

Case Study : Diamond Tools

Barminco

Date: November, 2012 **Latitude:** 24.956
Location: Sukari, Egypt **Longitude:** 34.715

Drilling conditions: broken bands of shale rock type - porphyry & shale
Rock hardness: very hard and abrasive

Challenge

At the Sukari Hills project Egypt, foreman and supervisor Brett Dunn from Barminco is having performance problems with the diamond tools used on site. Because of the ground type, the main challenge faced is related to the ground wearing down the core bits too fast.

Lots of rod pulls are another consequence of this problem. Time loss, equipment maintenance and injury risks are multiplied at each pull. Brett is worried he is not going to meet his productivity objectives.

	Average lifespan (m)
NWL2	60
HWL	32

Solution

While looking for alternatives, Brett calls Carl Younger, Fordia Director in South East Asia. They quickly agree that the Barminco team needs a core bit to cut the abrasive porphyry and withstand the broken shale.

Carl knows he has the right product, and quickly suggests a few tests. He sends Brett a couple of T Xtreme 9-11 bits. He also opts for a few higher impregnation bits, such as the HERO™ 9 and 11, in Vulcan 16 mm.

Results

After drilling with the bit suggested, the field crew confirms to Brett that all the bits have been performing beyond their expectations.

NWL2
 Fordia matrix: **T Xtreme 9-11**
 New average lifespan: 141 m
Performance gain: 135%

On top of dramatically improved lifespan, T Xtreme bits showed great penetration rates, going up to 4"/min.

HWL
 Fordia matrix: **HERO™ 11 (Vulcan 16 mm)**
 New average lifespan: 114 m
Performance gain: +256%

Fordia matrix: **HERO™ 9 (Vulcan 16 mm)**
 New average lifespan: 130 m
Performance gain: +306%

Brett mentions that both matrices offered remarkable performances, while withstanding terrible ground conditions.

***"Thanks again for all your help.
 We will be using Fordia as our main
 supplier on site at Sukari."***

Brett Dunn
 Foreman and supervisor, Barminco