

***** Technical Fact Sheet *****
Sampling for Volatile Organic Analytes

40 ml VOA vials with Teflon lined septa caps are used for collecting water samples for volatile organic analyses. There are several techniques used for collecting soil samples including the use of brass or stainless steel tubes, glass jars, or EnCore sampling devices. When more than one analyses is being performed on a solid or soil samples, it is highly recommended that a separate container be provided specifically for the volatiles analyses.

All containers provided are pre-cleaned to EPA standards. Do not open the VOA vial or glass jar until ready to collect the samples.

Collecting Water Samples:

1. Carefully open the VOA when ready to sample, removing the cap and septum together.
2. Fill the VOA without turbulence until a meniscus forms and then tightly replace the cap. Do NOT overflow the VOA or rinse it out. The VOA contains HCl as a preservative. Turn the sample upside down to be certain that there are no air bubbles in the sample. No air bubbles should be in sample. If bubbles are present repeat steps 1 and 2.
3. Always collect two VOA vials per sample and ensure that they are correctly labeled. The samples indicated on the chain-of-custody must match up with samples delivered to the lab.
4. Samples must be kept cold on ice and delivered to the laboratory as soon as possible.

Warnings:

- Do not use dry ice, as it tends to cause samples to break. Blue ice is preferred. If no blue ice is available use water ice cubes contained in ziplock or plastic bags, so that as the ice melts the samples do not float in the water. (Samples floating in water can easily become contaminated or cross-contaminated).
- Do not use black electrical tape or duct tape on jars. Research has indicated that sealing lids to samples with black electrical tape may cause false positive results for certain organic compounds.
- If you mark on volatile containers with indelible ink, such as a Sharpie pen, be sure to do so after sampling and sealing the lid tightly. This ink contains organic compounds, which may diffuse into the sample and cause false positive results for those compounds if the container is not tightly closed during ink use.

When analyzing for volatiles, it is always wise to include a trip-blank sample. A trip-blank is an analyte free water that accompanies your analytical samples. If you suspect that the samples were contaminated during transport or during laboratory procedures then you would expect to see the same contamination present in the trip-blank.

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