

# **DT CONSULTING SERVICES, INC. BELLUCCI ENGINEERING, PLLC.**

## **SITE CHARACTERIZATION WORK PLAN Hillcrest Shopping Center 275 North Main Street Spring Valley, Rockland County, New York**

**DEC SITE NUMBER 344094**

**September 24, 2025**

### **Summary of Revisions to Site Characterization Work Plan:**

<b>Revision No.</b>	<b>Date Submitted</b>	<b>Summary of Revision</b>	<b>NYSDEC Approval Date</b>
1	11-20-25	11-17-25 NYSDEC/NYSDOH Comment Letter	

**DTCS/BE**

November 20, 2025

Mr. Michael Squire  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway  
Albany, New York 12233

**RE:           SITE CHARACTERIZATION WORK PLAN - REVISED**  
Hillcrest Shopping Center  
Spring Valley, Rockland County, New York  
DEC Site No.: 344094

Dear Mr. Squire:

DT Consulting Services, Inc. (DTCS) and Bellucci Engineering, PLLC (BE) are pleased to present this *Site Characterization Work Plan - Revised* for the above referenced property. This report outlines the proposed Site characterization work to be performed throughout the property to investigate historic and current on-Site dry-cleaning operations. This 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) and was generated by qualified environmental professionals as defined in 6 NYCRR Part 375. If you should have any questions or require additional information, please contact our office.

Respectfully submitted,



Daniel Bellucci, P.E.  
Bellucci Engineering, PLLC



Deborah Thompson, Senior Geologist  
DT Consulting Services, Inc.

CC:   M. Zucker/Cuzson Hillcrest LLC  
      M. Stingone, Esq.  
      NYSDOH

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## ***DTCS/BE***

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## **1.0 INTRODUCTION AND PURPOSE**

This Site Characterization Work Plan (SCWP) has been prepared to satisfy the investigation requirement of the New York State Department of Environmental Conservation (NYSDEC or the Department). The Site is addressed as 275 North Main Street, Spring Valley, Rockland County, New York (heretofore referenced as the Site). Site Location and Topographic Maps have been included as Figures 1 and 2 respectively for reference. A Phase II Environmental Site Assessment (ESA) Sampling Location Map is included as Figure 3. The Site is not currently listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State (the Registry). Prior investigation activities have been conducted on the Site by Middleton Environmental Inc. (MEI) along with Castleton Environmental (CE) and the results of those investigations were submitted to the Department. Based upon these results, the Department has designated the Site as Site Number 344094 with a Classification of “P.”

The expressed purpose of this work is to provide documentation of soil vapor and indoor air quality within the Site structure, assess potential for off-Site vapor migration along the perimeter of the property boundaries, to document local groundwater quality conditions through installation/sampling of proposed groundwater monitoring wells, and perform soil testing within the source area (i.e., Cresthill Cleaners, currently known as Best Cleaners), all intended to properly define the nature and extent of detected contamination. This SCWP has been prepared to focus upon and address specific identified source areas at the above-mentioned Site, along with non-suspected source areas i.e. property boundaries) to provide thorough Site coverage. As more fully described in Sections 2 - 4 of this document, chlorinated volatile organic compounds (cVOCs) have been detected in the subsurface of the property and are potentially the result of historical Site use (i.e., operation of dry-cleaning establishments). The past release(s) of hazardous substances has resulted in a potential threat to human health associated with potential exposure to cVOCs via vapor intrusion.

## **2.0 SITE INFORMATION/ PREVIOUS ENVIRONMENTAL REPORTING**

The Subject Property contains an irregularly shaped lot which encompasses an area of approximately 5.17 acres. The Site is identified as Tax Map/Parcel ID Number 50.14-1-47 by the

Town of Ramapo and is improved with a +/- 45,810-ft<sup>2</sup> standalone building which is utilized as a commercial shopping center. The single-story, slab-on-grade Site structure is configured with thirteen commercial units. Records indicate that the Site was developed/constructed in 1964. Areas surrounding the building include asphalt paved parking surfaces, concrete walkways and landscaped spaces. The current use of the Site includes the rental of retail spaces, collectively defined as a neighborhood shopping center (i.e., Hillcrest Shipping Center) as follows:

UNIT NO.	OCCUPANT	TENANT SPACE (ft <sup>2</sup> )
1	Best Cleaners	2,000
2	Chinese Rest.	1,500
3	David's Jewelry	1,200
4	A&M Pizza	1,800
5	Daily Fresh	1,500
6	Pedro's Beauty	2,200
7	Veloz Barber	3,500
8	Medina Wash & Dry	1,500
9	M&A Furniture	2,500
10	Wines Liquor	1,300
11	Elite Wireless	1,600
12	Eckerson Drug	4,200
13	Key Foods	20,000

The area surrounding the Subject Property is primarily characterized by mixed use development. The following table lists the abutting properties:

<b>Location</b>	<b>Occupant</b>
North	The Subject Property is bound to the north by a retail shopping mall (291 N Main Street) and residential properties.
South	The Subject Property is bound to the south by West Eckerson Road (County Route 74), beyond which are located NorthEast Community Bank (72 W Eckerson Road) and single-family residences.
East	The Subject Property is bound to the east by a Chase Bank (269 N Main Street), North Main Street (State Route 45), beyond which is located a multi-tenant office building (300 North Main Street) and a Sunoco Gas Station (298 N Main Street).
West	The Subject Property is bound to the west by a wooded area, beyond which are townhomes and single-family residences (1-49 Catamount Drive).

Information regarding the physical settings at the Subject Property and immediate vicinity is summarized below:

### Topography

<b>Setting</b>	<b>Description</b>
Elevation	522 feet above mean sea level (msl)
General Topography	Relatively flat
Slope	No slopes
General Slope of Surrounding Area	East

Information concerning the geology of the Subject Property was obtained from the USGS Bulletin, GW-42, Geology and Ground-Water Resources of Rockland County, New York (1959). The Subject Property is located within the Piedmont hypsographic province, which consists of Triassic age sandstone, shale, and conglomerate identified as the Newark Group. Groundwater in the Newark basin aquifer flows primarily through discrete water-bearing zones parallel to the strike and dip of bedding, whereas flow perpendicular to the strike is restricted, thereby imparting

anisotropy to the groundwater flow field. There are no waterbodies on-Site or surrounding the Site. The nearest water body is an unnamed pond/wetland area, located approximately 1,250 feet to the west of the Site. The measured depth to groundwater recorded during a Phase II Subsurface Investigation in February 2024 was approximately 10-feet below ground surface (bgs), with an anticipated groundwater flow direction to the east, southeast towards the Hudson River. Electric and gas services are supplied by Orange and Rockland Utilities, while potable water and sanitary services are supplied by Town of Ramapo (Municipal). According to documents reviewed, the building obtains heat via natural gas-fired overhead blowers and HVAC units. Surface water runoff enters catch basins located throughout the parking lot which appear to discharge into the municipal storm sewer system.

### **Summary of Previous Assessments**

#### *Middleton Environmental Inc., Phase I Environmental Site Assessment, February 9, 2024*

MEI conducted a Phase I ESA dated February 9, 2024, which identified the following recognized environmental conditions (RECs):

- Use of a portion of the property as a dry-cleaning establishment and hazardous waste generator since at least 1985; and
- The presence of an underground storage tank (UST) with a capacity of 550-gallons was also associated with the dry-cleaning establishment portion of the Site structure. Note that contents of the tank and/or status were not noted in the Phase I ESA.

Based upon the findings of the Phase I ESA, MEI recommended a Phase II ESA be conducted to obtain data on current Site conditions, potential distribution of target contaminants (in soil, soil gas, and groundwater) that might have resulted from a known or likely release and the risk they pose to human or ecological receptors.



The scope of work conducted during the Castleton Environmental (herein CE) March 2024 Phase II ESA included a Geophysical Survey and a Subsurface Investigation to obtain soil and soil gas samples on-Site. On March 26, 2024, CE conducted a Phase II ESA to assess the subsurface condition beneath the Subject Property. A total of five soil borings (SB-1 through SB-5) were advanced at the Subject Property for soil characterization to a maximum depth of 13-ft bgs where refusal was encountered. Soil Borings SB-1 and SB-2 were advanced surrounding the UST, while SB-3 – SB-5 were placed within the dry cleaner space to a depth of one-foot bgs where refusal was encountered. CE documented perched groundwater at a depth of 10-ft bgs, within SB-1 only. The remaining boreholes did not document any saturated soils which are typically an indicator of groundwater. In addition to the soil borings, four soil vapor points (SV-1 through SV-4) were installed and sampled. Soil vapor SV-1 was set within soil boring SB-1 at a depth of 8-ft bgs, while soil vapor SV-2 – SV-4 sampling points were placed within soil borings SB-3 – SB-5 at a depth of two inches below the concrete slab surface.

Upon the completion of the Phase II ESA, CE concluded that soil analysis did not reveal the presence of targeted volatile and/or semi-volatile organic compounds (VOCs/SVOCs) above NYS DEC Part 375 unrestricted soil clean up objectives or SCOs (see Table 1, attached). Analysis of soil vapor revealed the presence of cVOCs above New York State Department of Health (NYSDOH) Soil Vapor Intrusion (SVI) Decision Matrices for tetrachloroethene (PCE), trichloroethene (TCE) and cis-1,2-Dichloroethene (see Tables 1-2, attached). Concentrations of these compounds trigger mitigation when compared to NYSDOH matrices.

To address this finding, Cuzson Hillcrest LLC chose to enter into a P-Site Consent Order with the NYSDEC to investigate, characterize, mitigate and remediate (as necessary) the Site.

### **3.0 OBJECTIVES**

The purpose of the SCWP at the Site is to delineate sub-slab soil vapor and indoor air impacts within the Site structure, to quantify soil quality beneath the potential source areas (i.e., Best Cleaners), confirm groundwater quality with the installation of groundwater monitoring wells to

assist in defining the nature and extent of any dissolved phase impacts, and to determine the potential for off-Site soil vapor impacts via perimeter sampling of soil vapor.

### **3.1 Data Assessment and Needs**

Based upon the results of previous investigations, subsurface impacts (potentially attributed to the historic chlorinated solvent use) have been identified on the Site. Furthermore, the concentrations of detected contaminants within the soil vapor appear to warrant mitigation. Site characterization of sub-slab soil vapor, indoor air, soil, groundwater, and perimeter soil vapor is recommended to define the source area as well as delineating the extent of subsurface impacts beyond the identified cleaner (if any). To assist in determining the potential for off-Site contaminant migration, a subsurface soil vapor study along the periphery of the Site boundaries would also be conducted.

## **4.0 SITE CHARACTERIZATION APPROACH**

The scope of the SC program is directed at providing sufficient information that will fill in any data gaps in historical Site surveys. The SC objectives and methods have been developed in accordance with 6 New York Code Rules and Regulations (NYCRR) Part 375, and relevant provisions of Department of Environmental Remediation (DER)-10 *Technical Guidance for Site Investigation and Remediation*, May 2010. A Site and contaminant specific Community Air Monitoring Plan or CAMP and a Health and Safety Plan or HASP have been prepared for the Site and have been placed in Attachment A & B, respectively. Special requirements have also been deemed necessary by the NYSDEC and New York State Department of Health (NYSDOH) as work will be conducted within 20 feet of potentially exposed individuals or structures. A copy of these special CAMP requirements (as outlined in DER-10) has been placed in Appendix A for reference. Each of these documents (including the special CAMP requirements) will be employed during all Site activities. Figure 4 shows the proposed sub-slab soil vapor/ indoor air, soil, groundwater and perimeter soil vapor sampling locations for this SCWP. Note that all proposed sampling locations are approximate until it can be field verified that the location is free of subsurface utility conflict.

#### **4.1 Utility Mark out and Identification of Subsurface Structures**

Prior to the initiation of fieldwork, a request for a complete utility mark out of the subject property will be submitted in accordance with New York State Department of Labor regulations. Confirmation of all underground utility locations will be confirmed prior to advancing soil borings and/or installing monitoring wells. Additionally, each soil boring location will be scanned by a private independent Geophysical surveyor to confirm the presence/ absence of privately owned utilities. The geophysical survey will also attempt to locate the exact location of the existing 550-gal UST located in the rear of the cleaner.

#### **4.2 Rockland County Department of Health Resource Evaluation Permit**

In accordance with Rockland County Department of Health (RCDOH) rules and regulations, a licensed Well Driller will be retained and will secure a Resource Evaluation Permit prior to mobilization to the site. In accordance with RCDOH regulations, all borings that intersect the groundwater table, encounter gross contamination and/or a confining layer will be tremie grouted from bottom up. Borings that do not meet these requirements may be backfilled with soil cuttings or clean material as typical. All locations will be sealed at the surface with asphalt or concrete as appropriate upon completion of the sampling activities. Boring/ well completion logs and photo documentation will be uploaded to the RCDOH permit portal at the completion of the field investigation.

#### **4.3 Proposed Soil Sampling and Analysis**

In order to characterize the soil at the Site, the following scope of work will be implemented:

- Advance a total of four soil borings within the potential source areas (i.e., Best Cleaners);
- Advance fifteen additional soil borings within and along the periphery of the Site boundary to further characterize subsurface soils; and
- Collect soil samples from newly installed soil borings;

A combination of direct-push drilling rig (Geoprobe) and manually advanced hand-tooling will be used to advance a minimum of nineteen soil borings (See Figure 4 for proposed locations) across the Site. A qualified environmental driller will advance the proposed investigative borings. The on-Site Geologist/Engineer will screen the soil samples for environmental impacts and collect environmental samples for laboratory analysis. Site work will comply with the safety guidelines outlined in the CAMP and HASP (Attachments A & B). Upon retrieval from the two, four or five-foot sampler equipped with an acetate liner, the collected sample shall be placed in laboratory supplied glassware, labeled, and readied for transport to the laboratory for analysis. The sampling tubes and tools used to collect the soil samples will be decontaminated between each sampling location using a detergent wash (i.e.,alconox) and potable water rinse. The investigative borings will be advanced to the depth of approximately 25 feet bgs or to a depth sufficient to vertically delineate the extent contamination (if encountered). Based on equipment limitations, interior borings will likely terminate by 10-feet bgs. The proposed boring location plan is provided in Figure 4.

