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Oil & Gas Investment Opportunities in Argentina – YPF as a Partner of Choice

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Agenda

Production and Reserves Over Last Decade

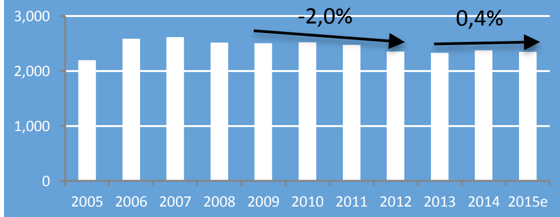
Producing Basins

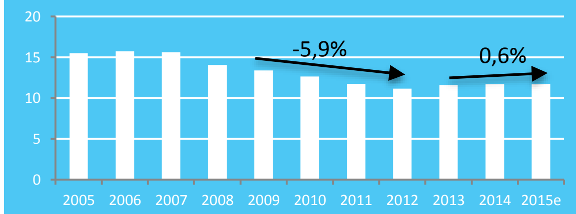
Source: SEN

Oil (Million bbl)

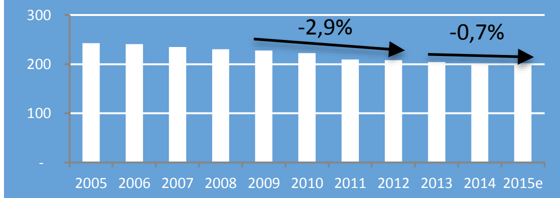
Natural Gas (TCF)

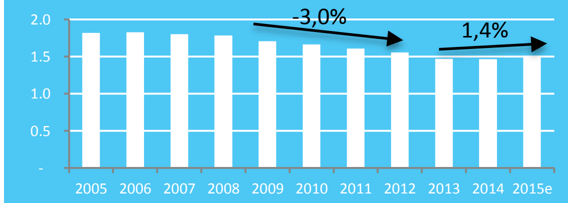
Proved Reserves



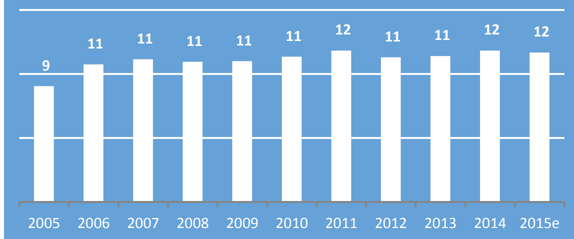


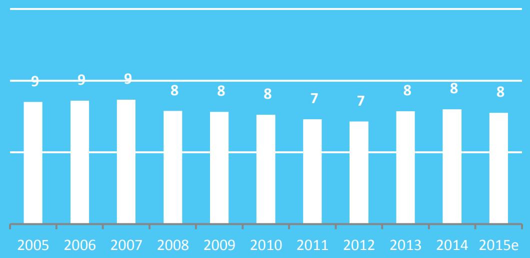
Production



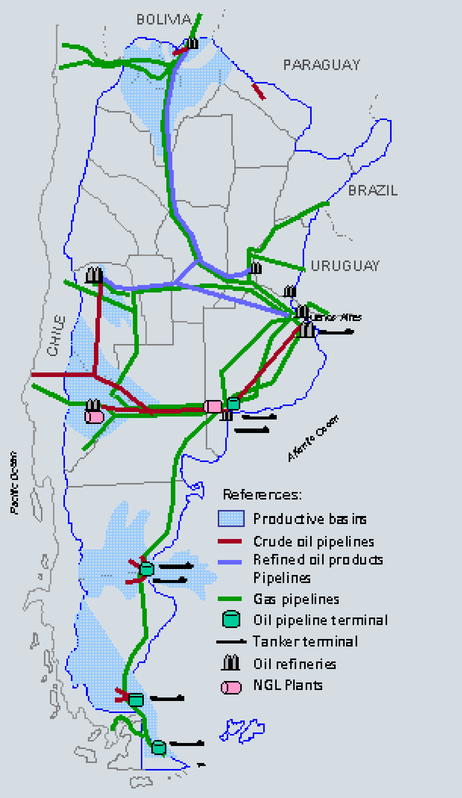


Ratio Reserves/ Production (years)



