Surface Contamination Test Results

Collected by George Henderson

Air Restore U.S.A.

Air Naturalizer

Adenosine Triphosphate

Adenosine Triphosphate (ATP) is an energy bearing molecule found in all animal, plant, bacteria, viruses, yeast, and mold cells. ATP provides energy for many metabolic processes.

My methodology of determining the presence of ATP is to use the Ultrasnap ATP swab with Hygiena ATP Hygiene Monitoring System. When ATP is brought into contact with the unique liquid-stable luciferase/luciferin reagent within the Ultrasnap sampling device, light is emitted in direct proportion to the amount of ATP present. The Hygiena instrument measures the amount of light generated and provides information on the level of contamination within seconds.

The health care recommended standards for ATP are as follows:

0-10 Non-contaminated (clean).
11-29 Warning, surface not adequately clean.

30-plus Surface considered contaminated.

In conclusion, if a reduction of ATP is detected after exposing area to the Air Restore equipment, there must also be a reduction of bacteria, viruses, yeast and mold cells.

This is attributed to the production of Hydroxyls which react with other compounds to accomplish the process of elimination.

Creation Research Society Quarterly Journal

ATP: The Perfect Energy Currency for the Cell

In order to function, every machine requires specific parts such as the screws, springs, cams, gears and pulleys. Likewise, all biological machines must have many well-engineered parts to work. Examples include units called organs such as the liver, kidneys, and heart. These complex life units are made from still smaller parts called cells which in turn are constructed from smaller machines known as organelles. Cell organelles include mitochondria, Golgi complexes, microtubules and centrioles. Even below this level are other parts so small that they are formally classified as macromolecules (large molecules).

A critically important macromolecule—arguably "second in importance only to DNA"—is ATP. ATP is a complex nanomachine that serves as the primary energy currency of the cell (Trefil, 1992). A nanomachine is a complex precision microscopic-sized machine that fits the standard definition of a machine. ATP is the "most widely distributed high-energy compound within the human body" (Ritter, 1996). This ubiquitous molecule is "used to build complex molecules, contract muscles, generate electricity in nerves and light fireflies". All fuel sources of Nature, all foodstuffs of living things, produce ATP, which in turn powers virtually every activity of the cell and organism. Imagine the metabolic confusion if this were not so: "Each of the diverse foodstuffs would generate different energy currencies and each of the great variety of cellular functions would have to trade in its unique currency" (Komberg, 1989).

ATP is an abbreviation for Adenosine Triphosphate, a complex molecule that contains the nucleoside adenosine and a tail consisting of three phosphates. As far as known, all organisms from the simplest bacteria to humans use ATP as their primary energy currency. The energy level is just the right amount for most biological reactions. Nutrients contain energy in low-energy covalent bonds which are not very useful to do most kinds of work in the cells.

Cells function on energy. Chemical energy comes from breaking chemical bonds that bond molecules. ATP is a complex molecule useful as an energy source. As energy changes form, it will always be in the direction of a less useable form. When glucose changes into ATP, which is a more usable form, it still changes into a less useable form because not all of the energy becomes ATP, as some of it will become heat.

The absence of ATP will result in cell destruction and therefore the elimination of bacteria, viruses, mold spores and yeast due to the molecular structure.

Collection of Surface Samples

- Surface samples collected using Hygiena UltraSnap swabs. (ATP)

Collection of sample to determine contamination

Initial sample collected inside A/C vent. Before treatment

Contamination count 15

System Sure instrument designed to analyze the UltraSnap ATP swab.

Collecting samples from dash

UltraSnap ATP swab.

Collecting surface sample from switches

Same swab as previous sample.

Collecting sample from door release/pull area

Same swab as pervious collection samples.

Contamination Count 09

Total contamination from 3 different locations.

After 16 Hours of Operation

Air Restore Air Naturlizer

Second set of surface samples

After exposure to Air Naturalizer sample collected at A/C vent.

Contamination Count Zero

No ATP detected in sample. Original sample reading was 15.

