

## HEADLINE

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### LAST MONTH'S OIL PRICES



## The forgotten mines obstruct Egypt's oil and gas route

Though Egypt is one of the most heavily mined countries in the world, it has not acceded to the Mine Ban Treaty

By: Ahmed Morsy  
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## Integrated Solutions for Horizontal Well Design

A Workshop to be held from 7-10th July, 2008





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## Month of major events

Few months ago, rumours were spread in each corner announcing the increase of fuel prices in the country. And, although top officials denied these gossips and asserted in newspapers that prices to remain at the same rate, citizens were still speculating that a price increase will be applied sooner or later. Unfortunately, they were right!

At the beginning of last month, the People's Assembly approved to raise prices and fees of some services. Reasons behind this decision were various, but the increase was mainly attributed to the government's attempt to finance the 30% increase in social allowance announced by President Hosni Mubarak in the celebration of Labour Day and also to face the budget deficit.

Focusing on the petroleum industry, the assembly has approved the cancellation of the free industry zones of fertilizers, steel, petroleum and gas. The free zones have been an ongoing controversy in the sector; many experts claimed they are waste of economic revenues and resources, while others viewed them as points of attraction for investments, especially the foreign ones. However, the question addressed now; have officials deeply studied the results of such a decision to ensure the flow of production in these zones and keep, if not increase, the foreign and local investments?

The octane fuel was another vital issue. The price of 90 and 92 octane fuels have been raised by 40 piasters a litre, amounting to 175 and 190 piasters respectively. While the diesel, which is one of the most important sources utilized in various industries, went up from 30 to 110 piasters. If we analyze the rate of increases, we will find out that the prices of transportation and food have doubled! Thus, the gift of the 30% increase in social allowance offered under the pretext of helping the needy to confront the "daily requirements" and ameliorate their living standards is just an illusion as this allowance will barely cover the new prices.

In one of my notes, I supported the strategy of decreasing the petroleum subsidies' bill and increasing fuel prices as Egypt is classified as one of the cheapest fuel prices worldwide. Yet, I recommended providing first high-quality transportation means with reasonable fees so that citizens reconsider the usage of their vehicles and purchase less fuels, hence saving the country's petroleum resources. Unfortunately, the increase was made without offering the alternatives!

As we are tackling last month's events, we cannot ignore one of the major petroleum events in Egypt, the Mediterranean Offshore Conference (MOC) & Exhibition 2008. This bi-annual petroleum assembly has, over the years, proved its significance as the fruitful ground where mega petroleum players exchange expertise, display latest technologies and represent most up-to-date offshore techniques.

In its 5th term, MOC has more strengthened the importance of the Mediterranean deepwater as the fuel of the future. What was noteworthy was the participation of new companies for the first time, such as Malaysia's Petronas, Aker Solutions, Russia's Gazprom, StatoilHydro... etc, which have expressed more interests in the Egyptian petroleum arena.

MOC 2008 has reflected the promising potentials Egypt holds in its Mediterranean deepwater, which open the door for more production records in the near future.

Yomna Bassiouni  
Managing Editor

## Scoring with connections and not just points The 2<sup>nd</sup> Ramadan Petroleum Soccer Tournament '08



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## Dana Gas projects hit \$500 million

Dana Gas revealed that it has allocated more than US\$500-million investments this year in its projects in northern Iraq, Egypt and the UAE.

During its first year of operations, Dana Gas posted revenues of over Dh1 billion in year 2007.

The year also witnessed the company's major new entries into the gas upstream business in Egypt and the Kurdistan region of Iraq, while raising \$1 billion in an international sukuk offering that had to be increased in size following strong investor demand.

Dana's 2008 investments are to cover all sectors of the gas industry from the upstream through to the downstream, are expected to realize the value of these strategic positions and further boost revenues over the next stage of Dana Gas's development.

"This year is important for the company, as we will be building upon the important milestones and solid foundations achieved last year, and making major investments that will rapidly take Dana Gas to a new level in its growth and development," said Ahmad Al Arbeed, Dana Gas Executive Director.

(Gulf News)



## MOC relates to good news

Under the patronage of the Minister of Petroleum Eng. Sameh Fahmy, MOC 2008 was organised by the Egyptian Petroleum Sector in partnership with IES and OMC Conference in Ravenna, Italy, MOC 2008 Conference & Exhibition was the best opportunity to reach a high targeted audience to present the latest discoveries and up-to-date technologies on the Southern Mediterranean Basin. As a result, 180 companies participated in the exhibition coming from 20 nations from all over the world.

In the opening conference, Fahmy commenced his speech by a bombing statement that Egypt oil production reached 705,000 barrels per day and that "our target production is to reach 930,000 barrels," highlighted Fahmy.

Regarding the rising of the oil prices, Fahmy illustrated that last February the price was US\$88 a barrel and now it reached US\$128 a barrel and rising. Hence, only in three months the price raised US\$40 a barrel. Thus, he believes that the sector faces local and international challenges. The local demand of oil has increased in addition to the rising of the international price. Besides, the number of rigs, labours and contractors available are less than needed. Also, there is



a need for more refineries.

All those challenges pushed the government to fund the industry with LE70 billion to satisfy the local needs.

He recommended that any oil and gas company should not get rid of their manpower and rather they should appoint them to maintain the experienced labours. Besides, new investments ought to be executed.

(Ministry of Petroleum)

## Al-Baraka awarded Best New Concept

The Egyptian Petroleum Exploration Society (EPEX) has awarded the prize for "Best New Concept" to Al-Baraka well; operated by UAE-based private player Dana Gas.

The Best Achievements Awards are presented by EPEX in cooperation with the Egyptian General Petroleum Corporation (EGPC), the Egyptian Natural Gas Holding Company (EGAS), and the Ganoub El Wadi Holding Petroleum Company (GANOPE).

Dana's Al-Baraka well is located on the Komombo concession on the western bank of the Nile. The well flowed the first oil in December 2007, four months after the initial discovery.

The recognition of the importance of discoveries in southern Egypt was the reason behind choosing Al-Baraka for this award, clarified the company in a statement.

Such discoveries serve the country's plan to boost development of the area's resources.

"Southern Egypt is incredibly important to the country's oil and gas industry," said Hany El-Sharkawy, Dana's Egypt Country Director.

"Dana Gas's achievement in the area as the first to



discover oil in commercial quantities in southern Egypt paves the way for discovery of more reserves," added El-Sharkawy.

At the end of last year, Dana recoded a production of 32,000 barrels of oil equivalent per day in Egypt. The company plans to drill 19 wells this year in the country; 15 exploration wells and four development wells.

(Dana Gas Press Release & Upstream Online)

## RWE Dea hits a new discovery in Disouq

RWE Dea announced the discovery of gas and condensate in the Disouq Concession, Onshore Nile Delta. The North Sidi Ghazi-1x well encountered a gas bearing sandstone interval of 42m column within the Upper Messinian reservoir sands. Formation evaluation confirmed the encountered section to be gas bearing with average porosity of 20 percent.

RWE Dea commenced testing operation on the North Sidi Ghazi-1x well. The test results from the perforated interval (2,752m – 2,770m) revealed a flow rate of 37 MMscfd on a 50/64' choke.

The concession was awarded to RWE Dea on July 2004 with a 100 percent interest. The Disouq Block covers originally an onshore area of 5,523 square kilometers within the densely populated farmland of the Nile Delta region of Egypt. A to-

tal of 3,500 square kilometers of 3-D seismic have been acquired and evaluated since 2006.

Immediate plans are to complete testing and perform a detailed evaluation. A second exploration well (South Sidi Ghazi - 1x) will be drilled to test another potential Messinian structure.

RWE Dea has been an active upstream player in Egypt since 1974 and has been producing oil in the Gulf of Suez for nearly three decades. In addition to these operated Gulf of Suez assets it has non-operated oil and gas production in the Nile Delta and the Western Desert onshore areas.

With the start of the development of gas fields RWE Dea aims to shift from an earlier oil producer status in the country to that of an established gas producer.

(RWE Press Release)







## Beach Petroleum acquires interest in Gulf of Suez

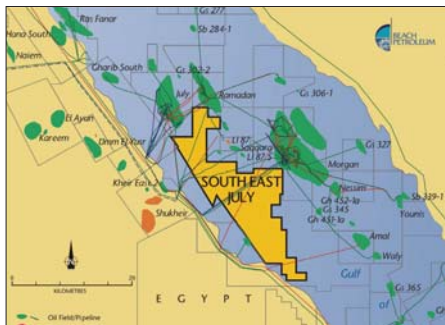
Beach Petroleum reported that it has entered into an agreement with Santos Egypt Pty Ltd, which is subject to waiver of pre-emptive rights by the Egyptian General Petroleum Corporation (EGPC) and the approval of the Egyptian Government.

Through this farm-in agreement, Beach will acquire a 20% interest in the South East July concession, in the Gulf of Suez, offshore Egypt.

The South East July concession is currently 100% held by Santos and contains several attractive oil prospects, one of which will be evaluated by the July South-1 exploration well in the fourth quarter of 2008.

Beach has also agreed to acquire Santos Egypt's 25% interest in the onshore North Qarun concession, located close to Cairo in the Gindi Basin of the Western Desert. The agreement is subject to entry into formal documentation, waiver of pre-emptive rights by the EGPC and other joint venture parties, and the approval of the Egyptian Government.

The acquisition of these concessions is a result of Beach's efforts to expand its exploration program interna-



tionally to give the company exposure to projects which have the potential to make material additions to its reserve base. This work has resulted in the identification of several opportunities in Egypt (in addition to South East July and North Qarun) which are currently under evaluation.

(Beach Petroleum Press Release)

## Dana Petroleum signs its sixth deal

Dana Petroleum has signed an agreement with Santos Egypt Pty Ltd to acquire a 40% interest in the South East July Production Sharing Contract (SE July PSC), located in the Gulf of Suez, offshore Egypt. This deal secures attractive new prospects for drilling in a core area for Dana and builds upon the five transactions the Company has already completed in Egypt. Dana will operate the next well in the SE July PSC using the InterOcean III jackup, which has just begun working for Dana in the Gulf of Suez.

Dana has contracted the InterOcean III for an initial eight month period, running from May 2008 continuously through until January 2009. The Company plans to first workover existing oil production wells and undertake infill drilling at its operated East Zeit producing oil field. Dana will then embark on an extensive exploration program in the Gulf of Suez, including the first SE July well which Dana will drill on behalf of the joint-venture group.

The SE July PSC is situated within the same area of the Gulf of Suez as Dana's existing producing oil infrastructure at East Zeit. Therefore the East Zeit production hub, operated by Dana, will provide a valuable development option for oil discoveries which may be made in the SE July PSC. This new concession is also in the same area as the North Qarun PSC, where Dana is working with BP and recently acquired new seismic data to identify and high-grade drilling targets.

"Dana is delivering significant business growth in Egypt, where it now holds production, development and exploration assets across the key oil and gas provinces of the Gulf of Suez, the Western Desert and the Nile Delta," said Tom Cross, Dana's Chief Executive.

This latest deal utilizes the expertise and operational capability of our team to add exciting new prospects into Dana's portfolio, the first of which will be tested as part of the ongoing 2008 drilling campaign.

Dana is currently drilling two wells offshore Egypt, at West El Burullus in the Nile Delta and at West Gihan in the Gulf of Suez, and results from these are expected in the coming weeks.

(Dana Petroleum Press Release)

## BP starts production from saqqara

BP Egypt, on behalf of its joint venture partners in the Gulf of Suez Petroleum Company (GUPCO), announced that oil production from the Saqqara field has started.

