



**Block CPO-5** is located in the Llanos Basin, Colombia. The block was awarded to ONGC Videsh in 2008 and is currently operated in partnership with Geopark. Through the intricate geological settings, the CPO-5 Block's tryst is one of discovery, perseverance, and success.

ONGC Videsh LTD Sucursal Colombiana, Calle-100, No: 13-76, Torre Mansarovar, Piso-8 Bogota DC, Colombia.

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# QUEST TO TOUCH NEW HIGHS

THE JOURNEY OF CPO- 5 , ONGC VIDESH, COLOMBIA



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नेहाभिक्रमनाशोऽस्ति प्रत्यवायो न विद्यते य  
स्वल्पमप्यस्य धर्मस्य त्रायते महतो भयात् यद्य

*No effort is ever wasted in selfless service, and there is no failure.  
Even a small step forward on this path will protect you from great fear.*

*- Bhagavad Gita 2.40*

# PREFACE

# PREFACE



*Madhukar Mohan  
Country Manager-Colombia  
ONGC Videsh Ltd.*

The story of CPO-5 Block is one of exploration, grit, determination and success; woven through the complex geological settings of Colombia's Llanos Basin. This coffee table book is not merely a collection of facts and figures but a celebration of the collective effort, innovation, resilience, partnerships and collaborations that have collectively driven ONGC Videsh and its partners to unlock the hidden potential of this region.

In the realm of oil and gas exploration, the earth's sub-surface is a complex and often enigmatic domain. Beneath the surface lies a labyrinth of rock formations, ancient sediments and hidden reservoirs; each layer telling a story millions of years in the making. The task of deciphering these stories requires not just advanced technologies but also patience, perseverance, and a willingness to embrace the unknown.

The challenges of exploring these depths are manifold. Seismic surveys reveal much, yet often leave room for interpretation. Drilling wells—each descending thousands of meters into the earth—demands precision and foresight, though the outcome remains uncertain until the final moment. Geological surprises, mechanical failures, and environmental constraints are constant companions on this journey, reminding us of the earth's inherent unpredictability and the limits of our control.

Yet, it is in these very difficulties that the true spirit of exploration is revealed. Each setback is a lesson in humility and resilience, urging us to refine our methods, to look deeper, and to question more rigorously. The earth yields its secrets reluctantly, and it is through persistence and a deep respect for the mother earth that we earn the privilege of unlocking its resources.

In the process, we come to realize that exploration is not just about discovering oil and gas; it is also about discovering the limits of our own knowledge and expanding those boundaries. It is also about understanding that the journey is

as important as the destination, and that the challenges we face are not hindrances but essential elements of the path we walk.

From the initial seismic surveys to the discovery of significant hydrocarbon reserves, and from the challenges of early exploration to the achievements of production milestones, CPO-5 represents the embodiment of vision and perseverance. The journey of CPO-5 is a testament to the belief that with unwavering commitment, collaboration, and respect for both the environment and the communities we work within, we can achieve extraordinary outcomes.

As you turn these pages, you will not only discover the technical and operational excellence that defines the Block but also the philosophical wisdom that has guided our decisions and actions. Drawing inspiration from the timeless teachings of the Bhagavad Gita and the principles of Stoic philosophy, this book intertwines these ancient insights with modern-day challenges and triumphs, offering a unique perspective on the intersection of human effort and natural resources.

This book is dedicated to the countless individuals who have contributed to the success of the block – the geoscientists, engineers, technicians, statutory agencies, the regulators, ministries, community members, and many other stakeholders. It is the collective hard work, dedication and belief in a shared vision that have transformed the Block into a symbol of what can be achieved through partnership, perseverance and purpose.

I hope that this book not only informs but also inspires, reminding us all that the journey of exploration is as much about the spirit of inquiry and the strength of character it demands, as it is about the resources we uncover. May the story continue to inspire future generations of explorers and innovators in the energy industry and beyond.

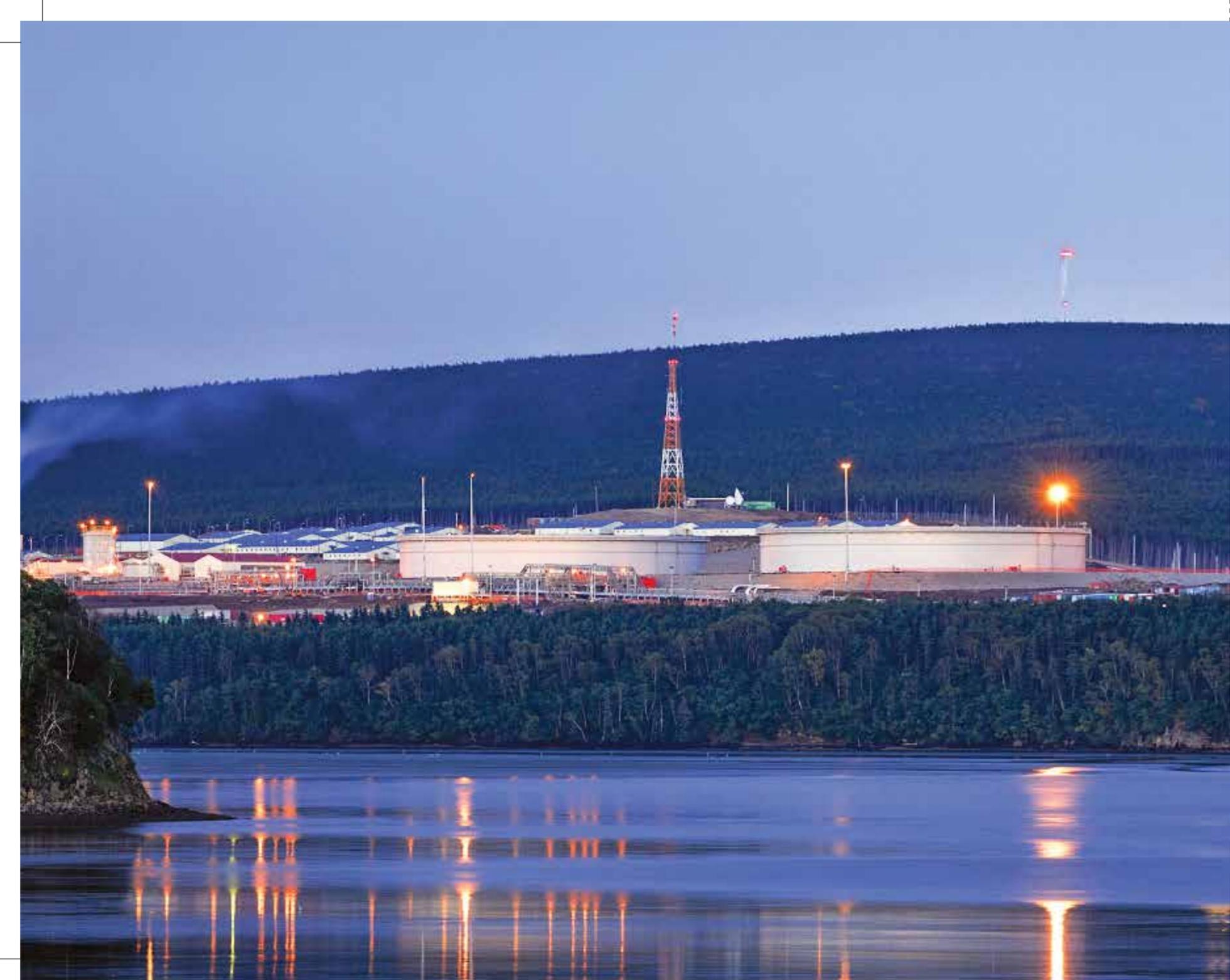
I sincerely thank the Executive Committee of ONGC Videsh for their vision and continued guidance in the success of CPO-5 Block. Sincere thanks to our partner Geopark for all the collaboration and support provided by them to this Joint Venture throughout our journey.

Last, but not the least, I truly appreciate the efforts put in by the colleagues in putting together all the material for this maiden Coffee Table Book of CPO-5 Colombia.

And, at the end, with our continued challenging operations and the hurdles we face with enthusiasm in the very green, clean Colombia full of warmth and natural beauty, I would love to quote the beautiful lines from the poem of Robert Frost:

The woods are lovely, dark and deep,  
But I have promises to keep,  
And miles to go before I sleep,  
And miles to go before I sleep.





ONGC Videsh has a strong international footprint with operations across the globe.

# Colombia Facts



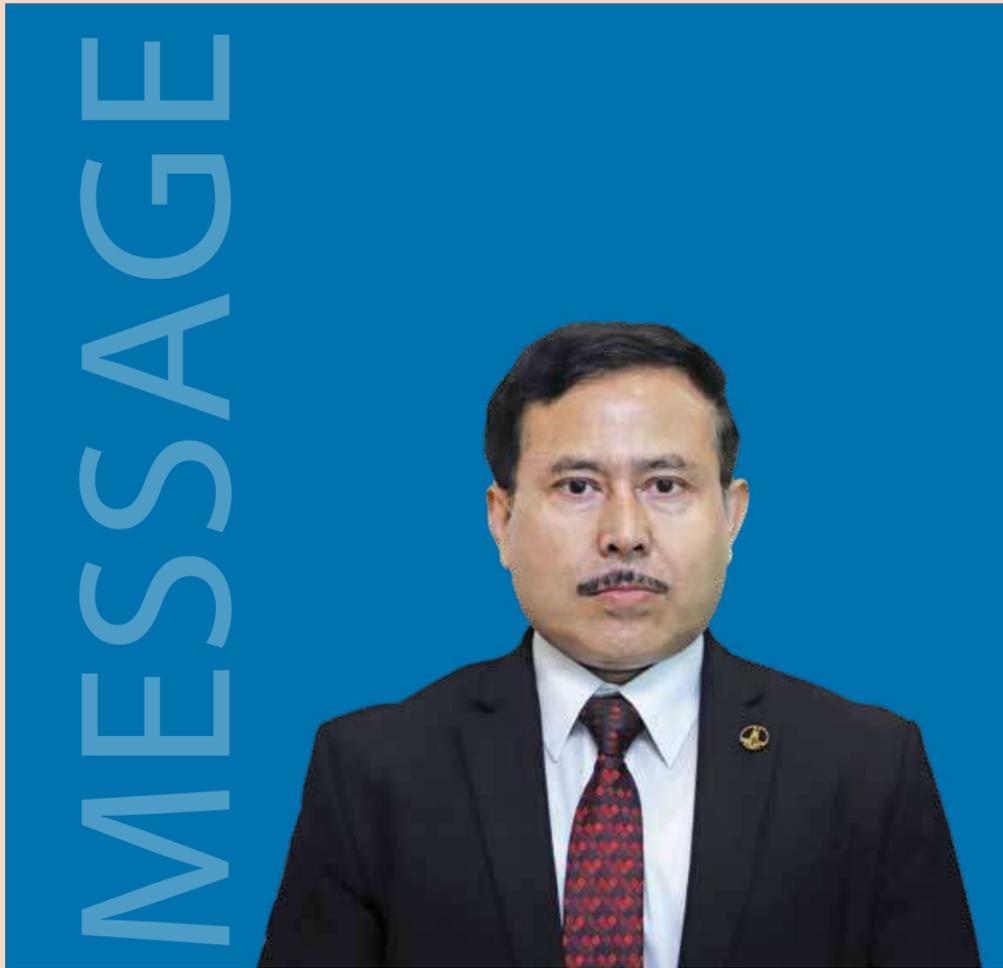
## Leading Oil Producer

Despite being a foreign state-owned company,  
ONGC Videsh is currently one of  
the top 5 oil producers in Colombia.





# Messages



**Rajarshi Gupta**

MANAGING DIRECTOR,  
ONGC VIDESH LTD.

“  
CPO-5 embodies  
the spirit of ONGC Videsh:  
resilient, innovative, and  
deeply committed to  
partnerships that drive  
mutual growth.”

The journey of CPO-5 Block stands as a testament to ONGC Videsh's unwavering pursuit of energy security through global engagement and technical excellence. This coffee table book encapsulates more than a decade of dedicated exploration, meticulous development, and responsible operations in one of Colombia's most promising hydrocarbon provinces.

CPO-5's transformation—from a frontier Block to a key producing asset—embodies the spirit of ONGC Videsh: resilient, innovative, and deeply committed to partnerships that drive mutual growth. This milestone would not have been possible without the cohesive efforts of our multidisciplinary teams, the trust of our partners, and the cooperation of the communities and authorities in Colombia.

As we reflect on our achievements, let this narrative serve as both a chronicle and an inspiration for future endeavors across our global portfolio.



**Sanjeev Tokhi**

**DIRECTOR  
(EXPLORATION),  
ONGC VIDESH LTD.**

CPO-5 is a model of exploration-led growth. What began as a geoscientific curiosity in Colombia's Llanos Basin has now evolved into a benchmark of successful hydrocarbon discovery. The Block exemplifies how continuous refinement of exploration strategies—integrating seismic imaging, subsurface modeling, and geological insight—can yield extraordinary results.

Our discoveries in the Une and Guadalupe formations, particularly the Mariposa and Indico fields, reaffirm the importance of data-driven decision-making and agile exploration workflows. This journey has not only expanded our technical boundaries but also deepened our understanding of the basin's petroleum systems.

We remain committed to advancing exploration across the Block, pursuing untapped potential with the same spirit of scientific curiosity and strategic focus that made CPO-5 a success.



**Omkar Nath Gyani**

**DIRECTOR  
(OPERATIONS),  
ONGC VIDESH LTD.**

"Operational excellence is not an achievement, it is our way of working."

The operational success of the CPO-5 Block stands as a testament to ONGC Videsh's commitment to executional excellence, innovation, and sustainability. From the early production success at Mariposa to the large-scale development at Indico, we have built a robust operational backbone that maximizes output while upholding our core values of health, safety, and environmental stewardship.

Through the adoption of modular production facilities, real-time reservoir monitoring, and modern drilling techniques, we have delivered more than 29 million barrels of oil to date—safely, efficiently, and responsibly. Our teams have consistently demonstrated agility in addressing operational challenges and in aligning development strategies with evolving geological realities.

Today, CPO-5 stands as a model asset within our global portfolio. We are determined to sustain this success and build further upon it, ensuring long-term value creation for our stakeholders while contributing responsibly to global energy security.



**Anupam Agarwal**

**DIRECTOR  
(FINANCE),  
ONGC VIDESH LTD.**

As ONGC Videsh's flagship overseas asset, CPO-5 exemplifies the company's commitment to prudent capital deployment and scalable value creation. The project's rising output and robust financial performance, achieved through moderate upfront investment, showcase financial discipline and a keen eye for opportunity.

CPO-5's impact extends well beyond corporate balance sheets. Through efficient investment, the asset not only delivers sustained returns for ONGC Videsh but also contributes significantly to Colombia's economic health—strengthening local development, generating royalties and taxes, and fostering economic resilience. This symbiotic growth advances ONGC Videsh's broader ambition to diversify its energy portfolio and reinforce its global footprint.

At the heart of ONGC Videsh's approach in Latin America, CPO-5 serves as both a cornerstone and a catalyst. By anchoring its regional ambitions to the continued growth and proven performance of CPO-5, ONGC Videsh not only secures a foothold in one of the continent's most dynamic oil markets but also positions itself to capitalize on emerging opportunities across the broader energy landscape. This asset-driven strategy reflects the company's philosophy of leveraging flagship projects to spearhead new ventures, drive operational excellence, and foster enduring partnerships.

In doing so, ONGC Videsh seamlessly integrates its Latin American pursuits with its overarching global investment focus—prioritizing scalable, resilient assets that deliver value for the group.



