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December 2007 Issue 12 28 pages

2007 ready to grant its fortune of successful attainments to 2008

By Yomna Bassiouni



With 2008 just around the corner, the oil and gas industry makers should first evaluate and assess the achievements attained and goals fulfilled during 2007 before going ahead with their plans for the new year. One of the more obvious features of this year is the tremendous increase in volume of discoveries, investments and profit

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Will stability be among us in 2008?

WITH the year 2007 coming to an end, I would like to wish all our readers a Merry Christmas, a Happy Feast, and a Happy New Year.

2007 was an exciting year for all of us, full of activities and future promises for the sector. The government has *bestowed its fortune of success* realized in 2007, to a new year shaped by new challenges. A question that always repeats itself, is whether the Egyptian petroleum industry will maintain its growth of gas discoveries and investments, to satisfy our demanding world?

The answer to this dilemma, based on many experts, is NO! In today's world, oil & gas cannot secure future energy demands for coming generations, especially with the decline in oil and gas production, the instability of oil and gas prices, and the many wars we face today; oil & gas would become a product who only few can afford.

Undoubtedly, Egypt's gas reserves could maintain the increasing demand for at least 20 years from now. Furthermore, 90% of the world oil supply are produced from existing fields, most of which are in their decline phase. Accordingly and with the few discoveries today, the future of oil & gas does not seem promising.

Today, a lot of the major players of the private and public sectors are reevaluating their investments, for instance, the government is studying different ways of securing different energy resources for the coming generations. Going nuclear is one of them, as you will read in our political review section.

Bottom line: What is our Alternative? Will governments succeed in 2008 to overcome all the challenges they will face and continue to grant their fortunes to the year after? Will there be new discoveries in the world of oil & gas that we could rely on? Will wars between us come to an end?

These are all hopes more than just questions, but with current situations, I believe 2008 shall be full of competitions, integrity, and transparency that we all need.

Mohamed Fouad
Publisher



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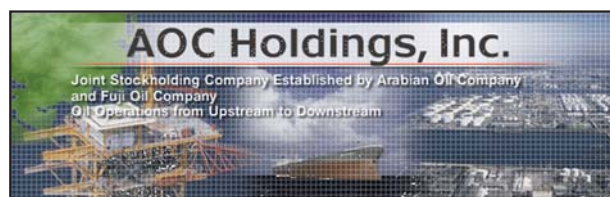
Egypt

Oil prices headed to \$100 a barrel; Fahmy First to Predict!



In his last OPEC meeting in September, Minister of Petroleum, Eng. Sameh Fahmy warned of an increase in oil prices. He was the first to state that the oil barrel will reach \$100 and this increase will cause a lot of obstacles for different countries, which actually did.

Fahmy also added that despite the fact that OPEC decided to increase its production to half a million barrel per day to end the increase of the oil prices for a certain period, stabilizing the oil prices will not be attainable for 3 main reasons. Firstly, an unclear observation of the rate of consumption of oil and gas; as there are many non OPEC members that do not have enough information on their oil production or the amount of discoveries available, especially in the African continent. Secondly, the world lacks experience regarding oil & gas discoveries in deepwaters. Finally, Fahmy referred to the increase of daily rig rates and their limited availability throughout the world.



AOC to buy 90% stake in the Zeit Bay

The Japanese AOC Holdings announced its plan to buy a 90% stake in the South Zeit Bay oilfield from Switzerland's Alexoil, after receiving the approval of the Egyptian authorities.

The oilfield located in the Gulf of Suez will go through test drilling executed by the Company's Arabian Oil Development Unit in order to confirm the presence of oil and gas reserves, with \$17 million investment, said the company in a statement.

Arabian Oil has confirmed 4900 barrels per day of oil output from the Northwest October Block in the northern Gulf of Suez and targets the commencement of commercial production in the first quarter of 2009, the spokesman told Reuters. (Upstream Online)

Gaz de France strengthens its E&P operations in Egypt

The French corporation Gaz de France (GdF) has acquired a 45% share in the Alam El Shawish West license from Vegas Oil & Gas.

This acquisition boosts GdF's position in the Egyptian natural gas sector. The French firm has been present in Egyptian offshore since 2001.

"Gaz de France will thus increase the security and diversification of its E&P portfolio. In light of recent oil and gas discoveries in Egypt, this country is of great interest for European and even American supplies," said the company in a statement.

This license is located in the Abu Gharadig Basin, approximately 250 km southwest of Alexandria and covers 1,075 sq. km. Vegas Oil & Gas will remain as the operator.

This production sharing agreement, estimated to increase GdF's portfolio of reserves by at least 30 million barrels of oil equivalent, is subject to the approval of the Egyptian authorities.

It is worth mentioning that the company has been playing the role of main buyer of Egyptian gas since 2005. Moreover, it has signed a 20-year LNG purchasing agreement with EGPC, EGAS, BG and Petronas, covering 4.8 billion cubic meter of natural gas per year from the Idku liquefaction plant, in which it holds a 5% stake. (Energy 365 News)



Groundstar updates its Egyptian activities



Concerning its activities in West Eash El Mallala (WEEM), the operator of the block, Aminex Egypt and Groundstar have contracted a brand new drilling rig for 18 months on a call out basis to drill on the WEEM block beginning in mid January 2008, announced Groundstar in a statement.

The new 2,000 hp rig, currently inspected in china, is due to arrive in Egypt during this month. Two seismically defined prospects in the south part of the block near Lukoil's production area are to be drilled. The operator had a drilling window starting in late November for two wells with a local contactor that was later

withdrawn. The drilling contract with Shingli Bohai Drilling Company is considered very attractive and is expected to meet all of the company's drilling requirements in Egypt.

As for the West Kom Ombo (WKO) Block, Groundstar, being the operator, has opened a branch office in Cairo to facilitate the execution of work in this block. The technical work completed to date includes the re-processing of 835 km. of 2D seismic, acquired by Repsol in 1997. A preliminary interpretation of this data shows the presence of several very large Cretaceous structures. A new 2D seismic program has been laid out over five high potential structures and field work will take place in early 2008. As a result of recent interpretation the company has more than doubled its seismic acquisition program.

In September 2007, the discovery of the first commercial oil field in Upper Egypt made by Centurion Energy was of great significance to Groundstar, as the WKO block is located immediately to the west of the Centurion Kom Ombo block. The WKO block has similar subsurface geology with a thicker sedimentary section. Groundstar looks forward to an exciting future with respect to its WEEM and West Kom Ombo exploration activities.

Groundstar is a publicly traded Canadian junior oil and gas company actively pursuing exploration opportunities in Guyana, North Africa and the Middle East. (GroundStar Press Release)



Fahmy: Energy security is a determinate necessity to achieve economic growth

Eng. Sameh Fahmy, Minister of Petroleum, stated that there are various aspects to the proposed cooperation with European Union countries in the energy domain in order to attract European investments, this came during the inauguration of the EU – Middle East – Africa Energy Conference in Sharm El Sheikh, organized by the European Commission for Energy, in collaboration with Egypt.

Fahmy further added that the means of cooperation include, but are not limited to, the installation of new refineries, distribution networks, export-oriented projects, equipment and rig fabrication, technology transfer, especially in the fields of enhancing production methods, in addition to providing technical and needed financial support, oil shale recovery, bio-fuels domain, and bolstering regional integration among African, European, and Middle East States along with the development of energy projects among countries of common interests.

Fahmy alluded to the announcements made by Egyptian President, Hosni Mubarak, concerning the diversification of Egypt's energy resources for the generation of larger proportions of renewable energy resources, commencing with the launch of Egypt's program for building various nuclear power plants for peaceful uses.

The conference witnessed the participation of a large number of reputable figures in the oil and gas sector worldwide; Ahmed Abul Gheit, Egyptian Minister of Foreign Affairs, Benita Ferrero Waldner, EU Commissioner for External

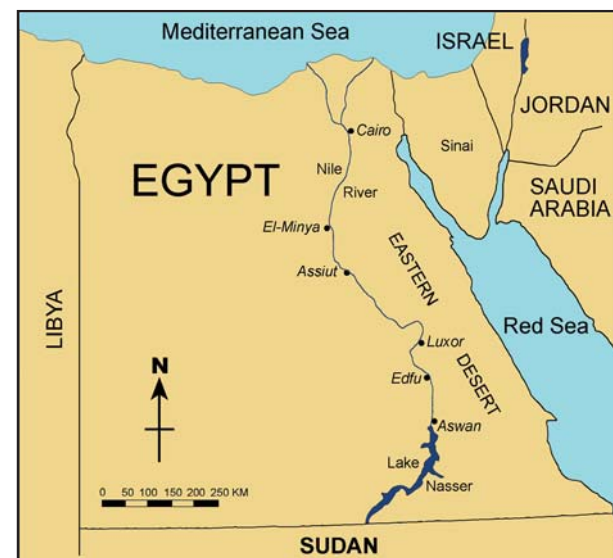
Relations, Andreas Biligas, EU Commissioner for Energy, and Maged George, Egyptian Minister of Environment, in addition to 66 ministers representing various countries of Europe, Africa and the Middle East, as well a number of international and regional organizations, comprising the European Investment Bank, the Arab League, the African Union, the African Development Bank and the Gulf Cooperation Council.

Fahmy pointed out that various studies and international forecasts indicate that the world's energy resources are sufficient enough to meet the projected growth in energy demand during the coming three decades, stressing the importance of providing more petroleum reserves, taking into consideration the end of the age of "easy oil and gas", in light of the high cost of future energy resources research and exploration.

Commenting on the unprecedented increase of oil prices, the Minister clarified that this increase will contribute to achieving additional revenues for the major oil producing countries, in the short term, which would assist in carrying out their development plans.

However, in the long term, high oil prices will trigger a series of protective actions from consumers to curb oil demand and promote alternative and environmental friendly resources of energy. He further added that high energy prices are reflected back on oil exporters in the form of increase end product prices, as well as, services imported for oil consuming countries. *(Oil Egypt)*

Petrogas to hunt for oil in the Eastern Desert



In a share agreement, Oman-based privately-owned company Petrogas E&P has been granted the right to conduct its exploration activities in Oil Search's Area A, in the Eastern Desert.

Since 2005, Oil Search acquired a 100% working interest in this area and has since then optimized their production from various fields. The company has commenced an exploration program with the spudding of the West Zeit-X1 well.

"This farm down represents part of an active and ongoing portfolio management program within our Middle East/North African (MENA) assets, to balance the risk and rewards. The transaction highlights the substantial value that exists in our MENA portfolio," said Peter Botten, Managing Director of Oil Search.

The Omani company agreed to get 30% share and make cash payment and reimburse 30% of past costs on the block, while Oil Search maintains the remaining 70% share of costs for the coming three exploration wells and any further ones.

(Upstream Online)

EU expresses its intention to strengthen cooperation ties with Egypt

Benita Ferrero, the European Union Commissioner for External Relations, assured that the EU is looking forward to signing a Memorandum of Understanding (MOU) with Egypt for cooperation in the various energy domains.

Ferrero's announcement came during a meeting with the Egyptian, Syrian and Jordanian Ministers of Petroleum and Energy, on the sideline of the European Union-Africa- Middle East Energy conference held in Sharm El-Sheikh last month.

The meeting tackled the work progress of the Arab Gas Pipeline Project and discussed the future stages in the framework of extending it to Turkey to be linked with the European Gas Network, as well as means of finance presented by the European Union in this respect.

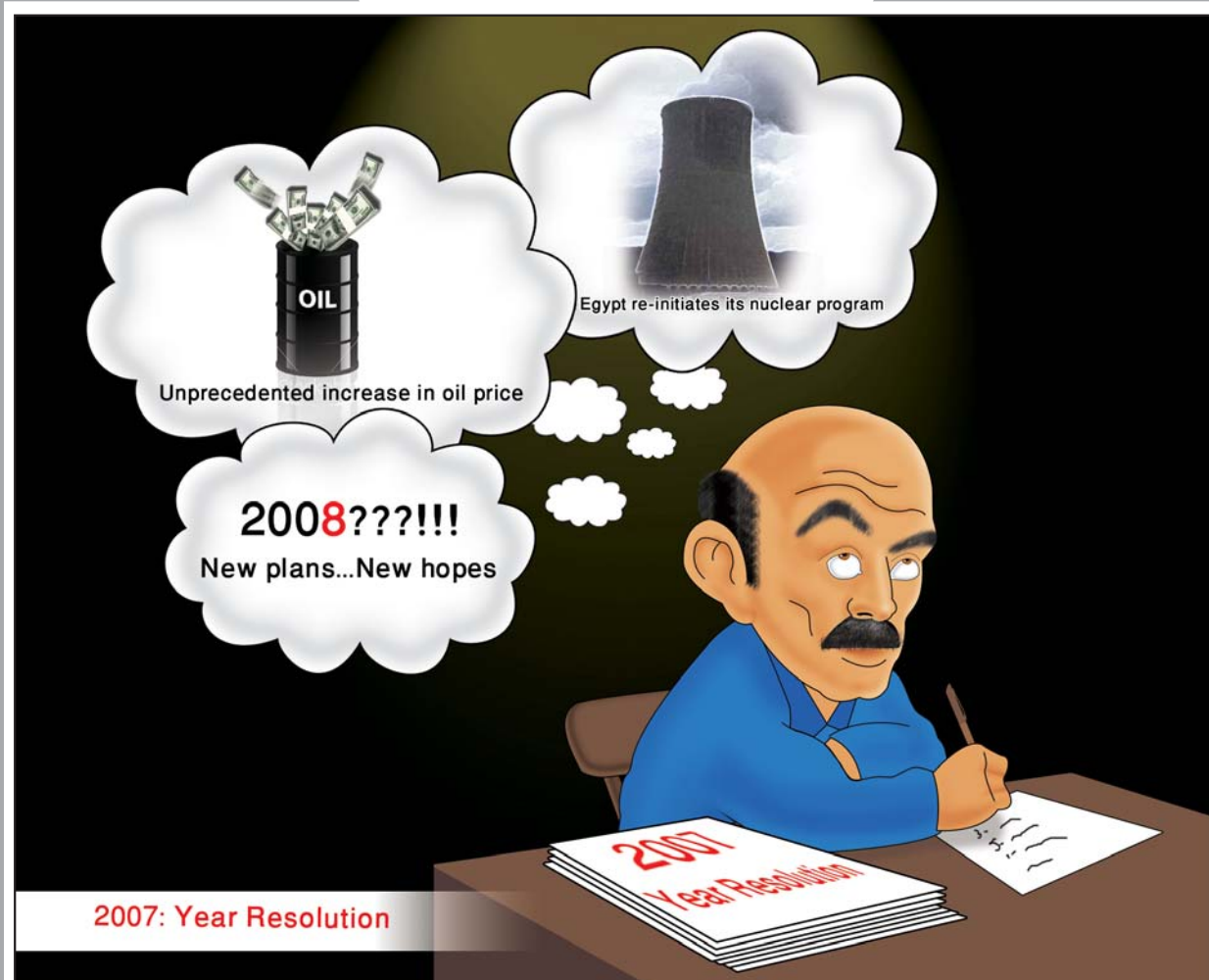
Ferrero expressed the EU's complete support for the success of this project and its contribution to provide financing mechanisms throughout the European Investment Bank and coordination among those responsible bodies for the operation of Napoco Gas Pipeline, with the officials of the Arab Gas Pipeline.

