actions and claims with respect to third parties and/or pursued by them and to grant a series of mutual indemnities, which at the time were subject to certain conditions precedent. The Repsol Arrangement entered into force the day after Repsol notified YPF that the Repsol Agreement had entered into force. The Repsol Agreement was ratified on March 28, 2014 at a Repsol general shareholders meeting and approved by the Argentine congress by Law No. 26,932 enacted by Decree No. 600/2014. On May 8, 2014, YPF was notified of the entry into force of the Repsol Agreement. As of that date, the expropriation pursuant to the Expropriation Law was concluded, and as a result the Republic of Argentina is definitively the owner of 51% of the capital stock of each of YPF and YPF GAS S.A.

To achieve the goals of the Company s strategy, we intend to focus on (i) improving efficiency and productivity to enable us to adapt to a scenario of a prolonged decline in international oil prices; (ii) continuing to increase production, especially of natural gas; (iii) developing unconventional resources and increasing exploration of mature areas; (iv) improving our capacity to refine in order to accommodate the growth in demand for refined products; (v) exploring conventional and unconventional resources and pushing the limits of existing deposits and exploring new frontiers, including offshore; (vi) permanently evaluating portfolios of assets to identify investment and divestment opportunities; (vii) enhancing the value of our brand and our commercial platform and (viii) maintaining a solid capital structure.

The investment plan related to our growth needs to be accompanied by an appropriate financial plan, whereby we intend to reinvest earnings, search for strategic partners and raise debt financing at levels we consider prudent for companies in our industry. Consequently, the financial viability of these investments and hydrocarbon recovery efforts will generally depend, among other factors, on the prevailing economic and regulatory conditions in Argentina, the ability to obtain financing in satisfactory amounts at competitive costs, as well as the market prices of hydrocarbon products. See Item 3. Key Information Risk Factors Risks Relating to Argentina. and Item 5. Factors Affecting Our Operations for additional information regarding 2016 activity.

Upstream Operations

As of December 31, 2016, we held interests in 110 oil and gas fields in Argentina. According to the Ministry of Energy and Mining, in 2016 these assets accounted for approximately 49.9% of the country s total production of crude oil, excluding NGLs, and approximately 43.0% of its total natural gas production, including NGLs.

We had proved reserves, as estimated as of December 31, 2016, of approximately 592 mmbbl of oil, including condensates and NGLs, and approximately 2,924 bcf of gas, representing aggregate reserves of approximately 1,113 mmboe as of such date, compared to approximately 679 mmbbl of oil, including condensates and NGLs, and approximately 3,072 bcf of gas, representing aggregate reserves of approximately 1,226 mmboe as of December 31, 2015.

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In 2016, we produced approximately 90 mmbbl of oil (approximately 245 mbbl/d), including condensates, approximately 19 mmbbl of NGLs (approximately 52 mbbl/d), and approximately 576 bcf of gas (approximately 1,573 mmcf/d), representing a total production of approximately 211 mmboe (approximately 577 mboe/d), compared to approximately 91 mmbbl of oil (approximately 250 mbbl/d), including condensates, approximately 18 mmbbl of NGLs (approximately 49 mbbl/d), and approximately 569 bcf of gas (approximately 1,560 mmcf/d) representing a total production of approximately 210 mmboe (approximately 577 mboe/d) in 2015.

Downstream Operations

We are Argentina s leading refiner with operations conducted at three wholly-owned refineries with combined annual refining capacity of approximately 116 mmbbl (319.5 mbbl/d). See Downstream Refining division. We also own a 50% equity interest in Refinería del Norte, S.A. (Refinor), an entity jointly controlled with and operated by Petrobras Energía S.A., which has a refining capacity of 26.1 mbbl/d.

Our retail distribution network for automotive petroleum products as of December 31, 2016 consisted of 1,547 YPF-branded service stations, of which we own 112 directly and through our 100%-owned subsidiary Operadora de Estaciones de Servicios S.A. (OPESSA), and we estimate we held approximately 36% of all gasoline service stations in Argentina.

We are one of the leading petrochemical producers in Argentina and in the Southern Cone of Latin America, with operations conducted through our Ensenada industrial complex (CIE) and Plaza Huincul site. In addition, Profertil S.A. (Profertil), a company that we jointly control with Agrium Holdco Spain S.L. (Agrium), is one of the leading producers of urea in the Southern Cone.

Gas and Power Operations

We are the largest producer of natural gas in Argentina with total natural gas sales of 13.2 mmcm in 2016, accounting for 34% of the market.

We participate in three power generation plants with an aggregate installed capacity of 1,622 MW. In 2016, we decided to engage in two projects for the development and operation of two power plants in addition to two other new power generation projects under construction in Neuquén and Comodoro Rivadavia. We also own and operate two power plants supplied with natural gas produced by us, which produce power to supply our Upstream and Downstream activities. See Gas and Power YPF in Power Generation.

We are the operator of UTE Escobar (a joint venture formed by YPF and ENARSA) and Bahia Blanca Terminal, which operates an LNG Regasification Terminal, LNG Escobar and LNG Bahía Blanca, respectively. See Gas and Power Argentine natural gas supplies.

For a chart illustrating our organizational structure, including our principal subsidiaries, please see Note 1 to the Audited Consolidated Financial Statements. In addition, we are in the process of completing a merger by absorption with the following subsidiaries: YSUR Holdings S.A.U., YSUR Inversiones Petroleras S.A.U., YSUR Inversora

S.A.U., YSUR Petrolera Argentina S.A., Petrolera TDF Company S.R.L., YSUR Energía Argentina S.R.L., Petrolera LF Company S.R.L. and YSUR Recursos Naturales S.R.L. (collectively, the Absorbed Companies), which are companies controlled by us as a result of the asset acquisition of the Apache Group in Argentina. The effective date of the merger was January 1, 2017, with YPF as the absorbing company that will continue the activities and operations of each of the Absorbed Companies, which were dissolved without liquidation. On March 9, 2017, the Board of Directors approved the merger by absorption by YPF of the Absorbed

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Companies, whereby these companies will be dissolved without liquidation, as well as the procedures to effectuate this corporate reorganization, with an effective date of January 1, 2017. On the same date, YPF, as the absorbing company, and the Absorbed Companies, as the merged companies, signed a Preliminary Merger Agreement, through which YPF will incorporate the absorbed companies, with retroactive effect as of January 1, 2017. This was done on the basis of the annual financial statements of each of the companies as of December 31, 2016, to be used as special merger balance sheets and the special merger consolidated balance sheet as of the same date.

Since YPF is a direct and indirect holder of 100% of the shares of the Absorbed Companies, YPF s share capital will not be increased nor will new shares be issued, nor will there be any exchange ratio as a result of the merger. The aforementioned merger must be submitted for consideration and approval of the respective Extraordinary Shareholders Meetings of each of the respective companies and is subject to compliance with relevant legal procedures and obtaining regulatory approvals. The merger will centralize the management of the companies under a single corporate organization, thereby obtaining operational and economic benefits related to the achievement of higher operating efficiency and effectiveness, the enhanced use of available resources and of technical, administrative and financial structures, and the rationalization and reduction of related costs.

The map below illustrates the location of our productive basins, refineries, storage facilities and crude oil and multi-product pipeline networks as of December 31, 2016.

For a description of our principal capital expenditures and divestitures, see Item 5. Operating and Financial Review and Prospects Liquidity and Capital Resources Capital investments, expenditures and divestitures.

The Argentine Market

Argentina is the second largest producer of natural gas and the fourth largest producer of crude oil in Central and South America, based on 2015 production, according to the 2016 edition of the BP Statistical Review of World Energy, published in June 2016.

In response to the economic crisis of 2001 and 2002, the Argentine government, pursuant to the Public Emergency Law, established export taxes on certain hydrocarbon products. In subsequent years, in order to satisfy growing domestic demand and abate inflationary pressures, this policy was supplemented by constraints on domestic prices, temporary export restrictions and subsidies on imports of natural gas and diesel. As a result, until 2008, local prices for oil and natural gas products had remained significantly below those prevalent in neighboring countries and international commodity exchanges.

In 2012, Argentina s GDP experienced a slowdown, with GDP increasing 1.9% on an annual basis compared to the preceding year according to the methodology of calculation prevailing until March 2014. On March 27, 2014, the Argentine government announced a new method of calculating GDP using 2004 as the base reference year (as opposed to 1993, which was the base reference year under the prior method of calculating GDP). However, on January 7, 2016 through Decree No. 55/2016, the new leadership of INDEC issued a report declaring a national statistical emergency. INDEC stated that since 2006 its administration has been irregular and due to that they revised the published data from 2005 to 2015. As a result of this revision, the GDP growth rate for 2013 and 2014 was revised from 2.9% to 2.4% and from 0.5% to a decline rate of 2.5%, respectively. As of the date of this annual report, Argentina s provisional GDP growth rate for 2015 and the preliminary GDP growth rate for 2016 published by INDEC were positive 2.6% and negative 2.3%, respectively.

Driven by economic expansion and stable domestic prices, energy demand has increased significantly during last years, outpacing energy supply (which, in the case of oil, declined). As a result of a high number of power outages caused by the consumption increase, the Ministry of Energy requested that the Executive Branch declare a National Electric System Emergency through December 31, 2017. This decree instructs the Minister of Energy to develop and propose measures and to ensure adequate power supplies. Also by Resolutions No. 06/2016, 41/2016 and 19/2017, the Ministry of Energy and Mining established new seasonal reference prices for power and energy in the Wholesale Electricity Market (MEM). See Legal and Regulatory Framework and Relationship with the Argentine Government Market Regulation Electricity.

In 2003, Argentina s net exports of diesel amounted to approximately 1,349 mcm, while in 2016 its net imports of diesel amounted to approximately 2,186 mcm, according to preliminary information provided by the Argentine Secretariat of Energy. Significant investments in the energy sector are being carried out, and additional investments are expected to be required in order to support continued economic growth, as the industry is currently operating near full capacity.

Demand for diesel in Argentina exceeds domestic production. In addition, prior to the decline in international oil prices, the import prices of refined products have been in general substantially higher than the average domestic sales prices of such products, rendering the import and resale of such products less profitable. As a result, from time to time, service stations experience temporary shortages and are required to suspend or curtail diesel sales.

Business Organization

We currently conduct our business according to the following organization:

Upstream, which consists of our "Exploration and Production" segment;

Downstream, which consists of our "Refining and Marketing" and "Chemicals" segments;

Gas and Power, which consists of our Natural Gas Distribution and Electricity Generation segment; and

Corporate and other, which consists of our remaining activities.

The Upstream segment s sales to third parties in Argentina and abroad include sales of natural gas. In addition, crude oil produced by us in Argentina, or received from third parties in Argentina pursuant to service contracts, is mainly transferred from Exploration and Production to Refining and Marketing at transfer prices established by us, which generally seek to approximate Argentine market prices.

In 2013, we reorganized our reporting structure by grouping the Chemical and Refining and Marketing former segments into a new Downstream segment. We made this change primarily because of the common strategy shared by the former Chemical and Refining and Marketing segments, in light of the synergies involved in their activities to maximize the volume and quality of fuel offered to the market.

The Downstream segment purchases crude oil from the Upstream segment and from third parties. Downstream activities include crude oil refining and transportation, as well as the marketing and transportation of refined fuels, lubricants, LPG, natural gas, petrochemical products and other refined petroleum products in the domestic wholesale and retail markets and the export markets.

In 2016, our activities related to our natural gas commercialization division and our natural gas distribution activities, which we developed through Metrogas S.A., our natural gas stripping activities developed in our affiliate Mega, and our power generation activities developed in our controlled company YPF Energía Electrica S.A. were separated from the Downstream activities, creating a new Gas and Power Segment. This change was consolidated with the appointment of a Gas and Power Vice President in 2016 who leads the decision-making on business, commercial, operational and financial matters related to all of these activities. Additionally, we record certain assets, liabilities and costs under the Corporate and Other business segment, including corporate administration costs, assets and certain construction activities, mainly related to the oil and gas industry, through our subsidiary A-Evangelista S.A. and its subsidiaries. See Note 5 to our Audited Consolidated Financial Statements.

Substantially all of our operations, properties and customers are located in Argentina. See Exploration and Production Overview Main properties. Additionally, we market lubricants and specialties in Brazil and Chile, and carry out exploration activities in Chile.

The following table sets forth revenues and operating income for each of our business segments for the years ended December 31, 2016, 2015 and 2014:

	For the year ended December 31,		
	2016	2015	2014
	(in millions of pesos)		
Revenues [1]			
Upstream			
Revenues	18,745	16,044	8,853
Revenue from intersegment sales [3]	95,398	64,243	61,844
Total Upstream	114,143	80,287	70,697

Gas and Power			
Revenues	26,514	14,003	12,810
Revenue from intersegment sales	3,212	2,184	1,859
Total Gas and Power	29,726	16,187	14,669
Downstream			
Revenues	162,538	124,959	119,444
Revenue from intersegment sales	925	807	817
Total Downstream	163,463	125,766	120,261

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	For the year ended December 31, 2016	2015	2014
	(in millions of pesos)		
Corporate and other			
Revenues	2,303	1,130	835
Revenue from intersegment sales	7,447	6,182	5,212
Total Corporate and other	9,750	7,312	6,047
Less inter-segment sales and fees	(106,982)	(73,416)	(69,732)
Total Revenues	210,100	156,136	141,942
Operating income (Loss) [2]			
Upstream	(26,845)	7,535	12,353
Gas and Power	2,008	1,498	310
Downstream	3,093	6,948	10,668
Corporate and other	(1,615)	(2,331)	(3,343)
Consolidation adjustments	(887)	2,938	(246)
Total Operating Income (loss)	(24,246)	16,588	19,742

(1) Revenues are net of payment of a fuel transfer tax and turnover tax. Customs duties on hydrocarbon exports are disclosed in Taxes, charges and contributions, as indicated in Note 21 to the Audited Consolidated Financial Statements. Royalties with respect to our production are accounted for as a cost of production and are not deducted in determining revenues. See Note 2.b.15 to the Audited Consolidated Financial Statements.

(2) Includes exploration costs in Argentina and the United States and production operations in Argentina and the United States.

(3) Intersegment revenues of crude oil to Downstream are recorded at transfer prices that reflect our estimate of Argentine market prices.

Exploration and Production Overview

Development and Exploration Upstream projects represent our integrated vision of optimal field development, identifying each project s reserves category, stage of maturity, risk and strategy.

In addition to development projects for proved reserves, our portfolio of projects is composed of more than 250 integral new development projects. We have a portfolio of visualized exploratory opportunities which includes more than 800 cases related to contingent and prospective resources that contemplate potential development in the event of exploratory success.

The international and local situation challenges us to adjust our efficiency and costs to be sustainable. In that context, it is critical that our portfolio of projects and the production and development of initiatives to reduce costs for our operations and investments are properly executed. Part of those initiatives are related to labor efficiency, where we have started to work with labor unions and the Argentine government and recently signed the Addenda NOC , which seeks to reduce costs for the development of non-conventional resources, mainly as a result of new performance compensation approaches for certain supplier activities. See Item 6. Directors, Senior Management and

Employees Employee Matters. Our business growth objectives, whereby we seek to maximize the productivity and profitability of our portfolio, are based on the following key concepts: the rejuvenation of mature fields, an ongoing focus on gas development and the intensive development of unconventional reservoirs. See Item 3. Key Information Risk Factors.

