Limited Phase II

Environmental Site Assessment

Lawton Avenue Property

New Rochelle, New York

NP&V Job # 17102

June 1, 2017

Limited Phase II

Environmental Site Assessment

Lawton Avenue Properties

THIS DOCUMENT CONTAINS 14 PAGES OF TEXT

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Prepared For:

Don & Darren Monti
Renaissance Downtowns UrbanAmerica, LLC
9 Gerhard Road
Plainview, New York 11803

Prepared By:

Mr. Charles J. Voorhis, CEP, AICP
Nelson, Pope & Voorhis, LLC
572 Walt Whitman Road
Melville, New York 11747
(631) 427-5665

Long Island Analytical Laboratories
110 Colin Avenue
Holbrook, New York 11741

NELSON POPE & VOORHIS, LLC
ENVIRONMENTAL • PLANNING • CONSULTING

Limited Phase II

Environmental Site Assessment

Lawton Avenue Property

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1.0 INTRODUCTION AND PURPOSE

Nelson, Pope & Voorhis, LLC (NP&V) has been contracted to prepare a Limited Phase II Environmental Site Assessment for the subject property. This report is intended to address recognized environmental conditions that were identified in a Phase I Environmental Site Assessment report prepared by Nelson, Pope & Voorhis, LLC dated April 28, 2017. The Phase I ESA was performed in accordance with the standards detailed by the American Society of Testing and Materials (ASTM) for the Performance of a Phase I Environmental Site Assessment (E 1527). This Limited Phase II ESA was designed to determine what, if any, impact on-site activities have had upon the environmental quality of the subject property.

The subject property is located in the City of New Rochelle, County of Westchester, New York. The property, which totals approximately 1.0 acre of land, is located northeast of Lawton Avenue and southwest of North Avenue, between Huguenot Street and Main Street. The subject property is more particularly described as Tax Lot #'s 1-229-0023 & 0056.

The subject property currently consists of two (2) public parking lots. The site was identified in historic maps as previously being occupied by apartment buildings. No buildings, facilities or improvements were observed to be present. No evidence of areas of stressed vegetation, pools of discharge, or residue of toxic substances, chemical odors, or other such indicators were noted during the site reconnaissance.

A Tier 1 Vapor Encroachment Condition (VEC) Assessment was conducted as part of this Phase I ESA, due to the proximity of several spill incidents. The assessment was conducted in accordance to the methods and procedures, outlined within ASTM E2600-15, Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions.

For this assessment, under conditions where the direction of groundwater flow can be ascertained, critical search distances are used to determine if a VEC exists. Specifically, the following distances are applied to the Tier I Assessment:

Upgradient Sources
1,760 feet for Chemical of Concern (COC)
520 feet for petroleum hydrocarbons

Cross-gradient Sources
365 feet for COC
165 feet for petroleum hydrocarbon LNAPL sources & 95 feet dissolved petroleum hydrocarbon sources with plume considerations

Down-gradient Sources
100 feet for COC/petroleum hydrocarbon LNAPL sources
30 feet dissolved petroleum hydrocarbon sources

Review of the regulatory agency database report provided for the subject property identified several sites located within the critical distances which documented a release or were involved in an activity which could result in a release of petroleum product or toxic chemicals. Based on the information reviewed, it was concluded that a VEC could not be ruled out.

Based on these findings, the Phase I Environmental Site Assessment report identified recognized environmental conditions that prompted the performance of this Limited Phase II Environmental Site Assessment. These conditions included:

1. The subject property was occupied by apartment buildings in the past. It is uncertain if subsurface structures associated with these apartment buildings (if present) have been properly removed.

2. The results of a Tier 1 Vapor Encroachment Condition (VEC) Assessment was conducted as part of this Phase I ESA and revealed the presence of several sites located within established critical distances which documented a release or were involved in an activity which could result in a release of petroleum product or toxic chemicals. As a result, based on the information reviewed, it has been concluded that a VEC cannot be ruled out.

This Limited Phase II ESA has been designed to address the recognized environmental conditions noted above. The protocol used to direct this investigation is based upon the following documents: 1) the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York. The following sections detail the subject property and surrounding area characteristics, sampling program, quality assurance protocol, laboratory analysis methodology and laboratory results.

2.0 GROUND PENETRATING RADAR SURVEY (GPR)

2.1 GPR SURVEY

A remote sensing ground penetrating radar field survey was performed over portions of the planimetric surface of the property. The ground penetrating radar (GPR) used in this process was a GSSI model UtilityScan DF with a 300 and 800 MHz antennas.

The GPR system consisted of a control unit, control cable and a transducer. The GPR control unit transmits a trigger pulse at a normal repetition rate of 50 KHz. The pulse is then sent to the transmitter electronics in the transducer (antenna) via the control cable where the trigger pulses are transformed into bipolar pulses with higher amplitudes. The transformed pulse will vary in shape and frequency according to the transducer used. The GSSI system is capable of transmitting electromagnetic energy into the subsurface of the earth in the frequency range of 16 MHz to 2000 MHz. In the subsurface, reflections of the pulse occur at boundaries where there is a dielectric contrast (void, steel, soil type). The reflected portion of the signal travels back to the antenna and the control unit and is subsequently shown on the display of the computers color video monitor for interpolation.

A qualified technician specified a coordinate system on the planimetric surface to locate any subsurface dielectric anomalies on the premises. The operator used known knowledge of the subsurface soil composition to calibrate the UtilityScan DF system to site specific conditions. Factor settings such as range, gain, number of gain points, and scans per unit, are modified to yield the most accurate data to describe the subsurface conditions.

Upon finding a dielectric anomaly a more specific coordinate system was designed over the area to determine its size, shape and orientation. The data collected during the survey was reviewed by the operator and compared against past experience, technical judgment and prior site knowledge to classify the anomalies.

The GPR survey was utilized to determine if any underground fuel oil storage tanks associated with the former buildings were present on the subject property. This survey did not identify any underground fuel oil storage tanks on either of the subject properties.

