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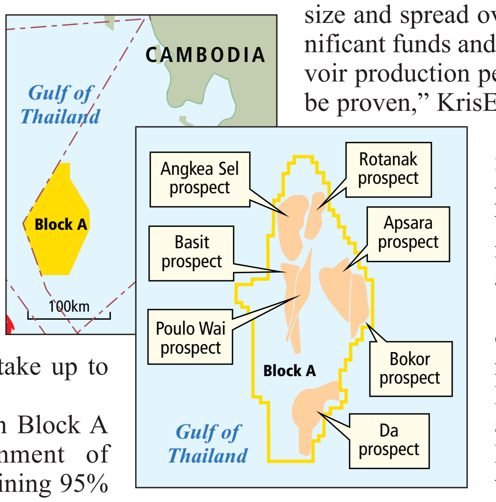
ASIA OIL AND GAS NEWSLETTER

BREAKING NEWS AND ANALYSIS FROM ACROSS ASIA

Cambodia Block A FID soon

KrisEnergy has signed fiscal and technical agreements with the government of Cambodia for **Block A** in the Gulf of Thailand – as a pre-cursor to starting work on the country's first oil field development project.

KrisEnergy, the operator of Block A since 2014, plans to develop the **Apsara Area** in the northeastern section of the concession, which is one of seven geological trends in the licence where there is potential for oil and/or gas to be trapped.



Under the terms of the agreements, KrisEnergy has 60 days to make a Final Investment Decision (FID).

This will signal the launch of the Apsara project, which is expected to take up to two years to produce first oil.

Also under the terms, a 5% stake in Block A will be transferred to the government of Cambodia. KrisEnergy holds the remaining 95% via two entities: operator KrisEnergy Aspara (71.25%) and KrisEnergy Cambodia (23.75%).

Block A covers 3,083sq km over the Khmer Basin in the Gulf of Thailand where water depths range between 50m (164ft) and 80m (262ft).

Phase 1A of the Apsara development consists of a single unmanned minimum facility 24-slot wellhead platform producing to a moored production barge capable of processing up to 30,000 b/d of fluid with gas, oil and water separation facilities on the vessel. Oil will be transported via a 1.5km pipeline for storage to a permanently moored Floating Storage and Offloading (FSO) vessel.

"The individual oil accumulations in Block A are small in size and spread over a large geographic area, requiring significant funds and time to fully develop. Additionally, reservoir production performance in the Khmer Basin has yet to be proven," KrisEnergy said.

"For these reasons, among others, there is some uncertainty regarding long-term production rates, reserves and commercial viability and therefore a phased development approach has been prudently adopted.

"Once the initial Phase 1A platform is onstream, there will be a period to monitor reservoir performance before commencing Phase 1B, which envisages up to three additional platforms producing to the Phase 1A facilities. A Phase 1C will potentially add up to six additional platforms for the full 10-platform Apsara development," the company added.

"The signing of the fiscal and technical agreements between the government and KrisEnergy for oil production in Block A is the culmination of years of work. Producing Cambodia's first oil in its offshore waters will be a major step along our steady road to economic development and national prosperity and is aligned to the government's key development goals," said H.E. Meng Saktheara, Secretary of State for the Ministry of Mines and Energy and Chairman of the Inter-Ministerial Committee for Block A.

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Indonesia oil encountered

Pan Orient Energy reports that exploration well **AYU-1X** in the **East Jabung** Production Sharing Contract (PSC) in Indonesia has found "significant indications of hydrocarbons."

The probe reached a total depth of 1,140m (3,740ft) within the granitic basement on 21 August and has now been logged and pressure/fluid samples have been collected.

Preliminary interpretation of the wireline logs, supported by pressure data and oil samples, indicates approximately 5.5m (18ft) of high porosity net oil pay at the top of good quality reservoir in the Batu Raja limestone.

"Significant indications of hydrocarbons in the form of oil shows and high gas readings in well-developed sands of Gumai age were also found. Additional drilling will be required to establish the commerciality of the **Ayu**, **Elok** and **Anggun** structural complex," Pan Orient said.

"Based on the encouraging post drill assessment of the results at AYU-1X, the joint venture has elected to commence the drilling of the **ELOK-1X** well immediately, which will sidetrack from the AYU-1X wellbore to a subsurface location approximately 0.7km south of the AYU-1X well location, targeting a potential thick apron of Lower Talang Akar sandstones on-lapping the AYU-1X high."

ELOK-1X will be the second commitment well and thus complete the first phase of exploration work for the East Jabung PSC. The well is expected to take around 30 days to reach total depth.

Spanish player Repsol operates the East Jabung PSC.

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Land rigs being bought

Why would rig contractors and E&P companies buy land rigs when oil prices are at recent historic lows, E&P firms are reining in capex and there is seemingly an awful lot of idle rigs and equipment stacked in yards (or worse, in the field) globally, asks consultants Westwood Global Energy in a new report.