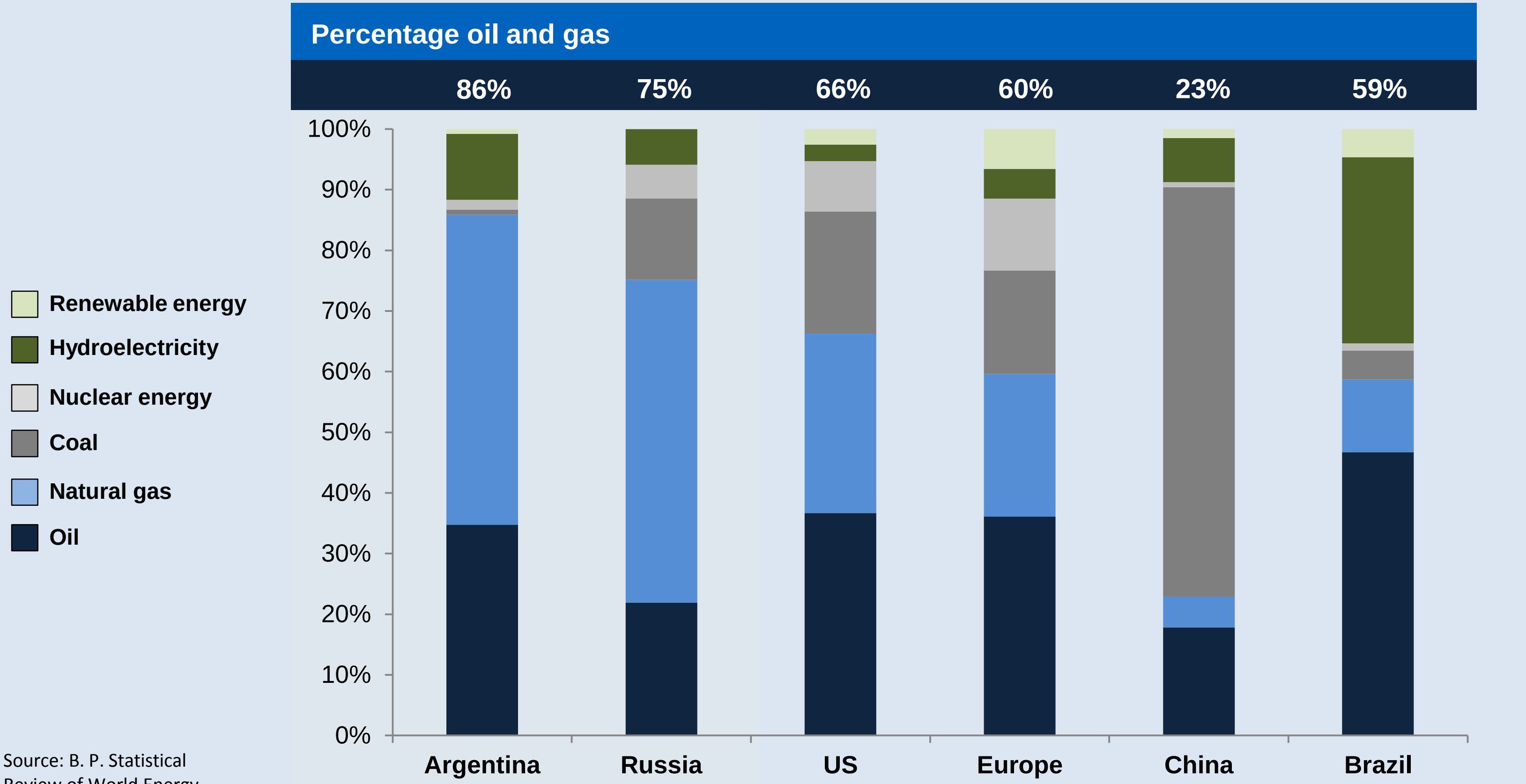


Extensive Infrastructure to Process and Transport O&G



	Oil	Natural Gas
 **Midstream**	**1,167 km of oil pipelines** **1 export oil pipeline** 115,000 bbl/d	**14,800 km of gas pipeline, (154 M m3/d)** **12 international pipelines (70 M m3/d) from Argentina to:** • **Chile** (45 M m3/d) • **Uruguay** (5,6 M m3/d) • **Brazil** (2,8 M m3/d) • **Bolivia** (30,0 M m3/d)
 **Downstream**	**10 refineries** 639,000 bbl/d total capacity **Over 5,000 retail pumps**	**16 NGL plants** 143 M m3/d processing capacity **2 LNG import terminals (Bahía Blanca y Escobar)** 28 M m3/d regasification capacity **129,000 km distribution network**

Energy Consumption Strongly Biased to Hydrocarbon Sources