Please note: NP&V received records from the City of New Rochelle which indicated that fuel oil storage tanks which were present in the basement of a former building had been removed and properly disposed of.

3.0 SAMPLING AND ANALYSIS PROGRAM (SAP)

3.1 SOIL VAPOR SAMPLING

All of the soil vapor and ambient air sampling was conducted using properly decontaminated Summa® canisters supplied by the laboratory and fitted with air flow regulators calibrated for a two (2) hour draw period. Two (2) temporary soil vapor probes were installed through the asphalt pavement as well as one (1) ambient air sample were collected on May 17, 2017. All installation and sampling was completed by qualified NP&V personnel with experience in similar soil vapor sampling projects and hazardous waste sample training. All of the samples were sent directly to the laboratory by the sampling technician to be analyzed by Long Island Analytical Laboratories, Inc. The following sections describe the methods and procedures of the SAP for soil vapor and ambient air sampling.

3.1.1 Soil Vapor Probe Installation

Both soil-vapor probes were installed in the paved parking lot of the property. The probe borings were drilled to a depth of two (2) inches below the asphalt and the well probe was inserted into the borehole. The well probe was constructed with polyethylene tubing which was cut in several locations to promote the flow of any soil vapors which may be present in subsoils. The annular space surrounding the well probe was backfilled with a coarse gravel pack to cover the drilled section of tubing screen and the remaining annular space was filled with modeling clay to seal the well from any outside air intrusion.

3.1.2 Soil Vapor Sample Collection

Following installation, approximately one (1) to three (3) volumes of air were purged from each probe location to ensure the collection of a representative sample of soil vapor as outlined in Section 2.7 of the NYSDOH Guidance Manual.

Summa® canisters fitted with a two (2) hour regulators were used for the withdrawal of the soil vapor samples to ensure a soil vapor collection rate of less than 0.20 L/min. The canisters and regulators were connected to the well probe and soil vapor was extracted via the negative pressure atmosphere within the canister.

3.1.3 Outdoor Control Air Sampling

The outdoor control air sample was collected using a Summa® Canister as described in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York. The Summa® canisters were equipped with a regulator valve to fill at a rate which ensures a soil vapor collection rate of less than 0.20 L/min. The outdoor canister was placed on the west side of the CVS. The ambient air sample canister was set at a height of three (3) feet above ground surface as described in the NYSDOH Guidance Manual.

3.1.4 Laboratory Sample Location and Frequency

The soil vapor samples collected from the site were collected in the laboratory provided Summa® canisters and labeled for identification purposes. The labels were coded to correspond to the location from which the samples were secured. **Table 2** provides an index of how the samples were coded during labeling.

TABLE 2

SOIL VAPOR/AMBINET AIR SAMPLE IDENTIFICATION

SAMPLE LOCATION	SAMPLE ID CODE
Soil vapor sample located in the southeast portion of the parking lot.	SV-1
Soil vapor sample located in the southwest portion of the parking lot.	SV-2
Outdoor ambient air sample was located on the west side of the CVS.	OA-1

4.0 LABORATORY ANALYSIS

4.1 ANALYTICAL TEST METHODS

Following sample collection, the Summa® Canisters were transported to a Certified Commercial Laboratory for analysis. Selection of the analytical test method for the presence of volatile organic compounds was based on USEPA Test Method TO-15.

4.2 ANALYTICAL RESULTS

Review of the analytical results finds that sampling detected the presence of several volatile organic compounds in all of the samples collected.

New York State currently does not have any specific standards for the concentrations of compounds in either ambient air or subsurface vapors but has established air guidance values for only three (3) volatile organic compounds in ambient air which include methylene chloride, tetrachloroethene and trichloroethene. In addition, the New York State Department of Health (NYSDOH) has issued the *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* **(NYS Department of Health - Center for Environmental Health - Bureau of Environmental Exposure Investigation, October, 2006)** which provides evaluation tools which may be used to evaluate the potential exposure impacts related to elevated levels of volatile organic compounds in soil vapors and ambient air. The applicable tools with respect to the sampling conducted as part of this assessment includes a comparison with NYSDOH air guidance values as well as background air database results for a variety of property uses. In addition, soil vapor and ambient air results are reviewed "as a whole" to identify trends and special variations in the data, as outlined in the manual.

Review of the analytical results revealed that only one (1) compound, methylene chloride, was detected in the soil vapor samples for which the NYSDOH has established guidance values. The concentrations for this compound was found in one of the soil vapor samples at a concentration of 8.58 ug/m^3 which is well below its established guidance value of 60 ug/$m^{3.}$

To complete the comprehensive assessment of soil vapor and ambient air quality at the property for compounds that do not have established guidance values or other recognized evaluation tools, the analytical results were compared to the Upper Fence values established in the NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes. This is a study that was conducted between 1997 and 2003 to assess the occurrence of volatile organic chemicals in the indoor air of fuel oil heated homes. This database is the recommended source of comparison for evaluating residential properties in the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in New York State. It should be noted however that these Upper Fence values are not considered regulatory standards and are only intended to be used as for comparative assessment in order to identify significant exceedances. Comparison of the

analytical results to the Upper Fence Values found that several compounds exceeded their respective Upper Fence values. However, many of the soil vapor detections were found to be similar to those found in the ambient air and may be attributable to natural background conditions.

Table 2 provides a list of those constituents with elevated concentrations and their values. The laboratory analysis sheets (NYS ASPA) as prepared by Long Island Analytical are presented in **Appendix A** of this document.

