

The Outlook for Ecuador Petroleum Sector New Investments Opportunities





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1. Leadership Vision





Lenin Moreno Garcés

- Provide security to investors through legal stability and openness to dialogue.
- Position Ecuador as a gateway to South America, taking advantage of the geographical location, monetary stability, human capacity and existing infrastructure.
- Develop new industries in order to satisfy the internal and regional demand by seeking long-term partnerships, in which the private sector can develop its activity with autonomy and State support.
- Take advantage of Ecuador's great potential of resources and human talent, through public-private partnerships that can benefit both the private and public sector.
- Attract investment from highly renowned companies to sectors where Ecuador has a clear competitive advantage in the world, such as tourism, mining and hydrocarbons.



Carlos Pérez García

- Encourage investments in the hydrocarbons sector by shifting the perspective from, State driven investments with financing aid, to direct private investments with support of the State.
- Leverage synergies between the public and private sectors, through cooperation with respectable companies with an integral vision.
- Apply contractual forms and models, such as the participation (production sharing) model, that attracts investments and are flexible to adapt to any given market condition, ensuring a stable rule of law in which companies can plan their investments for the long term.
- Ensure transparent negotiations, seeking fair deals where the State and the private sector can benefit from joint projects.

2. Why invest in Ecuador?



Principal Indicators:

Area:	283,561 km² (Source: Proecuador)
Population (july 2017):	16.50 million (Source: INEC)
Currency:	U.S. Dollar
GDP (PPP) (2016):	185 billion dollar (Source: IMF)
GDP per capita (PPP) (2015):	10,462 USD per capita (Source: IMF)
Annual Inflation (2016):	1.12% (Source: INEC)

International Trade (2016)

Exports:	16,797.7 Million USD
Imports:	15,550.6 Million USD
Principal Trade Partnerships:	Colombia, Peru, EEUU, China, Chile, Japan, Germany, Italy, Spain, Panama

Hydrocarbon Production

Oil Production (2016):	548.4 thousand barrels per day 200.7 million barrels
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Source: BCE



Acronyms:

- The National Institute of Statistic and Census – INEC
- International Monetary Fund – IMF
- Central Bank of Ecuador – BCE

Why Invest in Ecuador?

1

Dollarized economy (economic stability and low inflation)

2

Political, Legal and Tax Stability (bilateral investment treaty)

3

Developed infrastructure (new roads, ports, airports, clean energy generation, telecommunications, education, health, among others)

4

Logistics Advantage (short distances of each regions of Ecuador and strategic position in the Pacific coast)

5

Human Talent Development, highly skilled workforce

6

The country is rich in natural resources (mining, hydrocarbons, water, agriculture, aquaculture, among others)

7

Country with high standard of living and low security risks

8

Tax Incentives

3. Oil Sector Review





Annual Production 2016

200.7 million barrels

548.4 thousand barrels per day



Petroamazonas EP (79%):

158.1 million barrels

432,0 thousand barrels per day
(includes Sacha field)



Other E&P Companies (21%):

42.6 million barrels

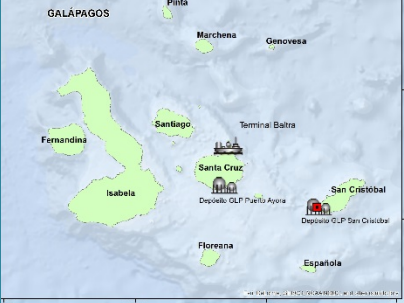
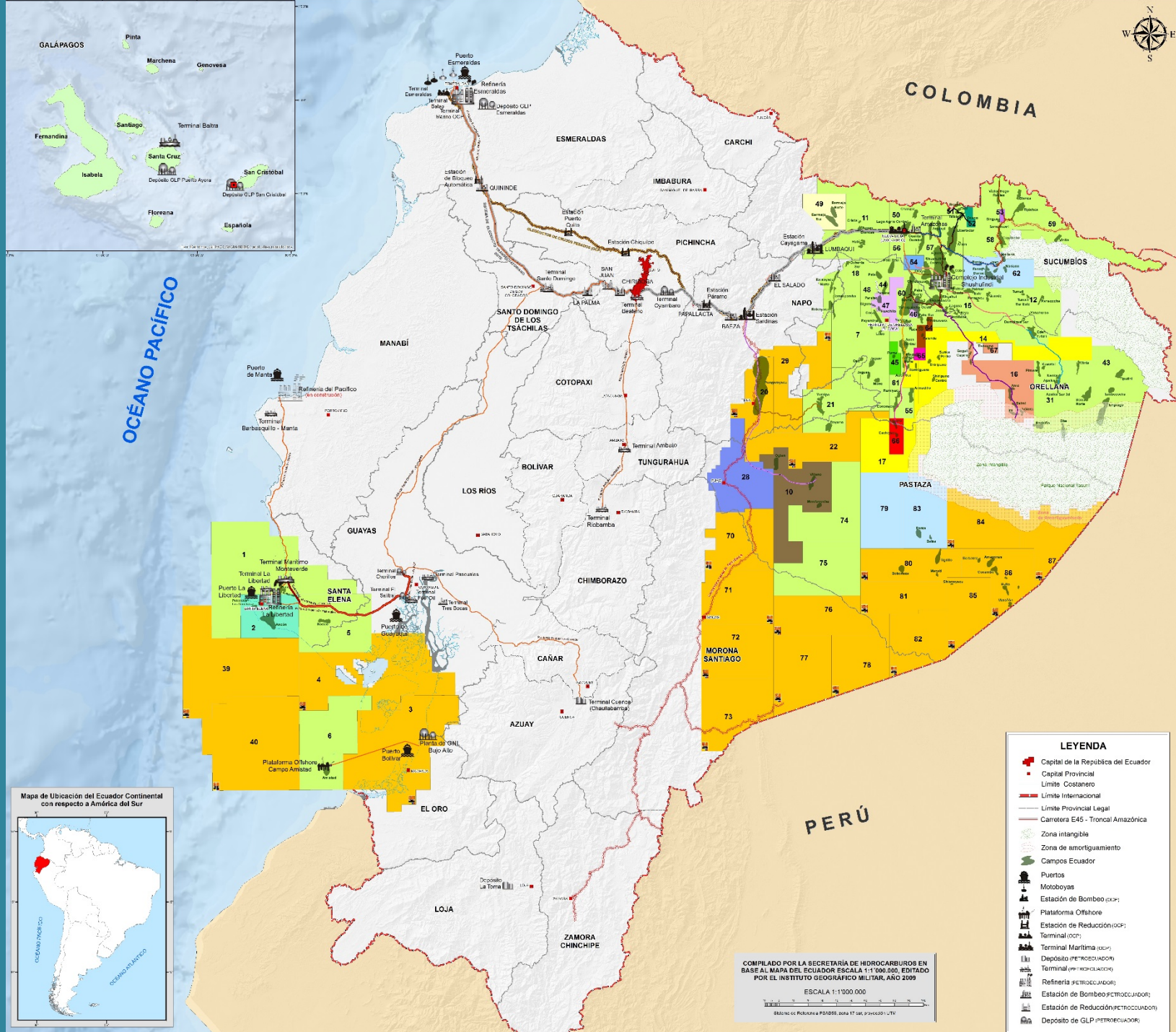
116.4 thousand barrels per day

