

the arabian sun

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a weekly Saudi Aramco publication for employees



seeing the sights in Madain Salih

Scores of Saudi Aramco employees and their families enjoyed the long weekend on the outskirts of a small town in the northwest region of the Kingdom known as Al 'Ula.

see page 13



IPTC
International Petroleum
Technology Conference

2020

International Petroleum
Technology Conference
comes to the Kingdom

see page 2

Saudi Aramco will serve as the exclusive host of the prestigious International Petroleum Technology Conference, which will be held in the Kingdom for the first time in its history, from Jan. 13-15.

in search for oil under a sea of sands

see pages 8 and 9

Deep in the heart of the Rub' al-Khali, Saudi Aramco seismic specialists tackle the giant red sands of Shaybah.

Seismographic survey specialist Fahd M. Amri defines a new drilling site using precision scanners by means of the global coordinate system on the eastern outskirts of the Empty Quarter, hundreds of kilometers from the Shaybah facilities. Amri holds a bachelor's degree in Surface Engineering from New Mexico State University.





IPTC 2020

International Petroleum Technology Conference

Vision to Prosperity: A New Energy Era Emerges

Saudi Aramco ramps up to host 12th International Petroleum Technology Conference at Dhahran Expo

by Shaistha Khan

Dhahran — One of the oil and gas industry's most prominent events — the International Petroleum Technology Conference (IPTC) — will be held at the Dhahran Expo from Jan. 13-15.

Held under the patronage of HRH Prince Mohammed bin Salman Al Saud, Crown Prince, Deputy Prime Minister and Minister of Defense, it is the first time the IPTC will be held in the Kingdom. It is the largest oil and gas conference ever to be hosted here.

Saudi Aramco is the exclusive host of the event.

To open the 12th IPTC, HRH Prince Abdulaziz bin Salman Al Saud, Saudi Arabia's Minister of Energy, will deliver a special keynote address.

That will be followed by three days of activities, with three plenary sessions (including Saudi Aramco president and CEO Amin Nasser participating on a CEO panel), more than 800 technical speakers, and over 250 exhibitors featuring cutting-edge upstream technology across a 6,900-square-meter exhibition.

Delegates from leading upstream societies will have the opportunity to network, discover, share and exchange their experiences, successes, and findings with over 8,000 like-minded professionals from around the world.

about the IPTC

Founded in 2005 and held in various locations across the Middle East and Asia

Pacific, IPTC is the flagship multidisciplinary technical event in the Eastern Hemisphere and brings together a who's who of the oil and gas industry.

This year's event will see a prestigious lineup of global thought leaders, CEOs and executives from leading national oil companies, international oil companies, and government officials.

IPTC is sponsored by four industry organizations and societies — the American Association of Petroleum Geologists; the European Association of Geoscientists and Engineers; the Society of Exploration Geophysicists; and the Society of Petroleum Engineers.

The conference is focused on the dissemination of new and current technology, best

practices, and multidisciplinary activities designed to emphasize the importance of the value chain and maximizing asset value. The knowledge, capabilities, and strengths of the participating countries and the sponsoring society's global membership — over the spectrum of multidisciplinary technologies — are central to the success of the conference and the corresponding exhibition.

For more information, visit 2020.iptcnet.org/media-registration.



for more information on the IPTC

your voice

drawing the red line and 'your dignified silence'



by Jilbert Calpito
Ras Tanura

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Your Voice reflects the thoughts and opinions of the writer, and not necessarily those of the publication.

"Often, the most powerful statement is your dignified silence."

This anonymous line whose author chose to be silent caught my attention. The person must have been so sure that the words are by themselves powerful that no signature was necessary to augment their reality.

In moments of confrontation, arrogant people expect us to be ballistic and fiery in retaliation. They rejoice in bitter exchanges because their abrasive words can find a willing target in the firing range. For them, this is a delightful exercise and they feel on top of the bullying game.

But are we that helpless? On the surface, it might appear so but upon deeper reflection, we have the power to deny the fuel to such people.

Maintaining dignified silence requires mastery and absolute control. It is grace under pressure. It can take a lifetime for some to master this, and for many,

it only takes a few seconds to lose that control. How many times have we regretted our outbursts? "Of all the things I've lost, I miss my mind the most," sighed writer Mark Twain.

I don't advocate timidity, of course. The moment you notice the arrogant person's words are insulting, intimidating, or worse, threatening, respectfully ask them to watch their words. Then project a dignified silence, which can leave the arrogant rethinking. It can make them wonder if they are even making a dent on our persona.

Deep inside, they are not satisfied, and because they don't have any basis for further attacks, they will likely lose the appetite to bully you. If despite your silence they go on pestering you, you may escalate the issue for possible breach of ethical and professional standards.

Dignified silence is meant to deliver crucial messages aimed at correction. It

leaves a vacuum in between where the employer of the tactic is in better control of their emotions. That vacuum shuts down the medium of exchange and the abusive talker is held hostage by his unexpressed anger. That is a stinging dose of their own medicine!

By nature, we enjoy a kind working environment, in addition to the state-of-the-art facilities for which Saudi Aramco is known. As professionals, we love to grow and learn. Mistakes come occasionally and we should take responsibility of them.

Immediately, we proceed to resolution, and make sure such mistakes are not recurring. We welcome feedback and opportunities for improvement, but they should be done by the right people, in the right forum, at the right time — and not to be taken as a go signal for bullies to attack.

There is always a red line for everything.

aramco
insight

January



- We're public!
- Game, set, and match
- A double sized convention
- Hacking away at success
- Paving the way with plastic

Harvard Business School students hear about the power of teamwork from CEO

by Eamonn Houston

Dhahran — Saudi Aramco’s president and CEO Amin Nasser spoke to MBA students from Harvard Business School earlier this week on how teamwork and empowerment were key factors in leading the company through some of past year’s biggest challenges.

Asked about the secret to staying focused and motivated in the face of such complex challenges, Nasser told more than 100 students from the Cambridge, Massachusetts-based institution that: “I think it would have been impossible for me without a good team — a team that knows what we are doing and who you can depend on to execute with everyone knowing what they are supposed to do. That’s very important.”

Nasser described 2019 as an extraordinary year during the dialog session with the students, which was moderated by Public Affairs general manager Fahad K. Al Dhubaib.

With a genuinely historic moment almost every month, three events stood above all the others with Nasser making particular reference to the SABIC deal, the attacks on facilities at Abqaiq and Khurais, and delivering the world’s largest IPO last month, which confirmed Saudi Aramco as the most profitable and



Amin Nasser is joined by Fahad K. Al Dhubaib while addressing a contingent of some of the top minds from Harvard Business School at the Plaza Conference Center in Dhahran. The president and CEO shared his insights about leading the company through some of last year’s biggest challenges and the importance that teamwork and empowerment played in tackling those challenges. (Photos: Moayed Al-Qattan and Hasan Al-Mubarak/IMPD)

the most valuable publicly traded company in the world.

The CEO touched on a wide range of other topics with the Harvard visitors, including the company’s global commitment to environmental stewardship through cut-

ting carbon emissions, our cutting-edge approach to technology and innovation through Aramco’s 11 global research centers, and the resilient response of the company’s workforce to the attacks on facilities in 2019.

‘working together to reach solutions’

Nasser underlined the long-term importance of reliable, sustainable, clean energy on the world economic stage.

“It’s important for us to show that we have affordable, reliable, sustainable and cleaner energy available for customers,” he said. “When you look at what’s happening globally with climate change and everything around that, it is a valid concern for everybody, but at the same, we need to work together to reach solutions.”

In a warm moment, he urged students to “feel good” about themselves.

“Worrying too much will impact upon the way you act,” he said. “You need to be logical. When you wake up, you need to be fresh without having to think too much. I need my eight hours of sleep every night!”

During their tour, the Harvard group also visited company operations at Shaybah, the Oil Supply Planning and Scheduling Department (OSPAS), and the King Abdulaziz Center for World Culture (Ithra).

Harvard graduate Yasser K. Al Oadah, an acting staff analyst with Domestic Refining & NGL Fractionation, also participated in the visit, as did current Harvard MBA students Saud A. Alrabeaia and Khalid M. Gimlas.



During their tour, the Harvard group also visited company operations at Shaybah, OSPAS, and Ithra.



GLOW now offers Qudrat prep

Qudrat college prep course registration is now open.

<http://GLOW.Aramco.com.sa/>

Registration ends Jan. 20

Dhahran

Only SR200

Building Information Modeling

digitalizing construction brings big benefits, improves efficiency

Dhahran — Digitalizing the process of designing and constructing buildings and infrastructure projects has advanced dramatically over the past few years, and brought significant benefits to Saudi Aramco in improving efficiency.

