RECORD OF DECISION

Bartlett Tree Company
State Superfund Project
Westbury, Nassau County
Site No. 130074
March 2014

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

DECLARATION STATEMENT - RECORD OF DECISION

Bartlett Tree Company
State Superfund Project
Westbury, Nassau County
Site No. 130074
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Statement of Purpose and Basis

This document presents the remedy for the Bartlett Tree Company site, a Class 2 inactive hazardous waste disposal 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, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Bartlett Tree Company site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

During the course of the investigation certain actions, known as interim remedial measures IRMs, were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRMs undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRMs, the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRMs and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the remedy for the site.

The IRMs conducted at the site attained the remediation objectives identified for this site in Section 6.5 for the protection of public health and the environment.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

March 31, 2014

Date

Robert W. Schick, P.E., Director
Division of Environmental Remediation

RECORD OF DECISION

Bartlett Tree Company
Westbury, Nassau County
Site No. 130074
March 2014

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 hazardous wastes at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRMs undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRMs, the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment. The IRMs conducted at the site attained the remediation objectives identified for this site, which are presented in Section 6.5, for the protection of public health and the environment. No Further Action is the remedy selected by this Record of Decision (ROD). A No Further Action remedy may include site management, which will include continued operation of any remedial system installed during the IRMs and the implementation of any prescribed controls that have been identified as being part of the remedy for the site. This ROD identifies the IRMs conducted and discusses the basis for No Further 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 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:

Westbury Memorial Public Library
445 Jefferson Street
Westbury, NY 11590
Phone: (516) 333-0176

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the feasibility study (FS) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the proposed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

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 Bartlett Tree Company site is located at 345 Union Avenue in the Village of Westbury, Town of North Hempstead.

Site Features: The site is approximately 0.4 acres in size. The facility office building is a two-story brick and masonry structure, located at the south end of the site. Two structures, an equipment garage/pesticide locker and a storage shed have been removed from the site.

Current Zoning/Use: The site is currently zoned for commercial use and is located in a commercial/industrial setting. The Bartlett Tree Company provides horticultural services to the surrounding communities. The Long Island Railroad's Westbury train station is located immediately south of the site. There is a residential neighborhood several blocks north of the site.

Past Use of the Site: The Bartlett Tree Company has occupied the site since the mid 1950s. Pesticides are stored on-site for use in the services they provide. Disposal of pesticides into an on-site leaching pool has been documented.

Site Geology/Hydrogeology: The water table is encountered approximately 29'-32' below ground

surface, depending on seasonal variation. Overburden consists mainly of various size sands and gravels. The site specific groundwater flow direction is to the south/southwest.

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 commercial use (which allows for 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 investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use 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 PRP for the site, documented to date, is:

FA Bartlett Tree Expert Company

The Department and the FA Bartlett Tree Expert Company entered into an Order on Consent on April 20, 2007 (ref. Index No. W1-1091-06-08). 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 (Figure 2). 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:

- groundwater
- soil
- 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 SCG 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 nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminants of concern identified at this site are:

ALDRIN	LINDANE
DDD	DDE
DDT	CHLORDANE
DIELDRIN	ALPHA-BHC

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRMs described in Section 6.2. More complete information can be found in the RI Report and the IRM Construction Completion Report.

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.

The following IRMs have been completed at this site based on conditions observed during the RI.

Drywell-1

An interim remedial measure (IRM) was implemented to address subsurface soil which was contaminated with pesticides and herbicides. The IRM work plan was approved by DEC on June 14, 2012. An addendum to the work plan was approved on August 21, 2012 which modified the method of shoring the excavation and segregating the excavated soils.

Soil borings conducted in 2010 during the remedial investigation were supplemented with additional soil borings in April 2011 to further delineate the vertical and horizontal extent of contamination in subsurface soil within and around Drywell-1. Elevated levels of DDD, DDT, chlordane, dieldrin, lindane and were discovered in subsurface soils beneath the drywell.

Field work associated with the IRM began on September 5, 2012. Sheet piling was driven at the outer limits of the excavation to keep the excavation open while contaminated soil was removed from within. Excavated soil was stored on-site and was sampled and analyzed for off-site disposal at a permitted disposal facility (Figure 3).

Excavation activities were completed on November 12, 2012. The final depth of excavation was approximately 32 feet below grade. Groundwater was encountered at approximately 31 feet below grade. Two post excavation soil samples were taken from the bottom of the excavation before the area was backfilled. Post excavation soil samples and previous soil characterization borings confirmed that residual soil contamination meets the Protection of Groundwater use soil cleanup objectives.

Excavated soil was disposed of off-site at two permitted disposal facilities. 97.46 tons of non-hazardous soil was disposed at Cumberland Landfill in Newburg, Pennsylvania and 340.94 tons of hazardous soil was disposed at the Bennett Environmental Facility in Quebec, Canada.

The excavation was backfilled with 239.4 tons of certified clean fill material (sandy soil) provided by 110 Sand Company in Melville, New York and 320.2 tons of coarse aggregate from Clinton Point Quarry, Clinton Point, New York. All backfill materials met the requirements and criteria specified in 6 NYCRR Part 375-6.7(d) and DER-10 Technical Guidance for Site Investigation and Remediation.

The IRM activities are summarized in a Construction Completion Report (CCR) dated July 2013 which was prepared by a New York State licensed Professional Engineer. The CCR was approved by the Department on July 30, 2013.

Drywell-3

Leaching pool Drywell-3 (DW-3) received the facility's sanitary wastewater. Analysis of the wastewater did not indicate that there had been disposal of hazardous wastes into DW-3. During the RI, 6.1 tons of liquid, solids and sediment were removed from the pool and disposed of off-site at a permitted disposal facility. Soil samples were collected from the bottom of DW-3 and from a depth of 18 to 24 inches below the bottom. No contaminants of concern were detected above the protection of groundwater SCOs or the commercial use SCOs. DW-3 was then backfilled to grade utilizing a 50 psi flowable fill material (lightweight concrete mixture) which hardens in place. The closure activities are summarized in a Remedial Action Report dated November 2009. In a letter dated June 6, 2012, the Nassau County Department of Health (NCDH) granted their concurrence with the investigation and closure of DW-3. With the assistance of NCDH and the Nassau County Department of Public Works, the facility was connected to the sanitary sewer system.

Mechanic's Pit

A small pit exists within the facility's garage. The pit was filled with stone ballast and was found to have a solid concrete base approximately two feet thick. Once the ballast was removed, soil that had accumulated on the concrete bottom was containerized and disposed of off-site at a permitted disposal facility. A soil boring was performed through the concrete base of the pit and a soil sample was collected and analyzed. There were no contaminants of concern which exceeded the protection of groundwater or commercial use SCOs, therefore, the pit was backfilled with stone ballast and its cover was replaced and anchored into place. The closure activities are summarized in a Remedial Action Report dated November 2009. In a letter dated June 5, 2012, NCDH granted their concurrence with the investigation and closure of the mechanic's pit.

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 01.

