

Optimising gold recovery through staged oxygen addition at Newmont Goldcorp Boddington

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ABSTRACT

The Newmont Boddington Gold plant includes three leach circuits treating the flotation tailings. One circuit pre-treats the fine and pyrrhotite-rich cleaner scavenger tails and two parallel circuits treat the scavenger tails and cleaner scavenger tails leach residue.

Through ongoing test work an opportunity to increase gold recovery using staged oxygen addition was identified. Further test work determined the magnitude of the opportunity, some of the barriers to realising the opportunity and input parameters for the project design. This project modified the existing oxygenation devices, added additional oxygenation devices into the system and increased liquid oxygen storage and vaporisation capacity.

This paper outlines the staged oxygen addition project from identification through to commissioning and discusses the initial benefits achieved.