

**Sub-Slab Depressurization Systems
Buildings TR-20 (partial) and Stormwater
Treatment Plant
Interim Corrective Measure
ONONDAGA, NEW YORK**

Construction Completion Report

NYSDEC Site Number: 734043

Prepared for:

Carrier Corporation
13995 Pasteur Boulevard
Palm Beach Gardens, Florida 33418

Prepared by:

AECOM Technical Services Incorporated
5438 Wade Park Boulevard, Suite 200
Raleigh, North Carolina 27607
919 461-1194

NOVEMBER 11, 2025

CERTIFICATIONS

I, Peter Hollatz, am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the subject construction program, and I certify that the construction activities were completed in substantial conformance with the Department-approved *Final Design Basis Memorandum* detailed in the 2019 *Final Vapor Intrusion Investigation Report*.



NYS Professional Engineer #111306-01

11-11-2025

Date

Peter Hollatz

Signature

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LIST OF ACRONYMS

Acronym	Definition
Order	Corrective Action Order on Consent
NYSDEC	New York State Department of Environmental Conservation
ICM	Interim Corrective Measure
CCR	Construction Completion Report
DER	Division of Environmental Remediation
SSD	sub-slab depressurization
SWTP	Stormwater Treatment Plant
NYSDOH	New York State Department of Health
ft	feet
VMPs	vacuum monitoring points
SCH 40 PVC	40 polyvinyl chloride
PID	photoionization detector
inwc	inches of water column
VOCs	volatile organic compounds

CONSTRUCTION COMPLETION REPORT

1.0 BACKGROUND AND SITE DESCRIPTION

Carrier Corporation entered into a Corrective Action Order on Consent (Order) with the New York State Department of Environmental Conservation (NYSDEC) in January 2006, to investigate and remediate the Carrier Thompson Road Facility (site) located in East Syracuse, Onondaga County, New York (**Figure 1**). The site has been assigned Site No. 734043 which is administered by NYSDEC. This work has been completed as an Interim Corrective Measure (ICM), performed in accordance with the Order.

The site is located in the County of Onondaga, New York and is identified as Section 32 Block 2 and Lot 1.1 on the Onondaga County Tax Map. The site is situated on an approximately 175-acre area bounded by State Route 298 to the north, Third Street to the south, Kinne Street to the east, and Thompson Road to the west (see Figure 1).

The purpose of this document is to provide a Construction Completion Report (CCR) in compliance with the NYSDEC Division of Environmental Remediation (DER) 10 Section 5.8.1(a).1 for the sub-slab depressurization (SSD) systems that were installed in a portion of Building TR-20 and the Stormwater Treatment Plant (SWTP), which both are currently operating at the site. The location of Building TR-20 and SWTP are shown in **Figure 2**.

The objective of the SSD systems is to create a negative pressure (i.e. vacuum) underneath the buildings' concrete floor slabs to provide an engineered control to mitigate potential vapor intrusion.

The *Vapor Intrusion Investigation Work Plan* (VI Work Plan) (AECOM, 2017a) was prepared to evaluate indoor air and sub-slab soil gas conditions at 12 buildings at the site. The VI Work Plan was approved by the NYSDEC and New York State Department of Health (NYSDOH) in October 2017. The first rounds of investigation work were implemented in November/December 2017 and February/March 2018, and was reported in the AECOM June 2018 *Vapor Intrusion Investigation Report* (2018 VI Report) (AECOM, 2018). Additional rounds of investigations were implemented in January/May

2019 and reported in the AECOM June 2019 *Vapor Intrusion Investigation Report* (2019 VI Report) (AECOM, 2019).

In the 2018 VI Report, it was recommended to conduct SSD pilot testing in Building TR-20 and SWTP. The pilot testing was carried out in October 2018. The 2019 VI Report included a detailed summary of the testing along with the recommended design basis for the systems.

Installation activities began at the site in August 2019. Startup of the system at Building TR-20 was on September 9, 2019, and the SWTP was on January 28, 2020.

For reference, the following other VI related ICMs have been completed at the site:

1. SSD systems in Buildings TR-4 (partial), TR-6, TR-18, and TR-18s. Refer to *Sub Slab Depressurization Systems Buildings TR-4 (partial), TR-6, TR-18, and TR-18s, Interim Corrective Measure Construction Completion Report* (AECOM, 2018).
2. Floor vault sealing in Building TR-8. Refer to *TR-8 Floor Vault Sealing, Interim Corrective Measure Construction Completion Report*. (AECOM, 2019).

2.0 REMEDIAL ACTION OBJECTIVE

The objective of the SSD systems is to create a negative pressure (i.e. vacuum) underneath the buildings' concrete floor slabs to provide an engineered control to mitigate potential vapor intrusion.

3.0 SYSTEMS CONSTRUCTION

The primary components of the systems construction are described below. The as-build drawings presented in **Appendix A** include the layout schematics of each system, the process and instrumentation diagram for the SWTP, system enclosure layout for the SWTP, and NYSDEC mitigation system installation records. A photograph log is provided in **Appendix B**.

Extraction Points

The extraction point screens are 2-foot (ft) long, 4-inch diameter stainless steel construction with 0.010 slot screens. The bottom of the screens were installed at an approximate depth of 2.5 ft below the base of the concrete slabs.

The concrete building floors were saw-cut to allow for the placement of the extraction screens and to route the air conveyance piping to a nearby column or wall to route the piping vertically, through the concrete floor to overhead piping. The concrete flooring was replaced in-kind material with the addition of 12-inch long ¼-inch dowel rods spaced every 18-inches to tie-in the new concrete with the existing concrete.

Vacuum Monitoring Points

The vacuum monitoring points (VMPs) were Vapor Pins® installed by drilling 1.5-inch diameter hole to approximately 1.75-inches into the concrete slab to provide a recess for the VMP. A 5/8-inch hole was cored through the center of the larger diameter hole extending through the remaining thickness of the concrete slab.

Air Conveyance Piping

The air conveyance piping from each extraction point to a main common header pipe is 4-inch diameter schedule 40 polyvinyl chloride (SCH 40 PVC) piping with associated fittings. The common header pipe is 6-inch diameter SCH 40 PVC piping with associated fittings (Note: The extraction points in Building TR-20 were not connected to a common header pipe.). Piping supports were installed at approximately 7-foot intervals. Each individual extraction point has an air control valve and air flow / vacuum measurement port in close proximity to where the piping penetrates the concrete floor. Directional air flow arrows (approximately every 20 ft inside the facility buildings) and pipe labeling are present on the air conveyance piping. Exterior piping was wrapped with 1-inch thick insulation and covered with a PVC jacket.

Extraction Equipment – Building TR-20

The individual extraction fans (one per extraction point) where RadonAway HS5000 fans.

Extraction Equipment - SWTP

The main common headers convey the extracted air to an SSD system equipment enclosure located on the exterior of the SWTP. Extraction blowers and associated controls are housed inside the equipment enclosure.

The major system components include:

1. Extraction blowers – Cincinnati Blowers HP-4C21
2. Vacuum gauges, pressure gauges, temperature gauges, and flow monitoring ports
3. Sound dampening equipment including mufflers and sound attenuation building materials
4. Programmable logic controllers and variable frequency motor drives
5. Control panel with hand-off-auto selector switches and motor hour run meters
6. Exterior equipment enclosure visual run indicator lights

The extraction equipment enclosure was placed and secured on a new concrete pad with a minimum of 4-inch-thick reinforced concrete with 6 x 6/10 gauge welded wire fabric.

Exhaust Stacks

The emission exhaust stacks for the two extraction points in Building TR-20 are routed directly through the building roof with the exhaust point 2 ft above the roofline and at least 10 ft from any building intakes. A rain cap is installed at the top of each stack.

The emission exhaust stack for the SWTP is routed on the exterior of the SWTP, with the exhaust point 2 ft above the roofline and at least 10 ft from any building intakes. A rain cap is installed at the top of the stack.

Waste Management

Shallow subsurface soils requiring waste management were generated as a result of the installation of the extraction points, VMPs, air conveyance piping, and exterior concrete pad. Prior to off-site disposal the waste was properly profiled.

3.1 SYSTEMS STARTUP

Prior to system startup up baseline pressure readings at the VMPs were collected. Once the readings were recorded the systems were started. During the startup, pressure readings at the VMPs and exhaust emission screening was completed using a photoionization detector (PID). Based on the startup VMP readings the extraction blower speeds and flow control valves were adjusted to optimize the systems. The systems startup data and operational data are provided in **Appendix C**. After the first three months of operation an exhaust emission sample was collected for laboratory analysis (see **Appendix D** for the analytical report). The startup and operation of each system is described further below.

Building TR-20 (partial area) System

The TR-20 system consists of two extraction points and two VMPs. Baseline VMPs pressure readings were collected on September 9, 2019, and all readings were 0.00 inches of water column (inwc). The system was started up on September 9, 2019. Vacuum readings were measured at all VMPs during startup. **Figure 3** presents the average vacuum readings for each VMP, and extraction point through June 2020. The readings ranged from 0.08 to 0.21 inwc, which demonstrates a negative pressure underneath the concrete slab. Based on the exhaust emission sample collected on September 12, 2019, and June 16, 2020, a total of less than 0.3 pounds of volatile organic compounds (VOCs) have been discharged through June 2020.

SWTP System

The SWTP system consists of six extraction points and fifteen VMPs. Baseline VMPs pressure readings were collected on January 28, 2020, and all readings were 0.00 inwc. The system was started up on January 28, 2020. Vacuum readings were measured at all VMPs during startup. **Figure 4** presents the average vacuum readings for each VMP, and extraction point through June 2020. The readings ranged from 0.16 to 1.43 inwc. Based on the exhaust emission sample collected on June 16, 2020, a total of less than 1.5 pounds of VOCs has been discharged through June 2020.

Performance Summary and Future Actions

As demonstrated by the vacuum readings at the VMPs, the systems are achieving the objective of creating a negative pressure (i.e. vacuum) underneath the building concrete floor slabs as intended. The systems will continue to be monitored on a quarterly basis with exhaust emission sample collection once per year.

LIST OF FIGURES

Figure 1 – Site Location

Figure 2 – Site Map

Figure 3 – Building TR-20 Vacuum Readings (Average Thru June 2020)

Figure 4 – SWTP Vacuum Readings (Average Thru June 2020)

LIST OF APPENDICES

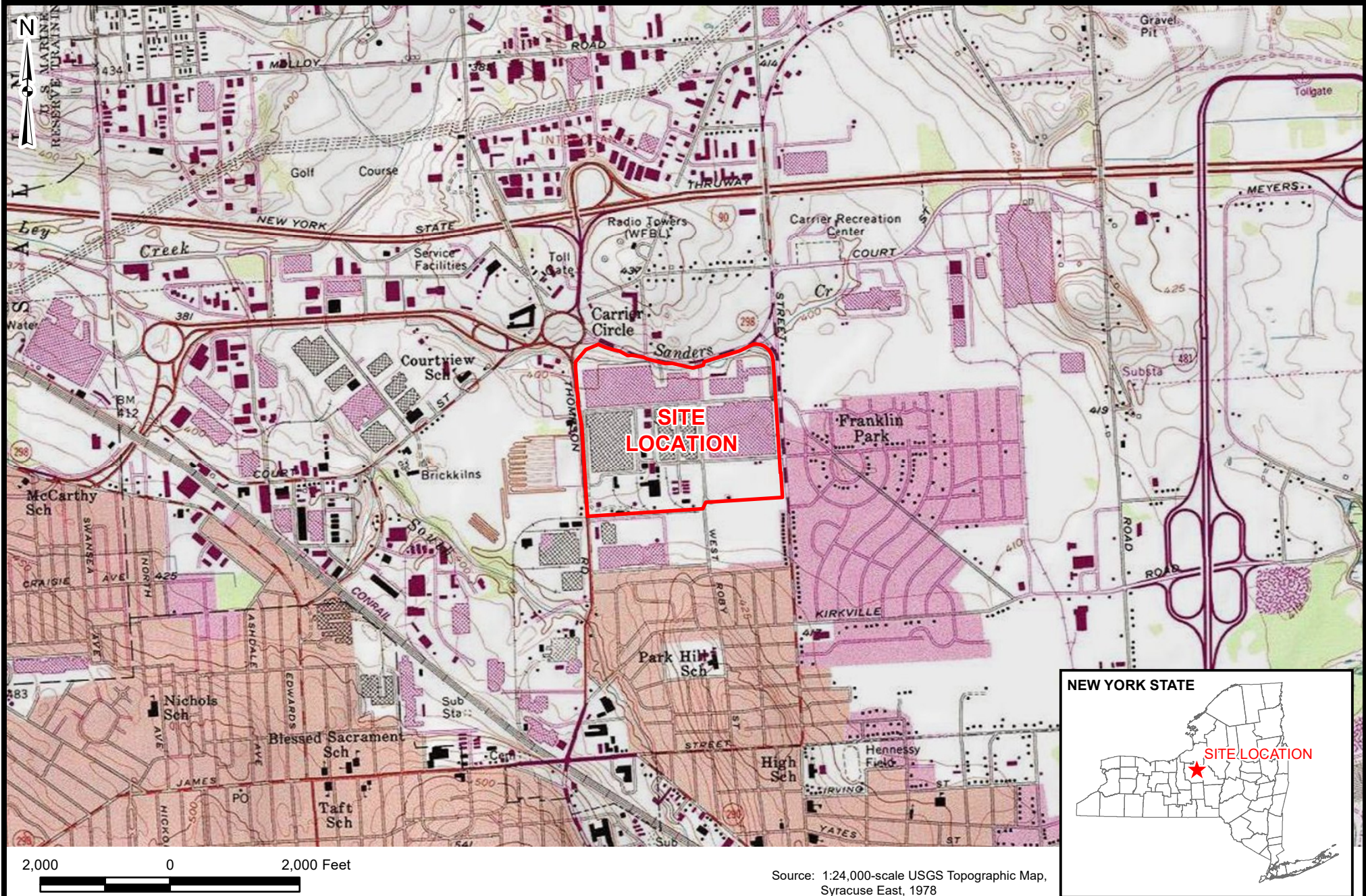
Appendix A – As-Built Drawings, P&ID SWTP, Enclosure SWTP, Mitigation System Installation Record