The projects selected to be pursued and their schedules for completion are periodically determined by a portfolio optimization process, in accordance with our strategic guidelines.

Meeting the challenge of the mature oil and gas fields

Most of our oil and gas producing fields in Argentina are mature, requiring strong commitments to overcome their decline.

We have significantly increased our activity and resources in mature areas that present profitable opportunities for increases in the recovery factor by employing techniques including infill wells, and extension of secondary recovery and tertiary recovery testing. We are focused on identifying new opportunities in both infill potential and improved sweep efficiency in our mature fields. These efforts are guided by subsurface modeling conducted by in-house multidisciplinary teams. Furthermore, we place a strong emphasis on surveillance and conformance activities to improve current mature water injection projects. Tertiary recovery is being pursued with polymer and surfactant water-flooding in mature reservoirs in both the Golfo de San Jorge and Neuquén basins.

Continuous technical reviews of our oil and gas fields allow us to identify opportunities to rejuvenate mature fields and optimize new field developments in Argentine basins in order to achieve similar recovery factors that mature fields have already reached in other regions of the world, with the application of new technologies.

We have managed, through the extension of most of our concessions with relatively favorable terms and conditions, to continue with the development of strategic water-flooding and improved oil recovery projects, improving our perspectives of production and reserves.

In addition, we are also focused on producing and developing initiatives related to reducing costs, in operating expenses and capital expenditures.

Nevertheless, the financial viability of these investments and reserve recovery efforts will generally depend on prevailing economic and regulatory conditions in Argentina, as well as the market prices of hydrocarbon products. See Item 3. Key Information Risk Factors. and Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations for additional information regarding 2017 activity.

Staying the Path of Unconventional Resources

During 2016, we continued extending our leadership in this area. We reaffirmed our commitment to the objective of growing our production and reserves through the development of unconventional resources, which we began in 2013. More than 500 wells were drilled with Vaca Muerta shale as the target, mostly in the Loma Campana field in association with Chevron, continuing the massive development that was begun in 2013. The remaining wells were targeted to continue the development phase in the El Orejano block in association with Dow Chemical, the Narambuena project in association with Chevron, and the La Amarga Chica pilot in association with Petronas. The purpose of these projects is to determine the potential of Vaca Muerta as a shale oil/gas reservoir.

The development of unconventional resources in the Vaca Muerta formation will demand a significant capital investment. As we rapidly progress on our learning curve, substantially improving productivity and reducing well cost by 27% in 2016 compared to 2015, we expect to continue yielding substantial savings due to operational optimizations, economies of scale and increasing well productivity through a better understanding of the subsurface.

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Nevertheless, the financial viability of these investments and resource recovery efforts will depend on the prevailing economic and regulatory conditions, as well as the market prices of hydrocarbons in Argentina. See Item 3. Key Information Risk Factors. and Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations for additional information regarding 2017 activity.

Tight sands also contributed to the increase of natural gas production and reserves in 2016, as was the case in the Mulichinco formation in the Rincón del Mangrullo concession, where Pampa Energía S.A. (Pampa Energía) acquired 50% of the working interest during 2015. More than 100 wells were drilled in these marine tight sands, increasing gas production to 5 mmcm/d through a pipeline that connects to Loma La Lata facilities. This pipeline may enable the development of other gas fields, like the recent shale gas discovery in La Ribera, where a successful well is already in production. During 2016, three horizontal wells were drilled in Rincon del Mangrullo, resulting in higher than expected initial gas rate production. These results are encouraging for continued development of horizontal wells.

During 2016, we started supplying sand as proppant (to be injected in the hydraulic stimulation that allows for the development of unconventional hydrocarbons) and finalized the sand treatment plant. This contributed substantially to a reduction of stimulation cost. We expect to gradually replace the more expensive imported sand with our domestic product, allowing for significant well cost reductions.

Vaca Muerta Formation

Loma Campana Area: On July 16, 2013, YPF and Chevron signed an investment project agreement for the joint exploitation of unconventional hydrocarbons in the province of Neuquén.

During 2016, 60 wells were put into production, of which four were vertical wells and 56 were horizontal wells. The standard design for horizontal wells was 1500 m of lateral length and 18 frac stages. Due to continued improvements in our drilling performance, despite reducing the number of active drilling rigs from six to three by the second half of the 2016, we still exceeded planned production from drilling 60 horizontal wells. An average drilling time of 35 days to drill a 4700 m measured depth (MD) well was achieved during 2015, with an improvement to 29 days for a 4800 m MD in 2016. This reduction in drilling time is also reflected in drilling costs of an average well cost reduction of 27% between 2015 and 2016 for a horizontal well of 1500 m lateral length. In addition, during the last days of the year, the Loma Campana Crude Oil Treatment Plant was launched, with a capacity of 8,000 cm/d expandable to 16,000 cm/d. See additionally Main properties.

In January 2016, the Loma Campana Offices were inaugurated as the hub of Non-Conventional Operations.

El Orejano Area: On September 23, 2013, YPF and Dow Europe Holding B.V. and PBB Polisur S.A. (our current 50% partner in the area) signed an agreement relating to the joint development of an unconventional gas pilot project in the province of Neuquén. During 2016, we began substantial developments, leading to a total of 31 wells drilled, 30 of them horizontal wells, and 26 wells were put into production, with a net investment of U.S.$136 million in Drill and Completion (D&C) and U.S.$29 million in production facilities. By the end of 2016, the total gas production for the field exceeded 2.0 mmcm/d (179% higher than December 2015). See additionally Main properties.

La Amarga Chica Area: On December 10, 2014, YPF and PETRONAS E&P ARGENTINA S.A., an affiliate of PETRONAS E&P Overseas Ventures Sdn. Bhd (PEPOV) of Malaysia, executed a Project Investment Agreement (the Investment Agreement) aiming to perform joint exploitation of unconventional hydrocarbons in the La Amarga Chica area in the province of Neuquén. The Pilot Plan, comprising 28 wells in three years, started in May 2015. At the end of the first phase, a total of six horizontal and three vertical wells were drilled, with results over performing previous expectations. Based on those positive results, PETRONAS E&P ARGENTINA S.A. agreed to continue co-investing in a second phase of the pilot project. By the end of 2016, four additional horizontal wells from this phase were drilled, reaching a total of nine drilled wells during 2016, with a drilling rig fully dedicated to the project. This drilling and completion activity developed during 2016 comprised a total investment of U.S.$105 million, with an additional U.S.$27 million expended on production facilities and U.S.$12 million for 3D seismic data acquisition and other studies. Total oil production increased from 7 cm/d in December 2015 to 341 cm/d in December 2016. See additionally Main properties.

Aguada de la Arena Area: On May 13, 2016, YPF and Pampa Energía executed an agreement subject to certain conditions precedent under which, upon closing of the acquisition by Pampa Energía of a controlling stake in Petrobras Argentina S.A (PESA), PESA will assign to YPF certain participating interests in two exploitation concessions in areas with gas production and significant gas development potential (tight and shale) located in the Neuquina basin, which shall be operated by YPF. The participating interests to be acquired are: (i) a 33.33% participating interest in the Río Neuquén block located in the province of Neuquén and the province of Río Negro and (ii) an 80% participating interest in the Aguada de la Arena block located in the province of Neuquén. In addition, on February 23, 2017, YPF and PetroUruguay S.A. signed a definitive agreement for the transfer of a 20% participating interest in the Aguada de la Arena area. As a result, YPF has increased its participating interest in the Aguada de la Arena area to 100%.

By the end of 2016, 14 wells were operating in the Mulichinco formation, and total gas production for the field exceeded 0.6 mmcm/d. In 2017, we plan to drill four horizontal wells (three in the Vaca Muerta formation and one in the Mulichinco formation). See additionally Main properties.

Bajada de Añelo Area: Although there was no drilling and completion activity during 2016, YPF acquired 3D seismic data covering 618 km2 in this area. There are currently four drilled and completed vertical wells targeting the Vaca Muerta formation, but one of them uses a portable compression facility to handle the gas for transport by trucks, while liquids are transported by trucks as well. In February 23, 2017, YPF and O&G Developments Ltd. S.A. (hereinafter O&G), an affiliate of Shell Compañía Argentina de Petróleo S.A., executed an agreement, through which YPF and O&G agreed on the main terms and conditions for the joint development of a shale oil and shale gas pilot in two phases. O&G will be the operator of the area. See additionally Main properties.

Chihuido de la Sierra Negra Sudeste Narambuena Area: During April 2014, YPF and subsidiaries of Chevron Corporation executed a new agreement with the objective of the joint exploration of unconventional hydrocarbons in the province of Neuquén, within the area Chihuido de la Sierra Negra Sudeste Narambuena. During 2015, this activity began with the drilling and completion of two vertical wells that allowed for the defining of the location and landing zone for the horizontal well. This well was drilled at the end of 2015 and the beginning of 2016, covering 1200 m of lateral length at 2400 m of vertical depth, within the younger internal sequence of Vaca Muerta and becoming the first well in the basin with this objective. Subsequently, a third vertical well was drilled to delineate the extension of the play to the eastern sector of the block. By the drilling, completion and testing of these wells, the commitment for the initial phase of the project signed in April 2014 was fulfilled. During the second half of 2016, the joint venture between YPF and subsidiaries of Chevron Corporation continued the exploratory stage by evaluating the long term tests of the horizontal well and third vertical well in this area located in the black oil window of the play. Chevron will state whether the joint activity will continue in a second phase by June 2017. See additionally Main properties.

During 2016, Unconventional Regional production was 50 mboe/d, representing 8% of YPF s total production.

Main properties

Our production is concentrated in the following basins in Argentina: Neuquina, Golfo San Jorge, Cuyana, Noroeste and Austral.

Our domestic operations are subject to certain risks. See Item 3. Key Information Risk Factors.

In 2017, 2016, 2015 and 2014, we finalized agreements related to the acquisition and development of properties that are part of our core business. In connection with those agreements, see Notes 3, 29.b and 34 to the Audited Consolidated Financial Statements.

In addition to the agreements detailed in Audited Consolidated Financial Statements, on March 29, 2017, a Memorandum of Understanding was signed between Pan American Energy LLC (Argentina branch) (PAE), Total Austral S.A. (Argentina branch) (TOTAL), Wintershall EnergÍa S.A. (WIAR) and YPF (collectively, the Parties), for which approval for the following will be requested from the applicable authority:

(i) the division of the Aguada Pichana area into two new Aguada Pichana East (APE) and Aguada Pichana West (APO) areas with an area of 761 km2 (629 km2 net perforations) and 604 km2 (443 km2 net perforations), respectively;

(ii) the combination of the Aguada de Castro (ACA) area, which has an area of 163 km2, with the new APO area. Both areas combined will have a total area of 767 km2;

(iii) in both cases, a Non-Conventional Hydrocarbon Exploitation Concession will be requested, led by each of the Parties in the areas. To this end, the Parties will propose an investment project of U.S.$300 million for APE and U.S.$200 million for APO and ACA; and

(iv) the granting of the benefits provided in Resolution No. 46-E/2017 of the Ministry of Energy and Mining.

If approval is granted, APE will be operated by TOTAL and APO and ACA will be operated by PAE.

YPF s current participation is 27.27% in the Aguada Pichana area and 50% in the Aguada de Castro area.

The Memorandum of Understanding contemplates the modification of the participating interest of YPF on the following terms:

- In the APE area, YPF s participation will be 22.50%, which implies in respect of its current participation the sale of a 4.77% participating interest (equivalent to 30 km2 net perforations).

- In the combined APO and ACA area, YPF s participation will be 30%, which implies in respect of its current participation the same participation in APO and a sale of a 12.58% participating interest in ACA (equivalent to 20.5 km2 net perforations).

Notwithstanding the changes in the participating interest in APE, all existing assets, including the production of existing wells and any future development that is not associated with the Vaca Muerta formation, will not be modified in terms of the participation of the Parties.

In the event the corresponding approvals are obtained and definitive agreements are signed, subject to the fulfillment of certain conditions precedent, this will allow YPF to receive the sum of U.S.$52.3 million for the aforementioned transfer of participating interests.

In addition, in connection with the extension of concessions, see Note 29.a to the Audited Consolidated Financial Statements.

The following table sets forth information with regard to our developed and undeveloped acreage by geographic area as of December 31, 2016:

	As of December 31, 2016			
	Developed (1)		Undeveloped (2)	
	Gross (3)	Net (4)	Gross (3)	Net (4)
	(thousands of acres)			
South America	1,511	1,121	31,796	17,234
Argentina	1,511	1,121	31,392	16,954
Rest of South America (5)			404	280
Total	1,511	1,121	31,796	17,234

(1) Developed acreage is spaced or assignable to productive wells.
(2) Undeveloped acreage encompasses those leased acres on which wells have not been drilled or completed to a point that would permit the production of economic quantities of oil or gas regardless of whether such acreage contains proved reserves.
(3) A gross acre is an acre in which we own a working interest.
(4) Net acreage equals gross acreage after deducting third-party interests.
(5) Relates to Colombia and Chile. In the case of Colombia, YPF and its partners notified the Colombian National Hydrocarbons Agency (ANH) of the decision to relinquish the COR 12 and COR 33 blocks. In Chile, YPF s undeveloped surface acreage totaled 107,000 acres.

Except for the information provided in the next paragraph, as of December 31, 2016, none of our exploration permits considered as a whole, which include undeveloped acreage, will expire in 2017 in accordance with the Hydrocarbons Law and complementary provincial laws. In addition, according to Law No. 27,007 that amended the Hydrocarbons Law, all national offshore permits and offshore hydrocarbon production concessions that did not have association agreements with ENARSA as of the date of the new law reverted and were transferred to the Argentine Secretariat of Energy. Permits and concessions granted prior to Law No. 25,943 will be exempt from this provision. In September 2015, the National Executive Office and YPF began negotiating the conversion of association agreements signed with ENARSA. As of the date of this annual report, the negotiations are ongoing. YPF currently participates in three offshore blocks in association with ENARSA, which represent approximately 58% of our net exploratory undeveloped acreage. We cannot guarantee that as a result of such negotiations we would not decide to relinquish to the Argentine Secretariat of Energy part or all of the acreage included in our current association with ENARSA. With the exception of the above, none of our exploration permits are regulated by Law No. 27,007. See Legal and Regulatory Framework and Relationship with the Argentine Government Law No. 27,007, amending the Hydrocarbons Law Exploration and Production.

