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Letter from the Editor



Menahi Saeed Al-Anzi Deputy CEO (Administration & Finance)

By the time this issue of *The Kuwaiti Digest* finds you, everyone here at KOC will be looking back fondly at the recently completed month of Ramadan. Many employees will be traveling this summer, and many will have also celebrated the Eid holidays here in Kuwait. It is my sincere hope that this year's Ramadan and Eid holiday were full of goodwill and self-reflection, and on behalf of the Company's senior leadership, please allow me to extend my best wishes to you and your families on this blessed occasion. Eid Mubarak to all.

While there is no escaping the fact that the pace of life in Kuwait slows down over the summer months, the same cannot be said of KOC's initiatives and drive to remain a global leader in the oil and gas industry. In order to realize the ambitious objectives of KOC's 2040 Strategy, the Company must continue working hard toward the goals that have been laid before us.

Over the past quarter, KOC has registered two major accomplishments that will play a very large role in improving the lives and health of KOC employees, their families, and all citizens and residents. Our lead story for this issue is a project that has been years in the making: The New Ahmadi Hospital. The inauguration of this new facility represents a milestone for the history of KOC and the State of Kuwait. This new, ultra-modern hospital will usher in an era of unparalleled health care for Kuwait. The hospital's inauguration was truly a remarkable affair, as evidenced by the presence of His Highness the Amir, who presided over the opening of the hospital. Readers can learn more about the hospital in the pages that follow.

In addition to the New Ahmadi Hospital, the Company is also proud to announce the completion of Ahmadi Park. Throughout KOC's history, the Company has taken great pride in the projects it develops – especially those that are developed for the benefit of the public. By giving back to the community it operates in, the Company hopes to create an environment where it's legacy of corporate social responsibility and commitment to the wellbeing of Kuwaitis and residents can be felt for years to come.

In the pages that follow, you will find a number of stories that shed light on some of the important work that is being done throughout the Company. Throughout all Directorates, KOC employees are making great progress in their respective fields by bringing the Company closer to the completion of its 2040 Strategy goals. From the sharing of best practices to participation at international conferences, KOC employees are conducting the necessary work that is required of them to carry KOC safely into the future.

Before I conclude, I would like to take this opportunity to remind KOC employees that they can play a major role in Kuwait's energy conservation efforts this summer. By turning off lights when not in use and setting air conditioning units to reasonable temperatures, you can help relieve stress on the nation's energy grid and save energy. By conserving energy today, you are creating wealth and protecting the environment for the generations of tomorrow.

In closing, I would like to once again extend my best wishes to all KOC employees and encourage everyone to continue committing themselves to the very important work they are doing for KOC, and by extension, Kuwait.



THE INAUGURATION OF THE NEW AHMADI HOSPITAL

His Highness the Amir Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah recently presided over the opening ceremony of the New Ahmadi Hospital. The opening ceremony for the newly constructed hospital was also attended by His Highness the Crown Prince Sheikh Nawaf Al-Ahmad Al-Jaber Al-Sabah, His Highness the Prime Minister Sheikh Jaber Al-Mubarak Al-Hamad Al-Sabah, Speaker of the National Assembly Marzouq Al-Ghanim, Minister of Oil and Minister of Water and Electricity Essam Al-Marzouq, and a number of Ministers, Government officials and senior officials from KPC and its subsidiaries. The Kuwaiti Digest



In a speech he delivered at the event, Minister of Oil Essam Al-Marzouq thanked His Highness the Amir for his guidance and continuous support to the oil sector. He maintained that the opening of the New Ahmadi Hospital displayed the leadership's interest in bolstering health services in the country. He also revealed that under the orders and guidelines of His Highness the Amir, Kuwait has begun looking into ways to introduce renewable forms of energy into the country's energy mix.

KOC CEO Jamal Abdul Aziz Jaafar also delivered a speech during the event in which he welcomed His Highness the Amir and the Kuwaiti leadership to the New Ahmadi Hospital. He affirmed that the human element was KOC's most valuable asset and that the Company was proud to offer the best possible care for its employees. The New Ahmadi Hospital, which is operated by KOC, will look after the medical needs of approximately 120,000 individuals from Kuwait's oil and gas industry.

H.H. the Amir arrives at the New Ahmadi Hospital.



H.E. the Minister of Oil Essam Al-Marzouq delivers opening remarks at the event.





The State of Kuwait's senior leadership stands alongside H.H. the Amir during the hospital's inauguration.



In his speech, Jaafar also said that the construction of the hospital fell in line with the industry's 2030 Development Strategy, particularly in terms of caring for the oil sector's human resources.

Two videos were also screened during the opening ceremony. The first covered the important role Human Resources plays for KOC while the second provided an overview of the features of the new hospital.

At the conclusion of the ceremony His Highness the Amir, as well as His Highness the Crown Prince, received commemorative gifts from KOC.

The New Ahmadi Hospital

Kuwait Oil Company has a long history of caring for its employees and their families, which was exemplified, in part, in 1960 when the Company opened Ahmadi Hospital. Later, in the 1980s, a decision was made to open Ahmadi Hospital's doors to the entire oil sector, a decision which greatly benefited a large number of individuals but also placed an increased amount of traffic and responsibility on the aging hospital.

Today, Ahmadi Hospital offers a wide range of medical treatment and related services, including Accident & Emergency, General Practice,



H.H. the Amir exchanged tokens of appreciation with guests during the event.

Internal Medicine, General Surgery, Orthopedics, Dermatology, Obstetrics & Gynecology, Pediatrics, Ophthalmology, Ear, Nose & Throat, Dentistry, Preventative Medical Services, Radiology, Anesthesia, an Intensive Care Laboratory, Physiotherapy, and Dietary Services. In addition, consultative clinics are conducted once a week by consultants from the Ministry of Health.

There is no doubt that Ahmadi Hospital has done a commendable job of caring for oil workers for more than 50 years; however, in recent years KOC decided that the time was right to construct a new and modern hospital complex featuring the latest in medical technologies. The New Ahmadi Hospital has the ambitious goal of catering not only to all KOC and oil sector families, but also to the residents of Ahmadi, whose surrounding area has a population of close to 400,000.

The New Ahmadi Hospital and residencies will occupy a four-story building that has a combined floor space of approximately 80,000 square meters which provides room for 300 beds with provision for a 100 bed future expansion wing and a fully serviced medical facility that encompasses all medical services. The new residential facility on the site consists of five buildings which are approximately 10,000 square meters each on two levels which incorporate a total of 254 studio

apartments complete with surface parking for resident doctors and nurses.

More than 11,000 medical items ranging from high-tech MRI scanners to wheelchairs were procured for the new facility. All in all, this equipment will provide a state-of-the-art hospital that will serve Kuwait's oil sector well into the future.

Unique Architecture

The New Ahmadi Hospital has an innovative and functional design that is sensitive to regional and Islamic principles and traditions, as well as reflecting local environmental conditions. It incorporates state-of-the-art technology as well as a high-tech energy and water conservation system. It has also been created with future growth and expansion in mind.

The design of the hospital, undertaken by Langdon Wilson International in association with Gulf Consult, is a unique architectural response to the site. The buildings and parking area, for example, are protected with impenetrable windbreaks. The hospital also has deeply recessed windows with sunscreens and light shelves, as well as exterior gardens, terraces and verandas.



The footprint of the hospital is derived from the Islamic geometric form of a circle evolving into a rotated square which then forms an eight sided star. The first triangle houses the lobby. To the west of the lobby is the clinic, and to the east two nursing bed towers are found, which are enclosed by gardens on the ground floor where the administrative functions are carried out and a staff entrance is located.

The exterior of the building is natural stone, precast concrete and metal. Energy efficient, low emissivity, blue-green glass has been utilized. The patient-focused design aims to provide the best healing environment while projecting confidence to the visitors that the hospital is a place where family members will receive quality care. This will hopefully ease the stress of visiting a hospital.

The clinical services are provided through the following:

- 11 wards that include intensive care, maternity, medical and surgical.
- A state of the art imaging and diagnostic center.
- A 30 bed emergency department.
- 8 operating theaters, 2 'C' section theaters and an in-vitro fertilization theater.

The project also includes an underground emergency shelter that can accommodate 100 individuals, five residential buildings that will accommodate 254 hospital staff in self-contained studios, surface car parking for more than 1,200 cars and a helipad for air ambulance emergency transport.

A typical patient care unit is designed in a triangular shape, with patients' rooms along the exterior wall. This means that all patient rooms have an external view and the length of the corridor is cut in half. The design also gives privacy to inpatient care units by segregating interdepartmental and public circulation from inpatient circulation. By keeping major circulation on the perimeter of each zone, potential has been maximized for interior flexibility and departmental growth.

The distinctive Islamic geometric make-up of the design plays an important role in the function of the hospital. Not only does it aid in the overall spatial organization, it also creates trouble-free orientation for the visitors to the facility, with an unambiguous separation between the patient rooms and the diagnostic treatment areas. State-of-the-art building systems are provided to allow full control of the environmental systems.

Looking Back: An Interview with Dr. David Nam



Dr. David Nam is a British physician who joined KOC in the 1960s. His work at Ahmadi Hospital (known then as Southwell Hospital) played a very important role in elevating the level of health services in Kuwait. From the identification and treatment of diseases to his assistance in running the blood bank, Dr. Nam was instrumental in the development of Ahmadi Hospital, which by and large helped lay the groundwork for Kuwait's health services as a whole today.

As the New Ahmadi Hospital is set to open its doors to the public, KOC was lucky to have Dr. Nam and his daughter, Sara, present for the inauguration of the new facility. Before the inauguration of the hospital, the Information Team was fortunate enough to sit down with Dr. Nam and learn about his experiences and the early days at KOC. An interview with Dr. Nam follows.

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TKD: You joined KOC in the 1960s. What brought you to Kuwait?

Dr. Nam: I first heard about an open position in Kuwait through a magazine advertisement. There were actually two open positions – one in Kuwait and one in Zambia, though initially I wanted to go to New Zealand. I remember that I had to find out where Kuwait actually was before I applied. In those days, many people didn't travel to the Middle East unless they were in the oil business. At 23, I was fortunate to get the post, because normally they only took applicants over the age of 25.

When I came out to Kuwait, Southwell Hospital was the only modern medical facility around in those days. In addition to the Company staff and locals, we treated a number of Saudi VIPs who came to Kuwait specifically for treatment at the hospital.

In my work at the hospital, we observed many diseases and forms of illnesses that we never saw in the UK. First of all, we realized there were quite a few genetic blood diseases, which are passed down through the generations because of marriages that occur within the families. Public health awareness at that time was not at the level it is at today, so we saw cases of diarrhea, dysentery, typhoid, diphtheria, and leprosy, which was common in the Middle East at the time but new to physicians like me who never saw cases of leprosy in the UK. These cases were mostly the result of poor hygiene and public health, and a lack of vaccinations.

TKD: Public awareness helped bring down those diseases, and the data that came from the laboratory you worked in must have played a role.

