Canacol Energy And Lewis Energy-Hocol Discoveries 2023, Support predictive corridor model to find new O&G reservoirs.

Sinu San Jacinto SSJJ, and Valle Inferior del Magdalena VIM Basin. Colombia.

Autor: Edinson Alvarez Geoscientist-2025- edinson.alvarez@gmail.com

Introducción

La cuenca del Sinú San Jacinto SSJJ y la Cuenca del Valle inferior del Magdalena, Según C-R Posada Saldarriaga et al. 2024, ofrecen un potencial importante de prospectividad de hidrocarburos estimados para VIM en 3.18 tcf para Gas y 0.731 tcf Wet Gas, y se estima un valor menor a este rango para SSJJ. Diferentes estudios de la ANH 2012 y Geokinetics 2008, entre otros reportan importantes manaderos de crudo y gas, además de conocerse la existencia de importantes campos O&G en el área. Las presentes graficas muestran los corredores prospectivos de interés (buffer), publicados por la Agencia Nacional de Hidrocarburos ANH 2022 (**Áreas Gris, Roja y lila en el gráfico**), alrededor de los principales campos productores. El presente trabajo utiliza como novedad herramientas de la Teoría de Fuente Compleja (Definición Edinson Alvarez 2025), para extender los corredores prospectivos propuestos por la ANH 2022. Adicional de las herramientas tradicionales como: Interpretación sísmica, geología estructural, geoquímica, estratigrafía, información de pozo, de reservorio, líneas de flujo, plays, entre otros… Para Lograr determinar el **corredor prospectivo en color amarillo.** Trabajo Presentado a Ecopetrol en julio de 2022. La Grata Sorpresa se da en enero de 2023, cuando la empresa Canacol Enegy informa del descubrimiento del pozo productor **DiviDivi1** en enero del 2023 en la cuenca VIM, Justo dentro del nuevo corredor prospectivo amarillo, 6 meses después de presentado. Luego en Diciembre de 2023, la empresa Lewis Energy-Hocol, reporta un nuevo descubrimiento en el pozo **Bullerengue Oeste5**, en la Cuenca del Sinú Sanjacinto, en límite del nuevo corredor prospectivo propuesto (color amarillo). 17 meses después de haberse presentado el modelo. Los anteriores descubrimientos se encuentran por fuera del área de interés propuesta por la ANH 2022 (área gris, roja y lila), **pero están dentro del rango propuesto por el Autor2022 (área Amarilla)**. Lo anterior nos muestra un resultado positivo en cuanto al alcance, valor y aporte de las herramientas de la Teoría de Fuente Compleja-EA2025, como de otros resultados obtenidos con esta nueva herramienta. Lo que le ha servido para el **reconocimiento por aportes al conocimiento geocientifico por parte del Instituto de Investigaciones Estratigraficas IIES de la Universidad de Caldas, Phd Andrés Pardo-Director; de la Maestria en Ciencias de la Tierra de la Universidad de Caldas, Msc Arley Gomez-Director, y de la Profesora del Area de Geosciencias de la Universidad Nacional de Colombia Phd Clemencia Gómez.**

Definición:

Teoría de Fuente Compleja (Edinson Alvarez 2025): Mecanismo utilizado por grupos interdisciplinarios de especialistas en cualquier campo de la ciencia, donde se emplean nuevos conceptos, nuevas metodologías, nueva tecnología, nuevo conocimiento, obteniendo nuevos resultados, con el fin de resolver temas complejos.

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Introduction

The Sinú San Jacinto SSJJ basin and the lower Magdalena Valley Basin, according to C-R Posada Saldarriaga et al. 2024, offer significant hydrocarbon prospectivity potential estimated for VIM at 3.18 tcf for Gas and 0.731 tcf Wet Gas, and a lower value than this range is estimated for SSJJ. Different studies by the ANH 2012 and Geokinetics 2008, among others, report important emanation sources of crude oil and gas on surface, in addition to the existence of important O&G fields in the area. The present graphs show the prospective corridors of interest (buffer), published by the National Hydrocarbons Agency ANH 2022 (**Gray, Red and Lila Areas in the graph**), around the main producing fields. This work uses as a novelty tools of the Complex Source Theory (Edinson Alvarez Definition 2025), to extend the prospective corridors proposed by the ANH 2022. In addition to traditional tools such as: Seismic interpretation, structural geology, geochemistry, stratigraphy, well information, reservoir information, flow lines, plays, among others ... To determine the **prospective corridor in yellow**. Work presented to Ecopetrol in July 2022. The pleasant surprise occurs in January 2023, when the Canacol Enegy company reports the discovery of the **DiviDivi1** production well in January 2023 in the VIM basin, just within the new yellow prospective corridor, 6 months after it was presented. Then in December 2023, the company Lewis Energy-Hocol reported a new discovery in the **Bullerengue Oeste5** well, in the Sinú Sanjacinto Basin, on the edge of the proposed new prospective corridor (yellow). 17 months after the model was presented. The previous discoveries are outside the area of interest proposed by the ANH 2022 (**gray, red and lilac areas**), but are within the range proposed by Author2022 (**Yellow area**). The above shows us a positive result in terms of the scope, value and contribution of the tools of the Complex Source Theory-EA2025, as well as other results obtained with this new tool. **This has deserved the recognition for contributions to geoscientific knowledge by the Institute of Stratigraphic Research IIES of the University of Caldas, PhD Andrés Pardo - Director; from the Master's in Earth Sciences from the University of Caldas, Msc Arley Gomez-Director, and from the Professor of the Area of Geosciences of the National University of Colombia, PhD Clemencia Gómez.**

Definition:

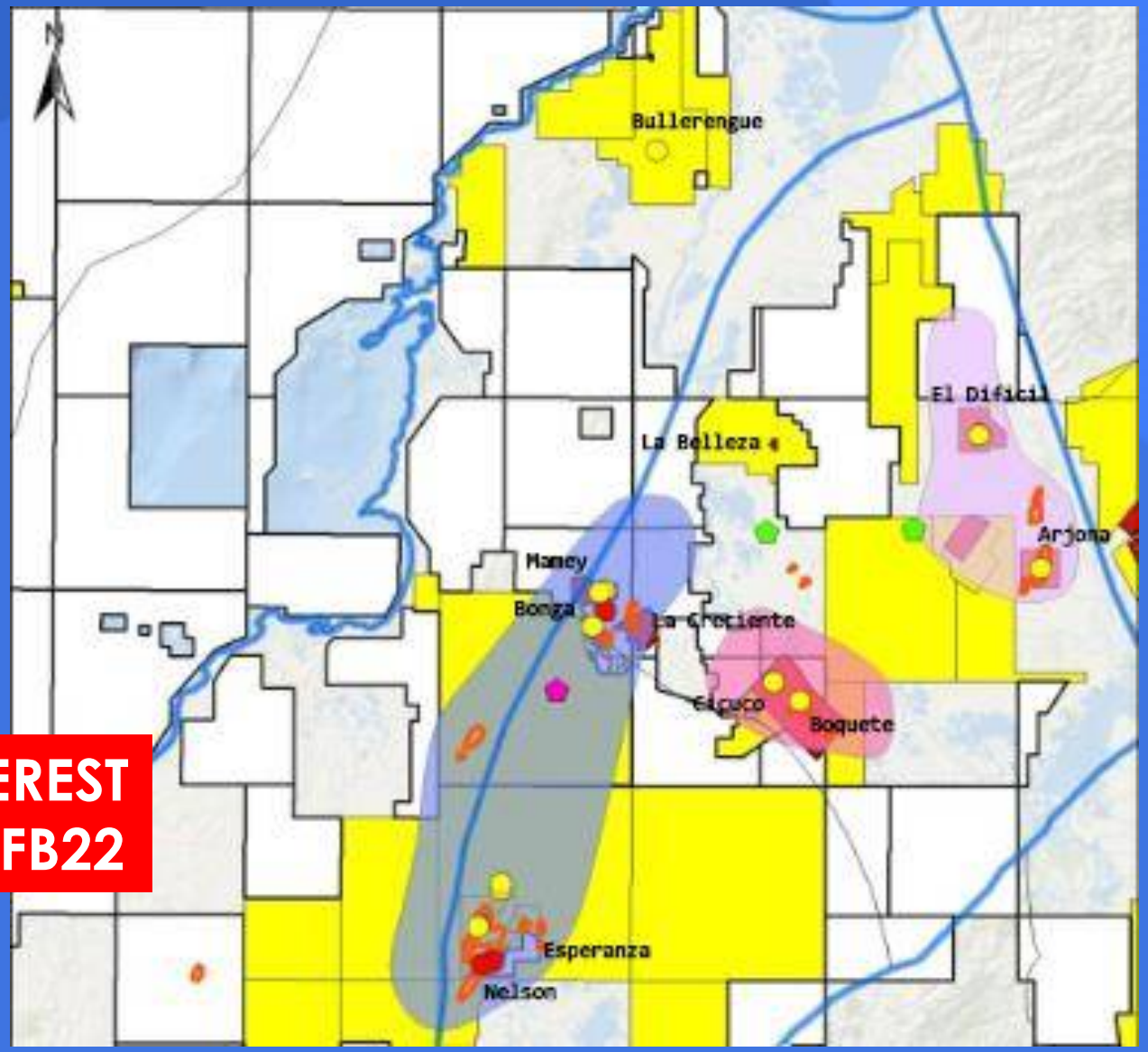
Complex Source Theory (Edinson Alvarez 2025): A mechanism used by interdisciplinary groups of specialists in any field of science, where new concepts, new methodologies, new technology, and new knowledge are employed, obtaining new results, in order to resolve complex issues.

