

Angas Zinc Mine



Client: Terramin Australia Limited
Location: Strathalbyn, South Australia
Date: 2005 - ongoing

Angas zinc mine is owned by Terramin Australia Limited and located approximately 50 km south-east of Adelaide near the township of Strathalbyn. It is situated in the catchment area for Murray-Darling Basin and consequently the environmental aspects of its Tailings Storage Facility (TSF) were a major factor in determination of the tailings storage system.

ATC Williams (ATCW) was responsible for the option study, design, documentation and assistance in construction of the TSF for Angas Zinc (AZ) project.

The AZ tailings have a 17% sulphur content, a high net acid generating potential and a limited acid neutralising capacity. Mining approvals required the TSF to be a zero discharge system and consequently the embankment and storage floor were fitted with a geomembrane liner, together with an extensive underdrainage system.

The tailings disposal scheme includes a thickened down-slope discharge, a storage and decant pond with a three zoned embankment, as well as spillway, decant tower and chute, leak detection and tailings drains, runoff diversion system and an extensive array of instrumentation. The TSF is a side hill storage limited by lease boundary and land acquisition.

The authorities and local community have shown a degree of sensitivity regarding the tailings disposal. As such the design process had to undergo a

significant amount of auditing, scrutiny and modifications prior to approval.

Construction of the project was completed in July 2008 and now the mine is in full production.

After completion of the project, Angas Zinc general manager quoted *“The dedicated professional approach by ATCW’s engineers working on this project has enabled the TSF to be completed on time and on budget.”*