Appendix B – Photograph Logs

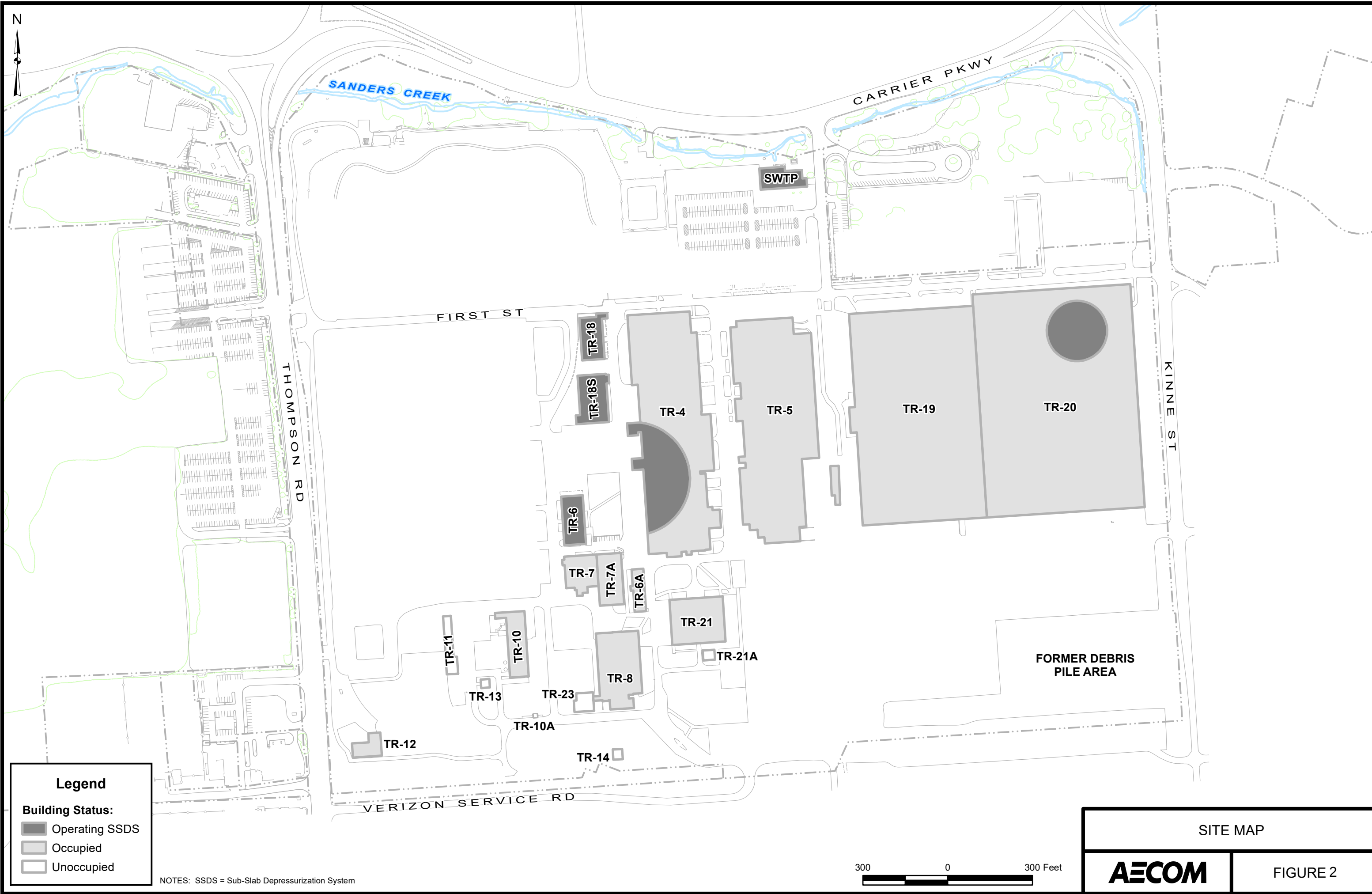
Appendix C – Startup Operational Data

Appendix D – Air Exhaust Data

FIGURES

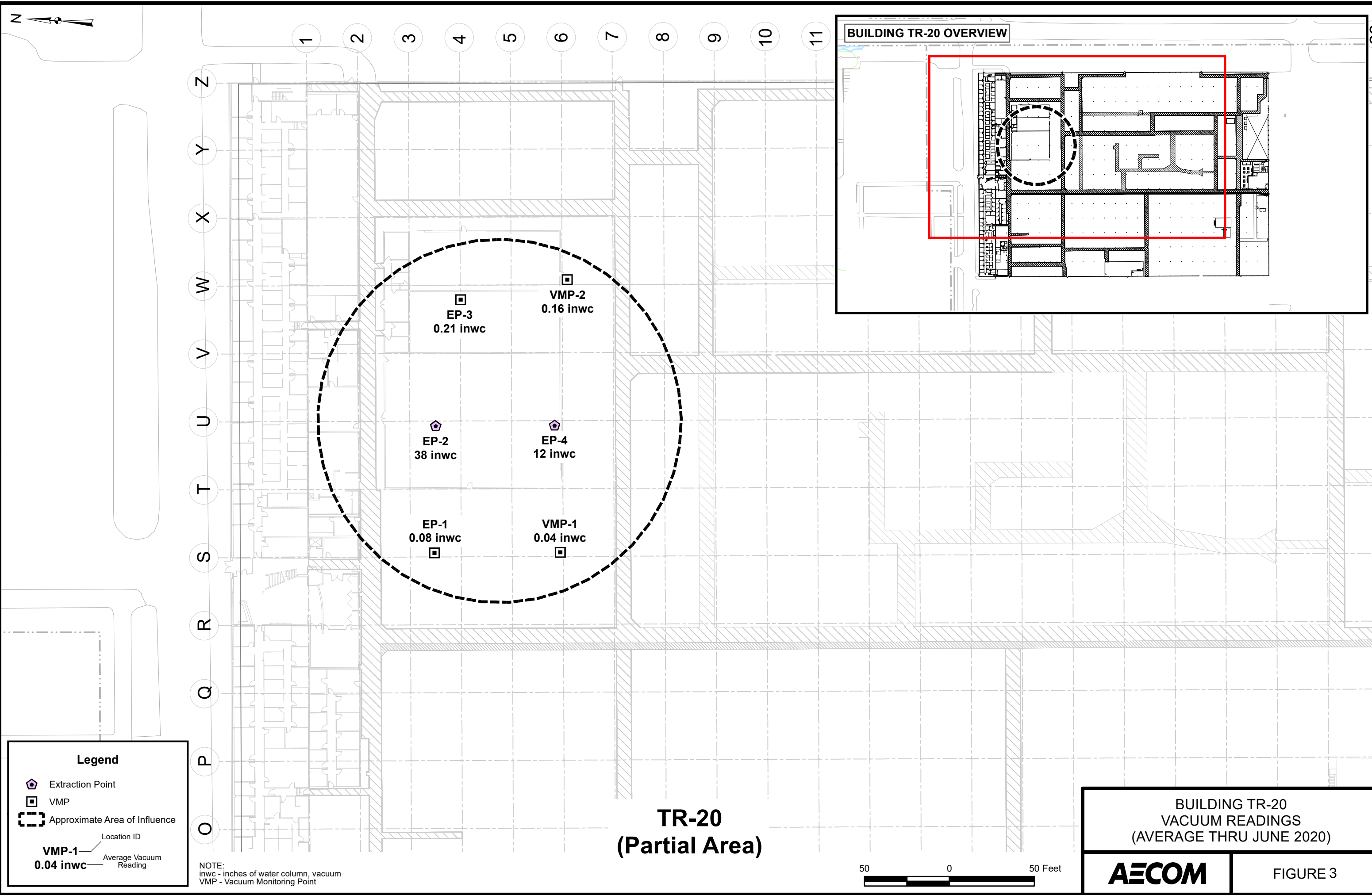


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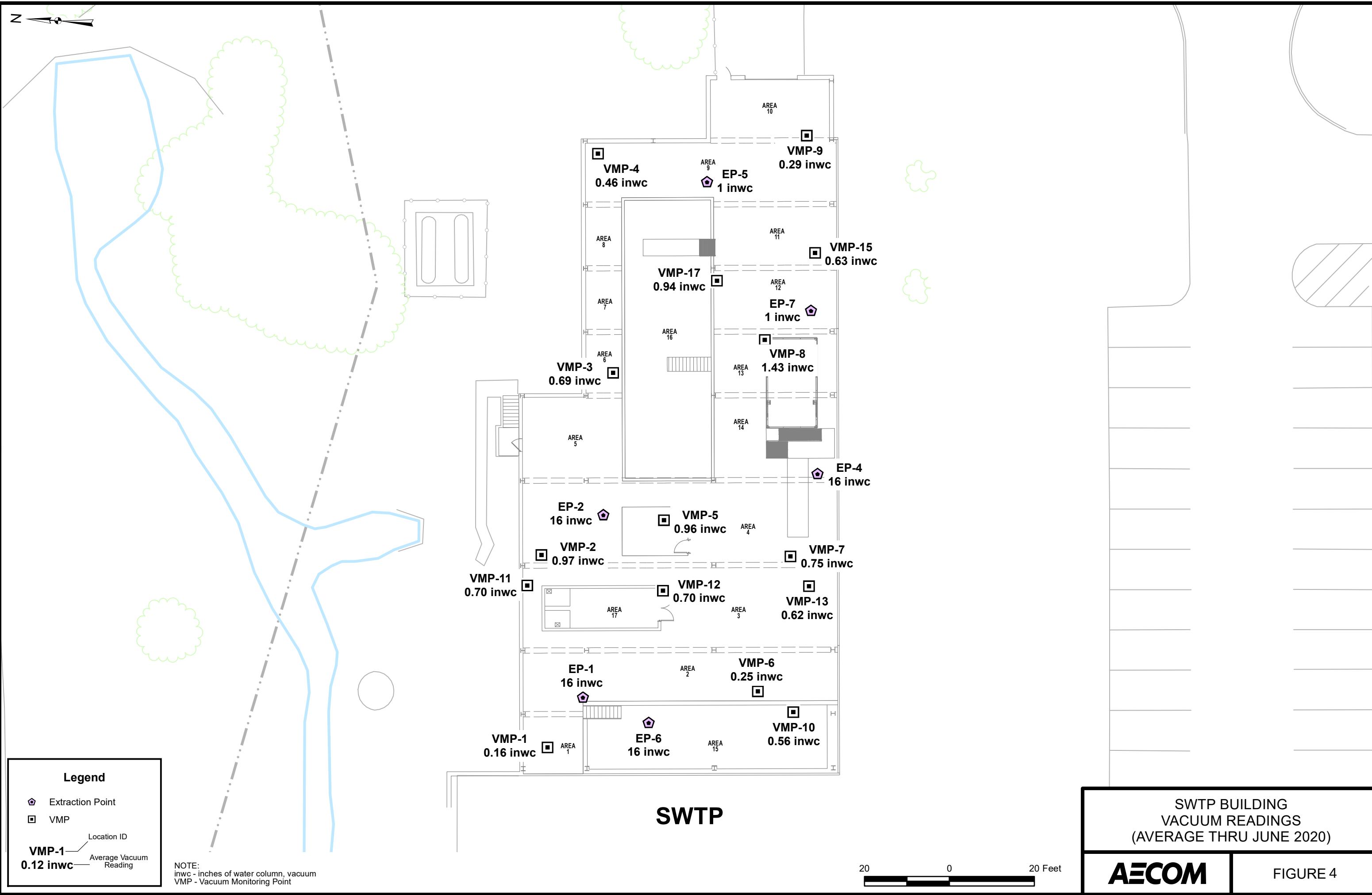


SITE MAP	
AECOM	FIGURE 2

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L:\DCS\Projects\60310231_UTCAOCGRIMISC\GIS\Maps\SITE-WIDE\BUILDINGS\SDS CCR - TR-20 & SWTP\02 SWTP AVE VACUUM READINGS.mxd 8/27/2024



Appendix A – As-Built Drawings, P&ID SWTP, Enclosure SWTP, Mitigation
System Installation Record

SUB SLAB DEPRESSURIZATION SYSTEMS BUILDINGS TR-20 (partial), and STORM WATER TREATMENT PLANT (SWTP)

CARRIER SITE
Thompson Road, Syracuse, New York
Corrective Action Order - Index CO 7-20051118-4
NYSDEC Site Registry #734043

AECOM

AECOM PROJECT NO. 60541079

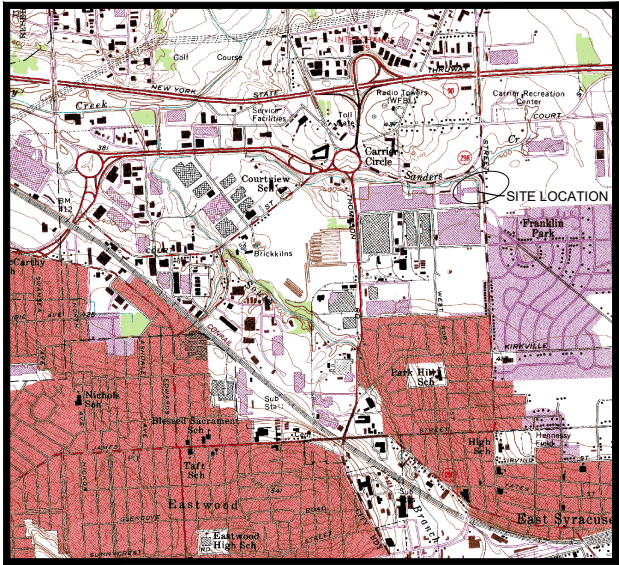
SUB SLAB DEPRESSURIZATION SYSTEMS BUILDINGS TR-20 (partial), and STORM WATER TREATMENT PLANT (SWTP) CARRIER SITE

AS-BUILT
DRAWINGS

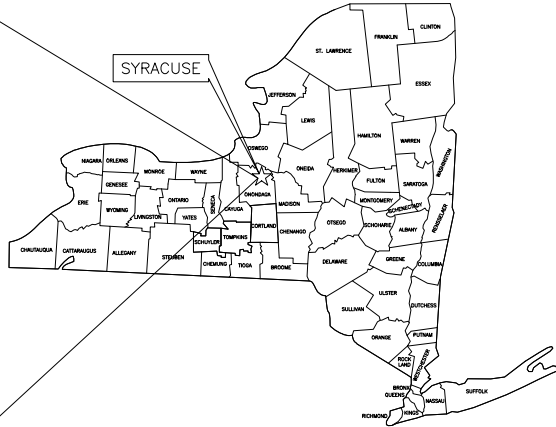
Thompson Road, Syracuse, New York
DATE: AUGUST 2024



SITE PLAN



SITE LOCATION MAP



Prepared by:

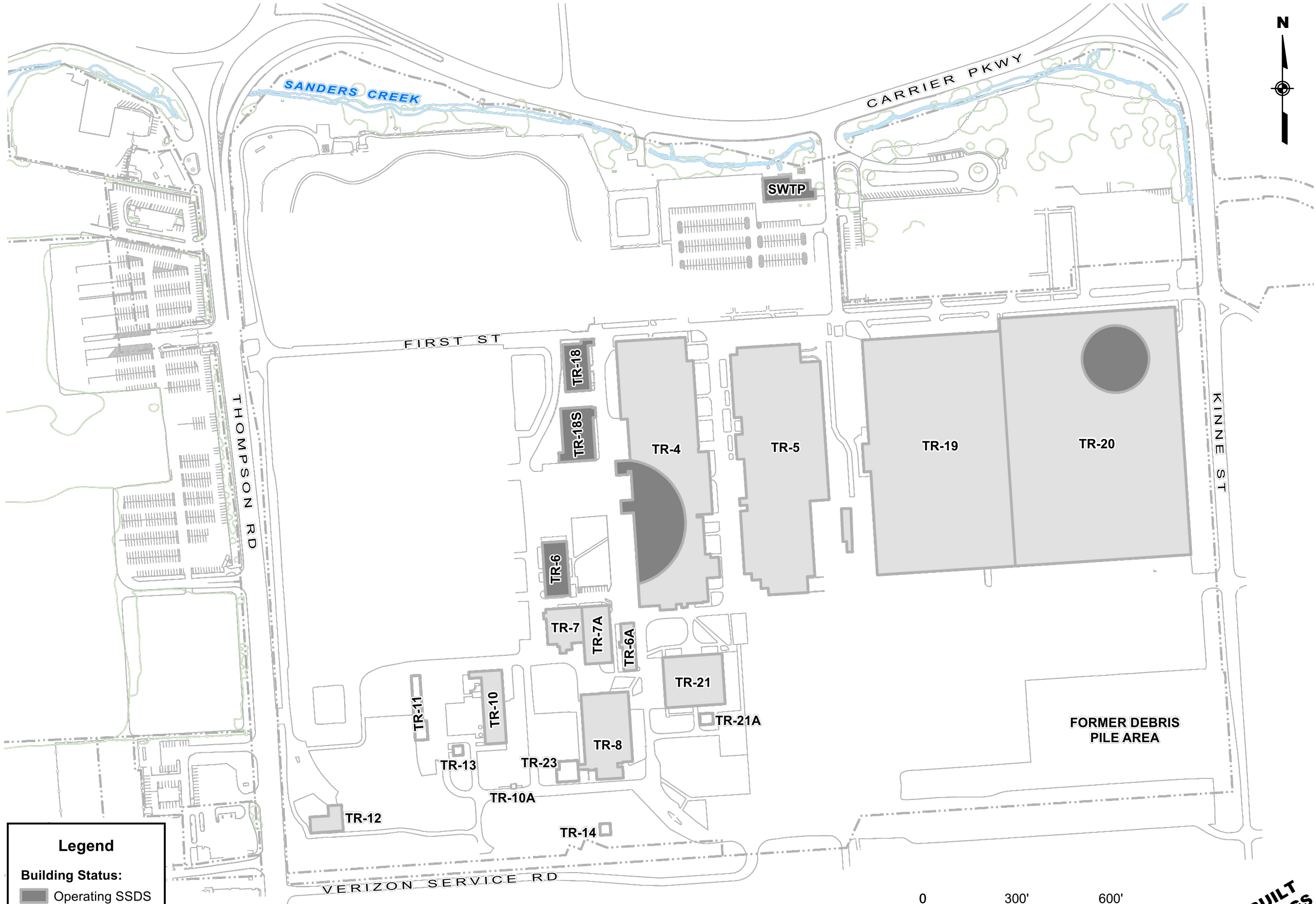
AECOM

50 Lakefront Boulevard, Suite 111, Buffalo, New York 14202
(716)856-5636 phone

AUGUST 2024

INDEX OF DRAWINGS

DWG. NO.	DESCRIPTION
	COVER SHEET AND INDEX OF DRAWINGS
C-001	OVERALL SITE LOCATION PLAN
C-002	TR-20 LAYOUT SCHEMATIC
C-003	SWTP LAYOUT SCHEMATIC
C-004	DETAILS
1 - 2	PROCESS AND INSTRUMENTATION DIAGRAMS
3 - 4	ENCLOSURE EXTERNAL AND INTERNAL LAYOUT: SWTP



Legend

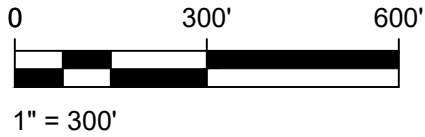
Building Status:

Operating SSDS

Occupied

Unoccupied

NOTES: SSDS = Sub-Slab Depressurization System



AS-BUILT
DRAWINGS



PROJECT
Sub Slab Depressurization
Systems - Buildings TR-20
(partial), and SWTP
ICM-CCR
CARRIER SITE
Thompson Road
Syracuse, New York

CLIENT
Carrier Corporation
Carrier Corporation
13995 Pasteur Boulevard
Palm Beach Gardens, Florida 33418

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AECOM
50 Lakefront Boulevard, Suite 111
Buffalo, New York 14202
716.856.5636 tel
www.aecom.com

REGISTRATION

ISSUE/REVISION

U/R	DATE	DESCRIPTION
0		

KEY PLAN

PROJECT NUMBER

AECOM #60541079

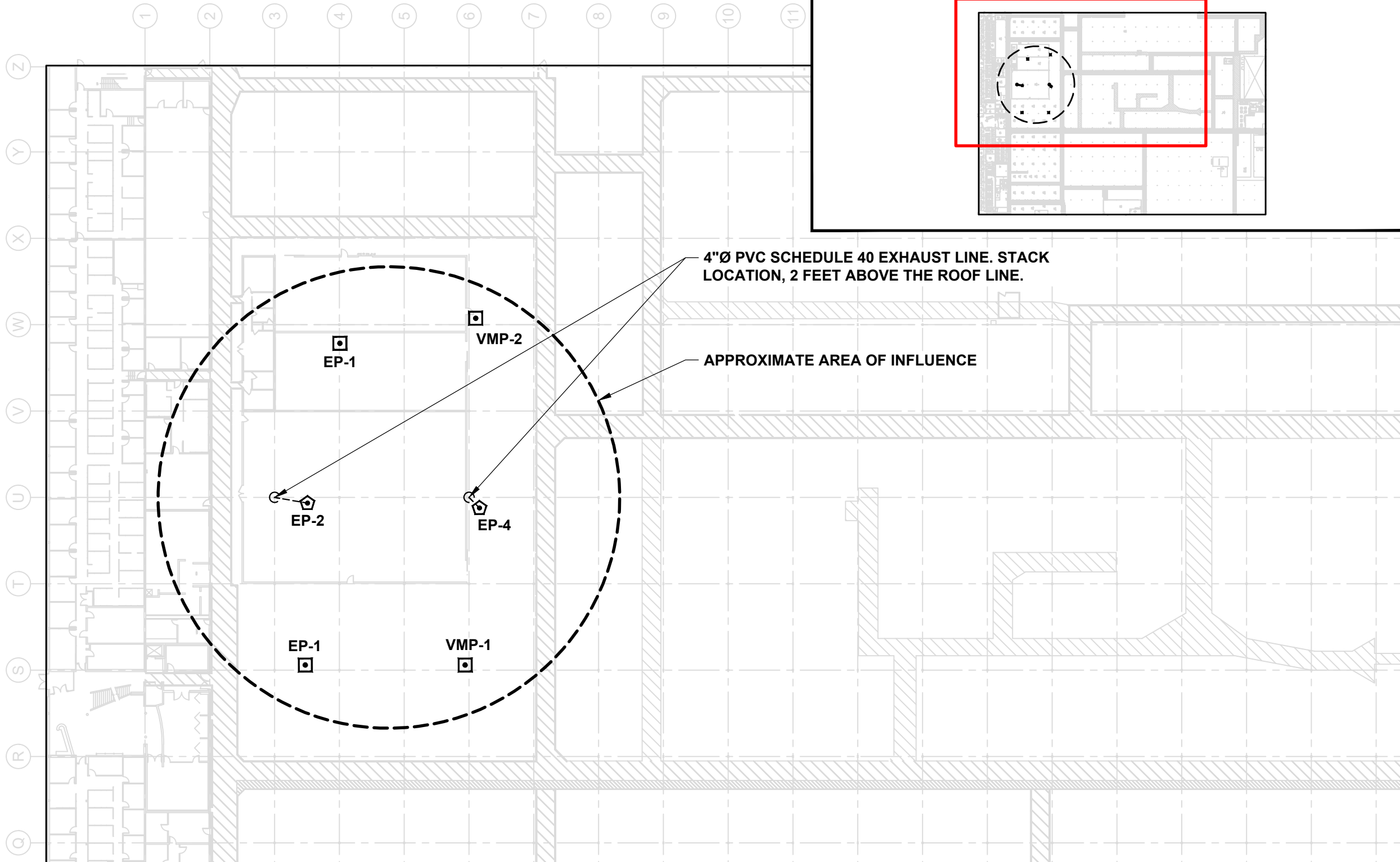
SHEET TITLE

OVERALL SITE LOCATION PLAN

SHEET NUMBER

C-001

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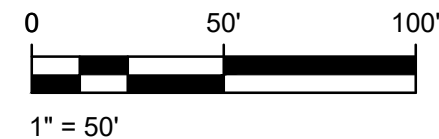


