NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

REMEDIAL INVESTIGATION REPORT

for the

SARATOGA TREE NURSERY
Inactive Hazardous Waste Disposal Site

Site No. 5-46-043
Saratoga Springs,
Saratoga County, NY

April 1996

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SECTION 1: PURPOSE OF THE INVESTIGATION

In June of 1995, the New York State Department of Environmental Conservation finalized a Work Plan for the Remedial Investigation (RI) of the Saratoga Tree Nursery Site. The RI was planned in response to the identified presence of elevated levels of DDT in surface and subsurface soil on the Nursery property. The purpose of the investigation was to characterize the nature and extent of the contamination at the site.

SECTION 2: BACKGROUND

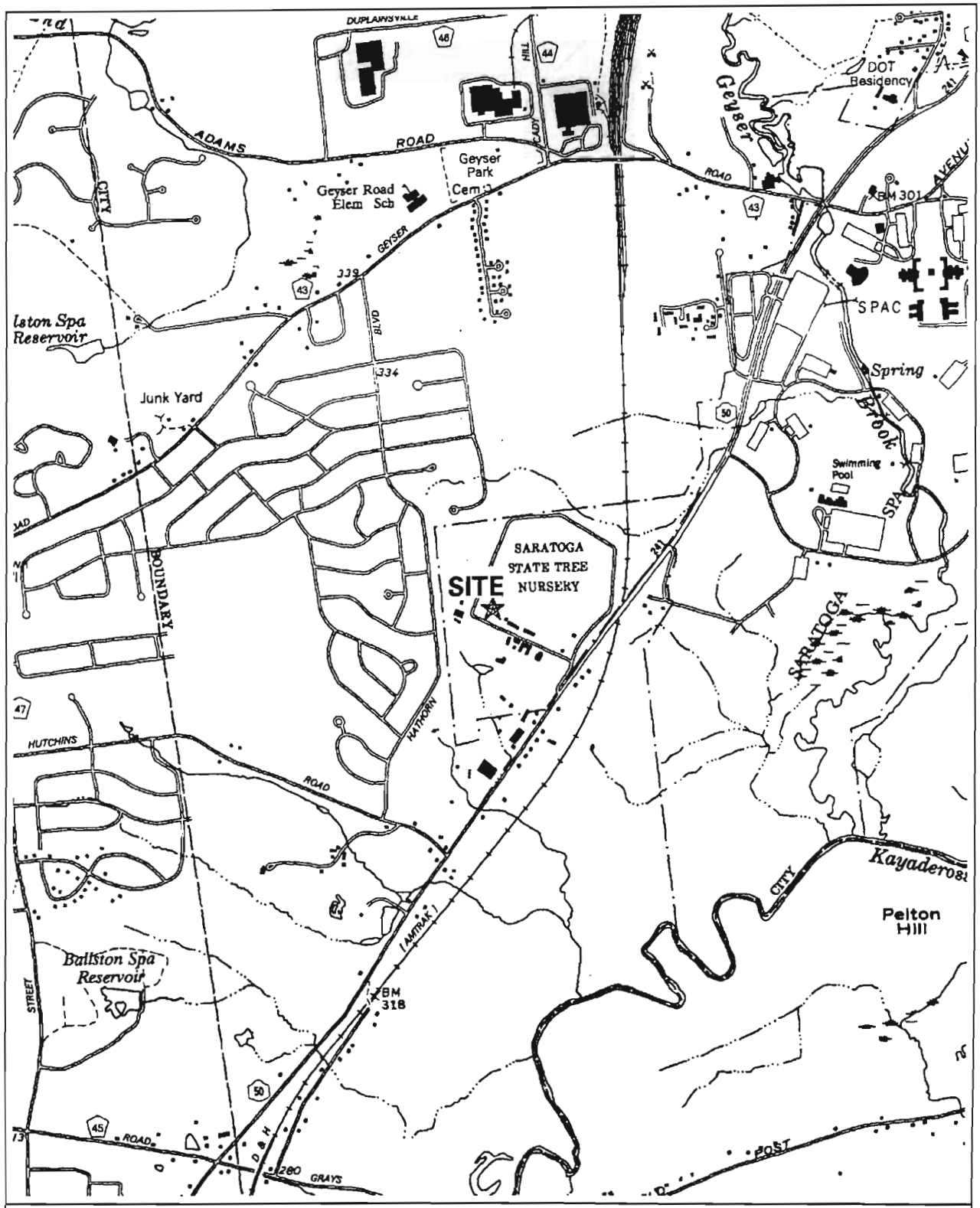
2.1 Site Description

The Saratoga Tree Nursery, Site ID No. 5-46-043, is located at 431 South Broadway (Route 50) in the City of Saratoga Springs, Saratoga County. The site is situated on the north side of Route 50, west of the Conrail tracks. The site is located in a commercial/residential setting. Site topography is relatively flat, gently sloping to the southeast. The Nursery is one of two State-operated Nurseries in the City of Saratoga which are used for the production of tree and shrub seedlings used for replanting throughout New York State. Figure 1 shows the site location.

2.2 Site History

The State of New York has operated a Tree Nursery at the Route 50 location since 1911. Approximately 30 acres of the total 130 acre site have been used for Nursery related activities. About 100 acres remain forested, having never been developed for Nursery use. Two ponds and a small creek are located on the Nursery property (ref. Figure 2). Since 1969, only 12 acres of the original 30 have been used for Nursery production. The Nursery facility was originally operated by the Conservation Department before its incorporation into the Department of Environmental Conservation in 1970. Because of the acreage available and the proximity to the Saratoga County Airport, the facility was also used as a pesticide storage and mixing facility by the Bureau of Forest Insect and Disease Control. From the 1940s until 1966, the Bureau used the facility as a storage site for DDT powder and as a formulation/transfer station for DDT emulsion used in aerial spraying operations. These spraying operations were part of an effort to control the gypsy moth population in Saratoga County and surrounding regions. DDT, or dichlorodiphenyltrichloroethane, is a highly effective insecticide which was widely used throughout the United States, until its ban in 1972. The formulation process used by the Bureau involved dissolving DDT powder in fuel oil and using the solution to create an oil/water emulsion. The DDT emulsion was pumped into tanker trucks which were dispatched to waiting aircraft.

It is reported that following daily operations, the tanker trucks returned to the site and were rinsed and flushed with water to remove the residual emulsion. It is reported that the rinsing operations

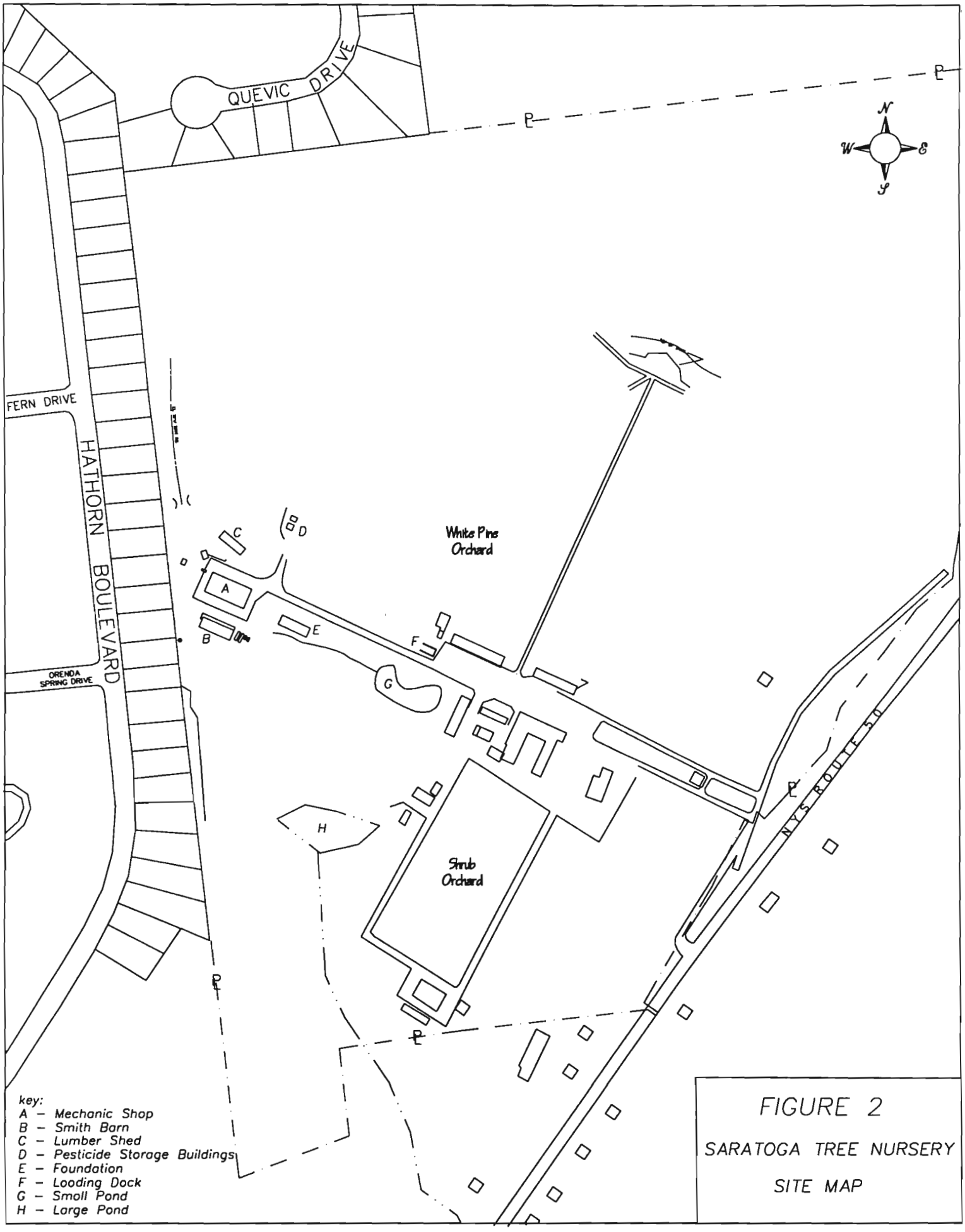


Site Location Map

546043 Saratoga Tree Nursery

NYSDOT Planimetric Quadrangle(s):

FIGURE 1



key:
A – Mechanic Shop
B – Smith Barn
C – Lumber Shed
D – Pesticide Storage Buildings
E – Foundation
F – Looding Dock
G – Small Pond
H – Large Pond

FIGURE 2

SARATOGA TREE NURSERY

SITE MAP

were conducted in the vicinity of the present Mechanic Shop (ref. Figure 2). It is believed contaminated rinse waters flowed to a low area at the western edge of the Route 50 facility. NYSDEC believes that the flushing of the tanker trucks and disposal of the residual emulsion is the primary source of the DDT contamination which has since been discovered in this area.

It has also been reported that six underground storage tanks were utilized as part of the pesticide mixing process. These tanks were reportedly located in the area west of the loading dock (ref Figure 2). These tanks are believed to have been used for storage of fuel oil, DDT and the oil/water emulsion. These tanks have since been removed. A barn, also located west of the loading dock, was reported to have been used for storage of DDT and other pesticides, during the period associated with pesticide mixing operations at the Nursery. Only the building foundation remains currently.

Through the early 1980s, pesticides awaiting final disposition are reported to have been stored in a number of on-site structures including: two small storage buildings, the Lumber Barn, the Mechanic Shop, the loading dock, the Smith Barn and in the former storage building of which only a foundation remains (ref. Figure 2). These, as well as an alleged disposal in the wood pallet/shade frame disposal area, are the only areas where DDT is reported to have been stored or handled at the Nursery facility.

In May of 1994, DDT was detected in soil samples collected at the Route 50 facility. The samples were collected as part of routine sampling for petroleum contamination required when the existing underground fuel tanks near the Mechanic Shop were replaced. Based on this discovery, Nursery staff requested the assistance of the NYSDEC Division of Hazardous Waste Remediation (DHWR), to further evaluate the nature and extent of the identified contamination.

The findings of the investigations which have since been conducted by the DHWR are detailed below. Based on the findings of these investigations, the Saratoga Tree Nursery - Route 50 facility, was listed as a class 2 site on the State's Registry of Inactive Hazardous Waste Disposal Sites in January of 1996.

SECTION 3: PREVIOUS INVESTIGATIONS

3.1 On-Site Investigations

In response to the request by Nursery staff, the DHWR tested additional locations in the vicinity of the former tanks for pesticide contamination. This follow-up sampling was conducted in the Fall of 1994.

Sampling was conducted in three separate events. The first event, which took place in October 1994, included soil sampling from sixteen locations on the western portion of the Nursery property to identify areas which may have been impacted by the past handling of DDT. Three on-site water supply wells were sampled in November 1994 as part of this sampling program. After NYSDEC reviewed the results of the first sampling round, a second round of samples was collected in December 1994. These samples were collected along the western property boundary of the facility, including nine locations adjacent to properties located on Hathorn Boulevard in the Geyser Crest Community. To better define the northern and southern limits of contamination along the fence line, samples were collected in a third sampling event in January 1995. Samples were analyzed for pesticides as well as lead and arsenic since the pesticide lead-arsenate was also reported to have been stored at the Nursery. The use of lead-arsenate was discontinued in the 1950s. Existing on-site water supply wells were also sampled for the presence of lead and arsenic.

These sampling events confirmed the presence of DDT and its breakdown products as high as 1,200 parts per million (ppm) in soil. The investigation detected low levels of DDT in groundwater in one on-site water supply well. Elevated levels of lead and arsenic were not detected in soil or groundwater samples. The findings of these sampling rounds were summarized in a report entitled *"Sampling and Data Summary"* dated February 1995. Data from the preliminary on-site investigations is included in Appendix A.

3.2 Off-Site Investigation

Based on the findings of the preliminary on-site sampling, an off-site investigation was developed during February of 1995 and conducted during the months of March and April. This investigation included an extensive soil sampling program which focused on private properties adjacent to the Nursery. The investigation also included background soil sampling, sampling of private well points and installation of three temporary well points. Ten residential properties which border the Nursery property were included in the off-site sampling program.

The investigation identified DDT contamination in soil above remedial levels of concern, on six of the properties sampled. Levels of DDT in soil were observed at concentrations ranging from non-detect (ND) to 62 ppm. Sampling continued on affected properties until the vertical and lateral limits of the contamination were identified. The investigation also involved analysis of groundwater samples from private well points. Three of the residences utilize well points as non-potable water supplies (lawns, pools, etc.). Samples from these well points were collected and analyzed on two occasions during the course of the investigation. The investigation demonstrated that the private well points had not been contaminated.

Three temporary well points were installed in response to the identification of an area of petroleum contamination on one of the residential properties. DDT was detected at concentrations

above the groundwater standard in samples collected from all three of the temporary well points. Details concerning soil and groundwater data collected during the off-site investigation can be found in the report entitled *"Preliminary Remedial Investigation Report, Off-Site Sampling Program, Saratoga Tree Nursery"* dated June 1995.

3.3 Interim Remedial Measure Program

Based on the findings of the Off-Site Sampling program, an Interim Remedial Measure (IRM) Soil Removal Program was planned. In August of 1995 the NYSDEC finalized a Work Plan to address the identified off-site contamination. In September the IRM program commenced. The work resulted in the excavation and removal of approximately 250 cubic yards of contaminated soil from the six properties identified during the off-site sampling program. A small area of contamination was identified on a seventh property during the IRM. This area was also addressed as a part of the IRM. Excavations were backfilled with topsoil and seeded. Confirmatory sampling during the IRM showed that all the DDT-contaminated soil above the remedial objective of 2 ppm was removed from the private properties. The New York State Department of Health declared the properties free for unrestricted use. The excavated soil is presently stockpiled on the Nursery property and will be addressed in conjunction with the on-site soil, which is the subject of this report.

The findings of the Off-Site Sampling Program and the IRM Program revealed that the DDT contamination in soil was generally shallow in depth. The contamination was typically limited to within the top one foot of the ground surface, supporting that migration of this contamination has been limited. The deepest DDT contamination encountered was at a depth of approximately 8 feet, in the area associated with petroleum contamination. The IRM program is detailed in the report entitled "*IRM Soil Removal Program, Saratoga Tree Nursery*" dated February 1996.

SECTION 4: REMEDIAL INVESTIGATION

In order to determine the nature and extent of contamination present at the Nursery, the DHWR initiated a Remedial Investigation (RI) at the site. This section details the methodology and findings of the various investigations undertaken as part of the RI.

Through a records search and interviews with past Nursery employees, it was determined that DDT had been handled historically at the loading dock, two storage buildings, the Lumber Shed, the Mechanic Shop, Smith Barn, and at the old building foundation (ref. Figure 2). Further, it has been reported that rinse water from the trucks hauling the DDT emulsion was disposed of along the western property boundary of the Nursery. Based on this information and data from earlier sampling rounds, seven Areas of Concern (AOCs) were designated and a sampling program was developed for each area. These AOCs are shown on Figure 3.

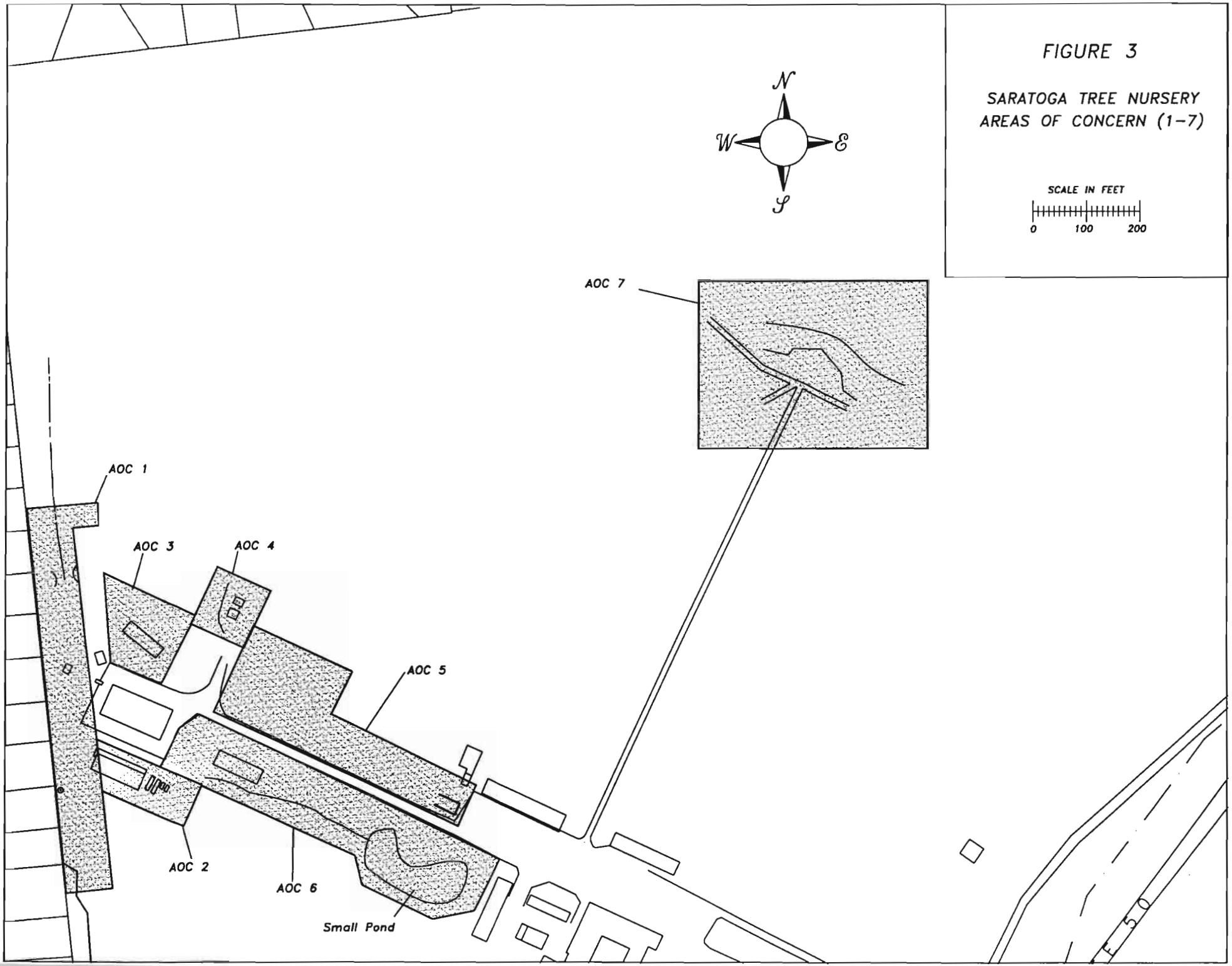


FIGURE 3
SARATOGA TREE NURSERY
AREAS OF CONCERN (1-7)
SCALE IN FEET
0
100
200
N
W
E
S
AOC 7
AOC 1
AOC 3
AOC 4
AOC 5
AOC 2
AOC 6
Small Pond

The RI fieldwork involved an extensive sampling program which included the following activities:

- Collection of surface and subsurface soil samples. Samples were analyzed to determine the extent of contamination associated with past DDT handling at the site.

- Installation of monitoring wells. Eight shallow monitoring wells and two deep monitoring wells were installed across the site to assess groundwater quality. Groundwater samples were analyzed for lead, arsenic, pesticides and volatile parameters.

- Excavation of test pits. Test pits were excavated in areas which were reportedly used for pesticide mixing and/or disposal. These locations included the former truck rinsing area (AOC 1), the former underground storage tank area (AOC 5), the former pesticide mixing area (AOC 6) and the wood pallet/shade frame disposal area (AOC 7).

- Collection of surface water and sediment samples. Surface water and sediment samples were collected for analysis from the two on-site ponds to assess the impact, if any, on the ponds.

- Collection of soil or sediment samples from on-site drainage ways or areas of historic flooding. Samples were collected from the swale located behind the old building foundation, the swale behind the pesticide storage buildings, and the creek/drainage ditch running along the western Nursery property line.

- Sampling of the pesticide storage buildings. Soil samples were collected from within and in the vicinity of two former pesticide storage buildings (AOC 4), situated north of the Mechanic Shop.

It should be noted that throughout this report the values reported for concentrations of DDT in soil and sediment, represent the summation of DDT, DDD and DDE identified by the analytical method employed.

4.1 Surface and Subsurface Soil

In each AOC, soil samples were collected and analyzed consistent with the approach employed during the Off-Site Sampling Program. At each soil sample location, samples were collected from the 0-6", 6"-12" and 12"-24" soil horizons using a hand auger. All soil samples collected during the RI were analyzed using immunoassay field test kits. These test kits allowed sampling to be extended, as necessary, within each of the designated areas to fully delineate the extent of contamination. Results were typically available within forty-eight hours of sampling. At least one in twenty samples, or a minimum of one sample in each area, were subjected to a full pesticide scan in the laboratory, for purposes of Quality Assurance and Quality Control (QA/QC).

Details regarding sample collection, analysis and QA/QC can be found in the "*Remedial Investigation/Feasibility Study On-Site Work Plan, Saratoga Tree Nursery*" dated June 1995.

The seven AOCs are described below along with a discussion of the sampling program and the analytical results.

AOC 1 - Former Truck Rinsing Area:

This area includes the fire road along the western Nursery property boundary. This is the area where DDT was first discovered during confirmatory sampling as part of the 1994 underground petroleum storage tank removal/replacement program. Samples taken from this area during the preliminary investigations revealed concentrations of DDT as high as 1200 ppm (ref. Appendix A). It is believed that rinse water from trucks containing the oil/water/DDT emulsion was disposed of in this area. A grid was established using 40'x50' spacings. The grid was modified where samples were previously collected. Samples were collected from a total of 29 locations. Also, an abandoned drywell was discovered during the IRM in the southern section of AOC 1. The drywell appears to be currently inactive and the past use and source of the discharge is uncertain. Additional sample locations were selected in and around the drywell for analysis. The AOC 1 sample locations are shown in Appendix B (Figure B-1).

The results from the RI sampling identified a range of DDT concentrations from ND to 4360 ppm in AOC 1. The results revealed DDT was present at concentrations greater than 10 ppm across most of AOC 1. DDT contamination greater than 100 ppm was observed at four sample points and concentrations greater than 1000 ppm were observed in samples collected in the vicinity of the drywell. Sampling revealed that the contamination is generally shallow in depth and limited to within the top two feet of the ground surface. The samples collected in and near the drywell, however, revealed contamination at deeper intervals.

The drywell is 4.5 feet deep with a gravel bottom. The base of the drywell was observed to be approximately 1 foot below the water table. Samples were collected at the base of the drywell, at 1 foot below the base and immediately adjacent to the drywell at a depth of 4 feet. Samples were also collected from two nearby locations (8 feet upgradient, 8 feet downgradient) at a depth of 4 feet. Analysis revealed high levels of DDT within and beneath the drywell. The sample collected at the base of the drywell contained >100 ppm DDT and the sample collected below the base contained 9.9 ppm DDT. The sample collected adjacent to the drywell contained the highest concentration detected in AOC 1, 4360 ppm DDT. The sample collected upgradient of the drywell contained no DDT and the sample collected downgradient of the drywell contained 7 ppm DDT. The drywell is in the area of the highest levels of DDT found in the early sampling in this area.

The results of the sampling are presented in Appendix B. The pattern of contamination appears generally consistent with the truck rinsing/disposal practices which are reported to have occurred in this area. The drywell's association with the DDT mixing operations at the site is unclear. However, based on the high levels of DDT detected in the drywell, it apparently has some connection with the mixing/handling operations. The findings from the sampling of AOC 1 are similar to the findings of the off-site sampling program. Figure 4 uses iso-contours to illustrate the relative concentrations of DDT detected in soil. As evidenced by this Figure, the contamination in AOC 1 is widespread.

AOC 2 - Smith Barn Area:

This area includes the Smith Barn and the adjacent tank trailers which were used for mixing and transport of DDT. Four trailer-mounted tanks are presently stored on the east side of the Smith Barn. It has been reported that these trailers were previously situated in the pesticide mixing area (AOC 5) and were moved here after the DDT use at the site had ceased. DDT and other pesticides are reported to have been stored in the Smith Barn. Tests conducted in the Smith Barn by the Bureau of Pesticides in 1985 showed pesticide contamination of the soil and gravel floor. As a remedial measure, the floor was covered with a 6 mil polyethylene liner and a concrete slab. As part of the RI program, samples were collected around the base of the foundation of the barn and in the vicinity of the tank trailers. Since fill was used in constructing the Smith Barn, care was taken to ensure samples were collected at sufficient depth to be representative of native material. The AOC 2 sample locations are shown in Appendix B (Figure B-2).

Sample results for DDT ranged from ND to greater than 1000 ppm in AOC 2. Consistent with the preliminary sampling data, samples collected adjacent to the foundation of the Smith Barn and to the east of the tanker trailers did not show elevated levels of DDT. However, samples collected underneath the fill port of the tanker trailers revealed DDT concentrations in excess of 1000 ppm.

The results of the sampling are presented in Appendix B. The contamination identified in AOC 2 appears to be very limited in extent, confined to the area in the immediate vicinity of the tank trailers. Further, each of the tanks contains some residual of the oil/DDT mixture, which is likely the source of the contamination identified in this area. The contents of each of the tanks was sampled and analysis revealed concentrations of DDT as high as 15,000 ppm.

