

**INTERIM SITE MANAGEMENT PLAN – INDOOR AIR  
MONITORING REPORT  
FORMER EAST 11<sup>th</sup> STREET WORKS SITE – OU-4  
MANHATTAN, NEW YORK  
SITE ID NO. 231110**



**CONSOLIDATED EDISON CO. OF NEW YORK, INC.  
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Long Island City, NY 11105**

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**January 2021**

## INDOOR AIR MONITORING REPORT

Former East 11<sup>th</sup> Street Works Site - OU-4,  
Manhattan, NY



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## ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis of New York, Inc.
ASP	Analytical Services Protocol
Con Edison	Consolidated Edison Company of New York, Inc.
DUSR	Data Usability Summary Report
HASP	Health and Safety Plan
ISMP	<i>Interim Site Management Plan for Indoor Air Monitoring</i>
MGP	Manufactured Gas Plant
NYCHA	New York City Public Housing Authority
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
ppbRAE	portable organic vapor monitor
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

## EXECUTIVE SUMMARY

This report presents a summary of the results for ambient and indoor air monitoring conducted during November 2020 by Arcadis of New York, Inc. (Arcadis) at Operable Unit #4 (Haven Plaza) of the Consolidated Edison Company of New York, Inc. (Con Edison) former East 11<sup>th</sup> Street Works site. Indoor air monitoring was conducted in accordance with the procedures and protocols presented in the New York State Department of Environmental Conservation- (NYSDEC-) approved *Interim Site Management Plan for Indoor Air Monitoring* (Arcadis 2009) (ISMP). The ISMP is a component of a monitoring plan in place to ensure that potential exposure to manufactured gas plan (MGP) related contaminants by the public and the environment is monitored and controlled until a final remedy for the Former East 11th Street Works Site (the site) is implemented.

A summary of the activities performed in connection with the ambient and indoor air monitoring is included below. Tabulated laboratory results from the indoor air monitoring, a figure showing the sampling locations, photographic logs, sampling forms, and a Data Usability Summary Report (DUSR) for the sampling results are included as attachments. No MGP indicator compounds were identified in the ambient or indoor air samples collected for the November 2020 Haven Plaza ISMP monitoring event. Deviations from the indoor air sampling scope of work presented in the ISMP are noted below.

## 1 INDOOR AIR MONITORING

Prior to initiating field work, the site Health and Safety Plan (HASP) was reviewed and updated to ensure that task specific monitoring activities were consistent with Con Edison's Corporate Health and Safety Procedure A32.00 (Rules We Live By) and the most current guidance documents. A copy of the HASP was maintained on site during all work activities; all site personnel were required to review the HASP and sign an acknowledgement form stating that they understood the contents of the HASP and agreed to abide by its requirements. Tailgate meetings were conducted each morning to discuss the day's activities, critical work procedures, and safety requirements.

The dates and location of the annual indoor air sampling event is summarized as follows.

Location	Sample Collection Dates
Three Haven Plaza 726 East 13 <sup>th</sup> Street	November 18 through 19, 2020

Pre-monitoring walk through visual inspections and chemical inventories were conducted concurrent with indoor air monitoring activities at each sampling location. The objectives of the walk-through inspections and chemical inventories were to visually identify conditions that may affect or interfere with the indoor air monitoring, document the physical condition of the indoor air monitoring areas, and to confirm the sampling locations. Conditions identified during the visual inspections were generally consistent with conditions identified by Arcadis during visual inspections conducted for ISMP sampling completed during 2010 and 2011.

During the walk-through inspections, floor construction details for the building were documented and New York State Department of Health (NYSDOH) Indoor Air Quality Questionnaires and Building Inventory Forms were completed (**Appendix A**). Photographs which document general background conditions and the chemical products (that potentially contain volatile chemicals) that were present in the sampling areas during the walkthrough inspections are provided in **Appendix B**.

The locations selected for indoor monitoring are presented on **Figure 1** and are consistent with those shown in the ISMP. The selected locations are the same as the locations sampled during the 2010 and 2011 ISMP monitoring events.

As identified in the photographic logs, small quantities of containers containing paints, solvents, cleaning supplies, and/or maintenance-related chemical products were present in the building during the walk-through inspections. These conditions are also similar to the conditions identified during the walk-through inspections associated with the previous sampling events. Removal of these potential interferences prior to collection of indoor air samples was not feasible. A portable organic vapor monitor (ppbRAE) was used to measure volatile organic compounds (VOCs) liberated from these contemporary chemicals. No VOC concentrations were detected during the ppbRAE monitoring.

Air samples for laboratory testing were collected using batch-certified clean, 6-liter SUMMA canisters equipped with laboratory pre-set flow regulators for 24-hour sample collection. Indoor air samples were collected from within the ground level of the Three Haven Plaza building within the breathing zone (approximately 3 to 4 feet above the floor). The date, times (start and end times), sample identification, and other required information were recorded on sample collection logs as described in the ISMP. The sample collection logs are included as **Appendix C**. Outdoor, ambient air monitoring was conducted from an upwind location on the day the indoor air sampling was initiated (November 18, 2020). Ambient air sampling locations are also presented on **Figure 1**.

Air samples were sent to TestAmerica Laboratories located in Knoxville, Tennessee via overnight courier for analysis of the project compound list analytes by United States Environmental Protection Agency (USEPA) Method TO-15. The project compound list included standard TO-15 VOCs, along with additional analyses for n-alkanes, branched alkanes, and other “indicator” compounds (the branched alkanes and other “indicator” compounds were reported as tentatively identified compounds). The laboratory provided NYSDEC Analytical Services Protocol (ASP) Category B-equivalent data packages for quality review. Laboratory data packages and associated quality control information were reviewed by qualified Arcadis personnel to verify they met the project-specific criteria for data quality. DUSRs were prepared that present the results from the data review for each sample data group; DUSRs are included as **Appendix D**. The DUSRs indicate that the laboratory results for each site met the data quality objectives and the data were considered usable.

The laboratory results for the East 11<sup>th</sup> Street OU-1 site are summarized in **Table 1**. Consistent with ISMP requirements, for comparison purposes, the indoor air results are compared to the NYSDOH’s *FINAL Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006 with 2017 amendment)*, Upper Fence (F) Criterion for indoor air background data for fuel oil heated homes and the USEPA’s 2001 *Building Assessment Survey and Evaluation (BASE) Study* guidance values for the 90th percentile background air levels to provide typical concentrations of VOCs in indoor air. These studies have been conducted, both nationally and in the State of New York, to provide information on indoor and outdoor air background levels in a variety of settings (e.g., residential or commercial buildings). Per NYSDOH guidance, the Upper F values from the NYSDOH Fuel Oil Study data may be used as initial benchmarks when evaluating residential indoor air, and the 90th percentile values from the EPA BASE data for indoor air in office and commercial buildings.

## 2 RESULTS AND CONCLUSIONS

Three indoor air samples were collected for laboratory analysis. One indoor air sample was collected from a room containing a waste disposal dumpster (compactor room), one sample from a meeting room, and one sample from a storage room. In addition, one ambient air sample and one duplicate sample for quality control purposes (DUP-111820) were collected for laboratory analysis. The sample collection logs are included in **Appendix C**. Photographs documenting the sample locations and equipment set-up are included in **Appendix B**. The laboratory results are presented in **Table 1**.

As indicated in **Table 1**, a total of 51 VOC analytes included in the TO-15 analyses (including analytes qualified as estimated because their value was less than the minimum calibration level but greater than the estimated detection limit) were detected in the 3 indoor air samples collected at the site. A summary of the detected analytes include:

- Of the 51 TO-15 VOCs detected in indoor air, 33 were also detected in ambient (i.e., outdoor) air. When compared to the concentrations detected in the ambient air samples, 44 of the 51 TO-15 VOCs were detected in indoor samples at concentrations that exceeded the outdoor concentrations.
- Four (4) of the TO-15 VOC analytes were detected in the indoor air samples at concentrations exceeding the NYSDOH Upper F criterion: chloroform (2 locations), trichloroethene (1 location), n-decane (1 location), and nonane (1 location). Three (3) TO-15 VOC analytes were also detected in the indoor air samples at concentrations exceeding the EPA BASE 90th percentile criterion: chloroform (2 locations), methylene chloride (1 location), and nonane (1 location).
- Commonly identified “fuel oil or petroleum products indicators” (e.g., n-butane, pentane, n-heptane, isooctane, isopentane and 2-methylpentane) that were included in the n-alkanes and branched alkanes analyte lists were identified in each of the ambient air and indoor air samples. Each of these “indicator” analytes was detected in one or more indoor air samples at concentrations higher than detected in the ambient air sample.
- Indene and thiopene were not detected in any of the samples collected; these compounds are commonly used as “Manufactured Gas Plant (MGP) indicators”.
- Chloroform was detected in two indoor air samples at concentrations above both the NYSDOH Upper F and USEPA BASE 90<sup>th</sup> percentile values. Chloroform is a man-made by-product used in industrial processes and as a solvent for lacquers, floor polishes, resins, and adhesives, and; therefore, not related to MGP operations.

Based on the types of analytes detected, as well as the solvents, cleaning supplies, petroleum, oils, and maintenance-related chemical products stored within the building, and coupled with the absence of MGP indicator compounds, the data suggests that MGP-related impacts do not exist in the building areas that were monitored for the Haven Plaza ISMP sampling event.



### 3 WORK PLAN DEVIATIONS

The following deviations from the scope of work presented in the ISMP occurred during the field activities:

- The New York City Housing Authority- (NYCHA-) owned Jacob Riis Public Housing apartment buildings were not sampled for this event. MGP indicators were not identified during six previous indoor air sampling events conducted between 2003 and 2020. Con Edison's request to suspend future ISMP monitoring for the Jacob Riis Public Housing buildings was approved in a November 3, 2020 e-mail from NYSDEC to Con Edison.
- The Saint Emeric's (including the Escuela Hispania Montessori Head Start School and the Church of Saint Emeric's) was not inspected and sampled at this time.

No additional deviations from the scope of work presented in the ISMP were noted.

# TABLES



**Table 1**  
**Indoor and Ambient Air Sampling Results**  
**Former East 11th Street Works OU-4**

Location ID: Date Collected:	NYSDOH Fuel Oil Heat - Indoor Air Upper Fence	USEPA BASE Guidance Values 90th Percentile	Units	AA - 111820 11/19/20	HPL - COMPACTOR RM 11/19/20	HPL - MEETING RM 11/19/20	HPL - STORAGE 11/19/20
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	2.5	20.6	ug/m3	0.44 U	0.44 U	0.44 U [0.44 U]	0.44 U
1,1,2,2-Tetrachloroethane	0.38	--	ug/m3	0.55 U	0.55 U	0.55 U [0.55 U]	0.55 U
1,1,2-Trichloroethane	0.38	1.5	ug/m3	0.44 U	0.44 U	0.44 U [0.44 U]	0.44 U
1,1,2-Trichlorotrifluoroethane	2.5	--	ug/m3	0.63	0.62	0.64 [0.59 J]	0.59 J
1,1-Dichloroethane	0.38	0.7	ug/m3	0.32 U	0.32 U	0.32 U [0.32 U]	0.32 U
1,1-Dichloroethene	0.4	1.4	ug/m3	0.16 U	0.16 U	0.16 U [0.16 U]	0.16 U
1,2,4-Trichlorobenzene	0.47	6.8	ug/m3	0.59 U	0.59 U	0.59 U [0.59 U]	0.59 U
1,2,4-Trimethylbenzene	9.8	9.5	ug/m3	0.20 J	0.38 J	0.27 J [0.38 J]	2.6
1,2-Dibromoethane	0.38	1.5	ug/m3	0.61 U	0.61 U	0.61 U [0.61 U]	0.61 U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.42	--	ug/m3	0.56 U	0.56 U	0.56 U [0.56 U]	0.56 U
1,2-Dichlorobenzene	0.48	1.2	ug/m3	0.48 U	0.48 U	0.48 U [0.48 U]	0.48 U
1,2-Dichloroethane	0.37	0.9	ug/m3	0.082 J	0.11 J	0.084 J [0.087 J]	0.11 J
1,2-Dichloropropane	0.39	1.6	ug/m3	0.37 U	0.37 U	0.052 J [0.37 U]	0.37 U
1,3,5-Trimethylbenzene	3.9	3.7	ug/m3	0.11 J	0.18 J	0.11 J [0.18 J]	0.81
1,3-Butadiene	--	--	ug/m3	0.35 U	0.35 U	0.35 U [0.35 U]	0.35 U
1,3-Dichlorobenzene	0.46	2.4	ug/m3	0.48 U	0.48 U	0.48 U [0.48 U]	0.48 U
1,4-Dichlorobenzene	1.2	5.5	ug/m3	0.48 U	0.84	0.16 J [0.22 J]	0.26 J
1,4-Dioxane	--	--	ug/m3	0.72 U	0.72 U	0.72 U [0.72 U]	0.72 U
2-Butanone	16	--	ug/m3	0.47 J	0.68 J	1.1 [0.64 J]	2.2
2-Hexanone	--	--	ug/m3	0.82 U	0.82 U	0.82 U [0.82 U]	0.13 J
2-methylpentane	--	--	ug/m3	0.46	0.89	0.77 [1.0]	6.0
4-Ethyltoluene	--	--	ug/m3	0.79 U	0.16 J	0.13 J [0.16 J]	0.84
4-Methyl-2-Pentanone	1.9	--	ug/m3	0.82 U	0.82 U	0.82 U [0.82 U]	0.82 U
Acetone	115	--	ug/m3	4.3 J	11	8.6 J [8.7]	20 J
Benzene	13	9.4	ug/m3	0.69	0.69	0.96 [1.0]	2.0
Benzyl chloride	--	--	ug/m3	0.83 U	0.83 U	0.83 U [0.83 U]	0.83 U
Bromodichloromethane	--	--	ug/m3	0.54 U	0.54 U	0.75 [0.75]	0.54 U
Bromoform	--	--	ug/m3	0.83 U	0.83 U	0.83 U [0.83 U]	0.83 U
Bromomethane	0.48	1.7	ug/m3	0.092 J	0.31 U	0.090 J [0.31 U]	0.31 U
Carbon Disulfide	--	4.2	ug/m3	0.62 U	0.052 J	2.5 J [0.086 J]	0.066 J
Carbon Tetrachloride	1.3	1.3	ug/m3	0.46	0.53	0.57 [0.54]	0.54
Chlorobenzene	0.41	0.9	ug/m3	0.37 U	0.028 J	0.030 J [0.37 U]	0.028 J
Chloroethane	0.39	1.1	ug/m3	0.21 U	0.21 U	0.21 U [0.21 U]	0.21 U
Chloroform	1.2	1.1	ug/m3	0.16 J	0.64	<b>6.7 [6.8]</b>	<b>2.4</b>
Chloromethane	4.2	3.7	ug/m3	1.5	1.5	1.4 [1.4]	1.3 J
cis-1,2-Dichloroethene	0.41	1.9	ug/m3	0.16 U	0.16 U	0.16 U [0.16 U]	0.052 J

**Table 1**  
**Indoor and Ambient Air Sampling Results**  
**Former East 11th Street Works OU-4**

Location ID: Date Collected:	NYSDOH Fuel Oil Heat - Indoor Air Upper Fence	USEPA BASE Guidance Values 90th Percentile	Units	AA - 111820 11/19/20	HPL - COMPACTOR RM 11/19/20	HPL - MEETING RM 11/19/20	HPL - STORAGE 11/19/20
cis-1,3-Dichloropropene	0.38	2.3	ug/m3	0.36 U	0.36 U	0.36 U [0.36 U]	0.36 U
Cyclohexane	6.3	--	ug/m3	0.19 J	0.37 J	0.32 J [0.33 J]	1.5
Dibromochloromethane	--	--	ug/m3	0.68 U	0.68 U	0.16 J [0.16 J]	0.68 U
Dichlorodifluoromethane	10	16.5	ug/m3	1.3 J	1.1 J	1.2 J [1.2 J]	1.0 J
Ethylbenzene	6.4	5.7	ug/m3	0.16 J	0.30 J	0.34 J [0.36]	1.7
Hexachlorobutadiene	0.49	6.8	ug/m3	0.85 U	0.85 U	0.85 U [0.85 U]	0.85 U
Isopropanol	--	--	ug/m3	3.2	42	8.7 [8.6]	38
Methyl tert-butyl Ether	14	11.5	ug/m3	0.58 U	0.58 U	0.58 U [0.58 U]	0.58 U
Methylene Chloride	16	10	ug/m3	1.4 U	5.5	1.8 J [14 J]	5.4
m-Xylene & p-Xylene	11	22.2	ug/m3	0.47	0.97	1.1 [1.1]	5.5
o-Xylene	7.1	7.9	ug/m3	0.20 J	0.38	0.40 [0.43]	2.0
Naphthalene	--	5.1	ug/m3	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U
Propylene	--	--	ug/m3	1.7 U	1.7 U	1.7 U [1.7 U]	2.7 J
Styrene	1.4	1.9	ug/m3	0.34 U	0.10 J	0.34 U [0.22 J]	0.60
Tetrachloroethene	2.5	15.9	ug/m3	0.12 J	0.18 J	0.16 J [0.18 J]	0.38 J
Tetrahydrofuran	0.78	--	ug/m3	1.2 U	1.2 U	0.066 J [0.055 J]	0.10 J
Toluene	57	43	ug/m3	0.92	1.6	1.9 [2.5]	5.1
trans-1,2-Dichloroethene	--	--	ug/m3	0.32 U	0.32 U	0.32 U [0.32 U]	0.32 U
trans-1,3-Dichloropropene	0.4	1.3	ug/m3	0.36 U	0.36 U	0.36 U [0.36 U]	0.36 U
Trichloroethene	0.46	4.2	ug/m3	0.033 J	0.083 J	0.19 U [0.040 J]	<b>1.0</b>
Trichlorofluoromethane	12	18.1	ug/m3	1.6	1.7	1.7 [1.7]	1.5
Vinyl Chloride	0.37	1.9	ug/m3	0.10 U	0.10 U	0.10 U [0.10 U]	0.10 U
<b>n-Alkanes</b>							
n-Butane	--	--	ug/m3	3.1	7.4	5.5 [8.8]	33
Pentane	--	--	ug/m3	1.1 J	2.6	2.1 [2.5]	17
n-Decane	15	17.5	ug/m3	0.82 J	1.2 J	0.84 J [2.9]	<b>16</b>
n-Dodecane	9.2	--	ug/m3	2.8 U	2.8 U	2.8 U [0.73 J]	2.1 J
n-Heptane	18	--	ug/m3	0.32 J	0.42 J	0.40 J [0.48 J]	1.5
n-Hexane	14	10.2	ug/m3	0.55 J	1.2	1.1 [2.0]	4.1
n-Octane	5.2	--	ug/m3	0.18 J	0.28 J	0.23 J [0.27 J]	0.82
Nonane	7.9	7.8	ug/m3	0.22 J	0.52 J	0.22 J [0.29 J]	<b>9.0</b>
n-Undecane	12	22.6	ug/m3	2.6 U	0.41 J	2.6 U [0.35 J]	6.4
<b>Branched Alkanes (Reported as TICs)</b>							
2,3-Dimethylpentane	5.2	--	ug/m3	0.33 U	0.13 J	0.14 J [0.14 J]	0.66
Isopentane	--	--	ug/m3	1.9	5.3	4.0 [5.4]	39
2-methylpentane	--	--	ug/m3	0.46	0.89	0.77 [1.0]	6.0

