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- Stimulation Chemicals: increase load recovery, hydrocarbon production, lower pumping friction and increase ROI.
- Artificial Lift: novel pump systems, reliable support to help lower cost, improve reliability and deliver more production.

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It’s time to see deeper in Israel.
Another month has passed and things are still looking relatively positive for the global upstream industry – Brent crude is sitting just above US$55/bbl as I write this, more than US$20 higher than this time last year. Production cuts made by OPEC at the start of this year still appear to be counteracting downward pressure from the resurgence in drilling activity seen across North America.

The increased and somewhat stable oil price has encouraged a battered US shale industry to get back down to business. The Baker Hughes Rig Count for the US and Canada shows a total active rig count of 1095, which represents a combined increase of 418 rigs from this time last year. Whilst it’s encouraging to see the industry back at work, the rapid rise in rig count raises the prospect of a return to significant oversupply and an oil price back down in the US$40s (if not lower), which is something that nobody in the industry wants to see. It’s also worth bearing in mind that back in January, Saudi Arabia’s Energy Minister, Khalid Al Falih, said that he saw no reason for the cuts to last beyond six months. He stated: “We don’t think it’s necessary, given the level of compliance we have seen and given the expectations of demand […] The re-balancing which started slowly in 2016 will have its full impact by the first half.”

However, that’s not to say this recovery is over before it has truly begun; Al Falih also added that: “of course, there are many variables that can come into play between now and June, and at that time we will be able to reassess.” And, as I’ve noted before, there is an argument that OPEC producers will be forced to maintain (and possibly deepen) the cuts in order to further support the oil price in the face of increased US production – after all, for many OPEC members, oil exports are their primary source of income.

It’s possible that this logic is becoming apparent to some OPEC members; unlike previous cuts agreed upon by the group, which have suffered from high levels of cheating, a survey of producers, oil exports are their primary source of income.

The reasons behind Saudi’s willingness to go the extra mile for its fellow OPEC members aren’t exactly altruistic. In addition to the financial difficulties seen by many OPEC members, Saudi Arabia also has the sale of a 5% stake in Saudi Aramco to consider – the Aramco IPO could, with the right oil prices, bring in US$100 billion into the Saudi treasury. This money is earmarked for use in the country’s extensive ‘Vision 2030’ diversification scheme as the Kingdom moves to wean itself from heavy dependence on oil revenues.

The OPEC agreement on 30 November last year served as a much-needed piece of good news for an industry suffering under one of its worst downturns in decades. So far, it seems that almost everyone – both within OPEC and without – has benefited from a higher, relatively stable price. Here’s hoping that trend continues.

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Total and Petrobras seal strategic alliance

Petrobras and Total have announced that they have signed definitive contracts in relation to the package of assets contemplated in the Strategic Alliance. The contracts seal the Strategic Alliance between the two companies creating new partnerships in the Upstream and Downstream sectors, together with a reinforced technical cooperation covering operations, research and technology. This alliance should allow both companies to combine their internationally recognised expertise on all segments of the oil and gas value chain in Brazil and internationally.

Amongst other assets, Petrobras will transfer 22.5% of rights to Total in the concession area named lara in the Block BM-S-11. Petrobras will continue to be operator with a majority interest of 42.5%. The partnership with Total will allow Petrobras to reduce its investment and benefit from technological solutions that will be jointly studied between Petrobras and total, maximising profitability and the volume of oil to be recovered. Petrobras will also transfer 35% of rights to Total, in the Lapa field concession area, in Block BM-S-9 and will also transfer the operatorship to Total whereas Petrobras will remain in the license with 10%. Total, as new operator of this field, will bring to the Consortium its experience in deep-offshore projects to manage the next phases of the challenging development of the Lapa field.

Following the signature, Pedro Parente, CEO of Petrobras and Patrick Pouyanné, Chairman and CEO of Total, have declared: “We are delighted [...] to see our Strategic Alliance becoming reality. These new partnerships together with a reinforced technological cooperation should create significant synergies and values, mutualising our operational excellence and further reducing costs on our joint projects for the benefit of both companies”.

Cooper Energy completes international withdrawal

Cooper Energy Limited has advised that the company has now ceased all international operations with the closure of operations in Tunisia and the completion of the sale of Indonesian operations to Bass Oil Limited. In accordance with the transaction announced 19 October 2016 Cooper Energy has received initial consideration of AUS$5.7 million consisting of AUS$500,000 and 180,000,000 shares in Bass Oil Limited.

