



Peru Field Trip September 2010

North Latin America Exploration

Joseba Murillas

Latin America Exploration Manager



ALL RIGHTS ARE RESERVED

© REPSOL YPF, S.A. 2010

Repsol YPF, S.A. is the exclusive owner of this document. No part of this document may be reproduced (including photocopying), stored, duplicated, copied, distributed or introduced into a retrieval system of any nature or transmitted in any form or by any means without the prior written permission of Repsol YPF, S.A.

This document contains statements that Repsol 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, or current expectations of Repsol YPF and its management, including statements with respect to trends affecting Repsol YPF's financial condition, financial ratios, results of operations, business, strategy, geographic concentration, production volume and reserves, as well as Repsol YPF's plans, expectations or objectives with respect to capital expenditures, business, strategy, geographic concentration, costs savings, investments 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 Repsol YPF's control or may be difficult to predict.

Repsol YPF's future financial condition, financial ratios, results of operations, business, strategy, geographic concentration, production volumes, reserves, capital expenditures, costs savings, investments and dividend payout policies, as well as 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 Repsol YPF and its affiliates with the Comisión Nacional del Mercado de Valores in Spain, the Comisión Nacional de Valores in Argentina, and the Securities and Exchange Commission in the United States; in particular, those described in Section 1.3 "Key information about Repsol YPF – Risk Factors" and Section 3 "Operating and Financial Review and Prospects" in Repsol YPF's Annual Report on Form 20-F for the fiscal year ended December 31, 2009 filed with the US Securities and Exchange Commission and in Section I "Risk factors" in Repsol YPF's Registration Document filed with the Comisión Nacional del Mercado de Valores in Spain in April 2010. Both documents are available on Repsol YPF's website (www.repsol.com). In light of the foregoing, the forward-looking statements included in this document may not occur.

Repsol 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.

This document does not constitute an offer to purchase, subscribe, sale or exchange of Repsol YPF's or YPF Sociedad Anonima's respective ordinary shares or ADSs in the United States or otherwise. Repsol YPF's and YPF Sociedad Anonima's respective ordinary shares and ADSs may not be sold in the United States absent registration or an exemption from registration under the US Securities Act of 1933, as amended.



Repsol's Current Acreage Position



Repsol's Recent Discoveries



Repsol's LAN Main Exploration Plays



Repsol's LAN Contractual Considerations



Repsol's LAN Commercial Considerations



Repsol LAN conclusions

Repsol's LAN Current Acreage Position



- Repsol's LatAm North (LAN) Regional Unit covers 19 exploration blocks, 15 of them with partners and 13 as operator.
- In terms of acreage, Repsol is one of the leading operators in the region with 90k km² (40k km² net).
- Repsol holds a diverse portfolio that expands through 7 countries , from offshore Atlantic and Caribbean to Andean foothills and foreland settings.



Repsol's Current Acreage Position



Repsol's Recent Discoveries



Repsol's LAN Main Exploration Plays



Repsol's LAN Contractual Considerations



Repsol's LAN Commercial Considerations



Repsol LAN conclusions

Repsol LAN Recent Discoveries (2005-10)



Perla (2009) and Raya (2006) well testing operations



- Between 2005-10 Repsol drilled 33 wells in the LAN region, with 10 discoveries (30% success rate).
- Repsol operated 4 of the largest discoveries in the region (Perla, Kinteroni, Huacaya, Raya), 3 of which were among the world largest in 2007 and 2009.
- With around 1.2 BBOE of net contingent resources added since 2005, Repsol leads the region in terms of discovered volumes followed by ENI and Petrobras.
- Repsol's net exploration investments in LAN since 2005 amount to around 700 MUS\$, representing a 60¢/boe finding cost.