The Saqqara field is located 12.5 kilometres offshore in the central Gulf of Suez. First oil was achieved on May 15<sup>th</sup> and following commissioning, the field has now ramped up to more than 30,000 barrels a day. Gas production is expected shortly.

Andy Inglis, BP's Chief Executive of Exploration & Production said "Saqqara is another major project delivered successfully. It will contribute to BP's production profile for the next decade and beyond. Egypt is an important growth area with further potential."

Hesham Mekawi, President of BP Egypt added, "Saqqara is a technically complex development and its successful delivery represents a new milestone in maximising recovery of oil and gas from the Gulf of Suez. First oil was achieved through hard work and dedication of the Project, Contractor and Operations teams that worked on Saqqara over the last four years."

The Saqqara project is an offshore development with a jacket and unmanned topsides, four wells, and a 13 kilometre pipeline to new dedicated onshore separation and gas processing plant at Ras Shukeir, Gulf of Suez.

(BP Press Release)

## KPIOS acquires 20% of IPIC

Egypt Kuwait Holding announced the sale of 25% stake in International Pipe Industry Company (IPIC) to Kuwait Pipe Industries & Oil Services (KPIOS) for \$20 million.

According to a statement issued by the company, the stake amounted to 100,000 shares.

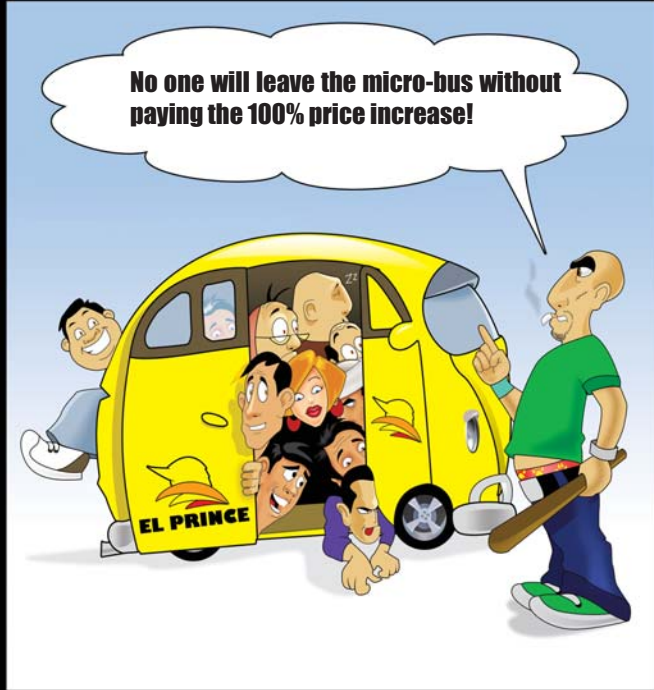
IPIC runs a steel pipe mill that produces pipes and a pipe bending plant, while KPIOS is a pipe manufacturer and pipeline contractor.

(Upstream Online)

### Cartoon

By Ramy Ameen

#### Results of the fuel prices increase





## Dover's East Wadi Araba for sale!

Dover Petroleum Corp. signed an agreement of purchase and sale and a related share exchange agreement with Sea Dragon Energy Inc. and Egypt oil Holdings Ltd, through which the latter consortium is to hold 11% interest in the East Wadi Araba (EWA) Oil Concession, in the Gulf of Suez.

From its side, Dover Petroleum is to receive 3,666,667 common shares of Sea Dragon.

Dover is to continue to effectively have an interest in the EWA Concession and the future drilling campaigns planned through its approximate current 4% share ownership of Sea Dragon shares.

Both Dover and Sea Dragon have registered all Specific Conveyances required to be submitted to the EGPC and have been provided with a Deed of Assignment to Sea Dragon for 75% ownership of EWA oil Concession.

In order to meet the EGPC and concession requirements, Sea Dragon and Egypt Oil are preparing to drill the initial two wells on the EWA concession offshore targets and plan to spud the first two wells in the next 14 months.

(Rigzone)



## Oil Search confirms oil flow

Shahd South-East 1 well, operated by Sipetrol, situated in the East Ras Qattara concession in the Western Desert had flowed at an average rate of 2500 barrels of oil per day (bpd), announced Oil Search in a statement.

The company added that the well had now been completed as a producer and the rig had moved to complete the Rana-1 discovery well on the same license.

It is worth to mention that the well flowed light oil through a half-inch choke during the test following a pressure build-up period.

Sipetrol operates the well with a 50.5% stake, while Oil Search holds the remaining 49.5%; trying to sell it to Kuwait Energy.

(Upstream Online)

## Scan chosen for 2D survey

Norway's Scan Geophysical has confirmed it is set to carry out a 4000 line kilometer 2D survey off Egypt for US player Hess.

"The Geo Searcher is being mobilized from a previous work location off Pakistan where the vessel successfully completed a large 2D program for another super major oil company," said Scan's Kjell Karlsson.

The Geo Searcher is to carry out the shoot.

(Upstream Online)

## Still on the Gold track!

On the sideline of his visit to Al Sukkari gold mine, Eng. Sameh Fahmy, Minister of Petroleum, has proposed a new perspective for the contribution of all Egyptian sectors to a national project for gold expedition and production in the country.

This new drive involves the offering of a new company's stocks for public subscription to which the Egyptian citizens will contribute, along with Petroleum and Mineral Resources Sectors as founders of this company, to provide economic feasibility studies, information, specialized technical expertise, bringing about international experts in this domain.

After the establishment of this company, petroleum and mineral resources companies will withdraw to pave the way, through a constituent assembly, for the formation of the new company's board of directors for the completion of the breakthrough of the company's activities.

This plan is to be achieved in light of the success accomplished by the major companies, operating in Egypt currently in the field of gold expedition and production from two main locations at the Eastern Desert; from Hemsh and Sukkari mines.

Eng. Amgad Ghoneim, Chairman of Al Wadi Al Gadid Mineral Resources and Oil Shale Company, clarified that integrated economic studies are being conducted, in coordination with the international Petroleum Company Centurion; targeting to assess and monetize the reserves of oil shale and mineral raw materials at the Western Desert and the Red Sea areas.

(Ministry of Petroleum)



## RENEWABLE ENERGY

### UN Report: investment in renewable energy reaches \$100 billion

High oil prices and an array of government incentives are leading to soaring rates of investment in renewable energy, according to the United Nations' annual "Global Trends in Sustainable Energy Investment" report.

The UN report calculates global investment capital flows into renewable energy companies reached \$100 billion for the first time in history last year. More than \$30 billion of the total was the result of mergers and acquisitions led by investment banks such as JP Morgan and Goldman Sachs.

"The finance community has been investing at levels that imply disruptive change is now inevitable in the energy sector," says Eric Usher, Head of the Energy Finance Unit at the UN. Usher said the UN's "report puts full stop to the idea of renewable energy being a fringe interest of environmentalists. It is now a mainstream commercial interest to investors and bankers alike."

The huge investment flows mean that IPO's, largely dormant since the heady days of the technology boom nearly a decade ago, are now re-emerging. A trio of solar companies went public with large returns in 2007, including JA Solar, Trina Solar and Solar fun Power Holdings.

### Canada invests \$13.6M in fuel cell research

Fuel cell research in Canada received a boost in funding, with the government announcing a \$13.6 million investment in the National Research Council's Vancouver-based fuel cell and hydrogen research center.

"Our Government supports private-public research collaborations that accelerate the commercialization of hydrogen-based energy and alternatives that will lead to cleaner, renewable fuels," said Gary Lunn, Minister of Natural Resources.

In addition to announcing the investment, the NRC said it officially opened the Hydrogen and Fuel Cell Gateway, a technology demonstration and exhibit center showcasing the country's fuel cell and hydrogen industry.

"This technology cluster initiative highlights how NRC is focused on collaborative research with public and private sector partners that is inching Canada ever closer to making the commercialization of environmentally friendly fuel cell and hydrogen technologies a real possibility," said Pierre Coulombe, President of NRC.

"The impacts this technology will have on our environment and economy are limitless."

The \$13.6 million in funding is part of a larger \$118 million investment from the government of Canada, including five previously announced initiatives in nanotechnology, plants for health and wellness, biomedical technologies, photonics, and aluminum transformation.

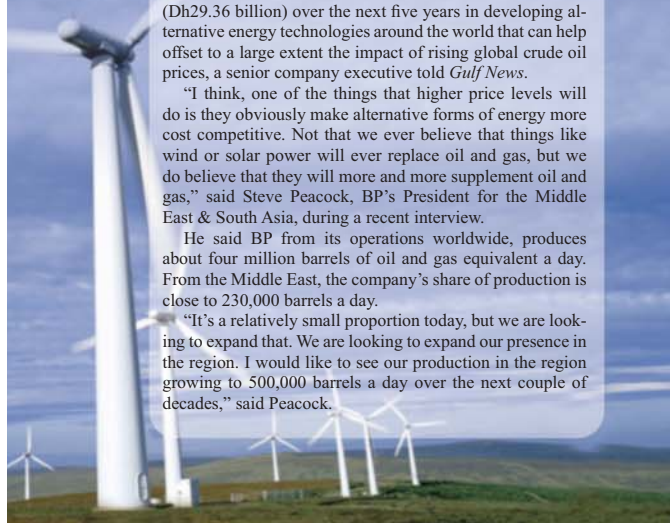
### RWE heads to Poland

Global energy major, BP, plans to invest \$8 billion (Dh29.36 billion) over the next five years in developing alternative energy technologies around the world that can help offset to a large extent the impact of rising global crude oil prices, a senior company executive told *Gulf News*.

"I think, one of the things that higher price levels will do is they obviously make alternative forms of energy more cost competitive. Not that we ever believe that things like wind or solar power will ever replace oil and gas, but we do believe that they will more and more supplement oil and gas," said Steve Peacock, BP's President for the Middle East & South Asia, during a recent interview.

He said BP from its operations worldwide, produces about four million barrels of oil and gas equivalent a day. From the Middle East, the company's share of production is close to 230,000 barrels a day.

"It's a relatively small proportion today, but we are looking to expand that. We are looking to expand our presence in the region. I would like to see our production in the region growing to 500,000 barrels a day over the next couple of decades," said Peacock.







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## Gulfsands completes first Horizontal Well in Khurbet

Gulfsands Petroleum has completed the drilling operations on the first horizontal development well within the Khurbet East Field (KHE-5H). The KHE-5H well, which flowed oil to surface at an average rate of 2041 barrels of oil per day (bopd) through a 3/8" choke, has been completed and suspended as the fourth oil producer for connection through the Early Production Facility (EPF), scheduled to commence operation by the fourth quarter of 2008.

The KHE-5H well was designed to be drilled and completed as a horizontal producer within the Cretaceous Massive Reservoir (Massive Reservoir) in the Khurbet East Field. The top of the reservoir was encountered within 1 meter of the pre-drill estimate and the well was drilled through a total horizontal section of 300 meters within the reservoir.

The production information obtained from the KHE-5H well and the vertical production wells within the Massive Reservoir in the Field (KHE-2, KHE-3 and KHE-4) during the EPF phase will be valuable for planning and optimizing the design and construction of the Khurbet East permanent production facility.

The Company has plans to drill at least one additional horizontal production well within the Field in the near term for tie-in to the EPF. This will provide the Company with 3 vertical and two horizontal producing wells from the Massive Reservoir at Khurbet East during the EPF stage.

"With a further horizontal well to be spudded imminently, Gulfsands is on track to commence commercial production later this year," said Gulfsands' Executive Chairman Andrew West.

