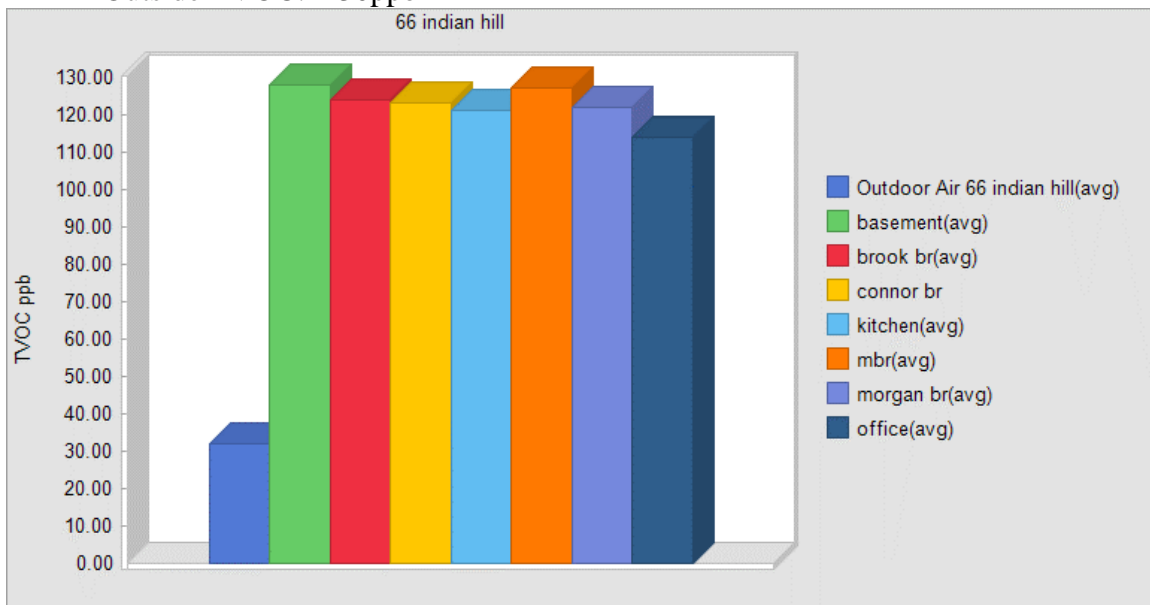


## Air Quality Diagnostics Sample Report

Thank you for your interest in our indoor air quality testing services. Our goal is to ensure that your home is as healthy as it can be through our use of advanced state-of-the-art instant diagnostics meters.

**Volatile Organic Compound (VOC)** Total VOCs (TVOCs) represent the accumulated amount of chemical vapors. Chemicals occur naturally in the environment but are often influenced by manmade operations, cleaning agents, paints and other forms of applications. Excess chemical exposure may cause adverse health effects especially concerning the respiratory and nervous system.

- Typical Living Environment TVOC: ~ 100-300 parts per billion (ppb)
- Your Living Area TVOC:
- Outside TVOC: ~ 30ppb



**Gas Analysis:** Carbon monoxide, carbon dioxide, sulfur dioxide, hydrogen sulfide, ammonia, nitric oxide, and humidity were instantly analyzed throughout your home.