CANACOL AND LEWIS ENERGY'S DISCOVERIES 2023- SUPPORT PREDICTIVE MODEL TO FIND NEW O&G RESERVOIRS PRESENTED TO ECOPETROL 2022.(PART C) VIM-SSJ-COLOMBIA

EDINSON ALVAREZ
GEOLOGIST-OIL EXPLORATION SPECIALIST

CANACOL ENERGY'S DISCOVERIES 2023 SUPPORT PREDICTIVE MODEL TO FIND NEW O&G RESERVOIRS - VIM-SSJ-COLOMBIA. (PART C)

EDINSON ALVAREZ GEOSCIENTIST (Modified ANH 2022). PRESENTED TO ECOPETROL JUL-2022



O&G AREAS OF INTEREST PROPOSED BY ANH FB22

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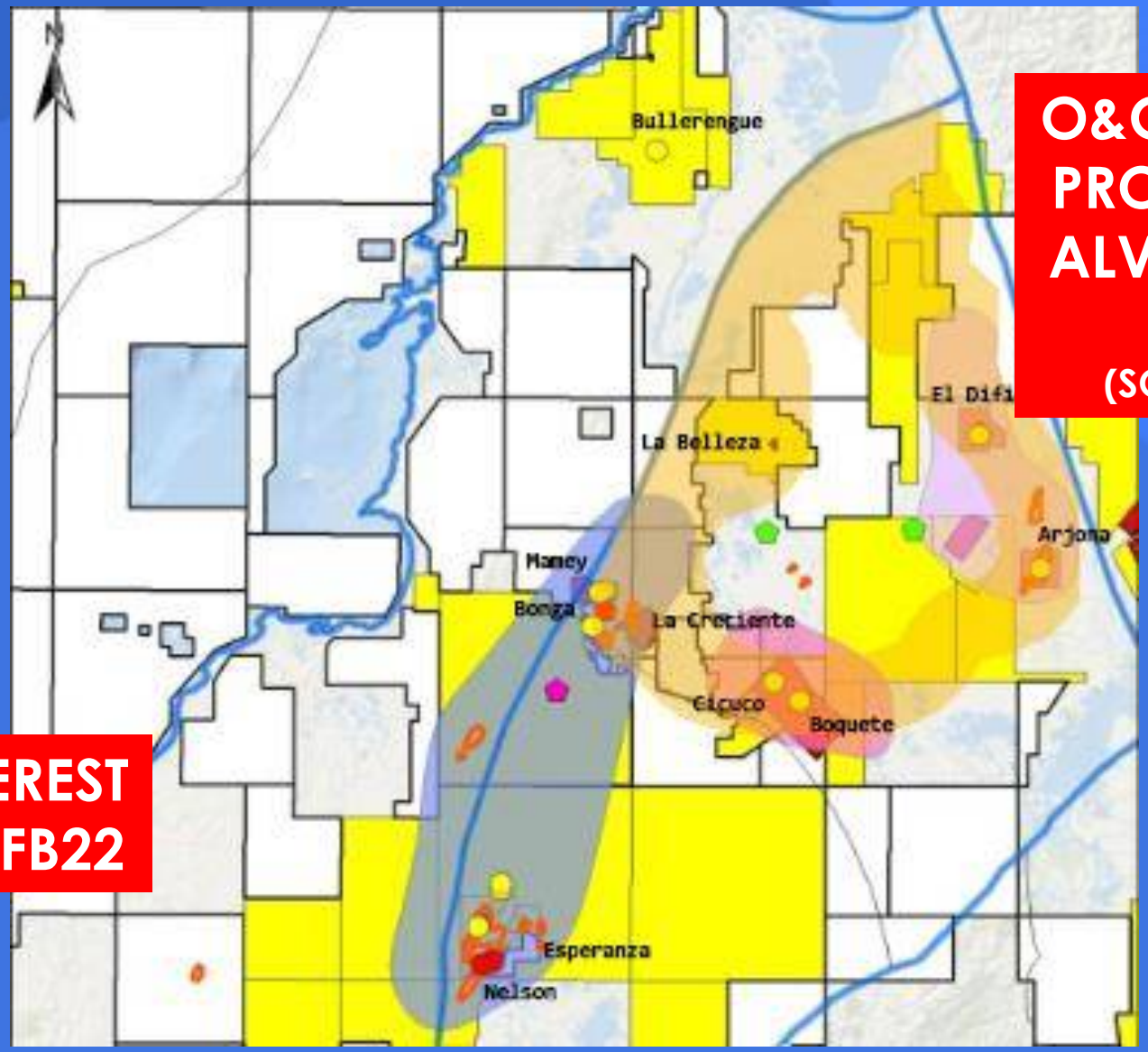

O&G AREAS OF INTEREST PROPOSED BY EDINSON ALVAREZ-GEOSCIENTIST NORTH AREA
(SOUTH AREA IN FULL REPORT)

O&G AREAS OF INTEREST PROPOSED BY ANH FB22

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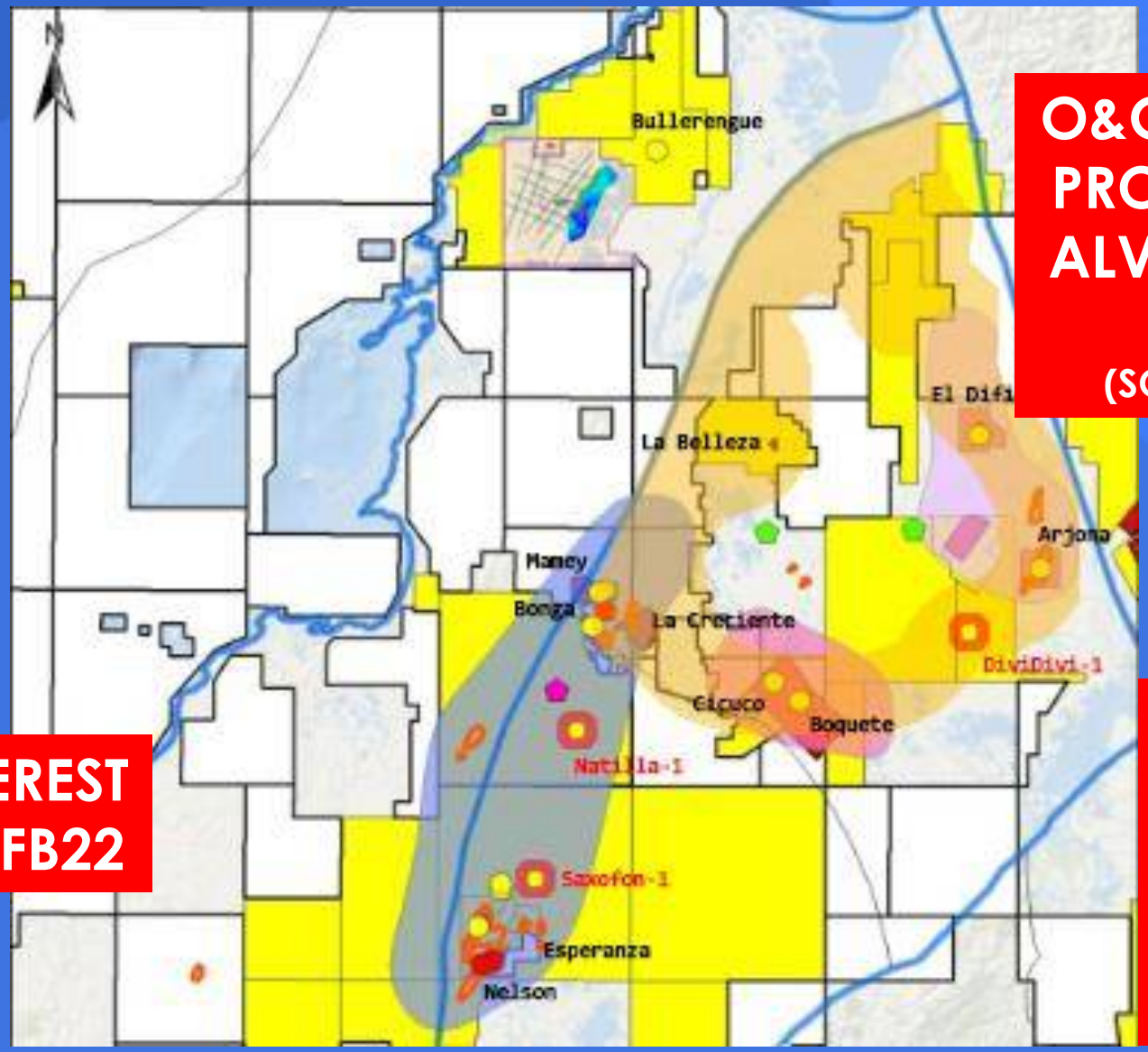

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O&G AREAS OF INTEREST PROPOSED BY ANH FB22

DIVIDIVI-1,NATILLA-1,SAXOFON-1 ANNUNCED DISCOVERIES O&G BY CANACOL ENERGY JANUARY 2023.