(Gulfsands Petroleum Press Release)

## Qatar launches \$4.8b Dolphin Energy project

General Shaikh Mohammed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, and Shaikh Tamim bin Hamad Al Thani, Crown Prince of Qatar, launched Dolphin Energy's multi-billion dollar gas processing plant in Ras Laffan Industrial Town.

Dolphin Energy's major strategic initiative, the US\$4.8 billion Dolphin Gas Project, involves the production and processing of natural gas from Qatar's North Field, and transportation of the dry gas by sub-sea export pipeline from Qatar to the UAE, which began in July 2007. The plant, the largest single-build gas plant in the world, is central to Dolphin's operations.

The entire Dolphin Gas Project includes 24 wells, two production platforms, twin sea lines, processing plant, export pipelines and receiving facilities. Dolphin is already supplying up to two billion standard cubic feet of refined natural gas every day, to utilities, industries and consumers throughout the UAE.

The Dolphin Gas Project is a regional energy network which involves the production of natural gas from Qatar's North Field, processing and extraction of valuable by-products at Ras Laffan, and transportation of the processed gas to the UAE and Oman.

(Dolphin Energy Press Release)

## Lundin Petroleum reports new results from Sudan

Lundin Petroleum AB announced that Wan Machar-1 well, located in the swamp area on the east flank of the southern Muglad Basin in Block 5B, Sudan, has reached total depth at 1,466 meters.

Wan Machar-1 found the target Aradeiba and Bentiu sandstone reservoirs as planned, underlain by shales of the Abu Gabra formation, which constitutes the regional source rock. The well entered basement at 1,360 meters. Minor gas shows were encountered from 675 meters to Total Depth, but no oil shows were recorded. The acquisition of logs has been delayed due to technical problems with the rig. However it is expected that the logs will confirm the well as a dry hole and if so it will be plugged and abandoned.

The well is the second of a four well program scheduled for Block 5B in 2008. It was drilled using the Dietswell RCR 1200 rig in a swamp location in the north eastern part of the block. The next two wells are targeted at the eastern flank and central area of the basin, both in the swamp, and will be drilled using the same barge mounted drilling rig complex.

Initial indications are that the structure and reservoir conditions are favorable for hydrocarbons, but that the maturity of the source rock in the two drilled flank locations may be the reason for the lack of gas and oil shows. The results of the first two exploration wells will be analysed to get a better understanding of the regional geology of the Southern

Muglad Basin. The next well locations are both closer to the central part of the basin where it is anticipated that the source rock quality and maturity will improve.

Ashley Heppenstall, President and CEO of Lundin Petroleum commented, "The drilling results to date are disappointing. However, the wells provide important data that will allow us to develop our understanding of this part of the basin. Block 5B is very large area covering 20,000 km<sup>2</sup>, being in excess of 120 blocks in the UK North Sea. It remains essentially unexplored other than for the two recent exploration wells."

(Oil Voice)



## Halliburton awarded 3-year completions contract by ADNOC

Halliburton announced that it has been awarded a contract by Abu Dhabi Company for Onshore Oil Operation (ADCO), a subsidiary of Abu Dhabi National Oil Company (ADNOC), to provide a range of completion equipment for onshore oil and gas wells. The three-year contract includes the provision of production packers, subsurface safety valves and subsurface flow controls.

"This award is significant both in terms of value and volume," said Gasser Badrashini, Halliburton's Middle East Region Vice President. "As a major supplier of down hole completion equipment in the UAE, Halliburton will continue its ongoing support of ADNOC's strategy to boost oil and gas production by providing a range of technically superior, cost-effective completion solutions."

A key differentiator in the selection of Halliburton was the company's recognized technical and service support in the region, competing prices and delivery performance. The award includes several uniquely designed permanent and retrievable packers, along with Halliburton's highly reliable SP and NE subsurface valves, both of which are recognized as industry standards and have been run with zero failures in previous ADCO operations.

Ahmed Lotfy, Halliburton's Eastern Hemisphere President, added "Being selected for this work validates that our completion offerings are continuing to gain momentum with operators in the Eastern Hemisphere and underscores the continuing success of our efforts to expand our international operations."

(Halliburton Press Release)



## RWE Dea records its fifth discovery in Libya

RWE Dea continues its exploration success with a fifth discovery in the Sirte Basin. Following three oil discoveries in Concession NC193 and one in Concession NC195 since late 2006, a second discovery in NC195 further strengthens RWE Dea's position in Libya.

The exploration well B1-NC195 drilled by the rig NWD#11 encountered gas/condensate in the Dahra Formation at a depth of 5187 ft and oil in the Beda Formation at a depth of 5541 ft. Subsequent production tests successfully established an oil flow of 840 bbls/day from the Beda and a gas flow of 15.4 MMSCF/day plus 204 bbls/day of condensate from the Dahra reservoir. The rig will now move to drill the third exploration well C1-NC195 in this concession.

RWE Dea's current drilling campaign involving five rigs is targeting further promising exploration prospects also in Concessions NC193, NC194 and NC197. Furthermore, two wells have successfully appraised already encountered volumes recently, and further appraisal wells are planned. Altogether at least 10 more wells are scheduled to be drilled until the end of the year.

RWE Dea's licence acreage in Libya covers a total of more than 40,000 square kilometers over seven concessions combined, which have been awarded to the company by the Libyan National Oil Corporation in May 2003 and January 2008, respectively. RWE Dea is the Operator with a 100 per cent interest in the project.

(RWE Press Release)





## Retaliatory final in Kuwait

**Shabana snatched Kuwait Open Squash Championship title from Ashour**

Avenging his defeat to Ramy Ashour only seven days earlier on home soil, Egypt's world number one Amr Shabana defeated his fellow countryman in straight games in the final of the Kuwait Open to reverse the result of last year's final of the \$200,000 PSA Super Series Platinum squash championship at the KSF Squash Complex in Kuwait City.

A week earlier before Kuwait championship, in the climax of the Hurgada International final in Egypt, world number two Ashour came from behind in games to beat his illustrious compatriot for the second time this year.

The 20-year-old from Cairo threatened to do it again in Kuwait: Shabana led the first game 8-3, the second 8-1 and the third 6-0 - and each time Ramy came back.

But on this occasion, Shabana held firm to take the title 11-9, 11-7, 11-10 (3-1) in 52 minutes, to increase the head-to-head tally over his young pretender to 5-3.

"Today, my game plan against Ashour was to play perfect squash, and that's what I had to do to beat him, play perfect squash," explained Shabana, whose 30th appearance in a PSA Tour final had produced his 21st win.

"I stuck to my plan until 6-0 in the third - when I saw a twinkle in his eye. And that's never good, to see a twinkle in Ashour's eye, because you know he is going to come back!"

"And I could see him hurting, but I saw him make a last push. And that's why I'm so happy to have won 3/0".

"I played differently than I did in Hurgada last week. I made sure that I was finishing every game, and not giving him any chances because if you do give him a chance, he'll eat you!"

Ashour admitted that his Egyptian team-mate deserved the win, "I don't want to take anything away, the man was too good, he played the right shot at the right time, and he was accurate, precise and fast. He fully deserves it."



## Dramatic shoot-out win

**Manchester United won the Champions League by beating Chelsea 6-5 on penalties after a dramatic 1-1 draw**

Cristiano Ronaldo's strike on the quarter-hour mark was cancelled out by Frank Lampard's goal just before the break. After a goalless extra time, United and Chelsea failed to score and the game went into penalties.

Ronaldo could have been the culprit when he wasted United's third spot kick following two successful attempts from Carlos Tevez and Michael Carrick. However, John Terry's fifth penalty, which would have handed Chelsea a priceless win, struck the outside of the post.

After Giggs converted United's seventh spot kick, French striker Anelka's effort was blocked by Dutch guardian Van der Saar.

United ensured it would be a night to remember after securing their third Champions League title in history. They also completed the double as they won the Premiership after a stiff competition from Chelsea.

United were by far the better side in the early stages of the game. As Scottish coach Alex Ferguson switched Ronaldo to the left flank to avoid a usual tough contest against Ashley Cole, Ferguson's decision was effective since Ronaldo repeatedly overcame challenges from Ghanaian midfielder Michael Essien, who played as a right-back.

Ronaldo and Owen Hargreaves provided several dangerous crosses but Wayne Rooney and Carlos Tevez couldn't capitalize. The Portuguese broke Chelsea's resistance in the 16th minute when he towered above the motionless Essien to head home Wes Brown's left-footed cross from the right flank.

Lampard was lucky to draw Chelsea level just before halftime through an opportunist strike. Essien's shot from



the edge of the area took a deflection before bouncing off Rio Ferdinand's back. Consequently, Van der Saar was wrong-footed, to allow Lampard slot into an empty net.

Chelsea finished with ten men after Droghda was sent off for slapping Vidic shortly before the end.

"I thought we were going to lose. In my opinion I played good in the game, I scored a goal, and I missed a penalty. The worst day of my life," he said after the game. But at the end of the day the Red Devils won the trophy as John Terry slip-up to miss Chelsea's penalty and Van Der Sar blocked Anelka's kick.

The Dutch goalie admitted that his side was lucky on Wednesday "We were a little bit lucky with John Terry's slip, although you could say the goal we conceded was an easy goal, the ball changed direction and I slipped," he said.

"It's our luck that he slipped otherwise it would have been all over and someone else would be sitting here."

## Third title of the year



**Novak Djokovic fought back to beat Stanislas Wawrinka in the final of the Rome Masters and earn the 10th title of his career**

The world number three Novak Djokovic recovered from the loss of the first set to win 4-6 6-3 6-3 to take the title Rafael Nadal has won in each of the last three years.

Djokovic won his first Grand Slam title at the Australian Open in January and followed up by taking the Masters Series event in Indian Wells in March.

"This is one of the best tournaments I've won," Djokovic said after closing the gap on Nadal in the rankings to 310 points. Despite his continued improvement, the Serb does not believe he is yet ready to dethrone Roger Federer as the world number one.

Djokovic was keen to net a third title of the year but struggled to cope with Wawrinka's backhand early in the match. However, as the rallies grew longer, unforced errors crept into Wawrinka's game and Djokovic made the most of his first break point of the match in the sixth game.

And the Serb broke three times to seal a victory in the decisive third set.

Wawrinka's cause was not helped when he called the trainer on for a lower back injury at 2-3 and a break down in the final set, sparking concerns that Djokovic could see a third successive opponent retire injured. However, the Swiss player did not appear to be too hampered thereafter, but Djokovic maintained his lead and broke again to close out the match in little more than two hours.

That came after Wawrinka won the opening set with a solitary break, even after a nervy start saw him double fault on his first service point, but he could not maintain the pressure as Djokovic eventually saw out a comfortable victory.

## Annika's final comeback

**Sweden's Annika Sorenstam continued her great comeback season by cruising to victory in the Michelson Ultra**

The 37-year old shot a closing 66 for a tournament record 19-under-par total - nine better than the previous mark set by Suzann Petersen last year.

Sorenstam won by seven shots from a group of four players that included England's Karen Stupples.

Kent's Stupples confirmed her standing as the top GB player on the LPGA Tour with five birdies and an eagle. She joined Americans Allison Fouch (64) and Christina Kim (69) and South Korea's Jeong Jang (70) on 12 under.

It was a third top 10 and a season's best for the 34-year old Stupples, who won the 2004 Women's British Open but missed most of last year following the birth of her son, Logan, 13 months ago.

"I really feel I'm now getting back to my best again,"

said the two-time LPGA winner. "It's lovely having Logan with me on tour, but it's also great to be back playing full-time again."