With the introduction of a Building Information Modeling (BIM) system, the days of legacy engineering packages based on 2-D drawings from each discipline — one for architects, another for civil engineers, another for mechanical engineers, and so on — are long gone. This traditional system required frequent revisions to include missing details such as elevations, penetration points for utility services, or the required amounts of construction materials.

Modifying and rectifying all these different designs at the construction site, to fit routes for cables or water lines, and account for differences in elevation, added many field engineering man-hours to resolve clashes on-site, which often created unexpected schedule delays.

Today, the arrival of BIM has introduced a number of advantages to the process of construction projects, and Saudi Aramco Project Management has standardized the use of BIM in infrastructure projects.

building EXPEC ARC's research facility

The ongoing project to build a major state-of-the-art research facility for the EXPEC Advanced Research Center (EXPEC ARC), for instance, has been engineered and detailed through the use of BIM, allowing for different offices around the globe to seamlessly collaborate on one design model — leveraging teams of different disciplines



Building Information Modeling allows project planners to see beyond the three spatial dimensions into 4-D, where engineers can view the sequence of construction through 4-D simulation. The new process has been applied to planning for the new EXPEC Advanced Research Center facilities in Dhahran.

across different time zones.

With more than 20 utility services spanning thousands of meters of pipes and cables, BIM has brought order to what could have been unmanageable. A project as large and complicated as EXPEC ARC might have been a monumental challenge during construction if design had still been handled with 2-D drawings. At one point during the engineering, there were 5,000 major design clashes to resolve for the EXPEC ARC construction. With BIM, all were cleared and sorted during the design phase, instead of during the construction phase in the field.

a flexible tool for Project Management

BIM has proved to be a very flexible tool, and the Project Management Team (PMT) has taken it further, using it to organize a digitalized virtual walkthrough of EXPEC

ARC with stakeholders. In presentations, stakeholders are able to visualize and clear ambiguities room by room and to examine life safety egresses, equipment clearance, and access for operations and maintenance purposes.

Giving stakeholders a chance to walk through a project — virtually — allows the PMT to get critical feedback at a time when construction is still ongoing, instead of during handover. Virtual walkthroughs give the PMT a chance to avoid expensive reworks and wastages that otherwise would happen after the construction phase is complete.

Aside from visualization tools, BIM also adds other tools that allow project managers to keep tabs on needed materials, cost tracking, and construction schedules. A Bill of Materials can be extracted right from the model, allowing for accurate estimates and efficient materials ordering and tracking.

moving beyond three dimensions

Moving beyond the three spatial dimensions into 4-D, engineers can view the sequence of construction through 4-D simulation, which enables construction to foresee the constructability zone by zone to engage and organize multiple construction disciplines and plan manpower needs with contractors.

There is also a fifth dimension, an option for cost tracking against the construction schedule, and after startup, operation and maintenance, facility engineers can utilize BIM through 6-D and 7-D to optimize energy consumption and manage the asset's life cycle.

With disruptive technologies, the construction industry is being digitalized while Saudi Aramco has maintained an agile position to continuously advance buildings and infrastructure construction projects.

coming soon to an office near you

'Co-Work' a new approach to planning and design in the workplace



The Office Services Department set about re-designing the Investor Relations office space with employee welfare in mind to provide staff with the optimum operating environment, creating zones for conference calls, virtual meetings, and collaborations to support the business functions. Trendy, unconventional furniture was chosen to foster a warm and fun feeling within an atmosphere of serious work.

by Gehan Mufti

Dhahran — Saudi Aramco's Office Services Department (OSD) recently completed an office space renovation project for Investor Relations (IR), transforming its office area from a standard working space into a sophisticated, dynamic, and smart environment.

The unique outcome came as a result of implementing a new approach to office space planning and design, known as "Co-Work." Today, the Co-Work concept is being applied throughout the corporate world and has now been implemented at Saudi Aramco.

A few organizations have already taken the initiative and introduced a version of the Co-Work concept at their own work environments, which can be seen in North Park III, Al-Midra Tower, and the Tower Building. As a result, businesses have noticed a significant increase in employee collaboration and improved operations.

a more modern, up-to-date look

IR approached OSD's Office Space Design team back in April 2019, with the intention of renovating its existing office space to reflect a more modern, up-to-date look. OSD's designers met with the three department heads of IR Operations, International IR, and IR.

After listening to their requirements, the designers proposed moving away from a standard office theme — one of rigid office furniture and regular office cubicles — and applying a new, original, and innovative theme that carried with it a fresh, energetic vibe.

OSD set about re-designing the IR office space with employee welfare in mind to provide staff with the optimum operating environment, creating zones for conference calls, virtual meetings, and collaborations to support the business functions. Trendy, unconventional furniture was chosen to foster a warm and fun feeling

within an atmosphere of serious work. OSD also included height adjustable smart furniture to provide the ergonomic option of working while standing — as an added health benefit.

Additionally, the environment has also been given greater consideration, in terms of lighting efficiency, waste minimization, and simply adding plants and running water as partitions to improve air quality. Important supporting areas such as a conference room, huddle room, and a storage room were also created.

The three departments were conveniently moved to a swing space within the same building during implementation to avoid disturbing their operation.

meeting the audiovisual challenge

One critical requirement was the installation of audiovisual equipment and several screens. Although a challenging

request, the designers, the Office Technology Group, and office space planners worked with the vendor to ensure successful implementation of the objective while maintaining the desired high standard of quality.

IR has now moved into the newly renovated office space and are experiencing the Co-Work concept, firsthand.

"We did find that the Co-Work open space within confined areas or departments helps people collaborate and share information," said Khalid A. Al-Ahmed, manager of in-Kingdom IR. "It also increases the productivity of the team as they can communicate better and have quick meetings and discussions."

Overall, the smart and dramatic design has not only created additional space accommodating supporting areas, but has completely transformed the area into a sophisticated office space and uplifted the entire work environment.

Manifa Producing forum touts high-tech sustainability, environmental protection solutions

by Fahd S. Al Shahrani

Manifa — Known for its causeway design, Manifa is one of Saudi Aramco’s most unique, innovative, and environmentally friendly mega-projects.

The Manifa Producing Department (MPD) is always looking for ways to establish a culture of knowledge sharing in the area of environmental protection, and with this in mind, MPD recently organized the inaugural Manifa Environmental Forum and Exhibition.

With more than 300 delegates attending, the event featured technical presentations and an exhibition that had participation from a variety of departments, academic professionals, and technology and service providers.

Participants, who shared knowledge and presented on topics such as air quality, water management and conservation, waste management, marine life protection, and biodiversity, included company experts, academia from King Fahd University of Petroleum and Minerals, and a variety of leading service providers and companies.

environmental goals for the company and the Kingdom

MPD manager Mohammed H. Al Ghamdi noted that the Kingdom’s Vision 2030 prioritizes environmental protection, conservation of natural resources, and sustainable development, with a number of objectives, programs, and initiatives geared to serve these purposes.

Al Ghamdi said Saudi Aramco considers environmental protection from the beginning to end of all projects and in the normal operations of its facilities, and MPD works hard to play a leadership role in achieving the Vision 2030 goals while in full compliance with the company’s corporate environmental policy.



A representative from Emerson presents some of the company’s newest environmental protection technologies to a delegation from Northern Area Oil Operations (NAOO), including NAOO vice president Dawood M. Al-Dawood and other members of the management team.

He further noted MPD’s past environmental achievements, including obtaining key certifications, being ranked among the best areas in limiting flaring, and planting 60,000 mangrove seedlings along Manifa Bay.

technology and innovation on display

Dawood M. Al-Dawood, vice president of Northern Area Oil Operations, was joined by the organization’s management team and representatives from participating companies in opening the exhibition. Al-Dawood thanked the organizers, and encouraged the attendees to support the knowledge sharing culture.

More than 20 exhibitors participated, presenting the latest environmental technologies and innovations such as additive manufacturing and its use in metallic 3-D printing, data analytics, environmental engineering consulting, waste management, and greenhouse gases emission measurement technologies.

In the technical program, a number of topics were discussed, including:

- The outcome of environmental assessment studies conducted at Manifa, including an Environmental Impact Assessment study prior to construction of the causeway and post-construction environmental monitoring after its construction.
- A presentation on waste management

sustainability, which included a call to reduce the amount of waste produced, and to encourage a circular economy.

- Discussion on the importance of Vision 2030, where work is required to ensure waste generators and proper procedures by waste management companies.