AOC 3 - Lumber Shed Area:

This area comprises the Lumber Shed and surrounding area. It was reported that the lumber shed may have been used in the past for pesticide storage. During the RI samples were collected from the northeast side of lumber shed and in the vicinity of a decomposed drum observed northwest of the barn. The AOC 3 sample locations from the RI and the previous study are shown in Appendix B (Figure B-3).

Neither of the samples collected from AOC 3 revealed elevated levels of DDT, consistent with the findings of samples collected during the preliminary investigations. Further, the interior of the barn was examined and no evidence of pesticide or other chemical handling (staining, odors, etc.) was observed, therefore no interior sampling was conducted. The results of the sampling are presented in Appendix B.

AOC 4 - Pesticide Storage Buildings:

This area includes two small wooden storage buildings (A and B) and the surrounding area. Pesticide containers with various quantities of material and other miscellaneous wood and equipment are currently stored in these two small buildings. Samples were collected near the doorway of each of the two storage buildings, from the floor of the buildings, and from a shallow drainage swale which runs behind the buildings. Though the buildings both rest on concrete slabs, significant quantities of soil/dirt are present inside each of the buildings. The sample locations are shown in Appendix B (Figure B-3).

The samples collected from the doorways of Buildings A and B had DDT levels greater than 100 ppm, and greater than 1000 ppm, respectively. Similarly, the samples collected from the floors of Buildings A and B also exhibited DDT levels greater than 100 ppm and greater than 1000 ppm, respectively. Five of these samples were also analyzed for lead and arsenic since lead arsenate pesticide had reportedly been stored in this AOC. Lead was detected in concentrations ranging from 7-11,000 ppm and arsenic was detected in concentrations ranging from 26-38,000 ppm. Samples were also collected from behind each of the buildings as well as from the adjacent drainage swale. The results revealed a DDT concentration of 952 ppm behind Building A at a depth of 0-6". The samples collected from the swale were also shown to be elevated, most notably samples collected from the sample no. 4-11 location. This location is at the swale's southernmost point, where it originates, just off the Nursery roadway which divides AOC 4 from AOC 5. A strong petroleum odor was apparent at all three soil horizons at this location and each of the three samples were shown to contain concentrations of DDT greater than 10,000 ppm.

The results of the sampling are presented in Appendix B. The contamination in this area is likely attributable to past handing, disposal and/or storage of DDT in this area. Significant contamination was encountered within and around the storage buildings. The drainage swale adjacent to the buildings was also shown to be contaminated, most notably at its southern-most extreme, where petroleum contamination was also evident. Figure 4 uses contours to illustrate the relative concentrations of DDT detected in this area.

AOC 5 - Former Mixing Area/UST Area:

This area is the approximate one acre grass field and loading dock on the north side of the paved Nursery access road. It is believed this area was used in the past as the main mixing area for the

DDT emulsion used in the aerial spraying program. This area is presently an unused field. Although the exact locations are unknown, six underground storage tanks (USTs) were formerly located in this area. It is reported these tanks were used for the storage of fuel oil, DDT emulsion and possibly, other compounds. The AOC 5 sample locations are shown in Appendix B (Figure B-4).

A grid was established using 100'x50' spacings and 33 points were sampled. These samples represent those from the original grid plus additional samples required to further delineate the extent of contamination. Sampling showed that a large portion of the area contains DDT at levels greater than 100 ppm (13 of 33 sample locations). Samples from four sample points contained DDT at levels greater than 1000 ppm. The vertical extent of contamination in AOC 5 is discussed in Section 4.2, which presents the test pit investigation.

The results of the sampling are presented in Appendix B. It appears that the reported past mixing operations and leaking from the former tanks, have resulted in widespread DDT contamination in this area. The findings from the sampling program suggest the contamination in AOC 5 is contiguous with that in AOC 4 and AOC 6, as illustrated by Figure 4.

AOC 6 - Former Mixing Area:

This area includes the barn foundation, a swale behind the foundation and a one-half acre grass field to the south of the Nursery access road. It is reported that DDT was stored and/or mixed in the former barn of which only the foundation remains. A grid was established in the grassy area using 100'x50' spacings and 24 points were sampled. In addition to the sampling in the area of the foundation and the adjacent field, samples were collected from a swale which appears to have received drainage from the southwest corner of the foundation and directed flow toward the small pond at the south end of AOC 6. The pond water and sediments were also sampled as part of the RI. These results are discussed in Section 4.4. The AOC 6 sample locations are shown in Appendix B (Figure B-5).

Only one of the five samples collected from the swale behind the foundation was shown to contain levels of DDT above 10 ppm. Sampling identified that the majority of the grassy field, however, contained DDT at concentrations greater than 10 ppm, with several areas greater than 100 ppm. The vertical extent of contamination in AOC 6 is discussed in Section 4.2, which presents the test pit investigation.

The results of the sampling are presented in Appendix B. Like the findings in AOC 5, the contamination in AOC 6 is also widespread. This contamination is attributable to the past storage and mixing operations and as stated previously, appears to be contiguous with that in AOC 5, extending under the roadway which divides AOC 5 and AOC 6.

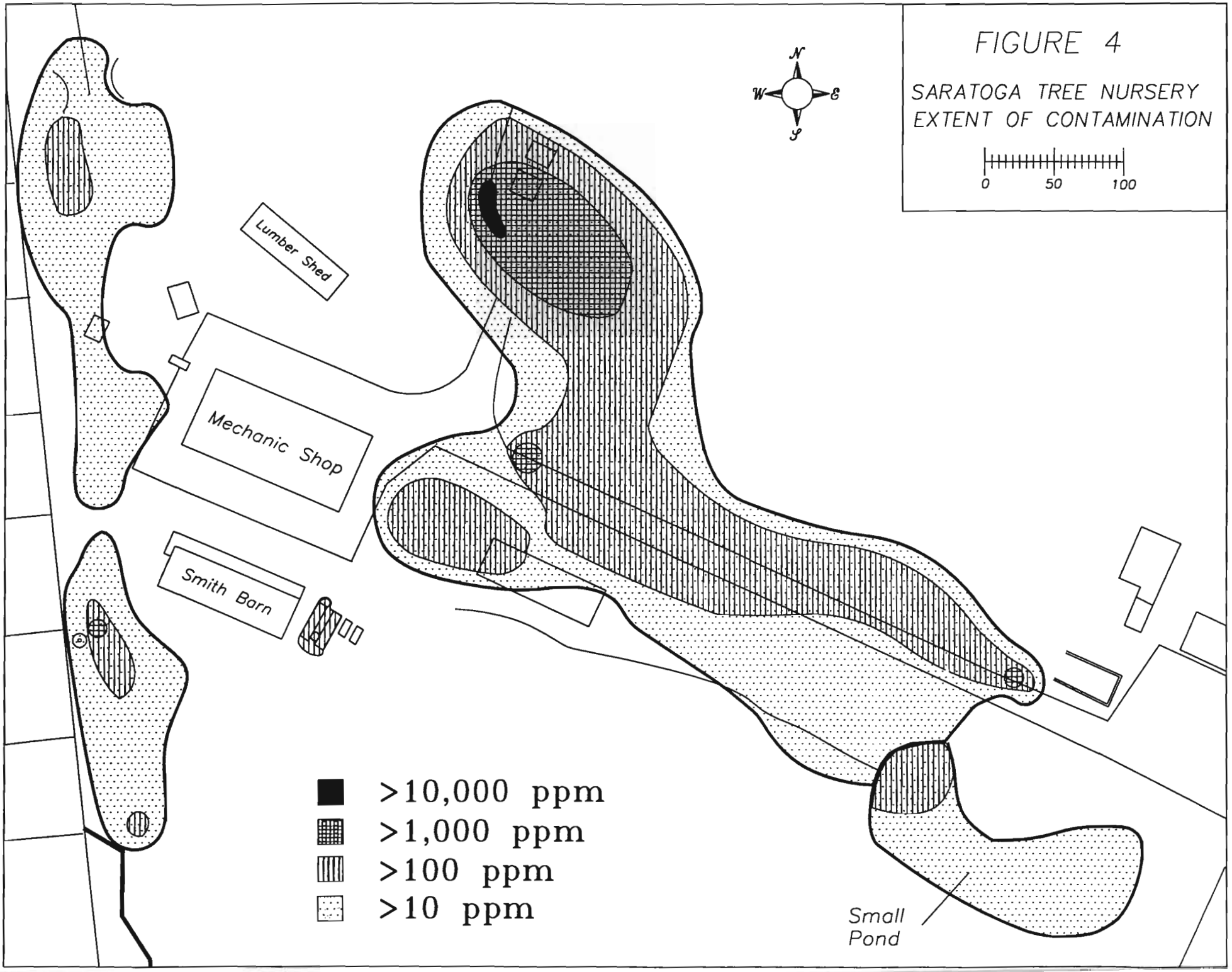


FIGURE 4
SARATOGA TREE NURSERY
EXTENT OF CONTAMINATION
0
50
100
N
W
E
S
Lumber Shed
Mechanic Shop
Smith Barn
Small Pond
>10,000 ppm
>1,000 ppm
>100 ppm
>10 ppm

AOC 7 - Wood Pallet/Shade Frame Disposal Area:

This area has for a number of years, and continues to be, used for the disposal of pallets, shade frames and other wood materials. An unsubstantiated report was made that bags of DDT powder had also been disposed of in this area in the early 1970's. To investigate that report, 7 test pits were excavated and 12 hand auger exploratory borings were installed at random locations throughout the area. In addition, five samples were collected for analysis from a drainage swale along the base of the ridge that comprises the disposal area. These samples were collected from the 0-12" horizon. It is believed that if DDT disposal had occurred in this area, it would be evidenced by low levels of DDT in the drainage swale, since runoff would carry product to the base of the hill. The AOC 7 sample locations are shown in Appendix B (Figure B-6).

Neither the visual observation of test pits and exploratory borings nor the analytical data from the five samples collected from the swale supports that DDT had been disposed in this area. The location of the test pits and sample points are presented in Appendix B.

4.2 Test Pit Investigation

As a component of the RI, test pits were excavated to examine the subsurface soils at a number of locations across the site. The locations selected were those where significant handling and/or disposal of DDT were reported to have occurred. Test pits were dug using a backhoe and in general were 3-4 feet wide, 10 feet long and extended to the water table which was approximately 8 feet deep. Samples were collected from select test pits to aid in the vertical delineation of contamination. Test pits were visually inspected to examine the quality of subsurface soils and monitored using a photoionization detector. If contamination was suspected based on staining, odors or data from surface soil sampling, samples were collected for analysis. The findings of the test pit investigation are discussed below.

AOC 1 - Former Truck Rinsing Area:

Three test pits were excavated in AOC 1. As discussed in Section 3.2, during the off-site investigation, oil contamination was observed on one of the residential properties. This discovery was in the general vicinity of the former underground petroleum storage tanks on the Nursery. While this area of contamination was addressed as a component of the IRM and appeared to be a discrete area, two trenches approximately 35 feet long were excavated between the location of the former underground storage tank and the identified oil contamination off-site to determine whether a connection existed. No evidence of oil (staining or odors) was apparent in either test trench. A third test pit was excavated in the vicinity of the drywell discovered in AOC 1. No odors or staining were apparent in this test pit (TP 1-3) either, however, samples were collected for analysis at depths of 3', 4', 5' and 6', due to the previous sample data from this area. The preliminary investigation had revealed a concentration of 1249 ppm DDT in this vicinity. A

maximum concentration of 6 ppm of DDT was detected at a depth of 3 feet. The results of the test pit/trench sample analyses are listed on Table 1. The location of the trenches is illustrated on Figure B-8.

AOC 5 and AOC 6 - Former Mixing Areas:

Samples were analyzed from test pits in AOC 5 and 6, due to the reported history of these areas, the observed presence of an oil/light non-aqueous phase liquid (LNAPL) in several instances and in many instances, oil stains and/or odors. An LNAPL is liquid compound/contaminant whose specific gravity is less than water (fuel oil, gasoline, etc.) and therefore floats on the surface of the water. Evidence of petroleum contamination was apparent in 11 of the 23 test pits excavated in AOC 5 and in 6 of the 16 test pits excavated in AOC 6. Test pit sample locations are shown on Figure B-9. The strongest evidence of petroleum was encountered in AOC 5, the area where USTs which were used as part of the DDT mixing operation were previously located. In test pits TP 5-4, 5-5 and 5-16, black-stained soil with a strong petroleum odor was observed. Also, a sheen was observed on top of the groundwater encountered in each of these test pits. Table 1 presents the results of the test pit soil sample analyses and also includes the field observations recorded during sample collection. Evaluation of Table 1 supports that in essentially every instance where oil staining or odor was observed, DDT was detected at elevated levels. This data suggests that a connection exists between oil contamination and DDT contamination at depths greater than two feet. The areas of apparent petroleum contamination are illustrated in Appendix B (Figure B-10). The presence of oil saturated soil, as it relates to groundwater, is discussed in Section 4.3.

AOC 7 - Wood Pallet/Shade Frame Disposal Area:

Observations of the test pits excavated in AOC 7 yielded wood products, decomposing vegetation (leaves, roots, etc.) and sand. Samples were not collected for analysis from the test pits installed in AOC 7 as no evidence of DDT powder allegedly disposed in this area was observed.

4.3 Groundwater Investigation

The results of a November 1994 sampling round, as discussed in Section 3.1, identified the presence of low levels of DDT in the one of the on-site water supply wells. This well, the Mechanic Shop well, which is one of seven on-site water supply wells, contained DDT above the groundwater standard of non-detect. This well, which was not used as a drinking water source, is located in AOC 1 near the fence line. A carbon filter was installed on this water supply on September 14, 1995, since this well is used for washing, etc. by Nursery personnel. As discussed in Section 3.2, three temporary well points were installed in the vicinity of an area of petroleum contamination near the western property line. Each of the well points was shown to contain

TABLE 1				
Saratoga Tree Nursery - Summary Table of Test Pit Sampling				
Sample ID	**Area of Concern**	**Sample Depth**	**DDT Conc. (ppm)**	**Field Notes**
TP 1-3	AOC 1	3'	6.04	No odor/staining
TP 1-3	AOC 1	4'	0.1	No odor/staining
TP 1-3	AOC 1	5'	0.0	No odor/staining
TP 1-3	AOC 1	6'	0.07	No odor/staining
TP 5-4	AOC 5	4'	52.9	Obvious pet. contamin.
TP 5-5	AOC 5	4'	11.8	Obvious pet. staining
TP 5-6	AOC 5	5'-8'	100.8	Petroleum odor
TP 5-7	AOC 5	5'	129	Petroleum odor
TP 5-9	AOC 5	5'	411.2	Fuel oil odor
TP 5-10	AOC 5	2'-5'	2.2	No odor
TP 5-11	AOC 5	2'-5'	1.1	No odor
TP 5-13	AOC 5	6'	2.2	No odor/staining
TP 5-14	AOC 5	4'	1.0	No odor/staining
TP 5-15	AOC 5	2'	0.8	No comment
TP 5-16	AOC 5	6'	353.5	Oil stain/pet. odor
TP 5-18	AOC 5	5'	5.6	Faint pet. odor
TP 5-22	AOC 5	5'	3.7	Poss. faint pet. odor
TP 6-4	AOC 6	7'	55.6	Petroleum odor
TP 6-7	AOC 6	5'	0.3	Poss. faint pet. odor
TP 6-8	AOC 6	7'	0.11	No staining/odor
TP 6-9	AOC 6	7'	0.93	No staining/odor
TP 6-10	AOC 6	7'	0.01	No staining/odor
TP 6-11	AOC 6	7'	0.01	No comment
TP 6-12	AOC 6	7'	0.25	No comment
TP 6-13	AOC 6	7'	16.13	No comment
TP 6-14	AOC 6	7'	19.20	Oil staining
TP 6-15	AOC 6	7'	0.55	No comment
TP 6-16	AOC 6	7'	0.51	No comment

detectable levels of DDT and its breakdown products (0.28 ppb, 0.28 ppb, and 13.19 ppb, respectively). To aid in monitoring well placement, two additional temporary well points were installed on-site. The well points were situated in AOC 2 and AOC 5, respectively. Analytical results of groundwater samples from TWP-4 and TWP-5 also revealed the presence of detectable concentrations of DDT and its breakdown products (19.77 ppb and 5.72 ppb, respectively). A petroleum odor was also observed during the well point installation at both locations.

To define the extent of contamination in groundwater and to characterize the site hydrogeology, a groundwater monitoring program was developed as a component of the Remedial Investigation. The NYSDEC procured Atlantic Testing Labs, Inc., as a drilling contractor to install the monitoring wells. The drilling program began on July 25, 1995 and was completed on July 28, 1995.

4.3.1 Methodology

Ten monitoring wells were constructed on-site (eight shallow, two deep) at the locations shown on Figure B-11. Monitoring wells were drilled and installed using standard hollow stem auger methods. Split spoon samples were collected continuously in two foot intervals in accordance with standard ASTM specifications. Soil samples were visually classified and stored in sealed jars for future reference. All shallow wells were screened across the water table in order to obtain information about the upper portion of the aquifer. Depths of the shallow wells ranged from 15' to 19' below ground surface (bgs). Well screens for the deep wells are below the water table. The two deep wells, MW-4D and MW-5D, each had depths of 26' bgs. These wells were paired with the shallow wells, MW-4S and MW-5S, respectively. Monitoring well construction logs were prepared for each of the wells and are included in Appendix C.

Monitoring wells were constructed with two inch ID threaded schedule 40 PVC flush-joint casing and a ten-foot section of machine slotted 0.010-inch well screen. The annulus around the well screen was backfilled with No. 1 Morie sand. The sand pack extends to a maximum of two feet above the well screen. A bentonite seal was placed above the sand pack to form a maximum three foot seal. A cement/bentonite grout was then placed to within three feet of the surface. Each well has a vented cap and a four inch diameter steel protective casing with a hinged locking cover. A cement pad was installed to channel surface water away from the well. Prior to sample collection all wells were developed via pumping or bailing, to remove sediment from the well screen and sand pack.

4.3.2 Geology and Hydrogeology

The drilling program revealed approximately 25 to 30 feet of lacustrine sand above the bedrock at the site. These sands are the result of beach and near shore deposits of glacial Lake Albany that existed in the area approximately 12,000 to 14,000 years ago during the Wisconsin glaciation. This lacustrine unit is comprised of stratified brown to grey-brown fine to medium and some coarse sand. Sand above the water table is red-brown to orange in color with mottling at and above the water table indicating a fluctuation in groundwater elevation.

Bedrock at the site was encountered at about 26 feet below ground surface at the MW-4D and MW-5D locations. Bedrock consists of Canajoharie shale. Exploratory borings ceased at the top of bedrock, therefore no actual samples were collected. It is important to note from a hydrogeologic standpoint, that there is not any confining or semi-confining unit that separates the groundwater in the bedrock from that in the sand above.

Surface water features at the site include a small creek/drainage ditch that emerges as a spring to the west and flows east and then south along the western property line year round. There are also two ponds on the property, one of which is used for irrigation. The low lying area on the south west portion of the site is wet at the surface most of the year. All surface drainage from the site is to the south east into Kayaderosseras Creek which empties into Saratoga Lake. As the site is comprised predominantly of sand, most precipitation infiltrates into the ground rather than running off into the drainage system described above.

Groundwater at the site is encountered generally at a depth of five to seven feet below ground surface within the lacustrine sand. This is known as the water table aquifer which is unconfined and the surface of which generally reflects the topographic features of the ground surface. Precise measurements to the top of the water table have been made in the monitoring wells and placed on a map to illustrate flow direction. Groundwater flows from the areas of higher level to lower level as shown on Figure B-11. Flow directions at the site are to the east-southeast, similar to surface drainage patterns in the area. The lacustrine sand provides a relatively permeable aquifer with high porosity. Although the hydraulic conductivity (permeability) has not been calculated during this study, pumping of the monitoring wells during development and sampling indicate the aquifer is moderately productive at all locations except MW-2 and MW-8, both of which are on the south west side of the site. These two wells produced little water, most likely due to the sand in that area being finer and more compact. The reported range of porosity for sand is between 25% to 50% (Fetter). Based on field observations (no laboratory testing was performed), it estimated that the lower end of this range applies to the lacustrine sands found at the site.

4.3.3 Sampling

The groundwater sampling program commenced on September 20, 1995. Samples were collected using dedicated one liter bottom-loading bailers. Samples were analyzed for lead, arsenic, pesticides and volatile parameters. No significant levels of volatile parameters were detected and no metal parameters were detected in any of the wells. The groundwater sampling program did, however, reveal detectable concentrations of DDT and/or its breakdown products DDD and DDE, in well nos. MW-1, MW-4S, MW-4D, MW-6 and MW-7. Table 2 presents the groundwater sampling results.

Based on the initial sampling results, samples were collected from MW-1, MW-4S, MW-4D, MW-6 and MW-7 on November 8, 1995 for semi-volatile analysis. This follow-up semi-volatile sampling was conducted to determine if compounds were present consistent with petroleum products, and to establish whether a connection existed between DDT in groundwater and the DDT/petroleum contamination noted at other locations at the site. The analysis did not reveal

TABLE 2 Saratoga Tree Nursery - Groundwater Sampling Results			
Well ID	Contaminants	Conc. (μg/L)	GW Std. (μg/L)
MW-1	4,4'-DDE	0.004	ND
	4,4'-DDD + 2,4'-DDD	0.01	ND
	4,4'-DDT	0.02	ND
MW-4S	4,4'-DDD + 2,4'-DDD	1.5	ND
	4,4'-DDT	0.44	ND
	Phenanthrene	48	50
MW-4D	4,4'-DDT	0.01	ND
	Phenanthrene	5.7	50
MW-6	4,4'-DDD + 2,4'-DDD	0.92	ND
	4,4'-DDT	0.06	ND
	Chloroform	28	7
MW-7	4,4'-DDE	0.06	ND
	4,4'-DDD + 2,4'-DDD	0.002	ND
	4,4'-DDT	0.02	ND
	Chloroform	4 J	7

KEY: J - Value reported is an estimate.
μg/L - Micrograms per liter (parts per billion).
ND - Non Detect.

significant concentrations of target semi-volatile compounds, however, a number of non-target semi-volatile compounds were detected in well nos. MW-4S, MW-4D and MW-6, including various aromatic hydrocarbons (naphthalene derivatives, fluorene derivatives, hexadecane, etc.). Non-target compounds are those detected, though the laboratory equipment has not been specifically calibrated to identify them. For this reason, concentrations of non-target compounds can only be estimated. The presence of these non-target compounds supports the likelihood of a connection between DDT and petroleum. Note that only target compounds are reported on Table 2. Laboratory data sheets for groundwater are included in Appendix E.

4.4 Surface Water and Sediment

4.4.1 Small Pond

Two ponds are located on the Nursery property. The smaller of the two ponds is located at the eastern end of AOC 6. This pond is approximately one third of an acre in size. The pond has no inlet or outlet and groundwater is the apparent water source to the pond. Significant filling (soil and rubble) is evident on the ponds northern perimeter. Water and sediment samples were collected for analysis from each of the two on-site ponds. These samples were collected from a boat, using a sediment core sampler. Samples were collected from the top two soil/sediment horizons at each sample location.

Six sediment samples from three locations were collected from the small pond and one surface water sample was collected. Results from sediment samples collected from the small pond revealed concentrations of DDT ranging from 34 ppm to 223 ppm in the upper sediment horizon (0-8"). The lower sediment horizon (8"-16") showed significantly lower concentrations of contamination with concentrations ranging from 0.10 ppm to 3.4 ppm. The results of the surface water sampling showed an estimated concentration of 0.002 ppb DDE and an estimated concentration of 0.015 ppb DDD. Sample locations are illustrated on Figure B-7.

4.4.2 Large Pond

The second of the two on-site ponds is located in the southern portion of the Nursery, a considerable distance (550') from the former mixing and storage areas. This pond is approximately one-half acre in size. No inlet was apparent based on visual observation, suggesting that groundwater is also the source to the large pond. The pond discharges to a narrow drainage ditch situated at the pond's eastern extreme. This pond is used for irrigation on an as-needed basis.

Eight sediment samples from three locations were collected from this pond. Elevated levels of DDT were not detected in any of the sediment samples collected. Concentrations of DDT for each of the sediment samples were below 1 ppm, with the exception of sample 2B which had a concentration of 1.10 ppm. The results from analysis of the surface water sample revealed no detectable concentrations of DDT, DDE or DDD. Sample locations are illustrated on Figure B-7.

4.4.3 Creek/Drainage Ditch

Sediment samples were also collected from the creek/drainage ditch that flows along the western property boundary. This ditch, which has a sustained flow of approximately five gpm, is approximately two feet wide and three to six inches deep. The source of this ditch is an east-west trending buried pipe located within an easement between Lot Numbers 98 and 100 Hathorn Blvd. This pipe reportedly receives flow from spring which was encountered during the construction of homes on the west side of Hathorn Blvd. The ditch flows along the Nursery's western property boundary and eventually to an off-site pond situated south of the Nursery property boundary.

A total of three sediment samples were collected from the ditch at approximately 25 foot spacings during the RI. During the preliminary investigations, one sediment sample was also collected from the ditch bottom. Each of the sample locations is illustrated on Figure B-7.

Analysis revealed DDT levels of 1.6, 2.5 and 0.2 ppm respectively, progressing from upstream to downstream. The sample collected during the preliminary investigation contained 0.3 ppm DDT. The results of the ditch sampling support that there has been no significant impact on the ditch.

SECTION 5: EXPOSURE PATHWAY ANALYSIS

5.1 Contaminants of Concern

The RI established that although lead and arsenic were identified at elevated concentrations in AOC 4 and a number of non-target semi-volatile compounds were detected in groundwater, DDT and its breakdown products DDD and DDE, best represent the overall contamination present in site soil, sediment and groundwater. It should be noted, as stated previously, throughout this report the values reported for concentrations of DDT in soil and sediment, represent the summation of DDT, DDD and DDE identified by the analytical method employed.

The development of site-specific remedial objectives or "cleanup goals" for impacted media (soil, sediment, groundwater) involves review of relevant State standards, criteria and guidance (SCGs) to insure the protection of public health and the environment. This process, which will be a component of the Feasibility Study (FS), involves consultation with the NYSDOH to insure the remedial objectives are protective of the public health. The NYSDOH considers such factors as the chemical and toxicological properties of the contaminants of concern; existing or potential exposure pathways, and; the present or projected site use. The NYSDEC's Division of Fish and Wildlife is also consulted to insure the remedial objectives are protective of existing wildlife habitats and other natural resources.

To aid in this evaluation, the following section will examine existing and potential exposures to human health as well as fish and wildlife.