Nature and Extent of Contamination: A RI was conducted to delineate the nature and extent of soil and groundwater contamination on-site. Based upon this investigation, the primary contaminants of concern are the pesticides aldrin, alpha BHC, chlordane, DDD, DDE, DDT, dieldrin and lindane.

Prior to Remediation:

Shallow Surface Soil - Surface soil was characterized site-wide by collecting soil samples from zero to two feet below surface in a number of locations including from the following areas of concern: former pesticide storage locker, former open shed, test pit-1, test pit-2, stairway floor

drain and mechanic's pit. Levels of pesticides in all soil samples collected from this depth interval were below the commercial use SCOs. All samples were below the protection of groundwater SCOs and the majority were below the residential SCOs.

Subsurface Soil - Pesticides were detected in subsurface soil beneath Drywell-1 at levels which exceeded the commercial use and protection of groundwater SCOs. The contaminants were detected in the drywell's bottom samples (approximately 7' below grade) and to a depth of approximately 32' below grade.

Groundwater - Pesticides were detected in groundwater at levels which exceeded SCGs. Groundwater is encountered approximately 31 feet below grade, depending on seasonal variation. Contaminant levels are expected to diminish as a result of interim remedial measure source removal (soil excavation) which was conducted and completed in November 2012. Volatile organic compounds (trichloroethene and cis-1,2-dichloroethene) were detected at levels exceeding SCGs in groundwater upgradient of the site. Levels of VOCs in on-site groundwater are generally non-detect with one detection marginally exceeding the SCG, and is not considered site related.

Post-Remediation:
Remediation at the site is complete. Prior to remediation, the primary contaminants of concern were pesticides in soil and groundwater. Remediation in the form of source removal (soil excavation) has reduced contaminant levels in subsurface soil to levels meeting either the commercial use or protection of groundwater SCOs. While pesticides in groundwater were found to exceed SCGs, detections were extremely low (parts per trillion) and are expected to diminish to levels meeting SCGs as a result of source removal.

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*.

Since the site is fenced and covered by buildings, asphalt, or concrete, people will not come into contact with residual site-related soil and groundwater contamination unless they dig below the surface. 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. Although sampling has indicated that impacts to indoor air are not a current concern, the potential exists to inhale contaminants in indoor air due to soil vapor intrusion in on-site building development and occupancy. Insufficient environmental information exists to evaluate the potential for soil vapor intrusion to occur in off-site areas.

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:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground or surface water contamination.

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 SELECTED REMEDY

Based upon the results of the investigations at the site, the IRMs that have been performed, and the evaluation presented here, the Department has selected No Further Action as the remedy for the site. This No Further Action remedy includes continued operation of the implementation of ICs/ECs which include: green remediation principles and techniques, maintaining a site cover system, restriction of groundwater use, compliance with redevelopment as a commercial use property, and a site management plan for monitoring and future development. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5.

The elements of the selected remedy are as follows:

1. 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 commercial use as defined by Part 375-1.8(g), although the 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 NYSDEC approved Site Management Plan.

2. Site Management Plan. A Site Management Plan is required which includes the following:
a) an Institutional 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 engineering controls remain in place and effective:
- Institutional Controls: An Environmental Easement will be imposed which will address the requirements and restrictions outlined in Paragraph 1 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 groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any 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 certifications of the institutional and engineering controls;

b) a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- monitoring of soil gas, indoor air and groundwater to assess performance and effectiveness of the remedy;
- an evaluation of on-site groundwater quality to determine the need for an off-site groundwater monitoring well downgradient of the site;
- a schedule of monitoring and frequency of submittals to the Department; and
- monitoring for vapor intrusion for any building occupied or developed on the site.

3. Green Remediation

Green Remediation principals and techniques will be implemented to the extent feasible in the 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 gas 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 material which would otherwise be considered a waste.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation (RI) 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 two categories, volatile organic compounds (VOCs) and pesticides. 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.

Waste/Source Areas

As described in the RI report, waste/source materials were identified at the site and are impacting groundwater and soil.

Wastes are defined in 6 NYCRR Part 375-1.2(aw) and include solid, industrial and/or hazardous wastes. Source areas are defined in 6 NYCRR Part 375(au). Source areas are areas of concern at a site where substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. Source areas/potential source areas identified at the site, and the actions taken to address those areas, are presented below.

Under DEC oversight, a RI was completed at the site. The findings of the RI are summarized in a RI report dated August 2013. During the RI several areas of concern were investigated. A preliminary site assessment (PSA) identified pesticide contamination in soil and groundwater beneath a subsurface leaching pool identified as Drywell-1 (DW-1). DW-1 and the following areas of concern were the focal points of the RI (Figure 2).

Drywell-1
As previously discussed, the disposal of pesticides and their presence in DW-1 was confirmed during a previous PSA. Soil and groundwater beneath and around DW-1 was thoroughly investigated during the RI and during preparation of the Interim Remedial Measure (IRM) work plan. The IRM activities are documented in greater detail in Section 6.2 of the PRAP and in the IRM Construction Completion Report dated July 2013. As a result of the IRM, pesticide impacted soils were removed from beneath DW-1 to a depth of 32 feet below grade, at which point groundwater was encountered. Residual pesticide levels in soil were below the Protection of Groundwater soil cleanup objectives (SCOs) in all confirmation samples.

Drywell-2
An architectural drawing dated July 25, 1963 identifies a Drywell-2 (DW-2) in the center of the property. However, there is no visual evidence of DW-2 on the site. During the RI, a geophysical study and two soil borings were conducted in the area identified as DW-2. Based upon the soil boring logs, the soil sample results, and the geophysical data, it appears that DW-2 was never constructed on the property.

Drywell-3
Leaching pool Drywell-3 (DW-3) received the facility's sanitary wastewater. Analysis of the wastewater did not indicate that there had been disposal of hazardous wastes into DW-3. During the RI, 6.1 tons of liquid, solids

and sediment were removed from the pool and disposed of off-site at a permitted disposal facility. After the removal action, the depth to the bottom of the pool was approximately 12.5 feet below grade. Soil samples were collected from the bottom of DW-3 and from a depth of 18 to 24 inches below the bottom. No contaminants of concern were detected above the protection of groundwater SCOs or the commercial use SCOs. DW-3 was then backfilled to grade utilizing a 50 psi flowable fill material which hardens in place. In a letter dated June 6, 2012, the Nassau County Department of Health (NCDH) granted their concurrence with the investigation and closure of DW-3. With the assistance of NCDH and the Nassau County Department of Public Works, the facility was then connected to the sanitary sewer system.

Mechanic's Pit

A small pit exists within the existing facility's garage. The pit was filled with stone ballast and was found to have a solid concrete base approximately two feet thick. Once the ballast was removed, soil that had accumulated on the concrete bottom was containerized and disposed of off-site at a permitted disposal facility. A soil boring was performed through the concrete base of the pit and a soil sample was collected and analyzed. There were no contaminants of concern which exceeded the protection of groundwater or commercial use SCOs, therefore the pit was backfilled with stone ballast and its cover was replaced and anchored in place. In a letter dated June 6, 2012, NCDH granted their concurrence with the investigation and closure of the mechanic's pit.

