

Sub-Slab Soil Gas Sampling

Step by Step



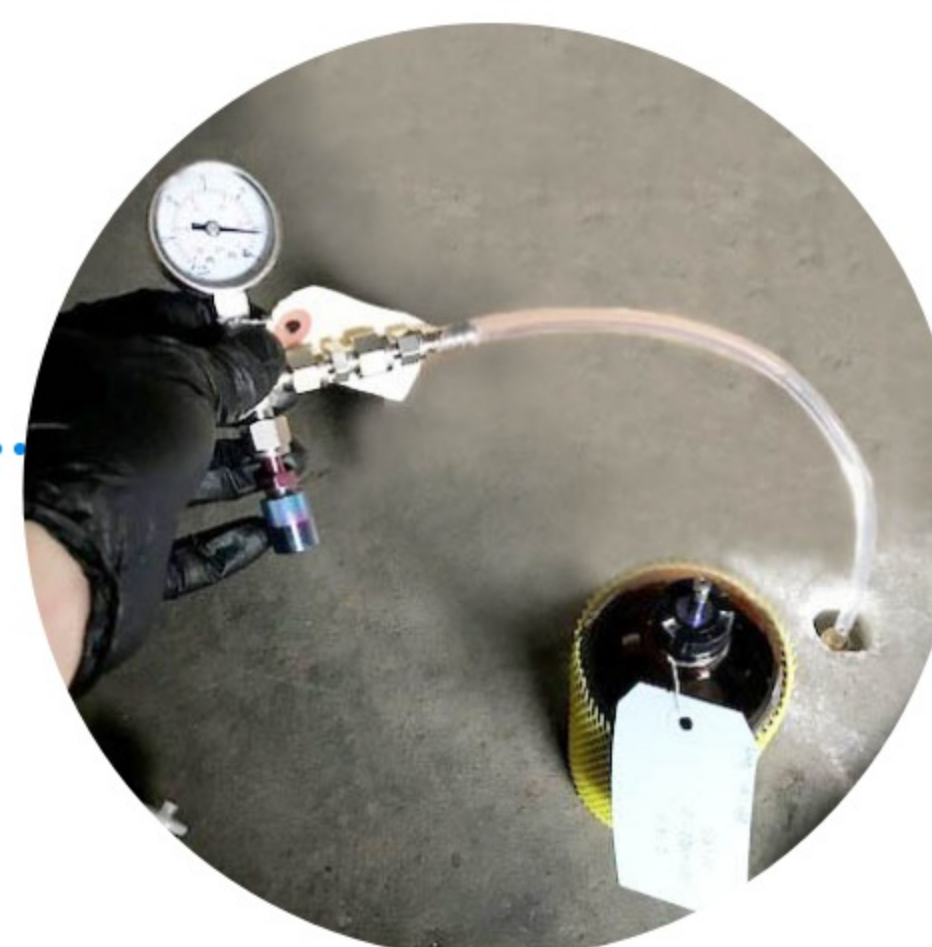
1 Drilling

On the ground floor of a building, holes are drilled through the floor slab into the soil. These holes are usually placed 1 per every 1,500 sq. ft (with a minimum of 2 per site).



2 Insert Sample Point

A soil gas sample point (similar to a well, but for vapor) is inserted into the opening. A cap enables it to be opened and closed for periodic testing to determine long-term risk.



