**ladies international golf tournament comes to Kingdom**
The Aramco Ladies International golf tournament, held in Jiddah, was the first women’s golf tournament held in Saudi Arabia. The historic event highlights the major strides the Kingdom has made in providing new opportunities to women, including the participation in sports.

**ID Card replacement ‘Do it yourself’**
The company’s new Do-It-Yourself ID Replacement Program was kicked off with Aramco president and CEO Amin Nasser obtaining his new ID card through the new Self-Service ID Kiosk.

**PD&T’s Y-Connect initiative focuses on young employees**
Pipelines, Distribution and Terminals (PD&T) targets generation Y & Z (employees under 35 years old) in a recent initiative. The Y-Connect initiative places the spotlight on increasing the engagement of young talent in PD&T.

**Abqaiq Plants win global engineering award**
The Abqaiq Plants recently won one of this year’s Institute of Chemical Engineers (IChemE) Global Awards for their work last year in quickly restoring the oil stabilization process.

Environmental excellence in action

Circulating seawater for the safe return to lagoon before outfall to the Red Sea’s temperate waters. Jazan’s energy efficient integrated gasification combined cycle includes a utility area, seawater cooling pumps, desalination tanks, and acid gas removal absorption and regeneration columns.
Don't lose sight of safety.

COVID-19 is still a threat. Never let your guard down.

The COVID-19 pandemic is still very much with us. Let's all do what we can to prevent a second wave of infections and more restrictions.

It is critical to comply with physical distancing and hygiene guidelines. Remember that personal safety isn’t just personal. It’s a commitment to help protect ourselves, our families, and our communities.
New ID replacement process as simple as taking a selfie

On Nov. 16, Aramco president and CEO Amin Nasser inaugurated the company’s 2020 Do-It-Yourself ID Replacement Program, allowing 70,000 employees around the Kingdom to update and create new IDs. The new two-step process includes downloading the mySecurity app, taking a selfie, and then obtaining their new ID at a new Self-Service ID Kiosk near them.

No more appointments. No more queuing up at the Industrial Security Operations (ISO) ID Office to replace your ID. Unlimited opportunities to take your own ID photo with a smartphone, until you are satisfied that you look your best.

The new touch-free process is just the latest example of a larger company-wide effort to use digital technologies and processes to provide more efficient and effective services to company employees. And in the era of COVID-19, these services have been designed to maintain business continuity for critical operations while protecting our employees’ health and safety as well as enhancing customer satisfaction and quality of life.

“Given HR&CS’s strategy of being a customer-focused organization, this revolutionized ID process fulfills this mission by providing a convenient and reliable service to customers around the clock,” said Adel F. Al-Wuhaib, manager of the Industrial Security Support Department.

“This is the first secured end-to-end ID replacement process, the first of its kind,” said Alanood A. Rabiah, head of the Security System Support and Identification Division. “What makes it unique is that it’s all do-it-yourself. You can take your own photo, as many times you like through the mySecurity app, and then take it to one of the many Self-Service ID Kiosks at various Aramco facilities and print out your new ID at a time that is convenient to you.”

The new streamlined ID replacement process — developed as a partnership between Information Technology and ISO — benefits employees and the company. It ensures a speedy replacement program for 70,000 employees before they lapse at the end of the year, utilizing the latest in digital technologies that Aramco is famous for. It also ensures that Aramco’s employees can update their IDs in a seamless and timely manner, without the need to stand in lines, and without putting themselves at risk of catching COVID-19.

“When COVID started to hit us hard in May, we were already in the process of creating a self-service ID replacement program that was similar to using an ATM,” said Rayyan M. Alorini, project lead for the ID Replacement Program. “Through brainstorming, we came up with an innovation to use the latest in digital technologies, which will allow employees to enter certain security gates without having to touch turnstiles. Obtaining a new ID will take an average of two minutes, compared with 15 minutes under the old system. The 30 Self-Service ID Kiosks located at Aramco facilities around the Kingdom are available 24 hours a day, seven days a week.

The first step in updating your ID is as simple as taking a selfie. The mySecurity app allows the employee to take his photo in three ways:

• Take a selfie photo using your mobile front camera.
• Take a photo using your mobile rear camera (for better resolution).
• Take a selfie photo using your mobile front camera.

