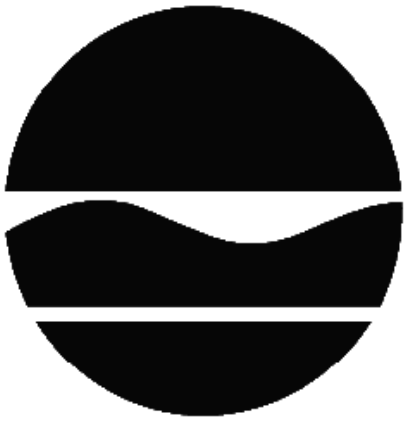
PROPOSED REMEDIAL ACTION PLAN

Love Cleaners
Operable Unit Number 02: Off-site Structure Sampling-
Vapor Intrusion Evaluation
State Superfund Project
Hempstead, Nassau County
Site No. 130187
February 2019



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

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SECTION 1: SUMMARY AND PURPOSE OF THE PROPOSED PLAN

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), is proposing a remedy for Operable Unit 2 (OU2) of the above referenced site. Based on the findings of the investigation, the Love Cleaners OU2: Off-site Structure Sampling - Vapor Intrusion Evaluation- the site does not pose an off-site threat to public health or the environment. Therefore, the remedy proposed by this Proposed Remedial Action Plan (PRAP) is No Action.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375. This document is a summary of the information that can be found in the site-related reports and documents in the document repository identified below.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all PRAPs. This is an opportunity for public participation in the remedy selection process. The public is encouraged to review the reports and documents, which are available at the following repository:

Hempstead Public Library
Attn: Reference Desk
115 Nichols Court
Hempstead, NY 11550
Phone: 516-481-6990

A public comment period has been set from:

Wednesday February 27, 2019 to Friday March 29, 2019

A public meeting is scheduled for the following date:

March 19, 2019 at 7 PM

Public meeting location:

Hempstead Public Library

At the meeting, the findings of the remedial investigation (RI) will be presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period will be held, during which verbal or written comments may be submitted on the PRAP.

Written comments may also be sent through to:

Bob Corcoran
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233
bob.corcoran@dec.ny.gov

The Department may modify the proposed remedy presented in this PRAP based on new information or public comments. Therefore, the public is encouraged to review and comment on the proposed remedy identified herein. Comments will be summarized and addressed in the responsiveness summary section of the Record of Decision (ROD). The ROD is the Department's final selection of the remedy for this site.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The Laundry Palace (formerly known as 'Love Cleaners') is located in the Village of Hempstead, Town of Hempstead, Nassau County, Long Island. The area is a densely developed mixture of urban small business and residential properties.

Site Features: The site is composed of a double lot whose combined size is approximately 83x106 feet, forming the northeast corner of Clinton Street and Lincoln Blvd. The one on-site building, a single-story, concrete block building comprising 4125 square feet and built in 1969, spans the entire rear of both lots and a paved parking lot for 8-10 cars covers the remainder of the site.

Current Zoning and Land Use: The site is zoned for commercial use and is operated as a laundromat that does not include dry cleaning. The nearest residential property is next door, approximately 20 feet to the north of the Site. Adjacent to the west of the site is Brierley Park and the Village of Hempstead's Clinton St. well field and water filtration plant, which supplies drinking water to a community of over 56,000 residents.

Past Use of the Site: The site operated as a dry cleaner (Love Cleaners) from approximately 1969 until 1999. The Nassau County Department of Health Services (NCDHS) documented disposal of tetrachloroethene (PCE), a dry cleaning solvent at the site during a 1997 Underground Injection Control (UIC) Program inspection. Low-level PCE contamination was found in soils beneath a window where mist from a wastewater treatment machine was discharging, and also in soils below a floor drain which was found in the building. Under NCDHS supervision, the discharges ceased and the floor drain was investigated and later sealed. Only minor PCE contamination was detected.

A Site Characterization (SC) investigation was completed by the Department in December 2008. Several follow-up soil vapor intrusion investigations were conducted on-site and off-site by either the Department or the responsible party between 2010 and 2018.

The site was listed as a Class 2 inactive hazardous waste disposal site in May 2011 due to high levels of PCE in the soil vapor under the on-site building slab. Class 2 indicates that the site poses a significant threat to public health and/or the environment and that action is necessary.

