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Fig 1. What's In the Box

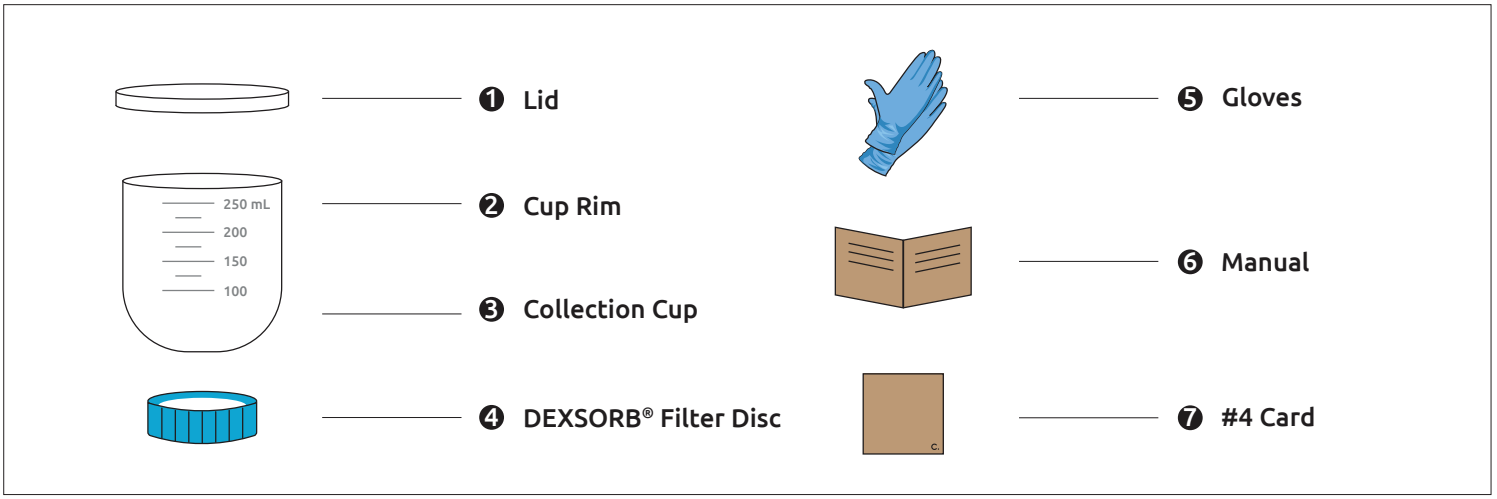
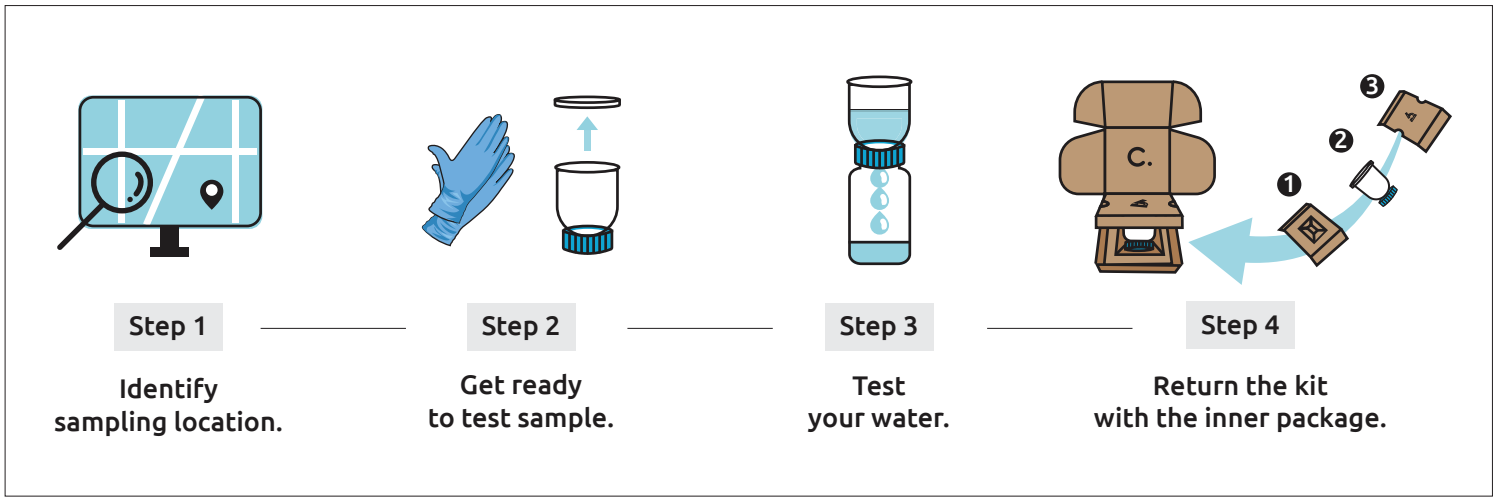


