Interim Remedial Measure (IRM) Work Plan

161-01 29th Avenue
Flushing, New York
(Site #C241247)

April 25, 2023

Prepared for:
16103-11 29th Avenue LLC
161-09 29th Avenue
Flushing, New York

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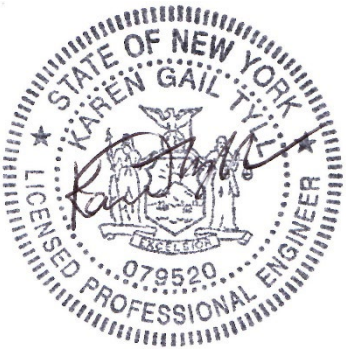
LIST OF ACRONYMS

Acronym	Definition
bgs	below ground surface
CCR	Construction Completion Report
CVOC	chlorinated volatile organic compounds
EPA	U.S. Environmental Protection Agency
HVAC	Heating, Ventilation and Air Conditioning
IRM	Interim Remedial Measure
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
O, M & M	Operation, Maintenance and Monitoring
PCBs	polychlorinated biphenyls
PCE or PERC	Perchloroethylene
PFAS	per-and polyfluoroalkyl substances
PID	Photoionization Detector
RI	Remedial Investigation
RIWP	Remedial Investigation Work Plan
SMP	Site Management Plan
SSDS	sub-slab depressurization system
SVE	Soil Vapor Extraction
SVI	Soil Vapor Intrusion
SVOCs	semi-volatile organic compounds
TAL	target analyte list
TCL	target compound list
TCE	Trichloroethene
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
UUSCOs	Unrestricted Use SCOs
VOC	volatile organic compounds

CERTIFICATION

I, Karen Tyll, P.E., certify that I am currently a New York State registered professional engineer as defined in 6 NYCRR part 375 and that this Interim Remedial Measure (IRM) Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).



Karen G. Tyll, P.E.
NY License #079520
Date signed and sealed: 04/25/23

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It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by a New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.

1.0 INTRODUCTION

Tyll Engineering and Consulting, PC (TEC) has prepared this Interim Remedial Measure (IRM) Work Plan on behalf of 16103-11 29th Avenue LLC and Procida Management Inc. to detail the scope of work for the installation of an active sub-slab depressurization system (SSDS) beneath portions of the existing building located at the building located at 161-01 to 161-11 29th Avenue, Flushing, New York (Site). The Site location map is provided as **Figure 1**.

The Site is currently listed in the Brownfields Cleanup Program in New York State as Site Number C241247 with a Classification "A" (Active Site) and is currently undergoing investigation and remediation. The SSDS is being installed to address soil vapor intrusion of chlorinated volatile organic compounds (CVOCs) documented to be present in soil vapor beneath portions of the Site and indoor air in the basements of several tenant spaces. The soil vapor and indoor air impacts do not extend across the entire building so the scope is limited to Units 161-01 through 161-07. The comparison of indoor air and sub-slab soil vapor in Units 161-01, 161-03, and 161-05 yielded "MITIGATE" on the NYSDEH Decision Matrices while the results for Unit 161-07 yielded "MONITOR".

The extent of impacts exceeding applicable criteria, is shown on Figures contained in **Appendix F**. The observed impacts are likely due to undocumented releases of dry-cleaning chemicals from the 161-03 29th Avenue unit during the years 1973-2014. Rose Garden Cleaners is listed as a former RCRA Generator (EPA ID: NYR000063545) (former Cleaners) and the tenant space is currently occupied by a Pharmacy).

This IRM Work Plan has been prepared in accordance with New York State Department of Environmental Conservation (NYSDEC) procedures set forth in the document titled DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and complies with all applicable Federal, State and local laws, regulations and requirements.

1.1 Objectives and Scope of the IRM Work Plan

The proposed IRM will retrofit part of the existing Commercial building, shown on **Figure 2**, with SSD Systems (SSDS) capable of creating a negative pressure under the cellar slabs and collecting potentially contaminated vapor for discharge to the atmosphere above the roof of the Subject building. Although Unit 161-07 does not require an active SSDS, it will be monitored similarly to the other units (i.e. indoor air monitoring, and pressure tests at the same time as the other monitoring events are completed). This IRM is a component of the overall investigation and remediation of the Site. It will address the soil vapor intrusion issues. Additional remedial measures may be required based upon the results of a Remedial Investigation (RI) currently being conducted at the Site (soil and groundwater portion), which will be submitted separately.

2.0 SITE BACKGROUND

2.1 Site Description and History

The site is located at 161-01 to 161-11 29th Avenue, in the Flushing section of Queens and is identified as Block 4889 and Lots 60, 61, 62, and 63 on the New York City Tax Map. **Figure 1** is a site location map. The Site is 21,282-square feet and is bounded by I.K. Auto Express to the north, a mixed-use building and church to the south, a residential home to the east, and a 7-story mixed use building and senior home to the west. There are no sensitive receptors such as schools, hospitals, and day care facilities within a 250 to 500-foot radius of the Site.

Currently, the site contains Six (6) attached two-story mixed-use residential/commercial buildings, constructed in 1931. A shared yard is present at the rear (northern side) of the buildings. The site is approximately 13,100 square feet inclusive of the buildings and rear yard. The footprint of the buildings is 7,300 square feet. The site and associated parcels are shown on **Figure 2**.

2.1.1 Site Operations

The six street level commercial establishments consist of:

161-01 29th Avenue	Café DurFort Coffee Shop
161-01 29th Avenue (rear)	Hair Salon
161-03 29th Avenue	Bowne Chemists/Pharmacy
161-05 29th Avenue	Pippy & Lily Clothing Boutique
161-07 29th Avenue	CNL Nails and Spa
161-09 29th Avenue	Procida Realty Corporation
161-11 29th Avenue	Whitestone Design

2.1.2 Topography/Hydrogeology

The Site's and surrounding area's geology is generally considered "urban land" and is characterized by a non-homogenous distribution of soil and fill types. No bedrock outcroppings are present at the site. Review of local maps prepared by the United States Geological Survey (USGS) (**Figure 1**) indicated that the site is located approximately 70 feet above mean sea level; the depth to groundwater in the area of the property is estimated to be approximately 40 feet below ground surface (bgs). Groundwater is estimated to flow in a northerly direction towards nearby bodies of water.

2.2 Summary of Previous Environmental Investigations

Please refer to the previously written summaries found in Section 3.0 PREVIOUS ENVIRONMENTAL DOCUMENTATION in the Remedial Investigation Work Plan (RIWP) completed by Castleton Environmental Geologic Services DPC (Castleton or Castleton Environmental) in August 2021 (**Appendix E**) for:

- Phase I Environmental Site Assessment dated November 2019 completed by Merritt Environmental Consulting Corp. (MECC),

- Phase II Environmental Site Assessment dated January 2020 completed by MECC,

- Summary of Focused Subsurface Site Investigation (FSSI) dated January 2020 completed by MECC, and

- Summary of Indoor Air Quality Investigation & Sump Water Sampling – February 2020 completed by MECC.

Summary of Sub-Slab Depressurization System Pilot Test Report – June 2020 completed by EnviroTrac

- EnviroTrac installed two 4" diameter temporary vacuum monitoring points approximately 12" below ground surface in the Cellar of buildings 161-01 29th Avenue and 161-09 29th Avenue. However, due to time constraints and soil conditions, only the extraction point in building 161-01 29th Avenue was used during the pilot test. Several vacuum monitoring points were installed through the concrete floor slabs radially outward from the test point in 5 foot increments to 20 feet.
- The test was completed by throttling the blower by adjusting the control valve and the parameters such as applied flow, vacuum, and sub-slab vacuum response were recorded.
- The pilot test demonstrated that a full scale SSDS can serve as an effective means of mitigation for the existing Site buildings. It was determined that more than a 15 foot Radius of Influence could be achieved by using industry standard equipment for an extraction well.

Summary of RI Soil Vapor Screening and Soil Vapor Intrusion (SVI) Investigation Summary Report, Castleton Environmental, December 29, 2021

The SVI Investigation completed by Castleton Environmental (**Appendix F**) was completed as per the approved Remedial Investigation Workplan (RIWP) dated August 2021. The findings of the SVI Investigation (**Appendix F**) are summarized below:

- A total of thirty five (35) sub-slab soil vapor screening points were installed within the basements and at exterior locations. The results of the vapor screening indicated VOC concentrations ranging from less than 1.0 part per million (ppm) at the majority of the locations across the site, to 3,100 ppm at VP09, located within the central portion of the building at 161-03 29th Avenue.

- A total of nine (9) sub-slab vapor (SSV01 – SSV09) and four (4) soil vapor (SV01 – SV04) temporary sampling points were installed at interior (basement) and exterior locations. Each sub-slab vapor point was installed approximately two inches below the concrete slab and the soil vapor points were installed at two depths, approximately five feet below the slab and less

than two inches below the slab. using a PID. VOC concentrations ranged from 0.0 parts per million (ppm) in SV03 to 140 ppm in SSV05. Interior background VOC concentrations ranged from 0.0 ppm to 0.4 ppm. Ambient air samples (IAQ01 – IAQ09, and OAQ01) were co-located to the installed vapor points.

- Methylene chloride and TCE were reported as non-detect or below their applicable AGVs in the nine (9) indoor air samples analyzed. Analytical results reported concentrations of PCE ranging from non-detect in one (1) indoor air sample to 64 ug/m3 in IAQ04 which is above its AGV of 30 ug/m^3. Several analytes were detected in the outdoor air sample OAQ01. Most notably, methylene chloride was reported at 1.8 ug/m^3.

- The concentration of 1,1-dichloroethylene in sub-slab vapor ranged from non-detect in several samples to 240 ug/m^3 in SSV05. Cis-1,2-dichloroethylene ranged from non-detect in several samples to 21,000 ug/m^3 in SSV07. TCE ranged from non-detect in several samples to 49,000 ug/m3 in SSV05. PCE ranged from 8 ug/m3 in SSV02 to 9,600,000 ug/m^3 in SSV07. Vinyl chloride ranged from non-detect in several samples to 32 ug/m^3 in SSV06. In soil vapor SV04, PCE was reported at 490,000 ug/m^3 and TCE was reported at 320 ug/m^3.

- Based on the analytical results, the NYSDOH recommended action is to mitigate the current or potential exposures associated with SVI within the buildings located at 161-01 29th Avenue, 161- 03 29th Avenue, and 161-05 29th Avenue and to monitor the current or potential exposures associated with SVI within the building located at 161-07 29th Avenue. No further action I recommended for the buildings located at 161-09 29th Avenue and 161-11 29th Avenue.

- This work completed by Castleton Environmental is only the soil vapor portion of the work approved in the RIWP. The remainder of the Scope of Work is being completed by Seacliff Environmental Geology, PC and is being submitted separately.

3.0 INTERIM REMEDIAL MEASURES

The most effective mitigation methods for soil vapor include a combination of limiting any infiltration points and actively manipulating the pressure differential between the buildings' interior and exterior. The proposed SSDS can mitigate vapor intrusion into the building envelope from below the building floor slab by creating negative pressure below the floor.

The scope of work for the IRM consists of the following tasks:

- Site Reconnaissance and notification
- Site mobilization and Site preparation;
- Installation of the SSDS components;
- Waste disposal (assumed to be minimal); and
- Documentation.

Implementation of the IRM will be in accordance with the Soils/Materials Management Plan (SMMP) included in **Section 4** of this IRM Work Plan.

3.1 Mobilization and Site Preparation

A project kick-off meeting will be conducted with NYSDEC, OWNERS, TEC and the selected Contractor prior to the commencement of any intrusive activities, if requested by NYSDEC. The Contractor will supply any labor (HAZWOPER Certified in accordance with OSHA 1910.120) and materials required for the implementation of the IRM scope of work. In addition, necessary permits, insurance, bonds, and licenses required to complete the work will be obtained and fees necessary to obtain these permits will be paid. Mobilization and Site preparation activities include:

1. Mobilization of equipment to the work area;
2. Installation of work area delineation zones;
3. Installation of sub-slab suction points and laterals;
4. Installation of horizontal piping, riser pipes, and roof leaders;
5. Installation of blowers on the exterior of the buidling;
6. Testing of the SSDSs;
7. Identifying cracks/gaps and sealing the concrete slab; and
8. Demobilization of equipment.

Pre-Installation Slab Inspection

Prior to any ground intrusive activity or SSDS component installation, a thorough inspection of the site building interior, including building slab and sub-grade basement walls will be performed, to determine the presence of any cracks or fissures that may promote vapor migration into the building, and that would ultimately negatively affect the operation and efficiency of the SSDS. All observed cracks and fissures should be sealed with an air-tight product (e.g., bentonite, grout, or other similar product). In addition, a public utility mark out of the property will be completed.

3.2 SSDS Installation

During the SVI RI, the concentrations of PCE, TCE, 1,1- Dichloroethylene and/or cis-1.2-Dichloroethylene that were found in the sub-slab vapor and/or indoor air within Units 161-01, 161-03, 161-05 when compared with indoor air samples yielded "MITIGATE" on the NYSDOH Decision Matrices. The concentrations of TCE found in the sub-slab vapor and indoor air within Unit 161-07 when compared with indoor air samples yielded "MONITOR" on the NYSDOH Decision Matrices. Therefore, an active SSDS is proposed to be installed in Units 161-01, 161-03, 161-05 beneath the Cellar slabs as shown on **Figure 3** to address potential exposure pathways.

The proposed active SSDS for the Site, when complete, will consist of a network of 4" diameter horizontal perforated PVC suction laterals creating a vacuum influence beneath the portion of the building basement slab shown on **Figure 3**, and four SSDS fans (one for each SSDS system. The SSDS will be designated SSDS-01-SOUTH, SSDS-01-NORTH, SSDS-03 and SSDS-05. The SSDS layout and piping details are provided on **Figure 3**. A description of the proposed active SSDS is provided below.

- Four, separate horizontal suction laterals will be installed to create the required vacuum influence below the basement slab of the portions of the Site building. The laterals will consist of 4-inch perforated and solid PVC piping. If high groundwater conditions are encountered, the engineer will be informed, and a redesign can be completed. Redesigns could include making the system more shallow, reducing the diameter of the SSDS piping, and increasing the footprint if the pipe size is reduced. As construction starts, the engineer will be informed immediately if conditions require a change.
- Suction laterals will be pitched away from the extraction points to the extent practical.
- Each suction point and lateral will have a sampling port and vacuum gauge.
- The piping from the suction points and laterals will penetrate the exterior wall of the building and will t to the roof along the exterior, rear of the building. Exterior piping will be supported appropriately. Each system will be connected to a vacuum blower installed on the exterior wall of each unit with an exhaust stack leading up to the roof. Each discharge stack will extend a minimum of 4 feet above the roof line, will have gooseneck cap, and will be supported as necessary. The discharge points will be located a minimum of 10 feet from any adjoining or adjacent buildings, HVAC air inlets and windows.
- Four (4) Radon Away RP145 **(Appendix B)** will be provided for each of the four separate SSDS. **Figure 3** shows the horizontal laterals and piping associated with each SSDS. The fans will be located on the exterior of the building with stacks up to the roof.
- Eight sub-slab vacuum monitoring points will be used to monitor the performance of the SSDS. Eight new vacuum monitoring points (MP-1 through MP-8) will be installed as shown on **Figure 3**.
- Following the completion of each SSDS, pressure alarms and Magnehelic vacuum gauges will be installed in the PVC piping within the buildings' cellars. The pressure alarm will have a red light that will illuminate, and an alarm that will sound, should the system fail. Magnehelic vacuum gauges will provide visual indication of the systems ongoing operation or potential vacuum failure. The alarm system will be accompanied by a sticker/label showing contact information

for the property management company, should the failure alarms sound. Prior to the startup of the SSDS, building occupants/tenants will be instructed on the failure alarms location, operation, and what to do and who to contact should the alarm sound.

- Seal the slab including the sumps found in multiple cellars. The sumps will be inspected and sealed to prevent preferential pathways from being created causing the SSDS to be inefficient.
- Upon completion of system installation, the existing and repaired concrete Cellar slabs (including, as necessary, floor/wall interface) will be properly sealed to enhance system effectiveness.
- If necessary, carbon drums will be provided to provide treatment of the effluent.
- The system will be monitored by the use of a SensaPhone Sentinel remote monitoring device which will be programmed to alert the Owner and the Environmental Consultant who can dispatch someone to check the system when needed (**Appendix G**).

3.3 SSDS Startup and Testing

Prior to the initiation of the active SSDS, a start-up test will be performed to determine sub-slab pressure readings under static non-operational conditions, and to establish the efficacy of each individual SSDS. The following sections describe the scope of work of the startup test.

Pre-Operation Sub-Slab Pressure Readings

Prior to SSDS operation, pressure readings will be collected from the sub-slab soil vapor monitoring points installed as part of the construction, using a digital manometer, to determine the pressure differentials beneath the building slab under static conditions.

3.3.1 System Efficacy Testing

Initially, each SSDS will be activated and left to run for approximately 60-minutes, after which pressure differential readings will be collected from associated test points in the building Cellar slab using a digital manometer, to ensure pressure readings of at least -0.004 wci are achieved. Once the recommended pressure readings are achieved, the SSDS fans will be deactivated for a minimum of 15-minutes.

Once each blower has been confirmed to be running effectively, all four (4) blowers will be activated concurrently. Pressure readings from across the entire Site will be collected using a digital manometer, to ensure pressure readings of at least -0.004 wci are achieved in all sample ports. The SSDS will then remain active. During full SSDS operation, pressure readings will be collected and recorded from sample ports installed in the effluent portion of each system. Finally, effluent grab samples will be collected from each SSDS sample port using lab certified clean 2.75 or 6-liter summa canisters, to determine the effluent concentrations. The summa canisters will be fitted with a simple on/off (open/closed) valve, and once connected to the effluent sample port, will be opened, and remain open until the cannister has a pressure reading of less than -4 psi, at which time the sample is considered sufficient, and the valve closed. The four (4) effluent samples will be analyzed for full list VOCs by USEPA test method TO-15.

Once the effluent grab samples have been analyzed, the results will be used in an emissions evaluation following the NYSDEC DAR-1 Guidance and detailed in "**Guidance on Air Emissions of VOCs at DER Remediation Sites**" in **Appendix H** to determine if treatment of the SSDS emissions via Carbon is required.

In addition, Post-mitigation indoor air sampling will be conducted no sooner than 30 days after installing a depressurization system. If the system is installed outside of the heating season or at the end of a season, post-mitigation air sampling may be postponed until the heating season. One indoor air sample will be collected from each of the four cellar areas using a 2.75 pr 6 liter Summa Canister over a 2 hour period. The Summa Canister will be analyzed for TO-15 low level.

3.4 SSDS Operation, Maintenance and Monitoring

O, M & M procedures for the are outlined below. Typically, OM&M is performed on an annual basis for or until such time that subsequent sub-slab soil vapor and indoor air sample results deem that active SSDS is no longer required by the NYSDEC/NYSDOH and written approval is issued to turn the system off permanently.

3.4.1 System Operation: Non-Routine Equipment Maintenance

OM&M of the SSDS will include the following:

1. Inspect control panel and warning lights/alarms;
2. Inspect visible SSDS piping to confirm piping and fan condition;
3. Inspect vacuum/pressure gauges for proper operation.

In the event that a condition warranting system component maintenance is identified, the appropriate reporting and maintenance should be conducted immediately. Manufacturer's recommendations for maintenance, if available, are included in the documentation in **Appendix B**. Although SDS fans do not require maintenance, any maintenance completed for the SSDS fans should be documented in the Maintenance Log included in **Appendix C**.

3.4.2 System Operation: Non-Routine Equipment Maintenance

Non-routine equipment maintenance consists of maintenance activities that will be performed with less frequency than the routine maintenance (i.e., semi-annually) on several system components. Specific non- routine maintenance tasks are outlined below:

- Verify operation of SSDS Fans,
- Inspect and test local and remote alarms;
- Replacement of vacuum/pressure gauges; and
- Check condition of exterior piping

Most damage or problems associated with SSDS components will trigger one of the alarms. Damage to any SSDS components will be noted during the routine and detailed system inspections and remedied upon identification.

3.5 Waste Disposal

All wastes generated during the installation of the SSDS will be characterized, handled, transported and disposed of in a manner consistent with Federal, State and local laws and regulations. However, based on results of soil samples collected during RI activities, soil containing elevated concentration of CVOCs

is not anticipated to be encountered during SSDS installation and is expected to be declassified as non-hazardous and disposed of as non-hazardous waste, pending NYSDEC approval.

3.6 Documentation

Detailed information regarding the IRM (e.g., as-built drawings, waste disposal documentation, backfill documentation, photographs, etc.) will be included in the Construction Completion Report (CCR) described in Section 5

4.0 SOIL/MATERIALS MANAGEMENT PLAN

Although the amount of earthwork is expected to be very limited, the following sections provide the SMMP to be implemented during the IRM, as necessary.

4.1 Soil Screening Methods

Visual, olfactory and PID soil screening and assessment will be performed during SSDS installation activities under the supervision of TEC (or designee) personnel.

4.2 Containerization of Waste Soils

All soil generated during SSDS installation will be containerized in labeled, New York State Department of Transportation (NYSDOT) rated 55-gallon drums, which will be fitted with tight fitting covers. Drums shall be labeled with the accumulation start date and "Hazardous Waste" or "Hazardous Waste pending analysis". If waste is determined to be hazardous, it will be disposed of at an approved hazardous waste disposal facility within 90 days of generation.

4.3 Characterization of Excavated Materials

Soil/fill or other excavated media that will be transported off-Site for disposal will be sampled in a manner required by the receiving facility, and in compliance with applicable laws and regulations.

4.4 Materials Excavation and Load Out

TEC (or designee) will oversee all invasive work and the excavation and load-out of all excavated material. The quantity of waste is expected to be very limited and it will be containerized in drums for disposal. Loadout and trucking of bulk waste is not expected.

4.5 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded. Truck routes should take into account: (a) limiting transport through residential areas and past sensitive sites; (b) prohibiting off-Site queuing of trucks entering the facility; (c) limiting total distance to major highways; (d) promoting safety in access to highways; and (e) overall safety in transport. To the extent possible, trucks will travel to/from the Site using these approved truck routes.

Trucks will avoid stopping and idling in the neighborhood outside the project Site, to the extent practicable. Queuing of trucks will be performed on-Site.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during the IRM implementation.

4.6 Materials Disposal Off-Site

All soil/fill/solid waste excavated and removed from the Site will be disposed of in accordance with regulatory requirements based on the levels of contamination found to be present in waste

characterization samples collected.

The following documentation will be obtained and reported for each disposal location used in this project to demonstrate and document that the disposal of material derived from the Site conforms with all applicable laws:

(1) a letter or facility-specific waste profile/application from TEC or Owner to the receiving facility describing the material to be disposed and requesting formal written acceptance of the material. This letter/profile/application will state that material to be disposed is contaminated material generated at an environmental remediation Site in New York State. The letter will provide the project identity and the name and phone number of TEC or Owner. The letter will include as an attachment a summary of all chemical data for the material being transported (including Site Characterization data);
(2) a letter from all receiving facilities stating it is in receipt of the correspondence (above) and is approved to accept the material. These documents will be included in the CCR; and
(3) a Contained-In Determination approval from the NYSDEC declassifying the waste as non-hazardous, unless waste characterization sampling indicates the waste is characteristically hazardous.

The CCR will include an accounting of the destination of all material removed from the Site during this IRM. This information will also be presented in a tabular form in the CCR.

A Bill of Lading system or equivalent will be used for off-Site movement of non-hazardous wastes and contaminated soils. This information will be reported in the CCR.

Hazardous and non-hazardous wastes derived from on-Site will be stored, transported, and disposed of in compliance with applicable local, State, and Federal regulations.

Appropriately licensed haulers will be used for material removed from this Site and will be in compliance with all applicable local, State and Federal regulations.

Waste characterization will be performed for off-Site disposal in a manner suitable to the receiving facility and in conformance with applicable permits. All data available for soil/material to be disposed at a facility must be submitted to the disposal facility with suitable explanation prior to shipment and receipt.

4.7 Materials Reuse On-Site

Soil reuse is not expected as part of the IRM.

4.8 Fluids Management

We do not expect any fluids to be generated during IRM activities. Liquids (if any) to be removed from the Site will be handled, transported and disposed in accordance with applicable laws and regulations. Liquid waste manifests will be reported to NYSDEC in the CCR.

4.9 Backfill from Off-Site Sources

All imported soils will meet NYSDEC approved backfill or cover soil quality objectives for this Site and will be approved by the NYSDEC prior to import. The NYSDEC form "Request to Import/Reuse Fill or Soil" (**Appendix I**) must be filled out and approved prior to site activities. These NYSDEC approved backfill or cover soil quality objectives are the lower of the protection of groundwater or the protection of public health soil cleanup objectives for Commercial or higher use as set forth in Table 375- 6.8(b) of 6 NYCRR Part 375. Non-compliant soils will not be imported onto the Site. Material from industrial sites, spill sites, other environmental remediation sites or other potentially contaminated sites will not be imported to the Site. Solid waste will not be imported onto the Site.

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Nothing in this IRM Work Plan should be construed as an approval for this purpose.

In accordance with DER-10, the following material may be imported, without chemical testing, to be used as backfill beneath pavement, buildings or as part of the final Site cover, provided that it contains less than 10% by weight material which would pass through a size 80 sieve and consists of:

- Gravel, rock or stone, consisting of virgin material from a NYSDEC permitted mine or quarry; or
- Recycled concrete or brick from a NYSDEC registered construction and demolition debris processing facility if the material conforms to the requirements of Section 304 of the New York State Department of Transportation *Standard Specifications Construction and Materials Volume 1* (2002).

Trucks entering the Site with imported materials will be securely covered with tight fitting covers.

4.10 Stormwater Pollution Prevention

Although disturbance of soil outside the building footprint is not expected to be part of the scope, if changes to the scope require soil disturbance outside the building footprint, applicable laws and regulations pertaining to stormwater pollution prevention will be addressed. If necessary, erosion and sediment control measures (silt fences, barriers, and/or hay bale checks) will be installed, as appropriate, around the entire perimeter of the remedial construction area and inspected once a week and after every storm event to ensure that they are operating appropriately. Discharge locations will be inspected to determine whether erosion control measures are effective in preventing significant impacts to receptors. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs to erosion and sediment controls shall be made immediately. Accumulated sediments will be removed, as required, to keep the barrier and hay bale practice functional. Undermining or erosion of the silt fence anchor will be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

4.11 Contingency Plan

This contingency plan is developed for the remedial construction to address the discovery of unknown

structures or contaminated media during implementation of the IRM. Due to the nature of the proposed work, discovery of previously unknown USTs is extremely unlikely.

If previously unidentified contaminant sources are found during implementation of the IRM, sampling will be performed on potentially contaminated source material and surrounding soils and reported to the NYSDEC. Chemical analytical work will be for full suite of parameters (target compound list [TCL] VOCs, TCL semi-volatile organic compounds [SVOCs], target analyte list [TAL] metals, TCL polychlorinated biphenyls [PCBs], pesticides and herbicides).

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to NYSDEC's Project Manager. These findings will also be included in weekly and periodic electronic reports.

4.12 Community Air Monitoring Plan

CAMP will be implemented, in accordance with the Generic CAMP procedures included in Appendix G of the Health and Safety Plan (HASP) (**Appendix D**), during all invasive activities to minimize the potential for tenant exposure from potentially contaminated soil and soil vapor. TEC will provide ambient air quality monitoring for VOCs and particulates during all invasive Site activities. CAMP monitoring data will be included in daily reports (see **Section 5.1**). In addition, Appendix J contains a document provided by the NYSDEC regarding "Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures" that should be followed. Action level exceedances will be reported to the Owner and Project manager so that appropriate communication and action can be taken. If an action limit alert is generated due to VOC exceedances, the NYSDEC and NYSDOH will be notified within 24 hours of the exceedance. Health and safety monitoring for workers will be performed in accordance with the HASP and the generic NYSDOH CAMP in Appendix B of the HASP.

4.13 Odor, Dust and Nuisance Control Plan

4.13.1 Odor Control Plan

All necessary means will be employed to prevent on- and off-Site odor nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) use of foams to cover exposed odorous soils. If odors develop and cannot otherwise be controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; and (e) use of chemical odorants in spray or misting systems.

This odor control plan is capable of controlling emissions of nuisance odors. If nuisance odors are identified, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC will be notified of all odor complaint events. Implementation of all odor controls, including halt of work, will be the responsibility of the PE/QEP's certifying this remedial plan.

Odor controls will be employed to prevent on- and off-Site odor nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) use of odor suppressants to cover exposed odorous soils.

4.13.2 Dust Control Plan

Due to the nature of the project, with excavation occurring in the basement of the existing building, generation of nuisance dust at the sidewalk level surrounding the Site will not occur. The HASP will contain specific measures to address potential worker exposure to airborne particulates during the IRM implementation. A dust suppression plan that addresses dust management during invasive on-Site work, will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of water for wetting excavation areas. Water will be available on-Site at suitable supply and pressure for use in dust control.

4.13.3 Other Nuisances

Noise control will be exercised during IRM activities.

5.0 REPORTING

5.1 Daily Reporting During Site Activities

Daily reports to NYSDEC and NYSDOH will be submitted during the days when IRM activities take place. Daily reports will include an update of progress made during the reporting period; locations of work and quantities of material imported and exported from the Site; a summary of any and all complaints with relevant details (names, phone numbers); a summary of CAMP readings, and an explanation of notable Site conditions, etc. If any issues arise (i.e., issues with the CAMP), NYSDOH and NYSDEC will be notified within 24 hours.

5.2 Construction Completion Report (CCR)

Detailed information regarding the IRM (e.g., general description of the construction activities, as-built of the SSDS, OM&M Plan (including as-builts, cut sheets, inspection forms), waste disposal documentation, backfill documentation, photographs, etc.) will be included in the CCR. The CCR will be submitted within 60 days after the data usability summary report (DUSR) is complete for any vapor samples collected during the SSDS start-up.

6.0 IRM IMPLEMENTATION SCHEDULE

Attached is a schedule for the above scope of work. This IRM Work Plan is anticipated to begin in the second quarter of 2023 and will require approximately four to six weeks to complete. It is anticipated that the actual on-Site duration of major remedial construction tasks will be completed as follows (time frames are not necessarily consecutive, subject to change):

161-01 to 161-11 29th Avenue, Flushing, New York

Tyll Engineering and Consulting PC
Project Estimated
Timeline

Project Start: Mon, 4/24/2023

Display Week: 1

TASK	ASSIGNED TO	START	END
SSDS Installation			
Site Mobilization	Name	4/24/23	4/25/23
Installation of the 4 SSDS		4/25/23	5/16/23
SSDS Startup and Testing		5/16/23	5/18/23
Transportation and Off-Site Disposal		5/16/23	5/17/23
Site Restoration and Demobilization		5/18/23	5/20/23
30 day waiting period minimum		5/20/23	6/19/23
Indoor Air and Effluent Sampling		4/26/23	4/27/23
Laboratory Analysis		4/27/23	5/11/23
Preparation of DUSR		5/11/23	5/25/23
Submittal of CCR After Startup and Testing Completed		5/25/23	7/24/23
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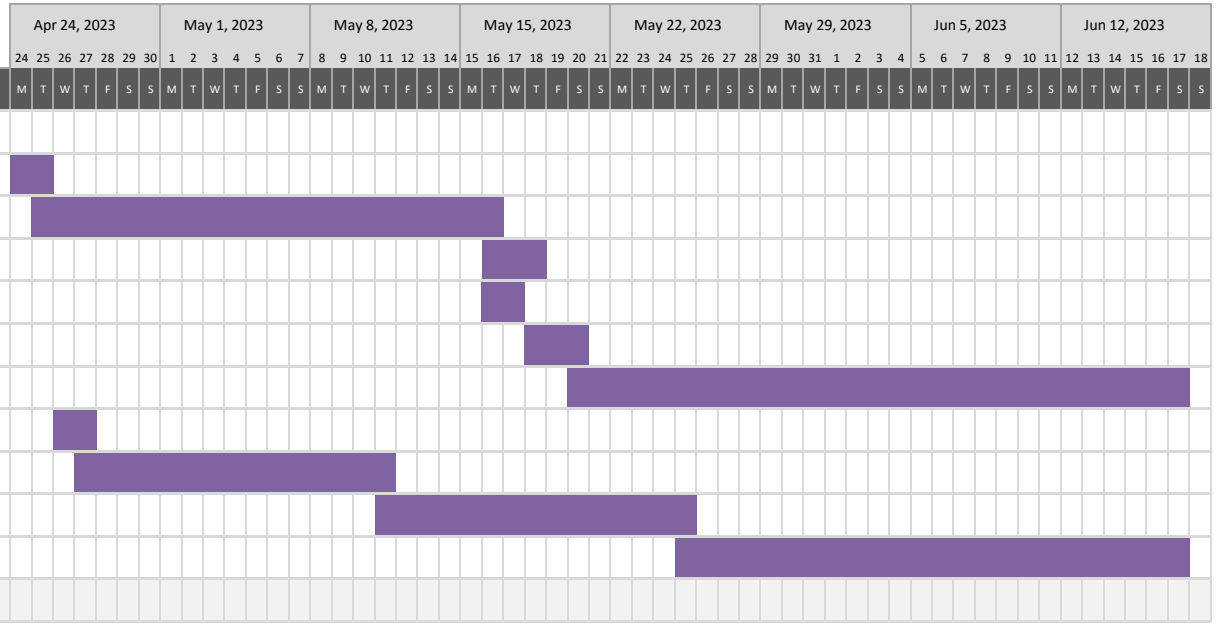

161-01 to 161-11 29th Avenue, Flushing, New York

Tyll Engineering and Consulting PC
Project Estimated
Timeline

Project Start: Mon, 4/24/2023

Display Week: 9

TASK	ASSIGNED TO	START	END
SSDS Installation			
Site Mobilization	Name	4/24/23	4/25/23
Installation of the 4 SSDS		4/25/23	5/16/23
SSDS Startup and Testing		5/16/23	5/18/23
Transportation and Off-Site Disposal		5/16/23	5/17/23
Site Restoration and Demobilization		5/18/23	5/20/23
30 day waiting period minimum		5/20/23	6/19/23
Indoor Air and Effluent Sampling		4/26/23	4/27/23
Laboratory Analysis		4/27/23	5/11/23
Preparation of DUSR		5/11/23	5/25/23
Submittal of CCR After Startup and Testing Completed		5/25/23	7/24/23
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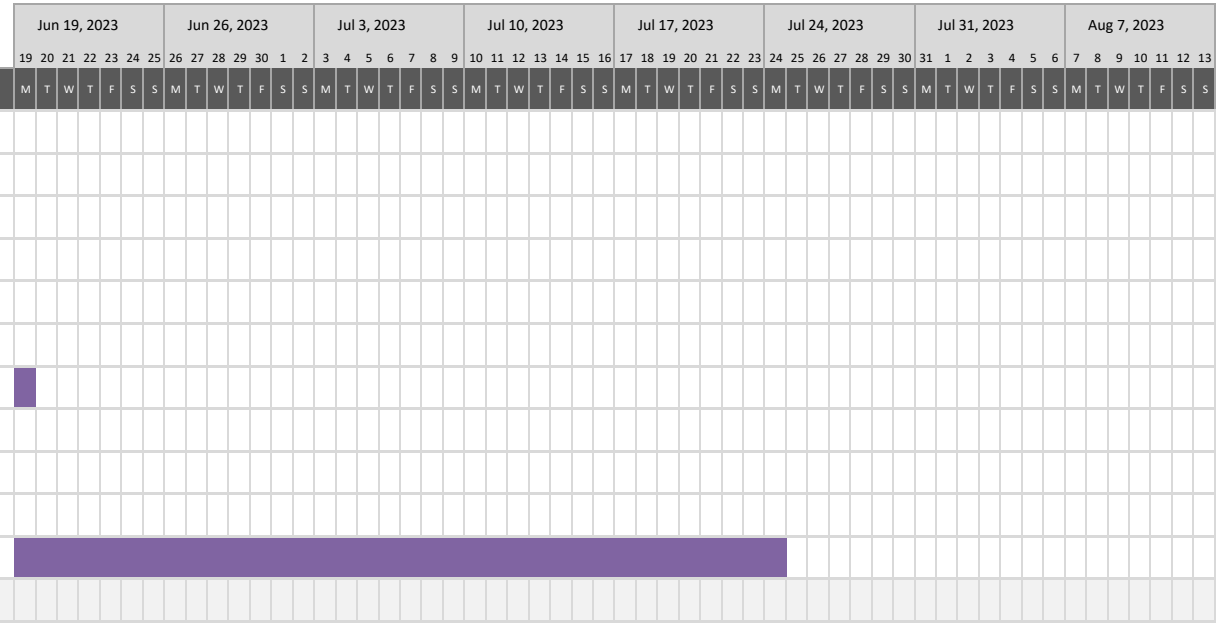
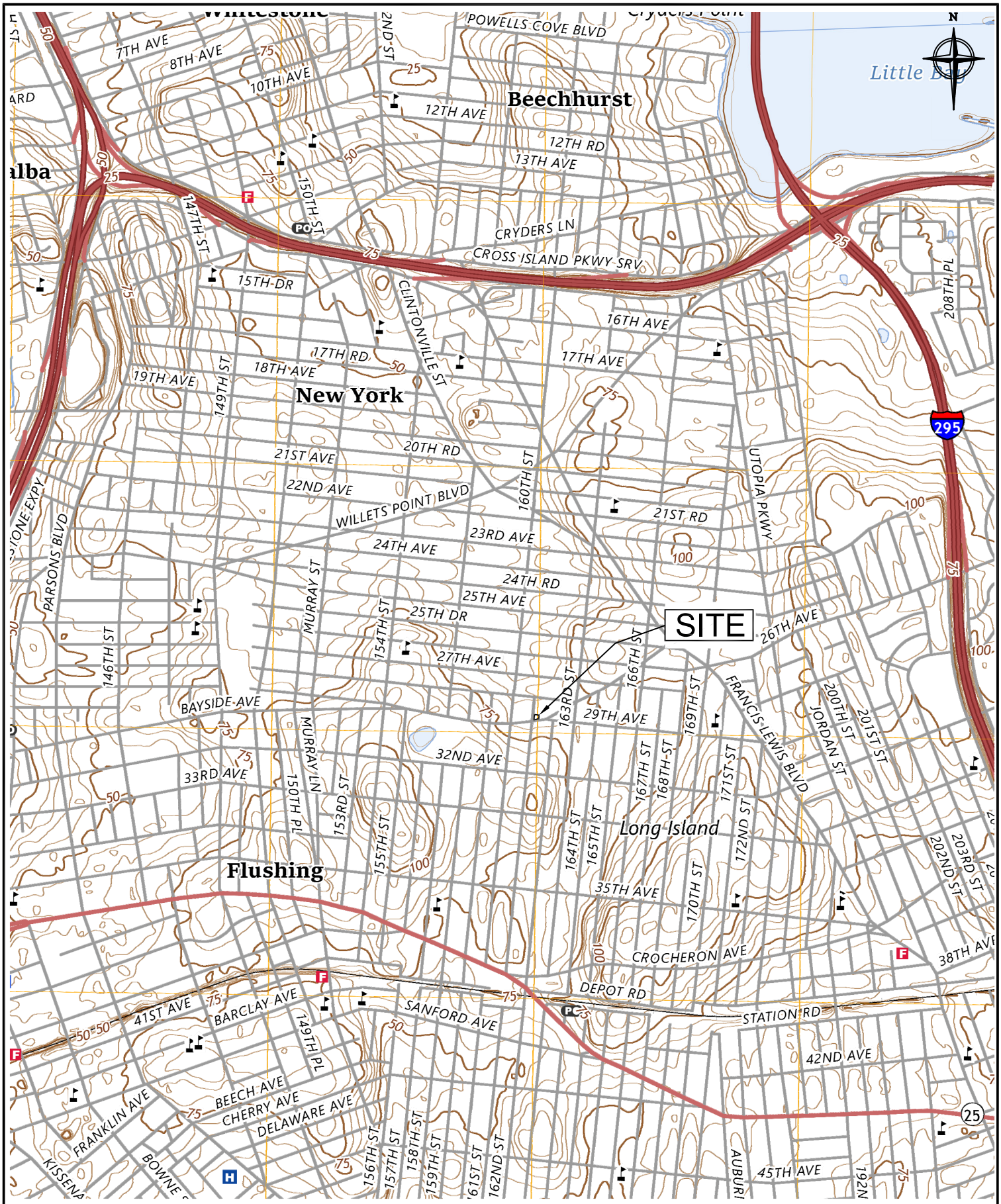
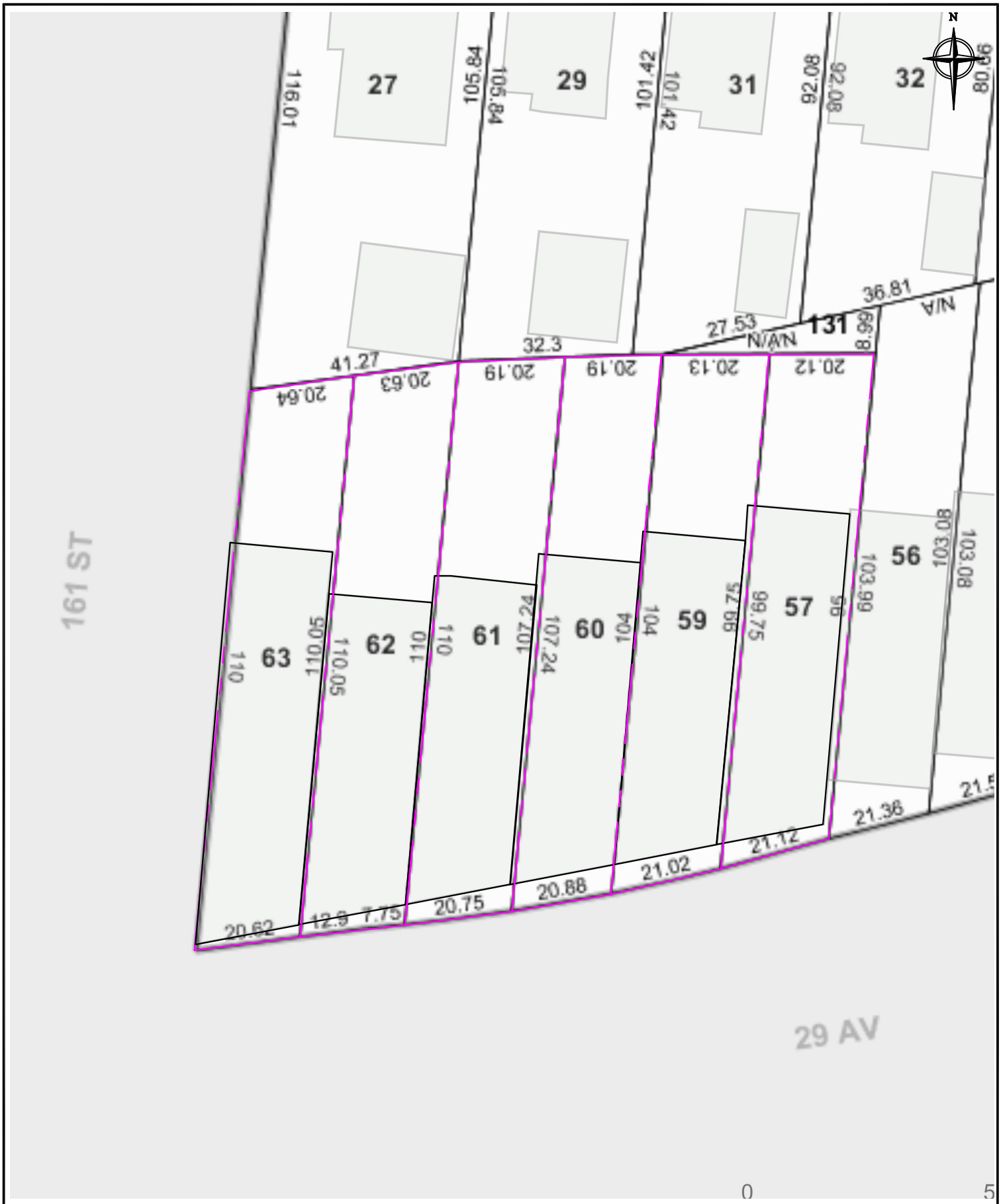


FIGURES



PREPARED BY:	TITLE:				
TYLL ENGINEERING & CONSULTING PC 169 Commack Road, Suite H173, Commack, NY 11725 PHONE: (631) 629-5373 Info@tyllengineering.com	**SITE LOCATION MAP** 161-01 – 161-11 29TH AVENUE FLUSHING, NY	DWN: -	SCALE: NTS	DATE: 5-3-2022	PROJECT NO.: PRO2201
		CHKD: KT	APPD: KT	REV.: -	NOTES: -
		FIGURE NO.: 1			



PREPARED BY:

TYLL ENGINEERING & CONSULTING PC

169 Commack Road, Suite H173, Commack, NY 11725
PHONE: (631) 629-5373 Info@tyllengineering.com

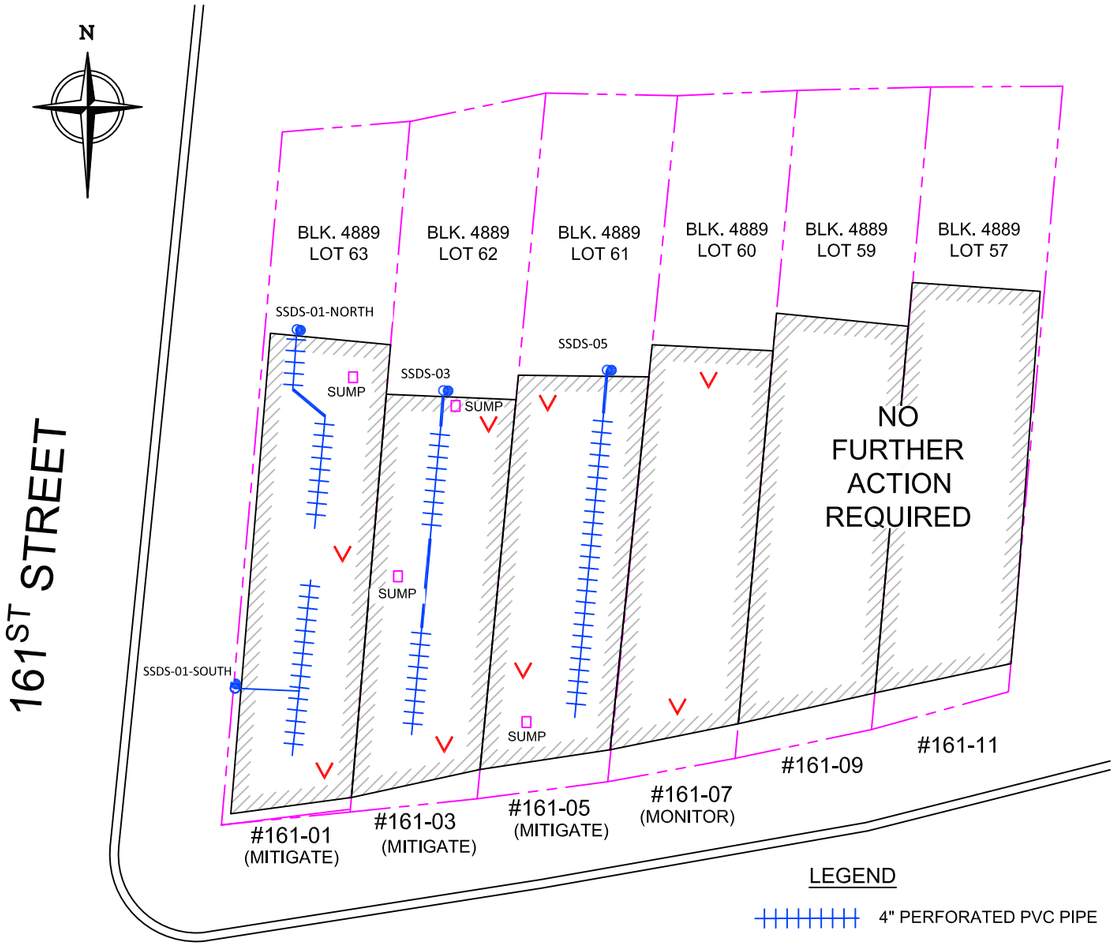
TITLE:

SITE LAYOUT

161-01 – 161-11 29TH AVENUE
FLUSHING, NY

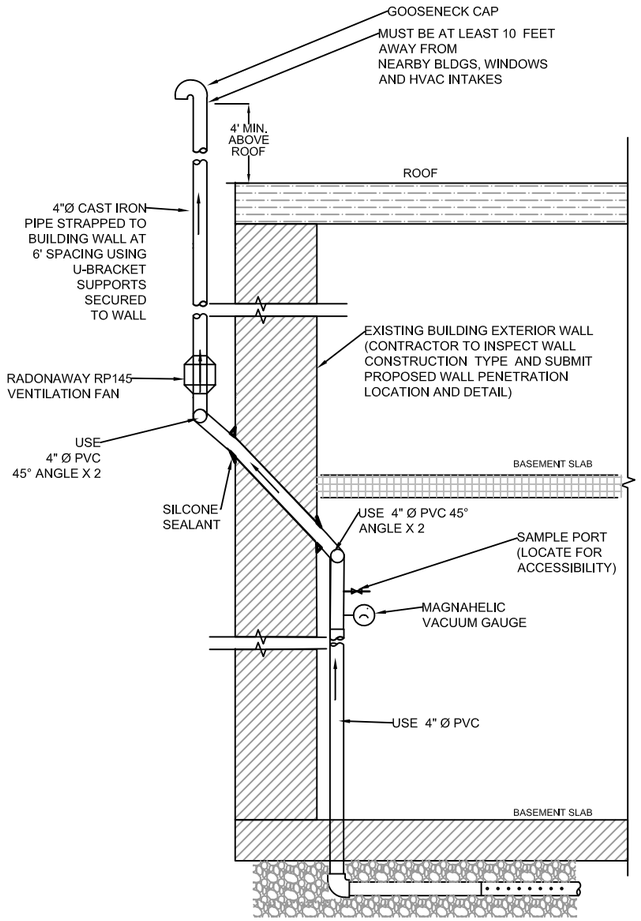
DWN:	SCALE:	DATE:	PROJECT NO.:
-	NTS	5-13-2022	PRO2201
CHKD:	APPD:	REV.:	NOTES:
KT	KT	-	-

FIGURE NO.: 2

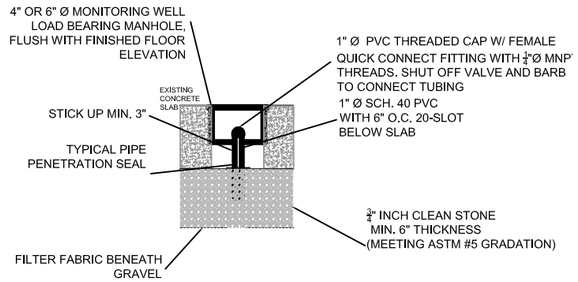


LEGEND

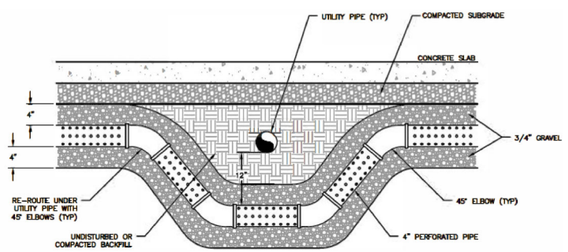
- 4" PERFORATED PVC PIPE
- 4" SOLID PVC PIPE
- 4" SOLID CAST IRON RISER PIPE
- RADONAWAY RP-145 FAN
- SOIL VAPOR MONITORING POINT



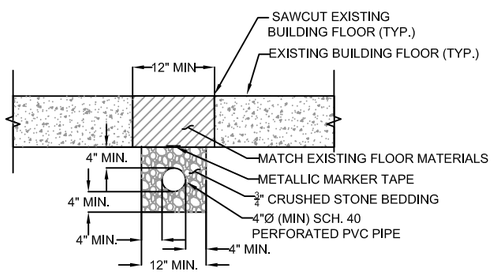
TYPICAL SSDS AND FAN DETAIL
NTS



VACUUM MONITORING POINT DETAIL
NTS



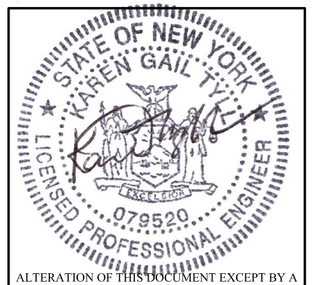
TYPICAL SSDS PIPE AND UTILITY CROSSING DETAIL
NTS



TYPICAL PIPE TRENCH DETAIL
NTS

NOTES

1. CONTRACTOR SHALL COORDINATE WITH PLUMBING, MECHANICAL, CIVIL AND ELECTRICAL CONTRACTORS FOR ALL UTILITY CROSSINGS.
2. THE PERFORATED PIPE MAY BE ROUTED AROUND OR UNDERNEATH ANY UTILITY LINES (SEWER, WATER, GAS) , AS REQUIRED AND AS APPROVED BY THE ENGINEER.
3. THE SURFACES TO BE LINED WITH GEOTEXTILE SHALL BE FREE OF ALL ROCKS, STONES, SHARP OBJECTS OR CONSTRUCTION DEBRIS OF ANY KIND.
4. INSTALL GEOTEXTILE NON-WOVEN FABRIC DIRECTLY ON FILL. MATERIAL OVERLAPS SHALL BE A MINIMUM OF 12" THE OVERLAPPED SEAMS WILL BE SEALED WITH TAPE.
5. ALL PENETRATIONS THROUGH THE SLAB) SHALL BE SEALED USING A SILICONE BASED WATERPROOF SEALANT OR EQUIVALENT.
6. SUCTION LATERALS OF THE SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS) SHOULD BE PITCHED AWAY FROM EXTRACTION POINTS TO PREVENT POOLING OF CONDENSATE IN THE BOTTOM OF VERTICAL RISERS, TO THE EXTENT PRACTICAL
7. PROVIDE ELECTRICAL/CONTROL CONDUIT TO SSDS FANS. COORDINATE WITH ELECTRICAL CONTRACTOR.
8. ELECTRICAL REQUIREMENTS INCLUDE A 110 VOLT POWER OUTLET, FOR EACH SSDS FAN.
9. THE BLOWER DISCHARGES SHALL BE LOCATED A MINIMUM OF 10 FEET FROM HVAC AIR INLJETS, AND PROPERTY LINE.
10. THE SSDS FANS SHALL BE A XX HP, RADONAWAY MODEL GP501 OR APPROVED EQUAL.
11. THE ALARM SIGNAL SHALL ALSO BE AUDIBLE.
12. PROVIDE ALL NECESSARY PIPE SUPPORTS FOR RISER PIPES FROM THE BASEMENT TO THE EXHAUST POINT ON THE ROOF.



