Egypt Oil & Gas Newspaper

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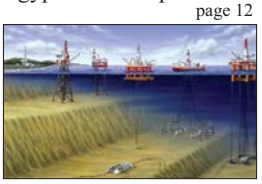

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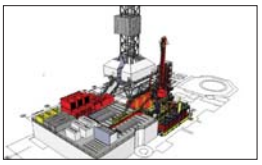

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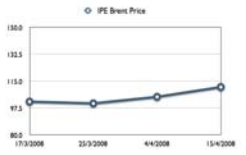

StatoilHydro takes on deep water challenges

By: Yomna Bassiouni

Being a "late entrant" to the Egyptian oil and gas market has not hindered Norway's leading company StatoilHydro in joining this "promising area", but what are the challenges it is facing? How will it solve them? What are its plans? Per Johan Bugge, StatoilHydro General Manager in Egypt, exchanges with *Egypt Oil & Gas* the clarifications to all the queries and reveals the company's target in strengthening its operations in the country

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Fueling the future

CONCERNS about the on-going unprecedented increase of oil prices have dominated the energy sector worldwide. These concerns have drawn the necessity to move towards new areas and techniques to fill in the gap and satisfy the international demand. The concept of deep water drilling has been nowadays the key to generate new sources for energy.

According to research and studies, some estimates suggest that 90% of the world's undiscovered offshore hydrocarbon reserves hide in water depth greater than 1000m.

Focusing on Egypt, new measurements have been taken in an attempt to attract more operators. For instance, new higher prices to be set by the Ministry of Petroleum for those operating in the deep water as means to overcome the barrier of expensive technologies and costly equipments required for this type of drilling.

However, it is said that deep waters are to fuel the future of energy resources worldwide, since great potentials lie beneath the ground and need to be uncovered.

This month witnesses one of the major energy events not only in Egypt, but in the Middle East region as well, which is the Mediterranean Offshore Conference (MOC 2008). This conference is to present the latest discoveries and up-to-date technologies on the Southern Mediterranean Basin. Moreover, it will cover the fields of Exploration & Production, NGL and LNG processes, Environmental Aspects, Oil & Gas Economics, Management and Marketing of Offshore Hydrocarbons including their supportive services.

With the occasion of MOC 2008, our May issue takes the deep water drilling as a theme. Various reviews, news and technologies articles by Halliburton, MI Swaco and Baker Hughes are provided, tackling this vital concept. In addition, a special interview was conducted with StatoilHydro Country Manager, Per Johan Bugge who reflected the real challenges of operating in the deep waters of the Mediterranean.

Finally, we welcome your feedback and suggestions and invite you to send your comments to info@egyptoil-gas.com.

Yomna Bassiouni
Managing Editor

News

Eni to bring production technologies to Egyptian power plants

Eni signed with the Egyptian Natural Gas Holding Company (EGAS) and the Egyptian Electricity Holding Company (EEHC) a Memorandum of Understanding (MoU) for a feasibility study to apply last generation production technologies to some Egyptian power plants, announced the company in a statement.

The application of technologies envisaged by the MoU will lead to energy savings of more than 20% (in terms of non-consumed natural gas) and bring significant environmental benefits. Feasibility studies will evaluate the use of combined cycles in some power plants in Egypt, in order to enhance their efficiency and save natural gas. Eni is already using combined cycle technology in its power plants in Italy, which are managed by subsidiary EniPower. Part of saved natural gas will also be used to cover the costs of the eventual implementation of the project. Increased efficiency of power plants will also enable reduced emissions of greenhouse gases.

The Memorandum was signed by Eni CEO Paolo Scaroni, the Chairman of the Egyptian Natural Gas Holding Company (EGAS), Eng. Mahmoud Latif, and the Chairman of the Egyptian Electricity Holding Company (EEHC), Dr. Mohamad Mohamad Awad, in the presence of Italy's Prime Minister, Romano Prodi, Egypt's Minister of Electricity and Energy, Dr. Hassan Younes, and Egypt's Petroleum Minister, Eng. Sameh Fahmy.

Eni's equity production of oil and natural gas in Egypt reached approximately 240,000 boe/d in 2007.

It is worth mentioning that Eni operates in the country through the International Egyptian Oil Company (IEOC), which directly carries out exploration activities and participates in production through Italian-Egyptian companies. Eni is also present in Egypt in the engineering and construction industry through Saipem.

(ENI Press Release)

New updates from West Esh El Mellaha Block

Aminex PLC (Aminex), the oil and gas company listed in London and Dublin, announced the result of the Malak-1 exploration well in Egypt.

Malak-1, the first in a three well program on the West Esh El Mellaha concession (WEEM-2) in the onshore Gulf of Suez and operated by an associated company, Aminex Petroleum Egypt Ltd., reached a total depth of 3,692 meters and obtained positive gas readings from several intervals, proving the presence of hydrocarbons. However, these were not considered to be commercial and the well will now be abandoned.

The rig will shortly be moved to the next location selected for drilling, the Tanan North West prospect, five kilometers to the north east of the Malak-1 location. The new well, Tanan NW-1, will be spudded shortly.

The WEEM block lies in a prolific but geologically complex oil producing area and Malak-1 is the deepest well ever drilled in the vicinity. The results confirm the presence of hydrocarbons deeper than 3,600 meters and indicate the potential for early Tertiary and Cretaceous source rocks below 3,000 meters to be within the oil "kitchen" for the area. These provide further exploration opportunities on the WEEM block and the data obtained from Malak-1 will be invaluable for planning subsequent drilling.

Aminex has a 10% beneficial interest in the WEEM-2 concession through its shareholding in Aminex Petroleum Egypt Ltd. Aminex's share of costs is carried by other partners through to first commercial production. Aminex has no financial exposure until commercial hydrocarbons have been established.

(Aminex Press Release)

2008... another booming year for Dana Gas

Dana Gas, the Middle East's first and largest regional private-sector natural gas company, announced that it is executing an aggressive exploration and development program for its Egypt assets in 2008. The program involves the drilling of 19 new wells, including 15 exploration prospects and four development wells. The total budgeted upstream capital expenditures for Egypt in 2008 are more than $170 million, and five drilling rigs are presently being acquired to implement the program.

The wells are located at the Komombo concession in Upper Egypt and the two Nile Delta concessions. There will be one exploration and one development in the Komombo concession, three development, and 14 exploration wells in the Nile Delta, five of which are targeting the Sidi Salem Formation. The wells in the Sidi Salem Formation are technically challenging, targeting depths around 4,000 meters.

Hany Elsharkawi, Dana Gas Country Director in Egypt said, "This is a defining year for the upstream operation in Egypt, and this exploration and development program could potentially double the size of our reserves, and would provide a further boost to Dana Gas production and revenues in Egypt. The gas sector in Egypt is expanding rapidly, and we are confident that this program will grow our already strong position in the country."

Dana Gas, the 6th highest natural gas producer in Egypt from among the 64 companies operating in the country, announced historic discoveries in Southern Egypt from its El Baraka-1 exploration well in September 2007, followed by a further major discovery in the Dabayaa delineation well in December 2007.

Dana Gas has already taken the initial steps to build the Gulf of Suez LPG Plant in partnership with the Egyptian Natural Gas Holding Company (EGAS) and the Arab Petroleum Investment Corporation (APICORP). The plant will produce approximately 120,000 metric tones per year of propane and butane, with the products to be exported to international markets and thus providing significant value to Egypt's gas resources.

(Dana Gas Press Release)

Shahd uncovers its hidden fortune

Port Moresby-based Oil Search and its partner Sipetrol International have uncovered 17 meters of oil pay at the Shahd SE-1 well in Egypt near the producing Shahd oilfield in the East Ras Qattara concession.

The well was sunk to a total depth of 3063 metres before being logged, said Oil Search. Preparations are now underway to carry out a production test over the Upper and Lower Bahariya sandstones where the oil pay was identified.

Enap subsidiary Sipetrol, is the well's operator with a 50.5% stake and partner Oil Search holds 49.5%.

(Upstream Online)

KS Medstar-1 commences operations for Petrobel

KS Energy has taken delivery of KS Medstar-1 and the rig began its contract with Belayim Petroleum Company (Petrobel), last April, in the Mediterranean Sea.

According to the terms of agreement, this contract is valid for a 3-year period, with a total value of $130 million in addition to a renewal option for one year. When the renewal option is exercised, the value of the contract will be increased to $175.2 million.

Petrobel is a joint venture between the Egyptian General Petroleum Corporation and Agip/ENI, the petroleum company of Italy.

(Rigzone)

Edison and BG on Abu Qir race

Italy's power group Edison and Britain's BG are the main competitors for a stake in Egypt's Abu Qir gas field and bidding results will be announced soon, said the Egyptian Petroleum Minister Eng. Sameh Fahmy.

«There was bidding and we are assessing offers now ... Lots of majors (took part), but I think the main competition is going to be between Edison and BG,» Fahmy told reporters on the sidelines of the International Energy Forum in Rome, reported Reuters.

According to various estimates, the Abu Qir field reserves holds between 1 trillion and 2.5 trillion cubic feet, Egyptian oil officials said.

«Edison may have a very good deal in Egypt soon... We expect a decision within a few weeks,» added the Egyptisn Minister.

Export of gas is one of the options for developing the field, Fahmy said.

(Upstream Online)

Will Damietta host the petrochemical plant?

Agrium Egypt has denied press reports' statements that the petrochemical plant it is building in the governorate of Damietta will be relocated because of strong local opposition to the project.

"This is untrue, the plant will not be relocated," Project Director at Agrium Egypt, Khaled Salama, told Daily News Egypt.

The construction of this petrochemical plant has been facing local opposition, claiming that it would "negatively affect" the environmental nature of the governorate.

Salama attributed the lack of awareness as the reason behind this wave of opposition. "Many people are against it," he said, "but that is due to a lack of awareness of the safety features and technology used in building the plant and the benefit to the local community."

For this end, Salama said that the company would be distributing leaflets about the plant in the area and is organizing a series of lectures "to raise awareness about the plant in the local community and its benefits to them."

Salama declared that the plant was being built by "German technology, and has more safety features than any other petrochemical plant in Egypt. It is 6 km away from any residential area and contains all the necessary safety procedures."

Agrium, a Canadian company, holds a 60 percent stake in the plant. The Egyptian Petrochemicals Holding Company and the Egyptian Natural Gas Company own 24 percent and 9 percent respectively. The remaining 7 percent is held by the Arab Petroleum Investments Corporation of the Saudi Arabian government.

The plant, which is due for completion in 2010, is a nitrogen facility that consists of two ammonia and urea trains working at a combined capacity of 1.3 million tons of urea and 100,000 tons of net ammonia.

(Daily News Egypt)

Maridive seeks up to $278mn share sale

Egyptian oil and marine support company Maridive & Oil Services stated last month that it was seeking to raise up to $278 million in a share sale to fund expansion. Maridive, based in the Egyptian coastal city of Port Said, said the share offering, via a private placement and a retail offering, values the company up to $850 million. The company is selling a stake of about 30% of all existing shares.

"The offering of shares to investors in Egypt and internationally comes during a period where the company has embarked on an ambitious expansion plan with 15 new vessels and two barges expected to be delivered by 2012" said Chairman Eissa Eleish in a statement.

The company is to sell a total of 74.2 million shares at between $3.25 and $3.74 per share.

It will offer 64.8 million shares in a private placement, with an over-allotment option for another 9.4 million, and an extra 9.4 million in a retail offering.

The firm also announced that its main shareholders, Eleish, Zeid and Nadim families, accounting now for 82% of the company, will use a portion of their proceeds to subscribe to 28.96 million new shares at the private placement price. Their resulting stake in the company will be 61%.

The firm said trading would begin around May 5 on the Cairo and Alexandria Stock Exchange, with final pricing around April 22. A marketing tour for the private placement started on April 16.

(Reuters)

RWE Dea heads to North Idku

RWE Dea holds formally a 100% interest in North Idku, following a recent acquisition of a 30% interst from Perenco Eastern Mediterranean Limited in the block.

