DECISION DOCUMENT

Former Baron Blakeslee Site
Brownfield Cleanup Program
Bay Shore, Suffolk County
Site No. C152204
August 2015

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

DECLARATION STATEMENT - DECISION DOCUMENT

Former Baron Blakeslee Site
Brownfield Cleanup Program
Bay Shore, Suffolk County
Site No. C152204
August 2015

Statement of Purpose and Basis

This document presents the remedy for the Former Baron Blakeslee Site site, a brownfield cleanup site. The remedial program was chosen in accordance with the 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 decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Former Baron Blakeslee Site site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy, shown on figure 2 are as follows:

1. Remedial Design
A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

• Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;

• Reducing direct and indirect greenhouse gases and other emissions;

• Increasing energy efficiency and minimizing use of non-renewable energy;

• Conserving and efficiently managing resources and materials;

• Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;

• Maximizing habitat value and creating habitat when possible;

• Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and

• Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Cover System
A site cover currently exists and will be maintained to allow for restricted residential (and commercial and industrial) use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement and sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3. Soil Vapor Extraction (SVE)
SVE will be implemented to remove volatile organic compounds (VOCs) from a source area of soil contamination under the on-site building. VOCs will be physically removed from the soil by applying a vacuum to wells that have been installed into the vadose zone soils (the area below the ground but above the water table). The vacuum draws air through the soil matrix carrying the VOCs from the soil to the SVE well. The air containing VOCs extracted from the SVE wells will be treated as necessary to remove VOCs from the air prior to it being discharged to the atmosphere. The SVE system will be tested to demonstrate system effectiveness (e.g., radius of influence, etc.).

4. Vapor Mitigation
If the SVE system described in item 3 above does not remove sufficient quantities of soil vapor to prevent soil vapor intrusion into the on-site building, then a sub-slab depressurization system (SSDS), or similar engineered system, will be installed in addition to the SVE system to prevent the migration of vapor into the building from contaminated soil. The SSDS will be tested to demonstrate vacuum coverage under the entire building slab.

5. Institutional Control
Imposition of an institutional control in the form of an environmental easement for the controlled property that:

• requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

• allows the use and development of the controlled property for restricted residential, commercial or industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

• restricts the use of groundwater as a source of potable or process water, without necessary

water quality treatment as determined by the NYSDOH or County DOH; and

• requires compliance with the Department approved Site Management Plan.

6. Site Management Plan
A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: the Environmental Easement discussed in item 5 above.

Engineering Controls: The Cover System discussed in item 2 above; the SVE system discussed in item 3 above; and the Vapor Mitigation system discussed in item 4 above.

This plan includes, but may not be limited to:

• an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;

• descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;

• provisions for evaluation of the potential for soil vapor intrusion of any reoccupied existing or future buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

• provisions for the management and inspection of the identified engineering controls;

• maintaining site access controls and Department notification; and

• the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

• a schedule of monitoring and frequency of submittals to the Department;

c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy.

The plan includes, but is not limited to:

•compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;

• maintaining site access controls and Department notification; and

• providing the Department access to the site and O&M records.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

August 3, 2015

Date

James B. Harrington, PE Director
Remedial Bureau A

DECISION DOCUMENT

Former Baron Blakeslee Site
Bay Shore, Suffolk County
Site No. C152204
August 2015

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

Brentwood Public Library
Attn: Thomas A. Tarantowicz, Director
34 Second Avenue
Brentwood, NY 11717-4642
Phone: 631-273-7883

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: This site is located in a heavily industrialized area just off the Sagtikos Parkway, in the unincorporated village of Bay Shore, Town of Islip, Suffolk County, Long Island. The site is bounded by Cleveland Avenue to the east, South Third Street to the north, Deer Park Sand and Gravel redi-mix concrete plant to the south, and an aggregate reprocessing facility to the west.

Site Features: The site is 1.84 acres in size. The land is flat and covered mostly by three interconnected buildings and pavement. A warehouse, office building, maintenance shop and tank storage area were constructed in 1977 by Baron Blakeslee, Inc. Later renovations enlarged the warehouse, connecting all three buildings and improving the total building space to approximately 47,000 square feet. Remaining grounds are comprised mainly of asphalt-paved parking and driveway areas with limited landscaped and vegetated areas occurring along the northern, eastern, and southern property boundaries.