REV	DATE	CK	DESCRIPTION
1	4/3/23	KT	REVISION AS PER NYSDEC LETTER 3/24/23

REVISIONS

SUB-SLAB DEPRESSURIZATION SYSTEM PLAN AND DETAILS

161-01 – 161-11 29TH AVENUE
FLUSHING, NY

TYLL ENGINEERING & CONSULTING PC
169 Commack Road, Suite H173, Commack, NY 11725
PHONE: (631) 629-5373 info@tyllengineering.com

SHEET TITLE:	SITE PLAN		
DESIGNED BY:	KT	SCALE:	As Shown
REVIEWED BY:	KT	DATE:	2-3-2023
PLAN SHEET BY:	KT	PROJECT NO:	PRO2201

3

APPENDICES

A. New York State Department of Health Soil Vapor/Indoor Air Matrices

B. Sub-Slab Depressurization System Component Specifications

C. Sub-Slab Depressurization System Operations and Maintenance Log

D. Health and Safety Plan

E. Remedial Investigation Work Plan by Castleton Environmental

F. Summary of RI Soil Vapor Screening and Soil Vapor Intrusion (SVI) Investigation Summary Report, Castleton Environmental

G. Sensaphone Sentinel Monitoring Equipment Specifications

H. Soil Reuse/Import Form

APPENDIX A

New York State Department of Health Soil Vapor/Indoor Air Matrices

May 2017

Soil Vapor/Indoor Air Matrix A

May 2017

Analytes Assigned:
Trichloroethene (TCE), *cis*-1,2-Dichloroethene (*c*12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)		
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 0.2	0.2 to < 1	1 and above
< 6	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	4. No further action	5. MONITOR	6. MITIGATE
60 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX A

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

[1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).

[2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.

[3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.

[4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.

[5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.

[6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Soil Vapor/Indoor Air Matrix B

May 2017

Analytes Assigned:
Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)		
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 3	3 to < 10	10 and above
< 100	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
100 to < 1,000	4. No further action	5. MONITOR	6. MITIGATE
1,000 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX B

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

[1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).

[2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.

[3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 1 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.

[4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.

[5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.

[6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Soil Vapor/Indoor Air Matrix C

May 2017

Analytes Assigned:
Vinyl Chloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)	
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 0.2	0.2 and above
< 6	1. No further action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	3. MONITOR	4. MITIGATE
60 and above	5. MITIGATE	6. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

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Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX C

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

[1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).

[2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.

[3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.

[4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.

[5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.

[6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

APPENDIX B

Sub-Slab Depressurization System Component Specifications

RadonAway
The world's leading radon fan manufacturer

RP PRO SERIES

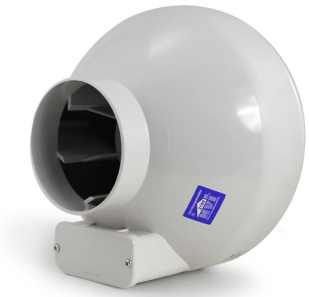
Installs white, stays white

Radon Mitigation Fan

All RadonAway® fans are specifically designed for radon mitigation. RP Series Fans provide superb performance, run ultra-quiet and are attractive. They are ideal for most sub-slab radon mitigation systems.

Features

- Eternalast™ polycarbonate plastic housing
- Energy efficient
- Ultra-quiet operation
- Meets all electrical code requirements
- Water-hardened motorized impeller
- Seams sealed to inhibit radon leakage (RP140 & RP145 double snap sealed)
- ETL Listed - for indoor or outdoor use
- Thermally protected motor
- Rated for commercial and residential use
- HVI certified fan performance



Model	A	B	C
RP140	4.5”	9.7”	8.5”
RP145	4.5”	9.7”	8.5”
RP260	6”	11.75”	8.6”
RP265	6”	11.75”	8.6”
RP380	8”	13.41”	10.53”

MODEL	P/N	FAN DUCT DIAMETER	WATTS	RECOM. MAX. OP. PRESSURE “WC	TYPICAL CFM vs. STATIC PRESSURE WC					
					0”	.2”	.5”	1.0”	1.5”	2.0”
RP140†	28460	4”	14-19	0.6	152	120*	64*	-	-	-
RP145	28461	4”	34-66	1.7	169	150*	124*	81*	42	4
RP260	28462	6”	47-65	1.3	251	210*	157	70	-	-
RP265	28463	6”	96-136	2.3	375	340*	282*	204*	140	70
RP380	28464	8”	96-138	2.0	531	490*	415*	268*	139	41

*HVI Certified Values. †Energy Star® Rated.

MADE IN USA

ETL Listed
Intertek

5 YEAR WARRANTY
All RadonAway® inline radon fans are covered by our 5-year, hassle-free warranty.

ENERGY STAR
RP140 Only

For Further Information, Contact Your Radon Professional:

Rev G 0322
P/N 02047

RP, GP, XP Pro Series Installation Instructions

DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED. MAKE SURE ELECTRICAL SERVICE TO FAN IS LOCKED IN "OFF" POSITION. DISCONNECT POWER BEFORE SERVICING FAN.

1. **WARNING!** For General Ventilating Use Only. Do Not Use to Exhaust Hazardous, Corrosive or Explosive Materials, Gases or Vapors. See Vapor Intrusion Application Note #AN001 for important information on VI Applications. RadonAway.com/vapor-intrusion

2. **NOTE:** Fan is suitable for use with solid state speed controls; however, use of speed controls is not generally recommended.

3. **WARNING!** Check voltage at the fan to ensure it corresponds with nameplate.

4. **WARNING!** Normal operation of this device may affect the combustion airflow needed for safe operation of fuel burning equipment. Check for possible backdraft conditions on all combustion devices after installation.

5. **NOTICE!** There are no user serviceable parts located inside the fan unit.
   Do NOT attempt to open. Return unit to the factory. (See Warranty, p. 8, for details.)

6. **WARNING!** Do not leave fan unit installed on system piping without electrical power for more than 48 hours. Fan failure could result from this non-operational storage.

7. **WARNING!** TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

   a) Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer. (See p. 8.)

   b) Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.

   c) Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire rated construction.

   d) Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent backdrafting. Follow the heating equipment manufacturers' guidelines and safety standards such as those published by any National Fire Protection Association, and the American Society for Heating, Refrigerating and Air Conditioning Engineers (ASHRAE), and the local code authorities.

   e) When cutting or drilling into a wall or ceiling, do not damage electrical wiring and other hidden utilities.

   f) Ducted fans must always be vented to outdoors.

   g) If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) protected branch circuit.

1.0 SYSTEM DESIGN CONSIDERATIONS

1.1 INTRODUCTION

The RP, GP and XP Pro Series Radon Fans are intended for use by trained, professional, certified/licensed radon mitigators. The purpose of these instructions is to provide additional guidance for the most effective use of RP, GP and XP Series Fans. These instructions should be considered supplemental to EPA/radon industry standard practices, state and local building codes and regulations. In the event of a conflict, those codes, practices and regulations take precedence over these instructions.

1.2 FAN SEALING

The RP, GP and XP Pro Series Radon Fans are factory sealed; no additional caulk or other materials are required to inhibit air leakage.

1.3 ENVIRONMENTALS

The RP, GP and XP Pro Series Radon Fans are designed to perform year-round in all but the harshest climates without additional concern for temperature or weather. For installations in an area of severe cold weather, please contact RadonAway for assistance. When not in operation, the fan should be stored in an area where the temperature is never less than 32 degrees F or more than 100 degrees F.

1.4 ACOUSTICS

The RP, GP and XP Pro Series Radon Fans, when installed properly, operate with little or no noticeable noise to the building occupants. The velocity of the outgoing air should be considered in the overall system design. In some cases the “rushing” sound of the outlet air may be disturbing. In these instances, the use of a RadonAway Exhaust Muffler is recommended.

(To ensure quiet operation of inline and remote fans, each fan shall be installed using sound attenuation techniques appropriate for the installation. For bathroom and general ventilation applications, at least 8 feet of insulated flexible duct shall be installed between the exhaust or supply grille(s) and the fan(s). The RP, GP and XP Pro Series Radon Fans are not suitable for kitchen range hood remote ventilation applications.)

1.5 GROUND WATER

In the event that a temporary high water table results in water at or above slab level, water may be drawn into the riser pipes, thus blocking air flow to the RP, GP and XP Pro Series Radon Fan. The lack of cooling air may result in the fan cycling on and off as the internal temperature rises above the thermal cutoff. Should this condition arise, it is recommended that the fan be turned off until the water recedes, allowing for return to normal operation.

1.6 SLAB COVERAGE

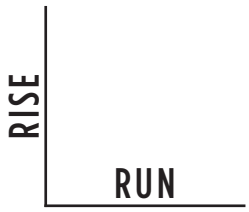
The RP, GP and XP Pro Series Radon Fans can provide coverage up to 2000+ sq. ft. per slab penetration. This will primarily depend on the sub-slab material in any particular installation. In general, the tighter the material, the smaller the area covered per penetration. Appropriate selection of the RP, GP and XP Pro Series Radon Fan best suited for the sub-slab material can improve the slab coverage. The RP, GP and XP Pro Series Radon Fans have a wide range of models to choose from to cover a wide range of sub-slab materials. The RP140 and 145 are best suited for general purpose use. The RP260 can be used where additional airflow is required, and the RP265 and RP380 are best suited for large slab, high airflow applications. Additional suction points can be added as required. It is recommended that a small pit (5 to 10 gallons in size) be created below the slab at each suction hole.

1.7 CONDENSATION & DRAINAGE

Condensation is formed in the piping of a mitigation system when the air in the piping is chilled below its dew point. This can occur at points where the system piping goes through unheated space such as an attic, garage or outside. The system design must provide a means for water to drain back to a slab hole to remove the condensation. The RP, GP and XP Pro Series Radon Fan MUST be mounted vertically plumb and level, with the outlet pointing up for proper drainage through the fan. Avoid mounting the fan in any orientation that will allow water to accumulate inside the fan housing. The RP, GP and XP Pro Series Radon Fans are NOT suitable for underground burial.

For RP, GP and XP Pro Series Fan piping, the following table provides the minimum recommended pipe diameter and pitch under several system conditions.

Pipe Diameter	Minimum Rise per Ft of Run*		
	@25 CFM	@50 CFM	@100 CFM
4”	1/8”	1/4”	3/8”
3”	1/4”	3/8”	1 1/2”



*See p. 7 for detailed specifications.

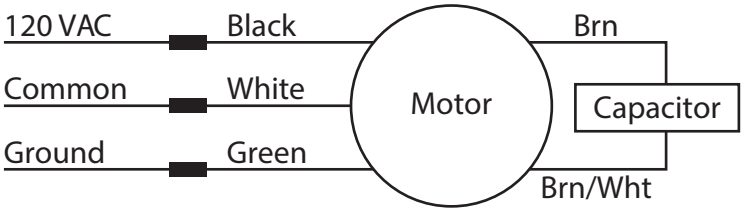
1.8 SYSTEM MONITOR & LABEL

A System Monitor, such as a manometer (P/N 50017) or audible alarm (P/N 28535, 28001-2, 28001-4 or 28421), is required to notify the occupants of a fan system malfunction. A System Label (provided with Manometer P/N 50017) with instructions for contacting the installing contractor for service and identifying the necessity for regular radon tests to be conducted by the building occupants must be conspicuously placed in a location where the occupants frequent and can see the label.

1.9 ELECTRICAL WIRING

The RP, GP and XP Pro Series Radon Fans operate on standard 120V, 60Hz AC. All wiring must be performed in accordance with National Fire Protection (NFPA) National Electrical Code, Standard #70, current edition, for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. Outdoor installations require the use of a UL Listed watertight conduit. Ensure that all exterior electrical boxes are outdoor rated and properly sealed to prevent water penetration into the box. A means, such as a weep hole, is recommended to drain the box.

The RP, GP and XP Pro Series Radon Fan Wiring Diagram



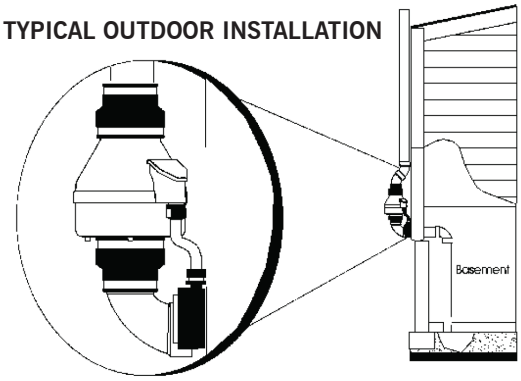
1.10 SPEED CONTROLS

The RP, GP and XP Pro Series Radon Fans are rated for use with electronic speed controls; however, speed controls are generally not recommended. If used, the recommended speed control is Pass & Seymour Solid State Speed Control (Cat. No. 94601-1).

2.0 INSTALLATION

The RP, GP and XP Pro Series Radon Fans can be mounted indoors or outdoors. (It is suggested that EPA and radon mitigation standards recommendations be followed in choosing the fan location.) The GP fans have an integrated mounting bracket; the RP, GP and XP Pro Series Radon Fans may be mounted directly on the system piping or fastened to a supporting structure by means of an optional mounting bracket. The ducting from the fan to the outside of the building has a strong effect on noise and fan energy use. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated airflow.

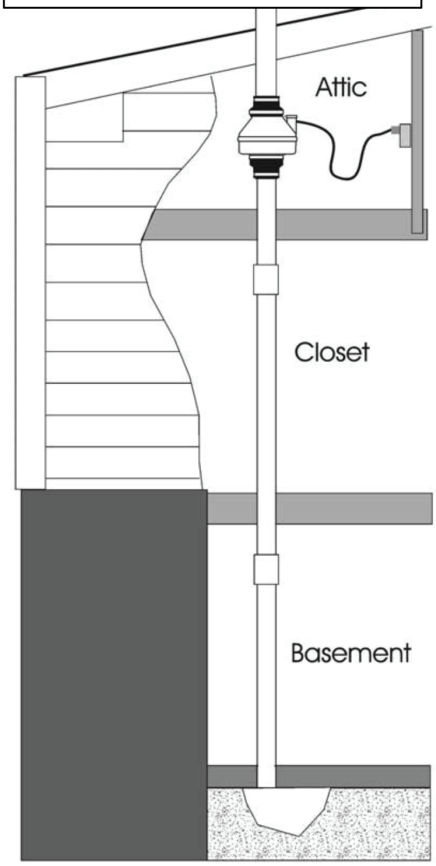
TYPICAL OUTDOOR INSTALLATION



2.1 MOUNTING

Mount the RP, GP and XP Pro Series Radon Fan vertically with outlet up. Ensure the unit is plumb and level. When mounting directly on the system piping assure that the fan does not contact any building surface to avoid vibration noise.

TYPICAL INDOOR INSTALLATION



2.2 MOUNTING BRACKET (optional)

The RP, GP and XP Pro Series Radon Fans may be optionally secured with the RadonAway Fan Mounting Bracket (P/N 25007). Foam or rubber grommets may also be used between the bracket and mounting surface for vibration isolation.

2.3 SYSTEM PIPING

Complete piping run, using flexible couplings as a means of disconnect for servicing the unit and for vibration isolation. As the fan is typically outside of the building thermal boundary and is venting to the outside, installation of insulation around the fan is not required.

2.4 ELECTRICAL CONNECTION

Connect wiring with wire nuts provided, observing proper connections (See Section 1.9). Note that the fan is not intended for connection to rigid metal conduit.

2.5 VENT MUFFLER (optional)

Install the muffler assembly in the selected location in the outlet ducting. Solvent weld all connections. The muffler is normally installed at the end of the vent pipe.

2.6 OPERATION CHECKS & ANNUAL SYSTEM MAINTENANCE

_____ **Verify** all connections are tight and **leak-free**.

_____ **Ensure** the RP, GP and XP Pro Series Radon Fan and all ducting are **secure and vibration-free**.

_____ **Verify system vacuum pressure** with manometer. **Ensure** vacuum pressure is within normal operating range and **less than** the maximum recommended operating pressure.

(Based on sea-level operation, at higher altitudes reduce by about 4% per 1000 feet)
(Further reduce Maximum Operating Pressure by 10% for High Temperature environments.)
See Product Specifications. If this is exceeded, increase the number of suction points.

_____ **Verify Radon levels** by testing to EPA Protocol and applicable testing standards.

THE FOLLOWING CHARTS SHOW THE PERFORMANCE OF THE RP, GP AND XP PRO SERIES RADON FANS

RP Pro Series Product Specifications

Typical CFM Vs. Static Pressure "WC									
Model	**0"**	**.2"**	**.5"**	**.75"**	**1.0"**	**1.25"**	**1.5"**	**1.75"**	**2.0"**
RP140	152	120*	64*	-	-	-	-	-	
RP145	169	150*	124*	101	81*	61	42	22	4
RP260	251	210*	157	117	70	26	-	-	-
RP265	375	340*	282*	238	204*	170	140	108	70
RP380	531	490*	415*	340	268*	200	139	84	41

**Denotes HVI certified values.*

Model	Power Consumption 120VAC, 60Hz, 1.5 Amp Maximum	Maximum Recommended Operation Pressure* (Sea Level Operation)**
RP140	14 - 19 watts	0.6" WC
RP145	34 - 66 watts	1.7" WC
RP260	47-65 watts	1.3" WC
RP265	96 - 136 watts	2.3" WC
RP380	96 - 138 watts	2.0" WC

**Reduce by 10% for High Temperature Operation. **Reduce by 4% per 1000 ft. of altitude.*

Model	Size	Weight	Inlet/Outlet	L.2
RP140	8.5"H x 9.7" Dia.	5.5 lbs	4.5"OD (4.0" PVC Sched 40 size compatible)	25
RP145	8.5"H x 9.7" Dia.	5.5 lbs	4,5" OD	15
RP260	8.6"H x 11.75" Dia.	5.5 lbs	6.0" OD	48
RP265	8.6"H x 11.75" Dia.	6.5 lbs	6.0" OD	30
RP380	10.53"H x 13.41" Dia.	11.5 lbs	8.0" OD	57

L.2 = Estimated Equivalent Length of Rigid Metal Ducting resulting in .2" WC pressure loss for Duct Size listed. Longer Equivalent Lengths can be accommodated at Flows Lower than that at .2" WC pressure loss (see CFM Vs Static Pressure "WC Table).

XP Pro Series Product Specifications

Typical CFM Vs. Static Pressure "WC						
	0"	**.5"**	**1.0"**	**1.5"**	**1.75"**	**2.0"**
XP151	167	127	77	-	-	-
XP201	126	98	66	26	-	-

Model	Power Consumption 120VAC, 60Hz, 1.5 Amp Maximum	Maximum Recommended Operation Pressure* (Sea Level Operation)**
XP151	53-70 watts	1.4" WC
XP201	38-74 watts	1.6" WC

**Reduce by 10% for High Temperature Operation **Reduce by 4% per 1000 ft. of altitude.*

Model	Size	Weight	Inlet/Outlet
XP151	9.5"H x 8.5" Dia.	6 lbs	4.5"OD (4.0" PVC Sched 40 size compatible)
XP201	9.5"H x 8.5" Dia.	6 lbs	4.5" OD

GP Pro Series Product Specifications

Typical CFM Vs. Static Pressure "WC							
	1.0"	**1.5"**	**2.0"**	**2.5"**	**3.0"**	**3.5"**	**4.0"**
GP201	54	42	11	-	-	-	-
GP301	64	54	41	4	-	-	-
GP401	-	61	52	44	22	-	-
GP501	-	-	66	58	50	27	4

Model	Power Consumption 120VAC, 60Hz, 1.5 Amp Maximum	Maximum Recommended Operation Pressure* (Sea Level Operation)**
GP201	31-67 watts	1.8" WC
GP301	56-100 watts	2.3" WC
GP401	62-128 watts	3.0" WC
GP501	68 - 146 watts	3.8" WC

**Reduce by 10% for High Temperature Operation **Reduce by 4% per 1000 ft. of altitude.*

Model	Size	Weight	Inlet/Outlet
GP201	13"H x 12.5" Dia.	12 lbs	3.5"OD (3.0" PVC Sched 40 size compatible)
GP301	13"H x 12.5" Dia.	12 lbs	3.5" OD
GP401	13"H x 12.5" Dia.	12 lbs	3.5" OD
GP501	13"H x 12.5" Dia.	12 lbs	3.5" OD

RP, XP and GP Pro Series Additional Specifications

Model	Recommended Duct	PVC Pipe Mounting	Thermal Cutout	Insulation Class
RP140	3" or 4" Schedule 20/40 PVC	Mount on the duct pipe or with optional mounting bracket. For Ventilation: 4", 6" or 8" Rigid or Flexible Ducting.	130°C/266°F	Class B Insulation
RP145			130°C/266°F	Class F Insulation
RP260			150°C/302°F	
RP265			150°C/302°F	
RP380	6" Schedule 20/40 PVC Pipe		150°C/302°F	
XP151	3" or 4" Schedule 20/40 PVC	Fan may be mounted on the duct pipe or with integral flanges.	120°C/248°F	Class B Insulation
XP201				
GP201	3" or 4" Schedule 20/40 PVC	Fan may be mounted on the duct pipe or with integral flanges.	120°C/248°F	Class B Insulation
GP301				
GP401				
GP501				

Continuous Duty
3000 RPM
Thermally Protected
RP, GP Residential and Commercial
XP Residential Only
Rated for Indoor or Outdoor Use

ENERGY STAR
RP140 Only

LISTED
Electric Fan

Intertek
77728

Conforms to UL STD. 507
Certified to CAN/CSA STD. C22.2 No.113

IMPORTANT INSTRUCTIONS TO INSTALLER

Inspect the RP, GP and XP Pro Series Radon Fan for shipping damage within 15 days of receipt. **Notify RadonAway of any damages immediately.** RadonAway is not responsible for damages incurred during shipping. However, for your benefit, RadonAway does insure shipments.

There are no user serviceable parts inside the fan. **Do not attempt to open the housing.** Return unit to factory. (See Warranty below).

Install the RP, GP and XP Pro Series Radon Fan in accordance with all EPA, ANSI/AARST standard practices, and state and local building codes and regulations.

Provide a copy of this instruction or comparable radon system and testing information to the building occupants after completing system installation.

Warranty

RadonAway® warrants that the RP, GP (excluding GP500) and XP Pro Series Radon Fan (the "Fan") will be free from defects in materials and workmanship for a period of 12 months from the date of purchase or 18 months from the date of manufacture, whichever is sooner (the "Warranty Term").

RadonAway® will replace any fan which fails due to defects in materials or workmanship during the Warranty Term. This Warranty is contingent on installation of the Fan in accordance with the instructions provided. This Warranty does not apply where any repairs or alterations have been made or attempted by others, or if the unit has been abused or misused. Warranty does not cover damage in shipment unless the damage is due to the negligence of RadonAway®.

The Fan must be returned (at Owner's cost) to the RadonAway® factory. Any Fan returned to the factory will be discarded unless the Owner provides specific instructions along with the Fan when it is returned regardless of whether or not the Fan is actually replaced under this warranty. Proof of purchase must be supplied upon request for service under this Warranty.

5-YEAR EXTENDED WARRANTY WITH PROFESSIONAL INSTALLATION.

RadonAway® will extend the Warranty Term of the fan to 60 months (5 years) from date of purchase or 66 months from date of manufacture, whichever is sooner, provided that the fan is installed by a professional radon mitigation contractor. Proof of purchase and/or proof of professional installation may be required for service under this warranty. No extended warranty is offered outside the Continental United States and Canada beyond the standard 12 months from the date of purchase or18 months from the date of manufacture, whichever is sooner.

RadonAway® is not responsible for installation, removal or delivery costs associated with this Warranty.

LIMITATION OF WARRANTY

EXCEPT AS STATED ABOVE, THE RP, GP (excluding GP500) and XP PRO SERIES RADON FANS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL RADONAWAY BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR RELATING TO, THE FAN OR THE PERFORMANCE THEREOF. RADONAWAY'S AGGREGATE LIABILITY HEREUNDER SHALL NOT IN ANY EVENT EXCEED THE AMOUNT OF THE PURCHASE PRICE OF SAID PRODUCT. THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT, TO THE EXTENT THE SAME DOES NOT MEET WITH RADONAWAY'S WARRANTY AS PROVIDED ABOVE.

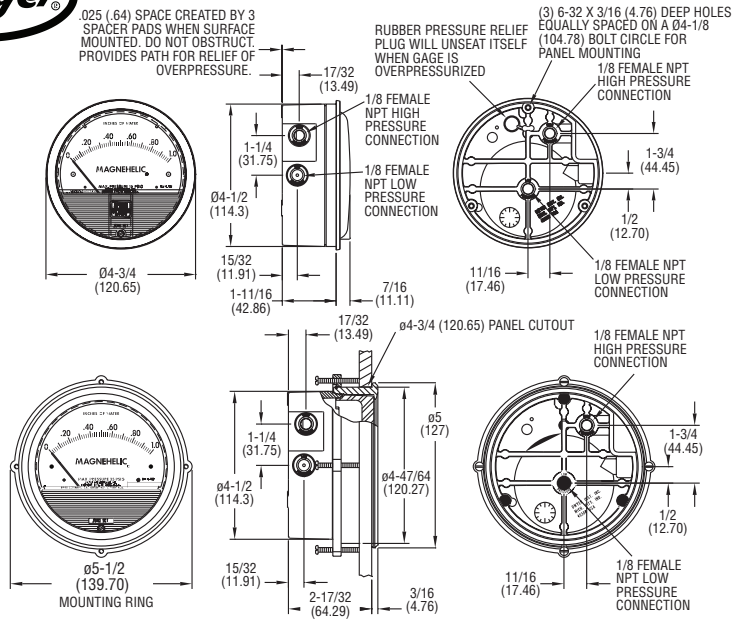
For service under this Warranty, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. No returns can be accepted without an RMA. If factory return is required, the customer assumes all shipping costs, including insurance, to and from factory.

RadonAway® 3 Saber Way
Ward Hill, MA 01835 USA TEL (978) 521-3703
FAX (978) 521-3964
Email to: Returns@RadonAway.com

Record the following information for your records:

Serial Number: _____ Purchase Date: _____

Magnehelic® Differential Pressure Gage



**The blowout plug is not used on models above 180 inches of water pressure, medium or high pressure models, or on gages which require an elastomer other than silicone for the diaphragm.*

STANDARD GAGE ACCESSORIES: Two 1/8″ NPT plugs for duplicate pressure taps, two 1/8″ pipe thread to rubber tubing adapters and three flush mounting adapters with screws.

MP AND HP GAGE ACCESSORIES: Mounting ring and snap ring retainer substituted for 3 adaptors, 1/4" compression fittings replace 1/8" pipe thread to rubber tubing adaptors.

OVERPRESSURE PROTECTION: Standard Magnehelic® Differential Pressure Gages are rated for a maximum pressure of 15 psig and should not be used where that limit could be exceeded. Models employ a rubber plug on the rear which functions as a relief valve by unseating and venting the gage interior when over pressure reaches approximately 25 psig (excludes MP and HP models). To provide a free path for pressure relief, there are four spacer pads which maintain .023″ clearance when gage is surface mounted. Do not obstruct the gap created by these pads.

SPECIFICATIONS

Service: Air and non-combustible, compatible gases. (Natural Gas option available.)
Wetted Materials: Consult factory.
Housing: Die cast aluminum case and bezel, with acrylic cover. (MP model has polycarbonate cover).
Accuracy: 2% of full scale (±3% on -0, -100PA, -125PA, -10MM and ±4% on -00, -60PA, -6MM), throughout range at 70°F (21.1°C); High accuracy version: ±1% on full scale (±1.5% on -0, -100PA, -125PA, -10MM and ±2% on -00, -60PA, -6MM).
Pressure Limits: -20″ Hg to 15 psig.† (-0.677 bar to 1.034 bar); MP option: 35 psig (2.41 bar), HP option: 80 psig (5.52 bar).
Enclosure Rating: IP67.
Overpressure: Relief plug opens at approximately 25 psig (1.72 bar), standard gages only. The blowout plug is not used on models above 180 inches of water pressure, medium or high pressure models, or on gages which require an elastomer other than silicone for the diaphragm.
Temperature Limits: 20 to 140°F (-6.67 to 60°C). *Low temperature models available as special option.
Size: 4″ (101.6 mm) diameter dial face.
Mounting Orientation: Diaphragm in vertical position. Consult factory for other position orientations.
Process Connections: 1/8″ female NPT duplicate high and low pressure taps - one pair side and one pair back.
Weight: 1 lb 2 oz (510 g), MP & HP 2 lb 2 oz (963 g).
Agency Approvals: RoHS.

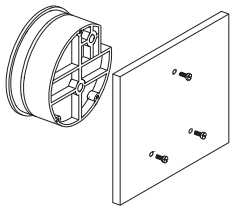
†For applications with high cycle rate within gage total pressure rating, next higher rating is recommended. See Medium and High pressure options.

Note: May be used with hydrogen when ordering Buna-N diaphragm. Pressure must be less than 35 psi.

INSTALLATION

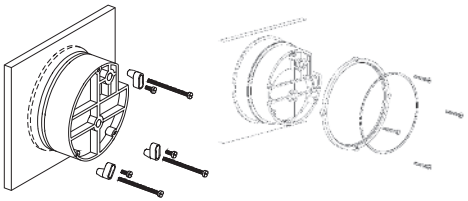
Select a location free from excessive vibration and where the ambient temperature will not exceed 140°F (60°C). Also, avoid direct sunlight which accelerates discoloration of the clear plastic cover. Sensing lines may be run any necessary distance. Long tubing lengths will not affect accuracy but will increase response time slightly. Do not restrict lines. If pulsating pressures or vibration cause excessive pointer oscillation, consult the factory for ways to provide additional damping.
All standard Magnehelic® Differential Pressure Gages are calibrated with the diaphragm vertical and should be used in that position for maximum accuracy. If gages are to be used in other than vertical position, this should be specified on the order. Many higher range gages will perform within tolerance in other positions with only rezeroing. Low range models of 0.5" w.c. plus 0.25" w.c. and metric equivalents must be used in the vertical position only.

SURFACE MOUNTING



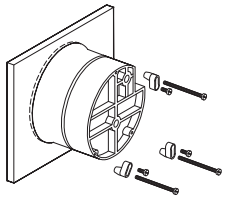
Locate mounting holes, 120° apart on a 4-1/8" dia. circle. Use No. 6-32 machine screws of appropriate length.

FLUSH MOUNTING



Provide a 4-9/16" dia. (116 mm) opening in panel. Provide a 4-3/4" dia. (120 mm) opening for MP and HP models. Insert gage and secure in place with No. 6-32 machine screws of appropriate length, with adapters, firmly secured in place.

FOR -SS BEZEL INSTALLATION



Provide a 4-9/16″ opening in panel. Insert gage and secure with supplied mounting hardware.

PIPE MOUNTING

To mount gage on 1-1/4" - 2" pipe, order optional A-610 pipe mounting kit.

TO ZERO GAGE AFTER INSTALLATION

Set the indicating pointer exactly on the zero mark, using the external zero adjust screw on the cover at the bottom. Note that the zero check or adjustment can only be made with the high and low pressure taps both open to atmosphere.

OPERATION

Positive Pressure: Connect tubing from source of pressure to either of the two high pressure ports. Plug the port not used. Vent one or both low pressure ports to atmosphere.
Negative Pressure: Connect tubing from source of vacuum or negative pressure to either of the two low pressure ports. Plug the port not used. Vent one or both high pressure ports to atmosphere.
Differential Pressure: Connect tubing from the greater of two pressure sources to either high pressure port and the lower to either low pressure port. Plug both unused ports.
When one side of the gage is vented in dirty, dusty atmosphere, we suggest an A-331 Filter Vent Plug be installed in the open port to keep inside of gage clean.

A. For portable use of temporary installation use 1/8" pipe thread to rubber tubing adapter and connect to source of pressure with flexible rubber or vinyl tubing.
B. For permanent installation, 1/4" O.D., or larger, copper or aluminum tubing is recommended.

MAINTENANCE

No lubrication or periodic servicing is required. Keep case exterior and cover clean. Occasionally disconnect pressure lines to vent both sides of gage to atmosphere and re-zero. Optional vent valves should be used in permanent installations. The Series 2000 is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.

WARNING

Attempted field repair may void your warranty. Recalibration or repair by the user is not recommended.

TROUBLE SHOOTING TIPS

Gage won't indicate or is sluggish.

1. Duplicate pressure port not plugged.
2. Diaphragm ruptured due to overpressure.
3. Fittings or sensing lines blocked, pinched, or leaking.
4. Cover loose or "O"ring damaged, missing.
5. Pressure sensor, (static tips, Pitot tube, etc.) improperly located.
6. Ambient temperature too low. For operation below 20°F (-7°C), order gage with low temperature, (LT) option.

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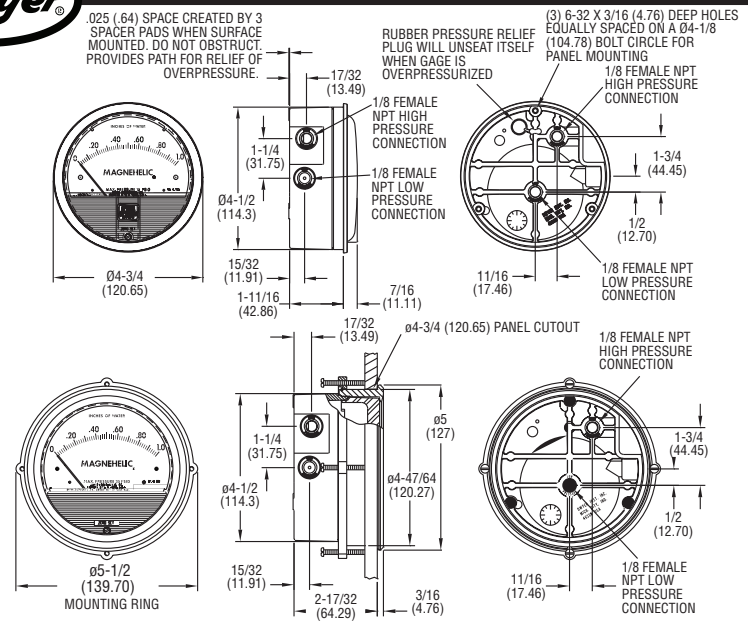
Magnehelic® Differential Pressure Gage

INSTRUCCIONES Y LISTA DE PARTES



(El tapón de goma no es usado en los modelos sobre 180 pulgadas de presión de agua, modelos de presión media o alta, o en instrumentos que requieren un elastizado en cualquier otro material que no sea silicona para el diafragma.)

Accesorios: Tapones 1/8" NPT para las conexiones duplicadas, dos adaptadores de rosca 1/8" NPT a tubo de goma; y tres adaptadores para montaje al ras y tornillos.

Accesorios para Los Modelos MP y HP: El anillo de montaje y el retensor del anillo de presión son substituidos por 3 adaptadores, accesorios de compresión de 1/4" remplazan a los adaptadores de rosca 1/8" a tubo de goma.

Protección Para Sobrepresión: Los Manómetros Diferenciales Magnehelic Estándar están clasificados para una presión máxima de 15 psi y no se deberían de usar donde el límite puede excederse. Los modelos emplean un tapón de goma en el trasero que funciona como una válvula de alivio desmontándose y ventilando el interior del instrumento cuando la sobrepresión alcanza aproximadamente 25 psig. (Los modelos MP y HP son excluidos) Para proveer un camino libre para el alivio de presión, el instrumento viene con rodilleras que mantienen un espacio de .023" cuando el instrumento es montado en superficie. No bloque el espacio creado por estas rodilleras.

† Para aplicaciones con alto ciclo de velocidad dentro de la clasificación de presión total del instrumento, la próxima clasificación mas alta es recomendada. Vea las opciones de media y alta presión.

El instrumento puede ser usado con hidrogeno cuando se ordena con diafragma de Buna-N. La presion tiene que ser menos de 35 psi.

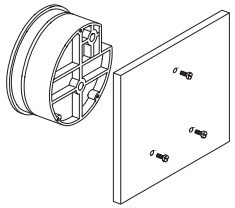
ESPECIFICACIONES

Servicio: aire y gases no combustibles, gases compatibles. (ópcion disponible para uso con gas natural).
Materiales Mojados: Consulte con la fábrica.
Carcasa: Caja y anillo de retención de aluminio fundido a presión con tapadera de acrílico. (El modelo MP tiene la tapadera de policarbonato.)
Exactitud: ±2% de la escala completa (±3% en los márgenes de -0, -100PA, -125PA y -10MM y ±4 % en los márgenes de -00, -60PA y -6MM), en todo el margen a 21.1 °C (70 °F); Versión de alta precisión: ±1% de la escala completa (±1.5% en los márgenes de -0, -100PA, -125PA, -10MM y ±2% en los márgenes de -00, -60PA, -6MM).
Límite de Presión: -20 Hg. a 15 psig. † (-0.677 bar a 1,034 bar); opción MP: 35 psig (2.41 bar), opción HP: 80 psig (5.52 bar).
Clasificación de gabinete: IP67.
Sobrepresión: El tapón de alivio se abre aproximadamente a los 25 psig, modelos estandard únicamente. El tapón de goma no es usado en los modelos sobre 180 pulgadas de presión de agua, modelos de presión media o alta, o en instrumentos que requieren un elastizado en cualquier otro material que no sea silicio para el diafragma.
Límite de Temperatura: -6.67 a 60ºC. * Modelos de baja temperatura disponibles como opción especial.
Dimensiones: diám. 120,65 mm x 55,6 prof.
Orientación de Montaje: El diafragma debe ser usado solo en posición vertical. Consulte con la fábrica para otras orientaciones de posición.
Conexiones: 1/8" NPT para alta y baja presión, duplicadas (atrás, a los lados).
Peso: 510 g, MP y HP 963 g.
Aprobación de la agencia: RoHS.

Instalacion

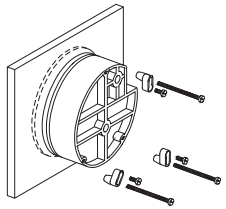
Seleccione un lugar libe de exceso de vibraciones, y donde la temperatura ambiente no supere los 60°C. Evite luz solar directa, para evitar decoloración de la cubierta plástica. Las conexiones de proceso pueden tener cualquier longitud sin afectar la exactitud, pero pueden extender el tiempo de respuesta del instrumento. Si hay pulsación de presión o vibración, consulte a fábrica sobre medios de amortiguación.
Los MAGNEHELIC han sido calibrados con el diafragma vertical, y deben ser usados en esas condiciones. Para otras posiciones, se debe especificar en la orden de provisión. Los de rango elevado pueden ser usados en diversas posiciones, pero se debe reajustar el cero. Los modelos de la serie 2000-00 y equivalentes métricos deben ser usados solo verticalmente.

Montaje en Superficie



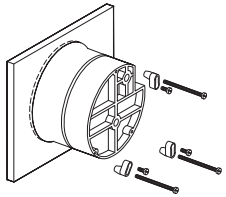
Perfore tres orificios separados 120° sobre una circunferencia de 105 mm de diám. y sostenga el instrumento con tres tornillos 6-32 de long. apropiada.

Montaje alineado



Perfore un circulo de 115 mm de diám. en el panel, y sostenga el instrumento mediante los.

Para instalar el bisel de acero inoxidable



Haga una apertura de 4-9/16 pulgadas en el panel. Inserte el medidor y asegure con los herrajes de montaje provistos.

Montaje Sobre Pipa

Para montar el instrumento sobre pipas de 32 a 50 mm de diám., ordene el adaptador opcional A-610.

Puesta a Cero Después de Instalar

Deje las conexiones de presión abiertas a atmósfera y ajuste a cero desde tornillo del panel frontal.

Operacion

Presión Positiva: Conecte la tubería desde la fuente de presión a cualquiera de las dos conexiones de alta presión (HIGH), bloqueando la no usada; Las conexiones de baja (LOW) presión pueden dejarse uno o los dos abiertos a la atmósfera.
Presión Negativa: Repita el procedimiento anterior, conectado en este caso las conexiones de baja presión (LOW). Deje las otras conexiones abiertas.
Presión diferencial: Conecte el tubo correspondiente a la presión más positiva al cualquiera de los conectores de alta presión (HIGH) bloqueando el no usado, y la más baja presión o presión negativa (vacío) al conector de baja presión (LOW). Puede usarse cualquier conector de cada par, dejando siempre uno bloqueado. Si se deja una conexión abierta a la atmósfera, se recomienda el uso de un filtro tipo A-331 en el lugar correspondiente para mantener limpio el interior del instrumento. Para uso portable, o instalación temporaria, uso adapta dores para rosca de tubo de 1/89 a tubo flexible, y conecte a proceso mediante una tubería de goma, o equivalente. Para instalación permanente, se recomienda el uso de tubo de cobre o aluminio de por lo menos 1/4" de diám. exterior.

No se requiere mantenimiento específico alguno, ni lubricación. Periódicamente, desconecte el instrumento, ventee la presión acumulada, y reajuste el cero. Para instalaciones permanentes, se debe usar un juego de válvulas de montaje permanente para el venteo.
El instrumento de Serie 2000 no puede ser re parado en el campo y debería de ser regresado si reparos son necesarios (Reparos en el campo no deben de ser intentados y pueden cancelar la garantía.). Asegurarse de incluir una descripción breve del problema más cualquier notas pertinentes a la aplicación para devolución de productos antes de enviar el instrumento.

Cuidado! : La recalibración en campo puede invalidar la garantía. No se recomienda la recalibracion por parte del usuario. En caso necesario envie el instrumento con transporte pago a:

Localización De Fallas

• *El instrumento no indica, o es lento en reacción.*
1. Conexión duplicada abierta.
2. Diafragma roto por sobrepresión.
3. Tubería de conexión perforada, con pérdidas o pinchazos.
4. Anillo de retención flojo, u "O " ring dañado.
5. Conexión a proceso indebida o inadecuada.
6. Temperatura muy baja. Para este caso ordene tipos LT (baja temperatura).

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INSTALLATION & OPERATING INSTRUCTIONS
Instruction P/N IN015 Rev E
FOR *CHECKPOINT IIa* TM P/N 28001-2 & 28001-3
RADON SYSTEM ALARM

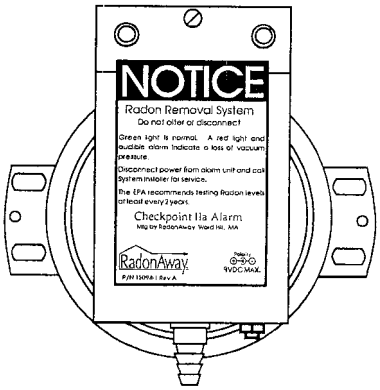
INSTALLATION INSTRUCTIONS
(WALL MOUNTING)

Select a suitable wall location near a vertical section of the suction pipe. The unit should be mounted about four or five feet above the floor and as close to the suction pipe as possible. Keep in mind that with the plug-in transformer provided, the unit must also be within six feet of a 120V receptacle. **NOTE: The Checkpoint IIa is calibrated for vertical mounting, horizontal mounting will affect switchpoint calibration.**

Drill two ¼" holes 4" apart horizontally where the unit is to be mounted.

Install the two ¼" wall anchors provided.

Hang the CHECKPOINT IIa from the two mouting holes located on the mounting bracket. Tighten the mounting screws so the unit fits snugly and securely against the wall.



Drill a 5/16" hole into the side of the vent pipe about 6" higher than the top of the unit.

Insert the vinyl tubing provided about 1" inside the suction pipe.

Cut a suitable length of vinyl tubing and attach it to the pressure switch connector on the CHECKPOINT IIa.

CALIBRATION AND OPERATION.

The CHECKPOINT IIa units are calibrated and sealed at the factory to alarm when the vacuum pressure falls below the factory setting and should not normally require field calibration. Factory Settings are:
28001-2 -.25" WC Vacuum
28001-3 -.10" WC Vacuum

To Verify Operation:

With the exhaust fan off or the pressure tubing disconnected and the CHECKPOINT IIa plugged in, both the red indicator light and the audible alarm should be on.

Turn the fan system on or connect the pressure tubing to the fan piping. The red light and the audible alarm should go off. The green light should come on.

Now turn the fan off. The red light and audible alarm should come on in about two or three seconds and the green light should go out.

WARRANTY INFORMATION

Subject to applicable consumer protection legislation, RadonAway warrants that the CHECKPOINT IIa will be free from defective material and workmanship for a period of (1) year from the date of purchase. Warranty is contingent on installation in accordance with the instructions provided. This warranty does not apply where repairs or alterations have been made or attempted by others; or the unit has been abused or misused. Warranty does not include damage in shipment unless the damage is due to the negligence of RadonAway. All other warranties, expressed or written, are not valid. To make a claim under these limited warranties, you must return the defective item to RadonAway with a copy of the purchase receipt. RadonAway is not responsible for installation or removal cost associated with this warranty. In no case is RadonAway liable beyond the repair or replacement of the defective product FOB RadonAway.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE IS NO WARRANTY OF MERCHANTIBILITY. ALL OTHER WARRANTIES, EXPRESSED OR WRITTEN, ARE NOT VALID.

For service under these warranties, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. **No returns can be accepted without an RMA.** If factory return is required, the customer assumes all shipping costs to and from factory.

Manufactured by:
RadonAway
Ward Hill, MA

APPENDIX C

Sub-Slab Depressurization System Operations and Maintenance Log

O&M FIELD DATA SHEET
FOR THE SSDS SYSTEMS AT 161-01 through 161-05 29th Aveneue, Flushing, NY

Date/Time: _____ **Weather:** _____

Inspector: _____ **Approximate Temperature:** _____

SYSTEM MEASUREMENTS								
Blower ID	**Is SSDS Running? YES**	**NO**	**SSDS Fan Exhaust Pressure (in. H2O)**		**SSDS Fan Flowrate (scfm)**		**Other (specify)**	
SSDS-01-NORTH								
SSDS-01-SOUTH								
SSDS-03								
SSDS-05								

SUB-SLAB MONITORING POINTS DIFFERENTIAL PRESSURE MEASUREMENTS (collected annually following first year of operation)								
UNIT 161-01 (front and rear)			**Unit 161-03**			**Unit 161-05**		
Date	**Sub-slab Monitoring Point**	**Diff. Press. (in. H2O)**	**Date**	**Sub-slab Monitoring Point**	**Diff. Press. (in. H2O)**	**Date**	**Sub-slab Monitoring Point**	**Diff. Press. (in. H2O)**

SYSTEM INSPECTIONS AND MAINTENANCE		
Item	**Frequency**	**Results/Comments**
Visual Inspection of SSDS Piping and Fittings	First Year: semi-ann. Thereafter: ann.	
Visual Inspection of Building Floor for cracks/damage, signs of construction	First Year: semi-ann. Thereafter: ann.	
Visual Inspection of SSDS Equipment	First Year: semi-ann. Thereafter: ann.	
Do the Alarm Lights indicate the system is in operation?	First Year: semi-ann. Thereafter: ann.	
Has there been any time since last insepction that the SSDS Fans were not in operation? Provide Details	First Year: semi-ann. Thereafter: ann.	
When was the last inspection, maintenance, or repair event?	First Year: semi-ann. Thereafter: ann.	
Other (Specify)		

ABNORMAL OPERATING CONDITIONS			
Description of Alarm or Malfunction	**Date/Time**	**SSDS ID**	**Describe Troubleshooting/Corrective Actions**

APPENDIX D

Health and Safety Plan

Construction Health and Safety Plan For Property Located at

161-01 to 161-11 29th Avenue
Flushing, New York

May 2022

Prepared by:

Tyll Engineering and Consulting, PC
169 Commack Road, Suite H173
Commack, New York
Karen G. Tyll, PE
(631) 629-5373 / Karen@tyllengineering.com

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1.0 INTRODUCTION

This section of the Health and Safety Plan (HASP) document defines general applicability and general responsibilities with respect to compliance with Health and Safety programs. This plan has been prepared for invasive remediation activities to be conducted in the future.

1.1 Scope and Applicability of the Site Health and Safety Plan

The purpose of this HASP is to define the requirements and designate protocols to be followed during future excavation/remediation activities at the site. Applicability extends to all government employees, contractors, subcontractors, and visitors.

All personnel on site, contractors and subcontractors included, shall be informed of the site emergency response procedures and any potential fire, explosion, health, or safety hazards of the operation. This HASP summarizes those hazards in Table 3.1 and defines protective measures planned for the site.

This plan must be reviewed and an agreement to comply with the requirements must be signed by all personnel prior to entering the exclusion zone or contamination reduction zone.

During development of this plan, consideration was given to current safety standards as defined by the Environmental Protection Agency (EPA)/Occupational Health and Safety Administration (OSHA)/National Institute of Occupational Safety and Health (NIOSH), health effects and standards for known contaminants, and procedures designed to account for the potential for exposure to unknown substances. Specifically, the following reference sources have been consulted:

- OSHA 29 CFR 1910.120 and EPA 40 CFR 311
- USEPA, Office of Emergency and Remedial Response, Emergency Response Team, Standard Operating Safety Guides
- NIOSH/OSHA/USCG/EPA Occupational Health and Safety Guidelines
- American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values

2.0 KEY PERSONNEL/IDENTIFICATION OF HEALTH AND SAFETY

2.1 Key Personnel

The organizational structure will be reviewed and updated periodically by the site supervisor.

