Egypt Oil & Gas Newspaper

March 2007 Issue 3 Published by Egypt Oil and Gas S.A.E 24 pages

Inside

On Efficient Utilization of Egypt's Energy Resources page 18
Radar imagery offers a slick solution for locating rich reserves at sea page 19
The CIB Report on the "Natural Gas Sector in Egypt" page 20

Crossing nations to the global economic frontier

The past few years have witnessed an expansion in the activities of Egyptian petroleum companies to operate abroad

page 8

Tharwa: A Real Egyptian Dream

Atef Abd El Sadek shed light on the company's achievements and plans

page 14

To join or not to join: The overlooked question

Why is Egypt reluctant to join OPEC as a full-time member?

page 16

Knowledge that yields progress on fields

One of the major issues faced by many oil and gas companies in Egypt is the lack of trained personnel. However, companies have compensated for the lack of these professionals by creating their own training centers or sending their staff to external training centers

By Diana Elassy

IN Egypt, the proliferation of training centers has risen over the past few years. This is undoubtedly due the poor quality of education in the Egyptian system; however, according to several professionals in the field this is not endemic in Egypt solely but worldwide including some of the more industrialized western nations such as the United States.

The problem seems to lie in the field and not in education at large. Petroleum engineering is a much sought after realm of edification but oddly enough it is not concentrated on in many learning institutions. In Egypt, however, as Saif Takash, a Halliburton training center professor, aptly pointed out, "it is noticeable that many students are graduating from engineering departments with good theoretical knowledge and memorization skills, but are short of practical applications skills."

For others, the need for training centers is not as a means of compensation for poor learning but as an instrument of enduring technological advancements. Dr. Salah El Haggar, professor of Energy and Environment at the American University in Cairo, states that "the importance of these training centers is that they continue education for computer engineers and scientists at large in order to refresh their memories and strengthen their skills."

Whether it is a means of reparation for a weak education or simply a way to fine tune the skills of highly educated graduates and to specify their required abilities, training centers seem to provide the answer to many problems in the oil and gas field in Egypt.

This feature focuses on oil and gas training centers in Egypt. Some of these centers cater only to a specific company and not to the public at large. In fact, many if not all oil and gas centers cater to a specific group of individuals, either employees of companies who have chosen to outsource their training or employees of companies who have created their own training center.

This feature will highlight three diverse training centers available in Egypt, each catering to a specific demographic.

Continued on page 12

$90 million-loan to finance natural gas pipelines

THE Arab International Bank (AIB) has sealed a loan agreement with the Egyptian Natural Gas Holding Company (EGAS) to finance the company's plan to install two natural gas supply lines in the distance from Taba to Sharm El-Sheikh and Shokair to Hurghada with total investments of $90 million.

Atef Ebeid, AIB chairman said the bank would coordinate the loan provided by a group of eight banks to finance the holding company's scheme. The other seven banks in the group include Societe Arabe Internationale de Banque, Egyptian Saudi Finance Bank, Piraeus Bank, United Bank of Egypt, National Bank for Development, the National Bank of Abu Dhabi, and Audi Bank.

Egyptian Minister of Petroleum Eng. Sameh Fahmy said the agreement would help EGAS accelerate construction of the two gas supply lines with its appropriate payment facilities..

The project aims at providing natural gas to six million housing units over the next six years and about 1,000 factories and 500 commercial enterprises.

BP boosts Egypt's natural gas reserves

BP Egypt announced that it has drilled a successful well, Giza North-1, in the North Alexandria concession held by BP, RWE Dea and EGPC/EGAS.

It is estimated that the Giza complex contains more than 1 trillion cubic feet of gas and another well is planned to be drilled to further appraise the complex in April 2007.

The rig will shortly move onto the next appraisal well in the Taurus field as part of a planned four well appraisal program in the North Alexandria concession.

Hesham Mekawi, President and General Manager of BP Egypt stated "This successful result further demonstrates BP's commitment to continued investment in exploration, appraisal and development activities in the Nile Delta and its cooperation with the Ministry of Petroleum to provide new gas discoveries and incremental supply to meet future growth of the gas business in Egypt."

The North Alexandria concession is in the Mediterranean, offshore the city of Alexandria. The Giza North-1 well was drilled in 668 metres of water, some 56 kilometres offshore.

BP has already made a number of discoveries since 2000 in this concession. Giza North–1 was drilled in the pliocene formation where BP has made four previous discoveries: Taurus, Libra, and Fayoum. The company has also made the Raven discovery in the deeper pre-pliocene formation.

BP holds 60% of the North Alexandria concession with RWE Dea holding the remaining 40% contractual interest in the block. EGPC/ EGAS has an entitlement under the concession's production sharing arrangements. *(BP)*

Egypt Oil & Gas Newspaper
On the Ground, In The Know

Editor in Chief
Reem Mohy El-Din Nafie
rnafie@egyptoil-gas.com

Senior Staff Writer
Yomna Bassiouni

Contributors
Mohamed El-Sayed
Sarah Broberg

Researcher/Analyst
Diana Elassy

Distribution Manager
Basma Naguib

Business Development Manager
Laila Fayek
lfayek@egyptoil-gas.com

Business Development Officer
Amgad Madi
Amr Hegazy
Amr Youssef

Administrative Manager
Marwa Madi

Administrative Assistant
Sarah Rashdan

Art Director
Mohamed Madany
mmadany@egyptoil-gas.com

Assistant Art Director
Ahmed Ali

Webmaster
Ayman Rady

Production Advisor
Mohamed Tantawy

Accountant
Mohamed Al Agamy

Legal Advisor
Mohamed Ibrahim

Newspaper Technical Advisors
Geologist Magdy Wedad - *PICO Energy Petroleum Services*
Dr. Mohamed Ghareeb - *Lufkin*
Dr. Sameh Macary - *IPR*

Publisher
Mohamed Fouad

Technical Advisor
Geologist Nasser Wali - *EGPC*

Contact Information:
5 h2, Khedr St., Extension El-Laselky St. Ground Floor, Suite 2 New Maadi, Cairo-Egypt
Tel: +202 5164776 +202 5192108 Fax: +202 5191487
E-mail: info@egyptoil-gas.com www.egyptoil-gas.com

A march towards opportunities

MARCH is a time when the blistering cold of winter calms down and the future starts to look a bit warmer. And so the future is truly looking more obliging in the oil and gas sector. New discoveries and exploration efforts are always welcome news, but this month we highlight more promising terrain for the sector.

In the realm of man power, we see a mass materialization of training centers in Egypt. Finally, one of the more exceptional aspects of the country, its people, is being prepared for the global market of oil and gas. This undoubtedly comes with the transfer of knowledge, which can only lead to greater works not only in the sector, but in the nation at large.

In terms of government initiatives, policy-makers are decisively rethinking the all too touchy issue of subsidies. This does not mean that we will all wake up to gas prices sky-rocketing, but it does mean that industries will have to better utilize their oil consumption when it stops coming to them so easily and so cheaply. Oil is not a cheap commodity and industries must be the first to come to such a conclusion.

Another beckon of hope in the sector is found in Egyptian government companies. These high fliers are traversing national boundaries and claiming a place for themselves in the global market. With operations reaching from Yemen to Venezuela, these companies have given the government something to be truly proud of.

This issue also features Tharwa as its corporate interviewee, a company which focuses on exploration and production. The Egyptian company retained several concessions in the Western Desert and Mediterranean Sea and is expected to compete amongst international E & P companies.

In our academic focus we debut Dr. Tarek Selim's working paper "On the Efficient Utilization of Egypt's Energy Resources: Oil and Gas," a work which complements the CIB's report on "The Natural Gas Sector in Egypt," which is also reviewed in this issue. The former stresses on the domestic exploitation of natural gas, while oil maintains its stature of an export commodity, while the latter further investigates the local consumption of natural gas and its economic standing.

Finally, I would like to conclude by saying that March appears to be the month of reason prevailing and possibilities explored. We thank our readers and hope this month's issue provokes as much as it enthuses. Your comments and suggestions are always welcome at info@egyptoil-gas.com.

Reem Nafie
Editor-in-Chief

Egypt

Shell Egypt Announces 4 Western Desert Discoveries

Shell Egypt announced four discoveries in its Western Desert acreages of Badr El-Din (BED) development leases and West Sitra Concession. The Badr El-Din leases are operated by Bapetco - Shell Egypt's Joint Venture with the Egyptian General Petroleum Corporation (EGPC), while the West Sitra Concession is operated by Shell Egypt.

In April 2006, Shell Egypt and Bapetco made the first Alam El-Buieb discovery in the Abu Gharadig basin in the BED 1 Development lease. The BED 1-19 development well was spudded in January 2006 to target the main producing Kharita reservoir and the exploration potential of the deeper Lower Cretaceous Alam el-Buieb section below the BED 1 oil field. The presence of hydrocarbons was confirmed in BED 1-19, within the Alam El Bueib formation, with a net pay interval totaling 38 meters. BED 1-19 was subsequently tested at a rate of approximately 25 million standard cubic feet of gas (post frac) and 2,050 barrels of oil and condensate per day.

In November 2006, Shell Egypt and Bapetco drilled the exploration well BED 2-C2-1 within the BED 2 Development lease. The well encountered gas bearing sandstone reservoirs in the Abu Roash and the Upper and Lower Bahariya formations. A production test on the Abu Roash interval produced 17 million standard cubic feet of gas and 2,000 barrels of oil and condensate per day. The well was hooked up to the BED 2 facilities immediately after testing, and came on stream 2 weeks after the release of the drilling rig. The Bahariya interval will be tested at a later date

In December 2006, Shell Egypt made the first Jurassic discovery in the West Sitra Concession. The company completed the deep Jurassic exploration well WS-J1-1, reaching a total depth of 5,077 meters in the Khatatba formation. The well encountered 39 meters of gas in the Upper Safa Sandstone. The well is currently undergoing testing.

Also in December, Shell Egypt completed its Cretaceous exploration well, WS C1-3, at a total depth of 2,406 meters in the Bahariya Formation, in its West Sitra Concession. The well encountered 16 meters of net gas pay. The plan is to test the well after the WS-J1-1 well test.

"Shell Egypt's exploration activities in 2006 have been extremely successful. The encouraging results from untapped formations of the Alam el-Buieb in BED 1-19 and Khatatba the in WS J1, confirm our belief in, and commitment to the active pursuit of new exploration opportunities in the Western Desert," said Zainul Rahim, Country Chairman of the Shell Companies in Egypt.

Dana Gas 6th Highest Gas Producer in Egypt: company plans regional expansion in exploration and production of gas

Dana Gas, the Middle East's first regional private-sector natural gas company, has become the sixth highest gas producer in Egypt, through the activities of its exploration and production subsidiary, Centurion Energy. The company is also among the nine highest producing companies by production of barrels of oil equivalent (boe), out of the 64 companies active in Egypt's oil & gas sector.

Centurion Energy was acquired by Dana Gas in a $950 million deal that cements Dana Gas' important position in the upstream exploration and production sector for natural gas in the Middle East. Centurion ended 2006 with estimated gas reserves of approximately 100 million boe, gas production of over 31,000 boe/ day, and operating cash flows of approximately US $90 million. Dana Gas will also benefit from Centurion's further exploration potential of 26,300 square kilometers in the Nile Delta and Upper Egypt, and has been approached by several of the major international energy companies for potential collaboration in this area.

In addition, Centurion provides Dana Gas with access to a team of over 150 highly skilled multidisciplinary management and technical staff, plus over 80 operations staff, with a proven track record in finding, developing, and producing natural gas reserves in the Middle East region.

"We are excited about the company's Egypt operations and potential for expansion, and are firmly committed to investing further in the natural gas industry there, which has seen tremendous growth in recent years," said Rashid Saif Al-Jarwan, General Manager of Dana Gas. "In addition, we aim to benefit from the capabilities and experience in Centurion to further expand our exploration and production activities throughout the Gulf region and the wider Middle East, including North Africa."

Dr. Hany Elsharkawi, President and General Manager of Centurion Egypt, added: "The company has achieved some important operational milestones recently, including the first LPG sales from our newly commissioned El-Wastani plant with capacity of 160 million cubic feet per day, which will add considerable value to our gas sales. In addition, the completion of drilling of the EWE-1 ST2 well, which is due to come onto production shortly, will add 10 million cubic feet per day to our total gas production."

Egypt's proven natural gas reserves have doubled in the last five years to 70 trillion cubic feet, with gas production in the country now exceeding its oil production. In a recent announcement, Egypt's Petroleum Ministry stated that in the past five years gross foreign direct investment (FDI) in oil, gas and petrochemicals amounted to US $9.5 billion. The Ministry added that the target for the next five years is to secure FDI of US $25 billion in petroleum projects. By 2010 annual exports, mainly of gas and petrochemicals, are set to reach US $10 billion.

Centurion Energy, now a wholly-owned subsidiary of Dana Gas and the company's upstream division, is currently actively engaged in exploration and production operations from 10 development leases and 4 exploration licenses in Egypt, Tunisia, and offshore West Africa, and has offices in Calgary, London, and Cairo.

Apache Appraisal Well extends Syrah field in Egypt's Western Desert

Apache announced in a statement that its Syrah 5X appraisal well in Egypt's Western Desert test-flowed 47.6 million cubic feet (MMcF) of natural gas per day from the Jurassic Lower Safa sand, which extends the Syrah field.

Located on the company's Khalda Concession, Syrah field is currently producing 340 MMcf of natural gas in addition to 15,800 barrels of condensate per day from the Lower Safa sand.

The Syrah 5X tested the lower 50 feet of Lower Safa pay on a one-inch choke with 2,599 pounds per square inch of flowing wellhead pressure from perforations between 14,210 feet and 14,260 feet.

The success of the Syrah Field and newly acquired 3-D seismic creates the potential for additional exploration on Apache's acreage to the north in the Matruh Concession, where five Jurassic/AEB exploratory tests are planned for 2007.

Apache is also evaluating the Jurassic/AEB potential in the four-mile stretch between the Syrah and Qasr fields. Production from the Syrah field will commence in the third quarter of 2008 upon completion of ongoing infrastructure expansion in the greater Khalda area. It is worth mentioning that Apache operates Khalda with a 100 percent contractor interest.

(Rigzone and Oil Egypt)

Egypt-Scotland discuss means of mutual cooperation

Minister of Petroleum, Eng. Sameh Fahmy discussed with a delegation from the International Scottish Authority the possible means to initiate mutual cooperation between the two countries.

The joint talks – held in Cairo – tackled the benefits of exchanging expertise especially that Scottish companies enjoy an outstanding reputation in oil and gas upstream activities in the North Sea deep water, which is very similar to the Mediterranean deep water status in Egypt.

Fahmy reviewed with the Scottish representatives the capabilities of Scottish universities and the possibility to train Egyptian cadres in order to cope with the rapid technological developments.

Both sides agreed on signing a memorandum of understanding, to be followed by an agreement to define the framework for this cooperation and its domains, including short and long technical programs as well as setting up academic courses to qualify fresh graduates, focusing on those majoring in petroleum engineering, geology and geophysics.

