REMEDIAL INVESTIGATIVE WORK PLAN
REVISED
FOR
ALBANY & WRENTHAM LLC OF
KINGSTON, NY

BROWNFIELD CLEANUP PROGRAM (BCP) SITE NUMBER C356057

11/29/2021

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November 29, 2021

Michael Kilmer

Environmental Engineer

New York State Department of Environmental Conservation 21 South Putt Corners Road New Paltz, New York 12561

RE: REMEDIAL INVESTIGATIVE WORK PLAN

Albany & Wrentham LLC C356057 520 Albany Avenue Kingston, Ulster County, New York

Dear Mr. Kilmer:

DT Consulting Services, Inc. (DTCS) is pleased to present the attached Remedial Investigative Work Plan (RIWP) on behalf of Albany & Wrentham LLC. This RIWP has been prepared in conformance with Department of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10). If you have any questions regarding the enclosed, please feel free to contact me at (845) 658-3484.

Sincerely,

DT CONSULTING SERVICES, INC.

Deborah J. Thompson
Deborah J. Thompson
Senior Geologist / Project Manager

Cc: Albany & Wrentham LLC G. Bowitch, Esq.

TABLE OF CONTENTS

1.0	INTRODUCTION/PURPOSE1
2.0	SITE INFORMATION1-2
3.0	OBJECTIVES3
4.0	PREVIOUS INVESTIGATIONS AND EVALUATIONS
	4.1 SITE INVESTIGATION REPORT, FEBRUARY 23, 2012
	4.1.1 FINDINGS
	4.2 SITE INVESTIGATION/REMEDIAL SUMMARY REPORT, SEPT. 18, 2013 4-5
	4.3 SSDS PILOT STUDY AND DESIGN/SSDS INITIATION DEC 2013-FEB 2014 6
	4.4 SSDS REPORTING, MAY 12, 2014 - MARCH 21, 2017 6-7
	4.5 SITE INVESTIGATION SUMMARY REPORT, SEPTEMER 17, 2019
	4.5.1 FINDINGS
	4.6 SOIL GAS SURVEY, JANUARY 6, 2020
	4.6.1 FINDINGS8-9
	4.7 DATA ASSESSMENT AND NEEDS9
5.0	REMEDIAL INVESTIGATION APPROACH10-15
6.0	QUALITY ASSURANCE PROJECT PLAN15-22
	6.1 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) OBJECTIVES 15-16
	6.2 ANALYTICAL METHODS/QUALITY ASSURANCE SUMMARY 16-17
	6.3 FIELD QUALITY CONTROL SAMPLES
	6.4 FIELD SAMPLING PROCEDURES
	6.5 SAMPLE CUSTODY
	6.6 DATA REDUCTION, VERIFICATION AND REPORTING21-22
	6.7 DATA USABILITY SUMMARY REPORT
7.0	HUMAN HEALTH EXPOSURE ASSESSMENT 22-23
8.0	FISH AND WILDLIFE EXPOSURE ASSESSMENT23
9.0	REMEDIAL INVESTIGATION REPORT24-25
10.0	PROJECT SCHEDULE25

FIGURES

Figure 1 Property Location Map
Figure 2 Site (base) Plan
Figure 3 Soil Contaminant Mapping
Figure 4 Soil Gas Contaminant Mapping
Figure 5 Groundwater Contaminant Mapping
Figure 6 Proposed Sampling Locations
Figure 7 Floor Plan

TABLES

Table 1 Soil Contaminants vs. Standards
 Table 2 Soil Gas Contaminants vs. Standards
 Table 3 Groundwater Contaminants vs. Standards

ATTACHMENTS

Attachment A Health and Safety Plan

Attachment B Well Logs

1.0 INTRODUCTION AND PURPOSE

This Remedial Investigation Work Plan (RIWP) has been prepared to satisfy the investigation requirements of the New York State Department of Environmental Conservation (NYSDEC or Department) Brownfield Cleanup Program (BCP). The Subject Property, identified as Albany & Wrentham LLC, located at 520 Albany Avenue in the City of Kingston, Ulster County, New York (heretofore referenced as the Site or Subject Property) has been accepted into the BCP (Site Number C356057). All the activities at the Site are being conducted in accordance with a Brownfield Cleanup Agreement, dated February 3, 2021.

Prior investigation activities have been conducted on the Site and the results of those investigations were submitted to the Department along with the BCP Application. As such, an approved RIWP is required prior to initiating remaining remedial investigation field activities. The expressed purpose of this work is to provide current soil gas conditions beneath the Site structure and along the periphery of the property boundaries, to document current soil conditions within the historical source area, to document current groundwater quality conditions and direction of groundwater flow, and to provide guidance on the selection and implementation of a Remedial Action program for the Site.

This RIWP is designed to focus on and address specific areas at the Site to gain current subsurface quality data as well as to document the environmental conditions at portions of the Site not previously investigated. The Site is the location of past chlorinated solvent and petroleum spills (Spill Number 12-15279), identified in several NYSDEC records. As more fully described in Sections 2 - 4 of this document, volatile organic compounds (VOCs) have been detected in the subsurface of the property because of historical Site use. All proposed work will be conducted according to a Site-specific Health and Safety Plan (HASP) and a Community Air Monitoring Plan (CAMP), provided as Attachment A.

2.0 SITE INFORMATION

The approximate 0.74-acre subject parcel is presently improved with a +/- 4,592-ft² single-story commercial building, which houses Artcraft Camera & Digital and Fast Signs (Artcraft). The Site is currently active and is zoned for commercial use. The entire Subject Property is capped. Covered surfaces include the building footprint, located in the northwest quadrant of the Site, surrounded by asphalt paved areas.

Historic uses of the Site have been centered on commercial enterprises at the Site, which included a retail automobile repair facility, which stored waste oil. In addition to petroleum storage, a dry cleaning operation has been documented within the Site building from the late 1950s - 1980s.

The Site is bounded by Albany Avenue and Quick Check Gasoline/Convenience Store to the north-northwest, single family residences directly to the south, Wrentham Street and automobile repair/sales facilities to the east, while Tri-Star Auto Sales, Inc. - Auto Tech is present to the west. Town roadways adjoining the Site include Albany Avenue to the north-northwest and Wrentham Street to the east. Site topography is generally level and at grade with Albany Avenue. A property location map and a Site (base) plan are presented as Figures 1 and 2, respectively. According to City of Kingston Water Department and Public Works Department representatives, the Subject Property is serviced by a municipal water supply and sanitary waste treatment service, as are the surrounding properties. No groundwater supply wells were observed by representatives of this office during Site inspections and no groundwater supply wells are known to be present or used on adjoining or nearby properties.

Several historical site assessments were conducted by DT Consulting Services, Inc. (DTCS) on behalf of the (then) property owner and/or prospective property purchasers since 2013. As a result of such prior investigation activities, the following areas of potential environmental concern and/or "recognized environmental conditions" (RECs) were identified and are associated with the Subject Property:

- ✓ Recorded waste oil (surficial) release, remediated via bulk source removal in 2013; and
- ✓ Soil, soil vapor and groundwater contamination issues associated with historic site use as a dry cleaning establishment dating back to the 1950's.

3.0 OBJECTIVES

The purpose of the Remedial Investigation is to further define the nature and extent of on-Site contamination, and develop sufficient data for the assessment, selection and design of a Remedial Action Work Plan. Site investigation activities at the Albany & Wrentham LLC facility are aimed to accomplish the following:

- Document the presence or absence of targeted contaminants in the subsurface;
- Determine the direction of groundwater flow and document groundwater quality;
- Collection and analysis of specific media including soil gas, soil and groundwater;
- Identification of contaminants of concern and;
- Identification of specific environmental media, characterization of exposure settings, potential migration pathways and affected receptors.

4.0 PREVIOUS INVESTIGATIONS AND EVALUATIONS

Four previous site intrusive environmental investigations along with remedial pilot testing, remedial system installation and periodic monitoring reports have been conducted on the Subject Property. Each of these investigations was performed to assess the environmental status of the Site by identifying existing or potential environmental conditions. These reports can be referenced in the Albany & Wrentham LLC BCP Application, dated August 3, 2020.

4.1 Site Investigation Report, February 23, 2012

DTCS completed a Site Investigation Report for the Site in February 2012. The purpose of the assessment was to identify and characterize any contamination that may exist in soil and/or groundwater because of historical Site use as an automobile repair facility and a dry cleaning establishment.

The scope of work included:

- Limited Subsurface Site Investigation;
- Soil sample collection/characterization along with laboratory analysis;
- Groundwater sampling along with laboratory analysis; and
- Reporting

4.1.1 Findings

A total of five soil borings were advanced on the Subject property to an approximate depth of ten feet below grade surface (bgs) for soil and groundwater sampling. Soils present were reported to predominately consist of brown fine-coarse sand with traces of silt. During the investigation, a total of five groundwater samples were also collected for laboratory analysis from each soil boring location by installing a temporary monitoring well.

The presence of soil and groundwater impacts was not field verified during the Site investigation (i.e., no obvious signs of impacts via soil screening or observations via olfactory means). Subsequent laboratory analysis confirmed the absence of targeted VOCs and semi-volatile organic compounds (SVOCs) above regulatory standards within collected Site soils and/or groundwater.

4.2 Site Investigation/Remedial Summary Report, September 18, 2013

DTCS completed a Site Investigation/Remedial Summary Report for the Subject Property on September 18, 2013. The purpose of the Site work was to document the excavation, transportation and disposal of source material on-Site, comment on the post excavation soil samples collected and analyzed succeeding these field activities, to further delineate impacted subsurface materials as a result of the completed source removal and to make recommendations as necessary.

On February 4, 2013, DTCS was on-Site to perform a subsurface investigation. While performing the field survey, soil contamination was encountered as displayed by stained soils, a petroleum film and positive field readings with a Photoionization Detector or PID. This material was documented along the southwest corner of the Site structure, directly downgradient of several 55-gallon drums utilized by the (then) tenant to store waste oil. On account of the contamination encountered, DTCS notified the NYSDEC and Spill Number 12-15279 was generated for the Site. Upon review of field data with the NYSDEC,

remediation of the contaminated soils documented during the February 2013 survey was requested by the Department. On April 22, 2013, soil excavation was performed with the use of heavy equipment (i.e., excavator) to scoop materials for temporary staging on-Site. A total of four post excavation soil samples denoted as Soil Pull SP -1 – SP-4 were collected from within the remedial area following the removal of the source material. Soil pull SP-1 was obtained approximately six feet below grade surface or bgs (final depth of excavation), while the remaining samples (SP-2 – SP-4) were collected along the excavation walls at a depth of approximately four feet bgs. Ultimately, a total of 34.82 tons of impacted materials were transported to Clean Earth of North Jersey, Inc., Kearny, New Jersey for final and proper disposal. Results of post excavation laboratory analysis revealed the presence of chlorinated VOCs (cVOC) within soil samples collected which exceeded soil cleanup objectives (SCOs) as defined in 6 NYCRR Part 375-6. At that time, the NYSDEC again requested an additional subsurface investigation be performed to assist in delineating the nature and extent of the cVOC contamination.

DTCS returned to the Subject Property in June of 2013 to perform the investigation. To further delineate and quantify the compounds of concern, four borings were advanced for the purpose of soil classification/sampling and collection of groundwater samples surrounding the southwestern quadrant of the Site (which is the presumed source area of chlorinated solvents). In addition, a total of four soil vapor samples were collected for VOC analysis (two beneath the building slab and two along the outside perimeter of the Site structure). Soil samples analyzed during the investigation showed select cVOCs, namely cis-1,2-Dichloroethylene (1,2-DCE), Tetrachloroethylene (PCE) and Trichloroethylene (TCE) which displayed exceedances over commercial SCOs. Specific contaminants reported in soil vapor mirrored those reported in the soil (i.e., 1-2, DEC, PCE and TCE) and were found to exceed published guidance values. Based upon the findings of the investigation, DTCS recommended:

- 1. The performance of diagnostic tests to investigate and evaluate the development of a negative pressure field via the inducement movement of soil gases beneath the slab. Results of the diagnostic survey would then be utilized to properly design a Sub-slab Depressurization System (SSDS) for the Subject Property;
- 2. The installation of an active SSDS to mitigate the intrusion of potential vapors from any residual contamination.