Repsol's Current Acreage Position



Repsol's Recent Discoveries



Repsol's LAN Main Exploration Plays



Repsol's LAN Contractual Considerations

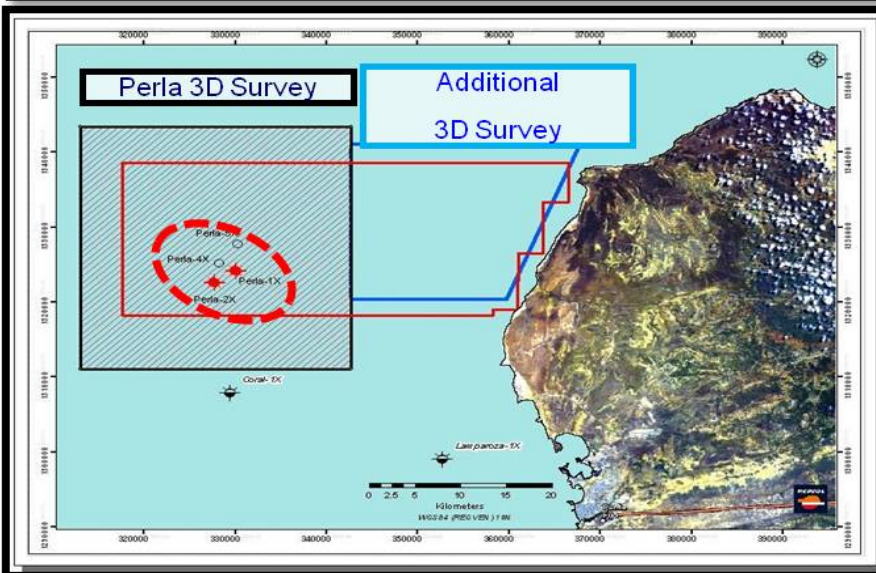
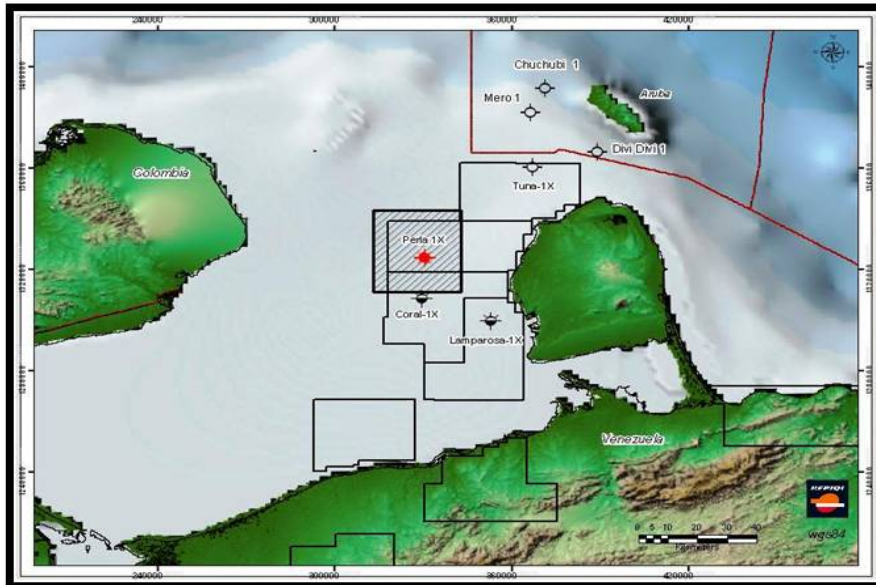


