

The New Minister of Petroleum Has the Sector Found Its Saviour?

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CO₂ Miscible Flooding Application To
Egyptian Western Desert Oil Fields

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The Commodity Dictates the Trade

Bullion Market			
GOLD		SILVER	
Price	Percentage	Price	Percentage
1593.55	-0.46%	27.35	-2.53%

Crude Oil			
USD/BBL	WTI	Price	Percentage
	BRENT	88.02	+6.83%
		102.74	+7.13%

EGYPT OIL&GAS NEWSPAPER

HIGHLIGHT

Dana Gas Expands Well
Portfolio

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Man of the Hour

Egypt News

Shell Utilizing Foam Fracking in Western Desert



Royal Dutch Shell has announced the successful use of the hydraulic foam fracturing technique in Egypt's Western Desert, the first time this technique has been used in North Africa.

Shell has succeeded in freeing substantial amounts of trapped "tight" natural gas from the Apollonia reservoirs utilizing the technique.

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Egypt News

Rashpetco Expands in the Mediterranean Sea

Rashid Petroleum Company (Rashpetco) has concluded the drilling of a new developmental well in its concession area in the Mediterranean Sea, in the context of the company's 2011-2012 drilling plan.



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At the Crossroads

No path in life is endlessly straight. Whether the path of a career, the fate of a nation, or the way to work, every road we embark upon will inevitable present us with choices at some point or another. In some cases, the mind will toss and turn in desperate search for the right decision amidst the fog. Other times, the choice will seem clear and simple, only for the situation to reveal itself to be more complex than anticipated later on. And in certain scenarios, one will take a bold step with an instinctive knowledge that it is a step that must be taken, and never look back afterwards.

These days we see both bold steps and hesitant missteps all around us. As individuals, as a sector, and as a country, we have found and continue to find ourselves pressed to make momentous choices

that define our paths for years to come.

There is an unmistakable sense that we are at a true crossroads of history. Mountains that have stood for eons are being torn down, and the future seems ever more deviously undecipherable. Yet there is no escape from the choices that have to be made and no easy path to take.

Whatever road you come to choose, step forward with determination and belief in a better future, but tread softly, for in these days we live, you may be treading on someone's dreams.

Ahmed Maaty

Managing Editor



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Apache Plugs Three Western Desert Exploratory Well

American oil company Apache Corporation has temporarily abandoned three recently drilled exploratory wells, WKAL-L-D-1X, WKAN-D-1X, and WKAL-O-1X, all of which were drilled in the context of the company's current drilling plan.

The drilling operation for WKAL-L-D-1X entailed costs of \$3.940 million. The well was drilled to a depth of 14,950 feet in the West Kalabsha D exploration lease, Marmarica basin. It was drilled using the EDC-59 rig, and encountered oil, but Apache took the decision to temporarily abandon the discovery.

WKAL-O-1X was also drilled in the West Kalabsha field, in the West Kalabsha O exploratory lease. The well was similarly temporarily plugged despite encountering oil, after being drilled to a depth of

15,470 feet using the EDC-59 rig. The drilling of the well was conducted at a cost of \$3.722 million.

The WKAN-D-1X well was drilled in the West Kanayes D exploration lease, Northern Egypt basin, using the EDC-57 rig, at a total cost of \$3.910 million. The company also temporarily abandoned this well after encountering oil.

Apache, which first began operating in Egypt in 1994, holds the largest amount of acreage in the Western Desert region, and is the region's biggest producer of crude oil and natural gas. The company operates in Egypt through its Khalda Petroleum Company and Qarun Petroleum Company joint ventures, both mutually owned with the Egyptian General Petroleum Corporation (EGPC).

Bapetco Completes New Western Desert Well

In consistence with its development plan for the 2011-2012 fiscal year, Badr El Din Petroleum Company (Bapetco) has concluded the drilling of a new developmental well in the Western Desert.

The AL BARQ-5 well is an oil-producing well, drilled to a depth of 11,858 feet via the EDC-72 rig with investments totaling \$2.790 million.

Bapetco's production rate during the month of July 2012 stood at 1,165,906 barrels of crude oil and condensates while its natural gas production stood at 1,987,143 barrels of oil equivalent.

Badr El Din petroleum is a joint venture company between the Egyptian General Petroleum Corporation (EGPC) and Royal Dutch Shell.

Dana Gas Expands Well Portfolio

Dana Gas has recently concluded drilling operations for a number of wells in the company's concessions. The new wells include two exploration wells and one developmental well.

The developmental well, labeled Al Baraka-16, was drilled using the ECDC-1 rig to a depth of 7,590 feet, in an operation that accumulated costs of \$1.580 million. The well is an oil-producer, located in the Al Baraka field.

The two exploratory wells were named West Al Baraka-2 and Faris-1.

West Al Baraka-2 was drilled in the Komombo concession in Southern Egypt and tested successfully, showing a flow rate of 173 barrels of oil equivalent per day. Dana Gas has announced plans to place the well on long-term testing.

Faris-1 was drilled in the same Komombo concession, targeting the hydrocarbon potential in the Kom Ombo "A" formation, with a planned total depth of 6,300 feet.

During the 6-month period ending in June 2012, Dana Gas's production averaged 60,950 barrels of oil equivalent per day from the company's assets in Egypt as well as the Kurdistan region of Iraq. The

company also reported a 79% year-on-year increase in net profits for the same period.

Commenting on the results, Dr. Adel AlSabeeh, Chairman of Dana Gas, stated: "We have achieved our revenue estimates for the first half and posted strong net profit figures of AED 387 million. Our revenue collections were in line with expectation and we continue to have constructive discussions with both the Government of Egypt and the Government of the Kurdistan Region of Iraq on payment of the Company's receivables. Overall this has been a reasonable six months financially and we look forward to the rest of the year with renewed confidence."

Dana Gas operates in the Nile Delta and Gulf of Suez regions of Egypt, as well as in the Kurdistan region of Iraq.



Dapetco Continues Western Desert Drilling

The South Dabaa Petroleum Company (Dapetco) has completed a new developmental well, SD 1-24, in the company's Western Desert fields.

Drilling was conducted to a depth of 4,669 feet using the EDC-10 rig.

The well is an oil-producer and has been put on-stream.

Dapetco's production rates of crude oil and condensates reached 250,093 barrels in July 2012, while natural gas production was at 122,679 barrels of oil equivalent.

rels of oil equivalent.

Dapetco is a joint venture between the Egyptian General Petroleum Corporation (EGPC) and Tunisian company Hadi Bouchamaoui, a private company specializing in exploration.

New Developmental Well in Eastern Desert by West Bakr

The West Bakr Petroleum Company has concluded the drilling of a new developmental well in the West Bakr concession, Eastern Desert, as part of the company's current drilling plan.

Egypt Oil and Gas has learned that the K-28 well was drilled onshore the Gulf of Suez to a total depth of 6,011 feet, using the EDC-62 rig with

costs of \$ 1.097 million. The company has yet to add the well's output to its overall production levels.

West Bakr Petroleum is a joint venture between the Egyptian General Petroleum Corporation (EGPC) and US-based operator TransGlobe Energy Corporation.

Khalda Concludes Several Drilling Operations

Khalda Petroleum Company has concluded the drilling of seven new wells, five of which are exploratory and two of which are developmental. The drilling operations were conducted by the company in its fields in the Western Desert as part of its 2011-2012 development plan.

MESALA-1X is an exploratory well, which attracted investments of \$ 3.010 million. The drilling operation was conducted using an EDC-16 rig to a depth of 16,000 feet. The well is currently under appraisal.

The company also drilled another exploratory well, labeled ALEX-N-3X. It was drilled to the depth of 16,918 feet utilizing the EDC-8 rig, attracting investments of \$4.273 million. It is also under evaluation.

HAWK-1 is another exploratory well, drilled to the depth of 10,845 feet via the ST-10 rig, the cost of which amounted to \$3.302 million. The well has yet to be added to Khalda's overall production.

In addition, the company drilled E.RZK-79X, another exploratory well. The well is located in the West Razzak development lease, Alamein Sub-basin, Northern Egypt basin. It was drilled to a depth of 8,612 feet using the EDC-65 rig. Drilling expenditure in the well, which was abandoned as a dry hole, amounted to \$878,000.

The company also drilled the exploratory well SHAMS DEEP-1X to a total depth of 17,644 feet via the EDC-48 rig. The cost of the drilling operation reached \$4.583 million and the well is under appraisal.

As for the developmental wells, Khalda drilled M.RZK-97, which is an oil-producing well located in the Main Razzak development lease, Alamein Sub-basin, Northern Egypt Basin. It was drilled to a depth of 6,812 feet using the EDC-65 rig, attracting investments of \$1.507 million. The well has yet to be added to Khalda's overall production.

duction.

Finally, the RIVIERA-2 developmental well was drilled by Khalda to a depth of 11,333 feet utilizing the ST-6 rig. Drilling expenditure for the well reached \$3.370 million.

The company's production of crude oil and condensates reached 4,343,561 barrels in July 2012, while its natural gas production stood at 4,921,071 barrels of oil equivalent during the same month.

Khalda is a joint venture between the Egyptian General Petroleum Corporation (EGPC) and American firm Apache Corporation.



Oapco Drills a New Developmental Well

Oasis Petroleum Company (Oapco) has concluded the drilling of two developmental wells located in the company's concession area in the Western Desert, which comes in the context of its 2011-2012 drilling plan.

Egypt Oil and Gas has learned that the WQ-17 well was drilled to a depth of 7,508 feet, utilizing the

PDI-104 rig. The well is located in the West Qarun development concession, Abu Gharadiq basin. Costs of the operation amounted to \$1 million. The new oil-producing well has been put on-stream.

In the same concession, the company drilled the WQ-13 developmental well to a depth of 7,220 feet, via the PDI-104 rig. Oapco invested

\$967,500 in the drilling operation.

The company's production rates during the month of July 2012 stood at 7,6369 barrels of crude oil and condensates.

Oapco is an equal-interest joint venture between the Egyptian General Petroleum Corporation (EGPC), and the Egyptian Sahari Oil Company, with each partner holding a 50% stake.

Petrobel Continues Developmental Drilling in Sinai

Belayim Petroleum Company (Petrobel) has concluded the drilling of two new developmental wells in the company's fields in Sinai in the context of its 2011-2012 drilling plan.

Sources revealed that Petrobel drilled the 144-112 well to a depth of 10,386 feet using the ST-3 rig. The operation's invest-

ments amounted to \$2.285 million, and the well has yet to be added to the company's overall production.

Petrobel also drilled the 173-113 developmental well in Sinai, to a depth of 10,197 feet via the ST-12 rig. The well's drilling expenses reached \$3.149 million, and it has been placed on -stream.

Petrobel's production rates reached 3,874,054 barrels of crude oil and condensates, while its natural gas production stood at 9,048,534 for the month of July 2012.

Petrobel is a 50%-50% joint venture between the Egyptian General Petroleum Corporation and Italian company Eni.

Shell Utilizing Foam Fracking in Western Desert

Royal Dutch Shell has announced the successful use of the hydraulic foam fracturing technique in Egypt's Western Desert, the first time this technique has been used in North Africa.

Shell, along with its joint venture Badr Petroleum Company (Batpetco), has succeeded in freeing substantial amounts of trapped "tight" natural gas from the Apollonia reservoirs, utilizing hydraulic fracturing through the use of carbon dioxide foam.

This results in fissures that are up to 20,000 narrower than those achieved in the use of water, which allows trapped gas molecules to escape.

The company has started an extended well test program involving the six Apollonia wells.

According to Shell, foam fracking is an established industry technology that is used world-

wide and is essential to the development and exploitation of unconventional resources.

"We are proud to bring advanced technology and innovation to our projects in Egypt", said Mr. Jeroen Regtien, Chairman of Shell Companies in Egypt.

"Utilizing the combined capabilities of Shell Egypt and our joint venture partner, Badr Petroleum Company, Shell is continuing to invest in exploring and growing the hydrocarbon resources of Egypt in order to meet future energy challenges today." He added.

This latest happening is an important step for unconventional resources development in Egypt, a field that is becoming increasingly relevant. Almost half of the world's natural gas supply consists of unconventional resources such as shale gas and tight gas.

Gujarat Drills New Exploratory Well in Mediterranean Sea

The Gujarat State Petroleum Corporation has concluded drilling operations for the N.HAPY-2X exploratory well.

