



YPF

VACA MUERTA FIELD TRIP

JUNE 2019

TRANSFORMING LIVES
THROUGH ENERGY

Safe harbor statement under the US Private Securities Litigation Reform Act of 1995.

This document contains statements that YPF believes constitute forward-looking statements within the meaning of the US Private Securities Litigation Reform Act of 1995.

These forward-looking statements may include statements regarding the intent, belief, plans, current expectations or objectives of YPF and its management, including statements with respect to YPF's future financial condition, financial, operating, reserve replacement and other ratios, results of operations, business strategy, geographic concentration, business concentration, production and marketed volumes and reserves, as well as YPF's plans, expectations or objectives with respect to future capital expenditures, investments, expansion and other projects, exploration activities, ownership interests, divestments, cost savings and dividend payout policies. These forward-looking statements may also include assumptions regarding future economic and other conditions, such as future crude oil and other prices, refining and marketing margins and exchange rates. These statements are not guarantees of future performance, prices, margins, exchange rates or other events and are subject to material risks, uncertainties, changes and other factors which may be beyond YPF's control or may be difficult to predict.

YPF's actual future financial condition, financial, operating, reserve replacement and other ratios, results of operations, business strategy, geographic concentration, business concentration, production and marketed volumes, reserves, capital expenditures, investments, expansion and other projects, exploration activities, ownership interests, divestments, cost savings and dividend payout policies, as well as actual future economic and other conditions, such as future crude oil and other prices, refining margins and exchange rates, could differ materially from those expressed or implied in any such forward-looking statements. Important factors that could cause such differences include, but are not limited to, oil, gas and other price fluctuations, supply and demand levels, currency fluctuations, exploration, drilling and production results, changes in reserves estimates, success in partnering with third parties, loss of market share, industry competition, environmental risks, physical risks, the risks of doing business in developing countries, legislative, tax, legal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, wars and acts of terrorism, natural disasters, project delays or advancements and lack of approvals, 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" in YPF's Annual Report on Form 20-F for the fiscal year ended December 31, 2018 filed with the US Securities and Exchange Commission. In light of the foregoing, the forward-looking statements included in this document may not occur.

Except as required by law, 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 performance, conditions or events expressed or implied therein will not be realized.

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Cautionary Note to U.S. Investors — The United States Securities and Exchange Commission permits oil and gas companies, in their filings with the SEC, to separately disclose proved, probable and possible reserves that a company has determined in accordance with the SEC rules. We may use certain terms in this presentation, such as resources, that the SEC's guidelines strictly prohibit us from including in filings with the SEC. U.S. Investors are urged to consider closely the disclosure in our Form 20-F, File No. 1-12102 available on the SEC website www.sec.gov.

Our estimates of EURs, included in our Development Costs, are by their nature more speculative than estimates of proved, probable and possible reserves and accordingly are subject to substantially greater risk of being actually realized, particularly in areas or zones where there has been limited history. Actual locations drilled and quantities that may be ultimately recovered from our concessions will differ substantially. Ultimate recoveries will be dependent upon numerous factors including actual encountered geological conditions and the impact of future oil and gas pricing.



AGENDA

01 INTRODUCTION

02 YPF SHALE ACTIVITY

03 SHALE OIL PROJECTS

04 INFRASTRUCTURE

05 MILESTONES & FUTURE CHALLENGES



Accelerate development activity
in Loma Campana

Replicate the success in La Amarga Chica and Bandurria Sur

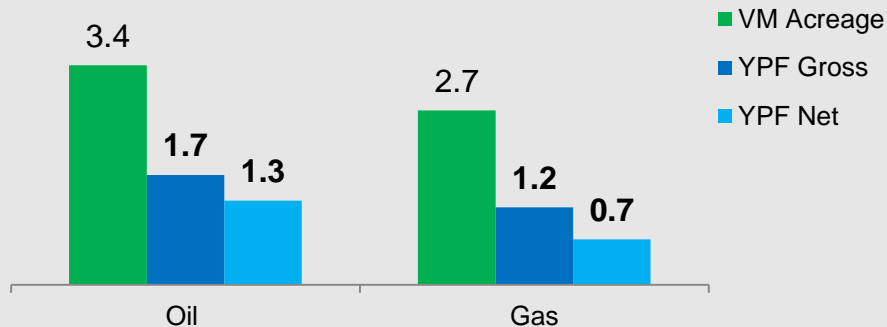
Expand the boundaries of
Vaca Muerta oil through pilots

Prepare next wave of developments

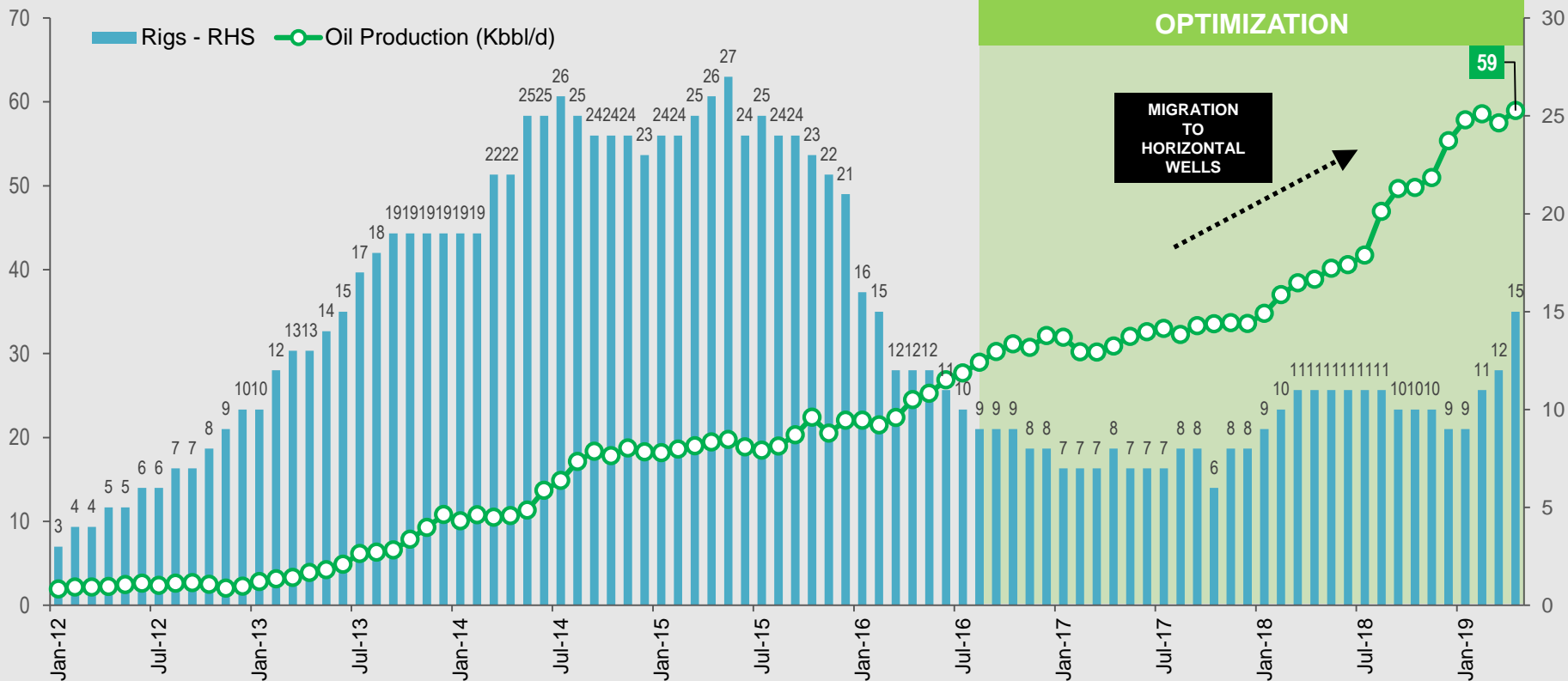
Evaluate different alternatives to
unlock shale gas potential