**Table 1**  
**Indoor and Ambient Air Sampling Results**  
**Former East 11th Street Works OU-4**

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<b>Ophther (Reported as TICs)</b>							
Indane	--	--	ug/m3	0.39 U	0.39 U	0.39 U [0.39 U]	0.20 J
Indene	--	--	ug/m3	0.76 U	0.76 U	0.76 U [0.76 U]	0.76 U
Isooctane	--	--	ug/m3	0.35 J	0.43 J	0.70 J [0.73 J]	3.2
Thiopene	--	--	ug/m3	0.28 U	0.28 U	0.28 U [0.28 U]	0.28 U
1,2,3-Trimethylbenzene	--	--	ug/m3	0.39 U	0.39 U	0.39 U [0.39 U]	0.91
Isopropylbenzene	0.82	--	ug/m3	0.79 U	0.79 U	0.79 U [0.79 U]	0.21 J

Lab Qualifier	Definition
D	Sample required dilution prior to analysis.
J	Indicates an estimated value. The value is less than the minimum calibration level but greater than the estimated
U	Indicates the constituent was not detected at the PQL. The value preceding the U indicates the PQL.
[ ]	Identifies duplicate sample collected for quality control purposes.
<b>bold font</b>	Indicates analyte exceeded its NYSDOH Upper Fence Criterion.
shaded	indicates analyte exceeded the USEPA's BASE Guidance Value (90th Percentile).

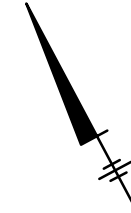
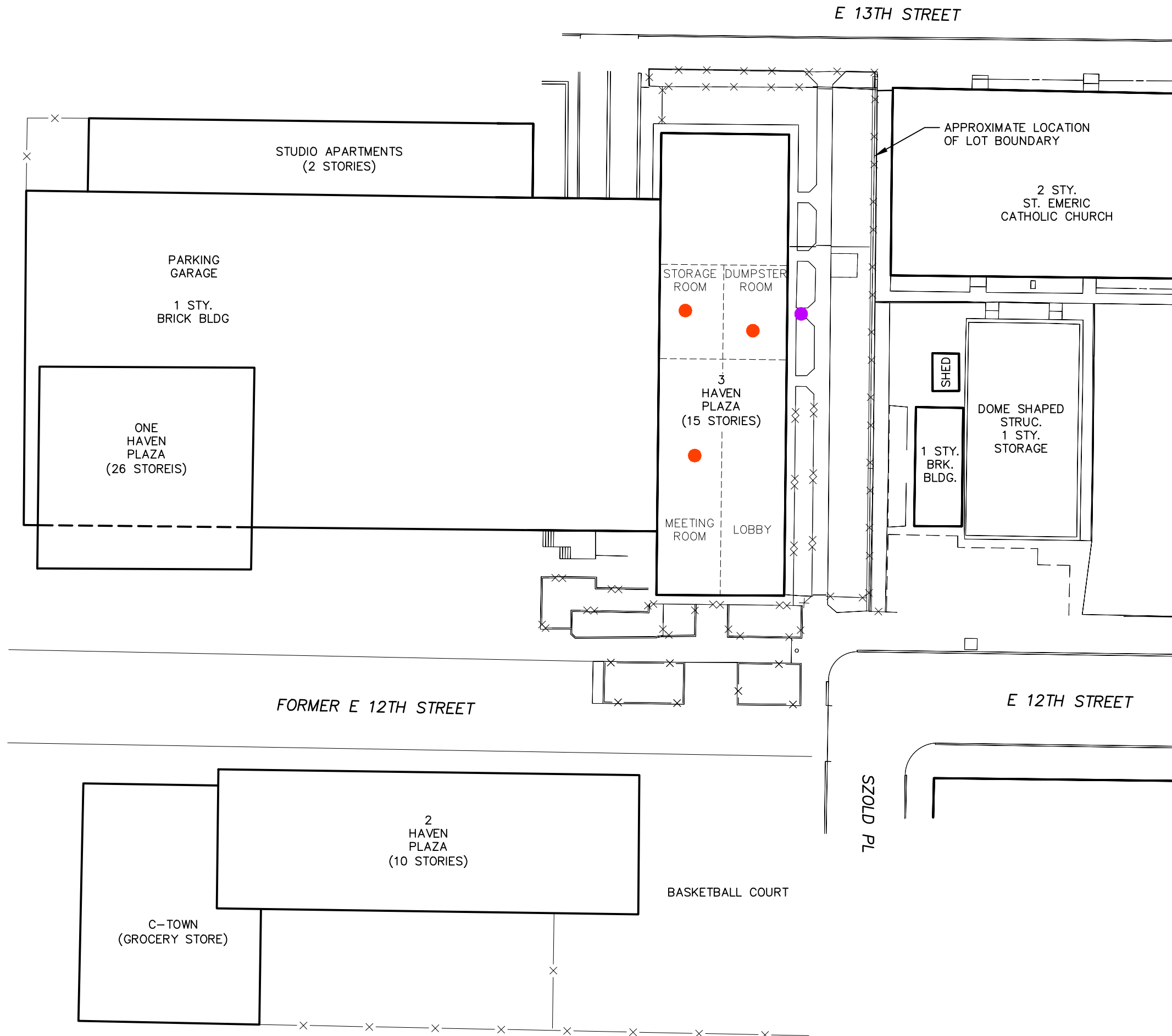
# FIGURES



C:\Users\bdclercq\BIM\_360\Arcadis\ANA - CON EDISON\Project Files\East 11th St Work Site\2021\01-DWG\IAIR\_Fig 1\_Site Plan OU-4\_AVI.dwg SAVED: 1/20/2021 9:46 AM BY: DECLERCO, BRIAN

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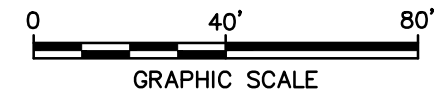


**LEGEND:**

- x — FENCE
- BUILDING
- INDOOR AIR (IA)
- AMBIENT AIR (AA) – (APPROXIMATE LOCATION TO BE DETERMINED IN FIELD)

**NOTES:**

1. BASE MAP AND SURVEY CONTROL WAS TAKEN FROM ORIGINAL SURVEY DATED 9/3/2004; SUBMITTED BY B.B.L. ON 8/25/2006.
2. BLOCK AND LOT BOUNDARIES TAKEN FROM THE NEW YORK CITY OPEN ACCESSIBLE SPACE INFORMATION SYSTEM (OASIS).



CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
EAST 11TH STREET WORKS SITE  
OPERABLE UNIT 4  
MANHATTAN, NEW YORK  
**INDOOR AIR MONITORING REPORT**

**SITE PLAN WITH OU-4 AIR MONITORING LOCATIONS**

# APPENDIX A

NYSDOH Indoor Air Quality Questionnaires and Building Inventory  
Forms





NEW YORK STATE DEPARTMENT OF HEALTH  
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY  
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Dylan Corbett Date/Time Prepared 11/18/20

Preparer's Affiliation Arcadis Phone No. 631-391-5203

Purpose of Investigation Indoor Air Sampling

**1. OCCUPANT:**

Interviewed:  Y  N

Last Name: Rivera First Name: Felix

Address: \_\_\_\_\_

County: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Office Phone: 347-343-1351

Number of Occupants/persons at this location \_\_\_\_\_ Age of Occupants \_\_\_\_\_

**2. OWNER OR LANDLORD:** (Check if same as occupant )

Interviewed:  Y  N

Last Name: Rivera First Name: Felix

Address: 200 Avenue C

County: Manhattan

Home Phone: \_\_\_\_\_ Office Phone: 347-343-1351

**3. BUILDING CHARACTERISTICS**

Type of Building: (Circle appropriate response)

Residential  
 Industrial

School  
 Church

Commercial/Multi-use  
Other: \_\_\_\_\_

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised	Ranch Split	Level Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	<u>Apartment House</u>	Townhouses/Condos
Modular	Log Home	Other: _____

If multiple units, how many? 127

If the property is commercial, type?

Business Type(s) Residential Apartments

Does it include residences (i.e., multi-use)? Y / N If yes, how many? \_\_\_\_\_

Other characteristics:

Number of floors 15 Building age 51

Is the building insulated? (Y) N How air tight? (Tight) Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors  
Air flow from elevator shaft and compactor shoot

Airflow near source  
Same as above -

Outdoor air infiltration  
Air Ducts, Fans in bathroom ceiling

Infiltration into air ducts  
No central or forced air systems present

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

- a. Above grade construction: wood frame  concrete  stone  brick
- b. Basement type: full  crawlspace  slab  other Ground level
- c. Basement floor:  concrete  dirt  stone  other
- d. Basement floor: uncovered  covered  covered with Tile/concrete
- e. Concrete floor: unsealed  sealed  sealed with Tile/paint
- f. Foundation walls: poured  block  stone  other
- g. Foundation walls: unsealed  sealed  sealed with Paint
- h. The basement is: wet  damp  dry  moldy
- i. The basement is: finished  unfinished  partially finished
- j. Sump present?  Y  N
- k. Water in sump?  Y  N  not applicable

Basement/Lowest level depth below grade: 0 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

None

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply - note primary)

- Hot air circulation  Heat pump  Hot water baseboard
- Space Heaters  Stream radiation  Radiant floor
- Electric baseboard  Wood stove  Outdoor wood boiler  Other

The primary type of fuel used is:

- Natural Gas  Fuel Oil  Kerosene  Steam Imported
- Electric  Propane  Solar
- Wood  Coal

Domestic hot water tank fueled by: Steam

Boiler/furnace located in: Basement  Outdoors  Main Floor  Other Steam

Air conditioning: Central Air  Window units  Open Windows  None

Are there air distribution ducts present? Y/N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Air Ducts are tight - Air flow between rooms for ventilation to outside

7. OCCUPANCY

Is basement/lowest level occupied?  Full-time  Occasionally  Seldom  Almost Never

Level General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement	None
1st Floor	Meeting room - storage, compactor, laundry
2nd Floor	residences 2-15th floor
3rd Floor	
4th Floor	

Ground level <

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

- a. Is there an attached garage? Y/ N
- b. Does the garage have a separate heating unit? Y/N/ NA
- c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y/N/ NA  
Please specify \_\_\_\_\_
- d. Has the building ever had a fire? Y/ N When? \_\_\_\_\_
- e. Is a kerosene or unvented gas space heater present? Y/ N Where? \_\_\_\_\_
- f. Is there a workshop or hobby/craft area?  Y/ N Where & Type? Storage Room
- g. Is there smoking in the building? Y/ N How frequently? \_\_\_\_\_
- h. Have cleaning products been used recently?  Y/ N When & Type? Daily
- i. Have cosmetic products been used recently?  Y/ N When & Type? Daily

- j. Has painting/staining been done in the last 6 months?  Y  N Where & When? last 3 months
- k. Is there new carpet, drapes or other textiles? Y  N Where & When? \_\_\_\_\_
- l. Have air fresheners been used recently?  Y  N When & Type? Daily cleaning
- m. Is there a kitchen exhaust fan? Y  N If yes, where vented? \_\_\_\_\_
- n. Is there a bathroom exhaust fan?  Y  N If yes, where vented? \_\_\_\_\_
- o. Is there a clothes dryer?  Y  N If yes, is it vented outside?  Y  N
- p. Has there been a pesticide application? Y  N When & Type? \_\_\_\_\_

Are there odors in the building?

If yes, please describe: carpet room and paint in storage room

Do any of the building occupants use solvents at work?  Y  N Caretakers  
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? cleaning solutions

If yes, are their clothes washed at work? Y  N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)  No  
Yes, use dry-cleaning infrequently (monthly or less)  Unknown  
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y  N Date of Installation: \_\_\_\_\_  
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply:  Public Water  Drilled Well  Driven Well  Dug Well  Other: \_\_\_\_\_  
Sewage Disposal:  Public Sewer  Septic Tank  Leach Field  Dry Well  Other: \_\_\_\_\_

10. RELOCATION INFORMATION (for oil spill residential emergency)

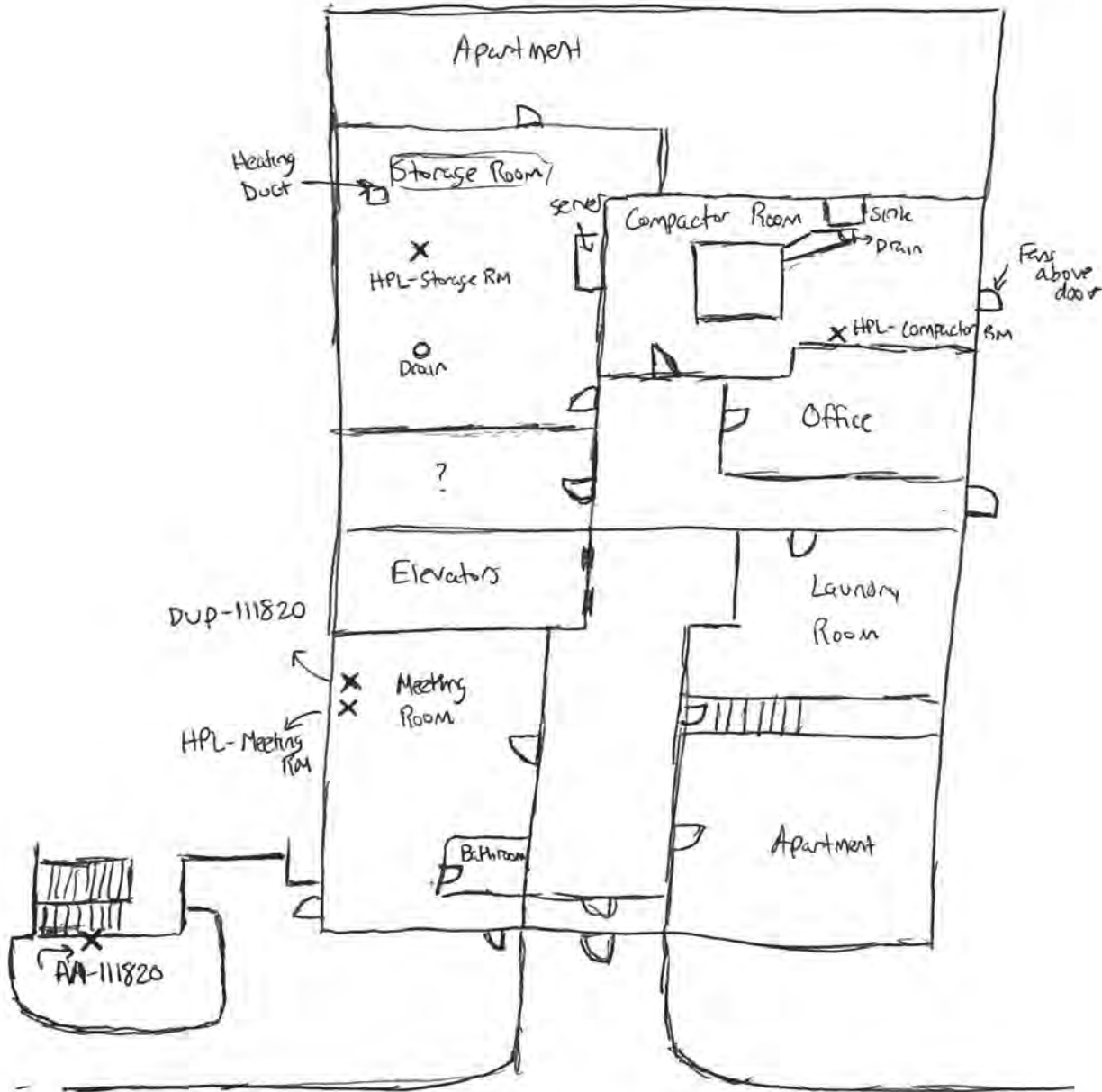
- a. Provide reasons why relocation is recommended: NA
- b. Residents choose to: remain in home  relocate to friends/family  relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained? Y  N
- d. Relocation package provided and explained to residents? Y  N

Haven Plaza Air Sampling

11/18/2020

~~30005331~~  
30005331

Dylan Corbett  
Thomas Giuseppi



# APPENDIX B

Photographic Logs – Building Inventories  
and Sampling locations





# PHOTOGRAPH LOG

Consolidated Edison



Photograph 1: Front courtyard outside entrance used for ambient air sample.



Photograph 2: Private driveway in front of entrance 30 feet from ambient air sample.