Current Zoning and Land Use: The site and surrounding area are zoned industrial. Currently, the site is only partially occupied. A GE appliance repair center occupies the southern-most building while the larger warehouse and office building spaces are vacant and for lease. The site is currently serviced with municipal water from the Suffolk County Water Authority (SCWA). Public sewer services are not available in the area and the site utilizes an on-site septic system. Given the current industrial use of the site and surrounding properties, it is likely that the site will remain in industrial use for the foreseeable future.

Past Use(s) of the Site: Baron Blakeslee, a division of Purex Corporation of Lakewood Ca., operated as a solvent and chemical storage, repackaging and distribution facility for hydrocarbon solvents and other volatile organic compounds (VOC) from 1977 to 1984. It repackaged bulk chemicals and recycled spent solvents, servicing many large industries in and around the Metro NYC area.

Environmental issues arose shortly after the company began operations in 1977. By 1978, Baron Blakeslee was cited by the Suffolk County Department of Health Services (SCDHS) for poor housekeeping practices resulting in VOC contamination in on-site drywells and in the groundwater. Under order by SCDHS, Baron Blakeslee cleaned out the drywells and installed a pump and treat system to remediate groundwater contamination. The pump and treat system operated from January 1985-January 1989. Subsequent building renovations encased much of the residual surface soil contamination below the building floor slabs.

The Town of Islip Industrial Development Authority (IDA) owned the property from June 1984 through November 1991, leasing it to Aircraft Turbine Services (ATS), a subsidiary of Airwork

Corporation/Purex Corporation, which assumed responsibility of the ongoing environmental remediation. The site changed ownership several times between 1991 and 1997, but remained a maintenance facility for aircraft engines, operating under several names including UNC Accessory Services NY, CAMCO and Greenwich Air Services (GAS). GAS was acquired by General Electric in 1997. Operations reportedly ceased by April 1998.

General Electric Corp (GE) signed an Order on Consent in 2010 to conduct a site characterization (SC) investigation of the site. The SC was completed in April 2013. GE applied for entry into the Brownfield Cleanup Program (BCP) in September 2013 after the Department deemed that additional remedial action at the site is necessary.

Site Geology and Hydrogeology: Site topography is flat and soils consist of well sorted fine to medium sands. Groundwater is found at a depth of 10 feet below grade and generally flows in a southerly direction.

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 that restricts the use of the site to restricted-residential use (which allows for commercial use and industrial use) as described in Part 375-1.8(g) was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant under the Brownfield Cleanup Agreement is a Volunteer. The Volunteer does not have an obligation to address off-site contamination. The Department has determined that this site poses a significant threat to human health and the environment and there are off-site impacts that require remedial activities; accordingly, enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

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. 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 contaminant 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 nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

1,1,1-TCA
trichloroethene (TCE)
tetrachloroethene (PCE)

The contaminant(s) of concern exceed the applicable SCGs for:

- soil
- soil vapor intrusion

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 Decision Document.

There were no IRMs performed at this site during the RI.

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. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

The historic contaminants of concern (COC) at this site are chlorinated volatile organic compounds (CVOCs), primarily tetrachlorethene (PCE), trichloroethene (TCE) and 1,1,1-trichlorethane (TCA).

Prior to its entry into the Brownfield Cleanup Program (BCP), the site was investigated by its current owner, General Electric Corp., in 2011-2112. Soil and groundwater samples were collected from across the site and analyzed for VOCs, semi-volatile organic compounds (SVOCs) and metals. Soil vapor samples collected throughout the site and from under the on-site building slabs were analyzed for VOCs. As part of the BCP remedial investigation, follow-up soil sampling was conducted in May 2015 to characterize surficial and shallow subsurface soil quality in several unpaved areas of the site. The unpaved areas, largely scattered around the site perimeter, were sampled to assess the need for a protective cover over areas of exposed soil. Soil samples from the unpaved areas were analyzed for VOCs, SVOCs, metals, polychlorinated biphenyls (PCBs) and pesticides.