(MoP)

Arsenal secures drilling rig for Egyptian operations

Arsenal Energy Inc. announced in a statement that it has finalized a contract for a drilling rig (ECDC #2) that is scheduled to commence drilling operations on Arsenal's 5.625 million acre Nuqra concession.

Arsenal anticipates drilling a minimum of two test wells in order to evaluate two independent prospects in the Nuqra Basin. The first well, SET-1, is to be drilled to a target depth of 3,800 feet and is targeting a structure with Jurassic sands.

As for the second well, NARMER-1, to be drilled to a target depth of 7,800 feet, is located approximately 17 miles from the SET-1 and is targeting a structure with Berriasian and Kimmeridgian sands.

Arsenal will pay 40% of the drilling costs while retaining a 30% working interest, plus a partial cost recovery, after a commercial discovery. The operator estimates that the two initial target structures could contain up to 40 million barrels of oil equivalent in recoverable reserves.

Arsenal and its partners have a third subsequent relevant location they plan on testing, approximately four miles from the NARMER-1 location, which is in the process of being approved by the Egyptian government. Then, the ECDC #2 rig will move to this location during late second quarter or early third quarter of 2007.
(Oil Egypt & Arsenal)

Turkey warns Lebanon, Egypt against oil exploration deal with Cyprus

Turkey warned Lebanon and Egypt not to activate their oil and gas exploration deals signed with Cyprus, claiming that Turkey and Turkish Cypriots also had rights in the region.

Turkey's Foreign Ministry said in a statement the government is "determined to protect its rights and interests in the Eastern Mediterranean and will not allow attempts to erode them."

On the other hand, Cypriot government spokesman Christodoulos Pashiardis described the situation in a statement as "an unacceptable provocation" and "an open threat" against Cyprus, Lebanon, Egypt and peace and stability in the area.

Speaking on Cypriot State Radio, Minister of Commerce Antonis Michaelides said Cyprus should have the freedom as a member of the European Union and the United nations to "defend its statehood."

Lebanon and Cyprus signed an agreement for the delineation of an undersea border on Jan. 17 to facilitate future oil and gas exploration between the two east Mediterranean countries.

The seabed separating Lebanon and Cyprus is believed to hold significant crude oil and natural gas deposits. PGS, the Norwegian energy consulting firm has begun a 3-D seismic survey to determine the volume of exploitable hydrocarbon reserves off the Lebanese coast.

The exclusive zone agreement is signed to spot the underwater areas where each country can conduct exploration and exploitation work once oil or gas is discovered.

A similar agreement signed between Egypt and Cyprus allowed for the joint exploitation of potential

undersea oil and gas fields between the two countries.

On the other side, the President of Cyprus Tassos Papadopoulos said that he has received assurances from Egypt and Lebanon that they will go ahead with oil and gas exploration deals despite the Turkish threats.
(International Herald Tribune)

Egypt to develop Palestinian gas discoveries

Egyptian Minister of Petroleum Eng. Sameh Fahmy and the Palestinian Minister of Energy and Mineral Resources Omar Ketana discussed possible means of enhancing and developing joint cooperation in oil and gas field between the two countries.

Fahmy asserted, during the panel discussion held in Cairo, Egypt's readiness to offer all its capabilities, technical and economic expertise in the petroleum field, and particularly in the gas industry, especially with the recent announcement of gas discovery in the Palestinian territories.

The Egyptian minister referred to the successful Egyptian experience, achievements and expertise in the petroleum sector as a way to assist in developing the Palestinian gas discoveries. The Palestinian Minister said that setting and signing a joint oil and gas agreement in the coming period will contribute to developing and producing the Palestinian gas in order to support the Palestinian economic problem it is witnessing.
(MoP)

Egypt to buy wind turbines from Spain

Spanish wind energy company Gamesa announced that it has signed a $365 million contract to supply Egypt with wind turbines.

According to the terms of agreement, Egypt will receive 284 turbines with a power output of 241 megawatts. The turbines will be utilized in the construction of two wind farms in the region of Za'afarana, located on the shores of the Red Sea.
(Daily Star)

International

LUKSAR discovers hydrocarbons in Saudi Arabia

Contract area Block A, LUKOIL Saudi Arabia Energy Ltd. (LUKSAR) announced the discovery of hydrocarbon accumulations after receiving the results of a deep exploration drilling on Tukhman structure in Saudi Arabia.

The Contract area is located in the northern area of Rub Al-Khali, south of Al-Ghawar, which is classified as a major oil field not only in Saudi Arabia but also on a global level. Total area of the Block A is approximately 30 thousand square kilometers.

Since signing the agreement with Saudi authorities in 2004, LUKSAR reprocessed more than 8,000 kilometers of vintage seismic data, conducted 755 square km 3D seismic, 1,700 km 2D seismic and 3,340 square km 3D-Sparse seismic acquisition works, and subsequently all obtained data were properly processed and successfully interpreted.

LUKOIL Saudi Arabia Energy Ltd. (LUKSAR) was established with equity participation of LUKOIL Overseas (80%) and its national partner, Saudi Aramco (20%).

LUKSAR plans to carry out detailed appraisal of the discovery to further evaluate its composition and production potential.
(Gulf Oil & Gas)

GAC seals deal for BG's LNG services

GAC has been appointed as the provider of hub agency services for the liquid natural gas (LNG) fleet of BG LNG Services, a subsidiary of BG Group, reported the *Gulf News*.

Tom Nasman, president and CEO of GAC Shipping (USA) Inc said, "We have been working closely with the BG Group for the last four years. We look forward to increasing our involvement with BG and supporting the company in its global LNG business growth."

According to the terms of agreement, GAC will be responsible for providing hub and port agency services and other operations, such as covering the movement of LNG cargoes, including those from Kuwait, Qatar and the UAE.
(Gulf News)

Kuwaiti KNPC's refinery plan challenged by cost hurdle

Kuwait National Petroleum Co (KNPC) revealed that its plan to construct a 615,000 barrel per day refinery by 2010 "has hit a snag" as international firms have set higher prices than expected to perform the work, reported the *Gulf News*.

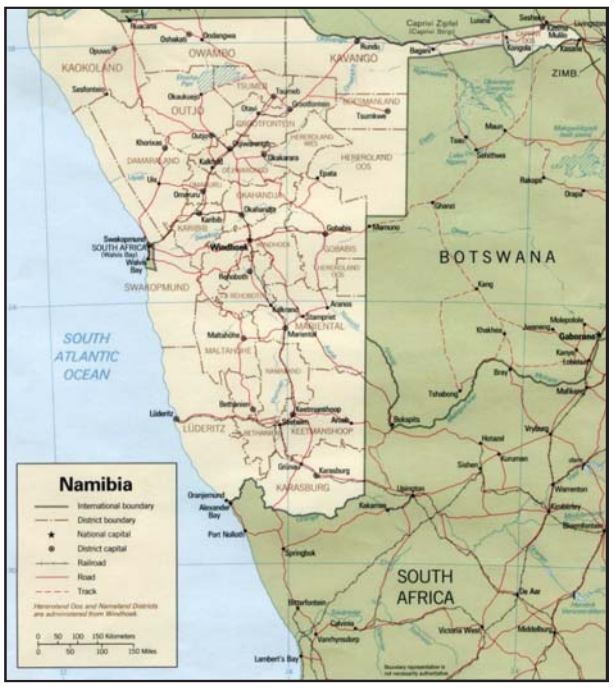
"KNPC has found that some of the firms bidding in the tender for the refinery it plans to build exceeded double the initial (cost) estimate it had made," the official Kuwait News Agency (*Kuna*) quoted the project manager, Ahmad Al-Jemaz, as saying.

According to *Kuna*, $6.4 billion has been allocated for the project's budget, which is lower than KNPC's initial estimate and far less than the offers it had received. KNPC received nine offers so far in January for the four contracts that the project involves, mainly from US, French,

South Korean, Japanese and UAE firms.

The planned complex includes the production of low sulphur fuel oil for the state's electricity plants.
(Gulf News)

Croatia acquires an oil and gas exploration license in Namibia



The Croatian national oil company has acquired a two-year agreement to search for oil in the Nama Basin, located in southern Namibia.

Based on the agreement, Industrija Nafte (INA), 75% owned by the Croatian government, will look for oil and gas over a 17,773 kilometer square area offshore of Mariental, Kalkrand and Luderitz.

Permanent Secretary Joseph Iita of Namibia's mines and energy department said the deal was a culmination of two years of consultation and discussions. He added that INA would be the first company to carry out oil exploration activities in Namibia. INA president Tomislav Dragicevic said his company had been in the field for the last 50 years, and had the experience and the necessary technology for success.

So far, most offshore oil operations have concentrated in the north, on the Namibian-Angola border, and Angola's state oil company, Sonangol, is heavily involved in most of these.

Large gas resources have been found just across the border, on the Angolan side. Lately, several exploration licences have also been awarded in southern Namibia, especially in the Luderitz Basin close to INA's new exploration field
(Energy in Africa)

Libya, Exxon Mobil sign offshore oil deal

Libyan National Oil Corporation signed an agreement with US oil giant Exxon Mobil to start exploration in the Sirte Basin, off the Libyan coast.

"We are pleased that we were awarded a contract area for exploration," said Phil Goss, president and general manager of Exxon Mobil Libya Limited.

According to the terms of agreement, Exxon Mobil was awarded four blocks 160 kilometers off the Libyan coast, in the third round of licensing in December.

The US oil firm said in a statement it was also in "the very early stages" of exploration in another area off Libya in the offshore Cyrenaica Basin, which was awarded to the company in 2005.

In 2006, the United States renewed diplomatic ties with Libya, ending a 25-year battle with Libyan leader Moamer Kadhafi. The lifting of US economic sanctions on Libya opened a new era in relations – especially since the Libyan government selected US oil companies Occidental, Chevron and Amerada Hess in January 2005 to prospect for Libyan oil and modernize its oil facilities.

It is worth mentioning that Libya owns biggest oil reserves in Africa.
(AFP)

Dolphin to begin pumping gas to UAE

Middle East's biggest gas project Dolphin is to start pumping around two billion cubic feet of Qatari gas per day from Ras Laffan to the UAE by next July, reported the *Gulf News*.

"Dolphin will start pumping gas to the UAE and Oman before July. The three-month delay was because of problems the contractors had and not for any problem related directly to the project," Abdullah Bin Hamad Al Attiyah, Qatar's Minister of Energy and Industry, said yesterday.

Al Attiyah told *Gulf News* that the joint Qatari-UAE project is likely to increase its production capacity in the future.
(Gulf News)

From the Press

"Egypt's mining sector has outstanding potential… An improved policy framework, which clearly defines procedures for private investors, will help attract new and improve the country's economy."

(Kuwaiti Finance Minister Bader Meshari Al- Humaidhi)
Gulf News

"The annual income for 2006 ($6.49 billion) is the best ever for Statoil. We maintain strong earnings and competitive returns, despite temporarily lower production overall."

(Chief executive Helge Lund)
Upstream online

"Asking me are we going to take additional cuts or increase supply, I do not know. But, most probably if the trend is like what it is like today, with the market getting in much, much better health and balance, there may not be any reason to change."

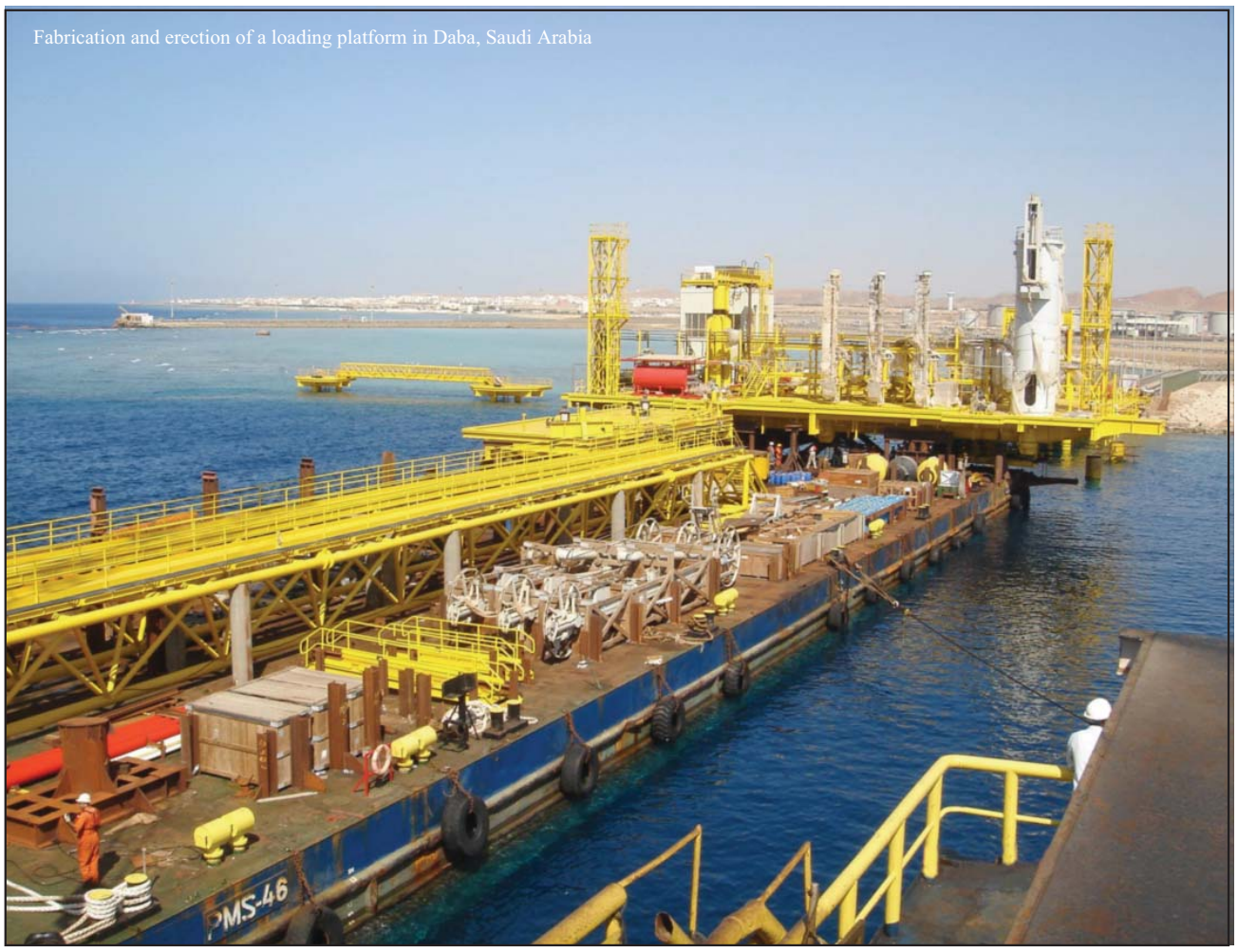
(Saudi Oil Minister Ali Al-Nuaimi)
Wall Street Journal

"It's time to take the genie out of the bottle… We want to be the capital of the world for this new age of fuels (biofuels)."

