

# ARROW EXPLORATION

**Growing & Socially-Responsible  
Colombia-Focused Energy  
Company**

AIM | TSXV : AXL  
December 2023

**Corporate Presentation**



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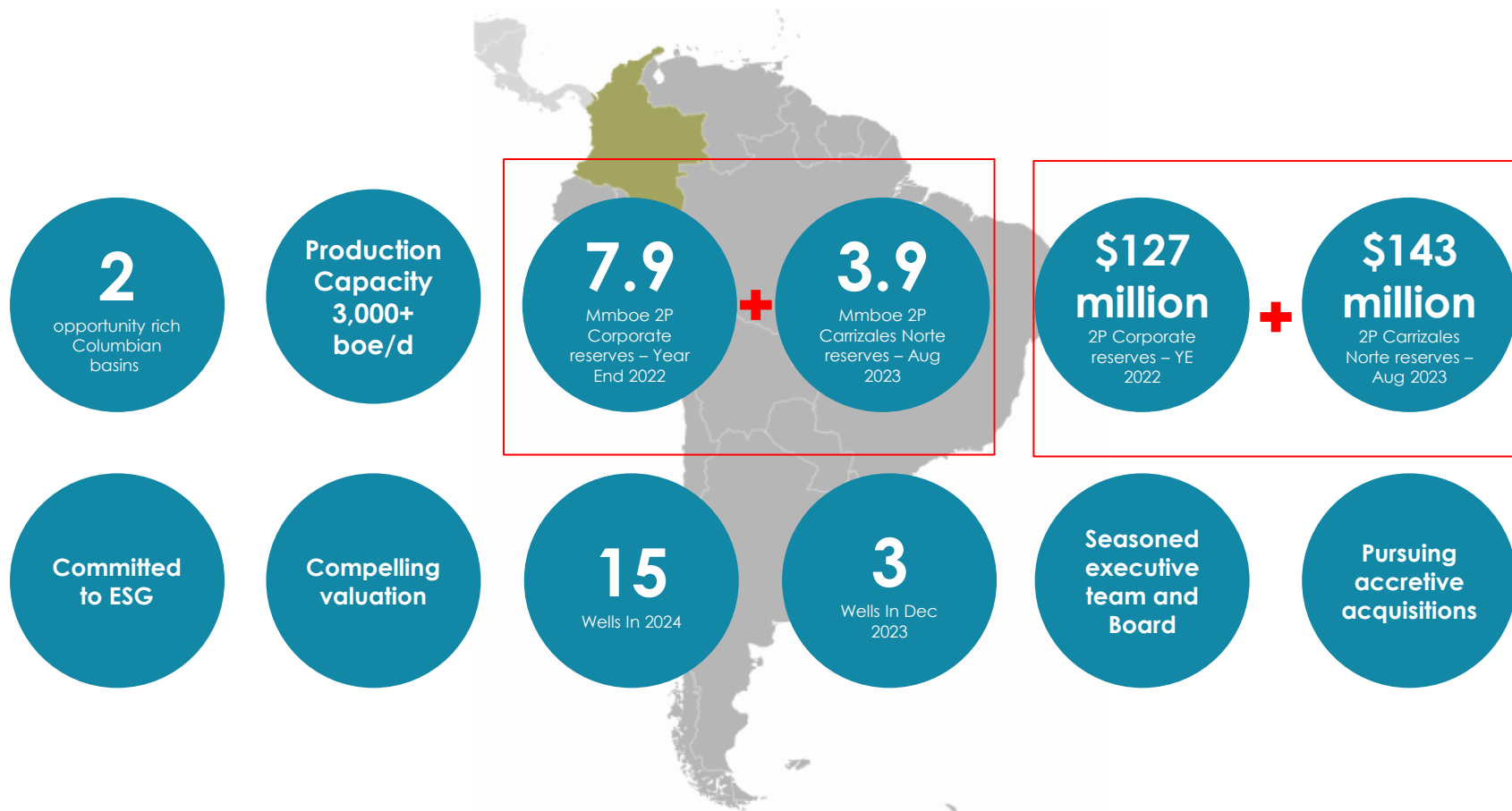
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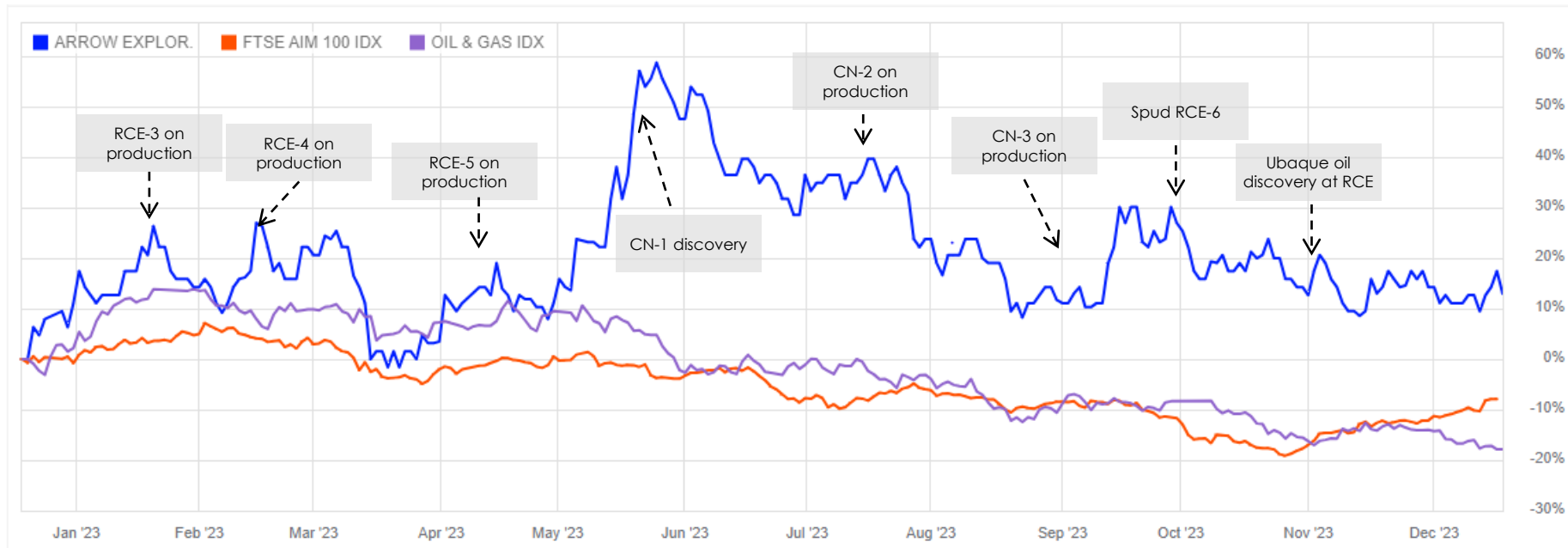
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# Arrow Exploration

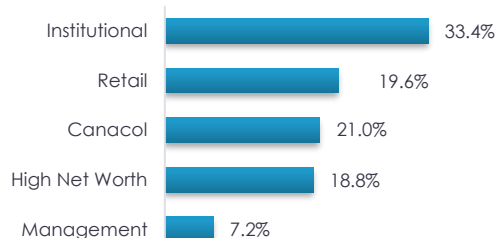
Growing & Socially-Responsible Colombia-Focused Energy Company



# Corporate Snapshot



Share Ownership



Analyst Coverage

Firm	Analyst Name
Auctus Advisors	Stephane Foucaud
Canaccord Genuity Limited	Charlie Sharp
Haywood Securities	Christopher Jones
Zeus Capital	Daniel Slater

Market at Sept 30, 2023

**\$61M USD (\$84M CAD)**

Market Cap

**\$12.9M USD**

Cash in Bank

**246M**

Shares O/S (303M fully-diluted)

Assets

**3,000+ BOE/D**

Production Capacity

**7.7 + 3.9 MBOE**

2P Reserves at Dec 31, 2022  
And Mid Year Reserve Report

**\$53/bbl USD**

Q3 2023 RCE Field Netbacks

Valuation

**1.9X**

Price/2023E Cash Flow

**\$19,102**

Ent. Value<sup>2</sup>/BOE 2023 Q3 Production

**\$4.15**

Ent. Value<sup>1</sup>/BOE 2P Reserves

1. Enterprise Value = Market Cap plus Debt minus Cash

2. Boury GEC December 31<sup>st</sup>, 2022 Reserve Report. Arrow's 50% interest in the Tapir block is contingent on the assignment by Ecopetrol of such interest to Arrow.

# 2023 December Budget & 2024 Forecast

Funded through cash balance and operations cash flow. No external funding sources required.

**2023 – December 3 well drilling program.**

**2024 – 15 well drilling program.**

- CN development focus
- Low Risk Exploration at Mateguafa, Baquiano, Carrizales Noroeste

## 2023 - \$34 million capital

- Budget funds targeting Colombia

## 2024 - \$44 million capital est.

- Budget funds targeting Tapir
- \$34mm allocated to drilling
- 3 Hz wells planned with additional Hz wells on success

## Infrastructure

- 2024 Pad upgrades at Mateguafa and new pad and road for Baquiano
- 2024 HZ well pad

→ Expected to Be Driven By Multiple Near-Term Catalysts

**Dec 2023**

**2024**





# Seasoned Executive Team and Board

**190+ years**

Combined management experience

**8 companies**

Founded → grown → sold

**TSX / TSX-V / AIM**

Public company expertise

**15+**

O&G jurisdictions worked in



**P. Gage Jull**  
Executive Chair



**Marshall Abbott**  
CEO & Director



**Grant Carnie**  
Senior NED (I)



**Anthony Zaidi**  
NED



**Ravi Sharma**  
NED



**Ian Langley**  
NED



**Joe McFarlane**  
CFO



**Giovanni Flautero**  
VP, Engineering



**Phil Miller**  
SVP Exploration



**Alex Mora**  
VP, Finance



**Mike Ponto**  
VP, Bus. Develop.

Company	Initial Production	Production at Exit (boe/d)	Return to Shareholders (CAGR) <sup>1</sup>
Cougar Hydrocarbons	0	3,000	280%
Equatorial Energy	0	13,000	150%
Sabretooth Energy	0	1,700	100%



... + 5 Others

# Committed to ESG Best Practices

## Environment

Committed to limiting our impact on the climate, air, land and water by adhering to the highest standards of industry operating practices; support principles included in the UN's Sustainable Development Goals.