Perdana Prihartato and Tyas Hikmawan from the Environment Protection Department (EPD) presented on the benefits of using wide band autonomous transceivers for biodiversity measurements and advanced drilling cutting treatments, including length of deployment, cost savings, and greater efficiency.

The technical program concluded with six presentations by EPD and the Inspection Department, and technology providers touched on technologies, including flaring optimization, and fugitive and emission leakage solutions.

The event organizing team leader, Waleed Al-Otaibi, a Manifa engineering superintendent, concluded the forum by stressing the importance of such gatherings and partnerships between Saudi Aramco and technology providers in the field of environmental protection.

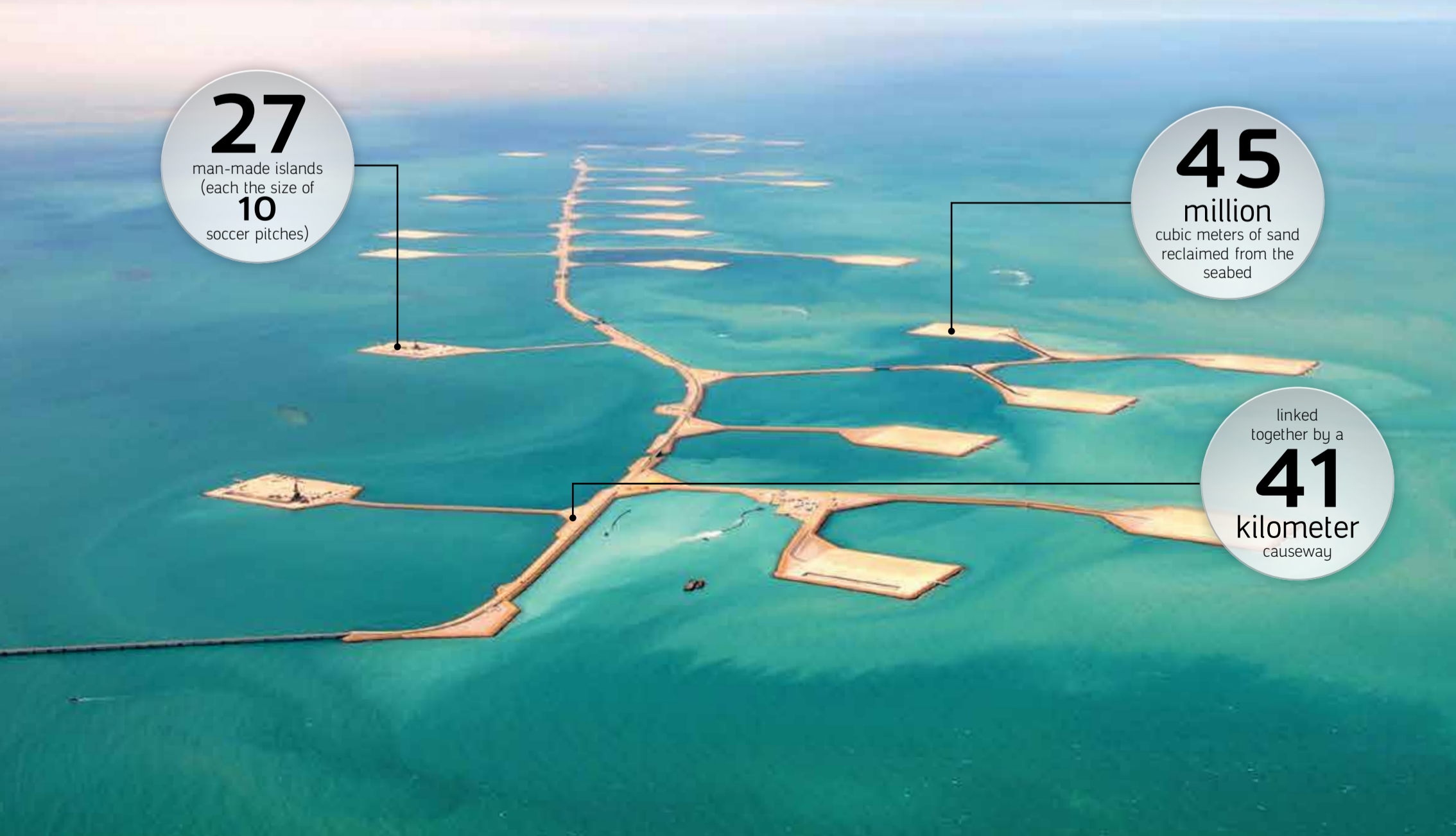


learn more about Manifa

27
man-made islands
(each the size of
10
soccer pitches)

45
million
cubic meters of sand
reclaimed from the seabed

linked together by a
41
kilometer
causeway



a few firsts for Shaybah Producing

young employees get a chance to learn about Southern Area and its programs

by Mohamed Lyzzaik

Shaybah — The Shaybah Producing Department (SyPD) recently hosted a knowledge sharing meeting for young engineers within Southern Area Oil Operations (SAOO).

SyPD management team members and participants in the SAOO Professional Development Program (PDP) attended the meeting, which provided the young engineers with an opportunity to exchange knowledge, interact with members of management, and ask questions about their future development as part of their professional progress and PDP journey.

The “SAOO PDP Knowledge Exchange Program” marked the first such meeting in Shaybah since the organizational move that saw the department shift from Northern Area Oil Operations to SAOO.

SyPD engineer Abdulaziz F. Almudayfir opened the forum by welcoming the PDPs

to the Shaybah area, followed by remarks from SyPD manager Khalid H. Al-Jamea. He welcomed the attendees and highlighted the importance of their role as the future leaders of Saudi Aramco. Al-Jamea also stressed that they have full control of their professional development.

“Never outsource your professional development,” he stressed.

first SAOO female PDP in Shaybah

The program also featured the first female PDP to attend such a program in Shaybah. Seham N. Boulaiyan, a recent graduate of Prince Mohammad Bin Fahd University, majored in computer engineering.

Boulaiyan is currently working as a network engineer with the SAOO Technical Support Department. She said her first visit to Shaybah was “an eye-opening experi-

ence that has made me truly appreciate the unforeseen beauty of Shaybah.”

Boulaiyan added that the sunset view on the red sand dunes is a magical sight that “adequately wrapped the trip up for me. A trip to the Empty Quarter will undoubtedly leave you filled with enjoyment and appreciation.”

The meeting was attended by 47 PDPs from all disciplines within SAOO. Five technical presentations were presented by the young engineers in the forum. The full day program was designed not only to inspire and motivate the young professionals, but to also ensure that they are fully aligned with the strategic objectives of the company.

The visit gave the PDPs the opportunity to tour the Shaybah Producing facilities at GOSP-4, and included a trip to the famous Shaybah red sand dunes at sunset — one of the most wondrous sights in the area.



A trip to the Empty Quarter will undoubtedly leave you filled with enjoyment and appreciation.

— Seham N. Boulaiyan

Some of the 47 Professional Development Program employees pose for a photo on the red dunes of Shaybah after a knowledge sharing meeting for young engineers in Southern Area Oil Operations. The remote area provided a remarkable backdrop for the event.



Saudi Aramco hosts first-of-its-kind geoscience technical forum in Dhahran



As part of the American Association of Petroleum Geologists Geoscience Technical Workshop in Dhahran, participants were invited to visit the Prosperity Well Dammam dome on a field trip that shared the fascinating geological history of the area and the impact of the various geologic phenomena that can be observed there.

Dhahran — A proper and comprehensive workflow that incorporates all available data is critical to the success of hydrocarbon exploration and to delivering a robust subsurface model for accurate resource assessment and proper oil and gas development.

That was the message shared with participants by Misfir A. AzZahrani, Saudi Aramco's executive director of Exploration, during the recent American Association of Petroleum Geologists (AAPG) Geoscience Technical Workshop in Dhahran.

The theme of the workshop was “Integrated Emerging Exploration Concepts: Challenges, Future Trends, and Opportunities.”

In his keynote address, AzZahrani spoke

about the importance of integration in any workflow.

With the global demand for energy, introducing new exploration concepts for new hydrocarbon resources is indispensable, said AzZahrani.

An essential practice in the hydrocarbon exploration business is integrating multidisciplinary approaches to reduce uncertainty and therefore cost, he added.

a first for Saudi Aramco in Dhahran

Saudi Aramco's Exploration organization collaborated with the renowned AAPG to hold this workshop in Dhahran for the first time. Fifty professionals representing 14

companies and institutes from nine countries attended the workshop.

The technical program included five technical sessions covering various aspects of exploration, including best practices, modeling, underexplored concepts, geophysical advancements, and case studies.