World number one Lorena Ochoa, who was tied for second at halfway, slipped to joint 12<sup>th</sup> after a final round of 70. It was a third victory of the year and a 72<sup>nd</sup> LPGA Tour title for Sorenstam, who was plagued by back and neck injuries in 2007.

"It's great to be back playing good golf again," said the 10-time major winner, who reigned as world number one for five years before being overtaken by Ochoa 13 months ago," she added.





## The Environmental challenge

# The Petrochemical industry under fire

**“Come buy tomatoes before it is polluted,” shouted a sarcastic street vendor to the top of his lungs in one of the alleyways of the Mediterranean city of Damietta, 191 kilometers northeastern Cairo. Odd the call may be, but, in fact, it epitomizes a wide-scale public campaign launched by a growing number of people, NGOs and politicians in the coastal province to rally against the construction of a major Canadian petrochemical plant, E Agrium, being built now on Ras Al-Barr island, one of Damietta’s and Egypt’s, famous middle-class resorts. There has been a growing conviction among the inhabitants of the province that the plant, which is intended to produce ammonia and urea, is detrimental to the surrounding environment and public hygiene**

By Mohamed El-Sayed

“Stop the construction of the plant that causes cancer,” read a banner draped from many balconies in the coastal city, signaling a public outcry over the construction of the plant that started few weeks ago, when a group of environmentalists voiced their deep concerns over its harmful effects. The campaign, in fact, was not limited to banners, but it also reached the cyber space with three groups on the popular website Facebook calling for the stopping of the plant’s construction. Demonstrations were organised by trade unions, members of political parties and civil society activists to call upon the government to stop the project. Lawsuits were filed by lawyers against the company, the prime minister and the minister of environment for approving the construction of the plant.

“The plant is planned to store 30,000 tons of ammonia in storage adjacent to the residential area, which is considered a violation of the conditions of environment safety. And in spite of the state-of-the-art technology, the plant will employ, if a human error occurred in this plant, the entire delta will be destroyed,” warned Abdel-Rahman El-Wakil, professor of plant diseases at Mansoura University.

The Habi Centre for Environmental Rights also issued a statement warning against the construction of the plant since “it would cause an environmental disaster as it would affect the tourist activities expansion in Ras El-Barr. It will also negatively affect the marine life because of the water that will be poured into the sea from the plant, which will affect fish in the area.”

Mohamed Nagui, Director of the Centre, said that petrochemical industries are listed among the worst as long as environment is concerned. “E Agrium has caused pollution in Ohio and Argentina, violating environmental safety,” he added.

Gamal Meria, Chairman of the Consumers Protection Society, warned against the negative effects of the plant on the surrounding environment. “The temperature of the sea will increase by six Celsius because of the hot water coming out of the plant, resulting in the killing of fish which is the main source of income for many people in Ras Al-Barr,” he warned. “The plant will endanger the ecosystem of the island,” he pointed out.

Meria, who championed a popular campaign against the plant in schools, at cafes and on the Internet, admitted that there “are four other petrochemical plants in the area adjacent to the new plant, but fertilizers is one of the worst industries that has detrimental effects on the surrounding area.” He added that “the Environment Law states that the building of such plants should be 30 kilometers at least from residential areas, while this plant is only about 7 kilometers from the residential areas.”



As the construction works in the location of the plant started, the residents of the city raised a great hue and cry, with thousands of demonstrations taking to the streets in protest of the project. “All the community here is rejecting the plant since Ras Al-Barr is the only getaway for them,” said Bandalaimoun Bushra, a bishop. “People began to resist the building of the plant when they have realised it is detrimental to the environment and public health. And they are ready to enter into strikes if the construction is continued,” he pointed out.

The issue was also raised in the People’s Assembly’s Health Committee as many an MP called upon the government to stop the project or relocate it in an area far away from the residential area. “There was a plan to turn Ras El-Barr island into a nature reserve, so it is not safe to build a plant manufacturing ammonia which could destroy the [environment of] the entire area,” said Mahmoud Siyam, an MP from Damietta. Head of the committee, Hamdi El-Sayed, said that the members of the committee would pay a visit to the site of the plant to assess the situation.

Surprisingly enough, the company has obtained all the necessary approvals from the concerned government agencies, including the ministry of environment. Creg McGlown, Managing Director of the company, attributed the fuss over the plant to “a conflict between two government agencies over the land on which the plant is being constructed. While the company has obtained the approval of the Council of Ministers and all the concerned ministries, the Governor of Damietta surprisingly objected the construction of the plant.”

McGlown added that there are some government agencies and investors who wanted to take the site of the project, and “they disseminate false, unfounded information about the plant.” He pointed out that “every project has a negative environmental effect, but our plant achieves the highest environmental safety levels, since the emissions coming out from our plant is half the maximum emissions stipulated in the [Environment] Law No. 4/1994.”

Eng. Khaled Salama, Executive Director of the plant, said that the people of Damietta “are being misled by a group of people. And we are trying to reach out to people to provide them with correct information about the project.” He added that “we have conducted a study on the environmental effects of the project and the four nearby plants on the surrounding environment, and we will build an environment monitoring station in cooperation with other projects in the area to control any negative effects.”

The issue has continued to send ripples across government, legislative and diplomatic circles. The minister of environment denied that there was any plans to turn this area into a nature reserve, and “all what is said about the potential negative effects of the project is unfounded,” since a study was conducted by senior experts and professors on the environmental effects of the plant and found no problem in constructing it.

Other environment officials defended their decision in another parliamentary session held in the first week of May to give the go-ahead to the plant during The People’s Assembly debate. “Environmental studies of the project showed that



emissions from the plant would be within the statutory limits,” said Mawaheb Abul-Azm, Head of the Environmental Affairs Authority. She refuted claims by local citizens and environmentalists that have appeared in the media that the island had earlier been earmarked as a nature reserve.

Minister of State for Legal and Parliamentary Affairs Moufid Shehab stressed that the plant “would never be completed without the agreement of the local community”. He added that Prime Minister Ahmed Nazif had summoned the chairman of E Agrium and told him that the government would not allow construction work to continue in the absence of local support for the project.

The parliamentary session ended with a decision to set up a fact-finding commission to investigate the issue amid growing speculation that plans were afoot to move the project to Ain Sukhna in Suez governorate. The rumours gained momentum when the chairman of the Shura Council Industry Committee, Mohamed Farid Khamis, announced that he was ready to donate half-a-million square metres of land in Suez for the building of E Agrium’s fertiliser plant, a move widely seen as an attempt to compensate the Canadian company for the money it has already spent.

What made the situation further complicated is that E Agrium has spent around US\$500 million so far (according to company officials) and it has become very difficult to move it to another place as the opponents of the project want. Therefore, President Hosni Mubarak held a meeting with the concerned ministers and the governor of Damietta earlier this month to find a way out. “The President assigned Prime Minister Ahmed Nazif and the concerned ministers to go to Damietta to soothe the people’s fears,” said Sulaiman Awwad, Spokesman of the presidency. Awwad reported that the President said that if there was a problem, it was the lack of communication between the concerned ministers and the people.

Up till now, no government official visited the area to address the people’s fears. And despite the fact that the construction on the site has been temporarily stopped by authorities because the company didn’t obtain necessary approvals from local housing department, apprehension is still reigning supreme in the calm city. While some of the people said that they would organise more demonstrations to stop the construction of the project, many others stressed that “we will sell our houses and emigrate if this plant is constructed.”





# PICO Logistics

## Safely done with QHSE

Safety has become a corporate culture for Egyptian logistics solutions provider PICO Logistics, a subsidiary of PICO Energy that has a focused approach to the Oil & Gas Industry since its establishment in 2006.

Well understanding the enormous importance of shaping a smooth running in the Oil & Gas business and its special requirements in regards to quality, health, safety and environment, the management team of PICO Logistics has successfully tailored solutions to perfectly solve niche problems for its clients, making best use of available resources such as highly qualified staff, QHSE management system, financial strength and advanced technological capabilities.

In the deep belief that accidents are preventable and that QHSE can be managed, PICO Logistics applies all its own safety requirements and those of clients in all operations. Management systems secure and control quality, reduce pollution and environmental harms. Drivers are monitored and certified through various training courses including defensive driving, and are subject to regular health and drug tests. Drivers must wear their personal protective equipment at all times during operations. The company has successfully passed the pre-qualification phase for an integrated management system, and will shortly achieve the certification for ISO 9001:2000, ISO 14001:2004 and OHSAS 18001:2007.

"Within a short time, PICO Logistics has already established itself as a reliable logistics solutions provider. When it comes to high commitment to QHSE requirements as well as practical and creative solutions, PICO Logistics has the edge and strictly abides to clients' needs and moreover adds value to the supply chain," says Eng. Adel Abou Heneidy, Managing Director. "We provide the ultimate customized logistics packages for our clients including investments in trucks and heavy equipment according to clients' specs. We perceive our team members as our biggest assets, and do not spare efforts to develop their skills further. Like this we ensure to continuously deliver above and beyond our clients' expectations".

As a one-stop-shop, PICO Logistics offers logistics services and solutions such as inland transportation including rig moves, distribution and warehousing, worldwide freight forwarding using multi-modal transportation and customs clearance, spares logistics, expat removals and pick & pack as well as fairs and exhibitions. The company is also specialized in free zone management, dangerous goods handling and E-logistics.

Latest additions are hand carry operations, where urgent or valuable cargo is hand-carried and delivered internationally or domestically, and the transportation of non-dangertous liq-



uids including lube oils, transformer oils, base oils, mineral oils and many other chemicals and liquid food product in Flexi tanks; a strong, safe and versatile transportation means which can be used instead of ISO tanks.

PICO Logistics operates a fleet of new trucks and semi-trailers of reputable brands at clients' sites. Maintenance and repair are outsourced to certified workshops with guaranteed repair times and therefore minimum downtime with nearly 100% fleet availability. All fleet is fully QHSE compliant. Due to significant projects in the Oil & Gas sector as well as other industries, the fleet is continuously increased as per clients' specs and QHSE requirements. As timely trucking schedules and efficient distribution systems are a must to conduct a business successfully, the company applies TMS (transport management system) to provide clients with the required optimum delivery system and time.



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# Natural Gas may be a safe bet

**Amid fierce competition over energy, Liquefied Natural Gas (LNG) projects entice international corporations to speed up exploration efforts in Egypt**

By Ashraf Fekry

The Egyptian government is banking on the successful march of natural and liquefied gas sector for attracting more foreign investments. The industry has managed to bring in direct investments estimated at US\$3.2 billion over six years from 1999 to 2005. Official projections for investment growth in natural gas amount to US\$20 billion in five years based on plans already announced by major international companies with operations in the domestic market.

Investments in the Egyptian gas sector have contributed to the initiation of the Arab Gas Pipeline Project. The government is currently in talks to extend the Arab Gas Pipeline to European countries. In addition, three LNG projects have been launched at a combined cost of over US\$3 billion, leading to a remarkable increase of exports and foreign currency revenues that serve to pay the government's overdue debts to foreign companies.

The government relies on natural gas as a major support for economic development. It is worth mentioning that the natural gas reserves in Egypt have mounted to 73% of total reserves in North Africa over the past ten years. Natural gas production accelerated by over 10 percent/year in the period from 1999 to 2005.

Foreign and Arab investments started to flow into Egypt's natural gas industry, according to Hany Ismail, advisor to the Egyptian Minister of Petroleum for Natural Gas Affairs, who alleged that gas was the principal motive behind the large flows of foreign investments into exploration. He pointed out that proven reserves of natural gas had doubled over the past few years to 67 trillion cubic feet. Based on geological and seismic surveys, international companies operating in Egypt estimated potential reserves of natural gas at 100 to 125 trillion cubic feet.