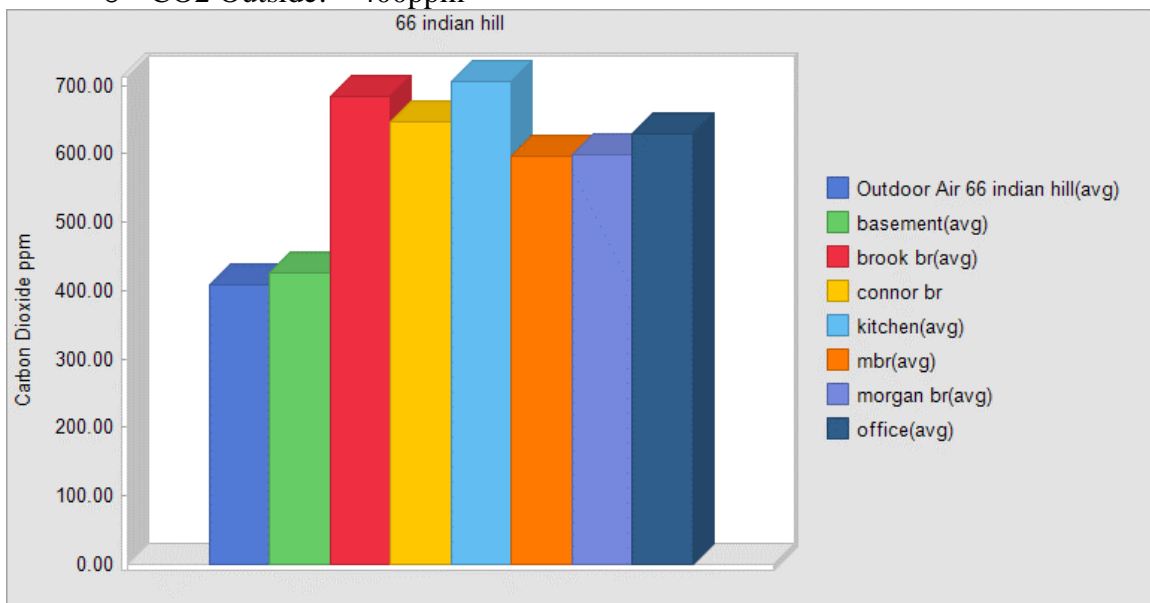
Carbon Dioxide (CO<sub>2</sub>) CO<sub>2</sub> is measured as a tracer gas, to determine the outdoor air ventilation (dilution air) rate in an occupied space. People exhale CO<sub>2</sub> (at an average concentration of almost 40,000 ppm), and therefore are used as the source of the tracer gas (although CO<sub>2</sub> may be injected into an unoccupied space as an alternative test method). High CO<sub>2</sub> levels indicate inadequate or closed return air ducts

Measuring CO<sub>2</sub> concentration is one of the most practical investigative tools available to a practitioner for determining that specific occupied spaces are adequately ventilated.

Building design may provide for appropriate ventilation on paper, but in the real world the actual delivery of dilution air to specific occupied areas often doesn't achieve design goals or is disrupted, to the detriment of the occupants of those specific "problem" spaces.

Occupants may experience health effects in homes where CO<sub>2</sub> is elevated, but the symptoms are usually due to the other contaminants in the air that also build up as a result of insufficient ventilation. At high levels, the carbon dioxide itself can cause headache, dizziness, nausea and other symptoms. Keeping levels less than 700 ppm above the outdoor air concentration is an indication that sufficient outdoor air is being brought into the environment and will help control other pollutants at acceptable levels.

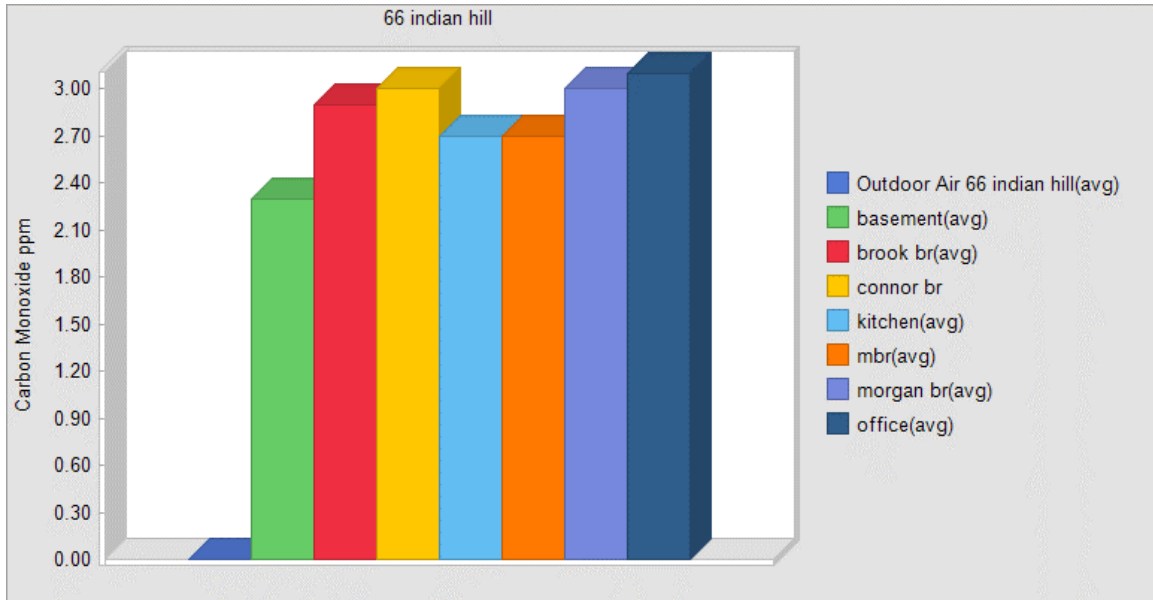
- The carbon dioxide levels in your home registered at normal levels
  - Typical CO<sub>2</sub> Levels: ~ 350-900 parts per million (ppm)
  - Your CO<sub>2</sub> Levels:
  - CO<sub>2</sub> Outside: ~ 400ppm