The balance of the AUS$5.7 million consideration is to be received via AUS$2.27 million in deferred payments with the final payment received by December 2018, and receivables as they fall due. Cooper Energy managing director David Maxwell explained the company’s move: “Our withdrawal from Indonesia and Tunisia has been driven entirely by our strategy of concentrating our efforts on our growth projects in Australia and in particular our opportunities to supply gas in south east Australia”.

McDermott awarded offshore subsea contract

McDermott International, Inc. has announced a contract award from Hess Corporation for subsea tieback work for the deepwater Penn State Deep (PSD) field in the Gulf of Mexico.

“This marks our first project with Hess Corporation in recent history and we look forward to providing industry best operational excellence, quality and safety,” said Scott Munro, McDermott’s Vice President for Americas, Europe and Africa. “Once again, we have demonstrated that we can provide the best total solution for our clients. We look forward to a long and mutually beneficial relationship with Hess.”

The PSD field is located in the Garden Banks 216 block in approximately 1500 ft of water. Discovered in 1996, the PSD field began production in 1999. The lump sum contract will be reflected in McDermott’s first quarter 2017 backlog.

In brief

Equatorial Guinea
The Ministry of Mines and Hydrocarbons of Equatorial Guinea has extended the official closing date of the EG Ronda Licensing Round to April 28, 2017. Responding to a wave of new exploration interest, the Equatorial Guinea Government wants to give companies more time to participate.

“We can see that the industry as a whole is turning the corner and that the appetite for exploration is greater starting 2017 than it was last year,” said H.E. Gabriel Mbaga Obiang Lima, the Minister of Mines and Hydrocarbons. “There is more stability and predictability in the market right now, which we can see is increasing investor confidence.”

Gabon
Total has signed an agreement for the sale of stakes and the transfer of operatorship in various mature assets in Gabon to Perenco. The transaction is subject to approval by the authorities. This agreement includes the sale of the Group’s 100%-owned affiliate Total Participations Petrolières Gabon, which holds interests in 10 fields. In addition, Total Gabon has announced the sale of its interests in five fields and the Rabi-Coucal-Cap Lopez pipeline network. The total value of the transactions is around US$350 million.

Norway
Lundin Norway AS, operator of production licence 533, has completed the drilling of wildcat well 7219/12-1 and appraisal well 7219/12-1 A (Filicudi). The well proved oil and gas.

The wells were drilled about 32 km northwest of discovery well 7220/11-1 (Alta) and about 37 km southwest of discovery well 7220/8-1 Johan Castberg.
TDI-Brooks completes coring programme

TDI-Brooks International Inc., recently completed an exploration geochemistry programme in the Southern GoM consisting of 1180 USBL positioned piston cores for geochemistry, with an additional 120 heat flow measurements for basin modelling and 120 20 m ‘jumbo’ piston cores for stratigraphic analysis and age dating.

The TGS Gigante Mexico GoM Multibeam and Coring Programme was the world’s largest offshore seep-hunting survey, covering the vast offshore sector of Mexico, including world class producing trends such as the Perdido fold belt and Campeche Bay.

The survey is designed to mirror the Gigante multibeam and seep study in the Mexican Gulf of Mexico, conducted in 2016. The new programme will cover 289 000 km² and include 250 navigated piston cores with 750 baseline petroleum advanced geochemistry analysis, 25 Jumbo Piston Core (JPC) and 25 heat flow (HF) stations.

ABS expands subsea services team

ABS has expanded its subsea services team to deliver specialised validation and verification services for subsea systems, including subsea hardware, flowlines, umbilicals, and risers. These services include design review, inspection of physical components and regulatory services using performance data to support continuous service of new and existing assets.

“Offering best-in-class verification and validation services contributes to the safe and reliable operation of subsea systems,” says ABS Chairman, President and CEO Christopher J. Wiernicki. “Our mission demands that we place safety at the core of everything we do, and as technology advances and more subsea systems are installed, industry is looking to us to help improve safety through independent third-party validation and verification.”

ABS currently delivers its offering to operators in the US GoM and is expanding services for key clients globally.