"Yet that is exactly what is happening, both in US markets and internationally. In December 2016, Patterson-UTI merged with Seventy Seven Energy Inc, creating a business with more than 200 high-spec rigs and more than 280 rigs in total," said the report.

In Russia, Schlumberger this year completed the acquisition of the country's largest land driller, Eurasia Drilling Company (EDC), and last year operator Rosneft acquired Targin Drilling.

"Are these opportunistic, bottom-of the-cycle acquisitions, timed to pick up assets at discount pricing? Or is something else happening in the market?" said Steve Robertson, head of Research, Global Oilfield Services at Westwood.

"The common factor linking these deals is rig specification, and a bifurcation of the land rig market into distinct sub-sectors. The drive, both in the US and internationally, for wells with longer laterals and multiple wells, efficiently drilled from larger pads creates demand for high-horsepower, modern AC rigs that can minimise time between each well.

"The market splits therefore, into a large volume of older, mechanical or DC rigs which are lower-spec and arguably compete in a fragmented and largely un-differentiated market, and a premium segment of the market where a much-smaller number of top-tier contractors compete on the basis of having the best rigs, the best crews and significant scale improving their ability to meet client requirements.

"This premium segment competes less on cost and more on value of the high-spec rigs with industry leading equipment and technology," added Robertson.

In the US, 'spudder rigs' emerged as operators contracted the older, mechanical or DC rigs to drill the vertical portion of the well to save drilling costs. This practice started in the Bakken shale play and later moved across the entire US, said the report.

"The three deals referenced above were attractive to the buyers because they were expanding their position within the top-tier rig market. Whilst, the Patterson-UTI deal was undoubtedly well-timed in terms of the cycle, and the distressed position of Seventy Seven Energy at the time, it also created, according to Westwood's Global Land Rig online data, the world's third-largest rig contractor and fifth-largest owner of rigs," Robertson said.

"Many E&P companies continue to maintain in-house drilling and OFS capabilities such as CNPC, Sinopec and Rosneft. It is worth noting that nearly 260 of Rosneft's rigs are rated at greater than 1,500 HP and only Helmerich & Payne owns more rigs in this category.

"Some E&P companies have, of course, chosen to sell off their drilling businesses in the past, with the aim of rationalising their business and creating a competitive supply chain for the provision of rig and crew services. The EDC business emerged from Lukoil in 2004 and subsequently listed on the London Stock Exchange in 2006. It has since become the world's eighth-largest land rig contractor," he added.

Global DWS sector recovery forecast

Continued improvement in the US onshore sector into the second half of 2017 is expected to support a recovery in global Drilling & Well Services (DWS) expenditure, according to Westwood Global Energy Group's latest report.

The World Drilling & Well Services Market Forecast report, drew the following key conclusions:

- Total market of US $1,177 Bn over the 2017-2021 forecast period.
- Global onshore and offshore expenditure are forecast to rise at a 9% and 2% CAGR, respectively.
- North America is forecast to increase its share of the onshore market from 48% over 2012-2016 to 51% over 2017-2021.
- Rig & crew services will account for 30% of global DWS expenditure over 2017-2021.
- Expenditure on stimulation services is forecast to rise at a 17% CAGR through to 2021.
- A decline in day rates for mobile offshore drilling units, and reduced project sanctioning as a result of the downturn, is expected to limit growth in the offshore DWS market over the forecast.

"Total expenditure is now expected to amount to $1,177 Bn over the 2017-2021 forecast period, a downward revision of 0.7% compared to the previous quarterly edition of the report," said the report.

"An expected recovery in the North American onshore sector remains the key driver for growth in the global DWS market over the forecast, with Westwood's forecast for North American onshore expenditure over 2017-2021 having increased marginally by 0.5% compared with the previous quarter. The US onshore rig count has continued to improve over the past three months as idle units are re-activated to satisfy rising demand.

"Outside of North America, international DWS expenditure over 2017-2021 will total approximately $700 Bn, with a 2% CAGR. However, since the previous quarter, Westwood has made downward revisions to its outlook for Asian offshore drilling activity in China, Malaysia, and Thailand, due to ongoing constraints to operator budgets.

"This has contributed to a reduction in growth for offshore expenditure in this region but the outlook remains positive with an expected CAGR of 5.4%. Eastern Europe will overtake Asia and become the second largest market in terms of total onshore expenditure over 2017-2021," added the report.

Technology

China field's cyber attack

Sinopec's Shengli Oilfield unit cut the Internet connection to some of its offices after a ransom software attacked 21 of its terminals, the Chinese state-owned player said.