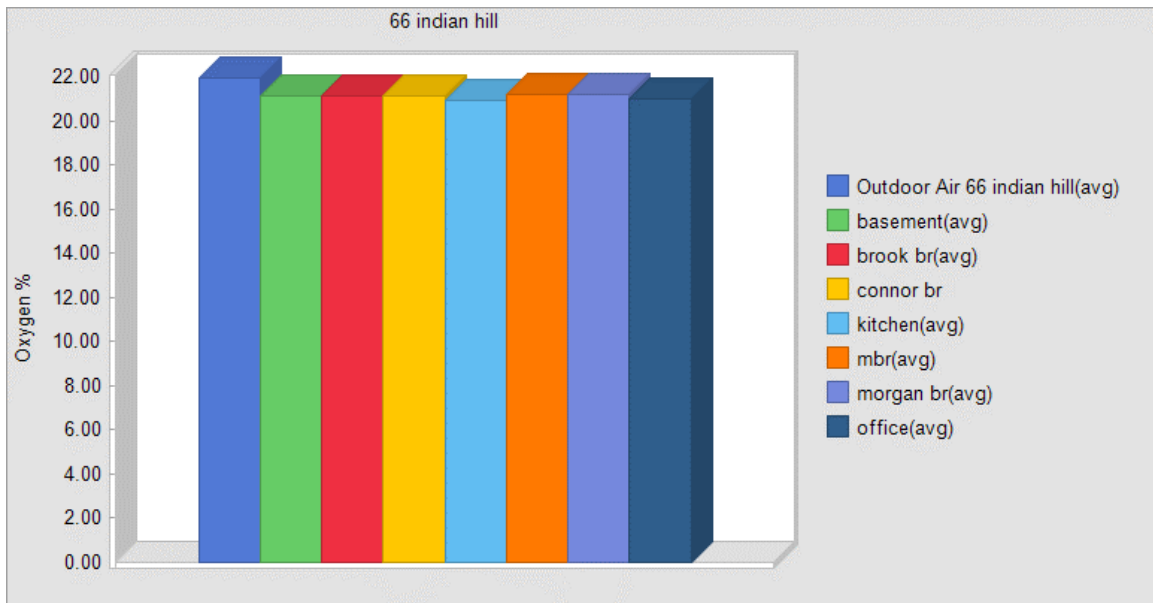
**Carbon Monoxide (CO):** Carbon monoxide is a colorless, odorless, toxic gas that is a product of incomplete combustion. Pollution results when combustion gases are not properly exhausted or are reintroduced into the building. Outdoor level of CO in New England typically range from 0-3.0ppm. In most homes and buildings, levels will be below 5 ppm. Carbon monoxide levels above 5 ppm usually indicate the presence of combustion products. It is important to keep in mind that most home detectors will not alarm until the CO levels exceed 30ppm and it is permissible to show a reading of 0.0ppm for any level below 30ppm. Whenever measurements detect the presence of these contaminants, it is important to ensure that the contaminants are exhausted at the source.

The American Society of Heating, Refrigeration and Air- Conditioning Engineers recommend a maximum eight-hour average exposure limit of 9 ppm.