An on-Site Geologist/PE will prepare boring logs that will include boring identification, depth interval, soil descriptions, PID headspace readings, moisture, and other notable features. Soil samples retrieved from each boring will be screened in approximate two-foot intervals for organic vapors using a field calibrated PID equipped with a 10.2 electron volt lamp. The PID probe will be inserted into the headspace of each sample bag, and the maximum reading will be recorded. For those borings located within and surrounding the dry cleaning establishment (seven total locations), proposed sampling intervals for soil collection include sampling at the two-foot interval found directly beneath the Site-specific cover (concrete slab or asphalt), sample collection at the groundwater interface, at any soil horizon that exhibits evidence of impact, and from the bottom of the borehole (a minimum of three samples per boring location). Proposed sampling in the remaining locations (twelve total) within the property boundaries, include the collection of one soil sample from the two-foot soil interval found directly beneath the Site-specific cover (concrete slab or asphalt) and one soil sample will be collected at the groundwater interface and/or at locations that exhibit evidence of impact (a minimum of two samples per boring location).

Note that surficial sampling is not included in this work plan as over 95% of the Site has cover from asphalt and building foundations. Samples will not be composite samples but will be discrete grab samples. The proposed sampling rationale is as follows:

### **Proposed Boring Locations and Rationale for Placement**

Sample Matrix	Sample Depth (Feet below grade)	Number of Samples	Sample Location	Rationale
<b>INTERIOR</b>				
Soil	0-2' (interval beneath Site cover)	4	All 4 soil boring locations. within cleaner space (potential source area).	Evaluate potential for surficial spills, poor quality urban fill.
Soil	Groundwater interface  AND  Any depth where field screening indicates contamination	4   Variable	All 4 soil boring locations. within cleaner space (potential source area).	Evaluate presence of soil contamination at groundwater interface or depth where field screening indicates potential impacted soil.
Soil	Bottom of the borehole	4	All 4 soil boring locations. within cleaner space (potential source area).	Assist in defining the vertical extent of subsurface impacts (if any).

<b>EXTERIOR/SITE BOUNDARY</b>				
<i>Three exterior locations surrounding the Dry-Cleaning Establishment</i>				
<b>Sample Matrix</b>	<b>Sample Depth (Feet below grade)</b>	<b>Number of Samples</b>	<b>Sample Location</b>	<b>Rationale</b>
Soil	0-2' (interval beneath Site cover)	3	Three soil boring locations surrounding the dry- cleaning establishment	Evaluate potential for surficial spills, poor quality urban fill.
Soil	Groundwater interface  AND  Any depth where field screening indicates contamination	3   Variable	Three soil boring locations surrounding the dry- cleaning establishment.	Evaluate presence of soil contamination at groundwater interface or depth where field screening indicates potential impacted soil
Soil	Bottom of the borehole	3	Three soil boring locations surrounding the dry- cleaning establishment.	Assist in defining the vertical extent of subsurface impacts (if any).

<i>Twelve exterior locations within property limits</i>				
<b>Sample Matrix</b>	<b>Sample Depth (Feet below grade)</b>	<b>Number of Samples</b>	<b>Sample Location</b>	<b>Rationale</b>
Soil	0-2' (interval beneath Site cover)	12	Twelve soil boring locations within property limits.	Evaluate potential for surficial spills, poor quality urban fill.
Soil	Groundwater interface  AND  Any depth where field screening indicates contamination	12	Twelve soil boring locations within property limits.	Evaluate presence of soil contamination at groundwater interface or depth where field screening indicates potential impacted soil.

- Soil borings SB-1 – SB-4 are located within the dry-cleaning establishment to assist in identifying source material (if encountered). Note that total depth will be dependent upon subsurface conditions encountered and the limitations of the tooling utilized to complete the interior borings.
- Soil borings SB-5 – SB-20 will surround the Site structure and would be concentrated around the dry cleaner tenant space, with additional boring locations proposed along the property boundary in each cardinal direction.

Selected samples will be submitted to a NYSDOH-approved laboratory for analysis of VOCs (USEPA Method 8260), SVOCs (USEPA Method 8270), Target analyte list (TAL) metals (USEPA Various Methods), pesticides (USEPA Method 8081), polychlorinated biphenyls or PCBs (USEPA Method 8082), Per- And Polyfluoroalkyl Substances or PFAs (USEPA Method 1633), cyanide (USEPA Method 9014/9010C) and 1,4-dioxane (USEPA Method 8270 SIM). For interior borings, analysis will be conducted based upon volume of soil recovered during sampling procedures (e.g., could likely be reduced based upon the

small diameter sample rods used for said sampling). As such, if soil quantity is limited, VOC testing (USEPA Method 8260) would take priority. All analysis will be performed by NYSDEC Analytical Services Protocol (ASP) with Category B deliverables. Sample collection and analysis will be in accordance with the methods described in the Quality Assurance/Quality Control (QA/QC) Plan as described in Section 5 of this report. Field quality control measures including trip and field blanks will be collected and submitted to the chemical laboratory for analysis. These control measures are described in Section 5 of this report. All collected samples will be analyzed by an ELAP certified laboratory and will be provided in an EQUIS-ready format.

### **Waste Handling**

All investigation-derived waste (IDW) will be contained on-Site in a secure area for appropriate characterization and disposal by DTCS/BE. Soil cuttings, personal protective equipment, and spent disposable sampling materials will be segregated by waste type and placed in DOT-approved 55-gallon steel drums. All decontamination water will be stored in 55-gallon drums as necessary. Field staff will maintain an inventory of all waste storage vessels. All storage vessels will be appropriately labeled with the contents, generator, location, and date.

### **4.4 Proposed Groundwater Monitoring/Analysis**

Ten of the fifteen proposed exterior soil boring locations will be converted to permanent 2-inch PVC monitoring wells by over drilling the boring locations with hollow stem augers (see Figure 4 for locations). Interior borings are not proposed to be converted to monitoring wells. Each well will be constructed of 2-inch inside diameter (ID), schedule 40 PVC casing and 0.01-inch slotted PVC screen. The screened section of the well will extend a minimum of five feet above and five feet below the groundwater table, for a total of ten feet. To complete the groundwater well, a locking cap and a flush mounted six-inch manhole clearly marked “monitoring well” will be installed within a framed concrete pad. Monitoring wells will be developed following installation to remove fine material that may have settled in the well, remove any drilling fluids that were used during well installation,



and to enhance the hydraulic communication with the surrounding formation. Monitoring wells will be allowed to set for at least two days following installation to allow the grout to cure before developing the well. Wells will be developed by surging and purging the entire screened interval at each location. The monitoring wells will be considered properly developed when a minimum of five well volumes of water have been removed or until a monitoring well has been pumped dry after surging.

All Site groundwater wells (a total of ten or MW-1 – MW-10) will be sampled using the USEPA Low Flow method. Sampling will be conducted using the following protocol:

- Basic climatological data (e.g., temperature, precipitation, etc.) and all field observations will be recorded in the field logbook. Groundwater sampling will begin at the potentially least contaminated well (as determined from well location and/or previous data) and proceed to the potentially most contaminated well. New nitrile gloves will be worn by the sampler at each well location.
- The protective casing on the well will be unlocked, the air in the well head will be screened with the PID, and the static water level (relative to the top of the casing) will be measured with a decontaminated water-level meter. Polyethylene tubing will be slowly lowered until reaching two to three feet off the bottom to prevent disturbance and re-suspension of any sediment present at the bottom of the well.
- Water level measurements will be recorded to the nearest 0.01 foot prior to ground water sampling. The well would then be pumped at a rate of 200 to 500 milliliters per minute, and the water level will be measured approximately every three to five minutes to ensure that stabilization (drawdown of 0.3' or less) is achieved.
- All groundwater samples will be collected in a manner consistent with NYSDEC sample collection protocols. All groundwater samples will be collected in a manner consistent with NYSDEC sample collection protocols including the collection of water quality data (i.e., temperature, dissolved oxygen, pH, conductivity, oxygen release potential or ORP and turbidity) until the well has stabilized. Once the well stabilizes, the

groundwater sample will be placed into appropriately labeled containers provided by the laboratory. All samples will be maintained at appropriate cold temperatures.

- Each groundwater sample will be placed into, appropriately labeled, containers provided by the laboratory. All samples will be maintained at appropriate cold temperatures.
- The protective cap on the well will be replaced and locked following sampling, and the field sampling crew will move to the next most contaminated well and the process will be repeated.

One round of groundwater samples will be collected from the monitoring wells and will be analyzed for VOCs (USEPA Method 8260), SVOCs (USEPA Method 8270), TAL metals (USEPA Various Methods), pesticides (USEPA Method 8081), PCBs (USEPA Method 8082), PFAs (USEPA Method 1633), cyanide (USEPA Method SM 4500 CN C/E) and 1,4-dioxane (USEPA Method 8270 SIM). All analyses will be performed by NYSDEC ASP with Category B deliverables. Field quality control measures including trip and field blanks will be collected and submitted to the chemical laboratory for analysis. These control measures are described in Section 5 of this work plan. All collected samples will be analyzed by an ELAP certified laboratory and will be provided in an EQUIS-ready format.

## **Waste Handling**

All IDW will be contained on-Site in a secure area for appropriate characterization and disposal by DTCS/BE. All decontamination water and purged groundwater will be stored in 55-gallon drums as necessary. Field staff will maintain an inventory of all waste storage vessels. All storage vessels will be appropriately labeled with the contents, generator, location, and date.

#### **4.5 Proposed Exterior Soil Vapor and Interior Sub-slab Soil Vapor/Ambient Air Sampling and Analysis**

A total of eleven exterior soil vapor sampling points will be installed along the property boundaries (see Figure 4 for proposed locations) during SC activities. In addition to sampling soil vapor along the periphery of the Site, co-located sub-slab vapor and indoor air samples will be obtained from each of the thirteen tenanted spaces.

The soil vapor points along the periphery of the Site will be installed by advancing 2.25-inch solid stem direct push sample rods to a depth of 5-feet bgs or two feet above the groundwater table if groundwater is encountered at shallow depths. A dedicated soil vapor implant will be installed at the base of the borehole and connected to the surface with dedicated high density polyethylene tubing. The annulus around the vapor implant will be filled with No. 2 filter sand to approximately 3-feet bgs. The remaining annulus will be sealed with hydrated bentonite to the surface. Following installation, a Mini Rae photoionization detector (which registers airflow below 0.2 liters per minute) will be attached to the high-density polyethylene tubing and a minimum of three sample volumes will be purged from each point. Total VOC readings will be recorded for each soil vapor point and used as a basis for comparison with laboratory analytical data.

The periphery soil vapor samples will be collected for analysis in batch clean SUMMA canisters equipped with a laboratory calibrated flow control device to facilitate the collection of the samples for a 2-hour sample duration time. As a quality assurance/quality control measure, an inert tracer gas (helium) test will be completed before sampling to document that the soil vapor sampling points were properly sealed preventing subsurface infiltration of ambient air into the sample chain. Following sampling, the pressure of the SUMMA canister will be recorded, and each soil vapor point will be removed from the ground, plugged with bentonite chips and sealed at the surface with concrete or asphalt, as appropriate.

Soil vapor from beneath each of the thirteen tenanted spaces, along with co-located ambient indoor air, will also be collected for VOC analysis during this SC. Prior to the survey, a building chemical inventory screening will be performed to determine potential sources of

VOCs in indoor air in each space tested. Each sub-slab sampling location would be created by core drilling a small diameter hole (5/8") completely through the slab and installing a brass vapor pin equipped with an airtight silicon sleeve. The pins will be recessed beneath the slab and fitted with stainless steel flush-mount threaded covers set in 1.5-inch cavities. The installation procedures described will allow for future use of the sampling point, as needed. Following installation, a Mini Rae photoionization detector (which registers airflow below 0.2 liters per minute) will be attached to the high-density polyethylene tubing and a minimum of three sample volumes will be purged from each point. Total VOC readings will be recorded for each soil vapor point and used as a basis for comparison with laboratory analytical data. In addition to sub-slab soil vapor sampling, a co-located ambient indoor air sample would also be obtained while performing Site investigation activities at a height of approximately three - five feet above the slab grade (i.e., within the standard breathing zone).

The soil vapor and ambient air samples will be collected for analysis in batch clean SUMMA canisters equipped with a laboratory calibrated flow control device to facilitate the collection of the samples for an 8-hour sample duration time. As a quality assurance/quality control measure, an inert tracer gas (helium) test will be completed before sampling to document that the soil vapor sampling points were properly sealed preventing subsurface infiltration of ambient air into the sample chain. Following sampling, the pressure of the SUMMA canister will be recorded, and each soil vapor point will be sealed and capped.

While conducting soil vapor/ambient air sampling on-Site, an upgradient ambient outdoor air sample will also be collected for an 8-hour duration to quantify background conditions. Note that sample log sheets 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, and chain of custody protocols.

All soil vapor and ambient air samples will be submitted to a NYSDOH-approved laboratory for analysis of VOCs by EPA Method TO-15. Sample collection and analysis

will be in accordance with the methods described in the Quality Assurance/Quality Control (QA/QC) Plan as described in Section 5 of this report. All laboratory reporting will be provided in an EQUIS-ready format.

