

Laboratory Services

Williston, Vermont Lebanon, New Hampshire Plattsburgh, New York www.endynelabs.com

Sample Volumes – Clean Samples Treatment Plant Effluents, Monitoring Wells, etc.

| Parameters | Analytical Methods ¹ | Volume Required (mls) | Bottle Type ² | Preservative ^{3,4} | Holding Time ⁵ |
|-----------------------------------|------------------------------------|-----------------------------|-----------------------------|--|------------------------------|
| Escherichia coli | SM20 9223B | 100 ml Sterile | 125 ml | < 10°C 0.008% Na ₂ S ₂ O ₃ | 8 hours |
| BOD or BOD, Soluble | SM20 5210B | 1000 ml | P,G | 0-6 °C | 48 hours. |
| Nitrogen, Ammonia | EPA 350.3 | 400 ml | P,G | 0-6 °C, H2SO4 pH <2 | 28 days |
| Nitrogen, Nitrate | EPA 300.0 | 50 ml | P,G | 0-6 °C | 48 hours |
| Nitrogen, Nitrite | EPA 300.0 | 50 ml | P,G | 0-6 °C | 48 hours |
| Nitrogen, Total Kjeldahl (TKN) | EPA 351.4 | 400 ml | P,G | 0-6 °C, H2SO4 pH <2 | 28 days |
| Phosphorus, Total | EPA 365.2 | 200 ml | G | 0-6 °C, H2SO4 pH <2 | 28 days |
| Phosphorus, Total Dissolved | EPA 365.2 | 200 ml | G | Filter on-site, 0-6 °C H2SO4 pH <2 | 28 days |
| Solids, Non-filterable TSS | SM20 2540D | 1000 ml | P,G | 0-6 °C | 7 days |
| Solids, Settleable Matter | EPA 160.5 | 1000 ml | P,G | 0-6 °C | 48 hours. |

Note: Analyses that require the same bottle type and same preservation may be collected in the same bottle.



Laboratory Services

Williston, Vermont Lebanon, New Hampshire Plattsburgh, New York www.endynelabs.com

Sample Volumes – Dirty Samples Treatment Plant Influents, Low % Solids BioSolids, etc.

| Parameters | Analytical Methods ¹ | Volume Required (mls) | Bottle Type ² | Preservative ^{3,4} | Holding Time ⁵ |
|-----------------------------------|------------------------------------|-----------------------------|-----------------------------|--|------------------------------|
| Escherichia coli | SM20 9223B | 100 ml Sterile | 125 ml | < 10°C 0.008% Na ₂ S ₂ O ₃ | 8 hours |
| BOD or BOD, Soluble | SM20 5210B | 200 ml | P,G | 0-6 °C | 48 hours. |
| Nitrogen, Ammonia | EPA 350.3 | 100 ml | P,G | 0-6 °C, H2SO4 pH <2 | 28 days |
| Nitrogen, Nitrate | EPA 300.0 | 20 ml | P,G | 0-6 °C | 48 hours |
| Nitrogen, Nitrite | EPA 300.0 | 20 ml | P,G | 0-6 °C | 48 hours |
| Nitrogen, Total Kjeldahl (TKN) | EPA 351.4 | 100 ml | P,G | 0-6 °C, H2SO4 pH <2 | 28 days |
| Phosphorus, Total | EPA 365.2 | 40 ml | G | 0-6 °C, H2SO4 pH <2 | 28 days |
| Phosphorus, Total Dissolved | EPA 365.2 | 40 ml | G | Filter on-site, 0-6 °C H2SO4 pH <2 | 28 days |
| Solids, Non-filterable TSS | SM20 2540D | 200 ml | P,G | 0-6 °C | 7 days |
| Solids, Settleable Matter | EPA 160.5 | 1000 ml | P,G | 0-6 °C | 48 hours. |

Note: Analyses that require the same bottle type and same preservation may be collected in the same bottle.



Laboratory Services

Williston, Vermont Lebanon, New Hampshire Plattsburgh, New York www.endynelabs.com

TABLE 1 FOOTNOTES

- 1. Referenced Methods are from approved publications. "EPA" indicates Environmental Protection Agency. "SM" indicates "Standard Methods for the Examination of Water and Wastewater". ASTM indicates "American Society for Testing and Materials".
- 2. Plastic (P) or Glass (G). For metals, polyethylene with a polypropylene cap with Teflon liner is preferred.
- 3. Sample preservation should be performed immediately upon sample collection. For composite samples each aliquot should be preserved at the time of collection. When use of an automated sampler makes it impossible to preserve each aliquot, then samples may be preserved by maintaining at 4°C until compositing and sample splitting is completed.
- 4. When any sample is to be shipped by common carrier or sent through the United States Mail, it must comply with the Department of Transportation Hazardous Materials Regulations (49 CFS Part 172). The person offering such material for transportation is responsible for ensuring such compliance. For the preservation requirements of Table 1, the Office of Hazardous Materials, Materials Transportation Bureau, Department of Transportation has determined that the Hazardous Materials Regulations do not apply to the following materials: Hydrochloric acid (HCl) in water solutions at concentrations of 0.04% by weight or less (pH about 1.96 or greater); Nitric acid (HNO₃) in water solutions at concentrations of 0.15% by weight or less (pH about 1.15 or greater); Sulfuric acid (H₂SO₄) in water solutions at concentrations of 0.35% by weight or less (pH about 1.15 or greater); Sodium hydroxide (NaOH) in water solutions at concentrations or 0.080% by weight or less (pH about 12.3 or less).
- 5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still considered valid. Samples may be held for longer periods only if the permittee, or monitoring laboratories, has data on file to show that the specific types of sample under study are stable for the longer time, and has received a variance from the Regional Administrator. Some samples may not be stable for the maximum time period given in the table. A permittee, or monitoring laboratory, is obligated to hold the sample for a shorter time if knowledge exists to show this is necessary to maintain sample stability.
- 6. Should only be used if residual chlorine is present in the sample.
- 7. For samples from non-chlorinated drinking water supplies, concentrated H_2SO_4 should be added to lower sample pH to less than 2. The sample should be analyzed before 14 days.
- 8. Indicates the analysis is subcontracted to a NELAC certified laboratory.