Team Representatives:

1. John Procida, 16103-11 29th Avenue LLC
2. James M. DeMartinis, PG, QEP
3. Karen G. Tyll, PE

2.2 Site Specific Health and Safety Personnel

The SHSO at the site with respect to any remedial activities is:

Seacliff Environmental Geology, PC
James M. DeMartinis, PG

Designated alternates include:

TO BE DETERMINED

2.3 Organizational Responsibility

1. The SHSO of the site will conduct site inspections throughout the project making sure the Health and Safety Plan is followed. Their main concern is the personal protection of the workers.

3.0 TASK SAFETY AND HEALTH RISK ANALYSIS

3.1 Historical Overview of Site

161-01 to 161-11 29th Avenue (Block 4889 and Lots 57, 59, 60, 61, 62, and 63 on the New York City Tax) Currently, the Lots each are around 2,000 square feet to 2,310 square feet and contain an attached 2,600 (gross) square foot, two-story commercial/residential building constructed in 1931.

A Phase I ESA was performed by MECC at the site in November 2019. It was reported that each building has an individual basement which housed the boiler room and boiler areas. The buildings were occupied by twelve residential units and seven commercial units. The following Recognized Environmental Conditions (RECs) were noted in the Phase I ESA:▪

- According to the historical sources reviewed, a dry cleaner occupied the site during the years 1973-2014. Review of the EDR Radius Map indicated Rose Garden Cleaners is listed as a former RCRA Generator (EPA ID: NYR000063545) which generated tetrachloroethane. The dry cleaner was located at 161-03 29th Avenue.
- An abandoned fuel oil UST was identified in the rear yard of the property at 161-05/07 29th Avenue. An invoice from Stivan Plumbing and Heating Inc, dated 2002, indicated that the tank was abandoned in place with sand.

3.2 Task-by-Task Risk Analysis

The evaluation of hazards will be based upon the knowledge of the site background presented in Section 3.1 above, and anticipated risks posed by the specific tasks to be performed.

The following subsections describe each task/operation in terms of the specific hazards associated with it. In addition, the protective measures to be implemented during completion of future tasks are also identified.

Table 3.1 provides a summary of task analysis and chemical hazards potentially encountered at the Site.

TABLE 3.1 TASK ANALYSIS POTENTIAL CHEMICAL HAZARDS OF CONCERN			
Contaminant	**PEL/TLV**	**LEL (%)**	**IDLH**
VOCs			
Benzene	1/0.5ppm	1.2	500 ppm
Toluene	200/50 ppm	1.1	500 ppm
Xylenes	100/100 ppm	~1	900 ppm
Ethyl benzene	100/100ppm	0.8	800 ppm
MTBE	NE/50ppm	NE	NE
Diesel Fuel	NE/100mg/m^3		Ca (exhaust)
Gasoline	NE/300	1.4	Ca
Lead	0.05/0.05 mg/m^3	N/A	100 mg/m^3
PCBs	0.5-1 mg/m3	N/A	5 mg/m^3
PAHs	0.2 mg/m^3	N/A	1750 mg/m^3
tetrachlorethylene	100 ppm/25	N/A	150 ppm
Pesticides	Variable	N/A	N/A
Arsenic	0.01 mg/m^3	N/A	5 mg/m^3
Mercury	0.025 mg/m^3	N/A	10 mg/m^3
Barium		N/A	0.5 mg/m3

NE – not established N/A-not appropriate
Ca - Cancer
Notes:
1. TLV = Threshold Limit Value
2. IDLH = Immediately Dangerous to Life and Health

3.3 Chemical Hazards

3.3.1 Hazard Identification and Prevention

- Safety related work practices would be used to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts. Overhead power lines, buried

- cables and electrical equipment used on site all pose a danger of shock or electrocution if workers contact or sever them during field operations.

- New York State law requires that a utility mark out to be performed at a site at least 72 hours prior to starting any subsurface work. The tank removal contractor will contact New York City One Call (1-800-272-4480) to request a mark out of underground utilities in the proposed excavation and drilling areas. Work will not begin until the required utility clearances have been completed.

- Public utilities typically do not mark-out utility lines that are located on private property. Therefore, contractors must exercise due diligence and try to identify the location of any private utilities at the site. A private utility contractor will clear on-site subsurface disturbance locations for utilities prior to the commencement of any such work. Contractors will also use as-built drawings for the area being investigated, perform a line locating survey, and identify a no-dig/drill zone and hand dig if there is insufficient data to determine the location of utility lines.

- Care must be taken to ensure loose clothing does not get tangled in any moving equipment while borings are being drilled.

- There may be slip or trip hazards associated with rough, slippery or elevated work surfaces at the site. The sampling sites could contain a number of slip, trip and fall hazards for site workers, such as: holes, pits, or ditches; excavation faces and slippery surfaces (steep grades, uneven grades, snow and ice and sharp objects).

- Drilling or excavating is dangerous during electrical storms. All field activity must terminate when thunderstorms are evident. Extreme heat and cold, ice and heavy rain can produce unsafe conditions for drilling work. Such conditions, when present, will be evaluated on a case-by-case basis to determine if work shall terminate.

- The use of an excavator and other equipment that are gasoline or fuel powered presents the possibility of encountering fire and explosion hazards.

- Plants and animals that are known to be hazardous to humans may affect work that takes place. Spiders, bees, wasps, hornets, ticks, poison oak and poison ivy are only some of the hazards that may be encountered. Individuals who may potentially be exposed to these hazards should be made aware of their existence and instructed in their identification. Emergencies resulting from contact with a natural hazard should be handled through the normal medical emergency channels. Individuals who are sensitive to these types of "natural" hazards should indicate their susceptibility to the SHSO.

- Work on-site will involve the use of heavy construction equipment such as an

excavator. The unprotected exposure of site workers to this noise during field activities can result in noise induced hearing loss. The SHSO will monitor the noise exposure for the initial trip and determine whether noise protection is warranted for each of the team members. The SHSO will ensure that either ear muffs or disposable foam earplugs are made available to all personnel and are used by the personnel in the immediate vicinity of the field operation as required.

3.3.1 General Description

There is low-level mercury contamination found in the historic fill in one location on Site.

Potential chemical hazards below the building slab are evaluated below. It is anticipated that dry cleaning compounds and dust could be of concern if the concrete slab is opened. The potential for exposure to vapors, contaminated dusts, and contaminated soil/groundwater is of utmost concern.

3.3.2 First Aid

If soil comes in contact with the eyes immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Contact lenses should not be worn but can be protected by safety glasses/goggles. If lead contaminated soil comes in contact with the skin, wash the skin with soap and water prior to leaving the site. If a person breathes in large amounts of dust, move the exposed person to fresh air at once. If contaminated soil has been swallowed, get medical attention immediately (NIOSH, 1987).

4.0 PERSONNEL TRAINING REQUIREMENTS

Consistent with OSHA 29 CFR 1910.120 regulation covering Hazardous Waste Operations and Emergency Response, all site personnel will be required to be trained in accordance with the standard. At a minimum, all personnel will be required to be trained to recognize the hazards on-site, the provisions of this HASP, and the responsible personnel. The SHSO at the site pre-entry briefing(s) or periodic site briefings will discuss this plan.

5.0 PERSONNEL PROTECTIVE EQUIPMENT TO BE USED

This section describes the general requirements of the EPA designated Levels of Protection (A through D), and the specific levels of protection required for each task at the Site.

5.1 Levels of Protection

Personnel will wear the appropriate protective equipment when response activities involve known or suspected atmospheric contamination, vapors, gases, or particulates may be generated by site activities, or when direct contact with skin-affecting substances may occur. Full face piece respirators protect lungs, gastrointestinal tract, and eyes against airborne toxicants. Chemical-resistant clothing protects the skin from contact with skin-destructive and absorbable chemicals.

The specific levels of protection and necessary components for each have been divided into four categories according to the degrees of protection afforded:

Level A: Should be worn when the highest level of respiratory, skin, and eye protection is needed.

Level B: Should be worn when the highest level of respiratory protection is needed, but a lesser level of skin protection. Level B is the primary level of choice when encountering unknown environments.

Level C: Should be worn when the criteria for using air-purifying respirators are met, and a lesser level of skin protection is needed.

Level D: Should be worn only as a work uniform and not in any area with respiratory or skin hazards. It provides minimal protection against chemical hazards.

Modifications of these levels are permitted, and routinely employed during site work activities to maximize efficiency. For example, Level C respiratory protection and Level D skin protection may be required for a given task. Likewise, the type of chemical protective ensemble (i.e., material, format) will depend upon contaminants and degrees of contact.

The Level of Protection selected is based upon the following:

- Type and measured concentration of the chemical substance in the ambient atmosphere and its toxicity.
- Potential for exposure to substances in air, liquids, or other direct contact with material due to work being done.
- Knowledge of chemicals on-site along with properties such as toxicity, route of exposure, and contaminant matrix.

In situations where the type of chemical, concentration, and possibilities of contact are not known,

the appropriate Level of Protection must be selected based on professional experience and judgment until the hazards can be better identified.

5.2 Level D Personnel Protective Equipment:

- Disposable Tyvek^{R} coveralls (as needed)
- Disposable Nitrile Exam gloves (as needed)
- Disposable Tyvek^{R} booties (as needed)
- Steel-tipped work boots
- Safety glasses
- Hard hat
- 3M N95 Dust Masks with Exhalation Valves (if needed)

5.3 Reassessment of Protection Program

The Level of Protection provided by PPE selection shall be upgraded or downgraded based upon changes in site conditions or investigation findings. When a significant change occurs, the hazards should be reassessed. Some indicators of the need for reassessment are:

- Commencement of a new work phase.
- Change in job tasks during a work phase.
- Change of season/weather
- When temperature extremes or individual medical considerations limit the effectiveness of PPE.
- Change in work scope, which affects the degree of contact with contaminants.

5.4 Work Mission Duration

Before the workers actually begin work in their PPE ensembles, the anticipated duration of the work mission will be established. Several factors limit mission length, including:

- Air supply consumption (SCBA use)-Not Applicable.
- Suit/Ensemble permeation and penetration rates for chemicals-Not Applicable.
- Ambient temperature and weather conditions (heat stress/cold stress).
- Capacity of personnel to work in PPE.

5.5 Personal Protective Equipment Recommended for Site

The following specific clothing materials are recommended for the site:

Soil Sampling and Excavation – Level D

Site activities will require PPE as follows: hardhat, disposable Tyvek^{R} coveralls (if needed), disposable Tyvek^{R} booties (if needed), safety glasses and chemical resistant gloves. Particulate respirator-3M N95 Dust Masks with exhalation valves will be available.

5.6 SOP for Personal Protective Equipment

Proper inspection of PPE features several sequences of inspection depending upon specific articles of PPE and its frequency of use. The different levels of inspection are as follows:

- Inspection and operation testing of equipment received from the factory or distributor.
- Inspection of equipment as it is issued to workers.
- Inspection after use or training and prior to maintenance.
- Periodic inspection of stored equipment.
- Periodic inspection when a question arises concerning the appropriateness of the selected equipment, or when problems with similar equipment arise.
- The primary inspection of the PPE in use for activities at the Site will occur prior to immediate use and will be conducted by the user. This ensures that the specific device or article has been checked-out by the user and that the user is familiar with its use.
-

TABLE 5.1

SAMPLE PPE INSPECTION CHECKLIST

CLOTHING

Before use:

- Determine that the clothing material is correct for the specified task at hand.
- Visually inspect for:
  - Imperfect seams
  - Non-uniform coatings
  - Tears
  - Malfunctioning closures
- Hold up to light and check for pinholes.
- Flex product:
  - Observe for cracks
  - Observe for other signs of shelf deterioration
- If the product has been used previously, inspect inside and out for signs of chemical attack:
  - Discoloration
  - Swelling
  - Stiffness During the work task:
- Evidence of chemical attack such as discoloration, swelling, stiffening, and softening.

Keep in mind, however, that chemical permeation can occur without any visible effects.

- Closure failure.
- Tears.
- Punctures.
- Seam Discontinuities.

GLOVES

Before use:

- Visually inspect for:
  - Imperfect seams
  - Tears
  - Non-uniform coating
  - Pressurize glove with air; listen for pinhole leaks.

6.0 AIR MONITORING/SAMPLING

This section explains the general concepts of an air-monitoring program and specifies the surveillance activities that will take place during future invasive work at the Site. Please refer to the Generic Community Air Monitoring Plan in Appendix B regarding "*Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures*".

The purpose of air monitoring is to identify and quantify airborne contaminants in order to verify and determine the level of worker protection needed. Initial screening for identification is often qualitative, i.e., the contaminant, or the class to which it belongs, is demonstrated to be present, but the determination of its concentration (quantification) must await subsequent testing. Two principal approaches are available for identifying and/or quantifying airborne contaminants:

- The on-site use of direct-reading instruments.
- Laboratory analysis of air samples obtained by a gas-sampling bag, collection media (i.e., filter, sorbent) and/or wet-contaminant collection methods.

6.1 Direct-Reading Monitoring Instruments

Unlike air sampling devices, which are used to collect samples for subsequent analysis in a laboratory, direct-reading instruments provide information at the time of sampling, enabling rapid decision-making. Data obtained from the real-time monitors are used to assure proper selection of personnel protection equipment, engineering controls, and work practices. Overall, the instruments provide the user the capability to determine if site personnel are being exposed to concentrations that exceed exposure limits or action levels for specific hazardous materials.

Of significant importance, especially during initial entries, is the potential for IDLH conditions or oxygen deficient atmospheres. Real-time monitors can be useful in identifying any IDLH conditions, toxic levels of airborne contaminants, flammable atmospheres, or radioactive hazards. Periodic monitoring of conditions is critical, especially, as exposures may have increased since initial monitoring or if new site activities have commenced.

6.2 Site Air Monitoring and Sampling Program

1. **Air Monitoring Instruments**

   - **Organic Vapor Monitoring**

     Instrument: Photoionization Detector (PID) with for use during all intrusive activities (10.6 Ev lamp).

   - **Dust Monitoring**

Instrument: TSI DustTrak Model 8520 (or equivalent)

If required, continuous dust monitoring during all site activities will be conducted with readings taken every 15 minutes. Dust mitigation must be employed should readings exceed 10 mg/m^3.

Calibration and Record keeping

Equipment used will be calibrated in accordance with the manufacturers' specifications. The PID and CGI will be calibration checked before and after use under approximately the same conditions at which the instrument will be used. Calibration information will be kept in the field notebook or instrument log. The date, time, location, instrument serial number, calibration gas and concentration, will be noted.

A. Action Levels

TABLE 6.1

SITE AIR MONITORING AND SAMPLING PROGRAM SUMMARY

Instrument	Action Level	Action
PID (10.6 ev)	Continuous readings to 9ppm	Remain in level D PPE.
PID	Continuous reading of 10 to 100 ppm above background	Level D PPE
PID	Continuous reading over 100 ppm background	Stop Work. Reevaluate work conditions and procedures, Contact SHSO prior to continuing for authorization.
Dust Monitor	Continuous reading >10.0 mg/m^3	Suppress by spraying the dusty area with water.

Notes: PEL = Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit
REL = National Institute of Occupational Safety and Health (NIOSH) Recommended Exposure Limit TLV = American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value

B. Reporting Format

1 Air Monitoring Log

7.0 SITE CONTROL MEASURES

The following section defines measures and procedures for maintaining site control. Site control is an essential component in the implementation of the site health and safety program.

7.1 Buddy System

During all Level B, C or D activities or when some conditions present a risk to personnel, the implementation of a buddy system is recommended if not mandatory. A buddy system requires at least two (2) people to work as a team, each looking out for each other. Table 8.1 lists those tasks, which require a buddy system and any additional site control requirements.

TABLE 7.1

PERSONNEL REQUIREMENTS

Task	Control Measures
Soil Sampling	Line of sight, buddy system
Excavation	Line of sight, buddy system

7.2 Site Communications Plan

Successful communications between field teams and personnel in the support zone is essential. The following communications systems will be available during activities at the Site.

- Hand Signals
- Direct Vocal Communication
- For hand signal communications, the following definitions will apply during activities at the Site:

TABLE 7.2

HAND SIGNAL DEFINITIONS

Signal	Definition
Hands clutching throat	Out of air/cannot breath
Hands on top of head	Need assistance
Thumbs up	OK/I am all right/I understand
Thumbs down	No/Negative
Arms waving upright	Send backup support
Grip partners wrist	Exit area immediately

7.3 Work Zone Definition

The three general work zones established at the Site are the Exclusion Zone, Contamination Reduction Zone, and Support Zone. One of the basic elements of effective site soil remediation activities is the delineation of work zones. The purpose of establishing work zones is to:

- Reduce the accidental spread of hazardous substances by workers or equipment from the contaminated areas to the clean areas;
- Confine work activities to the appropriate areas, thereby minimizing the likelihood of accidental exposures;
- Facilitate the location and evacuation of personnel in case of an emergency; and
- Prevent unauthorized personnel from entering controlled areas.

Although a site may be divided into as many zones as necessary to ensure minimal employee exposure to hazardous substances, this plan uses the three most frequently identified zones in similar projects. These zones are the Exclusion Zone, the Decontamination Zone, and the Support Zone (sometimes referred to by others as the "clean zone"). Movement of personnel and equipment between these zones should be minimized and restricted to specific access control points to minimize the spreading of contamination, if encountered.

7.3.1 Exclusion Zone

The Exclusion Zone is the area where contamination is either known or expected to occur and where the greatest potential for exposure exists. No contamination is actually known to exist on this site. Therefore, the following protective measures will be taken in the Exclusion Zone.
Unprotected onlookers will be restricted from suspicious pre-screened soils requiring sampling such that they are 25 feet upwind or 50 feet downwind of excavation or drilling activities.
Those conducting activities and sampling in the Exclusion Zone will wear the applicable Personal Protective Equipment (PPE). The actions to be taken and PPE to be worn in the Exclusion Zone if VOCs are determined with the PID to be above background are described in Section 6 and Table 6.1.

7.3.2 Decontamination Zone

A Decontamination Zone will be established between the Exclusion Zone and the Support Zone, and will include the personnel, equipment and supplies that are needed to decontaminate equipment and personnel. The size will be selected by the SHSO to be sufficient to conduct the necessary decontamination activities. Personnel and equipment in the Exclusion Zone must pass through this zone before leaving or entering the Support Zone. This zone should always be established and maintained upwind of the Exclusion Zone.

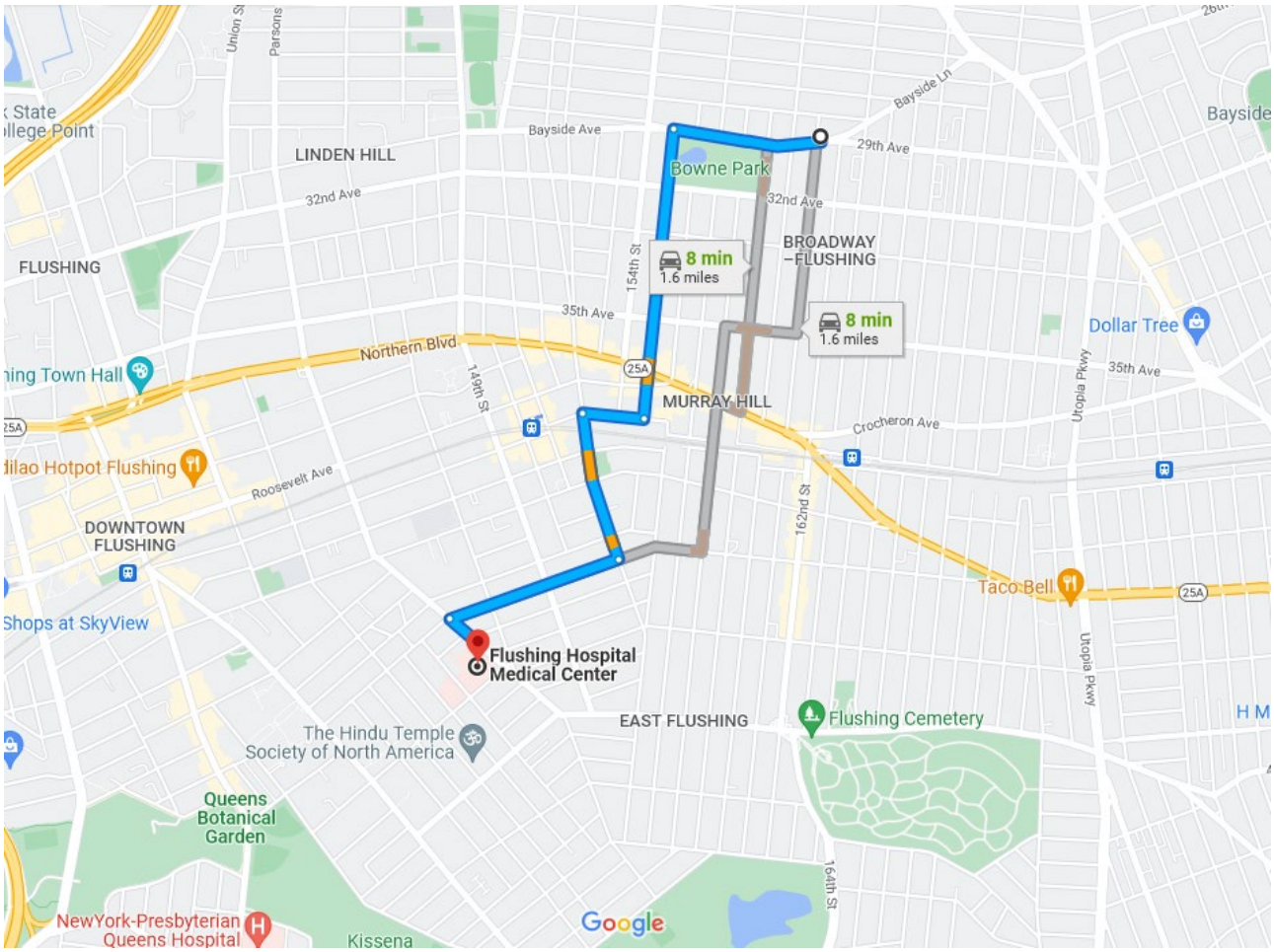
7.3.3 Support Zone

The Support Zone will surround the Decontamination Zone and the Exclusion Zone. Break areas, operational direction and support facilities will be located in this area. Eating, smoking and drinking will be allowed only in this area.

7.4 Nearest Medical Assistance

Figure 7.1 shows a map of the route to the Flushing Hospital Medical Center located at 4500 Parsons Blvd, Queens, NY 11355 (718) 670-5000), which is the nearest hospital that can provide emergency care for individuals who may experience an injury or exposure on site. The route to the hospital will be verified by the SHSO, and will be familiar to all site personnel.

FIGURE 7.1



7.5 Safe Work Practices

Table 7.3 provides a list of standing orders for the Exclusion Zone.
Table 7.4 provides a list of standing orders for the Decontamination Zone.

7.6 Emergency Alarm Procedures

The warning signals described in Section 9.4 "Evacuation Routes and Procedures," will be deployed in the event of an emergency. Communication signals will also be used according to Section 7.2.

TABLE 7.3

STANDING ORDERS FOR EXCLUSION ZONE

- No smoking, eating, or drinking in this zone.
- No horseplay.
- No matches or lighters in this zone.
- Check-in on entrance to this zone.
- Check-out on exit from this zone.
- Implement the communications system.
- Line of sight must be in position.
- Wear the appropriate level of protection as defined in the HASP.

TABLE 7.4

STANDING ORDERS FOR CONTAMINATION REDUCTION ZONE

- No smoking, eating, or drinking in this zone.
- No horseplay.
- No matches or lighters in this zone.
- Wear the appropriate level of protection.

8.0 DECONTAMINATION PLAN

Consistent with the levels of protection required, the decontamination table(s) provides a step-by-step representation of the personnel decontamination process. These procedures should be modified to suit site conditions and protective ensembles in use.

8.1 Standard Operating Procedures

Decontamination involves the orderly controlled removal of contaminants. Standard decontamination sequences are presented in Table 8.1. All site personnel should minimize contact with contaminants in order to minimize the need for extensive decontamination. Personnel shall clean on-site as much gross contamination from clothing and equipment, as possible.

8.2 Levels of Decontamination Protection Required for Personnel

The levels of protection required for personnel assisting with decontamination will be Level D. The SHSO is responsible for monitoring decontamination procedures and determining their effectiveness.

8.3 Equipment Decontamination

Sampling equipment will be dedicated to each sample as practicable. Appendix A is the decontamination protocol for equipment. After on-site decontamination, non-disposable materials, such as gloves and booties, will be placed in plastic bags and for proper disposal off site.

8.4 Disposition of Decontamination Wastes

Contaminated disposable materials will be left in a secured condition on-site.

TABLE 8.1

LEVEL D DECONTAMINATION STEPS	
Step 1	Remove outer garments (i.e., coveralls) and boots
Step 2	Remove gloves
Step 3	Wash hands and face

9.0 EMERGENCY RESPONSE/CONTINGENCY PLAN

This section describes contingencies and emergency planning procedures to be implemented at the Site. This plan is compatible with local, state and federal disaster and emergency management plans, as appropriate.

9.1 Pre-Emergency Planning

During the site briefing held periodically/daily, all employees will be trained in and reminded of provisions of the emergency response plan, communication systems, and evacuation routes. Table 9.1 identifies potential hazards associated with site activities, along with the available emergency prevention/control equipment and its location. The plan will be reviewed and revised, if necessary, on a regular basis by the SHSO. This will ensure that the plan is adequate and consistent with prevailing site conditions.

TABLE 9.1

EMERGENCY RECOGNITION/CONTROL MEASURES

HAZARD	PREVENTION/CONTROL	LOCATION
Fire/Explosion	Fire Extinguisher	Site Trailer and Heavy Equipment. mounted
Spill	Sorbent Materials	Not Applicable
Air Release	Evacuation Routes	Not Applicable

9.2 Personnel Roles and Lines of Authority

The Site Supervisor has primary responsibility for responding to and correcting emergency situations. This includes taking appropriate measures to ensure the safety of site personnel and the public. Possible actions may involve evacuation of personnel from the site area, and evacuation of adjacent residents. He/she is additionally responsible for ensuring that corrective measures have been implemented, appropriate authorities notified and follow-up reports completed. The SHSO may be called upon to act on the behalf of the site supervisor, and will direct responses to any medical emergency. The individual contractor organizations are responsible for assisting the project manager in his/her mission within the parameters of their scope of work.

9.3 Emergency Recognition/Prevention

Table 3.1 provides a listing of chemical and physical hazards on-site. Additional potential hazards associated with site activities are listed in Table 9.1, along with the available emergency prevention/control equipment and its location. Personnel will be familiar with techniques of hazard recognition from pre-assignment training and site- specific briefings. The SHSO is responsible for

ensuring that prevention devices and equipment are available to personnel.

9.4 Evacuation Routes/Procedures

In the event of an emergency which necessitates an evacuation of the site, the following alarm procedures will be implemented:

- Insure that a predetermined location is identified off-site in case of an emergency, so that all personnel can be accounted for.

- Personnel will be expected to proceed to the closest site exit with their buddy, and mobilize to the safe distance area associated with the evacuation route. Personnel will remain at that area until the re-entry alarm is sounded or an authorized individual provides further instructions.

9.5 Emergency Contact/Notification System

The following list provides names and telephone numbers for emergency contact personnel. In the event of a medical emergency, personnel will take direction from the SHSO and notify the appropriate emergency organization(s). In the event of a fire or spill, the site supervisor will notify the appropriate local, state and federal agencies.

TABLE 9.2

List of Emergency Contacts

Organization	Contact	Telephone
Police	NYPD	911
Fire	FDNY	911
Hospital	Flushing Hospital Medical Center	(718) 670-5000
EPA Emergency Response Team		800-424-8802
NYSDEC	Spill Hotline	800-457-7362
National Response Center		800-424-8802
Center for Disease Control		404-488-4100
Chemtrec		800-424-9555

9.6 Emergency Medical Treatment Procedures

Any person who becomes ill or injured in the Exclusion Zone must be decontaminated to the maximum extent possible. If the injury or illness is minor, full decontamination should be completed and first aid administered prior to transport. If the patient's condition is serious, at least partial decontamination should be completed (i.e., complete disrobing of the victim and redressing in clean coveralls or wrapping in a blanket.) First aid should be administered while awaiting an ambulance or paramedics. All injuries and illnesses must immediately be reported to the Site Supervisor.

Any person being transported to a clinic or hospital for treatment should take with them information on the chemical(s) they have been exposed to at the site. This information is included in Table 3.1.

Any vehicle used to transport contaminated personnel will be treated and cleaned as necessary.

9.7 Fires or Explosion

In the event of a fire or explosion, the local fire department should be summoned immediately. Upon their arrival, the project manager or designated alternate will advise the fire commander of the location, nature, and identification of the hazardous materials on site.
If it is safe to do so, site personnel may:

- Use firefighting equipment available on site to control or extinguish the fire; and,
- Remove or isolate flammable or other hazardous materials, which may contribute to the fire.

9.8 Spill or Leaks

In the event of a spill or a leak from excavation or drilling equipment, including containers, site personnel will:

- Inform their supervisor immediately;
- Locate the source of the spillage and stop the flow if it can be done safely; and,
- Begin containment and recovery of the spilled materials.

9.9 Emergency Equipment/Facilities

The following emergency equipment/facilities will be utilized on-site.

TABLE 9.3
LIST OF EMERGENCY EQUIPMENT/FACILITIES

List of Emergency Equipment/Facilities	Storage Location
First Aid Kit	Support Zone
Fire Extinguisher	Support Zone
Spill Kits	Support Zone
Berm Materials	Support Zone
Eye Wash	Support Zone
Real Time Air Equipment	Exclusion Zone

10.0 REFERENCES

1. *Aldrich Chemical Book*, RTECS
2. *American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values*
3. *Chemical Protective Clothing Performance Index Book,* Forsburg
4. *Dangerous Properties of Industrial Materials*, SAX and Lewis
5. *Emergency Response Guide Book,* DOT P 5800.5, 1990
6. *EPA 40 CFR 311 Health and Safety Regulations*
7. *EPA/Office of Emergency and Remedial Response/Environmental Response Team Standard Operating Safety Guide*
8. *Extremely Hazardous Substances,* EPA, Noyes
9. *Guide to Occupational Exposure Values* – 1992
10. *Guidelines for the Selection of Chemical Protective Clothing*, Little
11. *Handbook of Toxic and Hazardous Chemicals and Carcinogens*, Sittig, np (Noyes)
12. *Hazardous Chemicals Data Book*, G. Weiss, ndc (Noyes)
13. *Hazardous Chemicals Desk Reference*
14. *NIOSH/OSHA/USCG/EPA Occupational Health and Safety Guidelines*
15. *OHMTADS Database*
16. *OSHA 29 CFR 1910.120 Health and Safety Regulations*
17. *The Merck Index, an Encyclopedia of Chemicals, Drugs, and Biologicals*, Merck & Co., Inc.
18. *Threshold Limit Values and Biological Exposure Indices, ACGIH*, 1991-1992

APPENDIX A

EQUIPMENT CLEANING AND DECONTAMINATION PROCEDURES

STANDARD OPERATING PROCEDURES

EQUIPMENT CLEANING AND DECONTAMINATION PROCEDURES

Summary

Equipment, tools, materials, etc. used in the excavation/remediation and collection of samples at the site must be properly prepared and cleaned/decontaminated during and after each sampling event. The degree of cleaning/decontamination will be dependent upon site conditions and the nature and type of contamination, if present, the intent and goal(s) of the remediation, and data quality objectives, as well as other site-specific requirements. The importance of this action must be impressed upon the sampling team and those assisting the team, such as a backhoe or drill rig operator.

Procedure

1 Heavy Equipment Decontamination

All equipment, tools and materials associated with sampling events must be cleaned or decontaminated prior to usage. Items such as drill rigs, auger flights, trackhoes, and backhoes all present potential sources of contamination to environmental samples. Therefore, all heavy equipment utilized at a site must undergo the following decontamination procedures:

- the equipment will first be high pressure, hot washed or steam-cleaned with potable water; and,
- the equipment will be rinsed thoroughly with potable water.

Contain, collect and dispose of all decontamination fluids in accordance with site/project- specific requirements. The bucket of trackhoes and backhoes may be cleaned over the excavation allowing high pressure decontamination wash water to return to the excavation.

2 Cleaning of Field Sampling Equipment

All equipment and tools used to collect samples for chemical analyses, including spatulas, spoons, scoops, trowels, split-spoons, augers, etc. will be decontaminated using the following procedures:

- non-phosphate detergent wash;
- potable water or distilled/deionized water rinse; and
- air or oven-dry.

If the equipment, listed above, is to be stored for future use, allow to dry and then wrap in aluminum foil (shiny-side out) or seal in plastic bags. Collect or dispose of all decontamination fluids in

accordance with site/project-specific requirements.

3 Personal Clothing Decontamination

All footwear worn in and around a contamination area will be washed down using soap and water to remove any soil or oily residue remnants. If disposable gloves, booties or suits (such as Tyvek® suits) are worn, these suits or booties are to be removed and disposed of in a designated 55-gallon drum on site for future disposal. Any other clothing that comes in contact with contaminated soil should not be worn again.

HASP

APPENDIX B

Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Depending upon the nature of contamination, chemical-specific colorimetric tubes of sufficient sensitivity may be necessary for comparing the exposure point concentrations with appropriate pre-determined response levels (response actions should also be pre-determined). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m^3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m^3 or less at the monitoring point.

- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

Special Requirements for Indoor Work With Co-Located Residences or Facilities

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under "Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures" except that in this instance "nearby/occupied structures" would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.

APPENDIX E

Remedial Investigation Work Plan

by Castleton Environmental

CASTLETON
ENVIRONMENTAL

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Remedial Investigation Work Plan

161-03 29th Avenue
161-01 – 161-11 29th Avenue
Flushing, NY

August 2021

NYSDEC Site Number: 241247

Prepared for: **16103-11 29TH AVENUE LLC**
294 Vista Drive
Jericho, NY 11753

REMEDIAL INVESTIGATION WORK PLAN
161-03 29th AVENUE
161-01 – 161-11 29th AVENUE
FLUSHING, NEW YORK
DEC SITE NO: 241247
JULY 2021

"I, Mr. Frank P. Castellano, certify that I am currently a Qualified Environmental Professional (QEP) as defined in 6 NYCRR Part 375 and that this Remedial Investigation Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Department of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10)."

Castleton Environmental Geologic Services, DPC.

Frank P. Castellano, P.G. License No.: 000705
Principal

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CASTLETON ENVIRONMENTAL

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Tables

Appendices

1.0 INTRODUCTION

Castleton Environmental Geologic Services, DPC. (Castleton), has prepared the following Remedial Investigation Work Plan (RIWP) for the property located at 161-01 – 161-11 29th Avenue, Flushing (Borough of Queens), New York (the site). The investigation is being performed to investigate and ultimately remediate impact identified at the site under the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP). This RIWP accompanies a BCP application, dated October 2, 2020, prepared by Castleton.

Based upon investigations conducted to date, petroleum hydrocarbon and chlorinated solvent contaminants were identified in groundwater and indoor air samples collected from the site related to a former fuel oil underground storage tank (UST) and former dry-cleaning operations. The effort to properly remove the former UST resulted in the activation of NYSDEC Spill Number 1911712. The presence of chlorinated solvents identified in groundwater and indoor air resulted in the site being considered a potential inactive hazardous waste disposal site (Site Number 241247).

The proposed work is being performed on behalf of 16103-11 29TH AVENUE LLC (the Applicant) as part of their commitment as a Participant to investigate and to remediate, to the extent required, the site under the NYSDEC BCP. This RIWP details the proposed site investigation activities that will be deployed to fully characterize the nature and extent of site contamination identified in previous investigations, including:

- A Geophysical survey to identify sub-grade features, piping, and utilities.
- The installation of sub-slab vapor and soil vapor screening points to measure the concentration of volatile organic compounds (VOCs) beneath the building and paved parking areas.
- The installation of soil borings to characterize site lithology and collect representative samples.
- The installation of temporary monitoring wells and sampling for VOCs only, to delineate the concentration of the suspected contaminants of concern, chlorinated VOCS (CVOCs) both horizontally and vertically.
- The installation of sub-slab vapor, soil vapor, indoor air, and outdoor air samples to evaluate the potential vapor encroachment condition (VEC) and delineate vapor concentrations.
- The installation of monitoring wells to measure groundwater elevation and calculate groundwater flow direction, collect representative groundwater samples for complete analysis of NYSDEC Part 375 analytes and emerging contaminants, and routine monitoring as needed.

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The former UST and identified petroleum hydrocarbon impact has been addressed under the NYSDEC Spill Number 1911712. A UST closure report has been submitted to the NYSDEC documenting the effort and to update the petroleum bulk storage records (PBS) and request spill closure. Spill closure was granted by NYSDEC on September 30, 2020. PBS records are maintained under PBS #2-613172.

Based on the recent closure of Spill Number 1911712, the specific areas of concern (AOCs) related to this investigation are associated with the chlorinated solvent compounds related to the former dry-cleaning operations at the site. Full NYSDEC Part 375 Total Analyte List/Total Contaminant List (TAL/TCL) analytes including petroleum hydrocarbons, chlorinated solvents, and emerging contaminants will be evaluated for full site characterization.

The site specific AOCs are shown on Figure 2.

The RIWP is accompanied by a site-specific Health and Safety Plan (HASP) which addresses potential hazards, contaminants of concern based on past investigations and use, and safety requirements associated with investigation activities in accordance with American Society for Testing and Materials (ASTM) and Occupational Safety and Health Administration (OSHA) guidelines. In addition, a Quality Assurance Project Plan (QAPP) has been prepared and included in this RIWP to provide quality assurance/quality control procedures to ensure the data derived during investigation activities are of sufficient quality to be relied upon for its intended use.

2.0 SITE DESCRIPTION

2.1 Site Location and Current Usage

The project site is located at 161-01 – 161-11 29th Avenue, Flushing, New York (Figure 1). Identified as Block: 4889 and Lots: 60, 61, 62, and 63, the site is located on the north side of 29th Avenue and east side of 161st Street and measures approximately 0.302 acres in size. Six (6) attached two-story mixed-use residential/commercial buildings, constructed in 1931, occupy the property. A shared yard is present at the rear (north side) of the buildings. The size of the entire site is approximately 13,100 square feet inclusive of the building footprints and rear yard. The aggregate footprint of the buildings is 7,300 square feet. The site and associated parcels are shown on Figure 2.

2.2 Description of Site and Surrounding Property

The site and surrounding area to the east is zoned as residential R3-2 with commercial C1-3 overlay, which permits commercial uses. The site is currently active and occupied by commercial/retail tenants on the ground floors and residential apartments on the second floors. The surrounding area to the north, south, and west are zoned as residential R2A. Current tenants of the buildings are as follows:

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Parcel Address	Current Occupancy
161-01 29th Avenue	Vacant, under renovation (To be a coffee shop)
161-01 29th Avenue (rear)	Modern Lounge Hair Studio
161-03 29th Avenue	Bowne Chemists Pharmacy
161-05 29th Avenue	Pippy & Lily Clothing Boutique
161-07 29th Avenue	CNL Nails & Spa
161-09 29th Avenue	Procida Realty Corp
161-11 29th Avenue	Whitestone Design

2.3 Site Geology and Hydrogeology

The near surface geology in the Flushing area of Queens is like other heavily developed areas found in this area. The site and surrounding area surficial geology is generally considered "urban land" and is characterized by a non-homogenous distribution of soil and fill types. Excavation and backfilling for building foundations, utility conduits, railway systems, and other construction has resulted in a varied subsurface profile. No bedrock outcroppings are present at the site.

Review of local maps prepared by the United States Geological Survey (USGS) indicated that the site is located approximately 70 feet above mean sea level; depth to groundwater in the area of the property is estimated at approximately 40 feet below ground surface (bgs). Groundwater is estimated to flow in a northerly direction towards nearby local bodies of water.

Based on recent soil boring data obtained during the 2019 Phase II Environmental Site Assessment (ESA) prepared by Merritt Environmental Consulting Corp. (MECC), site geology consisted of clay with varying amounts of fine to coarse sand interspersed by water-bearing zones. The encountered perched groundwater lens was observed to have an estimated local groundwater flow direction towards the north-northeast.

The estimated groundwater flow direction is shown on Figure 3.

2.4 Past Use of the Site

The site currently consists of six contiguous two-story residential and commercial buildings. constructed in 1931. Information obtained from a November 2019 Phase I ESA prepared by MECC, indicated that the site consisted of vacant land in 1903 and 1916 and the existing six two-story storefront buildings from 1941 through 2006. Review of the City Directory Abstract revealed various residential and commercial related occupants. A dry cleaner, under several different names, occupied the site (161-03 29th Avenue) during the years 1973-2014. Rose Garden Cleaners is listed as a former RCRA Generator (EPA ID: NYR000063545) which generated tetrachloroethane.

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3.0 PREVIOUS ENVIRONMENTAL DOCUMENTATION

Investigations conducted to date have identified the following:

- Petroleum impacts to soil and groundwater in the vicinity of an abandoned fuel oil UST which resulted in the activation of NYSDEC Spill Number 1911712. Following successful removal of the former tank, a UST Closure Report was submitted to the NYSDEC to update its PBS records and request spill closure. Spill closure was granted by NYSDEC on September 30, 2020. PBS records are maintained under PBS #2-613172.
- Chlorinated solvent impacts, most notably tetrachloroethene (PCE), trichloroethene (TCE), and cis-1,2-dichloroethene (cis-1,2-DCE) to groundwater and indoor air samples related to the former dry cleaner operations.
- Upon review of the MECC environmental investigation reports, on July 29, 2020 the NYSDEC notified the property owner that the site located at 161-03 29th Avenue, Queens, NY (Block: 4889, Lot 62), the location of the former dry cleaner, is considered a potential hazardous waste disposal site due to the identified chlorinated solvent impacts. Therefore, the NYSDEC Site Number 241247 was issued for the property.

The results from previous investigations performed at the site are summarized in the Sections below.

Digital PDF copies of the NYSDEC July 29 correspondence and referenced reports are included in Appendix A.

3.1 Phase I Environmental Site Assessment – November 2019

A Phase I ESA was performed by MECC at the site in November 2019. Each building has an individual basement which housed the boiler room and boiler areas. The buildings were occupied by twelve residential units and seven commercial units. The following Recognized Environmental Conditions (RECs) were noted in the Phase I ESA:

- According to the historical sources reviewed, a dry cleaner occupied the site during the years 1973-2014. Review of the EDR Radius Map indicated Rose Garden Cleaners is listed as a former RCRA Generator (EPA ID: NYR000063545) which generated tetrachloroethane. The dry cleaner was located at 161-03 29th Avenue.
- An abandoned fuel oil UST was identified in the rear yard of the property at 161-05/07 29th Avenue. An invoice from Stivan Plumbing and Heating Inc, dated 2002, indicated that the tank was abandoned in place with sand.

3.2 Focused Subsurface Site Investigation (FSSI) – January 2020

A Phase II ESA was performed by MECC in December 2019 – January 2020 in response to the November 2019 Phase I ESA.

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The Phase II ESA consisted of a subsurface quality assessment which included a geophysical survey, soil borings, installation of temporary well points, and the collection and laboratory analysis samples. Further, water samples were collected from standing water present within sump pits located in the basement of 161-03 29th Avenue (former dry cleaner).

The geophysical survey confirmed the location of the abandoned fuel oil UST. Based on the reported dimensions of the subsurface anomaly, MECC concluded that the volume of the UST may be as great as 2,000-gallons.

The soil boring program consisted of three soil borings performed using direct push technology (Geoprobe). Two soil borings (B1, B2) were installed adjacent to the UST. A third soil boring (B3) was installed within the rear yard, approximately 30 feet north of the rear entrance of 161-03 29th Avenue (former dry cleaner). Each of the three soil borings were converted to temporary well points for groundwater sample collection (B1GW, B2GW, B3GW). Depth to water was identified at approximately 5 to 7 feet bgs within the soil borings. MECC believed that the encountered water represented a perched groundwater condition.

Elevated PID readings, olfactory, and/or visual evidence of petroleum contamination was observed in soil and groundwater at both B1 and B2. No free-phase product was observed on water extracted from B1 and B2, although a heavy petroleum sheen and strong petroleum odors were identified. No field evidence of soil or groundwater contamination was identified at B3.

Analytical results of groundwater samples B1GW and B2GW revealed concentrations of select VOCs and SVOCs above their respective NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.

Analytical results of groundwater samples Sump1 and Sump2 revealed concentrations of select CVOCs above their respective NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values.

The January 2020 sample locations are illustrated on Figure 3.

3.3 Indoor Air Quality Investigation & Sump Water Sampling – February 2020

A supplemental Phase II investigation was performed by MECC in February 2020 to assess indoor air quality (IAQ) and further assess water quality within the basement sump pits.

The supplemental Phase II investigation consisted of the collection and laboratory analysis of eight indoor air samples from the basement, first floor, and second floor of 161-01 29th Avenue, 161-03 29th Avenue (former dry cleaner), and 161-05 29th Avenue and collection and laboratory analysis of water samples from standing water present within sump pits located within the basements of 161-01 29th Avenue, 161-03 29th Avenue (former dry cleaner), and 161-05 29th Avenue. Notably, a sump pit located within 161-05 29th Avenue was dry at the time of the

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investigation. MECC planned on collecting indoor air samples and water samples from sump pits (if present) within 161-07 29th Avenue, 161-09 29th Avenue, and 161-11 29th Avenue but were denied access to these building areas.

Analytical results of groundwater revealed concentrations of PCE above its NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values within sample Sump2A.

Analytical results of indoor air samples revealed concentrations of PCE above mitigate levels in four of the eight samples. All four samples were centered at and adjacent to the former dry cleaner tenant space.

The February 2020 sample locations are illustrated on Figure 3.

3.4 Sub-Slab Depressurization System Pilot Test Report – June 2020

A Sub-Slab Depressurization System (SSDS) pilot study was conducted by EnviroTrac in May – June 2020 for the purposes of determining the feasibility of implementing a full-scale SSD system as a viable means of mitigation throughout the existing building structure. The results of this study were used to determine the feasibility of each technology, as well as determining the required operating parameters and layout for the selected system.

Based on the results of the pilot study, EnviroTrac concluded that the pilot testing performed demonstrates that a full-scale SSDS can serve as an effective means of vapor mitigation, if necessary for the site buildings.

A copy of the SSDS Pilot Test Report is included in Appendix B.

3.5 Tank Closure Report – September 2020

Tank removal activities were conducted by PAL Environmental Services, Inc (PAL) with oversight from Castleton.

The tank was removed from the ground on June 29, 2020, petroleum contaminated soil was removed from the excavation and endpoint sample was conducted on June 30, 2020, and site restoration was completed on July 1, 2020.

During the removal, the tank was found to be a 1,500-gallon capacity UST. Several holes were identified on the bottom and sides of the tank. Further, evidence of discharge, i.e., visual/olfactory signs of petroleum impact and elevated photoionization detector (PID) readings for VOCs, was observed in the excavation. Soil showing evidence of impact was removed from the excavation, stockpiled separately, and covered with polyethylene (poly) plastic sheeting. Excavation activities continued until further excavation was no longer feasible due to site conditions. A total of 102.62 tons of petroleum impacted material, removed from inside the tank

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and excavation, was properly characterized and disposed of by PAL at Clean Earth of Carteret, New Jersey.

Twelve endpoint soil samples biased toward the locations of greatest contamination were collected and laboratory analyzed to document the condition of remaining soil. Endpoint sampling analytical results reported concentrations below applicable standards. Based on these findings, Castleton concluded that remedial activities were successful in that petroleum contaminated soils associated with the removed UST were effectively removed. Any residual petroleum impacted soil remaining is at depth and not representative of a significant threat to human health and the environment.

Spill closure was granted by NYSDEC on September 30, 2020. PBS records have been updated and are maintained under PBS #2-613172.

4.0 REMEDIAL INVESTIGATION WORK PLAN

Castleton will perform the following activities to characterize and delineate contamination in sub-slab and soil vapor, groundwater, and soil at the site.

Shallow soil, subsurface soil, and groundwater sampling will be conducted in accordance with NYSDEC *Department of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation*, dated December 2002. Sampling for the emerging contaminants 1,4-Dioxane and polyfluoroalkyl substances (PFAS) will be performed in accordance with the NYSDEC's June 2019 *Sampling for 1,4-dioxane and PFAS* and the January 2020 *Guidelines for Sampling and Analysis of PFAS under Part 375 Remedial Programs*.

All sub-slab vapor, soil vapor, and ambient air samples will be collected and analyzed in accordance with the New York State Department of Health (NYSDOH) *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, (October 2006), with updates 2015.

4.1 Geophysical Survey

Prior to performing ground intrusive activities, a geophysical survey will be performed to identify below grade features or obstructions, buried utilities, and clear the proposed subsurface sampling locations. The survey will consist of the use of several remote sensing techniques including the use of a magnetometer to detect ferrous objects, a ground penetrating radar (GPR) survey to detect changes in soil density, and a utility tracing instrument to trace identified piping and utilities.

4.2 Vapor Screening

To begin delineating the contaminants of concern at the site, approximately 32 sub-slab vapor and soil vapor probes will be installed at interior and exterior locations to screen for VOCs in vapor throughout the site.

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Vapor screening probes will be installed by drilling an approximately 0.5-inch diameter hole through the concrete or asphalt with a hammer drill and installing 0.25-inch outside diameter (OD) by 0.125-inch inside diameter (ID) Teflon tubing. Interior sub-slab screening locations shall be installed at a depth no greater than two inches below the bottom of the slab. Exterior soil vapor screening locations will be installed at two depths, a relatively deep interval, approximately five feet below the slab, and a shallow interval, less than two inches below the slab. The annulus will be filled with number two filter sand and sealed using bentonite clay or equivalent. The tubing will be purged of approximately one-liter of air volume prior to recording the concentration of VOCs. Purging and screening for VOCs will be performed using a photoionization detector (PID) capable of reading in the parts per million (ppm) range (e.g.: ppmRae). A PID capable of reading down to the parts per billion (ppb) level (e.g.: ppbRae) will be available depending on the field screening levels.

The proposed vapor screening points are shown on Figure 4.

4.3 Soil Vapor Intrusion Investigation

A soil vapor intrusion (SVI) investigation will be performed to quantify the presence of VOCs in vapor and indoor air throughout the site. To assess the likely worse case conditions, the sampling will be performed during the heating season (approximately November 15 through March 31). Indoor air and co-located sub-slab soil vapor samples collected outside the heating season cannot be used to rule out exposure risk. The locations of each vapor sampling location will be determined based on the vapor screening described in Section 4.2. The rational for the sub-slab vapor, soil vapor, and ambient air sampling locations is described below:

- Nine sub-slab vapor samples (minimum of one from each building) will be collected within the buildings to assess sub-slab vapor quality.
- Four soil vapor samples will be collected from the site to assess soil vapor quality.
- Nine indoor ambient air samples will be collected concurrently in the locations of the sub-slab vapor samples to assess indoor quality.

One outdoor ambient air sample (control) will be collected to assess background air conditions.

4.3.1 Soil and Sub-Slab Vapor Sampling

The sub-slab vapor samples points will be set no more than two inches below the building slab. The soil vapor samples will be set approximately five feet bgs. A hammer drill will be used to drill through the concrete or asphalt where necessary. Dedicated polyethylene tubing will be used at each sample point. The sample point will be sealed with bentonite or other another non-VOC containing and non-shrinking product.