The well was drilled in the company's concession in the Mediterranean Sea as part of the company's drilling plan for

the 2011-2012 fiscal year, and was temporarily plugged and abandoned after encountering modest amounts of oil.

N.HAPY-2X was drilled to a depth of 6,316 feet via the N.PRMNO rig, attracting \$48.286 million in drilling investments.

Gujarat is an Indian state-owned oil company with operations in both the upstream and downstream segments of the global petroleum industry. It operates in India as well as Egypt, Yemen, Indonesia, and Australia.

Rashpetco Expands in the Mediterranean Sea

Rashid Petroleum Company (Rashpetco) has concluded the drilling of a new developmental well in its concession area in the Mediterranean Sea, in the context of the company's 2011-2012 drilling plan.

The SAPPHIRE DMA ST-1 well is an oil-producing well, located in the Sapphire field. It was drilled to a depth of 9,975 feet using the ENDEAVOR rig. The operation's investments

reached \$62.117 million.

The company's production of crude oil and condensates reached 8,328 barrels in July 2012, while its natural gas production stood at 2,013,036 barrels of oil equivalent during the same month.

Rashpetco is a joint venture company that includes the Egyptian General Petroleum Corporation (EGPC) with 50%, British Gas with 40% and Edison with 10%.

Two New Eastern Desert Wells by Petrodara

Petrodara Petroleum Company has concluded the drilling of a new developmental well and a new exploratory one in the company's lease in the Eastern desert, all in the context of the 2011-2012 drilling plan the company has set.

ARTA-39 is an oil-producing developmental well drilled to a depth of 4,441 feet utilizing the ST-7 rig. Investments in the operation amounted to \$1 million, and the company has yet to add the well's output to its overall production levels.

The exploratory well ARTA-62 was also drilled by Petrodara, to a depth of 4,745 feet via the ST-7 rig. Investments in the operation reached \$630,000, but the company took the decision to plug and abandon the well.

The company's production rate of crude oil and condensates reached 390,320 barrels in July 2012.

Petrodara is a joint venture between the EGPC and the German petroleum company Dublin.

BG Group a Logo Correction

Last month's issue of the newspaper wrongly attached an incorrect logo to a news piece relating to a significant natural gas discovery made by British Gas (BG) Group in the Mediterranean Sea in Egypt.

The news piece was published in the August issue of Egypt Oil & Gas

Newspaper on Page 7, with a lead-in on the front page. The logo appearing next to both the news piece and the lead-in is not the logo of BG Group and is in no way affiliated to the company. The company's true logo is as displayed here.



Choice Words



“Foreign investments in Egypt were not suspended from the revolution until the election of the new president. **Partnerships in the petroleum field are governed by long-term contracts and the availability of exploration areas**, especially in Egypt.”

Eng. Osama Kamal, the Minister of Petroleum and Mineral Resources to Al Wafd electronic gateway.



“The EGPC is committed to paying its debts to international suppliers. It managed to pay **\$14 billion** in a year and eight months, and still owes them around **\$1 billion**”

Eng. Hani Dahi, Head of the EGPC, to Al Masry Al Youm Electronic Gateway.



“The current power stations' consumption of gas equivalent reaches 117 million meters, provided by the Petroleum ministry without any problems. **There won't be another power outages crisis**”

Eng. Mahmoud Nazim, First undersecretary of the Egyptian Ministry of petroleum, to Akhbar Al Youm Electronic Gateway



“There are **no impediments to acquiring the financial resources necessary for the importation of petroleum substances**. The ministry of finance adequately provides these resources along with gasoline and diesel”

Eng. Amr Moustafa, Vice Chairman of the EGPC, to Youm-7 Electronic Gateway



“There are 10 signed agreements in place for oil and gas exploration south of the 28 degree latitude line, and there are **plans to identify a number of wells in unexplored areas in the South of Egypt**, near the borders with Sudan and Libya”

Sherif Ismail, Chairman of EGAS, to Masrawi.com

Qarun Production Indicators Show Steady Rise

Monthly production of crude oil and condensates for Qarun Petroleum Company (QPC) has witnessed a steady, marginal increase over the six-month period from February 2012 to July 2012.

During the designated analysis period, production was at its lowest point in the earliest month of February, at 1,581,103 barrels of crude oil and condensates. It then rose intermittently to reach its highest point in the latest month of July 2012, hitting 1,773,091 barrels.

The company's production numbers during the specified period averaged 1,695,775 barrels per month.

In recent drilling activity, Qarun has completed the drilling of two new exploratory wells and a developmental well in the company's Western Desert.

The WON A-1X exploratory well was drilled to a total depth of 7,150 feet, via the EDC-47 rig, with investments amount-

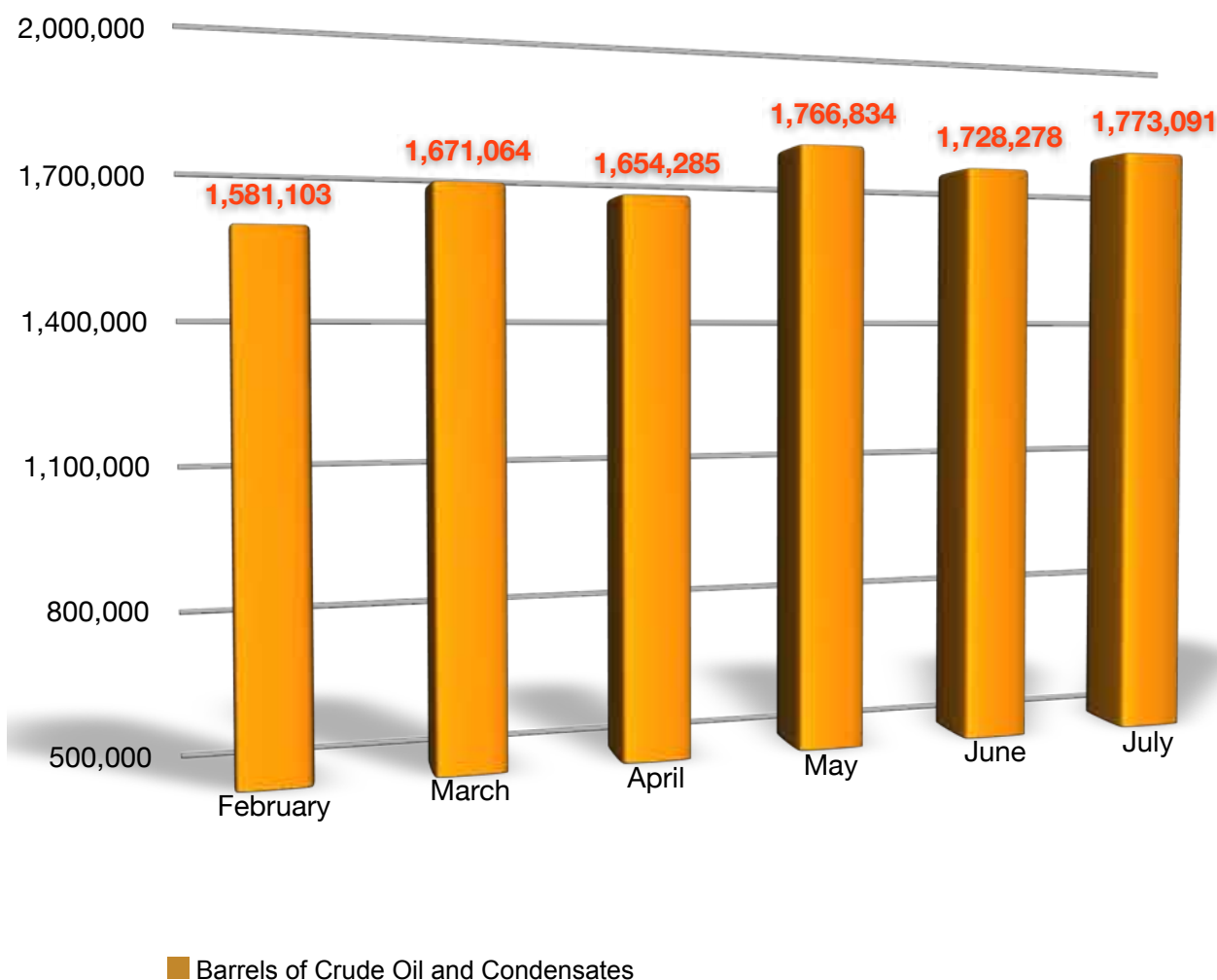
ing to \$2.789 million. The well is located in the East Beni Suef concession, onshore Gindi basin.

The company also drilled the BENI SUIF-16 exploratory well, to a depth of 7,600 feet utilizing the EDC-47 rig, entailing investments of \$1.223 million. The well is currently under appraisal.

In addition, Qarun drilled the HEBA-247 ST-1 developmental well, located in the Heba field in the East Bahariya West development lease. The oil-producing well was drilled to a total depth of 6,750 feet, via the EDC-49 rig, with investments totaling \$1.251 million. The well has yet to be added to the company's overall production.

Qarun is a joint venture between the Egyptian General Petroleum Corporation (EGPC) and Apache Corporation.

Qarun Production Indicators February-July 2012



Gupco Shows Fluctuating Production

The Gulf of Suez Petroleum Company has witnessed relative shifts in production numbers for the six-month period from February 2012 to July 2012.

An assessment of the company's crude oil and condensates production indicators reveals an average of 2,033,362 barrels per month during the designated period. The highest production achieved during the analysis period was 2,534,786 barrels, produced in June, while the lowest production number was witnessed in the month of February, in which 2,313,731 barrels were produced.

The company's highest production of natural gas during the specified period was achieved in March, in which Gupco produced 284,816 barrels of oil equivalent, a number notably higher than the remainder of the analysis months, in which natural gas production averaged 193,719 barrels of oil equivalent. The lowest natural gas production number achieved was 157,575, produced in February.

The company's most recent drilling activity involved the drill-

ing of a new developmental well in the Gulf of Suez, labeled GH 376-A7.

The well was drilled to a depth of 11,688 feet, using the COMET rig. Gupco invested \$10.024 million in the operation. The new oil-producing well has been out on-stream.

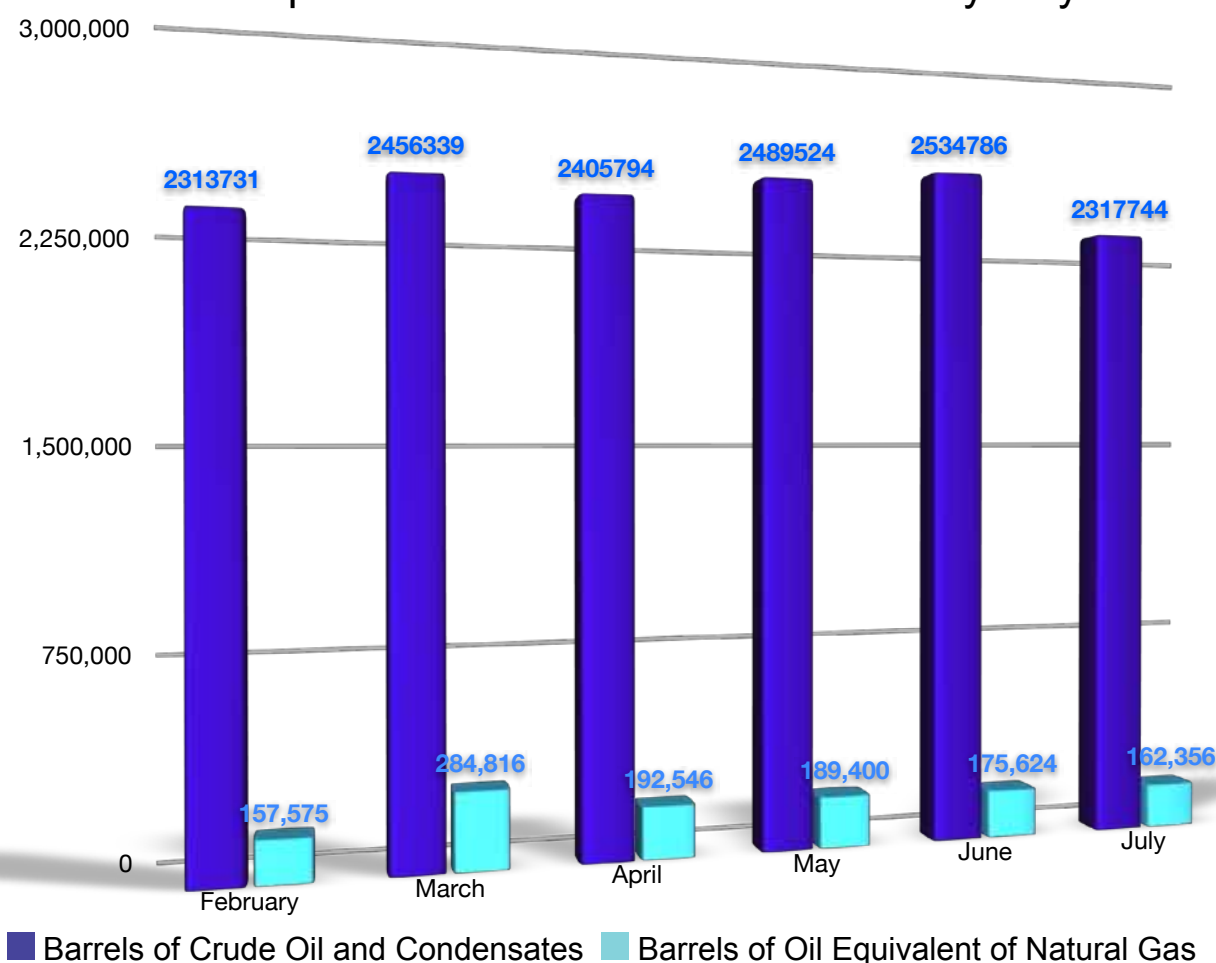
Gupco is an equally owned joint venture between the EGPC and supermajor British Petroleum (BP).