Note: Presented data does not include gas production

Source: BCE

Key Partners





- LEYENDA**
- Capital de la República del Ecuador
 - Capital Provincial
 - Límite Costanero
 - Límite Internacional
 - Límite Provincial Legal
 - Carretera E45 - Troncal Amazónica
 - Zona intangible
 - Zona de amortiguamiento
 - Campos Ecuador
 - Puertos
 - Motoyobas
 - Estación de Bombeo (OCP)
 - Plataforma Offshore
 - Estación de Reducción (OCP)
 - Terminal (OCP)
 - Depósito (PETROECUADOR)
 - Terminal (PETROECUADOR)
 - Refinería (PETROECUADOR)
 - Estación de Bombeo (PETROECUADOR)
 - Estación de Reducción (PETROECUADOR)
 - Depósito de GLP (PETROECUADOR)

COMPILADO POR LA SECRETARÍA DE HIDROCARBUROS EN BASE AL MAPA DEL ECUADOR ESCALA 1:1'000.000. EDITADO POR EL INSTITUTO GEOGRAFICO MILITAR, AÑO 2009

ESCALA 1:1'000.000

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RESERVES AND RESOURCES OF ECUADOR YEAR 2017

	Reserves (3P) (MMBLS)	Resources (3C) (MMBLS)	*Prospective Resources (MMBLS)
Country	2,053	163	495
ITT (Ishpingo-Tambococha-Tiputini) Field	642	1,105	-
Sur Oriente	-	190	77
Intracampos Fields	-	7	87
TOTAL	2,695	1,465	659

Source: Secretariat of Hydrocarbons; official data from December 2016

Estimated Hydrocarbon Potential of Ecuador: 4,819 MMBLS

NOTES:

3P: Sum of Proved, Probable and Possible Reserves.

3C: Sum of Contingent Resources

*Swanson's Mean estimates applied the risk.

The reserves and resources figures are subjected to readjustments in case of new studies

Sur Oriente potentially has huge reserves but is still to be determined

The leading Ecuadorian public company (August 2017)



429.645
barrels of oil
equivalent produced



18 blocks in
the Oriente Basin



3 blocks in
Coastal Zone



Cost per barrel
6,56 dollars



1,041 million
invested



ISO 14001
OHSAS
18001 ISO
9001



ITT has
1747 million
barrel reserves



USD
13.971
million dollars
in Assets



1

Ecuadorian oil industry dates back to 1925, where its production started in the coast of Santa Elena (Ancón) and the second phase with larger reserves in 1970 in the Amazon Basin.

2

The Ecuadorian State established in the last legal reform of the Hydrocarbons Law of July 2010, a new modality of Service Contract . The model consists of the payment of a tariff per barrel extracted to the private company.

3

The Service Contract has not been an appropriate contract model to boost the exploration in Ecuador, thus the reintroduction of the Production Sharing Contract.

4

The oil reserves of the fields operated by private companies have not increased significantly in recent years, therefore the new oil policy has been established to endorse oil exploration through the Production Sharing Contract.

5

The Production Sharing Contract gives the contractor the ownership over their share of extracted oil.

Benefits of the Ecuadorian Oil Industry

Good general infrastructure

- Road system
- Electric grid
- Ports and airports

Mature Oil Industry

- Good relationship with the communities
- Centralized hydrocarbons information bank
 - Geology, geophysics, geochemistry and historical data
- Two main oil pipelines with additional capacity
- Mature regulatory framework

Attractive Investment Opportunity











Enhanced Oil Policy Approach

Transparent negotiation through fair competitive processes

- Reintroduction of the Production Sharing Contract
 - Suitable for attracting and encouraging risk investment in exploration areas
 - Once the reserves have been discovered, the operator has the right to propose to State an investment plan for exploration and development
 - The operator is owner of its oil production share, recovering its investments, its costs and a good profitability

Production Sharing Contract (Distribution of Expenditures and Incomes)

In the Production Sharing Contract, the State receives an income according to its participation and taxes paid by the contractor. The contractor is responsible for the investment and operating expenses.

