

MAMATWAN MINE

TAILINGS FACILITY RISK

Adam's Pit Failure Modes Findings (GISTM Requirement 15.1 B3 & B4)

For Adam's Pit, a failure modes and effects analysis and a material volume displacement assessment was conducted to ascertain whether the failure of the dry stack slopes could cause inundation that would exceed the extent of the pit edge, resulting in risk to the surrounding environment.

A review of the risk assessment was undertaken to include the reclamation of the Adams Pit material. The results indicate that the potential for human exposure is limited to operational personnel working within the reclamation area.

Based on the material volume displacement assessment undertaken, it was concluded that a failure of the dry stack slopes within Adam's Pit would not result in displacement of material that exceeds the edge of the pit on the eastern side where tailings material is deposited.

For the worst-case scenario, it was established that the tailings material will not overtop and that the zone of influence will remain within the open-pit area. An overtopping failure is not deemed credible, as a collapse of the dry stack material would be contained within the pit itself. This also applies to piping and liquefaction failure modes since each failure mode would result in the failure modes being contained within Adam's Pit.

The result of the assessments concluded that there are no credible failure modes that result in a breach of Adam's Pit.