The process begins by going to the nearest Self-Service ID Kiosk. On entering the kiosk, you scan your ID, either by swiping the chip with ultra-high frequency technologies, which will allow employees to enter certain security gates without having to touch turnstiles. Obtaining a new ID will take an average of two minutes, compared with 15 minutes under the old system. The 30 Self-Service ID Kiosks located at Aramco facilities around the Kingdom are available 24 hours a day, seven days a week.

For those who may be unhappy with the photo on your current ID, there is especially good news. You can take as many photos as you like, and the mySecurity app will then perform compliance checks on your photo to make sure the photo complies with all the important criteria, such as proper lighting, light background, eyes open, and so on. If you still don’t like the expression on your face, you can just take another photo, or ask a friend to take one for you.

Of course, you can still obtain your new ID in the old way, by physically visiting an ISO ID Office near you. You can even use your mySecurity app to take a photo of yourself, and schedule an ID pickup appointment, where your ID will be pre-printed and waiting for you in an ID Center.

But whatever method you choose, the new system is designed to be an easier and time efficient way to update your Aramco ID. Please do so before Dec. 31, 2020.
The event was very well-received and served as an opportunity to share Aramco’s already robust IR 4.0 work as well as the next steps in that journey,” said Adel S. AlShahrani, manager, Procurement & Supply Chain Management, Aramco Americas.

Saudi Aramco’s Abdallah B. AlItthaal, manager of Industrial Development & Strategic Supply, highlighted that “Aramco is transforming its operations with a full embrace of the Fourth Industrial Revolution. This means companies and manufacturers like you are a top priority for us.” We are looking for reliable companies and manufacturers that share our same vision of business growth and sustainability. We want to build “win-win” partnerships that are strategically aligned.”

He was introduced by Delano Roosevelt, the head of the U.S.-Saudi Business Council, who is the grandson of former U.S. president Franklin Delano Roosevelt.

Hiba A. Aljaeeeb, supply chain analyst, Saudi Aramco, explained the logic behind the company’s technology push, saying “our goal is to be the world’s most digitalized energy company.” She presented over $7.5 billion in business opportunities across nine technology sectors, including artificial intelligence, machine learning, robotics, 3-D printing, cloud computing, and 5G communications.

Participants learned about 170 business opportunities associated with IKTVA, which has already generated 468 investment agreements and $6.5 billion in committed capital expenditures. “The goal of IKTVA is to create jobs and raise local content in our supply chain to 70%,” said Maha A. Alkaabi, supply chain analyst, IKTVA Support Division, Saudi Aramco.

Participants also learned about how to become a registered supplier in the company’s supplier network by using an online portal. “Strategic sourcing and supplier relations is your gateway to doing business with Aramco Americas and Saudi Aramco,” said Myra A. Bozeman, Supplier Relations Management, Aramco Americas.

AlShahrani concluded the meeting, saying he was very pleased by the turnout and encouraged participants to stay engaged with Aramco. “There are tremendous opportunities waiting for you in Saudi Arabia,” he told the audience.
first ladies international golf tournament comes to Kingdom

Jiddah — On Nov. 15, Danish golfer Emily Kristine Pedersen was crowned as the winner of the first Aramco Ladies International Golf Tournament. The tournament, held at the Royal Greens Golf and Country Club in Jiddah, was the first ladies' golf tournament held within the borders of Saudi Arabia. The event was the Kingdom's latest effort to promote sports events in general, and women's sporting events in particular.

In the presence of HE Yasir O. Al-Rumayyan, Aramco and Saudi Golf Federation chairman, the tour trophy and tournament prize was presented to Pedersen by Amin Nasser, Aramco president and CEO, as Majed Al-Sorour, CEO of Golf Saudi and the Saudi Golf Federation, looked on.

The four-day event, held on Nov. 12-15, was presented by the Public Investment Fund, and hosted by the Saudi Golf Federation, with Aramco as a title partner for the event. By supporting the tournament, Aramco aligns itself with the Kingdom’s Saudi Vision 2030, and its ambitious goals of promoting culture and entertainment for the Saudi public, diversifying the economy, and encouraging participation in healthy lifestyles. The Aramco Ladies International also highlights the major strides the Kingdom has made in providing new opportunities to women, including the participation of women in sports.