	STATE	CONTRACTOR	COMMENTS
Production			Production corresponding to the participation of the investor
Income from oil crude sales			Income from oil crude sales
CAPEX			The contractor is responsible for exploration and development CAPEX
OPEX			The contractor is responsible for the operating expenses, OPEX
Taxes			Taxes: Further Explanation



Income



Expenditure

LAW 10

\$1 USD is deducted from each barrel extracted in the Amazon region and sold in the domestic and foreign markets. The tax goes to the Amazon Regional Eco-development Fund. (Law of the Fund for the Amazon Regional Eco-development, Art. 1).

LAW 40

\$ 0.50 USD of each barrel of crude oil transported by the Trans-Ecuadorian pipeline, is added to the transportation tariff (General State Budget 2014, p. 115).

LABOR PARTICIPATION (15%)

15% is deducted from the disposable income and is distributed as follows:

- 3% for the labor participation of workers linked to hydrocarbons activity
- 12% for the State and Decentralized Autonomous Governments which is intended exclusively for investment projects (Hydrocarbons Law, Art. 94).

INCOME TAX (22%)

After the mentioned taxes, the withholding of 22% of the income tax is made (Organic Law of Internal Tax Regime, Art. 37).

SPECIAL TAX: EXTRAORDINARY INCOME TAX (70%)

For extraordinary revenues, that are those received by the operator companies and generated in sales at prices above the base price agreed or provided for within the contract. The tax base is made up of all the extraordinary income that is the difference between the selling price and the base price established in the contract multiplied by the number of units sold at that price. The rate is 70% (Reformatory Law for Tax Equity in Ecuador, Art. 164-172).

The extraordinary income tax is only applicable after recoup of exploratory investment.



Regulatory Hierarchy

- Constitution of The Republic of Ecuador
- Organic Law of Public Enterprises Internal Tax Regime Law
- Hydrocarbons Law
- Operational Regulations for Hydrocarbons Activities / Environmental Regulations for Hydrocarbons Activities Executive Order 1215 (RAOHE)
- Executive Order 546 – Regulation Reform Act to Hydrocarbons Law / Executive Order 314 Petroamazonas EP’s Constitution / Executive Order 1351-A Petroecuador’s Constitution/ Executive Order 822 that regulates state owned companies Board of Directors.

Transportation facilities are already in place with the capacity to transport more production

Oil pipelines that cross Ecuador

Both terminals leave from Lago Agrio and arrive to the port of Balao



SOTE

(Sistema de Oleoducto Transecuatoriano)
(Medium Oil – Oriente)

Transportation Capacity: 360,000 BBL/D

- I. Capacity Used: 100% (2015), 100% (2016)
- II. 45 years of operation

OCP (Oleoducto de Crudo Pesados) (Heavy Oil – Napo)

- I. Transportation Capacity: 450,000 BBL/D
- II. Capacity Used: 34% (2015), 35% (2016)
- III. Available Capacity: appr. 292,000 BBL/D
- IV. Fares – Oil Crude Napo: 1.436 \$USD/BBL
(until 23 Nov 2018)