Surface sample of dash area

Additional areas of collection for contamination.

Collection of surface sample

Same swab as in previous collection area.

Surface sample collection

Same swab as in first two collection areas.

Additional surface sample collection

Same swab as used in the three previous samples.

Last surface sample of dash area.

Same swab as used in previous samples.

Contamination Count Zero

Total ATP detected in swab from all dash collection sites. Original sample reading was 09.

Surface sample collected from door release/pull area

First random surface sample collected using same swab.

Surface sample of switches

Second random surface sample using same swab.

Additional surface sample

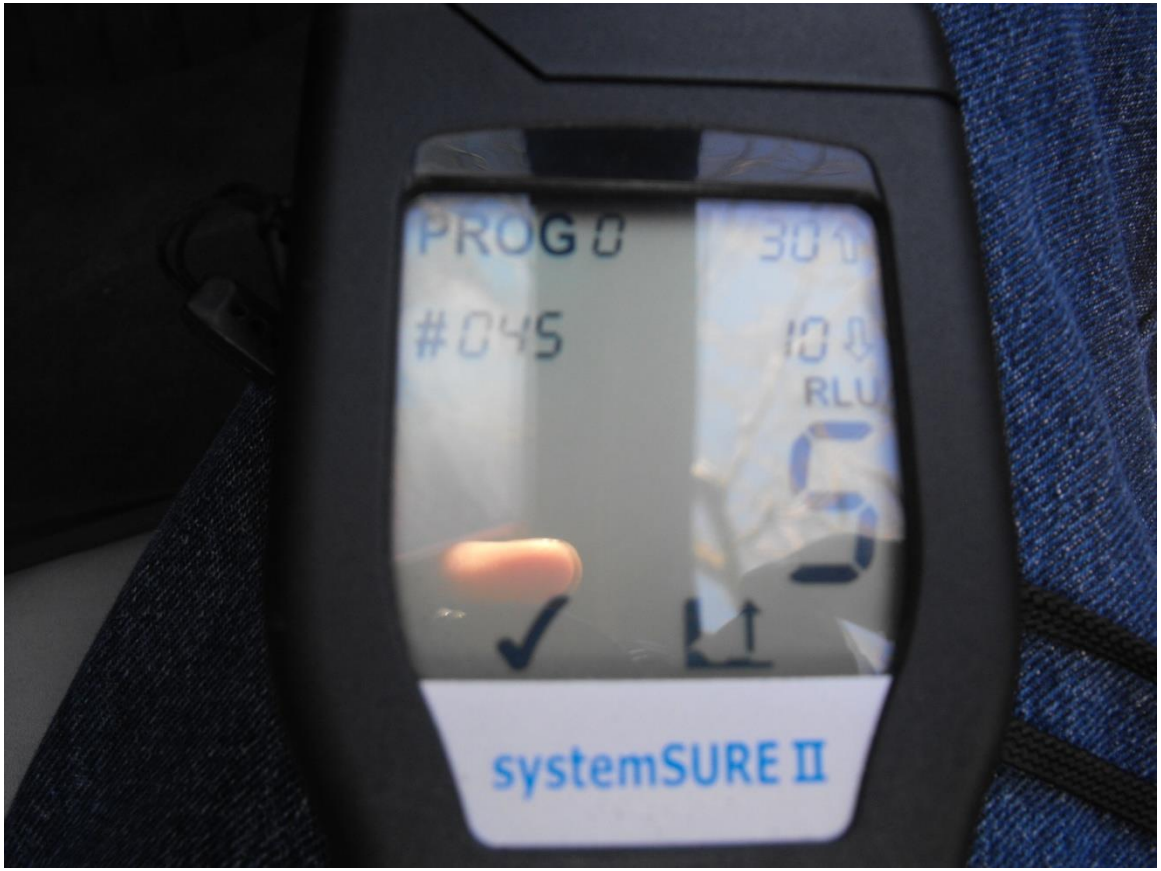
Same swab as in previous samples.

Collection of random surface sample on radio

Same swab as in previous samples.