Results indicate that VOCs are present in soils and soil vapor under the building slab at concentrations greater than standards, criteria and guidance (SCGs). Low levels of VOCs were detected in groundwater samples at slightly above SCGs.

Groundwater contamination: Sixty (60) groundwater samples were collected at various depth intervals from ten locations. Low-level detections of the above-mentioned contaminants of concern were detected in seven groundwater samples. PCE was detected at up to 12 parts per billion (ppb), exceeding the groundwater standard of 5 ppb in one sample, collected from under the building slab. TCE and TCA were detected in some samples, but at levels below groundwater standards. Samples collected from the downgradient locations, indicative of groundwater quality leaving the site, were below standards for all site-related COC. Other VOCs

detected at slightly above groundwater standards were the petroleum hydrocarbons benzene at 1.6 ppb, and toluene at 6.7 ppb in one sample. One SVOC, bis(2-Ethylhexyl)phthalate, was detected at up to 13 ppb, exceeding the groundwater standard of 5 ppb in two samples.

Soil Contamination: Ten (10) soil samples were collected from under the on-site building slabs. Sample locations where biased toward areas where historic records indicate chemicals were stored and/or transferred (e.g. storage tanks, drum storage area, loading dock, etc.) by previous operators prior to the on-site building renovation and expansion. Surface soil and shallow subsurface soil samples were collected from seven locations in areas of exposed surface soils. Sampling indicates that a source of CVOC soil contamination is present under the building slab. PCE was detected in sub-slab soil samples at up to 23 parts per million (ppm,) exceeding the unrestricted use soil cleanup objective (UUSCO) of 1.3 ppm in five samples, and the restricted residential use soil cleanup objective (RRUSCO) of 19 ppm in one sample. TCE, TCA and cis-1,2-dichloroethene were detected in sub-slab soil samples at levels slightly exceeding unrestricted use SCOs. No analytes were detected at concentrations above the restricted residential use soil cleanup objectives in any of the surface soil samples.

Current issues at the site are primarily related to soil vapor intrusion (SVI) from remaining VOC contamination in the soils under the on-site building slabs.

Soil Vapor Intrusion: Very high levels of PCE and TCE were detected under the building slab, indicating the need for actions to mitigate potential exposures via soil vapor intrusion. PCE and TCE were detected in sub-slab vapor samples at up to 240,000 $\mu g/m^3$ and 120,000 $\mu g/m^3$, respectively, indicating a likely source of VOC contamination under the building. Soil vapor levels sharply diminish with distance from the source area under the building. PCE and TCE were detected at 4,200 $\mu g/m^3$ and 94 $\mu g/m^3$ respectively in samples collected along the eastern property boundary, dropping to 370 $\mu g/m^3$ and 1.9 $\mu g/m^3$, respectively in samples collected on the opposite side of Cleveland Avenue. An attempt to investigate potential off-site vapor impacts was halted when an adjacent property owner refused the Department's offer to sample on its property.

Indoor Air Quality: PCE concentrations ranged from 3.5 $\mu g/m^3$ to an estimated 4.3 $\mu g/m^3$, while TCE concentrations ranged from an estimated 0.28 $\mu g/m^3$ to 3.3 $\mu g/m^3$. Neither chemical is currently in use at the site, an indication of possible soil vapor intrusion from below the building slab.

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.*

Contaminated soils remain at the site below the on-site building, however, people will not come in contact with this contamination unless they dig below the building's slab. Contaminated groundwater is not used for drinking purposes as the area is served by a public supply that does not contain the contamination. Volatile organic compounds in the groundwater may move into

the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for people to inhale site contaminants in the indoor air of on and off-site buildings due to soil vapor intrusion.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection 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

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

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: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the Soil Vapor Extraction System remedy.