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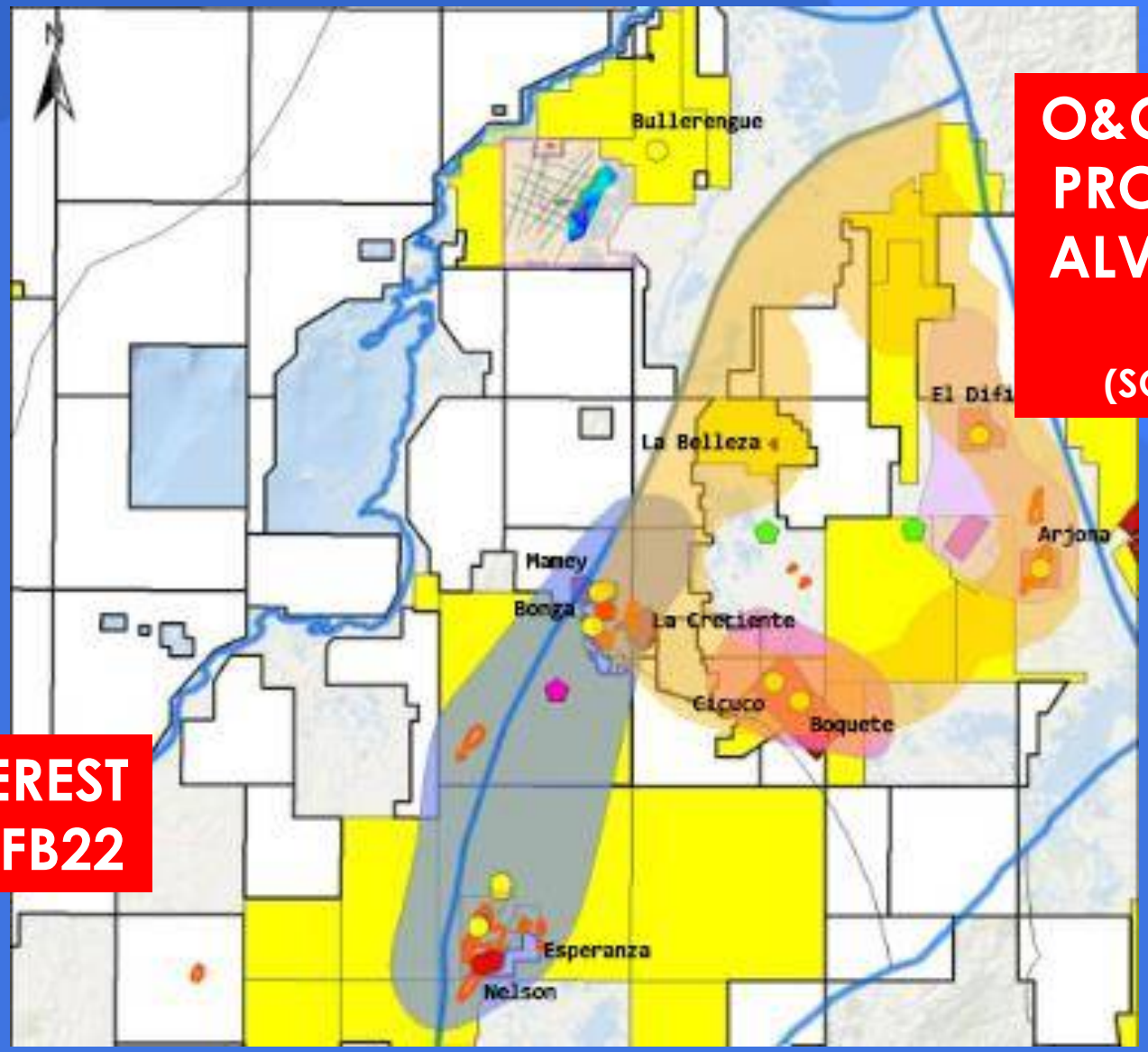

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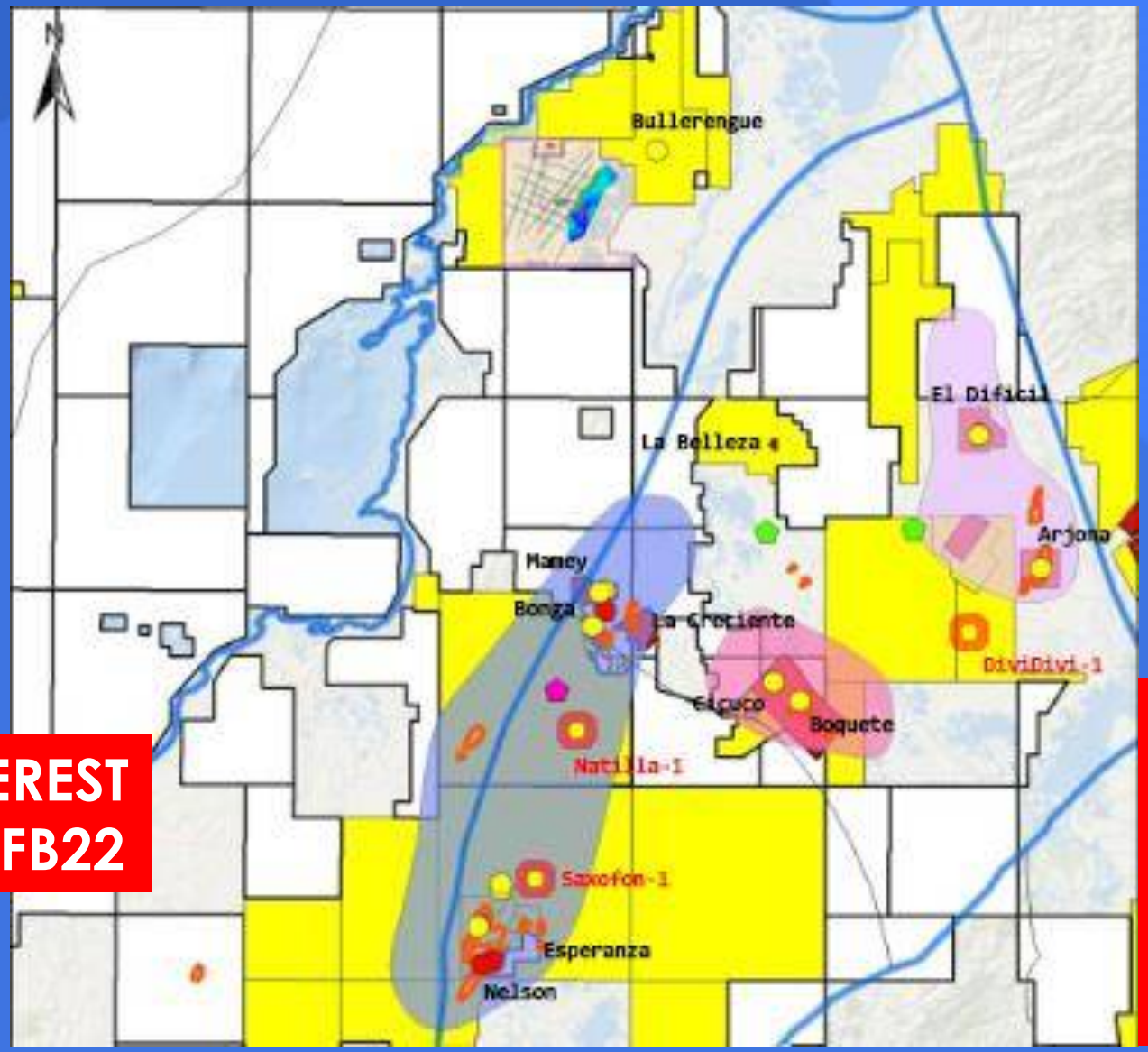

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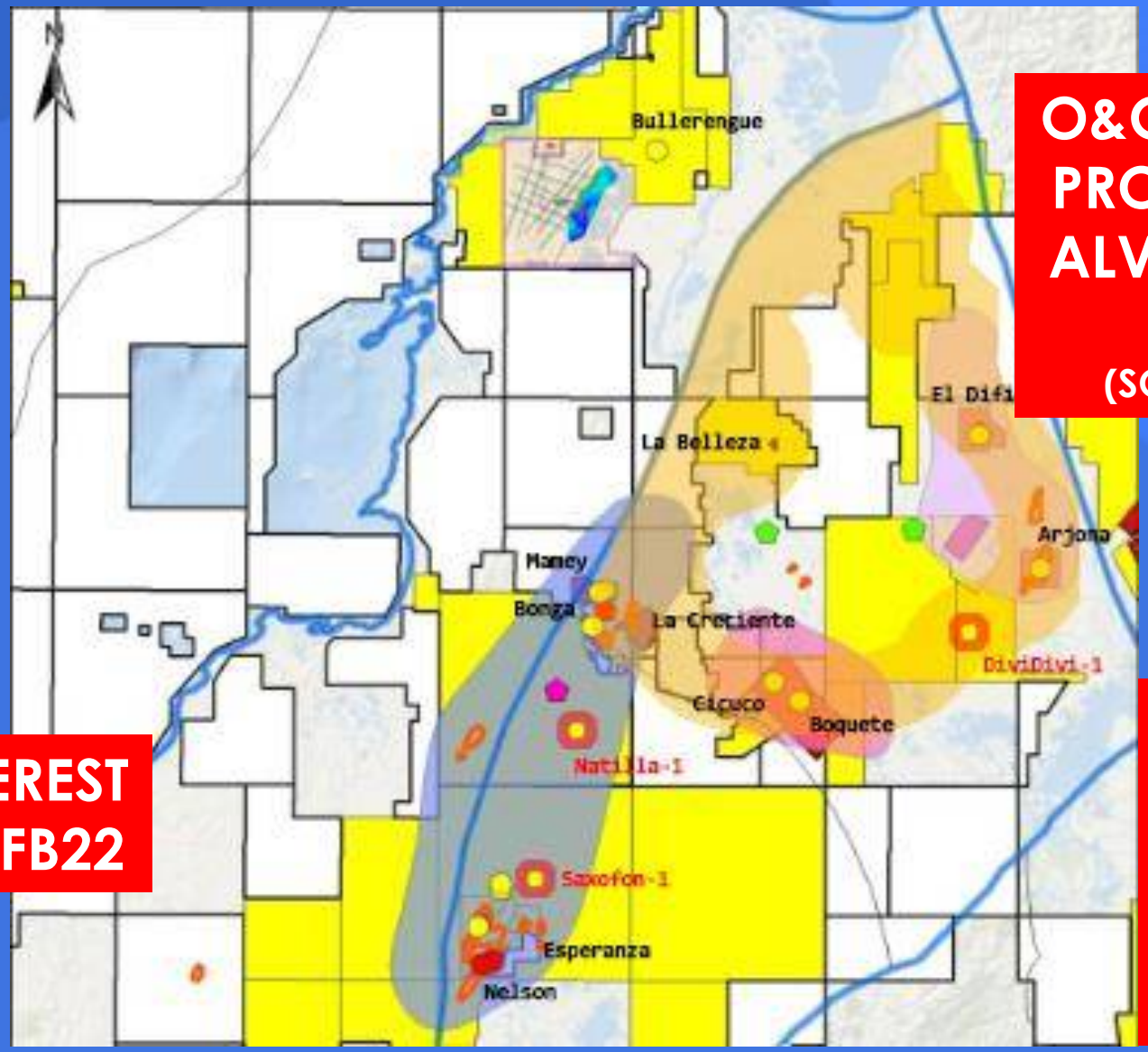