4. Projects

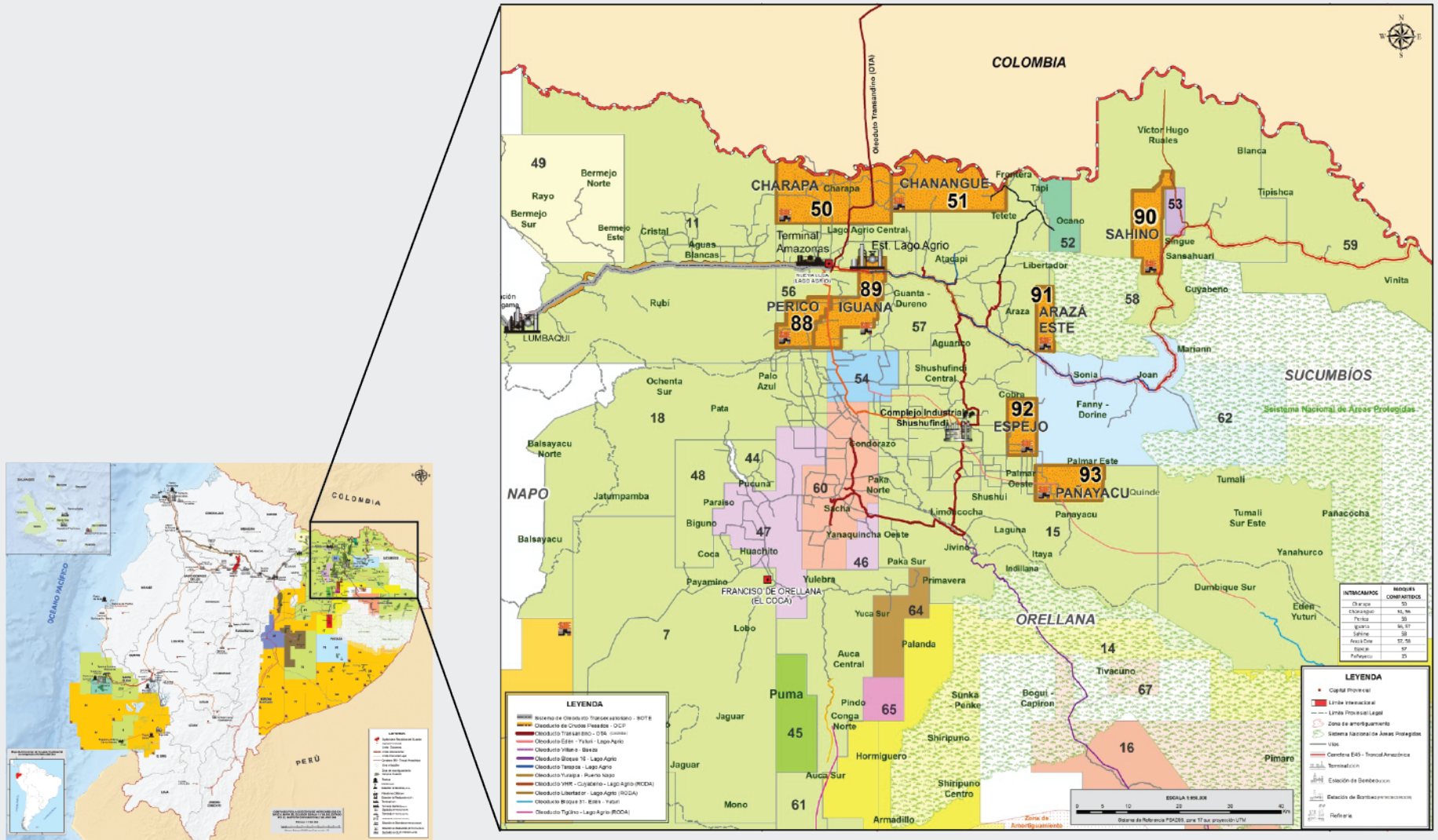




4.1. Intracampos



Road Map: Intracampos' s Area



Summary Chart of 8 Blocks with 13 Fields

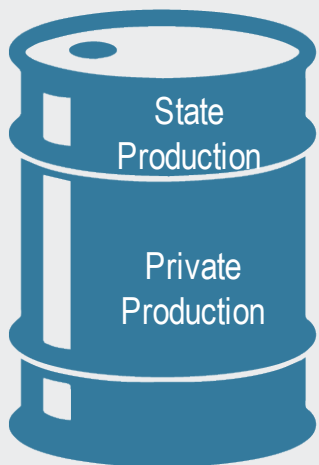
AREAS		EXPLORATORY PROSPECTS	ORIGINAL OIL IN PLACE (OIP) (MM Bls) (Swanson's Mean)	PROSPECTIVES RESOURCES / PROVED RESERVES (MM Bls) (Swanson's Mean)	ESTIMATED INVESTMENTS (MMUSD)
1	PERICO	PERICO SURESTE-1	235	27.5	176.0
		PERICO SUR-1	178.9	19.8	144.6
2	IGUANA	GUANTA OESTE-1	107.7	21.7	144.6
		IGUANA-1	65.4	13.6	98.4
3	ESPEJO	ESPEJO-1	44.3	13.6	112.6
4	SAHINO	SAHINO NORTE-1	63.8	16.5	85.4
		SAHINO-1	49.1	10.4	77.4
		VICTOR HUGO RUALES SUR-1	13.1	3.9	145.4
5	ARAZÁ ESTE	ARAZA NOR-ESTE-1	45.8	7.2	72.2
6	PAÑAYACU NORTE	PAÑAYACU NORTE-1	30.5	7.7	72.6
		PALMAR ESTE-1	38.4	8.6	59.0
7	CHARAPA	CAMPO CHARAPA	29.2	5.5	44
8	CHANANGUE	CAMPO CHANANGUE	6.3	1.4	16.8
TOTAL PROSPECTUS - SH			907.5	157.3	1249.0

Source: Petroamazonas EP (July 2017), pending certification of Ryder Scott, expected until end of October

Example of Income Distribution of Intracampcos with IEA projections

Prices according to IEA projections (Jan 2017)

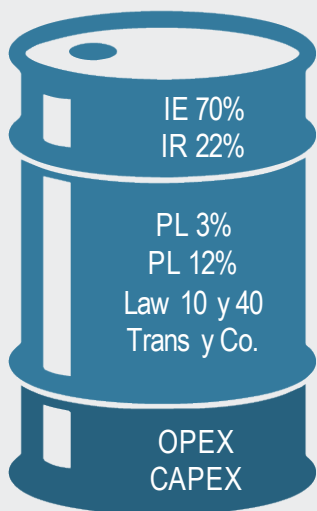
Assumed success probability – 50%



= 2.847,41 MM\$

= 8.601,98 MM\$

High IRR projected



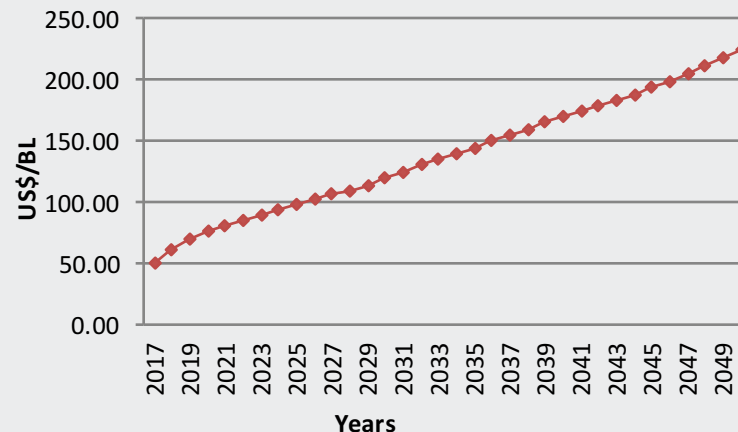
720,68 MM\$
1.099,66 MM\$

882,08 MM\$
97,48 MM\$
102,36 MM\$

429,62 MM\$
1.376,22 MM\$

*reference case based on assumptions

WTI projection (IEA)



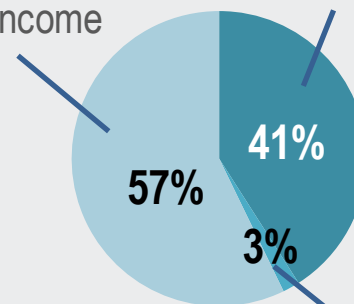
Net Income Distribution

5.438,13 MM\$

State Income

3.893,88 MM\$

Investors Income



Labor Participation

Last Week of November 2017

Official opening: The Secretariat of Hydrocarbons officially launches licensing round.