LEGEND:

- 4"Ø PVC BELOW GRADE PIPE RUN
- ⊙ VERTICAL PIPE
- ⬠ EXTRACTION POINT
- ◻ VACUUM MONITORING POINT

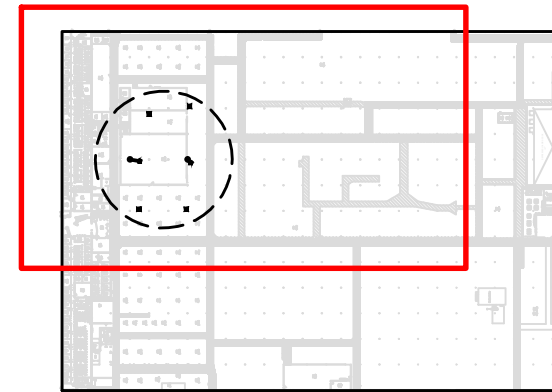
NOTES:

1. ALL PIPING IS SCHEDULE 40 PVC, UNLESS OTHERWISE NOTED.



**AS-BUILT
DRAWINGS**

BUILDING TR-20 OVERVIEW



AECOM

PROJECT
Sub Slab Depressurization
Systems - Buildings TR-20
(partial), and SWTP
ICM-CCR

CARRIER SITE
Thompson Road
Syracuse, New York

CLIENT

Carrier Corporation
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REGISTRATION

ISSUE/REVISION

U/R	DATE	DESCRIPTION
0		

KEY PLAN

PROJECT NUMBER

AECOM #60541079

SHEET TITLE

TR-20 LAYOUT SCHEMATIC
AS-BUILT (locations are approximate)

SHEET NUMBER

C-002

Project Management Initials: _____ Designer: _____ Checked: _____ Approved: _____
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Printed on 100% Post-Consumer Recycled Content Paper

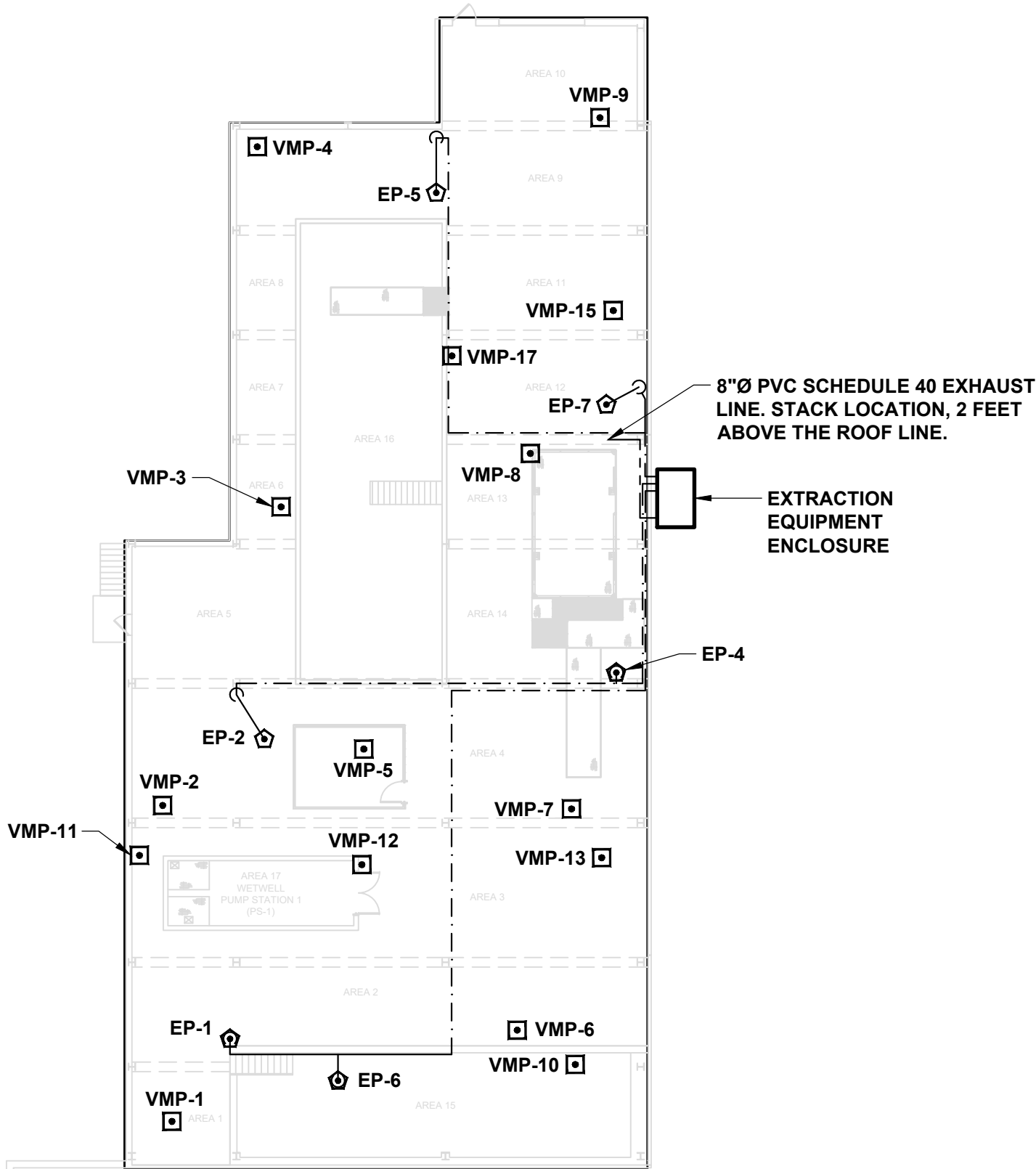


LEGEND:

- 4"Ø PVC OVERHEAD PIPE RUN
- 4"Ø PVC BELOW GRADE PIPE RUN
- 6"Ø PVC OVERHEAD PIPE RUN
- 8"Ø PVC OVERHEAD PIPE RUN
- VERTICAL PIPE
- EXTRACTION POINT
- VACUUM MONITORING POINT

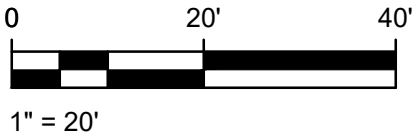
NOTES:

1. ALL PIPING IS SCHEDULE 40 PVC, UNLESS OTHERWISE NOTED.



SWTP LAYOUT SCHEMATIC

SCALE: 1" = 20'



AS-BUILT
DRAWINGS



PROJECT

Sub Slab Depressurization
Systems - Buildings TR-20
(partial), and SWTP
ICM-CCR

CARRIER SITE
Thompson Road
Syracuse, New York

CLIENT

Carrier Corporation

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REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION
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KEY PLAN

PROJECT NUMBER

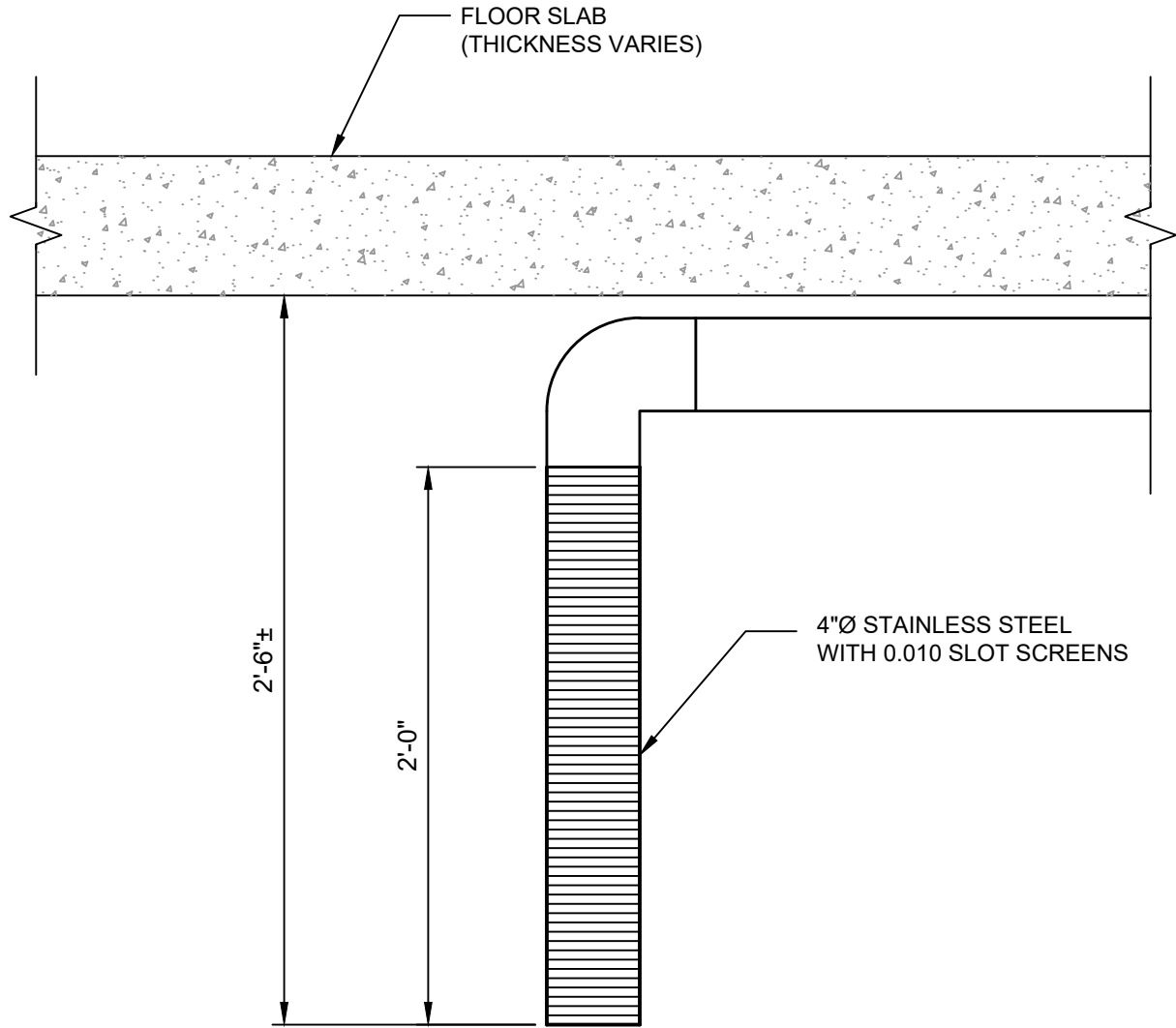
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SHEET TITLE

SWTP LAYOUT SCHEMATIC
AS-BUILT (locations are approximate)

SHEET NUMBER

C-003



EXTRACTION POINT SCREEN DETAIL

SCALE: N.T.S.

AS-BUILT
DRAWINGS



PROJECT

Sub Slab Depressurization
Systems - Buildings TR-20
(partial), and SWTP
ICM-CCR

CARRIER SITE
Thompson Road
Syracuse, New York

CLIENT

Carrier Corporation

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Buffalo, New York 14202
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REGISTRATION

ISSUE/REVISION

ISSUE/REVISION		
0		
I/R	DATE	DESCRIPTION

KEY PLAN

PROJECT NUMBER

AECOM #60541079

SHEET TITLE

DETAILS

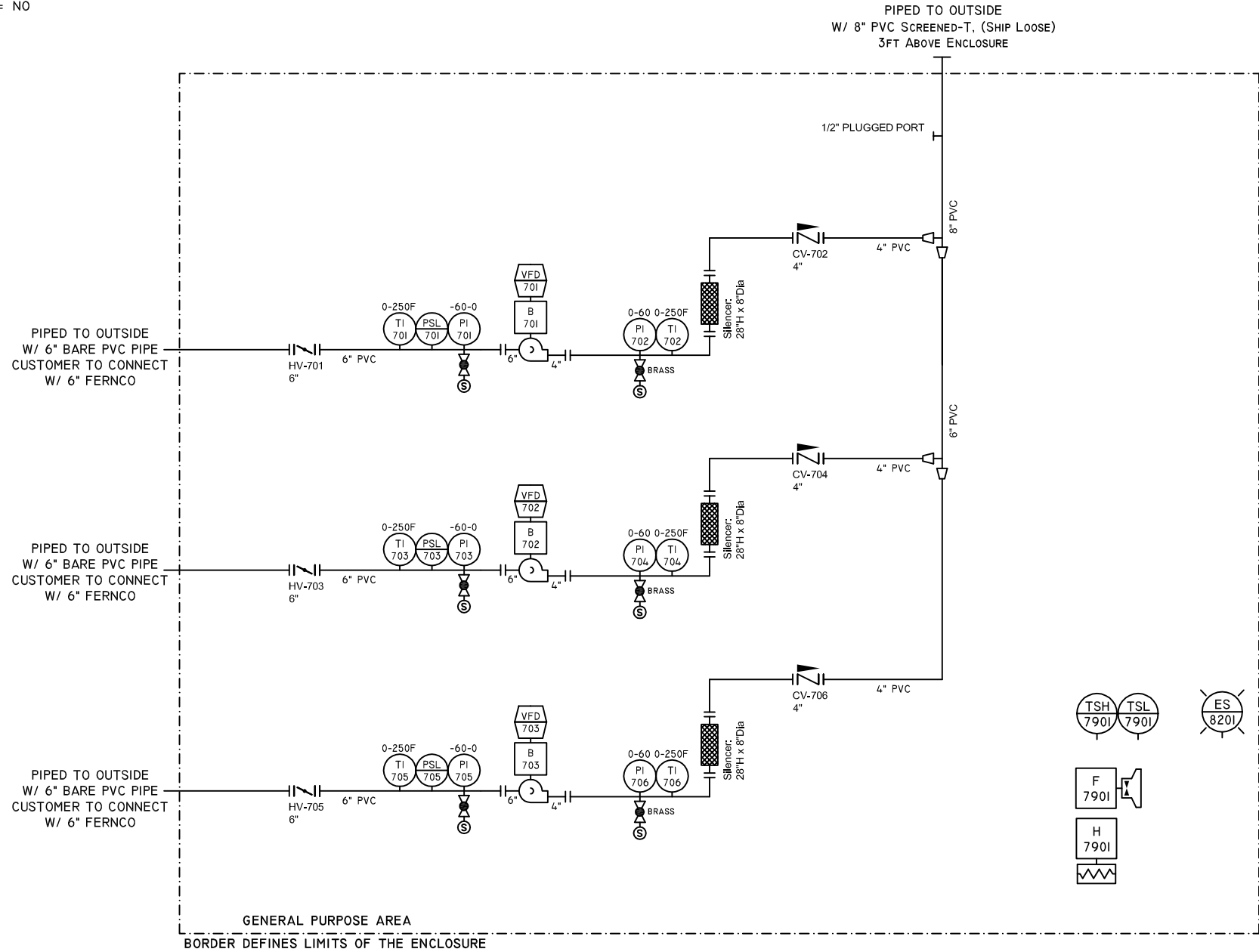
SHEET NUMBER

C-004

SVE BLOWER:
TAG = B-701.2,3
MAKE/MODEL = CINCINNATI BLOWER HP-4C2I
FLOWRATE & VACUUM = 400 SCFM @ 29"wc
DISCHARGE PRESSURE = 0"WC
DISCHARGE TEMPERATURE = 80 F
HORSEPOWER & MOTOR TYPE = 5, TEFC
VARIABLE FREQUENCY DRIVE = Yes
VOLTAGE & PHASE = 460V/3P
HOUR METER/AMP METER = YES/YES
HAND-OFF-AUTO = YES
LOCAL DISCONNECT = NO

VENTILATION FAN:
TAG = F-790I
MAKE/MODEL = CANARM 24"
FLOWRATE & PRESSURE = 3,600 CFM @ 0.25"WC
HORSEPOWER & MOTOR TYPE = 1/3
VOLTAGE & PHASE = 115V/1P

ENCLOSURE HEATER:
TAG = H-790I
MAKE/MODEL = INDEECO 240 SERIES
WATTS = 5KW
VOLTAGE & PHASE = 460V/3P



NOTES
PIPING DETAILS:
- WATER FLOW METERS: PROVIDE 10 DIA. OF STRAIGHT PIPE BEFORE AND 5 DIA. OF STRAIGHT PIPE AFTER METERS. ENSURE THAT THROTTLING VALVES ARE NOT DIRECTLY IN LINE WITH METERS.
- AIR FLOW METERS: PROVIDE 8 DIA. OF STRAIGHT PIPE BEFORE AND 3 DIA. OF STRAIGHT PIPE AFTER METERS, AVOID TEES AND ELBOWS BEFORE AND AFTER METERS.
- MATERIALS OF VALVES AND FITTINGS TO BE THE SAME AS THE DESCRIPTION AT THE LINE. IF THERE IS A TRANSITION FROM PVC TO STEEL, THE VALVE SHOULD BE BRASS.
- THERE ARE NO SPECIAL PIPING REQUIREMENTS OTHER THAN WHAT IS EXPLAINED ON THE DIAGRAM.
- WHEN PVC HOSE IS SPECIFIED, ALWAYS USE VACUUM HOSE; USE GREEN HOSE FOR PRESSURES LESS THAN 60PSI; USE TANK TRUCK HOSE FOR PRESSURES BETWEEN 60PSI AND 150PSI.
- PVC PIPE MAY BE SUBSTITUTED WITH EQUAL-SIZED PVC HOSE WHERE A FLEXIBLE CONNECTION IS PREFERRED .
- DO NOT DRILL AND TAP HOLES IN PIPE WHEN PRESSURES ARE OVER 15 PSIG.