Sufian Allaw, Syrian Oil Minister, confirmed that the completion of the fourth phase of the Arab Gas Pipeline is expected by the end of this year.

On the same turn, Mohamed Abdel Hakim, representative of Iraq, pointed out that the Iraqi government is about to set a long term strategy for natural gas and tends to consolidate the Arab cooperation throughout exporting the Iraqi natural gas to Syria, then to Europe via the Arab Gas Pipeline. *(MoP)*

Cartoon

By Rany Amren





Apache hits another discovery in the Western Desert

US-based Apache revealed its new discovery in the Western Desert, this time with the Jade-2x discovery well, which flowed 26.7 million cubic feet of natural gas per day and 1325 barrels of condensate per day.

The company further added that this well was the first test of the Jurassic Alam El Bueib-6 (AEB) reservoirs in the Jade structure along the Matruh Ridge, confirming resource potential identified on well logs in the Jade-1x discovery.

The Jade-1x well logged 217 feet of AEB pay and 66 feet of pay in the Jurassic Upper Safa formation in March this year, while the Jade-2x well logged 148 feet of AEB pay.

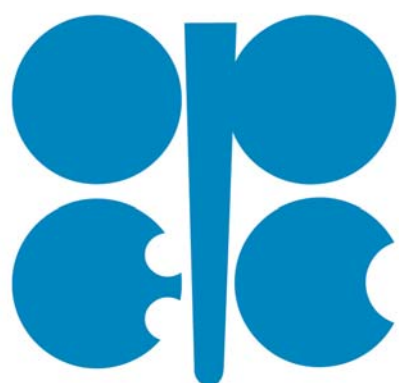
Also, at this same field, the company conducted its work activities in the Jade-4 well which logged 234 feet of net pay in the AEB formation. The drilling tests in this well are to be completed following the Jade-2x test.

"The successful test in the AEB formation confirms our belief in the significant hydrocarbon potential of the ridge," said Apache President Steven Farris.

(Upstream Online)



OPEC and Non-OPEC experts discuss oil industry prices development in Cairo-Egypt



With the participation of eight international organizations in the oil and gas domain, the 7th meeting of 19 experts from OPEC and Non-OPEC countries took place in Cairo-Egypt last month.

The discussions tackled means of developing the petroleum market and expectations of global supply and demand for oil on the short and medium term.


Throughout the two-day meeting, experts shed light on the importance of alternative energies, in addition to the development of biomass usage, and up-to-date technologies. Among the discussed topics were: production economies, sustainable development, and the future of production and international trade.

Hosting this meeting in Egypt is an affirmation of the significance of Egypt's role in coordinating policies and bolstering the dialogue among producers to achieve stability in the oil markets, said the Ministry of Petroleum in a statement.

(MoP)

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International

Saipem signs 285million Euro onshore deal in Algeria

Hitting its third major contract in Algeria for this year, Saipem has been awarded a contract for transporting Liquefied Petroleum Gas (LPG) through pipelines from the central Algerian gas field at Hassi R'mel to the oil export area of Arzew.

Through this 285 million euro contract, the company will be responsible for laying a pipeline to carry out this LPG transportation project.

"Sonatrach awarded a consortium comprising Saipem and Lead Contracting the EPC contract to lay the LZ2 Hassi R'mel –

Arzew pipeline. Saipem's scope of work will encompass the engineering, procurement and construction of a 24-inch, 495-kilometer pipeline to be built over the next 26 months," reported Rigzone.

(Rigzone)





Iran to lay \$5 billion gas pipeline to Turkey

In the frame of a build-own-operate (BOO), Iran is to pay \$5 billion in the construction of a pipeline that carries gas to the Turkish territories and Europe, announced Seyyed Reza Kassaiezadeh, the Iranian Deputy Petroleum Minister for Gas Affairs.

Around 110 million cubic meters of gas per day are to be exported to Turkey, said Kassaiezadeh.

Back in 1996, the two countries signed a 25-year deal, with total investments accounting for \$30 billion. However, this deal did not go into effect until December 2001, when Iran commenced the exportation of 20.74 billion cubic meters of natural gas to Turkey.

The responsibility of operating the plan will be in the hands of the private sector, which will be allotted some privileges from the National Iranian Gas Company (NIGC) for services it offers.

(Tehran Times)



Lukoil suspends its work in Anaran



In the shadow of the threat of US sanctions, Russian producer Lukoil decided to suspend work on the Anaran development in Iran, announced the company.

From its part, StatoilHydro, project operator and owner of a 75% stake in the Anaran Block is still considering plans for the onshore field.

"We have discovered the largest deposit in Iran but cannot work there because there is a US State Department ban on foreign investments of third countries for over \$20 million," Russian News Agency Interfax quoted Lukoil Vice-President, Leonid Fedun, as saying.

Two years ago, oil was found on the block and the estimated reserves of the field counted for nearly 2 billion barrels of oil. Since then, the two companies did not announce any major progress in this field.

"We have looked at the development plan (for Anaran), and we are still looking. There are no new decisions (on that project)," a StatoilHydro spokeswoman told Reuters.

(Upstream Online)



Black Marlin Energy joins the Kenyan oil arena

Through a seven-year Production Sharing Contract (PSC), Dubai-based Company Black Marlin Energy is to search for oil in onshore and offshore Kenya.

The company's subsidiary, East African Exploration Limited (EAX), will conduct exploration activities in Blocks L17 and L18, which are located in the area between the Tanzanian border and the Kenyan coastal town of Kilifi.

EAX holds a 40% stake, while Somken Upstream Kenya and the British energy firm Aminex have 35% and 25% interests respectively.

Prior to the signing of contract, the joint venture companies had conducted a geo-scientific study of the area. Black Marlin Director, Eric Fore, said that the company plans to finalize seismic and geochemical work by the end of 2009 and hopes to drill a well in 2010.

Approximately \$2 million were spent by the group of companies on seismic surveys and related activities.

It is worth mentioning that Aminex is the nominated operator of this PSC.

(Gulf News)

Qapco commences ethylene cargo supply to Finolex



Qatar Petrochemical Co (Qapco) inaugurated the first ethylene cargo to Finolex Industries of India from its Ethylene Expansion project (EP2), announced the company.

According to the terms of contract signed between the two companies, the cargo consists of 4500 KTA, for annual sale of 22,500 metric tons (MT) of Qapco's ethylene and an average of 40,000MT and 60,000MT of Qatar Vinyl Company's ethylene dichloride (EDC) and vinyl chloride monomer (VCM).

"I am delighted to celebrate the first EP2 ethylene shipment to Finolex of India, noting that the cargo was scheduled at the beginning of next year, but the completion of EP2 earlier than scheduled has helped in this achievement," said Mohd Yousef Al Mulla, QAPCO General Manager, in the ceremony.

The company's ethylene production capacity is expected to increase from 535 KTA to 720 KTA thanks to the EP2 project.

"This is a value added achievement towards the petrochemical sector in Qatar", pointed out Al Mulla.

(The Peninsula)

New gas discovery for Brunei Shell Petroleum Company

Brunei Shell Petroleum Company Sdn Bhd (BSP), one of the leading oil and gas companies in Asia, announced a new discovery of gas in the Bubut Structure, which is located 15 kilometers from the Brunei LNG (BLNG) plant.

This discovery is of utmost importance as the the Bubut- Danau area may emerge as a third offshore gas production center for BSP, complementing the existing Ampa and Champion gas fields.

Commenting on the new find, Dr. Grahaeme Henderson, the managing director of BSP, expressed the vitality of this latest discovery as fulfilling their LNG contract.

"You can see the BLNG plant from the exploration rig; the discovery is in shallow waters and close to existing infrastructure and, as such, we are confident of bringing production on stream in the shorter term," stated Henderson.

(Offshore Industrial)





Sports

Dashed hopes

Ahli's winning streak was halted, but for a while

By Mohamed El-Sayed

BEFORE the second leg match of the African Champions



League final kicked off on 9 November, nobody could have imagined a worst scenario of the much awaited game. Ahli, buoyed by two consecutive winning of the coveted African title in 2005 and 2006, was expected to punish Etoile du Sahel of Tunisia, especially after the Egyptian side held their Tunisian foes to a goalless draw in Tunisia two weeks before.

The Red Devils fans indulged themselves in the dreams of a historic victory over the Tunisian giant which didn't have the honour of lifting the prestigious cup before. A sure victory was in the wind, and a fifth African title was between the Egyptian giants hands. Red jerseys were dreaming of a third consecutive appearance in the FIFA Club World Cup in Japan to play world giants like A.C Milan.

However, against all odds, Ahli's dreams were dashed by the powerful Tunisian side. The Tunisians managed to get the better of the Egyptian team that deprived them of their first African Champions League title in 2005 after being punished 3-0 in the Military Academy Stadium. This year, Etoile du Sahel remedied its wounded dignity, having hammered Ahli 3-1 in the presence of President Mubarak on head of more than 55 thousand fervent fans.

Desperate attempts by Emad Miteb, Flavio and Mohamed Abu Treika who elbowed their way to the Tunisian goal couldn't get the team back on track. The humiliating loss was blamed on the defense line that was in tatters. Other critics referred the unprecedented loss to Manuel Jose's management of the game. That's why,



perhaps, he received much of the offensive chants by Ahli supporters following the match.

"I really didn't expect this reaction from the fans, but I completely shoulder the responsibility of the loss," Jose said. But he was courageous to express his readiness to quit the job. "I was insulted by some of Ahli fans. And if I am the only problem, I don't mind leaving the job, for I will find another job the following day. But what Ahli fans did is totally unusual," he added.

Conspiracy theory reigned supreme following the match. Sports critic and editor-in-chief of the weekly *Al-Ahram Al-Riyadi* put the blame on the Confederation of African Football (CAF) which, he viewed, wanted to put a brake on Ahli's winning streak.

This was apparent since the first leg in Sousse when the CAF didn't cancel the "unjustified" yellow card Ahli's illustrious midfielder Mohamed Barakat had received.

Jose blamed the defeat on the unfair arbitration in the first leg in Sousse as well as the second one in Cairo. "The referee failed to hand Abu Treika and Qenawi two penalty kicks, a matter that crowned a series of mistakes that deprived Mohamed Barakat of a penalty kick in the first leg in Tunisia," he explained.

The Portuguese head coach didn't consider the defeat a total collapse. "The defeat is a step back in a long way of achievements," he admitted.

He promised that Ahli would appear in the final of the competition in 2008, for "our normal performance qualifies us to be there."

Despite the loss, Jose is considered one of the best coaches to have took the responsibility of the Egyptian powerhouse, with a heavy list of 12 various local and continental titles. That's why, the voice of reason inside the club calls on the board not to do without the services of the veteran Portuguese head coach.

On his part, Ahli's captain Shadi Mohamed's comments after the match could solace the grieved fans. "I offer my apologies on behalf of my teammates for sad Ahli fans. The efforts exerted by the players were not enough to defend the title," he said.

"Ahli has long been the source of happiness for the Egyptians. But this is football: win and loss. There is no need to undermine the morale of the players..."

The sudden defeat will undoubtedly negatively affect the team's international ranking. By November Ahli came in the 25 place among the top teams in the world according to the International Federation of Football History and Statistics (IFFHS).

Ahli was the best Arab and African team, followed by Etoile du Sahel which came in 56th place in the rankings.

Nevertheless, the defeat is considered by many observers as a storm in a teacup. Continuing a winning streak that started three years ago.



