MINING CASE STUDY

Weartech® SHS™ ID Clad Wear Pipe to

Extend Concrete Delivery Line Wear Life by 13.1x



PROBLEM: SEVERE SLURRY ABRASION

Saskatchewan government regulations require spent sections in uranium mines to be completely encased in concrete. The transport of massive amounts of concrete to spent mine locations underground and process of gradual encasement can go on for many years.

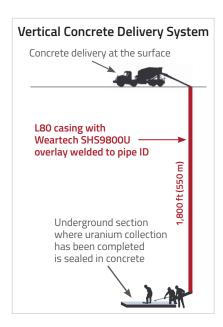
Historically, concrete has been transported from surface to underground operations through a vertical delivery system fabricated from L80 mild steel pipe. In a Northern Saskatchewan uranium mine, severe wear from slurry abrasion results in costly down time from the pipe requiring replacement every 16 months.



MINING

SOLUTION: WEARTECH SHS ID CLAD WEAR PIPE

Seeking an alternative which will increase wear resistance and last the remaining life of the project, the Saskatchewan uranium mine installed a delivery system with Weartech® SHS™9800U alloy welded to the inside diameter of L80 pipe. Mine engineers have projected the ID clad Weartech wear pipe to last 17.5 years, an increase in wear life by a factor of 13.1x which will save the mine more than \$1 million in replacement costs.









In ASTM G65-04 wear testing, Weartech SHS9800U is 31.6 times more wear resistant than mild steel

Male and female threaded joints are connected on site with zero difference couplings

RESULT: THREADED JOINTS RESULT IN FASTER INSTALLATION

Many vertical delivery systems are installed by welding pipe joints together, which is a slow joining method. For the Saskatchewan uranium mine, Weartech SHS ID clad wear pipe was threaded during manufacture and connected on site with zero difference couplings, a faster joining method which greatly reduced installation time.