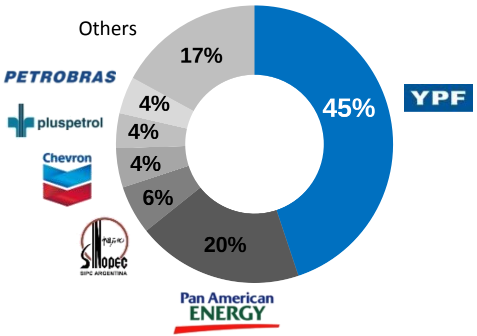
Source: B. P. Statistical Review of World Energy

Dynamic O&G Sector

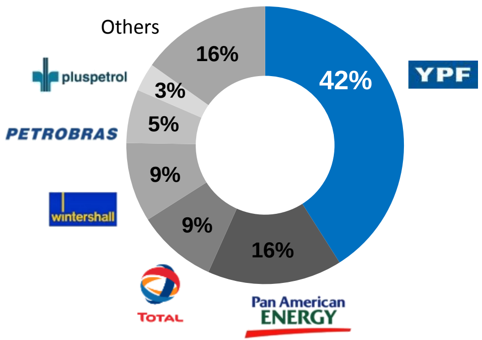
Upstream

Market Share Breakdown (%)

Oil Production [1]



Gas Production [1]

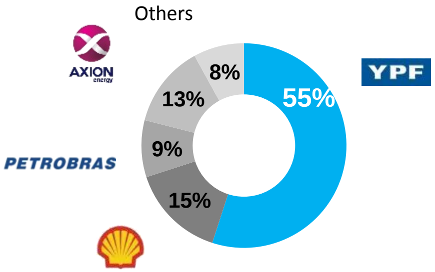


Source: IAPG
(1) Cumulative Jan – Dec 2015
(2) Cumulative Jan – Dec 2015
(3) As of December 2014

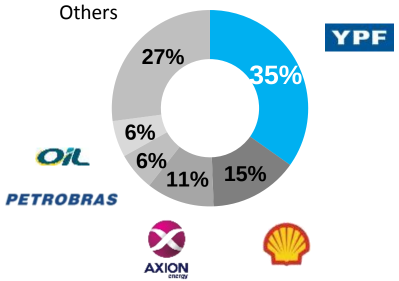
Downstream

Market Share Breakdown (%)

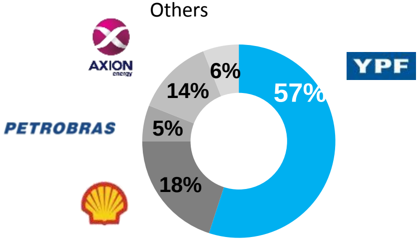
Crude Processing [3]



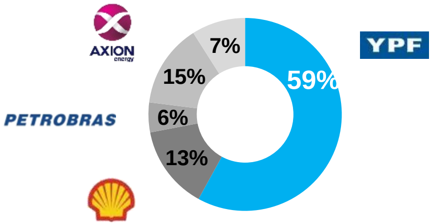
No. of Gas Stations [3]



