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MENA Wells Outlook 2026

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INTRODUCTION

Optimisation is the buzzword in the global offshore industry as most operators are prioritising maximum yield and uptime from acquired assets over investing in new ones. Players in the Middle East and North Africa (MENA) region are increasingly focusing on offshore expansion projects to secure maximum sustainable crude capacity alongside advancing carbon capture utilisation and storage (CCS) projects and power-grid electrification.

Shifting expenses from building new infrastructure to extended reach drilling, including horizontal and directional drilling methods, operators are significantly maximising production capacity. This is also leading to a growing demand for integrated asset solutions that can reduce risks and optimise operations for horizontal wells stretching for miles. It also ensures maximum efficiency in drill bit penetration, reservoir exposure, avoiding wellbore collapse and removing uncertainties.

MARKET OVERVIEW

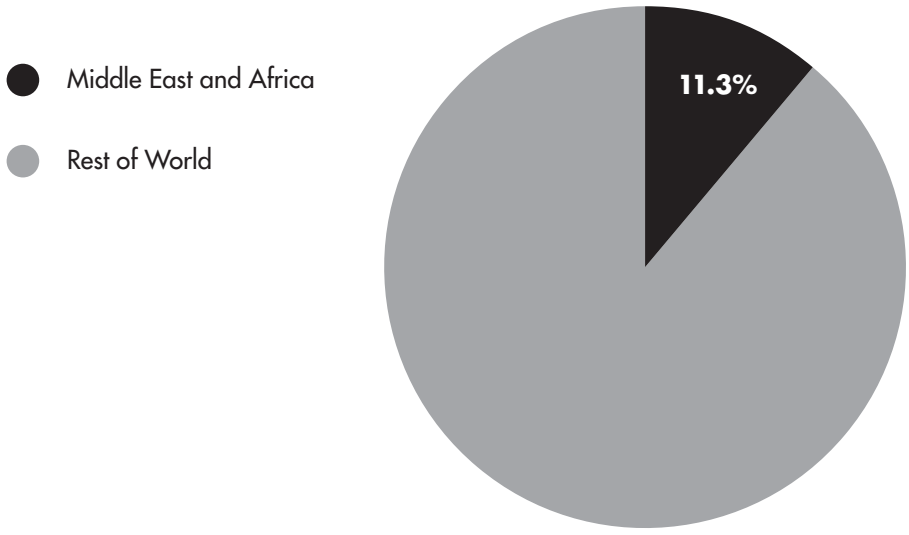
Cosmo E&P Albahriya Limited, which last signed an exploration concession agreement in 2021 with the Abu Dhabi National Oil Company (ADNOC) for operation rights on Offshore Block 4, has recently selected CB&I to leverage their asset solutions business across drilling, engineering, planning and operational activities.

Cosmo aims safe and efficient execution of the campaign with CB&I's wells services. The rapidly growing demand for integrated well services is evident in the company's acquisition of Petrofac's Asset Solutions earlier this year. The acquisition helped Petrofac leverage CB&I's financial strength driven by debt-free balance sheet and global liquidity. With an already established portfolio of operations, maintenance, wells and decommissioning services, the acquisition supports Petrofac's plans for timely services expansion to capture the vast market potential.

"Joining CB&I marks a transformative milestone for our team and our customers," said John Pearson, Chief Operating Officer of CB&I Asset Solutions. "With the backing of CB&I's financial strength, global reach, and operational capabilities, the business is exceptionally well positioned to accelerate our growth ambitions. Asset Solutions is now able to invest with confidence, expand service offerings, enhance the reliability and efficiency of the assets we support, and deliver even greater value to customers around the world."

For CB&I, it was an opportunity to leverage enhanced service capabilities. "This acquisition strengthens

Driven largely by Saudi Arabia and the UAE, the MEA region accounts for approximately 11.3% of the global well integrity market share



Source: Dataintelo

CB&I's portfolio with a complementary reimbursable contracting business, delivering predictable cash flow and enhancing service capabilities. It also supports CB&I's diversification into integrated services, expands customer relationships, and opens pathways for growth in international markets," said Mark Butts, CB&I President and CEO.

OPERATORS' ACTIVITY

Asset integrity management and optimisation approach is central to ADNOC's strategy as well, given the national oil company's (NOC) ambitions to capitalise on UAE's gas reserves -- which is the world's seventh-largest -- and become the primary source for the world's growing LNG demand. According to Shell's 2026 LNG Outlook, this demand is expected to increase to nearly 700 million tonnes a year by 2050, up around 65% from 2025 levels.

