

**Surface Water Samples: Containers, Preservation and Hold Times Table**  
**North Carolina Division of Water Resources, Water Sciences Section – Chemistry Laboratory**  
**Reference: 40 CFR Part 136.3 Table II**

Listed below is information on the collection and preservation of surface water samples. The amount of sample listed is for average conditions; therefore, if you suspect that unusual conditions or interferences exist, please submit double the amount of sample.

Excluding volatile organics and sulfide, a one-half inch air space should be left in all containers to allow for mixing before analysis.

When submitting a filtered sample, write "DIS" (for dissolved) in the box beside the parameter(s) on the field sheet.

Samples must be shipped to the Laboratory as soon as possible after collection.

Parameter <sup>25</sup>	Minimum Required Volume	Container <sup>1,37</sup> P-Plastic / G-Glass	Preservation <sup>2,3</sup>	Maximum Holding Time <sup>4</sup>
<b>Metals Unit Parameters:</b>				
Metals: Al, Sb, As, Ba, Be, Cd, Ca, Cr (Total), Co, Cu, Fe, Pb, Li, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V and Zn	500 ml (1 bottle)	P (disposable)	1+1 HNO <sub>3</sub> to pH<2; for at least 24 hours prior to analysis <sup>19</sup> (Field filter samples for dissolved metals) <sup>7,36</sup>	6 months
Boron	500 ml	P (disposable)	1+1 HNO <sub>3</sub> to pH<2 <sup>19</sup>	6 months
Mercury (CVAA)	500 ml (1 bottle)	P (disposable)	1+1 HNO <sub>3</sub> to pH<2 <sup>19</sup> (Field filter samples for dissolved Mercury) <sup>36</sup>	28 days
Mercury (CVAFS) (trace-level total Hg)	500 ml A Field Blank must accompany each trace-level Hg sample	G (borosilicate), Teflon-lined cap	Use clean sampling techniques per EPA 1669. <sup>17</sup> BrCl preservation is performed in the lab.	28 days until preservation with BrCl if the sample is oxidized in the sample bottle. Preserved samples are stable for up to 90 days from collection. <sup>17</sup>
<b>Microbiology Unit Parameters:</b>				
Alkalinity -includes bicarbonate & carbonate	200 ml	P (disposable)	Cool ≤ 6°C <sup>18</sup>	14 days
BOD, 5-day	1 liter	P	Cool ≤ 6°C <sup>18</sup>	48 hours <sup>26</sup> (notify lab)
CBOD, 5-Day	1 liter	P	Cool ≤ 6°C <sup>18</sup>	48 hours <sup>26</sup> (notify lab)
Coliform: Fecal, Total, E. coli	250 ml <b>(each - cannot be combined)</b>	P <sup>27</sup> (sterile)	Cool <10°C; Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (0.1ml 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /125 ml) when chlorine is detected. <sup>5</sup>	6 hours <sup>22,23,28</sup>
Specific Conductance	200 ml	P (disposable)	Cool ≤ 6°C <sup>18</sup>	28 days
TOC	500 ml	P (disposable)	H <sub>3</sub> PO <sub>4</sub> to pH<2; Cool ≤ 6°C <sup>18</sup>	28 days
DOC	500 ml Include a Field Blank with DOC samples	P (disposable)	Field filter <sup>36</sup> ; H <sub>3</sub> PO <sub>4</sub> to pH<2; Cool ≤ 6°C <sup>18</sup>	28 days
Turbidity	200 ml	P (disposable)	Cool ≤ 6°C <sup>18</sup>	48 hours <sup>26</sup> (notify lab)