Repsol's LAN Commercial Considerations



Repsol LAN conclusions

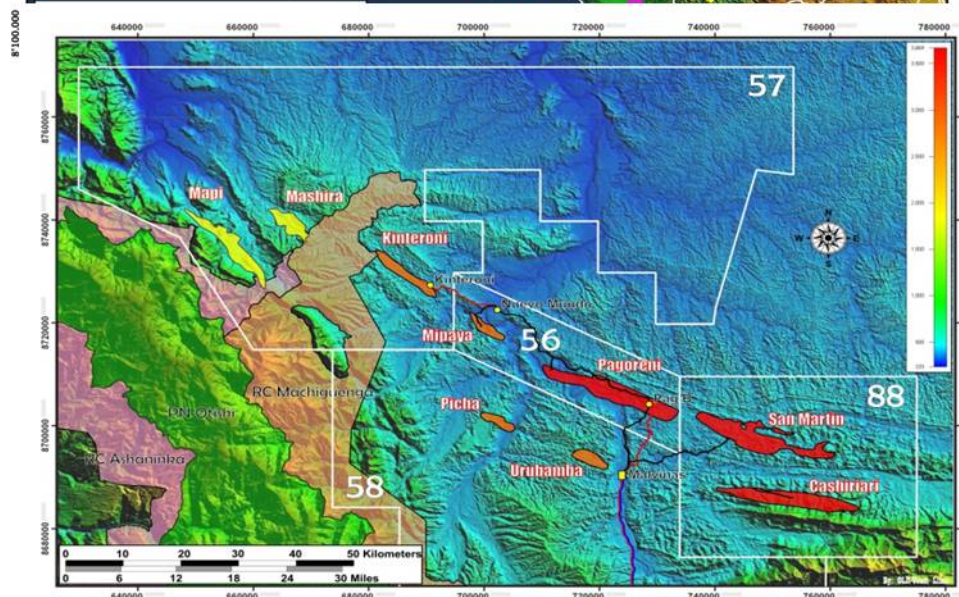
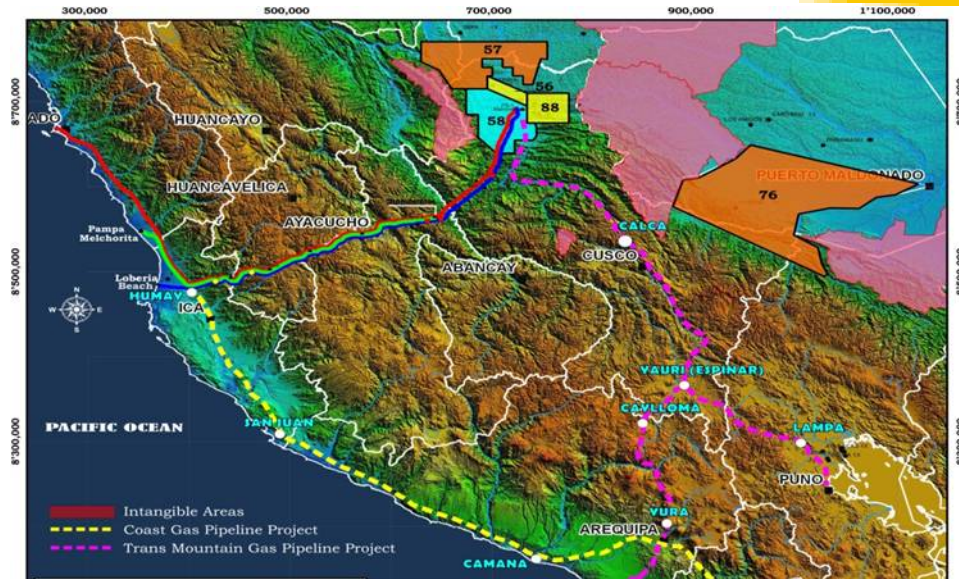
Gulf of Venezuela Offshore Gas Play



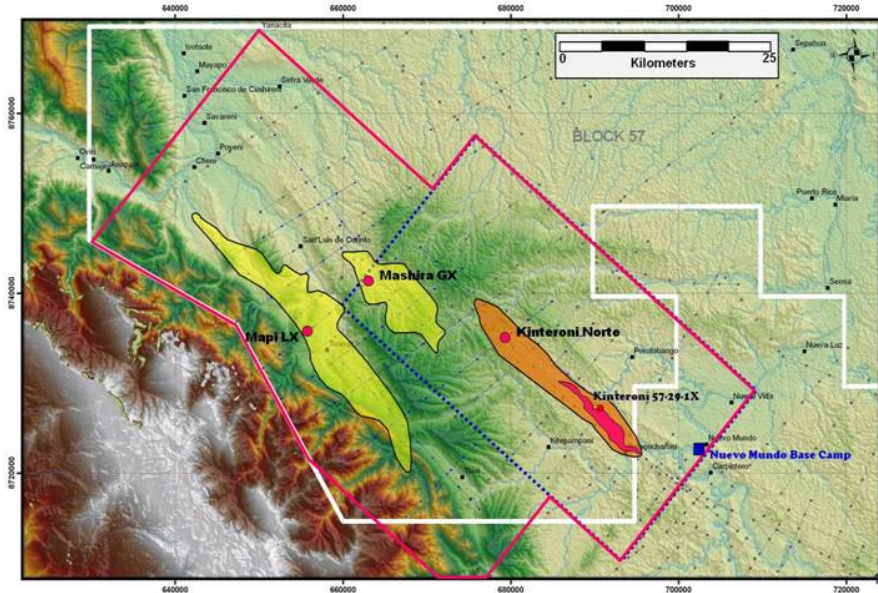
- Repsol (50%, operator) and ENI (50%) drilled in 2009 the giant Perla 1X discovery in the CARDON-IV license.
- Since then, the newly created CARDON-IV operating company has completed a successful appraisal (Perla 2) and is currently drilling two delineation wells.
- The license holds remaining exploration potential. The block will be entirely covered with 3D seismic this year to define new prospects.
- Perla remains the only discovery drilled to date in the Gulf of Venezuela, despite the significant efforts made by other operators in the area.