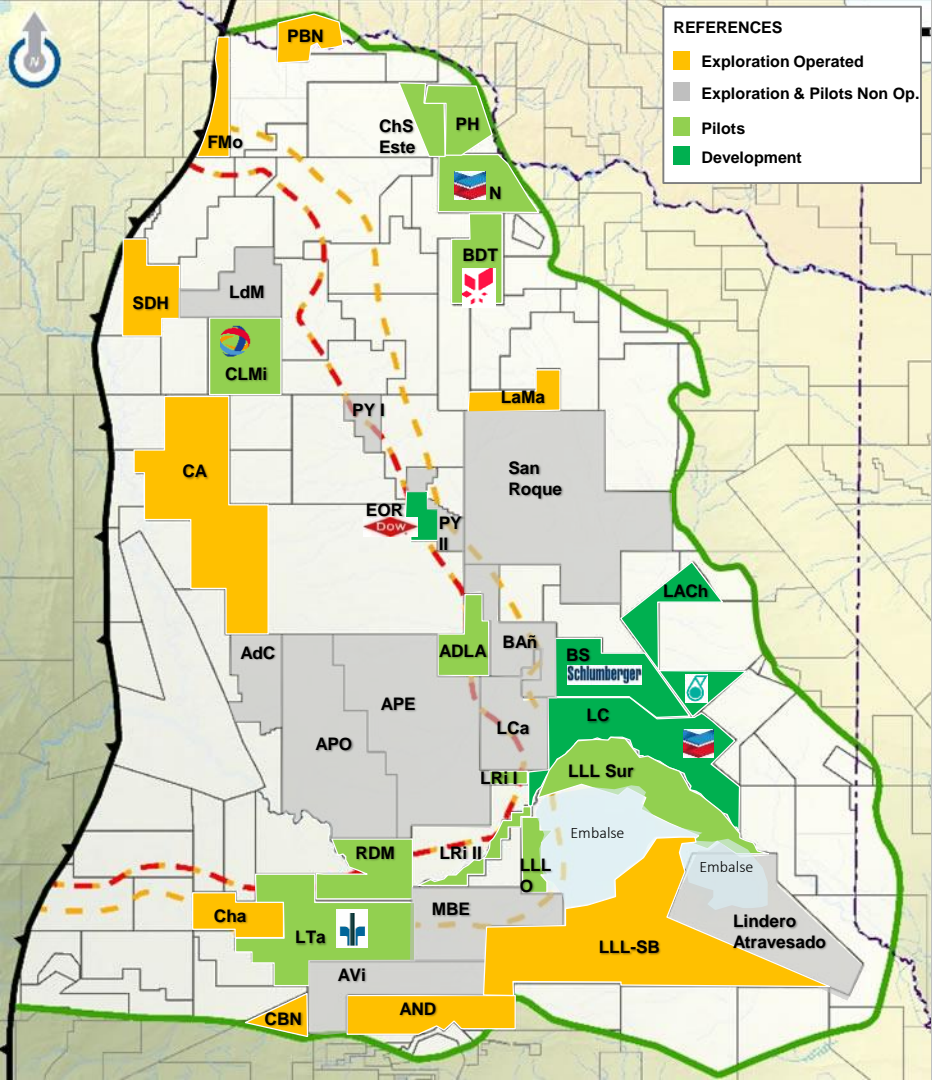
Achieve all these objectives with the **highest standards in safety and sustainability**

ACREAGE
(MM ACRES)



OIL PRODUCTION / DRILLING RIGS





VACA MUERTA ACTIVITY



TOTAL PRODUCTION
Operated Gross YPF (Avg. June 2019)

61.4 Kbbl/d Oil **9.6** Mm³/d Gas

OPERATED ACTIVE WELLS
VM wells

720
June 2019

2019 CAPEX
Operated Gross YPF

~2bn USD

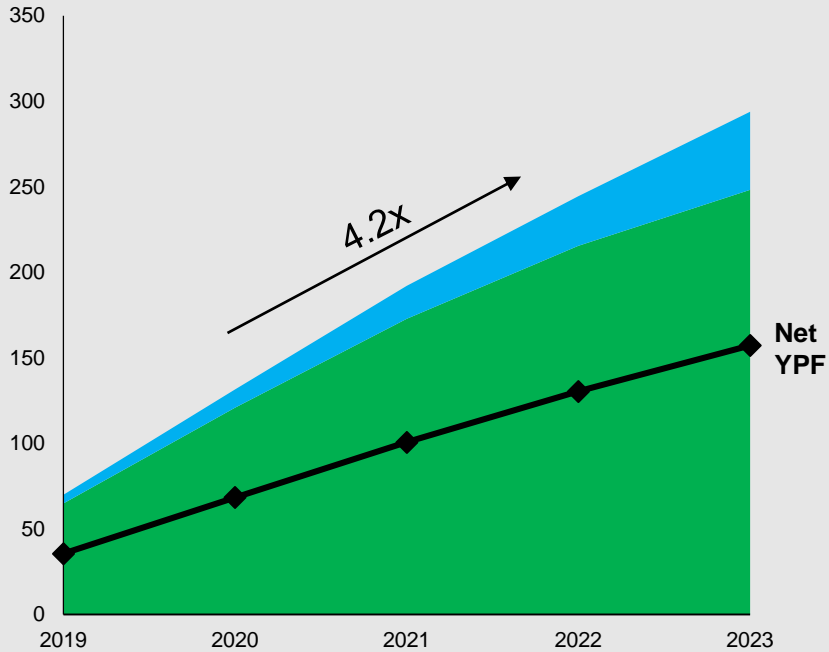
OPERATED DRILLING RIGS (1)