Standings										
	Team	P	Home	Away	W	L	D	GF	GA	Points
1	Petrojet	9	5	4	7	1	1	23	7	22
2	Al-Gaish	9	4	5	7	1	1	13	6	22
3	Al-Ahli	8	3	5	5	0	3	12	7	18
4	Zamalek	10	5	5	5	3	2	13	8	17
5	Ismaili	9	5	4	4	1	4	17	9	16
6	Ghazl Mahalla	10	5	5	3	3	4	11	12	13
7	ENPPI	10	5	5	3	4	3	14	16	12
8	Telecom Egypt	10	5	5	4	6	0	11	15	12
9	Aluminum	10	5	5	3	4	3	10	18	12
10	Harras Al Hodoud	10	5	5	2	3	5	11	11	11
11	Tersana	10	5	5	3	5	2	14	15	11
12	Arab Contractors	10	5	5	2	3	5	9	12	11
13	Baladeya	9	5	4	3	5	1	12	16	10
14	Masri	10	5	5	2	5	3	8	10	9
15	Ittihad	10	5	5	1	5	4	12	15	7
16	Suez Cement	10	5	5	1	6	3	9	22	6



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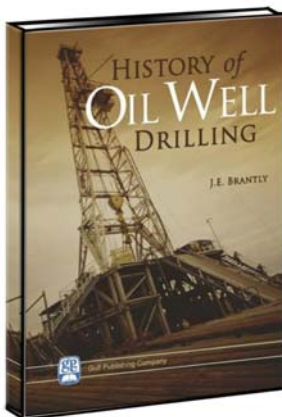
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History of Oil Well Drilling

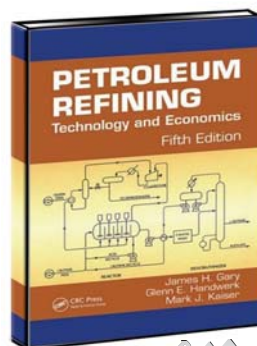
By J. E. Brantly

History of Oil Well Drilling plainly exemplifies and summarizes the oil industry's most important events. The book also records the beginning and development of the oil industry from early water and sea water well drilling to the immense oil industry of today. One of the interesting aspects of the book is that it features more than 1,700 illustrations that portray the evolution of equipment and methods used in drilling for oil.

J.E. Brantly has almost 50 years of experience in the oil industry. He spent more than 15 supplementary years conducting research for this work. Brantly uses his experience to present his readers with a comprehensive telling of the oil well drilling industry. He started his career as a geologist and used his passion to initiate the Drilling and Exploration Company, Inc. Brantly holds 23 patents on oil well drilling mechanisms and is a distinguished lecturer. He has also authored the Rotary Drilling Handbook.

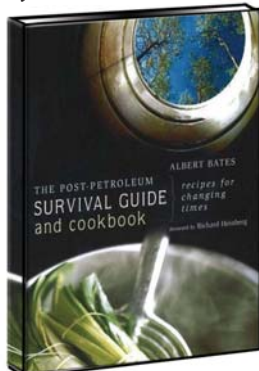


Chemical and Petroleum-Refining Engineering, Dean of Faculty and Vice President for Academic Affairs at the Colorado School of Mines. Dr. Gary received his Ph.D. from the University of Florida and his M.S. and B.S. in Chemical Engineering from Virginia Polytechnic Institute. He has over thirty publications in technical journals and works in cooperation with Glenn E. Handwerk in this publication.



Post-Petroleum Survival Guide and Cookbook: Recipes for Changing Times

By: Albert Bates



In *Post-Petroleum Survival Guide and Cookbook: Recipes for Changing Times*, Albert Bates presents and provides some realistic advice for preparing our community to make the necessary switch from a mindset addicted to cheap, abundant petroleum to a newly-founded tradition driven by conservation.

This book is written in a humorous yet solemn way, astonishingly engaging, a mixture of recipes, practical tips and advice, which navigates a straight line between

the survivalist path and the more cooperative approach. Some of the topics covered in this work include: rebuilding civilization, changing your needs, water and waste disposal, energy and transportation, equipment and tools, food storage and first aid. Albert Bates is a prominent figure in the eco-village movements and the international community. He has played a major role in the eco-village movement as one of the organizers of the Global Eco-village Network (GEN). From 2002 to 2003 he was elected

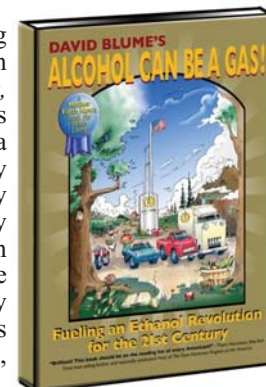
as GEN's Board Chairman and then President for one year. He was also the principal organizer of the Eco-village Network of the Americas and served as its president (from 1996 to 2003). In 1994 he founded the Eco-village Training Center, a whole systems immersion experience of eco-village living.

Alcohol Can Be A Gas!

By: David Blume

Is it possible that in the upcoming years alcohol can be a gas? Through his work, *Alcohol Can Be a Gas*, David Blume enlightens his readers and proves that alcohol fuel is a clean, plentiful and renewable energy source. This book covers every aspect of alcohol fuel from history through crops, vehicle translation and hands-on fuel production. The book also clearly points out and fully reveals all the astonishing secrets needed to enhance local living, money making, creating jobs,

ensuring food security, helping slow global warming, and redirecting funds from oil wars. As an alcohol fuel expert, ecologist, permaculturist, and farmer, Blume writes: "We can have a large cooperative cellulose distillery in each county, producing ethanol and biomass electricity to keep our essential services running. We can have small integrated farms that produce fuel, food, and building materials. We can eat well on locally produced food and locally processed products. We can even cogenerate electricity and hot water at our homes using our cars running on alcohol, if we are clever enough." If alcohol fuel is appropriately utilized, almost every country can become energy independent, global warming can be reversible and the economy can be invigorated. Alcohol fuel is easily used in vehicles and power diesel engines and can be produced from several sources, including waste products, grass clippings, and food processing waste. David Blume is the Founder and Director of the International Institute for Ecological Agriculture (IEEA). Blume started the American Homegrown Fuel Co. Inc. when the energy crisis of 1978-9 struck. It was an educational association teaching farmers and citizens how to produce and use low cost alcohol fuel at home or on the farm.



Petroleum Refining: Technology and Economics: Fifth Edition

By: James H. Gary, Glenn E. Handwerk

Petroleum Refining Technology and Economics: Fifth Edition provides a detailed overview of today's integrated fuels refinery and discusses each foremost refining process, including operating costs, catalysts, feedstock preparation, yields and economics. Dr. James H. Gary is a Professor Emeritus of Chemical and Petroleum Refining Engineering at the Colorado School of Mines. Formerly, he was Head of the Department of

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Treading the nuclear path

Egypt decides at last to go nuclear

By Mohamed El-Sayed

"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 the Egyptian President Hosni Mubarak upon inaugurating an electricity power plant north of Cairo last month. This fact was a prelude to a bombshell announcement made by the president about the government's plan to pursue peaceful nuclear technology and build a number of nuclear stations.

To emphasise the government's resolve on a course of action, Mubarak promised to shortly issue a decree to establish a supreme council for peaceful nuclear power development. Headed by the president, the council will include the prime minister in addition to concerned ministers. The new council will coordinate a national nuclear energy strategy with all concerned parties, including the International Atomic Energy Agency (IAEA). Mubarak also asked the government to draft laws to govern the peaceful uses of nuclear technology.

The decision, as a matter of fact, sparked a wave of reactions on the domestic and international arenas. Most of the opposition parties cast doubts on the government's seriousness about going nuclear, citing the Al-Dabaa nuclear station – which the government announced it was going to build it over a year ago but hasn't started yet; as an example of the government's failure to honour its commitment. Many opposition figures saw the announcement as a calculated move before the National Democratic Party's 9th annual congress to give a facelift to the ruling party's image.

The public opinion, according to press reports, varied from unchecked support of the nuclear program to disappointment as, they think, the government failed in implementing similar mega projects like Toshka.

On the international arena, key capitals of major powers welcomed, or at least didn't object to, the initiative. The White House first said it had little information about Egypt's plans to relaunch its nuclear power program, but declared itself "generally supportive" of civilian atomic power. "I don't know a lot about it."

In general, we are supportive of countries pursuing civil nuclear energy. It's clean burning. It provides electricity in a clean-burning and affordable way for citizens," said spokeswoman Dana Perino.

"We are working with some countries in order to help them get there. But in regards to the Egyptian program... I don't know any more specifics about it," Perino told reporters. Later on, Washington, as well as other key European capitals, said they were ready to help in the project.

However, Israel, as usual, expressed deep concerns over the revival of the Egyptian program. "If Egypt and Saudi Arabia begin nuclear programs, this can bring an apocalyptic scenario upon us," Israeli Strategic Affairs Minister Avigdor Lieberman told the English-language Jerusalem Post newspaper.

"Their intentions should be taken seriously and the declarations being made now are to prepare the world for when they decide to actually do it," said the minister who is responsible for coordinating Israeli efforts against a nuclear Iran and head of the ultra-nationalist Yisrael Beitenu party.

Domestic and international reactions apart, energy experts saw the decision coming in time in light of



the skyrocketing oil prices that hit \$98 last month. In addition, demand for electricity has been growing at an average rate of 7% a year and the country has ambitious development goals to achieve. In view of the soaring price of oil – jumping in less than 10 years from \$17.5 per barrel to \$61 last year and \$98 in November – economists think it is economically insane for a developing country like Egypt to keep ignoring the nuclear option.

Other experts, like Ahmed El-Sayed El-Naggar of Al-Ahram Centre for Political and Strategic Studies, opines that "the regime has become very sensitive to the fact that Egypt is perceived as a lesser regional power than Iran," which has pursued its own nuclear energy program despite all international pressures. Like most government critics, El-Naggar is disappointed at the government's failure to live up to the promises it made a year ago of building a nuclear station in Al-Dabaa. "This created a major credibility problem for a government that is already short on credibility," he said.

"If Egypt and Saudi Arabia begin nuclear programs, this can bring an apocalyptic scenario upon us," Israeli Strategic Affairs Minister Avigdor Lieberman

Meanwhile, the Ministry of Electricity, one of the concerned parties, started preparations for the nuclear stations. "The implementation [of the nuclear stations] will take from 8 to 10 years," Minister of Electricity Hassan Younis told the daily Al-Ahram.

Younis indicated that the government is planning prompt action but offered no specific details, save for the important fact that Egypt will most likely buy, rather than process, nuclear fuel.

According to government officials, Egypt will seek the help of its international partners like the US, Canada, Japan, France or Russia, or perhaps more than one country, in the construction of its first power station that is likely to be based on a single reactor.

Egypt's nuclear program, in fact, dates back to 1964. The government then announced a project to build a nuclear station to generate electricity and desalinate water. The project was interrupted due to the 1967 War. In the 1980s, the government wanted to revive its nuclear project, and it was on the verge of signing the contract of the construction of the first nuclear station, but the explosion of the Chernobyl reactor in Ukraine in 1986 deterred the government from going ahead with its program. However, it did maintain a small experimental nuclear reactor.

Ali Islam, chairman of the Nuclear Energy Agency, didn't fix a specific date on the taking of bids for the construction of Egypt's first nuclear power station. Islam stressed the determination of the state to build and operate its first reactor within eight years maximum. And that's

why, perhaps, economists are still skeptic about the government's taking prompt action to start the long stopped program.

"If this government wants to prove it is serious then I expect to learn of a bid for the construction of the first reactor at the previously chosen site of Al-Dabaa in a few weeks, not a few months," El-Naggar said.



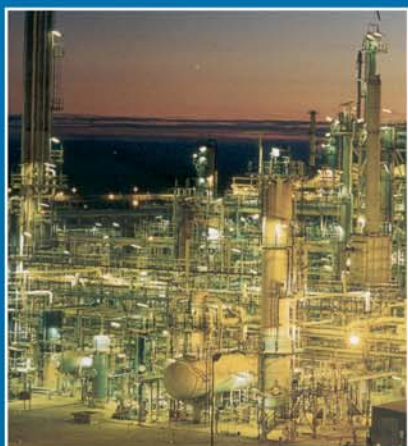
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2007 ready to grant its fortune of successful attainments to 2008

By Yomna Bassiouni

With 2008 just around the corner, the oil and gas industry makers should first evaluate and assess the achievements attained and goals fulfilled during 2007 before going ahead with their plans for the new year. One of the more obvious features of this year is the tremendous increase in volume of discoveries, investments and profit

Continued from page 1

Discoveries

Last January, Croatia's oil organization, INA, and a production unit of the German utility firm, RWE, announced an oil discovery in the East Yidma concession, located in the Western Desert. The two companies jointly obtained the oil exploration agreement for this concession in 2002. This discovery was estimated to have a daily oil production of 3,000 bbl of high quality low sulphur crude oil, said INA in a statement. "The newly discovered oilfield will be put into production during 2007 and by 2010 the whole concession area should be put into full production," added the statement. INA, which is 51% owned by the state and 25% by Hungary's MOL, is involved in gas and oil exploration and drilling in the Middle East and Africa.

INA achieved another discovery in Sidi-Rahman-1, 3 km off the Mediterranean Coast. The well has an estimated production of approximately 3,200 barrels of crude oil per day with a 49 API, which is classified as one of the finest types of crude oil globally, based on the test's results. The Croatian company revealed the presence of other geological formations in which reserves are estimated to contain about 21 million barrels of crude oil. These discoveries are to increase the area's total reserves to reach around 52 million barrels of crude oil.

