November 20, 2024

Ms. Madeleine Babick
New York State Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101-5401

Re: **Periodic Review Report**
October 23, 2023 to October 23, 2024
NYSDEC Site Number: 241128
127-13 Merrick Blvd., Jamaica, NY

Dear Ms. Babick:

Tyll Engineering and Consulting, PC hereby submits the **Periodic Review Report** for the Site located at 127-13 Merrick Blvd in Jamaica, New York on behalf of Merrick AA, LLC (Owner). This letter serves to inform the New York State Department of Environmental Conservation (NYSDEC) of the inspections, deficiencies and the corrective actions performed, if applicable for the period October 23, 2023 to October 23, 2024. The Annual Site-wide Inspection Form is attached in **Attachment 1** and the EC/IC Certification Forms are included in **Attachment 2**.

INSPECTION EVENTS

Inspection of Engineering Controls on November 7, 2024

On November 7, 2024 TEC along with Mr. Punit Chhabra of Merrick AA, LLC completed an inspection of the Engineering Controls (ECs) at the property located from 127-01 to 127-23 Merrick Boulevard in Jamaica, Queens which included the Sub-slab depressurization system (SSDS) and the concrete cover system throughout the site (both the building and surrounding concrete cover (concrete sidewalk and alley).

The SSDS inspection involved the inspection of the two fans/blowers on the roof, the exposed piping in the basements, inspection and testing of the alarm light/siren in unit 127-03, , and the control panel located in the basement of unit 127-03, and the collection of an air sample from each of the two legs of the SSDSs. The SSDSs were operational at the time of the inspection. The alarm was tested during inspection. The exposed pipes were intact, and no damage was observed. The two Magnahelic gauges were observed to have similar readings as those noted at the previous annual inspection in November 2023.

The concrete cover system inspection consisted of observing the basement slabs, surrounding sidewalks along the streets, and the concrete covered alley at the rear of the building. We did not observe changes or deficiencies in the concrete slabs within the basements of the units. The cover system throughout the remainder of the site including the sidewalks and rear alley

were in good condition and no holes or gaps were observed. We were unable to enter Units 127-09, 127-15 and 127-21 due to store not being occupied or the tenant not being on-site. The photographs from this inspection are included in **Attachments 3 through 5**.

The Owner has completed monthly inspections of the Units and the SSDS panel and has not found any alarm conditions. In addition, they have not received any reports of alarms from Unit 127-03.

ON-SITE SSDS EFFLUENT SAMPLING

On November 7, 2024, SSDS effluent sampling was completed by Tyll Engineering from the effluent pipe (not filtered) on the roof for screening purposes. One Tedlar Bag was filled (to approximately 70-80%) from each of the two effluent pipes ("LEFT" and "RIGHT" looking from the front to the rear of the building) and submitted to Pace / Alpha Analytical Laboratory via courier for analysis for VOCs (TO-15).

RESULTS OF SSDS EFFLUENT SAMPLING

Results of the VOC analysis have shown that the concentrations of Tetrachloroethene (PERC or PCE) were lower this year as compared with last year, 2023. Please see the simplified table below for results from this and the past year's sampling events. The analytical report from Alpha Analytical and Summary **Table 1** can be found in **Attachment 6**. We will continue to complete this air sampling at a frequency recommended by the NYSDEC.

Historical Tetrachloroethene in Effluent Air

µg/m3	11/8/2018	11/4/2019	11/12/2020	11/9/2021	11/9/2022	11/7/2023	11/7/2024
Right	ND	49.8	95.6	20.8	61.8	60.9	14.00
Left	ND	19.6	42.9	15.5	39.5	21.6	25.80

CERTIFICATION

For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

a. the institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by DER;
b. nothing has occurred that would impair the ability of such control to protect public health and the environment;
c. nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control; and
d. access to the site will continue to be provided to DER to evaluate the remedy, including access to evaluate the continued maintenance of this control.

Please let us know if you have any questions or require additional information.

Respectfully submitted,
TYLL ENGINEERING AND CONSULTING, PC

Karen G. Tyll, P.E.
Professional Engineer

Cc (digital): Mr. Punit Chhabra, Merrick AA, LLC
Ms. Jane O'Connell, NYSDEC

Attachments

ATTACHMENT 1

ANNUAL SITE -WIDE INSPECTION FORMS

Annual Site-wide Inspection Form

127-1 to 23 Merrick Blvd, Jamaica, New York

Date: November 7, 2024 Time: 12:30 PM

Weather: Sunny

Reason for Inspection: ☐ Routine ☑ other Annual Site-wide Inspection and Certification

Certification Period: 10/23/23 to 10/23/24

Inspection Observations

Check one of the following: **Y:** Yes **N:** No **NA:** Not Applicable

		y	N	NA	Remarks
	Records				
1	Based on site records, when was the last inspection, maintenance, or repair event?				11/07/23
2	Based on site records, was the system not operating for any amount of time since the last inspection, maintenance, or repair event? For how long? Provide details.		X		
3	Has the site use changed to a type of use higher than the current commercial use (as allowed in environmental easement)?		X		
	Alarm System				
4	Do the alarm lights indicate that the system is operational?	X			TESTED ALARM/STROBE AND THEY WERE OPERATIONAL
	General System				
5	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the concrete basement floor slab or basement walls at the time of this inspection ?		X		
6	Are there any cracks in the concrete slab or concrete basement walls?		X		NO NEW HOLES OR CRACKS WERE OBSERVED
7	If YES to number 6, is there documentation that the Soil Management Plan (SMP), HASP, and CAMP for the site was/is being followed?			X	
8	If YES to number 6, is there documentation that all breaches in the floor slab have been sealed?			X	

9	Does all visible SSDS piping appear intact and undamaged?	X			
10	Have any intake points been constructed at the roof near (less than 10 feet) the SSDS blower discharge point?		X		
11	Are the two SSDS blowers operational at the time of the inspection?	X			
12	Is the SSDS System expelling Air from the exhaust on the roof of the building?	X			
13	Remove dust and debris from the area surrounding the blowers on the roof.	X			No debris was observed near blowers on roof. Owner has Super clean roof often.

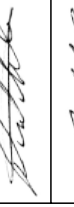
Performed by: Karen G. Tyll, PE _____

Printed Name | Signature

Professional Engineer | Tyll Engineering and Consulting, PC

Title | Company

Date: 11/20/24

SSDS Monthly Log Sheet for 127-13 Merrick Blvd. Queens, New York	11/7/23	12/13/23	1/17/24	2/14/24	3/20/24	4/17/24	5/15/24	613/24	7/13/24	8/13/24	9/18/24	10/16/24	11/7/24
Inspector	Karen Tyll	Punit Chhabra	Punit Chhabra	Punit Chhabra	Punit Chhabra	Punit Chhabra	Punit Chhabra	Punit Chhabra	Punit Chhabra	Punit Chhabra	Punit Chhabra	Punit Chhabra	Karen Tyll
1. Are the two SSDS blowers operational at the time of the inspection?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2. Is the SSDS System expelling Air from the exhaust on the roof of the building?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3. Based on site records, was the system not operating for any amount of time since the last inspection, maintenance, or repair event? For how long? Provide details.	N	N	N	N	N	N	N	N	N	N	N	N	N
4. Do the alarm lights on the panel indicate that the system is operational?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5. Do the Magnehelic gauges show air flow?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6. Was there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the concrete basement floor slab or basement walls at the time of this inspection?	N	N	N	N	N	N	N	N	N	N	N	N	N
7. Are there any new cracks in the concrete slab or concrete basement walls?	N	N	N	N	N	N	N	N	N	N	N	N	N
a. If YES, is there documentation that the Soil Management Plan (SMP), HASP, and CAMP for the site was/is being followed?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b. If YES, is there documentation that all breaches in the floor slab have been sealed?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8. Does all the visible SSDS piping appear intact and undamaged?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9. Have any intake points been constructed at the roof less than 10 feet the SSDS blower discharge point?	N	N	N	N	N	N	N	N	N	N	N	N	N
10. Please ensure that dust and debris has been removed from the area surrounding the blowers on the roof.	N	N	N	N	N	N	N	N	N	N	N	N	N
Notes	Annual Site Inspection												Annual Site Inspection
Signature Line													

ATTACHMENT 2

EC/IC CERTIFICATION PAGES

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **241128**

Site Name 127-13 Merrick Boulevard

Site Address: 127-13 Merrick Boulevard Zip Code: 11434
City/Town: Jamaica
County: Queens
Site Acreage: 0.340

NEW ADDRESS
Merrick AA LLC
297 Kinderkamack Rd.
Box # 126
Oradell, NJ 07649

Reporting Period: October 23, 2023 to October 23, 2024

	YES	NO
1. Is the information above correct?	X	
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	
7. Are all ICs in place and functioning as designed?	X	

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

N/A

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 241128 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
12488-01	Ekta Realty Inc. and Merrick AA LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Site Management Plan O&M Plan IC/EC Plan

An environmental easement has been recorded, limiting the site to commercial or industrial use as described in 6 NYCRR Part 375-1.8(g)(2)(iv); prohibiting the use of groundwater; requiring operation, maintenance, and inspection of the engineering controls in accordance with the site management plan (SMP); and requiring compliance with all other protocol in the SMP.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
12488-01	Vapor Mitigation Cover System

The engineering controls are a sub-slab depressurization system, and a cover system consisting of the existing building slab, which must be maintained.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

N/A

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. 241128

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I PUNIT CHHABRA (print name) at 297 Kinderkamack Rd., Box # 126 Oradell, NJ 07649 (print business address),

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

11/7/2024
Date

EC CERTIFICATIONS

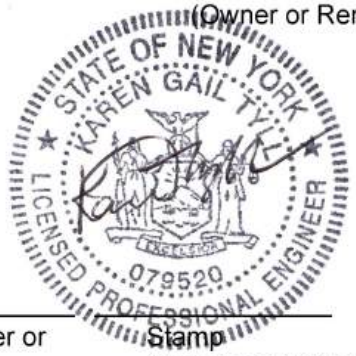
Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Karen Tyll, PE (print name) at Tyll Engineering and Consulting, PC, 169 Commack Road, Suite H173, Commack, NY 11731 (print business address),

am certifying as a Professional Engineer for the Owner (Owner or Remedial Party)



Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

11/20/24

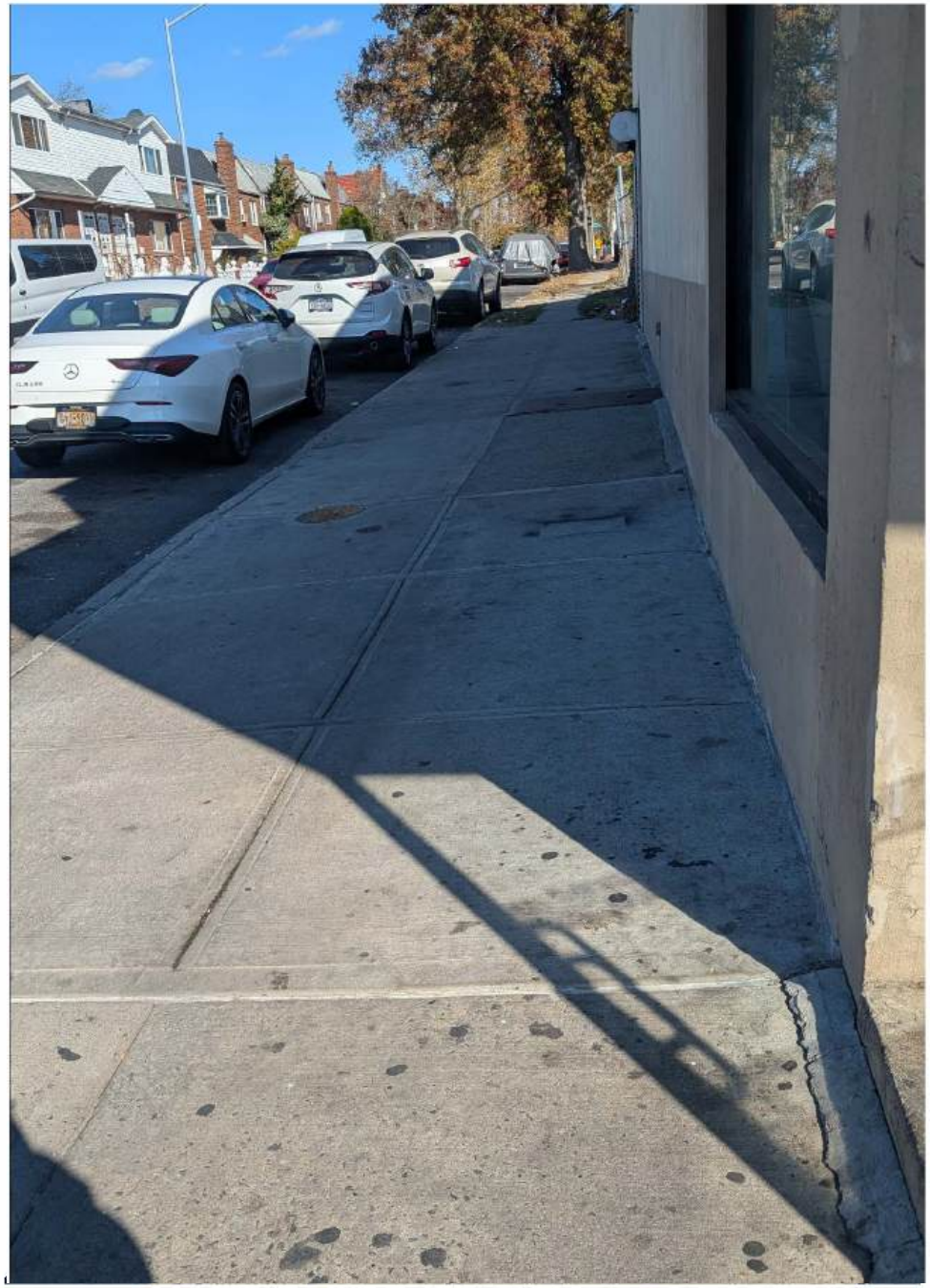
Date

ATTACHMENT 3

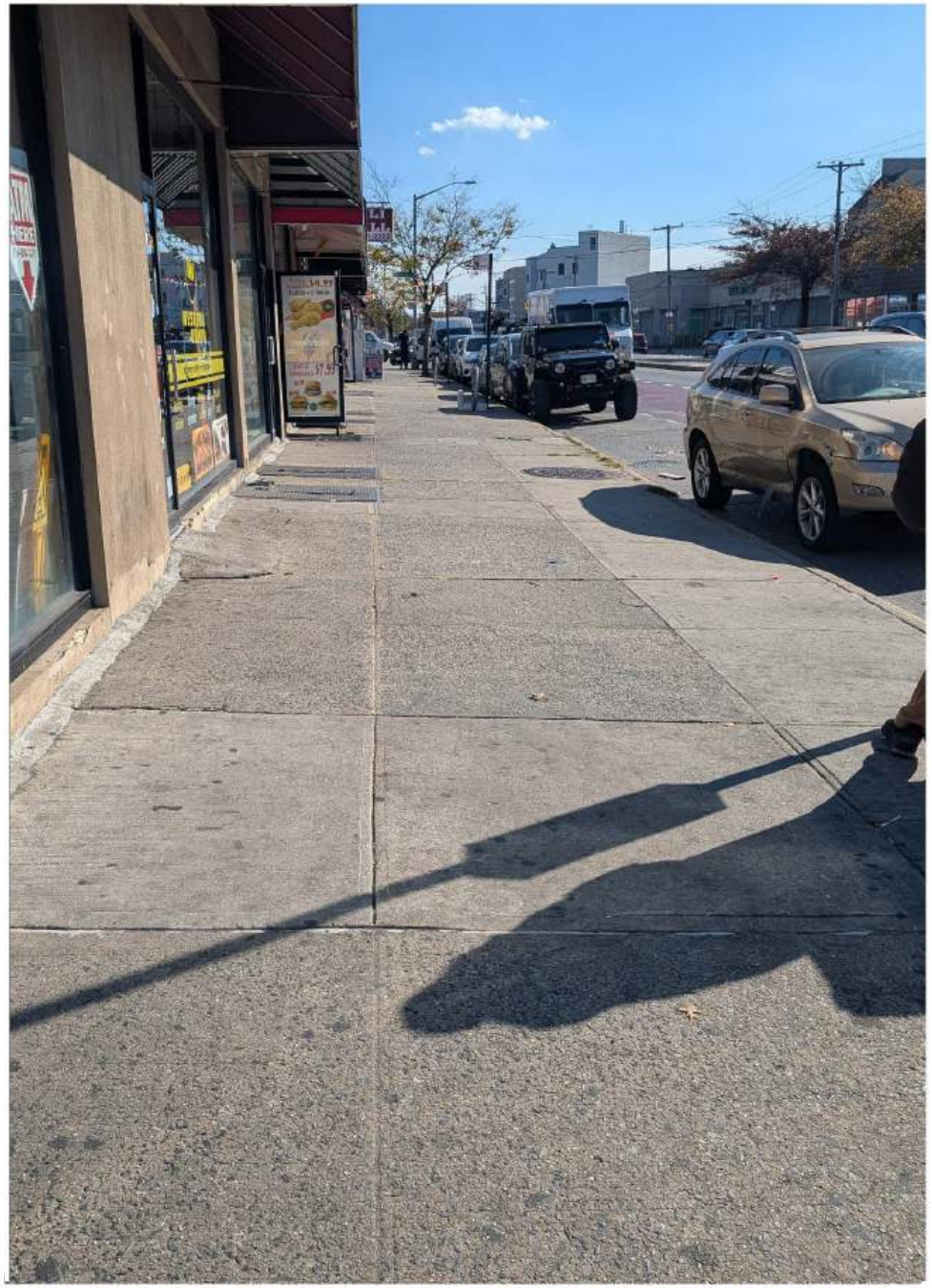
PHOTOGRAPHS FROM 11/7/2024

OF EXTERIOR CONCRETE COVER SYSTEM

Sidewalk along Selover Road (NW of building)



Front Sidewalk looking SE

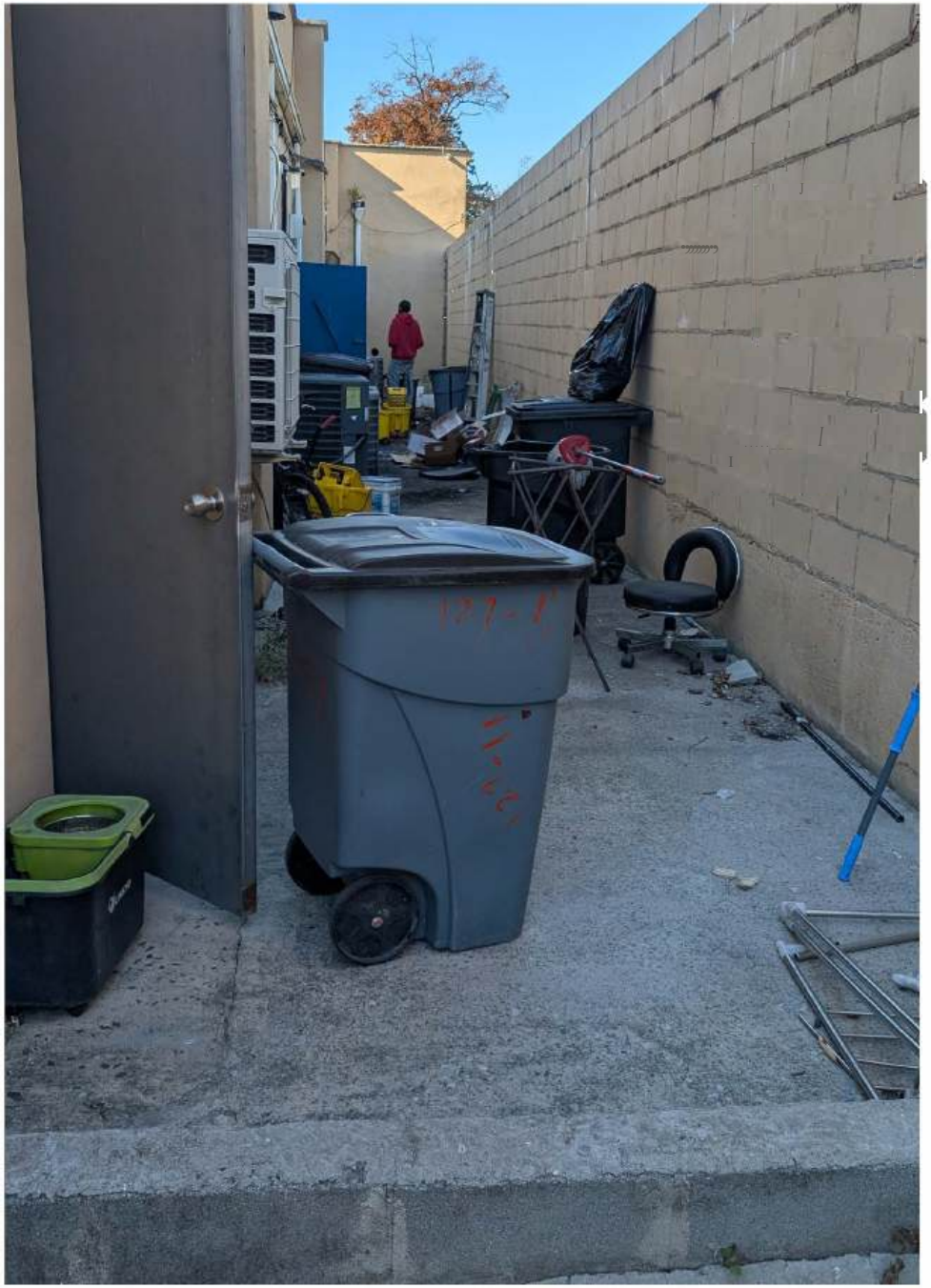


Sidewalk along Anderson Road (SE of building)

