

Parameter Name	Container ²	Preservation ^{3,4}	Maximum Holding Time ⁵
Bacterial Tests			
Coliform, fecal and total	P, G	Cool, 4°C, 0.008% Na ₂ S ₂ O ₃ ⁵	6 hours
Fecal streptococci	P, G	Cool, 4°C, 0.008% Na ₂ S ₂ O ₃	6 hours
Inorganic Tests			
Alkalinity	P, G	Cool, 4°C	14 days
Biochemical oxygen demand (BOD)	P, G	Cool, 4°C	48 hours
Biochemical oxygen demand, carbonaceous	P, G	Cool, 4°C	48 hours
Oil and Grease	G	Cool, 4°C, HCl or H ₂ SO ₄ to pH<2	28 days
Residue, total	P, G	Cool, 4°C	7 days
Residue, filterable	P, G	Cool, 4°C	7 days
Residue, Nonfilterable (TSS)	P, G	Cool, 4°C	7 days
Residue, Settleable	P, G	Cool, 4°C	48 hours
Residue, volatile	P, G	Cool, 4°C	7 days

¹ This table was taken from Table II published in the Federal Register, July 1, 1995, 40 CFR, Part 136.3, pages 643-645. Organic tests are not included.

² Polyethylene (P) or glass (G), or PTFE Teflon

³ Sample preservation should be performed immediately upon sample collection. For composite chemical 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 chemical 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 US Mails, it must comply with the Department of Transportation Hazardous Materials Regulations (49 CFR Part 172). The person offering such material for transportation is responsible for ensuring such compliance.

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 be considered valid. The term "analyze immediately" usually means within 15 minutes or less after sample collection.

Parameter Name	Container ²	Preservation ^{3,4}	Maximum Holding Time ⁵
Oxygen, dissolved probe	G Bottle and top	None required	Analyze immediately
Winkler	G Bottle and top	Fix on site and store in dark	8 hours
Phenols	G only	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Phosphorus, elemental	G	Cool, 4°C	48 hours
Phosphorus, total	P, G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Residue, total	P, G	Cool, 4°C	7 days
Residue, filterable	P, G	Cool, 4°C	7 days
Residue, Nonfilterable (TSS)	P, G	Cool, 4°C	7 days
Residue, Settleable	P, G	Cool, 4°C	48 hours
Residue, volatile	P, G	Cool, 4°C	7 days
Silica	P, PFTE or quartz	Cool, 4°C	28 days
Specific conductance	P, G	Cool, 4°C	28 days
Sulfate	P, G	Cool, 4°C	28 days
Sulfide	P, G	Cool, 4°C, add zinc acetate plus sodium hydroxide to pH>9	7 days
Sulfite	P, G	None required	Analyze immediately
Surfactants	P, G	Cool, 4°C	48 hours
Temperature	P, G	None required	Analyze immediately
Turbidity	P, G	Cool, 4°C	48 hours

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⁶ Should only be used in the presence of residual chlorine.

⁷ Maximum holding time is 24 hours when sulfide is present. Optionally all samples may be tested with lead acetate paper before pH adjustments in order to determine if sulfide is present. If sulfide is present, it can be removed by the addition of cadmium nitrate powder until a negative spot test is obtained. The sample is filtered and then NaOH is added to pH 12.

⁸ Samples should be filtered immediately on-site before adding preservative for dissolved metals.