In recent statements, Chairman of BP Egypt Eng. Hesham Mekkawy confirmed that BP is committed to adhering to its investment and drilling plan in Egypt, and is looking to invest further in the country.

He emphasized the importance of the Nile Delta, an area which the company has chosen to focus on in its development plans, and revealed plans for a project to develop the East Nile Delta.

According to Mekkawy, BP produces nearly 15% of Egypt's petroleum output and nearly 40% of the local market's needs.

Gupco Production Indicators February-July 2012



Petrosilah Drills Western Desert Well

Petrosilah has concluded the drilling of a new exploratory well in the company's concession area in the Western Desert. The drilling operation comes in the context of the company's 2011-2012 drilling plan.

A.ASILLEN-2X is an oil-producing well, drilled to a depth of 8,770 feet, via the EDC-53 rig. Investments in

the operation amounted to \$2.542 million. The well is still under appraisal.

The company's production rate of crude oil and condensates reached 119,750 barrels in July 2012.

Petrosilah is a joint venture between the EGPC and the American Merlon International Petroleum Company.

RWE Expands Nile Delta Gas Discovery

RWE DEA has announced the extension of its North Sidi Ghazy-1x discovery in the Nile Delta through the drilling of the NSG-1-2 developmental well.

The new well was drilled in the North Sidi Ghazy structure, reaching a total vertical depth of 9,327 feet below sea surface. The operation confirmed the presence of further gas resources and Messinian (Abu Madi Formation) reservoir properties on the eastern side of the field.

The North Sidi Ghazy-1x gas discovery showed a flow rate of 37 million standard cubic feet per day on a 50/64 inch choke. The latest well has been temporarily suspended and will be completed as producer, along with other wells, later during the current year.

The company has now moved the Weatherford 94 rig to develop the northern extension of the

South Sidi Ghazy-1x discovery.

The North Sidi Ghazy-1x discovery is considered to be the main asset in RWE's Disouq project, which is aimed at supplying gas to the growing Egyptian market and is set to start production in 2013.

The first phase of the project will involve the development of seven gas discoveries, to be undertaken jointly with the Egyptian Natural Gas Holding Company (EGAS) and RWE's Egyptian joint venture the Suez Oil Company (SUCO).

The Disouq block, located onshore the Nile Delta, was awarded to RWE in July 2004 and covers 5,375 km.

RWE is a Hamburg-based oil and gas exploration firm that has been operating in the Gulf of Suez for 30 years. It owns a total of 12 onshore and offshore concessions in Egypt.

Eng. Osama Kamal Appointed Minister of Petroleum

"Working in the new government is like working in a minefield"

"It is not right to have fixed prices for goods that are ever-changing in value. This is only understandable during war and in cases of emergency."

"There is an understanding in place with foreign investors regarding debts."

Eng. Osama Kamal, Minister of Petroleum

Eng. Osama Kamal, former head of EICHEM (The Egyptian Holding Company for Petrochemicals), has been chosen to succeed Eng. Abdullah Ghorab as Minister of Petroleum and Mineral Resources in the new ministerial cabinet headed by Prime Minister Hisham Qandil.

In his first press conference since being appointed minister, held on the 6th of August, Eng. Kamal stressed the importance of creativity and innovation in the Egyptian petroleum sector in the coming period. Kamal lamented the lack of innovation in previous years, which he believes has acted as a handicap to the development of the sector.

'The [Egyptian] petroleum sector is more than 100 years old, and yet we have yet to patent a single invention,' the minister stated.

Kamal was keen to relay the fact that he was in the early stages of addressing the problems at hand, having only determined a general vision for the coming period, and that him and his team have yet to put in place the detailed mechanisms that will be deployed to achieve the desired goals. He revealed that the new cabinet is to work according to general directives given by President Mohamed Morsi and Prime Minister Hisham Qandil, and that their top priority in the coming period will be the major problems facing Egyptians in everyday life such as security and shortages of goods.

Kamal also tackled the key issues of corruption and social justice, which have taken on a new dimension of significance since the revolution of the 25th of January. He highlighted the importance of ending the huge discrepancies present in the sector's wages in order to be able to achieve social justice and prosperity in the sector.

Regarding corruption, the new minister pointed to the fact that there are many forms of corruption, including cultural and intellectual corruption and corruption through neglect. He pledged to combat all forms of corruption in the sector.

When questioned about the subsidies situation, Kamal said that subsidies as they are currently applied do not benefit those who are in need, and that this ought to be rectified. He also stated that the International Monetary Fund (IMF) would not provide loans to Egypt if they were perceived to be funding petroleum subsidies.

In addition, the minister admitted that in the past period individual ministries tended to work in isolation of each other; he added that they must all work together as one unit in the coming phase, as there are strong links between the petroleum sector and other ministries, particularly those of interior, finance and electricity. He further disclosed that cross-ministerial teams would be formed to ensure cooperation and complementarity in the coming period.

Growth and development of the sector were also among the major topics discussed, particularly in light of the fact that mining petroleum exploration and development are the two major magnets of big investments due to the profits they entail. The minister stressed the importance of security and political stability in order for the political roadmap to be clear and therefore for the wheel of development to turn.

The new minister also commented on the role of the press as partners of the ministry and the petroleum sector, claiming that no one would be above criticism and accountability in the coming period.

Before heading EICHEM, Kamal had worked in various prominent companies including Petrojet and Enppi.

Zeitco Exploration Chief: We Have Exceeded Production Plan by 18%

In statements made to Egypt Oil & Gas, the East Zeit Petroleum Company (Zeitco)'s, General Manager for Exploration, Geol. Yasser Badr, revealed that the company has surpassed its production targets for the fiscal year 2011-2012 by a margin of 18%, reaching 9,200 barrels per day.

"Through hard work and solid planning, we have exceeded the numbers agreed upon with the EGPC, and our production has reached %118 of what was targeted," Geol. Badr stated.

Providing an operational update regarding the company's activities, he revealed that Zeitco began drilling the Acz12 exploratory well in December 2011, targeting the Nubia formation and reaching a depth of 10,000 feet pre-Miocene. The well showed an initial flow rate of 1500 crude oil per day, and it is currently produc-

ing a steady 680 barrels per day. Sinotharwa's Bahari-1 jack-up rig was contracted to drill the well.

The same Bahari rig was also used to drill the A23 well, targeting the Miocene layer at a depth of 8,700 feet. The well was plugged and abandoned. Shamer and Tanmeya were responsible for preparing the drilling blueprints for the company.

According to Geol. Badr, the most important of the recent wells for the company was the A22 well, which was drilled in the East Zeit field offshore the Gulf of Suez, despite discouraging studies indicating a low possibility of oil. The company was faced with the challenge of having to drill horizontally for 500 feet in efforts to preserve the Kareem Formation. The same Bahari rig was used to drill 1,500 feet into the Kareem Formation, at costs that reached

\$20 million. The well exceeded all expectations, producing at an initial rate of 1,800 barrels per day and reaching a consistent production rate of 1,400 barrels per day. This led to an increase in the company's reserves and a more positive outlook regarding the company's East Zeit field, prompting the company to take an initiative to revise studies and surveys regarding the area.

Geol. Badr also expressed optimism regarding the Petrokareem venture in the Lorcan field, in which the Lorcan1 exploratory well was recently drilled.

He revealed that the company's current drilling plan includes eight wells, six of which have already been concluded. Investments allocated for each well range from \$3 million to \$5 million.

The company is also planning to conduct seismic surveying on the

Petrokareem concession in order to acquire more accurate seismic data and thus fully realize the concession's potential.

Regarding the 2012-2013 drilling plan, Geol. Badr confirmed that the company is looking to drill in the south of the Acz field.

The exploration chief also claimed that Zeitco was competing with the biggest players in the sector due to the fact that they have 3 rigs currently conducting operations: four offshore rigs, eight land rigs in Petrokareem, and two rigs in South October. The current drilling program is to end in December 2012.

Zeitco produced 1,528,779 barrels of crude oil and condensates and 15,578 barrels of oil equivalent of natural gas during the month of August 2012.

Zeitco is a joint venture between the Egyptian General Petroleum

Corporation (EGPC) and British company Dana Petroleum.



Eni Makes Giant Natural Gas Discovery in Mozambique

Italian Company Eni made a huge natural gas discovery in Mozambique with the drilling of the Mamba North East 2 well in the eastern part of its Area 4 lease offshore the East African country. The well is the fifth to be drilled by the company in the area.

Mamba North East 2 was drilled in 1,994 meters of water and reached a total depth of 5,365 meters. The well encountered 200 me-

ters of gas in multiple high-quality Oligocene, Eocene and Paleocene sands.

The Italian firm said that the reserves discovered add at least another 10 Trillion cubic feet of gas in place in Area 4. This result further increases the total potential of the discoveries of Area 4, which is now estimated at 70 Trillion cubic feet of gas in place. The Mamba field in the Rovuma Basin of Mozambique

is ENI's biggest natural gas discovery as operator.

ENI is the operator of Area 4 with a 70% participating interest and is partnered with Galp Energia, KOGAS, and ENH.

ENI is one of the largest foreign oil and gas producers in Africa and in the same time Africa represents around 55% of ENI's volumes, the highest proportion of any big oil major.

Statoil Sells 25% Stake in Mozambique License to Tullow

Statoil oil firm has sold a 25 percent stake in an exploration license in the gas-rich prospects offshore Mozambique to Tullow Oil, completing a deal flagged in April.

"The farm-down reflects the attractiveness of Statoil's acreage in Mozambique and having Tullow onboard allows us to share the geological risk while retaining a significant working interest," said Nick Maden, senior vice president of international exploration at Statoil.

Tullow already has marginal

interests in two onshore licenses in the Tanzanian segment of the Rovuma Basin, including the Mt-wara and Lindi licenses.

"Our presence in Mozambique is in line with Statoil's exploration strategy focusing on early access in a prolific region. Large gas discoveries have recently been made north of our acreage and the prospectivity for hydrocarbons in the Statoil operated blocks is promising," Maden added.

Statoil operates the license and retains a 65% working interest after the farm down. The remaining

10% interest is held by Empresa Nacional de Hidrocarbonetos (ENH) which is carried through the exploration phase. Statoil and Tullow are now preparing to drill the first well in the license, which is scheduled for 2013.

East Africa has been one of the world's fastest growing gas centers with the 253 trillion cubic feet of gas estimated off Kenya, Tanzania and Mozambique. However, the area lacks infrastructure and energy firms are expected to spend billions of dollars developing a gas liquefaction facility.

Oil Spill in Nigeria

An oil spill in the Nigerian Qua Iboe fields was reported by Mobil Producing Nigeria, one of Exxon-Mobil's subsidiaries, and its host community in Ibeno Local Government Area of Akwa Ibom State.

The Director of National Oil Spills Detection and Response Agency (NOSDRA), Mr Irvin Obot, said that "investigation is already underway to determine the source of the spill, adding that fingerprint analysis could trace the source of the leakage. It was gathered that the spill was noticed by fishermen from the community."