Moreover, agreements sealed by the Egyptian Government with international energy corporations during the 1990s have contributed to the upsurge in gas reserves. These agreements have encouraged companies to explore for gas in broad areas throughout the country.

Local and international observers view investments and contributions of international oil companies as one of the main factors behind the recurrent successes made in natural gas exploration over the past decade. "With rising natural gas reserves, stability, investment-friendly atmosphere and success in the oil sector, it is quite expected that Egyptian gas industry will experience an unprecedented development backed by strong potential gas explorations, especially in deep waters in the north Mediterranean," Ismail said.

British Gas (BG), the Italian Eni Oil Company and Shell have launched a number of new projects for natural gas exploration and development of the present gas field discoveries with over US\$20 billion of invest-



ments over the coming five years. Exploration efforts in Egypt achieved the highest level of success, particularly in the area of the Mediterranean Sea with positive gas exploration results amounting to 60% compared with the international average of 10 to 15%.

That is the reason why Shell Egypt has developed ambitious plans to expand its activity in natural gas production and exploration in the Mediterranean Sea over the next five years. Shell will also exploit two gas discoveries in its concession area. Both discoveries were made in February 2004, but the company would confirm the discovery by digging up more experimental wells.

**“Egypt’s gas reserves amount to 68 trillion cubic feet which could reshape the map of the Egyptian economy and push the investment wheel forward to attract US\$6.2 billion over the coming five years”**

Shell Egypt has signed a contract with the giant drilling company, Transocean Expedition, for deep-water drilling in its concession area and terminated its agreement with the current drilling company. The agreement included terms that linked gas prices to those of crude oil instead of fuel oil, which helped increase gas prices. In view of the government commitment to buy the share of the foreign partner and developments in deep-water drilling and exploration technology such as seismic survey, international companies had enough incentive to pay more attention to gas explorations.

Chairman of Egyptian Liquefying Natural Gas Projects Company, Roger Fox expects Egypt to play a major role in the liquefied gas markets during the coming years backed by its huge proven reserves and strong potentials for adding more reserves through intensive exploration activities.

Egypt accounts for 46% of total exploration investments in North Africa, which includes Egypt, Algeria, Tunisia, Morocco and Libya.

However, the policy of expanding natural gas exports is the target of sharp criticism from a number of energy experts. They accused this policy of draining reserves and paying no attention to future domestic consumption needs. Egypt would not be able to absorb new exportation obligations after gas exporting contracts amounted to 19 trillion cubic feet in the coming 20 years, said an oil expert on condition of anonymity. He called for self-sufficiency in gas before exporting, pointing out that the three natural gas plants had consumed huge portion of gas reserves.

In 2005, the government and foreign companies operating in Egypt started exporting LNG from three projects in Damitta and Edko. In 2006, the country has been ranked the sixth largest LNG exporter with a total capacity of 17.5 billion cubic feet per annum. Hussein Abdallah, a former official at the Egyptian General Petroleum Corporation (EGPC) said that the government should reconsider the quantities of exported gas.

Egypt's LNG production is divided into three parts: one third for local consumption, another for exporting and the last third is kept in reserve to meet future demands, said Mohamed Al-Masry, General Director of Rashid and Brulus Gas Fields. LNG reserves will cover the market needs for the coming 45 years despite the growing consumption, which has increased to 65% as an alternative to heating oil for many cars, he added.

In fact, the Egyptian LNG production has jumped from 40 trillion cubic meters to 66 trillion over the past four year following the discovery of natural gas in deep Mediterranean waters such as Brulus and Rashid zone, he explained.

Egypt's gas reserves amount to 68 trillion cubic feet which could reshape the map of the Egyptian economy and push the investment wheel forward to attract US\$6.2 billion over the coming five years apart from the billions already injected into Egypt over the past five years. Some experts say that investment flows in energy industry amounted to US\$2 billion per annum since the discovery of natural gas in deep waters.







# The forgotten mines obstruct Egypt's oil and gas route

**Though Egypt is one of the most heavily mined countries in the world, it has not acceded to the Mine Ban Treaty**

By: Ahmed Morsy

Egypt is not listed in the international work plan to combat land mines, although landmines planted in the country represent 20% of total landmines worldwide. It is contaminated with landmines and explosive remnants of war (ERW) from World War II and the Egypt-Israel wars of 1956, 1967 and 1973. According to reports, there is a significant mine and ERW problem in Egypt's Western Desert, the Sinai Peninsula and areas near the Suez Canal and Red Sea coast.

Mine/ERW contamination causes casualties, but its more significant impact is developmental. According to the United Nations Development Program (UNDP), government sources have claimed that the area contaminated by mines and ERW in the Northwest Coast denies access to nearly 22% of Egypt's land mass; an area believed to be very rich in natural resources and development potential. Reserves of 4.8 billion barrels of oil and 13.4 trillion cubic feet of natural gas, three million acres of arable and grazing land, considerable mineral resources, as well as a promising potential for tourism development, are mentioned among the resources to be claimed by the development plan of the Northwest Coast.

Fathi El-Shazli, national project director for mine clearance and development at the Ministry of International Cooperation, told United Nations news service Irin that some 22 million landmines and unexploded ordnance have lain hidden in the northwest of Egypt since World War II.

The joint Egypt/UNDP project document of November 2006 referred to 2,680 square kilometers of contamination, which is almost four times the estimated contaminated area in Afghanistan.

Many of the mines are near the battlefield of El-Alamein, where the British Eighth Army forced the Africa Corps of "Desert Fox" Erwin Rommel to retreat all the way back to Tunisia. That war and today's peace lie close together in the no-man's-land of the desert. Anti-tank mines, anti-personnel mines and unexploded artillery shells block today's transportation routes.

This battleground is considered as a treasure trove of raw materials such as oil, natural gas and ore. Egypt is accustomed to be seen as a minor oil player, but experts now estimate that 4.8 billion barrels of oil lie under the sands of the North West, which are enough for the country to draw level with OPEC member Angola in terms of oil production.

Egypt also has 1.94 trillion cubic meters of natural gas, which amounts to around 1.1% of global reserves, and an additional 0.38 trillion is estimated to be located in the northwest and the desert inland from the coast. Gas pipelines already run from two gas fields there to Alexandria. But, mines are obstructing the search for more oil and gas.

Since the Mine Ban Treaty ignored the responsibilities of those countries that laid mines in clearing or helping in clearing them, and did not oblige states parties to offer technical and financial help to affected countries, but made it according to each country's circumstances, Egypt did not sign it in. In addition,

the Mine Ban Treaty did not distinguish between the legitimate use of antipersonnel mines for defense and border security and the other kinds of use. Subsequently, Egypt will not join the Mine Ban Treaty as long as it does not assign responsibility for mine clearance to those who laid mines.

In 2006, there was no functioning national mining action authority in Egypt, although a National Committee to Develop the North-

west Coast and Mine Clearance had been created in April 2000.

In November 2006, the Egyptian government and UNDP signed a project agreement on mine clearance and development in the Northwest Coast. The project aims at supporting the implementation of the government's 2003 National Plan for the Development of the Northwest Coast and Inland Desert. The expected cost of the development plan is approximately US\$10 billion, to be funded by the government over five years; the Ministry of International Cooperation was nominated as the plan's focal point. The plan was envisioned to have a considerable impact not only on the Northwest Coast but also on the national economy as a whole, as it was expected to create about 400,000 jobs and about one and a half million people are expected to move into the region by 2022.

The Egypt/UNDP project, Support to the Northwest Coast Development Plan and Mine Action, refers to a mine action program implemented over five years (January 2007 to December 2011) which includes demining, mine risk education and victim assistance. The first phase of the project (February 2007-July 2008) was budgeted at US\$3,147,795. The government pledged to provide US\$261,730, with UNDP contributing US\$375,000, UNDP's Bureau of Crisis Prevention and Recovery US\$200,533, the UN Mine Action Service US\$150,000, the British Embassy US\$19,632, the UK Department for International Development US\$490,400, with in-kind contributions from the Egyptian Armed Forces and the ministries of defense and international cooperation.

## Locations of mines in Egypt

The locations of landmines are divided into two main fields according to SIS, as follows:

### A) Landmine fields in Western Desert

The Western Desert mine fields extend from El-Alamein, up to the Egyptian-Libyan borders with a depth of more than 40 km from the Mediterranean coast. Landmines planted in these fields vary in type and size depending on the troops involved in action. The



list of fields where mines are significantly spread includes:

1. The coastal strip on both sides of Alexandria-Matrouh road
2. The field starting 10 km on Abu-Doues road of Borg el-Arab, El-Alamein, a-Daba and Bagos (Gala)
3. The fields of Nweider, Rwaissat and El-Marir, the most dangerous mine fields, where no mine maps were found
4. The fields of El-Manaseb and Dair El-Qatany involving vast areas of arable land
5. The fields of El-Khawabeer, Dair-a-Ragel and El-Osayed which are among the most dangerous fields
6. The field of Bab El-Qatara 30 km, on El-Alamein - El-Humaymat road
7. The fields of Abu Dwis, Halq ad-Daba Zahr I-Hammad and El-Humaymat
8. Borg Raqabet El-Ralah
9. The fields of Fuka and West of Marsa Matrouh up to the Egyptian-Libyan borders

### B) Mine fields in Egypt's Eastern Desert

1. Field of west Suez Canal
2. Field of west Suez Gulf
3. Field of west Red Sea
4. South Sinai Field
5. Central Sinai Field
6. North Sinai Field

Undoubtedly, the presence of this huge number of landmines on the Egyptian territory has resulted in disrupting oil prospecting operations in the vast mined areas.