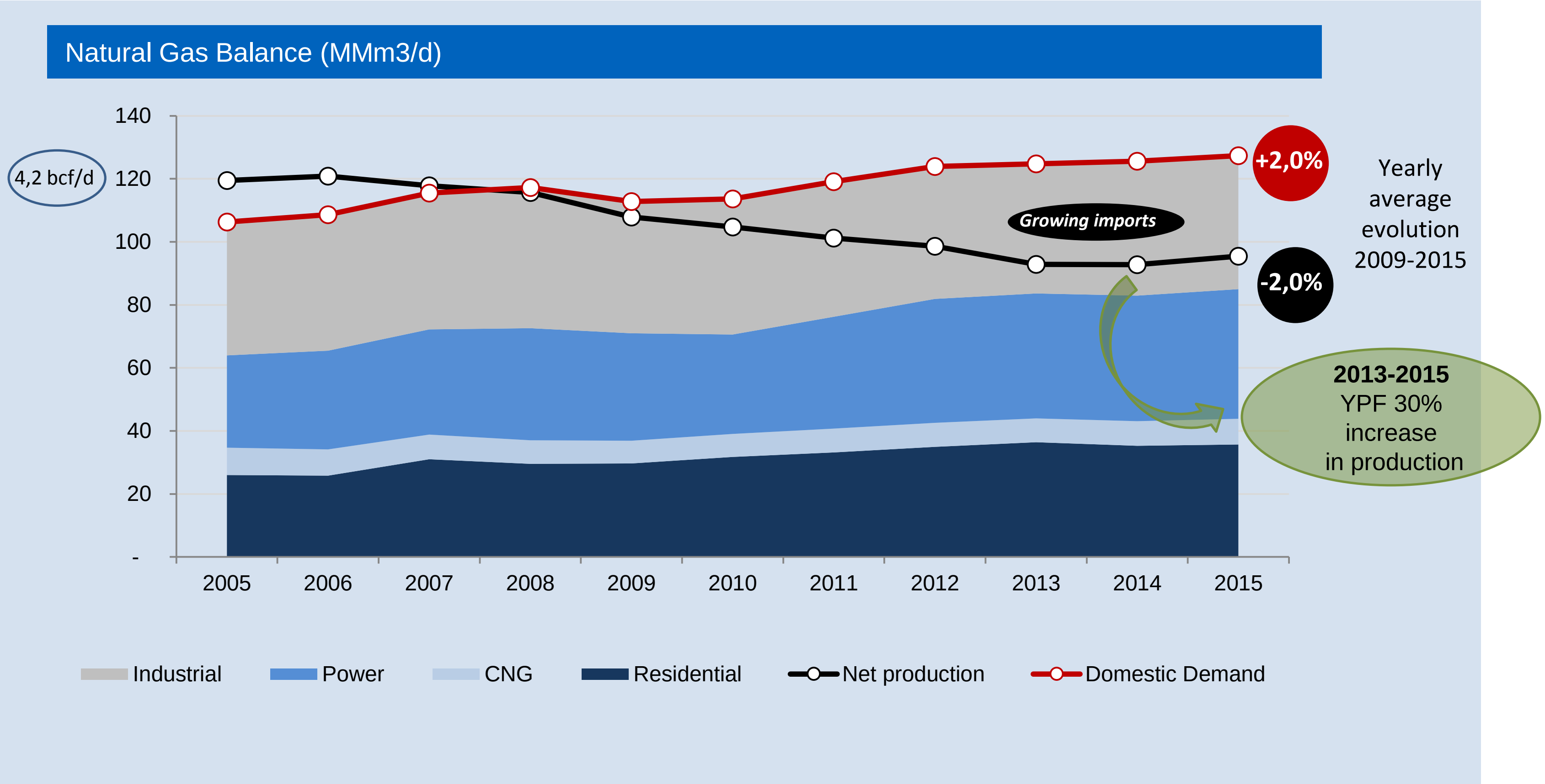
Gasoline [2]