Second Week of December 2017

Bid preparation.

Last Week of March 2018

Bid presentation: Last day for interested parties to submit proposals.

Last Week of March 2018

Bid evaluation: SH completes the evaluation of tender bids.

First Week of May 2018

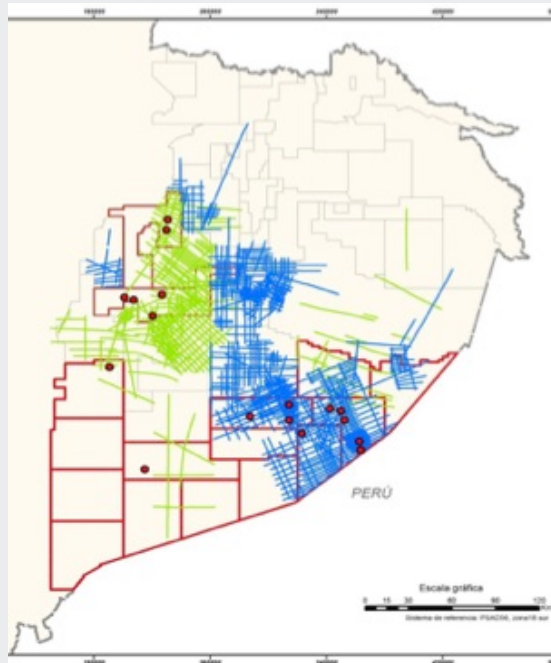
Awards: COLH to conclude the revision of proposals and decides to approve awards and signature of Production Sharing Contract agreements with awarded companies.



4.2. Sur Oriente



- New Production Sharing Contract type
- Two proven oil bearing reservoirs in blocks 80s: U & M1 Sandstones
- High probability to find: “thrust belt” structures + M1/Vivian reservoir in blocks 70s
- Vast unexplored areas on blocks 70s & underexplored on 80s
- High success probability given peruvian discovery (Situche Central) close to Blocks 70s (36 API | 7,500 BPD with only two wells, natural flow)
- Probable launching date for the “Sur Oriente Round “at end of Q2 2018.

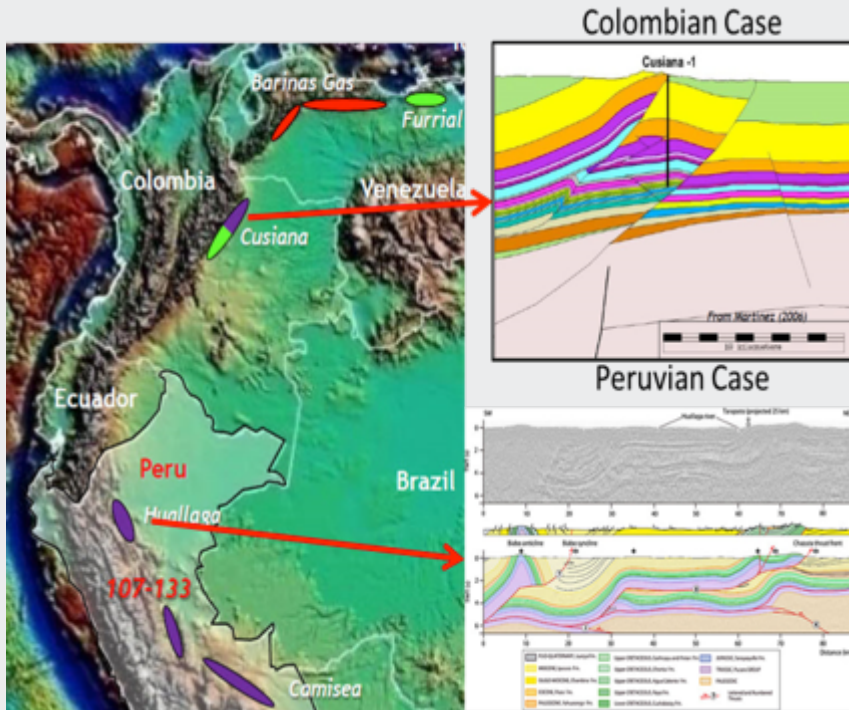


Current G&G Data Available

- **16 Blocks, total area 27,930 km², 17 exploratory wells**
- **Seismic Data**
 - Good Quality = **9,159 Km** (390 blue lines)
 - QC in progress (by BIPE)*= **4,398 Km** (180 green lines)
- **Remote Sensing Geophysical Data** (2 surveys: 1998 and 2011)
 - Aero-Gravimetry= **20,606 Km²** (Over Blocks 70s)
 - Aero-Magnetometry= **20,606 Km²** (Over Blocks 70s)