4.3 SSDS Pilot Study and Design Report, December 17, 2013 SSDS Initiation Report, February 2014

Based upon the investigative findings, DTCS proposed the installation of a SSDS within the (then) open garage space of the above referenced Site. With approval from the Department, diagnostic tests to investigate and evaluate the development of a negative pressure field via the inducement movement of soil gases beneath the slab were conducted by DTCS on October 8, 2013. The objective of communication test was to evaluate the potential radius of influence of a single sub-slab soil vapor extraction point. DTCS subsequently conducted an ASD pilot-study by applying a vacuum at each extraction point and measuring the vacuum imparted at the other locations using a manometer, which reads both pressure (positive values) and vacuum (negative values) at a precision of 0.01 inches of water column (W.C.). During testing procedures, DTCS recorded a net increase in the vacuum imparted at most of the monitoring points; shown as effective vacuum. At the conclusion of the field survey, DTCS provided installation, operation, maintenance, and monitoring specifications within the SSDS Pilot Study and Design Report.

With approval of the SSDS pilot study and design, DTCS proceeded with system installation and commenced the initiation of the SSDS on January 23, 2014. Upon initiation of the SSDS on January 23, 2014, collection and analysis of the effluent vapor was performed by DTCS. In addition to effluent sampling, indoor air within the building (office and garage areas) was sampled 24 hours after the initial startup of the system. Further monitoring was conducted monthly for the first three months of system operation, and then reverted to quarterly.

4.4 SSDS Reporting, May 12, 2014 – March 21, 2017

DTCS completed quarterly and subsequently bi-annual SSDS monitoring reports detailing system operation, contaminant capture and conditions of extracted subsurface soil gas between May 2014 and March 2017. In addition, as part of Site monitoring procedures, DTCS recorded vacuum measurements, PID readings, performed analysis of SSDS soil vapor discharge and periodic indoor ambient air quality. Historical evaluation of vapor data suggested that the SSDS effluent could potentially exceed the maximum permitted level for VOCs. As such; the fresh air bleed was utilized to dilute the airstream until the initial purge of the system is complete and discharge levels were within acceptable regulatory limitations.

During the SSDS operation, the soil gas concentrations were reported to start at a maximum concentration and decreased asymptotically to steady state conditions. The SSDS efficiently mitigated the intrusion of potential vapors and remediating residual contaminants as shown by the fact that the VOC concentrations recorded in the effluent air had significantly decreased over the 2014 – 2017 operation period. As a result of the fact that the reported SSDS effluent air concentrations met the applicable regulatory standards as well as the lack of contaminant rebound during a three month shut-down or non-operation of the system, DTCS recommended that the spill be closed by the NYSDEC, which notified DTCS that Spill No. 12-15279 was closed and that no further action was necessary in March 2017.

4.5 Site Investigation Summary Report, DTCS, September 17, 2019

Beginning in November 2018, the NYSDEC notified Albany Wrentham, LLC of its opinion that the Site was still a significant source of PCE contamination in the soil and groundwater. At that time, the Department also reopened Spill No. 12-15279 and the spill file associated with the Site. Subsequently, DTCS received approval to conduct a Site Investigation to quantify current subsurface conditions at the Site prior to determining whether there was a need for further investigation or remedial action.

The investigation was conducted on July 22-23, 2019 under the supervision and approval of the Department. Employing a Geoprobe 7822 track-mounted drill rig, soil samples were collected continuously from grade to an approximate depth of fifteen feet below grade surface or five feet into the groundwater table. Each boring location was converted into a permanent groundwater monitoring well during the investigation on-Site (see Attachment B for well construction details).

4.5.1 Findings

To provide data on current soil quality conditions, a total of seven soil borings were advanced on the 520 Albany Avenue, Kingston, New York property. Based upon analytical testing, DTCS concluded that only two laboratory detectable VOCs (namely 2-Butanone and TCE), were reported during analysis of collected Site soils. None of the reported sample concentrations were found above NYSDEC unrestricted SCOs as set forth in NYSDEC 6 NYCRR Part 375-6.8(a). See Figure 3 for soil contaminant mapping and Table 1 for analytical data tables.

Analysis of the seven Site wells revealed low concentrations of laboratory detectable dissolved phase VOCs in four of the seven groundwater monitoring locations. Upon comparing laboratory reportable compounds to their respective groundwater quality guidance value, one targeted compound (namely PCE) encountered within monitoring well MW-5 at a concentration of 97 ug/L or parts per billion (ppb) exceeded the regulatory standard of 5 ppb. All other VOCs in each of the seven groundwater wells were found to be non-detect or were reported at concentrations below NYSDEC TOGS 1.1.1 groundwater quality standards.

DTCS submitted a report of its findings to the NYSDEC. Upon the review of the report, the NYSDEC requested that a soil gas study be performed along the property boundary lines along with groundwater monitoring to confirm groundwater flow path direction.

4.6 Soil Gas Survey, January 6, 2020

The purpose of the Soil Gas Survey was to further provide data on subsurface conditions, specifically in the vadose zone which could allow potential vapor migration and intrusion pathways across the survey area.

On October 17, 2019, prior to initiating sampling activities, a DTCS field representative gauged each of the previously installed monitoring wells to record groundwater elevations. This data was utilized to ensure soil gas probes were installed near the capillary fringe and not too close to the water table because low flow conditions might be encountered due to high moisture content. To provide quantitative data on current soil vapor conditions, a total of ten sampling locations were proposed and approved by the NYSDEC along the outer boundaries of the 520 Albany Avenue, Kingston, New York property. In addition to soil gas sampling, each groundwater monitoring well was monitored and surveyed to further document groundwater path flow.

4.6.1 Findings

Several VOCs, including 1,2-DCE, PCE and TCE, were detected within on-Site soil vapor. 1,2-DCE was detected in SG-4 at a concentration of 18,000 micrograms per cubic meter [$\mu g/m^3$]. PCE was reported within soil vapors collected at SG-4 - SG-7 and SG-9 at concentrations ranging from 2,000 – 170,000 $\mu g/m^3$, while TCE was encountered at SG-4, SG-5 and SG-9 at

concentrations of $110-7,900~\mu\text{g/m}^3$. See Figure 4 for soil gas contaminant mapping and Table 2 for soil gas analytical summary.

To further document groundwater path flow, depth to water beneath the Site was gauged with a sonic interface probe and recorded by DTCS during the October 2019 monitoring event. Groundwater elevations were calculated by subtracting depth to groundwater field measurements from surveyed top-of-well casing elevations in each monitoring well. While generating said map, lines of equal elevation were drawn to contour the groundwater surface. Based on the assumption that groundwater flows perpendicular to lines of equal elevation in an isotropic, homogenous system, groundwater on-site generally flows in a north, northwesterly direction away from the Site. DTCS also documented an area of groundwater mounding within the northwestern quadrant of the Site. The presence of adjacent storm drains, which are comprised of dry wells for storm water drainage, likely is the cause of this condition. Attached as Figure 5 is a groundwater contaminant data map summarizing laboratory results reported during the 2019 monitoring event.

As a result of the combined Site work and owing to surrounding conditions described herein, DTCS recommended the restart of the on-Site SSDS with confirmatory sampling of the SSDS effluent as well as groundwater monitoring to be performed on a semi-annual basis for two years. Ultimately, the NYSDEC required the Site to be further investigated and/or remediated under the BCP or the State Superfund Program. Albany & Wrentham LLC chose to enter the BCP.

4.7 DATA ASSESSMENT AND NEEDS

Based upon the results of previous investigations, subsurface impacts (attributed to the historic chlorinated solvent use and to a lesser extent petroleum bulk storage) have been identified on the Subject Property. Although existing soil and groundwater data can be utilized to assist in defining the principal contaminant source areas, additional investigative activities will need to be performed to define the extent of subsurface contamination while further delineating the source area(s).

5.0 REMEDIAL INVESTIGATION APPROACH

As stated previously, the Site was historically known to be utilized for dry cleaning operations from the late 1950s – 1980s. Although the exact location of the dry cleaning equipment (the suspected source of Site contamination) is unknown, the equipment would have likely existed within the southern quadrant of the original Site structure. No other sources of contamination are known to exist on-Site. The scope of the investigation program is directed at providing sufficient information that will complete data gaps in historical site surveys. Ultimately, the goal of this RI is to verify current soil, soil gas and groundwater quality so that a remedial program, if any is needed, can be selected, and implemented. The RI objectives and methods have been developed in accordance with the NYSDEC Brownfield Program Cleanup Guidance (NYSDEC May 2004), and relevant provisions of Department of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation May 2010. A Site and contaminant specific HASP and CAMP has been prepared for the Site and has been placed in Attachment A.

Although the scope of work as described herein provides specific locations for soil boring and soil gas installations, additional testing locations may be added or otherwise adjusted during the course of work, as warranted to define the limits of impact. Figure 6 show the proposed soil, soil gas and groundwater sampling locations for this Site investigation work plan.

Soil Sampling and Analysis

A direct-push drilling rig (Geoprobe) will be used to advance eight soil borings surrounding historical location of the chlorinated solvent impacts and areas within the BCP Site boundary. Upon retrieval from the four-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 and potable water rinse. Soil sampling will be conducted continuously from the surface to a maximum depth of approximately 12 to 16 feet below grade, or approximately four feet into the top of observed ground water table.

The reported depth to ground water ranges from approximately eight – nine feet below grade, flowing north, northwest across the Site. The borings may be advanced deeper to determine the vertical extent of subsurface contamination, if

encountered. An on-site Geologist will prepare geologic logs that will include the boring identification, depth interval, soil descriptions, 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. To assure successful delineation of soil contamination (if encountered), soil samples will be collected from the upper and lower soil horizon in each core. Upper soil horizon sampling zone would consist of soils gathered between depths of two – four feet bgs, while the lower horizon soil sampling would be conducted from samples corresponding to the water table or capillary zone above the water table if there is no indication of the presence of subsurface contamination based on visual and and/or PID measurements. Additional soil sampling within a contaminated zone (as identified by visual or PID field observations), would also be conducted if encountered.

Selected samples will be submitted to a New York State Department of Health (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 biphenyl's or PCBs (USEPA Method 8082), and Per- And Polyfluoroalkyl Substances or PFAs (USEPA Method 537.1), cyanide and 1, 4-dioxane. All analyses 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 6 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 6 of this report.

All boring locations will be measured and plotted on a scaled base map.

Soil Vapor

A total of six sub-slab soil vapor sampling points are proposed beneath the slabs of the two on-site foundations and four soil gas sampling locations are proposed along the periphery of the Site property boundaries. All soil gas and ambient air sampling will be completed during the heating season while the SSDS is still active. A tracer gas (e.g., helium) will be used at all soil vapor sampling locations to verify that adequate sampling techniques are being implemented (i.e. to verify the absence of significant infiltration of outside air), in accordance with

methodology specified in the NYSDOH's Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006/May 2017). Real-time sampling equipment will be used to verify the seal. If helium is detected at a concentration greater than 10%, the annular seal will be fixed, and traced gas performed again until less than 10% helium is detected. All proposed sampling locations are identified on Figures 6 & 7, attached herein.

The Site structure (including garage addition) is constructed of slab on grade. At each proposed sub-slab vapor monitoring location, vapor samples will be installed 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 described installation procedures will allow for future use of the sampling point, as needed. At the completion of sub-slab soil gas sampling procedures, a diagnostic test will be conducted to determine the current vacuum response for the active SSDS. The data will be collected from each of the six sub-slab vapor monitoring points with the use of a digital manometer to record negative pressure differentials below the slab. Remedial investigative data, along with SSDS diagnostic data, will be utilized to assess the effectiveness of the present system. All information collected during this monitoring event will be included in the Remedial Investigation Report (RIR) to follow at the completion of this investigation.

The proposed soil gas samples to be collected along the Site boundary will be collected by installing a soil boring to at least six feet below grade. For all sampling locations, sample tubing (0.188-inch inner diameter Teflon) will be inserted into the boring, which will be partially filled with clean well sand. The remaining aperture will be sealed off with a non-VOC containing material to prevent surface air from entering the system. Air in the Teflon tubing will be screened for VOCs prior to purging. The exact purge volume will be dependent on the boring depth and subsequent length of tubing. Three borehole and tubing volumes will be purged prior to collection. The purge rate will not exceed 0.2 liters per minute. If warranted, purge gas will be discharged outside of the building, via plastic tubing. Following purging of ambient air from the collection device, soil gas samples will be collected over a two-hour period (at a rate not exceeding 0.2 liters per minute) into individual laboratory-certified clean Summa canisters equipped with two-hour flow regulators.

The soil vapor samples will be submitted to a NYSDOH-approved laboratory for analysis of VOCs by EPA Method TO-15 with reporting to be submitted in an

EQuIS-ready format. 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 6 of this report.

