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Saudi Aramco welcomes HE Yasir O. Al-Rumayyan, Chairman of its Board of Directors

Dear colleagues,

I would like to welcome HE Yasir O. Al-Rumayyan as the new Chairman of Saudi Aramco's Board of Directors.

HE Al-Rumayyan is a member of the Council of Economic and Development Affairs, the Governor of the Public Investment Fund, and advisor to the General Secretariat of the

Council of Ministers.

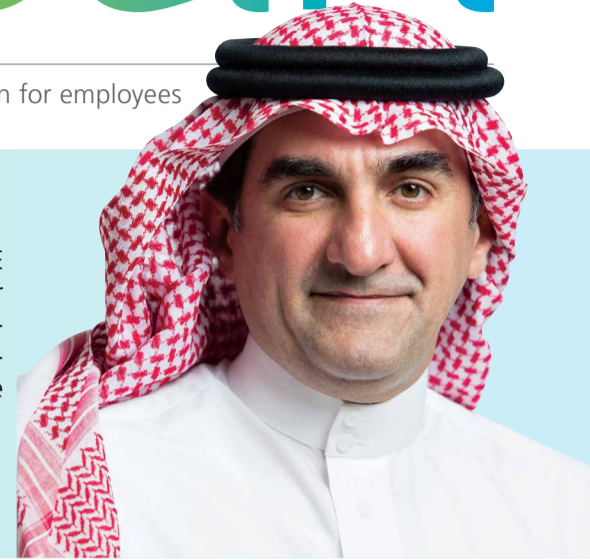
His Excellency's experience encompasses over 25 years working in some of Saudi Arabia's key financial institutions.

He is an accounting graduate from King Faisal University and has completed the general management program at Harvard Business School.

On this occasion, we would like to extend

our sincere gratitude and appreciation to HE Khalid A. Al-Falih, Minister of Energy, for leading the Board through times of transformation, and wish HE Al-Rumayyan continued success in leading the Board through the company's future growth and development.

Amin Nasser
President & CEO



HE Yasir O. Al-Rumayyan



desert life thrives at Khurais

nature being nurtured in vast preserve

Within the site of one of the world's largest oil producing facilities, Khurais, lies a 38-km² sanctuary of desert-resilient biodiversity sheltering in surprising abundance alongside the operating facilities.

see pages 6 and 7

Process engineer Sohaib B. Alhajhusein is proud of the new 8,000 m² wetland area built last year for a wide diversity of migrating birds, and resident native species near Khurais. The wetland is part of a 38 km² sanctuary that shelters and enhances biodiversity in the area. "Providing water for a habitat in an unexpected location is almost like a miracle," said Alhajhusein. (Photo: Ding/MPD)

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September

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EMSC conducts third quarter meeting



Jamil J. Al-Bagawi commended the efforts of the departments toward energy efficiency and sustainability, which led to the company achieving the corporate energy efficiency performance target for the second quarter of 2019.



Mussa Alamri of P&CSD delivers the "2019 Energy Efficiency Award Criteria" during the recent meeting of the EMSC.

Dhahran — The Energy Management Steering Committee (EMSC) recently conducted its third meeting of 2019 at Al-Midra in Dhahran.

The EMSC is a corporate committee established to drive the implementation of Saudi Aramco's Energy Performance Improvement Policy and enhance the corporate energy performance for both industrial and nonindustrial facilities.

Jamil J. Al-Bagawi, chief engineer and EMSC chairman, led the meeting that was attended by committee members representing Southern Area Oil Operations, Domestic Refining and NGL Fractionation, Pipelines Distribution and Terminals, the Power Systems Planning Department, the Process and Control Systems Department, Gas Operations, the Facilities Planning Department, the Consulting Services Department, Planning and Performance Management, Oil Supply Planning and Scheduling, and the Kingdom Economic and Energy Analysis Department.



Jamil J. Al-Bagawi, chief engineer and EMSC chairman, addresses committee members during the third quarter meeting while EMSC secretary Ali Al-Qahtani looks on.

In his opening remarks, Al-Bagawi welcomed the attendees and commended the efforts of the departments toward energy efficiency and sustainability, which led to the company achieving the corporate energy efficiency performance target for the second quarter of 2019.

The EMSC chairman emphasized the importance of maintaining positive momentum toward energy efficiency through the remainder of the year.

several topics covered

The committee discussed a number of topics during the meeting:

A summary of the 2019 second quarter energy performance was shared with the committee, which covered energy intensity key performance indicators (KPIs) for both corporate and admin areas, including the major contributing factors in energy performance. The topic examined the improvement of corporate energy intensity KPIs by 3.4% compared to the plan.

All admin areas' energy intensity KPIs also improved with regard to their respective targets, as a result of continued efforts of Saudi Aramco organizations toward the improvement of energy efficiency.

Committee members also went on to discuss a presentation titled the "Western Region Distribution Department's Energy Efficiency Accomplishments and the Path Forward." This agenda item focused on energy efficiency best practices, which include utilizing energy employees to identify and report energy efficiency initiatives, HVAC, and lighting controls. It also highlighted future projects in the area of solar energy.

Additionally, the committee reviewed "Haradh Gas Plant's Energy Efficiency Initiatives and Accomplishments." This topic covered energy efficiency best practices, including effective equipment load management, controls and monitoring, air compressor performance enhancement, purge gas optimization strategy, and solar lighting installation. It also highlighted future energy efficiency initiatives, including a medium/high waste heat recovery study, propane compressor re-wheeling, real-time energy management, and an air system optimization study.

The EMSC's 2019 Energy Efficiency Award sub-team presented on the criteria for the award. EMSC members voted on the selection criteria and the weighting of each award evaluation category.

The final discussion topic covered the "Energy Demand Forecasting Solutions," which provided the committee with an update on the progress status as well as the path forward for the implementation of energy demand forecasting solutions.

EMSC secretary Ali Al-Qahtani also updated committee members on the status of action items from previous meetings.

Al-Bagawi thanked everyone involved for the excellent energy performance in the second quarter of this year, reiterating that the achievement was a result of a collective team effort.

your voice

how to think — and act — like a leader



by Meshal A. Albash
'Udhailiyah
Meshal.Albash@aramco.com

There is a lot that has been said about leadership and how to become a leader. Many consulting firms, organizational consultants, and motivational speakers have their own different thoughts and conclusions about this subject.

However, they all agree on one fundamental fact — leaders behave differently than most people (followers), according to their unique mentality.

I would like to offer my perspective of how leaders think, and how this way of thinking can transform a follower to become a leader and influencer.

The word lead came originally from the Old English word *lædan*, meaning way or journey. Etymologically speaking, lead means causing someone to go along one's way. In Arabic, lead, *qiyadah*, came from the root word *qada*, which means for someone to be at the forefront.

