

What to Expect During Vapor Intrusion Sampling



The sampling procedure for vapor intrusion is performed by health and environmental professionals. It involves drilling one or more small holes into the basement or lowest level of your building, collecting a vapor sample from those holes - also called ports - and then sending the sample to a specialized lab for analysis. This is called sub-slab sampling. Sampling professionals try to minimize any inconveniences to you by informing you up front on what to expect and working with your schedule on the days of sampling.

Vapor sampling provides information about the extent of potential contamination in your neighborhood.

Should I be on site for the sampling?

It's up to you. Sampling professionals will need to be let in to install the testing equipment and collect the samples. The arrangements you make are completely dependent on your availability and comfort level with others on your property.

How many times will sampling professionals enter my property, and how is sampling done?

In general, you should plan on two or three visits over two or three days. While the actual sampling procedure and schedule may vary, the following provides a typical approach:

Day 1: The first day includes locating suitable locations for port installation, then drilling and installing the ports. This usually takes about an hour or two.

Day 2: The second day involves attaching the collection canister to the port to begin collecting the samples. A 24-hour indoor air sampling kit may also be set up. This visit will also take an hour or two.

Day 3: The third day is a shorter visit to gather all of the sampling equipment and seal off the ports. Sometimes the port site is left in place in case samples may need to be collected in the future.

Why not take indoor air samples instead of sub-slab samples?

Indoor air quality often changes from day to day, creating misleading assumptions about long-term indoor air quality. Indoor air quality may be affected by vapors given off by household or commercial products including paints, glues, fuels, cleaners, cigarette smoke, aerosol sprays, new carpeting or furniture. Also, any outdoor air that enters the inside of your house may also contain vapors which can alter test results. By itself, indoor air testing will not necessarily confirm that the vapors in the indoor air are entering a building from underground sources. However, indoor air samples are usually collected at the same time as the sub-slab samples for comparison purposes.



What if there is a crawl space instead of a basement?

If there is a crawl space or a basement with a dirt floor, it is not possible to install a port. In these cases, a sample of air is collected from the crawl space or basement over a 24 hour period. Sometimes a port can be installed in the side wall of the foundation.

Who pays for testing, and when will I get the results?

In many cases, the responsible party (the person or business legally obligated to investigate and clean up the environmental contamination) pays for the testing. The responsible party may also pay for the installation of a mitigation system if it is necessary. Sometimes, other parties such as DNR or the Dept. of Health may pay for testing. As long as the property owner provides reasonable and timely access for testing, rarely would they be responsible for the cost.

The laboratory results are usually available in two to four weeks and will be shared with you through a state or local health agency, the Wisconsin DNR, the responsible party or a hired consultant. An explanation of the findings and additional steps to be taken, if any, will also be provided.



A sub-slab vapor sampling system is usually in place for a day or two during the sampling process. The metal canisters (foreground) collect the vapor sample from the port (smaller canister in back of photo). The same canisters can be used to collect indoor air samples.

Where can I find more information?

Health and vapor-related information can be found at the Wisconsin Department of Health Services (DHS) website at dhs.wisconsin.gov, search “Vapor.” For other health-related questions, please contact your local health department: www.dhs.wisconsin.gov/localhealth.

For more DNR information, please visit the DNR’s Remediation and Redevelopment (RR) Program’s Vapor Intrusion page at dnr.wi.gov/topic/Brownfields/Vapor.html.

Additional information can be obtained through the DNR field office in your region. To find the correct office, visit the RR Program Staff Contacts page at dnr.wi.gov/topic/Brownfields/Contact.html or call the RR Program at (608) 266-2111.

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.