Last random collection of surface samples

Same swab as used in previous samples.



Contamination Count 05

Total ATP detected from all random surface samples collected after area exposed to Air Naturalizer for 16 hours.

Air Naturalizer Inside Occupied Space

A 980 square foot mobile home occupied by one adult lady and one small dog. Originally installed two Air Naturalizes set on medium.

Collecting surface sample from A/C return grill

Using an UltraSnap swab to collect amount of ATP in grill.

Contamination Count 47

Amount of ATP detected in grill sample.

Surface sample on living room wall mirror

Photo of results did not develop. Results were 207 counts of ATP.

Collection of surface sample on ledge in master bathroom

Photo of results did not develop. Results were 137 counts of ATP detected.

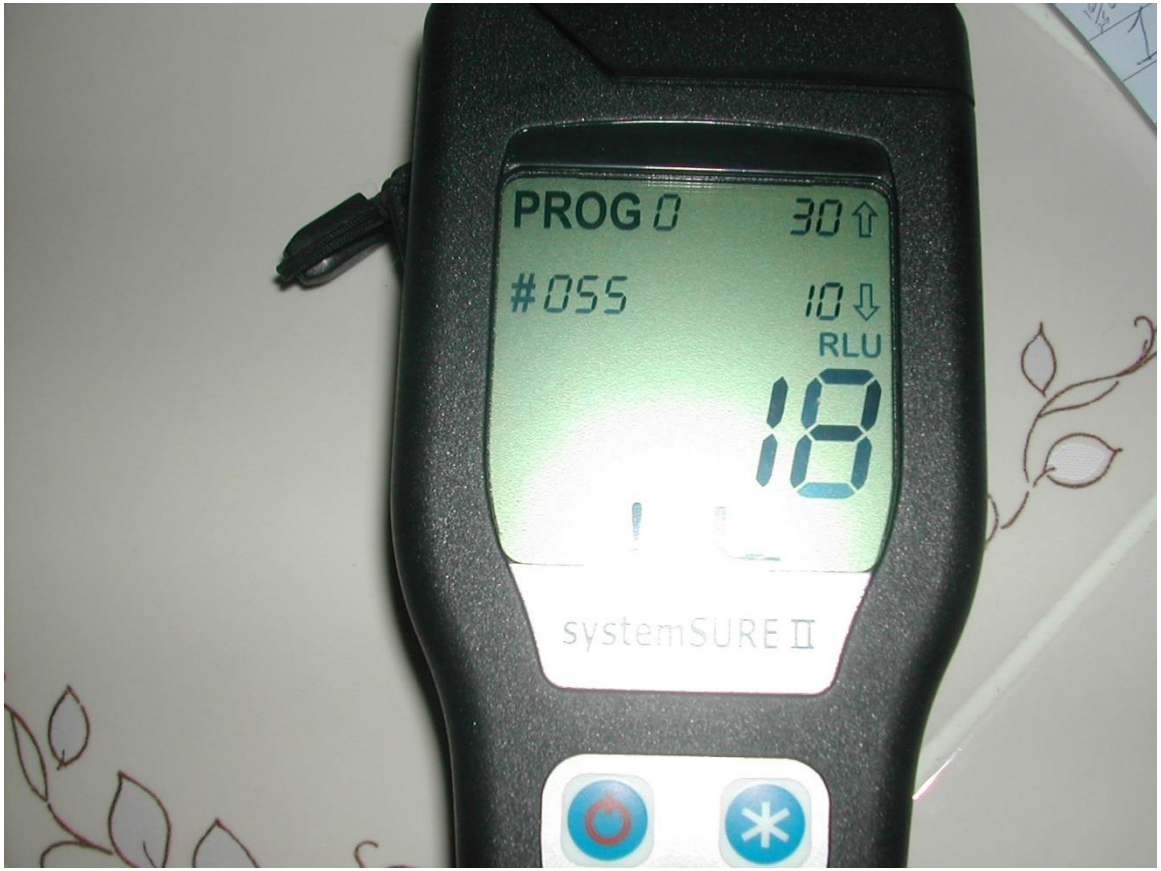
Air Naturalizer

Results after 7 days of exposure.

