Fenley & Nicol Environmental Inc.

"SOLUTIONS AT WORK"®

445 Brook Avenue, Deer Park, NY 11729 (631) 586-4900 • NYC (718) 204-4993 FAX (631) 586-4920

Revised Voluntary Cleanup Investigation Work Plan

V-00335-1
Villa Cleaners
1899 Deer Park Avenue
Deer Park, New York

Prepared For: New York State Department of
Environmental Conservation
Bureau of Eastern Remedial Action
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7015

Attention: Kevin Carpenter, P.E.
Senior Environmental Engineer

Prepared By: Fenley and Nicol Environmental, Inc.
445 Brook Avenue
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Brian McCabe
Assistant Director, Professional Services

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Prepared On: August 28, 2002
Revised On January 7, 2003

F&N Job No. 0201927

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1.0 INTRODUCTION

Fenley and Nicol Environmental, Inc. (F&N) has been retained to prepare a Voluntary Cleanup Investigation Work Plan for the property located at 1899 Deer Park Avenue in Deer Park, New York ***(hereinafter referred to as "the property" or the "site").***

The purpose of the Investigation Work Plan (IWP) is to provide a scope of work for the subsurface investigation of the property to the New York State Department of Environmental Conservation (NYSDEC or Department). The scope of work for the IWP is based upon a March 29, 2000 correspondence from the NYSDEC and an April 24, 2000 meeting between representatives of F&N, the NYSDEC at the property, and the July 12, 2001 letter from the NYSDEC.

The IWP Report dated August 28, 2002 was submitted to the NYSDEC and the New York State Department of Health (NYSDOH) for review and comments. A list of deficiencies based on the IWP Report dated November 20, 2002 was received from the NYSDEC and NYSDOH. This report is intended to address the deficiencies and a copy will be resubmitted to the NYSDEC and the NYSDOH for their review and comments.

1.1 Site Description

The subject property consists of a 1-story multi-tenant commercial building, which was built in 1965. Villa Cleaners is located in the northern portion of the building and has been historically operated as a dry cleaners from the 1960s. The property is located along the east side of Deer Park Avenue. An asphalt parking area is located in the western and southern portions of the property. There are five (5) sanitary leaching pool structures located at the

western portion of the property and are designated as RM-1 through RM-5. Cesspools CP-1 through CP-4 are located along the western portion of the building. Cesspool CP-5 is located northeast of the subject property. A total of eight (8) storm drains and three (3) septic tanks are located at the site. The septic tanks have been designated as S-1 through S-3. According to information received from the client, Mr. John Gennaro, the building is not connected to the public sanitary sewer system. The building utilizes the onsite septic tanks and sanitary leaching pools for its sanitary purposes.

The vicinity of the property consists of industrial and commercial properties. The Long Island Railroad is located to the north of the property on a berm approximately twelve (12) feet above the property grade. The adjacent properties to the south consist of a 1-story commercial establishment and an asphalt parking lot for another 1-story commercial establishment, followed by the front lawn of a public school administration building.

Figure 1 provides a Site Location Map.
Figure 2 provides a Site Plan.

2.0 SITE HISTORY

During a routine inspection of the property on May 5, 1997, the Suffolk County Department of Health Services (SCDHS) obtained sediment samples from the five- (5) on-site sanitary leaching pools. Four (4) of these samples were found to contain elevated levels of volatile organic compounds (VOCs). Another consultant later removed the sediment from the on-site sanitary leaching pools during October 1997. According to the consultant's report, approximately 18,000 gallons of liquid was disposed of and approximately 12 to 15 cubic yards of

sediment were removed from each structure. The end point samples from each structure were found to contain no levels of VOCs at concentrations exceeding SCDHS standards. Currently, the structures are active and are still in use.

Appendix A provides copies of previous environmental reports.

The consultant also performed a groundwater sampling exercise associated with the cleanout of the structures. The results of the groundwater sampling, identified chlorinated solvents in the groundwater beneath the site.

F&N installed three (3) monitoring wells and one (1) cluster well during 1998. This work was performed under the guidance of the SCDHS. Monitoring well MW-1 was installed in the northwest portion of the site. Monitoring well MW-2 was installed in the northeast portion of the site. Monitoring well MW-3 was installed in the south central portion of the site and cluster well CW-1 was installed to the southeast of sanitary pool RM-2. Each monitoring well is screened at the water table, which is located at approximately sixteen (16) feet below ground surface (bgs). The cluster well is screened at two (2) foot intervals from the depths of 20 to 22 feet, 40 to 42 feet, 60 to 62 feet, 80 to 82 feet and 98 to 100 feet bgs.

F&N performed a groundwater sampling event on June 16, 1998. During this exercise, the groundwater flow direction beneath the site was determined and groundwater samples were obtained from monitoring wells MW-1 through MW-3 and cluster well CW-1. The groundwater flow direction beneath the site was found to be toward the south-southwest. The results of the groundwater

sampling event indicated that monitoring well MW-3 was found to contain elevated levels of Tetrachloroethene (PCE), Trichloroethene (TCE) and cis-1,2-Dichloroethene (cis-1,2-DCE). The cluster well at the water table was found to contain trace levels of PCE. The cluster well from 40 feet and 60 feet were found to contain trace levels of cis-1,2-DCE.

F&N submitted a remedial plan to the SCDHS on December 17, 1998. This remedial plan outlined the remediation of the chlorinated solvents in groundwater through the injection of Hydrogen-Releasing Compounds (HRCs). The SCDHS responded to the remedial plan by requesting that the horizontal and vertical extent of the chlorinated solvents identified in MW-3 be further defined.

F&N installed and sampled three (3) temporary groundwater sampling points in the vicinity of monitoring well MW-3 during October 1999. The results of this investigation identified PCE and its degradation products at the water table and below the water table along the southern property boundary, with the highest concentration being detected on the western side of the property. This ground water investigation was not able to delineate the horizontal extent of the contamination and therefore not establish the vertical profile.

3.0 Regional Geology & Hydrogeology

Long Island consists of a wedge-shaped mass of unconsolidated deposits that overlie ancient basement rock. The thickness of these deposits ranges from approximately 100 feet on the Island's north shore, to approximately 2,000 feet in some portions of the south shore. These deposits contain groundwater that is the sole source of drinking water for the Island's residents. The 1990 U.S. census

indicates that Nassau and Suffolk Counties have a combined population of approximately 2.6 million residents.

The major landforms of Long Island of importance to the hydrologic system are the moraines and outwash plains, which originated from glacial activity. The moraines represent the farthest extent of the glacial advances and consists of till, which is a poorly sorted mixture of sand, silt, clay, gravel and boulders. The till is poorly to moderately permeable in most areas. Outwash plains are located to the south of the moraines. The outwash plains were formed by the action of glacial meltwater streams, which eroded the headland material of the moraines and laid down deposits of well-sorted sands, silts and gravels. These outwash deposits are moderately to highly permeable.

The **Upper Glacial Aquifer** is the uppermost hydrogeologic unit. This aquifer encompasses the moraine and outwash deposits, in addition to some localized lacustrine, marine and reworked materials. A relatively high horizontal hydraulic conductivity and a low vertical hydraulic conductivity characterize the outwash plain portion of this unit. Since the water table is situated in the Upper Glacial Aquifer, the water quality has been degraded in many areas due to industrial activities.

The **Magothy Formation** directly underlies the Upper Glacial Aquifer in the vicinity of the site. This formation is a Cretaceous coastal-shelf deposit, which consists principally of layers of sand and gravel with some interbedded clay. This formation ranges from poorly to highly permeable. A clay layer in some parts of Long Island confines the uppermost portion of the aquifer. The Magothy is Long Island's principal aquifer for public water supply. In the vicinity of the site, the estimated depth to the top of the Magothy Formation is

175 feet below ground surface (minus 100 feet mean sea level). The United States Environmental Protection Agency has classified the Long Island aquifer system as a sole source aquifer.

The **Raritan Formation** is the deepest unit and rests directly above the bedrock units. This formation is comprised of a sand member (**Lloyd Aquifer**) and a clay member (**Raritan Clay**). The Lloyd Aquifer extends southward from Flushing Bay to the Atlantic Ocean. The thickness of the sand member increases toward the southeast and its upper surface ranges in depth from 200 to 800 feet below sea level (from northwest to southeast). . In the vicinity of the site, the depth to the top of the Lloyd Aquifer is approximately 1,075 feet (minus 1,000 feet mean sea level). The Raritan Clay acts as an aquitard confining the lower Lloyd aquifer between the clay and the underlying bedrock.

The topographic elevation of the site is approximately 75 feet above sea level *(USGS 7½ Minute Topographic Map, Greenlawn, New York Quadrangle, 1967, Photorevised 1979)*. The depth to groundwater beneath the site is approximately 16 feet below ground surface. The groundwater flow direction beneath the site, as determined from previous on-site investigations, is toward the south-southeast.

4.0 SCOPE OF WORK

4.1 Introduction

The scope of work described in this Voluntary Cleanup Investigation Work Plan has been prepared based upon the March 29, 2000 NYSDEC correspondence, the April 24, 2000 site meeting, the July 12, 2001 and November 20, 2002 NYSDEC Letter to F&N. The scope of work for the investigation includes the performance of the following tasks:

1. The delineation of the horizontal and vertical extent of chlorinated solvents in groundwater downgradient of monitoring well MW-3.
2. The determination of the current on site groundwater quality in the vicinity of the former sanitary pools through the sampling of the monitoring wells and cluster well.
3. The investigation of soil quality in the vicinity of the previous discharge structures.
4. The installation of a downgradient cluster well CW-2 following the receipt of laboratory analyticals.
5. The installation of soil gas points at select locations along the building and downgradient of the site along the southern property boundary.
6. Conduct an on and off-site qualitative exposure assessment.
7. The preparation of a Voluntary Cleanup Investigation Report.

Tasks #1 will be accomplished through the installation and sampling of groundwater Earthprobe borings. The Earthprobe borings will be installed at specific locations downgradient of the subject property utilizing direct-push technology.

Task #2 will be accomplished through the collection of groundwater samples from the on-site groundwater monitoring wells and cluster well CW-1. The groundwater flow direction beneath the site will be confirmed.

Task #3 be accomplished through the use of direct push technology. An Earthprobe will be utilized to collect soil samples on the westside of the former discharge structures.

Task #4 will be performed at a point when all of the analytical results from the investigation have been received and evaluated. The well will be installed at a downgradient location for the purpose of monitoring the effectiveness of the selected remediation technique.

Task #5 will be performed through the use of the direct-push method. An Earthprobe will be utilized to collect the soil gas samples at select locations along the building and along the southern property boundary at the downgradient portion of the site.

Task #6 will be to conduct and on and off-site qualitative exposure assessment. The exposure assessment will initially provide background information pertaining to the site and the source area. Following this background information, each exposure pathway at the site will then be evaluated.

Tasks #1 through #6 will be documented in Task #7 above, the Voluntary Cleanup Investigation Report.

The NYSDEC Project Manager will be given a minimum of one-week notice before fieldwork begins. The on-site Department representative shall be offered split samples for all samples obtained.

The following sections provide the details of the scope of work.

4.2 Earthprobe Groundwater Sampling

F&N will be installing approximately seven (7) Earthprobe groundwater borings. One (1) Earthprobe groundwater boring, identified as GP-4, will be installed in the vicinity of the previous discharge structures, on-site. Six (6) Geoprobe groundwater borings, identified as GP-5 through GP-10, will be installed to the south of monitoring well MW-3. One (1) point will be installed in the back parking area behind Crazy Billy's liquor store the remaining five (5) will be installed along the eastern right of way of route 231 (Deer Park Avenue). Prior to the commencement of fieldwork, access will be arranged with the owner of the asphalt parking and the Town of Babylon where the fieldwork will be performed.

Each direct push temporary groundwater point will be installed utilizing a Simco Earthprobe® 200 and will consist of a 4-foot long, ¾ inch diameter stainless steel screen. The stainless steel screen has a screen width of 0.020 inches and will be decontaminated between each sampling location.

Figure 3 provides a Proposed Groundwater Sampling Location Diagram.

In order to delineate the vertical extent of chlorinated solvents at each sampling location, the Earthprobe groundwater borings will be sampled from the bottom up. The initial sampling depth will be 66 to 70 feet. Groundwater samples will then be obtained at ten (10) foot intervals until the water table is encountered. The water table sample (16 to 20 feet) will be the final

groundwater sample collected in each Earthprobe groundwater boring location. Each groundwater sample will be collected utilizing clean polyethylene tubing.

Each Earthprobe temporary groundwater well will be purged of approximately five (5) well volumes utilizing a foot check valve and disposable polyethylene tubing. The purged groundwater will be placed in a 55-gallon DOT drum for later disposal. Representative groundwater samples will then be collected from each Earthprobe groundwater sampling point utilizing a low-flow - minimal drawdown bladder pump. The location of each Earthprobe groundwater sampling point will be surveyed following its completion.

4.3 On-site Groundwater Monitoring Well Sampling

In order to establish the current onsite groundwater condition groundwater monitoring wells MW-1 through MW-3 will be monitored and sampled. In addition to the sampling of the monitoring wells the cluster well will be located and uncovered. If the well can be located and is in good condition it will also be sampled. A drawing of the existing cluster well is presented in one of the previous reports dated July 17.

Each monitoring well and sampling port of the cluster well will be purged of approximately five (5) well volumes utilizing a foot check valve and disposable polyethylene tubing. The purged groundwater will be placed in a 55-gallon DOT drum for later disposal. Representative groundwater samples will then be collected from each groundwater monitoring well utilizing a new disposable polyethylene bailer. Groundwater samples will be collected from each sampling port of Cluster well CW-1 utilizing either disposable polyethylene bailers or a low flow - minimal drawdown bladder pump.

4.4 Earthprobe Soil Investigation

The potential for residual soil contamination in the source area will be investigated by installing a soil probe in the same location as temporary groundwater sampling well GP-4, located immediately adjacent to the exterior of the discharge structures. The soil sampling will consist of the collection of soil samples utilizing a two (2) foot long discrete soil sampler that will be driven down to the desired sampling depths then opened. F&N anticipates the collection of four (4) core samples each two (2) feet in length over the depth intervals from 5-7 feet, 10-12 feet, 15-17 feet and 20-22 feet. The soil samples will be collected and characterized in the field. A homogeneous portion of each core sample will be retained for laboratory analysis. To avoid cross contamination between samples each sample will be collected with an unused disposable acetate liner. All of the soil sampling components of the Earthprobe will be decontaminated between each sampling event.

4.5 Cluster Well Installation

Based upon the sampling results from Geoprobe groundwater borings GP-5 through GP-10, cluster well CW-2 will be installed. The purpose of the cluster well is two-fold: to provide a permanent location for the determination of downgradient groundwater quality over time and to serve as a sentry well for the remedial action. The specific location of cluster well CW-2 will be positioned with the NYSDEC Project Manager.

Cluster well CW-2 will consist of five (5) PVC monitoring wells and will be installed in a similar manner as the previous cluster well CW-1. Initially, a drill rig equipped with 6 $^{5}/_{8}$-inch diameter hollow-stem augers will advance a boring to a depth of 100 feet. At this depth a 2-inch diameter, 98 feet long

section of solid PVC will be connected to a 2-foot section of 2-inch diameter screened PVC. The screened portions of the Polyethylene monitoring wells will be 0.020 inches. F&N anticipates placing the screens over the following depth intervals:

- 95 to 100 feet
- 75 to 80 feet
- 55 to 60 feet
- 35 to 40 feet
- 15 to 20 feet

However, the result of the prior field investigation will determine the exact location of the screen. The screened section of each portion of the cluster well will be filled with #1 Morie Sand and the cluster well will be finished at grade with a flush-mounted manhole cover.

An F&N geologist will be on-site during the installation and construction of the cluster well to create a boring log and well construction log. The soil cuttings will be screened for the evidence of organic vapors utilizing a Photoionization Detector (PID). The PID has a minimum detection limit of 0.1 parts per million.

All soil cuttings will be placed in a 55-gallon drum and then sampled for waste disposal purposes. Following the completion of the construction of the cluster well, it will developed in accordance with NYSDEC protocols. The development water will be placed in a 55-gallon drum for later disposal.

4.6 Soil Gas Survey

A soil gas survey will be conducted in the vicinity of the site to evaluate the potential impacts to indoor air quality. Soil gas points SG-1 through SG-3 will be installed along the western portion of the building located on the subject property. Soil gas SG-4 through SG-6 will be installed along the southern property boundary. Each point will be installed at discrete intervals beginning at the top of the water table approximately at 14 feet then at 10 feet, and 5 feet below grade, utilizing a 1¼ -inch diameter steel probe rod fitted with an expendable point system. Once the probe rod is advanced to the desired depth, the probe rod is then retracted slightly. A ¾-inch diameter polyethylene tubing is then inserted through the probe rod to the desired depth. Each soil gas will then be collected utilizing a Gillian Personal Pump and collected onto a charcoal gas sampling tube. The soil gas sampling tubes will be placed in appropriate containers to be analyzed for VOCs.

DETAILS VOLUME ANAL METHOD?

4.7 Qualitative Exposure Assessment

A qualitative on and off-site exposure assessment will be conducted. The purpose of the exposure assessment (as culled from the NYSDEC Voluntary Cleanup Program Guide) is to qualitatively determine the route, intensity, frequency, and duration of actual or potential exposures of humans to chemicals. It also describes the nature and size of the population exposed to the contamination that are present at or migrating from a site. The exposure assessment will initially provide background information pertaining to the site and the source area. The background information will consist of the history of the source area and the ensuing remedial efforts, the regional geology and hydrogeology and the chemical and physical properties and the fate and transport of the hydrocarbons in question. Following this background

information, each exposure pathway at the site will be evaluated. Finally, conclusions and recommendations will be provided based upon the results of the evaluation of each exposure pathway.

4.8 Sample Collection/Equipment Decontamination

In order to ensure that cross-contamination between samples does not occur, all probe rods and sampling equipment will be decontaminated using a regular pressure washer. The sampling equipment is then subjected to an Alconox solution for further cleaning and rinsed again with high-pressure washer. Only potable water is used during the decontamination procedures.

All decontamination procedures will be performed in a segregated area from any area of installation. All wash and rinse fluids generated from the decontamination process will be contained and removed from the site and disposed of at a licensed waste disposal facility.

Each groundwater sample obtained from the Earthprobe groundwater investigation, the monitoring wells and the cluster wells will be placed directly into pre-cleaned 40-milliliter (ml) vials.

Each soil sample obtained form the Earthprobe soil investigation will be placed into a pre-cleaned 8-ounce jar.

In addition to the collection of the groundwater samples the following Quality Assurance/Quality Control QA/QC samples will be collected. One (1) field blank, one (1) trip blank, one (1) matrix spike and one (1) matrix spike

duplicate will be prepared for 10% of the samples collected or each day's fieldwork.

The sampling containers will be placed into a cooler filled with ice and their temperature maintained at 4 degrees Celsius. A supporting chain of custody will then be prepared and accompany the samples to Chemtech; a NYS ELAP/CLP certified laboratory.

4.9 Laboratory Analyses

Each of the groundwater and soil samples will be analyzed at a New York State ELAP-certified laboratory that is also certified to perform Analytical Services Protocol (ASP) analyses. Each groundwater and soil sample will be analyzed for VOCs in accordance with EPA Method 624 and in accordance with NYSDEC ASP Method 95-1 category B deliverables. In addition all of the groundwater samples will also be analyzed for Dissolved Oxygen (DO) Sulfate, Nitrate, Sulfide and Nitrite. The analysis for these perameters will act as an indicator of the bio-degradation of the chlorinated solvents.

5.0 Report of Findings

A Voluntary Cleanup Investigation Report will be prepared following the completion of the fieldwork and the laboratory analyses. This report will contain the findings and conclusions of the investigation and will include appropriate maps and diagrams and tabulations of all analytical data. The analytical data will be discussed in both a total VOC manner and an individual VOC manner. The report will also include a qualitative on and off-site exposure assessment and a Data Usability Summary Report.

A Voluntary Cleanup Remediation Work Plan will be submitted within 45 days of the Department's approval of the Voluntary Cleanup Investigation Report. This report will be submitted to the NYSDEC for review, comment and approval.

6.0 HEALTH & SAFETY PLAN

All work at the subject site will be performed in accordance with a site-specific Health and Safety Plan.

Appendix B provides a copy of the site specific Health & Safety Plan.

7.0 PROJECT SCHEDULE & PERSONNEL

A proposed project schedule has been prepared for the investigation. In addition, the resumes of the project personnel have been included with this Work Plan.

Appendix C contains the proposed project schedule.

Appendix D provides the resumes of all project personnel.

Date of Preparation: January 7, 2003

Prepared By:

X _____

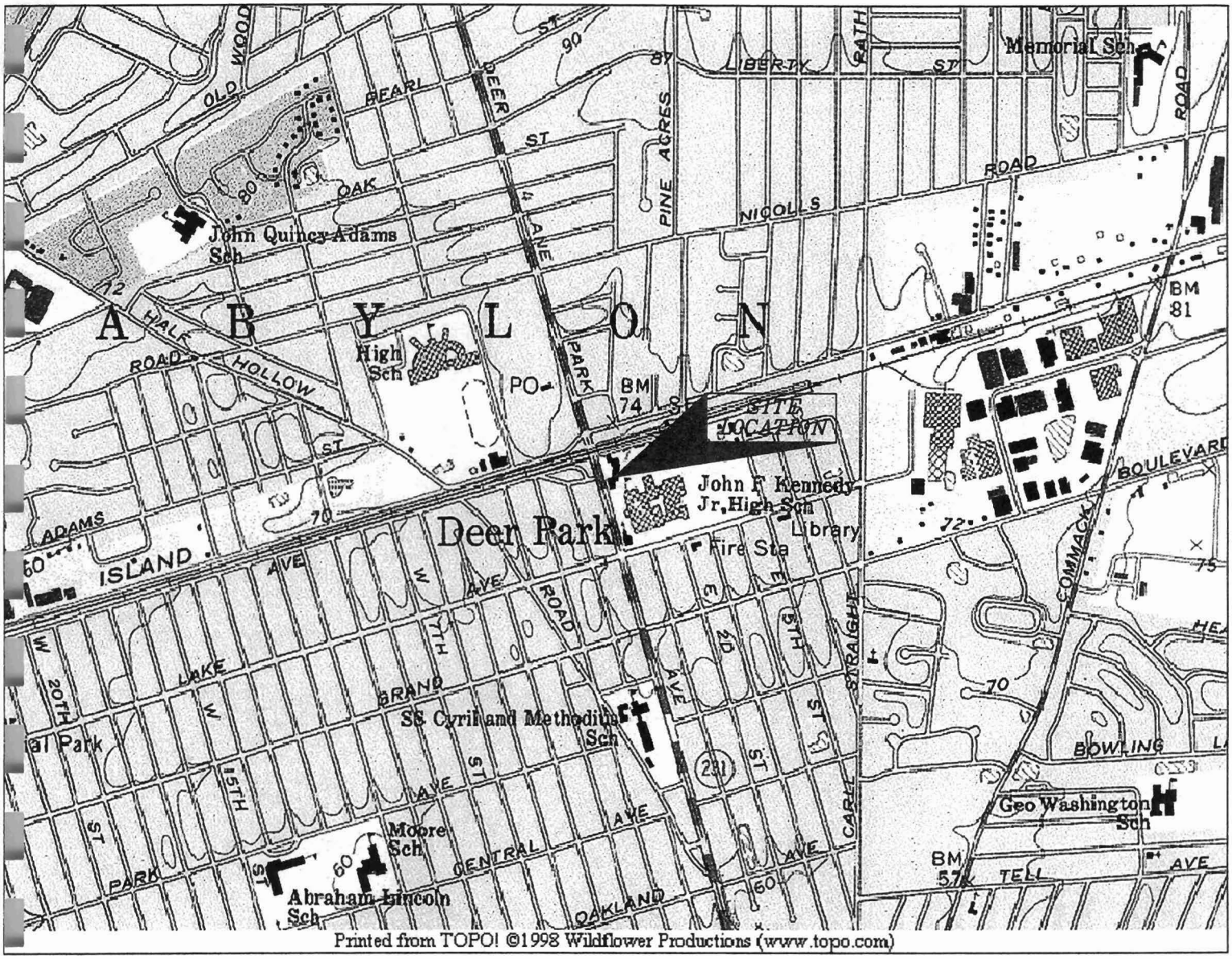
David Oloke
Project Geologist

Reviewed By:

X _____

Brian McCabe
Assistant Director, Professional Services

Figure 1
Site Location Map



Site Location Map

1899 Deer Park Avenue
Babylon, New York

SCALE 1:12000

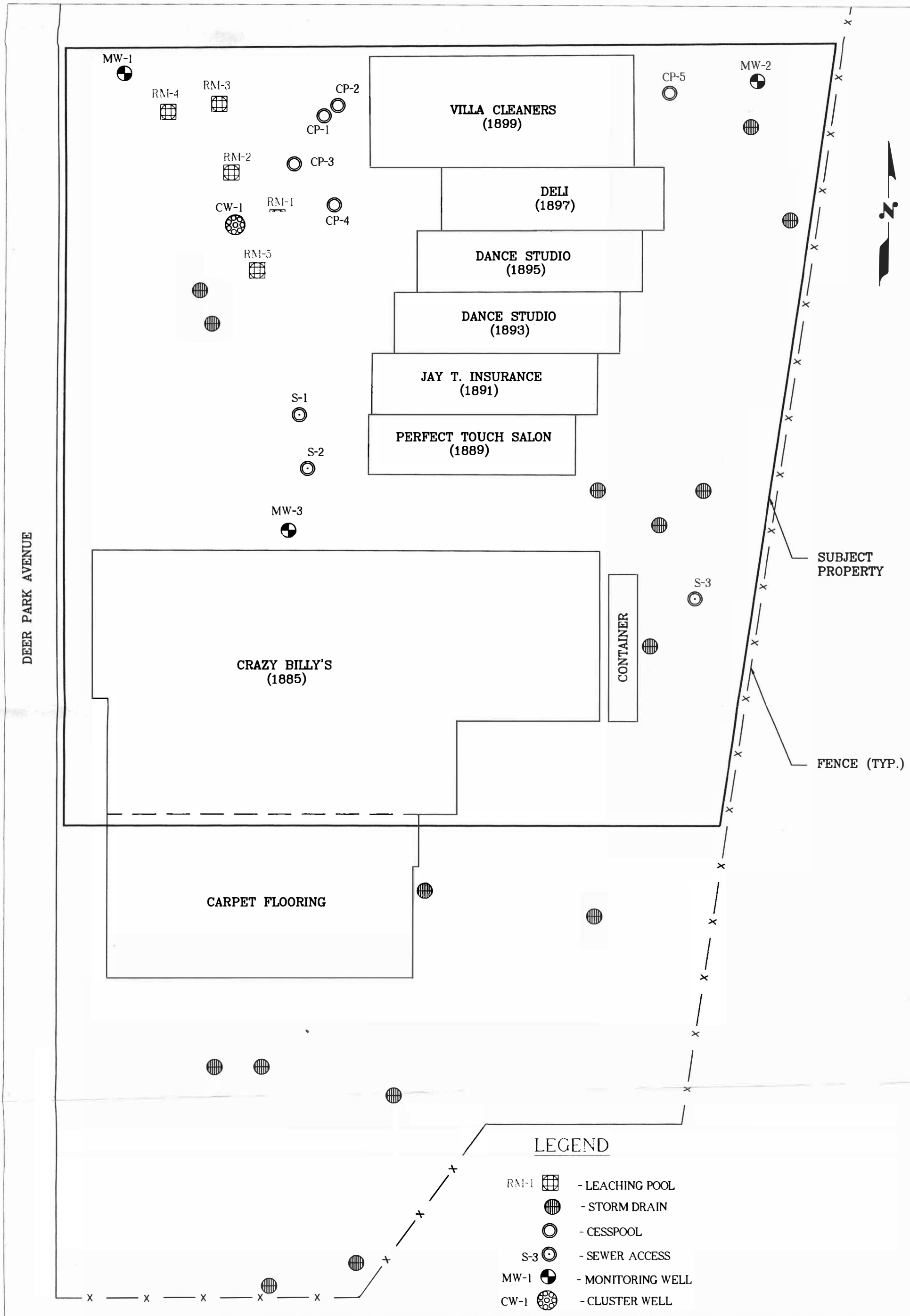
500 0 500 1000 1500 2000 2500 3000 3500 FEET

Reproduced from USGS Greenlawn, New York Quadrangle
1967 Photorevised 1979

Fenley & Nicol

Professional Services Division
445 Brook Ave.
Deer Park, N.Y. 11729

Figure 2
Site Plan



Fenley & Nicol
Professional Services Division
445 BROOK AVENUE, DEER PARK,
NEW YORK 11729 (631)586-4907

SITE PLAN

SCALE: 1"=25'-0"	GEOLOGIST D. O.	JOB # 0201927
DATE: 5/01	DRAWN BY: A. E.	FILE NAME: SP5200.DWG

1885-1899 DEER PARK AVE
BABYLON, NEW YORK

Figure 3
Proposed Sampling Location Map

Appendix A
Previous Report

Fenley & Nicol Environmental Inc.

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1899 Deer Park Avenue
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Prepared For: New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Environmental Remediation
50 Wolf Road
Albany, New York 12233-7010

Attention: George Heitzman, P.E.
Senior Environmental Engineer

Prepared By: Fenley and Nicol Environmental, Inc.
445 Brook Avenue
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Mostafa El Sehamy, C.P.G., C.G.W.P.
Director, Professional Services

Mark E. Robbins
Senior Geologist

Prepared On: May 8, 2000

F&N Job No. 9802957

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Appendices

1.0 INTRODUCTION

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The vicinity of the property consists of industrial and commercial properties. The Long Island Railroad is located to the north of the property. The adjacent properties to the south consist of a 1-story commercial establishment and an asphalt parking lot for another 1-story commercial establishment. A portion of the fieldwork will be performed in the asphalt parking lot.

Figure 1 provides a Site Location Map.
Figure 2 provides a Site Plan.

2.0 SITE BACKGROUND

During a routine inspection of the property on May 5, 1997, the Suffolk County Department of Health Services (SCDHS) obtained sediment samples

from five (5) on-site sanitary leaching pools. Four (4) of these samples were found to contain elevated levels of volatile organic compounds (VOCs). Another consultant later removed the sediment from the on-site sanitary leaching pools during October 1997. According to the consultant's report, approximately 18,000 gallons of liquid was disposed of and approximately 12 to 15 cubic yards of sediment were removed from each structure. The end point samples from each structure were found to contain no levels of volatile organic compounds at concentrations exceeding SCDHS standards.

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The topographic elevation of the site is approximately 75 feet above sea level *(USGS 7½ Minute Topographic Map, Greenlawn, New York Quadrangle, 1967, Photorevised 1979)*. The depth to groundwater beneath the site is approximately 16 feet below ground surface. The groundwater flow direction beneath the site, as determined from previous on-site investigations, is toward the south-southeast.

4.0 Scope of Work

4.1 Introduction

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1. The delineation of the horizontal and vertical extent of chlorinated solvents in groundwater downgradient of monitoring well MW-3.
2. The determination of the current groundwater quality in the vicinity of the former sanitary pools.
3. The preparation of a Voluntary Cleanup Investigation Report.

Tasks #1 and #2 above will be accomplished through the installation and sampling of groundwater Geoprobe borings and a permanent cluster well. The Geoprobe borings will be installed at specific locations downgradient of the subject property utilizing direct-push technology. In addition, groundwater samples will be collected from the on-site groundwater monitoring wells and the groundwater flow direction beneath the site will be determined. Tasks #1 and #2 will be documented in Task #3 above, the Voluntary Cleanup Investigation Report.

The NYSDEC Project Manager will be given a minimum of one-week notice before fieldwork begins. The on-site Department representative shall be offered split samples for all samples obtained.

The following sections provide the details of the scope of work.

4.2 Geoprobe Groundwater Sampling

F&N will be installing approximately six (6) Geoprobe groundwater borings. One (1) Geoprobe groundwater boring, identified as GP-4, will be installed downgradient of the sanitary structures on-site. Five (5) Geoprobe groundwater borings, identified as GP-5 through GP-9, will be installed to the

south of monitoring well MW-3 in the adjacent asphalt parking lot.[1] Prior to the commencement of fieldwork, access will be arranged with the owner of the asphalt parking lot where the fieldwork will be performed.

Each Geoprobe groundwater boring will be installed utilizing a Simco Earthprobe® 200 and will consist of a 4-foot long, ¾ inch diameter stainless steel screen. The stainless steel screen has a screen width of 0.020 inches and will be decontaminated between each sampling location.

Figure 3 provides a Proposed Groundwater Sampling Location Diagram.

In order to delineate the vertical extent of chlorinated solvents at each sampling location, the Geoprobe groundwater borings will be sampled from the bottom up. The initial sampling depth will be 66 to 70 feet. Groundwater samples will then be obtained at ten (10) foot intervals until the water table is encountered. The water table sample (16 to 20 feet) will be the final groundwater sample collected in each Geoprobe groundwater boring.

Each Geoprobe groundwater boring will be purged of approximately 3 to 4 well volumes prior to sampling. The purged groundwater will be placed in a 55-gallon DOT drum for later disposal. Representative groundwater samples will then be collected from each Geoprobe groundwater boring utilizing an inertial pump consisting of a foot check valve and dedicated polyethylene tubing. The location of each Geoprobe boring will be surveyed following its completion.

[1] Sampling designations GP-1 through GP-3 were utilized in F&N's October 1999 investigation.

4.3 Cluster Well Installation

Based upon the sampling results from Geoprobe groundwater borings GP-5 through GP-9, cluster well CW-2 will be installed. The purpose of the cluster well is twofold: to provide a permanent location for the determination of downgradient groundwater quality over time and to serve as a sentry well for the remedial action. The specific location of cluster well CW-2 will be positioned with the NYSDEC Project Manager.

Cluster well CW-2 will be installed in a similar manner as previous cluster well CW-1. Initially, a drill rig equipped with 6 $^{5}/_{8}$-inch diameter hollow-stem augers will advance a boring to a depth of 100 feet. PVC monitoring wells will then be constructed within the boring. The screened section of each portion of the cluster well will be filled with #1 Morie Sand and the cluster well will be finished at grade with a flush-mounted manhole cover. The screened portions of the PVC monitoring wells will be 0.020 inches and will be placed at the following depth intervals:

- 95 to 100 feet
- 75 to 80 feet
- 55 to 60 feet
- 35 to 40 feet

15 to 20 feet

An F&N geologist will be on-site during the installation and construction of the cluster well to create a boring log and well construction log. The soil cuttings will be screened for the evidence of organic vapors utilizing a

Photoionization Detector (PID). The PID has a minimum detection limit of 0.1 parts per million.

Any soil cuttings that are found to contain detectable levels of organic vapors will be placed in a 55-gallon drum for later disposal. Following the completion of the construction of the cluster well, it will developed in accordance with NYSDEC protocols. The development water will be placed in a 55-gallon drum for later disposal.

4.4 Monitoring Well Sampling

Following the development of cluster well CW-2, groundwater samples will be collected from monitoring wells MW-1 through MW-3 and cluster wells CW-1 and CW-2. The purpose for this groundwater sampling exercise is to obtain the current groundwater quality throughout the site. Each monitoring well will be purged of 3 to 4 well volumes prior to sampling. The purged groundwater will be placed in a 55-gallon DOT drum. Representative groundwater samples will then be obtained utilizing dedicated disposable polyethylene bailers.

4.5 Sample Collection

Each groundwater sample obtained from the Geoprobe groundwater borings, the monitoring wells and the cluster wells will be placed directly into pre-cleaned 40-milliliter (ml) vials. One field blank and one trip blank will be prepared for each day's fieldwork.

The sampling containers will be placed into a cooler filled with ice and their temperature maintained at 4 degrees Celsius. A supporting chain of custody will then be prepared and accompany the samples to the outside

laboratory. Matrix spike/matrix spike duplicates will be prepared for 10 percent of the samples that are collected.

4.6 Laboratory Analyses

Each of the groundwater samples will be analyzed at a New York State ELAP-certified laboratory that is also certified to perform Analytical Services Protocol (ASP) analyses. Each groundwater sample will be analyzed for volatile organic compounds in accordance with EPA Method 624 and in accordance with NYSDEC ASP Method 95-1.

5.0 Report of Findings

A Voluntary Cleanup Investigation Report will be prepared following the completion of the fieldwork and the laboratory analyses. This report will contain the findings and conclusions of the investigation and will include appropriate maps and diagrams and tabulations of all analytical data. The analytical data will be discussed in both a total VOC manner and an individual VOC manner. The report will also include a Data Usability Summary Report.

A Voluntary Cleanup Remediation Work Plan will be submitted within 45 days of the Department's approval of the Voluntary Cleanup Investigation Report. This report will be submitted to the NYSDEC for review, comment and approval.

6.0 Health & Safety Plan

All work at the subject site will be performed in accordance with a site-specific Health and Safety Plan.

Appendix B provides a copy of the site specific Health & Safety Plan.

7.0 PROJECT SCHEDULE & PERSONNEL

A proposed project schedule has been prepared for the investigation. In addition, the resumes of the project personnel have been included with this Work Plan.

Appendix C contains the proposed project schedule.

Appendix D provides the resumes of all project personnel.