Last April, RWE Dea AG announced that a long term gas sales agreement has been concluded with the Egyptian General Petroleum Corporation (EGPC) and the Egyptian Natural Gas Holding Company (EGAS) for delivering gas to the Egyptian market from its North Idku offshore concession located in the Nile Delta.

The company has declared commercial gas and condensate reserves in the block after achieving four discoveries out of five exploration wells.

With the signature of the gas sales agreement, the company has immediately started the first phase of the development of the offshore gas fields discovered. The development and subsequent production will be conducted by the Suez Oil Company (SUCO), a joint venture between RWE Dea and EGPC. First production is planned to begin in 2010. Development will be concentrated in the offshore area closer to shore. The gas produced will be piped to and processed by existing onshore processing facilities in the nearby Abu Qir Bay.

(Rigzone)

Cartoon

ByRamyAmeen

Egypt Kuwait Holding affiliate holds 5% of Sudan's Petrodar

An affiliate of Egypt Kuwait Holding signed an agreement to buy a five per cent stake in the Sudanese oil company Petrodar for $400 million, announced the company in a statement.

Through its subsidiary Tri Ocean, Egypt Kuwait Holding signed the agreement with Sudanese state-owned company Sudapet, which is one of the shareholders of Petrodar.

"Oil is transported to Port Sudan to be exported through a giant 1,300 kilometer pipeline, also owned by Petrodar," Mohammad Al Ansary, the Managing Director of Tri Ocean was quoted in the statement.

Petrodar has a 74,000 square kilometre concession in Sudan, with confirmed oil reserves of more than one billion barrels and daily production of 200,000 barrels.

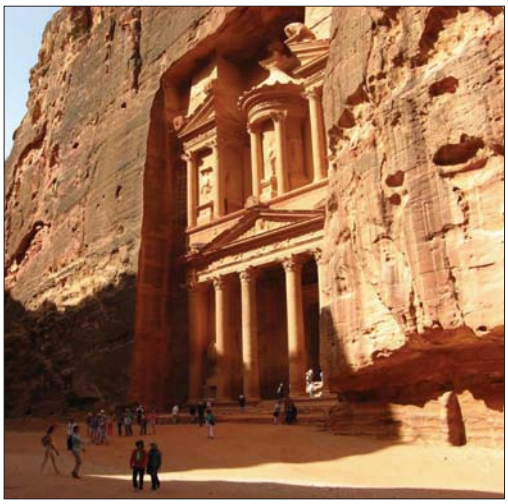
Egypt Kuwait Holding, the investment arm of the Kuwaiti Kharafi group in Egypt, has diverse holdings in the fertiliser, energy, insurance and agriculture sectors and holds 76.86 % of Tri Ocean.

Other Petrodar shareholders include Chinese companies Sinopec and China National Petroleum Corp (CNPC), and Malaysia's Petronas Carigali.

Egypt Kuwait Holding, which posted an 85% jump in consolidated net profit in 2007 to $104.03 million, said that Tri Ocean has made a significant oil discovery in Egypt in the North Shadwan Concession located in the Gulf of Suez, last March.

(Gulf News)

Fahmy: 200% increase in gas price to Jordan



The Egyptian Ministry of Petroleum Eng. Sameh Fahmy has increased the price of gas exported to Jordan by 200% to count for $4.5 per mbtu.

The Jordanian government has agreed to the price increase, which will be applicable only to additional supplies this year and not to an annual 200 mbtu agreed upon in 2001, where. the price is to remain $1.5 per mbtu.

The agreement, which is expected to take effect by the end of 2008, gives the Ministry the right to review the price every three years to reflect changes in international prices. The Egyptian government has been reviewing the prices under natural gas agreements in reaction to the rise of natural gas prices in international markets.

(Al-Mal)

Renewable Energy

Qatar seeks a future in solar manufacturing

Based on a plan to become a major player in the global solar energy, Qatar is to produce the raw material for solar cells and subsequently entering the downstream segment, according to a report in Gulf Times.

"We have been doing a lot of scouting and have found ways to enter the market under a fast-track project and become key player in five to six years," said Qatar Science & Technology Park (QSTP) chairman Tidu Maini.

The first step is to establish a chemical plant to make the poly-silicon material, the feedstock for solar cells, which is a specialized process in a very tightly held industry with only seven or eight major suppliers in the world.

"These are manufacturers of solar cells, batteries and system integrators, who could be here or in the Third World countries where labor is cheap," said Maini, adding that Qatar would also pursue using solar energy for desalination, rather than using oil and gas for the process.

It is worth mentioning that the company has funded a project for solar thermal at Texas A&M University in Qatar.

The QSTP Chairman said that what Qatar intended to do was similar to the model adopted by Abu Dhabi's Masdar Initiative.

"They have a solar plant and are coming from downstream by buying companies who already manufacture solar cells whereas we have decided to go to the other extreme," he told the newspaper.

Though a plant to make polysilicon material is expensive and energy intensive, Maini said it is very profitable and the entire factory could be paid off in five years.

Credit Suisse to invest $300 million in renewables

Hudson Clean Energy Partners, a private equity firm that invests in the renewable energy market and Credit Suisse announced that they have reached an agreement in principle for Credit Suisse, together with its clients and affiliates, to commit at least $300 million to make principal investments in the renewable energy sector through Hudson.

"We are excited about making this strategic investment in Hudson and believe there is a real untapped opportunity in this attractive asset class. The Hudson team brings deep industry experience and an extraordinary investment track record. Offering Hudson Credit Suisse's expertise in developed and emerging markets, alternative investments, and renewable energy investment banking, as well as deal flow, adds a significant dimension," said Brian Finn, Chairman of Alternative Investments at Credit Suisse.

RWE heads to Poland

RWE Innogy GmbH has secured access to wind power projects located in Masuria and Pomerania, Poland.

RWE signed a contract with a Polish project developer to acquire the rights of these 200 - megawatt (MW) projects.

The first wind turbines in these projects are due to come on stream in 2010 with first permits expected to be granted before the end of this year. In 2007, RWE took over two wind power projects with a total capacity of almost 80 MW in Poland, which are due to be commissioned in 2009.

"Poland has created a favorable environment for renewables. This is why we should grow our position there. We are now on a promising track with a total of 280 MW of planned power plant capacity," said Fritz Vahrenholt, CEO of RWE Innogy.

International

AlMansoori and Corex to establish a facility in Abu Dhabi

AlMansoori Production Services (MPS) has signed a joint venture agreement with one of the world's leading core analysis companies, Corex, to establish a new facility in Abu Dhabi, announced the company in a statement.

The cutting-edge base, due to be opened in the second half of the year, will be located in Mussafah and provide the Middle East oil and gas industry with high-tech routine core analysis and pressure, volume and temperature (PVT) services.

The two-storey site, which will cover more than 3,000 square feet, will be fully equipped with the newest, most up-to-date technology and staffed by highly skilled and experienced geologists and engineers. Specialist provisions such as in-situ saturation monitoring, spectral core gamma logging, capillary pressure measurements, and reservoir condition flood tests will be provided from the laboratory.

Commenting on the new project, Housam El Houseiny, General Manager of MPS said, "I have no doubt that the Corex AlMansoori joint venture will be one of great success. Combining our local knowledge with Corex's expertise will be of great benefit to the region. There is significant demand for core analysis and PVT services in the Middle East and our new, industry leading facility will provide such vital services to the oil and gas industry."

From his side, Steve Anthony, Business Development Director of Corex said, "The joint venture will allow us to expand our operations into the Middle East and capitalize on the growing market needs for the services that we offer."

(Rigzone)

Oman to boost its gas production

As an attempt to meet the "rapidly increasing" demand for the fuel, Oman aims to boost gas output by 11% this year, said Sayed al-Siyabi, Director General of Oman's Ministry of Oil & Gas.

Oman is targeting gas output of 70 million cubic metres per day this year, up from 63 MMcmd last year, al-Siyabi told *Reuters*.

The commissioning of a gas treatment plant at Kauther at central Oman last year had helped Petroleum Development Oman (PDO) to boost gas output, Siyabi told the news agency on the sidelines of an investment conference.

"PDO is investing over $1 billion in various projects to enhance output this year and in the years to come," he added.

Majority state-owned PDO is the single largest oil and natural gas producer in the Sultanate.

In addition BP and BG Group would be investing nearly $1 billion in the next three to five years to develop gas fields, said Siyabi. Last year, BP won a concession to develop Oman's tight gas, which are reserves in complex formations that are difficult to exploit.

BG Group was developing a potentially gas-rich block in the Wusta region.

The Sultanate is targeting oil output of 790,000 barrels per day this year, versus output of 710,000 bpd last year.

(Upstream Online)

Island Oil & Gas acquires new Moroccan license

Island Oil & Gas plc announces that the Minister of Energy, Mineral Resources and Environment of Morocco has formally approved the 'Tarfaya Onshore' Petroleum Agreement (the Permit) awarded to Island's wholly owned subsidiary Island International Exploration Morocco (IIEM) by the Office National des Hydrocarbures et des Mines (ONHYM).

The Permit is valid for up to eight years. The work program that has been committed to during the initial two years and six months phase of the Permit comprises seismic reprocessing and acquisition and geochemical modeling. A drill or drop decision will be made at the end of the initial phase of the Permit. It is currently anticipated that seismic will be acquired in 2009.

The joint venture partners in the Tarfaya Permit are IIEM (40%), the designated operator, Longreach Oil and Gas Ventures Limited (30%) and San Leon (Morocco) Limited (30%).

Morocco has an attractive fiscal regime relative to other North African oil and gas producing countries – State Participation upon production of up to 25%; a 10% royalty on oil production (the first 300,000 tons of production are exempt) and a 5% royalty on gas production (the first 300 million cubic meters are exempt); and 35% corporation tax which is only payable after a 10 year holiday on production.

(Oil Voice)

Eurogas announces farmout of Sfax exploration permit

Eurogas Corporation announced that Eurogas and Atlas Petroleum Exploration Worldwide, Ltd. (APEX) have entered into a Farmout Agreement with Delta Hydrocarbons B.V. (Delta Hydrocarbons) with respect to the Sfax Offshore Exploration Permit located offshore Tunisia in the Gulf of Gabes.

Eurogas and APEX currently hold 45% and 55% participating interests respectively, in the Sfax Permit. The farmout agreement with Delta Hydrocarbons is subject to regulatory approval from ETAP, the Tunisian state oil company, and the Tunisian Government.

Delta Hydrocarbons has committed to spend $125 million on the Sfax Permit for a 50% participation in the permit. The partners have agreed to a work program which includes drilling the Ras El Besh 3 well, as the first of a three well drilling program which is scheduled to commence immediately. After completion of the first two wells the drilling rig will move to the Jawhara discovery and drill an appraisal well while installation of production facilities is underway at Ras El Besh. The work program also includes the acquisition of facilities as and when required.

As part of the transaction, Eurogas and APEX will be entitled to a refund of past exploration costs incurred on the Sfax permit, of which, approximately $11 million is net to Eurogas.

Upon spending the committed amount of $125 million, Eurogas would own a 22.5% participating interest in the farmout area, APEX would have a 27.5% participating interest, and Delta Hydrocarbons would own the remaining 50%.

According to the terms of agreement, APEX is to serve as operator. After Delta has expended $125 million, the project reverts to a joint venture participation for future payment and Eurogas will be responsible for its 22.5% share of any such payments.

During 2005, Eurogas and APEX converted the Sfax prospecting permit to an exploration permit which included a commitment to drill one well and acquire seismic data. To date, the partners have met the seismic commitment by acquiring over 900 km2 of high quality 3D seismic. The Ras El Besh 3 well will be the commitment well for the Sfax exploration permit.

(Oil Voice)

Apache demonstrates its horizontal success in Northeast British Columbia

Apache Corporation announced that its three horizontal wells drilled in the Ootla shale play in Northeast British Columbia test-flowed at rates of 8.8 million cubic feet (MMcf), 6.1 MMcf and 5.3 MMcf of gas per day.

