CLOSURE OF DRYWELL 3 AND MECHANIC'S PIT REMEDIAL ACTION REPORT BARTLETT TREE COMPANY SITE WESTBURY, NEW YORK NYSDEC SITE REGISTRY NO. 130074

Prepared for

F.A. Bartlett Tree Expert Company,
Charlotte, North Carolina

NOVEMBER 2009

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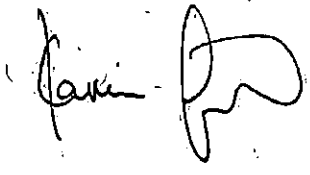
Project Number: 137365.401



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1. INTRODUCTION

Brown and Caldwell Associates (BC) has prepared this remedial action report (RAR) on behalf of F.A. Bartlett Tree Experts to detail the closure of Drywell 3, a former mechanic's pit, and a floor drain at the Bartlett Tree Company Site (the Site). This RAR reflects the approach for the closure of the drywell originally described in BC's remedial action work plan[1] (RAWP) submitted in February 2009 to the New York State Department of Environmental Conservation (DEC). The DEC approved the RAWP by letter dated February 23, 2009 (Appendix F).

1.1 Background

The site is located on Long Island, at 345 Union Avenue in Westbury, Nassau County, New York (Figure 1). The site is located in an urban, mixed-use neighborhood of commercial and industrial facilities and residences. The site consists of a narrow parcel of land measuring approximately 340 feet in length by 60 feet wide, totaling approximately 0.4 acres. The locations of Drywell 3, the former mechanic's pit, and the floor drain are shown on Figure 2.

Drywell 3 previously served as a cesspool which received sanitary wastes from the adjacent Office Building. Prior to the closure activities, it was thought that Drywell 3 might also have connections to a floor drain located in the exterior stairwell on the north side of the Office Building (Stairwell Floor Drain), and/or to a potential drain located in a suspected former mechanic's pit located in the ground floor of the Office Building (Mechanic's Pit). At some point in the past, the Mechanic's Pit had been filled with aggregate and covered by wooden boards. A remedial investigation (RI) conducted in accordance with the DEC-approved "Remedial Investigation/Feasibility Study Work Plan" (Brown and Caldwell, March 2008) identified petroleum product(s) and pesticides/herbicides in the materials contained within Drywell 3 and indicated the need to terminate its use as a cesspool and properly close it. In March 2009 the Office Building was connected to the municipal sanitary sewer system and the usage of Drywell 3 as a cesspool ceased. The nature of the Mechanics Pit and the Stairway Floor Drain and any possible connections to Drywell 3 remained uncertain.

1.2 Objectives and Technical Approach

The objectives of the closure activities described in this report were to terminate the use of Drywell 3 as a cesspool for the receipt of sanitary sewage, to remove contaminated liquids and solids from the drywell, and to investigate and terminate any connections to the Stairwell Floor Drain or a potential drain in the Mechanic's Pit. An overview of the closure activities is provided below and described in detail in Section 2.

Mechanics Pit: After removal of the fill from the Mechanic's Pit, the pit was inspected to determine if it had a solid bottom (with or without a drain) or if it had an earthen bottom. The inspection included notation of the structural condition of the pit, including the presence of cracks and the condition of mortar repairs (if any). The contents of the pit were sampled for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), herbicides, pesticides, metals, and polychlorinated biphenyls (PCBs) as specified in the

[1] "Closure Of Drywell 3 Work Plan, Bartlett Tree Company Site, Westbury, New York, NYSDEC Site Registry No. 130074"; Brown and Caldwell; February 2009.

RAWP and in accordance with the requirements and quality assurance methods in the July 2007 RI/FS Work Plan.

Drywell 3: Based on the proximity of Drywell 3 to the Office Building, removal of the drywell system could adversely impact the foundation of the Office Building. Therefore the drywell was closed in place by removing and properly disposing of its contents and backfilling the structure with clean fill. The contents of the drywell (liquids and accumulated solids) were removed to the extent practicable using a vacuum (vac) truck. The vac truck was also used to remove soils in the base of the drywell to the extent possible without undermining the drywell wall. After cleaning and inspection of the Drywell, closure confirmation samples were collected and analyzed for VOCs, SVOCs, herbicides, pesticides, metals, and PCBs to determine if the remaining soil had been adversely impacted by leaching of the drywell contents.

Stairway Floor Drain: The stairway floor drain receives storm water runoff from the paved parking lot. Historical architectural plans indicate this floor drain had a potential connection to a pre-cast dry well located a few feet to the north and west of the stairway. It was unclear if this pre-cast dry well was actually Drywell 3. The cover of the Stairway Floor Drain was removed and its contents were inspected and sampled. The interior of Drywell 3 was inspected to identify any drain pipe potentially connected to the floor drain. The potential for connection between Drywell 3 and the Stairway Floor Drain was tested by introducing water into the drain and observing the interior of Drywell 3 (after cleaning) for evidence of drainage.

Fieldwork took place in August 2009 and the investigation and closure sampling results are included in this report.

2. CLOSURE ACTIVITIES

BC contracted with Land Remediation, Inc. of Averill Park, New York to perform the closure activities as specified in the February 2009 RAWP. During the closure activities, BC personnel provided continuous inspection the closure activities, performed required air monitoring for protection of workers and the community, and collected post-removal/excavation verification samples. Field work took place on August 4 and 5, 2009. During the investigation and closure activities, representatives from DEC (Jamie Ascher) and Nassau County Department of Health (NCDH) (John Lovejoy) were present. Photographs of field activities are presented in the photodocumentation log in Appendix A.

All waste materials generated from the closure activities (i.e., liquids/suspended solids, soil/sediments, fluids generated from decontamination activities, personal protective equipment, etc.) were properly containerized, and labeled. With the exception noted in Section 2.4, all wastes were transported and disposed of at off-site facilities permitted to accept these materials. In addition, investigation derived waste (IDW) from the previous RI activities were removed at this time and disposed of. An inventory of all IDW drums is contained in Appendix B. The IDW and all waste materials generated as part of the closure activities were characterized as non-hazardous waste. Manifests and certificates of destruction are included in Appendix B.

During closure activities, air at the downwind perimeters of the work zones was monitored in accordance with the Community Air Monitoring Plan (CAMP) contained in Appendix C of the DEC-approved "Remedial Investigation/Feasibility Study Work Plan" (Brown and Caldwell, March 2008). Air was continuously monitored for volatile organic compounds (VOCs) and particulates. No exceedences of the action levels of 5 ppm above background VOCs and 100 mcg/m^3 above background TM-10 (particulate matter less than 10 micrometers in size) occurred. Air data collected during field work is provided in Appendix C.

2.1 Permits and Notification

All work was performed under the site investigation/remediation program conducted under the auspices of the DEC. Due to the direct oversight of DEC, the NCDH waived its requirement that a permit be obtained for the closure of Drywell 3 (i.e., a cesspool). On July 31, 2009 BC and its subcontractor, Land Remediation provided notifications to the NCDH and the DEC regarding the closure activities.

2.2 Waste Characterization

Waste characterization data for the Drywell 3 contents were provided to DEC in the February 2009 RAWP, and additional characterization activities were not necessary. Based on these data, Land Remediation prepared waste profiles for disposal of IDW and the materials encountered in Drywell 3 and submitted them to CycleChem, Inc. of Elizabeth New Jersey prior to mobilization (Appendix G). CycleChem approved the waste profiles and issued Approval Code Number 953500-PC04-1.

2.3 Sampling and Analysis

As discussed in the following sections, environmental samples and post-removal confirmation samples were collected during the closure activities. The samples were packed in ice and submitted under chain of custody to Lancaster Laboratories, Inc. of Lancaster, Pennsylvania for the following analyses:

- TCL VOCs by USEPA SW 846 Method 8260;
- TCL SVOCs by USEPA SW 846 Method 8270C;
- TCL Pesticides by USEPA SW 846 Method 8081A;
- Organophosphorous Pesticides by USEPA SW 846 Method 8141A;
- Chlorinated Herbicides by USEPA SW 846 Method 8151A;
- TAL Metals - USEPA SW 846 Method 6010B/7471A; and
- PCBs by USEPA SW-846 Method 8082.

The analytical results are summarized in Table 1 and Figure 3. Due to the relatively large number of targeted analytes, Table 1 lists only those analytes with at least one detection in the soil matrix. Complete data packages are provided on CD-ROM in Appendix D. The laboratory results were forwarded to a qualified data validator for qualitative data validation and preparation of a Data Usability Summary Report (DUSR) in accordance with NYSDEC Guidance for the Development of Data Usability Summary Reports (revised September 1997). A copy of the signed DUSR is provided in Appendix E. Analytical data qualifiers resulting from the data validation are discussed in the DUSR and reflected in Table 1. The 2,4-dinitrophenol result for sample Dry Well was rejected (R) and is not usable for any purpose. All other results are considered usable for the stated purposes. Minor data quality issues with respect to blank contamination, spike recoveries, and duplicate precision were identified; only some required qualification of data.