Moreover, Apache increased its future production with its discovery in the Western Desert in January 2007. The corporation achieved a natural gas and condensate discovery in its Alexandrite 1X well from the Alam El Bueib 6 (AEB 6) formation on its Matruh Concession. This is considered to be the first commercial production from the AEB 6 formation; the well tested 19.8 million cubic feet of gas and 4,045 barrels of condensate per day. The Alexandrite 1X was initially completed in the Jurassic Upper Safa formation and

produced a total of 3 billion cubic feet of gas and 514,000 barrels of condensate since November 2003.

Three months following their January discovery, Apache's CEO, President and Chief Operating Officer, G. Steven Farris, announced that the Jade-1X well has discovered natural gas on the company's Matruh Concession in the Western Desert, which tested 25.6 million cubic feet (MMcf) of gas per day from the Jurassic Upper Safa member of the Khatatba formation. This discovery has served the company's goal in extending its productive limits of the "Jurassic gas fairway almost 12 miles southwest of existing Jurassic production." It is worth mentioning that Apache is constructing two additional trains in the Khaldia Concession in an attempt to increase takeaway capacity by 200 MMcf of gas per day, bringing total capacity to approximately 750 MMcf per day.

The Egyptian Western Desert has witnessed four more discoveries led by Shell Egypt, and found in the acreages of Badr El-Din (BED) development leases and the West Sitra Concession; jointly operated by Bapetco, the Egyptian General Petroleum Corporation (EGPC) and Shell.

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

As for the Sitra Concession, Shell Egypt completed the deep Jurassic exploration well WS-J1-1, reaching a total depth of 5,077 meters in the Khatatba formation.

The well encountered 39 meters of gas in the Upper Safa Sandstone.

Adding to the series of discoveries in the Western Desert, Empresa Nacional del Petroleo (ENAP), through its subsidiary Enap Sipetrol S.A. announced its new oil discovery in the East Ras Qattara block. A consortium composed of Enap Sipetrol, as operator with 50.5% participation, and the Australian company Oil Search Limited (49.5%) was licensed to conduct exploration activities in this block since 2004. This discovery is Sipetrol's 10th in Egypt and 11th in the MENA region, during the last four years. Sipetrol had a previous discovery in this area; Shahd-1 well in November 2006. The new discovered oil in the Ghard -ST1 well was drilled to a depth of 3,436 meters and proved the existence of oil in the lower Bahariya formation. A 10-meter thick zone of interest was proven at a depth of 3,341 meters and produced light oil of 40.5 degrees API at an initial rate of 2,026 barrels per day, plus 2.6 million cubic feet a day.

One of the major oil discoveries at the beginning of 2007 was attained by the world's second largest oil firm, BP, which had discovered more than one trillion cubic feet of natural gas in the Mediterranean, 668 meters (2,250 feet) below sea level north of Alexandria-Egypt.

The deep water discovery, equivalent to half of Egypt's annual gas consumption, would further attract foreign investors, said the Minister of Petroleum Sameh Fahmy in a statement.

BP is responsible for nearly 40% of the country's oil and gas production through its partnership with EGPC. This deep water discovery revives the fact that Egypt can be ranked as the second in the world in terms of deep water gas reserves as "70 trillion of the country's estimated 100-120 trillion cubic feet of gas reserves" are situated in deep water.

The year of 2007 symbolizes a special year for

Melrose, OVL & IPR and Rally, as it witnessed their first production in Egypt. Melrose Resources Plc secured its first production at the West Khilala development project, from its El Mansoura concession. The West Khilala-3 development well was drilled as a production well on the northern flank of the West Khilala structure in the Qawasim formation and it reached a total depth of 10,500 feet with the target reservoir encountered on prognosis with 82.5 feet of clean gas-bearing reservoir. During March and April, further production equipment was installed at the field, as a continuing appraisal and development drilling program of up to four wells was planned. Moreover, on the same concession, the West Dikimis-7 appraisal well was drilled with the aim of proving additional oil reserves on the northern flank of the West Dikimis structure.

Melrose also announced during the first half of this year the increase of its funds for operations in some countries, among which Egypt. A total of 7 million new ordinary shares of 10p each (the Placing Shares) have been placed, conditional, inter alia, on UKLA related party approval, at a price of 385 pence per share. With regards to its activities in the Egyptian territories, approximately £26.5 million was allocated for continuing exploration and development expenditure in the country.

Speaking of ONGC Videsh Ltd. (OVL) and its partner IPR Red Sea Inc., they achieved a significant oilfield discovery in their North Ramadan-1A well, in the Gulf of Suez. The discovered oil is classified as sweet crude of 36.50API. North Ramadan-1A, the first commitment well for the North Ramadan concession, was drilled to a total depth of 10,050 ft in the Lower Miocene Mheiherratt formation. According to the deal signed with the Ministry of Petroleum (MoP), OVL (70% share) and IPR (30% share) have a minimum work commitment in the first exploration phase of three years in addition to the drilling of three exploratory wells, acquisition of 50 sq km of 3D data and reprocessing of existing data. The budget allocated for this first phase accounts for nearly \$45 million and there are still two other phases of production remaining for the two companies in this concession.

Closing the triangle of companies categorized under "first production year in Egypt" is Rally Energy Corp., which announced a new dual zone heavy oil discovery on a separate structure with the drilling of its West Issaran-1 exploratory well. The company set a plan to continue the development of this West Issaran discovery through a drilling program of offset Lower Dolomite development wells, combined with two delineation wells that will evaluate both the aerial extent of the Upper and Lower Dolomite accumulations and the ultimate reserves potential from thermal and conventional methods in this area. It is worth mentioning that this area is currently producing approximately 150 barrels of oil per day.

In the Eastern side of Gulf of Suez, the fully owned subsidiary of the National Petroleum Company (NPC) Petzed announced a new commercial oil discovery in Muzhil-1 field, situated in the South Abou Zeneima Block. The well tested in Muzhil-1 field, 1900 barrels of oil per day in aggregate from two different layers. Moreover, Dana Gas had a series of discoveries and achievements throughout this year. At the top of the list is the discovery in El-Wastani West-2 (EWW-2) well, which was tested and flowed at a rate of 9.5 million standard cubic feet per day (mmscf/d) of Gas

and 1,022 barrels of Condensate per day (bc/d) at 28/64 choke from the Qawasim sands. The drilling process was conducted to a total depth of 3,175 meters and encountered 8.3 meters of net pay over a gross pay interval of 24 meters and was carried out by Centurion Petroleum Corporation, the upstream division of Dana Gas.

Deals / Agreements

At the beginning of 2007, the Shura Council's Industrial and Energy Committee approved nine agreements for oil and natural gas prospecting in the areas of the Gulf of Suez and the Western and Eastern Deserts. The amount of investments for these agreements accounts for approximately \$222.65 million, said Shamel Hamdy, the First Under-Secretary of the Ministry of Petroleum.

One of the major contracts sealed during the first half of 2007 is the WTR- Gulf of Suez Petroleum Company (GUPCO) deal. Through this two-year contract, Aberdeen-based WTR is to provide the materials and the installation of cold repair for leak fixation in the areas of the Gulf of Suez, the Western Desert, Port Said, Dashour and Ras Bakr, where GUPCO owns production rights along with its partners BP and EGPC. This deal presents an opportunity of expansion to WTR whereby they can enhance and increase their activities in the Egyptian market.

In the framework of the ministry's strategy to expand the usages of natural gas in all the Egyptian governorates, the Arab International Bank (AIB) sealed a loan agreement with the Egyptian Natural Gas Holding Company (EGAS) in order to finance the installation of two gas supply lines from Taba to Sharm El Sheikh and Shokair to Hurghada with a total value of LE 355 million and \$90 million (LE 512 million). This loan agreement is provided by a consortium of eight banks which include the AIB; Societe Arabe Internationale de Banque, Egyptian Saudi Finance Bank, Piraeus Bank, United Bank of Egypt, National Bank for Development, the National Bank of Abu Dhabi, and the Audi Bank. The main target of this project is to supply six million housing units over the next six years with natural gas with LE 30 billion total investment.

This is not the sole contribution of banks in projects related to the oil and gas sector. Another group of banks headed by the Commercial International Bank (CIB) signed a deal with the Egyptian Propylene and Polypropylene Company (EPPC) to finance a \$450 million project establishing a new processing plant in Port Said. This plan, expected to start production by 2010, is to produce 350,000 tons of propylene and polypropylene annually. In addition to CIB, three other banks participated in this financing agreement; the National Bank of Egypt (NBE), Banque Misr and NSGB. This plant is the first of its kind in Egypt, as it is the first to implement steam active reforming in producing propylene and polypropylene, a method first introduced in the early 1990s in the United States and Argentina. In addition to EPPC, seven shareholders have signed to finance the project including The Egyptian Holding Petrochemical Company, Eastern Holding Company, and Amwal Al-Khalij. The project's estimated volume of investments accounts for more than \$690 million.

No one can deny the enduring efforts of the MoP to bring into play the area of Upper Egypt and its attempt to benefit from its concealed reserves. Dana Gas is one of the leading corporations that have served the ministry's strategy. Through a farm out agreement, the Middle East's first regional private-sector natural gas company and Kuwait International Oil & Environment Company (KIOEC), a subsidiary of TAAQ Holding and Gulf Oil Investments are to partner Dana's Komombo Concession, situated in Upper Egypt, 800 km south of Cairo. Dana already conducted technical evaluation of the concession, including "the interpretation of geological and geophysical data and the acquisition of 516 Km's of 2-

D seismic", announced the company in a statement. This technical evaluation led to the identification of drillable prospects and four addition leads. The new partners are to share the drilling works which were scheduled to begin in mid 2007.

Pros/Cons

As a matter of fact, any sector/industry is in essence a double edged-sword, with both positive and negative aspects. And, in order to determine the growth rate and evaluate the quality of its achievements, industry decision makers should weigh both sides to estimate their points of strengths and weaknesses in order to avoid possible drawbacks in the future.

One of the positive features that inaugurated the record of outstanding achievements in the industry is the construction of the first factory for the Ruherpumpen Company in the governorate of Suez. This can be considered as one of the landmarks of the year. This factory is considered the first of its kind, not only in Egypt, but in the Middle East region. The company will produce the various types of pumps needed in the oil and gas sector. The Egyptian public sector, represented by EGPC, Enppi, Petrojet, El Nasr Petroleum Company, participated with a 33% share, while the German company Ruherpumpen controls the remaining 67%. The 20-million Euro worth factory is to manufacture and maintain all kinds of pumps used in Egypt, which are more than 6,000 pumps in addition to providing the required spare parts. Concerning its production capacity, it is expected to attain 400 pumps a year. Enppi and Petrojet were selected to execute the design and implementation works of the factory.

Another bright pillar of hope in the sector is gold. "Egypt revives its Gold fortune..." was one of the key strategies and quotes adopted by the MoP, which is to resume the program of gold mining after a halt of more than 50 years. As a debut, Fahmy signed a memorandum of understanding with the International Finance Corporation (IFC), the private arm of the World Bank, to replace the old mining laws that contributed to the lack of local investments in general and foreign investments in particular. Improving the existing policies, which are to be completed in a year, is expected to boost the Egyptian economy by more than \$10 billion. IFC official, Gulrez Hoda, said that this sum represents 10-12% of the country's GDP. According to the *Middle East Times*, Egypt's "antiquated mining laws, based on profit-sharing, were prohibitive for foreign mining majors wishing to exploit the country's huge reserves, and local expertise is currently insufficient to develop a home-grown industry." Currently, two Australian companies operate in the Eastern desert; the largest, Centamin, claims proven resources of more than 7.7 million ounces of gold. "From our own activity in Egypt today, particularly through the company Centamin, it has become apparent that the gold sector has the potential for Egypt to become one of the largest gold exporters in Africa," said Australian Ambassador to Egypt, Robert Bowker. Under the agreement, IFC will provide LE 1.3 million to finance the research conducted by its Technical Assistance Office for the Middle East and North Africa with the aim of reviewing the 50-plus year old mining laws and recommend reforms to regulations and taxation.

Returning to oil and gas, initiating its drilling program in Egypt has been the point of focus for Arsenal Energy Inc. This junior company announced that drilling operations on the 5.625 million acre Nuqra concession in the Upper Nile region are underway and anticipates the drilling of minimum two test wells in the Nuqra Basin. The first, SET-1 has a target depth of approximately 3,800 feet and will test a stratigraphic trap in the Jurassic zone identified through extensive seismic evaluation. The second one, Narmer-1 has a target depth of 7800 feet and will test a separate structure with Berriasian and Kimmeridgian sands. "The operator estimates that the two initial target structures could contain up to 40



million barrels of oil equivalent in recoverable reserves," stated the company.

The Italian mega player Eni recorded the company's highest production level ever achieved since starting its work in Egypt in the early 1950s. The Chief Executive Officer of the Italian producer declared that the work progress of the company in Egypt achieved a record level of crude oil, condensates and natural gas production, for the first time, where it exceeded half a million barrels of oil equivalent daily during last March. In a meeting with the Egyptian Minister of Petroleum, Eni announced its intentions to invest \$12 billion in natural gas operations in the country over the coming five years. Moreover, the company plans to utilize advanced extraction techniques to serve its plan to access an extra 180 million barrels of oil reserves in its Balaim inshore field, located in the Gulf of Suez. According to *Reuters*, the extra oil will be extracted "over 12 years and would be worth about \$9 billion, of which the Egyptian state's share would be about \$6 billion."