The three wells drilled during the 2008 winter season are producing from the Muskwa shale and flowing through Apache's Missile gas plant. The Ootla area is in the northeast corner of British Columbia, about 60 miles from Fort Nelson, B.C.

"Although we are still in the early stages of understanding the full scope of this play, these three wells help validate our view that Ootla has the potential to be one of the larger shale gas accumulations in North America," said G. Steven Farris, Apache's President and Chief Executive Officer.

Apache began acquiring acreage in the area in 2000, and completed the first producing well from the Muskwa shale during the 2005 winter season. Apache and EnCana have formed an area of mutual interest controlling more than 400,000 acres at the center of the play. Apache's net interest is 207,000 acres.

Apache performed 18 fracture stimulations in the three horizontal wells, pumping a total of 7.8 million pounds of sand and 280,000 barrels of water into the formation. EnCana has drilled, but not yet completed, two horizontal wells in the area, and is drilling a third well. The two companies have drilled approximately half of the wells drilled in the play to date.

"While it will take significant investment in infrastructure to unlock this play, we estimate the gas resource potential at Ootla could be in the range of 9 to 16 trillion cubic feet net to Apache's interest," highlighted Farris.

(Apache Corporation Press Release)

StatoilHydro scores its fourth Algerian goal

Operator StatoilHydro along with its partner Sonatrach have completed the drilling and testing of exploration well number four in the Hassi Mouina license, in the Sahara desert in Algeria.

The partners, StatoilHydro with a 75% interest and Sonatrach with the remaining 25% have proven and tested gas in Lower Carboniferous and Upper Devonian sandstones.

"This is the fourth discovery in the Hassi Mouina license, and the encouraging results from the first four wells have given us valuable information about the resource potential in the block," said Bill Maloney, Senior Vice President for Global exploration (GEX).

The rig has been moved to the next location also situated in the southern part of the Hassi Mouina license, where the fifth well, TNKW-1, is being drilled.

Further exploration drilling is needed in order to confirm the full potential in the license. The Hassi Mouina license was awarded in June 2004. It comprises four blocks within a 23,000 square-kilometer area in the Gourara basin.

(StatoilHydro Press Release)

PetroChina, Qatargas and Shell sign their first long-term LNG deal

PetroChina, Qatargas and Shell signed binding sales and purchase agreements that will lead to the long-term supply of liquefied natural gas (LNG) originating from The State of Qatar to the rapidly growing Chinese market.

The agreements were signed in Beijing by His Excellency Abdullah bin Hamad Al-Attiyah, Deputy Prime Minister and Minister of Energy and Industry of Qatar, Mr. Jiang Jiemin, President of China National Petroleum Corporation and Chairman of PetroChina Company Ltd and Ms. Linda Cook, Executive Director of Royal Dutch Shell plc.

The LNG will be provided from the Qatargas 4 project in Qatar and shipped to PetroChina's LNG receiving terminals upon the start-up of commercial operations of these facilities. The agreements are for 3 million tonnes per annum of LNG for 25 years.

Qatar, already the world's largest LNG exporter, is set to expand production to 77 million tons per annum by 2010. Chinese companies have previously signed long-term LNG supply agreements with projects in Australia, Indonesia and Malaysia.

The Qatargas 4 LNG project, currently under construction in Qatar, is a partnership between Qatar Petroleum (70%) and Shell (30%). Shell has the largest global position in LNG amongst the major international energy companies.

(Oil Voice)

First Middle East LPG Cargo to reach China Gas

China Gas Holdings Ltd. Announced that it expects to import its first cargo of liquefied petroleum gas (LPG) from the Middle East early next year, which follows its acquisition of a controlling stake in a Shanghai-based LPG producer and distributor.

The urban gas distributor revealed its plan to buy a 53% stake in Zhejiang Zhongyou Hua Dian Energy Co., which produces and sells LNG in China and has more than 10 LPG storage bases along the country's coast. The deal will need the approval of China Gas' minority shareholders in order to be final.

Liu Minghui, Managing Director of China Gas, said in a press conference that the company plans to import LPG on behalf of Zhongyou as early as next year, through its joint venture with Oman Oil Co.

The move will help cut a middleman fee that Zhongyou pays other independent traders, added Minghui. He stated that the gross profit margin of Zhongyou may accordingly rise to over 8%, from 7.3% currently.

Zhongyou sold 1.05 million metric tons of LPG last year. About half of the LPG it sold was imported from the Middle East via Singapore, with the remainder being sourced locally, mainly from Sinopec.

According to Minghui, Zhongyou is expected to sell two million tons of LPG by 2010.

Zhongyou, in which China National Petroleum Corp. has a 30% interest and Sinochem Corp. has a 3% stake, owns four LPG storage bases in Xiaomen Island and Nansha of Guangdong province, Jingjiang of Jiangsu province and Fangcheng Port of Guangxi province. Each of the locations has a storage capacity of at least 50,000 tons.

Moreover, it owns seven other smaller LPG storage facilities located in southern China with capacity between 20,000 to 50,000 tons each. Some of the facilities also have the equipment to produce dimethyl ether, a substitute for natural gas.

(Gulf News & Dow Jones Newswires)

Olympic Torch relay

The 130-day torch relay will cover 137,000 kilometers before the flame returns to Beijing and enters the National Stadium on 8 August for the Beijing 2008 Olympic Games' opening ceremony

One of the highlights of the torch relay will be the attempt to bring the Olympic Flame to the highest peak in the world, Mt. Qomolangma. The torchbearer team will attempt to take the Flame to the highest peak on a day in May that presents the best climatic conditions for the ascent.

Chinese President Hu Jintao lit a cauldron at Beijing's Tiananmen Square with the Olympic torch, marking the official start of the round-the-world relay. Two hours after a specially chartered Air China plane carrying the flame from Greece touched down, the ceremony kicked off on the square at the heart of Beijing.

Vice President Xi Jinping, member of the Political Bureau Standing Committee of the Central Committee of the Communist Party of China (CPC), addressed the ceremony.

In addition, Zhou Yongkang, member of the nine-man Political Bureau Standing Committee, and other CPC and state leaders attended the ceremony. Also present was International Olympic Committee (IOC) Coordination Commission Chairman Hein Verbruggen, who addressed the ceremony on behalf of IOC President Jacques Rogge.

Moreover, the torch of the Beijing Olympic Games has a very strong Chinese flavor. It demonstrates the artistic and technical level of China. It also conveys the message of a Green Olympics, a High-tech Olympics and the People's Olympics. The shape of the paper scroll and the lucky clouds graphic, expresses the idea of harmony. Its stable burning technique and adaptability to the environment have reached a new technical level. The torch of the Beijing Olympic Games is designed, researched and produced in China.

The Torch Relay, as the opening of the Olympic celebration, was revived in the Berlin Olympiad in 1936 and since then the Torch Relay has preceded every Olympic Summer Games. Starting from Olympia and carried by the first runner, the young athlete Konstantinos Kondylis, the Flame traveled for the first time hand to hand until it reached the Berlin Olympic Stadium. Since, the Flame's magic has marked and has been identified with the beginning of the Games.

For the 1960 Olympic Games in Rome, the Flame followed a route in homage to the Greek and Roman civilizations. It was carried from Piraeus to Rome on the ship "Americo Vespucci" and passed through some of the best-known or important historical monuments of the two countries. It was the first time that the event was covered by television.

In the Mexico Olympiad in 1968, the Flame followed the route taken by Christopher Columbus, and the athletics champion, Enriqueta Basilio, was the first woman to light the Flame in the Olympic stadium. For the Montreal Games in 1976, the Flame traveled by satellite from Athens to Ottawa, and in the 1992 Games in Barcelona, a Paralympic Archery medalist, Antonio Rebollo, lit the Flame in the stadium with a burning arrow.

In Sydney 2000, the Flame made its journey underwater in the Great Barrier Reef and covered the longest distance in the history of the Games so far.

Moscow to host the UEFA Champions League finals

Three English teams reached the UEFA Champions League semi-finals in addition to Barcelona FC

Manchester United, Liverpool and Chelsea reached the semi-finals of the UEFA Champions League to ensure that at least one of the Premiere League's clubs will be in the final match in Moscow, if not being clear English final.

Carlos Tevez header struck as Manchester United claimed a 1-0 home victory over AS Roma to advance to the UEFA Champions League semi-final 3-0 on aggregate. However, MAN United Coach Alex Ferguson surprisingly left key trio Wayne Rooney, Cristiano Ronaldo and Paul Scholes on the bench.

Yaya Toure sent FC Barcelona, the only non-Premier League side, through to the UEFA Champions League semi-finals as the Spanish side had a 2-0 aggregate victory over FC Schalke. Barcelona is scheduled to clash against MAN United in the semi-final. While Chelsea booked a Champions League semi-final spot as Michael Ballack and Frank Lampard goals saw off Fenerbahce. Thus, Chelsea are scheduled to meet Liverpool since Liverpool set up another Champions League semi-final with Chelsea after a stunning 4-2 on aggregate win over Arsenal.

Liverpool striker Fernando Torres said that he would like to meet Barcelona in the Champions League final in Moscow, if his side can get past Chelsea in the semis. "The people here would prefer to face Manchester United, but I think it would be great to take on Barcelona," the former Atletico Madrid forward declared.

The final match will be on 21 May in Luzhniki Stadium in Moscow.

Fourth successive trophy

The Egyptian domestic league becomes hotter when it comes to an end

Title holders Ahli edged closer to a fourth consecutive Egyptian League trophy after reaching the 61st point. Cairo giant needs four points from their last seven games to claim the title for the fourth successive season. While the trio Ismaili, Zamalek and Al-Gaish just aspire for the second spot to be able to participate in the CAF African Champions league next season. However, they make no difference for the first-placed Ahli.

The Port Said-based club has gone through five matches unbeaten after the appointment of his new coach veteran striker Hossam Hassan, who is yet to retire from professional football.

Moreover, Zamalek skipper Hazem Emam has announced after Zamalek's loss 2-1 to Misri in the 23rd week of the domestic league that he will retire from professional football at the end of this season. "This season will be my last one," the 32-year-old Captain announced on Egyptian TV.

Emam has been limited to few appearances this season due to injury problems. Even when he was fully fit, he failed to put in convincing displays. "I hope I can conclude my career by lifting the Egyptian Cup next month when we face Enppi," he wished.

"All the reports which said I'm interested in nominating myself for a board position are totally untrue. I'm yet to decide what I'll do in future. Frankly, I consider not having any role in Zamalek because I'm fed up with our disappointing results in recent seasons," he added.

First clay-court trophy

Maria Sharapova claimed her first clay-court trophy in her career and third title of season

Australian Open champion Maria Sharapova snatched her maiden clay-court title with a straight-sets victory over Dominika Cibulkova in Amelia Island Championships. Though Sharapova, the top seed, triumphed 7-6, 6-3 against the Slovakian opponent, she was a far from vintage performance.

It was Sharapova's third WTA Tour success in 2008 after winning the Australian Open and an event in Doha.

The Russian was not at her best in the Florida final owing to making 33 unforced errors and hitting five double-faults. The first set was a hard-fought affair featuring plenty of marathon points on the green clay, Sharapova eventually edging it 9-7 in a tie-break.

She had come into the match the fresher of the two players having enjoyed a walkover in her semi-final when Lindsay Davenport withdrew due to injury.

And that showed as Sharapova took the second set 6-3 to secure the 19th WTA tour title of her career.

Cibulkova, an 18-year-old playing in her first WTA Tour final, had plenty of chances to claim an upset. She led 4-2 in the first-set tiebreaker before making two unforced errors that enabled Sharapova to recover.

Political Review

Will Russia become Egypt's nuclear partner?