(Abdullah bin Hamad Al-Attiyah, Qatar's energy minister)
The New York Times

Crossing nations to the global economic frontier

The past few years have witnessed an expansion in the activities of Egyptian petroleum companies to operate abroad, penetrating the Middle East and Africa markets. Despite the vicious international competition, Egyptian petroleum companies have been able to attain several international bids to conduct operations abroad. This has proven that Egyptian companies are able to compete abroad and abide by international standards


Fabrication and erection of a loading platform in Daba, Saudi Arabia

1) Arab Gas Pipeline (First Phase)

A group of petroleum sector companies have completed the first phase of the Arab Gas Pipeline (El-Arish – Taba - Aqaba) with total investments of $200 million. Egypt Gas Co. was responsible for the construction, assembly, installation and operation of nearly 800 primary and secondary pressure reduction stations in addition to filtration and metering stations, as well as the Jordanian pressure reduction station located in Aqaba. Egypt Gas had also established control and monitoring buildings in Taba and Aqaba.

2) Arab Gas Pipeline (Second Phase)

A consortium of Egyptian petroleum sector companies including EGAS, Petrojet, ENPPI and GASCO acquired an international bid offered by the Jordanian Energy Ministry in August 2002 to carry out the second phase of the Arab Gas Pipeline. This project introduces the first BOOT venture carried out by Egyptian companies outside Egypt. The total investments count for $300 million.

Although the terms of agreement set a 33-month time limit to terminate the project, it took the Egyptian consortium only 18 months, which resulted in achieving extra foreign currency revenues.

Based on the duties' framework, ENPPI was responsible for the basic and detailed engineering designs, procurement of equipments, construction supervision of pre-commissioning and commissioning activities and technical support for project operation.

As for Petrojet, it carried the missions of rout surveys, route layout, pipeline coating and layout, welding and engineering inspection, hydraulic tests in addition to construction of valve and control rooms and gas compression stations. Petrojet has already conducted performance tests, 70 km from the line.

According to the agreement, GASCO will operate the second phase along with operating the Jordanian natural gas grid that is feeding electricity stations and major plants in Jordan.

Moreover, an Egyptian-Jordanian company, "Arab Gas", will be established to handle the shipment of natural gas within Jordanian territories; to be used in cars, households and industrial zones.

3) Sharara-Melita Pipeline, Jordan

Petrojet acquired Libya's bid to design and construct crude oil pipeline, 30"diameter width and 727 km length, at Elfil Field from Sharara area, South Libya to the export port in Melita. This project aims at increasing the levels of crude oil shiping and export to 145,000 barrels per day (bpd).

Petrojet's role in this project includes civil and mechanical works, automatic control and engineering inspection and procurement services for valve rooms. The LE700 million-project (99 million Euros) is expected to provide 2,000 job opportunities for Egyptian youth and inaugurate new markets in the field of petroleum projects.

Petrojet has completed the stage of mechanical works and startup operation and also, it has started exporting from the pipeline.

ENPPI has shared in the implementation of this project; ENPPI reviewed basic engineering documents and technical specifications for the project's procurement, in addition to the preparation of detailed pipeline engineering designs.

4) Al-Serir/ Tabraq pipeline project, Libya

The project is located 550km from Benghazi, 500km from Tabraq city. Petrojet has the mission of retrofitting the damaged part of the Al-Serir / Tabraq crude pipeline.

In an agreement with the Arabian Gulf Company for Oil, Petrojet undertakes the responsibility of designing, operating and testing pipeline, whether above or beneath ground over 17 separate sections with different lengths.

5) Construction of Sudanese pipeline for petroleum exportation

In association with Sudanese Ram Energy, Petrojet acquired the Great Nile Petroleum Co.'s international bid to construct petroleum exporting pipeline, 100 km length and 16" diameter width, with a total value of $10 million.

Besides, ENPPI acquired the technical services contract for this project in addition to being the project's sub contractor for Ram Energy, through which ENPPI will prepare the detailed designs and procurement tasks.

6) Ganoub El-Wady Petroleum Holding Company's new branch in Khartoum

In cooperation with ENPPI and Petrojet, Ganoub El-Wady established a new branch in Khartoum with the goal of promoting the company's services in the fields of exploration, petroleum services, construction, design and distribution of products.

7) Project of water-feeding and draining grids in Yemen

Petrojet was chosen for the implementation of the water feeding grid project and draining grid in Taez city, in Yemen in cooperation with Yemeni Kahlan Company. The total amount of investment counts for 13 million Euros. Petrojet will also bear the task of implementing the preparation phase for the liquefying gas project in Yemen with Technip International Company.

8) Infrastructure project of the liquefaction gas plant, Yemen

Yemgas has started its first project in the field of gas liquefaction and export in the city of Balhaf, situated in eastern Yemen. This Yemeni company selected Petrojet to conduct the process of creating the infrastructure, including the establishment of a feeding grid, electricity, communications, and route grids. The time estimated to complete this phase is 14 months. Petrojet has been chosen for its excellent reputation in this domain.

9) Complete technical support and supervision of Syrian AFPC's constructions

ENPPI is responsible for presenting technical support and supervision of the implementation and management of different projects held by Alfurat Petroleum Company.

10) Project of developing and enhancing the production efficiency in Saaban/Jarnouf and Azraq/Maleh fields in Syria

ENPPI acquired an international bid by Alfurat Petroleum Company to run the project of constructing two units of vapor recovery (VRU) with a capacity of four MMSCF, besides renovating control systems and electricity. This project was completed in January 2003.

11) Gas processing plant project in Syria

Syrian Hayan Company for Oil, a joint venture between Syrian Petroleum Company and Croatian INA, chose ENPPI to carry out the engineering designs and technical specs for its gas processing plant with a capacity of three MMSCFD of gas daily and 1,200 cubic meters of recovered condensates from a group of gas and condensates producing fields discovered near Palmyra city. The process of preparing basic design necessitates a 5-month time period.

12) Maintenance services for Arab countries

Alexandria Petroleum Maintenance Company


Water feeding and draining grids project in Yemen

(Petromaint) presents a variety of its maintenance services specialized in production and refining plants for petroleum, petrochemicals and gas based on the international conditions for a number of Arab countries, including Sudan and Libya.

Moreover, the company has established an office in Libya in association with Sun Egypt in order to introduce its petroleum services in the Libyan market.

Sun Egypt signed two contracts for technical maintenance of the compressor stations owned by Libyan Sirt Company. In addition, it participates with the Arabian Company for Projects and Maintenance in Saudi Arabia to offer its services and Egyptian expertise to the Saudi petroleum sector.

13) Construction of compressed natural gas (CNG) plants and engine converting stations

The Egyptian International Company for Gas Technology (GasTech) has signed a contract to conduct the project of engine conversion through the establishment of a joint venture for gas distribution.

With the task of establishing engine conversion into gas, Car Gas Egypt signed a number of memorandums of understanding with Abu Dhabi and Nigeria to implement such projects in the two countries.

Car Gas has also agreed to offer its services and technical advice to Malaysia in the same field.

14) Projects of shipment, distribution and natural gas marketing in Syria and Jordan

Gas Misr participates in projects of shipment, marketing and distribution of natural gas in Syria. A memorandum of understanding was signed between the Jordanian-Egyptian Al-Fajr company and the Jordanian Al-Aqaba Development Corporation to develop and increase the use of natural gas in Al-Aqaba.

15) Expansion of drilling activities in Saudi Arabia and Syria

For seven years, Egyptian Drilling Company (EDC) has been working in Saudi Arabia in cooperation with Saudi Aramco. EDC received five contracts for land rigs in Saudi, in which EDC ranked fourth in terms of activities, with a share of 17.7% of the Saudi market. The company's total investment counted for $37.3 million during 2005/2006. EDC fulfilled its mission in three water injection wells and in Aramco's annual evaluation, it was classified as the pioneer in technical proficiency compared to other foreign companies operating in Saudi Arabia.

Concerning its operations in Syria, the company signed an agreement with Alforat Petroleum Company to acquire one of EDC's rigs operating in Syria, with total investments of $5 million.

16) Fabrication and erection of a loading platform in Daba, Saudi Arabia

The Arabian company for Projects and Maintenance acquired a $25 million-contract to fabricate and erect a loading platform for petroleum products in the region of Daba in Saudi Arabia. The project includes a 7,800 cubic feet platform, three loading arms, hydraulic tunnel, five fire fighting pumps, a 20-feet surveillance tower and a control room.

It is worth mentioning that Petrojet, Petroleum Marine Services (PMS) and Misr Maintenance Co. holds 60% interest share of the Arabian Company.

The project's components were manufactured in Petrojet's workshop in Gabal Alzeit located in the Gulf of Suez and were shipped through the Red Sea. The platform had been erected in a non traditional method, Float over Method, which was used for the first time in Saudi Arabia.

17) Yanbu Gas Plant Expansion Project

Last March, ENPPI and Petrojet were assigned by Saudi Aramco to implement the Yanbu Gas plant expansion. Their list of missions includes developing the gas plant, increasing its production capacity from 390,000 bpd to 585,000 bpd depending on two units only for ethane, propane, butane, isopentane and natural gas. Also, the two companies will be responsible for establishing an extra de-ethanizer unit with a capacity of 195,000 bpd of LNG to sustain Aramco's plan for the petrochemicals industry in Yanbu and Rabegh. Moreover, the agreement incorporates providing heat exchanger towers, pumps, compressors, refrigeration unit, power station and control system.

ENPPI will focus on the engineering procurement construction (EPC) and operating tests, besides being the project's general contractor.

18) Khurasaniyah Gas Plant Project

ENPPI and Betchel International Company signed an agreement to construct a gas treatment and processing unit for Saudi Aramco in Khurasaniyah.

This unit will be established through gas and ethane vapor recovery units with a capacity of 1000 million cubic feet of natural gas per day.

ENPPI's engineers will be responsible for the implementation of engineering designs as a sub contractor at Betchel's offices in the United Kingdom.

19) Upgrade facilities at Al-Hout Field in Saudi Arabia

A consortium of ENPPI and Petrojet acquired Al-Khafgy Operations Co.'s international bid to conduct its LE400 million project of upgrading facilities at Al-Hout field.

The project targets the establishment of upgrade storage facilities to accommodate production increase to 50,000 bpd, besides establishing five tanks with a capacity ranging from 150 to 500,000 barrels, including pumps, mechanical tasks, electricity and fire fighting and control systems.

ENPPI's list of responsibilities consists of producing detailed design, procurement, construction supervision, and commissioning and startup activities.

On the other hand, Petrojet will handle the fabrication and erection of tanks and the complete construction works.

20) LNG Storage Tanks Project in Yanbu, Saudi Arabia

Petrojet carries out the project of establishing three liquefied gas storage tanks in the region of Yanbu for Saudi Yansab through an agreement with Italian Technip.

The company is also in charge of the implementation of a 4,000 cubic meter spherical tank and a 2,500 cubic meter vertical tank. The project, including mechanical activities, welding, testing and painting is due to be complete during the last quarter of 2007.

21) Safaniyah's Water treatment and injection labs expansion project

ENPPI acquired Saudi Aramco's bid to conduct a complete project of expanding water treatment and injection labs. The project will be based on enlarging gas extraction labs from heavy Arabic crude in Safaniyah. It also includes the construction of Low Pressure Production Trap (LPPT) for three phase separation, six units of CPI and eight units of IGF designed to accommodate the expected quantities. As for the extracted water, it will be shipped in a 24" diameter pipeline, 9 km length, and will be injected into wells through four giant pumps.

ENPPI's framework consists of preparing basic and detailed engineering designs, procurement services, construction works as general contractor, operating tests and technical assistance in operation and project's general management.

22) A new branch for ENPPI in Khobar

In order to expand its services and develop its activities, ENPPI has inaugurated a branch in Khobar, in Saudi Arabia through which it will also be able to follow-up on its current projects there.


ECDC's rigs have been used in many projects in Saudi Arabia

23) New branches for Petrojet in various Arab Countries

Petrojet has inaugurated seven offices in Jordan, Libya, Sudan, Algeria, Yemen, Saudi Arabia and Qatar with the aim of acquiring more projects in different areas of the Arab world.

24) Safaniyah Project in the Arabian Gulf

Petroleum Marine Services (PMS) acquired Saudi Aramco's bid to conduct the Safaniyah project, which landmarks the first venture for an Egyptian company to carry out petroleum marine projects in the Arabian Gulf.

PMS will rehabilitate the fields of Safaniyah, Bery and Morgan and upload 72 km crude transfer lines, 57km marine cables, 12km rigid pipes at a depth of 50m below sea level.

PMS' share counts for $100 million out of the $107 million agreement.

25) Upgrading Khafji field in the Arabian Gulf (First Phase)

The Egyptian consortium, Petrojet, ENPPI and Petroleum Marine Services (PMS), acquired a $722 million contract to design, procure, fabricate, ship and erect platforms and marine pipelines, besides upgrading offshore facilities at crude oil producing wells in Al-Khafji region.

The project embraces the implementation of engineering, procurement, fabrication and erection works for six offshore platforms in addition to the designing, procurement and loading of 110 km marine lines, with widths of 28", 36" and 42" and an 8km marine cable, 6" wide.

26) Cooling Projects in Jordan

Egyptian Co. for Refrigeration by Natural Gas (GASCOOL) acquired two cooling projects in Jordan.

The first is Fajr 1, to cool electricity stations and control rooms of gas compressing units in Aqaba and Rehab in Jordan at a refrigeration capacity of 140 tons. The second is Fajr 2, which aims at cooling the Jordanian-Egyptian Company Fajr's administration buildings in Aqaba at a refrigeration capacity of 60 tons.

27) Olefin Plant Project -Ras Lafan, Qatar

Petrojet signed a contract to execute all civil and mechanical works of utility area for Al-Olifin station in the Ras Lafan region, located on the Arabian Gulf for the French Technip Company.

28) Two projects for pipelines El Hamra-Skikda, Algeria

For the first time in Algeria, Petrojet acquired a bid to execute two 30" crude pipelines for Algerian Sonatrack Company, including a 340km line starting from Haoud el Hamra near Hassi Messaoud, south Algeria and ending at SP3 point in central Algeria that presents the beginning of the second line.

The second line is 310 km long and goes north to the pumping station in Skikda.

Petrojet's list of missions includes design and procurement works, welding, coating of weld joints, engineering inspection, hydraulic test, in addition to the implementation of all civil and mechanical tasks for 57 different valve rooms, design, procurement and erection

Sharara/Melita project in Libya

Sudanese pipeline project

cathodic protection system and fiber optics cable and final complete operation of the pipeline.

29) Civil, erection and construction works at Al-gia electricity station

Petrojet was granted the approval of the Lebanese General Ministers' Council to conduct civil, erection and construction works for three fuel storage tanks with a total capacity of 25,000 cubic meters and two 4,000 cubic meter-water tanks in addition to the execution of a tank farm in Al-gia electricity station, which is worth $15.3 million.

30) Engineering works agreement with PDVSA-GAS, Venezuela

ENPPI has signed a two-year agreement with PDVSA-GAS Co., Venzuela's gas holding company for engineering works.