After completion of test period one Air Naturalizer set on medium was left in place.

Collection of surface sample after 7 days of exposure to Air Naturalizer

Using UltraSnap swab to collect contamination.



Contamination Count 18

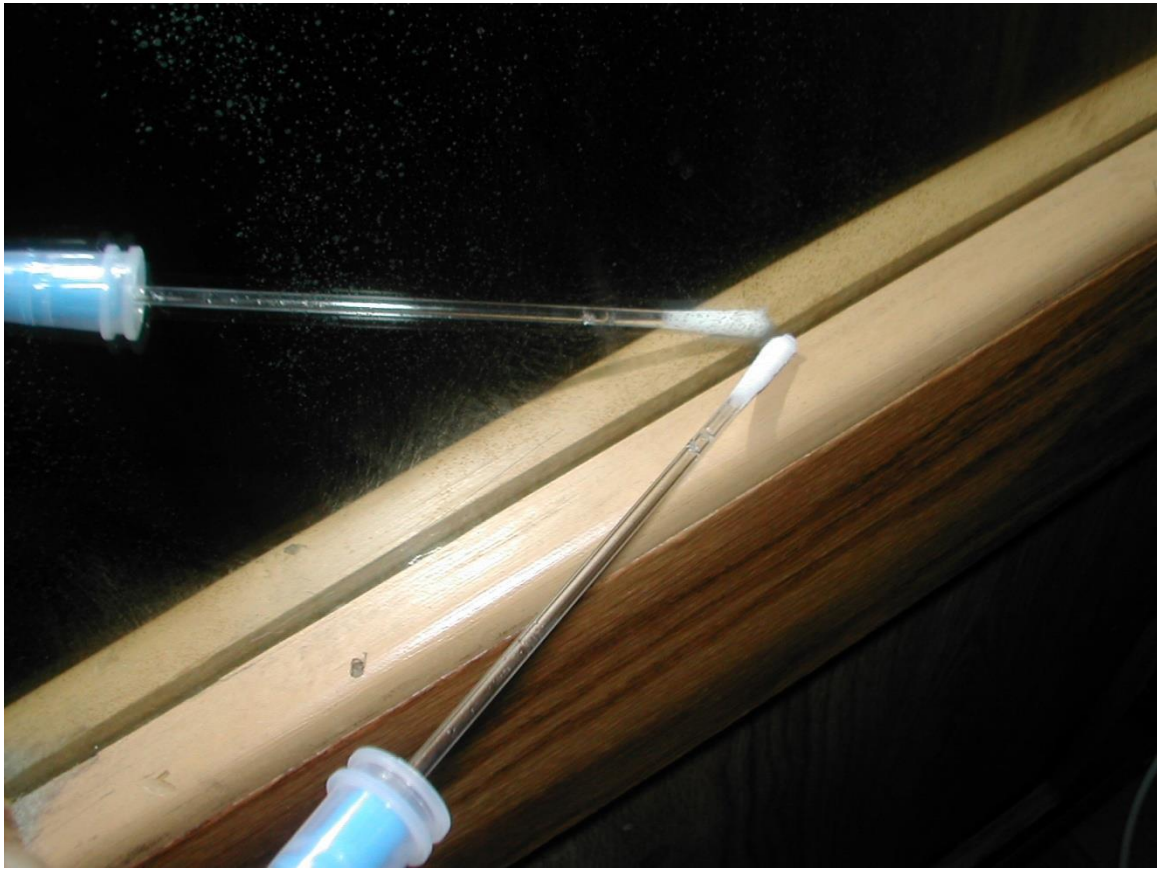
Initial contamination count from A/C grill was 47. After 7 days count was 18.

Collection of surface sample on ledge in master bathroom

Using UltraSnap swab to collect contamination.

Contamination Count 01

Initial contamination count from ledge in master bathroom was 136.
After 7 days cont was 01.



