

Processing



The Processing Plant is responsible for removing gold from the mined rock. The six-stage process involves crushing and grinding, flotation and oxidisation, and leaching and adsorption.

Processing Plant

Our Processing Plant looks a bit different from other mine sites. When it was first built in 1990 the expected mine life was only seven years, so the footprint of the Plant was kept small. As our mine life continued to increase, and our team found more innovative ways to process our gold, we've added new components on top of each other instead of spreading them out across the site.



CRUSH, GRIND, FLOAT, OXIDISE, LEACH AND ADSORB

Autoclave

One unique component of our Processing Plant is the autoclave. The 12-metre long, high pressure, high temperature vessel is one of a kind in the Southern Hemisphere. It's used to deal with the 'refractory ore' at Macraes which is ultra-fine and resistant to the typical cyanide leach process used by most gold processing plants.



Every day mined rock from the open pits and underground mines at Macraes is processed through the plant. It takes about one week for a piece of gold-bearing rock to travel through the entire processing cycle.



At the end of the cycle the gold is extracted from the rock and melted down to be poured into a gold doré bar.

The bar is cleaned, weighed, and numbered before being sent to the Perth Mint in Western Australia.

Did You Know?

Our gold doré bars weigh around 20 kgs. Depending on the current gold price, one bar can be worth around NZ\$1.8 million.

06 D9913