However, as a result of the expiration in 2017 of the first, second or third exploration terms of certain of our exploration permits (according to the original terms of the Hydrocarbons Law, which applied to our existing exploration permits), we would be required to relinquish a fixed portion of the acreage related to each such expiring permit, as set forth in the Hydrocarbons Law, as long as exploitable quantities of oil or gas are not discovered in such areas (in which case we may seek to obtain a declaration of their commercial viability from the relevant authorities, and the related areas would then be subject to exploitation concessions). Additionally, and depending on the circumstances that could arise in each case (for instance, the state of exploratory activity in a certain area), we could request an extension of the expiration of the exploration permit, which would be subject to the approval of the respective governing authority. As a result, if no discoveries are made in 2017, we would be required to relinquish approximately 2,700 km2 of exploratory undeveloped acreage (approximately 7% of our 41,000 km2 of net exploratory undeveloped acreage as of December 31, 2016) during 2017.

Additionally, based on information available as of the date of this annual report, if we fail to make any discoveries or to engage in new activity that could extend the expirations of the exploration permits, we could be required or could decide to relinquish a maximum of approximately 4,000 km2 of exploratory undeveloped acreage (approximately 10% of our 41,000 km2 of net exploratory undeveloped acreage as of December 31, 2016) during 2018 and 2019.

According to the Hydrocarbons Law, we are entitled to decide, according to our best interest, which acreage related to each exploration permit to keep if we remain within the required relinquishment percentage. Therefore, the areas to be relinquished consist usually of acreage where drilling has not been successful and are considered non-core lease acreage.

Except as described above, we do not have any material undeveloped acreage related to our production concessions expiring in the near term.

During 2016, we undertook negotiations with GyP relating to 24 exploration blocks, held as of December 31, 2015, in which we shared a working interest comprising a gross area of 9,333 km2 (of which YPF s participating interest was 5,943 km2). As a result of these negotiations, a swap of working interests in the different blocks was conducted, and YPF now holds working interests in 9 exploration blocks and 2 concession blocks, without GyP as a partner, which comprises a gross area of 2,089 km2 in the case of exploration blocks (of which YPF s participating

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interest is 1,261 km2) and a gross area of 142 km2 in the case of concession blocks (of which YPF s participating interest is 112 km2). In addition, we also obtained an extension for the pilot plans for the maximum period of five years, as provided under Law No. 27,007, in the La Amarga Chica , Bajada de Añelo and Bandurria Sur areas. See Legal and Regulatory Framework and Relationship with the Argentine Government Law No. 27,007, amending the Hydrocarbons Law for a description of new terms that apply to new production concessions or exploration permits, other than those already governed by previous laws.

Argentine Exploration Permits and Exploitation Concessions

Argentina is the second largest producer of natural gas and the fourth largest producer of crude oil in Central and South America based on 2015 production, according to the 2016 edition of the BP Statistical Review of World Energy published in June 2016. Oil has historically accounted for the majority of the country s hydrocarbon production and consumption, although the relative share of natural gas has increased rapidly in recent years. As of the date of this annual report, a total of 24 sedimentary basins were re-evaluated in the country, in the line with (*Plan Exploratorio Argentina*). The total surface area of the continent represents approximately 408 million acres and the total offshore surface area includes 194 million acres on the South Atlantic shelf within the 200-meter line. Of the total 602 million acres of the sedimentary basins, a significant part still needs to be evaluated through exploratory and study drilling.

The following table shows our gross and net interests in productive oil and gas wells in Argentina by basin, as of December 31, 2016:

	Wells(1)			
	Oil		*Gas*	
Basin	*Gross*	*Net*	*Gross*	*Net*
Onshore	13,112	11,820	1,838	1,336
Neuquina	4,699	3,961	1,665	1,195
Golfo San Jorge	7,489	7,003	62	62
Cuyana	786	722	0	0
Noroeste	9	5	52	20
Austral	129	129	59	59
Offshore		0	19	10
Total	13,112	11,820	1,857	1,346

(1) A gross well is a well in which we own a working interest. A net well is deemed to exist when the sum of fractional ownership working interests in gross wells equals one. The number of net wells is the sum of the fractional working interests owned in gross wells expressed as whole numbers and fractions of whole numbers. Gross and net wells include one oil well and three gas wells with multiple completions.

As of December 31, 2016, we held 133 exploration permits and production concessions in Argentina. We directly operate 102 of them, including 19 exploration permits and 83 production concessions.

Exploration permits. As of December 31, 2016, we held 23 exploration permits in Argentina, 20 of which were onshore exploration permits and three of which were offshore exploration permits. We had 100% ownership of six onshore permits, and our participating interests in the remainder varied between 50% and 80%. We had participating interests in three offshore permits varied between 30% and 35%.

Production concessions. As of December 31, 2016, we had 110 production concessions in Argentina. We had a 100% ownership interest in 69 production concessions, and our participating interests in the remaining 41 production concessions varied between 7% and 98%.

In addition, we have 32 crude oil treatment plants and nine pumping plants where oil is processed and stored. The purpose of these plants is to receive and treat oil from different fields prior to shipment to our refineries and/or commercialization to third parties, as applicable. See Item 3. Key Information Risk Factors Risks Relating to the Argentine Oil and Gas Business and Our Business Our business depends to a significant extent on our production and refining facilities and logistics network.

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In connection with our principal properties, see Exploration & Production Activity in Argentina. Production for each of the last three fiscal years by geographic area and by field containing 15% or more of our total proved reserves are set forth under Oil and gas production, production prices and production costs.

Approximately 89% of our proved crude oil reserves in Argentina are concentrated in the Neuquina (51%) and Golfo San Jorge (38%) basins, and approximately 87% of our proved gas reserves in Argentina are concentrated in the Neuquina (77%), and Austral (10%) basins.

Joint ventures and contractual arrangements in Argentina

As of December 31, 2016, we participated in 15 exploration and 33 production joint ventures and contractual arrangements (22 of which were not operated by us) in Argentina. Our interests in these joint ventures and contractual arrangements ranged from 7% to 98%, and our obligations to share exploration and development costs varied under these agreements. In addition, under the terms of some of these joint ventures, we have agreed to indemnify our joint venture partners in the event that our rights with respect to such areas are restricted or affected in such a way that the purpose of the joint venture cannot be achieved. For a list of the main exploration and production joint ventures in which we participated as of December 31, 2016, see Note 24 to the Audited Consolidated Financial Statements. We are also a party to a number of other contractual arrangements that arose through the renegotiation of service contracts and risk contracts and their conversion in exploitation concessions and exploration permits, respectively.

Oil and Gas Reserves

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible (from a given date forward, from known reservoirs, and under existing economic conditions, operating methods and government regulations) prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within reasonable time. In some cases, substantial investments in new wells and related facilities may be required to recover proved reserves.

Information on net proved reserves as of December 31, 2016, 2015 and 2014 was calculated in accordance with the SEC rules and Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 932, as amended. Accordingly, crude oil prices used to determine reserves were calculated each month for crude oils of different quality produced by the Company. Consequently, to calculate our net proved reserves as of December 31, 2016, the Company considered the realized prices for crude oil in the domestic market (which were higher than those that had prevailed in the international market), taking into account the unweighted average price for each month within the twelve-month period ended December 31, 2016. Additionally, since there are no benchmark market natural gas prices available in Argentina, the Company used average realized gas prices during the year to determine its gas reserves.

Notwithstanding the foregoing, commodity prices have declined significantly since 2014. See Item 3. Key Information Risk Factors Risks Relating to the Argentine Oil and Gas Business and Our Business Our oil and natural gas reserves are estimates and Item 3. Key Information Risk Factors Risks Relating to the Argentine Oil and Gas Business and Our Business Our reserves and production are likely to decline.

Net reserves are defined as that portion of the gross reserves attributable to the interest of YPF after deducting interests owned by third parties. In determining net reserves, the Company excludes from its reported reserves royalties due to others, whether payable in cash or in kind, where the royalty owner has a direct interest in the underlying production and is able to make lifting and sales arrangements independently. By contrast, to the extent that royalty payments required to be made to a third party, whether payable in cash or in kind, are a financial obligation, or are substantially equivalent to a production or severance tax, the related reserves are not excluded from the reported reserves despite the fact that such payments are referred to as royalties under local rules. The same methodology is followed in reporting our production amounts.

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Gas reserves exclude the gaseous equivalent of liquids expected to be removed from the gas on concessions and leases, at field facilities and at gas processing plants. These liquids are included in net proved reserves of NGLs.

Technology used in establishing proved reserves additions

YPF s estimated proved reserves as of December 31, 2016 are based on estimates generated through the integration of available and appropriate data, utilizing well-established technologies that have been demonstrated in the field to yield repeatable and consistent results. Data used in these integrated assessments include information obtained directly from the subsurface via wellbore, such as well logs, reservoir core samples, fluid samples, static and dynamic pressure information, production test data, and surveillance and performance information. The data utilized also include subsurface information obtained through indirect measurements, including high quality 2-D and 3-D seismic data, calibrated with available well control. Where applicable, geological outcrop information was also utilized. The tools used to interpret and integrate all this data included both proprietary and commercial software for reservoir modeling, simulation and data analysis. In some circumstances, where appropriate analog reservoir models are available, reservoir parameters from these analog models were used to increase the reliability of our reserves estimates.

For further information on the estimation process of our proved reserves, see Internal controls on reserves and reserves audits.

Net Proved Developed and Undeveloped Reserves as of December 31, 2016

The following table sets forth our estimated net proved developed and undeveloped reserves of crude oil, NGLs and natural gas at December 31, 2016.

Proved Developed Reserves	**Oil [1] (mmbbl)**	**NGL (mmbbl)**	**Natural Gas (bcf)**	**Total [2] (mmboe)**
Consolidated Entities				
South America				
Argentina	380	53	2,143	815
North America				
United States				
Total Consolidated Entities	380	53	2,143	815
Equity-Accounted Entities				
South America				
Argentina				
North America				
United States				
Total Equity-Accounted Entities				
Total Proved Developed Reserves	**380**	**53**	**2,143**	**815**

Proved Undeveloped Reserves	**Oil [1] (mmbbl)**	**NGL (mmbbl)**

			Natural Gas (bcf)	Total [2] (mmboe)
Consolidated Entities				
South America				
Argentina	145	15	780	298
North America				
United States				
Total Consolidated Entities	145	15	780	298
Equity-Accounted Entities				
South America				
Argentina				
North America				
United States				
Total Equity-Accounted Entities				
Total Proved Undeveloped Reserves	**145**	**15**	**780**	**298**

***Total Proved Reserves* [2] [3]**	**Oil [1] (mmbbl)**	**NGL (mmbbl)**	**Natural Gas (bcf)**	**Total [2] (mmboe)**
Consolidated Entities				
Developed Reserves	380	53	2,143	815
Undeveloped Reserves	145	15	780	298

Total Proved Reserves ***[2] [3]***	**Oil [1] (mmbbl)**	**NGL (mmbbl)**	**Natural Gas (bcf)**	**Total [2] (mmboe)**
Total Consolidated Entities	525	68	2,923	1,113
Equity-accounted entities				
Developed Reserves				
Undeveloped Reserves				
Total Equity-Accounted Entities				
Total Proved Reserves	**525**	**68**	**2,923**	**1,113**

(1) Includes crude oil (oil and condensate).

(2) Volumes of natural gas in the table above and elsewhere in this annual report have been converted to barrels of oil equivalent at 5,615 cubic feet per barrel.

(3) Proved crude oil and NGL reserves of consolidated entities include an estimated approximately 76 mmbbl of crude oil and 8 mmbl of NGLs in respect of royalty payments which, as described above, are a financial obligation or are substantially equivalent to a production or similar tax. Proved natural gas reserves of consolidated entities include an estimated approximately 337 bcf in respect of such payments. Equity-accounted entities reserves in respect of royalty payments that are a financial obligation or are substantially equivalent to a production or similar tax are not material.

For information regarding changes in our estimated proved reserves during 2016, 2015 and 2014, see Note 35 to the Audited Consolidated Financial Statements.

The paragraphs below explain in further detail the most significant changes in our proved undeveloped reserves during 2016, 2015 and 2014.

Changes in our proved undeveloped reserves during 2016

YPF had estimated a volume of net proved undeveloped reserves of 298 mmboe at December 31, 2016, which represented approximately 27% of the 1,113 mmboe total reported proved reserves as of such date. This compares to estimated net proved undeveloped reserves of 337 mmboe as of December 31, 2015 (approximately 27% of the 1,226 mmboe total reported proved reserves as of such date).

The approximately 11% net decrease in net proved undeveloped reserves in 2016 is mainly attributable to:

Ongoing successful development activities related to proved undeveloped reserves projects, which allowed a transfer of approximately 116 mmboe to proved developed reserves. Main contributions are related to development wells (75 mmboe), mainly in the Neuquina basin, improved recovery projects (14 mmboe), mainly in the Golfo San Jorge and Neuquina basins, and gas compression projects in the Neuquina basin (12 mmboe).

New economic conditions with lower average oil prices that affected the economics of scheduled projects, resulting in a reduction of proved undeveloped reserves of 45 mmboe, mainly from the oil fields of the Golfo San Jorge basin (-16 mmboe), the Neuquina basin (-14 mmboe) and the Austral basin (-12 mmboe).

In the Golfo San Jorge basin, the development schedules of several primary and improved recovery oil projects were modified or canceled, resulting in a reduction of proved undeveloped reserves of 20 mmboe.

This was partially offset by:

Extensions and discoveries, which added 80 mmboe (242 mmcf of gas and 29 mmbbl of oil) of proved undeveloped reserves, mainly from the Neuquina basin.

New project studies, which added approximately 12 mmboe of proved undeveloped reserves, mainly from the Neuquina basin.

New improved recovery projects, adding approximately 30 mmboe of proved undeveloped secondary recovery reserves. The most important additions belong to the Golfo San Jorge and Neuquina basins.

The acquisition of interests in the Rio Neuquen gas field located in the Neuquina basin resulted in the addition of approximately 11 mmboe of proved undeveloped reserves.

YPF s total capital expenditure to continue the development of reserves was approximately U.S.$2,930 million during 2016, of which U.S.$ 1,214 million was allocated to projects related to proved undeveloped reserves.

As of December 31, 2016, we did not have material amounts of proved undeveloped reserves in individual fields or countries that have remained undeveloped for five years or more after being disclosed as proved undeveloped reserves.

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Changes in our proved undeveloped reserves during 2015

YPF had estimated a volume of net proved undeveloped reserves of 337 mmboe at December 31, 2015, which represented approximately 27% of the 1,226 mmboe total reported proved reserves as of such date. This compares to estimated net proved undeveloped reserves of 307 mmboe as of December 31, 2014 (approximately 25% of the 1,212 mmboe total reported proved reserves as of such date).

The approximately 10% net increase in net proved undeveloped reserves in 2015 is mainly attributable to:

- Extensions and discoveries, which added 93 mmboe (24.5 mmbbl of crude oil, 7.3 mmbbl of NGL and 341.8 bcf of natural gas) of proved reserves, mainly in the Neuquina basin.

- New project studies and revisions of gas and oil development projects, which added approximately 18 mmboe (7.5 mmbbl of crude oil, 0.9 mmbbl of NGL and 52.4 bcf of natural gas) of proved undeveloped reserves. The main contributions came from fields in the Neuquina, Golfo San Jorge, and Austral basins.