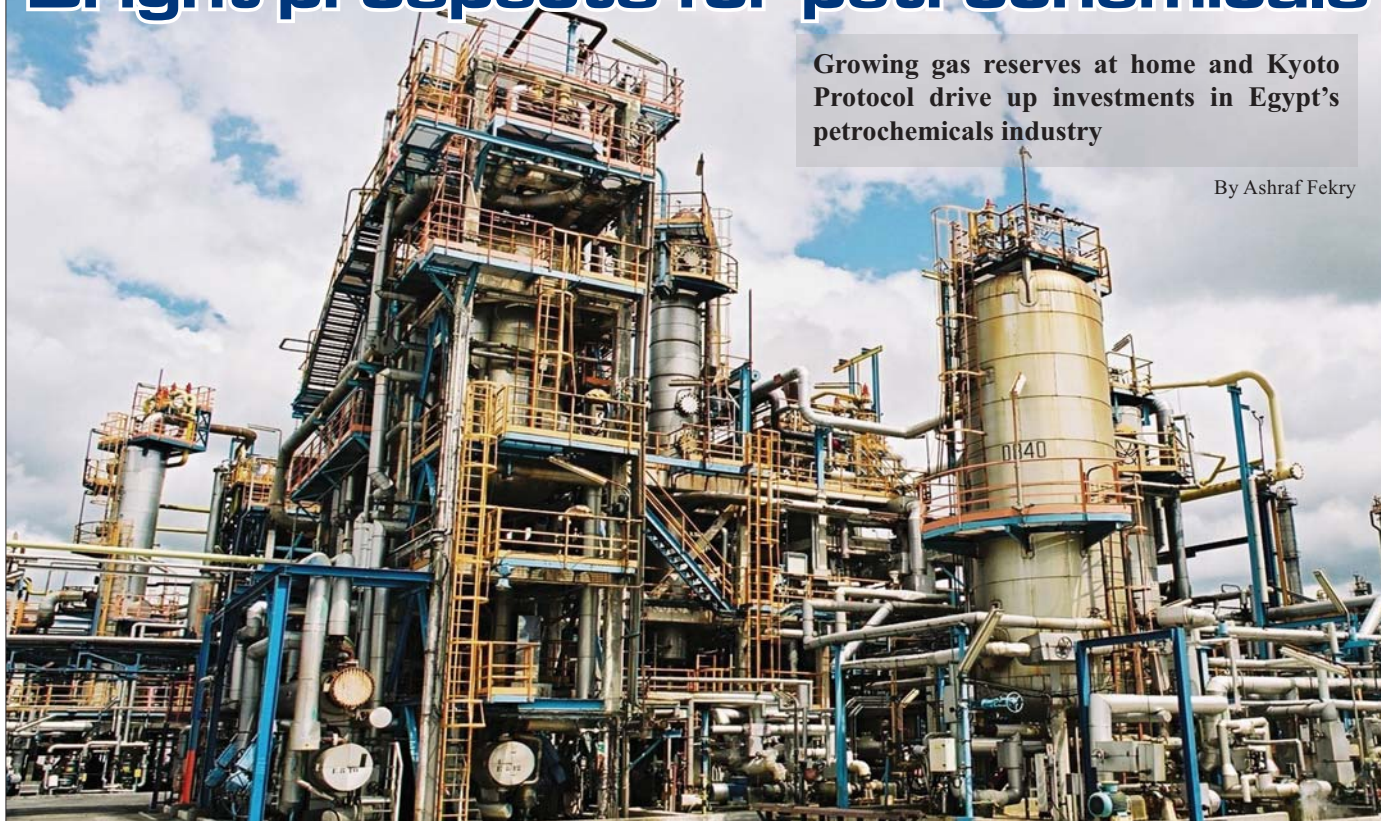
SIS statistics states that Suez Gulf produces 43% of the total production of crude oil and 8% of gas production, while the Eastern Desert produces 8% of crude oil, Western Desert produces 21% of oil and 36% of gas, the Mediterranean Sea production reaches 6% of oil and 59% of gas, Sinai area produces 12% of oil and 1% of gas. Hence, comparing the oil and gas production areas to the mined ones, the problem of the landmines hindering Egypt's route to oil and gas reveals.



# Bright prospects for petrochemicals

Growing gas reserves at home and Kyoto Protocol drive up investments in Egypt's petrochemicals industry

By Ashraf Fekry



Egypt's Ministry of Petroleum is according a top priority to investment in petrochemicals viewing the industry as promising and capable of attracting an estimated US\$10 billion investment under the national plan. The scheme, being carried out jointly by the Ministry and the Egyptian Petrochemicals Holding Company (EChem), includes a host of projects due to be completed by 2022. The new projects are expected to generate US\$7 billion in revenues. Annual petrochemicals output is estimated at 15 million tons per annum. The Ministry seeks through these projects to create nearly 100,000 jobs.

An economic landscape being shaped for the national petrochemicals includes the launch of 10 complexes operated by gas derivatives and capacity upgrades and expansions in the national gas grid from 14,000 to 30,000 kilometers in order to supply gas to around six million households and hundreds of factories.

Egypt has used the liquefied natural gas (LNG) technology for the first time through two projects in the Delta cities of Damietta and Edku. The plan also includes expanding the Arab Gas Pipeline project, which supplies gas to Jordan for a period of 30 years, renewable for an additional 10 years.

Egypt's petrochemical industry is growing at a ten fold pace, having increased from US\$328million in 2004 to a projected US\$3 billion in 2007. Currently, four projects are in progress and are expected to produce 2.6 billion tons of petrochemicals in 2008-2009.

Another two projects to produce polypropylene and polystyrene are under negotiations and are expected to cost \$800 million. This is part of the Government's 20-year ambitious master plan to produce petrochemicals for export, in addition to covering the demands of the local market.

The plan, scheduled to be executed in three phases, is estimated at a cost of US\$10 billion. The estimated cost for the first phase is US\$3.8 billion and will be completed in 2008.

## Kyoto Protocol

"Interest in the petrochemicals industry was prompted by a drop in oil production and an increase in gas reserves, which contain raw materials used in the petrochemicals industry such as propane," said Sanaa el-Banaa, EChem Chairman. "These materials are being produced at the Gas Complex in the Western Desert and the Gas Derivatives Company in Port Said," she added. Tracing the history of petrochemicals in Egypt, the expert clarified that the heavy industry prospered in Egypt after it declined in the West as it runs counter to its countries' obligations under the Kyoto Protocol. "Reliance on petrochemicals, which depend on costly naphtha has declined in favor of petrochemicals operated by cheap gas derivatives, which are in abundance in the Arab world," she noted.

Meanwhile, Hamidi Abul Nagaa, an oil advisor at the Arab Experts' Union, argued that the stringent environmental obligations observed by the advanced nations, particularly the US and the European Union following the Kyoto Protocol, have prompted industrialized nations to move their pollution-causing plants, including petrochemicals facilities to countries, which do not observe such strict stipulations like Egypt and Middle Eastern countries.

"In fact, most of these factories are geared towards serving overseas markets, not meeting the local needs. In view of long-term contracts concluded by these factories with foreign agencies at high prices, it is hard for the local market to depend on these factories to have its needs satisfied," he said.

## Attracting more investments

The Egyptian government has started an ambitious plan to implement the first part of projects charted under the national plan for petrochemicals. The first stage of this scheme includes eight plants for petrochemicals with US\$4.6 billion investments. These projects will represent the mainstay of a vigorous petrochemical industry in Egypt as part of a larger plan aimed at setting up 14 giant

petrochemical complexes composed of 24 plants.

"Egypt can attract up to US\$20 billion in local and foreign investments to its petrochemical industry in the next two decades. Egypt has one of the world's best 20 petrochemical refineries. The first part of the Egyptian petrochemical strategy started in 2002 and is scheduled to run until 2008 with an estimated investment of US\$3.5 billion, including US\$1 billion in direct foreign investment. This stage includes facilities for production of methanol, urea, polypropylene and acrylic fibers," highlighted says Mustafa El-Salab, the Undersecretary of the Parliament's Economic Committee.

Underlining the importance of the petrochemical industry, El-Salab said that this industry could generate nearly 100,000 jobs and that the increase in gas reserves brightens up the prospects for this sector. "Egypt has a strong basis for the petrochemical industry due to a number of projects, which started in 1981, as well as its highly qualified manpower," he added.

## New technology

U.S. technology is in great demand. The majority of the existing petrochemical plants are producing under license from U.S. companies. Polypropylene is produced under license from Union Carbide, Polyvinyl Chloride from Oxy-Vinyl, while the 80,000 tons produced by the new Alkyl Benzene plant (which will be operational in 2007) is under license from Universal Operations Project (UOP Oleflex).

## Opportunities

The petrochemical industry is in need of feasibility studies, technology transfer, project and equity participation, investment opportunities, and long-term product off-takers.

It is worth mentioning that EChem is now the entity responsible for managing and supervising the establishment of any petrochemical project in Egypt.

This company is under the umbrella of the Ministry of Petroleum.





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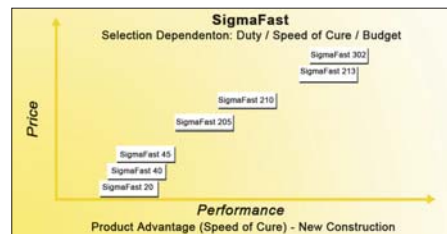
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# How to Select Midrange Storage ?

By Mohamed El Mofty  
Storage Networking Solutions Expert  
IBM Systems and Technology Group

As discussed deeply in the previous episode "Storage Area Network Concepts"; Fiber Channel Storage is added to your infrastructure to raise servers' performance as well as increasing systems' scalability and availability. Moreover it gives you the capability to go for a tier-5 disaster recovery solution replicating data between two storage arrays that are placed one at Main Site while the other is located in the Disaster Recovery Site.

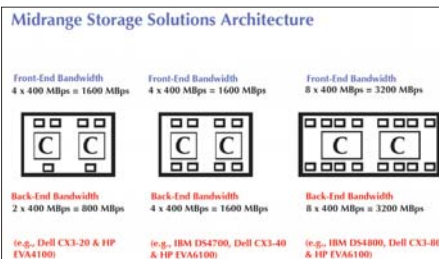
All Storage Vendors have different categories of Storage Arrays starting from the very entry level passing by midrange and going up to high end boxes. The question is, what is the difference between these categories? How can you choose the best and optimum for your infrastructure without exaggeration or taking over qualified solution? Is it only a matter of capacity? What is the key factor that you have to consider?

The truth is Storage solutions selection is primarily related to the needed performance levels and Applications performance plus IOs (i.e., Storage category selection will never be a matter of capacity). Let us start with Entry Level Storage Arrays (e.g., MSA Family from HP, AX-4 Family from Dell & DS3000 Family from IBM). *All the mentioned before storage boxes will add only capacity without adding any performance enhancement to your applications as they will act as slow as your servers' internal disks (i.e., it would fit for very small sized environments that needs only big capacity similar to servers' internal disks).* This is because disk drives that are used inside these disk arrays are either SCSI that is the least performing disks or SAS that is a better than SCSI where both are lower in performance than Fiber Channel Disk Drives that are used in Midrange and High-End Disk Systems.

Midrange Storage Solutions are the best fit for most of the infrastructures according to performance needs compared to High-End disk systems that commonly exists in High Performance and most critical organizations. Every vendor has 2 or 3 types of Midrange Storage systems that vary in performance and scalability. The question is, Where does performance come from? What is the architecture of Midrange disk systems that affect performance values and scalability? How can you compare different boxes of each vendor, one to each other? How can you choose the box that really fits your infrastructure? What are the considerable optimum factors that should affect you decision?

Simply when we have a closer look on Midrange Storage Disk Array Subsystems, we will find that they are all based on Central Dual Clustered Controllers that are responsible for handling all system's operations (i.e., Host Connectivity, Cache Operations and Algorithms, RAID Parity Calculations & Read and Write on Disk Drives). Storage Arrays can be classified only by the number of Front-End ports and Back-End ports that present system Bandwidth accessible by servers and delivered to disk drives for writing data (i.e., number of ports tells system category and performance). Most of the Storage Systems in the market are based on 4Gbps End-to-End Fiber Channel Speed except HP that is still having 2Gbps Fiber Channel Speed in the Back-End. According to the diagram below, we can have a flavor about differences between boxes of different vendors.

Let's start the technical navigation and go more deep to the Storage Array Clustered Controllers, are they clustered in **Active-to-Active** mode? IBM & HP storage controllers are clustered in Active-to-Active mode where



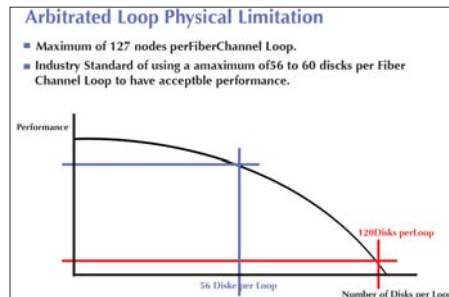
Dell CX3 family is based on **Active-to-Passive** architecture. The benefit of having Active-to-Active controllers is to ensure that system will always have balanced workload distributed equally over the two clustered controllers as it will be always monitored and actions will be taken automatically. In Active-to-Passive architecture systems like Dell Storage CX3 family, manual operations will be always required from system administrators by keeping an eye on system performance monitoring tool to keep system workload balanced otherwise un-expected failures would occur.