Operable Units: The site is divided into two operable units. An operable unit represents a portion of a remedial program for a site that for technical and administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination. Operable Unit 01 (OU1) pertains to the on-site contamination. OU2 consists of off-site soil vapor intrusion (SVI) evaluations of potentially impacted properties.

Geology and Hydrology: The area is made up of coastal plain deposits which may be up to 2,000-ft thick. Based on available data from the nearby Clinton Street well field, unconsolidated deposits underlying the site consist of sand and gravel mixtures up to approximately 65 feet below ground surface (bgs), before clay units occur. No clay formations were encountered in soil borings down to 100 feet bgs during the investigation. Groundwater beneath the site is approximately 25-30 feet bgs and flows to the south.

Operable Unit (OU) Number 02 is the subject of this document.

A Record of Decision was issued previously for OU 01.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, an alternative which allows for unrestricted use of the site was evaluated.

A comparison of the results of the investigation against unrestricted use standards, criteria and guidance values (SCGs) for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

Mark Weiboldt

Love Cleaners

John T. Chiarella

Ralph DeBonis Jr.

The Department and Mark Weiboldt entered into a Consent Order on December 2, 2012. The Order obligates the responsible party to implement a full remedial program.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,

- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- air
- groundwater
- soil
- soil vapor
- indoor air
- sub-slab vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The RI Report and supplemental SVI reports contain a full discussion of the data. The contaminant(s) of concern identified for this Operable Unit at this site is/are:

tetrachloroethene (PCE) trichloroethene (TCE)

Based on the investigation results, comparison to the SCGs, and an evaluation of potential public health and environmental exposure routes, no remediation is required for the off-site OU2. More complete information can be found in the RI Report and SVI Reports.

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

There were no IRMs performed at this site.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 02.

The contaminants of concern (COCs) at this site are chlorinated volatile organic compounds (CVOC), primarily tetrachlorethene (aka perc or PCE), a common dry cleaning solvent, and its breakdown product- trichloroethene (TCE). The media of concern is soil vapor and sub-slab soil vapor which could potentially migrate into the indoor air of overlying buildings- a process known as soil vapor intrusion (SVI). PCE was released to the environment at some time between 1969 and 1999 when the site operated as a dry cleaner.

Under operable unit OU1, a site characterization (SC) investigation and SVI investigation were conducted by the Department between 2008 and 2010. Elevated levels of the above mentioned CVOCs were documented in on-site soil vapor and in sub-slab vapor under the on-site building. No appreciable soil or groundwater contamination was documented during the SC. An adjacent private residence, evaluated for soil vapor intrusion in 2010, found no site-related impacts requiring action.

Subsequent soil vapor sampling found that site related VOC contamination had migrated off-site in the form of soil vapor which has the potential to impact off-site properties via soil vapor intrusion. Operable Unit 2 (OU2) was created to evaluate potential off-site SVI impacts.

A Record of Decision (ROD) was issued for OU1 in 2016, requiring installation of a soil vapor intrusion mitigation system on the on-site building. The system, commonly referred to as a sub-slab depressurization system (SSDS), was installed under the on-site building and began operation in June 2017 to mitigate potential indoor air impacts from SVI.

OU2, Off-site SVI evaluations (2017 and 2018):

SVI evaluations of two nearby off-site structures were conducted in 2017 and 2018 to assess the potential for site-related contamination to impact the indoor air of these structures. The sampled structures were identified as potentially being impacted by soil vapor migrating from the site. The SVI evaluations consisted of indoor air and sub-slab air samples in both structures, along

with one outdoor (ambient) air and a duplicate sample. Samples were analyzed for volatile organic compounds (VOC) using EPA method TO15 with a reporting limit of 0.25 micrograms per cubic meter of air (0.25 mcg/m^3) for PCE and TCE.

The structures were sampled twice, first in March 2017, prior to the installation of the on-site vapor mitigation system. The second round, in February 2018, was conducted after the SSDS was operational for eight months. Based on the sampling results, the SSDS is preventing soil vapor from migrating to off-site properties. An off-site SVI sampling location map is shown in Figure 2.