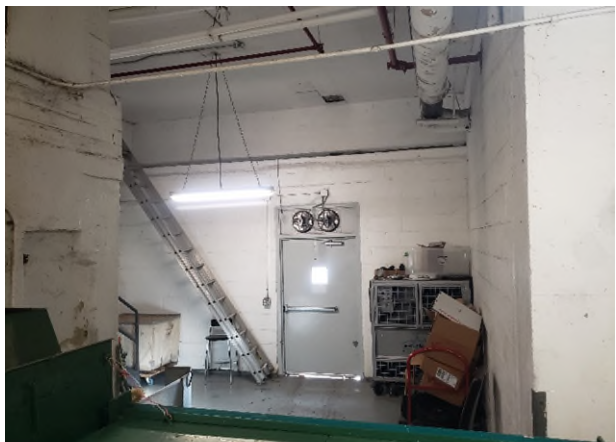
Photograph 3: Front entrance to apartment building.



Photograph 4: Drainage grate 30 feet from ambient air sample.



Photograph 5: AA-111820 air sample located on outside stairwell away from foot traffic and private driveway.

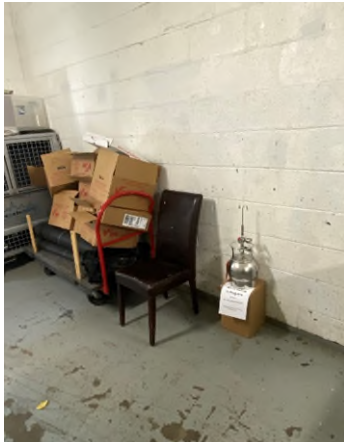


Photograph 5: Door and overhead fans in compactor room 10 feet from HPL-Compactor Rm air sample.

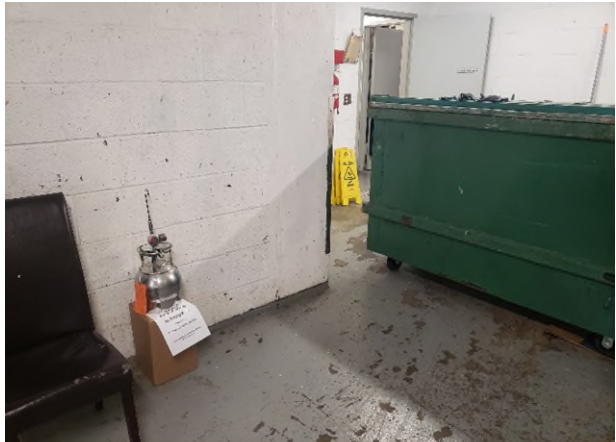


# PHOTOGRAPH LOG

Consolidated Edison



Photograph 7: HPL-Compactor Rm air sample located 10 feet from the door and 8 feet from the trash compactor hopper



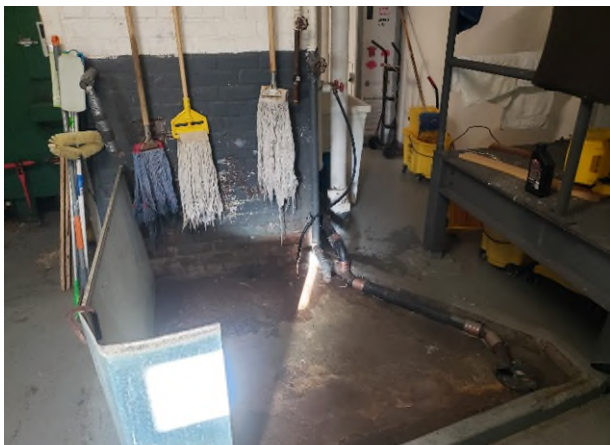
Photograph 8: HPL-Compactor Rm air sample located 10 feet from the door and 8 feet from the trash compactor hopper



Photograph 9: Trash chute hopper in compactor room 8 feet from HPL-Compactor Rm sample.



Photograph 10: Waste storage in compactor room 20 feet from HPL-Compactor Rm air sample.



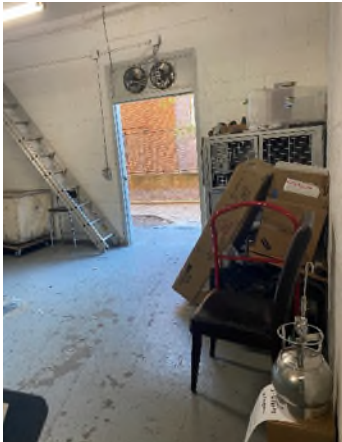
Photograph 11: Cleaning supplies in compactor room 15 feet from HPL-Compactor Rm sample.



Photograph 12: Cleaning equipment in compactor room 20 feet from HPL-Compactor Rm air sample.

# PHOTOGRAPH LOG

Consolidated Edison



Photograph 13: Door was opened in compactor room exposing HPL-Compactor Rm air sample to additional air flow.



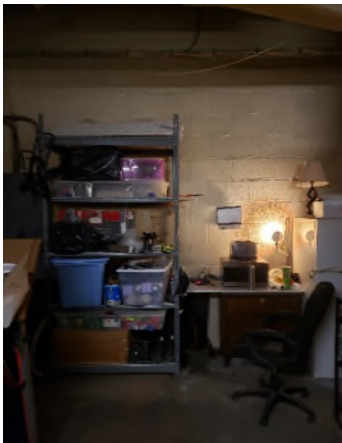
Photograph 14: Aerosol can in storage room in vicinity of HPL-Storage Rm air sample.



Photograph 15: Refrigerators in storage room adjacent to HPL-Storage Rm air sample.



Photograph 16: Paint thinner, enamel, primer, floor tile adhesive, plaster in storage room, 15 feet from HPL-Storage Rm air sample and 10 feet from air vent.



Photograph 17: Server in storage room in vicinity of HPL-Storage Rm air sample.



Photograph 18: Fuse box in vicinity of HPL-Storage Rm air sample.



# PHOTOGRAPH LOG

Consolidated Edison



Photograph 19: Ceiling air ventilation 25 feet from HPL-Storage Rm air sample.



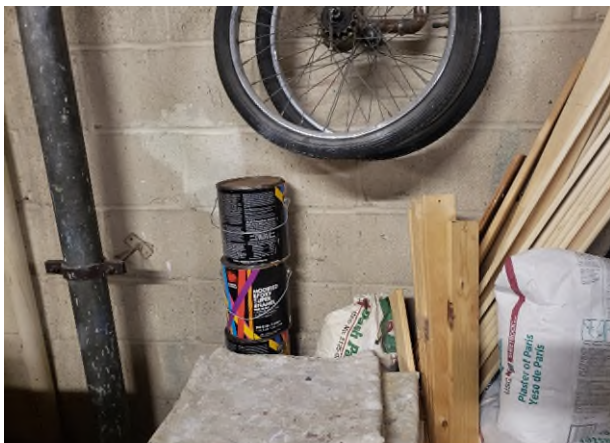
Photograph 20: Air duct running the length of the storage room ceiling.



Photograph 21: Non-acid bathroom cleaner in storage room in vicinity of HPL-Storage Rm air sample.



Photograph 22: Container of disinfectant with exposed applicator in storage room in vicinity of HPL-Storage Rm air sample.



Photograph 23: Enamel container in storage room 20 feet from HPL-Storage Rm air sample.



Photograph 24: Open latex enamel container in storage room 20 feet from HPL-Storage Rm air sample.

## PHOTOGRAPH LOG

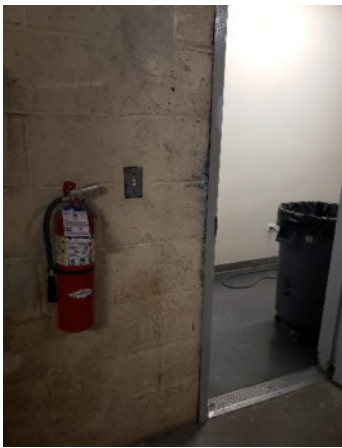
Consolidated Edison



Photograph 25: Plaster in storage room in the vicinity of HPL-Storage Rm air sample



Photograph 26: HPL-Storage Rm air sample located among refrigerators 25 feet from air ventilation.



Photograph 27: Entrance to storage room.



Photograph 28: Open container of laundry detergent 25 feet from HPL-Storage Rm air sample.



Photograph 29: Fuel container in storage room 25 feet from HPL-Storage Rm air sample.



Photograph 30: Pellet fuel in storage room 15 feet from HPL-Storage Rm air sample.



# PHOTOGRAPH LOG

Consolidated Edison



Photograph 31: Sink and space heater in vicinity of HPL-Meeting Rm air sample and DUP-111820 air sample.



Photograph 32: Chairs, tables and space heaters in meeting room in vicinity of HPL-Meeting Rm air sample and DUP-111820 air sample.



Photograph 6: Packages of dog food in vicinity of HPL-Meeting Rm air sample and DUP-111820 air sample.



Photograph 34: Meeting room entrance.



Photograph 35: Wood pallets and miscellaneous materials stored in meeting room.



Photograph 36: Air sample canisters staged in meeting room prior to deployment.

# PHOTOGRAPH LOG

Consolidated Edison



Photograph 37: Air ventilation 15 feet from HPL-Meeting Rm air sample and DUP-111820 air sample.



Photograph 38: Food drive supplies stored in meeting room in vicinity of HPL-Meeting Rm air sample and DUP-111820 air sample.



Photograph 39: Air ventilation 15 feet from HPL-Meeting Rm air sample and DUP-111820 air sample.



Photograph 40: Air ventilation 15 feet from HPL-Meeting Rm air sample and DUP-111820 air sample.



Photograph 41: HPL-Meeting Rm air sample and DUP-111820 air sample located adjacent to one another elevated from floor.



Photograph 42: Apartment building lobby layout.

# APPENDIX C

## Sample Collection Logs



		<b>Indoor/Ambient Air Sample Collection Log</b>	
		Sample ID:	AA-11820
Client:	ConEd	Outdoor/Indoor:	Outdoor
Project:	Haven Plaza	Sample Intake Height:	3 FT
Location:	NYC (SW corner courtyard)	Miscellaneous Equipment:	11/18, 11/19
Project #:	30005331	Time On/Off:	0958 / 1001
Samplers:	DLTG	Subcontractor:	

Instrument Readings:

Time	Canister Pressure (inches of HG)	Temperature (F or C)	Relative Humidity (%)	Air Speed (ft/min)	Pressure Differential (inches of H2O)	PID (ppm or ppb)
11/18 { 9:58	-3.0	38°F				0.0
12:00	-3.0	40°F				0.0
14:16	-29.5	45°F				0.0
11/19 { 07:00	-1.0	33°				0.0
08:40	-7	37°				0.0
10:01	-5.5					

SUMMA Canister Information:

Size (circle one): 1 L (6 L)

Canister ID: 34001269


Flow Controller ID: 10880

General Observations/Notes:

Wind direction: NW, 15-20 knots, 38
<del>Fixed</del> Locked to stair case in courtyard

Please record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).



		<b>Indoor/Ambient Air Sample Collection Log</b>	
		Sample ID:	HPL-Compact for PM
Client:	CON ED	Outdoor/Indoor:	HPL-Compact for PM
Project:	Haven Plaza	Sample Intake Height:	1
Location:	NYC	Miscellaneous Equipment:	11/18 11/19
Project #:	30665331	Time On/Off:	0944/0952
Samplers:	DL/T6	Subcontractor:	

**Instrument Readings:**

Time	Canister Pressure (inches of HG)	Temperature (F or C)	Relative Humidity (%)	Air Speed (ft/min)	Pressure Differential (inches of H2O)	PID (ppm or ppb)
11/18 { 0944	-30	72 F		NA		0.0
1203	-30					0.0
1420	-29.5					0.0
11/19 { 0700	-10					0.0
0840	-8.5					0.0
0952	-6.0					0.0

**SUMMA Canister Information:**

Size (circle one): 1 L (6 L)

Canister ID: 11026

Flow Controller ID: 7389

**General Observations/Notes:**

0730: Door open in compact for reason for tough day → additional air flow

Please record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

		<b>Indoor/Ambient Air Sample Collection Log</b>	
		Sample ID: <u>HPL-Meeting RM</u>	
Client:	<u>ConEd</u>	Outdoor/Indoor:	<u>Indoor</u>
Project:	<u>Haven Plaza</u>	Sample Intake Height:	<u>2 ft</u>
Location:	<u>NYC</u>	Miscellaneous Equipment:	<u>11/18 11/19</u>
Project #:	<u>30005331</u>	Time On/Off:	<u>0935 / 0943</u>
Samplers:	<u>DC/TG</u>	Subcontractor:	

**Instrument Readings:**

Time	Canister Pressure (inches of HG)	Temperature (F or C)	Relative Humidity (%)	Air Speed (ft/min)	Pressure Differential (inches of H2O)	PID (ppm or ppb)
11/18 { 0935	-30	72F		NA		0.0
1200	-30					0.0
1415	-29.5					<del>0.0</del>
11/19 { 0700	-10	↓				0.0
0840	-8					0.0
0943	-6					0.0

**SUMMA Canister Information:**

Size (circle one): 1 L  6 L

Canister ID: 34002010

Flow Controller ID: 7107

**General Observations/Notes:**

DUP-111820
------------

Please record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

		<b>Indoor/Ambient Air Sample Collection Log</b>	
		Sample ID: <u>DUP-111820</u>	
Client:	<u>COAED</u>	Outdoor/Indoor:	<u>Indoor</u>
Project:	<u>Haven Plaza</u>	Sample Intake Height:	<u>2 Ft</u>
Location:	<u>NEL</u>	Miscellaneous Equipment:	<u>11/18 / 11/19</u>
Project #:	<u>30005331</u>	Time On/Off:	<u>0935 / 0943</u>
Samplers:	<u>DC/TG</u>	Subcontractor:	

Instrument Readings:

Time	Canister Pressure (inches of HG)	Temperature (F or C)	Relative Humidity (%)	Air Speed (ft/min)	Pressure Differential (inches of H2O)	PID (ppm or ppb)
11/18 { 0935	-28.5	72F		NA		0.0
1200	-28					0.0
1415	-27.5					0.0
11/19 { 0700	-10	↓				0.0
0740	-7.5					0.0

SUMMA Canister Information:

Size (circle one): 1 L  6L


Canister ID: ~~09523~~ 09523

Flow Controller ID: 10450

General Observations/Notes:

<u>Set up in meeting room</u>

Please record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

		<b>Indoor/Ambient Air Sample Collection Log</b>	
		Sample ID: <u>HPL - Storage</u>	
Client:	<u>ConEd</u>	Outdoor/Indoor:	<u>Indoor</u>
Project:	<u>Hatch Plaza</u>	Sample Intake Height:	
Location:	<u>NYC</u>	Miscellaneous Equipment:	
Project #:	<u>30005331</u>	Time On/Off:	<del>0947</del> <u>11/18 11/19</u> <u>0947/0957</u>
Samplers:	<u>DL TG</u>	Subcontractor:	

**Instrument Readings:**

Time	Canister Pressure (inches of HG)	Temperature (F or C)	Relative Humidity (%)	Air Speed (ft/min)	Pressure Differential (inches of H2O)	PID (ppm or ppb)
<u>11/18 0947</u> <del>0947</del>	<del>-29</del> <u>-28.5</u>	<u>72</u>		<u>NA</u>		<u>0.0</u>
<u>1200</u>						<u>0.0</u>
<u>1413</u>	<u>-2.8</u>					<u>0.0</u>
<u>11/19 0700</u>	<del>0947</del> <u>0947</u> <u>-9</u>	<u>✓</u>				<u>0.0</u>
<u>0840</u>	<u>-7</u>					<u>0.0</u>
<u>0957</u>	<u>-5</u>					

**SUMMA Canister Information:**

Size (circle one): 1 L (6L)

Canister ID: 34001524

Flow Controller ID: 11535

**General Observations/Notes:**


Please record current weather information including wind speed and direction, ambient temperature, barometric pressure, and relative humidity via suitable information source (e.g., weatherunderground.com).

# APPENDIX D

Data Usability Summary Reports (DUSRs)



Consolidated Edison Company of New  
York, Inc. – East 11th Street Site

# DATA USABILITY SUMMARY REPORT (DUSR)

New York City, New York

*Volatile Analysis*

SDG #: 140-21090-1

Analyses Performed By:  
TestAmerica Laboratories, Inc.  
Knoxville, Tennessee

Report #: 39795R  
Review Level: Tier III  
Project: 300053331.00002

---

## DATA USABILITY SUMMARY REPORT

### SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # 140-21090-1 for samples collected in association with the Consolidated Edison site in New York City, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data as reported by the laboratory were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain-of-custody (COC) records. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis
					VOCs
HPL - STORAGE-20201119	140-21090-1	Air	11/19/2020		X
HPL - MEETING RM-20201119	140-21090-2	Air	11/19/2020		X
HPL - COMPACTOR RM-20201119	140-21090-3	Air	11/19/2020		X
DUP - 111820-20201119	140-21090-4	Air	11/19/2020	HPL - MEETING RM-20201119	X
AA - 111820-20201119	140-21090-5	Air	11/19/2020		X

## DATA USABILITY SUMMARY REPORT

### ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of quality assurance (QA) or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	



## DATA USABILITY SUMMARY REPORT

### ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method TO-15. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999, USEPA Region II SOP HW-31- Validating Air Samples Volatile Organic Analysis of Ambient Air In Canister by Method TO-15 of October 2006, New York State DEC Analytical Method ASP 2005 TO-15 (QA/QC Criteria R9 TO-15), NYSDEC Modifications to R9 TO-15 QA/QC Criteria October 2009.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
  - J+ The result is an estimated quantity, but the result may be biased high.
  - J- The result is an estimated quantity, but the result may be biased low.
  - UB Analyte considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

## DATA USABILITY SUMMARY REPORT

### VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation	Return Canister Pressure
USEPA TO-15 and ASTM D-1946	Air	30 days from collection to analysis	Ambient Temperature	< -1" Hg

All samples were analyzed within the specified holding time and canister return pressure / vacuum criteria.

#### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

##### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (30%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

## DATA USABILITY SUMMARY REPORT

### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (30%) and RRF value greater than control limit (0.05).

Compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
HPL - STORAGE-20201119 HPL - MEETING RM-20201119 HPL - COMPACTOR RM-20201119	CCV %D	Propene	+30.5%
DUP - 111820-20201119 AA - 111820-20201119		Dichlorodifluoromethane	+31.2%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01 <sup>1</sup>	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01 <sup>1</sup>	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
	%RSD >90%	Non-detect	R
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J
	%D >90% (increase/decrease in sensitivity)	Non-detect	R
		Detect	J

**Note:**

<sup>1</sup> RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

### 5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC

## DATA USABILITY SUMMARY REPORT

analysis requires that all surrogates associated with the analysis exhibit a percent recovery within the established acceptance limits of 70% to 130%.

Surrogate recoveries were within control limits.

### 6. Internal Standard Performance

Internal standard performance criteria ensure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

Internal standard responses were within control limits.

### 7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the established acceptance limits of 70% to 130%.

Compounds associated with the LCS analysis exhibited recoveries within the control limits.

### 8. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for air matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

Results for duplicate samples are summarized in the following table (ug/m3).

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
HPL - MEETING RM-20201119/ DUP - 111820-20201119	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.64	0.59 J	AC
	1,2,4-TRIMETHYLBENZENE	0.27 J	0.38 J	AC
	1,2-DICHLOROETHANE	0.084 J	0.087 J	AC
	1,2-DICHLOROPROPANE	0.052 J	0.37 U	AC
	1,3,5-Trimethylbenzene (Mesitylene)	0.11 J	0.18 J	AC
	1,4-DICHLOROBENZENE	0.16 J	0.22 J	AC
	2,2,4-TRIMETHYLPENTANE	0.7 J	0.73 J	AC
	2,3-DIMETHYL PENTANE	0.14 J	0.14 J	AC
	2-METHYL BUTANE	4	5.4	29.7%
	2-METHYL-PENTANE	0.77	1.0	AC
	4-Ethyltoluene	0.13 J	0.16 J	AC
	ACETONE	8.6	8.7	1.1 %
	BENZENE	0.96	1.0	AC
	BROMODICHLOROMETHANE	0.75	0.75	AC
	BROMOMETHANE	0.09 J	0.31 U	AC
	BUTANE	5.5	8.8	46.1%
	CARBON DISULFIDE	2.5	0.086 J	NC
	CARBON TETRACHLORIDE	0.57	0.54	AC
	CHLOROBENZENE	0.030 J	0.37 U	AC
	CHLOROFORM	6.7	6.8	1.4%
CHLOROMETHANE	1.4	1.4	AC	

## DATA USABILITY SUMMARY REPORT

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
	CYCLOHEXANE	0.32 J	0.33 J	AC
	DIBROMOCHLOROMETHANE	0.16 J	0.16 J	AC
	DICHLORODIFLUOROMETHANE	1.2	1.2	AC
	ETHYLBENZENE	0.34 J	0.36	AC
	Isopropanol	8.7	8.6	1.1%
	M,P-XYLENES	1.1	1.1	AC
	METHYL ETHYL KETONE (2-BUTANONE)	1.1	0.64 J	AC
	METHYLENE CHLORIDE	1.8	14	NC
	N-DECANE	0.84 J	2.9	AC
	N-DODECANE	2.8 U	0.73 J	AC
	N-HEPTANE	0.4 J	0.48 J	AC
	N-HEXANE	1.1	2	AC
	N-NONANE	0.22 J	0.29 J	AC
	N-OCTANE	0.23 J	0.27 J	AC
	N-PENTANE	2.1	2.5	AC
	N-UNDECANE	2.6 U	0.35 J	AC
	O-XYLENE (1,2-DIMETHYLBENZENE)	0.4	0.43	AC
	STYRENE	0.34 U	0.22 J	AC
	TETRACHLOROETHYLENE(PCE)	0.16 J	0.18 J	AC
	TETRAHYDROFURAN	0.066	0.055 J	AC
	TOLUENE	1.9	2.5	AC
	TRICHLOROETHYLENE (TCE)	0.19 U	0.04 J	AC
	TRICHLOROFLUOROMETHANE	1.7	1.7	AC

### Notes:

AC = Acceptable

NC = Not Compliant

The compound carbon disulfide and methylene chloride associated with sample locations HPL - MEETING RM-20201119 and DUP - 111820-20201119xx and xx exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed compounds were qualified as estimated.

### 9. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

### 10. System Performance and Overall Assessment

The "Cl" qualifier was removed and replaced with a "J" qualifier to indicate that the detected compound results for the associated samples mentioned above are estimated (potential high bias due to chromatographic interference).

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

## DATA USABILITY SUMMARY REPORT

### DATA VALIDATION CHECKLIST FOR VOCs

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
<b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>					
<b>Tier II Validation</b>					
Holding times		X		X	
Canister return pressure (<-1"Hg)		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
C. Trip blanks	X				X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD)	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS)	X				X
Matrix Spike Duplicate (MSD)	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)		X	X		
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
<b>Tier III Validation</b>					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	

## DATA USABILITY SUMMARY REPORT

VOCs: TO-15	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
<b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>					
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

## DATA USABILITY SUMMARY REPORT

## SAMPLE COMPLIANCE REPORT



## DATA USABILITY SUMMARY REPORT

### SAMPLE COMPLIANCE REPORT

SDG	Sampling Date	Protocol	Sample ID	Matrix	Compliance <sup>1</sup>		Noncompliance
					VOCs	SVOCs	
140-21090-1	11/19/2020	SW846	HPL - STORAGE-20201119	Air	No	--	CCV %D, chromatographic interference
	11/19/2020		HPL - MEETING RM-20201119	Air	No	--	CCV %D, Field Dup RPD, chromatographic interference
	11/19/2020		HPL - COMPACTOR RM-20201119	Air	No	--	CCV %D
	11/19/2020		DUP - 111820-20201119	Air	No	--	CCV %D, Field Dup RPD
	11/19/2020		AA - 111820-20201119	Air	No	--	CCV %D

Note:

- 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

**DATA USABILITY SUMMARY REPORT**

Validation Performed By: Todd Church

Signature:   
\_\_\_\_\_

Date: January 7, 2021

Peer Review: Dennis Capria

Date: January 8, 2021

## DATA USABILITY SUMMARY REPORT

# CHAIN OF CUSTODY AND CORRECTED AND SAMPLE ANALYSIS DATA SHEETS



# NYC 222

**Eurofins TestAmerica, New York City Ser**  
47-32 32nd Place  
Suite 1141  
Long Island City, NY 11101-2425  
phone 347.507.0579 fax

## Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.  
140-21090 Chain of Custody



TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information		Client Project Manager: Mike (Michael) Jones		Samples Collected By: Dylan Corbett/Thomas Thomas		COC No: 1 of COCs																				
Company Name: Arcadis U.S., Inc		Phone: (315) 671 9211		TALS Project #:		For Lab Use Only:																				
Address: 295 Woodcliff Drive		Email: michael.jones@arcadis.com		Walk-in Client:		Lab Sampling:																				
City/State/Zip: Fairport/ NY/ 14450		Site Contact: Albina Redzepagic		Job / SDG No.:		(See below for Add'l Items)																				
Phone: (585) 662 4034		Tel/Fax 212-365-4651		TO-15 (See Target Analyte list)		Sample Specific Notes:																				
Project Name: Con Edison - East 11th Street		Analysis Turnaround Time		EPA 3C																						
Site/Location: E. 11th Street - Haven Plaza		Standard (Specific): 10 TOT		EPA 25C																						
PO # 30005331		Rush (Specify):		ASTM D-1946																						
Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	Sample Type	Other (Please specify in notes section)																
										Landfill Gas	Soil Vapor Extraction (SVE)	Soil Gas	Sub-Slab	Indoor Air/Ambient Air	Helium	EPA 15/16	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946						
HPL - Storage	11/18/20	0947	11/19/20	0957	-29	-5	11535	3400524	X																	
HPL - Meeting RM	11/18/20	0955	11/19/20	0943	-25	-6	7107	34002010	X																-30 (Start Hg)	
HPL - Connector RM	11/18/20	0944	11/19/20	0952	-30	-6	7389	11026	X																	
DUP - 111820	11/18/20	0958	11/19/20	1001	-30	-5.5	10450	09523	X																	-28.5 (Start Hg)
AA - 111820	11/18/20	0958	11/19/20	1001	-30	-5.5	10880	3400259	X																	
Special Instructions/QC Requirements & Comments:										Received at ambient, 1 box, Fed ex Po No. Checked seal/ID# 772/3160 2911 RW 11/20/20																
Samples Shipped by: Amy		Date / Time: 11/19/20		14:00		Samples Received by: Amy																				
Samples Relinquished by: Amy		Date / Time: 11/14/20		1030		Received by: Amy																				
Relinquished by: Amy		Date / Time: 11/19/20		11:30 AM		Received by: Amy																				
Lab Use Only: /Shipper Name:		ETA		11/20/20		0900		S caber / SAs/Scc																		

# Definitions/Glossary

Client: ARCADIS U.S. Inc  
Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

## Qualifiers

### Air - GC/MS VOA

Qualifier	Qualifier Description
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: HPL - STORAGE**

**Lab Sample ID: 140-21090-1**

Date Collected: 11/19/20 09:57

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			11/24/20 14:59	1
1,1,2,2-Tetrachloroethane	ND		0.080	0.014	ppb v/v			11/24/20 14:59	1
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	<b>0.077</b>	<b>J</b>	0.080	0.0080	ppb v/v			11/24/20 14:59	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			11/24/20 14:59	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			11/24/20 14:59	1
1,1-Dichloroethene	ND		0.040	0.0080	ppb v/v			11/24/20 14:59	1
<b>1,2,3-Trimethylbenzene</b>	<b>0.18</b>		0.080	0.036	ppb v/v			11/24/20 14:59	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			11/24/20 14:59	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.53</b>		0.080	0.020	ppb v/v			11/24/20 14:59	1
1,2-Dibromoethane (EDB)	ND		0.080	0.0070	ppb v/v			11/24/20 14:59	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.080	0.012	ppb v/v			11/24/20 14:59	1
1,2-Dichlorobenzene	ND		0.080	0.031	ppb v/v			11/24/20 14:59	1
<b>1,2-Dichloroethane</b>	<b>0.027</b>	<b>J</b>	0.080	0.010	ppb v/v			11/24/20 14:59	1
1,2-Dichloropropane	ND		0.080	0.010	ppb v/v			11/24/20 14:59	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.16</b>		0.080	0.022	ppb v/v			11/24/20 14:59	1
1,3-Butadiene	ND		0.16	0.019	ppb v/v			11/24/20 14:59	1
1,3-Dichlorobenzene	ND		0.080	0.016	ppb v/v			11/24/20 14:59	1
<b>1,4-Dichlorobenzene</b>	<b>0.044</b>	<b>J</b>	0.080	0.016	ppb v/v			11/24/20 14:59	1
1,4-Dioxane	ND		0.20	0.030	ppb v/v			11/24/20 14:59	1
<b>2,2,4-Trimethylpentane</b>	<b>0.68</b>		0.20	0.0080	ppb v/v			11/24/20 14:59	1
<b>2,3-Dimethylpentane</b>	<b>0.16</b>		0.080	0.026	ppb v/v			11/24/20 14:59	1
<b>2-Butanone (MEK)</b>	<b>0.75</b>		0.32	0.073	ppb v/v			11/24/20 14:59	1
<b>2-Hexanone</b>	<b>0.033</b>	<b>J</b>	0.20	0.016	ppb v/v			11/24/20 14:59	1
<b>2-Methylbutane</b>	<b>13</b>		0.20	0.063	ppb v/v			11/24/20 14:59	1
<b>2-Methylpentane</b>	<b>1.7</b>		0.080	0.014	ppb v/v			11/24/20 14:59	1
<b>4-Ethyltoluene</b>	<b>0.17</b>		0.16	0.021	ppb v/v			11/24/20 14:59	1
4-Methyl-2-pentanone (MIBK)	ND		0.20	0.054	ppb v/v			11/24/20 14:59	1
<b>Acetone</b>	<b>8.2</b>	<b>Cl J</b>	2.0	0.57	ppb v/v			11/24/20 14:59	1
<b>Benzene</b>	<b>0.62</b>		0.080	0.0080	ppb v/v			11/24/20 14:59	1
Benzyl chloride	ND		0.16	0.038	ppb v/v			11/24/20 14:59	1
Bromodichloromethane	ND		0.080	0.018	ppb v/v			11/24/20 14:59	1
Bromoform	ND		0.080	0.0090	ppb v/v			11/24/20 14:59	1
Bromomethane	ND		0.080	0.022	ppb v/v			11/24/20 14:59	1
<b>Carbon disulfide</b>	<b>0.021</b>	<b>J</b>	0.20	0.011	ppb v/v			11/24/20 14:59	1
<b>Carbon tetrachloride</b>	<b>0.085</b>		0.032	0.0070	ppb v/v			11/24/20 14:59	1
<b>Chlorobenzene</b>	<b>0.0061</b>	<b>J</b>	0.080	0.0060	ppb v/v			11/24/20 14:59	1
Chloroethane	ND		0.080	0.029	ppb v/v			11/24/20 14:59	1
<b>Chloroform</b>	<b>0.49</b>		0.080	0.0070	ppb v/v			11/24/20 14:59	1
<b>Chloromethane</b>	<b>0.64</b>	<b>Cl J</b>	0.20	0.066	ppb v/v			11/24/20 14:59	1
<b>cis-1,2-Dichloroethene</b>	<b>0.013</b>	<b>J</b>	0.040	0.010	ppb v/v			11/24/20 14:59	1
cis-1,3-Dichloropropene	ND		0.080	0.016	ppb v/v			11/24/20 14:59	1
<b>Cyclohexane</b>	<b>0.44</b>		0.20	0.023	ppb v/v			11/24/20 14:59	1
Dibromochloromethane	ND		0.080	0.0070	ppb v/v			11/24/20 14:59	1
<b>Dichlorodifluoromethane</b>	<b>0.21</b>	<b>J</b>	0.080	0.014	ppb v/v			11/24/20 14:59	1
<b>Ethylbenzene</b>	<b>0.38</b>		0.080	0.013	ppb v/v			11/24/20 14:59	1
<b>Heptane</b>	<b>0.36</b>		0.20	0.014	ppb v/v			11/24/20 14:59	1
Hexachlorobutadiene	ND		0.080	0.032	ppb v/v			11/24/20 14:59	1
<b>Hexane</b>	<b>1.2</b>		0.20	0.013	ppb v/v			11/24/20 14:59	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: HPL - STORAGE**

**Lab Sample ID: 140-21090-1**

Date Collected: 11/19/20 09:57

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indane	0.042	J	0.080	0.035	ppb v/v			11/24/20 14:59	1
Indene	ND		0.16	0.039	ppb v/v			11/24/20 14:59	1
Isopropyl alcohol	16		0.80	0.22	ppb v/v			11/24/20 14:59	1
Isopropylbenzene	0.043	J	0.16	0.017	ppb v/v			11/24/20 14:59	1
Methyl tert-butyl ether	ND		0.16	0.052	ppb v/v			11/24/20 14:59	1
Methylene Chloride	1.6		0.40	0.39	ppb v/v			11/24/20 14:59	1
m-Xylene & p-Xylene	1.3		0.080	0.029	ppb v/v			11/24/20 14:59	1
Naphthalene	ND		0.20	0.076	ppb v/v			11/24/20 14:59	1
n-Butane	14		0.16	0.083	ppb v/v			11/24/20 14:59	1
n-Decane	2.8		0.40	0.038	ppb v/v			11/24/20 14:59	1
n-Dodecane	0.30	J	0.40	0.064	ppb v/v			11/24/20 14:59	1
n-Octane	0.18		0.16	0.016	ppb v/v			11/24/20 14:59	1
Nonane	1.7		0.20	0.018	ppb v/v			11/24/20 14:59	1
n-Undecane	1.0		0.40	0.048	ppb v/v			11/24/20 14:59	1
o-Xylene	0.45		0.080	0.015	ppb v/v			11/24/20 14:59	1
Pentane	5.6		0.40	0.079	ppb v/v			11/24/20 14:59	1
Propene	1.6	J	1.0	1.0	ppb v/v			11/24/20 14:59	1
Styrene	0.14		0.080	0.024	ppb v/v			11/24/20 14:59	1
Tetrachloroethene	0.056	J	0.080	0.0070	ppb v/v			11/24/20 14:59	1
Tetrahydrofuran	0.034	J	0.40	0.017	ppb v/v			11/24/20 14:59	1
Thiophene	ND		0.080	0.011	ppb v/v			11/24/20 14:59	1
Toluene	1.3		0.12	0.078	ppb v/v			11/24/20 14:59	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			11/24/20 14:59	1
trans-1,3-Dichloropropene	ND		0.080	0.0090	ppb v/v			11/24/20 14:59	1
Trichloroethene	0.19		0.036	0.0060	ppb v/v			11/24/20 14:59	1
Trichlorofluoromethane	0.27		0.080	0.011	ppb v/v			11/24/20 14:59	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/24/20 14:59	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			11/24/20 14:59	1
1,1,2,2-Tetrachloroethane	ND		0.55	0.096	ug/m3			11/24/20 14:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.59	J	0.61	0.061	ug/m3			11/24/20 14:59	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			11/24/20 14:59	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			11/24/20 14:59	1
1,1-Dichloroethene	ND		0.16	0.032	ug/m3			11/24/20 14:59	1
1,2,3-Trimethylbenzene	0.91		0.39	0.18	ug/m3			11/24/20 14:59	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			11/24/20 14:59	1
1,2,4-Trimethylbenzene	2.6		0.39	0.098	ug/m3			11/24/20 14:59	1
1,2-Dibromoethane (EDB)	ND		0.61	0.054	ug/m3			11/24/20 14:59	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.56	0.084	ug/m3			11/24/20 14:59	1
1,2-Dichlorobenzene	ND		0.48	0.19	ug/m3			11/24/20 14:59	1
1,2-Dichloroethane	0.11	J	0.32	0.040	ug/m3			11/24/20 14:59	1
1,2-Dichloropropane	ND		0.37	0.046	ug/m3			11/24/20 14:59	1
1,3,5-Trimethylbenzene	0.81		0.39	0.11	ug/m3			11/24/20 14:59	1
1,3-Butadiene	ND		0.35	0.042	ug/m3			11/24/20 14:59	1
1,3-Dichlorobenzene	ND		0.48	0.096	ug/m3			11/24/20 14:59	1
1,4-Dichlorobenzene	0.26	J	0.48	0.096	ug/m3			11/24/20 14:59	1
1,4-Dioxane	ND		0.72	0.11	ug/m3			11/24/20 14:59	1



# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: HPL - STORAGE**

**Lab Sample ID: 140-21090-1**

Date Collected: 11/19/20 09:57

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2,4-Trimethylpentane	3.2		0.93	0.037	ug/m3			11/24/20 14:59	1
2,3-Dimethylpentane	0.66		0.33	0.11	ug/m3			11/24/20 14:59	1
2-Butanone (MEK)	2.2		0.94	0.22	ug/m3			11/24/20 14:59	1
2-Hexanone	0.13	J	0.82	0.066	ug/m3			11/24/20 14:59	1
2-Methylbutane	39		0.59	0.19	ug/m3			11/24/20 14:59	1
2-Methylpentane	6.0		0.28	0.049	ug/m3			11/24/20 14:59	1
4-Ethyltoluene	0.84		0.79	0.10	ug/m3			11/24/20 14:59	1
4-Methyl-2-pentanone (MIBK)	ND		0.82	0.22	ug/m3			11/24/20 14:59	1
Acetone	20	Cl J	4.8	1.4	ug/m3			11/24/20 14:59	1
Benzene	2.0		0.26	0.026	ug/m3			11/24/20 14:59	1
Benzyl chloride	ND		0.83	0.20	ug/m3			11/24/20 14:59	1
Bromodichloromethane	ND		0.54	0.12	ug/m3			11/24/20 14:59	1
Bromoform	ND		0.83	0.093	ug/m3			11/24/20 14:59	1
Bromomethane	ND		0.31	0.085	ug/m3			11/24/20 14:59	1
Carbon disulfide	0.066	J	0.62	0.034	ug/m3			11/24/20 14:59	1
Carbon tetrachloride	0.54		0.20	0.044	ug/m3			11/24/20 14:59	1
Chlorobenzene	0.028	J	0.37	0.028	ug/m3			11/24/20 14:59	1
Chloroethane	ND		0.21	0.077	ug/m3			11/24/20 14:59	1
Chloroform	2.4		0.39	0.034	ug/m3			11/24/20 14:59	1
Chloromethane	1.3	Cl J	0.41	0.14	ug/m3			11/24/20 14:59	1
cis-1,2-Dichloroethene	0.052	J	0.16	0.040	ug/m3			11/24/20 14:59	1
cis-1,3-Dichloropropene	ND		0.36	0.073	ug/m3			11/24/20 14:59	1
Cyclohexane	1.5		0.69	0.079	ug/m3			11/24/20 14:59	1
Dibromochloromethane	ND		0.68	0.060	ug/m3			11/24/20 14:59	1
Dichlorodifluoromethane	1.0	J	0.40	0.069	ug/m3			11/24/20 14:59	1
Ethylbenzene	1.7		0.35	0.056	ug/m3			11/24/20 14:59	1
Heptane	1.5		0.82	0.057	ug/m3			11/24/20 14:59	1
Hexachlorobutadiene	ND		0.85	0.34	ug/m3			11/24/20 14:59	1
Hexane	4.1		0.70	0.046	ug/m3			11/24/20 14:59	1
Indane	0.20	J	0.39	0.17	ug/m3			11/24/20 14:59	1
Indene	ND		0.76	0.19	ug/m3			11/24/20 14:59	1
Isopropyl alcohol	38		2.0	0.54	ug/m3			11/24/20 14:59	1
Isopropylbenzene	0.21	J	0.79	0.084	ug/m3			11/24/20 14:59	1
Methyl tert-butyl ether	ND		0.58	0.19	ug/m3			11/24/20 14:59	1
Methylene Chloride	5.4		1.4	1.4	ug/m3			11/24/20 14:59	1
m-Xylene & p-Xylene	5.5		0.35	0.13	ug/m3			11/24/20 14:59	1
Naphthalene	ND		1.0	0.40	ug/m3			11/24/20 14:59	1
n-Butane	33		0.38	0.20	ug/m3			11/24/20 14:59	1
n-Decane	16		2.3	0.22	ug/m3			11/24/20 14:59	1
n-Dodecane	2.1	J	2.8	0.45	ug/m3			11/24/20 14:59	1
n-Octane	0.82		0.75	0.075	ug/m3			11/24/20 14:59	1
Nonane	9.0		1.0	0.094	ug/m3			11/24/20 14:59	1
n-Undecane	6.4		2.6	0.31	ug/m3			11/24/20 14:59	1
o-Xylene	2.0		0.35	0.065	ug/m3			11/24/20 14:59	1
Pentane	17		1.2	0.23	ug/m3			11/24/20 14:59	1
Propene	2.7	J	1.7	1.7	ug/m3			11/24/20 14:59	1
Styrene	0.60		0.34	0.10	ug/m3			11/24/20 14:59	1
Tetrachloroethene	0.38	J	0.54	0.047	ug/m3			11/24/20 14:59	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: HPL - STORAGE**

**Lab Sample ID: 140-21090-1**

Date Collected: 11/19/20 09:57

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrahydrofuran</b>	<b>0.10</b>	<b>J</b>	1.2	0.050	ug/m3			11/24/20 14:59	1
Thiophene	ND		0.28	0.038	ug/m3			11/24/20 14:59	1
<b>Toluene</b>	<b>5.1</b>		0.45	0.29	ug/m3			11/24/20 14:59	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			11/24/20 14:59	1
trans-1,3-Dichloropropene	ND		0.36	0.041	ug/m3			11/24/20 14:59	1
<b>Trichloroethene</b>	<b>1.0</b>		0.19	0.032	ug/m3			11/24/20 14:59	1
<b>Trichlorofluoromethane</b>	<b>1.5</b>		0.45	0.062	ug/m3			11/24/20 14:59	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/24/20 14:59	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	100		60 - 140					11/24/20 14:59	1

**Client Sample ID: HPL - MEETING RM**

**Lab Sample ID: 140-21090-2**

Date Collected: 11/19/20 09:43

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			11/24/20 15:51	1
1,1,2,2-Tetrachloroethane	ND		0.080	0.014	ppb v/v			11/24/20 15:51	1
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	<b>0.084</b>		0.080	0.0080	ppb v/v			11/24/20 15:51	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			11/24/20 15:51	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			11/24/20 15:51	1
1,1-Dichloroethene	ND		0.040	0.0080	ppb v/v			11/24/20 15:51	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			11/24/20 15:51	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			11/24/20 15:51	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.054</b>	<b>J</b>	0.080	0.020	ppb v/v			11/24/20 15:51	1
1,2-Dibromoethane (EDB)	ND		0.080	0.0070	ppb v/v			11/24/20 15:51	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.080	0.012	ppb v/v			11/24/20 15:51	1
1,2-Dichlorobenzene	ND		0.080	0.031	ppb v/v			11/24/20 15:51	1
<b>1,2-Dichloroethane</b>	<b>0.021</b>	<b>J</b>	0.080	0.010	ppb v/v			11/24/20 15:51	1
<b>1,2-Dichloropropane</b>	<b>0.011</b>	<b>J</b>	0.080	0.010	ppb v/v			11/24/20 15:51	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.022</b>	<b>J</b>	0.080	0.022	ppb v/v			11/24/20 15:51	1
1,3-Butadiene	ND		0.16	0.019	ppb v/v			11/24/20 15:51	1
1,3-Dichlorobenzene	ND		0.080	0.016	ppb v/v			11/24/20 15:51	1
<b>1,4-Dichlorobenzene</b>	<b>0.027</b>	<b>J</b>	0.080	0.016	ppb v/v			11/24/20 15:51	1
1,4-Dioxane	ND		0.20	0.030	ppb v/v			11/24/20 15:51	1
<b>2,2,4-Trimethylpentane</b>	<b>0.15</b>	<b>J</b>	0.20	0.0080	ppb v/v			11/24/20 15:51	1
<b>2,3-Dimethylpentane</b>	<b>0.035</b>	<b>J</b>	0.080	0.026	ppb v/v			11/24/20 15:51	1
<b>2-Butanone (MEK)</b>	<b>0.37</b>		0.32	0.073	ppb v/v			11/24/20 15:51	1
2-Hexanone	ND		0.20	0.016	ppb v/v			11/24/20 15:51	1
<b>2-Methylbutane</b>	<b>1.4</b>		0.20	0.063	ppb v/v			11/24/20 15:51	1
<b>2-Methylpentane</b>	<b>0.22</b>		0.080	0.014	ppb v/v			11/24/20 15:51	1
<b>4-Ethyltoluene</b>	<b>0.027</b>	<b>J</b>	0.16	0.021	ppb v/v			11/24/20 15:51	1
4-Methyl-2-pentanone (MIBK)	ND		0.20	0.054	ppb v/v			11/24/20 15:51	1
<b>Acetone</b>	<b>3.6</b>	<del>CL</del> <b>J</b>	2.0	0.57	ppb v/v			11/24/20 15:51	1
<b>Benzene</b>	<b>0.30</b>		0.080	0.0080	ppb v/v			11/24/20 15:51	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: HPL - MEETING RM**

**Lab Sample ID: 140-21090-2**

Date Collected: 11/19/20 09:43

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl chloride	ND		0.16	0.038	ppb v/v			11/24/20 15:51	1
<b>Bromodichloromethane</b>	<b>0.11</b>		0.080	0.018	ppb v/v			11/24/20 15:51	1
Bromoform	ND		0.080	0.0090	ppb v/v			11/24/20 15:51	1
<b>Bromomethane</b>	<b>0.023</b>	<b>J</b>	0.080	0.022	ppb v/v			11/24/20 15:51	1
<b>Carbon disulfide</b>	<b>0.79</b>	<b>J</b>	0.20	0.011	ppb v/v			11/24/20 15:51	1
<b>Carbon tetrachloride</b>	<b>0.090</b>		0.032	0.0070	ppb v/v			11/24/20 15:51	1
<b>Chlorobenzene</b>	<b>0.0066</b>	<b>J</b>	0.080	0.0060	ppb v/v			11/24/20 15:51	1
Chloroethane	ND		0.080	0.029	ppb v/v			11/24/20 15:51	1
<b>Chloroform</b>	<b>1.4</b>		0.080	0.0070	ppb v/v			11/24/20 15:51	1
<b>Chloromethane</b>	<b>0.66</b>		0.20	0.066	ppb v/v			11/24/20 15:51	1
cis-1,2-Dichloroethene	ND		0.040	0.010	ppb v/v			11/24/20 15:51	1
cis-1,3-Dichloropropene	ND		0.080	0.016	ppb v/v			11/24/20 15:51	1
<b>Cyclohexane</b>	<b>0.092</b>	<b>J</b>	0.20	0.023	ppb v/v			11/24/20 15:51	1
<b>Dibromochloromethane</b>	<b>0.019</b>	<b>J</b>	0.080	0.0070	ppb v/v			11/24/20 15:51	1
<b>Dichlorodifluoromethane</b>	<b>0.23</b>	<b>J</b>	0.080	0.014	ppb v/v			11/24/20 15:51	1
<b>Ethylbenzene</b>	<b>0.079</b>	<b>J</b>	0.080	0.013	ppb v/v			11/24/20 15:51	1
<b>Heptane</b>	<b>0.099</b>	<b>J</b>	0.20	0.014	ppb v/v			11/24/20 15:51	1
Hexachlorobutadiene	ND		0.080	0.032	ppb v/v			11/24/20 15:51	1
<b>Hexane</b>	<b>0.30</b>		0.20	0.013	ppb v/v			11/24/20 15:51	1
Indane	ND		0.080	0.035	ppb v/v			11/24/20 15:51	1
Indene	ND		0.16	0.039	ppb v/v			11/24/20 15:51	1
<b>Isopropyl alcohol</b>	<b>3.5</b>		0.80	0.22	ppb v/v			11/24/20 15:51	1
Isopropylbenzene	ND		0.16	0.017	ppb v/v			11/24/20 15:51	1
Methyl tert-butyl ether	ND		0.16	0.052	ppb v/v			11/24/20 15:51	1
<b>Methylene Chloride</b>	<b>0.52</b>	<b>J</b>	0.40	0.39	ppb v/v			11/24/20 15:51	1
<b>m-Xylene &amp; p-Xylene</b>	<b>0.25</b>		0.080	0.029	ppb v/v			11/24/20 15:51	1
Naphthalene	ND		0.20	0.076	ppb v/v			11/24/20 15:51	1
<b>n-Butane</b>	<b>2.3</b>		0.16	0.083	ppb v/v			11/24/20 15:51	1
<b>n-Decane</b>	<b>0.14</b>	<b>J</b>	0.40	0.038	ppb v/v			11/24/20 15:51	1
n-Dodecane	ND		0.40	0.064	ppb v/v			11/24/20 15:51	1
<b>n-Octane</b>	<b>0.048</b>	<b>J</b>	0.16	0.016	ppb v/v			11/24/20 15:51	1
<b>Nonane</b>	<b>0.042</b>	<b>J</b>	0.20	0.018	ppb v/v			11/24/20 15:51	1
n-Undecane	ND		0.40	0.048	ppb v/v			11/24/20 15:51	1
<b>o-Xylene</b>	<b>0.092</b>		0.080	0.015	ppb v/v			11/24/20 15:51	1
<b>Pentane</b>	<b>0.72</b>		0.40	0.079	ppb v/v			11/24/20 15:51	1
Propene	ND		1.0	1.0	ppb v/v			11/24/20 15:51	1
Styrene	ND		0.080	0.024	ppb v/v			11/24/20 15:51	1
<b>Tetrachloroethene</b>	<b>0.024</b>	<b>J</b>	0.080	0.0070	ppb v/v			11/24/20 15:51	1
<b>Tetrahydrofuran</b>	<b>0.022</b>	<b>J</b>	0.40	0.017	ppb v/v			11/24/20 15:51	1
Thiophene	ND		0.080	0.011	ppb v/v			11/24/20 15:51	1
<b>Toluene</b>	<b>0.51</b>		0.12	0.078	ppb v/v			11/24/20 15:51	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			11/24/20 15:51	1
trans-1,3-Dichloropropene	ND		0.080	0.0090	ppb v/v			11/24/20 15:51	1
Trichloroethene	ND		0.036	0.0060	ppb v/v			11/24/20 15:51	1
<b>Trichlorofluoromethane</b>	<b>0.30</b>		0.080	0.011	ppb v/v			11/24/20 15:51	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/24/20 15:51	1
<b>Analyte</b>	<b>Result</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Unit</b>	<b>D</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			11/24/20 15:51	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: HPL - MEETING RM**

**Lab Sample ID: 140-21090-2**

Date Collected: 11/19/20 09:43

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.55	0.096	ug/m3			11/24/20 15:51	1
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	<b>0.64</b>		0.61	0.061	ug/m3			11/24/20 15:51	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			11/24/20 15:51	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			11/24/20 15:51	1
1,1-Dichloroethene	ND		0.16	0.032	ug/m3			11/24/20 15:51	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			11/24/20 15:51	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			11/24/20 15:51	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.27</b>	<b>J</b>	0.39	0.098	ug/m3			11/24/20 15:51	1
1,2-Dibromoethane (EDB)	ND		0.61	0.054	ug/m3			11/24/20 15:51	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.56	0.084	ug/m3			11/24/20 15:51	1
1,2-Dichlorobenzene	ND		0.48	0.19	ug/m3			11/24/20 15:51	1
<b>1,2-Dichloroethane</b>	<b>0.084</b>	<b>J</b>	0.32	0.040	ug/m3			11/24/20 15:51	1
<b>1,2-Dichloropropane</b>	<b>0.052</b>	<b>J</b>	0.37	0.046	ug/m3			11/24/20 15:51	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.11</b>	<b>J</b>	0.39	0.11	ug/m3			11/24/20 15:51	1
1,3-Butadiene	ND		0.35	0.042	ug/m3			11/24/20 15:51	1
1,3-Dichlorobenzene	ND		0.48	0.096	ug/m3			11/24/20 15:51	1
<b>1,4-Dichlorobenzene</b>	<b>0.16</b>	<b>J</b>	0.48	0.096	ug/m3			11/24/20 15:51	1
1,4-Dioxane	ND		0.72	0.11	ug/m3			11/24/20 15:51	1
<b>2,2,4-Trimethylpentane</b>	<b>0.70</b>	<b>J</b>	0.93	0.037	ug/m3			11/24/20 15:51	1
<b>2,3-Dimethylpentane</b>	<b>0.14</b>	<b>J</b>	0.33	0.11	ug/m3			11/24/20 15:51	1
<b>2-Butanone (MEK)</b>	<b>1.1</b>		0.94	0.22	ug/m3			11/24/20 15:51	1
2-Hexanone	ND		0.82	0.066	ug/m3			11/24/20 15:51	1
<b>2-Methylbutane</b>	<b>4.0</b>		0.59	0.19	ug/m3			11/24/20 15:51	1
<b>2-Methylpentane</b>	<b>0.77</b>		0.28	0.049	ug/m3			11/24/20 15:51	1
<b>4-Ethyltoluene</b>	<b>0.13</b>	<b>J</b>	0.79	0.10	ug/m3			11/24/20 15:51	1
4-Methyl-2-pentanone (MIBK)	ND		0.82	0.22	ug/m3			11/24/20 15:51	1
<b>Acetone</b>	<b>8.6</b>	<b>Cl J</b>	4.8	1.4	ug/m3			11/24/20 15:51	1
<b>Benzene</b>	<b>0.96</b>		0.26	0.026	ug/m3			11/24/20 15:51	1
Benzyl chloride	ND		0.83	0.20	ug/m3			11/24/20 15:51	1
<b>Bromodichloromethane</b>	<b>0.75</b>		0.54	0.12	ug/m3			11/24/20 15:51	1
Bromoform	ND		0.83	0.093	ug/m3			11/24/20 15:51	1
<b>Bromomethane</b>	<b>0.090</b>	<b>J</b>	0.31	0.085	ug/m3			11/24/20 15:51	1
<b>Carbon disulfide</b>	<b>2.5</b>	<b>J</b>	0.62	0.034	ug/m3			11/24/20 15:51	1
<b>Carbon tetrachloride</b>	<b>0.57</b>		0.20	0.044	ug/m3			11/24/20 15:51	1
<b>Chlorobenzene</b>	<b>0.030</b>	<b>J</b>	0.37	0.028	ug/m3			11/24/20 15:51	1
Chloroethane	ND		0.21	0.077	ug/m3			11/24/20 15:51	1
<b>Chloroform</b>	<b>6.7</b>		0.39	0.034	ug/m3			11/24/20 15:51	1
<b>Chloromethane</b>	<b>1.4</b>		0.41	0.14	ug/m3			11/24/20 15:51	1
cis-1,2-Dichloroethene	ND		0.16	0.040	ug/m3			11/24/20 15:51	1
cis-1,3-Dichloropropene	ND		0.36	0.073	ug/m3			11/24/20 15:51	1
<b>Cyclohexane</b>	<b>0.32</b>	<b>J</b>	0.69	0.079	ug/m3			11/24/20 15:51	1
<b>Dibromochloromethane</b>	<b>0.16</b>	<b>J</b>	0.68	0.060	ug/m3			11/24/20 15:51	1
<b>Dichlorodifluoromethane</b>	<b>1.2</b>	<b>J</b>	0.40	0.069	ug/m3			11/24/20 15:51	1
<b>Ethylbenzene</b>	<b>0.34</b>	<b>J</b>	0.35	0.056	ug/m3			11/24/20 15:51	1
<b>Heptane</b>	<b>0.40</b>	<b>J</b>	0.82	0.057	ug/m3			11/24/20 15:51	1
Hexachlorobutadiene	ND		0.85	0.34	ug/m3			11/24/20 15:51	1
<b>Hexane</b>	<b>1.1</b>		0.70	0.046	ug/m3			11/24/20 15:51	1
Indane	ND		0.39	0.17	ug/m3			11/24/20 15:51	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: HPL - MEETING RM**

