ecology and environment
engineering and geology, p.c.

June 16, 2026

Mr. Justin Starr
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233

Re: Subsurface Investigation Plan – Deep Soil Borings
NYSDEC Site No. 360059, Rose Cleaners
500 Lexington Avenue, Mount Kisco, NY

Dear Justin Starr,

Ecology and Environment Engineering and Geology, P.C. (E & E), on behalf of the New York State Department of Environmental Conservation (NYSDEC), has prepared this subsurface investigation plan as part of the ongoing Remedial Investigation (RI) at NYSDEC State Superfund (SSF) Site No. 360059, Rose Cleaners, located at 500 Lexington Avenue in Mount Kisco, New York (the Site). This phase of RI activities includes the drilling of deep soil borings, installation of groundwater monitoring wells, and collection of soil and groundwater samples to supplement the existing subsurface dataset.

The objective of this work is to further define the vertical extent of Site-related chlorinated volatile organic compound (CVOC) impacts, primarily tetrachloroethene (PCE), within the compact geologic unit at approximately 25 feet below ground surface (ft bgs) in the Site vicinity. This unit was encountered during previous investigations and is interpreted to consist of tightly packed fine- to medium-grained materials with relatively low permeability compared to the overlying sand and silt.

The investigation is intended to further evaluate the hydrogeologic conditions within this unit, refine the vertical extent of impacts, and support selection of appropriate monitoring intervals. A site plan showing the Site and proposed boring and monitoring well locations is attached as Figure 1.

Drilling and Soil Sampling

E & E will supervise the drilling of four (4) soil borings downgradient of the Site and the installation of groundwater monitoring wells in each boring. The boring/well locations were selected based on current understanding of CVOC impacts, as informed by soil, groundwater, surface water, soil vapor, and indoor air data collected to date. The proposed deep borings are located generally along the inferred plume axis, with locations selected based on site access constraints. Borings will be advanced to depths sufficient to evaluate the vertical extent of CVOC impacts, or to refusal, as field conditions allow. The drilling subcontractor will be responsible for securing any required road-opening permits, notifying Dig Safely New York prior to intrusive activities, and coordinating with additional utility providers as needed. Private utility locating services and soft-dig hand clearing will be implemented where necessary.

Aquifer Drilling and Testing, Inc. (ADT) has been subcontracted to perform drilling and monitoring well installation for the proposed investigation. The sonic drilling method will be used, and borings will be advanced using an additional larger-diameter outer casing to minimize potential cross-contamination from impacted shallow intervals. The outer casing will be advanced from grade to a minimum of 5 feet below the top of the compact geologic unit to isolate overlying materials during drilling. Drilling will then continue within the casing into the underlying formation.

Continuous soil coring will be conducted at all proposed soil boring locations using the sonic core barrel, with cores collected at discrete depth intervals. An E & E geologist will log recovered core materials and screen for the presence of VOCs using a photoionization detector (PID). Soil samples will be collected from selected depth intervals based on field observations, including PID response, lithologic changes, and visual or odor evidence of potential contamination. All samples will be placed in appropriate laboratory-supplied containers, stored on ice in a cooler, and transported under chain-of-custody documentation to Phoenix Environmental Laboratories, Inc. (PEL) of Manchester, Connecticut for laboratory analysis.

Select samples will also be analyzed by PEL or an affiliated New York State-certified laboratory for additional parameters to support evaluation of potential groundwater Interim Remedial Measures (IRMs), including dry bulk density, total organic carbon (TOC), oxidant demand, carbonate content (as CaCO3), pH, and grain-size distribution (sieve analysis).

Drilling and Groundwater Field Screening / Sampling

During drilling, groundwater samples will be collected at discrete depths at each boring for real-time field screening of PCE using colorimetric detector tubes and a FROG-5000 portable gas chromatograph. Field screening results will be used to evaluate vertical groundwater impacts and inform boring depth and monitoring well construction. The objective is to document the depth at which groundwater conditions are no longer influenced by the release.

Groundwater samples will be collected using a specialized downhole sampler to obtain discrete samples from select depths within the native formation. The sampler will be advanced approximately 10 feet beyond the active drilling interval and opened to allow groundwater from the surrounding formation to enter under natural hydraulic conditions. Groundwater will be retrieved using disposable or decontaminated sampling equipment (e.g., hand bailers or low-flow pumps) and transferred to appropriate containers.

