

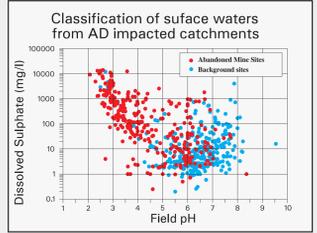

 TASMANIAN ACID DRAINAGE RECONNAISSANCE
DISTRIBUTION OF LOW pH – HIGH SULPHATE SURFACE WATERS IN CATCHMENTS IMPACTED BY ABANDONED MINES
 SCALE 1:500000
 0 10 20 30 40 50 km
GCS: Australian Map Grid, Zone 55

Sulphate as an indicator of Acid Drainage (AD)
 Low pH and high levels of sulphate in surface waters are some of the key indicators of AD.

High sulphate levels in surface waters is commonly due to abundance of pyrite and associated sulphate minerals present in rock materials undergoing active oxidation due to exposure by mining and other extractive activities.

Elevated levels of sulphate in waters sourced from abandoned mine sites is therefore a good indication that AD is occurring in the area.

Since pH alone is inadequate for identifying AD, a pH versus sulphate analysis is used to differentiate AD sourced from abandoned mine sites in Tasmania.



Field pH	Dissolved Sulphate (mg/l)
● < 3.5	● < 1
● 3.5 – 4.5	● 1 – 100
● > 4.5	● > 100

— Surface water impacted by acid drainage
x Abandoned mines with potential to form acid drainage

This map is one of the series of four AD maps compiled from the results of 1999–2000 Tasmanian Acid Drainage Reconnaissance survey (PRC 13187). The dissolved sulphate concentrations and pH values used to construct this map correspond to synoptic samples collected during base flow of surface waters (December–June).

Refer to this map as:
Gunning, S. 2001. Tasmanian Acid Drainage Reconnaissance. Map 1. Distribution of Low pH and High Sulphate Surface Waters in Catchments Impacted by Abandoned Mines in Tasmania. Mineral Resources Tasmania.

Map accompanies report titled:
Gunning, S. 2001. Tasmanian Acid Drainage Reconnaissance. Acid Drainage from Abandoned Mines in Tasmania. Tasmanian Geological Survey Report 2001/5.

Digital base information from Information and Land Services Division, Department of Primary Industries, Water and Environment.

Map produced by the Data Management Group of Mineral Resources Tasmania using GIS software.

GCS: Australian Map Grid, Zone 55.

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MAP 1