Dr. Nam: Our main function in the lab was diagnosis and treatment of the diseases, and this served as a full complement of the pathology services, which included hematology, microbiology, parasitology and chemistry. We also ran the blood bank. In those days, most of the blood in the blood bank was imported from the United States. We did have blood donors, but they were mostly expats. There was a tradition of blood donation in Europe and the United States that was not present in the region, and many Kuwaitis were not familiar with the concept



of blood donation. I see, however, that this has changed greatly today, and I was interested to learn that KOC and Ahmadi Hospital are major supporters of blood donation drives.

Southwell was a modern hospital, and KOC did a very good job of looking after their staff. Health service in Kuwait in those days was still in its infancy. The American Mission Hospital by the seaside was the only other real hospital around.

TKD: What was your impression of Kuwait when you first got here?

Dr. Nam: The first thing I remember is the heat when I got off the plane. When I got to Ahmadi, there was a huge darts competition going on. The Hubara Club at the time was full of dartboards. I was put into bachelor flats when I first arrived, and being on my own in a new country was a bit lonely. After a couple weeks, I joined some bachelors in a three-bedroom house, which helped. Plus, there was a fantastic social scene here in Ahmadi.

The other thing that struck me was how KOC took after its employees by providing them with entertainment, social activities, sports leagues, and many other services. It was a really nice

environment to raise a family, and I actually met my wife at the hospital. My daughter, Sara, was born at Southwell. It was quite an amazing atmosphere because KOC looked after you, which is nice because we were in the middle of the desert and many things would have been impossible to do without help from the Company.

We have a Kuwait reunion every year in the UK, despite the fact that many of my colleagues have passed away. Many are survived by their wives, but the great thing about it is that the second generation of KOC workers - the children who used to go to school together - they're the ones who now organize the KOC Ahmadi reunion every year. This year we had 120 people there. We hold them in different places, so for example this past year the reunion was in Windsor, and next year it will be in Dorset. When the reunions take place in the north there tends to be less people, but it's still an interesting gathering. It really is a reflection of the Ahmadi community at the time and shows how it brought everyone together.

I was at KOC from 1964 to 1971. It took me a long time to settle in the UK after coming back from Kuwait. I retired six years ago. I worked 13 years elsewhere in the Gulf – two years in Saudi Arabia and 10 years in Oman.



TKD: When you first joined, what was the biggest challenge?

Dr. Nam: The biggest challenge I had was trying to understand the locals because I did not speak Arabic. KOC did encourage us to learn by providing us with language courses, but I suppose the greater challenge from our point of view was to learn more about Arab society and try to understand their way of thinking. In fact, it really didn't take me until I was in Oman to fully understand *inshallah*.

TKD: What was your interaction with Kuwaitis like at the time?

Dr. Nam: There weren't as many Kuwaitis working at the Company as there are today, and as a result a lot of the expats didn't mix with Kuwaitis, which is a shame. I was a member of many of the sporting clubs, and many of the people I mixed with were expats, as there were only a few Kuwaitis around.

When I got to Saudi Arabia, 16 years after I left Kuwait, I tried to mix with the Saudis. A lasting memory I have of Kuwait is how hospitable the Kuwaitis were. I remember I met a Bedouin in the desert in Kuwait once and he went and got a bowl of milk for me from a camel!

TKD: Were you able to explore the region during your time here?

Dr. Nam: When I worked in Saudi Arabia I took full advantage and visited practically every country in the Middle East and North Africa. I'm very interested in archaeology and was lucky to see Syria and Iraq. When we left Kuwait in 1971, we drove home through Iraq and Turkey and Europe. Earlier, in 1969, we traveled from Europe to Kuwait in a Fiat 124 Estate with no air conditioning. Those were interesting drives. We were fortunate, however, because the Ahmadi Desert Motoring Club had planned out routes and offered tips and everything, which made the journey a bit easier.

TKD: Are there any memories you would like to share from your time at Ahmadi Hospital?

Dr. Nam: I think the most important memory from my time there was meeting my wife, who arrived to Kuwait in 1965 after training in Scotland and working in the US for some time. She had it in her mind to join the rifle club when she arrived, and I used to shoot in the UK. So, I had two things going for me: All of my colleagues were in the rifle club and I was the only single person in the club. I was chosen to show her around. Later, she invited me for dinner, and our relationship developed and we eventually married.

When I look at Ahamdi today, many of the old buildings are gone, but it was nice to see some of the old landmarks – the Main Office and the White House, for example. The main structure of the laboratories is also familiar.

The great thing about coming to Kuwait and working at KOC was that the Company really did look after you. Those are the memories that will last.

On behalf of KOC and the State of Kuwait, the Information Team would like to extend its most sincere thanks and appreciation to Dr. Nam, whose work at the Company played a very important role in improving the lives of citizens and residents of Kuwait.

KOC INAUGURATES AHMADI PARK



Throughout KOC's history, the Company has taken great pride in the projects it develops – especially those that are developed for the benefit of the community it operates in. In doing so, KOC takes great care to ensure its projects are developed safely, responsibly, and with an outlook on the future and the protection of the environment.

Recently, KOC has engaged in a very ambitious project that seeks to embody all of the values the Company holds in high regard. The Ahmadi Park project was carefully created to honor KOC's long history of community outreach. By giving back to the community it operates in, the Company hopes to create an environment where it's legacy of corporate social responsibility and commitment to the wellbeing of Kuwaitis and residents can be felt for years to come. Today, Ahmadi Park features four play areas for children and a building complex that will house restaurants, in addition to a number of other sporting facilities.







Gholoum addresses the audience.

The Inauguration

Under the patronage of CEO Jamal Abdul Aziz Jaafar, KOC recently inaugurated the newly constructed Ahmadi Park in a ceremony that was also attended by DCEO Corporate Services Yousef Ali and DCEO West Kuwait Ismail Abdulla. A number of other senior KOC officials and employees also attended.

The event started with a welcoming speech by Chief Public Relations Officer Khaled Gholoum, who spoke about the importance of Ahmadi in Kuwait's history and the valuable position it holds in the memory of older generations. Engineer Ahmad Khalil then delivered a presentation that provided an overview of the details of the park, which includes sports courts, entertainment areas and restaurants to serve citizens and residents.



Engineer Ahmad Khalil provides an overview of the project.

Team Leader Corporate Projects (II) Wael Behbehani, whose team oversaw the completion of the project, also spoke about some of the unique aspects of Ahmadi Park in a video that was presented during the inauguration.

KOC CEO Jamal Abdul Aziz Jaafar officially inaugurated the park by unveiling a commemorative plaque. He was then provided with a tour of the facilities at the park, which cover a large area near the entrance of Ahmadi.

An Overview of Ahmadi Park

Ahmadi Park is situated on an area that covers 166,000 square meters, and it is one of the first features that visitors and residents of Ahmadi see when they enter the city.

The area where the park is located has been used for decades by employees for various sporting





activities. Over the years, football, rugby and cricket fields were located in the same location, in addition to playgrounds for children. Today, Ahmadi Park features four play areas for children and a building complex that will house restaurants, in addition to a number of other sporting facilities.

The Corporate Projects (II) Team of the Ahmadi Projects Group was responsible for the construction of the park. The aim of the project was to instill new life into the area. Beginning in 1962, the area was home to many organized football, rugby and cricket matches. However, over the years, and especially after the 1990/91 invasion, interest in utilizing the area to its full potential had fallen. Recently, it was decided to make a concerted effort to bring new life to the park which has played such an important role for many generations of KOC employees.

The Ahmadi Park project has been in operation for four years. The sandy area where the previous park was located has been redesigned to accommodate new sports and recreation facilities. The new facilities include a football field, a hockey field, a rugby field, a baseball field, a cricket field, basketball courts, volleyball courts, a miniature golf course, and a number of playgrounds and facilities for children. In addition, a walkway encompasses the park and is ideal for runners and walkers.



The sports stadiums are Ahmadi Park's main feature. With a capacity for 1,000 spectators each, the stadiums can be used day or night thanks to special stadium lights that have been erected especially for night matches.

A two-story building within the park that covers a 2,600 square meter area was specially constructed to house restaurants and serve as a location where official events and social gatherings can take place. The ground floor of the building has enough space for seven restaurants and includes a spacious main dining area. The second floor includes two separate halls that can accommodate between 250 and 350 people, depending on the occasion.

There is also a cafeteria with a total area of about 500 square meters that features a distinctive circular design surrounded by private seating where views of the park can be enjoyed. In addition, the main diwaniyah and reception hall features panoramic views of the park.

The mosque, which is located within Ahmadi Park, covers about 560 square meters and is designed to accommodate approximately 500 worshipers.

Park visitors will have all necessary services at their disposal, from ample parking to a first aid clinic staffed with competent personnel who are able to treat any injuries that may occur while visitors use the park. To add an aesthetic touch to the park, special water fountains were installed that feature special lighting and music accompaniment. Visitors to Ahmadi Park will surely enjoy the spectacle of these "dancing fountains" at night, when they can be viewed at their maximum potential.

A main service building that is managed by Ahmadi Park personnel controls all of the park's facilities. The main service building houses a large meeting room and controls all indoor and outdoor surveillance cameras in the vicinity of Ahmadi Park. This facility also serves as the central control system for the air conditioning units, lights, and other important features that are necessary to run the park smoothly.

Energy Sustainability

Ahmadi Park utilizes a main water pump and cooling plant and energy efficient power generators to provide the park with energy, taking into account the principles of sustainability and energy efficiency. This is evident through the recycling and reuse of water for irrigation. Energy-efficient bulbs have been selected to light up the park, and solar panels have been installed throughout the area to provide the park with approximately 20% of its electricity. Further energy savings are achieved by utilizing a water cooling system for the park's air conditioning system.

5TH KOC SHARING BEST PRACTICES CONFERENCE

Challenges, Successes and Beyond





A significant aspect of the KPC Strategy for 2030 includes the sharing of technical information and best practices throughout all of the KPC subsidiaries. By hosting the 5th KOC Sharing Best Practices Conference – *Challenges, Successes and Beyond,* KOC has made an important and noteworthy contribution toward the creation of a forum where industry professionals are provided with the opportunity to exchange ideas, technologies and processes that aid in the enhancement of meeting world requirements in terms of hydrocarbon demands.

The Sharing Best Practices Conference, which took place inside the Dorra Ballroom of the Hilton Resort in Mangaf, was held under the auspices of KOC CEO Jamal Abdul Aziz Jaafar and KOC DCEO (NK) Badria Abdul Raheem,



who delivered the event's opening remarks. Bader Al-Munaifi, Manager FD (NK), served as the event's Chairperson while Farida Ali Mohammed, Manager FD (S&EK) served as the event's Co-Chair. Hamad Al-Hamad, Geologist FD (NK) was the Conference Coordinator, and he also served as the event's master of ceremonies.

Challenges, Successes and Beyond

The need to expand and share the utilization of best practices in all aspects of the oil industry, especially in terms of Reservoir Management, is a prime objective due to the current and extended period of low-priced oil, in order to maximize the operational efficiency and optimize workflows. Higher levels of operational efficiencies are needed more than ever to reduce overall field development and production costs by deploying processes and tools that have demonstrated value. Providing a common platform and spreading the use of these successful techniques throughout KOC and other KPC subsidiaries is a prime objective of the conference.

