Memorandum

To: *Ms. Caroline Eigenbrodt, Environmental Engineer, Division of Environmental Remediation, New York State Department of Environmental Conservation*

From: *Melissa Harclerode, Project Manager, CDM Smith*

Date: *May 3, 2017*

Subject: *Villa Cleaners 2017 Vapor Intrusion Assessment*

Villa Cleaners Indoor and Sub-Slab Air Assessment

Background and Site History

Sub-slab depressurization systems (SSDS) were installed at the Villa Cleaners Site in June 2011 to mitigate sub-slab vapor and indoor air contaminated with chlorinated volatile organic compounds. In 2014, a vapor intrusion (VI) assessment was performed to monitor the contaminant concentrations and efficacy each SSDS. Due to access issues, the following properties were not evaluated:1893, 1895, and 1899A. Based on the New York State Department of Health (NYSDOH) 2006 *Guidance for Evaluating Soil Vapor Intrusion in the State of New York Soil Vapor/Indoor Air Matrix 1 and Matrix 2*, the 2014 investigation results determined that each building sampled for VI no longer met the criteria of "mitigate". Technical Memorandum *Villa Dry Cleaners Air Assessment* documenting the 2014 investigation and findings was submitted to the New York State Department of Environmental Conservation (NYSDEC) on April 11, 2014. The SSDS at each sampled property continued to operate following the sampling event, with the exception of 1899B which was not functioning before or during the sampling event. The broken SSDS at 1899B Deer Park Avenue was determined to be acceptable by NYSDEC because the 2014 investigation concluded that no further action was required. The purpose of the 2017 VI investigation was to re-evaluate the efficacy of the SSDS at each property.

2017 Indoor Air and Sub-Slab Vapor Sampling

The 2017 indoor air and sub-slab vapor sampling event was conducted in accordance with the *Villa Dry Cleaners Site Management Plan (SMP) (August 2012)*. The SSDS for each building was shut off in December 2016 to allow adequate time for the sub-slab vapor and indoor air quality in each building to return to natural conditions. Subsequently, the VI investigation was conducted on March 7 and 8, 2017. Sub-slab vapor and indoor air samples were collected in each of the properties in Crazy Billy's Plaza, including 1887, 1889, 1891, 1893, 1895, 1897, 1899A, and 1899B Deer Park Avenue, Deer Park, NY (**Figure 1**). Sub-slab vapor and indoor air samples were co-located except in cases where the indoor air sample was relocated to be more representative of indoor air conditions. One duplicate indoor air sample was collected at 1899A, one duplicate sub-slab vapor sample was collected at 1899B, and one outdoor air sample was collected at 1897 Deer Park Avenue. The

sample was placed in the rear parking lot to provide a baseline of outdoor ambient conditions, away from the busier front parking lot which has more vehicle exhaust. All air samples were collected using 6-liter summa canisters over a 24-hour period. Samples were analyzed for volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) TO-15 method by TestAmerica Laboratories, Inc. *New York State Department of Health Indoor Air Quality Questionnaire and Building Inventory Center for Environmental Health* forms were filled out for each property with the exception of 1899A Deer Park Avenue, and are included as **Appendix A**.

Deviations from the SMP

CDM Smith performed indoor air sampling in January 2017 to evaluate performance of the SSDS's at each property associated with the Villa Cleaners Site. Since sub-slab vapor samples were not collectively simultaneously, the results of this event were disregarded. Subsequently, VI sampling was performed in March 2017.

Sub-slab Depressurization System Status

When each SSDS was turned off in December 2016, CDM Smith noted that all systems were functioning with the exception of System 1 at 1889 Deer Park Avenue (Villa Cleaners). Also, System 4 at 1893 Deer Park Avenue had to be shut off via a fuse box in the building. The systems were returned to their pre-December 2016 condition on March 28th, 2017.

Summary of Vapor Intrusion Sampling Results

Indoor air and ambient air results were compared to *NYSDOH Guidance Appendix C Table C2- EPA 2001 Building Assessment and Survey Evaluation (BASE) Database, SUMMA canister method, 90th percentile (EPA BASE 90th Percentile)*. These values provide background concentrations of VOCs expected in typical indoor and outdoor locations. VI investigation results are presented in **Tables 1, 2, and 3**. **Table 4** presents a comparison of investigation results NYSDOH (2006) Guidance for Evaluating Soil Vapor Intrusion in the State of New York Soil Vapor/Indoor Air Matrix 1 and Matrix 2. Results of the VI investigation are summarized by matrix result. Duplicate sample values were used in the evaluations when their concentrations were higher than their parent sample. The Data Usability Summary Report is provided as **Appendix B**.

1899A Deer Park Avenue – Monitor/Mitigate

The results for trichloroethene (TCE), vinyl chloride, and carbon tetrachloride were compared to Matrix 1 of the NYSDOH Soil Vapor Guidance. The following actions are suggested by the matrix:

- TCE was detected at 0.62 micrograms per cubic meter (µg/m^3) in sub-slab vapor and 4.6 µg/m^3 in indoor air. Therefore, NYSDOH guidance suggests taking reasonable and practical actions to identify source(s) and reduce exposures.
- Carbon Tetrachloride was detected at 0.64 µg/m^3 in sub-slab vapor and 0.54 µg/m^3 in indoor air. Therefore, NYSDOH guidance suggests taking reasonable and practical actions to identify source(s) and reduce exposures.

The results for tetrachloroethene (PCE), 1,1-dichloroethene (DCE), cis-1,2-DCE, and 1,1,1-trichloroethane (TCA) were compared to Matrix 2 of the NYSDOH soil vapor guidance. The following actions are suggested by the matrix:

- PCE was detected at 130 µg/m^3 in sub-slab vapor and 7 µg/m^3 in indoor air. Therefore, NYSDOH guidance suggests mitigating/monitoring the impact to indoor air quality. CDM Smith recommends continued operation of the property's SSDS to mitigate the impact to VI.

No further action is suggested by the matrices for vinyl chloride, cis-1,2 DCE, 1,1,1-TCA and 1,1-DCE. Indoor air concentrations of non site-related contaminants that exceeded *NYSDOH Guidance Appendix C Table C2- EPA 2001 Building Assessment and Survey Evaluation (BASE) Database, SUMMA canister method*, *90th percentile (EPA BASE 90th Percentile)* include 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 4-ethyltoluene, ethylbenzene, m,p-Xylene, n-heptane, o-xylene, and styrene. The presence of these compounds is most likely due to the current operation of the property as an automotive repair shop. The operator of the business at this property did not give permission to the field crew to complete the *New York State Department of Health Indoor Air Quality Questionnaire and Building Inventory Center for Environmental Health* form.

1889 and 1891 Deer Park Avenue – Monitor

The results for TCE, vinyl chloride, and carbon tetrachloride were compared to Matrix 1 of the NYSDOH Soil Vapor Guidance. The following actions are suggested by the matrix:

- TCE was detected at 3.7 µg/m^3 in sub-slab vapor and 0.21 U µg/m^3 in indoor air at 1889 Deer Park Avenue and 11 µg/m^3 in sub-slab vapor and 0.31 µg/m^3 in indoor air at 1891 Deer Park Avenue. Therefore, NYSDOH guidance suggests no further action at 1889 Deer Park Avenue and additional monitoring at 1891 Deer Park Avenue.
- Carbon Tetrachloride was detected at 0.37 µg/m^3 in sub-slab vapor and 0.25 U µg/m^3 in indoor air at 1889 Deer Park Avenue and 0.5 U µg/m^3 in sub-slab vapor and 0.7 µg/m^3 in indoor air at 1891 Deer Park Avenue. Therefore, NYSDOH guidance suggests no further action at 1889 Deer Park Avenue and taking reasonable and practical actions to identify source(s) and reduce exposures at 1891 Deer Park Avenue.

The results for PCE, 1,1-DCE, cis-1,2-DCE, and 1,1,1-TCA were compared to Matrix 2 of the NYSDOH soil vapor guidance. The following actions are suggested by the matrix:

- PCE was detected at 140 µg/m^3 in sub-slab vapor and 1.4 U µg/m^3 in indoor air at 1889 Deer Park Avenue and 310 µg/m^3 in sub-slab vapor and 1.4 U µg/m^3 in indoor air at 1891 Deer Park Avenue. Therefore, NYSDOH guidance suggests continued monitoring to determine whether concentrations in the indoor air or sub-slab vapor have changed. CDM Smith recommends continued operation of the properties' SSDS to mitigate the impact to VI and

consideration of a semi-annual monitoring program to evaluate if the SSDS could be shutdown.

No further action is suggested by the matrices for vinyl chloride, cis-1,2 DCE, 1,1,1-TCA and 1,1-DCE. Indoor air concentrations of non site-related contaminants that exceeded *NYSDOH Guidance Appendix C Table C2- EPA 2001 Building Assessment and Survey Evaluation (BASE) Database, SUMMA canister method, 90th percentile (EPA BASE 90th Percentile)* include acetone in both buildings and methyl ethyl ketone in 1889 Deer Park Avenue. The presence of these compounds is most likely due to current operations at the properties. 1889 Deer Park Avenue is a nail salon which uses multiple cosmetic products, including nail polish remover. 1891 Deer Park Avenue is an insurance agency, where Clorox bleach, Windex, and Palmolive cleaning products are used, and painting was done within the past six months.

1887, 1893, 1895, 1897, and 1899B Deer Park Avenue – Take Reasonable and Practical Actions to Identify Source(s) and Reduce Exposures

The results for TCE, vinyl chloride, and carbon tetrachloride were compared to Matrix 1 of the NYSDOH Soil Vapor Guidance. The following actions are suggested by the matrix:

- TCE was detected in each building, with sub-slab vapor detections ranging from 0.46 to 4.8 µg/m^3 and indoor air detections ranging from 0.27 to 1.4 µg/m^3. Therefore, NYSDOH guidance suggests taking reasonable and practical actions to identify source(s) and reduce exposures at 1887, 1893, 1895, and 1897 Deer Park Avenue. Regarding TCE, no further action is suggested at 1899B Deer Park Avenue due to a sub-slab vapor concentration below 5 µg/m^3 and non-detect in indoor air.
- Carbon Tetrachloride was detected in each building, with sub-slab vapor detections ranging from 0.48 to 0.62 µg/m^3 and indoor air detections ranging from 0.47 to 0.52 µg/m^3. Therefore, NYSDOH guidance suggests taking reasonable and practical actions to identify source(s) and reduce exposures at all of the buildings.

The results for PCE, 1,1-DCE, cis-1,2-DCE, and 1,1,1-TCA were compared to Matrix 2 of the NYSDOH soil vapor guidance. The following actions are suggested by the matrix:

- PCE was detected at 8.6 µg/m^3 in sub-slab vapor and 4 µg/m^3 in indoor air at 1897 Deer Park Avenue. Therefore, NYSDOH guidance suggests taking reasonable and practical actions to identify source(s) and reduce exposures.
- PCE was detected in the remaining buildings, with sub-slab vapor detections ranging from 2.2 to 37 µg/m^3 and indoor air was detected a 1.4 U µg/m^3 in each remaining building. Therefore NYSDOH guidance suggests no further action at 1887, 1893, 1895, and 1899B Deer Park Avenue.

No further action is suggested by the matrices for vinyl chloride, cis-1,2 DCE, 1,1,1-TCA and 1,1-DCE. Indoor air concentrations of non site-related contaminants that exceeded *NYSDOH Guidance Appendix C Table C2- EPA 2001 Building Assessment and Survey Evaluation (BASE) Database, SUMMA canister method*, *90th percentile (EPA BASE 90th Percentile)* include 1,2-dichloroethane, benzene, n-heptane, n-hexane, and toluene, which were detected only at 1887 Deer Park Avenue. The presence of these compounds may be due to current operations at the properties. 1887 Deer Park Avenue is a liquor store and uses multiple petroleum based cleaning products, refrigerant, WD-40, and primer.

There were no indoor air exceedances at 1893, 1895, and 1899B Deer Park Avenue. There were no exceedances of *NYSDOH Guidance Appendix C Table C2- EPA 2001 Building Assessment and Survey Evaluation (BASE) Database, SUMMA canister method, 90th percentile (EPA BASE 90th Percentile)* for the outdoor ambient air sample.

Conclusions

Based on the sampling results, CDM Smith concludes that site-related contamination of PCE and TCE is still impacting indoor air quality at the Site, and recommends the following:

- The 1899A Deer Park Avenue: continued operation of the SSDS to mitigate PCE concentrations detected in indoor air and sub-slab vapor along with a continued semi-annual monitoring program.
- The 1889 and 1891 Deer Park Avenue: continued operation of the properties' SSDS to mitigate the impact to VI due to PCE (1889 and 1891) and TCE (1891) concentrations in indoor air and sub-slab vapor. A semi-annual monitoring program is recommended to determine if SSDS's can be shut down and the property transitioned to long-term monitoring.
- The 1887, 1893, 1895, 1897, and 1899B Deer Park Avenue: take reasonable and practical actions to identify source(s) and reduce exposures due to concentrations of PCE, TCE, and carbon tetrachloride as per the NYSDOH Soil Vapor Intrusion Matrices. Based on the 2014 and 2017 investigation results, CDM Smith recommends shutting down the SSDSs, followed by long-term monitoring to confirm VI migration is not occurring.