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<b>Nutrients Unit Parameters:</b>				
Ammonia - (NH <sub>3</sub> -N) <sup>35</sup> Nitrate-Nitrite - (NO <sub>3</sub> +NO <sub>2</sub> - N) Total Kjeldahl Nitrogen - (TKN) Total Phosphorus - (TP)	500 ml (1 bottle for all, except when chlorine is detected; then include additional bottle of de-chlorinated sample for NH <sub>3</sub> -N)	P (disposable)	Add Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> to de-chlorinate NH <sub>3</sub> -N samples if chlorine is detected <sup>35</sup> ; 25% H <sub>2</sub> SO <sub>4</sub> to pH<2 <sup>31</sup> ; Cool ≤6°C <sup>18</sup> ;	28 days
Dissolved Nutrients (4 parameters above)	500 ml (1 bottle for all, except when chlorine is detected; then include additional bottle of de-chlorinated sample for NH <sub>3</sub> -N)	P (disposable)	Field filter <sup>36</sup> ; and then follow preservation in box directly above.	28 days
Nitrite - (NO <sub>2</sub> - N)	200 ml	P (disposable)	Cool ≤ 6°C <sup>18</sup>	48 hours <sup>26</sup> (notify lab)
Nitrate - (NO <sub>3</sub> -N)	Calculated value using analytical results for NO <sub>3</sub> +NO <sub>2</sub> -N and NO <sub>2</sub> -N; Submit samples for NO <sub>3</sub> +NO <sub>2</sub> -N and NO <sub>2</sub> -N			
Orthophosphate - (PO <sub>4</sub> -P)	200 ml	P (disposable)	Field filter <sup>36</sup> ; Cool ≤ 6°C <sup>18</sup>	Filter within 15 minutes; Analyze within 48 hours <sup>26</sup> (notify lab)
<b>Other Parameters:</b>				
pH	Lab analysis is inappropriate...Not Applicable			Analyze within 15 minutes. <sup>29</sup>
Hardness, Total -request by checking Hardness, Total as CaCO <sub>3</sub> , on field sheet. -or check Ca and Mg (can be part of metals sample) Total Hardness=2.497[Ca mg/L] + 4.118[Mg mg/L] ·Non-carbonate hardness = total hardness – total alkalinity	500 ml	P (disposable)	HNO <sub>3</sub> to pH<2	6 months

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<b>Wet Chemistry Unit Parameters:</b>				
Bromide Chloride Fluoride Sulfate	500 ml	P (disposable)	Cool ≤ 6°C <sup>18</sup>	28 days
Chlorophyll <i>a</i>	500 ml	P (Brown wide-mouth)	Cool ≤ 6°C <sup>18</sup> ; - if filtered in field, store filters in the dark; - if not delivered to lab within 24 hours, store frozen.	Filter within 24 hours <sup>34, 43</sup> (21 days after filtration)
Color: ADMI and Platinum Cobalt	400 ml	P (disposable)	Cool ≤ 6°C <sup>18</sup>	48 hours <sup>26</sup> (notify lab)
COD	200 ml	P (disposable)	H <sub>2</sub> SO <sub>4</sub> to pH<2; Cool ≤ 6°C <sup>18</sup>	28 days
Cyanide, Total <sup>45</sup>	2 liters	P	Add 0.6 g ascorbic per bottle if chlorine is detected <sup>5, 6, 30</sup> ; 6N NaOH to pH >10 but <11; Cool ≤ 6°C <sup>18</sup>	14 days (24 hours if chlorine present and treated with ascorbic acid)
Hexavalent Chromium <sup>46</sup>	400 ml  (Recommend field blank)	P (disposable)	Field filter <sup>36</sup> ; Ammonium Sulfate to pH 9.3 – 9.7 <sup>20, 46</sup> ; Cool ≤ 6°C <sup>18</sup>	28 days
MBAS	500 ml	P (disposable)	Cool ≤ 6°C <sup>18</sup>	48 hours <sup>26</sup> (notify lab)
Microcystin	200 ml	PETG	Cool ≤ 6°C <sup>18</sup>	14 days
Oil & Grease, HEM	2 liters (2 x 1-liter bottles) <sup>41</sup>	G (wide-mouth quart jar), Teflon-lined cap	H <sub>2</sub> SO <sub>4</sub> ; Cool ≤ 6°C <sup>18</sup>	28 days
Phenols, Total recoverable	2 liters (2 x 1-liter bottles)	G (Phenol bottle only)	Ferrous Ammonium Sulfate if chlorine is detected <sup>47</sup> ; H <sub>2</sub> SO <sub>4</sub> to pH < 2; Cool ≤ 6°C <sup>18</sup>	28 days
Residue, Non-Filterable -Total Suspended Solids (plus Volatile/Fixed, if requested)	1 liter (2 x 500mL bottles)	P (disposable)	Cool ≤ 6°C <sup>18</sup>	7 days
Residue, Total -Total Solids (plus Volatile/Fixed, if requested)	1 liter (2 x 500mL bottles)	P (disposable)	Cool ≤ 6°C <sup>18</sup>	7 days
Residue, Filterable -Total Dissolved Solids	1 liter (2 x 500mL bottles)	P (disposable)	Cool ≤ 6°C <sup>18</sup>	7 days
Sulfide	120 ml (40-ml x 3)	G (VOA vials), Teflon-lined septum	Add 1 ml of Zn acetate/NaOH solution to pH>9; Cool ≤ 6°C <sup>18</sup> Leave no headspace in bottle. <sup>33</sup>	7 days
Tannin and Lignin	500 ml	P (disposable)	Cool ≤ 6°C <sup>18</sup>	28 days