- Typical CO levels inside a home: 1.0-3.0ppm
- Your CO levels
- Outside 0.0ppm

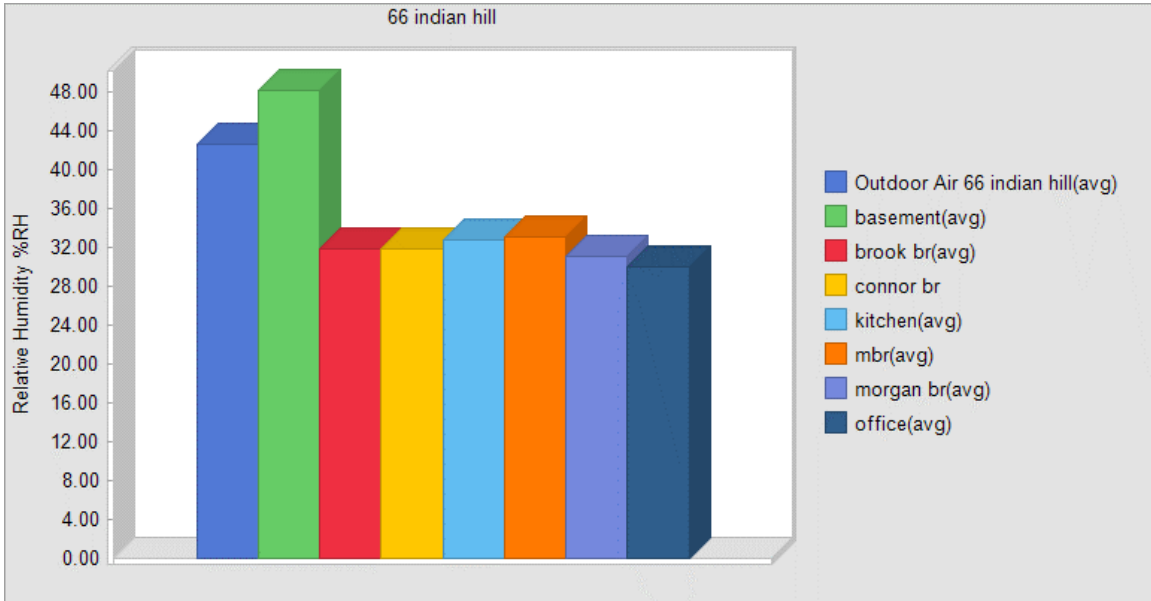


**Oxygen:** The oxygen level throughout the home was consistent to the outside environment and within the normal range of ~ 20-21%.

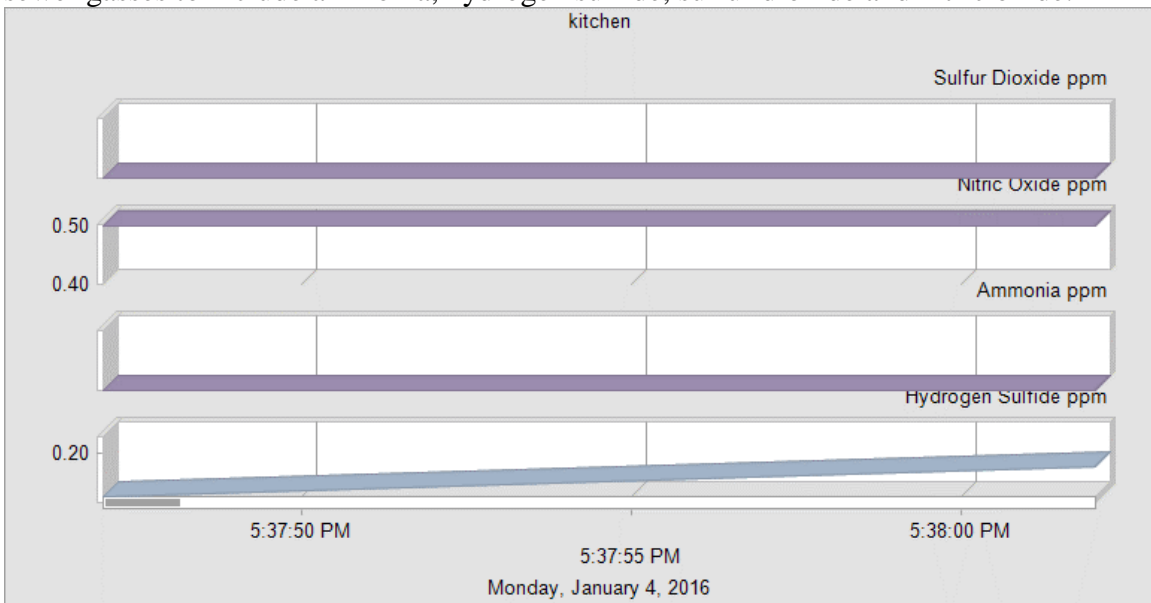


**Relative Humidity (RH):** Ideal humidity levels should range between 30-45% year round. Excess humidity above 55% will often increase the dust mite, mold, bacteria and allergen population. Insufficient humidity below 20% will often lead to excess eye, nose and throat irritation.