31) Signing agreements with PDVSA-GAS,Venezuela

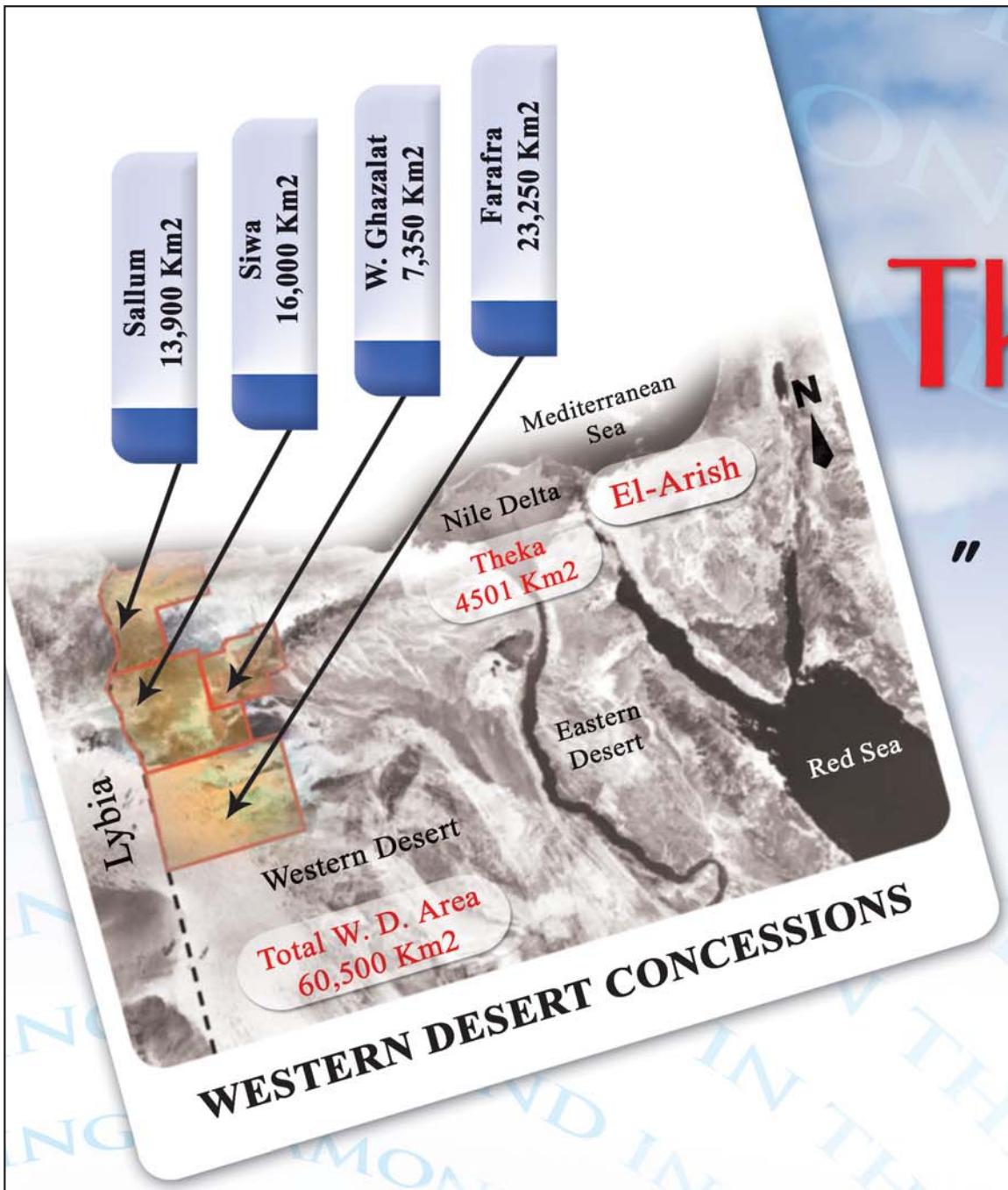
Based on the cooperation agreement signed between Egypt and Venezuela, ENPPI signed a number of agreements with PDVSA-GAS to implement detailed and basic engineering designs, provide equipments' purchase services and exchange expertise through training PDVSA-GAS engineers.

The goal behind this project is to add a fourth unit to the LNG train in the area of San Kawaken to produce an extra 1,000 MMSCFD of natural gas.

The LE180million project will be divided into two phases. The first aims at extracting natural gas liquids at a production capacity of 63,000 bpd and shipping it to a gas products processing plant, located 110km from San Kawaken plant.

The second phase focuses on the production of Ethane and Propane mixture to meet the needs of petrochemicals projects in the region. In this phase, the production of LNG mixture increases to 20,000 bpd, reaching a total production of 83,000 bpd. The estimated value of the LNG plant project is approximately $350 million.

Translated by Yomna Bassiouni



Tharwa

" Expanding to new horizons "

With concessions in the Western Desert and Mediterranean, Tharwa is becoming one of the leading E&P companies, ready to compete in the international arena

Tharwa

A SHINING DIAMOND IN THE EGYPTIAN E & P SECTOR

Knowledge that yields progress on fields

Continued from page 1

GESCO Group Training Center: External Training

GESCO facilities, including their ICWF simulators

The GESCO Training Center was established in 1995 by Global Engineering & Services Co. (GESCO) to provide a wide range of training courses, both certified and customized, to the petroleum and industrial sectors in Egypt and other countries in the Middle East.

The last seven or eight years witnessed GESCO Training Center's participation in a number of leading training projects including being selected by the Egyptian General Petroleum Corporation (EGPC), together with other reputable training centers, to run a training project for 10,000 individual holders of intermediate diplomas and/or holders of technical high diplomas in order to be qualified to work in the future in the oil sector in Egypt or other Arab countries.

The center trained 2,325 individuals for a period of two years. The program covered basic studies for a period of six months, technical studies for another six months and one year on-the-job training in the work locations (in the field) of the various petroleum companies. On Feb. 20, 2003 and on July 3, 2003 GESCO was chosen to train the staff of Phase 1 and Phase 2 of the Spanish Egyptian Gas Company (SEGAS) in order to equip the staff for the time of plant pre-commissioning, commissioning start-up and normal operation and maintenance. GESCO and the Northern Alberta Institute of Technology (NAIT) formed a Consortium led by GESCO to provide SEGAS with top notch training services that combines the world class global training capabilities and expertise of NAIT with the strong local presence of GESCO with their rich experience in Career Development Programs of EGPC personnel in different rural areas of Egypt. Thus, providing the availability of the specific know-how, training methodology and course material to suit the level of trainees.

GESCO also conducted a Non-Destructive Testing Course for participants from Arab Drilling & Workover Company (ADWOC). By the end of the course, participants were awarded International Certificates in accordance with the international SNT-TC-1A Program. The subjects of study provided by the center included Rig Types & Components, Transmission, Diesel Engine, Lifting Equipment, Mud System & Mud Pump, Hydraulic Systems, On-Job-Training - Caterpillar, and Advanced Course on Caterpillar.

The training center is registered as an International Well Control Forum (IWCF) Assessment Center in Egypt. They have conducted a number of IWCF Well Control Courses to participants from Egypt and other Arab countries. They are also registered with the Industrial Modernization Center (IMC).

Various petroleum and industrial companies that undertook training from GESCO during the last five years

1. Gulf of Suez Petroleum Company (GUPCO) in Egypt. An affiliate of British Petroleum & EGPC.
2. Khalda Petroleum Company in Egypt. An affiliate of APACHI & EGPC.
3. Badr El-Din Petroleum Co. (BAPETCO) in Egypt. An affiliate of SHELL & EGPC.
4. Qarun Petroleum Company in Egypt. An affiliate of APACHI & EGPC.
5. Suez Oil Company (SUCO) in Egypt. An affiliate of Spanish – German Co. "GOGO" & EGPC.
6. Gabel El Zeit Petroleum Company (PETROZEIT) in Egypt An affiliate of DOVER & EGPC.
7. Arab Drilling and Workover Company (ADWOC) in Libya
8. NAFTO Gas in Algeria
9. ARAMCO in Saudi Arabia
10. SEDCO Pharmaceutical – an industrial Company in Egypt
11. International Cement Company in Egypt.
12. Japan International Cooperation Agency (JICA) in Egypt.
13. Al Bardy for Paper Industry (Fine) In Egypt.

GESCO student recieving his certification in Advanced Drilling Equipment

14. AL EZZ STEEL REPAIRS Co in Egypt.
15. Uniliver
16. El-Shmoukh in Egypt
17. White Nile Petroleum Co. (WNPOC) in Sudan
18. Greater Nile Petroleum Co. (GNPOC) in Sudan
19. Chipsy
20. Petrodar in Sudan

Halliburton Training Center: Internal Training

The Halliburton training center differs from the GESCO center in that it caters solely to Halliburton employees. January 7th, 2007 marked the one year anniversary of establishing the new regional Halliburton Training Center located on the campus of the British University in Egypt.

The center was established as part of a strategic approach by the training and development division of the human resources department at Halliburton to add more regional training centers to cope with the increasing demand for training newly hired engineers and operators.

During the planning phase, many countries in the Middle East and Africa were considered in a study to determine the best location for the center. Egypt was found to be the best available option with a well-established oil and gas industry, a Halliburton regional base with one of the best pools of talent in the region and excellent opportunities to partner with higher education institutions.

Following the model of Halliburton training centers in other countries such as US, Mexico and Malaysia, Halliburton took the approach of partnering with a local university to establish the training center.

Activities at the center are primarily focused on developing newly hired Halliburton engineers by providing a foundations class designed to provide graduates from different engineering backgrounds with the basic skills needed to succeed in their jobs as field engineers. Programs offered vary in level and length with some extending to four and a half months of intensive training. Each program is divided into theoretical and practical modules. During the practical modules, engineers spend their time working with other senior engineers in the oilfields. These practical modules play an essential role in narrowing the noticeable gap between theoretical and practical skills of engineering graduates.

Halliburton employees recieving training via video conferencing

Currently, the training center has four classrooms, two of which are equipped with state of the art video conferencing equipment. Students enrolled in the technical program join their peers in the US, Mexico, Malaysia and Russia in attending lectures delivered using video conferencing.

To date, 110 engineers from different product service lines of Halliburton have completed one of the technical programs at the center. This number is estimated to double in 2007. To cope with the increasing demand, the center is currently going through an expansion phase that is expected to be completed by January 2008.

The courses provided by the Halliburton training center include Health and Safety, Environmental Awareness, Frac/Acid Operations, Cementing Operations, Introduction to Hydraulic Fracture Design, Acid Stimulation Design, Advanced Cementing Design, Wireline logging, Logging while drilling, Directional drilling, Basics of petroleum geology, Practical introduction to drilling, Well completions, Well testing, Production, Coiled Tubing Operations, Drilling Fluids, and Formation Evaluation.

Halliburton Summit

Halliburton training managers from throughout the world for their annual summit held this year in Cairo

Managers of the twelve regional Halliburton Training Centers and regional technical managers met in Egypt from January 22 to January 25 in a summit organized by the training and development department of human resources at Halliburton. The meeting took place on the campus of the British University in Egypt home of one of the regional training centers.

The call to have this summit at this time came as a result of the increasing demand on training and the significant expansion of the infrastructure of training at Halliburton especially in regions like Africa, the Middle East and Russia.

Topics discussed at the summit included the alignment of training curriculums with the competency system established by Halliburton, collaboration between the regional centers and future plans to enhance training and development in the company to cope with the increasing demand on training for Halliburton's new and existing employees.

PESCo Training Centre: Environmental and Maritime Training


PESCo conducting a training

The Egyptian Government have instituted national laws and ratified international conventions and bilateral agreements to ensure protection of the Egyptian environment.

Legislation clearly requires all companies and organizations; either national, multi-national or international, to ensure adequate protection measures are in place to mitigate any exposure of the Egyptian environment and that staff are adequately trained and competent to carry out their duties with due regard to environmental protection.

Now more than ever, we also need new ways for government and industry – as well as national and international oil companies - to work together toward the common goal of environmental protection.

A step forward in Egypt was the formation of Petro Environmental Services Company "PESCo" - an international joint venture company between Industry and Government established in January 2003.

The Company provides environmental protection and marine support. The Company conducts specialized oil spill training for offshore, marine and industrial environments.

A dedicated training centre is available staffed by both resident British and Egyptian certified trainers with expertise in oil spill response to conduct their courses. Bilingual training programs are offered (Arabic /English) meeting both the Egyptian national and foreign partners' requirements.

Practicality of the training courses can further be enhanced as they can be conducted on the field utilizing the operator's procedures and equipment.

Training programs are comprehensive and constructed in accordance with the latest model courses outlined by the International Maritime Organization (IMO) and the Maritime Coastguard and Safety Agency (MCSA - UK).

Due to the increasing global focus on environmental protection and the efforts made by the Egyptian Government together with the Egyptian Petroleum and Maritime sectors, PESCo has been approached by several international companies to promote regional training, e-learning and tailored training packages.

Future training packages shall be in accordance with the Offshore Petroleum Industries Training Organization (OPITO) as well as the above mentioned international entities. Currently, PESCo is conducting training courses for several oil sector companies and governmental bodies.

It is without any doubt that Egypt is well and truly on course to meet national and international obligations.

The International Maritime Organization is recommending to all flag states the Egyptian model for oil pollution prevention, preparedness and response management as a possible solution to meet today's demands on both Government and Industry.

PESCo: Providing reliable training when needed

THE successful response to any oil spill incident is solely dependent on the competency of those responsible to manage such a response. All too frequently, the decision makers have limited practical experience; this leads to increased stress in an already stressful situation allowing rational judgment to suffer.

A step forward is the PESCo comprehensive training packages that address not only the responder training but also that of the decision makers. Integrated theoretical and practical training harmonizes response plans and ensures clear understanding of capabilities and restrictions at all levels of response management.

Pollution incidents, although unfortunate, can be used positively to train responders, managers and incident commanders through the live planning and response cycles.

This was demonstrated during a recent pollution incident that PESCo was tasked to manage; PESCo trained managers and operators from the Petroleum and Maritime Sector of Egypt in addition to selected United Arab Emirates personnel at the request of the Supreme Petroleum Council "SPC" in the U.A.E.

Training was provided across the spectrum of the incident response, from operators on the field to crisis managers in the local and national pollution incident centers. This training program was heralded as a success by all those participating members and companies.

PESCo has radically addressed training requirements both in Egypt and throughout the region. The PESCo message is clear: "*Reliance can only be put on someone that is adequately trained and experienced.*"

A Weakness in Education or Natural Progression?

In essence, there is undoubtedly a deficiency in skilled labor in Egypt. However, the reason for the lack of professionals in field is unclear. For those who state that higher learning institutions in Egypt do not provide sufficient background for graduating students, a simple rebuttal would be Cairo University's petroleum engineering department or the Suez Canal University's petroleum and mining engineering department.