17
June 2019

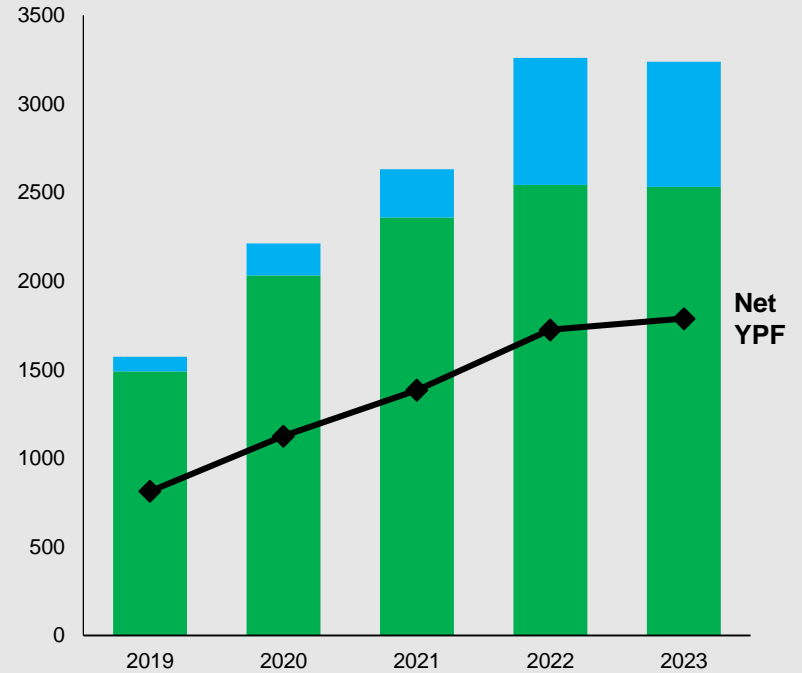
(1) Include 1 Spudder Rig

STRATEGIC PARTNERS

SHALE OIL PRODUCTION (Kbbl/d)*



SHALE OIL INVESTMENT (MUSD)*



Operated Non-operated

* Strategic Plan 2018



AGENDA

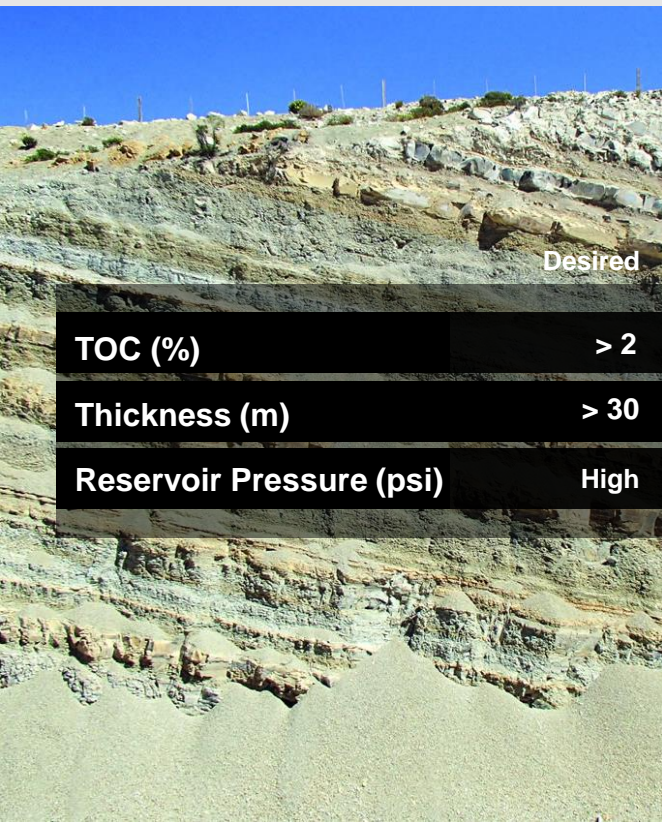
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		Vaca Muerta	Barnett	Haynesville	Marcellus	Eagle Ford	Wolfcamp
TOC (%)	> 2	3-10	4 - 5	0.5 - 4	2 - 12	3 - 5	3
Thickness (m)	> 30	30-450	60 - 90	60 - 90	10 - 60	30 - 100	200 - 300
Reservoir Pressure (psi)	High	4,500 - 9,500	3,000 – 4,000	7,000 – 12,000	2,000 – 5,500	4,500 – 8,500	4,600

2018-19
7 WELLS

Expansion
of Vaca Muerta
boundaries

2012-17
61 WELLS

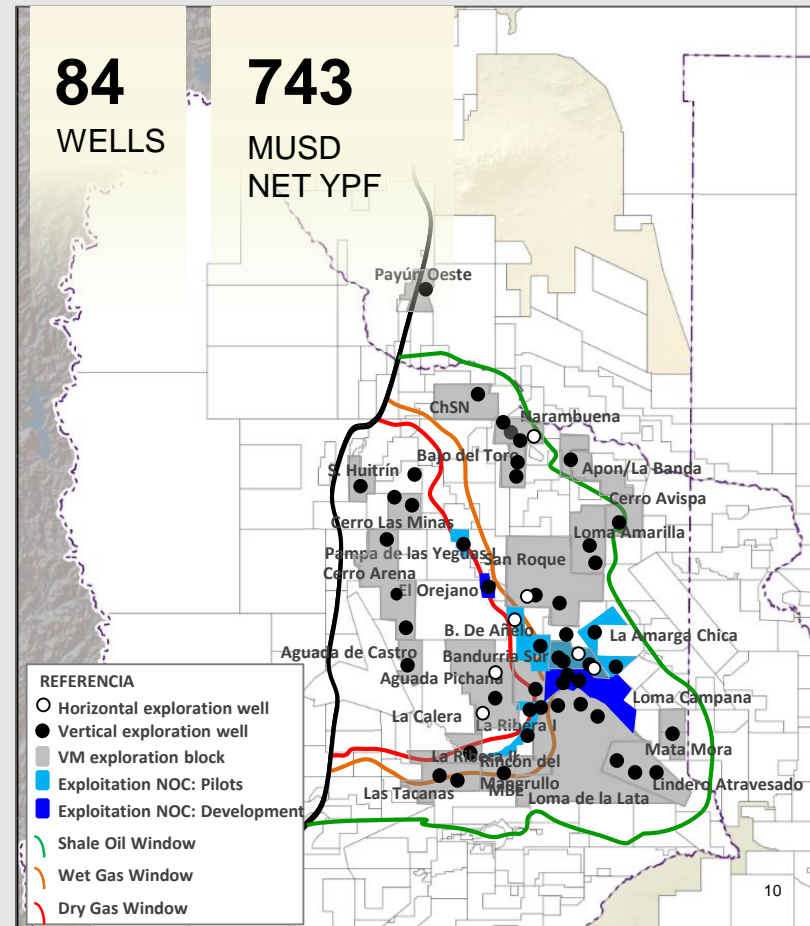
Pilots: LAC, BS, Lri, BdA, PdY
Initial development phase of LC and EOr
Start of shale gas exploration