Stairway Floor Drain

A six inch diameter floor drain exists at the base of the stairs leading to the facility's garage. The drain collects stormwater during rainfall events to keep the base of the stairwell from flooding. The drain cover was removed and the drain was investigated for interconnections to any of the existing leaching pools. No interconnections existed. A sample of the soil bottom of the drain revealed that there were no contaminants of concern which exceeded the protection of groundwater or commercial use SCOs. In a letter dated June 6, 2012, concurred with the investigation and continued use of the stairway floor drain.

Former Open Shed

An open shed once existed on the north side of the property for the storage of equipment. The shed was removed in July 2008 and a soil boring was performed in the area. Soil samples were collected at a depth of 0-2 feet, 5-7 feet and 10-12 feet below grade. No contaminants of concern were detected above the protection of groundwater or commercial use SCOs.

Former Pesticide Storage Locker

A locked fireproof storage cabinet was adjacent to a garage along the eastern side of the property. The garage was removed in July 2008 and the storage locker was removed to facilitate the placement of a soil boring in the area. Soil samples were collected at a depth of 0-2 feet, 6.5-7 feet and 10-12 feet below grade. No contaminants of concern were detected above the protection of groundwater or commercial use SCOs.

Waste/Source Areas

As described in the RI report, waste/source materials were identified at the site and are impacting groundwater, and soil.

Wastes are defined in 6 NYCRR Part 375-1.2(aw) and include solid, industrial and/or hazardous wastes. Source Areas are defined in 6 NYCRR Part 375(au). Source areas are areas of concern at a site where substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. Wastes and a Source area identified at the site include,

The RI confirmed the disposal of pesticides into an on-site leaching pool identified as DW-1. Subsurface soil and groundwater beneath DW-1 was impacted with pesticides at levels which exceeded SCGs. As a result, DW-1 was one of the areas of concern which was the focus of the RI. Levels of pesticides in the contaminated soil beneath DW-1 exceeded the Contained in Criteria thus rendering it a hazardous waste. Therefore, an interim remedial measure was conducted in the form of source removal (soil excavation). The concrete leaching pool that comprised DW-1 was removed from the ground. Subsurface soil which was determined to be contaminated from previous characterization borings was then excavated to a depth of 32 feet below grade. The contaminated soil and concrete was disposed of off-site at a permitted disposal facility. The IRM is discussed in greater detail in Section 6.2. As previously discussed, the RI revealed that other areas of concern on the site did not pose a significant threat to public health or the environment.

Groundwater

During the RI, groundwater samples were collected from overburden monitoring wells. The samples were collected to assess on-site groundwater quality at the water table and within the deeper aquifer. Groundwater was sampled and analyzed for pesticides/herbicides, volatile organic compounds (VOCs), semi-volatile organic compounds and inorganics. The primary groundwater contaminants of concern in on-site groundwater are pesticides which were found to exceed SCGs (Figure 4). As a result of the removal of the contaminant source area (DW-1) through soil excavation, pesticide levels in on-site groundwater are expected to diminish.

Volatile organic compounds (VOCs) were detected in groundwater during the RI. However, VOC levels were observed to be highest in upgradient monitoring wells MW-1s and MW-1d, indicating the presence of VOCs is attributed to an upgradient source and are considered to represent background conditions. Therefore, VOCs found in on-site groundwater are not considered to be site specific contaminants of concern.

Table # 1 - Groundwater

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
cis-1,2-Dichloroethene	ND – 48	5	4 of 24
Trichloroethene	ND – 120	5	5 of 24
Pesticides			
4,4'-DDT	ND – 0.39	0.2	2 of 24
Dieldrin	ND – 3.3	0.004	13 of 24
Endrin	ND – 0.12	ND	1 of 24
alpha-BHC	ND – 0.12	0.01	2 of 24
gamma-BHC (Lindane)	ND – 0.071	0.05	1 of 24
alpha-Chlordane	ND – 0.11	0.05	3 of 24
gamma-Chlordane	ND – 0.058	0.05	1 of 24

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

Soil

During the RI, soil borings were conducted within the areas of concern to assess the nature and extent of soil contamination on the site. As with groundwater, soil samples were analyzed for pesticides/herbicides, volatile organic compounds, semi-volatile organic compounds and inorganics. The primary contaminants of concern in soil are pesticides. The table below includes the contaminants of concern that exceed the Unrestricted SCO found in Part 375-6.8 (a). Additionally, the table includes a comparison of the analytical data to the appropriate Restricted SCO found in Part 375-6.8 (b) for each individual contaminant. The Restricted SCO is the lower of: 1) the commercial use SCO where Section 4 has identified a restricted land use for the site, or 2) the protection of groundwater SCO only for the primary contaminants of concern listed in the groundwater section above. Soil contamination identified during the RI was addressed during the IRM described in Section 6.2 and is summarized in Table 2. Shallow surface soil was evaluated through the analysis of the zero to two foot soil interval. Pesticide levels in shallow surface soils were below the commercial use SCOs.

Table #2 - Soil

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG[c,d] (ppm)	Frequency Exceeding Restricted SCG
VOCs					
Tetrachloroethene	ND – 0.067	1.3	0 of 21	1.3	0 of 21
Pesticides					
4,4'-DDD	ND – 11	0.0033	17 of 21	14	0 of 21
4,4'-DDE	ND – 2.3	0.0033	13 of 21	17	0 of 21
4,4'-DDT	ND – 130	0.0033	19 of 21	47	2 of 21
Aldrin	ND – 0.0076	0.005	2 of 12	0.19	0 of 12
Alpha-BHC	ND	0.02	0 of 2	0.02	0 of 2
Endosulfan I	ND	2.4	0 of 14	102	0 of 14
Endosulfan II	ND	2.4	0 of 19	102	0 of 19
beta-BHC	ND	0.036	0 of 18	0.09	0 of 18
gamma-BHC (Lindane)	ND	0.1	0 of 21	0.1	0 of 21
Chlordane (alpha)	ND	0.094	0 of 18	2.9	0 of 18
Dieldrin	ND – 0.58	0.005	7 of 21	0.1	0 of 21
Endrin	0.017	0.014	2 of 2	0.06	0 of 2

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Commercial Use, unless otherwise noted.
d - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Groundwater.

Soil Vapor

The evaluation of the potential for soil vapor intrusion resulting from the presence of groundwater contamination was evaluated by the sampling of sub-slab soil vapor under structures, and indoor air inside

structures. At this site due to the presence of the facility building a full suite of samples were collected to evaluate whether soil vapor intrusion was occurring.