- New improved recovery projects, which added approximately 10 mmbbl of proved undeveloped secondary recovery reserves of crude oil. The most important additions belong to the Golfo San Jorge, Neuquina and Cuyana Basins.

This was partially offset by:

- Ongoing successful development activities related to proved undeveloped reserves projects, which allowed a transfer of approximately 77 mmboe (29 mmbbl of crude oil, 10.2 mmbbl of NGL and 212 bcf of natural gas) to proved developed reserves. The main contributions are related to development wells (51 mmboe), gas compression projects (15 mmboe) and improved recovery projects (8 mmboe).

- A new joint venture agreement for the Rincón del Mangrullo field resulted in a reduction of approximately 8 mmboe (0.3 mmbbl of crude oil, 1.6 mmbbl of NGL and 34.7 bcf of natural gas) of proved undeveloped reserves, due to a change in YPF s working interest in this area.

YPF s total capital expenditure to continue the development of reserves was approximately U.S.$4,592 million during 2015, of which U.S.$1,557 million was allocated to projects related to proved undeveloped reserves.

As of December 31, 2015, we did not have material amounts of proved undeveloped reserves in individual fields or countries that have remained undeveloped for five years or more after being disclosed as proved undeveloped reserves.

Changes in our proved undeveloped reserves during 2014

YPF had estimated a volume of net proved undeveloped reserves of 307 mmboe at December 31, 2014, which represented approximately 25 % of the 1212 mmboe total reported proved reserves as of such date. This compares to estimated net proved undeveloped reserves of 261 mmboe as of December 31, 2013 (approximately 24% of the 1083 mmboe total reported proved reserves as of such date).

The 18% net increase in net proved undeveloped reserves in 2014 is mainly attributable to:

Extensions and discoveries, which added 79.3 mmboe (19.6 mmbbl of crude oil, 9.6 mmbbl of NGL and 291.3 bcf of natural gas) of proved reserves, mainly from the Neuquina and Golfo San Jorge basins.

Negotiation of the extension of exploitation concessions in the provinces of Tierra del Fuego and Río Negro, which added 15.5 mmboe (4.7 mmbbl of crude oil, 0.8 mmbbl of NGL and 56.3 bcf of natural gas) of proved undeveloped reserves.

New project studies and revision of gas and oil development projects, which added approximately 28 mmboe (17.7 mmbbl of crude oil, a decrease of 1.3 mmbbl of NGL and 64.8 bcf of natural gas) of proved undeveloped reserves. The main contributions came from the Neuquina and Golfo San Jorge basins.

New improved recovery projects, which added approximately 10 mmboe of proved undeveloped secondary recovery reserves. The most important additions are related to the Golfo San Jorge basin.

This was partially offset by:

Ongoing successful development activities related to proved undeveloped reserves projects, which allowed a transfer of approximately 88.1 mmboe (26.3 mmbbl of crude oil, 8.3 mmbbl of NGL and 300.6 bcf of natural gas) to proved developed reserves. Main contributions are related to development wells (58 mmboe), gas compression projects (14 mmboe) and improved recovery projects (10 mmboe).

YPF s total capital expenditure to advance the development of reserves was approximately U.S.$ 4,260 million during 2014, of which U.S.$ 758 million was allocated to projects related to proved undeveloped reserves.

As of December 31, 2014, we estimate that our proved undeveloped reserves related to gas wells and to primary and secondary oil recovery projects, which account for approximately 96% of our proved undeveloped reserves, will be developed within five years from their initial booking date.

Low pressure gas compression projects in the Neuquina basin, which account for the remaining approximately 4% of our proved undeveloped reserves as of December 31, 2014, continue their scheduled development. We estimate that the last compression stage (representing approximately 1% of our proved reserves as of such date) will be developed within approximately seven years from its booking date according to expected compression needs based on current (and consequently expected) reservoir behavior.

Internal controls on reserves and reserves audits

All of our oil and gas reserves held in consolidated companies have been estimated by our petroleum engineers. In order to meet the high standard of reasonable certainty, reserves estimates are stated taking into consideration additional guidance as to reservoir economic producibility requirements, acceptable proved area extensions, drive mechanisms and improved recovery methods, marketability under existing economic and operating conditions and project maturity.

Where applicable, the volumetric method is used to determine the original quantities of petroleum in place. Estimates are made by using various types of logs, core analysis and other available data. Formation tops, gross thickness and representative values for net pay thickness, porosity and interstitial fluid saturations are used to prepare structural maps to delineate each reservoir and isopachous maps to determine reservoir volume. Where adequate data is available and where circumstances are justified, material-balance and other engineering methods are used to estimate the original hydrocarbon in place.

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Estimates of ultimate recovery are obtained by applying recovery factors to the original quantities of petroleum in place. These factors are based on the drive mechanisms inherent in the reservoir, analysis of the fluid and rock properties, the structural position of the reservoir and its production history. In some instances, comparisons are made with similar production reservoirs in the areas where more complete data is available.

Where adequate data is available and where circumstances are justified, material-balance and other engineering methods are used to estimate ultimate recovery. In these instances, reservoir performance parameters such as cumulative production, production rate, reservoir pressure, gas to oil ratio behavior and water production are considered in estimating ultimate recovery.

In certain cases where the above methods could not be used, proved reserves are estimated by analogy to similar reservoirs where more complete data are available.

To control the quality of reserves booking, a process has been established that is integrated into the internal control system of YPF. This process to manage reserves booking is centrally controlled and has the following components:

(a) The Reserves Audit (RA) is separate and independent from the Upstream segment. RA s activity is overseen by YPF s Audit Committee, which is also responsible for supervising the procedures and systems used in the recording of and internal control over the Company s hydrocarbon reserves. The primary objectives of the RA are to ensure that YPF s proved reserves estimates and disclosure are in compliance with the rules of the SEC, the FASB, and the Sarbanes-Oxley Act, and to review annual changes in reserves estimates and the reporting of YPF s proved reserves. The RA is responsible for preparing the information to be publicly disclosed concerning YPF s reported proved reserves of crude oil, NGLs, and natural gas. In addition, the RA is also responsible for providing training to personnel involved in the reserves estimation and reporting process within YPF. The RA is managed by and staffed with individuals that have an average of more than 20 years of technical experience in the petroleum industry, including in the classification and categorization of reserves under the SEC guidelines. The RA staff includes several individuals who hold advanced degrees in either engineering or geology, as well as individuals who hold bachelor s degrees in various technical studies. Several members of the RA are registered with or affiliated to the relevant professional bodies in their fields of expertise.

(b) The Reserves Auditor, who has headed the RA since January 2013, is responsible for overseeing the preparation of the reserves estimates and reserves audits conducted by third party engineers. The current director has over 20 years of experience in geology and geophysics, reserves estimates, project development, finance and general accounting regulation. In the six years prior to becoming the Reserves Auditor, he was Regional Director responsible for the operation and development of YPF s operated fields at the Cuyana and North of Neuquina basins, in western Argentina. He holds a degree in geology from the National University of Tucumán, and postgraduate courses at IAE Austral University. Consistent with our internal control system requirements, the Reserves Auditor s compensation is not affected by changes in reported reserves.

(c) A quarterly internal review by the RA of changes in proved reserves submitted by the Upstream business segment and associated with properties where technical, operational or commercial issues have arisen.

(d)

A Quality Reserve Coordinator (QRC) is assigned to each Upstream business segment of YPF to ensure that there are effective controls in the proved reserves estimation and approval process of the estimates of YPF and the timely reporting of the related financial impact of proved reserves changes. Our QRCs are responsible for reviewing proved reserves estimates. The qualification of each QRC is made on a case-by-case basis with reference to the recognition and respect of such QRC s peers. YPF would normally consider a QRC to be qualified if such person (i) has a minimum of 5 years of practical experience in petroleum engineering or petroleum production geology, with at least three years of such experience in charge of the estimation and evaluation of reserves, and (ii) has either (A) obtained, from a college or university of recognized stature, a bachelor s or advanced degree in petroleum engineering, geology or other related discipline of engineering or physical science, or (B) received, and is maintaining in good standing, a registered or certified professional engineer s license or a registered or certified professional geologist s license, or the equivalent thereof, from an appropriate governmental authority or professional organization.

(e) A formal review through technical review committees to ensure that both technical and commercial criteria are met prior to the commitment of capital to projects.

(f) Our internal audit team examines the effectiveness of YPF s financial controls, which are designed to ensure the reliability of reporting and safeguarding of all the assets and examines YPF s compliance with the law, regulations and internal standards.

(g) All volumes booked are submitted to a third party reserves audit on a periodic basis. The properties selected for a third party reserves audit in any given year are selected on the following basis:

i. all properties on a three-year cycle; and

ii. recently acquired properties not submitted to a third party reserves audit in the previous cycle and properties with respect to which there is new information which could materially affect prior reserves estimates.

For those areas submitted to a third party reserves audit, YPF s proved reserves figures have to be within 7% or 10 mmboe of the third party reserves audit figures for YPF to declare that the volumes have been ratified by a third party reserves audit. In the event that the difference is greater than the tolerance, YPF will re-estimate its proved reserves to achieve this tolerance level or should disclose the third party figures. YPF has adopted the above-mentioned procedure by approving the corresponding internal policy.

In 2016, Gaffney, Cline & Associates audited certain YPF operated and non-operated areas in the Neuquina, Golfo San Jorge, NOA and Cuyana basins of Argentina. These audits were performed as of December 31, 2016, and the audited fields contain in aggregate, according to our estimates, 417.7 mmboe proved reserves (123.5 mmboe of which were proved undeveloped reserves) as of such date, which represented approximately 37.5% of our proved reserves and 41.4% of our proved undeveloped reserves as of December 31, 2016. Copies of the related reserves audit reports are filed as an exhibit to this annual report.

We are required, in accordance with Resolutions No. 324/06 and 69/16 of the Argentine Secretariat of Hydrocarbon Resources, to annually file by March 31 details of our estimates of our oil and gas reserves and resources with the Argentine Secretariat of Hydrocarbon Resources, as defined in that resolution and certified by an external auditor. The aforementioned certification and external audit only have the meaning established by Resolutions No. 324/06 and 69/16, and are not to be interpreted as a certification or external audit of oil and gas reserves under SEC rules. We last filed such a report for the year ended December 31, 2015. Estimates of our oil and gas reserves filed with the Argentine Secretariat of Hydrocarbon Resources are materially higher than the estimates of our proved oil and gas reserves contained in this annual report mainly because: (i) information filed with the Argentine Secretariat of Hydrocarbon Resources includes all properties of which we are operators, irrespective of the level of our ownership interests in such properties; (ii) information filed with the Argentine Secretariat of Hydrocarbon Resources includes other categories of reserves and resources that are not included in this annual report, which are different from estimates of proved reserves consistent with the SEC s guidance contained in this annual report; and (iii) the definition of proved reserves under Resolutions No. 324/06 and 69/16 is different from the definition of proved oil and gas reserves established in Rule 4-10(a) of Regulation S-X. Accordingly, all proved oil and gas reserve estimates included in this annual report reflect only proved oil and gas reserves consistent with the rules and disclosure requirements of the SEC.

Oil and gas production, production prices and production costs

The following table shows our crude oil (including oil and condensate), NGL, and gas production on an as sold and annual basis for the years indicated. In determining net production, we exclude royalties due to others, whether payable in cash or in kind, where the royalty owner has a direct interest in such production and is able to make lifting and sales arrangements independently. By contrast, to the extent that royalty payments required to be made

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to a third party, whether payable in cash or in kind, are a financial obligation or are substantially equivalent to a production or severance tax, they are not excluded from our net production amounts despite the fact that such payments are referred to as royalties under local rules. This is the case for our production in Argentina, where royalty expense is accounted for as a production cost.

Oil and Condensate Production (1)	**2016**	**2015** (mmbbl)	**2014**
Consolidated Entities			
South America			
Argentina	90	91	89
North America			
United States	*	*	*
Total Consolidated Entities	90	91	89
Equity-Accounted Entities			
South America			
Argentina			
North America			
United States			
Total Equity-Accounted Entities			
Total Oil Production (2)	**90**	**91**	**89**

NGL Production (1)	**2016**	**2015** (mmbbl)	**2014**
Consolidated Entities			
South America			
Argentina	19	18	18
North America			
United States			
Total Consolidated Entities	19	18	18
Equity-Accounted Entities			
South America			
Argentina			
North America			
United States			
Total Equity-Accounted Entities			
Total NGL Production (3)	**19**	**18**	**18**

Natural Gas Production (1)	**2016**	**2015**	**2014**

		(bcf)	
Consolidated Entities			
South America			
Argentina	457	452	470
North America			
United States	*	*	1
Total Consolidated Entities	457	452	471
Equity-Accounted Entities			
South America			
Argentina			
North America			
United States			
Total Equity-Accounted Entities			
Total Natural Gas Production (4) (5)	**457**	**452**	**471**

Oil Equivalent Production (1) (6)	**2016**	**2015**	**2014**
		(mmboe)	
Consolidated Entities			
Oil and Condensate	90	91	89
NGL	19	18	18
Natural Gas	81	81	84
Equity-Accounted Entities			
Oil and Condensate			
NGL			
Natural Gas			
Total Oil Equivalent Production	**190**	**190**	**191**

* Not material (less than 1).

(1) Loma La Lata Central and Loma La Lata Norte (southern and northern parts of the Loma La Lata field) in Argentina contain approximately 16% of our total proved reserves expressed on an oil equivalent barrel basis. Oil and condensate production in these fields was approximately 6, 6 and 5 mmbbl for the years ended December 31, 2016, 2015 and 2014, respectively. NGL production in these fields was approximately 8, 8 and 8 mmbbl for the years ended December 31, 2016, 2015 and 2014, respectively. Natural gas production in the Loma La Lata field was 132, 133 and 138 bcf for the years ended December 31, 2016, 2015 and 2014, respectively.

(2) Crude oil production for the years ended in December 31, 2016, 2015 and 2014 includes an estimated 13, 13 and 13 mmbbl, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax. Equity-accounted entities production of crude oil in respect of royalty payments which are a financial obligation, or are substantially equivalent to a production or similar tax is not material.

(3) NGL production for the years ended in December 31, 2016, 2015 and 2014 includes an estimated 2, 2 and 2 mmbbl, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax. Equity-accounted entities production of NGL in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax is not material.

(4) Natural gas production for the years December 31, 2016, 2015 and 2014 includes an estimated 60, 58 and 60 bcf, respectively, in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax. Equity-accounted entities production of natural gas in respect of royalty payments which are a financial obligation or are substantially equivalent to a production or similar tax is not material.

(5) Does not include volumes consumed or flared in operations (whereas sale volumes shown in the reserves table included in Supplemental Information on Oil and Gas Exploration and Production Activities Oil and Gas Reserves include volumes consumed in operations).

(6) Volumes of natural gas have been converted to barrels of oil equivalent at 5,615 cubic feet per barrel.

The composition of the crude oil produced by us in Argentina varies by geographic area. Almost all crude oil produced by us in Argentina has very low or no sulfur content. We sell substantially all the crude oil we produce in Argentina to our Refining and Marketing business segment. Most of the natural gas produced by us is of pipeline quality. All of our gas fields produce commercial quantities of condensate, and substantially all of our oil fields produce associated gas.

