



## **Analytical Laboratories, INC.**

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### **Viabie Mold Surface Sampling Protocol to Assess Effectiveness of UV-HVAC Treatment System**

The surface sampling protocol suggested below can be used to produce a qualitative assessment (heavy growth vs. little or no growth) of viable mold on common HVAC components. The goal of the testing is to confirm a decrease or complete halt in viable mold activity, and is not intended to provide detailed information regarding the species of mold(s) present.

#### **Equipment Needed**

Sterile, pre-packaged Buffer Swabs

#### **Sampling Procedures**

1. HVAC system should be shut down prior to sampling, and air flow through the system stopped
2. Enter either side or both sides of the cooling coil with a minimum of two swabs. Keep swabs sealed until sample is collected. Gloves should be worn, and movement when inside the HVAC system kept to a minimum in order to reduce the possibility of cross contamination
3. If sampling surface is dry wet the tip of the swab prior to sample collection with the buffer solution inside the wand. If surface is wet, no prior wetting will be necessary. Touch the swab to the sampling area, making sure full contact is made. Determining the approximate surface area of the sample is helpful but not required. Place swab back into the holder, assuring a good seal. Repeat procedure on the opposite side of the coil. Label each sample with a unique identifier, including its location, being specific so the location can be duplicated when conducting follow up sampling. (THIS IS VERY IMPORTANT)
4. Repeat Step 3 in/on the drip pan
5. Submit samples to laboratory for incubation and analysis. If the recommended sampling protocol is followed, the number of colony forming units per sample can be determined and sample points evaluated over time.  
(An AIHA accredited laboratory should be used to incubate and evaluate samples)

Repeat the above procedure after 10, 20, and 30 days of UV system operation. The results of the pre treatment samples are compared with the post treatment samples showing a significant decrease in viable mold growth.

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- This sampling protocol was developed for Ultravation by EMSL Analytical Services, Inc.
  - Please contact Jim Eberts (800-220-3675 x 1205) at EMSL for technical questions, pricing, and supplies.
  - EMSL provides sterile buffer swabs for surface sampling at no charge