The tournament is a Ladies European Tour (LET) sanctioned event, gathering more than 100 LET professional players, with many leading female international players competing for the first time in Saudi Arabia. Participants in the four-day, 72-hole tournament were competing, not only for a record $1 million prize fund, but also the prestige of being the first winner of this inaugural tournament.

In alignment with the Kingdom's efforts to enable equal opportunities for women, title partner Aramco worked to create an experience to showcase the full potential of women within the Kingdom. The sponsorship also reflects Aramco’s commitment to women’s empowerment and inclusion in sports and the workplace. Aramco intends to continue supporting the growth of Saudi Golf within the region, and inspiring the next generation of women participants in the sport.

A Memorandum of Understanding (MoU) was signed between Aramco and the Saudi Golf Federation on Nov. 11.

Aramco will partner with the Saudi Golf Federation in building the world’s first environmentally-governed golf ecosystem by providing research and strategic sustainability support.

Aramco will also share knowledge and experience in restoring of native vegetation, biodiversity protection, ecosystem regeneration, water dependence and clean energy.

The competition was broadcasted domestically and internationally to over 340 million homes across more than 55 countries.

The tournament follows a series of initiatives in Saudi Arabia to promote women’s participation in various sports. As such, the Aramco Ladies International Golf Tournament is both a historical milestone and further proof of the Kingdom’s commitment to accelerate the advancement of women in sports, in the workforce, and in society.
Environmental excellence in action

by Janet Pinheiro (Photo: Aramco/Alan McManus)

Saudi Arabia’s southwest tip, one of the Kingdom’s most densely populated regions, is playing a leading role in Jazan’s economic development, while also balancing the area’s environmental protection.

Jazan City for Primary and Downstream Industries (Jazan City) is located on the thriving Red Sea, 70 kilometers (km) north of the main city of Jizan, and is part of the Saudi government’s initiative for balanced development of the Jazan region.

Aramco was entrusted to construct the city’s strategic infrastructure. The facility, with a focus on the energy and manufacturing, food and agriculture and fishing, is set to be a solid contributor to the Kingdom’s economy.

Stretching 200 km along the tip of Saudi’s Red Sea coast, Jazan province’s diverse landscape is a rare jewel, rich with nature and ancient culture. Aramco seawaters splash onto white sand shores, and towering mountains dramatically ascend into grey skies and lowlands.

Aramco invested about $1.2 billion to integrate Jazan City’s development plans, with a focus on the energy and manufacturing, food and agriculture, tourism, and fishing. The project is set to generate more macro-economic value, said Alhawiti.

“With a heritage rooted in a culture of living in harmony with Saudi’s harsh and climate, Aramco has long been pioneers in water conservation, energy efficiency, and protecting flora and fauna,” said Alhawiti.

The ongoing protection outcomes for Jazan City are as inspirational as the region itself.

Environmental protection

Environmental Protection general manager Omar S. Alshabab says the company understands the importance of nurturing precious natural resources.

“The heritage rooted in a culture of living in harmony with Saudi’s harsh and climate, Aramco has long been pioneers in water conservation, energy efficiency, and protecting flora and fauna,” said Alhawiti.

Jazan element of downstream strategy

To enhance the value of each and every barrel of oil it produces, Aramco is on a vibrant downstream growth strategy. Aramco’s integrated petrochemical refinery complex at Jazan City, and its associated infrastructure, is part of the company’s journey to integrate its refining and petrochemicals through a dedicated system of domestic and international wholly owned and affiliated refineries.

Currently, in pre-commissioning the 400,000 barrels per day refinery sits at the development’s industrial heart, and strong industrial best practices to minimize environmental impacts have gone into its operational preparation.

The company is also part of a joint venture for the development of an integrated petrochemical combined cycle power plant.

Jazan Refinery Complex general manager Abdullah S. Surojiem said the complex was designed with a focus on eliminating environmental impacts. “Our state-of-the-art full-conversion refinery complex, coupled with one of the world’s largest integrated gasification combined cycle power plant, is one of many innovations delivering world-class environmental protection,” said Suwailam.

As well as the refinery, Aramco developed a terminal for Jazan City, a 3.8 gigawatt power plant that will make the refinery entirely self-sufficient and provide power to support the region, a commercial seaport, a water desalination plant and sewage treatment and sanitary drainage systems, and connected electricity.