## Community Involvement

Develop community partnerships based on collaboration and understanding the community's needs; encourage the contribution to communities by our employees, by ensuring opportunities to give and volunteer.

## Stakeholder Engagement

Build positive relationships with stakeholders through communication based on honesty, transparency, proactivity, trust and respect.

## People

Health and safety of all workers involved in our activities, as well as residents of the communities where we work, is a core value at Arrow; treat staff members with dignity, fairness and respect; follow applicable occupational health and safety legislation and industry recommended practices; support principles of the Universal Declaration of Human Rights.

We hire locally from areas where we operate – all our employees in Colombia, are Colombian.

## Leadership & Governance

Arrow's Board is responsible for the governance of the Company's ESG commitments; the leadership team is accountable for implementing the ESG commitments; expectations communicated to the Company's workforce and contractors.

# ESG In Action

## Community Program: Aguachica (Communities of Loma de Corredor and La Ye Village)



In 2022, we have spent over \$450,000 on social and environmental projects. Over 1,600 Colombians employed and contracted over the last 5 year, total spent of \$3 million with local companies.





# Colombian Oil & Gas Industry

## Key Takeaways



### Attractive Fiscal Terms

Government very supportive of the oil and gas industry (40%+ country's exports)

Attractive fiscal terms including 8-14% royalties on Arrow's properties

Long-term, stable outlook for Colombia, one of South America's most fiscally responsible countries



### Great Infrastructure

Abundant infrastructure with spare pipeline capacity and no bottlenecks

Ample export capacity including two port facilities on Caribbean coast



### Brent Oil Pricing

Excellent pricing based on Brent less Vasconia Differential (\$2-\$5/bbl)

Fiscalized at wellhead

#### **Corp Oil Netback Q3**

\$77.63 field price

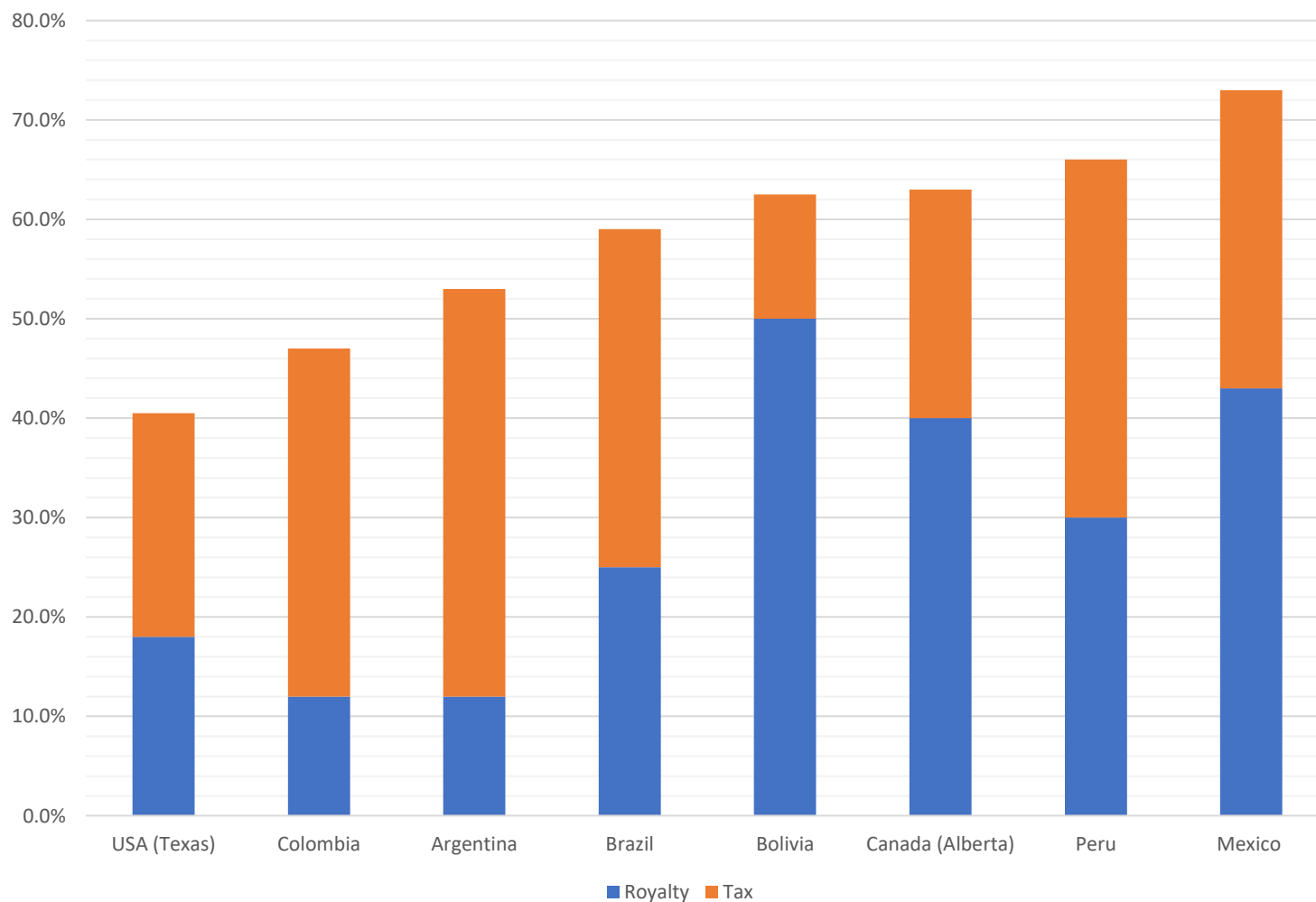
\$9.45 royalty

\$7.56 operating cost

\$60.62 Netback

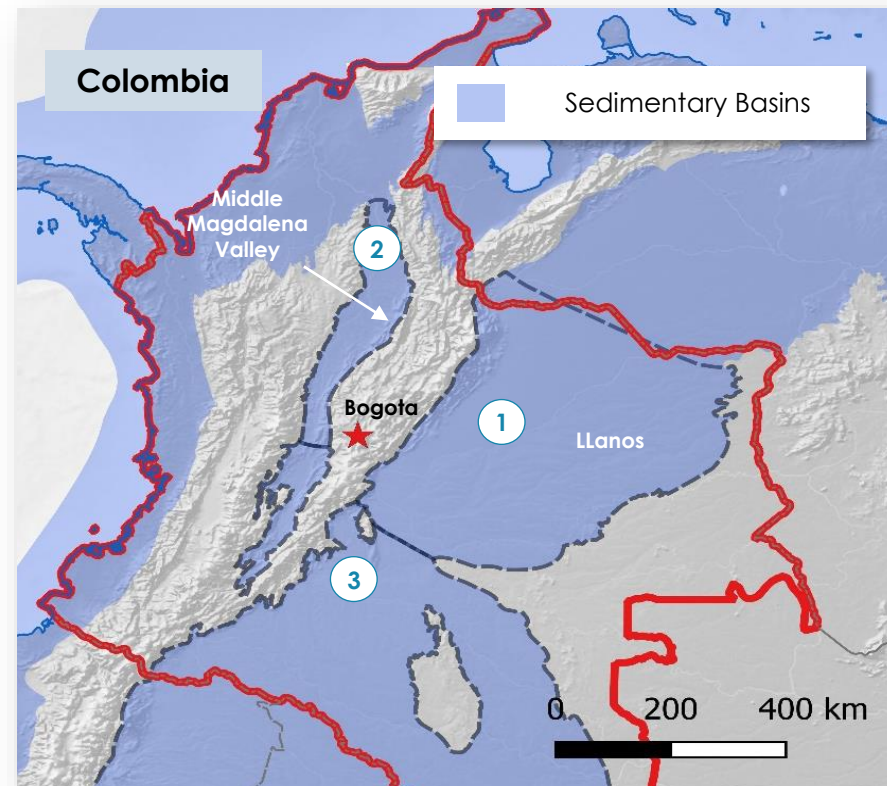
# Attractive Fiscal Terms

Still top decile fiscal regime worldwide.



# Asset Overview

	Asset	Country	Basin	W.I.	Current Production Capacity <sup>(3)</sup> (boe/d, net)	Operator
Core Assets	1. Tapir	Colombia	Llanos	50% <sup>(1)</sup>	2,300	Arrow <sup>(2)</sup>
	2. Oso Pardo	Colombia	MMV	100%	130	Arrow
	3. Ombu	Colombia	Putumayo	10%	280	Emerald
	4. Alberta	Canada	WCSB	100%	300	Arrow & other
Total Production					3,000+	