Let us first agree that leadership, age, gender, position, expertise, intelligence, etc., are not in parallel. They never were.

Lions might be considered the king of all animals, as they run the show in the jungle — yet they are not the fastest, biggest, or even smartest animal.

So, what is so special about the lion to own such a lofty reputation? The answer is attitude. The way lions believe in themselves makes other animals respect them.

Any attitude is a product of a belief, and this belief is the result of a system of thinking, or mindset, that makes one behave in certain ways — differently than others. It is determined by two key factors — the way one perceives one's circumstances and the reaction based on that perception. The better the perception, the better the attitude.

In the workplace, for example, when two employees are each given a critical job to complete with a short deadline, one might express resentment, as this is an extra load on top of other unfinished tasks.

The other may see this as an opportu-

nity to manifest his capabilities to deliver an outcome that can meet the expectations. That employee deeply believes he or she was chosen because they have been deemed trustworthy and competent to complete such an important task.

Some of these tasks, by the way, are often assigned as a test to observe the behavior of an employee under stressful situations. Hint! That difference in mindsets draws the bold line that separates a leader from a follower.

Leaders lead with respect from their employees because they care about their development, motivate them, and appreciate their efforts. Not every boss is a leader and certainly not every leader is a boss.

Any follower can become a leader, lead people to brighter destinations, and make an impact in people's lives. However, the followers need first to change their belief system about themselves and then set the right mentality.

College Preparatory Program provides talent pipeline for Saudi Aramco

by Jim Cook

Dhahran — Fouad and Afaf Al-Jeshi couldn't have been prouder of their son, Ali, as they watched him and his fellow students participate in the College Preparatory Program's (CPP) end-of-year gathering.

The event bookends the 11-month CPP, a Training and Development (T&D) program that prepares selected high-performing Saudi high school students for success at top universities abroad. Ali will study chemical engineering at the University of Wisconsin-Madison.

"In every step of his life he's shown us that he deserves the best," Afaf said. "As parents, the best thing you can do is invest in your children. This is a great opportunity and the chance of a lifetime."

Salem A. Shehry, acting director of the Academic Programs and Partnerships Department, said strong, supportive families are a critical component to students'



Fahad Badghaish reflected on his CPP experience through Arabic poetry at the end-of-year gathering. Badghaish, one of approximately 400 graduates, plans to major in nautical science at Liverpool John Moores University.

success in the CPP, and later when they attend college abroad. That is why Saudi Aramco takes care to involve the students' families in events such as the end-of-year gathering.

'sharing the moment'

"We invite the parents so they can share this moment with us," said Shehry. "It's the close of one chapter and the start of a new one."

During the end-of-year event, high-achieving students were recognized, and then the students watched video presentations from former CPP students who are now studying at universities around the world. In the videos, the former CPP students offered the younger students advice about studying abroad.

T&D general manager Faisal A. Al-Hajji also spoke at the event, and advised students to keep their GPAs high, but also to make the most of their time abroad.

"It's important to go out there and explore the world, meet new friends, and find new hobbies," he said.

The CPP is a rigorous program that a number of reputable universities consider equivalent to their foundation year. In the CPP, students take demanding academic courses similar to those taught in colleges and uni-

versities, such as Advanced Placement (AP) courses in subjects such as calculus, chemistry, and physics.

The students also take challenging English courses to strengthen their writing, speaking, and listening abilities. The CPP also seeks to make the students well rounded, and includes a physical fitness course and community service course, as well as extra-curricular activities.

'a huge opportunity'

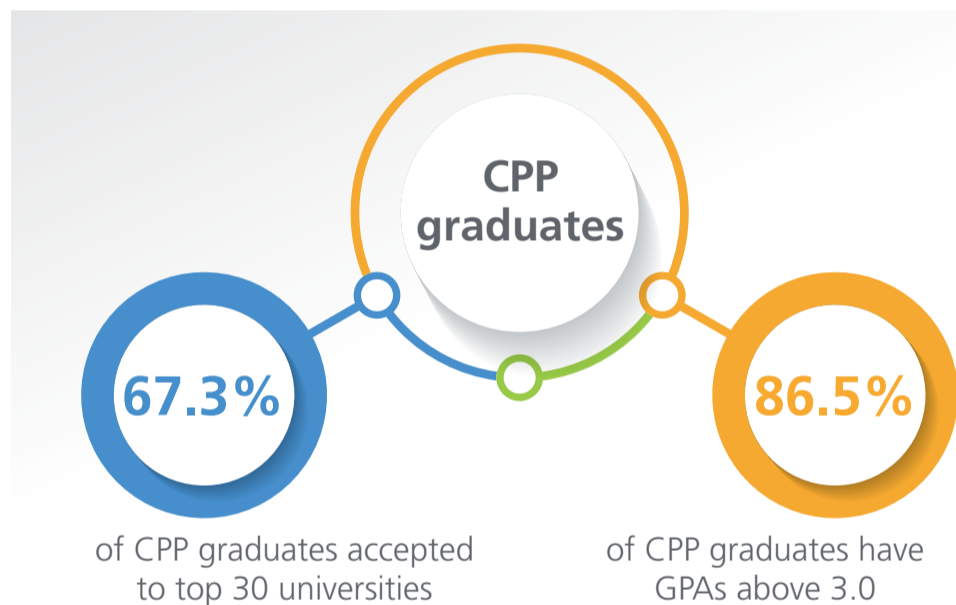
"It gives us opportunities that other students will never have," said CPP student Zahra'a Almualim. "This is a huge opportunity and you will never get it anywhere else."

The CPP is a major national source of professional manpower for Saudi Aramco. The number of students in CPP depends on the operational and business requirements from organizations within the company.

For the most recent cohort of CPP students, about 400 young men and women participated in the program. The selection of students is based on a number of factors, including high school academic performance, *Qudorat* and *Tahsili* scores, and an entrance test.

A comparison of CPP students' scores on AP exams compared to global averages illustrates the quality of the program. In 2019, CPP students' outperformed global averages by significant margins on these tests, demonstrating their readiness to tackle challenging courses at top universities around the world.

"It's a tough program, but it gets easier as they teach you time management, which I think is one of the most important skills that you learn (in CPP)," said Mohammed Bazaid, a CPP student from al-Khobar. "This really prepares you for university."



Contracting Acumen Program designed to ensure the 'proactive, methodical management of contracts'

Dhahran — Saudi Aramco's Technical Services Professional Academy recently completed a pilot run of a Contracting Acumen Program, in collaboration with George Washington University in the United States.