5.2 Human Health Evaluation

The chemical and toxicological properties of DDT are fundamental considerations in the development of cleanup objectives. DDT is a stable chemical and is therefore persistent in the natural environment. Although DDT is a highly effective insecticide, concerns related to its accumulation in the environment, resulted in its ban in the United States in the early 1970's. DDT is still widely used outside the United States. Like any chemical, DDT has the potential to affect an individual's health, but this depends on many factors, such as the pathway of exposure (ingestion, inhalation, etc.), dosage, duration of exposure, individual's age and health, etc. People who accidentally ingested large amounts of DDT had affects on the nervous system that went away once the exposure was ended. Exposure to high levels of DDT causes damage to liver and reproductive systems of laboratory animals and the off-spring of laboratory animals exposed during pregnancy. Whether humans could suffer these same effects is unknown. Chemicals which cause adverse effects in laboratory animals at high levels of exposure may increase the risk of adverse effects in humans exposed to lower levels for long periods of time.

In national soil surveys, the range of background levels of DDT and its breakdown products is 0.01 to 18 ppm, with the higher end of that range usually related to past use of the insecticide. Local background levels were shown to have a range of 0.026-0.27 ppm. Levels which would be deemed acceptable for unrestricted use depend on a variety of factors such as the site use, depth of contamination, potential for exposure, etc.

Based on an evaluation of the data collected during the RI, the NYSDOH indicated that there is not an immediate health threat posed by the levels of contamination present at the Nursery, because the area is restricted and activities in contaminated areas are limited. The NYSDOH recommended that on-site workers avoid direct contact with contaminated soil and avoid situations which might increase the potential for inhalation of dust from these areas. The NYSDOH indicated that the levels of DDT and its breakdown products in soil are above those recommended for unrestricted use. Further, because DDT has migrated to groundwater in some areas of the site, threatening a source of water used locally for drinking, a third potential exposure pathway (i.e. ingestion of drinking water) exists. The NYSDOH indicated that until the identified areas of contamination have been remediated, on-site workers and site visitors should avoid unnecessary activities in these areas.

5.3 Fish and Wildlife Impact Analysis

The Nursery site is situated in a commercial/residential setting, occupying 130 acres. Contamination is confined to approximately three acres in the west-central section of the property. Most of the property is wooded and unused for Nursery activities. The property is surrounded by a six foot high chain link fence.

The undeveloped areas of the Nursery provide habitat for wildlife species typically found in woodlands and woodland edges. During the investigation, wildlife observed on the site included white-tailed deer, cottontail rabbit, gray squirrel, and turkey.

Two ponds exist on the property. The smaller pond (G, Figure 2) is approximately 12 inches in depth. It has no inlet or outlet, and during the investigation in late summer it dried up. The larger pond (H, Figure 2) is periodically used for irrigation at the Nursery. It is reported to contain pickerel, rock bass, largemouth bass, bullhead, and sunfish.

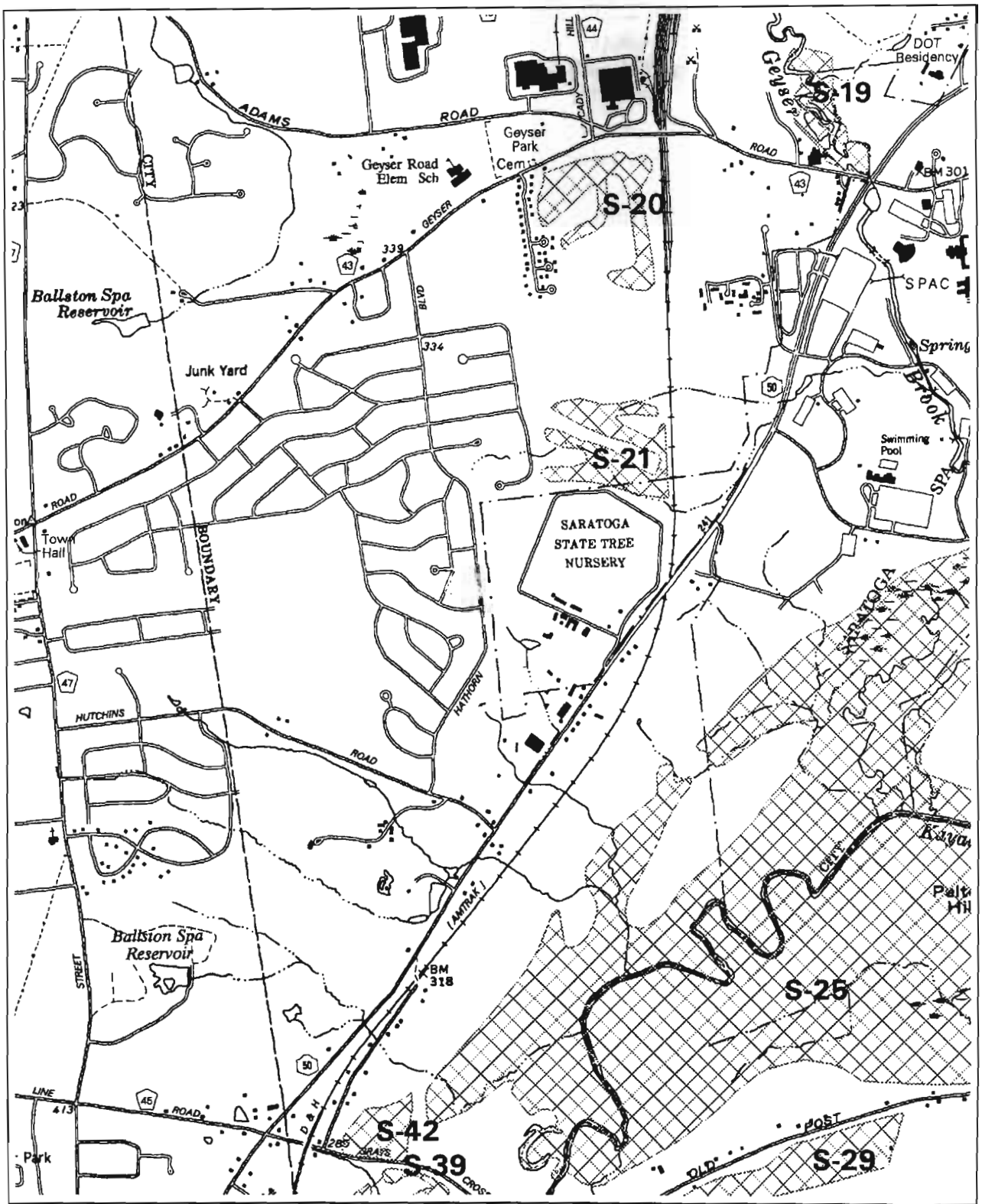
Several New York State regulated wetlands exist in the vicinity (ref. Figure 5). Closest to the site is wetland S-21 which lies just north of the property. A small section of the wetland occupies the northeast corner of the Nursery. The wetland is located approximately 1500 feet from the area of contamination, and, based on the investigation, no migration of DDT to the wetland is likely to have occurred.

DDT is a persistent pesticide that is known to accumulate and magnify in food chains. (The term DDT is used to include its degradation products DDD and DDE.) The compound has a well-documented history of producing adverse effects in wildlife. Most notably, DDT was associated with the population decline of species such as the peregrine falcon, the osprey, and the brown pelican. This was brought about by DDT's ability to inhibit successful reproduction in birds by causing egg shell thinning. Such eggs are suspectable to breakage during incubation. DDT can also be acutely toxic to wildlife. Mortality to robins in suburban areas caused by the spraying of DDT to control Dutch elm disease first brought the insecticide to the public's attention.

In terrestrial systems, DDT in soil is taken up by earthworms and other soil invertebrates including insect larvae. Contamination is passed up the food chain and can pose a risk to mammal predators such as shrews and moles, and to upper trophic level organisms preying on these mammals. Also, birds feeding directly on earthworms and other soil invertebrates or on insects whose larvae resided in contaminated soil can be at risk. An additional pathway for both birds and mammals is the direct ingestion of soil. At the Nursery, DDT at the concentrations found in the soil poses a potential hazard to wildlife.

Three sediment samples taken from the smaller pond had DDT concentrations of 34.4, 71.7, and 223 ppm. The screening level criterion for DDT at an assumed total organic carbon content of 5% is 0.05 ppm although the criterion is based on DDT bioaccumulation in wildlife through the consumption of contaminated fish and the small pond contains no fish. However, wildlife may be exposed through the consumption of contaminated pond invertebrates and the ingestion of surface water and sediments. The water sample taken from the pond contained DDT at an estimated concentration of 0.017 ppb while the New York State aquatic standard for Class D waters is 0.001 ppb. In addition, the pond may be used by breeding amphibians, and contamination may pose a hazard to egg and larval development.

The larger pond on the site contained DDT in the sediments at a level of 0.1 ppm. Although this exceeds the sediment criterion, the small size of the pond and the low level of contamination make it unlikely that wildlife would forage in the pond with the intensity necessary to receive a hazardous dose of DDT. Also, the low level of contamination is not likely to have a significant effect on the aquatic community.



Site Location Map

546043 Saratoga Tree Nursery

NYSDOT Planimetric Quadrangle(s):

FIGURE 5

Sediments from the creek/drainage ditch along the western property boundary contained DDT at concentrations ranging from 0.2 to 1.6 ppm along a length of 75 feet. It contains no fish, and, given the low level of contamination and the limited areal extent of contamination, it is unlikely to be of significant concern to wildlife.

In summary, the Nursery soils are contaminated with significant levels of DDT. Wildlife exposure to potentially harmful concentrations of DDT may occur through the consumption of soil invertebrates and through the direct ingestion of soil. Contamination may be passed up the food chain to upper trophic level carnivores. The larger pond and the drainage ditch along the western boundary contain low level contamination in the sediments which is unlikely to pose a wildlife hazard. The smaller pond contains levels of DDT in both the sediments and surface water that may present a risk to wildlife.

SECTION 6: FINDINGS OF THE REMEDIAL INVESTIGATION

6.1 Nature and Extent of Contamination

The purpose of the RI was to characterize the nature and extent of contamination at the Saratoga Tree Nursery Site. The investigation involved an extensive soil sampling program, groundwater monitoring, test pit excavations, surface water sampling and sediment sampling. The findings of the RI revealed widespread contamination by DDT in soil in the area reportedly used for disposal of DDT rinsate following daily operations (AOC 1), the pesticide storage buildings (AOC 4) and the former mixing areas (AOC 5 and AOC 6). The RI revealed that the uppermost 8" of sediments in the small pond near AOC 6 were contaminated with DDT. The RI also showed that there are a number of areas at the site which will require no further action. These include the area in the vicinity of the Smith Barn (AOC 2), the Lumber Shed (AOC 3) and the shade frame/wood pallet disposal area (AOC 7). An isolated area of contamination was observed beneath the tank trailers adjacent to the Smith Barn, however, which will require remedial action. Also, the contents of these tank trailers will have to be removed and the trailers decontaminated, as part of any remedial program. Accordingly, the tanks and related areas will now represent the extent of contamination within AOC 2, eliminating the Smith Barn from further consideration. Table 3 shows the contaminant concentration range by media and the associated frequency of detection.

The RI revealed that, in general, the depth of the DDT contamination in soil is shallow, typically within two feet of the ground surface. These findings are consistent with the reported mixing, handling and rinsing activities associated with the site. Drilling and test pitting revealed that there are areas of the site, however, where DDT extends to depths of eight feet or more. While these areas of the site make up a relatively small portion of the total area requiring action, they will require special consideration in light of the shallow water table and high DDT concentrations associated with these areas. Figure 4 illustrates the approximate areal extent of contamination, however, the actual limits will defined upon establishment of remedial objectives.

TABLE 3					
Saratoga Tree Nursery - Nature and Extent of Contamination					
Media	Class	Contaminant of Concern	Concentration Range	Frequency Exceeding SCGs	SCG
Soil	Pesticides	DDT, DDD, DDE	ND->10,000 ppm	155 of 418	DDT: 2.1 ppm DDD: 2.9 ppm DDE: 2.1 ppm
	Metals	Lead	ND-11,000 ppm	10 of 47	7.5 or SB
		Arsenic	ND-3,800 ppm	11 of 47	SB
Sediment	Pesticides	DDT, DDD, DDE	ND-223 ppm	15 of 18	0.05 ppm
Groundwater	Pesticides	DDT	ND-0.44 ppb	5 of 10	ND
		DDD	ND-1.5 ppb	4 of 10	ND
		DDE	ND-0.06 ppb	2 of 10	ND
	Metals	Lead	ND	0 of 10	25 ppb
		Arsenic	ND	0 of 10	25 ppb
	Volatiles	Chloroform	ND-28 ppb	1 of 10	7 ppb
	Semi-volatiles	Phenanthrene	ND-48 ppb	0 of 5	50 ppb
		Various (non-target)	ND-630 ppb	2 of 5	50 ppb
Surface Water	Pesticides	DDT	ND	0 of 2	0.001 ppb (D)
		DDD	ND-0.015J ppb	1 of 2	0.001 ppb (D)
		DDE	ND-0.002J ppb	1 of 2	0.001 ppb (D)

KEY: SB - Site Background (Typ. Range for Albany Area - Arsenic: 0.1-6.5 ppm, Lead: 1-12.5 ppm).
ND - Non Detect.
J - Value reported is an estimate.
D - SCG corresponds to Class D surface waters.
SCG - State standards, criteria and guidelines.

Figure 6 graphically depicts the volume of contaminated soil and sediment relative to the concentration of DDT detected. As illustrated by the graph, approximately 10,000 cubic yards of soil and sediment exceeded a concentration of 100 ppm and approximately 13,000 cubic yards of material exceeded a concentration of 10 ppm. To assess the general soil quality outside the 10 ppm contour (ref. Figure 4), the average concentration of DDT in soil was calculated for each sample interval. Average concentrations were found to be 1.84 ppm, 1.71 ppm and 0.91 ppm for the depths of 0-6", 6-12" and 12-24", respectively.

The RI revealed that groundwater contamination by DDT and its breakdown products exists at the site, but that the groundwater contamination is not widespread. Groundwater contamination was observed in monitoring wells MW-1, MW-4S, MW-4D, MW-6 and MW-7. Data supports that the deeper contamination observed, in both groundwater and soil, is attributable to the presence of petroleum contamination in these areas. Evidence of petroleum, either visual or analytical, was encountered in nearly every instance where DDT was detected at deeper intervals.

It appears that the presence of DDT at deeper intervals is the result of transport in emulsion with petroleum, which functions as a carrier. DDT is a relatively insoluble compound in water with a strong tendency to adhere to soil particles, however, it dissolves fairly readily into oil, which is why fuel oil was used as a mixing/emulsifying agent. It is for this reason that those areas where DDT was observed at deeper intervals (in soil and groundwater) are believed to be the result of petroleum contamination, which also exists, and which has combined with the DDT. Figure B-10 illustrates the estimated limits of those areas where petroleum contamination was apparent.

6.2 Recommendations and Conclusions

6.2.1 Recommendations

It is recommended that a Feasibility Study be performed to assess the most suitable means of addressing the media where contamination has been identified at the Nursery site. As a component of the Feasibility Study, a detailed evaluation of relevant State standards, criteria and guidance should be conducted in the development of appropriate remedial objectives. Based on the data collected as part of the Remedial Investigation, Table 4 presents the estimated volume of contaminated media which has been identified in each AOC.

6.2.2 Conclusions

As illustrated by Table 4, the RI identified widespread soil contamination at this site. The predominant contaminant of concern is DDT and its associated breakdown products, DDD and DDE. In addition to DDT, the heavy metals lead and arsenic, the toxic components of the pesticide lead-arsenate, were only identified in one AOC, the former pesticide storage buildings (AOC 4). The areas of DDT soil contamination at this site include AOC 1, AOC 2, AOC 4, AOC 5 and AOC 6. These areas should be included in a remedial program designed to address all soil with levels of DDT and its breakdown products above the remedial objective which is

established. The tank trailers in AOC 2 and their contents must also be incorporated in the remedial program, removing the residual DDT product and properly decontaminating the tanks for salvaging. Also, the elevated concentrations of lead and arsenic detected in and near the pesticide storage buildings warrant action. Depending on the remedial technique selected, a separate remedial alternative may be required to address the metals contamination observed in this area.

Sediment contamination has been identified in the small pond at the south end of AOC 6. This contamination appears limited to the top 8" of sediment. All sediment in this pond shown to exceed the remedial objective, should be subject to remedial action and treated and/or disposed consistent with the contaminated soil.

Groundwater contamination has been observed in wells nos. MW-1, MW-4S, MW-4D, MW-6 and MW-7. This contamination appears to have resulted from the migration of DDT by emulsion with residual petroleum products. It is believed that the removal of oil-saturated soils will eliminate the source(s) of the groundwater contamination. This remedial measure as well as any others measures necessary to address the groundwater should be evaluated in the Feasibility Study.

FIGURE 6

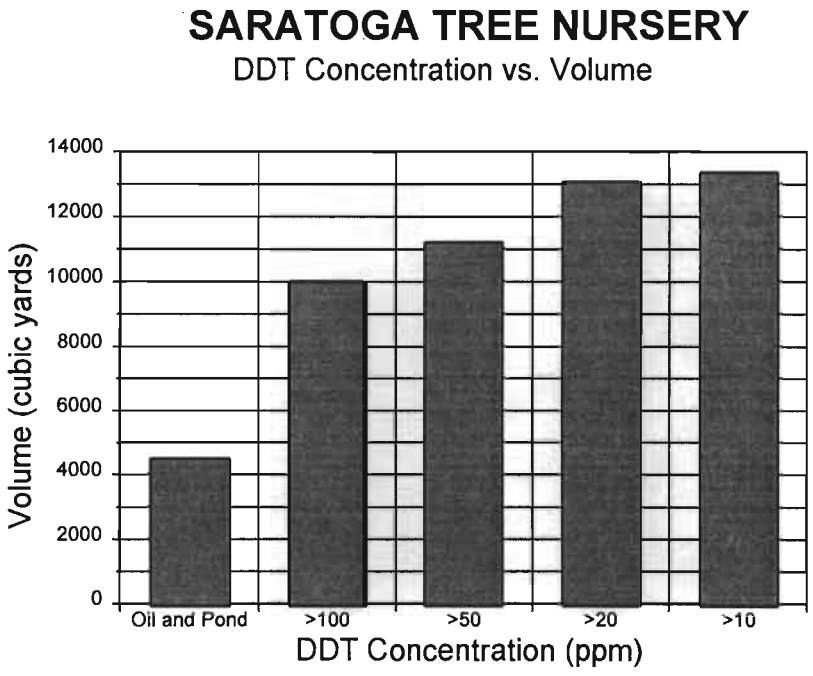


TABLE 4			
Saratoga Tree Nursery - Summary of Remedial Investigation Findings			
Area of Concern	Media	Primary Contaminant Detected	Estimated Volume of Contaminated Media (cubic yards)*
AOC 1	Soil	DDT, DDD, DDE	2290
AOC 2	Soil	DDT, DDD, DDE	300
AOC 4	Soil	DDT, DDD, DDE	1850
		Pb, As	150
AOC 5	Soil	DDT, DDD, DDE	4400
AOC 6	Soil	DDT, DDD, DDE	3280
	Sediment	DDT, DDD, DDE	1000
		TOTAL	**13270**

* - Estimates based on soil with DDT concentrations of 10 ppm or greater. Depth of contamination assumed at 2' w/exception of zones of petroleum contamination where 8' was assumed.

APPENDIX A

Preliminary Investigation Data

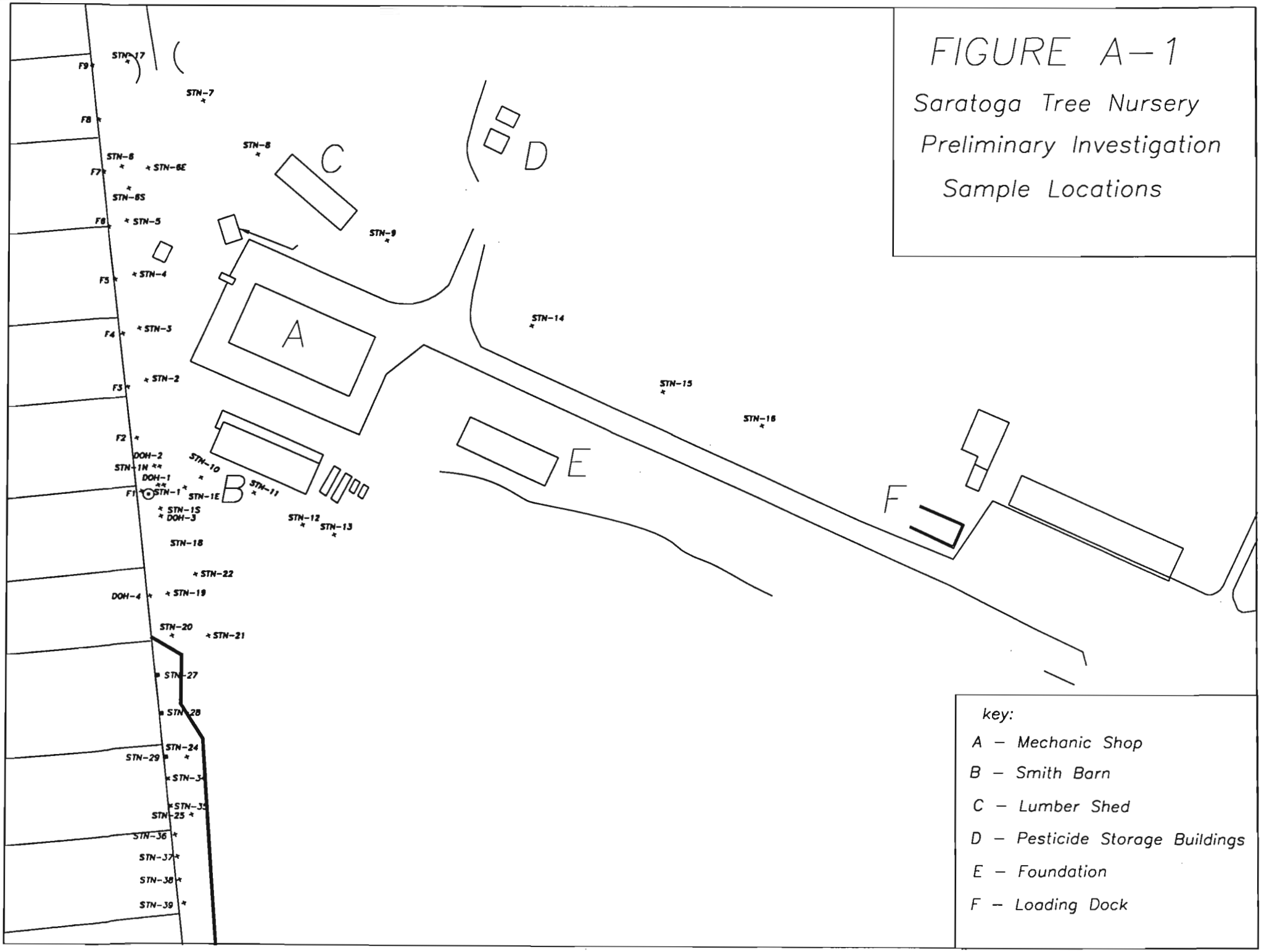


FIGURE A-1
Saratoga Tree Nursery
Preliminary Investigation
Sample Locations
A
B
C
D
E
F
STN-17
STN-7
STN-8
STN-6
STN-6E
STN-6S
STN-5
STN-9
STN-4
STN-14
STN-3
STN-15
STN-2
STN-16
DOH-2
STN-1N
DOH-1
STN-1
STN-10
STN-11
STN-1E
STN-1S
DOH-3
STN-12
STN-13
STN-18
STN-22
DOH-4
STN-19
STN-20
STN-21
STN-27
STN-28
STN-24
STN-29
STN-34
STN-35
STN-25
STN-36
STN-37
STN-38
STN-39
F9
F8
F7
F6
F5
F4
F3
F2
F1
key:
A – Mechanic Shop
B – Smith Barn
C – Lumber Shed
D – Pesticide Storage Buildings
E – Foundation
F – Loading Dock

Saratoga Tree Nursery - Route 50 Facility
Preliminary Investigation Data

Sample	A(0-6")	B(6-12")	C(12-24")
STN-1	1249	NS	7.65
STN-1N	900.8	1013.4	685
STN-1E	10.7	22.44	25.7
STN-1S	2.47	2241	3198
STN-2	1.8	NS	0.122
STN-3	14.88	NS	2.84
STN-4	2.014	NS	0.439
STN-5	1.1	NS	0.37
STN-6	21.2	NS	1.8
STN-6E	59.9	45.76	92.79
STN-6S	1.17	0.84	0.107
STN-7	32.98	NS	1.72
STN-8	0.038	NS	0
STN-9	2.23	NS	0.23
STN-10	0.012	NS	1.987
STN-11	0.168	NS	2.46
STN-12	1.597	NS	0.66
STN-13	0	NS	0
STN-14	190.9	NS	14.6
STN-15	105.6	NS	92.52
STN-16	6.83	NS	7.96
STN-17	0.128	0	0
STN-18	68.7	12.39	1.516
STN-19	20.1	7.01	0.0366
STN-20	6.53	11.83	22.74
STN-21	19.7	4.4	0.161
STN-22	0.029	0	0
STN-23	5.98	0.89	0.1
STN-24	0.79	0	0
STN-25	0.01	0.24	0
STN-26	>10	0.71	0.03
STN-27	0.98	10	10
STN-28	7.27	6.66	3.72
STN-29	0.01	0.01	
STN-30	2.5	8.36	0.15
STN-31	0.2	NS	NS
STN-32	0.76	1.06	0.08
STN-33	1.41	5.69	3.79
STN-34	0.51	10.63	6
STN-35	0.01	0	6.64
STN-36	0	0	
STN-37	0.02	0.01	0.01
STN-38	0.06	0.05	0
STN-39	0.07	0.71	0
DOH-1	19	NS	NS
DOH-2	39.8	NS	NS
DOH-3	1.65	NS	NS
DOH-4	4.97	NS	NS
F1	36.8	3.85	2.66
F2	0.294	0.622	0.363
F3	0.436	0.434	0.332
F4	5.63	0.688	1.5
F5	0.685	0.952	0.458
F6	1.29	0	0
F7	1.23	0	0
F8	0.245	3.04	0.07
F9	0.493	0.199	0.195

All concentrations in parts per million (ppm) key: NS - Interval Not Sampled

APPENDIX B

Figures

(All sample data is reported in parts per million, unless otherwise noted)

