

Large On-Site Sewage System Sampling Effluent in a LOSS

This document provides a general procedure for sampling effluent from a Large On-site Sewage System (LOSS). This is meant to provide information to LOSS owners who have sampling requirements on their operating permit. Your sampling schedule is included in your permit.

CONTACT A CERTIFIED LABORATORY

The first step is to contact a laboratory certified to test wastewater for parameters in your LOSS Operating Permit. The laboratory will send you sample bottles, labels, and a chain of custody form.

The lab will also notify you of any holding times that apply to your samples. If you do not know of a certified laboratory, contact the Department of Health for a list of certified laboratories in your area.

DETERMINE SAMPLE TIME AND LOCATION

Your permit lists when samples must be taken and where they should be taken from. Usually, sample location will be in the last tank or at the last accessible point before effluent discharges to a drainfield.

Your permit will also state when during the year your sample should be taken. Be sure to take your sample when the LOSS is in use. For churches or schools, this may mean specific days and specific times. Check with your lab on the best day to deliver your samples. This might influence the cost of analysis.

PREPARE SAMPLE BOTTLES

Make sure you have all the sampling equipment you need before you go to the field. It is best to prepare sample labels before you leave to go to the field. Make sure each label has the LOSS name, sample number, and date. Use a waterproof marker and secure the label with a clear piece of tape.

HAVE THE RIGHT EQUIPMENT

Equipment you will need to bring to the field includes sample bottles with labels, ziplock bags, custody form, ice chest with ice, tool for gathering the sample from the tank, funnel to fill the sample bottle, logbook, decontamination materials (towels/rags, soap, deionized water) and all the tools you need to safely access the tank to take your sample.

DECONTAMINATE

Sampling equipment must be cleaned prior to sampling, in between sample locations, and on completion of each sampling event. Decontamination steps include:

- Remove gross contamination by brushing or wiping off equipment.
- Scrub with Alconox or an equivalent soap.
- Rinse with deionized water.
- Rinse all gross contamination and rinse water back into the tank or pump chamber or contain and dispose of properly.
- Allow equipment to air dry.

TAKE YOUR SAMPLE

This general grab sample method is for CBOD₅, BOD₅, TSS, O&G, and Nitrogen. Taking samples from your specific LOSS may require different steps.

- Decontaminate sample equipment prior to use.
- Prepare sample label(s).
- Do not rinse sample bottles.
- Avoid touching the neck or inside your bottle especially if you are sampling for fecal coliform.
- Locate the pump chamber per the diagram in Section 3.0.
- Remove the pump chamber lid and set aside.
- Use a dipstick with an attached container to grab a sample.
 - a. Collect samples where the wastewater appears to be well mixed.
 - b. Avoid floating materials, debris, and particles larger than ¼-inch in the sample.
- Use a funnel to pour the sample into the sample bottle. Do not overfill bottles.
- Wipe off the bottle, close, and attach completed label. Cover the label with clear tape.
- Place the sample bottle in a ziplock bag to protect the label.
- Immediately place samples in a cooler with ice.
- Repeat this procedure for all samples.
- Decontaminate sample equipment.
- When all samples are collected, put pump chamber lid back in place and secure.
- Fill out field logbook.
- Review sample holding times and prepare for transport.

DELIVER THE SAMPLE TO A CERTIFIED LAB

All samples must be transported in a way that the sample remains unchanged until analyzed.

You must include a chain of custody forms with your sample. The laboratory will tell you how quickly your samples must be delivered to the lab for the sample to remain valid. Some labs provide a courier service or drop-off location at no additional cost.

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