Jazan City is one of four integrated economic cities being built as part of The Saudi Government’s vision to create economic bases across the Kingdom, with a view to achieving a diversified economy and balanced regional development.

Circulating quality air

First-class sulfur recovery

Meanwhile, more than 99.9% of the sulfur — the most abundant hydrocarbon — is being successfully recovered at Jazan City.

It is the first Aramco facility to be designed and equipped with this high sulfur recovery efficiency. Professor Khalil, better known as ‘Sulfur Guy’, said the recovery rate is almost 100%.

Technology was selected to ensure the units are capable of recovering more than 99.9% of sulfur, thereby minimizing sulfur dioxide emissions. The units meet Saudi Arabia’s new national limits on emissions.

Equipped for minimal flaring

As far back as the 1970s, Aramco introduced a program to significantly reduce the amount of gas the company burned.

Emphasizing the fact that flaring is a critical part of ensuring safety within the oil and gas industry, today Aramco’s daily routine flaring is less than 1%, despite the massive scale gas production capacity.

The Jazan refinery has three segregated flares systems burning the flare load and the nature of the fluids handled.

Like all Aramco facilities, Jazan’s flare system will be connected to the company’s Corporate Flaring Monitoring System. At Aramco’s headquarters, we monitor and measure all flaring events on a real-time basis, followed by establishing flaring mitigation and minimization measures.

Capturing every event

Jazan has specialized compression packages aimed at recovering and re-purposing gases and emissions that would normally be burned during a flaring process. Consisting of two trains, Jazan’s flare gas recovery system is capable of recovering 3.5 million standard cubic feet per day.

Metliculous water management

In Saudi Arabia’s thirsty lands, saving precious water is a deep-rooted tradition.

Water management at the Jazan Refinery Complex is setting new benchmarks. Reusing precious drops of H2O has flowed up a notch.

Instead of just sanitary reuse, it includes industrial water reuse. To protect the Red Sea, there is zero industrial effluent wastewater discharge to the marine environment.

All wastewater is treated and fully reused within the complex. The wastewater treatment plant manages both the refinery pre-treated industrial and industrial wastewater, and the seawater used to recover refinery, marine terminal, and power plant.

Efficient energy seawater protection

Combined cycle power plants are super smart with energy efficiency.

Compared to a simple single-cycle plant, they produce up to 50% more electricity with the same amount of fuel, recovering all wasted heat. Aramco has just an integrated gasification combined cycle power plant in Jazan.

The complex plant’s meticulously designed cooling system ensures that the seawater cooled in and out is safe to return to the marine environment. Huge pipes, which run 2.4 km across the sea, take the warm water to a matched cooling tower, thereby achieving ultimate temperature mixing with the surrounding water.

Regenerating nature to light climate change

The forest is back to providing an abundance of foraging and refuge habitat for a host of marine species, including migratory and resident birds, with large populations of regionally important Saint Peter’s petrel nesting at the site.

10 mega artificial reefs

Our planet’s coral reefs, invaluable sources of ecological and economic richness, are increasingly being degraded and lost.

Aramco is promoting the growth of permanent artificial reef structures offshore from Jazan City.

Since 2015, the company has installed more than 3,200 artificial reefs to help rebuild marine ecosystems, and support the local fisheries industry.

In Jazan City, using its own patented design, the company is developing 10 mega artificial reefs.

Designed with a vertically high central nuclear, the reefs attract pelagic fish, and has a surrounding network of connected satellite reefs allowing access for smaller organisms to move freely throughout the structure and avoid predation.

“They are one of Aramco’s most innovative designs for environmental restoration,” said Loughland.

Sound waste management

In a circular economy, ideally there is zero landfill waste.

However, landfill is sometimes unavoidable, and to mitigate its environmental impacts, Aramco installed its first landfill area north of Jazan City.

Proper disposal of landfill requires minimising the landfill area north of Jazan City and managing it closely, and operated to handle mixing and remediating waste.
Generation Y & Z targeted in ambitious ‘Y-Connect’ program
Youth are the future, as PD&T seeks new era of engagement with Y-Connect team

Engaging and inspiring Aramco’s young workforce is the goal of a newly launched initiative that PRCI, the Pipelines, Distribution and Terminals (PD&T) Admin Area, is spearheading.