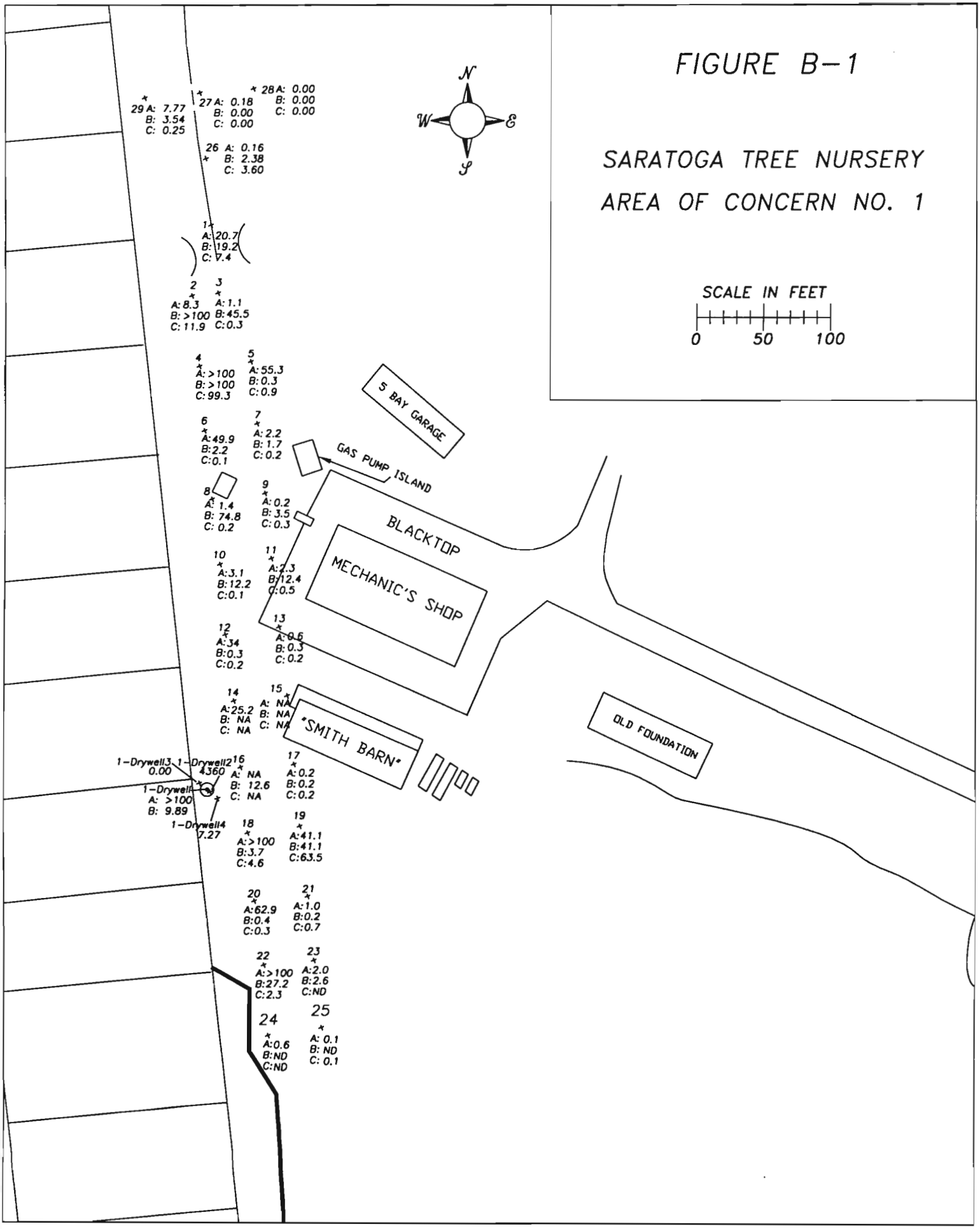


FIGURE B-1
SARATOGA TREE NURSERY
AREA OF CONCERN NO. 1
SCALE IN FEET
0
50
100
N
W
E
S
29 A: 7.77 B: 3.54 C: 0.25
27 A: 0.18 B: 0.00 C: 0.00
28 A: 0.00 B: 0.00 C: 0.00
26 A: 0.16 B: 2.38 C: 3.60
1 A: 20.7 B: 19.2 C: 7.4
2 A: 8.3 B: >100 C: 11.9
3 A: 1.1 B: 45.5 C: 0.3
4 A: >100 B: >100 C: 99.3
5 A: 55.3 B: 0.3 C: 0.9
6 A: 49.9 B: 2.2 C: 0.1
7 A: 2.2 B: 1.7 C: 0.2
8 A: 1.4 B: 74.8 C: 0.2
9 A: 0.2 B: 3.5 C: 0.3
10 A: 3.1 B: 12.2 C: 0.1
11 A: 2.3 B: 12.4 C: 0.5
12 A: 34 B: 0.3 C: 0.2
13 A: 0.6 B: 0.3 C: 0.2
14 A: 25.2 B: NA C: NA
15 A: NA B: NA C: NA
16 A: NA B: 12.6 C: NA
17 A: 0.2 B: 0.2 C: 0.2
18 A: >100 B: 3.7 C: 4.6
19 A: 41.1 B: 41.1 C: 63.5
20 A: 62.9 B: 0.4 C: 0.3
21 A: 1.0 B: 0.2 C: 0.7
22 A: >100 B: 27.2 C: 2.3
23 A: 2.0 B: 2.6 C: ND
24 A: 0.6 B: ND C: ND
25 A: 0.1 B: ND C: 0.1
1-Drywell3 0.00
1-Drywell2 4360
1-Drywell1 A: >100 B: 9.89
1-Drywell4 7.27
S BAY GARAGE
GAS PUMP ISLAND
BLACKTOP
MECHANIC'S SHOP
"SMITH BARN"
OLD FOUNDATION

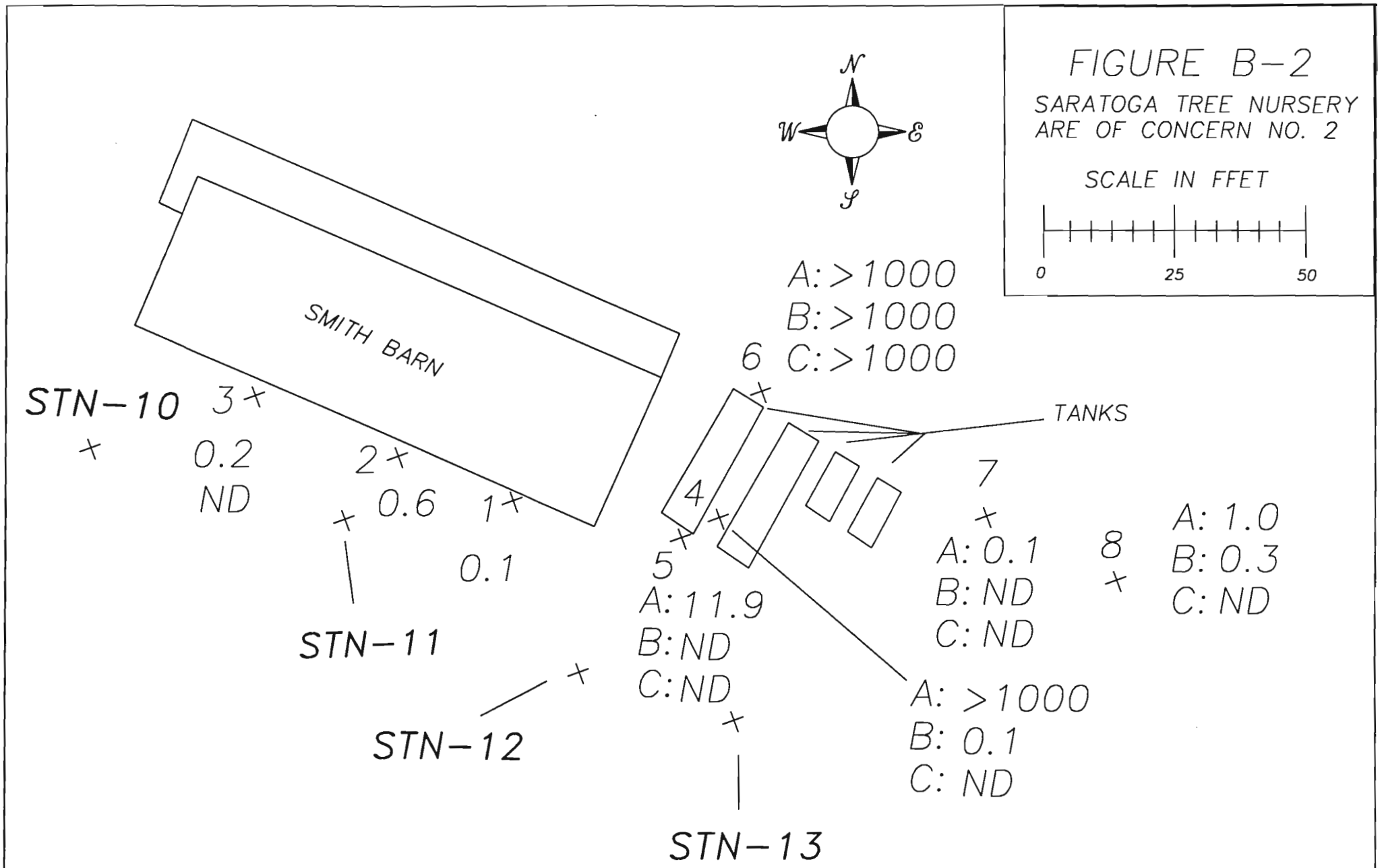


FIGURE B-2
SARATOGA TREE NURSERY
ARE OF CONCERN NO. 2
SCALE IN FFET
0
25
50
N
W
E
S
SMITH BARN
STN-10
3
0.2
ND
2
0.6
1
0.1
STN-11
STN-12
STN-13
4
5
A: 11.9
B: ND
C: ND
6
A: >1000
B: >1000
C: >1000
TANKS
7
A: 0.1
B: ND
C: ND
8
A: 1.0
B: 0.3
C: ND
A: >1000
B: 0.1
C: ND

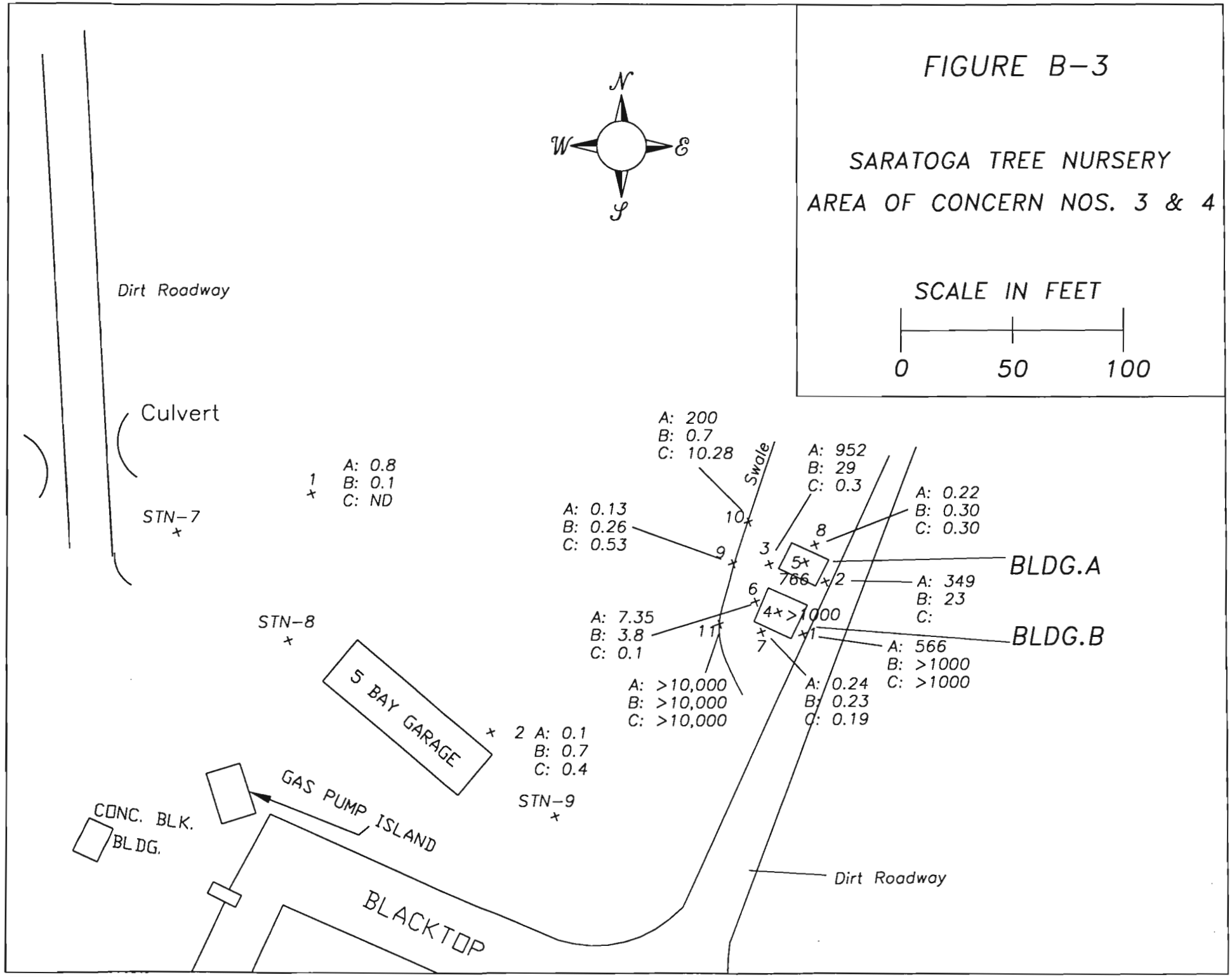


FIGURE B-3
SARATOGA TREE NURSERY
AREA OF CONCERN NOS. 3 & 4
SCALE IN FEET
0
50
100
N
W
E
S
Dirt Roadway
Culvert
STN-7
1
A: 0.8
B: 0.1
C: ND
STN-8
5 BAY GARAGE
2 A: 0.1
B: 0.7
C: 0.4
STN-9
GAS PUMP ISLAND
CONC. BLK. BLDG.
BLACKTOP
A: 200
B: 0.7
C: 10.28
Swale
A: 952
B: 29
C: 0.3
A: 0.22
B: 0.30
C: 0.30
A: 0.13
B: 0.26
C: 0.53
10
9
8
3
5
766
2
BLDG.A
A: 349
B: 23
C:
6
4
>1000
11
7
1
BLDG.B
A: 566
B: >1000
C: >1000
A: 7.35
B: 3.8
C: 0.1
A: >10,000
B: >10,000
C: >10,000
A: 0.24
B: 0.23
C: 0.19
Dirt Roadway

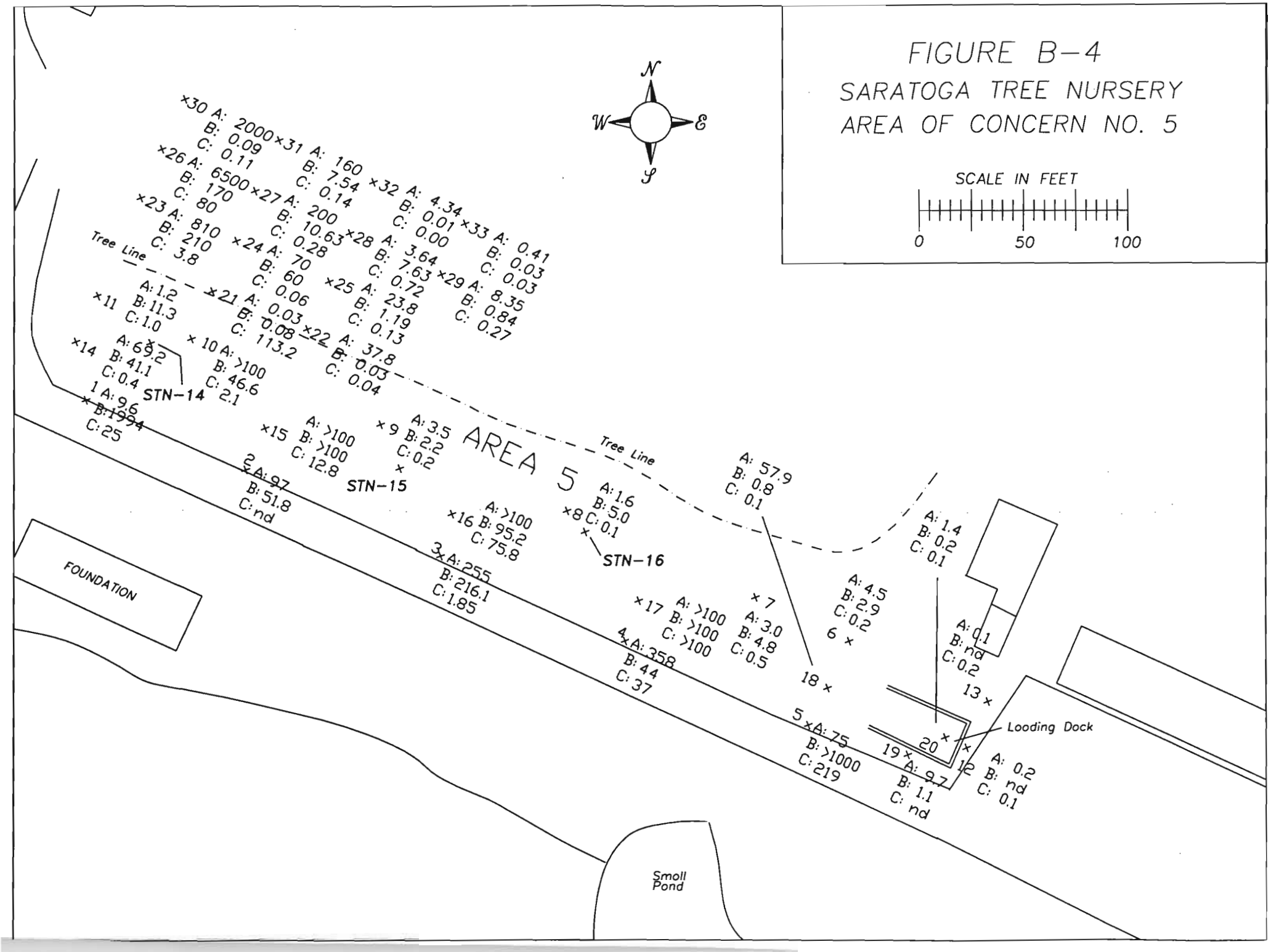


FIGURE B-4
SARATOGA TREE NURSERY
AREA OF CONCERN NO. 5
SCALE IN FEET
0
50
100
N
W
E
S
AREA 5
Tree Line
Tree Line
STN-14
STN-15
STN-16
FOUNDATION
Small Pond
Loading Dock
×30 A: 2000 B: 0.09 C: 0.11
×31 A: 160 B: 7.54 C: 0.14
×32 A: 4.34 B: 0.01 C: 0.00
×33 A: 0.41 B: 0.03 C: 0.03
×26 A: 6500 B: 170 C: 80
×27 A: 200 B: 10.63 C: 0.28
×28 A: 3.64 B: 7.63 C: 0.72
×29 A: 8.35 B: 0.84 C: 0.27
×23 A: 810 B: 210 C: 3.8
×24 A: 70 B: 60 C: 0.06
×25 A: 23.8 B: 1.19 C: 0.13
×21 A: 0.03 B: 0.08 C: 113.2
×22 A: 37.8 B: 0.03 C: 0.04
×11 A: 1.2 B: 11.3 C: 1.0
×14 A: 69.2 B: 41.1 C: 0.4
× 10 A: >100 B: 46.6 C: 2.1
1 A: 9.6 × B: 1994 C: 25
×15 A: >100 B: >100 C: 12.8
×9 A: 3.5 B: 2.2 C: 0.2
2 A: 97 B: 51.8 C: nd
×16 A: >100 B: 95.2 C: 75.8
×8 A: 1.6 B: 5.0 C: 0.1
3 A: 255 B: 216.1 C: 1.85
A: 57.9 B: 0.8 C: 0.1
×17 A: >100 B: >100 C: >100
× 7 A: 3.0 B: 4.8 C: 0.5
4 A: 358 B: 44 C: 37
A: 4.5 B: 2.9 C: 0.2
6 ×
A: 1.4 B: 0.2 C: 0.1
A: 0.1 B: nd C: 0.2
13 ×
18 ×
5 A: 75 B: >1000 C: 219
19 A: 9.7 B: 1.1 C: nd
20 ×
12 ×
A: 0.2 B: nd C: 0.1

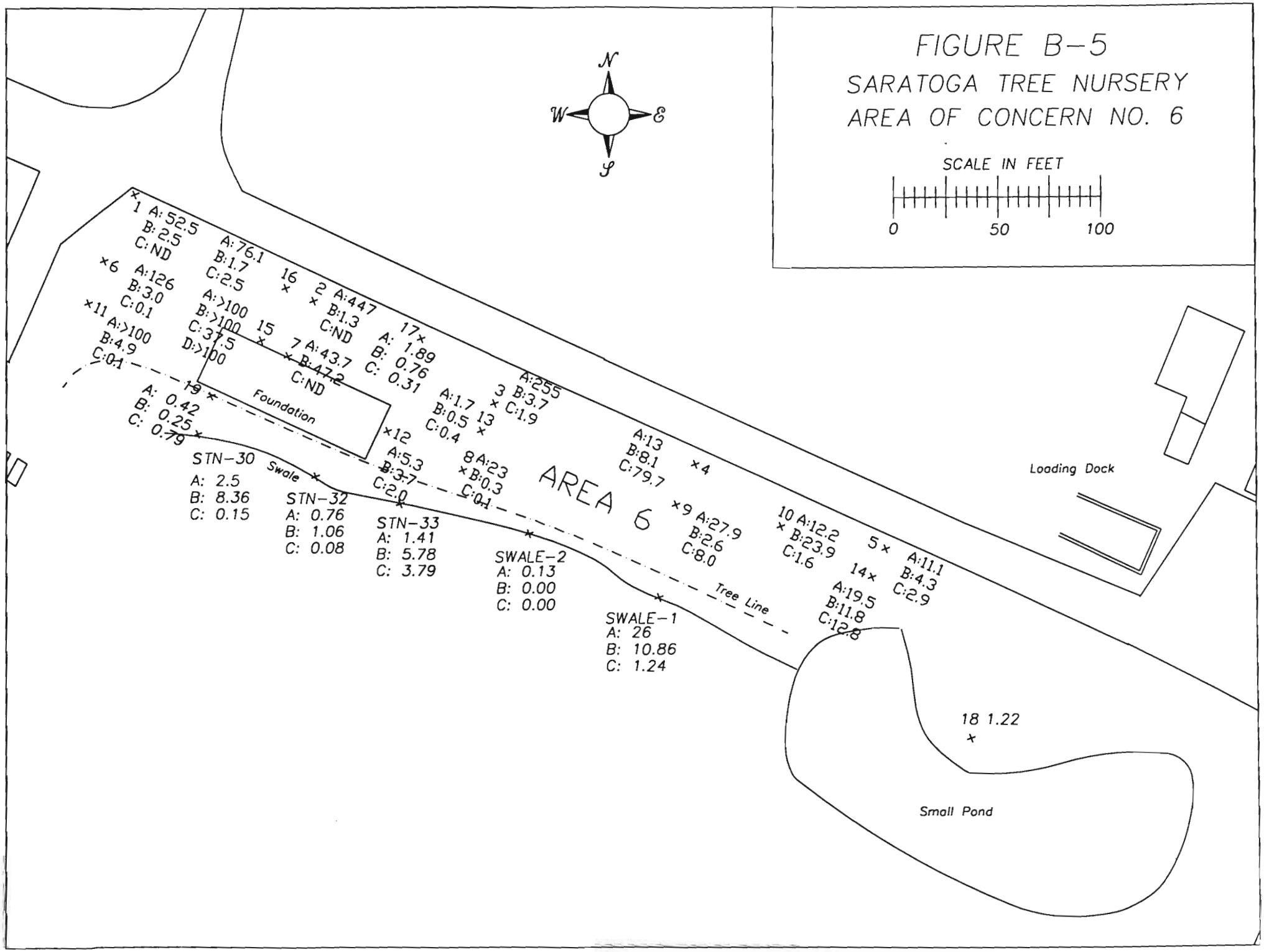
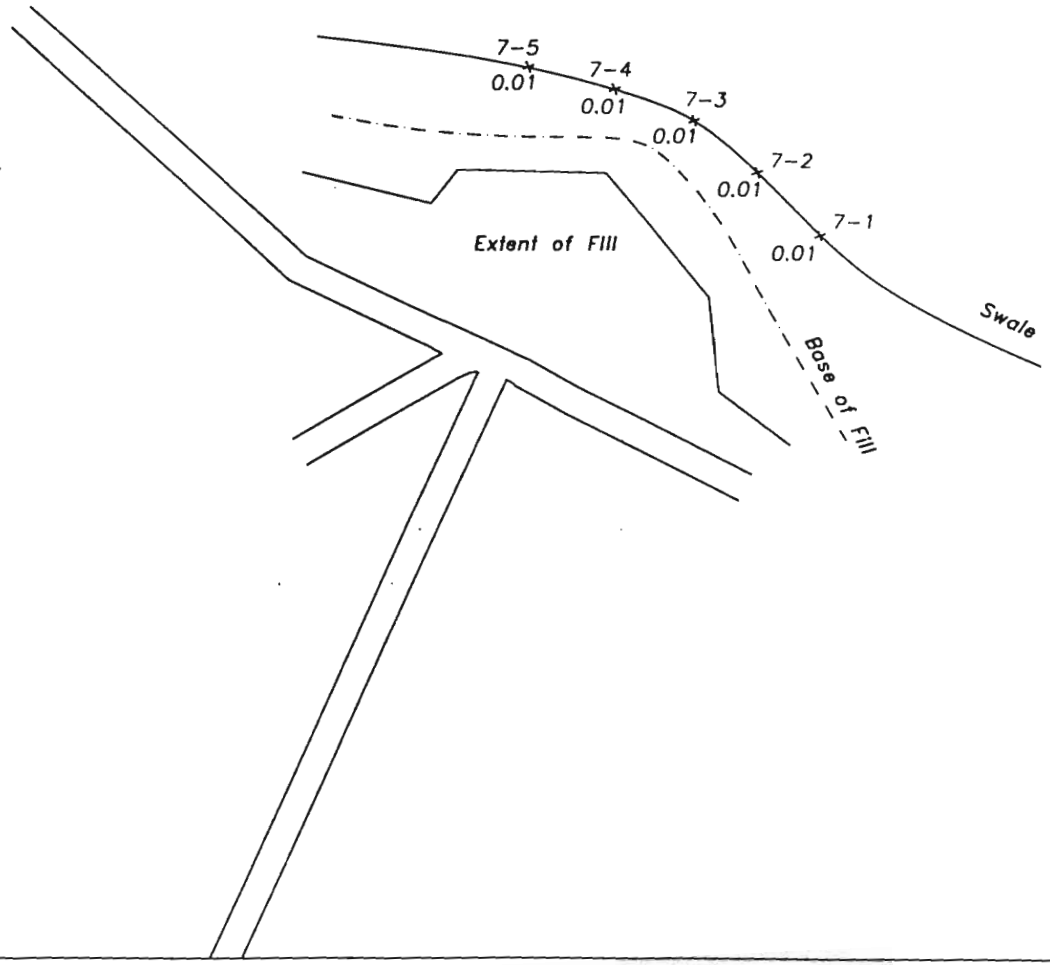