"We believe that energy security is a major part of building a future for the country, and an integral part of Egypt's national security system," thus spoke President Hosni Mubarak upon inaugurating an electricity power plant north of Cairo in September. Since President Mubarak announced that Egypt would tread the nuclear path to secure its every increasing energy needs, studies have been conducted to choose the right foreign partner which will cooperate in building Egypt's first set of reactors

By Mohamed El-Sayed

COUNTING on a partner in the East, apparently, was the best choice available for Egypt, despite the fact that there have been many offers from Western countries, especially France and the U.S, to provide the necessary expertise required for the Egyptian nuclear program. In March, President Mubarak paid a visit to Moscow to seal a deal with Russian President Vladimir Putin that enables Russia to bid for the construction of Egypt's first atomic power station. The deal, which was signed by the head of Russia's Rosatom nuclear energy agency, Sergei Kiriyenko, and Egyptian Energy Minister Hassan Younis, was signed at Putin's residence outside Moscow.

After months of deliberations and negotiations, the agreement will allow Russia to bid in an international tender for a $1.5-1.8 billion reactor project on Egypt's Mediterranean coast, most likely in Al-Dabaa area. Reaching this all-important agreement, in fact, was not an easy mission, according to President Mubarak. "The deal was reached after difficult negotiations," Mubarak told reporters upon signing the agreement. However, President-elect Dmitry Medvedev, who takes over the Kremlin from Putin this month expected a "productive partnership in the nuclear sphere."

Many observes believe that sealing this deal with Egypt, Russia (which is close to completing Iran's controversial first nuclear facility in Bushehr, and also recently signed a contract for a reactor in Bulgaria) seems determined to reestablish a commercial and diplomatic presence in the Middle East, as it was the case before the collapse of the Soviet Union in early 1990s. The region was a former stronghold of Soviet influence before the end of the Cold War era and the subsequent surge of US dominance over the entire world. The move, also, comes within the context of Putin's desperate, and successful, attempts to restore Russia's role as a key international player in international politics.

The deal, in fact, was not a surprise for many commentators. After all, the former Soviet Union was the first country to start cooperation with Egypt in the latter's nuclear program in 1961, when it built its first

two-megawatt nuclear center for research in the town of Inshass in Sharqiya governorate. Through Russia, Egypt began to acquire knowledge and expertise in the field of nuclear technology and trained its first nuclear technicians.

Subsequently, Egypt suspended its efforts for about two decades after the Chernobyl accident in 1986. At that point, it was about to issue an international tender to build a nuclear reactor for the production of electricity, but bowed to pressure from the US and the Soviet Union, worried about safety problems following that disaster, and therefore canceled its project.

Opting for the peaceful nuclear solution has become a must for Egypt. According to a UN report, the oil and gas reserves of Egypt will start to dwindle in 2016, while Egypt's population will have exceeded the 100-million mark, thus requiring a lot of energy to produce electricity. Hence, Egypt quickly set down the basis for its peaceful nuclear program, announcing that it would be carried out under the supervision of the International Atomic Energy Agency (IAEA) in complete transparency.

Therefore, an IAEA delegation visited Egypt three months ago to look at alternative sites for the plants and advise Egypt on some of the technical and technological issues that should be observed before initiating the program. Also, an Egyptian delegation traveled to Vienna to present and tackle the draft law on nuclear energy it had prepared, which is expected to be submitted to the Egyptian Parliament in the coming few weeks.

Yet another round

EGYPT will once again host the World Economic Forum this month, having managed to deliver a successful round in Sharm El-Sheikh in 2006.

The summit is expected to attract an even larger number of international figures and decision-makers than the 2,000 who attended the event in 2006. Entitled "Learning from the future", the next gathering will focus on pivotal issues such as the bilateral relations between Middle East countries and the European Union. This comes in the wake of French President Nicolas Sarkozy's proposed initiative to further cooperation between the northern and southern Mediterranean countries. The forum will also concentrate on Palestinian-Israeli relations, and how best to achieve peace and development in the region.

"Holding the forum for the second time in Sharm El-Sheikh proves the world's confidence in Egypt's pioneering role in the region," said Minister of Industry and Trade Rachid Mohamed Rachid. It is also "international acknowledgement of the Egyptian government's success in the economic and political arenas," he added.

Many observers argue that the successful 2006 round showcased the tourism and transportation sectors' ability to organise big events, and that Sharm El-Sheikh is an international meeting point.

The forum, in fact, is a means to formulate a scenario for the future of the Middle East and holding a dialogue aimed at drawing a future picture of development in the region. Delegates will also debate energy issues in light of sky-rocketing oil prices, as well as finding alternative energy sources.

Other topics of discussion will be how best to support negotiations on world trade liberation, in addition to the role of technology in promoting development in the countries of the region.

Meanwhile, the foreign ministry said that a Middle East summit meeting could be held on the sidelines of the forum. Ministry spokesman Hossam Zaki did not say who might take part in the summit but the official Middle East News Agency said the idea was to have U.S. President George W. Bush and Egyptian, Jordanian and Palestinian leaders talk about Middle East peace.

Saving the US Economy

It seems that the U.S economy is heading towards a long-standing recession. With the credit crunch crisis, growing problems in Iraq, decreasing value of the US dollar vis-à-vis other main currencies, rising oil prices which exceeded the $100 dollar mark for the first time in decades came to cap it all. And as oil prices have risen about 16% this year, and the oil producers' cartel, OPEC, has declined to raise output, the American administration, as a result, felt at sea and began to move and hold talks with oil-producing countries

THE situation on the American local front, in fact, worsened. The price of oil reached a high of $111 a barrel in the past few weeks, and has surged 77 percent during the past year, pushing up the price of gasoline and other goods. The difficult situation, apparently, rang alarm bells with the American administration.

Therefore, the US Vice-President Dick Cheney made a tour in March to the Middle East, the world's main producer of oil, to convince oil-producing countries to increase their daily production so that oil prices would decline. During his visit to Saudi Arabia, Cheney said that his view of the current energy situation was one in which there was a dramatic increase in demand, as well as pressures from the declining value of the dollar. While announcing Cheney's trip, the U.S President George W. Bush said that high crude oil prices were damaging the markets of Saudi Arabia's biggest clients.

In his visit to Saudi Arabia, Cheney met King Abdullah to discuss ways of "stabilizing" the oil market. The negotiations between Cheney and Abdullah found a lot in common on the way to move forward in the international energy market. The meetings between Saudi and American officials, which also included Saudi Oil Minister Ali Al-Naimi, included a thorough discussion of short, medium and long-term goals for the oil market.

U.S officials said that they would build on the discussions begun by President Bush on his latest visit to Saudi Arabia in January, when he called on OPEC to increase oil exports and warned high energy prices were negatively affecting US consumers. Despite the calls voiced by U.S officials, El-Naimi insisted the kingdom would boost production only if the market justified it. Bush then said he hoped King Abdullah would "listen very carefully" to US concerns, and hoped to "see an increase in production".

Nevertheless, Cheney's talks focused on longer-range solutions to tight oil capacity. Many observers argue that he was less aggressive than his boss, George W. Bush, was when he tackled the same issue in Saudi Arabia two months ago in his Middle East tour. While Bush came to Saudi Arabia and asked OPEC to increase oil production, Cheney, during his ten-day Middle East trip, seemed less determined to push down prices. "High oil prices reflect primarily the reality of the marketplace," Cheney said in Iraq at the start of his Middle East tour. "There's just not a lot of excess capacity worldwide," he pointed out.

In spite of the desperate American efforts in the past few months, oil producing countries in the Middle East have not responded in a manner satisfactory to the American administration. As a matter of fact, they seemed not convinced by Cheney or Bush's view that more production is needed.

Twice since Bush made his appeal in January for more oil during his Saudi visit, OPEC which supplies more than 40 percent of the world's oil, has decided not to change its production plans. Al-Naimi called upon oil-consuming countries to depend more on renewable energy, like solar energy, if they really wanted to avoid the negative effects of soaring oil prices.

OPEC has quietly begun to reduce its oil production despite calls from the US and Europe for the group to pump more so that prices fall. Output from the core countries of the 13-member cartel last month fell to 27.3 million barrels a day, down from the 27.6 million barrels a day in January

In Focus

StatoilHydro takes on the deep water challenges

Being a "late entrant" to the Egyptian oil and gas market has not hindered Norway's leading company StatoilHydro in joining this "promising area", but what are the challenges it is facing? How will it solve them? What are its plans? Per Johan Bugge, StatoilHydro General Manager in Egypt, exchanges with *Egypt Oil & Gas* the clarifications to all the queries and reveals the company's target in strengthening its operations in the country

By Yomna Bassiouni

The number of successful gas exploration wells that have been drilled in the Mediterranean Sea has been the reason why StatoilHydro was keen to take part and operate in the country. The development of LNG projects in Egypt has been another added value to attract Norway's leading company to join the Egyptian arena.

"Since mid 1990s until 2005, the gas business has tremendously developed in a very impressive manner in Egypt," highlighted Bugge.

The year 2006 symbolized the official entrance of StatoilHydro into the Egyptian sector through Egas Bid Round; it has been awarded the operatorship and an 80% interest in deepwater block 9 in the Mediterranean Sea and then shortly after, it got the operatorship and an 80% working interest in block 10. The remaining 20% in both blocks are held by Algeria's Sonatrach International Petroleum Exploration & Production (Sipex).

On receiving the final approval of the Egyptian parliament to activate the agreement, StatoilHydro completed 2,600 km of offshore 2D seismic in the Mediterranean in December 2007. Currently, the company is shooting 4,000 km2 of seismic studies, while analyzing and interpreting the acquired data on the spot.

"It took us almost a year to finalize the legal procedure with Egas and get the approval of the Egyptian Parliament... Yet, we set our time plan for the drilling phase of the first well which will hopefully start by late 2009 or the beginning of 2010," added Bugge.

"There are three main requirements in order to find oil or natural gas; there has to be a ceiling, which could be the salt in this deepwater area, secondly, reservoir that is normally sand stone and thirdly hydrocarbons, which supposedly have moved in this area. We do think there is ceiling and sands, but is there any hydrocarbon in large amount, that is what we can not identify before we have drilled a well," clarified Bugge.

This is not the sole challenge StatoilHydro is facing, deep water drilling is yet another defy for the company.

"The area we are exploring is approximately 2000-3000 meters-deep and it is extremely expensive to operate there and requires costly technologies and special vessels to drill wells… the cost of drilling one well can count for nearly $100-200 million."

Per Johan Bugge

The chances of success for StatoilHydro are in the average of 20 to 30%. "However, we do believe that there is a chance to succeed and find something that is economic and commercial. And to have a commercial discovery in such a water depth, a world-class discovery is needed. But, being both one of the leading gas companies in Europe and also the world's leading deepwater company, we are up to this challenge," declared Bugge.

> **"Having the blocks located approximately on the Western periphery of the Nile Delta, which is an area where no wells have been drilled before, StatoilHydro is facing a real challenge"**

Having the blocks located approximately on the Western periphery of the Nile Delta, which is an area where no wells have been drilled before, StatoilHydro is facing a real challenge. No one has penetrated this area before, thus the Norwegian Company does not really know whether or not the area is fed with oil and gas, and this is where the risk lies.

Commenting on the new strategies implemented by the Egyptian Ministry of Petroleum set to encourage deepwater drilling development, Bugge believes that, "What is good about Egypt is that the administration is very business oriented; when they had the cap of gas price that counts for $2.65 per million BTU, and the international companies suspended their operations in the Mediterranean as their projects were no longer economically profitable, the Egyptian authorities has considered this problem and negotiated new prices since they aim at developing the production of natural gas in the country."

When it comes to deep water, the company is characterized by its mega operations and being one step ahead of other companies, especially in water depth exceeding the 100 meter. As a matter of fact, in Norway, all the oil and gas operations are offshore; hence the acquired experience for StatoilHydro is offshore. Since the early 1990s, the company's activities have not been limited to Norway; it has offshore operations in the Gulf of Mexico, Nigeria, Angola, Venezuela, Brazil, Azerbaijan and Caspian Sea, etc...

Egypt was not the first station for StatoilHydro in North Africa; the company moved to this continent in the 1990s through operations in Libya and Algeria. Taking part in the Egyptian sector is to support the company's plan in founding a new position in the LNG business.