## **5.0 QUALITY ASSURANCE PROJECT PLAN**

As stated previously, the goals of this SC are to characterize the nature and extent of contaminants in Site soil, groundwater, ambient air, and soil vapor so that an appropriate IRM can be developed. Therefore, this Quality Assurance Project Plan (QAPP) has been developed to establish the procedures and protocols for collection and laboratory analysis of samples associated with the completion of the SC element on-Site. Project management/organizational responsibilities will be performed under the direction of Deborah J. Thompson, Senior Geologist and Daniel Bellucci, P.E.

### **5.1 Quality Assurance/Quality Control (QA/QC) Objectives**

The NYSDEC ASP provides levels of quality for laboratory testing as they apply to remedial investigation and construction activities. As such, the NYSDEC ASP will be followed during the course of Site investigation/remediation on the Site. The overall data quality objectives of the project are:

- To ensure that samples collected are representative;
- To provide detection limits for the selected analytical methods, which are below the established cleanup objective or regulatory standards;
- To measure and document precision and accuracy using procedures established by the laboratories, the NYSDOH Environmental Laboratory Approval Program (ELAP) and U.S. Environmental Protection Agency (EPA) approved analytical methods; and
- To ensure that a NYSDOH ELAP and NYSDOH ELAP CLP certified laboratory will conduct all soil vapor, soil and groundwater analyses.

## 5.2 Analytical Methods/Quality Assurance Summary

- *Matrix type:*  
Soil, groundwater, soil vapor, and ambient air
- *Number or frequency of samples to be collected per matrix:*  
Variable, pending field conditions
- *Number of field and trip blanks per matrix:*  
Soil, groundwater – 1
- *Analytical parameters to be measured per matrix:*  
Interior/Soil –  
VOCs, SVOCs, TAL Metals, PCBs, PFAs, cyanide, and 1,4-dioxane  
Exterior Soil/Groundwater –  
VOCs, SVOCs, TAL Metals, PCBs, PFAs, cyanide, and 1,4-dioxane  
Soil vapor/Ambient Air  
VOCs
- *Analytical methods to be used per matrix:*  
  
Soil/Groundwater –  
EPA Test Methods 8260, 8270B/N, 6010/7470/7471, 8082, 1633, 9014/9010C,  
SM 4500 CN C/E and 8270 SIM
- *Soil vapor/Ambient Air*  
EPA Test Method TO-15
- *The number/type of matrix spiked, duplicate and blank samples to be collected:*  
Depending upon the total number of samples of each matrix to be analyzed but there will be at least one split per matrix.

### **5.3 Field Quality Control Samples**

Field quality controls for laboratory confirmation samples include the collection and analysis of field duplicate and equipment rinsate samples. The frequency of collection for the specified QC field samples is as follows:

- ✓ A trip blank will be prepared before the sample bottles are sent by the laboratory. A trip blank will be included with each shipment of samples where sampling and analysis for VOC is planned (water matrix only).
- ✓ One field blank per day for PFA sampling.
- ✓ One field duplicate sample of soil per sampling event.
- ✓ One field duplicate sample per groundwater monitoring event.

### **5.4 Field Sampling Procedures**

Sampling/Analytical procedures are described in detail in the SCWP as outlined above and will not be reiterated in this QAPP. The Work Plan also includes site maps and sampling diagrams as well as details for sampling implementation, decontamination, and waste management.

**Sample Quantity/Analytical Methods/Quality Assurance Summary Table**

Matrix Type	# of Samples Per Borehole	# of FBs/ TBs	Analytical Parameters	Analytical Method	Duplicate Frequency	Sample Container & Preservation (Per Sample)	Hold Time
Soil – Exterior*  Surrounding dry cleaner  Within Property Limits	3  2	1	VOCs, SVOCs, TAL Metals, pesticides, PCBs, PFAs, cyanide and 1, 4-dioxane.	8260, 8270 6010/7471, 8080, 8082, 1633, 9014/9010C and 8270 SIM.	1	4 x 40ml/ DI, MeOH 4 x 4oz	7 days – 6 months.
Soil – Interior**/**	3	1	VOCs, SVOCs, TAL Metals, pesticides, PCBs, PFAs, cyanide and 1, 4-dioxane.	8260, 8270 6010/7471, 8080, 8082, 1633, 9014/9010C and 8270 SIM.	1	4 x 40ml/ DI, MeOH 4 x 4oz	7 days – 6 months.
Sub-slab Soil Vapor  Periphery Vapor	13  11	N/A	VOCs	TO-15	0	1 x Summa	7 days – 6 months.
Ambient Air Indoor Outdoor	13 2	N/A	VOCs	TO-15	0	1 x Summa	7 days – 6 months.
Groundwater	10	1	VOCs, SVOCs, TAL Metals, pesticides, PCBs, PFAs, cyanide and 1, 4-dioxane	8260, 8270 6010/7471, 8080, 8082, 1633, SM 4500 CN C/E and 8270 SIM.	1	3 x 40ml/Hcl 4 x 1L/None 1 x 250ml/HNO3	7 days – 6 months.



**Notes:**

\*Additional soil samples will be collected if subsurface impacts are encountered.

\*\*If recovered quantities allow for additional sampling. If soil volume is limited, the matrix would be analyzed for VOCs.

As all bottles will contain the necessary preservatives as shown above, they need only be filled. Each VOC 40ml vial must be filled to the brim with no air bubbles. The other sample jars should be filled to within an inch from the top for liquids, and to the brim for soils and sediment. All samples will be preserved with ice during collection and shipment.

**Sample Preservation**

The samples collected for analysis will require preservation prior to shipment (as described above). Preservation of the sample ensures sample integrity and prevents or minimizes degradation or transformation of the constituents to be analyzed. Specific preservation requirements include proper handling, packaging in laboratory-supplied sample containers, and chilled to 4° Celsius (°C) for shipping to the contract analytical laboratory.

**Documenting Field Samples**

The DTCS/BE Field Team will use field logbooks or specific field forms to record pertinent information regarding subsurface characteristics, field screening results, and confirmatory sampling activities. Field staff will record the project name and number, date, sampling personnel on Site, other personnel present, weather conditions, and other relevant events to sampling activity in a chronological order. The field logbook and/or analysis forms will be maintained in the project file.

**5.5 Sample Custody****Chain-of-Custody Forms**

Each sample will be recorded onto a chain-of-custody (COC) form. The form will include the project name and number, names of the field sampling personnel, the sample number,

date and time the sample was collected, whether the sample is a composite or grab sample, sample location, number of containers per sample number, constituents to be analyzed, and pertinent comments. The form will document the date, time, and signature of person(s) relinquishing and receiving custody of the samples.

### **Sample Transportation to the Laboratory**

Samples will be shipped for analysis to the laboratory either the day the samples are collected or within 24 hours following collection, except in the case of samples that are collected on Saturday. Samples will be transported by a laboratory supplied carrier service. If samples are collected on a Saturday, they will be stored by field personnel during the weekend and then readied for transport on Monday. The contract analytical laboratory will be required to perform the analyses on the samples within the allowable holding time proscribed for the analyses.

### **Laboratory Sample Custody**

Upon arrival at the analytical laboratory, samples will be checked in by the sample custodian. The sample custodian will:

- Sign the COC form documenting receipt of the samples from the carrier;
- Verify that the number of samples received in the shipment agrees with the number listed on the COC form;
- Verify that the information on each bottle agrees with the information documented on the COC form; and
- Document on the COC form the integrity/condition (bottle intact, temperature, etc.) of all received samples.

In the event of any discrepancy or problems associated with the shipment of samples for chemical analysis, the analytical laboratory project manager will immediately notify the field personnel. A unique laboratory sample number will be assigned to each sample. Pertinent information from the COC form and/or sample label (e.g., sample identification, sampling location, sampling date and time, sample description, and requested analyses) together with the date of sample receipt will be entered into the analytical laboratory's data management system which will be used to record the status of samples, their storage locations, and the analytical results. The analytical laboratory will have in-house COC procedures to ensure proper security of all samples.

### **Laboratory Selection**

The laboratory chosen for the project must be certified, and maintain certification, under the NYSDOH ELAP and NYSDOH ELAP CLP for analysis of solid and hazardous waste. DTCS has contracted with York/ALS Global located in Stratford, CT to perform laboratory services for this Work Plan who are certified for the required emerging contaminants analysis.

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### **5.6 Data Reduction, Verification and Reporting**

Verification of data obtained from sampling will be performed by the Project Manager who will determine the validity of the data by comparing the actual procedures used for field measurements, sampling, and custody, as documented on forms and in the field log book, with those prescribed in the work plan and/or approved by the Project Manager.

### **5.7 Data Usability Summary Report**

As part of this SCWP, a Data Usability Summary Report or DUSR will be prepared to summarize the soil, soil vapor, ambient air and groundwater analytical results for the Site. The primary objective of the DUSR is to determine whether the analytical data meets Site specific objectives for data quality and data use. The DUSR will be prepared following the guidelines provided in DER-10 *Technical Guidance for Site Investigation and*

*Remediation*, May 2010, Guidance for the Development of Data Usability Summary Reports. The complete validated analytical results and Form 1s will be provided in the DUSR during reporting of the remedial investigation.

## **5.8 Electronic Data Deliverables**

The Site Characterization Report (SCR) will be provided to NYSDEC and NYSDOH as an electronic PDF report upon completion of Site characterization field activities. All analytical data will be summarized in data tables compared to applicable regulatory standards, along with complete laboratory analytical reports. Scaled site plans will also be included in the SCR.

## **5.9 Progress Reports**

As per the request of the NYSDEC/NYSDOH, daily progress reports will be submitted via electronic mail while conducting characterization activities on-Site (including all proposed herein and future activities, if warranted).

## **6.0 SITE CHARACTERIZATION REPORT**

Following the completion of the proposed sampling, analysis, data evaluation, generation of an IRM Work Plan and the execution of the IRM, if warranted, an SCR will be prepared that presents the findings of the investigation. The following information will be included in the SCR:

1. A narrative discussion of methods and results. Work completed under the approved SCWP will be described, including the methods employed for sample collection and laboratory analysis.
2. An evaluation of the potential for off-Site soil and soil vapor impacts, based upon soil and soil vapor sampling along the Site's property boundaries. Maps displaying soil and soil vapor analytical results, with text boxes depicting contaminant concentrations at each monitoring point will be produced as part of this report.

3. Hydrogeological Data. Hydrogeologic factors and their influence on the migration and distribution of contaminants will be discussed. Supporting data including groundwater elevation data and maps displaying groundwater analytical results, with text boxes depicting contaminant concentrations at each monitoring point will be prepared for the inclusion in the final SCR.

4. Standards and guidance that pertain to the sampled site media will be identified and listed in summary tables along with the analytical results for each medium. Any exceedances encountered above regulatory standards will be indicated on the tables and discussed in the technical overview.

5. Conclusions/Recommendations. The results of this SC study will be summarized in a written document which will identify source area(s) and potential exposure pathways in relation to human and environmental receptors. The SCR will also, based upon the SC results, describe any interim remedial measures which took place at the Site, and evaluate appropriate remedial options, as necessary.

6. Supporting Information. To support the Site data collected during the implementation of the work plan described, the following items will be appended to the SCR:

- Site photographs;
- Site maps, including text box figures depicting analytical results;
- Soil boring logs;
- Monitoring well construction logs;
- Analytical tables; and
- Laboratory analysis.

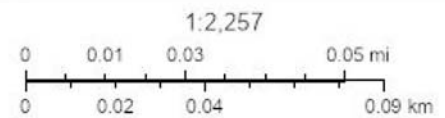
## **7.0 PROJECT SCHEDULE**

The SC sampling and analysis program proposed herein will be implemented following NYSDEC and NYSDOH approval. The field sampling will be scheduled to begin within forty-five days of approval. DTCS estimates that the field work will require five days to complete, and laboratory analysis finalized within two weeks of the conclusion of on-Site field work. Based upon historical investigative activities, an IRM, including the testing for and installation of a Sub-Slab Depressurization System to mitigate cVOC in ambient indoor air and/or other Site remedial work will likely be required. The IRM Work Plan will be submitted for NYSDEC and NYSDOH review and approval within sixty days of the receipt of laboratory analysis. A final Site Characterization Report will be generated at the conclusion of all necessary IRM activities.

**FIGURES**



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, OpenStreetMap contributors, and the GIS User Community. Map data OpenStreetMap contributors, Microsoft, Facebook, Google, Esri Community Maps contributors, Map layer by Esri.