AAPG Middle East president Anwar Al Beajji, who welcomed attendees to the workshop in Saudi Arabia, emphasized the importance of technical seminars in exchanging knowledge and overcoming technical challenges.

After each technical session, group discussions tackled various challenges and proposed recommendations to existing workflows and methodologies. Participants

expressed appreciation for the discussed subjects and ideas, as exchanging lessons learned and their varied experiences enriched the group discussions.

A highlight of the workshop was the participants' visit to the Prosperity Well Dammam dome. Field trip leader Salvatore Di Simone explained the fascinating geological history of the area and the impact of the different geologic phenomena that can be observed in outcrops.

At the end of the workshop, technical committee chairman Fahad Al-Najrani thanked platinum sponsor Saudi Aramco, gold sponsor Schlumberger, and the Dhahran Geoscience Society for providing excellent support in facilitating the event.

ECC digitalization efforts brings more than 500,000 tapes into new system



EXPEC Computer Center general manager Abdullatif A. Al-Ghanim and other members of management pose with members of the team that recently completed the Seismic Tape Migration Project. The multi-year project was the last phase of ECC's Seismic Data Archival Strategy. The project goal was to migrate seismic data archived on tapes from a legacy system to a new technology. (Photo: Nadiah Buobaid/MPD)

by Musherf Alamri

Dhahran — Saudi Aramco's EXPEC Computer Center (ECC) recently celebrated the completion of its Seismic Tape Migration Project.

The multi-year project was the last phase of ECC's Seismic Data Archival Strategy. The project goal was to migrate seismic data archived on tapes from a legacy system to a new technology.

ECC general manager Abdullatif A. Al-Ghanim underscored the scope of the project that covered more than half a million tapes. The five-year project was completed 17 months ahead of schedule, Al-Ghanim pointed out.

"It speaks for the teamwork across the board," he said. "Within ECC, so many organizations had to be involved and collaborate on a continuous basis, and within Exploration several organizations ... it speaks volumes about your efforts."

Al-Ghanim also acknowledged the contributions from support organizations across the company.

a matter of efficiency and security

This project was part of ECC's long-term strategic plan to move from the old seismic archival system toward an efficient, reliable, and commercially supported system to safe-

guard Saudi Aramco's seismic data investment.

The new technology offers higher efficiency, as the number of tapes was reduced from over 500,000 to less than 5,000. This allowed for the reduction in required storage space by more than 90%, resulting in cost saving in terms of cooling and electricity requirements.

new system provides expansion, enhancement opportunities

Additionally, the project enables the accommodation for future expansion, enhanced efficiencies at the facility, and redeployment of human resources.

Through the course of the project, ECC invested a considerable amount of time implementing automation tools to monitor 24/7 activities. In addition, Exploration dedicated a team to oversee every data set migrated to the new system.

"This would be the last time ECC migrates data via manual transcription," Al-Ghanim noted. "The data in the new system is organized based on logic instead of physical placement, so future migration will be a process instead of a project."

Key participating personnel and organizations that contributed to the outstanding success of the project were acknowledged, including project leader Abdullah F. Alyabes.



read it on the intranet

for the full story on the headlines below, visit <https://home.aramco.com.sa/Pages/homepage.aspx#>news> (Our Latest News)

Power Systems awarded ISO 55001 for integrated plan to raise excellence in maintenance, operation of energy systems



Members of Saudi Aramco's Power Systems Operations Department pose with members of management in recognition of its recent achievement of being awarded ISO 55001 Asset Management Certification. The certification is a recognition of Power Systems' integrated plan implemented several years ago to raise the level of excellence in the maintenance and operation of energy systems to the highest global levels in terms of safety, quality, and efficiency.

reliability technical exchange: one step further in adopting innovative maintenance technologies

Eyad A. Al-Basrawi addresses participants of the recent reliability technical exchange meeting. The event highlighted the efforts of maintenance organizations to deploy innovative technologies through collaboration.



NAOO hosts ethics awareness workshops with help from Internal Auditing

Kazi Rahman of the Special Audits Division delivers one of three awareness workshops to NAOO employees. The sessions, which sought to raise the awareness level among employees about applying company policies and procedures related to conflicts of interest and business ethics in a consistent manner, were held in Tanajib, Khursaniyah, and Manifa.



Northern Area/Western Region Community Services makes contractor safety its No. 1 priority

Making it a priority for the Northern Area/Western Region Community Services Department, Fahad A. Al Ghamdi asks the department's teams to look at how safety within the department's operation could be improved through the implementation of several initiatives. At a recent meeting, Al Ghamdi recognized several department safety initiatives, including a driver safety program for contractors.



Human Resources hosts forum for in-Kingdom subsidiaries, joint ventures, and affiliates

The recent HRJVS Forum provided Saudi Aramco's in-Kingdom partners a platform to come together and share expertise, address common challenges, and network. Here, Nayef S. Otaibi, manager of the Organizational Consulting Department, takes part in a panel session with Human Resource consultants. The panel was moderated by Zuraia Zuraia. "Joint ventures and subsidiaries represent a critical part of our commitment to the country and the company," said Saudi Aramco HR executive director Nabil K. Al Dabal.



Saudi Aramco hosted event seeks collaboration toward industrial energy efficiency

In his keynote speech, Ali H. Al Qahtani, Energy Systems Division general supervisor and president of the local Association of Energy Engineers (AEE) Saudi Chapter, emphasized the important role Saudi Aramco's Energy Management Program has played over past years in improving the energy performance of the company's operating facilities. Under the theme of "Industrial Energy Efficiency," our Process and Control Systems Department recently conducted a technical event for the regional chapter.



in search for oil under a sea of sands

by Musleh J. Khathami

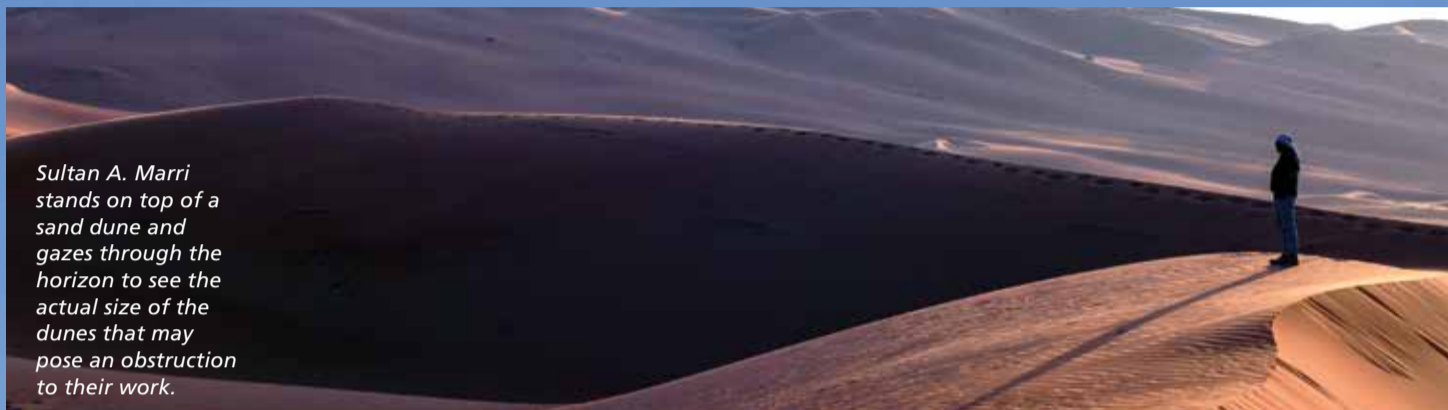
(Photos: Ding and Hasan AIMubarak/MPD)

Rub' al-Khali — In the midst of a sea of sand dunes on the eastern outskirts of the Rub' al-Khali, Fahd M. Amri, a senior seismic survey specialist, stops his car and disembarks to test sand density and the possibility of four-wheel drive vehicles passing through the vast expanse of dunes.

