www.teklabinc.com

DRINKING WATER SAMPLE COLLECTION GUIDANCE FOR PER-AND POLY-FLUOROALKYL SUBSTANCES (PFAS) **Method 537.1**

Method 537.1 is a solid phase extraction (SPE) liquid chromatography/tandem mass spectrometry (LC/MS/MS) method for the determination of selected per- and polyfluorinated alkyl substances (PFAS) in drinking water.

Sample Collection, Preservation and Storage

- Bottle preparation
  - Sample must be collected in certified 250-ml Polypropylene bottle with a polypropylene screw cap.
  - Samples will be preserved with granular reagent called Trizma® , this is a buffering reagent and removes free chlorine.
- Sample Collection
  - The sample handler must wash their hands before sampling and wear Nitrile gloves while collecting and capping the bottle. PFAS contamination during sampling can come for a variety of sources, such as beverages, the lids of other containers and food packaging. To aid in the minimizing of accidental contamination, wash your hands and wear gloves.
  - Take any screen off of the faucet, allow water to run 3 to 5 minutes, collect samples from the flowing system.
  - PFAS sample should always be the first containers to be filled, other containers may have Teflon lips.
  - Container should be filled to the neck of the bottle, be sure not to flush out the preservative.
  - After collecting the sample, cap the bottle and shake the bottle with the sample until the preservative is dissolved.
- Field Reagent Blank
  - A Field Reagent Blank must be handled along with each sample set, a set is composed of samples collected from the same site during the same event. Teklab will provide a field blank sample bottle with reagent water and preservatives, with the sample bottles. For each Field Reagent Blank we will provide an empty sample bottle. At the sampling site, the sampler must pour the Field Reagent Blank into the empty shipper sample bottle, cap it and complete the label on the bottle. The Field Reagent Blank is shipped back to Teklab along with the samples and analyzed to ensure that PFAS were not introduced into the sample during sample collection/handling.

  - The same batch of preservation must be used for Field Reagent Blanks as for the samples being collected.
  - The Reagent water being used for the blanks will be initially analyzed and must meet the criteria specified in the method.
  - All bottles per set will be of the same lot.
- Sample Shipment and storage
  - Samples must be chilled to less than 6° C, the temperature will be confirmed when they arrive at the Lab.
  - The cooler should be sealed and the chain of custody must be enclosed in a zip lock bag with the samples.
- Sample and Extract Hold Time
  - SAMPLE AND EXTRACT HOLDING TIMES – Results of the sample storage stability study indicated that all compounds listed in this method have adequate stability for 14 days when collected, preserved, shipped and stored properly. Therefore, water samples should be extracted as soon as possible but must be extracted within 14 days. Extracts must be stored at room temperature and analyzed within 28 days after extraction.

Sample containers, coolers and chain of custody forms will be provided at no additional cost. We will provide PFAS-free plastic (HDPE) containers. We will provide PFAS free deionized laboratory water for field and equipment blanks when requested. Please provide 5 days' notice when requesting sample container kits.

Non-drinking water samples may require modification to the method.

Matrix	Analysis	Lab-Certified HDPE Container	Count	
Drinking Water	PFAS 533	250mL with 1g/L Ammonium Acetate	2	Field blank per method
Drinking Water	PFAS 537.1	250mL with 5g/L Trizma	2	Field blank per method
Wastewater*	PFAS 1633	250mL Plastic, Unpreserved 500mL Plastic, Unpreserved	2 2	
Ground Water*	PFAS 1633	250mL Plastic, Unpreserved 500mL Plastic Unpreserved	2 2	
Leachate*	PFAS 1633	100mL Plastic, Unpreserved	2	

- *An additional 125 ml plastic bottle will be supplied for TSS analysis per method 1633
- *Let you project manager know if the sample will have suspended solids greater than 10%.

Instrumentation:

Solid Phase Extraction (SPE) and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)