The analytical results were compared to the 6NYCRR Subpart 375 Soil Cleanup Objectives (SCOs) for Protection of Public Health – Commercial Use, and Protection of Groundwater. All results that exceed one or both of these SCOs are highlighted in red on Table 1. Figure 3 presents only those analytes which exceed at least one of the SCOs.

2.4 Inspection of Former Mechanic's Pit

During closure activities, the wooden planking over the mechanics pit was removed. The stone backfill was removed from the pit using a small excavator and placed on poly sheeting adjacent to the pit. Inspection of the stone backfill and screening with a photoionization detector (PID) did not reveal evidence of obvious contamination (e.g. staining, odors, elevated VOC levels) Prior to entering the pit, the atmosphere in the pit was monitored for VOCs, lower explosive limit (LEL), oxygen, carbon monoxide and hydrogen sulfide to verify that conditions were within acceptable limits in accordance with the site-specific Health and Safety Plan (HASP). The interior of the pit was inspected and determined to have a floor of solid concrete, potentially a quik-set bag type. The concrete walls and concrete floor slab did not evidence staining nor any cracking or visible pipe entries or exits. There were no drains exiting the pit. There was discolored soil material present at the surface of the concrete floor, and a sample of this material (MECHANIC PIT TOP) was taken for laboratory analysis. The analytical results are summarized in Table 1 and Figure 3 and discussed below. There were no PID readings indicating volatile compounds in this soil layer, and this soil was containerized in a 55-gallon drum for disposal.

After inspection of the mechanics pit, the contractor broke through the floor slab in one location to expose the subsurface soils. The floor slab was between 2 and 2.5 ft thick. Soils below the slab did not exhibit staining, odors, or positive PID readings. A sample (MECHANIC PIT BELOW/MECHANIC PIT BELOW DUP) was taken from the soil immediately beneath the slab and to a depth of approximately 12" below the bottom of the slab for laboratory analysis in order to confirm that the soils below the slab were not impacted by the residual soil material, and the results of this sample are summarized in Table 1 and Figure 3.

Analytical results for the samples from below the mechanics pit floor slab indicate that there were no exceedances of the applicable Part 375-6 SCOs in the soil below the concrete base of the pit. The discolored material removed from the upper surface of the concrete slab contained concentrations of arsenic, chromium, lead, mercury and gamma-BHC (Lindane) in excess of the SCOs for protection of groundwater. The concentration of arsenic also exceeded the SCO for protection of human health. All this soil material was collected and containerized in a 55-galllon DOT-approved drum for disposal. The disposition of this drummed waste is pending a determination that no further soil removal is required in the mechanics pit.

Following inspection and sampling of the pit, the pit was lined with poly sheeting and the existing clean stone fill was placed back into the pit. The opening of the pit was covered with reinforced plywood and anchor bolted to the floor. No further action is recommended for this pit, as sampling and inspection have determined that there are no environmental impacts at this area and all impacted materials have been removed.

2.5 Inspection of Stairway Floor Drain

After the contents of Drywell 3 were removed and before backfill, the contractor removed the 6" perforated cover from the stairway floor drain and proceeded to pour potable water into it to see if it flowed towards the dry well. As the water was introduced to the drain, an individual monitored the interior of Drywell 3 for moisture and intrusion of water from the drain. The water did not flow into Drywell 3. The NCDH representative, who was present during the test, concurred that the drain did not connect to Drywell 3. It appears that the stairway floor drain discharges storm water directly to the subsurface soils immediately under the drain. The NCDH representative requested that a sample be collected from the soils located in the bottom of the drain. This sample (STEP DRAIN) was collected and submitted for analysis of VOCs, SVOCs, pesticides, herbicides, PCBs, and metals.

Analytical results (Table 1 and Figure 3) indicate the soil material in the floor drain contains the polynuclear aromatic hydrocarbon (PAH) compound benzo(a)pyrene at a concentration slightly above the SCO for protection of human health. However, direct human contact with the soil under the stairway floor drain is restricted by the drain cover. The concentrations of two other PAHs, benzo(b)fluoranthene and chrysene, and one metal, chromium, slightly exceed the SCOs for protection of groundwater. The PAHs could be present at these low concentrations due to run-off from the asphalt parking lot and driveway area, and are not expected to be associated with the historic operations of the site. The chromium impact is just slightly over SCO and is not expected to be an environmental concern. As noted in the technical support document[1] for development of the SCOs, the protection of groundwater SCOs are based on the conservative assumptions that 1) contaminated soil and groundwater are in direct contact, and 2) there is a continuous flow of leachate and an infinite source of contamination. The slight exceedences noted in the soil under the stairway floor drain are unlikely to impact groundwater because the flow of stormwater through these soils is intermittent and the volume of soil through which that flow occurs is limited.

2.6 Closure and Inspection of Drywell 3

Equipment was mobilized to conduct the removal of the liquids/sediments/soils from Drywell 3. As no information regarding the as-built condition of Drywell 3 was obtained and the actual construction of the

[1] "New York State Brownfield Cleanup Program, Development of Soil Cleanup Objectives, Technical Support Document"; New York State Department of Environmental Conservation and New York State Department of Health; September 2006

system was unknown, the methods to remove the materials from the drywell largely depended on visual observations made in the field during the closure activities. Due to structural concerns related to the adjacent building, as well as the need for the driveway in which the drywell is located in to stay active as the primary means of access to the property for daily operations, the Drywell 3 structure including the access manhole was left intact. This avoided the possibility of compromising the structural stability of the support walls of the adjacent building.

At the start of closure, the Drywell contained standing liquid and sediment at approximately 9.5 ft below ground surface (bgs). The Drywell was probed and resistance was encountered at approximately 12.5 ft bgs. After opening the manhole at the top of the drywell, the contractor introduced approximately 55 gallons of sodium hypochlorite solution to disinfect the materials contained in the drywell. After disinfection, the contents of the drywell were removed using a vacuum (vac) truck. Approximately 2.5 feet in depth of liquids were removed by the vac truck, or approximately 750 gallons of liquid. After removal of the drywell contents, a worker trained in confined space entry entered the Drywell to guide the vac truck hose in removing soils from the open bottom of the drywell structure and confirm that the removal was complete. The worker utilized Level B (supplied air) respiratory protection. Prior to entering the Drywell, the atmosphere was monitored for VOCs, lower explosive limit (LEL), oxygen, carbon monoxide and hydrogen sulfide to verify that conditions were within acceptable limits in accordance with the site-specific HASP. The worker also inspected and photographed the interior of the well. Photographs of the interior of the well are included in Appendix A.

The soil removal from the open bottom of the drywell was carefully controlled to avoid undercutting the drywell walls and compromising the stability of the drywell structure and the surrounding soils. Approximately one foot of sandy material was removed from the open bottom of Drywell 3. The final depth of the sediment/soil removal was measured in the field from ground surface to be 12.5 ft bgs. Approximately 6.1 tons of material (combined liquids and solids) were remmoved (see Appendix B for manifest). The waste materials were transported by the vac truck to CycleChem, Inc. of Elizabeth, New Jersey for stabilization. The stabilized waste material was then transported by CycleChem for disposal at Waste Management, Inc's GROWS/Tullytown Landfill in Pennsylvania (see Appendix B for Certificate of Disposal).

Based on prior investigations, the potential existed for organic constituents to have impacted the soils underlying Drywell 3. Therefore, after the completion of all removal activities and before backfilling the drywell, confirmation samples were collected at the base of the removal area (i.e. the drywell floor). At the request of the DEC, an additional sample was collected at a depth of 18" to 24" below the base of the removal area. Both post-excavation samples were submitted for analysis of VOCs, SVOCs, pesticides, herbicides, and metals. The analytical results (Table 1 and Figure 3) indicate that there were no exceedances of applicable SCOs in the soil remaining under the drywell. Therefore, all potentially impacted materials have been addressed and the closure of Drywell 3 is complete.

After sampling and the inspection of the Drywell was complete, the well was backfilled using 50 psi flowable fill material. The manhole cover was replaced.

3. CONCLUSIONS

During on-site investigation and closure activities, impacted and potentially impacted materials were removed from Drywell 3 and removal activities performed until a clean layer of soil was encountered. Closure confirmation sampling indicated that impacted materials were completely removed. Based on this information, it is BC's recommendation that the Drywell 3 be considered closed.

All impacted soil material was removed from the surface of the concrete floor slab in the Mechanics Pit. Sampling of soil beneath the concrete floor slab of the pit indicated that the soil had not been impacted by the contaminants in the material above the concrete slab. Based on this information, it is BC's recommendation that the Mechanics Pit area be considered closed, and that the pit may be more permanently covered (e.g. paved) at the discretion of F.A. Bartlett Tree Experts.

