

## Typical Questions for Per- and polyfluoroalkyl substances (PFAS) Analysis

PFAS are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals.

### How much sample is needed for analysis?

#### Drinking Water

GEL requests 2 x 250ml HDPE. Samples are preserved with Trizma for EPA method 537.1 and are preserved with ammonium acetate for EPA method 533.

#### Groundwater and Wastewater

GEL requests 2 x 250ml HDPE containers and 5mls in a screening vial. The screening vial is necessary if PFAS concentration is unknown to help protect our instruments.

#### Solids including soils, vegetation, food products, other consumer products

Approximately 10g of solid material is requested. A second container for percent moisture should be sent for soils that are to be reported on a dry weight basis. All other solids are reported as received unless there is client direction to report differently.

#### AFFF

Approximately 5ml is requested.

### What is the holding time for analysis?

Drinking Water samples must be extracted within 14 days of collection and analyzed within 28 days after extraction. GEL applied the same holding time to all other waters received for PFAS analysis. Solid samples must be extracted and analyzed within 28 days. AFFF does not have an assigned holding time.

### What are the field QC recommendations?

#### Field Reagent Blanks (FRB)

Both drinking water methods (EPA 537.1 and EPA 533) have a **requirement** to collect a FRB. A FRB is an aliquot of PFAS-free water transferred to an empty container in the field. The PFAS-free water containers the appropriate preservative per reporting method. The FRB data is to determine if any method analytes or other interferences are present in the field environment. Many PFAS guidance resources being developed encourage FRB.

#### Equipment Blanks (EB)

EBs are recommended for sampling equipment due to the widespread commercial use of PFAS products.

### Other Sampling Guidance?

Use Nitrile gloves for sample collection. Fill the PFAS sample containers before any other container for other analyses at the same sampling point. Do not touch the inside of the cap or around the edge of the bottle. Do not place the cap on any surface when collecting the sample. Place PFAS containers inside a ziplock bag separate from other containers when collection is complete.

GEL highly recommends reviewing the documents on the Interstate Technology Regulatory Council (ITRC) website prior to sampling: <https://pfas-1.itrcweb.org/fact-sheets/>. The document "Site Characterization Considerations, Sampling Precautions, and Laboratory Analytical Methods" contains a list of materials to use and avoid during sampling.

The EPA website also has a Technical Brief issued February 2019 for PFAS test methods and sampling guidance: [https://www.epa.gov/sites/production/files/2019-02/documents/pfas\\_methods\\_tech\\_brief\\_28feb19\\_update.pdf](https://www.epa.gov/sites/production/files/2019-02/documents/pfas_methods_tech_brief_28feb19_update.pdf)

## Typical Questions for PFAS Analysis

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### How do I ship the samples to GEL?

Samples should be shipped to GEL in coolers with wet ice. Waters are required to be less than 10°C if received within 48 hours of collection. Otherwise, they must be less than 6°C. Solids should be received less than 6°C. All samples need to be clearly labeled and a completed and signed Chain of Custody should be included in the shipment.

Deliver direct or ship via FedEx or UPS to the attention of your project manager or Sample Receiving at:

**GEL Laboratories, LLC**  
**2040 Savage Road**  
**Charleston, SC 29407**  
**Phone: (843) 556-8171**