



Benzene Monitoring

December 2023



From Nov. 29 - Dec. 20, 2023,
we measured benzene:

- average: **1.51** $\mu\text{g}/\text{m}^3$
 - lowest: **0.66** $\mu\text{g}/\text{m}^3$
 - highest: **2.19** $\mu\text{g}/\text{m}^3$
- $\mu\text{g}/\text{m}^3$ is said:
"micro-grams per cubic meter"

In Dec. 2022, Hilco measured
fenceline benzene:

- average: **1.42** $\mu\text{g}/\text{m}^3$
- lowest: **0.19** $\mu\text{g}/\text{m}^3$
- highest: **12.0** $\mu\text{g}/\text{m}^3$

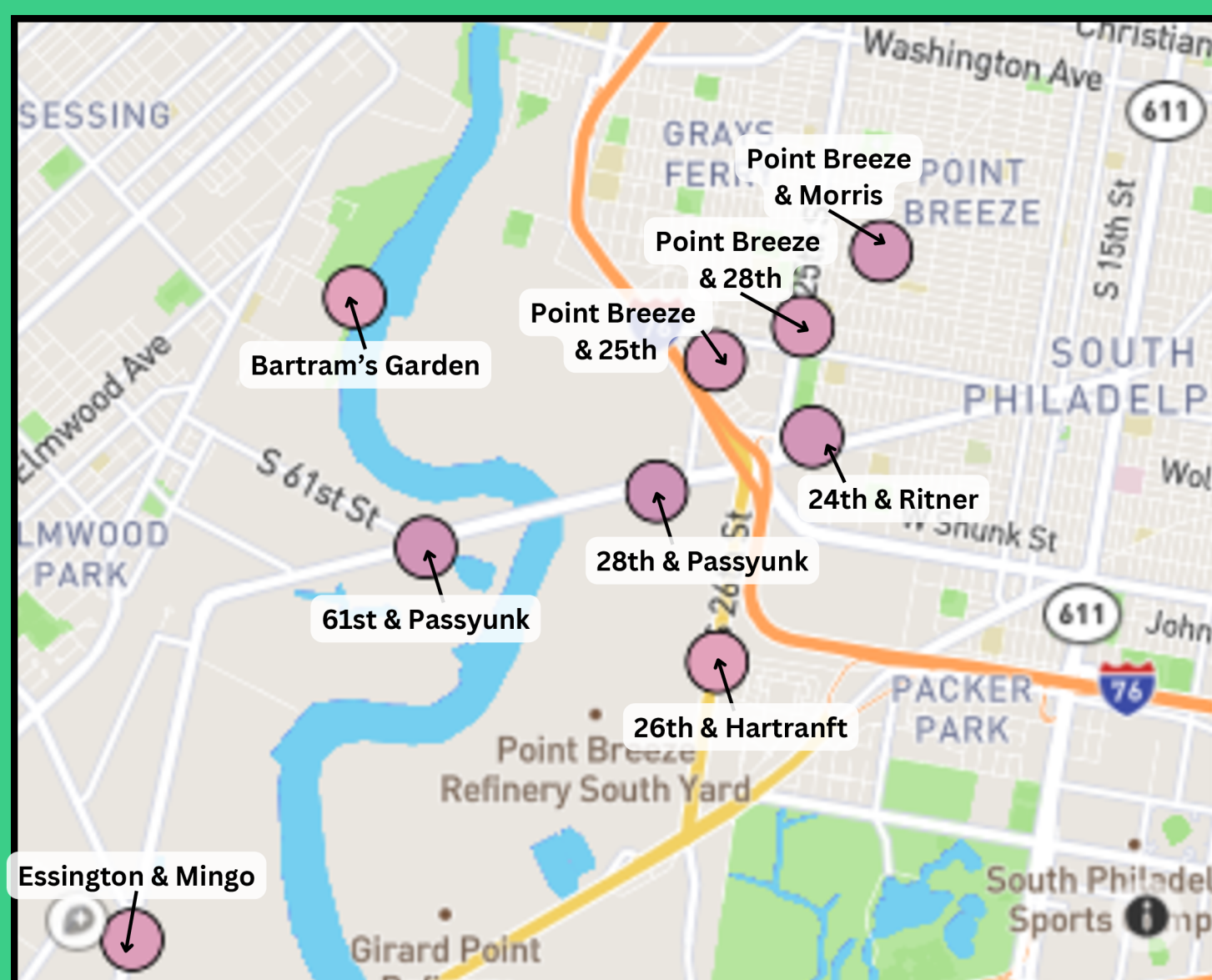
What is Benzene?

- Benzene is harmful because it can cause cancer.
- Benzene is an invisible gas that comes from car exhaust, cigarette smoke, gas stations, and forest fires.
- We are concerned about benzene in Philadelphia because of emissions from the former refinery site and pollution from car traffic.

