INVESTMENT OPPORTUNITIES IN E&P ACTIVITIES IN PERU

Promotion and Communications Management

MARCH 2013
Peru is located within one of the most prolific hydrocarbon trends in South America: “The Sub Andean Megatrend”

1. Light oil areas in Western Marañon Basin
2. Heavy oil areas in Eastern Marañon Basin
3. Hydrocarbons Occurrence in Ucayali Basin
4. Camisea and Adjacent gas and condensate fields
5. Light oil areas in Tumbes and Talara Basins

Areas with historical production of over 150 years
**Hydrocarbon Producing Areas**

**MARAÑON BASIN**
- Cumulative: 1,000 MMBP
- Daily: 30,000 BPD

**TALARA BASIN**
- Cumulative: 1,500 MMBP
- Daily: 40,000 BPD
  - 30 MMPCGD

**UCAYALI BASIN**
- Cumulative: 31 MMBP
  - 130 MMBC
  - 0.8 TPCG
- Daily: 600 BPD
  - 82,000 BCD
  - 1,000 MMPCGD
<table>
<thead>
<tr>
<th>CUENCAS</th>
<th>Pozos Exploratorios</th>
<th>%</th>
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<tbody>
<tr>
<td>Talara</td>
<td>1,299</td>
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<td>Marañón</td>
<td>115</td>
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<td>Ucayali</td>
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<td>Sechura</td>
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<tr>
<td>Tumbes - Progreso</td>
<td>13</td>
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<td>Santiago</td>
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<td>Madre de Dios</td>
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1,534 100.00

**Distribution of Wildcats in 18 Basins**

- 98% Wilcats: 4 basins
411 UN-DRILLED STRUCTURES
Peru Hydrocarbon reserves – Dec 2012

Oil, MMbls
- Proved: 579
- Probable: 801
- Possibles: 1,675
- Resources: 2,774

LNG, MMbls
- Proved: 627
- Probable: 509
- Possibles: 414
- Resources: 2,515

Natural Gas, TCF
- Proved: 12.7
- Probable: 9.0
- Possibles: 8.0
- Resources: 48.6

Total Hydrocarbon, MM Boe
- Proved: 3,323
- Probable: 2,783
- Possibles: 3,346
- Resources: 13,396

Source: DGH – MINEM, 2012
Block 192 is located in the north central part of the Marañon Basin. Three oil families: Light Oil (25 to 35 API), Medium Oil (18 to 25 API), and Heavy Oil (10-18API).

- Structures are low relief anticlines, axes oriented NE-SW and N-S. The structural closures vary from 4 to 20 milliseconds.
- Two main Cretacic Reservoirs: Vivian Fm. and Chonta Sand Member
- Structural Traps with lateral stratigraphic variations
- Early Structural Evolution
- 85% Reserves come from Vivian Reservoir
  - Vivian Reservory: Porosity 14-21%; Permeability 20-5000md.
  - Chonta Reservory: Porosity 12-19%; Permeability 5-1000md.
  - Vivian: strong water drive
Block 192 available information

ECUADOR

LEGEND
- WELLS
- 2D SEISMIC
- 3D SEISMIC
- BLOCKS IN CONTRACT
- BLOCK 192 PROPOSED

Perú Petro
Block 192 is divided in 3 zones:

• The Eastern Zone:
  Structural platform with low slope and reduced sedimentary thickness
  Fields San Jacinto, Bartra, Forestal, Shiviyacu, Jibaro, and Jibarito are located in this zone.

• The Central Zone:
  Changing slope due to active normal faults which acted since the beginning of the basin. This hinge-line is oriented NNE-SSW, and many pre-cretaceous rock units pinch-out occurred here.

• The Western Zone:
  More subsidence and present thickness of Jurassic, Triassic and Paleozoic rocks. Some structuration at Permian levels
New Blocks for exploration activities in 7 basins

For further information:
promotion@perupetro.com.pe
Productive areas in the Marañon Basin

Available areas

ECUADOR

COLOMBIA

BRASIL

Nor Peruvian Pipeline

Available areas

Pipeline

Wells

Heavy Oil Trend

Medium Oil Production Blocks 1AB & 8

Light Oil Trend

SITUCHE CENTRAL ZX

TANGUINTZA

SHANUSI
Regional Cross Section – Marañon Basin

Santiago Basin  |  Marañon Basin  |  Iquitos Arch  |  Guyana Field

- Light Oil
- Medium Oil
- Heavy Oil

Situche Complex

Main Reservoir

Geology & Geophysics Group – Perupetro 2007 – Modified Section
**Petroleum Systems in the Marañon Basin**

### Marañon Basin Stratigraphic Column

Petroleum Systems elements in the Northern part of the Basin.
Productive areas in the Madre de Dios Basin

Contingent: 2 TCF
Prospects: 9 TCF

27 Leads identified, 11 in Block 76
1999: Discovery of the Candamo Field (gas/condensate)
Multiple un-drilled reservoirs
The Folded Belt in the Sub Andean Trend

- Huallaga
- Ene
- Ucayali Sur, Camisea
- M. de Dios

Legend:
- Cenozoic
- Cretaceous
- Paleozoic
- Basement
AREA Aprox.: 2’200,000 Ha
2D Seismic: 4,613 km.
Digital 2D Seismic: 4,613 km.
Wildcats:
- Morsa Norte 1X
- Delfin 1X
- Ballena 1X
Well Logs: LAS Format
New prospects: 3
Vintage Seismic

Structural Map
1. All seismic, well data, well logs and technical reports available

1. Available for Download on Request

2. No charge for Data and Reports

http://www.perupetro.com.pe
¡Tank you very much!