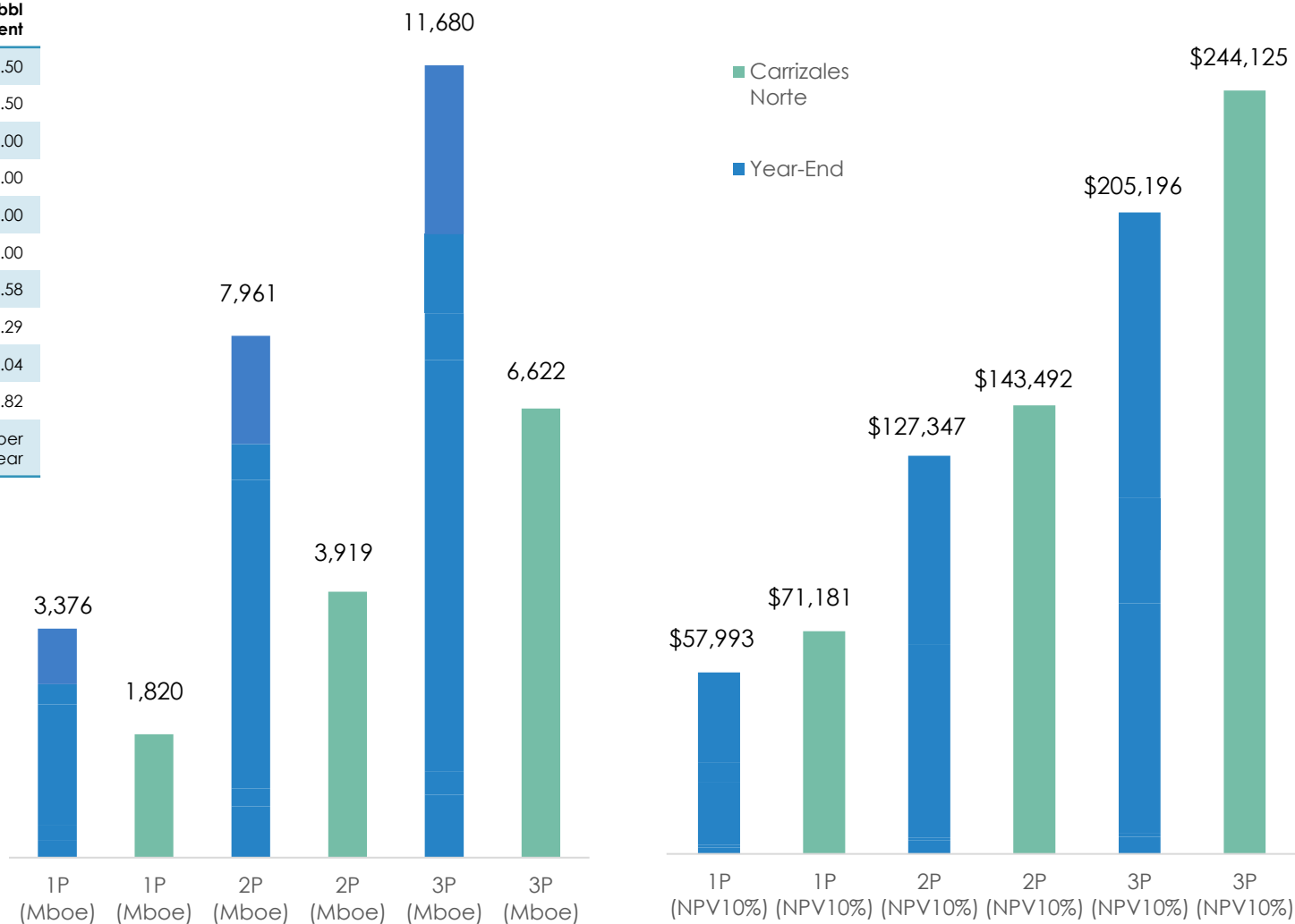


1. By way of a private commercial contract with the recognized interest holder before Ecopetrol S.A., Arrow is entitled to receive 50% of the production from the Tapir block.
2. By way of a private commercial contract with the recognized interest holder before Ecopetrol S.A., Arrow is the contract operator of the Tapir block.
3. Estimated at Dec. 1, 2023. Production Capacity signifies how much the well is technically capable of producing and should not be construed as current production rates.

# 2022 Year-End & Aug 2023 Carrizales Norte Reserves

## Price Deck

Year	YE 2022 \$/bbl Brent	Aug 2023 \$/bbl Brent
2023	85.00	76.50
2024	82.80	77.50
2025	80.50	78.00
2026	82.00	79.00
2027	84.20	81.00
2028	85.88	84.00
2029	87.60	85.58
2030	89.35	87.29
2031	91.14	89.04
2032	92.96	90.82
2032+	+2% per year	+2% per year





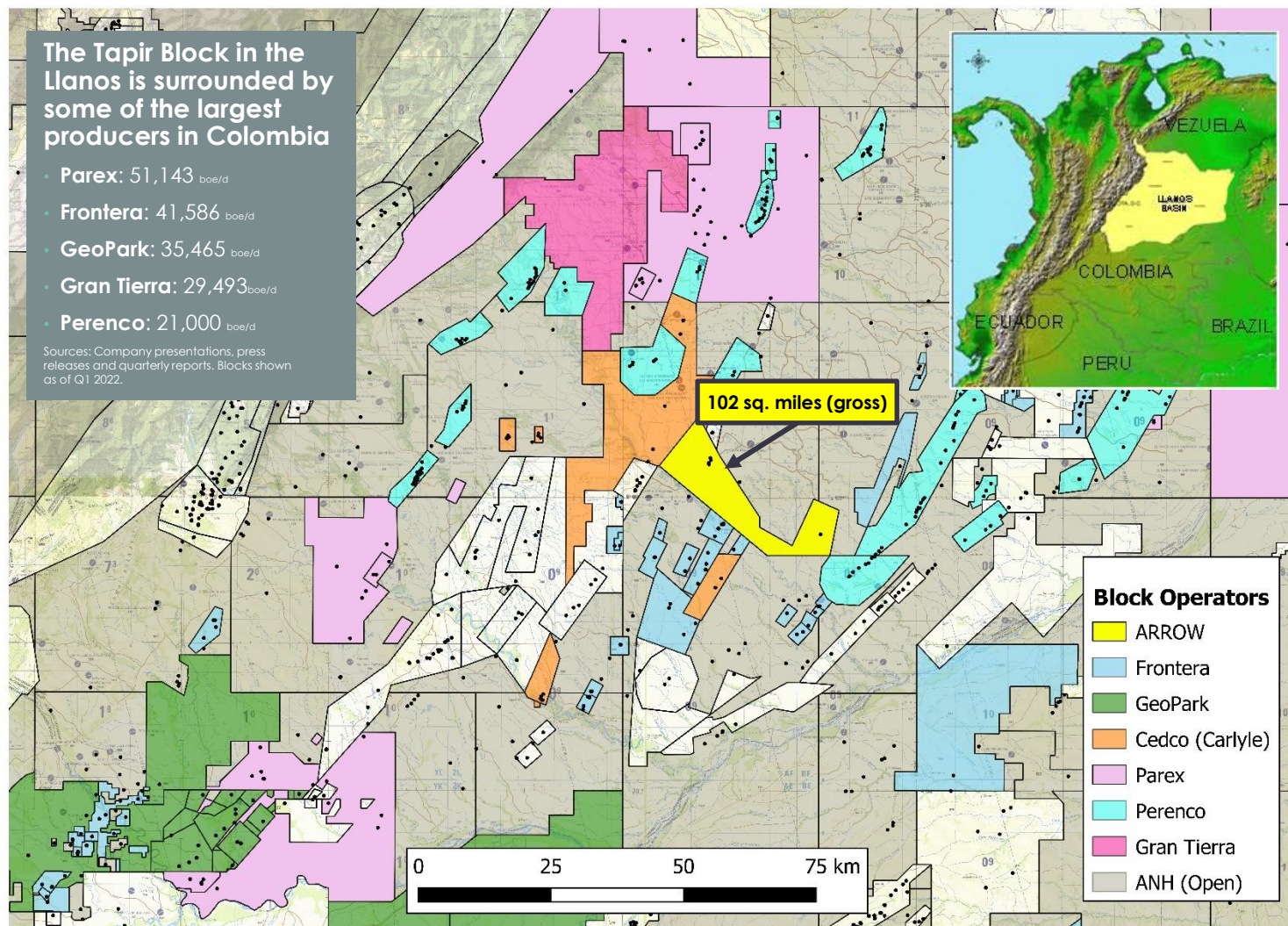


# Colombian Oil Portfolio Llanos Basin



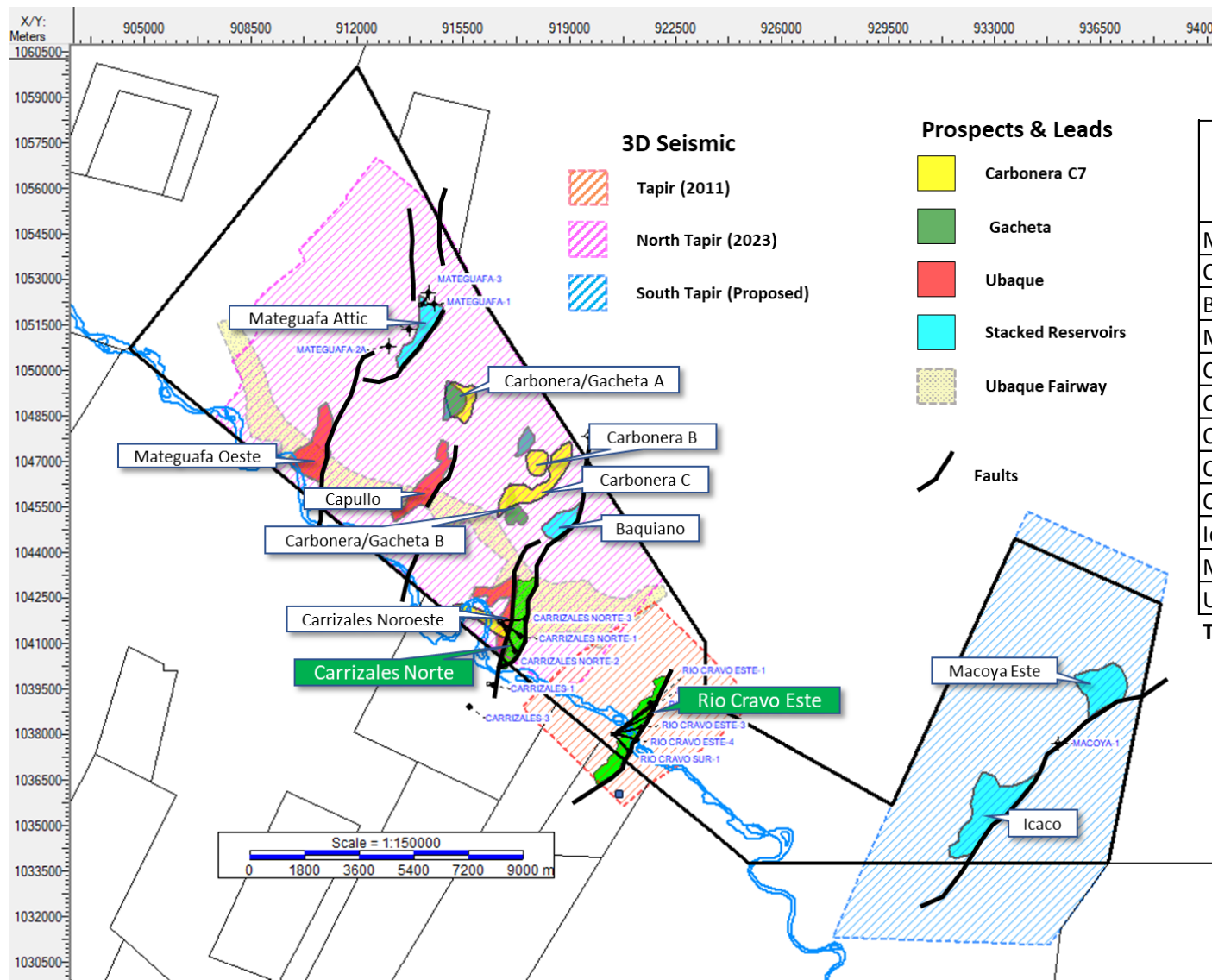
# Llanos Basin

The 'Park Avenue' of Colombia's Oil Industry – Safe, Secure and Highly-Desirable



- Largely flat-lying areas with little vertical relief
- Year-round production (rainy season April-November)
- 80+ year history of hydrocarbon production
- Strong community support