The elements of the selected remedy, shown on figure 2 are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the

design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

• Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;

• Reducing direct and indirect greenhouse gases and other emissions;

• Increasing energy efficiency and minimizing use of non-renewable energy;

• Conserving and efficiently managing resources and materials;

• Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;

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• Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

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4. Vapor Mitigation
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5. Institutional Control
Imposition of an institutional control in the form of an environmental easement for the controlled property that:

• requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

• allows the use and development of the controlled property for restricted residential, commercial or industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

• restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and

• requires compliance with the Department approved Site Management Plan.

6. Site Management Plan
A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: the Environmental Easement discussed in item 5 above.

Engineering Controls: The Cover System discussed in item 2 above; the SVE system discussed in item 3 above; and the Vapor Mitigation system discussed in item 4 above.

This plan includes, but may not be limited to:

• an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;

• descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;

• provisions for evaluation of the potential for soil vapor intrusion of any reoccupied existing or future buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

• provisions for the management and inspection of the identified engineering controls;

• maintaining site access controls and Department notification; and

• the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

• a schedule of monitoring and frequency of submittals to the Department;

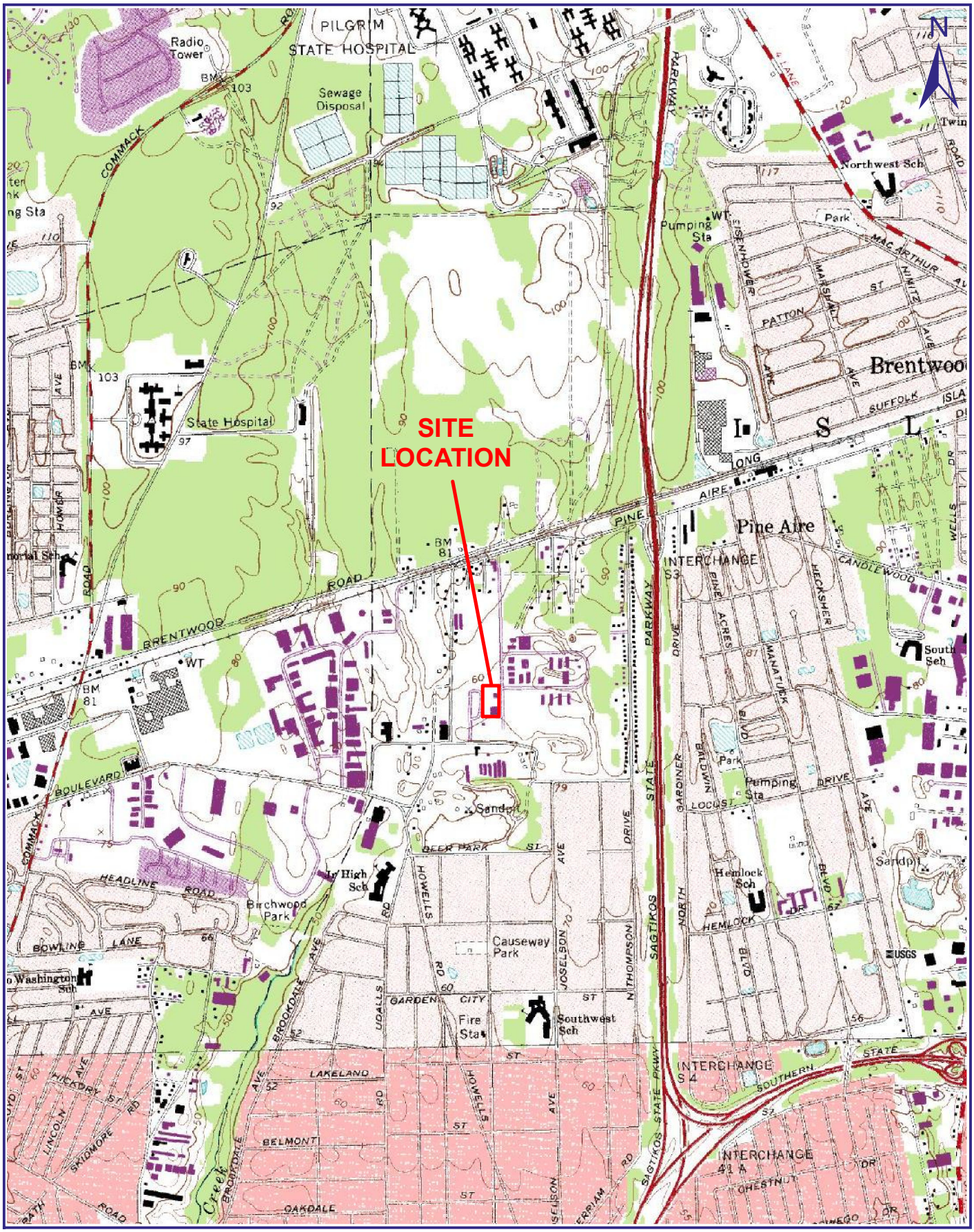
c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy.