Previously, he has considered sand formations on satellite maps and drawn up a proposed route for crossing. Meanwhile, his colleague, Sultan A. Marri, a seismic survey specialist, stands on top of a sand dune gaz-

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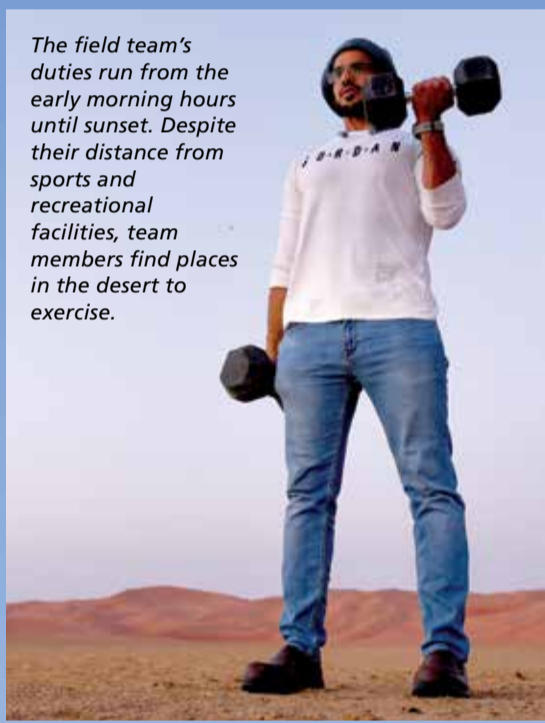
A seismic survey specialist, Abdullah S. Alobaidah places the GPS coordinate data receiver on a reference scan point. Alobaidah holds a bachelor's degree in Geomatics from King Abdul Aziz University in Jiddah.



Sultan A. Marri stands on top of a sand dune and gazes through the horizon to see the actual size of the dunes that may pose an obstruction to their work.



Sultan A. Marri calibrates the GPS coordinate data receiver at a reference scan point. The reference survey points associated with the global coordinate system are a main pillar in obtaining highly accurate local data, and these points scattered in many regions, are built and measured across several private and governmental bodies to serve the purposes of the high precision survey. Marri holds a bachelor's degree in Surveying and Cartography from the University of Newcastle, U.K.



The field team's duties run from the early morning hours until sunset. Despite their distance from sports and recreational facilities, team members find places in the desert to exercise.



Andrew W. Bowes, High Definition Marine and Seismic Data Quality Control Team leader (middle), and team members Khaled N. Alsoqair (right) and Lihua Ju use mathematical and statistical tools to verify seismic survey data transmitted by field crews before uploading them to the company's database.



Lahiq Shammary, a supervisor with the Exploration Surveying and Seismic Data Quality Control Team, shows us working in the Al Kidan area of the Rub' al-Khali, back shows one of the old instruments used by Saudi Aramco exploration teams. Shammary is one of the first Saudis to climb the ladder through training and development programs, earning a degree in Surveying Engineering from Oregon State University in



through the horizon to see the actual size of the dunes surrounding the worksite. The sight of Marri and Amri is reminiscent of the photographs of early explorers and cartographers who crossed the Rub' al-Khali on camels and documented their travels with their companions who were, by nature, experienced desert guides. On the contrary, however, Amri and his two colleagues, Marri and Abdullah S. Alobaidah, represent Exploration's younger generation. They are equipped with advanced devices and technology while crossing the Rub' al-Khali in an assignment in the Um Az Zumul area, 160 kilometers from the facilities at Shaybah.

Within the Geophysical Imaging Department's Exploration Survey Unit, the role of the Well Location Team is an essential component of the oil and gas reservoir exploration activities Saudi Aramco carries out in the Kingdom's various regions. Once a comprehensive picture has been obtained through a seismographic survey, and thorough treatment and examination of the results have been completed, Exploration sends out the Well Location Team to obtain a more accurate picture and confirm that the site is appropriate for drilling, and in conformity with safety and engineering standards.

The team also obtains the site's accurate di-

mensions and passes them on to the Drilling and Workover Department, which constructs an access road and erects the rig. Later on, once the construction activities are completed, the team returns to the site to perform final survey activities.

Our writer and photographers were given an opportunity to accompany the team and document their assignments. We flew from Dammam Airport and joined them at the Shaybah airstrip.

They had arrived at Shaybah by land ahead of us, coming from Dhahran and passing through a number of areas in the Kingdom in a trip that lasted 11 days and covered more

than 15,000 kilometers.

From the Shaybah airstrip, we traveled for two days with our companions in four-wheel drive vehicles, leaving the Shaybah facilities behind and covering hundreds of kilometers while we moved from one site to another of the team's work sites in the Um Az Zumul area.

Over the horizon, all you could see were extensive *sabkhas* and the Rub' al-Khali dunes, which, despite their charm, sometimes prove to be difficult to get through. The team, however, possesses sufficient knowledge, tools, passion, and physical fitness to complete their mission.

Fahd M. Amri gets out of his vehicle to test the possibility of four-wheel drive vehicles crossing through the dunes, after he had studied sand formations on the maps taken via satellite images and drew up suggested ways to cross.



In addition to on-road travels, the team traverses rougher areas, either passing through sand dunes or traveling on unpaved tracks, during trips in the Kingdom to identify and measure the dimensions of exploration sites. Various global positioning devices are employed to reach the work sites. These advanced, encrypted devices enable communication and guarantee the safety of the team. Over the past 10 years, the team has covered more than 15.1 million kilometers.



Team vehicles leave one of the areas that has been identified as a potential drilling site. Next up is to build a road to make way for the installation of a drilling platform. In 2019, the team identified more than 1,000 sites for traditional and nontraditional exploration.



Survey Unit, at his office in the Kingdom, a photo of himself while working in 1984. The photograph shows his earlier generations of colleagues who climbed the professional ranks, earning a bachelor's degree in 1994.



The Exploration Survey Unit performs numerous tasks in support of Exploration's projects. In this photo, Richard G. Moffitt, a survey consultant with the Geophysical Imaging Department (second from left), discusses with his team members (from right) Daqing Sun, Lincoln Chenneour, Allan Anderson, Abdessattar Gharbi, and Mohamed Sheikhelsafi, marine exploration survey and drilling locations on a map detailing water depths in the target area to facilitate safe navigation and estimate surveying areas.



At his home in Dhahran, Fahd M. Amri uses a map of the Kingdom to test his children's knowledge about some of the locations he has visited through his work.

Saudi Aramco sees a strong future for nonmetallics

by Musherf Alamri

Dammam — Under the theme of “Expanding Nonmetallic Application and Shaping the Fourth Industrial Revolution,” the second Materials Performance and Welding Technologies Conference and Exhibition was recently held in Dammam.

a bright horizon for nonmetallics

In a keynote speech, Saudi Aramco Technical Services senior vice president Ahmad A. Al Sa’adi spoke about the future of nonmetallic materials, adding that Saudi Aramco encourages the deployment of nonmetallic materials as it resolves operational challenges and presents an additional growth opportunity for the Kingdom’s economy.

“Our goal is to lead the nonmetallic materials business globally. To get there, we want to increase oil demand, generate more revenues, minimize life cycle cost, localize manufacturing, and reduce our carbon footprint,” said Al Sa’adi.

Saudi Aramco is working to achieve this mission by pursuing the following four fronts:

- Maximizing nonmetallic deployment
- Promoting research and development
- Encouraging manufacturing localization through the In-Kingdom Total Value Add Program (iktva)
- Investing in relevant companies in all



Ahmad A. Al Sa’adi

stages of their maturity.

Saudi Aramco has already made progress on those fronts, such as the collaboration with The Welding Institute in the U.K. to establish the Nonmetallic Innovation Center to support research and development, as well as the installation of 6,500 kilometers of nonmetallic pipes.

Saudi Aramco is looking beyond the oil and gas sector to maximize the usage of nonmetallic materials, including the automotive sector, building and construction, the packaging sector, and in the field of renewable energy.

people are the key

Realizing the potential for deployment, Saudi Aramco has provided in-house non-metallic material training for more than

250 employees since 2009 to prepare the workforce, Al Sa’adi said.

“It is important to note that for nonmetallic material to reach their full potential and achieve maximum good for society, the training and preparation of our workforce is absolutely essential,” he said.

In alignment with the Kingdom’s Vision 2030, nonmetallic material manufacturing will be localized via the iktva program, he said. So far, 17 international nonmetallic material companies with an estimated investment of \$314 million are establishing operations in Saudi Arabia.

Al Sa’adi noted Saudi Aramco’s commitment and endeavors in deploying the Fourth Industrial Revolution (IR 4.0) technologies, such as managing corrosion via an intelligent corrosion management dashboard that relies on 25 million data collection points.

Nabil A. Al Nuaim, Saudi Aramco’s acting chief of Digital Transformation, summarized his comments in three main points:

- IR 4.0 is about working intelligently, and Al Nuaim cautioned from the notion that artificial intelligence will replace humans completely.
- It is crucial to network with people from different areas and backgrounds, such as investors, technology providers, and entrepreneurs, to become aware of



Our goal is to lead the nonmetallic materials business globally. To get there, we want to increase oil demand, generate more revenues, minimize life cycle cost, localize manufacturing, and reduce our carbon footprint.