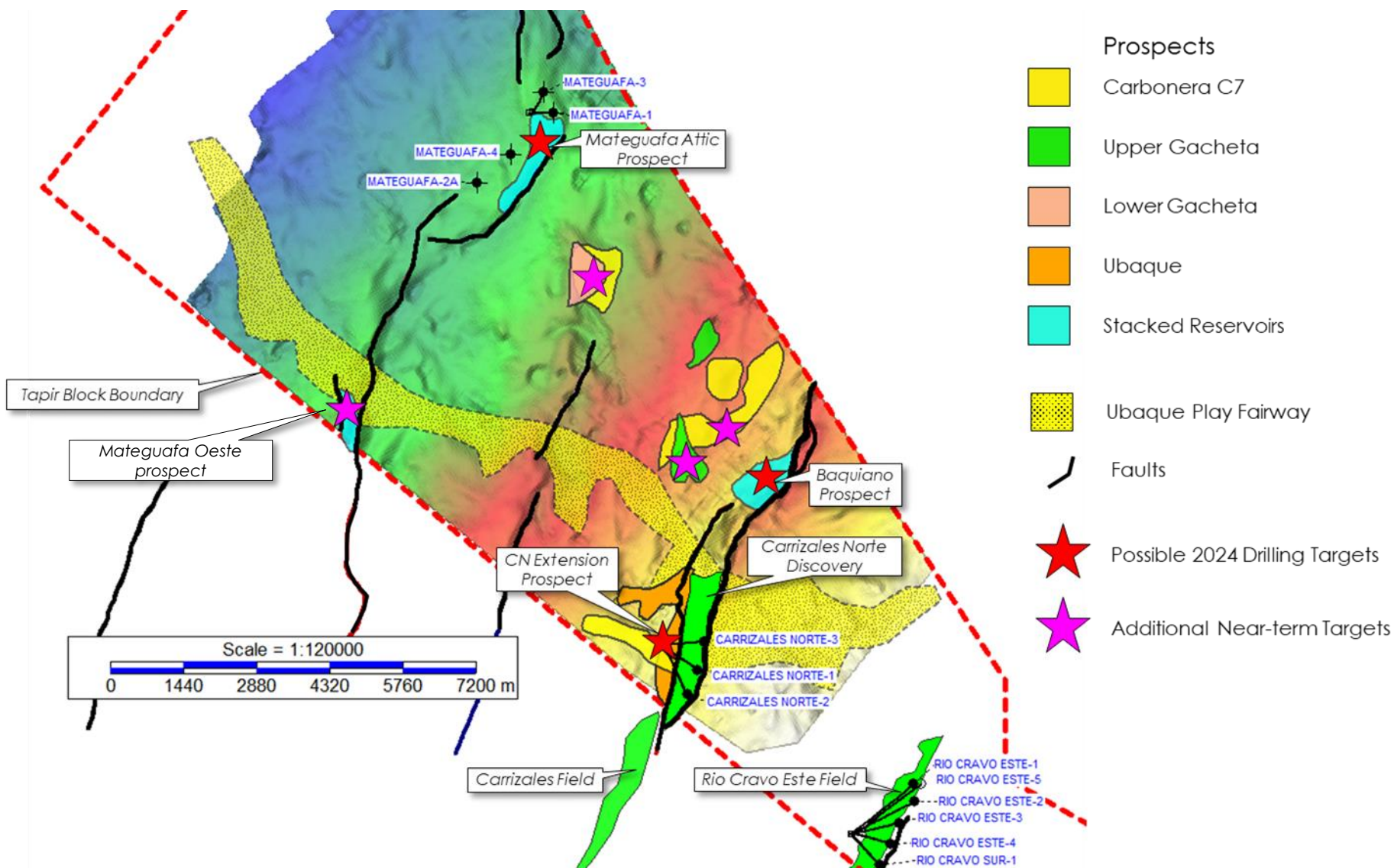
# Tapir Prospects & Leads



Prospect	Mean Rec. Resources (Mm bbl)
Mateguafa Attic	5.0
Carrizales Noroeste	6.7
Baquiano	2.4
Mateguafa Oeste	12.1
Capullo	7.3
Carbonera B	0.8
Carbonera/Gacheta B	3.3
Carbonera C	2.7
Carbonera/Gacheta A	1.8
Icaco	7.3
Macoya Este	4.4
Ubaque Fairway	20.8
<b>Total:</b>	<b>74.5</b>



# New 3D Data Reveals North Tapir Prospectivity





# Tapir Block: Features and Opportunities

## 1 Key Characteristics ...

Excellent subsurface fundamentals

Multiple high-quality reservoir targets

Multiple targets per well bore

Multiple opportunities with 3D seismic coverage

Substantial exploration upside

High chance of success based on 3D seismic

## 2 ... Drive Opportunities

**Multiple prospects plus additional follow-up wells on success**

**Type-wells can deliver initial production (IP) of over 1,000 bbls/d**

**Historically, only 1 zone has been completed – opportunity to commingle zones**

**Drilling inventory to 2028 and beyond**

**3D seismic shoot completed  
- will de-risk leads and build a drilling inventory**

# Current & Future Production

## Tapir Block (50% W.I.)\*

### Overview

- RCE 2022 year-end 3P reserves of 4.724 MMbbls (gross) / 2.362 MMbbls (net to Arrow's W.I.)

#### 1. Rio Cravo Este (RCE)

- 6 producing wells
- RCE-7 and RCE-8 to be on production Dec 2023

#### 2. Carrizales Norte

- CN-1 discovery on production
- 2 development wells drilled in 2023
- 2024 15 wells, includes 3 Hz wells

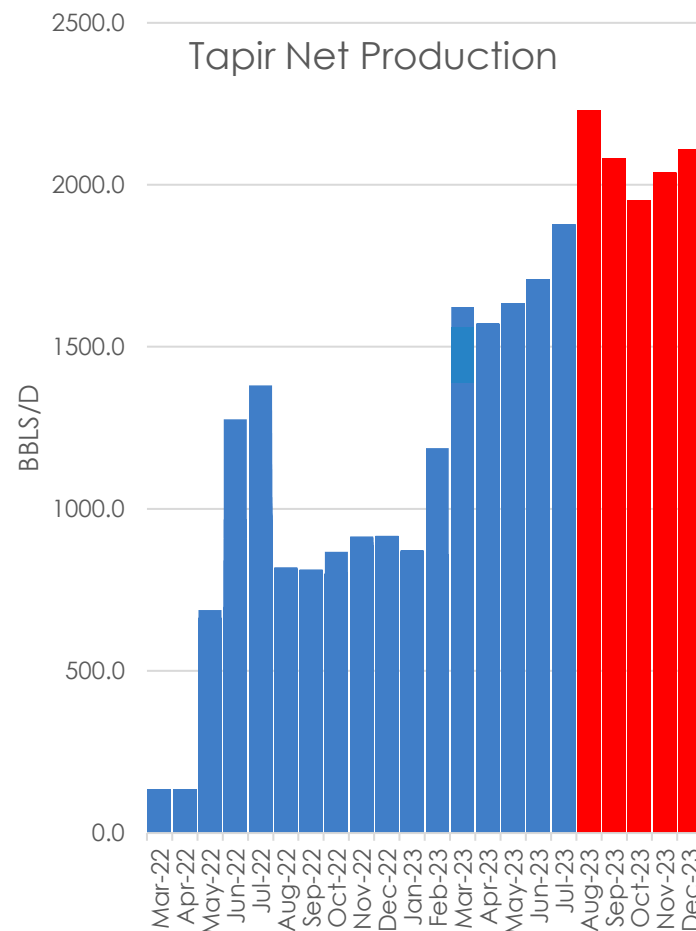
### RCE Drilling Operation | Oil Production Facilities



