



PRELIMINARY AIR MONITORING SUMMARY

Jenkintown, PA
SPS Technologies Fire
February 20-21, 2025

Submitted February 21, 2025

1.0 INTRODUCTION

On February 19, 2025, CTEH was contacted to provide community air monitoring for SPS Technologies, LLC in conjunction with the United States Environmental Protection Agency (USEPA) and the Pennsylvania Department of Environmental Protection (PA DEP). CTEH established seven stationary real-time air monitoring in a perimeter around the SPS Technologies and adjacent residential areas on the morning of February 20, 2025. Real-time air monitoring performed by CTEH began at 1208 EST on February 20, 2025.

This report summarizes real-time air monitoring data collected by CTEH personnel from 1208 EST on February 20, 2025 to approximately 0600 EST on February 21, 2025.

2.0 AIR MONITORING METHODS

Real-time air monitoring refers to the use of direct-reading instruments to provide a near-instantaneous readout of a chemical concentration in the air. On February 19, 2025, CTEH personnel developed an Air Sampling and Analysis Plan (SAP) to document and quantify the potential release of fugitive emissions from the incident. The analytes chosen for air monitoring were coordinated with representatives from USEPA and PA DEP for this incident based on the Tier II documentation for the SPS Technologies Facility.

Stationary real-time air monitoring refers to stationary instruments that record air monitoring data approximately every 15 seconds and send the data in real-time to a centralized location via radio telemetry. Stationary real-time air monitoring was conducted using RAE® Systems by Honeywell MultiRAE Pro and AreaRAE instruments equipped with 10.6 eV photoionization detectors and multiple electrochemical sensors. These include volatile organic compounds (VOCs), hydrogen cyanide (HCN), hydrogen sulfide (H₂S), chlorine (Cl₂), carbon monoxide (CO), and flammability as a percentage of the lower explosive limit (%LEL). Additionally, stationary real-time air monitoring for particulate matter of 2.5 µm diameter or less (PM_{2.5}) was conducted using TSI SidePak AM520 instruments. Stationary real-time monitoring locations were established to encompass a 360° monitoring perimeter around the Facility.

For analytes for which continuous air monitoring equipment was unavailable, free-roaming handheld real-time air monitoring was utilized. This monitoring was conducted using Gastec GV-100 piston pumps with colorimetric detector tubes for nitric acid and ChemLogic CLPx Portable Gas Detectors were utilized to monitor for sulfuric acid.

3.0 AIR MONITORING RESULTS

Maps of the incident location, real-time air monitoring results, and the locations of stationary real-time air monitoring are provided in **Attachment A**. The results of handheld real-time air monitoring are summarized in **Table 1**. The results of stationary real-time air monitoring are summarized in Table 2. Visual

depictions of the AreaRAE data are provided in **Attachment B**. A wind rose depicting wind direction and wind speed during this reporting period is provided in **Attachment C**. Meteorological data were acquired from the PHILADELPHIA NE weather station in Philadelphia, PA.

3.1 Handheld Real-Time Air Monitoring

Table 1: Handheld Real-Time Community Monitoring Results*

Analyte	Instrument	Number of Readings	Number of Detections	Concentration Range**
Cl ₂	Gastec 8La	22	0	< 0.05 ppm
Nitric Acid	Gastec #15L	18	0	< 0.05 ppm
Sulfuric Acid	CLPx	18	0	< 23.3 ppb

*Note: The data provided has not undergone the full quality assurance and quality control (QAQC) process and should be considered preliminary at this time.

**If no detectable concentration was observed, the instrument detection limit is preceded by a "<" symbol.

There were no detections of any analyte evaluated during this reporting period during Community Monitoring.

Additionally, real-time air monitoring was conducted inside Jenkintown Middle/High School on the evening of February 20. The analytes evaluated were VOCs, HCN, H₂S, Cl₂, CO, %LEL, nitric acid, and sulfuric acid with no detections of any analyte within the school. The results of school monitoring were communicated to the Jenkintown Chief of Police the same evening.

3.2 Stationary Real-Time Air Monitoring

Table 1. Summary of Stationary Real-Time Air Monitoring Results[†]

Unit	Analyte	Number of Readings	Number of Detections	Concentration Range
Station 01	CO	3,161	7	2.0 - 5.0 ppm
	H ₂ S	3,161	0	< 0.1 ppm
	HCN	3,243	0	< 1.0 ppm
	%LEL	3,161	0	< 1.0 %
	VOCs	6,404	29	0.1 - 0.3 ppm
Station 02	CO	1,770	0	< 1.0 ppm
	H ₂ S	1,770	0	< 0.1 ppm
	HCN	2,772	0	< 1.0 ppm
	%LEL	1,770	0	< 1.0 %
	VOCs	4,542	103	0.1 ppm
Station 03	CO	2,394	0	< 1.0 ppm

	H ₂ S	2,394	0	< 0.1 ppm
	HCN	3,296	0	< 1.0 ppm
	%LEL	2,394	0	< 1.0 %
	VOCs	5,690	186	0.1 ppm
Station 04	CO	1,682	0	< 1.0 ppm
	H ₂ S	1,682	0	< 0.1 ppm
	HCN	3,282	0	< 1.0 ppm
	%LEL	1,682	0	< 1.0 %
	VOCs	4,946	771	0.1 - 1.7 ppm
Station 05	CO	1,205	0	< 1.0 ppm
	H ₂ S	2,380	0	< 0.1 ppm
	HCN	2,864	0	< 1.0 ppm
	%LEL	2,380	0	< 1.0 %
	VOCs	5,241	393	0.1 ppm
Station 06	CO	3,058	0	< 1.0 ppm
	H ₂ S	3,058	0	< 0.1 ppm
	HCN	3,102	0	< 1.0 ppm
	%LEL	3,058	0	< 1.0 %
	VOCs	6,160	902	0.1 - 0.3 ppm
Station 07	CO	2,310	0	< 1.0 ppm
	H ₂ S	2,310	0	< 0.1 ppm
	HCN	2,809	0	< 1.0 ppm
	%LEL	2,310	0	< 1.0 %
	VOCs	5,107	453	0.1 - 0.3 ppm

[†] Note: This is a preliminary data summary, indicating that the data provided have not undergone the full quality assurance and quality control (QAQC) process and should be considered preliminary at this time. AreaRAE monitoring data may contain drift events. Drift is defined as any interference in an instrument's photoionization detector (PID; 10.6 eV) or electrochemical sensor's ability to accurately report the concentration of a chemical in the atmosphere. Humidity, rapid temperature changes, and compromised instrument batteries are examples of common sources of drift.