Volatile organic compounds (VOCs) are migrating onto the site in groundwater from an upgradient source, therefore, sampling was conducted to assess the potential for soil vapor intrusion. Sub-slab soil gas samples, indoor air samples and ambient air samples were collected in March 2008 and March 2012. On both occasions, sub-slab soil gas levels for tetrachloethene (PCE) were found to be elevated. However, on both occasions, indoor air sample results for PCE were below the NYSDOH guidance values and the levels were similar to ambient air quality. Based on the concentrations detected, and in comparison with the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in New York State (NYSDOH, October 2006), soil vapor intrusion was not identified as a concern during the RI. However, monitoring is recommended on site building and soil vapor intrusion may represent a concern for any future onsite buildings. VOCs detected in sub-slab soil gas are not considered to be site specific contaminants of concern. No remedial alternatives need to be evaluated for soil vapor although periodic soil vapor sampling will be conducted in the future.

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Bartlett Tree Company Site
State Superfund Project
Village of Westbury, Nassau County, New York
Site No. 1-30-074

The Proposed Remedial Action Plan (PRAP) for the Bartlett Tree Company site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 26, 2014. The PRAP outlined the remedial measure proposed for the residual contamination in soil and groundwater at the Bartlett Tree Company site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 25, 2014, which included a presentation of the remedial investigation/feasibility study (RI/FS) for the Bartlett Tree Company Site as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 28, 2014.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT 1: Which monitoring well had the highest TCE contamination?

RESPONSE 1: An upgradient monitoring well MW-1D had the highest concentration of TCE (120 ppb).

COMMENT 2: Do you have any idea where the TCE came from?

RESPONSE 2: The source of the TCE has not been identified.

COMMENT 3: Is the Bartlett Tree Company (Bartlett) going to stay at this site?

RESPONSE 3: The Department understands that Bartlett intends to continue its horticultural operations at this site.

Frank J. Williams, of Brown and Caldwell Associates, submitted a letter dated March 24, 2014 on behalf of Bartlett Tree Company which included the following comments:

COMMENT 4: While it is Bartlett's belief that an off-site monitoring well is not necessary, if the DEC wishes to pursue it as part of the long term monitoring of the site, Brown and Caldwell recommends that it be implemented only if warranted based on initial on-site monitoring.

RESPONSE 4: Based upon the removal of the contaminant source area by the IRM, and the resulting attenuation that has already been documented, the Department agrees that the results of several rounds of groundwater samples should be collected in order to evaluate groundwater quality and the need for an off-site monitoring well. The ROD reflects this change.

COMMENT 5: The PRAP should clarify that the property has been in commercial/industrial use for decades.

RESPONSE 5: Section 3 of the PRAP states, "The Bartlett Tree Company has occupied the site since the mid 1950s."

COMMENT 6: Any off-site sampling for VOCs should be the responsibility of the respective property owners and/or the DEC, not Bartlett.

RESPONSE 6: Exhibit A of the PRAP, states, "VOCs detected in sub-slab soil gas are not considered to be site specific contaminants of concern." The Department will not require Bartlett to complete an off-site investigation for VOCs.

Dr. Carmine F. Vasile, Ph.D. Electrophysics, Patchogue NY, submitted a letter dated February 28, 2014 which included the following comment:

COMMENT 7: "DEC officials said a remedial investigation outlined soil and groundwater contamination on the 0.4 acre property." Did their investigation verify compliance with EPA CERCLA Directive no. 9283.1-14, dated November 6, 2001: entitled "Use of Uranium Drinking Water Standards under 40 CFR 141 and 40 CFR 192 as Remediation Goals for Groundwater at CERCLA sites?"

RESPONSE 7: The document cited provides guidance for when uranium is a contaminant of concern at a site. Based on prior and current use of the site, radionuclides were not considered site contaminants of concern. Therefore, samples on the Bartlett site were not analyzed for radionuclides.

APPENDIX B

Administrative Record

Administrative Record

Bartlett Tree Company Site
State Superfund Project
Village of Westbury, Nassau County, New York
Site No. 1-30-074

1. "Proposed Remedial Action Plan", dated February 2014, prepared by the Department.

2. Order on Consent, Index No. W1-1091-06-08, between the Department and Bartlett Tree Company, executed on April 20, 2007.

3. "Preliminary Site Assessment", dated April 1998, prepared by Dvirka and Bartilucci

4. "Remedial Investigation/Feasibility Study (RI/FS) Work Plan", dated March 2008, prepared by Brown and Caldwell Associates.

5. "RI/FS Work Plan Addendum", dated November 2009, prepared by Brown and Caldwell Associates.

6. "Closure of Drywell #3 Work Plan", dated February 2009, prepared by Brown and Caldwell Associates.

7. "Closure of Drywell #3 and Mechanic's Pit", dated November 2009, prepared by Brown and Caldwell Associates.

8. "Final Interim Remedial Measure (IRM) Work Plan", dated April 2012, prepared by Brown and Caldwell Associates.

9. "IRM Work Plan Addendum", dated August 2012, prepared by Brown and Caldwell Associates.

10. "Construction Completion Report", dated July 2013, prepared by Brown and Caldwell Associates.

11. "Remedial Investigation Report", dated August, 2013, prepared by Brown and Caldwell Associates.

12. "Feasibility Study Report", dated February 2014, prepared by Brown and Caldwell Associates.