**Naresh Malik**

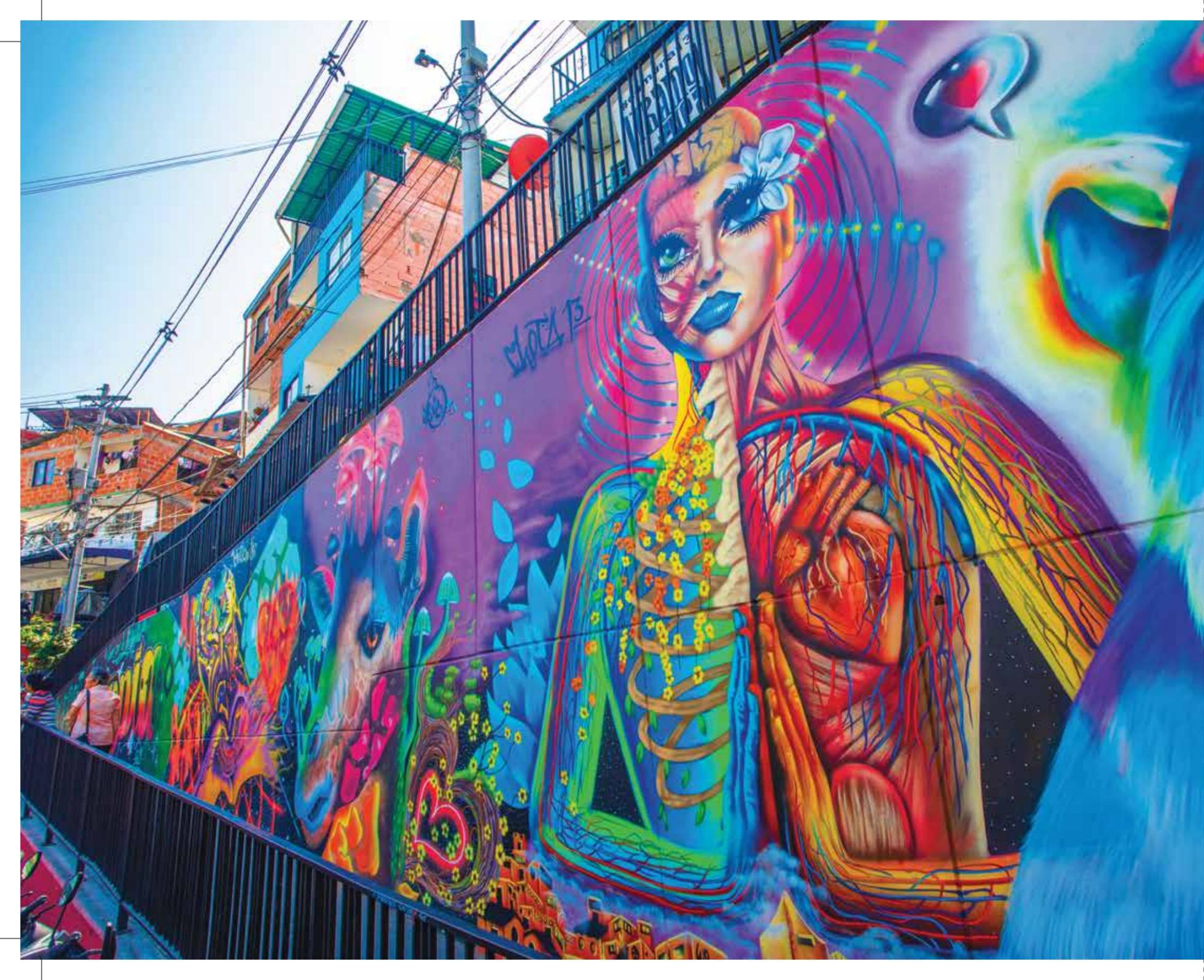
**REGIONAL PRESIDENT  
(COLOMBIA),  
ONGC VIDESH LTD.**

CPO-5 is not just an operational asset, it is the centerpiece of ONGC Videsh's presence in Colombia. As the Regional President, I have witnessed firsthand the dedication, collaboration, and resilience that have shaped its success. From remote field operations to complex stakeholder engagements, every milestone reflects the collective effort of our local team and the unwavering support from headquarters.

Operating in the Llanos Basin has taught us the value of community trust, environmental responsibility, and continuous learning. We have built lasting relationships with local authorities, contractors, and communities, ensuring that our growth is inclusive and sustainable.

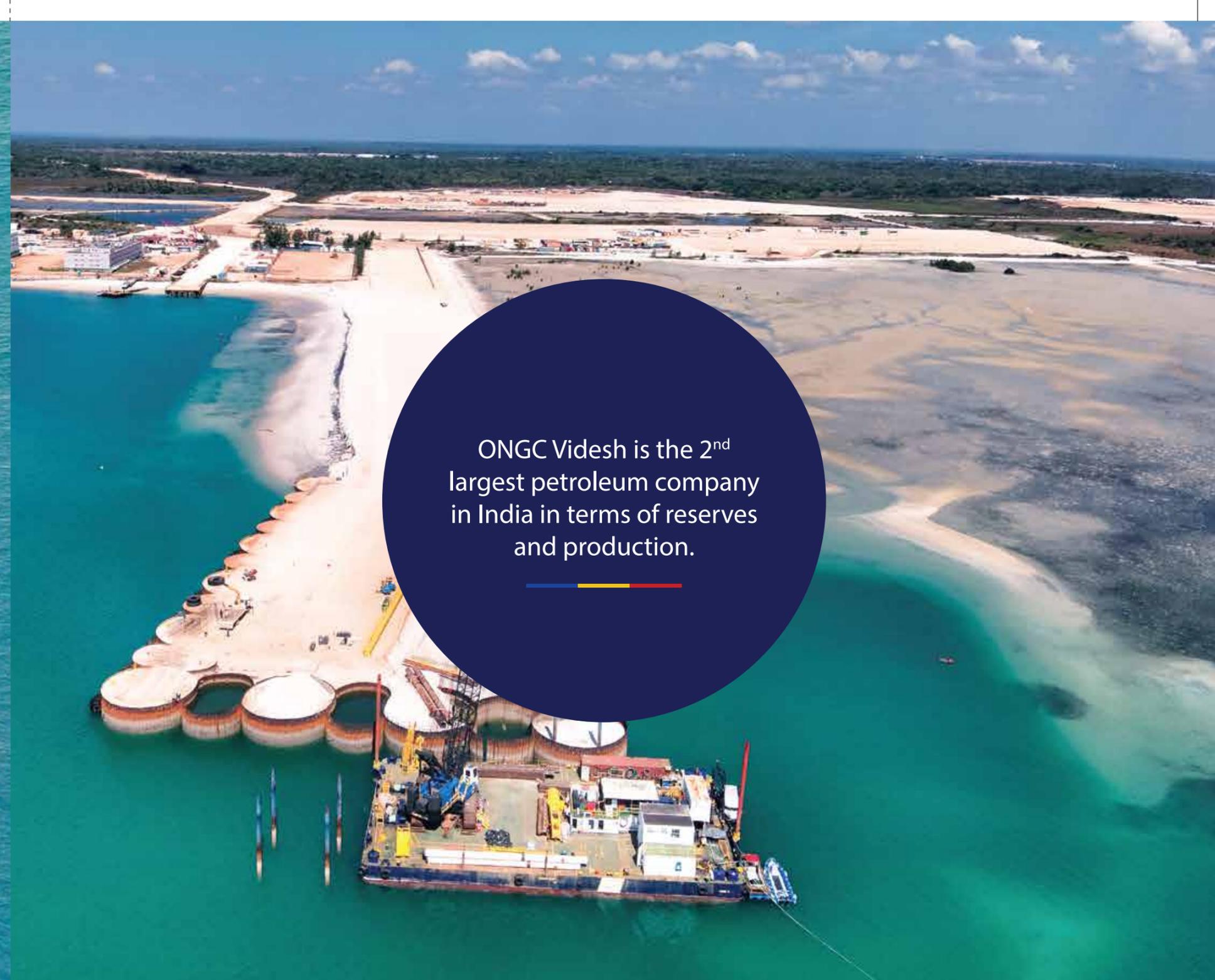
This book captures the essence of that journey, of a Block that has become a symbol of ONGC Videsh's capability and credibility in international upstream ventures. I am proud to be part of the team that steers this success story every day on the ground.

Let CPO-5 remain a beacon of what can be achieved when global expertise meets local commitment.



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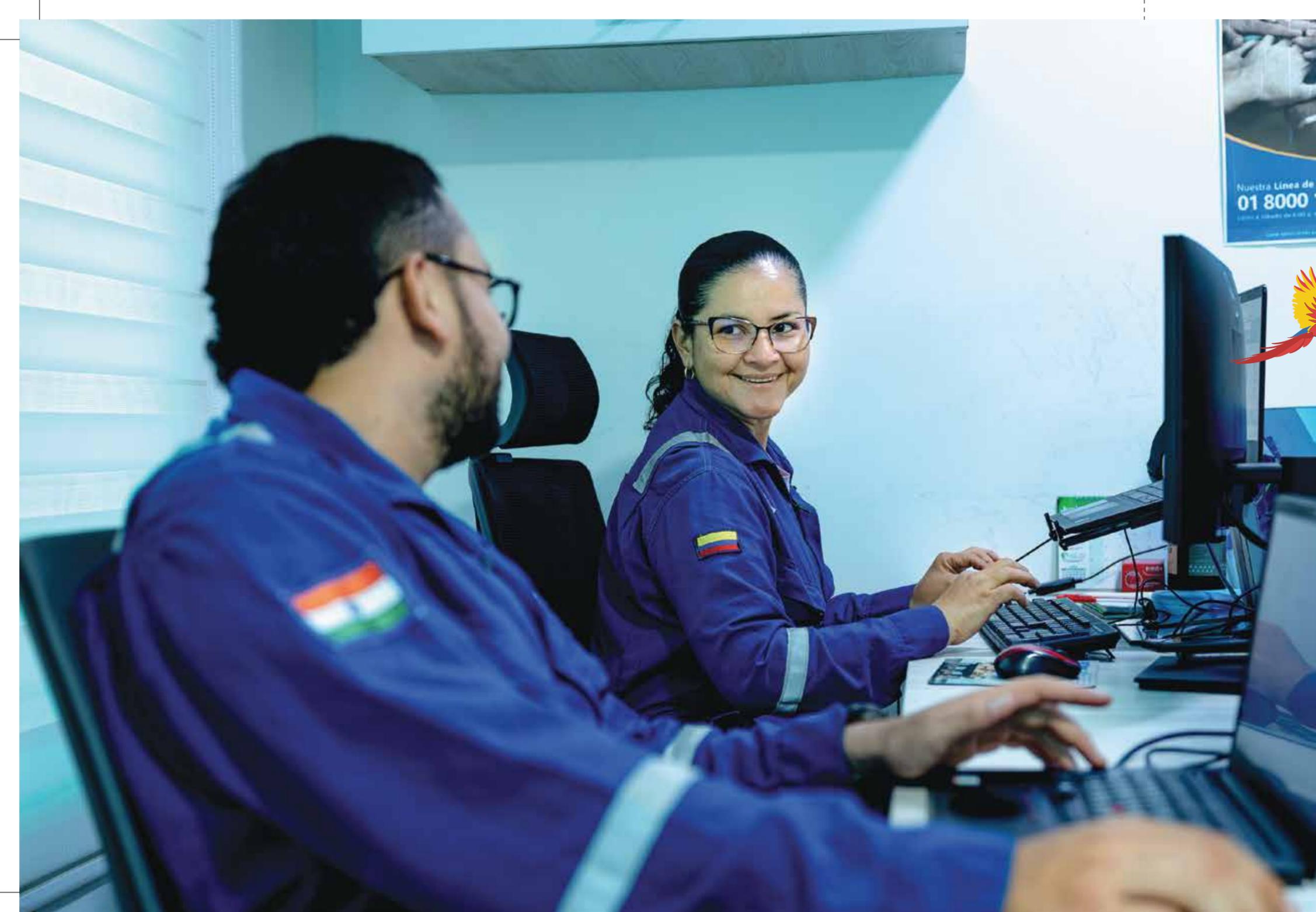


# Colombia Facts



## Geographical Diversity

Colombia is the only South American country  
with coastlines on both the  
Pacific Ocean and the Caribbean Sea.



CHAPTER 01

Introduction to

# CPO-5

## INTRODUCTION TO CPO-5

कर्मण्येवाधिकारस्ते मा फलेषु कदाचन  
मा कर्मफलहेतुर्भूर्मा ते सङ्गोऽस्त्वकर्मणि

*You have the right to work, but never to its fruits. Let not the fruits of action be your motive, nor let your attachment be to inaction.*

- Bhagavad Gita 2.47



Location of Colombia in South America

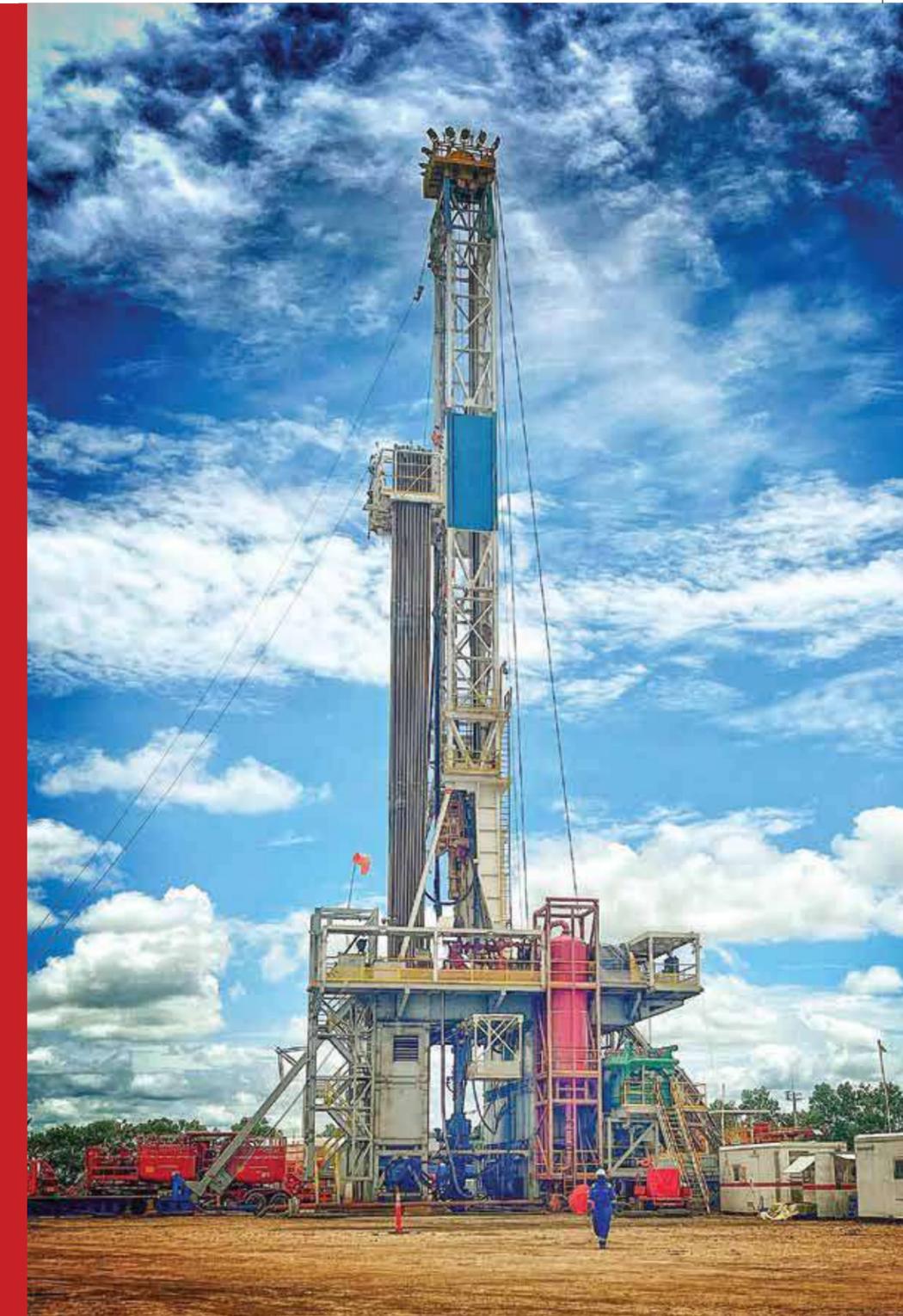
## Overview

The CPO-5 Block stands as a testament to ONGC Videsh's commitment to exploring and harnessing energy resources in some of the most geologically diverse and promising regions of the world. Located in the heart of Colombia's prolific Llanos Basin, CPO-5 has evolved from a promising exploration prospect into a significant contributor to the region's hydrocarbon production, embodying a journey of discovery, innovation, and collaboration.

## Geographical Location

CPO-5 Block is located in the Llanos Basin, within the Meta Department of Colombia, South America. Its strategic position is defined by its place within the continent, the country, and the specific administrative divisions that govern the area.

South America, the fourth largest continent, is known for its diverse geography, including the Amazon Rainforest and the Andes Mountains. Colombia, situated in the continent's northwest, holds significant geopolitical and economic importance. It is the only South American nation with coastlines on both the Pacific Ocean and the Caribbean Sea, and is rich in natural resources, particularly oil and gas.





CPO-5 is situated in the Meta Department, a key region in central Colombia known for its vast plains, or Llanos. Meta is bordered by Cundinamarca to the west, Vichada to the east, and Guaviare to the south. The department is an important area for both agriculture and hydrocarbon exploration.