The Y-Connect initiative is designed to target some 3,700 employees aged 35 years and under, who account for 63% of PD&T’s workforce.

The initiative is driven by 12 team members, including the program champion Abdulrahman Al Juraifani.

Y-Connect trigger

The survey results for the 2018 Aramco Employee Engagement Survey revealed that PD&T had the greatest increase in employee engagement compared to its peers in Downstream.

While these results were excellent by all standards, PD&T was committed to do even better. In response, the Employee Engagement Steering Committee, under the patronage of PD&T vice president, Abdullah M. Al Mansour, tasked the team with the assignment of developing ideas through a series of projects and initiatives, including Y-Connect, targeting the different areas of employee engagement.

Each of the members of the team are drawn from different departments within Aramco and have diverse educational backgrounds and career paths.

Al Juraifani and the team report directly to the PD&T vice president, Abdullah M. Al Mansour, and the 11 team members are tasked on a year-long, part-time basis to develop and deploy youth employee engagement strategies.

They are currently building plans to conduct engaging activities, benchmarking exercises, and deep-dive projects to boost the levels of engagement with young employees in PD&T. This is to make PD&T an even better workplace by boosting youth engagement through the implementation of an innovative engagement strategy and creative tools while capitalizing on local knowledge and experiences.

Al Mansour believes that, “Youth employee engagement is crucial for PD&T to achieve its goals. There is always room for improvement and what better way than inviting young talent to help increase PD&T employee engagement.”

Ideas and opinions

Young employees drive most of PD&T’s operations and Y-Connect strives to harvest their ideas and opinions.

The team is working on developing high levels of engagement through activities that will involve more interaction with young employees and management.

Al Juraifani explains, “Y-Connect will empower the young generation who represents 63% of the PD&T workforce. Furthermore, it shows how much PD&T management believes in change and how eager they are to adapt for the betterment of the admin and the company.”

Youth engagement

As a harbor pilot in the Eastern Region Terminal Operations Department, Azam Al Haznawi offers unique skills and knowledge to the Y-Connect team. He received his bachelor’s degree with honors in nautical science in 2018 from the U.K.’s Liverpool John Moores University.

Al Haznawi plays a role in ensuring the company’s reliable supply of hydrocarbons to its customers. He helps ensure the safety of visiting tanker vessels and the terminal facilities by navigating vessels into Aramco ports and terminals.

“...to ensure the continuity of the Admin Area’s excellence, we must engage with the upcoming generations,” he says.

A human resource graduate, Sarah Al Saadoon has been handling a variety of responsibilities within the field of human Resources (HR).

Her efforts are geared toward improving the HR function of the Admin Area through employee development and empowerment.

Al Saadoon believes that the Y-Connect initiative mirrors that goal of empowering young employees.

“We are a scattered Admin Area with many employees working in remote locations. Being able to streamline communication between our remote workers and PD&T management is important to create a highly productive and positive workplace that will only improve the function of the Admin Area as a whole,” she notes.

Leaders of tomorrow

After graduating from King Fahd University of Petroleum and Minerals in 2015 with part of his degree completed at the Massachusetts Institute of Technology, Nafea Alwafi joined the Western Region Terminals Department to help achieve his department’s mission of being a world-class terminal, supplying energy reliably, domestically and internationally.

“The future of the Kingdom and the company depends heavily on today’s generation. Today’s youth are the leaders of tomorrow, and how we connect today is how we excel tomorrow,” he says.

Aramco recognized with two notable appointments in the Pipelines Research Council International

In September, during the annual meeting of the Pipelines Research Council International (PRCI), the Executive Assembly, which is comprised of 40 executive representatives from PRCI, including pipeline operating companies, solutions providers and technical organizations, elected the representatives for the upcoming two-year term. The.Configure for setting the organization’s direction and ensuring necessary resources are available.

The appointment to the Board reflects the distinguished participation of Aramco management and subject matter experts in supporting PRCI activities, which include establishing roadmaps for essential research needs for the pipeline industry, identifying key technical challenges, submitting potential research ideas, developing and managing research projects, and sharing knowledge to ensure research results contribute to safer, more reliable and cost-effective pipeline operations.