Wood Group begins detailed engineering of Leviathan

Wood Group recently completed the seven month front end engineering design (FEED) for Noble Energy’s Leviathan Field Development Project in the Eastern Mediterranean Sea and has started the detailed engineering for the platform – including the topsides and jacket. The FEED and detail design has a total contract value of approximately US$95 million.

The estimated 30 000 t fixed platform is being initially designed to process 1.2 billion ft³/d of gas, expandable to 2.1 billion ft³/d to accommodate future production. The platform will be installed in 86 m water depth.

The Leviathan project adds to Wood Group’s portfolio of projects executed for Noble Energy. Wood Group previously designed the Tamar platform topsides; the Tamar onshore compression plant which receives natural gas from the Mari-B and Tamar fields in the Mediterranean Sea; and the topsides and jacket for the Alen production platform, offshore Equatorial Guinea.

Robin Watson, Chief Executive of Wood Group, said: “Wood Group’s global engineering experience in delivering large-scale offshore gas production facilities and proven ability to deliver safe, cost-effective and efficient solutions will help Noble Energy and its partners meet the high standards, cost requirements and delivery schedule of the Leviathan field development. We are proud to be a valued partner in this major project.”

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**World news**

**Sentinel Marine secures £17 million worth of contracts**

Sentinel Marine, Aberdeen-headquartered provider of offshore support vessels, has secured new contracts and extended existing contracts to the combined value of £17 million in the first months of 2017. This suite of awards includes a new contract with Nexen Petroleum U.K. Limited for the provision of rescue and recovery services for the Nexen-operated Golden Eagle and Buzzard fields over a four year period. This work will be carried out by the multi-role emergency response and rescue vessel (ERRV) Fastnet Sentinel. The contract also includes options to extend.

Fastnet Sentinel is one of five new ERRV vessels built for Sentinel Marine since 2015. It forms part of the modern generation of ERRVs which provide a wider scope of value added services including dynamic positioning and cargo facilities than previous ships, many of which were converted from fishing vessels and older supply vessels to operate as ERRVs. It is estimated that over 30% of all of the vessels operating in the sector are at least 30 years old.

“These are significant contracts for Sentinel Marine. There are clear advantages for operators contracting with a young fleet,” says Rory Deans, chief executive of Sentinel Marine. “A multi role vessel like Fastnet Sentinel is built for purpose, is more technically advanced and is more fuel efficient than an aging asset which is far more expensive to operate. For example, an older vessel may burn three to four tonnes of fuel a day compared to one tonne for a new ship.

“Sentinel Marine has the youngest fleet in the sector and it’s a growing fleet. We have four further vessels to be delivered through 2017 and 2018 representing a total investment in excess of £110 million. We have confidence in the future of the sector and plan to continue our investment in a modern, efficient fleet.”

**Interventek agrees GoM supply deal with PRT**

Interventek Subsea Engineering has signed a two year exclusive deal with Louisiana based Professional Rental Tools LLC (PRT) to supply its innovative in-riser Revolution valve for well intervention operations in the Gulf of Mexico. Interventek will supply its 6.375 in. 15 000 psi valves to PRT this summer.

Interventek’s Revolution valve has multiple well control applications. In a single compact device the valve provides the capability to cut all types of intervention media whilst protecting the integrity of its seal. The technology uses separate cutting and sealing components so that the seal is never compromised. Resilient seals avoid the use of vulnerable elastomer components for fluid containment, enabling use in HPHT and large bore applications. External rotary actuators provide a superior cutting force for the very strongest of intervention media and hydraulics are kept separate from the wellbore.

Commenting on the new partnership, Stuart Ferguson, Chairman of Interventek said: “We are delighted that PRT has recognised the significant operational and safety benefits of our unique, next-generation Revolution valve design. Deploying our valves in the Gulf of Mexico will allow us to gather additional subsea experience and an operational track record on the back of our already extensive technology trials, testing and application development. This is the first step towards broader subsea market adoption and we look forward to working with PRT and helping them deliver enhanced services to their customers over the next two years and beyond.”

PRT chief operating officer and president, Patrick Placer commented: “The design advantage of the Interventek Revolution Valve has allowed it to be easily integrated into the PRT existing Spanner Joint System and offers our customers the additional benefit of being able to cut wireline or coiled tubing and then seal. Through this exclusive partnership, PRT brings to market an enhanced Spanner Joint System giving our clientele more choices and operational benefits.”