The CPO-5 Block spans across three municipalities within Meta Department:

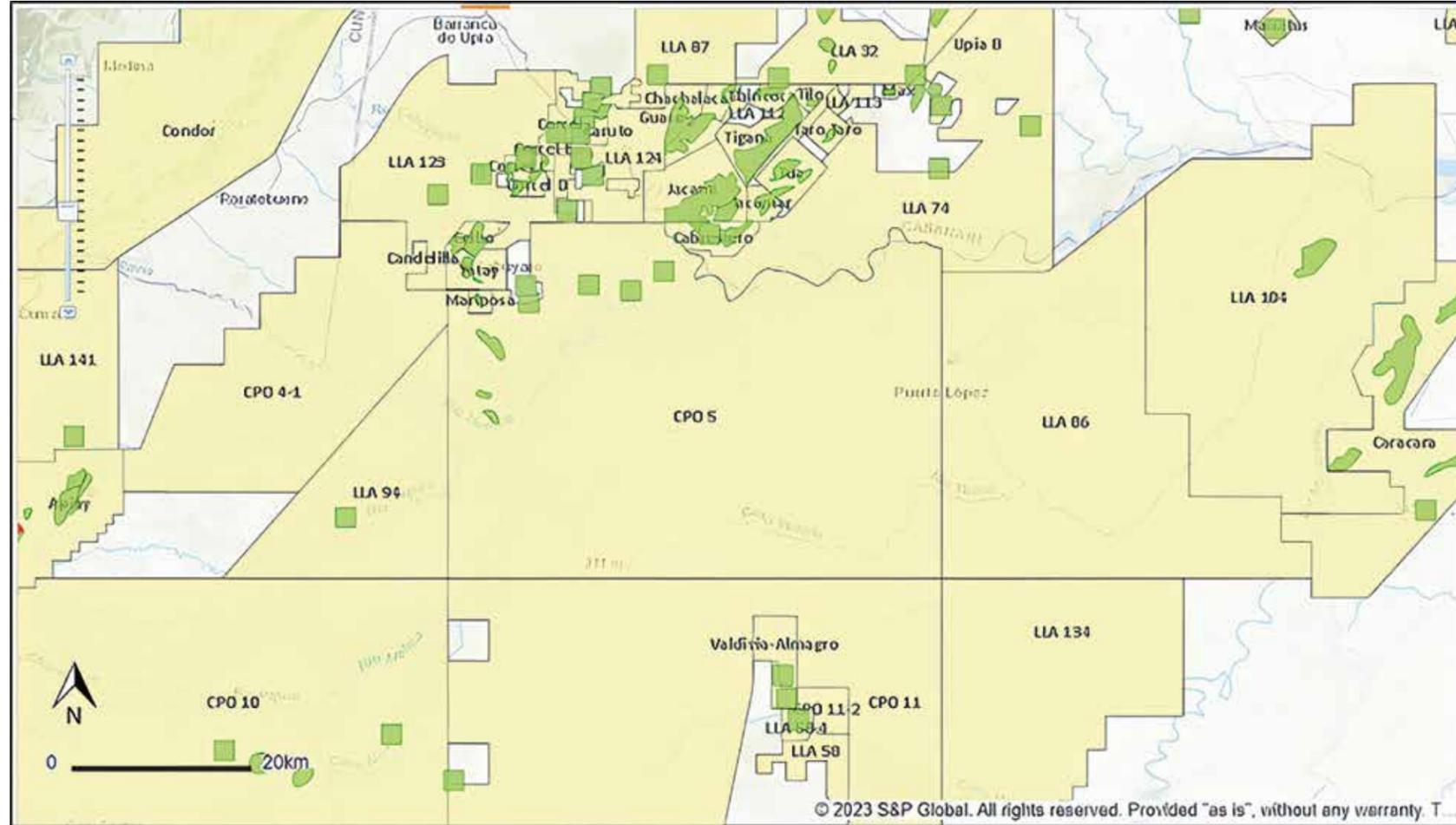
- **Cabuyaro:** Located in the northern part of Meta, Cabuyaro is an area with both agricultural activities and growing energy sector presence, benefiting from its proximity to key infrastructure.
- **Barranca de Upía:** Adjacent to Cabuyaro, Barranca de Upía offers a flat terrain and favorable geological conditions, making it a prime location for hydrocarbon exploration.
- **Puerto López:** Known as the "Gateway to the Llanos," Puerto López serves as a logistical hub, strategically positioned near major transportation routes to support operations within CPO-5.

CPO-5 is surrounded by other significant exploration and production blocks. To the north lies the Corcel Block, while CPO-4, CPO-6, and CPO-11 are situated to its west, east, and south respectively. These neighboring blocks, with their demonstrated hydrocarbon potential, enhance the prospectivity of CPO-5.



Departments in Colombia





Regional map showing the CPO-5 Block in relation to adjacent exploration and production blocks in the Llanos Basin.

## Significance to ONGC Videsh

Acquired in 2008 during the Colombian Bid Round, CPO-5 has been integral to ONGC Videsh's expansion into Latin America. The Block's successful exploration and subsequent development have not only bolstered the company's global production portfolio but also underscored its technical prowess in navigating complex geological settings. The collaborative efforts and strategic investments in CPO-5 have paved the way for sustainable growth and have contributed significantly to Colombia's energy sector.



## Partnering Companies

- ExxonMobil • British Petroleum • Shell • ENI • Total • Repsol
- Equinor Apsheron AS • MOL • Petrobras • Sodeco • AzACG
- Rosneft • ADNOC • Posco International • Petro Vietnam
- Canacol Energy • CNPC • Sinopec • PDVSA • Petronas
- Ecopetrol • Geopark • SIPC



ONGC Videsh has forged strategic alliances with a prestigious group of international oil companies.



# Colombia Facts



## Emerald Capital

Colombia produces over 70% of the world's emeralds,  
especially from the Muzo and Chivor mines.  
Colombian emeralds are prized for their deep green color.



CHAPTER02

The

# Geology

## THE GEOLOGY

कर्मण्यकर्म यः पश्येदकर्मणि च कर्म यः द्य  
स बुद्धिमान्मनुष्येषु स युक्तः कृत्स्नकर्मकृत् दद्य

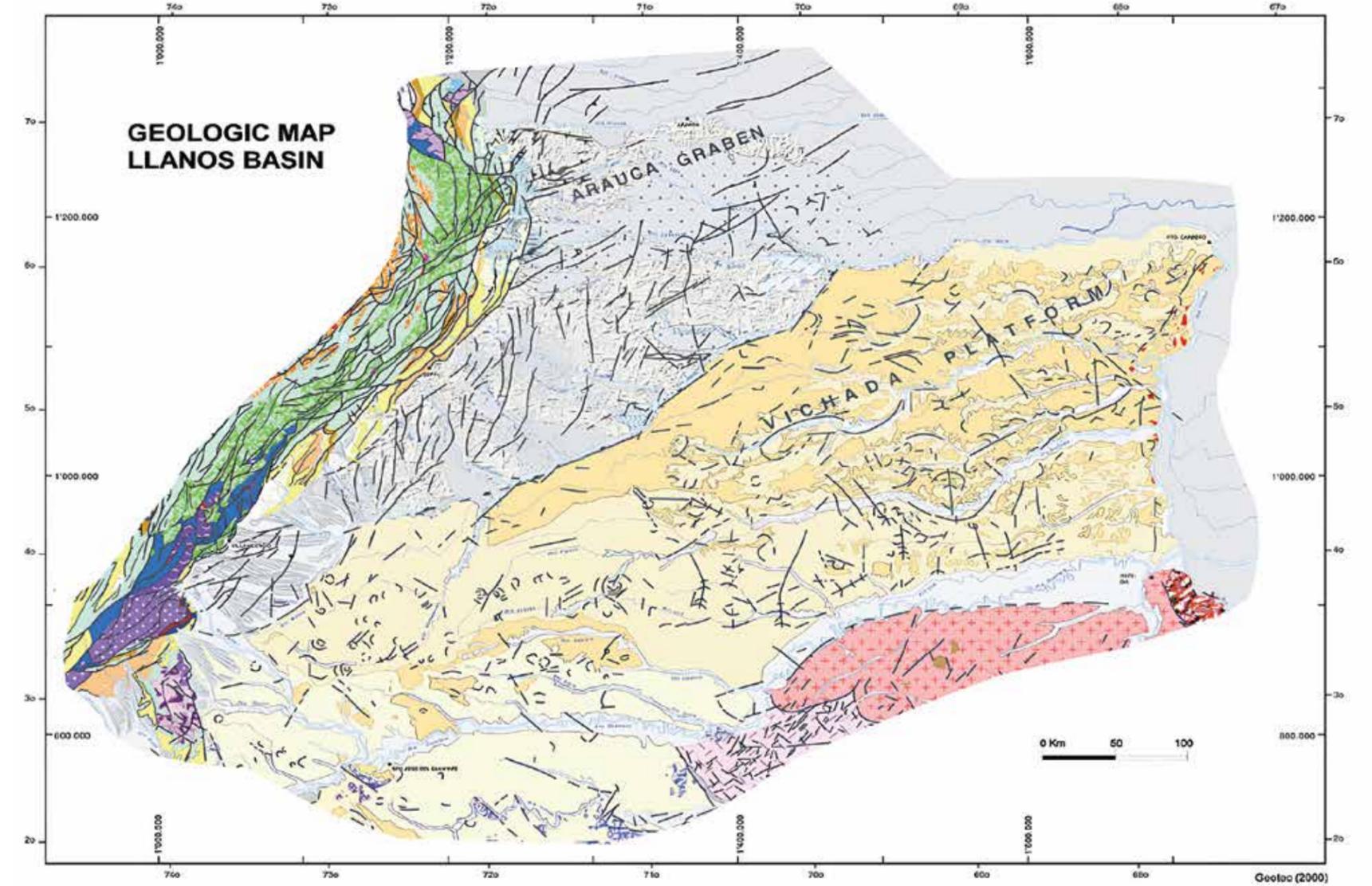
*The wise see that there is action in the midst of inaction,  
and inaction in the midst of action.*

- Bhagavad Gita 4.18

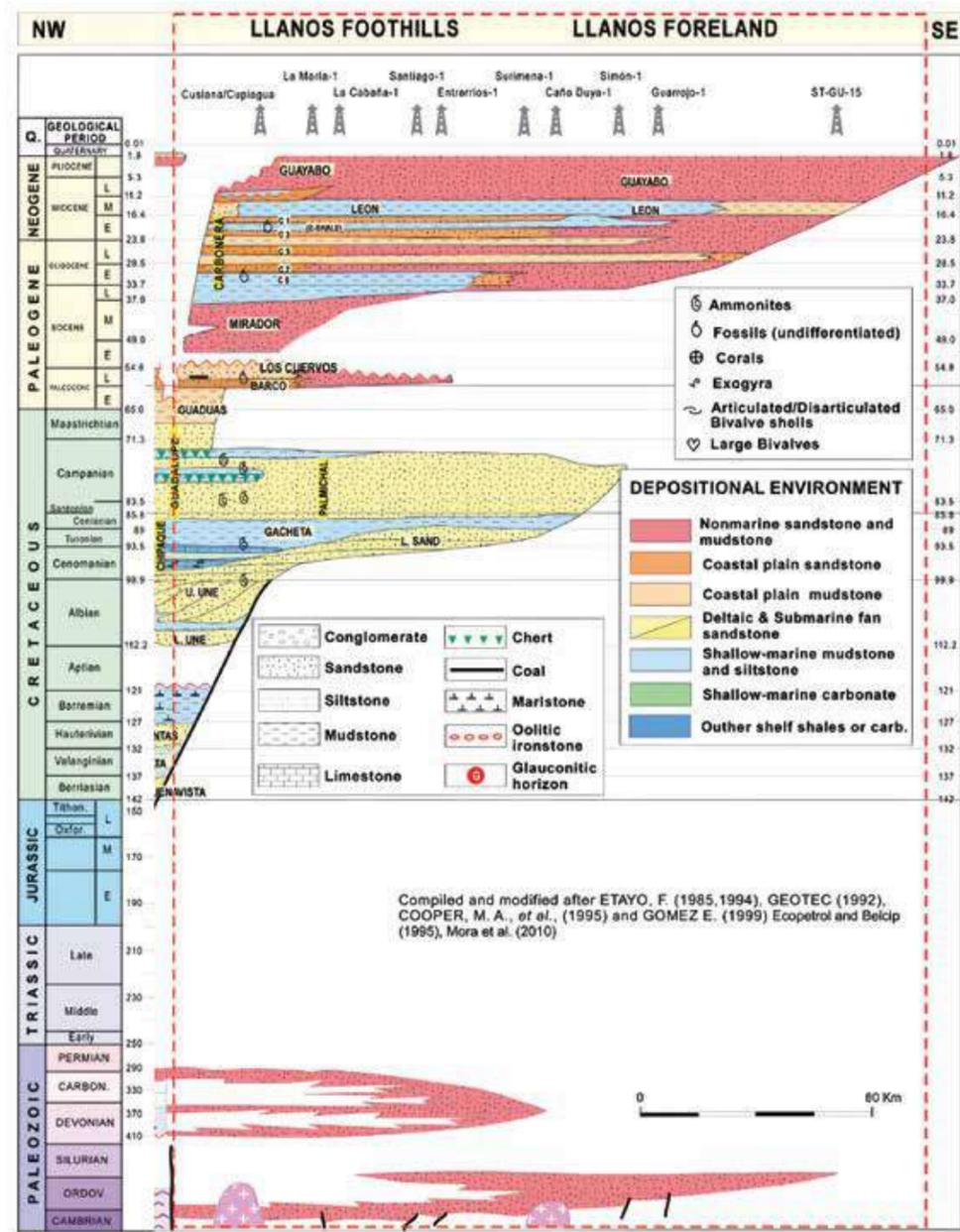


### Geological Setting of the Llanos Basin

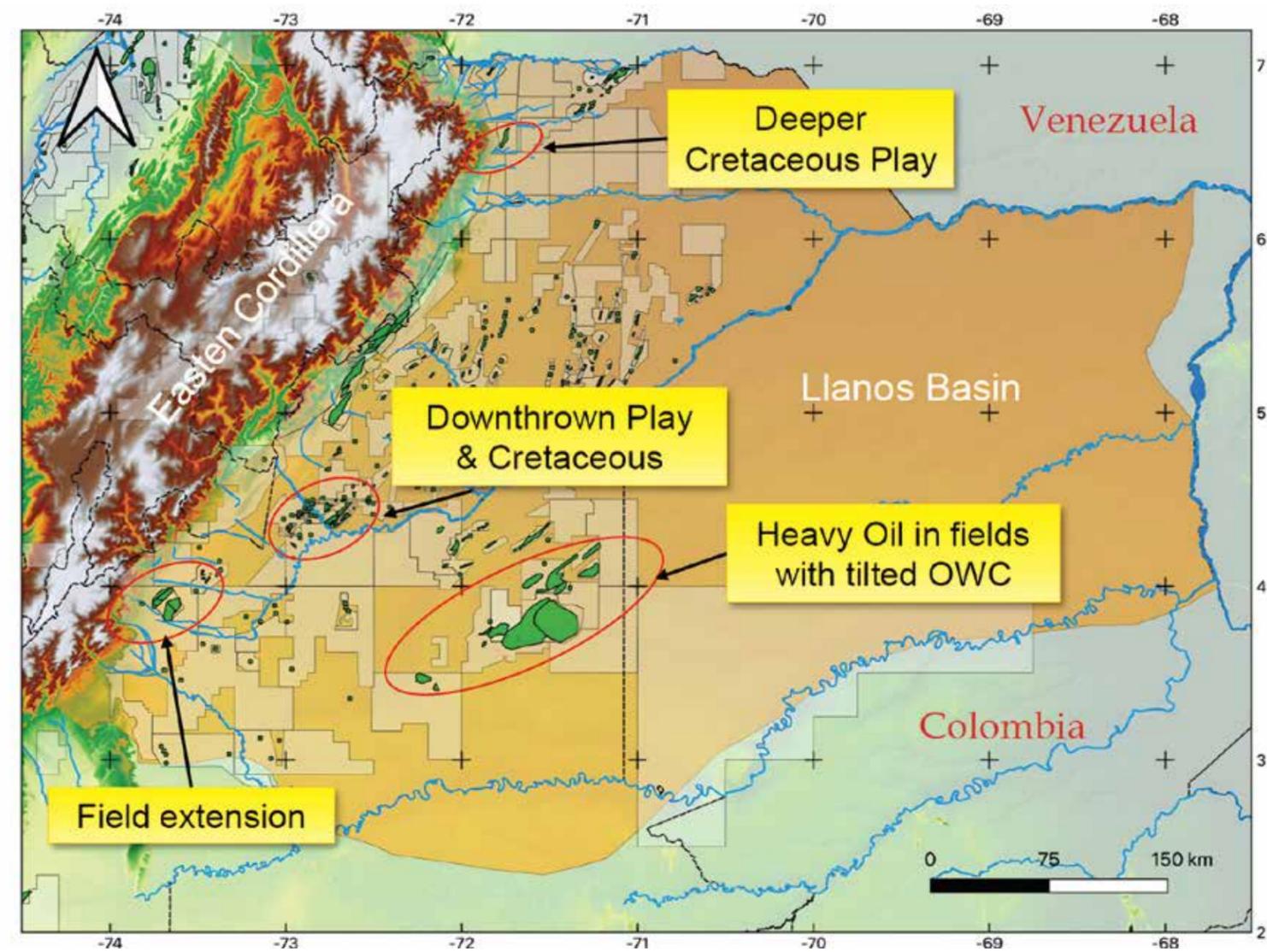
The Llanos Basin, spanning over 200,000 square kilometers, is one of Colombia's most prominent hydrocarbon provinces. Formed through a complex interplay of tectonic activities, sedimentation processes, and climatic influences, the basin presents a rich setting of geological formations that have been conducive to hydrocarbon generation and accumulation.



Geological map of the LIAB. (Modified from Geotec, 2000).