The petrochemical industry had, as well, its share of excellent investments this year, mainly from Kuwaiti and Canadian investors. First, the Kuwait-based Kharafi Group revealed its plan to build a chemicals and petrochemicals complex in the governorate of Fayoum, with \$65 million investments. The Kuwaiti investor received the approval of the Egyptian Ministry of Environmental Affairs in the shadow of the recommendations from the Environmental Protection Apparatus (EPA). Amr Asal, Head of the Egyptian Industrial Development Authority (EDA) stated that this two-phase project is to produce approximately 222,000 tons of sodium sulfates, 250,000 tons of sodium chloride and 66,000 tons of caustic soda during the first phase of operations. It will be built on 4000 acres and is expected to create 5000 employment opportunities, he added.

The first phase is designed for the manufacturing of bi-products which are extracted from salt deposits in Qaroun Lake in Fayoum in addition to the installation of a facility producing hydrochloric acid at the capacity of 30,000 tons per annum. As for the second phase, a calcium production unit and a magnesium chloride plant are to be established; the first with a capacity of 232,000 tons per year and approximately 150,000 tons per year for the second.

Secondly, the Canadian Agrium Co. has participated with a 60% share in a \$1.5 billion petrochemical project in addition to the contribution of Egyptian banks. Fahmy witnessed the signing of the Egyptian banks participation in the financing agreement, which accounts for nearly \$950 million for the project of the Egyptian Agrium Company for Nitrogenous Products, which is to produce Ammonia/Urea. Local banks' contribution reached about \$380 million, which is equal to 40% of the main value of the loan. The project's production capacity is about 1.3 million tons of Ammonia/Urea.

The contribution of the Petroleum Sector to the project is 33% and the contribution of the Arab Company for Petroleum Investments (APICORP) is 7%.

Leaving petrochemicals and returning to oil and gas, once again, Russia's Lukoil also made headlines this year. After more than 25 years of receiving the production rights in the Meleha Block, Lukoil announced the extension of its rights in this block, located in the Western Desert, until 2024 after obtaining the approval of the Egyptian authorities. Lukoil's original agreement was signed in 1978, through which it has been conducting production activities in the block along with its partners, IEOC Production (subdivision of ENI Group) with a 56% share, Lukoil Overseas (24%), and the IFC, which holds the remaining 20% share. This block is considered as one of the most "profitable and effective producing projects" of the Russian corporation. It contains around 90 million tons



of original oil in place, 34 million tons of initial recoverable oil reserves in addition to 129 operating wells. Moreover, it produced more than 17 million tons of oil throughout the past 30 years of operation.

On the not so bright side of the sector, it was announced at the end of last May that Canada's TransGlobe Energy has plugged and abandoned its Narmer-1 exploration well on the Nuqra 1 Block after finding no hydrocarbons in the targeted Jurassic sands. "The well struck strong hydrocarbon shows in Cretaceous sands between 380 and 840 meters but the reservoir was found to be water bearing," announced the company in a statement. However, TransGlobe worked in identifying other spots in the Cretaceous levels for the possibility of future drilling program, through the remapping of its seismic data for this region.

Egypt can be ranked as the second in the world in terms of deep water gas reserves as "70 trillion of the country's estimated 100-120 trillion cubic feet of gas reserves" are situated in deep water

Another point of attention in the industry this year was the amount of storage facilities available in the country. A senior official from the MoP revealed the Ministry's intention to construct a million-tonne storage facility for Gulf crude oil in Sidi Krir by next year. He added that this will be executed through the establishment of a joint venture between the Ministry and Sumed, which is owned by the Arab Petroleum Pipelines Co. "The firm will build a few commercial storage tanks, which will make Sidi Kerir the main storage hub in the Mediterranean," the official told *Reuters*.

With the lack of storage facilities addressed, the lack of rigs in the market was next on the list of things to do for the MOP. This problem was addressed with the creation of a mega Egyptian-Chinese oil rigs project. Chinese Ambassador to Egypt, Wu Sike, and Egyptian Minister of Petroleum, Sameh Fahmy, laid the foundation for this joint project, which represents the first land oil-rigs plant in the Middle East region. A memorandum of understanding was signed in October 2006 and the contract was sealed a month later stating the approved terms between the two countries to initiate this venture, which clarified that the two sides are to invest \$15 million each and indicated the date to manufacture the 53 oil rigs, which will be during the coming four years (2008-2011).

Acquisitions / Deals

Among the companies that have strengthened their existence in the Egyptian Market is Al-Mansoori Specialized Engineering (MSE). The company signed a multi-million dollar deal to acquire the Tubing Conveyed Perforation (TCP) division of Energy Inc, which represents MSE's third acquisition in Egypt.

The previous acquisitions are comprised of the purchase of a Cairo-based service company, Gulf Petroleum Investments (GPI), in a multi-million dollar deal in July 2006 and the acquisition of production testing, drill stem



testing and memory gauge equipment company, Alpine Oil Services Egypt (AOSE).

Also, Velosi has signed its first contract to act as a full service provider in Egypt as it has been awarded a two-year contract, with an option to extend a further year, with the Gulf of Suez Petroleum Company, a division of BP, for lifting equipment management and maintenance for all BP sites. The Velosi Group provides asset integrity and HSE services to a number of top oil and gas companies, such as BP, Shell, ExxonMobil and Chevron.

Greece's largest refiner Hellenic Petroleum has set its routes in the Egyptian market as it signed an exploration deal to drill for oil in the Obayed region.

The seven-year deal grants the Greek company the right to carry out its activities in an area covering 1841 kilometer square in west Obayed, which will cost about \$26 million. Hellenic's drilling area borders with the Obayed region where Shell is managing a natural gas find.

Making its first steps in Egypt like Hellenic, Europa Oil & Gas (Holdings) plc signed a production sharing agreement covering the West Darag Onshore Concession in partnership with Solaris Energy plc, the former with a 60% working interest, where it will function as operator.

The two companies will be responsible for executing the work program for this concession by the end of this year, which includes the reprocessing of existing seismic data along with geological and geophysical field investigations during the first two-year phase. There are two other phases; one will require 500km of 2D seismic acquisition and the drilling of one well over a three-year period, while the last phase will require a similar amount of seismic acquisition and the drilling of two additional wells.

Problems / controversies

The year of 2007 was not devoid of ongoing controversies and problems, which have disturbed the tranquility of the Egyptian petroleum sector.

At the beginning of this year, Turkey urged Egypt and Lebanon to delay oil and gas exploration deals with Cyprus, saying that the agreement infringed on the rights of the breakaway Turkish Cypriot statelet on the divided island. This draws back the roots of Turkish-Cypriot conflict that erupted in 1974; Cyprus had been divided along ethnic lines when Turkey seized its northern third in response to an Athens-engineered Greek Cypriot coup in Nicosia aimed at uniting the island with Greece.

Also, at the beginning of this year, Lebanon signed an agreement with the "the internationally-recognized Cypriot government in the Greek-populated south of the island for the delineation of an undersea border to facilitate future oil and gas exploration." Egypt also signed a similar agreement last year.

"We remind countries or companies that might be interested in oil and gas exploration to take into consideration the will of the Turkish Cypriots and not take any initiatives that would adversely affect the resolution of the Cyprus issue," stated the warning statement issued by the Turkish authorities.

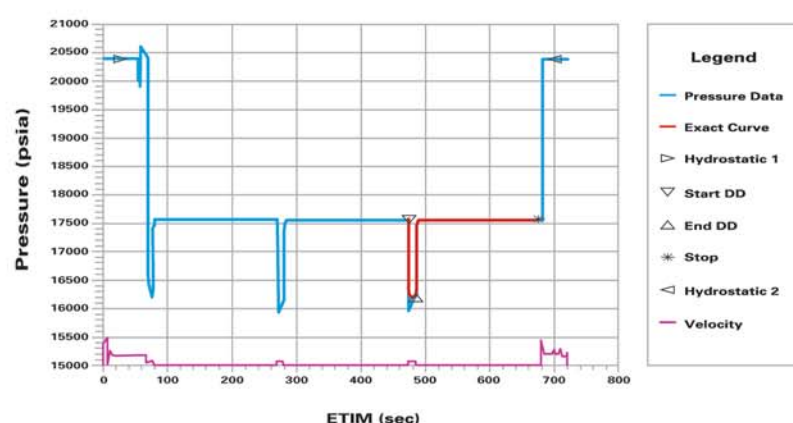
This was just the evaluation of the first half of 2007, there is still a lot to assess and tackle in the second half to finalize this year resolution before celebrating the beginning of 2008.



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HIGH RESISTIVITY, HIGH WATER SATURATION ADDRESSING THE PROBLEM TO AVOID WATER PRODUCTION

S. Hassan, M. Sabra, A. Salah*
Belayim Petroleum Company, (PETROBEL)

Belayim Land field is one of the oldest and largest oil fields in Egypt. It was discovered in 1954. Its current daily production is about 80,000 BOPD. It produces oil from many sandstone reservoirs, Rudeis, Kareem, Belayim and South Gharib. Rudeis formation is the lowest reservoir in the Anticline structure that forming the field. The sandstone section of Rudeis formation is of an excellent reservoir quality. It is composed of quartz arenite with 22% average porosity and 800 md average horizontal gas permeability. The vertical permeability is about 0.9 of the horizontal permeability. The crude oil is of moderate quality with about 20 API

Oil is produced from 10-30 ohm resistivity in Belayim Formation, while in Rudeis Formation; 70-80 ohm resistivity is producing water. A core was cut in Rudeis formation; the wettability of the reservoir rock was determined by Amott method and proved to be strongly oil wet. Electrical resistivity measurements were conducted on restored samples to determine Archie exponent. A constantly variable n values were obtained during the electrical measurements.

Two saturation exponents (n values) were proposed to monitor the water saturation in the reservoir. This situation made it deem necessary to propose a certain resistivity cutoff for Rudeis formation in order to avoid perforating water zones.

Introduction

Rudeis formation is an excellent oil reservoir. It is located in the Eastern side of the Gulf of Suez, figure (1). The sand thickness reaches about 300 meters. Recently, high resistivity intervals were perforated but the water cut was high and increased rapidly.

To address the problem, it was decided to cut core in the Rudeis formation. A systematic core analysis program was designed to achieve a comprehensive reservoir rock characterization. The program includes porosity, permeability, grain density, pore throat and size distribution, petrographic analysis (including thin section description and SEM), and wettability of the reservoir rocks. The wettability characteristics of the reservoir is very important as it controls the fluids distribution within the pore spaces and this distribution will affect all the fluids-dependant characters of the reservoir. Based on the wettability results, the relative permeability and electrical properties measurements were measured on fresh-state samples.

Reservoir Rock Characterization

Porosity, horizontal and vertical permeability, grain density were measured every 25 cm. the porosity ranges from 20-26% with an arithmetic average 23 %. The horizontal gas permeability ranges between 80-2500 md with geometric mean of 800 md. Four samples were selected for petrographic description.

The description revealed that the rock is mainly Dolomitic Quartz Arenite. The rock is mineralogically mature, the Quartz is the main detrital grains with little feldspathic grains that suffered partial dissolution in some samples. The partial dissolution of the feldspar

grains is the main reason for the relatively high microporosity in some samples. The thin section and the SEM photomicrographs (figures 2,3) show the excellent pore network (pore space and throat) with the patches of dolomite cementation.

The percentage of dolomite cement is the main factor that control the reservoir quality, where the porosity is increased with decreasing the dolomite cement percentage. The grain density ranges from 2.68 – 2.72 gm/cc. This high grain density of quartz arenite is compensated by the presence of dolomite as the main cement minerals.

Microporosity Evaluation

Four samples were selected to perform capillary pressure by mercury injection at 30,000 psi. the objective was to obtain the pore throat and size distribution in order to evaluate the microporosity. It is believed that microporosity is holding water and could be considered as the irreducible water saturation value in the reservoir rocks.

The incremental distribution (red curve, figure 4) shows unimodal distribution with pore throat mode between 10 and 14 microns, which reflected in the measured high permeability. The amount of microporosity is indicated on the cumulative curve (blue, figure 4) and ranges between 10-20% with an average of 15%.

Wettability

Wettability is defined as the tendency of one fluid to spread on or adhere to a solid surface in the presence of other immiscible fluids, (Craig, 1971).

The importance of wettability in reservoir rocks is that it controls the distribution of fluids within the pore spaces. At initial conditions, when the oil migrated from the source rock and accumulated in the reservoir rocks, the wetting phase which is the water is distributed in the small pores and as continuous film coating the grains, (figure 5). If the wettability has changed to be oil-wet, the grains will be coated with oil and the water will be accumulated as disconnected droplets in the centre of large pores, (figure 6). Seven samples were chosen for wettability measurements.

Amott method, including the static and dynamic displacement, was used to determine the wettability tendency of the reservoir rock. Fresh well preserved samples were used in the test. The results of the wettability is illustrated in the following table:

Sample	6	18	25	44	47	63	75
depth	2722.6	2727.8	2729.9	2735.7	2800.0	2804.9	2808.5
Gas perm, md	1278	914	1448	789	810	364	667
Porosity, %	25.7	25.5	26.3	25.1	24.4	24.0	23.5
Irreducible water saturation, % pore space	10.8	10.9	10.5	16.3	11.3	14.5	15.7
Water wettability index	0.07	0.07	0.06	0.08	0.04	0.04	0.05
Oil wettability index	0.59	0.75	0.67	0.64	0.71	0.76	0.68

The Amott wettability results indicate that the Rudeis formation is strongly oil-wet with very little affinity towards water. Accordingly, the water will occupy the micropores and occur as disconnected droplets of water in the centre of the large pores.

Electrical Properties Measurements

The electrical properties of rocks have been used to calculate fluid saturations in reservoir rocks.