During the program, inspiring leaders and professionals from cross-disciplinary organizations — bringing different perspectives, different areas of expertise, and different professional experiences — were exposed to world-class best practices of contract administration.

The program is a four-day, highly interactive course that combines both conceptual material and the practical application of those concepts using a variety of case studies.

In the first two days, participants develop a sound understanding of basic contracting and service procurement principles, and how different contracting methods control and drive performance and value creation. The last two days focus on "Saudi Aramco Contracting Practices," and provide an opportunity to engage with experts from Saudi Aramco to understand how the concepts taught during the course are applied.

'empowering leaders'

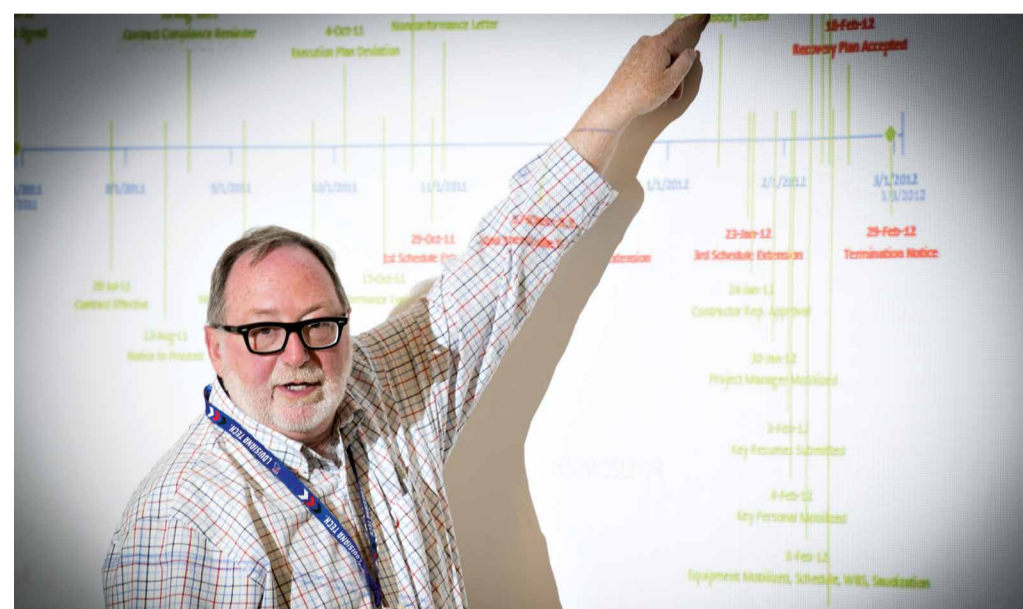
"The Contracting Acumen Program is another step in the ambitious goals of the

Contracting Center of Excellence," said Mohammad A. Al Shammary, vice president of Procurement and Supply Chain Management (P&SCM) with Saudi Aramco. "Through this program, we envision empowering Saudi Aramco leaders with the contracting knowledge necessary for the company's journey toward excellence."

"The Contracting Center of Excellence will instill world-class contract administration practices at Saudi Aramco, which was identified as a critical area for improvement by the Technical Services business line."

This program comes as a continuation of the Contracting Center of Excellence training. As part of this initiative, the Technical Services Professional Academy institutionalized a three-week contract administration associate certification and a four-week contract administration master's certification. These two programs are part of the development plan of the approximately 3,000 contract advisers and contract administrators.

"Spurred by Saudi Aramco's increasing business, within and outside the Kingdom, the proactive, methodical management of contracts — from initiation through award — is of paramount importance," said Saud S. Jaloud, manager of the Contracting Department with Saudi Aramco.



John C. Mosley, who is with Saudi Aramco's Planning and Performance Management Department, conducts a training session for the Contracting Acumen Program that exposed professionals from cross-disciplinary organizations within the company to world-class best practices of contract administration.

enhancements required

Saudi Aramco is planning to expand its spend during the next 10 years. Such an expansion in business, coupled with the challenging economic climate, will require enhancements of the contract administration practices within the company.

To address these needs, and to maximize our return on investment, P&SCM started the contract administration initiative with a goal of elevating the company's contract administration practices to reduce cost, enrich people's knowledge, improve efficiency, and minimize potential claims.



During a recent town hall meeting conducted by Chemicals, executive director Olivier G. Thorel detailed some of the projects undertaken by the Downstream organization and also mapped out Chemicals' overall strategy. (Photo: Nadiah Buobaid/MPD)

Chemicals holds interactive town hall

Dhahran — Olivier G. Thorel, executive director of Chemicals, recently hosted a town hall meeting attended by more than 150 employees.

Thorel spoke about the business achievements through the first half of 2019, provided updates on major projects, including the crude oil to chemicals project between Saudi Aramco and SABIC, the SATORP expansion (Amiral), and also addressed a series of questions related to Saudi Aramco's move to purchase 70% of SABIC.

Thorel spoke about the Chemicals strategy, which involves a highly ambitious plan to convert two million barrels of Arabian crude oil per day into chemicals.

"Two million barrels converts into approximately 90 million tons of chemicals," said Thorel.

"To give you an idea of how much that

is, just consider that Exxon Chemicals sells around 28 million tons per year, and Dow and SABIC each sell around 25 million tons.

"Put simply, Saudi Aramco plans to reach a level of daily production and sales that equals all three of those competitors combined, and to do so in a period of around 10 years."

With the recent startup of new facilities in Malaysia and Korea, the announced acquisitions in Korea and the United States, and the planned acquisition of 70% ownership in SABIC, Saudi Aramco is expected to largely surpass Exxon and become the largest global petrochemicals player by 2020 (subject to obtaining regulatory approvals).

Moving to a more interactive session, the Chemicals workforce spoke with managers and project leaders in charge of business

areas, including ongoing mega-projects, product marketing, technological development, joint venture performance, organizational restructuring (Chemical Business 2.0), and Human Resources and Support Services.

fostering greater communication and openness

The latter session was part of an ongoing internal knowledge sharing initiative with the goal of fostering greater communication and openness among and between Chemicals' organizations.

Employees responded to the event with positive feedback on having a platform where they were free to ask management about projects and offer possible solutions to current issues related to the overall Chemicals business.



Kids and mothers participate in an "Everything is New" workshop, which saw children and mothers share their emotions through dolls that they created.



Participants engage in the "Art Therapy" workshop, using different types of art to relax.



"Back to School" participants watch a play put on by Ithra volunteers during the "Sandwich Swap" program.



The "Family Fort Challenge" saw families collaborate to create their own forts.

Ithra welcomes return to school

new educational experience offered for students and parents



Participants engage in the "Explore the Wildlife in the Kingdom" program at Gallery 4 in the museum at Ithra.