Prior to the SSDS installation, PCE was detected in sub-slab air beneath Structure-1 at a concentration of 1,390 mcg/m^3 and in the indoor air at 2.97 mcg/m^3. PCE was detected in sub-slab air beneath Structure-2 at a concentration of 820 mcg/m^3 and in the indoor air at 2.91 mcg/m^3. The NYSDOH decision matrix for PCE indicated that the sub-slab levels under Structure-1 required mitigation for potential SVI, while the sub-slab levels under Structure-2 required further monitoring. PCE levels in outdoor air samples were 0.26 mcg/m^3 in the primary sample and 4.13 mcg/m^3 in the duplicate sample for an average concentration of 2.20 mcg/m^3. TCE levels in outdoor air samples were non-detect in the primary sample and 1.84 mcg/m^3 in the blind duplicate for an average concentration of 0.92 mcg/m^3.

Confirmatory sampling of both structures was repeated in February 2018 to verify the 2017 results. At that time, the on-site SSDS had been operating for eight months. Results from the 2018 sampling event documented PCE in sub-slab air of Structures 1 and 2 at 1.19 mcg/m^3 and 2.26 mcg/m^3, respectively. TCE was not detectable (<0.25 mcg/m^3) under both structures. These results indicate that no further action or monitoring is required.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

While site-related volatile organic compounds were not found in groundwater and soil at the site, soil vapor (air spaces within the soil) on site has been impacted. This contaminated soil vapor may move into overlying buildings and affect indoor air quality by a process known as soil vapor intrusion. Soil vapor intrusion is similar to the movement of radon gas from the subsurface into the indoor air of buildings. A sub-slab depressurization system (a system that ventilates/removes the air beneath the building) has been installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the building. Sampling indicates soil vapor intrusion is not a concern for off-site buildings at this time.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy election process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or

mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: SUMMARY OF PROPOSED REMEDY

No action is recommended regarding off-site impacts from site-related contamination. Operation of the on-site vapor mitigation system has addressed the off-site concerns. A Department approved Site Management Plan (SMP) will be developed under the on-site OU1 ROD, to manage the on-site and off-site operable units. Additional information regarding the no action remedy can be found in Exhibit A.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

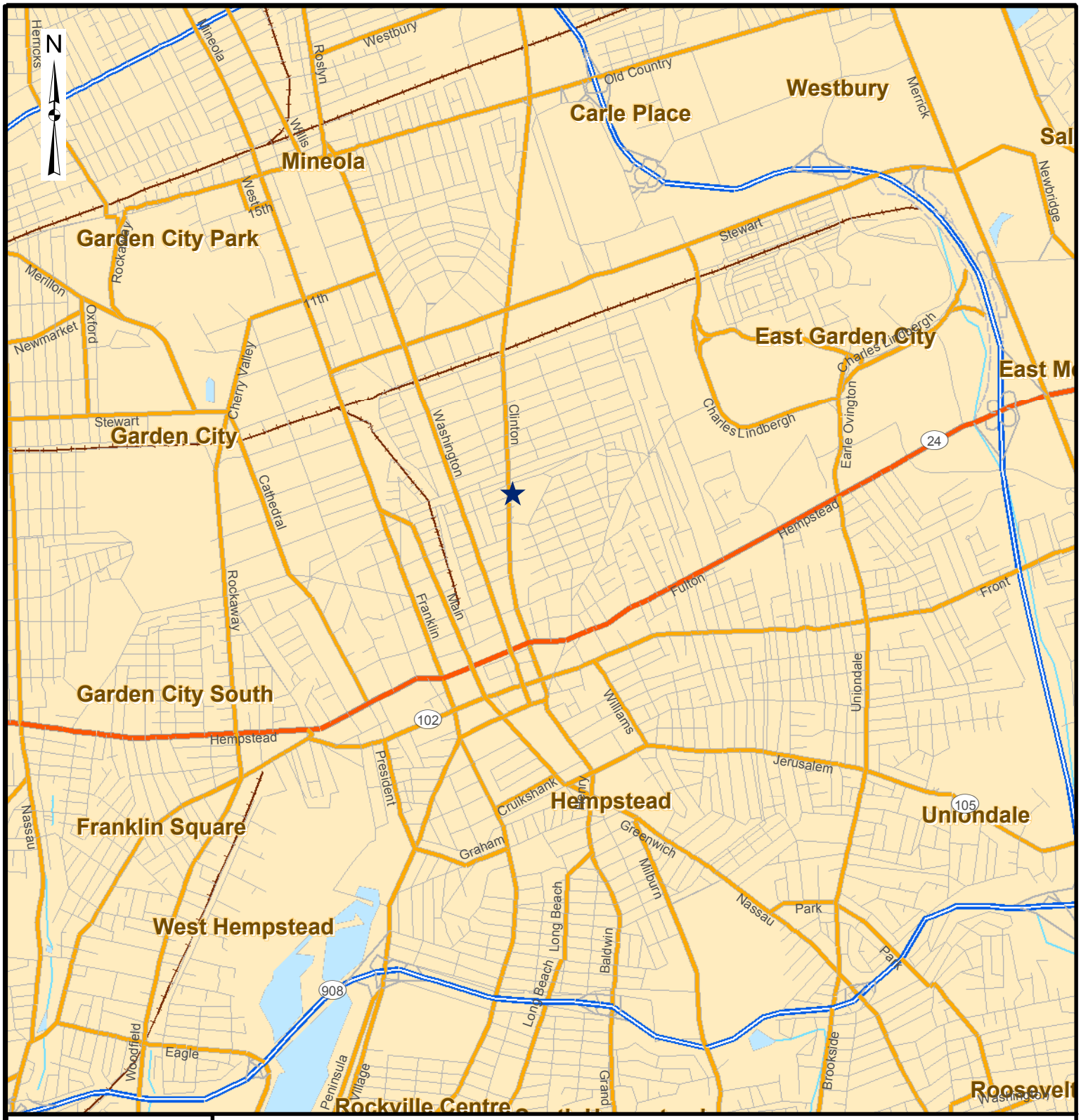
For each medium for which contamination was identified, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into categories; volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/ polychlorinated biphenyls (PCBs), and inorganics (metals and cyanide). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 4 and Section 6.1.1 are also presented.