The formation resistivity factor is defined as: $FF = RO/RW = F \cdot X^{-m}$ (1)

Where RO is the sample 100% water-saturated, RW is the resistivity of formation water.

The formation factor can be related to porosity (equation 1), the slope of the line relating the porosity to formation factor is m , which is defined as porosity or cementation exponent. The wettability of rock has no effect on the m value as it is determined at one phase saturation, but m is affected by overburden pressure and it has to be measured at the net overburden pressure on the reservoir rock. Eight samples were selected for formation factor measurements.

The average calculated cementation factor was 1.80 at net overburden pressure 7000 psi.

Archie (1942), introduced another equation to relate water saturation to electrical resistivity:

$$RI = RT / RO = SW^{-n} \quad (2)$$

Where RI, the resistivity index, is the ratio of the resistivity of the sample at specific brine saturation (RT), over the resistivity of one hundred percent brine saturation (RO). The resistivity index is related to water saturation of the sample (SW) and saturation exponent (n). the saturation exponent, n , should be determined by experimental core analysis.

RT is the resistivity of sample at two phase saturation (oil and water). The distribution of the two fluids is influenced by the wettability characteristics and saturation history of the measured sample. The eight samples were flushed with dead crude oil to establish the oil saturation at irreducible water saturation. The samples were aged for 40 days at reservoir temperature to restore the original wettability. During the production phase of the reservoir, the water saturation is increased. So to simulate the reservoir performance, the resistivity index was measured in steps with water saturation increases. The standard resistivity index measurements are performed on 100% water saturated, then the water saturation is decreased at steps and the electrical properties are determined.

The mineralogical model can be summarized in the following table:

Detrital grains			Authigenic minerals			porosity
quartz	feldspar	Detrital calys	dolomite	kaolinite	pyrite	
60%	2%	2%	10-15%	tr	1%	20-26%



For only one sample, the resistivity index was measured on clean-state with water saturation decreasing as the standard procedure. The calculated saturation exponent was 1.93 in agree with the standards of Archie, figure (7). The same sample was measured at restored-state while water saturation is increasing. A constantly variable saturation exponent, n , is obtained. It varies from 3 in the start of water flooding, to 4 and then 7 and finally 9 at the end of the test. The curve can be divided into two segment, the first where n ranges between 3 to 7 and it represents the mechanism by which the water droplets in the centre of the large pore are concentrated to form continuous film. While the second segment of the curve starts at $n=7$ to $n=9$, the second segment represents the forming of continuous film of water and as it increase in thickness, the resistivity decreases. The same phenomena was observed in all the measured samples. The inflection point on the resistivity index was chosen to select the R_t cutoff. This inflection point separate between the phase of disconnected and poorly connected film of water and continuous film of water.

For the purpose of applying the variable n values, an average value of $n=3$ was assigned to calculate water saturation for R_t higher than 70 ohm, and an average value of $n=6$ for R_t less than 70 ohm.

Case 1:

The well 113-81 was drilled to drain Rudies Formation, figure (9) show the open hole log response, the shadow area is the perforated interval in the well. Figure (10)

shows the preprocessed logs using ELAN software of Schlumberger. The standard value of Archie constant was used in the preprocessing ($m=1.85$, $n=2$). The calculated water saturation ranged between 15-30%. The calculated irreducible water saturation ranged between 10-20%. It means the presence of about 5-10% free water (moveable) in this interval. The interval was perforated, the water cut was about 87% after two weeks of production. The decision was to plug the perforated interval and perforate higher interval, figure (11). The new perforated interval produce oil with 0.1% water cut.

The ELAN was reprocessed using variable n , figure (11). The $n=6$ was applied for the lower perforated interval, the calculated water saturation ranged between 50-70%, which is a higher value than the water saturation cutoff that applied in the field. This high water saturation compensate the high water cut in production.

Case 2:

The well 113-95 was drilled to drain Rudies formation. The open hole log response, figure (12) show the excellent reservoir quality. The resistivity ranged between 20-2000 ohm. The whole interval was perforated. The initial water cut was 52%. Figure (13) shows the ELAN using standard Archie constants. The calculated water saturation ranged between 10-30%, only 10 higher than the irreducible water saturation. The decision was to produce the interval indicated in figure (14). The water cut from the new produced interval was 0.5%. The ELAN was reprocessed using variable n . In the lower

interval figure (14), $n=6$ was applied and the calculated water saturation was 50-70%, a higher value than the water saturation cutoff. In the upper interval the calculated water saturation ranged between 8-16%, a value within the irreducible water saturation range of the formation. The water cut of this interval was about 0.5%.

Conclusions

Wettability and saturation history must be considered during electrical resistivity measurements.

The electrical resistivity measurements of water-wet reservoir should be performed on fresh or cleaned-state samples, while in case of oil-wet reservoir rocks, fresh or restored-state samples should be used to compensate the effect of wettability. In both cases, the electrical resistivity should be measured while the water saturation is increasing to simulate the reservoir conditions.

References:

- Amott, observations relating to the wettability of porous rock, Trans. AIME, 216, PP 156-162, 1959.
Anderson, W.G., Wettability literature survey- Part 1: "Rock/oil/brine interactions, and the effects of core handling on wettability", SPE 13932, 1984.
Anderson, W.G., Wettability literature survey- Part 2: "Wettability measurement", SPE 13933, 1984.
Anderson, W.G., Wettability literature survey- Part 3: "The effects of wettability on the electrical properties of porous media", JPT (DEC. 1986), Vol. 38, P. 1371-1378.



FIGURE (1) : LOCATION MAP OF BELAYIM LAND FIELD

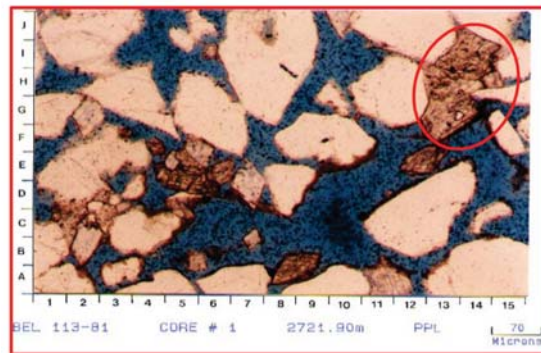


Figure (2) : Photomicrograph showing the well interconnected pore spaces (blue color) and dolomite cement (red oval)



Figure (3) : SEM photomicrograph showing the relatively smooth grain surface and dolomite cement (red oval)

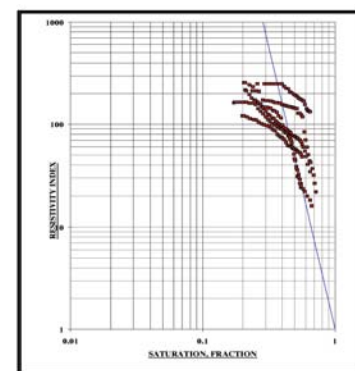


Figure (8) : resistivity index of all samples at restored state

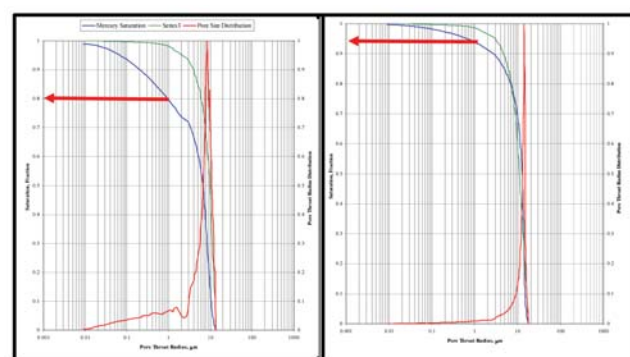


Figure (4) : Pore throat and size distribution by mercury injection, the red arrows indicate the amount of microporosity

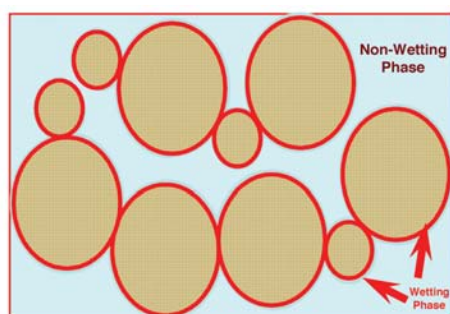


Figure (5) : the grain surfaces is coated with connected thin film of wetting phase (water)

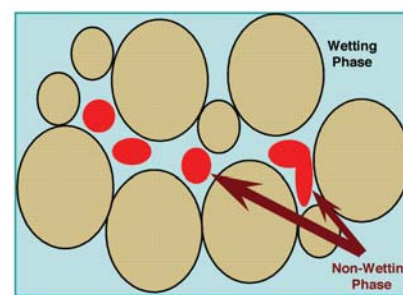


Figure (6) : the non wetting phase (water) is accumulated as disconnected droplets in the centre of the large pores

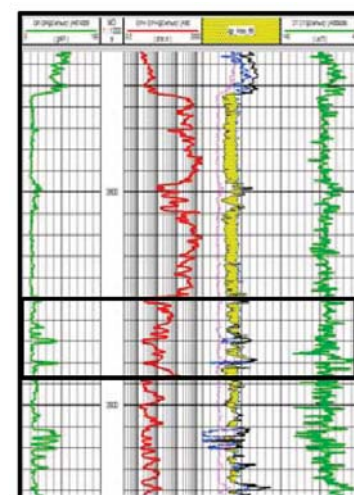


Figure (12) : Open hole logs, well 113-95

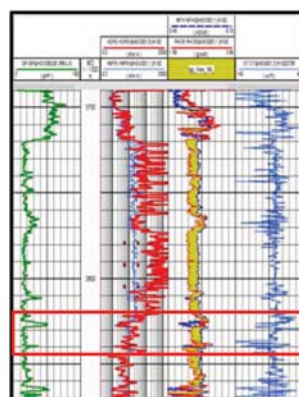


Figure (9) : Open hole logs, Rudies Fm., Well: 113-81

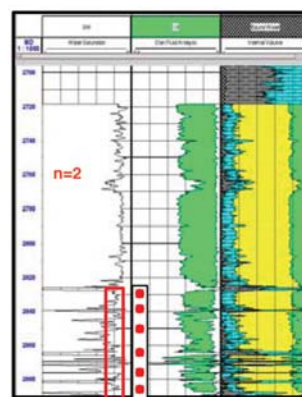


Figure (10) : ELAN of Rudies Fm., Well: 113-81 Standard n

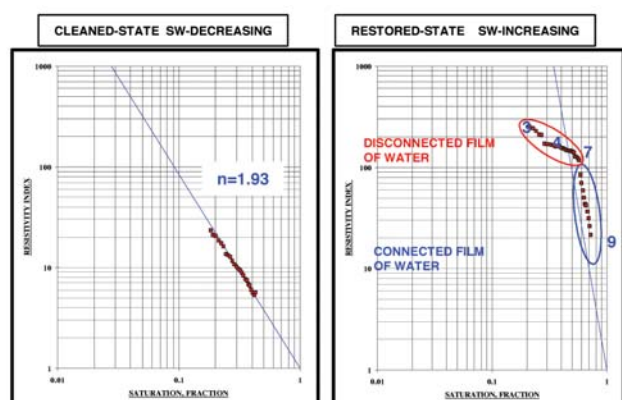


Figure (7) : Resistivity index measurements at cleaned and restored state

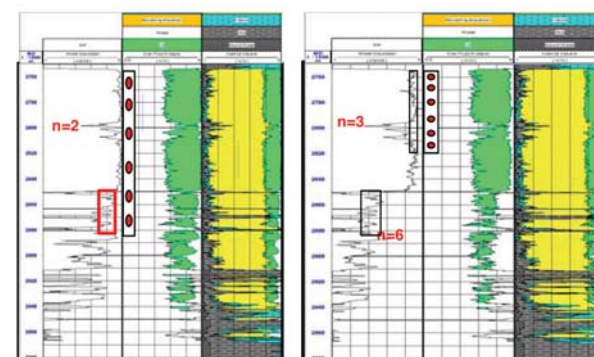


Figure (13) : ELAN of Rudies Fm., Well: 113-95 Standard n

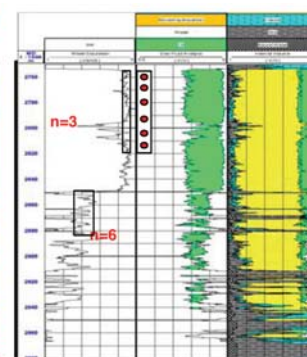


Figure (14) : ELAN of Rudies Fm., Well: 113-95 Variable n

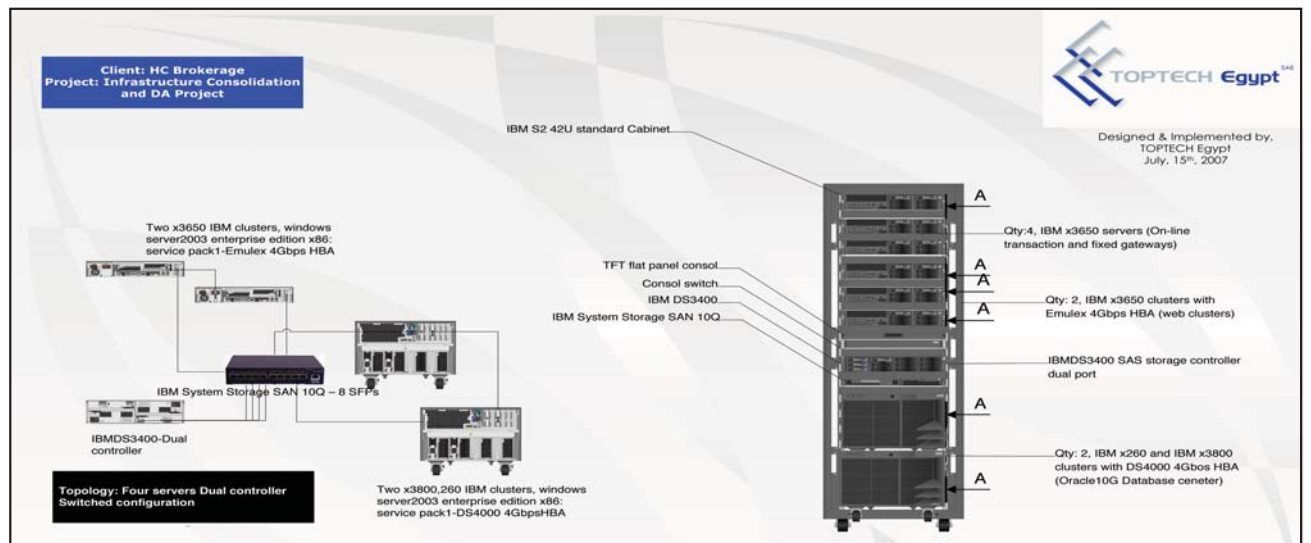
TOPTECH Egypt Successfully Implements the Infrastructure Consolidation & Data Availability Project for HC Brokerage

TOPTECH Egypt has become one of the leading companies specialized in providing advanced infrastructure consolidation and data availability integrated solutions. Its success is based on its highly qualified task force of professional sales team, IT experienced consultants, IBM Certified presales and technical experts and Microsoft Certified Engineers (MCSE, MCSA, and MCDBA), in addition to its business partners (IBM, Microsoft and Symantec) who work with TOPTECH in designing, consulting and integrating the proposed solutions.