Dhahran — The King Abdulaziz Center for World Center (Ithra) launched a "Back to School" program last week, with a goal of helping students achieve a successful school year.

The program enables students, parents, and teachers to prepare for the school year, offering a series of interactive workshops, discussions, and storytelling sessions over a period of three weeks with three different points of focus — emotional intelligence, health and safety, and financial intelligence.

Last week, the program highlighted emotional intelligence, where students, parents, and teachers engaged in interactive work-

shops and activities to share knowledge on self-expression and self-control. Participants learned about different types of relaxation techniques as a way to connect with their inner selves for better self-awareness, how to adapt to new changes when moving from one school to other, and how to get engaged in a challenge to build a fort using different materials.

health and safety

This week, from Sept. 5-7, the sessions will address health and safety, with a focus on learning how to improve academic skills, heighten sport performance, enhance communication skills, and increase

self-esteem and confidence. A discussion session will be offered with the education team to share thoughts and get engaged in an inspiring discussion. In addition, there will be a workshop to engage the students in activities and games designed to increase the students' focus and attention, and improve their memory in preparation for the new school year.

financial intelligence

In the third and final week, from Sept. 12-14, financial intelligence will be addressed, focusing on the practice of interactive training and the acquisition of learning skills through fun, in addition to

motivating trainees about self-learning. In a pleasant narrative style, children will learn about the concepts of money and expenses. They will also learn about the savings process and ways to accumulate points in an enthusiastic and entertaining interactive game.

"Back to School" is designed to successfully help kick off the new school year for the students. As a cultural hub designed to inspire, create and collaborate, Ithra is delighted to launch this interactive program to audiences in the Kingdom with the goal of offering an enriching experience.

More offerings can be viewed on the website: www.ithra.com.

OSD's Visualization Center is up and running



Employees at the Visualization Center are continually monitoring the Office Services Department dashboard for items that require prompt action.

Dhahran — Saudi Aramco's Office Services Department (OSD) continually encourages its employees to aspire and reach the highest levels of achievement.

In an effort to reach the highest level of performance and present office users with the finest quality of office services, OSD employees recently launched the latest form of innovation demonstrated in their Visualization Center.

The center currently helps optimize the daily operations of the department to increase their levels of efficiency, safety, and customer satisfaction. Monitoring, tracking, controlling, dispatching, visualizing, and centralizing represent the overall features that the center is allowing the department from which to reap information and insights.

The center consists of four experts assigned to manage six programs and three

reporting systems using eight large screens to display the reports of real-time tracking systems.

One of the many systems run and operated in the center is the Conference Room Utilization System, which is used to monitor the occupation of conference rooms in all OSD buildings. The purpose of the system is to ensure that all OSD users have an equal chance to benefit from the conference rooms.

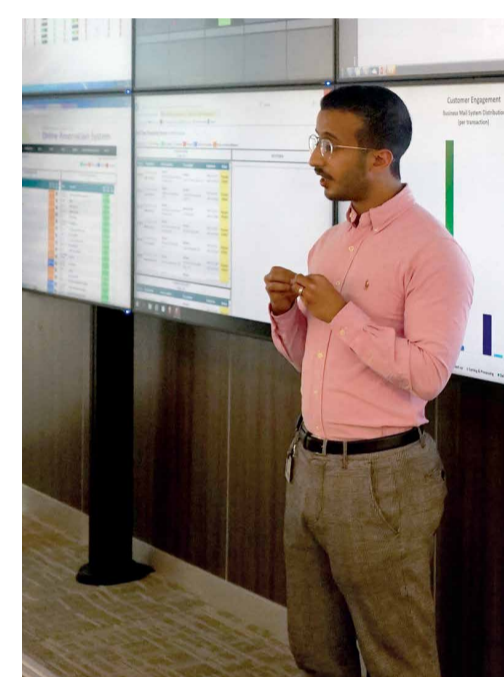
Another system is the Real-time Office Space Tracking System that provides insights of office utilization in OSD managed buildings.

Such a system allows OSD to monitor the assigned office spaces and plan for future demands. The end outcome of the Visualization Center are weekly statistical reports to support the operating divisions in matters relating to space utilization, CRM

status, customers' satisfaction, and safety statistics.

Not only is the center delivering what was promised to members of the department, but it also enables the department to add value that goes beyond what is expected, due to the commitment of developing the employees and their outcomes through encouraging innovation and technological advancements.

Speaking at the official inauguration of the Visualization Center, Office Services business systems analyst Abdulaziz A. Alsaad briefs Community Services management about the center and its various functions.



teaching those with challenges to achieve and excel

by James A. Tolland

Dhahran — Saudi Aramco's Central Area Industrial Training Department (CAITD) recently held its inaugural knowledge sharing meeting on learning difficulties at the Dhahran Industrial Training Center (ITC).

The presentation was delivered by Dr. Rasheed Abuzeid, a consultant psychiatrist from the U.K. The event was attended by senior staff, learning counselors, advisers, teachers, and trainers.

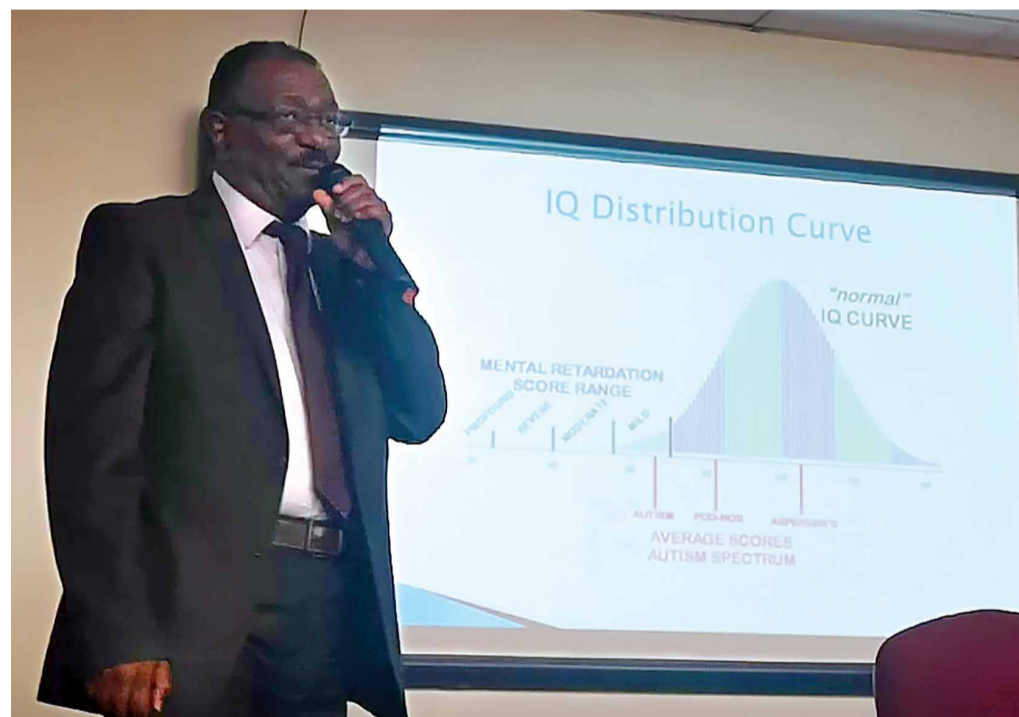
identifying intellectual difficulties

The focus of the presentation was on identifying intellectual difficulties and how to best deal with them in the context of the teaching environment.