* If no detection was observed, the instrument detection limit preceded by a "<" symbol is listed; ppm = parts per million

4.0 METEOROLOGICAL CONDITIONS

Attachment C contains a wind rose depicting wind speed and direction from station PHILADELPHIA NE, which is approximately 6.89mi from site.

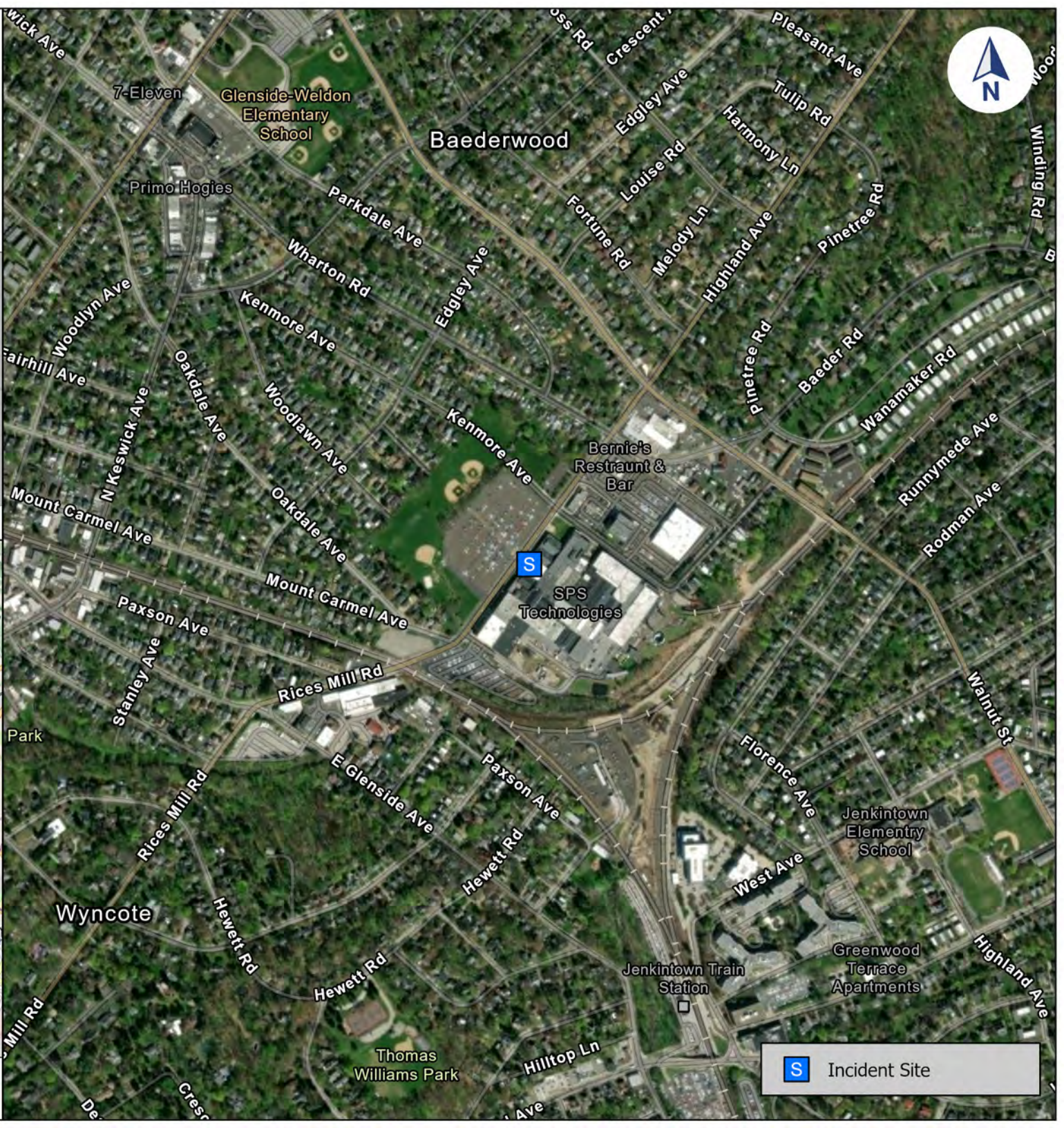
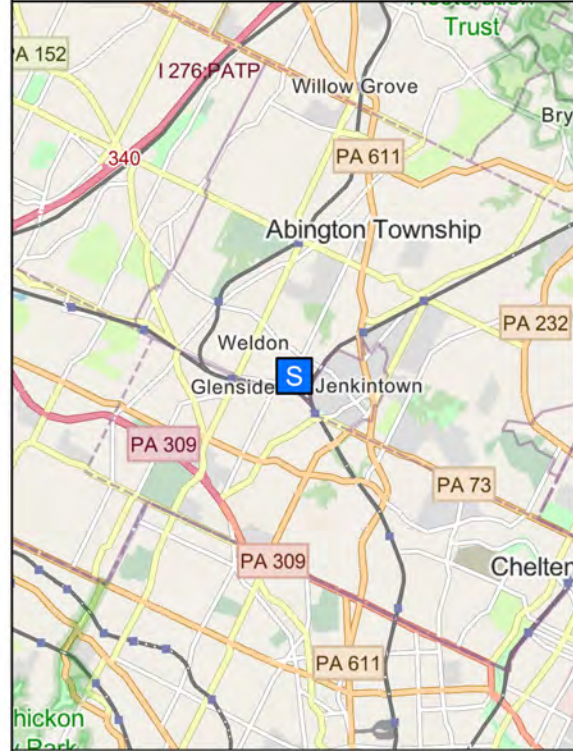
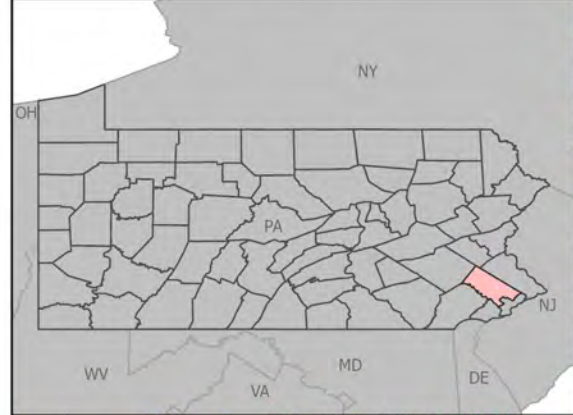
Attachment A