- The discovery of the Perla giant field in the Gulf of Venezuela represents an exploration milestone for the Caribbean Plays.
- Giant hydrocarbon accumulations are seldom unique occurrences in any basin; additional discoveries with similar geological configurations can be expected.
- Repsol's geological knowledge is a remarkable competitive advantage in the propagation of this emerging gas play in the region.

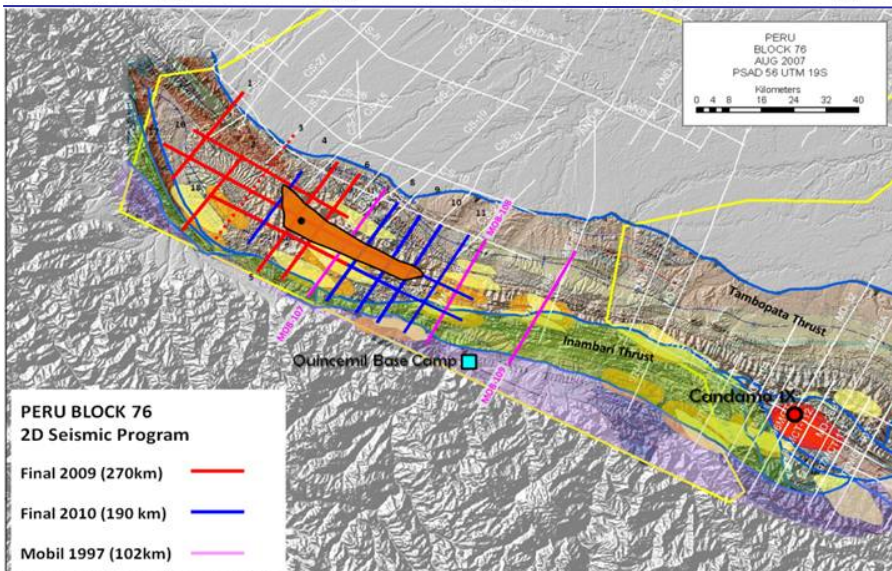




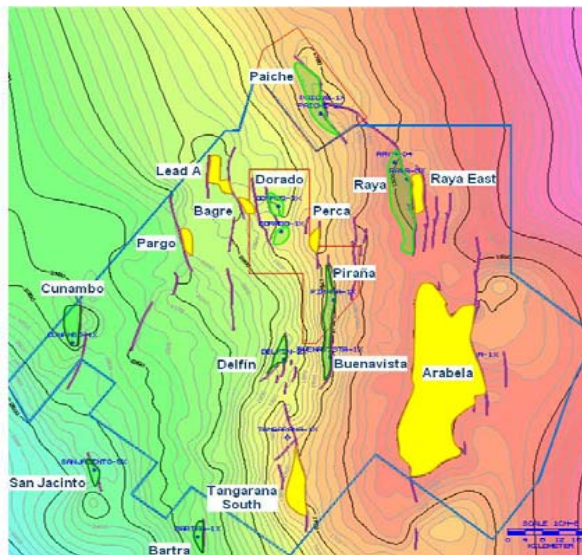
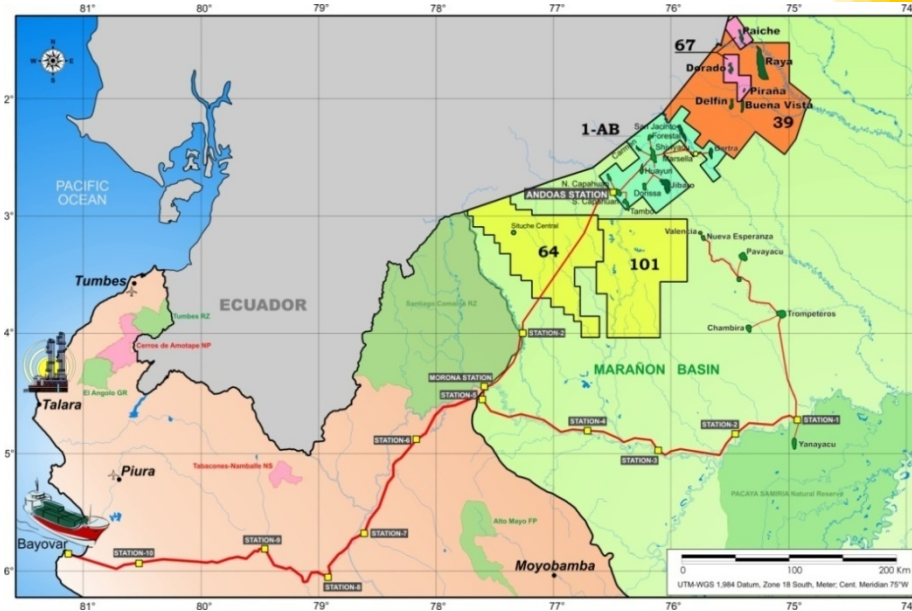
- Repsol (53.8%, operator) and Petrobras (46.2%) drilled in 2007 the large Kinteroni gas discovery in Block 57.
