

## First Dreamliner MST installation

Fishbones is very pleased to announce that its Dreamliner Multilateral Stimulation Technology (MST) was recently installed in a subsea well offshore Norway.

The Dreamliner MST completion was installed in a new well drilled to exploit a tight sandstone formation to increase productivity. A total of 48 Dreamliner subs were deployed over the 2012m (6,600ft) open hole interval to a TD of 6546mMD (21,474ft). Subsequent mud circulation over a period of 6 hours, utilizing only rig pumps, effected drilling of 144 needles creating laterals extending in a radial pattern from the mother bore.

Well operations are still ongoing. Hence, production has not yet commenced.

Dreamliner MST was developed through a Joint Industry Project (JIP) with Statoil, Lundin, ENI and Innovation Norway, and is also supported by the Research Council of Norway.



*Fishbones rep. overseeing RIH with Dreamliner MST completion*

## Second Fishbones MST installation in Texas

Fishbones was installed in an existing horizontal well in the Buda formation in the middle of July. A 4.5in liner string with 15 each Fishbones subs and 3 each Backbone open hole anchors was installed. Acid was pumped at the planned rate of 8 bpm to jet the Fishbones needles into the formation and create laterals.

The installation is the second installation in the pilot project managed by the Joint Chalk Research (JCR) group; a North Sea research cooperation including BP, Shell, ConocoPhillips, the Danish North Sea Fund, Dong, ENI, Hess, Maersk, Statoil and Total.

The well was put on production quickly after stimulation and initial flow back results are positive.

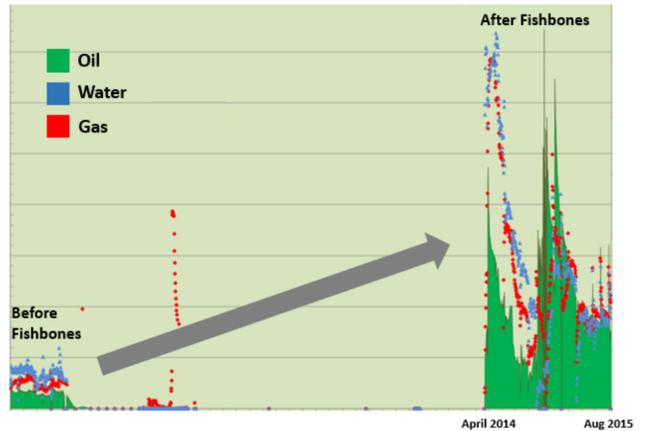
In a statement from JCR, it is confirmed that the results so far are encouraging.



*Fishbones MST sub being made up on rig floor*

## Update from first Fishbones MST installation in Texas

The first well in the JCR Fishbones project was stimulated in April 2014. The well has been on production for 16 months and is still producing multiple times the rates prior to stimulation, as seen in the production chart to the right.



*Comparison before/after first Texas Fishbones MST installation*



*Fishbones CEO Eirik Renli signs contract*

## Fishbones contract award

Fishbones was awarded yet another contract in the Middle East early August by Kuwait Oil Company. The contract is for a 3-well program for Fishbones MST installations in carbonate formations.

“As part of our strategy to increase recovery rates, KOC has signed a contract with Fishbones for piloting their Multilateral Stimulation Technology”, KOC confirms in a statement.



*Fishbasket for needle cutting and collection*

## Fishbasket clears the liner ID

Fishbones’ first Middle East installation was completed late June. The system comprised of a large number of Fishbones subs using our patented jetting technology. As part of the predetermined work scope, Fishbasket technology was used to cut and recover 100% of the remaining needles in the well to return the liner to full bore. The Fishbasket operation was successful, however needle recovery revealed that only a limited amount of needles were deployed into the formation. Analysis is currently ongoing and probable root causes have been identified. Lessons learned from this job were implemented in the Texas Fishbones MST installation. Production testing is planned to evaluate the success of the stimulation.

## OTC Spotlight on New Technology Award

OTC 2015 was a successful event for Fishbones with significant activity at the Fishbones booth throughout the four-day show. On Monday 4 May, the award ceremony took place to honor this years’ winners of Spotlight on New Technology Awards. Fishbones is very proud of receiving the award for its Dreamliner MST system for laterals drilling in clastic formations.



*Fishbones’ Kevin Rice (middle) and Thomas Jorgensen (right) receive the OTC award on behalf of the entire Fishbones team*

## Follow us on social media

Fishbones recently launched its profile on Instagram. Follow fishbones.as to get updates on Fishbones developments in pictures.

Fishbones is also on LinkedIn. The profile name is Fishbones AS.