Maps



SPS Technologies Fire

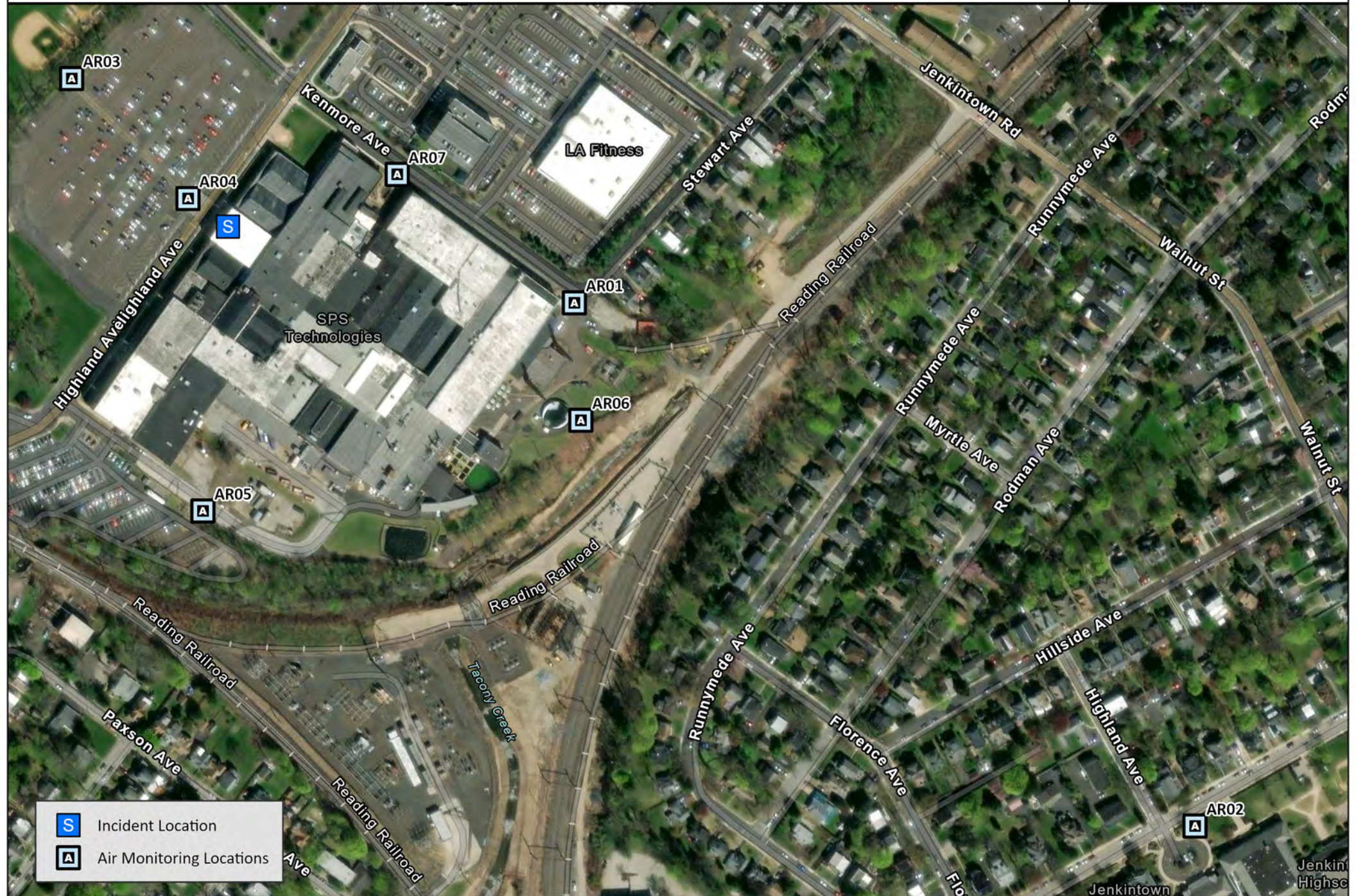
Incident Location
Abington Township, PA | Montgomery
County
PROJ-052216