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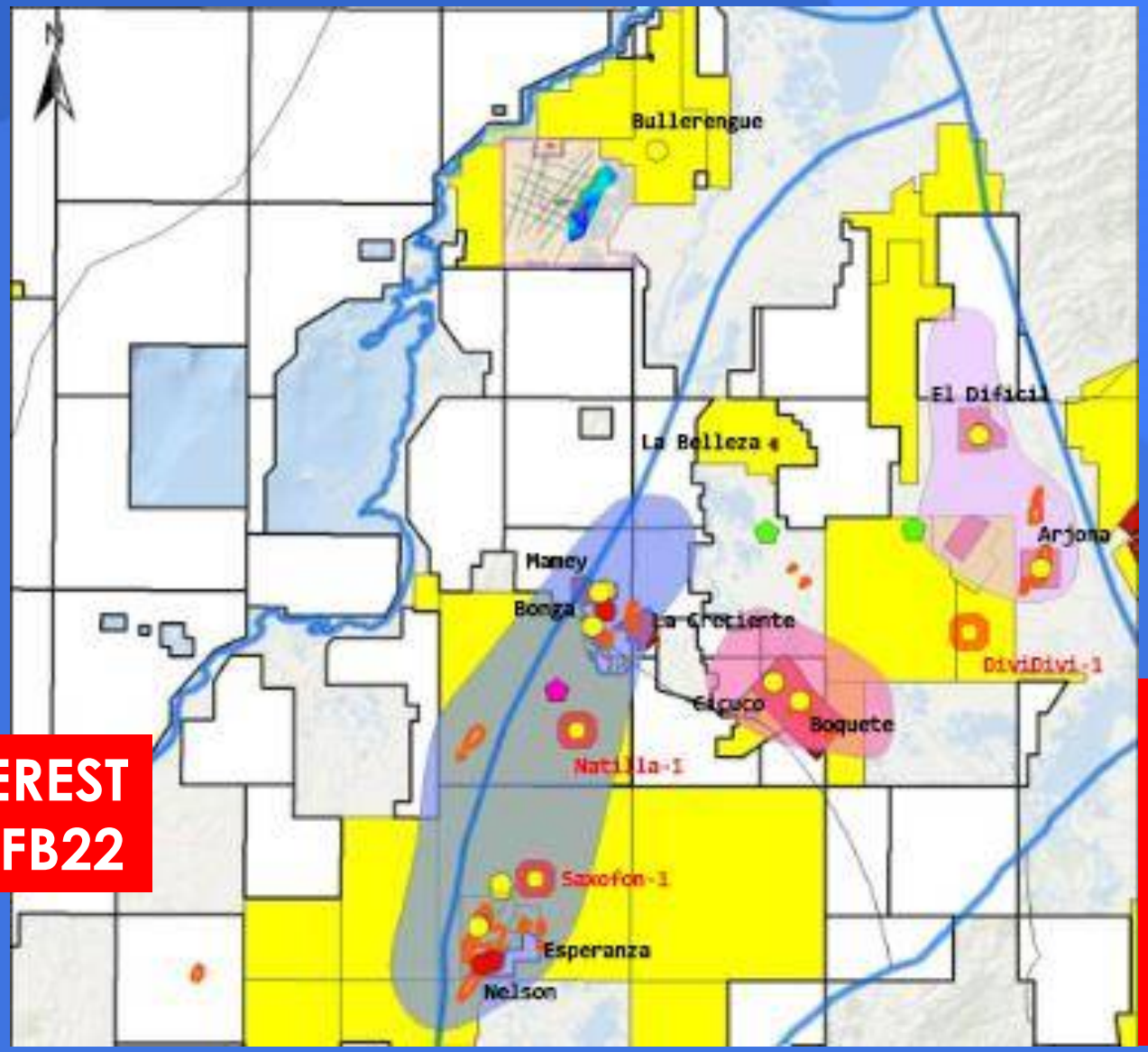

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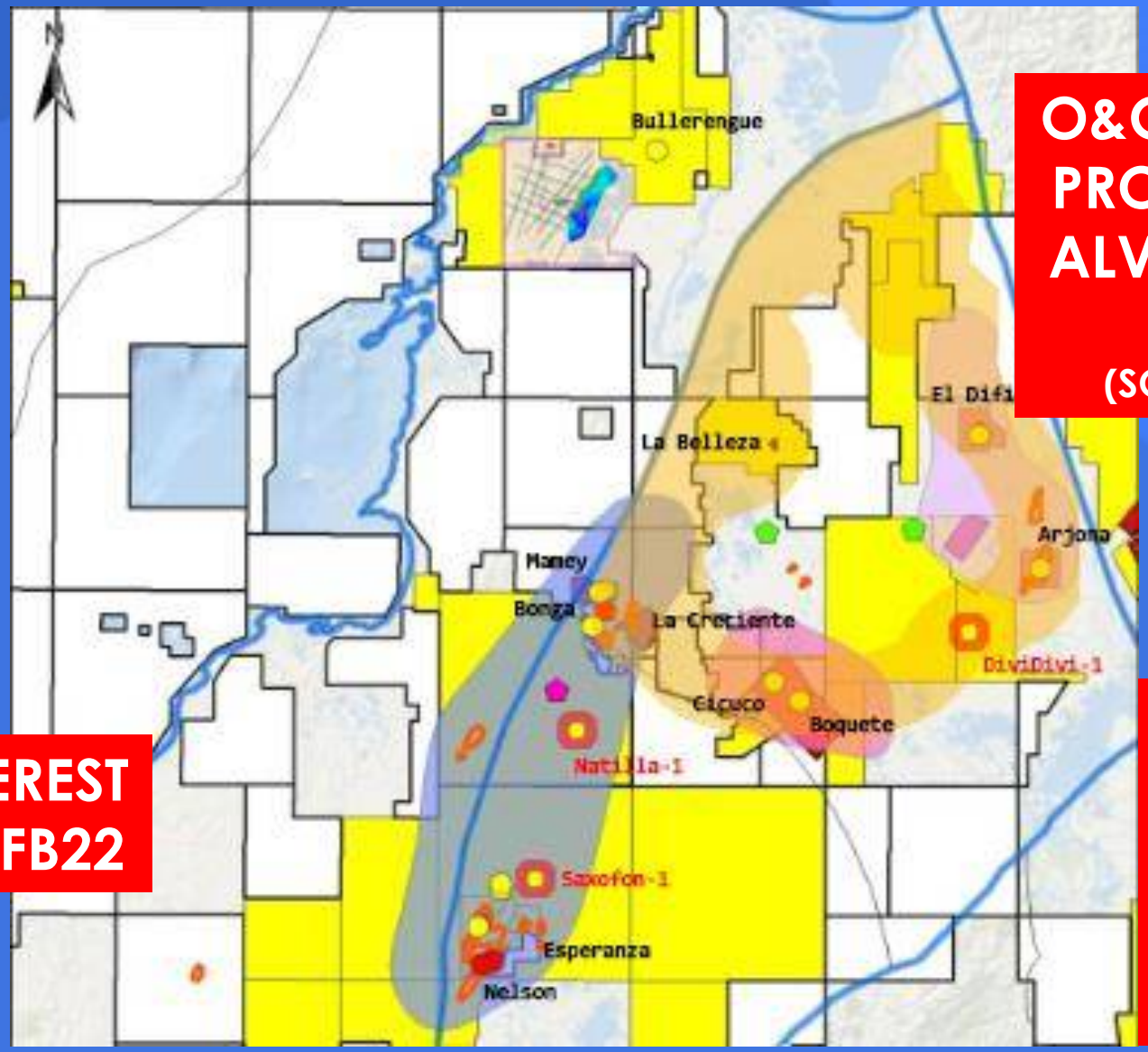