ADNOC's US$6.2bn final investment decision (FID) to develop the Umm Shaif Gas Cap in the Umm Shaif and Nasr offshore concession, Abu Dhabi aligns with the company's integrated global gas growth strategy. This is an addition to ADNOC's Ruwais LNG project, under development in Al Ruwais Industrial city, which is scheduled to start commercial operations in 2028. Comprising two 4.8 mtpa liquefaction trains with a combined capacity of 9.6 mtpa, it will more than double ADNOC Gas' existing operated LNG production capacity to around 15 mtpa.

To meet the needs of its domestic and international customers, ADNOC is aiming amplification of yields at scale with rigorous expansion of its LNG portfolio.

The FID for Umm Shaif Gas Cap follows the Supreme Council for Financial and Economic Affairs' (SCFEA) award of the concession agreement for the Bab Gas Cap, which has the potential to unlock an additional 1.5 billion (scfd) of natural gas and associated gas liquids. It also builds on ADNOC's launch of a global LNG marketing and trading platform in Abu Dhabi Global Market (ADGM), which is targeting 47 million tonnes per annum of combined marketable LNG capacity by 2035.

"ADNOC is accelerating its integrated gas strategy to further harness the UAE's vast gas resources and expand our global LNG platform, as global demand for natural gas continues to rise. The Umm Shaif Gas Cap FID is another important milestone in delivering this strategy and reinforcing ADNOC's position as a reliable gas supplier. Together with our international partners, we are building on decades of responsible stewardship of Abu Dhabi's longest-operating offshore field to unlock lasting value for the UAE and our customers," said Sultan Ahmed Al Jaber, UAE Minister of Industry and Advanced Technology and ADNOC managing director and Group CEO.

The FID includes three engineering, procurement and construction (EPC) packages totalling US$5.1 bn (AED18.8bn) for large-scale offshore infrastructure awarded by ADNOC to consortiums including major UAE and international contractors. The development also includes a US$365mn (AED1.3 bn) 14-well drilling and integrated drilling services programme to be delivered by ADNOC Drilling over 18 months using three existing rigs.

This project will play a substantial role in not only advancing UAE's energy security but also reinforcing its position as a reliable global energy supplier. To achieve this, ADNOC is looking to integrate artificial intelligence, advanced technologies and robotics solutions to enhance efficiency, reduce emissions, and accelerate value creation, leveraging synergies with existing offshore facilities.

TECHNOLOGY AND DIAGNOSTICS

Digital adaptation is not new for the NOC as it has been actively deploying advanced technologies across its operations for quite some time now. In 2023, it collaborated with the UAE-based AI provider, AIQ, and SLB, to launch the advanced reservoir (AR) 360 solution for reservoir analysis and field development. This tool drives optimisation within upstream exploration and operations, unlocking maximum efficiency while eliminating downtime and reducing emissions.

"This achievement exemplifies the power of collaboration in our industry—bringing together industry-leading vision, domain expertise and technology to increase efficiency and accelerate decarbonisation in oil and gas, while helping to drive the energy innovation needed to bring our planet

back into balance," said Tarek Rizk, MENA president, SLB.

When incorporated in a field development plan, the AI-driven AR360 will compile all available data into one integrated whole for optimised development results. The visualisation and performance application tool can ensure maximum energy output with lower emissions by identifying the balance between drilling new wells, performance enhancement from existing wells and optimising injection and production parameters.

The advanced reservoir solution is field proven in ADNOC's upstream operations. When performing complete reservoir model reviews AR360 boosted engineers' productivity by 75%, while ensuring model quality and predictability. Deployment of the AR360 has improved well performance while also extending their lifetime. With the AR360, operators could gain a better understanding of reservoir aspects, which led to production boost, forecast guidance and optimised drilling expenses.

In case of infill drilling, AR360 can optimise the process to significantly cut down greenhouse gas (GHG) emissions from drilling and flaring operations ahead of production.

"We are excited to release cutting-edge technology solutions that will improve efficiency in upstream operations," said Omar Al Marzooqi, CEO AIQ, while speaking on the makers' aim for a successful market launch.

"This advanced AI product will play an important role in accelerating digital transformation and achieving a more sustainable future within the global energy industry. This will continue to be the core of our vision to operationalise sustainability in our industry going forward. Digital solutions have a major role to play in providing insights and enabling cleaner operations. We look forward to showcasing the products and the value which they can unlock for ADNOC and the energy industry," he said.

The Saudi Arabian Oil Company or Aramco recently collaborated with Emerson for the deployment of an AI-driven optimisation solution as part of the NOC's wider integration with Emerson's Aspen Hybrid Models across existing refinery planning framework.

An example of one of the world's largest multi-site, multi-period optimisation models, the deployment has achieved yield and quality prediction accuracy of up to 98.5% in key refinery units. These results are built on the combined effects of first-principles models, deep domain expertise, and purpose-built industrial AI in capturing nonlinear relationships in yield and quality responses.