Soil Vapor

The evaluation of the potential for soil vapor intrusion resulting from the presence of site related soil or groundwater contamination was evaluated by the sampling of soil vapor, sub-slab soil vapor under structures, and indoor air inside structures. Within the OU-2 study area, due to the presence of buildings in the impacted area, a full suite of samples were collected to evaluate whether soil vapor intrusion was occurring.

Soil vapor samples were collected twice, first in March 2017, prior to the installation of the on-site sub-slab depressurization system (SSDS) and in February 2018, eight months after initial operation of the on-site SSDS. Following up on the soil vapor samples, soil vapor intrusion samples consisting of sub-slab, indoor air, and ambient air samples were collected in the OU-2 area from two structures. Figure 2 depicts the locations of the buildings where soil vapor intrusion samples were collected. Prior to the SSDS installation, the results indicate PCE was found in the sub-slab soil vapor beneath Structure-1 and Structure-2 at 1,390 mcg/m^3 and 820 mcg/$m^{3,}$ respectively. TCE was found in the sub-slab soil vapor beneath Structure-1 and Structure-2 at 32 mcg/m^3 and 18.4 mcg/$m^{3,}$ respectively. The NYSDOH decision matrix for PCE indicated that the sub-slab levels under Structure-1 required mitigation for potential SVI, while the sub-slab levels under Structure-2 required further monitoring. Results from the 2018 sampling event, after installation of the SSDS, documented PCE in sub-slab air of Structures 1 and 2 at 1.19 mcg/m^3 and 2.26 mcg/m^3, respectively. TCE was not detectable (<0.25 mcg/m^3) under both structures. These results indicate that no further action or monitoring is required.

Based on the concentrations detected, and in comparison with the NYSDOH Soil Vapor Intrusion Guidance, soil vapor contamination identified during the RI was addressed as part of the OU 1 remedy described in Section 6.3.



LOVE CLEANERS (1-30-187) SITE CHARACTERIZATION REPORT HEMPSTEAD, NEW YORK						FIGURE 1 Site Location Map	
PROJECT MGR: JMB	DESIGNED BY: CJS	CREATED BY: DCC	CHECKED BY: JMB	SCALE: AS SHOWN	DATE: MAY 2009	PROJECT NO: 14368.34	FILE NO: GIS/PROJECTS/ FIGURE1.MXD

Figure 2

New York State Department of Environmental Conservation
Love Cleaners - Site No. 130187 (Laundry Palace)
416 Clinton Road, Village of Hempstead
Town of Hempstead, Nassau County, New York 11550

Off-site Soil Vapor Intrusion Evaluation Sample Locations

Created by: RKC
Date:01/10/19