- Kinteroni early production drilling phase is ongoing; 3D seismic and delineation wells will follow.
- Kinteroni is an extension of the Camisea Fields trend. Block 57 contains additional opportunities along these trends.
- Significant gas potential has also been identified in Block 76, where new 2D seismic is revealing multiple leads.



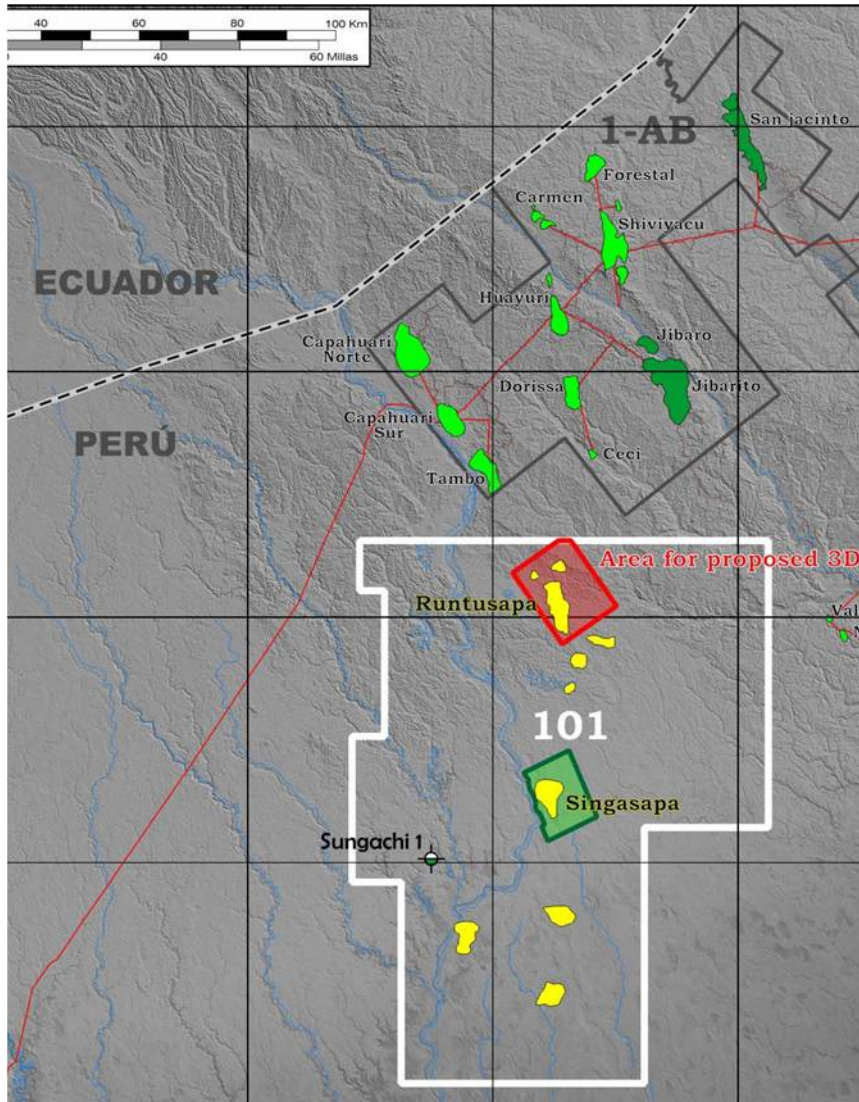
- A 750 to 1,400 km² 3D survey is planned on **Block 57** during 2011-2012.
- This data will allow further delineation and extension of the Kinteroni trend.
- At least 4 additional opportunities have been identified in Block 57, 2 of which will be drilled during 2011-2012.
- Block 57 upside potential could multiply the resources discovered by Kinteroni 1X.