2011
14 WELLS

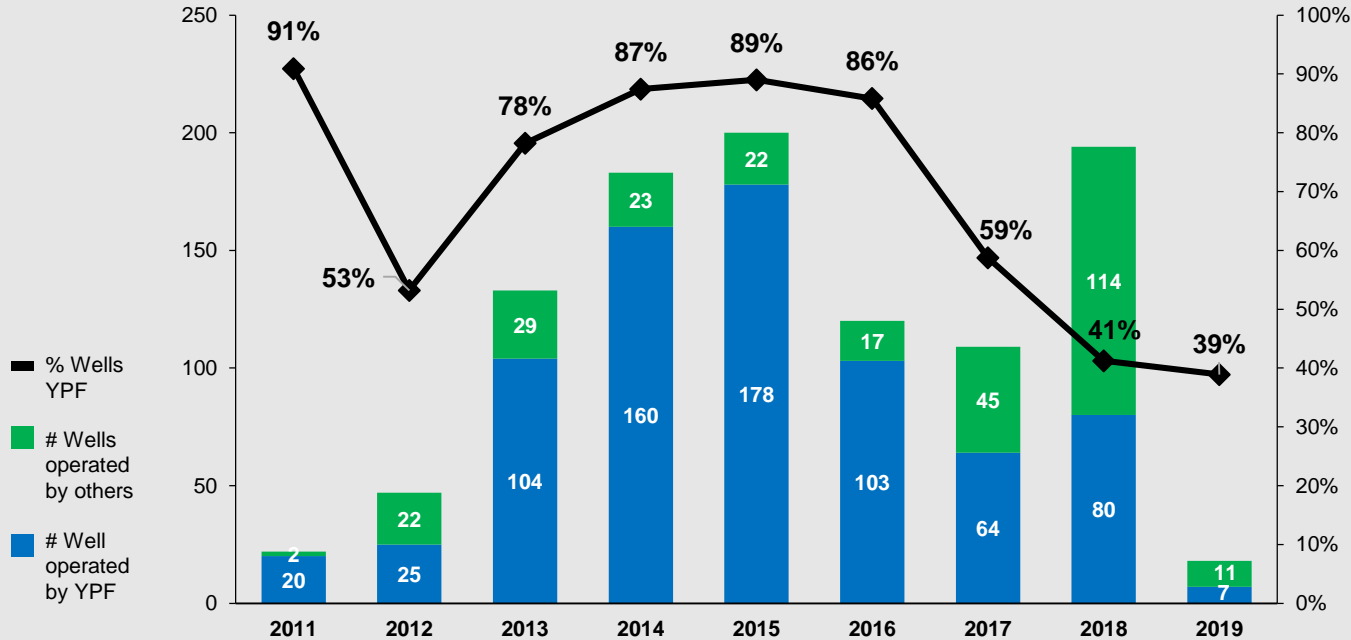
Delineation of Loma Campana
Expansion of shale oil window
Exploration drills the 1^o hz well (500 m)