As part of the vapor intrusion evaluation, a tracer gas (helium) will be used in accordance with NYSDOH protocols to serve as a quality assurance/quality control (QA/QC) device to verify the integrity of the soil vapor probe seal. Helium will be used as the tracer gas and a box will serve

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to keep it in contact with the probe during testing. A portable monitoring device will be used to analyze a sample of soil vapor for the tracer prior to sampling. If the tracer sample results show a significant presence of the tracer, the probe seals will be adjusted to prevent infiltration.

One to three volumes will be purged prior to sample collection to ensure samples collected are representative. Flow rate of both purging and sampling will not exceed 0.2 L/min. Sampling will occur for approximately eight-hours. A sample log sheet will be maintained summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of the soil vapor extracted, vacuum of canisters before and after the samples are collected, apparent moisture content of the sampling zone, and chain of custody protocols.

Sub-slab and soil vapor samples will be collected in Summa canisters which have been certified clean by the laboratory. The samples will be submitted to a NYSDOH ELAP certified laboratory and tested for the following analytes:

- VOCs via USEPA Method TO-15

4.3.2 Indoor and Outdoor Ambient Air Sampling

Indoor air samples will be placed approximately 3 to 5 feet above the building slab proximate to sub-slab vapor locations. The outdoor air sample will be placed 3 to 5 feet above ground level. Samples will be collected using Summa canisters (batch certified clean by the laboratory) fitted with flow controllers not to exceed 200 ml/min and will run for approximately eight-hours.

Indoor and outdoor ambient air samples will be submitted to a NYSDOH ELAP certified laboratory and tested for the following analytes:

- VOCs by USEPA Method TO-15

The proposed vapor and ambient air sample locations are shown on Figure 5.

A summary of the estimated frequency and analysis of proposed vapor and ambient air is provided in Table 3.

4.4 Soil and Groundwater Investigation

A soil and groundwater investigation will be performed to delineate the extent of contamination at the site and evaluate suspected source areas. Soil and groundwater boring locations will be selected based on vapor screening, analytical results, and field observations. The rational for shallow and deep soil borings and installation of temporary monitoring wells is described below:

- Four shallow soil borings installed through the building slab to evaluate soil quality beneath the building.

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- Seven soil borings installed to the groundwater table interface to characterize site lithology and collect representative soil samples from key intervals. In addition, shallow soil samples will be collected from two soil borings positioned in areas of exposed grounds.
- Install seven temporary monitoring wells spanning the water table interface. Install a minimum of one deep (up to 50 feet into groundwater) temporary monitoring well.
- Install a minimum of four monitoring wells (a minimum of three shallow and one deep) to monitor groundwater flow and the horizontal and vertical extent of contamination in groundwater.

4.4.1 Shallow Soil Sampling

Following the vapor screening and laboratory analysis, shallow soil borings will be installed within the building interior using a hand-held direct push (Geoprobe®), or similar equipment to evaluate soil quality below the building. The lithology of recovered soil will be logged continuously using the Unified Soil Classification System (USCS) and screened for the presence of VOCs using a PID. A minimum of one sample will be retained from each soil probe location for laboratory analysis. Based on field observations, an estimated four soil samples will be selected and submitted to a NYSDOH ELAP certified laboratory and tested for the following analytes:

- Target Compound List (TCL) VOCs via USEPA Method 8260
- TCL SVOCs via USEPA Method 8270
- TCL Pesticides and Polychlorinated Biphenyls (PCBs) by USEPA Methods 8081/8082
- TAL Metals by USEPA Methods 6010/7471
- PFAS by USEPA Method 537m PFAS Analyte List
- 1,4-Dioxane by USEPA Method 8270 SIM

The proposed shallow soil sampling locations are shown on Figure 6.

A summary of the estimated frequency and analysis of shallow soil samples is provided in Table 3.

4.4.2 Soil Boring and Temporary Monitoring Well Installation and Sampling

To characterize site soil and delineate the horizontal and vertical extent of impact, seven soil borings will be installed using direct push technology (Geoprobe®) to the groundwater table interface (groundwater estimated at 40-feet bgs). Soil and groundwater boring locations will be determined based on the results of the geophysical survey and vapor screening. Direct push drilling equipment will be outfitted with a two-inch diameter macro-core sampler using dedicated acetate liners. Subsurface soil will be collected continuously from grade to a depth corresponding to approximately ten feet into the groundwater table interface. The lithology of recovered soil will be logged continuously using the USCS and screened for the presence of VOCs

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using a PID. Subsurface soil samples shall be selected and retained for laboratory analysis from the intervals exhibiting the highest visual/olfactory and/or PID response. If no evidence of impact is observed, a soil sample shall be collected from the interval immediately above the groundwater table interface. In addition, shallow soil samples will be collected from two soil borings positioned in areas of exposed grounds. In order to properly evaluate exposure pathways, surface soil samples shall be collected from a depth of 0-2 inches below the vegetative cover. Additional soil samples may be collected from select boring locations based on field observations. Step out soil borings may be installed based on field observations and/or initial analytical results.

If in the event perched groundwater conditions are encountered, drill tooling shall be converted to a duel-casing method or equivalent to prevent the vertical migration of groundwater through the boring.

Soil samples will be submitted to a NYSDOH ELAP laboratory and tested for the following analytes:

- TCL VOCs via USEPA Method 8260
- TCL SVOCs via USEPA Method 8270
- TCL Pesticides PCBs by USEPA Methods 8081/8082
- TAL Metals by USEPA Methods 6010/7471
- PFAS by USEPA Method 537m PFAS Analyte List
- 1,4-Dioxane by USEPA Method 8270 SIM

Following the completion of subsurface soil sampling, a temporary groundwater sampling point will be installed in each boring to collect groundwater samples. The sampling points will be installed by deploying a properly decontaminated stainless-steel screen across the groundwater table interface without a sand pack or proper well development. Pre-packed temporary well screens may be used where groundwater water samples exhibit excessive turbidity. Following temporary well installation, the water column from each will be purged using low flow technology until measured groundwater parameters adequately stabilize prior to sampling for VOCs only. Groundwater samples retained for laboratory analysis shall be placed in laboratory supplied glassware and packed in a cooler on ice for delivery under proper Chain of Custody procedures. The groundwater samples will be submitted to a NYSDOH ELAP laboratory and tested for VOCs by USEPA Method 8260 only.

The proposed soil and groundwater boring locations are shown on Figure 6.

A summary of the estimated frequency and analysis of subsurface soil and groundwater is provided in Table 3.

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4.5 Installation of Shallow and Deep Groundwater Monitoring Wells

To monitor the degree of impact to groundwater at the site and groundwater flow, a groundwater monitoring network consisting of three shallow and one deep monitoring wells will be installed. The final selection of monitoring well locations will be determined based on the results of the above tasks. The monitoring wells will be installed by direct push (Geoprobe®) or other drilling technology, as necessary.

4.5.1 Soil Characterization and Sampling

During monitoring well installation, soil will be collected continuously from grade to the final depth of the well. The lithology of recovered soil will be logged continuously using the USCS and screened for the presence of VOCs using a PID. From each monitoring well location, two soil samples will be selected and retained for laboratory analysis from the intervals exhibiting the highest visual/olfactory and/or PID response. If no evidence of impact is observed, soil samples will be collected from relatively shallow depth intervals and the interval immediately above the groundwater table interface. Additional soil samples may be collected from select boring locations based on field observations.

Subsurface soil samples retained for laboratory analysis shall be placed in laboratory supplied glassware and packed in a cooler on ice for delivery under proper Chain of Custody procedures. Soil samples will be submitted to a NYSDOH ELAP laboratory and tested for the following analytes:

- TCL VOCs via USEPA Method 8260
- TCL SVOCs via USEPA Method 8270
- TCL Pesticides PCBs by USEPA Methods 8081/8082
- TAL Metals by USEPA Methods 6010/7471
- PFAS by USEPA Method 537m PFAS Analyte List
- 1,4-Dioxane by USEPA Method 8270 SIM

The proposed locations of monitoring wells are shown on Figure 7.

A summary of the estimated frequency and analysis of groundwater collected from the monitoring wells is provided in Table 3.

4.5.2 Vertical Delineation of Groundwater

In the selected location for the deep monitoring well(s), the soil boring will be continued up to an additional 60 feet into the groundwater table (approximately 100 feet bgs). Similar to the temporary monitoring well installation described in Section 4.4.2, a stainless-steel temporary well screen will be deployed at the final depth of the boring. Groundwater will then be sampled using low flow technology from select discrete intervals while the temporary well screen is extracted.

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Groundwater samples will be collected and analyzed for VOCs only by USEPA Method 8260 to vertically delineate the concentration of the contaminants of concern and determine appropriate screen zone(s) for the installation of the deep monitoring well(s).

4.5.2 Shallow and Deep Monitoring Well Construction

The shallow monitoring well will be installed using direct push technology (Geoprobe®) to span the groundwater table interface using a two-inch diameter schedule 40 polyvinyl chloride (PVC) screen (0.010-inch slot) and riser. A #00 sand will be used as a sand filter pack around the screen zone. The filter pack will be sealed using an approximately two-feet thick layer of bentonite. The remaining exposed riser will be backfilled using #02 sand to approximately one-foot bgs.

The final depth(s) of the deep monitoring well(s) will be determined based on the results of the soil and groundwater sampling performed and be installed using direct push technology (Geoprobe®). If the final depth of the well cannot be achieved using the Geoprobe, alternate drilling methods such as hollow-stem auger (HAS) or roto-sonic will be considered. The deep well will be constructed using 10-feet of two-inch diameter schedule 40 PVC well screen (0.010-inch slot), and riser. Similarly, a #00 sand will be used as a sand filter pack around the screen zone. The filter pack will be sealed using an approximately two-feet thick layer of bentonite. The remaining exposed riser will be backfilled using #02 sand to approximately one-foot bgs.

The location, depth, and drilling method will be approved by the NYSDEC prior to mobilization to install the deep monitoring well.

Each well will be completed with flush mounted boxes and covers set in concrete pads.

The proposed locations of shallow and deep monitoring wells are shown on Figure 7.

4.5.3 Monitoring Well Development

Following the installation of shallow and deep monitoring wells and prior to sampling, each new monitoring well will be properly developed in accordance with applicable guidance. Each well will be developed by vigorously pumping/surging until the discharge water is relatively sediment free and the groundwater parameters (pH, temperature, and specific conductivity) have stabilized. The intent of the development effort is to remove fine sediment from the annulus surrounding the well screen to improve performance. The turbidity and groundwater parameters of discharge water will be continuously monitored in an effort to keep the volume of water discharged to a minimum. A turbidity reading of 50-nephelometric turbidity units (NTUs) and steady state (+/- 10%) groundwater parameters will be used as guidance for discontinuing well development.

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4.5.4 Well Elevation Survey and Measure Water Levels and Product Thickness

An elevation survey for each installed monitoring well will be completed to measure and routinely monitor the relative groundwater elevation. The monitoring well elevation will be referenced to an arbitrary vertical datum.

After the relative elevation of monitoring wells is determined, a round of water levels will be measured using an interface probe capable of measuring to the nearest one-hundredth of a foot. If non-aqueous phase liquid (NAPL) is observed, the NAPL thickness will be measured and a NAPL sample will be collected using a dedicated polyethylene bailer. If collected NAPL samples will be submitted to a NYSDOH ELAP certified laboratory and tested for the following analytes:

- Specific Gravity by USEPA Method D1298
- TCL VOCs by USEPA Method 8260
- Gasoline Range and Diesel Range Organics (GRO/DRO) by USEPA Method 8015

4.5.5 Groundwater Sampling

An initial round of groundwater sampling will be performed from each well to characterize shallow and deep groundwater quality at the site. One representative groundwater sample will be collected from each well using low-flow sampling techniques. Sampling will be conducted in accordance with NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and Sampling Guidelines and Protocols, dated March 1991.

Groundwater samples retained for laboratory analysis shall be placed in laboratory supplied glassware and packed in a cooler on ice for delivery under proper Chain of Custody procedures. Soil samples will be submitted to a NYSDOH ELAP laboratory and tested for the following analytes:

- TCL VOCs via USEPA Method 8260
- TCL SVOCs via USEPA Method 8270
- TCL Pesticides PCBs by USEPA Methods 8081/8082
- TAL Metals by USEPA Methods 6010/7471
- PFAS by USEPA Method 537m PFAS Analyte List
- 1,4-Dioxane by USEPA Method 8270 SIM

5.0 QUALITY ASSURANCE/QUALITY CONTROL

QA/QC procedures will be used to provide performance information regarding accuracy, precision, sensitivity, representation, completeness, and comparability associated with the sampling and analysis for this investigation. Field QA/QC procedures will be used (1) to document that samples are representative of actual conditions at the Site and (2) identify possible cross-contamination from field activities or sample transit. Laboratory QA/QC procedures and analyses will be used to demonstrate whether analytical results have been biased either by interfering

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compounds in the sample matrix, or by laboratory techniques that may have introduced systematic or random errors to the analytical process. At a minimum, QA/QC procedures shall meet ASP-B protocol requirements.

A site-specific Quality Assurance Project Plan detailed the field and laboratory QA/QC procedures is provided as Appendix C.

5.1 Data Usability Summary Report (DUSR)

A Data Usability Summary Report (DUSR) will be prepared by a third-party contractor, which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.

6.0 REPORTING

SVI sampling results will be disseminated in a timely manner to the property owner/tenants of the spaces sampled. The building survey and questionnaire will be provided to the NYSDEC and NYSDOH Project Managers immediately after completion of on-site work. The laboratory data will be provided to the NYSDEC and NYSDOH Project Managers immediately upon receipt of results from the laboratory. Castleton will prepare property owner notification letters of the SVI sampling results as required by NYSDEC and NYSDOH. Draft copies of these letters will be reviewed by NYSDEC and NYSDOH prior to distribution. A template of the letter is provided as Appendix D.

Following the complete delineation of impact at the site, a Remedial Investigation Report (RIR) will be prepared to document the results of the remedial investigation (RI). The RIR shall document the results of the RI and make further recommendations as to whether remediation is necessary. As specified in Appendix 3-B of DER-10, a Qualitative Human Health Exposure Assessment (QHHEA) will be completed as part of the RIR.

If it is determined that additional delineation is required beyond the anticipated scope of work described, an interim RIR may be prepared to summarize the investigation activities and results and propose further investigation efforts, as necessary.

Regular progress reports shall be prepared and submitted to the NYSDEC during site activities.

7.0 HEALTH AND SAFETY PLAN (HASP)

A site-specific HASP has been prepared for the site. The Site Safety Coordinator will be Daren Murphy. Investigative work performed under this Work Plan will be in full compliance with applicable health and safety laws and regulations, including Site and OSHA worker safety requirements and HAZWOPER requirements. Confined space entry, if any, will comply with OSHA requirements and industry standards and will address potential risks. The parties performing the

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investigation work will ensure that performance of work is in compliance with the HASP and applicable laws and regulations.

All field personnel involved in investigation activities will participate in training required under 29 CFR 1910.120, including 40-hour hazardous waste operator training and annual 8-hour refresher training. Site Safety Officer will be responsible for maintaining workers training records.

A copy of the site-specific HASP is provided as Appendix E.

8.0 COMMUNITY AIR MONITORING PLAN

A Community Air Monitoring Plan (CAMP) is required per DER-10 (Appendix 1A, NYSDOH, Generic CAMP) during all intrusive activities. Real-time continuous air monitoring for VOCs and particulates will be performed during ground intrusive activities. Periodic monitoring for VOCs will be performed during non-intrusive activities such as groundwater sampling from existing monitoring wells.

The monitoring shall be consistent with the NYSDOH *Generic Community Air Monitoring Plan,* dated May 2010 (contained in DER-10). If work is performed within 20 feet of potentially exposed individuals or structures, and for indoor work with co-located residences or facilities, the monitoring shall also be consistent with the *Special Requirements for Work Within 20-feet of Potentially Exposed Individuals or Structures,* dated June 2000.

CAMP data summary tables will be maintained during CAMP activities and provided to the NYSDEC and NYSDOH at a minimum of a weekly basis. The Departments will be notified immediately (within 24 hours) of any CAMP Action Level exceedances and corrective measures taken.

Daily reports shall be prepared and submitted to the NYSDEC whenever intrusive activities are being performed.

A copy of the CAMP documents is included in Appendix F.

9.0 DAILY/MONTHLY REPORTS

Daily progress reports shall be prepared and submitted to the NYSDEC during site activities. Monthly reports will be submitted to the Department by the 10th of every month once the work plan is approved, this includes the CPP.

10.0 ANTICIPATED SCHEDULE

We anticipate approval of the Remedial Investigation Work Plan and commencement with the Remedial Investigation on or about June 1, 2021. Based on the Anticipated Schedule, the anticipated date of being granted a Certificate of Completion by the NYSDEC is August 15, 2022.

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Milestone	Duration (days)	Date
Execution of BCP Agreement	**Completed**	**February 24, 2021**
Community Participation Plan	**Completed**	**April 26, 2021**
Remedial Investigation Work Plan	0	June 1, 2021
Remedial Investigation	87	August 27, 2021
Remedial Investigation Report	31	September 27, 2021
Remedial Action Work Plan	46	November 12, 2021
Implementation of Remedy	107	February 27, 2022
Remedial Action Report	30	March 29, 2022
Environmental Easement (if required)	31	April 29, 2022
Site Management Plan	31	May 30, 2022
Final Engineering Report	30	June 29, 2022
Certificate of Completion	47	August 15, 2022

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FIGURES

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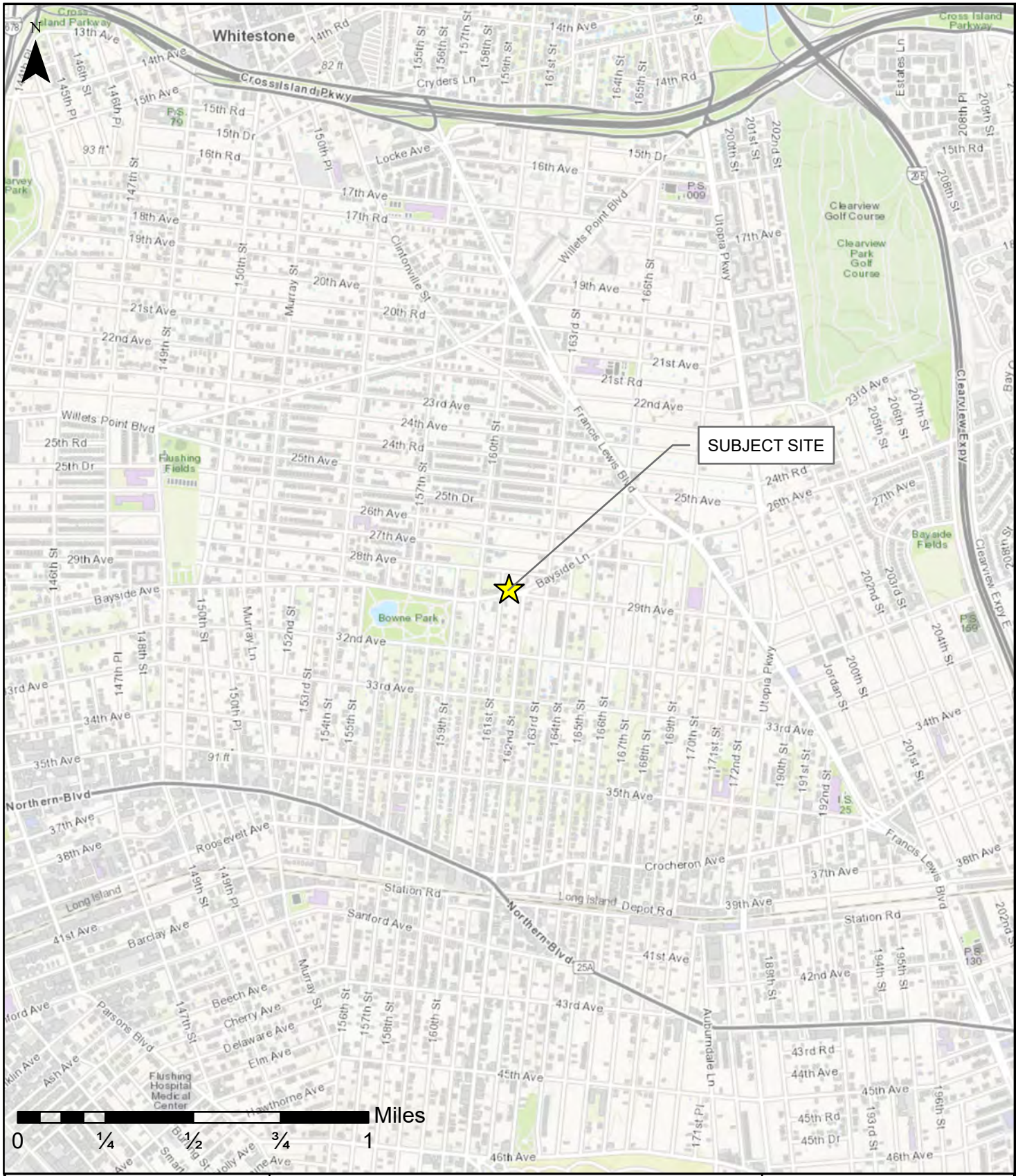

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Site Location

161-01 - 161-11 29th Ave
Flushing, Queens, New York

PROJECT:	PRMC2001
DATE:	9/17/2020
DRAWN BY:	BB
APPROVED BY:	FPC

FIGURE:

1

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Area of Concern
Site Parcels
Site Boundary
Adjacent Parcels

16103-11 29th Ave LLC
294 Vista Dr
Jericho, NY 11753

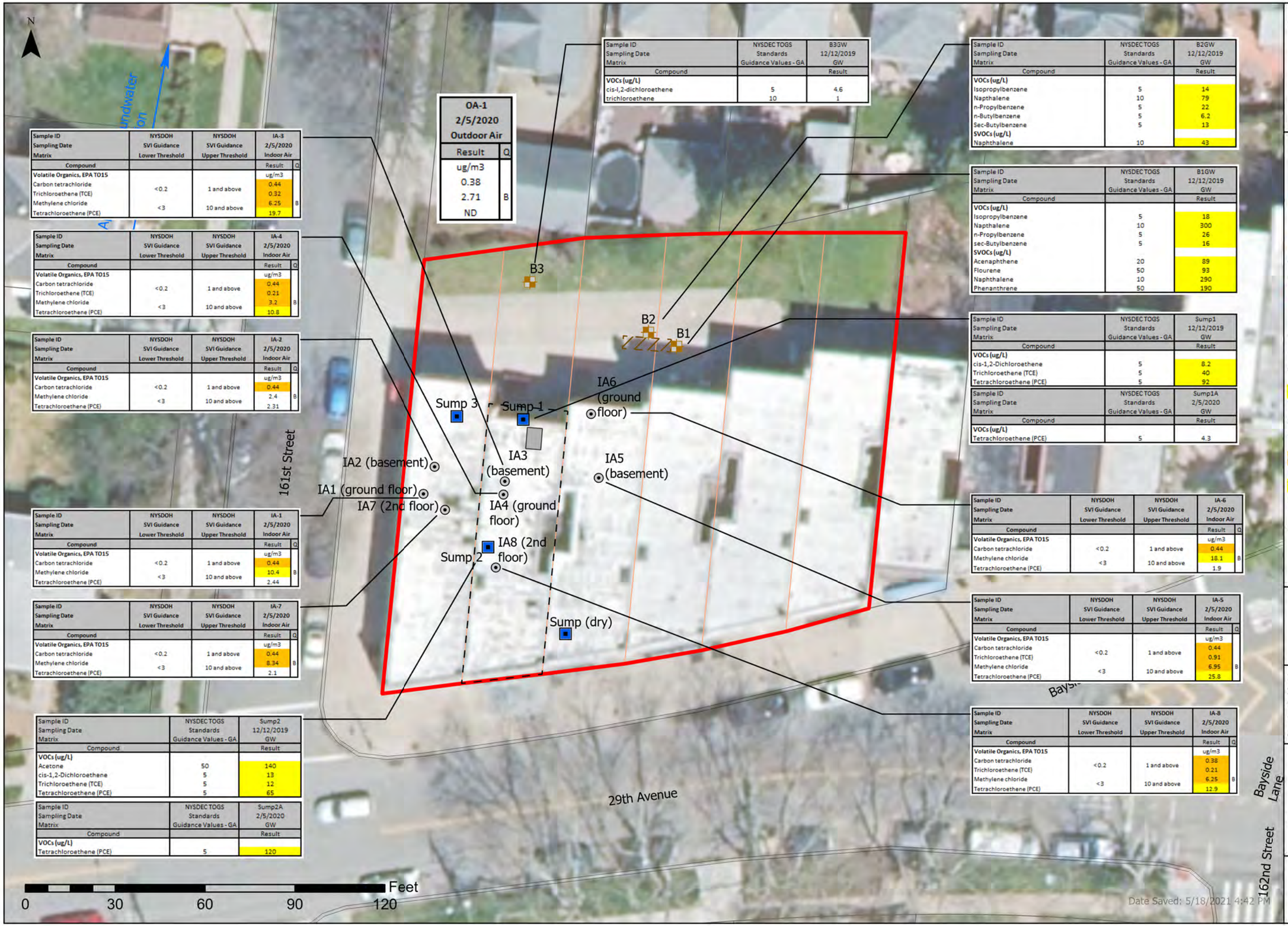
PROJECT:	PCRM2001
DATE:	10/1/2020
SCALE:	AS SHOWN
DRAWN BY:	BB
APPROVED BY:	FPC

Site Plan

161-01 - 161-11 29th Ave
Flushing, Queens, NY

FIGURE:

2



Sample ID	OA-1
Sampling Date	2/5/2020
Matrix	Outdoor Air
Compound	Result	Q
	ug/m3	
	0.38	
	2.71	B
	ND	

Sample ID	NYSDEC TOGS Standards	B3GW 12/12/2019
Sampling Date	Guidance Values - GA	GW
Matrix		
Compound		Result
VOCs (ug/L)		
cis-1,2-dichloroethene	5	4.6
trichloroethene	10	1

Sample ID	NYSDEC TOGS Standards	B2GW 12/12/2019
Sampling Date	Guidance Values - GA	GW
Matrix		
Compound		Result
VOCs (ug/L)		
Isopropylbenzene	5	14
Napthalene	10	79
n-Propylbenzene	5	22
n-Butylbenzene	5	6.2
Sec-Butylbenzene	5	13
SVOCs (ug/L)		
Naphthalene	10	43

Sample ID	NYSDEC TOGS Standards	B1GW 12/12/2019
Sampling Date	Guidance Values - GA	GW
Matrix		
Compound		Result
VOCs (ug/L)		
Isopropylbenzene	5	18
Napthalene	10	300
n-Propylbenzene	5	26
sec-Butylbenzene	5	16
SVOCs (ug/L)		
Acenaphthene	20	89
Flourene	50	93
Naphthalene	10	290
Phenanthrene	50	190

Sample ID	NYSDEC TOGS Standards	Sump1 12/12/2019
Sampling Date	Guidance Values - GA	GW
Matrix		
Compound		Result
VOCs (ug/L)		
cis-1,2-Dichloroethene	5	8.2
Trichloroethene (TCE)	5	40
Tetrachloroethene (PCE)	5	92

Sample ID	NYSDEC TOGS Standards	Sump1A 2/5/2020
Sampling Date	Guidance Values - GA	GW
Matrix		
Compound		Result
VOCs (ug/L)		
Tetrachloroethene (PCE)	5	4.3

Sample ID	NYSDOH SVI Guidance	NYSDOH SVI Guidance	IA-3 2/5/2020
Sampling Date	Lower Threshold	Upper Threshold	Indoor Air
Matrix			
Compound			Result	Q
Volatile Organics, EPA TO15			ug/m3	
Carbon tetrachloride	<0.2	1 and above	0.44	
Trichloroethene (TCE)			0.32	
Methylene chloride	<3	10 and above	6.25	B
Tetrachloroethene (PCE)			19.7	

Sample ID	NYSDOH SVI Guidance	NYSDOH SVI Guidance	IA-4 2/5/2020
Sampling Date	Lower Threshold	Upper Threshold	Indoor Air
Matrix			
Compound			Result	Q
Volatile Organics, EPA TO15			ug/m3	
Carbon tetrachloride	<0.2	1 and above	0.44	
Trichloroethene (TCE)			0.21	
Methylene chloride	<3	10 and above	3.2	B
Tetrachloroethene (PCE)			10.8	

Sample ID	NYSDOH SVI Guidance	NYSDOH SVI Guidance	IA-2 2/5/2020
Sampling Date	Lower Threshold	Upper Threshold	Indoor Air
Matrix			
Compound			Result	Q
Volatile Organics, EPA TO15			ug/m3	
Carbon tetrachloride	<0.2	1 and above	0.44	
Methylene chloride	<3	10 and above	2.4	B
Tetrachloroethene (PCE)			2.31	

Sample ID	NYSDOH SVI Guidance	NYSDOH SVI Guidance	IA-1 2/5/2020
Sampling Date	Lower Threshold	Upper Threshold	Indoor Air
Matrix			
Compound			Result	Q
Volatile Organics, EPA TO15			ug/m3	
Carbon tetrachloride	<0.2	1 and above	0.44	
Methylene chloride	<3	10 and above	10.4	B
Tetrachloroethene (PCE)			2.44	

Sample ID	NYSDOH SVI Guidance	NYSDOH SVI Guidance	IA-7 2/5/2020
Sampling Date	Lower Threshold	Upper Threshold	Indoor Air
Matrix			
Compound			Result	Q
Volatile Organics, EPA TO15			ug/m3	
Carbon tetrachloride	<0.2	1 and above	0.44	
Methylene chloride	<3	10 and above	8.34	B
Tetrachloroethene (PCE)			2.1	

Sample ID	NYSDEC TOGS Standards	Sump2 12/12/2019
Sampling Date	Guidance Values - GA	GW
Matrix		
Compound		Result
VOCs (ug/L)		
Acetone	50	140
cis-1,2-Dichloroethene	5	13
Trichloroethene (TCE)	5	12
Tetrachloroethene (PCE)	5	65

Sample ID	NYSDEC TOGS Standards	Sump2A 2/5/2020
Sampling Date	Guidance Values - GA	GW
Matrix		
Compound		Result
VOCs (ug/L)		
Tetrachloroethene (PCE)	5	120

Sample ID	NYSDOH SVI Guidance	NYSDOH SVI Guidance	IA-6 2/5/2020
Sampling Date	Lower Threshold	Upper Threshold	Indoor Air
Matrix			
Compound			Result	Q
Volatile Organics, EPA TO15			ug/m3	
Carbon tetrachloride	<0.2	1 and above	0.44	
Methylene chloride	<3	10 and above	18.1	B
Tetrachloroethene (PCE)			1.9	

Sample ID	NYSDOH SVI Guidance	NYSDOH SVI Guidance	IA-5 2/5/2020
Sampling Date	Lower Threshold	Upper Threshold	Indoor Air
Matrix			
Compound			Result	Q
Volatile Organics, EPA TO15			ug/m3	
Carbon tetrachloride	<0.2	1 and above	0.44	
Trichloroethene (TCE)			0.91	
Methylene chloride	<3	10 and above	6.95	B
Tetrachloroethene (PCE)			25.8	

Sample ID	NYSDOH SVI Guidance	NYSDOH SVI Guidance	IA-8 2/5/2020
Sampling Date	Lower Threshold	Upper Threshold	Indoor Air
Matrix			
Compound			Result	Q
Volatile Organics, EPA TO15			ug/m3	
Carbon tetrachloride	<0.2	1 and above	0.38	
Trichloroethene (TCE)			0.21	
Methylene chloride	<3	10 and above	6.25	B
Tetrachloroethene (PCE)			12.9	

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- Sump
- Indoor Air MECC 2019
- GW Boring - Merritt
- Former UST
- Dry Cleaning Machine Stanchions
- Area of Concern
- Site Boundary
- Site Parcels

Notes:
Analytical results reported each analyte as non-detect in Sump 3.

Yellow highlight exceeds NYSDEC TOGS 1.1.111 Ambient Water Quality Standards and Guidance Values.

Orange highlight exceeds NYSDOH SVI Lower Threshold.
Yellow highlight exceeds NYSDOH SVI Upper Threshold.
B - Analyte found in the associated blank.

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294 Vista Dr
Jericho, NY 11753

PROJECT:	PCRM2001
DATE:	5/18/2021
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Previous Investigations

161-01 - 161-11 29th Ave
Flushing, Queens, NY

FIGURE:

3

Date Saved: 5/18/2021 4:42 PM

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- Vapor Screening Point
- Sump
- Former UST
- Dry Cleaning Machine Stanchions
- Area of Concern
- Site Parcels
- Site Boundary

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294 Vista Dr
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PROJECT:	PCRM2001
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Proposed Vapor Screening

161-01 - 161-11 29th Ave
Flushing, Queens, NY

FIGURE:

4

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- Sub Slab Vapor
- Indoor Air
- Soil Vapor
- Outdoor Air
- Sump
- Former UST
- Dry Cleaning Machine Stanchions
- Area of Concern
- Site Parcels
- Site Boundary

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294 Vista Dr
Jericho, NY 11753

PROJECT:	PCRM2001
DATE:	10/1/2020
SCALE:	AS SHOWN
DRAWN BY:	BB
APPROVED BY:	FPC

Proposed Vapor and Ambient Air

161-01 - 161-11 29th Ave
Flushing, Queens, NY

FIGURE:

5

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- Shallow Soil Boring
- Soil & GW Boring
- Former UST
- Sump
- Site Boundary
- Site Parcels
- AdjacentParcels

16103-11 29th Ave LLC
294 Vista Dr
Jericho, NY 11753

PROJECT:	PCRM2001
DATE:	10/1/2020
SCALE:	AS SHOWN
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Proposed Soil and Groundwater

161-01 - 161-11 29th Ave
Flushing, Queens, NY

FIGURE:

6

CASTLETON ENVIRONMENTAL
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- Monitoring Well
- Former UST
- Sump
- Site Boundary
- Site Parcels
- AdjacentParcels

16103-11 29th Ave LLC
294 Vista Dr
Jericho, NY 11753

PROJECT:	PCRM2001
DATE:	10/1/2020
SCALE:	AS SHOWN
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Proposed Monitoring Wells

161-01 - 161-11 29th Ave
Flushing, Queens, NY

FIGURE:

7

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TABLES

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Table 1
161-01-161-11 29th Avenue, Flushing, New York
Groundwater Data Summary

Sample ID Sampling Date Matrix Compound	NYSDEC TOGS 1.1.1 Ambient Groundwater Quality Standards and Guidance Values	B1GW 12/12/19 GW Result	B2GW 12/12/19 GW Result	B3GW 12/12/19 GW Result	Sump1 12/12/19 GW Result	Sump1A 2/5/20 GW Result	Sump2 12/12/19 GW Result	Sump2A 2/5/20 GW Result	Sump 3 2/5/20 GW Result
VOCs (ug/L)									
Acetone	50	23	ND	ND	ND	ND	140	24	ND
Ethylbenzene	5	2.6	ND	ND	ND	ND	ND	ND	ND
Isopropyltoluene	5	18	14	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	10	3.6	2.0	ND	ND	ND	ND	ND	ND
Naphthalene	10	300	79	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	26	22	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	6.2	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	5	16	13	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	2.0	1.1	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	4.6	8.2	ND	13	2.8	ND
Trichloroethene (TCE)	5	ND	ND	1.1	40	ND	12	1.4	ND
Tetrachloroethene (PCE)	5	ND	ND	ND	92	4.3	65	120	ND
SVOCs (ug/L)									
Acenaphthene	20	89	15	NA	NA	NA	NA	NA	NA
Anthracene	50	18	ND	NA	NA	NA	NA	NA	NA
Fluorene	50	93	21	NA	NA	NA	NA	NA	NA
Naphthalene	10	290	43	NA	NA	NA	NA	NA	NA
Phenanthrene	50	190	33	NA	NA	NA	NA	NA	NA
Pyrene	50	11	2.7	NA	NA	NA	NA	NA	NA

NOTES:

Highlighted denotes the analyte was reported above its respective GWQS

ND = Non-Detect, below method detection limits

NA = Compound Not Analyzed

Table 2
161-01-161-11 29th Avenue, Flushing, New York
Indoor Air Data Summary

Sample ID Sampling Date Matrix Compound	NYSDOH SVI Lower Threshold	NYSDOH SVI Upper Threshold	IA-1 2/5/20 IA Result	IA-2 2/5/20 IA Result	IA-3 2/5/20 IA Result	IA-4 2/5/20 IA Result	IA-5 2/5/20 IA Result	IA-6 2/5/20 IA Result	IA-7 2/5/20 IA Result	IA-8 2/5/20 IA Result	OA-1 2/5/20 OA Result
VOCs, EPA Method TO15 (ug/m3)											
Carbon Tetrachloride	<0.2	1 and above	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.38	0.38
1,1-Dichloroethene	<0.2	1 and above	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cis-1,2-dichloroethane	<0.2	1 and above	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	<0.2	1 and above	ND	ND	0.32	0.21	0.91	ND	ND	0.21	ND
Methylene Chloride	<3	10 and above	10.4 B	2.4 B	6.25 B	3.20 B	6.95 B	18.1 B	8.34 B	6.25 B	2.71 B
1,1,1-Trichloroethane	<3	10 and above	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	<3	10 and above	2.44	2.31	19.7	10.8	25.8	1.9	2.1	12.9	ND
Vinyl Chloride	<0.2	0.2 and above	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

IA = Indoor Air

OA = Outdoor Air

B = Analyte found in Associated Method Blank

Orange Highlight exceeds NYSDOH SVI Lower Threshold

Yellow Highlight exceeds NYSDOH SVI Upper Threshold

TABLE 3
161-01 - 161-11 29th Ave, Queens, NY
Remedial Investigation Work Plan
Proposed Sampling Frequency, Matrices, and Analyses

Matrix	Analyte	USEPA Analytical Method	Sample Frequency	QC Samples				Grand Total
				Trip Blank	Equipment Blank	Blind Duplicate	MS/MSD	
Soil Vapor Intrusion Investigation								
Sub-Slab Vapor	TCL VOCs	TO-15	9	0	0	1	0	
Soil Vapor	TCL VOCs	TO-15	4	0	0	1	0	
Ambient Air	TCL VOCs	TO-15	10	0	0	1	0	
		Total Vapor and Air Samples	*23*	*0*	*0*	*1*	*0*	***24***
Shallow Soil Sampling								
Soil	TCL VOCs	8260	6	1	1	1	1	
Soil	TCL SVOCs	8270	6	1	1	1	1	
Soil	TCL Pesticides and PCBs	8080/8082	6	1	1	1	1	
Soil	TAL Metals	6010/7471	6	1	1	1	1	
Soil	PFAS (PFAS Analyte List)	537m	6	1	1	1	1	
Soil	1,4-Dioxane	8270 SIM	6	1	1	1	1	
		Total Subsurface Soil Samples	*6*	*1*	*1*	*1*	*1*	***10***
Subsurface Soil Boring Sampling								
Soil	TCL VOCs	8260	7	1	1	1	1	
Soil	TCL SVOCs	8270	7	1	1	1	1	
Soil	TCL Pesticides and PCBs	8080/8082	7	1	1	1	1	
Soil	TAL Metals	6010/7471	7	1	1	1	1	
Soil	PFAS (PFAS Analyte List)	537m	7	1	1	1	1	
Soil	1,4-Dioxane	8270 SIM	7	1	1	1	1	
		Total Subsurface Soil Samples	*7*	*1*	*1*	*1*	*1*	***11***
Temporary Monitoring Well Groundwater Sampling								
Groundwater	TCL VOCs	8260	7	1	1	1	1	
Groundwater	TCL SVOCs	8270	7	1	1	1	1	
Groundwater	TCL Pesticides and PCBs	8080/8082	7	1	1	1	1	
Groundwater	TAL Metals	6010/7471	7	1	1	1	1	
Groundwater	PFAS (PFAS Analyte List)	537m	7	1	1	1	1	
Groundwater	1,4-Dioxane	8270 SIM	7	1	1	1	1	
		Total Monitoring Well Groundwater Samples	*7*	*1*	*1*	*1*	*1*	***11***
Subsurface Soil Characterization During Monitoring Well Installation								
Soil	TCL VOCs	8260	8	1	1	1	1	
Soil	TCL SVOCs	8270	8	1	1	1	1	
Soil	TCL Pesticides and PCBs	8080/8082	8	1	1	1	1	
Soil	TAL Metals	6010/7471	8	1	1	1	1	
Soil	PFAS (PFAS Analyte List)	537m	8	1	1	1	1	
Soil	1,4-Dioxane	8270 SIM	8	1	1	1	1	
		Total Subsurface Soil Samples	*8*	*1*	*1*	*1*	*1*	***12***
Vertical Delineation of Groundwater in Deep Monitoring Well Location								
Groundwater	TCL VOCs	8260	6	1	1	1	1	
		Total Monitoring Well Groundwater Samples	*6*	1	1	1	1	***10***
Initial Round of Monitoring Well Groundwater Sampling								
Groundwater	TCL VOCs	8260	4	1	1	1	1	
Groundwater	TCL SVOCs	8270	4	1	1	1	1	
Groundwater	TCL Pesticides and PCBs	8080/8082	4	1	1	1	1	
Groundwater	TAL Metals	6010/7471	4	1	1	1	1	
Groundwater	PFAS (PFAS Analyte List)	537m	4	1	1	1	1	
Groundwater	1,4-Dioxane	8270 SIM	4	1	1	1	1	
		Total Monitoring Well Groundwater Samples	*4*	*1*	*1*	*1*	*1*	***8***
Non-Aqueous Phase Liquids (if necessary)								
NAPL	Specifc Gravity	D1298						
NAPL	TCL VOCs	8260						
NAPL	PCBs	8082						
NAPL	Petroleum Product ID	8015						
NAPL	Viscocity @ 15 Deg C.	D455						
NAPL	Interfacial Tension @ 15 Deg C.	D791						
Waste Profile/Disposal Samples (if necessary)								
Soil	RCRA Characteristics	1030/9045/SW846						
Soil	Full TCLP	1311/8260/8270/8081/8151/6010/7470						

Notes:
The total number of samples are estimated and may be changed based upon the screening/sampling results and field observations.
Vapor QA/QC samples (equip. blank, duplicate, and MS/MSD) collected as one QA/QC sample.

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APPENDIX A – PREVIOS ENVIRONMENTAL DOCUMENTATION (DIGITAL PDF)

NOT INCLUDED IN IRM WORKPLAN

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APPENDIX F

Summary of RI Soil Vapor Screening and Soil Vapor Intrusion (SVI) Investigation Summary Report, Castleton Environmental

CASTLETON ENVIRONMENTAL

December 29, 2021

Mr. Steven Wu
Project Manager
New York State Department of Environmental Conservation
47-40 21st Street, Long Island City, New York 11101-5407
steven.wu@dec.ny.gov

Site Address: 161-03 29th Avenue, Flushing, New York
BCP Site Number: C241247
RI Soil Vapor Screening and Soil Vapor Intrusion (SVI) Investigation Summary Report

Dear Mr. Wu:

On behalf of 16103-11 29th Avenue LLC (Participant), Castleton Environmental Geologic Services DPC (Castleton) has prepared this summary report to document the Soil Vapor Screening and Soil Vapor Intrusion (SVI) Investigation performed at the above referenced property (the site). The scope of work was performed to begin delineating the contaminants of concern at the site as part of the Participants commitment to investigate and cleanup the site under the NYSDEC Brownfield Cleanup Program (BCP).

The work was performed in accordance with the approved Remedial Investigation Work Plan (RIWP), dated August 2021. There were no deviations to the approved RIWP.

On November 18 and 19, 2021, Castleton and their subcontractors mobilized to the site to perform the first phase of the Remedial Investigation (RI) which included a geophysical survey, installation of soil and vapor screening probes, installation of vapor sampling points, and collecting sub-slab vapor, soil vapor, and ambient air samples for laboratory analysis, as described below.

Geophysical Survey
Prior to performing ground intrusive activities, a geophysical survey was performed to identify below grade obstructions/anomalies, and mark buried utilities. The geophysical survey was performed by East Coast Geophysics, Inc. (East Coast) of Catasauqua, Pennsylvania. Results of the geophysical survey did not identify evidence of below grade anomalies indicative of buried tanks, drywells, or former tank/drywell locations.

Vapor Screening

A total of 35 vapor screening points (VP01 – VP35) were installed by Coastal Environmental Solutions Inc. (Coastal) of Medford, New York at interior (basement) and exterior locations. Vapor screening points were installed using a hammer drill or concrete core drill where appropriate. At each screening point, high density polyethylene (HDPE) tubing was installed to approximately two inches below the concrete slab, backfilled with number two filter sand, and sealed with bentonite clay. The tubing was purged of approximately one liter of air volume prior to recording the concentration of volatile organic compounds (VOCs) using a photoionization detector (PID).

Results of the vapor screening indicated VOC concentrations ranging from less than 1.0 part per million (ppm) at several locations across the site, to 3,100 ppm at VP09, located within the central portion of the building at 161-03 29th Avenue. A summary of the vapor screening results is provided in the table below:

Vapor Point ID	VOC Concentration (ppm)	Location Description
VP01	0.2	161-01 29th Ave bldg. interior south
VP02	0.2	161-01 29th Ave bldg. interior central
VP03	0.3	161-01 29th Ave bldg. interior central
VP04	0.2	161-01 29th Ave bldg. interior north
VP05	0.2	161-03 29th Ave bldg. interior south
VP06	0.1	161-03 29th Ave bldg. interior south
VP07	3.8	161-03 29th Ave bldg. interior central
VP08	40	161-03 29th Ave bldg. interior central
VP09	3,100	161-03 29th Ave bldg. interior central
VP10	6.6	161-03 29th Ave bldg. interior north
VP11	4.0	161-03 29th Ave bldg. interior north
VP12	3.0	161-03 29th Ave bldg. interior north
VP13	3.8	161-03 29th Ave bldg. interior north
VP14	0.2	161-05 29th Ave bldg. interior south
VP15	0.1	161-05 29th Ave bldg. interior central
VP16	48	161-05 29th Ave bldg. interior central
VP17	3.4	161-05 29th Ave bldg. interior north
VP18	0.3	161-07 29th Ave bldg. interior south
VP19	0.6	161-07 29th Ave bldg. interior central
VP20	0.5	161-07 29th Ave bldg. interior north
VP21	0.5	161-09 29th Ave bldg. interior south
VP22	0.6	161-09 29th Ave bldg. interior central
VP23	0.6	161-09 29th Ave bldg. interior north
VP24	0.3	161-11 29th Ave bldg. interior south
VP25	0.4	161-11 29th Ave bldg. interior south
VP26	0.3	161-11 29th Ave bldg. interior central

VP27	0.4	161-11 29th Ave bldg. interior north
VP28	0.0 (2”), 0.6 (5’)	Northwest exterior
VP29	12.6 (2”), 18.5 (5’)	Northwest exterior
VP30	0.9 (2”), 0.6 (5’)	Northwest exterior
VP31	0.4 (2”), 5.8 (5’)	North exterior
VP32	1.9 (2”), 3.4 (5’)	North exterior
VP33	0.7 (2”), 1.8 (5’)	North exterior
VP34	1.0 (2”), 1.4 (5’)	Northeast exterior
VP35	0.9 (2”), 1.1 (5’)	Northeast exterior

The location of vapor screening points and VOC concentrations are shown on Figure 1.

SVI Investigation

On November 18, 2021, a total of nine sub-slab vapor (SSV01 – SSV09) and four soil vapor (SV01 – SV04) temporary sampling points were installed by Coastal with oversight provided by Castleton at interior (basement) and exterior locations. Each sub-slab vapor point was installed approximately two inches below the concrete slab and the soil vapor points were installed at two depths, approximately five feet below the slab and less than two inches below the slab. The sampling points were sealed with bentonite and cement grout and finished with flush mount access box.

The vapor sampling locations are shown on Figure 2.

SVI Structure Sampling and Building Questionnaires were completed prior to sampling. The NYSDOH SVI Inventory Forms are included in Appendix A.

On November 19, 2021, Castleton returned to the site to perform the vapor and air sampling. Prior to sampling, each vapor point was purged and screened for the presence of VOCs using a PID. VOC concentrations ranged from 0.0 parts per million (ppm) in SV03 to 140 ppm in SSV05. Interior background VOC concentrations ranged from 0.0 ppm to 0.4 ppm.

Ambient air samples (IAQ01 – IAQ09, and OAQ01) were collected proximate to the installed vapor points. Each sample was collected in six-liter SUMMA canisters over approximately an eight-hour period. A helium leak check confirmed the integrity of the seal at each sub slab and soil vapor point prior to sampling.

Samples were submitted to York Analytical of Stratford Connecticut, a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) certified laboratory and analyzed for VOCs by Method TO-15.

SVI Analytical Results

The NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion states that it was prepared by the NYSDOH in consultation with the NYSDEC and that it was intended as general guidance for parties evaluating soil vapor intrusion in the State of New York. The guidance is not a regulation, rule, or requirement.

Ambient Air Analytical Results

Indoor air quality analytical results were compared to NYSDOH Air Guideline Values (AGVs). According to the NYSDOH guidance, the purpose of the AGVs is to help guide decisions about the nature of efforts to reduce exposure to a chemical. AGVs are applicable to a limited list of compounds including methylene chloride (60 ug/m^3), tetrachloroethylene (PCE)(30 ug/m^3) and trichloroethylene (TCE)(2 ug/m^3).

Methylene chloride and TCE were reported as non-detect or below their applicable AGVs in the nine (9) indoor air samples analyzed. Analytical results reported concentrations of PCE ranging from non-detect in one (1) indoor air sample to 64 ug/m^3 in IAQ04 which is above its AGV of 30 ug/m^3.

Several analytes were detected in the outdoor air sample OAQ01. Most notably, methylene chloride was reported at 1.8 ug/m^3.

NYSDOH SVI Analytical Comparison

To evaluate for potential vapor intrusion of chlorinated solvents, the results were compared to the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices, dated May 2017.

Matrices are established for the chlorinated VOCs (CVOCs) carbon tetrachloride, 1,1-dichloroethylene, cis-1,2-dichloroethylene, and TCE (Matrix A); methylene chloride, PCE, and 1,1,1-trichloroethane (1,1,1-TCA) (Matrix B); and vinyl chloride (Matrix C).

The results reported the concentrations of CVOCs significantly above their respective response thresholds in many of the sub slab vapor, soil vapor, and corresponding ambient air samples that would warrant mitigation action. For the most part, the recommendation is driven by the elevated levels of CVOCs detected in the sub-slab vapor samples.

The concentration of 1,1-dichloroethylene in sub-slab vapor ranged from non-detect in several samples to 240 ug/m^3 in SSV05. Cis-1,2-dichloroethylene ranged from non-detect in several samples to 21,000 ug/m^3 in SSV07. TCE ranged from non-detect in several samples to 49,000 ug/m^3 in SSV05. PCE ranged from 8 ug/m^3 in SSV02 to 9,600,000 ug/m^3 in SSV07. Vinyl chloride ranged from non-detect in several samples to 32 ug/m^3 in SSV06. In soil vapor SV04, PCE was reported at 490,000 ug/m^3 and TCE was reported at 320 ug/m^3.

Based on the analytical results, the NYSDOH recommended action is to mitigate the current or potential exposures associated with SVI within the buildings located at 161-01 29th Avenue, 161-03 29th Avenue, and 161-05 29th Avenue and to monitor the current or potential exposures associated with SVI within the building located at 161-07 29th Avenue. No further action is recommended for the buildings located at 161-09 29th Avenue and 161-11 29th Avenue.

The analytical results compared to the NYSDOH Decision Matrices are summarized in Table 1 and Table 2. The complete laboratory report is provided in Appendix B.

Castleton is in the process of preparing owner notification letters of the SVI sampling results as required by the NYSDEC and NYSDOH. Draft copies of these letters will be reviewed by NYSDEC and NYSDOH prior to distribution.