*BIPE: Ecuadorean Hydrocarbons Information Bank

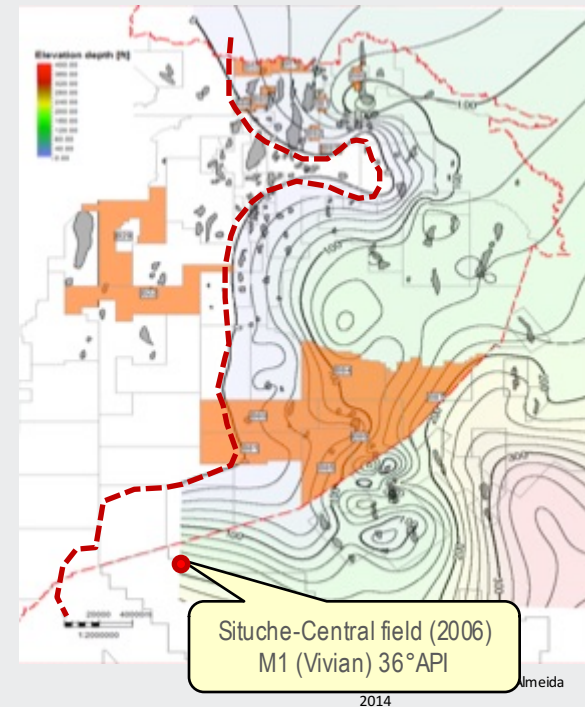
Presence of Structures



High probability to find “THRUST BELT” Structures in Footwall Block (Cusiana-Colombia & Camisea-Peru)

- Giant Fields: Cusiana (Col), discovered by BP, 1992
- Camisea (Peru), discovered by Shell, 1986

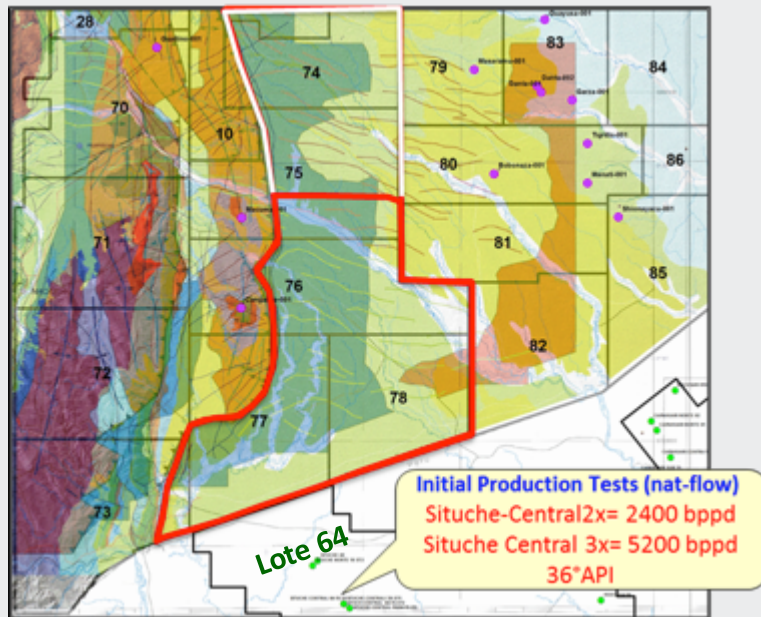
Presence of Reservoir



High probability to find M1 Sandstone Reservoir And High Oil Gravity (35°API), Similar to Situche-Central oil field.

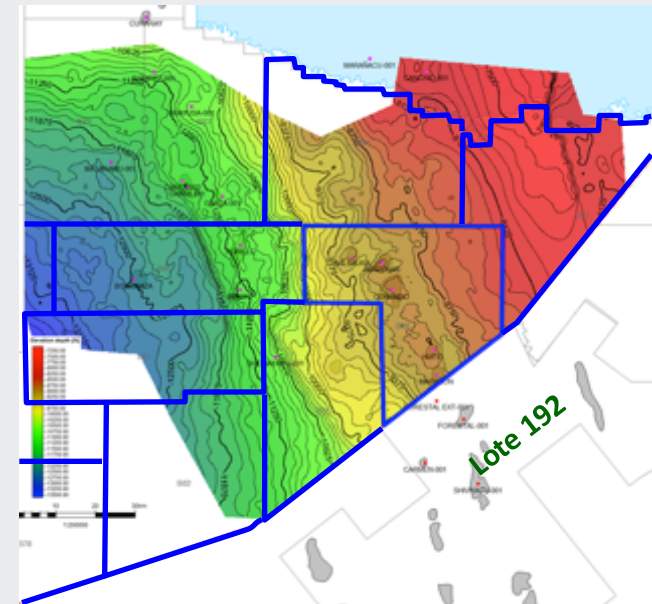
- Situche-Central field Discovered by Talisman, 2006

Prospectivity of Block 70s



- High probability to find “THRUST BELT” Structures
- High chance to find M1/ Vivian Sandstone Reservoir
- High chance to find oils >30 API degree
- Blocks 70s are close to Situche-Central field located in the Peruvian Lote 64