TOPTECH Egypt technical consultants have commenced the execution of the discovery and technical assessment phase with the contribution of HC IT department head Eng. Mohamed Al-Reedy, to reach the project work frame.

The project technical requirements have been determined as follows:

- Powerful Solution for Implementing an Infrastructure that consolidates storage with the following requirements:
 - ▶ The Infrastructure has to have the right performance, i.e. high performance at an affordable price
 - ▶ The infrastructure must be available at the right time, i.e. 24 x 7
 - ▶ Business Continuity must be ensured through - High Availability (HA) and Disaster Recovery (DR) protection capability
 - ▶ Tight integration into Oracle 10G must be given in order to facilitate administration
 - ▶ High resource utilization must be ensured



▶ System scalability and clear upgradeability path considering initial size and possible limits HC can reach within the forthcoming years

- Storage Area Network (SAN) technology to:
 - ▶ Improve asset utilization
 - ▶ Decrease operating expenses
 - ▶ Improve information availability
 - ▶ Design a disaster tolerance strategy that avoids single points of failure and accommodates business evolution
- Power Full Clusters to host database, mail, web and fixed gateway applications in a manner that ensures:

- ▶ Scalability
- ▶ Load balancing
- ▶ High availability & Redundancy

- Stable Platform to:
 - ▶ Guarantee full integration with all running applications
 - ▶ Maintain business continuity for the existing business critical applications
- The system must support full Redundancy
 - ▶ No down time and no single point of failure

The teamwork has agreed to base the technical solution on the following technologies:

- ◆ IBM System Storage - Dual Controller - with 4Gbps fibre channel interface technology, to provide up to 3.6TB of shared storage on box using hot swap SAS drives or up to 14.4 TB using EXP3000 for future expands
- ◆ The IBM System Storage DS3400 leads the way for HC to take advantage of consolidating and sharing the data within a direct-attach or SAN solution

◆ IBM System Storage 4Gbps, 10port SAN switch to manage up to eight servers using dual-controller single path switched configuration to avoid single point of failure

◆ IBM x-Series servers with their superior performance, new integrated resources management solutions and memory, I/O and storage scalability. x3650 and x3800 clusters with the new Xeon dual core technology, SAS hot swap drives and 4gbps HBAs were used in hosting the business critical applications

◆ Microsoft Windows Sever 2003 Enterprise Edition R2, the premier platform for business-critical applications through its added features designed to increase the reliability scalability, security and manageability of enterprise applications and its exclusive failover clustering that allows advanced levels of availability

TOPTECH Egypt has successfully completed the implementation and testing phase within the scheduled time frame to allow its client to practically invest the overwhelming features and capabilities gained from the implemented project.

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Oil price view

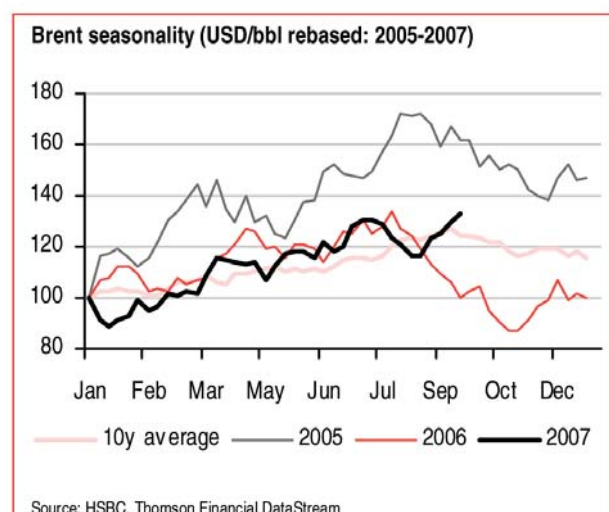
Short-term oil price outlook

Although we have revised our medium- and long-term oil price forecasts upwards, we continue to believe that there is a risk of seasonal weakness now that the US driving season is over. This view is discussed in more detail later but is based on three main arguments:

First, OPEC's increase in quotas signals Saudi Arabia's desire for lower oil prices, in our view.

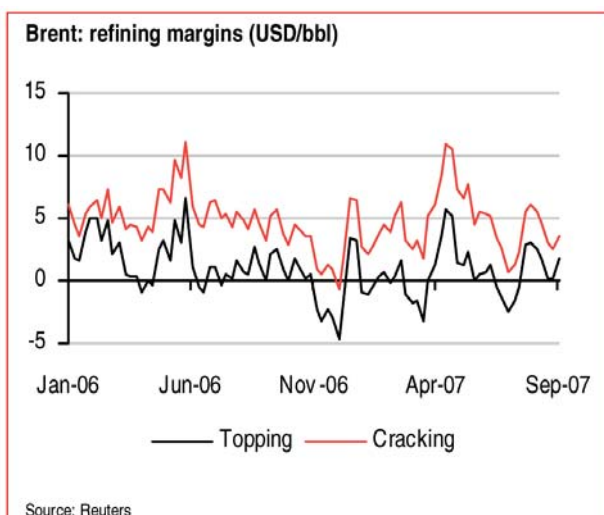
Note that the Kingdom should see its Khursaniyah field start up in December 2007. This is a light crude field with peak capacity of around 500Mbb/d.

Second, the oil price tends to fall seasonally after the summer as falling US gasoline demand tends to drive gasoline prices and hence oil prices down.



Third, refining margins currently provide marginal refiners (hydroskimmers or topping refineries) with little economic incentive to run Brent, let alone heavy crudes.

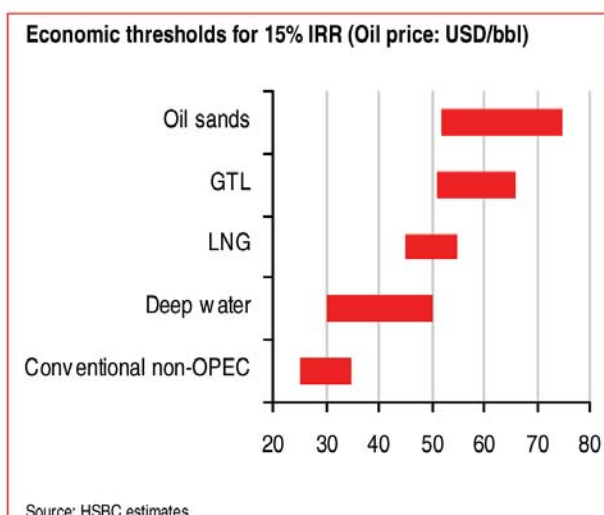
We therefore do not believe that the product market justifies oil prices at current levels. Admittedly, this is a very short-term indicator but it has



often proved to be a lead indicator in our view.

Long-term oil price

Our long-term Brent oil price is set at the level we believe is needed to bring the marginal liquids barrel (oil sands or GTL) to market. Given cost inflation in the industry, we believe that this has risen from USD45/bbl in 2006 to around USD55/bbl currently.



Given the wide range of prices needed to make investment economical, it is possible to argue for an even higher price. However, we believe that many OPEC members, especially Saudi

Arabia, would prefer to maintain conventional oil's competitiveness in the energy market. Accordingly, we have chosen to use USD55/bbl Brent as our long-term oil price as it should deter some investment in oil sands and GTL but should be sufficient to meet OPEC's financial needs.

Brent price forecasts (USD/bbl)

	Old	New	Consensus	Strip
2007e	55	66.0	66.0	NA
2008e	45	63.0	64.0	76.0
2009e	46	55.0	57.0	73.3
2010e	47	55.0	53.0	71.4
Thereafter	+1	+1		

Source: IPE, Reuters, HSBC calculations

Our longer-term forecast is little different from the consensus for equity analysts, but still some way below the futures strip.

The HSBC oil team's D5s forecasts are based on rounded spot exchange rates. We are now using GBP1=USD2.0 and EUR1=USD1.4 from USD1.90 and EUR1.30 respectively. For our 2010 forecasts, this has offset between half and two-thirds of the benefit of the increase in oil prices.

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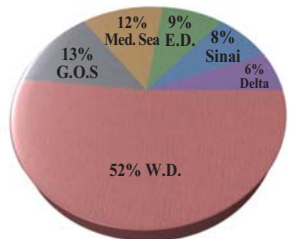
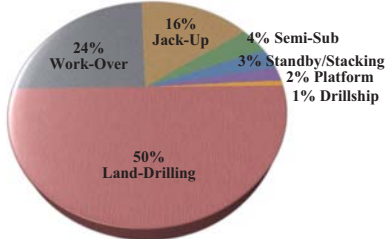
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Table 1
Egypt Rig Count per Area
November 2007

Area	RIG COUNT		Percentage of Total Area
		Total	
Gulf of Suez		13	14%
Offshore	13		
Land	0		
Mediterranean Sea		12	13%
Offshore	12		
Land	0		
Western Desert		52	57%
Offshore	0		
Land	52		
Sinai		8	9%
Offshore	0		
Land	8		
Eastern Desert		9	10%
Offshore	0		
Land	9		
Delta		6	6%
Offshore	0		
Land	6		
Total		100	100%

Rigs per Area November 2007**Rigs per Specification**

Source: Egypt Oil & Gas

Table 3
World Crude Oil Production
(Including Lease Condensate)
(Thousand Barrels per Day)

	Venezuela	Vietnam	Yemen	Other ¹	World	OPEC-12 ²	OPEC-11 ²	Persian Gulf ³	North Sea ⁴
December	2,490	332	407	2,624	73,305	31,554	30,070	20,695	4,344
2006 Average	2,511	344	375	2,684	73,544	32,075	30,662	21,232	4,343
2007 January	2,380	332	418	2,655	73,045	31,277	29,693	20,471	4,298
February	2,383	336	358	2,696	73,317	31,191	29,591	20,351	4,447
March	2,445	301	356	2,720	73,260	31,247	29,607	20,440	4,300
April	2,445	321	354	2,687	73,537	31,452	29,773	20,489	4,354
May	2,444	321	344	2,672	73,054	31,304	29,609	20,489	4,084
June	2,444	281	344	2,702	72,827	31,189	29,509	20,398	3,755
July	2,444	301	343	2,701	73,218	31,488	29,778	20,503	4,107
August	2,444	304	351	2,726	72,512	31,456	29,726	20,457	3,717
2007 8-Month Average	2,429	312	358	2,695	73,093	31,327	29,662	20,451	4,130

² OPEC-12: Organization of the Petroleum Exporting Countries: Algeria, Angola, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. OPEC-11 does not include Angola.

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

Source: EIA

Table 2
World Oil Supply¹
(Thousand Barrels per Day)

		United States ²	Persian Gulf ³	OAPEC ⁴	OPEC-12 ⁵	OPEC-11 ⁵	World
December		8,472	23,095	24,059	34,793	33,285	84,296
2006 Average		8,331	23,630	24,607	35,295	33,860	84,603
2007 January	E	8,462	22,924	23,955	34,541	32,933	84,018
February	E	8,351	22,815	23,974	34,457	32,833	84,344
March	E	8,460	22,902	24,054	34,513	32,849	84,112
April	E	8,506	22,948	24,110	34,719	33,016	84,587
May	E	8,566	22,948	24,152	34,570	32,853	84,323
June	E	8,520	22,865	24,105	34,463	32,761	84,503
July	E	8,526	22,921	24,179	34,713	32,981	84,887
August	PE	8,360	22,875	24,128	34,682	32,929	83,920
2007 8-Month Average	PE	8,470	22,901	24,083	34,584	32,895	84,335

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.

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-12: Organization of the Petroleum Exporting Countries: Algeria, Angola, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar,

Saudi Arabia, the United Arab Emirates, and Venezuela. OPEC-11 does not include Angola.