The second point is the Controllers' Cache Size. Most vendors demonstrate big cache size to show that their storage arrays are highly ranked than other vendors taking the attention away from the real differentiator that is system's Front-End and Back-End ports. The Truth is, you should know the real **Effective Cache for Data Operations only** excluding any overheads taken for system operations (i.e., pay for what you are going to use and never pay for vendors' limitations). Most of the storage vendors use part of the cache for system operations leaving another part for data operations that you will use in your production system. Listed below is a comparison showing actual cache size used for data operations compared to total cache size for all different storage vendors.

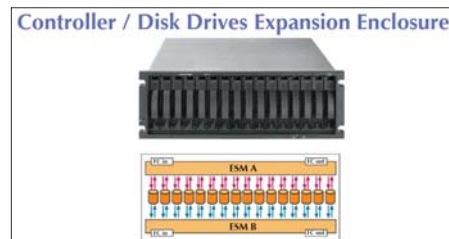
System	CX3-20	EVA4100	DS4700	CX3-40	EVA6100	DS4800	CX3-80	EVA8100
Total Cache	4 GB	4 GB	4 GB	8 GB	4 GB	8 GB	16 GB	8 GB
System Cache	2 GB	2 GB	0 GB	3 GB	2 GB	0 GB	10 GB	4 GB
Data Cache	2 GB	2 GB	4 GB	5 GB	2 GB	8 GB	6 GB	4 GB

The third point is the RAID Parity Calculations, is it based on dedicated Hardware Processors or it is handled via Software. Both of HP EVA Family and Dell CX3 Family are based on **Software RAID** Parity Calculations that is lower in performance than Hardware based. IBM DS4000 Family has a dedicated Processor for **Hardware RAID Parity Calculations** that is High-Performing and based on Latest Technology.

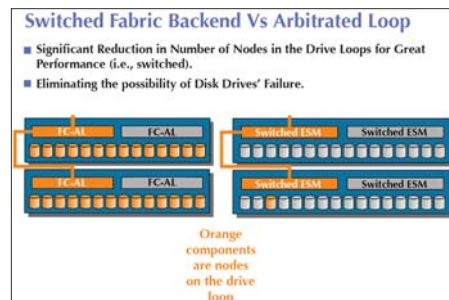
The fourth point is the way of communication between Controllers and Disk Drives. All Storage vendors used to use a low performance, bandwidth consuming technique called **Fiber Channel Arbitrated Loop** (i.e., Controllers Signals going to each and every disk drive in the Loop have to pass by all disk drives in the loop back and forth). Simply the Loop Bandwidth will be divided on the number of disk drives in the Loop (Same as traditional Hub in Networks). The maximum number of disks that can be placed in a single Loop is 127 nodes that is a Physical Limitation as signal won't pass if more than 127 disks exist in the same loop. The SAN Industry has set a Standard of a maximum of 56 to 60 disks in a single loop for acceptable performance where only Dell is admitting 120 disks in a single loop that is totally against performance according to the following graph.



IBM DS4000 Storage Arrays family implement a special technique called **Switched Fabric** (i.e., Controllers Signals going to each and every disk drive will go directly without passing by any other disk drives in the path). Simply the Bandwidth will be dedicated to each disk drive in the path (Same as Switch in Networks). The maximum physical limitation in Switched Fabric disks environment is (224 =  $2^{224}$ ) that is a very huge number that vendors won't reach.



In order to have a flavor about real differences between Switched Fabric disk drives back-end & arbitrated loop ones, we can consider the following figure. Moreover, in arbitrated loop systems, disk failures deeply affect performance and can't be predicted. In switched fabric systems, you can put Fiber Channel Disks near SATA Disks without any effect on performance as well as disk failures that can be predicted.



Finally let's have a look on performance values of boxes for different storage vendors. We will consider Vendor Published IOps as well as SPC-1 & SPC-2 Standard Benchmarks considering having Snap Shot copy service running in the back ground and validating its effect on system overall performance.

System	CX3-20	EVA4100	DS4700	CX3-40	EVA6100	DS4800	CX3-80	EVA8100
Vendor IOps	138K	154K	125K	203K	154K	575K	275K	225K
SPC-1	N/A	N/A	17,195	24,997	N/A	45,014	N/A	20,096
SPC-1 Snapview	N/A	N/A	N/A	8,997	N/A	N/A	N/A	N/A
SPC-2	N/A	N/A	798	N/A	N/A	1,381	N/A	N/A





## A successful 5<sup>th</sup> edition of MOC

Since its first edition in 2000, Mediterranean Offshore Conference (MOC) has been strengthening its role in the Egyptian petroleum sector and reserved its place as one of the most important events in the country.

In his opening speech, Eng. Sameh Fahmy, the Egyptian Minister of Petroleum stated that since 1999, the Ministry of Petroleum and all the Egyptian Petroleum Sector affiliates have started an important co-operation with the Offshore Mediterranean Conference (OMC) in Ravenna, Italy to organise MOC every two years in Alexandria.

"In the next few years, the oil and gas in-

dustry will face great challenges in remote and difficult areas and exploring ultra-deep waters where the most up-to-date technologies are needed. We look forward to the discussions held during our OMC and MOC conferences which contribute to the development of the oil & gas industry and help in facing future challenges," highlighted Fahmy.

Antonio Angelucci, Chairman of the OMC 2009- Ravenna Offshore Mediterranean Conference and Exhibition, after expressing his gratitude for being part of MOC 2008, emphasised that the increase in the liquefaction capacities in the existing plants and the extension of the Arab Gas Pipeline to Syria and Turkish borders is the real proof of how the European consuming countries are relying on Egyptian energy export.

Fahmy started his speech by a bombing declaration that Egypt oil production reached 705,000 barrels per day. "Our target production is to reach 930,000 barrels by the end of 2008," stated Fahmy.

"Regarding the rising of the oil prices, last February the price was \$88 a barrel and now it reached \$128 a barrel. Hence, only in three months the price raised \$40 for a barrel. Thus, we face local and international challenges. The local demand of oil has increased in addition to the rising of the international price. Besides, the number of rigs, labours and contractors available is less than what needed. Also there is a need for more refineries," added Fahmy.



The first day of MOC 2008 witnessed the participation of nearly 1200 attendees and another 4500 in the exhibition.



## RWE Dea celebrates 25 years' crude oil production from Ras Budran

For 25 years now, RWE Dea has been producing crude oil from the offshore field Ras Budran via its holding in joint venture Suez Oil Company (SUCO). Approx. 267 million barrels of crude have been produced to date

The crude oil reservoir Ras Budran is located in the Gulf of Suez, four kilometres off the coast of Sinai, and was discovered in the mid-1970s. To develop the field, SUCO was founded as a joint venture between RWE Dea as operator and the Egyptian General Petroleum Corporation (EGPC). Production commenced here in 1983 with some 60,000 barrels/day. By now a total of about 267 million barrels of crude have been produced, supplemented by a further 6,000 barrels each day. The total production from Ras Budran and the oilfields Zeit Bay and Ras Fanar amounts to six million barrels per annum.

"Our successful production from these fields, continually upgraded to meet state-of-the-art technology, we managed to contribute to keeping our crude oil production in Egypt at a high level", explained Thomas Rappuhn, member of the Board of Management of RWE Dea. In the past thirty years, the joint venture partners invested some 3.2 billion US dollars in developing the Ras Budran, Zeit Bay and Ras Fanar fields. This makes RWE Dea one of the biggest German investors in the country. Only last year were the production concessions for the oil production areas in the Gulf of Suez renewed by a further ten years, with additional capital spending being earmarked for further development. "Our efficient oil production from these fields provides us with a continual cash flow that we can re-invest in promising natural gas projects in Egypt, for instance", said Hans-Hermann Andreae, General Manager of RWE Dea in Egypt. This made it possible to stabilise production from the Zeit Bay crude oil field with additional widely deviated wells being drilled from onshore. The company recently announced the discovery of a natural gas and condensate field in the onshore concession Disouq. The launch of the offshore gas field development in the North Idu concession, in turn, is the first step taken so far to develop the gas reserves discovered by the company in the Nile delta both as operator and partner. In 2008 alone, RWE Dea plans to spend some US\$440 million on exploration and production activities in Egypt.



## BG Egypt President takes up new role in BG Group

Ian Hewitt, currently President, BG Egypt, is taking up a new role in BG Group, as a Senior Vice President, North Africa, with responsibility for BG's businesses in Egypt, Tunisia, Algeria and Libya.

Ian has been President of BG Egypt since July 2006 and previously was Senior Vice President and General Manager in Egypt. Prior to that, he was Business Development Director in South East Asia.

He has held senior executive posts within BG as Vice President and Asset General Manager of the Group's UK Upstream business.

Ian has been President of the UK Offshore Operators Association and Member of the UK Energy Minister's task force working on various initiatives to improve the UK Oil & Gas Industry.

A chartered Engineer with an MBA in International Business Management, Ian has worked for BG for 23 years.



## SIEMENS Petrochemical Day

Operating the production with the highest availability and safety as well as reducing operating costs by efficient use of resources & raw materials, ensuring reproducible and stable quality of products, increasing flexibility and productivity, lower operational costs, minimizing life-cycle costs, complying with regulations for environmental and health protection are the major challenges facing the petrochemicals industry worldwide.

In this respect, the "Siemens Petrochemical Day" was successfully organized for the key players in this industry to provide them with answers and a full outline of the complete Siemens portfolio in the Petrochemicals and Oil & Gas sectors regarding solutions and focus on customer benefits.

The objective of this conference was to present a detailed picture on TIA/TIP platform concept. Siemens Experts from the Petrochemical Sector flew in from Germany & Dubai to give an overview of the product, service and solution portfolio with focus on large investments and Siemens Chemical applications.

The opening speech given by Siemens President and CEO Eng. Mohamed El-Mahdi emphasized that Siemens has been a key player and service provider and served the Egyptian society over 100 years of success. The floor was then given to Senior Vice President of Siemens Limited Egypt and Head of Automation & Drives Dr. Hany Loka who gave a presentation on Siemens' Industry Sector and its solutions followed by a number of presentations and discussions.

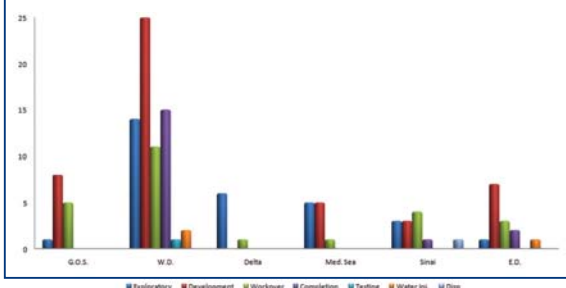
The event was attended by a large number of high ranking representatives and senior engineers of the companies in the petrochemical and oil & gas sector in Egypt. New and promising opportunities for cooperation were established in that one day event.