In addition, Executive Board membership will increase the value of Aramco’s PRCI contribution to the strategic vision and direction of pipeline research on a global level. Al Hatani stated, “Aramco’s membership on PRCI is essential to enable access to international pipelines’ research and development, and to leverage our research funding through participating and accessing highly valuable pipeline research projects and technological ideas in the most cost-effective way.”

During the same event, Aramco received another notable appointment, Hassan M. Al-Muslim, engineer consultant of the Pipelines Technical Support Division. He was appointed a member of the PRCI Research Steering Committee, which is the organization’s key technical oversight body for the entire research portfolio of PRCI, which approves research ideas before final votes by member companies. This appointment came to recognize Aramco’s involvement in PRCI’s technological activities through its distinguished technical expertise in the fields of design, construction, materials, inspection, integrity, corrosion, surveillance, operation, monitoring, measurement, compression, and pumping stations.

“This is a reflection of the qualifications of Aramco personnel for the approved positions and the support of the company to cultivate and nurture technical talents to perform at a world-class level,” said Al-Muslim.

Aramco plans to capitalize on these appointments to maximize on the benefit of joining industry collaborative work with industry partners. This will positively impact research cost-effectiveness, updating and improving pipelines’ standards and practices, and encouraging technical expertise to seek improvement opportunities on a continuous basis.
Quality process engineering return, revamp and restoration
Abqaiq Plants wins global engineering award for the restoration project

by Janet Pinheiro

Last year’s production return of the world’s largest crude oil stabilization facility has received respected international process engineering recognition.

After the mid-Sept. 2019 attack, teams of process engineers worked immediately to safely return and restore Abqaiq Plants’ oil stabilization process.

The engineering excellence and professionalism of Abqaiq Plants restoration team won one of this year’s Institute of Chemical Engineers (IChemE) Global Awards 2020.

Abqaiq Plants, one of eight finalists selected from dozens of entries, was announced as the winner of the oil and gas category at a virtual ceremony last week.

Excellence as a Core Value

Southern Area Oil Operations vice president Khalid A. Al-Buraik described the award as “well deserved.”

“This award is recognition of Aramco’s deeply embedded drive for excellence, which galvanized us to fast-track the safe restoration of production within 48 hours through Abqaiq Plants, and bring back 5% of global oil production,” he said.

“When we invest in Aramco facilities, we robustly design for safety, flexibility, reliability, and sustainability for longer term returns.

“This remarkable accomplishment is a result of the extraordinary commitment and collaboration across Aramco, and I congratulate all of the teams involved for this well-deserved global recognition,” said Al-Buraik.

Solving tough challenges with innovation

Creative and competent engineering is the key toward finding solutions for tough challenges.

Abqaiq Plants caught the judges’ eyes for how process safety, longevity, and enhanced performance were embedded in the restoration activities.

When the intricate and complex facility was shutdown fully for the first time in its history, it took multiple customized procedures to safely isolate, and then restart the system.

Furthermore, wherever possible, rather than replace items, repair, repurpose, and reuse strategies were utilized.

Among standout process improvements was enhancing stabilizer performance through an improved inlet device, which provided for better distribution across the internal separation trays leading to enhanced energy intensity.

Additionally, a new processing scheme was developed to process different crude grades with increased flexibility to boost facility resilience.

“To bring back Abqaiq Plants’ capacity within 10 days, while adding further resilience and improvement to the process, Aramco implemented a robust execution strategy to perform this critical work and has exceeded expectations and affirmed its position at the forefront of the hydrocarbon world and its reputation as the most reliable energy supplier,” said Upstream Projects general manager Fahad A. Al Ammari.

“This was driven by the strong and robust focus on creativity and innovation of the well-developed engineering talent, skills and competencies, which is a hallmark of Aramco,” said Saudi Aramco chief engineer Jamil J. Al-Bagawi.

Abqaiq Plants is the first finalist from Saudi Arabia to win an IChemE Global Award, an annual worldwide award in its 26th year, which is considered the world’s most prestigious chemical and process engineering award.

new pipeline safety technology helps accelerate projects

by Syed Tanveer Hashmi

Dhahran — The Project Management Team (PMT) has introduced a new technology for safely isolating pipelines in its project to reroute pipelines in the Ras Tanura area. The new technology, called a Branch Isolation Self-Energized Plug (BISEP) using pipeline isolation and stoppage technology, is the industry standard for top-tier companies in the oil and gas industry and it meets the company’s high standards for ensuring the safety of personnel and assets.

