EGYPT
OIL&GAS
RESEARCH & ANALYSIS



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Deep Dive into Egypt's Oil Riches

Sinai & Gulf of Suez

Deep Dive into Egypt's Oil Riches: Sinai & Gulf of Suez

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Key Takeaways

Regions' Production Share from Total Production

37.62% CRUDE OIL

2.79% CONDENSATES

Geisum Production Growth Rate Compared to Post-Development

Growth Rate	↑ 475%
Announcement Date	August 2023

Active Agreements in the Gulf of Suez & Sinai*

Total	37
Share in total Active Agreements	33%

*Until October 2024

Oil Tankers Navigation Statistics in FYs 2022/23 & 2023/24

Number	Net Tonnage
14,696	722.5 mmt

The Gulf of Suez stands as one of the oldest recognized regions in the global hydrocarbon sector, where the initial discovery of crude oil occurred back in 1868. Regarded as the second largest oil-producing area in Egypt, the Gemsa field within the Gulf of Suez holds significance as the first site where Egyptian crude oil was unearthed. The first exploration well (Gemsa D-1) was drilled by the Egyptian Government in 1886. The field was then brought online in 1910, according to Hamdy El Banby's book titled "The Egyptian Crude Oil: Past Experience and Future Insights".

Sinai possesses abundant petroleum resources as well as attractive investment prospects, promoted by the government for investors who show a strong interest in the region. Emphasizing the importance of agreement terms, particularly within the context of global economic challenges, would enhance the country's foreign currency reserves. The exploration activities in Sinai commenced from 1910 to 1920, with the drilling of five wells, as stated in Hamdy El Banby's publication.

The report demonstrates Egypt's crude oil-rich resources in the Gulf of Suez and Sinai by examining both regions' production, drilling activities, discoveries, and main operating fields. It presents the main crude oil infrastructure in both regions in addition to the announced development plans.

REGIONS' HIGHLIGHTS

Petroleum Production

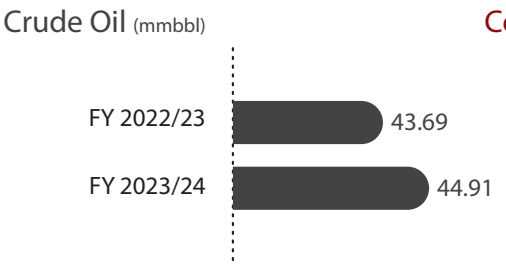
Gulf of Suez production from crude oil and condensates rose by about 3% and 1% respectively in fiscal year (FY) 2023/24 compared to FY 2022/23. according to the Egyptian General Petroleum Corporation (EGPC).

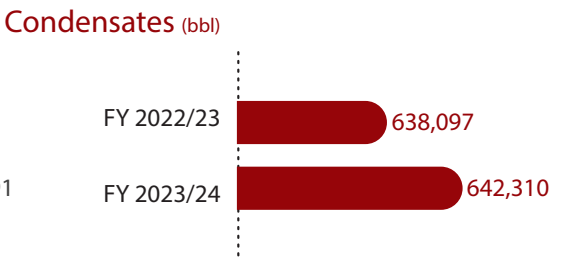
This came in line with the Ministry of Petroleum and Mineral Resources (MoPMR) strategy to bolster national crude oil production. In January 2024, the first well of the North Safa oil field in the northeastern Ramadan region of the Gulf of Suez was brought online to produce 2,500 barrels per day (bbl/d).

The first phase of the early production project from the North Safa oil field aims to reach 6,000 bbl/d, according to the MoPMR.

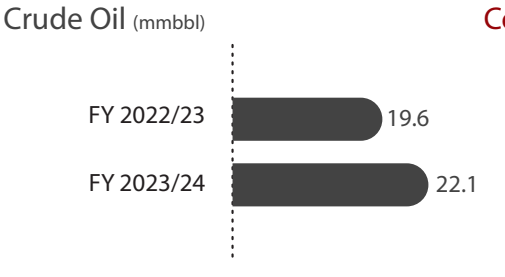
Sinai witnessed a significant increase in crude oil and condensate production in FY 2023/24 by around 13% and 7% respectively, according to EGPC.