Regional stratigraphic Wheeler diagram



Plays Concepts in the Basin

## Stratigraphy and Reservoir Formations

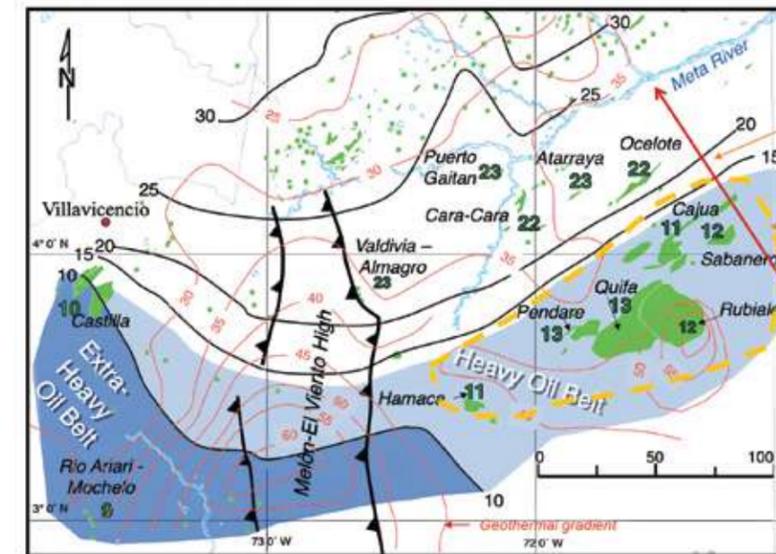
The sedimentary sequence within CPO-5 comprises predominantly siliciclastic rocks ranging from the Lower Paleozoic to recent deposits. Key formations of interest include:

### 1. Une Formation (Lower Cretaceous)

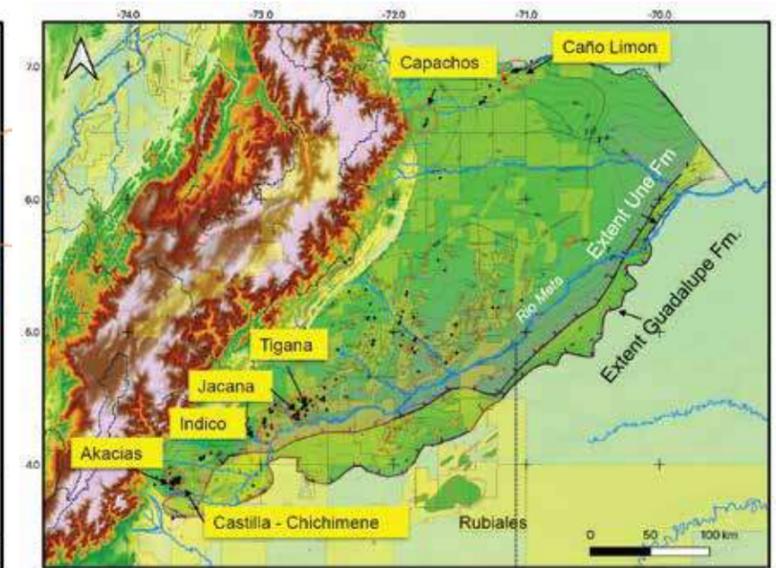
- **Description:** Composed mainly of fine to coarse-grained sandstones with interbedded shales, deposited in a deltaic environment with marine influences.
- **Significance:** Serves as one of the primary reservoir units, hosting significant hydrocarbon accumulations as evidenced by discoveries in the Mariposa and Indico fields.

### 2. Guadalupe Formation (Campanian)

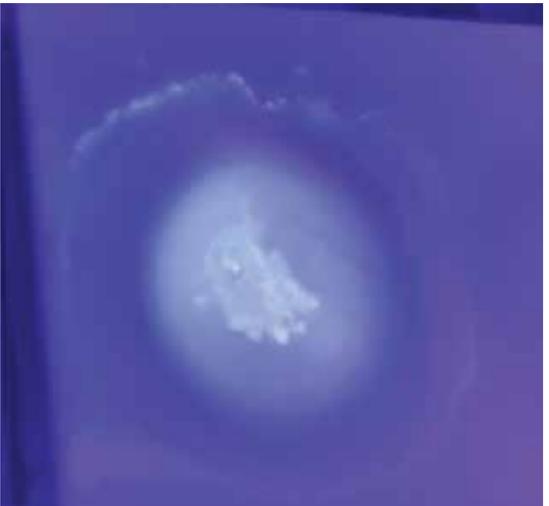
- **Description:** Characterized by thick layers of high-porosity sandstones interbedded with shales and thin volcanic ashes layers, indicative of deposition in coastal plain environments. This formation includes estuarine to marine sandstones and mudstones. Depositional environments include lower shoreface, estuarine channels, tidal to wave-influenced marine channels and bars, and fluvial with estuarine influence. Tidal and wave-influenced sandstones are composed of well-rounded, predominantly medium-grained, moderately to well-sorted quartz grains, and intrabasinal fragments (phosphates and glauconite).
- **Significance:** Acts as an important secondary reservoir, with potential for future exploration and development, as demonstrated by recent findings in nearby blocks.



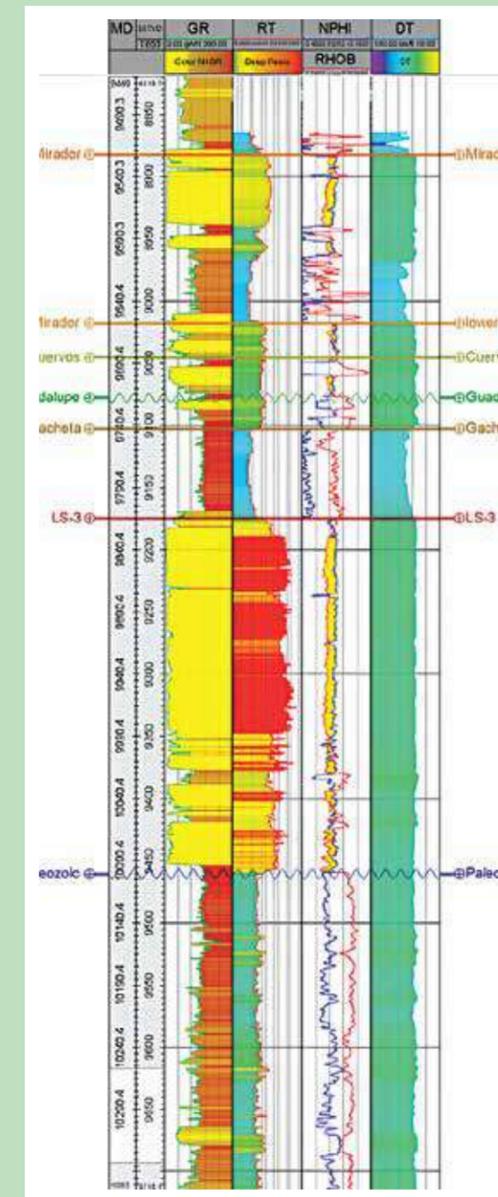
Distribution of oil gravity in the southern Llanos Basin.



Llanos Basin- Cretaceous Play



View in natural light (top) and fluorescent light (bottom) of sand samples at 9915 and 9924ft (Une Fm/LS-3), with evidence of pale yellow natural fluorescence on the left and blue on the right.



Typical log signatures in oil bearing LS-3 sand.

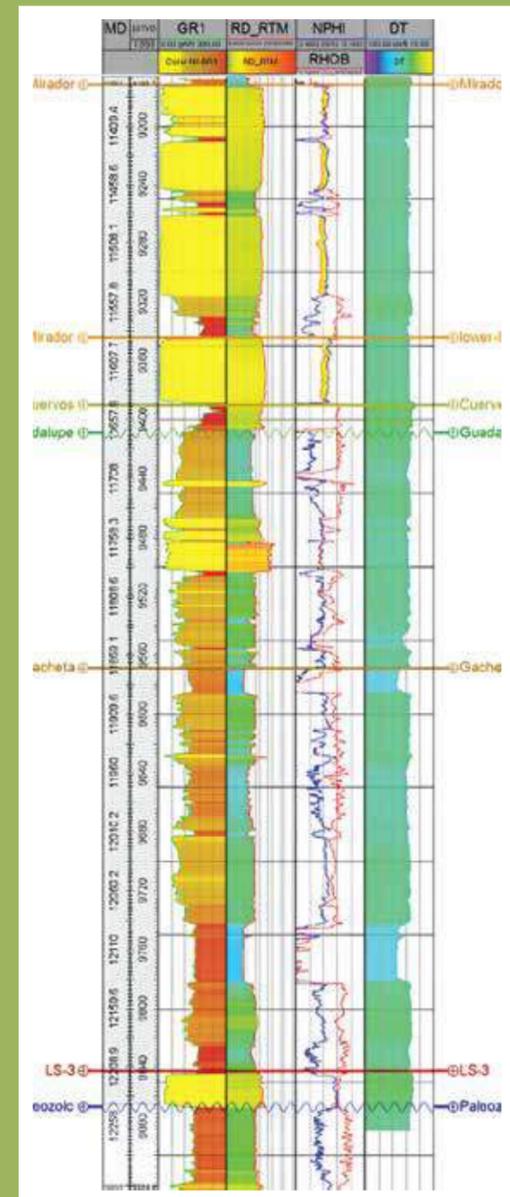


Core sample photograph illustrating the characteristic sandstone of the Une Formation.

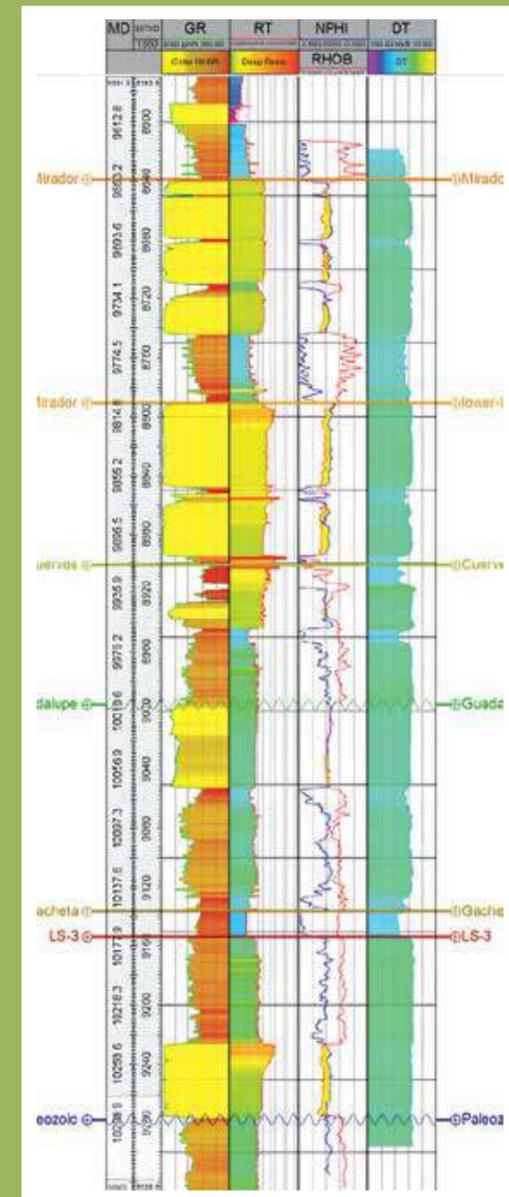


### 3. Mirador Formation (Eocene)

- **Description:** The Mirador Fm. includes a lower section with major fluvial influence and an upper section with major marine influence. The lower Mirador is coarser-grained and more poorly sorted, and contains a significant amount of detrital chert varying from argillaceous to highly siliceous. Chert gradually decreases towards the upper Mirador (Mesa, 1997). Chert was probably derived from Upper Cretaceous rocks, which due to rapid erosion, deposition and burial preserved the original composition. According to Folk classification (1980) sandstones vary from predominantly sublitharenites in the lower Mirador to quartzarenites in the upper Mirador.
- **Significance:** Holds potential as a reservoir unit, with exploration activities targeting its prospects to unlock additional resources in the block.

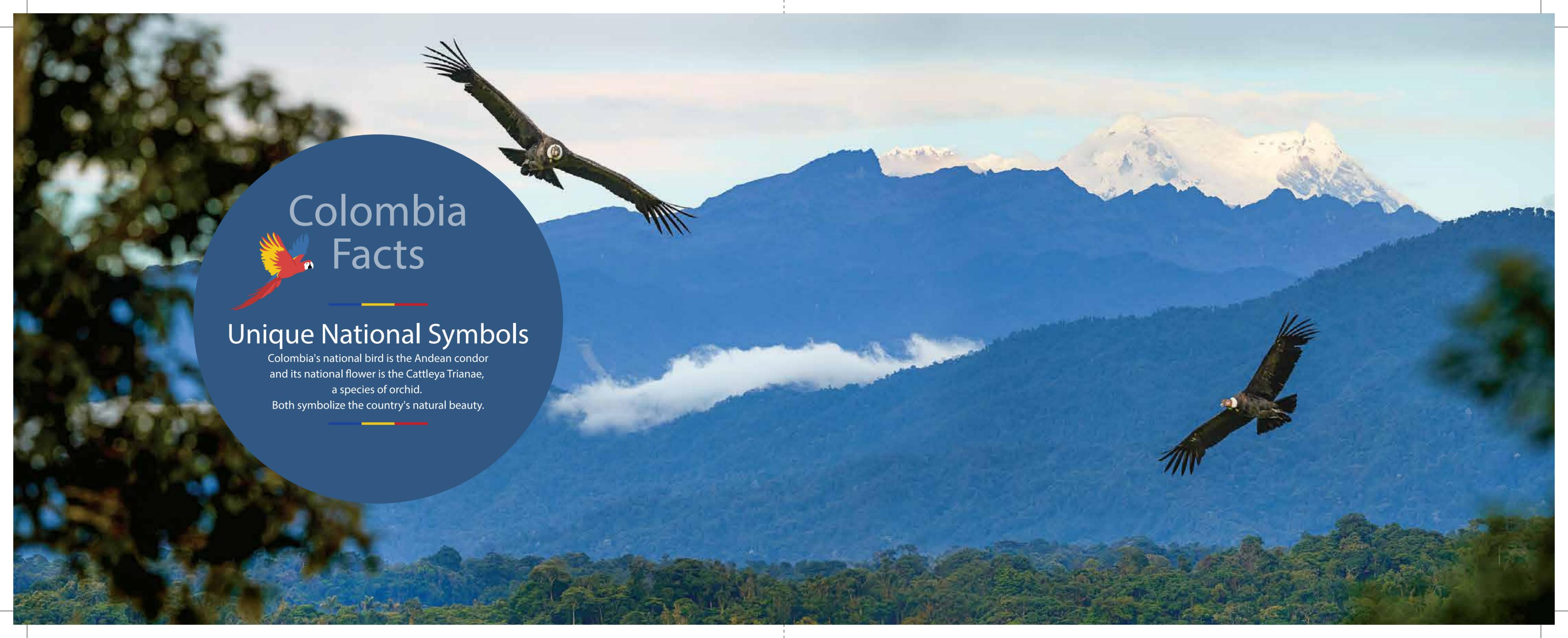


Typical log signatures in oil bearing Guadalupe sand.





ONGC Videsh has been  
operating in  
Colombia since 2008.



# Colombia Facts



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## Unique National Symbols

Colombia's national bird is the Andean condor  
and its national flower is the Cattleya Trianae,  
a species of orchid.

Both symbolize the country's natural beauty.

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CHAPTER 03

Exploration

# History

## EXPLORATION HISTORY

योगस्थः कुरु कर्माणि सङ्गं त्यक्त्वा धनञ्जय द्य  
सिद्ध्यसिद्ध्योः समो भूत्वा समत्वं योग उच्यते द्य

*You have the right to work, but never to its fruits. Let not the fruits of action be your motive, nor let your attachment be to inaction.*

*- Bhagavad Gita 2.47*

### Early Exploration Efforts (2009 - 2013)

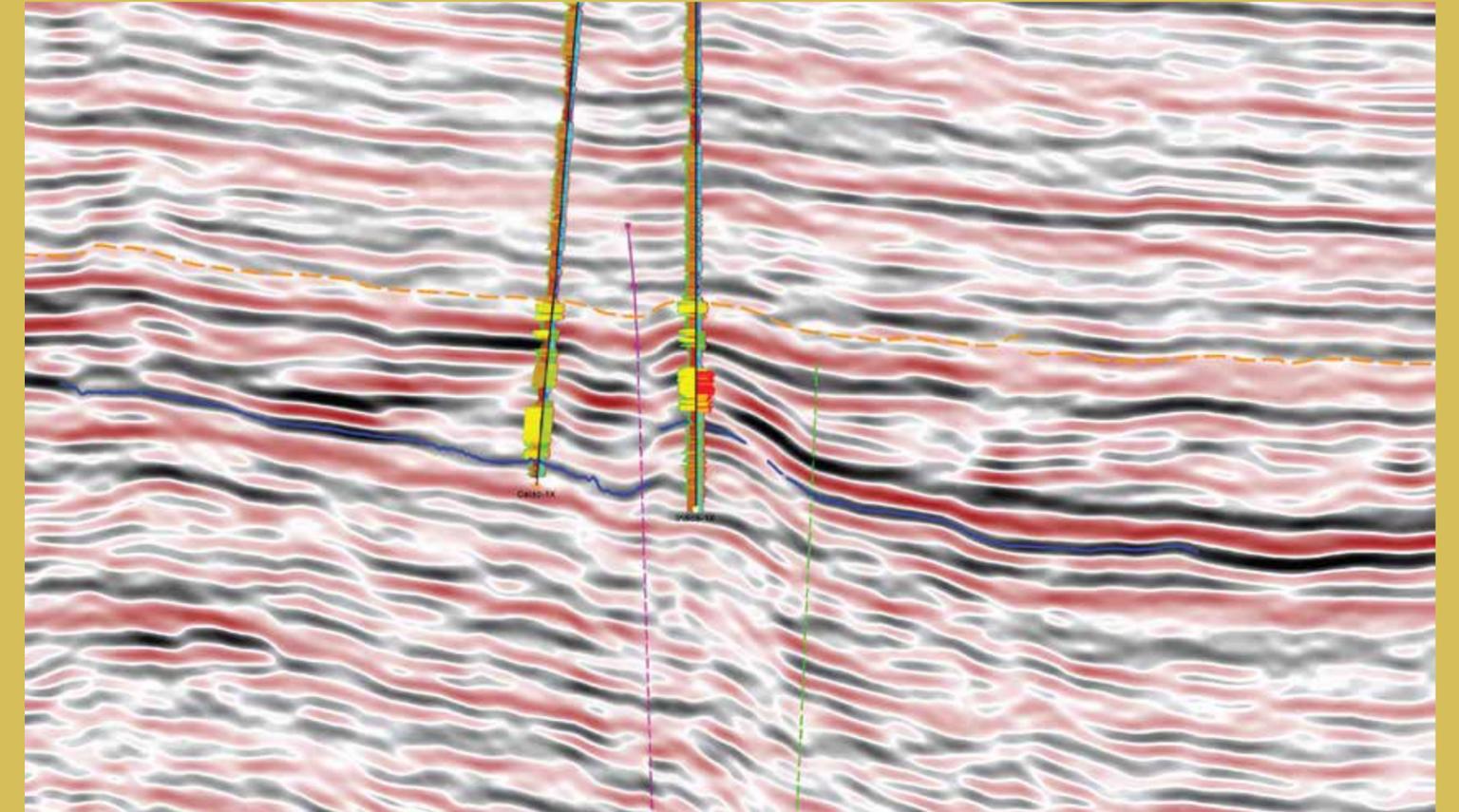
Following the acquisition of CPO-5 in 2008, ONGC Videsh embarked on an extensive exploration program aimed at unlocking the block's hydrocarbon potential.