TABLE 2

SOIL VAPOR AND AMBIENT AIR SAMPLE RESULTS

Parameters	NYSDOH Upper Fence	NYSDOH Air Guidance Values	SV-1	SV-2	NYSDOH Upper Fence	OA-1
Acetone	115	*NGV*	**218**	41.9	30	**379**
Acrolein	NL	*NGV*	20.2	10.3	NL	21.9
Benzene	13	*NGV*	**13.5**	ND	4.8	**7.32**
Benzyl Chloride	NL	*NGV*	6.32	5.49	NL	14.2
1,3-Butadiene	NL	*NGV*	70.5	ND	NL	22.0
Carbon Disulfide	NL	*NGV*	12.4	ND	NL	9.34
1,2-Dichlorobenzene	0.5	*NGV*	**6.85**	**6.55**	0.4	**14.2**
1,3-Dichlorobenzene	0.5	*NGV*	**7.27**	**6.91**	0.4	**15.0**
1,4-Dichlorobenzene	1.2	*NGV*	**7.15**	**6.97**	0.5	**14.7**
Chloroethane	0.4	*NGV*	ND	ND	0.4	**3.83**
Chloromethane	0.4	*NGV*	**35.8**	ND	4.3	**19.4**
4-Ethyltoluene	NL	*NGV*	5.46	5.26	NL	10.2
Ethanol	1,300	*NGV*	66.7	27.5	NL	81.2
Ethyl Acetate	NL	*NGV*	6.02	ND	NL	ND
Ethylbenzene	6.4	*NGV*	ND	ND	NL	9.86
Isopropanol	NL	*NGV*	6.81	6.34	NL	22.8
4-Methyl-2-Pentanone	NL	*NGV*	ND	ND	NL	4.75
Methylene Chloride	16	***60***	ND	8.58	1.6	**4.24**
Methyl Butyl Ketone (2-Hexanone)	NL	*NGV*	54.6	9.87	5.3	**58.3**
Methyl Ethyl Ketone 2-Butanone	16	*NGV*	**650**	14.5	NL	720
Propylene	NL	*NGV*	411	4.72	NL	189
Styrene	1.4	*NGV*	**5.03**	ND	0.5	**12.4**
1,2,4-Trichlorobenzene	0.5	*NGV*	ND	ND	0.4	**7.64**
1,2,4-Trimethylbenzene	9.8	*NGV*	ND	ND	1.9	**8.36**
1,3,5-Trimethylbenzene	3.9	*NGV*	ND	**5.11**	0.7	**8.85**
Tetrahydrofuran	0.8	*NGV*	ND	ND	0.4	**4.19**
Toluene	57	*NGV*	7.91	ND	5.1	5.24
m/p-xylene	11	*NGV*	**14.2**	10.7	1.0	**32.5**
o-xylene	7.1	*NGV*	5.82	4.52	1.5	**12.6**
n-Hexane	14	*NGV*	**22.5**	ND	2.2	**12.2**
n-Heptane	18	*NGV*	**22.6**	ND	4.5	ND
Cyclohexane	6.3	*NGV*	**7.40**	ND	0.9	ND

Notes: NGV - No value provided in NYSDOH Air Guideline Value. NL - No level provided.
Bold and Shaded - detection exceeds its applicable NYSDOH Air Guidance value. Indoor air results compared with indoor values and outdoor air results compared with outdoor values. Green is for exceedance of NYSDOH Indoor Upper Fence values and Blue is for exceedance of Outdoor Upper Fence values.
Italic - Detection exceeds its established NYSDOH Air Guideline Value.

4.0 QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES (QA/QC)

This sampling protocol was conducted in accordance with USEPA accepted sampling procedures for hazardous waste streams (Municipal Research Laboratory, 1980, Sampling and Sampling Procedures for Hazardous Material Waste Streams, USEPA, Cincinnati, Ohio EPA- 600\280-018) and ASTM Material Sampling Procedures. All samples were collected by or under the auspices of USEPA trained personnel having completed the course Sampling of Hazardous Materials, offered by the Office of Emergency and Remedial Response.

Separate QA/QC measures were implemented for each of the instruments used in the Sampling and Analysis Program. Sampling instruments included polyethylene tubing and Summa® canisters.

Prior to arrival on the site and between sample locations, the probes sections were decontaminated by washing with a detergent (alconox/liquinox) and potable water solution with distilled water rinse. The organic vapor analyzer was calibrated prior to sampling using a span gas of known concentration. All sample vessels were "level A" certified decontaminated containers. Samples were placed into vessels consistent with the analytical parameters. After acquisition, samples were preserved in the field. All containerized samples were refrigerated to 4^{o} C during transport.

A sample represents physical evidence; therefore, an essential part of liability reduction is the proper control of gathered evidence. To establish proper control, the following sample identification and chain-of-custody procedures were followed.

1.1.1.1 Sample Identification

Sample identification was executed by use of a sample tag, logbook and manifest. Documentation provides the following:

1. Project Code
2. Sample Laboratory Number
3. Sample Preservation
4. Instrument Used for Source Soil Grabs
5. Composite Medium Used for Source Soil Grabs
6. Date Sample was Secured from Source Soil
7. Time Sample was Secured from Source Soil
8. Person Who Secured Sample from Source Soil

1.1.1.2 Chain-of-Custody Procedures

Due to the evidential nature of samples, possession was traceable from the time the samples were collected until they were received by the testing laboratory. A sample was considered under custody if:

It was in a person's possession, or
It was in a person's view, after being in possession, or
It was in a person's possession and they were to lock it up, or
It is in a designated secure area.

When transferring custody, the individuals relinquishing and receiving signed, dated and noted the time on the Chain-of- Custody Form.

1.1.1.3 Laboratory Custody Procedures

A designated sample custodian accepted custody of the shipped samples and verified that the information on the sample tags matched that on the Chain-of-Custody records. Pertinent information as to shipment, pick-up, courier, etc. was entered in the "remarks" section. The custodian then entered the sample tag data into a bound logbook which was arranged by project code and station number.

The laboratory custodian used the sample tag number or assigned a unique laboratory number to each sample tag and assured that all samples were transferred to the proper analyst or stored in the appropriate source area.

The custodian distributed samples to the appropriate analysts. Laboratory personnel were responsible for the care and custody of samples from the time they were received until the sample was exhausted or returned to the custodian.

All identifying data sheets and laboratory records were retained as part of the permanent site record. Samples received by the laboratory were retained until after analysis and quality assurance checks were completed.

