AS 4969.4—2008
Reconfirmed 2018

Australian Standard®

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

Method 4: Determination of 1 M potassium chloride extractable sulfur (S_{KCl}), calcium (Ca_{KCl}) and magnesium (Mg_{KCl})

PREFACE

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

The objective of this Standard is to provide a method for the determination of potassium chloride extractable sulfur (S_{KCl}), calcium (Ca_{KCl}) and magnesium (Mg_{KCl}) in acid sulfate soil after the determination of pH_{KCl} and TAA.

METHOD

1 SCOPE

This Standard specifies a method for the determination of potassium chloride extractable sulfur (S_{KCl}), calcium (Ca_{KCl}) and magnesium (Mg_{KCl}) in acid sulfate soil after the determination of pH_{KCl} and TAA in AS 4969.2.

NOTES:

1 This extraction procedure recovers soluble and exchangeable sulfate, sulfate from gypsum, as well as some sulfate from aluminium hydroxy-sulfate compounds (such as basaluminite). Sulfate from jarosite and similar iron hydroxy-sulfate minerals is not significantly recovered. Methods to determine the residual sulfur held in these iron hydroxy-sulfate minerals are given in AS 4969.5 and AS 4969.11.

2 This extraction procedure recovers soluble and exchangeable calcium and magnesium, and calcium from gypsum.

3 The KCl extractable sulfur (S_{KCl}), calcium (Ca_{KCl}) and magnesium (Mg_{KCl}) measurements can be used in combination with HCl extractable sulfur, calcium and magnesium (AS 4969.8) to determine the net acid-soluble sulfur, calcium and magnesium (AS 4969.11).