

Preliminary Air Monitoring and Sampling Summary

Los Palos Warehouse Fire

Los Angeles, California

Prepared by: Onterris Response and Recovery, LLC

Air Monitoring Period: July 21, 2026

1.0 Introduction

Onterris Response and Recovery, LLC. (Onterris) personnel were contacted to provide air monitoring and environmental support regarding a cold-storage warehouse fire located at 1400 S. Los Palos Street in Los Angeles, California (herein referred to as the “Site”). Onterris personnel began real-time air monitoring on behalf of Lineage Logistics on June 23, 2026, at approximately 0006 Pacific Daylight Time (PDT). This report summarizes preliminary results of real-time air monitoring conducted by Onterris personnel from 0000 through 23:59 PDT on July 21, 2026, as well as results of air samples for VOCs collected on July 19 and July 20, 2026, and metals collected on July 16 and July 17, 2026. All data provided in this summary are considered preliminary; these data have not undergone full quality assurance and quality control (QA/QC) review and are subject to change.

2.0 Air Monitoring and Sampling Methods

Prior to arrival onsite, Onterris personnel developed a Preliminary Air Sampling and Analysis Plan (SAP) to document and quantify analytes of concern potentially associated with the Site. Onterris personnel have updated the SAP based on site conditions and operational phases in coordination with the United States Environmental Protection Agency (US EPA) and South Coast Air Quality Management District (AQMD). The SAP (v1.2) is provided in **Appendix A** and includes air monitoring plans for Community/Fenceline Monitoring and Site Assessment. This preliminary summary includes Community and Fenceline Monitoring data with all testing locations listed in **Appendix B**.

Beginning July 11, 2026, Onterris field personnel discontinued air monitoring strategies employed during the Recovery Operational period and immediately transitioned to the Remediation Operational Period. The Onterris air monitoring and sampling approach during the Remediation Operational Period involved localizing air monitoring resources closer to the Site fenceline and nearby residential and commercial receptors, with all analytes measured at a height consistent with the typical human breathing zone. This approach incorporated two air monitoring and sampling strategies: 1) roaming (and/or mobile) real-time air monitoring using direct-reading instruments at the fenceline and nearby residential locations upwind, downwind, and crosswind from the Site, and 2) stationary air monitoring and sampling using a combination of real-time and analytical sampling methodologies at five discrete locations along, or directly across the street from, the fenceline (DU01-05), and at two schools, as listed in **Table 1**. All analytes, air sampling methodologies, and locations for stationary monitoring and sampling were selected in coordination with South Coast AQMD.

Table 1: Stationary Air Monitoring and Sampling Locations

Operational Period	Location Code	Location Description
Remediation	DU01	Northwest Corner Facility Fenceline
	DU02	North Side of Warehouse
	DU03	Northeast Corner Facility Fenceline
	DU04	East Side of Facility Fenceline
	DU05	Southeast Side of Facility Fenceline
	AS03	Maywood Elementary School
	AS07	Eastman Elementary School

2.1 Real-Time Air Monitoring Methods

Real-time air monitoring was conducted by Onterris in the community surrounding the Site and at the fenceline in coordination with US EPA and South Coast AQMD. Two air monitoring strategies were utilized and are described below. All instrumentation was calibrated daily or in accordance with manufacturer's recommendations.

Roaming Community/Fenceline Air Monitoring

Onterris personnel conducted roaming real-time community and fenceline monitoring for volatile organic compounds (VOCs), ammonia (NH₃), hydrogen sulfide (H₂S), chlorine (Cl₂), carbon monoxide (CO), atmospheric flammability measured as a percentage of the lower explosive limit (%LEL), oxygen (O₂), and mercaptans. Monitoring was conducted using handheld instruments including Honeywell MultiRAEs with chemical-specific sensors and photoionization detectors (PIDs) and Gastec piston pumps with colorimetric detector tubes.

Onterris personnel also used a mobile AreaRAE instrument to continuously assess air at proposed community monitoring locations adjacent to the Site. The AreaRAE was equipped with sensors capable of measuring VOCs, %LEL, NH₃, H₂S, and O₂ concentrations in real-time at approximately 30-second intervals while recording GPS coordinates for each data point. VOC, %LEL, H₂S, and NH₃ detections at individual sensor limits of detection identified during mobile monitoring prompt field personnel to safely stop the vehicle and further assess conditions at the location.

Stationary Air Monitoring

During the Remediation Operational Period, stationary real-time telemetering air monitoring was conducted using DustTraks to assess particulates (PM_{2.5} and PM₁₀) at DU01-05 and AS07, while AreaRAEs were used to assess VOCs, %LEL, NH₃, CO, and O₂ along the Site fenceline at DU01-05. Additionally, datalogging SPM Flex devices were deployed and utilized at DU02, DU03, and AS07 for H₂S monitoring at concentrations as low as 0.001 ppb. All data were collected over 24-hour periods, from 0:00 PDT to 23:59 PDT, with respective real-time readings at each location yielding a daily average. For chemical concentrations yielding no detection, the sensor detection limit was used to derive conservative averages per analytes and respective locations.

2.2 Analytical Air Sampling Methods

To complement real-time air monitoring data collected at stationary air monitoring locations, analytical sampling was conducted for VOCs and metals over 24-hour periods in the community at DU02, DU03, AS03, and AS07 (**Table 1** and **Appendix C**). Analytical air sampling refers to the collection of discrete quantities of air using containers or chemical-specific media that are sent to an off-site laboratory for chemical analysis under chain of custody. All laboratories used for analytical air sampling are accredited through the National Environmental Laboratory Accreditation Conference (NELAC), California Environmental Laboratory Accreditation Program (CA ELAP), and/or American Industrial Hygiene Association (AIHA). Condition of analytical sampling containers collected by Onterris field personnel may dictate if samples are suitable for accessioning and processing by respective laboratories. Because of this, deployed analytical samples that are tampered with by non-field personnel or stolen, will be unavailable for laboratory processing. Laboratory results for VOCs and metal particulates are reported as they become available.

Volatile Organic Compounds

Following transition from the Recovery Operational Period to the Remediation Operational Period, Onterris personnel deployed air samples for VOCs at DU02, DU03, AS03, and AS07 (**Appendix C**). Integrated VOC sampling was conducted using 1.4-L evacuated canisters to enable off-site laboratory analysis via US EPA Method TO-15 in accordance with the SAP (**Appendix A**). Analytical air samples for VOCs were collected for a duration of approximately 24 hours and were deployed at a height representative of the human breathing zone.

Metal Particulate Sampling

Air sampling for metals was conducted at DU02, DU03, AS03, and AS07 (**Appendix C**) using SKC sampling pumps calibrated to a flow rate of 3 liters per minute (L/min), and sampling pumps were set up to draw air through 0.8- μ m mixed cellulose ester membrane filter cassettes. Samples were collected over a 24-hour period (approximately 1,440 minutes) at a height representative of the human breathing zone and sent to an off-site laboratory under chain of custody for analysis of target metals via NIOSH Method 7303. Sample volume recommendations by the laboratory were followed for achieving appropriate lower detection limits for respective metal analysis.

3.0 Air Monitoring and Sampling Results

Results of real-time air monitoring are summarized in **Tables 2** through **5**. Maps of the incident site and real-time air monitoring locations are provided in **Appendix B**.

Results of VOC samples collected on July 19 and July 20, 2026, are summarized in Table 6. Results for metal particulate samples collected on July 16 and July 17, 2026, are summarized in Table 7. A map of stationary air monitoring and analytical air sampling locations is provided in **Appendix C**. Meteorological data during the July 20, 2026, reporting period were acquired from the Santa Monica Airport and are provided in **Appendix D**.

Table 2: Community Handheld Air Monitoring Results
Collected July 21, 2026

Analyte	Instrument	Number of Readings	Number of Detections	Concentration Range*
Chlorine	Gastec #8La	8	0	< 0.05 ppm
CO	Gastec #1LC	28	0	< 0.5 ppm
H ₂ S	MultiRAE	31	0	< 0.1 ppm
% LEL	MultiRAE	32	0	< 1 %
Mercaptans	Gastec #70L	30	0	< 0.05 ppm
NH ₃	Gastec #3L	23	0	< 0.2 ppm
	MultiRAE	11	0	< 1 ppm
O ₂	MultiRAE	10	10	20.9 %
VOCs	MultiRAE	33	0	< 0.1 ppm

Abbreviations: ppm = parts per million

Note: This is a preliminary data summary, indicating that the data provided have not undergone the full quality assurance and quality control (QA/QC) process and should be considered preliminary at this time.

*Analytes with no detections are reported as less than (“<”) the instrument’s Limit of Detection (LOD)

Table 3: Fenceline Handheld Air Monitoring Results
Collected July 21, 2026

Analyte	Instrument	Number of Readings	Number of Detections	Concentration Range*
Chlorine	Gastec #8La	16	0	< 0.05 ppm
CO	Gastec #1LC	27	0	< 0.5 ppm
H ₂ S	MultiRAE	26	0	< 0.1 ppm
% LEL	MultiRAE	57	0	< 1 %
Mercaptans	Gastec #70L	32	0	< 0.05 ppm
NH ₃	MultiRAE	55	0	< 1 ppm
O ₂	MultiRAE	55	55	20.9 %
VOCs	MultiRAE	60	3	0.1 ppm

Abbreviations: ppm = parts per million

Note: This is a preliminary data summary, indicating that the data provided have not undergone the full quality assurance and quality control (QA/QC) process and should be considered preliminary at this time.

*Analytes with no detections are reported as less than (“<”) the instrument’s Limit of Detection (LOD)

Table 4: Mobile AreaRAE Air Monitoring Results
Collected July 21, 2026

Date	Analyte	Number of Readings	Number of Detections	Concentration Range*
July 21, 2026	% LEL	5,648	0	< 1.0 %
	H ₂ S	5,648	0	< 0.1 ppm
	NH ₃	5,648	0	< 1.0 ppm
	O ₂	5,648	5,648	20.9 - 21.2 %
	VOCs	5,648	105	0.1 - 0.9 ppm

Abbreviations: ppm = parts per million; INT = instrument interferences observed

Note: This is a preliminary data summary, indicating that the data provided have not undergone the full quality assurance and quality control (QA/QC) process and should be considered preliminary at this time.

*Analytes with no detections are reported as less than ("<") the instrument's Limit of Detection (LOD)

Table 5: Fixed Station Air Monitoring Results
Collected July 21, 2026

Location Code	Instrument	Analyte	Number of Readings	Number of Detections	Average Concentration	Concentration Range*
DU01	AreaRAE	% LEL	5,522	0	ND	< 1.0 %
		CO	5,522	0	ND	< 1.0 ppm
		NH ₃	5,522	0	ND	< 1.0 ppm
		O ₂	5,522	5,522	20.9	20.5 - 20.9 %
		VOCs	5,522	0	ND	< 0.1 ppm
	DustTrak	PM _{2.5}	8,593	8,593	0.011	0.003 - 0.065 mg/m ³
		PM ₁₀	8,586	8,586	0.018	0.004 - 0.783 mg/m ³
DU02	AreaRAE	% LEL	5,374	0	ND	< 1.0 %
		CO	5,374	140	1.2**	2.0 - 10.0 ppm (INT)
		NH ₃	5,374	0	ND	< 1.0 ppm
		O ₂	5,374	5,374	20.9	20.4 - 21.1 %
		VOCs	5,374	249	0.1	0.1 - 0.8 ppm
	DustTrak	PM _{2.5}	8,618	8,618	0.011	0.002 - 0.165 mg/m ³
		PM ₁₀	8,618	8,618	0.017	0.002 - 0.670 mg/m ³
DU03	AreaRAE	% LEL	5,394	0	ND	< 1.0 %
		CO	5,481	27	1.0	2.0 - 5.0 ppm
		NH ₃	5,481	0	ND	< 1.0 ppm
		O ₂	5,481	5,481	20.9	20.4 - 21.3 %
		VOCs	5,481	962	0.1	0.1 - 4.8 ppm
	DustTrak	PM _{2.5}	8,381	8,381	0.012**	0.001 - 0.297 mg/m ³ (INT)
		PM ₁₀	8,381	8,371	0.018**	0.001 - 1.26 mg/m ³ (INT)
	SPM Flex	H ₂ S	8,348	2,229	0.003	0.001 - 0.017 ppm

Location Code	Instrument	Analyte	Number of Readings	Number of Detections	Average Concentration	Concentration Range*
DU04	AreaRAE	% LEL	5,483	0	ND	< 1.0 %
		CO	5,483	4	1.0	2.0 - 5.0 ppm
		NH ₃	5,483	0	ND	< 1.0 ppm
		O ₂	5,483	5,483	20.9	20.9 %
		VOCs	5,483	4	0.1	0.1 - 0.2 ppm
	DustTrak	PM _{2.5}	8,087	8,087	0.011	0.003 - 0.252 mg/m ³
		PM ₁₀	8,087	8,087	0.020	0.003 - 0.769 mg/m ³
DU05	AreaRAE	% LEL	5,554	0	ND	< 1.0 %
		CO	5,554	0	ND	< 1.0 ppm
		NH ₃	5,554	0	ND	< 1.0 ppm
		O ₂	5,554	5,554	20.9	20.9 %
		VOCs	5,554	0	ND	< 0.1 ppm
	DustTrak	PM _{2.5}	8,613	8,613	0.008	0.002 - 0.095 mg/m ³
		PM ₁₀	8,613	8,613	0.015	0.002 - 0.509 mg/m ³
AS07	DustTrak	PM _{2.5}	8,531	8,531	0.005	0.001 - 0.018 mg/m ³
		PM ₁₀	8,531	8,531	0.006	0.001 - 0.049 mg/m ³
	SPM Flex	H ₂ S	6,618	652	0.002	0.001 - 0.003 ppm

Abbreviations: ppm = parts per million; mg/m³ – milligrams per cubic meter; INT = instrument interferences observed, ND = No Detection (calculated mean not applicable); PD = potential sensor drift

Note: This is a preliminary data summary, indicating that the data provided have not undergone the full quality assurance and quality control (QA/QC) process and should be considered preliminary at this time.

