



# Benzene Monitoring

## August 2023



From Aug. 2 - Aug. 30, 2023,  
we measured benzene:

- average: **0.83**  $\mu\text{g}/\text{m}^3$
  - lowest: **0.53**  $\mu\text{g}/\text{m}^3$
  - highest: **1.99**  $\mu\text{g}/\text{m}^3$
- $\mu\text{g}/\text{m}^3$  is said:  
"micro-grams per cubic meter"

In Aug. 2022, Hilco measured  
fenceline benzene:

- average: **0.80**  $\mu\text{g}/\text{m}^3$
- lowest: **0.40**  $\mu\text{g}/\text{m}^3$
- highest: **2.60**  $\mu\text{g}/\text{m}^3$

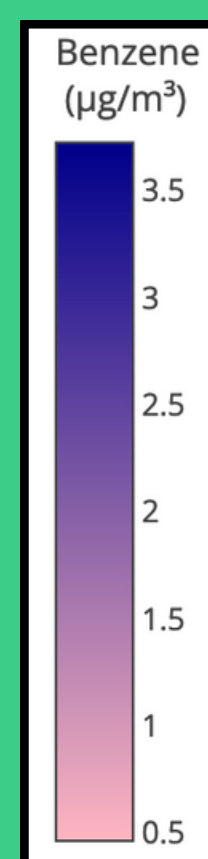
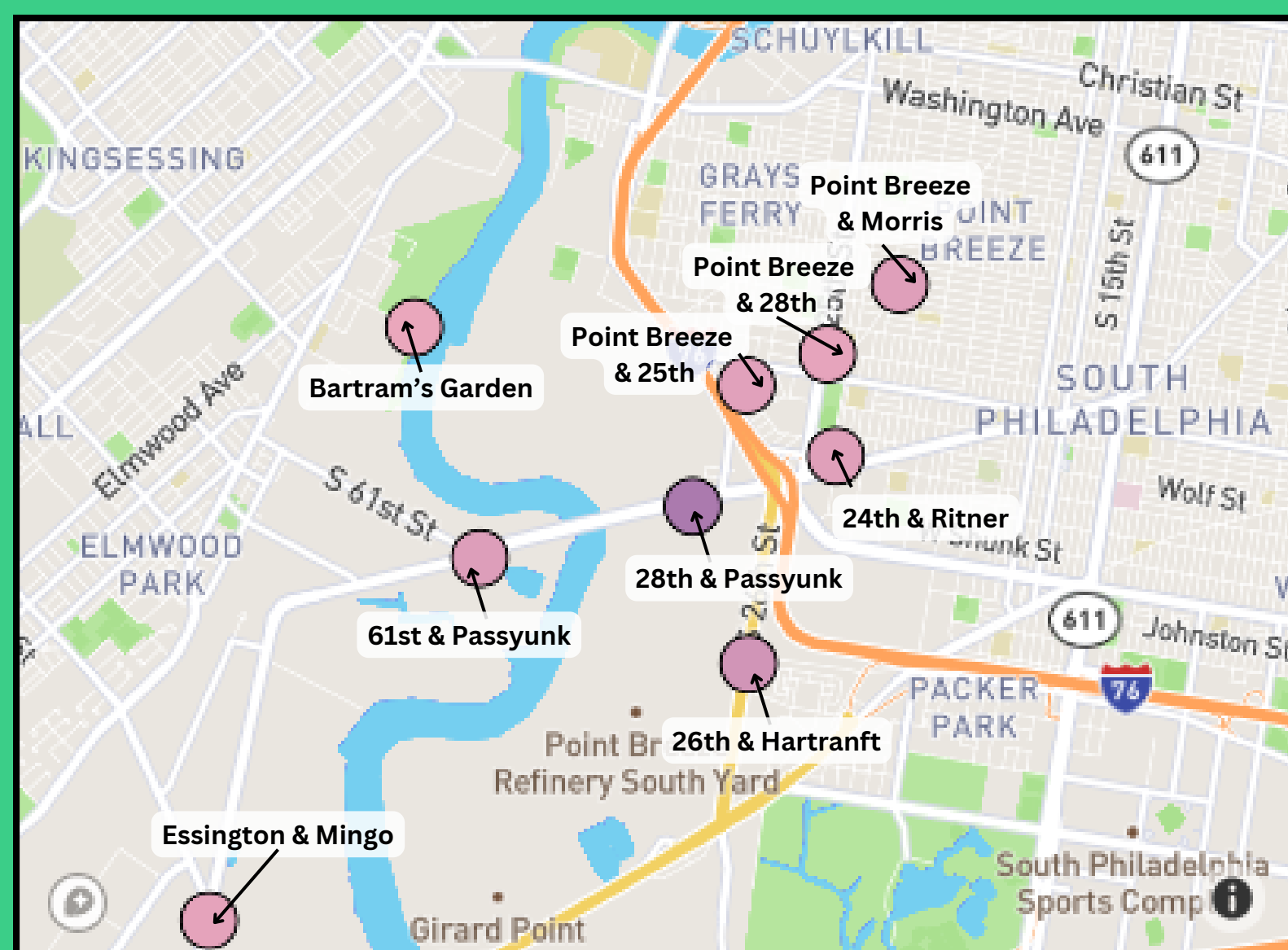
## What is Benzene?