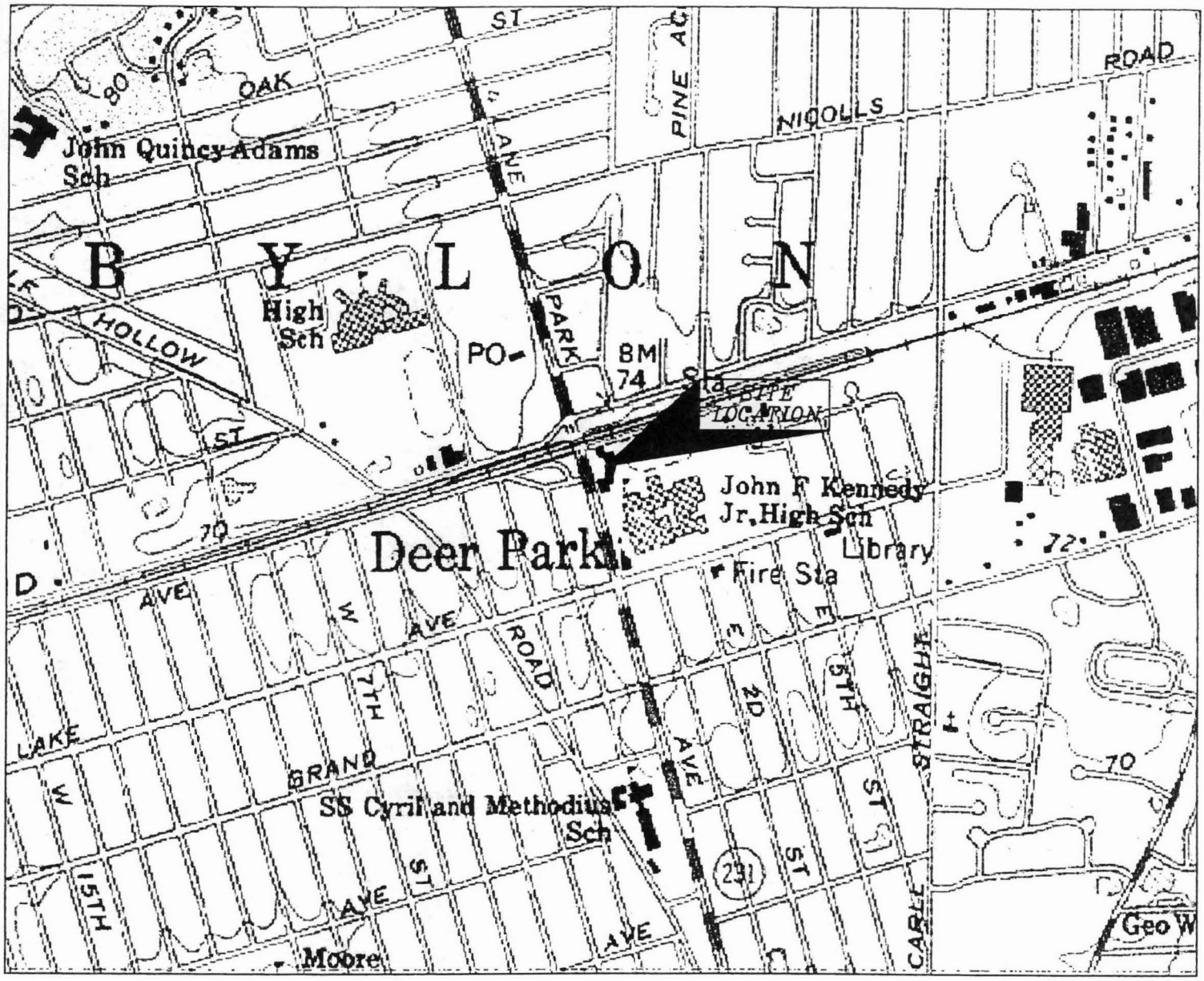
Date of Preparation: May 8, 2000

Prepared By:

X_____
Mark E. Robbins
Senior Geologist

Reviewed By:

X_____
Mostafa El Sehamy, C.P.G., C.G.W.P.
Director, Professional Services



Site Location Map

SCALE 1:12000

500 0 500 1000 1500 2000 2500 3000 3500 FEET

Reproduced from USGS Bay Shore West, New York Quadrangle

Fenley & Nicol

Figure 3: Total VOCs - GP-1

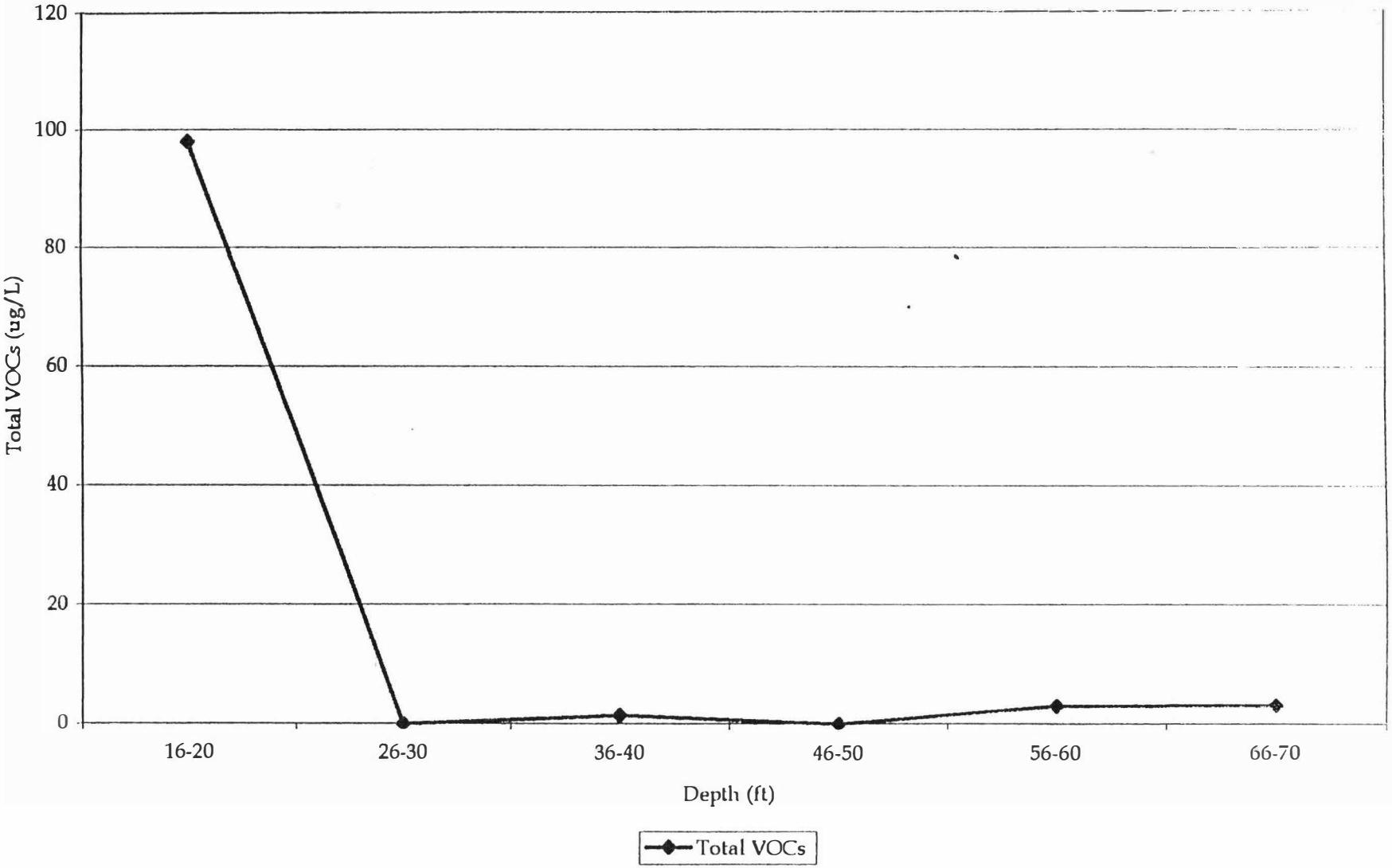


Figure 4: Total VOCs - GP-2

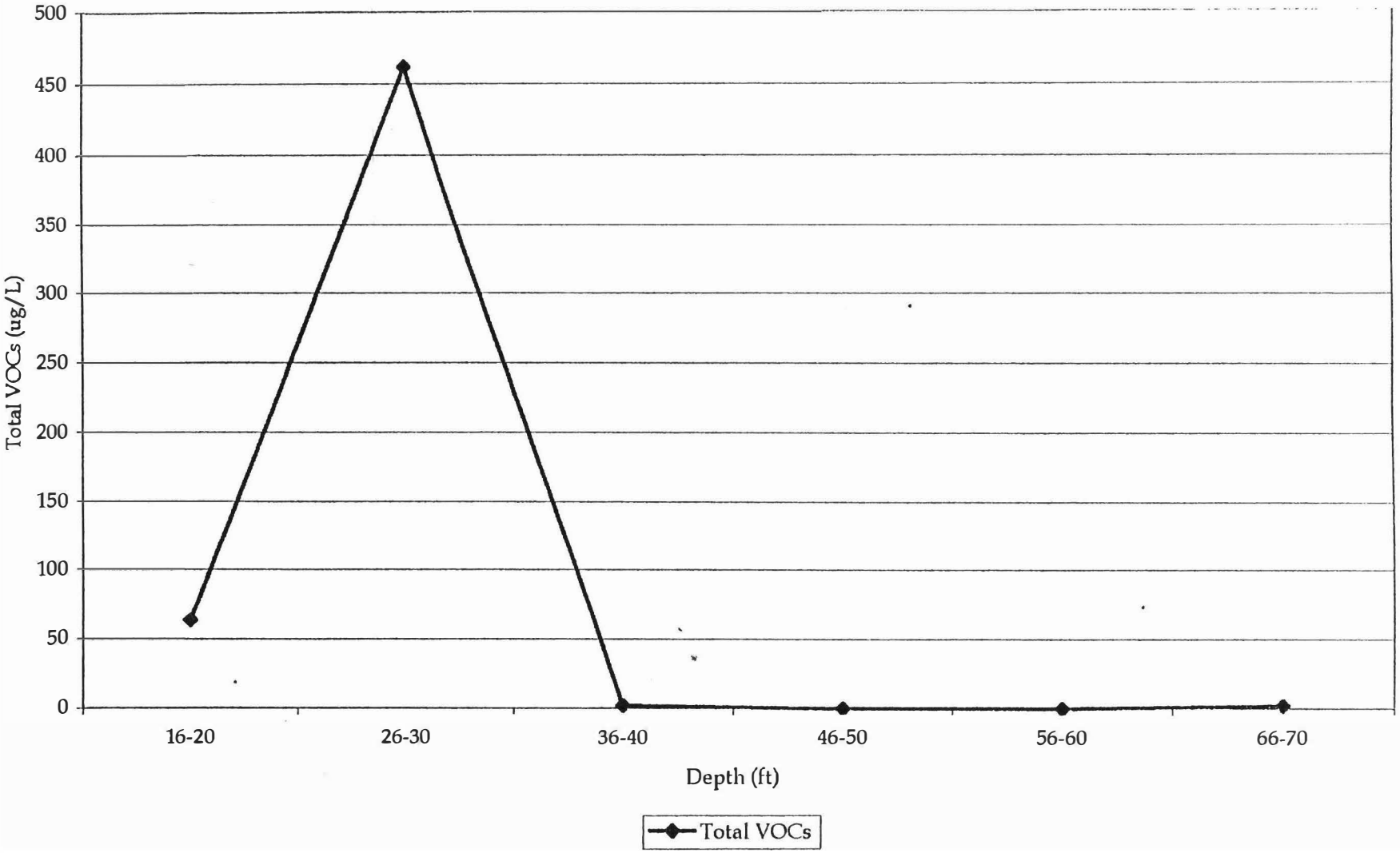
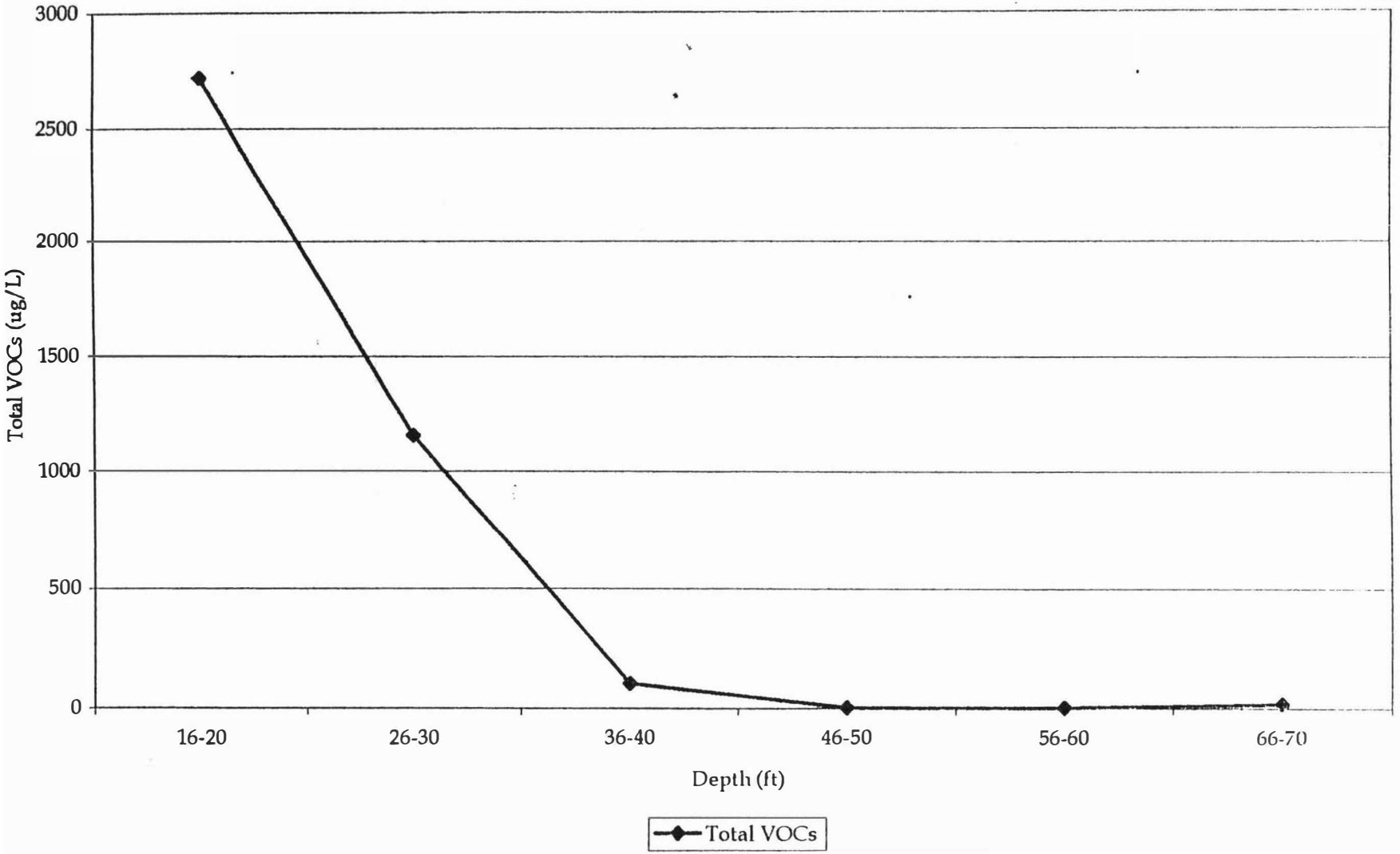


Figure 5: Total VOCs - GP-3



Groundwater Investigation & Remedial Work Plan Report
Villa Cleaners
1899 Deer Park Avenue
Deer Park, New York

Prepared For:	**Villa Cleaners** **1899 Deer Park Avenue** **Deer Park, New York 11729**
Attention:	**Mr. John Gennaro**
Prepared By:	**Fenley & Nicol Environmental, Inc.** **445 Brook Avenue** **Deer Park, New York 11729**
Senior Geologist:	**Mark E. Robbins**
Date:	**November 24, 1999**
F&N Job #	**9802957**

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APPENDICES

1.0 INTRODUCTION

Fenley & Nicol Environmental, Inc. (F&N) has been retained by Villa Cleaners to perform a Groundwater Investigation and prepare a Remedial Work Plan for the property located at 1899 Deer Park Avenue in Deer Park, New York (herein after referred to as ***"the site"***). The site consists of a dry cleaning establishment and other commercial businesses and is located along the east side of Deer Park Avenue.

The groundwater investigation was performed to identify the vertical and horizontal extent of chlorinated solvents in groundwater beneath the southern portion of the site.. The purpose of this report is to summarize the results of the groundwater investigation and to outline an appropriate remedial action.

The vicinity of the site consists of commercial and public properties. Athletic playing fields of John F. Kennedy Jr. High School are located immediately to the east of the site. An auto body shop is located immediately to the north of the site. One story commercial businesses are located across Deer Park Avenue to the west of the site. A liquor store is located immediately to the south of the site.

Figure 1 provides a Site Location Map.

2.0 REGIONAL GEOLOGY & HYDROGEOLOGY

Long Island consists of a wedge-shaped mass of unconsolidated deposits that overlie ancient basement rock. The thickness of these deposits ranges from approximately 100 feet on the Island's north shore, to approximately 2,000 feet in some portions of the south shore. These deposits contain ground water which is the sole source of drinking water for the Island's over 3.1 million residents.

The **Upper Glacial Aquifer** is the uppermost hydrogeologic unit. This aquifer encompasses the moraine and outwash deposits, in addition to some localized lacustrine, marine, and reworked materials. The outwash plain portion of this unit is characterized by high horizontal hydraulic conductivity and a low vertical hydraulic conductivity. Because the water table is situated in the Upper Glacial Aquifer, the water quality has been degraded in many areas due to industrial activities.

The **Magothy Formation** directly underlies the Upper Glacial Aquifer in the vicinity of the site. This formation is a Cretaceous coastal-shelf deposit, which consists principally of layers of sand and gravel with some interbedded clay. This formation ranges from poorly to moderately or highly permeable. The uppermost portion of the aquifer is confined by a clay layer in some parts of Long Island. The Magothy is Long Island's principal aquifer for public water supply. The Long Island aquifer system has been classified as a sole source aquifer by the United States Environmental Protection Agency (USEPA).

The topographic elevation of the site is approximately 75 feet above sea level (USGS 7½ Minute Topographic Map, Greenlawn, New York Quadrangle, 1967, Photorevised 1979). The depth to groundwater beneath the site is approximately 15 feet below ground surface. The regional groundwater flow direction, as determined from the Suffolk County Department of Health Services (SCDHS) Groundwater Gradient Map (March 1997) and prior site investigations, is toward the south-southwest.

3.0 GROUNDWATER INVESTIGATION

3.1 Groundwater Sampling Point Installation

The scope of work for the field portion of the investigation consisted of the installation and sampling of three groundwater sampling points. The groundwater sampling points were installed on October 20 & 21, 1999.

Each groundwater sampling point was installed utilizing direct push technology. Representatives of the SCDHS agreed upon the locations of the groundwater sampling points prior to their installation and were present during their installation. Groundwater sampling point GP-1 was installed 30 feet to the east of monitoring well MW-3. Groundwater sampling point GP-2 was installed 30 feet to the west of monitoring well MW-3. Groundwater sampling point GP-3 was installed 30 feet to the north of monitoring well MW-3.

Figure 2 provides a Site Plan.

Each groundwater sampling point consisted of a 4-foot long, ¾-inch diameter retractable metal screen with a slot size of 0.020 inches. In order to characterize the vertical groundwater quality, the metal screen was installed and sampled at the following depth intervals:

- 66 to 70 feet
- 56 to 60 feet
- 46 to 50 feet
- 36 to 40 feet
- 26 to 30 feet
- 16 to 20 feet

The metal screen was installed to the 66 to 70 foot depth and sampled. The metal screen was then lifted and sampled at 10-foot intervals until the water table was encountered.

3.2 Sampling Protocol

Prior to the collection of the representative samples at each depth interval, groundwater was removed from each groundwater sampling point until it was free of turbidity. The development was performed utilizing $^3/_8$-inch diameter dedicated polyethylene tubing and a bottom check valve.

Representative groundwater samples were then obtained from each sampling depth utilizing $^3/_8$-inch diameter dedicated polyethylene tubing and a bottom check valve. The SCDHS was present and obtained split samples during the collection of the 16 to 20 feet from groundwater sampling point GP-2. Each groundwater sample was placed into 40-milliliter vials and packed in a cooler filled with ice. The groundwater samples were transported under chain of custody to a State-certified laboratory and analyzed for volatile organic compounds in accordance with EPA Method 8260.

3.3 Discussion of Results

Table 1 provides the results of the EPA Method 8260 analyses from groundwater sampling point GP-1. As Table 1 indicates, the groundwater sample from the 16 to 20 foot depth was found to contain the greatest levels of VOCs. The compounds cis-1,2-Dichloroethene (cis-DCE) and Tetrachloroethene (PCE) were found at concentrations in excess of their respective New York State Department of Environmental Conservation (NYSDEC) Groundwater Quality Standards. The remaining depth intervals from GP-1 were found to contain trace levels of VOCs. However, the trace levels of VOCs were identified at concentrations below their respective NYSDEC Groundwater Quality Standards. The Methylene Chloride identified in the 16 to 20 foot sample is likely a laboratory contaminant and is not indicative of true groundwater quality.

Appendix A provides copies of the laboratory reports.

The total VOC concentrations from each depth interval were graphed in order to evaluate the vertical migration of the groundwater plume. An evaluation of the graph from sampling point GP-1 indicates that the greatest total VOC concentration is present at the water table (16 to 20 foot depth interval). The total VOC concentrations then sharply decrease to trace to no detectable levels with an increase in depth.

Figure 3 provides the total VOC graph for GP-1.

Table 2 provides the results of the EPA Method 8260 analyses from groundwater sampling point GP-2. As Table 2 indicates, the greatest levels of VOCs were identified in the 26 to 30 foot sample. PCE was identified at a concentration of 214 micrograms per liter (µg/L) and cis-DCE was identified at a concentration of 228 µg/L. These levels are greater than their respective NYSDEC Groundwater Quality Standard. The 16 to 20 foot sample also contained levels of VOCs at concentrations greater than their respective NYSDEC Groundwater Quality Standards. The Methylene Chloride and Chloroform identified in the groundwater samples from GP-2 are likely laboratory contaminants and are not indicative of true groundwater quality.

The graph of total VOCs with depth from GP-2 indicates that the greatest total VOCs were identified at the 26 to 30 foot depth interval. This depth interval is 10 feet below the water table and indicates that the groundwater plume has migrated below the water table in the southwest portion of the site. The total VOCs in GP-2 then decrease to trace to no detectable levels below the 26 to 30 foot depth interval.

Figure 4 provides the total VOC graph for GP-2.

Table 3 provides the results of the EPA Method 8260 analyses from groundwater sampling point GP-3. As Table 3 indicates, the greatest overall concentrations of VOCs

Table 1
EPA Method 8620 Results - GP-1 (ug/L)
Villa Cleaners
Deer Park, New York

Analyte	16-20 feet	26-30 feet	36-40 feet	46-50 feet	56-60 feet	66-70 feet	NYSDEC Groundwater Quality Standard*
Dichlorodifluoromethane	nd	nd	nd	nd	nd	nd	5
Chloromethane	nd	nd	nd	nd	nd	nd	ns
Vinyl Chloride	nd	nd	nd	nd	nd	nd	2
Bromomethane	nd	nd	nd	nd	nd	nd	5
Chloroethane	nd	nd	nd	nd	nd	nd	5
Trichlorofluoromethane	nd	nd	nd	nd	nd	nd	5
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	5
Acetone	nd	nd	nd	nd	nd	nd	50
Carbon Disulfide	nd	nd	nd	nd	nd	nd	ns
Methylene Chloride	3.24	nd	nd	nd	nd	nd	5
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	5
Vinyl Acetate	nd	nd	nd	nd	nd	nd	ns
1,1-Dichloroethane	nd	nd	nd	nd	nd	nd	5
2-Butanone	nd	nd	nd	nd	nd	nd	ns
2,2-Dichloropropane	nd	nd	nd	nd	nd	nd	5
cis-1,2-Dichloroethene	19.2	nd	nd	nd	nd	nd	5
Bromochloromethane	nd	nd	nd	nd	nd	nd	5
Chloroform	nd	nd	1.30	1.44	nd	nd	7
1,1,1-Trichloroethane	nd	nd	nd	nd	nd	nd	5
1,1-Dichloropropene	nd	nd	nd	nd	nd	nd	5
Carbon Tetrachloride	nd	nd	nd	nd	nd	nd	5
Benzene	nd	nd	nd	nd	nd	nd	1
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	0.6
Trichloroethene	4.36	nd	nd	nd	nd	nd	5
1,2-Dichloropropane	nd	nd	nd	nd	nd	nd	1
Dibromomethane	nd	nd	nd	nd	nd	nd	5
Bromodichloromethane	nd	nd	nd	nd	nd	nd	ns

Table 1 (cont.)

Analyte	16-20 feet	26-30 feet	36-40 feet	46-50 feet	56-60 feet	66-70 feet	NYSDEC Groundwater Quality Standard*
4-Methyl-2-Pentanone	nd	nd	nd	nd	nd	nd	ns
Toluene	nd	nd	nd	nd	nd	nd	5
trans-1,3-Dichloropropene	nd	nd	nd	nd	nd	nd	5
cis-1,3-Dichloropropene	nd	nd	nd	nd	nd	nd	5
1,1,2-Trichloroethane	nd	nd	nd	nd	nd	nd	1
1,3-Dichloropropane	nd	nd	nd	nd	nd	nd	5
2-Chloroethyl vinyl ether	nd	nd	nd	nd	nd	nd	ns
2-Hexanone	nd	nd	nd	nd	nd	nd	ns
Dibromochloromethane	nd	nd	nd	nd	nd	nd	ns
1,2-Dibromoethane	nd	nd	nd	nd	nd	nd	5
Tetrachloroethene	74.5	nd	1.45	nd	1.61	1.86	5
Chlorobenzene	nd	nd	nd	nd	nd	nd	5
1,1,1,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	5
Ethylbenzene	nd	nd	nd	nd	nd	nd	5
m & p-Xylenes	nd	nd	nd	nd	1.40	1.19	5
o-Xylene	nd	nd	nd	nd	nd	nd	5
Styrene	nd	nd	nd	nd	nd	nd	5
Bromoform	nd	nd	nd	nd	nd	nd	ns
Isopropylbenzene	nd	nd	nd	nd	nd	nd	5
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	5
1,2,3-Trichloropropane	nd	nd	nd	nd	nd	nd	0.04
Bromobenzene	nd	nd	nd	nd	nd	nd	5
n-Propylbenzene	nd	nd	nd	nd	nd	nd	5
2-Chlorotoluene	nd	nd	nd	nd	nd	nd	5
1,3,5-Trimethylbenzene	nd	nd	nd	nd	nd	nd	5
4-Chlorotoluene	nd	nd	nd	nd	nd	nd	5
tert-Butylbenzene	nd	nd	nd	nd	nd	nd	5
1,2,4-Trimethylbenzene	nd	nd	nd	nd	nd	nd	5
sec-Butylbenzene	nd	nd	nd	nd	nd	nd	5
p-Isopropyltoluene	nd	nd	nd	nd	nd	nd	5
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	nd	3
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	nd	3
n-Butylbenzene	nd	nd	nd	nd	nd	nd	5
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	3
1,2-Dibromo-3-Chloropropane	nd	nd	nd	nd	nd	nd	0.04
1,2,4-Trichlorobenzene	nd	nd	nd	nd	nd	nd	5
Hexachlorobutadiene	nd	nd	nd	nd	nd	nd	0.5
Naphthalene	nd	nd	nd	nd	nd	nd	10
1,2,3-Trichlorobenzene	nd	nd	nd	nd	nd	nd	5

ns . . . No Standard
Bold value represents concentration exceeding Groundwater Quality Standard
nd . . . None Detected

Table 2
EPA Method 8620 Results - GP-2 (ug/L)
Villa Cleaners
Deer Park, New York

Analyte	16-20 feet	26-30 feet	36-40 feet	46-50 feet	56-60 feet	66-70 feet	NYSDEC Groundwater Quality Standard*
Dichlorodifluoromethane	nd	nd	nd	nd	nd	nd	5
Chloromethane	nd	nd	nd	nd	nd	nd	ns
Vinyl Chloride	nd	nd	nd	nd	nd	nd	2
Bromomethane	nd	nd	nd	nd	nd	nd	5
Chloroethane	nd	nd	nd	nd	nd	nd	5
Trichlorofluoromethane	nd	nd	nd	nd	nd	nd	5
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	5
Acetone	nd	nd	nd	nd	nd	nd	50
Carbon Disulfide	nd	nd	nd	nd	nd	nd	ns
Methylene Chloride	nd	nd	4.26	2.16	**8.29**	**12.2**	5
trans-1,2-Dichloroethene	nd	nd	nd	nd	nd	nd	5
Vinyl Acetate	nd	nd	nd	nd	nd	nd	ns
1,1-Dichloroethane	nd	nd	nd	nd	nd	nd	5
2-Butanone	nd	nd	nd	nd	nd	nd	ns
2,2-Dichloropropane	nd	nd	nd	nd	nd	nd	5
cis-1,2-Dichloroethene	**30.3**	**228**	nd	nd	nd	nd	5
Bromochloromethane	nd	nd	nd	nd	nd	nd	5
Chloroform	nd	nd	nd	1.42	1.37	1.71	7
1,1,1-Trichloroethane	nd	nd	nd	nd	nd	nd	5
1,1-Dichloropropene	nd	nd	nd	nd	nd	nd	5
Carbon Tetrachloride	nd	nd	nd	nd	nd	nd	5
Benzene	nd	nd	nd	nd	nd	nd	1
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	0.6
Trichloroethene	**9.34**	**19.7**	nd	nd	nd	nd	5
1,2-Dichloropropane	nd	nd	nd	nd	nd	nd	1
Dibromomethane	nd	nd	nd	nd	nd	nd	5
Bromodichloromethane	nd	nd	nd	nd	nd	nd	ns

Table 2 (cont.)

Analyte	16-20 feet	26-30 feet	36-40 feet	46-50 feet	56-60 feet	66-70 feet	NYSDEC Groundwater Quality Standard*
4-Methyl-2-Pentanone	nd	nd	nd	nd	nd	nd	ns
Toluene	nd	nd	nd	nd	nd	nd	5
trans-1,3-Dichloropropene	nd	nd	nd	nd	nd	nd	5
cis-1,3-Dichloropropene	nd	nd	nd	nd	nd	nd	5
1,1,2-Trichloroethane	nd	nd	nd	nd	nd	nd	1
1,3-Dichloropropane	nd	nd	nd	nd	nd	nd	5
2-Chloroethyl vinyl ether	nd	nd	nd	nd	nd	nd	ns
2-Hexanone	nd	nd	nd	nd	nd	nd	ns
Dibromochloromethane	nd	nd	nd	nd	nd	nd	ns
1,2-Dibromoethane	nd	nd	nd	nd	nd	nd	5
Tetrachloroethene	**23.8**	**214**	2.21	nd	nd	2.05	5
Chlorobenzene	nd	nd	nd	nd	nd	nd	5
1,1,1,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	5
Ethylbenzene	nd	nd	nd	nd	nd	nd	5
m & p-Xylenes	nd	nd	nd	nd	nd	nd	5
o-Xylene	nd	nd	nd	nd	nd	nd	5
Styrene	nd	nd	nd	nd	nd	nd	5
Bromoform	nd	nd	nd	nd	nd	nd	ns
Isopropylbenzene	nd	nd	nd	nd	nd	nd	5
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	5
1,2,3-Trichloropropane	nd	nd	nd	nd	nd	nd	0.04
Bromobenzene	nd	nd	nd	nd	nd	nd	5
n-Propylbenzene	nd	nd	nd	nd	nd	nd	5
2-Chlorotoluene	nd	nd	nd	nd	nd	nd	5
1,3,5-Trimethylbenzene	nd	nd	nd	nd	nd	nd	5
4-Chlorotoluene	nd	nd	nd	nd	nd	nd	5
tert-Butylbenzene	nd	nd	nd	nd	nd	nd	5
1,2,4-Trimethylbenzene	nd	nd	nd	nd	nd	nd	5
sec-Butylbenzene	nd	nd	nd	nd	nd	nd	5
p-Isopropyltoluene	nd	nd	nd	nd	nd	nd	5
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	nd	3
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	nd	3
n-Butylbenzene	nd	nd	nd	nd	nd	nd	5
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	3
1,2-Dibromo-3-Chloropropane	nd	nd	nd	nd	nd	nd	0.04
1,2,4-Trichlorobenzene	nd	nd	nd	nd	nd	nd	5
Hexachlorobutadiene	nd	nd	nd	nd	nd	nd	0.5
Naphthalene	nd	nd	nd	nd	nd	nd	10
1,2,3-Trichlorobenzene	nd	nd	nd	nd	nd	nd	5

ns . . . No Standard
Bold value represents concentration exceeding Groundwater Quality Standard
nd . . . None Detected

Table 3
EPA Method 8620 Results - GP-3 (ug/L)
Villa Cleaners
Deer Park, New York

Analyte	16-20 feet	26-30 feet	36-40 feet	46-50 feet	56-60 feet	66-70 feet	NYSDEC Groundwater Quality Standard*
Dichlorodifluoromethane	nd	nd	nd	nd	nd	nd	5
Chloromethane	nd	nd	nd	nd	nd	nd	ns
Vinyl Chloride	**8.68**	**5.29**	nd	nd	nd	nd	2
Bromomethane	nd	nd	nd	nd	nd	nd	5
Chloroethane	nd	nd	nd	nd	nd	nd	5
Trichlorofluoromethane	nd	nd	nd	nd	nd	nd	5
1,1-Dichloroethene	nd	nd	nd	nd	nd	nd	5
Acetone	nd	nd	nd	nd	nd	nd	50
Carbon Disulfide	nd	nd	nd	nd	nd	nd	ns
Methylene Chloride	**5.82**	3.14	3.42	3.92	3.41	**6.45**	5
trans-1,2-Dichloroethene	**6.57**	nd	nd	nd	nd	nd	5
Vinyl Acetate	nd	nd	nd	nd	nd	nd	ns
1,1-Dichloroethane	nd	nd	nd	nd	nd	nd	5
2-Butanone	nd	nd	nd	nd	nd	nd	ns
2,2-Dichloropropane	nd	nd	nd	nd	nd	nd	5
cis-1,2-Dichloroethene	**826**	**528**	**28**	nd	nd	nd	5
Bromochloromethane	nd	nd	nd	nd	nd	nd	5
Chloroform	nd	nd	nd	nd	nd	nd	7
1,1,1-Trichloroethane	nd	nd	nd	nd	nd	nd	5
1,1-Dichloropropene	nd	nd	nd	nd	nd	nd	5
Carbon Tetrachloride	nd	nd	nd	nd	nd	nd	5
Benzene	nd	nd	nd	nd	nd	nd	1
1,2-Dichloroethane	nd	nd	nd	nd	nd	nd	0.6
Trichloroethene	**168**	**61.7**	3.61	nd	nd	nd	5
1,2-Dichloropropane	nd	nd	nd	nd	nd	nd	1
Dibromomethane	nd	nd	nd	nd	nd	nd	5
Bromodichloromethane	nd	nd	nd	nd	nd	nd	ns

Table 3 (cont.)

Analyte	16-20 feet	26-30 feet	36-40 feet	46-50 feet	56-60 feet	66-70 feet	NYSDEC Groundwater Quality Standard*
4-Methyl-2-Pentanone	nd	nd	nd	nd	nd	nd	ns
Toluene	nd	nd	nd	nd	nd	nd	5
trans-1,3-Dichloropropene	nd	nd	nd	nd	nd	nd	5
cis-1,3-Dichloropropene	nd	nd	nd	nd	nd	nd	5
1,1,2-Trichloroethane	nd	nd	nd	nd	nd	nd	1
1,3-Dichloropropane	nd	nd	nd	nd	nd	nd	5
2-Chloroethyl vinyl ether	nd	nd	nd	nd	nd	nd	ns
2-Hexanone	nd	nd	nd	nd	nd	nd	ns
Dibromochloromethane	nd	nd	nd	nd	nd	nd	ns
1,2-Dibromoethane	nd	nd	nd	nd	nd	nd	5
Tetrachloroethene	**1,720**	**558**	**72.6**	**5.29**	**5.23**	**19.2**	5
Chlorobenzene	nd	nd	nd	nd	nd	nd	5
1,1,1,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	5
Ethylbenzene	nd	nd	nd	nd	nd	nd	5
m & p-Xylenes	nd	nd	nd	nd	nd	nd	5
o-Xylene	nd	nd	nd	nd	nd	nd	5
Styrene	nd	nd	nd	nd	nd	nd	5
Bromoform	nd	nd	nd	nd	nd	nd	ns
Isopropylbenzene	nd	nd	nd	nd	nd	nd	5
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd	nd	nd	5
1,2,3-Trichloropropane	nd	nd	nd	nd	nd	nd	0.04
Bromobenzene	nd	nd	nd	nd	nd	nd	5
n-Propylbenzene	nd	nd	nd	nd	nd	nd	5
2-Chlorotoluene	nd	nd	nd	nd	nd	nd	5
1,3,5-Trimethylbenzene	nd	nd	nd	nd	nd	nd	5
4-Chlorotoluene	nd	nd	nd	nd	nd	nd	5
tert-Butylbenzene	nd	nd	nd	nd	nd	nd	5
1,2,4-Trimethylbenzene	nd	nd	nd	nd	nd	nd	5
sec-Butylbenzene	nd	nd	nd	nd	nd	nd	5
p-Isopropyltoluene	nd	nd	nd	nd	nd	nd	5
1,3-Dichlorobenzene	nd	nd	nd	nd	nd	nd	3
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	nd	3
n-Butylbenzene	nd	nd	nd	nd	nd	nd	5
1,2-Dichlorobenzene	nd	nd	nd	nd	nd	nd	3
1,2-Dibromo-3-Chloropropane	nd	nd	nd	nd	nd	nd	0.04
1,2,4-Trichlorobenzene	nd	nd	nd	nd	nd	nd	5
Hexachlorobutadiene	nd	nd	nd	nd	nd	nd	0.5
Naphthalene	nd	nd	nd	nd	nd	nd	10
1,2,3-Trichlorobenzene	nd	nd	nd	nd	nd	nd	5

ns . . . No Standard
Bold value represents concentration exceeding Groundwater Quality Standard
nd . . . None Detected

were identified in GP-3. The greatest individual VOC concentration identified during the investigation was 1,720 µg/L of PCE in the 16 to 20 foot interval. The PCE concentrations throughout the entire sampling interval of GP-3 were found to exceed the NYSDEC Groundwater Quality Standard for PCE of 5 µg/L. Vinyl Chloride was identified in the 16 to 20 and 26 to 30 foot intervals at concentrations exceeding the NYSDEC Groundwater Quality Standard for Vinyl Chloride of 2 µg/L. The detection of Vinyl Chloride indicates that the groundwater plume has undergone significant degradation and weathering. The Methylene Chloride identified in the groundwater samples from GP-3 is likely a laboratory contaminant and is not indicative of true groundwater quality.