*Analytes with no detections are reported as less than (“<”) the instrument's Limit of Detection (LOD)

**Interferences were observed with either CO sensors or PM_{2.5}/PM₁₀ measurements due to site conditions. CO sensors were observed near Site doorways biasing high detections due to the escape of cool, moist air. Confirmation readings using secondary instruments, which may include chemical-sensors or gastec instruments, were used to perform follow-up readings during these periods, yielding no detections above action levels. Similarly, elevated PM_{2.5}/PM₁₀ measurements have been observed at DU01-5 due to use of deodorizing mists, producing short-lived elevated results.

Table 6: Summary of Air Sampling Results for TO-15
Samples Collected July 19 - 20, 2026

Analyte	Number of Results	Number of Detections	Concentration Range*
Benzene	8	8	0.12 (J) ppbv - 0.22 (J) ppbv
Benzyl chloride	8	0	< 0.042 ppbv
Bromodichloromethane	8	0	< 0.032 ppbv
Bromoform	8	0	< 0.021 ppbv
Bromomethane	8	0	< 0.032 ppbv
Butane	8	8	0.53 ppbv - 1.1 ppbv
Carbon Disulfide	8	2	0.092 (J) ppbv - 0.19 (J) ppbv
Carbon Tetrachloride	8	8	0.059 (J) ppbv - 0.093 (J) ppbv
Chlorobenzene	8	0	< 0.029 ppbv

Analyte	Number of Results	Number of Detections	Concentration Range*
Chlorodifluoromethane	8	8	0.2 (J) ppbv - 0.45 ppbv
Chloroethane	8	8	0.2 (J) ppbv - 1.2 ppbv
Chloroform	8	3	0.034 (J) ppbv - 0.045 (J) ppbv
Chloromethane	8	8	0.45 ppbv - 0.7 ppbv
cis-1,2-Dichloroethene	8	0	< 0.027 ppbv
cis-1,3-Dichloropropene	8	0	< 0.023 ppbv
Cyclohexane	8	1	0.069 (J) ppbv
Dibromochloromethane	8	0	< 0.018 ppbv
Ethanol	8	8	46 ppbv - 370 ppbv
Ethyl Acetate	8	8	0.64 (J) ppbv - 1.9 ppbv
Ethyl tert-Butyl Ether (ETBE)	8	0	< 0.022 ppbv
Ethylbenzene	8	4	0.039 (J) ppbv - 0.15 (J) ppbv
Freon 12	8	8	0.37 ppbv - 0.51 ppbv
Freon 113	8	2	0.061 (J) ppbv - 0.066 (J) ppbv
Freon 114	8	1	0.025 (J) ppbv
Hexachlorobutadiene	8	0	< 0.03 ppbv
Hexachloroethane	8	0	< 0.034 ppbv
Isopropanol (IPA)	8	8	3.2 ppbv - 20 ppbv
Isopropyl Ether (DIPE)	8	0	< 0.047 ppbv
Isopropylbenzene	8	1	0.11 (J) ppbv
m,p-Xylenes	8	6	0.092 (J) ppbv - 0.32 (J) ppbv
Methanol	8	8	16 ppbv - 100 ppbv
Methyl methacrylate	8	0	< 0.046 ppbv
Methyl tert-Amyl Ether (TAME)	8	0	< 0.022 ppbv
Methylene Chloride	8	4	0.12 (J) ppbv - 0.18 (J) ppbv
MTBE	8	0	< 0.032 ppbv
n-Butylbenzene	8	0	< 0.022 ppbv
n-Heptane	8	6	0.079 (J) ppbv - 0.12 (J) ppbv
n-Hexane	8	8	0.12 (J) ppbv - 0.32 (J) ppbv
n-Nonane	8	1	0.046 (J) ppbv
n-Pentane	8	8	0.23 (J) ppbv - 0.51 ppbv
Naphthalene	8	1	0.7 (J) ppbv
o-Xylene	8	3	0.04 (J) ppbv - 0.19 (J) ppbv
Propylbenzene	8	0	< 0.027 ppbv
Propylene	8	2	0.16 (J) ppbv - 0.21 (J) ppbv
sec-Butylbenzene	8	0	< 0.018 ppbv
Styrene	8	4	0.076 (J) ppbv - 0.14 (J) ppbv
tert-Butyl Alcohol (TBA)	8	8	0.3 (J) ppbv - 2.3 ppbv
tert-Butylbenzene	8	0	< 0.021 ppbv
Tetrachloroethene	8	1	0.038 (J) ppbv

Analyte	Number of Results	Number of Detections	Concentration Range*
Tetrahydrofuran	8	0	< 0.076 ppbv
Toluene	8	8	0.39 ppbv - 0.7 ppbv
trans-1,2-Dichloroethene	8	0	< 0.027 ppbv
trans-1,3-Dichloropropene	8	0	< 0.019 ppbv
Trichloroethene	8	0	< 0.029 ppbv
Trichlorofluoromethane	8	8	0.16 (J) ppbv - 0.24 (J) ppbv
Vinyl Acetate	8	0	< 0.095 ppbv
Vinyl bromide	8	0	< 0.022 ppbv
Vinyl Chloride	8	0	< 0.021 ppbv
Xylene (total)	8	6	0.11 (J) ppbv - 0.51 (J) ppbv

Abbreviations: ppbv = parts per billion by volume

(J) indicates the result is an estimated value below the laboratory reporting limit; (B) indicates the analyte was detected in the associated method blank.

Note: This is a preliminary data summary, indicating that the data provided have not undergone the full quality assurance and quality control (QA/QC) process and should be considered preliminary at this time.

*Analytes with no detections are reported as less than ("<") the laboratory's method detection limit (MDL)

Table 7: Summary of Air Sampling Results for Metal Particulates
Samples Collected July 16 - 17, 2026

Analyte	Number of Results	Number of Detections	Concentration Range*
Arsenic	8	0	< 0.034 µg/m ³
Cadmium	8	0	< 0.0034 µg/m ³
Chromium	8	0	< 0.52 µg/m ³
Cobalt	8	0	< 0.011 µg/m ³
Copper	8	0	< 0.069 µg/m ³
Iron Oxide	8	2	4.1 µg/m ³ - 7.2 µg/m ³
Lead	8	0	< 0.017 µg/m ³
Lithium	8	0	< 0.034 µg/m ³
Manganese	8	2	0.046 µg/m ³ - 0.076 µg/m ³
Nickel	8	0	< 0.069 µg/m ³
Zinc Oxide	8	0	< 1.1 µg/m ³

Abbreviations: µg/m³ = micrograms per cubic meter

Note: This is a preliminary data summary, indicating that the data provided have not undergone the full quality assurance and quality control (QA/QC) process and should be considered preliminary at this time.

*Analytes with no detections are reported as less than ("<") the laboratory's method detection limit (MDL)

Appendix A Sampling and Analysis Plan

Air Sampling and Analysis Plan

Boyle Heights Warehouse Fire
Los Angeles, California

Prepared by: Onterris Response and Recovery, LLC

June 27, 2026

Version 1.2

	Name/Organization	Signature	Date Signed
Prepared by:	Max Ford, PhD / Onterris	Max Ford	6/23/2026
Reviewed by:			
Reviewed by:			

Air Monitoring and Sampling Strategy

Onterris is focusing on the mixtures, chemicals, and indicators of flammability chosen below because they are among the most important and readily monitored airborne hazards during a cold storage facility fire. The possible hazards may vary by the source and type of refrigerant used within the facility as well as with the combustion and environmental conditions associated with the incident. Monitoring and/or sampling for some chemicals associated with the event may be added, conducted less frequently, or discontinued as site-specific information becomes available or as monitoring and/or sampling results indicate that these chemicals and indicators do not pose a health concern.

The strategy is to utilize three broadly defined monitoring plans, namely **1) Community Monitoring**, **2) and 3) Site Assessment**. While some of these plans may not be implemented immediately, this document delineates variations in these monitoring plans, should they be implemented. Community Monitoring will occur in publicly accessible community areas, including residential and/or commercial locations surrounding the incident site, at a height representative of the human breathing zone. Community Monitoring may also include Fenceline Monitoring, which may occur at the perimeter or outer fenceline of the incident site or work area, at a height representative of the human breathing zone. If conducted, detections observed during Fenceline Monitoring are intended to be a first-line indicator of potential issues at the site and are not necessarily indicative of exposure to downwind receptors. Unlike Community Monitoring, Site Assessment may involve a variety of different monitoring tasks intended to provide information that may help to delineate the nature and extent of the release (e.g., worst case determination, container headspace, ground level) and is not necessarily representative of ambient air monitoring near breathing zone level.

Free-roaming handheld real-time air monitoring may be conducted in a variety of areas based on levels of activity, proximity to the release, and site conditions. The presence or absence of odors, including odor characteristics and description if an odor is detected, will be documented with every handheld real-time air monitoring reading.

Radio-telemetry real-time air monitoring units may be deployed at discrete (stationary) locations to allow for continuous air monitoring in multiple areas. Readings collected using stationary real-time air monitoring instruments will be received and monitored in a centralized location by field personnel to allow for recognition, communication, and rapid response to changing conditions.

Air samples may be collected and sent to an off-site laboratory for chemical analysis. These analytical air sampling techniques may be used to provide air quality data beyond the scope of real-time instruments. When necessary, air samples may be collected on individual workers (personal sampling) to provide exposure data over the course of a work shift for more direct comparison to occupational exposure values.

Site-Specific Action Levels

Onterris site-specific action levels are employed to provide information for corrective action to limit potential exposures. These values do not replace occupational or community exposure standards or guidelines but, rather, are intended to represent a concentration limit that triggers a course of action to better address worker and public safety. Action level exceedances will be communicated to Site Management and the Onterris Project Manager (PM) and/or Project Technical Director (PTD). Work practices will be assessed and adjusted as necessary. Site-specific action levels are not utilized for Site Assessment monitoring.

Plan 1: Community/Fenceline Monitoring

Objective: Report air levels before they reach those causing nuisance or health issues

Analyte	Action Level ¹	Action to be Taken	Basis ¹	Instrument	Detection Limit	Notes	Correction Factor
Total volatile organic compounds (VOCs) ²	0.5 ppm 15 min	Assess for ammonia vapor with secondary instrument; note odors for all detections; report ammonia detections to PM/PTD	1/6 of AEGL-1 for ammonia	MultiRAE PID (10.6 eV lamp)	0.1 ppm	Range: 0.1 – 5,000 ppm	Variable ⁴
Ammonia	Detection	Confirm with secondary instrument; note odors for all detections; report reading to PM/PTD.	Inform PM/PTD of potential off-site impact	MultiRAE Sensor AreaRAE Sensor	1.0 ppm	Range: 1 – 100 ppm	N/A
				Gastec #3L	0.2 ppm	Range: 1 – 30 ppm Volume: 100 mL Pull one 100-mL pump stroke	Variable ⁴
Hydrogen Sulfide	Detection	Assess for hydrogen sulfide with secondary instrument; note odors for all detections; report hydrogen sulfide detections to PM/PTD	Inform PM/PTD of potential off-site impact	MultiRAE Sensor AreaRAE Sensor	0.1 ppm	Range: 0 – 100 ppm	NA
				Gastec tube #4LL	0.1 ppm	Range: 0.25 – 120 ppm Volume: 1,000 mL (10 x 100 mL pump strokes)	Var.
Chlorine	Detection	Assess for chlorine with secondary instrument; note odors for all detections; report hydrogen sulfide detections to PM/PTD	Indicator of potential off-site impacts	Gastec tube #8La	0.05 ppm	Range: 0.1 – 16 ppm Volume: 500 mL (5 x 100-mL pump strokes)	Variable ⁴
Mercaptans	Detection	Assess for mercaptans with secondary instrument; note odors for all detections; report hydrogen sulfide detections to PM/PTD	Indicator of potential off-site impacts	Gastec tube #70L	0.1 ppm	Range: 0.1 – 8 ppm Volume: 400 mL (4 x 100-mL pump strokes)	Variable ⁴
Oxygen (O ₂)	< 19.5 % Immediate	Exit area; Report reading to PM/PTD	O ₂ -deficient atmosphere, as defined by 29 CFR 1910.134	MultiRAE Sensor	0.1 %	Range: 0 – 30 %	N/A
				AreaRAE Sensor	0.1 %	Range: 0 – 30 %	N/A

¹ Community action levels are generally set as “detection” to inform the PM/PTD of any potential off-site impact. Protective Action Criteria (PAC-1) established by the United States Department of Energy (US DOE) for the chemical analytes listed above are provided in Table 1. A PAC-1 is the airborne concentration (expressed as ppm [parts per million] or mg/m³ [milligrams per cubic meter]) of a substance above which it is predicted that the general population, including susceptible individuals, when exposed for more than one hour, could experience notable discomfort, irritation, certain asymptomatic, or nonsensory effects, or may perceive a clearly defined objectionable odor. However, these effects are not disabling and are transient and reversible upon cessation of exposure.

² 10.6 eV PID must be used for ammonia concentrations over 50 ppm to avoid ammonia sensor exhaustion/damage.

³ Readings collected using the MultiRAE PID and AreaRAE PID are recorded as uncorrected (raw) concentrations. Correction factors for various compounds are listed in Honeywell Technical Notes TN-106B (MultiRAE) and TN-106A (AreaRAE).

⁴ Readings collected using Gastec tubes are recorded as uncorrected (raw) concentrations. The correction factors for Gastec tubes are dependent on volume of air used (i.e., number of pump strokes).