Front Sidewalk looking NW

Rear Alley

Rear Alley

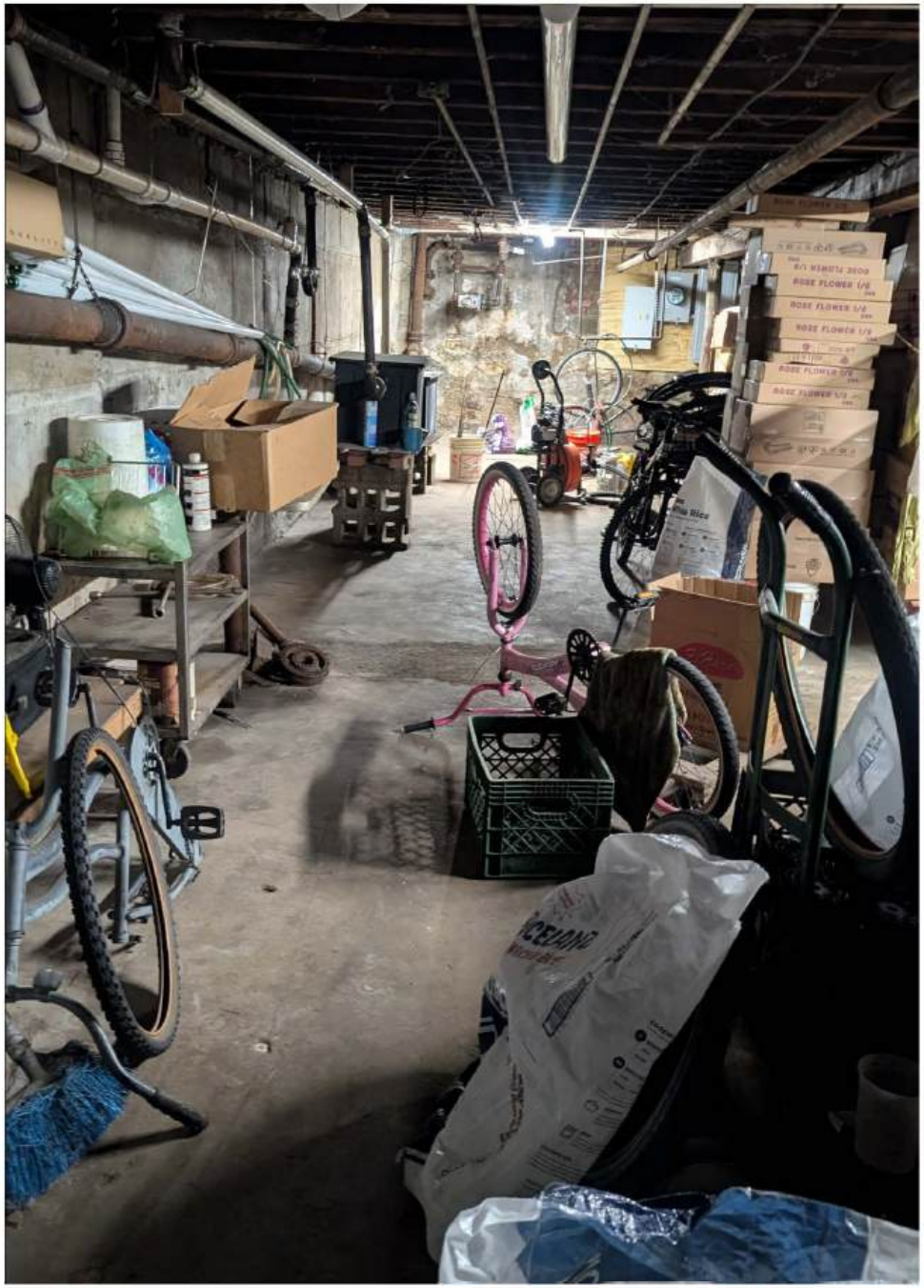


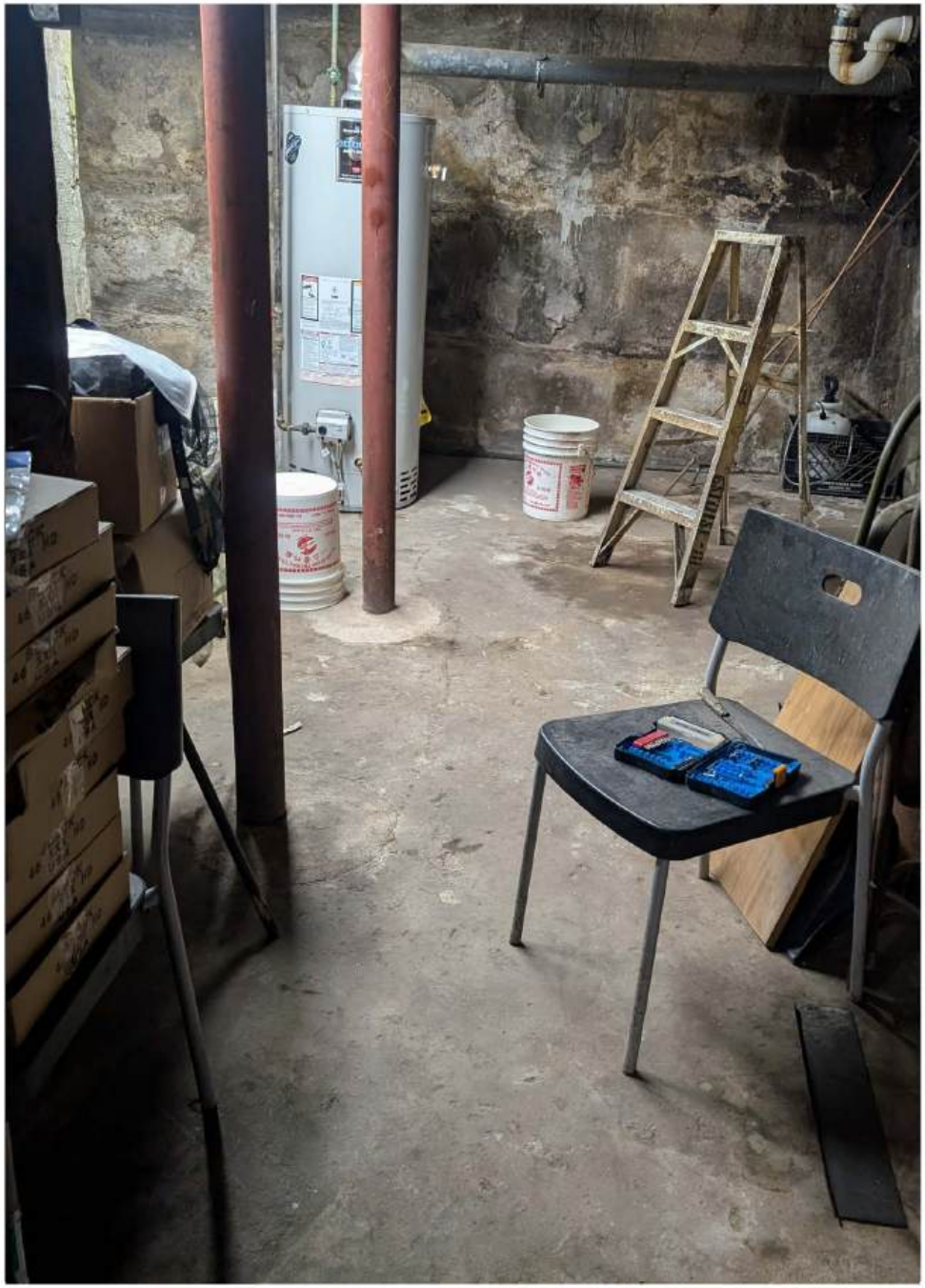
ATTACHMENT 4

PHOTOGRAPHS
OF BASEMENT SLABS

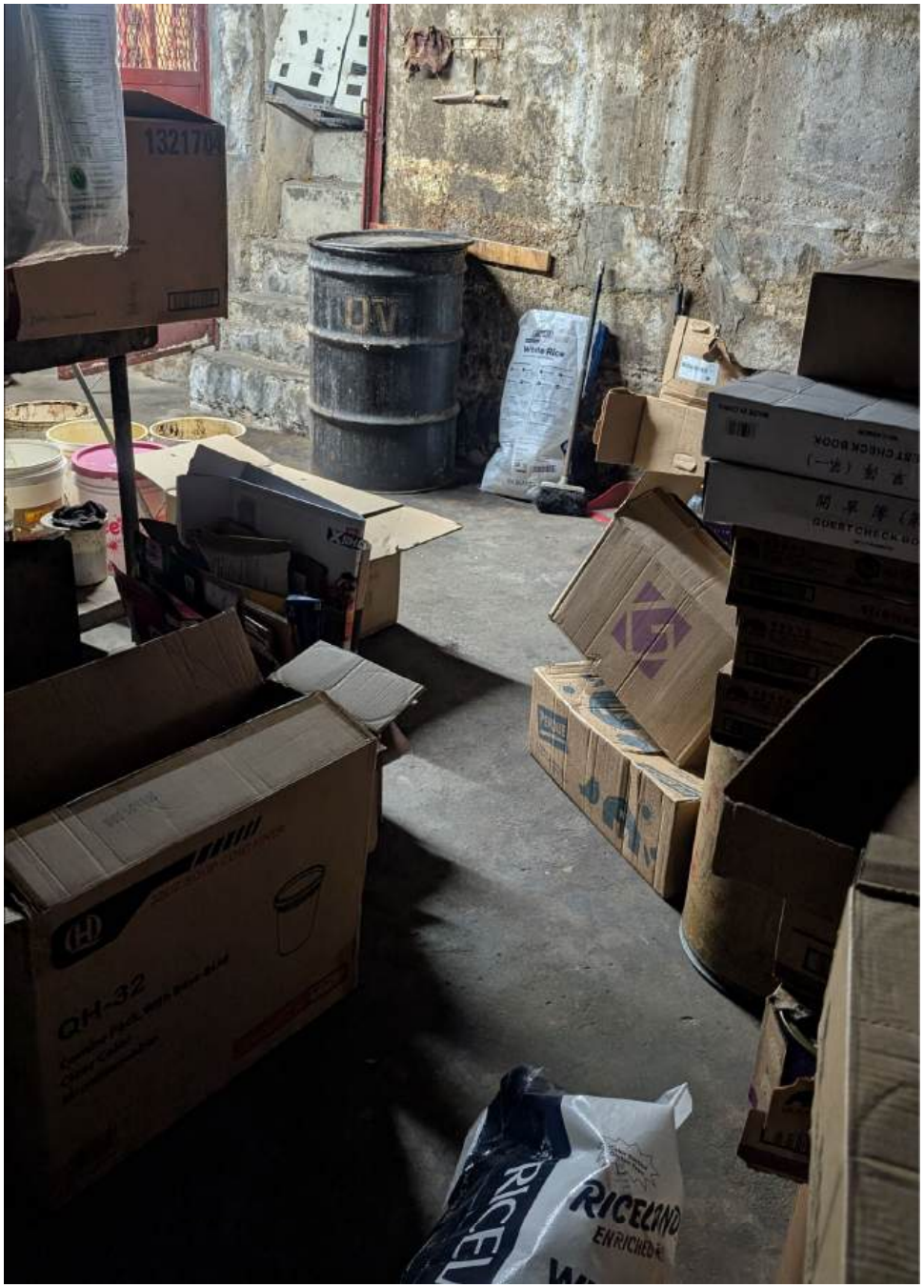
11/7/2024

BASEMENT OF UNIT 127-01



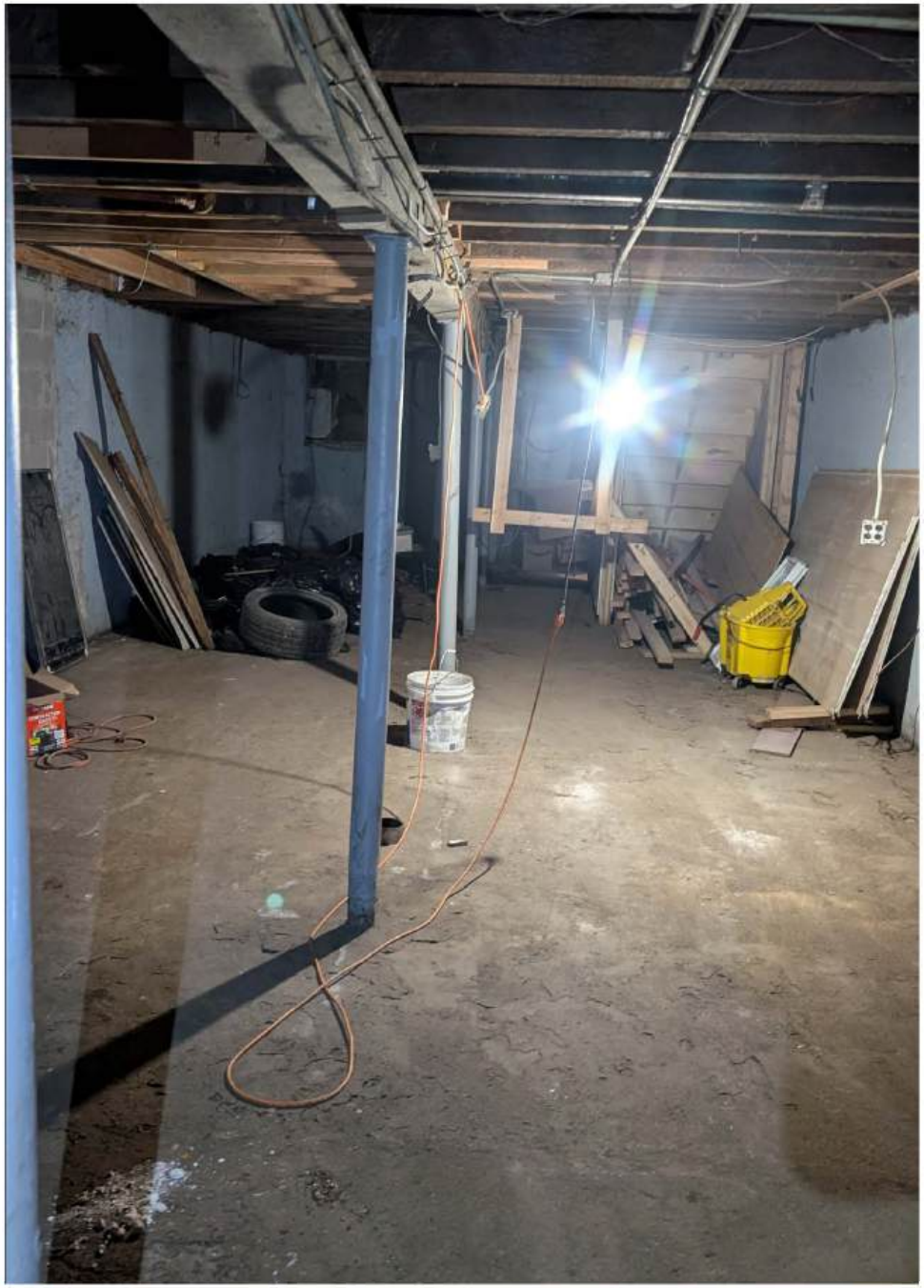