**Client:** Cuzson Hillcrest LLC

**Site:** 275 North Main Street, Spring Valley, NY

**NYSDEC Site #:**  
344094

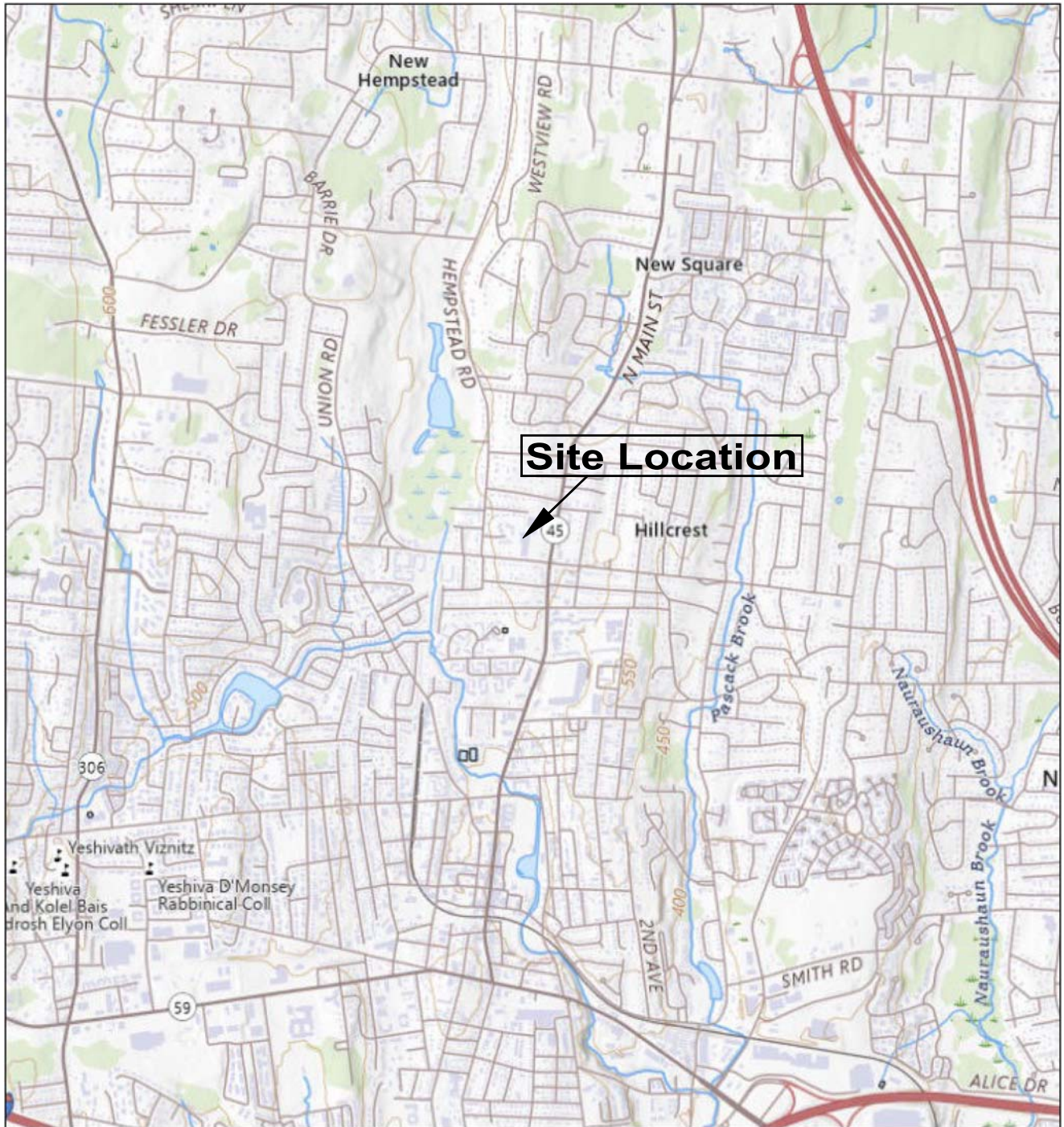
**Drawn by:**  
DJT

**Scale:**  
Graphic

## Site Location Plan

**Figure No:** 1





USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S.

**Client:** Cuzson Hillcrest LLC

**Site:** 275 North Main Street, Spring Valley, NY

<b>NYSDEC Site #:</b> 344094	<b>Drawn by:</b> DJT	<b>Scale:</b> Graphic
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## Topographic Map

**Figure No:** 2





**No Soil exceedances detected above 6 NYCRR Part 375 Unrestricted Use Criteria**

**Soil Vapor Analytical Results (ug/m<sup>3</sup>) - March 26, 2024**

**Contaminant Concentrations Exceeding NYSDOH Matrices A-C, October 2007  
and updated May 2017 Shown**

DT Consulting Services, Inc.  
Bellucci Engineering PLLC

Client: Cuzson Hillcrest LLC

Location: Hillcrest Shopping Center, 275 North Main Street, Spring Valley, Rockland County, New York

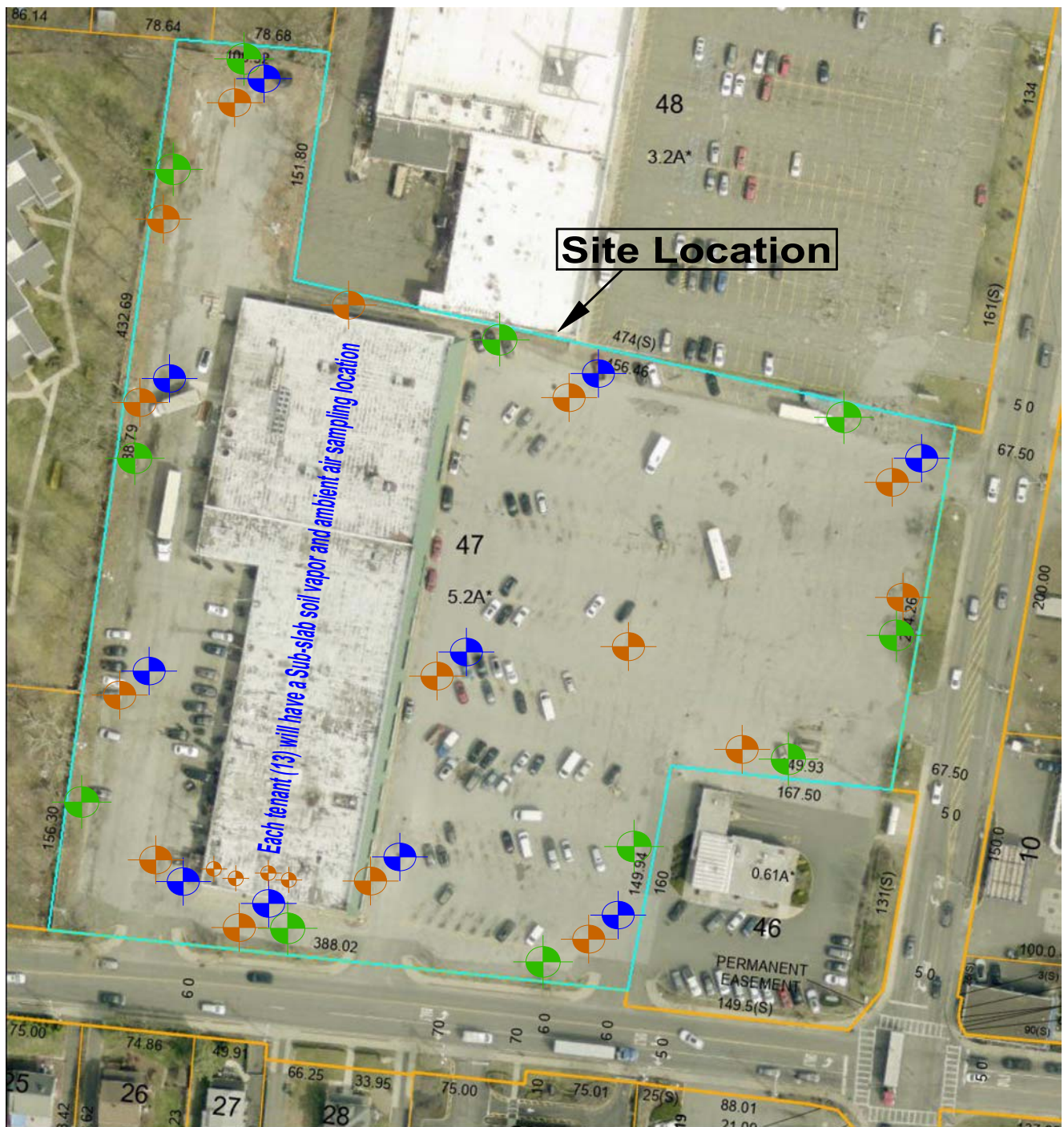
Title: Phase II ESA Sampling Location Map - March 2024 - Matrix Exceedances

Scale: Graphic

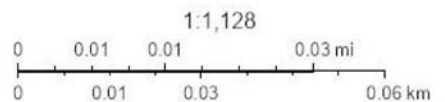
Drawn By: D.T.

P-Site No: 344094

Fig.#: 3



**KEY** PSB - Proposed Soil Boring PMW - Proposed Groundwater Monitoring Well  
 PSV - Proposed Soil Vapor - Site Boundary



**Client:** Cuzson Hillcrest LLC

**Site:** 275 North Main Street, Spring Valley, NY

**NYSDEC Site #:**  
344094

**Drawn by:**  
DJT

**Scale:**  
Graphic

## SC Sampling Plan

**Figure No:** 4



<b>TABLES</b>
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**TABLE 1**  
**SOIL ANALYTICAL SUMMARY**  
**UNDERGROUND STORAGE TANK SAMPLES**  
**275 NORTH MAIN STREET, SPRING VALLEY, NEW YORK**  
**MARCH 2024**

Project Id : KCPL2402	Lab Sample Id		NYSDEC	CQ35958	CQ35959
	Collection Date		CP-51	3/26/2024	3/26/2024
	Client Id		SCLS	SB01 (8-10)	SB02 (10-12)
	Matrix			Soil	Soil
	CAS	Units		Result	Result
<b>Volatiles- STARS/CP-51 By SW8260D</b>					
1,2,4-Trimethylbenzene	95-63-6	ug/Kg	3,600	< 1.1	< 0.85
1,3,5-Trimethylbenzene	108-67-8	ug/Kg	8,400	< 1.1	< 0.85
Benzene	71-43-2	ug/Kg	60	< 2.2	< 1.7
Ethylbenzene	100-41-4	ug/Kg	1,000	< 2.2	< 1.7
Isopropylbenzene	98-82-8	ug/Kg	2,300	< 1.1	< 0.85
m&p-Xylene	179601-23-1	ug/Kg	260	< 2.2	< 1.7
Methyl t-Butyl Ether (MTBE)	1634-04-4	ug/Kg	930	< 1.1	< 0.85
Naphthalene	91-20-3	ug/Kg	12,000	< 1.1	< 0.85
n-Butylbenzene	104-51-8	ug/Kg	12,000	< 1.1	< 0.85
n-Propylbenzene	103-65-1	ug/Kg	3,900	< 1.1	< 0.85
o-Xylene	95-47-6	ug/Kg	260	< 2.2	< 1.7
p-Isopropyltoluene	99-87-6	ug/Kg	10,000	< 1.1	< 0.85
sec-Butylbenzene	135-98-8	ug/Kg	11,000	< 1.1	< 0.85
tert-Butylbenzene	98-06-6	ug/Kg	5,900	< 1.1	< 0.85
Toluene	108-88-3	ug/Kg	700	< 2.2	< 1.7
Total Xylenes	1330-20-7	ug/Kg	260	< 2.2	< 1.7
<b>Semivolatiles-STARS/CP-51 By SW8270E</b>					
Acenaphthene	83-32-9	ug/Kg	20,000	< 250	< 260
Acenaphthylene	208-96-8	ug/Kg	100,000	< 250	< 260
Anthracene	120-12-7	ug/Kg	100,000	< 250	< 260
Benz(a)anthracene	56-55-3	ug/Kg	1,000	< 250	< 260
Benzo(a)pyrene	50-32-8	ug/Kg	1,000	< 250	< 260
Benzo(b)fluoranthene	205-99-2	ug/Kg	1,000	< 250	< 260
Benzo(ghi)perylene	191-24-2	ug/Kg	100,000	< 250	< 260
Benzo(k)fluoranthene	207-08-9	ug/Kg	800	< 250	< 260
Chrysene	218-01-9	ug/Kg	1,000	< 250	< 260
Dibenz(a,h)anthracene	53-70-3	ug/Kg	330	< 250	< 260
Fluoranthene	206-44-0	ug/Kg	100,000	< 250	< 260
Fluorene	86-73-7	ug/Kg	30,000	< 250	< 260
Indeno(1,2,3-cd)pyrene	193-39-5	ug/Kg	500	< 250	< 260
Naphthalene	91-20-3	ug/Kg	12,000	< 250	< 260
Phenanthrene	85-01-8	ug/Kg	100,000	< 250	< 260
Pyrene	129-00-0	ug/Kg	100,000	< 250	< 260

Result Detected

Result Exceeds Criteria

TABLE 1 (CONTINUED)  
SOIL ANALYTICAL SUMMARY  
DRYCLEANER SAMPLES  
275 NORTH MAIN STREET, SPRING VALLEY, NEW YORK  
MARCH 2024

