

Pexgol Replaces Short-Lived HDPE in Coarse Tailings Service



A 225 mm Pexgol pipeline designed for abrasive slurry containing 35% NaCl and KCl solids.



Potash Mine Canada | 2026

• Working Conditions

Operating temperature: 30 °C / 86 °F
Flow rate: 270 gpm
Fluid: NaCl/KCl slurry
Solids concentration: 35%

• Pexgol Pipe

Pexgol 225 mm, SDR 9 / Class 19

• Application

Coarse tailings screen feed

• Length

117 m / 384 ft

The Challenge

A major Canadian potash producer operates mining and processing facilities that supply essential crop nutrients to agricultural markets.

At one of its Canadian operations, an existing pipeline transported slurry to the coarse tailings screen. The gravity-fed line handled a mixture of sodium chloride and potassium chloride at approximately 30°C, with a solids concentration of 35% and a flow rate of 270 gpm.

The original pipeline was manufactured from HDPE 4710, SDR 13.5. Under these abrasive operating conditions, it provided a service life of only two to three years. The need for recurring replacement prompted the mine to seek a more abrasion-resistant piping solution capable of extending the system's operating life.

The replacement also needed to integrate with the existing HDPE support arrangement to avoid extensive modifications to the surrounding infrastructure.

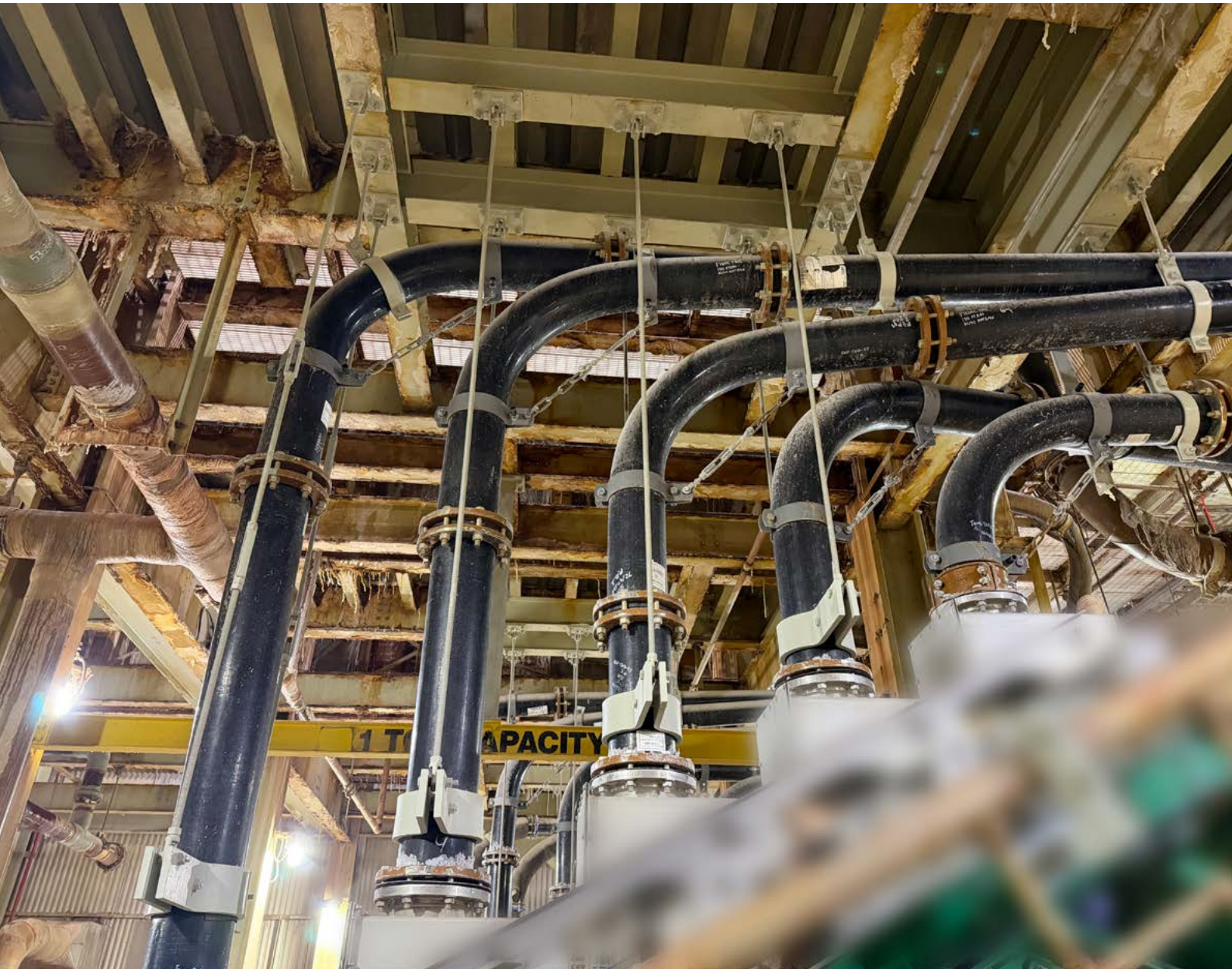
The Solution

In 2026, the Canadian potash producer installed 117 meters (384 feet) of 225 mm Pexgol Class 19 pipe for the coarse tailings screen feed line.

Pexgol was selected primarily for its high resistance to abrasion, chemicals and corrosion, as well as its long-term durability in demanding slurry applications. Its flexibility and compatibility with the supports already installed for the previous HDPE line enabled a direct replacement while minimizing the need for structural changes.

The pipeline was assembled using GP mechanical couplers. Because of the restricted installation space and tight tolerances, particular attention was required when positioning the couplers and tightening their bolts. Turnbuckles were also maintained on the elbows during installation to preserve their intended geometry.

The installation was completed successfully. By replacing the short-lived HDPE pipeline with Pexgol, the mine implemented a solution designed to provide a longer service life in the abrasive NaCl/KCl slurry while making practical use of the existing support infrastructure.



The Advantages of Pexgol Pipe Systems



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.



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.



Excellent chemical and corrosion resistance

Pexgol pipes can resist a wide range of chemical agents, slurries, toxic and radioactive materials.



Long pipe sections

Pexgol pipes can be supplied in long coil lengths, reducing number of joints, installation time and risks.



High temperature resistance

Working temperatures can range from -50°C / -58°F up to 110°C / 230°F .



Creep and impact resistance

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.

For more information please visit:
pexgol.com