Indoor and Outdoor Ambient Air Sampling and Analysis

A total of three indoor and one outdoor ambient air samples will be collected concurrently during the RI. The indoor monitoring points will be co-located with the sub slab soil vapor samples, while the outdoor ambient air sample will be collected from and upwind location on the property. The proposed sampling rationale is provided in the Analytical Methods/Quality Assurance Summary Table below, while Figures 6 - 7 display proposed sampling locations. Prior to the survey, a building chemical inventory screening will be performed to determine potential sources of VOCs in indoor air. Each sample will be collected at a height of 3-5 feet from the ground within the approximate breathing zone. Parameters including indoor and outdoor air temperature, wind direction and relative humidity will be noted during the sampling event. The 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 a two-hour sample duration time. Following sampling, the pressure of the SUMMA canisters will be recorded. A sample log sheet will be maintained summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, vacuum of canisters before and after the samples are collected, and chain of custody protocols.

The ambient air samples will be submitted to a NYSDOH-approved laboratory for analysis of VOCs by EPA Method TO-15 with reporting to be submitted in an EQuIS-ready format. 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 6 of this report.

Ground Water Well Installation, Sampling and Analysis

To further assess hydro-geologic conditions, two additional groundwater monitoring wells (denoted as MW-8 & MW-9 in Figure 6) will be installed into two of the proposed boring locations (SB-4 & SB-5) within the eastern quadrant of the Site at the completion of field activities. Each well will be constructed of one 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 four-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 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 in 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. 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 existing monitoring wells and will be analyzed for VOCs (USEPA Method 8260), SVOCs (USEPA Method 8270), Target analyte list (TAL) metals (USEPA Various Methods), pesticides (USEPA Method 8081), polychlorinated biphenyl's or PCBs (USEPA Method 8082), Per- And Polyfluoroalkyl Substances or PFAs (USEPA Method 537.1), cyanide, and 1, 4-dioxane. All analyses will be performed by NYSDEC Analytical Services Protocol (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 6 of this report.

Waste Handling

All investigation-derived waste (IDW) will be contained on-Site in a secure area for appropriate characterization and disposal by DTCS. 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, purged groundwater, and drilling 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.

6.0 QUALITY ASSURANCE PROJECT PLAN

As stated previously, the goals of this RI Work Plan are to verify subsurface soil, soil gas and groundwater impacts from the identified source area. 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 BCP RI element on-site. Project management/organizational responsibilities will be performed under the direction of Deborah J. Thompson.

6.1 Quality Assurance/Quality Control (QA/QC) Objectives

The NYSDEC Analytical Services Protocol (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 site investigation/remediation on the Subject Property. 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 New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) and U.S. Environmental Protection Agency (EPA) approved analytical methods.
- To ensure that a NYSDOH ELAP and NYSDOH ELAP CLP certified laboratory will conduct all soil/groundwater analyses.
- To ensure that all final site verification samples (Confirmatory samples) are reported with ASP Category B deliverables.

6.2 Analytical Methods/Quality Assurance Summary

- ✓ *Matrix type*:
 Soil, Soil Gas and Groundwater
- ✓ Number or frequency of samples to be collected per matrix: Variable, pending field conditions
- ✓ Number of field and trip blanks per matrix: Soil – 1, Groundwater – 1
- ✓ Analytical parameters to be measured per matrix:
 Soil/Groundwater VOCs, SVOCs, TAL Metals, Pesticides, PCBs, PFAs
 Soil Gas VOCs
- ✓ Analytical methods to be used per matrix:
 EPA Test Methods 8260, 8270, 6010/7470/7471, 8080, 8082 & 537.1

✓ The number/type of matrix spiked, duplicate and blank samples to be collected:

Dependent upon the total number of samples of each matrix to be analyzed but, there will be at least one split per soil and groundwater matrix.

Table 1 - Analytical Methods/Quality Assurance Summary

Matrix Type	No. of Samples	No of FBs/ TBs	Analytical Parameters	Analytical Method	Duplicate Frequency	Sample Container & Preservation (Per Sample)	Hold Time
Soil	8	1	VOCs, SVOCs, TAL Metals, pesticides, PCBs, PFAs, cyanide and 1, 4-dioxane.	8260, 8270 6010/7471, 8080, 8082, 537.1, 9014/9010C and 8270 SIM.	1	4 x 40ml/ DI, MeOH 4 x 4oz	7 days – 6 months. See chart below.
Soil Vapor	12	N/A	VOCs	TO-15	1	1 x Summa	7 days – 6 months. See chart below.
Groundwater	9	1	VOCs, SVOCs, TAL Metals, pesticides, PCBs, PFAs, cyanide and 1, 4-dioxane	8260, 8270 6010/7471, 8080, 8082, 537.1, 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. See chart below.

6.3 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 per 20 field samples. Duplicate samples will be collected by initially collecting twice as much material as is normally collected for a sample. After mixing, the material will be apportioned into two sets of containers.
- ✓ One equipment blank (rinsate) sample per 40 samples.

6.4 Field Sampling Procedures

Sampling/Analytical procedures are described in detail in the RI Work Plan 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 Containerization

Analysis	Bottle Type	Preservative	Holding Time				
Soil, Sediment, Solid Waste							
VOCs	40ml glass	DI	7 days (until extraction, 40				
		MeOH	days extracted)				
SVOCs	Wide mouth glass	None	7 days (until extraction, 40				
			days extracted)				
Metals ¹	Wide mouth glass	None	6 months				
			Cyanide: 12 days				
			Mercury: 28 days				
Pesticides	Wide mouth glass	None	7 days (until extraction, 40				
			days extracted)				
PCBs	Wide mouth glass	None	7 days (until extraction, 40				
			days extracted)				
PFAs	250ml PP ²	None	14 days				
Soil Gas							
VOCs GC/MS (TO-15)	1L Summa	None	7 days (until extraction, 40				
	Canister		days extracted)				
Groundwater Samples							
VOCs	40 ml with	HCl	14 days				
	septum cap						
SVOCs	1 L glass	None	7 days (until extraction, 40				
			days extracted)				
Metals ¹	1 L plastic	Nitric acid to	6 months				
		pH <2	Mercury, 26 days				
Pesticides	Wide mouth glass	None	7 days (until extraction, 40				
			days extracted)				
PCBs	Wide mouth glass	None	7 days (until extraction, 40				
			days extracted)				
PFAs	125ml PP	None	14 days				

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.

- (1) Metals referred to the 24 metals and cyanide in the Target Analyte List, Methods 6010/7470/7471
- (2) PP is Polypropylene

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 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.

6.5 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 analyses of solid and hazardous waste. DTCS has contracted with York Analytical Laboratories, Inc. located in Stratford, CT to perform laboratory services for this Work Plan.

6.6 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.

All analytical results will be submitted to the NYSDEC in the most recent version of the EQuIS electronic data deliverable (EDD) format. Raw analytical data will also be provided to the NYSDEC in electronic format.

6.7 Data Usability Summary Report

As part of this Remedial Investigation Work Plan, a Data Usability Summary Report or DUSR will be prepared to summarize the soil and groundwater sampling and analytical results for the 520 Albany Avenue 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.

7.0 HUMAN HEALTH EXPOSURE ASSESSMENT

Site data will be evaluated to determine whether human receptors, both on and off site are potentially exposed. The purpose of the exposure assessment will be to qualitatively determine the route, intensity, frequency, and duration of actual or potential exposures of human to site-related chemicals. The assessment will also describe the nature and size of the population potentially exposed to the contaminants.

Laboratory analytical reporting on soil and groundwater will be compared to applicable health-based screening criteria:

Soil

Soil analytical results will be compared to NYSDEC's Subpart 375-6: Remedial Program Unrestricted Soil Cleanup Objectives.

• Soil Gas

Soil gas analytical results will be compared to NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York.

• **Groundwater**

Groundwater analytical results will be compared to NYSDEC Guidance Values as referenced in Technical Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998 for class GA groundwater.

The comparison of analytical result to the applicable screening values will be utilized to tentatively identify contaminants of potential concern.

8.0 FISH AND WILDLIFE EXPOSURE ASSESSMENT

A Fish and Wildlife Resource Evaluation (FWRIA) will be completed to provide an initial screening of potentially affected fish and wildlife resources in connection with the site. The first step of the FWRIA process, resource characterization, will be completed as part of the site investigation scope. Resource characterization includes the following basic steps:

- Identify fish and wildlife resources for the area within a one-half mile radius of the site, based on NYSDEC records and knowledge of the site area.
- Identify contaminant migration patterns that may potentially expose fish and wildlife resource to site-related contaminants.
- Identify specific contaminants of ecological concern.
- Draw conclusions regarding potential adverse effects.

The findings of the initial FWRIA phase will be employed to determine whether it is likely that the commercial site has a negative effect on local wildlife and related habitats.

9.0 REMEDIAL INVESTIGATION REPORT

Following the completion of the proposed sampling, analysis and data evaluation, a Remedial Investigation Report will be prepared and will present the findings of the investigation. The following information will be included in the RI Report.

- 1. A narrative discussion of methods and results. Work completed under the approved RI Work Plan will be described, including the methods employed for sample collection and laboratory analysis.
- 2. Sources of contamination. Specific contaminant sources will be identified based upon existing data from prior site investigations. This final remedial investigation will further refine the delineation of identified source areas by additional assessment of site soils and groundwater. Analytical results from soil and groundwater sampling locations will further define the migrations pathways for petroleum and chlorinated compounds previously detected. Maps displaying soil and groundwater analytical results, with text boxes depicting contaminant concentrations at each monitoring point will be produced as part of this report.
- 3. Hydrogeologic Data. Hydrogeologic factors and their influence on the migration and distribution of contaminants will be discussed. Supporting data including soil boring logs with stratigraphic descriptions of the soil column at each boring location from the RI and prior investigations, groundwater monitoring well installation logs and contour maps will be prepared for the inclusion in the final RI Report.
- 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. Human Health Exposure Assessment. An assessment of potential exposure scenarios will be presented in the context of the site's existing and future contemplated use. Exposure scenarios will be addressed both on and off-site in the assessment.
- 6. Fish and Wildlife Resources. Area fish and wildlife resources will be identified and the overall habitat value for the site will be discussed. The site's affect on the overall habitat value for the area based on current conditions and the future anticipated use will be included the resource assessment.
- 7. Conclusions/Recommendations. The results of the RI will be summarized and will identify source areas and potential exposure pathways in relation to human and environmental receptors. A Remedial Alternative Analysis

Report will be submitted along with the RI Report which will evaluate appropriate remedial options, if any are necessary, based upon the RI results.

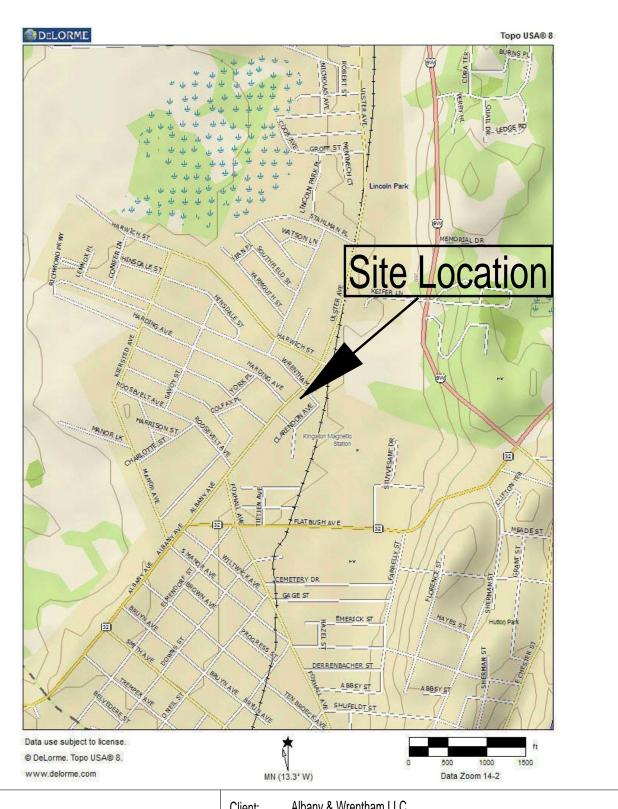
- 8. Supporting Information. To support the site data collected during the implementation of the RI Work Plan, the following items will be appended to the RI Report:
 - Site photographs
 - Soil boring logs
 - Site maps, including groundwater contour map and text box figures depicting analytical results
 - Laboratory analysis

10.0 PROJECT SCHEDULE

The RI sampling and analysis program proposed herein will be implemented following NYSDEC and NYSDOH approval. RI field sampling work will be scheduled to begin within thirty days of approval. Specific public participation milestones are denoted in a separate Citizens Participation Plan. DTCS estimates that the field work will require three days to complete, and laboratory analysis within two weeks of the conclusion of field work on-Site. The RI Report and Remedial Action Work Plan will be submitted for NYSDEC and NYSDOH review and approval within ninety days of work plan approval.

