

AMC BOS™ maximises productivity, improves borehole stability, and reduces drilling fluids costs

Objectives

- Maximising productive hours
- Ensuring borehole stability
- Improving drilling conditions, and reducing drilling mud costs.

Challenges

- Drilling mud circulation losses with low rates of penetration (ROP)
- Borehole obstructions caused by mechanically unstable formations
- High amount of hours spent in ground conditioning and redrilling borehole obstructions
- High consumption of water and drilling additives
- Wear and tear of drilling tools, increasing non-productive time spent on frequent rod trips

Project Details

Location: Peru

Resource Company: AK Drilling International

Project: Quenamari Project

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

IMDEX Solution

IMDEX Borehole Optimisation System™ (BOS)

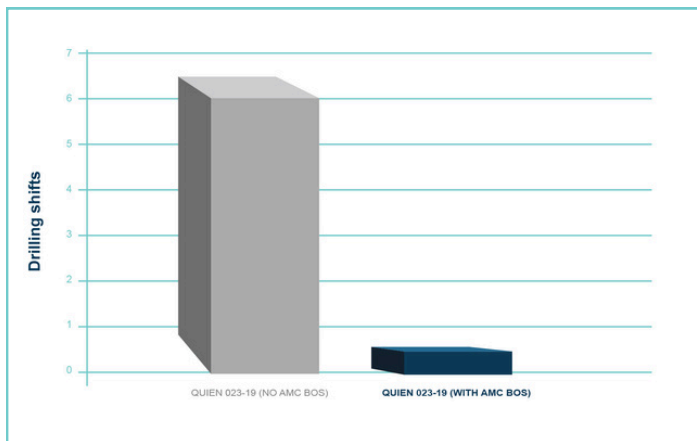
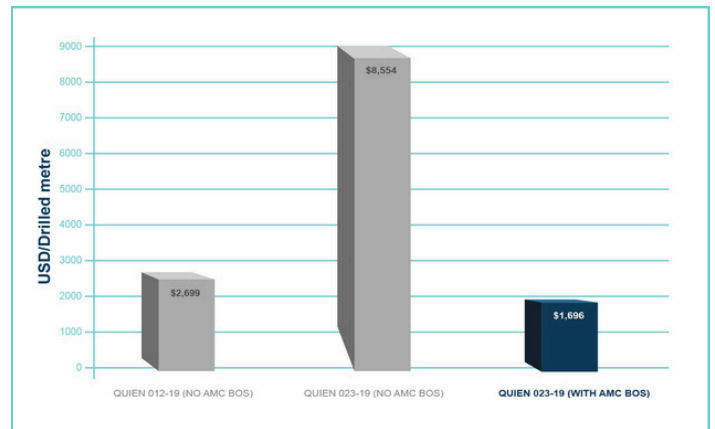
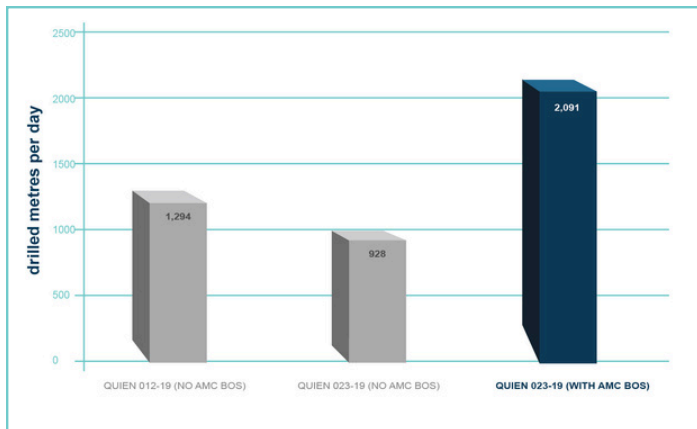
IMDEX and AK Drilling International teamed up to find the most proper and efficient solution to the recurrent problems at Quenamari project. The joint and articulated action of a properly formulated drilling fluid and the periodic use of AMC BOS equipment was proposed.

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 lubricistic membrane to the borehole wall.

The Borehole Optimisation System increased metres drilled per day by 125.32%

Results



- Metres drilled per day increased by 125.32%**
- Drilling fluids cost per drilled metre decreased by 80.17%**
- Drilling downtime decreased by 92%**

IMDEX Borehole Optimisation System™ (BOS) delivered:



Reduced rig down time from rod trips through unstable or fluid-loss zones



Stabilised borehole and maximised fluid returns, reducing the need for cementing/grouting, casing and/or lost circulation materials



Saving up to 48 hours lost time cementing/grouting, and associated cost and risks



Reduced wear and tear, extending life of drilling components



Reduced water consumption, with fluids management and associated cost



Reduced torque, rod chatter, vibration and associated rod trips and costs



Reduced manual handling, slip-and-trip hazards and chemicals handling



Reduced environmental impact on local water supply and risk of contamination