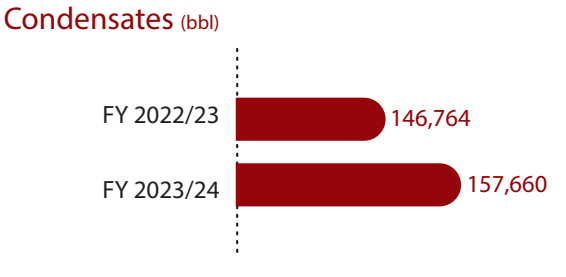
Gulf of Suez





Sinai

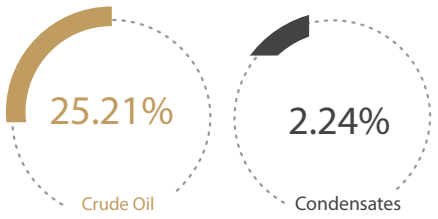




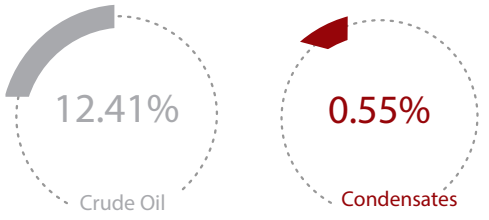
Share from Total Production

In FY 2023/24 the two regions produced around 40% of the total crude oil and condensate production in Egypt, according to the EGPC.

Gulf of Suez



Sinai



Drilling Rigs

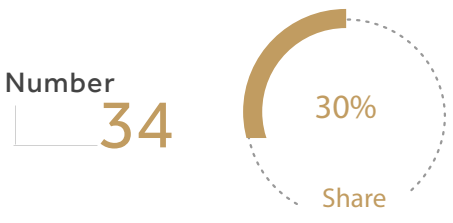
The average number of drilling rigs in the Gulf of Suez and Sinai fields in both FYs 2022/23 and 2023/24 amounted to 24 rigs, contributing about 20% of total drilling rigs.

Over the two FYs, Sinai represented the region with the highest average number of drilling rigs, with 14 rigs, followed by the Gulf of Suez, which included 10 rigs, as highlighted by the EGPC.

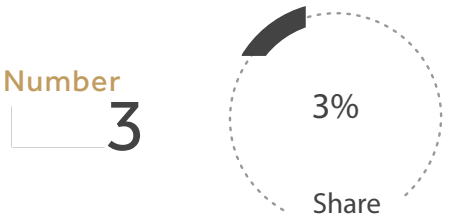
Active Agreements

Egypt's oil exploration and production activities are governed by agreements across several key regions, each playing a vital role in the country's energy strategy. The Gulf of Suez, which ranks second in the number of active agreements, and Sinai, are of particular importance, together significantly accounting for 33% of Egypt's active agreements until October 2024. This reflects their critical roles in the nation's oil production and exploration efforts, according to EGPC.

Gulf of Suez



Sinai



SIGNIFICANT OPERATING FIELDS

Significant oil and gas discoveries in the Gulf of Suez and Sinai have played a crucial role in shaping Egypt's energy sector. The Gulf of Suez, with its rich reservoirs, has been a key source of oil, while the Sinai Peninsula has seen substantial natural gas finds in recent decades. These discoveries have not only boosted Egypt's domestic production, but also solidified the country as a major energy hub in the Middle East.

Gulf of Suez

- **The Gemsa field** was discovered in 1869 and marked Egypt's first crude oil find. In 1910, Gemsa started its production.
- **Ras Shukheir,** one of the most significant fields, serves as an offshore oil-loading-loading tanker terminal and is operated by the Gulf of Suez Petroleum Company (GUPCO).
- **The Ramadan field** is the fourth largest oil field in Egypt. The field is estimated to contain millions of barrels of oil as ultimate recoverable reserves.
- **The July oil field** is Egypt's fifth largest, and together with the **El-Morgan and Ramadan fields**, represents more than 39% of the country's total oil reserves.
- **The West Amer (EGY-GOS-14) Block,** is located onshore in the Eastern Desert and offshore in the Gulf of Suez. The area covers 907.9-kilometer square (km²).

Sinai

- **The East Lagia concession** is located in the Sinai Peninsula, onshore Egypt. It comprises 2,989 km² of acreage and is owned and operated by Vegas with 100% working interest.
- **The South Lagia (EGY-GOS-13) Block,** is located onshore Sinai and offshore in the northeastern Gulf of Suez. The area covers 954.7 km².
- **The East Badri (EGY-GOS-15) Block,** is located onshore Sinai and offshore in the southeastern Gulf of Suez. The area covers 552.4 km².