Seeking the promotion of best practices and their expansion from particular KOC Groups to all assets, the Steering Committee of "Reservoir Management Best Practices" launched this conference, the fifth of a series of very successful events of its kind. The aim is to continue and expand the already-traditional exchange of insights and achievements of KOC employees, Teams and Groups in establishing best practices for the Company, as well as sharing the knowledge pertinent to lessons learned and challenges experienced across Groups throughout KOC.





The conference invited case stories where collaboration transcends traditional boundaries, such as instances where people come together and cut across organizational borders to deliver excellence and establish what is considered a best practice.

At the event, experts from national oil companies, international oil companies and oil services companies participated in two panel discussions. Individual presentations were delivered as well, where participants shared their views on some of the best practices within their organizations. The presentations showcased progressive ways of working together and highlighted what needs to change to do business today for a better tomorrow.

The two-day event consisted of technical presentations, an executive PIP session for the six PIP (Practice Implementation Projects) initiatives currently ongoing at KOC, and lively, interactive break-out sessions for discussions. The 5th KOC Sharing Best Practices Conferences is one of the best opportunities to network within KOC and benefit from a fruitful exchange of highly technical best practices, where all disciplines were invited to present.

Part of the objective of the Best Practices Conference is to promote the proper use of best practices and encourage their implementation from particular groups within KOC. The successful end goal of this objective will see all assets and directorates within the Company working to improve day-to-day operations and optimizing workflow. In today's growing world, where hydrocarbon demand is higher than it has ever been, higher levels of operational efficiencies are needed more than ever to reduce the overall field development and production costs by expanding the utilization of processes and tools that have demonstrated value.

Following the conclusion of the Executive Plenary session, the audience was invited to participate in the Poster Session, where technical papers and information was presented by experts from KOC and international oil companies. The Poster Session served as an excellent opportunity for employees to learn about the value of adopting the latest in best practices on both an international and local level.

KOC Attends Middle East Heavy Oil Congress



Strategic investments will play a pivotal role in enabling the recovery of heavy oil, a widely abundant yet complex energy resource that can potentially extend the life expectancy of hydrocarbon supplies.

Speaking at the recent Middle East Heavy Oil Congress (MEHOC) in Bahrain, Badria Ali Abdul Raheem, KOC DCEO (NK), said finding ways to efficiently extract and refine heavy oil is fundamental to truly leveraging the potential of the Gulf's rich reserves.

"In Kuwait and across the region, heavy oil reserves are challenging targets waiting to be extracted," the DCEO said. "This makes it crucial that we continue to make strategic investments in technologies and solutions that will enable the efficient recovery of heavy oil. The discussions at MEHOC will pave the way to sustainable heavy oil extraction and production, which can significantly extend the estimated lifespan of hydrocarbon supplies – the world's future energy source."

Kuwait is focused on tapping into its enormous heavy oil reserves, with KOC planning to start oil production at the end of 2018 of roughly 10-15,000 barrels of heavy oil per day in the South Ratqa Field. Production is then expected to gradually increase to 60,000 The Kuwaiti Digest barrels per day six months after production starts.

Recent research and exploration activities confirmed the presence of vast heavy oil resources overlaying conventional reservoirs in the country's northern fields of Raudhatain, Sabriya, Abdali, Um Niqa, and South Ratqa, as well as the Partitioned Neutral Zone (PNZ). Developing the heavy oil reservoirs in North Kuwait aims to contribute in achieving Kuwait's target capacity of four million barrels per day by 2020.

However, the complex nature of heavy oil makes it exceptionally difficult to process, therefore developing advanced refineries is central to reaping the benefit of this highly complex resource. The Al Zour Refinery is one of Kuwait's biggest projects that is being designed to address the challenge of heavy oil production. The government has invested massive sums in the new facility, which will eventually be one of the largest oil refining plants in the world. The project is an integral part of KPC's broader strategy to develop its downstream capabilities.

KOC was among other major oil industry players at MEHOC, the largest gathering of heavy oil professionals in the region. Hosted under the patronage of His Excellency Shaikh Mohammed bin Khalifa Al Khalifa, Minister of Oil for the Kingdom of Bahrain, and supported by the National Oil and Gas Authority (NOGA), MEHOC 2017 offered two days of unparalleled networking and knowledge exchange opportunities for heavy oil professionals from across the globe through a dedicated



conference and an international exhibition.

Building on the remarkable success of the inaugural edition in 2015, the second edition of MEHOC offered attendees exclusive industry insight through both strategic and technical conference sessions that focused on upstream, midstream, and downstream sectors of the heavy oil value chain. This year, the conference Call for Papers saw a submission of 150 abstracts across five technical categories, covering the entire heavy oil value chain. After meticulous evaluation by the technical committee, 25 abstracts were selected for presentation at the conference.

Key participating companies this year also included KOC, KNPC, BAPCO, Petroleum Development Oman, Schlumberger, and many others.

About Heavy Oil

The importance of heavy oil within the oil industry, and particularly within the State of Kuwait, is increasing as light crude reserves dwindle and new technology eases the difficulties of producing and refining. In fact, KOC plans to have a significant portion of its planned capacity of four million barrels per day by 2020 coming from heavy oil.

What is Heavy Oil?

Although the words heavy and viscous are often used interchangeably when referring to heavy oil, density and viscosity are not related. Heavy oils are, however, more dense than regular crude and any oil with an API of less than 22 is considered to be heavy, while an API of less than 10 is considered super-heavy. The density of heavy oil is due to an increased number of carbon atoms in the oil molecules themselves (high molecular weight) as well as the presence of additional molecules such as inorganic salts, asphaltenes, naphthenes, paraffins, and metals. Heavy crude is formed as a result of the biodegradation of light crude as bacteria consume the lighter ends and leave the heavier hydrocarbons.

Where is Heavy Oil Found?

Heavy oil is found around the world in over 30 countries, with the largest reserves off the coast of Venezuela and in the Canadian province of Alberta; according to the Society of Exploration Geologists (SEG) the two countries together control almost 80% of known heavy oil reserves. Over 900 billion barrels of heavy oil are known to exist in the Middle East. The tar sands of Canada contain super heavy oil that does not flow at all, and as a result, the oil is mined in massive open pits.

How Cost Effective is it to Produce Heavy Oil?

The low price of crude oil does not make it economically for many countries to develop heavy oil reservoirs. Fortunately, this is not the case in Kuwait, which has lower extraction costs. However, other factors must also be considered, including the availability and cost of fresh water, energy usage and environmental impact. The production and processing of heavy oil uses more energy and produces more emissions of GHG and CO2 (due to the higher proportion of carbon to hydrogen in the oil molecules). In addition, heavy oil often contains impurities such as sulfur, vanadium, and other heavy metals, which are costly to remove.

What Technology is Used to Extract Heavy Oil?

The extraction of heavy oil depends on the characteristics of the oil and each individual reservoir; what works in one may not work in another. That being said, there are several "standard" technologies in use with steam injection, either cyclic steam simulation (CSS) or steam-assisted gravity drainage (SAGD), being the most common.

CSS is also known as "huff and puff" and relies on a single tunnel to inject steam into the reservoir and consequently remove the liquefied bitumen. This technology is relatively old and is being gradually replaced by SAGD, which uses horizontal drilling with two drill holes, one above the other two. Steam is then injected in the upper hole and the liquefied bitumen is pumped through the lower hole to the surface. This method is not only more efficient than CSS, but it also allows for continuous recovery of oil.

An experimental technology which also uses horizontal tunnels is the vapor extraction process (VAPEX). Ethane or butane are used to dissolve, rather than heat, the bitumen and although operation costs are lower than SAGD, the technique requires more tunnels. Toe to heel air injection (THAI) is another experimental technique which uses combustion to liquefy the bitumen, which is then collected and brought to the surface.

What is the foreseeable future for heavy oil?

Experts predict that while the production of light and medium crude will remain level or even decline, production of heavy oil will grow gradually as demand for oil increases. Since supply will not be able to keep up with demand, the gap will need to be filled by gas liquids, biofuels, GTL, and CTL.

Heavy Oil and KOC

Heavy oil with an API of 11-17 is known to exist in the KOC fields in the South East and West (Burgan and Umm Gudair and the Neutral Zone) and in the North (Ratga), with the North showing the most promise. In order to cope with the refining of heavy oil, KOC will have to increase refining capacity. The importance of heavy oil to Kuwait's oil industry will increase over time as traditional oil reserves diminish, demand for oil increases, and new technology makes the production of heavy oil more feasible.



EXPLORE AND INNOVATE WITH GIS FORUM

The CITG - Technical Systems Team, led by Team Leader Noha Najem, recently held a Company-wide event entitled "Explore and Innovate with GIS Forum".

The forum's opening remarks were delivered by Manager of the Corporate Information Technology Group, Ali Al-Nakib, in the presence of the Deputy Chief Executive Officer for Major Projects and Technical Services Directorate Essam Al-Houti, Managers and Team Leaders from various Groups wihin the Company also attended.

CITG Manager Ali Al-Nakib highlighted the spirit of teamwork from various disciplines in the Company including Drilling, Field Development, Exploration, HSE, Ahmadi Services, Heavy Oil, Soil Remediation and



Najem delivers her presentation.

several other Groups for their achievements using GIS through the GIS services provided by the CITG Technical Systems Team.

Furthermore, as chair of the KOC GIS Committee, Al-Nakib provided a brief of the history of GIS at KOC and its vision to continuously provide the best standards, services and expertise in GIS to the Company. This, in turn, has led to the achievement of the

highest business value through the cooperation of the various Groups in the Company.

During the event, Technical Systems Team Leader Noha Najem delivered a presentation on the GIS solutions provided to various KOC Teams. She also highlighted the integration of various systems including Real-time, Engineering, Maintenance, Monitoring, Digital Oil Field and other systems.



Dhari Al-Gharabally, Team Leader Soil Remediation Support, presented an Overview of Kuwait's environmental remediation program. He discussed the benefits of soil remediation solutions and the features of the Kuwait Environmental Remediation Program.





Nasser Al-Buhairi, Emergency Response Coordinator, spoke about the KOC emergency and crisis management framework and how to manage and improve decision-making using GIS. Jalal Dashti, Senior Geologist, Exploration Operational Team, spoke about the importance of GIS and how it is enhancing work methodology and supporting the decision making of land administration and the land release management process.



Saad Al-Rashdan, Senior Geologist, Fields Development Heavy Oil Group, gave a brief introduction on the Reservoir Studies Team and highlighted usage of planning strategies that related to GIS and mentioned how this could provide more accuracy, increase speed and work efficiency based on the standards adopted internationally.



Ahmed Ajwa, Drilling Engineering Group, Drilling Operational Support Team, talked about challenges faced by the Team on a daily basis during drilling operations and how GIS improves the work mechanism and determines the optimal well locations, how GIS classifies types of water wells in the field by different parameters and works on reducing the total number of wells drilled per year for the same number of oil wells.