The graph of total VOCs with depth from GP-3 indicates that the greatest total VOC concentration is present at the water table. The total VOC concentrations then decrease to moderate levels in the 26 to 30 foot depth interval and low levels in the remaining depth intervals.

Figure 5 provides the total VOC graph for GP-3.

The overall results of the groundwater investigation indicate that the groundwater plume has migrated toward the southern portion of the property, as evidenced by the results of groundwater sampling points GP-1 and GP-2. The greatest overall concentrations of VOCs were identified in the south central portion of the site, as evidenced by the results of groundwater sampling point GP-3.

The overall results of the groundwater investigation also indicate that groundwater plume has migrated vertically below the water table. The greatest concentrations of VOCs below the water table were identified in the 26 to 30 foot depth interval, as evidenced from the results of groundwater sampling points GP-2 and GP-3. In addition,

concentrations of PCE, the primary contaminant identified during the investigation, were greater than the NYSDEC Groundwater Quality Standard for PCE in the 36 to 40 foot, 46 to 50 foot, 56 to 60 foot and the 66 to 70 foot depth intervals. However, the deepest significant concentration of PCE was identified in the 36 to 40 foot depth interval (72.6 µg/L).

4.0 REMEDIAL ACTION

Based upon the results of the groundwater investigation, the appropriate remedial technology that should be applied to the groundwater plume is the injection of Hydrogen-Releasing Compounds (HRCs). The reason that an HRCs were selected over other remedial technologies, such as an Air Sparge/Vapor Extraction System, was that the extent of the groundwater plume, both vertically and horizontally, is not large enough to warrant its installation and operation. Therefore, the injection of HRCs is the most appropriate remedial action.

Appendix B provides documentation pertaining to HRCs.

The HRCs will promote the degradation of the Tetrachloroethene, and its degradation products, through molecular breakdown. This molecular breakdown is best achieved in anaerobic conditions, which are promoted through the use of HRCs.

The HRCs will be injected utilizing pressure grout techniques through small diameter injection wells that will be installed on a 10-foot by 10-foot grid pattern. A total of twenty-four (24) injection wells will be installed. Each injection well will be installed to a depth of 36 feet to insure that the HRCs are placed to the bottom of the groundwater plume. Therefore, a total of 864 feet of injection wells will be installed. This will require a total volume of 3,542.4 pounds (4.1 pounds per foot) of HRC.

Figure 6 provides the locations of the HRC injection points.

In order to monitor the biodegradation of the groundwater plume, two (2) cluster wells will be installed at the site. These monitoring wells will be installed at the locations of groundwater sampling points GP-1 and GP-2. The cluster wells will be screened at the water table and 10 feet below the water table. These two cluster wells, along with monitoring well MW-3, will be sampled for VOCs in order to monitor the biodegradation of the groundwater plume over time.

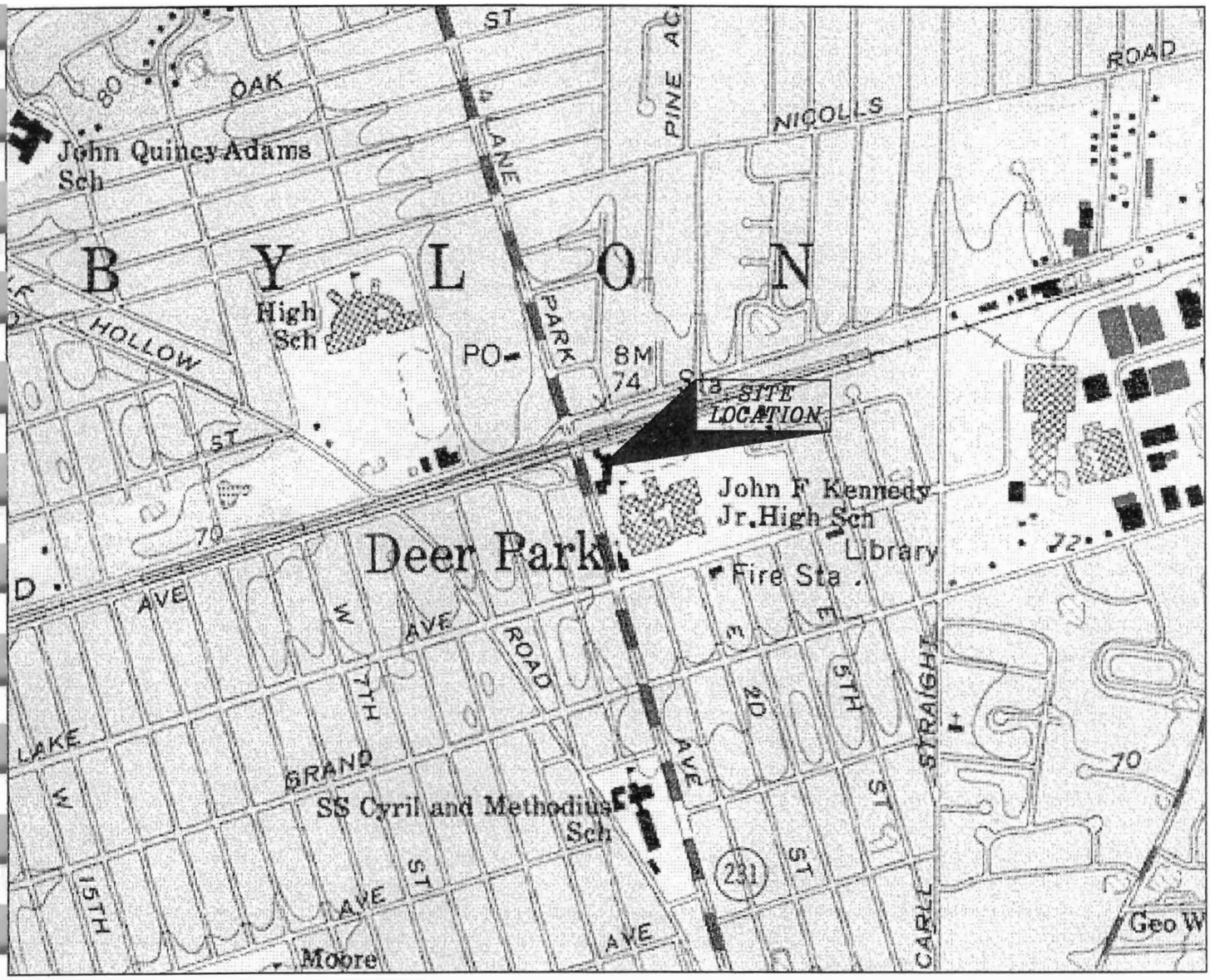
The groundwater quality will be monitored for the period of one (1) year. Initially, groundwater samples will be obtained on a weekly basis for the period of four (4) weeks. Groundwater samples will then be obtained on a monthly basis for the period of three (3) months and then on a quarterly basis for the period of nine (9) months.

Signed: November 24, 1999

X_____
Mark E. Robbins
Senior Geologist

X_____
Mostafa El Sehamy, P.G., C.G.W.P.
Director, Professional Services

Figure 1
Site Location Map



Site Location Map

SCALE 1:12000

500 0 500 1000 1500 2000 2500 3000 3500 FEET

Reproduced from USGS Bay Shore West, New York Quadrangle

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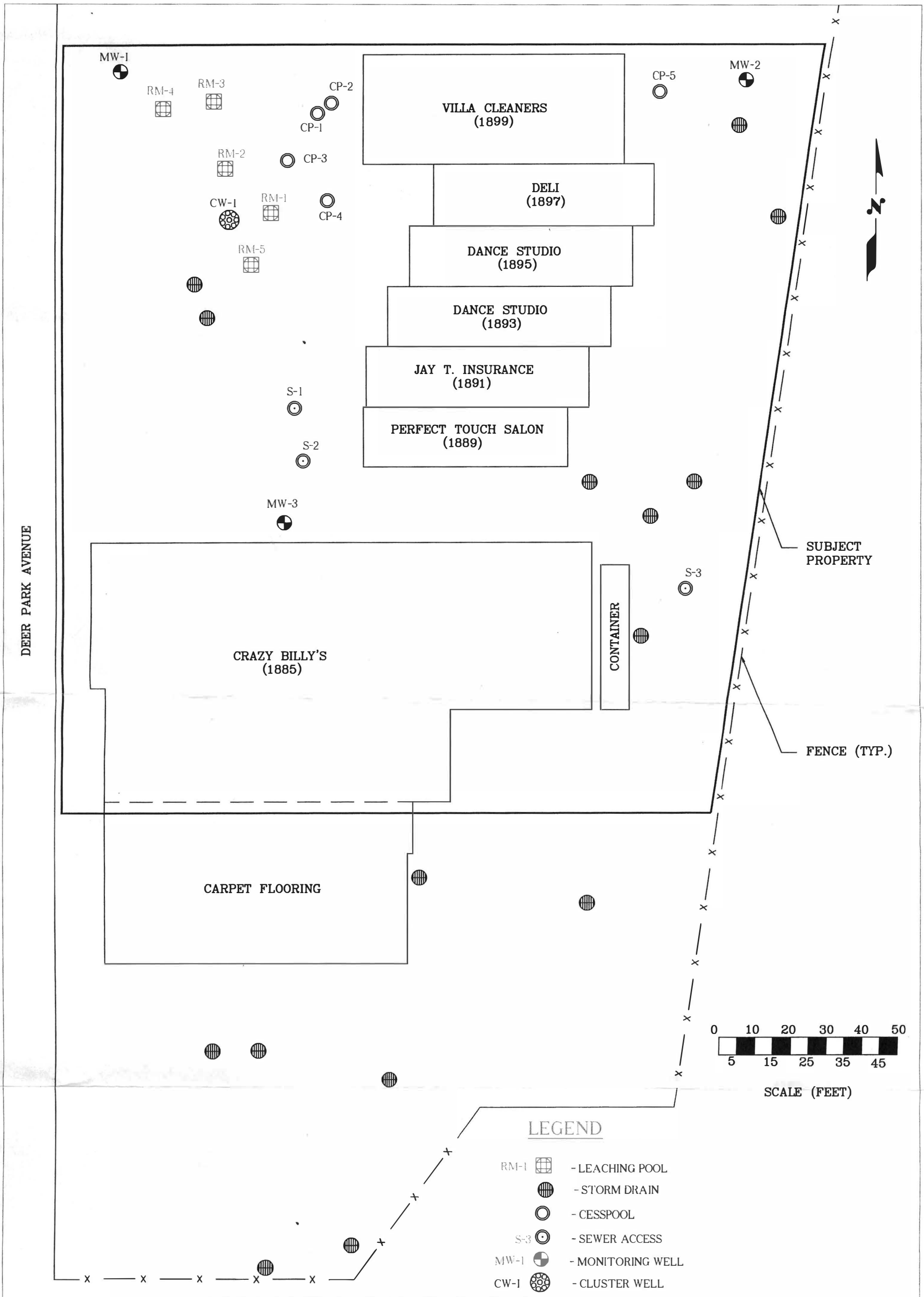
Professional Services Division

445 Brook Ave.

Deer Park, N.Y. 11729

Figure 2
Site Plan



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Professional Services Division
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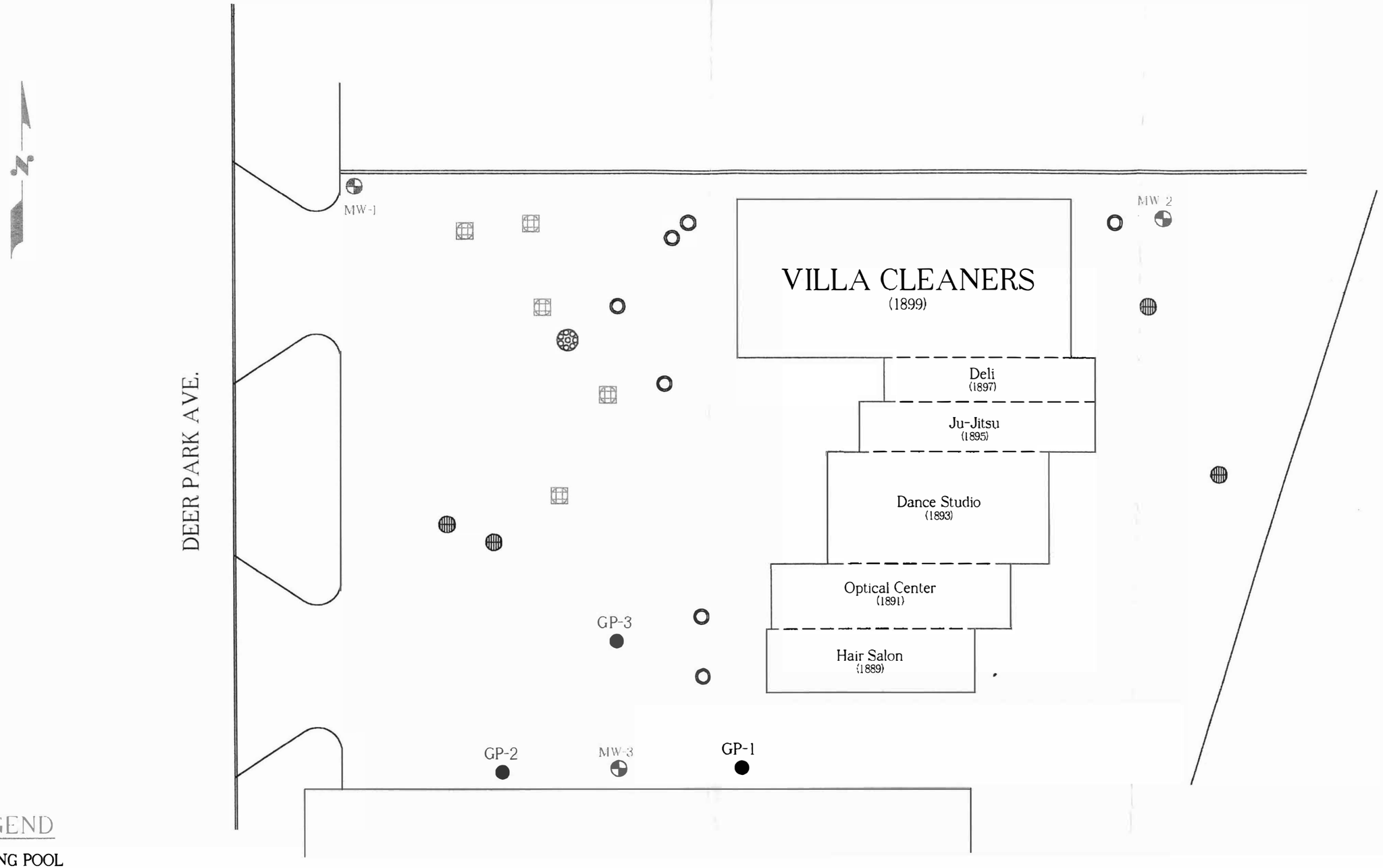
NEW YORK 11729 (631)586-4900

SITE PLAN

SCALE: 1"=25'-0"	GEOLOGIST M. R.	JOB # 9802957
DATE: 5/01	DRAWN BY: A. E.	FILE NAME: SP5200.DWG

1885 1899 DEER PARK AVE
BABYLON, NEW YORK



LEGEND

- LEACHING POOL
- STORM DRAIN
- SOLID MANHOLE
- MONITORING WELL
- CLUSTER WELL
- GROUNDWATER SAMPLING LOCATION

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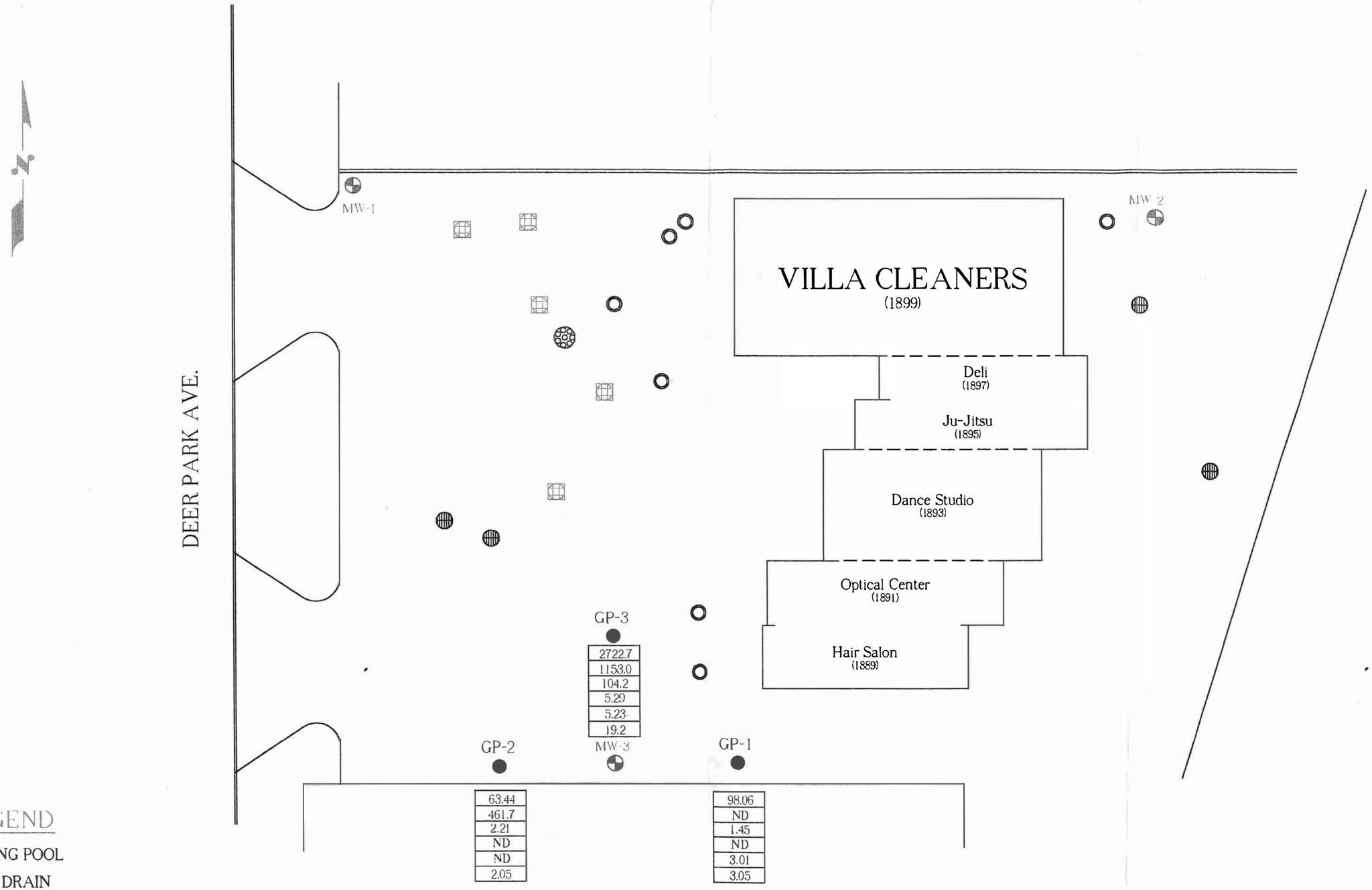
SCALE: N.T.S.	GEOLOGIST M.R.	JOB # 9802957
DATE: 10/99	DRAWN BY: A.G.	CUSTOMER PRIVATE

GROUNDWATER SAMPLING LOCATIONS

VILLA CLEANERS
1899 DEER PARK AVE.
BABYLON, NEW YORK



LEGEND

- LEACHING POOL
- STORM DRAIN
- SOLID MANHOLE
- MONITORING WELL
- CLUSTER WELL
- GROUNDWATER SAMPLING LOCATION

16-20 FT
26-30 FT
36-40 FT
46-50 FT
56-60 FT
66-70 FT

ALL CONCENTRATIONS IN UG/L.
ND... NONE DETECTED

Fenley & Nicol
Professional Services Division
445 BROOK AVENUE, DEER PARK.
NEW YORK 11729 (516)586-4900

SCALE: N.T.S.	GEOLOGIST M.R.	JOB # 9802957
DATE: 11/99	DRAWN BY: A.E.	CUSTOMER PRIVATE

GROUNDWATER SAMPLING RESULTS

VILLA CLEANERS
1899 DEER PARK AVE.
BABYLON, NEW YORK

Figure 3
Total VOCs – GP-1

Figure 3: Total VOCs - GP-1

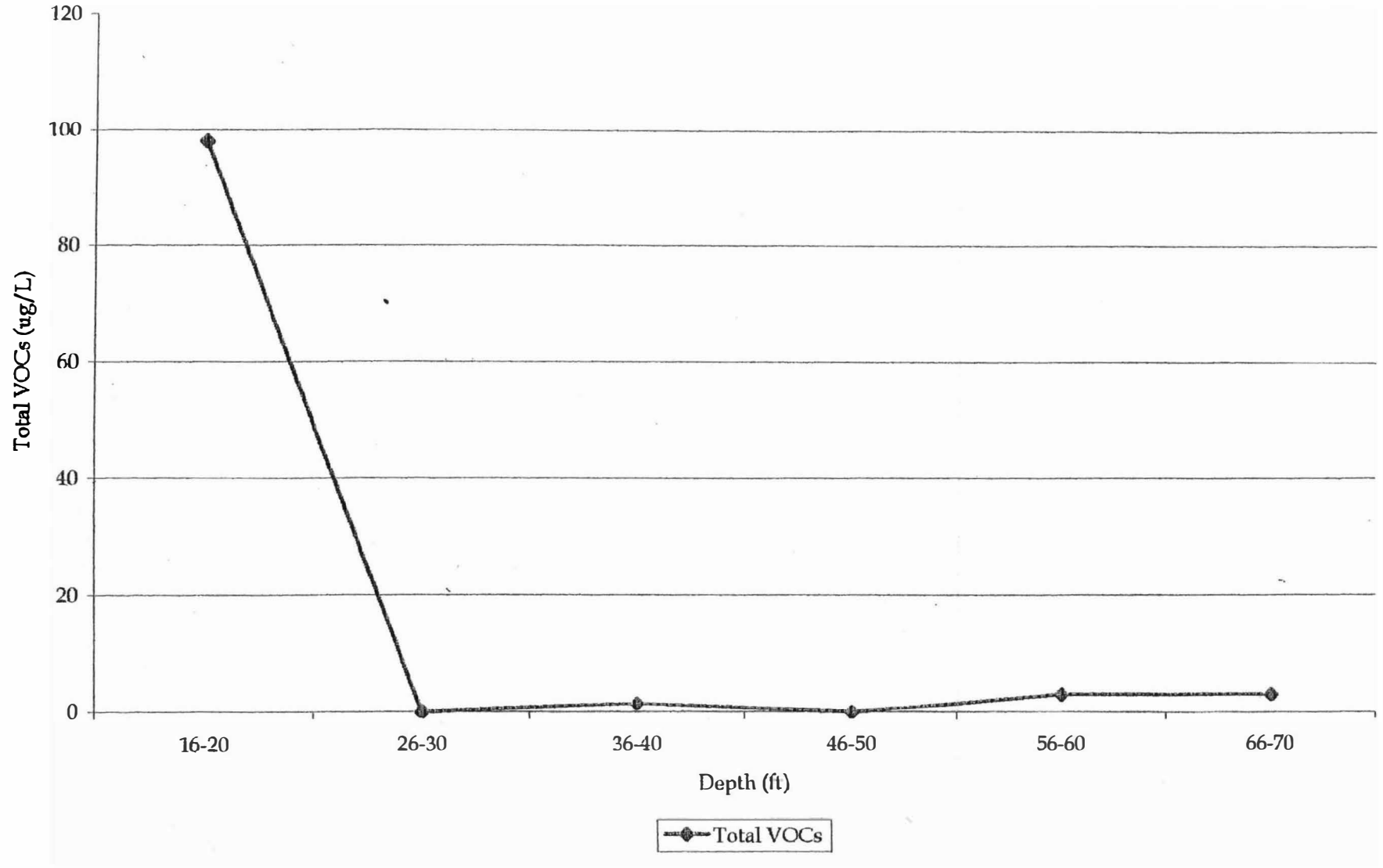


Figure 4
Total VOCs – GP-2

Figure 4: Total VOCs - GP

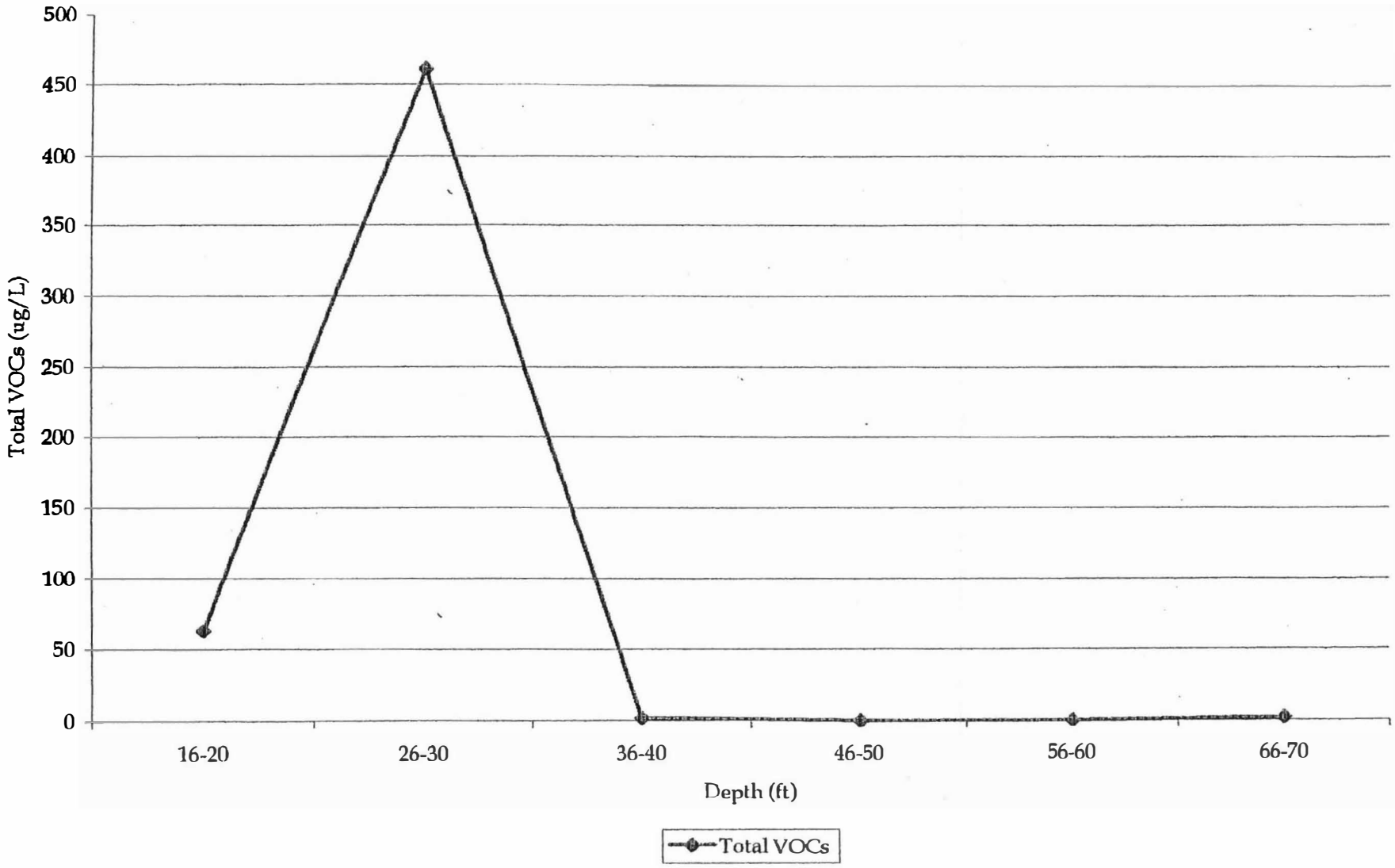


Figure 5
Total VOCs - GP-3

Figure 5: Total VOCs - GP-3

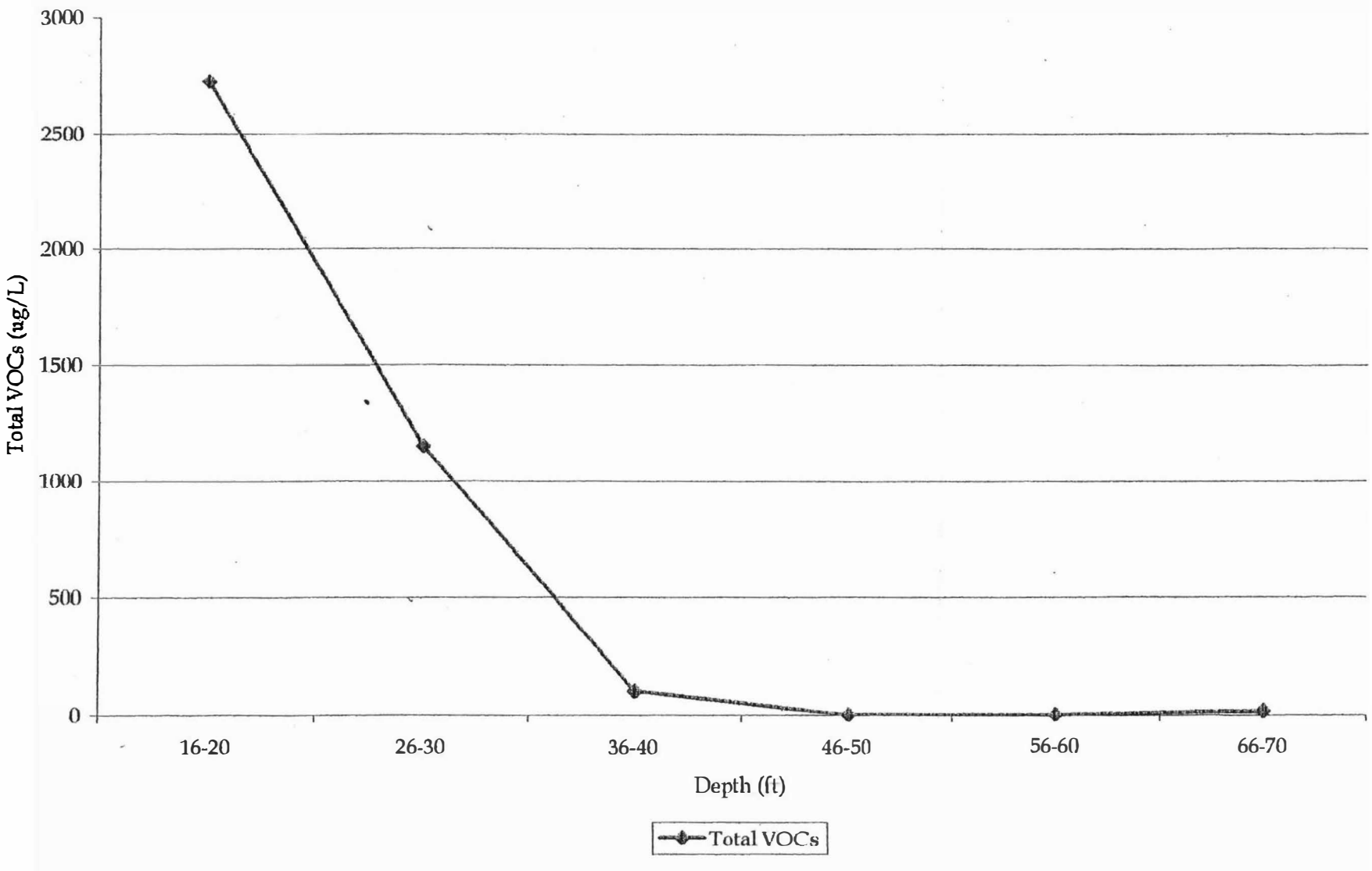
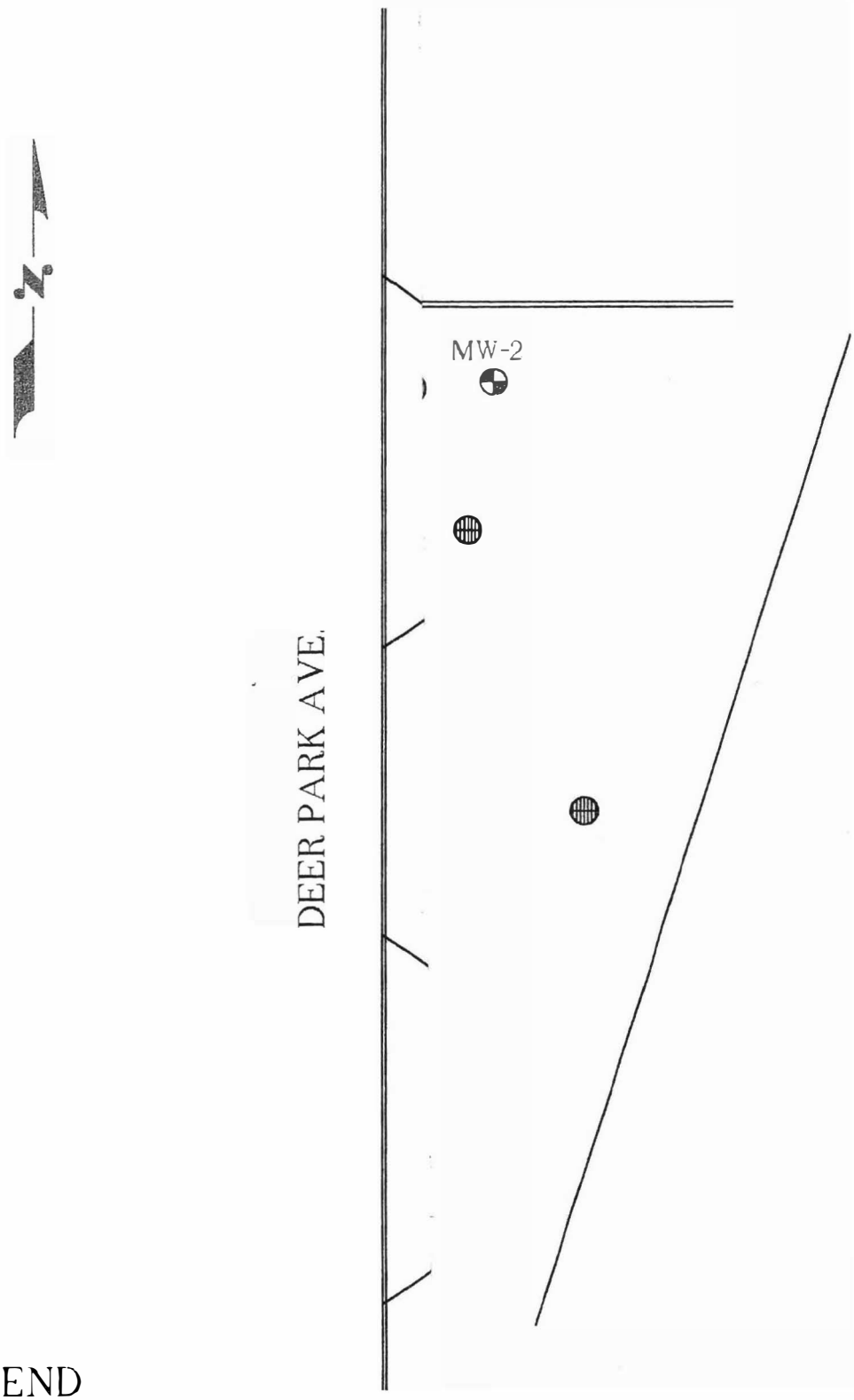


Figure 6
HRC Injection Points



LEGEND

- - LEACHING POOL
- - STORM DRAIN
- - SOLID MANHOLE
- - MONITORING WELL
- - CLUSTER WELL
- - HRC INJECTION LOCATION

ion	PROPOSED HRC INJECTION LOCATIONS
	VILLA CLEANERS 1899 DEER PARK AVE. BABYLON, NEW YORK

Appendix A
Laboratory Reports

SOUTH MALL
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www.SouthMallLabs.com

November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-1 - 66-70
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101110

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	<1.00	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<5.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	1.86	8260[1]

Ref. 101110

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	1.19	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-1 - 56-60
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101111

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	<1.00	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<5.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	1.61	8260[1]

SOUTH MALL
ANALYTICAL LABS, INC.

