# **Egypt Production Report**

**(2012)**-

Your gateway to an industry forecast

**Published By** 



Sample

# **Executive Summary**

The Egypt Oil & Gas Production Report 2011 provides detailed coverage of current matket trends and forecasts of petroleum production in Egypt. Our Research & Analysis team delivers meaningful content to better understand the market during Egypt's unprecedented period of transition. Make the most of your investments with our trusted expertise.

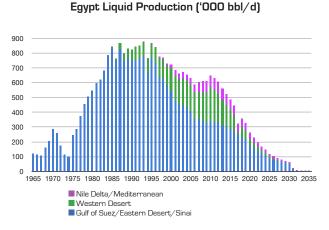
Filled with accurate, up-to-date information, the production report is an invaluable tool for industry professionals and investors alike.

Egypt Oil and Gas 2011 Production Report presents a comprehensive analysis to Egypt's upstream hydrocarbon operations, providing a meticulous examination of the various dimensions pertaining to petroleum production in 2011.

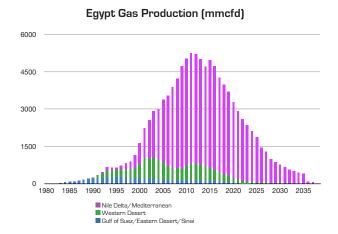
Our commitment to providing a thoroughly informative and highly dependable product is underpinned by an arsenal of data procured from a select group of credible sources. Such data has been complied and punctiliously analyzed by EOG's Research and Analysis Department from various institutions, whether public or private ones in addition to other previous reports and data. The report aims at presenting realistic estimates on the status of petroleum production operations in Egypt.

Engaging graphs and insightful analysis fill the pages of the Egypt Oil & Gas Research & Analysis Production Report, which includes:

- Overview of Egypt's oil and gas production history
- Current production trends and market forecasting



- Production cost analysis
- Area comparison
- Main fields analysis
- Key player operations



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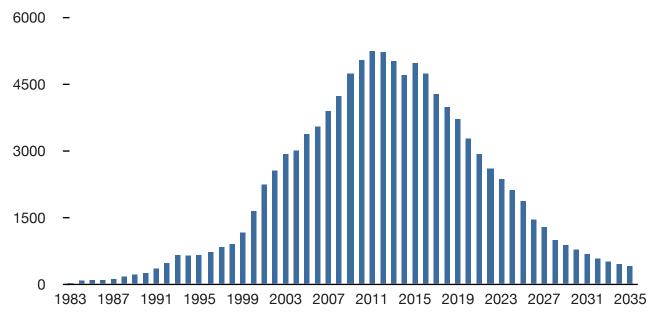
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### **Production**





Egypt gas production has steadily increased over the past thirty years, with rapid increase in the last twenty as a number of fields from the Nile/Delta Mediterranean area were brought onstream and companies in the Western Desert (namely Apache) switched focus of exploration and production from oil to gas. According to Wood Mackenzie, gas production increased by 14% yearly between the 1980s and early 1990s before slowing for several years. The rate of production increased dramatically again in the early 2000s as a number of developments were brought onstream to satisfy local demands. Production in 2004 was constrained by the fire on the Temsah field, which is discussed further in chapter four.

Between 2003 and 2009, gas production more than doubled in response to domestic demand and as a result of LNG exports through the Damietta and ELNG Trains 1 and 2. Gas production in 2009 is reported by Wood Mackenzie to be 6,657 mmcfd.

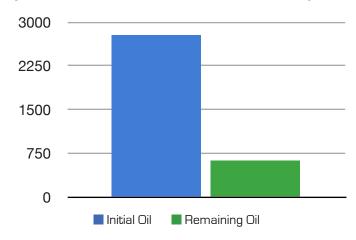
The above graph suggests that production will begin to decline in 2013 and increase again in 2016, when North Alexandria is expected to commence production. However, we expect that production rates over the next few years will exceed these forecasted figures as EGPC continues to incentivize gas development in the Mediterranean by offering more favorable gas prices to operators. More reserves will be commercialized and facilities are expected to be expanded to allow for increased production to satisfy both domestic needs and export agreements.

# Main Fields Analysis Belayim Fields

The Belayim Fields are some of the most prolific oil fields in Egypt, second to the Gupco fields. The Belayim Fields are operated by Petrobel, the joint venture between EGPC and Eni.

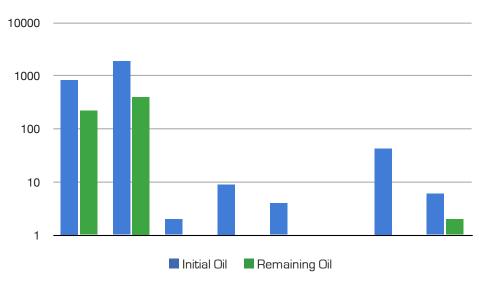
Oil was discovered on Belayim Land in 1955. Early exploration was undertaken by the Compagnie Oriental des Petroles D'Egypt (COPE), a joint operating company controlled by the International Egyptian Oil Company (IEOC), at the time owned by Eni and Petrofina, and Egyptian partners. Petrobel, established in 1978, continued aggressively exploring the area, steadily increasing Belayim reserve estimates. Redevelopment of the fields is expected to further increase these reserves. Wood Mackenzie estimates that total recoverable reserves are 2,782 million barrels of oil, up from previous estimates of 2,663 million barrels.