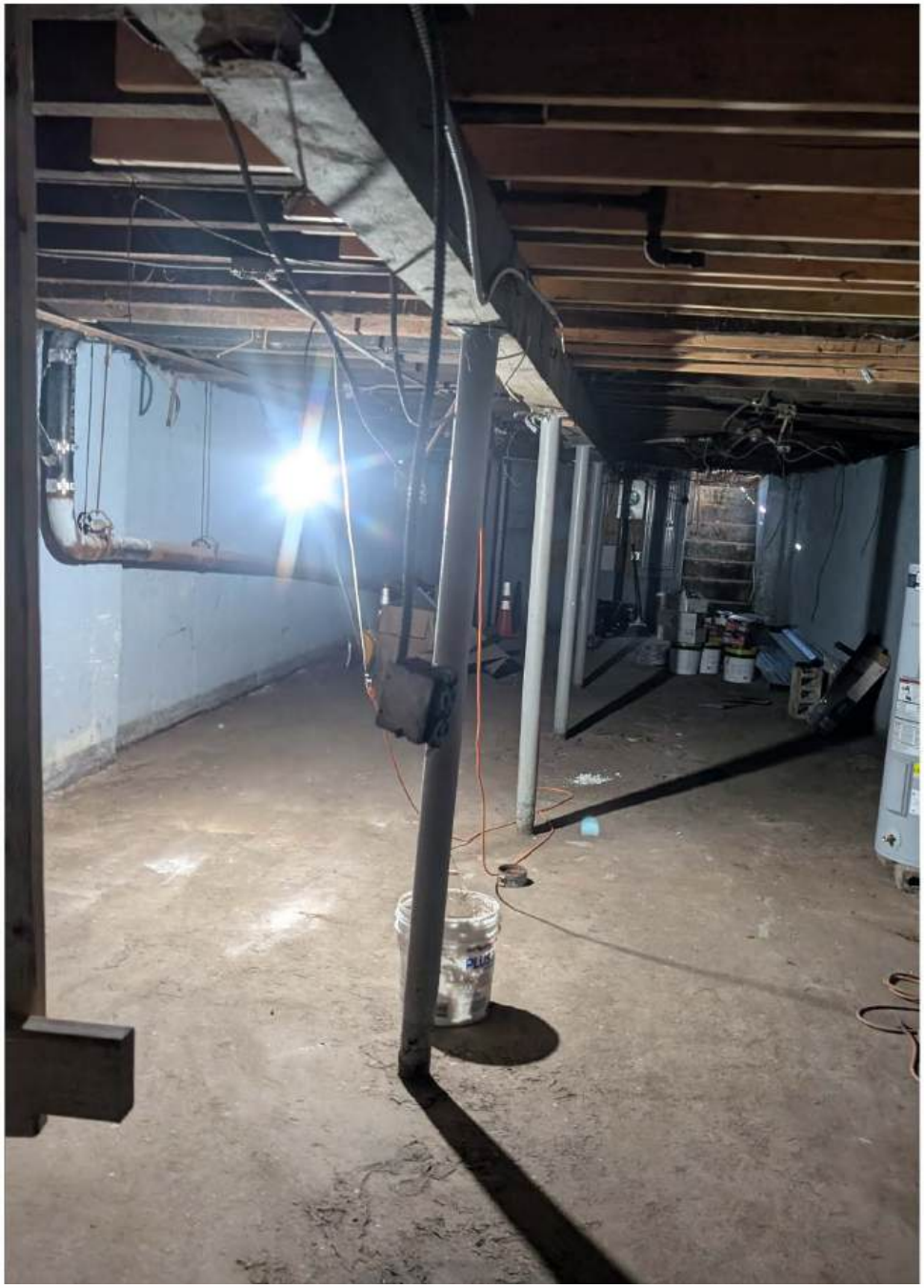
BASEMENT OF UNIT 127-01



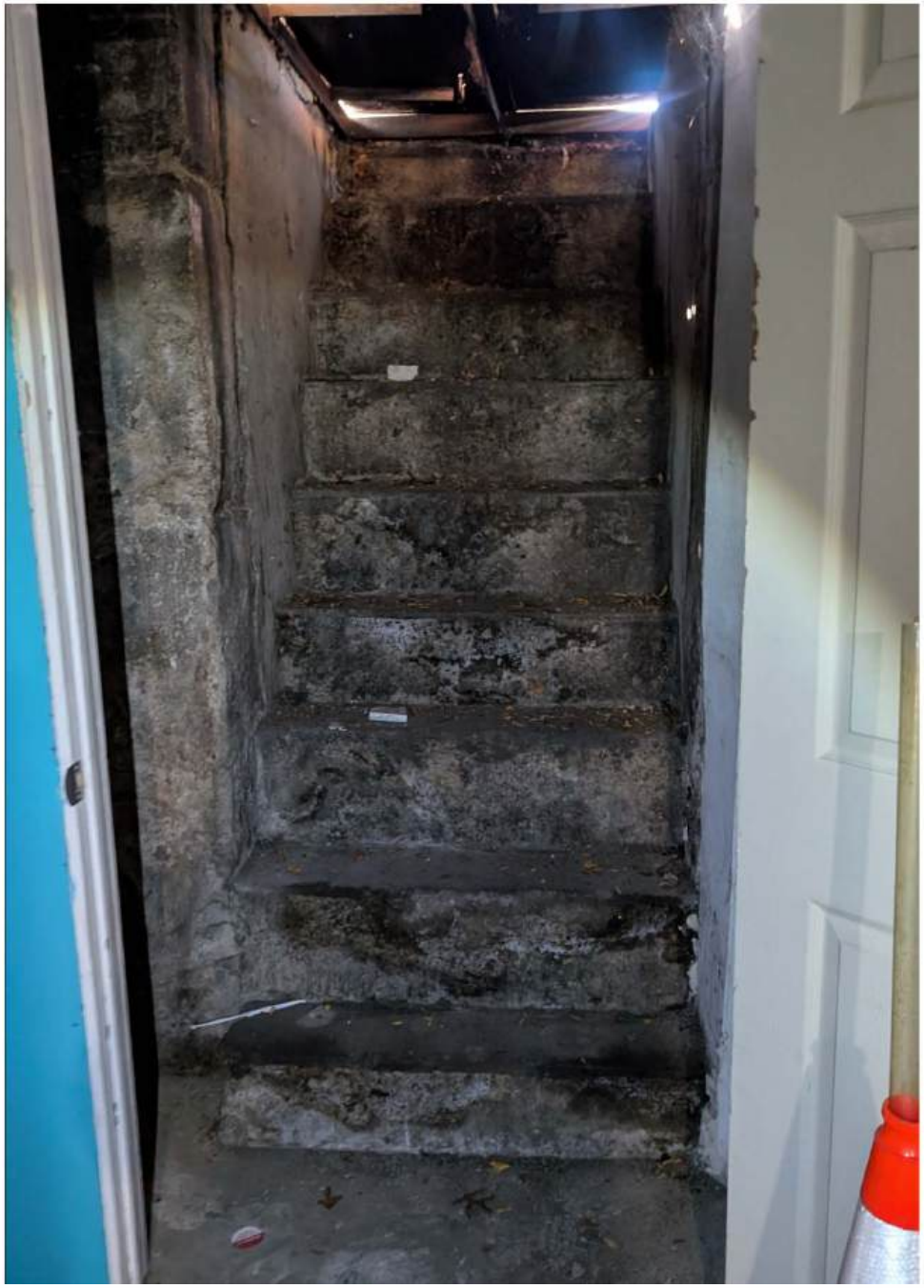
BASEMENT OF UNIT 127-03
VISIBLE PIPING WAS IN GOOD CONDITION

BASEMENT OF UNIT 127-05

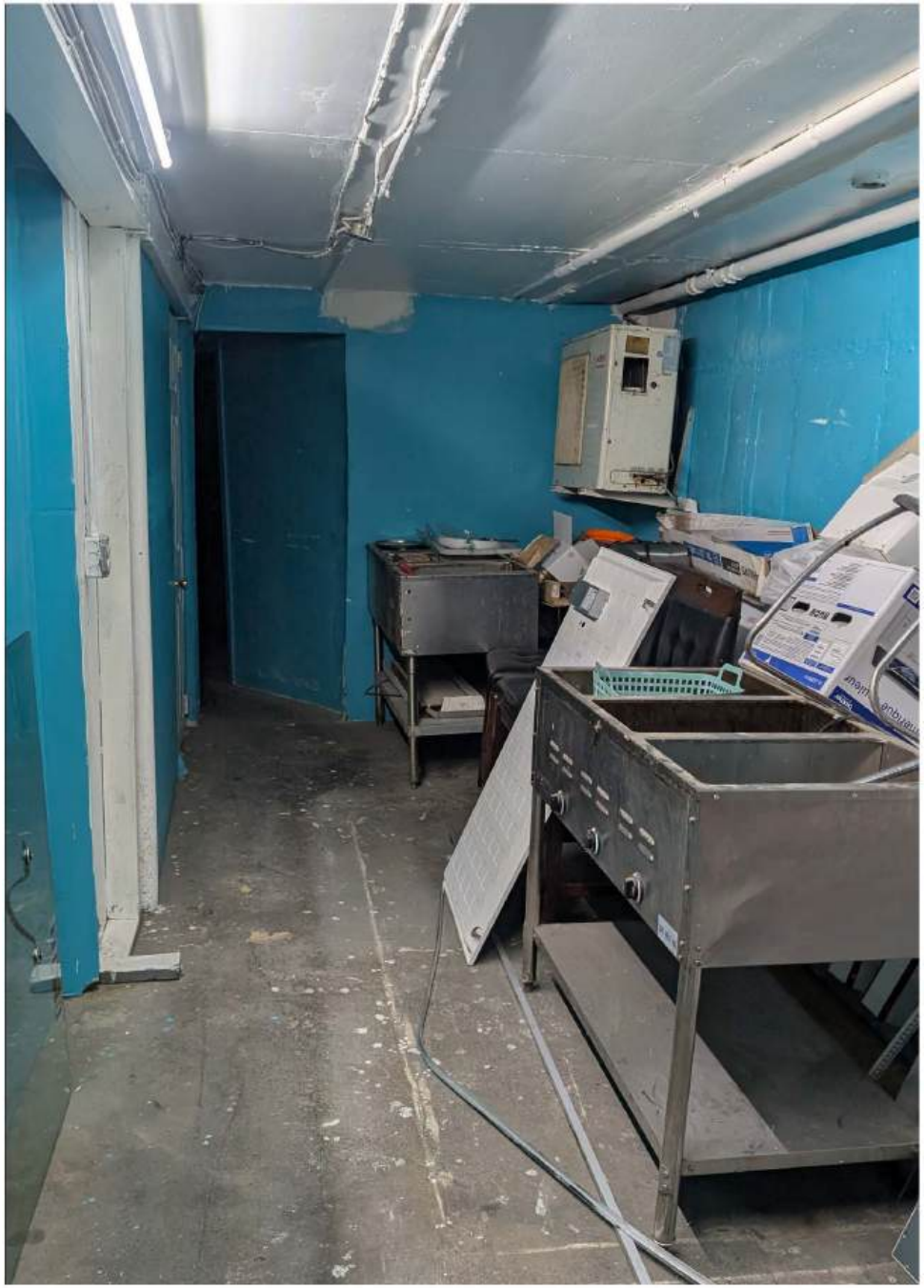


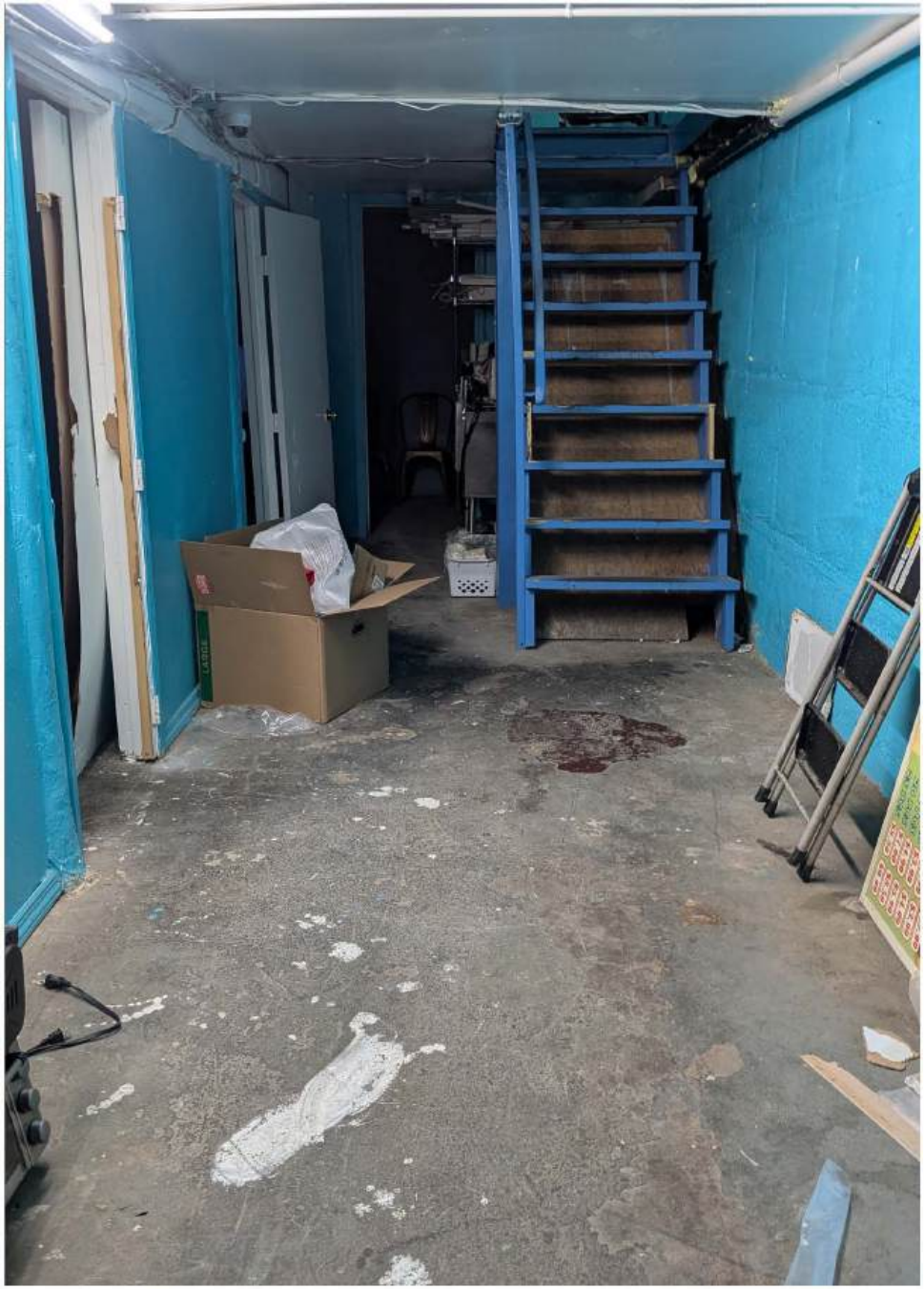


