LATE NEWS

Allseas hires PSVs

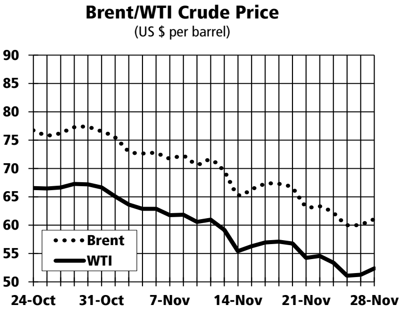
Allseas has hired two Platform Supply Vessels (PSVs) from Norway's shipping company Solstad Offshore.

Solstad said that Allseas hired the *Normand Naley* and *Sea Supra* PSVs for pipe-haul duties.

Both contracts are for 70 days firm plus options. The two charters will start in the first half of December 2018.

OIL WATCH

Latest prices



INSIDE THIS WEEK

Exploration Review 2

Equinor wraps Norway well 3

UK Clair Ridge onstream ..4

TurkStream second line complete 5

Subsea 7 bags extension ..6

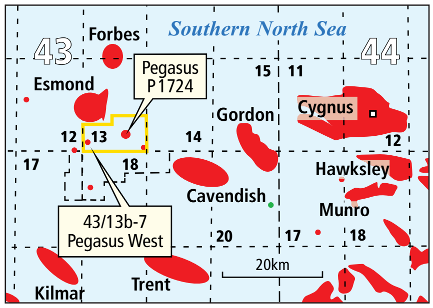
DNO targets Faroe takeover 7

Clipper South pipe work ...8

EUROPEAN OFFSHORE PETROLEUM NEWSLETTER

Vol. 43 No 47 ***28 November 2018***

Pegasus West ES tabled



Spirit Energy has submitted its Environmental Statement (ES) for the **Pegasus West** development to the UK's Department for Business, Energy and Industrial Strategy.

The **Pegasus** field will be developed via tieback of the **Pegasus West** well **43/13b-7** to the existing Neptune Energy-operated **Cygnus** gas development. The proposed development has total estimated recoverable reserves of 2.35 Bcm (83 Bcf).

The project workload includes:

- The completion for production of the Pegasus West 43/13b-7 well;
- The installation of an uninsulated 10-inch nominal bore carbon steel production pipeline, and a 180mm outer diameter electro-hydraulic-chemical umbilical, each around 56.8km in length, to the existing Cygnus development;
- The installation of subsea production infrastructure including a xmas tree and wellhead protection structure at Pegasus West and a subsea isolation valve at Cygnus;
- Modifications to the Cygnus topside facilities; and
- Processing of Pegasus West hydrocarbons at Cygnus with onward export to Bacton gas terminal on the Norfolk coast.

The Pegasus field was discovered in 2010 and spans several licences in **Quadrant 43** that are operated by Spirit Energy. Drilling of the Pegasus West 43/13b-7 appraisal well confirmed commercial gas reserves in 2014.

The proposed Pegasus West development will require the installation of a 56.8km long production pipeline connecting the Pegasus West well, in **Block 43/13b** – and then traversing **Blocks 43/14**, **43/15** and **44/11** – to the Cygnus development in **Block 44/12** of the Southern North Sea.

The **Cygnus Alpha** hub consists of three bridge-linked platforms. Pegasus West production will be routed to the Cygnus Alpha process and utilities platform, then exported with Cygnus gas for processing at the Bacton terminal. The proposed development, situated on the UK Continental Shelf, lies around 107km northeast of Flamborough Head on the North Yorkshire coast at the Pegasus West well location, and around 35km from the UK/Netherlands median line at Cygnus.

PEGASUS WEST PROJECT TIMELINE

Cygnus topside modifications	Q2 2020 - Q4 2021
well re-entry and completion	Q2 2021
subsea infrastructure installation	Q3 2021
offshore testing and commissioning	Q3 - Q4 2021
first gas	Q4 2021 - Q4 2023

Norway oil discovery

Faroe Petroleum is completing exploration well **30/6-30** in **Production Licence 825** (PL 825) offshore Norway as an oil discovery.

The well was drilled 25km north of the **Oseberg** field centre in the northern part of the Norwegian North Sea. It lies 150km northwest of Bergen.

This is the first exploration well in PL 825, which was awarded in APA 2015.

Well 30/6-30 was drilled to a vertical depth of 3,466m (11,372ft) below the sea surface and terminated in the Dunlin group in the Lower Jurassic.

Water depth at the site is 120m (394ft). The well will now be permanently plugged and abandoned. Well 30/6-30 was drilled by the *Transocean Arctic* rig.

The primary and secondary exploration targets for the well were to prove gas and condensate in Middle Jurassic reservoir rocks (in the Oseberg formation and Etive/Ness formations, respectively), said the Norwegian Petroleum Directorate (NPD).

continued on page 2...

NORWAY

• Faroe Petroleum is completing exploration well **30/6-30** in **Production Licence 825** (PL 825) as an oil discovery. The well was drilled 25km north of the **Oseberg** field in the northern North Sea (*see story, pg 1*).