### Tapir Block Potential Production (net to Arrow)

#### Type well

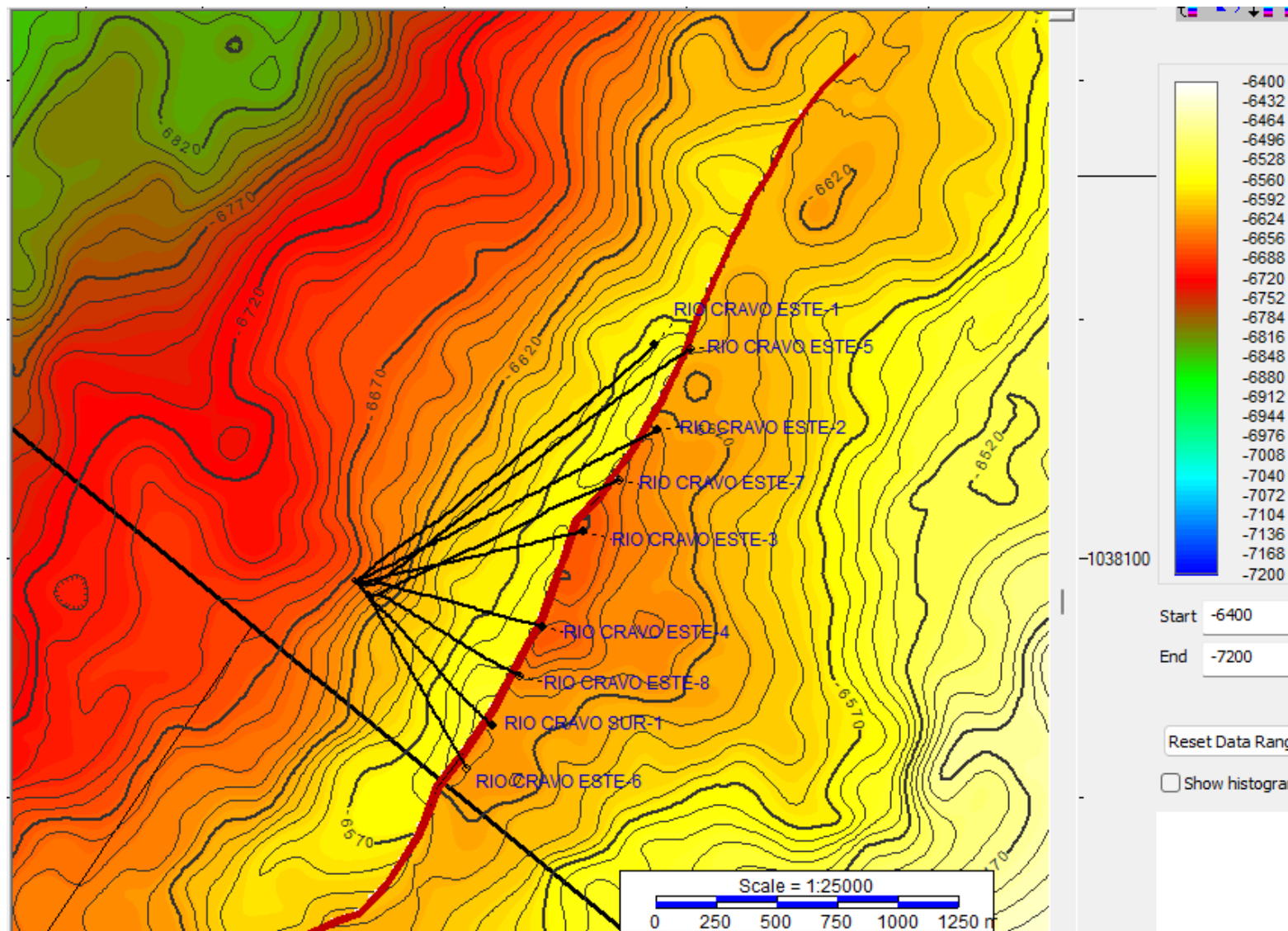
IP forecast (per zone):	360 bbls/d, net
Payback*:	3 months, 61,000 bbls
CF (Yr1)*:	\$8.8M, net
Well cost:	\$2.0 net
Opex/bbl:	< \$5.00
RCE Netbacks*:	Brent - \$85 = \$65



\* Arrow's 50% interest in the Tapir block is contingent on the assignment by Ecopetrol of such interest to Arrow.

\* Management estimates based on strip pricing as of December 2022

# Rio Cravo Este Field- Top C7 Structure







# Carrizales Norte Drilling Operations

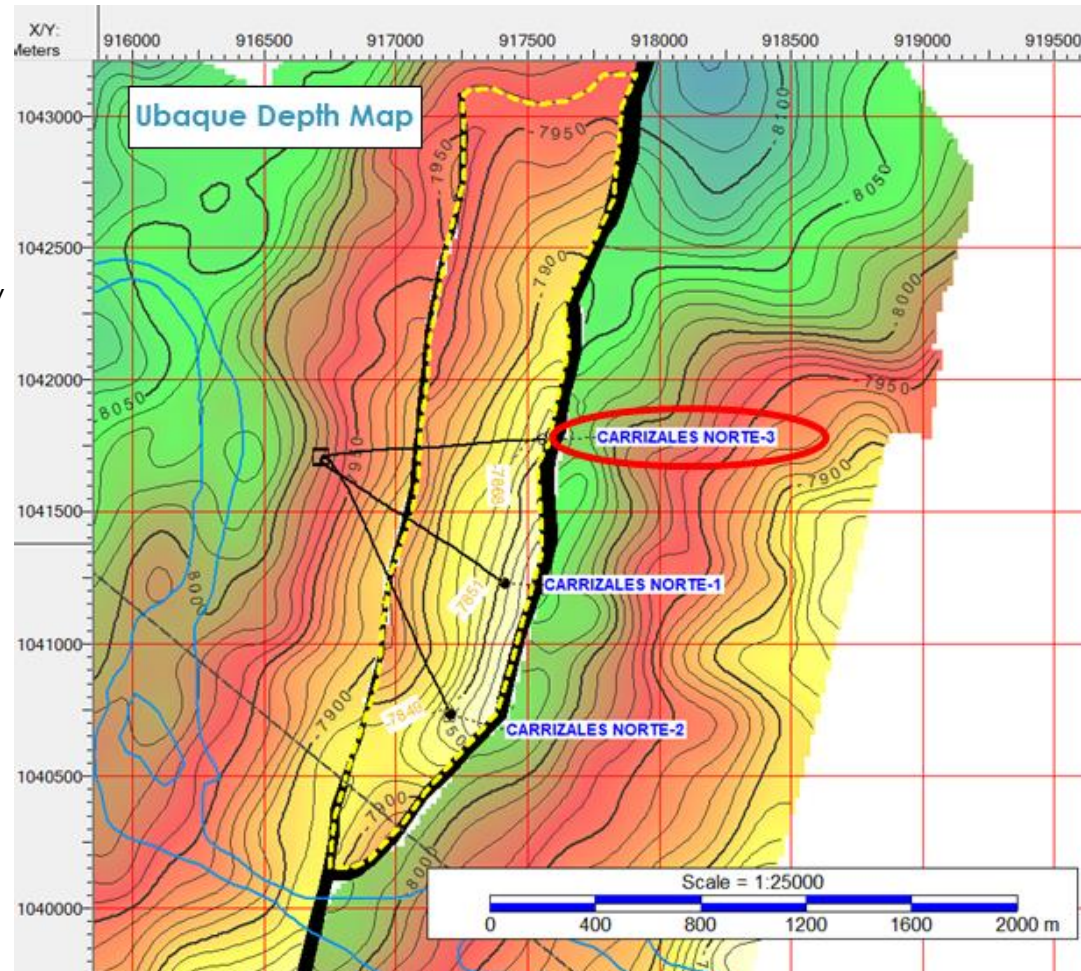
## Carrizales Norte Prospect





# Carrizales Norte Discovery and Extending the Field (50% W.I.\*)

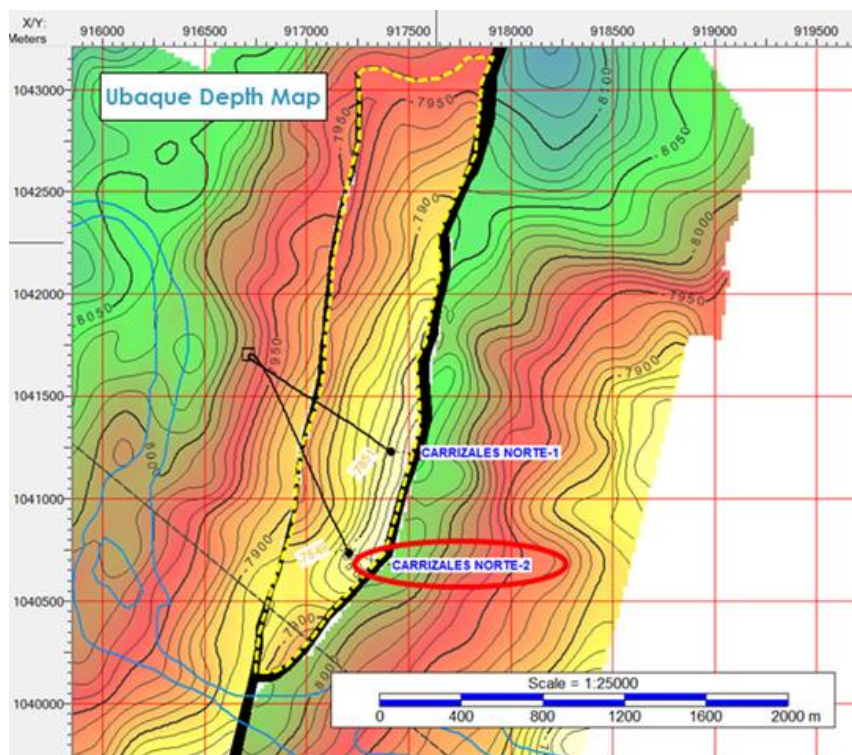
- Carrizales Norte-1 (CN-1) was spud on May 1st, 2023
- On trend with the prolific Carrizales field discovered by C&C Energia in 2007
  - 24 wells drilled to date; as of December 2019, the field had produced approximately 8.4 MMbbls oil and had achieved a peak production rate of 7,300 bbls/d
  - C&C eventually sold for \$500MM after additional discoveries in the area
- CN-1 encountered over 140 feet of net oil pay in multiple reservoir zones
- Tested over 1100 bbl/d from Ubaque formation and is now on production from the C7
- The CN-3 appraisal well drilled in June
- The well encountered 98 total of feet net oil pay (TVD) within the Carbonera C7, Gacheta, and Ubaque formations
- Both CN-1 and CN-3 are currently producing from the C7 zone