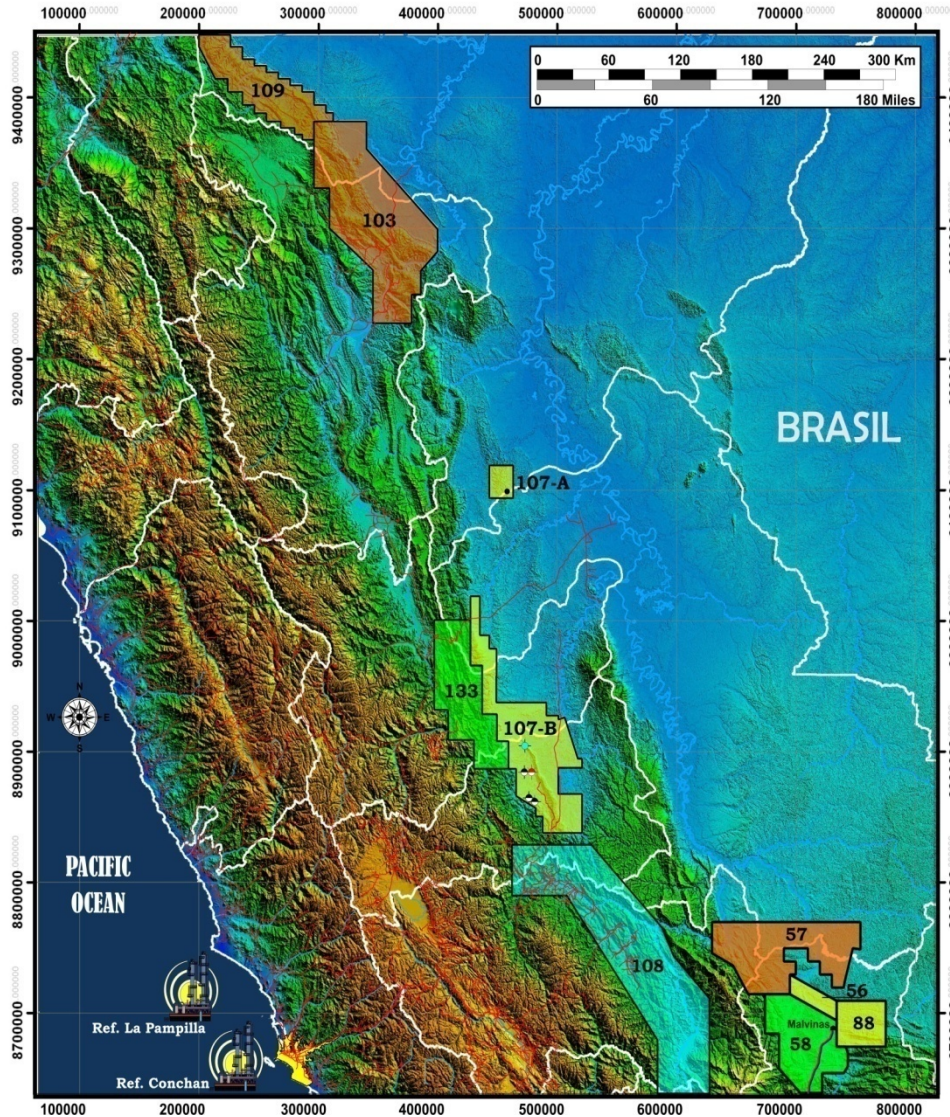
- Hunt (50% op) and Repsol (50%) recently completed a 460km 2D survey in **Block 76**.
- A number of leads have already been identified in the Block.
- Drilling of the first exploratory well is planned for 2012.