Collecting contamination from mirror on living room wall

Using UltraSnap swab to collect contamination.

Contamination Count 03

Initial count from mirror on wall in living room was 207. after 7 days count was 03.

Air Naturalizer in Occupied Space

A 600 square foot Assisted Living Area at Elderly Care Center

Occupied by one elderly lady 89 years of age.
One Air Naturalizer installed and set on low.

Collection of surface sample from night stand next to bed

UltraSnap swab used to collect sample for ATP detection.

Contamination Count 32

Initial count of ATP collected on surface of night stand.

Collection of surface sample from paper towel dispenser in bathroom

Using UltraSnap swab to collect surface sample.

Contamination Count 08

Initial count of ATP collected in surface sample from top of paper towel dispenser.

Air Naturalizer

Results after 5 days of exposure to Air Naturalizer

Collecting surface sample from night stand next to bed

Using UltraSnap swab to collect surface sample.

Contamination Count 15

Initial contamination count from top of night stand next to bed was 32.

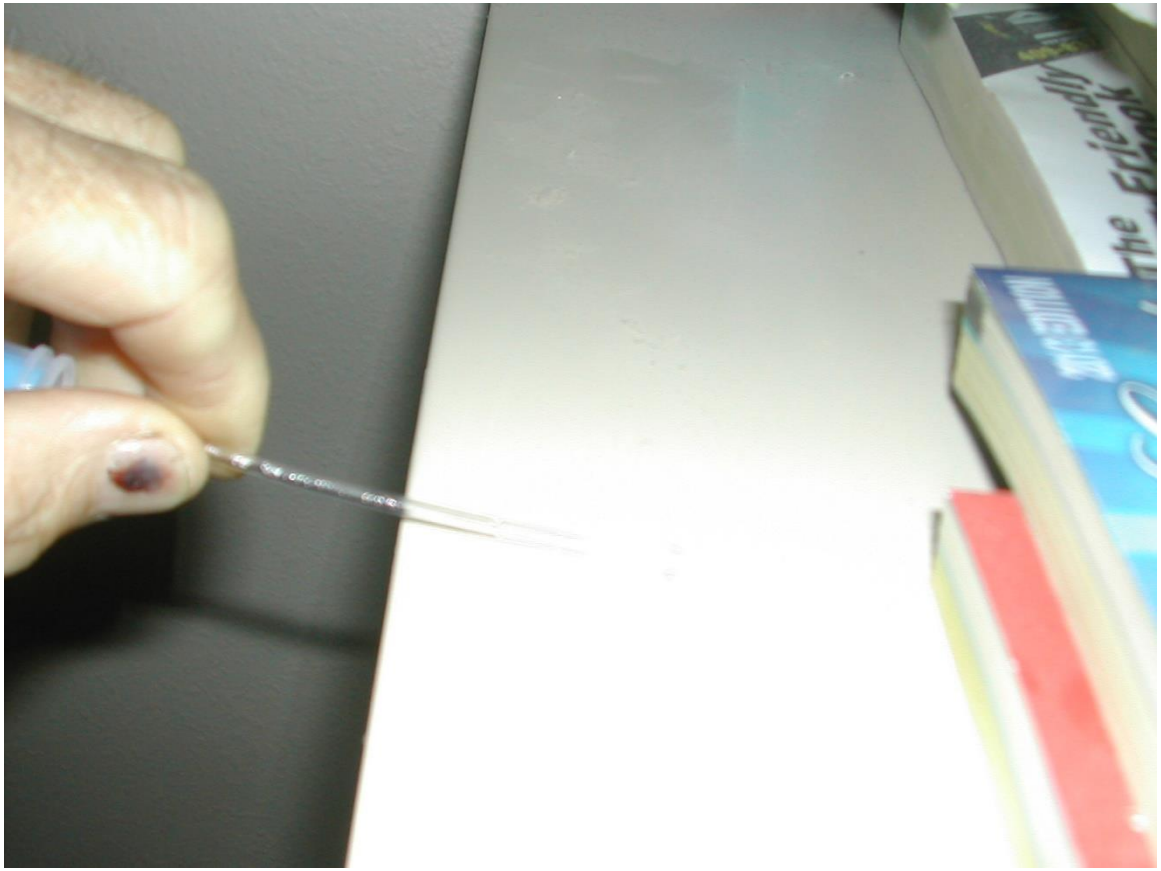
After 5 days count was 15.