• Faroe was also active in the northern Norwegian Sea, spudding exploration well **31/7-3 S** on the **Brasse East** prospect. The total expected vertical depth of the well is around 2,271m (7,451ft) at a water depth of 124m (507ft). Drilling operations are being undertaken by the *Transocean Arctic* semi-submersible rig (*see story, pg 3*). The well was spudded on 20 November.

• Equinor has completed exploration well **7324/3-1** in **PL 615**, with commerciality unclear, according to the Norwegian Petroleum Directorate (NPD). The well was drilled 15km northwest of discovery well **7325/1-1** (**Atlantis**) and 370km north of Hammerfest (*see story, pg 3*).

• Equinor spudded exploration well **6407/11-1** in **PL 751** on 17 November. The probe has a water depth of 314m (2,438ft) and is being drilled by the *Deepsea Bergen* semisub rig.

• MOL Norge has kicked off exploration well **2/6-6 S** in the Norwegian North Sea using the *Rowan Viking* jack-up rig. The probe lies in **PL 860** and has a water depth of 69m (226ft). The well was spudded on 13 November.

• Lundin Petroleum is drilling ahead with exploration well **6307/1-1S** on the **Silfari** prospect in **PL 830** in the Norwegian Sea. The well was spudded with the *Leiv Eiriksson* semisub rig on 18 October. The probe has a water depth of 237m (776ft).

• Equinor is drilling ahead with exploration well **6406/2-9 S** on the **Ragnfrid North** prospect in the Norwegian Sea. The operator used the *West Phoenix* semisubmersible rig to kick off the probe, which lies in **PL 199**. Operations started on 3 October at a water depth of 278m (912ft).

• Total is pushing ahead with exploration well **6406/6-6 S** on the **Jasper** prospect in the Norwegian Sea. The French major is using the *Scarabeo 8* semisub rig to drill the probe, which lies in **PL 255 B**. The well was spudded on 16 August and has a water depth of 267m (876ft).

UNITED KINGDOM

• Nexen is drilling ahead with exploration well **22/21c-13** using the *Prospector 5* rig. The probe was spudded on 26 August and is drilling the **Glengorm** prospect.

• ConocoPhillips is pushing ahead with the **30/7a-S12** appraisal well on the **Jasmine** prospect. The *Ensco 120* rig is drilling this probe, which was spudded on 26 August.

• Neptune is drilling ahead with exploration well **44/12b-7** with the *Ensco 101* rig. The well was spudded on 29 October.The well is targeting the **FB9** prospect.

Gas

Engie to buy Black Sea gas

Black Sea Oil & Gas has with its partners has signed a deal to sell gas from a Romanian Black Sea project to Engie.

Black Sea Oil & Gas (BSOG) and its partners Petro Ventures and Gas Plus have signed a deal to sell its gas from the **Midia** gas development project offshore Romania to France's Engie.

Engie's Romanian subsidiary Engie Energy Management Romania will buy the gas from the project.

Romania's BSOG said Engie would buy gas from the **Anna** and **Doina** gas reservoirs over a period of 10 years. The deal is subject to a Final Investment Decision (FID). The gas will be delivered at Vadu entry point into the National Natural Gas Transmission System from Romania.

The Midia project includes the development of five production wells (one subsea well at Doina field and four platform wells at the Anna field), a subsea gas production system on the Doina well, which will be connected through an 18km pipeline with a new unmanned production platform located on the Anna field.

A 126km gas pipeline will link the Anna platform to shore and to a new gas treatment plant.

BSOG CEO, Mark Beacom, said: "We are delighted to have secured this important agreement for the sale of our gas. BSOG is working steadily towards achieving all the remaining milestones on the project required to reach FID such that a decision can be taken on whether to approve FID. The assessment of the Offshore Law on the project's economic viability remains a key part in determining whether a favourable decision to FID will be taken."

Edouard Neviaski, CEO of Engie's Global Energy Management business unit, said: "Engie is proud to support the Midia project partners and we look forward to managing the first gas production from the Black Sea, a very exciting new source in Romania. The Midia project project gas can be stable long-term source of supply for the development of Engie's position in Romania and the region."

Exploration

Norway oil discovery

...continued from page 1 In the primary exploration target in the Oseberg formation, the well encountered a total of around 85m (279ft) of aquiferous sandstone, "mainly with moderate to good reservoir quality," noted the NPD.

In the secondary exploration target, a total gas-condensate column of around 55m (180ft) was encountered in the Ness formation, whereof a 17m (56ft) thick sandstone layer with moderate to good reservoir quality. The gas/water contact was not encountered.

The Etive formation consists of 25m (82ft) of aquiferous sandstone, mainly with moderate to good reservoir quality.

"Preliminary estimates place the size of the discovery between 0.4m-2.7 MMcmoe [2.52m-17.00m bbl] of recoverable oil," added the NPD. "Preliminary assessments indicate that the discovery is not currently profitable, but the licensees will assess the discovery together with other nearby discoveries/prospects with regard to further follow-up."

The well was not formation-tested but extensive data acquisition and sampling were carried out.