For those who argue that private, English universities should also confront the need for skilled labor in the field, the British University in Egypt is launching its petroleum engineering department soon and the American University in Cairo (AUC) is presently working on developing its petroleum engineering major. The major will have the objective of providing companies with qualified graduates in specific areas of the oil and gas sector. AUC will be giving professional environmental programs for Egyptian graduates and these courses will be tackling the idea of environmental management systems and auditing.

Currently, AUC provides tailored courses for oil and gas companies that have developed a new idea and would like to create a course to suit their latest innovation. These courses are carried out in cooperation with the companies.

An example of this was five years ago when Petrojet requested a course about pipe-line design and maintenance.

In conclusion, learning institutions in Egypt are realizing the growing demand for oil and gas professionals and are attempting to meet said demand. Nonetheless, technological advancements are constantly creating new requirements that are too specific for any one university.

These requirements can only be tackled by specifically designed training courses, which, as seen above, are being created as fast as they are being mandated.

Hence, the problem does not lie solely in the educational system, although advancements are always welcome in that realm, the problem lies in natural progression, which should never stand as a problem, but simply a reality.

Natural progression is what drives each individual to learn new methods and to explore new possibilities. In the sphere of oil and gas, where resources are quickly drying up and will inevitably finish off, exploring new opportunities is the only hope left for the world. New minds must be molded for this to occur; training centers are just a stepping stone to the new world of better utilization of non-renewable energy and the search for renewable sources.

Tharwa Petroleum Co. A Real Egyptian Fortune

Being characterized as the first Egyptian company to carry out upstream activities in the Egyptian market as well as offering petroleum services, Tharwa has kept its outstanding record of achievements since its inauguration in 2004. With the target of competing in the international arena, Atef Abd El Sadek, Tharwa's Chairman and Managing Director shares its 2007 future plans with E*gypt Oil and Gas Newspaper a*nd shed light on its story of success

Q Could you briefly describe the activities of your company to our readers?

Tharwa was established as a joint stock company on February 2004, it is the first Egyptian Petroleum Company to excite upstream operations with two main goals; E & P and Petroleum Services. The company's mission is to explore, develop and produce oil and gas domestically within Egypt, regionally and all over the international arena. The company was established at an appropriate time when oil prices were hitting great hikes and Egypt was seeking to increase its oil revenues. Tharwa's establishment falls within the framework of a comprehensive ministry program to raise revenues from foreign currencies.

Q What were your major achievements for the fiscal year 2006 and what are your upcoming plans for the future?

Tharwa had many achievements during 2006, which can be summarized as follows:
First, Tharwa achieved its first discovery "Thekah North-1" at the Mediterranean Sea. An integrated development plan has been approved and within 18 months we will start production from Thekah. The plan puts into consideration the use of the available nearby infrastructure and facilities to reduce both cost and time.
Tharwa applied for all E & P bid rounds inside Egypt which were offered through the Egyptian General Petroleum Corporation (EGPC) and Egyptian Natural Gas Holding Company (EGAS). As a result Tharwa won and was awarded block-4 "North El Arish Offshore Concession" in the eastern side of Thekah Concession at the Mediterranean Sea. Moreover, in Petroleum Services and for the first time in the Middle East and North Africa's history, an Egyptian consortium constituting of Tharwa, Enppi and Petrojet have signed an agreement with the Chinese HH Company to establish a company for manufacturing onshore drilling rigs to meet the demand of expanding exploration activities in Egypt. The agreement is based on manufacturing three rigs in 2007. The plan increases production in 2008 to seven rigs, reaching 20 rigs by 2010. In addition, Tharwa has signed an agreement with an Italian Company, Breda Energia S.P.A., to establish "Tharwa – Breda Petroleum Services Company" for selling, maintaining, manufacturing Oil and Gas Well Heads, Valves and Control panels.
Also, through an alliance with Schlumberger, which provides integrated services not only to the New Comers, which do not have resources locally to execute their work plans and commitment in Exploration activities in Egypt, but also to those companies having aggressive plans.
Also, Tharwa has achieved a sizeable profit for the second fiscal year.
Concerning, our upcoming future plans; we have dedicated the year 2007 as the year of the first production from our Western Desert Concessions and 2008 as the year of our first production from Mediterranean Sea Concession "Thekah".
Our concern, as well, is competing in the international arena. We already take the step to mark out all the bid rounds in Africa and Asia, and have evaluated our chances in order to be ready in the appropriate time.

Q What is the progress you have achieved in Tharwa concessions?

Tharwa has been awarded five exploration blocks, and won one block through bid rounds. Four concessions are in the Western Desert and two in the Mediterranean Sea. In the Western Desert Blocks, Tharwa defined the location of the first well. Associated work in the plan, including service company contracts and preparing the required material for drilling are in progress. As you know, defining location for an oil well is not an easy task. A lot of work and preparation such as mine clearance, seismic acquisition, processing, interpretation and building a geological model are part of the process. The amount of spent money, which nearly doubles the financial commitment, reflects the amount of achieved work in a short time.
In the Mediterranean area, preparation and studies to lay down 50 Km pipe line and construct a platform are in progress. Expenses in 2006 more than double the financial commitments in four years.

Q Are you within the budget for these two projects or not?

Yes, we are. Budgets are always a reflection of the real work.

Q Can you tell us about Tharwa's activities outside Egypt?

As I mentioned, competing in the international arena is one of our main objectives. Our technical team is already evaluating some possible chances in Angola and Thailand. As you know, the process is quite long and not easy. Studies on technical aspects, economics, feasibility and legislation should be prearranged carefully.

Q Can you explain to our readers the difference between Tharwa & Sino Tharwa?

Sino Tharwa is a service company and it was formulated with a reputable Chinese partner SINOPEC, which is one of the leading Chinese companies in the field of drilling. Sino – Tharwa is a Limited Liability Company between Tharwa and SINOPEC based in Egypt for handling drilling operations in Egypt. The new company will contribute value to the drilling activities in Egypt.

Q Sino Tharwa has four rigs to date, are you planning on getting more rigs soon?

Sino Tharwa was established in 2005 and started its activities with two rigs and is already contracted to purchase three more rigs. The plan is to increase the number of drilling rigs by 2007 to seven rigs which represents 350% growth in number of rigs in two years time. Growing will continue to meet the expansion in exploration and development activities in Egypt.

Q How do you see the future of the Egyptian oil and gas industry?

I think that during the past few years, the Oil Ministry succeeded in achieving its strategies in adding oil and gas reserves by intensive exploration and development activities and by encouraging investment in unconventional approaches to develop oil and gas fields and exploration in ultra-deep water. Beside the increase in investment for oil and gas exploration and development, the significant efforts in the LNG field led Egypt to play a major role, and in establishing a robust petrochemical industry in Egypt and world wide. All these factors positioned Egypt as a leading country in the region in attracting foreign direct investment in oil and gas, in spite of intense competition.

EGYPT INTERNATIONAL FAIRS
INTERNATIONAL BUSINESS DEVELOPMENT
CAIRO, EGYPT

the CWC group
CWC associates limited
STRATEGIC BUSINESS DEVELOPMENT PARTNERS
IN ENERGY & INVESTMENT

4th International Conference and Exhibition for Oil & Gas

15 – 17 May 2007, CICC - Cairo, Egypt

INTERGAS IV

An opportunity to gain an insight into what the policies and plans are for Egypt's Oil & Gas Industry from state owned companies. Running alongside this highly informative 2 day Conference, is the Exhibition which is the biggest of it's kind for Oil & Petrochemicals in Egypt.
Not only is Intergas IV a highly informative Conference and Exhibition, it is also an ideal opportunity for you to network with international peers and clients.

Under the High Patronage of
H.E. ENG. SAMEH FAHMY
Minister of Petroleum, Egypt

SPONSORED BY

SUPPORTED BY

For further information about Intergas IV please contact:

Ed Renshaw
INTERGAS IV Exhibition Committee
Tel: +44 20 7978 0081
Fax: +44 20 7978 0099
Email: erenshaw@thecwcgroup.com

Eng. Abdel Hafiz M.Edel
Egypt International Fairs
Tel: +20 2 405 1818
Fax:+20 2 403 3475
Email: edel@eif-eg.com

To join or not to join: The overlooked question

Following Angola's admittance to OPEC in 2007, the lurking question becomes: why is Egypt reluctant to join OPEC as a full-time member?

By Nagham Osman

NATURAL Gas is Egypt's rising resource for energy as it has become less reliant on its declining oil resources in the past years. After an absence of 14 years, Egypt joined the Organization of Petroleum Exporting Countries (OPEC) as an observer. There has been a continuous debate to whether Egypt should be a member or not, whilst other African countries expanding their output oil production are seeking to join as full-time members.

According to the US Energy Agency for the year 2005, Angola, Egypt and Sudan ranked as the top 10 African oil producing countries. Angola ranked fourth, with a production of 1,250,000 barrels per day (bpd), Egypt ranked fifth with a production of 579,000 bpd and Sudan ranked sixth with a production of 363,000 bpd.

Starting from January 1 2007, Angola will be the twelfth full-right member of OPEC and Sudan is lined up to join the organization as well. The other current members include: Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, The United Arab Emirates and Venezuela. Countries were ranked and admitted into OPEC based on their oil production.

Angola isn't the only African country aspiring to become a full-time OPEC member. A Sudanese Oil Ministry official said that his country was "considering joining OPEC and an application was under consideration by the president."

Angola became an OPEC member in 2007; its oil production is expected to double by 2008. The three African countries that precede Angola are: Nigeria which ranked first with a production of 2,600,000 bpd, Algeria which ranked second with a production of 2,080,000 bpd and Libya ranking third with a production of 1,600,000 bpd.

Sudan's oil production has been hampered due to the long years of civil war. China National Petroleum Corporation (CNPC) is the leading investor in the Great Nile project that produces 90% of Sudan's oil production.

Egypt has an abundance of resources; petroleum, natural gas, phosphates, and iron ore are Egypt's natural resources. Egypt's oil production is located mostly in the Gulf of Suez, as well as oil fields in the Western Desert, with oil and gas accounting for approximately 12% of GDP. There has been an evident decline from 1995 to 2006 in crude oil production, decreasing from 920,000 barrels in 1995 to less than 662,000 barrels in April 2006. This makes Egypt's economy more reliant on natural gas production and less on oil revenues.

Although Egypt ranks higher than Sudan and closer in statistical ranking to Angola's oil production, both Angola and Sudan have taken the initiative to apply for OPEC membership, whilst the debate on Egypt's admission prolongs. Egypt resumed attending OPEC meetings as an observer six years ago, on September 26 2001, after fourteen years of absence as an observer from OPEC

meetings. Three months later, Egypt held the first OPEC meeting in January 2001.

There are different categories of membership in OPEC: full members, founder members and associate members. Members have the authority to make changes according to their analysis of the current market situation and petroleum demand and supply, whereas observers attend the conferences without imposing any regulations. Oil producing countries are recognized by OPEC as observers. In 2001, OPEC granted Egypt, Sudan and Equatorial Guinea the status of observers.

Membership to OPEC could be attractive to oil producing countries for several reasons. "Membership is open to any country with substantial net exports of crude petroleum, which has fundamentally similar interests to those of member countries," as stated in the OPEC Desk Diary. OPEC members have to abide by set policies in order to stabilize international oil prices and avoid destabilizing the market. Members of OPEC also have to comply to strict policies even if it has to do with restraining their oil production. This comes in hopes of stabilizing the market.

A recent agreement among OPEC members has been reached to cut off crude oil production to maintain high oil prices in the market. The first cut was active on November 1 following a conference held in Qatar in mid October 2006. The decision in the conference was made to reduce production by 1.2 mb/d from a current production of about 27.5 mb/d to 26.3 mb/d. The second cut will be effective in 2007. According to OPEC's most recent conference on December 14 2006, convened in Abuja, the Federal Republic of Nigeria, the committee was concerned to take strict measures that would ensure the balance between supply and demand in the international market. The committee decided to reduce OPEC production by 500,000 bpd, effective February 1 2007. The months till the next OPEC meeting to be held on March 15 2007, in Vienna Austria, will require extreme vigilance to control hovering oil prices.

Accordingly, being a member would require from Egypt payment of fees and abidement to certain financial obligations. Adel Ibrahim, an economist with Al-Ahram Center for Political and Strategic Studies says that most of the OPEC members export 75 % of what they produce, which increases their oil export revenues. "Even though Egypt produces 600,000 barrels of crude oil per day, its oil export revenues are low," says Ibrahim. This stems back from the fact that most of what is produced is consumed by the masses. These are some of the reasons why Egypt is reluctant to apply for membership.

Egypt's significance as an observer rises from its early discovery of oil fields in the region as well as the investment of 50 international petroleum companies. He added that Egypt has an important role as an observer to attend meetings and coordinate with the organization to stabilize the international market for both the producers and consumers; both of which Egypt is very keen on doing.

Nevertheless, these reasons should not hinder Egypt's decision to join OPEC, as its benefits overwhelmingly exceed the costs. Could there be a more tangible motivation behind the lack of enthusiasm to join OPEC?

Country	Joined OPEC	Location
Algeria	1969	Africa
Angola	2007	Africa
Indonesia	1962	Asia
IR Iran	1960*	Middle East
Iraq	1960*	Middle East
Kuwait	1960*	Middle East
SP Libyan AJ	1962	Africa
Nigeria	1971	Africa
Qatar	1961	Middle East
Saudi Arabia	1960	Middle East
United Arab Emirates	1967	Middle East
Venezuela	1960*	South America

*Founder Members

"Shell has made a direct contribution to our profitability by delivering significant cost savings through high quality greases. Shell also enabled us to obtain additional income from extra services such as collecting and purchasing our used oil on behalf of the Egyptian General Petroleum Corporation. The collection of used oil is helping to protect the environment and our consumers to ensure that the used oil is directed in the right channels. Our partnership with Shell has proved to be a true success."

Hussein ElHamy Hussein
Deputy Chairman

In 1979, ElHamy Hussein established the Egyptian International Company, which now owns and operates a fleet of 110 trucks. By partnering with Shell, Mr. Hussein's company has saved approximately LE 200,000 a year whilst prolonging the oil change interval for their vehicles from 2000 kms to 5000 kms. Lower maintenance costs, increased productivity, time-savings, improved cash flow and manpower efficiencies are some of the further benefits that Mr. Hussein is now enjoying. Overall annual lubricant volume usage has also decreased from 84 Tons to 51 Tons per year and grease costs were reduced by 80%; savings only made possible by using high quality Shell products and its ability to extend oil drain intervals.