5.0 SUMMARY AND CONCLUSION

This investigation was completed to assess the potential impacts that former on-site activities may have had on the subject property as per the recommendations issued in the Phase I ESA prepared by NP&V, dated April 28, 2017. The sampling and analysis plan consisted of soil vapor/ambient air quality testing using analytical test methods consistent with expected parameters and regulatory agency guidance. The following presents an evaluation of the results of this investigation.

1. Review of the analytical results finds that sampling detected the presence of several volatile organic compounds in all of the samples collected.

   New York State currently does not have any specific standards for the concentrations of compounds in either ambient air or subsurface vapors but has established air guidance values for only three (3) volatile organic compounds in ambient air which include methylene chloride, tetrachloroethene and trichloroethene. In addition, the New York State Department of Health (NYSDOH) has issued the *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* **(NYS Department of Health - Center for Environmental Health - Bureau of Environmental Exposure Investigation, October, 2006)** which provides evaluation tools which may be used to evaluate the potential exposure impacts related to elevated levels of volatile organic compounds in soil vapors and ambient air. The applicable tools with respect to the sampling conducted as part of this assessment includes comparison with NYSDOH air guidance values as well as background air database results for a variety of property uses. In addition, soil vapor and ambient air results are reviewed "as a whole" to identify trends and special variations in the data, as outlined in the manual.

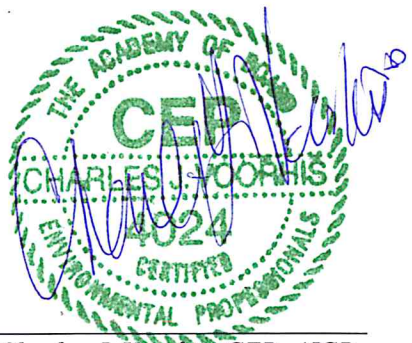
   Review of the analytical results revealed that only one compound, methylene chloride, was detected in the soil vapor samples for which the NYSDOH has established guidance values. The concentrations for this compound was found in one of the soil vapor samples at a concentration of 8.58 ug/m^3 and is well below its established guidance value of 60 ug/$m^{3.}$

   To complete the comprehensive assessment of soil vapor and ambient air quality at the property for compounds that do not have established guidance values or other recognized evaluation tools, the analytical results were compared to the Upper Fence values established in the NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes. This a study which was conducted between 1997 and 2003 to assess the occurrence of volatile organic chemicals in the indoor air of fuel oil heated homes. This database is the recommended source of comparison for evaluating residential properties in the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in New York State. It should be noted however that these Upper Fence values are not considered regulatory standards and are only intended to be used as for comparative assessment in order to identify significant exceedances. Comparison of the analytical results to the Upper Fence Values found that several compounds exceeded their respective Upper Fence values. However, many of the soil vapor detections were found to be similar to those found in the ambient air and may be attributable to natural background conditions.

Nevertheless, due to the high density of commercial development in the area, if the property is redeveloped for residential or commercial purposes it is recommended that soil vapor mitigation measures (i.e. soil vapor barrier, sub-slab depressurization system, etc.) should be installed as a protective measure.

The subject property has been evaluated in accordance with standard practice for the industry. This Limited Phase II ESA addresses only the specific areas of the site as requested by the client and can only provide conclusions regarding the subsurface soil quality in those specific areas tested. This Limited Phase II ESA report is limited to the evaluation of on-site conditions at the time of completion of the field sampling program.

6/1/17
Date of Completion



Charles J. Voorhis, CEP, AICP
Project Manager

6.0 REFERENCES

New York State Department of Environmental Conservation (NYSDEC), 1992, Sampling Guidelines and Protocols, Technology Background and Quality Control/Quality Assurance for NYSDEC Spill Response Program, NYSDEC, Albany, New York.

ASTM, June 2010, E2600-15 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, West Conshohocken, Pennsylvania.

New York State Department of Health (NYSDOH), October 2006, Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Bureau of Environmental Exposure Investigation, Troy, New York.