Project Id : KCPL2402	Lab Sample Id Collection Date Client Id Matrix		NYSDEC PART 375 UNRESTRICTED USE SCOS CP-51 SCLS	NYSDEC PART 375 COMMERCIAL USE SCOS	CQ35960 3/26/2024 SB03 (0.5-1) Soil	CQ35961 3/26/2024 SB04 (0.5-1) Soil	CQ35962 3/26/2024 SB05 (0.5-1) Soil
	CAS	Units			Result	Result	Result
<b>Volatiles By SW8260D</b>							
1,1,1,2-Tetrachloroethane	630-20-6	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
1,1,1-Trichloroethane	71-55-6	ug/Kg	680	500,000	< 4.8	< 7.7	< 5.5
1,1,2,2-Tetrachloroethane	79-34-5	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
1,1,2-Trichloroethane	79-00-5	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
1,1-Dichloroethane	75-34-3	ug/Kg	270	240,000	< 4.8	< 7.7	< 5.5
1,1-Dichloroethene	75-35-4	ug/Kg	330	500,000	< 4.8	< 7.7	< 5.5
1,1-Dichloropropene	563-58-6	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
1,2,3-Trichlorobenzene	87-61-6	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
1,2,3-Trichloropropane	96-18-4	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
1,2,4-Trichlorobenzene	120-82-1	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
1,2,4-Trimethylbenzene	95-63-6	ug/Kg	3,600	190,000	< 4.8	< 7.7	< 5.5
1,2-Dibromo-3-chloropropane	96-12-8	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
1,2-Dibromoethane	106-93-4	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
1,2-Dichlorobenzene	95-50-1	ug/Kg	1100	500,000	< 4.8	< 7.7	< 5.5
1,2-Dichloroethane	107-06-2	ug/Kg	20	30,000	< 4.8	< 7.7	< 5.5
1,2-Dichloropropane	78-87-5	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
1,3,5-Trimethylbenzene	108-67-8	ug/Kg	8,400	190,000	< 4.8	< 7.7	< 5.5
1,3-Dichlorobenzene	541-73-1	ug/Kg	2400	280,000	< 4.8	< 7.7	< 5.5
1,3-Dichloropropane	142-28-9	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
1,4-Dichlorobenzene	106-46-7	ug/Kg	1800	130,000	< 4.8	< 7.7	< 5.5
2,2-Dichloropropane	594-20-7	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
2-Chlorotoluene	95-49-8	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
2-Hexanone	591-78-6	ug/Kg	~	~	< 24	< 38	< 27
2-Isopropyltoluene	527-84-4	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
4-Chlorotoluene	106-43-4	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
4-Methyl-2-pentanone	108-10-1	ug/Kg	~	~	< 24	< 38	< 27
Acetone	67-64-1	ug/Kg	50	500,000	< 24	< 38	< 27
Acrylonitrile	107-13-1	ug/Kg	~	~	< 9.7	< 15	< 11
Benzene	71-43-2	ug/Kg	60	44,000	< 4.8	< 7.7	< 5.5
Bromobenzene	108-86-1	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Bromochloromethane	74-97-5	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Bromodichloromethane	75-27-4	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Bromoform	75-25-2	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Bromomethane	74-83-9	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Carbon Disulfide	75-15-0	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Carbon tetrachloride	56-23-5	ug/Kg	760	22,000	< 4.8	< 7.7	< 5.5
Chlorobenzene	108-90-7	ug/Kg	1100	500,000	< 4.8	< 7.7	< 5.5
Chloroethane	75-00-3	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Chloroform	67-66-3	ug/Kg	370	350,000	< 4.8	< 7.7	< 5.5
Chloromethane	74-87-3	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
cis-1,2-Dichloroethene	156-59-2	ug/Kg	250	500,000	< 4.8	< 7.7	< 5.5
cis-1,3-Dichloropropene	10061-01-5	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Dibromochloromethane	124-48-1	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Dibromomethane	74-95-3	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Dichlorodifluoromethane	75-71-8	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Ethylbenzene	100-41-4	ug/Kg	1,000	390,000	< 4.8	< 7.7	< 5.5
Hexachlorobutadiene	87-68-3	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Isopropylbenzene	98-82-8	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
m&p-Xylene	179601-23-1	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Methyl Ethyl Ketone	78-93-3	ug/Kg	120	500,000	< 24	< 38	< 27
Methyl t-butyl ether (MTBE)	1634-04-4	ug/Kg	930	500,000	< 9.7	< 15	< 11
Methylene chloride	75-09-2	ug/Kg	50	500,000	< 9.7	< 15	< 11
Naphthalene	91-20-3	ug/Kg	12,000	500,000	< 4.8	< 7.7	< 5.5
n-Butylbenzene	104-51-8	ug/Kg	12,000	500,000	< 4.8	< 7.7	< 5.5
n-Propylbenzene	103-65-1	ug/Kg	3,900	500,000	< 4.8	< 7.7	< 5.5
o-Xylene	95-47-6	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
p-Isopropyltoluene	99-87-6	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
sec-Butylbenzene	135-98-8	ug/Kg	11,000	500,000	< 4.8	< 7.7	< 5.5
Styrene	100-42-5	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
tert-Butylbenzene	98-06-6	ug/Kg	5,900	500,000	< 4.8	< 7.7	< 5.5
Tetrachloroethene	127-18-4	ug/Kg	1300	150,000	450	510	15
Tetrahydrofuran (THF)	109-99-9	ug/Kg	~	~	< 9.7	< 15	< 11
Toluene	108-88-3	ug/Kg	700	500,000	< 4.8	< 7.7	< 5.5
Total Xylenes	1330-20-7	ug/Kg	260	~	< 4.8	< 7.7	< 5.5
trans-1,2-Dichloroethene	156-60-5	ug/Kg	190	500,000	< 4.8	< 7.7	< 5.5
trans-1,3-Dichloropropene	10061-02-6	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
trans-1,4-dichloro-2-butene	110-57-6	ug/Kg	~	~	< 9.7	< 15	< 11
Trichloroethene	79-01-6	ug/Kg	470	200,000	< 4.8	< 7.7	< 5.5
Trichlorofluoromethane	75-69-4	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Trichlorotrifluoroethane	76-13-1	ug/Kg	~	~	< 4.8	< 7.7	< 5.5
Vinyl chloride	75-01-4	ug/Kg	20	13,000	< 4.8	< 7.7	< 5.5

Result Detected Result Detected

Result Exceeds Criteria Result Exceeds Criteria

TABLE 2  
VAPOR ANALYTICAL SUMMARY  
275 NORTH MAIN STREET, SPRING VALLEY, NEW YORK  
MARCH 2024

Project Id : KCPL2402	Lab Sample Id Collection Date Client Id Matrix		NYSDOH VAPOR RESPONSE THRESHOLDS (FEB 2024)	CQ35966 3/26/2024 SV01 Air	CQ35963 3/26/2024 SV02 Air	CQ35964 3/26/2024 SV03 Air	CQ35965 3/26/2024 SV04 Air
	CAS	Units		Result	Result	Result	Result
<b>Miscellaneous/Inorganics</b>							
Helium (% volume/volume)	7440-59-7	%				< 10	
<b>Volatiles (TO15) By TO15</b>							
1,1,1,2-Tetrachloroethane	630-20-6	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
1,1,1-Trichloroethane	71-55-6	ug/m3	100	5.29	< 5.00	< 5.00	< 5.00
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
1,1,2-Trichloroethane	79-00-5	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
1,1-Dichloroethane	75-34-3	ug/m3	~	< 5.02	< 5.02	< 5.02	< 5.02
1,1-Dichloroethene	75-35-4	ug/m3	6	< 1.00	< 1.00	< 1.00	< 1.00
1,2,4-Trichlorobenzene	120-82-1	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
1,2,4-Trimethylbenzene	95-63-6	ug/m3	60	< 5.01	< 5.01	< 5.01	< 5.01
1,2-Dibromoethane(EDB)	106-93-4	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
1,2-Dichlorobenzene	95-50-1	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
1,2-Dichloroethane	107-06-2	ug/m3	~	< 5.02	< 5.02	< 5.02	< 5.02
1,2-dichloropropane	78-87-5	ug/m3	~	< 4.99	< 4.99	< 4.99	< 4.99
1,2-Dichlorotetrafluoroethane	76-14-2	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
1,3,5-Trimethylbenzene	108-67-8	ug/m3	60	< 5.01	< 5.01	< 5.01	< 5.01
1,3-Butadiene	106-99-0	ug/m3	~	114	< 5.00	< 5.00	< 5.00
1,3-Dichlorobenzene	541-73-1	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
1,4-Dichlorobenzene	106-46-7	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
1,4-Dioxane	123-91-1	ug/m3	~	< 5.01	< 5.01	< 5.01	< 5.01
2-Hexanone(MBK)	591-78-6	ug/m3	~	< 4.99	< 4.99	< 4.99	< 4.99
4-Ethyltoluene	622-96-8	ug/m3	~	< 5.01	< 5.01	5.6	< 5.01
4-Isopropyltoluene	99-87-6	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/m3	~	< 4.99	< 4.99	12.3	< 4.99
Acetone	67-64-1	ug/m3	~	133	8.31	37.3	17.4
Acrylonitrile	107-13-1	ug/m3	~	< 5.01	< 5.01	< 5.01	< 5.01
Benzene	71-43-2	ug/m3	60	28.3	< 5.01	< 5.01	< 5.01
Benzyl chloride	100-44-7	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
Bromodichloromethane	75-27-4	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
Bromoform	75-25-2	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
Bromomethane	74-83-9	ug/m3	~	< 5.01	< 5.01	< 5.01	< 5.01
Carbon Disulfide	75-15-0	ug/m3	~	5.57	< 5.01	< 5.01	< 5.01
Carbon Tetrachloride	56-23-5	ug/m3	6	< 1.00	< 1.00	< 1.00	< 1.00
Chlorobenzene	108-90-7	ug/m3	~	< 5.01	< 5.01	< 5.01	< 5.01
Chloroethane	75-00-3	ug/m3	~	< 5.01	< 5.01	< 5.01	< 5.01
Chloroform	67-66-3	ug/m3	~	14.9	< 4.98	14.1	< 4.98
Chloromethane	74-87-3	ug/m3	~	< 4.99	< 4.99	< 4.99	< 4.99
Cis-1,2-Dichloroethene	156-59-2	ug/m3	6	539	436	323	2.32
cis-1,3-Dichloropropene	10061-01-5	ug/m3	~	< 4.99	< 4.99	< 4.99	< 4.99
Cyclohexane	110-82-7	ug/m3	60	< 4.99	< 4.99	< 4.99	< 4.99
Dibromochloromethane	124-48-1	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
Dichlorodifluoromethane	75-71-8	ug/m3	~	< 4.99	< 4.99	< 4.99	< 4.99
Ethanol	64-17-5	ug/m3	~	7.23	8.59	15.9	< 5.01
Ethyl acetate	141-78-6	ug/m3	~	< 5.01	< 5.01	< 5.01	< 5.01
Ethylbenzene	100-41-4	ug/m3	60	< 4.99	< 4.99	< 4.99	< 4.99
Heptane	142-82-5	ug/m3	200	18.7	< 5.00	< 5.00	< 5.00
Hexachlorobutadiene	87-68-3	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
Hexane	110-54-3	ug/m3	200	51.1	< 5.00	< 5.00	< 5.00
Isooctane	540-84-1	ug/m3	60	< 4.99	< 4.99	< 4.99	< 4.99
Isopropylalcohol	67-63-0	ug/m3	~	< 5.01	9.16	< 5.01	< 5.01
Isopropylbenzene	98-82-8	ug/m3	~	< 5.01	< 5.01	< 5.01	< 5.01
m,p-Xylene	179601-23-1	ug/m3	200	< 4.99	< 4.99	< 4.99	< 4.99
Methyl Ethyl Ketone	78-93-3	ug/m3	~	62.5	< 5.01	< 5.01	< 5.01
Methyl tert-butyl ether(MTBE)	1634-04-4	ug/m3	~	< 5.01	< 5.01	< 5.01	< 5.01
Methylene Chloride	75-09-2	ug/m3	100	< 15.0	< 15.0	< 15.0	< 15.0
Naphthalene	91-20-3	ug/m3	~	< 5.23	< 5.23	< 5.23	< 5.23
n-Butylbenzene	104-51-8	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
o-Xylene	95-47-6	ug/m3	60	< 4.99	< 4.99	< 4.99	< 4.99
Propylene	115-07-1	ug/m3	~	1,150	< 5.01	< 5.01	7.05
sec-Butylbenzene	135-98-8	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
Styrene	100-42-5	ug/m3	~	< 4.98	< 4.98	< 4.98	< 4.98
Tetrachloroethene	127-18-4	ug/m3	100	17,100	16,300	87,400	3,900
Tetrahydrofuran	109-99-9	ug/m3	~	< 5.01	< 5.01	< 5.01	< 5.01
Toluene	108-88-3	ug/m3	300	14.1	< 5.01	< 5.01	< 5.01
Trans-1,2-Dichloroethene	156-60-5	ug/m3	~	< 4.99	< 4.99	5.67	< 4.99
trans-1,3-Dichloropropene	10061-02-6	ug/m3	~	< 4.99	< 4.99	< 4.99	< 4.99
Trichloroethene	79-01-6	ug/m3	6	235	183	340	8.97
Trichlorofluoromethane	75-69-4	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
Trichlorotrifluoroethane	76-13-1	ug/m3	~	< 5.00	< 5.00	< 5.00	< 5.00
Vinyl Chloride	75-01-4	ug/m3	6	1.49	< 1.00	< 1.00	< 1.00

Result Detected 

Result Exceeds Criteria 

**DT CONSULTING SERVICES, INC.**

## **ATTACHMENTS**



**DT CONSULTING SERVICES, INC.**

**ATTACHMENT A**

# Community Air Monitoring Plan

**Job Name/Site Number:**

Hillcrest Shopping Center  
275 North Main Street, Spring Valley, Rockland County, New York

**DEC Site No.:** 344094

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## **ATTACHMENTS**

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## 1.0 INTRODUCTION

This Community Air Monitoring Plan (CAMP) has been prepared by DT Consulting Services, Inc. and Bellucci Engineering, PLLC (DTCS/BE) to support the implementation of a Site Characterization Work Plan (SCWP) to be scheduled for the Subject Property located 275 North Main Street, Spring Valley, Rockland County, New York. A Site Plan is provided as Figure 1. Details related to the planned site characterization activities are presented in the SCWP by DTCS/BE to which this CAMP is included as an attachment and as a supporting plan. This CAMP fulfills the routine monitoring requirements provided in the New York State Department of Environmental Conservation (NYSDEC) document entitled *Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation* (DER-10) issued on May 3, 2010 (NYSDEC 2010). Appendix 1A of DER-10 (included in Attachment A) provides general guidance and protocols for the preparation and implementation of a CAMP. Appendix 1B of DER-10 (included in Attachment A) supplements the contents of Appendix 1A of DER-10 and provides additional requirements for fugitive dust/particulate monitoring. Special requirements have also been deemed necessary by the NYSDEC and New York State Department of Health (NYSDOH) as work will be conducted within 20 feet of potentially exposed individuals or structures. A copy of these CAMP requirements (as outlined in DER-10) has been placed in Attachment A for reference. This CAMP identifies the required air monitoring to protect on-Site workers and the community during the implementation of proposed investigative activities.

