



Chehe River Mine

Guangxi, China





Previous leak repair



After Xypex repair

The mine tailing overflow pipes of this mine are buried at 60 m to 80 m underground, 1.8 m in diameter and sloped to a 45° angle. Officially commissioned in 1980s, the joints of the pipes had been leaking for many years due to increased load. Additionally, the concrete of the pipes had suffered severe corrosion and spalling due to acidic attack. In many areas the reinforcing steel of the concrete was exposed. Previously, these pipes had been repaired on an annual basis as the materials used for the repair could not withstand the water pressure or acid attack.

Xypex products were chosen to rehabilitate these pipes as they resist hydrostatic pressure, chemical attack and are a permanent solution thus avoiding future maintenance intervals and shutdowns. Additionally, they are used on wet concrete so removing the need to dry out the concrete before application. Xypex Patch'n Plug was used to seal active leaks in the pipe joints and Xypex Concentrate was used to provide waterproofing and acid resistance to the pipe sections. The pipe was inspected 6 months after application and found to be in an excellent condition. As a result, the asset owners chose to rehabilitate other structures using Xypex Crystalline Technology.