Abbreviations: VOCs = volatile organic compounds; ppm = parts per million; PM = Onterris Project Manager; PTD = Onterris Project Technical Director; PID = photoionization detector; eV = electron volt; N/A = not applicable; CFR = Code of Federal Regulations

Plan 1: Community/Fenceline Monitoring – Combustion Products¹

Analyte	Action Level	Action to be Taken	Basis ²	Instrument	Detection Limit	Notes	Correction Factor
Particulate matter with a diameter of 2.5 microns or less (PM _{2.5})	0.035 mg/m ³ 1 hour	Report reading to PM/PTD	Upper-bound breakpoint for AQI category considered Moderate	TSI SidePak AM510/AM520 TSI DuskTrak	0.001 mg/m ³	Range: 0.001 – 100 mg/m ³ PM _{2.5} impactor: 50% cut-off at 2.5 microns	0.38 ³
Particulate matter with a diameter of 10 microns or less (PM ₁₀)	0.15 mg/m ³ 1 hour	Report reading to PM/PTD	Upper-bound breakpoint for AQI category considered Moderate	TSI SidePak AM510/AM520 TSI DuskTrak	0.001 mg/m ³	Range: 0.001 – 100 mg/m ³ PM ₁₀ impactor: 50% cut-off at 10 microns	0.38 ³
Carbon monoxide (CO)	Detection	Report reading to PM/PTD	Inform PM/PTD of potential off-site impact	MultiRAE Sensor AreaRAE Sensor	1 ppm	Range: 1 – 500 ppm	NA
				Gastec tube #1LC	0.5 ppm	Range: 1 – 30 ppm Volume: Pull 1 100-mL pump strokes	Variable ⁴
Sulfur dioxide (SO ₂)	Detection	Report reading to PM/PTD	Inform PM/PTD of potential off-site impact	Gastec tube #5Lb	0.01 ppm	Range: 0.05 – 10 ppm Volume: Pull 8 100-mL pump strokes	Variable ⁴
				MultiRAE Sensor AreaRAE Sensor	0.1 ppm	Range: 0.1 – 20 ppm	N/A
Nitrogen dioxide (NO ₂)	Detection	Report reading to PM/PTD	Inform PM/PTD of potential off-site impact	MultiRAE Sensor AreaRAE Sensor	0.1 ppm	Range: 0.1 – 20 ppm	N/A
				Gastec tube #9L	0.1 ppm	Range: 0.5 – 125 ppm Volume: Pull 2 100-mL pump strokes	Variable ⁴

¹ Monitoring for combustion products may be discontinued when the fire is extinguished.

² Community action levels are generally set as “detection” to inform the PM/PTD of any potential off-site impact. Protective Action Criteria (PAC-1) established by the United States Department of Energy (US DOE) for the chemical analytes listed above are provided in Table 1. A PAC-1 is the airborne concentration (expressed as ppm [parts per million] or mg/m³ [milligrams per cubic meter]) of a substance above which it is predicted that the general population, including susceptible individuals, when exposed for more than one hour, could experience notable discomfort, irritation, certain asymptomatic, or nonsensory effects, or may perceive a clearly defined objectionable odor. However, these effects are not disabling and are transient and reversible upon cessation of exposure.

³ Readings collected using the SidePak AM510/AM520 or DustTrak are recorded as uncorrected (raw) concentrations. A Photometric Calibration Factor (PCF) of 0.38 is used, which TSI indicates is appropriate for ambient/fugitive emissions monitoring applications. Photometric instruments (e.g., SidePak AM520) will overstate the mass of an aerosol compared to its gravimetric weight due to humid conditions; PM_{2.5} is especially prone to interference from high humidity. In cases of high humidity, PM₁₀ impactors may be used, which are not as sensitive to humidity.

⁴ Readings collected using Gastec tubes are recorded as uncorrected (raw) concentrations. The correction factors for Gastec tubes are dependent on volume of air used (i.e., number of pump strokes).

Abbreviations: mg/m³ = milligrams per cubic meter; PM = Onterris Project Manager; PTD = Onterris Project Technical Director; CO = carbon monoxide; ppm = parts per million; N/A = not applicable;

Plan 1: Community/Fenceline Monitoring – Flammability

Analyte	Action Level	Action to be Taken	Basis	Instrument	Detection Limit	Notes	Correction Factor
% LEL	1 % Instant	Report reading to PM/PTD	Detection of % LEL	MultiRAE Sensor AreaRAE Sensor	1 %	Range: 0 – 100 %	Variable ¹

¹ Readings collected using the % LEL sensor are recorded as uncorrected (raw) concentrations. Correction factors for various compounds are listed in Honeywell Technical Note TN-156.

Abbreviations: % LEL = atmospheric flammability measured as a percentage of the lower explosive limit; PM = Onterris Project Manager; PTD = Onterris Project Technical Director

TABLE 1: Community Health-Based Screening Values for Analytes (Air Monitoring)

Analyte	CAS RN	Protective Action Criteria 1 (PAC-1) ¹	OEHHA Acute Reference Exposure Level (REL) ²
Total volatile organic compounds (VOCs)	N/A	N/A	N/A
Ammonia	7664-41-7	30 ppm	3,200 µg/m ³ (4.59 ppm)
Carbon monoxide (CO)	630-08-0	75 ppm	23,000 µg/m ³ (20.08 ppm)
Sulfur dioxide (SO ₂)	7446-09-5	0.2 ppm	660 µg/m ³ (0.25 ppm)
Nitrogen dioxide (NO ₂)	10102-44-0	0.5 ppm	470 µg/m ³ (0.25 ppm)

¹ United States Department of Energy (US DOE): <https://www.energy.gov/ehss/protective-action-criteria-pac-aegls-erpgs-teels>. A Protective Action Criteria 1 (PAC-1) is the airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, when exposed for more than one hour, could experience notable discomfort, irritation, or certain asymptomatic, nonsensory effects, or may perceive a clearly defined objectionable odor. However, these effects are not disabling and are transient and reversible upon cessation of exposure.

² Office of Environmental Health Hazard Assessment (OEHHA) of the California Environmental Protection Agency (CalEPA): <https://oehha.ca.gov/air/general-info/oehha-acute-8-hour-and-chronic-reference-exposure-level-rel-summary>. An Acute Reference Exposure Level (REL) is the airborne concentration of a substance below which is not expected to cause non-cancer health effects for an exposure of one hour or less.

Abbreviations: CAS RN = Chemical Abstracts Service Registry Number; PAC-1 = Protective Action Criteria 1; OEHHA = Office of Environmental Health Hazard Assessment; REL = Reference Exposure Level; VOCs = volatile organic compounds; CO = carbon monoxide; ppm = parts per million; µg/m³ = micrograms per cubic meter; HCl = hydrogen chloride; HCN = hydrogen cyanide; HF = hydrogen fluoride; SO₂ = sulfur dioxide; NO₂ = nitrogen dioxide

TABLE 2: US EPA AQI Categories Associated with Airborne PM_{2.5} and PM₁₀ Levels

US EPA AQI Category	24-Hour Average PM _{2.5} Concentration (µg/m ³)	24-Hour Average PM ₁₀ Concentration (µg/m ³)
Good (0 – 50)	0.0 – 9.0	0 – 54
Moderate (51 – 100)	9.1 – 35.4	55 – 154
Unhealthy for Sensitive Groups (101-150)	35.5 – 55.4	155 – 254
Unhealthy (151 – 200)	55.5 – 125.4	255 – 354
Very Unhealthy (201-300)	125.5 – 225.4	355 – 424
Hazardous (301+)	225.5+	425+

Abbreviations: US EPA = United States Environmental Protection Agency; AQI = Air Quality Index; PM_{2.5} = particulate matter with a diameter of 2.5 microns or less; PM₁₀ = particulate matter with a diameter of 10 microns or less; µg/m³ = micrograms per cubic meter

Plan 2: Site Assessment

Objective: Characterize nature and extent of potential release

Analyte	Action Level	Action to be Taken	Basis	Instrument	Detection Limit	Notes	Correction Factor
Total volatile organic compounds (VOCs)	N/A	Report reading to PM/PTD	N/A	MultiRAE PID (10.6 eV lamp)	0.1 ppm	Range: 0.1 – 5,000 ppm	Variable ¹
				AreaRAE PID (10.6 eV lamp)	0.1 ppm	Range: 0.1 – 5,000 ppm	Variable ¹
				MultiRAE Sensor AreaRAE Sensor	1.0 ppm	Range: 1 – 100 ppm	N/A
Ammonia	N/A	Report reading to PM/PTD	N/A	Gastec #3L	0.2 ppm	Range: 1 – 30 ppm Volume: 100 mL (1 x 100 mL pump strokes)	Variable ³
				Gastec #3M	2 ppm	Range: 10 – 500 ppm Volume: 500 mL (5 x 100-mL pump strokes)	Variable ³
Hydrogen Sulfide	N/A	Report reading to PM/PTD	N/A	MultiRAE Sensor AreaRAE Sensor	0.1 ppm	Range: 0 – 100 ppm	NA
				Gastec tube #4LL	0.1 ppm	Range: 0.25 – 120 ppm Volume: 1,000 mL (10 x 100 mL pump strokes)	Var.
Chlorine	N/A	Report reading to PM/PTD	N/A	Gastec tube #8La	0.05 ppm	Range: 0.1 – 16 ppm Volume: 500 mL (5 x 100-mL pump strokes)	Variable ⁴
Mercaptans	N/A	Report reading to PM/PTD	N/A	Gastec tube #70L	0.1 ppm	Range: 0.1 – 8 ppm Volume: 400 mL (4 x 100-mL pump strokes)	Variable ⁴
Oxygen (O ₂)	N/A	Report reading to PM/PTD	N/A	MultiRAE Sensor	0.1 %	Range: 0 – 30 %	N/A
				AreaRAE Sensor	0.1 %	Range: 0 – 30 %	N/A

¹ Readings collected using the MultiRAE PID and AreaRAE PID are recorded as uncorrected (raw) concentrations. Correction factors for various compounds are listed in Honeywell Technical Notes TN-106B (MultiRAE) and TN-106A (AreaRAE).

² Readings collected using Gastec tubes are recorded as corrected concentrations. The correction factors for Gastec tubes are dependent on volume of air used (i.e., number of pump strokes).

³ 10.6 eV PID must be used for ammonia concentrations over 50 ppm to avoid ammonia sensor exhaustion/damage.

Abbreviations: VOCs = volatile organic compounds; NA = not applicable; PM = Onterris Project Manager; PTD = Onterris Project Technical Director; PID = photoionization detector; eV = electron volt; ppm = parts per million; O₂ = oxygen

Plan 2: Site Assessment – Combustion Products

Analyte	Action Level	Action to be Taken	Basis	Instrument	Detection Limit	Notes	Correction Factor
Particulate matter with a diameter of 2.5 microns or less (PM _{2.5}) or 10 microns or less (PM ₁₀)	N/A	Report reading to PM/PTD	N/A	TSI SidePak AM510/AM520	0.001 mg/m ³	Range: 0.001 – 100 mg/m ³ PM _{2.5} impactor: 50% cut-off at 2.5 microns; PM ₁₀ impactor: 50% cut-off at 10 microns	0.38 ¹
				DustTrak	0.001 mg/m ³	Range: 0.001 – 100 mg/m ³ PM _{2.5} impactor: 50% cut-off at 2.5 microns; PM ₁₀ impactor: 50% cut-off at 10 microns	0.38 ¹
Carbon monoxide (CO)	N/A	Report reading to PM/PTD	N/A	MultiRAE Sensor AreaRAE Sensor	1 ppm	Range: 1 – 500 ppm	N/A
				Gastec tube #1LC	0.5 ppm	Range: 1 – 30 ppm Volume: Pull 1 100-mL pump strokes	Variable ²
Sulfur dioxide (SO ₂)	N/A	Report reading to PM/PTD	N/A	Gastec tube #5Lb	0.01 ppm	Range: 0.05 – 10 ppm Volume: Pull 8 100-mL pump strokes	Variable ²
				MultiRAE Sensor AreaRAE Sensor	0.1 ppm	Range: 0.1 – 20 ppm	N/A
Nitrogen dioxide (NO ₂)	N/A	Report reading to PM/PTD	N/A	MultiRAE Sensor AreaRAE Sensor	0.1 ppm	Range: 0.1 – 20 ppm	N/A
				Gastec tube #9L	0.1 ppm	Range: 0.5 – 125 ppm Volume: Pull 2 100-mL pump strokes	Variable ²

¹ Readings collected using the SidePak AM510/AM520 or DustTrak are recorded as corrected concentrations. A Photometric Calibration Factor (PCF) of 0.38 is used, which TSI indicates is appropriate for ambient/fugitive emissions monitoring applications. Photometric instruments (e.g., SidePak AM520) will overstate the mass of an aerosol compared to its gravimetric weight due to humid conditions; PM_{2.5} is especially prone to interference from high humidity. In cases of high humidity, PM₁₀ impactors may be used, which are not as sensitive to humidity.

² Readings collected using Gastec tubes are recorded as uncorrected (raw) concentrations. The correction factors for Gastec tubes are dependent on volume of air used (i.e., number of pump strokes).

Abbreviations: PM_{2.5} = particulate matter with a diameter of 2.5 microns or less; PM₁₀ = particulate matter with a diameter of 10 microns or less; NA = not applicable; PM = Onterris Project Manager; PTD = Onterris Project Technical Director; mg/m³ = milligrams per cubic meter

Plan 3: Site Assessment – Flammability

Analyte	Action Level	Action to be Taken	Basis	Instrument	Detection Limit	Notes	Correction Factor
% LEL	N/A	Report reading to PM/PTD	N/A	MultiRAE Sensor	1 %	Range: 0 – 100 %	Variable ¹
				AreaRAE Sensor	1 %	Range: 0 – 100 %	Variable ¹

¹ Readings collected using the % LEL sensor are recorded as uncorrected (raw) concentrations. Correction factors for various compounds are listed in Honeywell Technical Note TN-156.