The following table sets forth the average production costs and average sales price by geographic area for 2016, 2015 and 2014:

Production costs and sales price	***Total***	***Argentina***	***United States***
		(Ps/boe)	
Year ended December 31, 2016			
Lifting costs	195.80	196.30	121.66
Local taxes and similar payments (1)	8.35	8.37	
Transportation and other costs	38.93	39.02	32.81
Average production costs	243.08	243.70	154.47
Average oil sales price	861.74	863.25	510.01
Average NGL sales price	222.71	223.35	50.35
Average natural gas sales price (2)	417.95	418.00	193.08
Year ended December 31, 2015			

Lifting costs	151.77	151.85	125.66
Local taxes and similar payments (1)	4.82	4.83	
Transportation and other costs	14.93	14.91	21.45
Average production costs	171.51	171.59	147.11
Average oil sales price	620.77	621.85	392.86
Average NGL sales price	133.92	133.59	175.25
Average natural gas sales price (2)	249.71	249.75	129.73
Year ended December 31, 2014			
Lifting costs	122.25	122.26	118.60
Local taxes and similar payments (1)	11.41	11.44	
Transportation and other costs	15.03	15.03	15.58
Average production costs	148.69	148.74	134.19
Average oil sales price	594.02	593.34	724.77
Average NGL sales price	188.87	187.70	364.23
Average natural gas sales price (2)	204.02	204.01	192.58

(1) Does not include *ad valorem* and severance taxes, including the effect of royalty payments which are a financial obligation or are substantially equivalent to such taxes, in an amount of approximately Ps. 86.82 per boe, Ps. 60.39 per boe and Ps. 45.51 per boe for the years ended December 31, 2016, 2015 and 2014, respectively.

(2) Includes revenues from the Gas Plan.

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Drilling activity in Argentina

The following table shows the number of wells drilled by us or consortiums in which we had a working interest in Argentina during the periods indicated.

Wells Drilled in Argentina	*For the Year Ended December 31,*		
	2016	**2015**	**2014**
Gross wells drilled (1)			
Exploratory productive	19	35	35
Oil	14	24	20
Gas	5	11	15
Dry	12	5	8
Total	31	40	43
Development productive	697	962	861
Oil	504	766	725
Gas	193	196	136
Dry	2	10	4
Total	699	972	865
Net wells drilled (2)			
Exploratory productive	14	27	30
Oil	11	22	17
Gas	3	6	13
Dry	9	4	5
Total	23	31	35
Development productive	548	766	708
Oil	409	629	592
Gas	139	137	116
Dry	2	8	4
Total	550	774	712

(1) Gross wells include all wells in which we have an interest.

(2) Net wells equal gross wells after deducting third-party interests.

Exploration & Production Activity in Argentina

During 2016, our main exploratory and development activities in Argentina have had the following principal focus:

1. Operated Areas - Exploratory Activities

During 2016, our main exploratory activities in Argentina were principally focused on:

1.1 Onshore:

Unconventional activities:

The successful exploration results achieved in 2015 continued into 2016. We continued the regional exploration of the Vaca Muerta formation to determine the productivity of the shale oil, wet gas and dry gas in different areas of the basin.

Having completed the exploration phase, we obtained 35-year exploitation permits for the La Ribera I & II and Pampa de las Yeguas I blocks.

Shale oil:

Neuquina basin: Exploration continued along the shale oil strip, in an attempt to define intermediate control points of productivity.

We obtained positive results in wells drilled in Chihuido de la Sierra Negra block. These wells confirmed the productivity of the Vaca Muerta formation at various points of the basin.

Shale gas:

Neuquina basin: During 2016, we focused on the regional definition of the shale gas strip area obtaining positive results in the Cerro Arena block. Discoveries will be evaluated further in order to establish their commercial production potential.

Conventional activities:

Neuquina basin:

Tight gas: Exploration of tight gas continued with the drilling and completion of RDM.xp-38 in the Rincón de Mangrullo block.

Positive results were obtained in ten exploratory wells targeting conventional oil and gas reservoirs in the following blocks:

- Chachahuén (oil)
- Cerro Arena (gas)
- Los Caldenes (oil / gas)
- Payún Oeste (oil / gas)

We also continued exploration activity targeting conventional oil and gas in the following blocks. Although positive results were not achieved other than in the wells mentioned above, this activity provided data allowing us to increase our knowledge of potential development of these areas.

- Chachahuén (oil)
- Cajón de los Caballos Oriental (oil)
- Chasquivil (oil)
- Bajo del Piche (oil)
- Señal Picada - Punta Barda (gas)
- Payún Oeste (oil)
- Señal Cerro Bayo (oil)

We have requested that the Mendoza province allow commercial exploitation of the Payún Oeste block. As of the date of this annual report, we are still awaiting final approval from the province.

Golfo San Jorge basin:

During 2016, we continued exploration activity targeting conventional oil and gas reservoirs in the Golfo San Jorge basin, with positive results in the following blocks:

- Cañadón de la Escondida (oil)
- Manantiales Behr (oil / gas)

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We also continued exploration activity targeting conventional gas in the Escalante El Trébol block. Although positive results were not achieved, this activity provided data allowing us to increase our knowledge of potential development of these areas.

Cuyana basin:

From the results obtained in Cuenca Cuyana y Bolsones 17/B (Cuyana basin), we have decided to relinquish a fixed portion considered non-core lease acreage. We obtained the commercial exploitation concession for part of the block (Mesa Verde concession), and a second exploration period for the remaining acreage.

We continued exploration activity targeting conventional oil, with positive results, in the Barrancas and La Ventana blocks.

Austral basin:

Exploration activities were resumed in the Austral basin as part of the integration of the Yacimientos del Sur blocks into YPF s operations. Drilling activities took place in the Tierra del Fuego province (the Lago Fuego and Tierra del Fuego Fracción E blocks). Positive results were obtained in the Lago Fuego block.

Bordering areas:

During 2016, two new exploration blocks were awarded in Desecho Chico in the Salta province and Chelforó in the Rio Negro province.

Seismic activities:

A long-term 2D-3D seismic survey campaign began in 2015 and continued in 2016. During 2016, seismic 3D data covering 1,600 km2 was recorded in the following blocks:

- Cerro Piedra Cerro Guadal Norte (Santa Cruz province Golfo San Jorge basin)
- Cañadón de la Escondida (Santa Cruz province Golfo San Jorge basin)
- Chihuido de la Sierra Negra (Neuquén province Neuquina basin)

After the survey is performed, seismic data processing will be carried out for subsequent interpretation. The purpose of recording and processing the seismic data is to identify new exploration opportunities.

1.2 Offshore:

According to the amendments to the Hydrocarbons Law adopted by Law No. 27,007, all exploration permits owned by ENARSA will be transferred to the Secretariat of Energy. YPF currently participates in three offshore blocks in association with ENARSA (E1 block: YPF 35%, E2 block: YPF 33% and E3 block: YPF 30%) with total acreage of 23,700 km2. In September 2015, the National Executive Office and YPF began negotiating the conversion of association agreements signed with ENARSA. As of the date of this annual report, the negotiations are ongoing. As of December 31, 2016, we do not have registered assets in these blocks. See Legal and Regulatory Framework and Relationship with the Argentine Government Law No. 27,007, amending the Hydrocarbons Law for a description of new terms which apply to new production concessions or exploitation permits.

2. Non-Operated Areas - Exploratory Activities

Exploration wells have been drilled in the Aguada Pichana block, which is operated by Total Austral, with negative results; in Aguada Salada, which is operated by Tecpetrol, with positive results; and in CNQ7, which is operated by Pluspetrol, with positive results.

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3. Operated Areas - Development Activities

During 2016, our development activities in Argentina were mainly focused on the following regions and blocks:

3.1 Neuquén Río Negro Region

During 2016, Neuquén Río Negro Region production was 207 mboe/d, representing 36% of YPF s total production.

Neuquén concession:

1. Octógono block:

During 2016, three workovers were successfully completed in the northern sector of the field, targeting gas-bearing intervals in the Lajas formation. Those wells allowed for the drilling of two more wells, which had positive results. In 2017, we plan to drill five wells in the northern sector based on these results.

2. Al Sur de la Dorsal block:

Portezuelos field: During 2016, two workovers were performed to open gas-bearing intervals in the Centenario formation, which had positive results. In addition, further workovers and drilling activity are scheduled for 2017, and the installation of a compressor is planned to produce more gas from shallow formation.

3. Al Norte de la Dorsal block:

Guanaco field: During 2016, five workovers were repaired, all of them targeting gas in Lajas formation. Three of those had positive results and the other two had negligible production changes. The successful Lajas formation campaign has opened up new opportunities for drilling in the area in 2017.

4. Loma La Lata Sierra Barrosa block:

Loma La Lata field: The Sierras Blancas Infill project in the southeast area continues its development with 21 wells (nine horizontal and 12 directional) during 2016. 18 of them are already in production, one is being completed and tested, and two are being drilled. During 2017, we plan to drill 17 wells.

In order to address the declining production of the field, we are also continuing to improve production with plunger lift and wellhead compression.

Aguada Toledo Sierra Barrosa field: Tight gas segment 5 (Lajas formation)

During 2016, drilling activity in the Lajas formation was based on infill wells. There are already 30 infill wells producing all along the main structure. The production rates achieved were as expected. In addition, deeper wells in the Precuyano and Molles formations are being drilled and tested in some infill wells, taking advantage of the low incremental cost as a result of the deepening of wells raised to meet our objectives for the Lajas formation. Several actions to reduce well cost were conducted successfully not only in the drilling phase, but also in the completion phase, improving project economics.

The first horizontal well was drilled in the Aguada Toledo field. This well is part of a pilot to improve the recovery factor in the tightest sands of the formation. It produced gas at low levels, but was not economical. The drilling of the second well started in December 2016 and is situated in the upper levels of the Sierra Barrosa structure.

Barrosa Norte tight gas field (Lajas formation)

Continuing with the activity of 2015, in 2016, 13 wells were drilled in this field. The Precuyo and Molles formations will be evaluated to determine their potential for future development. To that end, an outpost well was drilled to investigate these two formations and is scheduled to be completed and tested. Several actions for well cost improvement were conducted successfully. In 2017, we plan to drill seven wells to target the Lajas formation and one to target the Precuyo formation.

El Cordón conventional and tight gas field (Lajas formation)

In 2016, one well was drilled in the western area of the field with positive results, obtaining data to complement the development plan study.

5. Chihuido de la Sierra Negra block:

Chihuido de la Sierra Negra field: In this mature field, we started a 3D seismic survey on the western area in order to search for new hydrocarbon accumulations. This project is expected to be completed during 2017. Also, we expect to complete a second Alakali Surfactant Polymer (ASP) single well test to verify the positive results of the previous test performed in 2015.

6. Volcán Auca Mahuida and Las Manadas blocks:

We continued with the appraisal and development of the Centenario and Mulichinco formations from the previous years. Six new wells were completed during 2016, five of which were productive with positive results and the other one which will be in production in 2017. Further appraisal and development wells are scheduled to be drilled in 2017. Also during 2016, we performed three workovers to test gas in Rayoso formation, with positive results. In order to estimate gas volume, we scheduled two new appraisal wells to be completed during 2017.

7. Señal Picada Punta Barda block:

Piedras Negras field: In this gas field, we are at the initial stages of development. During 2016, four wells were drilled (two appraisal and two exploratory), and three of them were completed. Additionally, we completed four workovers. As of December 2016, completion activities are still performing over one exploration well. We tested dry gas on five wells, and the other three wells had negative results. Since the block is not fully covered with 3D seismic, we scheduled a survey for the first quarter of 2017 and plan to schedule three wells after the 3D seismic data acquisition. The first gas sale is scheduled for 2018.

8. Cerro Hamaca block:

Cerro Hamaca Noroeste field: The northwest area was discovered in late 2012. During 2016, we continued with the development campaign of the Rayoso formation, and three wells were drilled, but only one well was completed as a result of economic conditions (oil prices) and regulatory changes in the province relating to well drilling that increased well costs. Water injection is scheduled to begin in 2018, if economic conditions improve.

9. Rio Neuquén block:

As of November 1, 2016, YPF assumed operation of the field with a 33.33% working interest. See Main properties.

During the last two months of 2016, two new wells were completed and this activity will continue in 2017 to complete the four wells begun in 2016 and to sustain gas production through the facilities capacity. In addition, five wells will be drilled during the second half of 2017.

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Neuquén YPF Concession

1 Aguada de Castro; 2 Aguada de la Arena; 3 Aguada Pichana; 4 Aguada Villanueva; 5 Al Norte de La Dorsal; 6 Al Sur de La Dorsal I; 7 Al Sur de La Dorsal II; 8 Al Sur de La Dorsal III; 9 Al Sur de La Dorsal IV; 10 Al Sur De La Dorsal V; 11 Al Sur De La Dorsal VI; 12 Al Sur de La Dorsal VII; 13 Anticlinal Campamento; 14 Bajada de Añelo; 15 Bajo Del Toro; 16 Bandurria Sur; 17 Cerro Arena; 18 Cerro Bandera; 19 Cerro Hamaca; 20 Cerro Las Minas; 21 Chasquivil; 22 Chihuido de La Salina Sur; 23 Chihuido de La Sierra Negra; 24 Dadin Lote I; 25 Dadin Lote II; 26 Dadin Lote III; 27 Don Ruiz; 28 Dos Hermanas; 29 El Orejano; 30 El Portón; 31 El Santiagueño; 32 Filo Morado; 33 La Amarga Chica; 34 La Calera; 35 La Ribera I; 36 La Ribera II; 37 Las Manadas (Calandria Mora); 38 Las Tacanas; 39 Lindero Atravesado; 40 Loma Amarilla; 41 Loma Campana; 42 Loma Del Molle; 43 Loma La Lata Sierra Barrosa; 44 Meseta Buena Esperanza; 45 Narambuena; 46 Octogono; 47 Ojo De Agua; 48 Pampa de Las Yeguas I; 49 Pampa de Las Yeguas II Norte; 50 Pampa de Las Yeguas II Sur; 51 Paso de Las Bardas Norte; 52 Puesto Hernandez; 53 Rincón Del Mangrullo; 54 Río Neuquén; 55 Salinas del Huitrin; 56 San Roque; 57 Señal Cerro Bayo; 58 Señal Punta Barda; 59 Volcán Auca Mahuida.

Río Negro concession:

1. Estación Fernández Oro block

During 2016, continuing with the restarting of drilling activity in the area where new wells had not been added since 2008, several projects were completed that allowed for an increase in production, treatment and compression capabilities:

- Enabling of a trunk line
- Installation and commissioning of additional compression capacity
- Installation and commissioning of an additional glycol tower

With respect to drilling activity, we completed 24 gas wells targeting the Lajas formation (22 development gas wells, and two step-out gas wells) with positive results for the development wells; however, the step-out wells have not yet been evaluated. On September 2016, we started to drill with a fourth rig.

