

# THE WESTERN DESERT

EGYPT'S CRUDE OIL TREASURE



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The Western Desert (WD) is always considered to have a promising crude oil potential for further exploration and production. It is the largest crude oil-producing area in Egypt, contributing around 53% of crude oil production in 2022, followed by the Gulf of Suez which contributed around 25%, according to the Egyptian General Petroleum Corporation (EGPC).

The Western Desert still has untapped resources that encourage the government to work on further developments and attract international investors to operate more in them. The region also has a firm infrastructure that serves post-production operations. All Western Desert crude oil production is transported to Al-Hamra Terminal through three main pipelines from Agiba Petroleum Company, Badr Petroleum Company (BAPETCO), and Western Desert Operating Petroleum Co. (WEPCO), which are automatically controlled and well monitored by metering stations, according to the WEPCO website.

This report gives an insight into the Western Desert production, rigs, and active agreements in the first half (H1) of 2023. This is in addition to offering an overview of the key players in the region, and major fields.

### WESTERN DESERT'S HIGHLIGHTS

The Western Desert is the largest crude oil producer in Egypt. During H1 2023 it contributes with a monthly average production of about 7.7 million barrels (mmbbl). The region has the lion's share in active agreements until June 2023, representing about one-third of the total, followed by the Mediterranean and Gulf of Suez areas where both embraced 23.9% of the total agreements. Furthermore, it has more than half of the rigs in Egypt.

### Flashbacks

Several successful crude oil exploration discoveries have been made in the Western Desert throughout the years. The first commercial crude oil discovery in the Western Desert was in Alamein Field; it was made by Phillips Petroleum Company in 1966, and its oil was found at a distance of approximately 19 km south of Alamein. Its initial estimates put the flow at about 14,000 barrels per day (bbl/d), according to WEPCO.

### Crude Oil Production in H1 2023



**46.17** mmbbl  
VOLUME

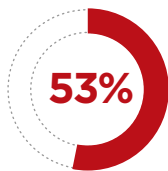


WD's Crude Oil Production Shares in H1 2023

SHARE IN TOTAL WD'S PETROLEUM PRODUCTION

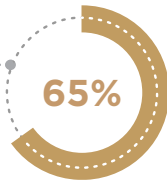


SHARE IN EGYPT'S TOTAL CRUDE OIL PRODUCTION



WD's Rig Count in June 2023

RIG COUNT



SHARE FROM EGYPT'S RIGS COUNT

WD's Active Agreements Until June 2023



51  
NUMBER

SHARE FROM TOTAL AGREEMENTS IN EGYPT

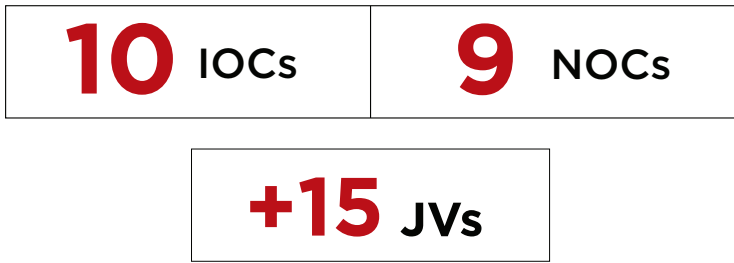


32%

REGION'S KEY OPERATORS

The Western Desert is an attractive region for International Oil Companies (IOCs). Many IOCs have been awarded several blocks across the region where they operate through their Joint Ventures (JVs) companies in partnership with National Oil Companies (NOCs).

NUMBER OF OPERATING COMPANIES



OPERATING COMPANIES

IOCs	NOCs
Apache	Hamra Oil
Cheiron	Tharwa
Sipetrol	Alamein
Apex	Kom Ombo
Kuwait Energy	Marina
HBSI	EGPC
Naftogaz	Sahara
IPR	Enpedco
North Petroleum	GPC
Mediterra	-

OVERVIEW OF MAJOR FIELDS

The Western Desert has many crude oil-producing fields, the largest and most known are Meleiha, South Ghazalat, Badr El Din, Ptah, and Berenice.

NUMBER OF WD'S CRUDE OIL FIELDS

+600

SIGNIFICANT WD'S CRUDE OIL FIELDS

Meleiha	Badr El Din	Berenice	Abu El Gharadig	West Kanayes	Ras Kanayes	Sitra	Alam El Shawish	Abu Sennan
South Ghazalat	Ptah	West Kalabsha	Siwa	Alamein	Qarun	Horus	Dabaa	Ghazalat

## Meleiha

The Meleiha field was discovered in 1972 by WEPCO when the company drilled the first well, Meleiha-1X. In 2011, Agiba successfully drilled a new exploratory well, Zarif-1X, in South Meleiha with an investment cost of \$3 million. Eni announced in 2020 the successful

drilling of the SWM-A-6X well, in the South-West Meleiha development and exploration concession with daily production of 5,000 bbl/d of crude oil. The field is operated by Agiba, the JV between EGPC and Eni through IEOC, its subsidiary, according to Eni's press release.

## South Ghazalat

The South Ghazalat field is located in the Abu Gharading basin. The field was discovered in late 2018 through the drilling of the SGZ-6X, which was discovered by TransGlobe, the field's operator, with added reserves of about 0.48 mmbbl of crude oil. In November 2013,

TransGlobe acquired a 100% working interest (WI) in the South Ghazalat Exploration Concession.

In March 2021, TransGlobe announced the successful recompletion of the SGZ-6X well into the lower Bahariya reservoir. The well started production at an estimated production rate of 3,600 bbl/d of light oil, as stated in a press release by TransGlobe.

## Badr El Din

In 1981, Shell discovered the Badr El Din field, an oil and gas accumulation. The Badr field is located on the edge of Qattara Depression about 300 Km west of Cairo, 90 Km south of Alamein City,

the field is adjacent to Abu Gharadig Field. The shell's first discovery in the field is Badr 1-1, which BAPETCO was formed to develop and operate, according to the WEPCO website.

## Ptah and Berenice

In 2014, Khalda discovered Ptah-1 with added reserves of 15 mmbbl of crude oil. The first field well Ptah-1X has a production rate of 2,350 bbl/d, while the second well, Ptah-3X, started production in March 2015 at a rate of 2,000 bbl/d, according to EGPC.

In Q1 2015, the Ptah and Berenice oil discoveries exceeded expectations with a production of approximately 20,000 bbl/d of oil, according to an Apache press release.

Khalda further discovered Berenice -1 in 2014 which added reserves of about 8 mmbbl of crude oil, according to EGPC. In March 2015, the total production of Berenice's three wells reached more than 9,500 bbl/d.

Egypt works progressively to make the best use of its natural resources. Accordingly, intensive efforts have been exerted to accelerate the production and efficiency of the Western Desert fields as the largest crude oil production region. The Ministry of Petroleum and Mineral Resources (MoPMR) spares no effort to achieve its strategy for petroleum production acceleration, through which the NOCs and IOCs develop ambitious action plans and programs to increase production, rationalize expenses, take advantage of all assets and capabilities available at petroleum production sites, as well as increase integration within the petroleum sector.