FIGURES

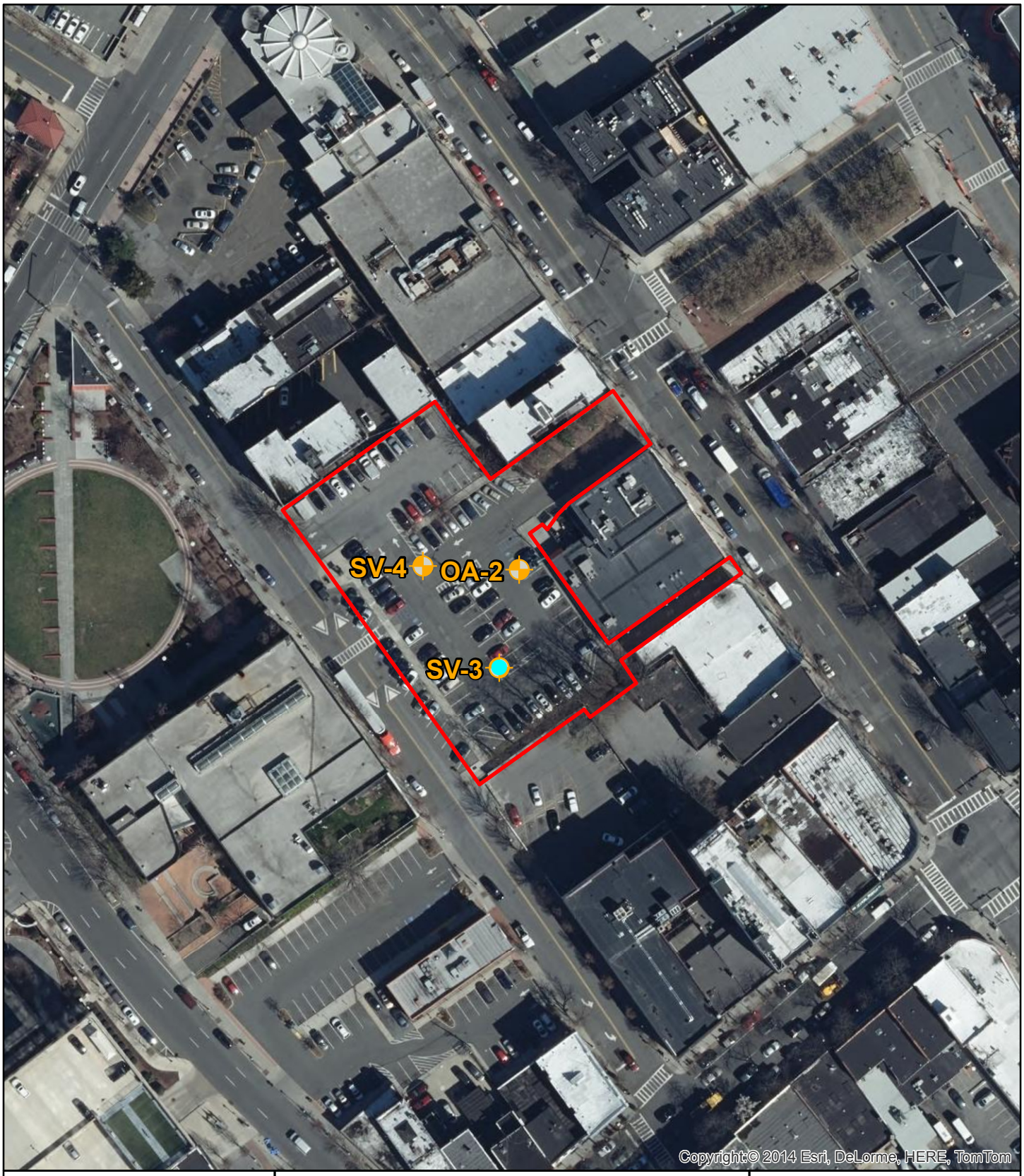


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FIGURE 1
SAMPLE LOCATION MAP

Source: NYS Orthophotography, 2013

Scale: 1 inch = 100 feet

N

Lawton Street Parcels
New Rochelle

Limited Phase II ESA

APPENDICES

APPENDIX A

LABORATORY DATA SHEETS

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

Laboratory Report

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LIAL# 7051913

May 26, 2017

Nelson, Pope & Voorhis
Steve McGinn
572 Walt Whitman Road
Melville, NY 11747

Re: Lawton Street New Rochelle

Dear Steve McGinn,

Enclosed please find the laboratory Analysis Report(s) for sample(s) received on May 19, 2017. Long Island Analytical laboratories analyzed the samples on May 25, 2017 for the following:

SAMPLE ID	ANALYSIS
OA - 1	TO-15
SV - 1	TO-15
SV - 2	TO-15

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted. Report shall not be reproduced except in full without the written approval of the laboratory. Results related only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

Michael Veraldi - Laboratory Director

Client: Nelson, Pope & Voorhis	Client ID: Lawton Street New Rochelle
Date (Time) Collected: 05/17/2017 10:52	Sample ID: OA - 1
Date (Time) Received: 05/19/2017 17:28	Laboratory ID: 7051913-01
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	1.00	<1.00	ug/m³	
1,1,2,2-Tetrachloroethane	79-34-5	1.00	<1.00	ug/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1.00	<1.00	ug/m³	
1,1,2-Trichloroethane	79-00-5	1.00	<1.00	ug/m³	
1,1-Dichloroethane	75-34-3	1.00	<1.00	ug/m³	
1,1-Dichloroethylene	75-35-4	1.00	<1.00	ug/m³	
1,2,4-Trichlorobenzene	120-82-1	1.00	7.64	ug/m³	
1,2,4-Trimethylbenzene	95-63-6	1.00	8.36	ug/m³	
1,2-Dibromoethane	106-93-4	1.00	<1.00	ug/m³	
1,2-Dichlorobenzene	95-50-1	1.00	14.2	ug/m³	
1,2-Dichloroethane	107-06-2	1.00	<1.00	ug/m³	
1,2-Dichloropropane	78-87-5	1.00	<1.00	ug/m³	
1,2-Dichlorotetrafluoroethane	76-14-2	1.00	<1.00	ug/m³	
1,3,5-Trimethylbenzene	108-67-8	1.00	8.85	ug/m³	
1,3-Butadiene	106-99-0	1.00	22.0	ug/m³	
1,3-Dichlorobenzene	541-73-1	1.00	15.0	ug/m³	
1,4-Dichlorobenzene	106-46-7	1.00	14.7	ug/m³	
1,4-Dioxane	123-91-1	1.00	<1.00	ug/m³	
4-Ethyltoluene	622-96-8	1.00	10.2	ug/m³	
4-Methyl-2-Pentanone	108-10-1	1.00	4.75	ug/m³	
Acetone	67-64-1	50.0	379	ug/m³	3.E
Acrolein	107-02-8	1.00	21.9	ug/m³	
Benzene	71-43-2	1.00	7.32	ug/m³	
Benzyl Chloride	100-44-7	1.00	14.2	ug/m³	
Bromodichloromethane	75-27-4	1.00	<1.00	ug/m³	
Bromoform	75-25-2	1.00	<1.00	ug/m³	
Bromomethane	74-83-9	1.00	<1.00	ug/m³	
Carbon disulfide	75-15-0	1.00	9.34	ug/m³	
Carbon Tetrachloride	56-23-5	1.00	<1.00	ug/m³	
Chlorobenzene	108-90-7	1.00	<1.00	ug/m³	