PMT introduced the BISEP technology in January 2020 in collaboration with the Pipeline Projects Department, after a pilot project was successfully tested by the Southern Area Pipelines Department in March 2019. Working with the contractor and qualified service provider (lump sum turnkey), PMT deployed the new isolation technology in the Qatif area, replacing a 3 kilometer pipeline section of the QA-10 NGL pipeline. The equipment was installed upstream and downstream of the pipeline section, and after the initial testing and monitoring of the installed equipment, the cutting and welding activities proceeded. The isolation was closely monitored by certified operators while the work was conducted.

PMT project engineer Syed T. Hashmi said this new technology provides a safe and reliable means of isolation for the hydrocarbon pipeline. Safety is the highest priority in Saudi Aramco Projects and Operations, Hashmi said, and this technology will ensure that guaranteed isolation is achieved before any critical hot work is performed on the hydrocarbon pipelines. The new isolation technology will help Aramco to accelerate projects at a time of growing demand, providing substantial cost savings and avoiding costly shutdown of pipelines.
Aramco promotes new guidelines to enhance safety, engineering and construction of nonmetallic pipes

by Joao A.C. Tavares and Khalid S. Ghamdi

Aramco’s nonmetallic strategy is a global driver for nonmetallic technologies, incentivizing the industry to develop new cost-effective nonmetallic products and alleviate the operational and project challenges. Since 1980, more than 5,000 km of nonmetallic pipe have been deployed in our facilities, of which 1,900 km were the reinforced thermoset resin (RTR) pipes.

RTR pipes are a plastic-based product that has gained fraction worldwide as a viable and more long lasting alternative to the more traditional steel pipes. Generally, RTR pipes can be utilized in a wide variety of applications, ranging from utility piping and sewage systems that can be found in our houses, all the way to more important applications like fire water and in-plant systems, including transportation systems for crude oil.

In addition to adhering to strict safety and operational guidelines under conventional applications, Aramco also strives to further develop the RTR technology, and thereby unlock new application scenarios for the product.

Aramco is today spearheading the utilization and innovation of RTR systems on a global scale. In support of this vision, Aramco’s Engineering Services (ES) has always endeavored to further develop existing standards for RTR pipes and to continuously examine and update the standards to the highest levels of safety and reliability. The Inspection Department, in cooperation with the Consulting Services Department, have analyzed lessons learned from previous RTR pipe deployments and benchmarked it against success stories from other major oil and gas companies and international standard practices.

This allowed Aramco to identify any existing improvement areas across multiple company disciplines. Such efforts have resulted in identifying a total of 42 possible enhancements to design, procurement, construction, and company processes for RTR standards.

Most of the identified RTR enhancements have already been included in the latest and most up-to-date Aramco engineering standards, mainly those associated with design. For other areas, such as construction, ES developed a new qualification requirement plan with the purpose of enhancing training of installers, and to reinforce the inspection level across multiple areas of workmanship.

The new qualification requirements for RTR pipe installers, inspectors, and supervisors will reduce the probability of accidental damage during installation of the RTR systems. Furthermore, workmanship inspection covers critical construction steps to objectively mitigate the most typical causes of damage during installation of the RTR systems.

The new enhancements proposed by ES will minimize the project repairs, increase the RTR pipe system reliability, and ensure a higher standard of safety for facilities. With immediate impact, ES is encouraging new projects to adopt the enhanced requirements, and already a total of 19 projects are planning to follow suit for the installation of their respective RTR systems.

The company has positioned itself to be an industry model in utilizing nonmetallic technologies in oil and gas facilities by prioritizing safety, integrity, and reliability.
Finding history on the roads north of Riyadh

by Chiara Campricotti Iacoangeli

Al-Ghat — Somewhere north of Riyadh along less-traveled roads, time has stopped. Here, in the traditional villages that have existed for generations, time has not erased traces of the past, but instead restored it through their architecture and ways of life.