The plan includes, but is not limited to:

•compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;

• maintaining site access controls and Department notification; and

• providing the Department access to the site and O&M records.



Author: PThorn Path: P:\GIS\GE\Bayshore\PDI_Workplan\Site_Location.mxd 1/22/2014

Brown AND Caldwell

Figure 1
SITE LOCATION
FORMER BARON BLAKESLEE SITE
BAY SHORE, NEW YORK

Source: USGS Topographic Quadrangles
Greenlawn abd Bay Shore West Quads

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- APPROXIMATE EXTENT OF SOIL IMPACTS ABOVE RESTRICTED RESIDENTIAL USE STANDARDS
- SVE WELL
- SSDS MONITORING POINT
- SVE MONITORING POINT
- ABOVE-GROUND PIPING
- BELOW-GROUND PIPING

NOTE:
ALL LOCATIONS ARE APPROXIMATE AND WILL BE FIELD VERIFIED.

Brown AND Caldwell

SCALE: 1" = 30'

145361.100

DATE: January 7, 2015

SYSTEM LAYOUT
FORMER BARON BLAKESLEE SITE
BAY SHORE, NEW YORK

FIGURE
2 .

6/11/2014

N

SB-2	2.5-3.5
1,1,1- Trichloroethane	0.0051U
Cis-1,2,-Dichloroethene	0.0051U
Tetrachloroethene	0.0051U
Trichloroethene	0.0051U

SB-15	7.0-7.5
1,1,1- Trichloroethane	0.00029U
Cis-1,2,-Dichloroethene	0.00052U
Tetrachloroethene	0.0016U
Trichloroethene	0.00089U

SB-5	6.0-6.5
1,1,1- Trichloroethane	0.00022J
Cis-1,2,-Dichloroethene	0.00012U
Tetrachloroethene	0.015
Trichloroethene	0.0036

SB-6	5.0-5.5
1,1,1- Trichloroethane	*2.4
Cis-1,2,-Dichloroethene	*2.3
Tetrachloroethene	*8.3
Trichloroethene	0.22

SB-16	5.5-6.0
1,1,1- Trichloroethane	0.00024U
Cis-1,2,-Dichloroethene	0.00067J
Tetrachloroethene	0.011B
Trichloroethene	0.026

SB-7	5.0-5.5
1,1,1- Trichloroethane	0.007U
Cis-1,2,-Dichloroethene	0.02U
Tetrachloroethene	0.062J
Trichloroethene	0.01U

SB-4	2.0-3.0
1,1,1- Trichloroethane	0.0051U
Cis-1,2,-Dichloroethene	0.0051U
Tetrachloroethene	0.0051U
Trichloroethene	0.0051U

SB-3	3.0-4.0
1,1,1- Trichloroethane	0.0052U
Cis-1,2,-Dichloroethene	0.0052U
Tetrachloroethene	0.0052U
Trichloroethene	0.0052U

SB-8	1.5-2.0
1,1,1- Trichloroethane	0.0066U
Cis-1,2,-Dichloroethene	0.019U
Tetrachloroethene	*6.3J
Trichloroethene	0.0097U

SB-9	1.0-1.5
1,1,1- Trichloroethane	0.1J
Cis-1,2,-Dichloroethene	0.022U
Tetrachloroethene	*11
Trichloroethene	0.17

SB-10	3.0-3.5
1,1,1- Trichloroethane	0.00086J
Cis-1,2,-Dichloroethene	0.00011U
Tetrachloroethene	0.054
Trichloroethene	0.00099