BASEMENT OF UNIT 127-07

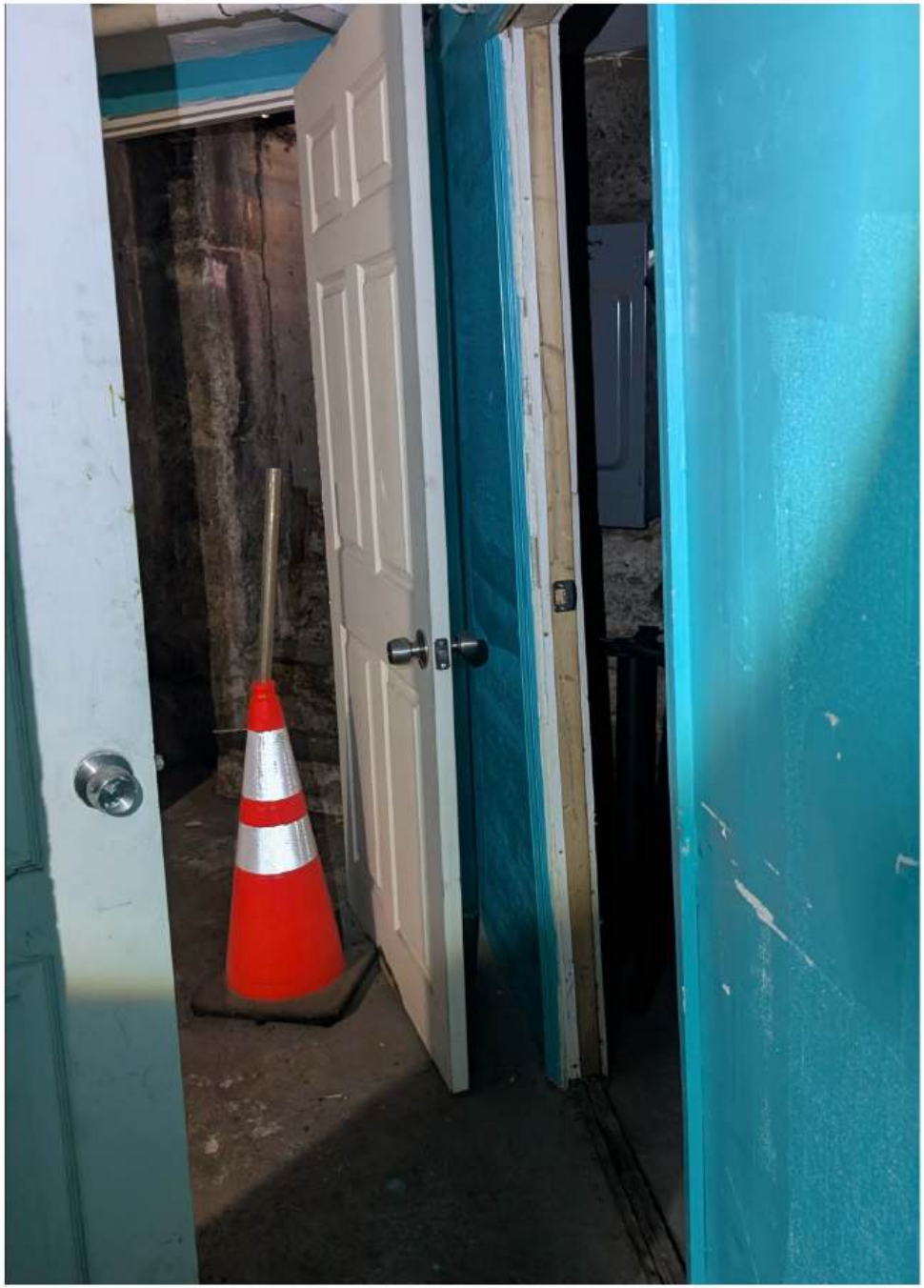


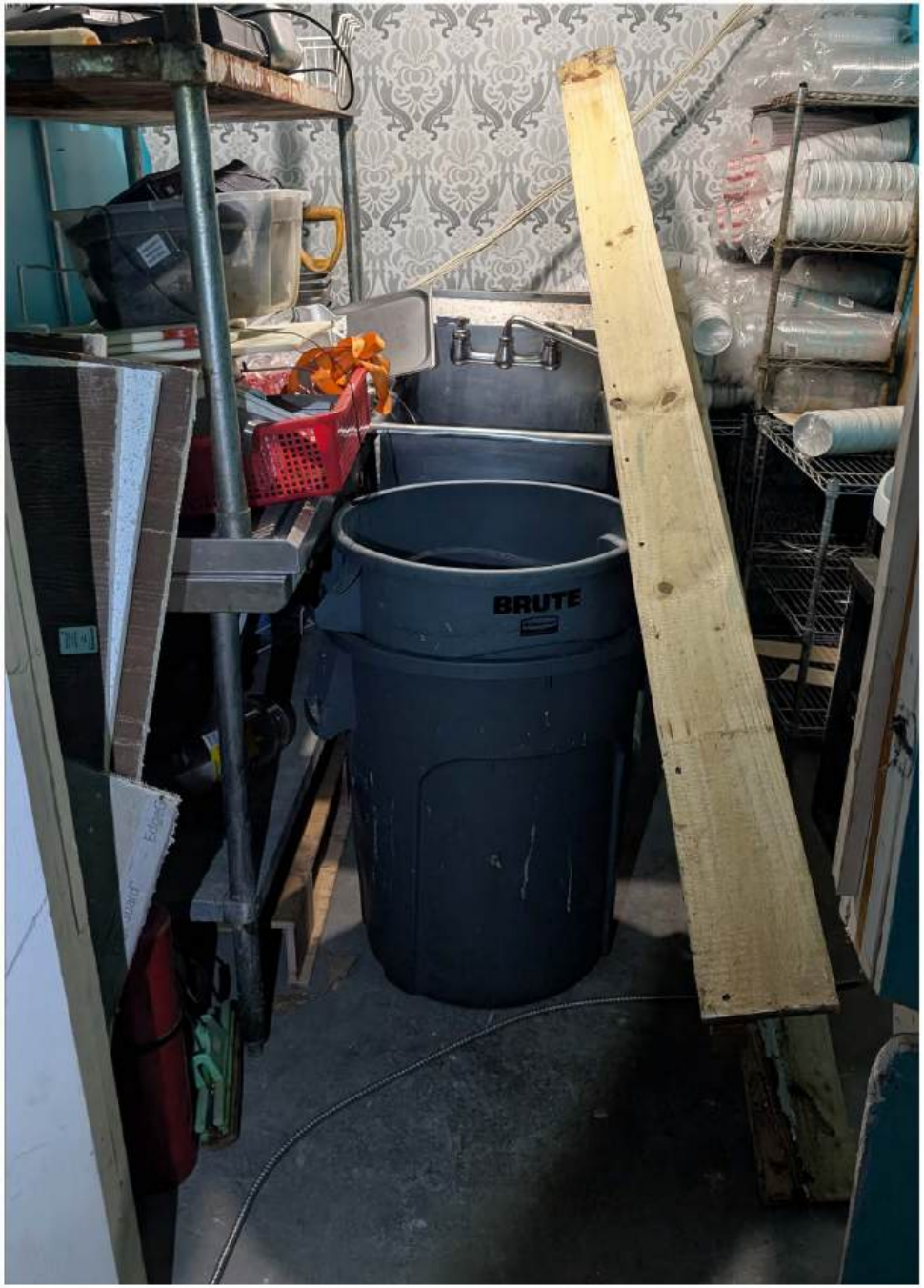
BASEMENT OF UNIT 127-073





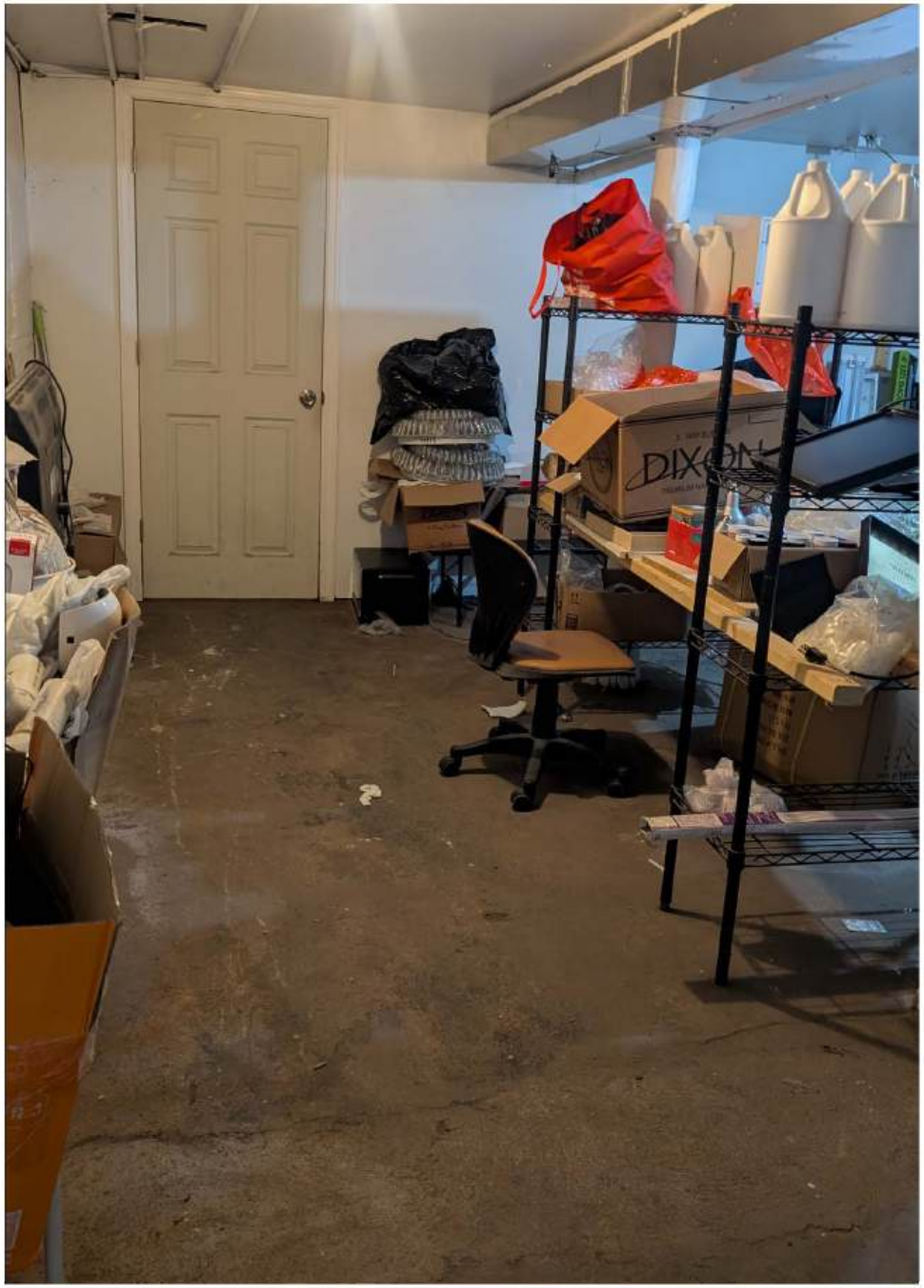
BASEMENT OF UNIT 127-07





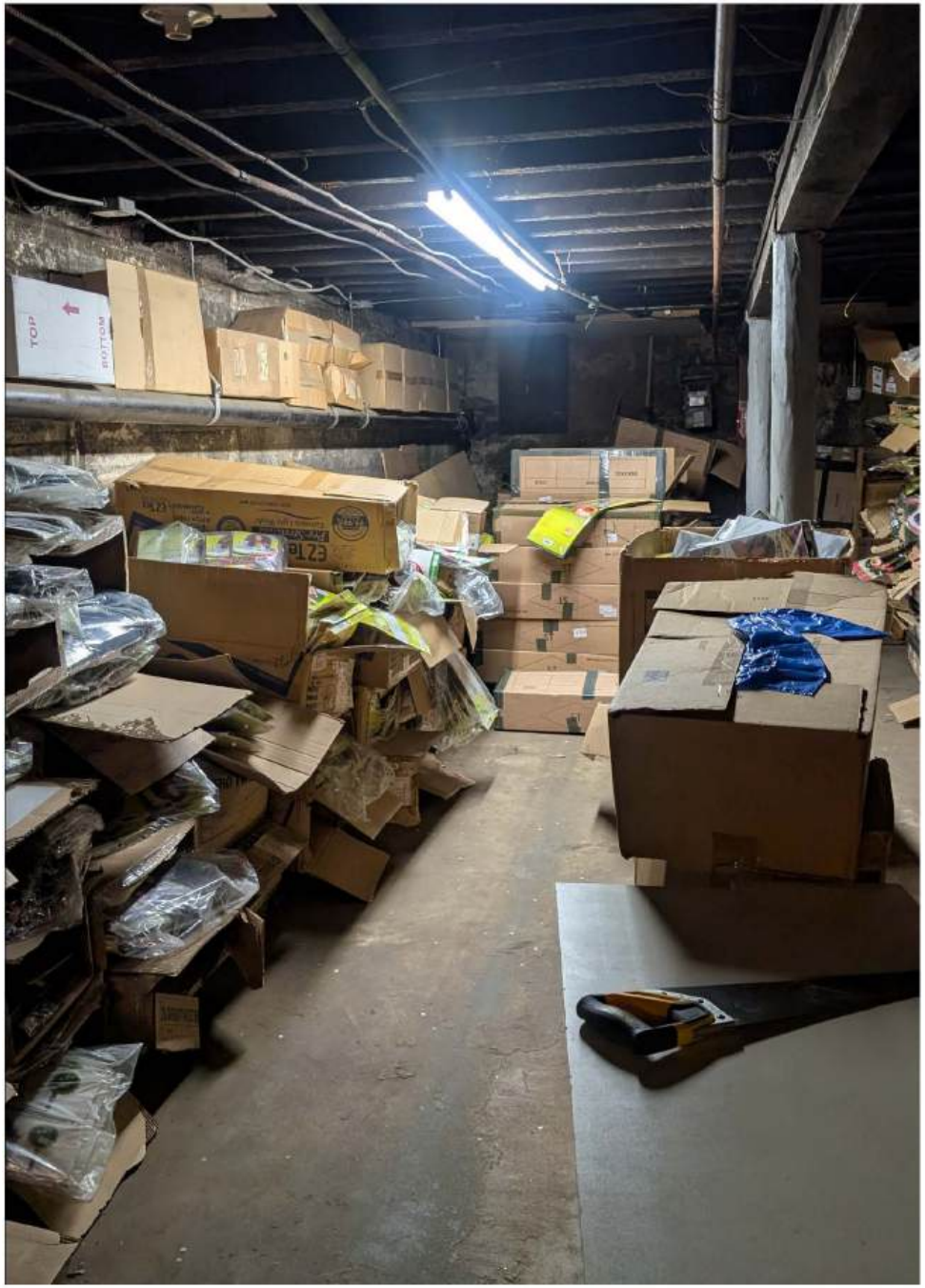
NOT ABLE TO GAIN ENTRANCE TO UNIT 127-09