- 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  $\mu\text{g}$ ) per cubic meter ( $\text{m}^3$ ) 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 of **5**  $\mu\text{g}/\text{m}^3$ . We want our year-long average benzene concentration to be **below** 5  $\mu\text{g}/\text{m}^3$ .

August 2 - August 30, 2023



This map shows the average benzene concentration at each site between August 2nd and August 30th. Darker colors indicate higher benzene concentrations.

- The site with the highest average concentration was 28th & Passyunk.
- 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  $\mu\text{g}/\text{m}^3$ .





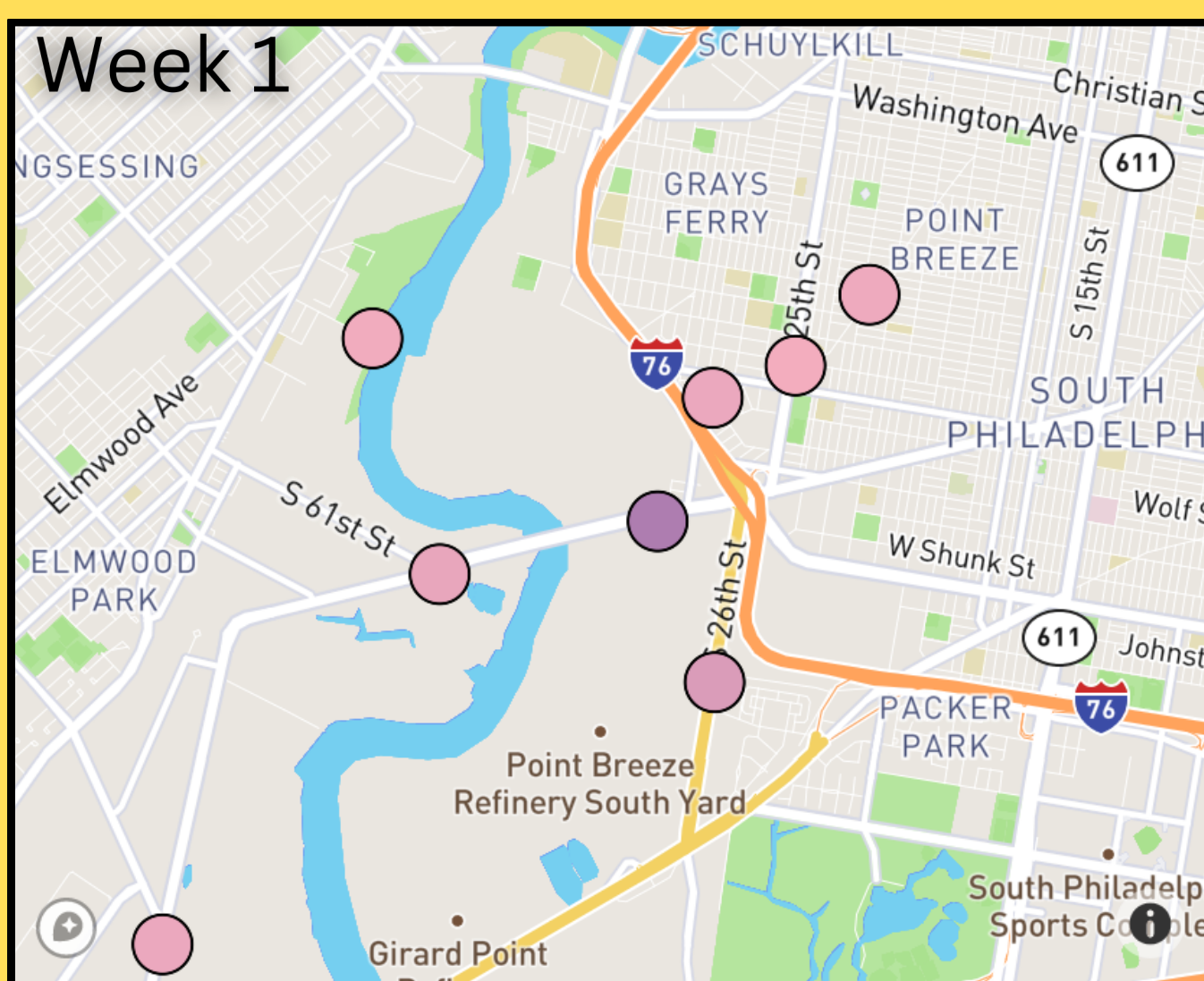
