UCLA Fielding
School of Public Health

2025 Los Angeles Wildfire Air Sampling Report

Address: 3602 Winter Canyon Rd. Malibu, CA 90265

Indoor and Outdoor Air Quality Test
 Items tested: indoor and outdoor air
 Date of Sample Collection: 6/3/2025-6/10/2025
 Date of Sample Testing: 6/26/2025

Key Takeaways
1. Outdoor fine particulate matter ($PM_{2.5}$) concentrations during the one-week sampling period were 5.6 μg/m³, below the U.S. Environmental Protection Agency (EPA) daily standard (35 μg/m³) and annual standard (9 μg/m³). Indoor $PM_{2.5}$ concentrations during the same period were 3.6 μg/m³, lower than the corresponding outdoor $PM_{2.5}$ concentrations.

2. Outdoor concentrations of particulate matter with a diameter of 10 micrometers or less (PM_{10}) during the one-week sampling period were 15.1 μg/m³, which is below the U.S. EPA daily standard of 150 μg/m³.

3. Outdoor lead concentrations during the one-week sampling period were below the detection limit and well below the U.S. EPA reference standard of 150 ng/m³ (rolling 3-month average). Indoor lead concentrations during the same period were also below the detection limit.

What Is $PM_{2.5}$ and Why Does It Matter?
Air pollution is often measured by measuring the number of tiny particles in the air. These particles, called particulate matter (PM) are made up of a mixture of many different chemicals. PM varies widely in size, shape and chemical composition, and may contain man made chemicals, metals, organic compounds, carbon, and many other compounds.

Particles are defined by their size for air quality regulatory purposes. Those with a diameter of 10 microns or less (PM_{10}) are inhalable into the lungs and can induce adverse health effects. For comparison, a human hair is 50-70 microns in diameter.

Fine particulate matter is defined as particles that are 2.5 microns or less in diameter ($PM_{2.5}$). $PM_{2.5}$ is more likely to travel into and deposit on the surface of the deeper parts of the lung. Ultrafine particles are even smaller, with diameters less than 0.1 microns in size.

Particulate Size Comparison

PM10
< 10 μm

HUMAN HAIR
50-70 μm

PM2.5
< 2.5 μm