SB-13	2.5-3.5
1,1,1- Trichloroethane	0.00035U
Cis-1,2,-Dichloroethene	0.00062U
Tetrachloroethene	0.016B
Trichloroethene	0.0011U

SB-11	1.0-1.5
1,1,1- Trichloroethane	0.019J
Cis-1,2,-Dichloroethene	0.02U
Tetrachloroethene	*11
Trichloroethene	0.073J

SB-12	1.0-1.5
1,1,1- Trichloroethane	0.024J
Cis-1,2,-Dichloroethene	0.00011U
Tetrachloroethene	0.35
Trichloroethene	0.063J

SB-14	5.0-5.5
1,1,1- Trichloroethane	0.00029U
Cis-1,2,-Dichloroethene	0.00051U
Tetrachloroethene	0.024U
Trichloroethene	0.00088U

SB-1	1.5-2.5
1,1,1- Trichloroethane	0.16
Cis-1,2,-Dichloroethene	0.0053U
Tetrachloroethene	23
Trichloroethene	1.4

Legend

Approximate Site Boundary

Soil Boring Location

Notes:

(1) U-The analyte was analyzed for, but not detected. Value shown is the method detection limit (MDL) for the analyzed constituent.

(2) J- Estimated concentration. The result is below the quantitation limit but above the method detection limit.

(3) UJ – The analyte was not detected above the reported method detection limit. However, based on data validation, the reported method detection limit is approximate and may or may not represent the actual limit of the detection necessary to accurately and precisely measure the analyte in the sample.

(4) B -- The analyte was also detected in the MethodBlank(s) (.0018J, .0011J).

(5) Results reported in milligrams per kilogram (mg/kg).

(6) Where applicable, table lists the higher concentration from original and duplicate sample.

(7) *Red concentrations are above one or more of the following New York State Subpart 375 Soil Cleanup Objectives: Protection of Public Health (Industrial Use) or Protection of Groundwater.

(8) Specific constituents shown based on indoor air and soil vapor results and exceedences of applicable standards.