BASEMENT OF UNIT 127-11



BASEMENT OF UNIT 127-11

BASEMENT OF UNIT 127-13
VISIBLE PIPING WAS IN GOOD CONDITION

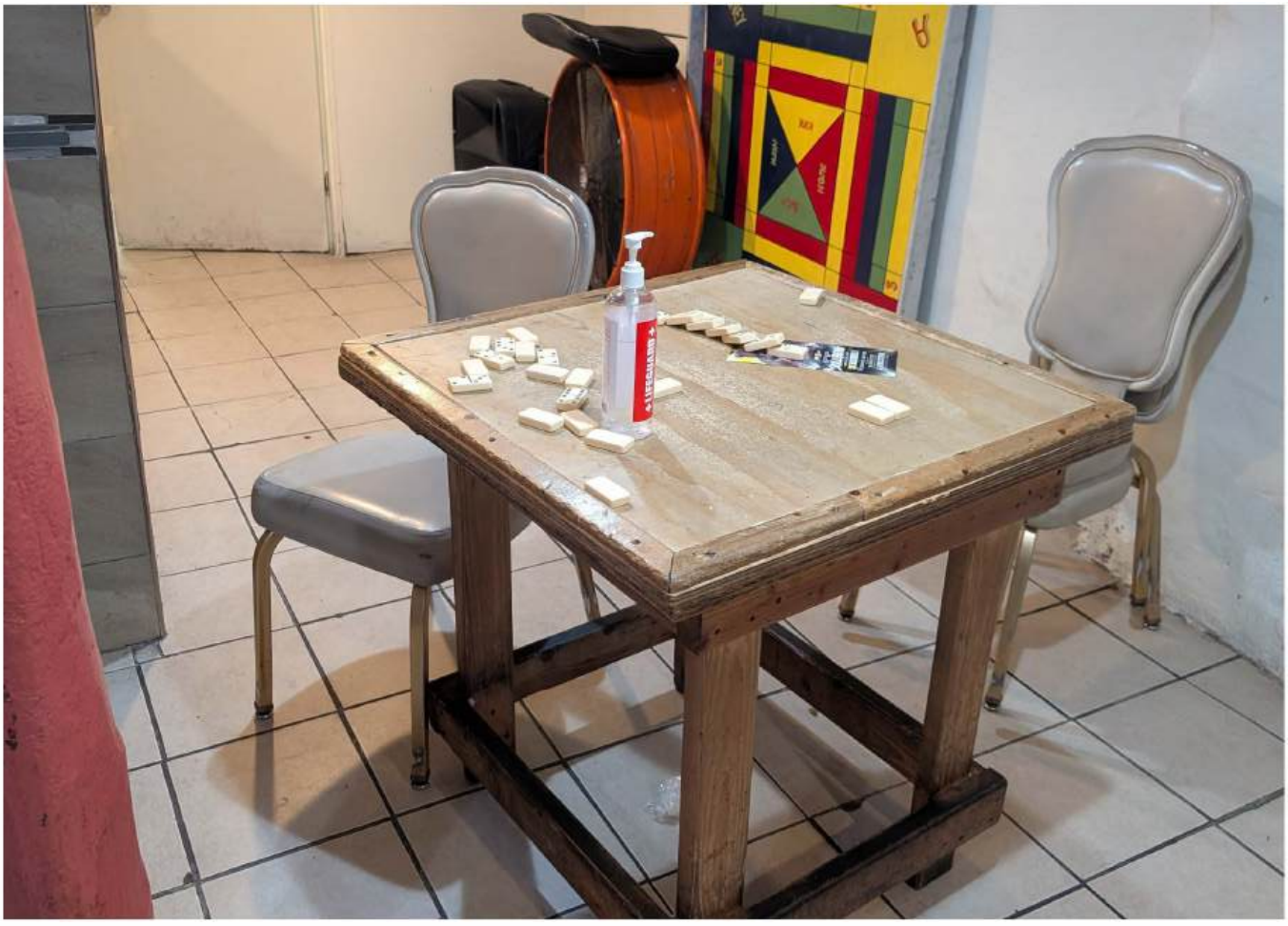


NOT ABLE TO GAIN ENTRANCE TO UNIT 127-15

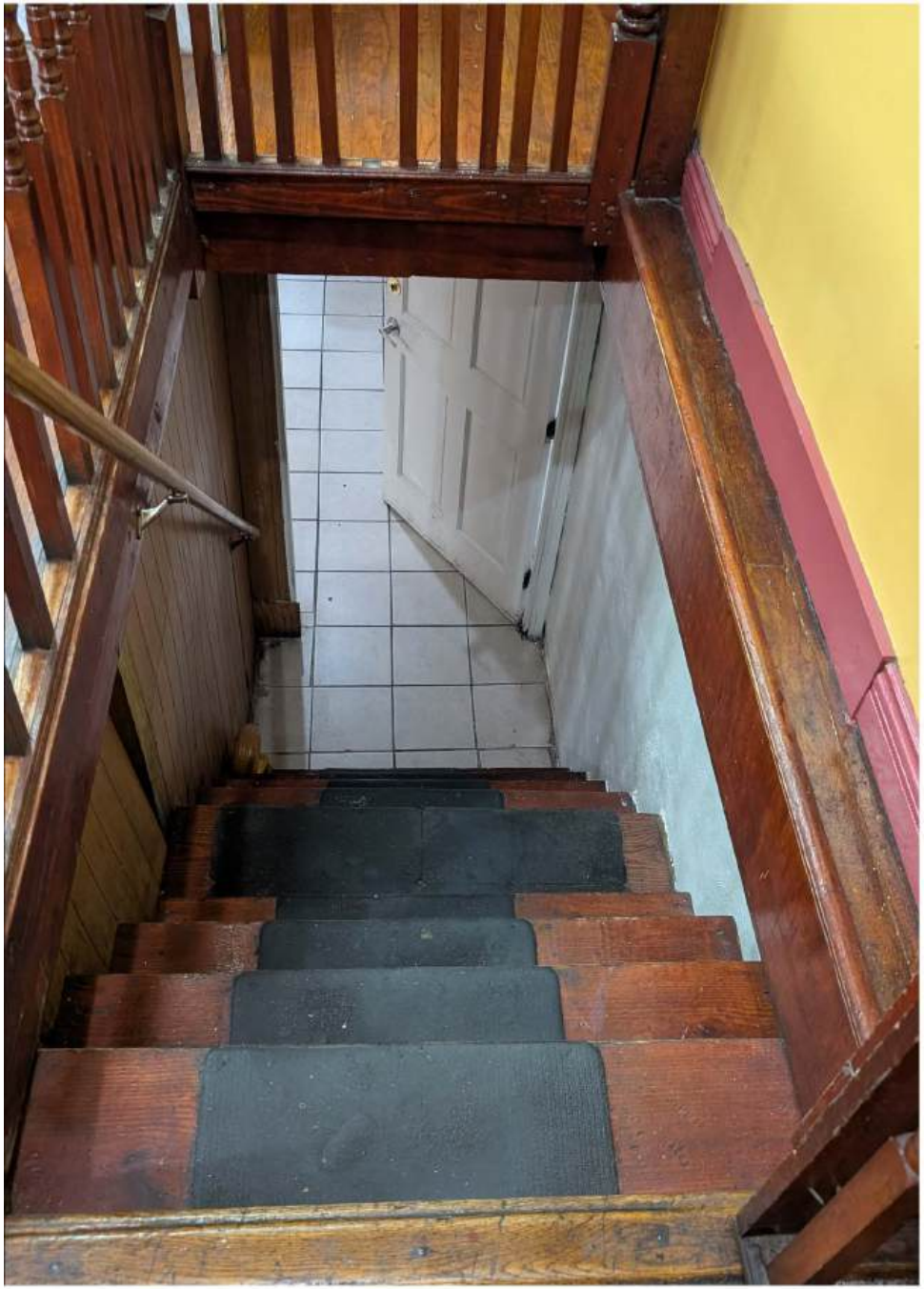
BASEMENT OF UNIT 127-17

BASEMENT OF UNIT 127-17

BASEMENT OF UNIT 127-19

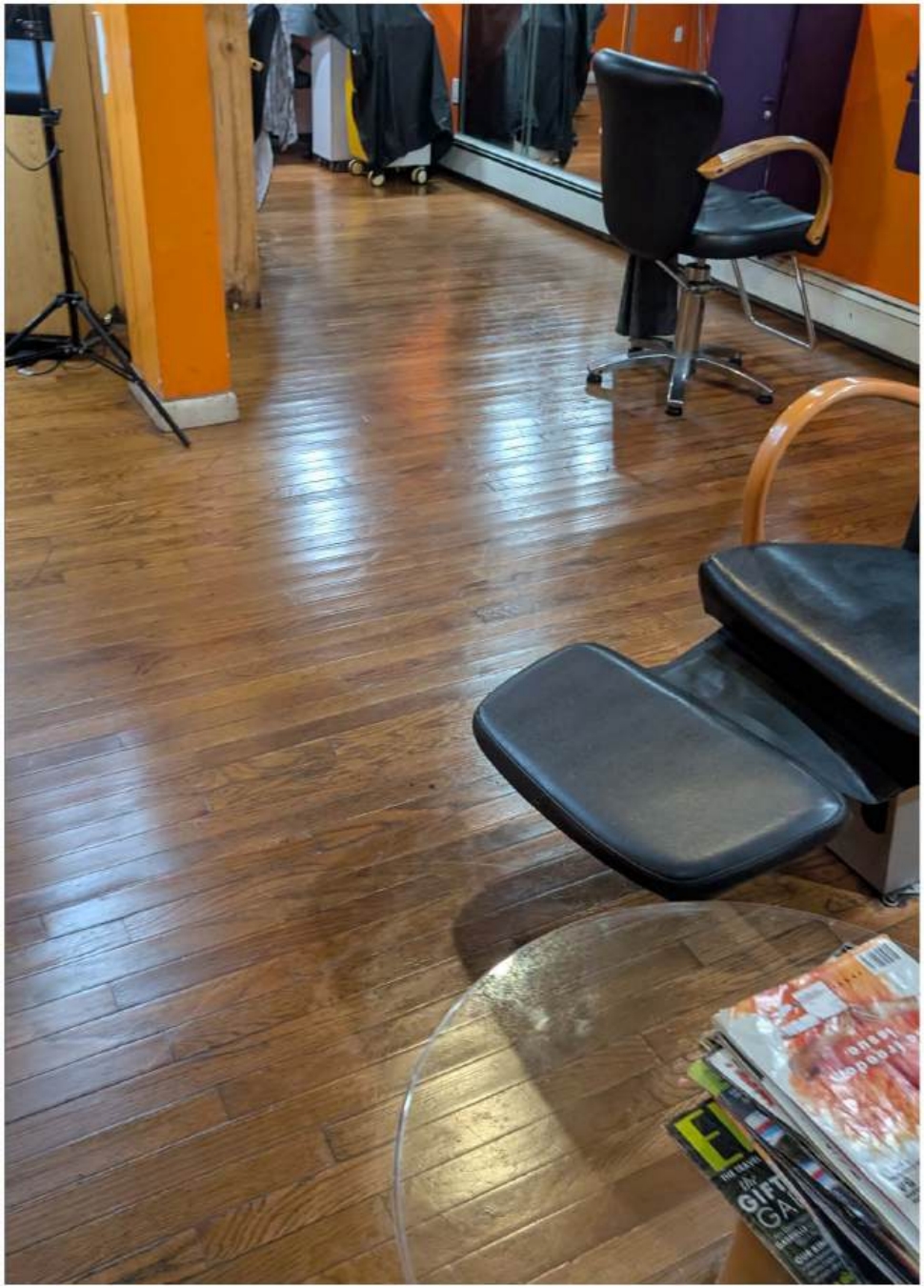


BASEMENT OF UNIT 127-19

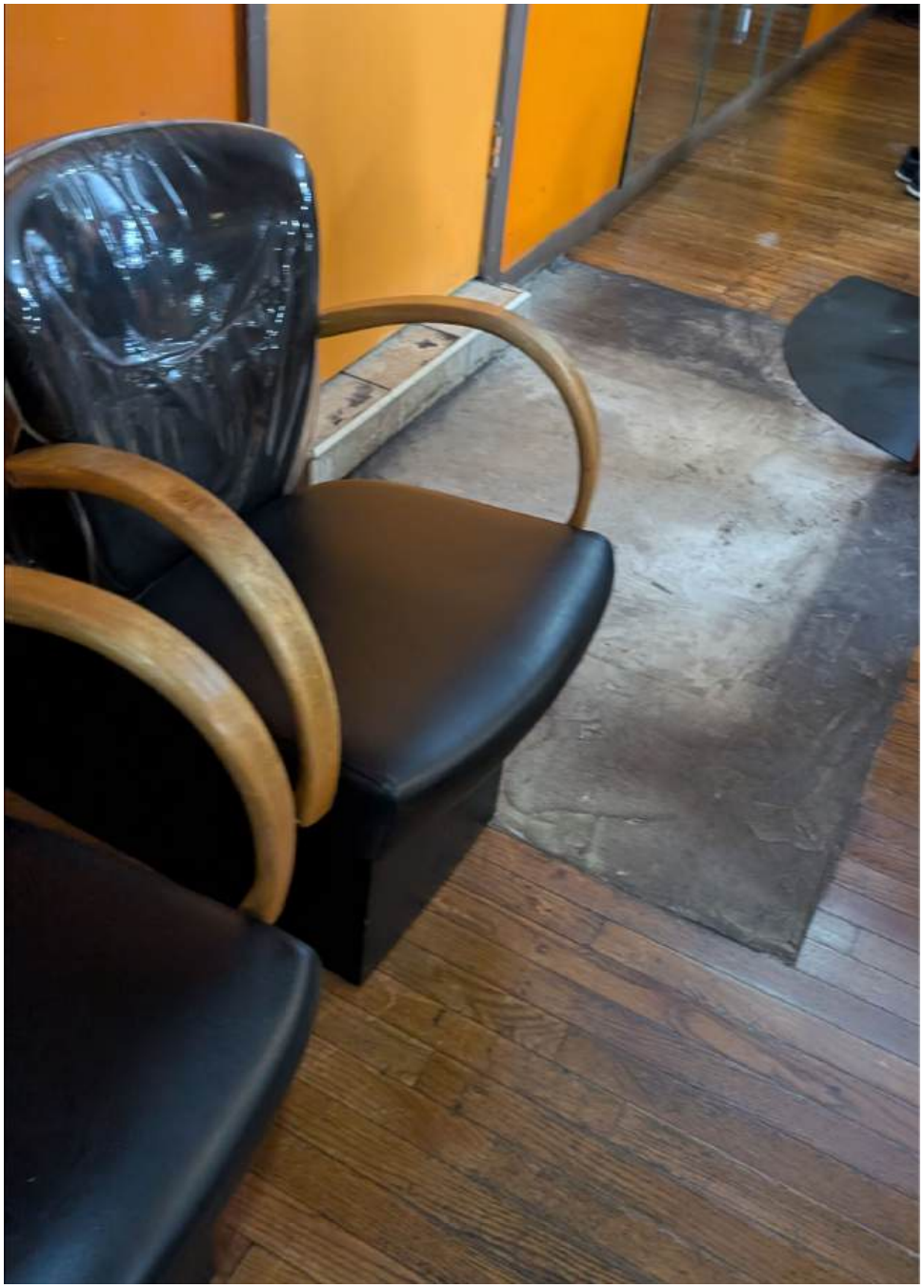


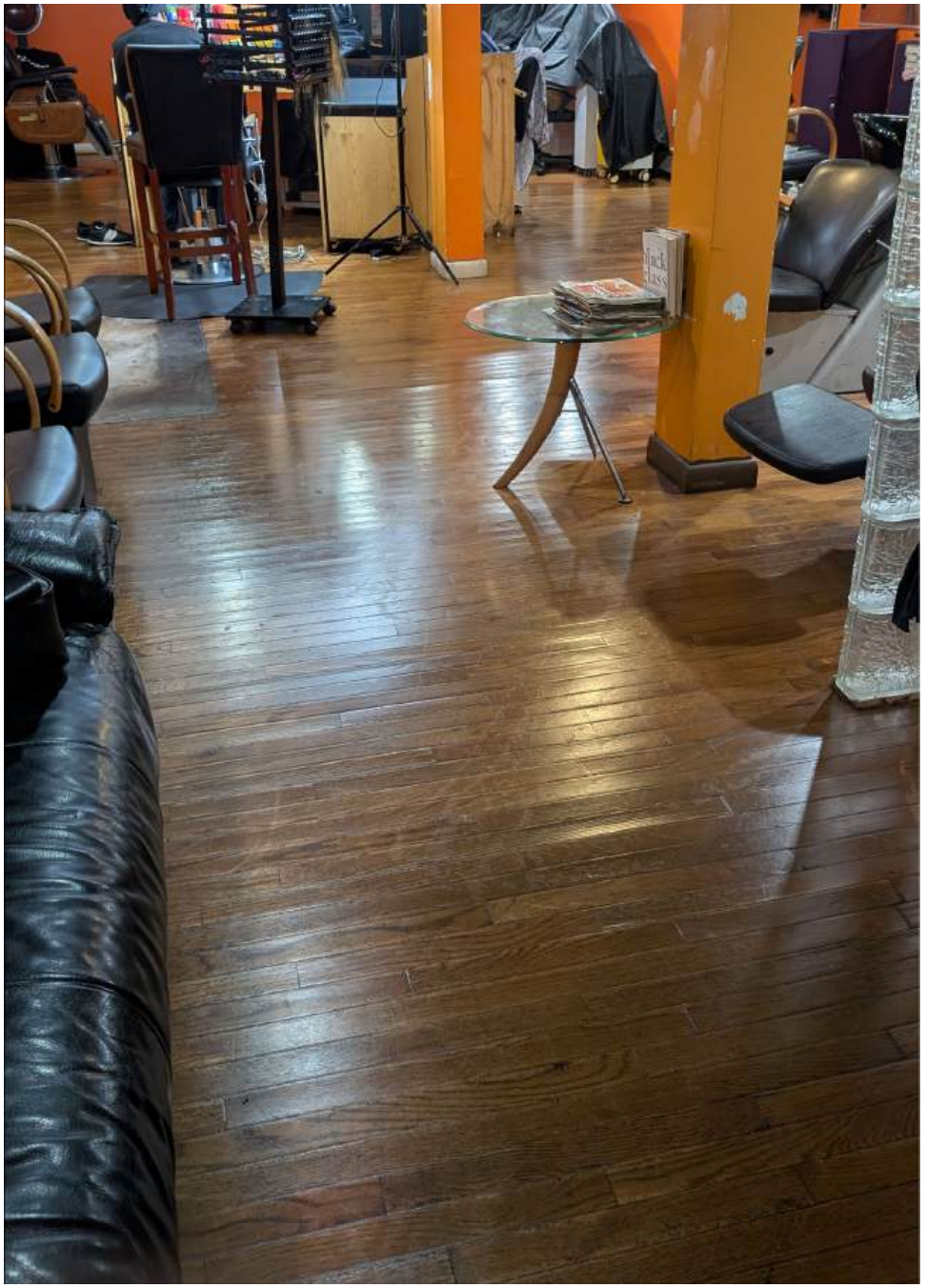
NOT ABLE TO GAIN ENTRANCE TO UNIT 127-21