Collecting surface sample from top of paper towel dispenser in bathroom

Photo of results did not develop. Results were 09. Initial results were 08. I was informed that housekeeping “cleaned” the bathroom about 20 minutes before I arrived. Could be the results from cross contamination. Will retest in a few days.

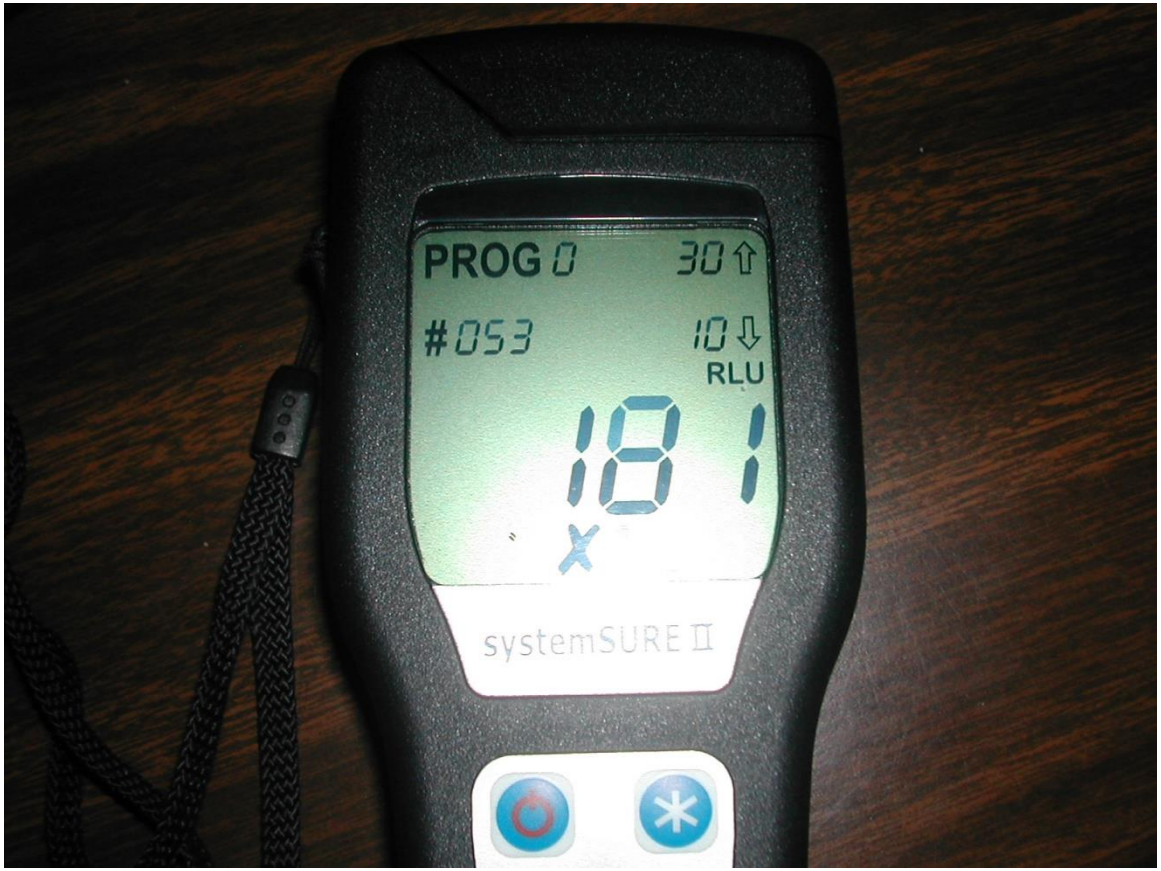
Air Naturalizer

A 1,008 square foot home occupied by one male adult and three small dogs. One Air Naturalizer installed and set on medium.