On Efficient Utilization of Egypt's Energy Resources: Oil and Gas

By Tarek H. Selim
Egyptian Center for Economic Studies (Working Paper No. 117 December 2006)

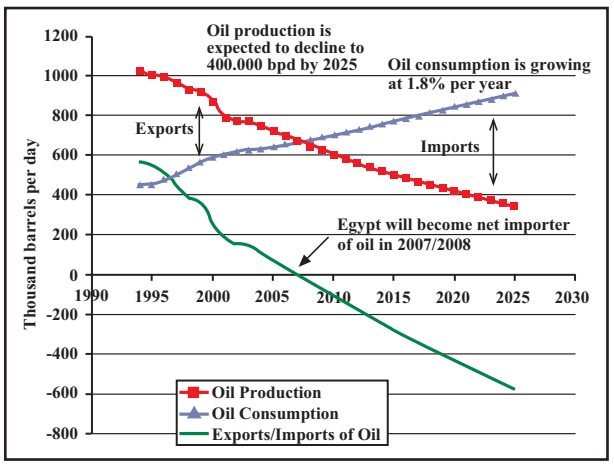
1. Introduction

Energy is a prime source of livelihood for many nations and is a cause of affluence for others. In Egypt, energy constitutes one fifth of the country's overall economic activity, a little less than half of the country's export revenues, and is a strategic resource for future growth. Yet, on the other hand, Egypt's energy reserves are quickly depletable, with a risk of over-consumption, production is aging as far as oil is concerned, and at the same time energy reserves are rather new with respect to natural gas. Hence, there are future tradeoffs between oil and natural gas in the Egyptian economy. Specifically, oil and gas should be considered as demand substitutes in addition to possessing future complementary roles in energy supply.

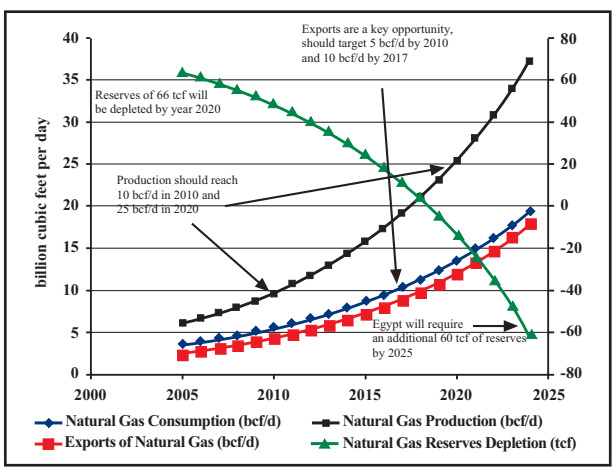
2. Egypt's Energy Sector: Sustainability Analysis and Forecast

Hartwick's energy sustainability model (Hartwick 1977, Hanley, Shogren and White 1997 and Cairns and Yang 2000) provides an optimal allocation solution to energy resources based on sustainable development constraints. Hartwick's model (usually referred to in the literature as "Hartwick's Rule") is a dynamic model relating efficient extraction rates to total energy reserves and the forecasted rate of sustainable consumption. Hartwick's Rule, as an application to the model, implies that efficient utilization of energy resources will deliver optimum resources extraction rates, such that current welfare is maximized without compromising the ability of future generations to maximize their own welfare. Consumer welfare, in Hartwick's model, depends entirely on consumption. Production rates are derived from the path of sustainable consumption.

Based on Hartwick's methodology, different economic sensitivity analyses have been conducted on oil and natural gas in this research. Those are based on the assumptions of historical population growth rates, future growth in domestic demand (demand-driven market analysis), and estimated elasticity over time. Dynamic optimization analysis is conducted to reach the rate of resource depletion based on annual resource extraction rates (annual efficient production levels).



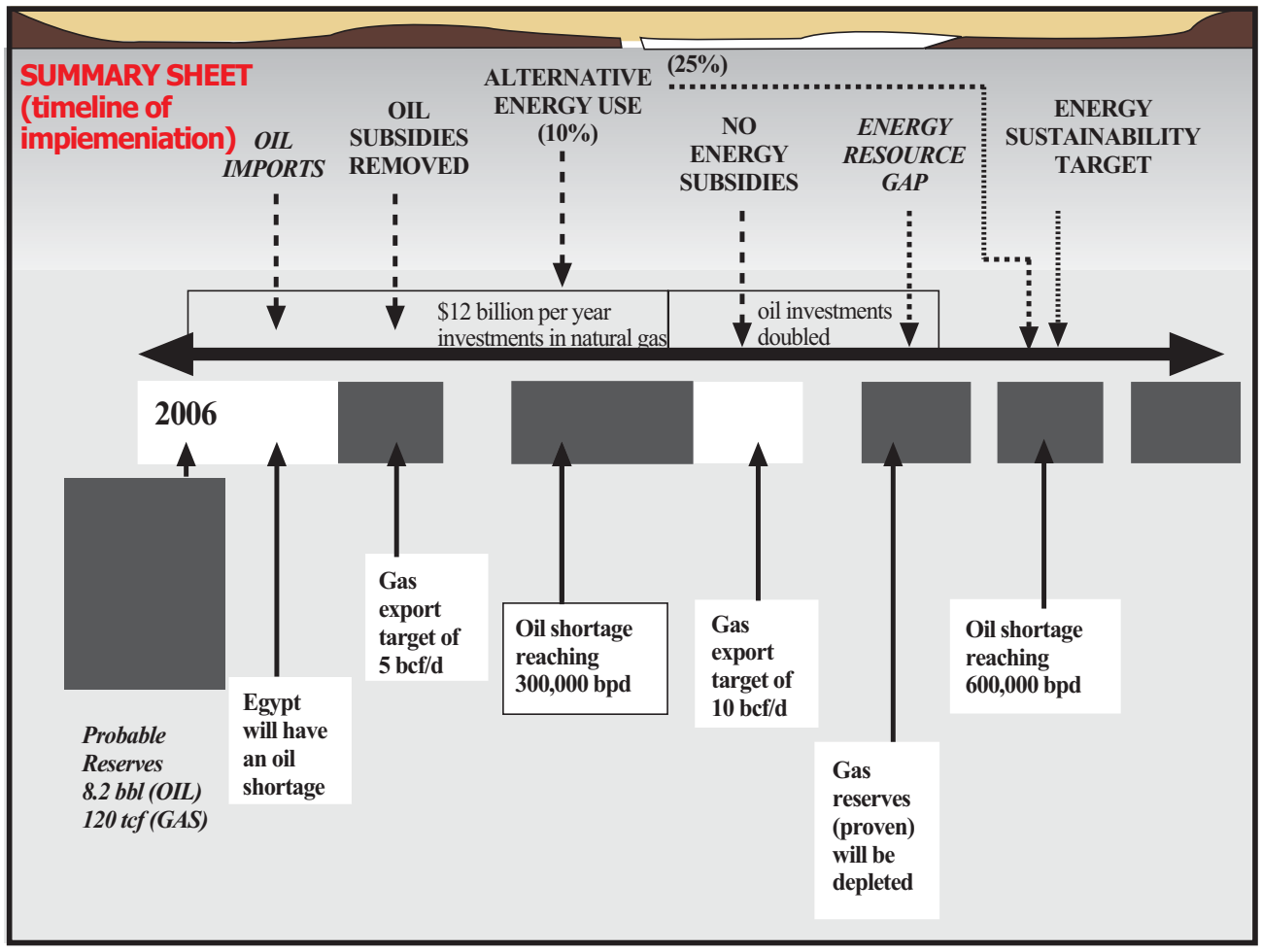
Egypt's Oil Future: Sustainability Analysis and Forecast



Egypt's Future of Natural Gas: Sustainability Analysis and Forecast

3. Egypt's Energy Sector: Future Outlook and Recommendations

	Oil	*Natural Gas*
Consumption Growth	1.8 percent average annual growth rate until 2025.	9.45 percent average annual growth rate until 2025.
Production Targets	Oil production is expected to decline to 400,000 bpd by 2025, with annual production decline of 3.45 percent.	Production should reach 10 bcf/d in 2010 and 25 bcf/d in 2020.
Exports	An oil shortage is expected by 2007/2008. Required imports of oil at 100,000 bpd in 2008, 300,000 bpd in 2015, and 600,000 bpd in 2025.	Exports are a key opportunity. Gas exports should target 5 bcf/d by 2010 and 10bcf/d by 2017.
Imports	Phased relaxation of oil subsidies are expected.	No required imports of natural gas are expected until 2025.
Pricing	Persistence of consumption characterized as a necessary good.	Longer term gas subsidy changes are expected. Consumption will remain characterized as a normal good.



GeoMAP Consultants

Offshore Oil Detection

Radar imagery offers a slick solution for locating rich reserves at sea

By Eng. Hazem Badawy, Business Development Manage

A thousand feet down, the ocean floor shakes. Bubbles of oil and gas burp out. In a wafting plume, the oil heads for the ocean surface where it forms a film less than a millimeter thick and many cover hundreds of square kilometers.

These natural oil leaks are leading geologists to lucrative drilling sites. In fact, 80% of offshore oil exploration starts by searching for seeps, according to Roger Mitchell, program development vice president at Rockville, Md.-based Earth Satellite Crop. (EarthSat).

The oil's viscosity retards wave formation, causing a "calm spot" on the ocean surface, and that allows synthetic aperture radar (SAR) to image and analyze the seeps for potential oil reserves. "This is cost-effective exploration," says John Hornsby, worldwide sales director for RADARSAT International (RSI), Richmond, British Columbia, Canada.

Satellites have been used for this purpose for the last 10 years. Initially, Landsat Thematic Mapper optical imagery was used, but that imagery – which works only in ideal weather conditions-must "see" oil that's one-half to one millimeter thick, according to Mitchell. Radar satellites are sensitive to changes in surface roughness and aren't affected by weather conditions over target. That's important because many of the best places to look for undersea oil (Asia, Canadian Maritimes and South America) have frequent, heavy cloud cover. "RADARSAT really detects changes in the surface tension caused by oil only a few microns thick," says Mitchell. And RADARSAT can detect as little as one-half to one liter of oil escaping per day.

In the Beginning

Natural oil seeps in the Gulf of Mexico aren't a new phenomenon. In fact, their presence has been documented for some time. Pre-Columbian cultures probably used seep material to make caulk, and Spanish shipping logs from the 1500s refer to floating oil.

More recently, astronauts abroad the Shuttle Atlantis in May 1989 spotted many bright, long, rope-like streaks. A photograph showed at least 124 of these features spread over 15,000 square kilometers. Follow-up investigations, including a subsequent shuttle flight, Landsat images and onsite inspection, proved the streaks were bubbles of oil and gas that escaped naturally from underwater oil fields, floated to the surface and spread out.

How it works

SAR detects the backscattered radar energy from target. The seep appears smoother than the surrounding ocean because it reflects less energy back to the satellite, which shows up in the image as dark spots against a lighter background. But extreme ocean conditions hinder clear detection. For example, rough seas create more backscatter, so the seep blends into the background. Likewise, in calm seas little backscatter bounces back, and the ocean surface appears dark and blends with seeps.

"As long as the waves are less than three meters high, satellite images can show the calming effects of oil on the surface," says Hornsby.

Geologists use weather satellites to determine the meteorological conditions at the time the images were acquired. Generally, users find the best results are obtained if wind speeds are between three and 12 meters per second at the time of acquisition.

Exploration Services

Because the imagery's quality depends on the ocean surface conditions, RSI devised a program called Offshore Exploration Service (OES), a "pay for what you use" offering.

For example, geologists request RSI to image an area. When the images have been obtained, the customer consults weather information for the area when the images were collected. If conditions were good, the customer orders the images and pays for them. If the weather was not optimal for good imagery, the customer is not obligated to buy the image.

Natural oil slicks are detectable as black patches on this Radarsat ScanSAR Narrow subscene (100km x 100km) of Green Canyon, Gulf of Mexico acquired June 12, 1997. Wind variations associated with a frontal system are seen as two vertical dark lines in the center of the image.

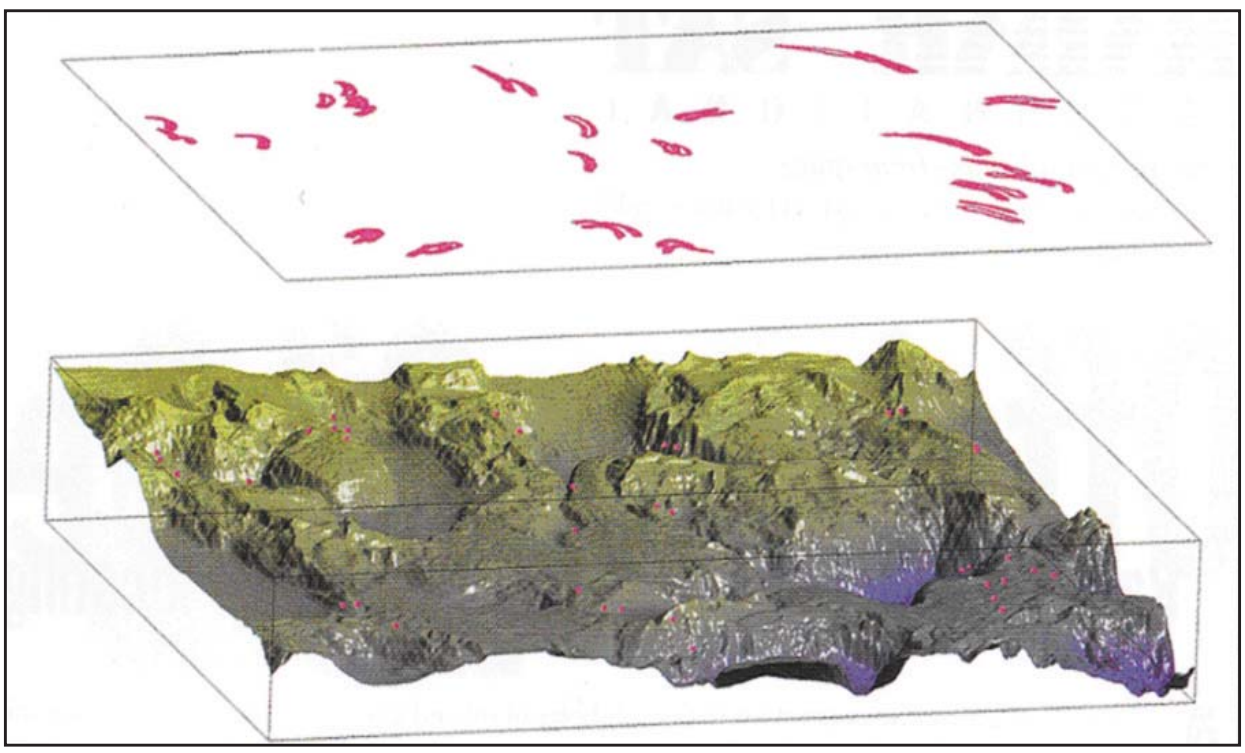
The program minimizes the risk associated with offshore exploration because it accounts for the weather's effect on final product usability, according to Todd Pearson, RSI's OES also can be used to find oil spills and oil platforms or any application that searches for oil on the ocean surfaces.

In addition, RSI is imaging most of the world's oil basins to build an archive, as well as a database of the coasts of the Americas, Australia, Asia and Asia Pacific that geologists can use to find potential drilling sites, according to Pearson.

From Detection to Drilling

Just finding a seep doesn't mean you're ready to start drilling. Seep data should be used in conjunction with (not as a substitute for) standard geological search techniques, including imagery and seismology. Dark areas in an image could indicate that oil is from a ship or tanker cleaning out its tanks, as well leakage or seep-like artifacts produced by biological processes.