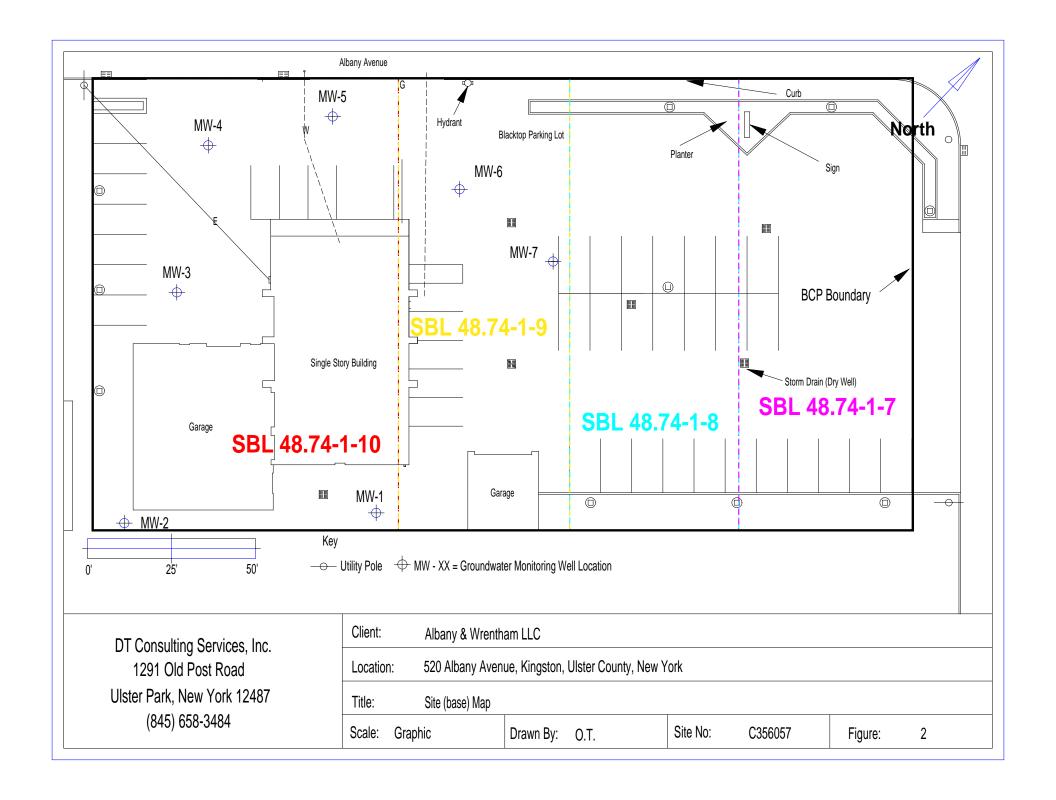


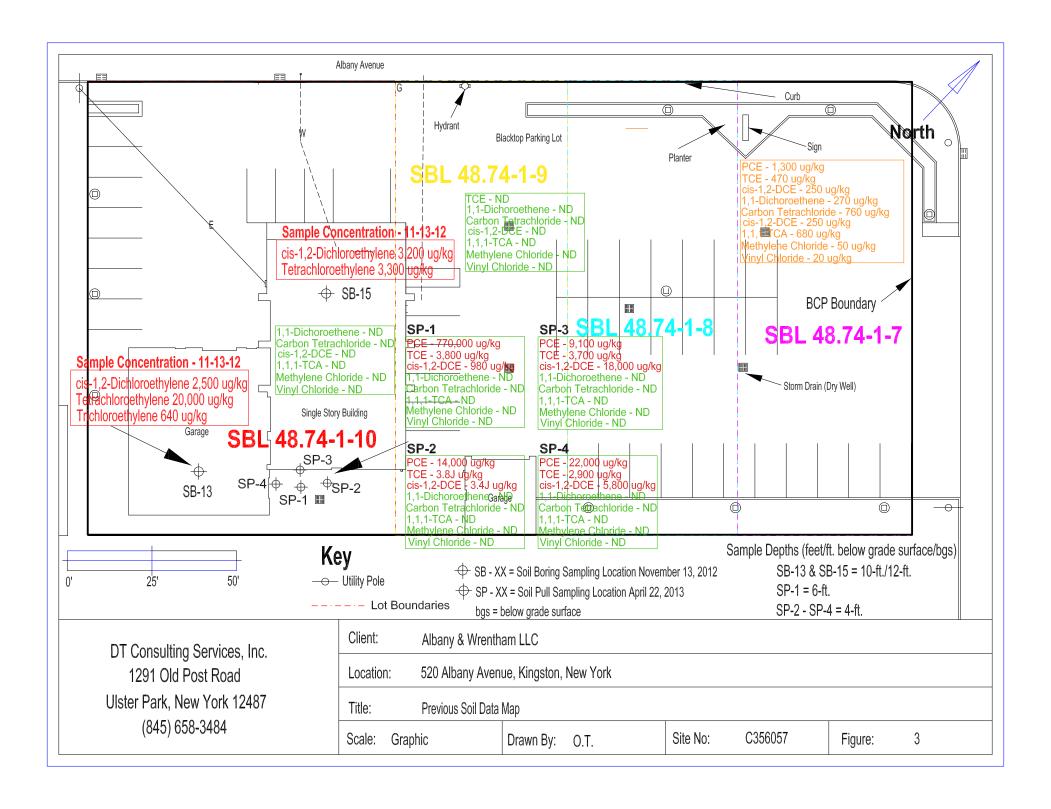
FIGURES

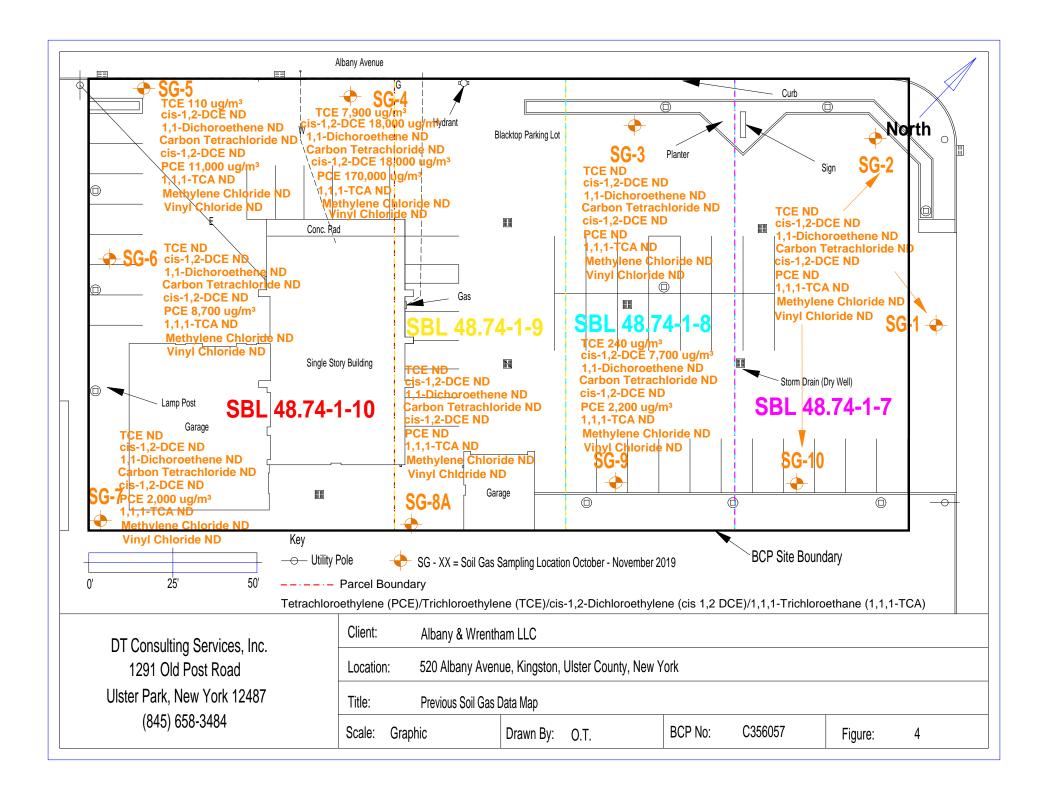


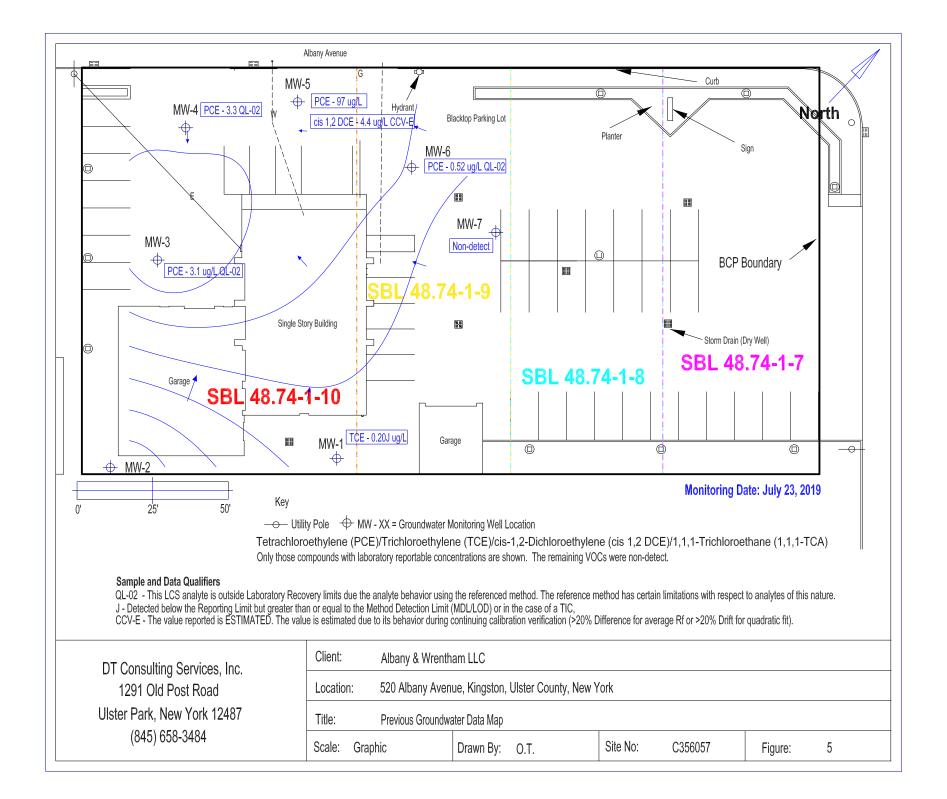
DT Consulting Services, Inc. 1291 Old Post Road Ulster Park, New York 12487 (845) 658-3484

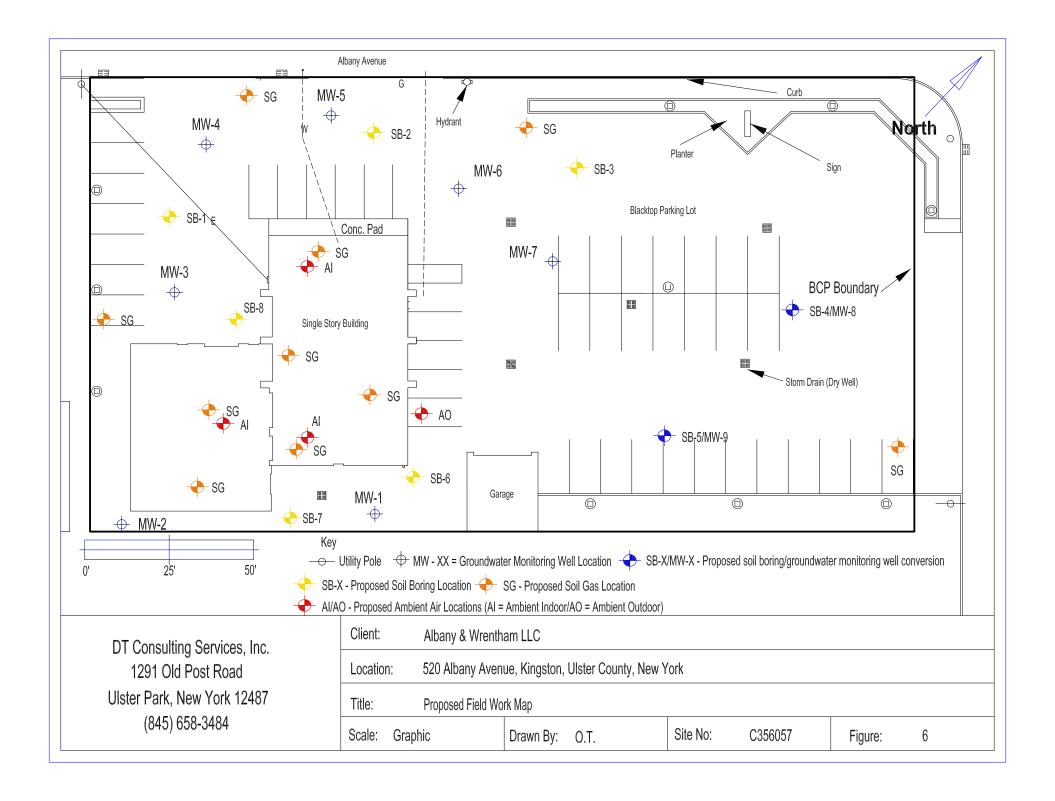
Client:	Albany & Wrentham						
Location:	520 Albany Avenue, Kingston, Ulster County, New York						
Title:	Site Location Map			Site No:	C356057		
Scale: Gr	aphic	Drawn By:	O.T.	Fig.#:	1		