In his definition of intellectual disability, Dr. Abuzeid drew an important distinction between situations where the onset of intellectual difficulties began before the age of 18 and those individuals who are injured later in life.

In describing IQ in the context of intellectual disability, he included practical daily tasks such as brushing one's teeth, personal hygiene, and budgeting finances as part of his assessment.

Dr. Abuzeid went on to detail the different types and manifestations of intellectual disability, from mild to severe, and finally, profound. It was noted that physical health problems tend to accompany the profound end of the spectrum. The age of the subject was described as a vital



component in terms of the initial onset of symptoms.

The epidemiology of intellectual disability was then discussed. He noted that approximately 2% of any given population are believed to be suffering from some form of intellectual disability. In the U.K. for example, with a population of approximately 65 million, there are believed to be between 1.5 and 2 million people suffering from various intellectual conditions. He went on to estimate how many individuals

in Saudi Arabia could potentially be affected, according to his statistical estimate.

assessing individuals

Dr. Abuzeid concluded with some advice regarding how to assess individuals who may be suffering from intellectual difficulties. This included the level of understanding, details from direct observation, history of the specific problem, the developmental history of the individual, and finally any physical difficulties that the individual may

Dr. Rasheed Abuzeid, a consultant psychiatrist from the United Kingdom, delivers a presentation to members of the Central Area Industrial Training Department. The focus of his presentation was on identifying learning difficulties and how to best deal with them in the context of the teaching environment.

be suffering from. The session finished with a stimulating question and answer session.

While all attendees benefited from the informative session, this was particularly true for trainers and learning counselors.

"Being in a better position to identify trainees with learning difficulties, we can also better provide the help and assistance that such individuals may require in their journey forward," noted Ashraf M. Jibrin, a Dhahran ITC learning counselor.

desert life thrives nature being nurtured in vast

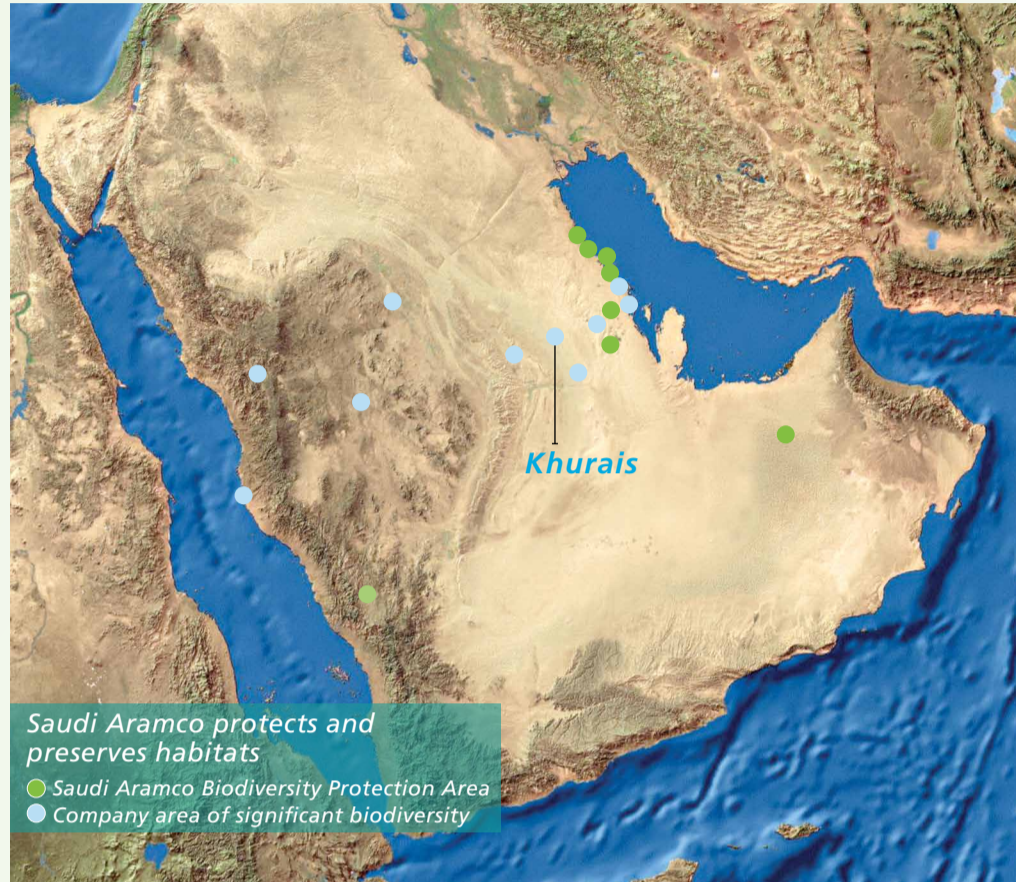
by Janet Pinheiro

(Photos: Ding and Moayed Al-Qattan/MPD)

A small white shape skillfully descends from the flame-washed summer sky of the Arabian Peninsula's mighty ad-Dahna desert to elegantly land beside a shimmering pond in the Kingdom's arid center.

On a 3,000-kilometer journey from northeast Europe to Africa, the migrating little egret chooses to rest at a new 8,000 m² artificial wetland, brimming with life-sustaining water for a wide diversity of migrating birds, and resident native species.

The wetland lies within the site of one of the world's largest oil producing facilities, Khurais, where a 38-km² sanctuary of desert-resilient biodiversity shelters in surprising abundance alongside its operating facilities.



nature's moving green home

Situated 160 km southeast of Riyadh, concealed deep beneath the rocky southern sands, lies three oil fields — Khurais, Abu Jifan, and Mazalij.

A 3-meter high perimeter fence isolates Khurais from grazing by nonnative species, such as camels and sheep. Then, when the intense summer heat shifts to winter mildness, renewing dew from the cooler temperatures bends Khurais's brittle vegetation into a landscape that moves with green color.