Table 1
Indoor Air Sampling Results
Villa Cleaners
NYSDEC Site # 152188
Deer Park, NY

	Sample:	103538-1887-IA-030817		103538-1889-IA-030817		103538-1891-IA-030817		103538-1893-IA-030817		103538-1895-IA-030817		103538-1897-IA-030817		103538-1899A-IA-030817		103538-1899B-IA-030817		103538-9899A-IA-030817	
	Location:	103538-1887-IA		103538-1889-IA		103538-1891-IA		103538-1893-IA		103538-1895-IA		103538-1897-IA		103538-1899A-IA		103538-1899B-IA		103538-1899A-IA	
	Sample Date:	3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017	
	Sample Type:	N		N		N		N		N		N		N		N		FD	
Chemical Name	**NYSDOH Indoor Air Criteria[1]**																		
1,1,1-Trichloroethane	20.6	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
1,1,2,2-Tetrachloroethane	NL	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NL	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
1,1,2-Trichloroethane	<1.5	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
1,1-Dichloroethane	<0.7	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U
1,1-Dichloroethene	<1.4	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U
1,2,4-Trichlorobenzene	<6.8	3.7	U	3.7	U	3.7	U	3.7	U	3.7	U	3.7	U	3.7	U	3.7	U	3.7	U
1,2,4-Trimethylbenzene	9.5	**2.6**		0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	**13**		**1**		**9.7**	
1,2-Dibromoethane (Ethylene Dibromide)	<1.5	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
1,2-Dichlorobenzene	<1.2	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,2-Dichloroethane	<0.9	**2**		0.81	U	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U
1,2-Dichloropropane	<1.6	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U
1,2-Dichlorotetrafluoroethane	NL	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
1,3,5-Trimethylbenzene (Mesitylene)	3.7	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	**4.9**		0.98	U	**3.9**	
1,3-Butadiene	<3.0	**0.47**		0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	**0.46**	
1,3-Dichlorobenzene	<2.4	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dichlorobenzene	5.5	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dioxane (P-Dioxane)	NL	18	U	18	U	18	U	18	U	18	U	18	U	18	U	18	U	18	U
2,2,4-Trimethylpentane	NL	**75**		0.93	U	0.93	U	**1.2**		0.93	U	0.93	U	**1.9**		0.93	U	**2.1**	
2-Chlorotoluene	NL	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	NL	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
4-Ethyltoluene	3.6	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	**4.2**		0.98	U	**3.5**	
Acetone	98.9	**79**		**4400**	**J**	**880**	**J**	**61**		**25**		**15**		**46**		**14**		**57**	
Allyl Chloride (3-Chloropropene)	NL	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U
Benzene	9.4	**12**		0.64	U	**0.79**		**1.5**		**0.76**		0.64	U	**1.6**		**0.68**		**1.8**	
Benzyl Chloride	<6.8	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	NL	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
Bromoform	NL	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U
Bromomethane	<1.7	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U
Butane	NL	**670**	**J**	**1100**	**J**	**100**	**J**	1.2	U	**5.3**		**3.9**		**9.5**		**8.9**		**10**	
Carbon Disulfide	4.2	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U
Carbon Tetrachloride	<1.3	**0.51**		0.25	U	**0.7**		**0.5**		**0.5**		**0.47**		**0.51**		**0.52**		**0.54**	
Chlorobenzene	<0.9	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U
Chlorodifluoromethane	NL	**2.6**		1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U
Chloroethane	<1.1	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
Chloroform	1.1	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U
Chloromethane	3.7	**1.3**		1	U	**2.1**		**1.5**		**1.2**		**1.2**		**1.3**		**1.3**		**1.4**	
Cis-1,2-Dichloroethylene	<1.9	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	**2.8**		0.79	U	0.79	U	0.79	U
Cis-1,3-Dichloropropene	<2.3	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U
Cyclohexane	NL	**8.3**		0.69	U	0.69	U	**0.76**		0.69	U	0.69	U	**0.84**		0.69	U	**0.91**	
Cymene	NL	1.1	U	1.1	U	1.1	U	**1.1**		1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Dibromochloromethane	NL	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Dichlorodifluoromethane	16.5	2.5	U	**2.7**		**2.5**		2.5	U	2.5	U	2.5	U	2.5	U	**2.5**		2.5	U
Dichloroethylenes	NL	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	**2.8**		1.6	U	1.6	U	1.6	U
Ethylbenzene	5.7	**4.8**		**1**		0.87	U	**0.99**		0.87	U	0.87	U	**41**		0.87	U	**42**	
Hexachlorobutadiene	<6.8	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U
Isopropanol	NL	**35**		**6500**	**J**	**1800**	**J**	**4100**	**J**	**1300**	**J**	**220**	**J**	12	U	12	U	12	U
Isopropylbenzene (Cumene)	NL	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U
m,p-Xylene	22.2	**16**		**3.5**		2.2	U	**2.8**		2.2	U	2.2	U	**140**		2.2	U	**140**	
Methyl Ethyl Ketone (2-Butanone)	12.0	**6.8**		**60**		**3.9**		**2**		**4.1**		**2.9**		**2.7**		1.5	U	**4.2**	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	6.0	2	U	2	U	2	U	2	U	2	U	2	U	**2.8**		2	U	2	U
Methyl Methacrylate	NL	**5.4**		**3700**	**J**	**300**	**J**	**3.8**		2	U	2	U	2	U	2	U	2	U
Methylene Chloride	10.0	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Naphthalene	5.1	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U
N-Butylbenzene	NL	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
N-Heptane	<3.6	**21**		0.82	U	0.82	U	**1**		**1.2**		0.82	U	**84**		0.82	U	**93**	
N-Hexane	10.2	**41**		0.7	U	**0.89**		**2.7**		**0.98**		0.7	U	**1.5**		0.7	U	**1.7**	
N-Propylbenzene	NL	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U
O-Xylene (1,2-Dimethylbenzene)	7.9	**4.9**		**1**		0.87	U	**0.91**		0.87	U	0.87	U	**18**		0.87	U	**18**	

CDM Smith

Table 1
Indoor Air Sampling Results
Villa Cleaners
NYSDEC Site # 152188
Deer Park, NY

	Sample:	103538-1887-IA-030817		103538-1889-IA-030817		103538-1891-IA-030817		103538-1893-IA-030817		103538-1895-IA-030817		103538-1897-IA-030817		103538-1899A-IA-030817		103538-1899B-IA-030817		103538-9899A-IA-030817	
	Location:	103538-1887-IA		103538-1889-IA		103538-1891-IA		103538-1893-IA		103538-1895-IA		103538-1897-IA		103538-1899A-IA		103538-1899B-IA		103538-1899A-IA	
	Sample Date:	3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017	
	Sample Type:	N		N		N		N		N		N		N		N		FD	
Chemical Name	**NYSDOH Indoor Air Criteria[1]**																		
Sec-Butylbenzene	NL	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Styrene	1.9	0.85	U	0.85	U	0.85	U	0.85	U	0.85	U	0.85	U	**28**		0.85	U	**11**	
T-Butylbenzene	NL	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Tert-Butyl Alcohol	NL	15	U	15	U	15	U	15	U	15	U	15	U	15	U	15	U	15	U
Tert-Butyl Methyl Ether	11.5	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U
Tetrachloroethylene (PCE)	15.9	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	**4**		**5.5**		1.4	U	**7**	
Tetrahydrofuran	NL	15	U	15	U	15	U	15	U	15	U	15	U	15	U	15	U	15	U
Toluene	43.0	**55**		**6.1**		**4**		**7.8**		**5.5**		**1.2**		**260**	**J**	**5**		**280**	**J**
Total Xylenes	NL	**20**		**4.6**		3	U	**3.7**		3	U	3	U	**150**		3	U	**150**	
Trans-1,2-Dichloroethene	NL	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U
Trans-1,3-Dichloropropene	<1.3	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U
Trichloroethylene (TCE)	4.2	**0.67**		0.21	U	**0.31**		**1.4**		**0.27**		**0.53**		**4.1**		0.21	U	**4.6**	
Trichlorofluoromethane	18.1	**1.5**		**1.3**		**1.4**		**1.4**		**1.5**		**1.3**		**1.3**		**1.3**		**1.4**	
Vinyl Bromide	NL	0.87	U	0.87	U	0.87	U	0.87	U	0.87	U	0.87	U	0.87	U	0.87	U	0.87	U
Vinyl Chloride	<1.9	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U

Notes:
All results are in micrograms per cubic meter
N = Normal Field Sample
FD = Field Duplicate Sample
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = The analyte was analyzed for, but was not detected above the sample reporting limit.
UJ = The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.
[1] - NYSDOH Building Assessment and survey evaluation (BASE) database, SUMMA® canister method 90th percentile (2001)
NL = Screening criteria not listed
Detected results are bolded
NYSDOH Indoor Air Exceedance

Table 2
Sub-slab Vapor Sampling Results
Villa Cleaners
NYSDEC Site # 152188
Deer Park, NY

Sample:	103538-1887-SS-030817		103538-1889-SS-030817		103538-1891-SS-030817		103538-1893-SS-030817		103538-1895-SS-030817		103538-1897-SS-030817		103538-1899A-SS-030817		103538-1899B-SS-030817		103538-9899B-SS-030817	
Location:	103538-1887-SS		103538-1889-SS		103538-1891-SS		103538-1893-SS		103538-1895-SS		103538-1897-SS		103538-1899A-SS		103538-1899B-SS		103538-1899B-SS	
Sample Date:	3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017	
Sample Type:	N		N		N		N		N		N		N		N		FD	
Chemical Name																		
1,1,1-Trichloroethane	1.1	U	1.1	U	2.2	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
1,1,2,2-Tetrachloroethane	1.4	U	1.4	U	2.7	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.5	U	1.5	U	3.1	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
1,1,2-Trichloroethane	1.1	U	1.1	U	2.2	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
1,1-Dichloroethane	0.81	U	0.81	U	1.6	U	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U
1,1-Dichloroethene	0.79	U	0.79	U	1.6	U	0.79	U	0.79	U	0.79	U	0.79	U	**1.9**		**2**	
1,2,4-Trichlorobenzene	3.7	U	3.7	U	7.4	U	3.7	U	3.7	U	3.7	U	3.7	U	3.7	U	3.7	U
1,2,4-Trimethylbenzene	**5.6**		0.98	U	2	U	0.98	U	0.98	U	0.98	U	0.98	U	**1.2**		**1.2**	
1,2-Dibromoethane (Ethylene Dibromide)	1.5	U	1.5	U	3.1	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
1,2-Dichlorobenzene	1.2	U	1.2	U	2.4	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,2-Dichloroethane	0.81	U	0.81	U	1.6	U	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U	0.81	U
1,2-Dichloropropane	0.92	U	0.92	U	1.8	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	U	2.8	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
1,3,5-Trimethylbenzene (Mesitylene)	**2.4**		0.98	U	2	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U
1,3-Butadiene	0.44	U	0.44	U	0.88	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U
1,3-Dichlorobenzene	1.2	U	1.2	U	2.4	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dichlorobenzene	1.2	U	1.2	U	2.4	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dioxane (P-Dioxane)	18	U	18	U	36	U	18	U	18	U	18	U	18	U	18	U	18	U
2,2,4-Trimethylpentane	**1**		0.93	U	1.9	U	0.93	U	0.93	U	0.93	U	0.93	U	0.93	U	0.93	U
2-Chlorotoluene	1	U	1	U	2.1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	**4.2**		2	U	4.1	U	2	U	2	U	2	U	2	U	2	U	2	U
4-Ethyltoluene	**1.4**		0.98	U	2	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U
Acetone	**43**		**740**	**J**	**510**	**J**	**280**	**J**	**51**		**16**		**29**		**100**	**J**	**100**	**J**
Allyl Chloride (3-Chloropropene)	1.6	U	1.6	U	3.1	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U
Benzene	0.64	U	0.64	U	1.3	U	**1.3**		0.64	U	0.64	U	0.64	U	**0.73**		**0.74**	
Benzyl Chloride	1	U	1	U	2.1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	1.3	U	1.3	U	2.7	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
Bromoform	2.1	U	2.1	U	4.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U
Bromomethane	0.78	U	0.78	U	1.6	U	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U	0.78	U
Butane	**33**		**160**	**J**	**96**		1.2	U	**22**		**1.3**		**50**		**140**	**J**	**140**	**J**
Carbon Disulfide	**2.5**		1.6	U	3.1	U	1.6	U	1.6	U	**1.9**		1.6	U	1.6	U	1.6	U
Carbon Tetrachloride	**0.48**		**0.37**		0.5	U	**0.6**		**0.54**		**0.55**		**0.64**		**0.62**		**0.61**	
Chlorobenzene	0.92	U	0.92	U	1.8	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U	0.92	U
Chlorodifluoromethane	1.8	U	1.8	U	3.5	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U
Chloroethane	1.3	U	1.3	U	2.6	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
Chloroform	0.98	U	**5.4**		2	U	**1.9**		**2.2**		**1.5**		0.98	U	0.98	U	0.98	U
Chloromethane	**4.3**		1	U	2.1	U	1	U	1	U	1	U	**3.7**		1	U	1	U
Cis-1,2-Dichloroethylene	0.79	U	0.79	U	1.6	U	0.79	U	0.79	U	**1.2**		0.79	U	0.79	U	0.79	U
Cis-1,3-Dichloropropene	0.91	U	0.91	U	1.8	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U
Cyclohexane	0.69	U	0.69	U	1.4	U	0.69	U	0.69	U	0.69	U	0.69	U	0.69	U	0.69	U
Cymene	1.1	U	1.1	U	2.2	U	**7**		1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Dibromochloromethane	1.7	U	1.7	U	3.4	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Dichlorodifluoromethane	**3.1**		**61**		**9.2**		**6.8**		**16**		**2.7**		**2.8**		**2.7**		**2.8**	
Dichloroethylenes	1.6	U	1.6	U	3.2	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U
Ethylbenzene	**1.9**		0.87	U	1.7	U	**6.1**		0.87	U	0.87	U	0.87	U	0.87	U	0.87	U
Hexachlorobutadiene	2.1	U	2.1	U	4.3	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U
Isopropanol	12	U	**69**		**290**	**J**	**1800**	**J**	**110**	**J**	12	U	12	U	**62**		**64**	
Isopropylbenzene (Cumene)	0.98	U	0.98	U	2	U	**370**	**J**	0.98	U	0.98	U	0.98	U	0.98	U	0.98	U
m,p-Xylene	**3.3**		2.2	U	4.3	U	**4.1**		2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Methyl Ethyl Ketone (2-Butanone)	**3.1**		**5.6**		**5.7**		**4.5**		**2.3**		**2.9**		**3.2**		**5**		**4.2**	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	**2.2**		2	U	4.1	U	2	U	2	U	2	U	2	U	**2.4**		**2.3**	
Methyl Methacrylate	2	U	**34**		**15**		2	U	2	U	2	U	2	U	2	U	2	U

Table 2
Sub-slab Vapor Sampling Results
Villa Cleaners
NYSDEC Site # 152188
Deer Park, NY

Sample:	103538-1887-SS-030817		103538-1889-SS-030817		103538-1891-SS-030817		103538-1893-SS-030817		103538-1895-SS-030817		103538-1897-SS-030817		103538-1899A-SS-030817		103538-1899B-SS-030817		103538-9899B-SS-030817	
Location:	103538-1887-SS		103538-1889-SS		103538-1891-SS		103538-1893-SS		103538-1895-SS		103538-1897-SS		103538-1899A-SS		103538-1899B-SS		103538-1899B-SS	
Sample Date:	3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017		3/7/2017	
Sample Type:	N		N		N		N		N		N		N		N		FD	
Methylene Chloride	1.7	U	1.7	U	3.5	U	1.7	U	1.7	U	1.7	U	**5.3**		1.7	U	1.7	U
Naphthalene					5.2	U					2.6	U						
N-Butylbenzene	1.1	U	1.1	U	2.2	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
N-Heptane	**0.91**		**1.3**		1.6	U	**1.3**		0.82	U	0.82	U	**5.6**		0.82	U	0.82	U
N-Hexane	**0.85**		0.7	U	1.4	U	**1.5**		**0.75**		0.7	U	**1.6**		0.7	U	0.7	U
N-Propylbenzene	**1.3**		0.98	U	2	U	**10**		0.98	U	0.98	U	0.98	U	0.98	U	0.98	U
O-Xylene (1,2-Dimethylbenzene)	**2.3**		0.87	U	1.7	U	0.87	U	0.87	U	0.87	U	0.87	U	0.87	U	0.87	U
Sec-Butylbenzene	1.1	U	1.1	U	2.2	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Styrene	0.85	U	**4.5**		1.7	U	0.85	U	0.85	U	0.85	U	**1.2**		0.85	U	0.85	U
T-Butylbenzene	1.1	U	1.1	U	2.2	U	**19**		1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Tert-Butyl Alcohol	15	U	15	U	30	U	**19**		15	U	15	U	15	U	**50**		**52**	
Tert-Butyl Methyl Ether	0.72	U	0.72	U	1.4	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U
Tetrachloroethylene (PCE)	**21**		**140**		**310**		**37**		**2.2**		**8.6**		**130**		**5.6**		**5.6**	
Tetrahydrofuran	15	U	15	U	29	U	15	U	15	U	15	U	15	U	15	U	15	U
Toluene	**2.7**		**3.2**		**1.6**		**5.7**		**2.4**		0.75	U	**11**		**3.7**		**3.9**	
Total Xylenes	**5.6**		3	U	6.1	U	**4.1**		3	U	3	U	3	U	3	U	3	U
Trans-1,2-Dichloroethene	0.79	U	0.79	U	1.6	U	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U
Trans-1,3-Dichloropropene	0.91	U	0.91	U	1.8	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U	0.91	U
Trichloroethylene (TCE)	0.21	U	**3.7**		**11**		**4.8**		**0.52**		**1**		**0.62**		**0.44**		**0.46**	
Trichlorofluoromethane	**1.6**		**1.6**		2.2	U	**1.6**		**1.5**		**1.5**		**1.6**		**1.5**		**1.5**	
Vinyl Bromide	0.87	U	0.87	U	1.7	U	0.87	U	0.87	U	0.87	U	0.87	U	0.87	U	0.87	U
Vinyl Chloride	0.1	U	0.1	U	0.2	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U