Mobil Producing Nigeria Unlimited, operator of the Nigerian National Petroleum Corporation (NNPC/MPN) Joint Venture, confirms that oiling from an unknown source had been sighted on the shoreline, near Ibeno, Akwa Ibom.

"An emergency response team was immediately dispatched to the shoreline and samples of the substance collected for fingerprinting to determine its source, which remains unknown," Mobil said.

The statement signed by General Manager, Public and Government Affairs, Mr. Paul Arinze added that relevant government and regulatory agencies had been duly notified, restating the company's commitment to high safety, health and environmental standard in its operations and well-being of its host communities.

Mobil had in 2010 confirmed two oil spill incidents in the Qua Iboe fields. The oil major had confirmed a discharge of crude into the Atlantic Ocean from Yoho crude production platform. It said a very minor discharge occurred at Yoho production platform.

Malawi Resumes Lake Malawi Exploration

Malawi has declared that oil and gas exploration in Lake Malawi will continue despite demands made by Tanzania for cessation of exploratory activity until a border dispute between the two countries is resolved.

Malawi's Foreign Affairs Minister, Ephraim Chiume, stated "as far as we are concerned, the entire lake belongs to us and therefore we cannot stop exploration activities." While Tanzania says the territorial dispute between the two countries could escalate if Malawi makes major oil and gas discoveries.

Malawi has awarded oil exploration licenses located in Lake Malawi to UK-based Surestream Petroleum. Lake Malawi borders Malawi, Mozambique, and Tanzania. It is Africa's third largest water mass, covering about 20 per cent of Malawi's total land mass, and is home to 1,000 endemic species of fish.

The most recent dispute began when Malawi's fishing and tourism

activities allegedly intruded upon Tanzanian territorial waters. The Tanzanian MP for the Mbeya region, Hilda Ngoye, has argued that the people of Tanzania living around the lake have the right to fish and engage in other productive activities on the lake without being intimidated. Tanzania's Attorney General, Frederick Werema, responded to Ngoye's concerns by asserting that the people of Tanzania should not have to ask for permission from Malawi to fetch water from the lake.

However, Malawi is acting on the supposition that the entire lake belongs to it. The government of Malawi maintains that, according to the 1890 Anglo-German agreement, the border between Tanzania and Malawi is the north-eastern edge of the waters of Lake Malawi. However, the country is willing to engage with Tanzania to reach an agreeable resolution.

Substantial African Contract Acquired by Subsea 7 Malawi Exploration

Oilfield services firm Subsea 7 announced that it has won a significant contract to provide subsea components to the improvement of the Lianzi field, offshore Congo and Angola.

The company said that "the contract award – which at \$600 million is equivalent to around a tenth of its annual revenues – will maximize the use of local personnel and resources in Congo and Angola".

A major part of the design and production will be implemented in Luanda; Angola's capital city, with supplementary work performed around 200 miles away in Lobito by Subsea 7's Angolan joint venture.

Subsea 7 stated that its Angolan and Congolese employees will join the offshore construction teams during the offshore stage, which is scheduled

for the second half of 2014.

The company added that the contract's technical specifications include a 12-inch wet, insulated production flow-line with direct electrical heating that will set a record for the deepest electrically-heated pipe.

"We are very pleased to be awarded this EPIC [engineering, procurement, installation and commissioning] contract including the design and procurement of the subsea facilities which fits perfectly with Subsea 7's capacity to deliver large scale projects. We look forward to working in close cooperation with Chevron to deliver the Lianzi project safely and to the highest standards," Olivier Carre, who is senior vice president for Subsea 7's Africa and Gulf of Mexico territory, said in a statement.

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Tethys Oil Hits Record Production in Oman

Swedish operator Tethys Oil has announced that test production from the Early Production System in its Sultanate of Oman assets has revealed record crude oil production rates for the company. During July 2012, Blocks 3 and 4 onshore Oman yielded results of 381,044 barrels of crude oil per day, which amounts to 12,292 barrels per day.

The company lays claim to 30% of the total before government take, which in this case is 114,313 barrels per month.

Earlier in July, Tethys had discovered three oil-bearing fault blocks in the Farha South field in Block 3.

Tethys Oil Managing Director Magnus Nordin revealed that the company had seen a 100% success rate in drill-

ing new fault blocks in Oman in Q2 of 2012, stating "The second quarter saw a 100% success rate when drilling new fault blocks. Out of three drilled three were found to be oil bearing. Again 3D seismic proves to be the key to success. We are hopeful that these new discoveries will have a material impact on our resources/reserve base, and we have asked our independent auditors DeGolyer and MacNaughton to make an updated audit as per June 30. We expect to announce this study in August."

A total of 10 wells were successfully drilled by Tethys in the Farha South field during Q2 of 2012. Three of these were drilled in previously undrilled fault blocks in the Bakir reservoir, which resulted in the previously

mentioned discoveries.

Five of the wells were production wells drilled in previously drilled blocks, which boosted production, as well as two water injection wells.

There were 14 fault blocks in production as of July 2012, and more are expected to be added. The company will shift its focus in the coming months to exploration, with multiple exploratory wells being planned in Block 4.

Tethys holds a 30% interest in Blocks 3 and 4, along with Mitsui E&P Middle East, which holds a 20% stake, and operator CC Energy Development (Oman branch), which holds the remaining 50%.

China Buys Into North Sea Oil

China's state-owned China National Offshore Oil Company (CNOOC) made a major acquisition, reaching a \$15.1 billion deal to buy Canadian oil operator Nexen, the second biggest producer in the UK's North Sea area.

The cash deal is allegedly worth \$27.50 per common share, representing a 61% premium to Nexen's closing price in New York on Friday the 20th of July.

In a separate deal, major Chinese refiner Sinopec acquired a 49% stake in the UK unit of Canadian company Talisman Energy, and will jointly operate its North Sea assets.

Both Talisman and Nexen are major oil and gas producers in the UK North Sea, ranking among the top 10

producers in the area. Nexen produces 114,000 barrels of oil equivalent per day, while Talisman reported an average production of 71,500 barrels of oil equivalent per day last year.

Overall, the two companies are estimated to handle around 300,000 barrels per day in the North Sea, an area that has seen its production fall to 1 million barrels per day in recent times.

Nexen, which is listed in the stock exchange in both New York and Toronto, also holds assets in Canada, the Gulf of Mexico and offshore Nigeria. In order to persuade Canadian regulators to approve the deal, CNOOC promised to keep the company's management team unchanged, and not to

move the headquarters of the company's North and Central American operations from Canada.

Consultancy Wood Mackenzie estimated that the deals leave roughly 13% of all UK oil in Chinese hands.



Marathon Oil and Total to Jointly Explore Iraqi Kurdistan Blocks

Marathon Oil Corporation has concluded farmout agreements with Total Energy under which subsidiaries of the two companies are to jointly explore two blocks in the Kurdistan region of Iraq, the Harir and Safen blocks.

The deal stipulates the acquisition of a 35% working interest by Total in each of the two blocks, both of which are located to the northeast of the city of Erbil. The Harir block covers an area of 705 square kilometers, while the Safen block is 424 square kilometers large.

In a statement, Annell R. Bay, Marathon Oil's vice president of global exploration said, "We are pleased to have Total join Marathon Oil in exploring these high-impact exploration opportunities in the Kurdistan Region of Iraq's world-class hydrocarbon province."

"This partnership combines the extensive exploration, drilling and completion experience of Marathon Oil and Total to fully evaluate the potential of these two blocks." She added.

The deal reduces Marathon Oil's working interest in the two blocks to

45%. The company will remain the operator of the Harir block, but will only be the operator of exploration for the Safen block; a subsidiary of Total will act as the operator of any development activity in the block.

Drilling operations for the first exploratory well in the Harir block began in July 2012, while drilling for the first exploratory well in the Safen block is scheduled to begin during the first half of 2013.

A 2D seismic surveying program is currently underway on both of the blocks.

Petrobras Hits More Oil in Santos Basin

Brazil's state-owned oil firm Petrobras has announced that new data confirms the potential of the company's Carcara prospect, located in the ultra-deep waters of the pre-salt in the Santos basin.

The new data was acquired after the drilling of the 4-SPS-86B well, which was drilled in the BM-S-8 block, 242 km off the coast of Sao Paulo state. The well was drilled to a depth of 2,027 meters.

Drilling has confirmed an oil column in excess of 400 meters, mostly made up of continuous and connected reservoirs. The company revealed that drilling was ongoing, 6,213 meters

into the oil zone. The aim of further drilling is to determine the total thickness of the oil reservoirs, in addition to identifying the possible presence of deeper pay zones.

The oil encountered is of a light grade, as proven by samples collected at a depth of 6,131 meters. In addition, Petrobras claimed that the carbonate reservoirs were characterized by "outstanding porosity and permeability characteristics".

Petrobras operates the Block BM-S-8 jointly with a consortium of companies. The company holds a 66% interest, with Petrogal Brasil holding 14%, Barra Energia do Brasil Petro-

leo e Gas holding 10%, and Queiroz Galvão Exploração e Produção SA with the remaining 10%.



Ambassador Oil and Gas Doubles Gas in Place in Cooper Basin

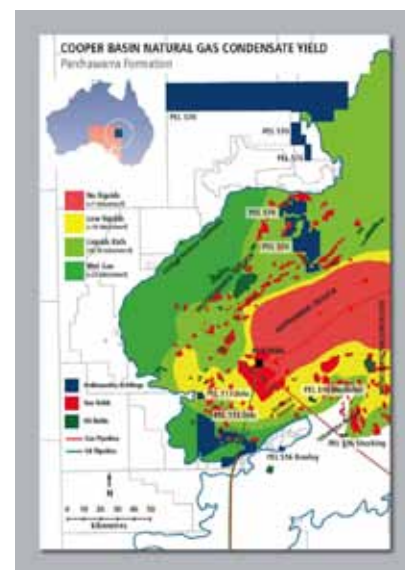
Ambassador Oil and Gas has doubled its gas projections for gas in place in coal seams in the company's PEL 570 exploration lease, located in South Australia's Cooper basin. A detailed study conducted by Ambassador revealed expected gas in place to be 13 trillion cubic feet.

The coal seams lie 3,000 meters below the surface, and have a cumulative thickness of 100 meters, with some individual seams being as thick as 30 meters. They occupy layers in the Patchawarra Trough, which houses some of the thickest coal seams in the entire Cooper basin.

Ambassador Oil and Gas managing director, Tino Guglielmo, stated, "These gas-filled coal seams have been identified in many of the exploration wells drilled in this area over the past few decades. Ambassador aims to capitalize on the strong gas demand from Australia's rapidly expanding LNG export industry to develop this vast, as yet untapped, gas potential. The coal seams in PEL 570, owned 100% by Ambassador Oil and Gas, strengthen the long term future of the Cooper basin as a major Australian gas supplier and offer tremendous upside potential for our shareholders."

He added that potential development costs for unconventional coal and tight gas in the Cooper basin are low, and that the PEL 570 permit is ideally located to contain conventional as well as unconventional gas resources which are low in CO2 and therefore highly valuable.

Ambassador is targeting a recovery of between 25% and 50% of the total gas in



place in the deep, water-free coal seams. The company believes it to be a major potential new energy source.

Studies conducted indicate that the coals contain high volumes of gas and low volumes of water, improving prospects for gas recovery.

Most of the oil and gas already being produced in the Cooper basin is thought to have originated from the deep coal beds present in the basin.

The PEL 570 exploration permit, which is located in the northern portion of the Patchawarra Trough and 75 km north of the Moomba gas processing facility, covers an area of roughly 2400 square km. Ambassador wholly owns the permit.

Exxon, Shell-led Group Wins Black Sea Contract

A consortium of oil firms led by Royal Dutch Shell and ExxonMobil has won a 10-\$12 billion contract for developing natural gas resources in the Ukraine's Black Sea. The deal comes in the context of Ukraine's efforts to decrease reliance on Russian gas.

"The government has supported a proposal ... to sign a production-sharing agreement naming a group of companies, led by ExxonMobil as operator," Environment and Natural Resources minister Eduard Stavitsky told said.

The deal is in relation to the Skifsk field, a gas-rich offshore field located off the coast of the Black Sea. The field, which covers 16,700 square km, holds reserves estimated to be 200-250 billion cubic meters of natural gas, and is expected to produce 5 billion cubic feet every year.