# Benzene Results

## August 2023

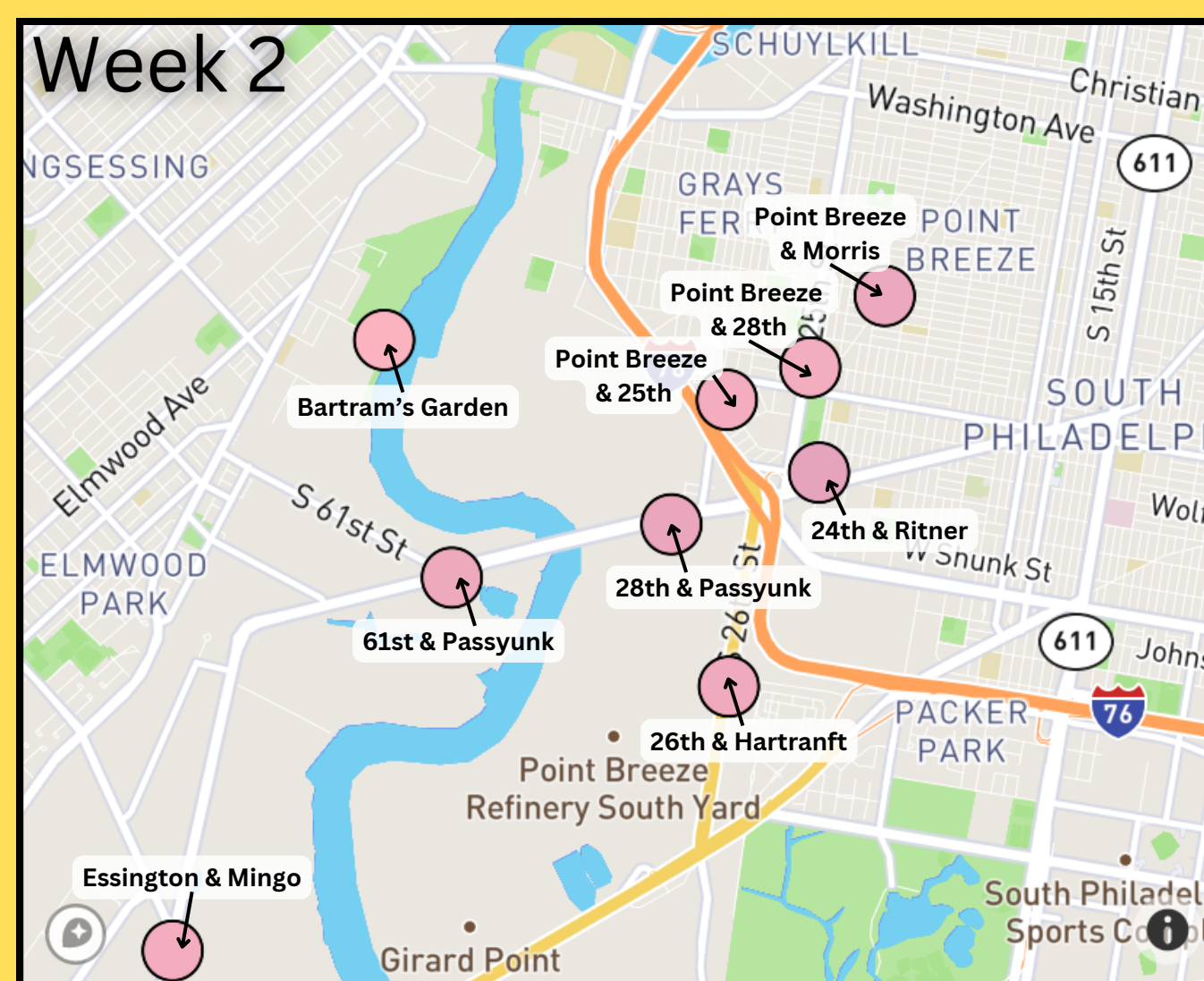


### Benzene concentrations at each site, during each week

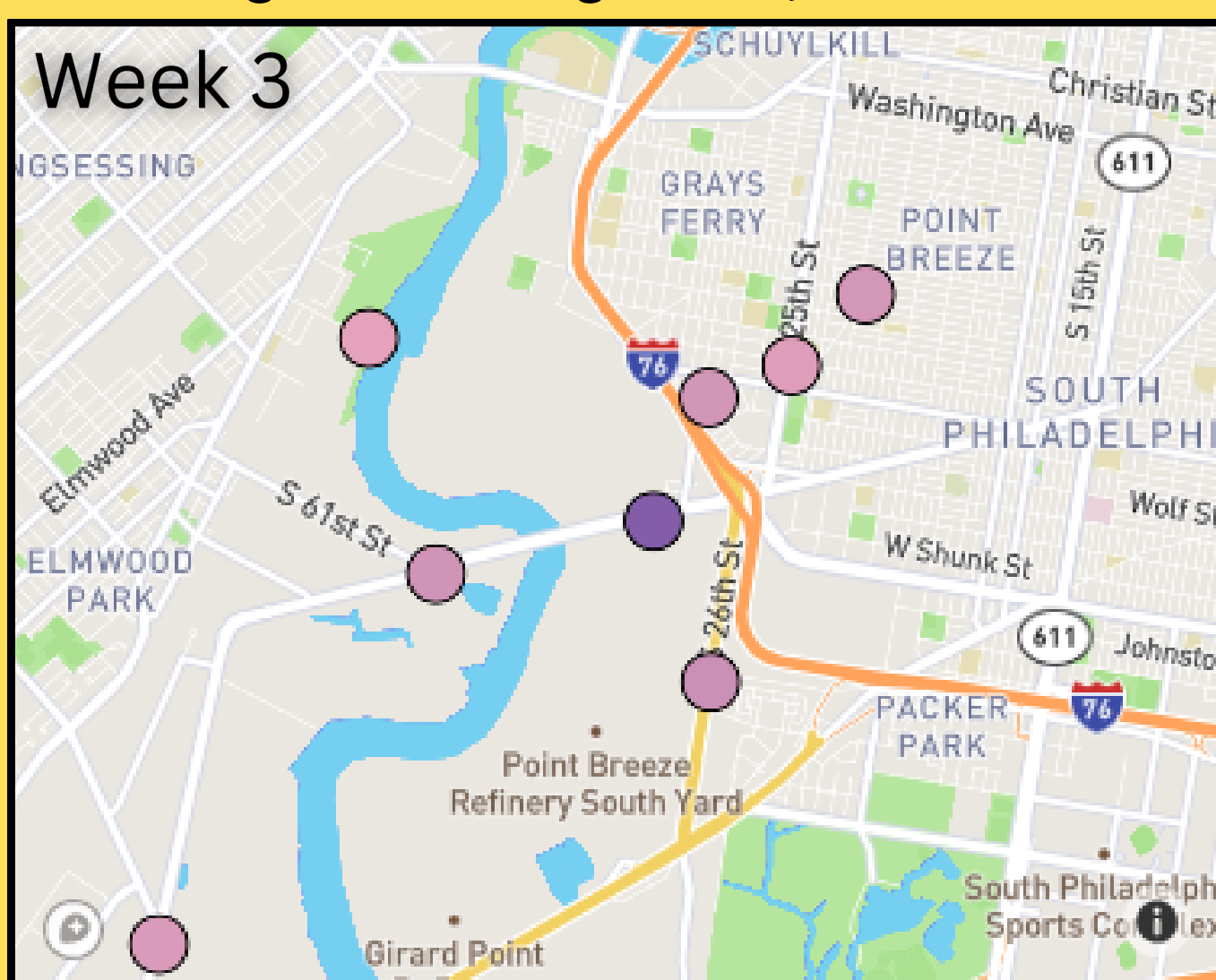
August 2 - August 9, 2023



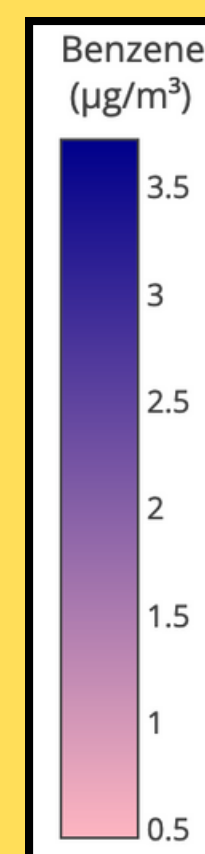
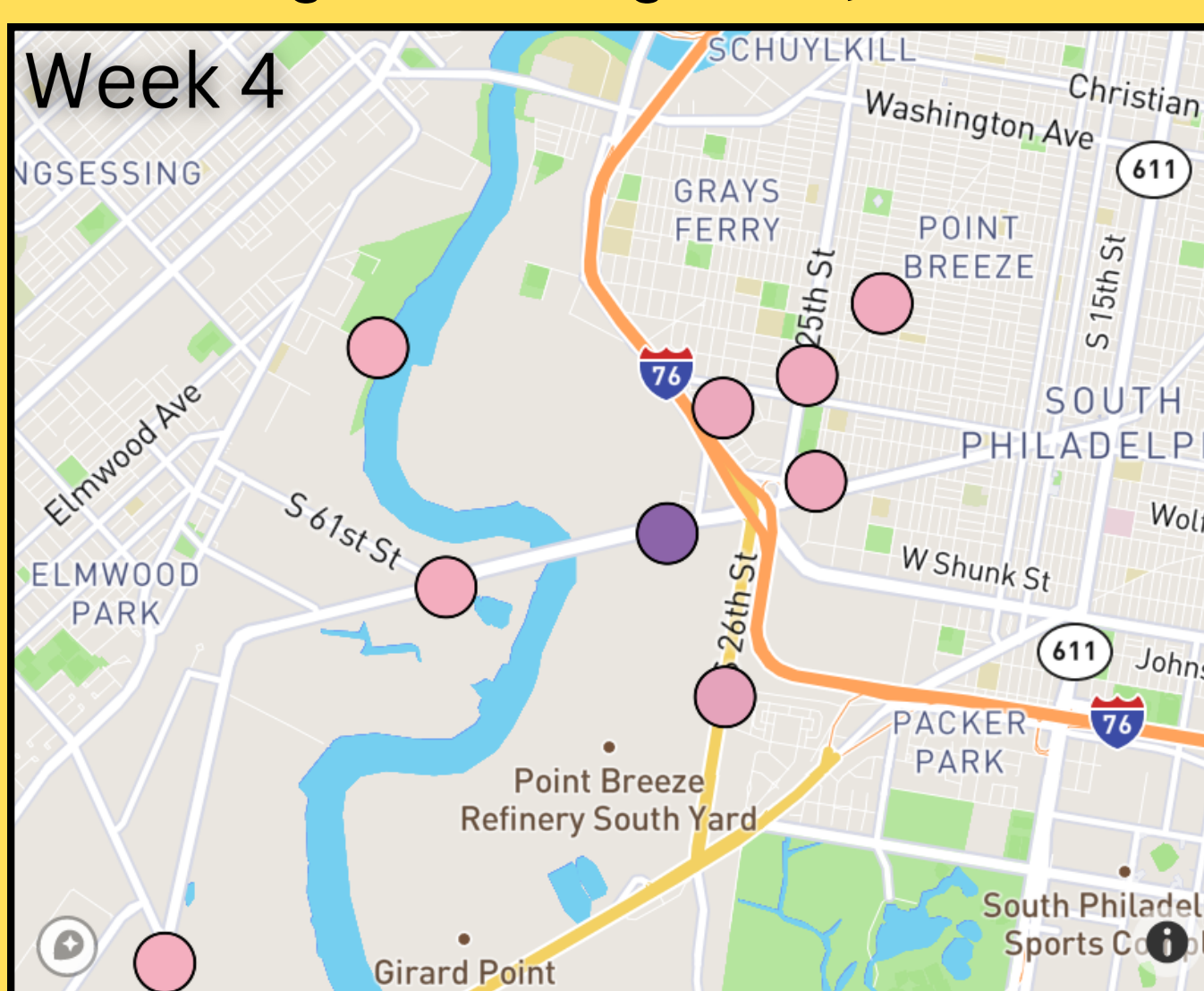
August 9 - August 16, 2023



August 16 - August 23, 2023



August 23 - August 30, 2023



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

All the sites had benzene concentrations below  $2 \mu\text{g}/\text{m}^3$  in August, so most of them are in the light pink range.

*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.*

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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**