PHONE:
(800) 420-4056
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C01	As Built	06/12/19	RJK
B01	For Production	18/10/19	RJK
A02	For Approval	27/09/19	RJK
A01	For Submittal	12/09/19	RJK
LEVEL	REVISION	DATE (dd/mm/yy)	BY

PROJECT NUMBER 1905807	CUSTOMER AECOM Remediation Treatment System
TITLE AND LOCATION Sub Slab Depressurization Syracuse, NY	DRAWN BY RJK

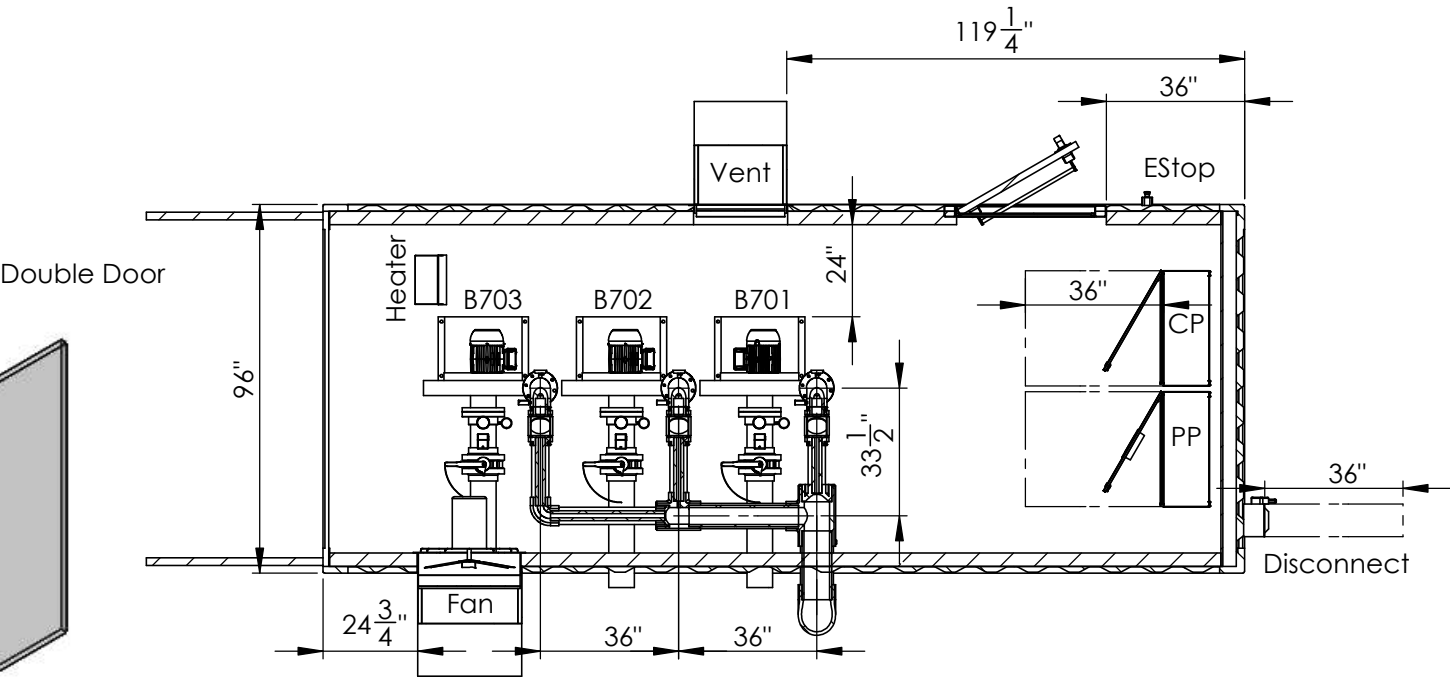
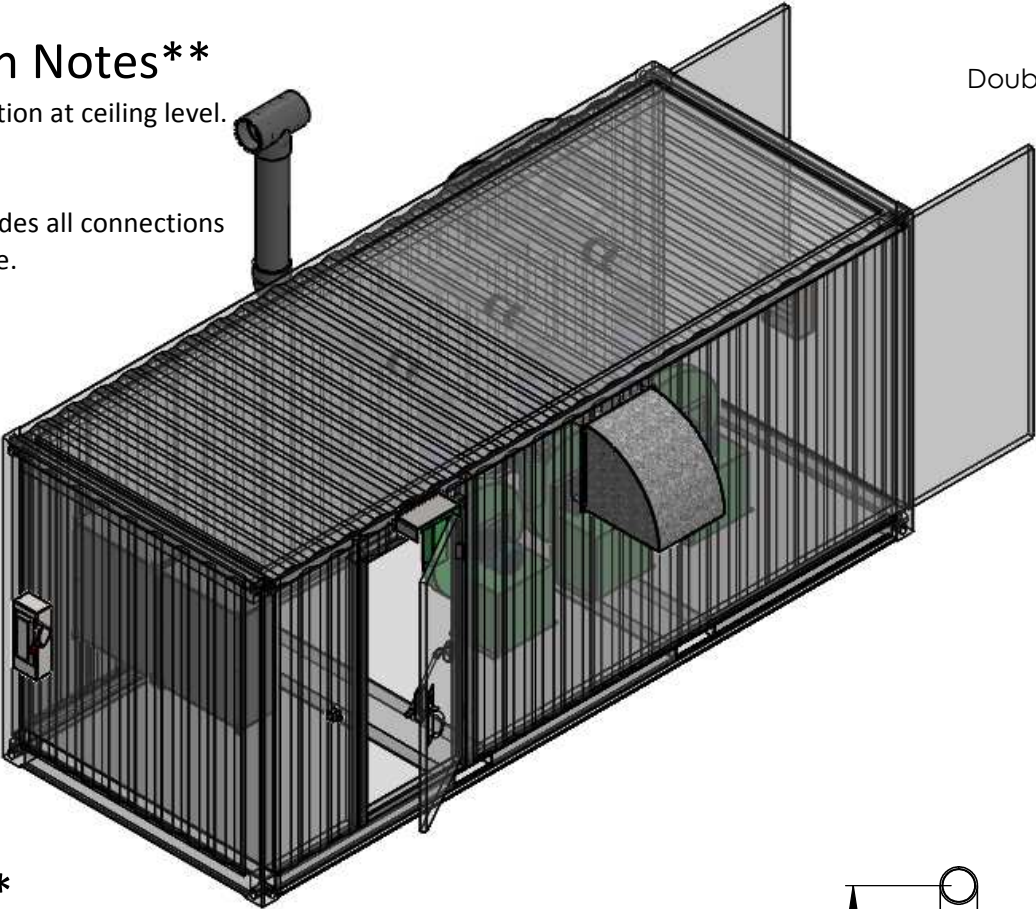
DATE	SHEET 1	SHEETS 2
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****Civil Construction Notes****

- Exterior Walls & Double Door - with Colonial Steel Siding.
- 5/8" Drywall interior walls.
- install grating between building fans and outside louvers.
- thermal insulation on walls and ceiling.
- door colour to be the same as building.

****Mech/Elec. Construction Notes****

- locate cooling thermostat in the warmest location at ceiling level.
- locate heating thermostat at floor level.
- noise limit: 70dBA max at 10ft
- maximum width for shipping is 102". this includes all connections that protrude through the sides of the enclosure.



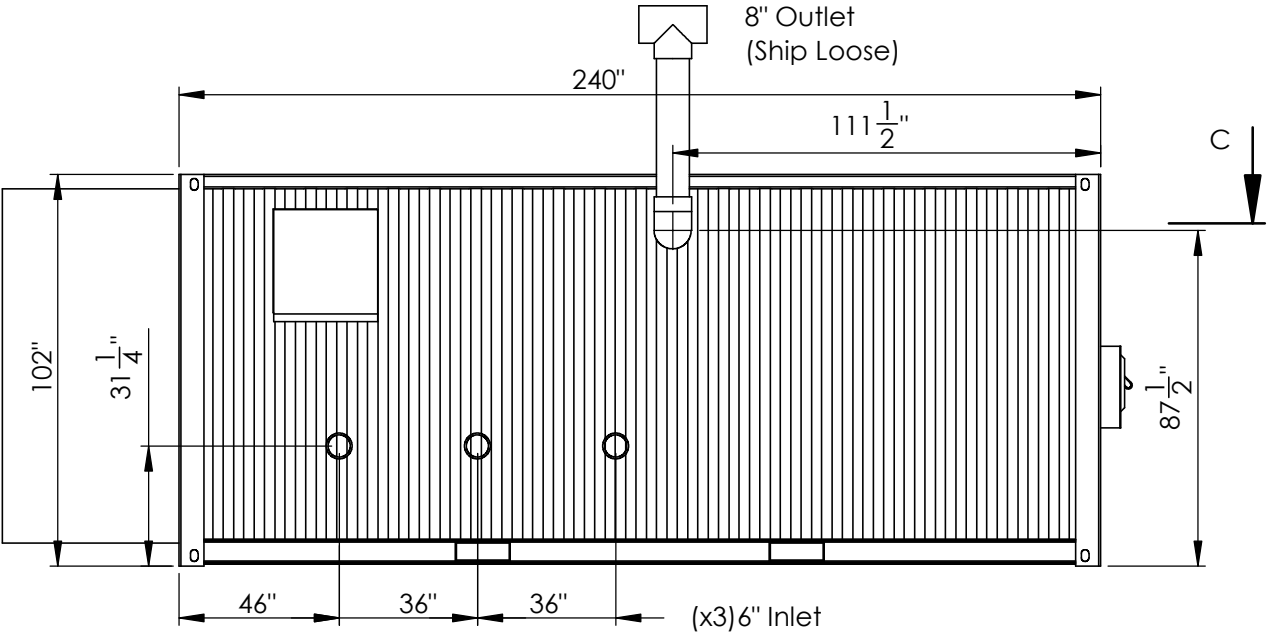
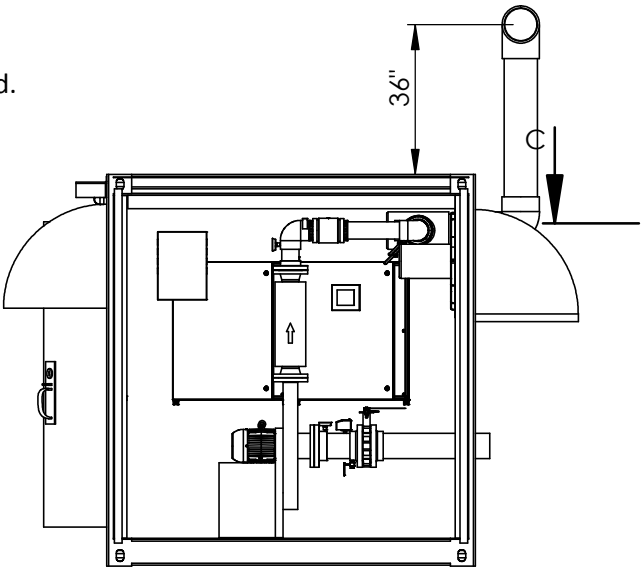
SECTION C-C
SCALE 1 : 50

****Commissioning Notes****

- fan and louver hoods need to be installed on site. cannot ship with hoods attached.
- buildings need to be shimmed on site to allow doors to open freely. please have shimming material ready during building installation.
- newterra recommends pad be at least 12" larger than enclosure in all directions.
- local codes may require alternate dimensions.

****Newterra standard System Labels****

- flow direction labels
- air line labels
- water line labels
- air/water line labels
- hot surface label (lines >= 140 degf)
- hearing protection labels
- warning label: this machine is automatically controlled
- arc flash warning label



Notes:
System Weight: Newterra can provide upon request an estimated weight of system. Although effort is made to ensure estimate is representative of final system weight, newterra cannot guarantee weight and is responsibility of client to ensure adequately sized equipment is utilized for offloading and final placement of the system. A final system weight will be available at time of loading at newterra and will be provided at time of shipment.



GENERAL TOLERANCES
.XX ± 1/8"
.XXX ± 1/16"
UNLESS OTHERWISE
SPECIFIED DIMENSIONS
ARE IN INCHES

STATUS				
As Built				
LEVEL: C01	REVISED BY: RJK	REVISED ON: 06/12/19	APPROVED BY:	APPROVED ON:
THIS INFORMATION IS THE PROPERTY OF newterra AND CANNOT BE REUSED OR REPRODUCED WITHOUT WRITTEN CONSENT.				

DRAWING TITLE:		DRAWING NUMBER:	
System Layout		PROJECT NUMBER: 1905807	
PROJECT TITLE: Sub Slab Depressurization		DRAWN BY: RJK	
CUSTOMER:		DATE: 25/09/19	
		SHEET 1 OF 1	

Mitigation System Installation Record

☐ Structure was sampled previously

System Information

System ID:

Site No:

Site Name:

Owner Name:

☒ Owner Occupied

System Address:

Telephone:

City: Zip:

Alt. Telephone:

Contractor Information

Installer Name:

Company:

Telephone:

Building Conditions

Building Type:

Slab Integrity: ☐ Poor ☐ Average ☒ Good ☐ Excellent

Slab Penetrations: ☐ Sump ☐ Floor drain ☐ Perimeter drain ☒ Other

Describe:

Observed Water: ☒ Dry ☐ Damp ☐ Sump only ☐ Standing

Describe:

System Installation

Installation Type:

Date Installed:

Slab Thickness (inches):

Subslab Material:

Subslab Moisture:

Number of Suction Points:

Number of Fans Installed:

☒ Fan #1 Operating

☒ Fan #2 Operating

☒ Fan #3 Operating

Fan Model No(s):

Fan Serial No(s):

Final U-Tube Levels:

Additional Mitigation Elements (check all that apply):

☐ Drainjer

☐ Membrane

☒ Sealed cracks

☐ New floor

☐ Rain cap

☐ Other

Comments:

Communication Testing

Test Method: Micromanometer Meter Type/Manufacturer: Manometer Dywer 477AV-1-EV

Location	Reading/Result	Dist. From Suction Point (ft)	Passed?
VMP-1	Average 0.16 INWC	15	☒
VMP-2	Average 0.97 INWC	17	☒
VMP-3	Average 0.69 INWC	34	☒
VMP-4	Average 0.46 INWC	26	☒
VMP-5	Average 0.96 INWC	14	☒

NORTH	System Sketch (indicate notable features, location of extraction points, and communication test holes)
	See the figures in the construction completion report for this information.

Mitigation System Installation Record

☐ Structure was sampled previously

System Information

System ID:

Site No:

Owner Name:

Site Name:

☒ Owner Occupied

System Address:

Telephone:

City: Zip:

Alt. Telephone:

Contractor Information

Installer Name:

Company:

Telephone:

Building Conditions

Building Type:

Slab Integrity: ☐ Poor ☐ Average ☒ Good ☐ Excellent

Slab Penetrations: ☐ Sump ☐ Floor drain ☐ Perimeter drain ☒ Other

Describe:

Observed Water: ☒ Dry ☐ Damp ☐ Sump only ☐ Standing

Describe:

System Installation

Installation Type:

Date Installed:

Slab Thickness (inches):

Subslab Material:

Subslab Moisture:

Number of Suction Points:

Number of Fans Installed:

☒ Fan #1 Operating

☒ Fan #2 Operating

☐ Fan #3 Operating

Fan Model No(s):

Fan Serial No(s):

Final U-Tube Levels:

Additional Mitigation Elements (check all that apply):

☐ Drainjer ☐ Membrane ☒ Sealed cracks ☐ New floor ☐ Rain cap ☐ Other

Comments:

Communication Testing

Test Method: Micromanometer Meter Type/Manufacturer: Manometer Dywer 477AV-1-EV

Location	Reading/Result	Dist. From Suction Point (ft)	Passed?
VMP-1	Average 0.04 INWC	74	☒
VMP-2	Average 0.16 INWC	120	☒
EP-1	Average 0.08 INWC	76	☒
EP-3	Average 0.21 INWC	74	☒
			☐

	System Sketch (indicate notable features, location of extraction points, and communication test holes)
NORTH	See the figures in the construction completion report for this information.

Appendix B – Photograph Logs

1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
9/23/19

Direction Photo Taken:

NA

Description:

Jackhammering of trench from EP-7 to south wall.



Photo No.
2

Date:
9/23/19

Direction Photo Taken:

NA

Description:

GPR markings of thought to be rebar, turned out to be insulated copper wire.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
9/23/19

Direction Photo Taken:

NA

Description:

Copper wire found ½ inch below top of concrete slab.

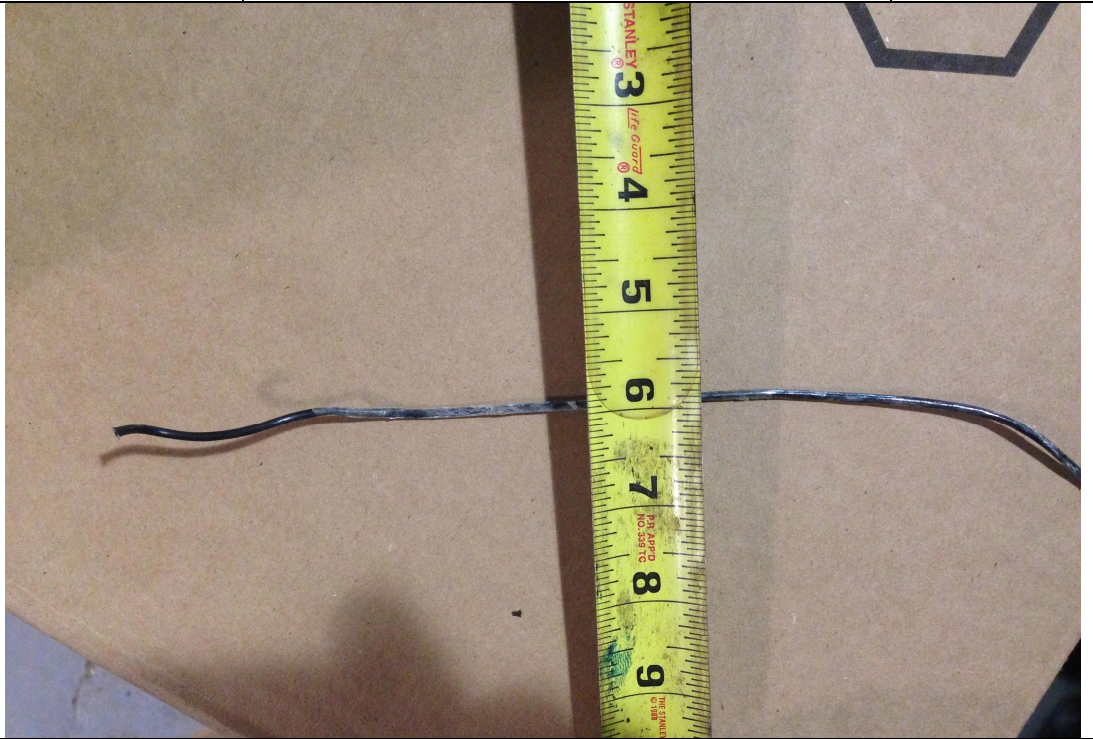


Photo No.
4

Date:
9/23/19

Direction Photo Taken:

NA

Description:

EP-7 trench excavation.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
9/24/19

Direction Photo Taken:

NA

Description:

Trench EP-7.
Exposed 4 layers of
various sized rebar.