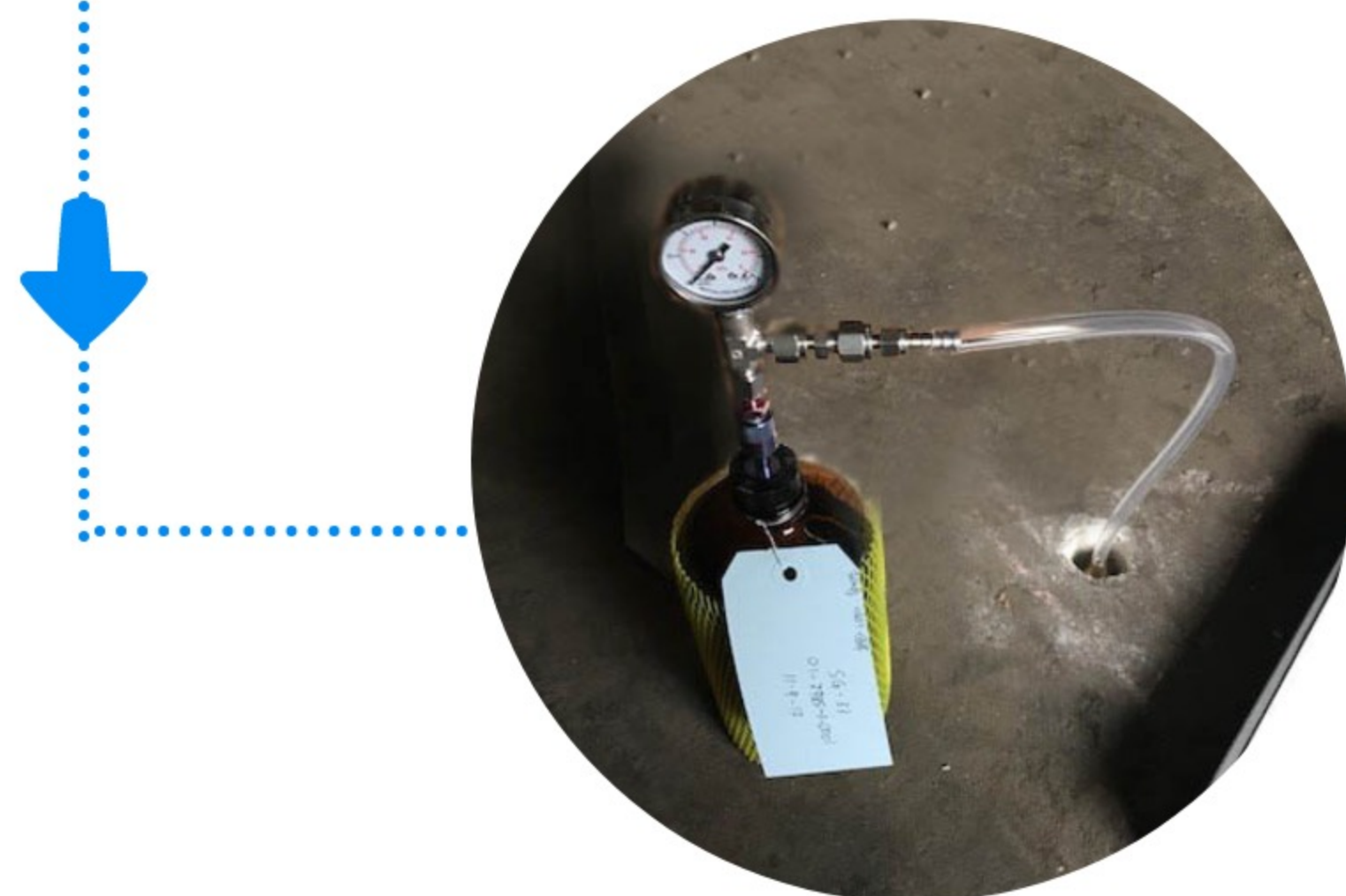
3 Connecting points

The sample bottle is connected to the sample point with clean tubing so soil gas can be collected.



4 Integrity Testing

Before collecting a sample, a large (usually plastic or metal) shroud is placed over the entire unit and filled with helium. The air is then sucked out of the sample lines to test them for leaks (if there is helium in the sample bottle, there are leaks).



5 Getting Samples

Sub-slab soil gas vapor is sampled using a 200 milliliter/minute regulator (i.e. vapor flows through the tube at 200 milliliters per minute, taking 5 minutes to fill up a one liter bottle).



6 Lab

The contents of the sample bottle are then taken to an accredited lab and results are provided within 7 to 14 days.



7 Evaluating

Sub-slab soil gas sample results are compared to vapor intrusion screening levels to estimate potential risk and assist with mitigation decisions, if necessary.