The tests performed in the Stairway Floor Drain indicated that there are no connections between this drain and Drywell 3. Sampling and analysis of the soils contained in the stairway floor drain indicate the soil is not expected to be a threat to human health through direct contact or to groundwater quality. The floor drain impacts are expected to be localized and caused primarily by runoff as found in a typical urban environment. Due to the location of this drain, and the relatively low concentrations of compounds which exceed DEC soil cleanup objectives, no further action is recommended for this area.

FIGURES

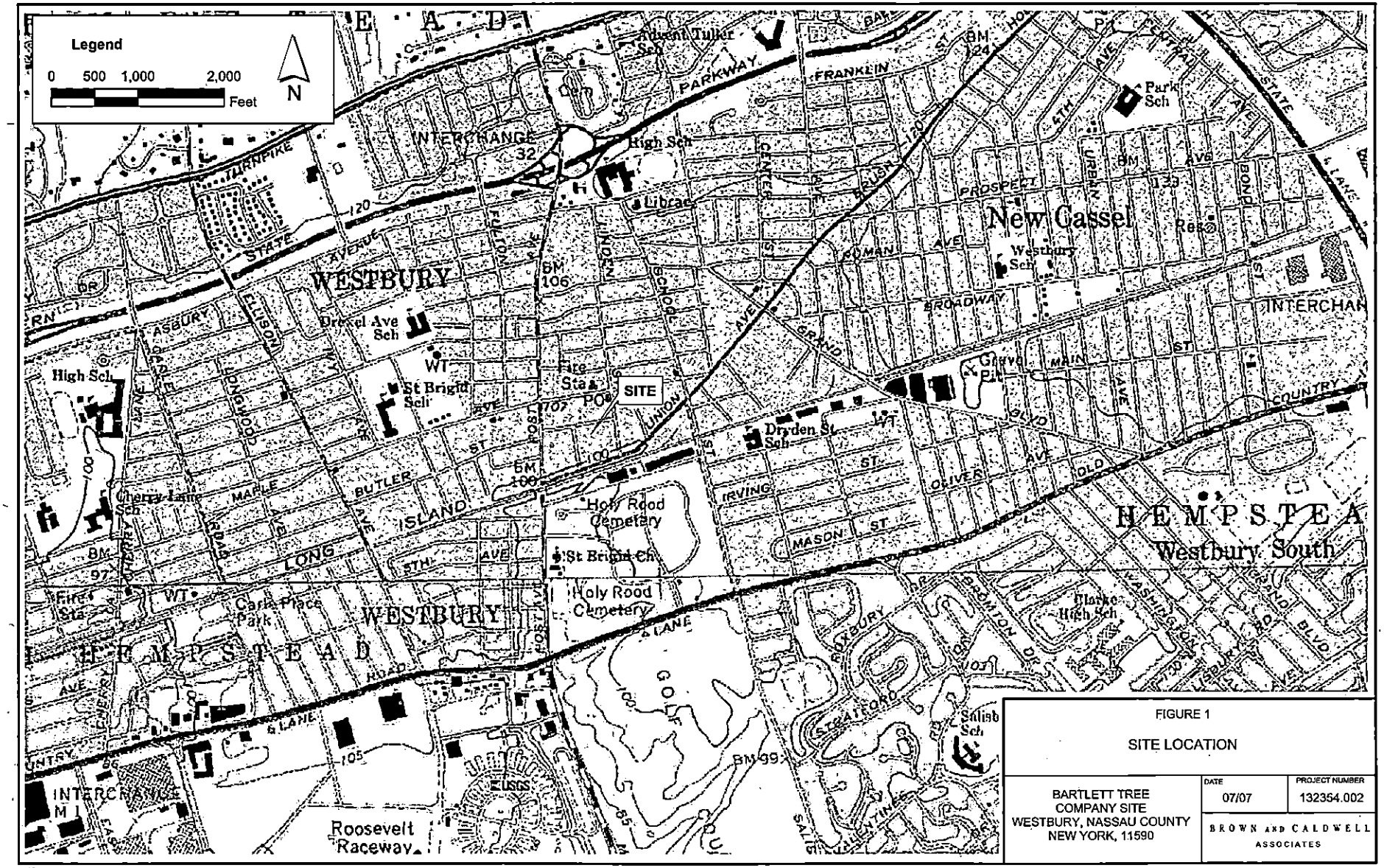

FIGURE 1

SITE LOCATION

BARTLETT TREE COMPANY SITE
WESTBURY, NASSAU COUNTY
NEW YORK, 11590

DATE	PROJECT NUMBER
07/07	132354.002

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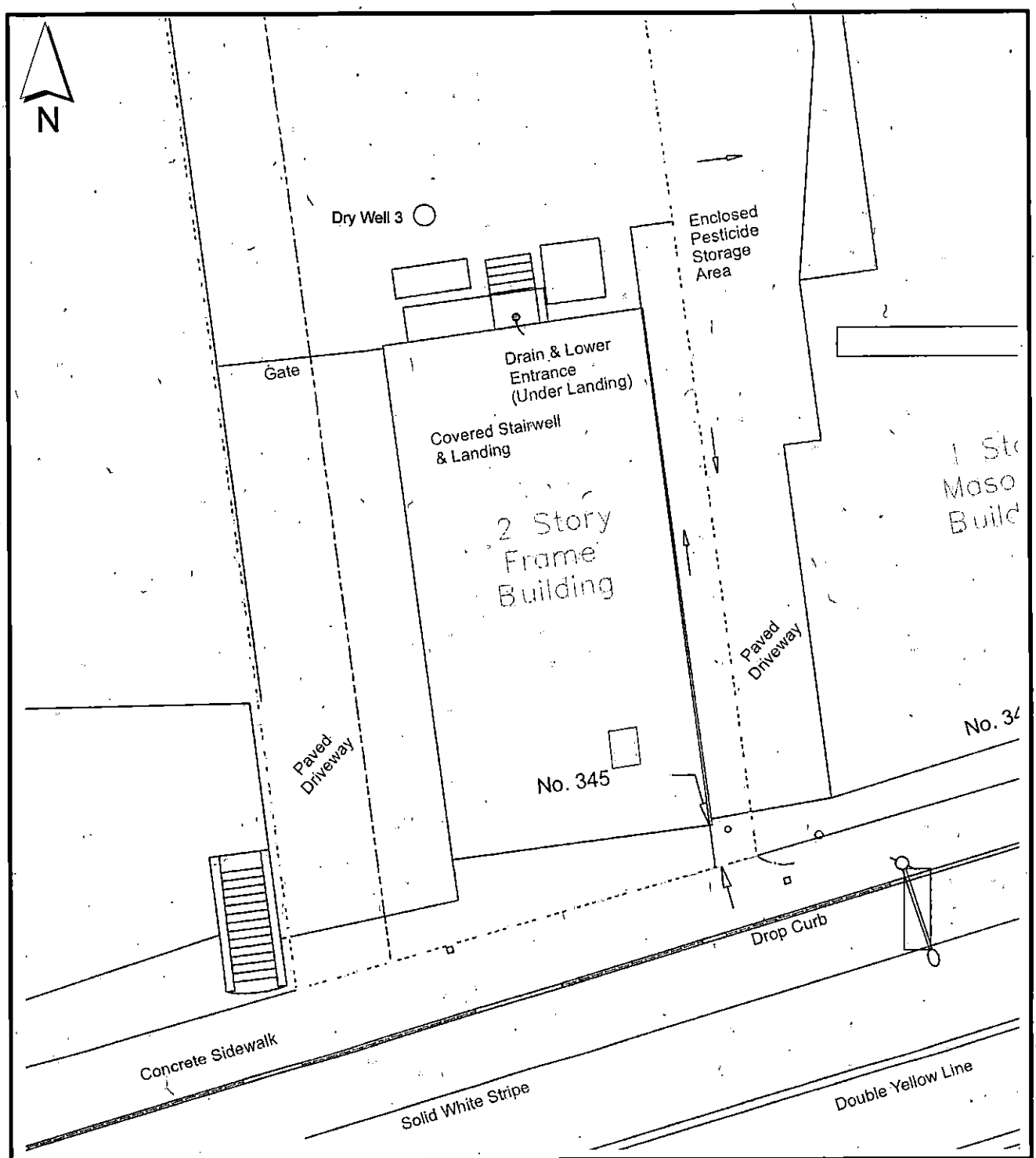