Shengli Oilfield became the latest victim of the ransom ware that has hobbled big business across the globe, Reuters reported. Shengli Oilfield, which started producing oil in 1964, is one of the largest sources of production for Sinopec. The operator said it would cut the Internet to all its computers that have not installed a virus protection system

Cambodia Block A FID soon

...continued from page 1 H.E. Chou Vichet, Secretary of State for the Ministry of Economy and Finance and Vice-Chairman for the Inter-Ministerial Committee for Block A, added: "Cambodia's growth has been stable and has grown rapidly over the past two decades through the increase in construction, garment exports, tourism and the agricultural sectors. These are all important foundations in the development and prosperity for Cambodia. Now we are starting to develop a new oil and gas sector that will help increasing state revenues and job creation that will contribute to boosting our Cambodian economy further."

Kelvin Tang, KrisEnergy's chief operating officer and president of Cambodian activities, said: "Our technical and project teams have a successful track record of bringing greenfield oil developments in the Gulf of Thailand into production on time and to budget. Apsara marks only the first phase of the development of Cambodia Block A, there remains further potential in other geological trends within the contract area for future investigation."

Geology

Block A is located to the east of the Pattani Trough: "the most prolific hydrocarbon producing basin in Thai waters," said KrisEnergy.

The block is bounded to the west by the Narathiwat Ridge, which separates it from the Pattani Basin, to the east by the Khmer High, and to the south by the Kim Qui High, separating it from the Malay Basin.

"Similar to basins within the Gulf of Thailand, this basin is characterised by an early Palaeocene phase of rifting with non-marine and lacustrine deposition, followed by a Neogene thermal subsidence phase with alluvial plain sedimentation," the company added.

"The Khmer Basin shares many similarities to other Thai, Malaysian and Vietnamese Basins which lie to the west, south and east respectively of Cambodian offshore waters. These similarities include: shallow water depths, which make resultant developments relatively low cost compared to those lying in deeper waters; geological characteristics including age and type of source rock, age and type of reservoir rocks, structural trapping styles and the hydrocarbons that have been contained within the reservoir horizons; through to the methods and types of production.

"Initial developments in many of these analogous basins have usually been localised and then through time and subsequent rounds of seismic acquisition, exploration and appraisal drilling invariably have resulted in more widespread productive developments in nearby, and more distant, areas of a specific basin.

"It is envisaged that through a method of phased development that other prospective areas of the Khmer Basin may, with time and through careful rounds of exploration and appraisal, eventually be brought into production for the benefit of Cambodia," KrisEnergy noted.

Resources & Development

Phase 1A: The Phase 1A development, located in the North Apsara area, consists of a single unmanned minimum facility 24-slot wellhead platform, **Platform A**, producing to a moored production barge capable of processing up to 30,000 b/d of fluid with gas, oil and water separation facilities on the barge. The oil will be sent via a 1.5km long pipeline for storage to a permanently moored Floating, Storage and Offloading (FSO) vessel from which sales liftings will take place.

Production personnel accommodation will be located on the production barge with additional accommodation on the FSO vessel.

Platform A will be located to provide access to all potential well locations, maximise access to the current known oil resources and to maximise the potential resources accessed by each future platform. Initially it is envisaged that 20 development wells will be drilled in the Phase 1A stage.

Phase 1B: Work on Phase 1B would begin subject to the following factors:

- Successful execution and operation of the Phase 1A single platform development; and
- Favourable and consistent production results from the Phase 1A single platform.

Phase 1B will involve construction and installation of up to three additional minimum facility wellhead platforms – **B**, **C** and **D** – similar to Platform A with associated pipelines tied back to Platform A. The associated pipelines will each be approximately 5km long. The same production barge and FSO vessel used in Phase 1A will accommodate Phase 1B production.

Phase 1C: The production permit signed on 23 August 2017 covers Phases 1A and 1B of the Apsara development plan. However, KrisEnergy believes there is further potential for a Phase 1C development in the southern area of the Apsara Trend. Should Phases 1A and 1B prove successful, KrisEnergy would be required to submit a further production permit for approval for the Phase 1C development.

Phase 1C development involves six additional platforms, five being wellhead platforms similar to those employed in Phase 1A and Phase 1B, and the sixth facility a Central Processing Platform (CPP) for the southern section of the Apsara area. Pipelines from the five Phase 1C wellhead platforms would transport fluids to the CPP for separation and processing before sending crude oil to the FSO vessel.

These Phase 1C facilities would complete development of the Apsara oil field and all 10 platforms.

There are no existing appraisal wells in the Phase 1C area and work on the third development stage will be subject to the following factors:

- Successful execution and operation of Phase 1A and Phase 1B developments;
- Favourable and consistent production results from the Phase 1A and phase 1B platforms; and
- Successful results from three or four appraisal wells in a Phase 1C drilling campaign.

The Phase 1C appraisal wells are envisaged to be drilled subsequent to the Phase 1B development drilling campaign.

Future potential

There are six additional geological trends in the Block A licence area outside of the Apsara development area with potential for oil and/or gas discovery and development. Successful execution and results from the Phase 1 series of Apsara developments may lead to additional exploration and appraisal activities within the concession:

- Phase 2 refers to the potential development of oil accumulations in the Poulo Wai and Basit trends; and
- Phase 3 refers to the potential development of oil accumulations in the Angkea Sel, Rotanak, Bokor and Da trends.