Notes:
All results are in micrograms per cubic meter
N = Normal Field Sample
FD = Field Duplicate Sample
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = The analyte was analyzed for, but was not detected above the sample reporting limit.
UJ = The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.
Detected results are bolded

Table 3
Outdoor Ambient Air Sampling Results
Villa Cleaners
NYSDEC Site # 152188
Deer Park, NY

	Sample:	103538-1897-OA-030817	
	Location:	103538-1897-OA	
	Sample Date:	3/7/2017	
	Sample Type:	AB	
Chemical Name	**NYSDOH Outdoor Air Criteria[1]**		
1,1,1-Trichloroethane	2.6	1.1	U
1,1,2,2-Tetrachloroethane	NL	1.4	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NL	1.5	U
1,1,2-Trichloroethane	<1.6	1.1	U
1,1-Dichloroethane	<0.6	0.81	U
1,1-Dichloroethene	<1.4	0.79	U
1,2,4-Trichlorobenzene	<6.4	3.7	U
1,2,4-Trimethylbenzene	5.8	0.98	U
1,2-Dibromoethane (Ethylene Dibromide)	<1.6	1.5	U
1,2-Dichlorobenzene	<1.2	1.2	U
1,2-Dichloroethane	<0.8	0.81	U
1,2-Dichloropropane	<1.6	0.92	U
1,2-Dichlorotetrafluoroethane	NL	1.4	U
1,3,5-Trimethylbenzene (Mesitylene)	2.7	0.98	U
1,3-Butadiene	<3.4	0.44	U
1,3-Dichlorobenzene	<2.2	1.2	U
1,4-Dichlorobenzene	1.2	1.2	U
1,4-Dioxane (P-Dioxane)	NL	18	U
2,2,4-Trimethylpentane	NL	0.93	U
2-Chlorotoluene	NL	1	U
2-Hexanone	NL	2	U
4-Ethyltoluene	3.0	0.98	U
Acetone	43.7	**12**	
Allyl Chloride (3-Chloropropene)	NL	1.6	U
Benzene	6.6	0.64	U
Benzyl Chloride	<6.4	1	U
Bromodichloromethane	NL	1.3	U
Bromoform	NL	2.1	U
Bromomethane	<1.6	0.78	U
Butane	NL	**2.8**	
Carbon Disulfide	3.7	1.6	U
Carbon Tetrachloride	0.7	**0.51**	
Chlorobenzene	<0.8	0.92	U
Chlorodifluoromethane	NL	1.8	U
Chloroethane	<1.2	1.3	U
Chloroform	0.6	0.98	U
Chloromethane	3.7	**1.3**	
Cis-1,2-Dichloroethylene	<1.8	0.79	U
Cis-1,3-Dichloropropene	<2.2	0.91	U
Cyclohexane	NL	0.69	U
Cymene	NL	1.1	U
Dibromochloromethane	NL	1.7	U
Dichlorodifluoromethane	8.1	2.5	U
Dichloroethylenes	NL	1.6	U
Ethylbenzene	3.5	0.87	U
Hexachlorobutadiene	<6.4	2.1	U
Isopropanol	NL	12	U
Isopropylbenzene (Cumene)	NL	0.98	U
m,p-Xylene	12.8	2.2	U
Methyl Ethyl Ketone (2-Butanone)	11.3	1.5	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1.9	2	U
Methyl Methacrylate	NL	2	U
Methylene Chloride	6.1	1.7	U
Naphthalene	4.9	2.6	U
N-Butylbenzene	NL	1.1	U
N-Heptane	2.2	0.82	U
N-Hexane	6.4	0.7	U
N-Propylbenzene	NL	0.98	U
O-Xylene (1,2-Dimethylbenzene)	4.6	0.87	U
Sec-Butylbenzene	NL	1.1	U
Styrene	1.3	0.85	U
T-Butylbenzene	NL	1.1	U
Tert-Butyl Alcohol	NL	15	U
Tert-Butyl Methyl Ether	6.2	0.72	U
Tetrachloroethylene (PCE)	6.5	1.4	U
Tetrahydrofuran	NL	15	U
Toluene	33.7	**0.85**	
Total Xylenes	NL	3	U
Trans-1,2-Dichloroethene	NL	0.79	U
Trans-1,3-Dichloropropene	<1.4	0.91	U
Trichloroethylene (TCE)	1.3	0.21	U
Trichlorofluoromethane	4.3	**1.3**	
Vinyl Bromide	NL	0.87	U
Vinyl Chloride	<1.8	0.1	U

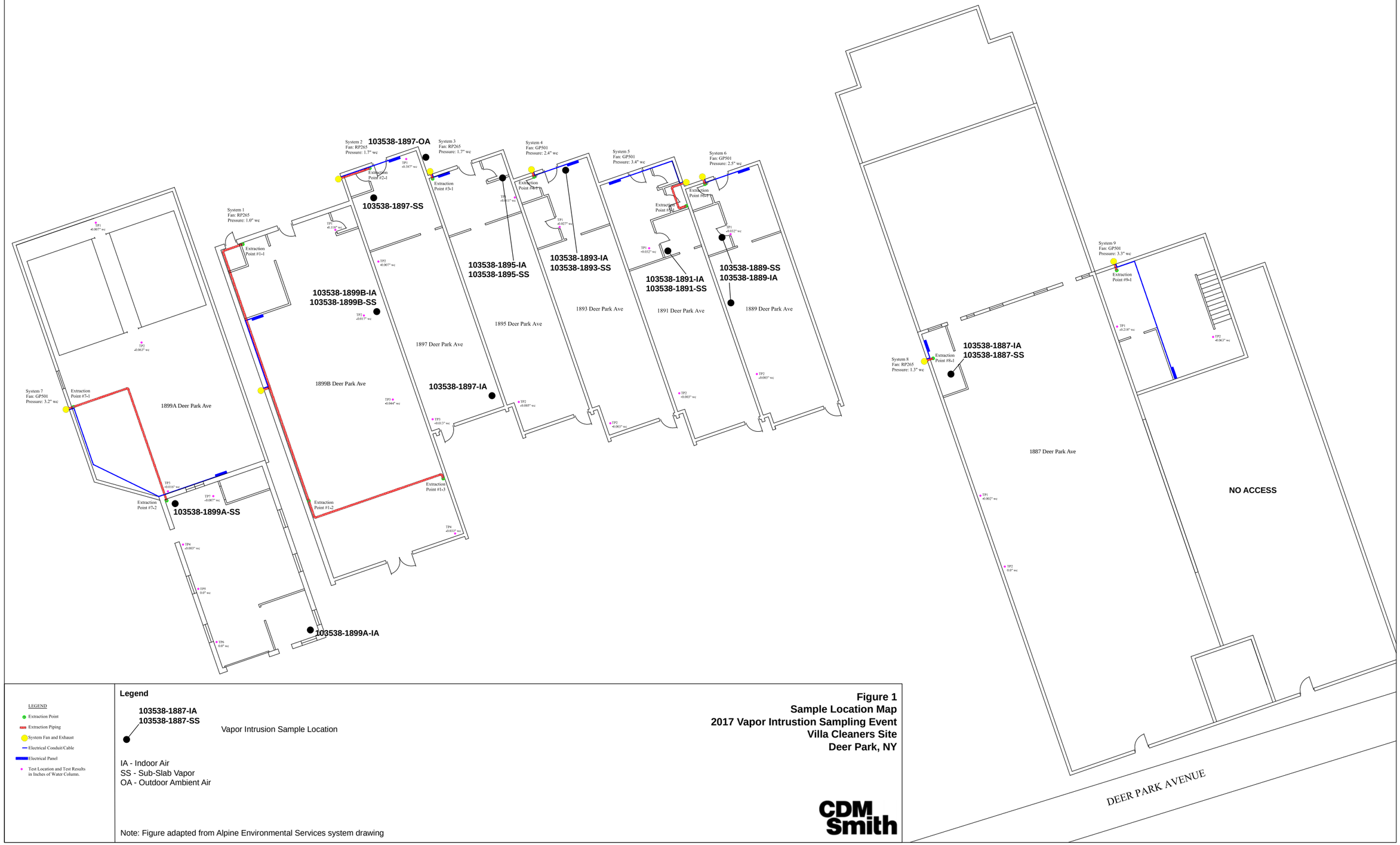
Notes:
All results are in micrograms per cubic meter
N = Normal Field Sample
FD = Field Duplicate Sample
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = The analyte was analyzed for, but was not detected above the sample reporting limit.
UJ = The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.
[1] - NYSDOH Building Assessment and survey evaluation (BASE) database, SUMMA® canister method 90th percentile (2001)
NL = Screening criteria not listed
Detected results are bolded
NYSDOH Outdoor Air Exceedance

Table 4
NYSDOH Soil Vapor Intrusion Guidance Matrix Action Table
Villa Cleaners
NYSDEC Site # 152188
Deer Park, NY

Address	Sample*	1,1,1-Trichloroethane	1,1-Dichloroethene	Carbon tetrachloride	cis-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl chloride
1887 Deer Park Ave.	1887-IA	1.1 U	0.79 U	0.51	0.79 U	1.4 U	0.67	0.1 U
	1887-SS	1.1 U	0.79 U	0.48	0.79 U	21	0.21 U	0.1 U
1889 Deer Park Ave.	1889-IA	1.1 U	0.79 U	0.25 U	0.79 U	1.4 U	0.21 U	0.1 U
	1889-SS	1.1 U	0.79 U	0.37	0.79 U	140	3.7	0.1 U
1891 Deer Park Ave.	1891-IA	1.1 U	0.79 U	0.7	0.79 U	1.4 U	0.31	0.1 U
	1891-SS	2.2 U	1.6 U	0.5 U	1.6 U	310	11	0.2 U
1893 Deer Park Ave.	1893-IA	1.1 U	0.79 U	0.5	0.79 U	1.4 U	1.4	0.1 U
	1893-SS	1.1 U	0.79 U	0.6	0.79 U	37	4.8	0.1 U
1895 Deer Park Ave.	1895-IA	1.1 U	0.79 U	0.5	0.79 U	1.4 U	0.27	0.1 U
	1895-SS	1.1 U	0.79 U	0.54	0.79 U	2.2	0.52	0.1 U
1897 Deer Park Ave.	1897-IA	1.1 U	0.79 U	0.47	2.8	4	0.53	0.1 U
	1897-SS	1.1 U	0.79 U	0.55	1.2	8.6	1	0.1 U
1899A Deer Park Ave.	1899A-IA	1.1 U	0.79 U	0.54**	0.79 U	7**	4.6**	0.1 U
	1899A-SS	1.1 U	0.79 U	0.64	0.79 U	130	0.62	0.1 U
1899B Deer Park Ave.	1899B-IA	1.1 U	0.79 U	0.52	0.79 U	1.4 U	0.21 U	0.1 U
	1899B-SS	1.1 U	2**	0.62	0.79 U	5.6	0.46**	0.1 U

Notes:
The below recommendations are based on the NYSDOH soil vapor intrusion guidance matrices.
- No further action
- Take reasonable and practical actions to identify source(s) and reduce exposures
- MONITOR
- MONITOR / MITIGATE

All results in micrograms per cubic meter
U = The analyte was analyzed for, but was not detected above the sample reporting limit.
* - Sample ID abbreviated for clarity
** - duplicate value used because concentration is higher



LEGEND

- Extraction Point
- Extraction Piping
- System Fan and Exhaust
- Electrical Conduit/Cable
- Electrical Panel
- Test Location and Test Results in Inches of Water Column.