Photo No.
2

Date:
9/24/19

Direction Photo Taken:

NA

Description:

EP-7 trench at south
wall, column M53
~3.5' to the east.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
9/24/19

Direction Photo Taken:

NA

Description:

EP-7 trench piping to southern wall of SWTP. Mid-pipe distance to horizontal red beam face is 5.5 inches.



Photo No.
4

Date:
9/24/19

Direction Photo Taken:

NA

Description:

EP-7 trench piped and concreted with stick up.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
9/25/19

Direction Photo Taken:

NA

Description:

EP-4 with PVC piping.



Photo No.
2

Date:
9/25/19

Direction Photo Taken:

NA

Description:

Excavating EP-5 trench to east wall near column N53.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
9/25/19

Direction Photo Taken:

NA

Description:

8' of 10' of EP-5 trench excavated to first layer of rebar at depth of 7 inches.



Photo No.
4

Date:
9/25/19

Direction Photo Taken:

NA

Description:

Same description as photo #3, but different angle.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
9/26/19

Direction Photo Taken:

NA

Description:

Green Styrofoam 17" beneath top of slab in EP-5 trench (~2' west of column N53).



Photo No.
2

Date:
9/26/19

Direction Photo Taken:

NA

Description:

EP-5 trench excavated with sand added to base.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
9/26/19

Direction Photo Taken:

NA

Description:

PVC pipe fitted and glued into place in EP-5 trench.



Photo No.
4

Date:
9/26/19

Direction Photo Taken:

NA

Description:

EP-5 trench
concreted.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
9/27/19

Direction Photo Taken:

NA

Description:

EP-2 previous coring unearthed.



Photo No.
2

Date:
9/27/19

Direction Photo Taken:

NA

Description:

EP-2 grade beams exposed (running from column to column on all sides of column O50)



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
9/27/19

Direction Photo Taken:

NA

Description:

EP-2 screen coring and nearby rebar.



Photo No.
4

Date:
9/27/19

Direction Photo Taken:

NA

Description:

EP-2 trench to north side of column Q50.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
9/30/19

Direction Photo Taken:

NA

Description:

Close up of EP-2 trench crossing E-W running grade beam.



Photo No.
2

Date:
9/30/19

Direction Photo Taken:

NA

Description:

EP-2 trench excavation progress.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
9/30/19

Direction Photo Taken:

NA

Description:

Progress of cutting through E-W running grade beam.



Photo No.
4

Date:
9/30/19

Direction Photo Taken:

NA

Description:

Intentionally left blank

1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
10/1/19

Direction Photo Taken:

NA

Description:

EP-2 trench at column O50.



Photo No.
2

Date:
10/1/19

Direction Photo Taken:

NA

Description:

Approximately 30 pieces of cut rebar of various size.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
10/1/19

Direction Photo Taken:

NA

Description:

PVC pipe in EP-2 trench near column O50 (2-45 degree angle PVC angles used)



Photo No.
4

Date:
10/1/19

Direction Photo Taken:

NA

Description:

Completed EP-2 trench from screen to north side of column O50.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
10/2/19

Direction Photo Taken:

NA

Description:

EP-7 piping to come underneath and to the right of grey venting. Red beam (near inlet/outlet of grey venting) to be followed horizontally.



Photo No.
2

Date:
10/2/19

Direction Photo Taken:

NA

Description:

Vertical piping from EP-5 (SSDS piping to parallel existing white conduit)



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
10/2/19

Direction Photo Taken:

NA

Description:

EP-5 piping running along column N53.



Photo No.
4

Date:
10/2/19

Direction Photo Taken:

NA

Description:

Ceiling shot of "N" column line. SSDS piping of EP-5 will run parallel to white conduit.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
10/3/19

Direction Photo Taken:

NA

Description:

EP-5 vertical 4" piping transitioning into 6" piping at column N53.



Photo No.
2

Date:
10/3/19

Direction Photo Taken:

West

Description:

EP-5 overhead 6" PVC piping near column N52.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
10//19

Direction Photo Taken:

NA

Description:

EP-5 overhead 6" piping running along column "N" line elbowing south to "M" column line.



Photo No.
4

Date:
10/3/19

Direction Photo Taken:

South

Description:

EP-5 overhead 6" piping from N column line (not glued/set into place)



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
10/4/19

Direction Photo Taken:

South

Description:

EP-7 piping joining
EP-5 piping at column
M52. Ball valve mid-
point placed 65" from
top of slab.



Photo No.
2

Date:
10/4/19

Direction Photo Taken:

Southwest

Description:

EP-7 piping joining
EP-5 piping at column
M52.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
10/4/19

Direction Photo Taken:

South

Description:

EP-5 and EP-7 overhead piping.



Photo No.
4

Date:
10/4/19

Direction Photo Taken:

South

EP-2 piping along column O50. Ball valve mid-point placed 66" above top angle. Valve mid-point 92" above top of slab.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
10/7/19

Direction Photo Taken:

North

Description:

Stake out for the footprint of the shed concrete pad. Stakes are spaced 11'X23'. Actual pad will be 10'X22'.



Photo No.
2

Date:
10/7/19

Direction Photo Taken:

South

Description:

EP-2 piping on column Q50 extending to existing bridge work.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
10/7/19

Direction Photo Taken:

South

Description:

EP-2 piping on existing bridgework.



Photo No.
4

Date:
10/7/19

Direction Photo Taken:

South

EP-2 piping on existing bridgework extending to southern wall (slightly east of column M50).



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
10/8/19

Direction Photo Taken:

South

Description:

EP-6 piping joining
EP-1 piping.



Photo No.
2

Date:
10/8/19

Direction Photo Taken:

Southeast

Description:

EP-1 valve location
(underside of piping).
Bracing system of
band and thread-rod
anchored into existing
bracket.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
10/8/19

Direction Photo Taken:

West

Description:

EP-1 and EP-6 vertical piping extending to ceiling (pictured in space between the 2 green tanks)



Photo No.
4

Date:
10/8/19

Direction Photo Taken:

South

EP-1 and EP-6 piping along eastern pit rim of western pit.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
10/9/19

Direction Photo Taken:

Southwest

Description:

EP-1/EP-6 4" vertical piping transitioning to 6" horizontal piping about 2' north of "N" column line.



Photo No.
2

Date:
10/9/19

Direction Photo Taken:

Northwest

Description:

EP-1/EP-6 vertical and horizontal piping along column "N" line.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
10/9/19

Direction Photo Taken:

West

Description:

EP-1/EP-6 vertical and horizontal piping along column "N" line.



Photo No.
4

Date:
10/9/19

Direction Photo Taken:

Northeast

New location of staked shed pad footprint (moved 10' to the East).



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
10/10/19

Direction Photo Taken:

Nothwest

Description:

EP-1/EP-6 6" overhead PVC piping along "N" column line and elbow to south.



Photo No.
2

Date:
10/10/19

Direction Photo Taken:

West

Description:

EP-4 location (lower right). Showing tight area behind blue structure (filter press). Numerous pipes and conduits restricting aerial lift usage.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
10/10/19

Direction Photo Taken:

South

Description:

EP-1/EP-6 horizontal line extending to southern wall ("M" column line).



Photo No.
4

Date:
10/10/19

Direction Photo Taken:

East

EP-1/EP-6 line in foreground. Showing vast network of existing piping and bracing to east of EP-1/EP-6 line.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
10/11/19

Direction Photo Taken:

NA

Description:

Closeup of excavated soils from SWTP concrete pad.



Photo No.
2

Date:
10/11/19

Direction Photo Taken:

East

Description:

Excavated soil piles and excavated concrete pad area.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
10/11/19

Direction Photo Taken:

Northeast

Description:

Covered excavated soil piles.



Photo No.
4

Date:
10/11/19

Direction Photo Taken:

North

Stone sub-base being added to excavated concrete pad area.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
10/14/19

Direction Photo Taken:

East

Description:

Excess trucked in stone added to excavated soil pile.



Photo No.
2

Date:
10/14/19

Direction Photo Taken:

North

Description:

Concrete pad area prior to concrete pouring.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
10/14/19

Direction Photo Taken:

North

Description:

Finished concrete pad area.



Photo No.
4

Date:
10/14/19

Direction Photo Taken:

Northeast

Description:

Condition south side of SWTP left in. Concrete pad was covered due to threat of rain.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
1/7/2020

Direction Photo Taken:

North

Description:

Moved door chain to prevent wide opening of door.



Photo No.
2

Date:
1/7/2020

Direction Photo Taken:

Southwest

Description:

Grey 1.5" water pipe to be moved due to future wall piping penetration interference.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
1/7/2020

Direction Photo Taken:

West

Description:

Piping extending from system shed intakes.
2 – 22.5 degree elbows used per intake.



Photo No.
4

Date:
1/7/2020

Direction Photo Taken:

Northwest

Description:

Markings indicating wall penetrations on south wall of SWTP building.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
1/8/2020

Direction Photo Taken:

North

Description:

Installed hood over louver.



Photo No.
2

Date:
1/8/2020

Direction Photo Taken:

Northwest

Description:

Partial south wall penetrations of SWTP.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
1/8/2020

Direction Photo Taken:

South

Description:

Typical cleaned out gap between slab and south wall of SWTP.



Photo No.
4

Date:
1/8/2020

Direction Photo Taken:

Northeast

Description:

System intake piping from shed to SWTP building. Temporarily sealed with red tape.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
1/14/20

Direction Photo Taken:

Southeast

Description:

Caulking of floor/south wall seam. Electrical conduit pictured adjacent.



Photo No.
2

Date:
1/14/20

Direction Photo Taken:

South

Description:

Electrical staging area. Box to be installed on busbar.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
1/14/20

Direction Photo Taken:

Northwest

Description:

Scissor lift



Photo No.
4

Date:
1/14/20

Direction Photo Taken:

Southwest

Description:

Articulating boom aerial lift.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
1/15/20

Direction Photo Taken:

East

Description:

Electrical conduit installed from shed through south wall of SWTP.



Photo No.
2

Date:
1/15/20

Direction Photo Taken:

Southwest

Description:

Floor/south wall seam sealed south of western pit.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
1/15/20

Direction Photo Taken:

Southwest

Description:

Electrical conduit running along south wall.



Photo No.
4

Date:
1/15/20

Direction Photo Taken:

South

Description:

Electrical conduit running up towards ceiling just west of column M52 on south wall.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
1/16/20

Direction Photo Taken:

NA

Description:

Swapped out aerial manlift. Smaller basket and smaller base.



Photo No.
2

Date:
1/16/20

Direction Photo Taken:

North

Description:

Newly installed busway (to left of SSDS pipe) with conduit running into it.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
1/16/20

Direction Photo Taken:

Southwest

Description:

Support bracket installed on red beam on south wall.



Photo No.
4

Date:
1/16/20

Direction Photo Taken:

Southwest

Description:

Vertical piping and 90 elbows from wall penetrations.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
1/17/20

Direction Photo Taken:

NA

Description:

Overhead piping of EP-1/EP-6 line.



Photo No.
2

Date:
1/17/20

Direction Photo Taken:

Southwest

Description:

Angled piping of EP-2 line.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
1/17/20

Direction Photo Taken:

Southwest

Description:

Angled piping of EP-2 line



Photo No.
4

Date:
1/17/20

Direction Photo Taken:

NA

Description:

Left Blank Intentionally

1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
1/23/20

Direction Photo Taken:

Southeast

Description:

Interior 8" exhaust piping between column M51 and M52.



Photo No.
2

Date:
1/23/20

Direction Photo Taken:

South

Description:

Exhaust piping pictured on right.
Building exhaust fan pictured on left.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
1/23/20

Direction Photo Taken:

Southwest

Description:

Fully connected piping of EP-1/EP-6 line (top and right piping) and EP-4/EP-2 line (lower and left piping).



Photo No.
4

Date:
1/23/20

Direction Photo Taken:

West

Description:

Ground shot of all piping on south wall of SWTP.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
1/21/20

Direction Photo Taken:

Southwest

Description:

8" exhaust piping running along column M51.



Photo No.
2

Date:
1/21/20

Direction Photo Taken:

Southwest

Description:

Fully connected EP-5/EP-7 line and south wall.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
1/21/20

Direction Photo Taken:

West

Description:

EP-4 piping with 4" PVC from screen to south wall.



Photo No.
4

Date:
1/21/20

Direction Photo Taken:

Southeast

Description:

EP-4 vertical connection to EP-2 pipeline.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
1/20/20

Direction Photo Taken:

South

Description:

Overhead piping of
EP-1/EP-6 line (top)
and EP-2 line (bottom)



Photo No.
2

Date:
1/20/20

Direction Photo Taken:

East

Description:

Exhaust 8" piping from
shed through south
wall of SWTP building.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
1/27/20

Direction Photo Taken:

East

Description:

Insulation on intake piping. Jackets on all piping.



Photo No.
2

Date:
1/27/20

Direction Photo Taken:

South

Description:

EP-7 gauge and port installation.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
SWTP, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
1/22/20

Direction Photo Taken:

NA

Description:

Installation of system shed anchor plates (southwest corner of shed pictured)



Photo No.
2

Date:
1/22/20

Direction Photo Taken:

South

Description:

New angling/route of system shed exhaust 8" interior ceiling piping.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
8/26/19

Direction Photo Taken:

NA

Description:

GPR markings at EP-4 to column U6. Note live wire mark-out ~1 foot east of column.



Photo No.
2

Date:
8/26/19

Direction Photo Taken:

NA

Description:

O'Rourke excavating EP-2 with hammer drill and chisel bit.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
8/26/19

Direction Photo Taken:

NA

Description:

Column U6 view with fire alarm to be moved to west side of column girder.



Photo No.
4

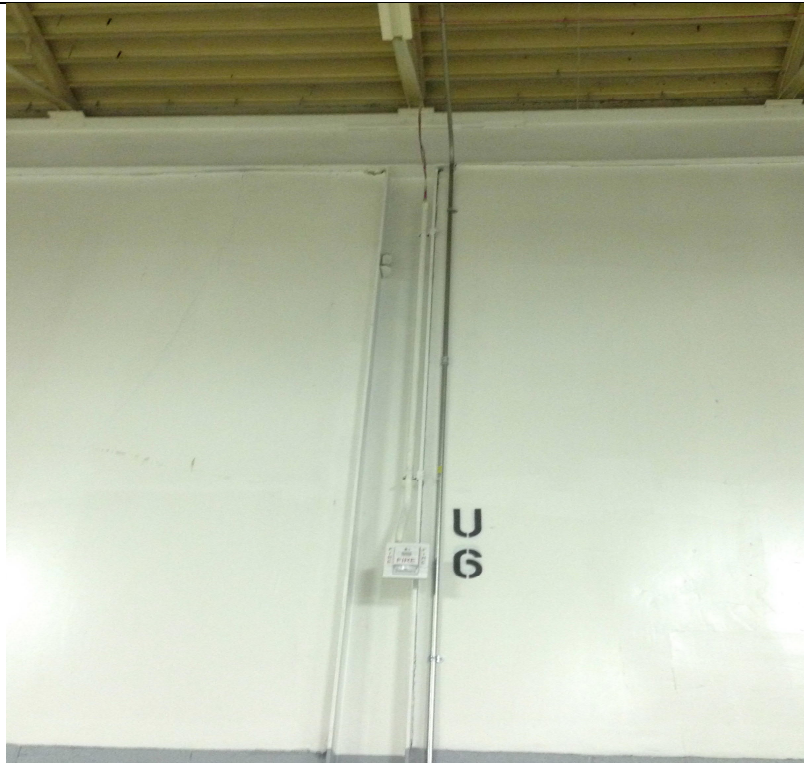
Date:
8/26/19

Direction Photo Taken:

NA

Description:

Ceiling view of column U6.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
8/27/19

Direction Photo Taken:

NA

Description:

Rental of concrete wet saw. 220 Volt.



Photo No.
2

Date:
8/27/19

Direction Photo Taken:

NA

Description:

Rental of concrete wet saw. 110 Volt.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
8/27/19

Direction Photo Taken:

NA

Description:

Saw cutting of concrete slab from EP-2 to column U3.

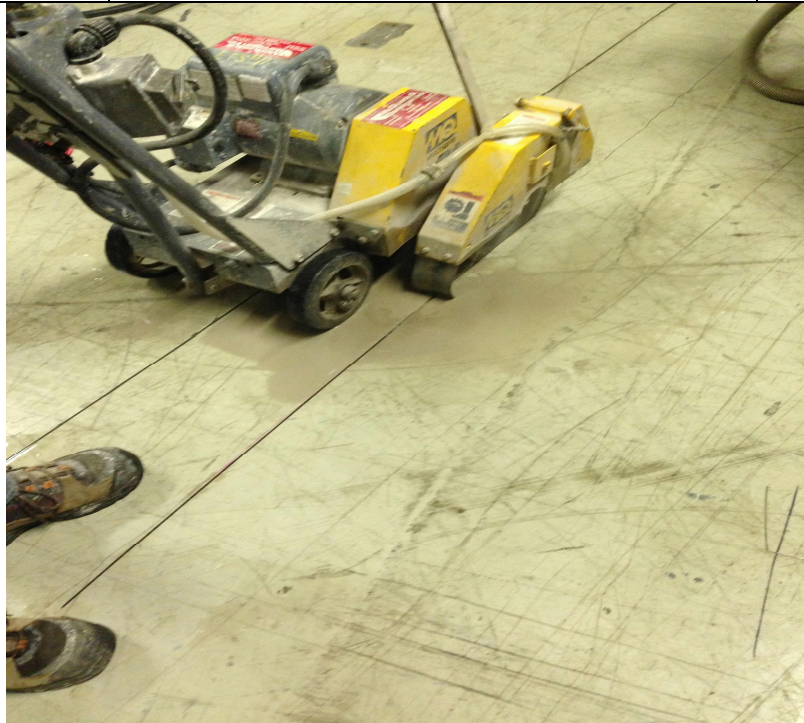


Photo No.
4

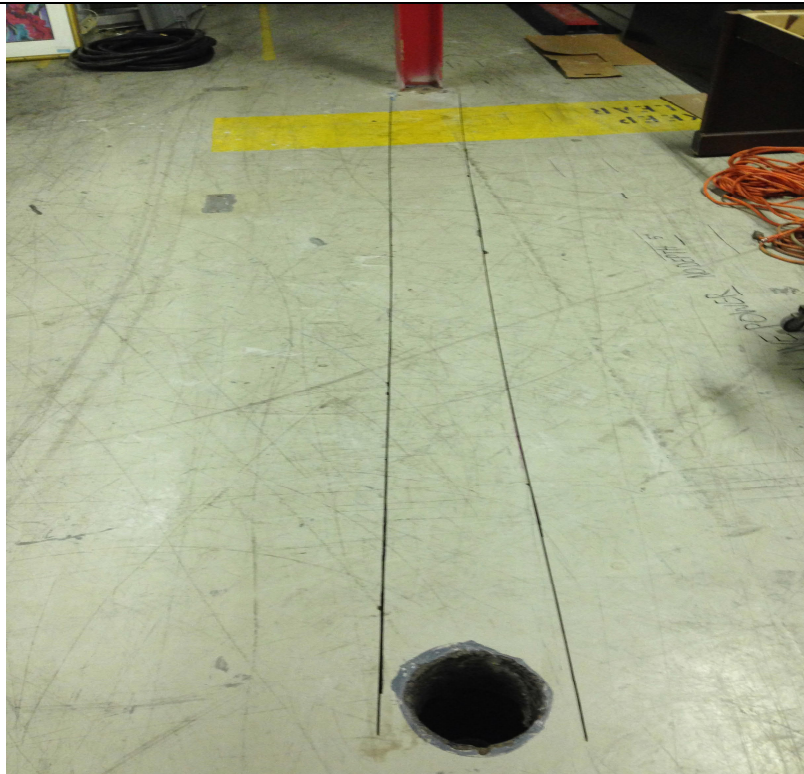
Date:
8/27/19

Direction Photo Taken:

NA

Description:

Saw cut of EP-2 to column U3.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
8/28/19

Direction Photo Taken:

NA

Description:

Rental of electric jackhammer. 110 Volt.