How is Benzene Measured?

- "Concentration" means the amount of something in the air. We measured concentration with micrograms (shown with the symbol μg) per cubic meter (m^3) of space.
- Outdoor benzene concentrations are not regulated in the United States, so we are comparing our data to Europe's annual average standard for outdoor benzene. We want our year-long average benzene concentration to be **below** $5 \mu\text{g}/\text{m}^3$

Nov 29 - Dec 20, 2023



This map shows the average benzene concentration at each site between October 25th and November 29. Darker colors indicate higher benzene concentrations.

- The site with the highest average concentration was 28th & Passyunk, though all concentrations were less than 5.
- The site with the lowest average concentration was Bartram's Garden.
- All of the sites had benzene concentrations **below** the European annual standard of $5 \mu\text{g}/\text{m}^3$



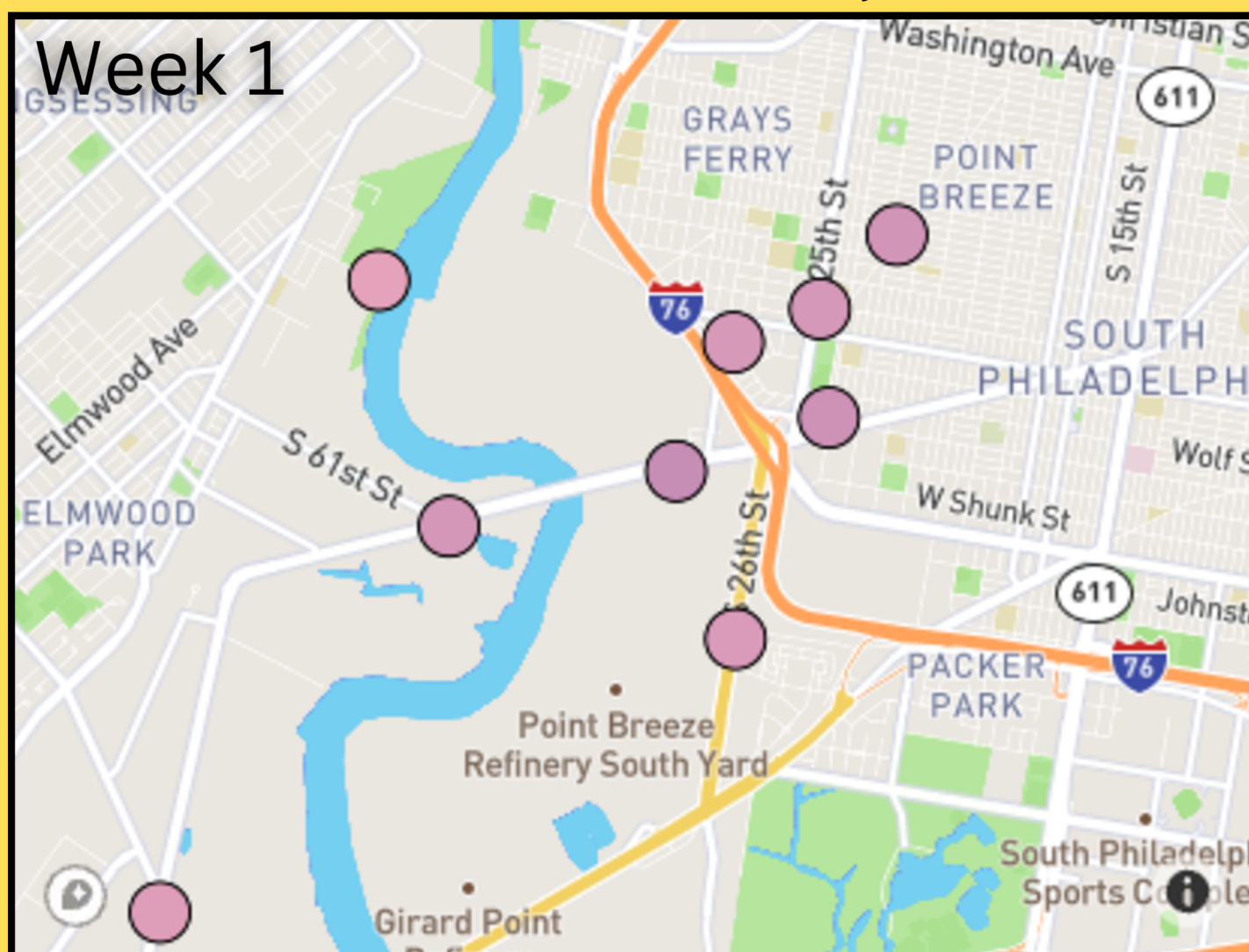
Benzene Results December 2023



Benzene concentrations at each site, during each week

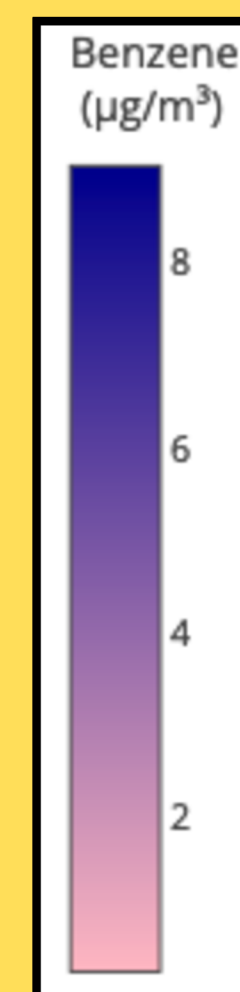
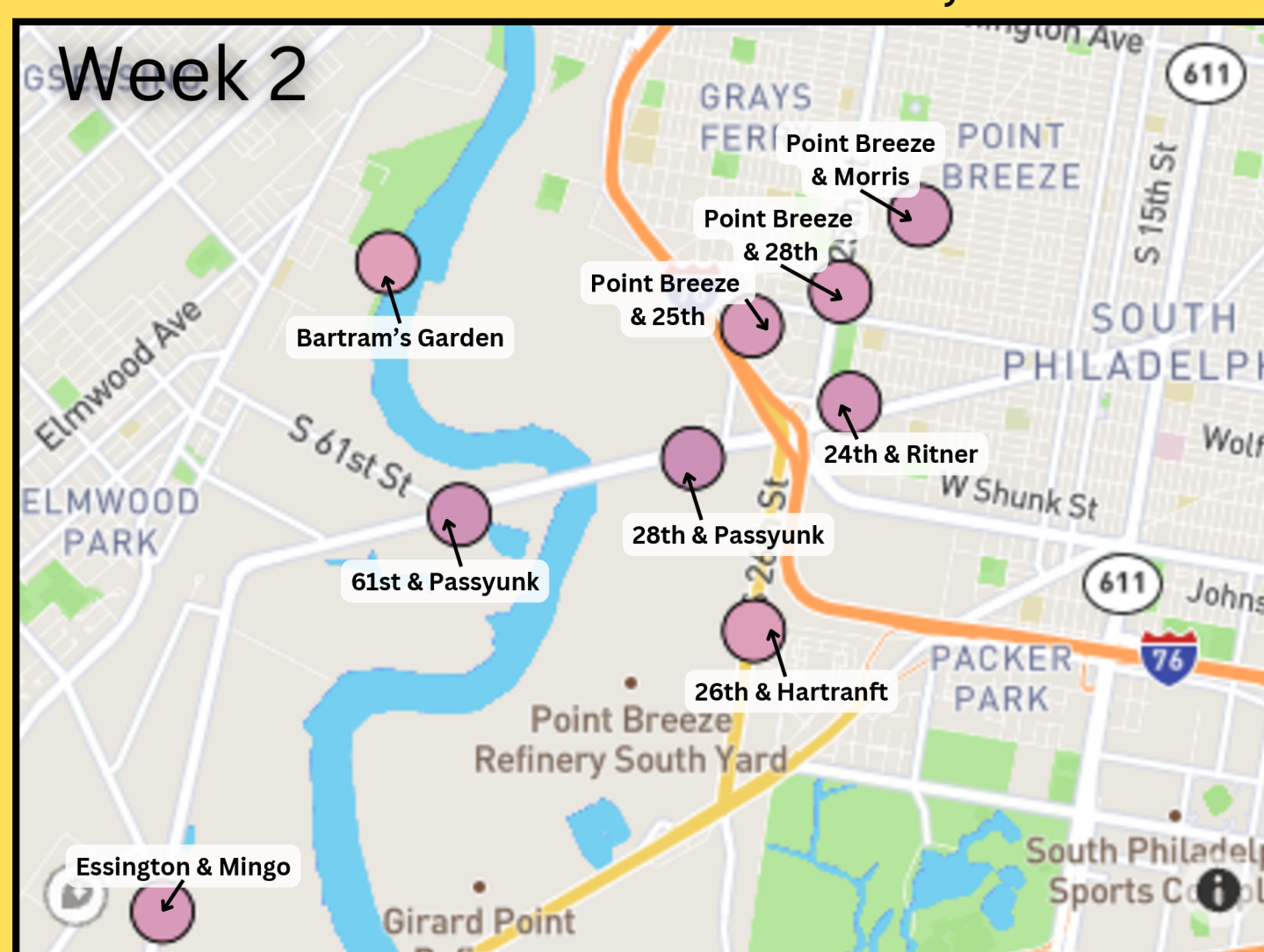
November 29 - December 6, 2023