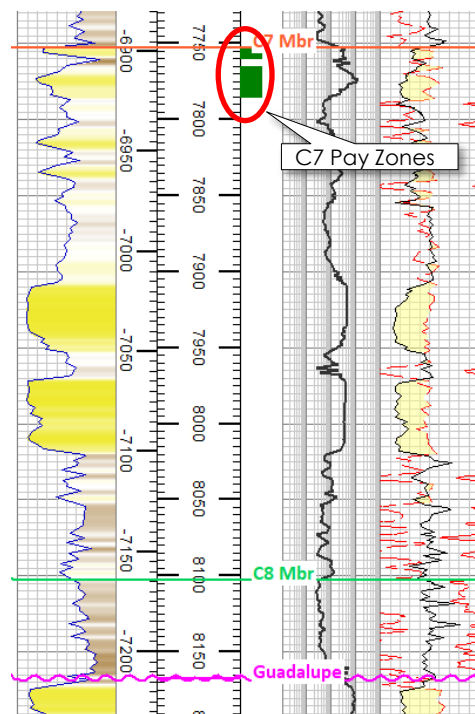
# CN-2: Ubaque

- The CN-2 appraisal well spud on July 20<sup>th</sup> and reached total depth on July 30<sup>th</sup>
- The well encountered a total of 149 feet net oil pay (TVD) within the Carbonera C7, Gacheta, and Ubaque formations
- CN-3 has confirmed the continuity of the thick Lower Ubaque pay sand to the north, with similar reservoir quality to the previous two wells. The well is currently testing the C7 zone

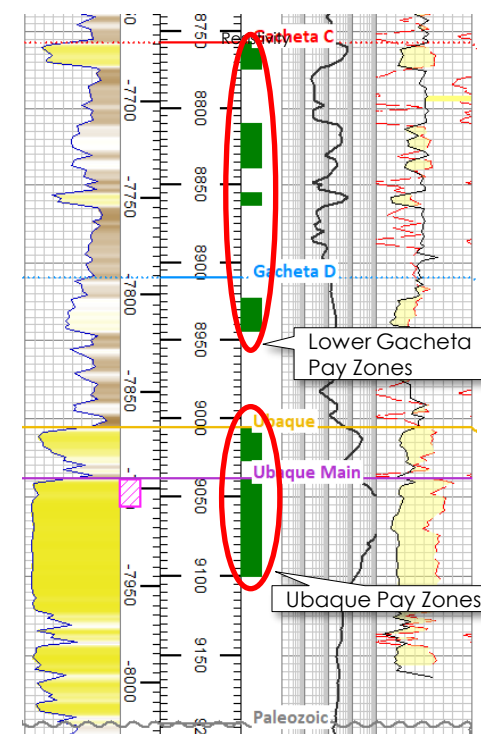
Zone	Net Pay (ft)	API Gravity	Oil Production Rate (bbl/d) *
Lower Ubaque	50	13.7°	297
Upper Ubaque	17	N/A	77
Carbonera C7	23	N/A	Currently Testing
Gacheta	59	N/A	Not Tested



C7-Guadalupe Log Curves

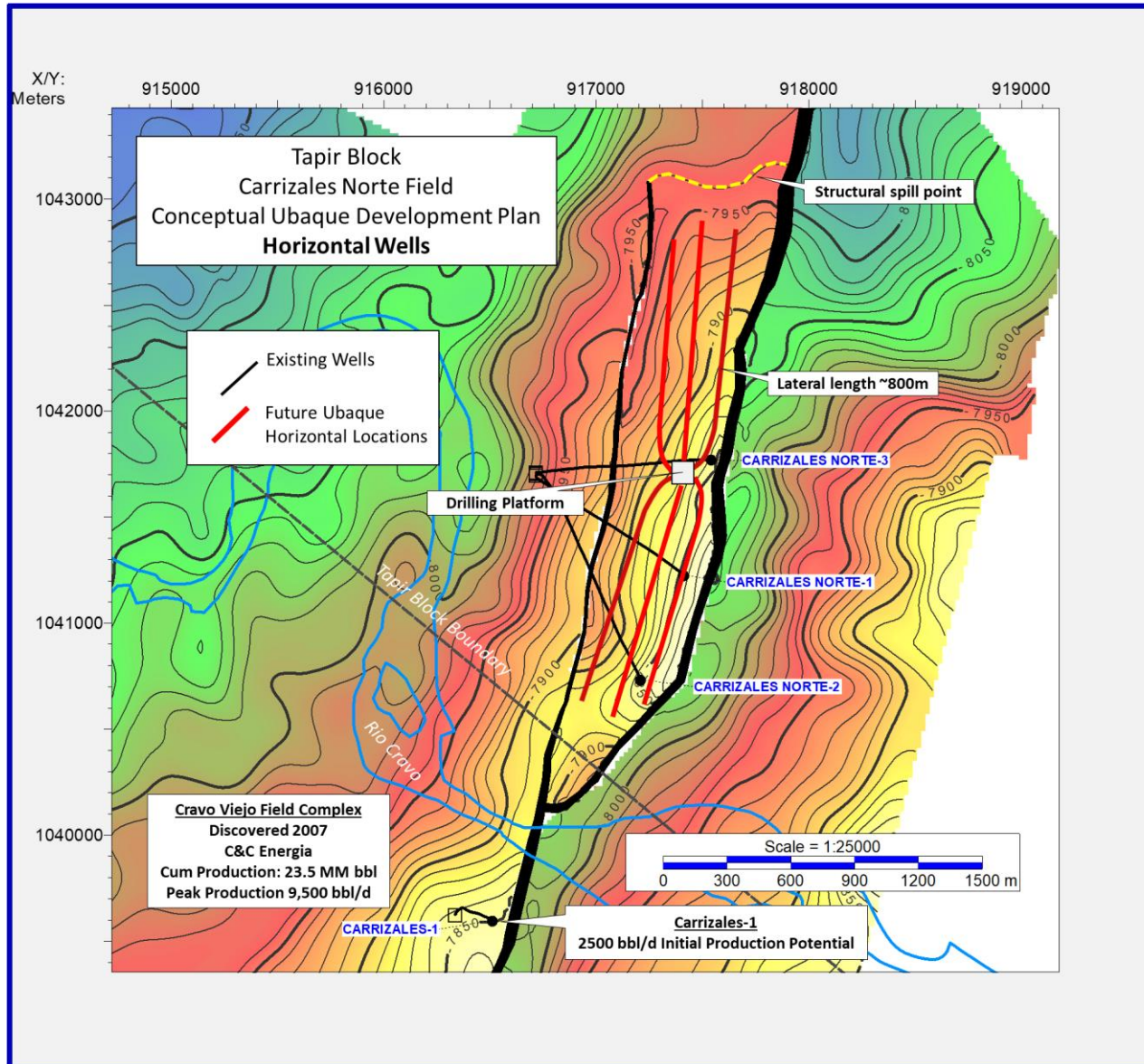


Gacheta-Ubaque Log Curves





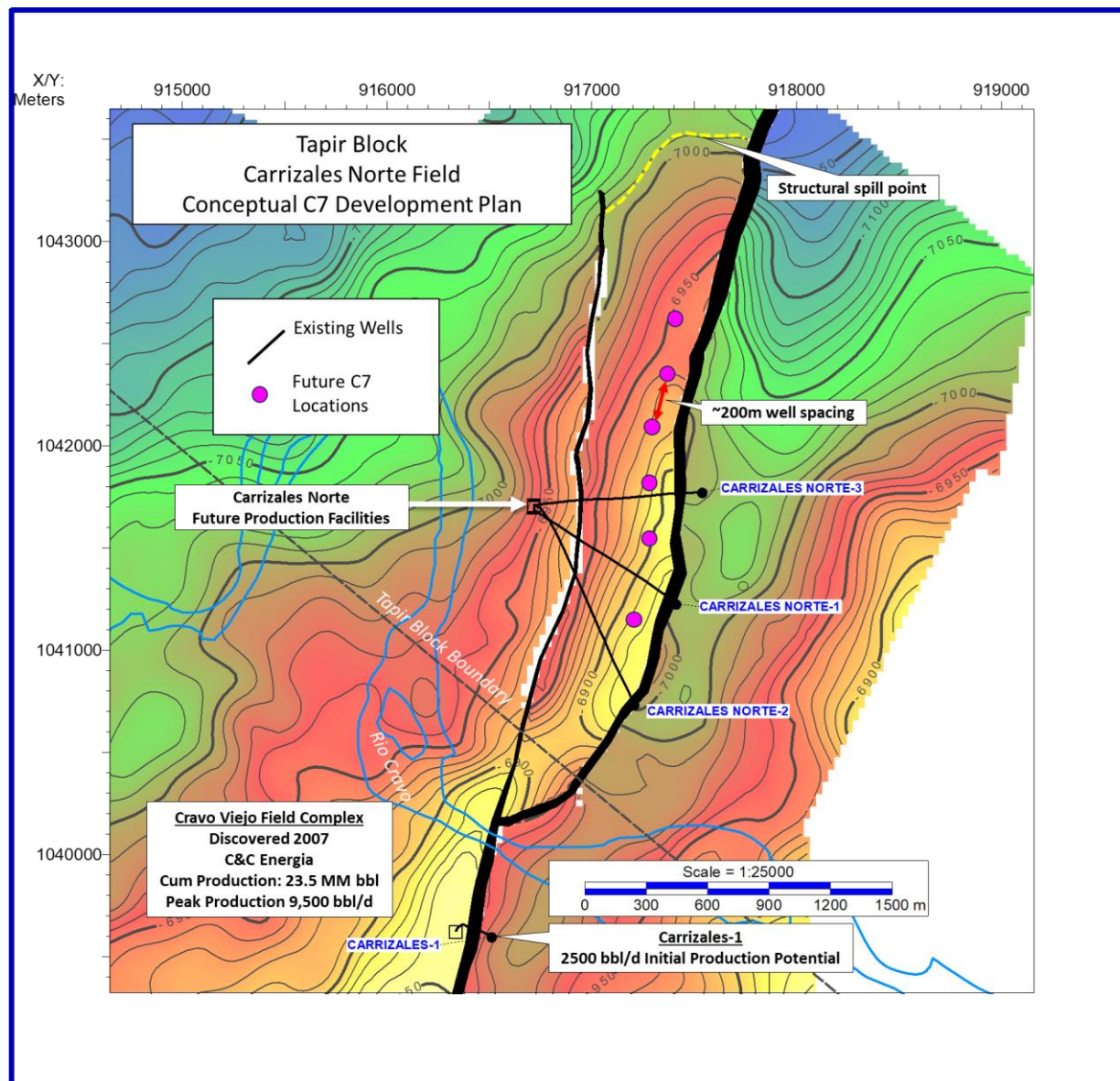
# Carrizales Norte Ubaque Development Concept