 Incident Site

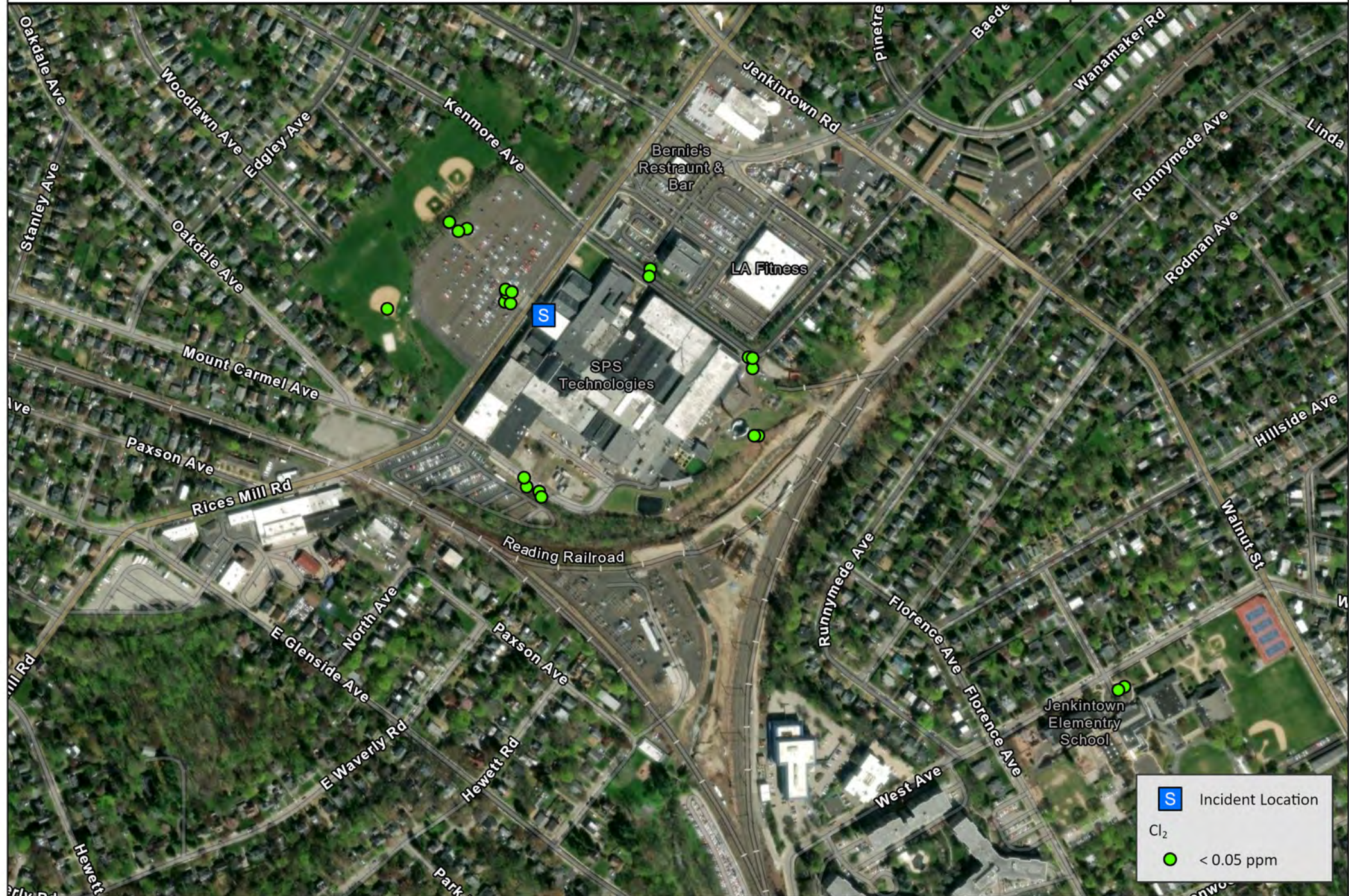
Updated At: 2/20/2025 4:59 PM

Projection: NAD 1983 2011 StatePlane Pennsylvania South
FIPS 3702

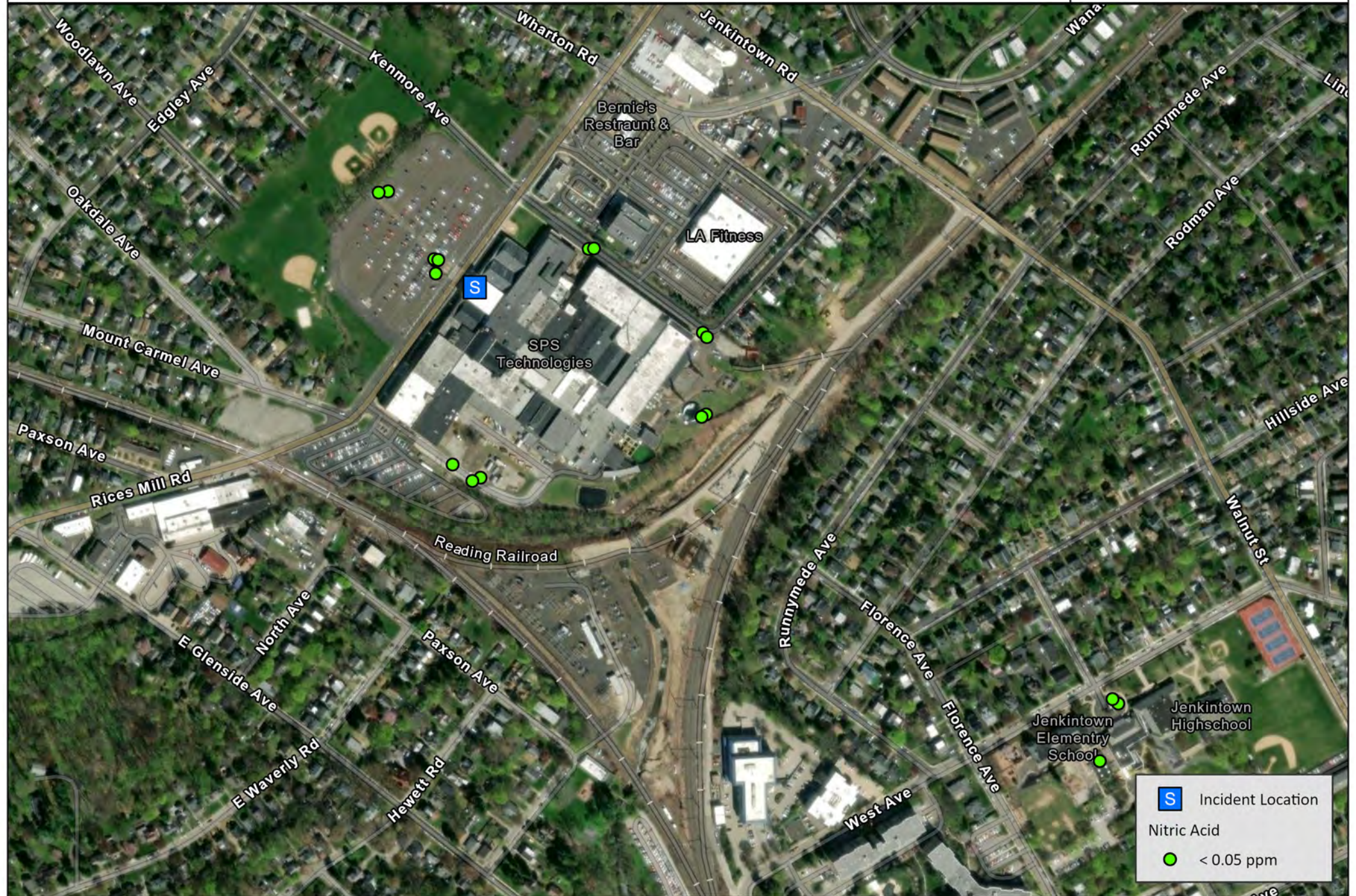


S Incident Location
A Air Monitoring Locations

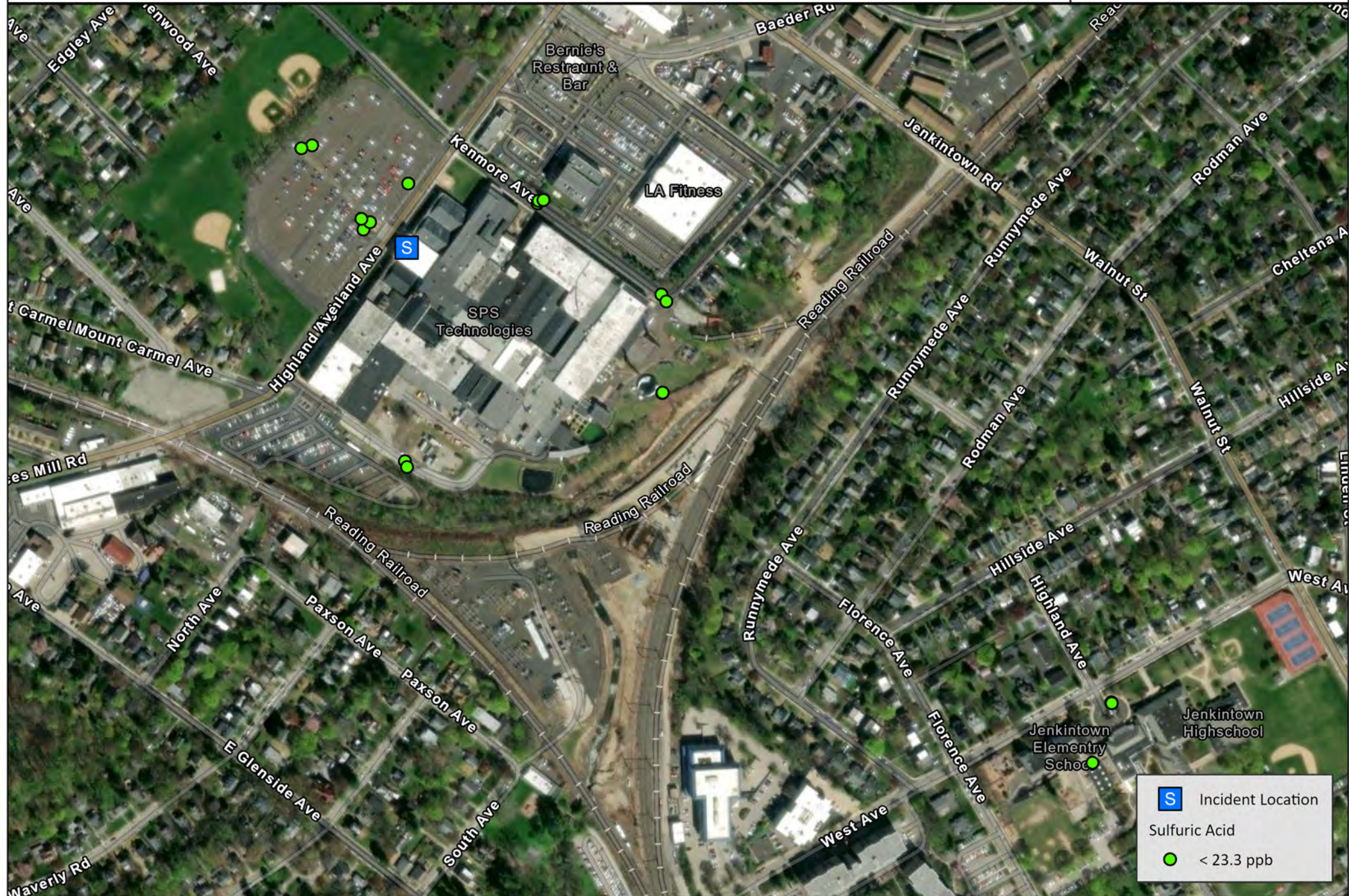






S Incident Location