#### Seismic Surveys

- **2D Seismic Acquisition:** In 2010, approximately 262 line kilometers of 2D seismic data were acquired, providing initial insights into subsurface structures and stratigraphy.
- **3D Seismic Acquisition:** The same year saw the acquisition of 650 square kilometers of 3D seismic data in the southeastern part of the block, enabling more detailed mapping and identification of prospective drilling locations.

### Initial Drilling Campaigns

- **Kamal-1 Well (2012):** The first exploratory well targeting the Mirador Formation encountered non-commercial quantities of hydrocarbons, providing valuable geological information for subsequent operations.
- **Loto-1 and Loto-2 Wells (2013 & 2015):** These wells further tested the potential of the Mirador Formation but resulted in non-commercial discoveries, prompting a strategic reassessment of exploration targets.



Seismic section image depicting key subsurface features identified during initial surveys.

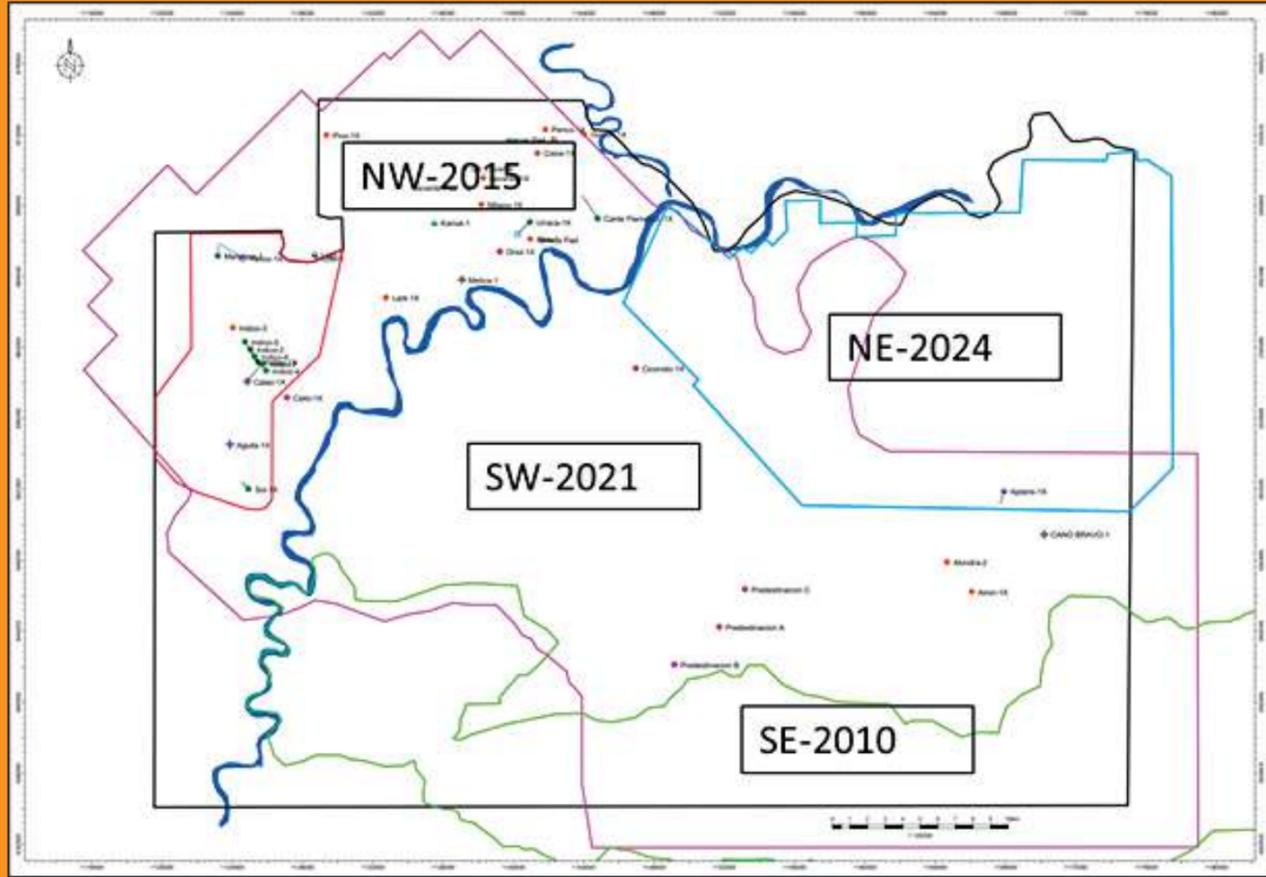


### Strategic Shifts & Renewed Exploration (2015 - 2017)

Learning from early drilling results, ONGC Videsh recalibrated its exploration strategy to focus on deeper and potentially more prolific formations.

### Expanded Seismic Coverage

- In 2015, an additional 254 square kilometers of 3D seismic data were acquired in the northwestern sector of the block, enhancing the understanding of deeper stratigraphic layers and complex structural configurations.

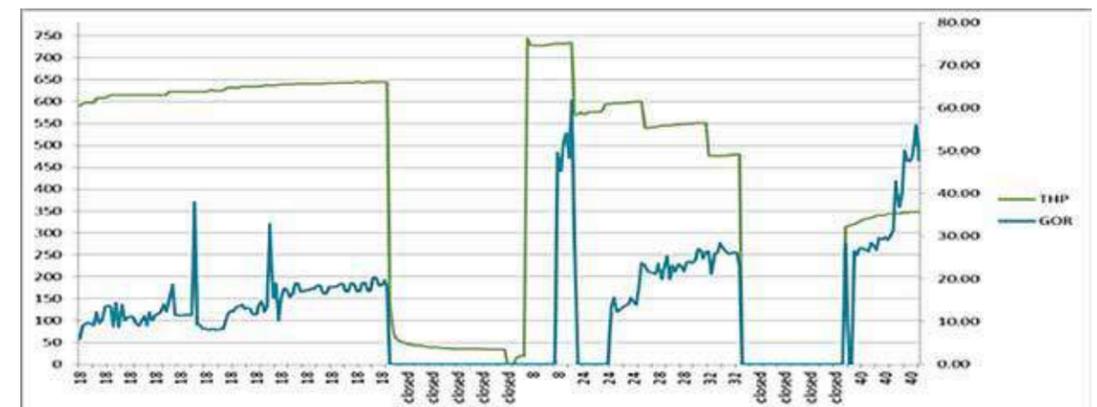
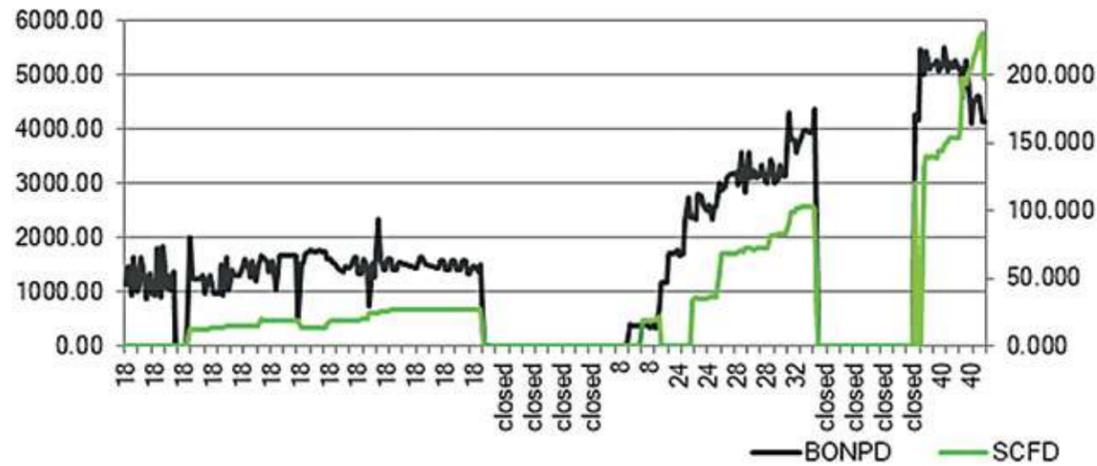


Map displaying comprehensive 3D seismic Data coverage across CPO-5 Block over different phases.

Photograph of the drilling rig in operation during Kamal-1 well campaign (December of 2012).

## Breakthrough Discovery

- Mariposa-1 Well (2017):** Drilled based on refined seismic interpretations, this well marked a significant breakthrough by discovering substantial hydrocarbon volumes in the LS-3 reservoir of the Une Formation. Initial tests yielded flow rates exceeding 3,000 barrels of oil per day of high-quality crude of high API, validating the revised exploration approach.



Test flow data chart illustrating production rates from the Mariposa-1 well. Oil and Gas production with different choke sizes.



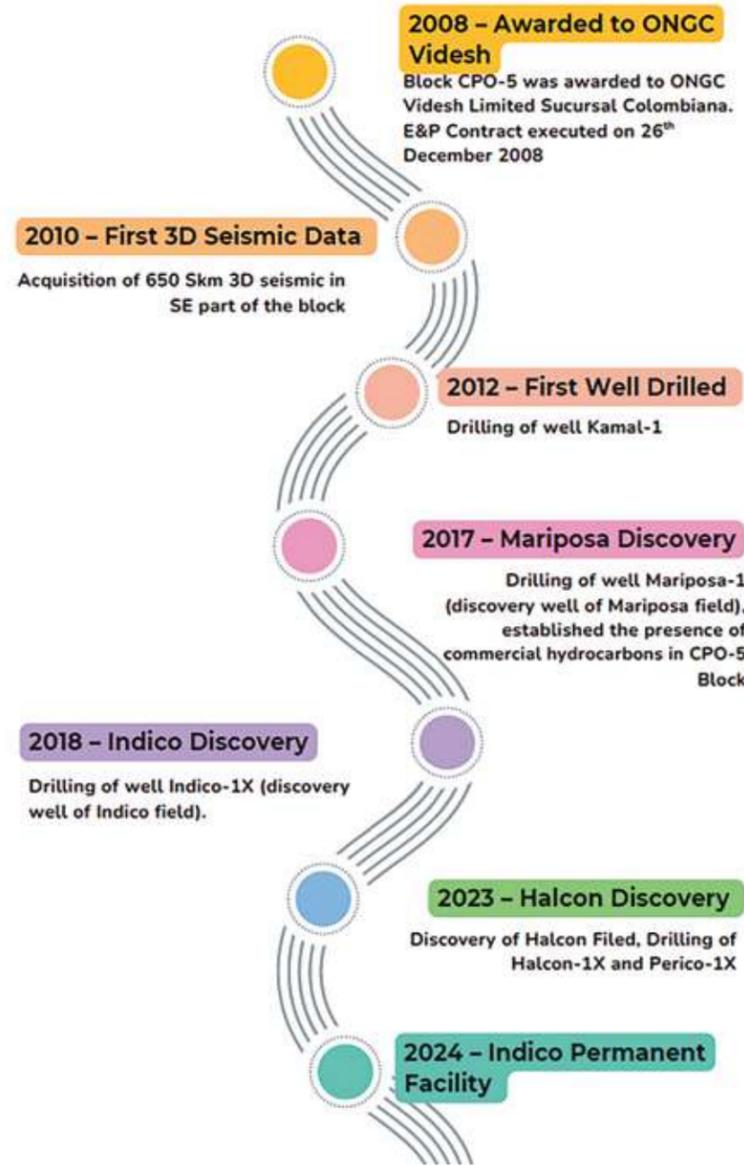
## Continued Success and Exploration Expansion (2018 - Present)

Building on the success of Mariposa-1, exploration activities intensified, leading to additional discoveries and expanded production.

### Key Discoveries

- Indico-1X Well (2018):** Further exploration led to the discovery of the Indico Field, with the well tapping into the same LS-3 reservoir and demonstrating even more promising production rates, reinforcing the prospectivity of the Une Formation across the block.

Aerial photograph of the Indico-1X well site during drilling operations.



### Ongoing Exploration Initiatives

- **Seismic Data Acquisition:** Recent years have seen the acquisition of 248 square kilometers of 3D seismic data in the southwestern sector and 253 square kilometers in the northeastern sector, aiming to delineate additional prospects.
- **Drilling Campaigns:** Multiple exploratory and appraisal wells have been drilled, targeting both proven and new formations, with a focus on unlocking untapped resources and expanding the block's production footprint.

Timeline infographic summarizing the key milestones in CPO-5's exploration history.



ONGC Videsh's primary business is to prospect for oil and gas acreages outside India.

# Colombia Facts



## Biodiversity Hotspot

Colombia is the second most biodiverse country in the world, after Brazil. It has the highest number of bird species (over 1,900) and is home to diverse ecosystems like the Amazon rainforest, Andes mountains, and Caribbean coast.