Fig 2. Sample Collection Process



- **Please fill water to the top of the cup.**
- **Place the cup back in the insert and cover with the top sleeve to protect the kit.**
- **Wear gloves at all times during testing, and try to avoid sediment as much as possible.**

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Cyclopure Water Test Kit Pro Instructions

There are 4 easy steps to sample water with Cyclopure's Water Test Kit Pro. Please read the instructions below and/or scan the QR code to the right to watch an instructional video.

Step 1. Identify your sampling location(s)

Where: Decide where you'd like to test your water. It could be your filtered or unfiltered tap water, well water, or surface water.

Step 2. Get ready to test your sample

Collection Cup: Take the collection cup out of the box and remove the lid. (Fig 1. ❶ ❸)

DEXSORB® Filter Disc: The DEXSORB® PFAS filter disc is located in the blue cup bottom. (Fig 1. ❹)

Gloves: Grab the included gloves to wear during testing. (Fig 1. ❺)

Step 3. Test your water

Wear gloves at all times during testing, and try to avoid sediment as much as possible.

Tap Water: Hold the cup upright and remove the clear lid. (Do not fill through the blue filter bottom!). Run water gently into the cup until its filled to the rim.

Surface Water: Dip cup in water and scoop up a cupful.

Drain: Hold the cup upright and allow water to drain through the DEXSORB® extraction disc. (This is when the PFAS extraction occurs). If draining takes longer than 20 minutes, follow instructions below for partial drain.

Partial Drain: Draining usually takes 20-30 minutes. Water with high turbidity can result in slow flow. If draining slows down or stops, mark the outside of the cup with a permanent marker to indicate the level of remaining water, and carefully dispose of the water inside the cup.

Step 4. Return

Sample Details: Answer the questions on the #4 Card and place in the box. (Fig 1.)●

Box it up: Gently shake out last drops so no water remains in the cup. Replace the lid, and fit the cup back in the box and cover with insert. (Fig 2. ❶ ❷ ❸)

Mailing: A prepaid, UPS return mailing label is included. Alternatively, you can print your own USPS return label by scanning the QR code to the right or visiting www.cyclopure.com/wtkreturns.

Results: We'll email you to confirm receipt of your kit back at the lab. Your results will be ready 10 BUSINESS days from receipt.

Q1. What is the Cyclopure Water Test Kit Pro?

Our Water Test Kit Pro is designed to test for 55 PFAS Analytes using a DEXSORB® loaded extraction disc in the bottom filter. Using DEXSORB®, we can accurately measure and quantify the presence of short and long chain PFAS in a convenient point of site, time-specific extraction method.

Q2. How are PFAS recovered and measured at the Cyclopure lab?

When the WTK is received, Cyclopure analytical chemists perform standard solid-phase extraction (SPE) to recover PFAS compounds collected in the DEXSORB® extraction disc. The eluted PFAS sample is subsequently analyzed on a HPLC-MS/MS (QExactive Orbitrap, ThermoFisher).
Analytical procedures use isotope dilution for PFAS measurement and quantification. The analysis of water samples has been validated to the requirements of EPA Methods 533, 537 and 1633 (draft), and follow instrument procedures for internal standardization and calibration.

How Cyclopure's WTK Pro Works!