— Ahmad A. Al Sa’adi

the latest trends and the best determinations.

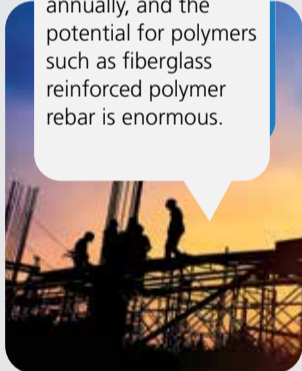
- A key for success to innovate solutions for global challenges is to collaborate across organizations and with technology providers.

In alignment with the theme of the conference, the event included one technical track for the deployment of nonmetallic applications and another for IR 4.0, in addition to a panel discussion and a session for local investment opportunities within the Kingdom focusing on the two areas.

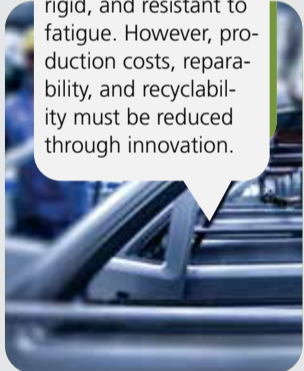
The event included six pre-conference workshops — 45% of which were authored by professionals and scientists from across 22 countries, in addition to those presented by representatives from the Middle East region. Saudi Aramco was a diamond sponsor.

Mohammed F. Barout, a supervisor at Saudi Aramco’s Technical Services Professional Academy, served as the conference chairman, while Tariq A. Al Ghamdi from our Consulting Services Department was the vice chairman.


Nonmetallics provide a number of opportunities beyond the oil and gas industry, including:



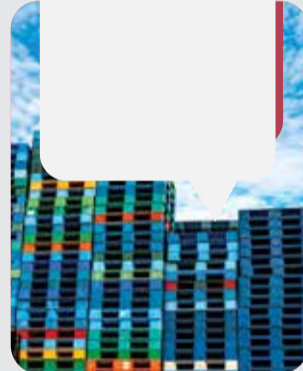
Building and construction



Automotive sector



Renewable energy



Packaging sector

This industry is the largest sector in terms of global material consumption with 6 billion metric tons annually, and the potential for polymers such as fiberglass reinforced polymer rebar is enormous.

A significant opportunity exists to replace metals with polymers such as carbon fiber, as they are lighter, less rigid, and resistant to fatigue. However, production costs, reparability, and recyclability must be reduced through innovation.

Saudi Aramco envisions replacing the glass in solar panels with polycarbonate due to its light weight, impact resistance, and low thermal conductivity.

An opportunity exists to fast-track the adoption of plastic pallets in industrial and transport packaging.

high school female students attend workshop on health, safety, and environment

by Noor Algadheb

Dhahran — Eighty-four female high school students from Prince Mohammed Bin Fahad School in Dammam recently participated in a workshop on health, safety, and the environment (HSE) at the Technical Exchange Center (TEC) in Dhahran.

The workshop was organized by the Exploration Drilling Department, in collaboration with the Northern Area Oil Drilling Department, the Exploration and Oil Drilling Engineering Department, and Schlumberger, as part of the departments’ annual HSE youth campaign.

The goal of the youth campaign is to educate male and female youth around the Kingdom about a variety of HSE topics. The recent workshop at the TEC focused on water conservation, road safety, injury prevention, and internet safety. The campaign targets a different public school every year to spread HSE awareness and to engage students in learning activities.

“We are taking the responsibility to plant the seeds of awareness in the minds and hearts of young Saudis, who will become our future leaders by protecting our environment, adopting healthier lifestyles, becoming safe drivers, and becoming socially

responsible citizens,” said Jamal A. Watban, Exploration Drilling Department manager.

The workshop included:

- Real-life scenarios of dangerous situations and a decision making model students can use in such situations
- Key information on water conservation, water pollution, and water purification methods
- A session on internet and social media awareness that highlighted online scam techniques and protection methods against cybercrime
- An introduction to vehicle safety and physical activity safety to avoid injury.

The students, who also received materials on safety and energy efficiency, took advantage of the opportunity to interact with the instructors by asking questions and sharing personal stories. At the end of each session, the students wrote their commitment to safety on a promise wall to reinforce what they learned.

A number of volunteers from the Drilling and Workover Training Division and the Drilling Operational Excellence and Compliance Division contributed to the success of the workshop by guiding the students during the four sessions.



Mary M. Maksoud welcomes nearly 85 female high school students from Prince Mohammed Bin Fahad School in Dammam to a health, safety, and environment campaign held recently at the Technical Exchange Center in Dhahran. Fellow employee Roaa Al Filfil shares with the students potential consequences of risky behavior as part of one of several presentations made during the event. The workshop focused on water, conservation, road safety, injury prevention, and internet safety. As part of the event, the young participants were encouraged to sign a commitment to employ the lessons learned during the event, which is part of the company’s citizenship efforts. (Photos: Nadiah Buobaid/IMPDP)



SAEA trip provides lifetime opportunity to watch ‘Ring of Fire’

by Ghaith Alshaia



Al Hofuf — Under the spectacular sky of Dec. 25, the Saudi Aramco Employees Association (SAEA) started out on a trip to watch the final solar eclipse of 2019 — a farewell to the year at its most dramatic fashion.

Above the sand dunes near al Hofuf, the special spot was selected carefully as it was the only Gulf city over which the eclipse shadow would pass with an unrivaled view of the “Ring of Fire” eclipse.

The group of 60 SAEA multinational participants armed with their camping gear, cameras, and protective eclipse glasses moved to the campsite that is approximately two hours from Dhahran in a charming and very quiet location

southwest of al Hofuf.

The group was welcomed with Arabian coffee, which was followed by a delicious barbecue dinner. Later that night, the group enjoyed stargazing while sitting around the fire and everyone — especially the young participants — enjoyed spotting different well-known planets and stars.

Before midnight, all went to sleep, excited about waking up to the eclipse in the sky on the morning of Dec. 26. The spectacular solar eclipse is believed to be the first-of-its-kind in the Kingdom since 1901 and will not be seen again in the region again until 2103.

The group woke up early to breakfast and coffee around the fire before everyone gathered

at the designated spot for watching at the top of a hill. Around 6:30 a.m., the annular eclipse started and the groups watched as the moon moved slowly in front of the sun, blocking out its center but leaving the edges visible — creating a magnificent scene of the “Ring of Fire” around the moon.

“This event is a crown jewel in my personal memories about the Kingdom and our company,” said Pramod K. Jayam, one of the lucky participants who made the trip. “Thank you for making it a special memory for my entire family, including my little niece who is visiting from the U.S.”

The trip was led by SAEA board member Ghaith Alshaia.

spotlight



Petroleum Engineering and Development (PE&D) recently recognized 40 employees with 30 years or more of service to the company with a ceremony at the Dhahran Plaza Center. The event, which also recognized employees who have gone 35 years without an incident, was presided over by Mohammed Y. Al Qahtani, senior vice president of Upstream, and Nasir K. Al-Naimi, vice president of PE&D — both of whom recognized the loyalty, commitment, and pride the recipients demonstrated in their years of service, while also noting it is upon such dedication that the success of the organization is built. Also attending the event were a number of members of PE&D management. Among those recognized for service were: (40 years) Ibrahim Al Mousa; (35 years) Ali Taq, Jaffar Al Dubaisi, Adnan Hosawi, Ahmad Al Humaidi, Hany Al Ohaily, Shaheed Mahr, Ali Al Khater, Abdullah Al Eidi, Abuljaleel Al Eid, Hamed Al Ghuwainim, Lowy Al Saleh, AbdArRahman Al Subai, Jawad Al Khalaf, Abdulaziz Al Shehri, Khalid Al Najrani, Hassan Nassir, Ahmed Al Saleh, Hamad Al Marri, Abdulmunim Ramis, Mohammad Al Nefai, Faisal Al Shuraidah, Khalid Al Mohanna, Ali Al Hussein, Walid Habiballah, Uthamn Al Otaibi, Mansour Al Duhaime, Salman AlAqeel, and Abdallah Al Behair; (30 years) Mastour Al Ghamdi, Edwin Caliboso, Khalid Rufaii, Mohammad Al Amoudi, Salah Al Saleh, Fahad Al Hamad, Faisal Al Thawad, Mohammad Al Mulhim, Mohammad Al Ansary, Ali Al Belowi, and Ali Dogru. Employees recognized for 35 years without a safety incident were Shaheed Mahr, Jawad Khalaf, Abdulaziz Shehri, Mohammad Nefai, Uthman Otaibi, Salman Aqeel, Saeed M. Al Ghamdi, Ahmed M. Al Rebh, Khalid M. Al Arfaj, Abdul Razzq S. Al Muhaish, Mohammad H. Alqam, Mohammad A. Al Awaisi, Ahmed S. Al Ramadan, Sadeq A. AlZahir, Mustafa A. MUSAQLAB, Adil A. Bubshait, Hamdi M. Al Ghamdi, Ali Z. Al Otaibi, Sami Al Maidani, Ibrahim A. Al Muhaif, Fahad S. Al Qahtani, Zaki A. Al Faraj, Waleed Y. Al Awadh, Ageel M. Al Marzooq, Abdullah M. Al Faza’a, Saad A. Al Garni, and Saleh M. Al Amoudi.