Legend

103538-1887-IA
103538-1887-SS

Vapor Intrusion Sample Location

IA - Indoor Air
SS - Sub-Slab Vapor
OA - Outdoor Ambient Air

Note: Figure adapted from Alpine Environmental Services system drawing

Figure 1
Sample Location Map
2017 Vapor Intrustion Sampling Event
Villa Cleaners Site
Deer Park, NY

CDM Smith

Appendix A

NYSDOH Indoor Air Quality and Building Inventory Questionnaires

1887

OSR – 3

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

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

Preparer's Name Tian Liao Date/Time Prepared 3/8/17

Preparer's Affiliation CDM Smith Phone No. 732-225-7000

Purpose of Investigation Villa Cleaners

1. OCCUPANT:

Interviewed: Y / N

Last Name: Peterson First Name: Billy

Address: 1887 Deer Park Ave. Deer Park NY

County: Suffolk

Home Phone: _____ Office Phone: 631-667-8070

Number of Occupants/persons at this location 3 Age of Occupants 18-70

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

Interviewed: Y / N

Last Name: Peterson First Name: Billy

Address: 1887 Deer Park Ave. Deer Park, NY

County: _____

Home Phone: _____ Office Phone: 631-667-8070

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	(Commercial)/Multi-use
Industrial	Church	Other: Liquor Store

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

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home NO
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) liquor store

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

Other characteristics:

Number of floors 1 Building age 1963

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

4. AIRFLOW

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

Airflow between floors

N/A

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

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

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

No basement

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

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

_____

_____

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas

Boiler/furnace located in: Basement Outdoors Main Floor Other_____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? (Y) / N

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

Along ceiling and wall

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	
1st Floor	liquor store operations
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N / (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA) Please specify_____

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

f. Is there a workshop or hobby/craft area? Y / (N) Where & Type? _____

g. Is there smoking in the building? Y / (N) How frequently? _____

h. Have cleaning products been used recently? Y / (N) When & Type? Fabuloso cleaner window cleaner

i. Have cosmetic products been used recently? Y / (N) When & Type? _____

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

l. Have air fresheners been used recently? Y / N When & Type? _____

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? _____

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? _____

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? _____

Are there odors in the building? Y / N
If yes, please describe: _____

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

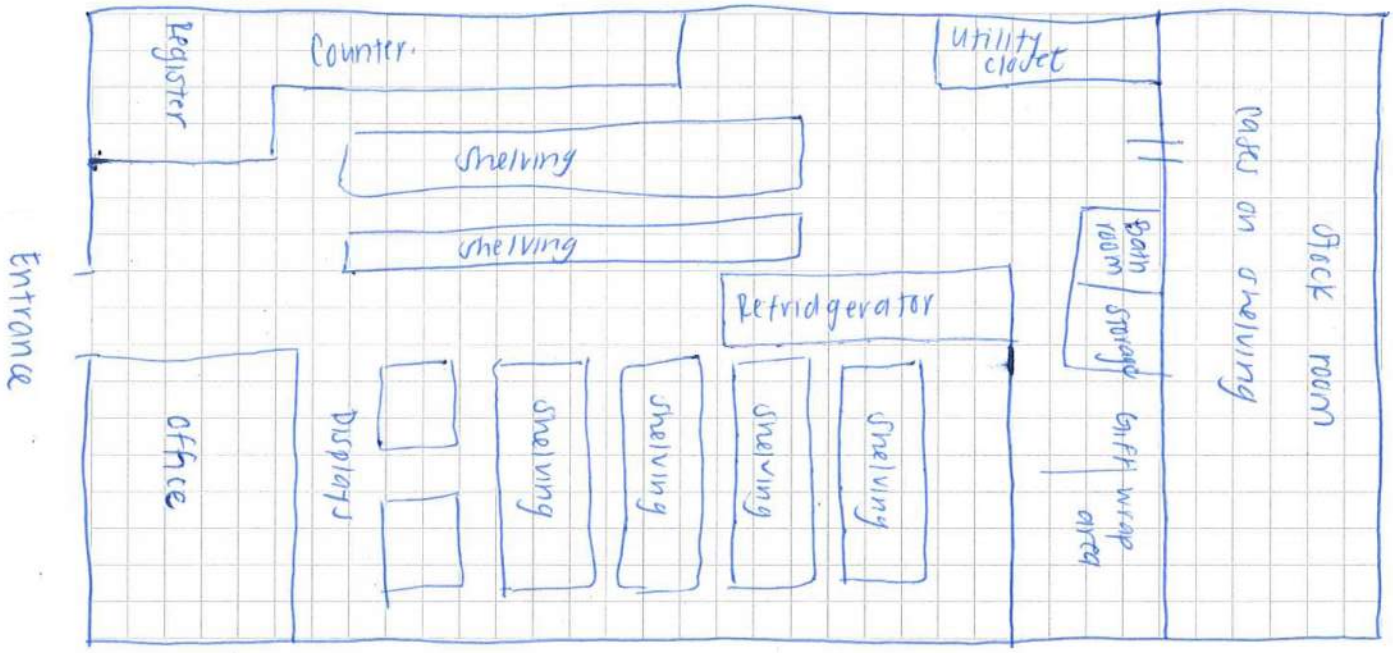
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

N/A

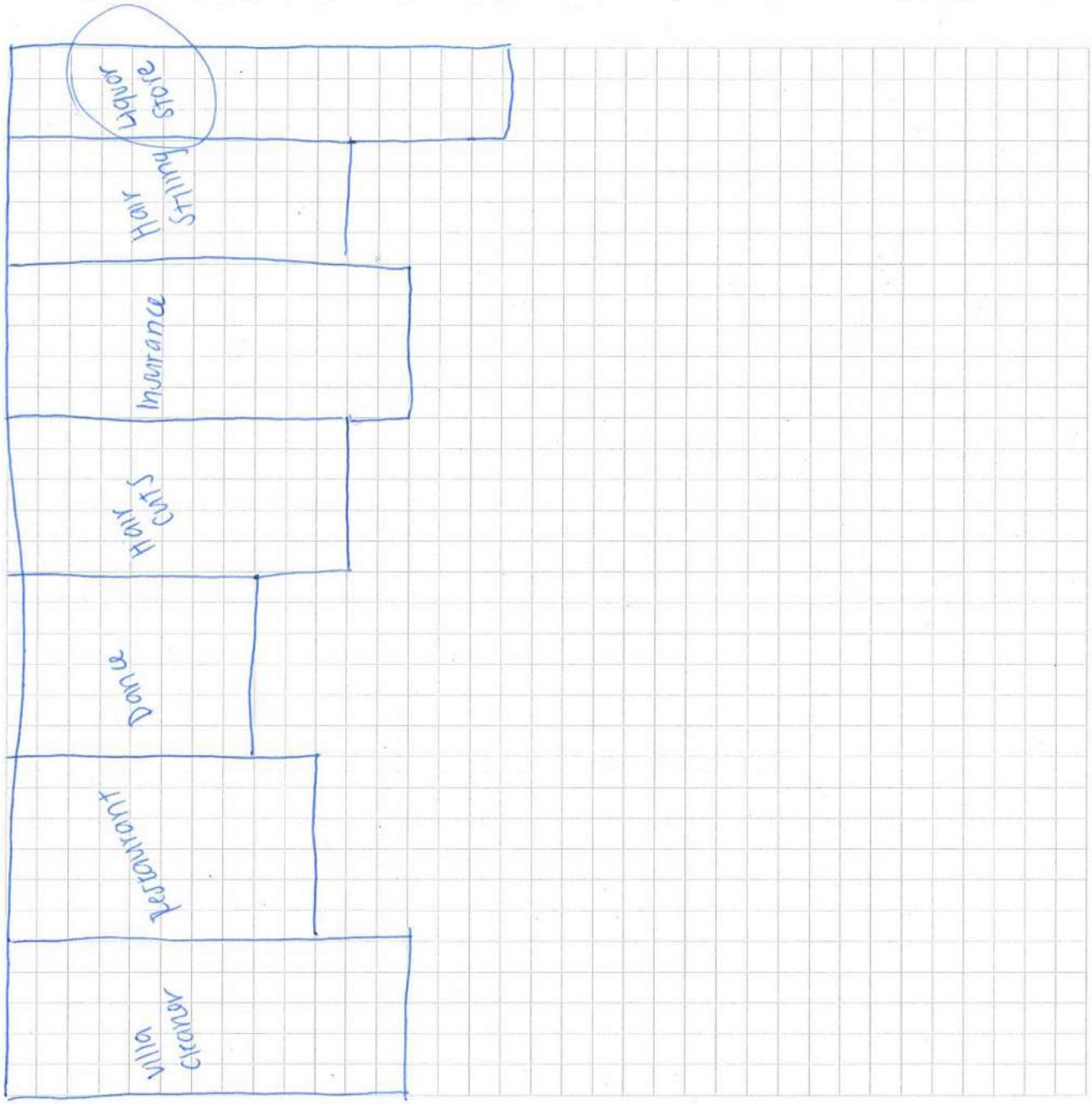
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
closet	Glass Cleaner	32 oz	U	sodium. xylene, sulfonate	0	Y
closet	A/C Pro Refrigerant	20 oz.	U	1,1,1,2- tetrafluoroethane, poly-alkylene glycol, monobutyl ether	0	N
closet	WD-40	8 oz.	U	Aliphatic hydrocarbon petroleum based oil	0	N
				low vapor pressure aliphatic hydrocarbon	0	N
closet	Krylon Cleaner	3x 32 oz.	U	Butoxy Ethanol nonylphenoxy poly ethanol	0	N
closet	oil-based primer	1 gal	U	hydrotreated light distillate. titanium dioxide, aromatic hydrocarbons	0	N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.


RYOBI
Glass
WD

1889

OSR – 3

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

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

Preparer's Name Tian Liao Date/Time Prepared 3/8/17

Preparer's Affiliation COM Smith Phone No. 732-225-7600

Purpose of Investigation Villa Cleaners

1. OCCUPANT:

Interviewed: Y / N

Last Name: Mancuso First Name: Linda

Address: 1889 Deer Park Ave. Deer Park NY

County: Suffolk

Home Phone: _____ Office Phone: 631-243-1333

Number of Occupants/persons at this location 4 Age of Occupants 40-50

Ms. Mancuso wants to see the analytical data.

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

Interviewed: Y / N Crazy Billy's

Last Name: Peterson First Name: Billy

Address: 1887 Deer Park Ave. Deer Park NY

County: Suffolk

Home Phone: _____ Office Phone: 631-667-8070

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: Hair cut salon

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

Ranch	2-Family	3-Family NO
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) Hair salon

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

Other characteristics:

Number of floors 1 Building age 1963

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

4. AIRFLOW

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

Airflow between floors

NA

Airflow near source

Moderate air flow from front to back and via vent and A/C unit

Outdoor air infiltration

~~Mini-mall~~ Minimal

Infiltration into air ducts

not observed

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

no basement.

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

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

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

Floor covered with linoleum

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other _____
Air conditioning:	Central Air	Window units	Open Windows	None

2 wall units.

Are there air distribution ducts present? (Y) / N

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

2 vents in wall. hot air circulation

2 A/C units in wall.

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	N/A
1st Floor	Hair salon operation.
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N / (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA) Please specify_____

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

f. Is there a workshop or hobby/craft area? Y / (N) Where & Type?_____

g. Is there smoking in the building? Y / (N) How frequently?_____

h. Have cleaning products been used recently? Y / (N) When & Type?_____

i. Have cosmetic products been used recently? (Y) / N When & Type? shampoo / conditioners and styling aid

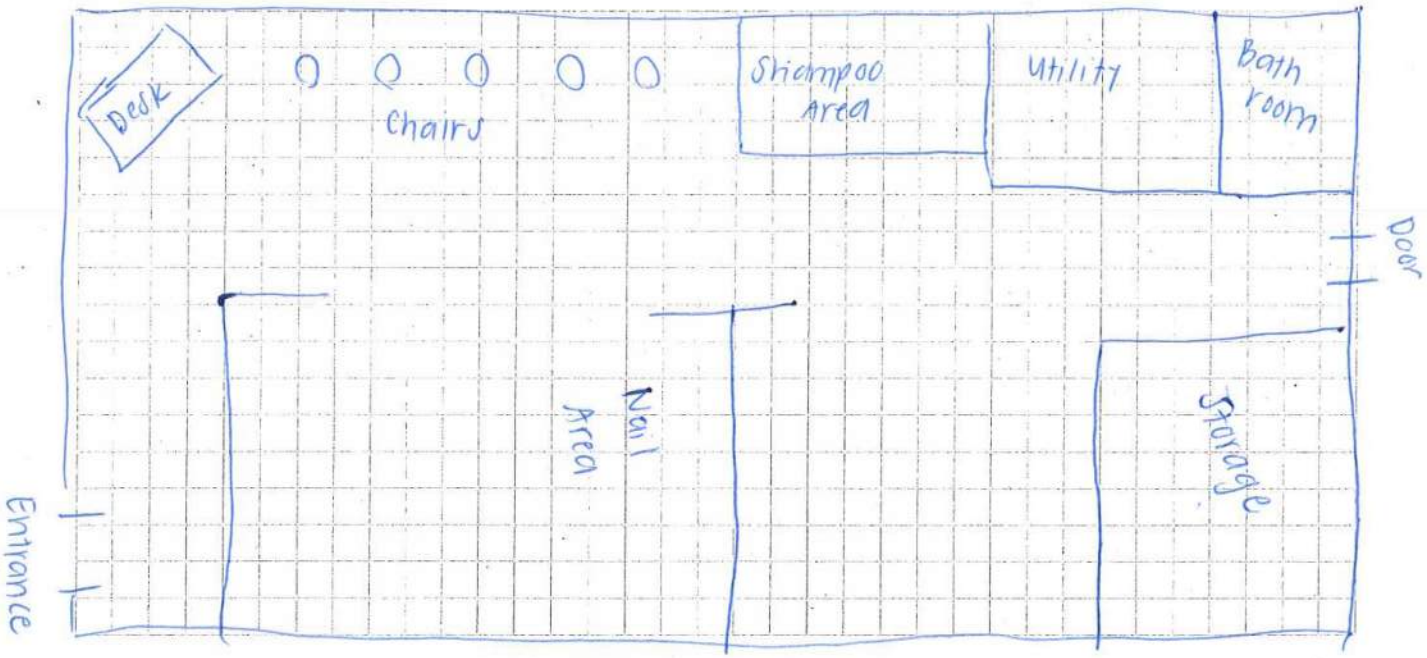
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

N/A

First Floor:



j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

l. Have air fresheners been used recently? Y / N When & Type? _____

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? _____

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? _____

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? _____

Are there odors in the building? Y / N
If yes, please describe: _____

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

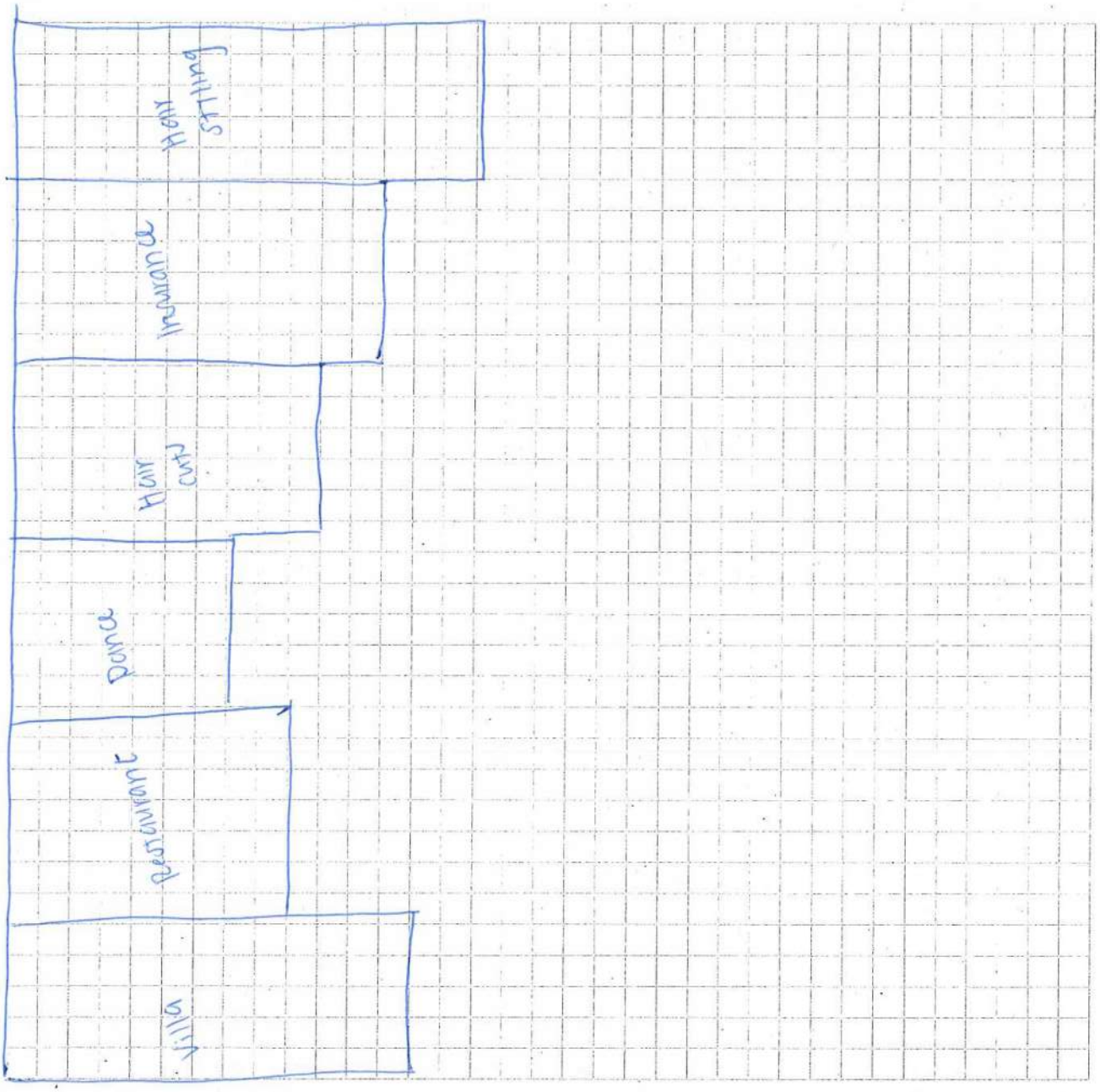
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Multi Rae PID