13. Letter dated February 28, 2014 from Dr. Carmine F. Vasile.

14. Letter dated March 24, 2014 from Frank J. Williams of Brown and Caldwell Associates.

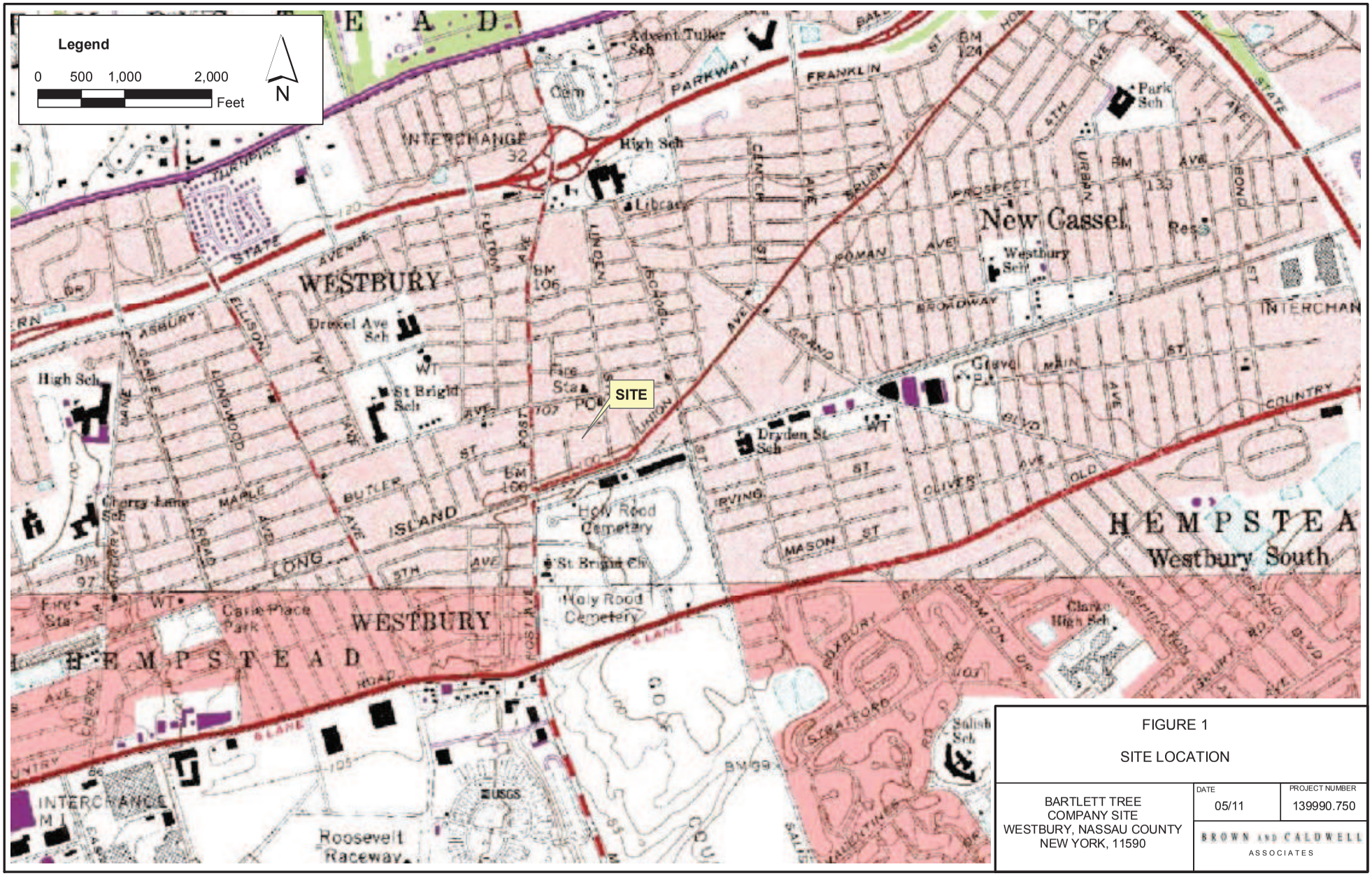


FIGURE 1

SITE LOCATION

BARTLETT TREE COMPANY SITE WESTBURY, NASSAU COUNTY NEW YORK, 11590	DATE 05/11	PROJECT NUMBER 139990.750
	BROWN AND CALDWELL ASSOCIATES	

P:\GIS\Bartlett_Tree\Dry_Well_1_IRM\750_WasteChar&DelSampling\Site_Location.mxd

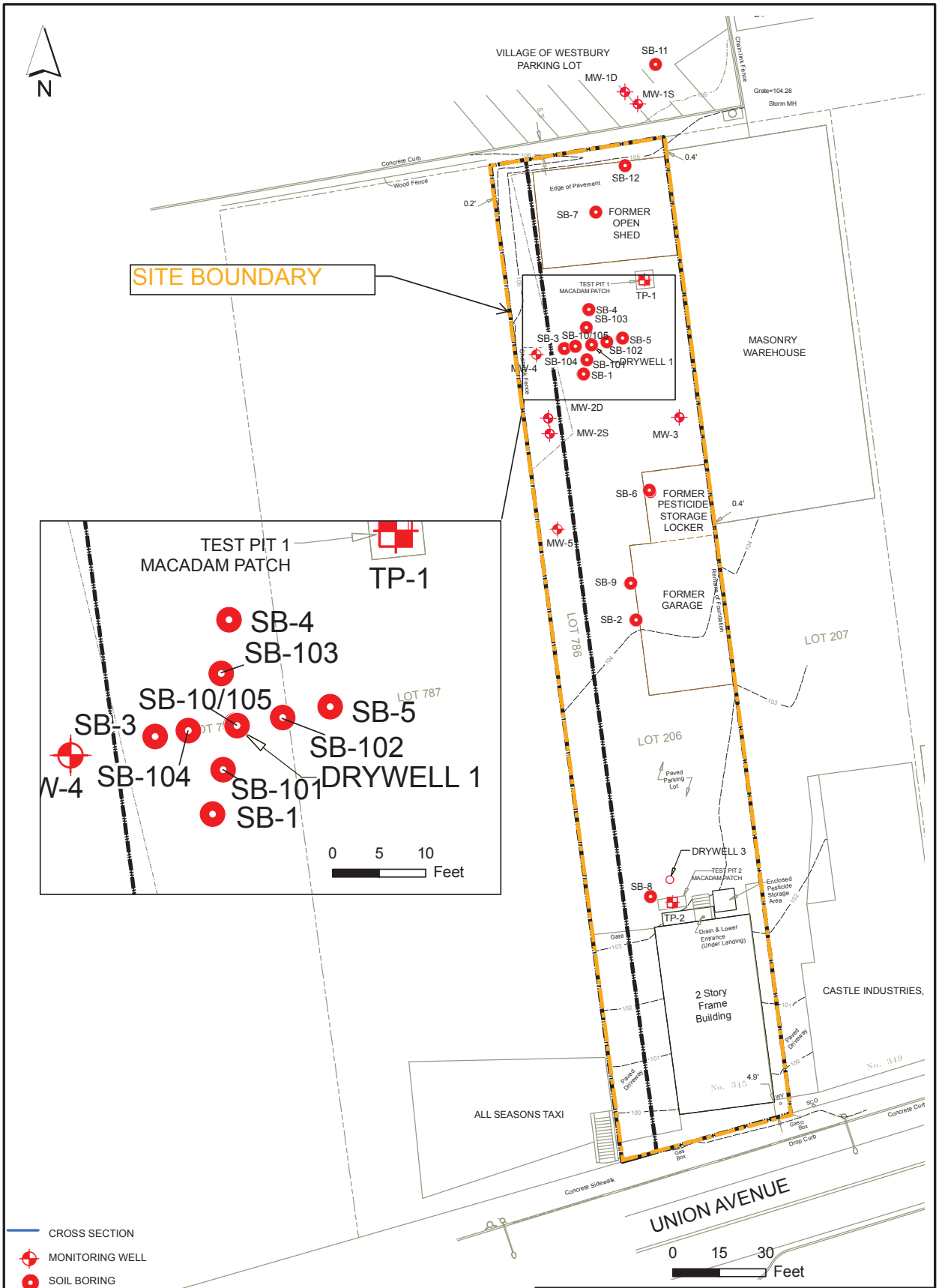
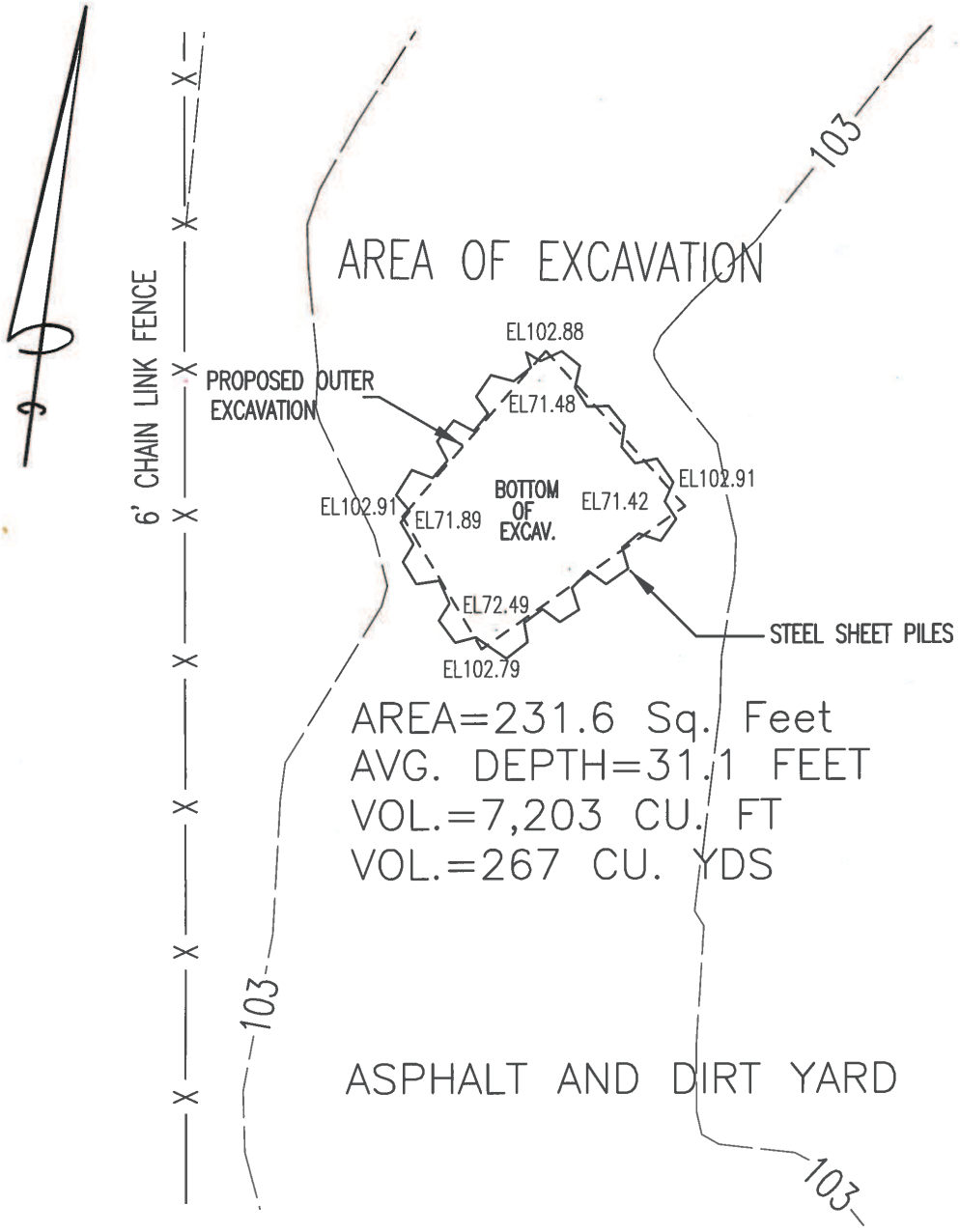