Legend

Approximate Location of Mechanics Pit

Site_Boundary

0 15 30 Feet

FIGURE 2
SITE PLAN AND AREA OF REMEDIATION
DRY WELL 3 AND VICINITY
AUGUST 2009

BARTLETT TREE COMPANY SITE
WESTBURY, NASSAU COUNTY
NEW YORK, 11590

DATE 10/2009

PROJECT NUMBER 137365.401

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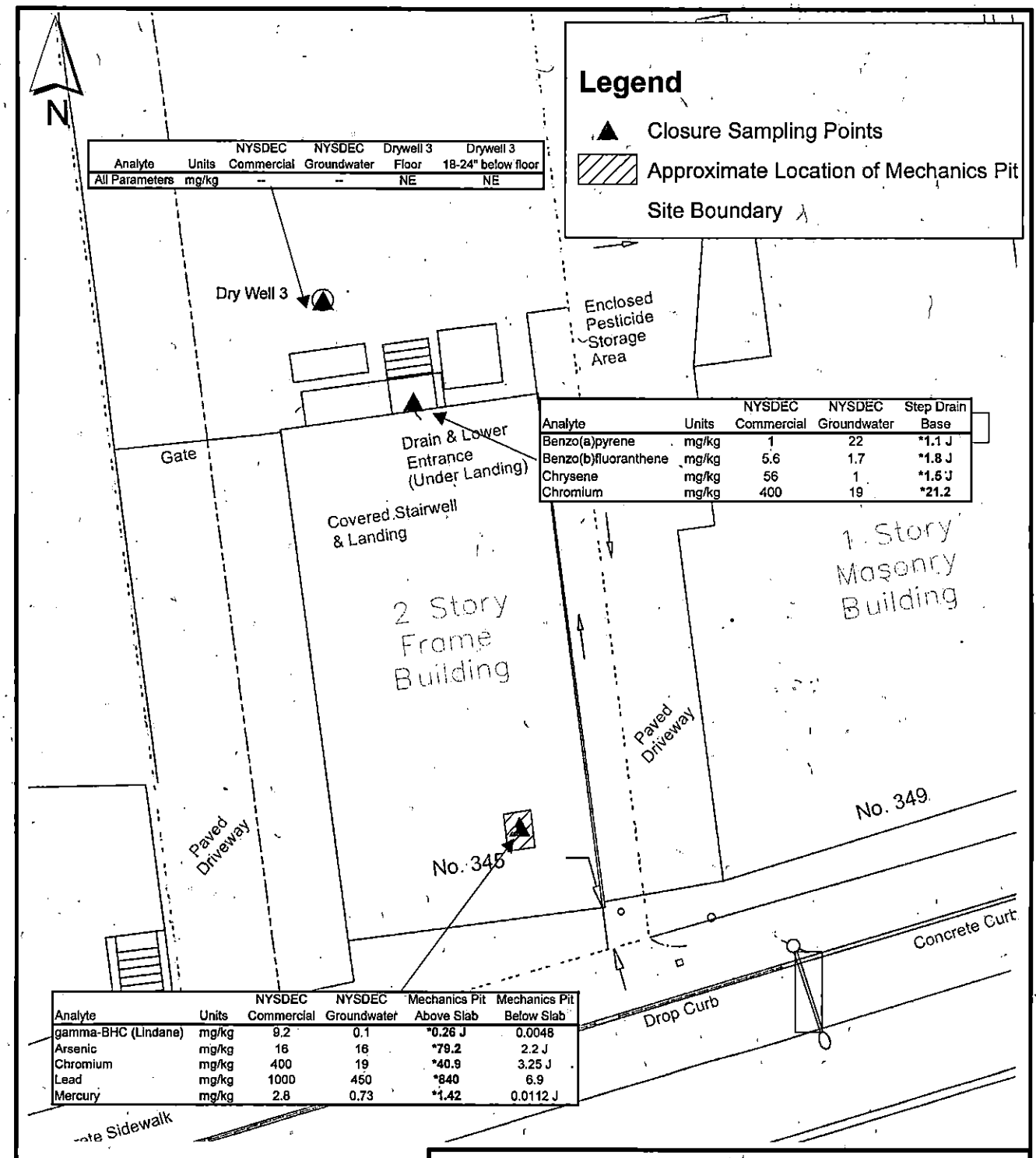

Analyte	Units	NYSDEC Commercial	NYSDEC Groundwater	Drywell 3 Floor	Drywell 3 18-24" below floor
All Parameters	mg/kg	--	--	NE	NE

Analyte	Units	NYSDEC Commercial	NYSDEC Groundwater	Step Drain Base
Benzo(a)pyrene	mg/kg	1	22	*1.1 J
Benzo(b)fluoranthene	mg/kg	5.6	1.7	*1.8 J
Chrysene	mg/kg	56	1	*1.5 J
Chromium	mg/kg	400	19	*21.2

Analyte	Units	NYSDEC Commercial	NYSDEC Groundwater	Mechanics Pit Above Slab	Mechanics Pit Below Slab
gamma-BHC (Lindane)	mg/kg	9.2	0.1	*0.26 J	0.0048
Arsenic	mg/kg	16	16	*79.2	2.2 J
Chromium	mg/kg	400	19	*40.9	3.25 J
Lead	mg/kg	1000	450	*840	6.9
Mercury	mg/kg	2.8	0.73	*1.42	0.0112 J

NOTES:
Soil standards are NYSDEC Soil Cleanup Objectives for Commercial Use and Protection of Groundwater.
NE = No Exceedance
***1.7 = Soil Cleanup Objective exceeded**

0 15 30 Feet

FIGURE 3
LOCATIONS OF SOIL EXCEEDANCES
CLOSURE SAMPLING
AUGUST 2009

BARTLETT TREE COMPANY SITE
WESTBURY, NASSAU COUNTY
NEW YORK, 11590

DATE: 10/2009

PROJECT NUMBER: 137365.401

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TABLES

TABLE 1
Subsurface Soil Analytical Results
Closure of Drywell 3 and Mechanic's Pit
Bartlett Tree Company Site
Westbury, New York

Analyte Group: 4-Pesticides/Herbicides	Soil Cleanup Objectives [6 NYCRR Subpart 375-6]			*Location:*	*Dry Well*	*Dry Well*	*Mechanic Pit*	*Mechanic Pit*	*Mechanic Pit*	*Step*
Analyte Name	Protection of Public Health - Commercial Use	Protection of Groundwater	*Units*	*SampleName:*	*Unspiked*	*18-24*	*Top*	*Below*	*Below-FD*	*Drain*
Dalapon	NE	NE	MG/KG		0.032 U	0.035 J	0.031 U	0.03 U	0.03 U	0.038 U
Dieldrin	1.4	0.1	MG/KG		0.0017 U	0.00035 U	0.035 U	0.0017 U	0.0017 U	0.042 U
Endosulfan II	200	102	MG/KG		0.0017 U	0.00035 U	0.035 U	0.0017 U	0.0017 U	0.042 U
Endrin aldehyde	NE	NE	MG/KG		0.0017 U	0.00035 U	0.035 U	0.0017 U	0.0017 U	0.042 U
Ethion	NE	NE	MG/KG		0.023 U	0.023 U	0.46 U	0.022 U	0.022 U	0.55 U
gamma-BHC (Lindane)	9.2	0.1	MG/KG		0.00089 U	0.00018 U	*0.26 J	0.0048	0.0064	0.021 U
gamma-Chlordane	NE	NE	MG/KG		0.027	0.017	0.018 U	0.00088 J	0.00086 U	0.021 U
Methoxychlor	NE	NE	MG/KG		0.0089 U	0.0037 J	1 J	0.015 J	0.021 J	3.4 J

Analyte Group: 5-Metals	Soil Cleanup Objectives [6 NYCRR Subpart 375-6]			*Location:*	*Dry Well*	*Dry Well*	*Mechanic Pit*	*Mechanic Pit*	*Mechanic Pit*	*Step*
Analyte Name	Protection of Public Health - Commercial Use	Protection of Groundwater	*Units*	*SampleName:*	*Unspiked*	*18-24*	*Top*	*Below*	*Below-FD*	*Drain*
Aluminum	NE	NE	MG/KG		479 J	617	4370	2430	3020	3790
Antimony	NE	NE	MG/KG		1.05 U	1.06 U	5.35	0.994 U	0.994 U	1.22 U
Arsenic	16	16	MG/KG		1 U	1 U	*79.2	2.2 J	0.964 J	6.38
Barium	400	820	MG/KG		3.4	4.57	105	6.17	8.82	50.3
Beryllium	590	47	MG/KG		0.0716 U	0.0718 U	0.129 J	0.0885 J	0.0786 J	0.083 U
Cadmium	9.3	7.5	MG/KG		0.147 U	0.148 U	5.19	0.149 J	0.168 J	0.735
Calcium	NE	NE	MG/KG		29.8	66.1	5590	143	191	25800
Chromium	400	19	MG/KG		0.92 J	13.3	*40.9	3.25 J	10 J	*21.2
Cobalt	NE	NE	MG/KG		0.2 U	0.201 U	4.95	2.32	1.73	6.72
Copper	270	1720	MG/KG		1.35	3.01	140	4.31	5.41	71.4
Iron	NE	NE	MG/KG		615 J	648	30900	3780	4000	21000
Lead	1000	450	MG/KG		1.53 J	1.82	*840	6.9	7.14	46
Magnesium	NE	NE	MG/KG		16.8	24.7	1330	514 J	1070 J	6540
Manganese	10000	2000	MG/KG		0.954	1.42	248	142 J	79.1 J	171
Mercury	2.8	0.73	MG/KG		0.0177 J	0.012 U	*1.42	0.0112 J	0.0331 J	0.102 J
Nickel	310	130	MG/KG		0.266 J	0.448 J	16.3	3.03 J	5.75 J	16.8
Potassium	NE	NE	MG/KG		39.3 J	52.8 J	752	246 J	418 J	533
Selenium	1500	4	MG/KG		1.03 U	1.03 U	1.02 U	0.974 U	0.974 U	1.2 U
Silver	1500	8.3	MG/KG		0.189 U	0.19 U	0.187 U	0.179 U	0.179 U	0.929