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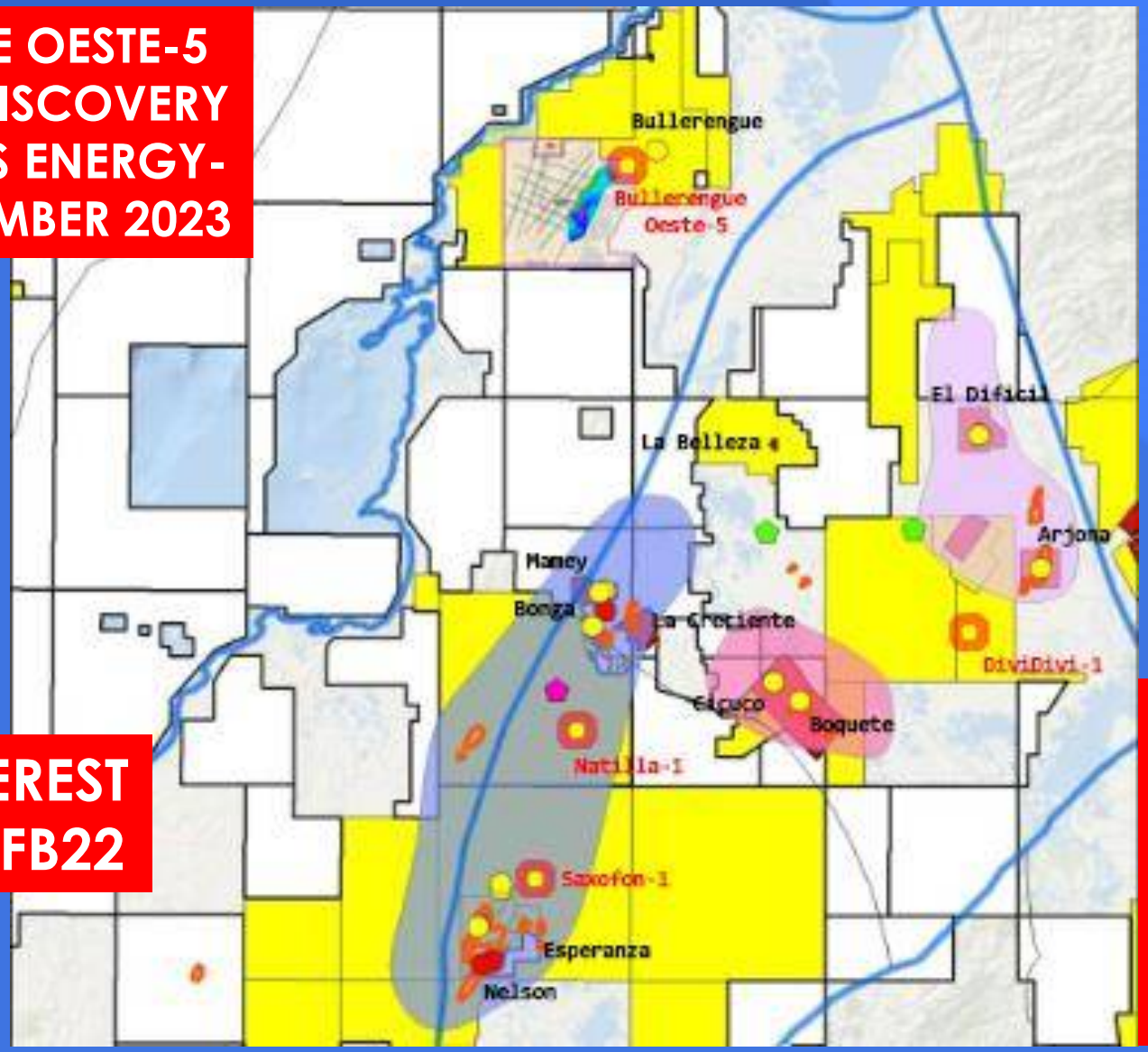
BULLERENGUE OESTE-5 ANNUNCED DISCOVERY O&G BY LEWIS ENERGY-HOCOL DECEMBER 2023



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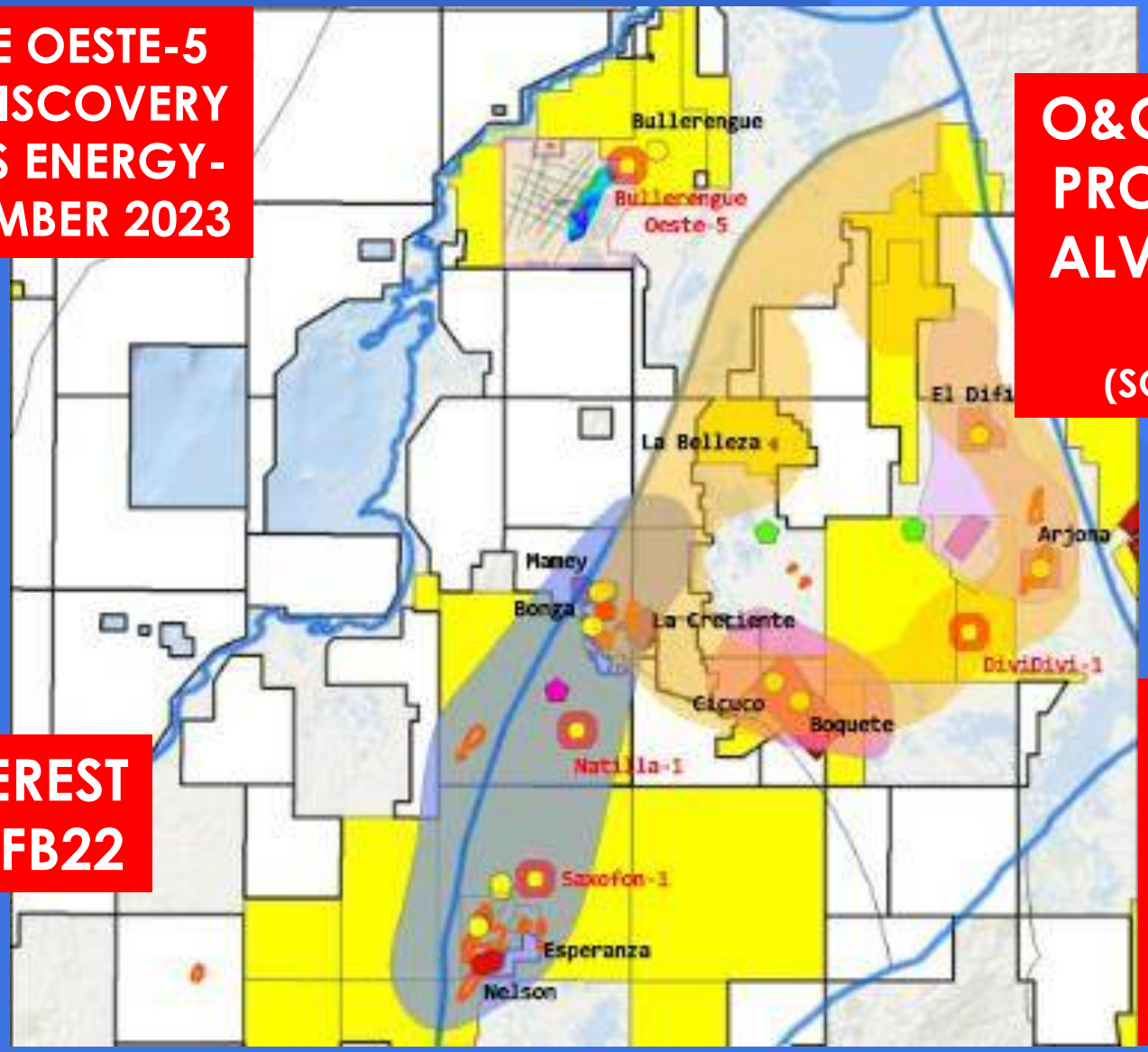

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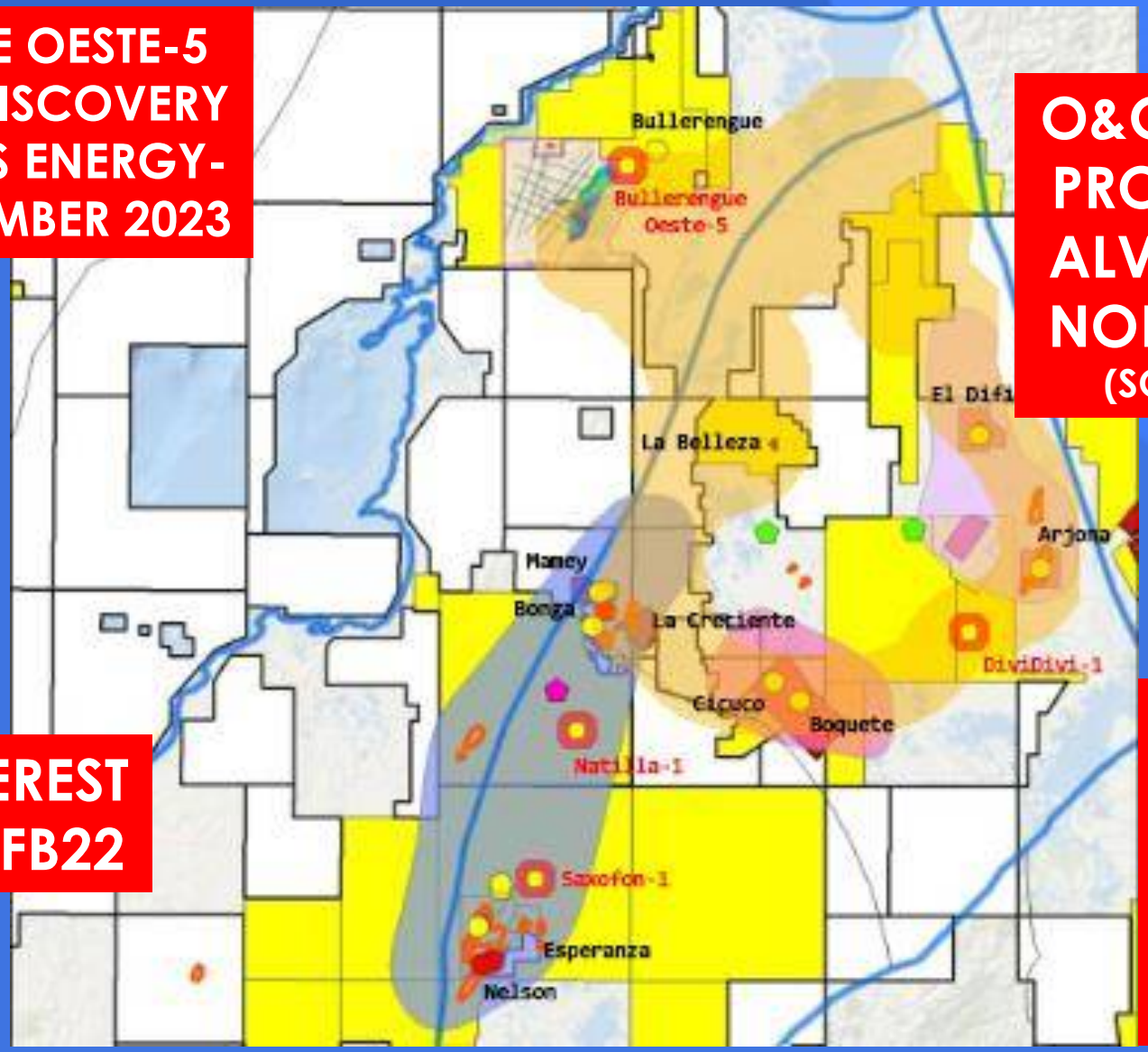