BASEMENT OF UNIT 127-23



BASEMENT OF UNIT 127-23



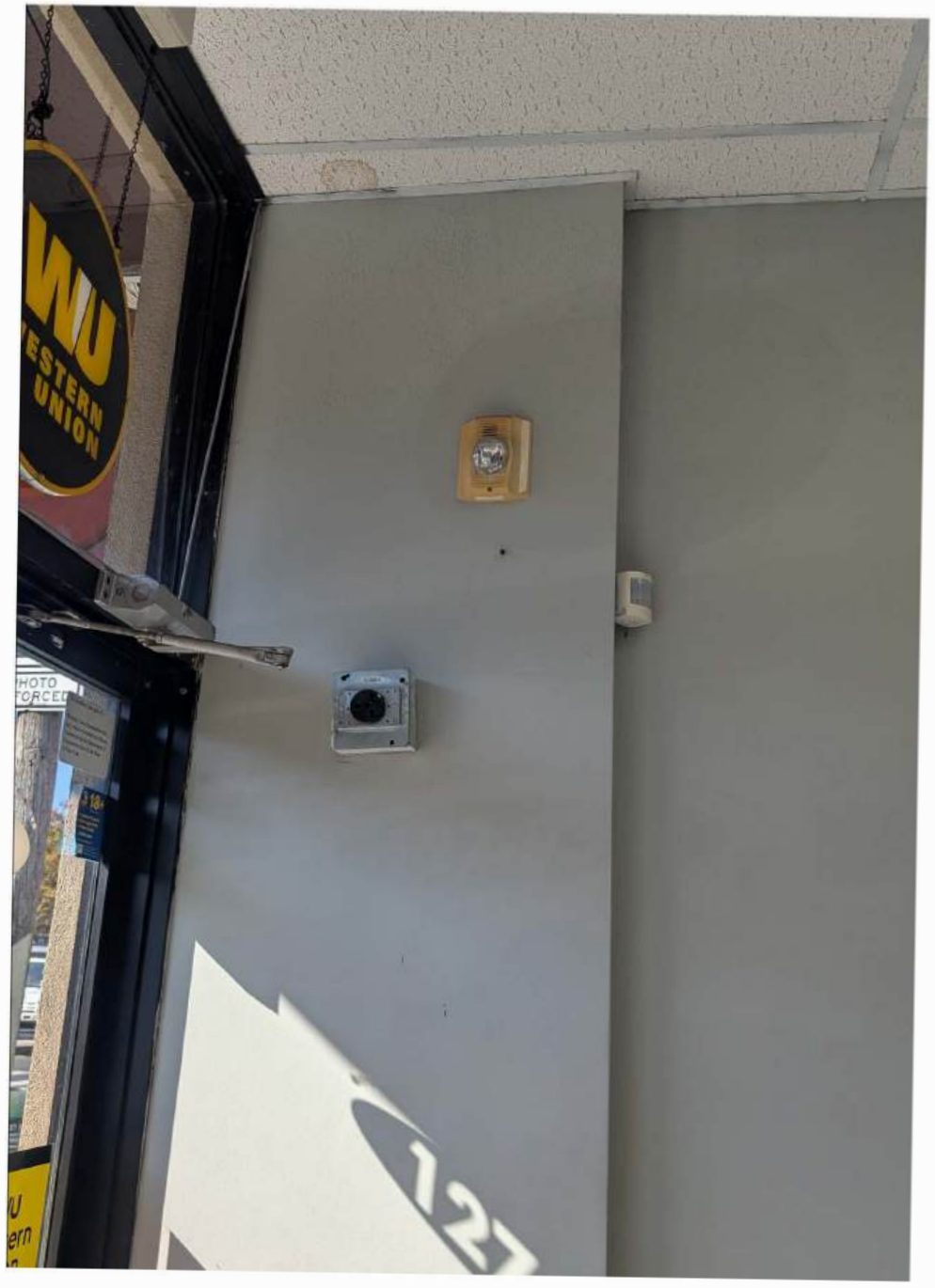


ATTACHMENT 5

PHOTOGRAPHS
OF SSDS SYSTEM

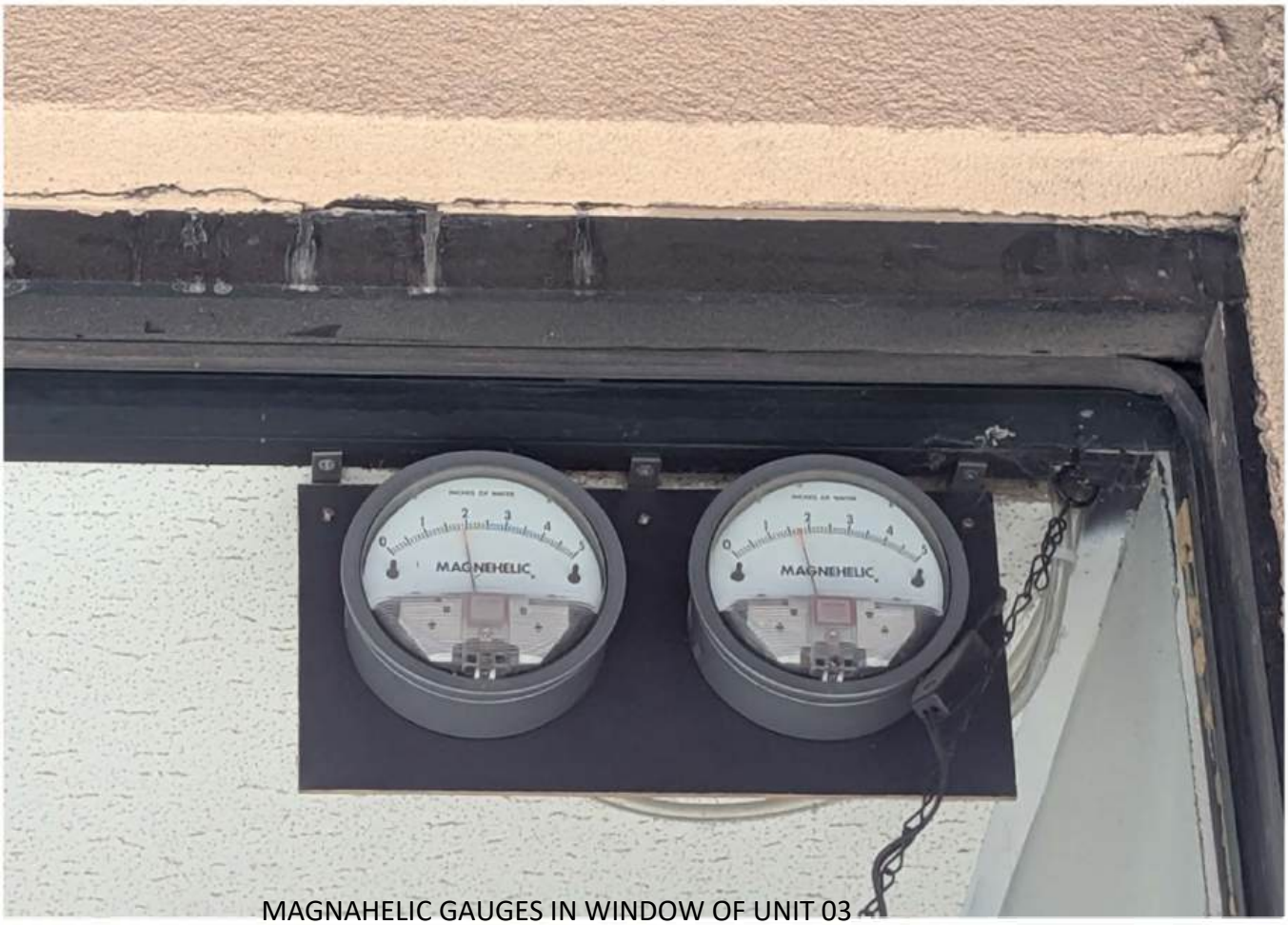
11/7/2024

SSDS WARNING LIGHT AND ALARM IN UNIT 127-03



SSDS CONTROL PANEL IN BASEMENT OF UNIT 127-03

SSDS FANS ON ROOF



MAGNAHELIC GAUGES IN WINDOW OF UNIT 03

ATTACHMENT 6

ANALYTICAL RESULTS FROM
SSDS EFFLUENT SAMPLING

11/7/2024

Table 1
127-13 Merrick Bvld, Queens, NY

LOCATION		LEFT	RIGHT
SAMPLING DATE		11/7/2024	11/7/2024
Lab Sample ID	Units	L2465150-01	L2465150-02
PARAMETER			
1,1,1-Trichloroethane	ug/m3	<1.09	<1.09
1,1,2,2-Tetrachloroethane	ug/m3	<1.37	<1.37
1,1,2-Trichloroethane	ug/m3	<1.09	<1.09
1,1-Dichloroethane	ug/m3	<0.809	<0.809
1,1-Dichloroethene	ug/m3	<0.793	<0.793
1,2,4-Trichlorobenzene	ug/m3	<1.48	<1.48
1,2,4-Trimethylbenzene	ug/m3	<0.983	<0.983
1,2-Dibromoethane	ug/m3	<1.54	<1.54
1,2-Dichlorobenzene	ug/m3	<1.20	<1.20
1,2-Dichloroethane	ug/m3	<0.809	<0.809
1,2-Dichloropropane	ug/m3	<0.924	<0.924
1,3,5-Trimethylbenzene	ug/m3	<0.983	<0.983
1,3-Butadiene	ug/m3	<0.442	<0.442
1,3-Dichlorobenzene	ug/m3	<1.20	<1.20
1,4-Dichlorobenzene	ug/m3	<1.20	<1.20
1,4-Dioxane	ug/m3	<0.721	<0.721
2,2,4-Trimethylpentane	ug/m3	3.46	<0.934
2-Butanone	ug/m3	5.22	<1.47
2-Hexanone	ug/m3	<0.820	<0.820
3-Chloropropene	ug/m3	<0.626	<0.626
4-Ethyltoluene	ug/m3	<0.983	<0.983
4-Methyl-2-pentanone	ug/m3	<2.05	<2.05
Acetone	ug/m3	138	<2.38
Benzene	ug/m3	1.86	<0.639
Benzyl chloride	ug/m3	<1.04	<1.04
Bromodichloromethane	ug/m3	<1.34	<1.34
Bromoform	ug/m3	<2.07	<2.07
Bromomethane	ug/m3	<0.777	<0.777
Carbon disulfide	ug/m3	<0.623	<0.623
Carbon tetrachloride	ug/m3	<1.26	<1.26
Chlorobenzene	ug/m3	<0.921	<0.921
Chloroethane	ug/m3	<0.528	<0.528
Chloroform	ug/m3	4.93	1.65
Chloromethane	ug/m3	0.458	<0.413
cis-1,2-Dichloroethene	ug/m3	<0.793	<0.793
cis-1,3-Dichloropropene	ug/m3	<0.908	<0.908
Cyclohexane	ug/m3	<0.688	<0.688
Dibromochloromethane	ug/m3	<1.70	<1.70
Dichlorodifluoromethane	ug/m3	2.02	1.08
Ethanol	ug/m3	28.8	<9.42

LOCATION		LEFT	RIGHT
SAMPLING DATE		11/7/2024	11/7/2024
Lab Sample ID	Units	L2465150-01	L2465150-02
PARAMETER			
Ethyl Acetate	ug/m3	2.8	<1.80
Ethylbenzene	ug/m3	<0.869	<0.869
Freon-113	ug/m3	<1.53	<1.53
Freon-114	ug/m3	<1.40	<1.40
Heptane	ug/m3	<0.820	<0.820
Hexachlorobutadiene	ug/m3	<2.13	<2.13
Isopropanol	ug/m3	246	3.37
Methyl tert butyl ether	ug/m3	<0.721	<0.721
Methylene chloride	ug/m3	3.82	<1.74
Naphthalene	ug/m3	<1.05	<1.05
n-Hexane	ug/m3	18.9	12.3
o-Xylene	ug/m3	<0.869	<0.869
p/m-Xylene	ug/m3	<1.74	<1.74
Styrene	ug/m3	<0.852	<0.852
Tertiary butyl Alcohol	ug/m3	<1.52	<1.52
Tetrachloroethene	ug/m3	25.8	14
Tetrahydrofuran	ug/m3	<1.47	<1.47
Toluene	ug/m3	3.11	<0.754
trans-1,2-Dichloroethene	ug/m3	<0.793	<0.793
trans-1,3-Dichloropropene	ug/m3	<0.908	<0.908
Trichloroethene	ug/m3	<1.07	<1.07
Trichlorofluoromethane	ug/m3	1.16	<1.12
Vinyl bromide	ug/m3	<0.874	<0.874
Vinyl chloride	ug/m3	<0.511	<0.511

ANALYTICAL REPORT

Lab Number:	L2465150
Client:	Tyll Engineering and Consulting PC 169 Commack Road Suite H173 Commack, NY 11725
ATTN:	Karen Tyll
Phone:	(631) 664-6477
Project Name:	127-13
Project Number:	Not Specified
Report Date:	11/18/24

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (9110), MN (025-999-495), NJ (MA015), NY (11627), NC (685), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708A1), USFWS (Permit #A24920).

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2465150-01	LEFT	SOIL_VAPOR	Not Specified	11/07/24 12:20	11/07/24
L2465150-02	RIGHT	SOIL_VAPOR	Not Specified	11/07/24 12:10	11/07/24

Project Name:	127-13	**Lab Number:**	L2465150
Project Number:	Not Specified	**Report Date:**	11/18/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 127-13 **Lab Number:** L2465150
Project Number: Not Specified **Report Date:** 11/18/24

Case Narrative (continued)

Volatile Organics in Air

L2465150-01: Samples were transferred from a Tedlar bag into a fused silica lined canister upon receipt in order to extend the holding time for analysis.

L2465150-02: Samples were transferred from a Tedlar bag into a fused silica lined canister upon receipt in order to extend the holding time for analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 11/18/24

AIR

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

SAMPLE RESULTS

Lab ID: L2465150-01
Client ID: LEFT
Sample Location:

Date Collected: 11/07/24 12:20
Date Received: 11/07/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 11/17/24 01:11
Analyst: KJD

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.409	0.200	--	2.02	0.989	--		1
Chloromethane	0.222	0.200	--	0.458	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	15.3	5.00	--	28.8	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	58.3	1.00	--	138	2.38	--		1
Trichlorofluoromethane	0.206	0.200	--	1.16	1.12	--		1
Isopropanol	100	0.500	--	246	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	1.10	0.500	--	3.82	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.77	0.500	--	5.22	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

SAMPLE RESULTS

Lab ID: L2465150-01
Client ID: LEFT
Sample Location:

Date Collected: 11/07/24 12:20
Date Received: 11/07/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	0.777	0.500	--	2.80	1.80	--		1
Chloroform	1.01	0.200	--	4.93	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	5.36	0.200	--	18.9	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.583	0.200	--	1.86	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.740	0.200	--	3.46	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.824	0.200	--	3.11	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	3.80	0.200	--	25.8	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

SAMPLE RESULTS

Lab ID: L2465150-01
Client ID: LEFT
Sample Location:

Date Collected: 11/07/24 12:20
Date Received: 11/07/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	99		60-140

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

SAMPLE RESULTS

Lab ID: L2465150-02
Client ID: RIGHT
Sample Location:

Date Collected: 11/07/24 12:10
