

Supplementary File A1: Total Time Estimated for Odor Measurement in the Oregon Department of Environmental Quality Study:

The DEQ study conducted a total of 760 visits during one year during which there were 24 positive detection visits. Intuitively, this means there were 736 negative detection visits (no odor was detected).

$$\text{negative visits} = 760 \text{ total} - 24 \text{ positive visits} = 736 \text{ negative visits}$$

When odor was not present, the team (staff) spent 5 minutes at the site. Therefore,

$$\text{time spent during negative visits} = 736 * 5 = 3680 \text{ minutes}$$

We know from the DEQ study that the team spent total time of 187 minutes when odor was present during the 24 positive visits. An average of 8 minutes duration for each detected odor episode. Therefore,

$$\text{Total time spent (unsuccessful and positive)} = 3680 + 187 = 3867 \text{ minutes}$$

This amount of time is equivalent to less than 3 days.

$$\text{Total time visits in days} = 3867/60 = 64.5 \text{ hours} = 2.7 \text{ days}$$

The represents small fraction of total time of the one-year study time.

$$\text{Percentage of visits time} = 2.7 \text{ days} / 365 \text{ days} = 0.7\%$$

The DEQ study stated that the total time panelist spent to evaluate odors was 10213 minutes (an average of 13.4 minute per visit which was rather equivalent to the maximum time was recorded).

Figure A1: Wind roses generated from hourly wind data in North Denver and Greeley from March 10th, 2016 to April 19th, 2017:

Wind roses generated from hourly wind data from March 10th, 2016 to April 19th, 2017. Left: Wind data from the CAMP and the I-25 Globeville stations in North Denver. Right: Wind data from the Weld County Tower station in Greeley. Top (Denver), bottom (Greeley).