Diesel [2]



Increasing Dependence on Foreign Energy Sources in Recent Years



Source: Secretariat of Energy, Ente Nacional Regulador del Gas (ENARGAS), Instituto Argentino del Petróleo y del Gas (IAPG)

Key Elements of an Investor Friendly Regulatory Framework

Concessions and exploration permits	▪ Hydrocarbons owned by Provinces which grant Exploration and Exploitation rights under the Hydrocarbons Law (Federal) and Provincial Regulations
Different Types of Exploitation Concessions	Conventional Exploitation Concessions: 25 years Off Shore Exploitation Concessions: 30 years Unconventional Exploitation Concessions: 35 years Exploitation Concessions may be extended for additional (and successive) terms of 10 years
Tax and Royalties System	▪ Federal Taxes: Income Tax (35%), VAT (21%) and Bank Tax (1.2%) ▪ Provincial Taxes: Gross turnover Tax (3%), Stamp Tax (0.5% to 1.4%) ▪ Royalties (12%) during 35 years for unconventional, collected by Province. May be increased up to 15% (1st. extension and up to 18% for following extensions) ▪ CSR (Corporate Social Responsibility): 2.5% of Pilot Commitment if applying for export benefits

Argentina Has Taken Steps to Promote New Investments

7.5 USD/MMbtu for new gas production

2013
Development of the **1st unconventional area in Argentina**

Neuquén approval: Loma Campana area for a 35-year period.

2014
Amendment to the **Hydrocarbon Law**

35 years term for unconventional developments

Export benefits for investments > 250 MMUSD

12% royalties (35 yrs)

Benefits for offshore, tertiary and heavy-oil projects

2016

New administration (Open to Foreign Investors and Market Oriented)

Lifting of capital controls

Settlement of hold-outs claim

Domestic oil price at 67.5 USD/bbl

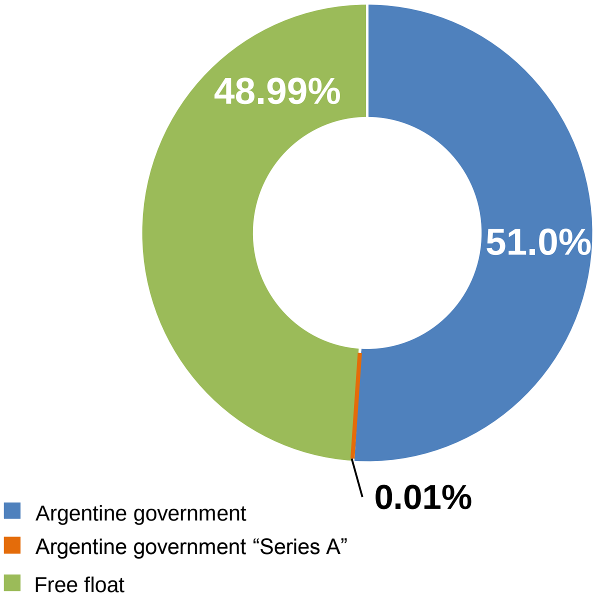
Gas production incentive scheme continues in place

Agenda

1. Argentina – Oil & Gas Sector Context
2. YPF – Partner of Choice
3. Vaca Muerta – World Class Opportunity
4. Vaca Muerta – Business Case Definition for a Potential JV with YPF

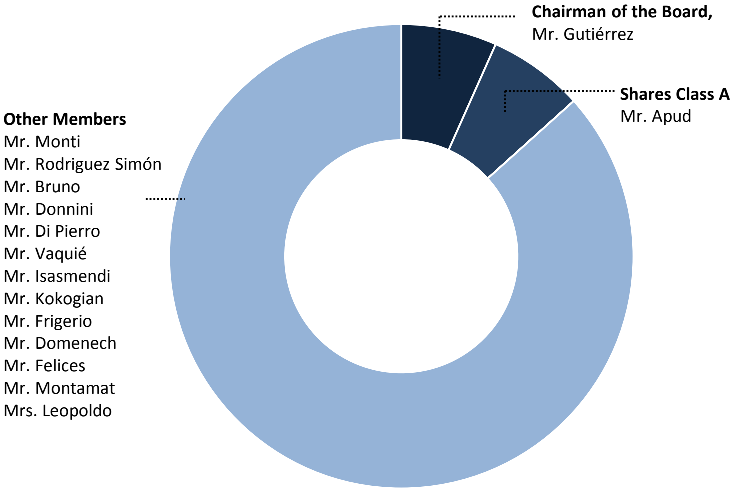
Corporate Governance

Shareholder structure [1]



