

EPA 533 PFAS SAMPLE COLLECTION GUIDE

DRINKING WATER

The following instructions are provided by Microbac Laboratories as guidance for the collection of water samples and field blanks for PFAS analysis by EPA Method 533. Collection procedures are outlined in EPA Method 533 "Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography Tandem Mass Spectrometry," and should be reviewed by persons responsible for collecting samples.



SAMPLING PRECAUTIONS

- Avoid wearing clothing or boots containing Gore-Tex or materials made with Tyvek.
- Avoid using fabric softeners on clothing to be worn in the field.
- Avoid using cosmetics, moisturizers, sunscreens and insect repellants on the day of sampling.
- Do not use felt-tip pens, permanent markers or Sharpies. Only regular ball point pens are acceptable.
- Avoid plastic clipboards, binders or hard covers.
- Collect samples for PFAS first before any other samples collected since containers for other methods might have PFAS present.



BOTTLES

For each set of samples being collected, Microbac has provided the following:

- (4 ea) 250 ml sample bottles with ammonium acetate preservative
- (1 ea) 250 ml sample bottle unpreserved filled with PFAS free DI water. This is called FRB Water (field reagent blank water).
- (1 ea) 250 ml sample bottle with ammonium acetate preservative. This is called the FRB (field reagent blank).

A sample set is composed of samples collected from the same site/location at the same time.

EPA 533 PFAS SAMPLE COLLECTION GUIDE: COLLECTION PROCEDURE

01

WASH HANDS

Sampler must wash hands before wearing nitrile gloves to limit contamination during sampling.

02

COLLECT THE ENVIRONMENTAL SAMPLES

- Find the 4 x 250 mL sample bottles pre-preserved with ammonium acetate.
- Flush the cold water line for 5-10 minutes before filling bottles. Slow the water stream down and then fill bottles to the neck, making sure not to overfill containers or rinse containers of preservative.
- Invert sample bottles 5 times to mix well.
- Close containers securely. Indicate sampling date, time and site on the bottle labels and Chain of Custody.

03

COLLECT THE FIELD BLANK SAMPLE

- Find the filled 1 x 250 mL bottle labeled FRB Water and the empty 1 x 250 mL bottle labeled FRB. Open both containers and transfer contents of the FRB water container into the empty FRB container.
- Close containers securely. Both bottles must be returned to the laboratory.

04

PLACE BOTTLES IN COOLER

Place all bottles in a cooler filled with ice and/or ice packs and return to the laboratory. Samples must be kept < 10°C during first 48 hours after collection. Hold time is 28 days.



CHAIN OF CUSTODY FORM

The COC is used to document the Sample ID: Container ID relationship. Complete the COC information making certain to maintain the relationship between the Container ID and the Sample ID as described in step 2 of the Collection Procedure above.