Proposed Soil and Groundwater Borings

The next planned phase of RI work includes the installation of soil and groundwater borings. The effort will be performed to delineate the extent of contamination at the site and evaluate suspected source areas. Based on the results of the Soil Vapor Screening and SVI Investigation, a total of five (5) shallow soil borings within the building interior and seven (7) soil/groundwater borings are proposed.

The proposed boring locations are shown on Figure 3.

The soil and groundwater sampling will be performed in accordance with the approved RIWP.

If you have any questions, please do not hesitate to contact this office.

Very truly yours,
Castleton Environmental Geologic Services, DPC

Frank P. Castellano, PG
Principal

Daren Murphy
Project Manager

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Figures

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Legend

- Site Boundary
- Vapor Screening Point (VOC concentrations (ppm))
- Sump
- Dry Cleaning Machine Stanchions
- Former UST

Figure 1

Vapor Screening Points

161-03 29th Avenue

Flushing, New York

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Legend

- Site Boundary
- Sub-Slab Vapor
- Indoor Air
- Soil Vapor
- Outdoor Air

Figure 2

Vapor & Air Sampling Points

161-03 29th Avenue

Flushing, New York

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Legend

- Site Boundary
- Shallow Soil Boring
- Soil & GW Boring
- Sump
- Dry Cleaning Machine Stanchions
- Former UST

Figure 3
Proposed Soil & Groundwater
161-03 29th Avenue
Flushing, New York

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Tables

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Table 1
161-03 29th Avenue, Flushing, New York
Soil Vapor Investigation – NYSDOH Air Guideline Values (AGV)

Compound	IAQ01 (ug/m^3)	IAQ02 (ug/m^3)	IAQ03 (ug/m^3)	IAQ04 (ug/m^3)	IAQ05 (ug/m^3)	IAQ06 (ug/m^3)	IAQ07 (ug/m^3)	IAQ08 (ug/m^3)	IAQ09 (ug/m^3)	NYSDOH AGV (ug/m^3)
MeCl	0.670 J	0.740 J	4.200 D	5 D	0.770 J	0.630 J	2.200 D	0.680 J	0.700 J	60
PCE	4.600 D	0.720 J	4.800 D	***64*** D	8.700 D	4.400 D	8.100 D	2 D	3.900 D	30
TCE	0.130 U	0.140 U	0.290 D	0.140 U	0.150 U	0.120 U	0.150 U	0.130 U	0.130 U	2

MeCl = Methylene Chloride
PCE =Tetrachloroethylene
TCE =Trichloroethylene
D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

Table 2
161-03 29th Avenue, Flushing, New York
Soil Vapor Investigation – NYSDOH Decision Matrix Comparison

SSV01/IAQ01 (161-11 29th Avenue):

Compound	IAQ01 (ug/m³)	SSV01 (ug/m³)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.520 U	2.100 U	No further action
1,1-Dichloroethylene	0.0950 U	0.380 U	No further action
Carbon tetrachloride	0.150 U	0.600 U	No further action
cis-1,2-Dichloroethylene	0.0950 U	0.380 U	No further action
Methylene Chloride	0.670 J	2.700 U	No further action
Tetrachloroethylene (PCE)	4.600 D	12 D	No further action
Trichloroethylene (TCE)	0.130 U	0.510 U	No further action
Vinyl Chloride	0.120 U	0.490 U	No further action

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SSV02/IAQ02 (161-09 29th Avenue):

Compound	IAQ02 (ug/m³)	SSV02 (ug/m³)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.580 U	2.100 U	No further action
1,1-Dichloroethylene	0.110 U	0.390 U	No further action
Carbon tetrachloride	0.170 U	0.990 D	No further action
cis-1,2-Dichloroethylene	0.110 U	0.390 U	No further action
Methylene Chloride	0.740 J	2.700 D	No further action
Tetrachloroethylene (PCE)	0.720 J	8 D	No further action
Trichloroethylene (TCE)	0.140 U	0.530 U	No further action
Vinyl Chloride	0.140 U	0.500 U	No further action

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SSV03/IAQ03 (161-07 29th Avenue):

Compound	IAQ03 (ug/m³)	SSV03 (ug/m³)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.580 U	2.200 J	No further action
1,1-Dichloroethylene	0.110 U	0.400 U	No further action
Carbon tetrachloride	0.470 D	0.630 U	No further action
cis-1,2-Dichloroethylene	0.110 U	0.960 D	No further action
Methylene Chloride	4.200 D	2.800 D	No further action
Tetrachloroethylene (PCE)	4.800 D	57 D	No further action
Trichloroethylene (TCE)	0.290 D	12 D	MONITOR
Vinyl Chloride	0.140 U	0.510 U	No further action

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SSV04/IAQ04 (161-05 29th Avenue):

Compound	IAQ04 (ug/m³)	SSV04 (ug/m³)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.560 U	2 U	No further action
1,1-Dichloroethylene	0.100 U	0.360 U	No further action
Carbon tetrachloride	0.160 U	0.570 U	No further action
cis-1,2-Dichloroethylene	0.100 U	1.400 D	No further action
Methylene Chloride	5 D	2.500 J	No further action
Tetrachloroethylene (PCE)	64 D	380 D	MITIGATE
Trichloroethylene (TCE)	0.140 U	26 D	No further action
Vinyl Chloride	0.130 U	0.460 U	No further action

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SSV05/IAQ05 (161-05 29th Avenue):

Compound	IAQ05 (ug/m³)	SSV05 (ug/m³)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.600 U	11 U	No further action
1,1-Dichloroethylene	0.110 U	240 D	MITIGATE
Carbon tetrachloride	0.170 U	3.200 U	No further action
cis-1,2-Dichloroethylene	0.110 U	7,800 D	MITIGATE
Methylene Chloride	0.770 J	14 J	No further action
Tetrachloroethylene (PCE)	8.700 D	220,000 D	MITIGATE
Trichloroethylene (TCE)	0.150 U	49,000 D	MITIGATE
Vinyl Chloride	0.140 U	2.6 D	No further action

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SSV06/IAQ06 (161-03 29th Avenue):

Compound	IAQ06 (ug/m³)	SSV06 (ug/m³)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.500 U	9 U	No further action
1,1-Dichloroethylene	0.0900 U	120 D	MITIGATE
Carbon tetrachloride	0.140 U	2.600 U	No further action
cis-1,2-Dichloroethylene	0.0900 U	2,400 D	MITIGATE
Methylene Chloride	0.630 J	11 J	No further action
Tetrachloroethylene (PCE)	4.400 D	6,000 D	MITIGATE
Trichloroethylene (TCE)	0.120 U	1,900 D	MITIGATE
Vinyl Chloride	0.120 U	32 D	MONITOR

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SSV07/IAQ07 (161-03 29th Avenue):

Compound	IAQ07 (ug/m³)	SSV07 (ug/m³)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.620 U	12 U	No further action
1,1-Dichloroethylene	0.110 U	4.300 D	No further action
Carbon tetrachloride	0.180 U	3.400 U	No further action
cis-1,2-Dichloroethylene	0.110 U	21,000 D	MITIGATE
Methylene Chloride	2.200 D	15 U	No further action
Tetrachloroethylene (PCE)	8.100 D	9,600,000 D	MITIGATE
Trichloroethylene (TCE)	0.150 U	43,000 D	MITIGATE
Vinyl Chloride	0.150 U	4.500 D	No further action

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SSV08/IAQ08 (161-01 29th Avenue):

Compound	IAQ08 (ug/m³)	SSV08 (ug/m³)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.530 U	4.300 U	No further action
1,1-Dichloroethylene	0.0970 U	0.780 U	No further action
Carbon tetrachloride	0.150 U	1.200 U	No further action
cis-1,2-Dichloroethylene	0.0970 U	1.600 D	No further action
Methylene Chloride	0.680 J	5.400 J	No further action
Tetrachloroethylene (PCE)	2 D	140 D	No further action
Trichloroethylene (TCE)	0.130 U	2.500 D	No further action
Vinyl Chloride	0.120 U	1 U	No further action

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SSV09/IAQ09 (161-01 29th Avenue):

Compound	IAQ09 (ug/m³)	SSV09 (ug/m³)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.550 U	9.900 U	No further action
1,1-Dichloroethylene	0.0990 U	1.800 U	No further action
Carbon tetrachloride	0.160 U	2.900 U	No further action
cis-1,2-Dichloroethylene	0.0990 U	1.800 U	No further action
Methylene Chloride	0.700 J	13 U	No further action
Tetrachloroethylene (PCE)	3.900 D	3,800 D	MITIGATE
Trichloroethylene (TCE)	0.130 U	23 D	No further action
Vinyl Chloride	0.130 U	2.300 U	No further action

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SV01:

Compound	OAQ01 (ug/m^3)	SV01 (ug/m^3)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.520 U	8 D	No further action
1,1-Dichloroethylene	0.0950 U	0.370 U	No further action
Carbon tetrachloride	0.150 U	0.590 U	No further action
cis-1,2-Dichloroethylene	0.0950 D	0.370 U	No further action
Methylene Chloride	1.800 D	3.800 D	No further action
Tetrachloroethylene (PCE)	0.650 U	21 D	No further action
Trichloroethylene (TCE)	0.130 U	0.500 U	No further action
Vinyl Chloride	0.120 U	0.480 U	No further action

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SV02:

Compound	OAQ01 (ug/m^3)	SV02 (ug/m^3)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.520 U	8.500 D	No further action
1,1-Dichloroethylene	0.0950 U	0.260 D	No further action
Carbon tetrachloride	0.150 U	0.420 D	No further action
cis-1,2-Dichloroethylene	0.0950 D	0.520 D	No further action
Methylene Chloride	1.800 D	1.500 J	No further action
Tetrachloroethylene (PCE)	0.650 U	43 D	No further action
Trichloroethylene (TCE)	0.130 U	0.950 D	No further action
Vinyl Chloride	0.120 U	2.800 D	No further action

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SV03:

Compound	OAQ01 (ug/m^3)	SV03 (ug/m^3)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.520 U	3.700 U	No further action
1,1-Dichloroethylene	0.0950 U	0.670 U	No further action
Carbon tetrachloride	0.150 U	1.100 U	No further action
cis-1,2-Dichloroethylene	0.0950 D	0.670 U	No further action
Methylene Chloride	1.800 D	4.700 J	No further action
Tetrachloroethylene (PCE)	0.650 U	4.600 U	No further action
Trichloroethylene (TCE)	0.130 U	0.910 U	No further action
Vinyl Chloride	0.120 U	0.870 U	No further action

D = result is from an analysis that required a dilution
J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated
U = analyte not detected at or above the level indicated

SV04:

Compound	OAQ01 (ug/m^3)	SV04 (ug/m^3)	NYSDOH Recommendation
1,1,1-Trichloroethane (1,1,1-TCA)	0.520 U	9.200 U	No further action
1,1-Dichloroethylene	0.0950 U	1.700 U	No further action
Carbon tetrachloride	0.150 U	2.700 U	No further action
cis-1,2-Dichloroethylene	0.0950 D	37 D	No further action
Methylene Chloride	1.800 D	12 U	No further action
Tetrachloroethylene (PCE)	0.650 U	490,000 D	MITIGATE
Trichloroethylene (TCE)	0.130 U	320 D	MITIGATE
Vinyl Chloride	0.120 U	2.200 U	No further action

D = result is from an analysis that required a dilution

J = analyte detected at or above the MDL (method detection limit) but below the RL (reporting limit) – data is estimated

U = analyte not detected at or above the level indicated

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Appendix A

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Soil Vapor Intrusion - Structure Sampling Building Questionnaire **Structure ID :** 161-01

Site No. : C241247 **Site Name :** 161-03 29th Avenue

Date: 11/19/2021 **Time:**

Structure Address : 161-01 29th Avenue, Flushing, N.Y.

Preparer's Name & Affiliation : Daren Murphy – Castleton Env.

Residential ? ☒ Yes ☐ No **Owner Occupied ?** ☐ Yes ☒ No **Owner Interviewed ?** ☐ Yes ☒ No

Commercial ? ☒ Yes ☐ No **Industrial ?** ☐ Yes ☒ No **Mixed Uses ?** ☒ Yes ☐ No

Identify all non-residential use(s) : Coffee Shop / Hair Salon

Owner Name : William Feldman **Owner Phone :** (718) 746 - 5200

Secondary Owner Phone : ( ) -

Owner Address (if different) : 294 Vista Drive, Jericho, N.Y. 11753

Occupant Name : Bean House / Modern Lounge Hair Studio **Occupant Phone :** (347) 438 - 1921

Secondary Occupant Phone : (718) 767 - 0224

Number & Age of All Persons Residing at this Location : 2nd Floor (3) 55, 55, 55

Additional Owner/Occupant Information :

Describe Structure (style, number floors, size) : 2-story masonry mixed-use commercial/residential building with full basement

Approximate **Year Built :** 1931 Is the building **Insulated?** ☐ Yes ☒ No

Lowest level : ☐ Slab-on-grade ☒ Basement ☐ Crawlspace

Describe Lowest Level (finishing, use, time spent in space) : Partially finished, storage only, < 1 hr/day

Floor Type: ☒ Concrete Slab ☐ Dirt ☐ Mixed :

Floor Condition : ☐ Good (few or no cracks) ☒ Average (some cracks) ☐ Poor (broken concrete or dirt)

Sumps/Drains? ☒ Yes ☐ No Describe : (1) Sump

Identify other floor penetrations & details :

Wall Construction : ☒ Concrete Block ☐ Poured Concrete ☐ Laid-Up Stone

Identify any wall penetrations : Furnace exhaust vents, fresh air vents, Bilco doors

Identify water, moisture, or seepage: location & severity (sump, cracks, stains, etc) : (1) sump

Heating Fuel : ☐ Oil ☒ Gas ☐ Wood ☐ Electric ☐ Other :

Heating System : ☐ Forced Air ☐ Hot Water ☒ Other : Steam

Hot Water System : ☐ Combustion ☐ Electric ☐ Boilermate ☒ Other: Gas Hot Water Heater

Clothes Dryer : ☐ Electric ☐ Gas Where is dryer **vented** to? N/A

If combustion occurs, describe where air is drawn from (cold air return, basement, external air, etc.) : External Air

Fans & Vents (identify where fans/vents pull air from and where they vent/exhaust to) : Fresh air vents - vent into basement space

Describe factors that may affect indoor air quality (chemical use/storage, unvented heaters, smoking, workshop):

Attached garage ? ☐ Yes ☒ No Air fresheners ? ☐ Yes ☒ No

New carpet or furniture ? ☐ Yes ☒ No What/Where ? _____

Recent **painting** or **staining** ? ☐ Yes ☒ No Where ? : _____

Any **solvent** or **chemical-like** odors ? ☐ Yes ☒ No Describe : _____

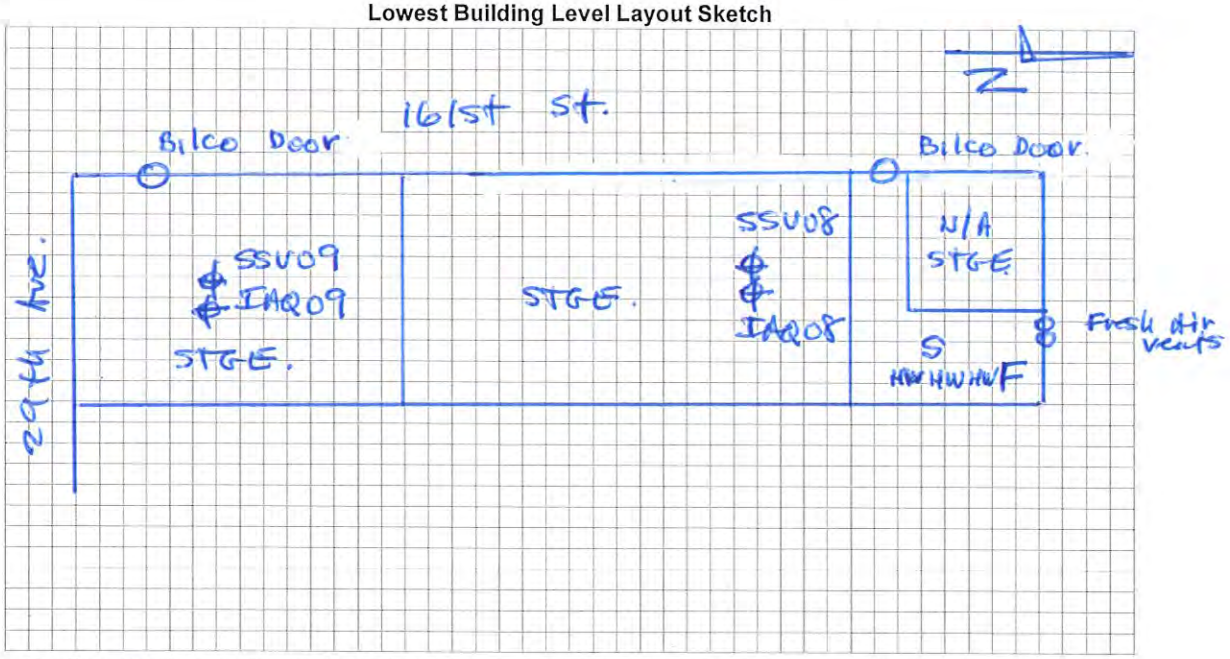
Last time **Dry Cleaned** fabrics brought in ? _____ What / Where ? _____

Do any building occupants use solvents at work ? ☐ Yes ☒ No Describe : _____

Any testing for Radon ? ☐ Yes ☒ No Results : _____

Radon System/Soil Vapor Intrusion Mitigation System present ? ☐ Yes ☒ No If yes, describe below

Lowest Building Level Layout Sketch



- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or F	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	**xxxxxxx**	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	**######**	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab vapor samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Structure Sampling - Product Inventory

Homeowner Name & Address: _____ Date: 11/19/2021

Samplers & Company: Daveu Murphy - Castleton Structure ID: 161-01

Site Number & Name: _____ Phone Number: _____

Make & Model of PID: _____ Date of PID Calibration: _____

Identify any Changes from Original Building Questionnaire : _____

Product Name/Description	Quantity	Chemical Ingredients	PID Reading	Location
misc. Paints/Primer (Behr)	(12) 1-Gall	—	0.4	STOR RM SOUTH
Free & Clear Cleaner	(1) 1-Gall	2-(2-butoxyethoxy)ethanol tetrasodium ethylene diamine-tetraacetate	0.2	STOR RM
Fabuloso	(2) 1-Gall	Sodium Dodecyl Benzene Sulfonate (Linear)	↓	CENTER ↓
zep Floor Cleaner	(1) 2.5 Gall	Alcohols, C9-11, ethoxylated 1-(1-methyl-2-propoxyethoxy) propan-2-ol		
Windex Glass & more	(1) 1-Gall	—		

Soil Vapor Intrusion - Structure Sampling Building Questionnaire Structure ID : 161-03

Site No. : C241247 Site Name : 161-03 29th Avenue

Date: 11/19/2021 Time:

Structure Address : 161-03 29th Avenue, Flushing, N.Y.

Preparer's Name & Affiliation : Daren Murphy - Castleton Env.

Residential ? ☒ Yes ☐ No Owner Occupied ? ☐ Yes ☒ No Owner Interviewed ? ☐ Yes ☒ No

Commercial ? ☒ Yes ☐ No Industrial ? ☐ Yes ☒ No Mixed Uses ? ☒ Yes ☐ No

Identify all non-residential use(s) : Pharmacy

Owner Name : William Feldman Owner Phone : (718) 746 - 5200

Secondary Owner Phone : ( ) -

Owner Address (if different) : 294 Vista Drive, Jericho, N.Y. 11753

Occupant Name : Bowne Chemists Pharmacy Occupant Phone : (718) 767 - 2400

Secondary Occupant Phone : ( ) -

Number & Age of All Persons Residing at this Location : 2nd Floor (7) 38, 41, 12, 7, 28, 28, 6 mos

Additional Owner/Occupant Information :

Describe Structure (style, number floors, size) : 2 story masonry mixed-use commercial/residential building with full basement

Approximate Year Built : 1931 Is the building Insulated? ☐ Yes ☒ No

Lowest level : ☐ Slab-on-grade ☒ Basement ☐ Crawlspace

Describe Lowest Level (finishing, use, time spent in space) : unfinished, storage only, <1 hr/day

Floor Type: ☒ Concrete Slab ☐ Dirt ☐ Mixed :

Floor Condition : ☐ Good (few or no cracks) ☒ Average (some cracks) ☐ Poor (broken concrete or dirt)

Sumps/Drains? ☒ Yes ☐ No Describe : (2) sumps

Identify other floor penetrations & details :

Wall Construction : ☒ Concrete Block ☐ Poured Concrete ☐ Laid-Up Stone

Identify any wall penetrations : Furnace exhaust vents, fresh air vents, Bilco doors

Identify water, moisture, or seepage: location & severity (sump, cracks, stains, etc) : (2) sumps

Heating Fuel : ☐ Oil ☒ Gas ☐ Wood ☐ Electric ☐ Other :

Heating System : ☐ Forced Air ☐ Hot Water ☒ Other : Steam

Hot Water System : ☐ Combustion ☐ Electric ☐ Boilermate ☒ Other: Gas Hot water Heater

Clothes Dryer : ☐ Electric ☐ Gas Where is dryer vented to? N/A

If combustion occurs, describe where air is drawn from (cold air return, basement, external air, etc.) : External air

Fans & Vents (identify where fans/vents pull air from and where they vent/exhaust to) : Fresh air vents - vent into basement space

Describe factors that may affect indoor air quality (chemical use/storage, unvented heaters, smoking, workshop):

Attached garage ? ☐ Yes ☒ No Air fresheners ? ☐ Yes ☒ No

New carpet or furniture ? ☐ Yes ☒ No What/Where ? _____

Recent **painting** or **staining** ? ☐ Yes ☒ No Where ? : _____

Any **solvent** or **chemical-like** odors ? ☐ Yes ☒ No Describe : _____

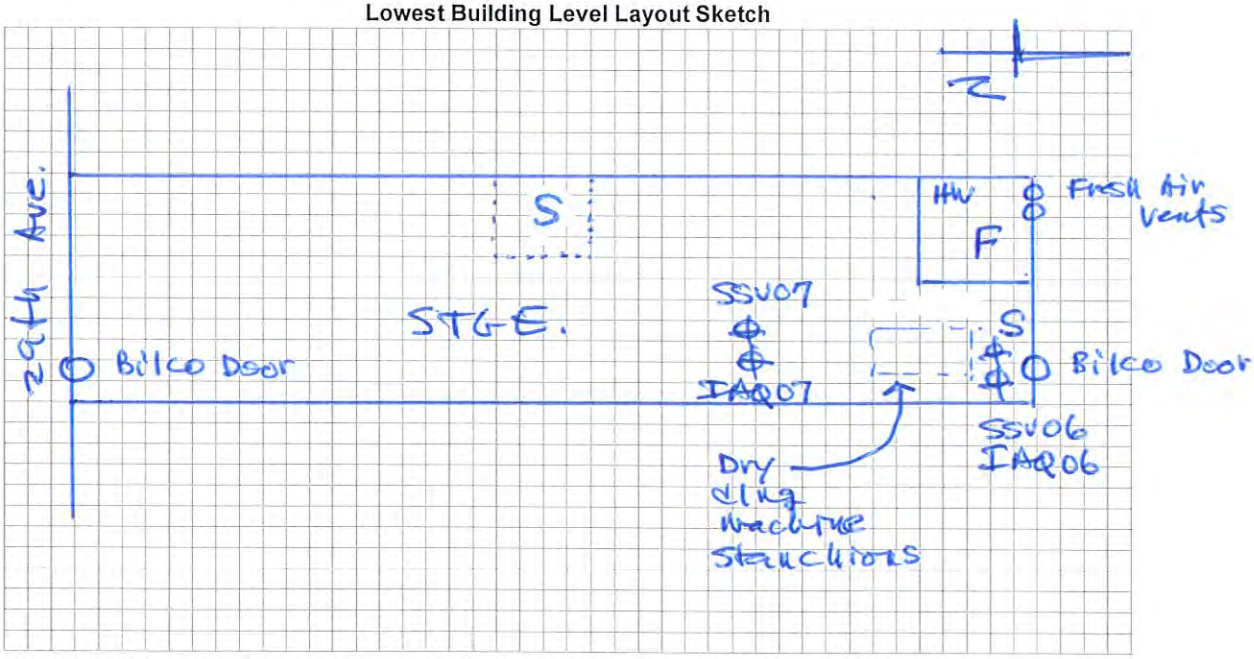
Last time **Dry Cleaned** fabrics brought in ? _____ What / Where ? _____

Do any building occupants use solvents at work ? ☐ Yes ☒ No Describe : _____

Any testing for Radon ? ☐ Yes ☒ No Results : _____

Radon System/Soil Vapor Intrusion Mitigation System present ? ☐ Yes ☒ No If yes, describe below

Lowest Building Level Layout Sketch



- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or F	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	######	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab vapor samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Structure Sampling - Product Inventory

Homeowner Name & Address: ______ Date: 11/19/2021

Samplers & Company: Daren Murphy - Castleton Structure ID: 161-03

Site Number & Name: ______ Phone Number: ______

Make & Model of PID: ______ Date of PID Calibration: ______

Identify any Changes from Original Building Questionnaire : ______

Product Name/Description	Quantity	Chemical Ingredients	PID Reading	Location
No chemical storage observed.				

Soil Vapor Intrusion - Structure Sampling Building Questionnaire Structure ID : 161-05

Site No. : C241247 Site Name : 161-03 29th Avenue

Date: 11/19/2021 Time:

Structure Address : 161-05 29th Avenue, Flushing, N.Y.

Preparer's Name & Affiliation : Daren Murphy - Castleton Env.

Residential ? ☒ Yes ☐ No Owner Occupied ? ☐ Yes ☒ No Owner Interviewed ? ☐ Yes ☒ No

Commercial ? ☒ Yes ☐ No Industrial ? ☐ Yes ☒ No Mixed Uses ? ☒ Yes ☐ No

Identify all non-residential use(s) : Boutique

Owner Name : William Feldman Owner Phone : (718) 746 - 5200

Secondary Owner Phone : ( ) -

Owner Address (if different) : 294 Vista Drive, Jericho, N.Y. 11753

Occupant Name : Pipy & Lily Boutique Occupant Phone : (347) 732 - 9674

Secondary Occupant Phone : ( ) -

Number & Age of All Persons Residing at this Location : 2nd Floor (3) 54, 63, 60

Additional Owner/Occupant Information :

Describe Structure (style, number floors, size) : 2-story masonry mixed-use commercial/residential building with full basement

Approximate Year Built : 1931 Is the building Insulated? ☐ Yes ☒ No

Lowest level : ☐ Slab-on-grade ☒ Basement ☐ Crawlspace

Describe Lowest Level (finishing, use, time spent in space) : unfinished, storage only, <1 hr/day

Floor Type: ☒ Concrete Slab ☐ Dirt ☐ Mixed :

Floor Condition : ☐ Good (few or no cracks) ☒ Average (some cracks) ☐ Poor (broken concrete or dirt)

Sumps/Drains? ☒ Yes ☐ No Describe : (1) Sump

Identify other floor penetrations & details : Perimeter drain

Wall Construction : ☒ Concrete Block ☐ Poured Concrete ☐ Laid-Up Stone

Identify any wall penetrations : Furnace exhaust vents, fresh air vents, Bilco doors

Identify water, moisture, or seepage: location & severity (sump, cracks, stains, etc) : (1) sump

Heating Fuel : ☐ Oil ☒ Gas ☐ Wood ☐ Electric ☐ Other :

Heating System : ☐ Forced Air ☐ Hot Water ☒ Other : Steam

Hot Water System : ☐ Combustion ☐ Electric ☐ Boilermate ☒ Other: Gas Hot Water Heater

Clothes Dryer : ☐ Electric ☐ Gas Where is dryer vented to? N/A

If combustion occurs, describe where air is drawn from (cold air return, basement, external air, etc.) : External air

Fans & Vents (identify where fans/vents pull air from and where they vent/exhaust to) : Fresh air vents - vent into basement space

Describe factors that may affect indoor air quality (chemical use/storage, unvented heaters, smoking, workshop):

Attached garage ? ☐ Yes ☒ No Air fresheners ? ☐ Yes ☒ No

New carpet or furniture ? ☐ Yes ☒ No What/Where ? _____

Recent **painting** or **staining** ? ☐ Yes ☒ No Where ? : _____

Any **solvent** or **chemical-like** odors ? ☐ Yes ☒ No Describe : _____

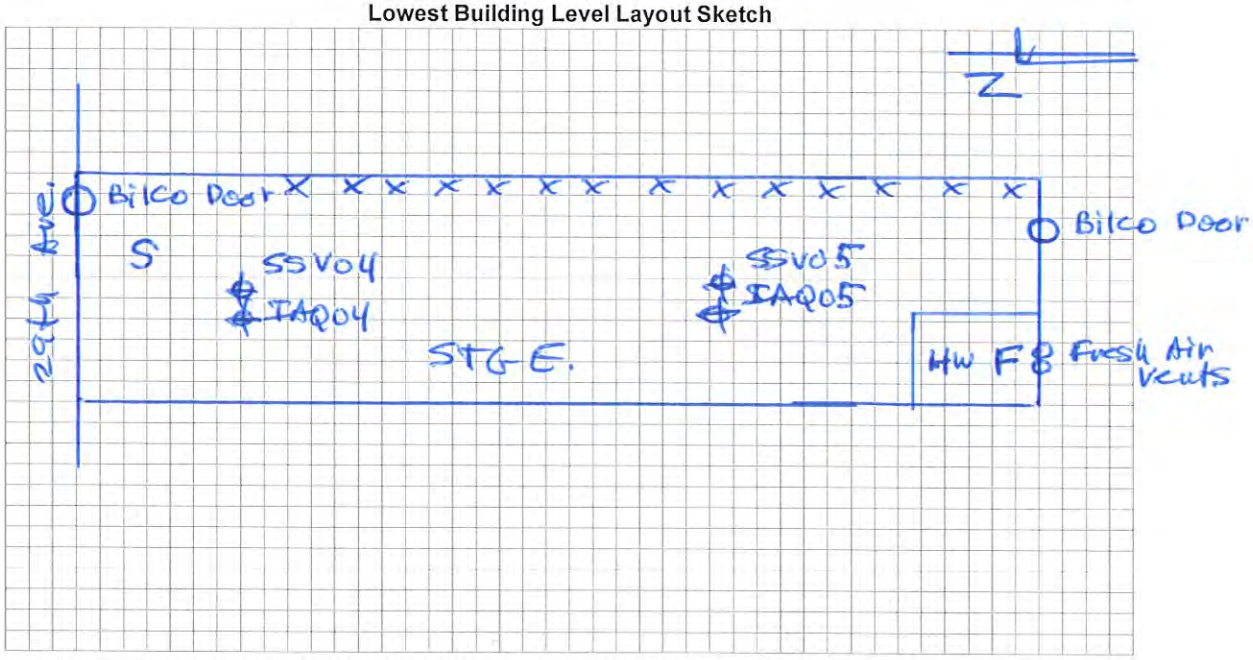
Last time **Dry Cleaned** fabrics brought in ? _____ What / Where ? _____

Do any building occupants use solvents at work ? ☐ Yes ☒ No Describe : _____

Any testing for Radon ? ☐ Yes ☒ No Results : _____

Radon System/Soil Vapor Intrusion Mitigation System present ? ☐ Yes ☒ No If yes, describe below

Lowest Building Level Layout Sketch



- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or F	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	**xxxxxxx**	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	**######**	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab vapor samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Structure Sampling - Product Inventory

Homeowner Name & Address: _____ Date: 11/19/2021

Samplers & Company: Daren Murphy - Castleton Structure ID: 161-05

Site Number & Name: _____ Phone Number: _____

Make & Model of PID: _____ Date of PID Calibration: _____

Identify any Changes from Original Building Questionnaire : _____

Product Name/Description	Quantity	Chemical Ingredients	PID Reading	Location
Fill and Seal	(1) 12oz	polymethylene polyphenyl isocyanate, propoxylated glycerin polymer, diphenyl methane diisocyanate, isomers, and homologues	0.1	South
Misc. Paints/Primers (Behr, Sherwin Williams) 2 used	(9) 1-Gall	—	0.1	South
Misc Paints/Enamel (Americas Finest)	(3) 1-Gall	—	0.2	North

Soil Vapor Intrusion - Structure Sampling Building Questionnaire Structure ID : 161-07

Site No. : C241247 Site Name : 161-03 29th Avenue

Date: 11/19/2021 Time:

Structure Address : 161-07 29th Avenue, Flushing, N.Y.

Preparer's Name & Affiliation : Davey Murphy – Castleton Env.

Residential ? ☒ Yes ☐ No Owner Occupied ? ☐ Yes ☒ No Owner Interviewed ? ☐ Yes ☒ No

Commercial ? ☒ Yes ☐ No Industrial ? ☐ Yes ☒ No Mixed Uses ? ☒ Yes ☐ No

Identify all non-residential use(s) : Nail & Spa Salon

Owner Name : William Feldman Owner Phone : (718) 746 - 5200

Secondary Owner Phone : ( ) -

Owner Address (if different) : 294 Vista Drive, Jericho, N.Y. 11753

Occupant Name : CNL Nails Occupant Phone : (929) 362 - 2250

Secondary Occupant Phone : ( ) -

Number & Age of All Persons Residing at this Location : 2nd Floor (4) 43, 12, 7, 55

Additional Owner/Occupant Information :

Describe Structure (style, number floors, size) : 2-story masonry mixed-use commercial/residential building with full basement

Approximate Year Built : 1931 Is the building Insulated? ☐ Yes ☒ No

Lowest level : ☐ Slab-on-grade ☒ Basement ☐ Crawlspace

Describe Lowest Level (finishing, use, time spent in space) : unfinished, storage only, <1 hr/day

Floor Type: ☒ Concrete Slab ☐ Dirt ☐ Mixed :

Floor Condition : ☐ Good (few or no cracks) ☒ Average (some cracks) ☐ Poor (broken concrete or dirt)

Sumps/Drains? ☒ Yes ☐ No Describe : (1) sump ; (1) Floor drain

Identify other floor penetrations & details :

Wall Construction : ☒ Concrete Block ☐ Poured Concrete ☐ Laid-Up Stone

Identify any wall penetrations : furnace exhaust vents, fresh air vents, Bilco doors

Identify water, moisture, or seepage: location & severity (sump, cracks, stains, etc) : (1) sump

Heating Fuel : ☐ Oil ☒ Gas ☐ Wood ☐ Electric ☐ Other :

Heating System : ☐ Forced Air ☐ Hot Water ☒ Other : Steam

Hot Water System : ☐ Combustion ☐ Electric ☐ Boilermate ☒ Other: Gas Hot Water Heater

Clothes Dryer : ☐ Electric ☐ Gas Where is dryer vented to?

If combustion occurs, describe where air is drawn from (cold air return, basement, external air, etc.) : External air

Fans & Vents (identify where fans/vents pull air from and where they vent/exhaust to) : Fresh air vents - vent into basement space

Soil Vapor Intrusion - Structure Sampling Building Questionnaire **Structure ID :** 161-07

Describe factors that may affect indoor air quality (chemical use/storage, unvented heaters, smoking, workshop):

Attached garage ? ☐ Yes ☒ No Air fresheners ? ☐ Yes ☒ No

New carpet or furniture ? ☐ Yes ☒ No What/Where ? _____

Recent **painting** or **staining** ? ☐ Yes ☒ No Where ? : _____

Any **solvent** or **chemical-like** odors ? ☐ Yes ☒ No Describe : _____

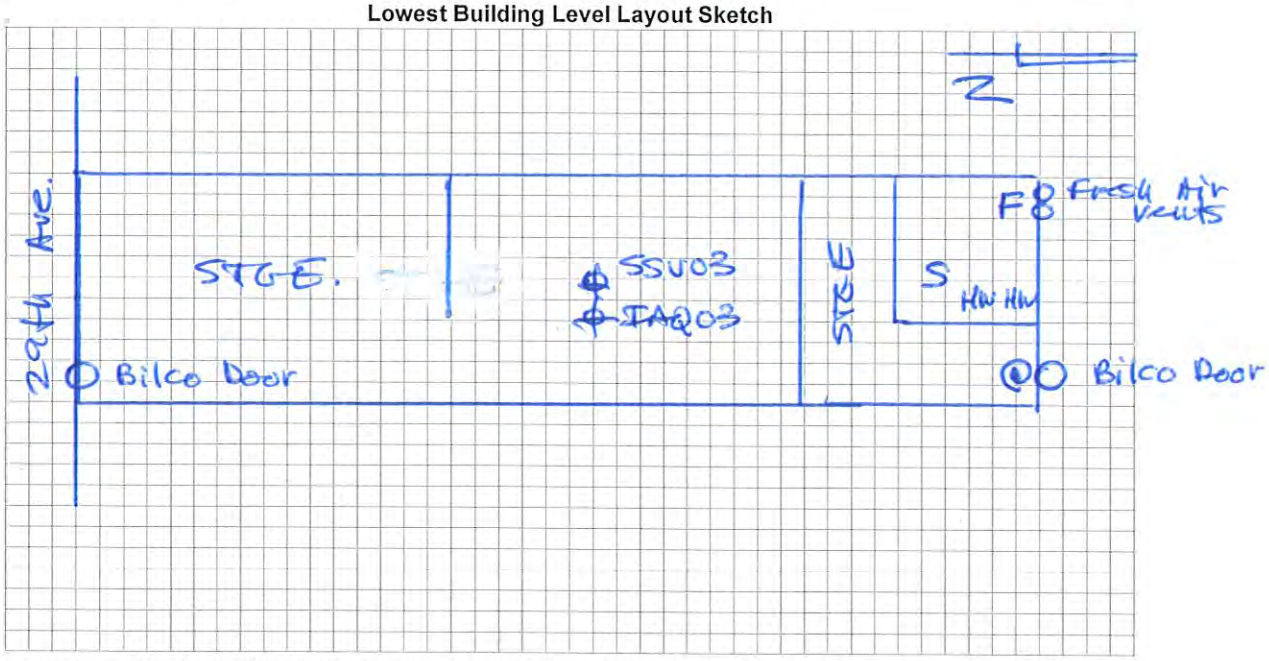
Last time **Dry Cleaned** fabrics brought in ? _____ What / Where ? _____

Do any building occupants use solvents at work ? ☐ Yes ☒ No Describe : _____

Any testing for Radon ? ☐ Yes ☒ No Results : _____

Radon System/Soil Vapor Intrusion Mitigation System present ? ☐ Yes ☒ No If yes, describe below

Lowest Building Level Layout Sketch



- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	######	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab vapor samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Structure Sampling - Product Inventory

Homeowner Name & Address: _____ Date: 11/19/2021

Samplers & Company: Darcy Murphy — Castleton Structure ID: 161-07

Site Number & Name: _____ Phone Number: _____

Make & Model of PID: _____ Date of PID Calibration: _____

Identify any Changes from Original Building Questionnaire : _____

Product Name/Description	Quantity	Chemical Ingredients	PID Reading	Location
MISC. Paints/Primer (Behr)	(3) 1-Gall	—	0.3	SITE AREA SOUTH
Polyurethane	(1) 1-Gall	Petroleum gases, liquefied Naphtha (petroleum) hydrodesulfurized heavy	0.3	"
Sheetrock All Purpose Joint Compound	(1) 5-gall	—	0.0	"
Denatured Alcohol	(1) 1-Gall	Ethyl Alcohol Isopropyl Alcohol	0.2	SITE AREA NORTH
Rust-buster	(2) 1-QT	Ammonium bifluoride	0.2	"
Tru-Test Roof Cement	(1) 1-QT	HFC-134A, diethylene glycol, triethylenediamine, dipropylene glycol	0.2	"
Tuff Stuff Foam-Cleaner	(1) 12 oz	Isobutane, Ethylene glycol monobutyl ether, Sodium metasilicate pentahydrate C12-15 Alcohol Ethoxylate	0.2	"
White Lithium Grease	(1) 16 oz	Liquified petroleum gas, 2-methyl pentane, distillates (petroleum) hydrotreated heavy Naphthanic, naphtha (petroleum) hydrotreated light, n-Hexane	0.2	"
Camp Fuel	(1) 1-Gall	Rubber solvent, VM&P Naphtha, Other Hexane Isomers, Other Heptane Isomers, n-Hexane, n-Heptane, Pentane, Toluene, Cyclohexane, Stoddard Solvent	0.2	"
Paint Thinner	(1) 1-Gall	Stoddard solvent (mineral Spirits, Aliphatic petroleum Distillates, White Spirits)	0.2	"
MISC Paints (Hawthorne, Floor Tone, Wilbur & Williams	(230) 1-Gall	—	0.2	"
MISC spray paints	(215)	—	0.2	"

Soil Vapor Intrusion - Structure Sampling Building Questionnaire Structure ID : 161-09

Site No. : C241247 Site Name : 161-03 29th Avenue

Date: 11/19/2021 Time:

Structure Address : 161-09 29th Avenue, Flushing, N.Y.

Preparer's Name & Affiliation : Daren Murphy - Castleton Env.

Residential ? ☒ Yes ☐ No Owner Occupied ? ☐ Yes ☒ No Owner Interviewed ? ☐ Yes ☒ No

Commercial ? ☒ Yes ☐ No Industrial ? ☐ Yes ☒ No Mixed Uses ? ☒ Yes ☐ No

Identify all non-residential use(s) : Real Estate / Dye Tie Shirt Co.

Owner Name : William Feldman Owner Phone : (718) 746 - 5200

Secondary Owner Phone : ( ) -

Owner Address (if different) : 294 Vista Drive, Jericho, N.Y. 11753

Occupant Name : Procida Realty Corp; Occupant Phone : (718) 746 - 5200
cc Dye Inc. Secondary Occupant Phone : ( ) -

Number & Age of All Persons Residing at this Location : 2nd Floor (3) 28, 28, 66

Additional Owner/Occupant Information :

Describe Structure (style, number floors, size) : 2-story masonry mixed-use Commercial/residential building with full basement

Approximate Year Built : 1931 Is the building Insulated? ☐ Yes ☒ No

Lowest level : ☐ Slab-on-grade ☒ Basement ☐ Crawlspace

Describe Lowest Level (finishing, use, time spent in space) : unfinished, Dyeing of Tshirts / storage, 4-8 hrs/day

Floor Type: ☒ Concrete Slab ☐ Dirt ☐ Mixed :

Floor Condition : ☐ Good (few or no cracks) ☒ Average (some cracks) ☐ Poor (broken concrete or dirt)

Sumps/Drains? ☒ Yes ☐ No Describe : (1) Sump

Identify other floor penetrations & details : Perimeter drain

Wall Construction : ☒ Concrete Block ☐ Poured Concrete ☐ Laid-Up Stone

Identify any wall penetrations : Furnace exhaust vents, fresh air vents, Bilco doors

Identify water, moisture, or seepage: location & severity (sump, cracks, stains, etc) : (1) sump

Heating Fuel : ☐ Oil ☒ Gas ☐ Wood ☐ Electric ☐ Other :

Heating System : ☐ Forced Air ☐ Hot Water ☒ Other : Steam

Hot Water System : ☐ Combustion ☐ Electric ☐ Boilermate ☒ Other: Gas Hot Water Heater

Clothes Dryer : ☒ Electric ☒ Gas Where is dryer vented to? Exterior

If combustion occurs, describe where air is drawn from (cold air return, basement, external air, etc.) : External air

Fans & Vents (identify where fans/vents pull air from and where they vent/exhaust to) : Fresh air vents - vent into basement space

Describe factors that may affect indoor air quality (chemical use/storage, unvented heaters, smoking, workshop):

Attached garage ? ☐ Yes ☒ No Air fresheners ? ☐ Yes ☒ No

New carpet or furniture ? ☐ Yes ☒ No What/Where ? _____

Recent **painting** or **staining** ? ☐ Yes ☒ No Where ? : _____

Any **solvent** or **chemical-like** odors ? ☐ Yes ☒ No Describe : _____

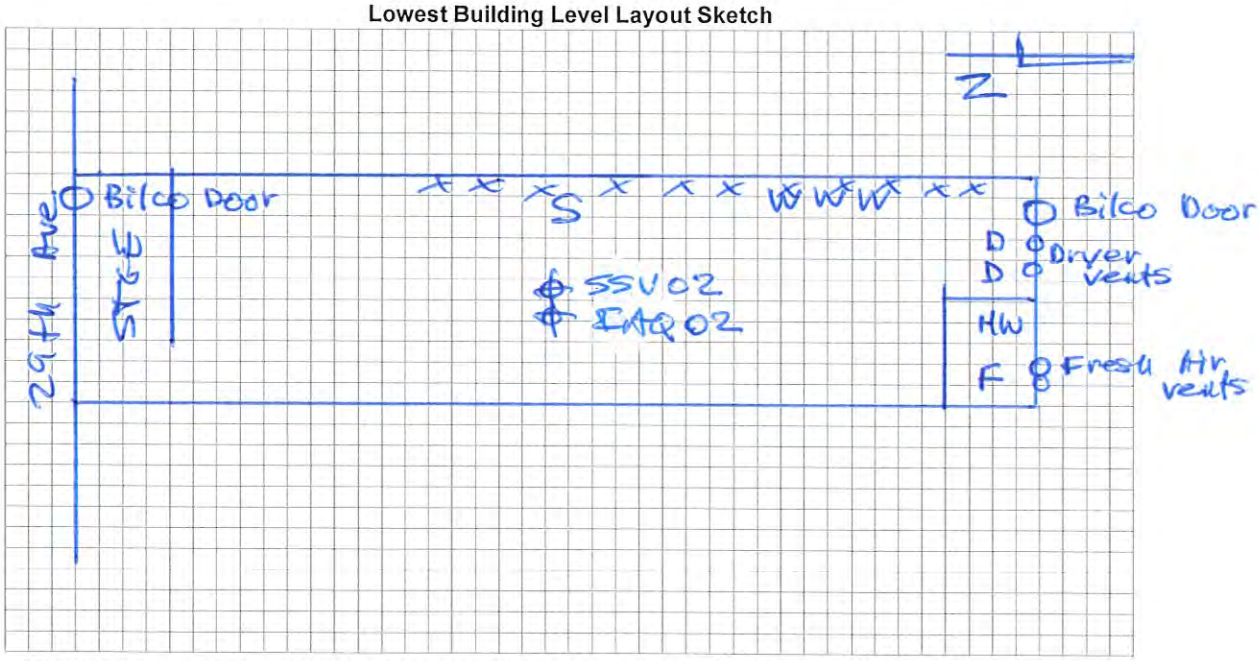
Last time **Dry Cleaned** fabrics brought in ? _____ What / Where ? _____

Do any building occupants use solvents at work ? ☐ Yes ☒ No Describe : _____

Any testing for Radon ? ☐ Yes ☒ No Results : _____

Radon System/Soil Vapor Intrusion Mitigation System present ? ☐ Yes ☒ No If yes, describe below

Lowest Building Level Layout Sketch



- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	**xxxxxxx**	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	**######**	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab vapor samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Structure Sampling - Product Inventory

Homeowner Name & Address: ______ Date: 11/19/2021

Samplers & Company: Daren Murphy - Castleton Structure ID: 161-09

Site Number & Name: ______ Phone Number: ______

Make & Model of PID: ______ Date of PID Calibration: ______

Identify any Changes from Original Building Questionnaire : ______

Product Name/Description	Quantity	Chemical Ingredients	PID Reading	Location
No chemical storage observed.				
All water-based dyes used/				
stored.				

Soil Vapor Intrusion - Structure Sampling Building Questionnaire Structure ID : 161-11

Site No. : C241247 Site Name : 161-03 29th Avenue

Date: 11/19/2021 Time:

Structure Address : 161-11 29th Avenue, Flushing, N.Y.

Preparer's Name & Affiliation : Daren Murphy - Castleton Env.

