



OBJECTIVE

Mitigate environmental impact from legacy tailings through the treatment of pore water and surface runoff during excavation and consolidation activities

TECHNOLOGIES

ChemSulphide®

PLANT CAPACITY

115 m³/day ChemSulphide®

LOCATION

Yukon Territory, Canada

BQE WATER SCOPE

Process design, complete plant supply and installation, construction management, commissioning support, and start-up operations

PROJECT HIGHLIGHTS

- Minimize environmental impact with pH-neutral treatment system
- Full EPC project execution, commissioning, and operational service at remote site

Project Overview

The Valley Tailings Facility (VTF) Water Treatment Plant (WTP) is required to mitigate the impacts of tailings pore water that will be released during the valley tailings excavation and consolidation. The VTF site is approximately 40 km northeast of the Town of Mayo in the Yukon Territory.

The WTP consists of a pre-fabricated building housing the water treatment equipment, reagent systems, and control center. Water is conveyed through pumps and is processed through reactor tanks, clarifier, and multimedia filter. The treated water is discharged to the effluent pond and sludge is pumped to geotubes in the adjacent sludge pad. Prime power for the WTP operations and utilities is provided by a diesel generator system housed in a 20' container.

BQE was contracted to provide the complete engineering design of the treatment process and plant facility, including the civil works for the WTP building pad, equalization pond, effluent pond, and geotube pad. The lump sum contract included equipment supply and installation, building construction, piping, electrical wiring, commissioning, and start-up operations.

Process Flowsheet