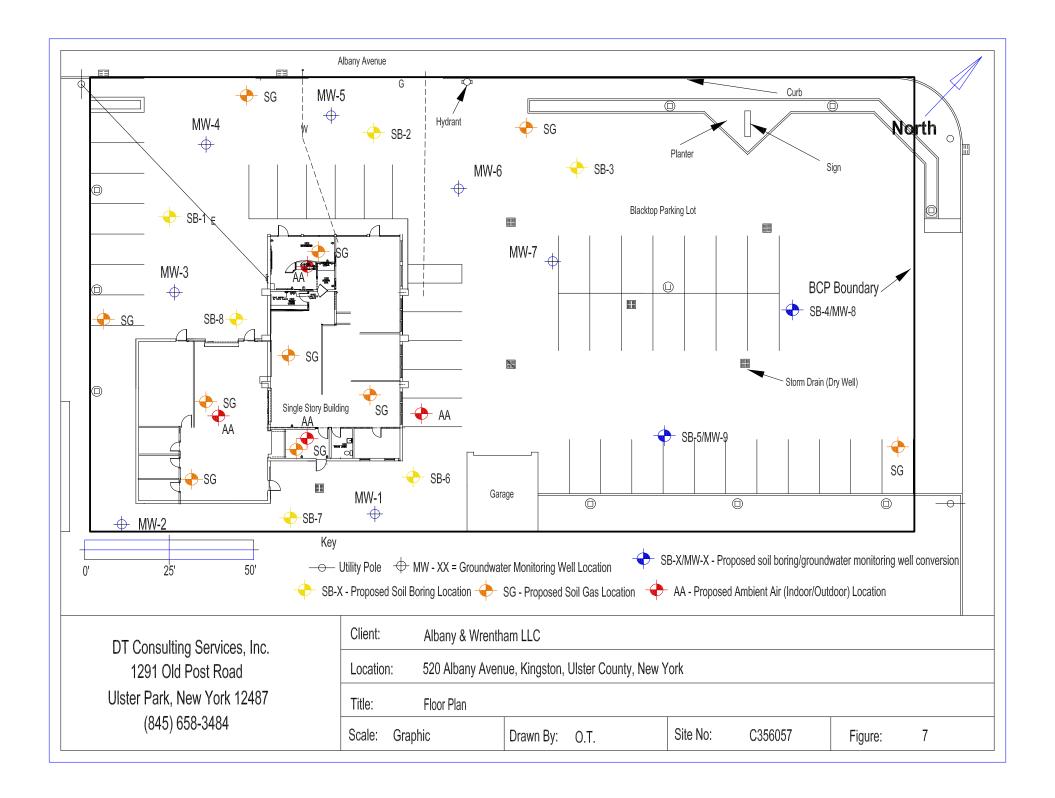














TABLES

Site: Fast Signs

520 Albany Avenue

Kingston, Ulster County, New York

Client: Albany Wrentham LLC
Contractor: DT Consulting Services, Inc.

NYSDEC SPILL NO. 12-15279

Sample Location		SB-1/MW-1	SB-2/MW-2	SB-3/MW-3	SB-4/MW-4	SB-5/MW-5	SB-6/MW-6	SB-7/MW-7
Sample Number		1	2	3	4	5	6	7
Date Collected		7/22/2019	7/22/2019	7/22/2019	7/22/2019	7/22/2019	7/22/2019	7/22/2019
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil
Analytical Method		8260	8260	8260	8260	8260	8260	8260
	Unrestricted Use							
Compound	Soil Cleanup	Sample Conc.	Sample Conc					
	Objectives							
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethlene	270	ND	ND	ND	ND	ND	ND	ND
1,1-Dicloroethylene	330	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3,600	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND	ND	ND	ND	ND	ND
2-Butanone	NS	5.2 J,B	4.9 J,B	4.2 J,B	6.1 J,B	6.8 J,B	6.4 J,B	ND
Chloroform	370	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	250	ND	ND	ND	ND	8.7	ND	ND
Methylene chloride	50	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12,000	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	ND	ND	ND	ND	ND	ND	ND
o-Xylene	260	ND	ND	ND	ND	ND	ND	ND
p- & m-Xylenes	260	ND	ND	ND	ND	ND	ND	ND
p-Ethyltoluene	NS	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	1300	14	ND	66	15	33	ND	ND
Toluene	700	ND	ND	ND	ND	ND	17	ND
trans-1,2-Dichloroethylene	NS	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	470	ND	ND	ND	ND	ND	ND	ND
Vinal chloride	20	ND	ND	ND	ND	ND	ND	ND

Notes:

- 1. Soil results are recorded in micrograms-per-kilogram (µg/kg) or ppb.
- 2. ND = Undetected.
 - J = Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
 - B = Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.
- 3. The presented soil guidance values were adopted from NYSDEC 6 NYCRR Part 375, Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives, December 2006.
- 4. Those compounds which exceeded groundwater quality standards are represented in bold and underlyined as such: 100.
- 5. Only those compounds with laboratory reportable compounds are presented in this chart. The remaining parameters within the EPA Test Method 8260 were returned non-detected.

Site: Fast Signs

520 Albany Avenue

Kingston, Ulster County, New York

Client: Albany Wrentham LLC
Contractor: DT Consulting Services, Inc.

NYSDEC SPILL NO. 12-15279

Sample Location		SB-1/MW-1	SB-2/MW-2	SB-3/MW-3	SB-4/MW-4	SB-5/MW-5	SB-6/MW-6	SB-7/MW-7
Sample Number		1	2	3	4	5	6	7
Date Collected		7/23/2019	7/23/2019	7/23/2019	7/23/2019	7/23/2019	7/23/2019	7/23/2019
Matrix		Groundwater						
Analytical Method		8260	8260	8260	8260	8260	8260	8260
	TOGS-Class GA							
Compound	Standard	Sample Conc.						
1,1,1-Trichloroethane	5	ND						
1,1-Dichloroethlene	5	ND						
1,1-Dicloroethylene	5	ND						
1,2,4-Trimethylbenzene	5	ND	ND	ND	1.3	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	1	ND	ND	ND
Chloroform	7	ND	ND	ND	0.33J	ND	ND	ND
cis-1,2-Dichloroethylene	5	ND	ND	ND	ND	4.4 CCV-E	ND	ND
Methylene chloride	5	ND						
Naphthalene	10	ND						
n-Propylbenzene	5	ND						
o-Xylene	5	ND	ND	ND	0.48J	ND	ND	ND
p- & m-Xylenes	5	ND	ND	ND	0.69J	ND	ND	ND
p-Ethyltoluene	NS	ND	ND	ND	0.65	ND	ND	ND
Tetrachloroethylene	5	ND	ND	3.1 QL-02	3.3 QL-02	97 QL-02	0.52 QL-02	ND
Toluene	5	ND						
trans-1,2-Dichloroethylene	5	ND						
Trichloroethylene	5	0.20J	ND	ND	ND	5	ND	ND
Vinal chloride	2	ND						

Notes:

- 1. Groundwater results are recorded in micrograms-per-liter (µg/L) or ppb.
- 2. ND = Undetected. QL-02 = This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations method has certain limitations with respect to analytes of this nature. J = Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration. NS = No published standard. CCV-E = The value reported is ESTIMATED.
- 3. The presented guidance values were adopted from the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1., Class GA, December 2006.
- 4. Those compounds which exceeded groundwater quality standards are represented in bold and underlyined as such: 100.
- 5. Only those compounds with laboratory reportable compounds are presented in this chart. The remaining parameters within the EPA Test Method 8260 were returned non-detected.

TABLE 2:

Address: 520 Albany Avenue

Kingston, Ulster County, New York

SUMMARY OF TO-15 VOLATILE DETECTIONS IN SOIL GAS SUMMARY

Page 1 of 1

Client Name: Albany Wrentham, LLC Address: 520 Albany Avenue

Kingston, New York 12402 Contact Name: Todd Fitzgerald

Contractor: DT CONSULTING SERVICES, INC.
Laboratory: York Analytical Laboratories, Inc.
Stratford, CT 06615

Sample ID:	SG-1	SG-2	SG-3	SG-4	SG-5	SG-6	SG-7	SG-8A	SG-9	SG-10
Location:	Soil Gas									
Depth (ft.):	8-ft. BGS									
Date:	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	11/15/2019	10/17/2019	10/17/2019
Lab Sample ID:	19J0852-01	19J0852-02	19J0852-03	19J0852-04	19J0852-05	19J0852-06	19J0852-07	19K0712-01	19J0852-09	19J0852-10
Units:	μg/m³									
Analysis: EPA Method TO-15 Volatiles in Air	F5	F3****	r5		ry	F3····	rg	F5	r5	
1,1,1-Trichloroethane	5.8	9.2	1.4	ND						
1,1-Dichloroethylene	ND	ND	ND	270	ND	ND	ND	ND	41	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	49.0	ND	ND	ND
1,2,4-Trimethylbenzene	27	30	28	30	32	27	27	15	32	26
1,2-Dichloroethane	ND	3.6	ND							
1,3,5-Trimethylbenzene	8.8	8.8	9	8.9	10	8.9	7.7	4.3	24	7.7
1,3-Butadiene	6	29	5.1	9.8	ND	11	29	ND	22	2.6
2-Butanone	32	32	26	ND	11	13	18	2.6	24	9
2-Hexanone	ND	5.9	ND	ND						
Acetone	100	100	93	46	57	53	82	16	110	39
Benzene	15	32	7.3	17	7.6	8.9	14	2.2	14	5
Bromodichloromethane	ND	ND	ND	ND	ND	ND	11	ND	ND	ND
Carbon disulfide	6.5	36	4.7	5.2	14	8.2	13	10	7.8	3.2
Carbon tetrachloride	ND	0.34	ND	ND						
Chloroform	0.93	4.6	1.4	770	7.3	ND	ND	ND	ND	1.1
Chloromethane	0.57	ND	0.38	ND	ND	ND	ND	1.4	ND	ND
cis-1,2-Dichloroethylene	ND	ND	ND	18,000	25	2	1.4	0.75	7,700	4.1
Cyclohexane	29	35	28	46	27	21	24	2.1	25	16
Dichlorodifluoromethane	1.6	ND	1.8	ND	ND	ND	1300	2.1	ND	ND
Ethyl acetate	ND	5.4	ND	ND						
Ethyl Benzene	20	21	22	20	21	21	19	3.3	39	ND
Isopropanol	3.4	ND	2.6	ND	ND	ND	ND	3.9	ND	ND
Methylene chloride	7.6	7.2	ND	ND	ND	41	19	ND	ND	63
n-Heptane	11	8.3	8.6	ND	ND	ND	ND	1.6	ND	6.3
n-Hexane	11	30	8.4	10	6.8	9.8	18	1.4	16	7.1
o-Xylene	22	25	24	24	24	24	21	7.1	200	20
p-&m- Xylenes	53	64	57	63	65	63	56	14	180.0	47
p-Ethyltoluene	28	31	30	28	30	27	26	12	53	25
Propylene	49	320	39	22	33	86	400	ND	200	15
Styrene	1.8	ND	1.9	ND	ND	ND	ND	ND	7.8	1.5
Tetrachloroethylene	210	62	770	170,000	11,000	8,700	2,000	57	2,200	23
Tetrahydrofuran	ND	3.9	ND	ND						
Toluene	65	76	61	47	48	51	63	5.6	60	50
trans-1,2-Dichloroethylene	ND	ND	ND	160	ND	ND	ND	ND	31	ND
Trichloroethylene	2.3	7.2	4.6	7,900	110	23	ND	0.65	240	3.1
Trichlorofluoromethane	3	ND	2.1	ND	ND	ND	ND	1.4	ND	2.6
Vinyl acetate	ND	0.86	ND	ND						
Vinyl Chloride	ND	ND	ND	3.1	ND	ND	ND	ND	3.8	ND

Notes:

- 1. There is no current regulatory standard for general soil vapor.
- 2. ND = Non-detect
- 3. NS = No Matrix Standard has been established for this compound.
- 4. Due to a Summa Canister malfunction, soil vapor point denoted as SG-8 was reinstalled on November 15, 2019 and listed as SG-8A for vapor collection and analysis.
- 5. Only compounds with detections are shown on this table.