● The *Transocean Arctic* has now spudded appraisal well **31/7-3 S** in **PL 740** (*see Exploration Review,above*). That licence is operated by Faroe Petroleum Norge.

Equinor wraps Norway well, 'commerciality unclear'

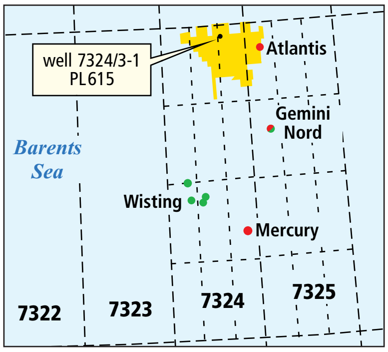
Equinor has completed exploration well **7324/3-1** in **Production Licence 615** (PL 615) offshore Norway.

The well was drilled around 15km northwest of discovery well **7325/1-1** (**Atlantis**) and 370km north of Hammerfest.

The well was drilled to a vertical depth of 1,678m (5,506ft) below the sea surface and was terminated in the Snadd formation from the Late Triassic Age. Water depth at the site is 452m (1,483ft). The well will now be permanently plugged and abandoned.

Well 7324/3-1 was drilled by the *West Hercules* rig, which is now due to drill appraisal well **7122/7-7 S** on the **Goliat** field in the Barents Sea (*see story below*).

Preliminary calculations of the size of the discovery in the upper part of the Snadd formation are between 10-20 Bcm (353.0-706.0 Bcf) of recoverable gas. In the lower part of the Snadd formation, the gas volume is estimated at between 1-4 Bcm (35.3-141.2) of recoverable gas. The discovery's commerciality is currently unclear, noted the NPD.



The well was not formation-tested but extensive data acquisition and sampling were carried out.

This is the third exploration well in PL 615, which was awarded in the 22nd Licensing Round in 2011.

"The well's primary exploration target was to prove oil in reservoir rocks from the Late Triassic Age (upper part of the Snadd formation)," said the Norwegian Petroleum Directorate (NPD).

"The secondary exploration target was to prove petroleum in reservoir rocks from the Middle Jurassic Age (Stø formation) and in a deeper exploration target from the Middle Triassic Age (lower part of the Snadd formation). The secondary exploration target in the Snadd formation was the same stratigraphic level as gas discovery 7325/1-1 and well 7324/3-1 was also intended to delimit this discovery."

Before well 7324/3-1 was drilled, the resource estimate for discovery 7325/1-1 was between 500 MMcm (17.65 Bcf) and 2 Bcm (70.6 Bcf) of recoverable gas.

In the primary exploration target, a total gas column of around 30m (98ft) was encountered in the upper part of the Snadd formation, of which 20m (66ft) was in an effective reservoir of primarily moderate to poor reservoir quality. The gas/water contact was encountered 1,492m (4,895ft) below the sea surface.

In the secondary exploration target in the lower part of the Snadd formation, gas was also encountered in sandstone of poor to moderate reservoir quality. The gas column has not been clarified, as efforts to define a gas gradient were unsuccessful due to the tight formation, said the NPD.

In the other secondary exploration target, 15m (49ft) of aquiferous reservoir sandstone was encountered in the Stø formation, with moderate to good reservoir quality.

Brasse East well spudded

Faroe Petroleum has spudded the **Brasse East** exploration well **31/7-3 S** in the northern sector of the Norwegian North Sea.

The Brasse East well is being drilled immediately east of the **Brasse** field (discovered in 2016 and appraised in 2017), which in turn is located to the south of the **Brage** field and to the southeast of the **Oseberg** field.

At the end of 2017, the Brasse field development feasibility study phase was completed, confirming several economically attractive development solutions and export routes, said Faroe.

"Concept studies are currently progressing according to plan," Faroe said.

The total expected vertical depth of the well is around 2,271m (7,451ft) at a water depth of 124m (507ft). Drilling operations will be undertaken by the *Transocean Arctic* semi-submersible rig.

Faroe operates the Brasse field, which lies in **Production Licence 740** (PL 740), **PL 740 B** and **PL 740 C**, while Point Resources holds the other 50%.

Graham Stewart, CEO of Faroe, said: "Brasse East offers upside potential for the Brasse field development, as well as potential to unlock additional exploration upside to the northeast of the Brasse field.

"Faroe's active exploration programme is continuing over the coming period, with the **Cassidy** well preparing for drilling later this year plus a further two wells committed for 1H 2019," Stewart added.

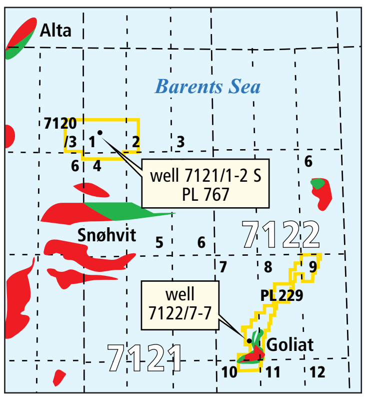
Eni gets Norway permit

The Norwegian Petroleum Directorate (NPD) has granted Eni Norge a drilling permit for appraisal well **7122/7-7 S** in **Production Licence 229** (PL 229) offshore Norway.