### 1.1 CAMP Objectives

The overall objective of the CAMP is to establish requirements for protection measures for downwind receptors from potential airborne releases of constituents of concern during intrusive and/or potential dust generating Site activities. As summarized in the SCWP, laboratory analysis indicates that constituents of concern at the Site include volatile organic compounds (VOCs). This CAMP identifies potential air emissions, and describes air monitoring procedures, the monitoring schedule, data collection, and reporting requirements for the mitigation actions to be completed by the environmental team. DTCS/BE will implement this CAMP and will provide all labor, materials, and equipment necessary to implement the monitoring program specified in this CAMP, as well as any required contractor worker documentation and monitoring described in the Environmental Health and Safety Plan prepared for the implementation of the project.

## **1.2 Revisions to the CAMP**

Any changes to the scope or procedures in this CAMP will be formally documented as a revision to this document. A revision number will be indicated on the front page of any revised document and will serve as a historical record of any and all revisions made to the document.

For changes requiring immediate resolution during the implementation of this CAMP, approval will be secured from the NYSDEC and, if applicable, the Responsible Party.

## **1.3 Potential Air Emissions Related to Investigative Activities**

Soil coring activities have the potential to generate localized impacts to air quality. Investigative components that are considered intrusive for the purposes of this CAMP and that have the potential to generate air emissions are anticipated to include, but may not be limited to the following:

- ✓ Soil coring/boring;
- ✓ Soil vapor sampling; and
- ✓ Groundwater monitoring well installations.

## **2.0 COMMUNITY AIR MONITORING PLAN**

Real-time air monitoring for VOCs and particulate matter (PM) levels will be performed at representative locations, upwind and downwind during Site investigative activities. Furthermore, continuous monitoring will be performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media. Ground intrusive activities include, but are not limited to, the coring and retrieval of subsurface materials. In addition, during work hours, hourly or more frequent monitoring for Site-related odors at the perimeter of the work area will be performed.

Exceedances of action levels observed during performance of the CAMP will be reported to the DEC Project Manager and included in the Daily Report.

### **2.1 Selection of Monitoring Locations**

Upwind and downwind monitoring station locations for VOCs and PM<sub>10</sub> will be determined daily based on data from published information (predictions of prevailing

and predominant wind direction) for the Site and the nature and location of the anticipated construction activities.

An upwind location (station “UPW”) for both VOCs and PM<sub>10</sub> will be confirmed at the start of each workday, based upon the use of the meteorological data and the location of the proposed construction activities. A downwind location (station “DWN 1”) (based upon prevalent wind direction) for both VOCs and PM<sub>10</sub> will also be selected. If wind directions shift radically during the workday and for an extended period such that the upwind direction and downwind locations no longer fall within acceptable guidelines (+60 degrees compass change from the original wind direction), the monitoring stations will be relocated so that the upwind and downwind locations are maintained. Any changes will be documented in the CAMP reports.

## **2.2 VOC Monitoring**

VOCs will be monitored continuously during the intrusive and/or potential dust-generating investigative activities with instrumentation equipped with electronic data-logging capabilities. A real-time VOC monitor (Mini Rae 3000 or equivalent) equipped with a Photoionization Detector (PID) will be used for monitoring. All 15-minute average concentrations, as well as any instantaneous readings taken to facilitate activity decisions, will be recorded, stored on-Site and summarized in a CAMP report.

## **2.3 Total Particulates Monitoring**

Total particulates will also be monitored continuously during intrusive and/or potential dust-generating loading activities using instrumentation equipped with electronic data-logging capabilities. The particulate monitoring equipment will also be equipped with an audible alarm to indicate exceedances of the action levels identified below in Section 2.5. A TSI DustTrak II 8530 (or equivalent) will be used to conduct real-time PM<sub>10</sub> monitoring during the planned soil disposal activities. All 15-minute average concentrations, as well as any instantaneous readings taken to facilitate activity decisions, will be recorded and summarized in a CAMP report. Fugitive dust migration will be visually assessed during all work activities, and reasonable dust suppression techniques will be used during any activity that may generate fugitive dust.

## **2.4 Periodic Monitoring for Odors**

During work hours, hourly or more frequent walks around the perimeter of the work area will be performed to qualitatively monitor for the presence and intensity of Site-related odors. Perimeter checks will be performed more frequently, as necessary, depending on the nature and location of the work being performed. If odors are noted at the perimeter of the work area, work will continue and odor, vapor, and dust controls will be employed to abate emissions. Odor controls would include slowing work pace so as not to agitate potential VOCs, immediately placing investigative derived waste into appropriate storage containers (i.e. 55-gallon DOT drums) so as not to off-gas once characterization and sampling is complete and capping the select borehole during field work to prevent any potential release of odor into ambient air. Additionally, construction techniques will be evaluated and modified, if necessary and appropriate, and more frequent checks of the perimeter of the work area will be performed. If odors persist at the perimeter of the work area at an unacceptable intensity, work will be stopped while activities are re-evaluated. The source or cause of the odors will be identified, and additional odor, vapor, and dust controls will be employed. Work will resume provided that the controls are successful in mitigating the intensity of odors at the perimeter of the work area. Note that at any time the presence of odors is documented, the NYSDEC and the New York State Department of Health (NYSDOH) will be notified immediately.

## **2.5 Action Levels**

The action levels provided below are to be used to initiate corrective actions, if necessary, based upon real-time monitoring. If the action levels are exceeded at the perimeter locations for VOCs or PM<sub>10</sub>, work will be suspended, and engineering controls will be implemented to bring concentrations back down to acceptable levels. Each piece of monitoring equipment will have alarm capabilities (audible and/or visual) to indicate exceedances of the action levels specified below. All readings will be recorded and available review.

*Action Levels for Organic Vapors*

---

Instrument	Action Level	Action Required
<b>Outdoor Action Levels</b>		
PID 15-minute running average capable	Background to 5 ppm	No further action required.
	> 5 ppm over background but less than 25 ppm downwind of the work area or exclusion zone.	1. Temporarily discontinue all activities and evaluate potential causes of the excessive readings. If these levels persist and cannot be mitigated (i.e., by slowing drilling or excavation activities), contact HSO to review conditions and determine source and appropriate response action. 2. After these stops, work activities can resume if 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.
	> 25 ppm at the perimeter of the work area.	1. Discontinue all work. 2. Evaluate potential causes of the excessive readings and allow work area to vent until VOC concentrations fall below 5 ppm.
<b>Special Requirements for Work Within 20 Feet of Potentially Exposure Individuals or Structures</b>		
	> 1 ppm above background.  Opposite the walls of occupied structures or next to intake vents.	Monitoring will be performed continuously within the work zone



*Action Levels for PM<sub>10</sub>*

Instrument	Action Level	Level of Protection/Action Required
<b>Outdoor Action Levels</b>		
Total Dust Aerosol Monitor	> 0.100 mg/m <sup>3</sup> above BKD (steady state condition) at work zone for 15-minutes or visible dust.	Stop Work/Implement dust control. Continue dust monitoring if dust levels are less than 150 mg/m <sup>3</sup> .
	< 0.150 mg/m <sup>3</sup> above BKD (following dust suppression measures).	Stop Work/implement dust control, continue work once levels are <150 mg/m <sup>3</sup> .
<b>Special Requirements for Work Within 20 Feet of Potentially Exposure Individuals or Structures</b>		
	> 0.150 mg/m <sup>3</sup> Opposite the walls of occupied structures or next to intake vents.	Work activities will be suspended until controls are implemented and are successful in reducing the total particulate concentration to 0.150 mg/m <sup>3</sup> or less at the monitoring point.

## 2.6 Instrument Calibration

Calibration of the VOC and PM<sub>10</sub>, instrumentation will be conducted in accordance with each of the equipment manufacturers' calibration and quality assurance requirements. The VOC and PM<sub>10</sub> monitoring equipment will be calibrated or zeroed, respectively, daily (at a minimum), and such calibrations will be recorded in the field logbook.

## 3.0 MONITORING SCHEDULE/DATA COLLECTION/REPORTING

The following identifies the monitoring schedule and data collection/reporting requirements.

### **3.1 Monitoring Schedule**

Community air monitoring will be conducted prior to initiating investigative activities to establish adequate baseline data and until such time that intrusive and/or potential dust generating activities are complete. The frequency of community air monitoring will be relative to the level of Site work activities being conducted and may be adjusted as the work proceeds and in consideration of the monitoring results. Air monitoring for VOCs and dust may be discontinued during periods of heavy precipitation that would otherwise result in unreliable data or damage to monitoring equipment.

### **3.2 Data Collection and Reporting**

Community air monitoring data will be collected continuously from VOC and PM<sub>10</sub> monitors during all intrusive and/or potential dust-generating activities by the electronic data-logging systems, except as discussed above in Section 3.1. The data management software will be set up to continuously monitor instantaneous readings and record average concentrations (calculated for continuous 15-minute increments: i.e., 08:00 to 08:15, 08:15 to 08:30, etc.). Results of the perimeter/community air monitoring for total organic vapors and particulates (both instantaneous readings and 15-minute average concentrations) will be recorded by the monitoring instruments (data loggers). The Environmental Monitor will prepare a CAMP report that will include, but not be limited to, the following:

- A brief memorandum summarizing the air monitoring work activities and results for the monitoring period. A summary of the qualitative perimeter monitoring for the presence and intensity of Site-related odors will also be included. The memorandum will be supported by two attachments: (1) Attachment A showing air monitoring station daily locations; and (2) Attachment B presenting particulate concentrations recorded at each of the sampling stations.

In the event that an exceedance of a community air monitoring action level (for either PM<sub>10</sub> or VOCs), the Environmental Monitor will notify DEC (via telephone) as soon as possible (i.e., real time). Within 24 hours of the observed exceedance, the Environmental Monitor will send a follow-up e-mail to DEC's representative, and the Responsible Party summarizing the data, the cause of the exceedance, and any corrective measures implemented (or to be implemented) as a result of the exceedance. The information will also be documented in the CAMP report.

Odor complaints received from the public will be evaluated and verified based on the following:

- Date and time of complaint;
- Location and nature of work activities being performed at the Site;
- Location and nature of non-project-related work activities being performed in the surrounding community; and
- Prevailing wind direction and other local meteorological conditions.

Regardless of the outcome of this evaluation, all associated parties will be notified of odor complaints within 24 hours. In response to a verified odor complaint, perimeter monitoring will continue, and additional odor, vapor, and dust controls will be employed to mitigate Site-related odor emissions. Construction techniques will also be evaluated and modified, if necessary and appropriate.

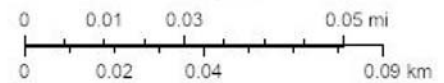
The time and outcome of each perimeter check will be documented in a daily odor monitoring log, specifically noting the presence or absence of Site-related odors and identifying the intensity and general location(s) along the perimeter of the work area where odors (if any) are noted. The time and outcome of any odor complaints from the public will also be documented in the daily odor monitoring log.

**FIGURES**



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, OpenStreetMap contributors, and the GIS User Community. Map data OpenStreetMap contributors, Microsoft, Facebook, Google, Esri Community Maps contributors, Map layer by Esri.

1:2,257



**Client:** Cuzson Hillcrest LLC

**Site:** 275 North Main Street, Spring Valley, NY

**NYSDEC Site #:**  
344094

**Drawn by:**  
DJT

**Scale:**  
Graphic

## Site Location Plan

**Figure No:** 1

**DT CONSULTING SERVICES, INC.**

## **ATTACHMENTS**

**DT CONSULTING SERVICES, INC.**

**ATTACHMENT A**

**APPENDIX A**

**NYSDEC DER-10 TECHNICAL GUIDANCE FOR SITE INVESTIGATION  
AND REMEDIATION (DER-10) MAY 3, 2010.**



## Appendix 1A

### New York State Department of Health Generic Community Air Monitoring Plan

#### Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at 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 and 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.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

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

#### Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

**Continuous monitoring** will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

**Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing 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 or

overturning soil, 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, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

#### VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

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 the 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.
4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

#### Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should 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 must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter ( $\text{mcg}/\text{m}^3$ ) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is 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  $150 \text{ mcg}/\text{m}^3$  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  $150 \text{ mcg}/\text{m}^3$  above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within  $150 \text{ mcg}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

## **Appendix 1B**

### **Fugitive Dust and Particulate Monitoring**

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.
2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.
3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM<sub>10</sub>) with the following minimum performance standards:
  - (a) Objects to be measured: Dust, mists or aerosols;
  - (b) Measurement Ranges: 0.001 to 400 mg/m<sup>3</sup> (1 to 400,000 :ug/m<sup>3</sup>);
  - (c) Precision (2-sigma) at constant temperature: +/- 10 :g/m<sup>3</sup> for one second averaging; and +/- 1.5 g/m<sup>3</sup> for sixty second averaging;
  - (d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
  - (e) Resolution: 0.1% of reading or 1g/m<sup>3</sup>, whichever is larger;
  - (f) Particle Size Range of Maximum Response: 0.1-10;
  - (g) Total Number of Data Points in Memory: 10,000;
  - (h) Logged Data: Each data point with average concentration, time/date and data point number
  - (i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
  - (j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
  - (k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
  - (l) Operating Temperature: -10 to 50° C (14 to 122° F);
  - (m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.
4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.
5. The action level will be established at 150 ug/m<sup>3</sup> (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m<sup>3</sup>, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m<sup>3</sup> above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m<sup>3</sup> continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM<sub>10</sub> at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