**Proserv launches subsea sampling technology**

Proserv has launched a new subsea sampling cylinder that can improve the quality of results and reduce risks normally associated with sample transfer.

Based on existing technology, the Proserv Subsea Sampling Cylinder (SSC) is the world’s first fully qualified and certified ‘for shipping’ sample cylinder to be deployed in a subsea environment. The system captures well properties throughout the lifetime of a field.

Andrew Anderson, Senior VP for Production Equipment Services (PES) said: “With operators facing increased challenges in maximising production from geologically complex, high pressure and temperature and often remote and inhospitable fields, being able to generate accurate and reliable information from wells is critical in establishing its status and prospects.”

**AWE completes sale of interest TUI project**

AWE Limited has announced it has completed the sale of its 57.5% interest in the Tui Area Oil Fields to Tamarind Management Sdn Bhd for cash consideration of US$1.5 million before tax. Tamarind has acquired all of the outstanding shares of AWE New Zealand Pty Ltd and AWE Taranaki Limited, which together own 57.5% of Tui. The sale includes Operatorship, assets and inventory, and a working capital cash balance of US$10.8 million.

AWE estimates a completion payment to Tamarind of US$2.2 million for purchase price adjustments. These adjustments include the close out of unutilised Brent oil price hedges. The sale of Tui is estimated to generate a non-cash profit after tax of AUS$27 million (unaudited), after purchase price adjustments, and has reduced AWE’s provisions for future abandonment liabilities by AUS$67 million.
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This complete data package provides exceptional, value-added digital well data including, where available, interpretation ready LAS+, reports, directional surveys, check-shot surveys and digital mud logs for 32 wells selected from our overall East Canada database of almost 800 wells. These data may be purchased individually as well packages, or as a bundle with seismic or other TGS products.

TGS has also completed a series of interpretation studies integrating TGS’ extensive data library of offshore East Canada, including a regional Sequence Stratigraphic and Play Fairway Analysis study, Post Well Analysis Study, and a Seismic Interpretation study focused on NL01-LS area.

This June, expect improved signal, reduced noise, AVO compliant, updated velocities, and consistent processing flow across the entire area.

See it here.
MENA ON THE MOVE
The Middle East is perhaps the region most associated with the oil industry in the public consciousness, even coming ahead of the global oil ‘capital’ of Houston. Over recent years, however, the NOCs and other major players in the Middle East and North Africa (MENA) – who normally dictated global supply – were forced to play second fiddle to North American businesses as the shale revolution boomed, upending the world’s oil and gas supply dynamics as a result. As the world’s largest producer at the time, Saudi Arabia’s decision to abstain from its de facto role as global swing producer only served to further illustrate how North American production seemed to control the market.

This all changed on 30 November last year when, in a bid to support flagging oil prices, OPEC and other major producers unexpectedly announced that they would seek to cut crude oil production by 1.8 million bpd. The lion’s share of these cuts was to be made by the producers of the MENA region, with Saudi Arabia alone accounting for 486 000 bpd of cuts; other examples included Iraq pledging cuts of 210 000 bpd, Kuwait and the UAE promising 131 000 bpd and 139 000 bpd respectively, and Algeria offering to cut 60 000 bpd. These cuts reaffirmed Saudi Arabia’s role as global swing producer and reinstated the MENA region’s influence over the global oil industry.

Even before the OPEC agreement, the MENA region continued to see billions of dollars’ worth of investment in upstream projects and rising production. Growing domestic demand and the continual need to replace depleted reserves has fuelled spending across the region with approximately US$294 billion worth of projects currently in the pre-execution phase.1

This article provides an overview of two key players in the region (Saudi Arabia and Iran) and considers some general challenges facing the region as a whole.

**Saudi Arabia**

The Kingdom of Saudi Arabia is a true giant in the international oil industry. With the second highest daily production of any nation (since OPEC cuts, the Kingdom has fallen just behind Russia) and vast, proved reserves of 269 billion bbls of oil and roughly 8.5 trillion ft³ of natural gas, Saudi Arabia has been a key player in industry for decades.