Well 7122/7-7 S will be drilled by the *West Hercules* rig after concluding the drilling of exploration well **7324/3-4** for Equinor Energy in **PL 615**.

"The area in this licence consists of parts of **Blocks 7122/7**, **8**, **9** and **10**. The well site lies around 2.4km west of the discovery well **7122/7-1** on the **Goliat** field," said the NPD.

Eni Norge operates PL 229 with a 65% stake, while Equinor holds 35%. PL 229 is located in the Barents Sea and was awarded in 1997. This is the eighth well to be drilled in the licence.



Lundin gets Barents Sea nod

Norway's Petroleum Safety Authority (PSA) has given Lundin Norway consent to drill and test well **7121/1-2 S** in **Production Licence 767** (PL 767) in the Barents Sea.

Lundin is the operator for PL 767.

The well is in the Barents Sea, in the centre of Troms I, around 121km offshore. The water depth at the site is 315m (1,034ft).

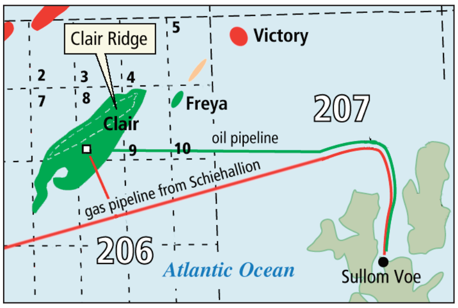
Drilling is due to start in December 2018 and operations are expected to last for 52 days.

The well will be drilled by the *Leiv Eiriksson* semi-submersible rig, which is of the SS Trosvik Bingo 9000 type. The rig is owned and operated by Ocean Rig.

UK Clair Ridge onstream

Oil production has started from the **Clair Ridge** development project in the West of Shetland region offshore UK.

Clair Ridge is the second phase of the **Clair** field development. The Clair field was discovered in 1977 and has an estimated 7 Bn bbl of hydrocarbons, said field operator BP. Its partners are fellow big hitters Shell, Chevron and ConocoPhillips.



Two new, bridge-linked platforms and oil and gas export pipelines have been constructed as part of the Clair Ridge project. The new facilities, which required capital investment in excess of US $5.77 Bn (£4.5 Bn), are designed for 40 years of production.

The Clair Ridge project plans to recover around 640m bbl of oil, with production expected to increase up to a peak of 120,000 b/d of oil.

Clair Ridge also includes new pipeline infrastructure with the installation of a 5.5km, 22-inch oil export pipeline tying into the Clair Phase 1 export pipeline. Oil from Clair is exported to the Sullom Voe Terminal on Shetland.

A new 14.6km, six-inch gas export pipeline tying Clair Ridge into the West of Shetland Pipeline Systems (WOSPS) was also installed as part of the project. The WOSPS transports gas from West of Shetland to the Sullom Voe Terminal.

Clair Ridge also features an advanced drill rig, which will deliver a drilling programme over several years. There are 36 well slots, two of which are being used for the tieback of pre-drilled wells. The drilling programme, which is likely to last more than 10 years, includes drilling and completing development wells from the remaining 34 well slots.

Bernard Looney, BP's chief executive Upstream, said: "The start-up of Clair Ridge is a culmination of decades of persistence. Clair was the first discovery we made in the West of Shetland area in 1977. But trying to access and produce its seven billion barrels proved very difficult. We had to leverage our technology and ingenuity to successfully bring on the first phase of this development in 2005.

"And now more than 40 years after the original discovery, we have first oil from Clair Ridge, one of the largest recent investments in the UK. This is a major milestone for our upstream business and highlights BP's continued commitment to the North Sea region," added Looney.

Clair Ridge is the first offshore deployment of BP's enhanced oil recovery technology, LoSal, which has "the potential to increase oil recovery from reservoirs by using reduced salinity water in water injection. This is expected to result in up to an additional 40m bbl being cost-effectively recovered over the lifetime of the development," BP noted.

Ariel Flores, regional president for BP's North Sea business, said: "Safely delivering first oil from Clair Ridge, in some of the harshest conditions in the UKCS, is the result of years of planning and hard work by BP, our partners and supply chain colleagues. We are proud to have played our part in this pioneering project and are excited for the Clair region's continued potential."

Dr Andy Samuel, chief executive at the UK's Oil and Gas Authority said: "First oil from the newly built Clair Ridge platform is a major milestone for the UKCS. The OGA continues to view the West of Shetland as strategically important with substantial remaining potential. The Clair field has in excess of 7 Bn bbl in place and is expected to sustain production for many decades to come, with significant scope for further phases of development. We welcome BP's ongoing commitment to Maximising Economic Recovery (MER) UK."

Industry body Oil & Gas UK's chief executive Deirdre Michie added: "First oil at Clair Ridge represents a major milestone in BP's developments West of Shetland, the frontier region which is likely to have the greatest potential to expand current UK production. It's greatly encouraging to see one of the basin's original explorers using new, ambitious approaches and pioneering technology to help lead a revival in production. This is another firm step towards MER from the basin."