CHAPTER 03

Discoveries and

# Developments

## DISCOVERIES AND DEVELOPMENTS

तस्मादसक्तः सततं कार्यं कर्म समाचर यः  
असक्तो ह्याचरन्कर्म परमाप्नोति पूरुषः यद्य

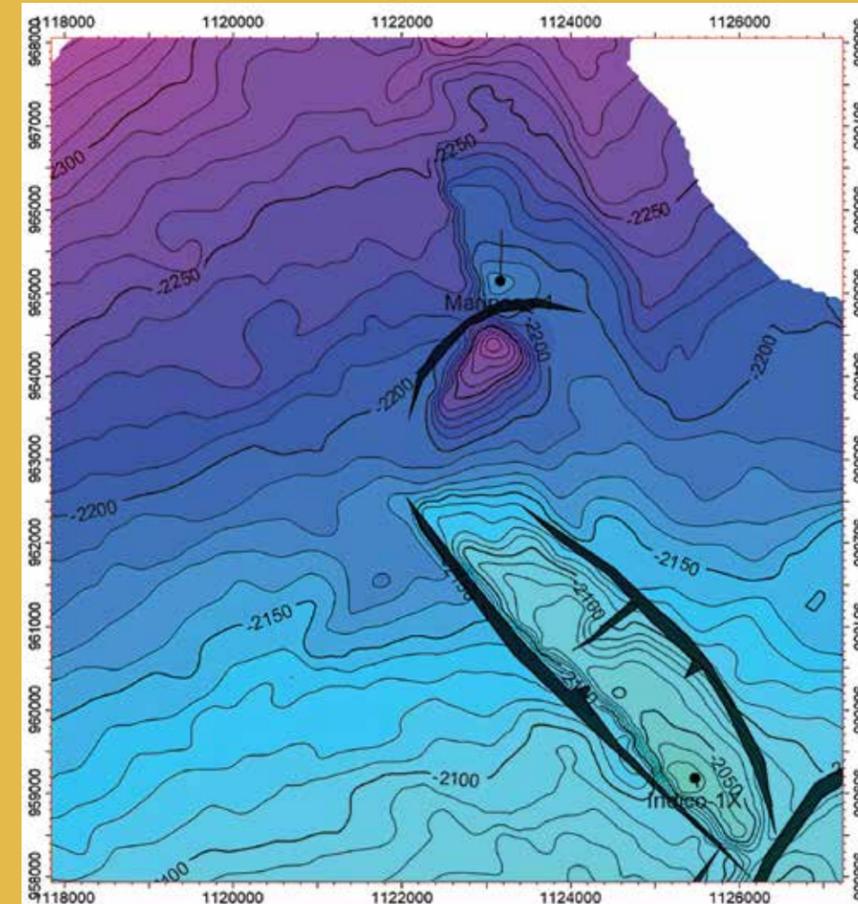
*Therefore, giving up attachment, perform actions as a matter of duty because by working without being attached to the fruits, one attains the Supreme.*

- Bhagavad Gita 3.19

### Mariposa Field

#### Discovery and Initial Development

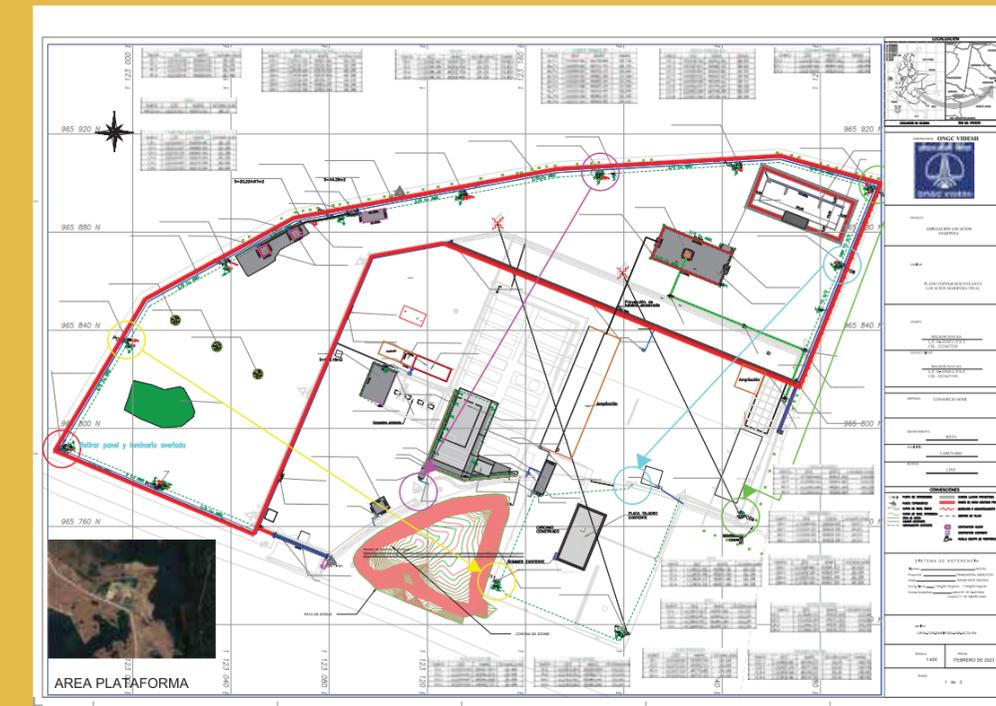
The Mariposa Field, discovered through the successful drilling of the Mariposa-1 well in 2017, stands as a flagship achievement within CPO-5. The well penetrated the LS-3 reservoir of the Une Formation, revealing exceptional reservoir characteristics with porosity averaging 19-20% and high oil saturation levels.



Structural map illustrating the extent and geometry of the Mariposa Field within CPO-5 Block.

### Production Performance

- **Initial Production:** The Mariposa-1 well initially flowed at rates exceeding 3,160 bopd of 40° API crude with minimal water cut, showcasing the reservoir's prolific nature.
- **Development Strategy:** Employing a model of utilizing rented production facilities enabled swift monetization of the discovery, with oil being brought to market promptly while minimizing upfront capital expenditure.
- **Cumulative Production:** To date, the Mariposa Field has produced over 4.5 million barrels, contributing significantly to the block's overall output.

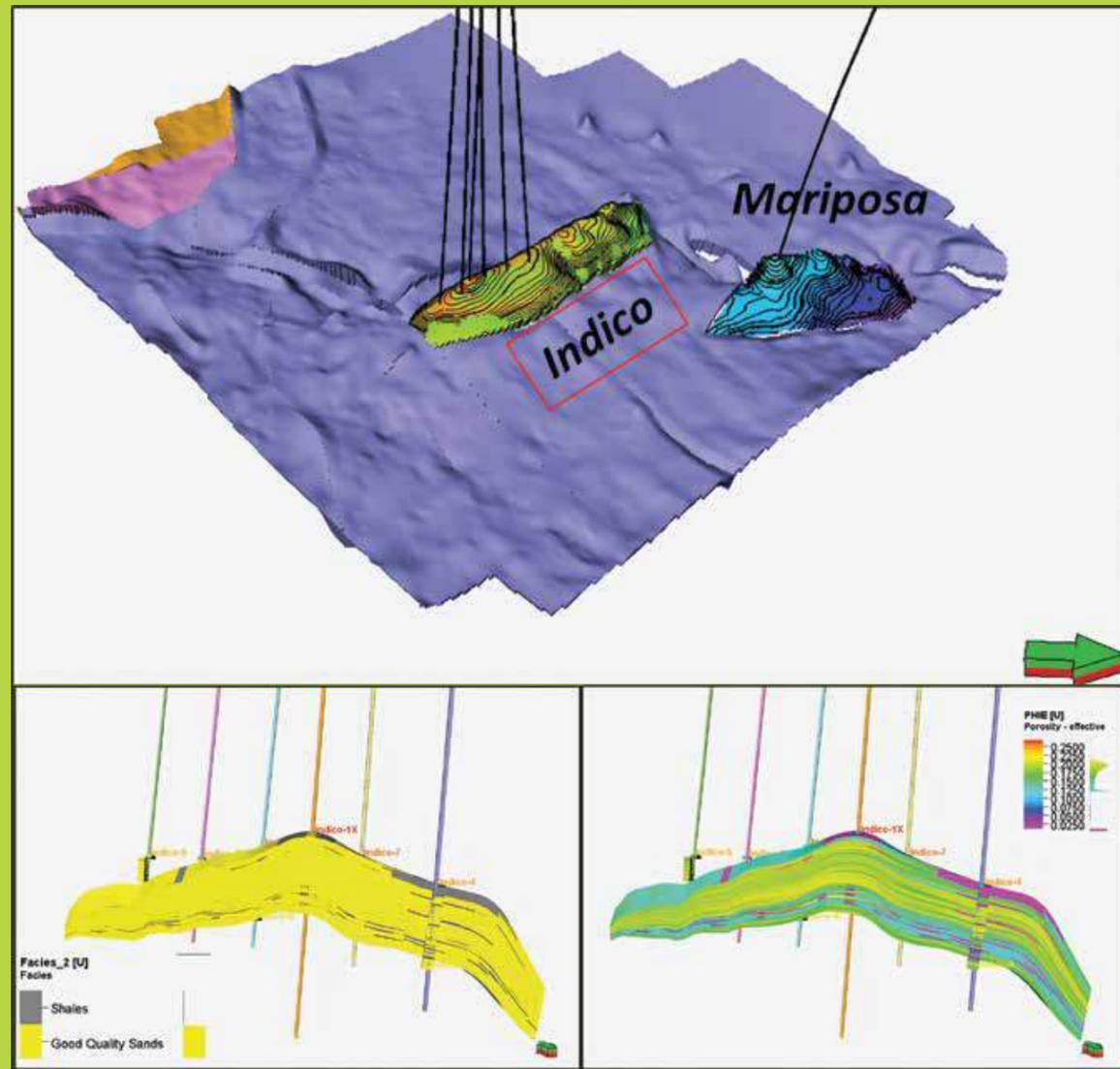


Production profile graph depicting daily and cumulative oil production from the Mariposa Field.

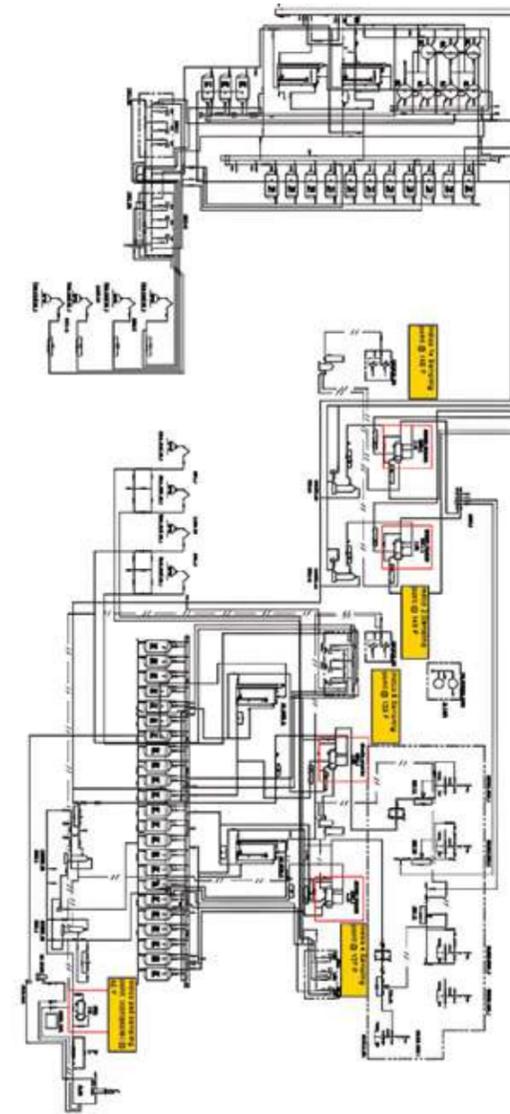
## Indico Field

### Discovery and Appraisal

Discovered in 2018 through the Indico-1X well, the Indico Field has rapidly emerged as a cornerstone of CPO-5's production portfolio. The well encountered high-quality hydrocarbons in the LS-3 reservoir, mirroring the success of Mariposa but with even more promising indicators.



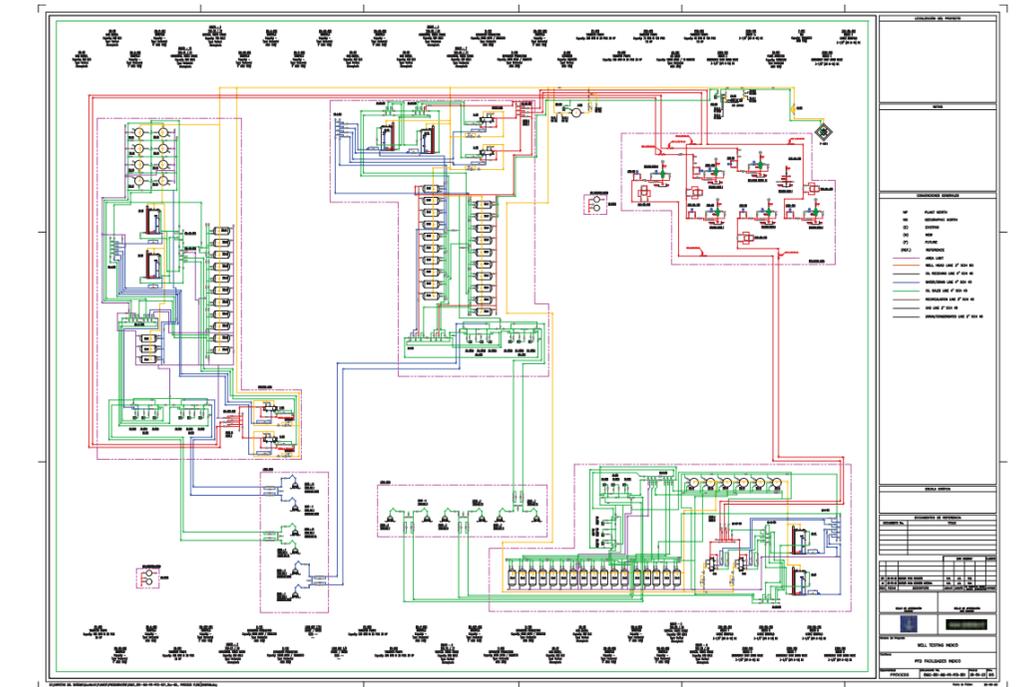
3D reservoir model showcasing the structure and facies of the Indico Field.



Schematics of the central processing facility serving the Indico Field operations.

### Development and Production

- **Rapid Development:** Following the discovery, swift appraisal and development activities led to the drilling of multiple wells, including Indico-2, Indico-4, Indico-5, Indico-6, and Indico-7, all confirming extensive reservoir continuity and robustness.
- **Production Metrics:** Current production from the Indico Field stands at approximately 25,330 bopd, with cumulative production surpassing 24 million barrels.
- **Facilities and Infrastructure:** The development strategy involved modular and scalable production facilities, allowing for efficient handling of increasing production volumes and adaptability to future expansion.



Schematics of the central processing facility serving the Indico Field operations.



## Emerging Prospects

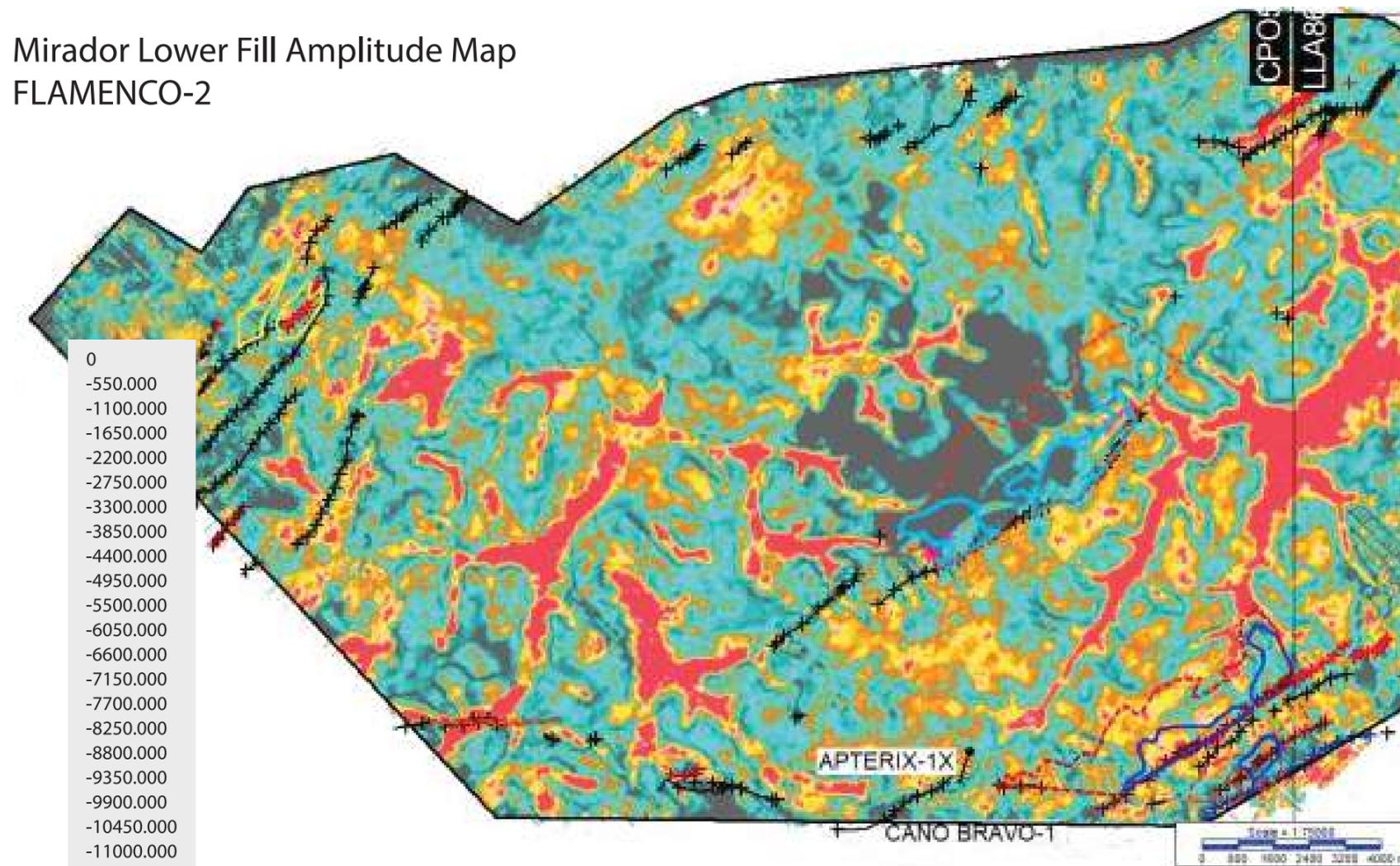
### Halcon and La Urraca Evaluation Areas

Recent exploratory successes in wells such as Halcon-1X have opened up new avenues for development, particularly targeting the Guadalupe Formation. These findings underscore the multi-layered prospectivity of CPO-5 and set the stage for future exploration and appraisal activities.