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

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

Source: EIA

Table 4
OECD¹ Countries and World
Petroleum (Oil) Demand
(Thousand Barrels per Day)

	France	Germany	Italy	United Kingdom	OECD Europe ²	Canada	Japan	South Korea	United States ³	Other OECD ⁴	OECD ¹	World
December	1,890	2,556	1,686	1,811	15,144	2,260	5,915	2,537	20,795	3,518	50,169	NA
2006 Average	1,961	2,665	1,732	1,830	15,564	2,243	5,159	2,174	20,687	3,418	49,245	84,661
2007 January	2,033	2,340	1,614	1,827	15,100	2,272	5,214	2,390	20,559	3,366	48,900	NA
February	1,954	2,408	1,756	1,787	15,371	2,448	5,562	2,387	21,271	3,421	50,461	NA
March	1,923	2,509	1,712	1,786	15,295	2,307	5,404	2,282	20,529	3,530	49,346	NA
April	1,854	2,370	1,631	1,776	14,778	2,198	4,876	2,215	20,579	3,302	47,948	NA
May	1,788	2,419	1,704	1,801	14,932	2,318	4,405	2,071	20,631	3,497	47,854	NA
June	1,900	2,482	1,670	1,766	15,090	2,392	4,568	2,063	20,737	3,579	48,429	NA
July	1,941	2,526	1,687	1,775	15,429	2,444	4,564	2,047	20,641	3,512	48,637	NA
2007 7-Month Average	1,913	2,437	1,681	1,788	15,141	2,339	4,935	2,206	20,699	3,459	48,779	NA

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.

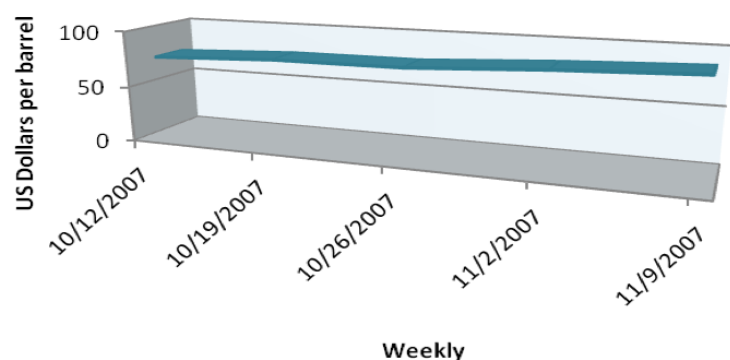
⁴ Other OECD consists of Australia, Mexico, New Zealand, and the U.S. Territories.

NA=Not available.

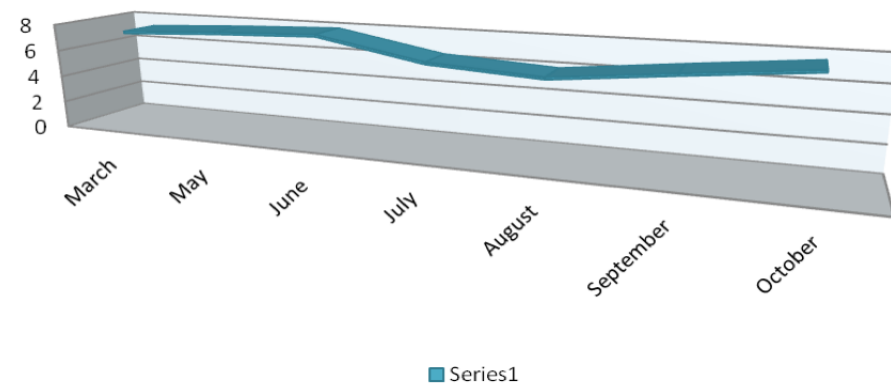
Revised data are in **bold italic font**.

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

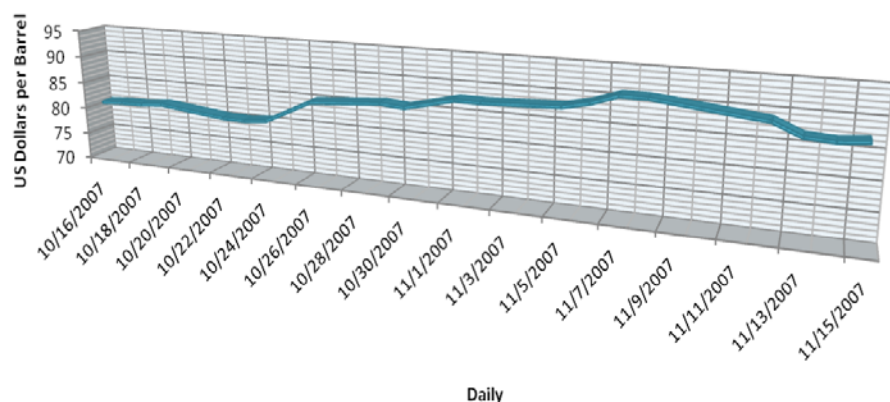
Source: EIA

**Fig 1 Egypt Suez Blend Price**

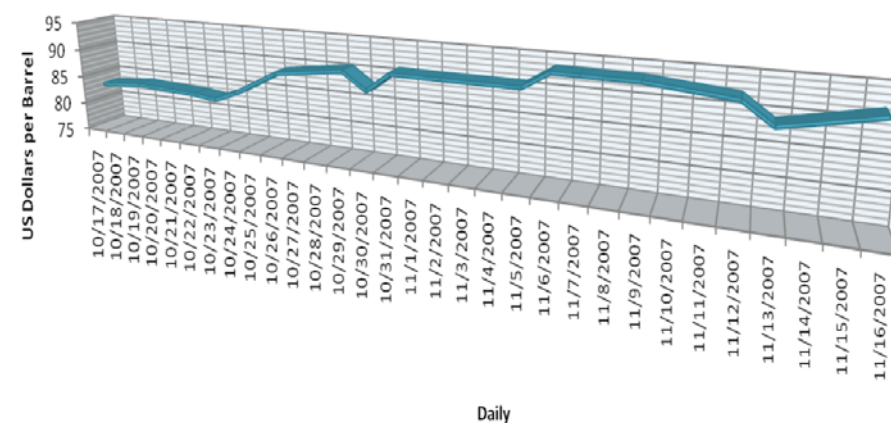
Source: Egypt Oil & Gas

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	Saudi Arabia	Russia	Former U.S.S.R		United States ¹	Persian Gulf ²	OAPEC ³	OPEC-12 ⁴	OPEC-11 ⁴	World
December	328	668	396	1,427	424	---		1,736	2,209	2,727	3,060	3,036	7,866
2006 Average	310	685	427	1,427	417	---		1,739	2,289	2,688	3,022	2,999	7,795
2007 January	341	712	411	1,427	422	---	E	1,670	2,343	2,802	3,126	3,102	7,932
February	340	762	405	1,427	427	---	E	1,706	2,355	2,810	3,128	3,104	8,017
March	340	680	416	1,427	426	---	E	1,767	2,352	2,807	3,127	3,103	7,932
April	340	661	420	1,427	427	---	E	1,749	2,349	2,805	3,128	3,104	7,949
May	340	670	412	1,427	429	---	E	1,787	2,350	2,805	3,128	3,105	7,923
June	340	621	418	1,427	424	---	E	1,775	2,358	2,813	3,136	3,113	7,883
July	340	624	401	1,427	425	---	E	1,778	2,308	2,764	3,087	3,064	7,857
August	340	619	378	1,427	428	---	PE	1,755	2,309	2,764	3,087	3,064	7,770
2007 8-Month Average	340	667	408	1,427	426	---	PE	1,749	2,340	2,796	3,118	3,095	7,906

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-12: Organization of the Petroleum Exporting Countries: Algeria, Angola, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. OPEC-11 does not include Angola.

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

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

Source: EIA

Average Currency Exchange Rate against the Egyptian Pound (October / November)			
US Dollar	Euro	Sterling	Yen
5.5037	7.9217	11.3542	4.8042
Stock Market Prices (October / November)			
Company	High	Low	
Alexandria Mineral Oils (AMOC.CA)	84.21	73.63	
Sidi Kerir Petrochemicals (SKPC.CA)	22.04	18.31	

Table 6 International Stock Prices Mid-October-Mid-November

International Stock	High	Low
Schlumberger (SLB) NYSE (US Dollars)	111.03	91.04
Halliburton (HAL) NYSE (US Dollars)	41.28	36.81
Exxon Mobil (XOM) NYSE (US Dollars)	94.80	84.54
Atwood Oceanics (ATW) NYSE (US Dollars)	84.24	73.37
Weatherford (WFT) NYSE (US Dollars)	69.09	57.83
Shell (RDS.A) NYSE (US Dollars)	87.95	80.29
Apache (APA) NYSE (US Dollars)	105.96	91.37
Baker Hughes (BHI) NYSE (US Dollars)	97.04	80.55
BJ (BJS) NYSE (US Dollars)	26.79	24.46
Lufkin (LUFK) NYSE (US Dollars)	61.95	53.22
Transocean (RIG) NYSE (US Dollars)	129.64	109.21
Transglobe (TGA) NYSE (US Dollars)	5.70	5.10
GlobalSantafe (GSF) NYSE (US Dollars)	88.10	73.79
BP (BP.) LSE Pence Sterling	636.50	582.50
BG (BG.) LSE Pence Sterling	1005.00	633.50
Dana Gas (DANA) ADSM US Dollars	2.37	1.79
Caltex (CTX) ASX Australian Dollars	23.40	19.18
RWE DWA (RWE AG ST) Deutsche-Borse Euros	96.19	87.04
Lukoil (LKOH) RTS (US Dollars)	95.50	83.30

Source: Egypt Oil & Gas

Future Fuels 2007

Washington DC, USA
December 3, 2007
Tel: +44 (0) 207 978 0092
www.thecwcgroup.com

Description: The conference comes at the end of 2007; it enables in-depth analysis and discussions about the achievements and accomplishments of the American oil and gas sector during the year 2007. Moreover, there will also be debates that tackle recent challenges and seek out for a way to further development in the industry.

Oil & Gas Maintenance Technology Conference & Exhibition (OMGT)

Manama, Bahrain
December 9-13, 2007
Tel: +1 713 963 6213 (North America),
+44 1992 656658 (UAE, UK & Ireland)
+44 1992 656651 (Middle East & Europe).
www.oilandgasmaintenance.com

Description: As oil and gas prices continue to increase, every sector of the oil and gas industry seeks to maximize production from existing assets, while still maintaining the safety and integrity of facilities in use. OGMT will bring together inspection and maintenance experts from the energy capitals of the Middle East and around the world. Technical sessions and equipment exhibitions will feature the latest solutions to inspection and maintenance issues, along with business strategies.

International Petroleum Technology Conference 2007

Dubai, UAE
December 4-6, 2007
Tel: +97143693897
<http://www.iptcn.net>

Description: The theme of this conference revolves around, "A Changing World – Interdependence, Innovation and Implementation." Under this theme, the conference recognizes the extent to which cooperation, discussion and shared learning will enable everyone to address the issues relating to energy in the modern world.

The 6th Annual National Oil Companies 2007

St James, London, UK
December 4-5, 2007
Tel: 31 70 324 6154
<http://petro21.com/events>

Description: The 6th Annual National Oil Companies Summit 2007 is an annual landmark global event for both Governments & Private Companies (and the global industry value chain) to take stock of new petroleum industry directions, changing strategies, oil and gas projects, new investments, energy finance, Government strategies, and new venture opportunities in



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- Transportation and Export
- Development of the Service Industry

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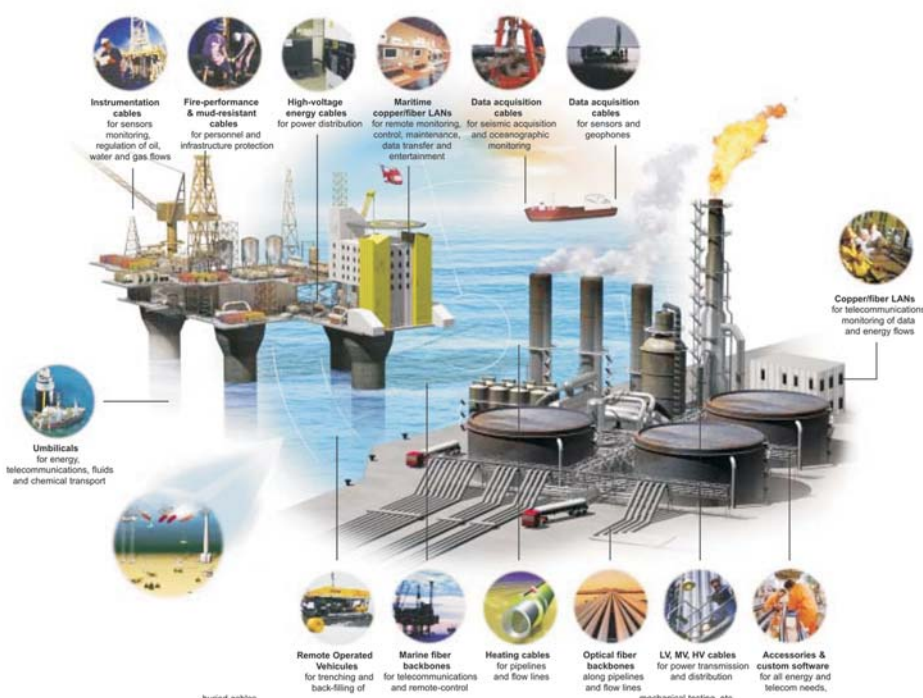
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