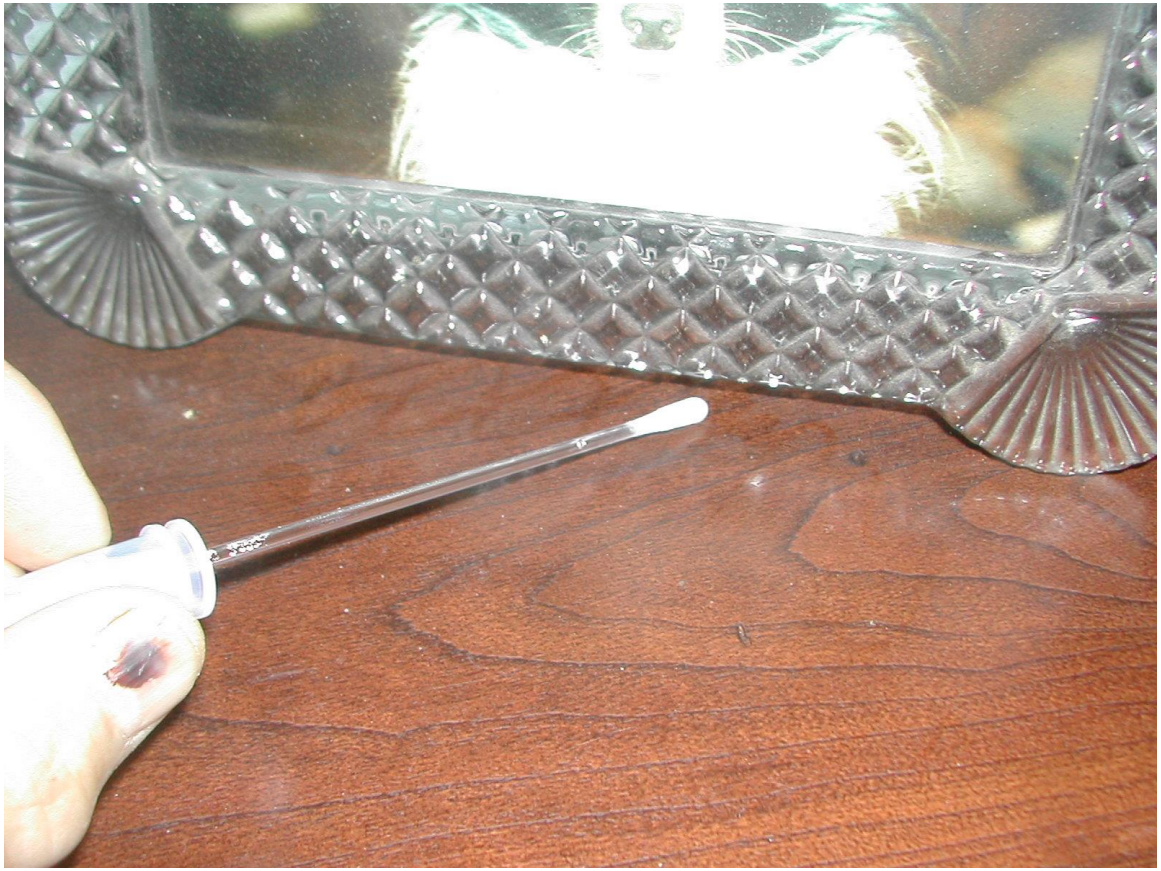
Collection of contamination from top of file cabinet

Using Ultrasnap swab to collect sample for detection of ATP.



Contamination Count 181

Initial count of ATP collected in surface sample from top of file cabinet.