In Europe, StatoilHydro is the second largest gas supply to Europe with a 10-20% market share.

In December 2006, the international oil and gas sector has witnessed a stupendous merger between Statoil and Hydro, which was described as "the Start of new era" by the Norwegian Prime Minister, Jens Stoltenberg. "The merger provides a strong financial backbone for the new company; Statoil and Hydro were ranked as the no.1 and no. 2 top companies, respectively, in Norway and through merger, we have succeeded in doubling resources' capacity, hence reducing costs and acquiring more projects. We have chosen to combine our forces rather than compete," commented Bugge.

Both companies are well known for being among the best in the industry with regard to environmentally sound technology and corporate social responsibility.

StatoilHydo has nearly 29,5000 employees in 40 countries. It is the operator for 39 producing oil and gas fields, with a market capitalisation worth more than NOK 500 billion (NOK 528 billion at a share price of NOK 170). Production averages more than 1.7 million barrels of oil equivalent per day.

The company has been classified as the world leader in the use of deepwater technology and world leader for carbon capture and storage.

"Egypt is our new challenge and StatoilHydro is capable of delivering on the expectations. Our ambition is to develop commercial reserves and further strengthen our foothold in the country through focused business development," concluded Bugge.

Horizontally drilling new potentials II

Shedding light on the Horizontal Drilling Technique in Egypt, and the fruitful outcomes it can bring to the oil and gas industry, Steve Gauld, Business Development Manager of Baker Hughes Egypt exchanges more information about this trendy methodology

What is different about this technique?

Horizontal drilling is a natural extension of conventional directional drilling techniques. By taking a well to horizontal with reference to the formation dip, the production hole exposes significantly more reservoir. When done correctly, this increases both production and ultimate field recovery while simultaneously reducing the total number of wells required to drain a field.

What are the requirements of this type of drilling?

The key requirements are personnel competency and field proven technology. Horizontal wells are drilled using different drilling technologies ranging from steerable drilling motors, adjustable stabilizer systems right through to rotary steerable systems (RSS's) and the more advanced Rotary Closed Loop Steerable (RCLS) systems. In most cases, formation evaluation logging while drilling (LWD) services are integrated with the drilling technologies. This information is used in real-time to land and then maintain the wellbores position within the most productive reservoir zones. In some cases, multiple zones are targeted for production from a single horizontal leg. Real-time LWD data is also used to monitor wellbore stability in order to identify and accurately diagnose the onset of instability which, if left unchecked, may result in wellbore collapse. It requires a team of competent personnel to minimize operational risk and maximize the value of the delivered well.

What are the pros and cons?

The pros are huge. Whole orders of magnitude increase in reservoir exposure from fewer wells delivers greater production at lower cost. In thin reservoirs, horizontal drilling may be the only way to exploit those reserves – thereby increasing the proven reserves of a province or company. By reducing the number of wells required to drain a field, safety is improved, environmental impact is reduced as well as overall field development cost and time to full production.

The cons are increased technical complexity and individual well cost. Higher cost equipment is normally employed on horizontal drilling projects and it requires competent personnel to successfully plan and execute each well on time and within budget. In geologically complex reservoirs, knowing precisely where to position each lateral leg is a challenge. This can be addressed by maximizing the information gathered from each well right from the very start of field development, feeding this into the geological model and employing expert reservoir navigation services to model and geo-steer wells to target for optimum payback. Wellbore stability studies should also be performed as early as possible in a field development to minimize risks associated with wellbore instability.

Is it applied here in Egypt?

Yes, officially commenced in the early 90's however there maybe earlier horizontal wells drilled that we are not aware of.

If yes, how many wells are horizontally drilled? Where?

Averaging from 3-7 wells per year; in total more than 50 wells drilled in the Gulf of Suez, Sinai and Western Desert to date however new horizontal wells are being planned monthly.

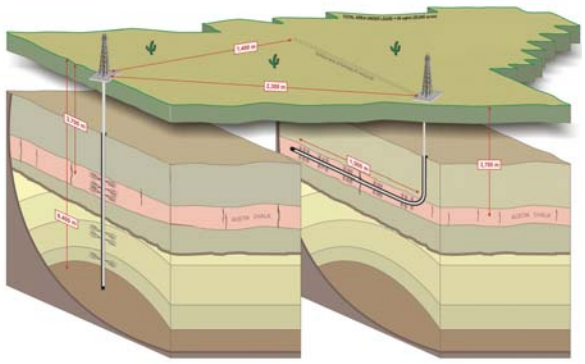
What are the constraints facing the execution of horizontal drilling in Egypt?

a. Economically

Lack of knowledge/experience, increased expenditure to gain additional reservoir exposure, expense of loosing the horizontal section during the drilling phase due to wellbore or directional problem (TVD Uncertainty), pressure managements, or in the completion phase due to hole conditions.

b. Geologically

Complicated subsurface structure, TVD Uncertainty, Thin bed reservoirs, depleted intervals, and dipping formations all require full understanding prior to drilling.



Negotiations to increase gas prices set to fertilizer companies

The Egyptian government is negotiating with a number of fertilizer companies operating in free zone areas to increase the price they pay in return for natural gas in order to compile with the international gas prices

By: Ashraf Said

Al Khorafi Group of Kuwait has agreed on amending prices of natural gas supplies to Alexandria Fertilizers plant, in which it controls a 29.24% stake.

As for Alexandria Fertilizer Factory, it has agreed to pay $1.6 per MBTU, similarly to the price paid by local fertilizer companies operating in non-free zone areas, instead of $0.75. The approval is subject to one condition which is to lower down this price if the price of fertilizers ever falls below $150 per ton.

The price is now between $450 and $500, Al Mal Newspaper quoted a Ministry of Petroleum source as saying.

According to a senior official at the Egyptian Ministry of Petroleum, the Group representatives did not obstruct amendment of the agreement. They only requested to put into consideration that the new pricing should account for production costs at least for this year's export contracts.

"Alexandria Fertilizers has approved the proposal for raising prices of natural gas supplies to the levels dominant in the local market," added the official.

According to the terms of the signed agreement, the company buys natural gas from the government at 75 cents per MBTU, compared with the international prices of nearly $10 per MBTU. Meanwhile, prices for supplies to Abu Qir Fertilizers and Delta Fertilizers companies are set at $1.60 per MBTU which to be increased to $2.65 per MBTU after a two-year period.

The new proposal is hence intending to reach a compromise that would enable the Ministry of Petroleum to persuade fertilizers producers in free zones to accept the amendment of prices.

The official pointed out that many plants in the free zones pay 75 cents per MBTU that is equivalent to $90 per ton compared with an international price ranging from $450 and $500 per ton.

Along the same strategy, the government is holding a negotiation with Canadian fertilizers giant Agrium to hike the price of natural gas that is used by its 60%-owned fertilizer factory under construction in Damietta. Agrium signed a five-year contract with the government to receive an annual 1.2 bcm of natural gas, or about 8% of total Egyptian industrial natural gas consumption, for $1 per MBTU.

Last August, a new industrial energy policy was issued by the Egyptian government to eliminate the budget of energy subsidies allocated for a number of energy-intensive industries by 2009.

Under this policy, natural gas prices will be raised to $2.65 per MBTU by 2009-2010. After this transition period, the government will set prices with reference to the cost of production and global oil prices. The government now pays international oil companies $2.65 per MBTU for the natural gas they produce at the Egyptian gas fields. The policy, however, does not include companies operating in free zones.

Deep challenges open deep oil frontiers

Despite the challenges, technology has evolved and revolutionized the exploration and expansion of current and new oil fields, especially the deep water well construction

By Ahmed Morsy

OVER the last decade, there has been a shift in the structure of the oil and gas industry, which has had a huge effect on the nature of innovation and on how research and development (R&D) is carried out within the industry. Many industry observers will acknowledge that oil companies, the ultimate customers for the whole oil and gas supply chain, are becoming increasingly focused on cost savings.

The new technology reduces drilling costs and increases the productivity since it helps expanding the supply of oil that can ultimately be pulled out of the ground. Nevertheless, skeptics argue that recent advances are only helping the industry pull oil out of the ground faster, and that the overall pace of discovery hasn't picked up. However, for the past decade, the oil industry has invested on 3D computing technology to extend its reach and find more oil.

One misplaced well costs a lot of money in vain, while another well which decided not to be drilled saves money that then can be put toward one that is more economic by using modern technology. With oil prices hitting new highs, proponents of so-called "peak oil" argue that the world may be approaching the point where production cannot keep up with demand. And innovations, like 3D, are at the center of a debate over whether technology can help replace the world's known oil supplies before they are depleted.

For instance, advances in drilling techniques do hold the promise of further lowering the cost of producing new oil and extending the industry's reach. That's especially true in deepwater offshore fields where many promising discoveries are turning up. For the reason that huge volumes of the world's future oil reserves lie in deep waters at the very limit of our current reach, and just beyond. Moreover, by all indications, tomorrow's drilling will be even deeper. The rapid advances in deepwater exploration and production (E&P) methods over the past five years ensure that as soon as one deepwater record is broken, another surpasses it. Some estimates suggest that 90% of the world's undiscovered offshore hydrocarbon reserves hide in water depth greater than 1000m.

There are multiple definitions of "deep" water, which vary depending on the activity being considered. By and large, for well construction, 1500ft, or 500m, is considered deep. Deeper than that, the technology requirements change, but solutions are available. And deeper than 7000ft, or 2000m, is ultra deep water.

> **"Some estimates suggest that 90% of the world's undiscovered offshore hydrocarbon reserves hide in water depth greater than 1000m."**

The greatest challenges in constructing wells in deep water are related somewhat to the great depth, but also to the conditions encountered in each deepwater oil province. In the deepest waters, drilling can be accomplished only from dynamically positioned semisubmersible rigs or drill ships. While the primary challenge facing deepwater well construction is to drill a stable hole. Drilling a hydraulically stable hole can be achieved only by keeping drilling mud weight within the margin between fracture and pore-pressure gradient. The current water depth record in drilling for hydrocarbons is held by a Petrobras well in 9111ft, or 2780m, of water offshore Brazil.

In the deepest waters, today's wells are completed with wellheads and production trees on the seafloor that connect to flowlines for transporting hydrocarbons to surface. The wells may be made more productive by implanting permanent monitoring and flow-control devices down-hole. Keeping fluids flowing at the highest possible rates requires not only adequate tubing size, but also attention to conditions that can lead to other flow blockages. At the high pressures and low temperatures that deepwater wells encounter near seabed, solid, ice-like compounds called gas hydrates can form from mixtures of water and natural gas. These solids can block flow in tubular, and depressurize explosively when brought to surface. They have been responsible for offshore drilling catastrophes in the past. Hydrates can also form naturally at and below the seabed, creating a drilling hazard if penetrated.

In order to ensure cost-effective, safe and efficient operations in deep waters, the industry must develop solutions to these problems. In some cases, the solutions will be a new tool or completely new technique; however, in others an innovative application of existing technology will provide the solutions.

Deepwater operations vary significantly compared to conventional operations in shallow waters, drillers obviously encounter different environmental conditions, challenging drilling and exploration processes as well, but once successful the results can be very lucrative, particularly in the long-run. The proliferation of deepwater development projects will likely continue to grow, as long as the technology and financial incentives make the ventures increasingly profitable.

Toyota Corp., the newest member in the Egyptian energy sector

Talks by the Egyptian Natural Gas Holding Company (EGAS) with Toyota Corp on launching a drilling joint-venture for deep-waters operations have reached a very advanced stage

By Ashraf said

A senior official at EGAS said both companies were running final negotiations on the ownership structure of the new venture, which would mark the first initiative by Toyota Corp in the Egyptian energy industry.

Natural gas industry is one of the most dynamic and flourishing industries and is earning more recognition in shaping an optimistic future outlook locally and globally.

The official added that the Minister of Petroleum Eng. Sameh Fahmy reached a semi-final agreement with top executives at Toyota on the new venture during his visit to Japan in last February.