**Lab Sample ID: 140-21090-2**

Date Collected: 11/19/20 09:43

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indene	ND		0.76	0.19	ug/m3			11/24/20 15:51	1
<b>Isopropyl alcohol</b>	<b>8.7</b>		2.0	0.54	ug/m3			11/24/20 15:51	1
Isopropylbenzene	ND		0.79	0.084	ug/m3			11/24/20 15:51	1
Methyl tert-butyl ether	ND		0.58	0.19	ug/m3			11/24/20 15:51	1
<b>Methylene Chloride</b>	<b>1.8</b>	J	1.4	1.4	ug/m3			11/24/20 15:51	1
<b>m-Xylene &amp; p-Xylene</b>	<b>1.1</b>		0.35	0.13	ug/m3			11/24/20 15:51	1
Naphthalene	ND		1.0	0.40	ug/m3			11/24/20 15:51	1
<b>n-Butane</b>	<b>5.5</b>		0.38	0.20	ug/m3			11/24/20 15:51	1
<b>n-Decane</b>	<b>0.84</b>	J	2.3	0.22	ug/m3			11/24/20 15:51	1
n-Dodecane	ND		2.8	0.45	ug/m3			11/24/20 15:51	1
<b>n-Octane</b>	<b>0.23</b>	J	0.75	0.075	ug/m3			11/24/20 15:51	1
<b>Nonane</b>	<b>0.22</b>	J	1.0	0.094	ug/m3			11/24/20 15:51	1
n-Undecane	ND		2.6	0.31	ug/m3			11/24/20 15:51	1
<b>o-Xylene</b>	<b>0.40</b>		0.35	0.065	ug/m3			11/24/20 15:51	1
<b>Pentane</b>	<b>2.1</b>		1.2	0.23	ug/m3			11/24/20 15:51	1
Propene	ND		1.7	1.7	ug/m3			11/24/20 15:51	1
Styrene	ND		0.34	0.10	ug/m3			11/24/20 15:51	1
<b>Tetrachloroethene</b>	<b>0.16</b>	J	0.54	0.047	ug/m3			11/24/20 15:51	1
<b>Tetrahydrofuran</b>	<b>0.066</b>	J	1.2	0.050	ug/m3			11/24/20 15:51	1
Thiophene	ND		0.28	0.038	ug/m3			11/24/20 15:51	1
<b>Toluene</b>	<b>1.9</b>		0.45	0.29	ug/m3			11/24/20 15:51	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			11/24/20 15:51	1
trans-1,3-Dichloropropene	ND		0.36	0.041	ug/m3			11/24/20 15:51	1
Trichloroethene	ND		0.19	0.032	ug/m3			11/24/20 15:51	1
<b>Trichlorofluoromethane</b>	<b>1.7</b>		0.45	0.062	ug/m3			11/24/20 15:51	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/24/20 15:51	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	98		60 - 140					11/24/20 15:51	1

**Client Sample ID: HPL - COMPACTOR RM**

**Lab Sample ID: 140-21090-3**

Date Collected: 11/19/20 09:52

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			11/24/20 16:42	1
1,1,2,2-Tetrachloroethane	ND		0.080	0.014	ppb v/v			11/24/20 16:42	1
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	<b>0.081</b>		0.080	0.0080	ppb v/v			11/24/20 16:42	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			11/24/20 16:42	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			11/24/20 16:42	1
1,1-Dichloroethene	ND		0.040	0.0080	ppb v/v			11/24/20 16:42	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			11/24/20 16:42	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			11/24/20 16:42	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.077</b>	J	0.080	0.020	ppb v/v			11/24/20 16:42	1
1,2-Dibromoethane (EDB)	ND		0.080	0.0070	ppb v/v			11/24/20 16:42	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.080	0.012	ppb v/v			11/24/20 16:42	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: HPL - COMPACTOR RM**

**Lab Sample ID: 140-21090-3**

Date Collected: 11/19/20 09:52

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		0.080	0.031	ppb v/v			11/24/20 16:42	1
<b>1,2-Dichloroethane</b>	<b>0.027</b>	<b>J</b>	0.080	0.010	ppb v/v			11/24/20 16:42	1
1,2-Dichloropropane	ND		0.080	0.010	ppb v/v			11/24/20 16:42	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.036</b>	<b>J</b>	0.080	0.022	ppb v/v			11/24/20 16:42	1
1,3-Butadiene	ND		0.16	0.019	ppb v/v			11/24/20 16:42	1
1,3-Dichlorobenzene	ND		0.080	0.016	ppb v/v			11/24/20 16:42	1
<b>1,4-Dichlorobenzene</b>	<b>0.14</b>		0.080	0.016	ppb v/v			11/24/20 16:42	1
1,4-Dioxane	ND		0.20	0.030	ppb v/v			11/24/20 16:42	1
<b>2,2,4-Trimethylpentane</b>	<b>0.093</b>	<b>J</b>	0.20	0.0080	ppb v/v			11/24/20 16:42	1
<b>2,3-Dimethylpentane</b>	<b>0.031</b>	<b>J</b>	0.080	0.026	ppb v/v			11/24/20 16:42	1
<b>2-Butanone (MEK)</b>	<b>0.23</b>	<b>J</b>	0.32	0.073	ppb v/v			11/24/20 16:42	1
2-Hexanone	ND		0.20	0.016	ppb v/v			11/24/20 16:42	1
<b>2-Methylbutane</b>	<b>1.8</b>		0.20	0.063	ppb v/v			11/24/20 16:42	1
<b>2-Methylpentane</b>	<b>0.25</b>		0.080	0.014	ppb v/v			11/24/20 16:42	1
<b>4-Ethyltoluene</b>	<b>0.033</b>	<b>J</b>	0.16	0.021	ppb v/v			11/24/20 16:42	1
4-Methyl-2-pentanone (MIBK)	ND		0.20	0.054	ppb v/v			11/24/20 16:42	1
<b>Acetone</b>	<b>4.7</b>		2.0	0.57	ppb v/v			11/24/20 16:42	1
<b>Benzene</b>	<b>0.22</b>		0.080	0.0080	ppb v/v			11/24/20 16:42	1
Benzyl chloride	ND		0.16	0.038	ppb v/v			11/24/20 16:42	1
Bromodichloromethane	ND		0.080	0.018	ppb v/v			11/24/20 16:42	1
Bromoform	ND		0.080	0.0090	ppb v/v			11/24/20 16:42	1
Bromomethane	ND		0.080	0.022	ppb v/v			11/24/20 16:42	1
<b>Carbon disulfide</b>	<b>0.017</b>	<b>J</b>	0.20	0.011	ppb v/v			11/24/20 16:42	1
<b>Carbon tetrachloride</b>	<b>0.084</b>		0.032	0.0070	ppb v/v			11/24/20 16:42	1
<b>Chlorobenzene</b>	<b>0.0062</b>	<b>J</b>	0.080	0.0060	ppb v/v			11/24/20 16:42	1
Chloroethane	ND		0.080	0.029	ppb v/v			11/24/20 16:42	1
<b>Chloroform</b>	<b>0.13</b>		0.080	0.0070	ppb v/v			11/24/20 16:42	1
<b>Chloromethane</b>	<b>0.71</b>		0.20	0.066	ppb v/v			11/24/20 16:42	1
cis-1,2-Dichloroethene	ND		0.040	0.010	ppb v/v			11/24/20 16:42	1
cis-1,3-Dichloropropene	ND		0.080	0.016	ppb v/v			11/24/20 16:42	1
<b>Cyclohexane</b>	<b>0.11</b>	<b>J</b>	0.20	0.023	ppb v/v			11/24/20 16:42	1
Dibromochloromethane	ND		0.080	0.0070	ppb v/v			11/24/20 16:42	1
<b>Dichlorodifluoromethane</b>	<b>0.23</b>	<b>J</b>	0.080	0.014	ppb v/v			11/24/20 16:42	1
<b>Ethylbenzene</b>	<b>0.070</b>	<b>J</b>	0.080	0.013	ppb v/v			11/24/20 16:42	1
<b>Heptane</b>	<b>0.10</b>	<b>J</b>	0.20	0.014	ppb v/v			11/24/20 16:42	1
Hexachlorobutadiene	ND		0.080	0.032	ppb v/v			11/24/20 16:42	1
<b>Hexane</b>	<b>0.35</b>		0.20	0.013	ppb v/v			11/24/20 16:42	1
Indane	ND		0.080	0.035	ppb v/v			11/24/20 16:42	1
Indene	ND		0.16	0.039	ppb v/v			11/24/20 16:42	1
<b>Isopropyl alcohol</b>	<b>17</b>		0.80	0.22	ppb v/v			11/24/20 16:42	1
Isopropylbenzene	ND		0.16	0.017	ppb v/v			11/24/20 16:42	1
Methyl tert-butyl ether	ND		0.16	0.052	ppb v/v			11/24/20 16:42	1
<b>Methylene Chloride</b>	<b>1.6</b>		0.40	0.39	ppb v/v			11/24/20 16:42	1
<b>m-Xylene &amp; p-Xylene</b>	<b>0.22</b>		0.080	0.029	ppb v/v			11/24/20 16:42	1
Naphthalene	ND		0.20	0.076	ppb v/v			11/24/20 16:42	1
<b>n-Butane</b>	<b>3.1</b>		0.16	0.083	ppb v/v			11/24/20 16:42	1
<b>n-Decane</b>	<b>0.21</b>	<b>J</b>	0.40	0.038	ppb v/v			11/24/20 16:42	1
n-Dodecane	ND		0.40	0.064	ppb v/v			11/24/20 16:42	1



# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: HPL - COMPACTOR RM**

**Lab Sample ID: 140-21090-3**

Date Collected: 11/19/20 09:52

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Octane	0.059	J	0.16	0.016	ppb v/v			11/24/20 16:42	1
Nonane	0.099	J	0.20	0.018	ppb v/v			11/24/20 16:42	1
n-Undecane	0.064	J	0.40	0.048	ppb v/v			11/24/20 16:42	1
o-Xylene	0.087		0.080	0.015	ppb v/v			11/24/20 16:42	1
Pentane	0.89		0.40	0.079	ppb v/v			11/24/20 16:42	1
Propene	ND		1.0	1.0	ppb v/v			11/24/20 16:42	1
Styrene	0.024	J	0.080	0.024	ppb v/v			11/24/20 16:42	1
Tetrachloroethene	0.026	J	0.080	0.0070	ppb v/v			11/24/20 16:42	1
Tetrahydrofuran	ND		0.40	0.017	ppb v/v			11/24/20 16:42	1
Thiophene	ND		0.080	0.011	ppb v/v			11/24/20 16:42	1
Toluene	0.41		0.12	0.078	ppb v/v			11/24/20 16:42	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			11/24/20 16:42	1
trans-1,3-Dichloropropene	ND		0.080	0.0090	ppb v/v			11/24/20 16:42	1
Trichloroethene	0.015	J	0.036	0.0060	ppb v/v			11/24/20 16:42	1
Trichlorofluoromethane	0.30		0.080	0.011	ppb v/v			11/24/20 16:42	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/24/20 16:42	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			11/24/20 16:42	1
1,1,2,2-Tetrachloroethane	ND		0.55	0.096	ug/m3			11/24/20 16:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.62		0.61	0.061	ug/m3			11/24/20 16:42	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			11/24/20 16:42	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			11/24/20 16:42	1
1,1-Dichloroethene	ND		0.16	0.032	ug/m3			11/24/20 16:42	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			11/24/20 16:42	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			11/24/20 16:42	1
1,2,4-Trimethylbenzene	0.38	J	0.39	0.098	ug/m3			11/24/20 16:42	1
1,2-Dibromoethane (EDB)	ND		0.61	0.054	ug/m3			11/24/20 16:42	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.56	0.084	ug/m3			11/24/20 16:42	1
1,2-Dichlorobenzene	ND		0.48	0.19	ug/m3			11/24/20 16:42	1
1,2-Dichloroethane	0.11	J	0.32	0.040	ug/m3			11/24/20 16:42	1
1,2-Dichloropropane	ND		0.37	0.046	ug/m3			11/24/20 16:42	1
1,3,5-Trimethylbenzene	0.18	J	0.39	0.11	ug/m3			11/24/20 16:42	1
1,3-Butadiene	ND		0.35	0.042	ug/m3			11/24/20 16:42	1
1,3-Dichlorobenzene	ND		0.48	0.096	ug/m3			11/24/20 16:42	1
1,4-Dichlorobenzene	0.84		0.48	0.096	ug/m3			11/24/20 16:42	1
1,4-Dioxane	ND		0.72	0.11	ug/m3			11/24/20 16:42	1
2,2,4-Trimethylpentane	0.43	J	0.93	0.037	ug/m3			11/24/20 16:42	1
2,3-Dimethylpentane	0.13	J	0.33	0.11	ug/m3			11/24/20 16:42	1
2-Butanone (MEK)	0.68	J	0.94	0.22	ug/m3			11/24/20 16:42	1
2-Hexanone	ND		0.82	0.066	ug/m3			11/24/20 16:42	1
2-Methylbutane	5.3		0.59	0.19	ug/m3			11/24/20 16:42	1
2-Methylpentane	0.89		0.28	0.049	ug/m3			11/24/20 16:42	1
4-Ethyltoluene	0.16	J	0.79	0.10	ug/m3			11/24/20 16:42	1
4-Methyl-2-pentanone (MIBK)	ND		0.82	0.22	ug/m3			11/24/20 16:42	1
Acetone	11		4.8	1.4	ug/m3			11/24/20 16:42	1
Benzene	0.69		0.26	0.026	ug/m3			11/24/20 16:42	1
Benzyl chloride	ND		0.83	0.20	ug/m3			11/24/20 16:42	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: HPL - COMPACTOR RM**