KRISENERGY OPERATIONS IN THE GULF OF THAILAND:

- **Cambodia Block A** - containing the Apsara oil development (operator)
- **G6/48** Thailand - containing the Rossukon oil development (operator)
- **G10/48** Thailand - containing the producing Wassana oil field and the Wassana Satellite oil development (operator)
- **G11/48** Thailand - containing the producing Nong Yao oil field (non-operator)
- **B8/32 & B9A** Thailand - a multi-field oil and gas producing complex (non-operator)

FIELD DEVELOPMENT

Vietnam Blue Whale output soon

ExxonMobil's **Blue Whale** gas field development project offshore Vietnam could start production in November, according to Vietnam Television (VTV).

The Blue Whale field has an estimated 150 Bcm (5.30 Tcf) of gas reserves.

Prime Minister Nguyen Xuan Phuc told ExxonMobil on Tuesday that he hoped to have the project starting officially at an Asia-Pacific Economic Cooperation summit in November when US President Donald Trump and US government officials are expected to attend, state-run VTV reported.

Vietnam is trying to switch to cleaner energy from coal-fired power plants, Reuters eported. The country is also planning solar and wind power plants.

Jon Gibbs, ExxonMobil's vice president in Asia Pacific and Middle East, said the US player plans to produce the first gas for Vietnamese power plants in 2023, VTV reported.

State-owned PetroVietnam, ExxonMobil's partner in Blue Whale, has said the project would contribute nearly US $20 Bn to the state budget.

FLNG spend to reach $37.6 Bn

The sanctioning of Eni's Coral South FLNG unit signalled the second wave of liquefaction vessels expected to be ordered between 2018-2023, with spending forecast to reach US $37.6 Bn, said consultants Westwood Global Energy.

"The start-up of pioneering projects, and the deployment of the first converted LNG carrier to FLNG unit, will serve as a proof-of-concept, supporting future investments. Given the strong fundamental drivers – increasing gas consumption due to economic growth, fuel switching, and energy security – the outlook for the import vessels will remain strong over the 2018-2023 period," the company said in a report.

"Despite near-term concerns due to challenging market conditions, the incentive to use FLNG units to develop gas reserves in remote places remains compelling. However, a downside risk to the forecast remains, as operators continue to evaluate various alternative development options, including the use of existing onshore infrastructure, which may provide a more economically viable development option or concepts influenced by local political interventions."

The highlights of the report are:

- Global capex on FLNG facilities is set to grow at a 9% CAGR over the 2018-2023 period, with expenditure forecast to total US $37.6 Bn.
- North America will account for the largest share of the market at 29%, with expenditure amounting to $11.1 Bn over the forecast.
- Liquefaction vessels are expected to account for 70% of global FLNG expenditure over the forecast, with import facilities representing the remaining 30% of the market.
- With 28 import vessels currently in operation, Westwood is expecting an additional 47 import vessels to be commissioned over the forecast period.
- Expenditure on import vessels will total $11.2 Bn over the forecast. This represents an increase of 68% compared to the 2012-2017 period.

HYDRATES

China hydrate pilot planned

China's Ministry of Land and Resources, state-owned China National Petroleum Corp (CNPC) and Guangdong province have agreed to build a pilot methane hydrate project in the South China Sea, according to CNPC.

The trial prospecting of the deepwater gas resource, also called 'flammable ice', will be in the Shenhu Area of the South China Sea, after initial tests run in May, CNPC said.

The report did not give further details on the timeline or financial investment on developing this pilot project, Reuters reported.

Methane hydrates are gas frozen into ice-like crystals buried deep under the oceans. Japan is also trying to develop the potential fuel sources in its own seas.

Experts say the first commercial developments could not happen until beyond 2030.

A drilling platform deployed for 60 days off the coast of the southeastern Chinese city of Zhuhai earlier this year produced a total of 309 Mcm (10.91 MMcf) of natural gas, the Land Ministry said in July.

The government said it would "actively develop" methane hydrate over the 2016-2020 period, although industry experts have said there is no technology yet to commercially unlock the potential energy source.

LNG

Aqualis wraps Ichthys role

Marine and offshore engineering consultancy Aqualis Offshore has completed its position keeping role for the *Ichthys Venturer* FPSO, which is now fully moored on the **Ichthys** field offshore Western Australia.

Project operator Inpex reported on 14 August that the *Ichthys Venturer* FPSO had arrived in Australian waters, 220km off the north coast of Western Australia.

Aqualis said this week that, since then, the company managed the position keeping procedure and provided position keeping masters offshore while the FPSO was secured with a 21-line mooring system.

On 18 July, the FPSO started its journey from South Korea to Australia. The *Ichthys Venturer* was permanently moored in the Ichthys field on 24 August, around 3.5km from the field's central processing facility, *Ichthys Explorer*.