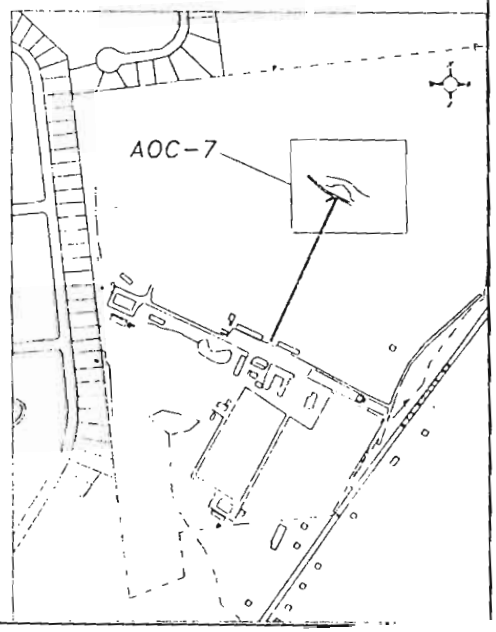
FIGURE B-5
SARATOGA TREE NURSERY
AREA OF CONCERN NO. 6
SCALE IN FEET
0
50
100
N
W
E
S
AREA 6
Foundation
Loading Dock
Tree Line
Small Pond
Swale
1 A: 52.5 B: 2.5 C: ND
2 A:447 B:1.3 C:ND
3 B:3.7 C:1.9
4 A:11.1 B:4.3 C:2.9
5 A:255
6 A:126 B:3.0 C:0.1
7 A:43.7 B:47.2 C:ND
8 A:23 B:0.3 C:0.1
9 A:27.9 B:2.6 C:8.0
10 A:12.2 B:23.9 C:1.6
11 A:>100 B:4.9 C:0.1
12 A:5.3 B:3.7 C:2.0
13 A:1.7 B:0.5 C:0.4
14 A:19.5 B:11.8 C:12.8
15 A:>100 B:>100 C:37.5 D:>100
16 A:76.1 B:1.7 C:2.5
17 A: 1.89 B: 0.76 C: 0.31
18 1.22
19 A: 0.42 B: 0.25 C: 0.79
A:13 B:8.1 C:79.7
STN-30 A: 2.5 B: 8.36 C: 0.15
STN-32 A: 0.76 B: 1.06 C: 0.08
STN-33 A: 1.41 B: 5.78 C: 3.79
SWALE-2 A: 0.13 B: 0.00 C: 0.00
SWALE-1 A: 26 B: 10.86 C: 1.24

FIGURE B-6
SARATOGA TREE NURSERY
AREA OF CONCERN NO. 7

SCALE IN FEET

0 50 100





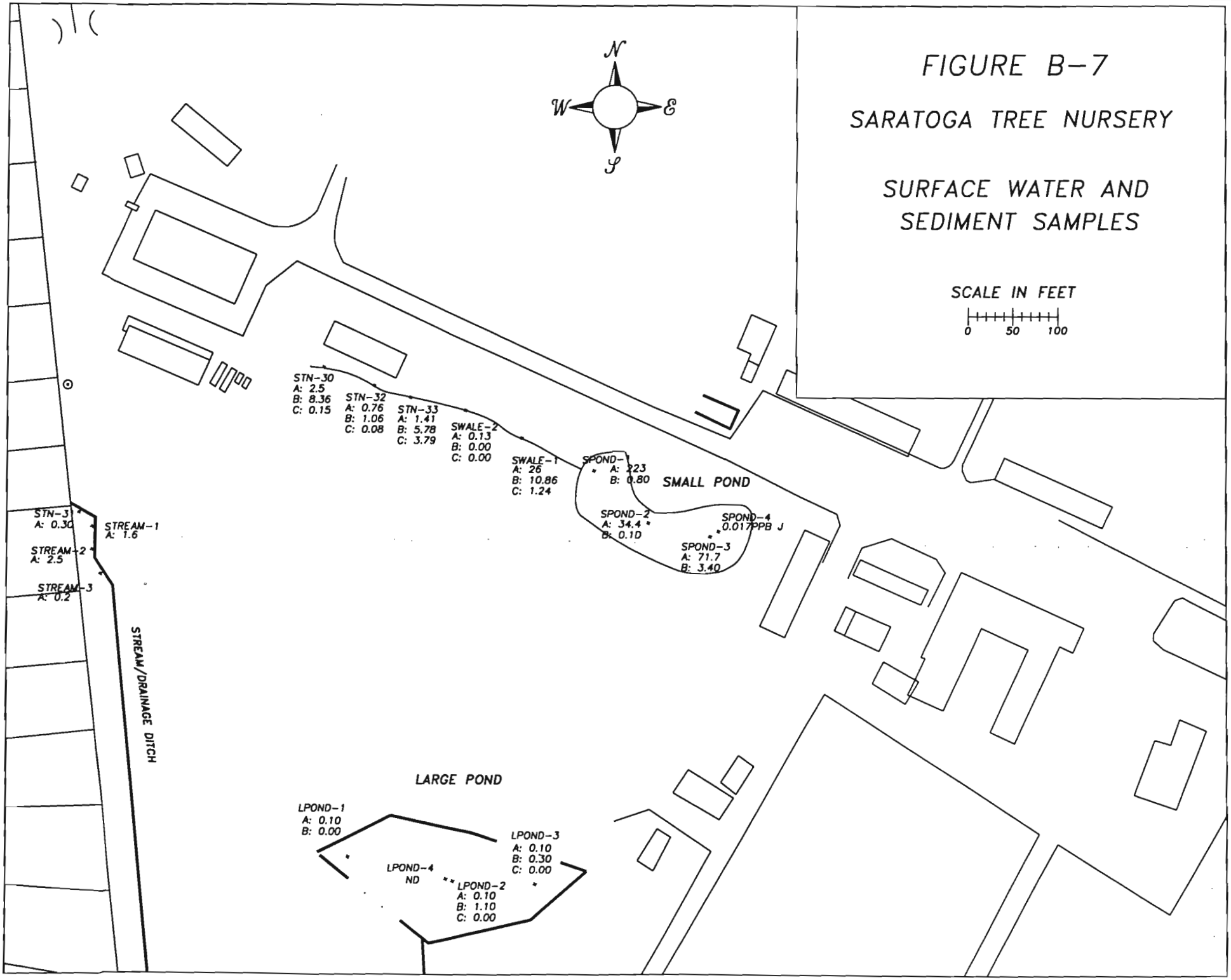


FIGURE B-7
SARATOGA TREE NURSERY
SURFACE WATER AND SEDIMENT SAMPLES
SCALE IN FEET
0 50 100
N
W
E
S
STN-30
A: 2.5
B: 8.36
C: 0.15
STN-32
A: 0.76
B: 1.06
C: 0.08
STN-33
A: 1.41
B: 5.78
C: 3.79
SWALE-2
A: 0.13
B: 0.00
C: 0.00
SWALE-1
A: 26
B: 10.86
C: 1.24
SPOND-1
A: 223
B: 0.80
SMALL POND
SPOND-2
A: 34.4
B: 0.10
SPOND-4
0.017PPB J
SPOND-3
A: 71.7
B: 3.40
STN-3
A: 0.30
STREAM-1
A: 1.6
STREAM-2
A: 2.5
STREAM-3
A: 0.2
STREAM/DRAINAGE DITCH
LARGE POND
LPOND-1
A: 0.10
B: 0.00
LPOND-3
A: 0.10
B: 0.30
C: 0.00
LPOND-4
ND
LPOND-2
A: 0.10
B: 1.10
C: 0.00

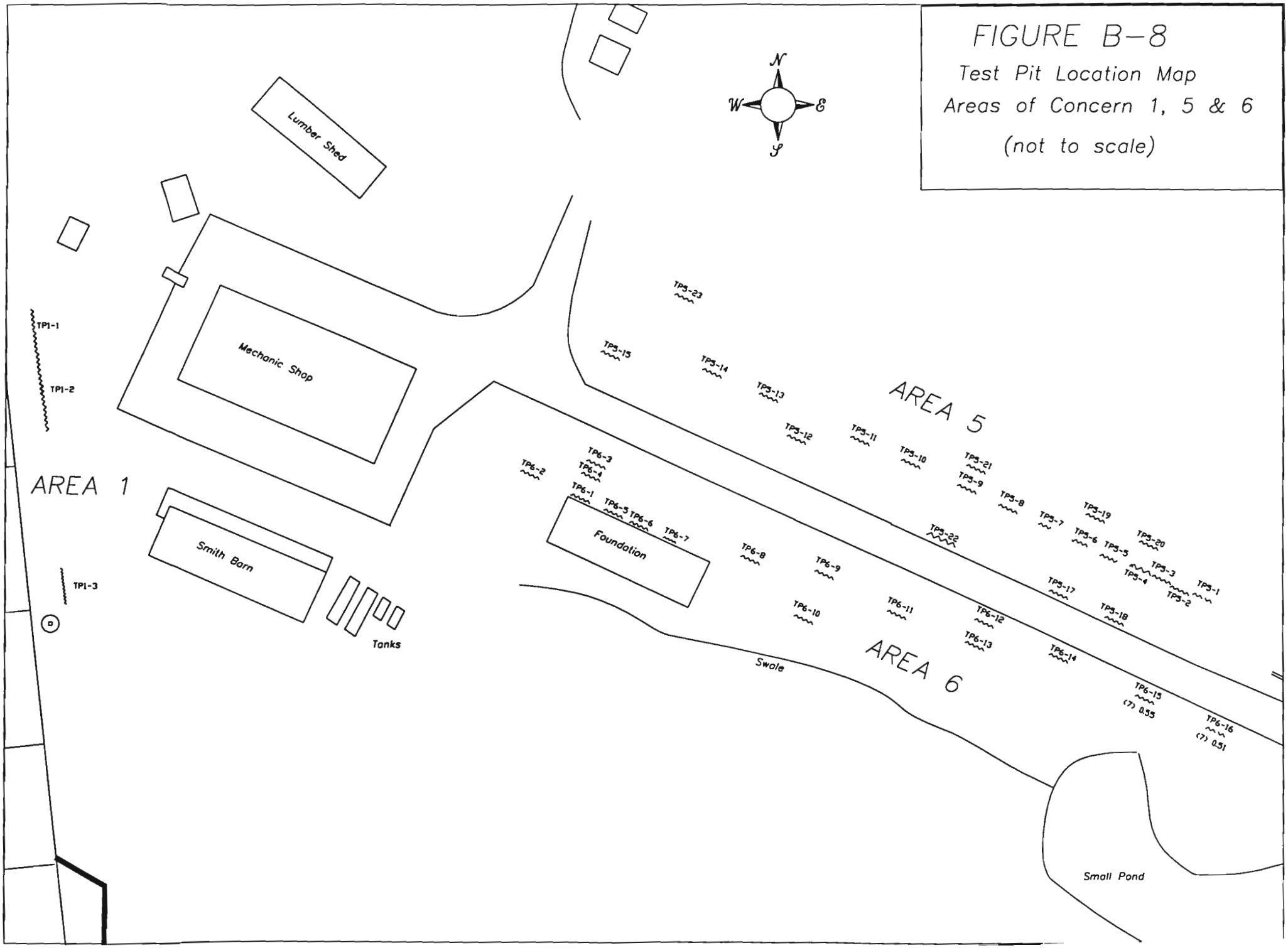


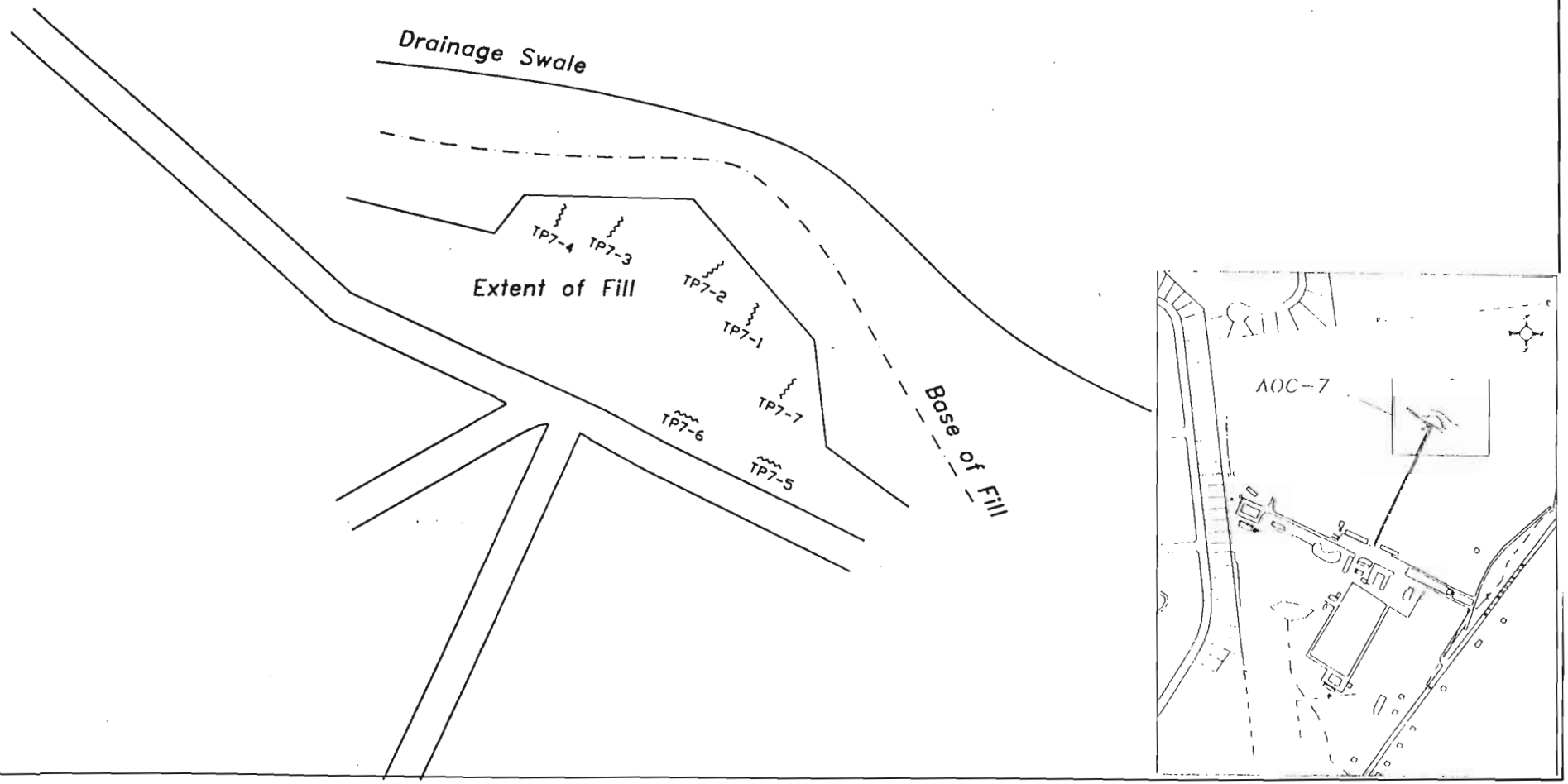
FIGURE B-8
Test Pit Location Map
Areas of Concern 1, 5 & 6
(not to scale)
N
W
E
S
Lumber Shed
Mechanic Shop
Smith Barn
Tanks
Foundation
Swale
Small Pond
AREA 1
AREA 5
AREA 6
TP1-1
TP1-2
TP1-3
TP3-1
TP3-2
TP3-3
TP3-4
TP3-5
TP3-6
TP3-7
TP3-8
TP3-9
TP3-10
TP3-11
TP3-12
TP3-13
TP3-14
TP3-15
TP3-17
TP3-18
TP3-19
TP3-20
TP3-21
TP3-22
TP3-23
TP6-1
TP6-2
TP6-3
TP6-4
TP6-5
TP6-6
TP6-7
TP6-8
TP6-9
TP6-10
TP6-11
TP6-12
TP6-13
TP6-14
TP6-15
(?) 0.55
TP6-16
(?) 0.51

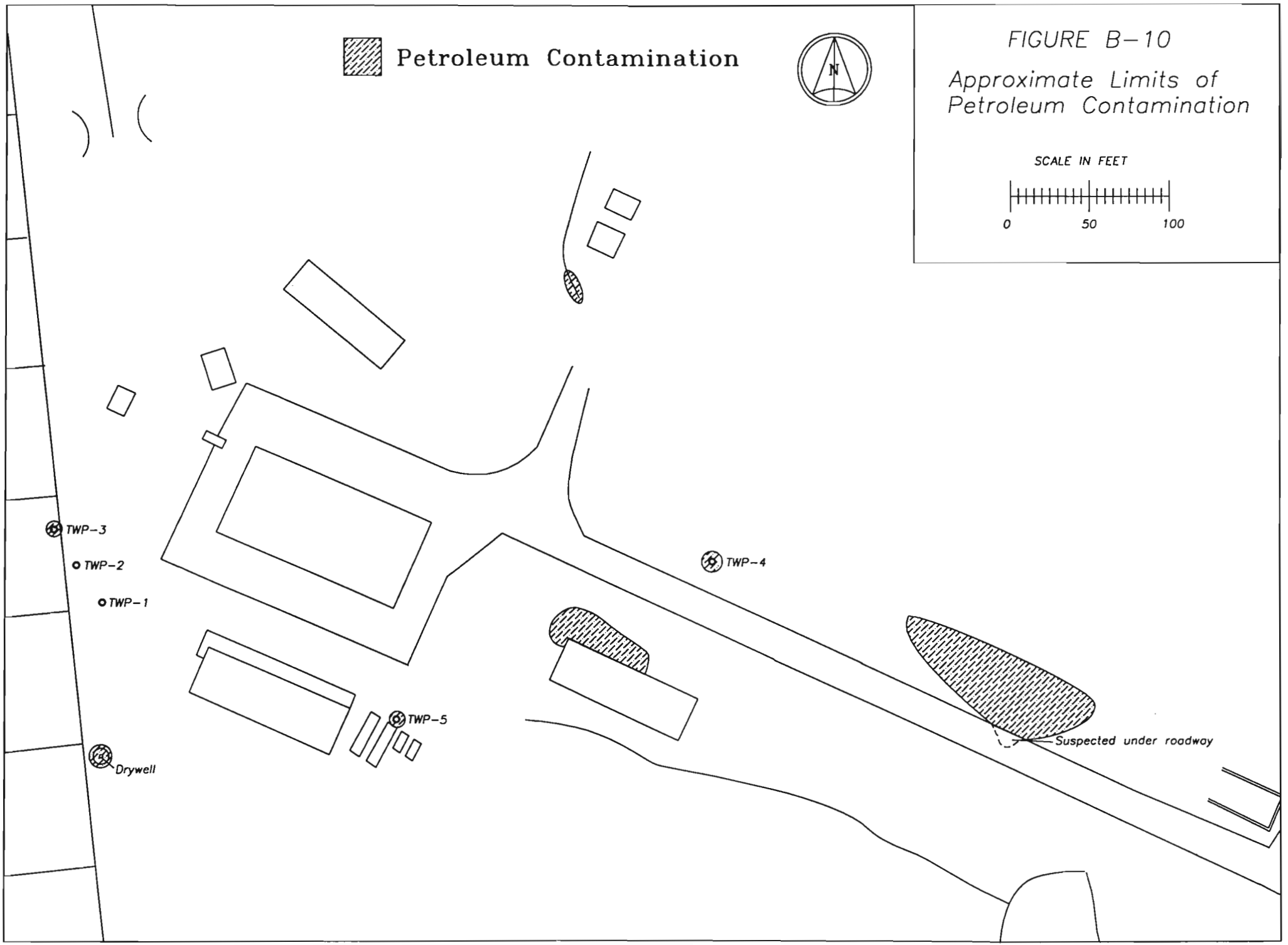
FIGURE B-9

SARATOGA TREE NURSERY

AREA OF CONCERN NO. 7

(not to scale)




Petroleum Contamination
N
FIGURE B-10
Approximate Limits of Petroleum Contamination
SCALE IN FEET
0
50
100
TWP-3
TWP-2
TWP-1
TWP-4
TWP-5
Drywell
Suspected under roadway

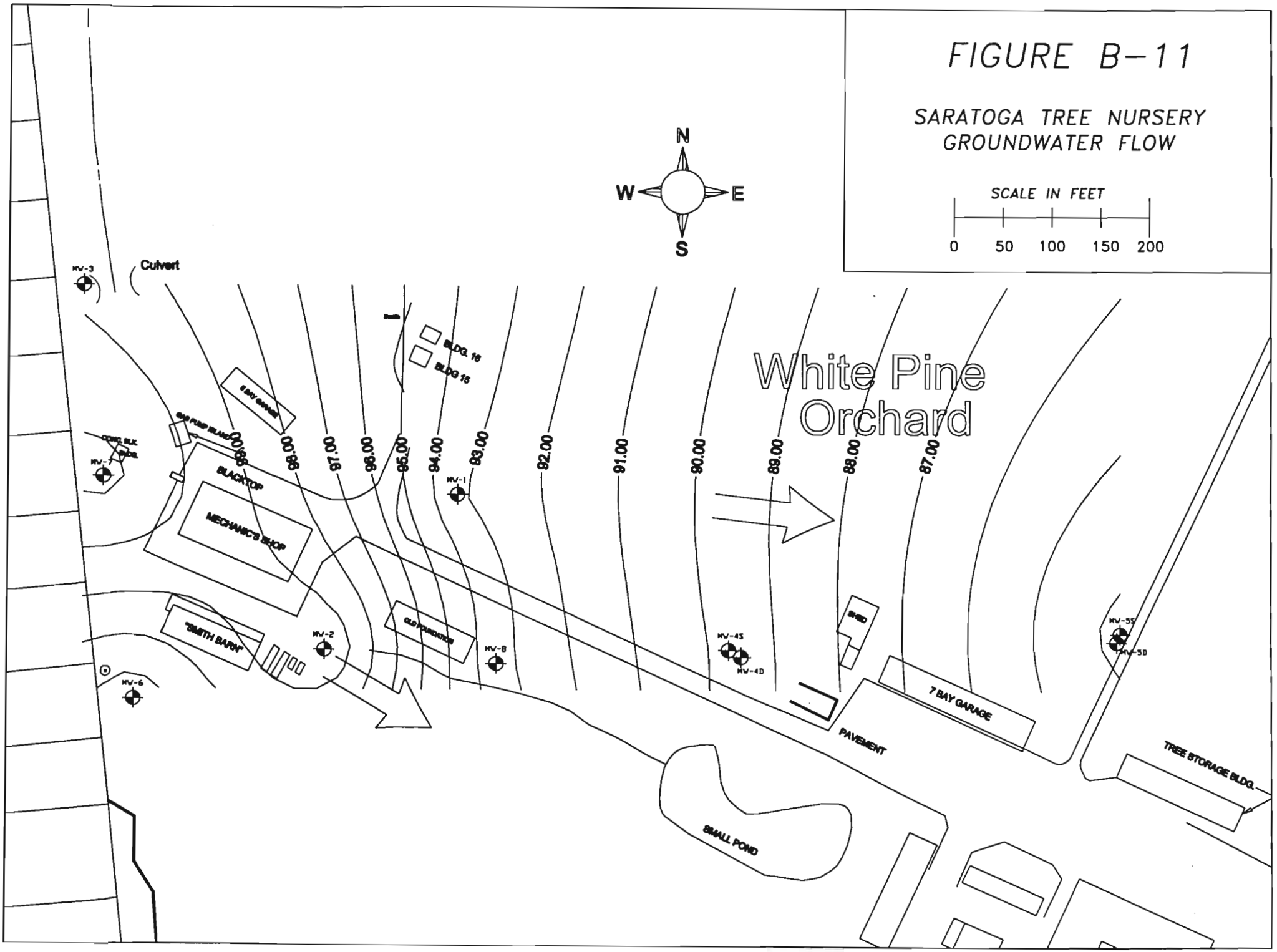


FIGURE B-11
SARATOGA TREE NURSERY
GROUNDWATER FLOW
SCALE IN FEET
0 50 100 150 200
N
W E
S
White Pine
Orchard
Culvert
MV-3
MV-7
MV-1
MV-2
MV-6
MV-8
MV-4S
MV-4D
MV-5S
MV-5D
BLDG. 16
BLDG 15
8 BAY GARAGE
OLD PUMP HOUSE
CONC. SLK.
BLACKTOP
MECHANIC'S SHOP
SMITH BARN
OLD FOUNDATION
SHED
7 BAY GARAGE
PAVEMENT
TREE STORAGE BLDG.
SMALL POND
100.00
99.00
98.00
97.00
96.00
95.00
94.00
93.00
92.00
91.00
90.00
89.00
88.00
87.00

APPENDIX C

Well Construction Logs

SHALLOW WELL DIAGRAM

SITE: Saratoga Tree Nursery
DATE: 7/25/95
WELL ID: MW-1

Auger Size 4 1/4" HSA
Hole Diameter 8"

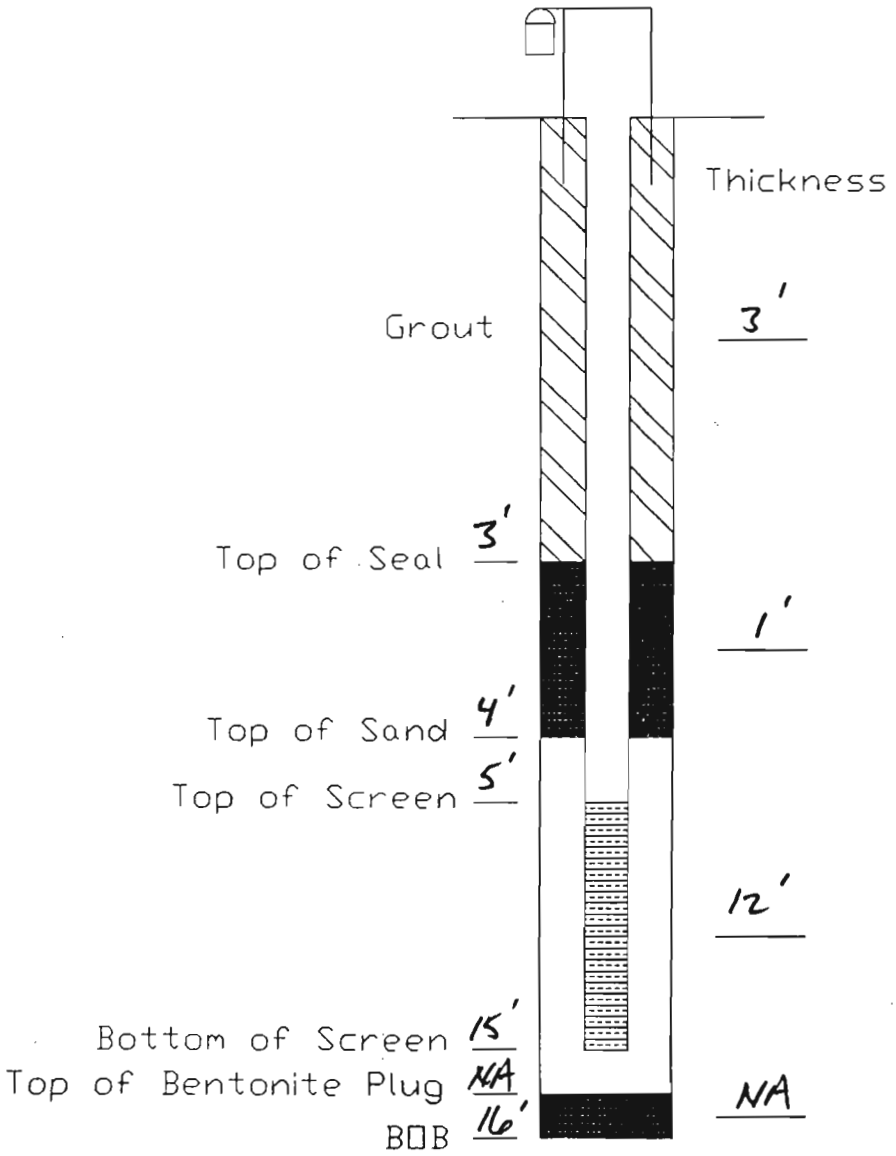
Screen
- Type PVC
- Length 10'
- Diameter 2"
- Slot Size .010"

