

## 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<sub>2.5</sub>) concentrations during the one-week sampling period were 5.6 µg/m<sup>3</sup>, below the U.S. Environmental Protection Agency (EPA) daily standard (35 µg/m<sup>3</sup>) and annual standard (9 µg/m<sup>3</sup>). Indoor PM<sub>2.5</sub> concentrations during the same period were 3.6 µg/m<sup>3</sup>, lower than the corresponding outdoor PM<sub>2.5</sub> concentrations.
2. Outdoor concentrations of particulate matter with a diameter of 10 micrometers or less (PM<sub>10</sub>) during the one-week sampling period were 15.1 µg/m<sup>3</sup>, which is below the U.S. EPA daily standard of 150 µg/m<sup>3</sup>.
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/m<sup>3</sup> (rolling 3-month average). Indoor lead concentrations during the same period were also below the detection limit.

### Detailed Results

**Indoor and Outdoor Air Quality Results:** We collected one-week indoor and outdoor PM<sub>2.5</sub> filter samples and performed elemental analysis on the collected filters. Concentrations are reported in nanograms per cubic meter (ng/m<sup>3</sup>).

**Table 1. One-Week Indoor and Outdoor Elemental Concentrations from PM<sub>2.5</sub> Filter Samples.**

Elements	Indoor Concentration (ng/m <sup>3</sup> )	Outdoor Concentration (ng/m <sup>3</sup> )	Reference Level (ng/m <sup>3</sup> )
Aluminum (Al)	23.6	10.6	
Silicon (Si)	75.9	33.3	
Phosphorus (P)	below the detection limit	below the detection limit	
Potassium (K)	19.5	22.0	

Calcium (Ca)	83.2	23.9	
Titanium (Ti)	3.7	1.3	
Manganese (Mn)	below the detection limit	below the detection limit	
Iron (Fe)	28.4	14.5	
Copper (Cu)	below the detection limit	below the detection limit	
Zinc (Zn)	3.2	2.0	
Gallium (Ga)	0.9	1.2	
Lead (Pb)	below the detection limit	below the detection limit	U.S. EPA: 150 ng/m <sup>3</sup> CARB: 1,500 ng/m <sup>3</sup> OEHHA: 50,000 ng/m <sup>3</sup>

Notes: The U.S. EPA and the California Air Resources Board (CARB) regulate airborne metal concentrations to protect public health. Under the National Ambient Air Quality Standards (NAAQS), EPA sets a lead (Pb) limit of 150 ng/m<sup>3</sup> (rolling 3-month average). CARB applies a 30-day average standard of 1,500 ng/m<sup>3</sup>. While lead is the only metal with a formal ambient air standard, other metals such as arsenic, cadmium, and chromium are regulated through air toxics programs and emission source controls. Additionally, the California Division of Occupational Safety and Health (Cal/OSHA) establishes workplace exposure limits, including 8-hour time-weighted averages of 50,000 ng/m<sup>3</sup> for lead, 5,000 ng/m<sup>3</sup> for cadmium, and 5,000 ng/m<sup>3</sup> for hexavalent chromium.

### What Is PM<sub>2.5</sub> 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<sub>10</sub>) 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<sub>2.5</sub>). PM<sub>2.5</sub> 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.