Ratings			
FitchRatings	B AA (Arg)	Moody's	B3 N/A (Arg)

Board composition



CEO: Mr. Ricardo Darré

Markets			
NYSE Euronext	YPF	BCBA Bolsa de Comercio de Buenos Aires	YPFD

Integrated Across the Value Chain

Oil business

Production
250 Kbbl/d

Domestic market

Purchases

Refining
320 Kbbl/d

Domestic market

76% Domestic prices (gasoline, diesel)

24% International prices (FO, bunker, jet fuel, petrochemicals, lubricants, LPG and others)

92%

Exports

International prices
(naphtha, LPG, jet fuel, crude, petrochemicals, fuel oil, soybean oil and meal and others)

8%

Natural gas business

Upstream
44 mm m^3/d
+
Imports
(Gas purchased by ENARSA)
+ Purchases

Domestic market

52%
Residential + CNG

19%
Power plants

29%
Industrial

Production figures as of December 2015

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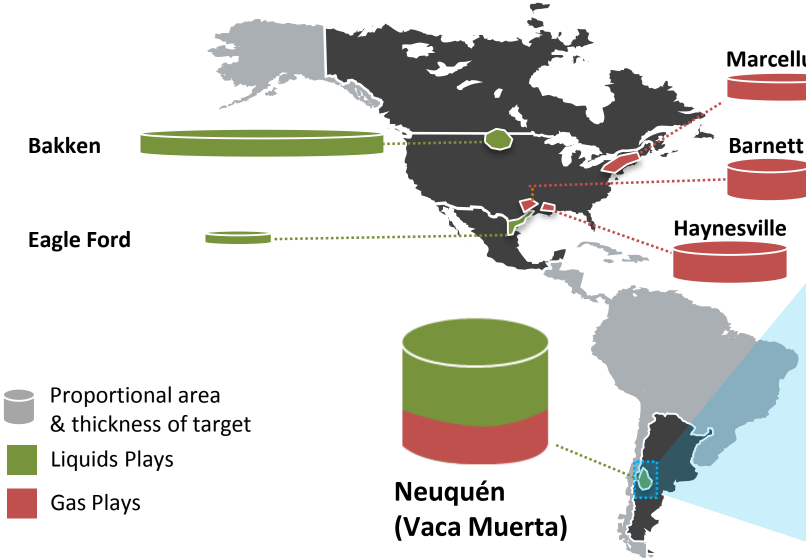
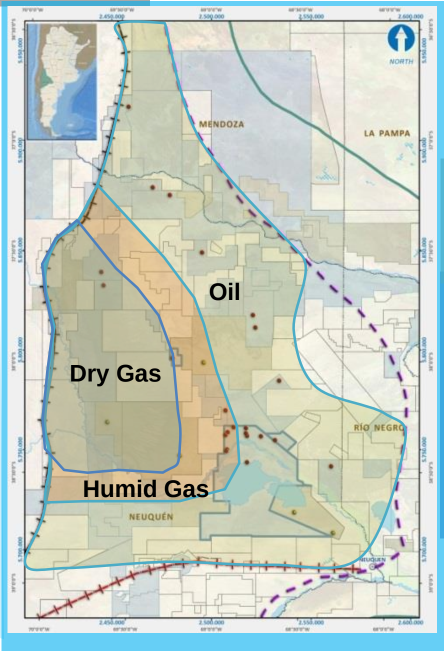
Vaca Muerta is a World-Class Play