Kiev tendered exploration contracts for the field in June, and received a bid from a consortium that included Exxon, Shell, Romanian company OMV Petrov and Ukrainian state-run firm Nadra, as well as another bid from Russian oil giant Lukoil. The contract was eventually offered to the consortium, which has pledged to invest \$400 million into the field, including an upfront premium of \$300 million. The gov-



ernment has also reserved the right to make domestic use of up to 20% of the produced gas.

Work is set to begin on the field during the current year.

Shell is already working along with Chevron on a hydraulic fracturing program in two onshore shale gas fields in the country with potentially substantial resources.

Ukraine also offered exploration contracts in the Foroska field, another gas field situated offshore the Black Sea, but the government has yet to receive any official bids.

Ukraine relies on Russia to provide it with about two thirds of its yearly natural gas needs, having imported nearly 40 billion cubic feet of natural gas from its neighbor last year. The price of Russian gas has been increasing steadily for the past three years, and efforts by Ukraine to renegotiate the supply deal have not been successful, prompting the former Soviet republic to look towards developing its own resources.

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Egypt to Establish Petrochemical Industrial Zone

Egypt is set to establish its first industrial zone specialized in petrochemicals, as revealed by Industrial Development Authority (IDA) Chairman Ismail Nagdy in a recent press conference.

The new industrial zone will include investments of \$15 billion to \$20 billion from sources both local and foreign, and is expected to result in a large number of jobs created.

Nagdy also revealed that the IDA will be offering 14 licenses for the establishment of cement factories with a 1.5 million ton production capacity per plant, to be available soon.

The Egypt Petrochemicals Conference is to be held in Cairo towards the end of September, under the patronage of the Egyptian ministry of petroleum.

South Sudan Oil Pipeline to Cost \$3 Billion

South Sudanese Finance Minister Kosti Manibe has announced that the planned pipeline to be constructed from South Sudan to Kenya in order to carry the landlocked country's crude oil to Lamu will entail costs in the region of \$3 billion.

"The 2,000 km pipeline will cost approximately \$3 billion dollars," he told a news conference in Nairobi.

"We don't need to have the money right now, we have the reserves. South Sudan will definitely have equity in the pipeline," the minister added.

Manibe ensured that South Sudan had enough crude oil reserves to provide an adequate guarantee to financiers despite the fact that the nascent country did not have the financial muscle to fund the project itself.

The pipeline will be able to transport

700,000 to 1 million barrels of crude oil per day from South Sudan to Lamu. Construction on the pipeline is set to begin in June 2013, and it to be finalized in two years time.

The pipeline project is an effort by South Sudan to end reliance on Sudanese routes for oil exportation, which have proven problematic due to a dispute over the transportation fee.

Since South Sudan seceded, the two countries have disagreed over the amount that is to be paid to Khartoum for the transportation of South Sudanese oil through Sudanese territory for exportation, a dispute which prompted Juba to suspend all oil production activities.

Although the neighbors managed to agree an interim deal in August, South Sudan is still pursuing other options for exporting its sizeable reserves of crude oil.

South Sudan's proven oil reserves amount to approximately 7 billion barrels, and the country relies on crude oil exports for 98% of its national budget.

The pipeline could also possibly be used for the transportation of oil from the Turkana area of Kenya itself to the port of Lamu. British Tullow Oil has made significant discoveries in the area, which presents a promising prospect for the Kenya.

"We believe from the indications that we've been given that we if we are lucky we might have as much oil as (South) Sudan. Any extra that we don't use in the country we are going to put in the same pipeline as the Sudanese oil and export it through the port of Lamu," said Kiraitu Murungi, Kenya's energy minister.

Gulf Petrochemical Production on the Rise

The Gulf Petrochemical & Chemicals Association (GPCA) predicts that petrochemicals production in Gulf Cooperation Council (GCC) countries is expected to increase from the current 77.3 metric tons per year to 113 metric tons per year by the year 2015.

Petrochemical production capacity in the GCC has already risen by 13.5% last year, generating \$100 billion in sales. Saudi Arabia is the highest producing country in the area, with \$12 billion worth of projects currently being executed and a further \$41 billion in future projects.

While the GCC petrochemical sector has been heavily affected by the financial crisis, recent indicators suggest a promising outlook.

Ethylene production in particular is set to witness a significant boost in the coming period, with production expected to increase from 21 million metric tons per year to at least 30 million metric tons per year by the year 2014. This would raise the region's share of global ethylene production by 4%, from 19% to 23%.

Speaking at the World Refining Association recently, Abdulmohsen Al Majnoui, chairman of SAS-AICHE, explained the GCC and the Middle East's rising petrochemical prospects and the opportunities they present.

"The introduction of specialty or performance chemicals has differentiated the refining from petrochemical industries. The more creative manufac-

turers are in developing new enhanced products, the more sustainable they become. The more efficient the petrochemicals industry becomes, the less susceptible and less prone to financial crisis they are," Al Majnoui said.

"The major short-term opportunities are in more integrated specialty and performance chemicals. These are basically secondary and tertiary industries. This is especially true for the Middle East countries as the supply of cheap feedstock is questionable. In the long term, the opportunities will be found in the compounding industries, detergent basics, pharmaceuticals, rubbers and tires" he added.

The seventh annual Petchem Arabia summit is scheduled for September, to be held in Manama,

Bahrain. Ministers and key players in the Middle East petrochemicals sector are expected to attend and address the issues and opportunities currently present in the sector.



Renewable Energy

Big Solar Power Project in China

China has announced the establishment of a big solar power project designed to contribute towards achieving the country's new goal of producing 21 GW of solar energy by 2015.

"The government of Bole city, Bortala Mongol Autonomous Prefecture, Xinjiang, China recently signed an agreement with Hubei-based JCS Solar for a 6 billion yuan (US\$948 million) photovoltaic project to be located next to the area's Sayram Lake," Liu Yuanyuan writes. "Construction of the 13 million square-meter facility is expected to take three years. Phase I of the project is expected to yield 30-MW of capacity and connect to the grid when completed by the end of October 2012"

He also wrote via Renewable Energy World: "Datang Xinjiang Power Generation Company received approvals in May for the construction of two projects, the 20-MW Hami Phase I solar power project and the 20-MW Bohu, Bazhou Phase I solar power project from the Development and Reform Commission of the Xinjiang Uyghur Autonomous Region. Phase I of the Hami project received an investment of 267 million yuan (US\$41.9 million), and Phase I of the Bohu, Bazhou project attracted an investment of 251 million yuan (US\$39.4 million)."

Solar power in the People's Republic of China is a developing industry. China has over 400 photovoltaic (PV) companies. More projects are expected there during the coming period.

74 MW Wind Project in Mexico

Gamesa has completed the Bii Nee Stipa Wind Farm for Enel Green Power in the southern Mexican state of Oaxaca. The plant consists of 37 Gamesa wind turbines of 2 MW each.

The Bii Nee Stipa wind farm, with a capacity of 74 MW, will generate over 250 million kWh per year. The plant attracted investments of around \$160 million, indicating an escalation of Enel Green Power's footprint in Mexico's promising renewable energy sector.

"Bii Nee Stipa II is Enel Green Power's first venture into wind power technology in Mexico" stated Francesco Starace, CEO of Enel Green Power. "We will continue to grow in the Country with this technology as well as hydro, a sector in which we are already present in Mexico. We have development plans in this important Country, encompassing all the generation technologies we have at our disposal, given the major opportunities we can see in this sector."

Enel Green Power is works on renewable energy sources all over the world, with a focus on Europe and the Americas. The company is a world leader in its sector owing to an approximate 22.5 billion kWh of energy produced from water, sun, wind and the Earth's heat, enough to meet the energy needs of more than 8 million households and avoid the emission of over 16 million tons of CO₂ into the atmosphere. Enel Green Power has an installed capacity of nearly 7,100 MW with over 650 operational plants in 16 countries as well as a generation combination which includes wind, solar, hydroelectric, geothermal energy and biomass.

First Industrial Tidal Power Project in the US

The inauguration of the U.S.'s first industrial tidal power project, the TidGen Cobscook Bay project, in Eastport, Maine, was publicized by the US Department of Energy and Ocean Renewable Power

Company.

The project has created more than 100 local jobs and added more than \$14 million to the local economy.

"The Eastport tidal energy project represents a critical investment to ensure America leads in this fast-growing global industry, helping to create new manufacturing, construction and operation jobs across the country, while diversifying our energy portfolio and reducing pollution," Energy Secretary Steven Chu said about the project.

The project received \$10 million from the government's Wind and Water Power Program, and is expected to generate enough electricity for 75 to 100 homes. However, additional tidal power equipments are planned to be installed, which would eventually extend the generation to levels capable of powering more than 1,000 homes.





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The New Minister of Petroleum Has the Sector Found Its Saviour?

The appointment of Eng. Osama Kamal to the post of Minister of Petroleum and Mineral Resources proved to be a surprise to many, prompting varied predictions and expectations. Egypt Oil & Gas weighs in on the new man in charge and his prospects for success.



By Ahmed Farahat and Ahmed Maaty

Following President Mohamed Morsy's decision to formally task Dr. Hesham Qandil with forming a new government to succeed that of Dr. Kamal El Ganzoury's, predictions for the new cabinet were rife among analysts and experts. Some expected that the newly appointed cabinet would be comprised mainly of Muslim Brotherhood cadres and sympathizers, while others predicted a technocratic government with a Brotherhood presence.

The chosen cabinet managed to defy most projections and predictions, throwing up many surprising names. Among the surprises was the appointment of Eng. Osama Kamal as minister of petroleum and mineral resources. While Eng. Kamal was doubtlessly among the key officials of the sector during the past few years, having served as head of the Egyptian Petrochemicals Holding Company (ECHM) for two years, his name was not among those most hotly tipped for the position, and he remains a relatively unknown quantity to many in the sector.

The new minister boasts a solid resume, having worked at several axial companies and entities within Egypt's petroleum sector. Besides his experience at ECHM, in which he served as Vice Chairman for Agreements and Planning, Eng. Kamal was appointed to head the Misr Oil Processing Company (MOPCO), and has also served in high managerial positions at ENPPI and Petrojet, two companies considered to be crucial to the implementation of any major project in Egypt's petroleum sector.

Thirty years of experience in the

sector speak volumes about the man's qualifications for the post, and the fact that this experience includes projects and economics will satisfy many who view such experience as vital for success in the post of petroleum minister.

Questions do remain however, regarding the mechanisms in place for the identification and resolution of the most pressing problems plaguing the sector, and the timeframe in which such mechanisms can be put in place.

More importantly, certain elements regarding the identity of the new minister will most probably raise a few eyebrows. Many of those working in the sector tentatively refused to comment on the man's history in the sector, and a number of sector veterans labeled Eng. Kamal the "prodigal child" of former minister of petroleum and current prison inmate Sameh Fahmy, a figure largely reviled in Egypt and viewed as a symbol of corruption. The fact that Eng. Kamal rose through the ranks and witnessed success under the stewardship of Sameh Fahmy does not necessarily blot his reputation in any way, as effectiveness can result in plaudits and success regardless of the surrounding atmosphere and has in many cases done so in the regime of Mubarak itself.

The question remains, nevertheless, of whether the minister will be able or willing to dispose of the old guard in the sector's leadership, or at least those elements within it which ought to be removed, and implement the structural adjustment necessary for the Egyptian petroleum sector to move forward. Some view that Eng. Kamal is not the man to

do this. Others expect a purge similar to President Morsy's now famous dismissal of security chiefs, as an indication by the minister of his intention to make a clean break with the past. Only time will tell.

A high-ranking ministry source, which refused to be named, opined that corruption and inefficiency in petroleum sector are blatantly, inescapably clear owing to the fact that the sector is relatively compact. He went on to insist that it is absolutely certain that a top ranking official such as Eng. Kamal is aware of the problems and of their sources, and that this will therefore be an important barometer of the minister's abilities and intentions.

Other key factors upon which Eng. Kamal will be judged will be his ability to create a drilling and exploration framework that will boost the country's reserves in the coming period, an important area in which he remains largely untested.

A more immediate test of the minister's capabilities will be the issue of transparency within the sector, a trait sorely missed in the past in the recent past in particular. Statements issued by sector officials have often contradicted each other, not to mention contradicted clear facts, and problems that are left unexplained or poorly explained were all too common. The fuel shortages dilemma in particular has revealed the absolute lack of clarity and transparency that characterizes Egypt's petroleum sector, and it will be Eng. Kamal's job to ensure that the flow of information becomes smooth and consistent, and that the public is always engaged appropriately.