Prospectivity of Block 80s



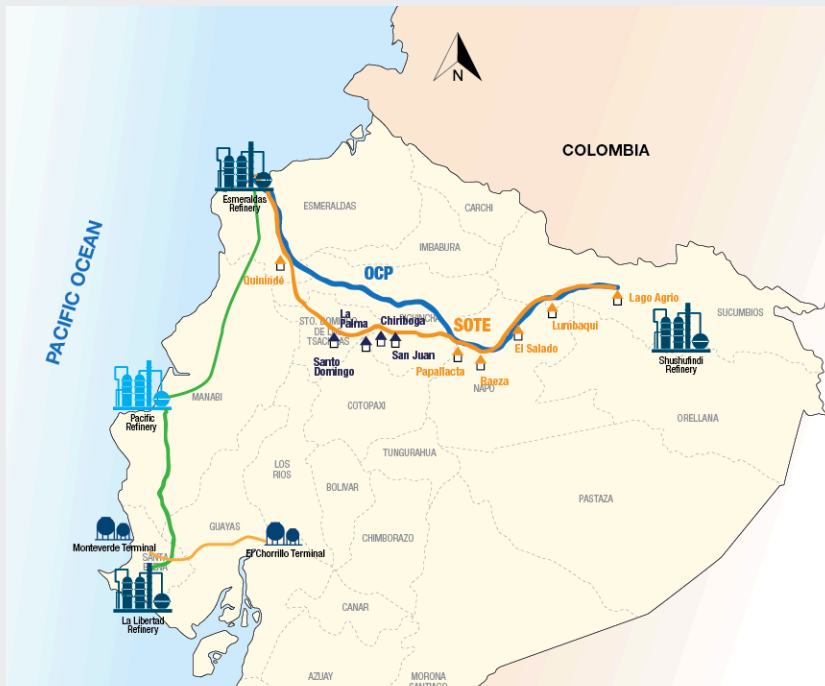
- 7 of 11 wildcat wells tested oil
- Blocks contain two proven oil trends
- Presence of primary and secondary targets
- Blocks 80s are close to Peruvian Lote 192, which contain surface facilities
- There is a Binational Agreement to evacuate crude oil through Northern Peruvian Pipeline (ONP)



4.3. Pacific Refinery



Ecuador is open to a refinery project in order to satisfy the internal demand of clean products.



Refinery Specifications

- Input from Ecuadorian oil (13-18 API)
- 300,000 barrel process capacity
- Euro 5 Output
- 500 MW power generation
- Petrochemical products
- Construction time frame of 36 months

Benefits for investor.

- Secured off-take partner of refined products
- Secured oil supply for refinery
- Stable rule of law
- Reduced FX Risk, given dollarization
- Capable human talent
- Land ready to build
- Ecuador has already made an investment of around \$ 1.5 Bn.

Investment Model:

The private company develops the Project and receives their compensation in **2 possible ways**

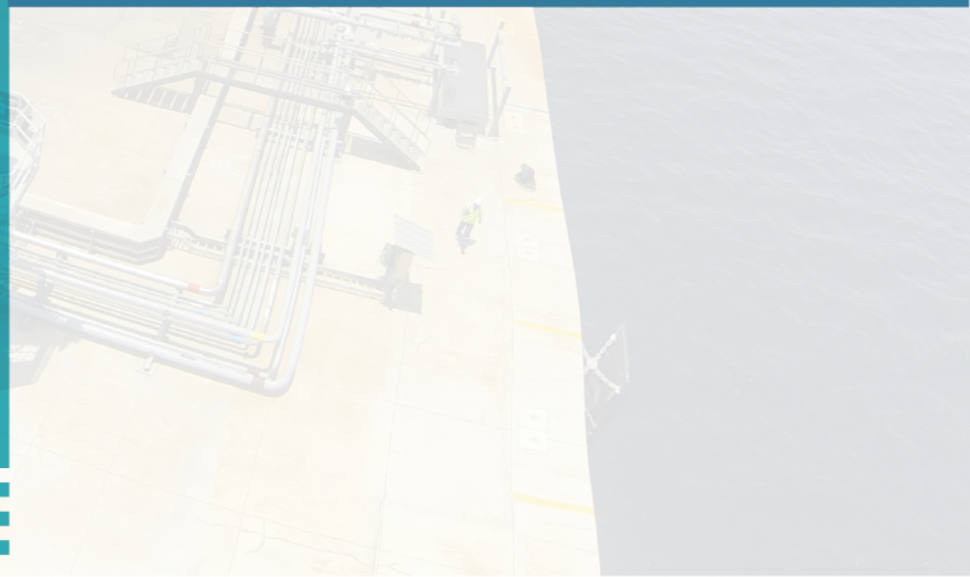
1. Ecuador pays international prices for the delivered derivatives and sells its oil to partner at international prices
2. Ecuador pays a tariff for each refined barrel

Investor Profile:

- Renowned company with technical capabilities to develop and operate a refinery
- Long-term partner with interest of working together with Ecuador, seeking fair and transparent deals that will benefit both parties



4.4. Monteverde



There is a storage deficit for liquid products (fuels, chemicals) on the Pacific coast that can be seized by an investor to develop a Regional Hub, Storage and Distribution Center using the existing infrastructure. Given the strategical position of Ecuador, Monteverde is the best place to develop such project



Ecuador has invested 606.7 millions of dollars in Monteverde and we are looking for a strategic partner in order to maximize its potential

- Unloading docks, storage tanks, a pumping station to dispatch to the Chorrillos gas pipeline and an island for discharge truck tanks
- Northern dock to receive ships up to 75,000 DWT
- Southern dock to receive ships up to 30,000 DWT
- The storage capacity of LPG is 48,400 MT

Benefits for investor.