Fahmy said during this visit that a joint venture would be set up with Petro-Materials Corporation.

«The new drilling operation comes as part of the oil and gas exploration efforts in Egypt with scores of international energy companies showing greater interest in the Egyptian market,» clarified the official.

In view of natural gas industry vital role to the country's economy and according to the vision of the Ministry of Petroleum, it was decided to establish EGAS as an entity focusing on the natural gas chain of activities.

The state-owned EGAS has drawn up a 20-year gas development plan which requires investment in excess of $1.2 billion a year over the first five years. At the core of the plan is developing Egypt's gas exporting potentials

Many companies have explored the offshore area successfully and gas production has been achieved from deep waters, adding to a growth in output from areas nearer to the coast. British Gas (BG), BP, Shell and ENI are classified as the main operators.

EGAS was established in August 2001, adopting an effective action plan to organize and diligently handle the activities of the natural gas resources of Egypt and adding value to the Egyptian economy.

IT

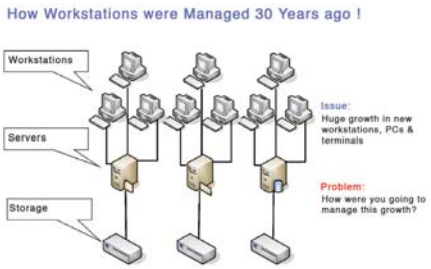
Storage Area Networks Concepts

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

Why do we use SAN Storage ? Is it essential for any infrastructure ? What type of problems will it solve ? Do we need it to solve capacity problems only or there is another more important issue ? Will it have an impact on performance, scalability & upgradeability ?

Let's get back and see how was infrastructures been managed before and what were the problems they faced that triggered the innovation and development of SAN Storage Solutions.

Initially, infrastructures used to have clients connected directly to servers where it was very difficult to transfer data between clients as well as sharing resources. Day by day, number of clients & servers got increased and management became more and more difficult.



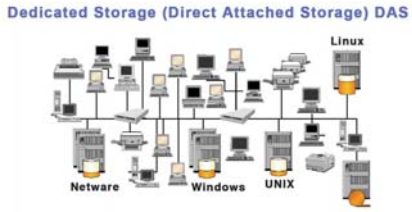
This situation above triggered the innovation of LAN to solve communication & management problems between Workstations and Servers as below.

Where Data was always as **"Internal Disks in each Server"** (i.e., There are 2 Major Problems) :

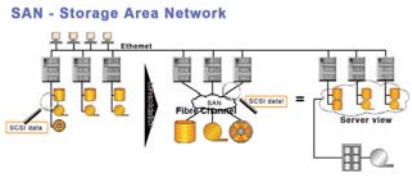
• Internal **SCSI** Disks = **1 Operation at a Time** (i.e., Only 1 Disk in the Bus will Read or Write while the rest of Disks are waiting). Moreover SCSI Bus Speed is 320 Mbps (80 MBps).

• Inefficient distribution of capacity over all servers. Moreover the loss of Multiple Parity & Spare Disks in each & every Server.

Simply The 2 Major Problems are : Low Performance & Capacity Loss.



The industry approach was to find a **"Consolidation Solution"** that will avail a solution for all servers to access a central Storage Array Subsystem with capability to share the capacity where *All Disk Drives will Read & Write at the same time.* This Solution would achieve excessive increase in System's performance and add reliability to system as Data would be always consolidated in Storage Array.



Based on Fiber Channel Protocol, IBM Invented a New Network for Storage Access only that is SAN (Storage Area Network) or Simply Switches that would connect Servers to Storage Arrays in order to consolidate all Storage Devices in a Fiber Channel Network and have High performance as *All Disk Drives will Read & Write at the same time* in the Disk Array Subsystem, moreover FC Speed is 4 Gbps (400 MBps) compared to SCSI Speed of 320 Mbps (80 MBps). Efficiently use Disks Capacity by consolidation and Flexible share and distribution across servers.

Conclusion, Leaving Data as Internal Disks inside Servers is totally lower in Performance for system than consolidating it in a Fiber Channel External Storage as per the calculations discussed above.

Other benefits include the ability to allow servers to boot from the SAN itself. This allows for a quick and easy replacement of faulty servers since the SAN can be reconfigured so that a replacement server can use the Data of the faulty server located in storage array subsystem.

The question is which storage would be the best fit for your infrastructure ? Is it the most expensive ? Or the highest in performance ? Is this related to your actual workload ?

The most critical point when choosing the proper storage solution is to have actual sizing for your current workload considering upgradeability factor as storage is designed to live in your infrastructure much longer than your servers that's why sizing have to be done precisely to know the actual needed performance then to select any of the storage arrays in the market relying on performance differences.

But how can customers compare storage solutions of different vendors to each other ? Simply there are one of 3 ways :

• Vendor Benchmark : All vendors publish their boxes performance numbers represented in IOps that is essential for DB & OLTP environments.

• Standard Benchmark : Storage Performance Council is a standard organization responsible for benchmarking storage boxes of all vendors in order to give customers' capability to compare different storage solutions of different vendors. Especially or OLTP customers, they can refer to **SPC-1 Benchmark** (www.storageperformance.org).

• For Large File Processing customers where business is in need for Huge System Bandwidth like the Seismic Analysis or Data Mining / Warehousing or Video Streaming, they can refer to **SPC-2 Benchmark** (www.storageperformance.org).

Why does Storage Performance have such importance ? Why will Storage Performance be the key driving factor when adding a Storage Solution to your infrastructure ?

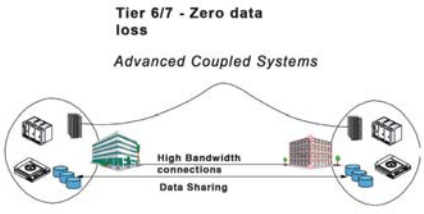
Simply, infrastructures have need to different servers that will handle variable workloads according to used Applications and number of users. Each and every server passes by proper sizing procedure to determine its number of Processors, Cores as well as Memory.

• The most essential part is the needed performance form Fiber Channel Storage Array Subsystem for this server (i.e., Fiber Channel Storage is obliged to offer needed performance for all servers otherwise all servers will suffer from Performance Bottlenecks).

• In addition to this, Storage Solutions are required to last for at least 6 years in your infrastructures (i.e., Fiber Channel Storage must have adequate performance to cover performance growth rate in your infrastructure otherwise you would face data migration problems and waste of investment changing your Storage Solution).

• Moreover,If you would consider using SnapShoot and Cloning special copy services to have the ability to issue On-Line backup as well as creating Reporting or Development environment beside the running production system, this has to be considered in performance calculations to avoid any performance degradations in your production system.

• Finally, if you would go in future for a Full Disaster Recovery Solution locating two SAN Storage Solutions (one at each site replicating data to each other), this would consume about one third to half of your production system performance which need to be calculated and considered carefully when acquiring the first storage solution in your infrastructure otherwise different problems would occur.



Implementing a Disaster Recovery Solution relies on SAN-to-SAN Replication (i.e., using 2 SAN Storage with one at each site while replication is going over WAN).

Technology & Solutions

Evolution of hydraulic workover units to sidetrack drilling capability

By Eriend Corrigall, Product Manager, Well Interventions Division, Eastern Hemisphere- Halliburton.

Historically, oil and gas companies have searched for more economical ways to tap reserves in answer to ever-increasing worldwide demands. Today's escalating calls for production growth come at a transitional time in the industry when technological and equipment advancements are challenging – and financially improving – the traditional methods of drilling and working over wells, including wells found offshore.

Nowadays, several of the world's oil and gas regions are in a mature development phase, with many installations experiencing a decline in hydrocarbon production. Still, they offer the potential for significant reserves from untapped, bypassed or previously noncommercial pockets if there were an economical way to access the reserves.

Many existing well completion designs also are nearing the end of their design life or are no longer suitable for the current production rates. They require workovers, and, ultimately, will have to be abandoned. Production challenges are also compounded by the fact that many of the installations no longer have serviceable rig sets or their cranes have reduced liftweight and height-reach capacity.

The latest generation of Hydraulic Workover (HWO) Units addresses these needs by providing lightweight, self-erecting modular systems capable of working under live or dead well conditions. These units can incorporate automated pipe handling and auxiliary services, such as fluid pumping, mud treatment and cutting handling, to reduce crew size and help improve safety. With this evolution in HWO services, operators can now employ cost-effective sidetrack drilling as a replacement for drilling rig sets, especially in areas previously designated as uneconomical to drill.

History of HWO services

The evolution of HWO services can be traced back to the 1920s. Halliburton hydraulic workover operations began in 1929 when Mr. H.C. Otis, Sr. designed, patented and built the world's first unit to run or pull pipe under pressure.

Figure 1. Cable rig assist, 1920s

That's when cable-operated rig-assist (RA) devices (Figure 1) were first introduced to the industry to enable "snubbing" of pipe velocity strings under live well conditions.

These units utilized the drilling rig block to "push" the pipe via an arrangement of pulleys and cables – and later chains – into the well. The cable was attached to a travelling head which contained a set of inverted slips to grip the pipe. A set of stationary slips attached to the blowout preventer (BOP) stack, then held pipe when the travelling head was repositioned (Figure 2).

As the rig block pulled up, the cable was pulled through the pulley and pulled the pipe downward. Once the pipe had reached the heavy state, where the pipe's buoyant weight is greater than the force generated by the well's pressure exerted on the pipe's area, the block would be converted back to normal elevator operations. The BOP stack consisted of a number of pipe rams that sealed against the pipe and could be manipulated to allow the collars to pass without losing well integrity. An internal pipe seal was achieved with check valves or removable plugs.

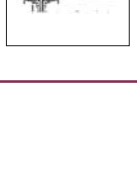


Figure 2. Cable rig assist. 1920s

It was forty years later, in the 1960s, when the first generation of HWO using hydraulic cylinders to replace the cable and pulley system was introduced to the industry. These units had the advantage of not requiring the drilling rig to be present and provided the first standalone HWO services (Figure 3).

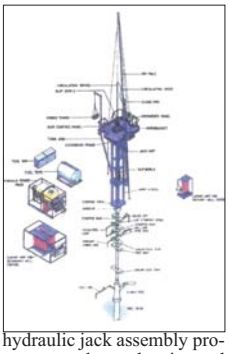


Figure 3. Hydraulic cylinder unit, 1960s to present

HWO units typically have a jack with an eight- to 10-foot stroke. A workbasket (Figure 4) positioned at the top of the hydraulic jack assembly provided the work area for the crew to make up the pipe and control the jack and BOP stack.

Standalone HWO units typically do not have the facility to rack back pipe and can only run pipe in singles.

Figure 4. Hydraulic cylinder unit workbasket

This style of unit has evolved over the years to include telescopic guides between the stationary and travelling head to prevent buckling of the pipe during high snub forces. Powered rotary heads are also installed on the travelling head to provide rotation of the pipe.

The range of HWO operations can be expanded with the introduction of a work window between the stationary slips and BOP stack. The window provides means to deploy and attach control lines and electric submersible pump (ESP) power lines to the work string without risking damage as when going through the slips and jack. It also allowed deployment of BHAs or completion components, such as hangers, which have a larger outside diameter than the through bore of the jack. With this development, HWO units could compete directly with conventional workover rigs for completion workovers. During these operations, singles are normally run with trip speed constrained by the time to torque up the joints, and attach control lines, ESP power lines clamps, to the completion string.

Tower systems were later introduced to (Figure 5) remove the need for guide wires to maintain HWO unit vertically and allowed the complete assembly to be skidded between wells in offshore applications.

Towers also improved the primary access and escape routes through built-in stairs.

Increased activity in underbalanced drilling in the late 1990's led HWO units to return to their rig-assist roots. Though hydraulic cylinder jack systems now replaced the cable systems previously used to achieve the rig assist.