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Nails	Nail Polish /	6 oz	used	Acetone	1.3	N
Nails	Remover	"	used	"	1.3	N
Hair	shampoo / Conditioner	20 oz.	used	various	1.3	N
Hair	Styling Aids	20 oz.	used	various	1.3	N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.


there is
SOUTHERN COMFORT

1891

OSR – 3

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

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

Preparer's Name Tian Liao Date/Time Prepared 3/8/17

Preparer's Affiliation CDM Smith Phone No. 732-225-7000

Purpose of Investigation Villa Cleaners

1. OCCUPANT:

Interviewed: (Y) / N

Last Name: Traina First Name: Joseph

Address: 1891 Deer Park Ave. Deer Park NY

County: Jay Tee Insurance agency (Suffolk County)

Home Phone: 631-242-3900 Office Phone:

Number of Occupants/persons at this location 1 Age of Occupants 38

Note: Mr. Traina requests analytical data existing!

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

Interviewed: Y / (N)

Last Name: Peterson First Name: Billy

Address: 1887 Deer Park Ave. Deer Park

County: Suffolk

Home Phone: Office Phone: 631-667-8070

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	(Commercial)/Multi-use
Industrial	Church	Other: Insurance

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

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

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Insurance Agency

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

Other characteristics:

Number of floors 1 Building age_____

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

4. AIRFLOW

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

Airflow between floors

N/A

Airflow near source

Moderate (back door)

Outdoor air infiltration

Moderate (front door)

Infiltration into air ducts

Not observed

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

no basement.

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

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

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

None observed

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas.

Boiler/furnace located in: Basement Outdoors Main Floor Other_____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? (Y) / N

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

Runs along ceiling

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	
1st Floor	Business Purposes
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N / (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA) Please specify_____

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

f. Is there a workshop or hobby/craft area? Y / (N) Where & Type?_____

g. Is there smoking in the building? Y / (N) How frequently?_____

h. Have cleaning products been used recently? Y / (N) When & Type?_____

i. Have cosmetic products been used recently? Y / (N) When & Type?_____

j. Has painting/staining been done in the last 6 months? (Y) / N Where & When? Paint walls

k. Is there new carpet, drapes or other textiles? (Y) / N Where & When? New rugs / carpet

l. Have air fresheners been used recently? Y / (N) When & Type? _____

m. Is there a kitchen exhaust fan? Y / (N) If yes, where vented? _____

n. Is there a bathroom exhaust fan? Y / (N) If yes, where vented? _____

o. Is there a clothes dryer? Y / (N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / (N) When & Type? _____

Are there odors in the building? Y / (N)
If yes, please describe: _____

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply:	(Public Water)	Drilled Well	Driven Well	Dug Well	Other: _____
Sewage Disposal:	Public Sewer	(Septic Tank)	Leach Field	Dry Well	Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

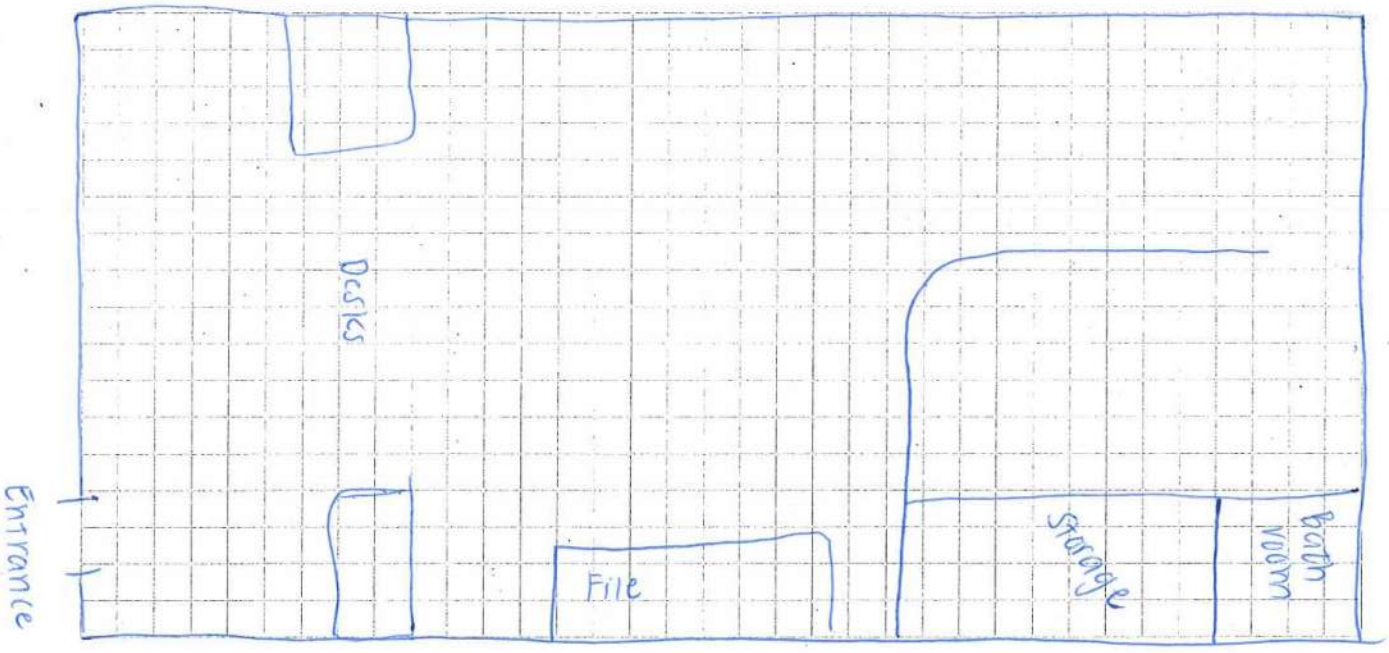
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

N/A

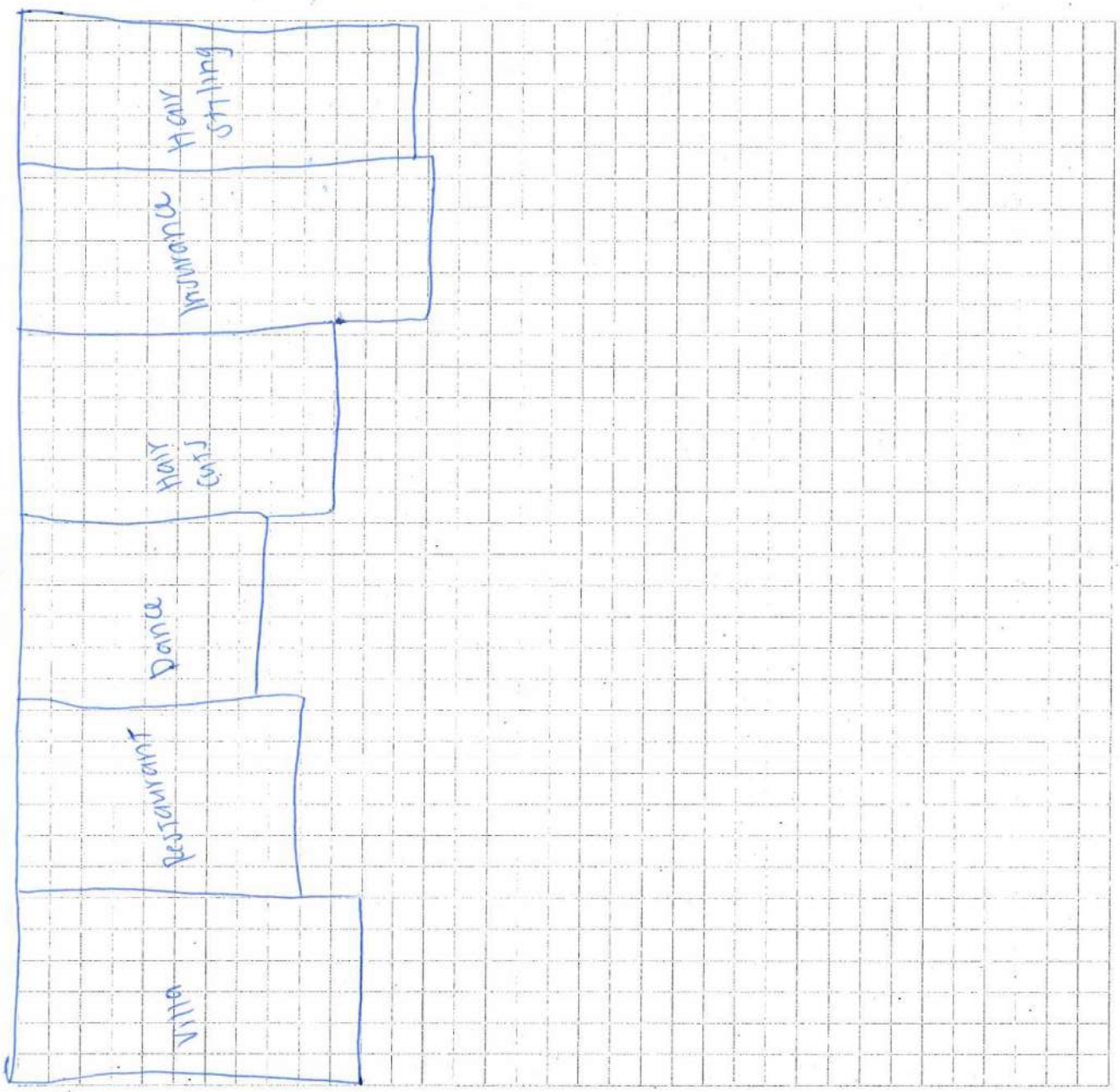
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Multi Rae PID

List specific products found in the residence that have the potential to affect indoor air quality.

no products observed

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Bathroom	Clorox	1 gal	U	Sodium hypochlorite Sodium hydroxide	0	Y
Bathroom	Windex	68 oz	U	2-hexoxyethanol, lauramine oxide, isopropanol amine, ammonia	0	Y
Bathroom	Palmolive	28 oz	U	Ethanol	0	Y

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.


Windex
CLOROX
SPLASH-LESS

1893

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

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

Preparer's Name Tian Liao Date/Time Prepared 3/8/17

Preparer's Affiliation CDM Smith Phone No. 732-225-7000

Purpose of Investigation Villa Cleaners

1. OCCUPANT:

Interviewed: Y / N

Last Name: Taylor First Name: Nicky

Address: 1893 Deer Park Ave. Deer Park NY

County: Suffolk

Home Phone: _____ Office Phone: 631-839-7860

Number of Occupants/persons at this location 2 Age of Occupants 25-35

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

Crazy Billies

Interviewed: Y / N

Last Name: Perrson First Name: Billy

Address: 1887 Deer Park Ave. Deer Park NY

County: Suffolk

Home Phone: _____ Office Phone: 631-667-8870

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: Barber Shop

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

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

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Barber shop

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

Other characteristics:

Number of floors 1 Building age 1963

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

4. AIRFLOW

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

Airflow between floors

N/A

Airflow near source

none observed

Outdoor air infiltration

light (front door)

Infiltration into air ducts

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

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

no basement

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

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

none observed

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other_____
Air conditioning:	Central Air	Window units	Open Windows	None

Are there air distribution ducts present? (Y) / N

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

runs along wall / ceiling

7. OCCUPANCY

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

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	NA
1st Floor	Business use
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N / (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA) Please specify_____

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

f. Is there a workshop or hobby/craft area? Y / (N) Where & Type?_____

g. Is there smoking in the building? Y / (N) How frequently?_____

h. Have cleaning products been used recently? Y / (N) When & Type?_____

i. Have cosmetic products been used recently? (Y) / N When & Type? Shea Butter Pommade.