- Unique geographical location
- Functioning infrastructure in place
- Stable rule of law
- Capable human talent

Investment Model:

Ecuador is open to explore different partnership options such as:

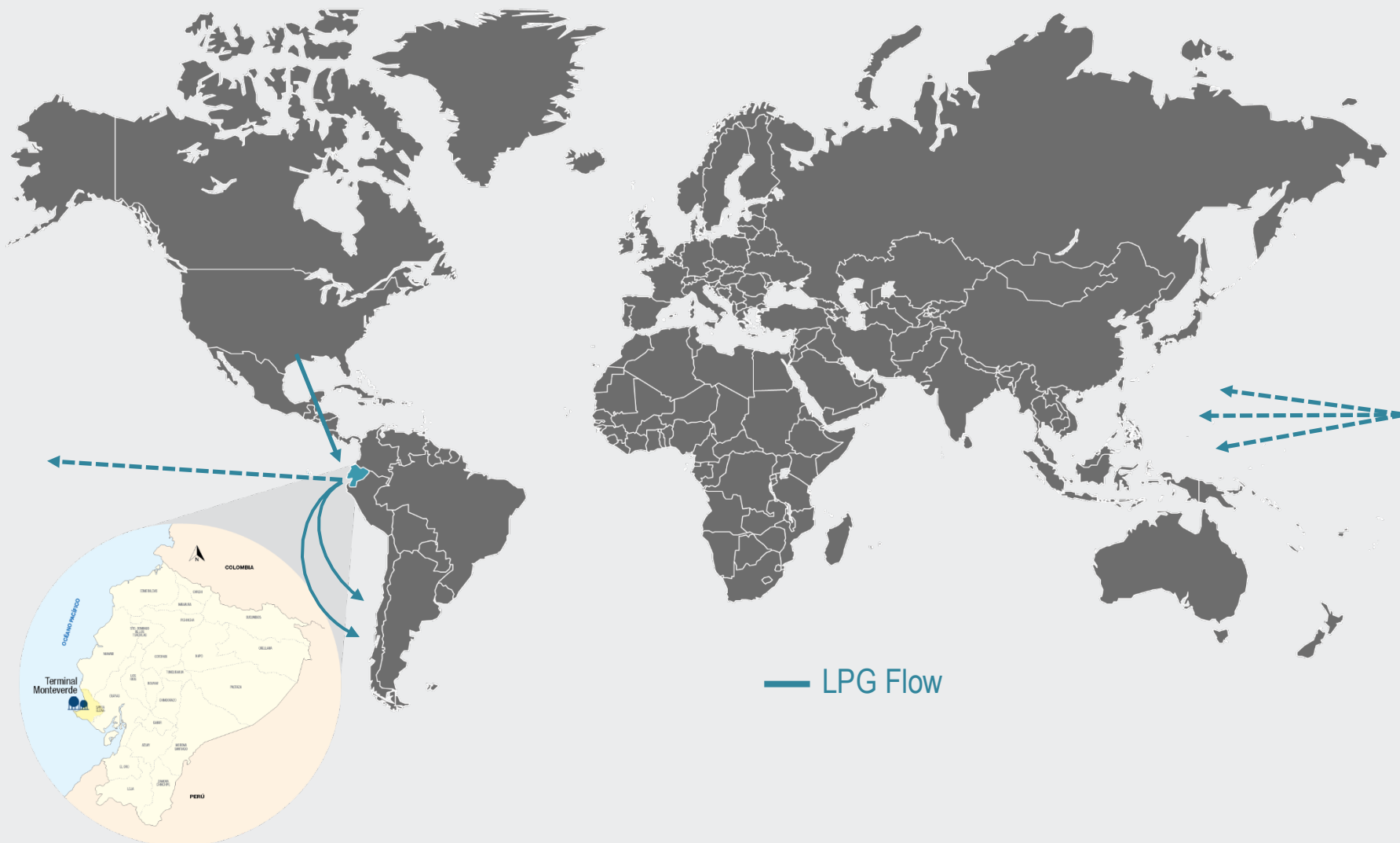
- Concession (payment rate)
- Contract for the use of terminal capacity
- Joint Venture to develop Monteverde as an international hub

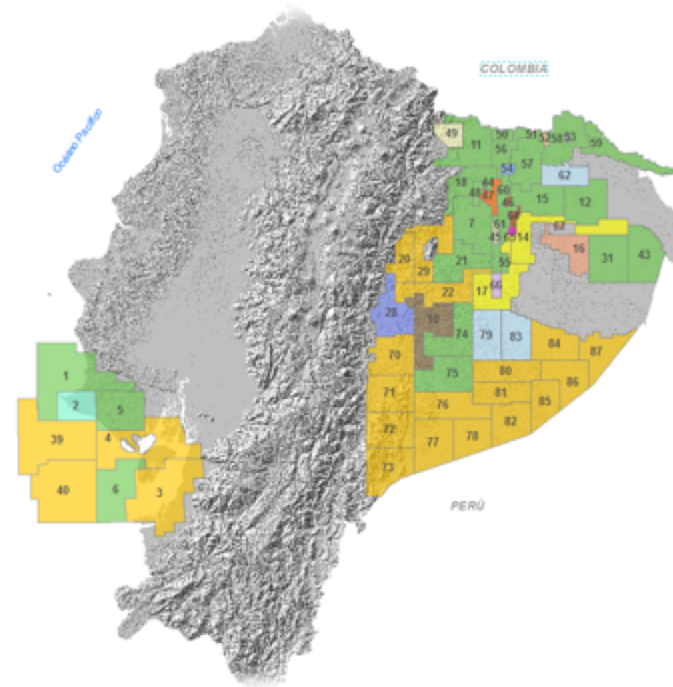
Investor Profile:

- Renowned company with proven track record
- Long-term partner with the interest of working with Ecuador, seeking fair and transparent deals that will benefit both parties

Unique geographical location of Monteverde

Potential Regional Hub Storage and Distribution Center





Ecuador in new age for the Oil Industry!

Thank you for your attention