Ref. 101111

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	1.40	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-1 - 46-50
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101112

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	<1.00	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<5.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	1.44	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	<1.00	8260[1]

Ref. 101112

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-1 - 36-40
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101113

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	<1.00	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<5.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	1.30	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	1.45	8260[1]

Ref. 101113

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-1 - 26-30
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101114

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	<1.00	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<5.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	<1.00	8260[1]

THE ANALYSIS HAS BEEN CARRIED OUT UNDER CONTROLLED LABORATORY CONDITIONS AND ARE CORRECT TO THE BEST OF OUR KNOWLEDGE

Ref. 101114

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-1 - 16-20
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101115

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	3.24	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	19.2	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	4.36	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	74.5	8260[1]

Ref. 101115

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-2 - 66-70
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101116

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	12.2	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<5.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	1.71	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	2.05	8260[1]

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Ref. 101116

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-2 - 56-60
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101117

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	8.29	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<5.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	1.37	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	<1.00	8260[1]

Ref. 101117

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-2 - 46-50
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101118

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	2.16	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<5.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	1.42	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	<1.00	8260[1]

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Ref. 101118

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-2 - 36-40
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101119

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	4.26	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<5.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	2.21	8260[1]

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Ref. 101119

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-2 - 26-30
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101120

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	<1.00	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	228.	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	19.7	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	214.	8260[1]

Ref. 101120

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-2 - 16-20
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/20/99
Analysis Number:	101121

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	<1.00	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	30.3	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	9.34	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	23.8	8260[1]

Ref. 101121

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description: Wastewater - GP-3 - 66-70
Sample Collected By: Fenley & Nicol Environmental
Purchase Order Number: Villa Cleaners
Date Samples Received: 10/21/99
Analysis Number: 101163

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	6.45	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<1.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	19.2	8260[1]

Ref. 101163

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-3 - 56-60
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/21/99
Analysis Number:	101164

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	3.41	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<1.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	5.23	8260[1]

Ref. 101164

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

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Laboratory Director: Joseph P. Shaulys

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-3 - 46-50
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/21/99
Analysis Number:	101165

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	3.92	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	<1.00	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	<1.00	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	5.29	8260[1]

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Ref. 101165

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-3 - 36-40
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/21/99
Analysis Number:	101166

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	<5.00	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	3.42	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	28.0	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	3.61	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	72.6	8260[1]

THIS ANALYSIS HAS BEEN PERFORMED

Ref. 101166

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-3 - 26-30
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/21/99
Analysis Number:	101167

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	5.29	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	3.14	8260[1]
trans-1,2-Dichloroethene, µg/l	<5.00	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	528.	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	61.7	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	558.	8260[1]

Ref. 101167

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

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ANALYTICAL LABS, INC.™

26 NORTH MALL • PLAINVIEW, NY 11803
(516) 293-2191 • FAX (516) 293-3152
E-Mail: info@SouthMallLabs.com
www.SouthMallLabs.com

November 8, 1999

Fenley & Nicol Environmental
445 Brook Avenue
Deer Park, NY 11704

Att.: Mr. Mark Robbins

Sample Description:	Wastewater - GP-3 - 16-20
Sample Collected By:	Fenley & Nicol Environmental
Purchase Order Number:	Villa Cleaners
Date Samples Received:	10/21/99
Analysis Number:	101168

Analyte	Results	Method
Dichlorodifluoromethane, µg/l	<1.00	8260[1]
Chloromethane, µg/l	<5.00	8260[1]
Vinyl chloride, µg/l	8.68	8260[1]
Bromomethane, µg/l	<5.00	8260[1]
Chloroethane, µg/l	<5.00	8260[1]
Trichlorofluoromethane, µg/l	<1.00	8260[1]
1,1-Dichloroethene, µg/l	<1.00	8260[1]
Methylene chloride, µg/l	5.82	8260[1]
trans-1,2-Dichloroethene, µg/l	6.87	8260[1]
1,1-Dichloroethane, µg/l	<1.00	8260[1]
2,2-Dichloropropane, µg/l	<5.00	8260[1]
cis-1,2-Dichloroethene, µg/l	826.	8260[1]
Bromochloromethane, µg/l	<1.00	8260[1]
Chloroform, µg/l	<1.00	8260[1]
1,1,1-Trichloroethane, µg/l	<1.00	8260[1]
Carbon tetrachloride, µg/l	<5.00	8260[1]
1,1-Dichloropropene, µg/l	<1.00	8260[1]
Benzene, µg/l	<1.00	8260[1]
1,2-Dichloroethane, µg/l	<1.00	8260[1]
Trichloroethene, µg/l	168.	8260[1]
1,2-Dichloropropane, µg/l	<1.00	8260[1]
Dibromomethane, µg/l	<1.00	8260[1]
Bromodichloromethane, µg/l	<1.00	8260[1]
cis-1,3-Dichloropropene, µg/l	<1.00	8260[1]
Toluene, µg/l	<1.00	8260[1]
trans-1,3-Dichloropropene, µg/l	<1.00	8260[1]
1,1,2-Trichloroethane, µg/l	<5.00	8260[1]
Tetrachloroethene, µg/l	1,720.	8260[1]

THE ANALYSIS HAS BEEN CARRIED OUT UNDER QUALITY ...

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ANALYTICAL LABS, INC.

Ref. 101168

Analyte	Results	Method
1,3-Dichloropropane, µg/l	<1.00	8260[1]
Dibromochloromethane, µg/l	<1.00	8260[1]
1,2-Dibromoethane, µg/l	<1.00	8260[1]
Chlorobenzene, µg/l	<1.00	8260[1]
1,1,1,2-Tetrachloroethane, µg/l	<1.00	8260[1]
Ethylbenzene, µg/l	<1.00	8260[1]
o-Xylene, µg/l	<1.00	8260[1]
m,p-Xylene, µg/l	<1.00	8260[1]
Styrene, µg/l	<1.00	8260[1]
Bromoform, µg/l	<1.00	8260[1]
Isopropylbenzene, µg/l	<1.00	8260[1]
Bromobenzene, µg/l	<1.00	8260[1]
1,1,2,2-Tetrachloroethane, µg/l	<1.00	8260[1]
1,2,3-Trichloropropane, µg/l	<5.00	8260[1]
n-Propylbenzene, µg/l	<1.00	8260[1]
2-Chlorotoluene, µg/l	<1.00	8260[1]
4-Chlorotoluene, µg/l	<5.00	8260[1]
1,3,5-Trimethylbenzene	<5.00	8260[1]
tert-Butylbenzene, µg/l	<5.00	8260[1]
1,2,4-Trimethylbenzene, µg/l	<1.00	8260[1]
sec-Butylbenzene, µg/l	<1.00	8260[1]
1,3-Dichlorobenzene, µg/l	<1.00	8260[1]
4-Isopropyltoluene, µg/l	<1.00	8260[1]
1,4-Dichlorobenzene, µg/l	<1.00	8260[1]
1,2-Dichlorobenzene, µg/l	<1.00	8260[1]
n-Butylbenzene, µg/l	<1.00	8260[1]
1,2-Dibromo-3-chloropropane, µg/l	<5.00	8260[1]
1,2,4-Trichlorobenzene, µg/l	<5.00	8260[1]
Hexachlorobutadiene, µg/l	<1.00	8260[1]
Naphthalene, µg/l	<5.00	8260[1]
1,2,3-Trichlorobenzene, µg/l	<5.00	8260[1]

[1]*Federal Register*, Vol. 49, No. 209

New York State ELAP Laboratory ID #10950

Laboratory Director: Joseph P. Shaulys

JPS:po

Page 1 of 2

CHAIN OF CUSTODY RECORD

SOUTH MALL
ANALYTICAL LABS, INC.™
26 NORTH MALL • PLAINVIEW, NY 11803
(516) 293-2191 • FAX (516) 293-3152

Client: Fealey & Nicol Environmental	Report to: Mark Robbins
Address: 445 Brook Avenue	Lab ID #: 10950
Deer Park, NY 11729	Cooler No.:
Telephone: 586-4900 / Fax: 586-4920	Analysis Nos.: 10110- 10117

SHADED AREAS FOR LABORATORY USE ONLY!

	Y	N		Y	N	N/A		Y	N
Samples received in good condition?	✓		COC tape present?		✓		Rush T/A required?		✓
Samples properly preserved?	✓		COC tape unbroken?			✓	Notes (including P.O. #):		
Samples ambient?	✓		Non-compliance report needed?		✓				
Samples chilled?		✓	Cooler returned?			✓			

No.	Matrix L	S	G	Sample Origin	Containers #	Type	Sample Information Date	Comp.	Grab	Time	Analysis Required	NaOH + Ascorbic Acid	HNO_3	H_2SO_4	Other	None
1	✓			GP-1 66-70	2	VOA	10/20/99				EPA 8260					X
2	X			GP-1 56-60	2	VOA	10/20/99				EPA 8260					X
3	✓			GP-1 46-50	2	VOA	10/20/99				EPA 8260					X
4	X			GP-1 36-40	2	VOA	10/20/99				EPA 8260					X
5	X			GP-1 26-30	2	VOA	10/20/99				EPA 8260					X
6	X			GP-1 16-20	2	VOA	10/20/99				EPA 8260					X
7	X			GP-2 66-70	2	VOA	10/20/99				EPA 8260					X
8	X			GP-2 56-60	2	VOA	10/20/99				EPA 8260					X
9	X			GP-2 46-50	2	VOA	10/20/99				EPA 8260					X
10	X			GP-2 36-40	2	VOA	10/20/99				EPA 8260					X

COLLECTED BY: Mark E. Robbins

PROJECT NAME/SPECIAL INSTRUCTIONS: VILLA CLEANERS

RELINQUISHED BY: Mark E. R.	RECEIVED BY: Susan Cohen	DATE: 10/20/99	TIME: 2:00 AM PM
RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME: AM PM
RELINQUISHED BY: Susan Cohen	RECEIVED BY LAB: Michael E. Mills	DATE: 10/20/99	TIME: 7:17 AM PM

Page 2 of 2

CHAIN OF CUSTODY RECORD

SOUTH MALL ANALYTICAL LABS, INC.™
26 NORTH MALL • PLAINVIEW, NY 11803
(516) 293-2191 • FAX (516) 293-3152

Client: Fenley & Nicol Environmental	Report to: Mark Robbins
Address: 445 Brook Avenue	Lab ID #: 10950
Deer Park, NY 11729	Cooler No.:
Telephone: 586-4900 / Fax: 586-4920	Analysis Nos.: 101120 - 101121

SHADED AREAS FOR LABORATORY USE ONLY!

	Y	N		Y	N	N/A		Y	N
Samples received in good condition?	✓		COC tape present?		✓		Rush T/A required?		✓
Samples properly preserved?	✓		COC tape unbroken?			✓	Notes (including P.O. #):		
Samples ambient?	✓		Non-compliance report needed?		✓				
Samples chilled?		✓	Cooler returned?			✓			

No.	Matrix L	S	G	Sample Origin	Containers #	Type	Sample Information Date	Comp.	Grab	Time	Analysis Required	NaOH + Ascorbic Acid	HNO_3	H_2SO_4	Other	None
1	X			GP-2 26-30	2	VOA	10/20/99				EPA 8260					X
2	X			GP-2 16-20	2	VOA	10/20/99				EPA 8260					X
3																
4																
5																
6																
7																
8																
9																
10																

COLLECTED BY: Mark E. Robbins	PROJECT NAME/SPECIAL INSTRUCTIONS: VILLA CLEANERS			
RELINQUISHED BY: Mark E. Robbins	RECEIVED BY: Susan Cohen	DATE: 10/20/99	TIME: 2:00	AM (PM)
RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	AM PM
RELINQUISHED BY: Susan Cohen	RECEIVED BY LAB: Michael E. Mills	DATE: 10/20/99	TIME: 6:15	AM (PM)

CHAIN OF CUSTODY RECORD

SOUTH MALL
ANALYTICAL LABS, INC.™
26 NORTH MALL • PLAINVIEW, NY 11803
(516) 293-2191 • FAX (516) 293-3152

Client:	Fenley & Nicol Environmental, Inc.	Report to:	Mark E. Robbins
Address:	445 Brook Avenue	Lab ID #:	10950
	Deer Park, NY 11729	Cooler No.:	
Telephone:	(516) 586-4900	Analysis Nos.:	101163-101168

SHADED AREAS FOR LABORATORY USE ONLY!

	Y	N		Y	N	N/A		Y	N
Samples received in good condition?	✓		COC tape present?		✓		Rush T/A required?		✓
Samples properly preserved?	✓		COC tape unbroken?			✓	Notes (including P.O. #):		
Samples ambient?	✓		Non-compliance report needed?		✓				
Samples chilled?		✓	Cooler returned?			✓			

No.	Matrix L	Matrix S	Matrix G	Sample Origin	Containers #	Containers Type	Sample Information Date	Comp.	Grab	Time	Analysis Required	NaOH + Ascorbic Acid	HNO_3	H_2SO_4	Other	None
	X			GP-3 66-70	2	VOA	10/21/99				EPA 8260					X
	X			GP-3 56-60	2	VOA	10/21/99				EPA 8260					X
	X			GP-3 46-50	2	VOA	10/21/99				EPA 8260					X
	X			GP-3 36-40	2	VOA	10/21/99				EPA 8260					X
	X			GP-3 26-30	2	VOA	10/21/99				EPA 8260					X
	X			GP-3 16-20	2	VOA	10/21/99				EPA 8260					X

COLLECTED BY: DAVID OLOCKE

PROJECT NAME/SPECIAL INSTRUCTIONS: VILLA CLEANERS

RELINQUISHED BY: David Olocke	RECEIVED BY: David Olocke	DATE: 10/21/99	TIME: [illegible] AM PM
RELINQUISHED BY: David Olocke	RECEIVED BY: B. Crowley	DATE: 10-21-99	TIME: 1:30 AM PM
RELINQUISHED BY: B. Crowley	RECEIVED BY LAB: Michael E. Mills	DATE: 10-21-99	TIME: 1:40 AM PM

Appendix B
HRC Documentation

Appendix B
HRC Documentation

REGENESIS

Hydrogen Release Compound HRC™

HRC: A Cost-Effective Innovation in Enhanced Anaerobic Bioremediation

Hydrogen Release Compound (HRC™) offers a passive, low-cost treatment option for in-situ anaerobic bioremediation of chlorinated aliphatic hydrocarbons (CAHs). HRC is a proprietary, environmentally safe, food quality, polylactate ester specially formulated for slow release of lactic acid upon hydration. Bioremediation with HRC is a multi-step process. Indigenous anaerobic microbes (such as acetogens) metabolize the lactic acid released by HRC, and produce hydrogen. The resulting hydrogen can be used by reductive dehalogenators which are capable of dechlorinating CAHs. Major target compounds in this group include PCE, TCE, TCA as well as their daughter products.

By providing a long-lasting, time-released hydrogen source, Hydrogen Release Compound can enhance anaerobic reductive dechlorination of chlorinated aliphatic hydrocarbons.

The Key Advantages of HRC

Challenges specific to CAH remediation include the following: (1) As DNAPLs, CAH plumes sink into the aquifer in complex, heterogeneous patterns, rendering them difficult to locate and remediate mechanically; (2) CAHs present a significant health hazard; (3) alternatives for CAH remediation are limited and expensive.

Enhanced anaerobic natural attenuation with HRC presents an innovative solution to CAH remediation. HRC has several advantages over other remedial options:

1. **Low maintenance and low cost:** Unlike actively engineered systems, continuous mechanical operation and maintenance is eliminated, dramatically reducing overall O&M costs.

2. **Time release provides a constant and persistent hydrogen source.**
   - HRC is a semi-solid material that remains in place and generates highly diffusible hydrogen slowly over time.
   - Since CAH plumes are difficult to locate, a continuous, highly diffusible hydrogen source increases the effectiveness of contact, containment, and remediation.
   - The constant hydrogen source eliminates introduction of oxygen which can occur with repeated alternative mechanical methods.

3. **HRC promotes desorption of CAHs.** The continuous hydrogen source provided by HRC can reduce dissolved phase CAH concentrations. This creates a larger concentration gradient which in turn facilitates desorption of CAHs from the soil matrix. In addition to source treatment, HRC reduces time to site closure by increasing the rate of CAH desorption and remediation.

4. **HRC may favor reductive dechlorination over possible competing methanogenic activity:** Results from university studies suggest that there is competition for hydrogen between the reductive dechlorinators and methanogens (Fennell, et.al., 1997). High hydrogen concentrations favor methanogenic activity, whereas reductive dechlorinators are best supported in conditions of more moderate hydrogen concentration. Thus, since HRC's long-lasting time-release feature facilitates controlled hydrogen concentrations, it is an ideal approach for optimizing reductive dechlorination.

Other Benefits

- **HRC offers a simple and effective approach to the remediation of CAHs:** Other remediation methods may simply transfer contaminants to another medium or location, requiring permits, removal, transportation, and ongoing liability. However, bioremediation with HRC allows microbes to dechlorinate these contaminants in-situ.
- **HRC has potential effectiveness on other chlorinated contaminants or co-contaminants, such as pentachlorophenol (PCP) and hexachlorocyclohexane (lindane).**
- **Minimal Site Disturbance:** Treatment with HRC is in-situ; thus, above ground disturbance is minimized.

Site Objectives Addressed With HRC

HRC is a high viscosity liquid that can be injected into the aquifer using direct-push technologies to address a wide range of remedial objectives, as follows:

Containment: HRC may be strategically applied along the downgradient edge of a plume to form a barrier to off-site migration.

Saturated Zone Application – HRC application in or near the source area can:

- Contract the dissolved phase plume, shrinking it back toward the source area
- Increase the desorption rate in the source area to accelerate bioremediation of the entire contaminant mass

HRC and ORC: Solutions for Vinyl Chloride Remediation

Lab and field results have shown that HRC can support remediation of the DCE and VC that is produced as a result of PCE/TCE degradation.

However, although anaerobic conditions favor PCE and TCE degradation, daughter products like DCE and VC can degrade faster under aerobic conditions. Given that VC accumulation is of particular concern, optimal results for CAH remediation with HRC may be achieved by combined treatment with Oxygen Release Compound (ORC®) to enhance aerobic bioremediation of vinyl chloride. HRC treatment can be used in conjunction with ORC in either of two dual phase strategies:

- **Simultaneous HRC/ORC application:** HRC is applied to treat higher order CAHs at the source, while ORC is concurrently applied in a downgradient zone to treat the resulting daughter products.
- **Sequential HRC/ORC application:** For an appropriate period of time, HRC is applied to treat higher order CAHs. As vinyl chloride accumulates, HRC treatment is terminated and ORC is introduced to treat this compound.

HRC TECHNICAL BULLETIN # 3.1.3

Hydrogen Release Compound HRC™

HRC Field Demonstration in WI

The direct-push injection of HRC is currently being demonstrated with Montgomery Watson at a site in Wisconsin contaminated with high levels of PCE. Aquifer materials consist of sand with a calculated groundwater velocity of 0.03 ft/day. 240 pounds of slightly flowable HRC were injected via twelve delivery points in a sixty square foot area as illustrated in Figure 1.

Reduction of PCE relative to HRC injection points and existing monitoring well locations are presented in Figure 2. Approximately five months following the installation of HRC, PCE mass was reduced 111 grams, representing a reduction of 70%. Concurrent increases in PCE-degradation daughter products, TCE and DCE, were also documented and are presented in Figures 3 and 4. DCE and TCE levels rise continuously through the first 120 days with a slight decrease occurring through day 148. Mass balance results of 27% to 46% have been an important indicator that the HRC injections facilitated contaminant removal by biodegradation. There has been no real detection of vinyl chloride or ethene. Vinyl chloride may be degrading as soon as it is formed, or may be migrating out of the demonstration area.

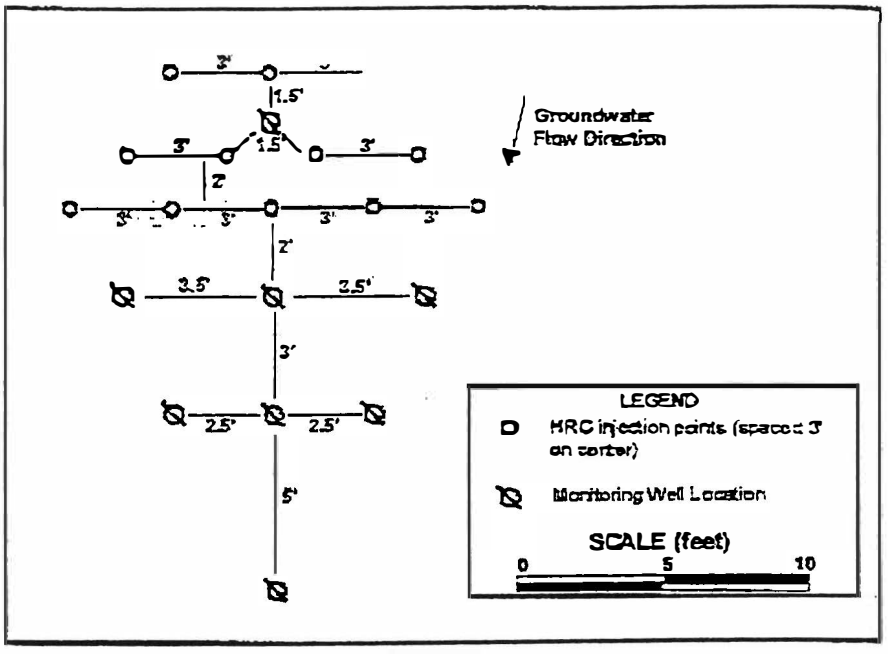


Figure 1

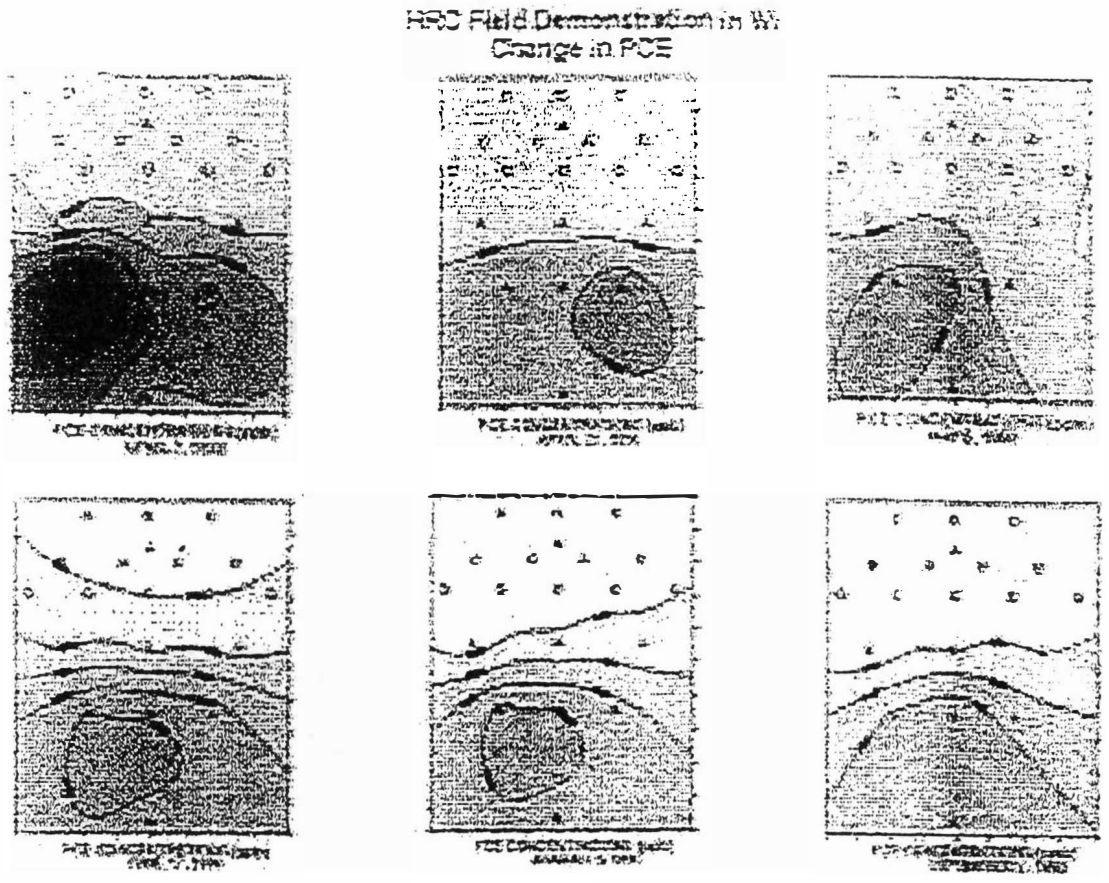

HRC Field Demonstration in W
Change in PCE
○ HRC injection point △ Monitoring well

Figure 2

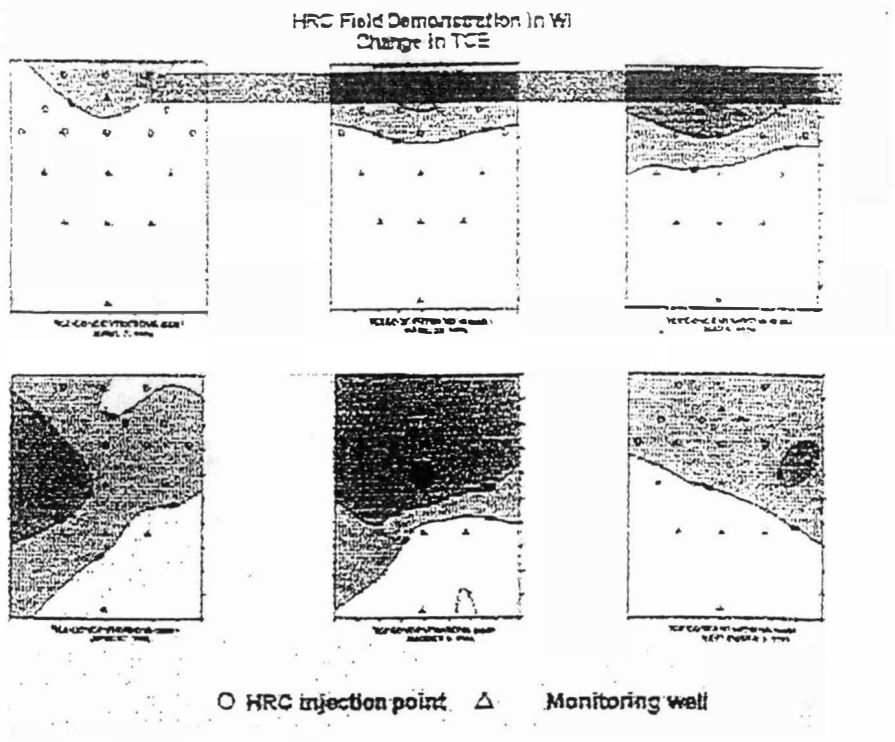


Figure 3

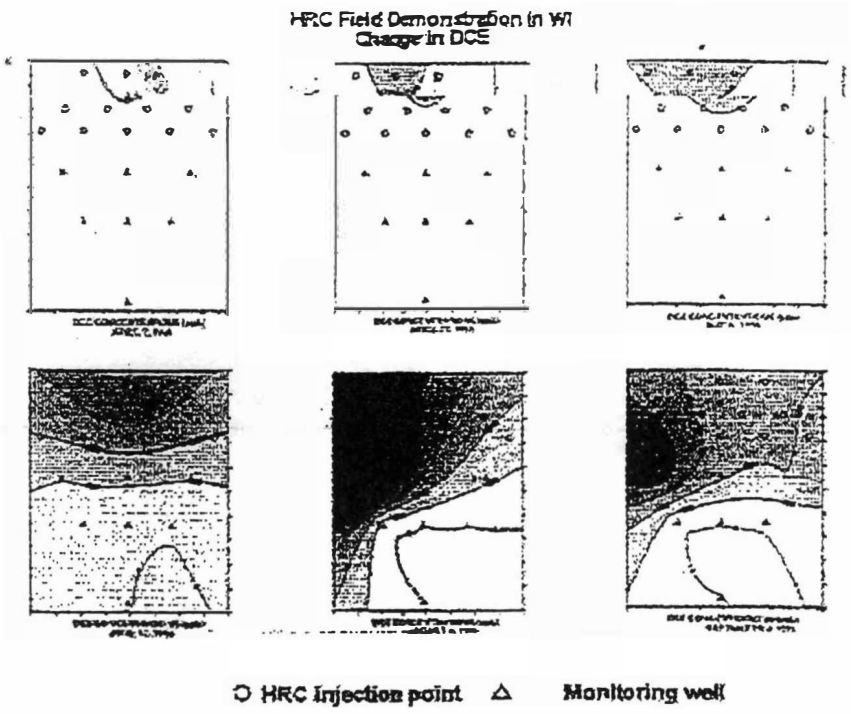


Figure 4

IIRC Technical Bulletin Index||HRC Homepage

Hydrogen Release Compound and the Remediation of Higher Order CAH's

Regenesis has just announced the experimental availability of its new Hydrogen Release Compound (HRC) as an option for the bioremediation of higher order CAHs such as PCE and TCE. The material is a proprietary food grade polymer that degrades to produce a simple alcohol and lactic acid. The role of short chain organic acids and alcohols in the remediation of CAHs has been defined by Gibson and Sewell (1). In this process, the acids and alcohols are metabolized by one group of organisms to yield hydrogen which in turn is used by another group of organisms to effect reductive dechlorination. A typical system would involve the conversion of lactic acid to acetic acid by acetogens whereby one mole of lactic acid produces two moles of hydrogen. The two moles of hydrogen are then available for a very efficient stochiometric conversion of PCE or TCE to dechlorinated alkanes by organisms conveniently called reductive dehalogenators.

The value of a controlled release of lactic acid is emphasized in a body of work from the Gossett lab at Cornell including, most recently, Fennell (2). In these studies it emphasizes that there is competition between reductive dehalogenators and methanogens, the latter wanting to use the hydrogen in the conversion of carbon dioxide to methane. A low concentration of hydrogen favors the reductive dehalogenators and starves out the methanogens who have a larger appetite for hydrogen. With an excess of hydrogen in the system the methanogens are favored and crowd out the reductive dehalogenators. Therefore, one wants to keep hydrogen concentrations low. This in turn is accomplished by the addition of organic acids which are slowly converted to hydrogen.

The problem with additions of pure lactic acid are that it all has to added at one time unless it is metered in with active systems. Also, by this method, using water that delivers dissolved oxygen will disrupt anaerobic conditions. Lastly, the use of a liquid pulse invites a flow of active agent away from the chlorinated source over time. In order to combat these problems with organic acid delivery, Regenesis developed its solid polymer that can be implanted conveniently through various push point technologies. The lactic acid is hydrolyzed off the polymer at a more appropriate, slower rate and stays where it is placed offering a long term source of hydrogen releasing material. This advance is analogous to the conversion from injections of chemotherapeutic agents which "spike the system" to the various time release approaches that offer more steady dosage.

1) Gibson, S.A. and G.W. Sewell. 1992. Applied and Environmental Microbiology 58(4): 1392-1393.

2) Fennell, D.E.., J.M. Gossett and S.H. Zinder. 1997. Environmental Science and Technology. 31: 918-926.

APPLIED AND ENVIRONMENTAL MICROBIOLOGY, Apr. 1992, p. 1392–1393
0099-2240/92/041392-02$02.00/0

Vol. 58, No. 4

Stimulation of Reductive Dechlorination of Tetrachloroethene in Anaerobic Aquifer Microcosms by Addition of Short-Chain Organic Acids or Alcohols

SUSAN A. GIBSON[1]* AND GUY W. SEWELL[2]

ManTech Environmental Technology, Inc.,[1] and U.S. Environmental Protection Agency,[2] Robert S. Kerr Environmental Research Laboratory, Ada, Oklahoma 74820

Received 10 June 1991/Accepted 22 January 1992

The effect of the addition of common fermentation products on the dehalogenation of tetrachloroethene was studied in methanogenic slurries made with aquifer solids. Lactate, propionate, crotonate, butyrate, and ethanol stimulated dehalogenation activity, while acetate, methanol, and isopropanol did not.

Although the ecological and public health risks associated with tetrachloroethene (PCE) contamination may be the most severe when spills affect groundwater, little is known about the environmental conditions necessary to initiate and sustain dehalogenation activity in contaminated aquifers. This study was done with core material collected from a site impacted by both aviation gasoline and chloroethenes at a Coast Guard Air Station at Traverse City, Mich.

Collection of core material, making of microcosms, sampling, and chloroethene analysis were done as described previously (11). microcosms differed in that 10 aquifer material and 20-ml serum bottles were used. The final concentrations of donors added were as follows: acetate, 4 mM; lactate, 3 mM; propionate, 3 mM; butyrate, 2 mM; crotonate, 2 mM; methanol, 4 mM; ethanol, 2 mM; and isopropanol, 3 mM. The PCE addition was 1 μl of a methanol stock solution (0.751 g of PCE per 10-ml total volume in methanol) to give a PCE initial concentration of approximately 30 μM. A small amount of headspace was left in these bottles for ease of handling. All bottles were well shaken after all amendments had been made.

Four fatty acids and three alcohols were tested for the ability to act as the source for reducing equivalents for PCE dehalogenation. The production of trichloroethene (TCE) and total dichloroethenes in microcosms, using these compounds as electron donors, is shown in Fig. 1. Samples from microcosms amended with lactate or ethanol had TCE present at the first sampling point at 6 days (Fig. 1). Butyrate, crotonate, and propionate also supported dehalogenation, although the lag period was longer, while acetate, methanol, and isopropanol did not support dehalogenation above that observed in the unamended control during this time period (Fig. 1). The measurements from the early time points were quite variable because of differences in the onset of dehalogenation. However, at the last two time points, significant differences (Student's t test with $\alpha = 0.05$) in the total amount of dehalogenation products present were observed between microcosms amended with lactate, ethanol, propionate, crotonate, or butyrate and those which were unamended or were amended with acetate, methanol, or isopropanol.

Several researchers have demonstrated the stimulation of reductive dehalogenation of chloroethenes by addition of organic supplements or hydrogen (1, 4, 5, 7, 10). These studies were done with soil which was high in organic material (4.2% organic carbon) (1), with inoculum from a bioreactor (4, 7, 10), or with a pure culture derived from anaerobic sludge (5). In contrast, our study was done with aquifer material from an oligotrophic aquifer (maximum total organic carbon of 0.04% in unamended microcosms).

This experiment showed that dehalogenation activity could be observed with an appropriate electron donor within a week, although in other experiments several weeks were required (data not shown). This was probably due to the particular core material used. However, although the time at which dehalogenation capability develops in a particular sample may vary, the overall pattern is consistent. The microcosms amended with substrates which would be expected to be easily degraded under anaerobic conditions, such as lactate and ethanol (9), showed dehalogenation products as early as 6 days in this particular experiment. Microcosms amended with compounds such as butyrate, crotonate, and propionate, which are more difficult to degrade anaerobically (9), had a longer incubation period before large amounts of dehalogenation products were present (Fig. 1). The compounds which supported dehalogenation of PCE in this aquifer material would all be expected to produce hydrogen during their anaerobic oxidation (9). Methanol and acetate did not support significant dehalogenation activity during the time course of this experiment. Although both of these compounds have been shown to produce some hydrogen under some circumstances (3 [and references therein], 12), neither would be expected to produce large amounts of hydrogen during their anaerobic metabolism. This suggests that in this system hydrogen produced during the metabolism of the fatty acids and alcohols may be the immediate electron donor for supporting dehalogenation. Freedman and Gossett (7) showed that hydrogen could support dehalogenation of chloroethenes, although methanol was the better substrate for their bacterial cultures.

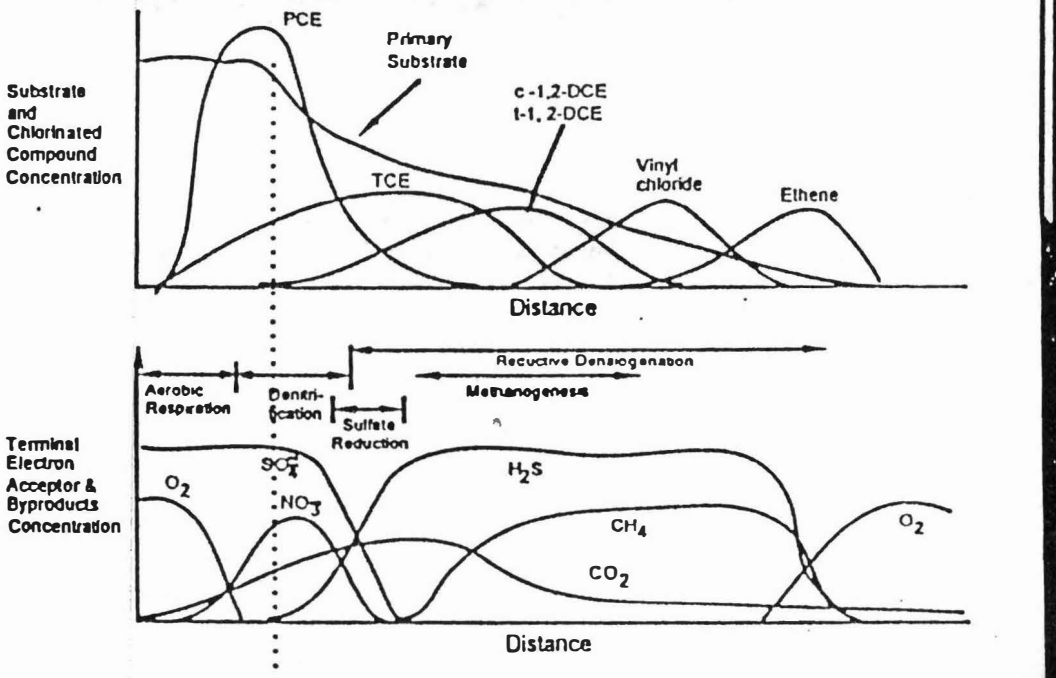
It appears that this experimental ecosystem may be different in nature from the others reported from digesters (4, 6, 7) or biofilms (2) in that neither acetate nor methanol appeared to support dechlorination of the PCE during the course of the experiment, although many compounds known to produce hydrogen during anaerobic metabolism did support dechlorination activity. Similar results were seen in a study of the

* Corresponding author.

