

What's in a Sample Bottle Label Name?

The way you label your water samples tells EPA a lot about the sample. It also determines whether your sample results will be credited to your water system, or if you end up with a monitoring violation if the correct sampling location is not clearly indicated. Every year, around mid-February, EPA sends out the annual Monitoring and Reporting Requirements ("To Do" lists), along with a "schematic" of your water system. The schematic is an overly simplified, not-to-scale diagram of your water system. Instead of showing individual buildings and streets as your distribution system, it has a large pound sign or hash-tag, that looks like this #. There is also at least one red star and blue arrow indicating where a sample should be collected for Nitrate-Nitrite, other Inorganic Compounds (IOCs), Synthetic Organic Compounds (SOCs), Volatile Organic Compounds (VOCs), and Radionuclides (RADs) (if required). In most cases, this is NOT the sampling point for total coliform, disinfection byproducts, lead or copper. There is a note on the schematic that says "Sample Points (SP) shown on the schematic are **ONLY** for Nitrates, RADs, IOCs, SOCs, and VOCs. If you sample for other contaminants, please refer to your individual Site Sampling or Monitoring Plans."

The following article discusses labeling requirements **only** for total coliform, nitrate-nitrite, and triggered Ground Water Rule (TG GWR) samples. The information is applicable to all public water systems (PWSs) but there is no discussion on how to label samples for lead, copper, disinfection byproducts, chemicals, asbestos, radionuclides or any other parameters that may be required.

Nitrate/Nitrite Monitoring Location

If your system is required to sample for nitrate-nitrite per your Monitoring and Reporting Requirements, the sampling point on the schematic is marked as SPxx (i.e., SP01 or SP04) with a description of sample point location (i.e., storage tank). The EPA database will only accept samples labeled in this manner for nitrate-nitrite, other IOCs, SOCs, VOCs, and radionuclides. The SPxx designation tells EPA that a water sample was collected **AFTER** any water treatment processes and **BEFORE** it got to the first consumer and is from the location we call "the entry point to the distribution system". Please note that you may have more than one sampling point for nitrate-nitrite due to the number of entry points to the distribution system representing separate sources of water. Please use a certified lab of your choice to analyze the samples. It is the PWS' responsibility to make sure that the lab analyzing your sample(s) for compliance is State or EPA certified for the specific analyte and method being requested. Make sure the sampling point and sample point description (the SPxx number previously mentioned) is clearly noted on the lab's chain of custody or other form that is submitted with your water sample(s). This will ensure that the sample result is accurately recorded in the EPA database as a sample for compliance. Without the correct sample point location, your PWS will get a nitrate-nitrite failure to monitor (FTM) violation.

Total Coliform Monitoring Location

Total coliform water sample(s) must be labeled with a sample location name that clearly indicates that it is in the distribution system, preferably with the letters "DIST" and according to your Revised Total Coliform Rule (RTCR) Sample Siting Plan. For example, "men's restroom-DIST" or "DIST 123 Main St." Total coliform samples must be collected within the distribution system where the water is used (not at the storage tank or pump house). If you write on your sample bottle or laboratory chain of custody form that a total coliform sample was collected at SPxx the sample will be rejected and you will receive a total coliform failure to monitor (FTM) violation.

Ground Water Rule (GWR) (Source) Monitoring Locations

If your water source is a well or spring, you are required to collect a groundwater source sample at the well or spring if your PWS has a *routine* RTCR total coliform positive (TC+) result. Samples must be collected from all groundwater sources that were in use during the collection of the *routine* RTCR TC+ sample, and they must be analyzed for total coliforms and *E. coli*. If you have a surface water source this requirement does not apply to your PWS. If you purchase

water from another system this requirement does not apply to you either. However, you must notify the PWS that you purchase water from, so that they can take their source water sample to meet the GWR sampling requirement. Collect the source sample(s) at the groundwater source(s) (well or spring) BEFORE any treatment. You are required to have a designated sample tap at a location that allows testing from the water source. If there is no sample tap on your well(s), you may collect the source sample from the faucet or tank inlet closest to the well, and then install a more appropriate sample tap at the source. If your groundwater sources combine before treatment, you may take a combined source sample, but make sure to mark the sample location as “combined” and note the groundwater sources facility codes that were combined (e.g., Combined WL01, WL02, and WL03). This sample must be labeled as the Triggered Monitoring Ground Water Rule sample (or “TG GWR” for short). You must indicate that it is a source sample, or collected from the well or spring so that we know it is not one of the required RTCR repeat samples from the distribution system. Remember: this sample is only required if you use groundwater for your source water, and have a routine total coliform positive result.

What if SPxx and/or DIST and/or TG GWR are the same location?

What if your PWS does not have a way to collect a sample from the source (for the TG GWR), or from the entry point to the distribution system (for the SPxx for nitrate/nitrite)? Please discuss this situation with EPA, and EPA may designate the first tap within the distribution system as the same sampling location for all three water samples, the TG GWR, the nitrate-nitrite, and the total coliform routine sample. If this is the case, you will need to remember to label each sample bottle differently according to the naming conventions described above. Even though the sample location is the same, the EPA database will not accept samples that are labeled improperly.

If a nitrate-nitrite sample is labeled as being in the distribution system and says DIST, you will get a nitrate FTM violation. If the water sample from the same location is labeled as “TG GWR”, and you intended it to be a routine total coliform sample, it will not be accepted as such, and you will get a monthly total coliform FTM violation. If a total coliform sample is labeled as being from SPxx, you will get a total coliform FTM violation since the database will think the total coliform sample was collected from the entry point of the distribution system and not from the distribution system itself. Although it sounds confusing, if you print out your Monitoring and Reporting Requirements, and keep the form(s) with the correct sample point code(s) with your sample bottles, then you can always refer to it for the proper way to label your samples. We also recommend keeping your RTCR Sample Siting Plan close by so that you remember where to collect your sample(s) each month and the proper sample naming convention to write on your sample bottles and laboratory chain of custody.

If you do not have an agreement with your lab to send sample results to EPA, then please send ALL lab reports to R8DWU@EPA.GOV as soon as you receive them from the lab. You must include your public water system identification number (PWS ID# – begins with 08 or WY560 or WY568) and the contaminant that was analyzed in the subject line. If you are unsure which of your monitoring requirements you have fulfilled already, please take a look at your water system on Drinking Water Watch (<https://sdwizr8.epa.gov/Region8DWWPUB/>). Simply type in your PWS ID# to search for your water system. Click on your PWS ID# to bring up your water system profile. On the left hand side of the profile you will see an option to view the contaminants that were analyzed.

| EPA Regulation | Contaminant Analyzed | Physical Sample Location | Sample Site Name |
|-----------------------------|--------------------------------------|--|---|
| Nitrate-Nitrite Rule | Nitrate, Nitrite, or Nitrate-Nitrite | Entry point to the distribution system, after treatment* | Example: SP01 – storage tank, SP04 – pressure tank |
| Revised Total Coliform Rule | Total Coliform and <i>E. coli</i> | Within the distribution system* | Example: DIST – Men’s restroom, or DIST-123 Main Street |
| Ground Water Rule | <i>E. coli</i> | Directly from the well or spring, before treatment* | Example: TG GWR – WLO1 - source |

* If the sample location is the same for all 3 regulations please collect your samples and label each bottle according to the naming convention above.