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<b>Organics Branch Parameters:</b>				
Acid Herbicides	4 liters <sup>32</sup>	G (amber), Teflon-lined cap	Cool ≤6°C <sup>18</sup> ; 0.1mL 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /125mL <sup>35</sup>	7 days until extraction <sup>39</sup> 40 days after extraction
PFAS	250 mL	Polypropylene bottle with Polypropylene screw cap	Cool ≤10°C; 5g/L Trizma	14 days until extraction; 28 days after extraction
Pesticides (Organochlorine/ PCBs/ Organonitrogen/ Organophosphorus)	4 liters <sup>32</sup>	G (amber), Teflon-lined cap	Cool ≤6°C <sup>18</sup> ; 0.1mL 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /125mL <sup>35</sup>	7 days until extraction <sup>39</sup> 40 days after extraction
Semi-Volatile Organics (Base/Neutral & Acid Extractables)	4 liters <sup>32</sup>	G (amber), Teflon-lined cap	Cool ≤6°C <sup>18</sup> ; 0.1mL 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /125mL <sup>35</sup>	7 days until extraction <sup>39</sup> 40 days after extraction
TPH Diesel Range (aqueous)	4 liters <sup>32</sup>	G (amber), Teflon-lined cap	Cool ≤6°C <sup>18</sup> ;	7 days until extraction <sup>39</sup>
Volatile Organics (VOA)	40 ml x 4 <sup>33</sup> A Trip blank (3 vials) must accompany all VOA samples	G (VOA vials), Teflon-lined septum	Cool ≤6°C <sup>18</sup> ; 0.1mL 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /125mL <sup>35</sup> ; and HCl to pH<2 <sup>38</sup> ; Leave no headspace in bottle. <sup>33</sup>	14 days (7 days <sup>40</sup> )
1,4-Dioxane	40 ml x 4 <sup>33</sup> A Trip blank (3 vials) must accompany all Dioxane samples	G (VOA vials), Teflon-lined septum	Cool ≤6°C <sup>18</sup> ; 0.1mL 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /125mL <sup>35</sup> ; Leave no headspace in bottle. <sup>33</sup>	7 days
TPH Gasoline Range	40 ml x 4 <sup>33</sup> A Trip blank (3 vials) must accompany all TPH samples	G (VOA vials), Teflon-lined septum	Cool ≤6°C <sup>18</sup> ; 0.1mL 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /125mL <sup>35</sup> ; and HCl to pH<2 <sup>38</sup> ; Leave no headspace in bottle. <sup>33</sup>	14 days (7 days <sup>40</sup> )

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**Footnotes:**

- 1 “P” is for polyethylene; “FP” is fluoropolymer (polytetrafluoroethylene (PTFE); Teflon®), or other fluoropolymer, unless stated otherwise in this Table II; “G” is glass; “PA” is any plastic that is made of a sterilizable material (polypropylene or other autoclavable plastic); “LDPE” is low density polyethylene.  
  