Riser
- Type PVC
- Length 8 1/2'
- Diameter 2"

Water Table (draw in) ___

Method of Placement

Sand	✓	Gravity
	___	Tremie
Bentonite	✓	Gravity
	___	Tremie
Grout	✓	Gravity
	___	Tremie



SHALLOW WELL DIAGRAM

SITE: Saratoga Tree Nursery
DATE: 7/25/95
WELL ID: MW-2

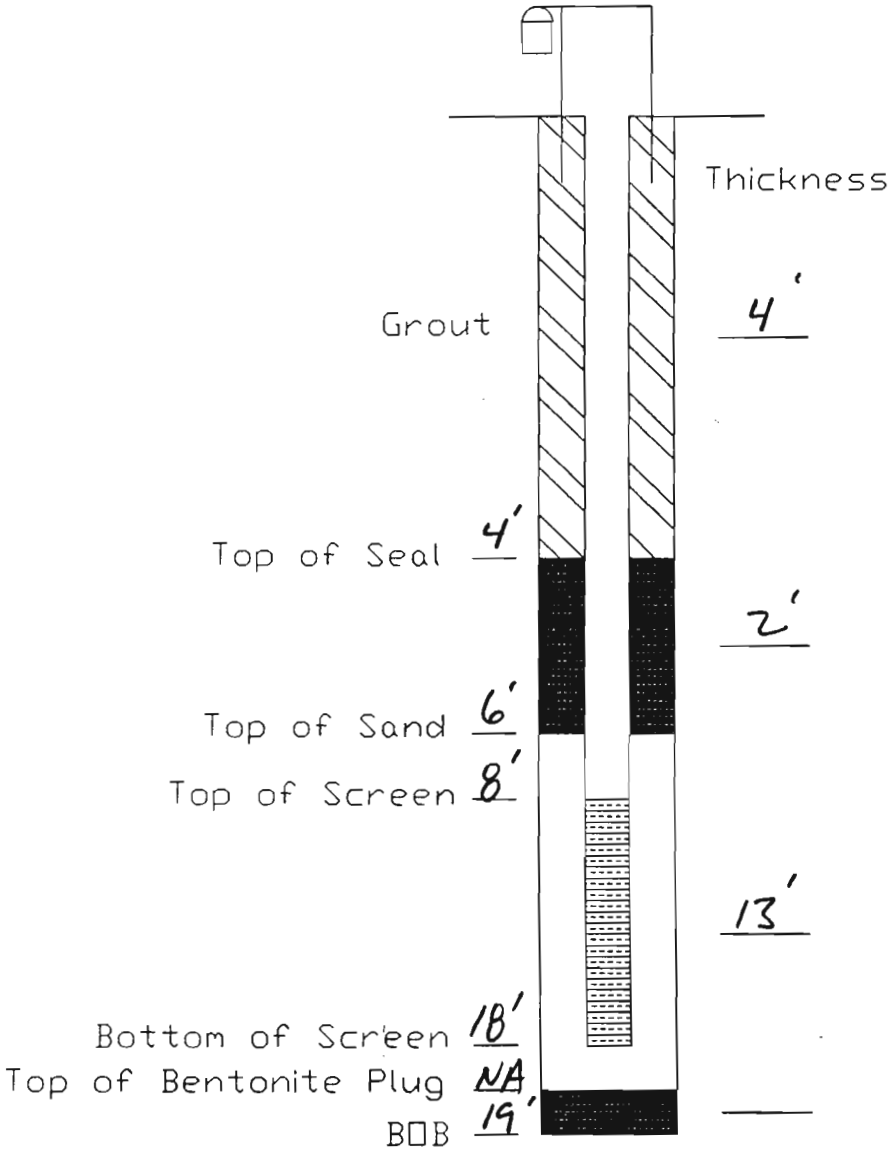
Auger Size 4¼ HSA
Hole Diameter 8"

Screen
- Type PVC
- Length 10'
- Diameter 2"
- Slot Size .010"

Riser
- Type PVC
- Length 10'
- Diameter 2"

Water Table (draw in) ___

Method of Placement
- Sand ✓ Gravity / ___ Tremie
- Bentonite ✓ Gravity / ___ Tremie
- Grout ✓ Gravity / ___ Tremie



SHALLOW WELL DIAGRAM

SITE: Saratoga Tree Nursery
DATE: 7/25/95
WELL ID: MW-3

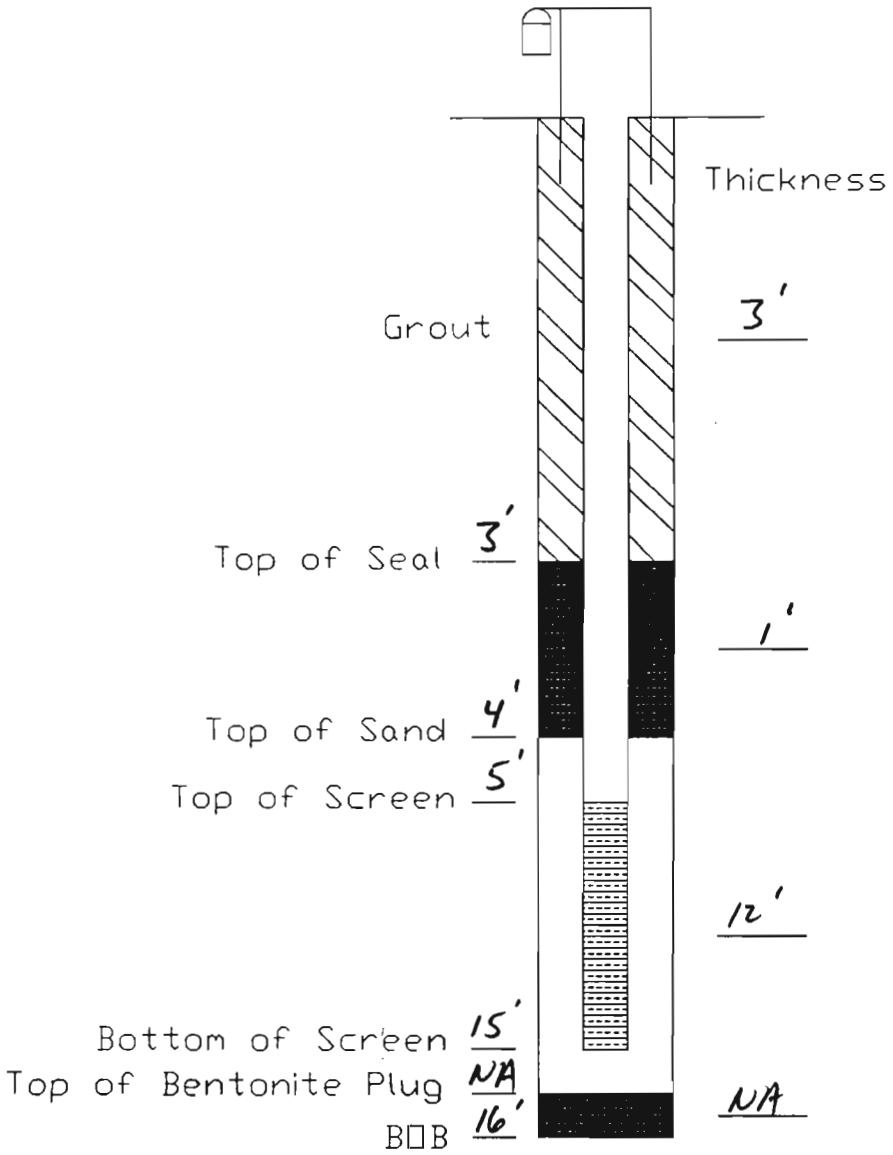
Auger Size 4 1/4" HSA
Hole Diameter 8"

Screen
- Type PVC
- Length 10'
- Diameter 2"
- Slot Size .010"

Riser
- Type PVC
- Length 8 1/2'
- Diameter 2"

Water Table (draw in) ___

Method of Placement
- Sand ✓ Gravity / ___ Tremie
- Bentonite ✓ Gravity / ___ Tremie
- Grout ✓ Gravity / ___ Tremie



SHALLOW WELL DIAGRAM

SITE: Saratoga Tree Nursery
DATE: 7/26/95
WELL ID: MW-4S

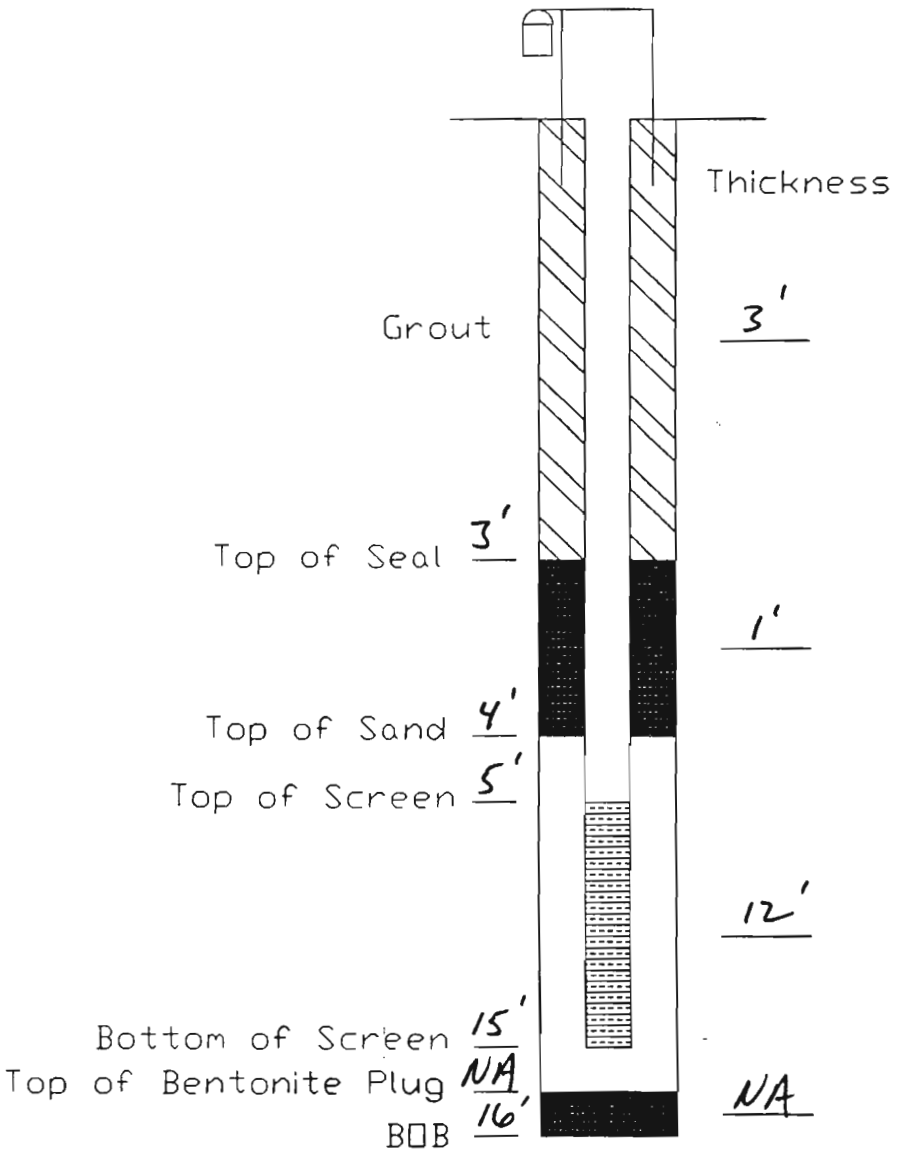
Auger Size 4 1/4" HSA
Hole Diameter 8"

Screen
- Type PVC
- Length 10'
- Diameter 2"
- Slot Size .010"

Riser
- Type PVC
- Length 8 1/2'
- Diameter 2"

Water Table ___
(draw in)

Method of Placement
- Sand ✓ Gravity / ___ Tremie
- Bentonite ✓ Gravity / ___ Tremie
- Grout ✓ Gravity / ___ Tremie



DEEP

~~SHALLOW~~ WELL DIAGRAM

SITE: Saratoga Tree Nursery
DATE: 7/27/95
WELL ID: MW-4D

Auger Size 4¼" HSA
Hole Diameter 8"

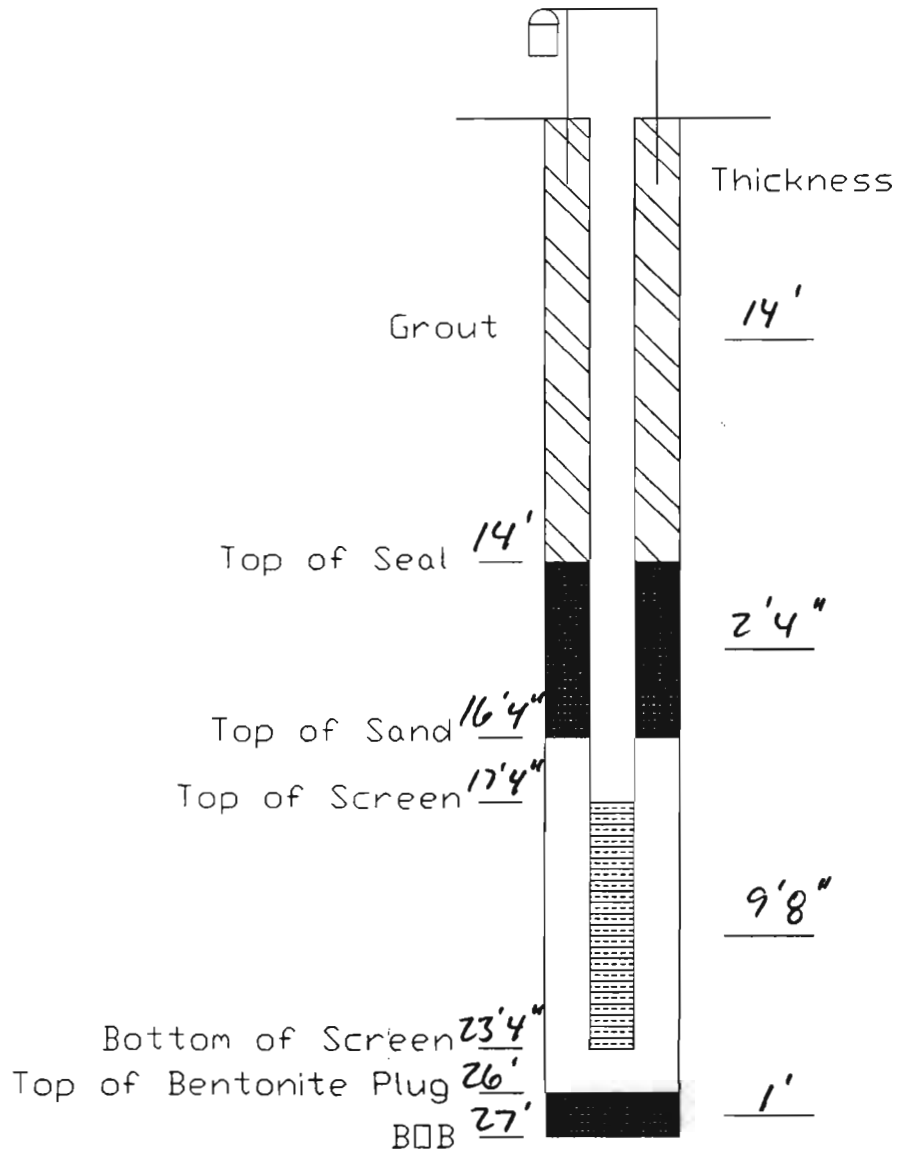
Screen
- Type PVC
- Length 6'
- Diameter 2"
- Slot Size .010"

Riser
- Type PVC
- Length 20'
- Diameter 2"

Water Table (draw in) ___

Method of Placement

Sand	✓	Gravity
	___	Tremie
Bentonite	✓	Gravity
	___	Tremie
Grout	✓	Gravity
	___	Tremie



SHALLOW WELL DIAGRAM

SITE: Saratoga Tree Nursery
DATE: 7/26/96
WELL ID: MW-5S

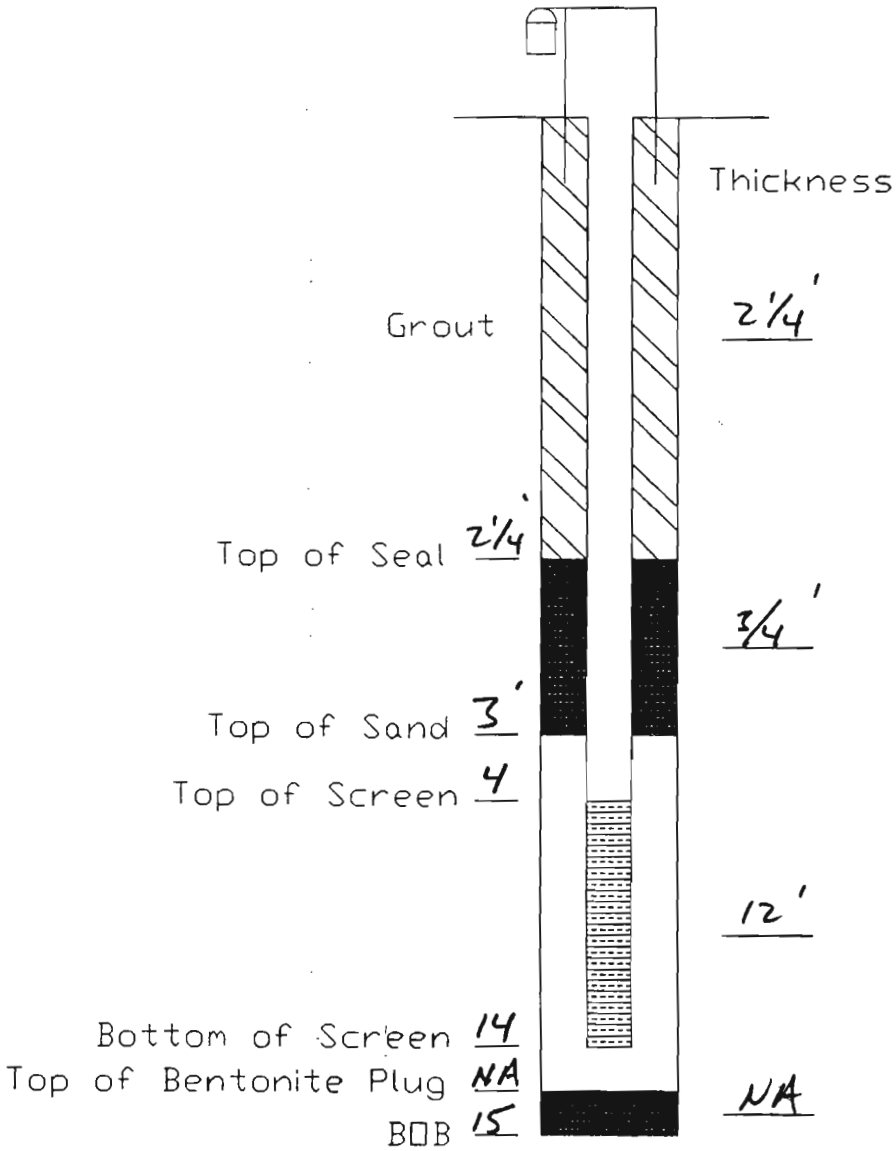
Auger Size 4 1/4"
Hole Diameter 8"

Screen
- Type PVC
- Length 10'
- Diameter 2"
- Slot Size .010"

Riser
- Type PVC
- Length 2 1/2'
- Diameter 2"

Water Table (draw in) ___

Method of Placement
- Sand ✓ Gravity / ___ Tremie
- Bentonite ✓ Gravity / ___ Tremie
- Grout ✓ Gravity / ___ Tremie



Deep

~~SHALLOW~~ WELL DIAGRAM

SITE: Saratoga Tree Nursery
DATE: 7/27/95
WELL ID: MW-5D

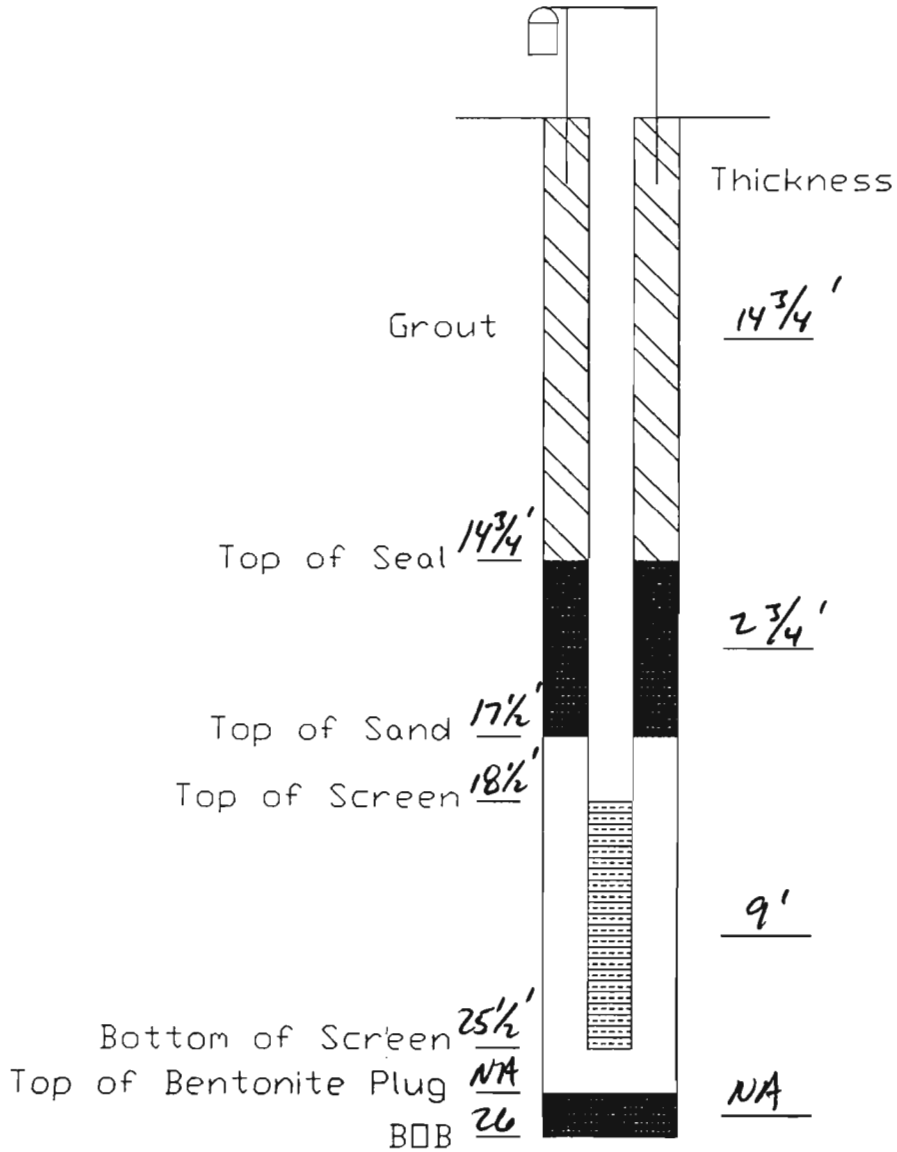
Auger Size 4¼"
Hole Diameter 8"

Screen
- Type PVC
- Length 7'
- Diameter 2"
- Slot Size .010"

Riser
- Type PVC
- Length 21½'
- Diameter 2"

Water Table (draw in) ___

Method of Placement
- Sand ✓ Gravity / ___ Tremie
- Bentonite ✓ Gravity / ___ Tremie
- Grout ✓ Gravity / ___ Tremie



SHALLOW WELL DIAGRAM

SITE: Saratoga Tree Nursery
DATE: 7/26/95
WELL ID: MW-6

Auger Size 4 1/4"
Hole Diameter 8"

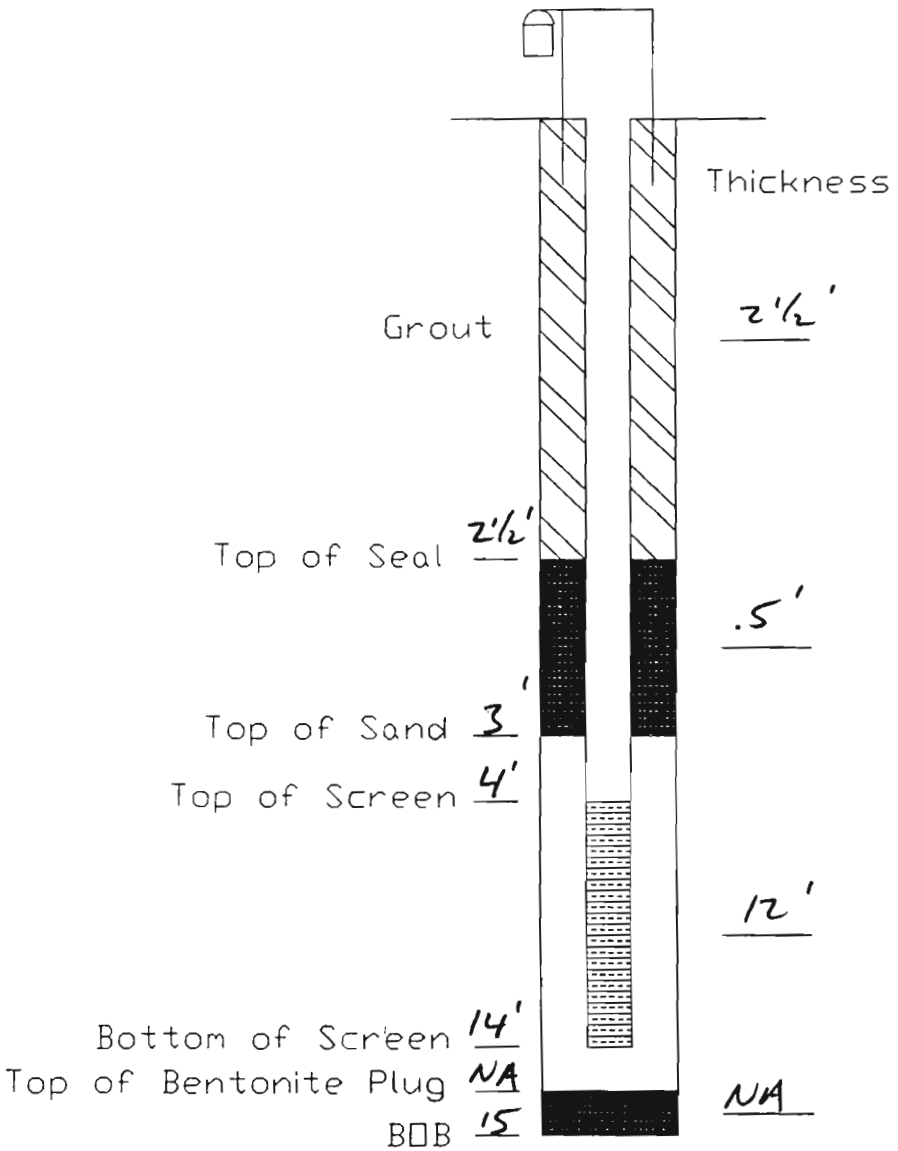
Screen
- Type PVC
- Length 10'
- Diameter 2"
- Slot Size .010"