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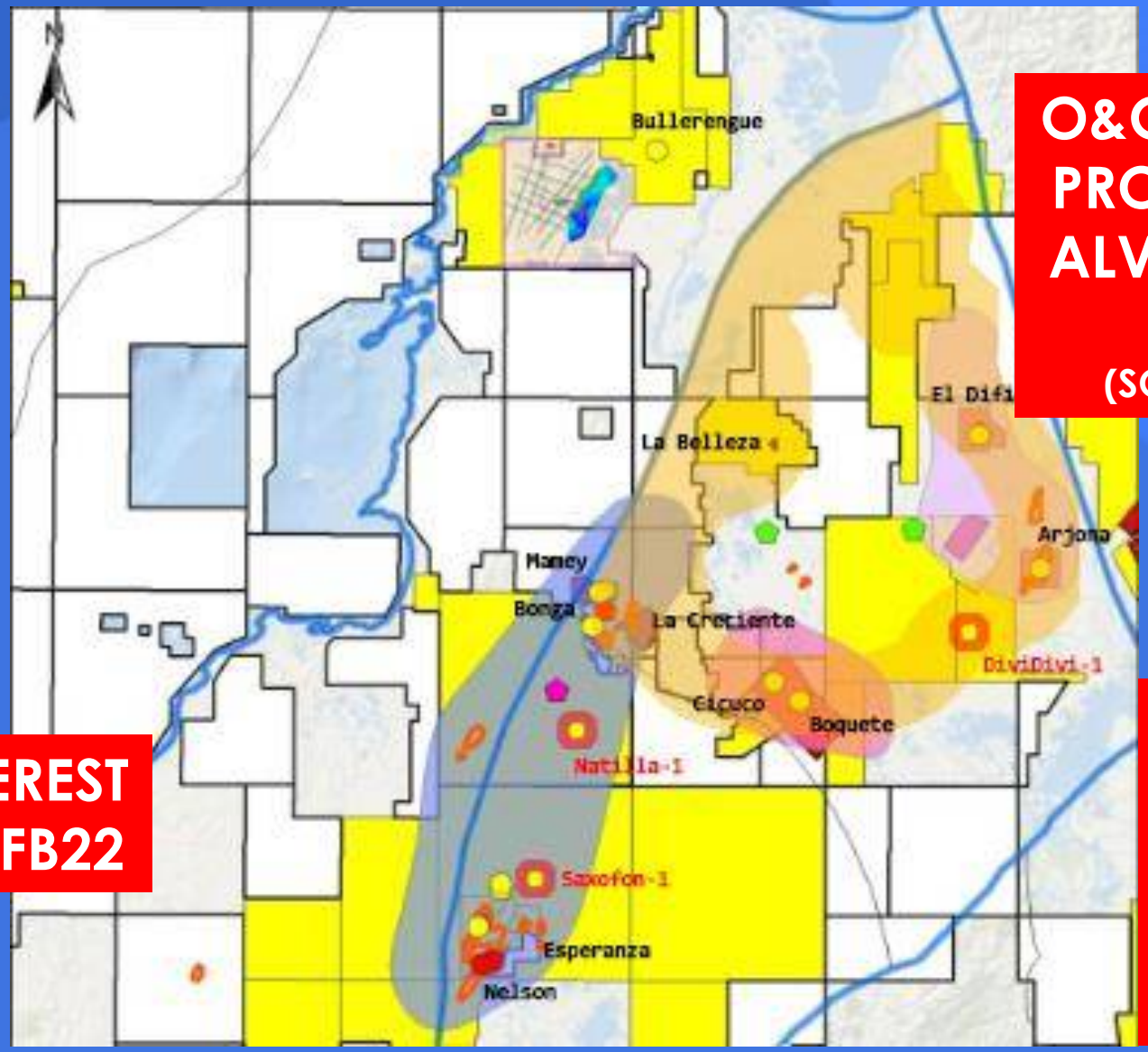

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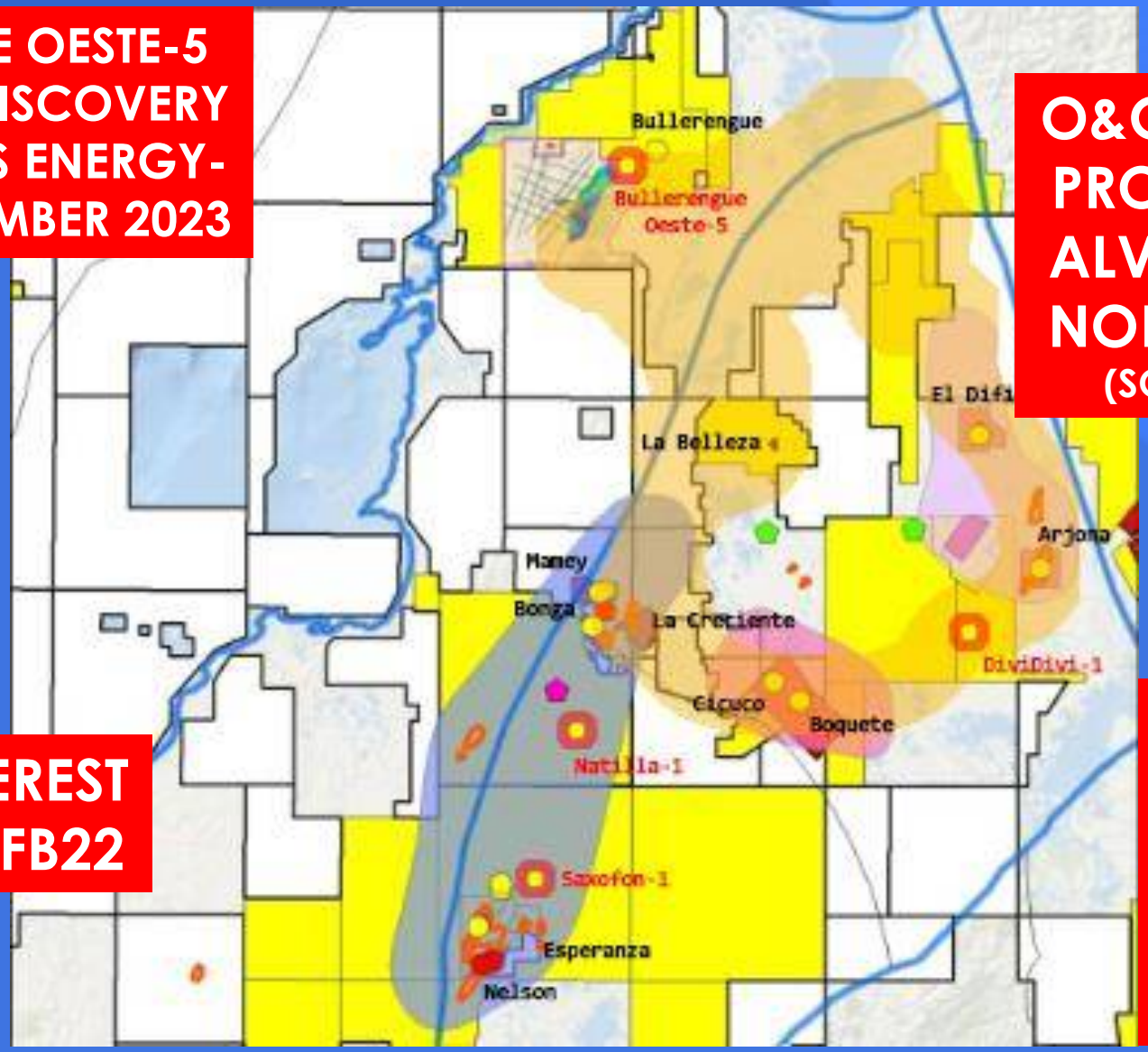