 Except where noted in this Table II and the method for the parameter, preserve each grab sample within 15 minutes of collection. For a composite sample collected with an automated sample (e.g., using a 24 hour composite sample; see 40 CFR 122.21(g)(7)(i) or 40 CFR part 403, appendix E), refrigerate the sample at ≤6 °C during collection unless specified otherwise in this Table II or in the method(s). For a composite sample to be split into separate aliquots for preservation and/or analysis, maintain the sample at ≤6 °C, unless specified otherwise in this Table II or in the method(s), until collection, splitting, and preservation is completed. Add the preservative to the sample container prior to sample collection when the preservative will not compromise the integrity of a grab sample, a composite sample, or aliquot split from a composite sample within 15 minutes of collection. If a composite measurement is required but a composite sample would compromise sample integrity, individual grab samples must be collected at prescribed time intervals (e.g., 4 samples over the course of a day, at 6 separately and the concentrations averaged. Alternatively, grab samples may be collected in the field and composited in the laboratory if the compositing procedure produces results equivalent to results produced by arithmetic averaging of results of analysis of individual grab samples. For examples of laboratory compositing procedures, see EPA Method 1664 Rev. A (oil and grease) and the procedures at 40 CFR 141.24(f)(14)(iv) and (v) (volatile organics).
- 2
- 3 When any sample is to be shipped by common carrier or sent via the U.S. Postal Service, 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. For the preservation requirement of Table II, 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 (HNO<sub>3</sub>) in water solutions at concentrations of 0.15% by weight or less (pH about 1.62 or greater); Sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) in water solutions at concentrations of 0.35% by weight or less (pH about 1.15 or greater); and Sodium hydroxide (NaOH) in water solutions at concentrations of 0.080% by weight or less (pH about 12.30 or less).
- 4 Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before the start of analysis and still be considered valid. Samples may be held for longer periods only if the permittee or monitoring laboratory have data on file to show that, for the specific types of samples under study, the analytes are stable for the longer time, and has received a variance from the Regional ATP Coordinator under § 136.3(e). For a grab sample, the holding time begins at the time of collection. For a composite sample collected with an automated sampler (e.g., using a 24 hour composite sampler; see 40 CFR 122.21(g)(7)(i) or 40 CFR part 403, appendix E), the holding time begins at the time of the end of collection of the composite sample. For a set of grab samples composited in the field or laboratory, the holding time begins at the time of collection of the last grab sample in the set. 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 it knows that a shorter time is necessary to maintain sample stability. See § 136.3(e) for details. The date and time of collection of an individual grab sample is the date and time at which the sample is collected. For a set of grab samples to be composited, and that are all collected on the same calendar date, the date of collection is the date on which the samples are collected. For a set of grab samples to be composited, and that are collected across two calendar dates, the date of collection is the dates of the two days; e.g., November 14–15. For a composite sample collected automatically on a given date, the date of collection is the date on which the sample is collected. For a composite sample collected automatically, and that is collected across two calendar dates, the date of collection is the dates of the two days; e.g., November 14–15. For static renewal toxicity tests, each grab or composite sample may also be used to prepare test solutions for renewal at 24 h, 48 h, and/or 72 h after first use, if stored at 0–6 °C, with minimum head space.
- 5 ASTM D7365–09a specifies treatment options for samples containing oxidants (e.g., chlorine) for cyanide analyses. Also, Section 9060A of Standard Methods for the Examination of Water and Wastewater (20th and 21st editions) addresses dechlorination procedures for microbiological analyses.
- 6 Sampling, preservation and mitigating interferences in water samples for analysis of cyanide are described in ASTM D7365–09a. There may be interferences that are not mitigated by the analytical test methods or D7365–09a. Any technique for removal or suppression of interference may be employed, provided the laboratory demonstrates that it more accurately measures cyanide through quality control measures described in the analytical test method. Any removal or suppression technique not described in D7365–09a or the analytical test method must be documented along with supporting data.
- 7 For dissolved metals, filter grab samples within 15 minutes of collection and before adding preservatives. For a composite sample collected with an automated sampler (e.g., using a 24 hour composite sampler; see 40 CFR 122.21(g)(7)(i) or 40 CFR part 403, appendix E), filter the sample within 15 minutes after completion of collection and before adding preservatives. If it is known or suspected that dissolved sample integrity will be compromised during collection of a composite sample collected automatically over time (e.g., by interchange of a metal between dissolved and suspended forms), collect and filter grab samples to be composited (footnote 2) in place of a composite sample collected automatically.
- 8 Guidance applies to samples to be analyzed by GC, LC, or GC/MS for specific compounds.
- 9 If the sample is not adjusted to pH 2, then the sample must be analyzed within seven days of sampling.
- 10 The pH adjustment is not required if acrolein will not be measured. Samples for acrolein receiving no pH adjustment must be analyzed within 3 days of sampling.