Hassan Sabri, Senior Specialist, Inspection and Corrosion Team, expressed the importance of GIS and the role in monitoring and identifying transformers/ components configured inside KOC. Sabri provided an overview on integrating the GIS data with "Drilling Permits" and the usefulness in identifying the existing facilities and potential risks before approving such permits.



Engr. Anwar Al-Enezi, Building Maintenance Team, talked about the usage of GIS in maintaining KOC buildings and houses. She explained the stages of current project implementation and confirmed the completion of the first phase. At the end of the forum, DCEO MP&TS Directorate Essam Al-Houti and Manager CITG Ali Al-Nakib honored the GIS Committee members and speakers for the joint achievement.

About GIS

GIS, which stands for Geographic Information Systems, is a system designed to capture, store, manipulate, analyze, manage and present all types of geographical data. At its core, GIS is the merging of cartography, statistical analysis, and database technology. GIS provides an excellent service by precisely indicating the location of any asset. This includes buildings, wells, Gathering Centers, crude or gas pipelines, or any other piece of equipment in the field. This allows all KOC personnel to be provided with valuable information that enables efficient management and use of all locations throughout KOC's areas of operation. By providing KOC users with the exact location of assets in the field, projects are enhanced and future service planning will ensure that land reservation requests are managed.

Because the database is very dynamic and the related information is changing constantly, GIS keeps users updated with the changes happening within the database. The webpage, with its live connectivity to the database, provides KOC users with tools on the webpage to help them search for any particular well, service or facility. Furthermore, there are tools to help them design or draw out a particular area or piece of land for the purpose of reserving it and sending it to OTS electronically to expedite the approval process.

In addition to the relevant KOC Groups and Teams that make use of the Geographic Information Service (GIS) tool, a number of other authorities have established their own GIS Tools to manage their activities more efficiently. Outside authorities such as Kuwait Municipality, Ministry of Electricity and Water, and KISR (Kuwait Institute for Scientific Research) routinely make use of the GIS tools in order to identify location conflicts and to help them in their decision making processes.





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HSE (WK) TEAM UPHOLDS KOC'S COMMITMENT TO SAFETY & ENVIRONMENT

SUBMITTED BY THE HSE (WK) TEAM

"As part of KOC's commitment to the environment and the community it operates in, the HSE (WK) Team is proud to take part in initiatives whose goals include environmental protection and the creation of health and safety awareness."

Global Warming Awareness Campaign (WK Fields)

Increasing greenhouse gases (GHGs) and global temperatures are causing a broad range of changes, such as the rise of sea levels due to thermal expansion of oceans and melting of ice caps. Also, the temperature rise, ice melting rates and precipitation patterns are fluctuating, causing increases in frequency, duration, and intensity of other extreme weather events, such as floods, droughts, heat waves, tornadoes, and hurricanes. Additional effects of global warming include lower agricultural yields and the extinction of some species.

Kuwait Oil Company and the West Kuwait (WK) Directorate in particular strive towards various development measures with new projects and controlled implementation procedures that are set to minimize flaring percentages and gaseous emissions, thus decreasing the negative impact of greenhouse gases and global warming. Several projects have been initiated in WK, such as the solar power plant, use of energy saving equipment in offices, flare-percentage reduction projects, and efficient waste management processes have contributed immensely and positively in the management and control of this global phenomenon.

Under the patronage of Ismail Abdulla, DCEO (WK) and Saeed Al-Duwaisan, Manager Support Services (WK), Ahmed Qabazard, Team Leader HSE (WK) opened the 'Global Warming Awareness Campaign (WK Fields)' recently at the WK Cafeteria for KOC and contractor employees.

- Ahmed Qabazard, TL HSE (WK)

The event started with an HSE moment on the impact of global warming on life on planet earth. This was followed by presentations from various WK Fields Teams which provided overviews of their contributions to the prevention of global warming.

The Maintenance Team (WK) delivered a presentation on "Installation of LED Lighting in WK." The presentation depicted a significant reduction in energy consumption on account of transformation from fluorescent to LED lighting at the Office Complex, GC Offices, Control Room, substations and workshops. It also provided a highlight of the 10 MW PV Plant in WK. The solar plant is supplying F193 (Maintenance WK) Substation which is connected to 29 ESP Wells.

The Project Management (WK) Teams explained the basic concepts, definitions and causes of the global warming phenomenon. Furthermore, a list of major completed projects was provided:

- Installation of New Air Assisted Flare Stacks at GCs 17, 27, 28 & BS-170.
- Crude Export Line and New Pipelines from EPF-18 to MWIP.
- Installation of Power Supplies & Distribution



TL HSE (WK) Ahmed Qabazard awards a KOC employee with a certificate of appreciation.

Network to ESPs at 12 Minagish Infill Wells and 42 Umm Gudair Infill Wells.

- Provision of Power Supply and Lighting for Manifolds in West Kuwait Area using Solar Power Panels.
- New GC-16 in West Kuwait (EPF-18).

A list of ongoing projects was also provided:

- Replacement of Existing Substations in West Kuwait.
- Power Distribution Network and Electrical Surface Equipment Installation for ESP Wells in WK (Minagish/UG) area up to the year 2020.
- New Transit Export Pipelines from BS-171 to AGRP at MAA.
- Construction of New Substations in Abdulliyah and Dharif Area.

The OTS (WK) Team highlighted the importance of initiating projects such as the following to reduce global warming and greenhouse gas emissions:

- Gas Sweetening Facility (GSF)
- Gas Compression Package (GCP)
- Gas Reinjection Package (GRIP)
- Air Assisted Smokeless Flares in GCs 17, 27, 28 & BS-170
- Improved Gas Compression at GC-28, 27 & 17

OTS (WK) also highlighted flare reduction initiatives and published a booklet on flaring (containing important information on flaring technologies, different types of flares, etc.) and a flaring reduction awareness campaign. A flare reduction graph was also presented.

The HSE (WK) Team presented general awareness information on global warming and greenhouse gases, which included:

- Introduction to global warming
- Causes of the phenomenon
- Effects due to greenhouse gases and global warming
- Solutions to global warming (Oil & Gas Industry)
- Kuwait efforts to combat global warming

The concept of greenhouse gases and their impact, because of excess emissions by humans, was explained to the audience.

During the event, Team Leader Ahmed Qabazard distributed Appreciation Certificates to the presenters. The campaign was successful in delivering the message of global warming and WK Fields contributions and projects that are aimed at minimizing this effect. A total of 97 personnel (68 KOC employees and 29 contractors) attended the campaign.

KOC Postmasters, screensavers and posters were also prepared as part of this campaign to create

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awareness at KOC, and posters were distributed to various KOC Teams and contractors.

International Day for Biological Diversity

While there is a growing recognition that biological diversity is a global asset of tremendous value to present and future generations, the number of species is being significantly reduced by certain human activities.

The Convention on Biological Diversity is the international legal instrument for "The conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources." This legal instrument has been ratified by 196 nations. Given the importance of public education and awareness for the implementation of the Convention, the General Assembly proclaimed May 22, the date of the adoption of its text, as the International Day for Biological Diversity by Resolution 55/201 on December 20, 2000.

The 2017 theme for the event was "Biodiversity and Sustainable Tourism." Diversity in species, ecosystems and landscapes attracts tourism and promotes economic growth. In turn, a wellmanaged tourist sector can help reduce threats to key wildlife populations, and can maintain or increase biodiversity through tourism revenue. The celebration of the International Day for Biological Diversity under this theme is an opportunity to raise awareness of the important contribution of sustainable tourism both to economic growth and to the conservation of biodiversity. This theme has been chosen to coincide with the observance of 2017 as the International Year of Sustainable Tourism for Development and can contribute to ongoing initiatives such as the Sustainable Tourism Program.

This event was held at KOC under the patronage of Yousef Ali, DCEO (CSD) and Ismail Abdulla, DCEO (WK) and organized jointly by the Health & Environment and Health, Safety & Environment (WK) Teams at the KOC Tent in Ahmadi.

Yousef Ali welcomed all participants in his opening speech and explained the event objectives and its importance. This was followed by an informative presentation on the Abdulliyah Preserve Area. Scientists from the Kuwait Institute for Scientific Research (KISR) made two presentations coinciding with the theme of the event. Dr. Matrah Al-Mutairi delivered a presentation on biodiversity of protected areas in Kuwait. Dr. Shaker Al-Hazeem presented information on the restoration of the marine environment. A video clip about the subject was also presented. Jaber Saleh Jaber, Water Handling Team (WK) also delivered a presentation and screened a video during the event on the Abdulliyah Preserve Area.

Appreciation plaques were provided to the presenters by DCEO (CSD) and DCEO (WK). The event was successful in delivering the message of biodiversity and a total of 130 personnel attended the event. KOC Postmasters, screensavers and prisma panels were utilized as part of this event to bring about awareness on this international day.

Health & Safety Promotional Campaign

Ramadan is a period of prayer, fasting and religious devotion for people. However, workers can be vulnerable to certain health and safety risks in the workplace, especially since the fasting month falls in the summer this year. With this in mind, HSE (WK) Team launched a Health & Safety Awareness Campaign for WK fields with a theme of "*Be Ready for the Holy Month of Ramadan*" at the WK Cafeteria before the start of Ramadan. The campaign covered KOC and contractor personnel, integrating religious requisites with organization business processes.

The health and safety campaign was designed with following objectives:

- Raise awareness of health & safety issues, including those that are relevant during Ramadan.
- Creating medical (health) awareness through medical professionals.
- Alert people to new risks and possible solutions.
- Stay safe and promote safe behavior amongst people, especially field personnel.
- Influence attitudes to drive defensively during Ramadan.
- Provide personal interactions with the professionals for practical solutions for pertinent health & safety issues.

Under the patronage of DCEO (WK) and Manager Support Services (WK), Ahmed M. Qabazard, Team Leader, HSE (WK), delivered opening remarks during the campaign. He delivered a welcome address to those in attendance and emphasized the importance of health & safety while performing organizational activities while fasting.

The program was followed by various presentations made by representatives from HSE (WK) and H&E (CSD) Teams, and Health Promotion Team under the Preventive Medical Services Group (Ahmadi Hospital), covering health and safety aspects during Ramadan along with tips for defensive driving. In addition, the Kuwait Environment Protection Authority (KEPA) updated laws on the permitted areas for smoking and their new control measures were presented accordingly by the Health & Environment Team. The campaign was followed by the distribution of leaflets on "Safety tips for outdoor activities during Ramadan" and a booklet on "Improving Safe Driving Skills" were distributed amongst all participants as part of the HSE promotional program. A total of 54 personnel (both KOC & contractors) participated in the campaign.

Employees/Contractors Awareness and Campaigns

Campaigns are one of the most effective ways to promote health and safety messages and meet specific objectives. Campaigns are required to raise awareness and promote action on environment, health and safety at our workplace. Countless HSE issues need a higher profile awareness and publicity campaign. Attention to HSE is not just about being socially and industrially responsible, it also makes good business sense and it is as important as the achievement of any other key business objectives. HSE Teams cannot achieve an environmentally safe and healthy working environment on their own. It has to be a joint effort and involve all employees and contractors. There is a need to get proper environment, health and safety coordination with KOC and business partners so as to build ownership and commitment to HSE throughout the workforce.