**Lab Sample ID: 140-21090-3**

Date Collected: 11/19/20 09:52

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		0.54	0.12	ug/m3			11/24/20 16:42	1
Bromoform	ND		0.83	0.093	ug/m3			11/24/20 16:42	1
Bromomethane	ND		0.31	0.085	ug/m3			11/24/20 16:42	1
<b>Carbon disulfide</b>	<b>0.052</b>	<b>J</b>	0.62	0.034	ug/m3			11/24/20 16:42	1
<b>Carbon tetrachloride</b>	<b>0.53</b>		0.20	0.044	ug/m3			11/24/20 16:42	1
<b>Chlorobenzene</b>	<b>0.028</b>	<b>J</b>	0.37	0.028	ug/m3			11/24/20 16:42	1
Chloroethane	ND		0.21	0.077	ug/m3			11/24/20 16:42	1
<b>Chloroform</b>	<b>0.64</b>		0.39	0.034	ug/m3			11/24/20 16:42	1
<b>Chloromethane</b>	<b>1.5</b>		0.41	0.14	ug/m3			11/24/20 16:42	1
cis-1,2-Dichloroethene	ND		0.16	0.040	ug/m3			11/24/20 16:42	1
cis-1,3-Dichloropropene	ND		0.36	0.073	ug/m3			11/24/20 16:42	1
<b>Cyclohexane</b>	<b>0.37</b>	<b>J</b>	0.69	0.079	ug/m3			11/24/20 16:42	1
Dibromochloromethane	ND		0.68	0.060	ug/m3			11/24/20 16:42	1
<b>Dichlorodifluoromethane</b>	<b>1.1</b>	<b>J</b>	0.40	0.069	ug/m3			11/24/20 16:42	1
<b>Ethylbenzene</b>	<b>0.30</b>	<b>J</b>	0.35	0.056	ug/m3			11/24/20 16:42	1
<b>Heptane</b>	<b>0.42</b>	<b>J</b>	0.82	0.057	ug/m3			11/24/20 16:42	1
Hexachlorobutadiene	ND		0.85	0.34	ug/m3			11/24/20 16:42	1
<b>Hexane</b>	<b>1.2</b>		0.70	0.046	ug/m3			11/24/20 16:42	1
Indane	ND		0.39	0.17	ug/m3			11/24/20 16:42	1
Indene	ND		0.76	0.19	ug/m3			11/24/20 16:42	1
<b>Isopropyl alcohol</b>	<b>42</b>		2.0	0.54	ug/m3			11/24/20 16:42	1
Isopropylbenzene	ND		0.79	0.084	ug/m3			11/24/20 16:42	1
Methyl tert-butyl ether	ND		0.58	0.19	ug/m3			11/24/20 16:42	1
<b>Methylene Chloride</b>	<b>5.5</b>		1.4	1.4	ug/m3			11/24/20 16:42	1
<b>m-Xylene &amp; p-Xylene</b>	<b>0.97</b>		0.35	0.13	ug/m3			11/24/20 16:42	1
Naphthalene	ND		1.0	0.40	ug/m3			11/24/20 16:42	1
<b>n-Butane</b>	<b>7.4</b>		0.38	0.20	ug/m3			11/24/20 16:42	1
<b>n-Decane</b>	<b>1.2</b>	<b>J</b>	2.3	0.22	ug/m3			11/24/20 16:42	1
n-Dodecane	ND		2.8	0.45	ug/m3			11/24/20 16:42	1
<b>n-Octane</b>	<b>0.28</b>	<b>J</b>	0.75	0.075	ug/m3			11/24/20 16:42	1
<b>Nonane</b>	<b>0.52</b>	<b>J</b>	1.0	0.094	ug/m3			11/24/20 16:42	1
<b>n-Undecane</b>	<b>0.41</b>	<b>J</b>	2.6	0.31	ug/m3			11/24/20 16:42	1
<b>o-Xylene</b>	<b>0.38</b>		0.35	0.065	ug/m3			11/24/20 16:42	1
<b>Pentane</b>	<b>2.6</b>		1.2	0.23	ug/m3			11/24/20 16:42	1
Propene	ND		1.7	1.7	ug/m3			11/24/20 16:42	1
<b>Styrene</b>	<b>0.10</b>	<b>J</b>	0.34	0.10	ug/m3			11/24/20 16:42	1
<b>Tetrachloroethene</b>	<b>0.18</b>	<b>J</b>	0.54	0.047	ug/m3			11/24/20 16:42	1
Tetrahydrofuran	ND		1.2	0.050	ug/m3			11/24/20 16:42	1
Thiophene	ND		0.28	0.038	ug/m3			11/24/20 16:42	1
<b>Toluene</b>	<b>1.6</b>		0.45	0.29	ug/m3			11/24/20 16:42	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			11/24/20 16:42	1
trans-1,3-Dichloropropene	ND		0.36	0.041	ug/m3			11/24/20 16:42	1
<b>Trichloroethene</b>	<b>0.083</b>	<b>J</b>	0.19	0.032	ug/m3			11/24/20 16:42	1
<b>Trichlorofluoromethane</b>	<b>1.7</b>		0.45	0.062	ug/m3			11/24/20 16:42	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/24/20 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		60 - 140		11/24/20 16:42	1



# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: DUP - 111820**

**Lab Sample ID: 140-21090-4**

**Date Collected: 11/19/20 00:00**

**Matrix: Air**

**Date Received: 11/20/20 09:00**

**Sample Container: Summa Canister 6L**

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			11/24/20 17:34	1
1,1,2,2-Tetrachloroethane	ND		0.080	0.014	ppb v/v			11/24/20 17:34	1
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	<b>0.077</b>	<b>J</b>	0.080	0.0080	ppb v/v			11/24/20 17:34	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			11/24/20 17:34	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			11/24/20 17:34	1
1,1-Dichloroethene	ND		0.040	0.0080	ppb v/v			11/24/20 17:34	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			11/24/20 17:34	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			11/24/20 17:34	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.077</b>	<b>J</b>	0.080	0.020	ppb v/v			11/24/20 17:34	1
1,2-Dibromoethane (EDB)	ND		0.080	0.0070	ppb v/v			11/24/20 17:34	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.080	0.012	ppb v/v			11/24/20 17:34	1
1,2-Dichlorobenzene	ND		0.080	0.031	ppb v/v			11/24/20 17:34	1
<b>1,2-Dichloroethane</b>	<b>0.022</b>	<b>J</b>	0.080	0.010	ppb v/v			11/24/20 17:34	1
1,2-Dichloropropane	ND		0.080	0.010	ppb v/v			11/24/20 17:34	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.037</b>	<b>J</b>	0.080	0.022	ppb v/v			11/24/20 17:34	1
1,3-Butadiene	ND		0.16	0.019	ppb v/v			11/24/20 17:34	1
1,3-Dichlorobenzene	ND		0.080	0.016	ppb v/v			11/24/20 17:34	1
<b>1,4-Dichlorobenzene</b>	<b>0.037</b>	<b>J</b>	0.080	0.016	ppb v/v			11/24/20 17:34	1
1,4-Dioxane	ND		0.20	0.030	ppb v/v			11/24/20 17:34	1
<b>2,2,4-Trimethylpentane</b>	<b>0.16</b>	<b>J</b>	0.20	0.0080	ppb v/v			11/24/20 17:34	1
<b>2,3-Dimethylpentane</b>	<b>0.034</b>	<b>J</b>	0.080	0.026	ppb v/v			11/24/20 17:34	1
<b>2-Butanone (MEK)</b>	<b>0.22</b>	<b>J</b>	0.32	0.073	ppb v/v			11/24/20 17:34	1
2-Hexanone	ND		0.20	0.016	ppb v/v			11/24/20 17:34	1
<b>2-Methylbutane</b>	<b>1.8</b>		0.20	0.063	ppb v/v			11/24/20 17:34	1
<b>2-Methylpentane</b>	<b>0.29</b>		0.080	0.014	ppb v/v			11/24/20 17:34	1
<b>4-Ethyltoluene</b>	<b>0.033</b>	<b>J</b>	0.16	0.021	ppb v/v			11/24/20 17:34	1
4-Methyl-2-pentanone (MIBK)	ND		0.20	0.054	ppb v/v			11/24/20 17:34	1
<b>Acetone</b>	<b>3.7</b>		2.0	0.57	ppb v/v			11/24/20 17:34	1
<b>Benzene</b>	<b>0.32</b>		0.080	0.0080	ppb v/v			11/24/20 17:34	1
Benzyl chloride	ND		0.16	0.038	ppb v/v			11/24/20 17:34	1
<b>Bromodichloromethane</b>	<b>0.11</b>		0.080	0.018	ppb v/v			11/24/20 17:34	1
Bromoform	ND		0.080	0.0090	ppb v/v			11/24/20 17:34	1
Bromomethane	ND		0.080	0.022	ppb v/v			11/24/20 17:34	1
<b>Carbon disulfide</b>	<b>0.028</b>	<b>J</b>	0.20	0.011	ppb v/v			11/24/20 17:34	1
<b>Carbon tetrachloride</b>	<b>0.086</b>		0.032	0.0070	ppb v/v			11/24/20 17:34	1
Chlorobenzene	ND		0.080	0.0060	ppb v/v			11/24/20 17:34	1
Chloroethane	ND		0.080	0.029	ppb v/v			11/24/20 17:34	1
<b>Chloroform</b>	<b>1.4</b>		0.080	0.0070	ppb v/v			11/24/20 17:34	1
<b>Chloromethane</b>	<b>0.66</b>		0.20	0.066	ppb v/v			11/24/20 17:34	1
cis-1,2-Dichloroethene	ND		0.040	0.010	ppb v/v			11/24/20 17:34	1
cis-1,3-Dichloropropene	ND		0.080	0.016	ppb v/v			11/24/20 17:34	1
<b>Cyclohexane</b>	<b>0.096</b>	<b>J</b>	0.20	0.023	ppb v/v			11/24/20 17:34	1
<b>Dibromochloromethane</b>	<b>0.019</b>	<b>J</b>	0.080	0.0070	ppb v/v			11/24/20 17:34	1
<b>Dichlorodifluoromethane</b>	<b>0.24</b>	<b>J</b>	0.080	0.014	ppb v/v			11/24/20 17:34	1
<b>Ethylbenzene</b>	<b>0.083</b>		0.080	0.013	ppb v/v			11/24/20 17:34	1
<b>Heptane</b>	<b>0.12</b>	<b>J</b>	0.20	0.014	ppb v/v			11/24/20 17:34	1
Hexachlorobutadiene	ND		0.080	0.032	ppb v/v			11/24/20 17:34	1
<b>Hexane</b>	<b>0.56</b>		0.20	0.013	ppb v/v			11/24/20 17:34	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: DUP - 111820**

**Lab Sample ID: 140-21090-4**

**Date Collected: 11/19/20 00:00**

**Matrix: Air**

**Date Received: 11/20/20 09:00**

**Sample Container: Summa Canister 6L**

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indane	ND		0.080	0.035	ppb v/v			11/24/20 17:34	1
Indene	ND		0.16	0.039	ppb v/v			11/24/20 17:34	1
<b>Isopropyl alcohol</b>	<b>3.5</b>		0.80	0.22	ppb v/v			11/24/20 17:34	1
Isopropylbenzene	ND		0.16	0.017	ppb v/v			11/24/20 17:34	1
Methyl tert-butyl ether	ND		0.16	0.052	ppb v/v			11/24/20 17:34	1
<b>Methylene Chloride</b>	<b>4.2</b>	J	0.40	0.39	ppb v/v			11/24/20 17:34	1
<b>m-Xylene &amp; p-Xylene</b>	<b>0.26</b>		0.080	0.029	ppb v/v			11/24/20 17:34	1
Naphthalene	ND		0.20	0.076	ppb v/v			11/24/20 17:34	1
<b>n-Butane</b>	<b>3.7</b>		0.16	0.083	ppb v/v			11/24/20 17:34	1
<b>n-Decane</b>	<b>0.49</b>		0.40	0.038	ppb v/v			11/24/20 17:34	1
<b>n-Dodecane</b>	<b>0.11</b>	J	0.40	0.064	ppb v/v			11/24/20 17:34	1
<b>n-Octane</b>	<b>0.057</b>	J	0.16	0.016	ppb v/v			11/24/20 17:34	1
<b>Nonane</b>	<b>0.055</b>	J	0.20	0.018	ppb v/v			11/24/20 17:34	1
<b>n-Undecane</b>	<b>0.055</b>	J	0.40	0.048	ppb v/v			11/24/20 17:34	1
<b>o-Xylene</b>	<b>0.098</b>		0.080	0.015	ppb v/v			11/24/20 17:34	1
<b>Pentane</b>	<b>0.86</b>		0.40	0.079	ppb v/v			11/24/20 17:34	1
Propene	ND		1.0	1.0	ppb v/v			11/24/20 17:34	1
<b>Styrene</b>	<b>0.052</b>	J	0.080	0.024	ppb v/v			11/24/20 17:34	1
<b>Tetrachloroethene</b>	<b>0.027</b>	J	0.080	0.0070	ppb v/v			11/24/20 17:34	1
<b>Tetrahydrofuran</b>	<b>0.019</b>	J	0.40	0.017	ppb v/v			11/24/20 17:34	1
Thiophene	ND		0.080	0.011	ppb v/v			11/24/20 17:34	1
<b>Toluene</b>	<b>0.67</b>		0.12	0.078	ppb v/v			11/24/20 17:34	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			11/24/20 17:34	1
trans-1,3-Dichloropropene	ND		0.080	0.0090	ppb v/v			11/24/20 17:34	1
<b>Trichloroethene</b>	<b>0.0074</b>	J	0.036	0.0060	ppb v/v			11/24/20 17:34	1
<b>Trichlorofluoromethane</b>	<b>0.31</b>		0.080	0.011	ppb v/v			11/24/20 17:34	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/24/20 17:34	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			11/24/20 17:34	1
1,1,2,2-Tetrachloroethane	ND		0.55	0.096	ug/m3			11/24/20 17:34	1
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	<b>0.59</b>	J	0.61	0.061	ug/m3			11/24/20 17:34	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			11/24/20 17:34	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			11/24/20 17:34	1
1,1-Dichloroethene	ND		0.16	0.032	ug/m3			11/24/20 17:34	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			11/24/20 17:34	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			11/24/20 17:34	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.38</b>	J	0.39	0.098	ug/m3			11/24/20 17:34	1
1,2-Dibromoethane (EDB)	ND		0.61	0.054	ug/m3			11/24/20 17:34	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.56	0.084	ug/m3			11/24/20 17:34	1
1,2-Dichlorobenzene	ND		0.48	0.19	ug/m3			11/24/20 17:34	1
<b>1,2-Dichloroethane</b>	<b>0.087</b>	J	0.32	0.040	ug/m3			11/24/20 17:34	1
1,2-Dichloropropane	ND		0.37	0.046	ug/m3			11/24/20 17:34	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.18</b>	J	0.39	0.11	ug/m3			11/24/20 17:34	1
1,3-Butadiene	ND		0.35	0.042	ug/m3			11/24/20 17:34	1
1,3-Dichlorobenzene	ND		0.48	0.096	ug/m3			11/24/20 17:34	1
<b>1,4-Dichlorobenzene</b>	<b>0.22</b>	J	0.48	0.096	ug/m3			11/24/20 17:34	1
1,4-Dioxane	ND		0.72	0.11	ug/m3			11/24/20 17:34	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: DUP - 111820**

**Lab Sample ID: 140-21090-4**

Date Collected: 11/19/20 00:00

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2,4-Trimethylpentane	0.73	J	0.93	0.037	ug/m3			11/24/20 17:34	1
2,3-Dimethylpentane	0.14	J	0.33	0.11	ug/m3			11/24/20 17:34	1
2-Butanone (MEK)	0.64	J	0.94	0.22	ug/m3			11/24/20 17:34	1
2-Hexanone	ND		0.82	0.066	ug/m3			11/24/20 17:34	1
2-Methylbutane	5.4		0.59	0.19	ug/m3			11/24/20 17:34	1
2-Methylpentane	1.0		0.28	0.049	ug/m3			11/24/20 17:34	1
4-Ethyltoluene	0.16	J	0.79	0.10	ug/m3			11/24/20 17:34	1
4-Methyl-2-pentanone (MIBK)	ND		0.82	0.22	ug/m3			11/24/20 17:34	1
Acetone	8.7		4.8	1.4	ug/m3			11/24/20 17:34	1
Benzene	1.0		0.26	0.026	ug/m3			11/24/20 17:34	1
Benzyl chloride	ND		0.83	0.20	ug/m3			11/24/20 17:34	1
Bromodichloromethane	0.75		0.54	0.12	ug/m3			11/24/20 17:34	1
Bromoform	ND		0.83	0.093	ug/m3			11/24/20 17:34	1
Bromomethane	ND		0.31	0.085	ug/m3			11/24/20 17:34	1
Carbon disulfide	0.086	J	0.62	0.034	ug/m3			11/24/20 17:34	1
Carbon tetrachloride	0.54		0.20	0.044	ug/m3			11/24/20 17:34	1
Chlorobenzene	ND		0.37	0.028	ug/m3			11/24/20 17:34	1
Chloroethane	ND		0.21	0.077	ug/m3			11/24/20 17:34	1
Chloroform	6.8		0.39	0.034	ug/m3			11/24/20 17:34	1
Chloromethane	1.4		0.41	0.14	ug/m3			11/24/20 17:34	1
cis-1,2-Dichloroethene	ND		0.16	0.040	ug/m3			11/24/20 17:34	1
cis-1,3-Dichloropropene	ND		0.36	0.073	ug/m3			11/24/20 17:34	1
Cyclohexane	0.33	J	0.69	0.079	ug/m3			11/24/20 17:34	1
Dibromochloromethane	0.16	J	0.68	0.060	ug/m3			11/24/20 17:34	1
Dichlorodifluoromethane	1.2	J	0.40	0.069	ug/m3			11/24/20 17:34	1
Ethylbenzene	0.36		0.35	0.056	ug/m3			11/24/20 17:34	1
Heptane	0.48	J	0.82	0.057	ug/m3			11/24/20 17:34	1
Hexachlorobutadiene	ND		0.85	0.34	ug/m3			11/24/20 17:34	1
Hexane	2.0		0.70	0.046	ug/m3			11/24/20 17:34	1
Indane	ND		0.39	0.17	ug/m3			11/24/20 17:34	1
Indene	ND		0.76	0.19	ug/m3			11/24/20 17:34	1
Isopropyl alcohol	8.6		2.0	0.54	ug/m3			11/24/20 17:34	1
Isopropylbenzene	ND		0.79	0.084	ug/m3			11/24/20 17:34	1
Methyl tert-butyl ether	ND		0.58	0.19	ug/m3			11/24/20 17:34	1
Methylene Chloride	14	J	1.4	1.4	ug/m3			11/24/20 17:34	1
m-Xylene & p-Xylene	1.1		0.35	0.13	ug/m3			11/24/20 17:34	1
Naphthalene	ND		1.0	0.40	ug/m3			11/24/20 17:34	1
n-Butane	8.8		0.38	0.20	ug/m3			11/24/20 17:34	1
n-Decane	2.9		2.3	0.22	ug/m3			11/24/20 17:34	1
n-Dodecane	0.73	J	2.8	0.45	ug/m3			11/24/20 17:34	1
n-Octane	0.27	J	0.75	0.075	ug/m3			11/24/20 17:34	1
Nonane	0.29	J	1.0	0.094	ug/m3			11/24/20 17:34	1
n-Undecane	0.35	J	2.6	0.31	ug/m3			11/24/20 17:34	1
o-Xylene	0.43		0.35	0.065	ug/m3			11/24/20 17:34	1
Pentane	2.5		1.2	0.23	ug/m3			11/24/20 17:34	1
Propene	ND		1.7	1.7	ug/m3			11/24/20 17:34	1
Styrene	0.22	J	0.34	0.10	ug/m3			11/24/20 17:34	1
Tetrachloroethene	0.18	J	0.54	0.047	ug/m3			11/24/20 17:34	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: DUP - 111820**