In Brief...

Kvaerner cuts Castberg steel

Kvaerner has cut the first sheet for the topside of the Floating Production, Storage and Offloading (FPSO) vessel for the Equinor-operated Johan Castberg field in the Barents Sea offshore Norway.

The Norwegian Minister of Petroleum and Energy, Kjell-Børge Freiberg, has cut the first sheet for the FPSO topside at Kværner's yard at Stord, Norway, Equinor said. The construction will create ripple effects throughout Norway, Equinor added.

Deepwater strong but costs rising

Expected cyclical cost inflation could raise breakeven costs in an otherwise "healthy deepwater industry", according to a report by analysts Wood Mackenzie.

The deepwater industry appears in good health, following a sustained cost reduction through the downturn. However this hard work is in danger of being undone, as impending cyclical cost inflation could raise breakeven costs once again, said the report.

Data suggests that the cost of developing new deepwater barrels has decreased by more than 50% since 2013.

The most important steps deepwater operators have taken to achieve lower costs, and therefore improve returns, include downsizing projects, a greater focus on subsea tiebacks and brownfield developments over greenfield, reduced project lead times, reduced well counts, and more phasing of larger developments, added the report.

Other steps include faster well completions, better project execution, and lower rig/service sector costs.

The most competitive region is the Americas and in particular Brazil, Guyana, and the Gulf of Mexico, where more than 50 Bn boe of pre and post-sanction deepwater developments are now profitable under an oil price of US $60/bbl, based on breakeven costs.

Angus Rodger, research director at Wood Mackenzie, said: "One of the key drivers in cost reduction in deepwater projects is lower rig costs, which is a cyclical factor. But more importantly, there have also been big structural changes, such as the faster drilling of wells. For example, in the US Gulf of Mexico, it now takes half the time to drill a deepwater well compared to 2014."

Drilling

Maersk-Wintershall extend agreement

Denmark's Maersk Drilling and Germany's Wintershall have extended their cooperation in a new agreement, which will give Maersk Drilling the status of preferred contractor to Wintershall's offshore drilling operations.

The agreement, which includes closer cooperation on using data to improve drilling efficiency, comes into effect immediately and will remain in force until the end of June 2020, Maersk Drilling said.

The first contract under the agreement has been awarded to jack-up rig *Maersk Resolve*. Wintershall will use the rig to plug and abandon three wells in the Dutch sector of the North Sea. The plugging and abandonment campaign is expected to start in January 2019 and last for 90 days.

Under the agreement, the companies will work together on collecting and leveraging data to drive efficiency. Maersk Drilling's rigs provide real-time data from thousands of datapoints on board, and the new partnership will test new software solutions to collect and analyse the input in order to identify potential improvements on-the-fly during drilling operations, Maersk said.

In this way, Maersk Drilling and Wintershall are committed to testing new ways of identifying drilling efficiencies, Maersk added.

Morten Kelstrup, chief commercial and innovation officer of Maersk Drilling, said: "We're very proud to be able to turn a new customer relationship into a strong partnership with this agreement which will drive further value to both parties by our mutual commitment to cooperate much closer on drilling smarter. Wintershall Noordzee was an entirely new customer to us when *Maersk Resolve* commenced its latest campaign for the client, entering into a contract that was extended several times and ended up lasting more than a year. That Wintershall Noordzee now awards us the preferred status on their drilling work is the ultimate recognition of the exceptional performance which our companies have delivered together.

Pipelines

TurkStream second line complete

Allseas' huge pipelaying vessel *Pioneering Spirit* has completed the installation of the second line of the TurkStream pipeline between Russia and Turkey in the Black Sea.

"The construction of TurkStream is entering its final stage. The works are going ahead of schedule. Today, and not in December, as planned earlier, the laying of the offshore section of the gas pipeline was completed," said Allseas.

The pipeline would be commissioned in 2019, boosting Turkey's energy security and the energy security of the countries in southern and southeastern Europe.

The TurkStream pipeline starts on the Russian coast near the town of Anapa, runs 930km under the Black Sea, and comes ashore in the Thrace region of Turkey. Once fully completed, the project will consist of two offshore pipelines, both with a capacity to transport up to 15.75 Bcm (556.0 Bcf) of natural gas per year (31.5 Bcm/1.11 Tcf in total).

The first line of TurkStream was completed earlier this year, also using the *Pioneering Spirit*, which can be modified to carry out pipeline installation, offshore construction or offshore decommissioning work, depending on the scope of work. The *Pioneering Spirit* is the world's largest construction vessel at 477 metres long and 124 metres wide.

Gas transported via the first pipeline will feed the Turkish market. The second pipeline will be directed towards the Turkish-European border. First gas is expected from TurkStream in December 2019.

Subsea

Ocean Infinity hires Kongsberg AUVs

Ocean Infinity has placed three orders for a total of five Kongsberg Maritime HUGIN Autonomous Underwater Vehicle (AUV) systems, thus increasing its AUV inventory to 15.