Play	Vaca Muerta	Eagle Ford	Bakken	Barnett	Haynesville	Marcellus
Fluids	**Oil & Liquid Rich Gas**	Oil & Liquid Rich Gas	Oil	Gas	Gas	Gas
Area (ac)	**~7,500,000**	~ 3,000,000	~13,000,000	~4,200,000	~ 6,000,000	~6,200,000
Thickness (ft)	**~1,000**	~130	~150	~300	~250	~200

Neuquén´s Vaca Muerta play covers all fluid windows and is both very thick and laterally extensive



Source: *Vaca Muerta unconventional plays review*; Chevron Report



Vaca Muerta

Total Area: **7,500 M acres**

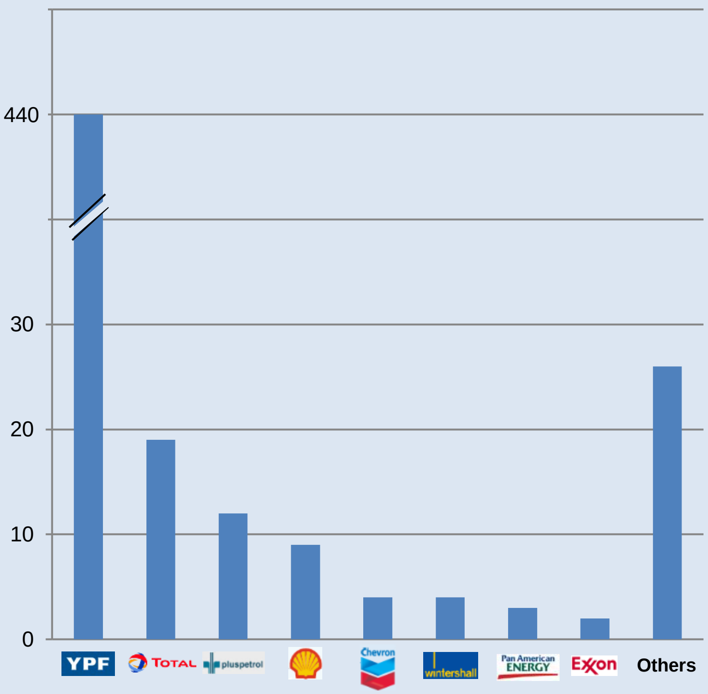
YPF net Area: **2,975 M acres**

YPF is the 3rd unconventional acreage holder in America

- Chesapeake
- ExxonMobil
- **YPF**
- Chevron
- Apache

YPF leads Vaca Muerta development

Shale wells drilled by selected operators



Source: Sec. Cap IV @Sept15

Significant Progress on Shale Oil & Gas Developments

+600
Shale wells in production

180
YPF Shale wells Drilled by YPF in 2015

+50(2)
KBOE/D Shale Production

Loma Campana (Oil)

- Horizontal well sweet spot identified in Loma Campana
- Three distinct horizons evaluated with delineation wells
- Current focus shifting to more cost effective horizontal wells

El Orejano (Gas)

- First operated shale gas pilot started, with positive initial results
- Completed Pilot project during 2015 and launched full development mode with 3 Rigs
- Sufficient gas processing capacity available

Source: SPE, Wood Mackenzie, GIGA and YPF data.