Following a detailed baseline biodiversity survey by the Environmental Protection

Department (EPD), Khurais was identified as a significant biodiversity area, with the site's relatively untouched dense vegetation covering known habitats of at least 22 plants, 42 birds, three reptiles, and seven mammal species.

One of the most precious jewels in its nature's treasure box is the large number of birds using the site as a resting spot on their migratory journeys. EPD estimates that more than 100 bird species use the site during the course of the year, with further surveying likely to record an even wider diversity of feathered visitors.

gradual biological regeneration

To accommodate a construction work-



force for the site's increment program completed last year, Khurais fenced an additional 30 km², resulting in gradual biological regeneration of the area.

Khurais environmental coordinator Ayedh K. Hajri says the biodiversity and habitats of this extra area are being assessed for inclusion in the current 38 km² preserved area.

"Life sprouted back on the sand within a few months after the expansion fence was erected in 2017," adds EPD process engineer Sohaib B. Alhajhussein. "Grasses and other plants grew as the sand started to settle."



new wetland
adding protection

واحة خريص
Khurais Wetland



Working with the Environmental Protection Department, late last year the Khurais Producing Department (KhPD) rehabilitated the site of its fenced area into three sparkling

ponds with more than 120 local tree saplings, three bird nesting towers, and two small natural rock shelters, transforming it into the heart of the Khurais Biodiversity Area.

at Khurais biodiversity preserve



Upstream senior vice president Mohammed Y. Qahtani and other members of senior management attended last year's inauguration of the artificial wetland area at Khurais.

Now dotted with a rippling sea of mature grasses, the roots of each bush are curtailing movement of the area's caramel-colored sands.

sustainable resource use

With its dry location and limited water resources, Khurais is continuously pursuing water conservation initiatives as part of Saudi Aramco's commitment to conserve the Kingdom's groundwater for future generations.

Khurais plans to cease the use of non-potable (non-drinkable) groundwater for plant process through the construction of a 60,000 barrels per day seawater reverse osmosis facility, planned to become operational in early 2020.



reducing desertification with native trees

Reducing sand movement and desertification is a key component to Saudi Aramco's initiative to plant one million trees, whereas KhPD will plant 15,000 native trees by the end of 2019.

Reaching out of the desert sands along many of the site's roads, rows of enduring *Zizyphus spina-christi* acacia (Sidr), *Acacia gerrardii* (talh) and *Prosopis koelziana* trees defy the dry conditions, deftly sprouting life-giving leaves, branches, and roots.

As well as enhancing native biodiversity, the trees sequester carbon, control sand drift onto the roads, and create natural shade.

Khurais is evaluating the impact of different tree plantation technologies on water consumption, growth rate, and cost-effectiveness in two phases.

During phase one, implemented in 2015, a super absorbent polymer technology was tested on 3,400 trees, generating up to 50% savings in

irrigation water consumption.

The positive outcome of phase one encouraged KhPD to work with the Environmental Protection Department and EXPEC ARC to proceed with phase two, which involves piloting four different technologies on 400 trees, comparing water conservation and growth rate performances, with the trial outcomes expected by the end of 2019.

"Khurais biodiversity initiative demonstrates the unwavering commitment toward environmental sustainability and it will remain in our organization's DNA as part of our national interests, corporate drives, and social responsibilities," said Fahad M. Al Abdul Kareem, general manager of Southern Area Oil Producing.

"This includes deploying technologies to support water conservation measures, such as the plantation technology trials taking place at Khurais."



The Khurais Producing Department will plant 15,000 native trees by the end of 2019 to enhance native biodiversity, sequester carbon, control sand drift onto the roads, and create natural shade.



treated water from the sewage treatment plant.

"As our operational footprint continues to grow, so does our commitment toward a sustainable environment," said Sowayigh. "Saudi Aramco and its Southern Area Oil Operations admin area continues to invest considerable efforts and resources into various initiatives around the Kingdom to help protect and preserve our natural environment.

"In recent years, a major focus was given to air quality and groundwater conservation, which resulted in a positive impact through the deployment of initiatives such as flare gas recovery, and a seawater reverse osmosis plant," said Sowayigh. "This commitment has grown over the years toward preserving the biodiversity of Khurais in keeping with Saudi Aramco's ongoing efforts toward nurturing the Kingdom's plants and animals, which is aligned with Saudi Arabia's Vision 2030."

KhPD manager Mohammed I. Sowayigh says the artificial wetland was built to further protect the site's resources and endemic species, and its trees are sustained with



Producing since 2009, Khurais is home to one of the largest areas of land under Saudi Aramco's stewardship. The company's SAEP-359 procedure governs the identification of areas of high biodiversity and valued ecosystems, warranting specific protection and management.

well-being caring for your health and wellness



back to school health — general nutrition tips for students

by JHAH Clinical Nutrition and Food Services

Students need to consume well-balanced and nutritious meals in appropriate amounts to meet their developmental requirements. Poor nutrition and selecting unhealthy food and drinks can negatively impact their health, such as bone and heart health, immunities, mental health, activity level, social health, and may even affect their academic abilities.

Good nutrition is essential for growth and provides the necessary nutrients for a healthier life. Poor nutrition and excessive consumption of saturated fat and sugar increase their risks of noncommunicable diseases, such as diabetes, obesity, and weak bones.

- Parents are advised to provide healthy foods and drinks at home and to encourage their children to consume well-balanced meals and snacks. Skipping meals is not a healthy option.

- Students should always eat a well-balanced breakfast before going to school. This supports cognitive thinking, focus, concentration, and improves learning ability.

- Students should consume three main meals and two or three snacks on a daily basis.

- Parents and teachers should lead by example by consuming healthy food and drinks, being active, and maintaining proper body weight.

- Students are advised to use the "My Plate" model for their meals, which consists of the following food groups: A quarter of the plate is for whole grains, unsweetened cereals, whole-wheat bread, rice, pastas or potatoes (baked or boiled). This provides energy, fiber, and many necessary vitamins and minerals. Another quarter of the plate should be for fruits (fresh, dried, or unsweetened juice). Fruits provide vitamins, fiber, and antioxidants that support heart health, mental health, immunity and reduce the risks of disease. It's better to consume whole fruits rather than juices. A third quarter of the plate should be for vegetables, which provide essential vitamins, fiber and antioxidants, and the final quarter of the plate should be for protein, which includes lean meat, skinless poultry, seafood, eggs, low fat cheese, Labnah, or peanut butter.

- Healthy beverages include low fat or nonfat milk and other dairy products. This provides students with protein, calcium and vitamin D that are necessary for bone health. Students require three cups of milk, buttermilk, or yogurt per day to meet their daily calcium needs.

healthy foods and drinks for children:

- Water is an essential nutrient for growth and development, and for the health of vital functions such as digestion, absorption, and blood circulation as well as skin health. Students should drink six or seven cups of water per day.