1

A Returned WTK Pro

A potentially PFAS(•) - loaded extraction disc

2

Scientists run methanol amended with ammonium acetate through the cup. This solvent helps desorb (collect) the PFAS.

3

The scientists collect the resulting liquid and are able to run it through their analytical equipment (high resolution LCMS/MS) and quantify the amount of PFAS in your water!

Q3. How many PFAS compounds does Cyclopure test for?

Cyclopure tests for 55 PFAS structures, including 21 precursors and all PFAS listed under EPA Methods 533, 537 and 1633 draft.

Q4. What are the reporting limits of Cyclopure analytical methods?

The limit of quantification (LOQ) for all 55 PFAS tested under Cyclopure analytical methods is 1.0 ppt (ng/L) for all PFAS. Reporting limits have been validated to the accuracy criteria of EPA methods, including Minimum Reporting Limit (MRL) confirmation.

Q5. How is Cyclopure testing different?

Cyclopure testing for PFAS follows the same analytical methods as other commercial labs, and have been validated to EPA's Demonstration of Capability Quality Control Requirements.
Prior to analysis on HPLC-MS/MS, Cyclopure and other commercial labs process water samples using standard SPE methods to extract and recover PFAS.
The difference in methods is that other labs peform PFAS extractions in lab on water samples collected by customers, while Cyclopure customers perform PFAS extractions in the field using the company's DEXSORB®-loaded extraction disc. Field extraction avoids trip contamination; PFAS are adsorbed and securely locked into DEXSORB®'s cyclodextrin cups.

Q6. I notice that the collection cup is made of plastic. Will this affect my test results?

All components of the WTK are pre-conditioned and validated to be trace clean, analytical grade for accurate PFAS sampling, including the filter cup, glassfiber membranes, and the DEXSORB®-loaded PFAS extraction disc. No leaching of any other contaminants like plastics will occur during the PFAS sampling activities using our WTK.

Certified Container (filter cup)
Cyclopure WTK employs NalgeneTM Single Use Analytical Filter Funnels as the filter cup to house the DEXSORB® extraction disc. Made with highly rigid polypropylene and polystyrene, this filter cup by Thermo Fisher is sterilized, certified, and purposed for water analysis in full compliance with EPA methods.**Glassfiber Membranes**
Two 47-mm analytical grade glassfiber membranes are incorporated into the bottom of the WTK, before and after the DEXSORB® extraction disc. When water sample passes through the extraction disc, this unique design by Cyclopure provides a robust mechanical barrier, and prevents any possible particulates from getting into the DEXSORB® extraction disc and PFAS eluent sample.

DEXSORB® extraction disc
In addition, the highly selective PFAS extraction by our DEXSORB® media guarantees that other contaminates will not interfere with PFAS measurement. DEXSORB® media extracts PFAS from contaminated waters through a unique adsorption mechanism – host-guest complexations. This occurs in the uniform 0.78-nm hydrophobic cavities of DEXSORB®, which are ideally suited to PFAS through size-inclusion, and excluding other contaminants like plastic particulates that are too large to fit (size-exclusion).

Q7. Can I use Cyclopure's Water Test Kit Pro to test surface waters? For ex: a private well near a landfill.

Cyclopure's Water Test Kit Pro can be used with equal performance and accuracy for surface waters, well water and tap water. Sample collection follows the same procedure of passing 250 mL of water through the collection cup.

Q8. What PFAS testing methods does Cyclopure recommend or use? Is this method proven to be effective?

Cyclopure has developed its own PFAS test method using its DEXSORB® adsorbent. The method is consistent and highly accurate. It is used by homeowners to test their tap water, by environmental organizations like the Waterkeeper Alliance, Sierra Club and others to test surface waters, and it is recommended and used by Michigan State to monitor PFAS operations.

Q9. Is there an assessment of safety or risk?

There is a box in the lower right of the reports which notes EPA lifetime health advisory levels (HALs) for PFOA, PFOS, PFBS, and GenX. EPA has a detailed FAQ regarding its PFAS HALs that you can access by this link.

Q10. What does certified mean, or what is NELAP?