FIGURE 2

SAMPLE LOCATIONS

BARTLETT TREE COMPANY SITE WESTBURY, NEW YORK IRMWELL 1 IRM	DATE May 2011	PROJECT NUMBER 139990.750
	BROWN AND CALDWELL ASSOCIATES	

P:\GIS\Bartlett_Tree\Dry_Well_1_IRM\750_WasteChar&DelSampling\Site_Plan_052411.mxd



AREA=231.6 Sq. Feet
AVG. DEPTH=31.1 FEET
VOL.=7,203 CU. FT
VOL.=267 CU. YDS

NOTE: ELEVATIONS REFER TO NAVD88

SCALE: 1"=10FEET

Figure 3

0 10 20 30

EASEMENTS AND/OR SUBSURFACE STRUCTURES RECORDED OR UNRECORDED ARE NOT GUARANTEED UNLESS PHYSICALLY EVIDENT ON THE PREMISES AT THE TIME OF THE SURVEY.
GUARANTEES INDICATED HEREON SHALL RUN ONLY TO THE PERSON(S) FOR WHOM THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTIONS LISTED HEREON, AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. GUARANTEES ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS. THE OFFSETS (OR DIMENSIONS) SHOWN HEREON FROM THE STRUCTURES TO THE PROPERTY LINES ARE FOR A SPECIFIC PURPOSE AND USE AND THEREFORE ARE NOT INTENDED TO GUIDE THE ERECTION OF FENCES, RETAINING WALLS, POOLS, PATIOS, PLANTING AREAS, ADDITIONS TO BUILDINGS AND ANY OTHER CONSTRUCTION.

JOB NO.11652
REVISIONS: 10/24/2012–ADD BAR SCALE+MOVE TEXT

R:\11652–UNION\11652.DWG.

SKETCH OF

REMEDIAL EXCAVATION

SITUATE AT

BARTLETT TREE COMPANY SITE
345 UNION AVENUE
WESTBURY, NEW YORK

SCALE 1"=10' OCTOBER 11, 2012

AMERICAN ENGINEERING & LAND SURVEYING, P.C.
surveyors . engineers . architects . planners
80 Smith Street . suite 3A farmingdale NY 11735
tel: 631.393.2867
fax: 631.393.2868
www.aelandsurveying.com

STATE OF NEW YORK JOHN M. ABRUZZO LICENSED LAND SURVEYOR 50834

JOHN ABRUZZO, L.S. (NYS LIC.50834)

MW-1D	10/27/2008	4/9/2009	3/23/2010	5/21/2012
2,4-DB	0.29 U	0.28 U	0.29 U	0.29 U
2,4,5 - T	0.015 U	0.014 U	0.015 U	0.014 U
4,4'-DDD	0.0038 U	0.0038 U	0.012 U	0.0047 U
4,4'-DDE	0.0038 U	0.0038 U	0.0049 U	0.0047 U
4,4'-DDT	0.0058 U	0.0057 U	0.012 U	0.0047 U
alpha-BHC	0.0026 U	0.0026 U	0.0026 U	0.0028 U
alpha-Chlordane	0.0045 U	0.0045 U	0.0046 U	0.0019 U
beta-BHC	0.0036 U	0.0036 U	0.0037 U	0.0032 U
Dalapon	0.32 U	0.24 U	0.24 U	0.24 U
delta-BHC	0.0029 U	0.0028 U	0.0029 U	0.0032 U
Dieldrin	0.0038 U	0.0038 U	0.0039 U	0.0050 U
Endosulfan I	0.0029 U	0.0028 U	0.0029 U	0.0041 U
Endosulfan II	0.0038 U	0.0038 U	0.0039 U	0.014 U
Endosulfan sulfate	0.0038 U	0.0038 U	0.0055 U	0.0055 U
Endrin	0.0038 U	0.0038 U	0.0039 U	0.0077 U
Endrin ketone	0.0038 U	0.0038 U	0.017 U	0.0047 U
Gamma-BHC	0.0044 U	0.0044 U	0.0045 U	0.0019 U
gamma-Chlordane	0.0029 U	0.0028 U	0.0041 U	0.0041 U
Heptachlor epoxide	0.0035 U	0.0035 U	0.0036 U	0.0022 U
MCPP	48 U	47 U	49 U	48 U