Abbreviations: % LEL = atmospheric flammability measured as a percentage of the lower explosive limit; PM = Onterris Project Manager; PTD = Onterris Project Technical Director

Air Sampling Methods - Community Monitoring

Analyte	Media/Can	Method	Notes
VOCs	1.4 L Evacuated Cannisters	USEPA TO-15	
Ammonia	Anasorb 747 (226-29)	Method 6015	LOD: ~ 0.5 µg
Metals	Mixed cellulose ester (MCE) filter (35-5,000 L; 1-4 LPM)	Mod. NIOSH 7303 (ICP/MS)	

Abbreviations: L = liters; USEPA = United States Environmental Protection Agency

General Information on Procedures (Assessment Techniques) Used

Procedure	Description
Handheld Real-Time Air Monitoring	Onterris personnel may utilize handheld real-time air monitoring instruments (e.g., MultiRAE, ChemLogic CLPx, Gastec colorimetric detector tubes) to measure airborne chemical concentrations in real time. Onterris personnel will use these handheld instruments primarily to monitor the ambient air quality at breathing zone level. Additionally, measurements may be made at grade level, as well as in elevated workspaces, as indicated by chemical properties or site conditions. Onterris personnel may also use these techniques to verify detections observed by the AreaRAE network.
Fixed Real-Time Air Monitoring Locations	Multiple locations may be identified and monitored at the same location approximately once per hour using handheld real-time air monitoring instruments. This allows the use of statistical analysis more effectively than with a random approach.
Analytical Air Sampling	Analytical air sampling may be used to validate the fixed and handheld real-time air monitoring data, or to provide data beyond the scope of real-time instruments. Analytical air samples may be collected as whole air samples in evacuated canisters or on specific collection media and sent to an off-site laboratory for further chemical analysis.
Particulate Monitoring Network	A network of data-logging particulate monitors may be set up and positioned in various locations.

Not all procedures listed in this table may be utilized.

Quality Assurance/Quality Control (QA/QC) Procedures

Method	Procedure
Real-Time Air Monitoring	All real-time air monitoring instruments will be calibrated per the manufacturer's recommendations, whenever indicated by site conditions or instrument readings, and/or at the start of every 12-hour shift. Serial numbers for all equipment used will be recorded. If Gastec tubes are used, the tube expiration date, lot number, and air volume (number of pump strokes) will be recorded.
Analytical Air Sampling	Chain-of-custody documentation will be completed for each air sample. Serial numbers for all analytical equipment used will be recorded. Co-located air samples may be conducted to assess field accuracy and precision (at least one co-located air sample per day or per 10 air samples). Level II data validation may be performed on all air samples. Level IV data validation may be performed on the first and last sample delivery groups (SDGs) and on at least 10% of all air samples. Level IV data validation may be performed on 10% of all samples.
Reporting	Daily data summaries may be provided for informational purposes using data that have not undergone complete QA/QC procedures. Comprehensive reports of real-time and/or analytical data may be generated following QA/QC and may be delivered 60 days following receipt of validated results, if applicable.

Glossary

Term	Definition
Sustained	Instrument reading above the action level continuously for the listed time period
Breathing Zone	The area within an approximate 10-inch radius of an individual's nose and mouth
Ambient Air	The portion of the atmosphere (indoor or outdoor) to which workers and the general public have access

Version Control

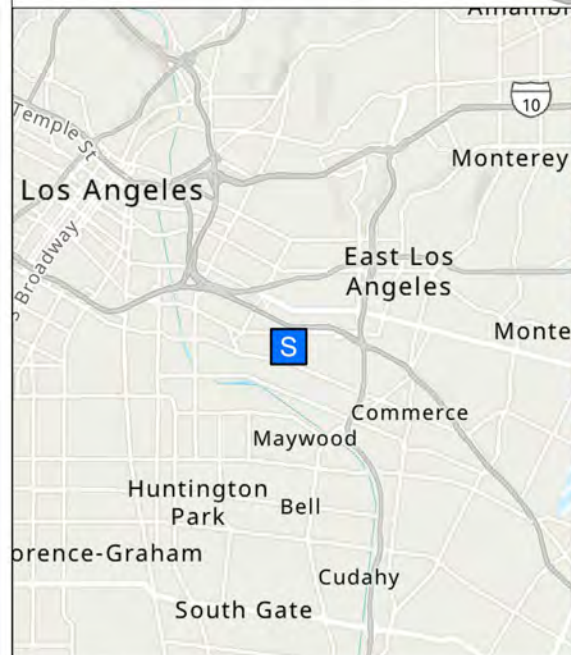
Version	Date	Author	Reviewer	Summary of Changes
1.0	6/21/26	Elysia Masters, PhD	Joseph Lucas, PhD	Initial Version
1.1	6/27/26	Max Ford, PhD		Added hydrogen sulfide to monitoring plan
1.2	7/6/26	Max Ford, PhD		Add mercaptan and chlorine monitoring to plan

Appendix B Incident Site and Real-Time Air Monitoring Locations



Los Palos Warehouse Fire

Incident Location
Los Angeles, CA | Los Angeles County
PROJ-069775







%LEL | AreaRAE

 Incident Location

 < 1 %



NH₃ | AreaRAE

- S Incident Location
- < 1 ppm

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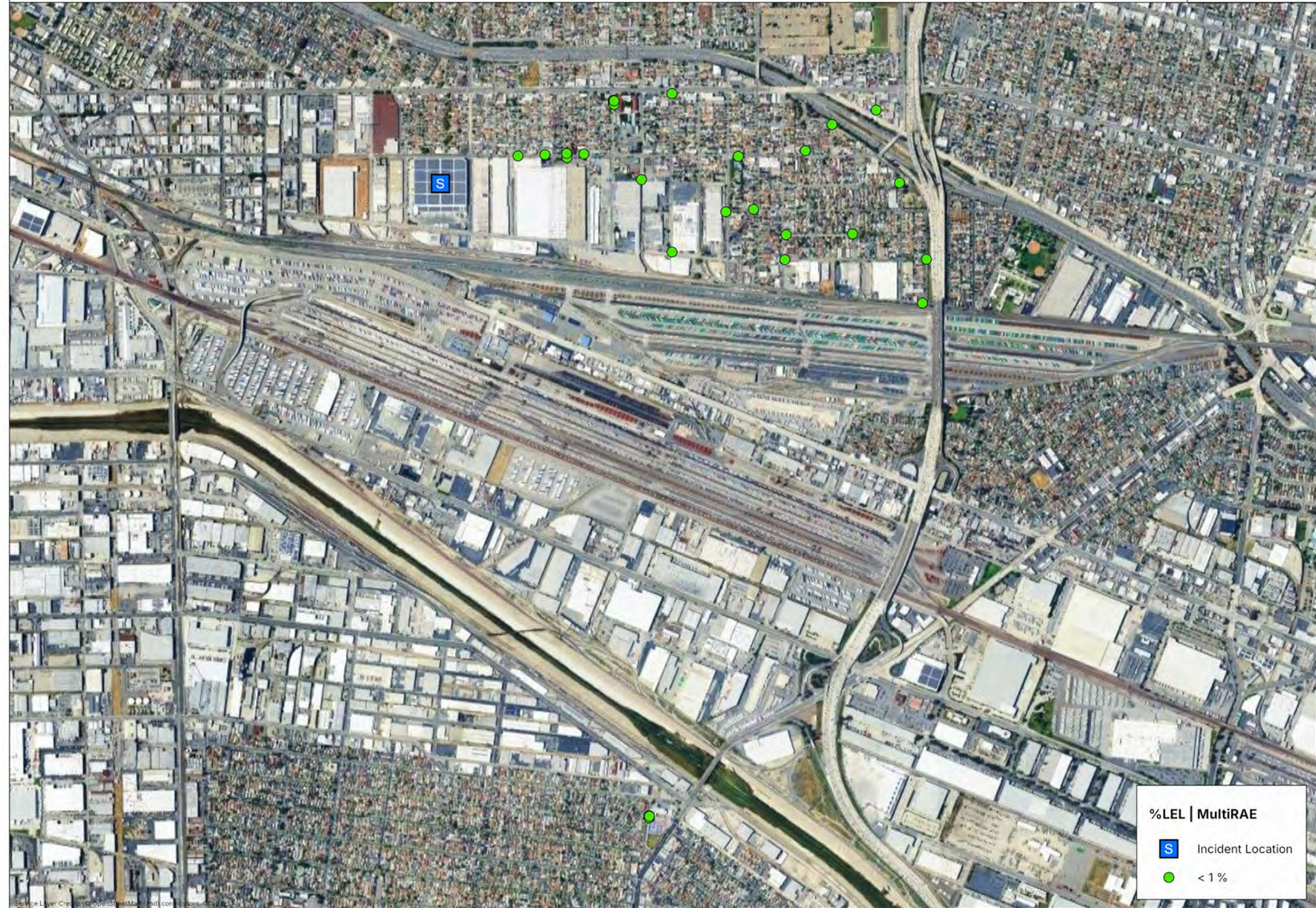
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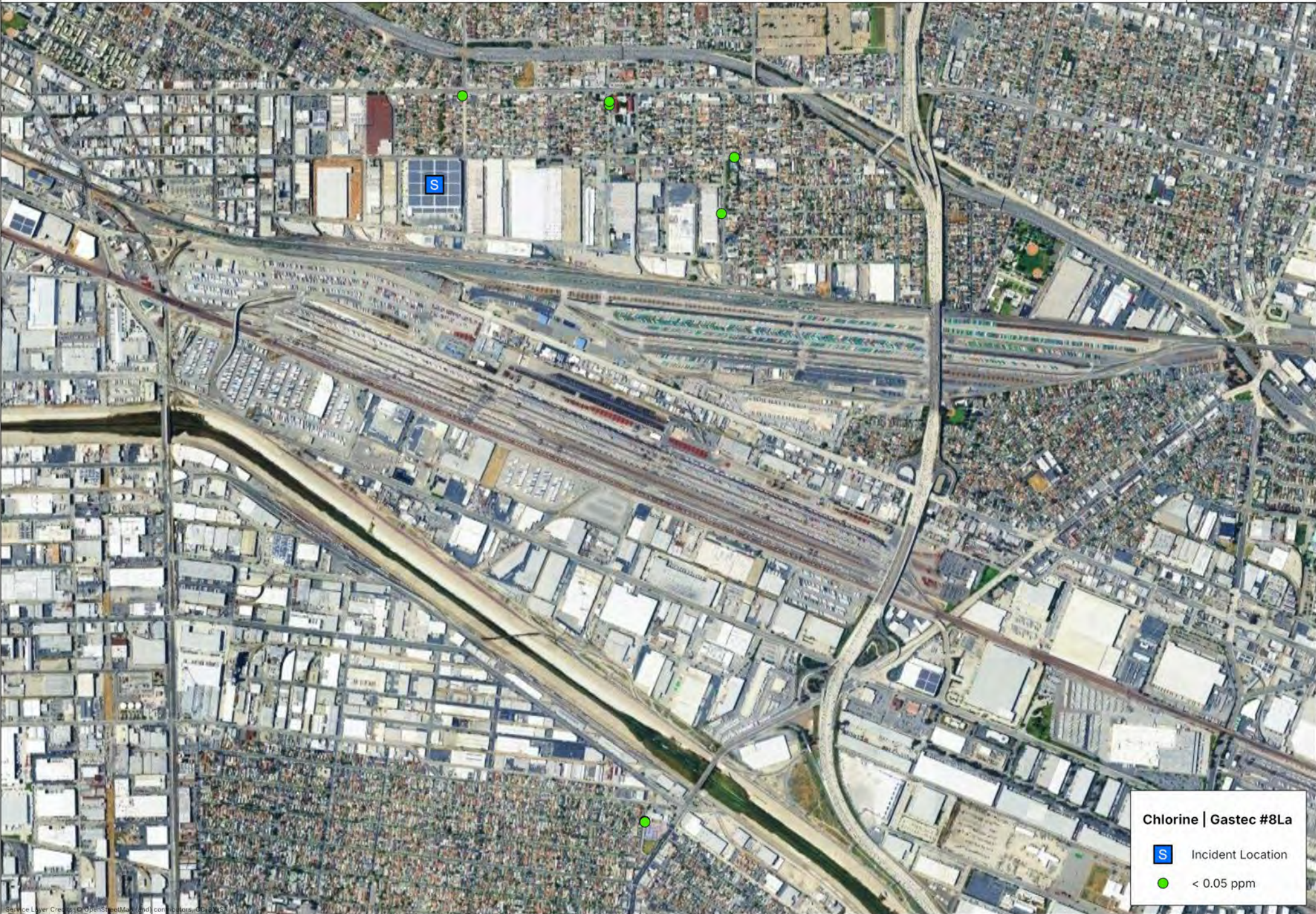
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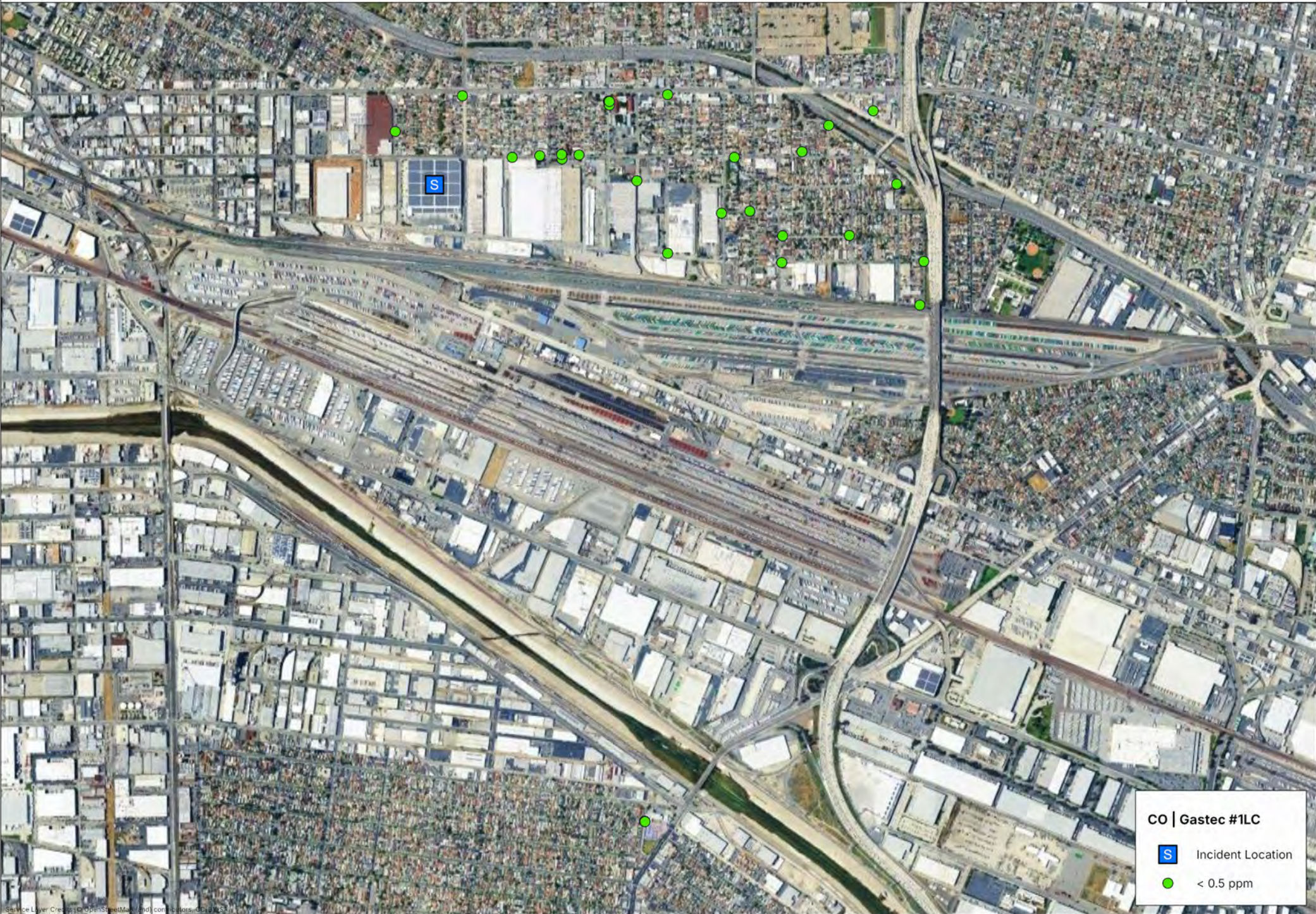