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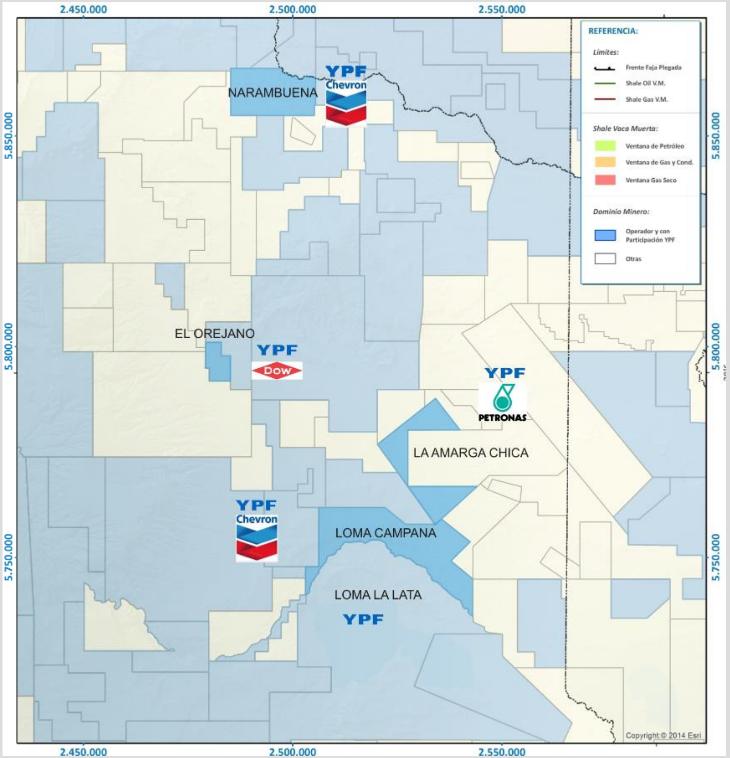
Strategic partnership in Vaca Muerta

Operated JV´s under development		
Loma Campana (Shale Oil Development)		
Chevron	• 395 km2 – 98K Acres • First unconventional oil pilot in Argentina • “Full development mode”, drilling horizontal (6,000ft+ laterals) with 6 rigs • Current production: 35kBOE/d	Capex to date: >USD 4 Bn
El Orejano (Shale Gas Development)		
Dow	• 45 km2 - 11K Acres • First unconventional gas pilot in Argentina • Finished Pilot Program in 2015 and kicked off “full development mode”, drilling horizontal wells with 4 rigs • Current production: 6kBOE/d	Capex to date: USD 400 MM
La Amarga Chica (Shale Oil Pilot)		
Petronas	• 187 km2 – 46K Acres • Second unconventional oil pilot in Argentina • Currently drilling horizontal wells from the pilot phase (30 wells to be drilled in 3 phases) • Current production: 6kBOE/d	Pilot Commitment: USD 550 MM
Narambuena (Shale Oil Exploration)		
Chevron	• 200 km2 – 49K Acres • 3 wells drilled • Currently drilling horizontal wells from the pilot phase	Commitment: USD 140 MM



Business Case Definition for a Potential Shale JV with YPF

Structure	• Joint Venture with up to 50% participation for new partner. • Farm-in with participating interest in concession title if held by YPF or with contractual rights on exploration permit if held by GyP of Neuquén (provincial company) governed by a JV agreement with working interest in a Unión Transitoria (“UT”), an unincorporated legal entity. • Initial commitment to cover pilot phase with a minimum of USD 200-450 million for a 3-4 year pilot stage (indicative). • Total foreign investment during first 3 years needs to be higher than USD 250 million in order to gain access to benefits under Law 17,319 (right to export 20% of project’s production free of export duties and with right to keep USD proceeds abroad).
Consideration	• Non refundable carry of YPF’s share in pilot plan capex (“promote”) amounting to a negotiated price per acre (USD/acre) x net acreage acquired.
Operations	• YPF or existing partner (Super Major or IOC) is designated operator. Open to include technical secondees from partner in asset management team. • Joint Operating Agreements (in line with AIPN standard) to be negotiated.
Work Plan	• To be agreed upon between the partners, typically consisting of a Pilot stage (with 1 or 2 rigs fully dedicated) followed by a Full Development stage (with 5-10 rigs in “factory mode” operation).
Key steps	• Sign a Non Disclosure Agreement • Technical, Commercial & Legal initial due diligence • Sign a Memorandum Of Understanding: indicate willingness of partners to deepen business case definition • Complete Initial Due Diligence: target 2-3 months • Sign a Term Sheet setting key commercial terms and principles for contracts (farm-in, JOA and other) – granting of exclusivity

THANK YOU