- Repsol (55%, operator) and Conoco (35%) drilled three consecutive heavy oil discoveries in **Block 39** (05-06).
- The development of these accumulations is currently subeconomic on a stand-alone basis.
- Block 39 consortium plans to verify additional resources in Block 39. A 310 km 2D survey will be shot during 2010.
- Repsol is also considering production synergies with other operators in the area to narrow the commerciality gap.
- Additionally, Repsol is expanding its position in Marañón to include light oil prospects that, if successful, could add synergies to the regional picture.

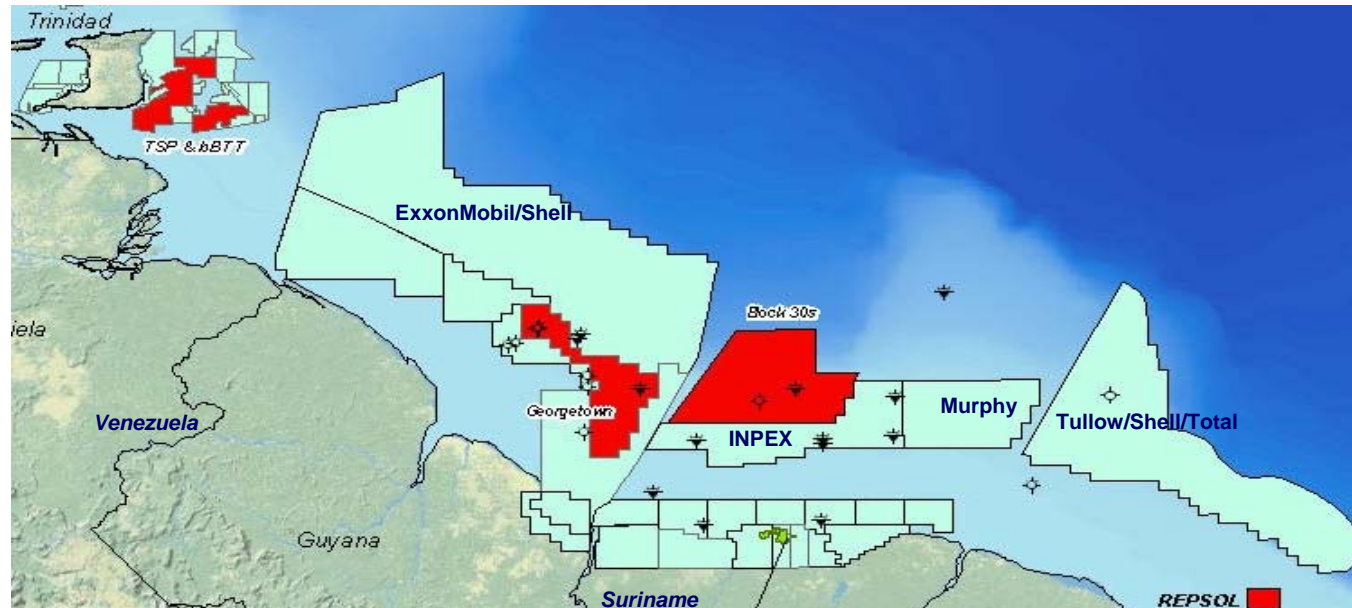


- On Sept 01 Repsol completed a 30% Farm-In into Block 101 (Talisman 40% op, ECP 30%, REP 30%).
- Repsol will partially carry Talisman on the Runtusapa 1X well, currently ongoing.
- Block 101 is located on Block 1-AB light oil producing fields trend, next to available transportation capacity.
- Additional prospects to Runtusapa have been identified within the Block on newly acquired 3D seismic.