The key is to acquire two or three images over the area of interest under adequate meteorological conditions. If a seep appears on several passes, that's a good indication of a potential drilling site. In addition, EarthSat has developed a statistical method to differentiate seeps from other origins based on size, shape and parameters.



RADARSAT image enhancement and interpretation by Earth Satellite Corp.© 1997

A 3-D view of the sea floor, probable sea floor seep location and sea surface oil slicks (purple) was created with bathymetric and RADARSAT data (June 12, 1997). Topgraphic information was derived from National Geophysical Data Center 100-meter multibeam bathymetrry data.

The CIB Report on the "Natural Gas Sector in Egypt"

This month's review features the Commercial International Bank's (CIB) most recent report on the "Natural Gas Sector in Egypt"

By Sarah Broberg

THE report begins with a global market brief revealing that the share of natural gas in world energy supply and demand is growing substantially. Natural gas accounts for 24% of world demand and in terms of supply, production is shown to have a growth rate of 28%.

While oil still dominates global energy demand with figures reaching 37%, gas has steadily climbed the demand ladder. Several factors have contributed to the rise of global natural gas demand including increasing oil prices and consumers' desire for an environmentally-friendly source of energy.

When broken down regionally, Europe/Eurasia is the number one consumer of natural gas accounting for 41% of world consumption. This is undoubtedly due to their decreasing local production which reached a staggering 95% in 2004, leading other regions such as Africa and the Middle East to improve their positions as producers. Within the Middle East, Egypt has answered the world's call to increase natural gas demand. The CIB report offers a description of the natural gas sector in Egypt, highlighting the fact that as of 2004 it reported high proven reserves of 67 tcf and 120 tcf of probable reserves. In terms of domestic consumption, Egypt consumes just 1% of the world's natural gas with consumption divided among several sectors. The sector utilizing the most natural gas in Egypt is power generation, recording 62% of total local consumption, followed by industry, and petroleum sector, each using 10%.

In Egypt, oil and gas rank as the fifth-largest contributor to total GDP. The country enjoys abundant gas resources and rising production levels. According to the report, overall investment in natural gas as of FY2003/2004 accounted for an estimated LE 4.5 billion. In fact, natural gas constitutes 6.1% of overall investment in economic activity. The significance of natural gas was further accentuated with the completion of the first phase of the Arab Gas Pipeline in 2003. More recently, Liquefied Natural Gas (LNG) exports were emphasized with the launch of SEGAS's first LNG train in Damietta; the inaugural shipment took place in January 2005. The report delves deeper into the inner workings of the natural gas industry in Egypt, which is regulated entirely by the Ministry of Petroleum. Natural gas is specifically controlled through four holding companies: the Egyptian General Petroleum Company (EGPC), the Egyptian Natural Gas Holding Company (EGAS), the Egyptian Petrochemicals Holding Company (ECHEM), and Ganoub El-Wadi Holding Company (Ganope).

The CIB analysis also examines growth drivers in the industry. It points out that the main reasons behind the increase in natural gas production are recent government policies which favor natural gas exploitation and consumption due to declining oil production and the need to utilize environmentally-friendly energy sources. Regarding exports, the report discusses the launch of the first LNG shipments to the international market which took place in 2005. These exports were preceded by the launch of the first fully-operational LNG facility in the last quarter of 2004. Egypt's second LNG facility, sold the export capacity of its first train to Gaz de France. The long-term deal, brokered with Gaz de France, is for a total of 20 years and carried a price tag of $1.1 billion.

The report then moves onto industry expansion, offering a brief history of Egypt's activities in the sector. The first gas exploration efforts in Egypt commenced in 1963 with the signing of two agreements: one with the International Oil Company, and the second with Philips. The first discovery was in the Delta region in 1967, and discoveries have become more frequent with the advent of improved technology. In fact, from the period 1990-2004 more than 159 discoveries have been made.

With the rise of natural gas discoveries and, consequently, production, the Egyptian government sought to utilize the energy source for domestic as well as export purposes.

To increase local consumption, a transmission and distribution infrastructure was developed. As of 2005, the National Gas Grid reached a length of 14,300 km to feed over 90% of electricity stations.

According to the report, in order to expand domestic consumption, Egypt began to commercialize natural gas as an alternative fuel for vehicles. This was done with the establishment of the Natural Gas Vehicles Company (NGVC) in September 1995.

The CIB report also addresses the legal developments that have been undertaken by the government of Egypt in order to facilitate and expand the exploration and production of natural gas in the country. Such measures include concession agreements which auction off concessions in bid rounds. For example, 2004 witnessed two bid rounds by EGPC and EGAS.

Another legal development is Production-Sharing Agreements (PSAs), which gives companies with natural gas discoveries development leases with a maximum period of 35 years. For example, the company forms a joint-venture with EGPC or EGAS and gives the holding company a share of production.

Custom exemptions are also another legal development created to facilitate gas discoveries and production. Parties of a concession agreement are exempted from custom duties for the equipment of contractors and subcontractors called upon for the operation.

The report then offers an industry assessment of the natural gas sector. The expansion of the sector is seen as inevitable. Utilizing a standard Strength, Weakness, Opportunities, and Threats (SWOT) analysis of the sector, the overall outlook for coming years is optimistic. The strength of the sector is seen in the fact that there is a growing output which equates to an annual growth of 11% for reserves and 16% for production. There is rising consumption estimated as an annual growth rate of 15%. The report indicates that the increased involvement of international companies in the sector makes Egypt a great opportunity for foreign investment.

However, there are problems facing the sector as well. The price at which EGPC and EGAS purchase their gas has decreased; a most unwelcome move from the perspective of foreign companies. Also, at times, payment for gas purchased by EGPC and EGAS is delayed, once again, making foreign companies uncomfortable. And finally, the bureaucracy and red tape of the Egyptian government still inhibits future investment.

On the other hand, there are several opportunities in the sector including the country's relative political stability, its increasing reserves, rising global demand for natural gas, and potential investment opportunities. According to the report, the threats facing the industry are three-fold: 1) A highly-competitive regional market; 2) the fear of unsustainable reserves to provide for both domestic consumption and export; and 3) the government's over-commitment of natural gas reserves for export. The report concludes by offering an outlook for the future of the natural gas sector in Egypt. It suggests that natural gas is the future of Egypt and, as the number one source of energy, the report places high hopes on the industry. Exploration agreements for natural gas reached 25 in 2004 and are estimated at 42 in 2005. As for domestic consumption, the government's initiative to increase utilization foresees demand growing by 11% annually. The natural gas share in the total energy consumption is expected to reach 56% by FY2006/2007.

However, such increase in consumption and production can have serious consequences if not managed properly. Egypt must utilize its natural gas appropriately. It must balance its domestic consumption with its desire to export and not sacrifice the former for the latter. In essence, if proper management is implemented throughout the industry it will undoubtedly serve towards the development of the country at large.

Towards the end

Al-Ahli is tightening its grip on the leadership of the football league

By Mohamed El-Sayed

As the National Football League enters its 21st stage, Al-Ahli — widely known as the Red Devils — is taking confident steps towards clinching their third title in a row. Although football fans and analysts thought the competition would heat up after the title holder's sudden 3-0 defeat at the hands of their challengers second-placed Ismaili, it seems that the tournament will take the same course as the past two years.

Topping the tournament table with 11 points ahead of its nearest competitors, Al-Ahli has beaten all competitors during the past month to garner 56 points. After the sudden 3-0 defeat in their postponed match against Ismaili, Al-Ahli hammered Arab Contractors 5-1 in the 17th stage to regain part of its wounded dignity. They managed a hard-fought 1-0 win over Assiut Petroleum, before edging Suez Cement 2-0 on the latter's home turf.

The Red Devils continued their winning streak by punishing the Coastal Guards by thrashing them 4-0 in Cairo. However, the team's coach, Manuel Jose was sent off the playground as he improperly objected to a decision by the referee.

The team has increased their chances of holding the title this year by achieving a last-minute, face-saving 1-0 victory over Ittihad of Alexandria in the coastal city last week via its talented Emad Meteb. The Devils' main striker comes at the head of the tournament's goal scorers with 16 goals, followed by his teammate Angolan import Flavio who has scored 12 goals.

On the other hand, Ismaili failed to capitalize on its surprising win over Al-Ahli a month ago to improve their chances for a fourth league title. Although the team beat Ghazl Al-Mahallah 3-2 in the 17th round, they stumbled in Cairo when they lost to Enppi 1-0 in Cairo. The surprising defeat reduced the team's chances to challenge for the title this season.

However, the team recovered in the following week, having edged Petrojet 2-1 in Ismailia. But it again lost two precious points when it drew with the Army 2-2 due to silly mistakes committed by its young goalkeeper Mohamed Sobhi.

Points drain prompted the club's board to hire the expertise of a French coach to lead the team during the rest of the competition as well as the Egypt Cup tournament. This move might have been a bit late, but it soon bore fruits when the team hammered the Olympic team of Alexandria 6-0 in Ismailia in the 21st stage. This was the highest match score in the tournament up till now.

The coastal city team's hopes of a fourth title in their history might be diminishing, especially when Al-Ahli is showing no sign of losing points any time soon. Still, analysts argue that the young players of Ismaili are promising and might compete for the title in the next season.

Zamalek, the third challenger for the title showed signs of recovery in the past month. During the past four rounds, they beat Enppi 2-0, Petrojet 2-1, the Army 3-0, and the Olympic team of Alexandria 1-0. The recent four victories catapulted the team into third place with 42 points, and it still has one game postponed due to its African Champions League engagements.

Coached by prominent French technical manager Henry Michel, the team has come back on the right track, starting to regain some of its shape. Nevertheless, sports critics see it highly unlikely that the white jerseys can catch up with their archrivals Al-Ahli, who rarely waste points by the end of the season.

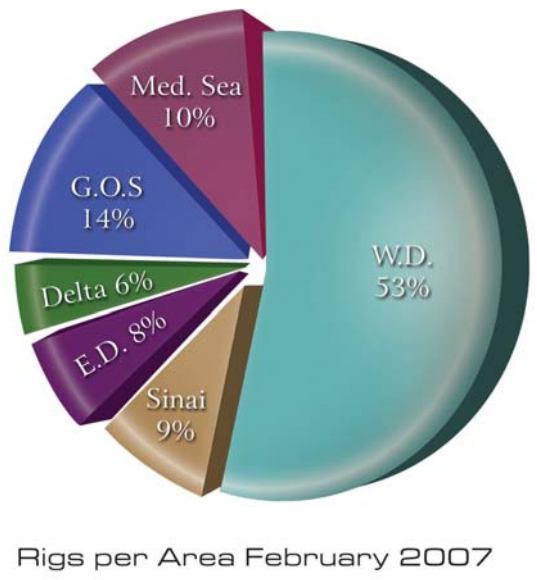
As for oil clubs, the situation has not changed a lot. Petrojet is still putting up good performances, which catapulted them to seventh place with 29 points. Enppi, under the leadership of new coach Hani Ramzi, is still there in tenth place with 24 points. Assiut Petroleum has moved forward to occupy 14th place with 17 points. The team needs to redouble their efforts if they want to show up among premier clubs next season.

Standings

	Team	P	H	A	W	L	D	GF	GA	P
1	Al-Ahli	21	11	10	18	1	2	50	10	56
2	Ismaili	21	11	10	13	2	6	45	15	45
3	Zamalek	20	9	11	13	4	3	34	15	42
4	Ghazl Mahalla	21	11	10	9	8	4	24	18	31
5	Harras Al Hodoud	21	11	10	8	6	7	24	26	31
6	Al-Gaish	21	10	11	7	6	8	24	24	29
7	**Petrojet**	**21**	**10**	**11**	**7**	**6**	**8**	**27**	**28**	**29**
8	Arab Contractors	21	10	11	7	6	8	12	16	29
9	Ittihad	21	11	10	6	8	7	21	29	25
10	**ENPPI**	**21**	**11**	**10**	**5**	**7**	**9**	**17**	**19**	**24**
11	Suez Cement	21	11	10	6	10	5	14	24	23
12	Masri	21	11	10	5	9	7	12	23	22
13	Tersana	20	10	10	4	7	9	19	21	21
14	**Assiut Petrol**	**21**	**11**	**10**	**4**	**12**	**5**	**14**	**30**	**17**
15	Olympic	21	10	11	3	13	5	15	36	14
16	Tanta	21	9	12	2	12	7	10	28	13

Table 1 Egypt Rig Count per Area February 2007

Area	RIG COUNT	Total	Percentage of Total Area
Gulf of Suez		14	14%
Offshore	14		
Land	0		
Mediterranean Sea		10	10%
Offshore	10		
Land	0		
Western Desert		52	53%
Offshore	0		
Land	52		
Sinai		9	10%
Offshore	0		
Land	9		
Eastern Desert		8	8%
Offshore	0		
Land	8		
Delta		6	6%
Offshore	0		
Land	6		
Total		**93**	**100%**



Rigs per Area February 2007

Source : Egypt Oil& Gas

Table 2 World Crude Oil Production (Including Lease Condensate) (Thousand Barrels per Day)

	Egypt	Gabon	India	Malaysia	Mexico	Oman	Russia	Former U.S.S.R.	Syria		United States	Other[1]	World
2006 January	654	254	669	760	3,372	771	9,030	---	418	E	5,047	6,017	73,598
February	657	245	679	760	3,311	765	9,040	---	415	E	5,048	***6,084***	***73,504***
March	651	242	686	700	3,350	754	9,150	---	412	E	5,016	***6,065***	***73,288***
April	663	239	685	680	3,370	744	9,170	---	408	E	5,067	6,114	73,333
May	655	249	689	700	3,329	734	***9,190***	---	407	E	5,100	6,283	***73,118***
June	607	240	704	695	3,287	739	9,260	---	416	E	5,219	6,224	73,065
July	620	227	691	690	3,232	726	***9,240***	---	412	E	5,171	***6,235***	***73,957***
August	630	237	650	685	3,252	727	9,330	---	400	E	5,155	***6,300***	***73,743***
September	640	241	701	685	3,258	720	***9,350***	---	400	E	5,188	6,299	***73,670***
October	660	240	706	626	3,173	730	***9,450***	---	400	E	5,195	***6,317***	***73,633***
November	615	240	703	630	3,163	724	9,320	---	395	PE	5,149	6,539	73,410
2006-11-Month	641	241	687	692	3,281	739	9,231	---	407	PE	5,123	6,226	73,485

[1] Other is a calculated total derived from the difference between "World" and the sum of production in "Total OPEC" (Table 4) and all other countries listed (Tables 3 and 2).
-- = Not applicable. E=Estimated. PE=Preliminary estimate. RE=Revised estimate.
The total "North Sea" is not subtracted from the world total, though Norway and the United Kingdom have been subtracted.
Revised data are in bold italic font.
-- = Not applicable. E=Estimated. PE=Preliminary estimate. RE=Revised estimate.