- (a) Applying water on haul roads;
- (b) Wetting equipment and excavation faces;
- (c) Spraying water on buckets during excavation and dumping;
- (d) Hauling materials in properly tarped or watertight containers;
- (e) Restricting vehicle speeds to 10 mph;
- (f) Covering excavated areas and material after excavation activity ceases; and
- (g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m<sup>3</sup> action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

**DT CONSULTING SERVICES, INC.**

**ATTACHMENT B**

DTCS/BE

# Environmental Services Health & Safety Plan

**Job Name/Site Number:**

Hillcrest Shopping Center

275 North Main Street, Spring Valley, Rockland County, New York

**DEC Site No.:** 344094

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# DTCS/BE

## 1.0 Introduction

## 2.0 Organizational Structure

### 2.1 Safety and Health Manager

### 2.2 Site Safety and Health Office

#### 2.2.1 Responsibilities

## 3.0 Personal Protective Equipment

### 3.1 Protection Levels

#### 3.1.1 Level A

#### 3.1.2 Level B

#### 3.1.3 Level C

#### 3.1.4 Level D

## 4.0 Work Zones

### 4.1 Exclusion Zone

### 4.2 Contamination Reduction Zone

### 4.3 Support Zone

## 5.0 Air Monitoring

## 6.0 Site Communications

## 7.0 Emergency Procedures

### 7.1 Injury in the exclusion zone

### 7.2 Injury in the support zone

### 7.3 Fire or explosion

### 7.4 Protective equipment failure

## 8.0 Standard Safety Practices

## 9.0 Daily Safety Meetings

## 10.0 Site Specific Plan

### 10.1 Detailed Site information

### 10.2 Contaminants on Site/Action Levels

### 10.3 Emergency Information

#### 10.3.1 Emergency Responders

##### 10.3.1.1 Hospital

##### 10.3.1.2 Emergency telephone numbers

##### 10.3.1.3 Regulatory agencies



# DTCS/BE

10.4 First Aid

10.5 Work Zones

10.5.1 Command post

10.6 Site Communications

10.6.1 Telephone

10.6.2 Hand Signals

10.7 Environmental Monitoring

10.8 Personal Protective Equipment

10.8.1 Exclusion zone

10.8.2 Contamination reduction corridor

10.9 Decontamination

10.9.1 Decontamination Procedure

11.0 Key Personnel

12.0 Work Plan

12.1 Job objective / Detailed work plan

# **DTCS/BE**

## **1.0 INTRODUCTION**

DT Consulting Services, Inc./Bellucci Engineering PLLC (DTCS/BE) have designed a safety and health program to provide its employees and subcontractors with the guidelines necessary to ensure their own safety and health as well as that of the surrounding community. The goal of this plan is to minimize the risk of injury during Site Characterization procedures including the advancement and sampling of soil cores, soil vapor sampling, and the installation of groundwater monitoring wells, along with monitoring of same.

## **2.0 ORGANIZATIONAL STRUCTURE**

### **2.1 SAFETY AND HEALTH MANAGER**

It is the responsibility of the safety and health manager to develop a comprehensive safety and health plan. The safety and health manager will be appraised of any changes in the comprehensive safety and health plan as well as all Site-specific procedural determinations. The safety and health manager for this project will be Ms. Deborah Thompson.

#### **2.1.1 RESPONSIBILITIES**

- a) Initial Site evaluation
- b) Hazard identification
- c) Determination of appropriate protection levels
- d) Conduct daily safety and health meetings
- e) Supervision of Site sampling and monitoring
- f) Supervision of decontamination procedures
- g) Designate work zones to maintain Site integrity

## **3.0 PERSONAL PROTECTIVE EQUIPMENT**

The proper personal protective equipment is chosen by the Site safety and health officer in consultation with the safety and health manager. The level of protection is dependent on the hazards that are likely to be encountered on-Site.

### **3.1 PROTECTION LEVELS**

DTCS/BE utilizes four levels of protection as set forth in the OSHA guidelines, Appendix B of 1910.120.

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## **3.1.1 Level A**

Level A provides the greatest level of skin, respiratory, and eye protection with the following minimum equipment:

- Full face, self-contained breathing apparatus (SCBA) or supplied air with escape SCBA
- Fully encapsulated chemical resistant suit
- Chemical resistant boots
- Chemical resistant inner and outer gloves

## **3.1.2 Level B**

Level B provides the greatest level of respiratory protection, but a lower level of skin protection than Level A with the following minimum equipment:

- Full face SCBA or supplied air with escape SCBA
- Chemical resistant clothing
- Chemical resistant inner and out gloves
- Chemical resistant boots

## **3.1.3 Level C**

Level C provides the same level of skin protection as Level B, but a lower level of respiratory protection with the following minimum equipment:

- Full face piece air purifying respirator with appropriate cartridge. Cartridges are chosen based on knowledge of hazardous material.
- Chemical resistant clothing
- Chemical resistant inner and outer gloves
- Chemical resistant boots

## **3.1.4 Level D**

Level D provides the lowest level of skin protection and no respiratory protection with the following minimum equipment:

- Coveralls
- Safety boots
- Gloves
- Safety glasses or splash goggles

# DTCS/BE

## **4.0 WORK ZONES**

DTCS/BE utilizes the standard three-zone approach to Site control. These zones are the exclusion zone, the contamination reduction zone and the support zone. The support zone will be located upwind of work locales. Movement of personnel and equipment through these zones shall be strictly regulated in order to prevent contamination of clean environments and to protect workers in the support zone from possible exposure.

### **4.1 EXCLUSION ZONE**

The exclusion zone is the area of highest contamination. All personnel entering this zone must wear the appropriate level of protection as prescribed in the Site-specific safety plan. The outer boundary of the exclusion zone, referred to as the Hotline, shall be determined based upon such considerations as; extent of surface contamination, safe distance in the case of fire or explosion, physical area necessary for workers to conduct operations in a safe manner and safe distance in the event of vapor or gas emissions. Upon determination, the Hotline shall be visibly marked and secured to prevent accidental entry by unauthorized personnel.

### **4.2 CONTAMINATION REDUCTION ZONE**

The Contamination Reduction Zone is the area between the exclusion zone and the support zone. Its purpose is to protect the clean environment from contamination as workers enter and exit the exclusion zone. The outer boundary of this zone is referred to as the Coldline and shall be clearly marked. Decontamination stations shall be set up in this zone in a line known as the contamination reduction corridor. All personnel exiting the exclusion zone must follow the steps as prescribed in the decontamination procedures prior to re-entering the support zone.

### **4.3 SUPPORT ZONE**

The support zone is the furthest area away from the exclusion zone. It is considered a clean, non-contaminated area where workers need not wear any protective equipment. The command post, equipment trailer, first aid station and lavatory facilities are all located in this area. This area is not, however, open to traffic. Only authorized personnel may enter.

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## 5.0 AIR MONITORING

While executing the Site Characterization, specific health and safety monitoring procedures, including particulate and volatile organic compound or VOC monitoring will be conducted during Site activities. Refer to Section 10 for the Site-specific monitoring plan.

## 6.0 SITE COMMUNICATIONS

Various methods of communication will be employed based upon Site conditions and work zones. Regardless of method of communication, personnel working in the exclusion zone will remain within constant view of support crews.

DTCS/BE has a network of devices to aid communications. All or some of the following devices may be used depending upon job Site requirements; handheld radios, headset transistor walkie-talkies and cellular telephones.

The following hand signals shall be standardized for use in emergencies and in the event of radio communication breakdown.

Hand gripping throat - out of air, can't breathe  
Grip partner's wrist - leave area immediately  
Hands on top of head - need assistance  
Thumbs up - I am all right, okay  
Thumbs down - no, negative

Horn blasts may be used to gain the immediate attention of crews to indicate that dangerous conditions exist.

## 7.0 EMERGENCY PROCEDURES

The following procedures shall be followed by all Site personnel in the event of an emergency. Any changes to this procedure shall be noted in the Site-specific plan. In all situations where there has been an evacuation of exclusion zone to the support zone, the support zone will be located upwind of work locales. Reentry shall not be permitted until the following conditions have been met; the cause of the emergency has been determined and corrected, the Site hazards have been reassessed, the safety plan has been reviewed, and all personnel have been apprised of any changes.

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## **7.1 INJURY IN THE EXCLUSION ZONE**

In the event of an injury in the exclusion zone, the emergency signal shall be sounded. All personnel in the exclusion zone will assemble at the contamination reduction corridor. First aid procedures will begin on-Site and if necessary, an ambulance will be called. No personnel will be allowed to re-enter the exclusion zone until the exact nature and cause of the injury has been determined.

## **7.2 INJURY IN THE SUPPORT ZONE**

In the event of an injury in the support zone, on-Site first aid procedures will begin immediately, and an ambulance will be called if necessary. The Site safety and health officer shall determine if the nature and cause of the injury or loss of the injured person will jeopardize the smooth running of the operations. If so, the emergency signal will be sounded, and all personnel will follow the same procedure as outlined above.

## **7.3 FIRE OR EXPLOSION**

In the event of fire or explosion, the emergency signal shall be sounded, and all personnel will assemble at the contamination reduction corridor. The fire department will be called, and all personnel will be evacuated to a safe distance.

## **7.4 PROTECTIVE EQUIPMENT FAILURE**

In the event of protective equipment failure, the affected worker and his/her buddy will leave the exclusion zone immediately. In the event of any other equipment failure, the Site safety and health officer will determine if this failure affects the operation. If so, the emergency signal will be sounded, and all personnel will leave the exclusion zone until such time as it is deemed safe.

## **8.0 STANDARD SAFETY PRACTICES**

The following guidelines will be followed by all personnel at all times; any changes must be approved by the safety and health manager.

- All employees will attend the daily safety meetings prior to Site entry.

## DTCS/BE

- The buddy system will be utilized at all times.
- There will be no eating, drinking, smoking, or use of smoking materials (i.e. matches) within the work area(s). COVID safety practices will be utilized (see Attachment A).
- Only authorized personnel will be allowed in designated work zones and will wear the proper personal protective clothing and equipment as prescribed in the Site safety plan.
- The Site safety and health officer will be appraised of any unusual circumstances immediately.

Such circumstances include but are not limited to the following; unusual odors, emissions, signs of chemical reaction, and discovery of conditions or substances not mentioned in the Site safety plan. The Site safety officer will then determine if these conditions warrant a shut down of operations.

### **9.0 DAILY SAFETY MEETINGS**

Daily safety meetings will be conducted by the Site safety and health officer prior to commencement of work. All personnel, regardless of job classification, are required to attend.

#### **9.1 DISCUSSIONS**

1. Overview of safety and health plan.
2. Detailed discussion of substances of concern with emphasis on exposure limits, exposure symptoms and exposure hazards.
3. Review of standard safety precautions and work practices.
4. Review of work plan.
5. Review of hand signals and emergency signals.

Personnel will sign a daily attendance sheet, which shall include an overview of the topics discussed.

# DTCS/BE

## 10.0 SITE SPECIFIC PLAN

### 10.1 DETAILED SITE INFORMATION

- **Plan Date** TBA
- **Job Name** Hillcrest Shopping Center
- **Client** Cuzson Hillcrest LLC  
254 South Main Street, Suite 104-106  
New City, New York 10956
- **Client Contact/Email** Michael Zucker/mzucker26@gmailcom
- **Site Address** 275 North Main Street  
Spring Valley, New York 10977
- **Cross Street** State Route 45/West Eckerson Road
- **Site Access** Direct

### 10.2 CONTAMINANTS ON SITE/ACTION LEVELS

The following substances are known or suspected to be on Site, primarily in Site wastes. The primary hazards of each are identified, associated primarily with direct skin contact and inhalation.

SUBSTANCE	PRIMARY HAZARDS
<i>Volatile Organics</i>	
Trichloroethene (TCE)	Eye, skin and respiratory irritation.
Tetrachloroethene (PCE)	Nausea, vomiting, headache

### Particulate Air Monitoring

Particulate monitoring (PM) will be conducted during ground intrusive activities at the Site in accordance with the Fugitive Dust and Particulate Monitoring from DER-10 Technical Guidance for Site Investigation and Remediation. Special requirements have also been deemed necessary by the NYSDEC and New York State Department of Health (NYSDOH) as work will be conducted within 20 feet of potentially exposed individuals or structures.

Dust and particulate monitoring will be conducted near the approximate upwind and downwind perimeters of the exclusion zone, when possible, or where dust generating operations are apparent. Dust monitoring may be suspended during periods of precipitation and snow cover.



## DTCS/BE

Particulate air monitoring will be conducted with a TSI DustTrak II 8530 (or similar device). This instrument is equipped with an audible alarm (indication of exceedance) and is capable of measuring particulate matter less than 10 micrometers in size (PM-10). It will continually record emissions (calculating 15-minute running average concentrations) generated during field activities. The dust monitoring devices will be checked and recorded periodically throughout the day of intrusive activities to assess emissions and the need for corrective action. Particulate monitoring response and action levels include:

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is 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  $\mu\text{g}/\text{m}^3$  above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150  $\mu\text{g}/\text{m}^3$  above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150  $\mu\text{g}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

### **Volatile Organic Compound Air Monitoring**

VOC air monitoring will be conducted in conjunction with the dust monitoring program. VOC air monitoring will be conducted using a RAE Systems MiniRAE 2000 VOC instrument (or a similar photoionization detector device) to provide real-time recordable air monitoring data. VOC monitoring will be conducted for ground intrusive (continuous monitoring) and non-intrusive activities (periodic monitoring).