**Lab Sample ID: 140-21090-4**

Date Collected: 11/19/20 00:00

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	0.055	J	1.2	0.050	ug/m3			11/24/20 17:34	1
Thiophene	ND		0.28	0.038	ug/m3			11/24/20 17:34	1
Toluene	2.5		0.45	0.29	ug/m3			11/24/20 17:34	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			11/24/20 17:34	1
trans-1,3-Dichloropropene	ND		0.36	0.041	ug/m3			11/24/20 17:34	1
Trichloroethene	0.040	J	0.19	0.032	ug/m3			11/24/20 17:34	1
Trichlorofluoromethane	1.7		0.45	0.062	ug/m3			11/24/20 17:34	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/24/20 17:34	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	96		60 - 140					11/24/20 17:34	1

**Client Sample ID: AA - 111820**

**Lab Sample ID: 140-21090-5**

Date Collected: 11/19/20 10:01

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080	0.037	ppb v/v			11/24/20 18:26	1
1,1,2,2-Tetrachloroethane	ND		0.080	0.014	ppb v/v			11/24/20 18:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.082		0.080	0.0080	ppb v/v			11/24/20 18:26	1
1,1,2-Trichloroethane	ND		0.080	0.0070	ppb v/v			11/24/20 18:26	1
1,1-Dichloroethane	ND		0.080	0.0070	ppb v/v			11/24/20 18:26	1
1,1-Dichloroethene	ND		0.040	0.0080	ppb v/v			11/24/20 18:26	1
1,2,3-Trimethylbenzene	ND		0.080	0.036	ppb v/v			11/24/20 18:26	1
1,2,4-Trichlorobenzene	ND		0.080	0.064	ppb v/v			11/24/20 18:26	1
1,2,4-Trimethylbenzene	0.042	J	0.080	0.020	ppb v/v			11/24/20 18:26	1
1,2-Dibromoethane (EDB)	ND		0.080	0.0070	ppb v/v			11/24/20 18:26	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.080	0.012	ppb v/v			11/24/20 18:26	1
1,2-Dichlorobenzene	ND		0.080	0.031	ppb v/v			11/24/20 18:26	1
1,2-Dichloroethane	0.020	J	0.080	0.010	ppb v/v			11/24/20 18:26	1
1,2-Dichloropropane	ND		0.080	0.010	ppb v/v			11/24/20 18:26	1
1,3,5-Trimethylbenzene	0.023	J	0.080	0.022	ppb v/v			11/24/20 18:26	1
1,3-Butadiene	ND		0.16	0.019	ppb v/v			11/24/20 18:26	1
1,3-Dichlorobenzene	ND		0.080	0.016	ppb v/v			11/24/20 18:26	1
1,4-Dichlorobenzene	ND		0.080	0.016	ppb v/v			11/24/20 18:26	1
1,4-Dioxane	ND		0.20	0.030	ppb v/v			11/24/20 18:26	1
2,2,4-Trimethylpentane	0.075	J	0.20	0.0080	ppb v/v			11/24/20 18:26	1
2,3-Dimethylpentane	ND		0.080	0.026	ppb v/v			11/24/20 18:26	1
2-Butanone (MEK)	0.16	J	0.32	0.073	ppb v/v			11/24/20 18:26	1
2-Hexanone	ND		0.20	0.016	ppb v/v			11/24/20 18:26	1
2-Methylbutane	0.66		0.20	0.063	ppb v/v			11/24/20 18:26	1
2-Methylpentane	0.13		0.080	0.014	ppb v/v			11/24/20 18:26	1
4-Ethyltoluene	ND		0.16	0.021	ppb v/v			11/24/20 18:26	1
4-Methyl-2-pentanone (MIBK)	ND		0.20	0.054	ppb v/v			11/24/20 18:26	1
Acetone	1.8	J	2.0	0.57	ppb v/v			11/24/20 18:26	1
Benzene	0.22		0.080	0.0080	ppb v/v			11/24/20 18:26	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: AA - 111820**

**Lab Sample ID: 140-21090-5**

**Date Collected: 11/19/20 10:01**

**Matrix: Air**

**Date Received: 11/20/20 09:00**

**Sample Container: Summa Canister 6L**

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl chloride	ND		0.16	0.038	ppb v/v			11/24/20 18:26	1
Bromodichloromethane	ND		0.080	0.018	ppb v/v			11/24/20 18:26	1
Bromoform	ND		0.080	0.0090	ppb v/v			11/24/20 18:26	1
<b>Bromomethane</b>	<b>0.024</b>	<b>J</b>	0.080	0.022	ppb v/v			11/24/20 18:26	1
Carbon disulfide	ND		0.20	0.011	ppb v/v			11/24/20 18:26	1
<b>Carbon tetrachloride</b>	<b>0.073</b>		0.032	0.0070	ppb v/v			11/24/20 18:26	1
Chlorobenzene	ND		0.080	0.0060	ppb v/v			11/24/20 18:26	1
Chloroethane	ND		0.080	0.029	ppb v/v			11/24/20 18:26	1
<b>Chloroform</b>	<b>0.033</b>	<b>J</b>	0.080	0.0070	ppb v/v			11/24/20 18:26	1
<b>Chloromethane</b>	<b>0.73</b>		0.20	0.066	ppb v/v			11/24/20 18:26	1
cis-1,2-Dichloroethene	ND		0.040	0.010	ppb v/v			11/24/20 18:26	1
cis-1,3-Dichloropropene	ND		0.080	0.016	ppb v/v			11/24/20 18:26	1
<b>Cyclohexane</b>	<b>0.054</b>	<b>J</b>	0.20	0.023	ppb v/v			11/24/20 18:26	1
Dibromochloromethane	ND		0.080	0.0070	ppb v/v			11/24/20 18:26	1
<b>Dichlorodifluoromethane</b>	<b>0.26</b>	<b>J</b>	0.080	0.014	ppb v/v			11/24/20 18:26	1
<b>Ethylbenzene</b>	<b>0.036</b>	<b>J</b>	0.080	0.013	ppb v/v			11/24/20 18:26	1
<b>Heptane</b>	<b>0.077</b>	<b>J</b>	0.20	0.014	ppb v/v			11/24/20 18:26	1
Hexachlorobutadiene	ND		0.080	0.032	ppb v/v			11/24/20 18:26	1
<b>Hexane</b>	<b>0.16</b>	<b>J</b>	0.20	0.013	ppb v/v			11/24/20 18:26	1
Indane	ND		0.080	0.035	ppb v/v			11/24/20 18:26	1
Indene	ND		0.16	0.039	ppb v/v			11/24/20 18:26	1
<b>Isopropyl alcohol</b>	<b>1.3</b>		0.80	0.22	ppb v/v			11/24/20 18:26	1
Isopropylbenzene	ND		0.16	0.017	ppb v/v			11/24/20 18:26	1
Methyl tert-butyl ether	ND		0.16	0.052	ppb v/v			11/24/20 18:26	1
Methylene Chloride	ND		0.40	0.39	ppb v/v			11/24/20 18:26	1
<b>m-Xylene &amp; p-Xylene</b>	<b>0.11</b>		0.080	0.029	ppb v/v			11/24/20 18:26	1
Naphthalene	ND		0.20	0.076	ppb v/v			11/24/20 18:26	1
<b>n-Butane</b>	<b>1.3</b>		0.16	0.083	ppb v/v			11/24/20 18:26	1
<b>n-Decane</b>	<b>0.14</b>	<b>J</b>	0.40	0.038	ppb v/v			11/24/20 18:26	1
n-Dodecane	ND		0.40	0.064	ppb v/v			11/24/20 18:26	1
<b>n-Octane</b>	<b>0.038</b>	<b>J</b>	0.16	0.016	ppb v/v			11/24/20 18:26	1
<b>Nonane</b>	<b>0.042</b>	<b>J</b>	0.20	0.018	ppb v/v			11/24/20 18:26	1
n-Undecane	ND		0.40	0.048	ppb v/v			11/24/20 18:26	1
<b>o-Xylene</b>	<b>0.045</b>	<b>J</b>	0.080	0.015	ppb v/v			11/24/20 18:26	1
<b>Pentane</b>	<b>0.36</b>	<b>J</b>	0.40	0.079	ppb v/v			11/24/20 18:26	1
Propene	ND		1.0	1.0	ppb v/v			11/24/20 18:26	1
Styrene	ND		0.080	0.024	ppb v/v			11/24/20 18:26	1
<b>Tetrachloroethene</b>	<b>0.018</b>	<b>J</b>	0.080	0.0070	ppb v/v			11/24/20 18:26	1
Tetrahydrofuran	ND		0.40	0.017	ppb v/v			11/24/20 18:26	1
Thiophene	ND		0.080	0.011	ppb v/v			11/24/20 18:26	1
<b>Toluene</b>	<b>0.24</b>		0.12	0.078	ppb v/v			11/24/20 18:26	1
trans-1,2-Dichloroethene	ND		0.080	0.0070	ppb v/v			11/24/20 18:26	1
trans-1,3-Dichloropropene	ND		0.080	0.0090	ppb v/v			11/24/20 18:26	1
<b>Trichloroethene</b>	<b>0.0061</b>	<b>J</b>	0.036	0.0060	ppb v/v			11/24/20 18:26	1
<b>Trichlorofluoromethane</b>	<b>0.29</b>		0.080	0.011	ppb v/v			11/24/20 18:26	1
Vinyl chloride	ND		0.040	0.026	ppb v/v			11/24/20 18:26	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44	0.20	ug/m3			11/24/20 18:26	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: AA - 111820**

**Lab Sample ID: 140-21090-5**

**Date Collected: 11/19/20 10:01**

**Matrix: Air**

**Date Received: 11/20/20 09:00**

**Sample Container: Summa Canister 6L**

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.55	0.096	ug/m3			11/24/20 18:26	1
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	<b>0.63</b>		0.61	0.061	ug/m3			11/24/20 18:26	1
1,1,2-Trichloroethane	ND		0.44	0.038	ug/m3			11/24/20 18:26	1
1,1-Dichloroethane	ND		0.32	0.028	ug/m3			11/24/20 18:26	1
1,1-Dichloroethene	ND		0.16	0.032	ug/m3			11/24/20 18:26	1
1,2,3-Trimethylbenzene	ND		0.39	0.18	ug/m3			11/24/20 18:26	1
1,2,4-Trichlorobenzene	ND		0.59	0.47	ug/m3			11/24/20 18:26	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.20</b>	<b>J</b>	0.39	0.098	ug/m3			11/24/20 18:26	1
1,2-Dibromoethane (EDB)	ND		0.61	0.054	ug/m3			11/24/20 18:26	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.56	0.084	ug/m3			11/24/20 18:26	1
1,2-Dichlorobenzene	ND		0.48	0.19	ug/m3			11/24/20 18:26	1
<b>1,2-Dichloroethane</b>	<b>0.082</b>	<b>J</b>	0.32	0.040	ug/m3			11/24/20 18:26	1
1,2-Dichloropropane	ND		0.37	0.046	ug/m3			11/24/20 18:26	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.11</b>	<b>J</b>	0.39	0.11	ug/m3			11/24/20 18:26	1
1,3-Butadiene	ND		0.35	0.042	ug/m3			11/24/20 18:26	1
1,3-Dichlorobenzene	ND		0.48	0.096	ug/m3			11/24/20 18:26	1
1,4-Dichlorobenzene	ND		0.48	0.096	ug/m3			11/24/20 18:26	1
1,4-Dioxane	ND		0.72	0.11	ug/m3			11/24/20 18:26	1
<b>2,2,4-Trimethylpentane</b>	<b>0.35</b>	<b>J</b>	0.93	0.037	ug/m3			11/24/20 18:26	1
2,3-Dimethylpentane	ND		0.33	0.11	ug/m3			11/24/20 18:26	1
<b>2-Butanone (MEK)</b>	<b>0.47</b>	<b>J</b>	0.94	0.22	ug/m3			11/24/20 18:26	1
2-Hexanone	ND		0.82	0.066	ug/m3			11/24/20 18:26	1
<b>2-Methylbutane</b>	<b>1.9</b>		0.59	0.19	ug/m3			11/24/20 18:26	1
<b>2-Methylpentane</b>	<b>0.46</b>		0.28	0.049	ug/m3			11/24/20 18:26	1
4-Ethyltoluene	ND		0.79	0.10	ug/m3			11/24/20 18:26	1
4-Methyl-2-pentanone (MIBK)	ND		0.82	0.22	ug/m3			11/24/20 18:26	1
<b>Acetone</b>	<b>4.3</b>	<b>J</b>	4.8	1.4	ug/m3			11/24/20 18:26	1
<b>Benzene</b>	<b>0.69</b>		0.26	0.026	ug/m3			11/24/20 18:26	1
Benzyl chloride	ND		0.83	0.20	ug/m3			11/24/20 18:26	1
Bromodichloromethane	ND		0.54	0.12	ug/m3			11/24/20 18:26	1
Bromoform	ND		0.83	0.093	ug/m3			11/24/20 18:26	1
<b>Bromomethane</b>	<b>0.092</b>	<b>J</b>	0.31	0.085	ug/m3			11/24/20 18:26	1
Carbon disulfide	ND		0.62	0.034	ug/m3			11/24/20 18:26	1
<b>Carbon tetrachloride</b>	<b>0.46</b>		0.20	0.044	ug/m3			11/24/20 18:26	1
Chlorobenzene	ND		0.37	0.028	ug/m3			11/24/20 18:26	1
Chloroethane	ND		0.21	0.077	ug/m3			11/24/20 18:26	1
<b>Chloroform</b>	<b>0.16</b>	<b>J</b>	0.39	0.034	ug/m3			11/24/20 18:26	1
<b>Chloromethane</b>	<b>1.5</b>		0.41	0.14	ug/m3			11/24/20 18:26	1
cis-1,2-Dichloroethene	ND		0.16	0.040	ug/m3			11/24/20 18:26	1
cis-1,3-Dichloropropene	ND		0.36	0.073	ug/m3			11/24/20 18:26	1
<b>Cyclohexane</b>	<b>0.19</b>	<b>J</b>	0.69	0.079	ug/m3			11/24/20 18:26	1
Dibromochloromethane	ND		0.68	0.060	ug/m3			11/24/20 18:26	1
<b>Dichlorodifluoromethane</b>	<b>1.3</b>	<b>J</b>	0.40	0.069	ug/m3			11/24/20 18:26	1
<b>Ethylbenzene</b>	<b>0.16</b>	<b>J</b>	0.35	0.056	ug/m3			11/24/20 18:26	1
<b>Heptane</b>	<b>0.32</b>	<b>J</b>	0.82	0.057	ug/m3			11/24/20 18:26	1
Hexachlorobutadiene	ND		0.85	0.34	ug/m3			11/24/20 18:26	1
<b>Hexane</b>	<b>0.55</b>	<b>J</b>	0.70	0.046	ug/m3			11/24/20 18:26	1
Indane	ND		0.39	0.17	ug/m3			11/24/20 18:26	1



# Client Sample Results

Client: ARCADIS U.S. Inc  
 Project/Site: ConEd Haven Plaza

Job ID: 140-21090-1

**Client Sample ID: AA - 111820**

**Lab Sample ID: 140-21090-5**

Date Collected: 11/19/20 10:01

Matrix: Air

Date Received: 11/20/20 09:00

Sample Container: Summa Canister 6L

**Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indene	ND		0.76	0.19	ug/m3			11/24/20 18:26	1
<b>Isopropyl alcohol</b>	<b>3.2</b>		2.0	0.54	ug/m3			11/24/20 18:26	1
Isopropylbenzene	ND		0.79	0.084	ug/m3			11/24/20 18:26	1
Methyl tert-butyl ether	ND		0.58	0.19	ug/m3			11/24/20 18:26	1
Methylene Chloride	ND		1.4	1.4	ug/m3			11/24/20 18:26	1
<b>m-Xylene &amp; p-Xylene</b>	<b>0.47</b>		0.35	0.13	ug/m3			11/24/20 18:26	1
Naphthalene	ND		1.0	0.40	ug/m3			11/24/20 18:26	1
<b>n-Butane</b>	<b>3.1</b>		0.38	0.20	ug/m3			11/24/20 18:26	1
<b>n-Decane</b>	<b>0.82</b>	<b>J</b>	2.3	0.22	ug/m3			11/24/20 18:26	1
n-Dodecane	ND		2.8	0.45	ug/m3			11/24/20 18:26	1
<b>n-Octane</b>	<b>0.18</b>	<b>J</b>	0.75	0.075	ug/m3			11/24/20 18:26	1
<b>Nonane</b>	<b>0.22</b>	<b>J</b>	1.0	0.094	ug/m3			11/24/20 18:26	1
n-Undecane	ND		2.6	0.31	ug/m3			11/24/20 18:26	1
<b>o-Xylene</b>	<b>0.20</b>	<b>J</b>	0.35	0.065	ug/m3			11/24/20 18:26	1
<b>Pentane</b>	<b>1.1</b>	<b>J</b>	1.2	0.23	ug/m3			11/24/20 18:26	1
Propene	ND		1.7	1.7	ug/m3			11/24/20 18:26	1
Styrene	ND		0.34	0.10	ug/m3			11/24/20 18:26	1
<b>Tetrachloroethene</b>	<b>0.12</b>	<b>J</b>	0.54	0.047	ug/m3			11/24/20 18:26	1
Tetrahydrofuran	ND		1.2	0.050	ug/m3			11/24/20 18:26	1
Thiophene	ND		0.28	0.038	ug/m3			11/24/20 18:26	1
<b>Toluene</b>	<b>0.92</b>		0.45	0.29	ug/m3			11/24/20 18:26	1
trans-1,2-Dichloroethene	ND		0.32	0.028	ug/m3			11/24/20 18:26	1
trans-1,3-Dichloropropene	ND		0.36	0.041	ug/m3			11/24/20 18:26	1
<b>Trichloroethene</b>	<b>0.033</b>	<b>J</b>	0.19	0.032	ug/m3			11/24/20 18:26	1
<b>Trichlorofluoromethane</b>	<b>1.6</b>		0.45	0.062	ug/m3			11/24/20 18:26	1
Vinyl chloride	ND		0.10	0.066	ug/m3			11/24/20 18:26	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	97		60 - 140					11/24/20 18:26	1

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A decorative graphic consisting of three thin orange lines. One line is horizontal, extending across the width of the page. Two other lines are diagonal, starting from the bottom left and extending towards the top right, intersecting the horizontal line.