Calculation of Retained Acidity in acid sulfate soils

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AMMENDMENT TO RETAINED ACIDITY CALCULATION

An error in the calculation of the correction factor for Net Acid Soluble Sulfur (S_{NAS}) has been identified in the *National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual (2018)*.

Until the National Guidance can be updated, or the Queensland Acid Sulfate Soil Technical Manual Soil Management Guidelines Version 5 is published (in press) the following Net Acid Soluble Sulfur (S_{NAS}) calculation should be adhered to:

$$S_{NAS} (\%) = (S_{HCl} - S_{KCl}) \times 2.0$$

When calculating Retained Acidity (S_{RA}) one of the following calculations should be used:

$$S_{RA} (mol\ H+/t) = S_{NAS} (\%) \times 467.8$$

$$S_{RA} (\%) = S_{NAS} (\%) \times 0.75$$

It is acknowledged this method for retained acidity determination is likely to produce conservative estimates for some soil materials. However, this methodology must be followed until further refinements to the methodology are approved.

REFERENCE

Sullivan, L, Ward, N, Toppler, N and Lancaster, G 2018, National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual, Department of Agriculture and Water Resources, Canberra, ACT.

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