## Horizontal Well Concept

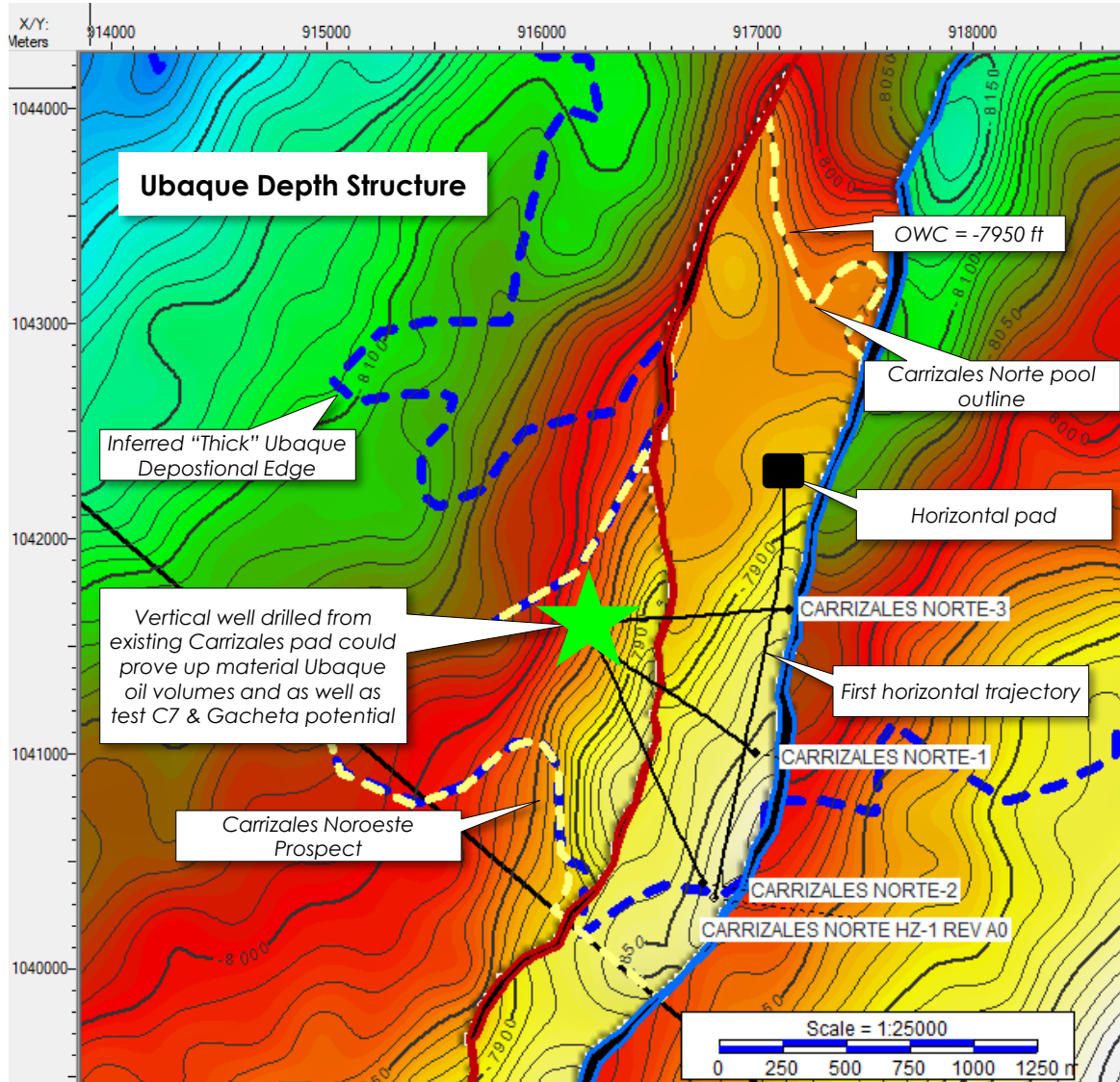
- expect 50% additional cost compared to a vertical well
- expect 300% production compared to a vertical well

# Carrizales Norte C7 Development Concept



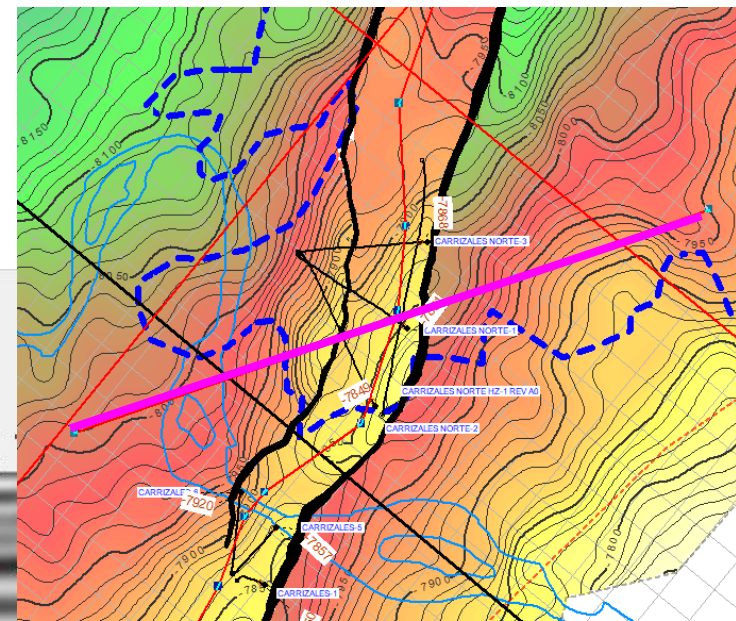
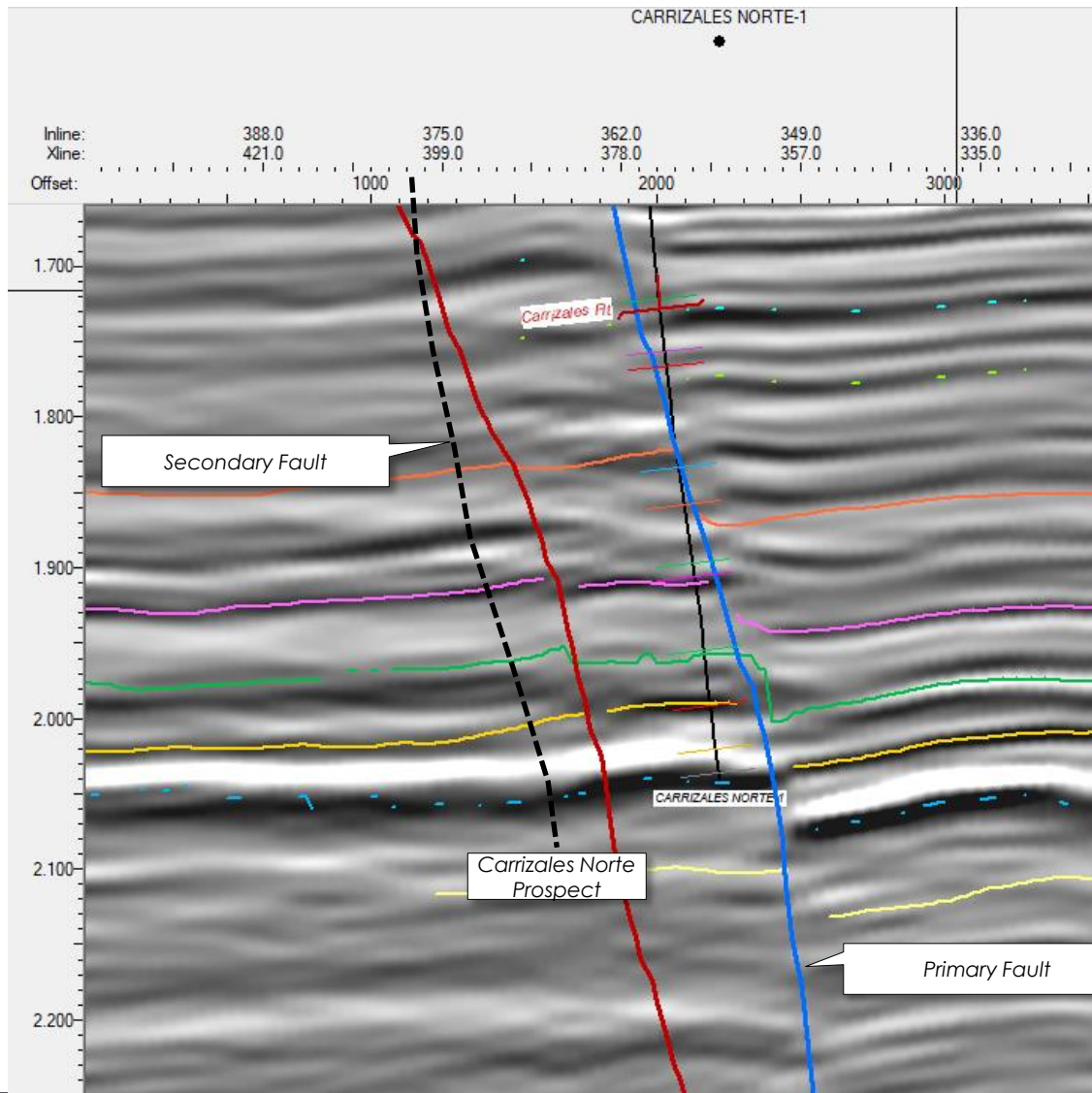