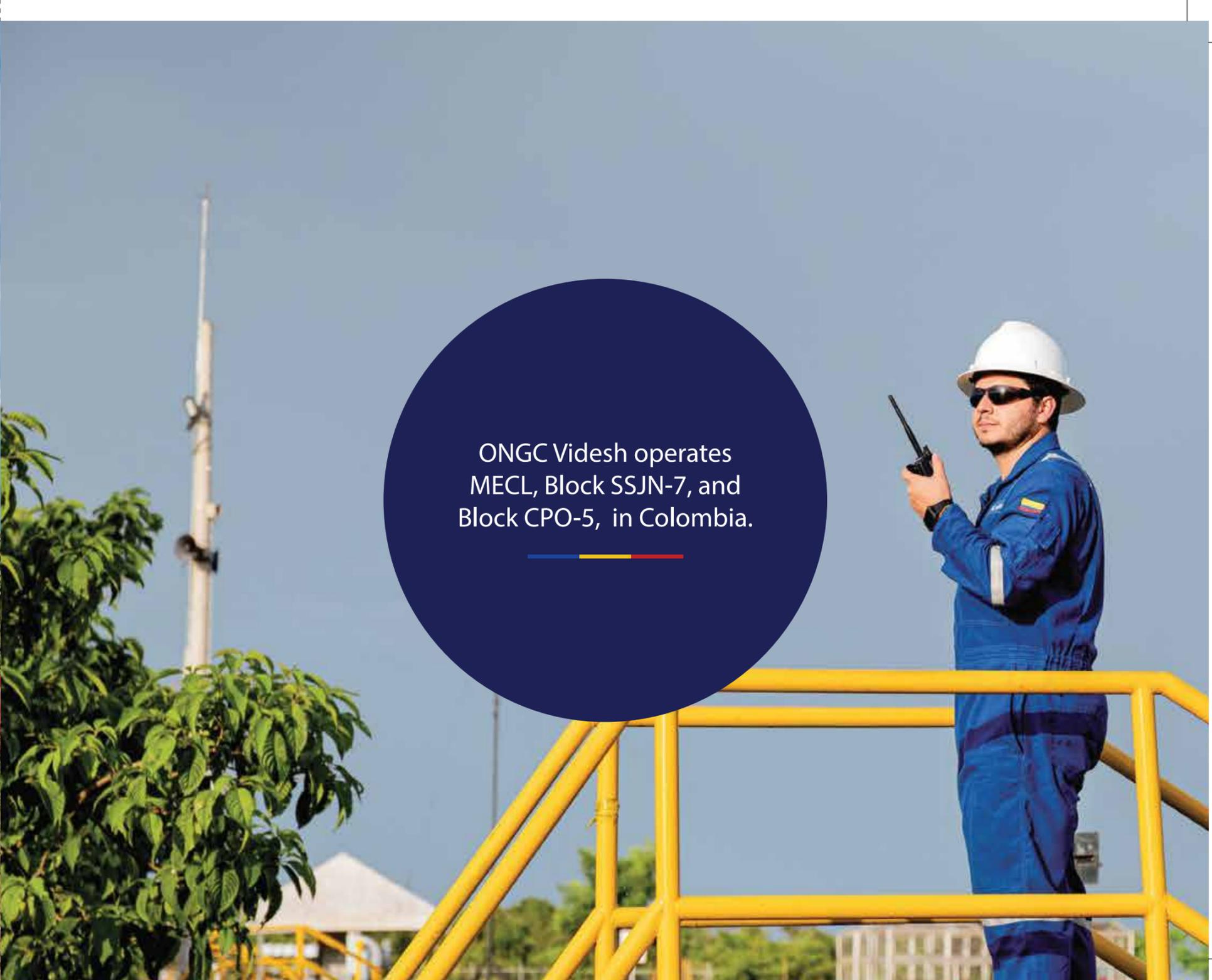
### Future Exploration Plans

- **Seismic Data Interpretation:** Ongoing processing and interpretation of newly acquired seismic data aim to identify additional drilling targets across unexplored sectors of the block.
- **Drilling Campaigns:** A strategic plan encompassing the drilling of several exploratory and appraisal wells over the next few years seeks to further delineate and exploit the block's resource potential.

Mirador Lower Fill Amplitude Map  
FLAMENCO-2



Features in newly acquired seismic.



ONGC Videsh operates  
MECL, Block SSJN-7, and  
Block CPO-5, in Colombia.

# Colombia Facts



## Gabriel García Márquez

The Nobel Prize-winning author of  
One Hundred Years of Solitude  
was Colombian. He played a major role  
in popularizing Latin American literature worldwide





CHAPTER05

# Partnerships and Operations

## PARTNERSHIPS AND OPERATIONS

रागद्वेषवियुक्तैस्तु विषयानिन्द्रियैश्वरन् द  
आत्मवश्यैर्विधेयात्मा प्रसादमधिगच्छति दद

*The peace of God is with those whose mind and soul are in harmony, who are free from desire and wrath, who know their own soul.*

*- Bhagavad Gita 2.64*

### Joint Venture Structure

Effective collaboration has been central to the success of CPO-5. The block is operated under a joint venture between ONGC Videsh Limited holding a 70% participating interest and GeoPark Colombia S.A.S holding the remaining 30%.

### Joint Operating Agreement (JOA)

The operational framework is governed by a comprehensive JOA that outlines the rights, responsibilities, and decision-making processes of the partners.



## KEY FEATURES OF THE JOA



### **Operating Committee**

Comprises representatives from both partners, responsible for overseeing and approving work programs, budgets, and major operational decisions



### **Voting Mechanisms**

Decisions are made based on specified voting thresholds, ensuring balanced and equitable participation in strategic planning



### **Risk and Cost Sharing**

The agreement delineates the proportionate sharing of exploration and development costs, as well as revenues and liabilities, aligning incentives and fostering collaborative risk management





## POWER OF OPERATING COMMITTEE



### Work Program & Budget

Consider, review, and approve a proposed Work Program & Budget.



### Recommendations of subcommittees

Consider the recommendations of the subcommittees.



### Relinquishment

Decide on matters relating to relinquishment.



### Wells

Approve the location, objective and depth of wells to be drilled and seismic programs to be performed under Work Programs and Budgets, and the Deepening, Testing, Reworking, Completion, Recompletion, Plugging Back and abandonment of said wells.



### Declaration of Commerciality

To approve Declaration of Commerciality.



### Plans and programs

Consider, review and approve of all plans and programs (including appraisal plans, development plans and plans relating to production) required under the Contract.



### Decide to voluntarily terminate the Contract.



## Operational Excellence

### Project Management

- **Integrated Approach:** Operations in CPO-5 employ an integrated project management approach, combining expertise across geoscience, engineering, environmental management, and community relations to ensure seamless execution.
- **HSE Standards:** Adherence to stringent Health, Safety, and Environment (HSE) protocols has been paramount, with continuous monitoring and improvement initiatives ensuring safe and sustainable operations.



Photograph of an HSE training session conducted for field personnel.



Logistics and infrastructure network supporting CPO-5 operations.



## Supply Chain and Logistics

- **Local Engagement:** Leveraging local suppliers and services has streamlined logistics while contributing to regional economic development.
- **Efficient Infrastructure:** Development of robust infrastructure, including roads, pipelines, and processing facilities, has facilitated efficient production and transportation of hydrocarbons.

# Colombia Facts



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## Coffee Culture

Colombia is one of the world's top producers of Arabica coffee, known for its smooth and mild flavor. The "Coffee Cultural Landscape" is even a UNESCO World Heritage Site.

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CHAPTER 06

# Environmental and Social Responsibility

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## ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

Waste no more time arguing what a good man should be. Be one.

- Marcus Aurelius

### Environmental Stewardship

#### Environmental Licensing and Compliance

- **Regulatory Adherence:** All operations within CPO-5 are conducted in strict compliance with Colombian environmental regulations, with necessary licenses and permits obtained by ANLA and regularly updated.
- **Environmental Impact Assessments (EIA):** Comprehensive EIAs are conducted prior to initiating major projects, identifying potential impacts and outlining mitigation strategies to preserve local ecosystems.
- **Biodiversity Conservation:** Initiatives such as habitat restoration, wildlife monitoring, and conservation projects are integral components of the environmental management plan.
- **Pollution Control:** Implementation of advanced waste management systems, effluent fluid disposal, and emission monitoring minimizes the environmental footprint of operations.



Socialization for License Modification in progress.



## Social Responsibility and Community Engagement

### Community Relations

- **Stakeholder Engagement:** Proactive engagement with local communities, including regular consultations and feedback mechanisms, fosters mutual understanding and addresses community concerns effectively.
- **Community Development Programs:** Investment in local infrastructure, education, healthcare, and livelihood projects contributes to the socio-economic upliftment of communities within the operational vicinity.



Image capturing a community meeting discussing upcoming projects and their implications.



### Local Employment and Capacity Building

- **Job Creation:** Prioritizing local employment opportunities has generated significant jobs, enhancing economic stability and skill development within the region.
- **Training and Education:** Capacity-building programs, including vocational training and educational scholarships, empower community members and build a skilled local workforce.



Photograph showcasing a vocational training workshop conducted for local youths.

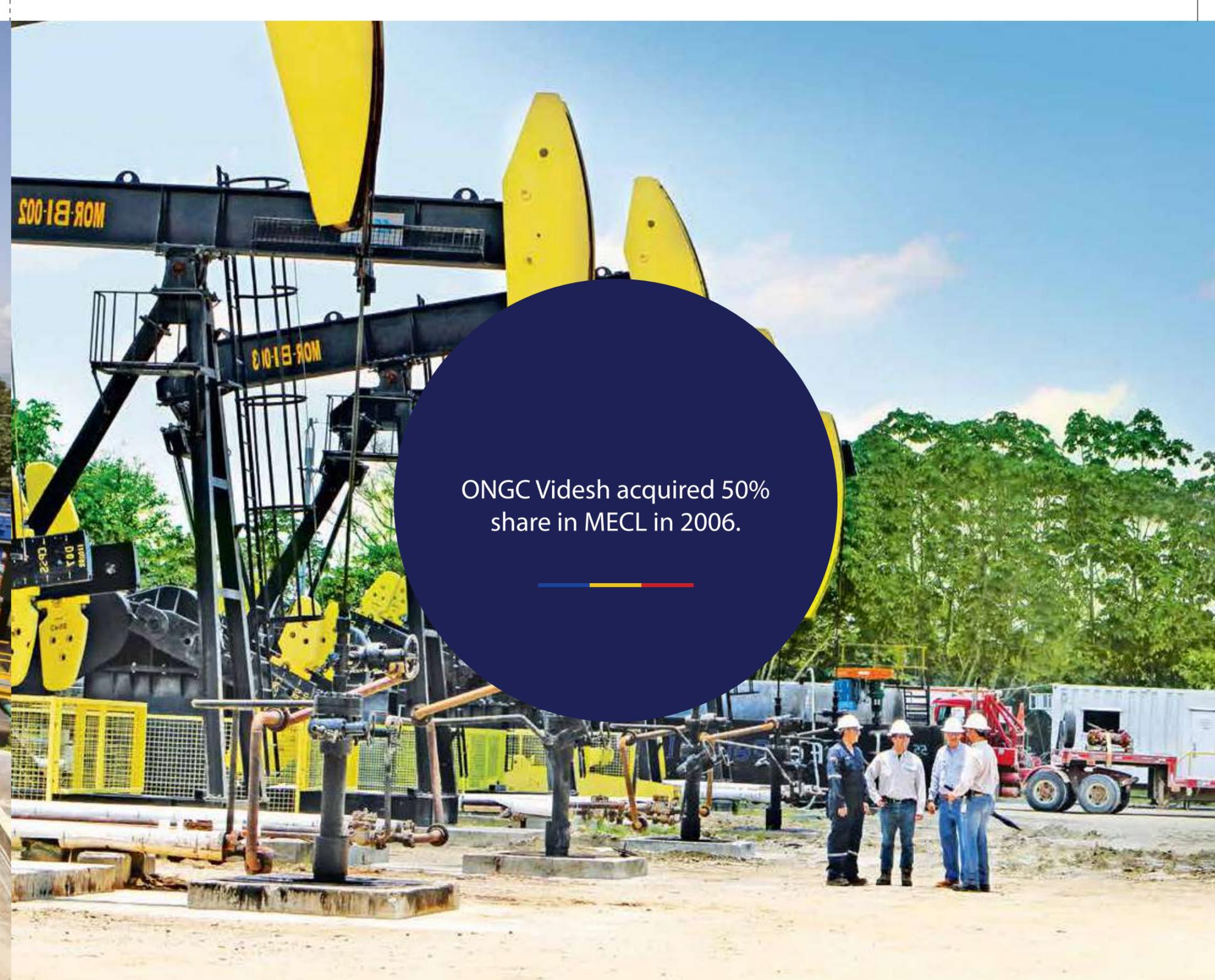


Image depicting support for a local cultural festival sponsored by ONGC Videsh.

### Cultural Sensitivity

- **Respect for Local Cultures:** Operations are conducted with deep respect for local traditions and cultural practices, ensuring that projects are aligned with community values and heritage.
- **Cultural Preservation Initiatives:** Support for cultural events and preservation of historical sites underscores the commitment to maintaining and celebrating the rich cultural fabric of the region.





ONGC Videsh acquired 50% share in MECL in 2006.



CHAPTER 07

# Economic

Impact and Future Prospects

## ECONOMIC IMPACT AND FUTURE PROSPECTS

He who is not satisfied with a little,  
is satisfied with nothing.

– Epicurus

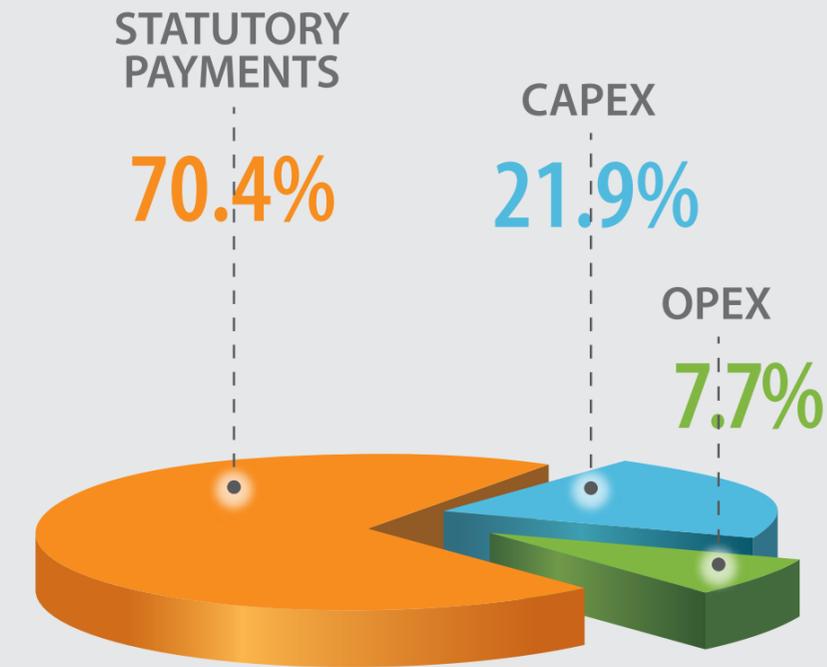
### Economic Contributions

#### Production and Revenue

- **Cumulative Production:** As of mid-2024, CPO-5 has produced over 29 million barrels of oil, significantly contributing to Colombia's domestic energy supply and export revenues.
- **Financial Performance:** The block has generated substantial revenues, with net cash flows exceeding USD 460 million, reflecting strong operational efficiency and market conditions.
- **Capital Investments:** Total investments in exploration and development activities amount to approximately USD 203 million, underpinning the successful discovery and exploitation of hydrocarbon resources.



- **Operational Expenditure:** Efficient management of operational costs has ensured robust profitability, with ongoing efforts to optimize expenditures through technological and process improvements.
- **Local Economy Boost:** Operations have stimulated local economies through job creation, procurement of local goods and services, and infrastructure development.
- **Tax and Royalty Payments:** Significant contributions have been made to government revenues through taxes, royalties, and other statutory payments, supporting public services and national development.



Description of Typical Expenditure





ONGC Videsh acquired 50%  
PI in block SSJN-7 in 2008.