Sampling will be conducted at approximately 10-foot intervals within the compact geologic unit, beginning at a depth of approximately 30 ft bgs and continuing to the termination depth of each boring.

Colorimetric tubes will serve as the primary screening tool at all sampling intervals to identify zones of elevated PCE concentrations and to evaluate vertical concentration trends. As concentrations decrease with depth, low-range tubes will be used to further define concentration reductions and to confirm conditions suitable for FROG-5000 analysis. The FROG-5000 will be used to provide real-time quantitative measurements to refine the vertical extent of impacts.

The discrete groundwater samples will also be collected for laboratory analysis of VOCs. Samples will be transferred directly into laboratory-supplied containers, stored on ice in a cooler, and transported under chain-of-custody documentation to PEL for analysis of VOCs by USEPA Method 8260. Field screening and sampling activities will be conducted in accordance with standard industry practices.

Groundwater Monitoring Well Installation

Four (4) deep groundwater monitoring wells are proposed to be installed within the compact geologic unit encountered below approximately 25 ft bgs. Each well will be installed to a depth of approximately 100 ft bgs, with a planned screened interval from 90 to 100 ft bgs. Screened intervals may be adjusted in the field based on observed subsurface conditions.

The monitoring wells will be constructed with 2-inch diameter Schedule 40 PVC riser pipe and 2-inch diameter, 10-slot PVC well screen. The annular space surrounding the well screen will be filled with No. 1 filter sand from the bottom of the borehole to approximately 2 feet above the top of the screened interval. A minimum 2-foot thick bentonite seal will be installed above the filter sand. The remaining annular space will be fully and continuously grouted. Each well will be secured with a watertight cap and completed at grade with an 8-inch diameter manhole encased in a concrete pad.

Well Development

All newly installed wells will be developed no sooner than 24 hours after completion of well construction. Well development will be conducted by surging and pumping to remove fine-grained material introduced during drilling and to improve hydraulic communication with the surrounding formation. Development will continue until turbidity is reduced to less than 50 nephelometric turbidity units (NTU), or until asymptotic conditions are achieved; not to exceed 10 total well volumes or 1 hour of active development per well. Field parameters, including pH, temperature, and conductivity, will be monitored during development activities. Development water will be containerized and managed as investigation-derived waste in accordance with applicable requirements.

Groundwater Sampling

Groundwater samples will be collected from the four (4) newly installed monitoring wells no sooner than one week following completion of well development. Prior to sampling, groundwater elevations and total well depths will be measured using an electronic water-level indicator accurate to 0.01 foot to evaluate groundwater conditions and assess potential non-aqueous phase liquid (NAPL).

Groundwater samples will be collected using USEPA low-flow purging and sampling techniques with a peristaltic pump, flow-through cell, and dedicated high-density polyethylene (HDPE) tubing. The tubing intake will be positioned approximately 2 feet above the bottom of each screened interval. Groundwater will be purged at a constant low-flow rate, and samples will be collected following stabilization of field parameters, including pH, temperature, and specific conductance, in accordance with USEPA low-flow

sampling guidance. All samples will be placed in appropriate laboratory-supplied containers, stored on ice in a cooler, and transported under chain-of-custody documentation to PEL for laboratory analysis.

Groundwater samples will be analyzed for VOCs by USEPA Method 8260. Select samples will also be analyzed by PEL or affiliated New York State-certified laboratory for additional parameters to support evaluation of potential groundwater IRMs, including alkalinity (as CaCO3), TOC, and volatile fatty acids, and dissolved hydrocarbon gases (methane, ethane, ethene); and redox parameters including ferrous/ferric iron, total iron, total manganese, sulfate, and sulfide.

Well Top of Casing Survey

A New York State licensed land surveyor, Popli Design Group (Popli), has been subcontracted to survey the monitoring well locations and elevations. The well locations will be surveyed to a minimum horizontal accuracy of ±0.5 foot, and elevations will be provided in feet relative to the National American Vertical Datum of 1988 (NAVD88) with a minimum vertical accuracy of ±0.05 foot (reported to 0.01 foot).