Riser
- Type PVC
- Length 7 1/2'
- Diameter 2"

Water Table (draw in) ___

Method of Placement

Sand	✓	Gravity
	___	Tremie
Bentonite	✓	Gravity
	___	Tremie
Grout	✓	Gravity
	___	Tremie



SHALLOW WELL DIAGRAM

SITE: Saratoga Tree Nursery
DATE: 7/26/95
WELL ID: MW-7

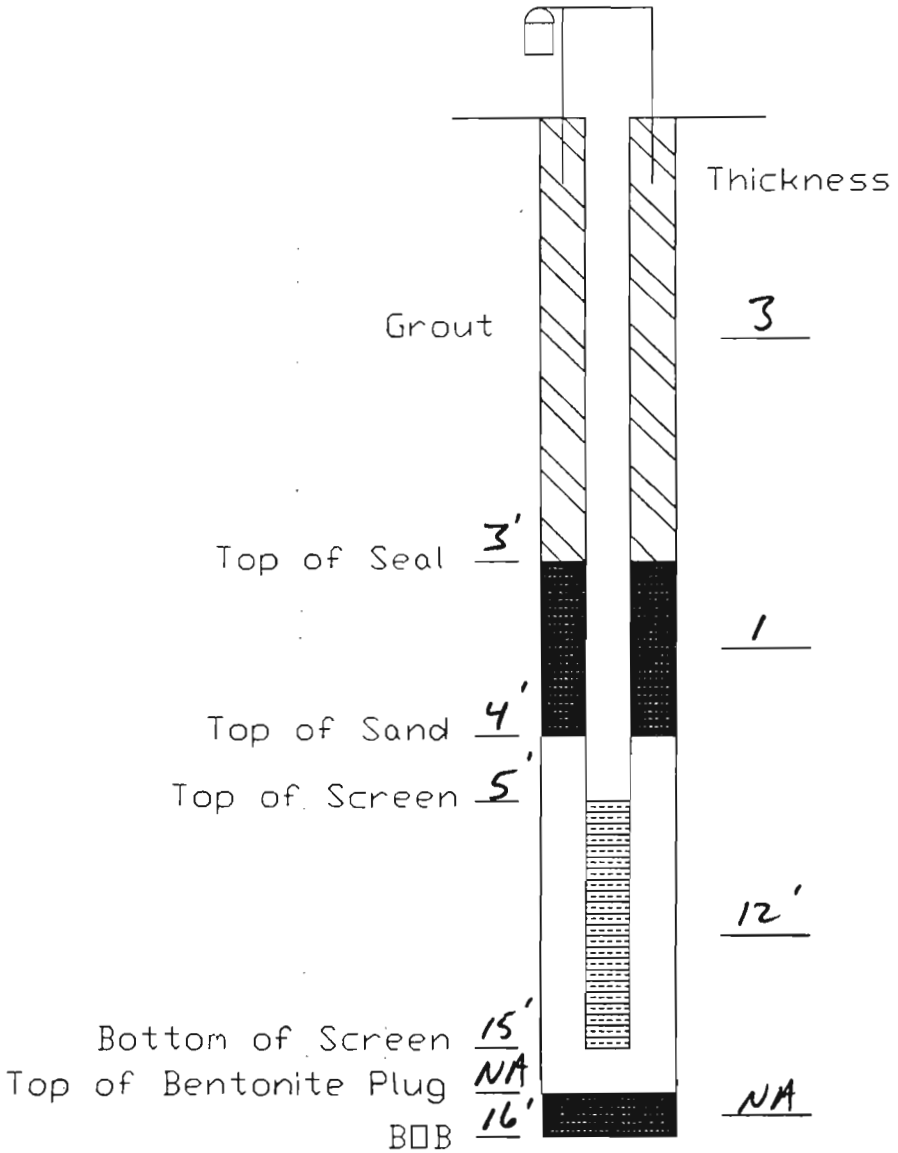
Auger Size 4¼"
Hole Diameter 8"

Screen
- Type PVC
- Length 10'
- Diameter 2"
- Slot Size .010"

Riser
- Type PVC
- Length 8½'
- Diameter 2"

Water Table (draw in) ___

Method of Placement
- Sand ✓ Gravity / ___ Tremie
- Bentonite ✓ Gravity / ___ Tremie
- Grout ✓ Gravity / ___ Tremie



SHALLOW WELL DIAGRAM

SITE: Saratoga Tree Nursery
DATE: 7/27/95
WELL ID: MW-8

Auger Size 4¼"
Hole Diameter 8"

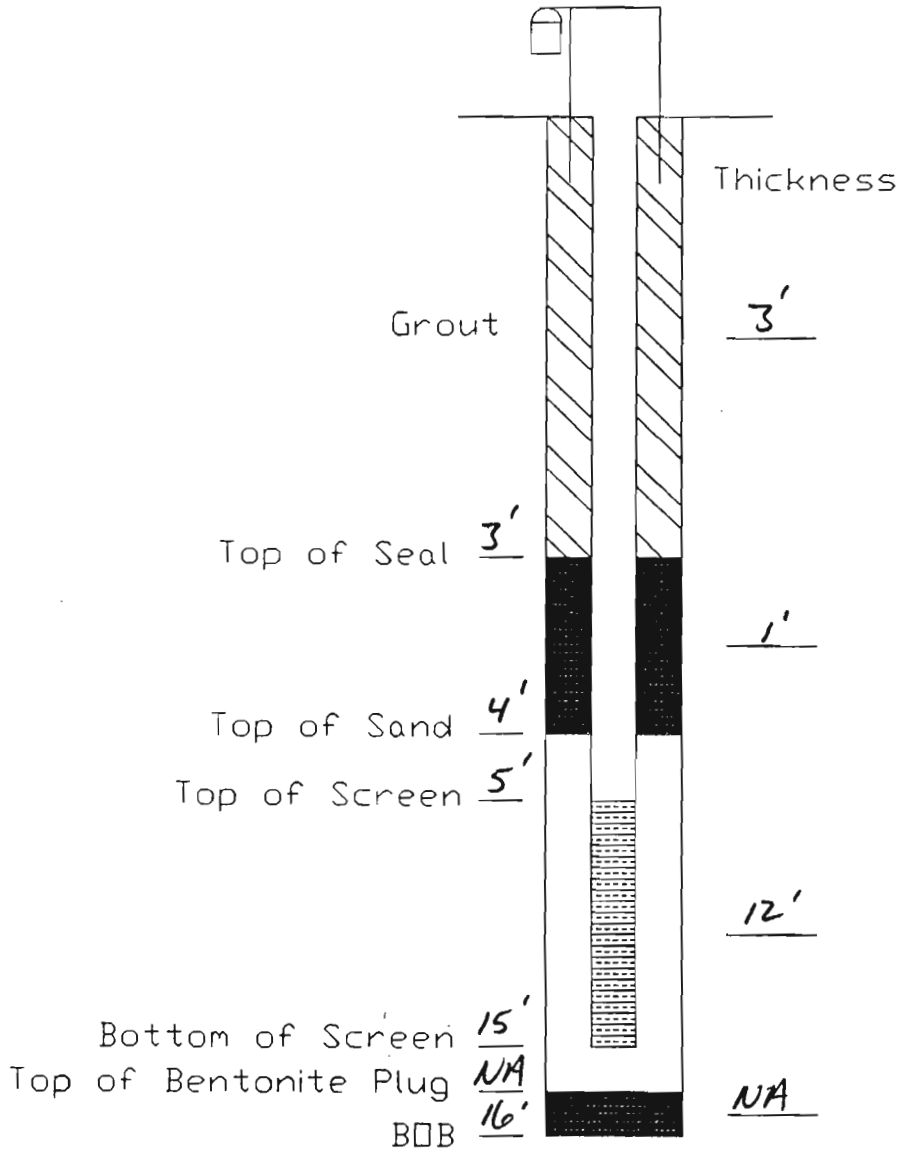
Screen
- Type PVC
- Length 10'
- Diameter 2"
- Slot Size .010"

Riser
- Type PVC
- Length 8½"
- Diameter 2"

Water Table ___
(draw in)

Method of Placement

Sand	✓	Gravity
	___	Tremie
Bentonite	✓	Gravity
	___	Tremie
Grout	✓	Gravity
	___	Tremie



APPENDIX D

Laboratory Data Sheets - Soil

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: AREA1 - 1A

SAMPLE NUMBER: 595-192-01

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	620
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	120
ENDOSULFAN SULFATE	ND
4,4'-DDT	2600
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY FIELD ID: AREA1 - 5B

SAMPLE NUMBER: 595-192-14 EXTRACTION METHOD: SFE

MATRIX: SOIL % SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	50
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	56
ENDOSULFAN SULFATE	ND
4,4'-DDT	160
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: 1 - 8B

SAMPLE NUMBER: 595-192-23

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	740
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	2000
ENDOSULFAN SULFATE	ND
4,4'-DDT	6000
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: 1 - 16B

SAMPLE NUMBER: 595-192-47

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	100
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	3500
ENDOSULFAN SULFATE	ND
4,4'-DDT	9000
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: 1 - 19A

SAMPLE NUMBER: 595-198-07

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	1400
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	430
ENDOSULFAN SULFATE	ND
4,4'-DDT	3400
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: 1 - 22C

SAMPLE NUMBER: 595-198-18

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	ND
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: 1 - 25A

SAMPLE NUMBER: 595-198-25

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	NC
BETA-BHC	NC
DELTA-BHC	NC
GAMMA-BHC	NC
HEPTACHLOR	NC
ALDRIN	ND
HEPTACHLOR EPOXIDE	NC
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	250
ENDRIN	ND
ENDOSULFAN II	NC
4,4'-DDD - 4,4'-DDD	270
ENDOSULFAN SULFATE	ND
4,4'-DDT	1700
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/NC
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY FIELD ID: TP1 - 3(3')

SAMPLE NUMBER: [illegible] EXTRACTION METHOD: SPE

[illegible]

[illegible]	[illegible]
[illegible]	ND
[illegible]	ND
[illegible]	ND
GAMMA-BHC	ND
[illegible]	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	240
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	1200
ENDOSULFAN SULFATE	ND
4,4'-DDT	4600
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

[illegible]: [illegible]

[illegible] - [illegible]

[illegible] - [illegible]

[illegible] FACTOR - 5

AROCLOR	QUANT (ug/kg
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: TP1 - 3(4')

SAMPLE NUMBER: 595-213-05

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	7.0
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	19
ENDOSULFAN SULFATE	ND
4,4'-DDT	110
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: TP 1 - 3(5')

SAMPLE NUMBER: 595-213-06

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	5.3
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRQL

AROCLORS - CRQL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: TP1 - 3:6')

SAMPLE NUMBER: 595-213-07

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4 -DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4 -DDD + 2,4'-DDD	33
ENDOSULFAN SULFATE	ND
4,4'-DDT	34
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: 2 - 5B

SAMPLE NUMBER: 595-198-35

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	NC
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	NC
ENDOSULFAN I	ND
DIELDRIN	NC
4,4'-DDE	82
ENDRIN	NC
ENDOSULFAN II	NC
4,4'-DDD + 2,4'-DDD	100
ENDOSULFAN SULFATE	ND
4,4'-DDT	360
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	NC
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: 2 - 8A

SAMPLE NUMBER: 595-199-04

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	810
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	280
ENDOSULFAN SULFATE	ND
4,4'-DDT	2100
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 5

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY FIELD ID: 3 - 1A

SAMPLE NUMBER: 595-199-07 EXTRACTION METHOD: SFE

MATRIX: SOIL % SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	570
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	180
ENDOSULFAN SULFATE	ND
4,4'-DDT	1500
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/g)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

NEW YORK STATE DEPARTMENT of ENVIRONMENTAL CONSERVATION

DIVISION of HAZARDOUS WASTE REMEDIATION

SARATOGA TREE NURSERY AREA 4

FIELD ID	Pb mg/Kg	As mg/Kg
4-1A	130	113
4-1B	21	58
4-1C	7	26
4-2A	177	68
4-2B	18	83
4-2C	8	26
4-3A	230	44
4-3B	34	53
4-3C	10	28
4--4	11,000	3,800
4--5	296	50

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: AREA5 - 1A

SAMPLE NUMBER: 595-177-01

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	830
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	1300
ENDOSULFAN SULFATE	ND
4,4'-DDT	5000
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: AREA5 - 3A

SAMPLE NUMBER: 595-177-07

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	1400
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	430
ENDOSULFAN SULFATE	ND
4,4'-DDT	1100
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: AREA5 - 3B

SAMPLE NUMBER: 595-177-08

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	6500
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	41000
ENDOSULFAN SULFATE	ND
4,4'-DDT	330000
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: AREA5 - 4C

SAMPLE NUMBER: 595-177-12

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	1200
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	25000
ENDOSULFAN SULFATE	ND
4,4'-DDT	170000
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY FIELD ID: AREA5 - 7A

SAMPLE NUMBER: 595-177-19 EXTRACTION METHOD: SFE

MATRIX: SOIL % SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	690
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	170
ENDOSULFAN SULFATE	ND
4,4'-DDT	1400
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: AREA5 - 15C

SAMPLE NUMBER: 546-191-06

EXTRACTION METHOD: SHE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	560
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	410
ENDOSULFAN SULFATE	ND
4,4'-DDT	880
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: AREA5 - 19A

SAMPLE NUMBER: 595-191-16

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	5000
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	1400
ENDOSULFAN SULFATE	ND
4,4'-DDT	4900
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: AREA5 - 19C

SAMPLE NUMBER: 595-191-18

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	ND
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: AREA6 - 2C

SAMPLE NUMBER: 595-178-06

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	56
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	320
ENDOSULFAN SULFATE	ND
4,4'-DDT	2600
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: AREA6 - 8A

SAMPLE NUMBER: 595-178-22

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	2700
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	2600
ENDOSULFAN SULFATE	ND
4,4'-DDT	25000
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: STREAM 2

SAMPLE NUMBER: 595-187-22

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	110
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	360
ENDOSULFAN SULFATE	ND
4,4'-DDT	360
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: SPOND - 3B

SAMPLE NUMBER: 595-187-12

EXTRACTION METHOD: SFE

MATRIX: SOIL

% SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	97
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	380
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY FIELD ID: LPOND 1B

SAMPLE NUMBER: 595-187-14 EXTRACTION METHOD: SFE

MATRIX: SOIL % SOLID: NC

PESTICIDE	QUANT (ug/kg)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	ND
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/kg)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: SPOND - 4

SAMPLE NUMBER: 595-187-24

EXTRACTION METHOD: SPE

MATRIX: SURFACE WATER

% SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	0.002J
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	0.015J
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY FIELD ID: LPOND - 4

SAMPLE NUMBER: 595-187-25 EXTRACTION METHOD: SPE

MATRIX: SURFACE WATER % SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	ND
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

APPENDIX E

Laboratory Data Sheets - Groundwater

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME:SARATOGA TREE NURSERY

FIELD ID:SIN MW-1

SITE CODE:NA PERCENT SOLIDS:NA

SAMPLE NUMBER:595-263-115 MATRIX:WATER

SUBMISSION DATE:09/20/95 ARCHIVE NO.:026305

ANALYSIS DATE:09/22/95 DATA FILE NO.:9504B30A.D

COMPOUND	CONC (PPB)	COMPOUND	CONC (PPB)
Vinyl Chloride	ND	4 - Chlorotoluene	ND
Bromomethane	ND	1,3 - Dichlorobenzene	ND
Chloroethane	ND	1,4 - Dichlorobenzene	ND
Trichlorofluoromethane	ND	1,2 - Dichlorobenzene	ND
Acetone	ND	1,2,4 - Trichlorobenzene	ND
1,1 Dichloroethene	ND	1,2,3 - Trichlorobenzene	ND
Carbon disulfide	ND		
Methylene Chloride	ND	NON-TARGET COMPOUNDS	
trans-1,2-Dichloroethene	ND		
1,1-Dichloroethane	ND		
Vinyl Acetate	ND		
2-Butanone	ND		
cis-1,2-Dichloroethene	ND		
Chloroform	ND		
1,1,1-Trichloroethane	ND		
Carbontetrachloride	ND		
1,2-Dichloroethane	ND		
Benzene	ND		
Trichloroethene	ND		
1,2-Dichloropropane	ND		
Bromodichloromethane	ND		
4-Methyl-2 Pentanone	ND		
cis-1,3-Dichloropropene	ND		
Toluene	ND		
trans-1,3-Dichloropropene	ND		
1,1,2 Trichloroethane	ND		
2-Hexanone	ND		
Tetrachloroethene	ND		
Dibromochloromethane	ND		
Chlorobenzene	ND		
Ethylbenzene	ND		
M,P-Xylene	ND		
O-Xylene	ND	ND = LESS THAN 5 PPB	
Styrene	ND		
Bromoform	ND	ALL CONCENTRATIONS LESS THAN	
1122Tetrachloroethane	ND	5 PPB ARE ESTIMATES	
4-Chlorotoluene	ND		

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: STN - MW - 1

SAMPLE NUMBER: 595-263-05

EXTRACTION METHOD: SPE

MATRIX: GROUNDWATER

% SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	0.004
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	0.01
ENDOSULFAN SULFATE	ND
4,4'-DDT	0.02
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY SEMI-VOLATILE ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: MW - 1 % SOLID: NA

SAMPLE NUMBER: 595-311-01 MATRIX: GROUNDWATER

COMPOUND	CONC (ug/L)	TIC AND COMMENT SECTION
Phenol	ND	
2-Chlorophenol	ND	Detection limit - CRDL
Bis(2-Chloroethyl)Ether	ND	
1 3-Dichlorobenzene	ND	
1 4-Dichlorobenzene	ND	
1 2-Dichlorobenzene	ND	
Benzyl Alcohol	ND	
2-Methylphenol	ND	
bis(2-chloroisopropyl)Ether	ND	
Hexachloroethane	ND	TIC - No TICs reported
4-Methylphenol	ND	
N-Nitroso-di-propylamine	ND	
Nitrobenzene	ND	
Isophorone	ND	
2-Nitrophenol	ND	
2 4-Dimethylphenol	ND	
bis(2-chloroethoxy)Methane	ND	
2 4-Dichlorophenol	ND	
1 2 4-Trichlorobenzene	ND	
Naphthalene	ND	
Benzoic acid	ND	
4-Chloroaniline	ND	
Hexachlorobutadiene	ND	
4-Chloro-3-Methylphenol	ND	
2-Methylnaphthalene	ND	
Hexachlorocyclopentadiene	ND	
2,4,6-Trichlorophenol	ND	
2,4,5-trichlorophenol	ND	
2-Chloronaphthalene	ND	
2-Nitroaniline	ND	
Acenaphthylene	ND	
Dimethyl Phthalate	ND	
2,6-Dinitrotoluene	ND	
Acenaphthene	ND	
3-Nitroaniline	ND	
2,4-Dinitrophenol	ND	
Dibenzofuran	ND	
4-Nitrophenol	ND	

CON'T SAMPLE NUMBER: 595-311-01

COMPOUND	CONC(ug/L)
2,4-Dinitrotoluene	ND
Fluorene	ND
4-Chlorophenyl-phenylether	ND
Diethylphthalate	ND
2 Methyl 4,6-Dinitrophenol	ND
N-Nitrosodiphenylamine	ND
4-Nitroaniline	ND
4-Bromophenyl-phenylether	ND
Hexachlorobenzene	ND
Pentachlorophenol	ND
Phenanthrene	ND
Anthracene	ND
Di-N-Butylphthalate	ND
Carbazole	ND
Fluoranthene	ND
Pyrene	ND
4,4'-DDD	ND
Butylbenzylphthalate	ND
Chrysene	ND
Benzo (a) Anthracene	ND
bis(2-Ethylhexyl)Phthalate	ND
Di-N-Octyl Phthalate	ND
Benzo(b/k)Fluoranthene	ND
Benzo(a)Pyrene	ND
Indeno(1,2,3-cd)Pyrene	ND
Dibenz(a,h)Anthracene	ND
Benzo(g,h,i)Perylene	ND

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME:SARATOGA TREE NURSERY

FIELD ID:STN-MW-2S

SITE CODE:NA PERCENT SOLIDS:NA

SAMPLE NUMBER:595-264-01 MATRIX:WATER

SUBMISSION DATE:09/21/95 ARCHIVE NO.:V26401

ANALYSIS DATE:09/22/95 DATA FILE NO.:9504B32A.D

COMPOUND	CONC (PPB)	COMPOUND	CONC (PPB)
Vinyl Chloride	ND	4 - Chlorotoluene	ND
Bromomethane	ND	1,3 - Dichlorobenzene	ND
Chloroethane	ND	1,4 - Dichlorobenzene	ND
Trichlorofluoromethane	ND	1,2 - Dichlorobenzene	ND
Acetone	ND	1,2,4 - Trichlorobenzene	ND
1,1-Dichloroethene	ND	1,2,3 - Trichlorobenzene	ND
Carbon disulfide	ND		
Methylene Chloride	ND		
trans-1,2-Dichloroethene	ND	NON-TARGET COMPOUNDS	
1,1-Dichloroethane	ND		
Vinyl Acetate	ND		
2-Butanone	ND		
cis-1,2-Dichloroethene	ND		
Chloroform	1 J		
1,1,1-Trichloroethane	ND		
Carbontetrachloride	ND		
1,2-Dichloroethane	ND		
Benzene	ND		
Trichloroethene	ND		
1,2-Dichloropropane	ND		
Bromodichloromethane	ND		
4-Methyl-2 Pentanone	ND		
cis-1,3-Dichloropropene	ND		
Toluene	ND		
trans-1,3-Dichloropropene	ND		
1,1,2-Trichloroethane	ND		
2-Hexanone	ND		
Tetrachloroethene	ND		
Dibromochloromethane	ND		
Chlorobenzene	ND		
Ethylbenzene	ND		
M,P-Xylene	ND		
O-Xylene	ND	ND = LESS THAN 5 PPB	
Styrene	ND		
Bromoform	ND	ALL CONCENTRATIONS LESS THAN	
1122Tetrachloroethane	ND	5 PPB ARE ESTIMATES	
2-Chlorotoluene	ND		

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: STN - MW - 2S

SAMPLE NUMBER: 595-264-01

EXTRACTION METHOD: SPE

MATRIX: GROUNDWATER

% SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	ND
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME:SARATOGA TREE NURSERY

FIELD ID:STN-MW-3S

SITE CODE:NA PERCENT SOLIDS:NA

SAMPLE NUMBER:595-264-02 MATRIX:WATER

SUBMISSION DATE:09/21/95 ARCHIVE NO.:U26402

ANALYSIS DATE:09/26/95 DATA FILE NO.:9504838A.D

COMPOUND	CONC (PPB)	COMPOUND	CONC (PPB)
Vinyl Chloride	ND	4 - Chlorotoluene	ND
Bromomethane	ND	1,3 - Dichlorobenzene	ND
Chloroethane	ND	1,4 - Dichlorobenzene	ND
Trichlorofluoromethane	ND	1,2 - Dichlorobenzene	ND
Acetone	ND	1,2,4 - Trichlorobenzene	ND
1,1-Dichloroethene	ND	1,2,3 - Trichlorobenzene	ND
Carbon disulfide	ND		
Methylene Chloride	ND		
trans-1,2-Dichloroethene	ND	NON-TARGET COMPOUNDS	
1,1-Dichloroethane	ND		
Vinyl Acetate	ND		
2-Butanone	ND		
cis-1,2-Dichloroethene	ND		
Chloroform	ND		
1,1,1-Trichloroethane	ND		
Carbontetrachloride	ND		
1,2-Dichloroethane	ND		
Benzene	ND		
Trichloroethene	ND		
1,2-Dichloropropane	ND		
Bromodichloromethane	ND		
4-Methyl-2 Pentanone	ND		
cis-1,3-Dichloropropene	ND		
Toluene	ND		
trans-1,3-Dichloropropene	ND		
1,1,2-Trichloroethane	ND		
2-Hexanone	ND		
Tetrachloroethene	ND		
Dibromochloromethane	ND		
Chlorobenzene	ND		
Ethylbenzene	ND		
M,P-Xylene	ND		
O-Xylene	ND	ND = LESS THAN 5 PPB	
Styrene	ND		
Bromoform	ND	ALL CONCENTRATIONS LESS THAN	
1122Tetrachloroethane	ND	5 PPB ARE ESTIMATES	
2-Chlorotoluene	ND		

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY FIELD ID: STN - MW - 3S

SAMPLE NUMBER: 595-264-02 EXTRACTION METHOD: SPE

MATRIX: GROUNDWATER % SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	ND
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME:SARATOGA TREE NURSERY

FIELD ID:STN-MW-4S

SITE CODE:NA PERCENT SOLIDS:NA

SAMPLE NUMBER:595-263-07 MATRIX:WATER

SUBMISSION DATE:09/20/95 ARCHIVE NO.:V26307

ANALYSIS DATE:09/27/95 DATA FILE NO.:9504B52A.D

COMPOUND	CONC (PPB)
Vinyl Chloride	ND
Bromomethane	ND
Chloroethane	ND
Trichlorofluoromethane	ND
Acetone	ND
1,1-Dichloroethene	ND
Carbon disulfide	ND
Methylene Chloride	ND
trans-1,2-Dichloroethene	ND
1,1-Dichloroethane	ND
Vinyl Acetate	ND
2-Butanone	ND
cis-1,2-Dichloroethene	ND
Chloroform	ND
1,1,1-Trichloroethane	ND
Carbontetrachloride	ND
1,2-Dichloroethane	ND
Benzene	ND
Trichloroethene	ND
1,2-Dichloropropane	ND
Bromodichloromethane	ND
4-Methyl-2 Pentanone	ND
cis-1,3-Dichloropropene	ND
Toluene	ND
trans-1,3-Dichloropropene	ND
1,1,2-Trichloroethane	ND
2-Hexanone	ND
Tetrachloroethene	ND
Dibromochloromethane	ND
Chlorobenzene	ND
Ethylbenzene	ND
M,P-Xylene	ND
O-Xylene	ND
Styrene	ND
Bromoform	ND
1122Tetrachloroethane	ND
2-Chlorotoluene	ND
4 - Chlorotoluene	ND
1,3 - Dichlorobenzene	ND
1,4 - Dichlorobenzene	ND
1,2 - Dichlorobenzene	ND
1,2,4 - Trichlorobenzene	ND
1,2,3 - Trichlorobenzene	ND

NON-TARGET COMPOUNDS

VARIOUS HYDROCARBON COMPOUNDS ARE PRESENT. CONCENTRATIONS WERE NOT DETERMINED.