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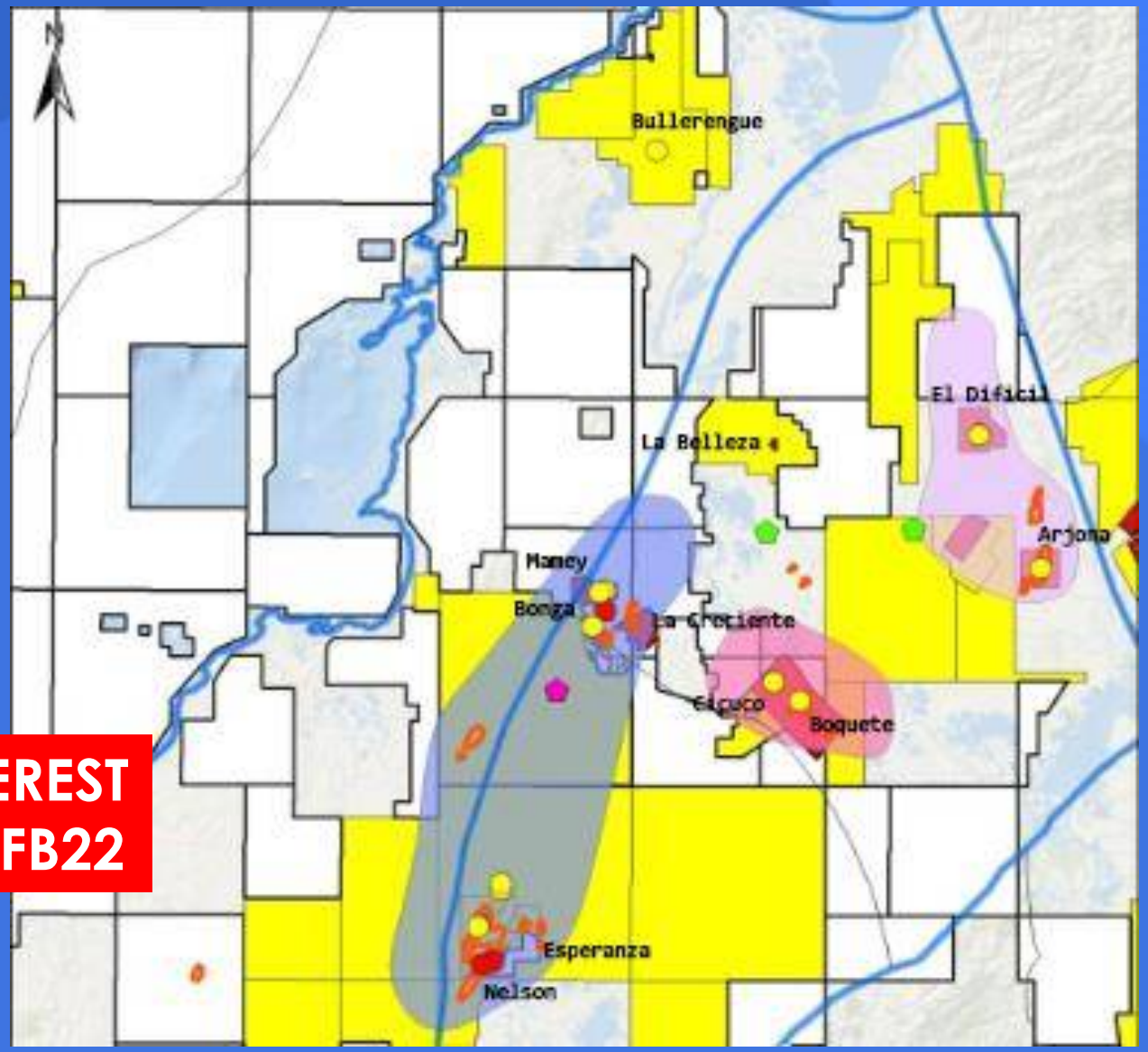

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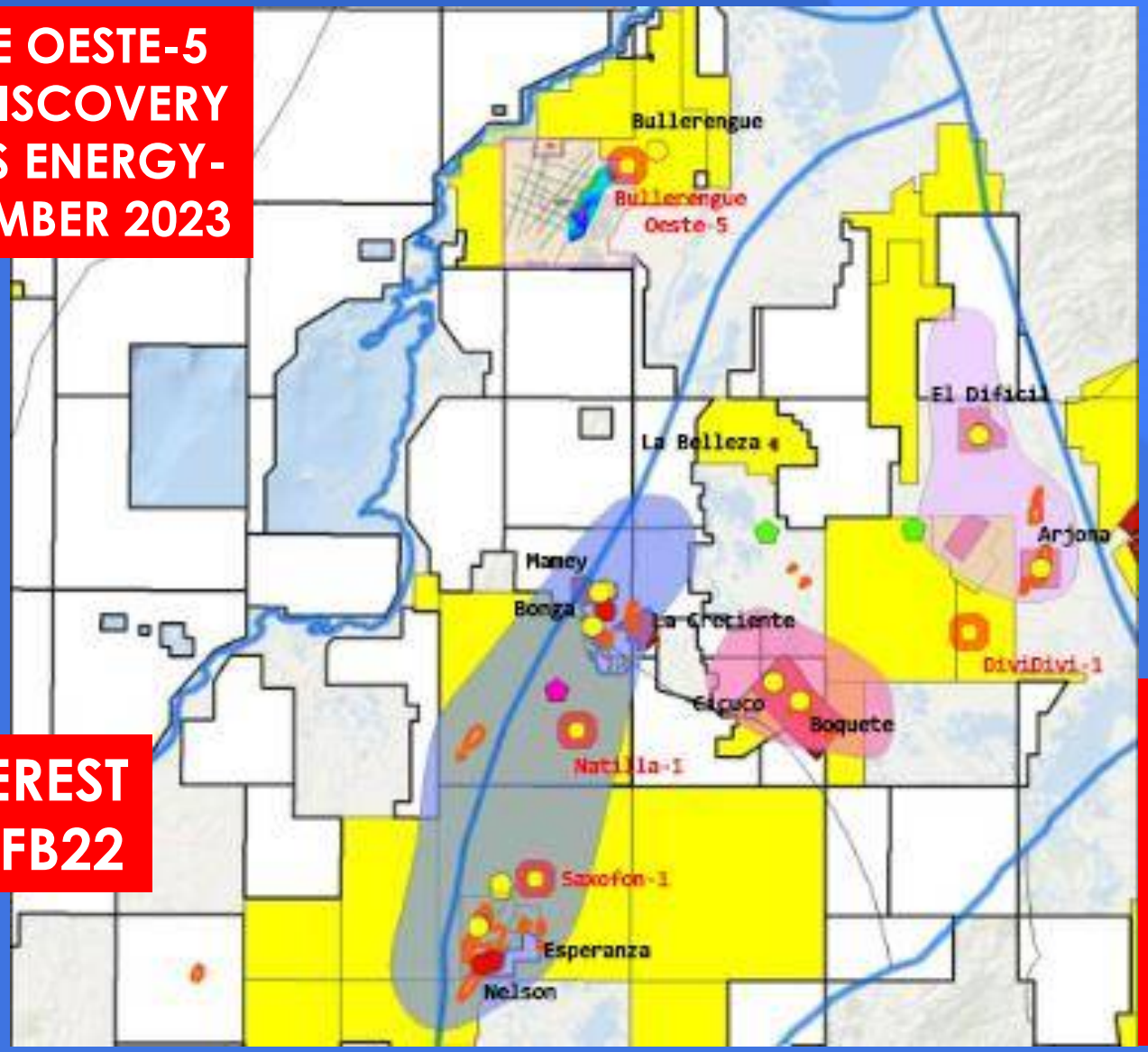

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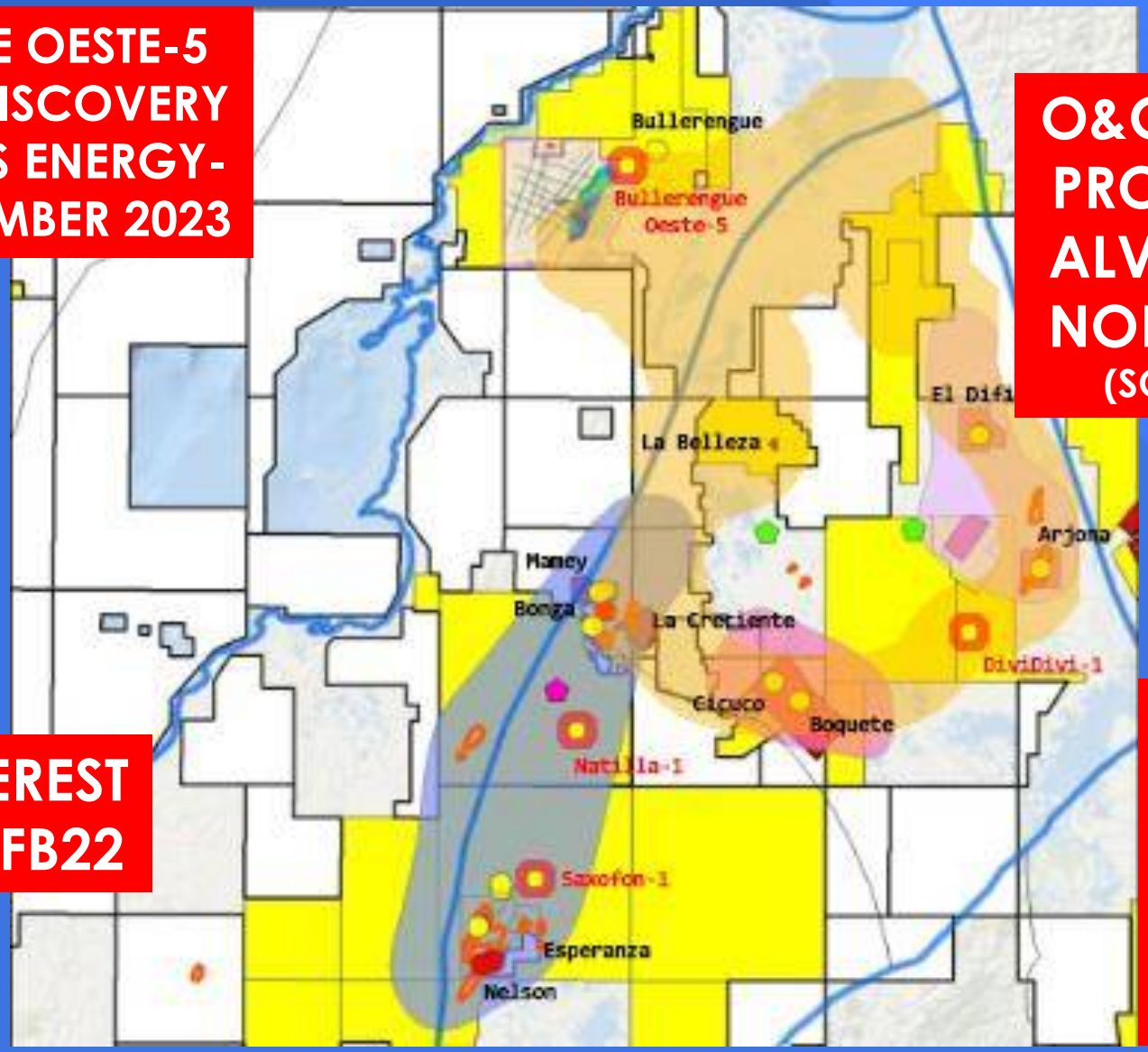