These hybrid AI models have been implemented in Continuous Catalyst Regeneration (CCR) and Platformer Units, where they are enabling more precise feedstock blending, minimising gaps between planning and execution, and improving the accuracy of margin forecasting across Aramco's global refining network.



Source: Emerson

WELL DELIVERY AND FIT-FOR-PURPOSE DESIGN

Offshore Azerbaijan, the Azeri-Chirag-Deepwater Gunashli (ACG) field operated by bp is known as one of Caspian's most mature assets. To maximise recovery and sustain long-term production from the gradually declining field, bp has deployed multilateral well technology (MLT). This has helped tackle drilling challenges through complex formations in the field, even when accessible areas produced constraints. The multilateral wells approach allowed multiple reservoir penetrations from a single wellbore enhancing reservoir access, improving drainage efficiency, and unlocking value from existing infrastructure.

"The new technological approach is a cornerstone of bp's broader decline management strategy for ACG, supporting long-term production sustainability while optimizing capital efficiency. As ACG continues its transition into a more complex and mature phase, multilateral technology is expected to play a critical role in unlocking additional reserves and extending the economic life of the asset. This is the first time we are applying this well design in ACG, and it clearly demonstrates our commitment to deploying the right technologies to maximize recovery from our existing assets. Looking ahead, innovations such as this will be essential to sustaining long-term production and unlocking additional value. By increasing reservoir contact, improving rig productivity and operational efficiency, as well as optimizing slot utilization while making the best use of existing infrastructure, MLT is a step-change solution for well delivery in ACG. We believe it represents one of the most effective ways for us to continue delivering energy safely, efficiently and responsibly, while extending the life of this world-class asset," said Gio Cristofoli, bp regional president for Azerbaijan, Georgia and Türkiye.

The feasibility and value of the multilateral well technology clearly reflected in C44, the first multilateral well delivered from the West Azeri platform.

"Delivered with strong safety performance and no incidents, the first MLT well was completed 30 days ahead of plan, with both drilling and completion phases significantly outperforming timelines. This achievement reflects disciplined planning, high-quality execution and effective management of subsurface uncertainty. The well also represents a successful integration of subsurface, drilling and completion disciplines, demonstrating how coordinated delivery can unlock both technical and commercial value. Beyond its immediate performance, the first MLT well establishes a compelling business case for wider deployment of multilateral technology across the field," said Russell Morrice, bp's vice president for wells.

Building on the success of C44, this year bp will be applying the MLT method to three more wells as part of a broader campaign planned for further wells from the field over 2027 and 2028. While an effective method, MLT does not work in a one-size-fits-all way, and must be leveraged depending on individual reservoir situations. bp's ACG development strategy hence focuses on figuring out the optimal technology configuration for the right subsurface target from the diverse geological placements before the deployment can ensure best results. Enhanced recovery from MLT technology works best when supported with other technologies such as horizontal drilling, advanced geo-steering, and smart completions, including sand control and inflow management.

CARBON CAPTURE AND STORAGE

Carbon storage is also increasingly becoming a popular choice among operators for enhanced oil recovery from mature or retired fields, especially in widely spread well sites which are likely to have multiple leakage pathways for the stored carbon. Petroleum Development Oman, for example, announced the commencement of an extended pilot dedicated to utilising CO2 for enhanced oil recovery (EOR) in the north of the Sultanate of Oman last year. This is a first for the leading exploration company of Oman, developing in line with Vision 2040, as the country aims to attain sustained production with an optimised approach.

The three-month pilot aims to de-risk and therefore expedite the full-field EOR development. The plan involves checking the feasibility of



Source: SLB

continued CO2 injection into the reservoir so that it can be arranged for the long term, up to one year. With this approach PDO anticipates access to substantial oil volumes stranded in the subsurface, paving the way for a major sustainable CO2 EOR project within the PDO concession area. The project also plays a key role in proving up a larger PDO EOR portfolio whilst mitigating PDO's own CO2 emissions.

"Oman has committed to reaching net-zero carbon emissions by 2050. The national decarbonisation roadmap includes several technologies in which CCUS is a key technology enabler. The pilot undertaken by PDO exemplifies both the company's and the country's unwavering dedication to simultaneously boosting production and decarbonising operations. This initiative serves as a tangible manifestation of Oman's commitment to pioneering sustainable solutions in the pursuit of a cleaner, more environmentally conscious future," said Minister of Energy and Minerals, Salim Al Aufi.

PDO managing director, Steve Phimister, said, "We are immensely proud to announce this milestone in our journey towards a net-zero CO2 emissions future. This project is not just a technological achievement but a demonstration of our unwavering commitment to both cost and carbon competitiveness. We are determined to safely, efficiently and sustainably grow our core oil and gas business while minimising emissions from our operations."