Client: Nelson, Pope & Voorhis	Client ID: Lawton Street New Rochelle
Date (Time) Collected: 05/17/2017 10:52	Sample ID: OA - 1
Date (Time) Received: 05/19/2017 17:28	Laboratory ID: 7051913-01
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	1.00	3.83	ug/m³	
Chloroform	67-66-3	1.00	<1.00	ug/m³	
Chloromethane	74-87-3	1.00	19.4	ug/m³	
cis-1,2-Dichloroethylene	156-59-2	1.00	<1.00	ug/m³	
cis-1,3-Dichloropropylene	10061-01-5	1.00	<1.00	ug/m³	
Cyclohexane	110-82-7	1.00	<1.00	ug/m³	
Dibromochloromethane	124-48-1	1.00	<1.00	ug/m³	
Dichlorodifluoromethane	75-71-8	1.00	<1.00	ug/m³	
Ethanol	64-17-5	1.00	81.2	ug/m³	
Ethyl Acetate	141-78-6	1.00	<1.00	ug/m³	
Ethylbenzene	100-41-4	1.00	9.86	ug/m³	
Hexachlorobutadiene	87-68-3	1.00	<1.00	ug/m³	
Isopropanol	67-63-0	1.00	22.8	ug/m³	
m,p-Xylenes	108-38-3/106-42-3	1.00	32.5	ug/m³	4.C
Methyl Butyl Ketone (2-Hexanone)	591-78-6	1.00	58.3	ug/m³	
Methyl Ethyl Ketone (2-Butanone)	78-93-3	25.0	720	ug/m³	3.E
Methyl Methacrylate	80-62-6	1.00	<1.00	ug/m³	
Methylene Chloride	75-09-2	1.00	4.24	ug/m³	
Methyl-tert-Butyl Ether	1634-04-4	1.00	<1.00	ug/m³	
Naphthalene	91-20-3	1.00	<1.00	ug/m³	
n-Heptane	142-82-5	1.00	<1.00	ug/m³	
n-Hexane	110-54-3	1.00	12.2	ug/m³	
o-Xylene	95-47-6	1.00	12.6	ug/m³	
Propylene	115-07-1	25.0	189	ug/m³	3.E
Styrene	100-42-5	1.00	12.4	ug/m³	
Tetrachloroethylene	127-18-4	1.00	<1.00	ug/m³	
Tetrahydrofuran	109-99-9	1.00	4.19	ug/m³	
Toluene	108-88-3	1.00	5.24	ug/m³	
trans-1,2-Dichloroethylene	156-60-5	1.00	<1.00	ug/m³	

Client: Nelson, Pope & Voorhis	Client ID: Lawton Street New Rochelle
Date (Time) Collected: 05/17/2017 10:52	Sample ID: OA - 1
Date (Time) Received: 05/19/2017 17:28	Laboratory ID: 7051913-01
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,3-Dichloropropylene	10061-02-6	1.00	<1.00	ug/m³	
Trichloroethylene	79-01-6	1.00	<1.00	ug/m³	
Trichlorofluoromethane	75-69-4	1.00	<1.00	ug/m³	
Vinyl acetate	108-05-4	1.00	<1.00	ug/m³	
Vinyl chloride	75-01-4	1.00	<1.00	ug/m³	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	126	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	100	60-140	
Bromochloromethane	74-97-5	85	60-140	
Chlorobenzene-d5	3114-55-4	109	60-140	

Date Prepared: 05/24/2017

Preparation Method: TO-15

Date Analyzed: 05/25/2017

Analytical Method: TO-15

Client: Nelson, Pope & Voorhis	Client ID: Lawton Street New Rochelle
Date (Time) Collected: 05/17/2017 10:48	Sample ID: SV - 1
Date (Time) Received: 05/19/2017 17:28	Laboratory ID: 7051913-02
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	1.00	<1.00	ug/m³	
1,1,2,2-Tetrachloroethane	79-34-5	1.00	<1.00	ug/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1.00	<1.00	ug/m³	
1,1,2-Trichloroethane	79-00-5	1.00	<1.00	ug/m³	
1,1-Dichloroethane	75-34-3	1.00	<1.00	ug/m³	
1,1-Dichloroethylene	75-35-4	1.00	<1.00	ug/m³	
1,2,4-Trichlorobenzene	120-82-1	1.00	<1.00	ug/m³	
1,2,4-Trimethylbenzene	95-63-6	1.00	<1.00	ug/m³	
1,2-Dibromoethane	106-93-4	1.00	<1.00	ug/m³	
1,2-Dichlorobenzene	95-50-1	1.00	6.85	ug/m³	
1,2-Dichloroethane	107-06-2	1.00	<1.00	ug/m³	
1,2-Dichloropropane	78-87-5	1.00	<1.00	ug/m³	
1,2-Dichlorotetrafluoroethane	76-14-2	1.00	<1.00	ug/m³	
1,3,5-Trimethylbenzene	108-67-8	1.00	<1.00	ug/m³	
1,3-Butadiene	106-99-0	1.00	70.5	ug/m³	
1,3-Dichlorobenzene	541-73-1	1.00	7.27	ug/m³	
1,4-Dichlorobenzene	106-46-7	1.00	7.15	ug/m³	
1,4-Dioxane	123-91-1	1.00	<1.00	ug/m³	
4-Ethyltoluene	622-96-8	1.00	5.46	ug/m³	
4-Methyl-2-Pentanone	108-10-1	1.00	<1.00	ug/m³	
Acetone	67-64-1	50.0	218	ug/m³	3.E
Acrolein	107-02-8	1.00	20.2	ug/m³	
Benzene	71-43-2	1.00	13.5	ug/m³	
Benzyl Chloride	100-44-7	1.00	6.32	ug/m³	
Bromodichloromethane	75-27-4	1.00	<1.00	ug/m³	
Bromoform	75-25-2	1.00	<1.00	ug/m³	
Bromomethane	74-83-9	1.00	<1.00	ug/m³	
Carbon disulfide	75-15-0	1.00	12.4	ug/m³	
Carbon Tetrachloride	56-23-5	1.00	<1.00	ug/m³	
Chlorobenzene	108-90-7	1.00	<1.00	ug/m³	