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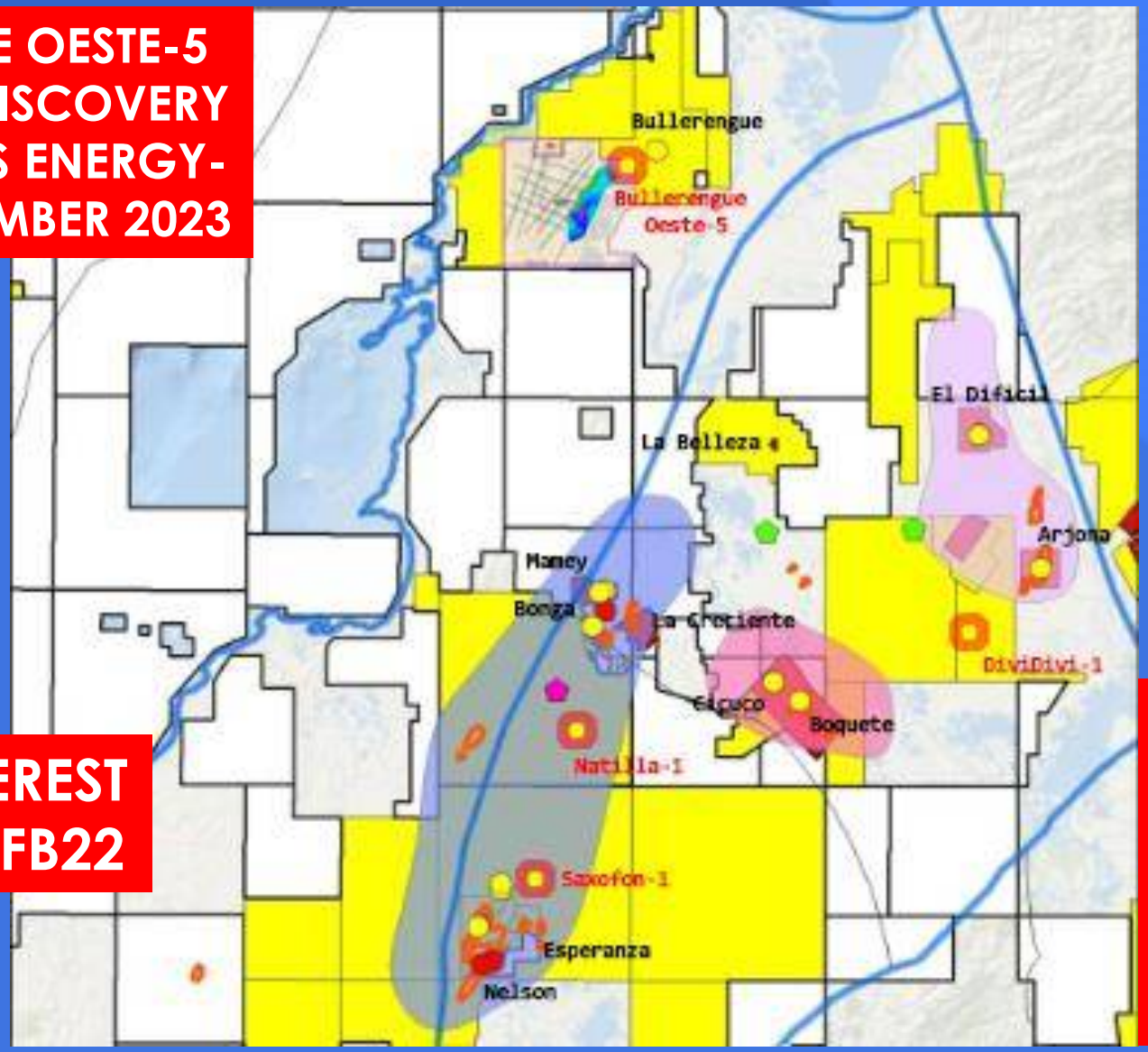

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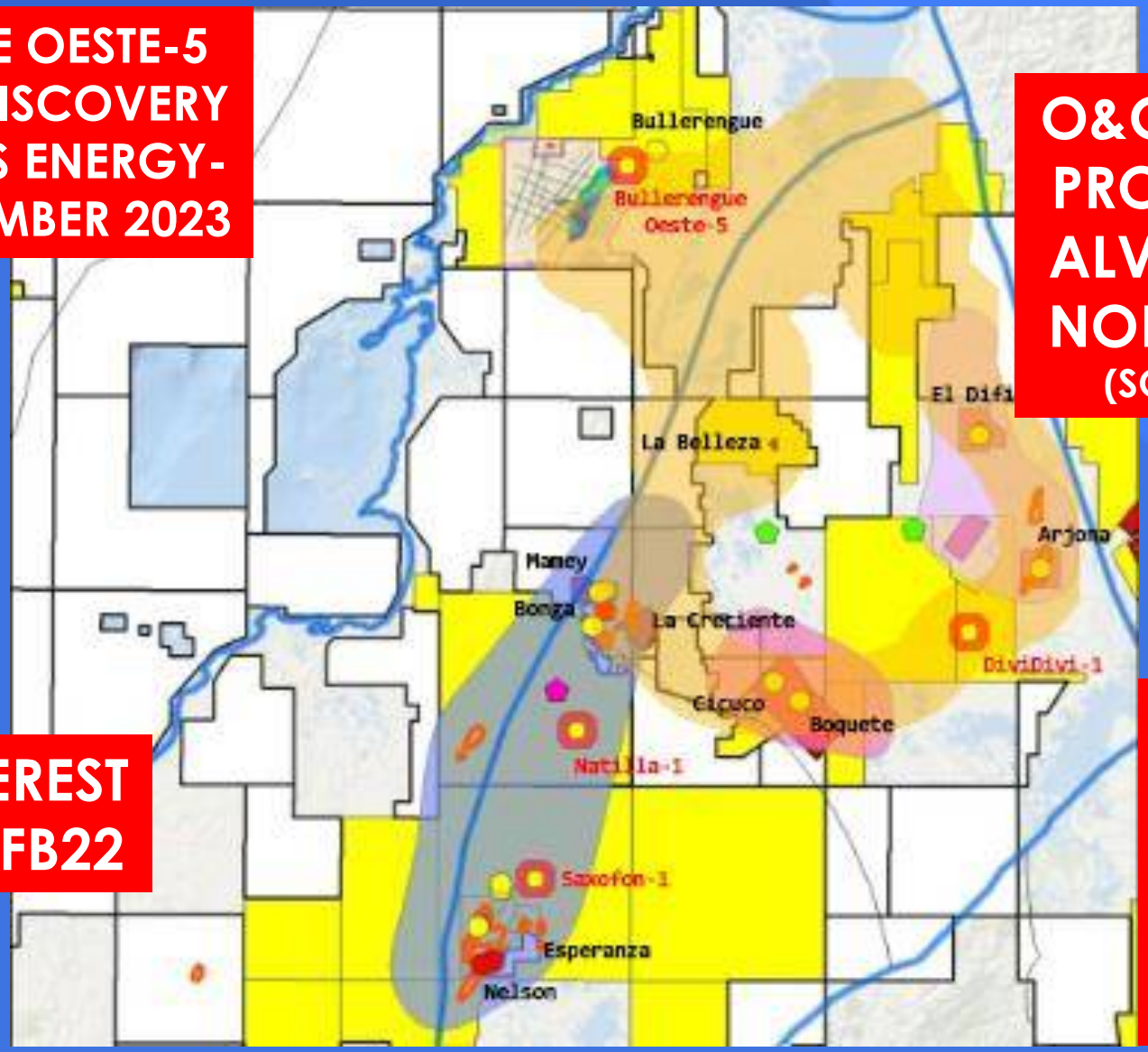

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CONCLUSION

CANACOL ENERGY'S DISCOVERIES 2023 SUPPORT PREDICTIVE MODEL TO FIND NEW O&G RESERVOIRS - VIM-SSJ-COLOMBIA. (PART C)

EDINSON ALVAREZ GEOSCIENTIST (Modified ANH 2022). PRESENTED TO ECOPETROL JUL-2022

1. THE PREMISE OF THE CONCLUSIONS OF THE DOCUMENT SENT TO ECOPETROL IN JULY-2022 (ITEM2) WAS FULFILLED:
   USING ADDITIONAL REVERSE ENGINEERING, SEQUENCE STRATIGRAPHY, WELL INTERPRETATION, GEOPHYSICAL, GEOLOGY AND STRUCTURAL INFORMATION OF THE BASIN, THE PRESENCE OF NEW FIELDS AND THE LOCATION FOR THE DRILLING OF NEW OIL WELLS WERE LOCATED WITH GREATER ACCURACY, AND DETAIL.
2. CANACOL ENERGY AND LEWIS ENERGY'S NEW DISCOVERIES HELP CONFIRM, STRENGTHEN AND TEST THE MODEL.
3. ALTHOUGH MANY WELLS TURNED DRY IN THE SECTOR, GLOBAL KNOWLEDGE AND ATTENTION TO DETAIL ARE THE KEY TO SUCCESS.
4. UNDERSTANDING THE OIL SYSTEM, AN EXTRAORDINARY FLOURISHING OF THE BASIN IS PROJECTED. MODEL TO APPLY AT THE STRATEGIC LEVEL BY THE COMPANY.
5. THE GRAY AREA IS OBVIOUS, BUT THE REST OF THE BASIN IS MISSING. YOU CAN FIND IT IN FULL REPORT. SOUTH AND OFFSHORE SSJ CORRIDOR NOT INCLUDED.