NELAP (National Environmental Laboratory Accreditation Program) was developed by the NELAC (National Environmental Laboratories Accreditation Conference) institute (TNI). This program is a national set of standards accredited at the state level that ensures laboratories across the United States use the same EPA testing methods. These testing methods establish practices and quality control requirements to laboratories analyzing environmental samples.
While Cyclopure is not NELAP certified, we take pride in being a water technology laboratory that provides drinking water solutions at an affordable price for everyone through extensive research and development. Our DEXSORB material allows for accurate point-of-site PFAS extraction making it unnecessary to ship water. We provide quality products and services while staying friendly to your wallet and following NELAP guidelines and practices in the lab according to EPA Methods 533,537 and 1633 draft.

Q11. How do I read my WTK Report?

What's In My Water?

Regulatory Information

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Water Test Kit Pro Results Report

To: Jane Doe **Date:** May 15, 2023

Thanks for testing your water with us! This report is water sampled from Chicago IL. PFAS detects are highlighted in yellow. Concentrations are in part per trillion (ppt). 1 ng/L = ppt. Limit of quantification is 1.0 ppt for all PFAS.

Kit# 1234. We found 2 PFAS in this water sample, with a total concentration of 12 ppt. The other 53 PFAS tested for measured non-detect.

Barcode	WTK_PFAS_1234
Name	Jane Doe
Location	Chicago IL 60614
Comments	Tap water from kitchen sink
Filtration	unfiltered
Sampling Date	5/1/23 12:00
Order Number	5678
PFBA	< 1.0 ppt
PFPeA	< 1.0 ppt
PFHxA	< 1.0 ppt
PFHpA	< 1.0 ppt
PFOA	19
PFNA	< 1.0 ppt
PFDA	< 1.0 ppt
GenX	< 1.0 ppt
PFBS	2
PFHxS	< 1.0 ppt
PFOS	< 1.0 ppt
Total PFAS (11 Compounds)	12

Our Lab Method

Back at the lab, PFAS compounds collected by the extraction disk are eluted and analyzed using isotope dilution HPLC-MS/MS.

Illinois PFAS Regulations

Illinois EPA is collecting PFAS to develop a state MCL (Maximum Contaminant Level). The State recently announced Health Advisories for six PFAS: PFOA - 2 ppt; PFOS - 14 ppt; PFBS - 2,100 ppt; PFNA - 21 ppt; PFHxS - 140 ppt; and PFHxA - 560,000 ppt.

EPA PFAS Regulations

EPA has proposed drinking water limits of for (i) PFOA (4.0 ppt) and PFOS (4.0 ppt) and (ii) the group of GenX, PFBS, PFNA, and PFHxS using a Hazard Index calculated from the individual PFAS measurement and an assigned health risk value. See link to Hazard Index calculation.

Cyclopure Inc 2430 N Halsted St, 4th Fl Chicago, IL 60614 Makers of Purefast Filters

- **Kit number/water sample number:** This number identifies your sample. It is also the barcode number that is on your cup and on the back of the box containing your kit.
- **Filtration status:** This is helpful in providing further insight into your sample. You may find this especially useful if you are comparing between multiple samples with different filtration statuses.
- **Comments:** Any additional information you write on your card will be visible in the "Comments" section.
- **Sampling location**
- **Total PFAS Concentration:** This number refers to the total concentration of PFAS detected in your sample in ppt.
- **Limit of quantification (LOQ):** The smallest value that we can reliably measure with our instruments. At Cyclopure, we have one of the lowest LOQs for PFAS testing!
- **Individual detected PFAS concentrations:** If PFAS was detected in your sample, the row will be highlighted in yellow. The column on the left will tell you which specific PFAS Analyte was detected while the column on the right will tell you the concentration of PFAS detected in ppt.
- Some states have set PFAS regulations or recommendations. You can read more about them by clicking the links in blue.
- The EPA has proposed drinking water limits for PFOA and PFOS at 4.0 ppt. They have also proposed regulations that can be calculated with a Hazard Index for a mixture of any of these 4 PFAS: GenX, PFBS, PFNA, and PFHxS. You can read more about the Hazard Index calculation by clicking the link in blue.