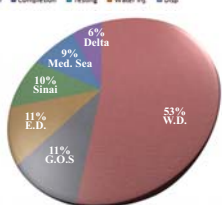


Table 1 Egypt Rig Count -May 2008

Area	No. of Wells						
	Exploratory	Development	Workover	Completion	Testing	Water Inj.	Disp
G.O.S	1	8	5				
W.D.	14	25	11	15	1	2	
Delta	6		1				
Med. Sea	5	5	1				
Sinai	3	3	4	1			1
E.D.	1	7	3	2		1	
Total	30	48	25	18	1	3	1



Rigs per Area		
Area	Onshore	Offshore
G.O.S		14
W.D.	68	
Delta	7	
Med. Sea		11
Sinai	12	
E.D.	14	
Total	101	25



Source: Egypt Oil &amp; Gas

Table 2 World Oil Supply<sup>1</sup> (Thousand Barrels per Day)

		United States <sup>2</sup>	Persian Gulf <sup>3</sup>	OAPEC <sup>4</sup>	OPEC <sup>5</sup>	World
2007 July	E	8,526	22,926	24,169	35,223	<b>84,632</b>
August	E	8,360	22,880	24,118	35,191	<b>83,766</b>
September	E	8,324	23,430	24,694	35,835	<b>84,608</b>
October	E	8,474	23,580	24,748	36,074	<b>85,449</b>
November	E	8,539	23,237	24,416	35,870	<b>85,234</b>
December	E	8,669	23,886	25,067	36,612	<b>85,765</b>
2007 Average	E	8,481	23,117	24,299	35,429	<b>84,594</b>
2008 January	E	8,624	<b>24,013</b>	<b>25,113</b>	<b>36,649</b>	<b>85,674</b>
February	PE	8,625	24,242	25,341	36,881	85,921
2008 2-Month Average	PE	8,625	24,124	25,223	36,761	85,793

<sup>1</sup>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).

<sup>2</sup> 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. For definitions of fuel ethanol, oxygenates, and merchant MTBE plants.

<sup>3</sup> The Persian Gulf countries are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates. Production from the Kuwait-Saudi Arabia Neutral Zone is included in Persian Gulf production.

<sup>4</sup> OAPEC: Organization of Arab Petroleum Exporting Countries: Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

<sup>5</sup> OPEC: Organization of the Petroleum Exporting Countries: Algeria, Angola, Ecuador, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

E=Estimated data. RE=Revised estimated data. PE=Preliminary estimated data.

Revised data are in **bold italic font**.

Source: EIA

Table 1 World Crude Oil Production (Including Lease Condensate) (Thousand Barrels per Day)

	Egypt	Libya	Sudan	Other	World	OPEC <sup>1</sup>	Persian Gulf <sup>2</sup>	North Sea <sup>3</sup>
2007 July	679	1,700	482	2,543	73,140	31,998	20,508	4,155
August	679	1,700	486	2,588	72,390	31,965	20,462	3,718
September	679	1,720	490	2,624	73,256	32,606	21,012	3,920
October	609	1,740	500	2,653	73,897	32,838	21,158	4,170
November	609	1,740	520	2,716	73,598	32,687	20,873	4,082
December	609	1,740	520	2,727	<b>74,256</b>	33,379	21,474	4,064
2007 Average	637	1,702	464	2,636	<b>73,273</b>	32,184	20,682	4,114
2008 January	609	1,740	520	<b>2,737</b>	<b>74,431</b>	33,381	21,578	<b>4,004</b>
February	609	1,740	520	2,735	74,657	33,606	21,803	3,968
2008 2-Month Average	609	1,740	520	2,736	74,540	33,489	21,687	3,986

<sup>1</sup> OPEC: Organization of the Petroleum Exporting Countries: Algeria, Angola, Ecuador, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

<sup>2</sup> The Persian Gulf countries are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates. Production from the Kuwait-Saudi Arabia Neutral Zone is included in Persian Gulf production.

<sup>3</sup> North Sea includes the United Kingdom Offshore, Norway, Denmark, Netherlands Offshore, and Germany Offshore. Revised data are in **bold italic font**.

Source: EIA

Table 4 OECD<sup>1</sup> Countries and World Petroleum (Oil) Demand (Thousand Barrels per Day)

	France	German	Italy	United Kingdom	OECD Europe <sup>2</sup>	Canada	Japan	South Korea	United States <sup>3</sup>	Other OECD <sup>4</sup>	OECD <sup>1</sup>	World
2007 June	1,900	<b>2,451</b>	1,670	1,766	<b>15,200</b>	2,323	4,568	2,063	20,737	3,579	<b>48,470</b>	NA
July	1,941	2,500	1,687	1,775	<b>15,341</b>	2,416	4,564	2,047	20,641	3,522	<b>48,531</b>	NA
August	1,908	<b>2,578</b>	1,552	1,709	<b>15,283</b>	2,398	4,597	2,091	21,051	3,388	<b>48,807</b>	NA
September	1,929	<b>2,600</b>	1,651	1,763	<b>15,566</b>	2,313	4,860	2,027	20,385	3,291	<b>48,442</b>	NA
October	2,128	<b>2,664</b>	1,748	1,742	<b>16,092</b>	<b>2,308</b>	4,793	2,208	20,455	3,572	<b>49,429</b>	NA
November	2,063	<b>2,547</b>	1,724	1,779	<b>15,861</b>	<b>2,503</b>	5,206	2,350	20,708	3,482	<b>50,109</b>	NA
December	1,825	<b>2,429</b>	1,694	1,664	<b>14,876</b>	<b>2,383</b>	5,661	2,362	20,869	<b>3,516</b>	<b>49,668</b>	NA
2007 Average	1,937	<b>2,467</b>	1,678	1,764	<b>15,281</b>	<b>2,348</b>	4,972	2,207	20,698	3,456	<b>48,962</b>	<b>85,354</b>
2008 January	1,952	2,515	1,603	1,696	15,284	2,363	5,339	2,365	20,114	3,456	48,844	NA

<sup>1</sup> OECD: Organization for Economic Cooperation and Development.

<sup>2</sup> OECD Europe consists of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

<sup>3</sup> U.S. geographic coverage is the 50 States and the District of Columbia.

<sup>4</sup> Other OECD consists of Australia, Mexico, New Zealand, and the U.S. Territories.

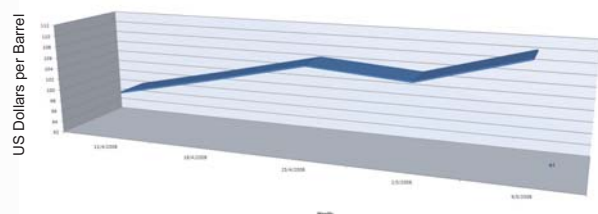
NA=Not available.

Revised data are in **bold italic font**.

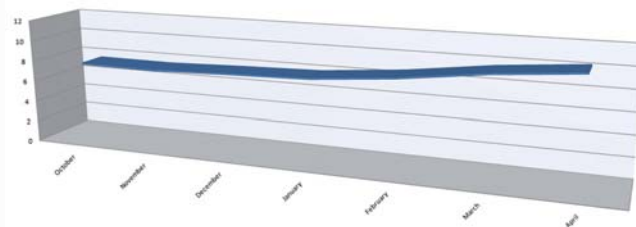
Notes: The term Demand is used interchangeably with Consumption and Products Supplied.

Source: EIA

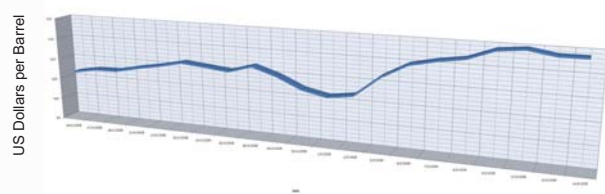



**Fig 1** Egypt Suez Blend Price


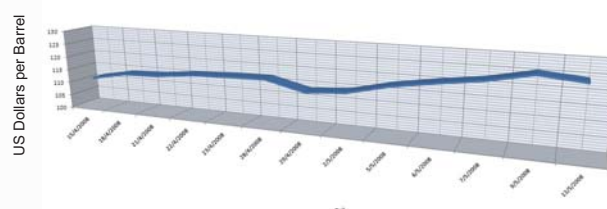
Source: Egypt Oil &amp; Gas

**Fig 2** Natural Gas Price


Source: Egypt Oil &amp; Gas

**Fig 3** OPEC Basket Price


Source: Egypt Oil &amp; Gas

**Fig 4** IPE Brent Price


Source: Egypt Oil &amp; Gas

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

	Algeria	Canada	Mexico	Saudi Arabia	Russia	Former USSR	United States <sup>1</sup>	Persian Gulf <sup>2</sup>	OPEC <sup>3</sup>	OPEC <sup>4</sup>	World
2007 July	340	624	401	1,427	425	-	E 1,778	2,308	2,764	3,089	7,848
August	340	619	378	1,427	428	-	E 1,755	2,309	2,764	3,089	7,733
September	340	636	372	1,427	428	-	E 1,795	2,309	2,764	3,093	7,744
October	345	679	371	1,427	428	-	E 1,837	2,313	2,767	3,099	7,962
November	347	688	364	1,427	424	-	E 1,868	2,255	2,712	3,045	8,023
December	349	692	379	1,427	423	-	E 1,823	2,303	2,763	3,096	8,022
2007 Average	342	670	396	1,427	426	-	E 1,776	2,325	2,781	3,108	7,912
2008 January	350	695	366	1,440	421	-	E 1,783	2,325	2,790	3,131	8,006
February	352	695	368	1,440	421	-	PE 1,830	2,330	2,796	3,138	8,103
2008 2-Month Average	351	695	367	1,440	421	-	PE 1,806	2,327	2,793	3,134	8,053

<sup>1</sup> U.S. geographic coverage is the 50 states and the District of Columbia. Excludes fuel ethanol blended into finished motor gasoline.

<sup>2</sup> The Persian Gulf countries are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates.

<sup>3</sup> OPEC: Organization of Arab Petroleum Exporting Countries: Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

<sup>4</sup> OPEC: Organization of the Petroleum Exporting Countries: Algeria, Angola, Ecuador, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

-- = Not applicable. E=Estimated data. PE=Preliminary Estimated data.

Revised data are in **bold italic font**.

Notes: Monthly data are often preliminary and also may not average to the annual totals due to rounding.

Source: EIA

**Table 6** International Stock Prices  
Mid-March 2008 - Mid-April 2008

International Stock	High	Low
Schlumberger [SLB] NYSE [US Dollars]	106.91	94.80
Halliburton [HAL] NYSE [US Dollars]	48.79	44.98
Exxon Mobil [XOM] NYSE [US Dollars]	94.39	88.82
Atwood Oceanics [ATW] NYSE [US Dollars]	111.92	101.01
Weatherford [WFT] NYSE [US Dollars]	87.09	79.10
Shell [RDSA] NYSE [US Dollars]	81.19	76.24
Apache [APA] NYSE [US Dollars]	146.80	140.24
Baker Hughes [BHI] NYSE [US Dollars]	83.68	76.89
BJ [BJS] NYSE [US Dollars]	33.21	27.42
Lufkin [LUFK] NYSE [US Dollars]	82.29	74.7
Transocean [RIG] NYSE [US Dollars]	159.68	146.98
Transglobal [TGA] NYSE [US Dollars]	5.08	4.63
BP [BP] LSE Pence Sterling	564.00	625.50
BP [BP] LSE Pence Sterling	1383.00	1231.00
Dana Gas [Dana] ADSM US Dollars	2.13	2.01
Caltex [CTX] ASX Australian Dollars	13.80	11.92
RWE DWA [RWE AG ST] Deutsche-Borse Euros	78.45	73.78
Lukoil [LKOH] RTS [US Dollars]	109.40	89.60

Source: Egypt Oil &amp; Gas

Average Currency Exchange Rate against the Egyptian Pound (April / May 2008)			
US Dollar	5.372	Euro	8.404
Sterling	10.579	Yen (100)	5.194
Stock Market Prices (March / April 2008)			
Company	High	Low	
Alexandria Mineral Oils [AMOC.CA]	78.30	73.73	
Sidi Kenir Petrochemicals [SKPC.CA]	23.29	19.74	



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