Here in the smaller towns and villages extending along valleys and water sources, where palm plantations rise, this architecture is influenced greatly by the hot and dry climate. Closely clustered two-floor dwellings, separated only by narrow, winding roads and their resulting shade, are made of mud bricks, stone, lime plaster, and timber. And in following the old ways, the village’s restoration project used the same materials.

Baked in mud: Al-Ghat

For thousands of years, mud homes have represented the practical wisdom and spirituality of people, particularly those in desert regions, who learned how to use local materials to build homes that fitted the environmental and cultural conditions in which they lived.

Bricks are created using the same process of ancient times, mud is mixed with straw that acts as a glue and sand that prevents the bricks from breaking. Acacia beams create the roof, with palm branches or bamboo shoots tightly tied together to form a mat that is laid on the beams; eventually, a thick layer of mud is placed over to fill the gaps. As a result, good insulation is provided to protect against the blazing desert sun.

First up was the deserted village of Al-Ghat. Located on the northern bank of the Wadi Al-Ghat, the heritage village stretches over 1.5 kilometers (km) and holds all the charms of its unique past, its beauty resting in the gentle slope of the valley on which it was built. Visitors can gaze at its elegant architecture and a main street that unfolds along the wadi bed.

The Emara Palace, now a museum in the town’s center, was once owned by the late Prince Nasser bin Saad Al-Sudairy. Today, it highlights social life and history throughout time, exhibiting Paleolithic tools and petroglyphs found in the area, traditional agriculture tools, clothing and crafts, the “jussah” room set aside for the preservation of dates, as well as exhibits on traditional hunting methods.

About half an hour away, there is a mansion in the desert of Majma’ah that features a renovated courtyard with vivid colored carpets and a fireplace to prepare coffee and other hot beverages. The welcome is warm, with free-flowing coffee and dates, and an invitation to visit a nearby camel farm.

Ushaiger’s lasting legacy

Ushaiger, perhaps the best-known heritage village, is 200 km northwest of Riyadh in the heart of the Najd. On the Al-Washim plain — just west of a narrow range of red sand dunes — Ushaiger takes its name from the color of a small hill situated at the north of the village.

The first inhabitants settled here around 1,500 years ago, and the village served as a common stopping point for pilgrims going for Hajj. Ushaiger heritage village features narrow streets and seemingly endless alleyways that meander between the 400 mud houses and 25 mosques the village hosts. Some of the houses that still carry the name of the family that lived in them were renovated and are open to visitors.

The entire town is surrounded by high towers, and its restorations have made Shaqraa come alive. You can still visit the interiors, or enjoy the patio, or the roof terraces that provide a bird’s-eye view of the whole city, replete with mud dwellings and white battlements. Or you can walk the streets until you reach the souq, its shops maintaining their original appearance and even an emporium museum with the ancient original products.

Many of the regions’ traditions and history are kept alive at Al Salem Museum, which hosts a range of traditional collectibles such as coins, jewelry, silverware, agricultural tools, wooden doors, scales, utensils, and school materials.

Shaqraa, the last stop

Shaqraa, the last heritage village on this route, is one of the oldest in the Najd area. One of the few towns on the route from Riyadh to Makkah, it once hosted a huge marketplace. The current souq still has about 45 shops, two masjles, and about 80 houses.

The village belongs to the Tammim tribe, with the governor’s house open for visits.

About half an hour away, there is a mansion in the desert of Majma’ah that features a renovated courtyard with vivid colored carpets and a fireplace to prepare coffee and other hot beverages. The welcome is warm, with free-flowing coffee and dates, and an invitation to visit a nearby camel farm.

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First up was the deserted village of Al-Ghat. Located on the northern bank of the Wadi Al-Ghat, the heritage village stretches over 1.5 kilometers (km) and holds all the charms of its unique past, its beauty resting in the gentle slope of the valley on which it was built. Visitors can gaze at its elegant architecture and a main street that unfolds along the wadi bed.

The Emara Palace, now a museum in the town’s center, was once owned by the late Prince Nasser bin Saad Al-Sudairy. Today, it highlights social life and history throughout time, exhibiting Paleolithic tools and petroglyphs found in the area, traditional agriculture tools, clothing and crafts, the “jussah” room set aside for the preservation of dates, as well as exhibits on traditional hunting methods.

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Use the rear camera for superior quality.

Keep a natural expression or a normal smile.

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