# Carrizales Norte Field: Revised Interpretation





# Carrizales Noroeste Prospect



Near Top C7

Top Mirador-Barco-Guadalupe

Near Top Gacheta

Near top Lower Gacheta

Near Top Paleozoic





## Colombian Oil Portfolio MMV Basin

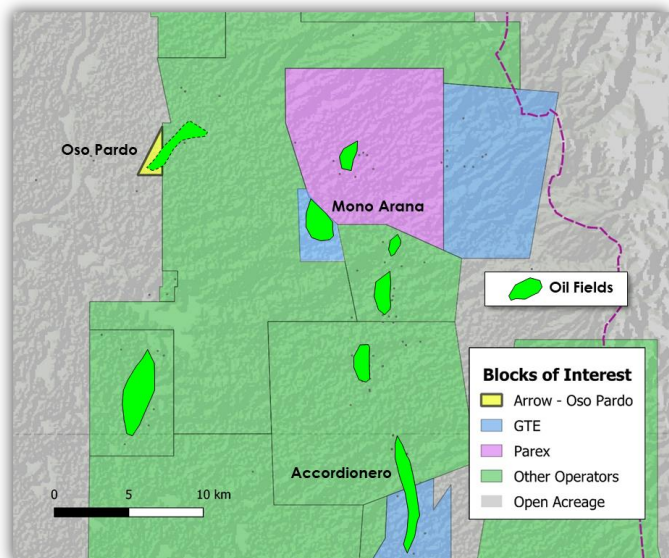
## Current Production

# Oso Pardo Field (100% W.I.)

## Overview

- Discovered in 2013 by Canacol; discovery well (Oso Pardo-1) had an IP of 200 bbls/d from stacked sands of the Umir formation
- 2 appraisal wells drilled in 2014; 150 ft proven oil column to Lowest Known Oil (LKO)
- Accordionero (2P reserves of 66 MMbbls; current production of 16,000 boe/d) located 25 km to SE
- 2023 - OP-3 drilled and being completed. OP-4 being drilled
- Independent study by Gaffney, Cline & Associates supports a much larger field area than originally interpreted by Canacol

## Location | Map



- Covered by 3D seismic – exclusive to Arrow
- Request to extend Oso Pardo Production License has been formally submitted to the ANH.

## Oso Pardo Site Photos





# Future Opportunity Not Factored Into Production Forecast

## Oso Pardo Extension (100% W.I.)

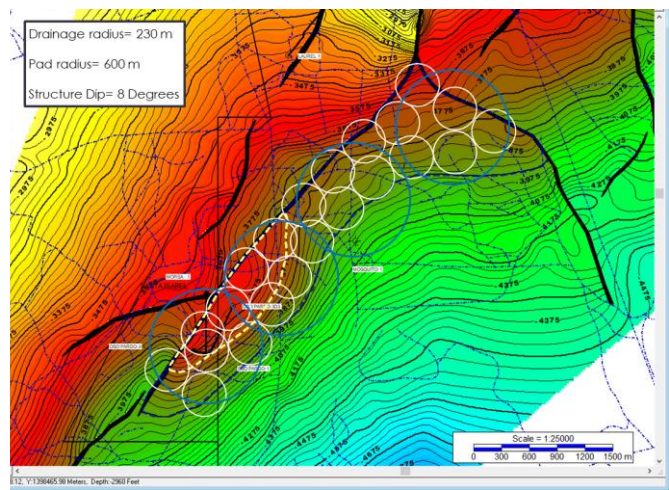
Existing block does not require a bid process

### Overview

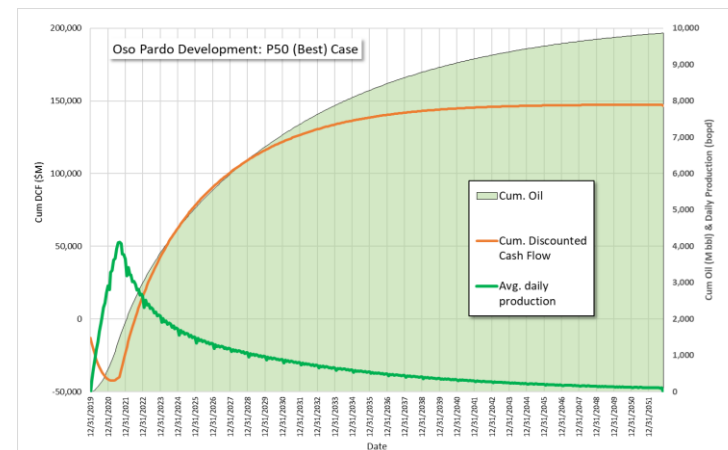
- Gaffney, Cline & Associates reserve study\* snapshot:

GCA Cases	Oil EUR/well (Mbbl)	Capex (\$M)	Pre-Tax NPV10% (\$M)
Low	343	\$65.5	\$24.9
Expected	480	\$122.7	\$146.5
High	705	\$251.1	\$547.8

### Potential Field Development Configuration

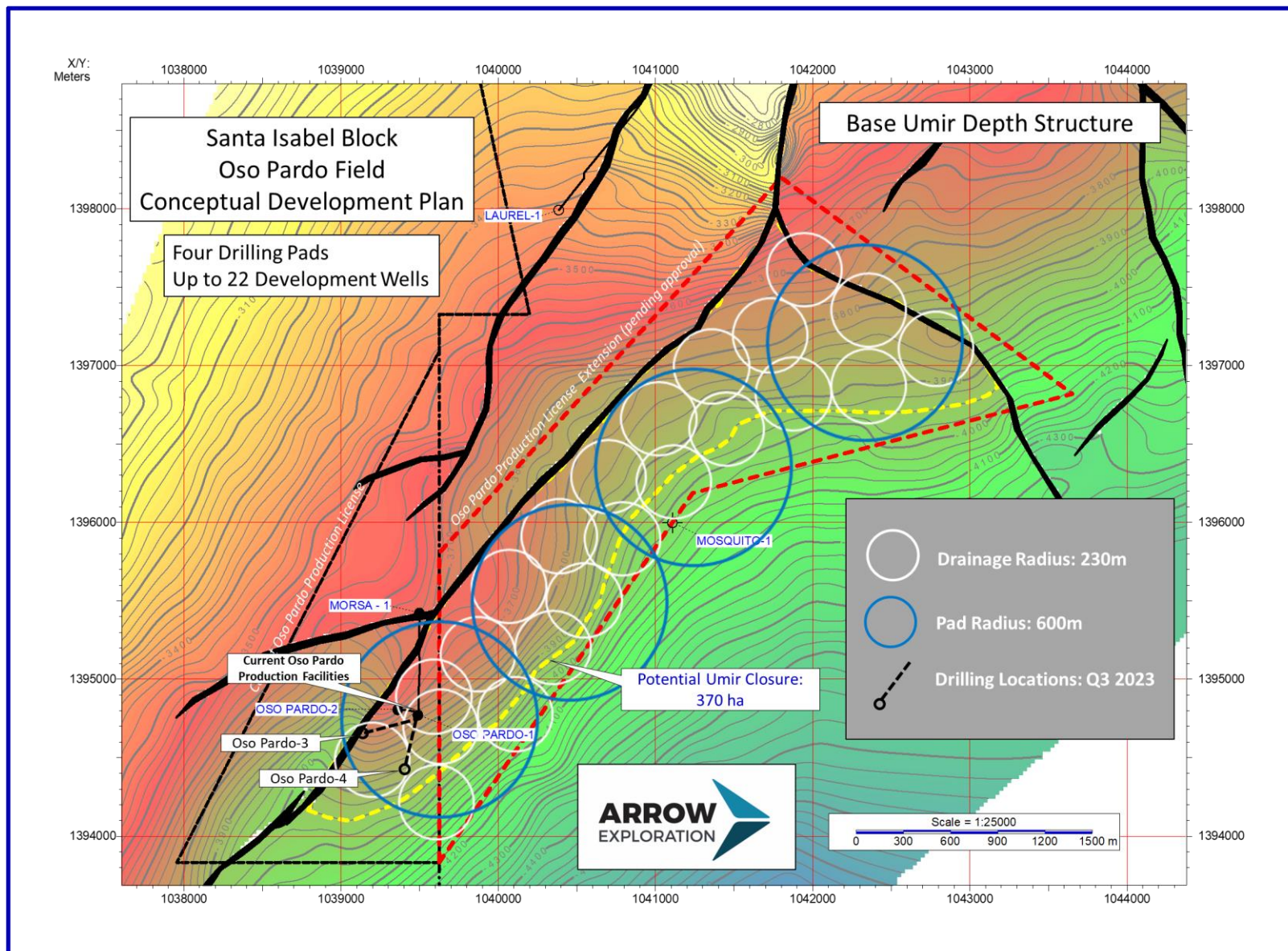


### Oso Pardo Extension Potential Production Profile\*



- Leveraging off the company's existing Oso Pardo development
- Arrow has applied for an extension to its existing license to cover the entire potential Oso Pardo development; Canacol has agreed to assist Arrow with obtaining the extension
- Based on P50 development size of 20 wells, Oso Pardo could contain 9.6MMbbls
- Potential capex of \$4.0M per well, ex. well-pad\*
- Overall development has been modelled by Gaffney Cline as reaching as much as 4,000 bbls/d, 100% WI, in the P50 case\*
- Opportunity for Arrow to develop at 100%

# Oso Pardo Development Concept





# Near Time Catalyst

## Complete

CN discovery well

3D on the Tapir Block

## In Progress

Drill 6 Rio Cravo Este wells on Tapir Block, Llanos Basin

New Discovery Multiple development wells at CN. (10+)

## Future

Pivot into low-risk exploration drilling. Multiple prospects generated by 3D

Tapir South Seismic Project 3D

Oso Pardo Extension

Accretive M&A

Colombia attractive fiscal regime  
Near term production growth

Underpinned By  
**A Commitment to ESG Best Practices**

2023 Fully Financed – 11 well program  
3D converts leads to prospects

2024 Fully Financed – 15 well program  
Including horizontal wells at Carrizales Norte

# Corporate Information

## ARROW EXPLORATION



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