Evidence of Chlorinated Solvent Degradation

- Reduced Aquifer Conditions
  - Oxygen & Nitrate Depletion
  - Hydrogen Sulfide & Methane Present
  - Hydrogen Generation
- Microbial Degradation Products
  - cis-DCE
  - Vinyl Chloride
  - Ethylene
- Source of Electron Donor Identified at Site

Typical Degradation Patterns in Chlorinated Solvent Plumes



Hydrogen Peroxide Addition

- Application since 1970's
- Decomposition Releases Oxygen
- Strong Oxidant-Forms Free Hydroxyl Radicals
- Continuous Feed for Aerobic Enhancement
- Concerns
  - Safety
  - Microbial Fouling or Disinfection

Performance Results

- Results from an industrial site indicate that vinyl chloride degraded most rapidly with ORC as the only applied treatment technology (Bell, 97)
- Another study found that the rate of vinyl chloride degradation in the presence of ORC is significantly greater than the rate achieved by natural attenuation alone (Martinovich, et.al. 97)

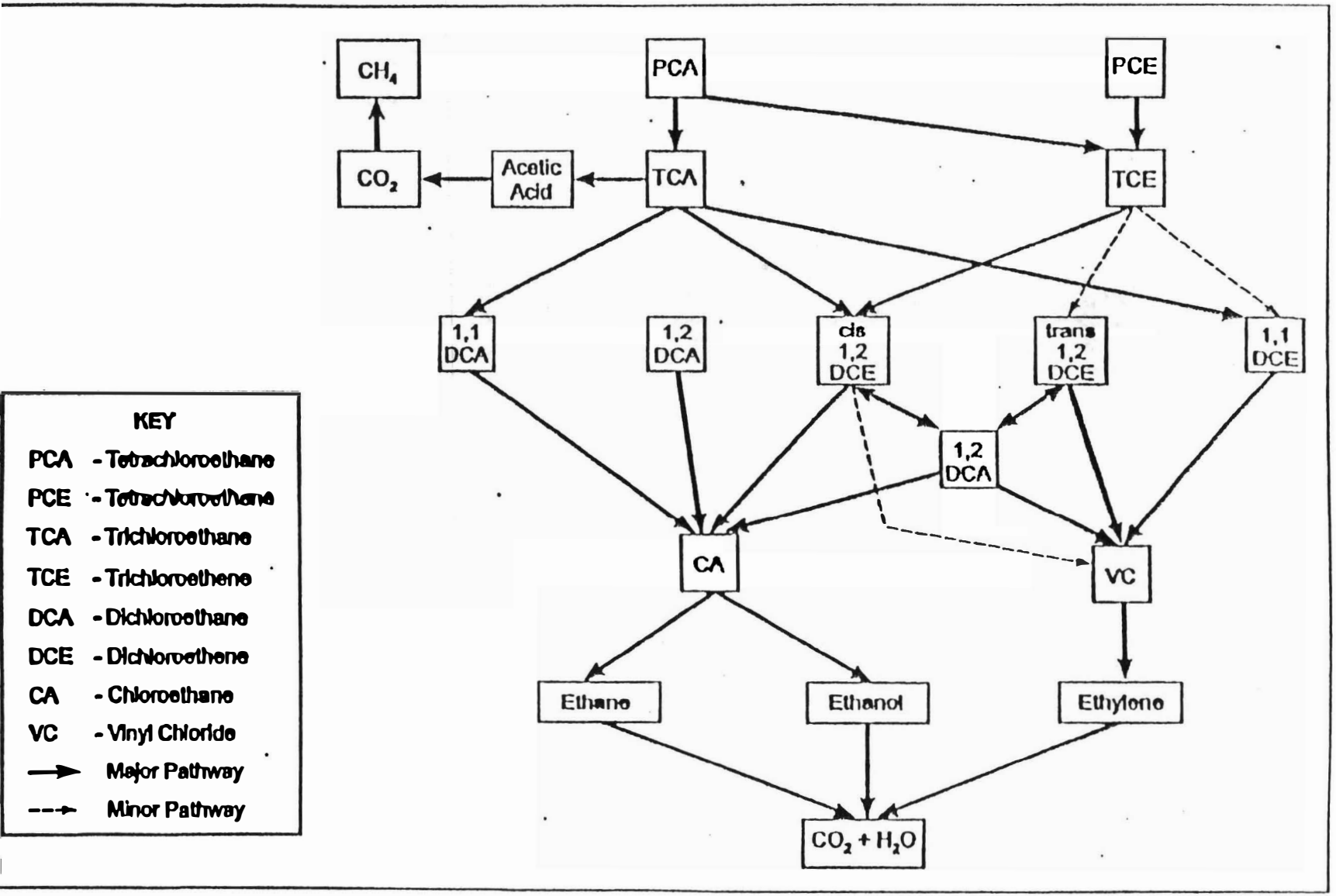
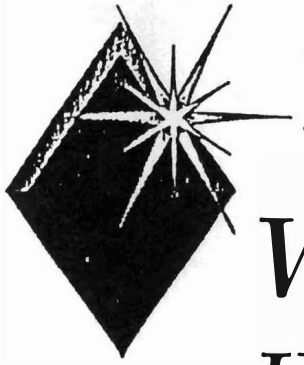


Figure 2. Transformations of chlorinated aliphatic hydrocarbons.

How does HRC work ?

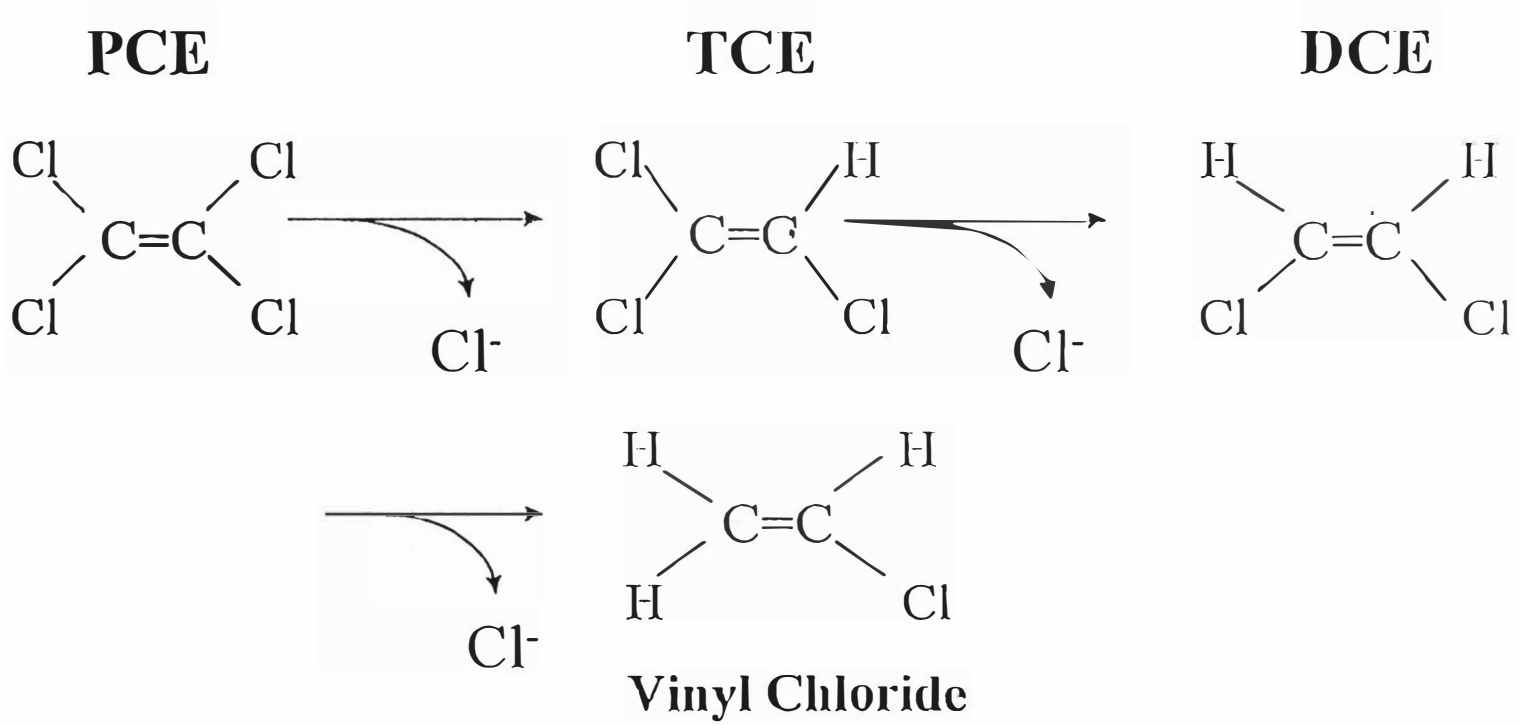
HRC is composed of a proprietary, food grade lactic acid polymer which steadily degrades in water to alcohol and lactic acid which are metabolized by fermentation organisms to yield hydrogen. The hydrogen is then utilized by reductive dechlorinating microorganisms to convert PCE & TCE to lower chlorinated species



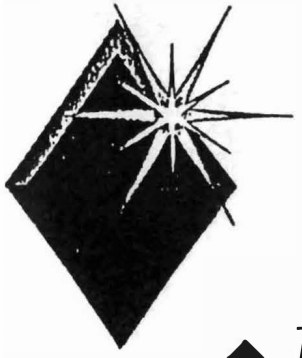
What is HRC ?

HRC is an acronym for "Hydrogen Release Compound" HRC is an In-Situ Anaerobic Dechlorination technology which stimulates the release of hydrogen by naturally occurring microorganisms into a contaminated plume

Anaerobic Dechlorination



Requires anaerobic conditions and reduced carbon source



Key benefits to using HRC

- *HRC is a passive remediation technology*
- *HRC is non toxic in water*
- *HRC adds food grade lactic acid to a contaminated plume, naturally generating hydrogen thereby enhancing the natural dechlorination process without the use of costly capital equipment*

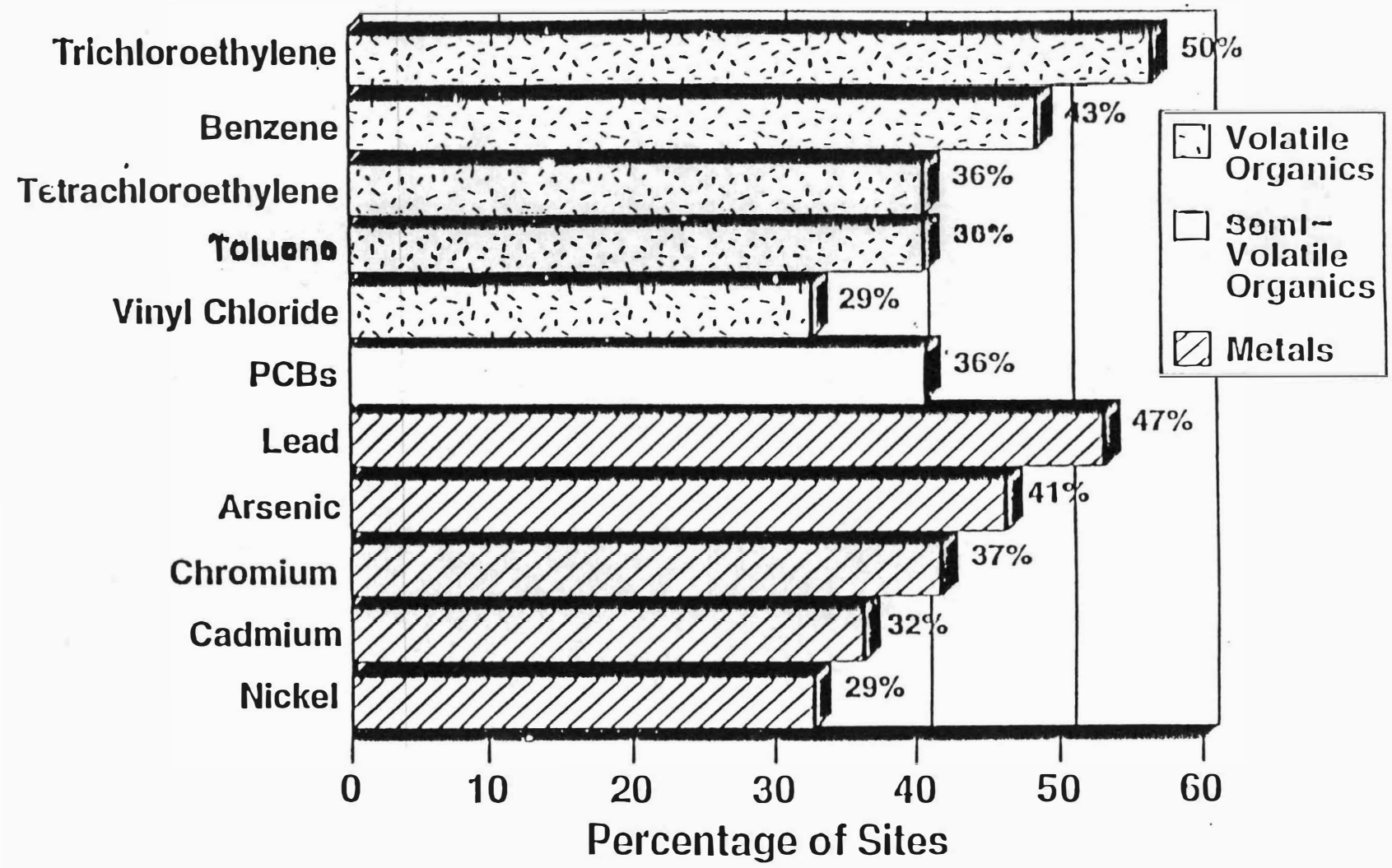
HRC Development Approach

- Patents applied for in late 1997
- Lab tests performed demonstrating process
- 1st phase of field demonstration underway
  - 10 single well and minbarrier tests
- 2nd phase to include expanded sites-3Q98
- Quantifiable Field Demonstrations for peer review publication due to start by 4Q98

CHLOROALKANE Contaminants with Greatest Remediation Potential

COMPOUND	PRIMARY USE	CONTAMINATED SITE MARKET	DEGRADATION TYPE
PCE	Dry Cleaning, Degreasing	Dry Cleaners; Metal Prod. Manuf,Landfills	An Dechlor. (An Met)
TCE	Dry Cleaning, Degreasing	Dry Cleaners; Metal Prod. Manuf,Landfills	An Dechlor. Aero CoMet. (An Met)
DCE	Solvent, Degreasing	PCE/TCE Sites; Metal Prod. Manuf,Landfills	An Dechlor. Aero CoMet. (Aer/An Met)
VC	Plastics Indus, Refrigerants	PCE/TCE Sites; Metal Prod. Manuf,Landfills	Aero Met. Aero CoMet (An Dechlor.)

Most Common Contaminants at Superfund Sites



* A site may contain more than one of these contaminants

6/17/97

State Monitoring Requirements

- Duration
  - 1 Yr. (5)
  - 2 Yr. (5)
  - $\geq$ 2 Yr. (2)
  - 1-4 Yr. (1)
  - Meet Stds. (8)
  - Plume Shrinks (1)
  - Site Specific (5)
- Frequency
  - Quarterly (25)
  - Semi-Annually (2)
  - Tri-Annually (1)
  - Site Specific (13)
- Typically 2-6 wells

Fenley & Nicol Environmental

40 YEARS QUALITY SERVICE 1958 1998 FENLEY & NICOL ENVIRONMENTAL, INC.

"SOLUTIONS AT WORK"SM

445 Brook Avenue, Deer Park, New York 11729 (516) 586-4900 • NYC (718) 204-4993 FAX (516) 586-4920

December 17,1998

ps-981217

Ms. Geralyn Fitzpatrick
Assistant Hydrogeologist
Division of Environmental Quality
Office of Water Resources
225 Rabro Drive East
Hauppauge, NY 11788

Re:Villa Cleaners Deer Park, NY 11729

Dear Ms. Fitzpatrick:

Fenley & Nicol Environmental, Inc. (F&N) is pleased to provide you with a work plan to install Hydrogen Release Compound (HRC), a product of REGENESIS Bioremediation products, to enhance the bioremediation of volatile organic compounds, which are present at the above referenced site. The main objective of this HRC program is to reduce the existing TCE levels on site to below NYSDEC groundwater quality criteria.

F&N will utilize direct push and pressure grout techniques in order to install the HRC compound into the formation at the desired depths below ground surface.

During handling and mixing of the HRC material, the proper personal protective equipment will worn by personnel. All equipment must be cleaned with a hot pressure washer following installation activities each day to remove residual HRC materials.

Based on the previous investigation conducted by F&N, F&N will install HRC at 4 locations near the existing monitoring well. The HRC material will be injected at 10 foot intervals at each location(from 20 feet to 5 feet below ground surface.) This will require a total volume of 6 pounds of HRC per foot.

Enclosed with this work plan is copies of technical information on HRC product.
Please call me at (516) 586-4900 ext 141. if you have any further question.
F&N will proceed with the above tasks upon your approval.

Sincerely,
Fenley & Nicol Environmental Inc.

Mostafa El Sehamy, P.G.,C.G.W.P.
Director, Professional Services

cc: John Gennaro
John Soderberg

Fenley & Nicol Environmental

"SOLUTIONS AT WORK"SM

445 Brook Avenue, Deer Park, New York 11729 (516) 586-4900 • NYC (718) 204-4993 FAX (516) 586-4920

August 5, 1998

Ms. Geralyn Fitzpatrick
Suffolk County Health Services
Bureau of Groundwater Resources
Rabro Drive East
Hauppauge, New York 11788

RE: Monitoring well installation and investigation
Villa Cleaners Deer Park, New York

Dear Ms. Fitzpatrick,

As per your conversation with Mostafa El Sehamy of our office, you have evaluated the recent report submitted by F&N, and suggested that a remediation system be implemented at our clients site. It is our opinion that resampling the monitoring well that contained high concentrations of VOCs is important to confirm the previous results. F&N will be glad to split a sample with your laboratory for accuracy. Our office will call to coordinate a time for the field work with you. In addition, Mostafa has indicated to me your willing to resample this well at this time. Thank you for your cooperation in this matter.

Sincerely,
Fenley & Nicol Environmental

Joseph W. Gabrinowitz
Project manager

CC: Mostafa El Sehamy
Director of Professional Services

Fenley & Nicol Environmental

"SOLUTIONS AT WORK"SM

145 Brook Avenue, Deer Park, New York 11729 (516) 586-4900 • NYC (718) 204-4993 FAX (516) 586-4920

July 17, 1998

Mr. John Gennaro
Villa Cleaners
1894 Route 231
Deer Park, New York

RE: Monitoring well installation and investigation
Villa Cleaners Deer Park, New York

Dear Mr. Gennaro,

The purpose of this letter report is to summarize the recent investigation performed at the above referenced site. This report is also intended to satisfy requests made by the Suffolk County Department of Health Services (SCDHS) Office of Pollution Control.

The investigation included; the installation of several monitoring wells/cluster well, a site and well survey, and well sampling. To install the cluster well, a mobile drill rig equipped with 6 5/8 hollow stem augers was used to advance a boring to a depth of 100 feet. At this depth a 2 inch diameter, 98 foot long section of solid PVC was connected to a 2 foot section of 2 inch diameter screened PVC. The screened section was then filled with filtration media and sealed above it with a bentonite slurry. This same procedure was used for the 1 inch diameter wells at 80, 60, 40, and 20 foot intervals.

A site survey was completed on all wells to determine groundwater flow direction ; The direction of flow is to the south - south west (see groundwater gradient map). All wells were then sampled using NYSDEC protocols and chain of custody procedures. During the sampling procedures a representative from the SCDHS was present (Robert Morcerf). Mr. Morcerf split samples from the 40 and 60 foot intervals of the cluster well with F&N. The results of F&N's sampling indicated that monitoring well three contains elevated levels of Tetrachloroethene (1,700 ppb), and Cis-1,2-Dichlorethene (350 ppb) (Note: these concentrations are below SCDHS action levels). The remaining wells were either non detect or furthe below SCDHS guidelines.

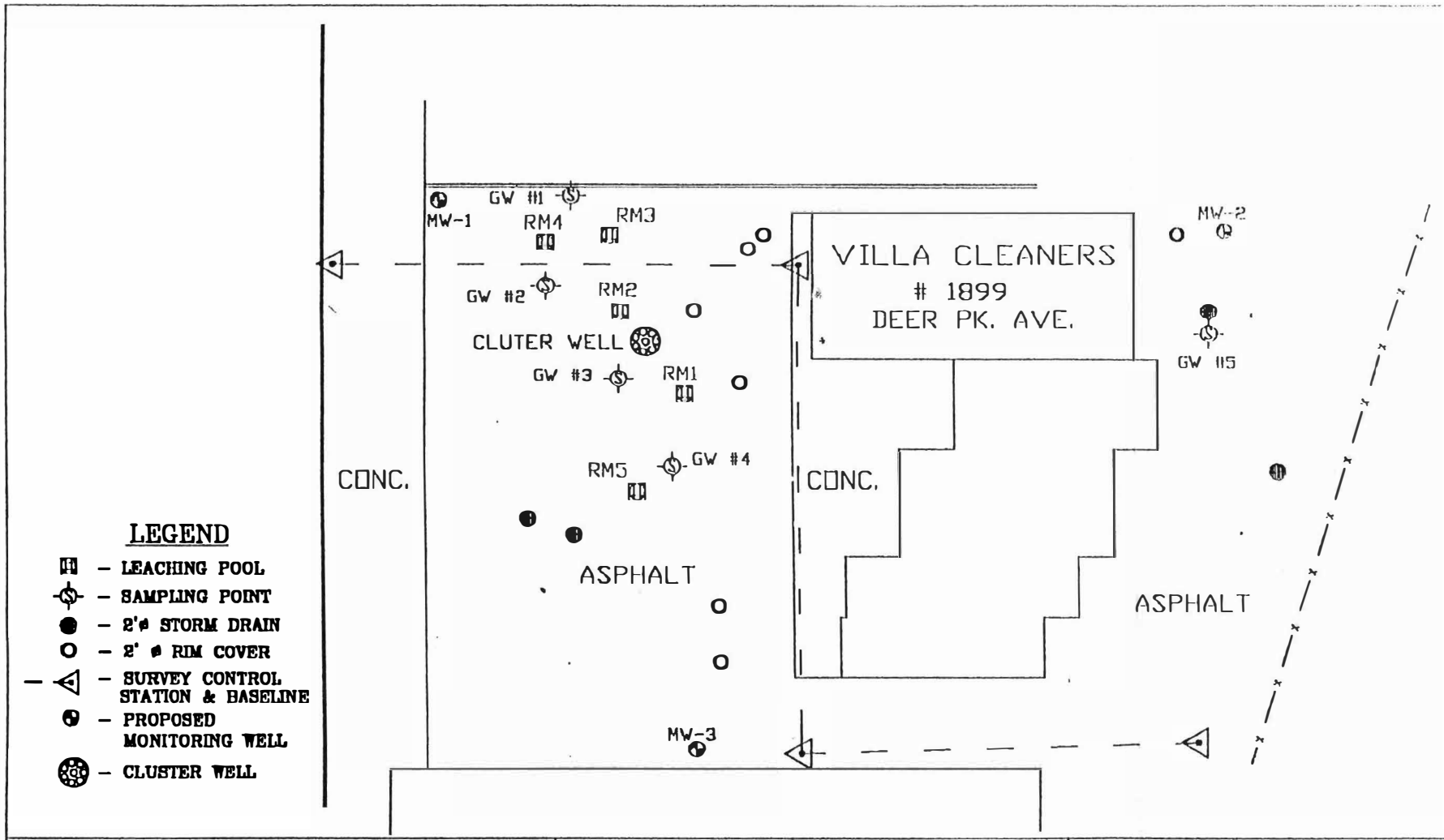
Based on the analytical results and the groundwater gradient map, F&N recommends that a quarterly schedule of sampling and reporting be implemented by the client. This sampling and reporting schedule will allow the client to monitor the progress of biodegradation and attenuation of the contaminants until closure. F&N also recommends that a locking manhole cover be installed on the cluster well to protect it from future damage. If you have further questions regarding this matter please contact us at your earliest convenience.

Sincerely,

Joseph W. Gabrinowitz
Project Geologist

CC: Mostafa El Sehamy
Director of Professional Services

Fenley & Nicol

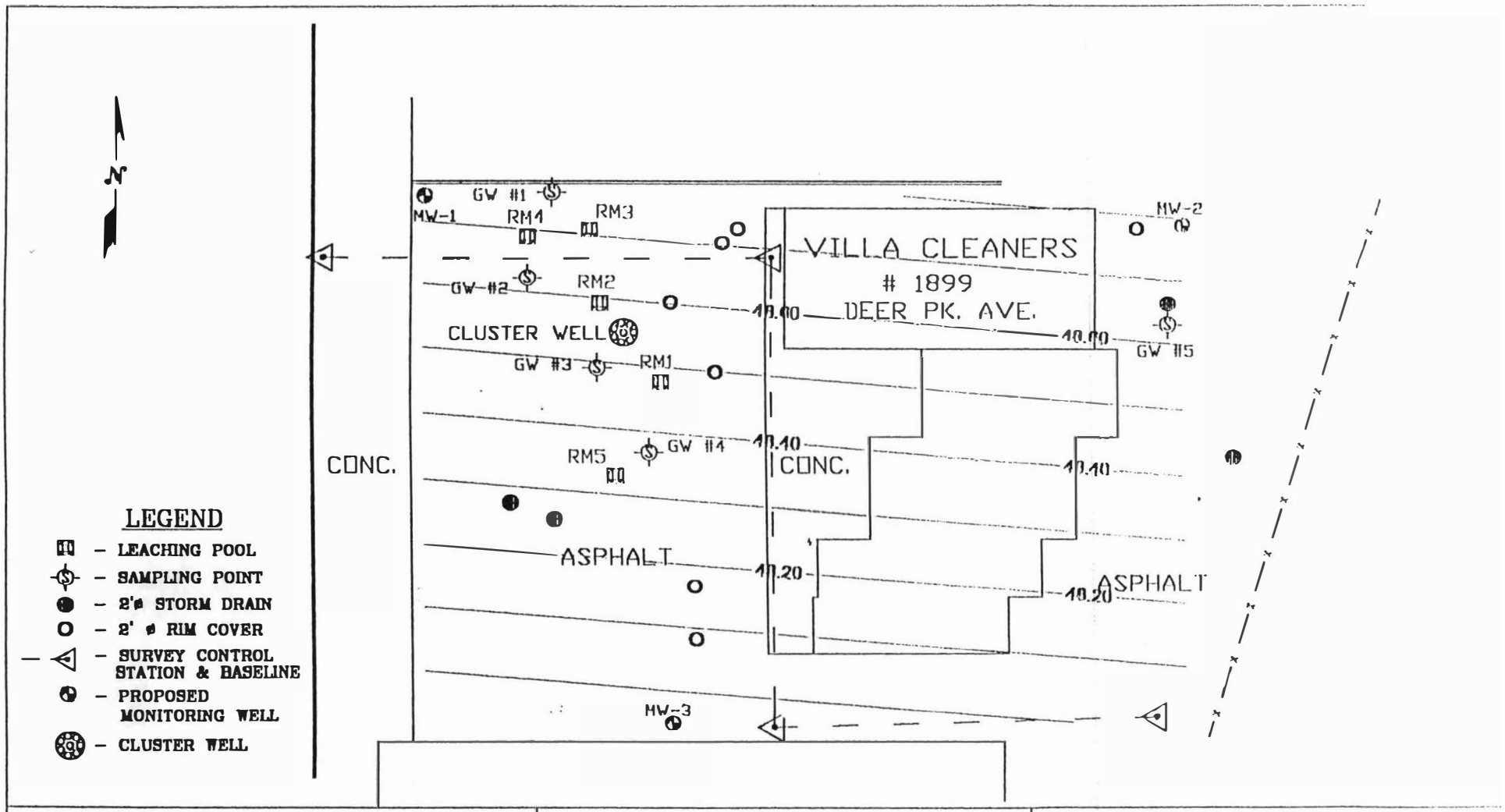


Fenley & Nicol
PROFESSIONAL SERVICES DIVISION
445 BROOK AVENUE, DEER PARK,
NEW YORK 11729 (516)586-4900

SITE PLAN

Drawn By: A.G. Job # Date: 3/98

VILLA CLEANERS
1899 DEER PARK AVE.
BABYLON, NEW YORK



Fenley & Nicol
PROFESSIONAL SERVICES DIVISION
445 BROOK AVENUE, DEER PARK,
NEW YORK 11729 (516)586-4900

GROUNDWATER GRADIENT MAP
MONITORED ON 6/16/98

Drawn By: A.G. Job # 9802957 Date: 3/98

VILLA CLEANERS
1899 DEER PARK AVE.
BABYLON, NEW YORK

Fenley & Nicol Environmental

Job Number 9802957

Page 1 of 1

ook Avenue, Deer Park, New York 11728 (516)586-4900 Environmental Services Division

Project VILLA CLEANERS Date 5/28/97

Client JOHN GENNARO Permit No. NA

Location DEER PARK Driller

Well No. CW Use MONITORING WELL Bore Hole Diameter 6-5/8"

Drilling Method Sample Method GRAB

Casing Depth To Water 12'

Type PVC Diameter 2" length 100' Total Depth 100'

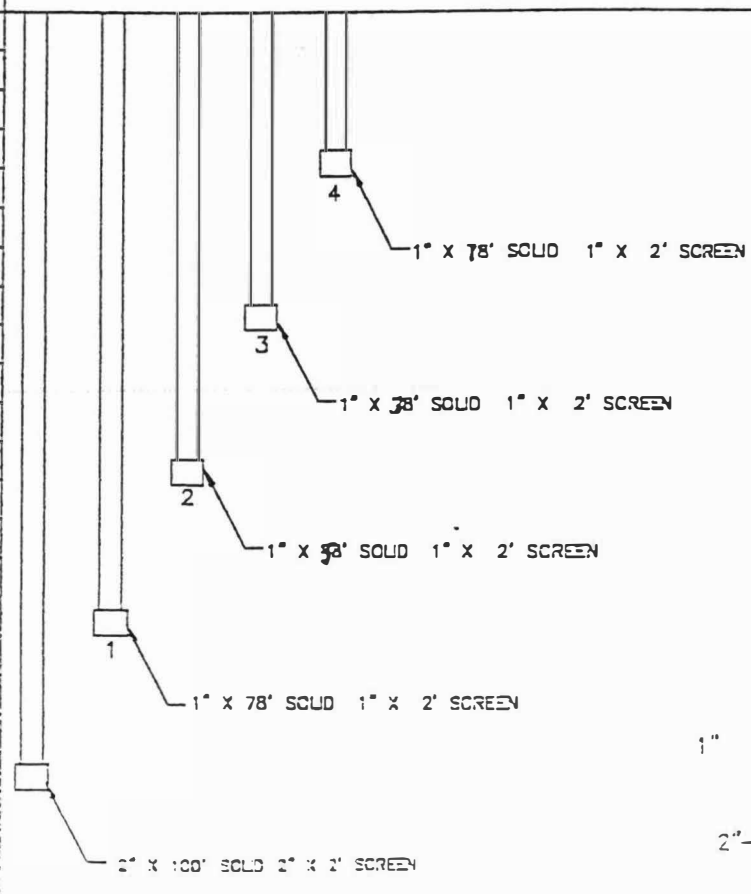
Screen:

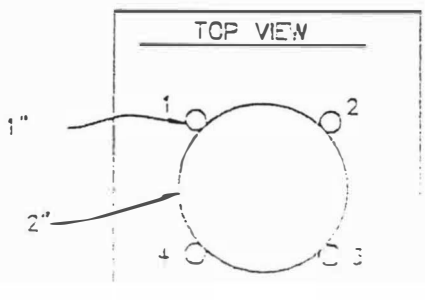
type PVC Diameter 2" Slot .020 Length 2'

Gravel Pack MOIRÉ #1 Casing Seal BENTONITE BETWEEN EACH SCREENED INTERVAL

Security NONE Finish NONE

FT. LOG SCALE	OVA READING (ppm)	IDENTIFICATION OF SOIL/REMARKS
40'		
60'		
80'		
100'		





ANALab INC.

209 Campus Plaza 1, Raritan Center, Edison, New Jersey 08837 (908) 225-4111
ENVIRONMENTAL ANALYTICAL LABORATORY SERVICES FAX (908) 225-4110

CHAIN-OF-CUSTODY RECORD and Work Authorization

LAB SDG NO.: (FOR LAB USE ONLY) 98-06-602

Company: Fenley Geological Environmental
Address: 445 Broadway
City: Lynbrook
State: NY ZIP: 11729 Phone: 586 4900
Project Manager: J Gabrinowitz Fax: 586 4920
Project name: Villa Clemenza Purchase Order No.: 980214

ANALYSIS REQUESTED: 8260

PRINT ANALYSIS REQUESTS CLEARLY, LEGIBLY AND COMPLETELY. Page 1 of 1

	SAMPLE DESCRIPTION	TYPE GRB	TYPE COMP	MATRIX TYPE	DATE SAMPLED	TIME	PRES	NO. CONT	REMARKS
01	MW-1		X	Liquid	6/16/98		HCL	2	2 40ml Vials
02	MW-2		X					2	2-40 ml vials
03	MW-3		X					2	
04	Cluster well 20'		X					2	
05	" " 40'		X					2	
06	" " 60'		X					2	
07	" " 100'		X					2	

FAILURE TO PRINT CLEARLY, LEGIBLY AND COMPLETELY MAY RESULT IN DELAYS. ANY ANALYSIS REQUEST NOT ENTERED COMPLETELY, CLEARLY AND LEGIBLY OR WHICH IS CONFUSING OR AMBIGUOUS MAY RESULT IN DELAYS. SAMPLES CAN NOT BE LOGGED IN AND THE TURNAROUND TIME CLOCK WILL NOT START UNTIL ANY AMBIGUITIES ARE RESOLVED. TO AVOID THIS, PRINT CLEARLY, LEGIBLY AND COMPLETELY.

SAMPLER/SUBMITTER'S STATEMENT: I attest that the proper field sampling procedures were used during the collection of these samples and that the information on this Chain of Custody and the analysis(es) requested are true and correct. Name (print): Joe Gabrinowitz Signature: Joe Gabrinowitz

RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	RELINQUISHED TO LABORATORY BY:	ACCEPTED FOR LAB BY	DATE	TIME
[signature]	[signature]	6/19/98	3:45	[signature]	M. Ickstadt	6/19/98	7:30

Turnaround Time (Faxables)

24Hour____ 5 Day____
48 Hour____ 10 Day____
72 Hour____ 14 Day____

If other than 14 day contact your project manager for authorization number.

Auth No: _____

Laboratory Comments:

All Samples Received
Temp 4.6 °C Cool (Yes) No
Samples Intact (Yes) No
Properly Preserved (Yes) No

Data Deliverables (Standard T.A.T. Hard Copy)

Results only____
Results with QC____
RTD-4____
FTD-2____

If other than standard turnaround time for hard copy, please indicate in client remarks.