TABLE 1
Subsurface Soil Analytical Results
Closure of Drywell 3 and Mechanic's Pit
Bartlett Tree Company Site
Westbury, New York

Analyte Group:	Soil Cleanup Objectives [6 NYCRR Subpart 375-6]			*Location:*	*Dry Well*	*Dry Well*	*Mechanic Pit*	*Mechanic Pit*	*Mechanic Pit*	*Step*
5-Metals	Protection of Public Health - Commercial Use	Protection of Groundwater								
Analyte Name			*Units*	*SampleName:*	*Unspiked*	*18-24*	*Top*	*Below*	*Below-FD*	*Drain*
Sodium	NE	NE	MG/KG		39.3 U	39.4 U	143	37.1 U	37.1 U	158
Thallium	NE	NE	MG/KG		1.53 U	1.53 U	1.5 U	1.44 U	1.44 U	1.77 U
Vanadium	NE	NE	MG/KG		0.654	1.17	11	5.6	4.68	24.3
Zinc	10000	2480	MG/KG		0.695 U	3.24	312	16.6	19.6	254

TABLE 1
Subsurface Soil Analytical Results
Closure of Drywell 3 and Mechanic's Pit
Bartlett Tree Company Site
Westbury, New York

Soil Results:

Analyte Group: 1-BTEX/Volatiles	Soil Cleanup Objectives [6 NYCRR Subpart 375-6]			*Location:*	*Dry Well*	*Dry Well*	*Mechanic Pit*	*Mechanic Pit*	*Mechanic Pit*	*Step*
Analyte Name	Protection of Public Health - Commercial Use	Protection of Groundwater	*Units*	*SampleName:*	*Unspiked*	*18-24*	*Top*	*Below*	*Below-FD*	*Drain*
Ethylbenzene	390	1	MG/KG		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	500	0.7	MG/KG		0.003 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes, total	500	1.6	MG/KG		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

Analyte Group: 1-Volatiles	Soil Cleanup Objectives [6 NYCRR Subpart 375-6]			*Location:*	*Dry Well*	*Dry Well*	*Mechanic Pit*	*Mechanic Pit*	*Mechanic Pit*	*Step*
Analyte Name	Protection of Public Health - Commercial Use	Protection of Groundwater	*Units*	*SampleName:*	*Unspiked*	*18-24*	*Top*	*Below*	*Below-FD*	*Drain*
Acetone	500	0.05	MG/KG		0.055 UJ	0.014 J	0.007 U	0.007 U	0.007 U	0.009 U
Chloroform	350	0.37	MG/KG		0.001 U	0.001 J	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	500	0.25	MG/KG		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl Ethyl Ketone (2-Butanone)	500	0.12	MG/KG		0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.005 U
Methylene chloride	500	0.05	MG/KG		0.002 U	0.011	0.004 J	0.002 U	0.002 U	0.002 U
Tetrachloroethene	150	1.3	MG/KG		0.001 U	0.001 U	0.021	0.001 U	0.001 U	0.002 J
Trichloroethene	200	0.47	MG/KG		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

Analyte Group: 2-PAHs/SVOCs	Soil Cleanup Objectives [6 NYCRR Subpart 375-6]			*Location:*	*Dry Well*	*Dry Well*	*Mechanic Pit*	*Mechanic Pit*	*Mechanic Pit*	*Step*
Analyte Name	Protection of Public Health - Commercial Use	Protection of Groundwater	*Units*	*SampleName:*	*Unspiked*	*18-24*	*Top*	*Below*	*Below-FD*	*Drain*
Acenaphthylene	500	107	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	0.42 U
Anthracene	500	1000	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	0.42 U
Benzo(a)anthracene	5.6	1	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	0.97 J
Benzo(a)pyrene	1	22	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	*1.1 J
Benzo(b)fluoranthene	5.6	1.7	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	*1.8 J
Benzo(g,h,i)perylene	500	1000	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	1 J
Benzo(k)fluoranthene	56	1.7	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	0.87 J
Chrysene	56	1	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	*1.5 J
Dibenzo(a,h)anthracene	0.56	1000	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	0.42 U

TABLE 1
Subsurface Soil Analytical Results
Closure of Drywell 3 and Mechanic's Pit
Bartlett Tree Company Site
Westbury, New York

Analyte Group: 2-PAHs/SVOCs	Soil Cleanup Objectives [6 NYCRR Subpart 375-6]			*Location:*	*Dry Well*	*Dry Well*	*Mechanic Pit*	*Mechanic Pit*	*Mechanic Pit*	*Step*
Analyte Name	Protection of Public Health - Commercial Use	Protection of Groundwater	*Units*	*SampleName:*	*Unspiked*	*18-24*	*Top*	*Below*	*Below-FD*	*Drain*
Fluoranthene	500	1000	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	2.4
Indeno(1,2,3-cd)pyrene	5.6	8.2	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	0.87 J
Naphthalene	500	12	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	0.42 U
Phenanthrene	500	1000	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	1.3 J
Pyrene	500	1000	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	2.2

Analyte Group: 2-SVOCs	Soil Cleanup Objectives [6 NYCRR Subpart 375-6]			*Location:*	*Dry Well*	*Dry Well*	*Mechanic Pit*	*Mechanic Pit*	*Mechanic Pit*	*Step*
Analyte Name	Protection of Public Health - Commercial Use	Protection of Groundwater	*Units*	*SampleName:*	*Unspiked*	*18-24*	*Top*	*Below*	*Below-FD*	*Drain*
2-methylnaphthalene	NE	NE	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	0.42 U
Benzyl Butyl Phthalate	NE	NE	MG/KG		0.07 U	0.071 U	0.7 U	0.068 U	0.068 U	2.6
Bis(2-ethylhexyl)phthalate	NE	NE	MG/KG		0.07 U	0.071 U	1.6 J	0.068 U	0.068 U	10
Carbazole	NE	NE	MG/KG		0.035 U	0.036 U	0.35 U	0.034 U	0.034 U	0.42 U

Analyte Group: 4-Pesticides/Herbicides	Soil Cleanup Objectives [6 NYCRR Subpart 375-6]			*Location:*	*Dry Well*	*Dry Well*	*Mechanic Pit*	*Mechanic Pit*	*Mechanic Pit*	*Step*
Analyte Name	Protection of Public Health - Commercial Use	Protection of Groundwater	*Units*	*SampleName:*	*Unspiked*	*18-24*	*Top*	*Below*	*Below-FD*	*Drain*
2-(2-Methyl-4-chlorophenoxy)propionic acid (MCPP)	NE	NE	MG/KG		0.79 U	0.8 U	6.6	0.76 U	0.76 U	0.94 U
2,4 DB	NE	NE	MG/KG		0.0065 U	0.0066 U	0.064	0.0089 J	0.0063 U	0.013 J
2,4,5-T (Trichlorophenoxyacetic Acid)	NE	NE	MG/KG		0.00086 U	0.00087 U	0.0019	0.00083 U	0.00083 U	0.0033
2,4,5-TP (Silvex)	500	3.8	MG/KG		0.00079 U	0.0008 U	0.00099 J	0.00076 U	0.00076 U	0.00094 U
2,4-D	NE	NE	MG/KG		0.013 U	0.013 U	5.1	0.012 U	0.012 U	0.058
2-Methyl-4-chlorophenoxyacetic acid	NE	NE	MG/KG		0.8 U	0.81 U	0.8 U	0.77 U	0.77 U	0.96 U
4,4'-DDD	92	14	MG/KG		0.16	0.04	6.8 J	0.013	0.015	0.76 J
4,4'-DDE	62	17	MG/KG		0.018 J	0.011	1.6 J	0.0048 J	0.0067 J	1.6 J
4,4'-DDT	47	136	MG/KG		0.0017 U	0.097	22 J	0.14	0.2	5.1 J
alpha-Chlordane	24	2.9	MG/KG		0.019	0.017	0.035 J	0.00086 U	0.00086 U	0.06 J
beta-BHC	3	0.09	MG/KG		0.001 U	0.0002 U	0.02 U	0.00096 U	0.00096 U	0.024 U
Chlorpyrifos	NE	NE	MG/KG		0.023 U	0.023 U	2.4	0.022 U	0.022 U	0.55 U

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November 17, 2009 28-135711.102

Mr. Jamie Ascher
Engineering Geologist 2
NYS Dept. of Environmental Conservation
Division of Environmental Remediation
Building 40, SUNY
Stony Brook, NY 11790-2356

Subject: Bartlett Tree Company Site
NYSDEC Site Registry No. 130074
Supplemental RI Activities

Dear Mr. Ascher:

This letter has been prepared on behalf of F.A. Bartlett Tree Expert Company as an addendum to the approved RI/FS Work Plan (Brown and Caldwell Associates, March 2008). The purpose of this addendum is to specify procedures for implementing supplemental RI field activities in accordance with the recommendations in the RI Data Summary Report (Brown and Caldwell Associates, September 21, 2009).