The HSE (WK) Team has been a frontrunner in providing HSE awareness to employees and contractors through awareness and campaigns. Within a short span of two months, HSE (WK) organized four major campaigns, two of them jointly with the Health & Environment Team (CSD). The campaigns included:

- 1. Global Warming Awareness Campaign (WK Fields)
- 2. International Day for Biological Diversity 2017 Campaign (Jointly with H&E Team)
- 3. Health & Safety Promotional Campaign
- 4. World Environment Day 2017 (Jointly with H&E Team)

World Environment Day 2017 Celebration

World Environment Day is the United Nations' principal vehicle for encouraging worldwide awareness and action for the environment. World Environment Day is the biggest annual event for positive environmental action and takes place every year on June 5. This year's host country, Canada, chose the theme and is the center of celebrations around the planet.



World Environment Day is a day for everyone, everywhere. Since it began in 1972, global citizens have organized many thousands of events, from neighborhood clean-ups, to action against wildlife crime, to replanting forests.

"Connecting People to Nature" was the theme for World Environment Day 2017, and it implores us to get outdoors and into nature, to appreciate its beauty and its importance, and to take forward the call to protect the Earth that we share. This year's theme invites us to think about how we are part of nature and how intimately we depend on it. It challenges us to find fun and exciting ways to experience and cherish this vital relationship.

In this regard, HSE (WK) and H&E Teams jointly organized this event to commemorate this international event. Team Leader HSE (WK) Ahmed Qabazard delivered the opening speech which highlighted the importance of World Environment Day and KOC's contributions. This was followed by an HSE Moment that focused on nature. Various WK and corporate H&E Teams delivered presentation on various environmental topics.

Details on the WK Oasis Project was presented by Maint. (WK) Team. A video film on the subject was also presented.

OTS (WK) Team highlighted the importance of following projects for environmental management & pollution control:

- Gas Sweetening Facility (GSF)
- Gas Compression Package (GCP)
- Gas Reinjection Package (GRIP)
- Air Assisted Smokeless Flares in GCs 17, 27, 28 & BS-170
- Improved Gas Compression at GC-28, 27& 17

PM (WK) Teams presented information on "Role of Project Management Teams (WK) in the Protection and Conservation of the Environment." The Project Management (WK) Teams explained the basic environmental concepts and definitions. Furthermore, a list of major and completed and ongoing projects was provided.

The H&E Team presented information on "Energy Management Program in KOC." Details of the Energy Management Program, current initiatives and the way forward was explained to the audience.

HSE (WK) Team presented on "History and Celebration of the U.N. World Environment Day" which highlighted the importance of going in to nature.

At the conclusion of the event, TL Ahmed Qabazard thanked the participants and the presenters, which was attended by both KOC employees and contractors. This was the fourth consecutive year that HSE (WK) organized this event on a grand scale.

The Standardization Process at KOC

SUBMITTED BY THE STANDARDS TEAM



We are proud to state that KOC is the only company in Kuwait's oil and gas sector to have a well-established Standards Team that develops its own in-house standards. Realizing the importance of standards and its vital role in the engineering and operational functions, KOC's Higher Management initiated the in-house Standardization Process two decades ago. The Standardization Process at KOC is managed by the Standards Team, which falls under the Projects Support Services Group of the Major Projects & Technical Services Directorate.

Major Activities of the Standards Team

- Developing and updating in-house Standards and Recommended Practices (RPs) for use throughout the engineering functions of KOC.
- Updating the Hazardous Area Classification (HAC) drawings of KOC Operating Plants & Facilities.
- Providing online access to various

International/National Standards/Codes.

• Managing the Technical Library for the use of all KOC personnel.

Need for KOC Standards

KOC Standards are developed:

- To establish base documents for project specifications.
- To ensure uniformity and reliability to control variety and improve interchangeability.
- To ensure quality and efficiency to achieve Asset Integrity.
- To provide a proper technical base for design, construction, installation, testing and commissioning.
- To control the options and ambiguities in National, International and Industrial Standards.



- To incorporate past experiences and lessons learned.
- To integrate cost optimization (by saving time, minimizing delays, over-design, duplication of efforts, inconsistencies, etc.).
- To enhance HSE performance.
- To achieve Corporate Objectives and fulfill KOC's strategic goals.
- To improve KOC's image (Regionally and Internationally).

So far, the Standards Team has developed 172 Standards/RPs and updated 105 Standards/RPs related to various disciplines.

Standards Technical Committee

The Standards Technical Committee (STC) was established by the EAMD (Technical Services) in 2002 with members representing various KOC Groups and Teams with Team Leader Standards as its Chairman. The objective of the Committee is to update and manage the development of KOC Standards/RPs (multi-discipline) through active participation of KOC User Teams.

A "Procedure for Generating KOC Standards and Recommended Practices" (KOC-A-001) was developed and approved by STC, which acts as a guideline for development, revision, amendment and withdrawal of KOC Standards/RPs, and also provides the presentation/formatting style for the documents.

Online Access Provided by Standards Team

The Standards Team provides the access to the following documents/Drawings through the KOC Portal:

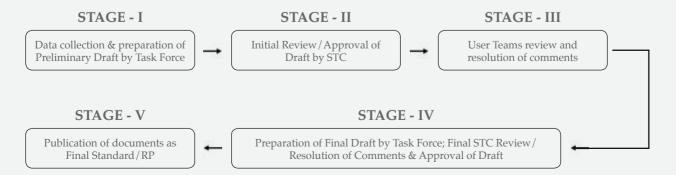
• IHS (Information Handling Services):



Provides online access to documents from 23 Standard Developing Organizations (SDOs).

- BSOL (British Standards Online): Provides online access to British Standards.
- KOC Standards/RPs and 015 Series of Specifications.
- HAC (Hazardous Area Classification) Drawings of KOC Facilities.
- ASTM COMPASS As per the directive of KPC Management, the Standards Team initiated the process for providing online access to "ASTM Compass" package, which includes ASTM International, API, AASHTO & UOP Standards to all K-Companies.

Various Stages of Development/Updating of KOC Standards/RPs:



Abbreviation Booklet

The Standards Team developed an "Abbreviation Booklet" which is a ready reckoner for abbreviations and short forms commonly used at KOC. This booklet consists of more than 1,500 abbreviations and short forms and the electronic file has been uploaded in the Standards Team's portal for reference. Also, the booklet was printed and published in February of 2016 and distributed to all KOC Groups, K-Companies and Kuwait Ministries.

Technical Library

The Standards Team manages a Technical Library which has large collections of Technical Books, oil and gas related magazines and journals from international publishers. The library keeps hard copies of all KOC Standards and RPs for references. As part of its "Digitalization Drive", all Project Documents are being digitized. Six computer terminals can be used by KOC employees in the library.

Formation of Permanent Task Force for Standardization Process

With a view to enhance the Standardization Process, the Standards Team has formed a "Permanent Task Force" with 114 engineers from different disciplines nominated from various KOC Teams.

The Standards Team hosted a Kick-Off Meeting of the "Permanent Task Force Members" at the Hubara Center on April 18, 2017. The session was attended by more than 100 nominated engineers representing various KOC Directorates. TL Standards Khalid Al-Shammari welcomed the gathering. In his opening address, he highlighted the important roles KOC Standards/ Recommended Practices play in the Engineering & Operational functions of KOC. He emphasized that the User Teams are the major beneficiaries of KOC Standards/RPs and extended his appreciation to them for their immense contribution in improving the quality of these documents by sharing their experience, expertise and lessons learned.

Later, an Awareness Session was carried out by Ambady Unnikrishnan, Specialist-I, to explain the "Standardization Process" to the Task Force Members.

The Team Leader Standards then extended his appreciation to the participants for their valuable

contribution in the development/updating of KOC Standards/RPs and urged their active participation in the Standardization Process.

Participation in International & Regional Standardization Bodies

The Standards Team represents KOC in the following International and Regional Standardisation Bodies:

- IOGP (International Association of Oil & Gas Producers): An association of 74 Major International/National Oil & Gas Producers (KOC, ADNOC, Saudi ARAMCO, QP, BP, Chevron, Shell, ENI SPA, PETRONAS, EXXON MOBIL, Oil & Gas UK, ZADCO, etc.). Standards Team (KOC) is a Member of the Sub-Committee for Electrical Standards and associated with the development of a Standard document for LV Power Switchgear and Controlgear (PSC) Assemblies titled "Supplementary Requirements to IEC 61439-1 & 2 LV Power Switchgear & Controlgear", which has been recently published for use by all Member Organizations.
- ISO (International Organization for Standardization): Represents KOC in Technical Committee "ISO / TC 67: Materials, Equipment and Offshore Structures for Petroleum, Petrochemical and Natural Gas Industries", representing the State of Kuwait.
- GCC Standardization Committee: Consists of Members representing petroleum companies from all the GCC Countries. Standards Team participates on behalf of KOC in this Committee as part of a delegation representing the State of Kuwait.

Long Term Objective - Contribution to KPC's Vision 2040

To align with KPC's Vision 2040 and to enhance KOC/KPC reputation across the regional/ international level, we envisage to develop common "Standards" for utilization by all K-Companies in Kuwait. This will avoid duplication of efforts and result in saving considerable resources (man-hours and money).

eBEAMS – MAXIMO Upgrade Project: An Overview

SUBMITTED BY ASIM HUSSAIN, TPL SENIOR SPECIALIST, CORPORATE SOLUTIONS TEAM

The software version of eBEAMS – Maximo 7.1 that is currently being used at KOC was released by IBM in 2008. IBM released many versions of Maximo since 2008 that have enhanced its functionality and technology with every release.

IBM ended support for Maximo 7.1 in May of 2015, meaning that IBM stopped providing bug fixes, enhancements, emergency updates and other support for Maximo 7.1. This makes it vulnerable and exposed to ever-growing cyber security risks and threats.

The eBEAMS - Maximo upgrade to the latest release is complex and multidimensional. It is a multi-step process requiring four transitionary upgrades to achieve the final upgrade to Maximo 7.6. The large number of extensions, customizations and configurations made to eBEAMS - Maximo is the key factor in added complexity to the upgrade. The challenge of the upgrade has been made further complicated due to the utilization of older servers and unsupported versions of operating systems, Oracle database, and WebSphere middleware – all of these also need to be upgraded during the project.

After careful planning, the upgrade project commenced in September of 2016. The project duration is 15 months and is scheduled to be completed and go live with the upgraded release of eBEAMS – Maximo in December, 2017.

Key Features of New Release of IBM-Maximo

The latest release of IBM – Maximo 7.6 has many new features that will greatly increase its utilization and reliability, resulting in improved efficiency and productivity.