The AUVs are supplied with the latest generation Kongsberg Maritime HISAS 1032 synthetic aperture sonar, giving Ocean Infinity a total of six HUGINs with the ability to deliver high resolution imaging in its fleet.

"It has been extremely satisfying to receive the markets' continued positive response to our technology driven business. The HUGIN AUV is at the heart our strategy and this further order, which takes our fleet to 15 in total, reflects our clients' appetite for high quality, highly efficient and highly cost effective outcomes which legacy technologies simply cannot deliver," said Oliver Plunkett, CEO of Ocean Infinity.

HISAS generates high resolution range independent imagery and full swath bathymetry. Coupled with the other sensors on board, the HUGIN AUVs produce an unrivalled data set including HISAS imagery and bathymetry, EM2040 bathymetry, sub-bottom profiler data and colour photographs.

Ashtead scoops Oceaneering work

Ashtead Technology has won a global master lease agreement from a wholly owned subsidiary of Oceaneering International.

Under the agreement, Ashtead will offer Oceaneering's range of ROV tools and systems for rental from its facilities in Aberdeen, Abu Dhabi, Houston and Singapore.

Allan Pirie, chief executive of Ashtead, said: "This global master lease agreement complements Ashtead's range of subsea tooling and now provides our customers access to a comprehensive line of market leading ROV products and enables us to deliver integrated ROV equipment packages.

"As we strive to offer the most reliable, innovative and cost-effective solutions to the industry, this agreement, combined with our own comprehensive range of subsea tooling, allows us to better meet the needs and demands of our customers.

"By collaborating with Oceaneering we provide additional access to their market leading ROV tooling product offering, backed by our regional sales and technical support teams, we are demonstrating the type of supply chain collaboration necessary for our industry to sustain a low cost environment," added Pirie.

Offshore Services

Subsea 7 bags extension

Subsea 7 has landed "a sizeable three-year extension" of an existing Diving Support Vessel initiative (DSVi) frame agreement with seven North Sea clients: Chevron, Dana Petroleum, Hess, Nexen Petroleum, Repsol Sinopec Energy, Shell and TAQA Bratani.

Under this frame agreement, Subsea 7 will continue to provide diving support vessel services on a year-round basis, as well as associated project management and engineering services for up to 50 offshore facilities in the North Sea.

This award follows on from the original frame agreement awarded in 2009, which was most recently extended in 2016.

This year Shell UK became the seventh client to join this collaborative approach, in which all seven operators benefit from enhanced efficiency realised through the sharing of these services.

The scope of work includes diver and ROV inspection, repair and maintenance, subsea construction and decommissioning services, and dedicated long-term project support.

Project execution and engineering work is managed from Subsea 7's Aberdeen office.

• Subsea 7 defines a sizeable contract as being between US $50m and $150m.

Rigs

Equinor to use *Songa Endurance* rig

Norway's Equinor has been given consent by the Petroleum Safety Authority (PSA) to use the *Songa Endurance* semi-submersible rig on the **Troll** field in the Norwegian sector of the North Sea.

The PSA said that it gave Equinor consent to use the *Songa Endurance* for drilling, completion and slot recovery of well **31/2 D-7 BY1H/BY2H/BY3H** on the Troll field.

Operations will take place on the Troll field at a water depth at 335m (1,099ft).

The *Songa Endurance* is a semisub of the Cat D type. It was delivered by the Daewoo yard in South Korea in 2016, is registered in Norway and classified by DNV-GL.

The Troll field is located around 65km west of Kollsnes and contains around 40% of Norway's offshore gas reserves. Production from the field is expected to continue beyond 2050.

Located in the North Sea, Troll is Norway's biggest gas producer, with significant reserves still left in the reservoir. After more than 20 years onstream, around 65% of the gas has still not been produced.

Equinor and its partners in Troll submitted the plan for further development of the field to the Ministry of Petroleum and Energy in July 2018.

Equinor operates the Troll field with a 30.58% stake, while its partners are: Petoro (56%), Shell (8.10%), Total (3.69%) and ConocoPhillips (1.62%).

Maersk Intrepid gets extension

Denmark's Maersk Drilling has won a four-month extension for the *Maersk Intrepid* jack-up rig.

Equinor has exercised two options of two months each for the *Maersk Intrepid*. As a result, the rig is now contracted to Equinor until the end of February 2020. There are still two extension options of two months each left on the contract.

In the four-month extension period, the *Maersk Intrepid* will be used for accommodation activities on the **Martin Linge** field on the Norwegian Continental Shelf.

The *Maersk Intrepid* is an ultra-harsh environment XL Enhanched jack-up rig, which was delivered in 2014.

Vessels

SD boosts New World stake

Standard Drilling has increased its stake in New World Supply (NWS) and four of its Platform Supply Vessels (PSVs).

Cyprus-based Standard Drilling entered into an agreement to acquire 2,673,749 shares in NWS, equal to around 8.23% of the total outstanding shares.

Before the deal, Standard had a 26.2% ownership of NWS but will now increase its stake to around 34.4% of total outstanding shares in NWS.

The company paid $1.83m for the shares and the deal should be completed "within a few days."