- Consume low fat and nonfat milk and other dairy products instead of full fat

products to reduce calories and saturated fat.

- Consume whole grains or cereals instead of refined items (e.g., white flour) to increase the intake of fiber and other nutrients.

- Consume fresh or dried fruits rather than canned or sweetened juices and vegetables. The best ways to consume vegetables are steamed, baked, stir-fried, or sautéed, rather than fried or with added butter or cream.

- Consume foods rich in iron, such as lean meat, skinless poultry, fortified cereals and egg yolk. Iron in cooked legumes and green leafy vegetables is poorly absorbed, but vitamin C, which is found in citrus fruits, tomatoes, and green pepper, can enhance its absorption.

- The healthiest methods for food preparation are steaming, baking, or grilling instead of frying. This reduces consumption of excessive fat and calories.

- The best oils to use in food preparation are olive oil, sunflower oil, corn oil, or canola oil. Using animal fat, butter, ghee, margarine, coconut oil or palm oil is not recommended.

options for healthy snacks to take to school:

- Low fat milkshakes.
- Low fat or nonfat fruit yogurt.
- Fruit muffins made with whole-wheat flour.

- Pudding made with low fat or nonfat milk and fruits.

- Low fat cheese cubes and fruit.

- Pizza prepared with whole-wheat flour and topped with low fat cheese or skinless chicken or vegetables.

- Sandwiches prepared with whole-wheat bread and low fat cheese.

- Low fat Labnah or hummus with vegetables.

- Sandwiches of skinless chicken or eggs, or crunchy peanut butter, tuna fish or lean meat with slices of tomato or cucumber.

- Fruit muffin made with whole-wheat flour, banana cake, or carrot cake.

- Raw or cooked vegetables.

- Fat free popcorn.

- Baked potatoes topped with low fat cheese or Labnah.

- Za'atar sandwiches made with whole-wheat bread and stuffed with low fat Labnah, or cheese with slices of tomato or cucumber.



caring profile

Hanoof A. AlKhalaf

Senior dental laboratory technician
Dahran Dental Clinic

education

- Bachelor's degree in Dental Laboratory Technician, from the University of Science and Technology, Jordan
- Arabic sign language certificate, from the Saudi Association for Hearing Impairment, Dammam, Saudi Arabia (2017)

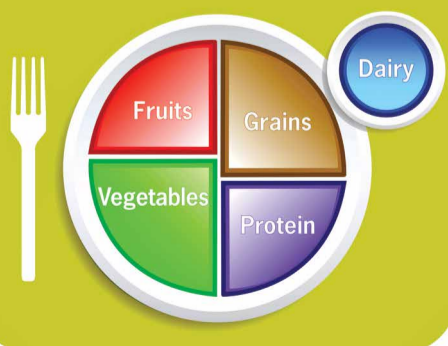
work

- 2004 to present: Senior dental laboratory technician, Prosthetic Section of the Dental Laboratory in the Dental Clinic Department, Dahran

Quote

"I feel very satisfied when I'm capable of communicating with my colleagues using lip reading, sign language, and other means when necessary, because I'm hearing impaired. I'm excited about what I do in the Dental Lab, and I'm very lucky and proud to be part of Johns Hopkins Aramco Healthcare."

nutrition, health, and safety tips for students:



- Wash your hands with water and soap regularly to kill germs and fight infection.

- Care for your teeth. Brush them after meals and before bed. Visit the Dental Clinic at least once a year or when needed and reduce your intake of sweets and sugary drinks to help avoid cavities.

- Maintain a healthy body weight.

- Be active and exercise regularly for at least an hour a day. Limit TV and other screen time to one hour a day.

- Be safe at all times. Remember to wear a seat belt when riding in a car and use a helmet when riding a bicycle.

- Consume only safe foods and drink, and check production and expiry dates when shopping.

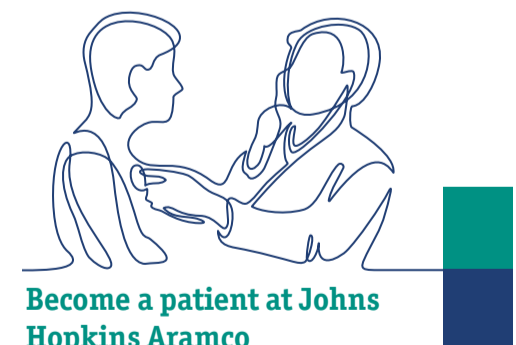
- Avoid consuming nuts or seeds sold in opened containers to avoid toxins pro-

duced by molds. It is safer to buy nuts and seeds in sealed containers, and once opened, keep them in airtight containers.

- Sleep at least 7-8 hours a day. Limit your consumption of caffeine containing beverages, such as tea, coffee, or cola before going to bed. Caffeine containing drinks should be consumed in moderation.

- Talk to your teachers and parents if you feel sick, experience blurred vision, loss of appetite, have frequent urination, or have a sudden change in your health. Have your parents schedule you for an annual medical checkup.

- Avoid carrying heavy school bags as they can cause lasting damage to the spine, neck, and shoulders, and can cause imbalance and incorrect posture.



Become a patient at Johns Hopkins Aramco Healthcare (JHAH)

Eligible Saudi Aramco employees and their dependents are invited to register for healthcare at JHAH.

For more information on how to change your registration, contact your local HR Service Center or visit HR Online, or scan the QR code below for detailed instructions.



800-305-4444 | www.jhah.com

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advancements in eye care at JHAH

Dhahran — Medical care continues to evolve as we learn more about the human body and new techniques and technologies are developed; this includes treatment of the cornea.

The cornea is the outermost protective layer of the eye and comprises five layers of tissue, which can become irritated or damaged and need treatment, which in more severe cases require surgery. Traditionally, corneal surgery required transplanting the entire cornea. That is no longer always the case.

Earlier this year, a new corneal procedure was introduced at JHAH. Dr. Ashbala Khattak, JHAH corneal specialist, performed a Descemet Membrane Endothelial Keratoplasty (DMEK) procedure to correct only the innermost layer of the cornea — the endothelium.

DMEK is a minimally invasive procedure that provides a number of key benefits. In full corneal transplants, up to 16 sutures are required. In DMEK, no sutures are required, so patients feel less discomfort and the surface of the cornea is left intact.

“DMEK reduces the risk for complications, and since the surface is left uninterrupted, a patient’s vision improves in a matter of weeks compared to months or years with a traditional corneal transplant,” says Dr. Ramiz Al Hindi, physician manager, and head of the JHAH Ophthalmology Unit. “Another key benefit is that in the long-term, DMEK patients are much less likely to need glasses or contact lens.”