VOCs will be monitored and recorded at the downwind perimeter of the immediate work area. Upwind concentrations will be measured before field activities commence and periodically throughout the day to establish background conditions. The downwind VOC monitoring device will also be checked periodically throughout the day to assess emissions and the need for corrective action. VOC monitoring response and action levels include:

## DTCS/BE

- 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 the 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.
- If the organic vapor level remains sustained above 5 ppm at the perimeter of the work area, activities must be shut down and work will be re-evaluated.

### **Documentation and Calibration**

The volatile organic compound air monitoring device shall be calibrated prior to daily field activities according to manufacturers' instructions and standard industrial hygiene practices. Calibration measurements will be recorded on a field data record. Field measurements will be recorded and available for State (NYSDEC and NYSDOH) personnel to review. The particulate monitoring device is factory calibrated on an annual basis. Upon completion of field activities, available monitored data recorded will be downloaded, evaluated and summarized in the Remedial Investigation Report.

### **Meteorological Monitoring**

Wind direction is the only meteorological data considered relevant for the Site Characterization activities. To evaluate wind direction, a windsock, wind vane, or other equivalent equipment will be utilized. Wind direction will be established at the start of each workday and may be reestablished during the day should a significant shift in wind direction be noted. These results will be employed to position the particulate and VOC monitoring equipment in appropriate upwind and downwind locations. Wind direction and location of the monitoring stations will be noted in daily field logs.

## **10.3 EMERGENCY INFORMATION**

### **10.3.1 EMERGENCY RESPONDERS**

#### **10.3.1.1 HOSPITAL**

**Name:** Good Samaritan Hospital

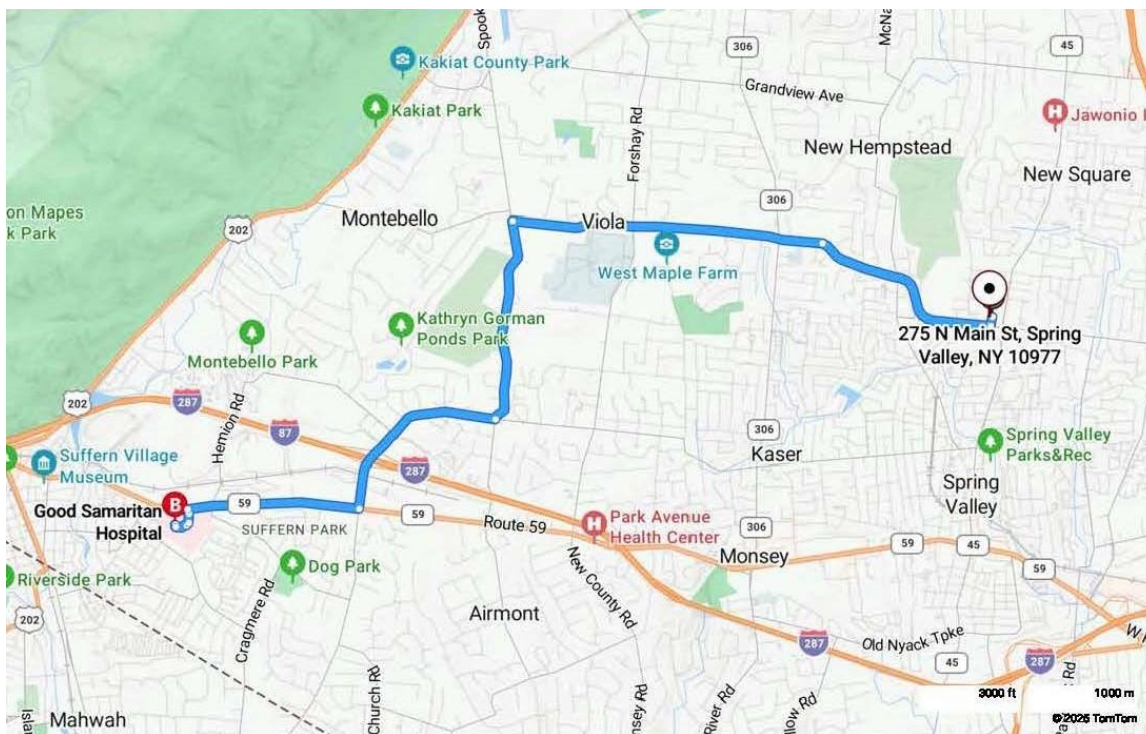
## DTCS/BE

### Address & Telephone Number:

255 Lafayette Avenue, Suffern, NY 10901  
(845) 368-5000

### Distance from Site:

6.7 Miles (see Attachment A)



### 10.3.1.2

### EMERGENCY TELEPHONE NUMBERS

Police	<u>911 on Cellular Phone</u>
Fire	<u>911 on Cellular Phone</u>
Ambulance	<u>911 on Cellular Phone</u>

### 10.3.1.3

### REGULATORY AGENCIES

EPA Telephone Number	1-800-424-8802
NYSDEC Spills Hotline	1-800-457-7362

## 10.4 FIRST AID

First Aid available at the following stations:

# DTCS/BE

First Aid Kit TRUCK  
Emergency Eye Wash TRUCK & ON SITE

## 10.5 WORK ZONES

### 10.5.1 COMMAND POST

Command post will be mobile.

## 10.6 SITE COMMUNICATIONS

### 10.6.1 TELEPHONE

Command Post Telephone - Cellular Phone  
Number (845)943-0159

### 10.6.2 HAND SIGNALS

See Section 6.0

## 10.7 ENVIRONMENTAL MONITORING

### 10.7.1 MONITORING EQUIPMENT

Refer to Site Characterization Work Plan

## 10.8 PERSONAL PROTECTIVE EQUIPMENT

### 10.8.1 EXCLUSION ZONE, PROTECTION LEVEL

<b>PROTECTIVE EQUIPMENT:</b>	Level D
<b>RESPIRATORY</b>	None
<b>HEAD</b>	Hard Hat & Safety Glasses
<b>HANDS</b>	Nitrile or Leather
<b>FEET</b>	Steel Toed Boots
<b>SUIT</b>	None

### 10.8.2 CONTAMINATION REDUCTION CORRIDOR (DECON LINE)

<b>PROTECTIVE EQUIPMENT:</b>	Level D
<b>RESPIRATORY</b>	None
<b>HEAD</b>	Hard Hat & Safety Glasses
<b>HANDS</b>	Nitrile or Leather
<b>FEET</b>	Steel Toed
<b>SUIT</b>	None

# DTCS/BE

## 10.9 DECONTAMINATION

### 10.9.1 DECONTAMINATION PROCEDURE

Decontamination procedures to be utilized on-Site will be pursuant to Sampling, Analysis, And Assessment of Per-And Polyfluoroalkyl Substances (PFAS) under NYSDEC's Part 375 Remedial Programs, June 2021. Standard two step decontamination using detergent (Alconox brand or similar), and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

## 11.0 KEY PERSONNEL

### SAFETY AND HEALTH MANAGER / ON-SITE SUPERVISOR

Deborah J. Thompson

### FOREMEN

TBA

### FIELD PERSONNEL

Will Vary

## 12.0 WORK PLAN

### 12.1 JOB OBJECTIVE

The objective is to execute a Site Characterization Work Plan which includes soil, soil vapor and groundwater sampling to characterize the extent of historical contamination identified on-Site under a NYSDEC executed Order on Consent. Upon completion of field work, a Site Characterization Report will be generated to address documented contamination.

**DTCS/BE**

## **ATTACHMENTS**

**DTCS/BE**

**ATTACHMENT A**

**A** 275 N Main St, Spring Valley, NY 10977

17 min , 6.7 miles

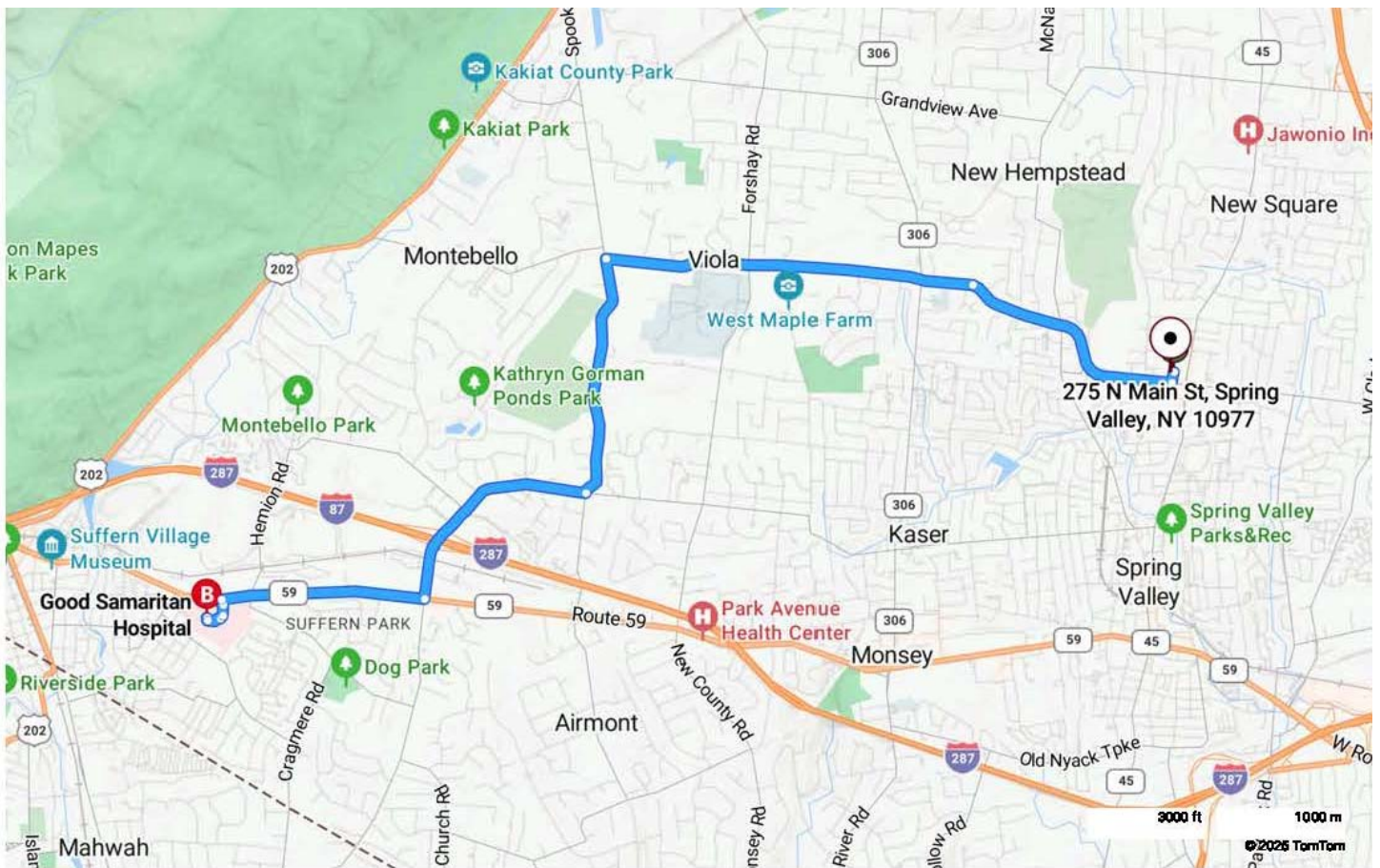
**B** Good Samaritan Hospital, 255 Lafayette Ave, Suffern, NY 10901

**A** 275 N Main St, Spring Valley, NY 10977

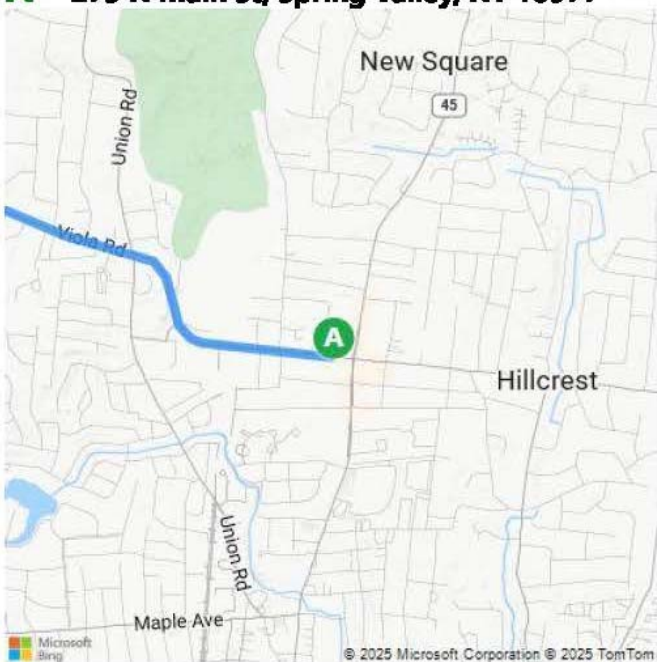
↑	1.	Leave from <b>W Eckerson Rd/County Hwy-74</b>	295 ft
↗	2.	Turn right onto <b>W Eckerson Rd/County Hwy-74</b>	1.2 mi
↑	3.	Keep left at <b>Viola Rd/County Hwy-74</b>	1.8 mi
↖	4.	Turn left onto <b>Spook Rock Rd/County Hwy-85</b>	1.2 mi
↗	5.	Turn right onto <b>N Airmont Rd/County Hwy-64</b>	1.2 mi
↗	6.	Turn right onto <b>Route 59/NY-59</b>	1.0 mi
↖	7.	Turn left	164 ft
↗	8.	Turn right	282 ft
↗	9.	Bear right	108 ft
↗	10.	Turn right	381 ft
↗	11.	Turn right	75 ft
	12.	You have arrived. Your destination is on the right	

**B** Good Samaritan Hospital





**A** 275 N Main St, Spring Valley, NY 10977



**B** Good Samaritan Hospital, 255 Lafayette Ave...