Besides untangling messes that have

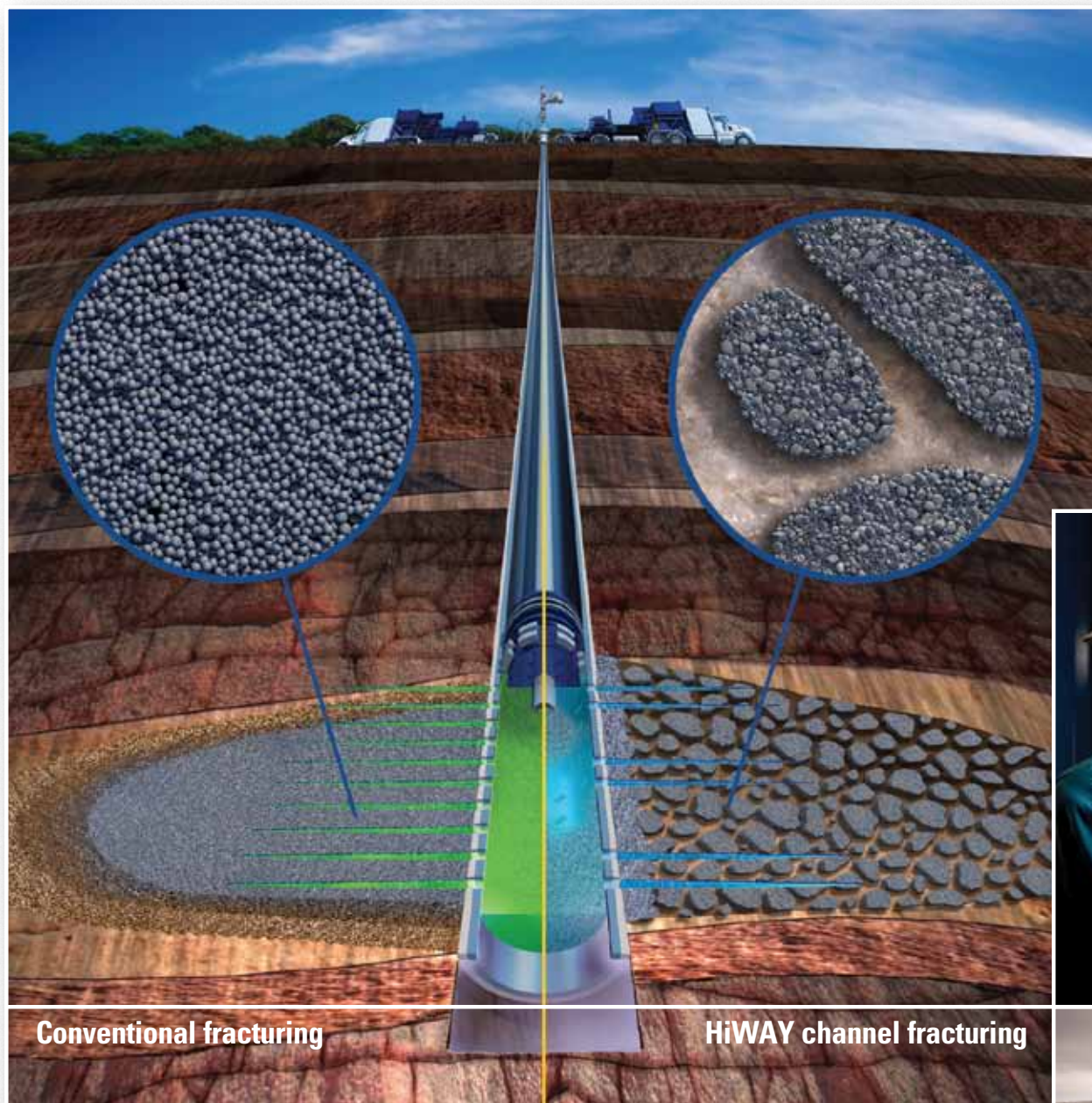
festered for years before the revolution and ones that have surfaced in the months that followed it, the minister will also have to consider taking bold steps relating to the very core structure of the way the sector currently works. The presence of EGAS and GANOPE as entities separate from the EGPC is an issue that has regularly sparked debate. A clear and convincing justification for such a state of affairs does not appear to be available despite the fact that it has been the case for many years. Other conflicts of authority and structural oddities are also present in the sector, such as an apparent contradiction between the mandate of ECHM and offices within the EGPC dedicated to overseeing refining and petrochemicals projects.

Reforming the entire authority and regulatory structure of the petroleum sector requires a man willing to take big leaps, and it is not yet clear whether Eng. Kamal will be able or willing to take such drastic steps.

Both great optimism and great apprehension are warranted. The new minister of petroleum cannot be easily judged based on history because the appointment of this particular individual was highly unexpected (though not unjustified). Challenges will spring to block Eng. Osama Kamal's path to success as soon as he puts a foot forward, as that is the nature of the petroleum sector and the state it is currently in. Assessment of the decision to charge him with the ministry will have to wait, but there is no doubt that he has got plenty of opportunity to prove his mettle.

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Subsidies Readjustment: Paving a Path to the Poor

The subsidies dilemma is witnessing more and more relevance as the situation becomes unsustainable and the national economy buckles under the strain. The new minister of petroleum will have his hands full attempting to balance economic wisdom and public need.



By Ethar Chalaby

The authentic visualization of oil and gas subsidies arises to target Egypt's low-income groups, considered to be the actual intended beneficiaries.

While the notion was originally set in that framework, studies have shown that only 20% of the governmental designed subsidies reach the less wealthy 80% of impoverished the population, whereas the remaining 80% benefit the richer 20% segment. In the 2011/2012 budget, it is noted that subsidies for energy, which include natural gas, fuel, diesel, gasoline and octane, amounted to nearly LE95 billion. Some expect that figure to skyrocket to reach LE 114 billion, leading to a wider budget shortfall and recklessly wasting governmental resources. It is clear that the subsidies allotted to the oil and gas sector are excessive and constitute a massive portion of the country's expenses. Dissecting the current scenario, questions persist as to whether subsidies should be slashed or retained.

According to some media reports, Egypt's new government, under Prime Minister Hesham Qandil, will most probably cut fuel subsidies by about 27% in the 2012/2013 budget. Sources state that the total amount spent on fuel subsidies will be curtailed to LE 70 billion instead of LE 95 billion. Authorities will introduce a new coupon system to stabilize distribution and facilitate access for the needy. Sayed Naguida, former head of the energy committee in the legally dissolved parliament, told Egypt Oil and Gas newspaper that only proper studies will reveal if subsidies should be decreased or increased. The most vital angle in the whole story of subsidies is that it actually stretches out to the primary beneficiaries. "Subsidies should eventually get to the poor without ensuing negative impacts on consumers," Naguida said. He added that oil and gas agreements do not affect investors as it lies in a rigid governmental scheme.

The official stressed on the main objective behind subsidies, which is relieving rather than straining the governmental budget. Annual fuel subsidies, in Naguida's estimation, have reached LE 107 billion. This amount should be slowly and rationally decreased in order to cushion customers from the impact. Analyzing the current situation, Naguida, a member of the Muslim Brotherhood's Freedom and Justice Party, expects that fuel subsidies in the coming phase will decrease to be LE 70 or LE 80 billion only. Among the suggestions currently under consideration is the strategy of granting subsidies only to the disadvantaged while protecting the public budget from severe losses. Commenting on the idea of the coupon system, Naguida praises the initiative and provided a simplified example of a needy taxi driver who will be offered a coupon for 1200 liters, which would cover his car's consumption of fuel for at least a year.

With talks suggesting that the new government will completely abandon subsidies of fuel oil -low quality fuel used for industrial purposes- in the year 2012/2013, it should be noted that the removal of such subsidies is the primary driver behind the drop in overall fuel subsidies. The draft plan also recommends that the government swap using fuel oil-reliant industries with natural gas in order to reduce demand on oil. As the Egyptian finance minister has submitted the draft budget last June, a final

decision towards this proposal should have taken place before the beginning of July 2012. Many experts, however, do not agree that the government should lift the energy subsidy as it neither adds to competitiveness nor allows consumers affordable products.

Ayman Abul Maaty, department manager at the Egyptian General Petroleum Corporation (EGPC), told Egypt Oil and Gas newspaper that subsidies are mandatory in the oil and gas sector. He criticizes, however, the fact that subsidies are not directed to the proper beneficiaries. "Everyone fuels his car from any gas station. There is no differentiation of who needs more subsidies than the other," he said. Speaking particularly about ordinary oil consumption, Abul Maaty estimates that the ideal solution to the dilemma of subsidies may well be the coupons proposal. "Everyone should receive a coupon of LE 2500 every year to cover his car's petrol expenses. If a citizen, regardless to his societal class, has consumed his quota then he/she will bear the cost of the additional oil needed as per its international price" Abul Maaty said. Giving an example, he assumes that if the average cost of one petrol liter is LE 1.6, an ordinary citizen will have to consume the quota in his coupon and then pays about LE 6.5 per liter as per the international price of oil. He stressed that the coupon system should be implemented on all types of fuel. If the coupon idea is properly applies, Abul Maaty expects Egyptians to start thinking economically without ruining Egypt's public budget or squandering resources. Once again he stresses, "Egypt needs all sorts of subsidies".

Hany Dahi, head of the EGPC, was not available to comment on the issue when contacted by Egypt Oil and Gas newspaper.

Other views disagree with the idea of cutting subsidies. Magda Qandil, the executive director of the Egyptian Centre for Economic Studies, was quoted as saying that a successful strategy for subsidy cuts entails preparing the entire Egyptian population for general reform. According to Qandil, the first step is to clearly analyze the amount of budgetary loss resulting from subsidies. This should be followed by a clarification of the benefits that will result for higher-income citizens and the best solutions to protect the poor. Qandil recommends that the immediate action to be taken should be adjusting the amount of subsidies reaching the rich first -meaning the reevaluation of subsidies for the 95-octane gasoline consumed by the more affable portion of Egyptian society. Disagreeing with the opinion that subsidies should be carried out on all types of petroleum, Qandil stated that natural gas and fuel oil make up roughly 70% of petroleum consumption. In light of this fact, it would seem unfair to lift subsidies from almost all petroleum products. "This would only add to the burden of the needy. It would contradict the notion of social justice," Qandil said. She believes that the best scenario would be adjusting all petroleum prices and directing about 50 per cent of the subsidies to the poor. "This would not cost the government any additional expenditure as we could cut from a segment and give another segment."

Ahmed Abd Rabo, the general manager of petroleum affairs at Egypt's Ministry of Petroleum, regarded any sort of subsidies as frittering away to all oil and gas assets. He states that those

subsidies of LE 90 billion reach only 15 to 20 per cent of low-income citizens, who actually constitute about 70 per cent of the total Egyptian population. He condemns citizens who misuse energy resources in hotels and other luxurious places rather than intensifying efforts to use these assets in heavy industries. Abd Rabo suggests that the subsidies dilemma should be resolved when consumers are allowed to make profit out of all oil products and benefit from the subsidies at the same time. Refuting the coupons initiative, Abd Rabo proposes the idea of granting low-income groups financial subsidies. "A citizen should be offered an annual financial subsidiary that covers his own oil expenses in lieu of enforcing subsidies on all oil products," he said. By implementing this concept, the expert believes that there will be more room for profit making, leaving space for unfixed prices. When citizens are granted an annual or monthly financial stipend from the government, the prospects of the black market in the oil sector will be diminished.

Some experts suggest other moves. Head of the Energy Committee at the Federation of Egyptian Industries Tamer Abu Bakr stated that the solution for the subsidies predicament is to substitute the overwhelming majority of petrol products with cheaper natural gas. Agreeing with the opinion of Qandil, Abu Bakr regards natural gas as the best alternative for oil despite the fact that it entails higher imports.

Former Minister of Finance Samir Radwan explained that the subsidies problem is not limited to the petroleum sector, but has also raised concerns in the fields of transportation, bakeries and poor communities.

"Since 2005, the government was pro-business and energy-intensive industries were provided with subsidized fuel, because they were supporters of the government," the former minister said. He added: "Now, it is the political situation. The collective psyche of Egyptians is that by taking away subsidies it will hit the poor very hard. But you can compensate the poor and remove subsidies. Brazil, for example, has been very successful in its cash transfers program."