The massive 336 metre long FPSO is designed for 40 years of operations without dry dock.

Aqualis added that its Singapore office provided the position keeping services as a sub-supplier to Posh Terasea Offshore. Posh managed the 5,600km towage of the *Ichthys Venturer* and *Ichthys Explorer* from South Korea, to the Ichthys field.

Guizhou wins China shale block

Chinese domestic state-run Guizhou Industry Investment (Group) Co has landed rights to explore and develop the **Zheng An Block** shale concession in the southwestern Chinese province of Guizhou.

In a government auction Guizhou Industry Investment won the right for a price of US $193.4m (1.29 Bn yuan), according to local reports.

The company has interests in financing, property, power and coal, and is expected to start commercial gas production at the Zheng An Block within three years, according to a report on Guizhou Radio's social media account, Reuters reported.

Guizhou Industry Investment will become one of the few operators not primarily focused on the oil and gas industry to explore and develop shale resources in China.

China's efforts to unlock its potentially massive shale gas resources have been set back by the cost of drilling and geological complexity, with only a handful of discoveries now in commercial operation, led by state major Sinopec.

China's Land Ministry previously developed a shale find that was made with exploration well **Anye-1** in the 695sq km Zheng An Block. That find has a gas flow rate of 100 Mcm/d (3.53 MMcf/d).

Four Chinese players, including the winner, attended the auction in Guiyang. The starting price was $6.35m (42.36m yuan).

Landlocked Guizhou province, one of the country's poorest, has few indigenous oil and gas producing assets, having relied on neighbouring regions for supplies of fuel.

Icon scoops Cooper Basin concession

Icon Energy reports that the Australian Department of Natural Resources and Mines (DNRM) has awarded the company Potential Commercial Areas (PCAs) over **ATP 855** in the Nappamerri Trough, Cooper Basin, Australia.

"The PCAs, numbered PCA 172 to PCA 179, are for a period of 15 years and are designed to enable Icon, having discovered a permit-wide gas resource within ATP 855, the opportunity to retain an interest in and ultimately develop the discovery," Icon said.

Icon's managing director, Ray James, said: "Having discovered a significant gas resource, following the drilling, completion and testing of six wells, it was very important that Icon secured the tenement for 15 years via the PCA process.

"The gas resource within ATP 855, as determined by DeGolyer and MacNaughton, is now 807.4 Bcm/28.5 Tcf (P50) of unconventional prospective raw gas over the whole permit, and 44.5 Bcm/1.57 Tcf of 2C contingent resources determined within defined areas surrounding the five wells already tested.

"Icon is very pleased with this outcome and the opportunity to progress evaluation and appraisal of this gas resource, which is located in an ideal position for development in central Australia. The work will involve a series of technical studies and new seismic data acquisition, which are required before Stage 2 appraisal drilling can commence."

SEISMIC

Empyrean wraps China survey

Empyrean Energy has completed a 3D seismic survey over **Block 29/11** offshore China.

Block 29/11 covers around 1,800sq km and is located approximately 200km off Hong Kong at water depths ranging from 340-600m (1,116-1,969ft). Empyrean has a 100% operating stake in Block 29/11 during the exploration phase.

The operator said that the survey started on 6 June and now the raw data has been acquired, the seismic vessel is demobilising from the area.

Empyrean contracted China Oilfield Services Limited (COSL) to perform the survey, which acquired 580sq km of new 3D seismic data over the permit, including key prospects **Jade** and **Topaz**.

Apart from the data acquired on Block 29/11, a further 28sq km of 3D data were acquired as part of the overall survey along the western boundary of the block, extending over the **LH 23-1d** oil discovery, which lies to the west of Empyrean's permit.

Empyrean expects the additional data to help evaluate the extent of a potential geological tie between the LH 23-1d oil discovery and the Jade and Topaz prospects.

Tom Kelly, Empyrean's CEO, said: "We are pleased to report that the 3D marine seismic survey acquisition has been completed on schedule with excellent quality 3D data acquired. COSL provided a highly professional service during the operations, and we are pleased with their cooperation and the quality of data produced from the survey.

"In conjunction with COSL, we have already commenced processing the raw data. While the full processing and interpretation will take some months to complete fully; we will be able to fast track some of the initial processing of raw data over our key prospects, Jade and Topaz. This is expected to give potential resource size estimations for Jade and Topaz within weeks."

WesternGeco completes Malaysian shoot

Schlumberger's WesternGeco has completed a hybrid seismic survey offshore Malaysia using its new multipurpose vessel (MPV) *WG Vespucci*.

This was a first acquisition of towed-streamer and ocean-bottom nodal seismic data with a single vessel, Schlumberger said.

The 340sq km 3D seismic survey was acquired offshore Sarawak, East Malaysia, for Roc Oil using a triple source array with simultaneous recording by ocean-bottom nodes and a towed-streamer spread, all from a single seismic vessel.