Following the success of last year’s inaugural event, the Crude Oil Sales and Marketing Department recently hosted a delegation from Platts, a leading market intelligence and price assessment company, for a Platts Saudi Aramco Day. The event brought together many experts from across Saudi Aramco for an exciting day of learning, sharing, and networking. The hydrocarbon markets are very turbulent with volatility and uncertainty the only constants, making price discovery a taunting challenge. Discussions revolved around market fundamentals for both crude oil and LPG, the impact of IMO 2020, updates on the petrochemical sector, and the broad environmental issues faced by the oil and gas industry.



The Transportation and Equipment Services Department recently held a Safety and Best Practice Recognition Ceremony for 92 employees and contractors in Abqaiq, with 29 contractor drivers from Earadat and Samara being recognized for achieving outstanding safety performance with zero traffic violations/notifications or traffic accidents. In addition, 23 contractor employees were recognized from Al Shuwayer, Kanoo, Nass, Al Essa, UMA, Al Jazirah, and SRACO for excellence and outstanding contribution to the department’s overall performance. After that, 35 Saudi Aramco employees who contributed to reporting minor and major incidents, submitted safety suggestions, and reporting near misses in 2019 were recognized. The employees, who were recognized by Abdulrahman Z. Al Arfaj, superintendent of the Southern Area Transportation and Equipment Division, included Duaij M. Al Duaij, Abdullah K. Alqasem, Ahmed K. Almindil, Mohammad A. Alaitan, Mamdouh S. Al Shammari, Hashim S. Al Aamry, Abdulkader S. Al Yaseen, Abdulelah H. Al Haddad, Faleh A. Al Dossari, Abdulaziz A. Al Duaij, Yousif A. Al Abbas, Mohammed S. Almarri, Saleh J. Al Marry, Abdulmohsin I. Al Mulhim, Salih I. Al Naghmoush, Mohammad I. Al Mulhim, Shaya A. Al Hasan, Taha J. Al-Saleh, Mahdi A. Al Shamrani, Fawzi A. Al Dossary, Fahad M. Alrashidi, Fahd S. Albugami, Abdul Hameed A. Al Mousa, Abdullah H. Almuqhawi, Saeed S. Al Marri, Mohammed G. Al Qarni, Hassan A. Bokhamseen, Hussain E. Bu Shihab, Abdullah N. Alqhatani, Atif H. Al-Shehri, Ali H. Alramadan, Ali S. Al Jalla, Faisal Al Balawi, Khalid Al Subaie, and Falah Rishan. The ceremony was also attended by Loss Prevention and all contractors’ top management. Certificates and appreciation gifts were distributed to all recognized employees and contractors.

In line with the SMS E 11.03 (Reward and Recognition) Process, Domestic Refining and NGL Fractionation (DR&NGLF) recently recognized 33 employees from the Yanbu’ Refinery, Yanbu’ NGL Fractionation, and Cluster Shared Service departments. Suleman A. Al Bargan, vice president of DR&NGLF, presided over the event, which highlighted employees with 40, 35, 30, and 25 years of service. The event also recognized the employees’ families, as their support is critical. The recognized employees included: (40 years) Saad M. Al-Zahrani and Ali M. Al-Qahtani; (35 years) Abdulatif S. Al-Shami, Talib E. Al-Nakhli, Faisal M. Gofi, Jabir A. Al-Zahrani, Atef M. Mansory, Saeed A. Sindi, Saeed S. Al-Ghamdi, Khalid A. Ba Saif, Hamed M. Al-Dhahri, Jamal H. Meshedi, Abdulrahim M. Al-Sayed, and Abubakr A. Bafakeeh; (30 years) Fahad M. Al-Jadani, Khalid S. Bamofleh, Khalid F. Issa, Edgar M. Sabado, Fahad A. Al-Wehebi, Ahmed M. Al-Juhani, Mamdoh M. Al-Maghrabi, Abdulrazaq M. Al-Sahafi, Hasan S. Al-Nufaie, Mohammed A. Al-Shareef, Samer A. Al-Hindi, Khalid A. Al-Qahtani, Hasan A. Al-Harthi, Majed M. Zamzami, and Abdullah E. Al-Alwani; (25 years) Faisal S. Al-Zahrani, Yaarub S. Al-Ghannam, Mohammed S. Shareef, and Sultan J. Wetaishi.



from koshari to kibda

Jiddah Food Trucks Festival draws hundreds

Jiddah — Approximately 800 visitors recently attended a two-day Food Trucks Festival in the community of Jiddah.

The festival brought together a wide selection of savory and sweet specialty food trucks to offer families a happy and relaxed atmosphere, while enjoying delicious dishes prepared on-site.

A variety of food trucks offered attendees their favorite foods, including burgers, fries, and hot dogs, as well as traditional Arabic food such as koshari, *baleela*, *kibda*, and *mugalgal*.

There was also ice cream, pancakes, waffles, smoothies, and salads.

The event also included a clown show, a balloons corner, and an outdoor cinema for kids. Discount coupons were distributed to all guests to get free meals from the food trucks.



In addition to popular food offerings, the Jiddah Food Trucks Festival also included a clown show, a balloons corner, and an outdoor cinema for kids. Also, free discount coupons were distributed to all guests to get free meals from the trucks.

Crowds set up picnic blankets along a row of vendor trucks that were brought in for the recent Jiddah Food Trucks Festival. The offerings included a wide variety of local and international favorites, from burgers and fries to koshari and *mugalgal*.

school talent show a huge hit in Abqaiq



by David Kristjansen

The Abqaiq School recently held its annual Talent Show. Students were encouraged to come up with their own acts, which included a number of dance and singing performances.

A large crowd gathered in the Abqaiq School Gym/Theater and enjoyed a great show.

The participants were joined by members of the Abqaiq School Children's Chorus, Abqaiq School Rock Bands, and the new Abqaiq Community Kids' dance troupe, NEMO.



photos: David Kristjansen



Ras Tanura bowlers celebrate another successful season

by Moncito Regondon

Ras Tanura — The annual banquet and membership gathering of the Saudi Aramco Ras Tanura Bowling Association (SARTBA) was held recently to celebrate achievements and recognize individuals for their contributions to the organization.

The theme for the event, which was held at the RT Elementary School gym, was "Glam Rock: A Night of Live Music and Awards." This social event is held with the support of Ras Tanura Recreation Services, as well as SARTBA executive board members and volunteers.

SARTBA president Rod Tomambo provided an update on the association's activities and accomplishments, and recognized individuals awarded from invitational and inter-area tournaments. Tomambo presented new awards such as bowler of the year and top team based on high handicap series and high game scratch scores.



(Left) Honorio Par was one of a number of performers who provided the musical backdrop to the Saudi Aramco RT Bowling Association event. He was joined by Liez Alvarez (right) and Yulia Flora (far right).



The contributions of recent retirees Gertz Consulta and David Lowry were also acknowledged.

Newly elected officers for the Thursday and Sunday night leagues were also introduced, including Thursday league president Tess Cabais, vice president Eugene Perez,

and secretary Joey Amparo, as well as Sunday league president Francisco Orozco, vice president Arnold Valera, and secretary Alex Casilla.

Outgoing officers Marivic Solito (Sunday league president) and Fercy Clulala (Thursday league president) were awarded

plaques of appreciation for their contributions during the year.

The entertaining evening featured the captivating songs and dance tunes of the band "DAZIACOB," with enchanting intermission performances by Honorio Par, Liez Alvarez, and Yulia Flora.



Visitors gather in a narrow crevice to take in the natural wonder of the area.



Saudi Aramco employees and their dependents take their seats on the flight to Al-Ula from Dammam.



A tour guide provides some information on the impressive rock structures.