# Colombia Facts



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## Music and Dance

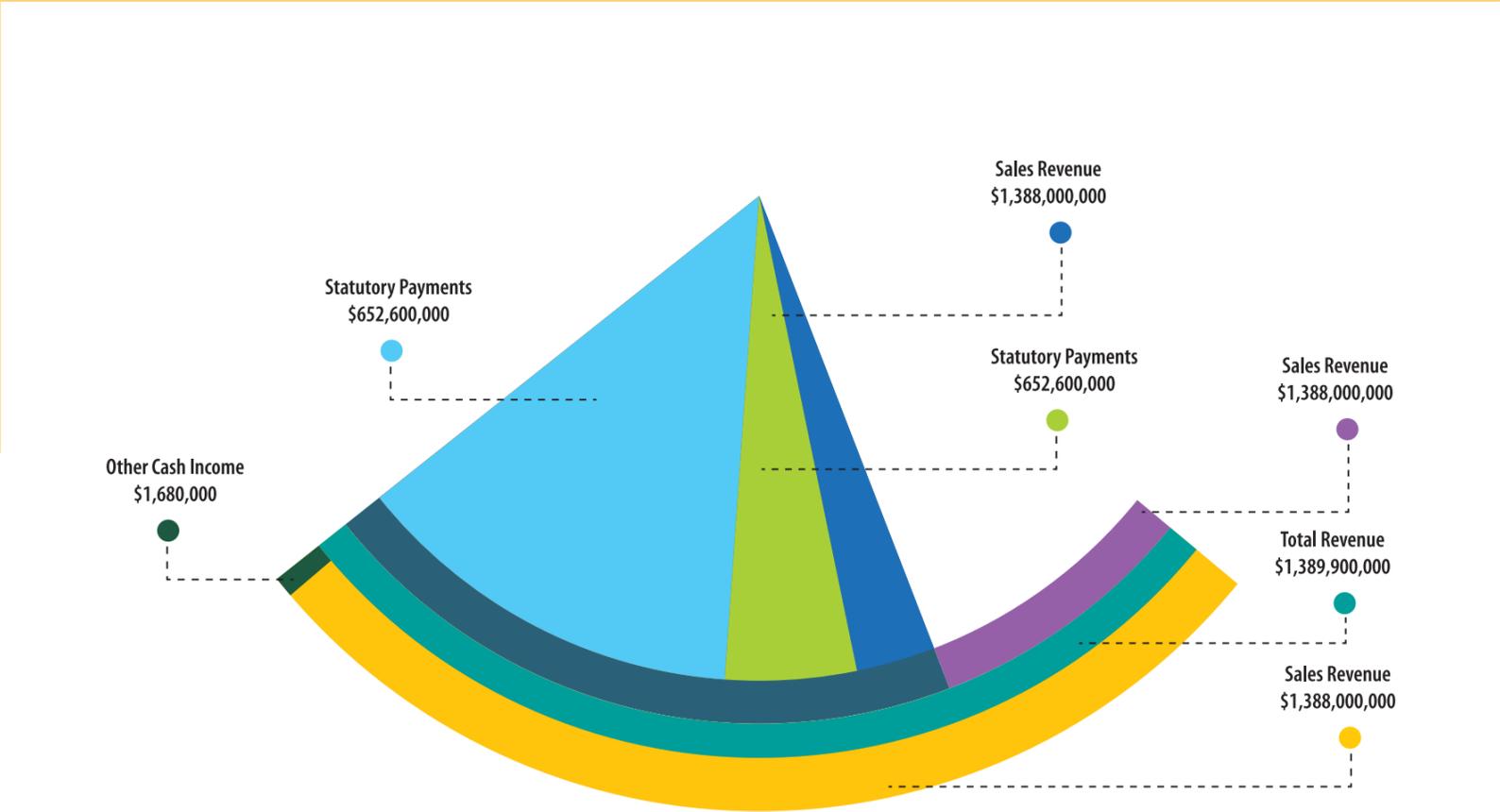
Colombia gave the world rhythms like  
Cumbia and Vallenato,  
and is home to international music stars  
like Shakira, J Balvin and Karol-G.

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## Future Development Plans

### Exploration and Appraisal

- **Continued Seismic Exploration:** Upcoming plans include processing and interpreting newly acquired seismic data to identify and delineate additional prospects across the block.
- **Drilling Programs:** A series of exploratory and appraisal wells are scheduled for drilling over the next few years, targeting both proven and frontier formations to expand the resource base.





# Colombia Facts



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## Bandeja Paisa:

Colombian cuisine celebrates regional identity with Bandeja Paisa, a generous platter featuring beans, rice, ground meat, chicharrón, plantain, avocado, egg, and arepa.

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CHAPTER08

# The Road Ahead: Sustaining Success and Growth

## THE ROAD AHEAD: SUSTAINING SUCCESS AND GROWTH

The journey of CPO-5 Block exemplifies the synergy of strategic vision, technical excellence, and collaborative effort. From its humble beginnings as an unexplored tract to becoming a cornerstone asset delivering substantial value, CPO-5's story is one of resilience, innovation, and sustained commitment.

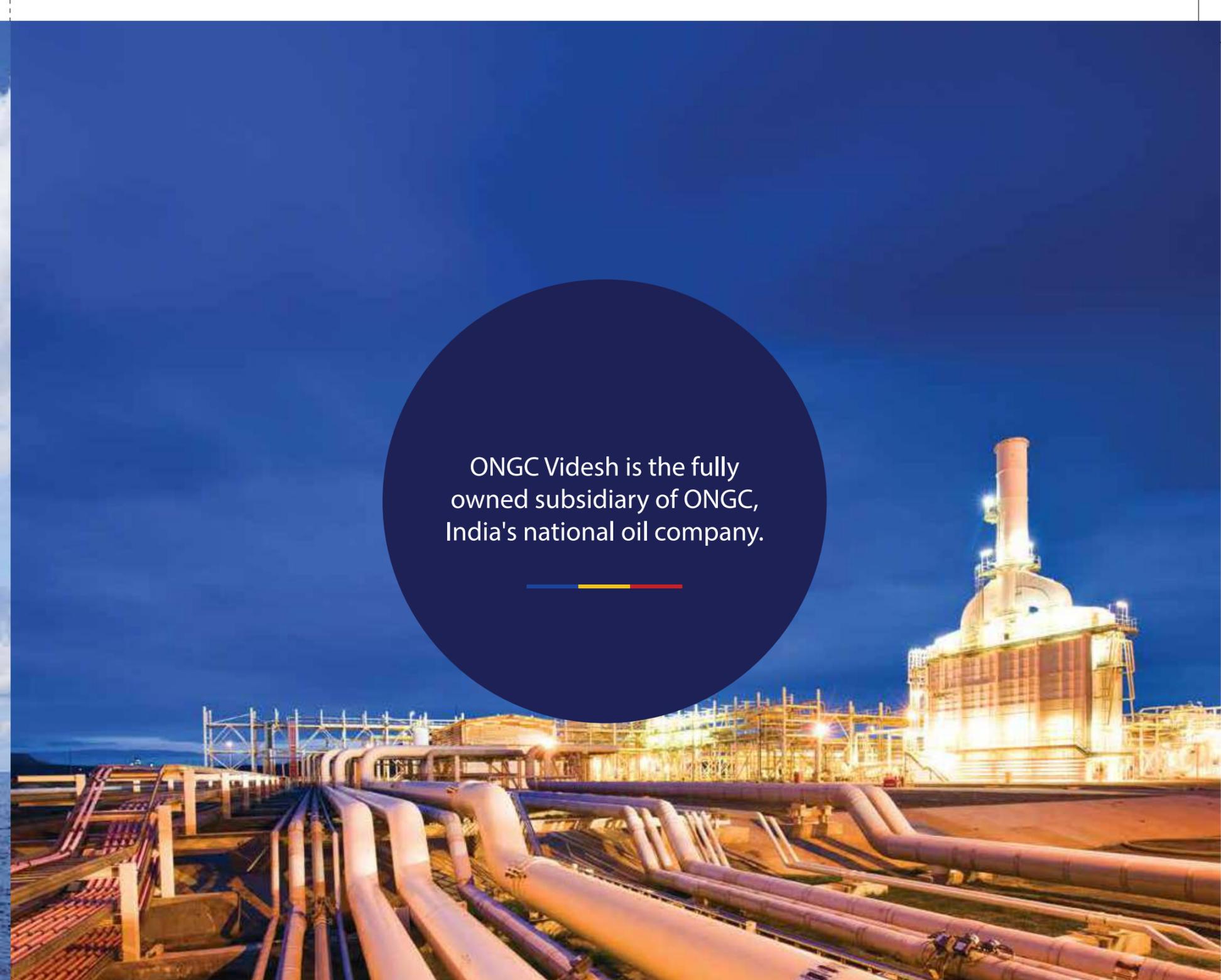
As ONGC Videsh and its partners look to the future, the focus remains on unlocking further potential through meticulous exploration, responsible development, and unwavering dedication to environmental and social stewardship. The lessons learned and successes achieved in CPO-5 not only bolster confidence in ongoing operations but also inspire broader ambitions to replicate and amplify this success across new frontiers.

The path ahead is paved with promising opportunities, and with continued strategic planning, technological innovation, and collaborative spirit, CPO-5 is poised to remain a significant contributor to energy security and economic prosperity, both regionally and globally.





ONGC Videsh is the fully  
owned subsidiary of ONGC,  
India's national oil company.





# Colombia Facts



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## Colorful Festivals

The country is famous for vibrant festivals like the Barranquilla Carnival (UNESCO Intangible Cultural Heritage) and Feria de las Flores in Medellín.

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CHAPTER 09

# Culture

& Biodiversity of the Region

# The Bird View



Image Credits -  
Madhukar Mohan

American Purple Gallinule



Blue Grey Tanager



Brown Throated Parakeet



Crimson Mantled Woodpecker



Grey Seedeater



Flame Rumped Tanager



Double Striped Thick Knee



Black Bellied Whistling Duck



Wild Turkey



Pileated Flycatcher



Great Kiskadee



Squirrel Cuckoo



Cherries Tanager



Western Meadowlark



Bared Face Ibis



Buff Necked Ibis



Amazon Kingfisher



Blue Chinned Sapphire Hummingbird



Hoatzin



Bared Face Ibis



Great Cormorant



Crested Caracara



Southern Lapwing



Crested Caracara



Blue-Black Grassquit



## CULTURE AND BIODIVERSITY OF THE REGION

Nestled at the foothills of the Eastern Andes, Villavicencio is the capital of Meta Department and the cultural heart of the Llanos Orientales. Known affectionately as “Villavo la Bella,” this city of over half a million residents serves not only as a logistical and economic gateway to the plains but also as a vibrant repository of Llanero traditions.

The city breathes joropo, the fast-paced, harp-driven music and dance form that symbolizes the Llanos identity. Festivals such as the Torneo Internacional del Joropo transform the city into a celebration of music, cattle-ranching culture, and regional pride. Beyond its musical roots, Villavicencio showcases a blend of modern infrastructure and traditional Llanero ethos.

Local dishes like mamona (slow-roasted veal), hayacas (plantain leaf-wrapped parcels), and arepa de maíz pelao offer a culinary journey into the region’s pastoral soul.



A traditional joropo performance in Villavicencio, showcasing vibrant dresses, harp-led music, and Llanero heritage during the city's renowned cultural festival.

To the northwest of Villavicencio lies Cabuyaro, a lesser-known but ecologically and culturally rich municipality. Defined by its flat savanna landscape, seasonal floodplains, and slow-moving rivers, Cabuyaro represents the quieter, rural face of the Meta Department. Life here follows the rhythm of nature, dictated by the arrival of rains, the ebb and flow of rivers, and the demands of cattle herding.

Cabuyaro's economy is rooted in extensive livestock grazing, subsistence agriculture, and artisanal fishing. Unlike the urban vibrancy of Villavicencio, Cabuyaro preserves an almost unaltered continuity with the natural world. The traditions of the Llanero people here are practical and ancestral, passing down horsemanship skills, cattle branding rituals, and oral lore.

The wetlands surrounding Cabuyaro support a surprising range of biodiversity. Birds like white-faced whistling ducks, black skimmers, and herons populate its lagoons, while capybaras, the world's largest rodents, are commonly seen grazing along the riverbanks.



Puerto López: The Geographical Center of Colombia.

Located approximately 100 km east of Villavicencio, Puerto López is more than just a strategic node in the Llanos, it is symbolically the heart of Colombia. The Alto de Menegua Obelisk, a 30-meter-high monument, marks what is considered the geographical center of the country, drawing visitors and reinforcing Puerto López's identity as both a physical and cultural meeting point.

The town's economy is centered on agriculture (notably rice, corn, and yuca), cattle ranching, and increasingly, river-based ecotourism along the Meta River. Puerto López is also home to significant indigenous and campesino heritage, manifesting in festivals, music, and artisanal craftsmanship.

Its rich aquatic and riverine culture includes traditional canoe-making, fishing with cast nets, and vibrant markets selling locally caught fish species such as bocachico and blanquillo. As part of the Llanos, Puerto López retains the core traditions of joropo, cowboy horsemanship, and rodeo sports.



Aerial view of the Meta River near Puerto López .

Villavicencio, Cabuyaro, and Puerto López are all situated within the Orinoco Llanos, one of South America's most productive and biodiverse savanna ecosystems. This tropical region undergoes dramatic seasonal changes, alternating between wet and dry seasons that transform open grasslands into flooded plains (esteros) and lagoons, crucial for biodiversity.

The region is home to over 300 bird species, numerous amphibians, and large mammals. The capybara, a gentle herbivore, thrives near marshes and is often seen in herds along the roadside. The Orinoco crocodile, once critically endangered, is now occasionally spotted in protected wetland zones. Other prominent fauna include giant anteaters, howler monkeys, and jabiru storks.

Efforts to maintain this biodiversity include community-led wetland conservation, eco-monitoring linked to exploration permits, and educational programs integrating traditional and scientific knowledge.



### Cultural and Ecological Integration in the CPO 5 Block

The region encompassing the CPO-5 Block is more than an exploration area; it is a living cultural and ecological system. Operations in the block must navigate both subsurface complexity and surface realities: sensitive habitats, ancestral territories, and cultural expectations.

ONGC Videsh and its partners have adopted a strategy rooted in collaborative coexistence, ensuring that exploration activities are planned and executed with minimum environmental disturbance, community dialogue, and respect for local traditions. This includes seasonal work timing to avoid wetland disruption, biodiversity assessments, and engagement with ranching communities for infrastructure planning.

Community involvement in conservation efforts, especially through ecotourism partnerships, has helped reinforce pride in local culture while creating alternative economic opportunities.



## Cuisine of the Llanos: Flavors of the Frontier

The cuisine of Villavicencio, Cabuyaro, and Puerto López is deeply rooted in the Llanero lifestyle: rustic, hearty, and fire-kissed. Meals are centered around cattle ranching, river fishing, and agricultural produce, offering flavors as bold and expansive as the grasslands themselves.

### Key Dishes:

- **Mamona (Ternera a la Llanera):** A signature dish of the Llanos, this is a whole calf roasted slowly over an open wood fire using large iron skewers. It is typically served with boiled yuca, arepas, and guacamole.
- **Hayacas:** Similar to tamales, these are plantain-leaf-wrapped parcels filled with seasoned meats, rice, and vegetables, slow-steamed to perfection.
- **Pescado a la Criolla:** Freshwater fish from rivers like the Meta or Guatiquía, grilled or stewed with tomatoes, peppers, and onions.
- **Arepa de Maíz Pelao:** A thick, grilled corn cake made from nixtamalized maize, typically enjoyed with cheese or meats.
- **Chicha and Masato:** Traditional fermented corn and rice beverages, slightly sweet and served cold, especially during festive periods.





### Llanero Sports: Strength, Skill, and Spectacle

- Sports in the Llanos are not merely recreational, they are extensions of ranching culture, built on strength, precision, and horsemanship. The most iconic events are drawn directly from the skills required on the open range.

#### Traditional Sports:

- **Coleo:** The most famous Llanero sport, coleo is a competitive event in which riders on horseback chase and wrestle cattle to the ground by their tails. It's held in oval arenas known as "Manga de Coleo" and is often accompanied by music and feasting.
- **Joropo Competitions:** While joropo is a music and dance genre, festivals often include competitive dancing with elaborate footwork and synchronized movements judged for rhythm and technique.



## Traditional Attire: Symbols of Llanero Identity

### Men's Attire: The "Caballero Llanero"

The typical male outfit in the Llanos is practical for cattle work yet dignified in its simplicity.

- **Hat (Sombrero Llanero):** A wide-brimmed hat, usually made of palm or felt, providing sun protection and status.
- **Camisa de Lino:** A light-colored, breathable linen shirt often worn open at the neck.
- **Pantalón de Dril:** Durable cotton trousers, often rolled up or tucked into boots for horseback work.
- **Botas Llaneras:** High leather riding boots, sometimes adorned with silver spurs.
- **Pañoleta (Neckerchief):** Tied around the neck for both functional and decorative purposes.



### Women's Attire: The "Llanera Vestida de Fiesta"

While practical dress is used in daily rural life, festival attire for women is elegant and vibrant.

- **Blusa Bordada:** Embroidered blouse with puffed sleeves and colorful floral patterns.
- **Falda Amplia:** A wide, ankle-length skirt (often with crinolines beneath) that flows beautifully in dance performances.
- **Peineta y Flor en el Cabello:** A comb and flower tucked into a neatly styled bun.
- **Alpargatas:** Traditional woven sandals or light shoes, used in both dance and daily life.



Villavicencio, Cabuyaro, and Puerto López form a cultural-biogeographical continuum at the core of Colombia's Llanos. Their traditions, rivers, wildlife, and shared heritage embody a harmonious relationship between human and environment.

In presenting this region within the context of the CPO 5 Block, this chapter affirms that energy exploration, when guided by respect and responsibility, can not only coexist with but also enhance local identity and ecological stewardship.





## SANTAMARÍA BULLRING

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(Spanish: Plaza de Toros de Santamaría) is a bullring in Bogotá, Colombia, and it is currently used for bullfighting, although it has also been used for concerts and other cultural activities. The stadium holds 14,500 people and was built in 1931. This bullring is more commonly known as the Plaza de Toros Santamaría. Outside this bullring there is a statue honoring Pepe Cáceres, the famous Colombian torero. In 2012 the then mayor of Bogotá, Gustavo Petro, announced entering into dialogue with the capital's community to ban bullfighting in the city and give the Santamaría Bullring another use, in addition to denying resources of public enterprises for such parties. In 2017, after 4 years of suspension, bullfighting returned to Santamaría Bullring because of Enrique Peñalosa's decision, the city's former mayor.



ONGC Videsh projects include exploration, production, and pipeline assets.



# Colombia Facts



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## Feria de las Flores

The country is the world's  
second-largest exporter of cut flowers.

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