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

l. Have air fresheners been used recently? Y / N When & Type? _____

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? _____

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? _____

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? _____

Are there odors in the building? Y / N
If yes, please describe: Coffee

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

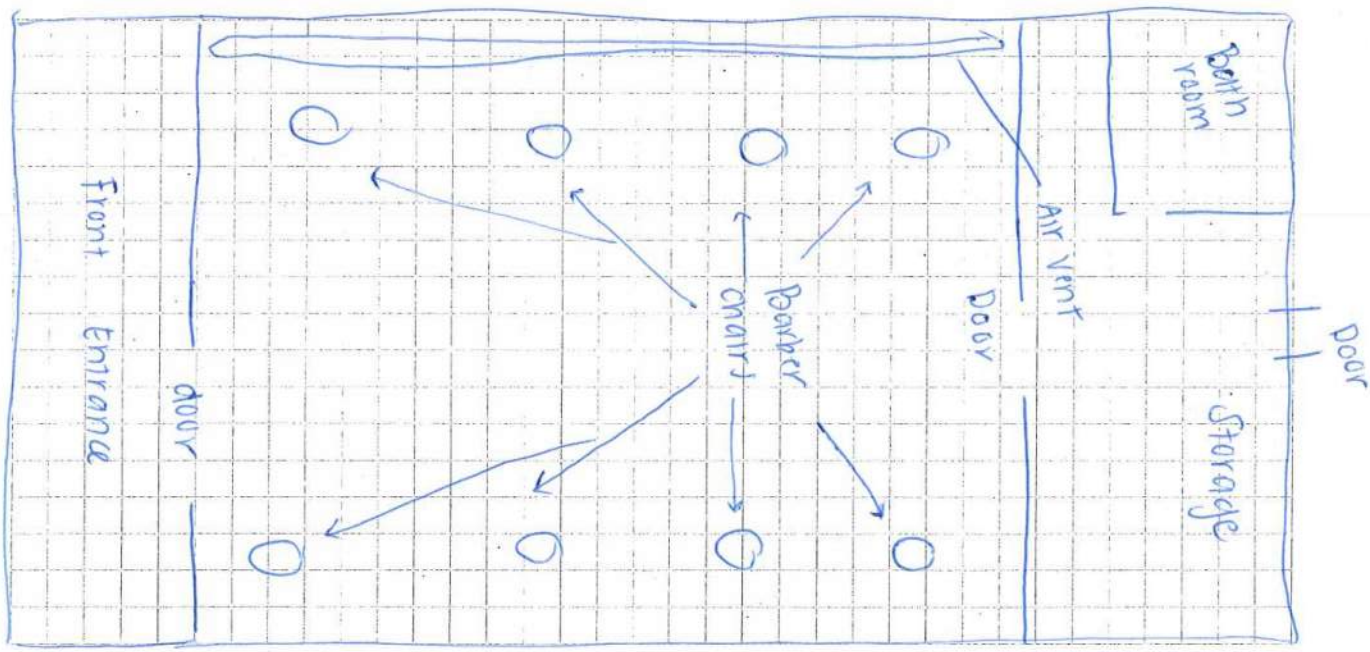
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

N/A

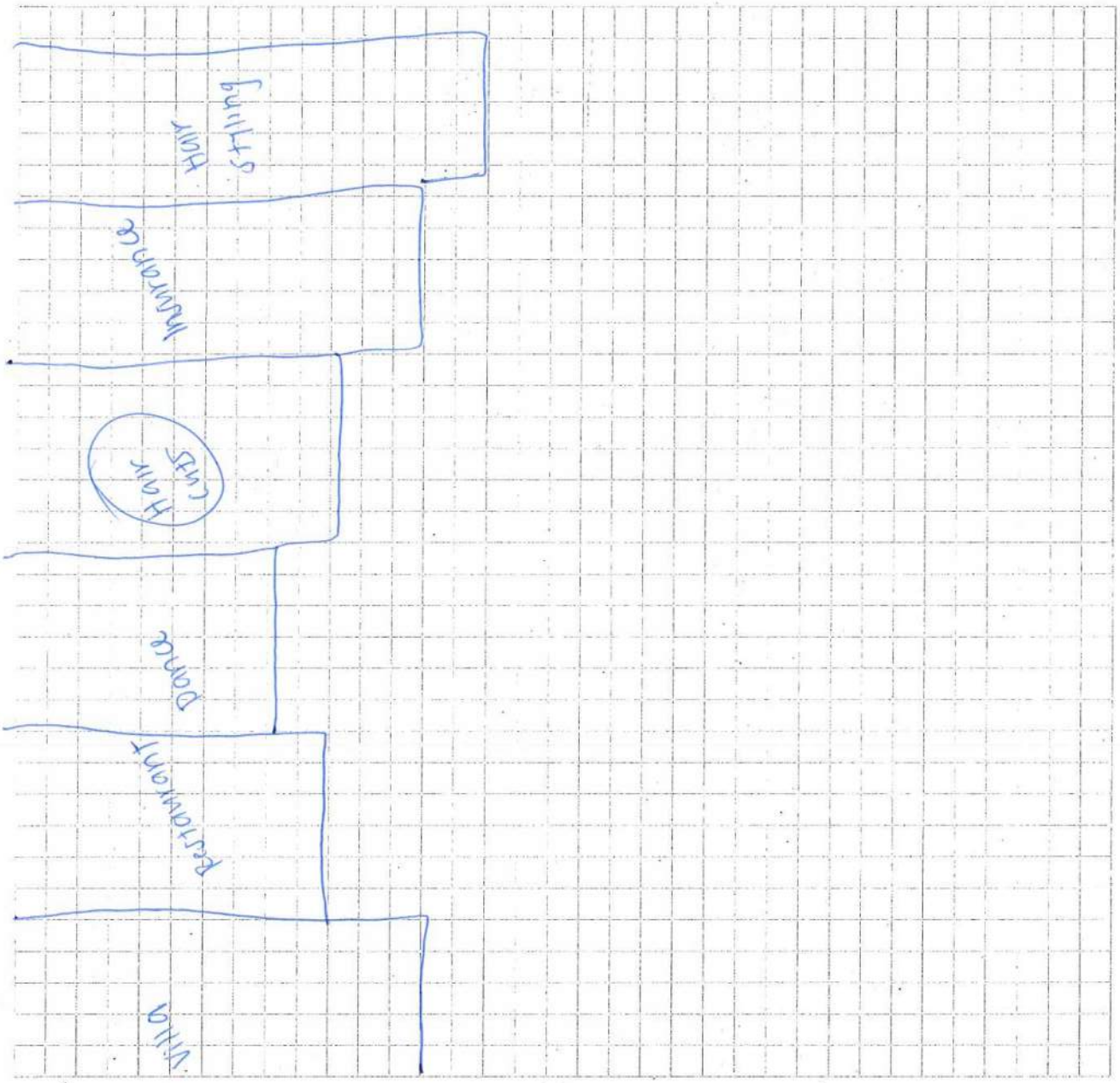
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Multi Rae PID

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Shop	Shampoo / Conditioner	20 oz	U	various	0.8	Y
Shop	Styling Aids	20 oz	U	various	0.8	N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

1895

OSR – 3

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

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

Preparer's Name Tian Liao Date/Time Prepared 3/8/17

Preparer's Affiliation CDM Smith Phone No. 732-225-7080

Purpose of Investigation Villa Cleaners

1. OCCUPANT:

Interviewed: Y / N Dream Dancers Academy

Last Name: Rummo First Name: Pan

Address: 1895 Deer Park Ave. Deer Park NY

County: Suffolk

Home Phone: _____ Office Phone: 631-392-1960

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ___) Crazy Billy's

Interviewed: Y / N

Last Name: Peterson First Name: Billy

Address: 1887 Deer Park Ave. Deer Park

County: Suffolk

Home Phone: _____ Office Phone: 631-667-8070

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	(School)	Commercial/Multi-use
Industrial	Church	Other: Dance Club

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

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

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) School

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

Other characteristics:

Number of floors 1 Building age 1963

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

4. AIRFLOW

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

Airflow between floors

NA

Airflow near source

None observed

Outdoor air infiltration

~~mini mall~~ minimal

Infiltration into air ducts

not observed

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

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

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

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

none observed

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other_____
Air conditioning:	Central Air	Window units	Open Windows	None

Are there air distribution ducts present? Y / N

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

Air ducts on ceiling / wall interfaces

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	
1st Floor	
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N / (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA) Please specify_____

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

f. Is there a workshop or hobby/craft area? Y / (N) Where & Type? _____

g. Is there smoking in the building? Y / (N) How frequently? _____

h. Have cleaning products been used recently? Y / (N) When & Type? _____

i. Have cosmetic products been used recently? Y / (N) When & Type? _____

j. Has painting/staining been done in the last 6 months? (Y) / N Where & When? Walls / Baseboards

k. Is there new carpet, drapes or other textiles? Y / (N) Where & When? _____

l. Have air fresheners been used recently? Y / (N) When & Type? _____

m. Is there a kitchen exhaust fan? Y / (N) If yes, where vented? _____

n. Is there a bathroom exhaust fan? Y / (N) If yes, where vented? _____

o. Is there a clothes dryer? Y / (N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / (N) When & Type? _____

Are there odors in the building? Y / (N)
If yes, please describe: _____

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer (Septic Tank) Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

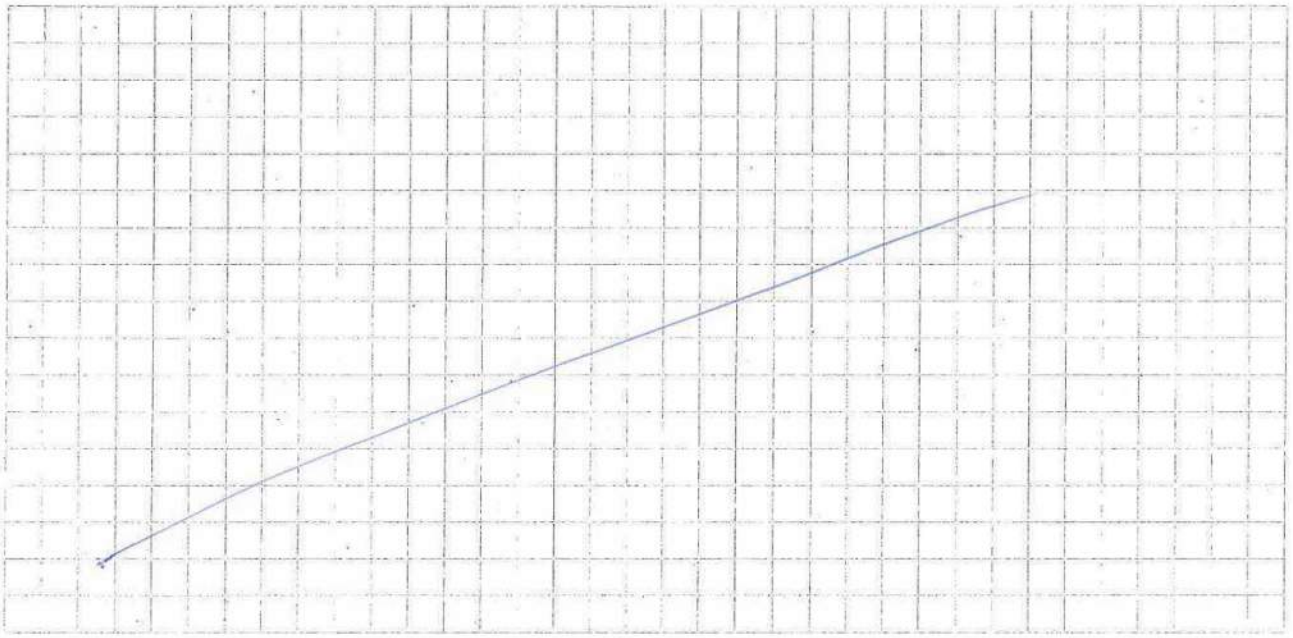
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

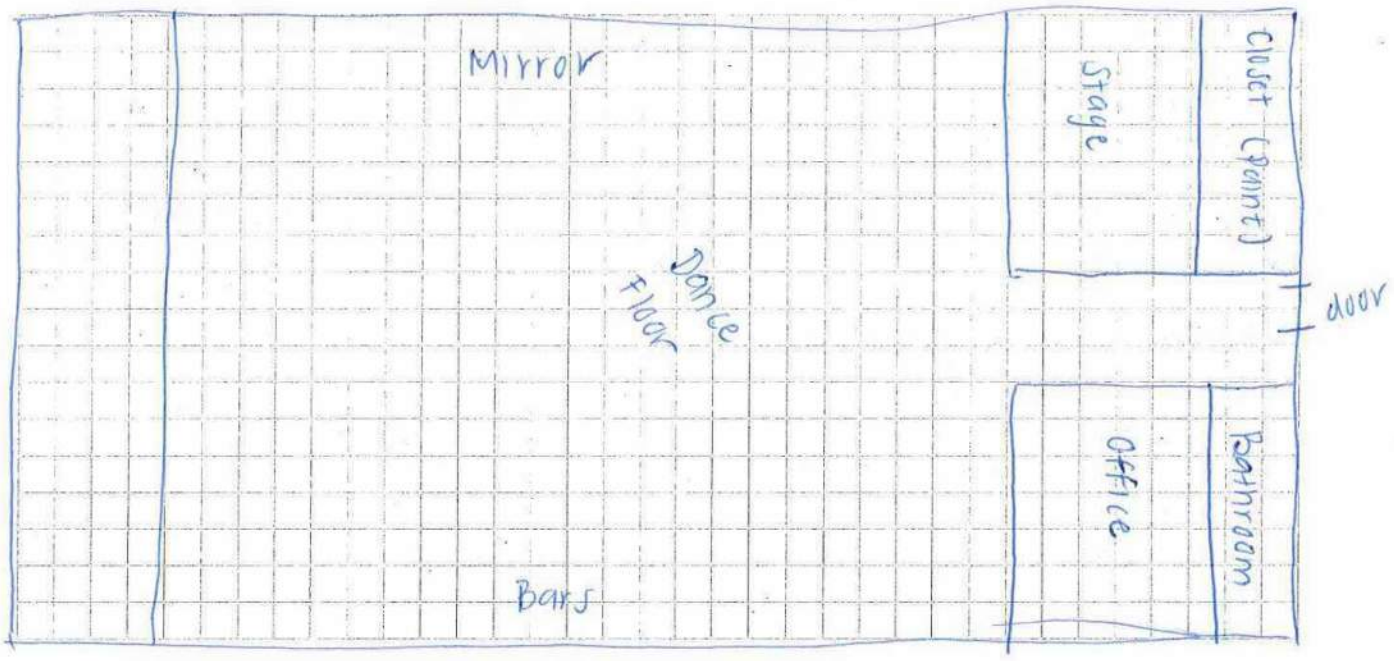
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



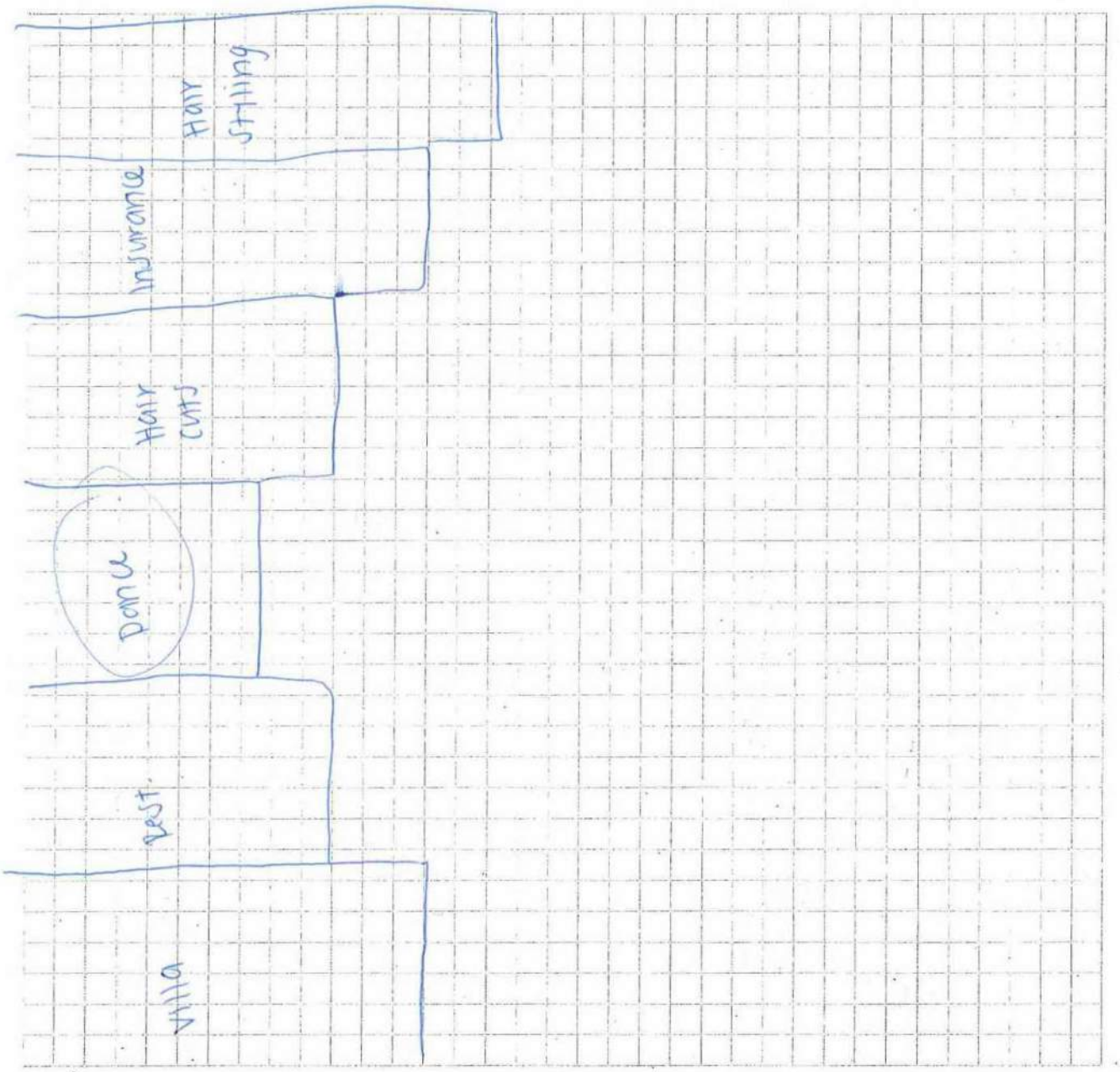
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Multi Rae PID

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Closet	Paint 12 Cans	gal	open/used	Latex Paint.	0.0	Y

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

1897

OSR – 3

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

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

Preparer's Name Tian Liao Date/Time Prepared 3/8/17

Preparer's Affiliation CDM Smith Phone No. 732-225-7000

Purpose of Investigation Villa Cleaners

1. OCCUPANT:

Interviewed: Y / N Dominican Restaurant 5 G. C. MOCA CORP.