Photo No.
2

Date:
8/28/19

Direction Photo Taken:

NA

Description:

Trench of EP-4 to U6



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
8/28/19

Direction Photo Taken:

NA

Description:

Completed jackhammering of trench EP-4 to U6



Photo No.
4

Date:
8/28/19

Direction Photo Taken:

NA

Description:

Jackhammering of EP-2 to U3.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
8/29/19

Direction Photo Taken:

NA

Description:

Working on piping in EP-2 to column U3 trench.



Photo No.
2

Date:
8/29/19

Direction Photo Taken:

NA

Description:

Piping installed with backfill on EP-2 to column U3 trench.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
8/29/19

Direction Photo Taken:

NA

Description:

Completed piping of EP-4 to column U6 trench.



Photo No.
4

Date:
8/29/19

Direction Photo Taken:

NA

Description:

Piping installed with backfill on EP-4 to column U6 trench.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
8/30/19

Direction Photo Taken:

NA

Description:

Tow behind gas powered cement mixer.



Photo No.
2

Date:
8/30/19

Direction Photo Taken:

NA

Description:

Pouring concrete into EP-2 trench.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
8/30/19

Direction Photo Taken:

NA

Description:

EP-2 trench
concreted.



Photo No.
4

Date:
8/30/19

Direction Photo Taken:

NA

Description:

EP-4 trench
concreted.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
9/4/19

Direction Photo Taken:

NA

Description:

RadonAway fan.



Photo No.
2

Date:
9/4/19

Direction Photo Taken:

NA

Description:

Profile of PVC from slab of trench EP-2 along column U3.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
3 **Date:**
9/4/19

Direction Photo Taken:

NA

Description:

Trench, Piping,
Blower at EP-2/U3.



Photo No.
4 **Date:**
9/4/19

Direction Photo Taken:

NA

Description:

Trench, Piping,
Blower at EP-4/U6.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
9/5/19

Direction Photo Taken:

NA

Description:

Roof penetration at column U6.



Photo No.
2

Date:
9/5/19

Direction Photo Taken:

NA

Description:

Roof penetration at column U3.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
9/5/19

Direction Photo Taken:

NA

Description:

In process of sealing rubber boot to rubber rooftop.



Photo No.
4

Date:
9/5/19

Direction Photo Taken:

Facing North

Description:

EP-4 (foreground) and EP-2 (background). Nearest building exhaust = 30' NNE of EP-2. Nearest building intake = 65' ENE of EP-2.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
9/6/19

Direction Photo Taken:

NA

Description:

Concrete grinder with HEPA vacuum attachment.



Photo No.
2

Date:
9/6/19

Direction Photo Taken:

NA

Description:

Wiring/Conduit configuration along U6 column.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
9/6/19

Direction Photo Taken:

NA

Description:

Wiring/Conduit configuration along U3 column.



Photo No.
4

Date:
9/6/19

Direction Photo Taken:

NA

Description:

Fuse box location of SSDS fans. Bottom breaker (red) on fuse box located on column U4.



1.1.1.1 PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
1

Date:
9/9/19

Direction Photo Taken:

NA

Description:

Roof penetration at column U6. Black plastic pipe flashing.



Photo No.
2

Date:
9/9/19

Direction Photo Taken:

NA

Description:

Roof penetration at column U3. Black plastic pipe flashing.



PHOTOGRAPHIC LOG

Client Name:
CARRIER

Site Location:
TR-20, SYRACUSE NY

Project No.
60608603

Photo No.
3

Date:
1/27/20

Direction Photo Taken:

North

Description:

TR-20 EP-2 painted trench and bollard installation.



Photo No.
4

Date:
1/27/20

Direction Photo Taken:

South

Description:

TR-20 EP-4 painted trench and bollard installation.



Appendix C – Startup Operational Data

Sub-Slab Depressurization Systems Data Sheet

Carrier
Syracuse, New York

DATE OF SITE VISIT			09/10/19	09/12/19	11/11/19	01/28/20	03/16/20	06/15/20	Average
TYPE OF SYSTEM CHECK			O&M	O&M	O&M	O&M	O&M	O&M	
FIELD TECHNICIAN			JR	JR	JR	TU	TU	TU	
Vacuum Monitoring Points									
Vacuum (inches of water column)									
	TR-20	VMP-1	0.06	0.05	0.02	-	0.05	0.04	0.04
		VMP-2	0.24	0.22	0.08	-	0.10	0.18	0.16
		EP-1	0.11	0.09	0.04	-	0.07	0.07	0.08
		EP-3	0.28	0.32	0.12	-	0.13	0.20	0.21
	SWTP	VMP-1	-	-	-	0.17	0.14	0.16	0.16
		VMP-2	-	-	-	1.59	0.90	0.42	0.97
		VMP-3	-	-	-	1.17	0.65	0.26	0.69
		VMP-4	-	-	-	0.78	0.46	0.14	0.46
		VMP-5	-	-	-	1.57	0.86	0.46	0.96
		VMP-6	-	-	-	0.33	0.20	0.22	0.25
		VMP-7	-	-	-	1.29	0.67	0.29	0.75
		VMP-8	-	-	-	2.35	1.47	0.46	1.43
		VMP-9	-	-	-	0.53	0.28	0.07	0.29
		VMP-10	-	-	-	1.03	0.38	0.26	0.56
		VMP-11	-	-	-	1.22	0.60	0.29	0.70
		VMP-12	-	-	-	1.23	0.58	0.28	0.70
		VMP-13	-	-	-	1.10	0.52	0.24	0.62
VMP-15	-	-	-	1.02	0.67	0.21	0.63		
VMP-17	-	-	-	1.54	0.97	0.31	0.94		
Extraction Points at the Well Head									
Valve Setting (% Open)									
	TR-20	EP-2	100%	100%	100%	-	100%	100%	-
		EP-4	100%	100%	100%	-	100%	100%	-
	SWTP	EP-1	-	-	-	100%	100%	100%	-
		EP-2	-	-	-	100%	100%	100%	-
		EP-4	-	-	-	100%	100%	100%	-
		EP-5	-	-	-	100%	100%	100%	-
		EP-6	-	-	-	100%	100%	100%	-
EP-7	-	-	-	100%	100%	100%	-		
Vacuum (inches of water column)									
	TR-20	EP-2	37	38	35	-	39	40	38
		EP-4	10	12	12	-	12	13	12
	SWTP	EP-1	-	-	-	21	14	14	16
		EP-2	-	-	-	18	13	18	16
		EP-4	-	-	-	18	12	18	16
		EP-5	-	-	-	1	1	1	1
		EP-6	-	-	-	21	13	14	16
EP-7	-	-	-	2	1	1	1		
Flowrate (cubic feet per minute)									
	TR-20	EP-2	51	45	40	-	100	90	65
		EP-4	48	46	42	-	102	93	66
	SWTP	EP-1	-	-	-	160	196	193	183
		EP-2	-	-	-	255	162	238	218
		EP-4	-	-	-	-	-	272	272
		EP-5	-	-	-	32	20	8	20
		EP-6	-	-	-	-	271	247	259
EP-7	-	-	-	34	23	12	23		
Temperature (degrees Fahrenheit)									
	TR-20	EP-2	81	78	70	-	72	75	75
		EP-4	81	79	74	-	76	79	78
	SWTP	EP-1	-	-	-	64	54	63	61
		EP-2	-	-	-	63	56	69	63
		EP-4	-	-	-	62	52	68	61
		EP-5	-	-	-	51	56	66	58
		EP-6	-	-	-	-	51	65	58
EP-7	-	-	-	59	60	65	61		
SSDS Blowers									
	Time Read Taken @	-	-	12:00	-	09:00	09:15	-	
	SWTP B-701 Hour Meter (hr)	-	-	0.0	-	1146.0	3302.0	-	
	SWTP B-702 Hour Meter (hr)	-	-	0.0	-	1131.0	3287.0	-	
	SWTP B-703 Hour Meter (hr)	-	-	0.0	-	0.0	0.0	-	
	SWTP B-701 Run Hours Between Events (hrs)	-	-	-	-	1146.0	2156.0	-	
	SWTP B-702 Run Hours Between Events (hrs)	-	-	-	-	1131.0	2156.0	-	
	SWTP B-703 Run Hours Between Events (hrs)	-	-	-	-	0.0	0.0	-	
	SWTP B-701 % Run Between Events	-	-	-	-	99%	99%	99%	
	SWTP B-702 % Run Between Events	-	-	-	-	98%	99%	98%	
	SWTP B-703 % Run Between Events	-	-	-	-	-	-	-	
	SWTP B-701 VFD Frequency (Hz)	-	-	-	-	50.0	50.0	-	
	SWTP B-702 VFD Frequency (Hz)	-	-	-	-	50.0	50.0	-	
	SWTP B-703 VFD Frequency (Hz)	-	-	-	-	-	-	-	

Sub-Slab Depressurization Systems Data Sheet

Carrier
Syracuse, New York

DATE OF SITE VISIT	09/10/19	09/12/19	11/11/19	01/28/20	03/16/20	06/15/20	Average
TYPE OF SYSTEM CHECK	O&M	O&M	O&M	O&M	O&M	O&M	
FIELD TECHNICIAN	JR	JR	JR	TU	TU	TU	
System Vacuum Readings							
Vacuum (inches of water column)							
SWTP	SP01 (Pre-Blower B-701)	-	-	-	26.5	18	-
	SP01 (Pre-Blower B-701)	-	-	-	22.0	16	-
	SP01 (Pre-Blower B-701)	-	-	-	4.0	-	3
System Flow Readings							
Flow rate (cubic feet per minute)							
SWTP	Combined Exhaust	-	-	-	1020.60	954	782
Temperature (degrees Fahrenheit)							
SWTP	Combined Exhaust	-	-	-	76.50	68	80
Photoionization Detector Field Reading (parts per million)							
SWTP	Combined Exhaust	-	-	-	0.30	0.0	0.0
SSDS Exhaust							
Pressure (inches of water column)							
SWTP	Combined Exhaust	-	-	-	3	2	1
Mass Removal (Subset of chemicals shown below. Refer to analytical report for full list.)							
TR-20 EP-4 Discharge to Atmosphere							
1,1,1-Trichloroethane (Cas # 71-55-6)	1,1,1 TCA (ppmv) MW 133.40	-	0.008300	0.008300	-	0.008300	0.000000
	Mass Removal Rate (lb/hr)	-	0.000006	0.000005	-	0.000013	0.000000
	Mass Removed per Period (lb)	-	0.00028	0.00763	-	0.03924	0.00000
	Total Mass Removed (lb)	0.00000	0.00028	0.00791	-	0.04716	0.04716
Trichloroethene (Cas # 79-01-6)	TCE (ppmv) MW 131.39	-	0.02700	0.02700	-	0.02700	0.00150
	Mass Removal Rate (lb/hr)	-	0.000026	0.000023	-	0.000057	0.000003
	Mass Removed per Period (lb)	-	0.00124	0.03365	-	0.17301	0.00635
	Total Mass Removed (lb)	0.00000	0.00124	0.03489	-	0.20789	0.21424
Summary of Mass Removed	Total VOCs (lbs)	-	0.002	0.043	-	0.255	0.261
SWTP Discharge to Atmosphere							
Trichloroethene (Cas # 79-01-6)	TCE (ppmv) MW 131.39	-	-	-	-	0.01600	0.01600
	Mass Removal Rate (lb/hr)	-	-	-	-	0.000318	0.000261
	Mass Removed per Period (lb)	-	-	-	-	0.36466	0.56245
	Total Mass Removed (lb)	-	-	-	0.00000	0.36466	0.92712
cis-1,2-Dichloroethene (Cas # 156-59-2)	cis 1,2-DCE (ppmv) MW 96.95	-	-	-	-	0.006400	0.006400
	Mass Removal Rate (lb/hr)	-	-	-	-	0.000094	0.000077
	Mass Removed per Period (lb)	-	-	-	-	0.10763	0.16601
	Total Mass Removed (lb)	-	-	-	0.00000	0.10763	0.27364
m,p-Xylene (Cas # 108-38-3 and 106-42-3)	m,p-xylene (ppmv) MW 106.16	-	-	-	-	0.003500	0.003500
	Mass Rate (lb/hr)	-	-	-	-	0.000056	0.000046
	Mass per Period (lb)	-	-	-	-	0.06445	0.09941
	Total Mass (lb)	-	-	-	0.00000	0.06445	0.16386
o-Xylene (Cas # 108-38-3 and 106-42-3)	o-xylene (ppmv) MW 106.16	-	-	-	-	0.001800	0.001800
	Mass Rate (lb/hr)	-	-	-	-	0.000029	0.000024
	Mass per Period (lb)	-	-	-	-	0.03315	0.05113
	Total Mass (lb)	-	-	-	0.00000	0.03315	0.08427
Summary of Mass Removed	Total VOCs (lbs)	-	-	-	-	0.570	1.449

NOTES:

- Mass removal based on the following calculation:
#/hr = Flow Rate (scfm) x MW (lb/lb-mole) (100 MW or constituent specific) x VOC (ppmv) x 60 min/hr / (387 x 1000000 (cu ft/lb-mole))
- Analytical data obtained using EPA TO-15 method. Not all detected constituents are included in the mass calculations.
- The New York Codes, Rules and Regulations (NYCRR) define exempt activities in 6 NYCRR §201-3.2 and trivial activities in 6 NYCRR §201-3.3. Soil vents that are operated under an agreement with and under the supervision the department are trivial activities making them exempt from the registration and permitting provisions of Subpart 201-4 (registrations) and 201-5 (minor -state) and 201-6 (major - Title V).
- Sample Collection Dates: 9/12/19 (for TR-20), 6/16/20
- SSDS sub-slab depressurization system
- ppmv parts per million volume
- VOC volatile organic compound
- Indicates field readings were not collected or information not applicable.
- SSDS system start dates: 09/09/19 for TR-20, 01/28/20 for SWTP.

Appendix D – Air Exhaust Data

9/20/2019

Mr. Peter Hollatz
AECOM Environment
5015 Campuswood Drive
Suite 104
East Syracuse NY 13057

Project Name: UTC Carrier TR20

Project #: 60608603.01

Workorder #: 1909335

Dear Mr. Peter Hollatz

The following report includes the data for the above referenced project for sample(s) received on 9/16/2019 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1909335

Work Order Summary

CLIENT:	Mr. Peter Hollatz AECOM Environment 5015 Campuswood Drive Suite 104 East Syracuse, NY 13057	BILL TO:	Accounts Payable Austin AECOM PO Box 203970 Austin, TX 78720
PHONE:	315.432.0506	P.O. #	60608603.01
FAX:		PROJECT #	60608603.01 UTC Carrier TR20
DATE RECEIVED:	09/16/2019	CONTACT:	Ausha Scott
DATE COMPLETED:	09/20/2019		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	TR20-DUP1EXH-09122019	TO-15	4.3 "Hg	15 psi
01AA	TR20-DUP1EXH-09122019 Lab Duplicate	TO-15	4.3 "Hg	15 psi
02A	TR20-EP4EXH-09122019	TO-15	6.3 "Hg	14.9 psi
03A	TR20-EP2EXH-09122019	TO-15	4.3 "Hg	15 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 09/20/19

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-011, Effective date: 10/18/2018, Expiration date: 10/17/2019.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
AECOM Environment
Workorder# 1909335

Three 1 Liter Summa Canister samples were received on September 16, 2019. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody was missing method information. EATL proceeded with the analysis as per the original contract or verbal agreement.