Standard said the deal would strengthen its ownership in a fleet of mid-size PSVs "acquired at favourable prices."

In Brief...

Skandi Aukra wins charter

Norway's DOF has won a two-year firm charter contract from Asco Marine for its *Skandi Aukra* Platform Supply Vessel (PSV).

The contract for the PSV is due to start in December 2018. The *Skandi Aukra* previously won a contract from Asco Marine in January 2017. That contract was also for two years, with options to extend.

The 2012-built *Skandi Aukra* PSV is DNV classified, 87.9 metres long, 19 metres wide and can accommodate 26 people.

Solstad sells PSV

A unit of Norway's Solstad Offshore has sold one of its Platform Supply Vessels (PSVs).

Solstad's wholly owned subsidiary Farstad Marine sold the *Far Supplier* PSV to an unnamed owner. The vessel was delivered on 21 November.

The *Far Supplier* PSV was built in 1999 by Kvaerner Govan. It is 82.88 metres long, 19 metres wide, has 4,709 tonnes of deadweight, and can accommodate 23 people.

Calendar 2019

APRIL

1-5

19th International Conference & Exhibition on Liquefied Natural Gas

Shanghai, China

Contact: info@lng2019

Tel: +44 20 7978 0775

http://www.lng2019.com

DNO targets Faroe takeover

Norway's DNO has launched a hostile takeover bid for Faroe Petroleum.

DNO already has a significant holding in Faroe Petroleum (28.22% stake) and said it would offer £1.52 (US $1.95) in cash for each Faroe share, valuing Faroe's existing issued and to be issued share capital at around £607.9m ($778.9m).

Of the offer value of approximately £443.8m ($568.7m) on a fully diluted basis, £402.6m ($515.9m) is attributable to the current issued share capital of Faroe (other than those Faroe shares already held by DNO and the Faroe Employment Benefit Trust) and the balance £41.2m ($52.8m) is attributable to DNO's understanding of the number of outstanding share options and awards granted by Faroe to its directors, management and employees, representing around 7% dilution of Faroe's current issued share capital, DNO said.

Per DNO, the offer price represents a premium of 44.8% to Faroe's share price of £1.05 ($1.35) at the close of business on 3 April 2018, the last business day before DNO announced its first acquisition of shares in Faroe and a premium of 20.8p (26.7c) to Faroe's share price of £1.258 ($1.612) at the close of business on 23 November 2018.

DNO earlier this year clashed with the Faroe Petroleum board after attempting to appoint two of its directors to the Faroe Petroleum board of directors.

Faroe then expressed concern with DNO's intentions, advising against the DNO representation on the board due to a potential conflict of interest, after which DNO backed away, temporarily, before coming back with the takeover offer on Monday.

Bijan Mossavar-Rahmani, executive chairman of DNO, said: "We are pleased now to engage directly with the Faroe shareholders with a proposed all-cash voluntary offer of £1.52 ($1.95) per share which represents a premium of 44.8% to the closing price of £1.05 ($1.35) on the day before DNO announced its first acquisition of Faroe shares last April, and a premium of 20.8% to the closing price of £1.258 ($1.612) last Friday.

"In the period between our first acquisition, triggering significant bid speculation, and this offer, the price of Brent crude has dropped 13% and oil and equity markets have entered a period of great uncertainty," added Mossavar-Rahmani. "For those shareholders who wish to exit, DNO is, therefore, offering a considerable premium.

"For those who wish to remain, there is no assurance of Faroe achieving its full value potential in a volatile commodity and financial markets environment as a relatively small scale, financially constrained UK-AIM listed company whose share price performance has remained stubbornly disappointing, with the very notable exception of short-term spikes following the sale of a particular large block of shares by one investor to another (most recently to DNO) and the attendant speculation about an impending takeover premium with each such transaction."

DNO believes that Faroe's assets, the substantial part of which are Norwegian, "are better placed in the bosom of DNO, Norway's oldest independent oil and gas company."

DNO's currently operating gross production is 125,000 b/d, compared to the 7,500 boe/d of gross production operated by Faroe.

"DNO's proven and probable reserves were nearly four times those of Faroe's as reported at 31 December 2017," Mossavar-Rahmani said. "Whether the offer achieves DNO's minimum acquisition target or the acquisition of all of Faroe's shares, we attach great importance to retaining the skills, knowledge and expertise of Faroe's operational management and employees. We intend to retain Faroe's Aberdeen head office and each of the other offices."

Responding to DNO's unsolicited offer, Faroe said that DNO did not engage with Faroe before making the announcement of its unilateral offer, adding that its board will meet together with its advisers to consider the offer.

"In the meantime, Faroe shareholders are strongly urged to take no action in relation to their Faroe shares," Faroe said.

Ashtead buys Welaptega

UK subsea equipment solutions player Ashtead has acquired Canadian-based underwater inspection company Welaptega.

The deal comes just 10 months after Ashtead completed a joint venture with Forum Energy Technologies, creating the industry's leading independent provider of subsea survey and ROV equipment services with a fleet of 19,000 assets worth more than US $128.8m (£100m).