Last Name: _____ First Name: _____

Address: 1889 Deer Park Ave. Deer Park

County: Suffolk

Home Phone: 631-940-9783 Office Phone: _____

Number of Occupants/persons at this location 5 Age of Occupants 18-25

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

Interviewed: Y / N Crazy Billy's

Last Name: Peterson First Name: Billy

Address: 1887 Deer Park Ave. Deer Park

County: Suffolk

Home Phone: _____ Office Phone: 631-667-8070

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	(Commercial/Multi-use)
Industrial	Church	Other: Restaurant

If the property is residential, type? (Circle appropriate response) NO

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

If multiple units, how many? 1

If the property is commercial, type? Yes

Business Type(s) Restaurant

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

Other characteristics:

Number of floors 1 Building age 1963

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

4. AIRFLOW

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

Airflow between floors

NA

Airflow near source

Minimal (back door)

Outdoor air infiltration

Minimal (former seals effective)

Infiltration into air ducts

not observed

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

no basement

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

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

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

_____

_____

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other_____
Air conditioning:	Central Air	Window units	Open Windows	None

Are there air distribution ducts present? Y / N

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

7. OCCUPANCY

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

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	N/A
1st Floor	Restaurant / kitchen
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N / (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA)
Please specify_____

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

f. Is there a workshop or hobby/craft area? Y / (N) Where & Type?_____

g. Is there smoking in the building? Y / (N) How frequently?_____

h. Have cleaning products been used recently? (Y) / N When & Type? Floor / surface cleaner.

i. Have cosmetic products been used recently? Y / (N) When & Type?_____

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

l. Have air fresheners been used recently? Y / N When & Type? _____

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? _____

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? _____

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? _____

Are there odors in the building? Y / N
If yes, please describe: Dominican cuisine.

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

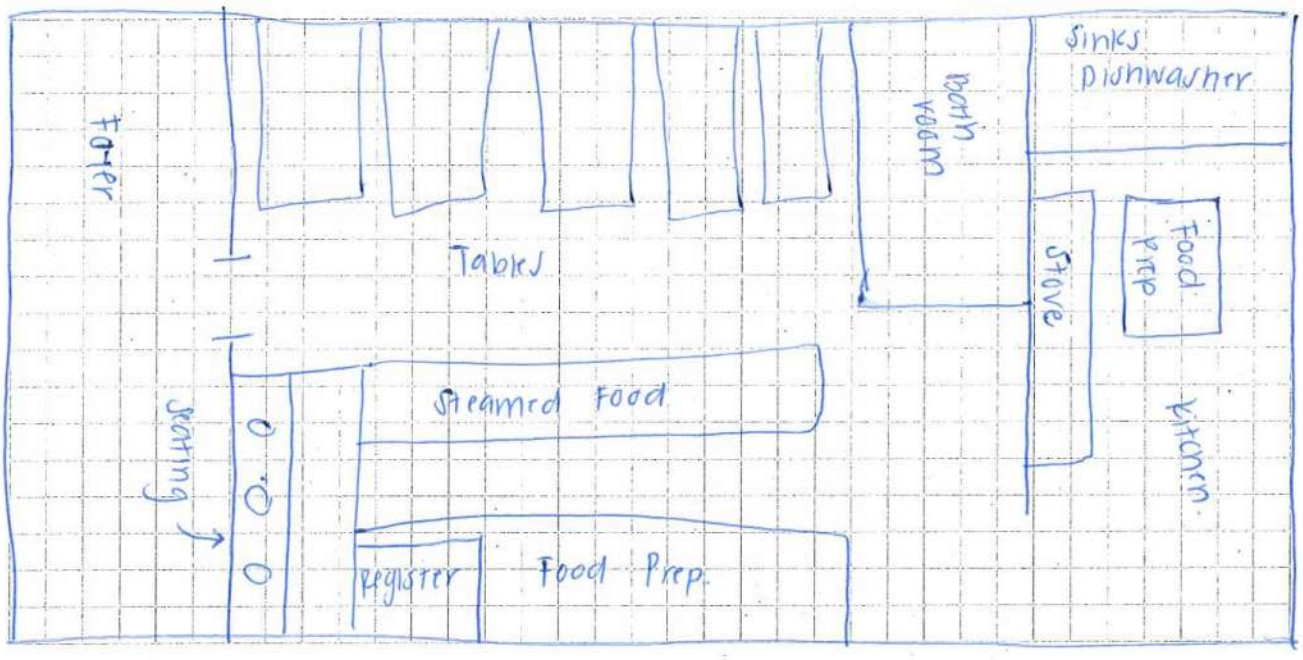
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

N/A

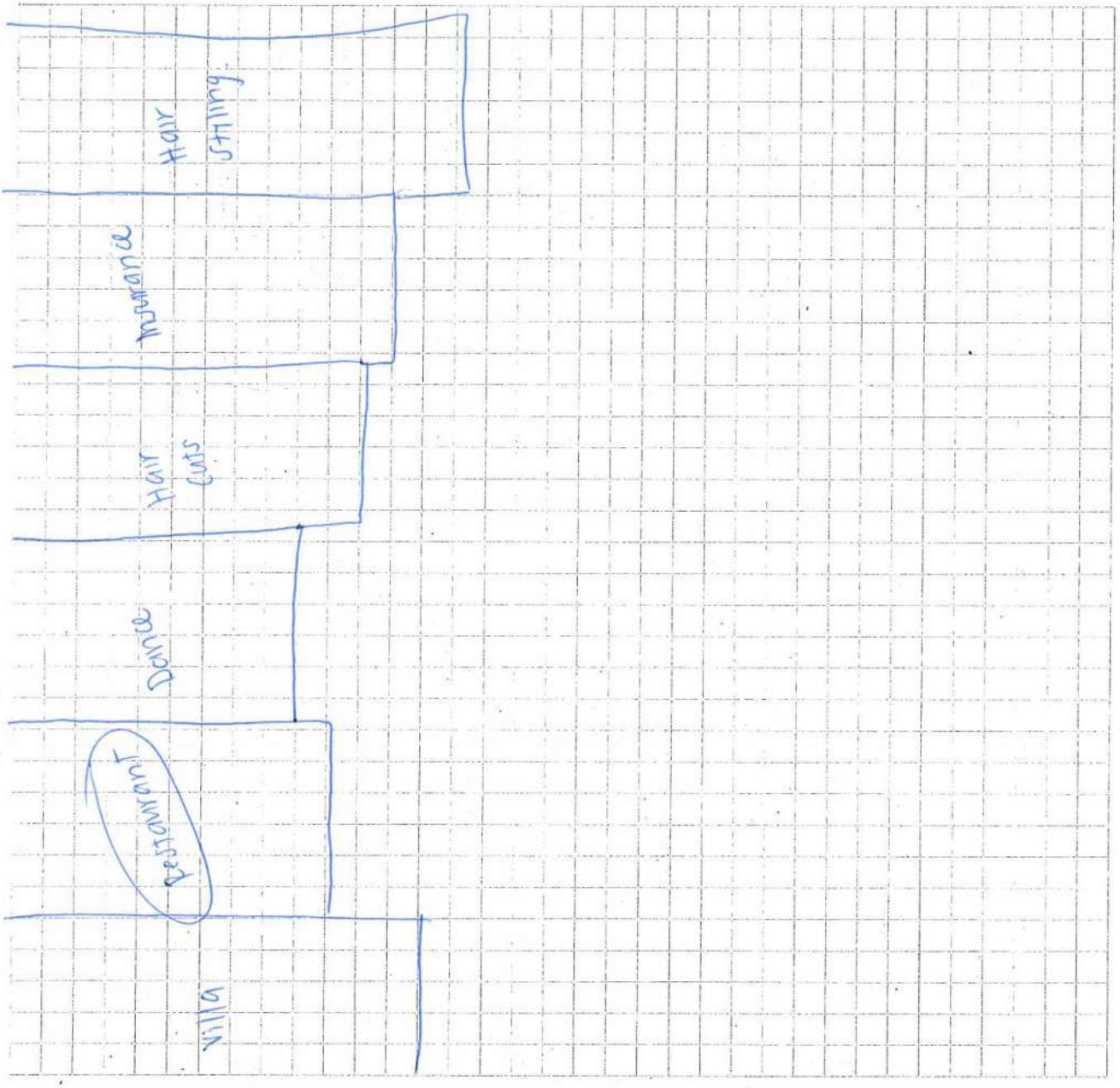
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Multi Rae PID

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y / N
sink	Detergent	1 gal	U	sodium dichloroisocyanurate. sodium carbonate	0.0	Y
kitchen	Clorox	1 gal	U	sodium hypochlorite sodium hydroxide	0.0	Y
kitchen	Cleaner.	1 gal	U	hydrogen peroxide D- Chlorene.		

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.


AZZLE
CONCENTRATED
CLOROX
TOTAL

1899B

OSR – 3

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

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

Preparer's Name Tian Liao Date/Time Prepared 3/8/17

Preparer's Affiliation CDM Smith Phone No. 732-225-7000

Purpose of Investigation Villa Cleaners

1. OCCUPANT:

Interviewed: Y / N

Last Name: Genn First Name: John

Address: 1899B Deer Park Ave. Deer Park NY

County: Suffolk

Home Phone: 631-667-4655 Office Phone:

Number of Occupants/persons at this location 4-5 Age of Occupants 34-67

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

Interviewed: Y / N

Last Name: Petrijon (Crazy Billie) First Name: Billy

Address: 1887 Deer Park Ave. Deer Park NY

County: Suffolk

Home Phone: Office Phone: 631-667-8070

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: Dry Cleaner

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

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

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Dry Cleaner

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

Other characteristics:

Number of floors 1 Building age 1963

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

4. AIRFLOW

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

Airflow between floors

NA

Airflow near source

Minimal front to back and exhaust fans

Outdoor air infiltration

Yes

Infiltration into air ducts

NA

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

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

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

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

unseen.

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Furnace / oil

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other
Air conditioning:	Central Air	Window units	Open Windows	None

Are there air distribution ducts present? Y / (N)

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

NA

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	
1st Floor	
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N / (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA) Please specify _____

d. Has the building ever had a fire? Y / (N) When? _____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where? _____

f. Is there a workshop or hobby/craft area? Y / (N) Where & Type? _____

g. Is there smoking in the building? Y / (N) How frequently? _____

h. Have cleaning products been used recently? (Y) / N When & Type? DF 2000 and soap detergent

i. Have cosmetic products been used recently? Y / (N) When & Type? _____

j. Has painting/staining been done in the last 6 months? Y / (N) Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / (N) Where & When? _____

l. Have air fresheners been used recently? Y / (N) When & Type? _____

m. Is there a kitchen exhaust fan? Y / (N) If yes, where vented? _____

n. Is there a bathroom exhaust fan? Y / (N) If yes, where vented? _____

o. Is there a clothes dryer? Y / (N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / (N) When & Type? _____

Are there odors in the building? (Y) / N
If yes, please describe: Clean Clothing

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: (Public Sewer) (Septic Tank) Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

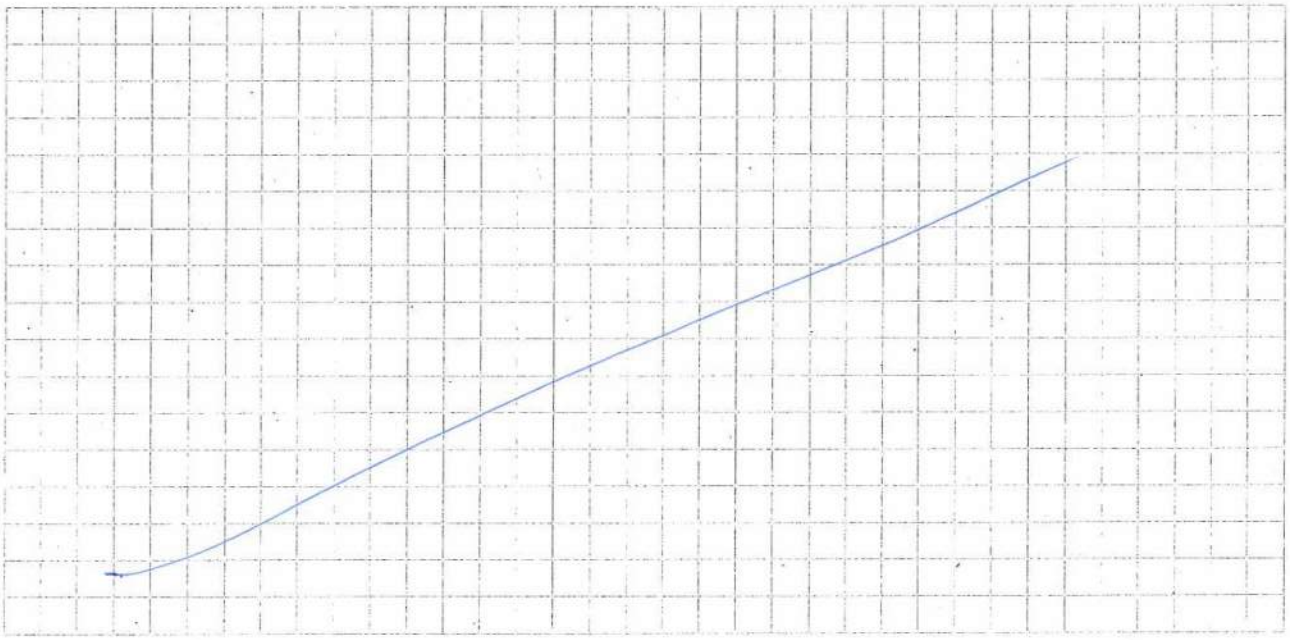
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