## Belayim Fields Recoverable Oil Reserves (mmbbl)



Although 75% of these reserves have been depleted, as shown above, the Belayim fields still hold over 600 mmbbl oil, alloqing production to exceed 75,000 bbl/d through 2020. As shown in the graphs below, the majority of Belayim oil is contained in the Belayim Land and Belayim Marine fields.

# Belayim Fields Oil Reserves (mmbbl)



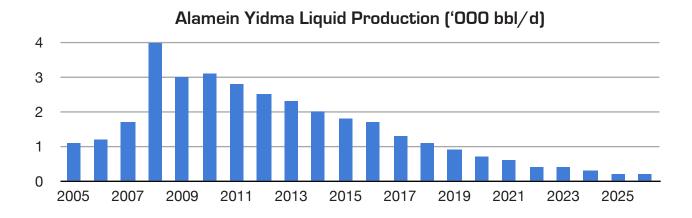


# **Area Analysis Production**

#### Alamein-Yidma

The Alamein-Yidma block consists of three oil producing fields. Alamein, which was discovered in 1966 and commenced production in 1968, Yidma, which was discovered and put onstream in 1971, and Zain, which was discovered and put onstream in 2008. The fields are estimated to contain initial recoverable oil reserves of 12.1 mmbbl, of which 7 mmbbl remain. IPR has indicated that they expect to increase these reserves, and 25 bcf gas from Zain are classified as technical reserves until a gas sales agreement is reached.

The first two fields were discovered by Philips Petroleum, but IPR acquired the area in 1993. The block was operated by WEPCO (a joint venture between IPR and EGPC) and was the last Cost Sharing Agreement operated block in Egypt. In 2005, the contract was converted to a Production Sharing Contract. The following year, Sojitz Corporation acquired 35% interest in the block and El Hamra Oil was established to operate the block.



With the establishment of the block's PSC in 2005, IPR began redevelopment work on the block. Nine development wells were planned from 2006 to 2009 and facility upgrades were planned for the Alamein field. Production benefited from the redevelopment program and between 2007 and 2008, production from the Alamein field more than doubled, from 1,100 bbl/d to 2,600 bbl/d. The same year, Zain commenced production, with an average daily rate of 200 bbl/d, increasing to to 800 bbl/d in 2009. However, production levels of Zain fields have drastically fallen since; the field produces only 100 bbl/d per annum. The increased production from the Alamein field has offset the unexpected decline from Zain.

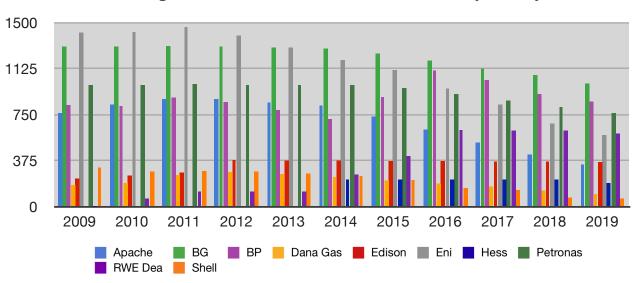
Alamein-Yidma is estimated to have \$2.5 million fixed annual operating cost and a variable operating cost of \$1.50/bbl. Total annual operating costs of the block are reflected below.





#### **Gas Production**

## Working Interest Gas Production 2009-2019 (mmcfd)



Apache's gas production working interest increased at a yearly average of 7.5% from 2009 to 2011. From 2011 to 2014, production may decrease at an average yearly rate of 2.2% before declining at an average rate of 16.8% through 2019.

BG's working interest gas production is expected to decrease by less than 1% per year from 2011 to 2015. From 2015 to 2019, production will decline by a rate of 5.3% per year.

BP's working interest gas production is expected to increase by 8.5% this year. The increase is expected to be followed by an average production decline of 7% per year. From 2014 to 2016, BP's working interest gas production will increase around 24% each year before declining again by an average of 8% per year until the end of the decade.

Dana Gas' working interest gas production increased 33.5% from 2010 to 2011 and is expected to increase by 9% between 2011 and 2012. Production will begin to to decline in 2012 at a yearly average rate of 13.2% per year until 2019.

Edison's working interest gas production increased an average of 10% last year and is expected to increase by nearly 36% between 2011 and 2012 before declining by less than 1% year year by the end of the decade.

Eni's working interest gas production increased by 2.8% in 2011 from the previous year is expected to decrease by less than 1% until 2015. Production decline between 2015 and 2019 is estimated to average nearly 15% per year.

Hess' working interest gas production is expected to remain constant from 2014 to 2018 and will decline 12.5% from 2018 to 2019.

Petronas' working interest gas production is expected to remain constant from 2009 to 2014, with the exception of 2011 production, which should increase by 0.5%. From 2015 to 2019, Petronas' working interest gas production may decrease at an average rate of 5% per annum.