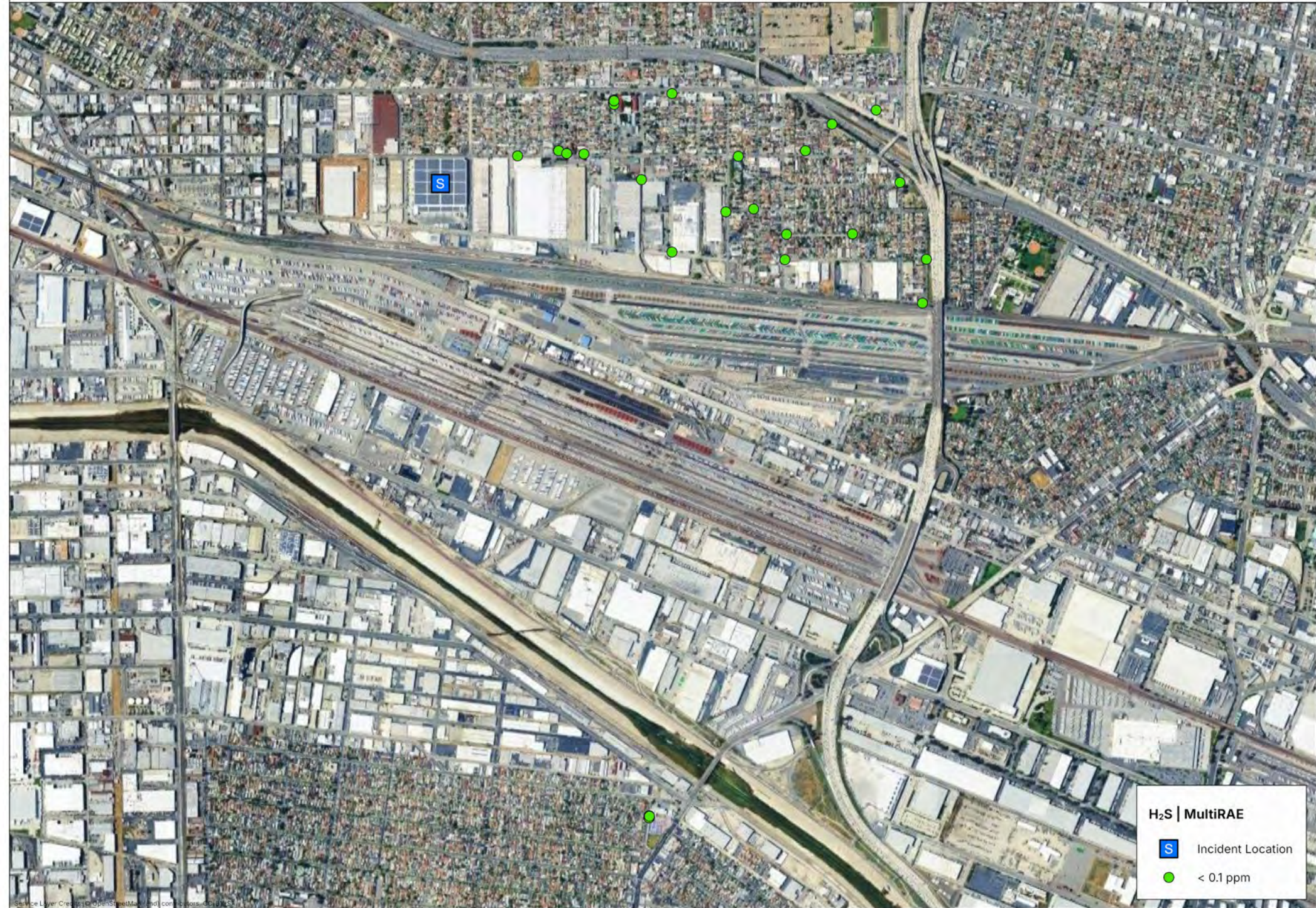
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Mercaptans | Gastec #70L

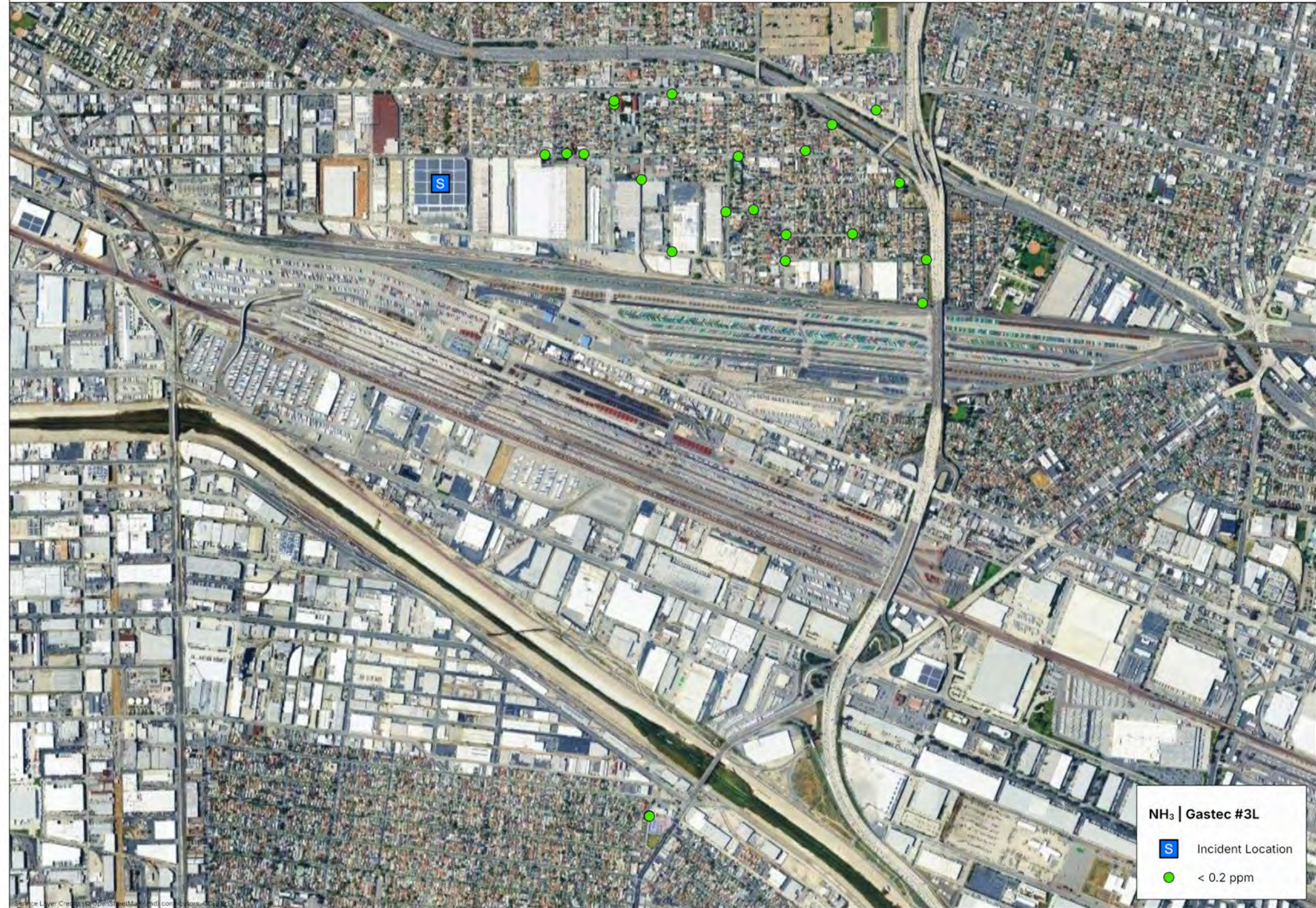


Incident Location



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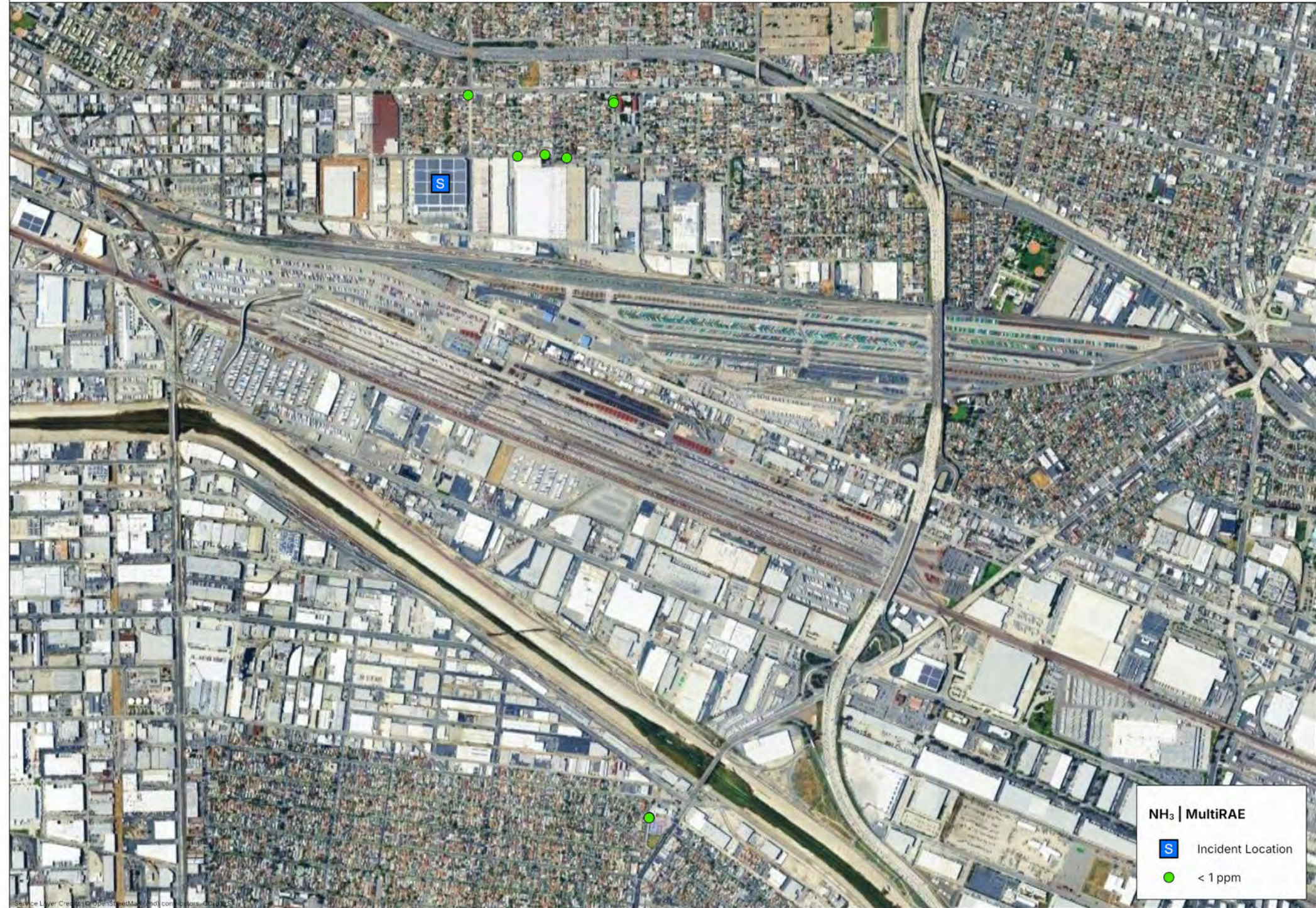