Client: Nelson, Pope & Voorhis	Client ID: Lawton Street New Rochelle
Date (Time) Collected: 05/17/2017 10:48	Sample ID: SV - 1
Date (Time) Received: 05/19/2017 17:28	Laboratory ID: 7051913-02
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	1.00	<1.00	ug/m³	
Chloroform	67-66-3	1.00	<1.00	ug/m³	
Chloromethane	74-87-3	1.00	35.8	ug/m³	
cis-1,2-Dichloroethylene	156-59-2	1.00	<1.00	ug/m³	
cis-1,3-Dichloropropylene	10061-01-5	1.00	<1.00	ug/m³	
Cyclohexane	110-82-7	1.00	7.40	ug/m³	
Dibromochloromethane	124-48-1	1.00	<1.00	ug/m³	
Dichlorodifluoromethane	75-71-8	1.00	<1.00	ug/m³	
Ethanol	64-17-5	1.00	66.7	ug/m³	
Ethyl Acetate	141-78-6	1.00	6.02	ug/m³	
Ethylbenzene	100-41-4	1.00	<1.00	ug/m³	
Hexachlorobutadiene	87-68-3	1.00	<1.00	ug/m³	
Isopropanol	67-63-0	1.00	6.81	ug/m³	
m,p-Xylenes	108-38-3/106-42-3	1.00	14.2	ug/m³	4.C
Methyl Butyl Ketone (2-Hexanone)	591-78-6	1.00	54.6	ug/m³	
Methyl Ethyl Ketone (2-Butanone)	78-93-3	25.0	650	ug/m³	3.E
Methyl Methacrylate	80-62-6	1.00	<1.00	ug/m³	
Methylene Chloride	75-09-2	1.00	<1.00	ug/m³	
Methyl-tert-Butyl Ether	1634-04-4	1.00	<1.00	ug/m³	
Naphthalene	91-20-3	1.00	<1.00	ug/m³	
n-Heptane	142-82-5	1.00	22.6	ug/m³	
n-Hexane	110-54-3	1.00	22.5	ug/m³	
o-Xylene	95-47-6	1.00	5.82	ug/m³	
Propylene	115-07-1	25.0	411	ug/m³	3.E
Styrene	100-42-5	1.00	5.03	ug/m³	
Tetrachloroethylene	127-18-4	1.00	<1.00	ug/m³	
Tetrahydrofuran	109-99-9	1.00	<1.00	ug/m³	
Toluene	108-88-3	1.00	7.91	ug/m³	
trans-1,2-Dichloroethylene	156-60-5	1.00	<1.00	ug/m³	

Client: Nelson, Pope & Voorhis	Client ID: Lawton Street New Rochelle
Date (Time) Collected: 05/17/2017 10:48	Sample ID: SV - 1
Date (Time) Received: 05/19/2017 17:28	Laboratory ID: 7051913-02
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,3-Dichloropropylene	10061-02-6	1.00	<1.00	ug/m³	
Trichloroethylene	79-01-6	1.00	<1.00	ug/m³	
Trichlorofluoromethane	75-69-4	1.00	<1.00	ug/m³	
Vinyl acetate	108-05-4	1.00	<1.00	ug/m³	
Vinyl chloride	75-01-4	1.00	<1.00	ug/m³	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	111	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	102	60-140	
Bromochloromethane	74-97-5	88	60-140	
Chlorobenzene-d5	3114-55-4	102	60-140	

Date Prepared: 05/24/2017

Preparation Method: TO-15

Date Analyzed: 05/25/2017

Analytical Method: TO-15

Client: Nelson, Pope & Voorhis	Client ID: Lawton Street New Rochelle
Date (Time) Collected: 05/17/2017 10:50	Sample ID: SV - 2
Date (Time) Received: 05/19/2017 17:28	Laboratory ID: 7051913-03
Matrix: Air	ELAP: #11693

Volatiles Analysis

Parameter	CAS No.	LOQ	Result	Units	Flag
1,1,1-Trichloroethane	71-55-6	1.00	<1.00	ug/m³	
1,1,2,2-Tetrachloroethane	79-34-5	1.00	<1.00	ug/m³	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1.00	<1.00	ug/m³	
1,1,2-Trichloroethane	79-00-5	1.00	<1.00	ug/m³	
1,1-Dichloroethane	75-34-3	1.00	<1.00	ug/m³	
1,1-Dichloroethylene	75-35-4	1.00	<1.00	ug/m³	
1,2,4-Trichlorobenzene	120-82-1	1.00	<1.00	ug/m³	
1,2,4-Trimethylbenzene	95-63-6	1.00	<1.00	ug/m³	
1,2-Dibromoethane	106-93-4	1.00	<1.00	ug/m³	
1,2-Dichlorobenzene	95-50-1	1.00	6.55	ug/m³	
1,2-Dichloroethane	107-06-2	1.00	<1.00	ug/m³	
1,2-Dichloropropane	78-87-5	1.00	<1.00	ug/m³	
1,2-Dichlorotetrafluoroethane	76-14-2	1.00	<1.00	ug/m³	
1,3,5-Trimethylbenzene	108-67-8	1.00	5.11	ug/m³	
1,3-Butadiene	106-99-0	1.00	<1.00	ug/m³	
1,3-Dichlorobenzene	541-73-1	1.00	6.91	ug/m³	
1,4-Dichlorobenzene	106-46-7	1.00	6.97	ug/m³	
1,4-Dioxane	123-91-1	1.00	<1.00	ug/m³	
4-Ethyltoluene	622-96-8	1.00	5.26	ug/m³	
4-Methyl-2-Pentanone	108-10-1	1.00	<1.00	ug/m³	
Acetone	67-64-1	2.00	41.9	ug/m³	
Acrolein	107-02-8	1.00	10.3	ug/m³	
Benzene	71-43-2	1.00	<1.00	ug/m³	
Benzyl Chloride	100-44-7	1.00	5.49	ug/m³	
Bromodichloromethane	75-27-4	1.00	<1.00	ug/m³	
Bromoform	75-25-2	1.00	<1.00	ug/m³	
Bromomethane	74-83-9	1.00	<1.00	ug/m³	
Carbon disulfide	75-15-0	1.00	<1.00	ug/m³	
Carbon Tetrachloride	56-23-5	1.00	<1.00	ug/m³	
Chlorobenzene	108-90-7	1.00	<1.00	ug/m³	