The supplemental RI activities are intended to more completely define the nature and extent of pesticide and volatile organic compound impacts to soil and groundwater at the site, thereby facilitating the identification of a site remedy that is protective of human health and the environment.

This addendum includes Figure 1 and Tables 1 and 2 (attached). Figure 1 shows the locations of the supplemental borings and monitoring wells. Table 1 summarizes the purpose of the soil borings and monitoring wells and the targeted sample depths and screened intervals. Table 2 specifies the laboratory analyses for all soil and groundwater samples.

SCOPE OF WORK

The supplemental RI activities will be performed in accordance with the procedures described in the original RI/FS Work Plan (Brown and Caldwell, March 2008), including the Sampling and Analysis Plan (Section 6) and the site-specific Health and Safety Plan (Appendix A).

As discussed in the Drywell 3 closure report[1], analyses of soil samples from the base of Drywell 3, the mechanic's pit and stairwell floor drain indicate that no contaminants remain in these areas at concentrations that could impact groundwater quality. Therefore, consistent with the recommendation in the RI Data Summary Report, a downgradient monitoring well is not needed in this area.

The supplemental RI activities will consist of the following tasks:

Task 1 – Access Agreements

Some of the supplemental RI activities will take place on the municipal parking lot owned and operated by the Village of Westbury. The Village will be contacted to verify that the supplemental RI activities to be conducted on the Village property are permitted under the existing access agreement between the Village and F.A. Bartlett Tree Expert Company.

Task 2 - Utility Mark-Outs and Clearance

Prior to conducting the intrusive activities described below, the proposed locations of subsurface utilities will be marked in the field. Dig Safely New York will be contacted at least three (3) full working days prior to mobilization to the site to request that the local utility companies (i.e., gas, electric, telephone, cable, water, sewer, etc.) mark-out and provide clearance for their respective utilities. Bartlett personnel will be requested to identify the locations of any known, non-public subsurface utilities or structures on the site. Some of the proposed drilling locations may be adjusted to provide adequate clearance from utilities.

Task 3 - Unidentified Potential Leaching Structures

The origins, destinations and contents of the 4-inch diameter cast iron pipe and the overlying, 1 inch diameter steel pipe found in test pit TP 1 are unknown. Low (ppb) levels of tetrachloroethene and MEK were found in the soil sample from TP 1. The origins of both pipes will be identified to determine whether these pipes convey or have conveyed liquids from off site locations. Preliminary efforts in this regard will consist of examination of water and sewer plans in the files of the local building department. A representative of Castle Industries, Inc., the owner of the property

[1] "Closure Of Drywell 3 and Mechanic's Pit, Remedial Action Report, Bartlett Tree Company Site, Westbury, New York, NYSDEC Site Registry No. 130074"; Brown and Caldwell Associates; November 2009.

on the east side of the Bartlett site, will be contacted to obtain any information regarding a possible origin of either pipe on the Castle Industries property. If adequate information regarding the origins and destinations of the pipes is not obtained through these inquiries, a pipe locating service may be employed to trace the alignment of the pipes.

Task 4 - Soil Borings and Monitoring Wells

Soil borings and monitoring wells will be installed at the locations shown in Figure 1. Table 1 summarizes the purpose of the soil borings and monitoring wells and the targeted sample depths or screened intervals. Table 2 specifies the laboratory analyses for all soil and groundwater samples.

Soil borings will be advanced using hollow stem augers and continuously sampled with a two-foot long, two-inch inside diameter split spoon sampler. All borings, including those for monitoring wells, will be advanced deep enough to confirm the top of the clayey silt layer, previously identified at approximately 38-40 feet bgs. If the top of the clayey silt layer is encountered at shallower depths, the boring will still be advanced to the depth indicated in Table 1. If the clayey silt layer is not encountered, the boring will be terminated at 60 feet bgs.

The samples will be described in the field to characterize soil type, including grain size, texture, and moisture content. Soil samples will be logged in accordance with the Burmister Soil Classification System and classified using the Unified Soil Classification System (USCS) as per the FSP. The samples will also be field screened for indications of impacts via visual/olfactory observations and organic vapor concentration measurements using a photo-ionization detector (PID). Upon completion, the soil borings not intended for monitoring well installation will be filled from the bottom up with cement bentonite grout, using a tremie pipe.

Soil samples will be collected from each boring at the depth intervals indicated on Table 1. Additional samples may be collected from zones where field screening indicates a potential for impacts. Soil samples will submitted to a laboratory certified under the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) for the following analyses:

- TCL VOCs by USEPA SW 846 Method 8260
- TCL Pesticides by USEPA SW 846 Method 8081A
- Organophosphorous Pesticides by USEPA SW 846 Method 8141A
- Chlorinated Herbicides by USEPA SW 846 Method 8151A

Monitoring wells will be installed with a 15 foot well screen set to straddle the water table, with approximately 5 feet of the well screen in the unsaturated zone to allow for seasonal or man-made fluctuation. The wells will be constructed of two-inch

diameter, Schedule 40, PVC well casing with 0.010" slot PVC screens with an appropriately-sized sand pack. Prior to installation of the well, any portion of the borehole below the interval to be occupied by the sand pack and well screen will be filled with bentonite pellets. Monitoring well installation procedures are provided in the FSP.

Task 5 - Monitoring Well Development

Each monitoring well will be developed after a minimum period of 24 hours has passed following well installation (to allow for the cement/bentonite grout to set). Well development will be conducted in accordance with procedures in the FSP. Following development, the wells will be allowed to rest for a minimum of 10 days before being sampled.

Because groundwater samples previously collected from well MW 2D exhibited relatively elevated turbidity, the well will be redeveloped to reduce the quantity of silt and clay particles in the sand pack and adjacent formation. If turbidity cannot be reduced to a satisfactory level, filtered and unfiltered samples will be collected from this well to assess the relative contributions of adsorbed and dissolved constituents to the analytical results.

Task 6 – Slug Tests

In situ hydraulic conductivity tests (i.e. slug tests) will be performed on each monitoring well installed during the supplemental RI to evaluate the horizontal hydraulic conductivity of the adjacent formation. Rising head slug tests will be conducted in accordance with the procedures described in the FSP and the data generated will be input into AQTESOLV® software for hydraulic conductivity calculations.

Task 7 – Groundwater Sampling

A comprehensive round of groundwater sampling will be conducted after development and slug testing of the monitoring wells. Sampling will be conducted after at least one (1) week has passed following the completion of slug testing to allow for establishment of equilibrium conditions within the monitoring wells. The need for a second round of groundwater sampling will be assessed based on groundwater conditions (high or low water table) at the time of the first round of sampling and any other factors that might affect the representativeness of the groundwater samples.

Depth to water measurements will be conducted prior to groundwater sampling. Groundwater samples will be collected according to the USEPA low flow sampling protocol and in accordance with procedures outlined in the FSP.

If the sample collected from a well exhibits excessive turbidity after appropriate well development and low-flow sampling, filtered and unfiltered groundwater samples will be collected from that well to assess the relative contributions of adsorbed and dissolved constituents to the analytical results.

The groundwater samples will be submitted for the following analyses:

- TCL VOCs by USEPA SW 846 Method 8260
- TCL Pesticides by USEPA SW 846 Method 8081A
- Organophosphorous Pesticides by USEPA SW 846 Method 8141A
- Chlorinated Herbicides by USEPA SW 846 Method 8151A

Task 8 – Water Level Monitoring

Shallow groundwater flow directions previously inferred from the water level measurements in shallow monitoring wells MW-1S, MW-2S and MW-3 are variable and frequently diverge from the regional groundwater flow direction (approximately south 30° west). Therefore, continuous water level monitoring in all monitoring wells (shallow and deep) will be conducted for a period of at least 1 week and continuing through at least 1 significant recharge event (rainfall, snow melt). Water levels will be recorded with a data-logger at closely spaced time intervals using pressure transducers.

Monthly depth to water measurements will be conducted on all monitoring wells for a period of six (6) months. The monthly measurements may be extended if necessary to include both seasonally low and high water table conditions (i.e., late summer/early spring).