Residential ? ☒ Yes ☐ No Owner Occupied ? ☐ Yes ☒ No Owner Interviewed ? ☐ Yes ☒ No

Commercial ? ☒ Yes ☐ No Industrial ? ☐ Yes ☒ No Mixed Uses ? ☒ Yes ☐ No

Identify all non-residential use(s) : Pipe fitter

Owner Name : William Feldman Owner Phone : (718) 746 - 5200

Secondary Owner Phone : ( ) -

Owner Address (if different) : 294 Vista Drive, Jericho, N.Y. 11753

Occupant Name : Whitestone Design Occupant Phone : (929) 362 - 2669

Secondary Occupant Phone : ( ) -

Number & Age of All Persons Residing at this Location : 2nd Floor (4) 63, 60, 30, 48

Additional Owner/Occupant Information :

Describe Structure (style, number floors, size) : 2-story masonry mixed-use commercial/residential building with full basement

Approximate Year Built : 1931 Is the building Insulated? ☐ Yes ☒ No

Lowest level : ☐ Slab-on-grade ☒ Basement ☐ Crawlspace

Describe Lowest Level (finishing, use, time spent in space) : Unfinished, storage only, <1 hr/day

Floor Type: ☒ Concrete Slab ☐ Dirt ☐ Mixed :

Floor Condition : ☐ Good (few or no cracks) ☒ Average (some cracks) ☐ Poor (broken concrete or dirt)

Sumps/Drains? ☒ Yes ☐ No Describe : (1) sump ; (1) floor drain

Identify other floor penetrations & details :

Wall Construction : ☒ Concrete Block ☐ Poured Concrete ☐ Laid-Up Stone

Identify any wall penetrations : Furnace exhaust vents, fresh air vents, Bilco doors

Identify water, moisture, or seepage: location & severity (sump, cracks, stains, etc) : (1) Sump

Heating Fuel : ☐ Oil ☒ Gas ☐ Wood ☐ Electric ☐ Other :

Heating System : ☐ Forced Air ☐ Hot Water ☒ Other : steam

Hot Water System : ☐ Combustion ☐ Electric ☐ Boilermate ☒ Other: Gas Hot Water Heater

Clothes Dryer : ☐ Electric ☐ Gas Where is dryer vented to? N/A

If combustion occurs, describe where air is drawn from (cold air return, basement, external air, etc.) : External Air

Fans & Vents (identify where fans/vents pull air from and where they vent/exhaust to) : Fresh air vents - vent into basement space

Describe factors that may affect indoor air quality (chemical use/storage, unvented heaters, smoking, workshop):

Attached garage ? ☐ Yes ☒ No Air fresheners ? ☐ Yes ☒ No

New carpet or furniture ? ☐ Yes ☒ No What/Where ? _____

Recent **painting** or **staining** ? ☐ Yes ☒ No Where ? : _____

Any **solvent** or **chemical-like** odors ? ☐ Yes ☒ No Describe : _____

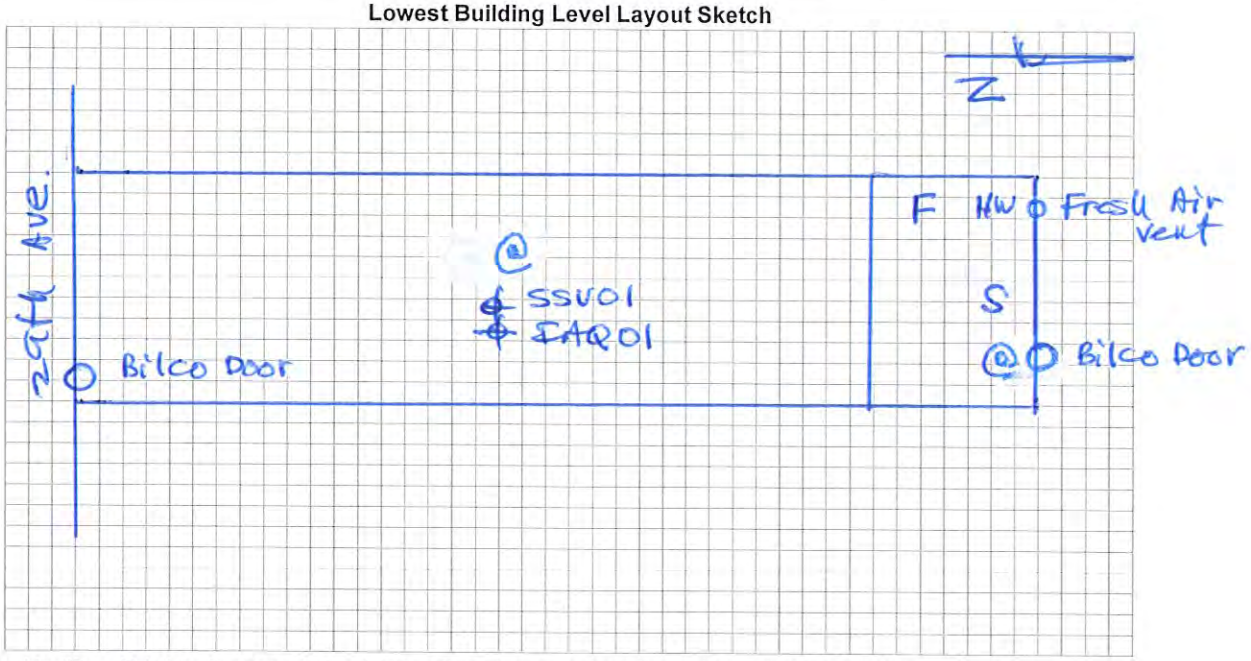
Last time **Dry Cleaned** fabrics brought in ? _____ What / Where ? _____

Do any building occupants use solvents at work ? ☐ Yes ☒ No Describe : _____

Any testing for Radon ? ☐ Yes ☒ No Results : _____

Radon System/Soil Vapor Intrusion Mitigation System present ? ☐ Yes ☒ No If yes, describe below

Lowest Building Level Layout Sketch



- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	######	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab vapor samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Structure Sampling - Product Inventory

Homeowner Name & Address: _____ Date: 11/19/2021

Samplers & Company: Daren Murphy - Castleton Structure ID: 161-11

Site Number & Name: _____ Phone Number: _____

Make & Model of PID: _____ Date of PID Calibration: _____

Identify any Changes from Original Building Questionnaire : _____

Product Name/Description	Quantity	Chemical Ingredients	PID Reading	Location
Nitrogen, Compressed	(4) cylinders		0.1	SOUTH
Corotech Waterborne Epoxy	(1) 1-Gall	Titanium dioxide, aliphatic polyamine, silica, 2-propoxyethanol, 2-Butoxyethanol, Silica, Dipropylene glcol, monomethyl, ether, distillates (petroleum)	0.4	MIDDLE
Rustoleum Epoxy Shield Part B Base	(1) 1-Gall	Polyamine adduct, n.o.s., prepolymer Ethyleneglycol monopropyl ether	0.4	MIDDLE

CASTLETON
ENVIRONMENTAL

Appendix B

50 Park Avenue, Babylon, NY 11702
631-482-1818 Office I 631-321-4349 Fax
www.castletonenv.com

Technical Report

prepared for:

Castleton Environmental
50 Park Avenue
Babylon NY, 11702
Attention: Daren Murphy

Report Date: 12/06/2021
Client Project ID: PRMC2101
York Project (SDG) No.: 21K1075

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

120 RESEARCH DRIVE STRATFORD, CT 06615 ■ 132-02 89th AVENUE RICHMOND HILL, NY 11418
www.YORKLAB.com (203) 325-1371 FAX (203) 357-0166 ClientServices@yorklab.com

Report Date: 12/06/2021
Client Project ID: PRMC2101
York Project (SDG) No.: 21K1075

Castleton Environmental
50 Park Avenue
Babylon NY, 11702
Attention: Daren Murphy

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on November 22, 2021 and listed below. The project was identified as your project: **PRMC2101**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
21K1075-01	SSV01	Soil Vapor	11/19/2021	11/22/2021
21K1075-02	SSV02	Soil Vapor	11/19/2021	11/22/2021
21K1075-03	SSV03	Soil Vapor	11/19/2021	11/22/2021
21K1075-04	SSV04	Soil Vapor	11/19/2021	11/22/2021
21K1075-05	SSV05	Soil Vapor	11/19/2021	11/22/2021
21K1075-06	SSV06	Soil Vapor	11/19/2021	11/22/2021
21K1075-07	SSV07	Soil Vapor	11/19/2021	11/22/2021
21K1075-08	SSV08	Soil Vapor	11/19/2021	11/22/2021
21K1075-09	SSV09	Soil Vapor	11/19/2021	11/22/2021
21K1075-10	SV01	Soil Vapor	11/19/2021	11/22/2021
21K1075-11	SV02	Soil Vapor	11/19/2021	11/22/2021
21K1075-12	SV03	Soil Vapor	11/19/2021	11/22/2021
21K1075-13	SV04	Soil Vapor	11/19/2021	11/22/2021
21K1075-14	IAQ01	Indoor Ambient Air	11/19/2021	11/22/2021
21K1075-15	IAQ02	Indoor Ambient Air	11/19/2021	11/22/2021
21K1075-16	IAQ03	Indoor Ambient Air	11/19/2021	11/22/2021
21K1075-17	IAQ04	Indoor Ambient Air	11/19/2021	11/22/2021
21K1075-18	IAQ05	Indoor Ambient Air	11/19/2021	11/22/2021
21K1075-19	IAQ06	Indoor Ambient Air	11/19/2021	11/22/2021
21K1075-20	IAQ07	Indoor Ambient Air	11/19/2021	11/22/2021
21K1075-21	IAQ08	Indoor Ambient Air	11/19/2021	11/22/2021
21K1075-22	IAQ09	Indoor Ambient Air	11/19/2021	11/22/2021

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
21K1075-23	OAQ01	Outdoor Ambient Ai	11/19/2021	11/22/2021
21K1075-24	DUP01	Air	11/19/2021	11/22/2021
21K1075-25	DUP02	Air	11/19/2021	11/22/2021

General Notes for York Project (SDG) No.: 21K1075

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: Cassie L. Mosher **Date:** 12/06/2021

Cassie L. Mosher
Laboratory Manager

Sample Information

Client Sample ID: SSV01 **York Sample ID:** 21K1075-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:24 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	2.6	3.818	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 13:52	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	2.1	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	2.6	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	2.9	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	2.1	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	1.5	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.38	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	2.8	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**3.6**		ug/m³	1.9	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	2.9	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	2.3	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	1.5	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	1.8	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	2.7	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	1.9	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	2.5	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	2.3	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	1.8	3.818	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 13:52	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	2.3	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	2.8	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
78-93-3	**2-Butanone**	**1.7**		ug/m³	1.1	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	3.1	3.818	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 13:52	LLJ

Sample Information

Client Sample ID: **SSV01**

York Sample ID: **21K1075-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:24 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m³	6.0	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	1.6	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
67-64-1	**Acetone**	**15**		ug/m³	1.8	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.83	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
71-43-2	Benzene	ND		ug/m³	1.2	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	2.0	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	2.6	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
75-25-2	Bromoform	ND		ug/m³	3.9	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
74-83-9	Bromomethane	ND		ug/m³	1.5	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
75-15-0	**Carbon disulfide**	**7.8**		ug/m³	1.2	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	0.60	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	1.8	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
75-00-3	Chloroethane	ND		ug/m³	1.0	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
67-66-3	**Chloroform**	**36**		ug/m³	1.9	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
74-87-3	Chloromethane	ND		ug/m³	0.79	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.38	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	1.7	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
110-82-7	Cyclohexane	ND		ug/m³	1.3	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	3.3	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
75-71-8	**Dichlorodifluoromethane**	**2.8**		ug/m³	1.9	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	2.8	3.818	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 13:52	LLJ
100-41-4	**Ethyl Benzene**	**250**		ug/m³	1.7	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	4.1	3.818	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 13:52	LLJ

Sample Information

Client Sample ID: **SSV01**

York Sample ID: **21K1075-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:24 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-63-0	**Isopropanol**	**5.0**		ug/m³	1.9	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
80-62-6	Methyl Methacrylate	ND		ug/m³	1.6	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	1.4	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-09-2	Methylene chloride	ND		ug/m³	2.7	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
142-82-5	n-Heptane	ND		ug/m³	1.6	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-54-3	n-Hexane	ND		ug/m³	1.3	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
95-47-6	**o-Xylene**	**200**		ug/m³	1.7	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
179601-23-1	**p- & m- Xylenes**	**950**		ug/m³	3.3	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
622-96-8	*** p-Ethyltoluene**	**2.8**		ug/m³	1.9	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.66	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications:			
100-42-5	Styrene	ND		ug/m³	1.6	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**12**		ug/m³	2.6	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
109-99-9	* Tetrahydrofuran	ND		ug/m³	2.3	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications:			
108-88-3	**Toluene**	**19**		ug/m³	1.4	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	1.5	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	1.7	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
79-01-6	Trichloroethylene	ND		ug/m³	0.51	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	2.1	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	1.3	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	1.7	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	0.49	3.818	EPA TO-15	12/04/2021 06:00	12/04/2021 13:52	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: **SSV02** **York Sample ID:** **21K1075-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:18 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	2.7	3.918	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 14:51	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	2.1	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	2.7	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	3.0	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	2.1	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	1.6	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.39	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	2.9	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**3.7**		ug/m³	1.9	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	3.0	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	2.4	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	1.6	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	1.8	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	2.7	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	1.9	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	2.6	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	2.4	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	1.8	3.918	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 14:51	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	2.4	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	2.8	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
78-93-3	**2-Butanone**	**2.0**		ug/m³	1.2	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	3.2	3.918	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 14:51	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	6.1	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ

Sample Information

Client Sample ID: SSV02 **York Sample ID:** 21K1075-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:18 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	1.6	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
67-64-1	**Acetone**	**21**		ug/m³	1.9	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.85	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
71-43-2	**Benzene**	**1.3**		ug/m³	1.3	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	2.0	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
75-27-4	**Bromodichloromethane**	**8.4**		ug/m³	2.6	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
75-25-2	Bromoform	ND		ug/m³	4.0	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
74-83-9	Bromomethane	ND		ug/m³	1.5	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
75-15-0	**Carbon disulfide**	**12**		ug/m³	1.2	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
56-23-5	**Carbon tetrachloride**	**0.99**		ug/m³	0.62	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	1.8	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
75-00-3	Chloroethane	ND		ug/m³	1.0	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
67-66-3	**Chloroform**	**550**		ug/m³	1.9	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
74-87-3	Chloromethane	ND		ug/m³	0.81	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.39	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	1.8	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
110-82-7	Cyclohexane	ND		ug/m³	1.3	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	3.3	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
75-71-8	**Dichlorodifluoromethane**	**3.7**		ug/m³	1.9	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	2.8	3.918	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 14:51	LLJ
100-41-4	**Ethyl Benzene**	**320**		ug/m³	1.7	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	4.2	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
67-63-0	**Isopropanol**	**5.6**		ug/m³	1.9	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ

Sample Information

Client Sample ID: **SSV02** **York Sample ID:** **21K1075-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:18 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	1.6	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	1.4	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
75-09-2	**Methylene chloride**	**2.7**		ug/m³	2.7	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
142-82-5	**n-Heptane**	**2.7**		ug/m³	1.6	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
110-54-3	n-Hexane	ND		ug/m³	1.4	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
95-47-6	**o-Xylene**	**230**		ug/m³	1.7	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
179601-23-1	**p- & m- Xylenes**	**1100**		ug/m³	3.4	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
622-96-8	*** p-Ethyltoluene**	**2.9**		ug/m³	1.9	3.918	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 14:51	LLJ
115-07-1	* Propylene	ND		ug/m³	0.67	3.918	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 14:51	LLJ
100-42-5	**Styrene**	**8.5**		ug/m³	1.7	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
127-18-4	**Tetrachloroethylene**	**8.0**		ug/m³	2.7	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	2.3	3.918	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 14:51	LLJ
108-88-3	**Toluene**	**26**		ug/m³	1.5	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	1.6	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	1.8	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.53	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	2.2	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	1.4	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	1.7	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.50	3.918	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 14:51	LLJ

Sample Information

Client Sample ID: **SSV03** **York Sample ID:** **21K1075-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:44 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	2.8	4.026	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 15:51	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	2.2	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	2.8	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	3.1	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	2.2	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	1.6	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.40	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	3.0	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**3.4**		ug/m³	2.0	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	3.1	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	2.4	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	1.6	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	1.9	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	2.8	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	2.0	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	2.7	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	2.4	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	1.9	4.026	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 15:51	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	2.4	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	2.9	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
78-93-3	**2-Butanone**	**3.3**		ug/m³	1.2	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	3.3	4.026	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 15:51	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	6.3	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ

Sample Information

Client Sample ID: **SSV03** **York Sample ID:** **21K1075-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:44 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	1.6	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
67-64-1	**Acetone**	**35**		ug/m³	1.9	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.87	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
71-43-2	Benzene	ND		ug/m³	1.3	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	2.1	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	2.7	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
75-25-2	Bromoform	ND		ug/m³	4.2	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
74-83-9	Bromomethane	ND		ug/m³	1.6	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
75-15-0	**Carbon disulfide**	**8.0**		ug/m³	1.3	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	0.63	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	1.9	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
75-00-3	Chloroethane	ND		ug/m³	1.1	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
67-66-3	**Chloroform**	**3.1**		ug/m³	2.0	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
74-87-3	Chloromethane	ND		ug/m³	0.83	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
156-59-2	**cis-1,2-Dichloroethylene**	**0.96**		ug/m³	0.40	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	1.8	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
110-82-7	Cyclohexane	ND		ug/m³	1.4	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	3.4	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
75-71-8	**Dichlorodifluoromethane**	**3.6**		ug/m³	2.0	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	2.9	4.026	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 15:51	LLJ
100-41-4	**Ethyl Benzene**	**310**		ug/m³	1.7	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	4.3	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ
67-63-0	**Isopropanol**	**4.7**		ug/m³	2.0	4.026	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 15:51	LLJ

Sample Information

Client Sample ID: SSV03 **York Sample ID:** 21K1075-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:44 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	1.6	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	1.5	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-09-2	**Methylene chloride**	**2.8**		ug/m³	2.8	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
142-82-5	**n-Heptane**	**2.3**		ug/m³	1.7	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-54-3	n-Hexane	ND		ug/m³	1.4	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
95-47-6	**o-Xylene**	**220**		ug/m³	1.7	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
179601-23-1	**p- & m- Xylenes**	**1100**		ug/m³	3.5	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
622-96-8	*** p-Ethyltoluene**	**2.8**		ug/m³	2.0	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.69	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications:			
100-42-5	**Styrene**	**8.4**		ug/m³	1.7	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**57**		ug/m³	2.7	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
109-99-9	* Tetrahydrofuran	ND		ug/m³	2.4	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications:			
108-88-3	**Toluene**	**23**		ug/m³	1.5	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	1.6	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	1.8	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
79-01-6	**Trichloroethylene**	**12**		ug/m³	0.54	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	2.3	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	1.4	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	1.8	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	0.51	4.026	EPA TO-15	12/04/2021 06:00	12/04/2021 15:51	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: **SSV04** **York Sample ID:** **21K1075-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:37 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	2.5	3.626	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 16:51	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	2.0	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	2.5	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	2.8	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	2.0	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	1.5	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.36	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	2.7	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**2.7**		ug/m³	1.8	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	2.8	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	2.2	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	1.5	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	1.7	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	2.5	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	1.8	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	2.4	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	2.2	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	1.7	3.626	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 16:51	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	2.2	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	2.6	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
78-93-3	**2-Butanone**	**2.0**		ug/m³	1.1	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	3.0	3.626	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 16:51	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	5.7	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ

Sample Information

Client Sample ID: SSV04 **York Sample ID:** 21K1075-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:37 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	1.5	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
67-64-1	**Acetone**	**35**		ug/m³	1.7	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.79	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
71-43-2	Benzene	ND		ug/m³	1.2	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	1.9	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	2.4	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
75-25-2	Bromoform	ND		ug/m³	3.7	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
74-83-9	Bromomethane	ND		ug/m³	1.4	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
75-15-0	**Carbon disulfide**	**7.3**		ug/m³	1.1	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	0.57	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	1.7	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.96	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
67-66-3	**Chloroform**	**39**		ug/m³	1.8	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
74-87-3	Chloromethane	ND		ug/m³	0.75	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
156-59-2	**cis-1,2-Dichloroethylene**	**1.4**		ug/m³	0.36	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	1.6	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
110-82-7	Cyclohexane	ND		ug/m³	1.2	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	3.1	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
75-71-8	**Dichlorodifluoromethane**	**3.2**		ug/m³	1.8	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	2.6	3.626	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 16:51	LLJ
100-41-4	**Ethyl Benzene**	**230**		ug/m³	1.6	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	3.9	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
67-63-0	**Isopropanol**	**6.3**		ug/m³	1.8	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ

Sample Information

Client Sample ID: **SSV04** **York Sample ID:** **21K1075-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:37 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	1.5	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	1.3	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
75-09-2	Methylene chloride	ND		ug/m³	2.5	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
142-82-5	**n-Heptane**	**1.9**		ug/m³	1.5	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
110-54-3	n-Hexane	ND		ug/m³	1.3	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
95-47-6	**o-Xylene**	**160**		ug/m³	1.6	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
179601-23-1	**p- & m- Xylenes**	**810**		ug/m³	3.1	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
622-96-8	*** p-Ethyltoluene**	**2.1**		ug/m³	1.8	3.626	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 16:51	LLJ
115-07-1	* Propylene	ND		ug/m³	0.62	3.626	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 16:51	LLJ
100-42-5	Styrene	ND		ug/m³	1.5	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
127-18-4	**Tetrachloroethylene**	**380**		ug/m³	2.5	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	2.1	3.626	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 16:51	LLJ
108-88-3	**Toluene**	**19**		ug/m³	1.4	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	1.4	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	1.6	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
79-01-6	**Trichloroethylene**	**26**		ug/m³	0.49	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	2.0	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	1.3	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	1.6	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.46	3.626	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 16:51	LLJ

Sample Information

Client Sample ID: **SSV05**

York Sample ID: **21K1075-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:38 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	14	20.19	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 12:29	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	11	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	14	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	15	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	11	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	8.2	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
75-35-4	**1,1-Dichloroethylene**	**240**		ug/m³	2.0	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	15	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	9.9	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	16	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	12	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	8.2	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	9.3	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	14	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	9.9	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	13	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	12	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	9.3	20.19	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 12:29	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	12	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	15	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
78-93-3	2-Butanone	ND		ug/m³	6.0	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	17	20.19	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 12:29	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	32	20.19	EPA TO-15 Certifications:	11/24/2021 17:00 NELAC-NY12058,NJDEP-Queens	11/25/2021 12:29	LLJ

Sample Information

Client Sample ID: **SSV05** **York Sample ID:** **21K1075-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:38 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	8.3	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
67-64-1	**Acetone**	**22**		ug/m³	9.6	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	4.4	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
71-43-2	**Benzene**	**21**		ug/m³	6.5	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	10	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	14	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
75-25-2	Bromoform	ND		ug/m³	21	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
74-83-9	Bromomethane	ND		ug/m³	7.8	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
75-15-0	**Carbon disulfide**	**7.5**		ug/m³	6.3	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	3.2	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	9.3	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
75-00-3	Chloroethane	ND		ug/m³	5.3	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
67-66-3	**Chloroform**	**92**		ug/m³	9.9	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
74-87-3	Chloromethane	ND		ug/m³	4.2	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
156-59-2	**cis-1,2-Dichloroethylene**	**7800**		ug/m³	200	2019	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 02:01	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	9.2	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
110-82-7	Cyclohexane	ND		ug/m³	6.9	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	17	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/m³	10	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	15	20.19	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 12:29	LLJ
100-41-4	**Ethyl Benzene**	**230**		ug/m³	8.8	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	22	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ
67-63-0	Isopropanol	ND		ug/m³	9.9	20.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 12:29	LLJ

Sample Information

Client Sample ID: **SSV05** **York Sample ID:** **21K1075-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:38 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	8.3	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	7.3	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	Methylene chloride	ND		ug/m³	14	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND		ug/m³	8.3	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	n-Hexane	ND		ug/m³	7.1	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**160**		ug/m³	8.8	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**860**		ug/m³	18	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	* p-Ethyltoluene	ND		ug/m³	9.9	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	3.5	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:			
100-42-5	Styrene	ND		ug/m³	8.6	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**220000**		ug/m³	1400	2019	EPA TO-15	12/04/2021 06:00	12/05/2021 02:01	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	* Tetrahydrofuran	ND		ug/m³	12	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:			
108-88-3	**Toluene**	**18**		ug/m³	7.6	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	**trans-1,2-Dichloroethylene**	**280**		ug/m³	8.0	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	9.2	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**49000**		ug/m³	270	2019	EPA TO-15	12/04/2021 06:00	12/05/2021 02:01	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	11	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-05-4	Vinyl acetate	ND		ug/m³	7.1	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	8.8	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	**Vinyl Chloride**	**2.6**		ug/m³	2.6	20.19	EPA TO-15	11/24/2021 17:00	11/25/2021 12:29	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SSV06** **York Sample ID:** **21K1075-06**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:22 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	11	16.45	EPA TO-15 Certifications:	12/06/2021 08:00	12/06/2021 16:37	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	9.0	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	11	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	13	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	9.0	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	6.7	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
75-35-4	**1,1-Dichloroethylene**	**120**		ug/m³	1.6	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	12	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	8.1	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	13	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	9.9	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	6.7	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	7.6	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	11	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	8.1	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	11	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	9.9	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	7.6	16.45	EPA TO-15 Certifications:	12/06/2021 08:00	12/06/2021 16:37	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	9.9	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	12	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
78-93-3	2-Butanone	ND		ug/m³	4.9	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	13	16.45	EPA TO-15 Certifications:	12/06/2021 08:00	12/06/2021 16:37	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	26	16.45	EPA TO-15 Certifications:	12/06/2021 08:00 NELAC-NY12058,NJDEP-Queens	12/06/2021 16:37	LLJ

Sample Information

Client Sample ID: SSV06 **York Sample ID:** 21K1075-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:22 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	6.7	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
67-64-1	**Acetone**	**40**		ug/m³	7.8	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	3.6	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
71-43-2	Benzene	ND		ug/m³	5.3	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	8.5	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	11	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
75-25-2	Bromoform	ND		ug/m³	17	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
74-83-9	Bromomethane	ND		ug/m³	6.4	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
75-15-0	**Carbon disulfide**	**23**		ug/m³	5.1	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	2.6	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	7.6	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
75-00-3	**Chloroethane**	**6.5**		ug/m³	4.3	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
67-66-3	**Chloroform**	**31**		ug/m³	8.0	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
74-87-3	Chloromethane	ND		ug/m³	3.4	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
156-59-2	**cis-1,2-Dichloroethylene**	**2400**		ug/m³	1.6	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	7.5	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
110-82-7	Cyclohexane	ND		ug/m³	5.7	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	14	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/m³	8.1	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	12	16.45	EPA TO-15 Certifications:	12/06/2021 08:00	12/06/2021 16:37	LLJ
100-41-4	**Ethyl Benzene**	**180**		ug/m³	7.1	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	18	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ
67-63-0	Isopropanol	ND		ug/m³	8.1	16.45	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 16:37	LLJ

Sample Information

Client Sample ID: SSV06 **York Sample ID:** 21K1075-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:22 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	6.7	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	5.9	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	Methylene chloride	ND		ug/m³	11	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND		ug/m³	6.7	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	n-Hexane	ND		ug/m³	5.8	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**130**		ug/m³	7.1	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**680**		ug/m³	14	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	* p-Ethyltoluene	ND		ug/m³	8.1	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	2.8	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:			
100-42-5	Styrene	ND		ug/m³	7.0	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**6000**		ug/m³	22	32.9	EPA TO-15	12/04/2021 06:00	12/04/2021 19:44	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	* Tetrahydrofuran	ND		ug/m³	9.7	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:			
108-88-3	**Toluene**	**14**		ug/m³	6.2	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	**trans-1,2-Dichloroethylene**	**88**		ug/m³	6.5	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	7.5	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**1900**		ug/m³	2.2	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	9.2	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-05-4	Vinyl acetate	ND		ug/m³	5.8	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	7.2	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	**Vinyl Chloride**	**32**		ug/m³	2.1	16.45	EPA TO-15	12/06/2021 08:00	12/06/2021 16:37	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SSV07** **York Sample ID:** **21K1075-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:16 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	15	21.79	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 14:21	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	12	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	15	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	17	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	12	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	8.8	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
75-35-4	**1,1-Dichloroethylene**	**4.3**		ug/m³	2.2	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	16	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	11	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	17	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	13	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	8.8	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	10	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	15	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	11	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	14	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	13	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	10	21.79	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 14:21	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	13	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	16	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
78-93-3	2-Butanone	ND		ug/m³	6.4	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	18	21.79	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 14:21	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	34	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ

Sample Information

Client Sample ID: **SSV07** **York Sample ID:** **21K1075-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:16 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	8.9	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
67-64-1	**Acetone**	**38**		ug/m³	10	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	4.7	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
71-43-2	**Benzene**	**31**		ug/m³	7.0	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	11	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	15	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
75-25-2	Bromoform	ND		ug/m³	23	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
74-83-9	Bromomethane	ND		ug/m³	8.5	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
75-15-0	**Carbon disulfide**	**14**		ug/m³	6.8	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	3.4	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	10	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
75-00-3	Chloroethane	ND		ug/m³	5.7	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
67-66-3	**Chloroform**	**420**		ug/m³	11	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
74-87-3	Chloromethane	ND		ug/m³	4.5	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
156-59-2	**cis-1,2-Dichloroethylene**	**21000**		ug/m³	210	2090.1	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/05/2021 06:00	12/05/2021 17:07	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	9.9	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
110-82-7	Cyclohexane	ND		ug/m³	7.5	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	19	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/m³	11	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	16	21.79	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 14:21	LLJ
100-41-4	**Ethyl Benzene**	**240**		ug/m³	9.5	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	23	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ
67-63-0	Isopropanol	ND		ug/m³	11	21.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 14:21	LLJ

Sample Information

Client Sample ID: SSV07 **York Sample ID:** 21K1075-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:16 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	8.9	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	7.9	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-09-2	Methylene chloride	ND		ug/m³	15	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
142-82-5	n-Heptane	ND		ug/m³	8.9	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-54-3	n-Hexane	ND		ug/m³	7.7	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
95-47-6	**o-Xylene**	**160**		ug/m³	9.5	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
179601-23-1	**p- & m- Xylenes**	**850**		ug/m³	19	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
622-96-8	* p-Ethyltoluene	ND		ug/m³	11	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications:			
115-07-1	*** Propylene**	**51**		ug/m³	3.8	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications:			
100-42-5	Styrene	ND		ug/m³	9.3	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**9600000**		ug/m³	28000	41801.9	EPA TO-15	12/05/2021 06:00	12/05/2021 18:04	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
109-99-9	* Tetrahydrofuran	ND		ug/m³	13	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications:			
108-88-3	**Toluene**	**20**		ug/m³	8.2	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-60-5	**trans-1,2-Dichloroethylene**	**81**		ug/m³	8.6	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	9.9	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
79-01-6	**Trichloroethylene**	**43000**		ug/m³	280	2090.1	EPA TO-15	12/05/2021 06:00	12/05/2021 17:07	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	12	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	7.7	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	9.5	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-01-4	**Vinyl Chloride**	**4.5**		ug/m³	2.8	21.79	EPA TO-15	11/24/2021 17:00	11/25/2021 14:21	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: **SSV08** **York Sample ID:** **21K1075-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:04 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	5.4	7.828	EPA TO-15 Certifications:	12/06/2021 08:00	12/06/2021 15:41	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	4.3	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	5.4	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	6.0	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	4.3	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	3.2	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.78	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	5.8	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**3.8**		ug/m³	3.8	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	6.0	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	4.7	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	3.2	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	3.6	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	5.5	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	3.8	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	5.2	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	4.7	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	3.6	7.828	EPA TO-15 Certifications:	12/06/2021 08:00	12/06/2021 15:41	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	4.7	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	5.6	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
78-93-3	**2-Butanone**	**8.1**		ug/m³	2.3	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	6.4	7.828	EPA TO-15 Certifications:	12/06/2021 08:00	12/06/2021 15:41	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	12	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ

Sample Information

Client Sample ID: **SSV08** **York Sample ID:** **21K1075-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:04 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	3.2	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
67-64-1	**Acetone**	**350**		ug/m³	3.7	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	1.7	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
71-43-2	**Benzene**	**2.5**		ug/m³	2.5	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	4.1	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	5.2	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
75-25-2	Bromoform	ND		ug/m³	8.1	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
74-83-9	Bromomethane	ND		ug/m³	3.0	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
75-15-0	**Carbon disulfide**	**20**		ug/m³	2.4	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	1.2	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	3.6	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
75-00-3	Chloroethane	ND		ug/m³	2.1	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
67-66-3	**Chloroform**	**12**		ug/m³	3.8	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
74-87-3	Chloromethane	ND		ug/m³	1.6	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
156-59-2	**cis-1,2-Dichloroethylene**	**1.6**		ug/m³	0.78	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	3.6	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
110-82-7	Cyclohexane	ND		ug/m³	2.7	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	6.7	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
75-71-8	**Dichlorodifluoromethane**	**8.1**		ug/m³	3.9	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	5.6	7.828	EPA TO-15 Certifications:	12/06/2021 08:00	12/06/2021 15:41	LLJ
100-41-4	**Ethyl Benzene**	**310**		ug/m³	3.4	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	8.3	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
67-63-0	**Isopropanol**	**13**		ug/m³	3.8	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ

Sample Information

Client Sample ID: SSV08 **York Sample ID:** 21K1075-08

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:04 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	3.2	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	2.8	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
75-09-2	Methylene chloride	ND		ug/m³	5.4	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
142-82-5	**n-Heptane**	**3.9**		ug/m³	3.2	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
110-54-3	n-Hexane	ND		ug/m³	2.8	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
95-47-6	**o-Xylene**	**220**		ug/m³	3.4	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
179601-23-1	**p- & m- Xylenes**	**1100**		ug/m³	6.8	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	3.8	7.828	EPA TO-15 Certifications:	12/06/2021 08:00	12/06/2021 15:41	LLJ
115-07-1	* Propylene	ND		ug/m³	1.3	7.828	EPA TO-15 Certifications:	12/06/2021 08:00	12/06/2021 15:41	LLJ
100-42-5	**Styrene**	**9.0**		ug/m³	3.3	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
127-18-4	**Tetrachloroethylene**	**140**		ug/m³	5.3	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	4.6	7.828	EPA TO-15 Certifications:	12/06/2021 08:00	12/06/2021 15:41	LLJ
108-88-3	**Toluene**	**26**		ug/m³	2.9	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	3.1	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	3.6	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
79-01-6	**Trichloroethylene**	**2.5**		ug/m³	1.1	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	4.4	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	2.8	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	3.4	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	1.0	7.828	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:41	LLJ

Sample Information

Client Sample ID: SSV09 **York Sample ID:** 21K1075-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:52 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	12	18.19	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 17:11	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	9.9	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	12	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	14	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	9.9	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	7.4	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	1.8	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	13	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	8.9	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	14	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	11	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	7.4	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	8.4	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	13	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	8.9	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	12	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	11	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	8.4	18.19	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 17:11	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	11	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	13	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
78-93-3	2-Butanone	ND		ug/m³	5.4	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	15	18.19	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 17:11	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	28	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ

Sample Information

Client Sample ID: **SSV09** **York Sample ID:** **21K1075-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:52 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	7.5	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
67-64-1	**Acetone**	**22**		ug/m³	8.6	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	3.9	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
71-43-2	Benzene	ND		ug/m³	5.8	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	9.4	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	12	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
75-25-2	Bromoform	ND		ug/m³	19	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
74-83-9	Bromomethane	ND		ug/m³	7.1	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
75-15-0	**Carbon disulfide**	**12**		ug/m³	5.7	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	2.9	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	8.4	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
75-00-3	Chloroethane	ND		ug/m³	4.8	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
67-66-3	**Chloroform**	**9.8**		ug/m³	8.9	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
74-87-3	Chloromethane	ND		ug/m³	3.8	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	1.8	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	8.3	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
110-82-7	Cyclohexane	ND		ug/m³	6.3	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	15	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/m³	9.0	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	13	18.19	EPA TO-15 Certifications:	11/24/2021 17:00	11/25/2021 17:11	LLJ
100-41-4	**Ethyl Benzene**	**280**		ug/m³	7.9	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	19	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ
67-63-0	Isopropanol	ND		ug/m³	8.9	18.19	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	11/24/2021 17:00	11/25/2021 17:11	LLJ

Sample Information

Client Sample ID: SSV09 **York Sample ID:** 21K1075-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 8:52 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	7.4	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	6.6	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	Methylene chloride	ND		ug/m³	13	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND		ug/m³	7.5	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	n-Hexane	ND		ug/m³	6.4	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**200**		ug/m³	7.9	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**1100**		ug/m³	16	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	* p-Ethyltoluene	ND		ug/m³	8.9	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	3.1	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:			
100-42-5	Styrene	ND		ug/m³	7.7	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**3800**		ug/m³	12	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	* Tetrahydrofuran	ND		ug/m³	11	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:			
108-88-3	**Toluene**	**21**		ug/m³	6.9	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	7.2	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	8.3	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**23**		ug/m³	2.4	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	10	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-05-4	Vinyl acetate	ND		ug/m³	6.4	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	8.0	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	2.3	18.19	EPA TO-15	11/24/2021 17:00	11/25/2021 17:11	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV01**

York Sample ID: **21K1075-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:34 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	2.6	3.756	EPA TO-15 Certifications:	12/04/2021 06:00	12/05/2021 04:28	LLJ
71-55-6	**1,1,1-Trichloroethane**	**8.0**		ug/m³	2.0	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	2.6	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	2.9	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	2.0	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
75-34-3	**1,1-Dichloroethane**	**29**		ug/m³	1.5	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.37	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	2.8	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**5.4**		ug/m³	1.8	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	2.9	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	2.3	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	1.5	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	1.7	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	2.6	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	1.8	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	2.5	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	2.3	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	1.7	3.756	EPA TO-15 Certifications:	12/04/2021 06:00	12/05/2021 04:28	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	2.3	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	2.7	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
78-93-3	**2-Butanone**	**19**		ug/m³	1.1	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	3.1	3.756	EPA TO-15 Certifications:	12/04/2021 06:00	12/05/2021 04:28	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	5.9	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ

Sample Information

Client Sample ID: **SV01**

York Sample ID: **21K1075-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:34 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	1.5	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
67-64-1	**Acetone**	**150**		ug/m³	1.8	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.82	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
71-43-2	**Benzene**	**4.9**		ug/m³	1.2	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	1.9	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	2.5	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
75-25-2	Bromoform	ND		ug/m³	3.9	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
74-83-9	Bromomethane	ND		ug/m³	1.5	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
75-15-0	**Carbon disulfide**	**220**		ug/m³	1.2	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	0.59	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	1.7	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
75-00-3	**Chloroethane**	**3.0**		ug/m³	0.99	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
67-66-3	Chloroform	ND		ug/m³	1.8	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
74-87-3	Chloromethane	ND		ug/m³	0.78	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.37	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	1.7	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
110-82-7	**Cyclohexane**	**65**		ug/m³	1.3	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	3.2	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
75-71-8	**Dichlorodifluoromethane**	**4.5**		ug/m³	1.9	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
141-78-6	*** Ethyl acetate**	**4.7**		ug/m³	2.7	3.756	EPA TO-15 Certifications:	12/04/2021 06:00	12/05/2021 04:28	LLJ
100-41-4	**Ethyl Benzene**	**18**		ug/m³	1.6	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	4.0	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
67-63-0	**Isopropanol**	**3.6**		ug/m³	1.8	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ

Sample Information

Client Sample ID: **SV01**

York Sample ID: **21K1075-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:34 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	1.5	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
1634-04-4	**Methyl tert-butyl ether (MTBE)**	**35**		ug/m³	1.4	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
75-09-2	**Methylene chloride**	**3.8**		ug/m³	2.6	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
142-82-5	**n-Heptane**	**9.5**		ug/m³	1.5	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
110-54-3	**n-Hexane**	**38**		ug/m³	1.3	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
95-47-6	**o-Xylene**	**19**		ug/m³	1.6	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
179601-23-1	**p- & m- Xylenes**	**64**		ug/m³	3.3	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
622-96-8	*** p-Ethyltoluene**	**7.6**		ug/m³	1.8	3.756	EPA TO-15 Certifications:	12/04/2021 06:00	12/05/2021 04:28	LLJ
115-07-1	*** Propylene**	**95**		ug/m³	0.65	3.756	EPA TO-15 Certifications:	12/04/2021 06:00	12/05/2021 04:28	LLJ
100-42-5	**Styrene**	**2.2**		ug/m³	1.6	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
127-18-4	**Tetrachloroethylene**	**21**		ug/m³	2.5	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	2.2	3.756	EPA TO-15 Certifications:	12/04/2021 06:00	12/05/2021 04:28	LLJ
108-88-3	**Toluene**	**270**		ug/m³	1.4	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	1.5	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	1.7	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.50	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**640**		ug/m³	2.1	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	1.3	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	1.6	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.48	3.756	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 04:28	LLJ

Sample Information

Client Sample ID: **SV02**

York Sample ID: **21K1075-11**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:39 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.5	2.199	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 23:32	LLJ
71-55-6	**1,1,1-Trichloroethane**	**8.5**		ug/m³	1.2	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.5	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.7	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	1.2	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
75-34-3	**1,1-Dichloroethane**	**3.4**		ug/m³	0.89	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
75-35-4	**1,1-Dichloroethylene**	**0.26**		ug/m³	0.22	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.6	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
95-63-6	**1,2,4-Trimethylbenzene**	**5.5**		ug/m³	1.1	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.7	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	1.3	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.89	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	1.0	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.5	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
108-67-8	**1,3,5-Trimethylbenzene**	**1.6**		ug/m³	1.1	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	1.5	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	1.3	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	1.0	2.199	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 23:32	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	1.3	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	1.6	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
78-93-3	**2-Butanone**	**5.8**		ug/m³	0.65	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	1.8	2.199	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 23:32	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	3.4	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ

Sample Information

Client Sample ID: **SV02**

York Sample ID: **21K1075-11**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:39 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	**4-Methyl-2-pentanone**	**0.90**		ug/m³	0.90	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-64-1	**Acetone**	**73**		ug/m³	1.0	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
107-13-1	Acrylonitrile	ND		ug/m³	0.48	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
71-43-2	**Benzene**	**2.6**		ug/m³	0.70	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
100-44-7	Benzyl chloride	ND		ug/m³	1.1	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-27-4	Bromodichloromethane	ND		ug/m³	1.5	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-25-2	Bromoform	ND		ug/m³	2.3	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-83-9	Bromomethane	ND		ug/m³	0.85	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-15-0	**Carbon disulfide**	**12**		ug/m³	0.68	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
56-23-5	**Carbon tetrachloride**	**0.42**		ug/m³	0.35	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-90-7	Chlorobenzene	ND		ug/m³	1.0	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-00-3	Chloroethane	ND		ug/m³	0.58	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-66-3	Chloroform	ND		ug/m³	1.1	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-87-3	Chloromethane	ND		ug/m³	0.45	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-59-2	**cis-1,2-Dichloroethylene**	**0.52**		ug/m³	0.22	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	1.0	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-82-7	**Cyclohexane**	**18**		ug/m³	0.76	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	1.9	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-71-8	**Dichlorodifluoromethane**	**2.5**		ug/m³	1.1	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
141-78-6	*** Ethyl acetate**	**1.7**		ug/m³	1.6	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications:			
100-41-4	**Ethyl Benzene**	**15**		ug/m³	0.95	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	2.3	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-63-0	**Isopropanol**	**2.8**		ug/m³	1.1	2.199	EPA TO-15	12/04/2021 06:00	12/04/2021 23:32	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: **SV02**

York Sample ID: **21K1075-11**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:39 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	0.90	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.79	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
75-09-2	Methylene chloride	ND		ug/m³	1.5	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
142-82-5	**n-Heptane**	**4.1**		ug/m³	0.90	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
110-54-3	**n-Hexane**	**19**		ug/m³	0.78	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
95-47-6	**o-Xylene**	**16**		ug/m³	0.95	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
179601-23-1	**p- & m- Xylenes**	**58**		ug/m³	1.9	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
622-96-8	*** p-Ethyltoluene**	**7.5**		ug/m³	1.1	2.199	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 23:32	LLJ
115-07-1	*** Propylene**	**9.8**		ug/m³	0.38	2.199	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 23:32	LLJ
100-42-5	**Styrene**	**1.9**		ug/m³	0.94	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
127-18-4	**Tetrachloroethylene**	**43**		ug/m³	1.5	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	1.3	2.199	EPA TO-15 Certifications:	12/04/2021 06:00	12/04/2021 23:32	LLJ
108-88-3	**Toluene**	**200**		ug/m³	0.83	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.87	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	1.0	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
79-01-6	**Trichloroethylene**	**0.95**		ug/m³	0.30	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**20**		ug/m³	1.2	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.77	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.96	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ
75-01-4	**Vinyl Chloride**	**2.8**		ug/m³	0.28	2.199	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/04/2021 23:32	LLJ

Sample Information

Client Sample ID: SV03 **York Sample ID:** 21K1075-12

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:42 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	4.7	6.778	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 03:51	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	3.7	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	4.7	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	5.2	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	3.7	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	2.7	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.67	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	5.0	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	3.3	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	5.2	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	4.1	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	2.7	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	3.1	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	4.7	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	3.3	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	4.5	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	4.1	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	3.1	6.778	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 03:51	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	4.1	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	4.9	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
78-93-3	2-Butanone	ND		ug/m³	2.0	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	5.6	6.778	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 03:51	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	11	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ

Sample Information

Client Sample ID: **SV03**

York Sample ID: **21K1075-12**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:42 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	2.8	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
67-64-1	**Acetone**	**16**		ug/m³	3.2	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	1.5	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
71-43-2	Benzene	ND		ug/m³	2.2	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	3.5	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	4.5	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
75-25-2	Bromoform	ND		ug/m³	7.0	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
74-83-9	Bromomethane	ND		ug/m³	2.6	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
75-15-0	Carbon disulfide	ND		ug/m³	2.1	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	1.1	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	3.1	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
75-00-3	Chloroethane	ND		ug/m³	1.8	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
67-66-3	Chloroform	ND		ug/m³	3.3	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
74-87-3	**Chloromethane**	**1.5**		ug/m³	1.4	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.67	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	3.1	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
110-82-7	Cyclohexane	ND		ug/m³	2.3	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	5.8	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/m³	3.4	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	4.9	6.778	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 03:51	LLJ
100-41-4	Ethyl Benzene	ND		ug/m³	2.9	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	7.2	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
67-63-0	Isopropanol	ND		ug/m³	3.3	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ

Sample Information

Client Sample ID: SV03 **York Sample ID:** 21K1075-12

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:42 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	2.8	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	2.4	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
75-09-2	Methylene chloride	ND		ug/m³	4.7	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
142-82-5	n-Heptane	ND		ug/m³	2.8	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
110-54-3	n-Hexane	ND		ug/m³	2.4	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
95-47-6	o-Xylene	ND		ug/m³	2.9	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	5.9	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	3.3	6.778	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 03:51	LLJ
115-07-1	* Propylene	ND		ug/m³	1.2	6.778	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 03:51	LLJ
100-42-5	Styrene	ND		ug/m³	2.9	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
127-18-4	Tetrachloroethylene	ND		ug/m³	4.6	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	4.0	6.778	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 03:51	LLJ
108-88-3	Toluene	ND		ug/m³	2.6	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	2.7	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	3.1	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.91	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	3.8	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	2.4	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	3.0	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.87	6.778	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 03:51	LLJ

Sample Information

Client Sample ID: **SV04** **York Sample ID:** **21K1075-13**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:45 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	12	16.87	EPA TO-15 Certifications:	12/02/2021 23:00	12/03/2021 09:45	AS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	9.2	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	12	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	13	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	9.2	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
75-34-3	1,1-Dichloroethane	ND		ug/m³	6.8	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	1.7	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	13	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	8.3	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
106-93-4	1,2-Dibromoethane	ND		ug/m³	13	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	10	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
107-06-2	1,2-Dichloroethane	ND		ug/m³	6.8	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
78-87-5	1,2-Dichloropropane	ND		ug/m³	7.8	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	12	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	8.3	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
106-99-0	1,3-Butadiene	ND		ug/m³	11	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	10	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	7.8	16.87	EPA TO-15 Certifications:	12/02/2021 23:00	12/03/2021 09:45	AS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	10	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
123-91-1	1,4-Dioxane	ND		ug/m³	12	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
78-93-3	**2-Butanone**	**15**		ug/m³	5.0	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS
591-78-6	* 2-Hexanone	ND		ug/m³	14	16.87	EPA TO-15 Certifications:	12/02/2021 23:00	12/03/2021 09:45	AS
107-05-1	3-Chloropropene	ND		ug/m³	26	16.87	EPA TO-15 Certifications:	12/02/2021 23:00 NELAC-NY12058,NJDEP-Queens	12/03/2021 09:45	AS

Sample Information

Client Sample ID: SV04 **York Sample ID:** 21K1075-13

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:45 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	6.9	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-64-1	**Acetone**	**120**		ug/m³	8.0	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
107-13-1	Acrylonitrile	ND		ug/m³	3.7	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
71-43-2	Benzene	ND		ug/m³	5.4	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
100-44-7	Benzyl chloride	ND		ug/m³	8.7	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-27-4	Bromodichloromethane	ND		ug/m³	11	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-25-2	Bromoform	ND		ug/m³	17	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-83-9	Bromomethane	ND		ug/m³	6.6	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-15-0	**Carbon disulfide**	**32**		ug/m³	5.3	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
56-23-5	Carbon tetrachloride	ND		ug/m³	2.7	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-90-7	Chlorobenzene	ND		ug/m³	7.8	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-00-3	Chloroethane	ND		ug/m³	4.5	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-66-3	Chloroform	ND		ug/m³	8.2	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-87-3	Chloromethane	ND		ug/m³	3.5	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-59-2	**cis-1,2-Dichloroethylene**	**37**		ug/m³	1.7	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	7.7	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-82-7	Cyclohexane	ND		ug/m³	5.8	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	14	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-71-8	Dichlorodifluoromethane	ND		ug/m³	8.3	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
141-78-6	* Ethyl acetate	ND		ug/m³	12	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications:			
100-41-4	**Ethyl Benzene**	**19**		ug/m³	7.3	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	18	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-63-0	Isopropanol	ND		ug/m³	8.3	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: **SV04** **York Sample ID:** **21K1075-13**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Soil Vapor	November 19, 2021 9:45 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	6.9	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	6.1	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-09-2	Methylene chloride	ND		ug/m³	12	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
142-82-5	n-Heptane	ND		ug/m³	6.9	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-54-3	**n-Hexane**	**32**		ug/m³	5.9	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
95-47-6	**o-Xylene**	**19**		ug/m³	7.3	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
179601-23-1	**p- & m- Xylenes**	**68**		ug/m³	15	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
622-96-8	* p-Ethyltoluene	ND		ug/m³	8.3	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	2.9	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	7.2	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**490000**		ug/m³	1100	1687	EPA TO-15	12/05/2021 06:00	12/05/2021 11:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
109-99-9	* Tetrahydrofuran	ND		ug/m³	10	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications:			
108-88-3	**Toluene**	**320**		ug/m³	6.4	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	6.7	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	7.7	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
79-01-6	**Trichloroethylene**	**320**		ug/m³	2.3	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	9.5	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	5.9	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	7.4	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	2.2	16.87	EPA TO-15	12/02/2021 23:00	12/03/2021 09:45	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: **IAQ01** **York Sample ID:** **21K1075-14**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:24 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.66	0.962	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 21:27	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.52	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.66	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.74	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.52	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.39	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.095	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.71	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.47	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.74	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.58	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.39	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.44	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.67	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.47	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.64	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.58	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.44	0.962	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 21:27	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.58	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.69	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
78-93-3	**2-Butanone**	**1.6**		ug/m³	0.28	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.79	0.962	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 21:27	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.5	0.962	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 21:27	LLJ

Sample Information

Client Sample ID: **IAQ01** **York Sample ID:** **21K1075-14**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:24 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.39	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-64-1	**Acetone**	**11**		ug/m³	0.46	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
107-13-1	Acrylonitrile	ND		ug/m³	0.21	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
71-43-2	Benzene	ND		ug/m³	0.31	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
100-44-7	Benzyl chloride	ND		ug/m³	0.50	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-27-4	Bromodichloromethane	ND		ug/m³	0.64	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-25-2	Bromoform	ND		ug/m³	0.99	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-83-9	Bromomethane	ND		ug/m³	0.37	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-15-0	Carbon disulfide	ND		ug/m³	0.30	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
56-23-5	Carbon tetrachloride	ND		ug/m³	0.15	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-90-7	Chlorobenzene	ND		ug/m³	0.44	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-00-3	Chloroethane	ND		ug/m³	0.25	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-66-3	Chloroform	ND		ug/m³	0.47	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-87-3	**Chloromethane**	**1.3**		ug/m³	0.20	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.095	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.44	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-82-7	Cyclohexane	ND		ug/m³	0.33	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	0.82	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-71-8	**Dichlorodifluoromethane**	**1.6**		ug/m³	0.48	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
141-78-6	* Ethyl acetate	ND		ug/m³	0.69	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications:			
100-41-4	Ethyl Benzene	ND		ug/m³	0.42	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.0	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-63-0	**Isopropanol**	**2.5**		ug/m³	0.47	0.962	EPA TO-15	12/03/2021 20:00	12/04/2021 21:27	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: **IAQ01**

York Sample ID: **21K1075-14**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:24 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	0.39	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.35	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
75-09-2	Methylene chloride	ND		ug/m³	0.67	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.39	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
110-54-3	n-Hexane	ND		ug/m³	0.34	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.42	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.84	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.47	0.962	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 21:27	LLJ
115-07-1	* Propylene	ND		ug/m³	0.17	0.962	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 21:27	LLJ
100-42-5	Styrene	ND		ug/m³	0.41	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
127-18-4	**Tetrachloroethylene**	**4.6**		ug/m³	0.65	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.57	0.962	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 21:27	LLJ
108-88-3	**Toluene**	**1.5**		ug/m³	0.36	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.38	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.44	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.13	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.76**		ug/m³	0.54	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.34	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.42	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.12	0.962	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 21:27	LLJ

Sample Information

Client Sample ID: **IAQ02** **York Sample ID:** **21K1075-15**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:18 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.73	1.068	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 15:28	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.58	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.73	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.82	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.58	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.43	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.11	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.79	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.53	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.82	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.64	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.43	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.49	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.75	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.53	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.71	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.64	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.49	1.068	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 15:28	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.64	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.77	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
78-93-3	**2-Butanone**	**0.72**		ug/m³	0.31	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.88	1.068	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 15:28	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.7	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ

Sample Information

Client Sample ID: IAQ02 **York Sample ID:** 21K1075-15

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:18 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.44	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
67-64-1	**Acetone**	**84**		ug/m³	0.51	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.23	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
71-43-2	Benzene	ND		ug/m³	0.34	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.55	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	0.72	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
75-25-2	Bromoform	ND		ug/m³	1.1	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.41	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
75-15-0	Carbon disulfide	ND		ug/m³	0.33	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	0.17	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.49	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.28	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
67-66-3	**Chloroform**	**7.2**		ug/m³	0.52	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
74-87-3	**Chloromethane**	**1.4**		ug/m³	0.22	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.11	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.48	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
110-82-7	Cyclohexane	ND		ug/m³	0.37	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	0.91	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
75-71-8	**Dichlorodifluoromethane**	**1.6**		ug/m³	0.53	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
141-78-6	*** Ethyl acetate**	**3.2**		ug/m³	0.77	1.068	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 15:28	LLJ
100-41-4	Ethyl Benzene	ND		ug/m³	0.46	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ
67-63-0	**Isopropanol**	**8.3**		ug/m³	0.53	1.068	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 15:28	LLJ