The development of the gas field will continue during 2017, focusing on drilling activity. In addition, work in the first quarter of 2018 to increase the gas pipeline sales capacity has been planned, and an LTS (Low Temperature Separator) plant of 2 Mm3/d capacity will be installed.

2. Los Caldenes block:

During 2016, we completed three wells (two exploratory and one appraisal). We also performed one workover on an existing well. Wet gas was discovered and successfully tested, with the first gas sale scheduled for the second quarter of 2017. As a result of this activity, oil production in this block increased 54% from December 2015 to December 2016.

3. Señal Picada-Punta Barda block:

During 2016, we continued optimizing the existing water-flooding projects in the 50-year-old Señal Picada area. We completed 13 new wells, nine of which had results that met expectations, three of which performed under expectations and one of which is pending production. We also completed eight workovers, with results that met expectations. Oil production in the Señal Picada area decreased 6% in 2016 compared to 2015.

In the Punta Barda area, we continued with the appraisal campaign to expand the proved reserves area. Two wells were completed in the Loma Montosa formation. One of these wells was completed and successfully tested for oil. Six other wells were completed, three of which had results that met expectations and three of which performed under expectations, and seven workovers were performed in 2016, four of which had results that met expectations and three of which are waiting to be put into production. Oil production in the Punta Barda area increased 27% in 2016 compared to 2015,

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Río Negro YPF Concession

3.2 **Mendoza Region**

During 2016, Mendoza Region production was 106 mboe/d, representing 18% of YPF s total production.

Mendoza Norte concession:

During 2016, our activities were focused on the development of new areas and performing primary recovery and water-flooding in mature oilfields by workovers and drilling new wells. Key activities are described below:

1. Barrancas block:

The drilling activity during the last years focused in these three areas:

a. *Barrancas:* During 2016, the development of the northwest area continued through the drilling of three development wells whose aim was to expand the new area discovered in 2014. The target is the Barrancas formation. The results were as expected and allowed us to extend the Field Development Plan, which provides for the drilling of 17 additional development wells between 2017 and 2019.

b. *Ugarteche:* After ten years without drilling in this area, the perforation of two development wells in 2015 showed that there were still opportunities linked to the western portion. This new scenario allowed for the rejuvenation of the area through a redefinition of its Field Development Plan. As a result, four wells were drilled during 2016. The results have been successful, and it is expected that we will drill 20 additional wells over the next four years. This activity is related to the expansion of the mineralized area towards the south and southwest.

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c. *Estructura Cruz de Piedra*: Five development wells were drilled in 2016, two of which exceeded expectations and the other three of which were below expectations. The Field Development Plan also provides for the drilling of 11 wells within the next four years and contemplates the expansion of water-flooding to the western side of the field.

2. Mesa Verde block:

In 2014, exploration well MV.x-1 revealed the Río Blanco formation to be a productive horizon. The exploitation concession of this block was obtained during the second half of 2016. This allowed us to drill the appraisal well MV.a-3, which confirmed the expansion of the mineralized area. The opportunity includes the drilling of 38 development wells over the next five years.

3. La Ventana block:

We drilled five development wells in 2016 in La Ventana Central field. The results were slightly better than expected. The Field Development Plan provides for infill wells, re-entry wells and workover activity over the next few years. The goal is to optimize secondary recovery production. In addition, a successful appraisal well allowed us to expand development to the southern portion of the Vaca Muerta area. Finally, this block is included in regional studies to develop EOR (tertiary recovery), with the Barrancas formation as the target reservoir. The initial objective is to identify a formulation compatible with the reservoir temperature and salinity conditions. To this end, tests were performed at the IFP Laboratory. In addition, we plan to drill a single test well in 2017.

4. Vizcacheras block:

During 2012, a new geological model was built for this mature field using new seismic interpretation techniques. This new interpretation allowed us to drill more than 60 development wells to date. Four development wells were drilled in 2016 whose target was the Barrancas formation, with results below expectations. This block is included in regional studies to develop EOR (tertiary recovery), with the Barrancas formation as the target reservoir. The initial objective is to identify a formulation compatible with the reservoir temperature and salinity conditions. To this end, tests were performed at the IFP Laboratory. In addition, we plan to drill two single test wells in 2017. Finally, we drilled an appraisal well in the Cañada Dura field, with positive results allowing us to drill three development wells in this area.

5. Llancanelo block:

Twelve horizontal wells were drilled in 2016, involving two geological formations. The results were as expected for formation targets. This is one of our most important heavy oil development projects, which started in 2010. This production of heavy oil is in cold conditions.

6. Cerro Fortunoso block:

A water treatment plant was installed during 2015 to treat a maximum rate of 4,500 cm/d of injection water, which allowed us to expand the water-flooding development plan to the northeast area. A total of 13 wells (production and injectors) were drilled in 2016. The results were positive, and the response of the secondary recovery was also positive. To continue this plan, we expect to expand this water-flooding activity to the center-northeast area.

7. El Manzano block:

In 2016, one well drilled in 2015 from the Delineación Los Volcanes project was completed, with the objective of developing naturally fractured reservoirs. The well found the fissured zones, but these zones were located in water.

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Mendoza Norte YPF Concession

Mendoza Sur YPF concession:

1. Chihuido de la Sierra Negra block

a. *Desfiladero Bayo area*: 2016 began with a drop in production associated with water injection issues, due to the quality of water that affected secondary recovery production. A plan of action was implemented to improve water treatment facilities in order to guarantee water injection quality, and a new water treatment plant was built. Acid stimulation workovers were performed on the affected wells. Additionally, a water-flooding normalizing and optimization project is being implemented to improve vertical and aeral efficiency. In addition, eight production wells were drilled, with results under expectations. Additionally, a polymer injection pilot (EOR) was implemented in the Desfiladero Bayo field that includes well drilling, workovers and a polymer injection plant. Polymer injection in this pilot started in August 2016, and a surveillance plan is being carried out. In 2016, we also started a second polymer injection pilot in the Desfiladero Bayo field, where production and injector wells were drilled. In 2017, the objective is to define the baseline production associated with water injection and to start with the injection of polymers in 2018.

b. *Puesto Molina area*: Four new production wells, ten new injector wells and several workovers were drilled in 2016, with results better than expected.

2. Chachahuén Sur block

Ninety three development wells and four appraisal wells were drilled in 2016, with the goal of developing the Rayoso formation. The field development plan objective is to expand the ongoing water-flooding optimization project.

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3. Cañadón Amarillo block

Eight development wells in shallow formations (La Tosca and Chorreado) were drilled, all of which yielded positive results. The development project for deep reservoirs (Group Cuyo, Barda Negra formation and Tordillo formation) was temporarily suspended due to unsuccessful results.

4. Paso de las Bardas Norte block

One development well in tight gas formations (Lotena formation) was drilled in 2016. Its results were below expectations.

Mendoza Sur YPF Concession

3.3 Chubut-Tierra del Fuego Region

During 2016, Chubut-Tierra del Fuego Region production was 54 mboe/d, representing 9% of YPF s total production.

Chubut concession:

1. Manantiales Behr block:

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We drilled 51 wells in 2016 in three main oil fields, La Carolina, El Alba and Grimbeek, with positive results. Additionally, we completed 99 workovers, also with positive results.

The assisted recovery project in Grimbeek began in 2013 with a focus on standard water-flooding. The field was divided in three main areas (GbkII, GbkN and GbkNII). The project is currently in an advanced stage in GbkII with positive production results. Its peak oil production rate surpassed expectations.

During the first quarter of 2015, the polymer injection phase began, and convincing evidence of water decreases in the central well was recorded in 2016. This result enables us to move forward with planning the second phase of the pilot.

During 2016, we implemented the extension of this project in the area known as Grimbeek Norte (GbkN).

The short-term focus on the Manantiales Behr block is to extend water-flooding projects along the field (GbkN full area and GbkNII) in order to sustain production growth. Facilities developments to extend water-flooding projects, including in the La Carolina field, will continue in 2017.

The middle-term focus is to extend the polymer injection along the Grimbeek field and to implement the water-flooding project in the La Carolina field.

As a result of the activities described, the volume of oil production has remained at similar levels of production compared to 2015.

Gas production increased by 6.6% in 2016 compared to 2015, as a result of the development of the shallow target of low pressure and glauconitic formation.

2. El Trébol Escalante block:

In this mature block, oil production decreased by 2.2% in 2016 compared to 2015, as a result of a decrease in the number of wells drilled in 2016 compared to 2015.

Wellhead gas production increased by 21.8% in 2016 compared to 2015, due to optimization of the gas exploitation of existing wells.

The deepest reservoirs related to structural and stratigraphic traps were also drilled with positive results. An integrated primary and secondary development strategy will be carried out to increase the recovery factor.

In the Escalante oil field, the drilling of appraisal wells for primary and secondary development projects, denominated G3, had promising results for production and important geographic expansion.

3. Zona Central Cañadón Perdido block:

This block is located near the urban area of Comodoro Rivadavia. Oil production decreased by 13% in 2016 compared to 2015. During 2016, there was no well drilling due to legal issues relating to a claim from a group of neighbors of the city regarding the extension of the Bella Vista Sur drilling project.

4. Restinga Alí block:

Located on the coast between the urban area and the sea, development in this block was reactivated in 2013. The completion of the main infrastructure works allowed the optimization of oil production of the block, increasing oil production by 8.4% in 2016 compared to 2015.

Wellhead gas production increased 117% in 2016 compared to 2015, due to the production of the exploratory well completed at the end of 2015, and the optimization of the gas exploitation of existing wells.

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Chubut YPF Concession

Tierra del Fuego concession:

During 2016, the drilling activity in Tierra del Fuego focused on gas in the Lago Fuego field, with one well in production with positive results.

The main objective was the exploitation of the Springhill formation and the exploration of the Tobífera series, which yielded positive results.

Other activities in the San Sebastian field were aimed at improving the production of gas through the installation of compressors and plugging of layers with high water production. These activities slowed the declining output in the field.

In the Uribe block, seismic data reprocessing and interpreting in 2016 will be applied to a review of Uribe s exploratory prospects.

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Tierra del Fuego YPF Concession

3.4 Santa Cruz Region

During 2016, Santa Cruz Region production was 81 mboe/d, representing 14% of YPF s total production.

During 2016, we implemented 24 integral development projects across five major development areas in the province of Santa Cruz (Cañadon de la Escondida, El Guadal, Los Perales, Cañadon Yatel and Cañadon Seco), comprising a total portfolio of 42 projects. The main projects include the following reserve areas: Cañadón Escondida, Cerro Grande, Seco León, Los Perales, Cañadon Yatel and El Guadal, with 144 wells drilled (134 oil wells, five injectors and six advanced wells), 433 workovers and associated facilities.

The main objectives of these integral projects are:

- Comprehensively developing the areas through the drilling of new wells and deep formations with gas objectives.
- Recording 3D seismic data in the reserve areas of Cerro Piedra, Cerro Cuadrado and Cañadon de la Escondida.
- Acquiring the necessary information with electrical logs, rotated plugs and well testing.
- Increasing the recovery factor with new enhanced oil recovery projects.
- Increasing water injection to improve sweep efficiency.
- Extending horizontal and vertical limits with new appraisal and exploration wells. Drilling of new advanced wells in Los Perales and Las Mesetas.
- Providing development support through appropriate surface facilities.

We have drilled 144 wells with results exceeding expectations in the Cañadon Seco, Lomas del Cuy and Cañadon Yatel blocks; with results meeting expectations in the Los Perales and Barranca Baya blocks; and with results below expectations in the Cerro Piedra and Cerro Guadal Norte blocks, as we continue with the analysis of the geological formation.

We have done 433 workovers in the different blocks, focusing our strategy mainly on conversions and repairs of water injectors, which allow us to sustain our secondary production, resulting in the best production of the last four years at the end of 2016.

1. Cañadón Seco

During 2016, 39 wells were drilled (four outpost wells and one water injector) and 39 workovers, with positive results. The drilling activity was concentrated in the Mina El Carmen formation, and the D-129 geological formation continues to be delineated. From the point of view of improved recovery, the objective continues to center on the geological formation of Cañadón Seco. Several projects were executed, some of them still ongoing, in which injection is expanded horizontally as well as vertically, improving the efficiency in the production-injector wells relationship.

2. Barranca Baya

During 2016, 49 wells and 142 workovers were drilled, with results as expected. The primary activity was focused on the Cañadon Escondida 02 and Cañadon Escondida 10 projects. Reservoirs with depleted petrophysical properties and low pressure were found, and these blocks are being analyzed. We deepened the secondary recovery control, in addition to the integrity of the facilities, which allows us to obtain a better quality of the water that is injected into the formations. In addition, 3D seismic data covering 588 km2 was recorded in the eastern part of the area, which opens up great potential for the area.

3. Lomas del Cuy

During 2016, 21 wells (including one water injector) and 41 workovers were drilled. Of the two main blocks, the Lomas del Cuy block was where positive results were obtained, while the results in the El Guadal block were below expectations. Secondary recovery was concentrated in both blocks, implementing new projects and expanding existing projects.

We began to delineate, by drilling wells, in the Guadal Sur block with a target in Castillo and D-129 geological formations with positive results. The El Guadal 2 treatment plant was linked to the Los Perales area to transfer water to the projects in that area. In addition, we continued our improvements in water quality.

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4. Los Perales Las Mesetas

During 2016, six wells (including one outpost well) and 136 workovers were drilled, with results as expected. The primary activity was concentrated in the Las Mesetas block, in the deep horizons (Castillo and D-129 geological formations). The first phase of the project, which targeted greater data collection and strategy outlining to be carried out, was tested in different well-construction configurations, with a marked tendency towards cost reduction.

Secondary activity was present in all blocks, only in the Bajo Barreal geological formation. We have focused on maintaining the existing secondary and expanding projects from the vertical and aeral point of view, incorporating new layers and completing existing meshes. In addition, 3D seismic data covering 453 km2 was recorded, completing existing 3D.

5. Cañadón Yatel

During 2016, 19 wells (one outpost well) and 15 workovers were drilled with positive results. Drilling activity was concentrated at the Estancia Cholita reservoir. An oil reservoir under the gas cap of the D-129 formation began to be developed in the southern block. The electrification of the block began, which allows us to exploit the wells with greater reliability and minimize mechanical problems, and it will be continued in 2017. The secondary recovery is in the initial phase, with only five active injectors as of December 2016.

6. Cerro Piedra Cerro Guadal Norte

During 2016, five wells and two workovers were drilled, with results below expectations. We continue to analyze the exploration strategy, adding the 3D seismic data that was recorded at the Cerro Piedra site, where previously only 2D seismic data was available. A total area of 607 km2 was covered.

Santa Cruz YPF Concession

4. Non-Operated Areas - Development Activities:

During 2016, Non-Operated Areas Region production was 81 mboe/d, representing 14% of YPF s total production.

1. El Tordillo and La Tapera-Puesto Quiroga blocks:

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Beginning in January 2014, under an agreement with the province of Chubut related to the negotiation of an extension of YPF concessions there, we transferred 41% of our working interest in the joint venture, El Tordillo and La Tapera-Puesto Quiroga, to Petrominera Chubut S.E. As a result, our interest in the joint venture is 7.196%.