2010
2 WELLS

2007 – 2010
Geological studies
Discovery of shale gas and shale oil



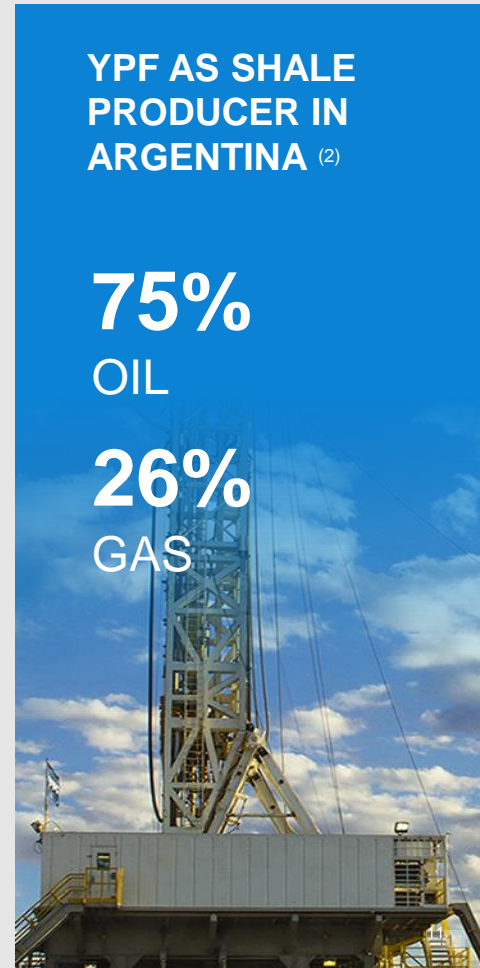
YPF AS OPERATOR⁽¹⁾



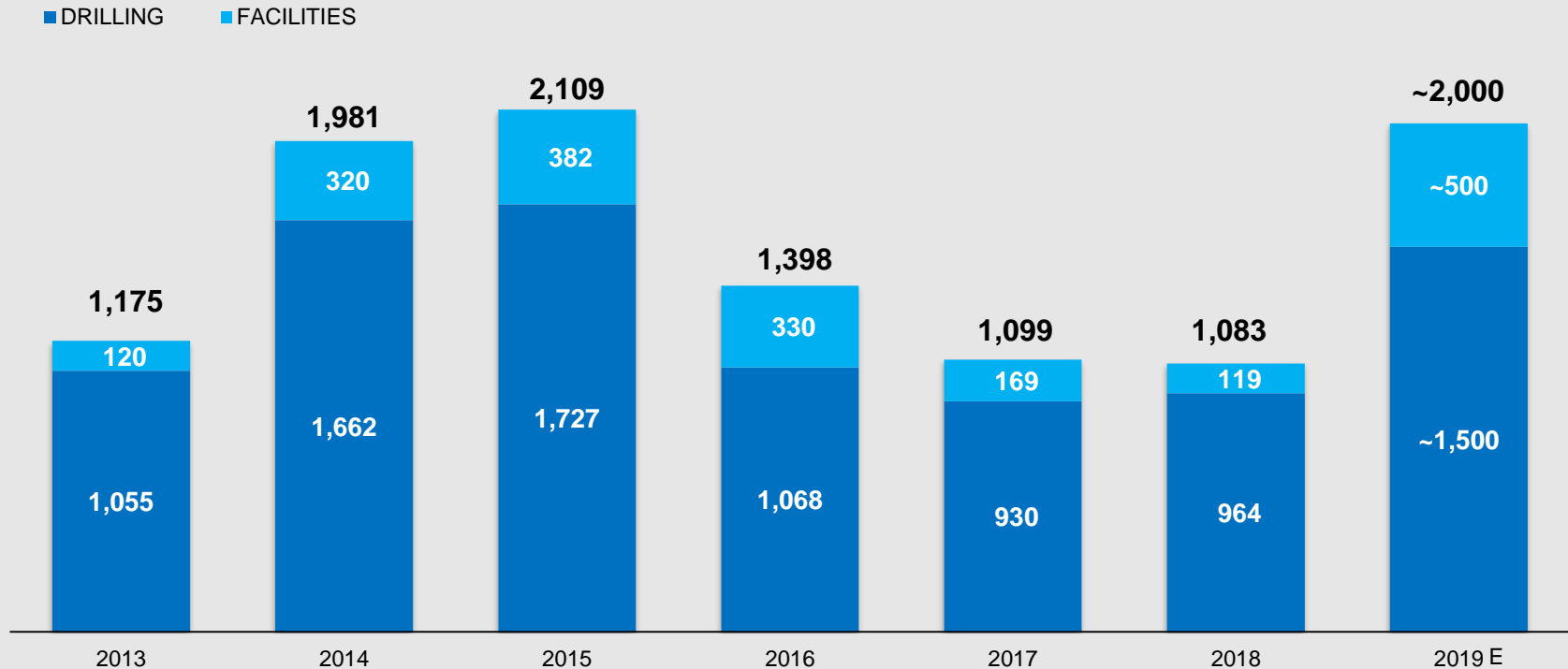
YPF AS SHALE PRODUCER IN ARGENTINA⁽²⁾

75%
OIL
26%
GAS

(1) Source: "Activity at Vaca Muerta Play" - February 2019 - G&G Energy Consultants - Daniel G. Gerold / (2) G&G Energy Consultants



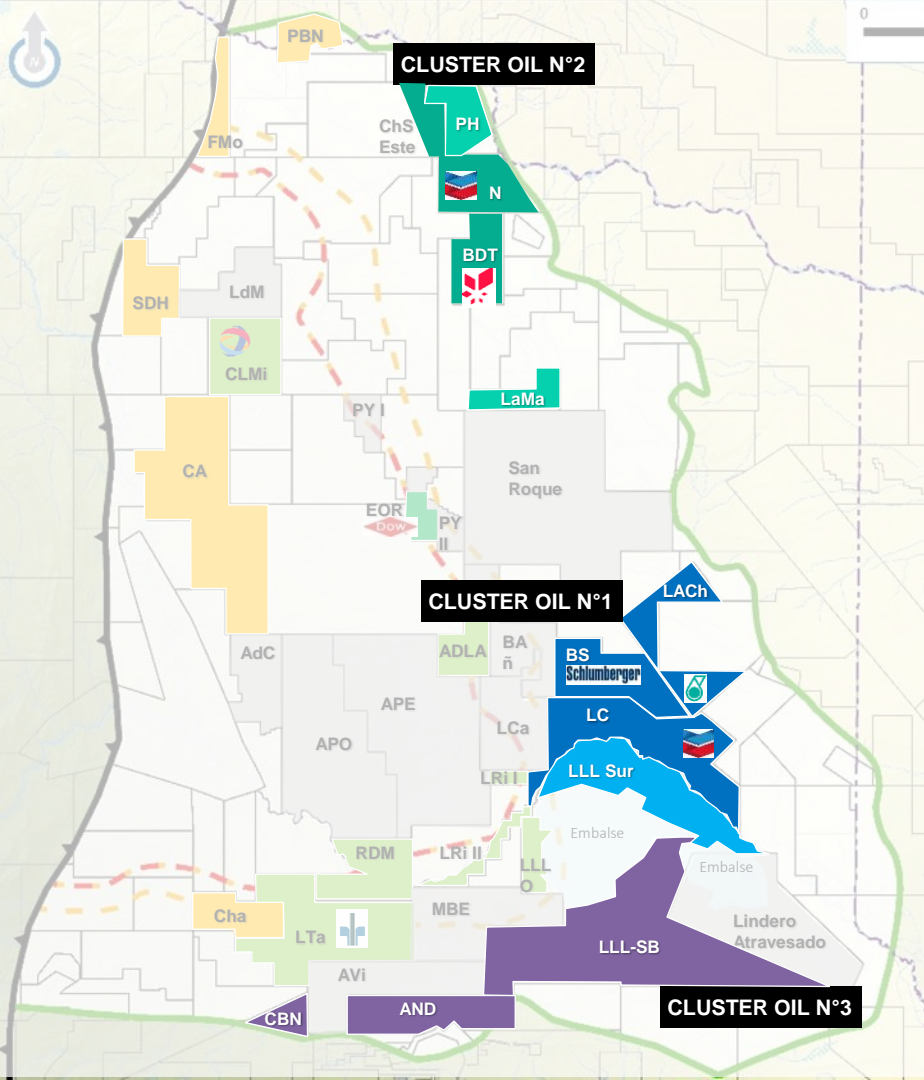
GROSS OPERATED INVESTMENT VACA MUERTA
(IN MILLIONS OF USD)





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CLUSTER OIL N° 1 DEVELOPMENT

Loma Campana – Bandurria Sur – La Amarga Chica

Future expansion to LLL Sur

CLUSTER OIL N° 2 DELINEATION

Bajo del Toro – Narambuena – ChSN

Future expansion to Las Manadas and Puesto Hernandez

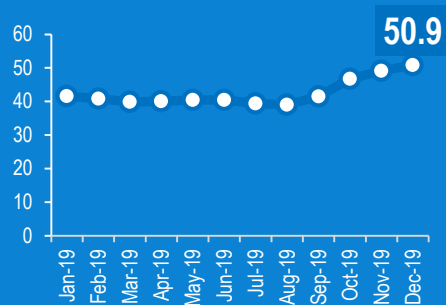
CLUSTER OIL N° 3 EXPLORATION

Sierra Barrosa
Al Norte de la Dorsal
Cerro Bandera

LOMA CAMPANA

2019

GROSS PRODUCTION (KBBL/D)



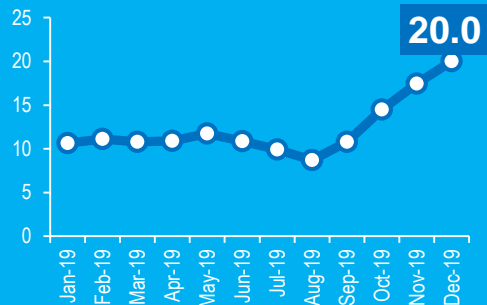
GROSS CAPEX 2019
~670 MUSD

RIGS Dic-19: 4
Full Field Development
Plateau (10 years) 100 kbb/d
WELLS 1,488
GROSS CAPEX +15 BUSD

LA AMARGA CHICA

2019

GROSS PRODUCTION (KBBL/D)



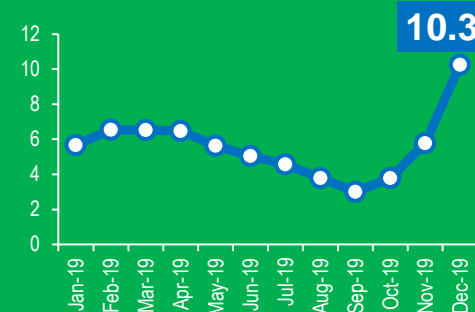
GROSS CAPEX 2019
~560 MUSD

RIGS Dic-19: 4
Full Field Development
Plateau (12 years) 65 kbb/d
WELLS 734
GROSS CAPEX +7.5 BUSD