Decontamination Procedures

All non-dedicated equipment and tools used during field activities will be decontaminated to prevent cross-contamination between sampling locations. Drilling and sampling equipment will be decontaminated between each boring location by removal of visible soil followed by washing with a solution of potable water and laboratory-grade detergent (e.g., Alconox), and a subsequent potable water rinse. Drilling equipment may also be decontaminated by removal of adhered soil and washing with high-pressure water or steam. A final rinse using deionized (DI) water will be performed for sampling equipment. Decontamination water will be placed in Department of Transportation (DOT) compliant 55-gallon drums and managed as investigation-derived waste (IDW), as described below.

Sample Quality Assurance/Quality Control

Sample quality assurance/quality control (QA/QC) procedures will be implemented in accordance with E & E's 2020 *Master Quality Assurance Project Plan for New York State Department of Environmental Conservation Projects, Contract No. D009807*. Field duplicate and matrix spike/matrix spike duplicate (MS/MSD) samples will be collected at a frequency of one (1) per twenty (20) samples per matrix. Laboratory trip blanks will be included in each cooler containing VOC samples for soil and groundwater.

Investigation Derived Waste

IDW anticipated to be generated during the investigation includes soil cuttings during drilling, purge water from well development and groundwater sampling, decontamination liquids, and expendable materials (e.g., PPE and sampling supplies). IDW will be placed into DOT-compliant 55-gallon steel drums, which will be sealed, labeled, and staged at the Site prior to off-site transportation and disposal. Solid and liquid IDW will be segregated. Expendable materials such as PPE that do not exhibit evidence of contamination may be disposed as municipal solid waste.

IDW will be managed in accordance with applicable federal, state, and local requirements. E & E will collect waste characterization samples for soil and water in accordance with disposal facility acceptance criteria. Analytical results and waste-specific information will be provided to the waste disposal subcontractor for preparation of waste profiles and coordination of off-site transportation and disposal. The waste profile will identify NYSDEC as the generator of the IDW.

Health and Safety

A site-specific health and safety plan (HASP) has been prepared for the RI work activities and will be maintained on-site during field activities. All field personnel will be briefed on the HASP prior to performing work and will acknowledge their understanding and awareness of the HASP by signing the project-specific acknowledgment form. The HASP will be maintained on-site and available for review and reference during field activities. Field activities are anticipated to be conducted under Level D PPE, including safety toe boots, nitrile gloves, safety glasses, and high-visibility vests. During drilling, the work zone will be clearly defined using cones and caution tape.

A site-specific Community Health and Safety Plan (CHSP), which includes a Community Air Monitoring Plan (CAMP), will be implemented during all subsurface investigation activities. CAMP monitoring stations equipped with a PID and a particulate monitor (e.g., DustTrak) will be positioned upwind and downwind of the active work area during drilling and soil disturbance activities to monitor airborne VOCs and particulates. The CHSP and CAMP are attached.

In the event free-phase PCE is encountered during subsurface investigation activities, the NYSDEC Project Manager will be notified, and appropriate response actions will be implemented to ensure the protection of field personnel, the surrounding community, and the environment. E & E's *PCE Recovery Plan, September 28, 2023*, will be used as site-specific guidance for managing free-phase PCE. The HASP has been updated to include protocols for working in areas where free-phase PCE may be present.

Please contact me at (212) 760-5635 with any questions or comments.