Indeed, in 2016, prior to the implementation of the OPEC cuts, Saudi Arabia’s oil exports and production broke records and recorded their highest monthly averages to date. The Kingdom’s exports rose to an average 7.65 million bpd, a fairly substantial increase from the 7.39 million bpd recorded the year before, while overall output rose to a hefty 10.46 million bpd, marking a roughly 270 000 bbl increase on the previous year.2

Output may have been cut back in recent months to bolster oil prices, but Saudi Aramco, the Kingdom’s massive NOC, appears to have no intention of sitting idle – the company has outlined plans to spend a staggering US$334 billion across the oil and gas value chain by 2025. This policy of investment is already well underway as is shown by the company’s recent decision to invest US$7 billion in an oil refinery and petrochemical project in Johor, Malaysia. Saudi energy minister, Khalid al-Falih, has also suggested that the Kingdom was considering increasing its oil and gas investments in the US on
the back of President Trump’s fossil-fuel orientated policies. Al-Falih was quoted as saying, “President Trump has policies which are good for the oil industries and I think we have to acknowledge it [...] He has steered away from excessively anti-fossil fuels, unrealistic policies [...] I think he wants a mixed energy portfolio that includes oil, gas, renewables, and [to] make sure that the American economy is competitive. We want the same in Saudi Arabia.”7

Another major development to come from Saudi Arabia is the announcement that it plans to list up to 5% of Saudi Aramco on international markets. The Kingdom is reportedly aiming for a valuation of US$100 billion for the 5% share, which would make it the world’s largest IPO and give Aramco an estimated total market value of US$2 trillion. To put this figure in comparison, the combined market value of the current three front-runners (Apple, Alphabet, and Microsoft) is approximately US$1.8 trillion. According to Reuters, two possible options are being considered for the future of Aramco after the IPO: “either to develop it as a global industrial conglomerate or make it a specialised international oil company.”8 The importance of the IPO’s success is likely a key reason behind the Kingdom’s continued support of production cuts; a stable oil price in the region of US$55 - 60 would go a long way towards supporting Saudi estimates of Aramco’s value.

However, the Aramco IPO is notable for more than just its enormous scale; the funding raised by the offering has been earmarked to support Saudi Arabia’s bold plans for the future, which come in the form of ‘Vision 2030’. If the last few years have proven anything, it is that basing a national economy on a cyclical industry is unwise – no matter how profitable things might be during the boom years. Vision 2030 is the brainchild of Deputy Crown Prince Mohammad bin Salman Al Saud and seeks to diversify the nation’s economy away from oil and towards other sectors, such as health, education, construction, and tourism. Oil will doubtless play a significant role in Saudi Arabia for many years, but the inexorable rise of the US shale industry and the resulting impact on global supply/demand dynamics has forced the Kingdom to broaden its horizons.

**Iran**

Ever since sanctions on Iranian oil production were repealed in 2016, the Islamic Republic has worked nonstop to return output to pre-sanctions levels – indeed, it was Iran’s return to the market that precipitated the fall in the price of crude oil to below US$30. The country was even exempted from OPEC production cuts, arguing that it had a right to re-grow its production. It now looks like Iran is competitive. We want the same in Saudi Arabia. “3

Despite the ongoing investment, not even the MENA region was able to escape unscathed from the industry downturn. With many national budgets in the region relying heavily on hydrocarbon revenue, the downturn has been a significant challenge, politically as well as financially. It is this sudden insecurity that has prompted many of the diversification measures put forward by MENA countries, with Saudi Arabia’s Vision 2030 being the most prominent.

The region faces other challenges too. A report by Deloitte noted that the MENA region’s oil and gas industry was faced with the challenge of an ageing workforce and a limited supply of qualified junior employees. This problem is exacerbated by two further complications: 1) nationalisation pressures from governments trying to reduce reliance on expensive expatriate labour, and 2) a disproportionately small supply of science and engineering graduates.9

To meet these challenges, Deloitte recommended a series of measures, including: graduate programmes designed to give undergraduates experience in various oil and gas sectors; making use of an underexploited female talent pool by encouraging women into the industry; and providing coaching programmes for leaders, so that NOCs could more ably navigate a changing industry environment.10

**Summary**

Despite the industry downturn, workforce challenges, and political upheaval, the oil and gas industry of the MENA region continues to see substantial investment. With vast reserves, lower break-even rates, and NOCs keen to spend on the latest technologies, the opportunities for development are significant. Even with the current dwarf diversification programmes, the MENA region is set to be a key player in the upstream industry for decades to come.

**References**

10. Ibid.
THAT WAS A SAMPLE OF

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