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Equinor's Sverdrup topsides decision pays off

Pioneering Spirit to begin time and cost saving heavy-lift work for North Sea field

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EQUINOR ordered the topsides for its giant Johan Sverdrup project to be built in one piece before a vessel existed that could lift them in place. Now the gamble is paying off.

This weekend, the Allseas-operated mammoth lifting vessel Pioneering Spirit is set to install both the P1 28,000-tonne processing platform deck and the 12,000-tonne living quarter topsides at the Johan Sverdrup field in the Norwegian North Sea.

To save time and costs, Equinor and its partners decided to build all four platform topsides for the project in one piece instead of in modules.

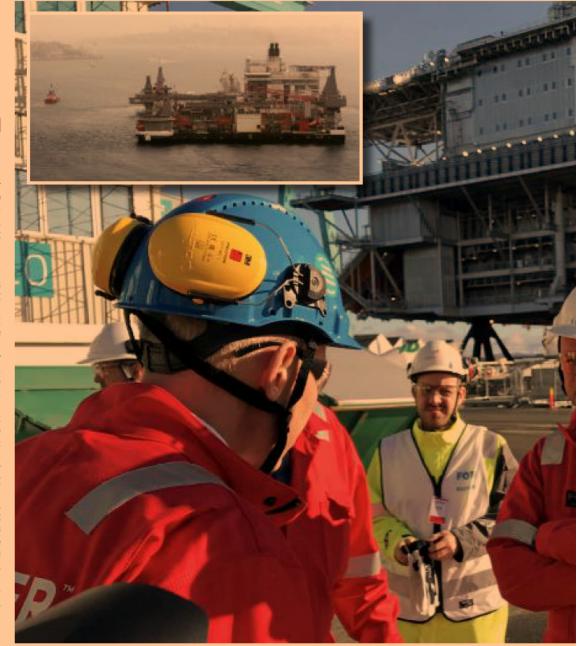
At the time of the investment decision in 2015, no vessels in the world had the capacity to lift these massive units, but Pioneering Spirit, with a lifting capacity of 48,000 tonnes, was nearing completion.

Project sources told Upstream that Equinor made a huge bet. "It was a brave decision. There was uncertainty at least until the summer of 2016 because of issues with the vessel's lift system beams," one source said.

Equinor's vice president for technology and projects Anders Opedal does not agree that it was a big gamble to rely on a single vessel.

"It is an impressive ship. It enables us to execute the projects in a new way, which saves us time and costs," he said.

According to Opedal, the use of Pioneering Spirit has saved the project Nkr1 billion (\$120 million) and reduced the time needed by



three to six months. Sverdrup's Nkr88 billion phase one has been on schedule "almost to the day since the final investment decision in 2015", he added.

The Pioneering Spirit is one of

the biggest vessels ever built, 382 metres long by 124 metres wide.

It is due to arrive at Kvaerner's yard at Stord, Norway, on Friday to collect the living quarters topsides, transport it 160 kilometres west and install it alongside the other two platforms already in place at Johan Sverdrup. "Two days later it will come back to pick up the P1 topsides," said Opedal.

The first phase of the 2.1 billion

to 3.1 billion-barrel oilfield development is now entering its final stages.

"In the next weeks we will hook up the last two of the four platforms and connect them together with bridges before production start-up in November," Opedal said.

Equinor's plan is to reach plateau production of 440,000 barrels of oil equivalent per day during the first half of 2020.

The second phase of Johan Sverdrup is scheduled for start-up in 2022 and will take production up to 660,000 boepd.

The P1 topsides, engineered by Norwegian player Aker Solutions and constructed at Samsung Heavy Industries' yard in Geoje, South Korea, was shipped earlier this year to the Kvaerner yard at Stord to mount two late incoming pedestal cranes and for further preparations.

KBR, Kvaerner and Apply Leirvik have engineered and constructed the living quarters topsides

This week, Equinor was granted

regulatory permission to use parts of the P1 processing platform for hook-up, completion and preparation for start-up between the second and fourth quarters of this year.

The operator has also gained consent from Norway's Petroleum Safety Authority to use the living quarters facility.

Equinor operates the Johan Sverdrup development with a 40.0267% interest and is partnered by Lundin Petroleum on 22.6%, Petoro on 17.36%, Aker-BP on 11.5733% and Total on 8.44%.



Taking shape: the Johan Sverdrup field in the Norwegian North Sea

> Photo: TOMMY ELLINGSEN