Cl₂
● < 0.05 ppm




S Incident Location
Nitric Acid
● < 0.05 ppm



 Incident Location

 Sulfuric Acid

 < 23.3 ppb

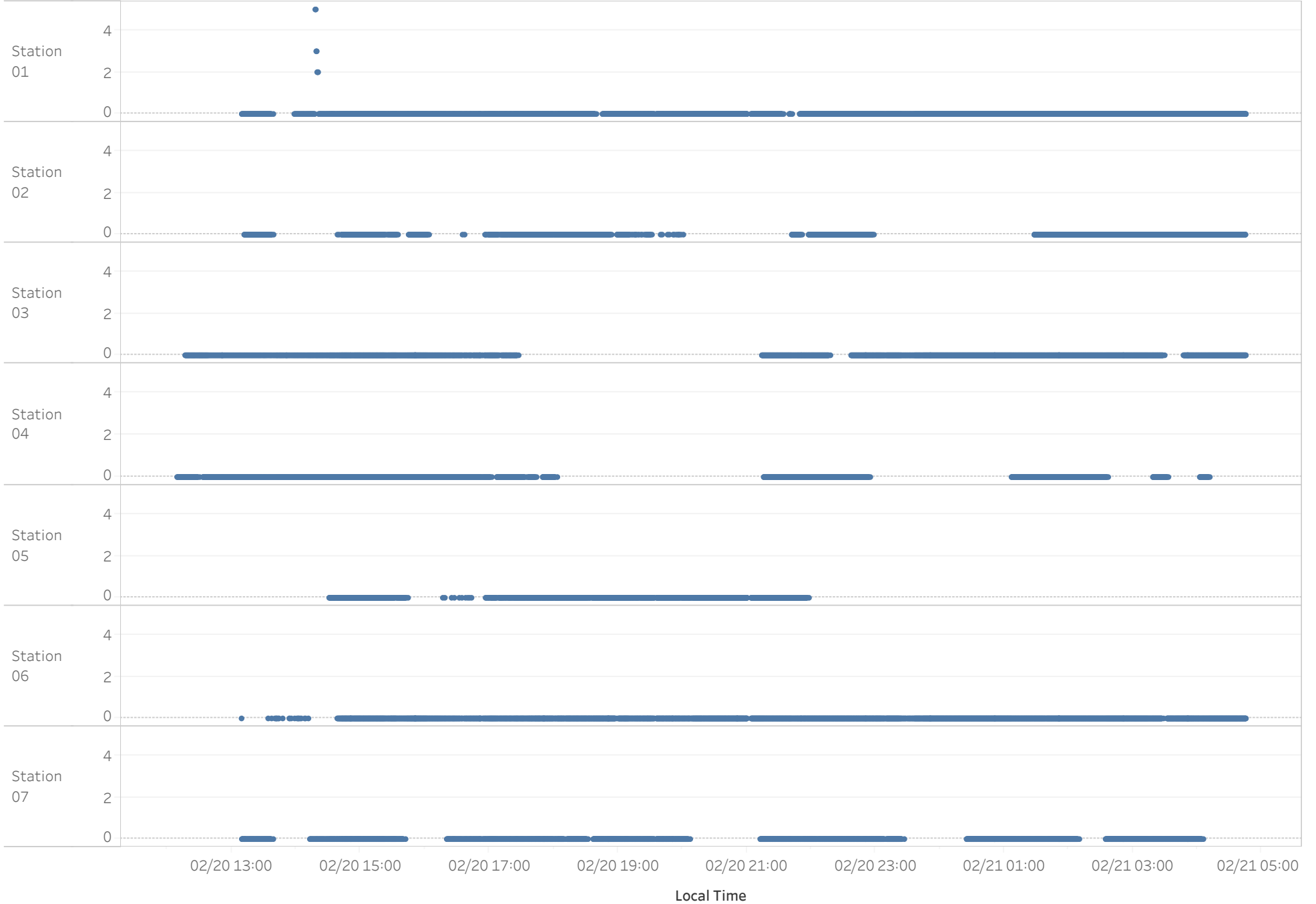
Attachment B

AreaRAE Graphs

Preliminary Remote-telemetered Real-time Air Monitoring Readings

PROJ-052216 | SPS Technologies Fire | Abington Township, PA