From April 2016 until April 2017, a stand-by agreement to maintain two drilling rigs and two workover rigs on hold was signed with the provincial government of Chubut, unions and suppliers due to the lower international price of crude oil. See Item 5. Operating and Financial Review and Prospects Factors Affecting Our Operations Macroeconomic conditions.

2. Magallanes block:

On November 17, 2014, we agreed to extend the joint venture contract with ENAP Sipetrol Argentina S.A. in the Magallanes block. The objective of this agreement was to extend the rights and obligations of ENAP in the original joint venture agreement and confirm its role as operator, maintaining its 50% share until the end of the concession. On January 8, 2016, the Argentine government approved a concession extension through November 17, 2027. See Main Properties.

During 2016, we continued to develop an incremental production project, known as the PIAM-Magallanes Block Incremental Project. This project aims to increase the production capacity of the area by approximately 1.6 mmcm/d of gas beginning in November 2017. During 2016, we signed an Engineering and Procurement Contract (EPC) to manage the engineering tasks. This project involves laying a marine pipeline and expanding compression capacity. The total estimated value of the project is approximately U.S.$315 million and completion is expected during the second half of 2017.

3. Aguada Pichana block:

This block is operated by Total S.A. We hold a 27.2% working interest in this block.

Tight gas projects: during 2016, we continued tight gas development in different areas of the block and 12 wells were drilled. Five of those wells and another three new production wells drilled in 2015 were put into production in 2016.

Of the wells put into production, two wells had better production than expected, five wells produced as expected and one was a dry hole.

4. Lindero Atravesado block:

This block is operated by Pan American Energy LLC. We hold a 37.5% working interest in this block.

During 2016, the drilling campaign consisted of 31 wells, all of which are in production. Additionally, the LOR-3 compression plant was constructed and started up in October 2016, which allowed for increased production.

5. Palmar Largo block:

This block was sold to High Luck Group Limited Sucursal Argentina, with an effective date of May 1, 2016. The production of this block was 0.04 mcm/d in 2015 and had proved reserves of 26.7 mcm as of December 31, 2015.

Properties and Exploration and Production Activities in Rest of the World

1. *Chile:*

In 2016, YPF gained access to the second exploration period in the San Sebastián block. However, Wintershall and ENAP have formally decided not to enter into the second exploration period. The commitment related to this period includes the drilling of one exploratory well, which will be pursued by YPF in 2017.

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The Marazzi/Lago Mercedes block has been relinquished.

2. *Colombia*:

Blocks COR 12 and COR 33 are located in the Cordillera Oriental basin, which we operate pursuant to authorization by the Colombian National Hydrocarbons Agency (*Agencia Nacional de Hidrocarburos or* ANH). Our working interest is 60% in COR 12 and 55% in COR 33. The combined net acreage in these blocks is 700 km2. We and our partners informed the ANH of our decision to relinquish both blocks. As of the date of this annual report, the parties are in the process of formalizing and executing the final agreements for the relinquishment.

3. *Ecuador*:

In October 2014, we signed a service contract with Petroamazonas, the national oil company of Ecuador, to optimize production in Yuralpa field. The 15-year agreement contemplates drilling of at least ten wells, using technologies for enhanced oil recovery and performing activities to increase oil production in this field, located in Block 21 in the Amazonian province of Napo.

During 2015, we opened an office in Quito and formed a project team, composed of 16 members. A geological and reservoir model of the Hollín reservoir was constructed, allowing us to design the field development strategy, and the first workover operation was performed on the YRCA-012 well.

In October 2015, Petroamazonas requested that we suspend operations and immediately start renegotiating terms and conditions of the contract noting the abrupt drop in crude oil prices.

As of the date of this annual report, we are still negotiating with Petroamazonas to cancel the contract related to our operations in Ecuador. We do not expect this to have a material adverse effect on our financial position.

Additional information on our current activities

The following table shows the number of wells in the process of being drilled as of December 31, 2016.

	As of December 31, 2016	
Number of wells in the process of being drilled	*Gross*	*Net*
Argentina	74	54
Rest of South America		
North America		
Total	74	54

Downstream

During 2016, our Downstream activities included crude oil refining and transportation, and the marketing and transportation of refined fuels, lubricants, LPG, and other refined petroleum products in the domestic wholesale and retail markets and certain export markets.

The Downstream segment is organized into the following divisions:

- Refining Division;
- Logistic Division;
- Trading Division;
- Domestic Marketing Division; and
- Chemicals.

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We market a wide range of refined petroleum products throughout Argentina through an extensive network of sales personnel, YPF-owned and independent distributors, and a broad retail distribution system. In addition, we export refined products, mainly from the port at La Plata. The refined petroleum products marketed by us include gasoline, diesel, jet fuel, kerosene, heavy fuel oil and other crude oil products, such as motor oils, industrial lubricants, LPG and asphalts.

Refining division

We wholly own and operate three refineries in Argentina:

- La Plata refinery, located in the province of Buenos Aires;
- Luján de Cuyo refinery, located in the province of Mendoza; and
- Plaza Huincul refinery, located in the province of Neuquén.

Our three wholly-owned refineries have an aggregate refining capacity of approximately 319,500 boe/d. The refineries are strategically located along our crude oil pipeline and product pipeline distribution systems. In 2016, our crude oil production, substantially all of which was destined to our refineries, represented approximately 85.7% of the total crude oil processed by our refineries, while in 2015 it was 82.8%. Through our stake in Refinor, we also own a 50% interest in a 26,100 boe/d refinery located in the province of Salta, known as Campo Durán.

The following table sets forth the throughputs and production yields for our three wholly-owned refineries for each of the three years ended December 31, 2016, 2015 and 2014:

	For the Year Ended December 31,		
	2016	**2015**	**2014**
		(mmboe)	
Throughput crude	107.4	109.1	106.0
Throughput feedstock	4.0	4.4	4.2
Throughput crude and feedstock	111.4	113.5	110.2
Production			
Diesel	40.6	40.6	40.3
Motor gasoline	24.6	24.5	22.4
Petrochemical naphtha	7.6	7.0	6.5
Jet fuel	5.9	6.1	6.1
Base oils	1.0	1.1	1.4

	For the Year Ended December 31,		
	2016	**2015**	**2014**
		(thousands of tons)	
Fuel oil	1554	1878	1715

Coke	839	770	746
LPG	670	612	638
Asphalt	145	171	185

During 2016, our global refinery utilization reached 91.87%, compared to 93.6% in 2015, based on a nominal capacity of 319.5 mboe/d.

The La Plata refinery is the largest refinery in Argentina, with a nominal capacity of 189,000 bbl/d. The refinery includes three distillation units, two vacuum distillation units, two fluid catalytic cracking units, two coking units, a coker naphtha hydrotreater unit, a platforming unit, two diesel hydrofinishing units, a gasoline hydrotreater, an isomerization unit, an FCC (fluid cracking catalysts) naphtha splitter and desulfuration unit and a lubricants complex, in addition to a petrochemical complex that generates MTBE, TAME and aromatics compounds used for blending gasoline, and other chemical products for sale. The refinery is located at the port in the city of La Plata, in the province of Buenos Aires, approximately 60 km from the City of Buenos Aires. During 2016, the refinery processed approximately 165.5 mbbl/d. The capacity utilization rate at the La Plata refinery for 2016 was 87.6 % compared with 163.9 mbbl/d processed in 2015, with a utilization rate of 86.7%. The crude oil processed at the La Plata refinery, 89.9 % of which was YPF-produced in 2016, comes mainly from the Neuquina and San Jorge basins. Its crude oil supplies come from the Neuquina basin by pipeline and from the San Jorge basin by vessel, in each case to Puerto Rosales, and then by pipeline from Puerto Rosales to the refinery.

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A new Coke A facility that allowed for an increase in the conversion capacity was officially started up in September 2016, and the test run was made in October 2016. The capacity of the new unit is 1,160 bbl/h of fresh feed pumped from the bottoms of the Topping and Vacuum units, providing the refinery with an increase in crude processing capacity utilization of 23,800 bbl/d, representing an increase of almost 12% in the capacity utilization rate. The production of this facility is a component for the blend to be used in the generation of diesel, motor gasoline and coke.

The Luján de Cuyo refinery has a nominal capacity of 105,500 bbl/d, the third largest capacity among Argentine refineries. The refinery includes two distillation units, a vacuum distillation unit, two coking units, one fluid catalytic cracking unit (FCCU), a platforming unit, a MTBE unit, an isomerization unit, an alkylation unit, an FCC naphtha splitter, a hydrocracking unit, an FCC naphtha hydrotreater unit and two gasoil hydrotreating units. During 2016, the refinery processed approximately 106.0 mbbl/d, with a capacity utilization rate of more than 100%. In 2015, the refinery processed 109.2 mbbl/d, with a capacity utilization rate of more than 100%.

Due to its location in the western province of Mendoza and its proximity to significant distribution terminals we own, the Luján de Cuyo refinery has become the primary facility responsible for providing to the central and northwest provinces of Argentina with petroleum products for domestic consumption. The Luján de Cuyo refinery receives crude supplies from the Neuquina and Cuyana basins by pipeline directly into the facility. Approximately 77.8% of the crude oil processed at the Luján de Cuyo refinery in 2016 (and 77.8% of the crude oil processed in this refinery in 2015) was produced by us. Most of the crude oil purchased from third parties comes from oil fields located in the provinces of Neuquén and Mendoza.

The Plaza Huincul refinery, located in the province of Neuquén, has an installed capacity of 25,000 bbl/d. During 2016, the refinery processed approximately 22.0 mbbl/d, with a capacity utilization rate of 88.1%, compared with 25.8 mbbl/d processed in 2015 with a capacity utilization rate of more than 100%. The lower capacity utilization during 2016 was due to planned maintenance shut-downs of the Topping and Platforming units from March to April.

The only products currently produced at the refinery are gasoline, diesel and jet fuel, which are sold primarily in nearby areas and in the southern regions of Argentina. Heavier products, to the extent production exceeds local demand, are blended with crude oil and transported by pipeline from the refinery to our facilities in La Plata for further processing. The Plaza Huincul refinery receives its crude supplies from the Neuquina basin by pipeline. The crude supplies are mostly produced by us. In 2016, 1.8% of the refinery s crude supplies were purchased from other companies, while in 2015, such purchases were 1.7% of the refinery s crude supplies.

Since 1997 and 1998, each of our refineries (La Plata, Luján de Cuyo, and Plaza Huincul) have been certified under International Organization for Standardization (ISO) 9001 (quality performance) and ISO 14001 (environmental performance). All of them are also certified under the OHSAS 18001 (occupational health and safety performance) standard. Since 2009, inventories of industrial greenhouse gases and savings of CO2 emissions equivalent (MDL projects) have been verified in accordance with ISO 14064 in both the La Plata and Lujan de Cuyo refineries. The refineries maintain their systems under continuous improvement and revision by authorized organizations.

Logistics Division

Crude oil and products transportation and storage

We have available for our use a network of five major pipelines, two of which are wholly-owned by us. The crude oil transportation network includes nearly 2,700 km of crude oil pipelines with approximately 640,000 barrels of aggregate daily transportation capacity of refined products. We have total crude oil tankage of approximately 7 mmbbl and maintain terminal facilities at five Argentine ports.

Information with respect to YPF s interests in its network of crude oil pipelines is set forth in the table below:

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From	*To*	*YPF Interest*	*Length (km)*	*Daily Capacity (boe/d)*
Puesto Hernández	Luján de Cuyo refinery	100%	528	93,509
Puerto Rosales	La Plata refinery	100%	585	326,541
La Plata refinery	Dock Sud	100%	52	141,006
Brandsen	Campana	30%	168	120,700
Puesto Hernández/P. Huincul/Allen	Puerto Rosales	37%	888[1]	232,000

(1) Includes two parallel pipelines of 513 km each from Allen to Puerto Rosales, with a combined daily throughput of 232,000 barrels.

(2) We hold a 36% interest in Oleoducto Transandino Argentina S.A., which operates the Argentine portion of the pipeline, and an 18% interest in Oleoducto Transandino Chile S.A., which operates the Chilean portion of the pipeline.

We own two crude oil pipelines in Argentina. One connects Puesto Hernández to the Luján de Cuyo refinery (528 km), and the other connects Puerto Rosales to the La Plata refinery (585 km) and extends to Shell s refinery in Dock Sud at the Buenos Aires port (another 52 km). We also own a plant for the storage and distribution of crude oil in the northern province of Formosa with an operating capacity of 19,000 cm, and two tanks in the city of Berisso, in the province of Buenos Aires, with 60,000 cm of capacity. We own 37% of Oleoductos del Valle S.A., operator of an 888-km pipeline network, its main pipeline being a double 513 km pipeline that connects the Neuquina basin and Puerto Rosales.

We hold, through Oleoducto Transandino Argentina S.A. and Oleoducto Transandino Chile S.A., an interest in the 428-km transandean pipeline, which transported crude oil from Argentina to Concepción in Chile. This pipeline ceased operating on December 29, 2005, as a consequence of the interruption of oil exports resulting from decreased production in the north of the province of Neuquén. The book value of the assets related to this pipeline was reduced to their recovery value.

We also own 33.15% of Terminales Marítimas Patagónicas S.A., operator of two storage and port facilities: Caleta Córdova (province of Chubut), which has a capacity of 314,000 cm, and Caleta Olivia (province of Santa Cruz), which has a capacity of 246,000 cm. We also have a 30% interest in Oiltanking Ebytem S.A., operator of the maritime terminal of Puerto Rosales, which has a capacity of 480,000 cm, and of the crude oil pipeline that connects Brandsen (60,000 cm of storage capacity) to the Axion Energy Argentina S.R.L. (previously ESSO, a former subsidiary of ExxonMobil which was acquired by Bridas Corporation) refinery in Campana (168 km), in the province of Buenos Aires.

In Argentina, we also operate a network of multiple pipelines for the transportation of refined products with a total length of 1,801 km. We also own seventeen plants for the storage and distribution of refined products and seven LPG plants with an approximate aggregate capacity of 1,620,000 cm. Three of our storage and distribution plants are annexed to the refineries of Luján de Cuyo, La Plata and Plaza Huincul. Ten of our storage and distribution plants have maritime or river connections. We operate 53 airplane refueling facilities (40 of which are wholly-owned) with a capacity of 22,500 mcm, and we also own 28 trucks, 123 manual fuel dispensers and 17 automatic fuel dispensers. These facilities provide a flexible countrywide distribution system and allow us to facilitate exports to foreign markets, to the extent allowed pursuant to government regulations. Products are shipped mainly by truck, ship or river barge.

YPF currently blends ethanol in the Luján de Cuyo, Monte Cristo, San Lorenzo, La Plata, Junín, Plaza Huincul, Barranqueras, Concepción del Uruguay, Villa Mercedes and La Matanza storage plants.

In 1998, our logistics activities were certified under ISO 9001 (quality performance) and ISO 14001 (environmental performance), and recertified in 2012 under ISO 9001:2008 and ISO 14001:2004. In 2010, logistics activities were also certified under OHSAS 18001 (security performance) and recertified in 2013. In 2014, our trucking activities were certified under ISO 39001 (road traffic safety management system).