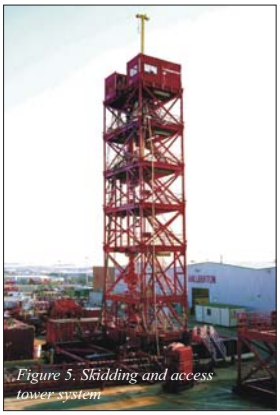


Figure 5. Skidding and access tower system

These various developments have allowed modern HWO units to perform a wide range of operations both in dead and live well conditions:

- Scale and fill removal
- Fishing and milling
- Perforating
- Acidizing and washing
- Drilling – sidetrack, underbalanced drilling, Managed Pressure Drilling
- Completion and ESP installation and changeouts
- Plug and abandonment
- Well control.

Next-generation HWO Units

While the use of jack style HWO units has been steadily growing, their perceived limitations – pipe-trip speed, ease of rig-up and crew size – have been obstacles to wider adoption in preference to reinstating platform rig sets. Similarly, these concerns have prevented current HWO units from filling the shortage of small- to medium-class land rigs resulting from high drilling activity. The next generation of HWO units developed by Halliburton, addresses these constraints while maintaining portability and flexibility of use features.

The primary constraint to trip speed with cylinder jacks is the stroke length which requires three to four stroke operations to trip a single joint of pipe. A full single long stroke capability provided by a rack and pinion technology overcomes the multiple stroke concern. A series of hinged rack segments, which are contained within a lightweight narrow mast, is driven by a set of pinion motors at the base of the mast (Figure 6).

Figure 6. Rack and pinion drive mechanism

The system can support either a power-swivel, double-slips rotary head, (15,000 ft/lbm at 94 RPM) or a topdrive (25,000 ft/lbm at 150 RPM) depending on the type of operation. The mast has a stroke of 55 feet and can accommodate Range III pipe with a tripping speed of 45 joints per hour in power-swivel configuration and 30 joints per hour with the top drive.

The drive mechanism is extremely compact and has the ability to push (125,000 lbm), as well as to pull (300,000 lbm). All pipe loads are transferred to the motors, requiring the mast only to provide lateral support and counter the torque generated by rotation. As such,

a rack and pinion mast structure is typically at least 20 percent lighter than a conventional "A" frame wire-rope-driven derrick structure.

The mast has been incorporated into a modular design such that the maximum lift of any of the system components is under 10 Tons. A specially designed pivot allows the mast to be erected using a limited capacity crane with a jib reach of only 35 feet (Figure 7).

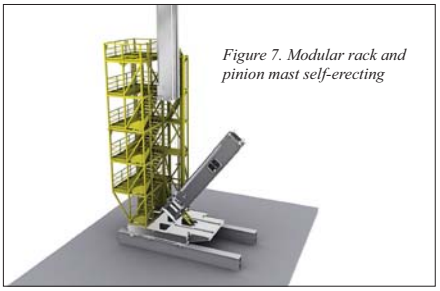


Figure 7. Modular rack and pinion mast self-erecting

When constructed, the unit has a small footprint of 18.4 feet by 15 feet. The complete mast structure can be erected and operational offshore in less than 36 hours (Figure 8).

State-of-the-art PLCs control and automate the unit and auxiliary equipment functions. A crew of only three can operate the unit when performing workovers and a crew of five works sidetrack drilling operations. Pipe is lifted to the drill floor by a pipe handling table, which can store up to 15 joints of five-inch drillpipe. The individual single

Figure 8. First offshore modular rack and pinion workover unit

are then loaded individually up to and from the floor. The topdrive can then latch the pipe and makeup without any crew-handling.

This unit has been designed to incorporate a 10-foot stroke cylinder-style rig-assist jack, providing extra pull capacity up to 600,000 pounds and snub of some 300,000 pounds. The jack's travelling head is mounted on a passive bearing which allows the topdrive or power swivel to rotate the pipe. The jack design allows a full through bore of 37-1/2 inches. (Figure 9).

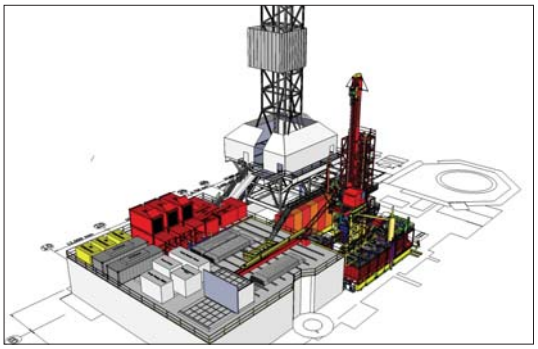


Figure 9. First offshore modular rack and pinion sidetrack drilling unit

The unit can be provided with a purpose built modular mud system, typically 210 cubic metres, and cuttings handling package which has been designed to be controlled and monitored from the driller's cabin. The modular design allows easy expansion or reduction to meet the needs to a particular operation and production facility. The fluid pumping package is similarly remotely run from the cabin. For drilling operations, the unit can be mounted on a substructure which has integrated Xmas tree and BOP stack trolleys for ease of access.

Principle features:

- Modular construction, each component 10,000 kilograms or less
- Efficient construction; self-erecting
- 300,000-pound pull capacity with an optional integrated 600,000- pound rig-assist jack
- 125,000-pound push capacity with an optional integrated 300,000-pound rig-assist jack
- Ability to handle Range I, II and III
- Power swivel torque of 15,000 ft/lbm at 94 RPM
- Topdrive rotary capacity, 25,000 ft/lbm at 150 RPM
- Skid mounted, with ability to skid between multiple well slots
- Reduced staffing levels – three per shift workover, five per shift sidetrack drilling
- 45 jts/hr power swivel and 30 jts/hr topdrive trip speed
- BOP and wellhead handling device
- Integrated modular pump and fluids system.

Conclusion

Since their inception in the 1920s as cable-operated rig-assist systems, HWO units have evolved to meet the needs of the oil and gas industry. In their latest form, HWO units have the capacity to perform the duties of a conventional crown-block drilling rig for workover and sidetrack drilling operations. These units provide an economic method for extending the lifespan of mature field installations with decommissioned drilling structure.

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Mi SWACO applies new technologies in the Mediterranean

Mi SWACO Branch in Egypt is registered as M-I Overseas Limited, Egypt Branch and is independently operating under the law 43 of 1976 for Free Zone companies. The Branch of Egypt is the head quarter of the Middle East operations. Egypt Branch Supplies full range of Drilling Fluids additives, Drilling Fluids Engineering Services, Bulk Operations Services, Liquid Oil Mud and Brine mixing and storage facilities. This is in addition to solids control equipment, environmental solutions, well bore assurance and production chemicals. MI is present in the Egyptian market for the last 35years and shared success with almost all operators worked and currently working in Egypt.

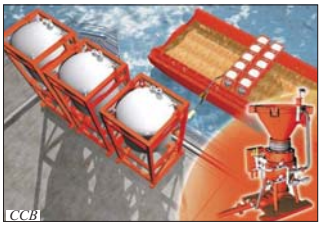
With Five different research and training centers in Egypt and worldwide, MI SWACO is continuously delivering new technologies and best practices to the market, here in some of the success stories that we shared with our customers in Egypt for the last 2 years.

Mediterranean Deepwater Project

Mi SWACO Egypt branch was involved in drilling series of wells for an operator working in ultra deep water project in the Mediterranean area. The project goals were to drill the wells with LTOBM and then perform testing using the same mud and run ESS expandable screens.

The drilling fluids, liquid mud plant and the rig were modified to serve these criteria of having low solids (less than 40 micron) and flat gels to work in cold water temperatures.

The mud was mixed and sheared in base using cement pump to give the required differential pressure for shearing in order to decrease the shearing / circulating time on the rig. Also special Organophilic clays & products were used to achieve the flat gel rheology. Marble (SAFECARB) system loading was calculated using Mi SWACO OPTIBRIDGE software that gives the correct blend in terms of good formation bridging and passes the expandable screen at the same time.



The wells were drilled efficiently with the LTOBM system and the strategy while drilling was to keep the mud clean all the time using fine mesh size screens on shakers and this process was tested by production screen tester that defines the ability of running expandable screens in the well for testing without plugging.

In parallel mode Mi SWACO installed its advanced clean cut blower on the rig to enable cutting movement from the shaker area to a fully automated skip loading station with capability of filling four skips, the usage of this system minimized the lifting operations by 70 percent and during drilling the different section no limitation for the ROP was required. Also MI Vacuum system (portable) was installed for pit cleaning and any possible spills.

An additional fourth well was drilled with high profile casing design (10 intervals) in semi HPHT environment. On the design phase it was noted that the amount of cuttings generated from large hole sections (22", 20"& 17.5") will be too huge logistically for skip & ship operations, this brought the idea of using high performance water base mud (Ultradril).

The Ultradril mud was mixed in the base as a spike fluid with double concentration and sent to the rig to be diluted with water. The mud selection was very good and achieved the operator


Shale cuttings from Kafer El Shikh Formation

goal of having super inhibitive fluid that drilled kafer el sheikh, pre salt, and sub salt formations (with the ability to be converted to salt saturated fluid prior to entering the salt). The fluid properties were stable and the mud weight reached 14.7 ppg before displacing the hole to LTOBM in the last interval for temperature and pressure un-certainty.

MI SWACO virtual hydraulics software played a vital role in drilling this well especially in the large hole sections, as the cutting size vary with the hole conditions – temperatures, the software was able to estimate the suitable GPM to be used for hole cleaning and to calculate the ECD's in the tight deep water leak off values.

Mediterranean HPHT

In the past, the only fluid available for drilling in high temperature high pressure wells was oil-base systems because of its ability to stand the rigors of such temperatures. Recent Lab testing and field trials have proven that water base drilling fluid can be applied for such high profile wells of Temperatures reaching 550° F and mud weights exceeds 18 PPG (on our last drilled well total depth was 17,000 ft).

These researches and trials were driven due Oil base mud limitations and the fact that this kind of mud is not the solution for all cases. These limitations are:

- Lost circulation & its logistical impact.
- Gas kicks detection due to gas solubility in the mud system.
- Barite stripping as gases decrease viscosity of the fluid causing barite to strip or settle resulting in costly remedial jobs, especially in completion phase.
- Mud weight variation due to the compressibility of oil.
- Environmental impact due to disposal and handling of cuttings generated.

Mi SWACO focused on the issue and released its new HPHT water base mud DURATHERM to overcome these oil base mud issues. The DURATHERM system is designed for use in bottom-hole temperatures up to 550°F (287°C). The Mud system weight can reach 20 lb/gal (2.4 SG) and its formulation is similar to packer fluids design where long-term rheological stability is necessary. The low-colloid DURATHERME system is stable in the presence of contamination from acid gases, cement and salts.

In our case, the system was chosen as a candidate for drilling an exploratory gas field in the Mediterranean, where oil base mud was used and failed due to almost all the above oil base mud limitations. The system was proposed to the operator after performing the lab testing to achieve the suitable formulation that can accomplish the job successfully. The mud weight reached 18.7 PPG and hole was E-logged for 4 days without any sign of barite settling or hole in-stability.

The stability of the hole was proven at the end by running the 9 5/8"casing in 10 5/8"hole which is considered to be very tight clearance condition.

Form A Squeeze Plug application

Mi SWACO recently presented its "Form A Squeeze" plug to the Mediterranean area as a solution for complete loss situations where the plug can be pumped through the drill sting, BHA and down hole tools. The plug was used in kick control condition where increasing the mud weight to control a gas kick resulted in complete loss of circulation and static loss exceeded 200 bbl per hour. After pumping the plug, the losses stopped completely and normal operations were carried out.