Sample Information

Client Sample ID: IAQ02 **York Sample ID:** 21K1075-15

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:18 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	0.44	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.39	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
75-09-2	Methylene chloride	ND		ug/m³	0.74	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.44	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
110-54-3	n-Hexane	ND		ug/m³	0.38	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.46	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.93	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.53	1.068	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 15:28	LLJ
115-07-1	* Propylene	ND		ug/m³	0.18	1.068	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 15:28	LLJ
100-42-5	Styrene	ND		ug/m³	0.45	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
127-18-4	Tetrachloroethylene	ND		ug/m³	0.72	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.63	1.068	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 15:28	LLJ
108-88-3	**Toluene**	**1.3**		ug/m³	0.40	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.42	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.48	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.14	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.66**		ug/m³	0.60	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.38	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.47	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.14	1.068	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 15:28	LLJ

Sample Information

Client Sample ID: IAQ03 **York Sample ID:** 21K1075-16

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:44 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.74	1.072	EPA TO-15 Certifications:	12/04/2021 06:00	12/05/2021 05:38	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.58	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.74	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.82	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.58	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.43	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.11	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.80	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.53	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.82	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.64	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.43	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.50	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.75	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.53	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.71	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.64	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.50	1.072	EPA TO-15 Certifications:	12/04/2021 06:00	12/05/2021 05:38	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.64	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.77	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
78-93-3	**2-Butanone**	**0.60**		ug/m³	0.32	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.88	1.072	EPA TO-15 Certifications:	12/04/2021 06:00	12/05/2021 05:38	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.7	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ

Sample Information

Client Sample ID: IAQ03 **York Sample ID:** 21K1075-16

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:44 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.44	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
67-64-1	**Acetone**	**39**		ug/m³	0.51	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.23	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
71-43-2	**Benzene**	**0.55**		ug/m³	0.34	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.55	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	0.72	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
75-25-2	Bromoform	ND		ug/m³	1.1	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.42	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
75-15-0	Carbon disulfide	ND		ug/m³	0.33	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
56-23-5	**Carbon tetrachloride**	**0.47**		ug/m³	0.17	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.49	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.28	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
67-66-3	Chloroform	ND		ug/m³	0.52	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
74-87-3	**Chloromethane**	**1.0**		ug/m³	0.22	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.11	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.49	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
110-82-7	Cyclohexane	ND		ug/m³	0.37	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	0.91	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
75-71-8	**Dichlorodifluoromethane**	**2.4**		ug/m³	0.53	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
141-78-6	*** Ethyl acetate**	**1.8**		ug/m³	0.77	1.072	EPA TO-15 Certifications:	12/04/2021 06:00	12/05/2021 05:38	LLJ
100-41-4	Ethyl Benzene	ND		ug/m³	0.47	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ
67-63-0	**Isopropanol**	**6.2**		ug/m³	0.53	1.072	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/04/2021 06:00	12/05/2021 05:38	LLJ

Sample Information

Client Sample ID: **IAQ03** **York Sample ID:** **21K1075-16**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:44 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	**Methyl Methacrylate**	**0.88**		ug/m³	0.44	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.39	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-09-2	**Methylene chloride**	**4.2**		ug/m³	0.74	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
142-82-5	n-Heptane	ND		ug/m³	0.44	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-54-3	**n-Hexane**	**0.64**		ug/m³	0.38	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
95-47-6	o-Xylene	ND		ug/m³	0.47	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.93	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.53	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.18	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.46	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**4.8**		ug/m³	0.73	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.63	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications:			
108-88-3	**Toluene**	**1.7**		ug/m³	0.40	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.43	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.49	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
79-01-6	**Trichloroethylene**	**0.29**		ug/m³	0.14	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.6**		ug/m³	0.60	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	0.38	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	0.47	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	0.14	1.072	EPA TO-15	12/04/2021 06:00	12/05/2021 05:38	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: IAQ04 **York Sample ID:** 21K1075-17

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:37 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.71	1.03	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 13:30	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.56	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.71	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.79	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.56	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.42	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.10	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.76	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.51	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.79	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.62	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.42	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.48	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.72	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.51	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.68	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.62	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.48	1.03	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 13:30	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.62	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.74	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
78-93-3	**2-Butanone**	**0.43**		ug/m³	0.30	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.84	1.03	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 13:30	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.6	1.03	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 13:30	LLJ

Sample Information

Client Sample ID: IAQ04 **York Sample ID:** 21K1075-17

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:37 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.42	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-64-1	**Acetone**	**7.1**		ug/m³	0.49	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
107-13-1	Acrylonitrile	ND		ug/m³	0.22	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
71-43-2	Benzene	ND		ug/m³	0.33	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
100-44-7	Benzyl chloride	ND		ug/m³	0.53	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-27-4	Bromodichloromethane	ND		ug/m³	0.69	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-25-2	Bromoform	ND		ug/m³	1.1	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-83-9	Bromomethane	ND		ug/m³	0.40	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-15-0	Carbon disulfide	ND		ug/m³	0.32	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
56-23-5	Carbon tetrachloride	ND		ug/m³	0.16	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-90-7	Chlorobenzene	ND		ug/m³	0.47	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-00-3	Chloroethane	ND		ug/m³	0.27	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-66-3	Chloroform	ND		ug/m³	0.50	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-87-3	**Chloromethane**	**1.3**		ug/m³	0.21	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.10	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.47	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-82-7	Cyclohexane	ND		ug/m³	0.35	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	0.88	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-71-8	**Dichlorodifluoromethane**	**1.6**		ug/m³	0.51	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
141-78-6	* Ethyl acetate	ND		ug/m³	0.74	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:			
100-41-4	Ethyl Benzene	ND		ug/m³	0.45	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-63-0	**Isopropanol**	**2.4**		ug/m³	0.51	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: IAQ04 **York Sample ID:** 21K1075-17

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:37 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	**Methyl Methacrylate**	**0.80**		ug/m³	0.42	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.37	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**5.0**		ug/m³	0.72	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND		ug/m³	0.42	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	n-Hexane	ND		ug/m³	0.36	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	o-Xylene	ND		ug/m³	0.45	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.89	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.51	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.18	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.44	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**64**		ug/m³	0.70	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.61	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:			
108-88-3	**Toluene**	**1.1**		ug/m³	0.39	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.41	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.47	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	Trichloroethylene	ND		ug/m³	0.14	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.75**		ug/m³	0.58	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-05-4	Vinyl acetate	ND		ug/m³	0.36	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.45	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.13	1.03	EPA TO-15	12/03/2021 20:00	12/04/2021 13:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **IAQ05**

York Sample ID: **21K1075-18**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:38 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.76	1.102	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 12:30	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.60	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.76	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.84	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.60	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.45	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.11	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.82	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.54	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.85	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.66	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.45	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.51	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.77	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.54	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.73	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.66	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.51	1.102	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 12:30	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.66	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.79	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
78-93-3	**2-Butanone**	**0.59**		ug/m³	0.33	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.90	1.102	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 12:30	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.7	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ

Sample Information

Client Sample ID: **IAQ05**

York Sample ID: **21K1075-18**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:38 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.45	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**8.7**		ug/m³	0.52	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.24	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.35	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.57	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	0.74	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.1	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.43	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	Carbon disulfide	ND		ug/m³	0.34	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	Carbon tetrachloride	ND		ug/m³	0.17	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.51	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.29	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.54	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**1.4**		ug/m³	0.23	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.11	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.50	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.38	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	0.94	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**1.7**		ug/m³	0.54	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
141-78-6	* Ethyl acetate	ND		ug/m³	0.79	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:			
100-41-4	Ethyl Benzene	ND		ug/m³	0.48	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.2	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**5.5**		ug/m³	0.54	1.102	EPA TO-15	12/03/2021 20:00	12/04/2021 12:30	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **IAQ05** **York Sample ID:** **21K1075-18**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:38 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	0.45	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.40	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
75-09-2	Methylene chloride	ND		ug/m³	0.77	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.45	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
110-54-3	n-Hexane	ND		ug/m³	0.39	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.48	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.96	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.54	1.102	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 12:30	LLJ
115-07-1	* Propylene	ND		ug/m³	0.19	1.102	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 12:30	LLJ
100-42-5	Styrene	ND		ug/m³	0.47	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
127-18-4	**Tetrachloroethylene**	**8.7**		ug/m³	0.75	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.65	1.102	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 12:30	LLJ
108-88-3	**Toluene**	**3.1**		ug/m³	0.42	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.44	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.50	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.15	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.80**		ug/m³	0.62	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.39	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.48	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.14	1.102	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 12:30	LLJ

Sample Information

Client Sample ID: IAQ06 **York Sample ID:** 21K1075-19

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 9:22 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.63	0.911	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 11:31	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.50	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.63	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.70	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.50	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.37	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.090	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.68	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.45	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.70	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.55	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.37	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.42	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.64	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.45	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.60	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.55	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.42	0.911	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 11:31	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.55	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.66	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
78-93-3	**2-Butanone**	**0.38**		ug/m³	0.27	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.75	0.911	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 11:31	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.4	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ

Sample Information

Client Sample ID: IAQ06 **York Sample ID:** 21K1075-19

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 9:22 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.37	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**5.5**		ug/m³	0.43	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.20	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.29	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.47	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	0.61	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	0.94	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.35	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	Carbon disulfide	ND		ug/m³	0.28	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	Carbon tetrachloride	ND		ug/m³	0.14	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.42	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.24	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.44	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**1.3**		ug/m³	0.19	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.090	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.41	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.31	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	0.78	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**1.7**		ug/m³	0.45	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
141-78-6	* Ethyl acetate	ND		ug/m³	0.66	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:			
100-41-4	Ethyl Benzene	ND		ug/m³	0.40	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	0.97	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**3.0**		ug/m³	0.45	0.911	EPA TO-15	12/03/2021 20:00	12/04/2021 11:31	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **IAQ06**

York Sample ID: **21K1075-19**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 9:22 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	0.37	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.33	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
75-09-2	Methylene chloride	ND		ug/m³	0.63	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.37	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
110-54-3	n-Hexane	ND		ug/m³	0.32	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.40	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.79	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.45	0.911	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 11:31	LLJ
115-07-1	* Propylene	ND		ug/m³	0.16	0.911	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 11:31	LLJ
100-42-5	Styrene	ND		ug/m³	0.39	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
127-18-4	**Tetrachloroethylene**	**4.4**		ug/m³	0.62	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.54	0.911	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 11:31	LLJ
108-88-3	**Toluene**	**0.82**		ug/m³	0.34	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.36	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.41	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.12	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.72**		ug/m³	0.51	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.32	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.40	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.12	0.911	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 11:31	LLJ

Sample Information

Client Sample ID: IAQ07 **York Sample ID:** 21K1075-20

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 9:18 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.78	1.136	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 10:32	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.62	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.78	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.87	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.62	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.46	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.11	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.84	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.56	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.87	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.68	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.46	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.52	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.79	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.56	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.75	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.68	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.52	1.136	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 10:32	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.68	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.82	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
78-93-3	**2-Butanone**	**0.47**		ug/m³	0.34	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.93	1.136	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 10:32	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.8	1.136	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 10:32	LLJ

Sample Information

Client Sample ID: **IAQ07** **York Sample ID:** **21K1075-20**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 9:18 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.47	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**5.1**		ug/m³	0.54	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.25	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.36	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.59	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	0.76	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.2	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.44	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	Carbon disulfide	ND		ug/m³	0.35	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	Carbon tetrachloride	ND		ug/m³	0.18	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.52	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.30	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.55	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**1.4**		ug/m³	0.23	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.11	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.52	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.39	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	0.97	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**1.8**		ug/m³	0.56	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
141-78-6	* Ethyl acetate	ND		ug/m³	0.82	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:			
100-41-4	Ethyl Benzene	ND		ug/m³	0.49	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.2	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**3.1**		ug/m³	0.56	1.136	EPA TO-15	12/03/2021 20:00	12/04/2021 10:32	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: IAQ07 **York Sample ID:** 21K1075-20

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 9:18 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	0.47	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.41	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
75-09-2	**Methylene chloride**	**2.2**		ug/m³	0.79	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.47	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
110-54-3	n-Hexane	ND		ug/m³	0.40	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.49	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.99	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.56	1.136	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 10:32	LLJ
115-07-1	* Propylene	ND		ug/m³	0.20	1.136	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 10:32	LLJ
100-42-5	Styrene	ND		ug/m³	0.48	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
127-18-4	**Tetrachloroethylene**	**8.1**		ug/m³	0.77	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.67	1.136	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 10:32	LLJ
108-88-3	Toluene	ND		ug/m³	0.43	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.45	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.52	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.15	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.77**		ug/m³	0.64	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.40	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.50	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.15	1.136	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 10:32	LLJ

Sample Information

Client Sample ID: **IAQ08**

York Sample ID: **21K1075-21**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:57 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.67	0.974	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 09:33	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.53	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.67	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.75	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.53	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.39	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.097	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.72	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.48	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.75	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.59	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.39	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.45	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.68	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.48	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.65	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.59	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.45	0.974	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 09:33	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.59	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.70	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
78-93-3	**2-Butanone**	**1.3**		ug/m³	0.29	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.80	0.974	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 09:33	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.5	0.974	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 09:33	LLJ

Sample Information

Client Sample ID: **IAQ08** **York Sample ID:** **21K1075-21**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:57 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.40	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
67-64-1	**Acetone**	**380**		ug/m³	17	36.56	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/06/2021 08:00	12/06/2021 15:50	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.21	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
71-43-2	**Benzene**	**0.31**		ug/m³	0.31	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.50	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	0.65	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
75-25-2	Bromoform	ND		ug/m³	1.0	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.38	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
75-15-0	Carbon disulfide	ND		ug/m³	0.30	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	0.15	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.45	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.26	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
67-66-3	Chloroform	ND		ug/m³	0.48	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
74-87-3	**Chloromethane**	**1.4**		ug/m³	0.20	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.097	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.44	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
110-82-7	Cyclohexane	ND		ug/m³	0.34	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	0.83	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
75-71-8	**Dichlorodifluoromethane**	**1.8**		ug/m³	0.48	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
141-78-6	*** Ethyl acetate**	**3.1**		ug/m³	0.70	0.974	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 09:33	LLJ
100-41-4	Ethyl Benzene	ND		ug/m³	0.42	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.0	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ
67-63-0	**Isopropanol**	**6.4**		ug/m³	0.48	0.974	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 09:33	LLJ

Sample Information

Client Sample ID: IAQ08 **York Sample ID:** 21K1075-21

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:57 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	**Methyl Methacrylate**	**0.44**		ug/m³	0.40	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.35	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-09-2	Methylene chloride	ND		ug/m³	0.68	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
142-82-5	**n-Heptane**	**0.48**		ug/m³	0.40	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-54-3	**n-Hexane**	**0.55**		ug/m³	0.34	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
95-47-6	o-Xylene	ND		ug/m³	0.42	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
179601-23-1	**p- & m- Xylenes**	**0.93**		ug/m³	0.85	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.48	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.17	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.41	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**2.0**		ug/m³	0.66	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.57	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications:			
108-88-3	**Toluene**	**3.5**		ug/m³	0.37	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.39	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.44	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
79-01-6	Trichloroethylene	ND		ug/m³	0.13	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.71**		ug/m³	0.55	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	0.34	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	0.43	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	0.12	0.974	EPA TO-15	12/03/2021 20:00	12/04/2021 09:33	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: IAQ09 **York Sample ID:** 21K1075-22

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:52 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.69	1.002	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 08:34	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.55	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.69	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.77	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.55	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.41	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.099	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.74	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.49	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.77	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.60	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.41	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.46	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.70	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.49	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.67	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.60	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.46	1.002	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 08:34	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.60	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.72	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
78-93-3	**2-Butanone**	**1.1**		ug/m³	0.30	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.82	1.002	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 08:34	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.6	1.002	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 08:34	LLJ

Sample Information

Client Sample ID: IAQ09 **York Sample ID:** 21K1075-22

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:52 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.41	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
67-64-1	**Acetone**	**100**		ug/m³	0.48	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.22	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
71-43-2	Benzene	ND		ug/m³	0.32	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.52	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	0.67	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
75-25-2	Bromoform	ND		ug/m³	1.0	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.39	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
75-15-0	Carbon disulfide	ND		ug/m³	0.31	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	0.16	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.46	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.26	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
67-66-3	**Chloroform**	**0.73**		ug/m³	0.49	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
74-87-3	**Chloromethane**	**1.4**		ug/m³	0.21	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.099	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.45	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
110-82-7	Cyclohexane	ND		ug/m³	0.34	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	0.85	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
75-71-8	**Dichlorodifluoromethane**	**1.4**		ug/m³	0.50	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
141-78-6	*** Ethyl acetate**	**2.6**		ug/m³	0.72	1.002	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 08:34	LLJ
100-41-4	Ethyl Benzene	ND		ug/m³	0.44	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
67-63-0	**Isopropanol**	**5.1**		ug/m³	0.49	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ

Sample Information

Client Sample ID: IAQ09 **York Sample ID:** 21K1075-22

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Indoor Ambient Air	November 19, 2021 8:52 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	0.41	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.36	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
75-09-2	Methylene chloride	ND		ug/m³	0.70	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.41	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
110-54-3	n-Hexane	ND		ug/m³	0.35	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.44	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.87	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.49	1.002	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 08:34	LLJ
115-07-1	* Propylene	ND		ug/m³	0.17	1.002	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 08:34	LLJ
100-42-5	Styrene	ND		ug/m³	0.43	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
127-18-4	**Tetrachloroethylene**	**3.9**		ug/m³	0.68	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.59	1.002	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 08:34	LLJ
108-88-3	**Toluene**	**1.4**		ug/m³	0.38	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.40	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.45	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.13	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.73**		ug/m³	0.56	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.35	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.44	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.13	1.002	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 08:34	LLJ

Sample Information

Client Sample ID: OAQ01 **York Sample ID:** 21K1075-23

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Outdoor Ambient Air	November 19, 2021 9:24 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.65	0.954	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 07:17	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.52	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.65	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.73	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.52	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.39	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.095	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.71	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.47	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.73	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.57	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.39	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.44	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.67	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.47	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.63	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.57	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.44	0.954	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 07:17	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.57	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.69	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
78-93-3	2-Butanone	ND		ug/m³	0.28	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.78	0.954	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 07:17	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.5	0.954	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 07:17	LLJ

Sample Information

Client Sample ID: OAQ01 **York Sample ID:** 21K1075-23

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Outdoor Ambient Air	November 19, 2021 9:24 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.39	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-64-1	**Acetone**	**2.5**		ug/m³	0.45	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
107-13-1	Acrylonitrile	ND		ug/m³	0.21	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
71-43-2	Benzene	ND		ug/m³	0.30	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
100-44-7	Benzyl chloride	ND		ug/m³	0.49	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-27-4	Bromodichloromethane	ND		ug/m³	0.64	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-25-2	Bromoform	ND		ug/m³	0.99	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-83-9	Bromomethane	ND		ug/m³	0.37	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-15-0	Carbon disulfide	ND		ug/m³	0.30	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
56-23-5	Carbon tetrachloride	ND		ug/m³	0.15	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-90-7	Chlorobenzene	ND		ug/m³	0.44	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-00-3	Chloroethane	ND		ug/m³	0.25	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-66-3	Chloroform	ND		ug/m³	0.47	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-87-3	**Chloromethane**	**1.3**		ug/m³	0.20	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.095	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.43	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-82-7	Cyclohexane	ND		ug/m³	0.33	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	0.81	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-71-8	**Dichlorodifluoromethane**	**1.7**		ug/m³	0.47	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
141-78-6	* Ethyl acetate	ND		ug/m³	0.69	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications:			
100-41-4	Ethyl Benzene	ND		ug/m³	0.41	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.0	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-63-0	**Isopropanol**	**3.5**		ug/m³	0.47	0.954	EPA TO-15	12/03/2021 20:00	12/04/2021 07:17	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: OAQ01 **York Sample ID:** 21K1075-23

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Outdoor Ambient Air	November 19, 2021 9:24 am	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	0.39	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.34	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
75-09-2	**Methylene chloride**	**1.8**		ug/m³	0.66	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.39	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
110-54-3	n-Hexane	ND		ug/m³	0.34	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.41	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.83	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.47	0.954	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 07:17	LLJ
115-07-1	* Propylene	ND		ug/m³	0.16	0.954	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 07:17	LLJ
100-42-5	Styrene	ND		ug/m³	0.41	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
127-18-4	Tetrachloroethylene	ND		ug/m³	0.65	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.56	0.954	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 07:17	LLJ
108-88-3	Toluene	ND		ug/m³	0.36	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.38	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.43	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.13	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.75**		ug/m³	0.54	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.34	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.42	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.12	0.954	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 07:17	LLJ

Sample Information

Client Sample ID: **DUP01**

York Sample ID: **21K1075-24**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Air	November 19, 2021 3:00 pm	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.65	0.941	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 18:25	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.51	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.65	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.72	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.51	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.38	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.093	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.70	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.46	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.72	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.57	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.38	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.43	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.66	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.46	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.62	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.57	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.43	0.941	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 18:25	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.57	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.68	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
78-93-3	**2-Butanone**	**0.31**		ug/m³	0.28	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.77	0.941	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 18:25	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.5	0.941	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 18:25	LLJ

Sample Information

Client Sample ID: **DUP01**

York Sample ID: **21K1075-24**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Air	November 19, 2021 3:00 pm	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.39	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-64-1	**Acetone**	**6.2**		ug/m³	0.45	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
107-13-1	Acrylonitrile	ND		ug/m³	0.20	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
71-43-2	Benzene	ND		ug/m³	0.30	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
100-44-7	Benzyl chloride	ND		ug/m³	0.49	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-27-4	Bromodichloromethane	ND		ug/m³	0.63	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-25-2	Bromoform	ND		ug/m³	0.97	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-83-9	Bromomethane	ND		ug/m³	0.37	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-15-0	Carbon disulfide	ND		ug/m³	0.29	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
56-23-5	Carbon tetrachloride	ND		ug/m³	0.15	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-90-7	Chlorobenzene	ND		ug/m³	0.43	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-00-3	Chloroethane	ND		ug/m³	0.25	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-66-3	Chloroform	ND		ug/m³	0.46	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
74-87-3	**Chloromethane**	**1.3**		ug/m³	0.19	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.093	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.43	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-82-7	Cyclohexane	ND		ug/m³	0.32	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	0.80	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-71-8	**Dichlorodifluoromethane**	**1.7**		ug/m³	0.47	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
141-78-6	* Ethyl acetate	ND		ug/m³	0.68	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:			
100-41-4	Ethyl Benzene	ND		ug/m³	0.41	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.0	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-63-0	**Isopropanol**	**1.5**		ug/m³	0.46	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: **DUP01**

York Sample ID: **21K1075-24**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Air	November 19, 2021 3:00 pm	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	**Methyl Methacrylate**	**0.39**		ug/m³	0.39	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.34	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**1.7**		ug/m³	0.65	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND		ug/m³	0.39	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	n-Hexane	ND		ug/m³	0.33	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	o-Xylene	ND		ug/m³	0.41	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.82	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.46	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.16	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.40	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**8.4**		ug/m³	0.64	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.56	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:			
108-88-3	Toluene	ND		ug/m³	0.35	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.37	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.43	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	Trichloroethylene	ND		ug/m³	0.13	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.74**		ug/m³	0.53	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-05-4	Vinyl acetate	ND		ug/m³	0.33	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.41	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.12	0.941	EPA TO-15	12/03/2021 20:00	12/04/2021 18:25	LLJ
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **DUP02** **York Sample ID:** **21K1075-25**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Air	November 19, 2021 3:00 pm	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.74	1.08	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 17:26	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.59	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.74	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.83	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.59	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.44	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.11	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.80	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.53	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.83	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.65	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.44	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.50	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.75	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.53	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.72	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.65	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.50	1.08	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 17:26	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.65	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.78	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
78-93-3	**2-Butanone**	**0.64**		ug/m³	0.32	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.88	1.08	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 17:26	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.7	1.08	EPA TO-15 Certifications:	12/03/2021 20:00 NELAC-NY12058,NJDEP-Queens	12/04/2021 17:26	LLJ

Sample Information

Client Sample ID: **DUP02** **York Sample ID:** **21K1075-25**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Air	November 19, 2021 3:00 pm	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.44	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
67-64-1	**Acetone**	**4.6**		ug/m³	0.51	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.23	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
71-43-2	Benzene	ND		ug/m³	0.35	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.56	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	0.72	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
75-25-2	Bromoform	ND		ug/m³	1.1	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.42	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
75-15-0	Carbon disulfide	ND		ug/m³	0.34	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	0.17	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.50	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.28	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
67-66-3	Chloroform	ND		ug/m³	0.53	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
74-87-3	**Chloromethane**	**1.3**		ug/m³	0.22	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.11	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.49	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
110-82-7	Cyclohexane	ND		ug/m³	0.37	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	0.92	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
75-71-8	**Dichlorodifluoromethane**	**1.7**		ug/m³	0.53	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	0.78	1.08	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 17:26	LLJ
100-41-4	Ethyl Benzene	ND		ug/m³	0.47	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.2	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
67-63-0	**Isopropanol**	**3.0**		ug/m³	0.53	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ

Sample Information

Client Sample ID: DUP02 **York Sample ID:** 21K1075-25

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21K1075	PRMC2101	Air	November 19, 2021 3:00 pm	11/22/2021

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m³	0.44	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.39	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
75-09-2	**Methylene chloride**	**0.79**		ug/m³	0.75	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.44	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
110-54-3	n-Hexane	ND		ug/m³	0.38	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.47	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.94	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.53	1.08	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 17:26	LLJ
115-07-1	* Propylene	ND		ug/m³	0.19	1.08	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 17:26	LLJ
100-42-5	Styrene	ND		ug/m³	0.46	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
127-18-4	**Tetrachloroethylene**	**9.2**		ug/m³	0.73	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.64	1.08	EPA TO-15 Certifications:	12/03/2021 20:00	12/04/2021 17:26	LLJ
108-88-3	Toluene	ND		ug/m³	0.41	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.43	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.49	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.15	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.73**		ug/m³	0.61	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.38	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.47	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.14	1.08	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/03/2021 20:00	12/04/2021 17:26	LLJ

Analytical Batch Summary

Batch ID: BK12398 **Preparation Method:** EPA TO15 PREP **Prepared By:** AS

YORK Sample ID	Client Sample ID	Preparation Date
21K1075-05	SSV05	11/24/21
21K1075-07	SSV07	11/24/21
21K1075-09	SSV09	11/24/21
BK12398-BLK1	Blank	11/24/21
BK12398-BS1	LCS	11/24/21
BK12398-DUP1	Duplicate	11/24/21

Batch ID: BL11323 **Preparation Method:** EPA TO15 PREP **Prepared By:** AS

YORK Sample ID	Client Sample ID	Preparation Date
21K1075-12	SV03	12/03/21
21K1075-14	IAQ01	12/03/21
21K1075-15	IAQ02	12/03/21
21K1075-17	IAQ04	12/03/21
21K1075-18	IAQ05	12/03/21
21K1075-19	IAQ06	12/03/21
21K1075-20	IAQ07	12/03/21
21K1075-21	IAQ08	12/03/21
21K1075-22	IAQ09	12/03/21
21K1075-23	OAQ01	12/03/21
21K1075-24	DUP01	12/03/21
21K1075-25	DUP02	12/03/21
BL11323-BLK1	Blank	12/03/21
BL11323-BS1	LCS	12/03/21
BL11323-DUP1	Duplicate	12/03/21

Batch ID: BL11324 **Preparation Method:** EPA TO15 PREP **Prepared By:** AS

YORK Sample ID	Client Sample ID	Preparation Date
21K1075-13	SV04	12/02/21
BL11324-BLK1	Blank	12/03/21
BL11324-BS1	LCS	12/03/21
BL11324-DUP1	Duplicate	12/03/21

Batch ID: BL11418 **Preparation Method:** EPA TO15 PREP **Prepared By:** AS

YORK Sample ID	Client Sample ID	Preparation Date
21K1075-01	SSV01	12/04/21
21K1075-02	SSV02	12/04/21
21K1075-03	SSV03	12/04/21
21K1075-04	SSV04	12/04/21
21K1075-05RE1	SSV05	12/04/21
21K1075-06RE1	SSV06	12/04/21
21K1075-10	SV01	12/04/21

21K1075-11	SV02	12/04/21
21K1075-16	IAQ03	12/04/21
BL11418-BLK1	Blank	12/04/21
BL11418-BS1	LCS	12/04/21
BL11418-DUP1	Duplicate	12/04/21

Batch ID: BL11420 **Preparation Method:** EPA TO15 PREP **Prepared By:** AS

YORK Sample ID	Client Sample ID	Preparation Date
21K1075-07RE1	SSV07	12/05/21
21K1075-07RE2	SSV07	12/05/21
21K1075-13RE1	SV04	12/05/21
BL11420-BLK1	Blank	12/05/21
BL11420-BS1	LCS	12/05/21
BL11420-DUP1	Duplicate	12/05/21

Batch ID: BL11421 **Preparation Method:** EPA TO15 PREP **Prepared By:** AS

YORK Sample ID	Client Sample ID	Preparation Date
21K1075-21RE1	IAQ08	12/06/21
BL11421-BLK1	Blank	12/06/21
BL11421-BS1	LCS	12/06/21

Batch ID: BL11422 **Preparation Method:** EPA TO15 PREP **Prepared By:** AS

YORK Sample ID	Client Sample ID	Preparation Date
21K1075-06	SSV06	12/06/21
21K1075-08	SSV08	12/06/21
BL11422-BLK1	Blank	12/06/21
BL11422-BS1	LCS	12/06/21

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK12398 - EPA TO15 PREP											
Blank (BK12398-BLK1)											
Prepared: 11/24/2021 Analyzed: 11/25/2021											
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK12398 - EPA TO15 PREP											
Blank (BK12398-BLK1)											Prepared: 11/24/2021 Analyzed: 11/25/2021
n-Heptane	ND	0.41	ug/m³								
n-Hexane	ND	0.35	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.68	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.13	"								
LCS (BK12398-BS1)											Prepared: 11/24/2021 Analyzed: 11/25/2021
1,1,1,2-Tetrachloroethane	11.2		ppbv	10.0		112	70-130				
1,1,1-Trichloroethane	12.1		"	10.0		121	70-130				
1,1,2,2-Tetrachloroethane	10.3		"	10.0		103	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.5		"	10.0		115	70-130				
1,1,2-Trichloroethane	10.9		"	10.0		109	70-130				
1,1-Dichloroethane	11.1		"	10.0		111	70-130				
1,1-Dichloroethylene	11.0		"	10.0		110	70-130				
1,2,4-Trichlorobenzene	10.8		"	10.0		108	70-130				
1,2,4-Trimethylbenzene	11.1		"	10.0		111	70-130				
1,2-Dibromoethane	11.0		"	10.0		110	70-130				
1,2-Dichlorobenzene	10.8		"	10.0		108	70-130				
1,2-Dichloroethane	11.2		"	10.0		112	70-130				
1,2-Dichloropropane	10.6		"	10.0		106	70-130				
1,2-Dichlorotetrafluoroethane	12.0		"	10.0		120	70-130				
1,3,5-Trimethylbenzene	11.2		"	10.0		112	70-130				
1,3-Butadiene	10.9		"	10.0		109	70-130				
1,3-Dichlorobenzene	11.5		"	10.0		115	70-130				
1,3-Dichloropropane	10.8		"	10.0		108	70-130				
1,4-Dichlorobenzene	11.5		"	10.0		115	70-130				
1,4-Dioxane	10.5		"	10.0		105	70-130				
2-Butanone	10.5		"	10.0		105	70-130				
2-Hexanone	9.87		"	10.0		98.7	70-130				
3-Chloropropene	11.4		"	10.0		114	70-130				
4-Methyl-2-pentanone	9.76		"	10.0		97.6	70-130				
Acetone	9.77		"	10.0		97.7	70-130				
Acrylonitrile	11.1		"	10.0		111	70-130				
Benzene	11.4		"	10.0		114	70-130				
Benzyl chloride	12.4		"	10.0		124	70-130				
Bromodichloromethane	11.0		"	10.0		110	70-130				
Bromoform	12.1		"	10.0		121	70-130				
Bromomethane	11.3		"	10.0		113	70-130				
Carbon disulfide	11.1		"	10.0		111	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK12398 - EPA TO15 PREP											
LCS (BK12398-BS1)									Prepared: 11/24/2021 Analyzed: 11/25/2021		
Carbon tetrachloride	12.8		ppbv	10.0		128	70-130				
Chlorobenzene	10.6		"	10.0		106	70-130				
Chloroethane	12.1		"	10.0		121	70-130				
Chloroform	11.5		"	10.0		115	70-130				
Chloromethane	11.0		"	10.0		110	70-130				
cis-1,2-Dichloroethylene	10.9		"	10.0		109	70-130				
cis-1,3-Dichloropropylene	11.5		"	10.0		115	70-130				
Cyclohexane	11.5		"	10.0		115	70-130				
Dibromochloromethane	11.5		"	10.0		115	70-130				
Dichlorodifluoromethane	11.3		"	10.0		113	70-130				
Ethyl acetate	10.9		"	10.0		109	70-130				
Ethyl Benzene	10.9		"	10.0		109	70-130				
Hexachlorobutadiene	10.4		"	10.0		104	70-130				
Isopropanol	10.5		"	10.0		105	70-130				
Methyl Methacrylate	10.9		"	10.0		109	70-130				
Methyl tert-butyl ether (MTBE)	12.6		"	10.0		126	70-130				
Methylene chloride	10.1		"	10.0		101	70-130				
n-Heptane	11.3		"	10.0		113	70-130				
n-Hexane	11.5		"	10.0		115	70-130				
o-Xylene	11.2		"	10.0		112	70-130				
p- & m- Xylenes	22.3		"	20.0		111	70-130				
p-Ethyltoluene	11.4		"	10.0		114	70-130				
Propylene	9.81		"	10.0		98.1	70-130				
Styrene	11.6		"	10.0		116	70-130				
Tetrachloroethylene	11.3		"	10.0		113	70-130				
Tetrahydrofuran	10.8		"	10.0		108	70-130				
Toluene	10.7		"	10.0		107	70-130				
trans-1,2-Dichloroethylene	11.1		"	10.0		111	70-130				
trans-1,3-Dichloropropylene	11.7		"	10.0		117	70-130				
Trichloroethylene	10.6		"	10.0		106	70-130				
Trichlorofluoromethane (Freon 11)	11.5		"	10.0		115	70-130				
Vinyl acetate	10.3		"	10.0		103	70-130				
Vinyl bromide	12.1		"	10.0		121	70-130				
Vinyl Chloride	11.6		"	10.0		116	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK12398 - EPA TO15 PREP											
Duplicate (BK12398-DUP1)	*Source sample: 21K1075-09 (SSV09)								Prepared: 11/24/2021 Analyzed: 11/29/2021		
1,1,1,2-Tetrachloroethane	ND	12	ug/m³		ND					25	
1,1,1-Trichloroethane	ND	9.9	"		ND					25	
1,1,2,2-Tetrachloroethane	ND	12	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	14	"		ND					25	
1,1,2-Trichloroethane	ND	9.9	"		ND					25	
1,1-Dichloroethane	ND	7.4	"		ND					25	
1,1-Dichloroethylene	ND	1.8	"		ND					25	
1,2,4-Trichlorobenzene	ND	13	"		ND					25	
1,2,4-Trimethylbenzene	ND	8.9	"		ND					25	
1,2-Dibromoethane	ND	14	"		ND					25	
1,2-Dichlorobenzene	ND	11	"		ND					25	
1,2-Dichloroethane	ND	7.4	"		ND					25	
1,2-Dichloropropane	ND	8.4	"		ND					25	
1,2-Dichlorotetrafluoroethane	ND	13	"		ND					25	
1,3,5-Trimethylbenzene	ND	8.9	"		ND					25	
1,3-Butadiene	ND	12	"		ND					25	
1,3-Dichlorobenzene	ND	11	"		ND					25	
1,3-Dichloropropane	ND	8.4	"		ND					25	
1,4-Dichlorobenzene	ND	11	"		ND					25	
1,4-Dioxane	ND	13	"		ND					25	
2-Butanone	ND	5.4	"		ND					25	
2-Hexanone	ND	15	"		ND					25	
3-Chloropropene	ND	28	"		ND					25	
4-Methyl-2-pentanone	ND	7.5	"		ND					25	
Acetone	23	8.6	"		22				1.90	25	
Acrylonitrile	ND	3.9	"		ND					25	
Benzene	ND	5.8	"		ND					25	
Benzyl chloride	ND	9.4	"		ND					25	
Bromodichloromethane	ND	12	"		ND					25	
Bromoform	ND	19	"		ND					25	
Bromomethane	ND	7.1	"		ND					25	
Carbon disulfide	15	5.7	"		12				16.7	25	
Carbon tetrachloride	ND	2.9	"		ND					25	
Chlorobenzene	ND	8.4	"		ND					25	
Chloroethane	ND	4.8	"		ND					25	
Chloroform	9.8	8.9	"		9.8				0.00	25	
Chloromethane	ND	3.8	"		ND					25	
cis-1,2-Dichloroethylene	ND	1.8	"		ND					25	
cis-1,3-Dichloropropylene	ND	8.3	"		ND					25	
Cyclohexane	ND	6.3	"		ND					25	
Dibromochloromethane	ND	15	"		ND					25	
Dichlorodifluoromethane	ND	9.0	"		ND					25	
Ethyl acetate	ND	13	"		ND					25	
Ethyl Benzene	270	7.9	"		280				1.99	25	
Hexachlorobutadiene	ND	19	"		ND					25	
Isopropanol	5.8	8.9	"		ND					25	
Methyl Methacrylate	ND	7.4	"		ND					25	
Methyl tert-butyl ether (MTBE)	ND	6.6	"		ND					25	
Methylene chloride	ND	13	"		ND					25	
n-Heptane	ND	7.5	"		ND					25	

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK12398 - EPA TO15 PREP											
Duplicate (BK12398-DUP1)	*Source sample: 21K1075-09 (SSV09)								Prepared: 11/24/2021 Analyzed: 11/29/2021		
n-Hexane	ND	6.4	ug/m³		ND					25	
o-Xylene	190	7.9	"		200				3.21	25	
p- & m- Xylenes	1000	16	"		1100				2.80	25	
p-Ethyltoluene	ND	8.9	"		ND					25	
Propylene	ND	3.1	"		ND					25	
Styrene	ND	7.7	"		ND					25	
Tetrachloroethylene	3700	12	"		3800				2.23	25	
Tetrahydrofuran	ND	11	"		ND					25	
Toluene	21	6.9	"		21				0.00	25	
trans-1,2-Dichloroethylene	ND	7.2	"		ND					25	
trans-1,3-Dichloropropylene	ND	8.3	"		ND					25	
Trichloroethylene	23	2.4	"		23				0.00	25	
Trichlorofluoromethane (Freon 11)	ND	10	"		ND					25	
Vinyl acetate	ND	6.4	"		ND					25	
Vinyl bromide	ND	8.0	"		ND					25	
Vinyl Chloride	ND	2.3	"		ND					25	
Batch BL11323 - EPA TO15 PREP											
Blank (BL11323-BLK1)									Prepared: 12/03/2021 Analyzed: 12/04/2021		
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11323 - EPA TO15 PREP											
Blank (BL11323-BLK1)											
Prepared: 12/03/2021 Analyzed: 12/04/2021											
Carbon disulfide	ND	0.31	ug/m³								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								
n-Hexane	ND	0.35	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.68	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.13	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11323 - EPA TO15 PREP											
LCS (BL11323-BS1)								Prepared: 12/03/2021 Analyzed: 12/04/2021			
1,1,1,2-Tetrachloroethane	9.42		ppbv	10.0		94.2	70-130				
1,1,1-Trichloroethane	8.72		"	10.0		87.2	70-130				
1,1,2,2-Tetrachloroethane	9.99		"	10.0		99.9	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.73		"	10.0		87.3	70-130				
1,1,2-Trichloroethane	10.9		"	10.0		109	70-130				
1,1-Dichloroethane	9.01		"	10.0		90.1	70-130				
1,1-Dichloroethylene	10.3		"	10.0		103	70-130				
1,2,4-Trichlorobenzene	7.60		"	10.0		76.0	70-130				
1,2,4-Trimethylbenzene	9.83		"	10.0		98.3	70-130				
1,2-Dibromoethane	9.30		"	10.0		93.0	70-130				
1,2-Dichlorobenzene	10.0		"	10.0		100	70-130				
1,2-Dichloroethane	8.76		"	10.0		87.6	70-130				
1,2-Dichloropropane	9.69		"	10.0		96.9	70-130				
1,2-Dichlorotetrafluoroethane	10.8		"	10.0		108	70-130				
1,3,5-Trimethylbenzene	9.79		"	10.0		97.9	70-130				
1,3-Butadiene	10.8		"	10.0		108	70-130				
1,3-Dichlorobenzene	10.2		"	10.0		102	70-130				
1,3-Dichloropropane	9.47		"	10.0		94.7	70-130				
1,4-Dichlorobenzene	10.2		"	10.0		102	70-130				
1,4-Dioxane	9.47		"	10.0		94.7	70-130				
2-Butanone	9.45		"	10.0		94.5	70-130				
2-Hexanone	10.1		"	10.0		101	70-130				
3-Chloropropene	9.60		"	10.0		96.0	70-130				
4-Methyl-2-pentanone	10.2		"	10.0		102	70-130				
Acetone	8.71		"	10.0		87.1	70-130				
Acrylonitrile	9.56		"	10.0		95.6	70-130				
Benzene	10.3		"	10.0		103	70-130				
Benzyl chloride	10.2		"	10.0		102	70-130				
Bromodichloromethane	9.74		"	10.0		97.4	70-130				
Bromoform	9.40		"	10.0		94.0	70-130				
Bromomethane	8.89		"	10.0		88.9	70-130				
Carbon disulfide	8.84		"	10.0		88.4	70-130				
Carbon tetrachloride	10.7		"	10.0		107	70-130				
Chlorobenzene	9.34		"	10.0		93.4	70-130				
Chloroethane	9.58		"	10.0		95.8	70-130				
Chloroform	8.85		"	10.0		88.5	70-130				
Chloromethane	9.91		"	10.0		99.1	70-130				
cis-1,2-Dichloroethylene	10.4		"	10.0		104	70-130				
cis-1,3-Dichloropropylene	9.82		"	10.0		98.2	70-130				
Cyclohexane	9.07		"	10.0		90.7	70-130				
Dibromochloromethane	11.4		"	10.0		114	70-130				
Dichlorodifluoromethane	9.22		"	10.0		92.2	70-130				
Ethyl acetate	9.51		"	10.0		95.1	70-130				
Ethyl Benzene	9.34		"	10.0		93.4	70-130				
Hexachlorobutadiene	7.53		"	10.0		75.3	70-130				
Isopropanol	8.67		"	10.0		86.7	70-130				
Methyl Methacrylate	10.7		"	10.0		107	70-130				
Methyl tert-butyl ether (MTBE)	9.07		"	10.0		90.7	70-130				
Methylene chloride	9.22		"	10.0		92.2	70-130				
n-Heptane	9.09		"	10.0		90.9	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11323 - EPA TO15 PREP											
LCS (BL11323-BS1)									Prepared: 12/03/2021 Analyzed: 12/04/2021		
n-Hexane	8.99		ppbv	10.0		89.9	70-130				
o-Xylene	9.62		"	10.0		96.2	70-130				
p- & m- Xylenes	20.2		"	20.0		101	70-130				
p-Ethyltoluene	9.70		"	10.0		97.0	70-130				
Propylene	9.45		"	10.0		94.5	70-130				
Styrene	8.61		"	10.0		86.1	70-130				
Tetrachloroethylene	10.8		"	10.0		108	70-130				
Tetrahydrofuran	9.31		"	10.0		93.1	70-130				
Toluene	9.22		"	10.0		92.2	70-130				
trans-1,2-Dichloroethylene	9.08		"	10.0		90.8	70-130				
trans-1,3-Dichloropropylene	10.1		"	10.0		101	70-130				
Trichloroethylene	11.0		"	10.0		110	70-130				
Trichlorofluoromethane (Freon 11)	8.73		"	10.0		87.3	70-130				
Vinyl acetate	9.31		"	10.0		93.1	70-130				
Vinyl bromide	9.18		"	10.0		91.8	70-130				
Vinyl Chloride	12.5		"	10.0		125	70-130				
Duplicate (BL11323-DUP1)	*Source sample: 21K1075-12 (SV03)								Prepared: 12/03/2021 Analyzed: 12/04/2021		
1,1,1,2-Tetrachloroethane	ND	4.7	ug/m³		ND					25	
1,1,1-Trichloroethane	ND	3.7	"		ND					25	
1,1,2,2-Tetrachloroethane	ND	4.7	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.2	"		ND					25	
1,1,2-Trichloroethane	ND	3.7	"		ND					25	
1,1-Dichloroethane	ND	2.7	"		ND					25	
1,1-Dichloroethylene	ND	0.67	"		ND					25	
1,2,4-Trichlorobenzene	ND	5.0	"		ND					25	
1,2,4-Trimethylbenzene	ND	3.3	"		ND					25	
1,2-Dibromoethane	ND	5.2	"		ND					25	
1,2-Dichlorobenzene	ND	4.1	"		ND					25	
1,2-Dichloroethane	ND	2.7	"		ND					25	
1,2-Dichloropropane	ND	3.1	"		ND					25	
1,2-Dichlorotetrafluoroethane	ND	4.7	"		ND					25	
1,3,5-Trimethylbenzene	ND	3.3	"		ND					25	
1,3-Butadiene	ND	4.5	"		ND					25	
1,3-Dichlorobenzene	ND	4.1	"		ND					25	
1,3-Dichloropropane	ND	3.1	"		ND					25	
1,4-Dichlorobenzene	ND	4.1	"		ND					25	
1,4-Dioxane	ND	4.9	"		ND					25	
2-Butanone	1.2	2.0	"		ND					25	
2-Hexanone	ND	5.6	"		ND					25	
3-Chloropropene	ND	11	"		ND					25	
4-Methyl-2-pentanone	ND	2.8	"		ND					25	
Acetone	15	3.2	"		16				1.04	25	
Acrylonitrile	ND	1.5	"		ND					25	
Benzene	ND	2.2	"		ND					25	
Benzyl chloride	ND	3.5	"		ND					25	
Bromodichloromethane	ND	4.5	"		ND					25	
Bromoform	ND	7.0	"		ND					25	
Bromomethane	ND	2.6	"		ND					25	
Carbon disulfide	ND	2.1	"		ND					25	
Carbon tetrachloride	ND	1.1	"		ND					25	

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11323 - EPA TO15 PREP											
Duplicate (BL11323-DUP1)	*Source sample: 21K1075-12 (SV03)								Prepared: 12/03/2021 Analyzed: 12/04/2021		
Chlorobenzene	ND	3.1	ug/m³		ND					25	
Chloroethane	ND	1.8	"		ND					25	
Chloroform	ND	3.3	"		ND					25	
Chloromethane	2.0	1.4	"		1.5				24.0	25	
cis-1,2-Dichloroethylene	ND	0.67	"		ND					25	
cis-1,3-Dichloropropylene	ND	3.1	"		ND					25	
Cyclohexane	ND	2.3	"		ND					25	
Dibromochloromethane	ND	5.8	"		ND					25	
Dichlorodifluoromethane	ND	3.4	"		ND					25	
Ethyl acetate	ND	4.9	"		ND					25	
Ethyl Benzene	ND	2.9	"		ND					25	
Hexachlorobutadiene	ND	7.2	"		ND					25	
Isopropanol	3.5	3.3	"		2.2				47.1	25	Non-dir.
Methyl Methacrylate	ND	2.8	"		ND					25	
Methyl tert-butyl ether (MTBE)	ND	2.4	"		ND					25	
Methylene chloride	2.1	4.7	"		1.9				11.8	25	
n-Heptane	ND	2.8	"		ND					25	
n-Hexane	ND	2.4	"		ND					25	
o-Xylene	ND	2.9	"		ND					25	
p- & m- Xylenes	ND	5.9	"		ND					25	
p-Ethyltoluene	ND	3.3	"		ND					25	
Propylene	ND	1.2	"		ND					25	
Styrene	ND	2.9	"		ND					25	
Tetrachloroethylene	ND	4.6	"		ND					25	
Tetrahydrofuran	ND	4.0	"		ND					25	
Toluene	2.3	2.6	"		1.5				40.0	25	Non-dir.
trans-1,2-Dichloroethylene	ND	2.7	"		ND					25	
trans-1,3-Dichloropropylene	ND	3.1	"		ND					25	
Trichloroethylene	ND	0.91	"		ND					25	
Trichlorofluoromethane (Freon 11)	ND	3.8	"		ND					25	
Vinyl acetate	ND	2.4	"		ND					25	
Vinyl bromide	ND	3.0	"		ND					25	
Vinyl Chloride	ND	0.87	"		ND					25	