Analytical Notes

The data contained in this report have been generated in accordance with the requirements in the United Technologies Corporation Environmental Laboratory Program CHEM_03: Analytical Minimum Standards for Laboratories, September 2016 Revision 8.0 and associated documents if applicable.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: TR20-DUP1EXH-09122019

Lab ID#: 1909335-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	2.3	6.6	13
Acetone	12	29	28	69
2-Butanone (Methyl Ethyl Ketone)	4.7	16	14	48
cis-1,2-Dichloroethene	1.2	1.7	4.7	6.7
Tetrahydrofuran	1.2	69	3.5	200
1,1,1-Trichloroethane	1.2	7.8	6.4	42
Trichloroethene	1.2	97	6.3	520

Client Sample ID: TR20-DUP1EXH-09122019 Lab Duplicate

Lab ID#: 1909335-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	2.5	6.6	14
Acetone	12	32	28	75
2-Butanone (Methyl Ethyl Ketone)	4.7	15	14	45
cis-1,2-Dichloroethene	1.2	1.6	4.7	6.1
Tetrahydrofuran	1.2	67	3.5	200
1,1,1-Trichloroethane	1.2	7.5	6.4	41
Trichloroethene	1.2	98	6.3	530

Client Sample ID: TR20-EP4EXH-09122019

Lab ID#: 1909335-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.3	1.8	7.2	10
Acetone	13	14	30	32
2-Butanone (Methyl Ethyl Ketone)	5.1	5.7	15	17
Tetrahydrofuran	1.3	29	3.8	86
1,1,1-Trichloroethane	1.3	8.3	7.0	45
Trichloroethene	1.3	27	6.8	140
Toluene	1.3	1.6	4.8	6.0

Summary of Detected Compounds

EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: TR20-EP2EXH-09122019

Lab ID#: 1909335-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	2.3	6.6	13
Acetone	12	30	28	72
2-Butanone (Methyl Ethyl Ketone)	4.7	16	14	47
cis-1,2-Dichloroethene	1.2	1.7	4.7	6.6
Tetrahydrofuran	1.2	69	3.5	200
1,1,1-Trichloroethane	1.2	7.6	6.4	42
Trichloroethene	1.2	100	6.3	540

Client Sample ID: TR20-DUP1EXH-09122019

Lab ID#: 1909335-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091807	Date of Collection:	9/12/19
Dil. Factor:	2.36	Date of Analysis:	9/18/19 03:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	2.3	6.6	13
Ethanol	4.7	Not Detected	8.9	Not Detected
Freon 113	1.2	Not Detected	9.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	29	28	69
2-Propanol	4.7	Not Detected	12	Not Detected
Carbon Disulfide	4.7	Not Detected	15	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	16	14	48
cis-1,2-Dichloroethene	1.2	1.7	4.7	6.7
Tetrahydrofuran	1.2	69	3.5	200
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	7.8	6.4	42
Cyclohexane	1.2	Not Detected	4.1	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	97	6.3	520
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	8.0	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected

Client Sample ID: TR20-DUP1EXH-09122019

Lab ID#: 1909335-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091807	Date of Collection:	9/12/19
Dil. Factor:	2.36	Date of Analysis:	9/18/19 03:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.1	Not Detected
Propylbenzene	1.2	Not Detected	5.8	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.1	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: TR20-DUP1EXH-09122019 Lab Duplicate

Lab ID#: 1909335-01AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091808	Date of Collection:	9/12/19
Dil. Factor:	2.36	Date of Analysis:	9/18/19 04:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	2.5	6.6	14
Ethanol	4.7	Not Detected	8.9	Not Detected
Freon 113	1.2	Not Detected	9.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	32	28	75
2-Propanol	4.7	Not Detected	12	Not Detected
Carbon Disulfide	4.7	Not Detected	15	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	15	14	45
cis-1,2-Dichloroethene	1.2	1.6	4.7	6.1
Tetrahydrofuran	1.2	67	3.5	200
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	7.5	6.4	41
Cyclohexane	1.2	Not Detected	4.1	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	98	6.3	530
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	8.0	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected



Air Toxics

Client Sample ID: TR20-DUP1EXH-09122019 Lab Duplicate

Lab ID#: 1909335-01AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091808	Date of Collection:	9/12/19
Dil. Factor:	2.36	Date of Analysis:	9/18/19 04:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.1	Not Detected
Propylbenzene	1.2	Not Detected	5.8	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.1	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: TR20-EP4EXH-09122019

Lab ID#: 1909335-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091809	Date of Collection:	9/12/19 9:30:00 AM
Dil. Factor:	2.55	Date of Analysis:	9/18/19 04:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.3	Not Detected
Freon 114	1.3	Not Detected	8.9	Not Detected
Chloromethane	13	Not Detected	26	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	13	Not Detected	50	Not Detected
Chloroethane	5.1	Not Detected	13	Not Detected
Freon 11	1.3	1.8	7.2	10
Ethanol	5.1	Not Detected	9.6	Not Detected
Freon 113	1.3	Not Detected	9.8	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Acetone	13	14	30	32
2-Propanol	5.1	Not Detected	12	Not Detected
Carbon Disulfide	5.1	Not Detected	16	Not Detected
3-Chloropropene	5.1	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
Methyl tert-butyl ether	5.1	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Hexane	1.3	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.1	5.7	15	17
cis-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Tetrahydrofuran	1.3	29	3.8	86
Chloroform	1.3	Not Detected	6.2	Not Detected
1,1,1-Trichloroethane	1.3	8.3	7.0	45
Cyclohexane	1.3	Not Detected	4.4	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.0	Not Detected
2,2,4-Trimethylpentane	1.3	Not Detected	6.0	Not Detected
Benzene	1.3	Not Detected	4.1	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Heptane	1.3	Not Detected	5.2	Not Detected
Trichloroethene	1.3	27	6.8	140
1,2-Dichloropropane	1.3	Not Detected	5.9	Not Detected
1,4-Dioxane	5.1	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.5	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.2	Not Detected
Toluene	1.3	1.6	4.8	6.0
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	Not Detected	8.6	Not Detected
2-Hexanone	5.1	Not Detected	21	Not Detected



Air Toxics

Client Sample ID: TR20-EP4EXH-09122019

Lab ID#: 1909335-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091809	Date of Collection:	9/12/19 9:30:00 AM
Dil. Factor:	2.55	Date of Analysis:	9/18/19 04:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.8	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
m,p-Xylene	1.3	Not Detected	5.5	Not Detected
o-Xylene	1.3	Not Detected	5.5	Not Detected
Styrene	1.3	Not Detected	5.4	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
Propylbenzene	1.3	Not Detected	6.3	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.6	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
1,2,4-Trichlorobenzene	5.1	Not Detected	38	Not Detected
Hexachlorobutadiene	5.1	Not Detected	54	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: TR20-EP2EXH-09122019

Lab ID#: 1909335-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091810	Date of Collection:	9/12/19 9:15:00 AM
Dil. Factor:	2.36	Date of Analysis:	9/18/19 05:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	2.3	6.6	13
Ethanol	4.7	Not Detected	8.9	Not Detected
Freon 113	1.2	Not Detected	9.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	30	28	72
2-Propanol	4.7	Not Detected	12	Not Detected
Carbon Disulfide	4.7	Not Detected	15	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	16	14	47
cis-1,2-Dichloroethene	1.2	1.7	4.7	6.6
Tetrahydrofuran	1.2	69	3.5	200
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	7.6	6.4	42
Cyclohexane	1.2	Not Detected	4.1	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	100	6.3	540
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	8.0	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected



Air Toxics

Client Sample ID: TR20-EP2EXH-09122019

Lab ID#: 1909335-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091810	Date of Collection:	9/12/19 9:15:00 AM
Dil. Factor:	2.36	Date of Analysis:	9/18/19 05:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.1	Not Detected
Propylbenzene	1.2	Not Detected	5.8	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.1	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: Lab Blank

Lab ID#: 1909335-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091806	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/18/19 12:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1909335-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091806	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/18/19 12:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: CCV

Lab ID#: 1909335-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/18/19 11:03 AM

Compound	%Recovery
Freon 12	99
Freon 114	96
Chloromethane	102
Vinyl Chloride	89
1,3-Butadiene	89
Bromomethane	97
Chloroethane	100
Freon 11	98
Ethanol	81
Freon 113	96
1,1-Dichloroethene	93
Acetone	100
2-Propanol	95
Carbon Disulfide	98
3-Chloropropene	97
Methylene Chloride	90
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	98
Hexane	98
1,1-Dichloroethane	96
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	99
Tetrahydrofuran	93
Chloroform	98
1,1,1-Trichloroethane	96
Cyclohexane	98
Carbon Tetrachloride	100
2,2,4-Trimethylpentane	104
Benzene	100
1,2-Dichloroethane	98
Heptane	103
Trichloroethene	98
1,2-Dichloropropane	96
1,4-Dioxane	98
Bromodichloromethane	95
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	100
Toluene	99
trans-1,3-Dichloropropene	103
1,1,2-Trichloroethane	101
Tetrachloroethene	102
2-Hexanone	103

Client Sample ID: CCV

Lab ID#: 1909335-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/18/19 11:03 AM

Compound	%Recovery
Dibromochloromethane	101
1,2-Dibromoethane (EDB)	101
Chlorobenzene	97
Ethyl Benzene	101
m,p-Xylene	102
o-Xylene	102
Styrene	106
Bromoform	103
Cumene	105
1,1,2,2-Tetrachloroethane	99
Propylbenzene	102
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	103
1,2,4-Trimethylbenzene	105
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	105
1,2-Dichlorobenzene	101
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	108

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: LCS

Lab ID#: 1909335-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/18/19 11:28 AM

Compound	%Recovery	Method Limits
Freon 12	90	70-130
Freon 114	88	70-130
Chloromethane	93	70-130
Vinyl Chloride	82	70-130
1,3-Butadiene	84	70-130
Bromomethane	92	70-130
Chloroethane	89	70-130
Freon 11	89	70-130
Ethanol	70	70-130
Freon 113	89	70-130
1,1-Dichloroethene	90	70-130
Acetone	95	70-130
2-Propanol	85	70-130
Carbon Disulfide	90	70-130
3-Chloropropene	88	70-130
Methylene Chloride	85	70-130
Methyl tert-butyl ether	94	70-130
trans-1,2-Dichloroethene	84	70-130
Hexane	91	70-130
1,1-Dichloroethane	91	70-130
2-Butanone (Methyl Ethyl Ketone)	92	70-130
cis-1,2-Dichloroethene	105	70-130
Tetrahydrofuran	92	70-130
Chloroform	96	70-130
1,1,1-Trichloroethane	91	70-130
Cyclohexane	96	70-130
Carbon Tetrachloride	96	70-130
2,2,4-Trimethylpentane	98	70-130
Benzene	97	70-130
1,2-Dichloroethane	92	70-130
Heptane	101	70-130
Trichloroethene	93	70-130
1,2-Dichloropropane	92	70-130
1,4-Dioxane	98	70-130
Bromodichloromethane	90	70-130
cis-1,3-Dichloropropene	99	70-130
4-Methyl-2-pentanone	94	70-130
Toluene	97	70-130
trans-1,3-Dichloropropene	97	70-130
1,1,2-Trichloroethane	97	70-130
Tetrachloroethene	97	70-130
2-Hexanone	95	70-130

Client Sample ID: LCS

Lab ID#: 1909335-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/18/19 11:28 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	96	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	91	70-130
Ethyl Benzene	96	70-130
m,p-Xylene	98	70-130
o-Xylene	100	70-130
Styrene	96	70-130
Bromoform	96	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	96	70-130
Propylbenzene	95	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	96	70-130
1,2,4-Trimethylbenzene	96	70-130
1,3-Dichlorobenzene	93	70-130
1,4-Dichlorobenzene	93	70-130
alpha-Chlorotoluene	94	70-130
1,2-Dichlorobenzene	95	70-130
1,2,4-Trichlorobenzene	85	70-130
Hexachlorobutadiene	89	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCSD

Lab ID#: 1909335-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/18/19 11:53 AM

Compound	%Recovery	Method Limits
Freon 12	91	70-130
Freon 114	92	70-130
Chloromethane	96	70-130
Vinyl Chloride	84	70-130
1,3-Butadiene	87	70-130
Bromomethane	93	70-130
Chloroethane	92	70-130
Freon 11	89	70-130
Ethanol	72	70-130
Freon 113	91	70-130
1,1-Dichloroethene	91	70-130
Acetone	99	70-130
2-Propanol	89	70-130
Carbon Disulfide	95	70-130
3-Chloropropene	92	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	98	70-130
trans-1,2-Dichloroethene	87	70-130
Hexane	96	70-130
1,1-Dichloroethane	96	70-130
2-Butanone (Methyl Ethyl Ketone)	95	70-130
cis-1,2-Dichloroethene	106	70-130
Tetrahydrofuran	91	70-130
Chloroform	96	70-130
1,1,1-Trichloroethane	90	70-130
Cyclohexane	98	70-130
Carbon Tetrachloride	96	70-130
2,2,4-Trimethylpentane	99	70-130
Benzene	96	70-130
1,2-Dichloroethane	92	70-130
Heptane	99	70-130
Trichloroethene	93	70-130
1,2-Dichloropropane	94	70-130
1,4-Dioxane	97	70-130
Bromodichloromethane	91	70-130
cis-1,3-Dichloropropene	99	70-130
4-Methyl-2-pentanone	94	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	99	70-130
1,1,2-Trichloroethane	97	70-130
Tetrachloroethene	97	70-130
2-Hexanone	97	70-130

Client Sample ID: LCSD

Lab ID#: 1909335-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3091804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/18/19 11:53 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	96	70-130
1,2-Dibromoethane (EDB)	99	70-130
Chlorobenzene	93	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	98	70-130
o-Xylene	100	70-130
Styrene	98	70-130
Bromoform	96	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	98	70-130
Propylbenzene	96	70-130
4-Ethyltoluene	94	70-130
1,3,5-Trimethylbenzene	97	70-130
1,2,4-Trimethylbenzene	97	70-130
1,3-Dichlorobenzene	93	70-130
1,4-Dichlorobenzene	93	70-130
alpha-Chlorotoluene	94	70-130
1,2-Dichlorobenzene	96	70-130
1,2,4-Trichlorobenzene	88	70-130
Hexachlorobutadiene	91	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	99	70-130

6/25/2020

Mr. Peter Hollatz

AECOM Environment

5015 Campuswood Drive

Suite 104

East Syracuse NY 13057

Project Name: Carrier-Syracuse

Project #:

Workorder #: 2006510

Dear Mr. Peter Hollatz

The following report includes the data for the above referenced project for sample(s) received on 6/18/2020 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 2006510

Work Order Summary

CLIENT:	Mr. Peter Hollatz AECOM Environment 5015 Campuswood Drive Suite 104 East Syracuse, NY 13057	BILL TO:	Accounts Payable Austin AECOM PO Box 203970 Austin, TX 78720
PHONE:	315.432.0506	P.O. #	60626270
FAX:		PROJECT #	Carrier-Syracuse
DATE RECEIVED:	06/18/2020	CONTACT:	Ausha Scott
DATE COMPLETED:	06/25/2020		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SWTP	TO-15	5.3 "Hg	16.1 psi
01AA	SWTP Lab Duplicate	TO-15	5.3 "Hg	16.1 psi
02A	TR-20-EP-2	TO-15	5.1 "Hg	15.5 psi
03A	TR-20-EP-4	TO-15	6.3 "Hg	15.2 psi
04A	TR-4	TO-15	5.7 "Hg	15.9 psi
05A	TR-6	TO-15	5.5 "Hg	15.4 psi
06A	FD-06162020	TO-15	4.5 "Hg	16.3 psi
07A	TR18/18S	TO-15	4.1 "Hg	16.3 psi
08A	Lab Blank	TO-15	NA	NA
09A	CCV	TO-15	NA	NA
10A	LCS	TO-15	NA	NA
10AA	LCSD	TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 06/25/20

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-011, Effective date: 10/18/2019, Expiration date: 10/17/2020.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
AECOM Environment
Workorder# 2006510

Seven 1 Liter Summa Canister samples were received on June 18, 2020. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The data contained in this report have been generated in accordance with the requirements in the United Technologies Corporation Environmental Laboratory Program CHEM_03: Analytical Minimum Standards for Laboratories, September 2016 Revision 8.0 and associated documents if applicable.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SWTP

Lab ID#: 2006510-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	13	20	30	46
cis-1,2-Dichloroethene	1.3	6.4	5.0	25
Tetrahydrofuran	1.3	2.2	3.7	6.4
Trichloroethene	1.3	16	6.8	85
m,p-Xylene	1.3	3.5	5.5	15
o-Xylene	1.3	1.8	5.5	7.9

Client Sample ID: SWTP Lab Duplicate

Lab ID#: 2006510-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	13	19	30	44
cis-1,2-Dichloroethene	1.3	6.6	5.0	26
Tetrahydrofuran	1.3	2.2	3.7	6.6
Trichloroethene	1.3	16	6.8	84
m,p-Xylene	1.3	3.5	5.5	15
o-Xylene	1.3	1.9	5.5	8.2

Client Sample ID: TR-20-EP-2

Lab ID#: 2006510-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.2	6.3	6.7	34
o-Xylene	1.2	1.3	5.4	5.5

Client Sample ID: TR-20-EP-4

Lab ID#: 2006510-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.3	1.5	7.2	8.6
Trichloroethene	1.3	1.5	6.9	7.9

Summary of Detected Compounds

EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: TR-4

Lab ID#: 2006510-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	1.5	6.4	7.2
Acetone	13	14	30	32
2-Propanol	5.1	5.1	13	13
Trichloroethene	1.3	18	6.9	98

Client Sample ID: TR-6

Lab ID#: 2006510-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.9	7.0	10
Ethanol	5.0	8.3	9.4	16
Trichloroethene	1.2	5.9	6.7	32
Chlorobenzene	1.2	1.7	5.8	8.0

Client Sample ID: FD-06162020

Lab ID#: 2006510-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	2.0	7.0	11
Ethanol	5.0	20	9.3	37
Trichloroethene	1.2	5.6	6.7	30

Client Sample ID: TR18/18S

Lab ID#: 2006510-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	18	29	43
cis-1,2-Dichloroethene	1.2	7.8	4.8	31
Trichloroethene	1.2	18	6.6	100
Tetrachloroethene	1.2	1.4	8.3	9.4



Air Toxics

Client Sample ID: SWTP

Lab ID#: 2006510-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062406	Date of Collection:	6/16/20 9:41:00 AM
Dil. Factor:	2.54	Date of Analysis:	6/24/20 01:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.3	Not Detected
Freon 114	1.3	Not Detected	8.9	Not Detected
Chloromethane	13	Not Detected	26	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	13	Not Detected	49	Not Detected
Chloroethane	5.1	Not Detected	13	Not Detected
Freon 11	1.3	Not Detected	7.1	Not Detected
Ethanol	5.1	Not Detected	9.6	Not Detected
Freon 113	1.3	Not Detected	9.7	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Acetone	13	20	30	46
2-Propanol	5.1	Not Detected	12	Not Detected
Carbon Disulfide	5.1	Not Detected	16	Not Detected
3-Chloropropene	5.1	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
Methyl tert-butyl ether	5.1	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Hexane	1.3	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.1	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.3	6.4	5.0	25
Tetrahydrofuran	1.3	2.2	3.7	6.4
Chloroform	1.3	Not Detected	6.2	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Cyclohexane	1.3	Not Detected	4.4	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.0	Not Detected
2,2,4-Trimethylpentane	1.3	Not Detected	5.9	Not Detected
Benzene	1.3	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.1	Not Detected
Heptane	1.3	Not Detected	5.2	Not Detected
Trichloroethene	1.3	16	6.8	85
1,2-Dichloropropane	1.3	Not Detected	5.9	Not Detected
1,4-Dioxane	5.1	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.5	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.2	Not Detected
Toluene	1.3	Not Detected	4.8	Not Detected
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Tetrachloroethene	1.3	Not Detected	8.6	Not Detected
2-Hexanone	5.1	Not Detected	21	Not Detected