Client: Nelson, Pope & Voorhis	Client ID: Lawton Street New Rochelle
Date (Time) Collected: 05/17/2017 10:50	Sample ID: SV - 2
Date (Time) Received: 05/19/2017 17:28	Laboratory ID: 7051913-03
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
Chloroethane	75-00-3	1.00	<1.00	ug/m³	
Chloroform	67-66-3	1.00	<1.00	ug/m³	
Chloromethane	74-87-3	1.00	<1.00	ug/m³	
cis-1,2-Dichloroethylene	156-59-2	1.00	<1.00	ug/m³	
cis-1,3-Dichloropropylene	10061-01-5	1.00	<1.00	ug/m³	
Cyclohexane	110-82-7	1.00	<1.00	ug/m³	
Dibromochloromethane	124-48-1	1.00	<1.00	ug/m³	
Dichlorodifluoromethane	75-71-8	1.00	<1.00	ug/m³	
Ethanol	64-17-5	1.00	27.5	ug/m³	
Ethyl Acetate	141-78-6	1.00	<1.00	ug/m³	
Ethylbenzene	100-41-4	1.00	<1.00	ug/m³	
Hexachlorobutadiene	87-68-3	1.00	<1.00	ug/m³	
Isopropanol	67-63-0	1.00	6.34	ug/m³	
m,p-Xylenes	108-38-3/106-42-3	1.00	10.7	ug/m³	4.C
Methyl Butyl Ketone (2-Hexanone)	591-78-6	1.00	9.87	ug/m³	
Methyl Ethyl Ketone (2-Butanone)	78-93-3	1.00	14.5	ug/m³	
Methyl Methacrylate	80-62-6	1.00	<1.00	ug/m³	
Methylene Chloride	75-09-2	1.00	8.58	ug/m³	
Methyl-tert-Butyl Ether	1634-04-4	1.00	<1.00	ug/m³	
Naphthalene	91-20-3	1.00	<1.00	ug/m³	
n-Heptane	142-82-5	1.00	<1.00	ug/m³	
n-Hexane	110-54-3	1.00	<1.00	ug/m³	
o-Xylene	95-47-6	1.00	4.52	ug/m³	
Propylene	115-07-1	1.00	4.72	ug/m³	
Styrene	100-42-5	1.00	<1.00	ug/m³	
Tetrachloroethylene	127-18-4	1.00	<1.00	ug/m³	
Tetrahydrofuran	109-99-9	1.00	<1.00	ug/m³	
Toluene	108-88-3	1.00	<1.00	ug/m³	
trans-1,2-Dichloroethylene	156-60-5	1.00	<1.00	ug/m³	

Client: Nelson, Pope & Voorhis	Client ID: Lawton Street New Rochelle
Date (Time) Collected: 05/17/2017 10:50	Sample ID: SV - 2
Date (Time) Received: 05/19/2017 17:28	Laboratory ID: 7051913-03
Matrix: Air	ELAP: #11693

Parameter	CAS No.	LOQ	Result	Units	Flag
trans-1,3-Dichloropropylene	10061-02-6	1.00	<1.00	ug/m³	
Trichloroethylene	79-01-6	1.00	<1.00	ug/m³	
Trichlorofluoromethane	75-69-4	1.00	<1.00	ug/m³	
Vinyl acetate	108-05-4	1.00	<1.00	ug/m³	
Vinyl chloride	75-01-4	1.00	<1.00	ug/m³	

Surrogate	CAS No.	% Recovery	Rec. Limits	Flag
4-Bromofluorobenzene	460-00-4	110	70-130	

Internal Standard	CAS No.	% Recovery	Rec. Limits	Flag
1,4-Difluorobenzene	540-36-3	101	60-140	
Bromochloromethane	74-97-5	91	60-140	
Chlorobenzene-d5	3114-55-4	103	60-140	

Date Prepared: 05/24/2017

Preparation Method: TO-15

Date Analyzed: 05/25/2017

Analytical Method: TO-15

Data Qualifiers Key Reference:

3.E Compound reported at a dilution factor.

4.C Target compound found in blank.

MDL Minimum Detection Limit

LOQ Limit of Quantitation

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Chain of Custody – TO-15

CLIENT: NPV	PROJECT: Lawton Street	DATE COLLECTED: 5/17/17	7051913
CLIENT ADDRESS: 572 Walt Whitman Rd	LOCATION: New Rochelle	TECHNICIAN: Jonathan McGinn	
CLIENT PHONE	E-MAIL ADDRESS	TURNAROUND TIME: BY / / ☐ NORMAL ☐ STAT	

LABORATORY NO. For Laboratory Use Only	CANISTER NO. / REGULATOR NO.	SAMPLE LOCATION	TIME ON	TIME OFF	VACUUM GUAGE START ("Hg)	VACUUM GUAGE END ("Hg)	LEAK DETECTOR ANALYTE	ANALYSIS METHOD
1. 7051913-01	LIAL0173/LIAL 11-16	OA-1	8:38	10:52	29	5		TO-15
2. -02	026 / 3-16	SV-1	8:37	10:48	30+	4		TO-15
3. -03	003 / 12-16	SV-2	8:51	10:50	30	4		TO-15
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								

COMMENTS

LEAK DETECTOR ANALYTES
(1) ISOPROPYL ALCOHOL (2) HELIUM (BY TECHNICIAN IN THE FIELD) (3) OTHER:

RELINQUISHED BY (SIGNATURE)	DATE 5/17/17 TIME 2:45	PRINTED NAME Jonathan McGinn	RECEIVED BY (SIGNATURE)	DATE 5-17-17 TIME 16:55	PRINTED NAME Mila D. Veraldi
RELINQUISHED BY (SIGNATURE)	DATE TIME	PRINTED NAME	SAMPLE CUSTODIAN	DATE 5-18-17 TIME 7:28	PRINTED NAME Mila D. Veraldi

WHITE-LAB CANARY-CLIENT

NYSDOH ELAP# 11693