Client Remarks:

8260

 White: Lab Yellow: Accounting Pink: Customer/Client Form 0401 Rev. 8/0

Method 8260 Volatile Organics By GC/MS

CLIENT :	PENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-602-07
SAMPLE ID:	CLUSTER WELL 100'	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ml	DATE ANALYZED:	06/23/98
DATA FILE :	>EI725	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	SP/RS
NJDEP LAB ID :	12531		

AS #	COMPOUND	UG/L	Q	MDL
100-41-4	ETHYLBENZENE	U		1
87-68-3	HEXACHLOROBUTADIENE	U		1
98-82-8	ISOPROPYLBENZENE	U		1
99-87-6	P-ISOPROPYLTOLUENE	U		1
75-09-2	METHYLENE CHLORIDE	U		1
91-20-3	NAPHTHALENE	U		1
103-65-1	N-PROPYLBENZENE	U		1
100-42-5	STYRENE	U		1
630-20-6	1,1,1,2-TETRACHLOROETHANE	U		1
79-34-5	1,1,2,2-TETRACHLOROETHANE	U		1
127-18-4	TETRACHLOROETHENE	U		1
108-88-3	TOLUENE	U		1
87-61-6	1,2,3-TRICHLOROBENZENE	U		1
120-82-1	1,2,4-TRICHLOROBENZENE	U		1
71-55-6	1,1,1-TRICHLOROETHANE	U		1
79-00-5	1,1,2-TRICHLOROETHANE	U		1
79-01-6	TRICHLOROETHENE	U		1
75-69-4	TRICHLOROFLUOROMETHANE	U		1
96-18-4	1,2,3-TRICHLOROPROPANE	U		1
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1
108-67-8	1,3,5-TRIMETHYLBENZENE	U		1
75-01-4	VINYL CHLORIDE	U		1
95-47-6	O-XYLENE	U		1
108-38-3	M/P-XYLENE	U		1
10061-01-5	CIS-1,3-DICHLOROPROPENE	U		1
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U		1
634-04-4	METHYL TERT-BUTYL ETHER	U		1
78-93-3	2-BUTANONE	U		10
67-64-1	ACETONE	U		10
108-10-1	4-METHYL-2-PENTANONE	U		10
591-78-6	2-HEXANONE	U		10
75-15-0	CARBON DISULFIDE	U		1
110-75-8	2-CHLORO ETHYL VINYL ETHER	U		1
108-05-4	VINYL ACETATE	U		10

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

Method 8260 Volatile Organics By GC/MS

CLIENT :	FENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-502-07
SAMPLE ID:	CLUSTER WELL 100'	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ml	DATE ANALYZED:	06/23/98
DATA FILE :	>E1725	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	SP/RS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
71-43-2	BENZENE	U		
108-86-1	BROMOBENZENE	U		
74-97-5	BROMO HLOROMETHANE	U		
75-27-4	BROMODICHLOROMETHANE	U		
75-25-2	BROMOFORM	U		
74-83-9	BROMOMETHANE	U		
104-51-8	N-BUTYLBENZENE	U		
135-98-8	SEC-BUTYLBENZENE	U		
98-06-6	TERT-BUTYLBENZENE	U		
56-23-5	CARBON TETRACHLORIDE	U		
108-90-7	CHLOROBENZENE	U		
124-48-1	DIBROMOCHLOROMETHANE	U		
74-00-3	CHLOROETHANE	U		
67-66-3	CHLOROFORM	U		
74-87-3	CHLOROMETHANE	U		
95-49-8	2-CHLOROTOLUENE	U		
106-43-4	4-CHLOROTOLUENE	U		
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		
106-93-4	1,2-DIBROMOETHANE	U		
74-95-3	DIBROMOMETHANE	U		
95-50-1	1,2-DICHLOROBENZENE	U		
541-73-1	1,3-DICHLOROBENZENE	U		
106-46-7	1,4-DICHLOROBENZENE	U		
75-71-8	DICHLORODIFLUOROMETHANE	U		
75-34-3	1,1-DICHLOROETHANE	U		
107-06-2	1,2-DICHLOROETHANE	U		
75-35-4	1,1-DI HLOROETHENE	U		
156-59-2	CIS-1,2-DICHLOROETHENE	U		
156-60-5	TRANS-1,2-DICHLOROETHENE	U		
78-87-5	1,2-DICHLOROPROPANE	U		
142-28-9	1,3-DICHLOROPROPANE	U		
594-20-7	2,2-DICHLOROPROPANE	U		
563-58-6	1,1-DICHLOROPROPENE	U		

Method 8260 Volatile Organics By GC/MS

CLIENT :	FENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-602-06
SAMPLE ID:	CLUSTER WELL 60'	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ml	DATE ANALYZED:	06/23/98
DATA FILE :	>E1726	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	SF/RS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
100-41-4	ETHYLBENZENE	U		1.0
87-68-3	HEXACHLOROBUTADIENE	U		1.0
98-82-8	ISOPROPYLBENZENE	U		1.0
99-87-6	P-ISOPROPYLTOLUENE	U		1.0
75-09-2	METHYLENE CHLORIDE	U		1.0
91-20-3	NAPHTHALENE	U		1.0
103-65-1	N-PROPYLBENZENE	U		1.0
100-42-5	STYRENE	U		1.0
630-20-6	1,1,1,2-TETRACHLOROETHANE	U		1.0
79-34-5	1,1,2,2-TETRACHLOROETHANE	U		1.0
127-18-4	TETRACHLOROETHENE	U		1.0
108-88-3	TOLUENE	U		1.0
87-61-6	1,2,3-TRICHLOROBENZENE	U		1.0
120-82-1	1,2,4-TRICHLOROBENZENE	U		1.0
71-55-6	1,1,1-TRICHLOROETHANE	U		1.0
79-00-5	1,1,2-TRICHLOROETHANE	U		1.0
79-01-6	TRICHLOROETHENE	U		1.0
75-69-4	TRICHLOROFLUOROMETHANE	U		1.0
96-18-4	1,2,3-TRICHLOROPROPANE	U		1.0
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1.0
108-67-8	1,3,5-TRIMETHYLBENZENE	U		1.0
75-01-4	VINYL CHLORIDE	U		1.0
95-47-6	O-XYLENE	U		1.0
108-38-3	M/P-XYLENE	U		1.0
10061-01-5	CIS-1,3-DICHLOROPROPENE	U		1.0
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U		1.0
1634-04-4	METHYL TERT-BUTYL ETHER	U		1.0
78-93-3	2-BUTANONE	U		10.0
67-64-1	ACETONE	U		10.0
108-10-1	4-METHYL-2-PENTANONE	U		10.0
591-78-6	2-HEXANONE	U		10.0
75-15-0	CARBON DISULFIDE	U		1.0
110-75-8	2-CHLORO ETHYL VINYL ETHER	U		1.0
108-05-4	VINYL ACETATE	U		1.0

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

Method 8260 Volatile Organics By GC/MS

CLIENT : FENLEY+NICOL ENVIRO
SAMPLE ID: CLUSTER WELL 60'
PROJECT: VILLA CLEANERS
SAMPLE VOL. : 5.0ml
DATA FILE : >E1726
EXTRACT/DATE : N/A
NJDEP LAB ID : 12531

LAB SAMPLE ID : 98-06-602-06
DATE SAMPLED: 6-16-98
DATE RECEIVED: 06-19-98
DATE ANALYZED: 06/23/98
DIL. FACT : 1.00
ANALYST: SP7RS

AS #	COMPOUND	UG/L	Q	MDL
71-43-2	BENZENE	U		
108-86-1	BROMOBENZENE	U		
74-97-5	BROMOCHLOROMETHANE	U		
75-27-4	BROMODICHLOROMETHANE	U		
75-25-2	BROMOFORM	U		
74-83-9	BROMOMETHANE	U		
104-51-8	N-BUTYLBENZENE	U		
135-98-8	SEC-BUTYLBENZENE	U		
98-06-6	TERT-BUTYLBENZENE	U		
56-23-5	CARBON TETRACHLORIDE	U		
108-90-7	CHLOROBENZENE	U		
124-48-1	DIBROMOCHLOROMETHANE	U		
74-00-3	CHLOROETHANE	U		
67-66-3	CHLOROFORM	U		
74-87-3	CHLOROMETHANE	U		
95-49-8	2-CHLOROTOLUENE	U		
106-43-4	4-CHLOROTOLUENE	U		
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		
106-93-4	1,2-DIBROMOETHANE	U		
74-95-3	DIBROMOMETHANE	U		
95-50-1	1,2-DICHLOROBENZENE	U		
541-73-1	1,3-DICHLOROBENZENE	U		
106-46-7	1,4-DICHLOROBENZENE	U		
75-71-8	DICHLORODIFLUOROMETHANE	U		
75-34-3	1,1-DICHLOROETHANE	U		
107-06-2	1,2-DICHLOROETHANE	U		
75-35-4	1,1-DICHLOROETHENE	U		
156-59-2	CIS-1,2-DICHLOROETHENE	9.[illegible]		
156-60-5	TRANS-1,2-DICHLOROETHENE	U		
78-87-5	1,2-DICHLOROPROPANE	U		
142-28-9	1,3-DICHLOROPROPANE	U		
594-20-7	2,2-DICHLOROPROPANE	U		
563-58-6	1,1-DICHLOROPROPENE	U		

Method 8260 Volatile Organics By GC/MS

CLIENT :	FENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-602-05
SAMPLE ID:	CLUSTER WELL 40'	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ml	DATE ANALYZED:	06/23/98
DATA FILE :	>EI727	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	SP/RS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
100-41-4	ETHYLBENZENE	U		
87-68-3	HEXACHLOROBUTADIENE	U		
98-82-8	ISOPROPYLBENZENE	U		
99-87-6	P-ISOPROPYLTOLUENE	U		
75-09-2	METHYLENE CHLORIDE	U		
91-20-3	NAPHTHALENE	U		
103-65-1	N-PROPYLBENZENE	U		
100-42-5	STYRENE	U		
630-20-6	1,1,1,2-TETRACHLOROETHANE	U		
79-34-5	1,1,2,2-TETRACHLOROETHANE	U		
127-18-4	TETRACHLOROETHENE	U		
108-88-3	TOLUENE	U		
87-61-6	1,2,3-TRICHLOROBENZENE	U		
120-82-1	1,2,4-TRICHLOROBENZENE	U		
71-55-6	1,1,1-TRICHLOROETHANE	U		
79-00-5	1,1,2-TRICHLOROETHANE	U		
79-01-6	TRICHLOROETHENE	U		
75-69-4	TRICHLOROFLUOROMETHANE	U		
96-18-4	1,2,3-TRICHLOROPROPANE	U		
95-63-6	1,2,4-TRIMETHYLBENZENE	U		
108-67-8	1,3,5-TRIMETHYLBENZENE	U		
75-01-4	VINYL CHLORIDE	U		
95-47-6	O-XYLENE	U		
108-38-3	M/P-XYLENE	U		
10061-01-5	CIS-1,3-DICHLOROPROPENE	U		
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U		
1634-04-4	METHYL TERT-BUTYL ETHER	5.0		
78-93-3	2-BUTANONE	U		
67-64-1	ACETONE	U		
108-10-1	4-METHYL-2-PENTANONE	U		
591-78-6	2-HEXANONE	U		
75-15-0	CARBON DISULFIDE	U		
110-75-8	2-CHLORO ETHYL VINYL ETHER	U		
108-05-4	VINYL ACETATE	U		

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

Method 8260 Volatile Organics By GC/MS

CLIENT :	FENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-602-05
SAMPLE ID:	CLUSTER WELL 40'	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ML	DATE ANALYZED:	06/23/98
DATA FILE :	SE1727	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	SP/RS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
71-43-2	BENZENE	U		
108-86-1	BROMOBENZENE	U		
74-97-5	BROMOCHLOROMETHANE	U		
75-27-4	BROMODICHLOROMETHANE	U		
75-25-2	BROMOFORM	U		
74-83-9	BROMOMETHANE	U		
104-51-8	N-BUTYLBENZENE	U		
135-98-8	SEC-BUTYLBENZENE	U		
98-06-6	TERT-BUTYLBENZENE	U		
56-23-5	CARBON TETRACHLORIDE	U		
108-90-7	CHLOROBENZENE	U		
124-48-1	DIBROMOCHLOROMETHANE	U		
74-00-3	CHLOROETHANE	U		
67-66-3	CHLOROFORM	U		
74-87-3	CHLOROMETHANE	U		
95-49-8	2-CHLOROTOLUENE	U		
106-43-4	4-CHLOROTOLUENE	U		
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		
106-93-4	1,2-DIBROMOETHANE	U		
74-95-3	DIBROMOMETHANE	U		
95-50-1	1,2-DICHLOROBENZENE	U		
541-73-1	1,3-DICHLOROBENZENE	U		
106-46-7	1,4-DICHLOROBENZENE	U		
75-71-8	DICHLORODIFLUOROMETHANE	U		
75-34-3	1,1-DICHLOROETHANE	U		
107-06-2	1,2-DICHLOROETHANE	U		
75-35-4	1,1-DICHLOROETHENE	U		
156-59-2	CIS-1,2-DICHLOROETHENE	1	J	
156-60-5	TRANS-1,2-DICHLOROETHENE	U		
78-87-5	1,2-DICHLOROPROPANE	U		
142-28-9	1,3-DICHLOROPROPANE	U		
594-20-7	2,2-DICHLOROPROPANE	U		
563-58-6	1,1-DICHLOROPROPENE	U		

Method 8260 Volatile Organics By GC/MS

CLIENT :	FENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-602-04
SAMPLE ID:	CLUSTER WELL 20'	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ML	DATE ANALYZED:	06/23/98
DATA FILE :	>E1728	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	SP/RS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
100-41-4	ETHYLBENZENE	U		5
87-68-3	HEXACHLOROBUTADIENE	U		5
98-82-8	ISOPROPYLBENZENE	U		5
99-87-6	P-ISOPROPYLTOLUENE	U		5
75-09-2	METHYLENE CHLORIDE	U		5
91-20-3	NAPHTHALENE	U		5
103-65-1	N-PROPYLBENZENE	U		5
100-42-5	STYRENE	U		5
630-20-6	1,1,1,2-TETRACHLOROETHANE	U		5
79-34-5	1,1,2,2-TETRACHLOROETHANE	U		5
127-18-4	TETRACHLOROETHENE	23		5
108-88-3	TOLUENE	U		5
87-61-6	1,2,3-TRICHLOROBENZENE	U		5
120-82-1	1,2,4-TRICHLOROBENZENE	U		5
71-55-6	1,1,1-TRICHLOROETHANE	U		5
79-00-5	1,1,2-TRICHLOROETHANE	U		5
79-01-6	TRICHLOROETHENE	U		5
75-69-4	TRICHLOROFLUOROMETHANE	U		5
96-18-4	1,2,3-TRICHLOROPROPANE	U		5
95-63-6	1,2,4-TRIMETHYLBENZENE	U		5
108-67-8	1,3,5-TRIMETHYLBENZENE	U		5
75-01-4	VINYL CHLORIDE	U		5
95-47-6	O-XYLENE	U		5
108-38-3	M/P-XYLENE	U		5
10061-01-5	CIS-1,3-DICHLOROPROPENE	U		5
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U		5
634-04-4	METHYL TERT-BUTYL ETHER	U		5
78-93-3	2-BUTANONE	U		10
67-64-1	ACETONE	U		10
108-10-1	4-METHYL-2-PENTANONE	U		10
591-78-6	2-HEXANONE	U		10
75-15-0	CARBON DISULFIDE	U		5
110-75-8	2-CHLORO ETHYL VINYL ETHER	U		5
108-05-4	VINYL ACETATE	U		5

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

Method 8260 Volatile Organics By GC/MS

CLIENT :	FENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-602-04
SAMPLE ID:	CLUSTER WELL 20'	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ML	DATE ANALYZED:	06/23/98
DATA FILE :	>E1728	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	SP/RS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
71-43-2	BENZENE	U		
108-86-1	BROMOBENZENE	U		
74-97-5	BROMOCHLOROMETHANE	U		
75-27-4	BROMODICHLOROMETHANE	U		
75-25-2	BROMOFORM	U		
74-83-9	BROMOMETHANE	U		
104-51-8	N-BUTYLBENZENE	U		
135-98-8	SEC-BUTYLBENZENE	U		
98-06-6	TERT-BUTYLBENZENE	U		
56-23-5	CARBON TETRACHLORIDE	U		
108-90-7	CHLOROBENZENE	U		
124-48-1	DIBROMOCHLOROMETHANE	U		
74-00-3	CHLOROETHANE	U		
67-66-3	CHLOROFORM	U		
74-87-3	CHLOROMETHANE	U		
95-49-8	2-CHLOROTOLUENE	U		
106-43-4	4-CHLOROTOLUENE	U		
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		
106-93-4	1,2-DIBROMOETHANE	U		
74-95-3	DIBROMOMETHANE	U		
95-50-1	1,2-DICHLOROBENZENE	U		
541-73-1	1,3-DICHLOROBENZENE	U		
106-46-7	1,4-DICHLOROBENZENE	U		
75-71-8	DICHLORODIFLUOROMETHANE	U		
75-34-3	1,1-DICHLOROETHANE	U		
107-06-2	1,2-DICHLOROETHANE	U		
75-35-4	1,1-DICHLOROETHENE	U		
156-59-2	CIS-1,2-DICHLOROETHENE	U		
156-60-5	TRANS-1,2-DICHLOROETHENE	U		
78-87-5	1,2-DICHLOROPROPANE	U		
142-28-9	1,3-DICHLOROPROPANE	U		
594-20-7	2,2-DICHLOROPROPANE	U		
563-58-6	1,1-DICHLOROPROPENE	U		

Method 8260 Volatile Organics By GC/MS

CLIENT :	FENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-602-03
SAMPLE ID:	MW-3	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ml/0.5ML	DATE ANALYZED:	6/23,24/98
DATA FILE :	>E1729/>E1742	DIL. FACT :	1.00/10.0
EXTRACT/DATE :	N/A	ANALYST:	SP/RS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
100-41-4	ETHYLBENZENE	U		5
87-68-3	HEXACHLOROBUTADIENE	U		5
98-82-8	ISOPROPYLBENZENE	U		5
99-87-6	P-ISOPROPYLTOLUENE	U		5
75-09-2	METHYLENE CHLORIDE	U		5
91-20-3	NAPHTHALENE	U		5
103-65-1	N-PROPYLBENZENE	U		5
100-42-5	STYRENE	U		5
630-20-6	1,1,1,2-TETRACHLOROETHANE	U		5
79-34-5	1,1,2,2-TETRACHLOROETHANE	U		5
127-18-4	TETRACHLOROETHENE	1700	D	5
108-88-3	TOLUENE	U		5
87-61-6	1,2,3-TRICHLOROBENZENE	U		5
120-82-1	1,2,4-TRICHLOROBENZENE	U		5
71-55-6	1,1,1-TRICHLOROETHANE	U		5
79-00-5	1,1,2-TRICHLOROETHANE	U		5
79-01-6	TRICHLOROETHENE	34		5
75-69-4	TRICHLOROFLUOROMETHANE	U		5
96-18-4	1,2,3-TRICHLOROPROPANE	U		5
95-63-6	1,2,4-TRIMETHYLBENZENE	U		5
108-67-8	1,3,5-TRIMETHYLBENZENE	U		5
75-01-4	VINYL CHLORIDE	U		5
95-47-6	O-XYLENE	U		5
108-38-3	M/P-XYLENE	U		5
10061-01-5	CIS-1,3-DICHLOROPROPENE	U		5
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U		5
1634-04-4	METHYL TERT-BUTYL ETHER	U		5
78-93-3	2-BUTANONE	U		10
67-64-1	ACETONE	U		10
108-10-1	4-METHYL-2-PENTANONE	U		10
591-78-6	2-HEXANONE	U		10
75-15-0	CARBON DISULFIDE	U		5
110-75-8	2-CHLORO ETHYL VINYL ETHER	U		5
108-05-4	VINYL ACETATE	U		5

QUALIFIERS

- D Indicates values taken from dilution run
- J Indicates detected below MDL, Estimated Value
- U Indicates compound not detected
- B Indicates compound also present in blank
- E Exceeds Calibration Range, Estimated Value

Method 8260 Volatile Organics By GC/MS

CLIENT :	FENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-602-03
SAMPLE ID:	MW-3	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ML/0.5ML	DATE ANALYZED:	6/23,24/98
DATA FILE :	>E1729/>E1742	DIL. FACT :	1.00/10.0
EXTRACT/DATE :	N/A	ANALYST:	SP/RS
NJDEP LAB ID :	12531		

AS #	COMPOUND	UG/L	Q	MDL
71-43-2	BENZENE	U		5
108-86-1	BROMOBENZENE	U		5
74-97-5	BROMOCHLOROMETHANE	U		5
75-27-4	BROMODICHLOROMETHANE	U		5
75-25-2	BROMOFORM	U		5
74-83-9	BROMOMETHANE	U		5
104-51-8	N-BUTYLBENZENE	U		5
135-98-8	SEC-BUTYLBENZENE	U		5
98-06-6	TERT-BUTYLBENZENE	U		5
56-23-5	CARBON TETRACHLORIDE	U		5
108-90-7	CHLOROBENZENE	U		5
124-48-1	DIBROMOCHLOROMETHANE	U		5
74-00-3	CHLOROETHANE	U		5
67-66-3	CHLOROFORM	U		5
74-87-3	CHLOROMETHANE	U		5
95-49-8	2-CHLOROTOLUENE	U		5
106-43-4	4-CHLOROTOLUENE	U		5
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		5
106-93-4	1,2-DIBROMOETHANE	U		5
74-95-3	DIBROMOMETHANE	U		5
95-50-1	1,2-DICHLOROBENZENE	U		5
541-73-1	1,3-DICHLOROBENZENE	U		5
106-46-7	1,4-DICHLOROBENZENE	U		5
75-71-8	DICHLORODIFLUOROMETHANE	U		5
75-34-3	1,1-DICHLOROETHANE	U		5
107-06-2	1,2-DICHLOROETHANE	U		5
75-35-4	1,1-DICHLOROETHENE	U		5
156-59-2	CIS-1,2-DICHLOROETHENE	35	D	5
156-60-5	TRANS-1,2-DICHLOROETHENE	U		5
78-87-5	1,2-DICHLOROPROPANE	U		5
142-28-9	1,3-DICHLOROPROPANE	U		5
594-20-7	2,2-DICHLOROPROPANE	U		5
563-58-6	1,1-DICHLOROPROPENE	U		5

Method 8260 Volatile Organics By GC/MS

CLIENT :	FENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-602-2
SAMPLE ID:	MW-2	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ml	DATE ANALYZED:	06/24/98
DATA FILE :	>ET741	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	GR/RS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
100-41-4	E HYLBENZENE	U		1
87-68-3	HEXACHLOROBUTADIENE	U		1
98-82-8	ISOPROPYLBENZENE	U		1
99-87-6	P-ISOPROPYLTOLUENE	U		1
75-09-2	METHYLENE CHLORIDE	U		1
91-20-3	NAPHTHALENE	U		1
103-65-1	N-PROPYLBENZENE	U		1
100-42-5	STYRENE	U		1
630-20-6	1,1,1,2-TETRACHLOROETHANE	U		1
79-34-5	1,1,2,2-TETRACHLOROETHANE	U		1
127-18-4	TETRACHLOROETHENE	1		1
108-88-3	TOLUENE	U		1
87-61-6	1,2,3-TRICHLOROBENZENE	U		1
120-82-1	1,2,4-TRICHLOROBENZENE	U		1
71-55-6	1,1,1-TRICHLOROETHANE	U		1
79-00-5	1,1,2-TRICHLOROETHANE	U		1
79-01-6	TRICHLOROETHENE	U		1
75-69-4	TRICHLOROFLUOROMETHANE	U		1
96-18-4	1,2,3-TRICHLOROPROPANE	U		1
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1
108-67-8	1,3,5-TRIMETHYLBENZENE	U		1
75-01-4	VINYL CHLORIDE	U		1
95-47-6	O-XYLENE	U		1
108-38-3	M/P-XYLENE	U		1
10061-01-5	CIS-1,3-DICHLOROPROPENE	U		1
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U		1
1634-04-4	METHYL TERT-BUTYL ETHER	U		1
78-93-3	2-BUTANONE	U		10
67-64-1	ACETONE	U		10
108-10-1	4-METHYL-2-PENTANONE	U		10
591-78-6	2-HEXANONE	U		10
75-15-0	CARBON DISULFIDE	U		1
110-75-8	2-CHLORO ETHYL VINYL ETHER	U		1
108-05-4	VINYL ACETATE	U		1

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

Method 8260 Volatile Organics By GC/MS

CLIENT : FENLEY+NICOL ENVIRO
SAMPLE ID: MW-2
PROJECT: VILLA CLEANERS
SAMPLE VOL. : 5.0ml
DATA FILE : >E1741
EXTRACT/DATE : N/A
NJDEP LAB ID : 12531

LAB SAMPLE ID : 98-06-602-2
DATE SAMPLED: 6-16-98
DATE RECEIVED: 06-19-98
DATE ANALYZED: 06/24/98
DIL. FACT : 1.00
ANALYST: GR/RS

CAS #	COMPOUND	UG/L	Q	MDL
71-43-2	BENZENE	U		
108-86-1	BROMOBENZENE	U		
74-97-5	BROMOCHLOROMETHANE	U		
75-27-4	BROMODICHLOROMETHANE	U		
75-25-2	BROMOFORM	U		
74-83-9	BROMOMETHANE	U		
104-51-8	N-BUTYLBENZENE	U		
135-98-8	SEC-BUTYLBENZENE	U		
98-06-6	TERT-BUTYLBENZENE	U		
56-23-5	CARBON TETRACHLORIDE	U		
108-90-7	CHLOROBENZENE	U		
124-48-1	DIBROMOCHLOROMETHANE	U		
74-00-3	CHLOROETHANE	U		
67-66-3	CHLOROFORM	U		
74-87-3	CHLOROMETHANE	U		
95-49-8	2-CHLOROTOLUENE	U		
106-43-4	4-CHLOROTOLUENE	U		
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		
106-93-4	1,2-DIBROMOETHANE	U		
74-95-3	DIBROMOMETHANE	U		
95-50-1	1,2-DICHLOROBENZENE	U		
541-73-1	1,3-DICHLOROBENZENE	U		
106-46-7	1,4-DICHLOROBENZENE	U		
75-71-8	DICHLORODIFLUOROMETHANE	U		
75-34-3	1,1-DICHLOROETHANE	U		
107-06-2	1,2-DICHLOROETHANE	U		
75-35-4	1,1-DICHLOROETHENE	U		
156-59-2	CIS-1,2-DICHLOROETHENE	U		
156-60-5	TRANS-1,2-DICHLOROETHENE	U		
78-87-5	1,2-DICHLOROPROPANE	U		
142-28-9	1,3-DICHLOROPROPANE	U		
594-20-7	2,2-DICHLOROPROPANE	U		
563-58-6	1,1-DICHLOROPROPENE	U		

Method 8260 Volatile Organics By GC/MS

CLIENT :	FENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-602-01
SAMPLE ID:	MW-1	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ML	DATE ANALYZED:	06/23/98
DATA FILE :	>E1731	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	SP/RS
NJDEP LAB ID :	12531		

C S #	COMPOUND	UG/L	Q	MDL
100-41-4	ETHYLBENZENE	U		1
87-68-3	HEXACHLOROBUTADIENE	U		1
98-82-8	ISOPROPYLBENZENE	U		1
99-87-6	P-ISOPROPYLTOLUENE	U		1
75-09-2	METHYLENE CHLORIDE	U		1
91-20-3	NAPHTHALENE	U		1
103-65-1	N-PROPYLBENZENE	U		1
100-42-5	STYRENE	U		1
630-20-6	1,1,1,2-TETRACHLOROETHANE	U		1
79-34-5	1,1,2,2-TETRACHLOROETHANE	U		1
127-18-4	TETRACHLOROETHENE	U		1
108-88-3	TOLUENE	U		1
87-61-6	1,2,3-TRICHLOROBENZENE	U		1
120-82-1	1,2,4-TRICHLOROBENZENE	U		1
71-55-6	1,1,1-TRICHLOROETHANE	U		1
79-00-5	1,1,2-TRICHLOROETHANE	U		1
79-01-6	TRICHLOROETHENE	U		1
75-69-4	TRICHLOROFLUOROMETHANE	U		1
96-18-4	1,2,3-TRICHLOROPROPANE	U		1
95-63-6	1,2,4-TRIMETHYLBENZENE	U		1
108-67-8	1,3,5-TRIMETHYLBENZENE	U		1
75-01-4	VINYL CHLORIDE	U		1
95-47-6	O-XYLENE	U		1
108-38-3	M/P-XYLENE	U		1
10061-01-5	CIS-1,3-DICHLOROPROPENE	U		1
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U		1
634-04-4	METHYL TERT-BUTYL ETHER	U		1
78-93-3	2-BUTANONE	U		10
67-64-1	ACETONE	U		10
108-10-1	4-METHYL-2-PENTANONE	U		10
591-78-6	2-HEXANONE	U		10
75-15-0	CARBON DISULFIDE	U		1
110-75-8	2-CHLORO ETHYL VINYL ETHER	U		1
108-05-4	VINYL ACETATE	U		1

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

Method 8260 Volatile Organics By GC/MS

CLIENT :	FENLEY+NICOL ENVIRO	LAB SAMPLE ID :	98-06-602-01
SAMPLE ID:	MW-1	DATE SAMPLED:	6-16-98
PROJECT:	VILLA CLEANERS	DATE RECEIVED:	06-19-98
SAMPLE VOL. :	5.0ML	DATE ANALYZED:	06/23/98
DATA FILE :	>E1731	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	SP/RS
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
71-43-2	BENZENE	U		
108-86-1	BROMOBENZENE	U		
74-97-5	BROMOCHLOROMETHANE	U		
75-27-4	BROMODICHLOROMETHANE	U		
75-25-2	BROMOFORM	U		
74-83-9	BROMOMETHANE	U		
104-51-8	N-BUTYLBENZENE	U		
135-98-8	SEC-BUTYLBENZENE	U		
98-06-6	TERT-BUTYLBENZENE	U		
56-23-5	CARBON TETRACHLORIDE	U		
108-90-7	CHLOROBENZENE	U		
124-48-1	DIBROMOCHLOROMETHANE	U		
74-00-3	CHLOROETHANE	U		
67-66-3	CHLOROFORM	U		
74-87-3	CHLOROMETHANE	U		
95-49-8	2-CHLOROTOLUENE	U		
106-43-4	4-CHLOROTOLUENE	U		
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U		
106-93-4	1,2-DIBROMOETHANE	U		
74-95-3	DIBROMOMETHANE	U		
95-50-1	1,2-DICHLOROBENZENE	U		
541-73-1	1,3-DICHLOROBENZENE	U		
106-46-7	1,4-DICHLOROBENZENE	U		
75-71-8	DICHLORODIFLUOROMETHANE	U		
75-34-3	1,1-DICHLOROETHANE	U		
107-06-2	1,2-DICHLOROETHANE	U		
75-35-4	1,1-DICHLOROETHENE	U		
156-59-2	CIS-1,2-DICHLOROETHENE	U		
156-60-5	TRANS-1,2-DICHLOROETHENE	U		
78-87-5	1,2-DICHLOROPROPANE	U		
142-28-9	1,3-DICHLOROPROPANE	U		
594-20-7	2,2-DICHLOROPROPANE	U		
563-58-6	1,1-DICHLOROPROPENE	U		

ANSON ENVIRONMENTAL LTD.

771 New York Avenue
Huntington, New York 11743
516-351-3555
Fax: 516-351-3615

November 28, 1997

Mr. Peter Schramel
Suffolk County Department of Health Services
15 Horseblock Road
Farmingville, New York 11738

Re: Villa Cleaners
1899 Route 231
Deer Park, NY 11729

Dear Mr. Schramel,

On Monday October 27 and Tuesday October 28, 1997, Dennis Madigan of Anson Environmental Ltd. (AEL) was on site to over see Bill Mallins of Ronkonkoma, remove the contaminated sediment from within the leaching pools and the rear storm drain. Mr. Robert Morcerf of the Suffolk County Department of Health (SCDHS) was on site to witness the clean out of these subsurface structures as well as to collect several endpoint samples of the leaching pools after they had been cleaned out.

Lange Cesspool Services removed the liquid from within the leaching pools. The liquid was transported to Bergen Point, where approximately 18,000 gallons were properly disposed of. A copy of the, Acceptability of Waste, letter appears in Appendix **One**. A copy of the waste manifest will be furnished to upon receipt to our office.

Bill Mallins Incorporated of Ronkonkoma removed the contaminated sediment using a Guzzler vacuum unit. Approximately 12-15 cubic yards of contaminated sediment was removed from within the leaching pools and rear storm drain.

Maymee Express Incorporated of Sommerville New Jersery transported the waste to Wayne Disposal Landfill of Bellville Michigan. The waste manifest for the sediment will be furnished to your office upon receipt to our office.

The SCDHS split the endpoint samples with AEL from several of the leaching pools. There were a total of five leaching pool endpoint samples collected by AEL which were labeled Initial leaching pool, 1 RM, 2 RM, 3 RM and 4 RM. AEL also collected an endpoint sample from the rear storm drain as well.

AEL forwarded the samples to EcoTest Laboratories of North Babylon which analyzed the samples using EPA method 8260 for the volatile organics. EcoTest also analyzed the soil for metals according to the Suffolk County Department of Health Services requirements.

The results from the laboratory data appear below in Table One. The actual laboratory data for the soil appears in Appendix **Two.**

Table One

Sample #	Constituent	Laboratory result	(SOP No. 9-95)*
Initial	cis-1,2- Dichloroethene	1 ppb	300 ppb
	1,2,4-Trimethylbenzene	1 ppb	2,400 ppb
	Tetrachloroethene	3 ppb	1,400 ppb
	Acetone	90 ppb	200 ppb
1 RM	p-Ethyltoulene	24 ppb	1,800 ppb
	1,3,5-Trimethylbenzene	16 ppb	2,600 ppb
	1,2,4-Trimethylbenzene	39 ppb	2,400 ppb
	1,2,4,5-Trimethylbenzene	6 ppb	10,000 ppb
	Naphthalene	11 ppb	10,000 ppb
	p-Isopropylbenzene	150 ppb	NS
2 RM	Ethyl Benzene	1 ppb	5,500 ppb
	m+p- Xylene	7 ppb	1,200 ppb
	o Xylene	4 ppb	1,200 ppb
	Xylene	10 ppb	1,200 ppb
	p-Ethyltoulene	2 ppb	1,800 ppb
	1,3,5-Trimethylbenzene	3 ppb	2,600 ppb
	1,2,4-Trimethylbenzene	8 ppb	2,400 ppb
	Naphthalene	1 ppb	10,000 ppb
	Acetone	73 ppb	200 ppb
	p-Isopropylbenzene	3 ppb	NS
	n-Propylbenzene	1 ppb	300 ppb

Table One (Continued)

3 RM	1,3,5-Trimethylbenzene	1 ppb	2,600 ppb
	1,2,4-Trimethylbenzene	3 ppb	2,400 ppb
	Naphthalene	1 ppb	10,000 ppb
	p-Isopropylbenzene	4 ppb	NS
4 RM	1,3,5-Trimethylbenzene	1 ppb	2,600 ppb
	1,2,4-Trimethylbenzene	4 ppb	2,400 ppb
	Acetone	78 ppb	200 ppb

'Rear Storm Drain

No volatile organic constituents were found above the method detection limit.

* = SCDHS Standard Operating Procedure for the Administration of Article 12 of the Suffolk County Sanitary Code (SOP No. 9-95)

NS = No Standard
ppb= Parts Per Billion

On Monday July 14, 1997, Dennis Madigan was on site using a Geoprobe unit to collect a total of five (5) groundwater samples. The samples were brought to EcoTest Laboratories and analyzed using EPA method 601. The purpose of this investigation was to see if the groundwater in the area has any elevated readings of chlorinated solvents. Mr. Morcerf was on site to verify locations and depths of the samples that were being collected by AEL. A Map of the subject property appears in Appendix **Three**.

Sample point GW 1 was collected approximately ten feet north of the midpoint between the solid covers of the two leaching pools labeled 3 RM 5-5 and 4 RM 5-5. This sample was collected to observe the quality of the groundwater coming on to the site.

The samples labeled GW 2, GW 3 and GW 4 were collected to observe the quality of the groundwater to the south of the leaching pools labeled 4 RM 5-5, 2 RM 5-5 and 1 RM 5-5, (See Map). Each of the groundwater samples were collected at a distance of approximately ten feet to the south of each leaching pool's solid cover. The rear storm drain, which is located on the eastern side of the property, was investigated too. The groundwater sample labeled GW 5 was collected at a distance of two and a half feet to the south of the storm drain. All of the groundwater samples were collected from a

depth below grade of approximately 18 to 20 feet. The laboratory data for the groundwater samples appear in Appendix **Four**. The data can been seen below in Table Two.

Table Two

Sample #	Constituent	Laboratory result	NYSDEC (TAGM)*
GW1	1,2 Dichloroethene	40 ppb	5 ppb
	Trichloroethylene	2 ppb	5 ppb
	Tetrachloroethene	61 ppb	5 ppb
GW2	Vinyl Chloride	20 ppb	2 ppb
	1,2 Dichloroethene	100 ppb	5 ppb
	Trichloroethylene	19 ppb	5 ppb
GW3	Vinyl Chloride	8 ppb	2 ppb
	1,2 Dichloroethene	7900 ppb	5 ppb
	Trichloroethylene	100 ppb	5 ppb
	Tetrachloroethene	100 ppb	5 ppb
GW4	Tetrachloroethene	280 ppb	5 ppb
GW5	1,2 Dichloroethene	6 ppb	5 ppb
	Trichloroethylene	2 ppb	5 ppb
	Tetrachloroethene	5 ppb	5 ppb

* = New York State Department of Environmental Conservation; Technical Administrative Guidance Memorandum.

ppb= Parts Per Billion

Recommended Activities

The endpoint soil sample results indicate that the clean out of the sanitary leaching pools was successful. The elevated levels of the constituents that were found, above the method detection limit, fall below the SOP No. 9-95 cleanup objectives. AEL believes that no further work, on the sanitary leaching pools, is required at this time.

If groundwater monitoring wells are required by the SCDHS, do to the elevated levels of constituents that were found in the groundwater samples, AEL will install three permanent monitoring wells on the property. The monitoring wells will be used for the purposes of determining the direction of groundwater flow and the quality of the groundwater on the subject property. If additional remediation is required on this site, we will prepare the necessary proposals and work plans for consideration by the client.

Prior to any on site activities, AEL will notify the SCDHS at least 48 hours in advance

If you have any questions regarding this matter, please do not hesitate to give us a call at 351-3555.

Very truly yours,

Dean Anson II

cc Mr. John Gennaro, Villa Cleaners
Mr. John Soderberg, Esq., Farrel, Fritz, Caemmerer, et al

Appendix One

COUNTY OF SUFFOLK

ROBERT J. GAFFNEY
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF PUBLIC WORKS

STEPHEN G. HAYDUK, P.E.
COMMISSIONER

October 29, 1997

Dennis Madigan
Anson Environmental
33 Gerard St. - Suite 100
Huntington, NY 11743

Re: Villa Cleaners - Deer Park
Acceptability of Waste

Dear Mr. Madigan:

This is written to confirm that the contents of the sanitary system servicing the above referenced was acceptable for disposal at the County's Bergen Point facility and that this work was done on 27 October 97.