RED SEA POTENTIAL

The Red Sea region plays a crucial role in connecting the Gulf of Suez and the Sinai Peninsula, serving as a vital geographic and economic link between these two key oil-producing areas in Egypt. This region's importance is highlighted by its proximity to key infrastructure, such as the Suez Canal and the SUMED pipeline, which facilitates the transport of crude oil from the Gulf of Suez to the Mediterranean and beyond. This is in addition to the observed natural hydrocarbon leakage in many areas surrounding the Red Sea region further supporting its potential, making it a prime target for exploration. This, coupled with the Red Sea's promising geological formations and Egypt's stable investment climate, has drawn significant interest in the area for hydrocarbon exploration.

In a strategic collaboration, Ganope, Schlumberger, and TGS have joined forces to advance seismic exploration in Egypt's Red Sea. Their partnership began with a 2D seismic project in 2017, covering 10,000 km² and aimed at improving the imaging of complex subsalt structures. Building on this success, they launched a second phase in April 2022, focusing on a 5,000 km² 3D seismic survey to enhance subsalt data acquisition. This ongoing collaboration is part of a long-term agreement with Ganope, granting exclusive multi-client rights in the region.

Moreover, Egypt is working on increasing production from the Red Sea by offering international bids and intensifying search and exploration operations. In March 2019, the South Valley Egyptian Petroleum Holding Company (Ganope) announced a Red Sea oil and gas bid round for 10 offshore blocks. It resulted in awarding Block 1 to Chevron Corporation, while Royal Dutch Shell Company wonBlock 3, and the Alliance of Shell and Mubadala Petroleum, won Block 4, with a total exploration area of about 10,000 km², with minimum investments of about $326 million.

DEVELOPMENT PLANS IN THE GULF OF SUEZ

Developing Geisum & Tawila West Region

The MoPMR and EGPC signed a landmark agreement with Cheiron Energy and KUFPEC companies in July 2024 to develop the Geisum and Tawila West region in the Gulf of Suez.

The agreement's main aim is to pump new investments for boosting development operations, increasing production rates, and expanding research and exploration.

Project's Details

Investments $120 million

Included Wells 9 Including 3 Exploratory

Increase Production From 21,000 to 26,000 bbl/d

Moreover, in August 2023, a major oil discovery was made in the Geisum and Tawila West region via the GNN-11 exploration well, operated by the JV PetroGulf Egypt. The well encountered 165 feet of high-quality strata in the Nubian Formation, marking the first discovery of the Nuba Crude Oil-Bearing Formation in the area. This led to a 475% increase in production at North Geisum, with the current output reaching 23,000 bbl/d, compared to the pre-development level of 4,000 bbl/d.

North Geisum Production Milestones (bbl/d)

GNN-11 Well Contribution	Pre-development Production	Current Production
2,500	4,000	23,000
		Since August 2023

North Safa & Al-Wasl Fields

GUPCO announced in July 2024 the drilling of new developmental wells in the fields of North Safa and Al-Wasl in the Northeast Ramadan concession area to increase the oil stock to more than 100 million barrels (mmbbl). This development project is implemented through a consortium including Enppi, Petrojet, and Petroleum Marine Services (PMS).

Project's Details

Investments $226 million

Included Wells 5 Development Wells

Increase Production To 15,000 bbl/d

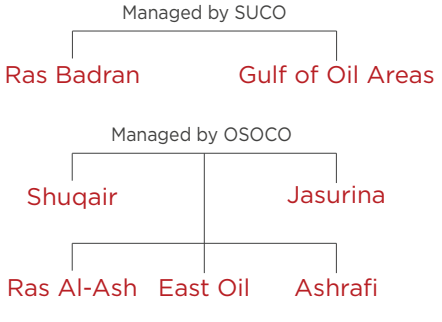
BID ROUNDS

Brownfields Bid Round

In March 2023, the MoPMR announced that EGPC is conducting its first-ever international bid round for the development of brownfields, via the Egypt Upstream Gateway (EUG).This bid round covers eight active fields in the Gulf of Suez and the Eastern Desert. Of these, two fields fall under the Suez Oil Company (SUCO), five are managed by the Offshore Shukheir Oil Company (OSOCO), and one brownfield is located in the Wadi El Sahl Development Area in the Eastern Desert, according to the EUG.

In this regard, two agreements were signed for exploratory and production services in some areas of the brownfields in the Gulf of Suez. These agreements were made between the alliance of Addis Drilling Company Gharib Petroleum Services Company, SUCO, and OSOCO. Aiming to maximize the potential of mature fields by selecting companies with advanced technologies, the EUG added.