The *WG Vespucci* MPV acquired the Ocean-Bottom Seismic (OBS) data required around existing platform obstructions supplemented by streamer seismic data. Simultaneously acquiring the OBS and streamer data without having to employ multiple acquisition vessels and crews resulted in cost reduction and greater efficiency while achieving the survey objectives, Schlumberger said.

"Providing a hybrid OBS and streamer acquisition option with our multipurpose vessel versus a traditional OBS or towed streamer survey gave the customer a versatile and cost-effective solution to better fit their specific challenges and budget," said Maurice Nessim, president, WesternGeco, Schlumberger.

DRILLING

IKM wins Caspian Sea deal

IKM Cleandrill has landed a contract from Total for riserless mud circulating system services in the Azerbaijan sector of the Caspian Sea.

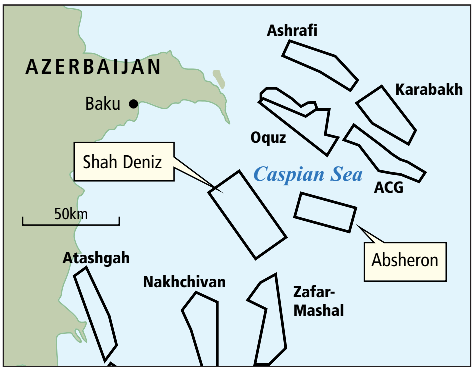
Total E&P Absheron, a 50:50 joint operating company between Total and Azerbaijan's state-owned SOCAR for the **Absheron** project (JOCAP), handed out the deal.

IKM Cleandrill will start operations in early 2018 in what is the player's first operation in the Caspian Sea.

The project itself involves the drilling of one well at a water depth of 450m (1,476ft). Production from this high-pressure field will be around 35,000 boe/d, including condensate.

The produced gas will supply Azerbaijan's domestic market. The first phase of production will also enable a dynamic appraisal of the field for future phases, IKM added.

The contract will include the installation of IKM's MRR500 mud recovery system onto a new semi-submersible drill rig, and provision of subsea drilling fluid pumping services as part of the Absheron project's drilling campaign in Azerbaijan.



"The project is technically challenging, with deep water, high mud weights, and potentially harsh environmental conditions. IKM is upgrading its standard MRR500 system with increased pumping power to meet this requirement. The new MRR500 XL system will provide the Absheron project with the latest generation high-power mud recovery technology," said IKM.

Tom Hasler, managing director of IKM, added: "This contract's award represents a significant win for IKM Cleandrill. Total undertook a detailed evaluation of the MRR500 XL system as part of the bidding process, and our technical department has once again reset the benchmark for mud recovery technology to meet their requirements.

"Moving into the Caspian region is strategically important for the company and consolidates our position as the leading global mud recovery provider."

VESSELS

Deepsea Metro I contract terminated

Following a force majeure event from late July, Golden Close Maritime Corp (GCMC), the owner of the *Deepsea Metro I* drillship, has received a drilling contract termination notice from "an unnamed client" in South East Asia.

The *Deepsea Metro I* drillship is managed by Odfjel Drilling. The contract, for a firm two-well campaign, with options for one further well and three sidetracks, had been awarded in May.

The drillship had reportedly been hired by Spain's Repsol for exploration drilling in Vietnam, in the contested waters of the South China Sea.

On 31 July 2017, GCMC said that it had received notice of a force majeure event from the client under the contract for *Deepsea Metro I* in South East Asia.

On 30 August, GCMC received a notice of termination of the contract by the client, in which it referred to the duration of the force majeure event.

GCMC said it has reserved all rights under the contract and is currently in talks with the client regarding settlement following the termination.

The vessel is currently anchored in Labuan, Malaysia and is available for hire.

Khankendi finishes trials

Azerbaijan's Baku Shipyard has completed sea trials for the Subsea Construction Vessel (SCV) *Khankendi* that is being built for the BP-operated **Shah Deniz Stage 2** project in the Azeri sector of the Caspian Sea.

The *Khankendi* SCV has been designed to install subsea structures of the huge Shah Deniz Stage 2 gas development project. It will perform construction activities on the field for the next 10 years.

The six-week trial took place in the Caspian Sea and represented the vessel's initial voyage in open waters, the Baku Shipyard said.

The shipyard added that throughout nearly two months of intense diagnostics, maritime experts executed more than 120 different tests designed to evaluate everything from the *Khankendi*'s engine and propulsion performance to its dynamic positioning, navigation systems, cabin acoustics as well as the offshore capabilities.

The completion of sea trials brings the shipyard a step closer to the imminent delivery of the *Khankendi* SCV to BP. The vessel is now back at the shipyard ahead of its naming ceremony in early September.

The vessel will be equipped with dynamic positioning to allow working in 2.5 metre wave height, a 900 metric tonne main crane for 600m subsea operation, an 18-man two-bell diving system, two work-class remotely operated vehicles, a strengthened moon pool and two engine rooms.