Source : EIA

Table 3 World Oil Supply[1] (Thousand Barrels per Day)

		United States[2]	Persian Gulf	OAPEC	OPEC	World
2006 January	E	8,225	23,554	24,434	33,905	84,418
February	E	8,232	23,759	24,693	33,975	***84,443***
March	E	8,096	23,634	24,639	33,833	***83,942***
April	E	8,239	23,658	24,679	33,859	***84,246***
May	E	8,348	23,458	24,489	33,632	***84,193***
June	E	8,463	23,713	24,655	34,001	***84,094***
July	E	8,456	24,098	25,072	34,224	***85,471***
August	E	8,486	24,128	25,100	34,349	***85,262***
September	E	8,499	23,778	24,795	33,994	***84,861***
October	E	8,455	23,553	24,565	33,849	***84,945***
November	PE	8,378	23,223	24,155	33,399	84,624
2006-11-Month	PE	8,353	23,688	24,662	33,912	84,594

1 "Oil Supply" is defined as the production of crude oil (including lease condensate), natural gas plant liquids, and other liquids, and refinery processing gain (loss).
2 U.S. geographic coverage is the 50 States and the District of Columbia. Beginning in 1993, includes fuel ethanol blended into finished motor gasoline and oxygenate production from merchant MTBE plants.
E=Estimated. RE=Revised estimate. PE=Preliminary estimate.
Revised data are in ***bold italic font***.

Source : EIA

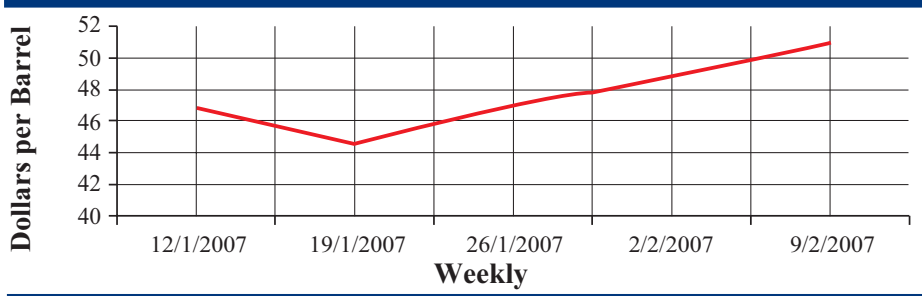
Table 4 World Crude Oil Production (Including Lease Condensate) (Thousand Barrels per Day)

	Algeria	Indonesia	Iran	Iraq	Kuwait[1]	Libya	Nigeria	Qatar	Saudi Arabia[1]	United Arab Emirates	Venezuela	Total OPEC
2006 January	1,825	1,045	4,100	1,603	2,600	1,650	2,560	835	9,400	2,602	2,540	30,760
February	1,825	1,050	4,050	1,803	2,550	1,650	2,410	835	9,500	2,602	2,540	30,815
March	1,825	1,043	4,000	1,903	2,525	1,680	2,370	835	9,350	2,602	2,540	30,673
April	1,825	1,035	4,000	1,903	2,525	1,690	2,370	835	9,350	2,602	2,540	30,675
May	1,785	1,038	3,950	1,903	2,525	1,700	2,370	835	9,200	2,602	2,540	30,448
June	1,795	1,027	4,030	2,153	2,550	1,700	2,465	835	9,100	2,602	2,540	30,797
July	1,805	1,020	4,035	2,203	2,550	1,700	2,380	855	9,300	2,702	2,440	30,990
August	1,805	1,015	4,035	2,203	2,550	1,700	2,430	855	9,300	2,702	2,490	31,115
September	1,835	1,005	4,035	2,153	2,550	1,700	2,430	885	9,000	2,702	2,490	30,785
October	1,835	985	4,060	2,103	2,550	1,700	2,530	885	8,800	2,702	2,490	30,640
November	1,805	985	4,020	2,003	2,500	1,650	2,480	845	8,800	2,602	2,490	30,180
2006-11-Month	1,815	1,022	4,029	1,995	2,543	1,684	2,436	852	9,190	2,639	2,515	30,717

[1] Except for the period from August 1990 through May 1991, includes about one-half of the production in the Kuwait-Saudi Arabia Neutral Zone.
Kuwaiti Neutral Zone output was discontinued following Iraq's invasion of Kuwait on August 2, 1990, but was resumed in June 1991. From August 1990 through May 1991 all production in the Neutral Zone was included in the data for Saudi Arabia. In November 2006, Neutral Zone
production by both Kuwait and Saudi Arabia totaled about 550 thousand barrels per day. Data for Saudi Arabia include approximately 150 thousand
barrels per day from the Abu Safah field produced on behalf of Bahrain.
Notes: OPEC=Organization of Petroleum Exporting Countries.

Source : EIA

Fig 1 Egyptian Suez Blend Prices



Source : Egypt Oil& Gas

Table 5 World Natural Gas Liquids Production (Thousand Barrels per Day)

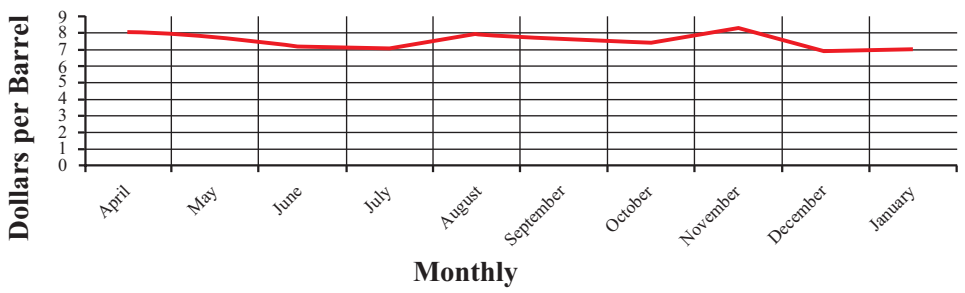
	Algeria	Canada	Mexico	Saudi Arabia	Russia	Former U.S.S.R.		United States[1]	Persian Gulf	OAPEC[2]	OPEC[2]	World
2006 January	295	685	438	1,460	410	---	E	1,684	2,281	2,647	2,948	7,852
February	295	727	436	1,460	410	---	E	1,677	2,286	2,655	2,963	7,960
March	295	705	432	1,460	410	---	E	1,688	2,286	2,655	2,963	7,873
April	295	688	441	1,480	415	---	E	1,729	2,310	2,677	2,987	7,961
May	295	697	441	1,480	415	---	E	1,753	2,310	2,676	2,987	7,816
June	315	644	436	1,480	410	---	E	1,753	2,310	2,696	3,007	7,746
July	315	659	449	1,490	420	---	E	1,755	2,320	2,724	3,037	7,041
August	315	691	445	1,490	420	---	E	1,726	2,320	2,724	3,037	7,975
September	320	706	427	1,490	390	---	E	1,781	2,320	2,729	3,042	7,811
October	320	673	405	1,490	***410***	---	E	1,773	2,320	2,729	2,042	***8,014***
November	330	683	489	1,490	420	---	PE	1,769	2,320	2,739	3,052	8,040
2006-11-Month	308	687	431	1,479	412	---	PE	1,736	2,308	2,696	3,007	7,917

[1] U.S. geographic coverage is the 50 states and the District of Columbia. Excludes fuel ethanol blended into finished motor gasoline.

[2] OAPEC=Organization of Arab Petroleum Exporting Countries. [2] OPEC=Organization of Petroleum Exporting Countries. -- = Not applicable. E=Estimated. PE=Preliminary Estimate.
Revised data are in ***bold italic font***.

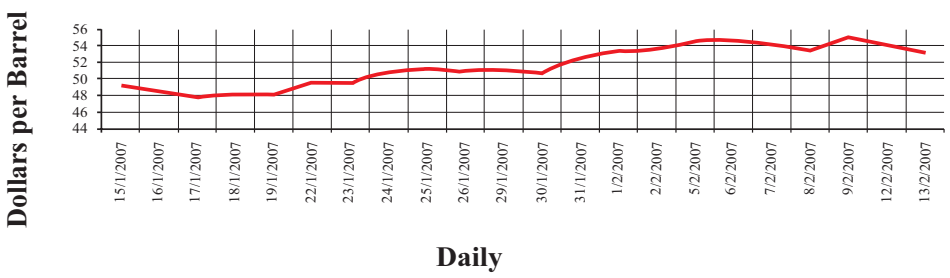
Source : EIA

Fig 2 Natural Gas Prices



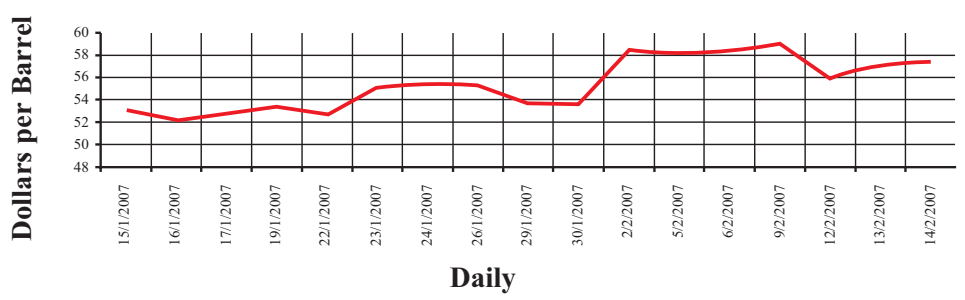
Source : Egypt Oil& Gas

Fig 3 OPEC Basket Price



Source : Egypt Oil& Gas

Fig 4 IPE Brent Prices



Source : Egypt Oil& Gas

Table 6 International Stock Prices Mid-December-Mid-January

International Stock	High	Low
Schlumberger (SLB) NYSE (US Dollars)	65.12	57.79
Halliburton (HAL) NYSE (US Dollars)	30.70	28.76
Exxon Mobil (XOM) NYSE (US Dollars)	75.67	71.63
Atwood Oceanics (ATW) NYSE (US Dollars)	49.65	44.28
Weatherford (WFT) NYSE (US Dollars)	40.81	37.74
Shell (RDS.A)NYSE (US Dollars)	69.30	66.30
Apache (APA) NYSE (US Dollars)	72.97	64.29
Baker Hughes (BHI) NYSE (US Dollars)	71.94	66.18
BJ (BJS) NYSE (US Dollars)	28.30	26.01
Lufkin (LUFK) NYSE (US Dollars)	62.56	57.92
Transocean (RIG) NYSE (US Dollars)	77.90	74.67
Transglobe (TGA) NYSE (US Dollars)	5.08	4.45
GlobalSantafe (GSF) NYSE (US Dollars)	58.37	52.26
BP (BP.) LSE Pence Sterling	553	529.50
BG (BG.) LSE Pence Sterling	739	638
Dana Gas (DANA) ADSM US Dollars	1.48	1.30
Caltex (CTX) ASX Australian Dollars	23.25	21.44
RWE DWA (RWE AG ST) Deutsche-Borse Euros	89.44	80.05
Lukoil (LKOH) RTS (US Dollars)	84.60	76

Source : Egypt Oil& Gas

Average Currency Exchange Rate against the Egyptian Pound (December / January)

US Dollar	Euro	Sterling	Yen
5.6901	7.3802	11.1895	4.6986

Stock Market Prices (December / January)

Company	High	Low
Alexandria Mineral Oils (AMOC.CA)	79.19	72.02
Sidi Kerir Petrochemicals (SKPC.CA)	112.14	19.35

SPE seminar focuses on deepwater technologies

IN February, the Society of Petroleum Engineers (SPE) seminar focused on deepwater technologies. Giovanni Chiesa, Saipem Corporate Deepwater Technology Coordination Manager addressed in his presentation some of the elements that can significantly be affected by the perceived future trends in deepwater developments, such as Long Tie-back Distance, Flow Assurance Design, Subsea Layout, Riser System Configuration and Export Systems, Interface with Surface Facilities and Installation Capability Requirements.

Chiesa discussed the degree of novelty and variety which has characterized so far the development of deepwater technologies.

In addition, he shed light on some of the implications related to the deployment of such technologies and development solutions in the emerging deepwater oil/gas provinces in relation to aspects like remoteness, logistic requirements, local limitation in available construction equipment, intervention and maintenance capabilities and local content requirements.

Chiesa received a Nuclear Engineering degree from the Polytechnic University in Milan in 1980. Since 2000, he is the Technical Manager of Saipem subsidiary Saibos s.a.s. in Paris where he has been responsible for the technical activities related to the acquisition and execution of major deepwater projects in the West of Africa and offshore Brazil areas including Kizomba A& B URF Developments (Exxon Mobil), Rosa tie-back to Girasol FPSO (Total E&P Angola) and Akpo Field UFL Development (Total Upstream Nigeria Ltd).

March 2007

4-6 Gas Arabia – 2nd annual Conference for the Middle East Gas Sector
Abu Dhabi, UAE

www.theenergyexchange.co.uk

Gas Arabia Conference provides the opportunity to get an up to date picture of activities in the Middle East. Executive speakers' panels will cover the whole value chain from upstream gas exploration and production, transportation and distribution challenges, through to downstream gas processing and associated technologies.

5-6 Methanol Projects, Markets and Tech
Dubai, UAE

www.cmtevents.com

The conference will explore the latest in the catalysts systems as well as development of offshore methanol plants. It will highlight many topics, such as:
-Regional markets update – China, India, Mideast
- Coal-to-DME development & technology
- Methanol as a transportation fuel
- Prospects offered by Biodiesel & DMFC industries
- Derivatives reviews: Formaldehyde & Acetic Acid/VAM
- Advancement in production technology & catalysts systems
- Challenges for methanol shippers

5-7 12th Middle East Gas (MEGAS) Summit 2007
Doha, Qatar

www.ibcgulfconferences.com

MEGAS will feature a high profile line-up of the industry's most respected experts. It will focus on issues including,
- The growing role of the Middle East in the global gas market
- Growing local gas demand and the need for domestic gas grids and interconnection pipelines
- Gas price issues, their prospects and the link with oil prices
- Technical, commercial and financial issues related to the whole LNG chain
- The impact of high gas prices on international, regional and local demand
- New innovative uses of gas

11-14 15th Society of Petroleum Engineers Middle East Oil & Gas Show & Conference
Bahrain

www.spe.org

This 15th MEOS will center on the theme ***Delivering Energy Faster, Better and Smarter***. Five panel sessions are planned, featuring some of the top names in industry. Together with the numerous traditional technical sessions and comprehensive exhibition, the 2007 MEOS promises to be a must-attend event.

20-21 4th Annual MidEast Upstream 2007
Dubai, United Arab Emirates

www.petro21.com

The 4th MidEast Upstream 2007 Conference focuses on the exploration and development ventures of State Players and Companies in the Middle East where large oil and gas reserves remain, acreage leasing is accelerating, new gas-LNG ventures are afoot, and investment opportunities have attracted greater commitments from Super-Majors, Independents and National Oil Companies.

28-29 4th Annual African Petroleum Forum 2007
London, UK

www.petro21.com

The forum focuses on exploration in emerging African frontiers, the gas-LNG game on the Continent, players and their strategies, State Companies in Africa, and Independents - and new thinking on Africa. This year some 30+ leading Speakers are showcased in this world-class international management Conference.