To support big operators like PDO, SLB launched a carbon storage well integrity assessment solution in 2024. This has been designed to help carbon storage developers gauge the risks involved with wells at prospective storage sites which have already undergone drilling activity.

CCUS provides one of the most immediate opportunities for emissions reduction. Operators can capitalise on this by establishing secure storage sites to support CCUS growth and foster a low carbon energy ecosystem. The methodology launched by SLB will help users analyse the probable and potential impact of carbon leakage for each well to identify remedies and feasibilities for the long term.

"The significance of the risks associated with each well and the costs of remediation to mitigate leakage risks can make a project economically unfeasible," said Frederik Majkut, senior vice president of Industrial Decarbonisation, SLB. "By addressing potential well integrity issues early in the development process, SLB's well integrity assessment solution can help storage developers

avoid costly delays or operational disruptions, and drive companies toward their net zero ambitions."

SLB's well integrity assessment solution incorporates advanced failure mode effect and criticality analysis (FMECA) to assess potential leakage pathways, well barrier, failure mechanisms and resulting consequences. The company leverages advanced multi-physics 3D modelling to assess the volume and flow rates of brine and carbon leakage over time to better estimate risk.

PDO's CCUS pilot spans the north of the Sultanate of Oman, which hosts parts of the region's largest concession, Block 6. To increase recovery rates and extend productive life of the assets that spans approximately 91,000 sq km across the country, the concession operator, PDO, has contracted SLB this year to deploy wellheads and artificial lift technologies for Block operations. The two five-year contracts will require SLB to supply low-pressure, high-pressure and thermal wellheads, as well as electric submersible pumps (ESPs) and progressive cavity pumps (PCPs).

OPTIMISATION STRATEGIES

ChampionX, which is now part of SLB, has been a major ESP innovations provider in the Middle East ever since its origin. In 2024, it introduced the SMARTEN XE ESP control system for challenging downhole conditions experienced by ESP systems in unconventional wells, including rapidly changing production rates, increasing gas incursion and power quality challenges. Power support for the downhole motor and cable are under constant supervision by a proprietary power meter. With nuisance shut downs at minimal, the systems are protected by ESP-specific control algorithms that make up SMARTEN XE's hardened industrial processing core. Its proprietary sensorless REFLUX gas control algorithm proactively manages gas locking conditions.

To alleviate the pressures of optimisation goals for operators, SMARTEN XE has been equipped with an adaptive cruise control feature that auto tunes to the rapidly changing ESP speed due to highly probable operational or yield instability situations.

"Traditional variable speed drive control (VSD) systems were not designed for the dynamic downhole conditions common in unconventional wells," said Ryan Rasmussen, vice president and managing director of ChampionX's UNBRIDLED ESP Systems. "Based on our experience operating ESPs under these challenging conditions, we set out to design a control system that helps manage and protect the downhole ESP system as conditions change."

SMARTEN XE's bespoke control applications on ChampionX app library can be leveraged with AI / ML support to actualise wellsites ideas for operators when it comes to meeting production goals.

"The SMARTEN XE is not only versatile and secure, but also customizable based on an operator's requirements," said Rasmussen. "It gives our customers full control of their ESP operations to optimize their production, efficiency and reliability, while reducing operational costs and risks."

PLUG AND ABANDONMENT

When it comes to tackling complex downhole challenges, modern, organic plug and abandonment practices are becoming increasingly common. The Abu Dhabi National Energy Company or TAQA has entered a strategic partnership with BiSN to introduce internationally proven standards for P&A into the MENA region. Built on successful P&A campaigns in the North Sea and the United States, BiSN's proprietary Wel-Lok bismuth alloy barrier technology can revolutionise MENA's exploration scene. Its globally certified gas-tight seals can be ideal for ultra-sour gas developments like Qatar Energy's North Field. BiSN's 6-foot bismuth alloy plug can replace up to 150 feet of traditional cement column, which is otherwise prone to damage from gases like hydrogen sulphide and carbon dioxide. The replacement will also ensure reduced curing times and downhole rig days as well as minimise the need for chemical additives.

BiSN's bismuth alloy presents a cost-effective alternative for P&A seal placement inside tubing, casing, section milled single and multiple annuli, as well as the sealing of micro-annuli avoiding SAP- B.

CONCLUSION

The Middle East is entering a more execution-focused phase of well delivery, intervention, and integrity management. The region is not short of wells or activity; the challenge is maximising performance, maintaining integrity, and extracting long-term value from increasingly complex and ageing assets.

As an operator-led platform focused on execution, efficiency and real-world well performance, MENA Wells 2026 will bring together industry players from the region to share expertise that goes beyond drilling new wells, and delivering value from existing wells. Set to take place on 13 October 2026 in Abu Dhabi, the event will see decision-makers exploring operator-driven challenges, asset integrity, well work, production operations, and subsurface performance across the Gulf Cooperation Council.

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