BHP AMD management standard - BHP’s global approach to reducing geochemical risk and minimising closure uncertainties

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ABSTRACT

AMD is one of the key risks facing the mining industry worldwide with its potential to decrease environmental values for generations to come if not properly managed and/or not identified in a timely manner. Ore extraction generates vast volumes of mineral waste (waste rock and tailings) that are stored in perpetuity at the mine site. Some of these materials are not inert and when in contact with air and water they can react to generate water of poor quality compromising operational and closure environmental objectives.

Understanding the geochemical behaviour of waste rock and tailings is key to identifying risks and opportunities to support effective mineral waste management strategies across the mining value chain and progress toward an environmentally sustainable future that minimises closure liabilities.

To ensure that AMD risk is recognised and managed uniformly across its portfolio, BHP has developed a Global AMD Management Standard to be implemented across all of BHP’s operations, including closed sites

The purpose of the AMD Management Standard is to provide a management framework to support consistent, simple, and sustainable global management of AMD risks. The framework will allow BHP to create a culture shift within where mines are planned and operated to be environmentally smart and modern, where geochemical risk management is not an afterthought but a key driver, and where environmental sustainability is actively pursued to reduce closure liabilities.

The AMD Management Framework, from which the Standard is based, was adapted from industry best-practice guidance to ensure its applicability to multiple regions and comprises sequential requirements throughout the mining life-cycle. The framework is iterative with an adaptive management approach designed to incorporate new data/information and management opportunities into AMD risk assessments and mine plan revisions.