Calendar 2017

SEPTEMBER

27-28 Tank Storage Asia
Singapore
Contact: lisa@stocexpo.com

DECEMBER

13-14 StocExpo China
Shanghai, China
www.easyfairs.com/stocexpo-china-2017

2018

MARCH

14-16
Asia Pacific Maritime (APM)
Singapore
Email: : apm@reedexpo.com.sg
Tel: +65 6780 4586
www.apmaritime.com

Petronas sees profit rise

Malaysia's state-owned Petronas recorded an increase in profit for the second quarter of 2017 on the back of cost cutting and higher prices across all products.

Petronas' profit after tax for Q2 2017 was US $1.64 Bn (7 Bn ringgit), compared to $398.1mm (1.7 Bn ringgit) in Q2 of 2016. This increase was mostly due to lower net impairment on assets and well costs, coupled with higher average prices across all products, Petronas said.

This was partially offset by higher net foreign exchange losses, amortisation of oil and gas properties and non-FID costs for PNW LNG in Canada, the operator added.

The profit was posted on the back of a $12.08 Bn (51.6 Bn ringgit) revenue, a 10% increase from $10.98 Bn (46.9 Bn ringgit) from Q2 2016 as a result of higher average prices and foreign exchange rate impact.

However, Petronas noted that, despite higher prices compared to a year ago, the industry "remains volatile", thus keeping the company's optimism a cautious one.

Datuk Wan Zulkiflee Wan Ariffin, president and CEO Petronas, said: "We have closed out the first half of the year with stronger financials compared to the same period in 2016. While the price of oil was a significant factor, I also view this as tangible results of Petronas' transformation measures taken in response to the industry downturn."

Crude oil, condensate and natural gas entitlement volume for the second quarter of 2017 was 1.706m boe/d, compared to 1.648m boe/d in Q2 2016. The increase was in line with higher gas production. Total production volume was 2.297m boe/d in Q2 2017, compared to 2.329m boe/d in the same period of last year.

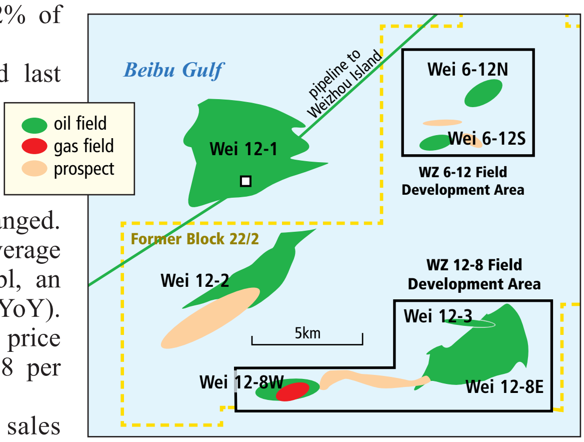
CNOOC Ltd back in black

China's state-owned CNOOC Limited has posted a profit in the first half of 2017 (1H 17), boosted by a 36% rise in oil and gas sales revenues, higher oil prices, and cost cutting.

The operator's net production of oil and gas during 1H 17 was 237.9m boe, completing 52% of full-year target.

Compared to the same period last year, the Chinese player's production decreased from 241.5m boe, a dip of 1.5%. CNOOC Ltd's full year production target of 450m-460m boe remains unchanged.

In 1H 17, the company's average realised oil price was $50.43/bbl, an increase of 33.8% year-on-year (YoY). The average realised natural gas price increased by 3.5% YoY to $5.68 per thousand cubic feet.



CNOOC Ltd's oil and gas sales revenue reached US $11.35 Bn (74.94 Bn yuan), an increase of 36.1% YoY from $8.35 Bn (55.08 Bn yuan) in the first half of 2016.

Due to more cost cutting, the company's all-in cost for 1H 17 was $31.74/boe, representing a decrease of 9% YoY. Operating expense was $7.16/boe, representing a decrease of 3.5% YoY.

The company's net profit for 1H 17 was $2.46 Bn (16.25 Bn yuan), compared to a loss of $1.17 Bn (7.7 Bn yuan) in 1H 16.

To date, four out of five new projects planned for 2017 have already started production and another project, **Weizhou 12-2** oil field **Phase II**, is also progressing well, CNOOC Ltd noted.

Premier's 1H mixed bag

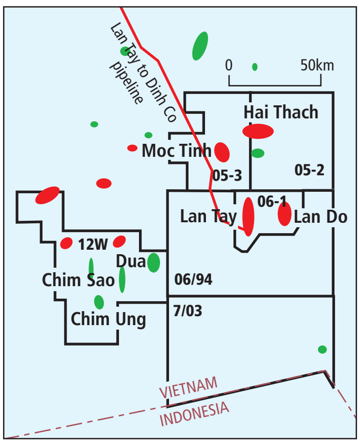
UK operator Premier Oil posted record output for the first half (1H) of 2017, although the company's profit took a dip compared to 1H 2016.