FORM-A-SQUEEZE LC Plug / 17.5 ppg

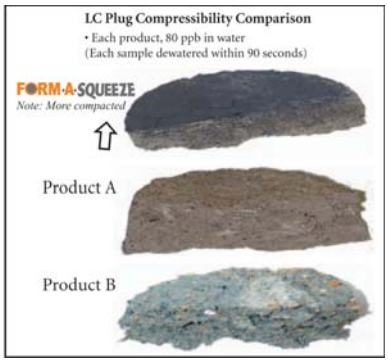
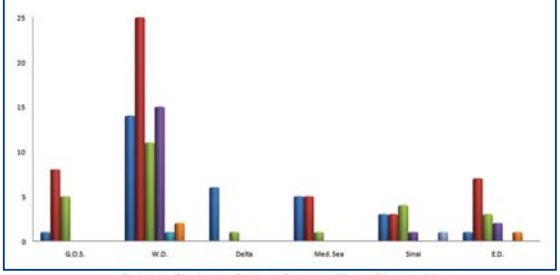
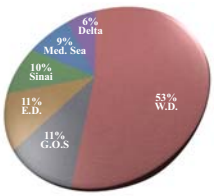


Table 1 Egypt Rig Count -April 2008

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



Area	Rigs per 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 & Gas

Table 2 World Oil Supply[1] (Thousand Barrels per Day)

		United States[2]	Persian Gulf[3]	OAPEC[4]	OPEC[5]	World
2007 May	E	8,566	22,953	24,142	**35,083**	**84,225**
June	E	8,520	22,870	24,095	**34,978**	**84,326**
July	E	8,526	22,926	24,169	**35,223**	**84,801**
August	E	8,360	22,880	24,118	**35,191**	**83,757**
September	E	8,324	23,430	24,694	**35,835**	**84,599**
October	E	8,474	23,580	24,748	**36,074**	**85,439**
November	E	8,539	23,237	24,416	**35,870**	**85,223**
December	E	8,669	23,886	25,067	**36,612**	**85,807**
2007 Average	E	8,481	23,117	24,299	**35,429**	**84,601**
2008 January	PE	8,624	24,000	25,100	36,636	85,795

[1] «Oil Supply» is defined as the production of crude oil (including lease condensate), natural gas plant liquids, and other liquids, and refinery processing gain (loss).
[2] U.S. geographic coverage is the 50 States and the District of Columbia. Beginning in 1993, includes fuel ethanol blended into finished motor gasoline and oxygenate production from merchant MTBE plants. For definitions of fuel ethanol, oxygenates, and merchant MTBE plants
[3] 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.
[4] OAPEC: Organization of Arab Petroleum Exporting Countries: Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.
[5] 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[1]	Persian Gulf[2]	North Sea[3]
2007 May	649	1,680	440	**2,588**	**72,958**	**31,816**	20,494	4,101
June	679	1,680	470	**2,553**	**72,655**	**31,704**	20,403	3,755
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**	**74,272**	**33,379**	21,474	4,064
2007 Average	637	1,702	464	**2,636**	**73,274**	**32,184**	20,682	4,114
2008 January	609	1,740	520	2,729	74,466	33,381	21,578	4,014

[1] 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.
[2] 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.
[3] North Sea includes the United Kingdom Offshore, Norway, Denmark, Netherlands Offshore, and Germany Offshore.
Revised data are in ***bold italic font.***

Source: EIA

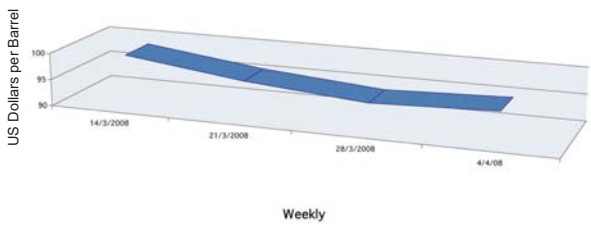
Table 4 OECD[1] Countries and World Petroleum (Oil) Demand (Thousand Barrels per Day)

	France	German	Italy	United Kingdom	OECD Europe[2]	Canada	Japan	South Korea	United States[3]	Other OECD[4]	OECD[1]	World
2007 May	1,788	2,393	1,704	1,801	14,926	2,315	4,405	2,071	20,631	3,497	47,845	NA
June	1,900	2,456	1,670	1,766	15,170	2,323	4,568	2,063	20,737	3,579	48,440	NA
July	1,941	2,500	1,687	1,775	15,367	2,416	4,564	2,047	20,641	3,522	48,557	NA
August	1,908	2,581	1,552	1,709	15,237	2,398	4,597	2,091	21,051	3,388	48,761	NA
September	1,929	2,603	1,651	1,763	15,607	**2,313**	4,860	2,027	20,385	3,291	**48,483**	NA
October	2,128	2,702	1,748	1,742	**16,121**	**2,335**	4,793	2,208	20,455	**3,572**	**49,484**	NA
November	2,063	2,549	1,724	1,779	**15,840**	**2,473**	5,206	2,350	20,708	**3,482**	**50,057**	NA
December	1,825	2,428	1,694	1,664	14,776	2,325	5,661	2,362	20,869	3,519	49,512	NA
2007 Average	1,937	2,478	1,678	1,764	15,288	2,343	4,972	2,207	20,698	3,456	48,964	85,589

[1] OECD: Organization for Economic Cooperation and Development.
[2] 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.
[3] U.S. geographic coverage is the 50 States and the District of Columbia.
[4] 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.

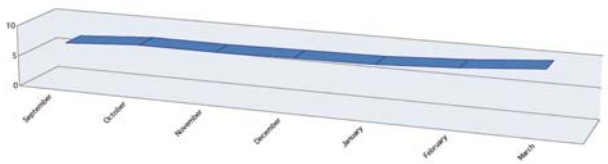
Source: EIA

Fig 1 Egypt Suez Blend Price



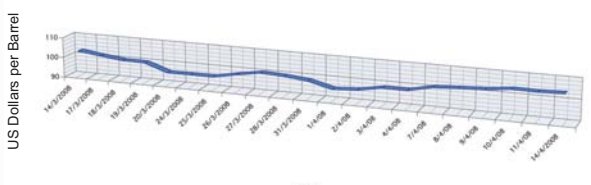
Source: Egypt Oil & Gas

Fig 2 Natural Gas Price



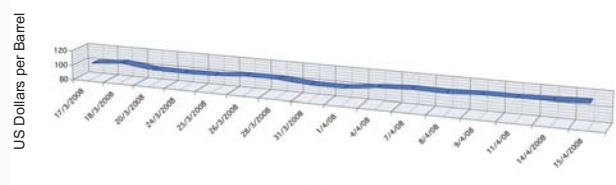
Source: Egypt Oil & Gas

Fig 3 OPEC Basket Price



Source: Egypt Oil & Gas

Fig 4 IPE Brent Price



Source: Egypt Oil & Gas

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

	Algeria	Canada	Mexico	Soudi Arabia	Russia	Former U.S.S.R		United States[1]	Persian Gulf[2]	OAPEC[3]	OPEC[4]	World
2007 May	340	670	412	1,427	429	_	E	1,787	2,350	2,805	**3,130**	7,921
June	340	621	418	1,427	424	_	E	1,775	2,358	2,813	**3,138**	7,877
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**	**8,064**
2007 Average	342	670	396	1,427	426	_	E	1,776	2,325	2,781	**3,108**	**7,916**
2008 January	350	695	396	1,427	421	_	PE	1,783	2,312	2,777	3,118	8,035

[1] U.S. geographic coverage is the 50 states and the District of Columbia. Excludes fuel ethanol blended into finished motor gasoline.
[2] The Persian Gulf countries are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates.
[3] OAPEC: Organization of Arab Petroleum Exporting Countries: Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.
[4] 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

Average Currency Exchange Rate against the Egyptian Pound (March / April 2008)

US Dollar	Euro	Sterling	Yen (100)
5.448	8.544	10.852	5.429

Stock Market Prices (March / April 2008)

Company	High	Low
Alexandria Mineral Oils [AMOC.CA]	78.88	75.31
Sidi Kerir Petrochamicals [SKPC.CA]	23.57	21.40

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

International Stock	High	Low
Schlumberger [SLB] NYSE [US Dollars]	91.37	80.65
Halliburton [HAL] NYSE [US Dollars]	44.53	36.23
Exxon Mobil [XOM] NYSE [US Dollars]	90.80	84.58
Atwood Oceanics [ATW] NYSE [US Dollars]	104.85	83.02
Weatherford [WFT] NYSE [US Dollars]	76.62	63.61
Shell [RDS.A] NYSE [US Dollars]	73.81	65.68
Apache [APA] NYSE [US Dollars]	136.44	107.75
Baker Hughes [BHI] NYSE [US Dollars]	75.15	65.43
BJ [BJS] NYSE [US Dollars]	30.50	24.22
Lufkin [LUFK] NYSE [US Dollars]	68.09	60.09
Transocean [RIG] NYSE [US Dollars]	151.89	131.06
Transglobe [TGA] NYSE [US Dollars]	4.96	4.26
BP [BP.] LSE Pence Sterling	552.50	496.00
BP [BP.] LSE Pence Sterling	1288.00	1037.00
Dana Gas [Dana] ADSM US Dollars	2.28	2.04
Caltex [CTX] ASX Australian Dollars	15.00	10.86
RWE DWA [RWE AG ST] Deutsche-Borse Euros	81.38	76.01
Lukoil [LKOH] RTS [US Dollars]	89.10	74.20

Source: Egypt Oil & Gas

Events & Awards

Petrobel improves real-time information sharing with oil rigs via Cisco Technology

Cisco announced that Petrobel (The Belayim Petroleum Company), has implemented a Cisco ® Unified Communications solution to link its headquarters and the oil rigs, facilitating video and other communications channels between the drilling crews and the headquarters' team. This collaborative technology has resulted in cost savings by increasing productivity, decreasing travel and improving teamwork.

In the first phase of Petrobel's i-Rig project the objective was to create a converged IP network on the Adriatic X Rig some 60 kilometers (37 miles) offshore. Cisco Aironet® access points formed the heart of a converged wireless local area network. In addition, Cisco installed wireless IP phones to help ensure that all staff were within easy contact across most of the rig, while Cisco Unified IP Phones 7960G, equipped with Cisco Unified Video Advantage, enabled voice and video communications with the Onshore experts in Cairo.

Cisco Aironet mesh access points can operate without a direct connection to a wired network. They have been designed to deliver mission-critical wireless access with a rugged platform that is designed for high performance, ease of deployment, reliability, security, scalability, mobility, and unified policy management across indoor and outdoor networks.

"Industry figures estimate that typically 15 to 25 percent of drilling time is lost due to some kind of trouble encountered during the drilling process," said Hani Abdel Aziz, Cisco General Manager for Egypt. Petrobel conservatively estimates that better and faster decision making could avoid 10 hours or more of delays each month on one rig alone – a potential saving of some US$125,000 per month per rig.

"When presented with the opportunity to run a pilot of the new application, Petrobel not only jumped at the chance, but also decided to test it in the most demanding environment available to it – the Adriatic X exploration rig operating 75 kilometers offshore," said Abdel Aziz.

The pilot established a local area network throughout the Adriatic X rig operating at 48 Mbps, using just three Cisco Aironet access points within Zone 1 and 2 certified enclosures. It took Petrobel just two days to set up the wireless mesh network on Adriatic X – one day for a site survey, and one day for the installation of the equipment and commissioning. The result has transformed the sharing of real-time information and decision making on the rig. Employees and technicians can take calls and share video images in real time – even on the drilling area – with colleagues at headquarters and beyond. The value of real-time communications between the drilling area and headquarters was dramatically proven in early 2007, within just weeks of the Aironet equipment being installed, when the drill hit a high-pressure, high-temperature zone while working on the target to reach a record depth of 5500 meters (18,000 feet).

Well Construction... The foundation for growth

Society of Petroleum Engineers (SPE) Egypt held its two-day workshop entitled "Technology Transfer Workshop TTW" last month, through which SPE members exchanged their knowledge and experience via interactive work groups.

The key topics of the workshop were tackling the way to effectively decrease non-productive time (NPT) and improve process efficiencies, increase productivity over the life of the well and discover the latest well construction technologies.

The workshop, held with association with Halliburton, witnessed the participation of numerous petroleum companies, such as Shell, RWE Egypt, etc...

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Propellant Fracturing

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