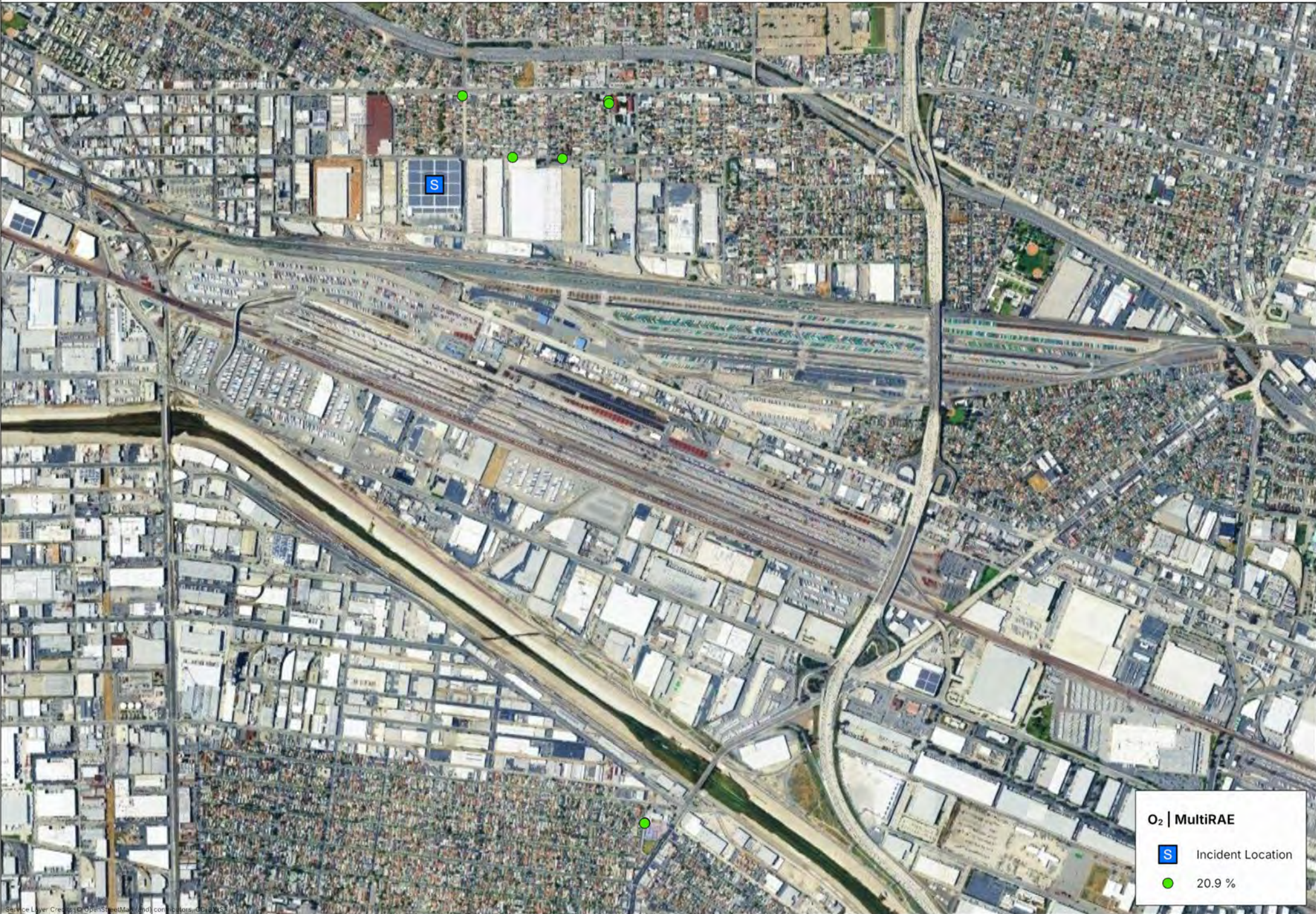


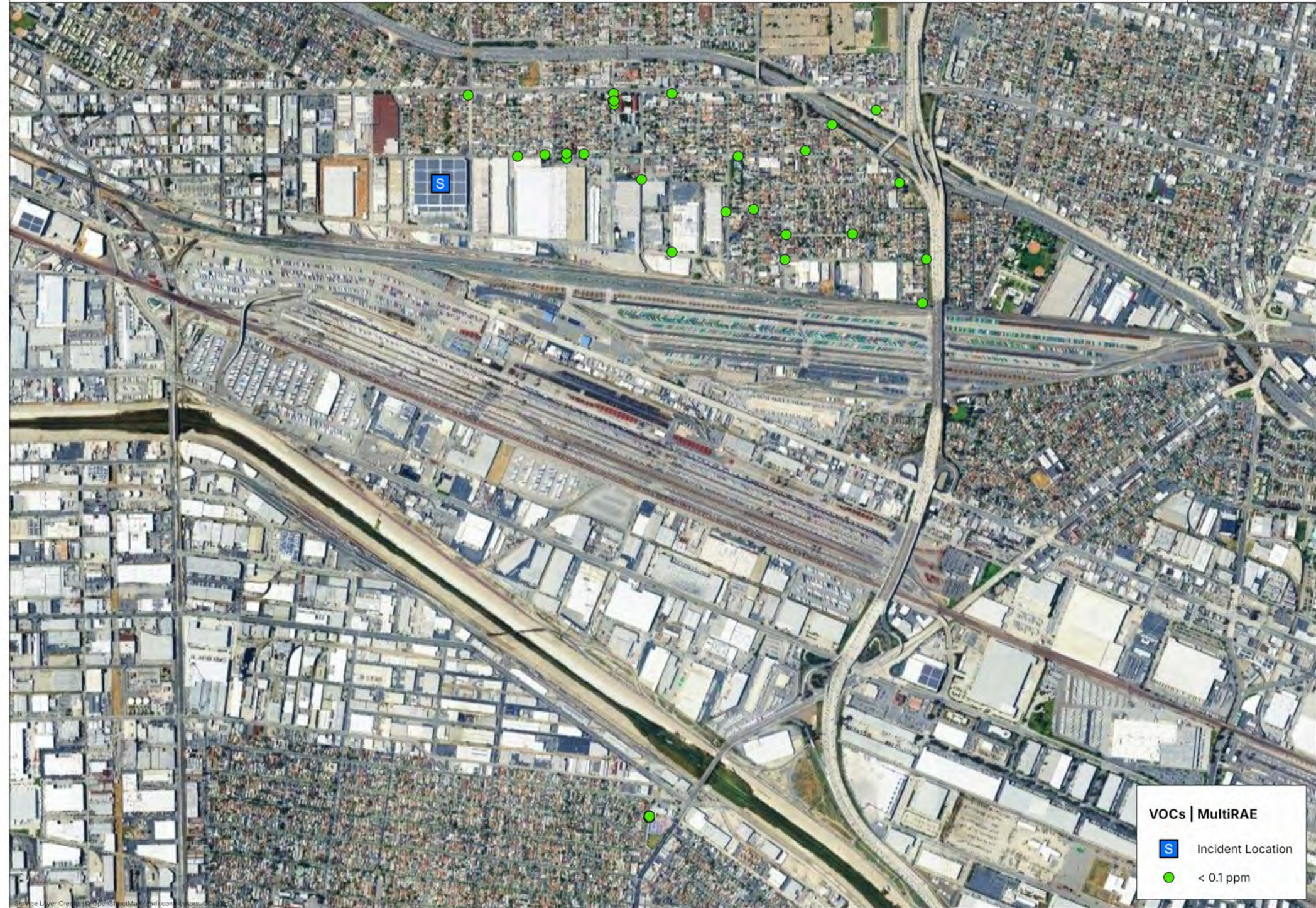
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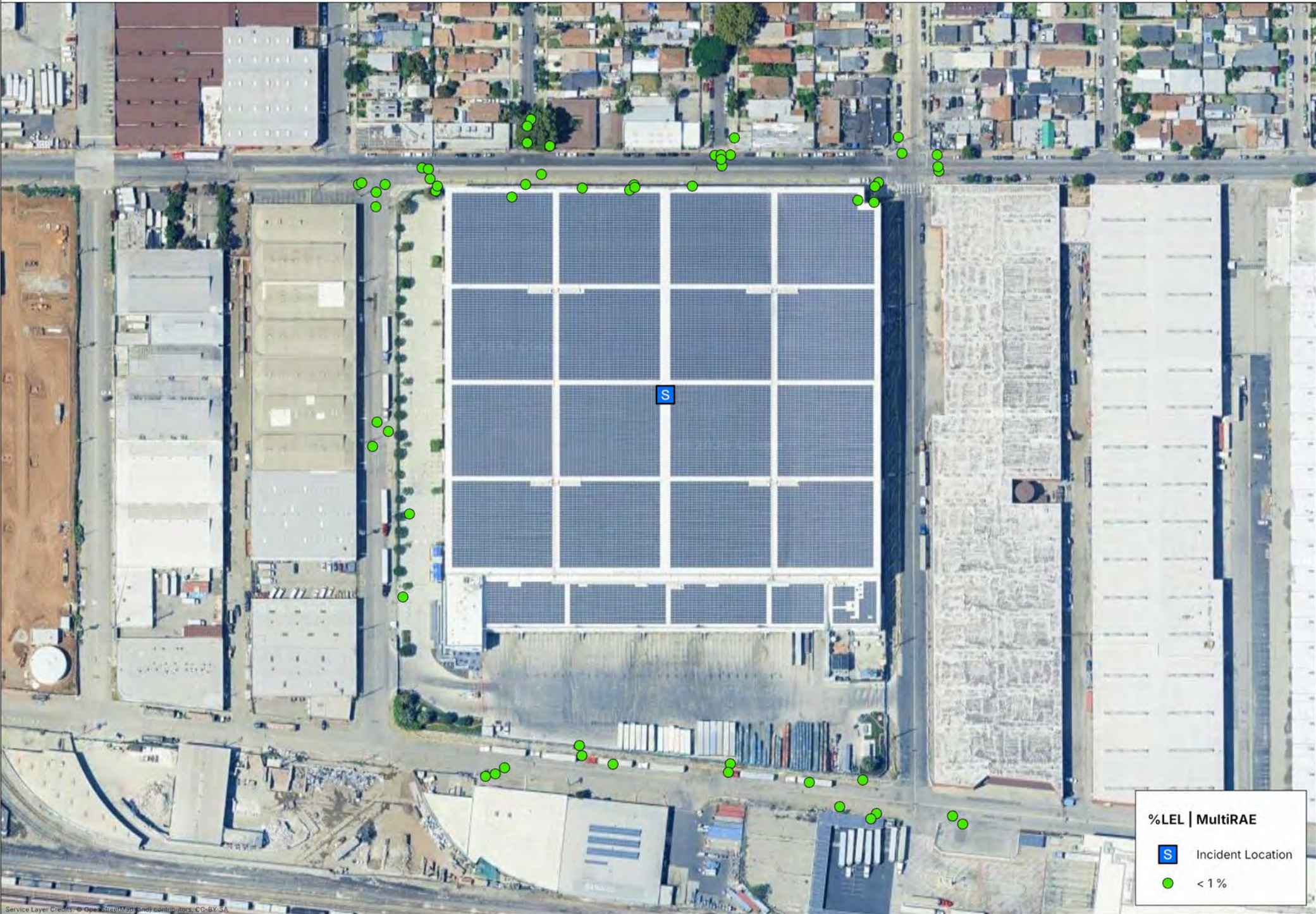
 Incident Location