Very truly yours,

Robert N. Falk
Permit Administrator

RNF:cs
cc: R. Strzepek
D. Krol
P. Schramel

Appendix Two

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/1 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, Initial

ANALYTICAL PARAMETERS		
Chloromethane	ug/Kg	<1
Vinyl Chloride	ug/Kg	<1
Bromomethane	ug/Kg	<1
Chloroethane	ug/Kg	<1
Trichlorofluomethane	ug/Kg	<1
1,1 Dichloroethene	ug/Kg	<1
Methylene Chloride	ug/Kg	<1
t-1,2-Dichloroethene	ug/Kg	<1
1,1 Dichloroethane	ug/Kg	<1
Chloroform	ug/Kg	<1
111 Trichloroethane	ug/Kg	<1
Carbon Tetrachloride	ug/Kg	<1
Benzene	ug/Kg	<1
1,2 Dichloroethane	ug/Kg	<1
Trichloroethene	ug/Kg	<1
1,2 Dichloropropane	ug/Kg	<1
Bromodichloromethane	ug/Kg	<1
t-1,3Dichloropropene	ug/Kg	<1
Toluene	ug/Kg	<1
c-1,3Dichloropropene	ug/Kg	<1
112 Trichloroethane	ug/Kg	<1
Tetrachloroethene	ug/Kg	3
Chlorodibromomethane	ug/Kg	<1
Chlorobenzene	ug/Kg	<1
Ethyl Benzene	ug/Kg	<1

ANALYTICAL PARAMETERS		
m + p Xylene	ug/Kg	<2
o Xylene	ug/Kg	<1
Xylene	ug/Kg	<3
Bromoform	ug/Kg	<1
1122Tetrachloroethan	ug/Kg	<1
1,2 Dichlorobenzene	ug/Kg	<1
1,3 Dichlorobenzene	ug/Kg	<1
1,4 Dichlorobenzene	ug/Kg	<1
Styrene	ug/Kg	<1
Bromobenzene	ug/Kg	<1
Chlorotoluene	ug/Kg	<2
p-Ethyltoluene	ug/Kg	<1
135-Trimethylbenzene	ug/Kg	<1
124-Trimethylbenzene	ug/Kg	1
Freon 113	ug/Kg	<1
Dichlordifluomethane	ug/Kg	<1
1245 Tetramethylbenz	ug/Kg!	<1
124-Trichlorobenzene	ug/Kg	<1
c-1,2-Dichloroethene	ug/Kg	1
Dibromochloropropane	ug/Kg	<1
Bromochloromethane	ug/Kg	<1
2,2-Dichloropropane	ug/Kg	<1
1,1-Dichloropropene	ug/Kg	<1

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/1 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, Initial

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Dibromomethane	ug/Kg	<1	
Naphthalene	ug/Kg	<1	
1,3-Dichloropropane	ug/Kg	<1	
1,2 Dibromoethane	ug/Kg	<1	
1112Tetrachloroethan	ug/Kg	<1	
123-Trichloropropane	ug/Kg	<1	
Hexachlorobutadiene	ug/Kg	<1	
Acetone	ug/Kg	90	
Methyl Ethyl Ketone	ug/Kg	<10	
Methylisobutylketone	ug/Kg	<10	
Isopropylbenzene	ug/Kg	<1	
p-Isopropyltoluene	ug/Kg	<1	
n-Butylbenzene	ug/Kg	<1	
Chlorodifluoromethan	ug/Kg	<1	
n-Propylbenzene	ug/Kg	<1	
tert-Butylbenzene	ug/Kg	<1	
sec-Butylbenzene	ug/Kg	<1	
p Diethylbenzene	ug/Kg	<1	
123-Trichlorobenzene	ug/Kg	<1	
ter.ButylMethylEther	ug/Kg	<1	
% Solids		95	

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/1 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, Initial

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	<0.4	
Beryllium as Be	mg/Kg	<0.01	
Cadmium as Cd	mg/Kg	<0.1	
Chromium as Cr	mg/Kg	0.51	
Copper as Cu	mg/Kg	3.2	
Lead as Pb	mg/Kg	<1	
Mercury as Hg	mg/Kg	0.025	
Nickel as Ni	mg/Kg	<0.5	
Silver as Ag	mg/Kg	0.37	

cc:

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/2 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 1 RM

ANALYTICAL PARAMETERS		
Chloromethane	ug/Kg	<5
Vinyl Chloride	ug/Kg	<5
Bromomethane	ug/Kg	<5
Chloroethane	ug/Kg	<5
Trichlorofluomethane	ug/Kg	<5
1,1 Dichloroethene	ug/Kg	<5
Methylene Chloride	ug/Kg	<5
t-1,2-Dichloroethene	ug/Kg	<5
1,1 Dichloroethane	ug/Kg	<5
Chloroform	ug/Kg	<5
111 Trichloroethane	ug/Kg	<5
Carbon Tetrachloride	ug/Kg	<5
Benzene	ug/Kg	<5
1,2 Dichloroethane	ug/Kg	<5
Trichloroethene	ug/Kg	<5
1,2 Dichloropropane	ug/Kg	<5
Bromodichloromethane	ug/Kg	<5
t-1,3Dichloropropene	ug/Kg	<5
Toluene	ug/Kg	<5
c-1,3Dichloropropene	ug/Kg	<5
112 Trichloroethane	ug/Kg	<5
Tetrachloroethene	ug/Kg	<5
Chlorodibromomethane	ug/Kg	<5
Chlorobenzene	ug/Kg	<5
Ethyl Benzene	ug/Kg	<5

ANALYTICAL PARAMETERS		
m + p Xylene	ug/Kg	<10
o Xylene	ug/Kg	<5
Xylene	ug/Kg	<15
Bromoform	ug/Kg	<5
1122Tetrachloroethan	ug/Kg	<5
1,2 Dichlorobenzene	ug/Kg	<5
1,3 Dichlorobenzene	ug/Kg	<5
1,4 Dichlorobenzene	ug/Kg	<5
Styrene	ug/Kg	<5
Bromobenzene	ug/Kg	<5
Chlorotoluene	ug/Kg	<10
p-Ethyltoluene	ug/Kg	24
135-Trimethylbenzene	ug/Kg	16
124-Trimethylbenzene	ug/Kg	39
Freon 113	ug/Kg	<5
Dichlordifluomethane	ug/Kg	<5
1245 Tetramethylbenz	ug/Kg!	6
124-Trichlorobenzene	ug/Kg	<5
c-1,2-Dichloroethene	ug/Kg	<5
Dibromochloropropane	ug/Kg	<5
Bromochloromethane	ug/Kg	<5
2,2-Dichloropropane	ug/Kg	<5
1,1-Dichloropropene	ug/Kg	<5

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 1 of 2.

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/2 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 1 RM

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Dibromomethane	ug/Kg	<5	
Naphthalene	ug/Kg	11	
1,3-Dichloropropane	ug/Kg	<5	
1,2 Dibromoethane	ug/Kg	<5	
1112Tetrachloroethan	ug/Kg	<5	
123-Trichloropropane	ug/Kg	<5	
Hexachlorobutadiene	ug/Kg	<5	
Acetone	ug/Kg	<50	
Methyl Ethyl Ketone	ug/Kg	<50	
Methylisobutylketone	ug/Kg	<50	
Isopropylbenzene	ug/Kg	<5	
p-Isopropyltoluene	ug/Kg	150	
n-Butylbenzene	ug/Kg	<5	
Chlorodifluoromethan	ug/Kg	<5	
n-Propylbenzene	ug/Kg	<5	
tert-Butylbenzene	ug/Kg	<5	
sec-Butylbenzene	ug/Kg	<5	
p Diethylbenzene	ug/Kg	<5	
123-Trichlorobenzene	ug/Kg	<5	
ter.ButylMethylEther	ug/Kg	<5	
% Solids		90	

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/2 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 1 RM

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	<0.4	
Beryllium as Be	mg/Kg	0.02	
Cadmium as Cd	mg/Kg	<0.1	
Chromium as Cr	mg/Kg	1.6	
Copper as Cu	mg/Kg	8.2	
Lead as Pb	mg/Kg	2.0	
Mercury as Hg	mg/Kg	0.058	
Nickel as Ni	mg/Kg	0.7	
Silver as Ag	mg/Kg	<0.2	

cc:

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/3 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 2 RM

ANALYTICAL PARAMETERS		
Chloromethane	ug/Kg	<1
Vinyl Chloride	ug/Kg	<1
Bromomethane	ug/Kg	<1
Chloroethane	ug/Kg	<1
Trichlorofluomethane	ug/Kg	<1
1,1 Dichloroethene	ug/Kg	<1
Methylene Chloride	ug/Kg	<1
t-1,2-Dichloroethene	ug/Kg	<1
1,1 Dichloroethane	ug/Kg	<1
Chloroform	ug/Kg	<1
111 Trichloroethane	ug/Kg	<1
Carbon Tetrachloride	ug/Kg	<1
Benzene	ug/Kg	<1
1,2 Dichloroethane	ug/Kg	<1
Trichloroethene	ug/Kg	<1
1,2 Dichloropropane	ug/Kg	<1
Bromodichloromethane	ug/Kg	<1
t-1,3Dichloropropene	ug/Kg	<1
Toluene	ug/Kg	<1
c-1,3Dichloropropene	ug/Kg	<1
112 Trichloroethane	ug/Kg	<1
Tetrachloroethene	ug/Kg	<1
Chlorodibromomethane	ug/Kg	<1
Chlorobenzene	ug/Kg	<1
Ethyl Benzene	ug/Kg	1

ANALYTICAL PARAMETERS		
m + p Xylene	ug/Kg	7
o Xylene	ug/Kg	4
Xylene	ug/Kg	10
Bromoform	ug/Kg	<1
1122Tetrachloroethan	ug/Kg	<1
1,2 Dichlorobenzene	ug/Kg	<1
1,3 Dichlorobenzene	ug/Kg	<1
1,4 Dichlorobenzene	ug/Kg	<1
Styrene	ug/Kg	<1
Bromobenzene	ug/Kg	<1
Chlorotoluene	ug/Kg	<2
p-Ethyltoluene	ug/Kg	2
135-Trimethylbenzene	ug/Kg	3
124-Trimethylbenzene	ug/Kg	8
Freon 113	ug/Kg	<1
Dichlordifluomethane	ug/Kg	<1
1245 Tetramethylbenz	ug/Kg!	<1
124-Trichlorobenzene	ug/Kg	<1
c-1,2-Dichloroethene	ug/Kg	<1
Dibromochloropropane	ug/Kg	<1
Bromochloromethane	ug/Kg	<1
2,2-Dichloropropane	ug/Kg	<1
1,1-Dichloropropene	ug/Kg	<1

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/3 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 2 RM

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Dibromomethane	ug/Kg	<1	
Naphthalene	ug/Kg	1	
1,3-Dichloropropane	ug/Kg	<1	
1,2 Dibromoethane	ug/Kg	<1	
1112Tetrachloroethan	ug/Kg	<1	
123-Trichloropropane	ug/Kg	<1	
Hexachlorobutadiene	ug/Kg	<1	
Acetone	ug/Kg	73	
Methyl Ethyl Ketone	ug/Kg	<10	
Methylisobutylketone	ug/Kg	<10	
Isopropylbenzene	ug/Kg	<1	
p-Isopropyltoluene	ug/Kg	3	
n-Butylbenzene	ug/Kg	<1	
Chlorodifluoromethan	ug/Kg	<1	
n-Propylbenzene	ug/Kg	1	
tert-Butylbenzene	ug/Kg	<1	
sec-Butylbenzene	ug/Kg	<1	
p Diethylbenzene	ug/Kg	<1	
123-Trichlorobenzene	ug/Kg	<1	
ter.ButylMethylEther	ug/Kg	<1	

% Solids 97

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR

COAST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/3 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 2 RM

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	<0.4	
Beryllium as Be	mg/Kg	0.03	
Cadmium as Cd	mg/Kg	<0.1	
Chromium as Cr	mg/Kg	0.94	
Copper as Cu	mg/Kg	3.4	
Lead as Pb	mg/Kg	<1	
Mercury as Hg	mg/Kg	0.015	
Nickel as Ni	mg/Kg	<0.5	
Silver as Ag	mg/Kg	<0.2	

cc:

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/4 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 3 RM

ANALYTICAL PARAMETERS		
Chloromethane	ug/Kg	<1
Vinyl Chloride	ug/Kg	<1
Bromomethane	ug/Kg	<1
Chloroethane	ug/Kg	<1
Trichlorofluomethane	ug/Kg	<1
1,1 Dichloroethene	ug/Kg	<1
Methylene Chloride	ug/Kg	<1
t-1,2-Dichloroethene	ug/Kg	<1
1,1 Dichloroethane	ug/Kg	<1
Chloroform	ug/Kg	<1
111 Trichloroethane	ug/Kg	<1
Carbon Tetrachloride	ug/Kg	<1
Benzene	ug/Kg	<1
1,2 Dichloroethane	ug/Kg	<1
Trichloroethene	ug/Kg	<1
1,2 Dichloropropane	ug/Kg	<1
Bromodichloromethane	ug/Kg	<1
t-1,3Dichloropropene	ug/Kg	<1
Toluene	ug/Kg	<1
c-1,3Dichloropropene	ug/Kg	<1
112 Trichloroethane	ug/Kg	<1
Tetrachloroethene	ug/Kg	<1
Chlorodibromomethane	ug/Kg	<1
Chlorobenzene	ug/Kg	<1
Ethyl Benzene	ug/Kg	<1

ANALYTICAL PARAMETERS		
m + p Xylene	ug/Kg	<2
o Xylene	ug/Kg	<1
Xylene	ug/Kg	<3
Bromoform	ug/Kg	<1
1122Tetrachloroethan	ug/Kg	<1
1,2 Dichlorobenzene	ug/Kg	<1
1,3 Dichlorobenzene	ug/Kg	<1
1,4 Dichlorobenzene	ug/Kg	<1
Styrene	ug/Kg	<1
Bromobenzene	ug/Kg	<1
Chlorotoluene	ug/Kg	<2
p-Ethyltoluene	ug/Kg	<1
135-Trimethylbenzene	ug/Kg	1
124-Trimethylbenzene	ug/Kg	3
Freon 113	ug/Kg	<1
Dichlordifluomethane	ug/Kg	<1
1245 Tetramethylbenz	ug/Kg!	<1
124-Trichlorobenzene	ug/Kg	<1
c-1,2-Dichloroethene	ug/Kg	<1
Dibromochloropropane	ug/Kg	<1
Bromochloromethane	ug/Kg	<1
2,2-Dichloropropane	ug/Kg	<1
1,1-Dichloropropene	ug/Kg	<1

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 1 of 2.

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/4 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 3 RM

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Dibromomethane	ug/Kg	<1	
Naphthalene	ug/Kg	1	
1,3-Dichloropropane	ug/Kg	<1	
1,2 Dibromoethane	ug/Kg	<1	
1112Tetrachloroethan	ug/Kg	<1	
123-Trichloropropane	ug/Kg	<1	
Hexachlorobutadiene	ug/Kg	<1	
Acetone	ug/Kg	<10	
Methyl Ethyl Ketone	ug/Kg	<10	
Methylisobutylketone	ug/Kg	<10	
Isopropylbenzene	ug/Kg	<1	
p-Isopropyltoluene	ug/Kg	4	
n-Butylbenzene	ug/Kg	<1	
Chlorodifluoromethan	ug/Kg	<1	
n-Propylbenzene	ug/Kg	<1	
tert-Butylbenzene	ug/Kg	<1	
sec-Butylbenzene	ug/Kg	<1	
p Diethylbenzene	ug/Kg	<1	
123-Trichlorobenzene	ug/Kg	<1	
ter.ButylMethylEther	ug/Kg	<1	

% Solids 94

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/4 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 3 RM

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	<0.4	
Beryllium as Be	mg/Kg	<0.01	
Cadmium as Cd	mg/Kg	<0.1	
Chromium as Cr	mg/Kg	0.57	
Copper as Cu	mg/Kg	2.4	
Lead as Pb	mg/Kg	<1	
Mercury as Hg	mg/Kg	0.021	
Nickel as Ni	mg/Kg	<0.5	
Silver as Ag	mg/Kg	<0.2	

cc:

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/5 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 4 RM

ANALYTICAL PARAMETERS		
Chloromethane	ug/Kg	<1
Vinyl Chloride	ug/Kg	<1
Bromomethane	ug/Kg	<1
Chloroethane	ug/Kg	<1
Trichlorofluomethane	ug/Kg	<1
1,1 Dichloroethene	ug/Kg	<1
Methylene Chloride	ug/Kg	<1
t-1,2-Dichloroethene	ug/Kg	<1
1,1 Dichloroethane	ug/Kg	<1
Chloroform	ug/Kg	<1
111 Trichloroethane	ug/Kg	<1
Carbon Tetrachloride	ug/Kg	<1
Benzene	ug/Kg	<1
1,2 Dichloroethane	ug/Kg	<1
Trichloroethene	ug/Kg	<1
1,2 Dichloropropane	ug/Kg	<1
Bromodichloromethane	ug/Kg	<1
t-1,3Dichloropropene	ug/Kg	<1
Toluene	ug/Kg	<1
c-1,3Dichloropropene	ug/Kg	<1
112 Trichloroethane	ug/Kg	<1
Tetrachloroethene	ug/Kg	<1
Chlorodibromomethane	ug/Kg	<1
Chlorobenzene	ug/Kg	<1
Ethyl Benzene	ug/Kg	<1

ANALYTICAL PARAMETERS		
m + p Xylene	ug/Kg	<2
o Xylene	ug/Kg	<1
Xylene	ug/Kg	<3
Bromoform	ug/Kg	<1
1122Tetrachloroethan	ug/Kg	<1
1,2 Dichlorobenzene	ug/Kg	<1
1,3 Dichlorobenzene	ug/Kg	<1
1,4 Dichlorobenzene	ug/Kg	<1
Styrene	ug/Kg	<1
Bromobenzene	ug/Kg	<1
Chlorotoluene	ug/Kg	<2
p-Ethyltoluene	ug/Kg	<1
135-Trimethylbenzene	ug/Kg	1
124-Trimethylbenzene	ug/Kg	4
Freon 113	ug/Kg	<1
Dichlordifluomethane	ug/Kg	<1
1245 Tetramethylbenz	ug/Kg!	<1
124-Trichlorobenzene	ug/Kg	<1
c-1,2-Dichloroethene	ug/Kg	<1
Dibromochloropropane	ug/Kg	<1
Bromochloromethane	ug/Kg	<1
2,2-Dichloropropane	ug/Kg	<1
1,1-Dichloropropene	ug/Kg	<1

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/5 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 4 RM

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Dibromomethane	ug/Kg	<1	
Naphthalene	ug/Kg	<1	
1,3-Dichloropropane	ug/Kg	<1	
1,2 Dibromoethane	ug/Kg	<1	
1112Tetrachloroethan	ug/Kg	<1	
123-Trichloropropane	ug/Kg	<1	
Hexachlorobutadiene	ug/Kg	<1	
Acetone	ug/Kg	78	
Methyl Ethyl Ketone	ug/Kg	<10	
Methylisobutylketone	ug/Kg	<10	
Isopropylbenzene	ug/Kg	<1	
p-Isopropyltoluene	ug/Kg	<1	
n-Butylbenzene	ug/Kg	<1	
Chlorodifluoromethan	ug/Kg	<1	
n-Propylbenzene	ug/Kg	<1	
tert-Butylbenzene	ug/Kg	<1	
sec-Butylbenzene	ug/Kg	<1	
p Diethylbenzene	ug/Kg	<1	
123-Trichlorobenzene	ug/Kg	<1	
ter.ButylMethylEther	ug/Kg	<1	
% Solids		95	

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/5 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, 4 RM

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	<0.4	
Beryllium as Be	mg/Kg	<0.01	
Cadmium as Cd	mg/Kg	<0.1	
Chromium as Cr	mg/Kg	0.58	
Copper as Cu	mg/Kg	4.3	
Lead as Pb	mg/Kg	<1	
Mercury as Hg	mg/Kg	<0.005	
Nickel as Ni	mg/Kg	<0.5	
Silver as Ag	mg/Kg	<0.2	

cc:

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/6 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, Rear Storm

ANALYTICAL PARAMETERS		
Chloromethane	ug/Kg	<2
Vinyl Chloride	ug/Kg	<2
Bromomethane	ug/Kg	<2
Chloroethane	ug/Kg	<2
Trichlorofluomethane	ug/Kg	<2
1,1 Dichloroethene	ug/Kg	<2
Methylene Chloride	ug/Kg	<2
t-1,2-Dichloroethene	ug/Kg	<2
1,1 Dichloroethane	ug/Kg	<2
Chloroform	ug/Kg	<2
111 Trichloroethane	ug/Kg	<2
Carbon Tetrachloride	ug/Kg	<2
Benzene	ug/Kg	<2
1,2 Dichloroethane	ug/Kg	<2
Trichloroethene	ug/Kg	<2
1,2 Dichloropropane	ug/Kg	<2
Bromodichloromethane	ug/Kg	<2
t-1,3Dichloropropene	ug/Kg	<2
Toluene	ug/Kg	<2
c-1,3Dichloropropene	ug/Kg	<2
112 Trichloroethane	ug/Kg	<2
Tetrachloroethene	ug/Kg	<2
Chlorodibromomethane	ug/Kg	<2
Chlorobenzene	ug/Kg	<2
Ethyl Benzene	ug/Kg	<2

ANALYTICAL PARAMETERS		
m + p Xylene	ug/Kg	<4
o Xylene	ug/Kg	<2
Xylene	ug/Kg	<6
Bromoform	ug/Kg	<2
1122Tetrachloroethan	ug/Kg	<2
1,2 Dichlorobenzene	ug/Kg	<2
1,3 Dichlorobenzene	ug/Kg	<2
1,4 Dichlorobenzene	ug/Kg	<2
Styrene	ug/Kg	<2
Bromobenzene	ug/Kg	<2
Chlorotoluene	ug/Kg	<4
p-Ethyltoluene	ug/Kg	<2
135-Trimethylbenzene	ug/Kg	<2
124-Trimethylbenzene	ug/Kg	<2
Freon 113	ug/Kg	<2
Dichlordifluomethane	ug/Kg	<2
1245 Tetramethylbenz	ug/Kg!	<2
124-Trichlorobenzene	ug/Kg	<2
c-1,2-Dichloroethene	ug/Kg	<2
Dibromochloropropane	ug/Kg	<2
Bromochloromethane	ug/Kg	<2
2,2-Dichloropropane	ug/Kg	<2
1,1-Dichloropropene	ug/Kg	<2

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene

DIRECTOR

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/6 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, Rear Storm

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Dibromomethane	ug/Kg	<2	
Naphthalene	ug/Kg	<2	
1,3-Dichloropropane	ug/Kg	<2	
1,2 Dibromoethane	ug/Kg	<2	
1112Tetrachloroethan	ug/Kg	<2	
123-Trichloropropane	ug/Kg	<2	
Hexachlorobutadiene	ug/Kg	<2	
Acetone	ug/Kg	<20	
Methyl Ethyl Ketone	ug/Kg	<20	
Methylisobutylketone	ug/Kg	<20	
Isopropylbenzene	ug/Kg	<2	
p-Isopropyltoluene	ug/Kg	<2	
n-Butylbenzene	ug/Kg	<2	
Chlorodifluoromethan	ug/Kg	<2	
n-Propylbenzene	ug/Kg	<2	
tert-Butylbenzene	ug/Kg	<2	
sec-Butylbenzene	ug/Kg	<2	
p Diethylbenzene	ug/Kg	<2	
123-Trichlorobenzene	ug/Kg	<2	
ter.ButylMethylEther	ug/Kg	<2	
% Solids		96	

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974532/6 11/11/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:10/28/97 RECEIVED:10/28/97

SAMPLE: Soil sample, Rear Storm

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Arsenic as As	mg/Kg	<0.4	
Beryllium as Be	mg/Kg	<0.01	
Cadmium as Cd	mg/Kg	<0.1	
Chromium as Cr	mg/Kg	0.78	
Copper as Cu	mg/Kg	0.41	
Lead as Pb	mg/Kg	<1	
Mercury as Hg	mg/Kg	0.011	
Nickel as Ni	mg/Kg	<0.5	
Silver as Ag	mg/Kg	<0.2	

cc:

REMARKS:

DIRECTOR

Appendix Three

(L.I.R.R.)

SURVEYED FOR:
ANSON ENVIRONMENTAL

VILLA CLEANERS
1899 DEER PARK AVENUE
TOWN OF BABYLON, L.I., NY

MONITORING WELL SURVEY

FIGURE 1.

SCALE: 1" = 20'
JOB NUMBER: 97026
DRAWN BY: W.S.
APPROVED BY: B.W.
DATE: 8/11/97
CAD FILE: 97026.DWG

REVISED: 8/13/97

DEER PARK AVENUE

GW #1
RM4
RM3
RM2
RM1
GW #2
GW #3
GW #4
RM5
GW #5
NS
73'11"
45'11"
42'
37'10"
64"
79.4"
9'7"
8'
VILLA CLEANERS
1899
DEER PK. AVE.
CONC.
CONC.
ASPHALT
ASPHALT
1997
7800PPB
12 DCE

LEGEND

- RM2 — LEACHING POOL
- GW #2 — SAMPLING POINT
- 2' DIAMETER STORM DRAI.
- (2' DIAMETER RIM COVER)
- SURVEY CONTROL STATION & BASELINE

NOTES:

1. SURVEY WAS PERFORMED 8/1/97.

WELSH ENGINEERING & LAND SURVEYING, P.C.
2 ROOSEVELT AVENUE
SYOSSET, N.Y. 11791 (516) 921-5154

Appendix Four

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C972951/1 07/18/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:07/14/97 RECEIVED:07/14/97

SAMPLE: Water sample, GW1 (18-20)

ANALYTICAL PARAMETERS		
Chloromethane	ug/L	<1
Bromomethane	ug/L	<1
Dichlordifluomethane	ug/L	<2
Vinyl Chloride	ug/L	<1
Chloroethane	ug/L	<1
Methylene Chloride	ug/L	<1
Trichlorofluomethane	ug/L	<2
1,1 Dichloroethene	ug/L	<1
1,1 Dichloroethane	ug/L	<1
1,2 Dichloroethene	ug/L	40
Chloroform	ug/L	<1
1,2 Dichloroethane	ug/L	<1
111 Trichloroethane	ug/L	<1
Carbon Tetrachloride	ug/L	<1
Bromodichloromethane	ug/L	<1
1,2 Dichloropropane	ug/L	<1
t-1,3Dichloropropene	ug/L	<2
Trichloroethylene	ug/L	2
Chlorodibromomethane	ug/L	<1
112 Trichloroethane	ug/L	<2
c-1,3Dichloropropene	ug/L	<2
2chloroethvinylether	ug/L	<2
Bromoform	ug/L	<2
1122Tetrachloroethan	ug/L	<2
Tetrachloroethene	ug/L	61

ANALYTICAL PARAMETERS		
Chlorobenzene	ug/L	<1
1,3 Dichlorobenzene	ug/L	<2
1,2 Dichlorobenzene	ug/L	<2
1,4 Dichlorobenzene	ug/L	<2

cc:

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C972951/2 07/18/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:07/14/97 RECEIVED:07/14/97

SAMPLE: Water sample, GW2 (18-20)

ANALYTICAL PARAMETERS		
Chloromethane	ug/L	<1
Bromomethane	ug/L	<1
Dichlordifluomethane	ug/L	<2
Vinyl Chloride	ug/L	20
Chloroethane	ug/L	<1
Methylene Chloride	ug/L	<1
Trichlorofluomethane	ug/L	<2
1,1 Dichloroethene	ug/L	<1
1,1 Dichloroethane	ug/L	<1
1,2 Dichloroethene	ug/L	100
Chloroform	ug/L	<1
1,2 Dichloroethane	ug/L	<1
111 Trichloroethane	ug/L	<1
Carbon Tetrachloride	ug/L	<1
Bromodichloromethane	ug/L	<1
1,2 Dichloropropane	ug/L	<1
t-1,3Dichloropropene	ug/L	<2
Trichloroethylene	ug/L	19
Chlorodibromomethane	ug/L	<1
112 Trichloroethane	ug/L	<2
c-1,3Dichloropropene	ug/L	<2
2chloroethvinylether	ug/L	<2
Bromoform	ug/L	<2
1122Tetrachloroethan	ug/L	<2
Tetrachloroethene	ug/L	<1

ANALYTICAL PARAMETERS		
Chlorobenzene	ug/L	<1
1,3 Dichlorobenzene	ug/L	<2
1,2 Dichlorobenzene	ug/L	<2
1,4 Dichlorobenzene	ug/L	<2

cc:

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C972951/3 07/18/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:07/14/97 RECEIVED:07/14/97

SAMPLE: Water sample, GW3 (18-20)

ANALYTICAL PARAMETERS		
Chloromethane	ug/L	<1
Bromomethane	ug/L	<1
Dichlordifluomethane	ug/L	<2
Vinyl Chloride	ug/L	8
Chloroethane	ug/L	<1
Methylene Chloride	ug/L	<1
Trichlorofluomethane	ug/L	<2
1,1 Dichloroethene	ug/L	<1
1,1 Dichloroethane	ug/L	<1
1,2 Dichloroethene	ug/L	7900
Chloroform	ug/L	<1
1,2 Dichloroethane	ug/L	<1
111 Trichloroethane	ug/L	<1
Carbon Tetrachloride	ug/L	<1
Bromodichloromethane	ug/L	<1
1,2 Dichloropropane	ug/L	<1
t-1,3Dichloropropene	ug/L	<2
Trichloroethylene	ug/L	100
Chlorodibromomethane	ug/L	<1
112 Trichloroethane	ug/L	<2
c-1,3Dichloropropene	ug/L	<2
2chloroethvinylether	ug/L	<2
Bromoform	ug/L	<2
1122Tetrachloroethan	ug/L	<2
Tetrachloroethene	ug/L	100

ANALYTICAL PARAMETERS		
Chlorobenzene	ug/L	<1
1,3 Dichlorobenzene	ug/L	<2
1,2 Dichlorobenzene	ug/L	<2
1,4 Dichlorobenzene	ug/L	<2

cc:

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C972951/4 07/18/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:07/14/97 RECEIVED:07/14/97

SAMPLE: Water sample, GW4 (18-20)

ANALYTICAL PARAMETERS		
Chloromethane	ug/L	<1
Bromomethane	ug/L	<1
Dichlordifluomethane	ug/L	<2
Vinyl Chloride	ug/L	<1
Chloroethane	ug/L	<1
Methylene Chloride	ug/L	<1
Trichlorofluomethane	ug/L	<2
1,1 Dichloroethene	ug/L	<1
1,1 Dichloroethane	ug/L	<1
1,2 Dichloroethene	ug/L	<1
Chloroform	ug/L	<1
1,2 Dichloroethane	ug/L	<1
111 Trichloroethane	ug/L	<1
Carbon Tetrachloride	ug/L	<1
Bromodichloromethane	ug/L	<1
1,2 Dichloropropane	ug/L	<1
t-1,3Dichloropropene	ug/L	<2
Trichloroethylene	ug/L	<1
Chlorodibromomethane	ug/L	<1
112 Trichloroethane	ug/L	<2
c-1,3Dichloropropene	ug/L	<2
2chloroethvinylether	ug/L	<2
Bromoform	ug/L	<2
1122Tetrachloroethan	ug/L	<2
Tetrachloroethene	ug/L	280

ANALYTICAL PARAMETERS		
Chlorobenzene	ug/L	<1
1,3 Dichlorobenzene	ug/L	<2
1,2 Dichlorobenzene	ug/L	<2
1,4 Dichlorobenzene	ug/L	<2

cc:

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C972951/5 07/18/97

Anson Environmental Ltd.
33 Gerard Street, Suite 100
Huntington, NY 11743
ATTN: Dennis Madigan

SOURCE OF SAMPLE: Villa Cleaners, #97044
COLLECTED BY: Client DATE COL'D:07/14/97 RECEIVED:07/14/97

SAMPLE: Water sample, GW5 (18-20)

ANALYTICAL PARAMETERS		
Chloromethane	ug/L	<1
Bromomethane	ug/L	<1
Dichlordifluomethane	ug/L	<2
Vinyl Chloride	ug/L	<1
Chloroethane	ug/L	<1
Methylene Chloride	ug/L	<1
Trichlorofluomethane	ug/L	<2
1,1 Dichloroethene	ug/L	<1
1,1 Dichloroethane	ug/L	<1
1,2 Dichloroethene	ug/L	6
Chloroform	ug/L	<1
1,2 Dichloroethane	ug/L	<1
111 Trichloroethane	ug/L	<1
Carbon Tetrachloride	ug/L	<1
Bromodichloromethane	ug/L	<1
1,2 Dichloropropane	ug/L	<1
t-1,3Dichloropropene	ug/L	<2
Trichloroethylene	ug/L	2
Chlorodibromomethane	ug/L	<1
112 Trichloroethane	ug/L	<2
c-1,3Dichloropropene	ug/L	<2
2chloroethvinylether	ug/L	<2
Bromoform	ug/L	<2
1122Tetrachloroethan	ug/L	<2
Tetrachloroethene	ug/L	5

ANALYTICAL PARAMETERS		
Chlorobenzene	ug/L	<1
1,3 Dichlorobenzene	ug/L	<2
1,2 Dichlorobenzene	ug/L	<2
1,4 Dichlorobenzene	ug/L	<2

cc:

REMARKS:

DIRECTOR

...ST LABORATORIES, INC. — ENVIRONM...

...eld Avenue, North Babylon, New York 11703

...5777 • FAX (516) 422-5770

...son Environmental LTD.

...3 Gerard St.

...tington N.Y. 11743

...51-3555 FAX: 351-3615

...eceiving report: Dennis MADIGAN

...d by: Dennis MADIGAN

...Village Cleaners

...: 970721

...RIX	COLLECTED DATE	TIME	SAMPLE IDENTIFICATION	TOTAL NUMBER OF CONTAINERS	TYPE & NUMBER OF CONTAINERS: VOA's	REMARKS - TESTS REQUIRED ... SPECIAL TURNAROUND, SPECIAL ...
...cc	7.14.97		GW1 (16-20)	2	2	601
...cc	7.14.97		GW2 (16-20)	2	2	Normal T/A.
...cc	7.14.97		GW3 (16-20)	2	2	
...cc	7.14.97		GW4 (16-20)	2	2	
...cc	7.14.97		GW5 (16-20)	2	2	

...d by: (Signature)	Relinquished by: (Signature)	DATE/TIME	SEAL INTACT ?	Received by: (Signature)
	Representing:		YES NO NA	Representing:
		DATE/TIME	SEAL INTACT ?	Received by: (Signature)

ROBERT J. GAFFNEY
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

MARY E. HIBBERD, M.D., M.P.H.
COMMISSIONER

June 12, 1997

CERTIFIED MAIL R.R.R.
Z 224 478 915
Z 224 478 916

Villa Cleaners
1899 Route 231
Deer Park, NY 11729

Sandra Bresalier
49 Hamlet Drive
Commack, NY 11725

Re: Additional Sampling @ 1899 Route 231, Deer Park, NY 11729

Gentlemen/Madam:

This letter is to advise you that during our routine inspection of businesses operating within Suffolk County, samples were taken at the above-captioned location on May 5, 1997.

Review of the laboratory analyses found the following compounds at concentrations indicative of unpermitted discharges of industrial waste.

1RM 5-5 ~ Soil ~ Sanitary Leaching Pool

cis-1,2 Dichloroethene	*5700 ppb*
Toluene	*170 ppb*
p-Ethyltoluene	*310 ppb*
1,3,5-Trimethylbenzene	*150 ppb*
1,2,4-Trimethylbenzene	*400 ppb*
p-Isopropyltoluene	*1000 ppb*
	7700

2RM 5-5 ~ Soil ~ Sanitary Leaching Pool

trans-1,2-Dichloroethene	*540 ppb*
cis-1,2 Dichloroethene	*20000 ppb*
Toluene	*400 ppb*
p-Ethyltoluene	*400 ppb*
1,2,4-Trimethylbenzene	*760 ppb*
p-Isopropyltoluene	*1800 ppb*
Naphthalene	*190 ppb*
	24090

HORSEBLOCK PLACE ■ FARMINGVILLE, NEW YORK 11738-1220 ■ (516) 854-2543
FAX# 854-2505

3RM 5-5 ~Soil ~ Sanitary Leaching Pool

trans-1,2-Dichloroethene	*100 ppb*
cis-1,2 Dichloroethene	*30000 ppb*
Tetrachloroethene	*100 ppb*
Toluene	*170 ppb*
p-Ethyltoluene	*250 ppb*
1,2,4-Trimethylbenzene	*360 ppb*
p-Isopropyltoluene	*1300 ppb*
	32280

4RM 5-5 Soil ~ Sanitary Leaching Pool

trans-1,2-Dichloroethene	*420 ppb*
cis-1,2 Dichloroethene	*87000 ppb*
Acetone	*2900 ppb*
Toluene	*410 ppb*
p-Isopropyltoluene	*7300 ppb*
	98,030

5RM 5-5 ~ Soil ~ Sanitary Leaching Pool

No elevated levels detected.

ugm/gm = micrograms per gram or parts per million.
mg/l = milligrams per liter or parts per million.
ppb = parts per billion.

These compounds are considered toxic or hazardous and are not to be discharged to the ground, sanitary system, storm drain or other leaching system. The discharge of any liquid from an industrial process without having first obtained a SPDES Permit for that discharge is a violation of the New York State Environmental Conservation Law and Article 12 of the Suffolk County Sanitary Code, which was promulgated to protect the groundwater.

Due to the elevated levels found, **YOU ARE DIRECTED** to have all contaminated solids/sludge and liquids pumped from this and all other pools and/or tanks within the system by an industrial waste hauler before August 4, 1997. The requirement to remediate specific structures in the system may be waived if samples from the structures demonstrate that the concentrations of contaminants do not warrant remediation. To make this determination, samples of both the liquid portion and bottom sediments must be collected from each location and analyzed using EPA Method 8240 or 8260 for VOCs and total heavy metals by acid digestion. The analysis must include all Suffolk County

parameters listed in attached Tables 1 and 2. Analysis reports must then be submitted to the department for review. Be advised that under the Suffolk County Sanitary Code, you may be subject to the imposition of a $500 civil penalty for **each day** that these contaminants are allowed to leach out from the subsurface collection systems. Immediate action is, therefore, expected.