Author: PThorn Path: \\bcalldc01\projects\GIS\GE\Bayshore\Soil_VOCs_2014.mxd

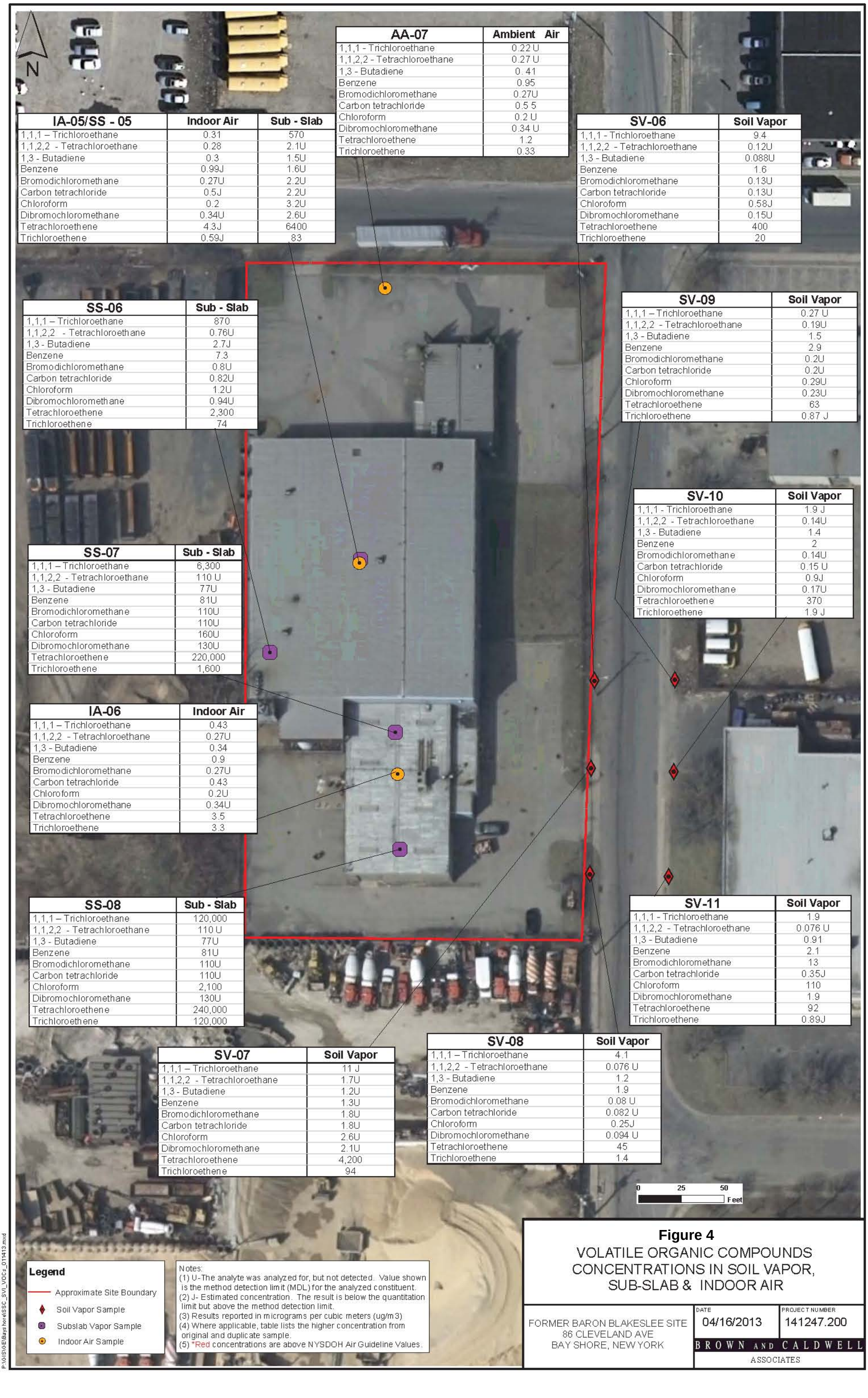
Brown AND Caldwell

Figure 3

VOLATILE ORGANIC COMPOUNDS IN SOIL
FORMER BARON BLAKESLEE SITE
BAY SHORE, NEW YORK

0 25 50

Feet



AA-07	Ambient Air
1,1,1 - Trichloroethane	0.22 U
1,1,2,2 - Tetrachloroethane	0.27 U
1,3 - Butadiene	0. 41
Benzene	0.95
Bromodichloromethane	0.27U
Carbon tetrachloride	0.5 5
Chloroform	0.2 U
Dibromochloromethane	0.34 U
Tetrachloroethene	1.2
Trichloroethene	0.33

IA-05/SS - 05	Indoor Air	Sub - Slab
1,1,1 – Trichloroethane	0.31	570
1,1,2,2 - Tetrachloroethane	0.28	2.1U
1,3 - Butadiene	0.3	1.5U
Benzene	0.99J	1.6U
Bromodichloromethane	0.27U	2.2U
Carbon tetrachloride	0.5J	2.2U
Chloroform	0.2	3.2U
Dibromochloromethane	0.34U	2.6U
Tetrachloroethene	4.3J	6400
Trichloroethene	0.59J	83

SV-06	Soil Vapor
1,1,1 - Trichloroethane	9.4
1,1,2,2 - Tetrachloroethane	0.12U
1,3 - Butadiene	0.088U
Benzene	1.6
Bromodichloromethane	0.13U
Carbon tetrachloride	0.13U
Chloroform	0.58J
Dibromochloromethane	0.15U
Tetrachloroethene	400
Trichloroethene	20

SS-06	Sub - Slab
1,1,1 – Trichloroethane	870
1,1,2,2 - Tetrachloroethane	0.76U
1,3 - Butadiene	2.7J
Benzene	7.3
Bromodichloromethane	0.8U
Carbon tetrachloride	0.82U
Chloroform	1.2U
Dibromochloromethane	0.94U
Tetrachloroethene	2,300
Trichloroethene	74