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Our logistics activities were recertified in 2015 under ISO 9001 and ISO 14001, and recertified in 2016 under OHSAS 18001. Additionally, in 2016, our land transport and light vehicle logistics activities were certified under ISO 39001:2012.

Trading Division

Our Trading Division sells refined products and crude oil to international customers and crude oil to domestic oil companies. Exports may include crude oil, unleaded gasoline, diesel, fuel oil, LPG, light naphtha, virgin naphtha and green coke.

This division exports to different countries, principally to North America and Asia, as well as to the other continents. Sales to international customers for 2016 and 2015 were Ps. 3,305 million and Ps. 2,387 million, respectively. In 2016, refined products accounted for 37% of total sales, up from 25% in 2015. In 2016, 59% of total sales corresponded to marine fuels, down from 73% in 2015. In 2016 and 2015, sales volumes to customers outside Argentina consisted of 2.4 mmbbl and 1.6 mmbbl of refined products, respectively, and 2.7 mmbbl and 3.3 mmbbl of marine fuels, respectively.

For the domestic market, sales of crude oil totaled Ps. 784 million, or 0.9 mmbbl, in 2016 and Ps. 712 million, or 1.1 mmbbl, in 2015. Sales of marine fuels totaled Ps. 1,652 million, or 1.3 mmbbl, in 2016 and Ps. 1,516 million, or 1.4 mmbbl in 2015.

In addition, imports of high and low sulfur diesel, gasoline, AVGAS and JP1 in 2016 totaled 5.6 mmbbl, a decrease of 35% compared with 8.6 mmbbl in 2015. Imports of fertilizers, agrochemicals and paraffins totaled 0.2 million tons in 2016, an increase of 129% compared with 0.1 million tons in 2015. North America was the principal origin of these imports.

Marketing Division

Our Marketing Division supplies gasoline, diesel, LPG and other petroleum products throughout Argentina and other countries in the region. We supply several industries, including retail, transport and agriculture.

During 2016, YPF maintained its leading position in Argentina, reaching a market share of 55.6% for liquefied fuels.

YPF sells two types of gasoline: Infinia, a premium 98 octane gasoline, and Super, a regular 95 octane gasoline.

Our market share of Infinia and Super gasolines, according to our estimates, was 60.7% and 52.8%, respectively, as of December 31, 2016, compared with 62.0% and 55.1%, respectively, as of December 31, 2015. Our sales volume for Infinia was 1,477 mcm in 2016 (1.1% higher than in 2015) and 3,274 mcm for Super in 2016 (3.5% less than in 2015).

With respect to diesel, according to our own estimates, our market share was 56.1% as of December 31, 2016, compared to 58.5% as of December 31, 2015. Along with Infinia diesel (10 ppm), for which sales volume was 1,372 mcm in 2016 compared to 1,271 mcm in 2015, our diesel (500 and 1500 ppm) reached a sales volume of 6,239 mcm compared to 6,688 mcm in 2015. Finally, market penetration for Infinia diesel reached 18% of total diesel sales volumes, up from 16% in 2015.

During 2016, the competition was fiercer in the domestic Argentine market than in previous years. Our competitors implemented the following aggressive marketing activities:

opening several new gas station and improving existing ones;

reducing the gap between their prices and ours;

launching various promotions, discounts with financial entities, fidelity programs and sports sponsorships. We expect that this market behavior will continue, challenging us to respond with effective marketing and promotional tools.

YPF responded to the market with regionalized promotions customized according to the needs of each location. We also applied a discount promotion through the Serviclub program, which allowed us to improve sales of Infinia gasoline and increase the number of active members of the program. The Serviclub fidelity program reached more than 1.5 million members in 2016 (36% higher than 2015). The marketing and communications activities carried out during 2016 resulted in an improvement in our products image. Results from the polls carried out in 2015 and 2016 showed an increase of 8% of perceived quality in service stations (81% from August to December 2015 in a telephone poll and 89% from July to September 2016 in an online poll).

In November 2016, YPF launched Infinia diesel, a new premium diesel with a new formulation. The release plan involved an ambitious campaign in mass media and at sales points, and strong internal training of our salesforce. The launch of this product is aligned with the projected migration of heavy duty vehicles fleets to Euro 5 and 6 technology (regulatory command) in the coming years and, to a lesser extent, to capture particular premium customers. The product was received positively by light duty vehicle customers, as we increased the sales mix of Infinia Diesel by 2.2% compared to total diesel sales in the service stations sales (from 31.5% in October 2016 to 33.7% in December 2016). YPF markets lubricants through three segments of the domestic market: retail, agriculture and industry. Our three manufacturing facilities, part of the La Plata industrial complex, include lubricant, asphalt and paraffin production lines. Our line of automotive lubricants, including mono-grade, multi-grade and oil, has received approval and recommendations from leading global automotive and engine manufacturers, including Ford, Volkswagen, Renault, Audi, Deutz, Cummins, Volvo, MAN Truck, GM, Porsche, Scania, Detroit Diesel and Caterpillar.

We are engaged in the LPG wholesale business, which encompasses LPG storage, logistics and commercialization to domestic and foreign markets. We obtain LPG from our fractioning plants and refineries, as well as from third parties. In addition to butane and propane, we also sell propellants used in the aerosols manufacturing processes.

YPF also markets lubricants in Brazil and Chile, where we have subsidiary companies. Additionally, through a network of exclusive resellers, we market lubricants in three bordering countries (Uruguay, Paraguay and Bolivia).

The Domestic Marketing Division includes five main segments: Retail, Agriculture, Industry, Lubricants and Specialties and LPG.

a) Retail Division

As of December 31, 2016, the Retail Division s sales network in Argentina consisted of 1,547 retail service stations, compared to 1,538 as of December 31, 2015. Of these, 112 are owned by YPF. The remaining 1,435 service stations are associated service stations. OPESSA, our wholly-owned subsidiary, actively operates 173 retail service stations, of which 90 are owned by YPF, 26 are leased to the Automóvil Club Argentino and 57 are leased to independent owners. Additionally, YPF owns 50% of Refinor, a company operating 66 service stations.

According to our estimates, as of December 31, 2016, we were the main fuel retailer in Argentina, with 35.9% of the country s gasoline service stations, followed by Shell, Axion, Petrobras and Oil with 14.2%, 11.3%, 6.2% and 6.1%, respectively. During 2016, our market share in diesel and gasoline, marketed in all segments, decreased from 58.0% to 55.6%, from December 31, 2015 to December 31, 2016. This was due to increased market competition stemming primarily from an increase in the number of service stations of our competitors and a smaller gap between our competitors prices and YPF s during 2016.

The Red XXI program, released in October 1997, has significantly improved operational efficiency in service stations. This program provides performance data for each active and on-line station, connecting most of our network. As of December 31, 2016, 1,294 service stations were linked to the Red XXI network system.

Our convenience stores, YPF Full and YPF Full Express, are present in 428 and 101 points of sale, respectively, as of December 31, 2016. Additionally, a modern oil change service shop called YPF Boxes is present in 270 service stations across the country.

In November 2016, we launched Infinia diesel, a fuel compatible with the most modern and demanding technologies of diesel engines and with low sulfur content. Infinia diesel combines the technologies of TDM® (Metallic Deactivation Technology), which helps fuel stability and maintains its purity. In addition, it protects and gives a longer life to the engines and optimizes the operation of the injectors and the entire fuel circuit.

We also revamped our YPF Full convenience stores in order to make them more sustainable, technological and health-focused. Specific locations were designated for both health and sports products, which provide new experiences to customers and continue our focus on healthy living and eating. They will have wireless internet connections, as well as places where customers can recharge their devices in a comfortable and relaxed environment.

During 2016, we implemented Conexion, a retail project that accompanies our strategy of focusing on building a customer-surpassing experience. The program was implemented in all OPESSA-operated service stations in 2016. Tests have begun in the rest of the service station network and are expected to continue during 2017.

Conexion works on three fundamental pillars: customer experience, productivity and commitment. These three fundamentals encompass the same objective: to strengthen the competencies of the team, optimize operational management and, most importantly, reframe the relationship with the customer in our service stations.

This project focuses on using customer service and agility to promote a new experience for our customers. Faced with a competitive market and customers with new expectations, we strive to develop good practices that generate a difference in the customer experience as well as in the operational results of our service stations.

b) Agriculture Division

The Agriculture Division provides diesel, fertilizers, lubricants, phytosanitaries, and ensiling bags, among other products, directly or through a network of 105 sale points with exclusive commercial areas (two of the nine owned by YPF were relocated during 2016 to higher potential areas), offering an extensive portfolio of products and services to agricultural producers, including agricultural advice, and delivery and application of products at the consumption site, under a unified brand image. During 2016, YPF launched several new products (mainly phytosanitaries, fertilizers, biologic fertilizers and seeds), under the YPF brand or through distribution agreements with leading local and international suppliers. YPF developed crop financing with several instruments such as credit cards with local banks. YPF is the only domestic Argentine oil company that accepts different types of grains as payment (*canje*), mainly soybean, but also corn, rapeseed, rice, wheat, sorghum, soyflower and barley, some of which is processed by third-party companies to obtain soy oil, meal and other sub-products that we generally export. Some of the soybean oil is processed into fatty acid methyl esters (FAME) (a natural product added to commercial grade diesel), which partially covers YPF s refinery needs. Although this activity was negatively impacted by the change in related prices of YPF products and grains in 2016 after the Argentine government s decision to reduce exports taxes on grains and derivatives, we received approximately 1.17 million tons of grains (a 13% decrease compared to 1.35 million tons in 2015), primarily soybeans, that positions YPF among the top five exchangers in Argentina. During 2016, revenue from these exports represented U.S.$ 340 million, a 14.5% decrease compared with 2015.

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c) Industry Division

This division supplies the entire national industry and transportation (ground and air) sectors, which require a broad portfolio of products and services that meet the needs of the customers. The division develops specific solutions for the mining, oil & gas, aviation, transport, infrastructure and construction sectors. We supply products such as fuels (diesel, gasoline, fuel oil, Jet A-1), lubricants, coal, asphalts, paraffin and derivatives (sulfur, CO2, decanted oil, aromatic extract), either directly from our refineries to the point of consumption (more than 5,000 direct customers) through our own ground and waterway network, or through a network of 11 industrial distributors with national coverage.

Our mission is to promote efficiency in the value chains of the industries we serve through energy solutions, supplies and services. Accordingly, our strategy is based on close relationships with our clients and the development of innovative solutions focused on creating value for YPF and the region s industries.

d) Lubricants and Specialties Division

During 2016, our lubricants and complementary products sales in the domestic market amounted to almost 118.3 mcm (a decrease of 7% compared to 2015). Exports also decreased 6% from 17.2 mcm in 2015 to 16.1 mcm in 2016. In 2016, sales of asphalts decreased 11% and paraffin decreased 16% compared to 2015.

We export to our wholly-owned companies in the main markets of Brazil and Chile. Sales volumes decreased 64% in Brazil, due to growth in local Brazilian production, and increased 10% in Chile, due to a decrease in local Chilean production compared to 2015. In both countries, we produce lubricants locally. We also export through our distribution network in Bolivia, Uruguay and Paraguay, in which sales volumes decreased 2% compared to 2015. This decrease was primarily due to a decline in activity in those three countries. Our Lubricants and Specialties Division has followed a strategy of differentiation, allowing it to achieve and maintain a leading position in the Argentine market. Our market share as of December 31, 2016 was 38.1% (a decrease of 1% compared to 2015) according to information provided by the Argentine Secretariat of Energy. As indicated above, our line of automotive lubricants has received approvals and recommendations from leading global automotive and engine manufacturers (Ford, Volkswagen, GM, Porsche and Scania).

With respect to lubricants, sales of the high-end light and heavy products, under the Elaion and Extravida brand names, were 42.2 mcm in 2016, compared to 43.7 mcm in 2015.

The Elaion brand reached sales volumes of 14.0 mcm in 2016, a decrease of 4% compared to 14.6 mcm in 2015. The Extravida brand reached sales volumes of 28.2 mcm, a decrease of 3% compared to 29.1 mcm in 2015.

The Lubricants and Specialties Division has had an integrated management system since 1995. This division currently holds the following certifications: ISO 9001:2008, ISO 14001:2004, OSHAS 18001:2007, and ISO/TS 16949-Third edition.

e) LPG Division

Through our LPG Division, we sell LPG to the foreign market, the domestic wholesale market and to distributors that supply the domestic retail market. The LPG Division does not directly supply the retail market. It is supplied by YPF Gas S.A., which is our affiliate. During 2016, we sold approximately 50% of our LPG production to YPF Gas S.A. for the domestic market.

We are the largest LPG producer in Argentina, with sales in 2016 reaching approximately 574 mtn, compared with 559 mtn in 2015. Of this, approximately 410 mtn were sold in the domestic market, compared to 378 mtn in 2015. Our main clients in the domestic market are companies that sell LPG in cylinders or bulk packing to end-consumers, also providing LPG to households in some regions. Additionally, exports in 2016 reached approximately 165 mtn, compared to 181 mtn in 2015. The main destinations were Chile, Paraguay and Bolivia. Transportation of LPG to overseas customers is carried out by truck, pipeline and barges.

Total sales of LPG, excluding LPG used as petrochemical feedstock, were Ps. 2,096 million and Ps. 1,415 million in 2016 and 2015, respectively.

The LPG Division obtains LPG from natural gas processing plants and from our refineries and petrochemical plants. We produced 487 mtn of LPG in 2016, not including LPG destined for petrochemical usage, and purchased LPG from third parties, as detailed in the table below:

	Purchase (mtn)
	2016
LPG from Natural Gas Processing Plants(1)	
General Cerri	2.0
El Portón	105.6
San Sebastián	0
Total Upstream	107.6
LPG from Refineries and Petrochemical Plants	
La Plata refinery	200.8
Luján de Cuyo refinery	142.0
CIE	36.2
Total refineries and petrochemical plants(2)	379.0
LPG purchased from joint ventures(3)	**30.1**
LPG purchased from unrelated parties	**72.8**
Total	589.5

(1) The San Sebastian plant is a joint venture in which we own a 30% interest; El Portón is 100% owned by us; General Cerri belongs to a third party with which we have a processing agreement.
(2) This production does not include LPG used as petrochemical feedstock (olefins derivatives, polybutenes and maleic).
(3) Purchased from Refinor. We also have a 50% interest in Refinor, which produced 210,4 mtn of LPG in 2016.

Chemicals Division

Petrochemicals are produced at our petrochemical facilities in Ensenada and Plaza Huincul. Additionally, we also own a 50% interest in Profertil, a company that has a petrochemical complex in Bahía Blanca, as discussed below.

Petrochemical production operations in the *Complejo Industrial Ensenada* (CIE) are closely integrated to the refining activities at the La Plata refinery, allowing a flexible supply of feedstock, the efficient use of by-products, such as hydrogen, and the supply of aromatics to increase gasoline octane levels.

The main petrochemical products and production capacities per year are as follows:

	Capacity (tons per year)