



THE Z-REAMER ENABLES A SUCCESSFUL EXPANDABLE LINER DEPLOYMENT IN GCC



THE Z600 UNDER REAMER TOOLS ENLARGED THE 6 1/8" & 5 1/2" HOLE SECTIONS AND ALLOW A SUCCESSFUL EXPANDABLE LINER DEPLOYMENT

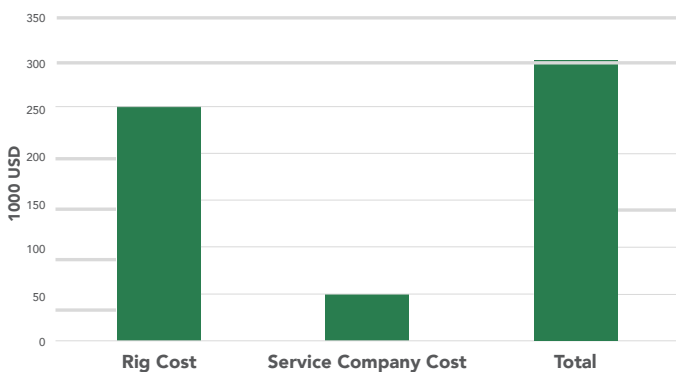
• CHALLENGE:

Historically, the 6 1/8" hole was drilled conventionally with several stuck pipes & lost BHA incidents costing the operator a lot of NPT.

• OBJECTIVES:

The customer was looking for a solution to add extra casing and enlarge odd hole sizes to cover the Shuaiba loss zone and top Zubair shale formation.

Estimated Cost Savings



• UR BHA:

6.50 XO + 15x4.00 HW + 3x4.75 DC + 4.75 XO + 4.75 JAR + 4.75 XO + 4x4.75 DC + 4.75 XO + 4.75 FS + **6-1/8 x 7-1/2 Z-REAMER** + NBS + **6.125 PDC**

6.50 XO + 15x4.00 HW + 3x4.75 DC + 4.75 XO + 4.75 JAR + 4.75 XO + 3x4.75 DC + 4.75 BS + **5-1/2 x 6-1/8 Z-REAMER** + 4.75 XO + IBS + 4.75 XO + 4.75 DC + 4.75 XO + IBS + 4.75 BS + **5.50 PDC**

• SOLUTION:

The Z-Reamer enlarging system was proposed to enlarge the hole and facilitate running of the Expandable Liner 6-1/8" x 7-1/2" & 5-1/2" x 6-1/8" hole Sections enlarged by the Z-Reamer BHA.



• RESULTS:

- The 6-1/8" x 7-1/2" Hydraulic Underreamer successfully enlarged an interval of 375' in a single run in Shuaiba formations.
- The 5-1/2" x 6-1/8" Hydraulic Underreamer successfully Drilled & enlarged an interval of 1465'.
- The 5-1/2" x 7" Expandable Liner was successfully deployed.
- An estimated 10 days of rig time saving was achieved by combining drilling & enlarging on the same BHA the 5-1/2" hole.