- The RH in your home was detected at
- RH Outside: ~ 44%



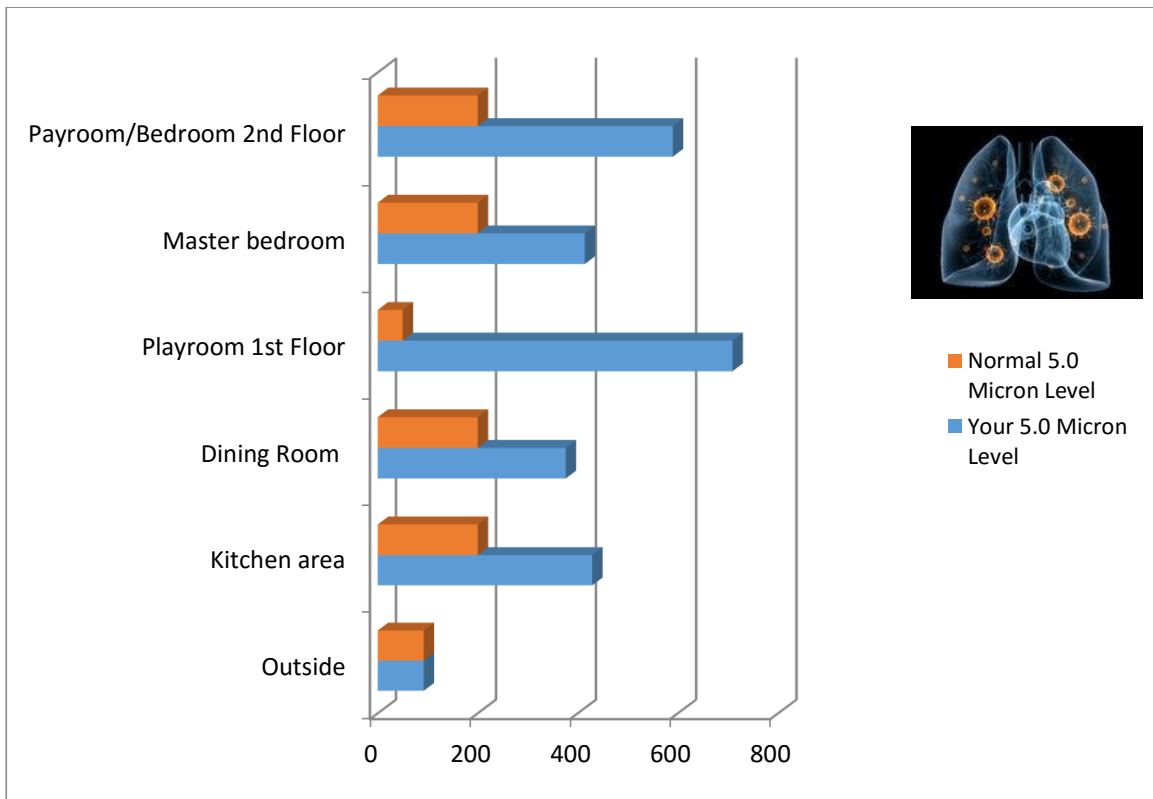
**Sewer Gases:** Sewer gasses are characterized by foul odors emitting from faulty plumbing, sewer lines, utilities, and water fixtures. Several chemical gasses make up sewer gasses to include ammonia, hydrogen sulfide, sulfur dioxide and nitric oxide.



**Combustible Gas Monitoring:** Combustible gases were monitored using onsite diagnostic equipment including Inficon Gas Mate Combustible Gas Meter. The Inficon Gas Mate is sensitive to a variety of hydrocarbons and other gasses including but not limited to: ethanol, natural gas, cyclopentane, isobutene, methane, propane, ethane, and butane.

- Combustible gasses were not detected in your home.

**Particulate Analysis:** Elevated levels of airborne particulates (ultrafine debris) were detected throughout the home and basement. The most harmful particles are those ten microns or less in diameter (a human hair is approximately 70 microns in diameter). These particles can easily be inhaled deep into the lungs, collecting in the tiny air sacs (called alveoli) where oxygen enters the blood, causing breathing difficulties and sometimes permanent lung damage. Inhalation of fine particulate matter can increase cardiovascular problems, irritate lungs and eyes, trigger headaches and allergic reactions, and worsen respiratory diseases such as asthma, emphysema, and bronchitis





We look forward in helping you achieve the healthiest environment possible for you home and your family's health!

Respectfully,

A handwritten signature in black ink that reads "J. Bradley". The signature is written in a cursive style with a large, prominent "J" and "B".

Jeffrey J. Bradley  
Owner/Environmental Engineer  
IndoorDoctor LLC

