

# Case Study

## Roller Cone Benchmark Sets in EGYPT

### APPLICATION

Onshore – 23" vertical section  
Post Miocene formations with Sand,  
Gravel and Clay

### TECHNOLOGY

EVEREST™  
SEALED ROLLER BEARING

### LOCATION

EGYPT  
Onshore

### CUSTOMER CHALLENGE

The Customer focused on drilling the complete 23" section in one Milled Tooth bit run while achieving the best possible ROP and lowest cost per foot.

The previous recent wells on this application were drilled with 17.7 m/h ROP average across the field.

Record run in the area was set @ 20.7 m/h.

### VAREL SOLUTION

VAREL proposed its reliable and economical EVEREST™ Roller Cone design with premium bearing package and patented conical seal gland feature. Using our RC Pro and AMP (Advanced Modeling Package) software, optimal cutting structures are effectively embedded into the final solution.

**Solution:** IADC 115 Milled Tooth cutting structure and latest hard-facing technology.

**Purpose:** Drill with the fastest possible ROP to T.D. while preserving the teeth as sharp as possible to gain in efficiency.

### CUSTOMER VALUE

New consistent field record achieved and time saving on the planned objective.

- ROP Field record run with **26.7 m/h**
- Achieved **28.3%** increase in ROP as compared to previous run record performance.
- Achieved **50.8%** increase in ROP as compared to field / application average.

EVEREST™ design



Performance Comparisons

