

## Production Increase of C-Central Wells Baher Essalm-Libya

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**Abstract :** The Bahr Essalam gas-condensate field is located off the Libyan coast and is currently being produced by Mellitah Oil and Gas (MOG). Gas and condensate are produced from the Bahr Essalam reservoir through a mixture of platform and subsea wells, with the subsea wells being gathered at the western manifolds and delivered to the Sabratha platform via a 22-inch pipeline. Gas is gathered and dehydrated on the Sabratha platform and then delivered to the Mellitah gas plant via an existing 36-inch gas export pipeline. The condensate separated on the Sabratha platform will be delivered to the Mellitah gas plant via an existing 10-inch export pipeline. The Bahr Essalam Phase II project includes 2 production wells (CC16 & CC17) at C-Central A connected to the Sabratha platform via a new 10.9 km long 10"/14" production pipeline. Production rates from CC16 and CC17 have exceeded the maximum planned rate of 40 MMSCFD per well. A hydrothermal analysis was conducted to review and Verify input data, focusing on the variation of flowing well head as a function of flowrate as well as Review available input data against the previous design input data to determine the extent of change. The steady-state and transient simulations performed with Olga yielded coherent results and confirmed the possibility of achieving flow rates of up to 60MMSCFD per well without exceeding the design temperatures, pressures, and velocities.

**Keywords :** Bahr Essalam, Mellitah Oil and Gas, production flow rates, steady state, transient, OLGA.

**Conference Title :** ICAES 2025 : International Conference on Applied Energy Systems

**Conference Location :** Vancouver, Canada

**Conference Dates :** May 15-16, 2025