Client Sample ID: SWTP

Lab ID#: 2006510-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062406	Date of Collection:	6/16/20 9:41:00 AM
Dil. Factor:	2.54	Date of Analysis:	6/24/20 01:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.8	Not Detected
Chlorobenzene	1.3	Not Detected	5.8	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
m,p-Xylene	1.3	3.5	5.5	15
o-Xylene	1.3	1.8	5.5	7.9
Styrene	1.3	Not Detected	5.4	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.2	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.7	Not Detected
Propylbenzene	1.3	Not Detected	6.2	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.2	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.6	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,2,4-Trichlorobenzene	5.1	Not Detected	38	Not Detected
Hexachlorobutadiene	5.1	Not Detected	54	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: SWTP Lab Duplicate

Lab ID#: 2006510-01AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062407	Date of Collection:	6/16/20 9:41:00 AM
Dil. Factor:	2.54	Date of Analysis:	6/24/20 01:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.3	Not Detected
Freon 114	1.3	Not Detected	8.9	Not Detected
Chloromethane	13	Not Detected	26	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	13	Not Detected	49	Not Detected
Chloroethane	5.1	Not Detected	13	Not Detected
Freon 11	1.3	Not Detected	7.1	Not Detected
Ethanol	5.1	Not Detected	9.6	Not Detected
Freon 113	1.3	Not Detected	9.7	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Acetone	13	19	30	44
2-Propanol	5.1	Not Detected	12	Not Detected
Carbon Disulfide	5.1	Not Detected	16	Not Detected
3-Chloropropene	5.1	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
Methyl tert-butyl ether	5.1	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Hexane	1.3	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.1	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.3	6.6	5.0	26
Tetrahydrofuran	1.3	2.2	3.7	6.6
Chloroform	1.3	Not Detected	6.2	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Cyclohexane	1.3	Not Detected	4.4	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.0	Not Detected
2,2,4-Trimethylpentane	1.3	Not Detected	5.9	Not Detected
Benzene	1.3	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.1	Not Detected
Heptane	1.3	Not Detected	5.2	Not Detected
Trichloroethene	1.3	16	6.8	84
1,2-Dichloropropane	1.3	Not Detected	5.9	Not Detected
1,4-Dioxane	5.1	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.5	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.2	Not Detected
Toluene	1.3	Not Detected	4.8	Not Detected
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Tetrachloroethene	1.3	Not Detected	8.6	Not Detected
2-Hexanone	5.1	Not Detected	21	Not Detected

Client Sample ID: SWTP Lab Duplicate

Lab ID#: 2006510-01AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062407	Date of Collection:	6/16/20 9:41:00 AM
Dil. Factor:	2.54	Date of Analysis:	6/24/20 01:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.8	Not Detected
Chlorobenzene	1.3	Not Detected	5.8	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
m,p-Xylene	1.3	3.5	5.5	15
o-Xylene	1.3	1.9	5.5	8.2
Styrene	1.3	Not Detected	5.4	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.2	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.7	Not Detected
Propylbenzene	1.3	Not Detected	6.2	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.2	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.6	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,2,4-Trichlorobenzene	5.1	Not Detected	38	Not Detected
Hexachlorobutadiene	5.1	Not Detected	54	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: TR-20-EP-2

Lab ID#: 2006510-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062408	Date of Collection:	6/16/20 10:11:00 AM
Dil. Factor:	2.48	Date of Analysis:	6/24/20 02:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.7	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	7.0	Not Detected
Ethanol	5.0	Not Detected	9.3	Not Detected
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	Not Detected	29	Not Detected
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	15	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Cyclohexane	1.2	Not Detected	4.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.8	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Heptane	1.2	Not Detected	5.1	Not Detected
Trichloroethene	1.2	6.3	6.7	34
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
2-Hexanone	5.0	Not Detected	20	Not Detected

Client Sample ID: TR-20-EP-2

Lab ID#: 2006510-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062408	Date of Collection: 6/16/20 10:11:00 AM
Dil. Factor:	2.48	Date of Analysis: 6/24/20 02:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	1.3	5.4	5.5
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
Cumene	1.2	Not Detected	6.1	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
Propylbenzene	1.2	Not Detected	6.1	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	53	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: TR-20-EP-4

Lab ID#: 2006510-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062409	Date of Collection:	6/16/20 10:07:00 AM
Dil. Factor:	2.57	Date of Analysis:	6/24/20 02:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.4	Not Detected
Freon 114	1.3	Not Detected	9.0	Not Detected
Chloromethane	13	Not Detected	26	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	13	Not Detected	50	Not Detected
Chloroethane	5.1	Not Detected	14	Not Detected
Freon 11	1.3	1.5	7.2	8.6
Ethanol	5.1	Not Detected	9.7	Not Detected
Freon 113	1.3	Not Detected	9.8	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	13	Not Detected	30	Not Detected
2-Propanol	5.1	Not Detected	13	Not Detected
Carbon Disulfide	5.1	Not Detected	16	Not Detected
3-Chloropropene	5.1	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	45	Not Detected
Methyl tert-butyl ether	5.1	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.1	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Tetrahydrofuran	1.3	Not Detected	3.8	Not Detected
Chloroform	1.3	Not Detected	6.3	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Cyclohexane	1.3	Not Detected	4.4	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
2,2,4-Trimethylpentane	1.3	Not Detected	6.0	Not Detected
Benzene	1.3	Not Detected	4.1	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Heptane	1.3	Not Detected	5.3	Not Detected
Trichloroethene	1.3	1.5	6.9	7.9
1,2-Dichloropropane	1.3	Not Detected	5.9	Not Detected
1,4-Dioxane	5.1	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.6	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	Not Detected	4.8	Not Detected
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	Not Detected	8.7	Not Detected
2-Hexanone	5.1	Not Detected	21	Not Detected



Air Toxics

Client Sample ID: TR-20-EP-4

Lab ID#: 2006510-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062409	Date of Collection:	6/16/20 10:07:00 AM
Dil. Factor:	2.57	Date of Analysis:	6/24/20 02:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.9	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	Not Detected	5.6	Not Detected
m,p-Xylene	1.3	Not Detected	5.6	Not Detected
o-Xylene	1.3	Not Detected	5.6	Not Detected
Styrene	1.3	Not Detected	5.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
Propylbenzene	1.3	Not Detected	6.3	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.6	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
1,2,4-Trichlorobenzene	5.1	Not Detected	38	Not Detected
Hexachlorobutadiene	5.1	Not Detected	55	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: TR-4

Lab ID#: 2006510-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062410	Date of Collection:	6/16/20 10:30:00 AM
Dil. Factor:	2.57	Date of Analysis:	6/24/20 03:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	1.5	6.4	7.2
Freon 114	1.3	Not Detected	9.0	Not Detected
Chloromethane	13	Not Detected	26	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
Bromomethane	13	Not Detected	50	Not Detected
Chloroethane	5.1	Not Detected	14	Not Detected
Freon 11	1.3	Not Detected	7.2	Not Detected
Ethanol	5.1	Not Detected	9.7	Not Detected
Freon 113	1.3	Not Detected	9.8	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	13	14	30	32
2-Propanol	5.1	5.1	13	13
Carbon Disulfide	5.1	Not Detected	16	Not Detected
3-Chloropropene	5.1	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	45	Not Detected
Methyl tert-butyl ether	5.1	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.1	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Tetrahydrofuran	1.3	Not Detected	3.8	Not Detected
Chloroform	1.3	Not Detected	6.3	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Cyclohexane	1.3	Not Detected	4.4	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
2,2,4-Trimethylpentane	1.3	Not Detected	6.0	Not Detected
Benzene	1.3	Not Detected	4.1	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Heptane	1.3	Not Detected	5.3	Not Detected
Trichloroethene	1.3	18	6.9	98
1,2-Dichloropropane	1.3	Not Detected	5.9	Not Detected
1,4-Dioxane	5.1	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.6	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.3	Not Detected
Toluene	1.3	Not Detected	4.8	Not Detected
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	Not Detected	8.7	Not Detected
2-Hexanone	5.1	Not Detected	21	Not Detected

Client Sample ID: TR-4

Lab ID#: 2006510-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062410	Date of Collection:	6/16/20 10:30:00 AM
Dil. Factor:	2.57	Date of Analysis:	6/24/20 03:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.9	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	Not Detected	5.6	Not Detected
m,p-Xylene	1.3	Not Detected	5.6	Not Detected
o-Xylene	1.3	Not Detected	5.6	Not Detected
Styrene	1.3	Not Detected	5.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Cumene	1.3	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
Propylbenzene	1.3	Not Detected	6.3	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.6	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
1,2,4-Trichlorobenzene	5.1	Not Detected	38	Not Detected
Hexachlorobutadiene	5.1	Not Detected	55	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: TR-6

Lab ID#: 2006510-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062411	Date of Collection:	6/16/20 10:43:00 AM
Dil. Factor:	2.51	Date of Analysis:	6/24/20 03:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.2	Not Detected
Freon 114	1.2	Not Detected	8.8	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,3-Butadiene	1.2	Not Detected	2.8	Not Detected
Bromomethane	12	Not Detected	49	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	1.9	7.0	10
Ethanol	5.0	8.3	9.4	16
Freon 113	1.2	Not Detected	9.6	Not Detected
1,1-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Acetone	12	Not Detected	30	Not Detected
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	44	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.7	Not Detected
Chloroform	1.2	Not Detected	6.1	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Cyclohexane	1.2	Not Detected	4.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.9	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.9	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.1	Not Detected
Heptane	1.2	Not Detected	5.1	Not Detected
Trichloroethene	1.2	5.9	6.7	32
1,2-Dichloropropane	1.2	Not Detected	5.8	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	Not Detected	8.5	Not Detected
2-Hexanone	5.0	Not Detected	20	Not Detected

Client Sample ID: TR-6

Lab ID#: 2006510-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062411	Date of Collection:	6/16/20 10:43:00 AM
Dil. Factor:	2.51	Date of Analysis:	6/24/20 03:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.6	Not Detected
Chlorobenzene	1.2	1.7	5.8	8.0
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
Cumene	1.2	Not Detected	6.2	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.6	Not Detected
Propylbenzene	1.2	Not Detected	6.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.2	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.2	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.2	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.5	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	54	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: FD-06162020

Lab ID#: 2006510-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062412	Date of Collection:	6/16/20
Dil. Factor:	2.48	Date of Analysis:	6/24/20 04:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.7	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	2.0	7.0	11
Ethanol	5.0	20	9.3	37
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	Not Detected	29	Not Detected
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	15	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Cyclohexane	1.2	Not Detected	4.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.8	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Heptane	1.2	Not Detected	5.1	Not Detected
Trichloroethene	1.2	5.6	6.7	30
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
2-Hexanone	5.0	Not Detected	20	Not Detected

Client Sample ID: FD-06162020

Lab ID#: 2006510-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062412	Date of Collection:	6/16/20
Dil. Factor:	2.48	Date of Analysis:	6/24/20 04:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
Cumene	1.2	Not Detected	6.1	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
Propylbenzene	1.2	Not Detected	6.1	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	53	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	112	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: TR18/18S

Lab ID#: 2006510-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062413	Date of Collection:	6/16/20 10:55:00 AM
Dil. Factor:	2.44	Date of Analysis:	6/24/20 04:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.5	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Ethanol	4.9	Not Detected	9.2	Not Detected
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	18	29	43
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	7.8	4.8	31
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Heptane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	18	6.6	100
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	1.4	8.3	9.4
2-Hexanone	4.9	Not Detected	20	Not Detected

Client Sample ID: TR18/18S

Lab ID#: 2006510-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062413	Date of Collection: 6/16/20 10:55:00 AM
Dil. Factor:	2.44	Date of Analysis: 6/24/20 04:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	Not Detected	5.3	Not Detected
o-Xylene	1.2	Not Detected	5.3	Not Detected
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
Cumene	1.2	Not Detected	6.0	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
Propylbenzene	1.2	Not Detected	6.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2006510-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: p062405
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 6/24/20 11:52 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 2006510-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062405	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/24/20 11:52 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: CCV

Lab ID#: 2006510-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/24/20 10:27 AM

Compound	%Recovery
Freon 12	100
Freon 114	91
Chloromethane	96
Vinyl Chloride	86
1,3-Butadiene	96
Bromomethane	89
Chloroethane	88
Freon 11	98
Ethanol	83
Freon 113	94
1,1-Dichloroethene	89
Acetone	83
2-Propanol	83
Carbon Disulfide	84
3-Chloropropene	90
Methylene Chloride	82
Methyl tert-butyl ether	92
trans-1,2-Dichloroethene	92
Hexane	85
1,1-Dichloroethane	91
2-Butanone (Methyl Ethyl Ketone)	89
cis-1,2-Dichloroethene	90
Tetrahydrofuran	82
Chloroform	100
1,1,1-Trichloroethane	98
Cyclohexane	86
Carbon Tetrachloride	108
2,2,4-Trimethylpentane	84
Benzene	88
1,2-Dichloroethane	102
Heptane	88
Trichloroethene	93
1,2-Dichloropropane	84
1,4-Dioxane	94
Bromodichloromethane	102
cis-1,3-Dichloropropene	92
4-Methyl-2-pentanone	86
Toluene	91
trans-1,3-Dichloropropene	100
1,1,2-Trichloroethane	91
Tetrachloroethene	97
2-Hexanone	92

Client Sample ID: CCV

Lab ID#: 2006510-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/24/20 10:27 AM

Compound	%Recovery
Dibromochloromethane	101
1,2-Dibromoethane (EDB)	95
Chlorobenzene	92
Ethyl Benzene	90
m,p-Xylene	94
o-Xylene	93
Styrene	97
Bromoform	102
Cumene	95
1,1,2,2-Tetrachloroethane	86
Propylbenzene	90
4-Ethyltoluene	95
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	97
1,3-Dichlorobenzene	95
1,4-Dichlorobenzene	95
alpha-Chlorotoluene	99
1,2-Dichlorobenzene	93
1,2,4-Trichlorobenzene	93
Hexachlorobutadiene	101

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCS

Lab ID#: 2006510-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: p062403
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 6/24/20 10:55 AM

Compound	%Recovery	Method Limits
Freon 12	95	70-130
Freon 114	89	70-130
Chloromethane	89	70-130
Vinyl Chloride	85	70-130
1,3-Butadiene	93	70-130
Bromomethane	84	70-130
Chloroethane	85	70-130
Freon 11	93	70-130
Ethanol	69 Q	70-130
Freon 113	92	70-130
1,1-Dichloroethene	89	70-130
Acetone	81	70-130
2-Propanol	79	70-130
Carbon Disulfide	80	70-130
3-Chloropropene	85	70-130
Methylene Chloride	81	70-130
Methyl tert-butyl ether	89	70-130
trans-1,2-Dichloroethene	82	70-130
Hexane	82	70-130
1,1-Dichloroethane	90	70-130
2-Butanone (Methyl Ethyl Ketone)	84	70-130
cis-1,2-Dichloroethene	96	70-130
Tetrahydrofuran	78	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	93	70-130
Cyclohexane	83	70-130
Carbon Tetrachloride	111	70-130
2,2,4-Trimethylpentane	82	70-130
Benzene	86	70-130
1,2-Dichloroethane	100	70-130
Heptane	84	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	83	70-130
1,4-Dioxane	92	70-130
Bromodichloromethane	98	70-130
cis-1,3-Dichloropropene	91	70-130
4-Methyl-2-pentanone	87	70-130
Toluene	90	70-130
trans-1,3-Dichloropropene	98	70-130
1,1,2-Trichloroethane	88	70-130
Tetrachloroethene	95	70-130
2-Hexanone	90	70-130

Client Sample ID: LCS

Lab ID#: 2006510-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/24/20 10:55 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	100	70-130
1,2-Dibromoethane (EDB)	95	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	88	70-130
m,p-Xylene	91	70-130
o-Xylene	92	70-130
Styrene	92	70-130
Bromoform	97	70-130
Cumene	92	70-130
1,1,2,2-Tetrachloroethane	82	70-130
Propylbenzene	86	70-130
4-Ethyltoluene	88	70-130
1,3,5-Trimethylbenzene	90	70-130
1,2,4-Trimethylbenzene	92	70-130
1,3-Dichlorobenzene	90	70-130
1,4-Dichlorobenzene	89	70-130
alpha-Chlorotoluene	87	70-130
1,2-Dichlorobenzene	89	70-130
1,2,4-Trichlorobenzene	75	70-130
Hexachlorobutadiene	84	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: LCSD

Lab ID#: 2006510-10AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: p062404
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 6/24/20 11:23 AM

Compound	%Recovery	Method Limits
Freon 12	95	70-130
Freon 114	88	70-130
Chloromethane	90	70-130
Vinyl Chloride	81	70-130
1,3-Butadiene	90	70-130
Bromomethane	84	70-130
Chloroethane	83	70-130
Freon 11	94	70-130
Ethanol	72	70-130
Freon 113	91	70-130
1,1-Dichloroethene	87	70-130
Acetone	79	70-130
2-Propanol	79	70-130
Carbon Disulfide	79	70-130
3-Chloropropene	83	70-130
Methylene Chloride	78	70-130
Methyl tert-butyl ether	88	70-130
trans-1,2-Dichloroethene	80	70-130
Hexane	80	70-130
1,1-Dichloroethane	89	70-130
2-Butanone (Methyl Ethyl Ketone)	83	70-130
cis-1,2-Dichloroethene	98	70-130
Tetrahydrofuran	77	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	93	70-130
Cyclohexane	80	70-130
Carbon Tetrachloride	109	70-130
2,2,4-Trimethylpentane	81	70-130
Benzene	86	70-130
1,2-Dichloroethane	98	70-130
Heptane	85	70-130
Trichloroethene	91	70-130
1,2-Dichloropropane	82	70-130
1,4-Dioxane	90	70-130
Bromodichloromethane	96	70-130
cis-1,3-Dichloropropene	90	70-130
4-Methyl-2-pentanone	83	70-130
Toluene	89	70-130
trans-1,3-Dichloropropene	97	70-130
1,1,2-Trichloroethane	85	70-130
Tetrachloroethene	93	70-130
2-Hexanone	88	70-130

Client Sample ID: LCSD

Lab ID#: 2006510-10AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p062404	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/24/20 11:23 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	97	70-130
1,2-Dibromoethane (EDB)	91	70-130
Chlorobenzene	86	70-130
Ethyl Benzene	85	70-130
m,p-Xylene	89	70-130
o-Xylene	90	70-130
Styrene	89	70-130
Bromoform	94	70-130
Cumene	89	70-130
1,1,2,2-Tetrachloroethane	80	70-130
Propylbenzene	83	70-130
4-Ethyltoluene	86	70-130
1,3,5-Trimethylbenzene	88	70-130
1,2,4-Trimethylbenzene	89	70-130
1,3-Dichlorobenzene	87	70-130
1,4-Dichlorobenzene	86	70-130
alpha-Chlorotoluene	84	70-130
1,2-Dichlorobenzene	86	70-130
1,2,4-Trichlorobenzene	77	70-130
Hexachlorobutadiene	84	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	105	70-130