



Designation: D 857 – 9502

## Standard Test Method for Aluminum in Water<sup>1</sup>

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### 1. Scope

1.1 This test method covers the direct flame atomic absorption determination of aluminum in the nitrous oxide-acetylene flame.

1.2 This test method is applicable to waters containing dissolved and total recoverable aluminum in the range from 0.5 to 5.0 mg/L. Aluminum concentrations as high as approximately 50 mg/L can be determined using this test method without dilution. However, no precision and bias data are available for concentrations greater than 5.0 mg/L.

1.3 This test method was tested on reagent, natural, and potable waters. It is the user's responsibility to ensure the validity of this test method for waters of untested matrices.

1.4 The same digestion procedure may be used to determine total recoverable nickel (Test Methods D 1886), chromium (Test Methods D 1687), cobalt (Test Methods D 3558), copper (Test Methods D 1688), iron (Test Methods D 1068), lead (Test Method D 3559), manganese (Test Method D 858), and zinc (Test Methods D 1691).

1.5 Precision and bias data have been obtained on reagent, natural, and potable waters. It is the responsibility of the user to ensure the validity of this test method on untested matrices.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.* For specific hazard statements, see Note 1, Note 2, and Note 3.

1.7 Former Test Methods A (Fluorometric) and B and C (Spectrophotometric) were discontinued. Refer to Appendix X1 for historical information.

### 2. Referenced Documents

#### 2.1 ASTM Standards:

<sup>1</sup> These test methods are under the jurisdiction of ASTM Committee D19 on Water and are the direct responsibility of Subcommittee D19.05 on Inorganic Constituents in Water.

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