Regardless of the benefits of DMEK over traditional techniques, all corneal surgeries require tissue transplant.

“Obtaining corneal tissue can be difficult,” says Dr. Al Hindi. “We are working with the Saudi Center for Organ Transplant to establish an Eye Bank at JHAH. Ours will be the first in the Eastern Province and will allow us to perform more corneal surgeries here at JHAH, and ultimately, provide corneal tissues to other hospitals in the area so that more people with advanced corneal problems can regain normal vision and resume a more productive and healthy life.”



JHAH recently added the Descemet Membrane Endothelial Keratoplasty (DMEK) procedure, which allows doctors to correct the innermost layer of the cornea — the endothelium. Doctors say that DMEK is a minimally invasive procedure that provides a number of key benefits to patients.

King Abdulaziz Center for World Culture by saudi aramco



Ithra movies

in cinema

Ithra Heroes Adventure

Sept. 4, 5, 7, 9, 10, 11 10:30 a.m.

Abu Nassir

Sept. 5 2 p.m.
Sept. 9, 10, 11 4:10 p.m.

Book of Sand

Sept. 5, 6 6:15 p.m.

Pen of Mirror

Sept. 6, 7 1:45 p.m.

Kung Fu Style

Sept. 4, 7 6:30 p.m.
Sept. 5, 6 7:30 p.m.

Swan Song

Sept. 4, 5, 6, 7 4:45 p.m.

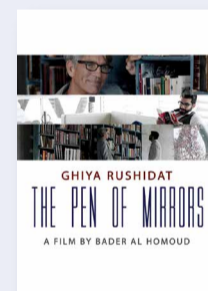
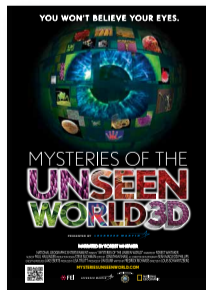
Tom Little and the Magic Mirror

Sept. 9, 10, 11 6:30 p.m.

Energy Exhibit Theater

Mysteries of the Unseen World

Sept. 4, 9, 10, 11 6 p.m.
Sept. 5, 6, 7 5 p.m., 7 p.m.



Abu Nassir

This documentary provides viewers a window into the life of a generation that has witnessed many social and economical changes during “The Boom” through Abu Nasser’s inspirational story, and despite his struggle, he did not give up his dreams.

Book of Sand

The “Book of Sand” film narrative is captivating. It was inspired by the short story with the same title, written by the legendary Jorge Borges himself.

Pen of Mirror

The search is on for a mythical pen, which grants its holder the ability to write an immortal line forever engraved on the collective memory of mankind.

Tom Little and the Magic Mirror

In a magical world, small but brave Tom Little embarks on an adventure of a lifetime to release the kingdom from a spell and win the hand of a beautiful princess. But who is his true love: the king’s daughter or the courageous thief?”



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the arabian sun



Ithra welcomes the return to school with a new educational experience for students heading back to the classroom, and their parents.

see page 4

Ras Tanura hosts marine life exhibition

by Hussain Subaiti

Ras Tanura — A marine life exhibition was held for the first time in a Saudi Aramco community when Ras Tanura hosted an event that allowed visitors to learn more about the creatures that inhabit the sea.

The exhibition was held with the support of the Saudi Arabian Ministry of Water, Environment and Agriculture.

The display was organized and arranged by the Najmah Recreation Library staff, including the arrangements of materials, gate passes for vendors, setting up the display layout, advertisements, and monitoring the flow of the event.

More than 5,000 visitors from Saudi Aramco schools, government schools (Hamza bin Abdulmutalib and Abu Dejanh Schools), Ras Tanura self-directed groups, and Saudi Aramco communities attended.

The exhibition included three major categories of items that were on display:

First: Fishing tools — both prohibited and permitted types.

Second: Marine creatures and organisms. This part had a big collection of fish, turtles, sea birds, seabed animals, and so on. Many types of predator and nonpredator mummified sharks, sea tortoises, sea gulls, sea shells, crabs and starfish were all displayed nicely and clearly, so that visitors could have a full visual knowledge of these creatures.

Two big whale skeletons were also presented on long display tables. These dead whales were found washed up on the Jubail area beaches. After the discovery,

careful work was done on extracting the skeletons for many days, and then they were cleaned, sterilized, and polished before being put on display.

All of the organisms that were included in this section represented Arabian Gulf fish and marine creatures, especially from the beach and waters surrounding Ras Tanura.

Third: An educational, awareness, and recreational section. Plenty of useful books, magazines and reading articles were presented by the Najmah Library, increasing the educational level for exhibition visitors. Also, interesting children's activities ran throughout the event, including coloring sheets of sea organisms, colorful marine crafts, and a collection of ocean life working sheets. Additionally, an attractive craft piece was also provided to each child to make.

The goal of running this unique exhibition included:

- Raising the awareness of the importance of fish and marine life to our biological system.
- Increasing awareness toward the conservation of marine life.
- Educating and increasing visitors' knowledge.
- Recreational purposes.

Tools or items that were used to deliver and fulfill the goal of this event included:

- Brochures that were generated, designed, and typed in both Arabic and English languages by the library staff. The



Two big whale skeletons were on display at the marine life exhibition in Ras Tanura. The whales were found washed up on Jubail area beaches. After the discovery, careful work was done on extracting the skeletons for many days, and then they were cleaned, sterilized, and polished before being shared with the public.

brochures included information on fish deformities, the types of marine life in the Arabian Gulf, and ways of preserving fish. There was also a wide range of books, magazines and newsletters, in both English and Arabic languages, for both adults and youngsters.

• Display screens. An interesting documentary movie about "Baleen Whales" was shown daily at the exhibition.

• Sound system. Unique whale sounds were running through the speakers, to indicate and educate the visitors of the type, depth, and strength of those huge creatures' sounds.

• Advertisement tools such as rollups, pupups, and fun fish footsteps.

• An inviting and welcoming attitude shown by the library staff. The staff members were very helpful, and ready to answer any questions.

All visitors and their families were glad to have such an event inside a Saudi Aramco facility, with many commenting that it was quite educational and a great learning opportunity for youngsters and their parents.

In conclusion, this event was such a great success. All participants were happy to join, watch and know more about deep-water organisms.



monkey business

Furqan A. Qidwai took this photograph of a golden lion tamarin monkey during a recent visit to the Singapore Zoo with his family. He used a Canon EOS 1300D camera to capture the photo. Qidwai is a geologist by profession, but is currently working as a 3-D animator with the Media Production Division of the Public Relations Department and has been with Saudi Aramco for seven years.