AMC BOS™ achieves an average Rate of Penetration (ROP) increase of 84.6%

Location: Cobre, Panama

Resource Company: AKD PANAMA Corp

Resource: Cu

Application: Mineral exploration

Objectives

Increase the rate of penetration being hampered by multiple issues on site.

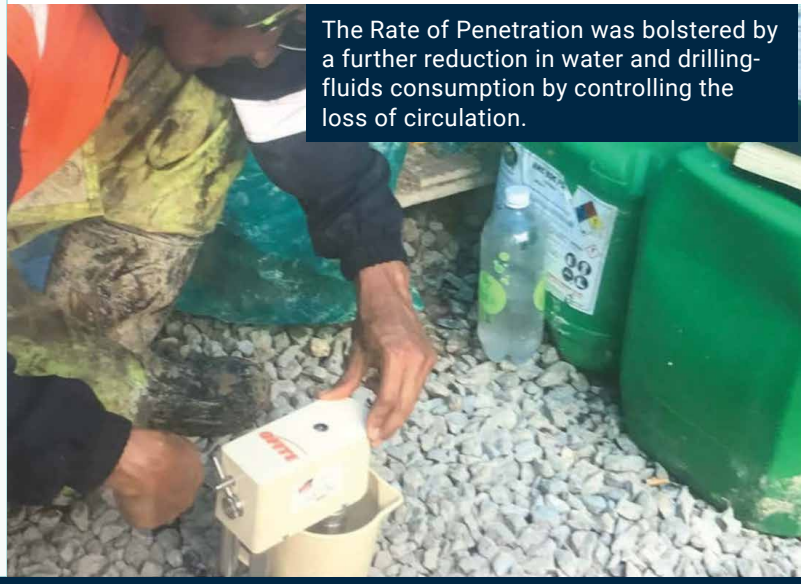
Challenges

The company was facing granodiorite and andesite formations in alternating low, medium and high fractured-rock levels along the perforations.

Other issues experienced included:

- Overall low penetration rates
- Premature tool wear
- High consumption of fluids additives

The AMC BOS solution includes the AMC BOS UNIT™, a driller-operable tool for in-hole lubrication and casing during drilling, and AMC BOS FIX™, a rapid-fill polymer grout.



The Rate of Penetration was bolstered by a further reduction in water and drilling-fluids consumption by controlling the loss of circulation.

IMDEX Solution

IMDEX Borehole Optimisation System™ (BOS)

AMC BOS is a proactive solution combating fluid losses and borehole instability, by delivering a measured amount of AMC BOS FIX™ at regular intervals to the bottom of the drill string and up the annulus.

The fluid reacts instantly with borehole fluids, permeating and sealing fractures, providing a thin but robust lubristic membrane to the borehole wall.

IMDEX recommended the client use the AMC BOS solution in a preventive manner to maximise the probability of successful drilling and to reach the programmed bottom more efficiently.

Borehole Optimisation System (AMC BOS™)

Strategy & Solution

AMC BOS FIX™ polymer was applied directly into the well through the AMC BOS UNIT™ tool, reacting immediately with the drilling fluid in the hole to form a highly lubricating polymer film which lines the walls of the borehole, consolidating the fractured formation to prevent the occurrence of landslides.

Articulation of the AMC BOS solution was conducted with field advice from the technical staff of AMC Peru.

*Comparison results made between two 400m holes of similar characteristics

Results

Increase of 84.6% on average ROP*

38.4% savings on bentonite consumption*

55.3% savings on PHPA consumption*

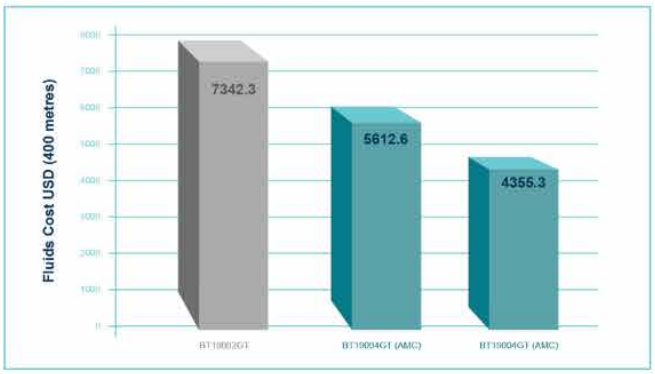
Cementation process not needed

Reduction of 4.5 days of work*

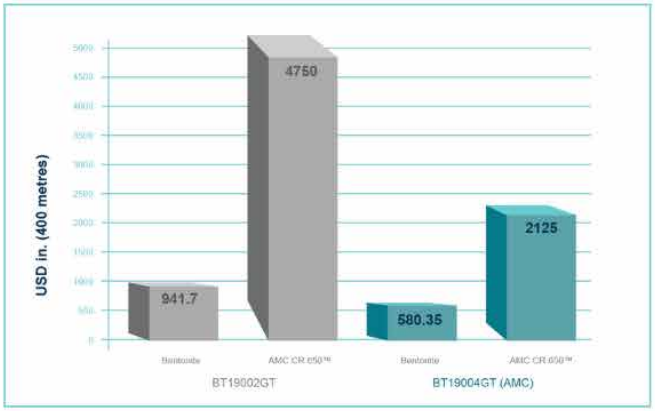
18.8% reduction on borehole conditioning hours (not productive hours)

*Comparison results made between two 400 meters holes of similar characteristics.

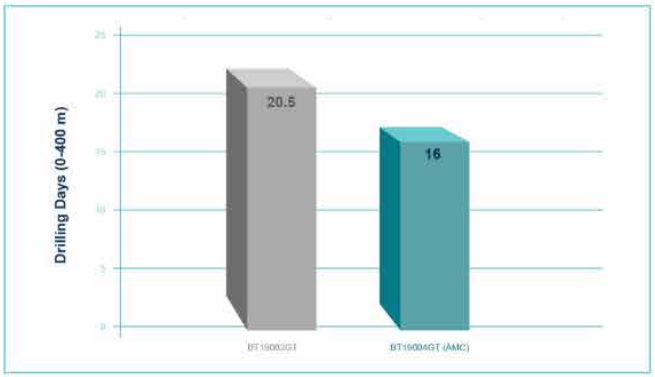
Significant savings in fluids costs



Reduction in consumption of bentonite and PHPA



Projected drilling decreased by 4.5 days*



84.6% increase in average ROP*