 < 0.2 ppm





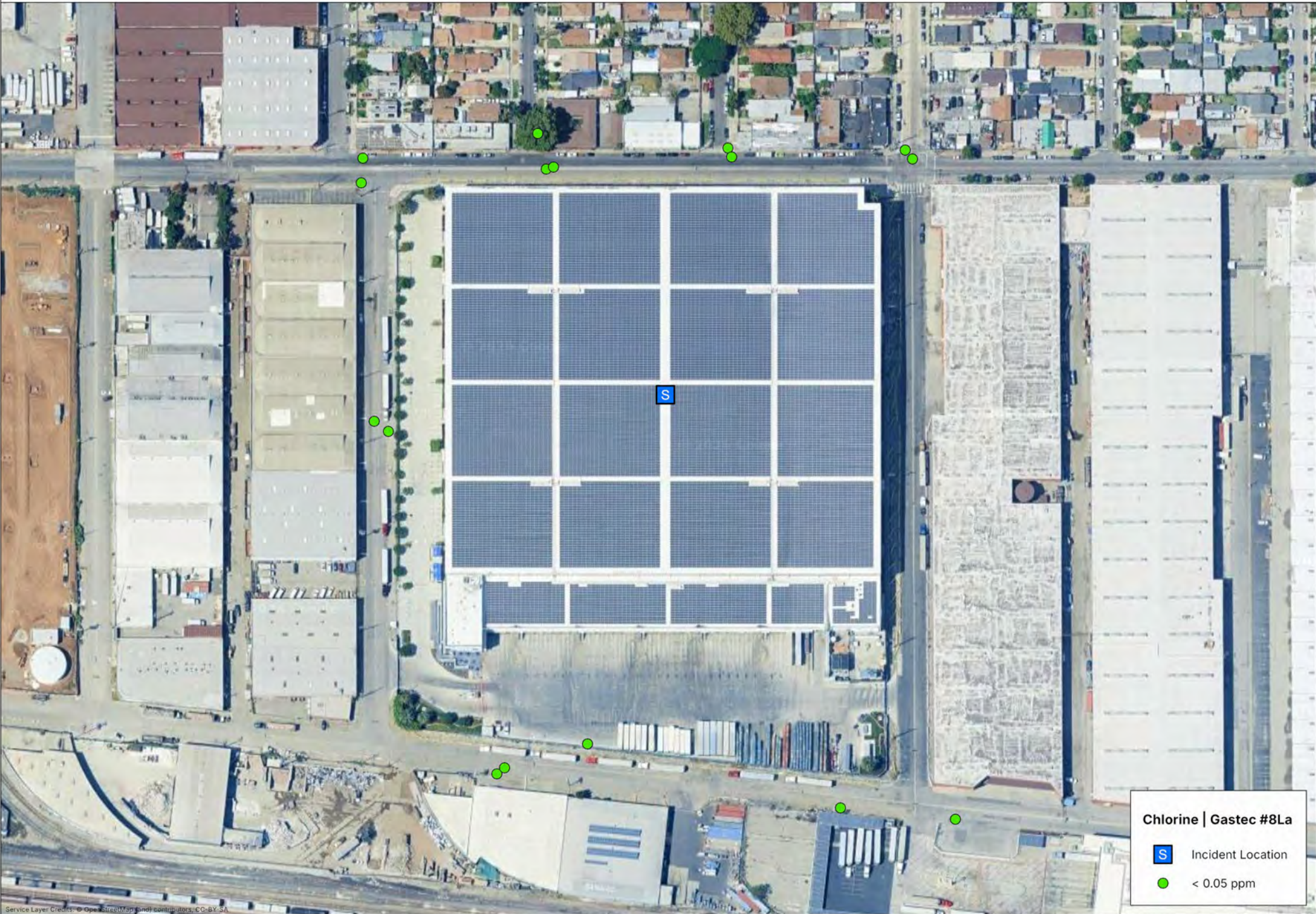


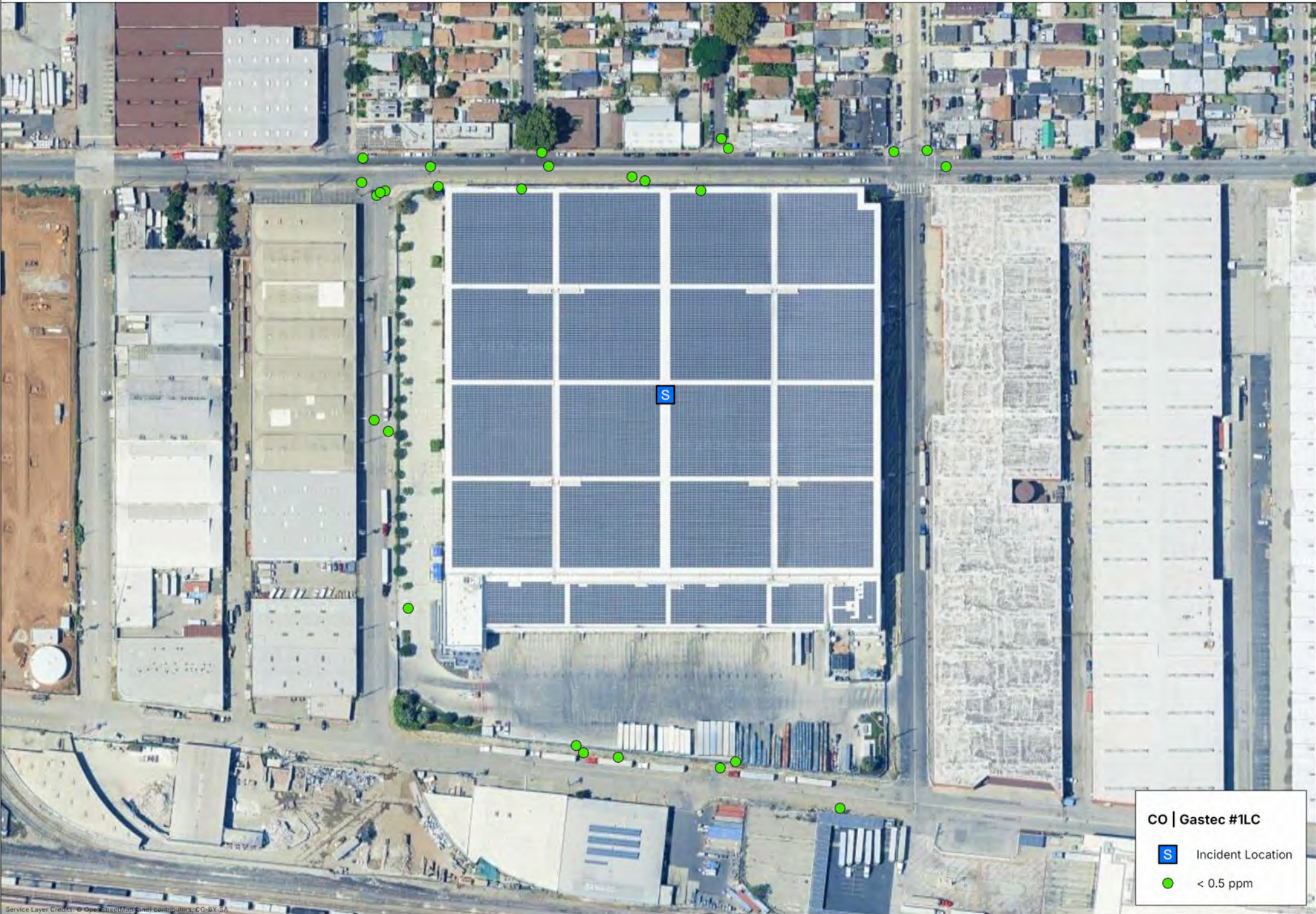


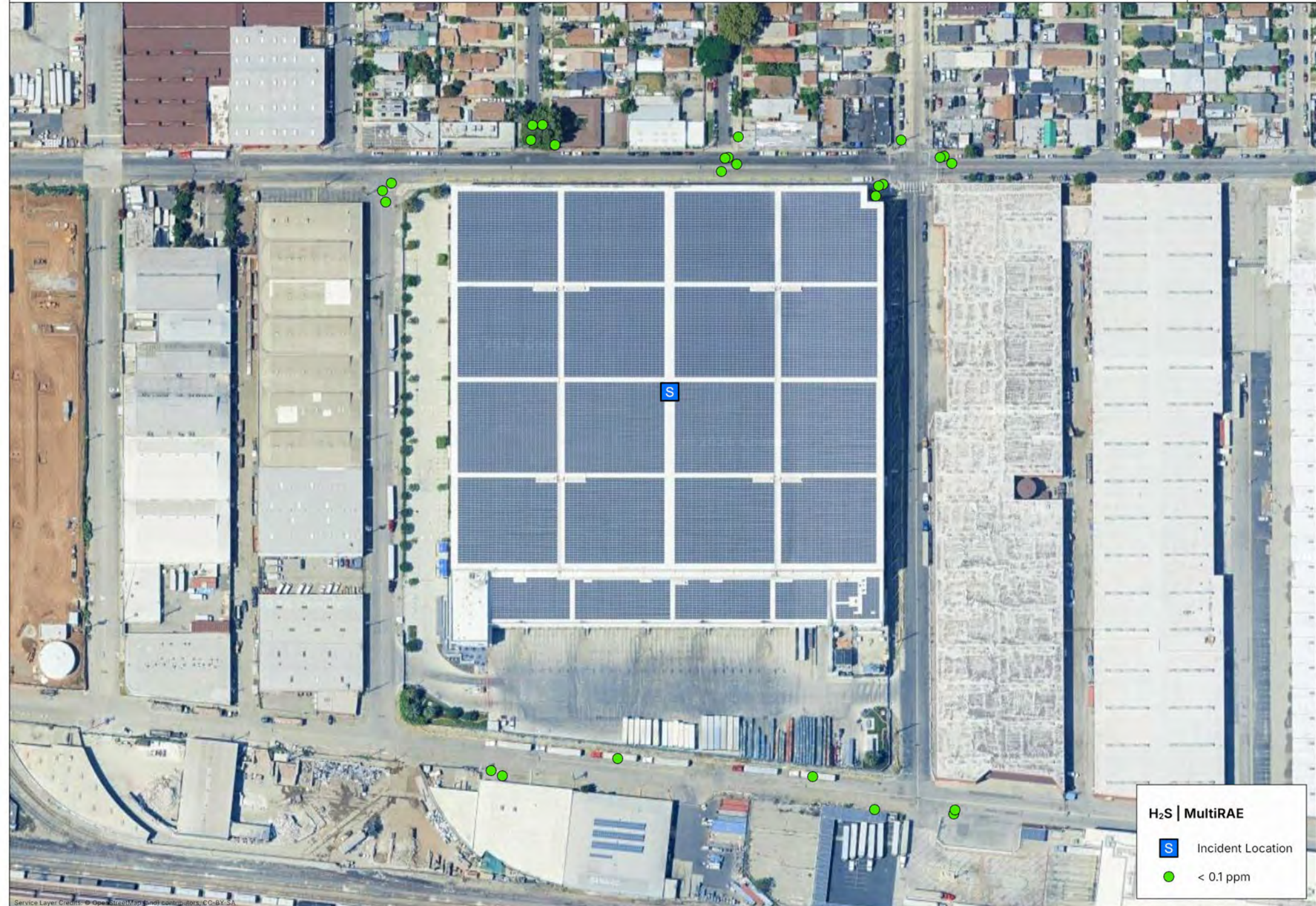
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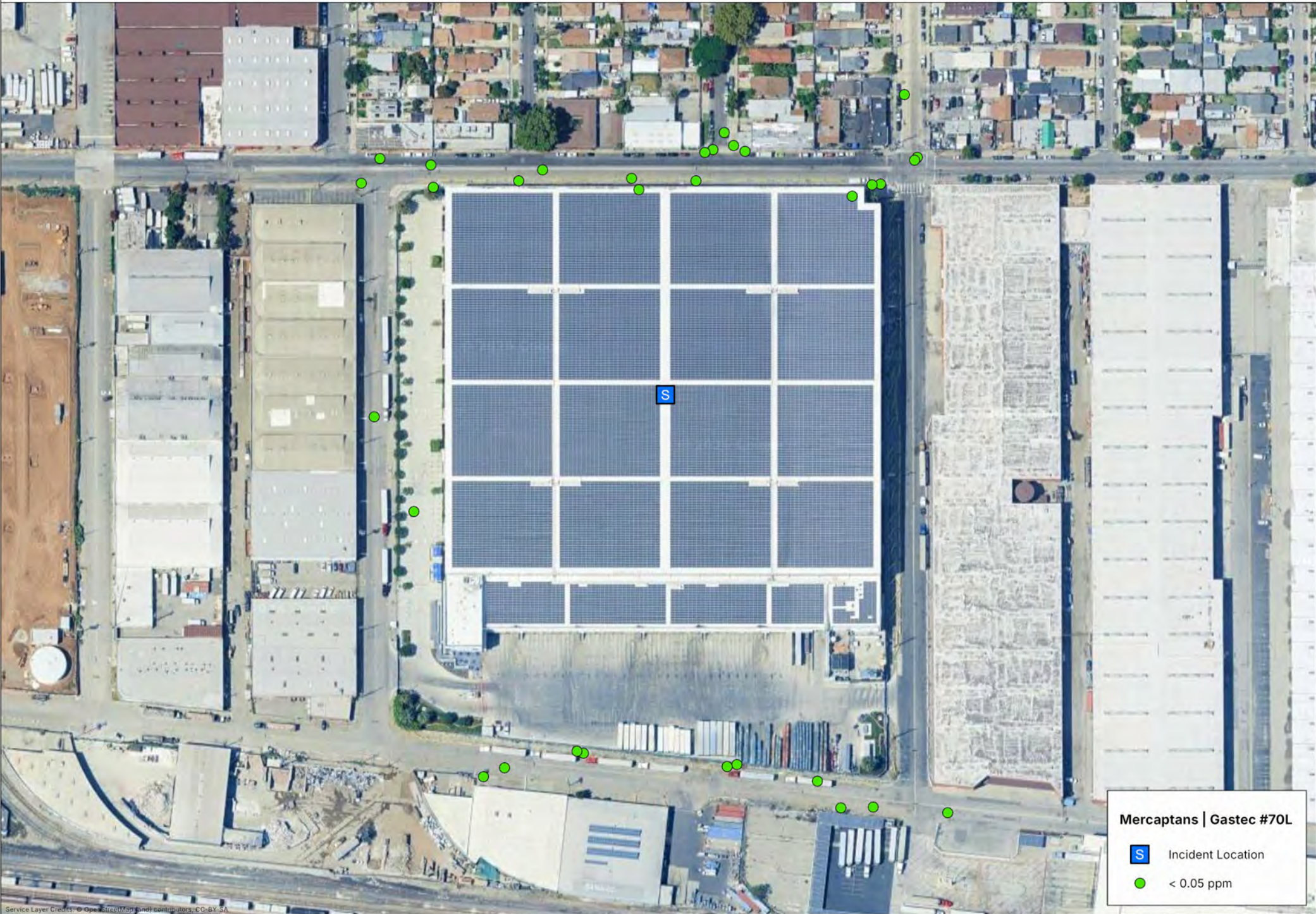
S Incident Location