ATTACHMENTS



ATTACHMENT A - HASP

Environmental Services Health & Safety Plan

Job Name: Albany & Wrentham LLC/C356057

- 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

- 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

Attachment A: Community Air Monitoring Plan (CAMP)

Attachment B: COVID Safety Standards

1.0 INTRODUCTION

DT Consulting Services, Inc. (DTCS) has 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 remedial investigation procedures including the advancement and sampling of soil cores, coring for soil gas sampling, along with the monitoring of groundwater wells.

2.0 ORGANIZATIONAL STRUCTURE

2.1 SAFETY AND HEALTH MANAGER

It is the responsibility of the safety and health manager to develop the 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 utilizes four levels of protection as set forth in the OSHA guidelines, Appendix B of 1910.120.

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

4.0 WORK ZONES

DTCS utilizes the standard three-zone approach to Site control. These zones are the exclusion zone, the contamination reduction zone and the support zone. 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 it 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 area furthest 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.

5.0 AIR MONITORING

While conducting Remedial Investigative activities, a Site-specific Community Air Monitoring Plan (CAMP) will be utilized by field personnel. 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. A copy of the CAMP has been placed in Attachment A of this HASP.

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

The following hand signals shall be standardized for use in emergencies and in 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, 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.

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 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 outline 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 vent 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.

- All employees will follow the COVID-19 Safety Standards protocol as outlined in Attachment B
- The buddy system will be utilized at all times.
- There will be no eating, drinking, smoking, or use of smoking material (i.e. matches) within the work area(s).
- 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.

10.0 SITE SPECIFIC PLAN

10.1 DETAILED SITE INFORMATION

- Plan Date TBA

- **Job Name** Albany & Wrentham LLC

- Client Albany & Wrentham LLC

- Client Contact/Phone No. Todd Fitzgerald – (845)331-3141

- **Site Address** Albany & Wrentham LLC

520 Albany Avenue

Kingston, New York 12401

- **Cross Street** Wrentham Avenue

- 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				
Volatile Organics					
Trichloroethene (TCE)	Eye, skin and respiratory irritation.				
Tetrachloroethene (PCE)	Nausea, vomiting, headache				
Cis-1,2-Dichloroethylene	Skin irritation, gastrointestinal or				
	respiratory tract irritation.				

Action Levels

Action levels shall be determined by monitoring of work zone breathing space with a portable Photoionization detector (PID) or comparable instrument. Measurement of a sustained concentration above ambient (background) conditions shall initiate action. The following criteria shall be used to determine appropriate action:

VOCs in Breathing Zone (sustained and above background)	Level of Respiratory Protection
0 – 5 ppm	Level D
5 – 200 ppm	Level C
200 – 1000 ppm	Level B - air line
1000+ ppm	Level B - SCBA

If the above criteria indicate the need to increase from Level D to a higher level of personal protection, all work in that particular Site area will be immediately suspended until the required protective equipment is make available, or until Level D conditions return.

10.3 EMERGENCY INFORMATION

10.3.1 EMERGENCY RESPONDERS

10.3.1.1 HOSPITAL

Name: Kingston Hospital

Address & Telephone Number:

396 Broadway, Kingston, NY 12401 (845) 331-3131

Distance from Site: 1.40 Miles

10.3.1.2 EMERGENCY TELEPHONE NUMBERS

Police911 on Cellular PhoneFire911 on Cellular PhoneAmbulance911 on Cellular Phone

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:

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 RI Work Plan

10.8 PERSONAL PROTECTIVE EQUIPMENT

10.8.1 **EXCLUSION ZONE, PROTECTION LEVEL**

PROTECTIVE EQUIPMENT: Level D RESPIRATORY None

HANDS Nitrile or Leather **FEET Steel Toed Boots**

SUIT None

10.8.2 CONTAMINATION REDUCTION CORRIDOR (DECON LINE)

PROTECTIVE EQUIPMENT: Level D **RESPIRATORY** None

HANDS Nitrile or Leather

FEET Steel Toed SUIT None

10.9 DECONTAMINATION

10.9.1 DECONTAMINATION PROCEDURE

STATION 1 SOAPY WATER

STATION 2 WATER

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 Remedial Investigation Work Plan (RIWP) which includes soil, soil gas and groundwater sampling to further characterize the extent of historical contamination identified on-Site under the BCP. Upon completion of field work, a Remedial Action Plan or RAP will be generated to address documented contamination.

ATTACHMENTS



HASP - ATTACHMENT A

Community Air Monitoring Plan

Job Name/Site Number: Albany & Wrentham LLC/ C356057

TABLE OF CONTENTS

1.0	INTRODUCTION	2		
1.2	CAMP Objectives Revisions to the CAMP Potential Air Emissions Related to Investigative Activities			
2.0	CAMP	4-6		
2.2 2.3 2.4 2.5	Selection of Monitoring Locations VOC Monitoring Total Particulates Monitoring Periodic Monitoring for Odors Action Levels Action Levels for Organic Vapors Action Levels for PM ₁₀ Instrument Calibration	4 4 4 5 5 5 6 7		
3.0 3.1 3.2	MONITORING SCHEDULE/DATA COLLECTION/REPORTING Monitoring Schedule Data Collection and Reporting	7- 9 7 7		
	<u>FIGURES</u>			
Site	e Base Map	1		
	<u>ATTACHMENTS</u>			
DE	R-10	A		

1.0 INTRODUCTION

This Community Air Monitoring Plan (CAMP) has been prepared by DT Consulting Services, Inc. (DTCS) to support the implementation of Remedial Investigation activities associated with the Subject Property located at 520 Albany Avenue, Kingston, Ulster County, New York. A Site Plan is provided as Figure 1. Details related to the investigative activities are presented in the Remedial Investigative Work Plan (RIWP), to which this CAMP is included as an attachment and as a supporting plan. 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. This CAMP identifies the required air monitoring to protect 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 RIWP, 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 SC/IRM actions to be completed by DTCS. DTCS 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

Intrusive investigation 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:

- ✓ Installation of soil borings or groundwater monitoring wells;
- ✓ Sampling of soils and groundwater; and
- ✓ Soil vapor/soil gas sampling.

2.0 COMMUNITY AIR MONITORING PLAN

Real-time air monitoring for VOCs and particulate 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 installation and sampling of soil borings, monitoring wells and/or soil gas sampling. In addition, during work hours, hourly or more frequent monitoring for Site-related odors at the perimeter of the work area will be performed.

Periodic monitoring for VOCs will be performed during non-intrusive activities such as the collection of soil samples, the collection of groundwater samples from Site monitoring wells and/or soil gas sampling. Periodic monitoring during sample collection, for instance, will 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. Depending upon the proximity of potentially exposed individuals, continuous monitoring may be performed during sampling activities. 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_{10} 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 PM₁₀ 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 PM₁₀ will also be selected. Another downwind monitoring location (regardless of wind direction) will be used to monitor for both VOCs and PM₁₀ at the closest sensitive receptor (i.e., nearest occupied building [NOB]), determined at the date of investigative activities. 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 (RAE MultiRae 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 investigative 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 the real-time PM₁₀ monitoring during the SC/IRM 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 Siterelated odors. Perimeter checks will be performed more frequently, as necessary, depending on the nature and location of 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. 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 reevaluated. 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.

2.5 Action Levels

The action levels provided below are to be used to initiate corrective actions, if necessary, based upon the real-time monitoring. If the action levels are exceeded at the perimeter locations for VOCs or PM₁₀, 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

If the ambient air concentration of total VOCs at the downwind perimeter of the work area, Exclusion Zone, or opposite the nearest occupied building exceeds 5 parts per million (ppm) above the background (upwind) concentration for the 15-minute average, work activities will be temporarily halted while monitoring continues. If total VOC concentration readily decreases (through observation of instantaneous readings) below 5 ppm above the background concentration, work activities will resume with continued monitoring.

CAMP Albany & Wrentham LLC Site #: C356057 If the ambient air concentration of total VOCs at the downwind perimeter of the work area, Exclusion Zone, or opposite the nearest occupied building persists at levels in excess of 5 ppm but less than 25 ppm above the background (upwind) concentration: (1) work activities will be halted; (2) the source of the elevated total VOC concentration will be identified; (3) corrective actions will be implemented to reduce or abate the emissions; and (4) air monitoring will be continued. Once these activities have been implemented, work activities will resume provided the following two conditions are met:

- The 15-minute average VOC concentrations remain below 5 ppm above background (upwind); and
- The total VOC concentration 200 feet downwind of the work area/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 the background (upwind) concentration for the 15-minute average.

If the ambient air concentration of total VOCs at the downwind perimeter of the work area, Exclusion Zone, or opposite the nearest occupied building exceeds 25 ppm above the background (upwind) concentration, work activities will stop, and corrective actions will be implemented to reduce or abate the emissions. When work shutdown occurs, as directed by the Environmental Monitor, corrective actions will be implemented to ensure that vapor emission does not impact the nearest occupied structure at levels exceeding the action levels specified herein. If following work shutdown, or as the result of an emergency, VOC concentrations persist above 5 ppm above background (upwind) 200 feet downwind (or half the distance to the nearest occupied structure), then air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20-foot zone).

Action Levels for PM₁₀

If the ambient air concentration of PM_{10} at the downwind perimeter of the work area or nearest occupied building exceeds 100 micrograms per cubic meter ($\mu g/m^3$) above the background (upwind) concentration, or if airborne dust is observed leaving the work area, dust suppression techniques will be employed. Work will continue with dust suppression techniques provided the

downwind PM_{10} concentration does not exceed 150 $\mu g/m^3$ above the background (upwind) concentration. If, after implementation of dust suppression techniques, the downwind PM_{10} concentration is greater than 150 $\mu g/m^3$ above the background (upwind) concentration, work will be stopped while activities are re-evaluated. Work will resume provided the dust suppression techniques and other controls are successful in: (1) reducing the downwind PM_{10} concentration to less than 150 $\mu g/m^3$ above the background (upwind) concentration; and (2) preventing visible dust from leaving the work area.

2.6 Instrument Calibration

Calibration of the VOC and PM₁₀, instrumentation will be conducted in accordance with each of the equipment manufacturer's calibration and quality assurance requirements. The VOC and PM₁₀ 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 PM₁₀ 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

CAMP Albany & Wrentham LLC Site #: C356057 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 graphs of the 15-minute time-weighted average VOC and particulate concentrations recorded at each of the sampling stations (one graph for each station showing the results relative to action levels).