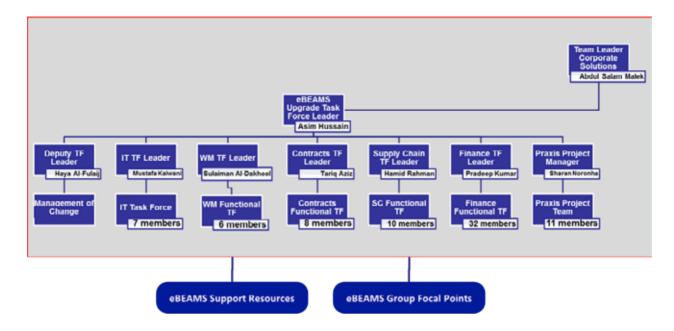
- Enhanced and Configurable User Interface.
- Analytics through Reporting, KPIs & Dashboards
- Functional Enhancements
- Technology and Performance Improvements

The new user interface features a configurable dashboard with customizable fields that can display a variety of information required and accessed by the users frequently. It also provides easy navigation to other features throughout Maximo by using an intuitive graphic sidebar. Thus, users can access additional data or details quicker and easier, and complete tasks faster, increasing efficiency and productivity.

Improved usability, technology, functional and reporting capabilities that allows in addition to other features, the capability to view and browse record details just by hovering the pointer over the field.

Enhanced reporting and analytical features to drive intelligence and analysis from eBEAMS data by users without creating extensive reports. New KPI functionality and





performance improvements enable quicker access to data in a variety of formats. Enhanced ad-hoc reporting capabilities enable users to include advanced calculations and summaries in ad-hoc reports.

New functionalities in Purchasing, Contract and Warehousing and Work Management will help KOC in removing a number of customizations in these areas.

Improved out-of-the-box capabilities of the new release will significantly reduce the need for customizations with the utilization of automation scripting features resulting in Maximo de-customization and reducing time and effort for the future upgrades.

Project Scope

The objective of the project is to upgrade eBEAMS – Maximo from the existing release 7.1 to the latest release 7.6 by porting and migrating all of the existing customizations, extensions, modifications, localizations and integrations to the new release while implementing new features only where mandated due to the changes in application functionality and technology.

Project Implementation Teams

The implementation of upgrade project is being handled by the eBEAMS Upgrade Project Task Force assisted by Work Management, Contracts, Purchasing, Finance, IT and Change Management Functional Task Forces. These Task Forces are working in coordination with the contractor Praxis Solutions, eBEAMS Support and eBEAMS Group Focal Points.

Upgrade Project Approach and Stages

A technical feasibility to decide the approach for the project with a technical test upgrade was carried out prior to the official commencement of the project. It was to ascertain the suitability of the approach being considered and adapted during the implementation of such a complex and challenging project.

The implementation of the upgrade project is being carried

out in stages as shown in the figure and detailed in the following sections.

Technical Upgrade

The upgrade requires major changes and upgrades to the servers, operating systems, middleware, databases, network load balancer and integration technologies. The migration to the new release requires four transitional upgrades to be applied to achieve the destination Maximo 7.6.

All of the existing extensions, configurations, customizations, workflows, reports, integrations etc. currently in eBEAMS - Maximo need to be painstakingly reviewed and verified during the migration. These may need to be redesigned and redeveloped. The integrations with other systems including Oracle FS & HR need to be redeveloped from scratch due to the changes in the underlying technology and standards. Furthermore, a complete and thorough testing and verification is required before the deployment of

upgrade eBEAMS – Maximo 7.6 in production.

Functional Upgrade

The following is a summary of key project activities during the upgrade requiring user involvement:

Conference Room Pilot No. 1 (**CRP1**): Carried out in January of 2017 with involvement of the Task Forces and key users of eBEAMS. It was to demonstrate "Out-of-the-box" and migrated process flows, new modules and its fitness to KOC business processes.

Conference Room Pilot No. 2 (CRP2): Scheduled for July, 2017 after resolving all issues, migrating all customizations, custom extensions, integrations and data. It is to demonstrate a completely configured system using end-to-end business processes to validate customizations, interfaces and integrations.

Testing and Verification of the upgraded system is of the highest priority and importance. Extensive and thorough integration, performance and user acceptance testing will be carried out to ensure proper functioning of the upgraded system. The **End User Testing Competition** will be held in October to reward eBEAMS End Users who will identify the most number of obscure and critical issues in eBEAMS.

Appropriate training methods will be used to deliver and train eBEAMS users on the changes and the new functionality implemented during the project. e-Learning courses will also be made available to end users on the key functions and functionality in eBEAMS – Maximo 7.6. eBEAMS users will be kept aware of the progress through newsletters, magazines and Town Hall sessions to brief them on the changes in the functionality and user interface of eBEAMS – Maximo.

Additional Features

In addition to the key Maximo enhancements mentioned earlier, the following features of the new release can be deployed to further streamline processes and productivity:

The Maximo Oil & Gas Industry Solution: Provides integrated Work & Asset Management, and HSE processes to provide operational efficiency and effectiveness, to meet regulatory and compliance standards to meet and exceed quality and safety requirements. The following are the key features:

- Failure Codes: It includes standard failure code data based on ISO 14224.
- Asset Specifications: Standard asset specification data (name plate data) based on ISO 14224.
- Management of Change (MOC) Management: Functionality to process MOC requests.
- Location Details: Functionality to configure location details required for O&G.
- Work Prioritization Matrix: A matrix-based system of work or risk prioritization.
- **Regulatory Compliance:** Ability to hold regulatory requirement details.
- Conditions for Work:

Guidance on completion of works on asset location, plant, etc.

- Defect Reporting: Documents an asset that deviates from desired operations.
- Investigations: Actions on incidents or defects, lessons learned, Root Cause Failure Analysis.

The IBM Maximo Asset Management Scheduler allows users to view, schedule, assign and dispatch work orders graphically in a Gantt chart view. The dispatch module also includes a map interface showing the technicians routing.

ISO-55001 Asset Management – Management Systems: Proper utilization of Maximo Oil & Gas Industry Solution will enable KOC to take necessary steps to move towards obtaining certification for ISO-55001 Asset management – Management Systems.

Maximo Linear Assets:

Enables maintenance management of pipelines, road, telecommunication, electrical and underground networks, including graphical presentations using integration with Spatial and GIS.

Maximo Everyplace: Enables configuration of Maximo and its deployment on IOS & Android-based mobile devices.

The Maximo Utilities Solution: Includes Spatial to integrate eBEAMS with GIS, and Crew Management will provide functionality to graphically manage crews.

ECM – Content Services and More

SUBMITTED BY THE ECM UNIT OF THE CORPORATE SOLUTIONS TEAM



As the amount of content continues to grow within KOC, challenges with its creation, management, and distribution continue to grow as well. The Corporate Information Technology Group (CITG) consistently seeks to keep pace with the rapidly evolving technologies and best practices to make the management process of KOC content seamless, efficient, integrated and maximized.

In order to achieve success in this endeavor, CITG through the Corporate Solutions (CS) Team has embarked on a major program of Enterprise Content Management (ECM) with the objective of transforming the organization from its current state of Automation towards an ultimate target of business Optimization.

ECM will transform the way users work at KOC by putting business content in motion, so they can capture, protect, activate, analyze and engage with content for greater insight and action. ECM will ensure that the right content is available for the right user, at the right time to make the right decision.

ECM will also govern KOC content by managing content lifecycles and setting retention policies and more.

What is ECM?

ECM is neither a single technology nor a methodology

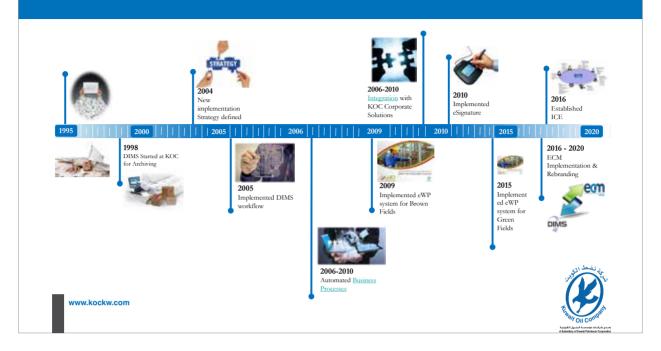
nor a process. Instead, it is a dynamic combination of strategies, methods, and tools used to capture, manage, store, preserve, and deliver information supporting key organizational processes through its entire lifecycle.

ECM is a complete solution that is integrated into the existing systems in place at KOC; it is flexible, scalable and perfectly aligned and designed to fit with the Company's business needs and with the nature of KOC operations and projects.

ECM provides KOC with a powerful and flexible technology platform that accommodates the wide range of KOC business requirements,



ECM Evolution at KOC



content challenges and goals, and house KOC unstructured content (including Word documents, Excel spreadsheets, PDFs, correspondence, scanned images, email, faxes, invoices, contracts, videos, presentations, transmittals, maps, medical health records, etc.).

ECM puts business content to work and allows KOC to realize business value. Managing records, mitigating risk, capturing documents, improving employee productivity - turning KOC content into Smarter Content. That is ECM.

The ECM Evolution at KOC

The implementation of ECM at KOC has been a gradual and methodical process beginning with the digitalization of information and archiving in the year 1998. In 2004, a new and well-defined implementation strategy was initiated to set up the DIMS workflow for

routing internally the KOC correspondences. During the period between 2006 and 2010, DIMS was integrated with the existing KOC corporate solutions (Oracle FS/HR, eBeams, GIS, Meditech, Sahala, Schlumberger eFinder and other corporate applications). The same period was also dedicated to the automation of multiple key business processes such as the Employee End-Of-Service Clearance System, Project Progress Review System (PPR), Online Catering & Event Booking System, Mobile **Billing Management System** (MBMS), International Calls Management System (ICMS), Online Press Coverage Request, Asset Meal Request System, and many other business processes. The year 2009 and 2015 saw the Implementation of the eWP system for Brown and Green Fields. E-Signature was first utilized in the vear 2010 to streamline the business processes, improve security and data integrity.

Finally, ECM rebranding and implementation was initiated in the year 2016 to add value to the business.

Moreover, 2016 saw the establishment of the ECM Insight Center of Excellence (ICE), run by a group of specialists and business domain experts with varied skills and focusing on exploring new business opportunities and leading, enabling, and executing ECM Solutions at KOC.

ECM Program Objectives

The objectives of ECM are to manage corporate content and increase the speed of business, provide trusted information and a single version of truth, automate key business processes and increase operational efficiency, establish effective and secure content governance and ensure regulatory compliance and reduce risks.



ECM Program Objectives include the following:

- 1. Manage corporate content and increase the speed of business - By eliminating dependence on paper documents and organizing unstructured information according to business needs, KOC is empowered to work more efficiently.
- 2. Ensure regulatory compliance and reduce risks - Keeps track of necessary documents and manages the retention of stored documents according to predefined rules to support compliance, facilitate audits and minimize legal risks.
- 3. Establish effective and secure content governance - Providing Content Stewardship, Content Lifecycle Management, Content Quality Management, Content Definitions, Content ownership, Monitoring & Compliance and Linkage to Enterprise Content Strategy.
- 4. Automate key business processes and increase operational efficiency -

Using ECM technology components to substitute or supplement manual processes to manage information flow within the organization to lower cost, reduce risk and increase efficiency.