Task 9 – Data Evaluation and Reporting

Laboratory results for the soil and groundwater samples will be forwarded to a qualified data validator for qualitative data validation and preparation of a Data Usability Summary Report (DUSR) in accordance with NYSDEC Guidance for the Development of Data Usability Summary Reports (revised September 1997). The DUSR will present a summary of data usability, including a discussion of qualified and rejected data and provide recommendations for resampling/reanalysis, as applicable. A complete copy of the DUSR, signed by the reviewing validator, will be provided to the NYSDEC.

A letter report of the results of the Supplemental RI will be provided to the DEC. The report will include the following:

- All data generated during the Supplemental RI;
- DUSR;
- Tabular and graphic summaries from the Data Summary Report that have been updated with the Supplemental RI analytical results;
- Maps of sampling locations;
- Maps of groundwater elevations and flow directions;
- Hydrogeologic cross sections.

The letter report will provide conclusions and a recommendation to either 1) prepare the human/ecological exposure assessments and complete the RI Report (as specified in Section 5 of the approved RI/FS Work Plan); or 2) obtain additional data necessary to adequately define the nature and extent of site-related contamination.

SCHEDULE

The Supplemental RI activities through submittal of a letter report and recommendations will be conducted in accordance with the schedule outlined below.

Action/Deliverable	Date
Begin Supplemental RI field Investigation	Approximately 2 weeks after approval of the Supplemental RI Work Plan by the NYSDEC and NYSDOH.
Complete soil borings, monitoring installation and development, slug testing and first round groundwater sampling	Approximately 3-4 weeks.
Receipt of Laboratory Analytical Results from first round of groundwater sampling, Completion of DUSR	Approximately 8 weeks after collection of groundwater samples.
Submittal of letter report and recommendations to DEC	Approximately 4 weeks after receipt of DUSR from first round of groundwater sampling.

Sincerely,

Brown and Caldwell

Frank Williams

Frank J. Williams, P.G.
Supervising Geologist, Geoservices

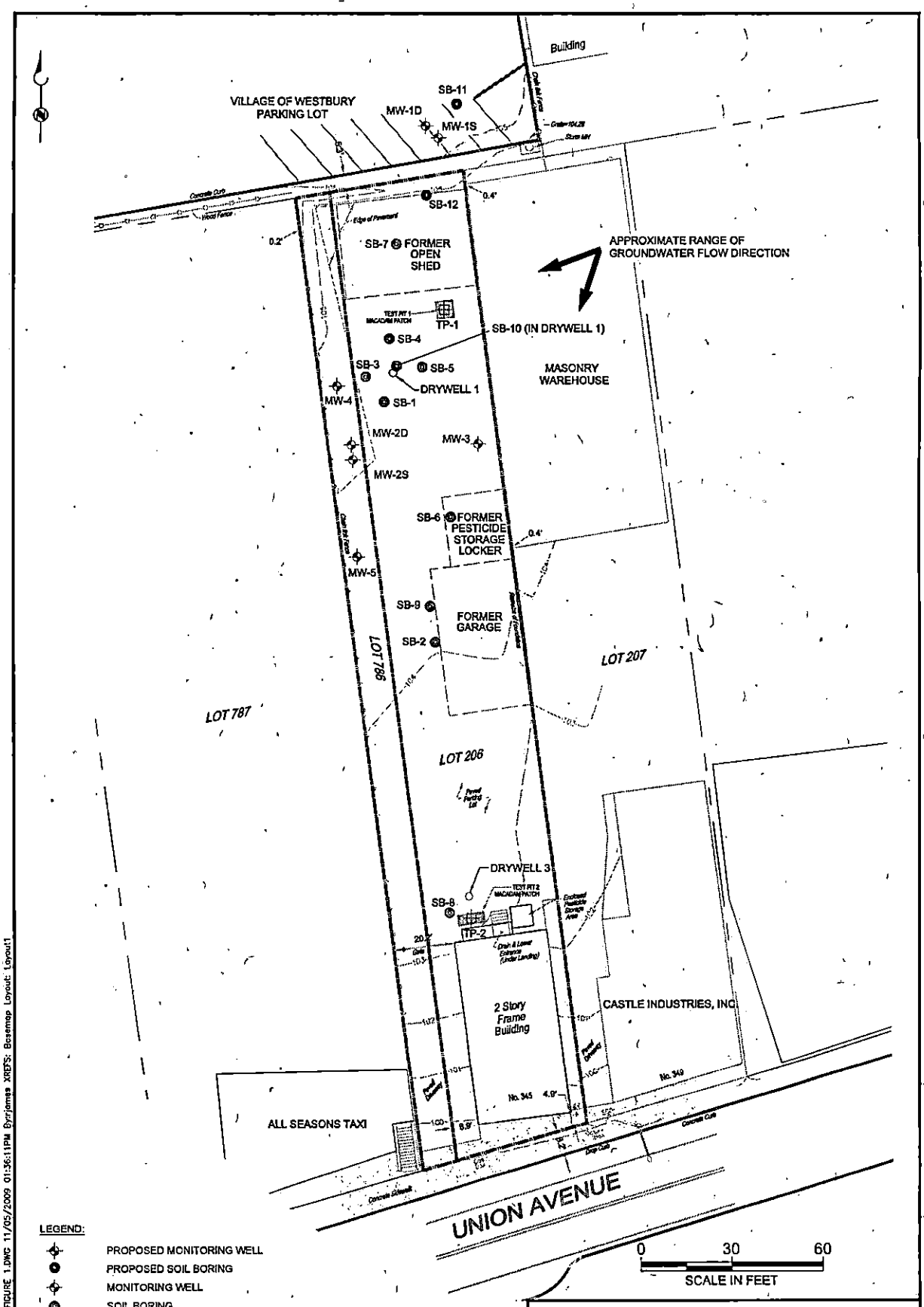
Brown and Caldwell Associates

Jeffrey R. Caputi, P.E.
Vice President

Enclosure

cc: Susan Shearer, NYSDOH
Rosalie Rusinko, Esq., NYSDEC (electronic only w/o enclosure)
David Marren, Esq., F.A. Bartlett Tree Expert Company
Yvonne Hennessey, Esq., The West Firm, PLLC

Figure



LEGEND:

- PROPOSED MONITORING WELL
- PROPOSED SOIL BORING
- MONITORING WELL
- SOIL BORING
- DRYWELL
- TEST PIT
- PAVEMENT EDGE
- GROUND SURFACE ELEVATION CONTOUR (FT., NGVD)
- PROPERTY LINE
- FORMER STRUCTURE LOCATION (APPROXIMATE, DEMOLISHED JULY 2008)

FIGURE 1

PROPOSED SOIL BORINGS AND MONITORING WELLS
SUPPLEMENTAL REMEDIAL INVESTIGATION

BARTLETT TREE COMPANY SITE
WESTBURY, NEW YORK

DATE	PROJECT NUMBER
10/09	135711.102

BROWN AND CALDWELL
ASSOCIATES

P:\DRAFTING\BARTLETT\135711.102\FIGURE 1.DWG 11/05/2009 01:36:11PM Byrd,Jamie XREFS: Basemap Layout: Layout1

Tables

TABLE 1
ADDITIONAL SOIL BORINGS AND MONITORING WELLS
SUPPLEMENTAL REMEDIAL INVESTIGATION
BARTLETT TREE COMPANY SITE
WESTBURY, NEW YORK

ID	Location	Purpose	Target Depth (1.)
SOIL BORINGS			
SB-10	Approximate center of Drywell 1.	Collect soil samples directly under Drywell 1 for analysis and comparison with 1996 PSA analytical results. Facilitate evaluation of potential source of impacts to groundwater quality.	40 feet bgs or approximately 2 feet into clayey silt layer. Collect samples at 6-8', 14-16', 22-24', 30-32', 38-40'
SB-11	Municipal parking lot, northeast of MW-1S.	Identify potential source of pesticide impacts in groundwater samples from MW-1S.	40 feet bgs or approximately 2 feet into clayey silt layer. Collect samples at 6-8', 16-18', 26-28', 36-38'
SB-12	Unpaved area north of former open shed, southwest of MW-1S.	Identify potential source of pesticide impacts in groundwater samples from MW-1S.	40 feet bgs or approximately 2 feet into clayey silt layer. Collect samples at 6-8', 16-18', 26-28', 36-38'
MONITORING WELLS			
MW-4	Near west property line, approximately 25 feet north of MW-2S.	Delineate potential Dieldrin impacts to groundwater in area more frequently downgradient from Drywell 1. Evaluate potentiometric surface of shallow aquifer.	Approximately 46 feet bgs, with 15 foot well screen set to straddle water table (i.e. approximately 30-45 feet bgs). Collect soil sample in screened zone, above clayey silt layer.
MW-5	Near west property line, approximately 35 feet south of MW-2S.	Delineate potential Dieldrin impacts to groundwater in area potentially downgradient from Drywell 1. Evaluate potentiometric surface of shallow aquifer.	Approximately 46 feet bgs, with 15 foot well screen set to straddle water table (i.e. approximately 30-45 feet bgs). Collect soil sample in screened zone, above clayey silt layer.