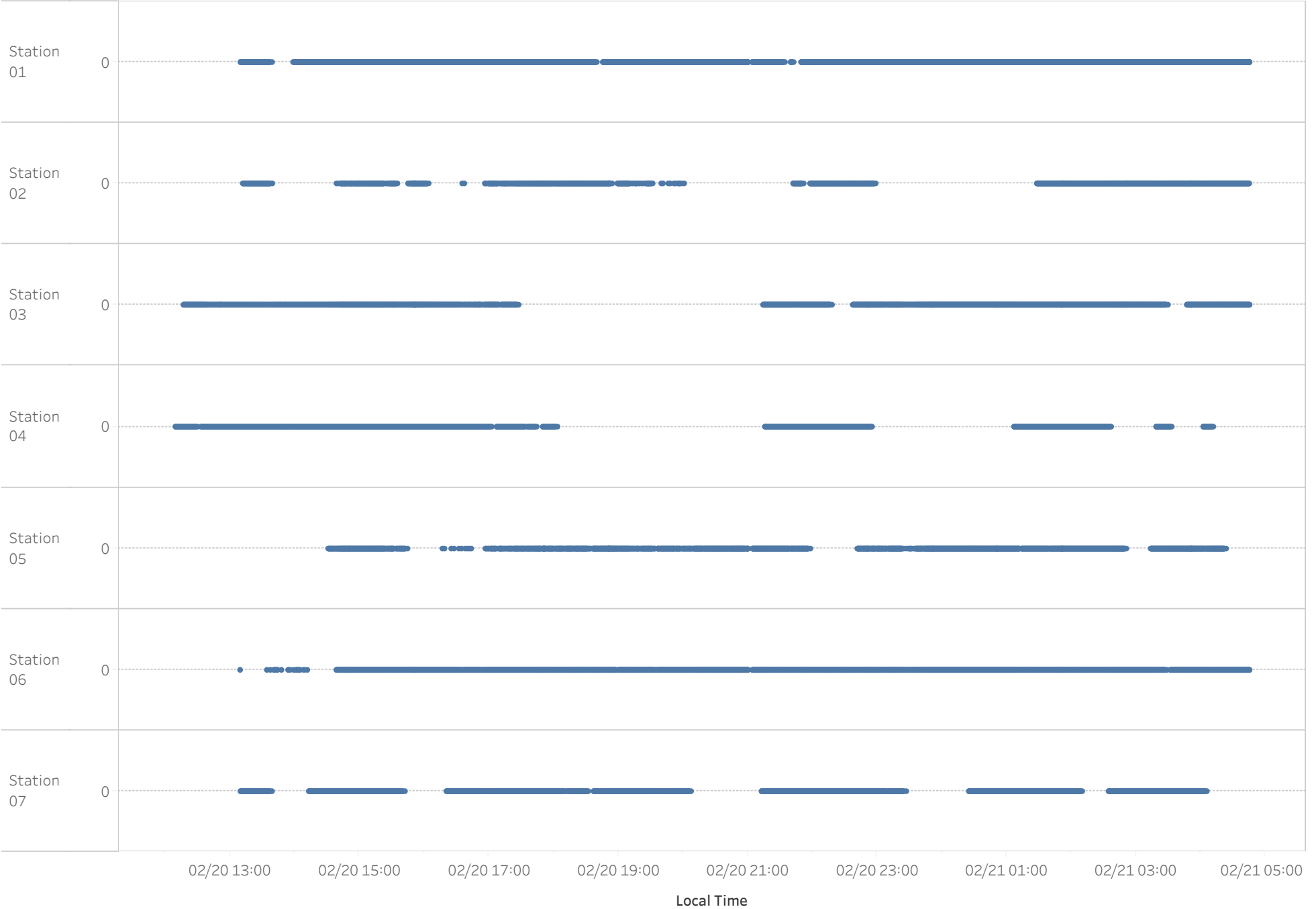
2/20/2025 12:08:41 PM to 2/21/2025 4:44:43 AM | Analyte: CO (ppm)



Preliminary Remote-telemetered Real-time Air Monitoring Readings

PROJ-052216 | SPS Technologies Fire | Abington Township, PA

2/20/2025 12:08:41 PM to 2/21/2025 4:44:43 AM | Analyte: H2S (ppm)