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11				When the extractable analytes of concern fall within a single chemical category, the specified preservative and maximum holding times should be observed for optimum safeguard of sample integrity (i.e., use all necessary preservatives and hold for the shortest time listed). When the analytes of concern fall within two or more chemical categories, the sample may be preserved by cooling to ≤6 °C, reducing residual chlorine with 0.008% sodium thiosulfate, storing in the dark, and adjusting the pH to 6–9; samples preserved in this manner may be held for seven days before extraction and for forty days after extraction. Exceptions to this optional preservation and holding time procedure are noted in footnote 5 (regarding the requirement for thiosulfate reduction), and footnotes 12, 13 (regarding the analysis of benzidine).
12				If 1,2 diphenylhydrazine is likely to be present, adjust the pH of the sample to 4.0 ± 0.2 to prevent rearrangement to benzidine.
13				Extracts may be stored up to 30 days at <0 °C.
14				For the analysis of diphenylnitrosamine, add 0.008% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> and adjust pH to 7–10 with NaOH within 24 hours of sampling.
15				The pH adjustment may be performed upon receipt at the laboratory and may be omitted if the samples are extracted within 72 hours of collection. For the analysis of aldrin, add 0.008% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> .
17				Samples collected for the determination of trace level mercury (<100 ng/L) using EPA Method 1631 must be collected in tightly capped fluoropolymer or glass bottles and preserved with BrCl or HCl solution within 48 hours of sample collection. The time to preservation may be extended to 28 days if a sample is oxidized in the sample bottle. A sample collected for dissolved trace level mercury should be filtered in the laboratory within 24 hours of the time of collection. However, if circumstances preclude overnight shipment, the sample should be filtered in a designated clean area in the field in accordance with procedures given in Method 1669. If sample integrity will not be maintained by shipment to and filtration in the laboratory, the sample must be filtered in a designated clean area in the field within the time period necessary to maintain sample integrity. A sample that has been collected for determination of total or dissolved trace level mercury must be analyzed within 90 days of sample collection.
18				Aqueous samples must be preserved at ≤6 °C, and should not be frozen unless data demonstrating that sample freezing does not adversely impact sample integrity is maintained on file and accepted as valid by the regulatory authority. Also, for purposes of NPDES monitoring, the specification of “≤ °C” is used in place of the “4 °C” and “<4 °C” sample temperature requirements listed in some methods. It is not necessary to measure the sample temperature to three significant figures (1/100th of 1 degree); rather, three significant figures are specified so that rounding down to 6 °C may not be used to meet the ≤6 °C requirement. The preservation temperature does not apply to samples that are analyzed immediately (less than 15 minutes).
19				An aqueous sample may be collected and shipped without acid preservation. However, acid must be added at least 24 hours before analysis to dissolve any metals that adsorb to the container walls. If the sample must be analyzed within 24 hours of collection, add the acid immediately (see footnote 2). Soil and sediment samples do not need to be preserved with acid. The allowances in this footnote supersede the preservation and holding time requirements in the approved metals methods.
20				To achieve the 28 day holding time, use the ammonium sulfate buffer solution specified in EPA Method 218.6. The allowance in this footnote supersedes preservation and holding time requirements in the approved hexavalent chromium methods, unless this supersession would compromise the measurement, in which case requirements in the method must be followed.
21				Holding time is calculated from time of sample collection to elution for samples shipped to the laboratory in bulk and calculated from the time of sample filtration to elution for samples filtered in the field.
22				Sample analysis should begin as soon as possible after receipt; sample incubation must be started no later than 8 hours from time of collection.
23				For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB–EC) or 1681 (A–1): Class A composted, Class B aerobically digested, and Class B anaerobically digested.
24				The immediate filtration requirement in orthophosphate measurement is to assess the dissolved or bio available form of orthophosphorus (i.e., that which passes through a 0.45 micron filter), hence the requirement to filter the sample immediately upon collection (i.e., within 15 minutes of collection).
25				Parameters grouped together (e.g., Nutrients), may be submitted in the same bottle.
26				48 hours is the maximum holding time; however, samples should be submitted to the Lab as soon as possible.
27				Use the 250ml wide-mouth sterile plastic bottles for all samples. All bottles contain sodium thiosulfate and must not be rinsed prior to sample collection.
28				To be NPDES-compliant, samples for coliform must be delivered to the laboratory within 6 hours of sample collection in order to meet the regulatory 8-hour hold time.
29				To be NPDES-compliant, pH analysis must be performed on site.
30				Add 0.6 g of ascorbic acid per 1-liter bottle only if sample contains residual chlorine; must be checked and treated for chlorine prior to pH adjustment.
31				Caution: Addition of excessive amounts of acid will interfere with the test procedures. Sulfuric acid (H <sub>2</sub> SO <sub>4</sub> ) preservative should be added using a graduated dispensing device, or from an ampule or vial containing pre-measured volume. Although the requirement is for pH<2, the ideal range for Nutrients is a sample pH of 1.5-2.0. For most surface water samples, this pH can be achieved by adding 2.0 ml of 1:3 (25%) H <sub>2</sub> SO <sub>4</sub> solution (or 1.0 ml of 1:1 (50%) H <sub>2</sub> SO <sub>4</sub> solution) to 500 ml of the water sample. Confirm pH using pH test strips.
32				In a glass container, submit a small quantity of the pure compound of any suspected material.
33				Fill the bottle to overflowing and cap, leaving no air space.
34				EPA Method 445.0, Revision 1.2, September 1997; modified filter kit.