Week 1



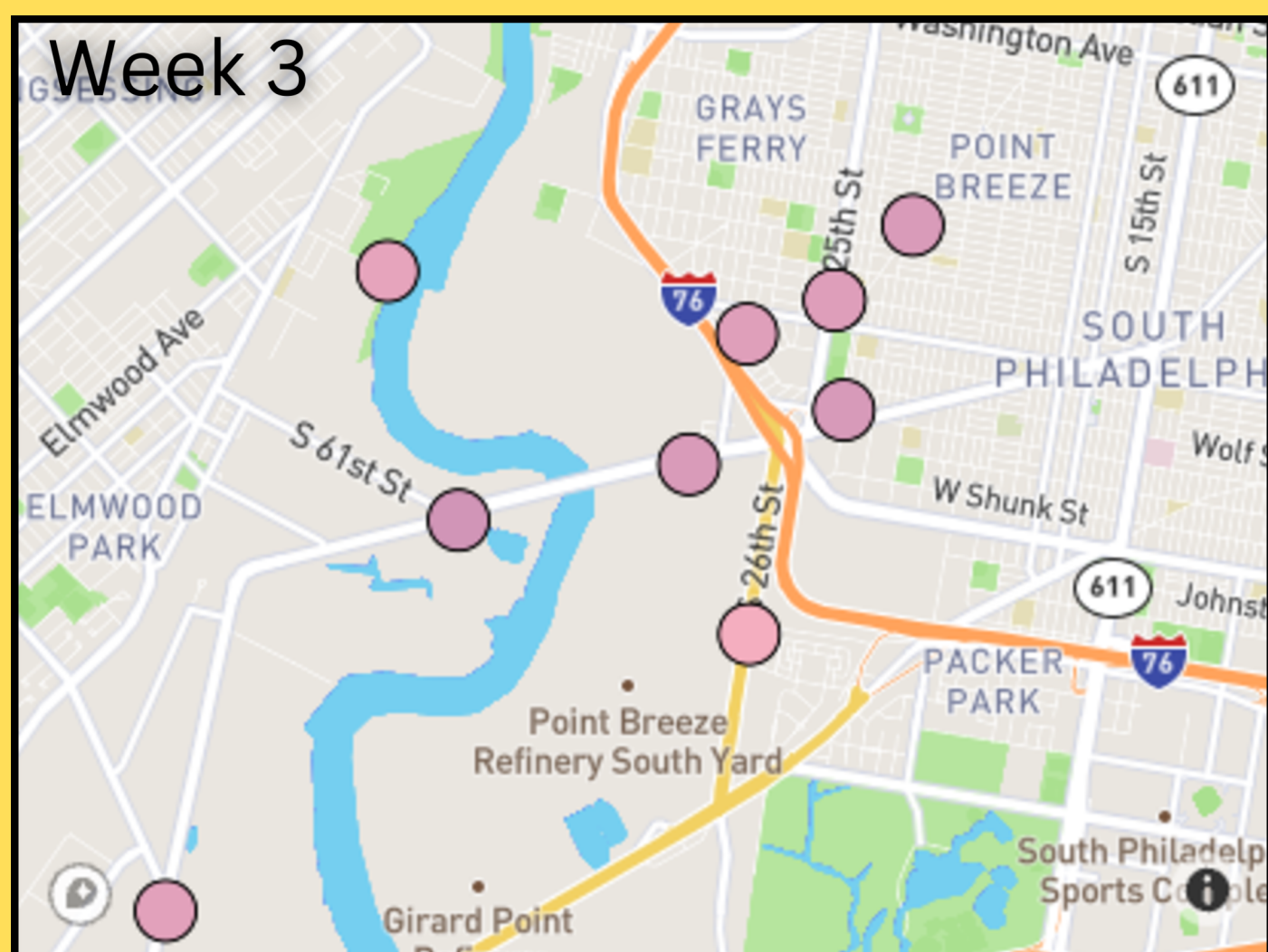
December 6 - December 13, 2023

Week 2



December 13 - December 20, 2023

Week 3



Lighter pink means **less benzene** (lower concentrations), while darker purple means **more benzene** (higher concentrations).

Most of the sites had low concentrations of benzene, which is why they are shown in light pink.

We leave air monitors at each site for one week. You can interpret the results shown here as the average concentration at that site over the period of time in the title.

Contact us:
thriveair@gmail.com

Dr. Sheila Tripathy
(978) 821-0657

Benzene isn't the only chemical we measured in the air. To see the results for other pollutants and for more information about the study, visit our website at:

THRIVEairphilly.com