Sincerely,

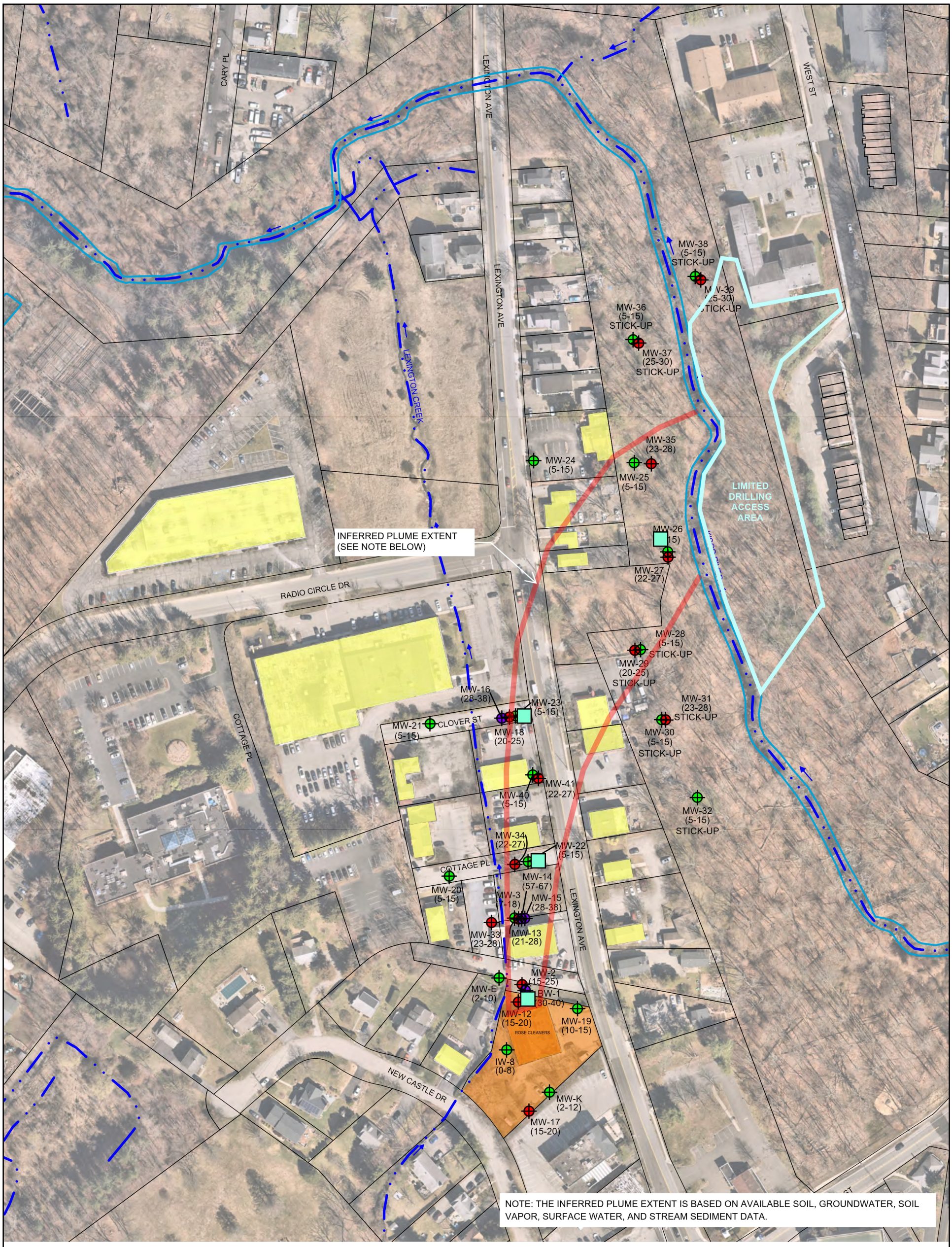
Ecology and Environmental Engineering and Geology, P.C.

Dave Morelli, PG
Project Manager

Attachment: Site-Specific CHSP/CAMP

cc: A. Martin, NYSDOH
R. Watt, E & E

Ecology and Environment Engineering and Geology, P.C.
40 La Riviere Drive, Suite 320
Buffalo, NY 14202



LEGEND

- PARCEL BOUNDARY
- STATE SUPERFUND PROGRAM SITE
- OFF-SITE STRUCTURE DESIGNATED FOR SOIL VAPOR INTRUSION SAMPLING
- EXISTING MONITOR WELL LOCATION
- MW-17 (15-20) — MONITORING WELL ID SCREENED INTERVAL
- MONITORING WELL LOCATION (TOTAL DEPTH APPROXIMATELY 15 FT BG)
- MONITORING WELL LOCATION (TOTAL DEPTH APPROXIMATELY 25 FT BG)
- MONITORING WELL LOCATION (SCREENED INTERVAL > 25 FT BG)
- PROPOSED MONITORING WELL LOCATION (TOTAL DEPTH APPROXIMATELY 100 FT BG)

N

0 150

SCALE IN FEET

WSP USA Inc.
40 La Riviere Drive
Suite 320
Buffalo, New York 14202
(716) 853-1220