ND = LESS THAN 5 PPB

ALL CONCENTRATIONS LESS THAN 5 PPB ARE ESTIMATES

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: STN - MW - 4S

SAMPLE NUMBER: 595-263-07

EXTRACTION METHOD: SPE

MATRIX: GROUNDWATER

% SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	1.5
ENDOSULFAN SULFATE	ND
4,4'-DDT	0.44
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 100

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME:SARATOGA TREE NURSERY

FIELD ID:STN-MW-4D

SITE CODE:NA PERCENT SOLIDS:NA

SAMPLE NUMBER:595-263-06 MATRIX:WATER

SUBMISSION DATE:09/20/95 ARCHIVE NO.:V26306

ANALYSIS DATE:09/27/95 DATA FILE NO.:9504B50A.D

COMPOUND	CONC (PPB)	COMPOUND	CONC (PPB)
Vinyl Chloride	ND	4 - Chlorotoluene	ND
Bromomethane	ND	1,3 - Dichlorobenzene	ND
Chloroethane	ND	1,4 - Dichlorobenzene	ND
Trichlorofluoromethane	ND	1,2 - Dichlorobenzene	ND
Acetone	ND	1,2,4 - Trichlorobenzene	ND
1,1-Dichloroethene	ND	1,2,3 - Trichlorobenzene	ND
Carbon disulfide	ND		
Methylene Chloride	ND		
trans-1,2-Dichloroethene	ND		
1,1-Dichloroethane	ND		
Vinyl Acetate	ND		
2-Butanone	ND		
cis-1,2-Dichloroethene	ND		
Chloroform	ND		
1,1,1-Trichloroethane	ND		
Carbontetrachloride	ND		
1,2-Dichloroethane	ND		
Benzene	ND		
Trichloroethene	ND		
1,2-Dichloropropane	ND		
Bromodichloromethane	ND		
4-Methyl-2 Pentanone	ND		
cis-1,3-Dichloropropene	ND		
Toluene	ND		
trans-1,3-Dichloropropene	ND		
1,1,2-Trichloroethane	ND		
2-Hexanone	ND		
Tetrachloroethene	ND		
Dibromochloromethane	ND		
Chlorobenzene	ND		
Ethylbenzene	ND		
M,P-Xylene	ND		
O-Xylene	ND		
Styrene	ND		
Bromoform	ND		
1122Tetrachloroethane	ND		
2-Chlorotoluene	ND		

NON-TARGET COMPOUNDS

VARIOUS HYDROCARBON COMPOUNDS AND AROMATIC COMPOUNDS ARE PRESENT. CONCENTRATIONS WERE NOT DETERMINED.

ND = LESS THAN 5 PPB

ALL CONCENTRATIONS LESS THAN 5 PPB ARE ESTIMATES

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: STN - MW - 4D

SAMPLE NUMBER: 595-263-06

EXTRACTION METHOD: SPE

MATRIX: GROUNDWATER

% SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	ND
ENDOSULFAN SULFATE	ND
4,4'-DDT	0.01
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT: -

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 10

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY SEMI-VOLATILE ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: MW - 4S % SOLID: NA

SAMPLE NUMBER: 595-311-04 MATRIX: GROUNDWATER

COMPOUND	CONC (ug/L)	TIC AND COMMENT SECTION
Phenol	ND	
2-Chlorophenol	ND	Detection limit - CRDL
Bis(2-Chloroethyl)Ether	ND	
1 3-Dichlorobenzene	ND	
1 4-Dichlorobenzene	ND	
1 2-Dichlorobenzene	ND	
Benzyl Alcohol	ND	
2-Methylphenol	ND	
bis(2-chloroisopropyl)Ether	ND	
Hexachloroethane	ND	TIC -
4-Methylphenol	ND	
N-Nitroso-di-propylamine	ND	Dimethyl naphthalene(s) - 220 ug/L
Nitrobenzene	ND	Trimethyl naphthalene(s) - 630
Isophorone	ND	Hexadecane - 21
2-Nitrophenol	ND	Alkyl subst. naphthalene(s) - 260
2 4-Dimethylphenol	ND	Alkyl subst. azulene - 150
bis(2-chloroethoxy)Methane	ND	Methyl subst. fluorene - 100
2 4-Dichlorophenol	ND	Alkyl subst. biphenyl - 20
1 2 4-Trichlorobenzene	ND	Alkyl subst. hexadecane - 36
Naphthalene	ND	Dimethyl subst. fluorene - 47
Benzoic acid	ND	Methyl subst. phenanthrene(s) - 70
4-Chloroaniline	ND	Methyl dibenzothiophene - 23
Hexachlorobutadiene	ND	
4-Chloro-3-Methylphenol	ND	
2-Methylnaphthalene	ND	
Hexachlorocyclopentadiene	ND	
2,4,6-Trichlorophenol	ND	
2,4,5-trichlorophenol	ND	
2-Chloronaphthalene	ND	
2-Nitroaniline	ND	
Acenaphthylene	ND	
Dimethyl Phthalate	ND	
2,6-Dinitrotoluene	ND	
Acenaphthene	ND	
3-Nitroaniline	ND	
2,4-Dinitrophenol	ND	
Dibenzofuran	ND	
4-Nitrophenol	ND	

CON'T SAMPLE NUMBER: 595-311-04

COMPOUND	CONC(ug/L)
2,4-Dinitrotoluene	ND
Fluorene	ND
4-Chlorophenyl-phenylether	ND
Diethylphthalate	ND
2 Methyl 4,6-Dinitrophenol	ND
N-Nitrosodiphenylamine	ND
4-Nitroaniline	ND
4-Bromophenyl-phenylether	ND
Hexachlorobenzene	ND
Pentachlorophenol	ND
Phenanthrene	48
Anthracene	ND
Di-N-Butylphthalate	ND
Carbazole	ND
Fluoranthene	ND
Pyrene	ND
4,4'-DDD	ND
Butylbenzylphthalate	ND
Chrysene	ND
Benzo (a) Anthracene	ND
bis(2-Ethylhexyl)Phthalate	ND
Di-N-Octyl Phthalate	ND
Benzo(b/k)Fluoranthene	ND
Benzo(a)Pyrene	ND
Indeno(1,2,3-cd)Pyrene	ND
Dibenz(a,h)Anthracene	ND
Benzo(g,h,i)Perylene	ND

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME:SARATOGA TREE NURSERY

FIELD ID:STN-MW-5S

SITE CODE:NA PERCENT SOLIDS:NA

SAMPLE NUMBER:595-264-03 MATRIX:WATER

SUBMISSION DATE:09/21/95 ARCHIVE NO.:V26403

ANALYSIS DATE:09/26/95 DATA FILE NO.:9504B39A.D

COMPOUND	CONC (PPB)	COMPOUND	CONC (PPB)
Vinyl Chloride	ND	4 - Chlorotoluene	ND
Bromomethane	ND	1,3 - Dichlorobenzene	ND
Chloroethane	ND	1,4 - Dichlorobenzene	ND
Trichlorofluoromethane	ND	1,2 - Dichlorobenzene	ND
Acetone	ND	1,2,4 - Trichlorobenzene	ND
1,1-Dichloroethene	ND	1,2,3 - Trichlorobenzene	ND
Carbon disulfide	ND		
Methylene Chloride	ND		
trans-1,2-Dichloroethene	ND	NON-TARGET COMPOUNDS	
1,1-Dichloroethane	ND		
Vinyl Acetate	ND		
2-Butanone	ND		
cis-1,2-Dichloroethene	ND		
Chloroform	ND		
1,1,1-Trichloroethane	ND		
Carbontetrachloride	ND		
1,2-Dichloroethane	ND		
Benzene	ND		
Trichloroethene	ND		
1,2-Dichloropropane	ND		
Bromodichloromethane	ND		
4-Methyl-2 Pentanone	ND		
cis-1,3-Dichloropropene	ND		
Toluene	ND		
trans-1,3-Dichloropropene	ND		
1,1,2-Trichloroethane	ND		
2-Hexanone	ND		
Tetrachloroethene	ND		
Dibromochloromethane	ND		
Chlorobenzene	ND		
Ethylbenzene	ND		
M,P-Xylene	ND		
O-Xylene	ND	ND = LESS THAN 5 PPB	
Styrene	ND		
Bromoform	ND	ALL CONCENTRATIONS LESS THAN	
1122Tetrachloroethane	ND	5 PPB ARE ESTIMATES	
2-Chlorotoluene	ND		

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: STN - MW - 5S

SAMPLE NUMBER: 595-264-03

EXTRACTION METHOD: SPE

MATRIX: GROUNDWATER

% SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	ND
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY SEMI-VOLATILE ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: MW - 4D % SOLID: NA

SAMPLE NUMBER: 595-311-05 MATRIX: GROUNDWATER

COMPOUND	CONC (ug/L)	TIC AND COMMENT SECTION
Phenol	ND	
2-Chlorophenol	ND	Detection limit - CRDL
Bis(2-Chloroethyl)Ether	ND	
1 3-Dichlorobenzene	ND	
1 4-Dichlorobenzene	ND	
1 2-Dichlorobenzene	ND	
Benzyl Alcohol	ND	
2-Methylphenol	ND	
bis(2-chloroisopropyl)Ether	ND	
Hexachloroethane	ND	TIC -
4-Methylphenol	ND	
N-Nitroso-di-propylamine	ND	Ethyl naphthalene - 6.3 ug/L
Nitrobenzene	ND	Dimethyl naphthalene(s) - 77
Isophorone	ND	Trimethyl naphthalene(s) - 50
2-Nitrophenol	ND	Alkyl subst. naphthalene(s) - 23
2 4-Dimethylphenol	ND	Alkyl subst. fluorene - 5.7
bis(2-chloroethoxy)Methane	ND	
2 4-Dichlorophenol	ND	
1 2 4-Trichlorobenzene	ND	
Naphthalene	ND	
Benzoic acid	ND	
4-Chloroaniline	ND	
Hexachlorobutadiene	ND	
4-Chloro-3-Methylphenol	ND	
2-Methylnaphthalene	7	
Hexachlorocyclopentadiene	ND	
2,4,6-Trichlorophenol	ND	
2,4,5-trichlorophenol	ND	
2-Chloronaphthalene	ND	
2-Nitroaniline	ND	
Acenaphthylene	ND	
Dimethyl Phthalate	ND	
2,6-Dinitrotoluene	ND	
Acenaphthene	5	
3-Nitroaniline	ND	
2,4-Dinitrophenol	ND	
Dibenzofuran	ND	
4-Nitrophenol	ND	

CON'T SAMPLE NUMBER: 595-311-05

COMPOUND	CONC(ug/L)
2,4-Dinitrotoluene	ND
Fluorene	10
4-Chlorophenyl-phenylether	ND
Diethylphthalate	ND
2 Methyl 4,6-Dinitrophenol	ND
N-Nitrosodiphenylamine	ND
4-Nitroaniline	ND
4-Bromophenyl-phenylether	ND
Hexachlorobenzene	ND
Pentachlorophenol	ND
Phenanthrene	5.7
Anthracene	ND
Di-N-Butylphthalate	ND
Carbazole	ND
Fluoranthene	ND
Pyrene	ND
4,4'-DDD	ND
Butylbenzylphthalate	ND
Chrysene	ND
Benzo (a) Anthracene	ND
bis(2-Ethylhexyl)Phthalate	ND
Di-N-Octyl Phthalate	ND
Benzo(b/k)Fluoranthene	ND
Benzo(a)Pyrene	ND
Indeno(1,2,3-cd)Pyrene	ND
Dibenz(a,h)Anthracene	ND
Benzo(g,h,i)Perylene	ND

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME:SARATOGA TREE NURSERY

FIELD ID:STN-MW-5D

SITE CODE:NA PERCENT SOLIDS:NA

SAMPLE NUMBER:595-263-08 MATRIX:WATER

SUBMISSION DATE:09/20/95 ARCHIVE NO.:V26308

ANALYSIS DATE:09/22/95 DATA FILE NO.:9504B31A.D

COMPOUND	CONC (PPB)	COMPOUND	CONC (PPB)
Vinyl Chloride	ND	4 - Chlorotoluene	ND
Bromomethane	ND	1,3 - Dichlorobenzene	ND
Chloroethane	ND	1,4 - Dichlorobenzene	ND
Trichlorofluoromethane	ND	1,2 - Dichlorobenzene	ND
Acetone	ND	1,2,4 - Trichlorobenzene	ND
1,1-Dichloroethene	ND	1,2,3 - Trichlorobenzene	ND
Carbon disulfide	ND		
Methylene Chloride	ND	NON-TARGET COMPOUNDS	
trans-1,2-Dichloroethene	ND		
1,1-Dichloroethane	ND		
Vinyl Acetate	ND		
2-Butanone	ND		
cis-1,2-Dichloroethene	ND		
Chloroform	ND		
1,1,1-Trichloroethane	ND		
Carbontetrachloride	ND		
1,2-Dichloroethane	ND		
Benzene	ND		
Trichloroethene	ND		
1;2-Dichloropropane	ND		
Bromodichloromethane	ND		
4-Methyl-2 Pentanone	ND		
cis-1,3-Dichloropropene	ND		
Toluene	ND		
trans-1,3-Dichloropropene	ND		
1,1,2-Trichloroethane	ND		
2-Hexanone	ND		
Tetrachloroethene	ND		
Dibromochloromethane	ND		
Chlorobenzene	ND		
Ethylbenzene	ND		
M,P-Xylene	ND		
O-Xylene	ND	ND = LESS THAN 5 PPB	
Styrene	ND		
Bromoform	ND	ALL CONCENTRATIONS LESS THAN	
1122Tetrachloroethane	ND	5 PPB ARE ESTIMATES	
2-Chlorotoluene	ND		

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: STN - MW - 5D

SAMPLE NUMBER: 595-263-08

EXTRACTION METHOD: SPE

MATRIX: GROUNDWATER

% SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	ND
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME:SARATOGA TREE NURSERY

FIELD ID:STN-MW-6S

SITE CODE:NA PERCENT SOLIDS:NA

SAMPLE NUMBER:595-264-04 MATRIX:WATER

SUBMISSION DATE:09/21/95 ARCHIVE NO.:V26404

ANALYSIS DATE:09/26/95 DATA FILE NO.:9504B40A.D

COMPOUND	CONC (PPB)
Vinyl Chloride	ND
Bromomethane	ND
Chloroethane	ND
Trichlorofluoromethane	ND
Acetone	ND
1,1-Dichloroethene	ND
Carbon disulfide	ND
Methylene Chloride	ND
trans-1,2-Dichloroethene	ND
1,1-Dichloroethane	ND
Vinyl Acetate	ND
2-Butanone	ND
cis-1,2-Dichloroethene	ND
Chloroform	28
1,1,1-Trichloroethane	ND
Carbontetrachloride	ND
1,2-Dichloroethane	ND
Benzene	ND
Trichloroethene	ND
1,2-Dichloropropane	ND
Bromodichloromethane	ND
4-Methyl-2 Pentanone	ND
cis-1,3-Dichloropropene	ND
Toluene	ND
trans-1,3-Dichloropropene	ND
1,1,2-Trichloroethane	ND
2-Hexanone	ND
Tetrachloroethene	ND
Dibromochloromethane	ND
Chlorobenzene	ND
Ethylbenzene	ND
M,P-Xylene	ND
O-Xylene	ND
Styrene	ND
Bromoform	ND
1122Tetrachloroethane	ND
2-Chlorotoluene	ND
4 - Chlorotoluene	ND
1,3 - Dichlorobenzene	ND
1,4 - Dichlorobenzene	ND
1,2 - Dichlorobenzene	ND
1,2,4 - Trichlorobenzene	ND
1,2,3 - Trichlorobenzene	ND

NON-TARGET COMPOUNDS

ND = LESS THAN 5 PPB

ALL CONCENTRATIONS LESS THAN 5 PPB ARE ESTIMATES

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: STN - MW - 6S

SAMPLE NUMBER: 595-264-04

EXTRACTION METHOD: SPE

MATRIX: GROUNDWATER

% SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	0.92
ENDOSULFAN SULFATE	ND
4,4'-DDT	0.06
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY SEMI-VOLATILE ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: MW - 6 % SOLID: NA

SAMPLE NUMBER: 595-311-02 MATRIX: GROUNDWATER

COMPOUND	CONC (ug/L)	TIC AND COMMENT SECTION
Phenol	ND	
2-Chlorophenol	ND	Detection limit - CRDL
Bis(2-Chloroethyl)Ether	ND	
1 3-Dichlorobenzene	ND	
1 4-Dichlorobenzene	ND	
1 2-Dichlorobenzene	ND	
Benzyl Alcohol	ND	
2-Methylphenol	ND	
bis(2-chloroisopropyl)Ether	ND	
Hexachloroethane	ND	TIC -
4-Methylphenol	ND	
N-Nitroso-di-propylamine	ND	1,1'-sulfonylbis[4-chloro]
Nitrobenzene	ND	benzene - 11 ug/L (Fenticlor)
Isophorone	ND	
2-Nitrophenol	ND	
2 4-Dimethylphenol	ND	
bis(2-chloroethoxy)Methane	ND	
2 4-Dichlorophenol	ND	
1 2 4-Trichlorobenzene	ND	
Naphthalene	ND	
Benzoic acid	ND	
4-Chloroaniline	ND	
Hexachlorobutadiene	ND	
4-Chloro-3-Methylphenol	ND	
2-Methylnaphthalene	ND	
Hexachlorocyclopentadiene	ND	
2,4,6-Trichlorophenol	ND	
2,4,5-trichlorophenol	ND	
2-Chloronaphthalene	ND	
2-Nitroaniline	ND	
Dimethylphthalate	ND	
2,6-Dinitrotoluene	ND	
Acenaphthene	ND	
3-Nitroaniline	ND	
2,4-Dinitrophenol	ND	
Dibenzofuran	ND	
4-Nitrophenol	ND	

CON'T SAMPLE NUMBER: 595-311-02

COMPOUND	CONC(ug/L)
2,4-Dinitrotoluene	ND
Fluorene	ND
4-Chlorophenyl-phenylether	ND
Diethylphthalate	ND
2 Methyl 4,6-Dinitrophenol	ND
N-Nitrosodiphenylamine	ND
4-Nitroaniline	ND
4-Bromophenyl-phenylether	ND
Hexachlorobenzene	ND
Pentachlorophenol	ND
Phenanthrene	ND
Anthracene	ND
Di-N-Butylphthalate	ND
Carbazole	ND
Fluoranthene	ND
Pyrene	ND
4,4'-DDD	ND
Butylbenzylphthalate	ND
Chrysene	ND
Benzo (a) Anthracene	ND
bis(2-Ethylhexyl)Phthalate	ND
Di-N-Octyl Phthalate	ND
Benzo(b/k)Fluoranthene	ND
Benzo(a)Pyrene	ND
Indeno(1,2,3-cd)Pyrene	ND
Dibenz(a,h)Anthracene	ND
Benzo(g,h,i)Perylene	ND

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME:SARATOGA TREE NURSERY

FIELD ID:STN-MW-7S

SITE CODE:NA PERCENT SOLIDS:NA

SAMPLE NUMBER:595-264-05 MATRIX:WATER

SUBMISSION DATE:09/21/95 ARCHIVE NO.:V26405

ANALYSIS DATE:09/26/95 DATA FILE NO.:9504B41A.D

COMPOUND	CONC (PPB)
Vinyl Chloride	ND
Bromomethane	ND
Chloroethane	ND
Trichlorofluoromethane	ND
Acetone	ND
1,1-Dichloroethene	ND
Carbon disulfide	ND
Methylene Chloride	ND
trans-1,2-Dichloroethene	ND
1,1-Dichloroethane	ND
Vinyl Acetate	ND
2-Butanone	ND
cis-1,2-Dichloroethene	ND
Chloroform	4 J
1,1,1-Trichloroethane	ND
Carbontetrachloride	ND
1,2-Dichloroethane	ND
Benzene	ND
Trichloroethene	ND
1,2-Dichloropropane	ND
Bromodichloromethane	ND
-Methyl-2 Pentanone	ND
is-1,3-Dichloropropene	ND
luene	ND
ans-1,3-Dichloropropene	ND
,2-Trichloroethane	ND
exanone	ND
achloroethene	ND
omochloromethane	ND
robenzene	ND
lbenzene	ND
Xylene	ND
lene	ND
ne	ND
form	ND
etrachloroethane	ND
protoluene	ND

COMPOUND	CONC (PPB)
4 - Chlorotoluene	ND
1,3 - Dichlorobenzene	ND
1,4 - Dichlorobenzene	ND
1,2 - Dichlorobenzene	ND
1,2,4 - Trichlorobenzene	ND
1,2,3 - Trichlorobenzene	ND

NON-TARGET COMPOUNDS

ND = LESS THAN 5 PPB

ALL CONCENTRATIONS LESS THAN 5 PPB ARE ESTIMATES

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: STN - MW - 7S

SAMPLE NUMBER: 595-264-05

EXTRACTION METHOD: SPE

MATRIX: GROUNDWATER

% SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	0.06
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	ND
ENDOSULFAN SULFATE	ND
4,4'-DDT	0.002
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	0.02
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY SEMI-VOLATILE ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: MW - 7 % SOLID: NA

SAMPLE NUMBER: 595-311-03 MATRIX: GROUNDWATER

COMPOUND	CONC (ug/L)	TIC AND COMMENT SECTION
Phenol	ND	
2-Chlorophenol	ND	Detection limit - CRDL
Bis(2-Chloroethyl)Ether	ND	
1 3-Dichlorobenzene	ND	
1 4-Dichlorobenzene	ND	
1 2-Dichlorobenzene	ND	
Benzyl Alcohol	ND	
2-Methylphenol	ND	
bis(2-chloroisopropyl)Ether	ND	
Hexachloroethane	ND	TIC - No TICs reported
4-Methylphenol	ND	
N-Nitroso-di-propylamine	ND	
Nitrobenzene	ND	
Isophorone	ND	
2-Nitrophenol	ND	
2 4-Dimethylphenol	ND	
bis(2-chloroethoxy)Methane	ND	
2 4-Dichlorophenol	ND	
1 2 4-Trichlorobenzene	ND	
Naphthalene	ND	
Benzoic acid	ND	
4-Chloroaniline	ND	
Hexachlorobutadiene	ND	
4-Chloro-3-Methylphenol	ND	
2-Methylnaphthalene	ND	
Hexachlorocyclopentadiene	ND	
2,4,6-Trichlorophenol	ND	
2,4,5-trichlorophenol	ND	
2-Chloronaphthalene	ND	
2-Nitroaniline	ND	
Acenaphthylene	ND	
Dimethyl Phthalate	ND	
2,6-Dinitrotoluene	ND	
Acenaphthene	ND	
3-Nitroaniline	ND	
2,4-Dinitrophenol	ND	
Dibenzofuran	ND	
4-Nitrophenol	ND	

CON'T SAMPLE NUMBER: 595-311-03

COMPOUND	CONC(ug/L)
2,4-Dinitrotoluene	ND
Fluorene	ND
4-Chlorophenyl-phenylether	ND
Diethylphthalate	ND
2 Methyl 4,6-Dinitrophenol	ND
N-Nitrosodiphenylamine	ND
4-Nitroaniline	ND
4-Bromophenyl-phenylether	ND
Hexachlorobenzene	ND
Pentachlorophenol	ND
Phenanthrene	ND
Anthracene	ND
Di-N-Butylphthalate	ND
Carbazole	ND
Fluoranthene	ND
Pyrene	ND
4,4'-DDD	ND
Butylbenzylphthalate	ND
Chrysene	ND
Benzo (a) Anthracene	ND
bis(2-Ethylhexyl)Phthalate	ND
Di-N-Octyl Phthalate	ND
Benzo(b/k)Fluoranthene	ND
Benzo(a)Pyrene	ND
Indeno(1,2,3-cd)Pyrene	ND
Dibenz(a,h)Anthracene	ND
Benzo(g,h,i)Perylene	ND

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY VOLATILE ANALYSIS

SITE NAME:SARATOGA TREE NURSERY

FIELD ID:STN-MW-8S

SITE CODE:NA PERCENT SOLIDS:NA

SAMPLE NUMBER:595-264-06 MATRIX:WATER

SUBMISSION DATE:09/21/95 ARCHIVE NO.:V26406

ANALYSIS DATE:09/26/95 DATA FILE NO.:9504B42A.D

COMPOUND	CONC (PPB)	COMPOUND	CONC (PPB)
Vinyl Chloride	ND	4 - Chlorotoluene	ND
Bromomethane	ND	1,3 - Dichlorobenzene	ND
Chloroethane	ND	1,4 - Dichlorobenzene	ND
Trichlorofluoromethane	ND	1,2 - Dichlorobenzene	ND
Acetone	ND	1,2,4 - Trichlorobenzene	ND
1,1-Dichloroethene	ND	1,2,3 - Trichlorobenzene	ND
Carbon disulfide	ND		
Methylene Chloride	ND		
trans-1,2-Dichloroethene	ND	NON-TARGET COMPOUNDS	
1,1-Dichloroethane	ND		
Vinyl Acetate	ND		
2-Butanone	ND		
cis-1,2-Dichloroethene	ND		
Chloroform	1 J		
1,1,1-Trichloroethane	ND		
Carbontetrachloride	ND		
1,2-Dichloroethane	ND		
Benzene	ND		
Trichloroethene	ND		
1,2-Dichloropropane	ND		
Bromodichloromethane	ND		
4-Methyl-2 Pentanone	ND		
cis-1,3-Dichloropropene	ND		
Toluene	ND		
trans-1,3-Dichloropropene	ND		
1,1,2-Trichloroethane	ND		
2-Hexanone	ND		
Tetrachloroethene	ND		
Dibromochloromethane	ND		
Chlorobenzene	ND		
Ethylbenzene	ND		
1,P-Xylene	ND		
O-Xylene	ND	ND = LESS THAN 5 PPB	
Styrene	ND		
Bromoform	ND	ALL CONCENTRATIONS LESS THAN	
1122Tetrachloroethane	ND	5 PPB ARE ESTIMATES	
P-Chlorotoluene	ND		

TCL PESTICIDES/AROCLORS ANALYSIS

SITE NAME: SARATOGA TREE NURSERY

FIELD ID: STN - MW - 8S

SAMPLE NUMBER: 595-264-06

EXTRACTION METHOD: SPE

MATRIX: GROUNDWATER

% SOLID: NA

PESTICIDE	QUANT (ug/L)
ALPHA-BHC	ND
BETA-BHC	ND
DELTA-BHC	ND
GAMMA-BHC	ND
HEPTACHLOR	ND
ALDRIN	ND
HEPTACHLOR EPOXIDE	ND
ENDOSULFAN I	ND
DIELDRIN	ND
4,4'-DDE	ND
ENDRIN	ND
ENDOSULFAN II	ND
4,4'-DDD + 2,4'-DDD	ND
ENDOSULFAN SULFATE	ND
4,4'-DDT	ND
ENDRIN ALDEHYDE	ND
ENDRIN KETONE	ND
METHOXYCHLOR	ND
CHLORDANE (ALPHA/GAMMA)	ND/ND
TOXAPHENE	NA

DETECTION LIMIT:

PESTICIDES - CRDL

AROCLORS - CRDL

DILUTION FACTOR - 1

AROCLOR	QUANT (ug/L)
1016	NA
1221	NA
1232	NA
1242	NA
1248	NA
1254	NA
1260	NA