References and Glossary of Terms

This fact sheet defines AMD terminology and provides references. The terminology used when discussing AMD can be confusing and difficult to follow. Table 2 is a glossary of terms with a short description. There are numerous resources available for management of AMD. Table 3 gives some of the available resources most widely used by the regulator in Tasmania. The list is not exhaustive, but most of the publicly available documents referenced in this document are included.

Acronym	Term	Description
PAF	Potentially Acid Forming	A PAF sample typically has a NAG pH below 4.5 and NAPP value which is greater than, or equal to 0.
NAF	Non Acid Forming	NAF samples typically have a NAG pH greater than or equal to 4.5 and a negative NAPP value.
UC	Uncertain classification	Cannot be classified as PAF or NAF using the NAG pH and NAPP values. Further mineralogy is required to determine if samples could be PAF or NAF.
NAG	Net Acid Generation	NAG testing is a form of lab test work which includes the addition of chemicals which cause a reaction, with the outcome showing the net amount of acid generated by the sample.
MPA	Maximum Potential Acidity	Maximum potential acidity is derived from a sample sulfur (S) content multiplied by 30.6, where 1%S = 30.6 kg H_2SO_4/tonne. The total sulfur is commonly used, however some geochemists prefer to use varying forms of sulfur.
ANC	Acid Neutralising Capacity	ANC is the amount of acid neutralising material contained in a sample. It often buffers some of the acidity contained in a sample.
NAPP	Net Acid Producing Potential	Theoretical calculation of the potential to generate AMD. NAPP = MPA – ANC
ABA	Acid Based Accounting	ABA is the methodology used to predict the likelihood that AMD will be formed. The ABA assessment is a static test.

Table 2 – Glossary of Terms

Title	Comments	Web URL
Global Acid Rock Drainage Guide	The GARD Guide is a detailed international resource on AMD prediction and management. The resource has been developed by world leaders in the industry and forms the basis for assessment of proposals worldwide.	http://www.gardguide.com
Preventing Acid and Metalliferous Drainage | Leading Practice Sustainable Development Program for the Mining Industry	This resource is provided by the Australian Government as a more local resource of the prediction and management of AMD on site. Designed to be more simplistic than the GARD guide, with Australian case studies, this document forms the basis for regulator's assessments within Tasmania.	https://www.industry.gov.au/sites/default/files/2019-04/lpsdp-preventing-acid-and-metalliferous-drainage-handbook-english.pdf
Leading Practice Sustainable Development Program for the Mining Industry | Other Documents Includes *Mine Closure & Tailings Management*	The Leading Practice Series contains many volumes which can assist with AMD management on site when used alongside the *Preventing Acid and Metalliferous Drainage* manual.	https://www.industry.gov.au/data-and-publications/leading-practice-handbooks-for-sustainable-mining
AMIRA International | ARD Test Handbook | Project P387A Prediction & Kinetic Control of Acid Mine Drainage	The AMIRA ARD Handbook forms the basis in Australia for AMD prediction and waste characterisation. The manual also contains the lab methods used by many labs to undertake tests.	http://amirainternational.com/documents/downloads/P387AProtocolBooklet.pdf
INAP | ARD Links	The International Network for Acid Prevention (INAP) produces the GARD Guide, this link has many other resources for AMD management and prediction.	https://www.inap.com.au/acid-drainage/#ardlinks
INAP | Global Cover System Design: Technical Guidance Document	This document provides tailings dam cover system design guidance. The resources provided are for cover systems world-wide. Operators should ensure that covers suitable for the Tasmanian climate are designed.	http://www.inap.com.au/wp-content/uploads/2018/05/global-cover-system-design.pdf
MEND | Guidance Documents	Mine Environment Neutral Drainage (MEND) program is based in Canada and provides much of the technical guidance for AMD management throughout the world. Provides links to all their resources throughout the mining lifecycle.	http://mend-nedem.org/guidance-documents/
MEND | 1.20.1 – Prediction Manual for Drainage Chemistry from Sulfidic Geologic Materials	This document provides detailed summaries of the test work required for AMD prediction, with detailed descriptions and rationale. Some of the prediction methods are MEND recommended and not the same as AMIRA, however come to a similar conclusion.	http://mend-nedem.org/mend-report/prediction-manual-for-drainage-chemistry-from-sulfidic-geologic-materials/
ICMM | Integrated Mine Closure	The International Council on Mining and Metals recently released the *Integrated Mine Closure: Good Practice Guide*. The guide provides guidance on delivering key elements of mine closure planning and implementation.	http://www.icmm.com/en-gb/environment/mine-closure/integrated-mining-closure
Minerals Council of Australia | Enduring Values Principles	The Minerals Council of Australia released the Enduring Values Principles in 2015. The Enduring Value framework drives continuous improvement of the industry's performance on the social, safety and environmental aspects of its activities.	https://minerals.org.au/sites/default/files/190503%20Enduring%20Value%20Principles.pdf
Mineral Resources Tasmania | Database Search	MRT provides many resources to explorers free of charge. Documents are stored in the TIGER (Tasmanian Information on Geoscience and Exploration Resources) system and can be accessed from the MRT website.	http://www.mrt.tas.gov.au/portal/database-searches
Environment Protection Authority Tasmania | Assessment Process	Most mining and quarrying activities in Tasmania will require assessment by the EPA. The EPA encourages early dialogue with proponents. Information on the assessment process is available on the EPA website.	https://epa.tas.gov.au/assessment/assessment-process

Table 3 – Publications for reference