- 5. Provide trusted information and a single version of truth - Manage content from its source and avoid duplicates, which can cause multiple versions of truth.
- 6. Be customer-focused by strengthening our relationship with our customers and increasing their service level satisfaction - Adopting proven methods / practices through delivering focused, more effective, measurable ECM service to our KOC customers, meeting their requirements proactively and exceeding their service-level expectations.

Each of the ECM objectives offers specific benefits that are in tune with the overall vision of KOC.

ECM Business Values

ECM provides the ability to connect people, processes and

information with powerful content management, compliance and analytics tools. With ECM technology, KOC can expedite processes, increase operational efficiency, share content effectively, minimize the number of lost documents, ensure regulatory compliance, reduce costs and better manage risk. Other ECM business values are as follows:

- Drive insight from content using enterprise search & analytic capabilities
- 2. Automate key business processes
- 3. Ensure document/content integrity
- 4. Smart search image content
- 5. Provide a single source of trusted information
- 6. Increase productivity & efficiency
- 7. Time saving
- 8. Improve collaboration

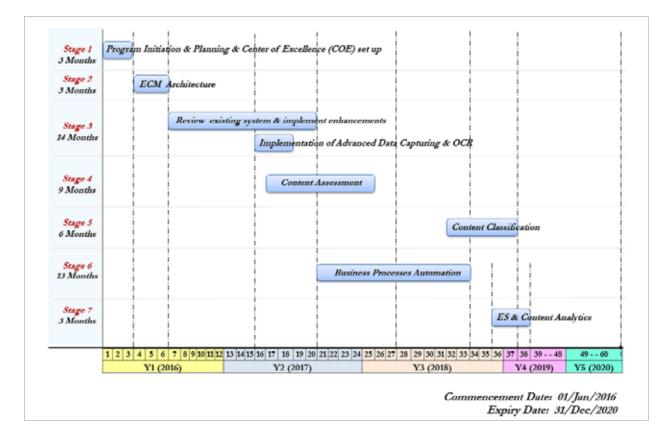
ECM Services

ECM services are varied, cover all areas of KOC operations, and are provided 24/7. The following picture represents a summary of ECM services:

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ECM Program Components, Timeline, Scope and Duration



Conclusion

The implementation of ECM at KOC is a journey that involves all aspects of the business. ECM is an ongoing process that works towards making the enterprise more efficient and aims to fulfill KOC's vision of achieving a leading global position in the upstream oil and gas industry as an integrated, value-driven enterprise.



UPSTREAM COE'S ACHIEVEMENTS, WEBSITE AND IT TOOL INITIATIVE

SUBMITTED BY THE R&D GROUP PLANNING & SUPPORT TEAM

The Upstream Center of Excellence (CoE) has been successfully implemented to enhance collaboration and share technical expertise between KOC, KGOC and KUFPEC. The six CoE operational disciplines of Tight Reservoir Stimulation, Heavy Oil, Water Management, Corrosion & Integrity, Artificial Lift and Improved Recovery Techniques have demonstrated that real value can be leveraged from within the upstream entities. From its initial phase to its full implementation in the incubate phase, CoE has successfully managed to stand as a platform for teamwork for addressing challenges, collaborating on ideas and seeking suitable solutions, with tangible results and varied value opportunities. Effectively led and spearheaded by KOC's Dr. Abdullatif Al-Kandari and Nadia Al-Zeabot, Senior Planner - Planning & Support Team, the Center of Excellence is one of the most talked about subjects within the K-Companies.

Due to growth in CoE's size, increased interaction between upstream K-Company experts and limitation imposed by email communications, the CoE Team recognized the requirement to establish an "e-Platform" to raise awareness and importance and for easy, fast and effective communication across the three upstream entities. The Upstream CoE Team, consisting of Dr. Abdullatif Al-Kandari, Nadia Al-Zeabot and Joel Solomon, all from KOC, identified IT Focal points from KOC, KGOC and KUFPEC and with the help of available IT resources, the team succeeded in designing a dedicated website and IT Tool for better collaboration and correspondence within the Upstream K-Companies. The focal points are responsible for updating current activities and upcoming events related to CoE.

CoE Website

This is a public website that introduces CoE, its history, objectives, mission and vision. It also shows the governance structure and briefly explains its six operating disciplines with their objectives, mission and vision. It also features an "Announcement" column that displays upcoming events/workshops/experts connect series, etc. The website also features a Media and Publication tab where the visitors can view pictures and

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media coverage for major CoE activities. As part of Upstream CoE's main objective to share knowledge, the team developed another important tab on their website, the "Shared Folder." Here experts can share non-confidential, technical data with visitors to the site and they can also learn from the information uploaded.

CoE IT Tool

The IT Tool is a first of its kind application across Upstream K-Companies developed to interact in real time. Unlike the website, this is a limited forum for active experts within the CoE pool to share information, presentations, minutes of meetings, Action Plans, future roadmaps, technical papers, etc. The tool has six segregations (one per discipline) for its experts' queries and knowledge sharing. The tool also features a separate tab for cross-disciplinary interface and sharing relevant data. The CoE Team holds the admin rights to all the IT-related activities and is responsible for updating and uploading information in the respective domains. All data uploaded is monitored and filtered by the respective Discipline Lead of each discipline. The CoE Team is also responsible for updating and uploading information in the respective domains. The CoE Team controls all the admin rights for the website and the IT Tool.

The success of this innovation requires determination, brainstorming sessions, planning, frequent software testing and eventual advertising. After collating ideas and user interface requirements and exploring the possibilities, the CoE Team structured a frame for the website and IT Tool and presented this to the software developers. With several meetings and correspondences, CoE launched it's "e-Platform", the CoE website and IT Tool. It was advertised on KOC and KUFPEC portals, billboards around the KOC offices in Ahmadi and electronic prismas at the entrance to Ahmadi. This helped in marketing CoE as a whole and invited inquiries to know more about CoE. The website and IT Tool have helped the CoE Team and the experts save time and reduce the paperwork to almost zero. CoE held a special meeting for its experts to introduce and train on usage of this IT Tool and explained the access rights and criteria for data to be uploaded.

As the Upstream CoE's demand and experts are growing rapidly, the CoE Team intends on expanding its IT Tool by adding more salient features in the future and extending rights to leadership for their participation and supervision. The team also intends on having an in-house IT expert to run and maintain its website and IT Tool and to train new experts, under the direction of KOC's Information Team.

Success Story Abstract

Because of the commitment, dedication and hard work of the CoE Team and the Discipline experts, CoE disciplines are able to achieve great values which include cost saving and production increase techniques. Here, we would like to highlight a great value captured by the CoE in the recent past, which resulted in cost saving of up to KD 12 million. KGOC required external assessment of a 12" crude underground pipeline between the MAB & MAA refinery project, since intelligent pigging was not possible, as the line is not piggable and KOC had already been utilizing an internationally accepted technique (External Corrosion Direct Assessment as per NACE SP0502). The KOC experts suggested that KGOC utilize the same technique. Implementation of this suggestion helped KGOC to decide whether to partially replace, or completely replace the entire pipeline. The Upstream CoE has many such cases from all its six operating disciplines, which have earned remarkable results and appreciation.

The CoE in the past has shared its expertise with other K-Companies to establish a successful operating Center of Excellence unit in their respective domains. With knowledge gained through hands on experience, the CoE Team is glad to share its Modus-Operandi, train experts and help implement effective, operating CoE, through its advisory functions.

To know more about Upstream CoE, kindly visit us at http://www.kockw.com/CoE/Main.html

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SOCIAL MEDIA: HISTORY, INFLUENCE AND DEVELOPMENT

SUBMITTED BY JASSIM AL-MUTAR, CHIEF MULTIMEDIA OFFICER, INFORMATION TEAM



Social media as a form of communication between people has been around since the earliest cave people. However, the social media that we acknowledge today, i.e., Internet sites where people share information with online "friends" and associates is a fairly new phenomenon, only in popular use since the turn of the 21st century. Pundits, celebrities, and regular people have all pondered the value of social media, and they express themselves vociferously across all platforms. Social media has become prevalent on television shows and commercials, on cell phones, in workplaces,

and as online hangouts for people interested in similar trends or activities. It has allowed people to learn about a variety of industries, including the oil and gas industry. At present, we can only observe its omnipresence in the developed world and speculate as to how it will continue to benefit industry in the future.

Means of social communication has been part of society since the earliest advent of people; messages were written and delivered by hand ever since 550 B.C. and this method of delivering mail continued in more sophisticated forms until 1792, when a new invention came along, the telegraph, which permitted messages to be delivered faster than a horse and rider as messenger. Although telegraph messages were short, they were an innovative way to transfer news and information. The pneumatic post, invented in 1865 became yet another form of letter delivery; it uses underground pressurized air tubes to carry capsules from one place to another. Two more inventions moved the delivery of messages in a more rapid fashion – the telephone, invented in 1890 and the radio in 1891. Both of these methods could connect people across



great distances instantaneously. The first computers were invented in the 1940s, with the Internet appearing in the 1960s, a time that also saw the advent of email. By 1979, the UseNet was a format with which users could communicate through a virtual newsletter.

The first real social media site was called Six Degrees. Created in 1997, it allowed users to upload a profile and become friends with other users. By 1999, the first blogging sites appeared, and this was the catalyst that really catapulted social media. MySpace and LinkedIn began in the early 2000s, while Photobucket and Flickr specialized in online photo sharing. YouTube originated in 2005, and continues to be a major platform for video sharing globally. In 2006, both Twitter and Facebook became available to users and they also remain the most popular Internet sites globally. Other sites like tumblr, Spotify, and Foursquare have popped up, catering to different niches in the online world. The whole idea of accruing online "friends", people one never meets in real life for the most part, is a completely untried phenomenon that has benefitted society as a whole. Social networking has become an everyday reality for individuals and businesses.

Influence

The heaviest users of social media are adolescents. According to a report by Common Sense Media, about 75% of teenagers in America currently have profiles on social networking sites, and 68% of them use Facebook as their main social networking tool. However, it is also beneficial for a number of industries, including the oil and gas industry. Many of the companies are very active on digital platforms. The companies are able to not only promote their activities, but also educate and involve key constituents, including governments, the public, media and other stakeholders. Social media allows these companies to also connect with investors in many countries.

Development

Social media has enormous potential for helping those in developing countries to broadcast their voices and their stories. The website, 'Global Voices' gives a platform to a growing diversity of voices. Local media globally can now get involved with podcasts, blogs, and posts in a way that was impossible even two decades ago. Social media improves the capability of poor communities to say their own concerns, priorities, and dreams.

How Social Media Affected the Oil & Gas Industry

As young people saw the many learning opportunities online, they began to participate in the posts and comments from a variety of oil and gas corporations around the world, and saw how they could possibly become employees after graduation. They also have been able to make valuable connections in the industry, and involve some of them in their own communities.