MW-1S	10/27/2008	4/9/2009	3/23/2010	5/22/2012
2,4-DB	0.29 U	0.28 U	0.29 U	0.29 U
2,4,5 - T	0.014 U	0.014 U	0.015 U	0.014 U
4,4'-DDD	0.0038 U	0.0039 U	0.011 U	0.0047 U
4,4'-DDE	0.0038 U	0.0039 U	0.0047 U	0.0047 U
4,4'-DDT	0.0057 U	0.0059 U	0.011 U	0.0047 U
alpha-BHC	0.0026 U	0.0027 U	0.0025 U	0.0028 U
alpha-Chlordane	*0.11	*0.1	0.031	0.052 J
beta-BHC	0.025	0.0044 J	0.0036 U	0.0032 U
Dalapon	0.32 U	0.24 U	0.25 U	0.24 U
delta-BHC	0.005 U	0.003 U	0.0028 U	0.0032 U
Dieldrin	*0.18	*0.12 J	*0.012 J	0.0050 U
Endosulfan I	0.007 U	0.0033 J	0.0028 U	0.0041 U
Endosulfan II	0.0038 U	0.0039 U	0.0038 U	0.014 U
Endosulfan sulfate	0.0038 U	0.0039 U	0.0053 U	0.0055 U
Endrin	0.0038 U	0.0039 U	0.0038 U	0.0077 U
Endrin ketone	0.0038 U	0.0039 U	0.016 U	0.0047 U
Gamma-BHC	0.0044 U	0.0045 U	0.0043 U	0.0019 U
gamma-Chlordane	0.048	*0.058	0.024	0.0060 U
Heptachlor epoxide	0.014	0.0036 U	0.0035 U	0.0022 U
MCPP	48 U	47 U	49 U	48 U

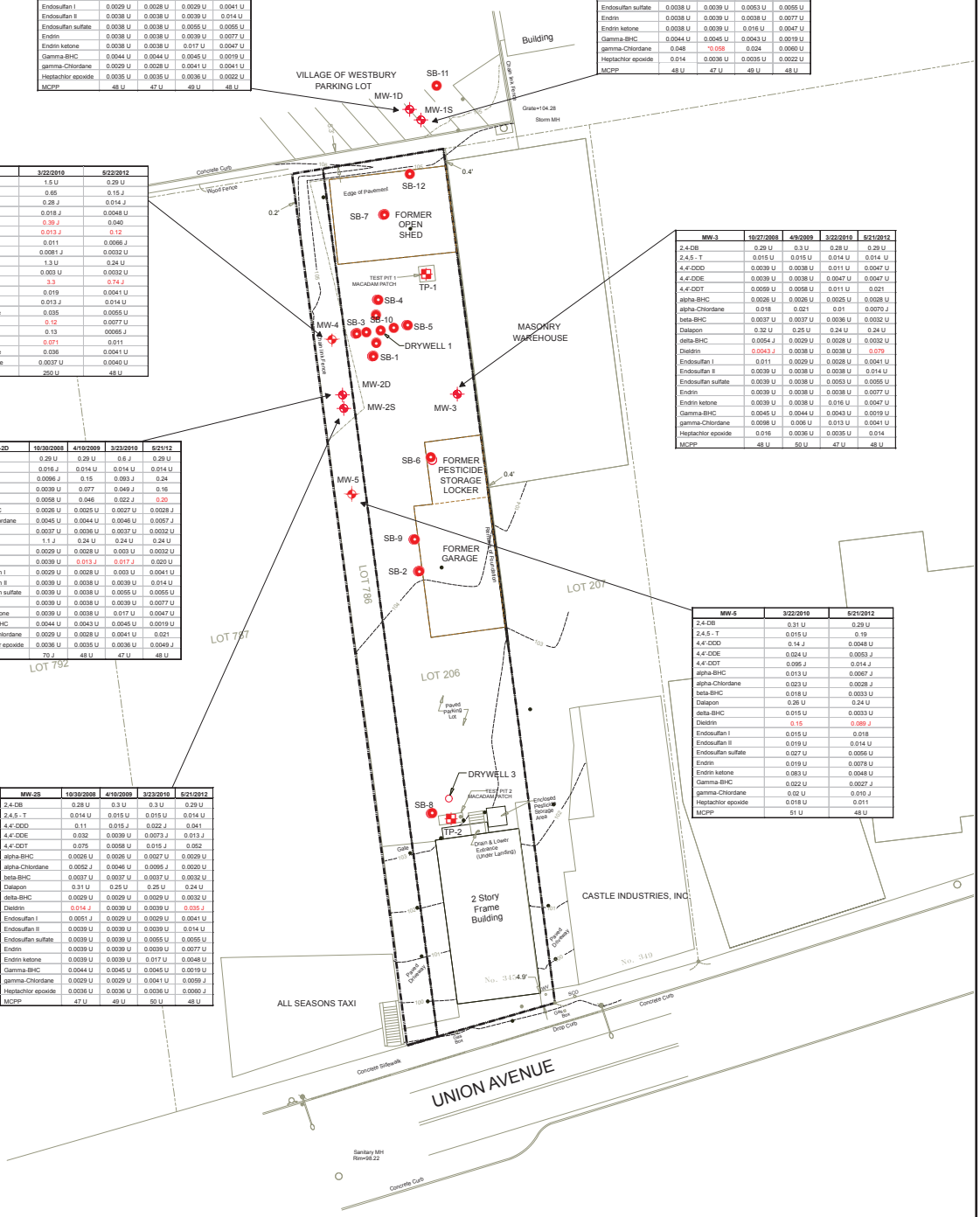
MW-4	3/22/2010	5/22/2012
2,4-DB	1.5 U	0.29 U
2,4,5 - T	0.65	0.15 J
4,4'-DDD	0.28 J	0.014 J
4,4'-DDE	0.018 J	0.0048 U
4,4'-DDT	0.39 J	0.040
alpha-BHC	0.013 J	0.12
alpha-Chlordane	0.011	0.0066 J
beta-BHC	0.0081 J	0.0032 U
Dalapon	1.3 U	0.24 U
delta-BHC	0.003 U	0.0032 U
Dieldrin	3.3	0.74 J
Endosulfan I	0.019	0.0041 U
Endosulfan II	0.013 J	0.014 U
Endosulfan sulfate	0.035	0.0055 U
Endrin	0.12	0.0077 U
Endrin ketone	0.13	00065 J
Gamma-BHC	0.071	0.011
gamma-Chlordane	0.036	0.0041 U
Heptachlor epoxide	0.0037 U	0.0040 U
MCPP	250 U	48 U

