Case Study

16” EVOS-616 PDC Booster Bit Second Fastest Run in the Field, Abu Dhabi

APPLICATION
Offshore – 16” Vertical, Motor BHA
Medium Hard to Very Hard Limestone, Dolomite, Anhydrite and Shale.

TECHNOLOGY
EVOS™ Bit Technology
Venom™ Cutter Technology
PDC BOOSTER™ Cutting Structure

LOCATION
UAE
Onshore

CUSTOMER CHALLENGE
The Customer focused on drilling very hard interbedded formation with one 16” PDC bit to achieve the best possible ROP, better borehole quality and better durability while optimizing performance.

VAREL SOLUTION
VAREL proposed a new PDC Booster Bit design leveraging the EVOS™ bit technology, perfectly designed for interbedded drilling applications. EVOS™ bit series is a trouble-free design delivering smooth torque, advanced directional control, excellent wellbore quality and dynamic stability.

Solution: Steel Body 6-bladed, 16mm cutting structure with Cobra™ and Artimis™ Venom™ Shaped Cutters and PDC BOOSTER™ Cutting structures.

Purpose:
ARTIMIS cutters –This cutter is designed for hard formation with heavy transitions and especially designed to drill into chert.
COBRA cutters - A combination of the Fang shape blended with Artimis ridge. This layout is useful in directional runs to increase both speed and durability.
PDC BOOSTER™ Cutting Structure is designed for increased efficiency and low vibrations.

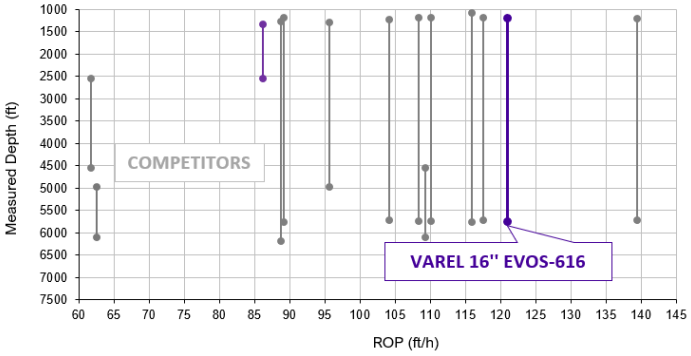
CUSTOMER VALUE
- Achieved the field **second fastest ROP with 121.0ft/h** and drilled above average interval of **4450ft**.
- Achieved **20.4%** increase in ROP as compared to Top 13 runs in the field.

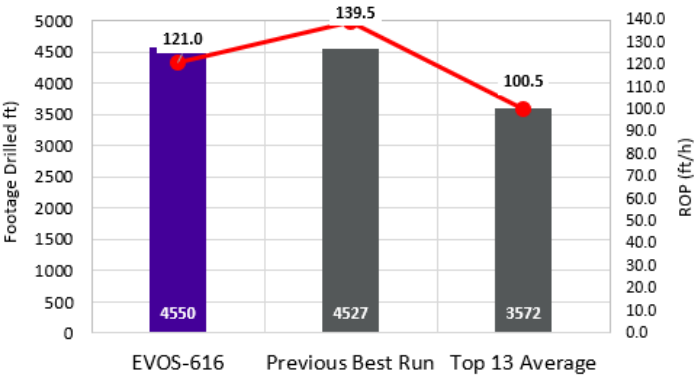
Steel Body PDC Design

Cobra Venom™ Shaped Cutters

Artimis Venom™ Shaped Cutters

Performance Comparisons





VAREL ENERGY SOLUTIONS