BANDURRIA SUR

2019

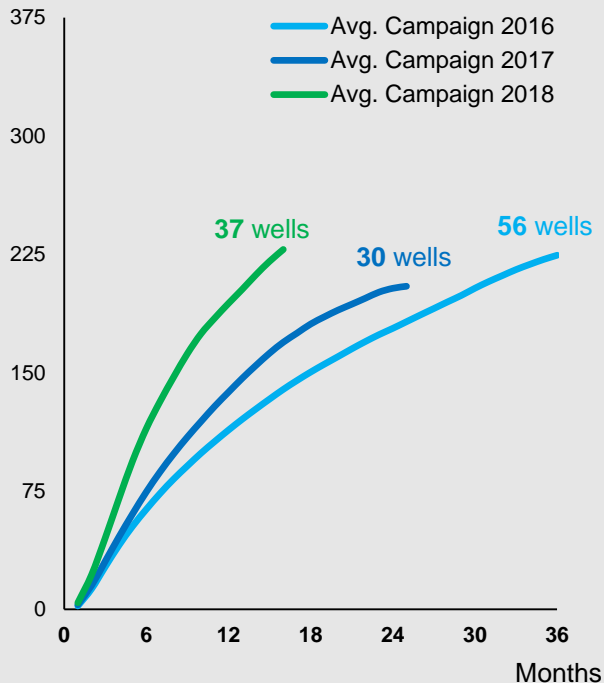
GROSS PRODUCTION (KBBL/D)



GROSS CAPEX 2019
~290 MUSD

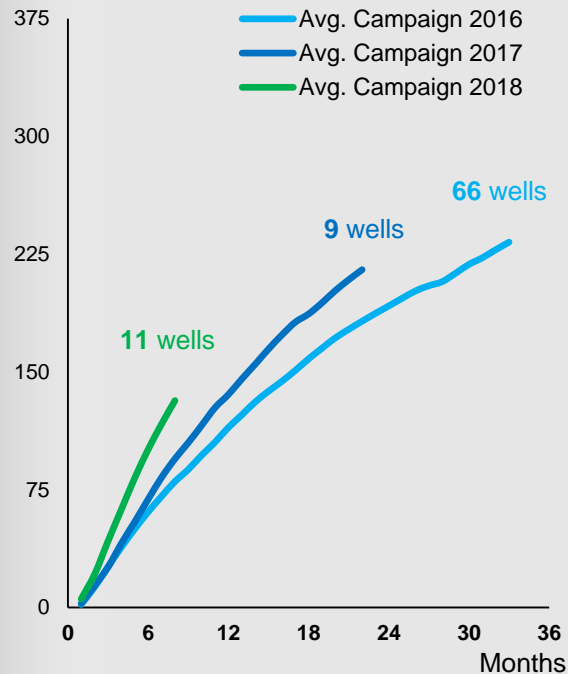
RIGS Dic-19: 3
Full Field Development
Plateau (10 years) 58 kbb/d
WELLS 578
GROSS CAPEX +6.7 BUSD

LOMA CAMPANA
(KBbl)



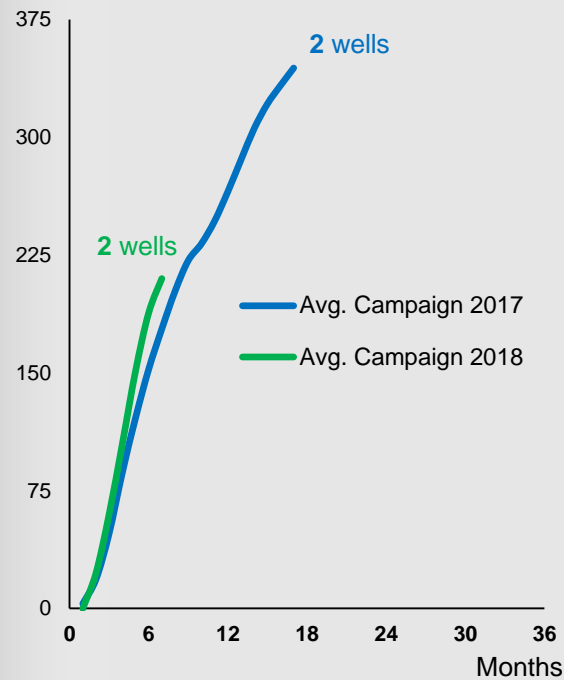
EUR 905 kboe
2018 campaign

LA AMARGA CHICA
(KBbl)



