



Installation of Pexgol pipe for transportation of mining tailings.

.....
**Golden Resource Corp. -
Don David Gold Mine**
Mexico | 2019
.....

Working conditions:

Ambient temperature
Pressure: up to 320 PSI

Pexgol pipes:

Pexgol 110 mm (4"), class 24
Pexgol 125 mm (5"), class 30

Application:

Tailing transport

Length:

3600 m / 11811.02 ft

The Challenge

Thanks to the new extraction methods of metals, at Don David Gold mine decided to reprocess the tailings (with 50% solids) of the last 15 years that had been deposited in a dam, in order to extract the minerals that could not be removed at first.

To perform this task, it was necessary to transport the tailings from the dam to the first stage (filter plant). The path where the pipeline needed to be installed was 3600 meters on harsh terrain with more than 190 meters of height difference in descent.

Since the fluid was highly abrasive, one of the fears the engineering team had in designing the line was that it would not resist abrasion and a spill would occur causing large-scale environmental pollution.

Pexgol Solution

The design of the line was carried out by the engineering company Paterson & Cooke and Pexgol was selected for the following reasons:

- Abrasion resistance (3 to 10 times more than conventional HDPE pipes)
- Supply of pipes in long sections (coils up to 1000 meters).
- Fast and safe installation.

The set of qualities for this application, indicated that Pexgol was the safest option due to the possibility of having spills.





Tailings transport with 50% solids

Case Study | N°82



Installation of Pexgol pipe for transportation of mining tailings.

Also, for the installation, coils of 500 and 800 meters in length were supplied, therefore the installation was carried out quickly. The joints were made with flanged couplings and alignment clamps, in a place with a steep slope, so the joints had to resist fluid pressure and axial forces.





Installation of Pexgol pipe for transportation of mining tailings.

Advantages

- **High resistance to wear:**
Pexgol is the preferred solution for abrasive materials transportation. Typically resists three times more than HDPE and twice more than steel.
- **Excellent chemical and corrosion resistance:**
Pexgol pipes can resist a wide range of chemical agents, slurries, toxic and radioactive materials.
- **High temperature resistance:**
Working temperatures can range from -50°C/-58°F up to 110°C/230°F.
- **Superb internal and external corrosion resistance:**
Our pipes are proven to withstand decades of exposure to corrosive environments, with nonstop performance in some of the world's harshest environments.
- **Long pipe sections:**
Pexgol pipes can be supplied in long coil lengths, reducing number of joints, installation time and risks.
- **Creep and impact resistance:**
Crosslinked Pexgol pipes can withstand high amounts of axial and radial stresses and are highly resistant to impact, fracture and fatigue. Furthermore, Pexgol pipes are completely resistant to cracks even when dragged over sharp rocky terrain and coagulated salt crystals.