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35				Should only be used in the presence of residual chlorine. Add sodium thiosulfate or ascorbic acid (as specified) to the container first; fill at least half way before adding acid (if used). If residual chlorine is detected in a water sample (generally effluent), then it is recommended that the 500ml water sample for Nutrients be de-chlorinated at the time of sample collection. The recommended de-chlorination reagent for Nutrients is sodium thiosulfate (dissolve 3.5 grams in deionized water, then dilute to 1 liter). One mL of this solution will remove 1mg/L of residual chlorine in a 500mL sample (prior to acid preservation).
36				Field filter using 0.45 um pore size.
37				The container types listed are those commonly used throughout the Division. Other container types may be acceptable. Please consult the laboratory about use of proper containers before deviating from those listed. (P-plastic, G-glass, P (disposable)-Plastic Disposable bottle)
38				Samples submitted for purgeable halocarbons only should not be acid-preserved.
39				Samples submitted for pesticide and acid herbicide analyses must be extracted within 72 hours of collection if the pH is not adjusted in the lab to a pH range of 5-9.
40				Samples submitted for purgeable aromatics with no pH adjustment must be analyzed within 7 days of collection.
41				The entire contents must be used for analysis.
42				For dissolved metals, samples should be filtered with a 0.45micron filter immediately on-site before adding preservative.
43				Samples are cooled to 6° C at the time of collection. Due to the limitations of filtering samples in the field, it is the DWR Water Sciences Section's policy to filter chlorophyll a samples the day that the samples are received at the lab, not to exceed 24 hours from collection. Filters can be stored frozen in the dark for as long as 3 and 1/2 weeks without significant loss of chlorophyll a.
44				Larger sample volumes may need to be submitted to achieve lower PQLs.
45				The QAO has a licensed copy of ASTM D7365-09a, which details sampling, preservation and mitigating interferences in water samples for analysis of Cyanide. Consult the Laboratory Quality Assurance Officer for mitigation instructions if any of the following interferences are suspect: sulfide, sulfur, aldehydes, sulfite, thiosulfate, thiocyanate, particulate cyanide, carbonate, nitrate-nitrite.
46				For pH adjustment of water samples for hexavalent chromium, use ammonium sulfate sample adjustment buffer solution provided by laboratory. Add 1 mL of buffer per 100 mL of sample. Confirm pH with narrow-range pH strip or pH meter.
47				Add 1 ml of Ferrous Ammonium Sulfate per bottle per 1-liter bottle only if sample contains residual chlorine; must be checked and treated for chlorine prior to pH adjustment.