AS 4969.3—2008
Reconfirmed 2018

Australian Standard®

Analysis of acid sulfate soil—Dried samples—Methods of test

Method 3: Determination of peroxide pH (pH_{OX}), titratable peroxide acidity (*TPA*) and excess acid neutralizing capacity (ANC_E)

PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand for Committee EV-009, Sampling and Analysis of Soil and Biota, Working Group EV-009-02-01, Analysis of Acid Sulfate Soil.

The objective of this Standard is to provide a laboratory method for the determination of peroxide pH (pH_{OX}), titratable peroxide acidity (*TPA*) and excess acid neutralizing capacity (ANC_E) in acid sulfate soil.

METHOD

1 SCOPE

This Standard specifies a method for the determination of peroxide pH (pH_{OX}), titratable peroxide acidity (*TPA*) and excess acid neutralizing capacity (ANC_E) in acid sulfate soil following digestion with 30% hydrogen peroxide.

NOTES:

1 The *TPA* measurement does not quantitatively recover retained acidity held in iron and aluminium hydroxy-sulfate minerals such as jarosite [$KFe_3(SO_4)_2(OH)_6$] and similar minerals. Methods to determine the retained acidity are given in AS 4969.6 and AS 4969.11.

2 The suspension obtained from this method can be analysed subsequently to determine peroxide sulfur, calcium and magnesium (AS 4969.5) followed by the determination of S_{RAS} on the digested soil residue (AS 4969.6).

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1006	Solid-stem general purpose thermometers	
2162	Verification and use of volumetric apparatus	
2162.1	Part 1:	General—Volumetric glassware
2162.2	Part 2:	Guide to the use of piston-operated volumetric apparatus (POVA)