- The Peruvian Foldbelt is largely under explored with a very low well density due to logistical challenges.
- Repsol has a legacy expertise in exploring and operating Andean foldbelts, from Argentina to Venezuela.
- Current Repsol acreage in the play is limited to the Marañón Foldbelt (Huallaga Basin, Blocks 103 & 109).
- Despite the complexities of this operational environment, Repsol aims at leveraging its expertise and develop its position in the play.

Guyana-Surinam Offshore Plays



- Repsol operates a large acreage position in the margin through Georgetown & 30S Blocks.
- This area contains a unique combination of frontier plays in a proven petroleum system context (Suriname heavy oil fields).
- These frontier plays have similarities to those of emerging provinces in West Africa.(Sierra Leona, Liberia, Ghana)
- Repsol first well in Guyana (Jaguar 1X) will be spudded in Q2-2011, and could be a play opener with significant upside potential both in Guyana and Surinam.
- Other operators will drill 4 additional wells in the basin in 2010/2011.

Latin America Giant Exploration Plays

Repsol 20Y Track Record



- For the last 20Y, Repsol participated in most LatAm giant plays open to the industry, mainly through acquisitions.
- In recent years, Repsol continues to be present in giant plays but is accessing them “through the drillbit”.
- Repsol legacy in the region includes extensive data and knowledge of most basins.
- In recent years, Repsol has transformed its exploration technology capabilities (seismic imaging, workforce).
- Repsol will maintain its frontier exploration efforts, to access the next giant plays to emerge in the continent.



Repsol's Current Acreage Position



Repsol's Recent Discoveries



Repsol's LAN Main Exploration Plays



Repsol's LAN Contractual Considerations



Repsol's LAN Commercial Considerations



Repsol LAN conclusions

- LAN petroleum contracts show a wide diversity of government take situations, from some of the toughest to some of the more favourable worldwide.
- Actually, fiscal terms in every country can vary widely as a result of bidding and negotiation; Repsol's portfolio contains some of the best available terms per country.
- Repsol exposure to high government take contexts is in most cases balanced by high prospectivity and scale.
- When Farming-In, besides technical merit, Repsol carefully prioritizes opportunities associated with the best possible terms.



Repsol's Current Acreage Position



Repsol's Recent Discoveries



Repsol's LAN Main Exploration Plays



Repsol's LAN Contractual Considerations



Repsol's LAN Commercial Considerations



Repsol LAN conclusions



- Repsol commercial capabilities are one of its principal competitive advantages in the region.
- Repsol has developed cooperative partnerships with the regional semi-public NOCs (Petrobras, Ecopetrol).
- Repsol has a long record of effective interaction with Latin America NOCs and O&G regulatory agencies.
- Repsol is a preferred partner for the industry in Latin America, and is currently exploring with 16 different partners in the region, mostly as operator.



Repsol's Current Acreage Position



Repsol's Recent Discoveries



Repsol's LAN Main Exploration Plays



Repsol's LAN Contractual Considerations



Repsol's LAN Commercial Considerations



Repsol LAN conclusions

Repsol LAN Exploration Conclusions

- Repsol has been present in most successful high potential exploration plays in Latin America for the last 20 years.
- Repsol recent discovery track in the region has been very successful shifting from acquisitions with upside potential towards exploration “through the drillbit”.
- Repsol LAN current exploration acreage contains multiple high potential opportunities that will be drilled in the near to medium term.
- Repsol regional knowledge, commercial skills and technical capabilities are a solid foundation for further growth in the region, to replace our current resources portfolio and sustain our regional leadership.



Peru Field Trip September 2010

North Latin America Exploration

Joseba Murilla

Latin America Exploration Manager