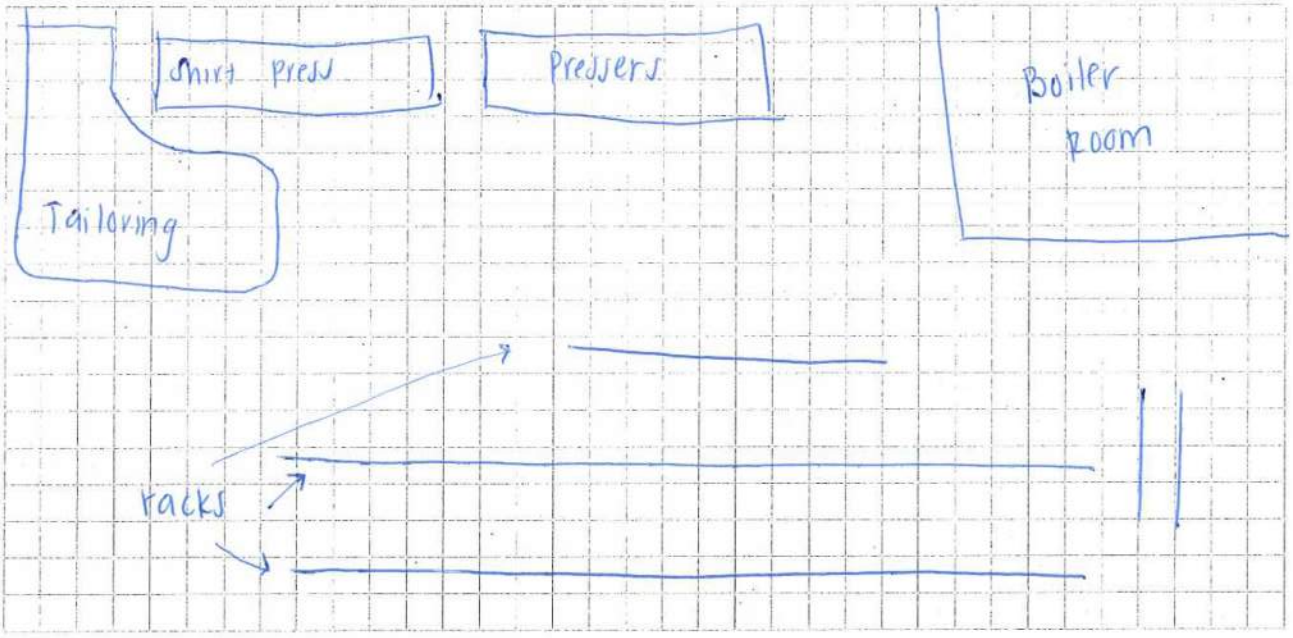
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



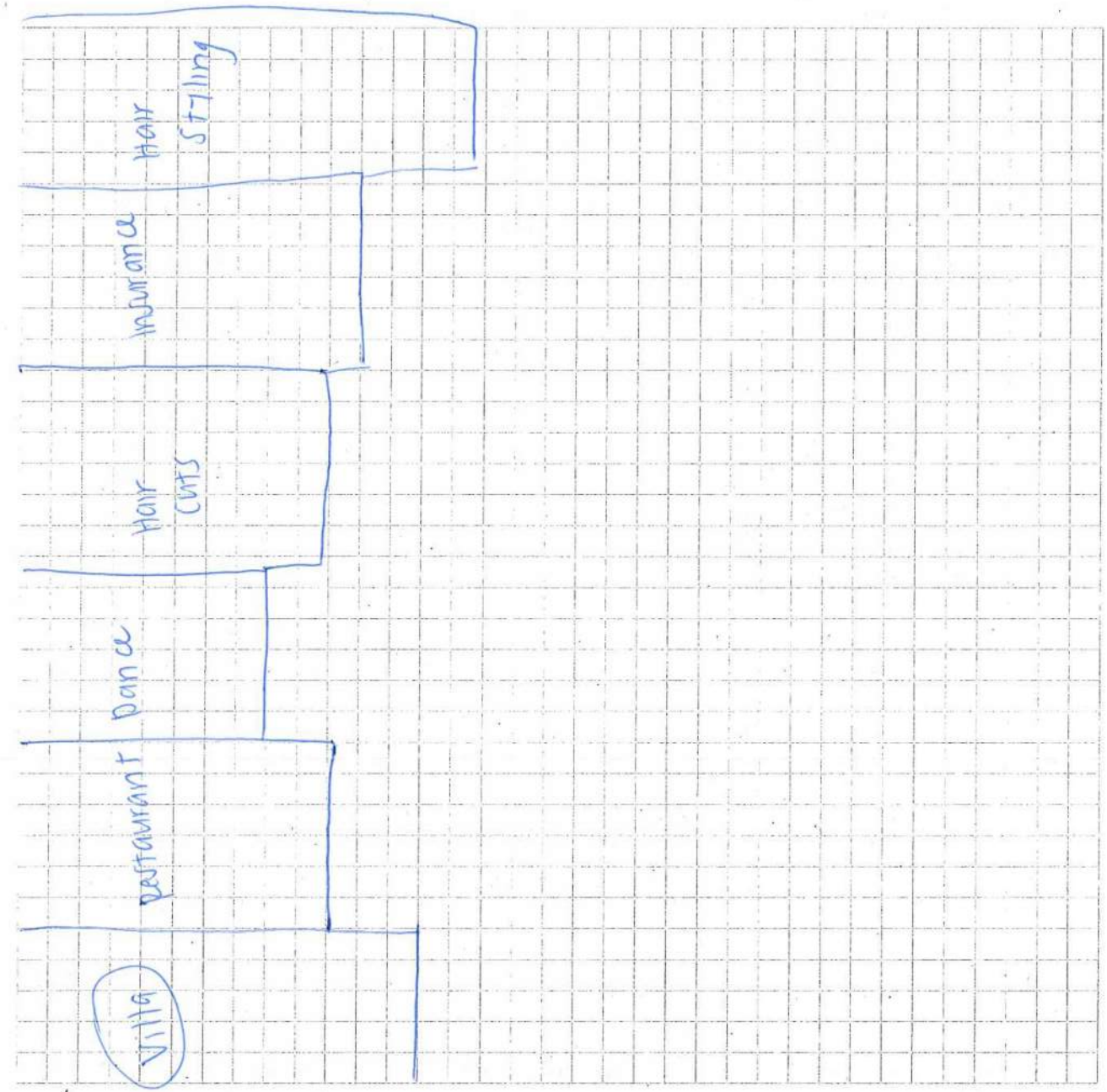
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Multi Rae PID

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
None	Observations other than cleaning fluids and detergents				0.3	
	Detergents	various	U	sodium carbonate sodium	0.3	Y
	Stain Remover	20 oz	U	polyethylene, glycol isotridecyl subtilisins	0.3	Y
	Softener	60 oz	U	ethyl alcohol, benzyl acetate, ethanol benzyl alcohol	0.3	Y

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.


DYNASTY
SHOUT
Suavitel

Appendix B

Data Usability Summary Report

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

April 10, 2017

Melissa Harclerode
CDM Smith
110 Fieldcrest Ave
No 8 6th Floor
Edison, NJ 08837

RE: Validation of the NYSDEC Villa Cleaners Site Air Analytical Data
Data Usability Summary Report (DUSR)

TestAmerica-VT SDG No. 200-37722-1

Dear Ms. Harclerode:

Review has been completed for the data package generated by TestAmerica Laboratories (TAL-VT) that pertains to air samples collected on 03/08/17 at the Villa Cleaners site. Nineteen 6-L summa canisters were analyzed for a full list of volatile analytes using USEPA method TO-15.

Data validation was performed using guidance from the 2006 USEPA Region II validation SOP HW-31, with consideration for the specific requirements of the analytical methodology. The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Internal Standard Recoveries
* Method and Canister Blanks
* Laboratory Control Samples (LCSs)
* Instrumental Tunes
* Initial and Continuing Calibration Standards
* Method Compliance
* Sample Result Verification

The data review includes evaluation of the specific items noted in The NYS DER-10 Appendix B section 2.0 (c). The items listed above that show deficiencies are discussed within the text of this narrative. The laboratory QC forms illustrating the excursions can be found within the laboratory data package.

Unless noted within this text, the listed items undergoing review were found to be acceptable as outlined in the above-mentioned validation procedure, and as applicable for the methodology. Unless noted specifically in the following text, reported results are substantiated by the raw data, and generated in compliance with project requirements.

In summary, sample processing was conducted in compliance with project requirements. Sample results are usable either as reported or with minor qualification as estimated.

The client and laboratory sample identifications and laboratory case narrative are attached to this text, and should be reviewed in conjunction with this report. Also included with this submission is the client EDD, qualified with the validation qualifiers noted below.

Volatile Analyses by EPA TO-15

Some of the analytes show responses that exceed the established linear range of the instrumentation. In order to achieve low reporting limits for the analytes of concern, the laboratory was instructed to report those samples undiluted. Therefore, the results for those high concentration compounds (laboratory "E" flag) have been qualified as estimated in value.

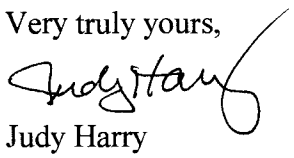
Holding times and instrument tunes meet requirements. Internal standard recoveries are within the required ranges. Method and batch canister blanks show no contamination. The clean canister certifications were reviewed during validation.

Initial and continuing calibration standard responses were acceptable, with response factors (RRFs) above 0.05, linearity within the 30%RSD limit, and continuing responses not above 30%D.

Mass spectra confirm identifications, and the calculated sample results have been verified.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,



Judy Harry

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

CLIENT and LABORATORY SAMPLE IDs and CASE NARRATIVE

SAMPLE SUMMARY

Client: CDM Smith, Inc.

Job Number: 200-37722-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-37722-1	103538-1887-IA-030817	Air	03/08/2017 1310	03/10/2017 1130
200-37722-2	103538-1887-SS-030817	Air	03/08/2017 1310	03/10/2017 1130
200-37722-3	103538-1889-IA-030817	Air	03/08/2017 1248	03/10/2017 1130
200-37722-4	103538-1889-SS-030817	Air	03/08/2017 1248	03/10/2017 1130
200-37722-5	103538-1891-IA-030817	Air	03/08/2017 1315	03/10/2017 1130
200-37722-6	103538-1891-SS-030817	Air	03/08/2017 1315	03/10/2017 1130
200-37722-7	103538-1893-IA-030817	Air	03/08/2017 1259	03/10/2017 1130
200-37722-8	103538-1893-SS-030817	Air	03/08/2017 1255	03/10/2017 1130
200-37722-9	103538-1895-IA-030817	Air	03/08/2017 1230	03/10/2017 1130
200-37722-10	103538-1895-SS-030817	Air	03/08/2017 1230	03/10/2017 1130
200-37722-11	103538-1897-IA-030817	Air	03/08/2017 1321	03/10/2017 1130
200-37722-12	103538-1897-SS-030817	Air	03/08/2017 1321	03/10/2017 1130
200-37722-13	103538-1899A-IA-030817	Air	03/08/2017 1400	03/10/2017 1130
200-37722-14	103538-1899A-SS-030817	Air	03/08/2017 1327	03/10/2017 1130
200-37722-15	103538-9899A-IA-030817	Air	03/08/2017 1400	03/10/2017 1130
200-37722-16	103538-1899B-IA-030817	Air	03/08/2017 1302	03/10/2017 1130
200-37722-17	103538-1899B-SS-030817	Air	03/08/2017 1302	03/10/2017 1130
200-37722-18	103538-9899B-SS-030817	Air	03/08/2017 1302	03/10/2017 1130
200-37722-19	103538-1897-OA-030817	Air	03/08/2017 1200	03/10/2017 1130

Job Narrative
200-37722-1

Comments
No additional comments.

Receipt
The samples were received on 3/10/2017 11:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 21.0° C, 21.0° C, 21.0° C, 21.0° C, 21.0° C and 21.0° C.

Receipt Exceptions
During the canister pressure check performed upon receipt, it was observed that the following sample was received at an elevated residual vacuum level: 103538-9899A-IA-030817 (200-37722-15). The associated flow controller was evaluated upon receipt and was found to be within the acceptable flow range as compared to the original set flow rate.

Air Toxics
Method(s) TO-15: The concentration(s) of Butane in the following sample(s) exceeded the calibration range of the instrument: 200-37722-A-1. The client was contacted and the sample was analyzed with minimum dilution even though some analytes were outside of the calibration range.

Method(s) TO-15: The concentration(s) of n-Butane, Acetone, Isopropyl alcohol, Methyl methacrylate in the following sample(s) exceeded the calibration range of the instrument: 200-37722-A-3, -5. The client was contacted and the sample was analyzed with minimum dilution even though some analytes were outside of the calibration range.

Method(s) TO-15: The concentration(s) of Isopropyl alcohol in the following sample(s) exceeded the calibration range of the instrument: 200-37722-a-7, -9, -11. The client was contacted and the sample was analyzed with minimum dilution even though some analytes were outside of the calibration range.

Method(s) TO-15: The concentration(s) of Toluene in the following sample(s) exceeded the calibration range of the instrument: 200-37722-A-13, -15. The client was contacted and the sample was analyzed with minimum dilution even though some analytes were outside of the calibration range.

Method(s) TO-15: The concentration(s) of n-Butane, Acetone in the following sample(s) exceeded the calibration range of the instrument: 200-37722-A-4, -17, -18. The client was contacted and the sample was analyzed with minimum dilution even though some analytes were outside of the calibration range.

Method(s) TO-15: The concentration(s) of Acetone, Isopropyl alcohol, Cumene in the following sample(s) exceeded the calibration range of the instrument:200-37722-A-8 . The client was contacted and the sample was analyzed with minimum dilution even though some analytes were outside of the calibration range.

Method(s) TO-15: The concentration(s) of Isopropyl alcohol in the following sample(s) exceeded the calibration range of the instrument: 200-37722-A-10. The client was contacted and the sample was analyzed with minimum dilution even though some analytes were outside of the calibration range.

Method(s) TO-15: The concentration(s) of Acetone and Isopropyl alcohol in the following sample(s) exceeded the calibration range of the instrument: 200-37722-A-6. The client was contacted and the sample was analyzed with minimum dilution even though some analytes were outside of the calibration range.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.