Taking a deeper look at the country's political situation, the ruling Freedom and Justice Party (FJP), the political arm of the Muslim Brotherhood and currently the most powerful political entity in Egypt, will heavily influence policy related to the issue of subsidies. According to its economic platform, the FJP wants to cancel "subsidies for energy-intensive industries" and review "the current subsidy policy of petroleum products, which gives the rich 80% of subsidy funds."

Until the new government is clear on what steps should be taken to resolve the challenges around subsidies, the issue will remain a controversy in Egypt's petroleum sector. Whether the coupons system will be the best answer or a temporary alternative, subsidies are expected to be one of the toughest issues on the plate of the new government in Egypt, particularly in light of the country's ailing economy. The political cost of decreasing or altering subsidies could be substantial in such a charged political atmosphere as the one Egypt is currently experiencing, but the economic cost of leaving them untouched may just end up being catastrophic.

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The Commodity Dictates the Trade

By Walid Hebeika, PhD , Energy Consultant

In the twentieth century, we used to characterize the different markets according to the supply/demand balance and whether it is favoring the sellers or the buyers in any trade regardless of the commodity being traded.

However, in the first decade that elapsed from the twenty-first century, the Oil and Gas trade can no longer be defined any more as a Seller's Market - where supply is tight and demand is on the rise - or a Buyer's Market - where supply is abundant and demand is volatile due to recession or other factors - it is indeed a Commodity Market. The traditional questions of who is selling and who is buying are not in fashion anymore, now it is a question of what the Commodity under question is and who is in need of it. A number of analysts link the economic slowdown that hit the world in 2007 directly to the historical high prices of crude oil that led to a chain reaction: gasoline became the strategic commodity that takes top priority on the pay list, and consequently the mortgage installment was pushed off the list and the rest is history. A decision to increase prices in the case of commodities like gasoline - with a direct effect on transportation cost - or natural gas - with a direct effect on electricity costs - can be considered political suicide in a number of developed and developing countries alike.

If we take gas market dynamics for example, there is a total delink between LNG global pricing indices nowadays. The US price mainly referenced to Henry Hub is US\$2-3/MMBTU while Europe and Japan/Korea price markers are in the US\$13-15/MMBTU bracket. The introduction of low-cost fracturing techniques to produce shale gas reservoirs, especially in North America, changed the gas availability balance in North America to the extent that the traditional import cost buildup that dominated Henry Hub for decades has changed for good. All of a sudden, the US has become a potential exporter of LNG, and it is now normal to witness heated discussions in the Congress about "how to protect Homeland

Natural Resources"! The same debate that was often triggered by Petroleum exports of Middle-East countries, and why aren't these countries maximizing the value of the commodity by using it in further applications on its own homeland.

The World is witnessing a sharp increase in domestic power demand of in a number of regions: China, India, Iraq, and in GCC as well. And given that more than 60% of the power generation around the world is currently fed by natural gas, it is very obvious that gas demand is on the rise more than ever.

Egypt's dilemma of balancing gas export commitments and/or opportunities versus domestic needs of the commodity is well known and doesn't seem to be reaching to an equilibrium point soon. The Egyptian authorities accepted the fact that gas as a commodity is needed domestically and that export is becoming a burden rather than an advantage. However, the domestic market demand - increasing at 2-3% per annum - is primarily gas-to-power and its value is hindered by subsidies. On the other hand, the gas export option provides an additional edge for Egypt to be more appealing to IOCs interest in the upstream sector, especially with the distinctive geographical location of Egypt in the heart of the Middle East, with a long Mediterranean shore line, and easy access to the Suez Canal. So Egypt is geographically well suited to play an export and/or transit hub role equidistantly to Europe and Asia, making use of its own resources as well as potential supplies from other countries by pipeline (from Iraq for example). If upstream investments are not steadily increased, automatically the growth in adding proven reserves will be negatively affected. Consequently, the ability of Egypt to keep meeting its energy demand even to fulfill the increase in domestic demand itself will be questionable. And the Petroleum sector's contribution to the overall FDI of Egypt will be compromised.

The GCC is no exception to this phenomenon. When we see LNG

FSRU being commissioned in GCC states like Kuwait and Dubai to receive LNG imports from Qatar via LNG carriers, designed to cover 2,000+ miles journeys, being used to deliver LNG just 300-400 miles away from the shipping source, then definitely we are in a new era: an era in which the need for the commodity drives the purchase decision, regardless of how expensive it seems to be. Kuwait with all its crude oil production can't run its power plants on liquid fuel, and Abu Dhabi - the neighbor state of Dubai and its partner in the same Federal Unity of UAE - will not spare gas to help Dubai while her own gas balance is in deficit.

And what an irony in Iraq: the flared gas quantities in the South of Iraq, more than 700 mmscfd, are enough to feed power stations capable of producing up to 3,000 MW of electricity while the Iraqi national grid currently supplies electricity for 2-4 hours per day. If we look further North, to the region of Kurdistan, we find that Iraq has succeeded in developing part of its gas potential swiftly, with the help of independent IOCs like Dana Gas and Crescent Petroleum, and two thirds of the Kurdistan region's power demand is fed by locally produced 300 mmscfd of gas from the Kor Mor field. The Kurdistan Region's public electricity supply is consistent almost 24/7 all year round despite the extreme weather: very cold in winter and very hot in summer. Despite the large annual budget for Iraq, more than US\$130 Billion in 2011/12, there is a lack of electricity due to the lack of gas, and it is tarnishing the Baghdad Government's achievements in oil infrastructure and exports. The comparison is always favoring the success of the Kurdistan Regional Government in providing the commodity needed for the welfare of the people, such as a sustainable supply of electricity, which is a natural measure of improvement in living standards in the developing world.

Whether you are in the US, in Egypt, or in GCC states, in the twenty-first century, the commodity dictates the trade.

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CO₂ Miscible Flooding Application To Egyptian Western Desert Oil Fields

By Ezz El Din Allam - Reservoir Studies General Manager, EGPC

CO₂ miscible flooding has become an important method in Enhanced Oil Recovery (EOR) for recovering residual bypassed oil, and in addition it may help in protection of the environment as CO₂ is widely viewed as an important agent in global warming.

Most CO₂ floods require injecting a large slug of CO₂ followed by injection of water that drives the CO₂ to maximize sweep efficiency. Modifying CO₂ viscosity is critical because of the differences in CO₂ viscosity and density relative to the crude oil-in-place that can set the stage for pre-mature break-through of the gas. Such break-through results from a combination of gravity override and the CO₂ channeling through more-permeable zones. The end result is less oil ultimately recovered.

The response to this challenge needs alternating injection of water and gas (WAG), which improves sweep efficiency. But this posed another problem: While sweep improves with WAG, displacement efficiency may decline because the water can shield the oil from the solvent-like nature of the gas. In other words, the technical challenge isn't only finding reservoirs suitable for carbon dioxide miscible flooding but also to be able to control proper mobility and proper sweep of the injected gas.

The project prepared by the abovementioned engineers studies the possibility Of CO₂ Miscible Flooding application in Egyptian Western Desert Oil Fields. The first step in the study is to select the most suitable depleted reservoirs for injecting carbon dioxide (CO₂). The second step is to find depleted gas reservoirs that have the possibility of underground storage of CO₂ and lies geographically near the newly established reservoirs to be used in the future in CO₂ miscible flooding.

The geologic storage of carbon dioxide

is seen as a potentially feasible. Which is necessary for global carbon emission. Geologic storage involves injection of CO₂ into underground formations. Once placed there, the expectation is that the CO₂ will stay there until it may be used in the future for EOR.

Generally EOR methods consist of two main groups: thermal and non-thermal. Thermal EOR includes all the methods that use heat as an external agent to displace immobile residual oil in the reservoir, as steam injection, steam flooding and in situ combustion. Non-thermal EOR includes all methods that use some chemicals as external agents that help to improve the mobility of the immobile crude oil, such as: polymer flooding, alkaline, microbial, and the miscible flooding methods that may use the injection of CO₂, N₂, methane, natural gas.

Flooding a reservoir with CO₂ can occur either miscible or immiscible. Miscible CO₂ displacement is only achieved under a specific combination of conditions, which are set by four variables: reservoir temperature that has to be above 31.1°C, reservoir pressure which has to be greater than 73.8 bars, injected gas composition, and oil chemical composition.

From a fundamental point of view, CO₂ miscible flooding works on a very simple principle, namely, that given the right physical conditions, CO₂ will mix miscible with oil, acting much like a thinning agent. After miscible mixing, the fluid is displaced by a rush phase, typically water.

The miscibility is described as: "the ability of two or more substances to form a single homogeneous phase when mixed in all proportions." For petroleum reservoirs, miscibility is defined as that physical condition between two or more fluids that will permit them to mix in all proportions without

the existence of an interface. If two fluid phases form after some amount of one fluid is added to others, the fluids are considered immiscible.

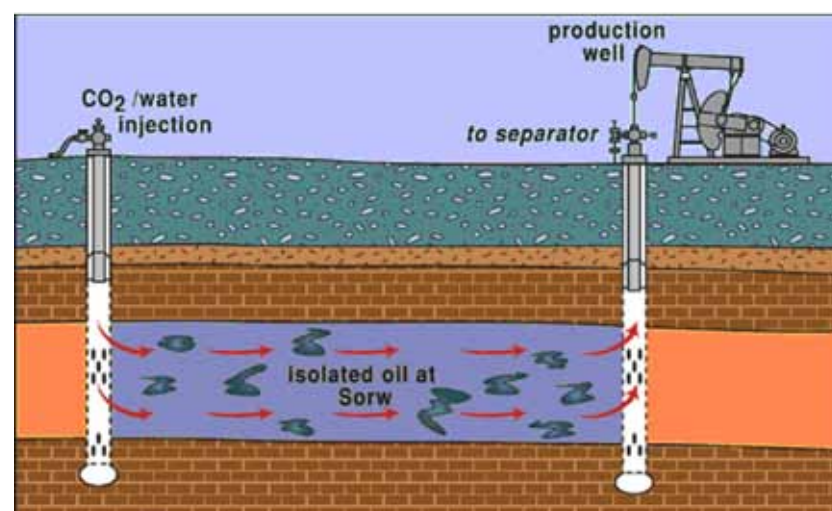
Technically, the critical consideration is that in miscible displacements the residual oil saturation, that is, the oil left after being miscible contacted with CO₂, is reduced nearly to zero. This leads to high oil recoveries and favorable project economics. This is in distinction to immiscible displacements where considerable residual oil saturations can remain, often leading to unfavorable project economics.

The Egyptian Western Desert is one of the promising oil producing areas in Egypt. The first field was discovered in 1966 (Alamein field) with annual production of 33,000 barrels of oil and proven reserve about 71.2 MM barrels which represented 2% of Egypt's reserves for that year. The first gas field in the Western Desert was discovered in 1971, called the Abu Roash field.

The Western Desert main producing geological formations are, ABUROASH "C", which consists of sandstone, ABUROASH "D", which consists of limestone, and BAHARIYA, which consists of sandstone.

The Depths range from 900 meters to 3400 meters, where they all allow the application of the CO₂.

The Reservoirs pressure range from (1750



PSI TO 5000 PSI) as the initial pressure and, the current pressures range from (1250 PSI To 3500 PSI).

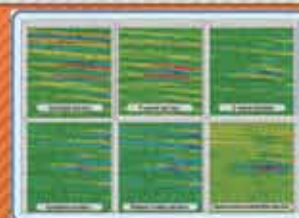
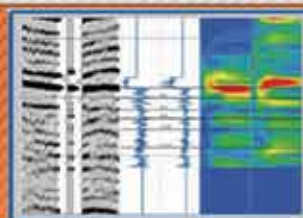
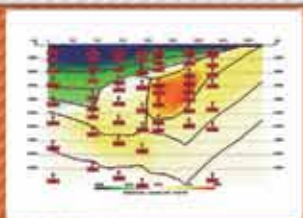
The temperature of different reservoirs in the Western Desert ranges from 92° F to 127 ° F, while the API quality ranges from 35 to 40.

Thus the best five reservoirs suitable for CO₂ miscible flooding in Egypt belong to Badr Petroleum Company (Bapetco) and are located in three fields. Furthermore, the suitable storage reservoirs are located in in one of the General Petroleum Company (GPC)'s fields. The nominee reservoirs need about 50.34 BSCF of CO₂ to be injected. The selected reservoirs for storage have a capacity around 62.1 BSCF of CO₂ and need about 3 years for storage.

