

Polypipe's highly effective solution for sub-soil drainage is now in operation at the tailings management facility of a major gold mining project in the Democratic Republic of Congo (DRC).



Banro Corporation's Namoya mine, situated at the south-western end of the Twangiza-Namoya gold belt, covers an area of 174k² and is expected to double the company's projected gold production to more than 225,000 ounces annually. Gold was first discovered in this area in 1930 with various mining operations subsequently taking place.

The Challenge

The Namoya site houses a substantial tailings management facility to process the leftover materials and waste water from the extraction of the gold. It also ensures that any harmful particles do not enter the soil or groundwater. Following a competitive tender, the Ridgidrain twinwall drainage system from Polypipe, a leading UK based manufacturer of water management and plastic piping systems, was selected to provide effective sub-soil drainage.

The Solution

Ridgidrain is ideal for non-pressurised sub-surface drainage applications, with perforations at regular intervals along its full length to allow safe and gradual drainage. Manufactured in high-density polyethylene (HDPE), Ridgidrain boasts excellent abrasion resistance both internally and externally – protecting against both sediment within the wastewater and the rugged mine environment.

CASE STUDY

Project

Namoya Mine

Client

Banro Corporation

Application

Sub-soil drainage

Products

Ridgidrain

It also offers a high compression strength to withstand imposed loadings, yet is still incredibly lightweight for ease of installation and transport.

Tailings management facilities are essential in ensuring the mine operates in an environmentally-conscious manner, and the Ridgidrain system allows for the controlled seepage of treated water. The system can also deal with unpredictable fluctuations due to factors including stormwater and is a crucial element of an effective water management system.

Polypipe supplied 1,386 metres of 500mm diameter Ridgidrain twinwall pipe and 190 metres of the product in 600mm diameter, shipped via eight 40ft sea containers, which required close co-ordination between Polypipe's UK manufacturing operation and the shipping agent in order to meet deadlines and ensure the full order was despatched as one shipment.

“Plastic piping systems such as Ridgidrain are up to 94 per cent lighter than concrete alternatives, meaning that they are safer to install and move around site, and also offer considerable environmental benefits. Production and transportation are simplified and use less carbon, and additionally the product can often be re-used elsewhere when the project ends. These factors are key considerations for mine operators, and also make the product more cost effective. For these reasons, Ridgidrain is growing in popularity in the African mining market.”

Philip Wood
Polypipe, Export Sales Manager



For further information on the Ridgidrain twinwall drainage system and other water management solutions from Polypipe for the mining sector, please visit www.polypipe.com/mining or email: international@polypipe.com