Drawn By:	RAC
Checked:	DM
Approved:	RW
DWG Date:	06-10-26

Rose Cleaners
NYSDEC Site No. 360059
500 Lexington Avenue
Mount Kisco, New York

PROPOSED MONITORING WELL LOCATIONS - JUNE 2026

FIGURE 1

B

O:\DWG\NYS DEC\Rose Cleaners\2026\

Community Health and Safety Plan
Rose Cleaners
NYSDEC Site No. 360059
Mount Kisco, New York

1.0 Community Air Monitoring Plan (CAMP)

This CAMP was prepared based on the New York State Department of Health (NYSDOH) Generic CAMP[1]. This plan requires real-time monitoring for volatile organic compounds (VOCs) and particulates at the downwind perimeter of each designated work area when certain activities are in progress at potentially contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences, businesses, and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

Reliance on the CAMP shall not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

A Special Requirements CAMP shall be implemented at the Site when ground intrusive or soil handling activity occurs within an occupied building or within 20 feet of a receptor (e.g., occupied buildings, bus stop, etc.). The standard CAMP is outlined in this Section and Sections 2 and 3 below. The additional requirements of a Special Requirements CAMP is outlined in Section 4.

Volatile Organic Compound Monitoring Plan
Periodic monitoring for VOCs will be required during <u>non-intrusive</u> activities such the collection of groundwater samples from monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals and anticipated contaminant concentrations, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at contaminated wells along busy urban streets adjacent to a residence/business.

For <u>intrusive</u> activities such as drilling and direct push sampling, not located within 20 feet of potentially exposed populations or occupied structures, VOCs must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) at intervals of no

[1] New York State Department of Environmental Conservation (NYSDEC). 2010. DER-10, Technical Guidance for Site Investigation and Remediation, May 2010. Appendix 1A, Community Air Monitoring Plan (CAMP).

more than 15 minutes. Upwind concentrations shall be measured at the start of each workday and periodically thereafter to establish background conditions. VOC monitoring shall be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. For example, for total organic vapor concentrations, a photo-ionization detector (PID) shall be used. The equipment shall be calibrated at least daily.

VOC Response Levels:

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds **5 parts per million (ppm)** above background for a 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with **continued** monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of **5 ppm** over background but less than **25 ppm**, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below **5 ppm** over background for the 15-minute average.

3. If the organic vapor level is **above 25 ppm** at the perimeter of the work area, activities must be shutdown and mitigative measures implemented before work can continue.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations shall be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring shall be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment shall be equipped with an audible alarm or be continuously visually monitored to indicate exceedance of the action level. In addition, fugitive dust migration shall be visually assessed during all work activities.

Particulate Response Levels:

1. If the downwind PM-10 particulate level is **100 micrograms per cubic meter** ($\mu g/m^3$) greater than background (upwind perimeter) for a 15-minute period or if airborne dust is visually observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed **150 $\mu g/m^3$** above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than **150 $\mu g/m^3$** above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume if dust suppression measures and other

controls are successful in reducing the downwind PM-10 particulate concentration to within 150 μg/m^3 of the upwind level and in preventing visible dust migration.

2.0 Public Safety

Intrusive activities such as drilling and direct push sampling within the community will require the development of an exclusion zone at the perimeter of the work zone. The exclusion zone is meant to prevent pedestrians from entering the work zone and potentially being exposed to contaminants or physical safety hazards associated with the equipment used. The exclusion zone will be marked using caution tape and/or cones or similar high visibility barriers. When working on or immediately adjacent to a public road, the regulations listed in the NYS Manual of Uniform Traffic Control Devices (Title 17b, NYCRR) will be implemented. This includes the correct formation and placement of cones and "Road Work Ahead" signs to divert and warn oncoming traffic. Depending on the type of work and length of time needed, traffic controllers and observers may be required.

3.0 Responsibility

It shall be the responsibility of the Site Safety Officer to conduct monitoring at the downwind perimeter of the work zone as defined above and record all relevant data in the health and safety field notebook, which will be available for State (NYSDEC and NYSDOH) personnel to review. The Site Safety Officer shall also be responsible for visually monitoring the work zone for potential safety hazards and to prevent public intrusion in the work zone.

4.0 Special Requirements CAMP

In addition to the standard CAMP requirements per above the Special Requirements CAMP requires the following:

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 µg/m^3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m3 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.