Before social media, oil and gas corporations would have to advertise, recruit, educate, and advocate through traditional media platforms, such as print, television, and industry publications. However, today, the companies can post on social media to fulfill all of these functions. Such organizations are using social media for educational purposes on a wide range of topics and also as a tool for crisis management and communications. Social media platforms reach young people who might have an interest in entering their workforce. Some oil and gas companies have student chapters and on-campus industry recruitment programs and use social platforms as the ideal arena to engage and educate these potential future employees. Social media is the avenue that paves the way to communicate digitally and therefore introduce oil and gas companies to new audiences, as well as investors who are already part of the industry.

Conclusion

Social media promotes understanding globally, while also educating people and providing vocational opportunities. Like any new social phenomena, all of its aspects must be examined, an ongoing process to refine it to the point where it allows for the greatest benefit for the largest number of people. What we have seen are unprecedented movements that have occurred globally as a result of this mass system of communication, the establishment of a system whereby people can enrich their lives in ways that would have been impossible previously. For the oil and gas industry, it has opened up new pathways to communicate with stakeholders, to recruit new employees, and to educate those who are already in and just learning about the industry.



VISIT BERMUDA

Your plans to escape the brutal heat of another Kuwaiti summer may already be in full effect by the time this issue of *The Kuwaiti Digest* reaches your hands. However, for those readers who are still thinking about options for the perfect summer getaway - why not consider Bermuda? This island paradise is home to some of the world's most beautiful beaches, and the laidback pace of island life may be exactly what you need to escape the stress of work and daily life.

A common misconception about Bermuda is that it is a Caribbean island. In fact, Bermuda is actually in the Atlantic Ocean north of the Caribbean. Its exact location is off the coast of North America and east of the American state of North Carolina. For readers interested in diving here in Kuwait, or if you are a destination diver, you might be pleasantly surprised to learn that Bermuda is surrounded by turquoise waters and beautiful underwater reefs, making it one of the world's top diving destinations.

Bermuda's inhabitants have a reputation of being friendly and welcoming, and visitors to the island will surely admire their pastel-colored homes that are nestled in the lush greenery that is present throughout the island. Bermuda is also home to a diverse community, with African, Portuguese, West Indian, British and American influences combining to create a unique culture. English is Bermuda's most widely spoken language, with Portuguese being the second; however, even the English spoken on the island has a unique accent that is different than Caribbean accents to the south. Many who visit Bermuda note that the English spoken there is somewhat similar to, or at least is influenced by, the English spoken in America's southern states.



Despite the island country's small size, which is a mere 20 miles by 2 miles, Bermuda is home to a number of museums and art galleries that bring a certain degree of sophistication to the island. In addition, many forts dot the island's coast, something that those interested in history should make note of. Of course, Bermuda is also ideal for all types of watersports, but for those who like to hike, golf, or enjoy fine dining, Bermuda is able to cater to those needs as well.

Thanks to its subtropical climate, Bermuda is a year-round destination. However, the best time to visit is September and October, when the humidity of summer disappears but water temperatures remain warm enough for swimming. In addition, this is when hotel rooms typically become less expensive, since autumn is the start of the colder season.

Getting To (And Around) Bermuda

Bermuda is less than two hours away from most airports on the East Coast of the United States. There are non-stop flights from New York, Boston, Atlanta, Miami, and other cities in the United States and Canada. There are even non-stop flights from London on British Airways.

Once you get to the island, do not be surprised to learn that you cannot rent a car there. However, this is actually a blessing in disguise. If the more than 600,000 visitors a year all rented cars on this small island, Bermuda's main draw as a haven of peace and tranquility would vanish overnight. In addition, less cars means less pollution, which visitors and residents alike can appreciate. To get around, make use of Bermuda's easy and convenient public transportation system, or take a taxi. If you really need to get around on your own, mopeds are available to rent.

Bermuda's History

An overseas territory of the United Kingdom, Bermuda has been involved in many of history's major events dating back as far as the English Civil War of the mid-1600s. If you travel to Bermuda, you'll see signs of these historical moments and also ruins dating back to both World Wars. The American Civil War and American Prohibition both added considerably to the island's economy, with Bermuda forming an important focal point in running the blockades in both cases. During the Second World War, a large US air base was built on the islands and remained operational until 1995.

Tourist travel to Bermuda to escape North American winters first developed in Victorian times. Tourism continues to be important to the island's economy, although international business has surpassed it in recent years, turning Bermuda into a highly successful offshore financial center. In 1968, Bermuda gained a constitution, but the British Government determined that Bermuda was not ready for independence, eventually making Bermuda a British Dependent Territory in 1981. A referendum on independence was soundly defeated in 1995.



Ramadan and Eid Al-Fitr at KOC

Ramadan, the ninth month of the Muslim lunar year, is a time of fasting, blessings and prayers. It also commemorates the revelation of the first verses of the Qur'an to the Prophet Muhammad. As a way of giving thanks to God during this holy month, and as a way of unifying the worldwide community of believers, Muslims - with special exceptions for the sick, nursing mothers, pregnant women and travelers - spend the daylight hours fasting. The hours of the night, until dawn, are marked by prayers, ceremonial meals and celebration of the day's spiritual victory over human desires. After sunset, streets and squares all over the Muslim world are crowded with people out buying food after the long day's fast, or visiting friends, or preparing for *sahur*, the last meal of the night, which takes place before dawn.

At KOC, a long-standing Company tradition involves the hosting of Iftar banquets for the faithful. These often occur at the Unity Center, but the Company often lends it support and sponsors numerous Ramadan-related activities throughout Kuwait. Often included in these activities is the organization of Umrah trips for KOC employees.

Eid Al-Fitr

Eid Al-Fitr, translated into English as the Festival of Fast-Breaking, falls on the first day of Shawwal, the month which follows Ramadan in the Islamic calendar. It is a time to give charity to those in need and celebrate the completion of a month of blessings and joy with family and friends.

Before the day of Eid, during the last few days of Ramadan, each Muslim family gives a determined amount as a donation to the poor. This donation is of actual food such as rice, barley, dates, rice, etc., to ensure that the needy can have a holiday meal and participate in the celebration. This donation is known as *sadaqah al-fitr* (charity of fast-breaking).

On the day of Eid, Muslims gather early in the morning in outdoor locations or mosques to perform the Eid prayer. This consists of a sermon followed by a short congregational prayer. After





the Eid prayer, Muslims usually visit various family and friends, give gifts (especially to children), and make phone calls to relatives to give well-wishes for the holiday. These activities traditionally continue for three days. In most Muslim countries, the entire three-day period is an official government/school holiday.

About Ramadan

Ramadan commemorates the ninth lunar month of the year 610 CE, when revelations began from Allah (SWT) through the angel Gabriel to the Prophet Muhammad (PBUH). These revelations, which were communicated in Arabic, were memorized, passed on orally, and written down as the Qur'an.

During the Holy Month of Ramadan, Muslims abstain from food, drink, and other sensual pleasures from the first light of dawn until sunset. Ramadan is the fourth pillar of the five pillars of Islam.

Because the timing of Ramadan is based on a lunar calendar, the Holy Month starts about ten or eleven days earlier each year according to the Gregorian Calendar. Beginning in the early 2010s, Ramadan has fallen in the summer months in the Northern Hemisphere. This is especially challenging for Muslims in hot, arid climates like Kuwait and the Arabian Gulf region, where sweltering temperatures make daily fasts much more challenging.

Ramadan is a time for Muslims to practice selfrestraint and self-reflection. Fasting is seen as a way to cleanse the soul and display empathy for those in the world who are hungry and less fortunate. Muslims go to work and school and take care of their usual activities during Ramadan; however, some also read the entire Quran, say special prayers and visits mosques more frequently during this time.

All Muslims who have reached puberty and are in good health are required to fast. The sick and elderly, along with travelers, pregnant women and those who are nursing are exempt, although they are supposed to make up for the missed fast days sometime in the future or help feed the poor.

The first pre-dawn meal of the day during Ramadan is called "suhoor." Each day's fast is broken with a meal known as "iftar." Traditionally, a date is eaten to break the fast. Iftars are often elaborate feasts celebrated with family and friends. The types of foods served vary according to culture.

The conclusion of Ramadan is marked with a major celebration known as Eid Al-Fitr, the Feast of Fast-Breaking. It starts the day after Ramadan ends and lasts for three days. Eid Al-Fitr includes special prayers and meals with friends and relatives, and gifts are often exchanged.

The Benefits of Fasting

While many fast as a religious obligation, few truly understand the potential health benefits that fasting can provide. Fasting, if properly implemented, can promote the elimination of toxins from the body, reduce blood sugar, decrease stores of fat and boost your immune system.



Below are 10 potential health benefits one can attain by fasting in a safe and healthy way:

- 1. Fasting Promotes Detoxification. Processed foods contain many additives, and these additives can become toxins in the body. Most of these toxins are stored in fat, and fat is burnt during fasting, especially when it is a prolonged fast.
- 2. Fasting Gives the Digestive System a Rest. When fasting, the digestive organs rest. The normal physiologic functions continue, especially the production of digestive secretions, but at reduced rates. This exercise helps to maintain a balance of fluids in the body.
- 3. Fasting May Resolve Inflammatory Responses. Some studies have shown that fasting promotes resolution of inflammatory diseases and allergies. Examples of such inflammatory diseases are rheumatoid arthritis, arthritis and skin diseases such as psoriasis. Some experts assert that fasting may promote the healing of inflammatory bowel diseases such as ulcerative colitis.
- 4. Fasting Can Reduce Blood Sugar. Fasting increases the breakdown of glucose so that the body can obtain energy. It also reduces the production of insulin, which rests the pancreas. Glucagon is produced to facilitate the breakdown of glucose, and the outcome is a reduction in blood sugar.
- 5. Fasting Can Increase the Breakdown of Fat. The first response of the body to fasting is the breaking down of glucose. When the store of glucose is exhausted, ketosis begins, which is the breakdown of fats to release energy.

- 6. Fasting Can Correct High Blood Pressure. Fasting is one of the non-drug methods of reducing blood pressure because it can help reduce the risk of atherosclerosis. Atherosclerosis is the clogging of arteries by fat particles. When you are fasting, glucose and fat stores are used to produce energy. The metabolic rate is also reduced when fasting, and hormones such as adrenaline and noradrenaline are also reduced.
- 7. Fasting Promotes Weight Loss. Fasting promotes weight loss by reducing stores of fat in the body. However, fasting is not a good weight loss strategy. Reducing fat and sugar intake and increasing fruits and rest are better measures to achieve weight reduction.
- 8. Fasting Promotes a Healthy Diet. It has been observed that fasting reduces cravings for processed foods. It promotes a desire for natural foods, especially water and fruits.
- **9.** Fasting Boosts Immunity. Immunity can be boosted when an individual is on a balanced diet between fasts. The elimination of toxins and the reduction in fat stores also helps the body. When individuals eat fruits to break a fast, they increase the body's store of essential vitamins and minerals. Vitamins A and E are good antioxidants readily available in fruits. They help to boost immunity.
- **10.** Fasting May Help to Overcome Addictions. Some studies have shown that fasting can help addicts reduce cravings for nicotine, caffeine and other substances. Although there are other regimens required to resolve addictions, fasting can play a role.



1953 A rugby match in Ahmadi.