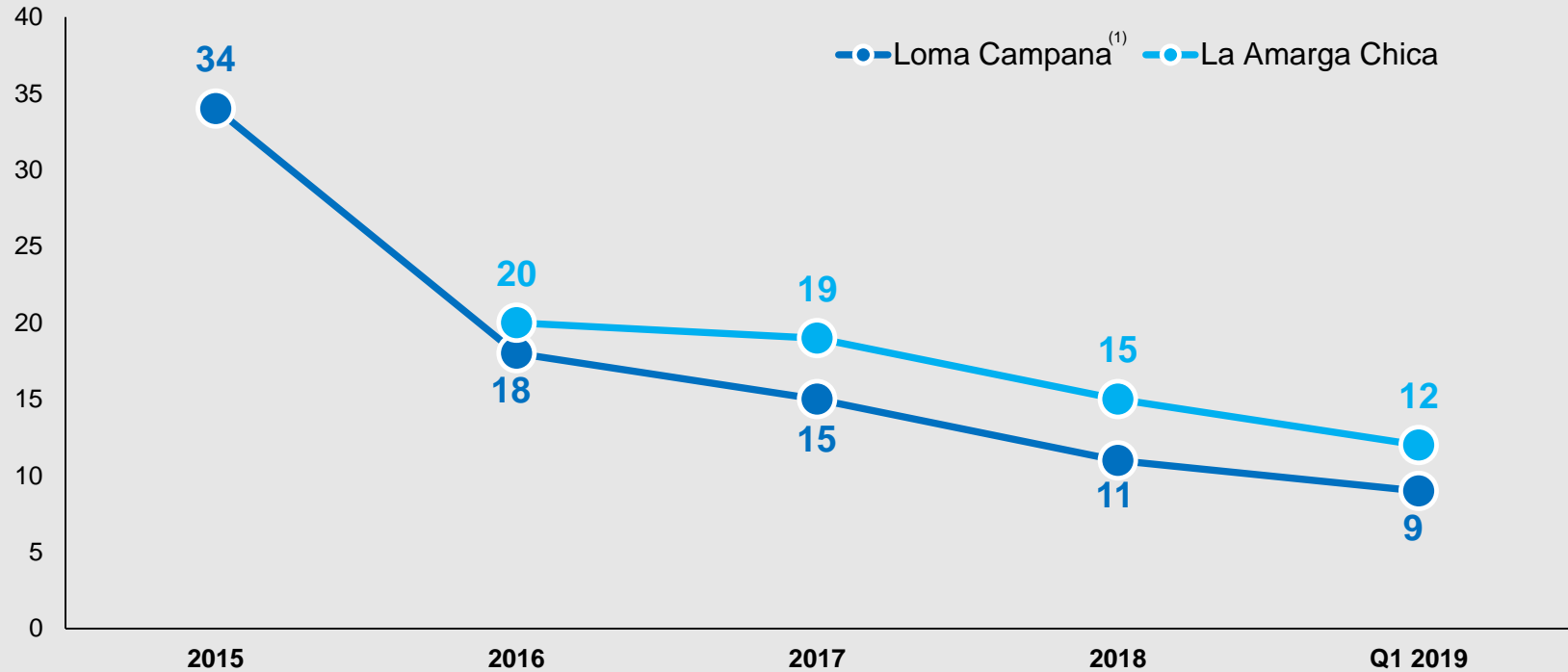
EUR 800 kboe
2018 campaign

BANDURRIA SUR – SE ZONE
(KBbl)



EUR 980 kboe
2018 campaign

**DEVELOPMENT COST – HORIZONTAL WELL
(USD/BOE)**



(1) Loma Campana development costs have been recalculated based on new information

A photograph of an industrial facility, likely a refinery or petrochemical plant. In the foreground, a large white crane arm extends from the left. The background features several large, cylindrical storage tanks, a tall yellow distillation column, and various pipes and scaffolding. The sky is blue with some light clouds.

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2014



2015



2016



PSU-GAS PIPELINE RDM LLL

LOGISTIC CENTER

NOC OFFICE

CONTROL ROOM PRODUCTION



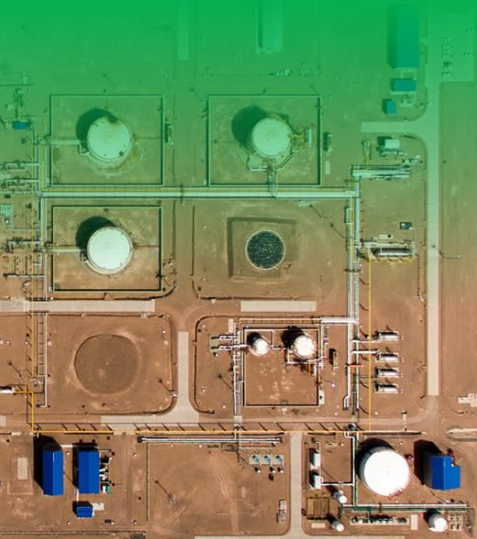
BATTERIES

WATER NETWORK

PROPPANT PLANT

CONTROL ROOM DRILLING-GEOST

2017



**LOMA CAMPANA OIL
TREATMENT FACILITY**

2018



LC-PELLEGRINI OIL PIPELINE

2019



**LA AMARGA CHICA OIL
TREATMENT FACILITY**

2020



**BANDURRIA SUR OIL
TREATMENT FACILITY**

LOMA CAMPANA

Construction:
2014-2016

Start-up:
Dec-2016

Capex:
MMUSD 200

Current capacity:
62.9 kboe/d

Main contractor:
AESA

- Blocks using the plant: Loma Campana, La Amarga Chica, Bandurria Sur and Bajada de Añelo (operated by Shell)
- Dedicated control systems for process safety
- Control room
- Possibility to operate remotely

2019 - 2020

Loma Campana

Expand current capacity to 113.2 kboe/d

Start-up: 4Q-2019

La Amarga Chica

Construction: 2019

Investment: MUSD 75

Start-up: 2Q-2020

Capacity: 50.2 kboe/d

Bandurria Sur

Construction: 2020

Investment: MUSD 75

Start-up: 2Q-2021

Capacity: 50.2 kboe/d

MAIN CHARACTERISTICS

From:
Loma Campana crude treatment plant

To:
**Pellegrini Lake refueling station
 (Medanito-Allen Oldelval pipeline)**

Length: **88 Km**
 Diameter: **18"**

Transportation capacity:
25,000 m³/d (157 Kbb/d)

