



The acid mining industry produces discharge water which can be both acid and alkaline, depending on the type of metal. The discharged water can also contain metals such as iron. Since the run-off water will eventually find its way to lakes and rivers, it is important to test it to make sure it does not pollute the environment and water reservoirs.

HANNA instruments<sup>®</sup> combination test kit HI 3819 includes all the necessary tests for alkalinity, acidity, pH and iron. The reagent bottles are in easy-to-recognize ascending numbers, and allow your tests to be more expedient and less time consuming.

The testing procedures are clearly shown in the step-by-step instruction manual so that anyone can carry out the analysis. For pH measurements use our electronic tester, pHep<sup>®</sup>, which gives you faster and more accurate results than conventional litmus paper.

The kit has all the necessary equipment to perform over 100 tests of acidity and alkalinity and 50 tests of iron.

You can conveniently replace only the reagents that run out (see section V for spare reagents). The number of pH measurements has no limitations other than the life of the instrument itself.

### HI 3819 - Combination test kit for acid mining

Parameter	Method	Range*	Smallest Increment	Chemical Method	Number of Tests
Acidity (as CaCO <sub>3</sub> )	Titration	0-100 mg/L	1 mg/L	Methyl-orange/ Phenolphthalein	approx. 110
		0-500 mg/L	5 mg/L		
Alkalinity (as CaCO <sub>3</sub> )	Titration	0-100 mg/L	1 mg/L	Phenolphthalein/ Bromphenol blue	approx. 110
		0-300 mg/L	3 mg/L		
Iron (as Fe <sup>2+</sup> and Fe <sup>3+</sup> )	Colorimetric	0-5 mg/L	1 mg/L	Phenanthroline	100
pH	Electronic pH tester	0.0-14.0 pH	0.1 pH	—	life of the meter

#### Other Information

Dimensions	370 x 270 x 80 mm (14.6 x 10.6 x 3.1")
Weight	1.6 kg (3.5 lb.)

\* 1 mg/L = 1 ppm

For spare reagents, see section V. For accessories, see section U.