



Test method T1002

Determination of the pH value of water
using a pH meter

JUNE 2014



Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
		Reformatted and Revision Summary Added	D.Dash	June 2001
Ed 2/ Rev 0	All	Reformatted Roads and Maritime template	J Friedrich	November 2012
Ed 2/ Rev 1	5(a)	200mm changed to 20mm	J Friedrich	June 2014

Note that Roads and Maritime Services is hereafter referred to as 'Roads and Maritime'.

The most recent revision to Test method T1002 (other than minor editorial changes) is indicated by a vertical line in the margin as shown here. |

Test method T1002

Determination of the pH value of water using a pH meter

1. Scope

This test method sets out the procedure for determining the pH (hydrogen ion concentration) of water using an electronic pH meter.

2. Apparatus

- (a) An electronic pH meter.
- (b) Laboratory glassware including volumetric flasks etc.
- (c) A wash bottle filled with distilled water.
- (d) Buffer tablets of pH 4, 7 and 9.

3. Procedure

- (a) Make up buffer solutions according to instructions, being careful that the tablets remain intact until use.
- (b) Place about 30 mL of each buffer solution and also of the sample in separate 50 mL beakers.
- (c) Place the electrode(s) from the pH meter into each of the buffer solutions in turn. If necessary adjust the instrument to the pH of the particular solution.
- (d) Place the electrode(s) into the sample and record the pH shown on the meter.

4. Reporting

Report as the pH of the sample, the pH read from the meter in Clause 3 (d) above.

5. Techniques

- (a) Place the electrode(s) into the solution being measured so that the bulb(s) is completely immersed (about 20 mm).
- (b) After each use, wash the electrode(s) with distilled water from a wash bottle.
- (c) Never leave the electrode(s) standing out of a solution as it should not be allowed to dry out.
- (d) Carry out readings with the pH meter as quickly as possible.
- (e) Leave the electrode(s) to soak in distilled water whenever not in use and change the water at least weekly.
- (f) In the event of a bubble being detected in the measuring electrode, it should be removed by a gentle sweeping movement of the arm. Jerking should be avoided.