In the event that an exceedance of a community air monitoring action level (for either PM_{10} 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:

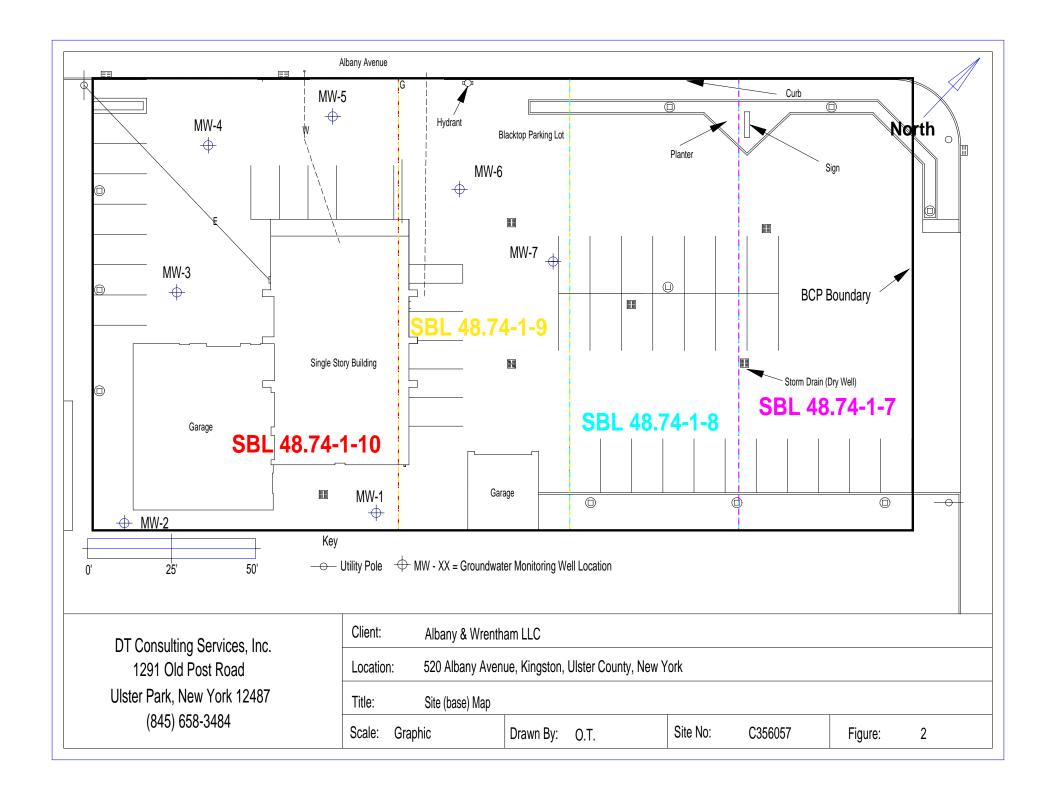
- Date and time of complaint;
- Location and nature of work activities being performed at the Site;
- Location and nature of non-project-related work activities being performed in the surrounding community; and
- Prevailing wind direction and other local meteorological conditions.

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



ATTACHMENTS



ATTACHMENT A

APPENDIX A

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

APPENDIX 1A OF DER-10

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 <u>ground intrusive</u> 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 <u>non-intrusive</u> 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

Final DER-10 Page 204 of 226

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.

Final DER-10 Page 205 of 226

- 1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m³) 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 mcg/m³ 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 mcg/m³ 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 mcg/m³ 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

Final DER-10 Page 206 of 226

APPENDIX 1B OF DER-10

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:

- Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.
- 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.
- Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:
 - (a) Objects to be measured: Dust, mists or aerosols;
 - (b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
- (c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 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/m3, 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;
- 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.
- In order to ensure the validity of the fugitive dust measurements performed, there must be 4. 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.
 - The action level will be established at 150 ug/m3 (15 minutes average). While conservative, 5.

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/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 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/m3 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 PM10 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 potentialsuch as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.
- 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/m3 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.

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.

Final DER-10 Page 208 of 226 May 2010



HASP - ATTACHMENT B

<u>Summary of Sector Specific Workplace Safety Standards to Address</u> **COVID-19**

DT Consulting Services, Inc. (DTCS)

Standards that Apply to All Workers while performing Fieldwork or Remediation Activities

- 1. There will be zero tolerance for sick workers reporting to work. If you are sick, stay home! If you feel sick, go home! If you see someone sick, send them home!
- 2. Staff must self-screen for COVID symptoms prior to reporting to a construction/remediation site.
 - a. Symptoms (per CDC on June 3, 2020) include:
 - i. Fever or chills
 - ii. Cough
 - iii. Shortness of breath or difficulty breathing
 - iv. Fatigue
 - v. Muscle or body aches
 - vi. Headache
 - vii. New loss of taste or smell
 - viii. Sore throat
 - ix. Congestion or runny nose
 - x. Nausea or vomiting
 - xi. Diarrhea
- 3. Prior to starting a shift/arriving at the site, each employee will self-screen to ensure that they:
 - Have no signs of a fever or a measured temperature above 100.3 degrees or greater, a cough or trouble breathing within the past 24 hours
 - b. Have not had "close contact" with an individual diagnosed with COVID-19. "Close contact" means living in the same household as a person who has tested positive for COVID-19, caring for a person who has tested positive for COVID-19, being within 6 feet of a person who has tested positive for COVID-19 for about 15 minutes, or coming in direct contact with secretions (e.g., sharing utensils, being coughed on) from a person who has tested positive for COVID-19, while that person was symptomatic.
 - c. Have not been asked to self-isolate or quarantine by their doctor or a local public health official.

- d. Employees exhibiting symptoms or unable to self-certify should leave the work site and seek medical attention and applicable testing by their health care provider. They are not to return to the work site until cleared by a medical professional.
- 4. Document self-screening of DTCS staff in the daily field notes a brief documentation of COVID screening.
 - For example: "Employee Name performed COVID self-screening in compliance with DTCS current employee guidance before arriving at the site.
 - 5. Sub-contractors working directly with DTCS must provide their own COVID screening protocols ahead of arriving onsite or if screening protocols are not in place, any sub-contractors must self-screen and inform DTCS management of that screening prior to arriving on site.
 - a. Document self-screening of sub-contractor in the daily field notes a brief documentation of COVID screening.
 - i. For example: "Sub-contractor Name performed COVID self-screening before arriving at the site.

6. General Onsite Protocols:

- a. No handshaking
- b. It is recommended to wear a facemask when representing the company at all times on a "site". It is required to wear a facemask when:
 - i. social distancing (6 feet) can-not be maintained
 - ii. indoors
 - iii. in a "public space"
 - iv. working or interacting with the "public"
 - v. indicated it is required by the client or a contractor
- c. Must implement social distancing by maintaining a minimum distance of 6-feet from other individuals
- d. Avoid face to face meetings critical situations requiring in-person discussion must follow social distancing
- e. Conduct all meetings via conference calls, if possible. Do not convene meetings of more than 10 people. Recommend use of cell phones, texting, web meeting sites and conference calls for project discussion
- f. Cover coughing or sneezing with a tissue, then throw the tissue in the

trash and wash hands, if no tissue is available then cough into your elbow

- g. Avoid touching eyes, nose, and mouth with your hands
- h. If you or a family member is feeli5ng ill, stay home!

DTCS Led Investigative/Remedial Activities

- 1. Assign a site-specific COVID-19 Officer (this person may also be the Health and Safety Officer)
- 2. PPE
 - a. Hand sanitizer will be available onsite if soap/water/paper towels are not available.
 - i. Frequent use of handwashing or alcohol-based hand sanitizers should be encouraged
 - b. Gloves should be available and used at all times.
 - c. Eye protection is recommended as applicable
 - d. Facemasks
 - Facemasks must be worn at all times during indoor activities by DTCS staff and subcontractors
 - ii. Facemasks must be worn at all times by DTCS staff and subcontractors when social distancing cannot be ensured (less than 6' of distance)
 - iii. Facemasks must be worn in "public places" per guidance from the New York State Department of Health; the project manager will determine ahead of time if a site is considered a "public place".
 - iv. Facemasks must be available on the employee or subcontractor's person during all other site related activities but are not required to be worn if social distancing (6') is maintained, activities are outdoors, not located in a "public place" or as otherwise required by a contractor or client.
 - e. Any trash generated during the day's site activities should be removed from the site by DTCS staff or disposed of in a trash receptacle designated as acceptable by the client.

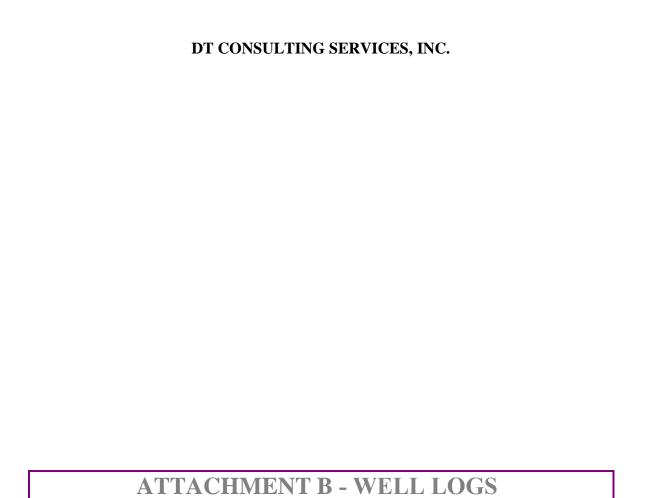
3. "Social" Distancing

- a. All individual work crew meetings / tailgate talks should be held outside and follow social distancing
- Recommend use of cell phones, texting, web meeting sites and conference calls for project discussion
- c. In instances where it is possible, workers should maintain separation of 6 feet from each other per CDC guidelines
- d. Multi person activities will be limited where feasible
- e. In work conditions where required social distancing is impossible to achieve, employees shall be supplied PPE including, as appropriate, a standard face mask, gloves, and eye protection. Be sure to use your own water bottle, and do not share
- f. Please maintain Social Distancing separation during breaks and lunch

Protocol if COVID Positive or COVID Symptoms are Discovered

- DTCS shall direct workers with COVID-19 related symptoms to leave the site immediately and contact their healthcare provider. The local board of health will make appropriate notifications to those who had direct prolonged contact with the COVID-19 positive workers. DTCS shall work with the local board of health to identify any potential job site exposures, including:
 - a. Other workers, vendors, inspectors, or visitors to the work site with close contact to the individual
 - b. Work areas
 - c. Work tools and equipment
 - d. Common areas such as tables and sanitary facilities
- 2. Upon learning of an infection, DTCS staff and/or subcontractors must immediately notify the designated COVID-19 safety officer and the owner
 - a. Keep all employee names confidential as required by law
- After a worker with COVID-19 related symptoms has been asked to leave the
 job site, DTCS staff shall take immediate steps to sanitize any common areas
 and direct work places that may have been in close contact with the infected
 worker.
 - a. Sanitation will be conducted with personnel, equipment, and material approved for COVID-19 sanitization.

- b. Identified areas should remain isolated from any other workers until sanitation process has been completed and area is deemed safe for use.
- c. Workers who leave during the work day due to COVID-19 symptoms and develop COVID-19 as confirmed by laboratory testing or diagnosis by a healthcare provider shall not return to the site until either released from isolation by healthcare provider or public health official.
- d. All impacted workers should follow CDC and DOH recommended steps concerning return to work. Workers who are considered close contacts to a COVID-19 case by public health authorities should not return for 14 days and are subject quarantine by public health.
- e. Other employees may be sent home while a workspace is being cleaned but will return to work after cleaning unless advised otherwise by a health care provider
- f. Other employees should be asked to contact their health provider if they have any questions
- g. Remind other employees to continue to practice proper sanitation and monitor for flu like symptoms



12 Ulster I	.91 Old Park, N	g Services, Post Road ew York 12		So	oil Boring Log SB-1/MW-1		Hole No: SB-1/MW-1		Date Started: 7-22-19			
	(843)0	58-3484					Sheet	1 of 1	Date Finished:	7-22-19		
Client: Al	lbany Wrei	ntham, LLC										
						Metho	nd of investigation:	2" Hollow Stem Sampler	·s			
				_		THE STATE OF THE S	a of myosiguion	2 Honow Stein Sumpter				
Location:	520 Albai	ny Avenue, Kin	gston, New Y	ork 								
				Drilling Co: (Core Down Dri	illing		Driller: A. Bellucci			Weather:	
P. Manager:								D. Helper: O. Tanner			Partly Cloudy	
Deborah Thompson Geologist: D					eborah Thomp	oson		Drill Rig: Geoprobe	1	T	74° F @ 0830	
			Sample		I				PID (ppm)		Groundwater	
Depth			Blows		Recovery		Sample		Analytical	Boring	and Other	
(ft.)	No.	Depth (ft.)	per 6"	"N"	(in.)		Description		Readings	Details	Observations	
		1				Asphalt, stone						
		1										
		2				Light brown, mixe	ed fill, damp, no od	or.			Sampled subsurface soils	
		3				Brown, f-m sand,	damp, no odor.				(7-9' bgs, SB-1/MW-1)	
		4										
5					36"				0.0		1" - GW Well	
		6									installed @ 15' bgs.	
		7									107 0.10-slot screen	
		8				Saturated at 8' bgs					5'/solid riser	
		9										
		9				Brown, coarse san						
10						Brown, fine sand,	wet, no odors.		0.0			
		11										
		12										
		13										
		14										
15									0.0			
		16										
		17										
		18										
		19										
20												
Sample Ty		Hollow Spoon:	X						Bac	ekfill Well Key	Native Fill	
		R= Rock Core:			•							
N = ASTN			S = Below Gra						No. 2 Filter Sand		Bentonite	