This will be Ashtead's third deal since it was acquired by Buckthorn Partners and Apicorp in 2016, and shows its "commitment to further expand its service offering both organically and through acquisition," Ashtead said.

"Founded in 1990, Welaptega is a market leader in mooring system inspection and integrity engineering. Over the past 28 years it has developed a suite of pioneering technologies and services to mitigate failure, prevent damage, and manage the ongoing integrity of offshore operations through a risk-based approach to asset integrity," Ashtead noted.

"By bringing together two world-class portfolios, the deal significantly strengthens the group's subsea inspection capabilities, creating a wider, more competitive offering, whilst reinforcing Ashtead's position as a leader in the provision of advanced offshore equipment solutions."

Allan Pirie, CEO of Ashtead Technology, said: "This is a significant step in the development of our IMR [Inspection, Maintenance and Repair] strategy, increasing our asset integrity service offering by adding innovative products, technology and capabilities which are aligned with our current business."

"Our customers now have access to a leading innovator in offshore asset inspection, engineering and integrity solutions. Our combined technical capabilities and advanced inspection technologies means we can offer a comprehensive integrity management service to support the performance and life extension of critical infrastructure."

Welaptega's CEO, Tony Hall, said: "Being part of the Ashtead Technology group will allow us to expand our existing capabilities and international footprint, giving us greater ability to address our customers' growing asset integrity requirements. It also enables us to continue our successful history of R&D [Research & Development] and invest in adjacent underwater inspection applications. Our customers will now have access to a wider portfolio of products and services, resulting in a far more comprehensive solutions capability."

Founded in 1985, Ashtead Technology is a leading, independent subsea equipment solutions specialist serving customers in the international energy industries across the globe. Backed by Buckthorn Partners, Arab Petroleum Investment Corporation and Forum Energy Technologies, Ashtead employs more than 130 staff in Aberdeen, Abu Dhabi, Houston, Halifax, London and Singapore.

Strategy

Bergen to become Endúr

Norway's Bergen Group will change its name once a merger with compatriot Endúr Fabricom is completed in early 2019.

Bergen Group agreed a merger deal with Endúr Fabricom in August 2018, saying that the new company – to be called Endúr – would constitute an industrial group with nearly 400 employees and an order book worth more than US $117.2m (NOK 1 Bn).

Earlier this month, the merger plan received unanimous approval from the board of directors of both companies.

On 21 November, Bergen Group said that its board had proposed to the company's extraordinary general meeting a change of the company name to Endúr when completing the merger with Endúr Holding in the middle of Q1 2019.

The extraordinary general meeting will be held on 21 December 2018, Bergen Group added.

Production

Clipper South pipe work

Ineos Oil & Gas UK has completed work to re-route production from its **Clipper South** field via the Shell operated **Clipper** field into the Bacton processing terminal.

The US $80m investment into a new pipeline and subsea equipment will extend the life of the Clipper South field, following closure in October of the existing facilities at the Theddlethorpe Gas Terminal, previously operated by ConocoPhillips.

David Brooks, CEO of Ineos Oil & Gas UK, said: "The completion of the project is another example of Ineos' commitment to our oil and gas business and supports the government's strategy to maximise economic recovery of gas from the North Sea."

Eric Marston, area manager, Southern North Sea at the Oil and Gas Authority said: "The re-development and re-routing of the gas pipeline showed great adaptability and resolve to extend the life of the Clipper field."

Norway October output data

Norway's preliminary production figures for October 2018 showed an average production of 1.874m b/d of oil, NGL and condensate – which is an increase of 271,000 b/d compared to September.

Total gas sales were 10.6 Bcm (374.18 Bcf), which is an increase of 1.6 Mcm (56.48 Mcf) from the previous month, said the Norwegian Petroleum Directorate (NPD).

Average liquids production in October was: 1.499m b/d of oil, 346,000 b/d of NGL and 29,000 b/d of condensate.

Oil production for October is around 5% below the NPD's forecast for the month and around 4.5% below the forecast for 2018.

"The main reasons that production in October was below forecast is technical problems on some fields," noted the NPD.

Total petroleum production for the first 10 months in 2018 is around 191.0 MMcmoe (6.74 Bcfoe), broken down as follows: around 71.7 Mcmoe (2.53 MMcfoe) of oil, 17.7 Mcmoe (624.81 Mcfoe) of NGL and condensate and 101.6 Mcmoe (3.59 MMcfoe) of gas for sale.

The total volume is 7.1 Mcmoe (250.63 Mcfoe) lower than in 2017.

Editor: **Steven Hamlen**

Subscriptions:
E-mail: subs@ogilviepub.com
Tel: +44 (0)191 567 8497
Annual subscription: £775

ISSN 0332 5210

Head Office:
Ogilvie Publishing Ltd
56 Aylesford Mews
Sunderland
SR2 9HY
United Kingdom
Tel: +44 (0)191 567 8497

For a free trial to our associated publications:
E&P Daily   ASIA OIL AND GAS NEWSLETTER
please email: **subs@ogilviepub.com**

Printing: Four Point Printing, Shepperton, UK