In conclusion, CO₂ flooding is a proven enhanced oil recovery technique to obtain high oil recovery from complicated formations and can be applied to various types of oil reservoirs. The Possibility Of CO₂ Miscible Flooding application to Egyptian Western Desert Oil Fields would be very beneficial for Egypt's reservoirs and subsequently the national economy.

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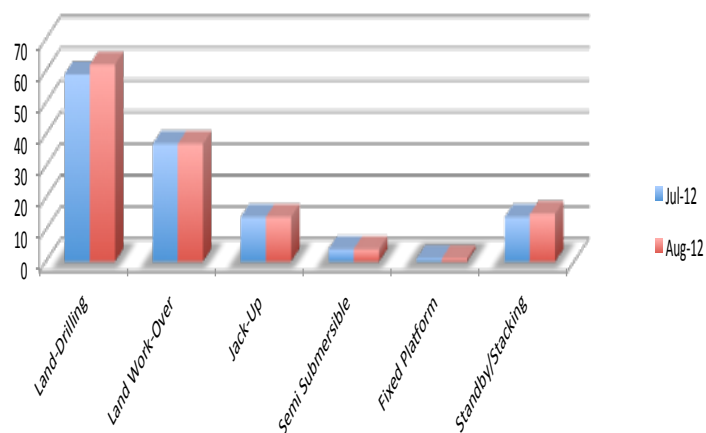
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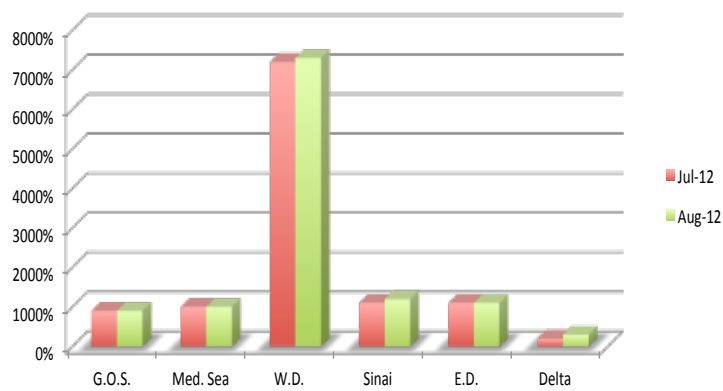
Table 1 Egypt Rig Count per Area - August 2012

RIG COUNT			
Area		Total	Percentage of Total Rigs
Gulf of Suez		9	8 %
Offshore	9		
Land			
Mediterranean Sea		10	8 %
Offshore	10		
Land			
Western Desert		73	62 %
Offshore	73		
Land			
Sinai		12	10 %
Offshore	12		
Land			
Eastern Desert		11	9 %
Offshore	11		
Land			
Delta		3	3 %
Offshore	3		
Land			
Total		118	100%

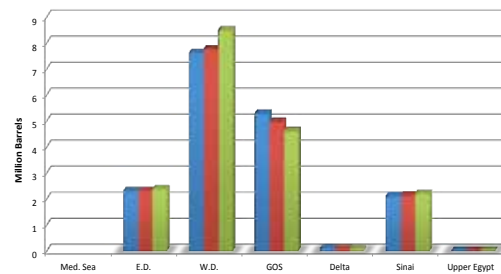
Rigs per Specification July - August 2012



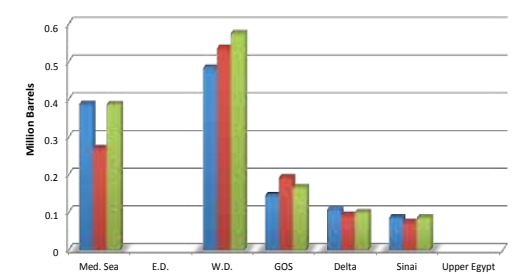
Rigs per Area July - August 2012



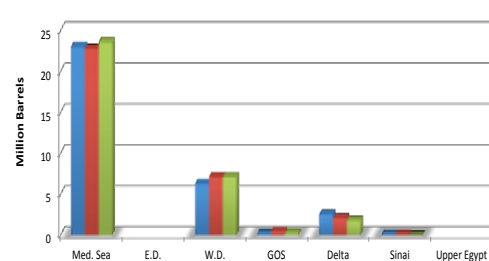
Oil Production July 2010 - 2012



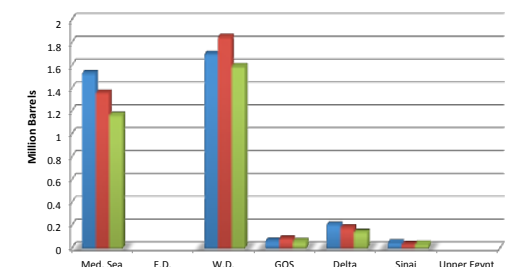
Liquefied Gas Production July 2010 - 2012



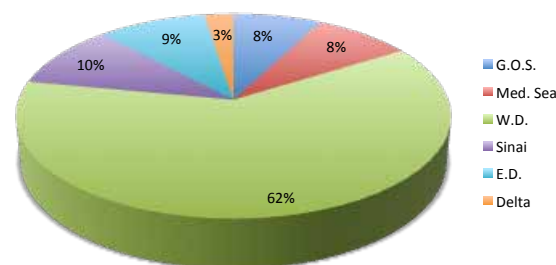
Equivalent Gas Production July 2010 - 2012



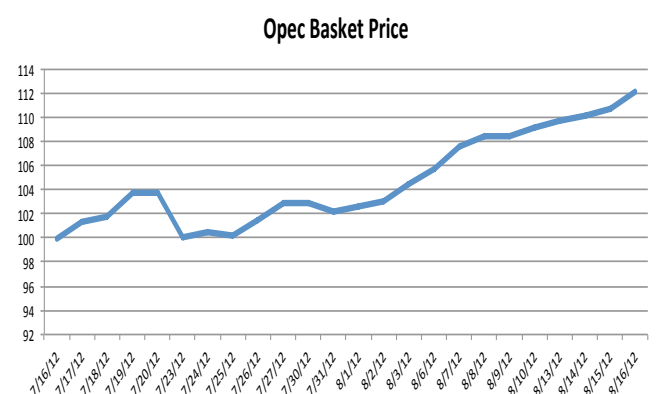
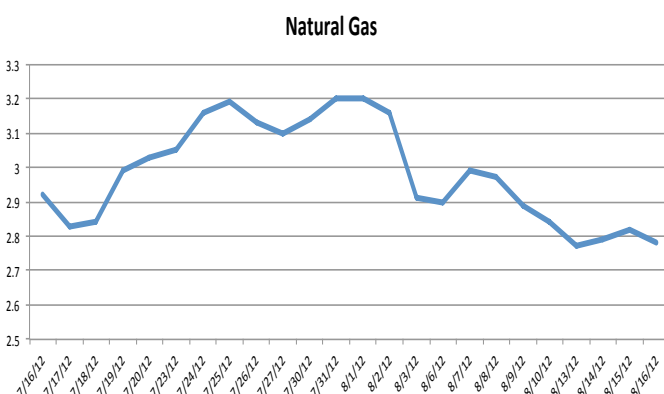
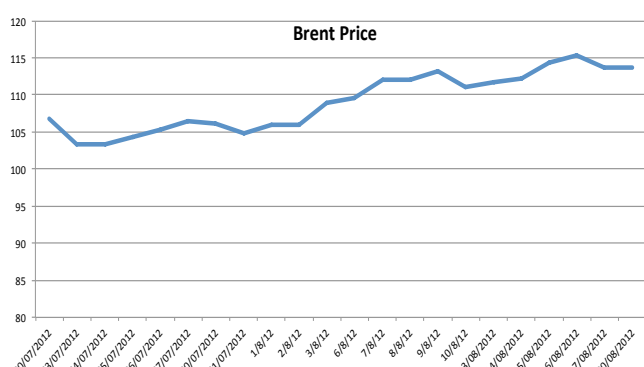
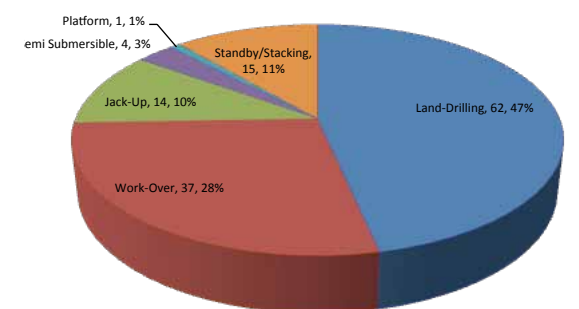
Condensates Production July 2010 - 2012



**Rigs per Area August 2012
(Total of 118 Working Rigs)**



Rigs per Specification August 2012



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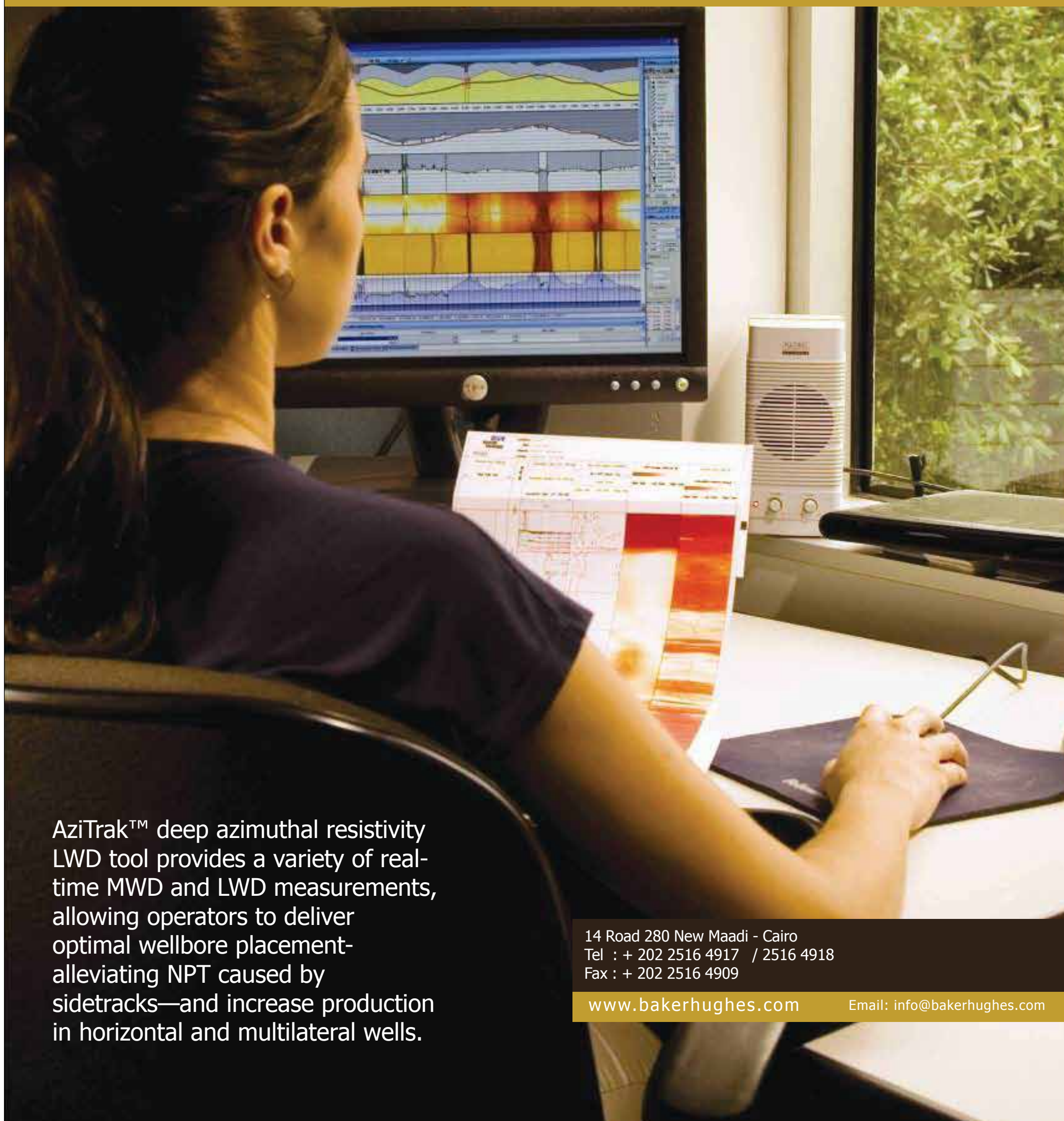
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