MW-3	10/27/2008	4/9/2009	3/22/2010	5/21/2012
2,4-DB	0.29 U	0.3 U	0.28 U	0.29 U
2,4,5 - T	0.015 U	0.015 U	0.014 U	0.014 U
4,4'-DDD	0.0039 U	0.0038 U	0.011 U	0.0047 U
4,4'-DDE	0.0039 U	0.0038 U	0.0047 U	0.0047 U
4,4'-DDT	0.0059 U	0.0058 U	0.011 U	0.021
alpha-BHC	0.0026 U	0.0026 U	0.0025 U	0.0028 U
alpha-Chlordane	0.018	0.021	0.01	0.0070 J
beta-BHC	0.0037 U	0.0037 U	0.0036 U	0.0032 U
Dalapon	0.32 U	0.25 U	0.24 U	0.24 U
delta-BHC	0.0054 J	0.0029 U	0.0028 U	0.0032 U
Dieldrin	0.0043 J	0.0038 U	0.0038 U	0.079
Endosulfan I	0.011	0.0029 U	0.0028 U	0.0041 U
Endosulfan II	0.0039 U	0.0038 U	0.0038 U	0.014 U
Endosulfan sulfate	0.0039 U	0.0038 U	0.0053 U	0.0055 U
Endrin	0.0039 U	0.0038 U	0.0038 U	0.0077 U
Endrin ketone	0.0039 U	0.0038 U	0.016 U	0.0047 U
Gamma-BHC	0.0045 U	0.0044 U	0.0043 U	0.0019 U
gamma-Chlordane	0.0098 U	0.006 U	0.013 U	0.0041 U
Heptachlor epoxide	0.016	0.0036 U	0.0035 U	0.014
MCPP	48 U	50 U	47 U	48 U

MW-2D	10/30/2008	4/10/2009	3/23/2010	5/21/12
2,4-DB	0.29 U	0.29 U	0.6 J	0.29 U
2,4,5 - T	0.016 J	0.014 U	0.014 U	0.014 U
4,4'-DDD	0.0096 J	0.15	0.093 J	0.24
4,4'-DDE	0.0039 U	0.077	0.049 J	0.16
4,4'-DDT	0.0058 U	0.046	0.022 J	0.20
alpha-BHC	0.0026 U	0.0025 U	0.0027 U	0.0028 J
alpha-Chlordane	0.0045 U	0.0044 U	0.0046 U	0.0057 J
beta-BHC	0.0037 U	0.0036 U	0.0037 U	0.0032 U
Dalapon	1.1 J	0.24 U	0.24 U	0.24 U
delta-BHC	0.0029 U	0.0028 U	0.003 U	0.0032 U
Dieldrin	0.0039 U	0.013 J	0.017 J	0.020 U
Endosulfan I	0.0029 U	0.0028 U	0.003 U	0.0041 U
Endosulfan II	0.0039 U	0.0038 U	0.0039 U	0.014 U
Endosulfan sulfate	0.0039 U	0.0038 U	0.0055 U	0.0055 U
Endrin	0.0039 U	0.0038 U	0.0039 U	0.0077 U
Endrin ketone	0.0039 U	0.0038 U	0.017 U	0.0047 U
Gamma-BHC	0.0044 U	0.0043 U	0.0045 U	0.0019 U
gamma-Chlordane	0.0029 U	0.0028 U	0.0041 U	0.021
Heptachlor epoxide	0.0036 U	0.0035 U	0.0036 U	0.0049 J
MCPP	70 J	48 U	47 U	48 U

MW-5	3/22/2010	5/21/2012
2,4-DB	0.31 U	0.29 U
2,4,5 - T	0.015 U	0.19
4,4'-DDD	0.14 J	0.0048 U
4,4'-DDE	0.024 U	0.0053 J
4,4'-DDT	0.095 J	0.014 J
alpha-BHC	0.013 U	0.0067 J
alpha-Chlordane	0.023 U	0.0028 J
beta-BHC	0.018 U	0.0033 U
Dalapon	0.26 U	0.24 U
delta-BHC	0.015 U	0.0033 U
Dieldrin	0.15	0.089 J
Endosulfan I	0.015 U	0.018
Endosulfan II	0.019 U	0.014 U
Endosulfan sulfate	0.027 U	0.0056 U
Endrin	0.019 U	0.0078 U
Endrin ketone	0.083 U	0.0048 U
Gamma-BHC	0.022 U	0.0027 J
gamma-Chlordane	0.02 U	0.010 J
Heptachlor epoxide	0.018 U	0.011
MCPP	51 U	48 U

MW-2S	10/30/2008	4/10/2009	3/23/2010	5/21/2012
2,4-DB	0.28 U	0.3 U	0.3 U	0.29 U
2,4,5 - T	0.014 U	0.015 U	0.015 U	0.014 U
4,4'-DDD	0.11	0.015 J	0.022 J	0.041
4,4'-DDE	0.032	0.0039 U	0.0073 J	0.013 J
4,4'-DDT	0.075	0.0058 U	0.015 J	0.052
alpha-BHC	0.0026 U	0.0026 U	0.0027 U	0.0029 U
alpha-Chlordane	0.0052 J	0.0046 U	0.0095 J	0.0020 U
beta-BHC	0.0037 U	0.0037 U	0.0037 U	0.0032 U
Dalapon	0.31 U	0.25 U	0.25 U	0.24 U
delta-BHC	0.0029 U	0.0029 U	0.0029 U	0.0032 U
Dieldrin	0.014 J	0.0039 U	0.0039 U	0.035 J
Endosulfan I	0.0051 J	0.0029 U	0.0029 U	0.0041 U
Endosulfan II	0.0039 U	0.0039 U	0.0039 U	0.014 U
Endosulfan sulfate	0.0039 U	0.0039 U	0.0055 U	0.0055 U
Endrin	0.0039 U	0.0039 U	0.0039 U	0.0077 U
Endrin ketone	0.0039 U	0.0039 U	0.017 U	0.0048 U
Gamma-BHC	0.0044 U	0.0045 U	0.0045 U	0.0019 U
gamma-Chlordane	0.0029 U	0.0029 U	0.0041 U	0.0059 J
Heptachlor epoxide	0.0036 U	0.0036 U	0.0036 U	0.0060 J
MCPP	47 U	49 U	50 U	48 U



MONITORING WELL

SOIL BORING

DRYWELL

TEST PIT

PAVEMENT EDGE

—103— GROUND SURFACE ELEVATION (FT., NGVD)

PROPERTY LINE

FORMER STUCTURE LOCATION (APPROXIMATE, DEMOLISHED JULY 2008)

Explanation of Terms and Abbreviations

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

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

Results reported in micrograms per liter (ug/L)

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

*Red concentrations are above New York State Class GA Groundwater Standards or Guidance values

0 10 20 40 Feet

Figure 4

PESTICIDE AND HERBICIDE CONCENTRATIONS IN GROUNDWATER

BARTLETT TREE COMPANY SITE
WESTBURY, NEW YORK

DATE: JULY, 2012

PROJECT NUMBER: 139990

BROWN AND CALDWELL
ALLENDALE, NEW JERSEY

P:\GIS\Bartlett_Tree\Rl_Report\GW_Pest_07091222x3.mxd