Preliminary Remote-telemetered Real-time Air Monitoring Readings

PROJ-052216 | SPS Technologies Fire | Abington Township, PA

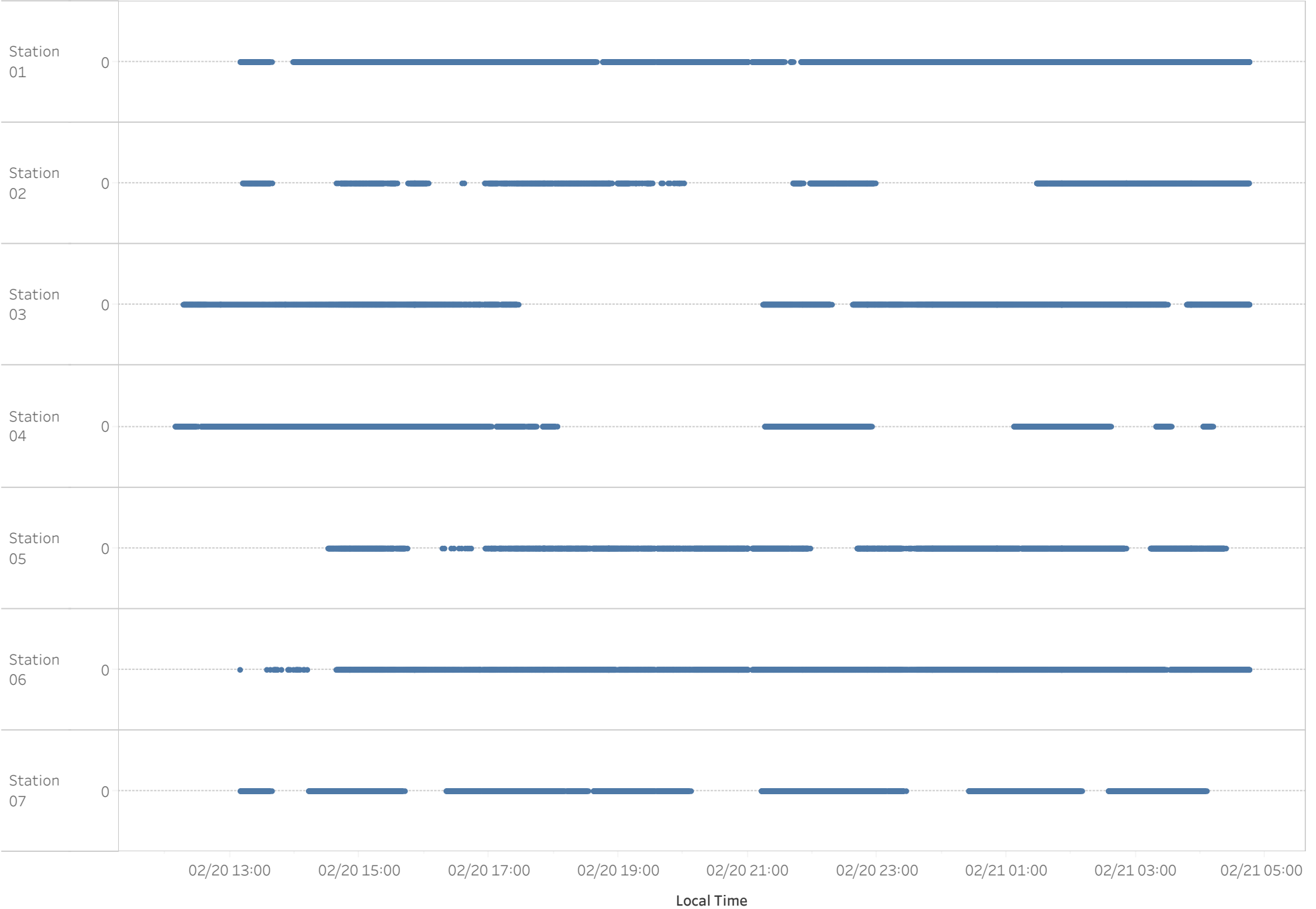
2/20/2025 12:08:41 PM to 2/21/2025 4:44:52 AM | Analyte: HCN (ppm)



Preliminary Remote-telemetered Real-time Air Monitoring Readings

PROJ-052216 | SPS Technologies Fire | Abington Township, PA

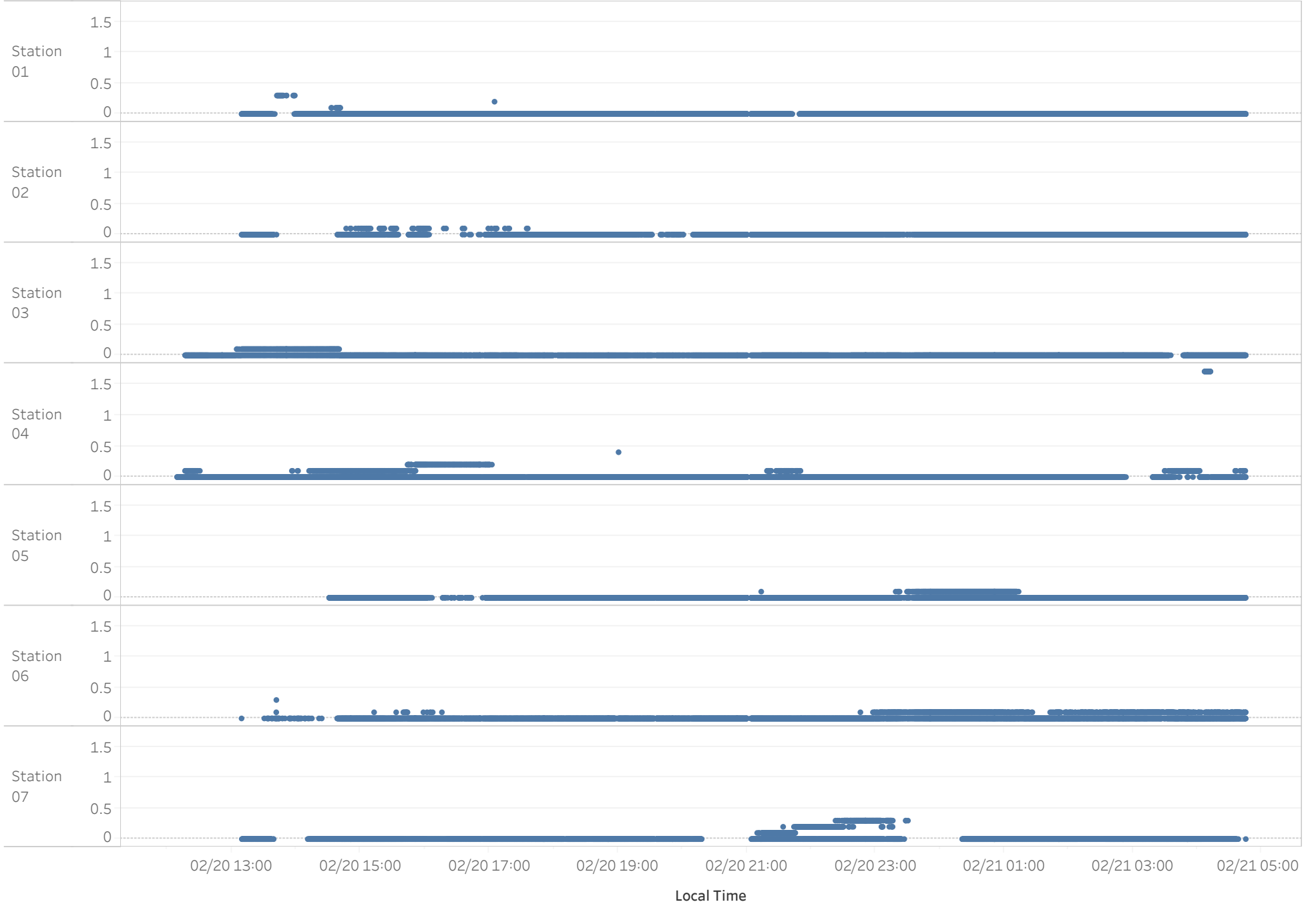
2/20/2025 12:08:41 PM to 2/21/2025 4:44:43 AM | Analyte: LEL (%)