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11324 - EPA TO15 PREP											
Blank (BL11324-BLK1)											Prepared & Analyzed: 12/03/2021
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11324 - EPA TO15 PREP											
Blank (BL11324-BLK1)											Prepared & Analyzed: 12/03/2021
n-Hexane	ND	0.35	ug/m³								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	0.95	0.68	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.13	"								
LCS (BL11324-BS1)											Prepared & Analyzed: 12/03/2021
1,1,1,2-Tetrachloroethane	11.4		ppbv	10.0		114	70-130				
1,1,1-Trichloroethane	11.6		"	10.0		116	70-130				
1,1,2,2-Tetrachloroethane	10.2		"	10.0		102	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.0		"	10.0		110	70-130				
1,1,2-Trichloroethane	10.8		"	10.0		108	70-130				
1,1-Dichloroethane	10.5		"	10.0		105	70-130				
1,1-Dichloroethylene	10.8		"	10.0		108	70-130				
1,2,4-Trichlorobenzene	10.9		"	10.0		109	70-130				
1,2,4-Trimethylbenzene	11.2		"	10.0		112	70-130				
1,2-Dibromoethane	10.9		"	10.0		109	70-130				
1,2-Dichlorobenzene	10.8		"	10.0		108	70-130				
1,2-Dichloroethane	11.1		"	10.0		111	70-130				
1,2-Dichloropropane	10.5		"	10.0		105	70-130				
1,2-Dichlorotetrafluoroethane	11.6		"	10.0		116	70-130				
1,3,5-Trimethylbenzene	11.3		"	10.0		113	70-130				
1,3-Butadiene	10.6		"	10.0		106	70-130				
1,3-Dichlorobenzene	11.5		"	10.0		115	70-130				
1,3-Dichloropropane	10.7		"	10.0		107	70-130				
1,4-Dichlorobenzene	11.5		"	10.0		115	70-130				
1,4-Dioxane	10.3		"	10.0		103	70-130				
2-Butanone	10.5		"	10.0		105	70-130				
2-Hexanone	10.4		"	10.0		104	70-130				
3-Chloropropene	11.0		"	10.0		110	70-130				
4-Methyl-2-pentanone	10.2		"	10.0		102	70-130				
Acetone	9.84		"	10.0		98.4	70-130				
Acrylonitrile	10.8		"	10.0		108	70-130				
Benzene	10.4		"	10.0		104	70-130				
Benzyl chloride	12.2		"	10.0		122	70-130				
Bromodichloromethane	11.5		"	10.0		115	70-130				
Bromoform	12.1		"	10.0		121	70-130				
Bromomethane	10.4		"	10.0		104	70-130				
Carbon disulfide	10.2		"	10.0		102	70-130				
Carbon tetrachloride	12.7		"	10.0		127	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11324 - EPA TO15 PREP											
LCS (BL11324-BS1)								Prepared & Analyzed: 12/03/2021			
Chlorobenzene	10.6		ppbv	10.0		106	70-130				
Chloroethane	11.0		"	10.0		110	70-130				
Chloroform	11.0		"	10.0		110	70-130				
Chloromethane	11.1		"	10.0		111	70-130				
cis-1,2-Dichloroethylene	10.4		"	10.0		104	70-130				
cis-1,3-Dichloropropylene	11.4		"	10.0		114	70-130				
Cyclohexane	10.6		"	10.0		106	70-130				
Dibromochloromethane	11.7		"	10.0		117	70-130				
Dichlorodifluoromethane	11.1		"	10.0		111	70-130				
Ethyl acetate	10.8		"	10.0		108	70-130				
Ethyl Benzene	10.9		"	10.0		109	70-130				
Hexachlorobutadiene	10.5		"	10.0		105	70-130				
Isopropanol	10.2		"	10.0		102	70-130				
Methyl Methacrylate	10.7		"	10.0		107	70-130				
Methyl tert-butyl ether (MTBE)	11.4		"	10.0		114	70-130				
Methylene chloride	9.94		"	10.0		99.4	70-130				
n-Heptane	10.9		"	10.0		109	70-130				
n-Hexane	10.8		"	10.0		108	70-130				
o-Xylene	11.2		"	10.0		112	70-130				
p- & m- Xylenes	22.4		"	20.0		112	70-130				
p-Ethyltoluene	11.3		"	10.0		113	70-130				
Propylene	9.40		"	10.0		94.0	70-130				
Styrene	11.3		"	10.0		113	70-130				
Tetrachloroethylene	11.0		"	10.0		110	70-130				
Tetrahydrofuran	10.4		"	10.0		104	70-130				
Toluene	10.5		"	10.0		105	70-130				
trans-1,2-Dichloroethylene	10.7		"	10.0		107	70-130				
trans-1,3-Dichloropropylene	11.6		"	10.0		116	70-130				
Trichloroethylene	10.7		"	10.0		107	70-130				
Trichlorofluoromethane (Freon 11)	11.6		"	10.0		116	70-130				
Vinyl acetate	9.91		"	10.0		99.1	70-130				
Vinyl bromide	11.2		"	10.0		112	70-130				
Vinyl Chloride	11.0		"	10.0		110	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11324 - EPA TO15 PREP											
Duplicate (BL11324-DUP1)	*Source sample: 21K0978-13RE1 (Duplicate)								Prepared & Analyzed: 12/03/2021		
1,1,1,2-Tetrachloroethane	ND	260	ug/m³		ND					25	
1,1,1-Trichloroethane	ND	200	"		ND					25	
1,1,2,2-Tetrachloroethane	ND	260	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	290	"		ND					25	
1,1,2-Trichloroethane	ND	200	"		ND					25	
1,1-Dichloroethane	ND	150	"		ND					25	
1,1-Dichloroethylene	ND	37	"		ND					25	
1,2,4-Trichlorobenzene	ND	280	"		ND					25	
1,2,4-Trimethylbenzene	ND	180	"		ND					25	
1,2-Dibromoethane	ND	290	"		ND					25	
1,2-Dichlorobenzene	ND	220	"		ND					25	
1,2-Dichloroethane	ND	150	"		ND					25	
1,2-Dichloropropane	ND	170	"		ND					25	
1,2-Dichlorotetrafluoroethane	ND	260	"		ND					25	
1,3,5-Trimethylbenzene	ND	180	"		ND					25	
1,3-Butadiene	ND	250	"		ND					25	
1,3-Dichlorobenzene	ND	220	"		ND					25	
1,3-Dichloropropane	ND	170	"		ND					25	
1,4-Dichlorobenzene	ND	220	"		ND					25	
1,4-Dioxane	ND	270	"		ND					25	
2-Butanone	ND	110	"		ND					25	
2-Hexanone	ND	310	"		ND					25	
3-Chloropropene	ND	580	"		ND					25	
4-Methyl-2-pentanone	ND	150	"		ND					25	
Acetone	ND	180	"		ND					25	
Acrylonitrile	ND	81	"		ND					25	
Benzene	ND	120	"		ND					25	
Benzyl chloride	ND	190	"		ND					25	
Bromodichloromethane	ND	250	"		ND					25	
Bromoform	ND	390	"		ND					25	
Bromomethane	ND	140	"		ND					25	
Carbon disulfide	ND	120	"		ND					25	
Carbon tetrachloride	ND	59	"		ND					25	
Chlorobenzene	ND	170	"		ND					25	
Chloroethane	ND	98	"		ND					25	
Chloroform	ND	180	"		ND					25	
Chloromethane	ND	77	"		ND					25	
cis-1,2-Dichloroethylene	ND	37	"		ND					25	
cis-1,3-Dichloropropylene	ND	170	"		ND					25	
Cyclohexane	ND	130	"		ND					25	
Dibromochloromethane	ND	320	"		ND					25	
Dichlorodifluoromethane	ND	180	"		ND					25	
Ethyl acetate	ND	270	"		ND					25	
Ethyl Benzene	ND	160	"		ND					25	
Hexachlorobutadiene	ND	400	"		ND					25	
Isopropanol	ND	180	"		ND					25	
Methyl Methacrylate	ND	150	"		ND					25	
Methyl tert-butyl ether (MTBE)	ND	130	"		ND					25	
Methylene chloride	ND	260	"		ND					25	
n-Heptane	ND	150	"		ND					25	

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11324 - EPA TO15 PREP											
Duplicate (BL11324-DUP1)	*Source sample: 21K0978-13RE1 (Duplicate)								Prepared & Analyzed: 12/03/2021		
n-Hexane	ND	130	ug/m³		ND					25	
o-Xylene	ND	160	"		ND					25	
p- & m- Xylenes	ND	320	"		ND					25	
p-Ethyltoluene	ND	180	"		ND					25	
Propylene	ND	64	"		ND					25	
Styrene	ND	160	"		ND					25	
Tetrachloroethylene	23000	250	"		21000				10.3	25	
Tetrahydrofuran	ND	220	"		ND					25	
Toluene	ND	140	"		ND					25	
trans-1,2-Dichloroethylene	ND	150	"		ND					25	
trans-1,3-Dichloropropylene	ND	170	"		ND					25	
Trichloroethylene	ND	50	"		ND					25	
Trichlorofluoromethane (Freon 11)	ND	210	"		ND					25	
Vinyl acetate	ND	130	"		ND					25	
Vinyl bromide	ND	160	"		ND					25	
Vinyl Chloride	ND	48	"		ND					25	
Batch BL11418 - EPA TO15 PREP											
Blank (BL11418-BLK1)									Prepared & Analyzed: 12/04/2021		
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11418 - EPA TO15 PREP											
Blank (BL11418-BLK1)											
Prepared & Analyzed: 12/04/2021											
Carbon disulfide	ND	0.31	ug/m³								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								
n-Hexane	ND	0.35	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.68	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.13	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11418 - EPA TO15 PREP											
LCS (BL11418-BS1)								Prepared & Analyzed: 12/04/2021			
1,1,1,2-Tetrachloroethane	10.8		ppbv	10.0		108	70-130				
1,1,1-Trichloroethane	11.1		"	10.0		111	70-130				
1,1,2,2-Tetrachloroethane	9.93		"	10.0		99.3	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.8		"	10.0		108	70-130				
1,1,2-Trichloroethane	10.6		"	10.0		106	70-130				
1,1-Dichloroethane	10.5		"	10.0		105	70-130				
1,1-Dichloroethylene	10.6		"	10.0		106	70-130				
1,2,4-Trichlorobenzene	10.2		"	10.0		102	70-130				
1,2,4-Trimethylbenzene	10.5		"	10.0		105	70-130				
1,2-Dibromoethane	10.5		"	10.0		105	70-130				
1,2-Dichlorobenzene	10.2		"	10.0		102	70-130				
1,2-Dichloroethane	10.6		"	10.0		106	70-130				
1,2-Dichloropropane	10.2		"	10.0		102	70-130				
1,2-Dichlorotetrafluoroethane	11.5		"	10.0		115	70-130				
1,3,5-Trimethylbenzene	10.5		"	10.0		105	70-130				
1,3-Butadiene	10.2		"	10.0		102	70-130				
1,3-Dichlorobenzene	10.8		"	10.0		108	70-130				
1,3-Dichloropropane	10.3		"	10.0		103	70-130				
1,4-Dichlorobenzene	10.8		"	10.0		108	70-130				
1,4-Dioxane	10.1		"	10.0		101	70-130				
2-Butanone	10.3		"	10.0		103	70-130				
2-Hexanone	9.50		"	10.0		95.0	70-130				
3-Chloropropene	10.9		"	10.0		109	70-130				
4-Methyl-2-pentanone	9.58		"	10.0		95.8	70-130				
Acetone	9.48		"	10.0		94.8	70-130				
Acrylonitrile	10.8		"	10.0		108	70-130				
Benzene	10.6		"	10.0		106	70-130				
Benzyl chloride	11.4		"	10.0		114	70-130				
Bromodichloromethane	10.7		"	10.0		107	70-130				
Bromoform	11.4		"	10.0		114	70-130				
Bromomethane	10.4		"	10.0		104	70-130				
Carbon disulfide	10.5		"	10.0		105	70-130				
Carbon tetrachloride	12.0		"	10.0		120	70-130				
Chlorobenzene	10.4		"	10.0		104	70-130				
Chloroethane	11.4		"	10.0		114	70-130				
Chloroform	10.9		"	10.0		109	70-130				
Chloromethane	10.6		"	10.0		106	70-130				
cis-1,2-Dichloroethylene	10.3		"	10.0		103	70-130				
cis-1,3-Dichloropropylene	11.0		"	10.0		110	70-130				
Cyclohexane	10.9		"	10.0		109	70-130				
Dibromochloromethane	10.9		"	10.0		109	70-130				
Dichlorodifluoromethane	10.8		"	10.0		108	70-130				
Ethyl acetate	10.6		"	10.0		106	70-130				
Ethyl Benzene	10.5		"	10.0		105	70-130				
Hexachlorobutadiene	9.90		"	10.0		99.0	70-130				
Isopropanol	10.2		"	10.0		102	70-130				
Methyl Methacrylate	10.4		"	10.0		104	70-130				
Methyl tert-butyl ether (MTBE)	11.5		"	10.0		115	70-130				
Methylene chloride	9.75		"	10.0		97.5	70-130				
n-Heptane	10.8		"	10.0		108	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11418 - EPA TO15 PREP											
LCS (BL11418-BS1)								Prepared & Analyzed: 12/04/2021			
n-Hexane	10.8		ppbv	10.0		108	70-130				
o-Xylene	10.8		"	10.0		108	70-130				
p- & m- Xylenes	21.4		"	20.0		107	70-130				
p-Ethyltoluene	10.8		"	10.0		108	70-130				
Propylene	9.93		"	10.0		99.3	70-130				
Styrene	11.0		"	10.0		110	70-130				
Tetrachloroethylene	10.7		"	10.0		107	70-130				
Tetrahydrofuran	10.5		"	10.0		105	70-130				
Toluene	10.2		"	10.0		102	70-130				
trans-1,2-Dichloroethylene	10.6		"	10.0		106	70-130				
trans-1,3-Dichloropropylene	11.1		"	10.0		111	70-130				
Trichloroethylene	10.3		"	10.0		103	70-130				
Trichlorofluoromethane (Freon 11)	10.9		"	10.0		109	70-130				
Vinyl acetate	9.63		"	10.0		96.3	70-130				
Vinyl bromide	11.2		"	10.0		112	70-130				
Vinyl Chloride	10.9		"	10.0		109	70-130				
Duplicate (BL11418-DUP1)	*Source sample: 21K1075-16 (IAQ03)							Prepared: 12/04/2021 Analyzed: 12/05/2021			
1,1,1,2-Tetrachloroethane	ND	0.74	ug/m³		ND					25	
1,1,1-Trichloroethane	ND	0.58	"		ND					25	
1,1,2,2-Tetrachloroethane	ND	0.74	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.82	"		ND					25	
1,1,2-Trichloroethane	ND	0.58	"		ND					25	
1,1-Dichloroethane	ND	0.43	"		ND					25	
1,1-Dichloroethylene	ND	0.11	"		ND					25	
1,2,4-Trichlorobenzene	ND	0.80	"		ND					25	
1,2,4-Trimethylbenzene	ND	0.53	"		ND					25	
1,2-Dibromoethane	ND	0.82	"		ND					25	
1,2-Dichlorobenzene	ND	0.64	"		ND					25	
1,2-Dichloroethane	ND	0.43	"		ND					25	
1,2-Dichloropropane	ND	0.50	"		ND					25	
1,2-Dichlorotetrafluoroethane	ND	0.75	"		ND					25	
1,3,5-Trimethylbenzene	ND	0.53	"		ND					25	
1,3-Butadiene	ND	0.71	"		ND					25	
1,3-Dichlorobenzene	ND	0.64	"		ND					25	
1,3-Dichloropropane	ND	0.50	"		ND					25	
1,4-Dichlorobenzene	ND	0.64	"		ND					25	
1,4-Dioxane	ND	0.77	"		ND					25	
2-Butanone	0.66	0.32	"		0.60				10.0	25	
2-Hexanone	ND	0.88	"		ND					25	
3-Chloropropene	ND	1.7	"		ND					25	
4-Methyl-2-pentanone	ND	0.44	"		ND					25	
Acetone	40	0.51	"		39				4.24	25	
Acrylonitrile	ND	0.23	"		ND					25	
Benzene	0.55	0.34	"		0.55				0.00	25	
Benzyl chloride	ND	0.55	"		ND					25	
Bromodichloromethane	ND	0.72	"		ND					25	
Bromoform	ND	1.1	"		ND					25	
Bromomethane	ND	0.42	"		ND					25	
Carbon disulfide	ND	0.33	"		ND					25	
Carbon tetrachloride	0.54	0.17	"		0.47				13.3	25	

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11418 - EPA TO15 PREP											
Duplicate (BL11418-DUP1)	*Source sample: 21K1075-16 (IAQ03)								Prepared: 12/04/2021 Analyzed: 12/05/2021		
Chlorobenzene	ND	0.49	ug/m³		ND					25	
Chloroethane	ND	0.28	"		ND					25	
Chloroform	ND	0.52	"		ND					25	
Chloromethane	1.3	0.22	"		1.0				19.2	25	
cis-1,2-Dichloroethylene	ND	0.11	"		ND					25	
cis-1,3-Dichloropropylene	ND	0.49	"		ND					25	
Cyclohexane	ND	0.37	"		ND					25	
Dibromochloromethane	ND	0.91	"		ND					25	
Dichlorodifluoromethane	2.4	0.53	"		2.4				2.20	25	
Ethyl acetate	1.9	0.77	"		1.8				2.11	25	
Ethyl Benzene	ND	0.47	"		ND					25	
Hexachlorobutadiene	ND	1.1	"		ND					25	
Isopropanol	6.1	0.53	"		6.2				2.13	25	
Methyl Methacrylate	0.83	0.44	"		0.88				5.13	25	
Methyl tert-butyl ether (MTBE)	ND	0.39	"		ND					25	
Methylene chloride	4.1	0.74	"		4.2				4.48	25	
n-Heptane	0.35	0.44	"		0.35				0.00	25	
n-Hexane	0.60	0.38	"		0.64				6.06	25	
o-Xylene	0.23	0.47	"		0.23				0.00	25	
p- & m- Xylenes	ND	0.93	"		ND					25	
p-Ethyltoluene	ND	0.53	"		ND					25	
Propylene	ND	0.18	"		ND					25	
Styrene	ND	0.46	"		ND					25	
Tetrachloroethylene	9.2	0.73	"		4.8				63.2	25	Non-dir.
Tetrahydrofuran	ND	0.63	"		ND					25	
Toluene	1.6	0.40	"		1.7				5.00	25	
trans-1,2-Dichloroethylene	ND	0.43	"		ND					25	
trans-1,3-Dichloropropylene	ND	0.49	"		ND					25	
Trichloroethylene	0.58	0.14	"		0.29				66.7	25	Non-dir.
Trichlorofluoromethane (Freon 11)	1.7	0.60	"		1.6				7.41	25	
Vinyl acetate	ND	0.38	"		ND					25	
Vinyl bromide	ND	0.47	"		ND					25	
Vinyl Chloride	ND	0.14	"		ND					25	

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11420 - EPA TO15 PREP											
Blank (BL11420-BLK1)											Prepared & Analyzed: 12/05/2021
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11420 - EPA TO15 PREP											
Blank (BL11420-BLK1)											Prepared & Analyzed: 12/05/2021
n-Hexane	ND	0.35	ug/m³								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.68	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.13	"								
LCS (BL11420-BS1)											Prepared & Analyzed: 12/05/2021
1,1,1,2-Tetrachloroethane	10.9		ppbv	10.0		109	70-130				
1,1,1-Trichloroethane	11.1		"	10.0		111	70-130				
1,1,2,2-Tetrachloroethane	10.1		"	10.0		101	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.0		"	10.0		110	70-130				
1,1,2-Trichloroethane	10.6		"	10.0		106	70-130				
1,1-Dichloroethane	10.6		"	10.0		106	70-130				
1,1-Dichloroethylene	10.7		"	10.0		107	70-130				
1,2,4-Trichlorobenzene	10.6		"	10.0		106	70-130				
1,2,4-Trimethylbenzene	10.7		"	10.0		107	70-130				
1,2-Dibromoethane	10.6		"	10.0		106	70-130				
1,2-Dichlorobenzene	10.5		"	10.0		105	70-130				
1,2-Dichloroethane	10.5		"	10.0		105	70-130				
1,2-Dichloropropane	10.4		"	10.0		104	70-130				
1,2-Dichlorotetrafluoroethane	11.1		"	10.0		111	70-130				
1,3,5-Trimethylbenzene	10.8		"	10.0		108	70-130				
1,3-Butadiene	10.2		"	10.0		102	70-130				
1,3-Dichlorobenzene	11.1		"	10.0		111	70-130				
1,3-Dichloropropane	10.4		"	10.0		104	70-130				
1,4-Dichlorobenzene	11.2		"	10.0		112	70-130				
1,4-Dioxane	10.3		"	10.0		103	70-130				
2-Butanone	10.5		"	10.0		105	70-130				
2-Hexanone	9.59		"	10.0		95.9	70-130				
3-Chloropropene	11.1		"	10.0		111	70-130				
4-Methyl-2-pentanone	9.60		"	10.0		96.0	70-130				
Acetone	9.45		"	10.0		94.5	70-130				
Acrylonitrile	11.2		"	10.0		112	70-130				
Benzene	10.9		"	10.0		109	70-130				
Benzyl chloride	11.6		"	10.0		116	70-130				
Bromodichloromethane	10.6		"	10.0		106	70-130				
Bromoform	11.3		"	10.0		113	70-130				
Bromomethane	11.0		"	10.0		110	70-130				
Carbon disulfide	10.8		"	10.0		108	70-130				
Carbon tetrachloride	11.8		"	10.0		118	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11420 - EPA TO15 PREP											
LCS (BL11420-BS1)								Prepared & Analyzed: 12/05/2021			
Chlorobenzene	10.5		ppbv	10.0		105	70-130				
Chloroethane	11.8		"	10.0		118	70-130				
Chloroform	10.9		"	10.0		109	70-130				
Chloromethane	10.3		"	10.0		103	70-130				
cis-1,2-Dichloroethylene	10.3		"	10.0		103	70-130				
cis-1,3-Dichloropropylene	11.0		"	10.0		110	70-130				
Cyclohexane	11.1		"	10.0		111	70-130				
Dibromochloromethane	10.7		"	10.0		107	70-130				
Dichlorodifluoromethane	10.5		"	10.0		105	70-130				
Ethyl acetate	10.7		"	10.0		107	70-130				
Ethyl Benzene	10.8		"	10.0		108	70-130				
Hexachlorobutadiene	9.97		"	10.0		99.7	70-130				
Isopropanol	10.3		"	10.0		103	70-130				
Methyl Methacrylate	10.6		"	10.0		106	70-130				
Methyl tert-butyl ether (MTBE)	11.6		"	10.0		116	70-130				
Methylene chloride	9.93		"	10.0		99.3	70-130				
n-Heptane	11.1		"	10.0		111	70-130				
n-Hexane	11.4		"	10.0		114	70-130				
o-Xylene	10.9		"	10.0		109	70-130				
p- & m- Xylenes	21.8		"	20.0		109	70-130				
p-Ethyltoluene	11.1		"	10.0		111	70-130				
Propylene	9.45		"	10.0		94.5	70-130				
Styrene	11.3		"	10.0		113	70-130				
Tetrachloroethylene	10.8		"	10.0		108	70-130				
Tetrahydrofuran	10.7		"	10.0		107	70-130				
Toluene	10.4		"	10.0		104	70-130				
trans-1,2-Dichloroethylene	10.8		"	10.0		108	70-130				
trans-1,3-Dichloropropylene	11.0		"	10.0		110	70-130				
Trichloroethylene	10.4		"	10.0		104	70-130				
Trichlorofluoromethane (Freon 11)	10.8		"	10.0		108	70-130				
Vinyl acetate	9.74		"	10.0		97.4	70-130				
Vinyl bromide	11.8		"	10.0		118	70-130				
Vinyl Chloride	10.8		"	10.0		108	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11420 - EPA TO15 PREP											
Duplicate (BL11420-DUP1)	*Source sample: 21K1242-02 (Duplicate)								Prepared: 12/05/2021 Analyzed: 12/06/2021		
1,1,1,2-Tetrachloroethane	ND	1.0	ug/m³		ND					25	
1,1,1-Trichloroethane	ND	0.81	"		ND					25	
1,1,2,2-Tetrachloroethane	ND	1.0	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.1	"		ND					25	
1,1,2-Trichloroethane	ND	0.81	"		ND					25	
1,1-Dichloroethane	ND	0.60	"		ND					25	
1,1-Dichloroethylene	ND	0.15	"		ND					25	
1,2,4-Trichlorobenzene	ND	1.1	"		ND					25	
1,2,4-Trimethylbenzene	2.7	0.73	"		2.9				5.26	25	
1,2-Dibromoethane	ND	1.1	"		ND					25	
1,2-Dichlorobenzene	ND	0.90	"		ND					25	
1,2-Dichloroethane	ND	0.60	"		ND					25	
1,2-Dichloropropane	ND	0.69	"		ND					25	
1,2-Dichlorotetrafluoroethane	ND	1.0	"		ND					25	
1,3,5-Trimethylbenzene	0.81	0.73	"		0.81				0.00	25	
1,3-Butadiene	0.30	0.99	"		ND					25	
1,3-Dichlorobenzene	ND	0.90	"		ND					25	
1,3-Dichloropropane	ND	0.69	"		ND					25	
1,4-Dichlorobenzene	ND	0.90	"		ND					25	
1,4-Dioxane	ND	1.1	"		ND					25	
2-Butanone	9.6	0.44	"		9.6				0.00	25	
2-Hexanone	0.73	1.2	"		0.80				8.00	25	
3-Chloropropene	ND	2.3	"		ND					25	
4-Methyl-2-pentanone	0.67	0.61	"		0.61				9.52	25	
Acetone	16	0.71	"		16				1.12	25	
Acrylonitrile	ND	0.32	"		ND					25	
Benzene	0.72	0.48	"		0.72				0.00	25	
Benzyl chloride	ND	0.77	"		ND					25	
Bromodichloromethane	ND	1.0	"		ND					25	
Bromoform	ND	1.5	"		ND					25	
Bromomethane	ND	0.58	"		ND					25	
Carbon disulfide	ND	0.46	"		ND					25	
Carbon tetrachloride	0.47	0.23	"		0.56				18.2	25	
Chlorobenzene	ND	0.69	"		ND					25	
Chloroethane	ND	0.39	"		ND					25	
Chloroform	ND	0.73	"		ND					25	
Chloromethane	0.92	0.31	"		0.74				22.2	25	
cis-1,2-Dichloroethylene	ND	0.15	"		ND					25	
cis-1,3-Dichloropropylene	ND	0.68	"		ND					25	
Cyclohexane	ND	0.51	"		ND					25	
Dibromochloromethane	ND	1.3	"		ND					25	
Dichlorodifluoromethane	2.5	0.74	"		2.5				0.00	25	
Ethyl acetate	ND	1.1	"		ND					25	
Ethyl Benzene	1.4	0.65	"		1.4				0.00	25	
Hexachlorobutadiene	ND	1.6	"		ND					25	
Isopropanol	1.0	0.73	"		1.1				6.90	25	
Methyl Methacrylate	0.31	0.61	"		ND					25	
Methyl tert-butyl ether (MTBE)	ND	0.54	"		ND					25	
Methylene chloride	1.7	1.0	"		1.7				3.08	25	
n-Heptane	0.73	0.61	"		0.73				0.00	25	

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11420 - EPA TO15 PREP											
Duplicate (BL11420-DUP1)	*Source sample: 21K1242-02 (Duplicate)								Prepared: 12/05/2021 Analyzed: 12/06/2021		
n-Hexane	1.4	0.53	ug/m³		1.3				3.92	25	
o-Xylene	1.9	0.65	"		1.9				0.00	25	
p- & m- Xylenes	5.5	1.3	"		5.6				1.17	25	
p-Ethyltoluene	2.3	0.73	"		2.3				3.17	25	
Propylene	ND	0.26	"		ND					25	
Styrene	ND	0.64	"		ND					25	
Tetrachloroethylene	ND	1.0	"		0.51					25	
Tetrahydrofuran	3.0	0.88	"		3.0				1.46	25	
Toluene	8.3	0.56	"		8.3				0.678	25	
trans-1,2-Dichloroethylene	ND	0.59	"		ND					25	
trans-1,3-Dichloropropylene	ND	0.68	"		ND					25	
Trichloroethylene	ND	0.20	"		ND					25	
Trichlorofluoromethane (Freon 11)	1.4	0.84	"		1.4				0.00	25	
Vinyl acetate	ND	0.53	"		ND					25	
Vinyl bromide	ND	0.65	"		ND					25	
Vinyl Chloride	ND	0.19	"		ND					25	
Batch BL11421 - EPA TO15 PREP											
Blank (BL11421-BLK1)									Prepared & Analyzed: 12/06/2021		
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11421 - EPA TO15 PREP											
Blank (BL11421-BLK1)											
Prepared & Analyzed: 12/06/2021											
Carbon disulfide	ND	0.31	ug/m³								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								
n-Hexane	ND	0.35	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.68	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.13	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11421 - EPA TO15 PREP											
LCS (BL11421-BS1)								Prepared & Analyzed: 12/06/2021			
1,1,1,2-Tetrachloroethane	10.1		ppbv	10.0		101	70-130				
1,1,1-Trichloroethane	8.73		"	10.0		87.3	70-130				
1,1,2,2-Tetrachloroethane	10.8		"	10.0		108	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.79		"	10.0		87.9	70-130				
1,1,2-Trichloroethane	11.3		"	10.0		113	70-130				
1,1-Dichloroethane	9.17		"	10.0		91.7	70-130				
1,1-Dichloroethylene	10.5		"	10.0		105	70-130				
1,2,4-Trichlorobenzene	7.89		"	10.0		78.9	70-130				
1,2,4-Trimethylbenzene	10.5		"	10.0		105	70-130				
1,2-Dibromoethane	9.61		"	10.0		96.1	70-130				
1,2-Dichlorobenzene	11.0		"	10.0		110	70-130				
1,2-Dichloroethane	9.04		"	10.0		90.4	70-130				
1,2-Dichloropropane	10.3		"	10.0		103	70-130				
1,2-Dichlorotetrafluoroethane	11.9		"	10.0		119	70-130				
1,3,5-Trimethylbenzene	10.5		"	10.0		105	70-130				
1,3-Butadiene	11.6		"	10.0		116	70-130				
1,3-Dichlorobenzene	11.0		"	10.0		110	70-130				
1,3-Dichloropropane	9.75		"	10.0		97.5	70-130				
1,4-Dichlorobenzene	10.9		"	10.0		109	70-130				
1,4-Dioxane	9.71		"	10.0		97.1	70-130				
2-Butanone	9.80		"	10.0		98.0	70-130				
2-Hexanone	10.9		"	10.0		109	70-130				
3-Chloropropene	9.99		"	10.0		99.9	70-130				
4-Methyl-2-pentanone	10.9		"	10.0		109	70-130				
Acetone	9.10		"	10.0		91.0	70-130				
Acrylonitrile	9.78		"	10.0		97.8	70-130				
Benzene	10.4		"	10.0		104	70-130				
Benzyl chloride	10.9		"	10.0		109	70-130				
Bromodichloromethane	10.2		"	10.0		102	70-130				
Bromoform	9.93		"	10.0		99.3	70-130				
Bromomethane	8.84		"	10.0		88.4	70-130				
Carbon disulfide	8.92		"	10.0		89.2	70-130				
Carbon tetrachloride	10.8		"	10.0		108	70-130				
Chlorobenzene	9.89		"	10.0		98.9	70-130				
Chloroethane	9.62		"	10.0		96.2	70-130				
Chloroform	8.95		"	10.0		89.5	70-130				
Chloromethane	10.5		"	10.0		105	70-130				
cis-1,2-Dichloroethylene	10.5		"	10.0		105	70-130				
cis-1,3-Dichloropropylene	10.1		"	10.0		101	70-130				
Cyclohexane	9.28		"	10.0		92.8	70-130				
Dibromochloromethane	11.7		"	10.0		117	70-130				
Dichlorodifluoromethane	9.16		"	10.0		91.6	70-130				
Ethyl acetate	9.97		"	10.0		99.7	70-130				
Ethyl Benzene	9.88		"	10.0		98.8	70-130				
Hexachlorobutadiene	7.87		"	10.0		78.7	70-130				
Isopropanol	8.97		"	10.0		89.7	70-130				
Methyl Methacrylate	11.0		"	10.0		110	70-130				
Methyl tert-butyl ether (MTBE)	9.01		"	10.0		90.1	70-130				
Methylene chloride	9.53		"	10.0		95.3	70-130				
n-Heptane	9.40		"	10.0		94.0	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11421 - EPA TO15 PREP											
LCS (BL11421-BS1)								Prepared & Analyzed: 12/06/2021			
n-Hexane	9.24		ppbv	10.0		92.4	70-130				
o-Xylene	10.2		"	10.0		102	70-130				
p- & m- Xylenes	21.5		"	20.0		108	70-130				
p-Ethyltoluene	10.5		"	10.0		105	70-130				
Propylene	9.67		"	10.0		96.7	70-130				
Styrene	9.20		"	10.0		92.0	70-130				
Tetrachloroethylene	11.2		"	10.0		112	70-130				
Tetrahydrofuran	9.65		"	10.0		96.5	70-130				
Toluene	9.50		"	10.0		95.0	70-130				
trans-1,2-Dichloroethylene	9.20		"	10.0		92.0	70-130				
trans-1,3-Dichloropropylene	10.4		"	10.0		104	70-130				
Trichloroethylene	11.4		"	10.0		114	70-130				
Trichlorofluoromethane (Freon 11)	8.69		"	10.0		86.9	70-130				
Vinyl acetate	9.54		"	10.0		95.4	70-130				
Vinyl bromide	9.32		"	10.0		93.2	70-130				
Vinyl Chloride	13.1		"	10.0		131	70-130	High Bias			
Batch BL11422 - EPA TO15 PREP											
Blank (BL11422-BLK1)								Prepared & Analyzed: 12/06/2021			
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11422 - EPA TO15 PREP											
Blank (BL11422-BLK1)											
Prepared & Analyzed: 12/06/2021											
Carbon disulfide	ND	0.31	ug/m³								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								
n-Hexane	ND	0.35	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.68	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.13	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11422 - EPA TO15 PREP											
LCS (BL11422-BS1)								Prepared & Analyzed: 12/06/2021			
1,1,1,2-Tetrachloroethane	11.3		ppbv	10.0		113	70-130				
1,1,1-Trichloroethane	11.8		"	10.0		118	70-130				
1,1,2,2-Tetrachloroethane	10.2		"	10.0		102	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.2		"	10.0		112	70-130				
1,1,2-Trichloroethane	11.0		"	10.0		110	70-130				
1,1-Dichloroethane	10.7		"	10.0		107	70-130				
1,1-Dichloroethylene	11.0		"	10.0		110	70-130				
1,2,4-Trichlorobenzene	10.9		"	10.0		109	70-130				
1,2,4-Trimethylbenzene	11.0		"	10.0		110	70-130				
1,2-Dibromoethane	11.1		"	10.0		111	70-130				
1,2-Dichlorobenzene	10.8		"	10.0		108	70-130				
1,2-Dichloroethane	11.3		"	10.0		113	70-130				
1,2-Dichloropropane	10.5		"	10.0		105	70-130				
1,2-Dichlorotetrafluoroethane	11.8		"	10.0		118	70-130				
1,3,5-Trimethylbenzene	11.0		"	10.0		110	70-130				
1,3-Butadiene	10.9		"	10.0		109	70-130				
1,3-Dichlorobenzene	11.4		"	10.0		114	70-130				
1,3-Dichloropropane	10.8		"	10.0		108	70-130				
1,4-Dichlorobenzene	11.4		"	10.0		114	70-130				
1,4-Dioxane	10.4		"	10.0		104	70-130				
2-Butanone	10.8		"	10.0		108	70-130				
2-Hexanone	10.2		"	10.0		102	70-130				
3-Chloropropene	11.2		"	10.0		112	70-130				
4-Methyl-2-pentanone	10.2		"	10.0		102	70-130				
Acetone	10.0		"	10.0		100	70-130				
Acrylonitrile	10.9		"	10.0		109	70-130				
Benzene	10.7		"	10.0		107	70-130				
Benzyl chloride	12.0		"	10.0		120	70-130				
Bromodichloromethane	11.4		"	10.0		114	70-130				
Bromoform	11.8		"	10.0		118	70-130				
Bromomethane	11.0		"	10.0		110	70-130				
Carbon disulfide	10.7		"	10.0		107	70-130				
Carbon tetrachloride	12.7		"	10.0		127	70-130				
Chlorobenzene	10.6		"	10.0		106	70-130				
Chloroethane	11.5		"	10.0		115	70-130				
Chloroform	11.4		"	10.0		114	70-130				
Chloromethane	11.0		"	10.0		110	70-130				
cis-1,2-Dichloroethylene	10.4		"	10.0		104	70-130				
cis-1,3-Dichloropropylene	11.3		"	10.0		113	70-130				
Cyclohexane	11.0		"	10.0		110	70-130				
Dibromochloromethane	11.5		"	10.0		115	70-130				
Dichlorodifluoromethane	11.3		"	10.0		113	70-130				
Ethyl acetate	11.0		"	10.0		110	70-130				
Ethyl Benzene	10.8		"	10.0		108	70-130				
Hexachlorobutadiene	10.4		"	10.0		104	70-130				
Isopropanol	10.6		"	10.0		106	70-130				
Methyl Methacrylate	10.7		"	10.0		107	70-130				
Methyl tert-butyl ether (MTBE)	11.6		"	10.0		116	70-130				
Methylene chloride	10.1		"	10.0		101	70-130				
n-Heptane	11.1		"	10.0		111	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL11422 - EPA TO15 PREP											
LCS (BL11422-BS1)								Prepared & Analyzed: 12/06/2021			
n-Hexane	11.1		ppbv	10.0		111	70-130				
o-Xylene	11.0		"	10.0		110	70-130				
p- & m- Xylenes	22.2		"	20.0		111	70-130				
p-Ethyltoluene	11.3		"	10.0		113	70-130				
Propylene	9.79		"	10.0		97.9	70-130				
Styrene	11.3		"	10.0		113	70-130				
Tetrachloroethylene	11.2		"	10.0		112	70-130				
Tetrahydrofuran	10.8		"	10.0		108	70-130				
Toluene	10.5		"	10.0		105	70-130				
trans-1,2-Dichloroethylene	11.0		"	10.0		110	70-130				
trans-1,3-Dichloropropylene	11.7		"	10.0		117	70-130				
Trichloroethylene	10.7		"	10.0		107	70-130				
Trichlorofluoromethane (Freon 11)	11.7		"	10.0		117	70-130				
Vinyl acetate	9.96		"	10.0		99.6	70-130				
Vinyl bromide	11.8		"	10.0		118	70-130				
Vinyl Chloride	11.4		"	10.0		114	70-130				

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ClientServices@yorklab.com

Sample and Data Qualifiers Relating to This Work Order

TO-LCS-H	The result reported for this compound may be biased high due to its behavior in the analysis batch LCS where it recovered greater than 130% of the expected value.
QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
M-BLK	The target analyte was detected above the RL in the batch method blank. All samples showed >10x the concentration in the blank for this analyte. Data are reported.
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
132-02 89th Ave Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record - AIR

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 21K1075

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company: Castleton Env.	Company:	Company:	PRMC2101	RUSH - Next Day
Address: 50 Park Ave. Babylon, NY	Address: SAME	Address: SAME	YOUR Project Name: PRMC2101	RUSH - Two Day
Phone: 631-482-1818	Phone:	Phone:		RUSH - Three Day
Contact: Daren Murphy	Contact:	Contact:		RUSH - Four Day
E-mail: DarenM@castletonenv.com	E-mail:	E-mail:	YOUR PO#:	Standard (5-7 Day) X

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Samples Collected by: (print your name above and sign below)

Daren Murphy

Air Matrix Codes	Samples From	Report / EDD Type (circle selections)			YORK Reg. Comp.
AI - Indoor Ambient Air	New York X	Summary Report	CT RCP	Standard Excel EDD	Compared to the following Regulation(s): (please fill in)
AO - Outdoor Amb. Air	New Jersey	QA Report	CT RCP DQA/DUE	EQuIS (Standard)	
AE - Vapor Extraction Well/ Process Gas/Effluent	Connecticut	NY ASP A Package	NJDEP Reduced Deliv.	NYSDEC EQuIS	
	Pennsylvania	NY ASP B Package	NJDKQP	NJDEP SRP HazSite	
AS - Soil Vapor/Sub-Slab	Other	Other:			

Certified Canisters: Batch ___ Individual ___

Please enter the following REQUIRED Field Data

Reporting Units: ug/m³ X ppbv ___ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
SSV01	11/19/21 8:24 AM	AS	-30	-10	23999	7363	TO-15
SSV02	8:18 AM		-30	-10	18296	6873	
SSV03	8:44 AM		-30	-10	37012	3540	
SSV04	8:37 AM		-30+	-18	2414	7364	
SSV05	8:38 AM		-30	-10	18315	13568	
SSV06	9:22 AM		-30+	-10	~~23746~~	13565	
SSV07	9:16 AM		-30	-10	34501	5706	
SSV08	9:04 AM		-27.5	-10	22081	443	
SSV09	8:52 AM		-30	-10	36997	7087	
SV01	9:31 AM	AS	-30+	-11	22078	13561	

Comments:

Detection Limits Required

≤ 1 ug/m³ ___ NYSDEC V1 Limits X

Routine Survey ___ Other ___

Sampling Media

6 Liter Canister X

Tedlar Bag

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Katherine Albanese, Castleton	11/22/21 11:10 am	FedEx/York	11/22/21 11:10	FedEx/York	
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				FedEx	11/22/21 18:35

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
132-02 89th Ave Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record - AIR

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 21-1075

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company: Castleton Env.	Company:	Company:	PRMC2101	RUSH - Next Day
Address: 50 Park Ave. Babylon, N.Y.	Address: SAME	Address: SAME	YOUR Project Name: PRMC2101	RUSH - Two Day
Phone: 631-482-1818	Phone:	Phone:		RUSH - Three Day
Contact: Darell Murphy	Contact:	Contact:		RUSH - Four Day
E-mail: Darell.M@castletonenv.com	E-mail:	E-mail:	YOUR PO#:	Standard (5-7 Day) X

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Darell Murphy

Samples Collected by: (print your name above and sign below)

Darell Murphy

Air Matrix Codes

- AI - Indoor Ambient Air
- AO - Outdoor Amb. Air
- AE - Vapor Extraction Well/ Process Gas/Effluent
- AS - Soil Vapor/Sub-Slab

Samples From

- New York X
- New Jersey
- Connecticut
- Pennsylvania
- Other

Report / EDD Type (circle selections)

Summary Report	CT RCP	Standard Excel EDD
QA Report	CT RCP DQA/DUE	EQuIS (Standard)
NY ASP A Package	NJDEP Reduced Deliv.	NYSDEC EQuIS
NY ASP B Package	NJDKQP	NJDEP SRP HazSite
Other:		

YORK Reg. Comp.

Compared to the following Regulation(s): (please fill in)

Certified Canisters: Batch ___ Individual ___

Please enter the following REQUIRED Field Data

Reporting Units: ug/m³ X ppbv ___ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
SV02	11/9/21 9:39AM	AS	-30	-10	36994	5415	TO-15
SV03	9:42AM	↓	-30+	-25	36938	6880	
SV04	9:45AM	↓	-30	-10	16956	7091	
IAQ01	8:24AM	AI	-30	-10	23992	6876	
IAQ02	8:18AM		-27.5	-10	16955	5414	
IAQ03	8:44AM		-29.5	-10	~~13356~~	13570	
IAQ04	8:37AM		-30	-10	17347	6865	
IAQ05	8:38AM		-30	-10	37011	7077	
IAQ06	9:22AM		-29	-10	16696	4-17	
IAQ07	9:18AM	↓	-30+	-10	10014	5704	

Comments:

Detection Limits Required

≤ 1 ug/m³ ___ NYSDEC V1 Limits X

Routine Survey ___ Other ___

Sampling Media

6 Liter Canister X

Tedlar Bag

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Kathleen Albanese, Castleton	11/22/21 11:10am	YORK	11/22/21 11:10	YORK	
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				YORK	11/22/21 11:35

Field Chain-of-Custody Record - AIR

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
132-02 89th Ave Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

YORK Project No. 21C1077

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YOUR Information	Report To:	Invoice To:
Company: Castleton Env.	Company: SAME	Company: SAME
Address: 50 Park Ave. Babylon, N.Y.	Address:	Address:
Phone: 631-482-1818	Phone:	Phone:
Contact: Daren Murphy	Contact:	Contact:
E-mail: Darenm@castletonenv.com	E-mail:	E-mail:

YOUR Project Number: PRMC2101

YOUR Project Name: PRMC2101

YOUR PO#:

Turn-Around Time
- RUSH - Next Day
- RUSH - Two Day
- RUSH - Three Day
- RUSH - Four Day
- Standard (5-7 Day) ✓

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Daren Murphy

Samples Collected by: (print your name above and sign below)

Daren Murphy

Air Matrix Codes
- AI - Indoor Ambient Air
- AO - Outdoor Amb. Air
- AE - Vapor Extraction Well/ Process Gas/Effluent
- AS - Soil Vapor/Sub-Slab

Samples From
- New York ✓
- New Jersey
- Connecticut
- Pennsylvania
- Other

Report / EDD Type (circle selections)

Summary Report	CT RCP	Standard Excel EDD
QA Report	CT RCP DQA/DUE	EQuIS (Standard)
NY ASP A Package	NJDEP Reduced Deliv.	NYSDEC EQuIS
NY ASP B Package	NJDKQP	NJDEP SRP HazSite
Other:		

YORK Reg. Comp.
Compared to the following Regulation(s): (please fill in)

Certified Canisters: Batch ___ Individual ___

Please enter the following REQUIRED Field Data

Reporting Units: ug/m³ ✓ ppbv ___ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
IAQ08	11/19/21 8:52AM	AI	-28	-10	36999	7080	TO-15
IAQ09	8:52AM	↓	-30	-10	23195	12186	↓
OAQ01	9:24AM	AO	-30+	-10	18305	7416	
DUP01	—	QA	-30+	-10	28310	5413	
DUP02	↓ —	QA	-30+	-10	24109	5704	

Comments:

Detection Limits Required
≤ 1 ug/m³ ___ NYSDEC V1 Limits ✓
Routine Survey ___ Other ___

Sampling Media
- 6 Liter Canister ✓
- Tedlar Bag

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Kristen Albanese Castleton	11/22/21 11:10am	YORK	11/22/21 11:10	YORK	
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				YORK	11/22/21 18:33

APPENDIX G G

Sensaphone Sentinel Remote
MMonitoring Equipment Information

SENSAPHONE®
REMOTE MONITORING SOLUTIONS

Sentinel
Technical Specifications

ALARM NOTIFICATION METHODS:

E-Mail, Text Messages, Voice Phone Calls

Programmable alarm escalation levels

Comprehensive scheduling per input, profile, and alarm destination

Unlimited number of User Profiles

Multiple contact types per user

INPUTS:

12 Universal Inputs

- Normally Open / Normally Closed Dry Contact
- 2.8K / 10K Thermistor
- 4-20mA Current Loop
- Pulse Count
- 12 Bit Resolution

TEMPERATURE SENSING RANGE:

-109° to 168°F | -85° to 76°C

RELAY OUTPUT:

Programmable. Rated for 1A 30VAC/ 1A 30VDC

DATA LOGGING:

Unlimited samples securely stored on the Sentinel servers

Programmable sampling interval - 1 min to 24 hrs

User programmable channel selection

COMMUNICATION PORTS:

Ethernet 10/100Base–T

STANDARDS:

FCC Part 15 – Class A Compliant

BATTERY BACKUP:

4.8V 2000mAHr NiMh Battery pack (included)

Provides 8 hours of backup

LOCAL INDICATORS:

12 Alarm Status LEDs

- Power LED • Online LED
- Standby LED • Ethernet link and Activity LEDs

POWER REQUIREMENTS:

Comes with 12VDC plug-in power supply.

(International power options available).

ENVIRONMENTAL:

Operating Humidity:
0-90% RH, non–condensing

Operating Temperature:
32° to 122°F | 0° to 50°C

PHYSICAL:

In metal enclosure:
5.5 x 5.5 x 1.5” | 140 x 140 x 38mm

1 lb. | .45kg

With Weatherproof Enclosure:

12.17 x 10.25 x 3.5” | 309 x 260 x 89mm

3.7 lb. | 1.67 kg

ENCLOSURE:

Durable powder coated metal housing suitable for wall or panel installation or weatherproof NEMA 4X rated fiberglass enclosure.

901 Tryens Road • Aston, PA 19014 • PH: 877-373-2700 • F: 610-558-0222 • www.sensaphone.com

APPENDIX HH

Guidance on Air Emissions of VOCs at DER Remediation Sites

Guidance on Air Emissions of VOCs at DER Remediation Sites

The below represents technical guidance that has been developed by the Division of Environmental Remediation (DER) and the Division of Air Resources (DAR) technical staff to ensure that remedial systems meet the substantive requirements of DAR regulations. Nothing in this guidance restricts the ability of DEC to require treatment of air discharges from remedial systems which DEC or NYSDOH determines is necessary to protect human health or the environment.

Treatment Requirements for Volatile Organic Chemicals (VOCs):

The High Toxicity Air Contaminant (HTAC) List is provided in 6 NYCRR Part 212-2.2 Table 2. For DER, the most common HTAC chemicals include:

- benzene,
- tetrachloroethylene (PCE),
- trichloroethylene (TCE),
- carbon tetrachloride, and
- vinyl chloride.

Treatment is required (as described in Part 212-2.1) for any remedial system that has a potential to emit greater than 0.1 lbs./hr. of a HTAC. Treatment is required below this level if the annual total emissions exceeds the Mass Emission Limit provided in Table 2 (examples provided below).

Chemical Name	CASRN	Mass Emission Limit (pounds per year)	Calculated average pounds per hour
Carbon tetrachloride	56-23-5	100	0.011
Benzene	71-43-2	100	0.011
Vinyl Chloride	75-01-4	100	0.011
Trichloroethelene (TCE)	79-01-6	500	0.057
Perchloroethylene (PCE)	127-18-4	1000	0.11

If the remedial system does not have the potential to emit greater than 0.1 lbs./hr. of a HTAC and potential emissions are below the Mass Emission Limit, then no treatment and no further evaluation is required. If potential emissions are above the Mass Emission Limit, but below 0.1 lbs./hr., then treatment is required unless a Toxicity Impact Analysis is provided, in accordance with DAR-1, demonstrating compliance with Annual Guideline Concentrations/Short-Term Guidance Concentrations (AGC/SGCs).

For non-HTAC volatile organic chemicals, treatment is required if the system has the potential to emit total VOCs at a rate greater than 0.5 lbs./hr.

The following systems require treatment based on DER experience:

- **Soil vapor extraction (SVE)** systems are expected to require treatment;
- **Thermal remediation** (in- or ex-situ) will generally require treatment;
- **Excavation enclosures:** Temporary structures in place to control vapors and odors from excavation of contaminated soils will generally require treatment.
- **Air strippers** generally would not require treatment, however, for larger systems or systems with HTACs, it is good practice to confirm this; and

- **Sub-slab depressurization systems (SSDS)** This guidance does not alter the requirement for compliance with the minimum requirements of the NYSDOH SVI guidance. Generally, SSDS do not require off-gas treatment. For larger systems or systems with HTACs, the need for treatment to comply with this *Guidance on Air Emissions at DER Remediation Sites* should be evaluated. For SSDS discharges unavoidably near receptors, treatment should be considered (e.g. dense residential/commercial neighborhoods).

Major Sources:

DAR has additional requirements for major sources of contamination, as described in 6NYCRR Part 201-2.1(b)(21).

- For VOCs, the threshold to be considered a major source for the majority of the state is 50 tons/year. In the NY Metro Area (all of Long Island, New York City, Rockland County, Westchester County, and the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury) the threshold is 25 tons/year.

- For hazardous air pollutants (HAPs) statewide, the thresholds are 10 tons/year for any single HAP and 25 tons/year for any combination of HAPs.

If any of these thresholds may potentially be exceeded, DAR must be consulted to ensure that air treatment and discharge meet all applicable requirements.

Ozone Depleting Substances and Greenhouse Gases:

For any remediation option which would discharge chlorofluorocarbons (CFCs) or other ozone depleting substances (ODS), the Feasibility Study or Alternatives Analysis must evaluate the feasibility of treatment to minimize discharge of ODS. If treatment to minimize discharge of ODS is required, it must be called for in the Decision Document (such as the Record of Decision) using the remedy selection criteria found in 6 NYCRR Part 375-1.8(f).

DER-31 and CP-49 require that the cleanup of remedial sites be considered in a larger context, including ODS and greenhouse gas (GHG) emissions. Some CFCs (as well as hydrofluorocarbons (HFC) and methane) are potent GHGs, some of which are thousands of times more potent than CO_2. Unnecessary discharge of these potent GHGs should be avoided.

The most common CFCs are Freons (e.g. Freon 114, Freon 11, Freon 23, Freon 12). Some of these are readily treated with activated carbon, but some are not. The following chart provides a comparison of the adsorption capacities for several Freon compounds relative to PCE and TCE:

Freon 23:	0.0001 gm adsorbed/100 gm carbon
Freon 12:	3.1 gm adsorbed/100 gm carbon
Freon 113:	20.0 gm adsorbed/100 gm carbon
TCE:	16.6 gm adsorbed/100 gm carbon
PCE:	27.5 gm adsorbed/100 gm carbon

APPENDIX I

Soil Reuse/Import Form

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Choose an item

Have Ecological Resources been identified? Choose an item

Is this soil originating from the site? Choose an item

How many cubic yards of soil will be imported/reused? Choose an item

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? Choose an item

Does it contain less than 10%, by weight, material that would pass a size 10 sieve? Choose an item

Does it contain less than 10%, by weight, material that would pass a size 100 sieve? Choose an item

Is this virgin material from a permitted mine or quarry? Choose an item

Is this material recycled concrete or brick from a DEC registered processing facility? Choose an item

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Location where fill was obtained:

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

The information provided on this form is accurate and complete.

_____ _____

Signature Date

_____

Print Name

_____

Firm

Revised August 2014

APPENDIX J

Special Requirements CAMP (document supplied by the NYSDEC)

Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Depending upon the nature of contamination, chemical-specific colorimetric tubes of sufficient sensitivity may be necessary for comparing the exposure point concentrations with appropriate pre-determined response levels (response actions should also be pre-determined). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m^3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m^3 or less at the monitoring point.

- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

Special Requirements for Indoor Work With Co-Located Residences or Facilities

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under "Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures" except that in this instance "nearby/occupied structures" would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.