Collection of surface sample from top of dresser in bedroom

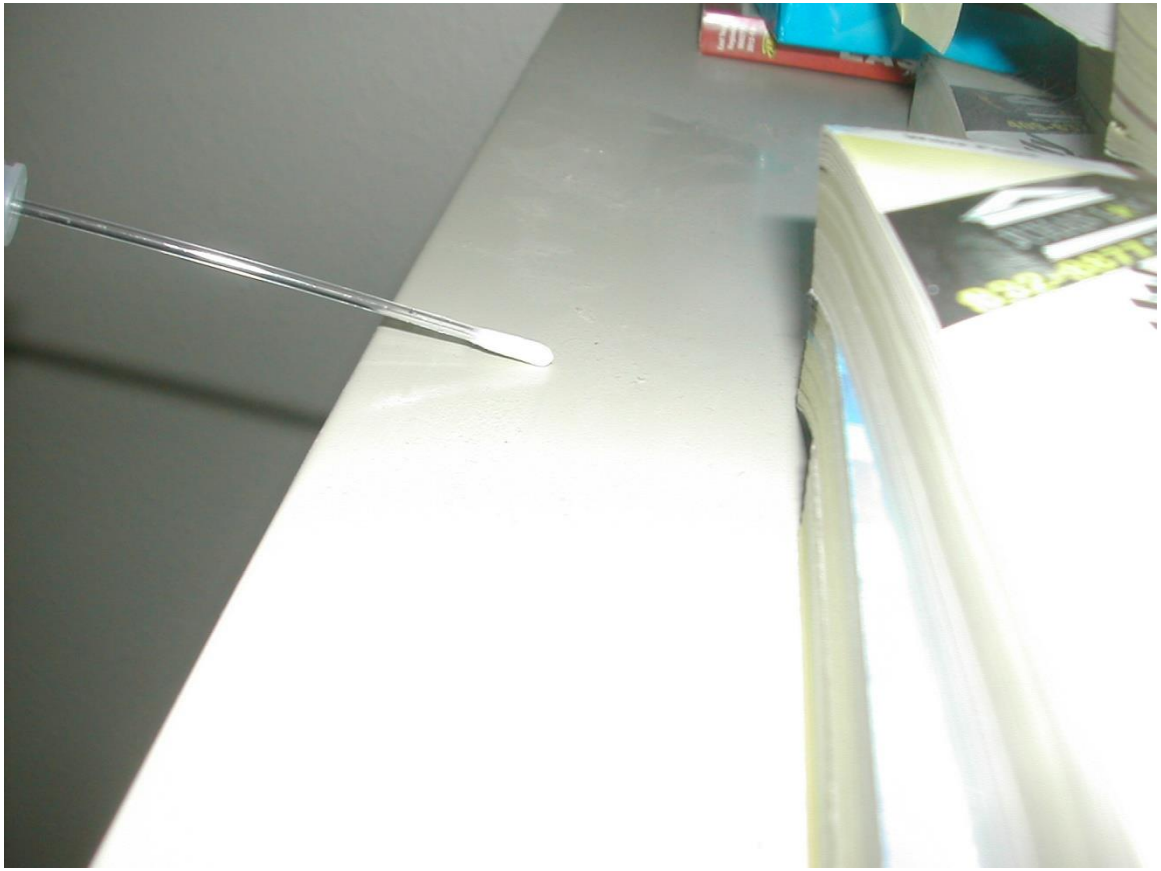
Using UltraSnap swab to collect surface sample for the detection of ATP.

Contamination Count 89

Initial count of ATP in surface sample collected from top of dresser in bedroom.

Air Naturalizer

After exposure of 9 days to Air Naturalizer



Collection of surface sample from top of file cabinet

Using UltraSnap swab to collect surface for the detection of ATP.

Contamination Count 40

Initial count from top of file cabinet was 181. After 9 days count was 40.

Collection of surface sample from top of dresser in bedroom

UltraSnap swab used to collect surface sample for the detection of ATP.

Contamination Count 34

Initial count from top of dresser in bedroom was 89. After 9 days count was 34.

Air Naturalizer

Upon completion of test period one Air Naturalizer was left in place set on medium.