SV-09	Soil Vapor
1,1,1 – Trichloroethane	0.27 U
1,1,2,2 - Tetrachloroethane	0.19U
1,3 - Butadiene	1.5
Benzene	2.9
Bromodichloromethane	0.2U
Carbon tetrachloride	0.2U
Chloroform	0.29U
Dibromochloromethane	0.23U
Tetrachloroethene	63
Trichloroethene	0.87 J

SV-10	Soil Vapor
1,1,1 - Trichloroethane	1.9 J
1,1,2,2 - Tetrachloroethane	0.14U
1,3 - Butadiene	1.4
Benzene	2
Bromodichloromethane	0.14U
Carbon tetrachloride	0.15 U
Chloroform	0.9J
Dibromochloromethane	0.17U
Tetrachloroethene	370
Trichloroethene	1.9 J

SS-07	Sub - Slab
1,1,1 – Trichloroethane	6,300
1,1,2,2 - Tetrachloroethane	110 U
1,3 - Butadiene	77U
Benzene	81U
Bromodichloromethane	110U
Carbon tetrachloride	110U
Chloroform	160U
Dibromochloromethane	130U
Tetrachloroethene	220,000
Trichloroethene	1,600

IA-06	Indoor Air
1,1,1 – Trichloroethane	0.43
1,1,2,2 - Tetrachloroethane	0.27U
1,3 - Butadiene	0.34
Benzene	0.9
Bromodichloromethane	0.27U
Carbon tetrachloride	0.43
Chloroform	0.2U
Dibromochloromethane	0.34U
Tetrachloroethene	3.5
Trichloroethene	3.3

SS-08	Sub - Slab
1,1,1 – Trichloroethane	120,000
1,1,2,2 - Tetrachloroethane	110 U
1,3 - Butadiene	77U
Benzene	81U
Bromodichloromethane	110U
Carbon tetrachloride	110U
Chloroform	2,100
Dibromochloromethane	130U
Tetrachloroethene	240,000
Trichloroethene	120,000

SV-11	Soil Vapor
1,1,1 - Trichloroethane	1.9
1,1,2,2 - Tetrachloroethane	0.076 U
1,3 - Butadiene	0.91
Benzene	2.1
Bromodichloromethane	13
Carbon tetrachloride	0.35J
Chloroform	110
Dibromochloromethane	1.9
Tetrachloroethene	92
Trichloroethene	0.89J

SV-07	Soil Vapor
1,1,1 – Trichloroethane	11 J
1,1,2,2 - Tetrachloroethane	1.7U
1,3 - Butadiene	1.2U
Benzene	1.3U
Bromodichloromethane	1.8U
Carbon tetrachloride	1.8U
Chloroform	2.6U
Dibromochloromethane	2.1U
Tetrachloroethene	4,200
Trichloroethene	94

SV-08	Soil Vapor
1,1,1 – Trichloroethane	4.1
1,1,2,2 - Tetrachloroethane	0.076 U
1,3 - Butadiene	1.2
Benzene	1.9
Bromodichloromethane	0.08 U
Carbon tetrachloride	0.082 U
Chloroform	0.25J
Dibromochloromethane	0.094 U
Tetrachloroethene	45
Trichloroethene	1.4

0 25 50
Feet

Legend

- Approximate Site Boundary
- Soil Vapor Sample
- Subslab Vapor Sample
- Indoor Air Sample

Notes:
(1) U-The analyte was analyzed for, but not detected. Value shown is the method detection limit (MDL) for the analyzed constituent.
(2) J- Estimated concentration. The result is below the quantitation limit but above the method detection limit.
(3) Results reported in micrograms per cubic meters (ug/m3)
(4) Where applicable, table lists the higher concentration from original and duplicate sample.
(5) *Red concentrations are above NYSDOH Air Guideline Values.

Figure 4

VOLATILE ORGANIC COMPOUNDS CONCENTRATIONS IN SOIL VAPOR, SUB-SLAB & INDOOR AIR

FORMER BARON BLAKESLEE SITE
86 CLEVELAND AVE
BAY SHORE, NEW YORK

DATE 04/16/2013

PROJECT NUMBER 141247.200

BROWN AND CALDWELL
ASSOCIATES

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