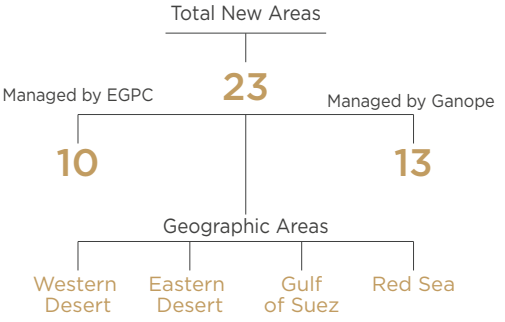
Active Fields in the Bid Round



EGPC/Ganope 2023 Bid Round

In September 2023, MoPMR announced a new international petroleum bid round organized by the EGPC and Ganope through the EUG platform. This bid round is designed to enhance exploration and production across some areas, according to EUG.

Bid Round Overview



In this context, the Gulf of Suez includes several key blocks, such as E. El Galala, W. Kheir, E. G. El-Zeit, E. Shadwan, E. Gelsum, Sea Bird, E. El-Hamd, and E. Badri, while the Red Sea features blocks like EGY-RS-(1A), EGY-RS-(2), EGY-RS-(2A), and EGY-RS-(3A), the EUG added.

PROMINENT INFRASTRUCTURE

SUMED

One of the most important oil pipelines in Egypt is the SUMED (Suez-Mediterranean) system, which runs from Ain Sokhna on the Gulf of Suez's West Bank, through the Dashour pumping station near Cairo, to the Sidi Kerir terminal on the Mediterranean coast, according to Wood Mackenzie.

The system, operated by the Arab Petroleum Pipeline Company (50% owned by EGPC), consists of two parallel 320-kilometer (km) pipelines, each with a 42-inch diameter. With a total capacity of 2.4 million barrels per day (mmbbl/d), it transports crude oil from Saudi Arabia, Iran, Kuwait, and Egypt, Wood Mackenzie highlighted.

Furthermore, SUMED provides the most reliable, secure, and economic route for Arab Gulf crude oil movements to the consuming refining centers in the West with 70% of the oil shipped from the Arabian Gulf to Europe passing through the SUMED pipelines, according to Mubadala Energy's website.

In this regard, these are the major pipelines from Egypt's oil provinces:

Key Oil Pipelines

Pipeline	Length (km)	Diameter (inches)	Capacity (bbl/d)
SUMED (Ain Sukhna-Sidi Kerir)	320	42	2,400,000
Zeit Bay Facilities-Ras Gharib	83	18	97,000
Ras Shukheir-Asyut	280	20/22	_
Ras Shukheir-Al Hafair	215	26	140,000
Al Hafair-Suez	35	18	50,000
Al Hafair-Mostorod (18"-20")	135	18/20	85,000
Al Hafair-Mostorod (24")	115	24	85,000

Suez Canal

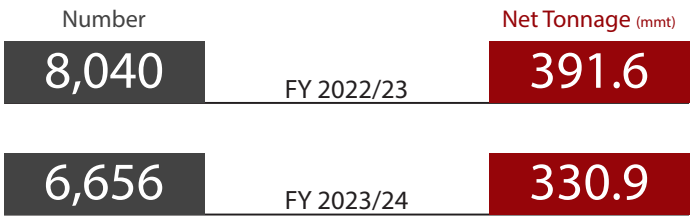
The Suez Canal is recognized as the most direct connection between the eastern and western regions owing to its distinct geographic positioning.

Serving as a vital international waterway, it joins the Mediterranean Sea at Port Said with the Red Sea at Suez. The Suez Canal holds significant importance both globally and locally in Egypt. Despite that, current repercussions and unprecedented challenges facing the Red Sea region caused navigational and economic challenges represented in avoiding sailing in the region and taking alternative navigational routes away from the Suez Canal

Oil Tankers

In FY 2023/24, the oil tankers crossing the Suez Canal represented 33% of the total passed vessels through the Canal, transporting 31% of the total Canal's net tonnage, according to the Suez Canal Authority (SCA).

Number & Net Tonnage





In conclusion, the Gulf of Suez and Sinai are central to Egypt's oil production, with a rich history of exploration and development. These regions remain critical to the country's energy strategy, offering abundant petroleum resources and significant investment opportunities, enhancing both its production capacity and technological expertise in the oil sector.

Ongoing exploration and production activities continue to expand Egypt's capacity, with the government actively promoting investment in these areas, providing attractive terms for companies keen to explore and develop these vast reserves. As both regions evolve, they are poised to play a crucial role in shaping Egypt's long-term energy future.

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