

EAL Analysis Methods

Analyte	Method and Equipment
Alkalinity	Potentiometric titration to end point pH 4.5. EPA Method 310.1.
Bulk Density*	Cylinder-Gravimetric (103-105C) method. ASTM D 2937 method.
Ca, Mg, Metals	HNO ₃ -HCl digestion. Atomic absorption spectroscopy (Perkin-Elmer 3100, Shelton, CT). Standard method 3111-B.
Cl	Ferricyanide colorimetry on a Autoanalyzer System. EPA Method 325.2.
COD	Potassium dichromate/sulfuric acid digestion-colorimetric analysis. EPA approved method. EPA Method 410.4.
Conductivity	Electrical conductivity measurement. EPA Method 120.1.
Hardness	Calculation of equivalent CaCO ₃ using Ca and Mg contents from separated determination. Standard method 2340B.
NO ₃ N/NO ₂	Cadmium reduction-sulfanilamide/N-1 naphthylethylenediamine color-automated analysis on a Autoanalyzer System. Standard Methods 4500-NO ₃ -E or EPA Method 353.2.
Ortho-P	Ortho phosphate-molybdate-antimony-ascorbic acid colorimetry on a Autoanalyzer System. Standard Method 4500-P F or EPA Method 365.1.
pH	Electrode-pH meter. Standard Methods 4500-H ⁺ B or EPA Method 150.1.
Salinity	Electrical conductivity method. Standard Methods 2520 B.
Solid TC/TN	Combustion at 1350C and then measurement by infrared detector for C and thermal conductivity detector for N.
TAN	Ammonia-salicylate-nitroprusside-hypochlorite colorimetry on a Autoanalyzer System. Standard Methods 4500-NH ₃ G.
TKN	K ₂ SO ₄ -CuSO ₄ digestion, ammonia-salicylate-nitroprusside-hypochlorite colorimetry on a Autoanalyzer System. Standard Methods 4500Norg B or EPA Method 351.2.
TN	K ₂ SO ₄ -CuSO ₄ -Salicylic Acid digestion, ammonia-salicylate-nitroprusside-hypochlorite colorimetry on an Autoanalyzer System (Lachat Instrument, Loveland, CO). Standard Methods 4500Norg B.
TOC	Combustion. Teledyne Tekmar Apollo 9000 combustion TOC analyzer. Standard Methods 5310 B.
TP	K ₂ SO ₄ -CuSO ₄ digestion. Ortho phosphate-molybdate-antimony-ascorbic acid colorimetry on a Autoanalyzer System. Standard Method 4500-P F.
TS	Gravimetric method. Standard Methods 2540B.
TSS	Gravimetric method. Standard Methods 2540B.
VS	Ignition-Gravimetric method. Standard Methods 2540E.

Method Citation:

American Public Health Association, American Water Works Association, Water Environment Federation, 2012. *Standard Methods for the Examination of Water and Wastewater*. 22nd Edition. Washington, DC.

U.S. EPA. March 1983. *Methods of Chemical Analysis of Water and Waste* (MCAWW), Section 9.3, EPA/600/4-79/020, Cincinnati OH.

*ASTM International. ASTM Standards. www.astm.org.