Note: 1. All boings, including those for monitoring wells, will be advanced deep enough to confirm the top of the clayey silt layer, previously identified at approximately 38-40 feet bgs. If the top of the clayey silt layer is encountered at depths above 38-40' bgs, the boring will still be advanced to the depth indicated in Table 1. If the the clayey silt layer is not encountered (as was the case with MW-3), the boring will be terminated at 60 feet bgs.

TABLE 2
SUMMARY OF LABORATORY ANALYSES FOR SOIL AND GROUNDWATER
SUPPLEMENTAL REMEDIAL INVESTIGATION
BARTLETT TREE COMPANY SITE SITE
WESTBURY, NEW YORK

MEDIA AND SAMPLE TYPE	TCL VOCs Method 8260	TCL PESTICIDES Method 8081A	ORGANOPHOSPHOROUS PESTICIDES Method 8141A	CHLORINATED HERBICIDES Method 8151A
SOIL				
Soil Boring Samples				
SB-10	5	5	5	5
SB-11, SB-12 (4 each)	8	8	8	8
MW-4, MW-5 (1 each)	2	2	2	2
Duplicate[1]	1	1	1	1
MS/MSD[1]	1	1	1	1
Trip Blank[2]	--	--	--	--
Equipment Blank[1]	1	1	1	1
TOTAL SOIL	18	18	18	18
GROUNDWATER				
Samples (7 wells, 1 event)	7	7	7	7
Duplicate [1]	1	1	1	1
MS/MSD [1]	1	1	1	1
Trip Blank [2]	±2	--	--	--
Equipment Blank [1]	1	1	1	1
TOTAL GROUNDWATER	12	10	10	10

Notes:
(1) - Per the QAPP, one duplicate sample, one MS/MSD pair, and one equipment blank will be submitted and analyzed for every Sample Delivery Group (maximum 20 samples).
(2) - Per the QAPP, one trip blank will be included in every shipment of water samples to be analyzed for VOCs, and subsequently analyzed.

BROWN AND CALDWELL

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Division of Environmental Remediation, Region One
Stony Brook University
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Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

November 25, 2009

Mr. Frank J. Williams
Brown and Caldwell Associates
234 Hudson Avenue
Albany, NY 12210

Re: Bartlett Tree Company Site #1-30-074
Supplemental RI Work Plan

Dear Mr. Williams,

The New York State Department of Environmental Conservation has reviewed the referenced work plan dated November 17, 2009 and hereby approves it. Please notify the Department five days prior to the start of field activities. If you should have any questions or require any assistance, please feel free to contact me at (631) 444-0246.

Sincerely,

Jamie Ascher
Engineering Geologist 2

cc: C. Vasudevan, NYSDEC
W. Parish, NYSDEC
S. Shearer, NYSDOH
J. Lovejoy, NCDH
J. Caputi, Brown and Caldwell Associates

From: Susan Shearer <sxw12@health.state.ny.us>
To: <jxascher@gw.dec.state.ny.us>
Date: 11/19/2009 8:14 AM
Subject: Fw: Bartlett Tree Company Site, No. 130074, Supplemental RI Work Plan

Good morning Jamie,

I received and reviewed the November 17, 2009 Supplemental RI Work Plan. Based on this review, I have no health-related comments and find the proposed work acceptable.

Should you have any questions, please feel free to contact me.
Thank you.
Susan

----- Forwarded by Susan Shearer/BEEI/DEHI/CEH/OPH/DOH on 11/19/2009 08:08 AM -----

"Williams, Frank" <FWilliams@Brwncald.com> 11/17/2009 04:09 PM

To: "Jamie Ascher" <jxascher@gw.dec.state.ny.us>
cc: "Susan Shearer" <sxw12@health.state.ny.us>, "Rosalie Rusinko" <rkrusink@gw.dec.state.ny.us>, "David Marren" <dmarren@bartlettlab.com>, "Yvonne E. Hennessey" <yeh@westfirmlaw.com>
Subject: Bartlett Tree Company Site, No. 130074, Supplemental RI Work Plan

Jamie,

Attached is the letter work plan for the supplemental RI activities that were recommended in the RI Data Summary Report (September 21, 2009). Please contact me with any comments or questions.

Thank you.

Frank
<<L111609JA_Bartlett_RIWP _amendment.pdf>>
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[attachment "L111609JA_Bartlett_RIWP _amendment.pdf" deleted by Susan

Shearer/BEEI/DEHI/CEH/OPH/DOH]

From: "Lovejoy, John (NASSAU)" <John.Lovejoy@hhsnassaucountyny.us>
To: 'Jamie Ascher' <jxascher@gw.dec.state.ny.us>, "DeFranco, Joseph (NASSAU)...
CC: "'sxw12@health.state.ny.us'" <sxw12@health.state.ny.us>, "'Schlotter.Nan...
Date: 1/7/2010 10:30 AM
Subject: RE: Bartlett Tree Company Site, No. 130074, Closure of Drywell 3 and Mechanics Pit

Jamie:

I've reviewed the "Closure of Drywell 3 and Mechanic's Pit Remedial Action Report, Bartlett Tree Company Site, Westbury, New York" document dated November 2009 prepared by Brown and Caldwell. In speaking with Department staff, we intend to submit final Department comments to the NYSDOH via memorandum once we've received the final report containing the complete laboratory data reports. I am providing herein preliminary comments based on the electronic report you have forwarded:

1. Based on the information presented in the RAR, the Department recommends no further remedial soil removal for the DW-3 drywell/cesspool structure. Note Nassau County Plumbers Handbook specifications require that all metal covers and castings be removed, and concrete a cover placed on the manhole prior to final paving as part of the sewer connection/cesspool abandonment procedure. This should be performed if not already done so.

2. The Department concurs with Brown and Caldwell's conclusion that soil removal actions are not required for the Stairway Floor Drain. Note, Bartlett Tree should submit inventory information to the USEPA for this structure in accordance with federal Underground Injection Control (UIC) Program requirements. A copy of the laboratory analytical report for the bottom sediment sample should accompany the inventory submission.

3. The Department concurs with Brown and Coldwell's conclusion that no further investigation or remediation of the Mechanic's Pit is required based on the sub-pit soil testing results and observations by Department staff. Note however, the Department requests that the structure be required to be cemented over at floor grade and that this not be left to the discretion of Bartlett Tree. Note that a portion of the bottom of the pit was broken out during the remedial investigation, and although poly sheeting was placed in the pit floor, the potential still exist for this structure to be a conduit for subsurface soil and/or groundwater contamination as it currently exists.

4. Section 2.1 "Permits and Notifications" should be modified with respect to Health Department permit requirements. Note that this Department does not issue permits with respect to the closure of on-site sanitary systems. Facilities are required to obtain a sewer connection permit from the Nassau County Department of Public Works prior to connection to the Nassau County public sewer system, which Bartlett tree did do. Proper closure of the on-site sanitary system according to Health Department requirements is one condition in obtaining the sewer connection permit; this closure is usually overseen and signed off on by this Department with the NCDPW notified. Because of the status of this site (i.e. listed on the New York Registry of Inactive Hazardous Waste Sites), the Department recommended that over sight of the cesspool closure be part of the entire remedial action for the site. The Department will still be notifying the NCDPW that the cesspool has been properly closed in conjunction with the sewer connection permit for this facility.

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-----Original Message-----
From: Jamie Ascher [mailto:jxascher@gw.dec.state.ny.us]
Sent: Wednesday, January 06, 2010 1:51 PM
To: Lovejoy, John (NASSAU)
Subject: Fwd: Bartlett Tree Company Site, No. 130074, Closure of Drywell 3 and Mechanics Pit

John
Any comments on the attached report. Thanks

Jamie

>>> "Williams, Frank" <FWilliams@Brwncald.com> 11/17/2009 5:39 PM >>>
Jamie,

Attached is the remedial action report for closure of Drywell 3 and the mechanic's pit. We are preparing hard copies that will include a CD-ROM with the full analytical laboratory data package. Please contact me if you have and comments or questions.

Thanks,
Frank
<<RAR111009_clos_drywell_3_RAR_.pdf>>

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From: "Williams, Frank" <FWilliams@Brwncald.com>
To: "Jamie Ascher" <jxascher@gw.dec.state.ny.us>
CC: "Susan Shearer" <sxw12@health.state.ny.us>, "Rosalie Rusinko" <rkrusink@...
Date: 11/17/2009 5:40 PM
Subject: Bartlett Tree Company Site, No. 130074, Closure of Drywell 3 and Mechanics Pit
Attachments: RAR111009_clos_drywell_3_RAR_.pdf

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Thanks,
Frank
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