● < 1 %







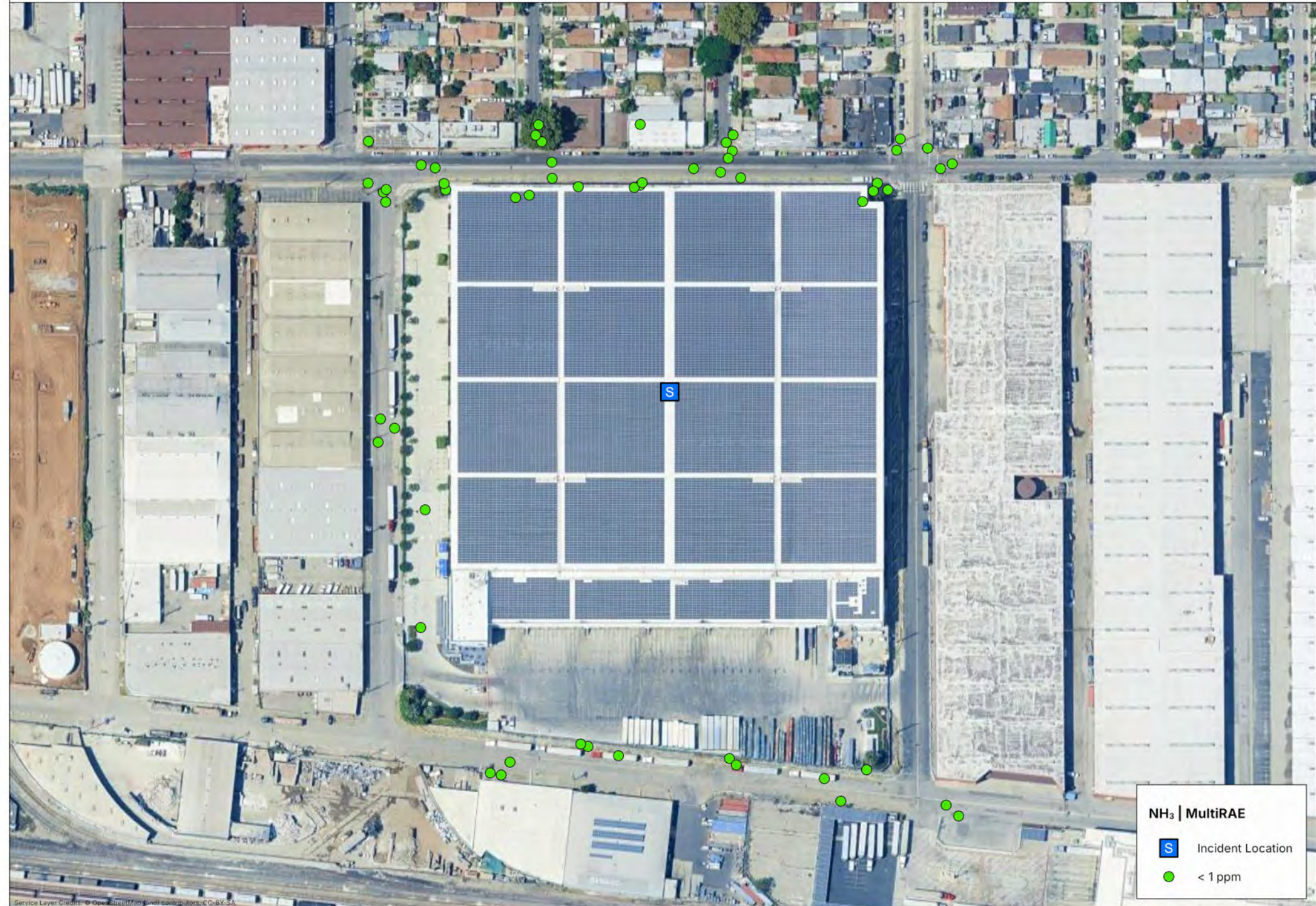


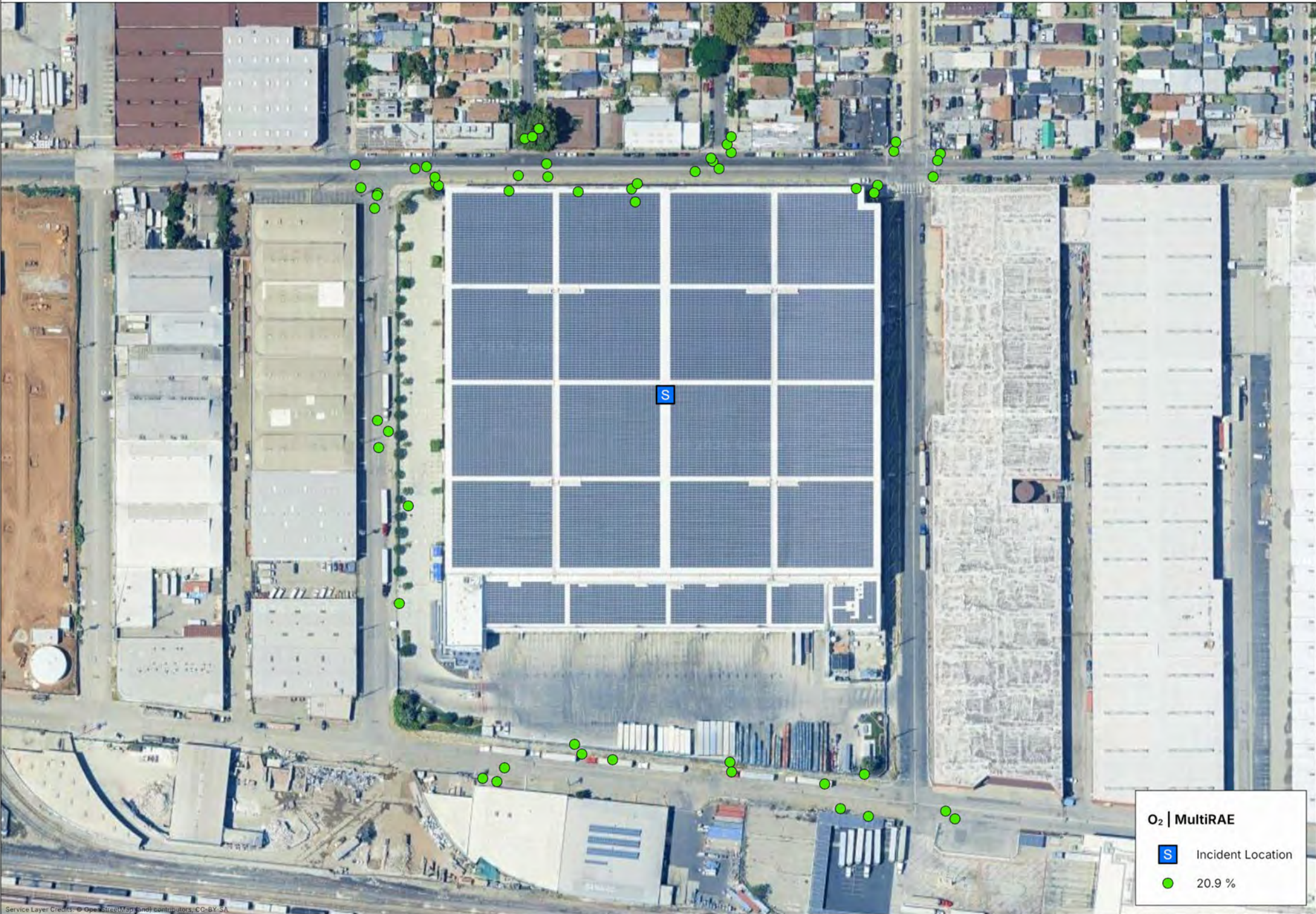
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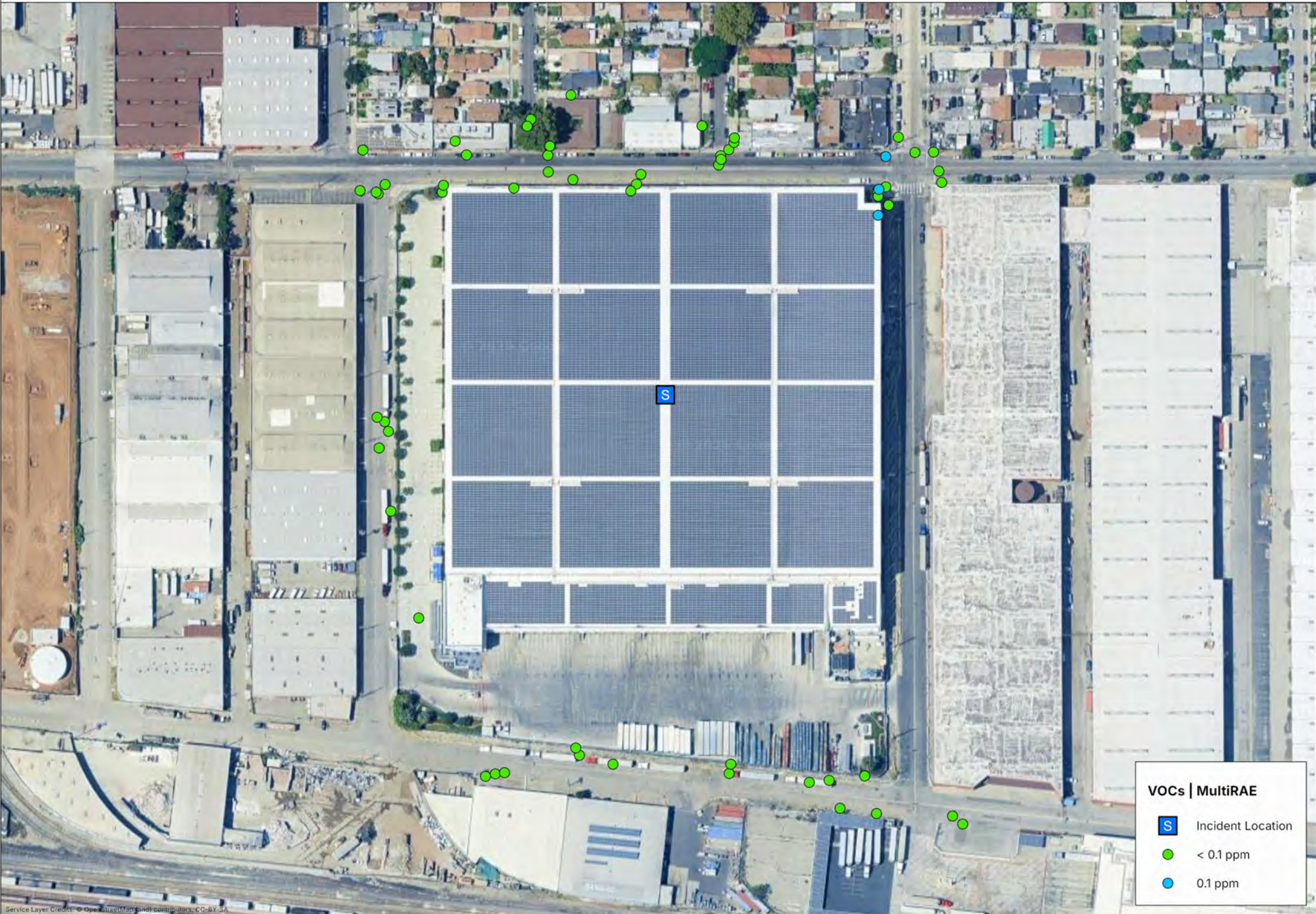




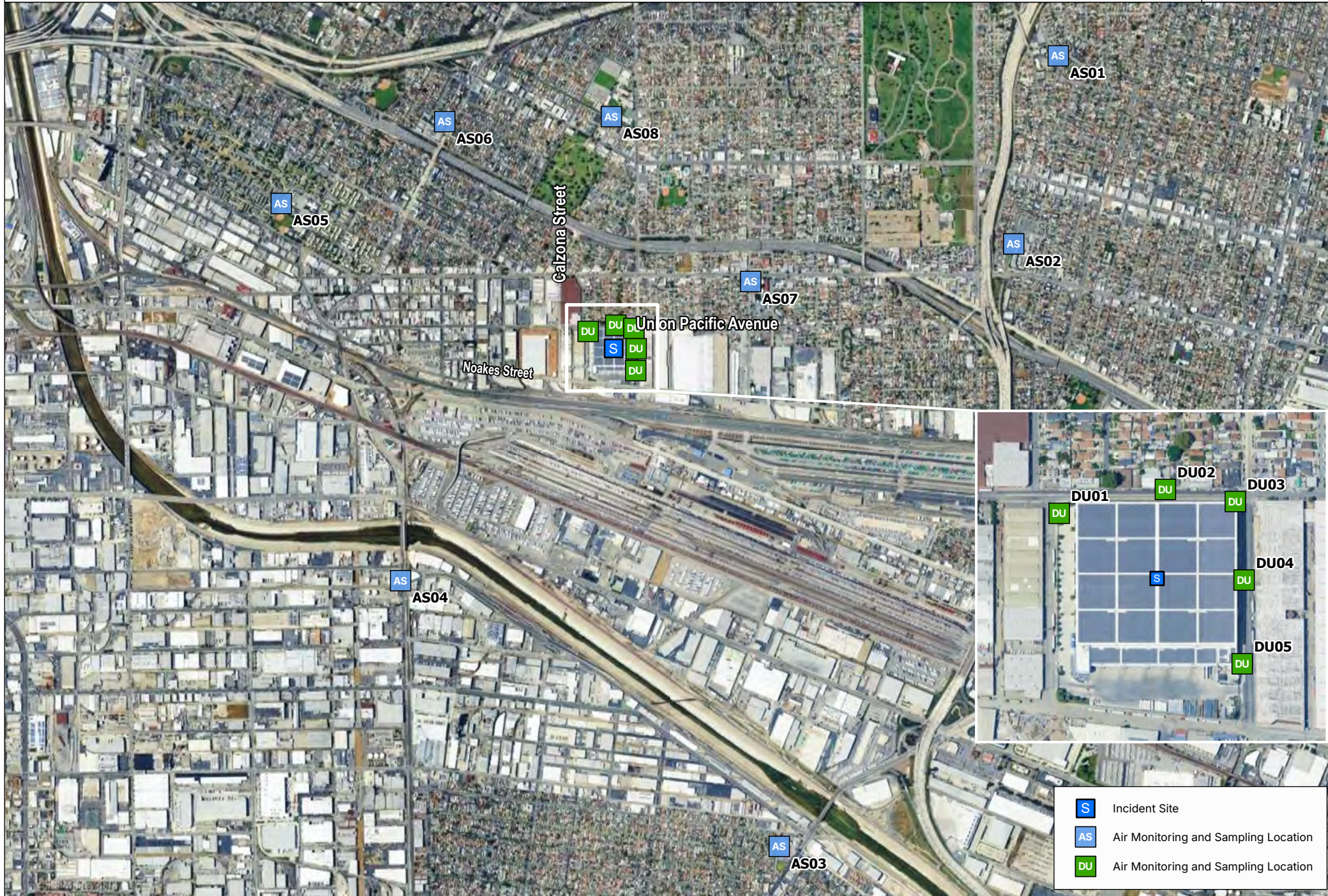
O₂ | MultiRAE

S Incident Location

● 20.9 %



Appendix C Stationary Air Monitoring and Analytical Sampling Locations



Appendix D Meteorological Data