Premier posted record production of 82,100 boe/d, an increase of 34.5% on 1H 2016's output of 61,000 boe/d.

Profit after tax was US $40.7m, compared to $167.1m in 1H 2016, including one-off non-cash credits.

Cash flow from operations for 1H 2017 was $292.0m, compared to a 1H 2016 tally of $108.7m. This is a rise of 168% on 1H 2016. Opex was $14.7/boe, down 11% on 1H 2016.

Premier's chairman, Mike Welton, said: "Premier delivered a strong first half operationally, with record production of 82,100 boe/d, up 34.5% on the first half of 2016. This was driven by high production efficiency across the portfolio, enhanced by a full period of contribution from the former E.ON assets, which continue to exceed expectations at the time of the acquisition. UK production, which now represents over half of group production, saw particular outperformance by the Huntington field, which was the highest net producer in the portfolio.



"In Asia, demand for our Indonesian gas was strong with our Natuna Sea **Block A** again capturing a market share within its principal gas contract (GSA1) considerably ahead of its contractual share. In Vietnam, production during the period passed 50m bbl, in excess of the original total volumes envisaged at the time of sanction of the **Chim Sáo** project.

"As a result of the strong production performance in the first half we now expect production for 2017 to be in the range of 75,000-80,000 boe/d, an increase on our previous guidance of 75,000 boe/d.

"At the same time as increasing production, we continue to focus on managing our operating cost base and our committed capital expenditure. Our operating costs in the first half were $14.7/boe (1H 2016: $16.5/boe), 11% lower than the corresponding period and our full year capex guidance of $325m remains well below our original budget. Significant cost reductions have been achieved over the last two years and we continue to see opportunities for further savings from collaboration initiatives and competitive re-tendering.

Oil Search sees profit surge

Australia's Oil Search Ltd has reported a five-fold increase in half-year profit thanks to higher oil and gas prices and lower costs.

The operator said it expects its partners to agree by year-end on how to coordinate its Papua New Guinea (PNG) gas projects.

Net profit rose to US $129.1m for the six months to June, in line with three analysts' estimates, while Oil Search boosted its dividend by $0.01 to $0.04 a share, Reuters reported.

Oil Search is a partner in the **PNG LNG** project and the **P'nyang** field, operated by US big hitter ExxonMobil, as well as a partner in the undeveloped **Elk-Antelope** gas assets operated by France's Total.

The two projects are in talks over how best to develop their gas fields without spending billions of dollars duplicating infrastructure, by underpinning the addition of two units at the PNG LNG plant, potentially doubling its output by the mid-2020s.

Oil Search's chief executive Peter Botten said the two majors see the country as one of their best growth options and are on track to resolve technical, cost-sharing, and marketing issues by the end of this year.

But he warned that the key hurdle to their plans was getting the PNG government to complete the process of identifying which landowners in the impoverished highlands are eligible for royalties from PNG LNG.

The clan vetting process was supposed to have been completed before LNG exports started in 2014. The slow distribution of benefits has led to violent clashes over the past few years, which the partners fear could potentially disrupt operations.

"To be honest, the agreements with landowners and efficient distribution of benefits is an absolute necessity for our projects to proceed," Botten told Reuters in an interview.

Following recent elections, the government is expected to make gas development a priority in a 100-day plan due to be released this week, Botten added.

Oil Search had hoped the gas partners could reach a final investment decision on their projects by the end of 2018, but analysts see that being made in 2019 at the earliest.

It raised the lower end of its full-year production guidance range to now expect output of between 29m and 30.5m boe for 2017, and cut its cost forecast to $8-$9.50 per boe from $8-$10 per boe.

Gazprom's Q2 income slides

Russia's Gazprom reported that its Q2 2017 net income dropped by more than 80% year-on-year to US $822.0m (48 Bn roubles) due to losses related to foreign exchange rates.

Analysts polled by Reuters had expected Q2 2017 earnings to be $859.7m (50.2 Bn roubles).

April-June sales rose to $23.8 Bn (1.39 trillion roubles), up from $22.8 Bn (1.33 trillion roubles) a year ago, Gazprom said.

Gazprom added that net foreign exchange loss reached around $2.40 Bn (140 Bn roubles) in Q2 2017, compared to a profit of more than $2.57 Bn (150 Bn roubles) in Q2 2016.

The losses were related to the revaluation of Gazprom's debt, denominated in foreign exchange and reflecting the rouble's volatility, Reuters reported.

Net debt rose by 19% in the first six months of the year to $30.2 Bn (2.29 trillion roubles) as of 30 June 2017.

Gazprom's gas sales outside of the ex-Soviet Union, mainly to the European Union, rose to 119.1 Bcm (4.20 Tcf) in the first half of the year from 109.4 Bcm (3.86 Tcf) in the same period of 2016.

The decline in prices also showed that Gazprom had to be more flexible in dealing with customers amid growing competition from other energy sources, including LNG and suppliers such as Norway, the company added.