Preliminary Remote-telemetered Real-time Air Monitoring Readings

PROJ-052216 | SPS Technologies Fire | Abington Township, PA

2/20/2025 12:08:41 PM to 2/21/2025 4:44:52 AM | Analyte: VOCs (ppm)



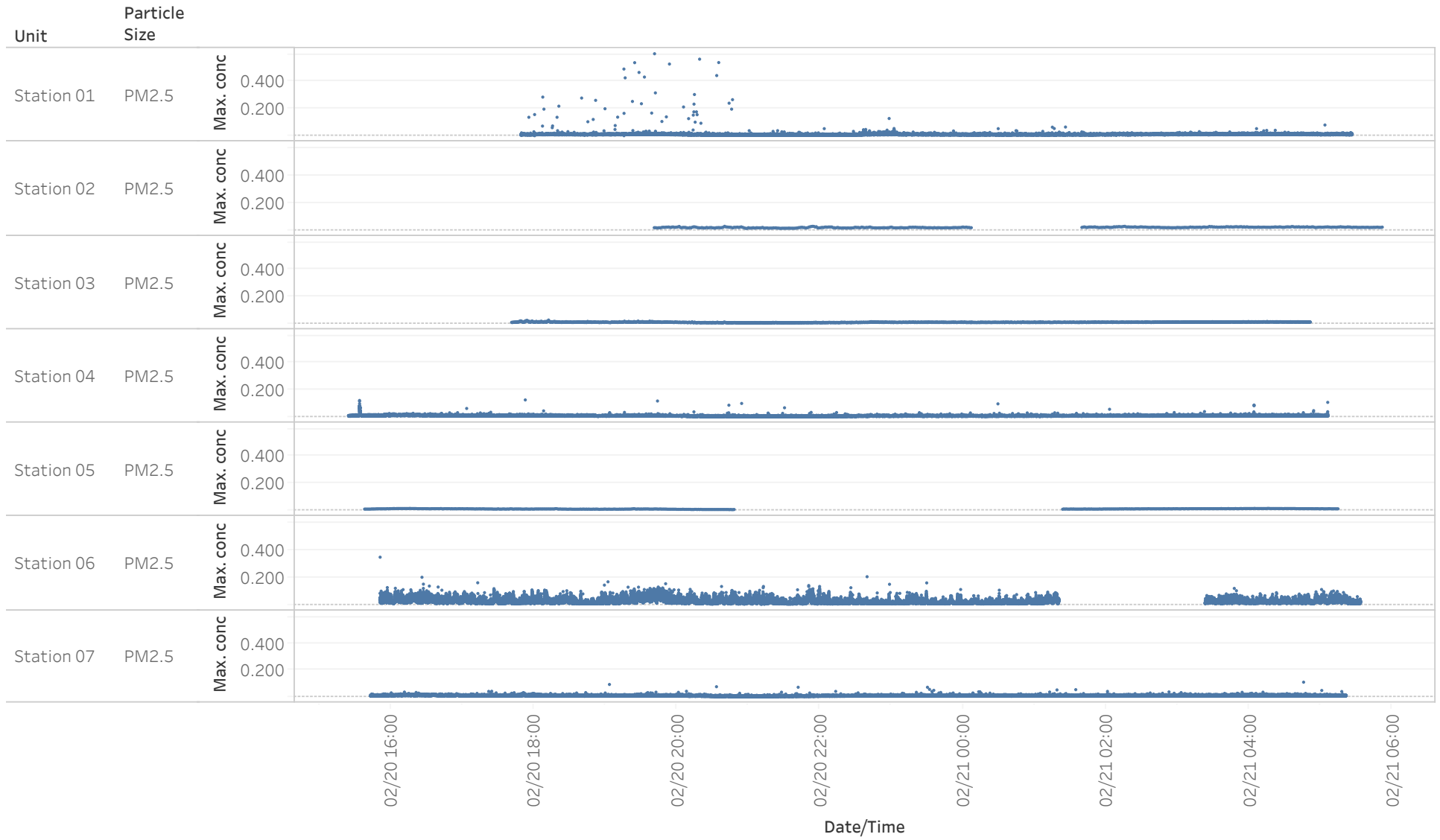
Summary Table

Unit ID	Analyte	Count of Readings	Count of Detections	Range of Detections
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	H2S	3,161	0	< 0.1 ppm
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	LEL	3,161	0	< 1.0 %
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PROJ-052216 | PM2.5 Graph

SPS Technologies Fire | Abington Township, PA

02/20 15:23 to 02/21 05:51



Summary Table

Unit	Particle Size	Count of Records	Count of Detections	Min. concentration	Max. concentration	Avg. concentration
Station 01	PM2.5	41,922	41,920	0.000	0.605	0.009
Station 02	PM2.5	520	520	0.014	0.029	0.021
Station 03	PM2.5	2,681	2,681	0.005	0.027	0.010
Station 04	PM2.5	49,312	49,312	0.002	0.126	0.009
Station 05	PM2.5	543	543	0.005	0.014	0.010
Station 06	PM2.5	42,021	42,021	0.006	0.347	0.027
Station 07	PM2.5	49,129	49,129	0.003	0.111	0.010

Attachment C

Meteorological Conditions