12	291 Old Park, N	g Services, Post Road ew York 12		Sc	Soil Boring Log SB-2/MW-2		Hole No: SB-2/MW-2		Date Started: 7-22-19						
	(043)0	58-3484			Т		Sheet	1 of 1	Date Finished: 7-22-19						
Client: A	lbany Wre	ntham, LLC													
						Method of investigation: 2" Hollow Stem Samplers									
Location:	520 Albai	ny Avenue, Kin	gston, New Y	ork											
				Drilling Co: (Core Down Dr	illing		Driller: A. Bellucci				Weather:			
P. Manage	er:							D. Helper: O. Tanner				Partly Cloudy			
Deborah Thompson Geologist: 1					eborah Thomp	oson I		Drill Rig: Geoprobe	74° F @ 0830						
			Sample	<u> </u>	Γ				PID (ppm)			Groundwater			
Depth			Blows		Recovery		Sample		Analytical	Borir	ng	and Other			
(ft.)	No.	Depth (ft.)	per 6"	"N"	(in.)		Description			Detai	ls	Observations			
		1				Asphalt, stone									
		2				Light brown, mixe	ed fill, damp, no od	lor.				Sampled subsurface soils			
		3				Brown, fine sand,	damp, no odor.					(7-9' bgs, SB-2/MW-2)			
		4													
5					40"				0.0			1" - GW Well			
		6										installed @ 15' bgs.			
		7										10 / 0.10-slot screen			
		8				Saturated at 8' bgs	s.			1		5'/solid riser			
		9				Brown, coarse san	nd, wet, no odor.								
10					42"				0.0						
		11													
		12													
		13				Grey, silty clay, w	et, no odor.								
		14													
15					44"				0.0						
		16								4////					
		17													
		18													
		19													
20															
Sample T	ypes:			•		•			Bac	kfill Well K	ey				
	S=I	Hollow Spoon:	X		-				Cement]	Native Fill			
	1	R= Rock Core:			-										
N = ASTN	M D1586	BGS	S = Below Gra	ade Surface				[+:::::::]	No. 2 Filter Sand]	Bentonite			

12 Ulster 1	291 Old Park, N	g Services, Post Road ew York 12		Sc	oil Boring Log SB-3/MW-3		Hole No:	SB-3/MW-3	Date Started: 7-22-19			
	(843)0	58-3484			Ι		Sheet	1 of 1	Date Finished:	7-22-19		
Client: Al	lbany Wrei	ntham, LLC										
						Metho	od of investigation:	2" Hollow Stem Sampler	rs			
Lagation	520 Albor	ay Ayanya Vin	aston Novy V	ouls.			C	•				
Location.	320 Albai	ny Avenue, Kin	gston, New 1		l							
				Drilling Co: (Core Down Dri	illing		Driller: A. Bellucci			Weather:	
P. Manager:								D. Helper: O. Tanner			Partly Cloudy	
Deborah Thompson Geologist: D					eborah Thompson Drill Rig: Geoprobe						74° F @ 0830	
		Π	Sample	T	Γ				PID (ppm)		Groundwater	
Depth			Blows		Recovery		Sample		Analytical	Boring	and Other	
(ft.)	No.	Depth (ft.)	per 6"	"N"	(in.)		Description		Readings	Details	Observations	
		1				Asphalt, stone						
		2				Light brown, mixe	ed fill, damp, no od	lor.			Sampled subsurface soils	
		3				Brown, f-m sand,				00000000	(8-10' bgs, SB-3/MW-3)	
						Brown, r-m sand,	damp, no odor.				(6-10 bgs, SB-5/WW-5)	
		4										
5					48"				0.0		1" - GW Well	
		6									installed @ 15' bgs.	
		7									10'/ 0.10-slot screen	
		8				Brown, coarse san	nd, moist, no odors.				5'/solid riser	
		9				Saturated at 9' bgs	i.					
10					54"				0.0			
		11										
		12										
		13										
		14										
15					44"				0.0		-	
		16										
		17										
		18										
		19										
20												
Sample Ty	ypes:								Bac	kfill Well Key		
		Hollow Spoon:	X		-				Cement		Native Fill	
	1	R= Rock Core:			-							
N = ASTN	M D1586	BG	S = Below Gra	ade Surface				[15:15:15:1]	No. 2 Filter Sand		Bentonite	

12 Ulster l	291 Old Park, N	g Services, Post Road ew York 12		Sc	Soil Boring Log SB-4/MW-4		Hole No: SB-4/MW-4		Date Started: 7-22-19						
	(843)0	58-3484			Г		Sheet	1 of 1	Date Finished:	7-22-19					
Client: A	lbany Wrei	ntham, LLC													
						Method of investigation: 2" Hollow Stem Samplers									
Location:	520 Albar	ny Avenue, Kin	gston, New Y	ork											
				Drilling Co: (Core Down Dr	illing		Driller: A. Bellucci				Weather:			
P. Manage	er:							D. Helper: O. Tanner				Partly Cloudy			
Deborah Thompson Geologist: I					eborah Thomp	oson I		Drill Rig: Geoprobe	1	<u> </u>		74° F @ 0830			
			Sample	Ι					PID (ppm)			Groundwater			
Depth			Blows		Recovery		Sample		Analytical	Borii	ng	and Other			
(ft.)	No.	Depth (ft.)	per 6"	"N"	(in.)		Description		Readings	Deta	ils	Observations			
		1				Asphalt, stone									
		2				Light brown, mixe	ed fill, damp, no od	lor.				Sampled subsurface soils			
		3										(9-11' bgs, SB-4/MW-4)			
		4													
5					40"	Brown, coarse san	d, damp, no odor.		0.0			1" - GW Well			
		6										installed @ 15' bgs.			
		7										107 0.10-slot screen			
		8										5'/solid riser			
		9				Brown, fine sand,	moist, no odor.								
10					38"	Saturated at 10' bg	gs.		0.0	1					
		11													
		12													
		13													
		14				Grey, silty clay, w	et, no odor.								
15					38"				0.0						
		16													
		17													
		18													
		19													
20															
Sample T							_			kfill Well K					
		Hollow Spoon:			-				Cement			Native Fill			
N = ASTN		R= Rock Core:	S = Below Gra		-				No. 2 Filter Sand			Bentonite			

DT Co 12 Ulster	nsulting 91 Old Park, N (845) 6	g Services, Post Road ew York 12 58-3484	Inc. 2487	Sc	Soil Boring Log SB-5MW-5			SB-5/MW-5	Date Started: 7-22-19				
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Client: Al	lhany Wrei	ntham, LLC											
Cheme. 74	tourly with	ididiii, EEC											
						Metho	od of investigation:	2" Hollow Stem Sampler	rs				
Location:	520 Albar	y Avenue, Kin	gston, New Y	ork									
				Drilling Co: 0	Core Down Dr	illing		Driller: A. Bellucci				Weather:	
P. Manager:						D. Helper: O. Tanner						Partly Cloudy	
Deborah T	Thompson			Geologist: D	eborah Thomp	oson T		Drill Rig: Geoprobe		74° F @ 0830			
		ı	Sample	Ι	Ι				PID (ppm)			Groundwater	
Depth			Blows		Recovery		Sample		Analytical	Bori	ng	and Other	
(ft.)	No.	Depth (ft.)	per 6"	"N"	(in.)		Description		Readings	Deta	uils	Observations	
		1				A amb alt atoma							
		1				Asphalt, stone							
		2				Light brown, mixe	ed fill, damp, no od	or.				Sampled subsurface soils	
		3				Brown, f-m sand,	damp, no odor.					(9-11' bgs, SB-5/MW-5)	
		4											
		4											
5					36"				0.0			1" - GW Well	
		6										installed @ 15' bgs.	
		7										10'/ 0.10-slot screen	
		,										107 0.10 slot sereeli	
		8				Brown, coarse san	nd, moist, no odor.					5'/solid riser	
		9											
10						Satuated at 10' bgs	s.		0.0				
		11											
		11											
		12				Brown, fine sand,	wet, no odor.						
		13											
		14				Grey, silty clay, w	et, no odor.						
1.7									0.0				
15									0.0	:::::::::::::///			
		16											
		17											
		18											
		19											
20													
Sample T	ypes:							mmm	Bac	kfill Well K	Key		
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	F	R= Rock Core:			-								
N = ASTN	И D1586	BGS	S = Below Gra	ade Surface					No. 2 Filter Sand]	Bentonite	

12 Ulster 1	291 Old Park, N	g Services, Post Road ew York 12		Sc	Soil Boring Log SB-6MW-6		Hole No: SB-6/MW-6		Date Started: 7-22-19			
	(843)0	58-3484			Ι		Sheet	1 of 1	Date Finished:	7-22-19		
Client: Al	lbany Wre	ntham, LLC										
						Metho	od of investigation:	2" Hollow Stem Sampler	rs			
Logotion	520 Albay	ny Avonuo Vin	aston Naw V	ouls			C	•				
Location.	320 A10a1	ny Avenue, Kin	gston, new 1									
				Drilling Co: (Core Down Dr	illing		Driller: A. Bellucci			Weather:	
P. Manager:								D. Helper: O. Tanner		Partly Cloudy		
Deborah Thompson Geologist: D					eborah Thompson Drill Rig: Geoprobe						74° F @ 0830	
		Γ	Sample	T	Γ				PID (ppm)		Groundwater	
Depth			Blows		Recovery		Sample		Analytical	Boring	and Other	
(ft.)	No.	Depth (ft.)	per 6"	"N"	(in.)		Description		Readings	Details	Observations	
		1				Asphalt, stone						
		2				Light brown, mixe	ed fill, damp, no od	lor.			Sampled subsurface soils	
		3				Brown, f-m sand,					(9-11' bgs, SB-6/MW-6)	
						Brown, I-m sand,	damp, no odor.				()-11 bgs, SB-0/WW-0)	
		4										
5					56"				0.0		1" - GW Well	
		6									installed @ 15' bgs.	
		7									107 0.10-slot screen	
		8									5'/solid riser	
		9										
10					40"	Brown, coarse san	nd, saturated at 10' l	ogs, no odor.	0.0			
		11										
		12				Brown, fine sand,	wet, no odor.					
		13				Brown, coarse san						
						Drown, coarse san	id, wet, no odor.					
		14										
15					44"				0.0			
		16										
		17										
		18										
		19										
20												
Sample Ty	ypes:								Bac	kfill Well Key		
	S=Hollow Spoon: X								Cement		Native Fill	
]	R= Rock Core:			-							
N = ASTN	M D1586	BG	S = Below Gra	ade Surface					No. 2 Filter Sand	BROQUUANA	Bentonite	

12 Ulster I	91 Old Park, No	Services, Post Road w York 12 58-3484		So	oil Boring Lo SB-7/MW-7	g	Hole No:	SB-7/MW-7	Date Started: 7-22-19					
`							Sheet	1 of 1	Date Finished: 7-22-19					
Client: Al	bany Wren	tham, LLC												
						Metho	d of investigation:	f investigation: 2" Hollow Stem Samplers						
Location:	520 Alban	y Avenue, King	gston, New Yo	ork										
				Drilling Co: (Core Down Dri	lling		Driller: A. Bellucci				Weather:		
P. Manage	r:							D. Helper: O. Tanner		Partly Cloudy				
Deborah T	hompson			Geologist: D	eborah Thomp	son		Drill Rig: Geoprobe		74° F @ 0830				
			Sample						PID (ppm)			Groundwater		
Depth			Blows		Recovery		Sample		Analytical	Bori	ng	and Other		
(ft.)	No.	Depth (ft.)	per 6"	"N"	(in.)		Description		Readings	Deta	ils	Observations		
		1				Asphalt, stone				83000000	201020000			
		2				Light brown, mixe	ed fill, damp, no od	or.				Sampled subsurface soils		
		3				Brown, f-m sand, o	damp, no odor.					(9-11' bgs, SB-7/MW-7)		
		4												
5					55"				0.0		7	1" - GW Well		
		6										installed @ 15' bgs.		
		7										107 0.10-slot screen		
		8										5'/solid riser		
		9												
10					50"	Brown, coarse san	d, saturated at 10' b	ogs, no odor.	0.0	1				
		11												
		12				Brown, fine sand,	wet, no odor.							
		13												
		14												
15					38"				0.0					
		16												
		17												
		18												
		19												
20														
Sample Ty	pes:							mmm	Bac	kfill Well K	ley			
	S=F	Tollow Spoon:	X						Cement			Native Fill		
	R	= Rock Core:												
N = ASTM	I D1586	BGS	S = Below Gra	de Surface					No. 2 Filter Sand			Bentonite		