

# **Paper Title: First Offshore Multi-Proppant Hydraulically Fractured Dual Lateral Well**

B. Bocaneala, OPECS; A. Dragomir, OMV Petrom; Joel Conrad, Packers Plus;

## **Abstract**

The paper aims to present the successful execution of the first offshore multilateral well completed with multistage proppant fracturing in the “Lebada Vest” oilfield offshore Black Sea. The paper will describe the technical challenges related to completion and stimulation process and also render evident what is the new premiere achieved with this completion. As far as the authors knowledge and literature research this is the first instance where an offshore multilateral well has been completed with multistage proppant fracturing.

The Lebada Vest field is situated in the Black Sea about 95 km offshore Romania, it was discovered in 1984 and started production nine years later. Since then, numerous vertical wells were drilled and completed and in 2008 the first horizontal multistage proppant fracturing well was drilled. All subsequent wells have been horizontal wells completed with multistage fracturing and an increasing number of fracturing stages.

Experience on this field, like in many other tight oil reservoirs has shown that part of the reservoirs not fracked is not drained. The limited number of available slots to place new wells but still important reserved placed in arias not fractured yet it was decided to use multilateral multistage well completion. This solution not only allowed maximum reservoir contact with a single well but also minimized the cost per fractured stage.

Multistage completion was already a routine operation on this reservoir; however this multilateral completion with a level three junction was a new challenge for the project team. The access from one leg to another was done through the use of an engineered bent joint. Propped hydraulic fracturing operation was designed using a planar 3D model that was checking also the possible interference between the twelve stages placed on two legs and other fractures previously placed in neighbourhood wells. Production monitoring of all stages from two legs was possible only by placing two phase tracers in all stages in this way identifying every stage contribution after the job.

The success of this well proved the reliability of the concept for maximizing reservoir access through a single well. Later stages of well life will check also the reliability of this concept for future operation (like foam clean-up operations) that will make necessary safe access in both legs.