Date Received: 11/07/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 11/17/24 02:05
Analyst: KJD

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.219	0.200	--	1.08	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	1.37	0.500	--	3.37	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

SAMPLE RESULTS

Lab ID: L2465150-02
Client ID: RIGHT
Sample Location:

Date Collected: 11/07/24 12:10
Date Received: 11/07/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	0.338	0.200	--	1.65	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	3.48	0.200	--	12.3	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	2.06	0.200	--	14.0	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

SAMPLE RESULTS

Lab ID: L2465150-02
Client ID: RIGHT
Sample Location:

Date Collected: 11/07/24 12:10
Date Received: 11/07/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	90		60-140

Project Name: 127-13 **Lab Number:** L2465150

Project Number: Not Specified **Report Date:** 11/18/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 11/16/24 13:00

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1998393-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1

Project Name: 127-13 **Lab Number:** L2465150

Project Number: Not Specified **Report Date:** 11/18/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 11/16/24 13:00

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1998393-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1

Project Name: 127-13
Project Number: Not Specified
Lab Number: L2465150
Report Date: 11/18/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 11/16/24 13:00

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1998393-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1998393-3								
Dichlorodifluoromethane	85		-		70-130	-		
Chloromethane	76		-		70-130	-		
Freon-114	86		-		70-130	-		
Vinyl chloride	85		-		70-130	-		
1,3-Butadiene	82		-		70-130	-		
Bromomethane	97		-		70-130	-		
Chloroethane	76		-		70-130	-		
Ethanol	87		-		40-160	-		
Vinyl bromide	79		-		70-130	-		
Acetone	73		-		40-160	-		
Trichlorofluoromethane	85		-		70-130	-		
Isopropanol	76		-		40-160	-		
1,1-Dichloroethene	87		-		70-130	-		
Tertiary butyl Alcohol	89		-		70-130	-		
Methylene chloride	96		-		70-130	-		
3-Chloropropene	78		-		70-130	-		
Carbon disulfide	80		-		70-130	-		
Freon-113	82		-		70-130	-		
trans-1,2-Dichloroethene	84		-		70-130	-		
1,1-Dichloroethane	79		-		70-130	-		
Methyl tert butyl ether	80		-		70-130	-		
2-Butanone	80		-		70-130	-		
cis-1,2-Dichloroethene	84		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1998393-3								
Ethyl Acetate	91		-		70-130	-		
Chloroform	98		-		70-130	-		
Tetrahydrofuran	74		-		70-130	-		
1,2-Dichloroethane	79		-		70-130	-		
n-Hexane	107		-		70-130	-		
1,1,1-Trichloroethane	99		-		70-130	-		
Benzene	93		-		70-130	-		
Carbon tetrachloride	101		-		70-130	-		
Cyclohexane	113		-		70-130	-		
1,2-Dichloropropane	89		-		70-130	-		
Bromodichloromethane	120		-		70-130	-		
1,4-Dioxane	121		-		70-130	-		
Trichloroethene	106		-		70-130	-		
2,2,4-Trimethylpentane	107		-		70-130	-		
Heptane	90		-		70-130	-		
cis-1,3-Dichloropropene	94		-		70-130	-		
4-Methyl-2-pentanone	94		-		70-130	-		
trans-1,3-Dichloropropene	98		-		70-130	-		
1,1,2-Trichloroethane	96		-		70-130	-		
Toluene	87		-		70-130	-		
2-Hexanone	76		-		70-130	-		
Dibromochloromethane	102		-		70-130	-		
1,2-Dibromoethane	78		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1998393-3								
Tetrachloroethene	75		-		70-130	-		
Chlorobenzene	78		-		70-130	-		
Ethylbenzene	88		-		70-130	-		
p/m-Xylene	90		-		70-130	-		
Bromoform	102		-		70-130	-		
Styrene	79		-		70-130	-		
1,1,2,2-Tetrachloroethane	91		-		70-130	-		
o-Xylene	90		-		70-130	-		
4-Ethyltoluene	83		-		70-130	-		
1,3,5-Trimethylbenzene	81		-		70-130	-		
1,2,4-Trimethylbenzene	83		-		70-130	-		
Benzyl chloride	98		-		70-130	-		
1,3-Dichlorobenzene	84		-		70-130	-		
1,4-Dichlorobenzene	86		-		70-130	-		
1,2-Dichlorobenzene	83		-		70-130	-		
1,2,4-Trichlorobenzene	94		-		70-130	-		
Naphthalene	93		-		70-130	-		
Hexachlorobutadiene	90		-		70-130	-		

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2465150-01A	Tedlar Bag 1 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2465150-01X	Tedlar Bag 1 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2465150-02A	Tedlar Bag 1 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2465150-02X	Tedlar Bag 1 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	127-13	**Lab Number:**	L2465150
Project Number:	Not Specified	**Report Date:**	11/18/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	127-13	**Lab Number:**	L2465150
Project Number:	Not Specified	**Report Date:**	11/18/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report

Project Name:	127-13	**Lab Number:**	L2465150
Project Number:	Not Specified	**Report Date:**	11/18/24

Data Qualifiers

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report

Project Name: 127-13
Project Number: Not Specified

Lab Number: L2465150
Report Date: 11/18/24

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine, 2,6-Dichlorophenol.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE ____ OF ____

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 11-8-24

ALPHA Job #: L2465150

Client Information

Client: Tyll Engineering
Address: 169 Commack Rd, #H173
Commack NY 11725
Phone: 631-664 6477
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 127-13
Project Location:
Project #:
Project Manager: K. Tyll
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NYSDEC	REM	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	ANALYSIS TO-15	TO-15 SIM	APH Subset Non-petroleum HCs	☐ Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
65150-01	Left	11/7/24	1220	—	—	—	SV	KT	—		TEDLAR BAG	X					
-02	Right	11/7/24	1230	—	-	—	SV	KT	—		TEDLAR BAG	X					

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
	11/7/24 1233		11/7 1233
	11/7 1825		NOV 07 2024 2315
Anthony Green	11/8/24 0145	Anthony Green	11/8/24 0145
	11/8/24 0645		11-8-24 0645