Madain Salih looms large as Saudi Aramco employees and their dependents arrive for a day of historic sightseeing in the Kingdom's northwest. (Photos: Hasan AlMubarak and Ding/MPD)

taking in the wonder of Al-'Ula and Madain Salih

by Michael Ives

Al-'Ula — Gathered outside Gate 34 in Dhahran on Friday, 145 fortunate Saudi Aramco employees and dependents were about to go on a memorable day trip.

Organized by the Corporate Affairs' events team, the group was being taken to see the many archaeological treasures of Al-'Ula in the northwest area of Saudi Arabia.

Upon arrival, the first stop was the majestic Madain Salih — a UNESCO World Heritage site. It is known for being the second largest Nabatean capital, after Petra. Rising out of the desert, its iconic tombs are a testament to the people who roamed this land 2,000 years ago.

"It is a real privilege to be able to see such ancient history up close," said Arif H. Zawwadi, a foreman with Shedgum NGL. "The tombs are amazing and give you a real sense of the lives of this ancient civilization."

Ali A. Quraisha, a planning analyst with Chemicals Growth and Technology Support, said "It is amazing what these ancient people achieved without modern building equipment. It is incredible what scale they achieved so many centuries ago."

A short drive from Madain Salih, the Ik-mah Mountain holds ancient rock inscriptions dating as far back as 2,000 years, revealing the names of tribes and laws of the Liyanite inhabitants.

From the ancient came the modern. Shimmering in the distance ahead was an

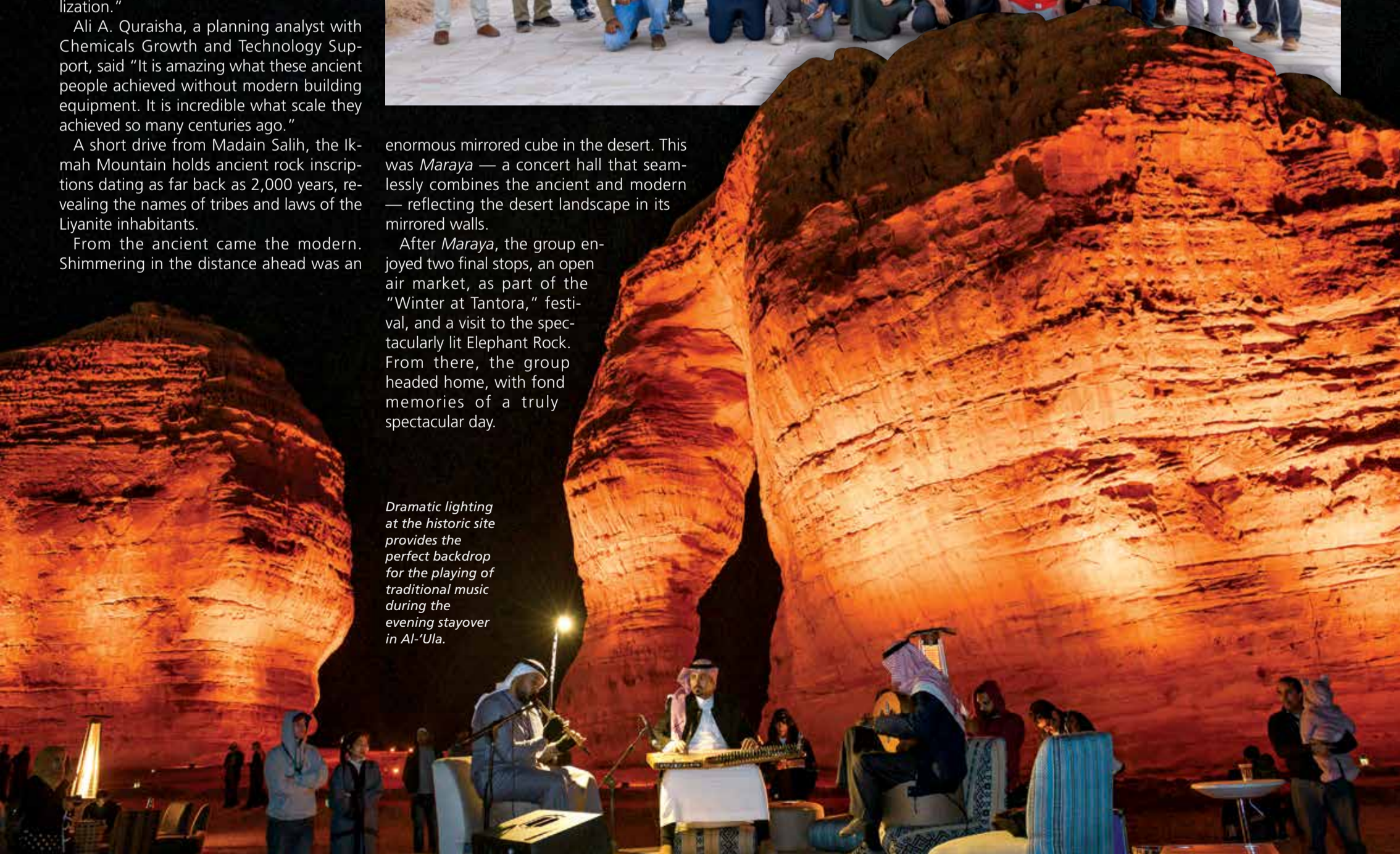


Some of the 145 employees who traveled to Al-'Ula on a Saudi Aramco-sponsored trip pose for a photo at the mirrored Maraya structure. (Photos: Ding and Hasan AlMubarak/MPD)

enormous mirrored cube in the desert. This was *Maraya* — a concert hall that seamlessly combines the ancient and modern — reflecting the desert landscape in its mirrored walls.

After *Maraya*, the group enjoyed two final stops, an open air market, as part of the "Winter at Tantora," festival, and a visit to the spectacularly lit Elephant Rock. From there, the group headed home, with fond memories of a truly spectacular day.

Dramatic lighting at the historic site provides the perfect backdrop for the playing of traditional music during the evening stayover in Al-'Ula.



King Abdulaziz Center for World Culture
by saudi aramco



Ithra movies

in cinema

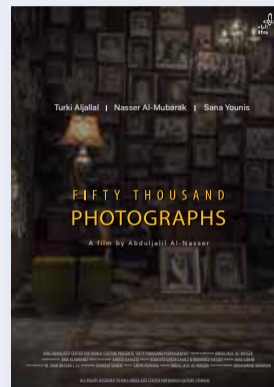
50 Thousand Photographs

Jan. 8, 11, 14	5 p.m.
Jan. 10	1 p.m.



A Plastic Ocean

Jan. 9	5:40 p.m.
Jan. 10, 11	2 p.m.
Jan. 14	7:15 p.m.



50 Thousand Photographs

In the current era, where he captures about two billion photos around the world daily, Turki lacks having one photo of his father after his family wasted all of his photos at the Burning Photos Wave that some people attended in the 1980s in the Kingdom. While searching for photos of his father, he recognizes the old man "Nasser," who owns in his house 50,000 photos of city people.

Harvie and the Magic Museum

Jan. 8, 11, 15	5:40 p.m.
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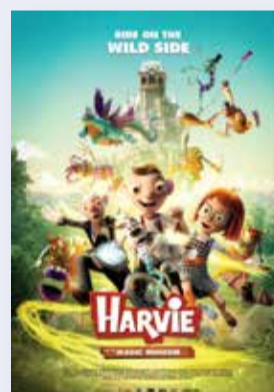


A Plastic Ocean

Journalist Craig Leeson, searching for the elusive blue whale, discovers plastic waste in what should be pristine ocean. In this adventure documentary, Leeson teams up with free diver Tanya Streeter and an international team of scientists and researchers, and they travel to 20 locations around the world over the next four years to explore the fragile state of our oceans, uncover alarming truths about plastic pollution, and reveal working solutions that can be put into immediate effect.

Ithra Heroes Adventure

Jan. 9, 11	10:30 a.m.
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Harvie and the Magic Museum

Harvie is a smart, but a bit too lively, boy with one ambition — to finish the last level of his computer game. Once in the Gamers Hall of Fame, his absent-minded father would finally be proud of him. But finishing the game turns out to be only the start of a real adventure that takes Harvie, his dog Jerry, and his friend Monica deep into the forgotten realms of the city's old puppet museum.

Tale of Lake

Jan. 8, 9, 13, 14, 15	3 p.m.
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The Investor

Jan. 9, 13, 15	5 p.m.
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The Little Vampire

The story of Rudolph, a 13-year old vampire, whose clan is threatened by a notorious vampire hunter. He meets Tony, a mortal of the same age, who is fascinated by old castles, graveyards, and vampires.

The Little Vampire

Jan. 9, 10	7:45 p.m.
Jan. 15	2 p.m.



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