New pump station in Loma Campana

Simultaneous operation
 to the current system

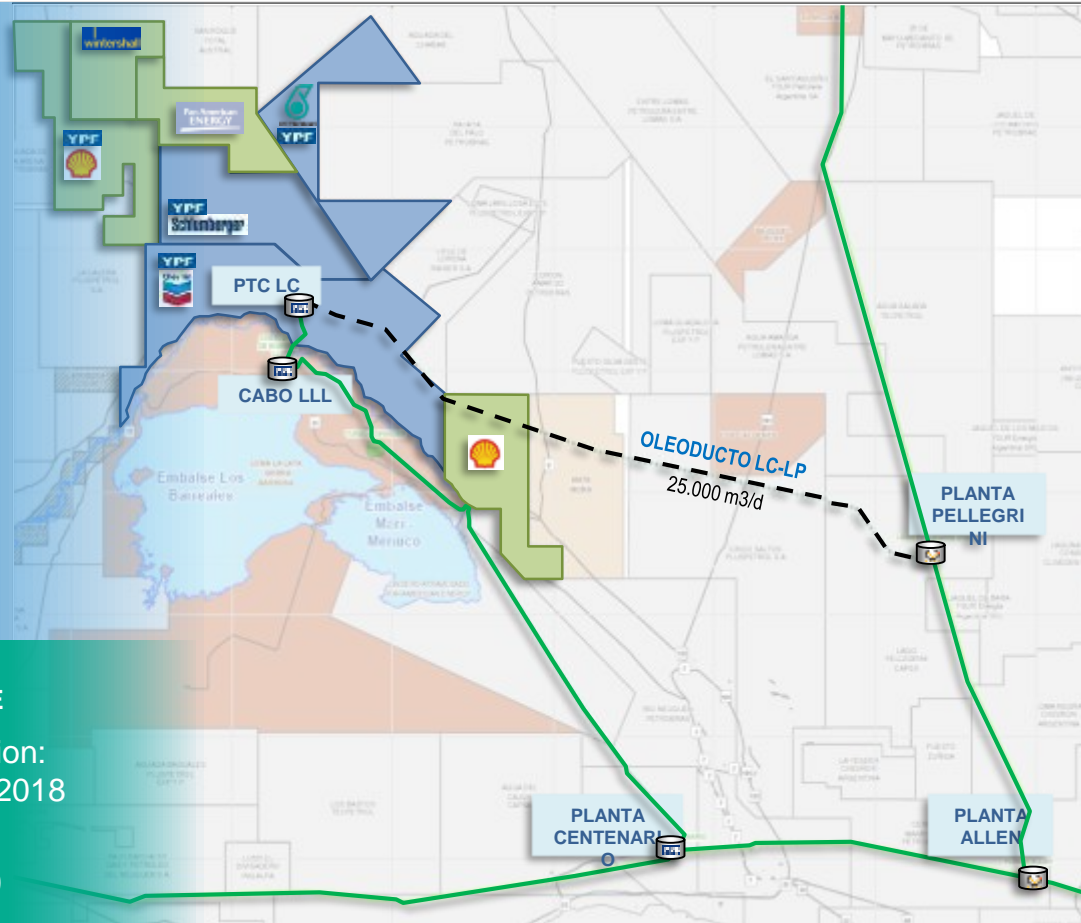
CAPEX

Total: ~ 65 MUSD⁽¹⁾

SCHEDULE

Construction:
 February 2018

Start-up:
 April 2019



(1) Includes taxes and others

Initial investment:
150 MUSD

Current capacity:
360,000 tn/year

Expansion estimated for 2019

New capacity:
1,000,000 tn/year

Required investment
for expansion:
46 MUSD





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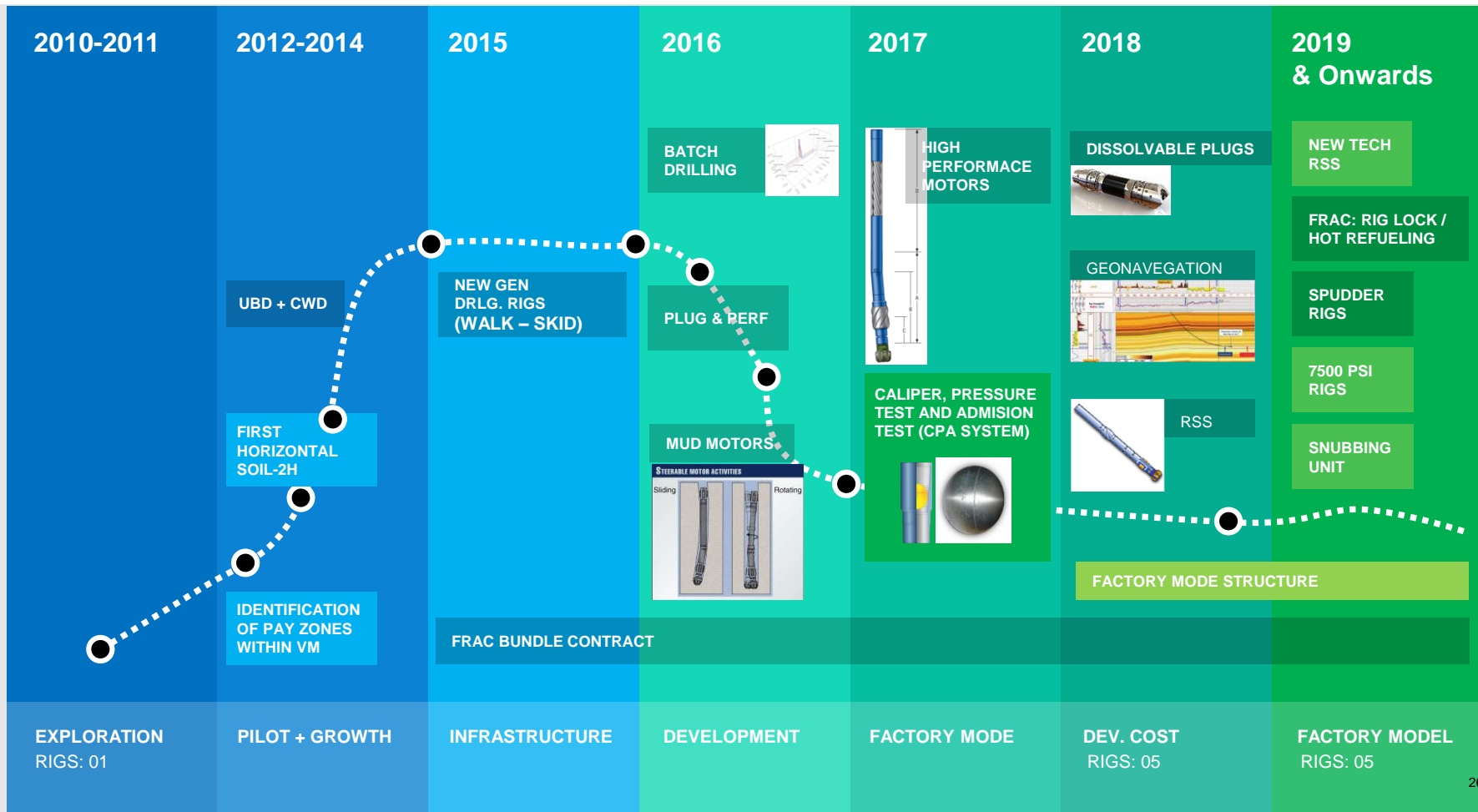
FACTORY MODEL

Seeks to **industrialize**
the production of
unconventional wells

The goal is **reducing well construction costs** and **improving productivity** in a consistent manner

- **Standardized** designs and practices
- **Repetitive execution** of activities
- **Learning curve** acceleration

DRILLING RIGS



LAST MILE SAND BOX



FLEXIPIPES



RATE OF PENETRATION (ROP)

- 6 ¾" architecture
- BHA design and new technologies
- Optimization support room
- Performance based contract incentives
- Flexible geo-navegation window

FLAT TIMES

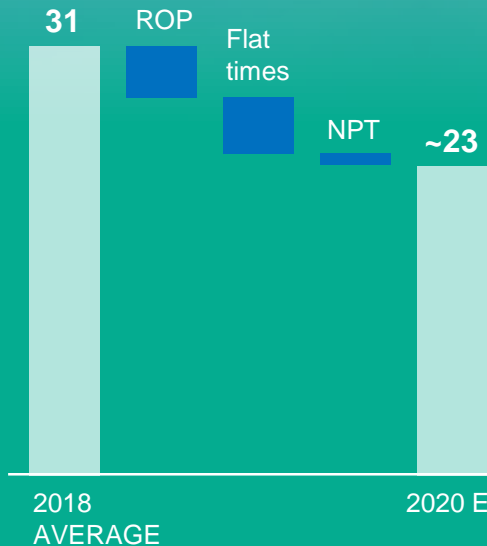
- 6 ¾" architecture & casing run times
- BHA design and set-up times
- Backreaming
- Performance based contract incentives

NON-PRODUCTIVE TIME (NPT)

- BHA design and new technologies
- Diversify BHA providers
- Performance based contract incentives
- LEAN execution

YTD Performance: **30 days**
 Last Pad: **27.5 days (LLL1564)**
 Record: **26.1 days (SOil391)**

DRILLING TIME (DAY/ WELL)



Increase activity while maintaining a safety track record

Replicate the success of Loma Campana in new developments

Confirm the productivity of new hubs

Plan for new developments in those new hubs

Keep the portfolio with optionality

Ensure evacuation of future production

Evaluate alternatives to unlock shale potential



A man in a blue and white YPF uniform stands in a field. In the background, a tall crane is visible against a blue sky. The entire image has a blue tint.

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