At the above concentrations, the liquid portion of this pool may be acceptable at the Bergen Point Sewage Treatment facility. Contact Robert Falk at 852-4107 for approval prior to pumping this material. If the liquid is not acceptable to the Department of Public Works, it must be removed and disposed of by a licensed industrial waste hauler along with the sludge. Kindly notify this office **three working days** in advance of the scheduled cleanup date so that one of our representatives may be present. In addition, high-pressure washing or scraping of the interior walls is required to eliminate any residual contamination. End point samples will be required to determine the adequacy of the remediation. Your contractor must be prepared to collect the samples and have them analyzed by a State approved laboratory for the Suffolk County parameter list unless other arrangements are made with this department in advance. The department reserves the right to split samples as deemed necessary.

Be advised that aeration and/or chemical treatment of any subsurface leaching system to enhance the leachability of hazardous material is not only a separate and distinct violation of Article 12, Section 1205 of the Suffolk County Sanitary Code, but is also considered a willful violation of the code which carries criminal penalties as well as administrative fines.

Performing onsite cleanup activities such as pumping pools, drumming wastes or excavating soils, requires no state or county certification. However, all transportation of industrial wastes for offsite disposal must be done by State licensed scavengers. A partial listing of State approved industrial waste haulers is enclosed for your use. For a complete and up-to-date listing of licensed scavengers, you should contact the Division of Regulatory Affairs, Waste Transporter Section of the New York State Department of Environmental Conservation at (518) 457-3254. The hiring of a cesspool pumping service which is not licensed to haul toxic industrial waste is a violation of state and county law and may subject both you and the non-licensed hauler to civil liability (fines). It is your responsibility to determine if the scavenger is licensed to haul industrial waste.

Since this work may require a Federal Industrial Waste Generator's Permit before a pumpout is accomplished, you should contact Mr. John Kushwara (Chief of Groundwater Compliance Section) at the USEPA, UIC/UST Programs, 290 Broadway, 20th floor, New York, New York 10007-1866, telephone (212) 637-4106 and request form #8700-12. This will expedite your request so that the cleanout can be executed within the time frame allotted. Please be advised that samples for waste characterization may be required. These must be collected and analyzed prior to removing the material from the site.

Fees for removal of toxic materials may vary between scavengers; therefore, you may wish to secure written estimates for your cleanout. This, however, is not to be construed that the department will accept delays in this matter. In addition, it is expected that a thorough evaluation of your company's waste disposal practices be implemented without delay to ensure that unpermitted discharges of your generated industrial waste cease immediately.

Failure to comply with the directives set forth in this letter by August 4, 1997 will result in this matter being scheduled for a Formal Administrative Hearing at which time the department will be seeking the imposition of the maximum penalties of $500/day for each and every violation of the Suffolk County Sanitary Code including, but not limited to, failure to comply with the directives set forth in this letter. It is in your best interest to implement the remediation process outlined above.

If this department can be of any assistance in this regard, feel free to contact the undersigned.

Sincerely,

Peter Schramel

Peter Schramel
Senior Public Health Sanitarian
Inspection Services Bureau

PS/cs
Enclosure

cc: New York State DEC

Appendix B
Site Specific HASP

SITE-SPECIFIC HEALTH & SAFETY PLAN

Voluntary Cleanup Investigation
Villa Cleaners
1899 Deer Park Avenue
Deer Park, New York
V-00335-1

Fenley & Nicol Job Number: 0201927

Prepared By:

FENLEY & NICOL ENVIRONMENTAL, INC.
445 BROOK AVENUE
DEER PARK, NEW YORK 11729

Date: January 7, 2003

SITE SPECIFIC HEALTH & SAFETY PLAN APPROVALS

FENLEY & NICOL ENVIRONMENTAL, INC., APPROVALS:

By their signature, the undersigned certify that this Site-Specific Health & Safety Plan (HSP) is approved and will be utilized at 1899 Deer Park Avenue, New York.

_____ January 7, 2003

Brian McCabe
Senior Geologist

_____ January 7, 2003

Thomas Hudson
Site Safety Officer

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TABLE OF CONTENTS (cont.)

1.0 TITLE PAGE

PROJECT: **Villa Cleaners**
Deer Park, New York

Fenley & Nicol Job Number: 0201927

SITE: 1899 Deer Park Avenue, Deer Park, New York

PREPARED BY: FENLEY & NICOL ENVIRONMENTAL, INC.
445 BROOK AVENUE
DEER PARK, NEW YORK 11729

DATE: January 7, 2003

Fenley & Nicol Environmental, Inc., and its Subcontractors do not guarantee the health or safety of any person entering this site. Due to the nature of this site and the activities occurring thereon, it is not possible to discover, evaluate and provide protection for all possible hazards that may be encountered. Strict adherence to the health and safety guidelines set forth herein will reduce, but not eliminate the potential for injury at this site. The health and safety guidelines in this plan were prepared specifically for this site and should not be used on any other site without prior research and evaluation by trained health and safety specialists.

2.0 SITE-SPECIFIC HEALTH AND SAFETY PLAN

2.1 General

The plan has been prepared in conformance with applicable regulations, safe work practices, and the project's requirements. It addresses those activities associated with the installation and sampling of soil borings and temporary wells and the sampling of monitoring wells. The Project Manager (PM), Site Safety Officer (SSO) and F&N field staff will implement the plan during site work. Compliance with this Site-Specific Health and Safety Plan (HSP) is required of all persons and third parties that perform fieldwork for this project. Assistance in implementing this Plan can be obtained from the Fenley & Nicol Site Safety Officer (SSO). The content of this HSP may change or

undergo revision based upon additional information made available to health and safety personnel, monitoring results, or changes in the technical scope of work. Any changes proposed must be reviewed by the SSO.

2.2 Scope Of Work

The Scope of Work activities will include:

- Site characterization
- Groundwater Sampling Point Installations
- Soil Samples Analysis
- Ground Water Sampling
- Emergency Response

2.3 Emergency Numbers

2.3.1 Emergency Agencies

	Phone Number
Good Samaritan Hospital	631-376-3000
Police Department	911
Fire Department	911
National Response Center	800-424-8802
Poison Information Center	800-562-8816
Chemtrac	800-424-9555

2.3.2 Project Management/Health and Safety Personnel

Title	Contact	Phone Number
Project Manager	David Oloke	631-586-4900 ext. 144
Site Safety Officer	Thomas Hudson	631-586-4900 ext. 141

2.3.3 Directions to Hospitals

Good Samaritan Hospital	(see Appendix A)

3.0 HEALTH AND SAFETY STAFF

This section briefly describes the personnel and their health and safety responsibilities for the:

3.1 Project Manager

David Oloke

- Has the overall responsibility for the health and safety of site personnel
- Ensures that adequate resources are provided to the field health and safety staff to carry out their responsibilities as outlined below.
- Ensures that fieldwork is scheduled with adequate personnel and equipment resources to complete the job safely.
- Ensures that adequate telephone communication between field crews and emergency response personnel is maintained.
- Ensures that field site personnel are adequately trained and qualified to work at the site.

3.2 Site Safety Officer

Thomas Hudson

- Directs and coordinates health and safety monitoring activities.
- Ensures that field teams utilize proper personal protective equipment.
- Conducts initial on-site, specific training prior to personnel and/or subcontractors proceeding to work.
- Conducts and documents periodic safety briefings ensure that field team members comply with this HASP.
- Completes and maintains Accident/Incident Report Forms.
- Notifies Fenley & Nicol Environmental, Inc., corporate administration of all accidents/incidents.
- Determines upgrade or downgrade of personal protective equipment (PPE) based on site conditions and/or downgrade of personal protective equipment (PPE) based upon on site conditions and/or real-time monitoring results.
- Ensures that monitoring instruments are calibrated daily or as manufactured suggested instructions determined.
- Maintains health and safety field log books.
- Develops and ensures implementation of the HSP.
- Approves revised or new safety protocols for field operations.
- Coordinates revisions of this HSP with field personnel and the SSO Division Contracting Officer.

- Responsible for the development of new company safety protocols and procedures and resolution of any outstanding safety issues that may arise during the conduction of site work.
- Reviews personnel and subcontractors current and up-to-date medical examination and acceptability of health and safety training.

3.3 Field Personnel and Subcontractors

- Reports any unsafe or potentially hazardous conditions to the SSO
- Maintains knowledge of the information, instructions, and emergency response actions contained in this HSP.
- Comply with rules, regulations and procedures as set forth in this HSP and any revisions that are instituted.
- Prevents admittance to work sites by unauthorized personnel.

4.0 SITE LOCATION, DESCRIPTION AND HISTORY

The site is located in the western portion of Suffolk County, New York. The subject property is approximately 75 feet above mean sea level (U.S.G.S. 7.5-Minute Greenlawn, New York Quadrangle, 1967, Photorevised 1979).

The subject property consists of a 1-story multi-tenant commercial building. Villa Cleaners is located in the northern portion of the building. The property is located along the east side of Deer Park Avenue. An asphalt parking area is located in the western and southern portions of the property.

The vicinity of the property consists of industrial and commercial properties. The Long Island Railroad is located to the north of the property. The adjacent properties to the south consist of a 1-story commercial establishment and an asphalt parking lot for another 1-story commercial establishment. A portion of the fieldwork will be performed in the asphalt parking lot.

Several previous investigations and remedial activities have been performed at the site. The investigations were performed to identify and delineate the subsurface contamination beneath the site. The remedial activity involved the excavation, removal and disposal of sediment from subsurface drainage structures that were impacted with chlorinated solvents.

5.0 CHEMICAL & WASTE DESCRIPTION/CHARACTERIZATION

The following chemical is based on the materials once stored or thought to potentially present on-site:

1. Tetrachlorethylene

The following references have been consulted to identify the properties and hazards of the materials that will be encountered at the site.

- Dangerous Properties of Industrial Materials - Sax
- Chemical Hazards of the Workplace - Proctor/Hughes
- Condensed Chemical Dictionary - Hawley
- Rapid Guide to Hazardous Chemical in the Workplace - Lewis 1990.
- NIOSH Guide to Chemical Hazards - 1990
- ACGIH TLV Values and Biological Exposure Indices - 1991-1992

6.0 HAZARD ASSESSMENT

The potential hazards associated with planned site activities include chemical, physical and biological hazards. This section discusses those hazards that are anticipated to be encountered during the activities listed in the scope of work in Section 2.2 of this HASP.

The potential to encounter chemical hazards is dependent upon the work activity performed (invasive or non-invasive), the duration and location of the work activity. Such hazards could include inhalation or skin contact with chemicals that could cause dermatitis, skin burn, being overcome by vapors or asphyxiation. In addition, the handling of contaminated materials and chemicals could result in fire and/or explosion.

The potential to encounter physical hazards during site work includes: heat stress, exposure to excessive noise, loss of limbs, being crushed, head injuries, cuts and bruises, and other physical hazards due to motor vehicle operation, heavy equipment and power tools.

6.1 Chemical Hazards

The potential for personnel and subcontractors to come in contact with chemical hazards may occur during the following tasks:

- Installation of temporary wells.
- Installation of monitoring wells.
- Sampling of monitoring wells.

6.1.1 Exposure Pathways

Exposure to these compounds during ongoing activities may occur through inhalation of contaminated dust particles, inhalation of volatile and semi-volatile vapor fume compounds, by way of dermal absorption, and accidental ingestion of the contaminant by either direct or indirect cross contamination activities (eating, smoking, poor hygiene).

Indirectly, inhalation of contaminated dust particles (metals, silica, VOC's, semi-VOC's) can occur during adverse weather conditions (high or changing wind directions) or during operations that may generate airborne dust such as excavation, and sampling activities. Dust control measures such as applying water to roadways and work sites will be implemented, where visible dust is generated from non-contaminated and contaminated soils. Where dust control measures are not feasible or effective, respiratory protection will be used.

6.1.2 Additional Precautions

Dermal absorption or skin contact with chemical compounds is possible during invasive activities at the site, including removal of product, excavation of tanks, and handling of contaminated soils. The use of personal protective equipment in accordance with Section 9.2 and strict adherence to proper decontamination procedures should significantly reduce the risk of skin contact.

The potential for accidental ingestion of potentially hazardous chemicals is expected to be remote, when good hygiene practices are used.

6.2 Physical Hazards

A variety of physical hazards may be present during site activities. These hazards are similar to those associated with any construction type project. These physical hazards are due to the following:

- Motor vehicles
- Heavy equipment operation
- The use of improper use of power and hand tools
- Misuse of pressurized cylinders
- Tripping over objects
- Working on surfaces which have the potential to promote falling
- Mishandling and improper storage of solid and hazardous materials
- Temporary loss of one's hearing and/or eyesight
- Hit one's head due to not seeing the object of concern
- Crushing of appendages
- Hit on the head by falling objects
- Skin burns
- Walking on objects

These hazards are not unique and are generally familiarly to most hazardous waste site workers at construction sites. Additional task-specific safety requirements will be covered during safety briefings.

6.2.1 Noise

Noise is a potential hazard associated with operation of heavy equipment, power tools, pumps, and generators. High noise operators will be evaluated at the discretion of the SSO. Employees with an 8-hour time weighted average exposure exceeding 85 dBA will be included in the hearing conservation program in accordance with 29 CFR 1910.85.

It is mandated that employees working around heavy equipment or using power tools that dispense noise levels exceeding 95 dBA are to wear hearing protection that shall consist of earplugs and earphones. This is particularly relevant as the jet engines of modern airplanes can give sound level readings of greater than 110 dBA.

6.2.2 Heat/Cold Stress

Extremes in temperature and the effects of hard work in impervious clothing can result in heat stress and/or hypothermia. The human body is designed to function at a certain internal temperature. When metabolism or external sources (fire, hot summer day, winter weather, etc) cause the body temperature to rise or fall excessively, the body seeks to protect itself by triggering cooling/warming mechanisms. Profuse sweating is an example of a cooling mechanism, while uncontrollable shivering is an example of a warming mechanism. The SSO monitors the temperature to determine potential adverse affects the weather can cause on site personnel.

Protective clothing worn to guard against chemical contact effectively stops the evaporation of perspiration. Thus the use of protective clothing increases heat stress problems. Cold stress can easily occur in winter with sub-freezing ambient temperatures. Workers in protective garments may heat-up and sweat, only to rapidly cool once out of the PPE.

The major disorders due to heat stress are heat cramps, heat exhaustion, and heat stroke.

HEAT CRAMPS are painful spasms that occur in the skeletal muscles of workers who sweat profusely. In the heat and drink large quantities of water, but fail to replace the body's lost salts or electrolytes. Drinking water while continuing to lose salt tends to dilute the body's extracellular fluids. Soon water seeps by osmosis into active muscles and causes pain. Muscles fatigued from work are usually most susceptible to cramps.

HEAT EXHAUSTION is characterized by extreme weakness or fatigue, dizziness, nausea, and headache. In serious cases, a person may vomit or lose consciousness. The skin is clammy and moist, complexion pale or flushed, and body temperature normal or slightly higher than normal. Treatment is rest in a cool place and replacement of body water lost by perspiration. Mild cases may recover spontaneously with this treatment; severe cases may require care for several days. There are no permanent effects.

HEAT STROKE is a very serious condition caused by the breakdown of the body's heat regulating mechanisms. The skin is very dry and hot with red mottled or bluish appearance. Unconsciousness, mental confusion, or convulsions may occur. Without quick and adequate treatment, the result can be death or permanent brain damage. Get medial assistance quickly! As first aid treatment, the person should be moved to a cool

place. Soaking the person's clothes with water and fanning them should reduce body heat artificially, but not too rapidly.
Steps that can be taken to reduce heat stress are:

- Acclimatize the body. Allow a period of adjustment to make further heat exposure endurable.
- Drink more liquids to replace body water lost during sweating.
- Rest is necessary and should be conducted under the direction of the SSO, and based on the physiological state of the effected personnel.
- Wearing personal cooling devices. There are two basic designs; units with pockets for holding frozen packets and units that circulate a cooling fluid from a reservoir through tubes to different parts of the body. Both designs can be in the form of a vest, jacket, or coverall. Some circulating units also have a copy for cooling the head.

Cold temperatures can cause problems. The severe effects are frostbite and hypothermia.

FROSTBITE is the most common injury resulting from exposure to cold. The extremities of the body are often affected. The signs of frostbite are:

- The skin turns white or grayish-yellow.
- Pain is sometimes felt early but subsides later. Often there is no pain.
- The affected part feels intensely cold and numb.

HYPOTHERMIA is characterized by shivering, numbness, drowsiness, muscular weakness and a low internal body temperature when the body feels warm externally. This can lead to unconsciousness and death. With both frostbite and hypothermia, the affected areas need to be warmed quickly. Immersing in warm, not hot, water best does this. In such cases medical assistance will be sought.

To prevent these effects from occurring, persons working in the cold should wear adequate clothing and reduce the time spent in the cold area. The field SSO to determine appropriate time personnel may spend in adverse weather conditions will monitor this.

6.2.3 Lockout/Tagout

PURPOSE -- This program establishes procedures for de-energizing, isolating, and ensuring the energy isolation of equipment and machinery. The program will be used

to ensure that equipment and machinery is de-energizing and isolated from unexpected energization by physically locking (Lockout) energy isolation devices or, in the absence of locking capabilities, tagout (Tagout) the device to warn against energization. These procedures will provide the means of achieving the purpose of this program, prevention of injury to FENLEY & NICOL ENVIRONMENTAL, INC. employees from the unexpected energization or start-up of equipment and machinery, or from the release of stored energy.

APPLICATION -- This program applies to the control of energy during the servicing and/or maintenance of equipment and machinery in the FENLEY & NICOL ENVIRONMENTAL, INC. MOBIL RECYCLING UNITS.

This program covers normal operations only if a guard or other safety device is removed or bypassed, or any part of the body is placed into an area of the equipment or machinery where work is performed on the material, or a danger zone exists during the operating cycle. Minor tool changes, adjustments, and other minor servicing activities that take place during normal production operations do not require isolation and lockout/tagout if they are routine and integral to the use of the equipment.

SCOPE -- This program will include all employees whose duties require them to service, install, repair, adjust, lubricate, inspect, or perform work on powered equipment or machinery that may also have the potential for stored energy.

PROGRAM RESPONSIBILITIES -- The SSO will have the overall responsibility of the program to ensure that; authorized and affected employees receive adequate training and information, the program is evaluated annually, and the lockout/tagout equipment is properly used and the procedures of this program are followed.

The program evaluation will be conducted to ensure that the procedures and requirements of the program are being followed and will be utilized to correct any deviations or inadequacies that may be discovered. The evaluation will consist of one or more inspections or audits of actual lockout/tagout procedures being used to isolate equipment. A review of the authorized and affected employee's responsibilities will be conducted at the time of the inspection /audit. Any authorized employee, except the one(s) utilizing the energy isolation procedure being inspected may perform the inspection/audit. A record will be maintained of program evaluation inspections and will include:

1. The identities of the equipment or machine on which energy control procedures were being utilized.
2. The date(s) of the inspection(s).
3. The employee(s) included in the inspection(s).
4. The person performing the inspection.

Authorized employees (persons who implement lockout/tagout procedures) will be responsible for following the procedures established by this program.

Affected employees are responsible for understanding the significance of a lockout/tagout device and the prohibition relating to attempts to restart or re-energize equipment or machinery that is locked out or tagged out.

TRAINING -- FENLEY & NICOL employees will be provided instruction in the purpose and function of the energy control program to ensure that they understand the significance of locked or tagged out equipment and also has the knowledge and skill to correctly apply and remove energy controls. Training will include:

1. The recognition of applicable hazardous energy source(s), the type and magnitude of energy available, and the policies and procedures of the FENLEY & NICOL energy control program.
2. Affected employees will be made aware of the purpose and use of energy control procedures and the prohibition relating to attempts to remove lockout or tagout devices.
3. Instruction in the limitations of tagout as a sole means of energy control.
   a. Tags are warning devices and do not provide the physical restraint that a lock would.
   b. Tags may provide a false sense of security.
   c. Tags may become detached during use.

Initial training will be provided during to energy control program implementation, when new employees are hired or when job responsibilities change to include utilization of energy control procedures.

Retraining will be conducted whenever there is a change in job assignments that require the employee to utilize energy control procedures, a change in equipment that presents a new hazard, a change in the energy control procedures or when the program evaluation identifies inadequacies in the energy control program procedures.

Records of employee training will be maintained and will include the employee's name and date(s) of training.

STANDARD OPERATING PROCEDURES – General; FENLEY & NICOL will provide the necessary devices to effectively lockout or tagout energy isolating devices. Lockout/tagout devices will be the only devices used for controlling energy and shall not be used for other purposes. Any device used for lockout/tagout will be capable of withstanding the environment to which they are exposed for the maximum period they are expected to be exposed. The devices will be substantial enough to prevent removal without excessive force. Excessive force for a locking device would be bolt cutters or other metal cutting tools. Tagout devices will be attached by a non-reusable method, attachable by hand, and very difficult to remove by hand. Nylon cable tie or equivalent will be used.

Lockout/tagout devices will indicate the identity of the employee who applied the device, and the tagout device will warn against the hazards if the equipment is energized.

Lockout is the preferred method of energy isolation. When physical lockout is not possible, the energy isolation will be tagged out of service with a warning tag attached at the power source. In the case of plug-in power source, the tag will be attached at the male plug. To ensure full employee protection using tagout instead of lockout, additional steps should be taken to guard against accidental or inadvertent energization. These steps may include, where applicable: removal of fuses, blocking switches, removal of a valve handle.

STANDARD OPERATING PROCEDURES

I. APPLICATION OF CONTROLS

A. Preparing to shut down of equipment

1. Prior to equipment shutdown, the authorized employee(s) must have knowledge of:
    a. The type(s) and magnitude of power.
    b. The hazards of the energy to be controlled (e.g. burns due to thermal energy)
    c. The method(s) to control the energy.
    d. The location and identity of all isolating devices that control or feed the equipment to be locked/tagged out.

2. Notify all affected employees that the lockout/tagout system will be in effect.
3. Assemble applicable lockout/tagout devices, i.e., padlocks, tags, multiple lock hasps, etc.

B. Equipment Shutdown and Isolation

1. If equipment is in operation shut it down by the normal stopping procedure (stop button, switch).
2. Operate disconnects, switches, valves, or other energy isolating devices so that the equipment is de-energizing and isolated from its energy source(s).
3. Verify that operating equipment from the normal shuts down equipment operating location and any remote locations.

C. Installation of Lockout/Tagout Device, Release of Stored Energy, and Verification

1. Attach individually assigned lock(s) or tag(s) to energy isolating device(s). Where it is not possible to lock a switch, valve, or other isolating device, electrical fuses must be removed, blank flanges installed in piping, lines disconnected, or other suitable methods used to ensure that equipment is isolated from energy sources. A tag must be installed at the point of power interruption to warn against energizing.
    a. Each lock or tag must positively identify the person who applied it and locks must be individually keyed.
    b. If more than one person is involved in the task, each employee will place his or her own lock and tag. Multiple lock hasps are available for this.
2. Release, restrain, or dissipate stored energy such as spring tension, elevated machine members, rotating flywheels, hydraulic pressure, pistons and air, gas, steam, water pressure, etc. by repositioning, blocking, bleeding, or other suitable means.
3. Prior to starting work on equipment and after ensuring that no personnel are exposed, the authorized employee will verify that isolation and de-energization have been accomplished by:
    a. Attempting, through normal effort, to operate energy isolating devices such as switches, valves, or circuit breakers with locks or tags installed.
    b. Attempting to operate the equipment or machinery that is locked or tagged out. This includes all sources of energy, i.e. electrical, hydraulic, gravity, air, water, stream pressure, etc.

c. Verifying the presence and effectiveness of restraint (blocking) and energy dissipation or release (bleeding).

4. If there is a possibility of the re-accumulation of stored energy to a hazardous level, verification of isolation will be contained until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

D. Group Lockout/Tagout

1. When more than one individual is involved in locking or tagging equipment out of operation, each individual will attach their individual lock or tag, or the equivalent, to the energy isolating device(s).
    a. An equivalent lockout device may be in the form of a group lockout device such as a multiple lock hasp or lock box.
    b. Primary responsibility for a group of authorized employees working under a group lockout device will be vested in a designated authorized employee.
    c. Group lockout methods will provide a level of protection equal to that afforded by a personal lockout/tagout device.

II. RETURNING EQUIPMENT TO SERVICE

A. Restore Equipment to Normal Operating Status

1. Re-install all parts or subassemblies removed for servicing or maintenance.
2. Re-install all tools, rests, or other operating devices
3. Re-install all guards and protective devices (i.e. limit switches).
4. Remove all blocks, wedges, or other restraints from the operating area of the equipment (ways, slides, etc.).
5. Remove all tools, equipment, shop towels from the operating area of the equipment.

B. Verify Equipment Ready for Operation

1. Inspect area for non-essential items
2. Ensure that all employees are safely positioned clear of the operating areas of the equipment. Post a watch if energy isolation devices are not in line of sight of the equipment.

C. Notify Affected Employees of Impending Start-up

1. The sudden noise of start-up may startle nearby employees.
2. Equipment may need to be tested to determine operational safety by a qualified operator.

D. Remove Energy Isolation Devices

Only by authorized employee(s) who installed it/them.

1. Remove line blanks, reconnect piping (if applicable), remove warning tag.
2. Close bleeder valves, remove warning tag.
3. Replace fuse(s), close circuit breaker(s), remove warning tag.
4. Remove lock and tag from control panel, valve, etc.
5. Exception to removal of lockout/tagout devices by employee who installed it. If it is necessary to operate a piece of equipment that is locked/tagged out, every effort must be made to locate the employee whose lock or tag is on the equipment. If he or she cannot be located and only after positive assurance is made that no one is working on the locked out equipment, the supervisor may personally remove the lock. The supervisor must assure that the equipment is once again locked out, or the employee notified that the equipment has been re-energized, before the employee resumes work.

   Employees will recheck locked out equipment if they have left the equipment (breaks, lunch, end of shift) to make sure it is still de-energized and locked out.

III. TEMPORARY REMOVAL OF LOCKOUT/TAGOUT PROTECTION

A. In situations when the equipment must be temporarily energized to test or position the equipment or it's components, the following steps will be followed:

1. Clear the equipment of tools and materials that are non-essential to the operation.
2. Ensure the equipment components are operationally intact.
3. Remove employees from the equipment area.
4. Remove the lockout/tagout devices by the employee who installed in/them.
5. Energize and proceed with testing or positioning.
6. De-energize all systems and re-install all energy control measures.
7. Verify re-installed energy control measures are effective.

IV. SHIFT OR PERSONNEL CHANGES

A. The following steps will be followed to ensure continuity of employee protection during personnel changes.
   1. All personnel involved in the maintenance or servicing activity will be notified that a transfer of personal locks/tags is about to occur.
   2. Clear all personnel from hazardous area(s) of equipment.
   3. Under the supervision of the shift supervisor or group designee, the off-going employee will immediately install their locks/tags.
      a. If an entire group or more than one employee will be transferring work responsibility, locks/tags will be removed and replaced one at a time in order of installation.
   4. When the transfer of lockout/tagout devices is complete, the effectiveness of all energy isolation devices will be verified to the satisfaction of all personnel involved.
   5. Once the effectiveness of energy isolation protection is confirmed, the service/maintenance operation may continue.

V. CONTRACTOR NOTIFICATION

A. Whenever outside personnel may be engaged in activities covered by this program, they will inform the contractor of applicable lockout/tagout procedures used to protect FENLEY & NICOL employees from the hazards of working near energized equipment.
   1. The contractor will be expected to ensure that his/her employees understand and comply with the restrictions and prohibitions of this program.
   2. FENLEY & NICOL requires, under these circumstances, the contractor to inform us of their lockout/tagout procedures so that FENLEY & NICOL employees can comply with the restrictions and prohibitions of the contractor's program.
   3. FENLEY & NICOL also requires the contractor to notify the program administrator, the area supervisor, and affected FENLEY & NICOL employees prior to de-energizing, isolating, and locking out FENLEY & NICOL equipment. Conversely, notification is also required when this equipment will be returned to service.

DEFINITIONS

Affected employee - An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

Authorized employee - A person who locks or implements a tagout system procedure on machines or equipment to perform servicing or maintenance. An authorized employee and an affected employee may be the same person when the affected employee's duties also include performing maintenance or service on a machine or equipment that must be locked or tagged out.

"Capable of being locked out" - An energy-isolating device will be considered to be capable of being locked out. These lock out conditions are either if it is designed with a hasp or other attachment or integral part to which, or through which, a lock can be affixed, or if it has a locking mechanism built into it. Other energy isolating devices will also be considered to be capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy control capability.

Energized - Connected to an energy source or containing residual or stored energy.

Energy isolating device - A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, no pole can be operated independently; a slide gate; a slip blind; a line valve; a block; and any similar device used to block or isolate energy. The term does not include a push button, selector switch, and other control circuit type devices.

Energy source - any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Lockout - The placement of lockout device on an energy-isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout device - A device that utilizes positive means such as a lock, either key or combination type, to hold an energy isolating device in the safety position and prevent the energizing of a machine or equipment.

Normal production operations - The utilization of a machine or equipment to perform its intended production function.

Servicing and/or maintenance - Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

Setting up - Any work performed to prepare a machine or equipment to perform its normal production operation.

Stored energy - Energy that is available and may cause movement even after energy sources have been isolated. Stored energy may be in the form of compressed springs, elevated equipment components, hydraulic oil pressure, pressurized water, air, steam, or gas, or rotating flywheels, shafts or cams.

Tagout - The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout device - A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure. The tagout device will indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

MACHINERY AND EQUIPMENT LIST

EQUIPMENT/LOCATION	ENERGY SOURCES/LOCATION
Earthprobe/ Entire Site (For the collection of groundwater samples)	**Gasoline combustion engine SK-58 Stanley Percussion Hammer**

FENLEY & NICOL has one (1) piece of machinery and equipment that is affected by this Program. This item has energy isolation devices capable of accepting a lock.

7.0 TRAINING

7.1 General Health and Safety Training

In accordance with F&N corporate policy, and pursuant to 29 CFR 1910.120, hazardous waste site workers shall, at the time of job assignment, have received a minimum of 40 hours of initial health and safety training for hazardous waste site operations. As a minimum, the training shall have consisted of instruction in the topics outlined in the above reference. Personnel who have not met the requirements for initial training will not be allowed to work in any site activities in which they may be exposed to hazards (chemical or physical).

Completion of the F&N Health and Safety Training Course for Hazardous Waste Operations or an approved equivalent will fulfill the requirements of this section. In addition to the required initial training, each employee shall have received 3 days of directly supervised on-the-job training. This training will address the duties the employees are expected to perform.

The F&N Health and Safety Supervisor has the responsibility of ensuring that personnel assigned to this project comply with these requirements. Written certification of completion of the required training will be provided to the SSO.

7.2 Manager/Supervisor Training

In accordance with 29 CFR 1910.120, on-site management and supervisors who will be directly responsible for, or who supervise employees engaged in hazardous waste operation shall receive training as required by Section 6.1 of the HSP. In addition, at least 8 additional hours of specialized training on managing such operations at the time of job assignment.

7.3 Annual 8-Hour Refresher Training

Annual 8-hour refresher training will be required of all hazardous waste site field personnel in order to maintain their qualification for fieldwork. The following topics will be reviewed: toxicology, respiratory protection, including air purifying devices

and self-contained breathing apparatus (SCBA), medical surveillance, decontamination procedures, and personnel protective clothing. In addition, topics deemed necessary by the SSO might be added to the above list.

7.4 Site Specific Training

Prior to commencement of field activities, all personnel assigned to the project will be provided training that will specifically address the activities, procedures, monitoring, and equipment for the site operations. It will include site and facility layout, hazards, and emergency services at the site, and will highlight all provisions contained within this HSP. This training will also allow field workers to clarify anything they do not understand and to reinforce their responsibilities regarding safety and operations for their particular activity.

7.5 On Site Safety Briefings

Project personnel and visitors will be given periodic on-site health and safety briefings by the SSO, or their designee, to assist site personnel in safely conducting their work activities. The briefings will include information on new operations to be conducted, changes in work practices, or changes in the site's environmental conditions. The briefings will also provide a forum to facilitate conformance with safety requirements and to identify performance deficiencies related to safety during daily activities or as a result of safety audits.

7.6 Additional Training

Additional training may be required by the SSO for participation in certain field tasks during the course of the project. Such additional training could be in the safe operation of heavy or power tool equipment or hazard communication training.

7.7 Subcontractor Training

Subcontractor personnel working on site only occasionally, for a specific limited task (such as land surveying) and who are unlikely to be exposed over permissible exposure limits, may be exempted from the initial 40-hour training requirement. The SSO will determine if this exemption is allowed. In any case, the subcontractor personnel who are exposed to hazards are not exempted from the 40-hours training requirement nor medical surveillance requirements found in Section 8.1.

8.0 MEDICAL SURVEILLANCE

8.1 General

All contractor and subcontractor personnel performing field work at the site are required to have passed a complete medical surveillance examination in accordance with 29 CFR 1910.120 (f). A physician's medical release for work will be confirmed by the SSO before an employee can begin site activities. Such examinations shall include a statement as to the worker's present health status, the ability to work in a hazardous environment (including any required PPE that may be used during temperature extremes), and the worker's ability to wear respiratory protection.

A medical data sheet will be completed by all on-site personnel and kept at the site. Where possible, this medical data sheet will accompany the personnel needing medical assistance or transport to hospital facilities.

8.1.1 Medical Surveillance Protocol

The medical surveillance protocol to be implemented is the occupational physicians' responsibility, but shall meet the requirements of CFR 1910.120 and ANSI Z88.2 (1980). The medical surveillance protocol shall, as a minimum, cover the following:

a. Medical and Occupational History
b. General physical examination (including evaluation of major organ system)
c. Serum lead and ZPP
d. Chest X-ray (performed no more frequently that every four years, except when otherwise indicated).
e. Pulmonary Function Testing (FVC and FEV1.0)
f. Ability to wear respirator
g. Audiometric testing

Additional clinical tests may be included at the discretion of the occupational physician.

9.0 SITE CONTROL, PERSONAL PROTECTIVE EQUIPMENT, AND COMMUNICATIONS

9.1 Site Control

A support zone (SZ) is an uncontaminated area that will be the field support area for most operations. The SZ provides for field team communications and staging for emergency response. Appropriate sanitary facilities and safety equipment will be located in this zone. Potentially contaminated personnel or materials are not allowed in this zone. The only exception will be appropriately packaged/decontaminated and labeled samples. A contamination reduction corridor will be established. This is the route of entry and egress to the site, and it provides an area for decontamination of personnel and portable equipment as well.

The area where contamination exists is considered to be the exclusion zone. All areas where excavation and handling of contaminated materials take place are considered the exclusion zone (EZ). This zone will be clearly delineated by cones, tape, or other means. The SSO may establish more than one EZ where different levels of protection may be employed or where different hazards exist. Personnel are not allowed in the EZ without:

- A partner (buddy)
- Appropriate personal protective equipment
- Medical authorization
- Training certification

9.2 Personal Protective Equipment

9.2.1 General

The level of protection worn by field personnel will be enforced by the SSO. Levels of protection for general operations are provided below and are defined in this section. Levels of protection may be upgraded or downgraded at the discretion of the SSO. The decision shall be based on real-time air monitoring, site history data, and prior site experience. Any changes in the level of protection shall be recorded into the health and safety field logbook.

9.2.2 Personal Protective Equipment Specifications

For tasks requiring Level B PPE, the following equipment shall be used:

Cotton or disposable coveralls
Chemical protective suit (e.g. Saran-coated Tyvek)
Gloves, inner (latex)
Gloves, outer (nitrile)
Boots (PVC), steel toe/shank
Boot Covers (as needed)
Hard Hat
Hearing protection (as needed)

For tasks requiring Level C PPE, the following equipment shall be used:

Cotton or disposable coveralls
Disposable outer coveralls (Poly-coated Tyvek)
Gloves, inner (latex)
Gloves, outer (nitrile)
Boots (PVC), steel toe/shank
Boot covers (as needed)
Hard hat
Hearing protection (as needed)
Splash suit and face shield for decontamination operations (as needed)

For tasks requiring Level D PPE, the following equipment shall be used:

Cotton or disposable coveralls
Gloves, inner (latex)
Gloves, outer (nitrile)
Boots (PVC) steel toe/shank
Boot covers (as needed)
Hard hat
Hearing protection (as needed)
Safety glasses

For tasks requiring respiratory protection, the following equipment shall be used:

Level D - No respiratory protective equipment necessary except for a dust mask.
Level C - A full-face air-purifying respirator equipped with organic vapor/pesticide-HEPA cartridges.

Level B - An air-line respirator or a self-contained breathing apparatus (SCBA)

Fenley and Nicol's Respiratory Protection Program shall be followed.

9.2.3 Initial Levels Of Protection

Levels of protection for the activities may be upgraded or downgraded depending on direct-reading instruments or personnel monitoring. The following are the initial levels of protection that shall be used for each planned field activity.

LEVEL OF PERSONAL PROTECTIVE EQUIPMENT REQUIRED

Activity	Level of Protection Respiratory/PPE
Excavation	C/D
Drilling	C/D
Sampling	C/D

9.3 Communication

Communication is the ability to transmit information to others, either through the written work or verbalized. While working in Level C/B Protection, personnel may find that communication become a more difficult task and process to accomplish. Distance and space further complicate this. In order to address this problem, electronic instruments, mechanical devices or hand signals will be used as follows:

- Walkie-Talkies - Hand held radios would be utilized as much as possible by field teams for communication between downrange operations and the Command Post base station. The Command Post base station will be considered the rear of the Fenley & Nicol Environmental, Inc. vehicle at the site during the fieldwork.

- Telephones - A mobile telephone will be located in the Command Post vehicle in the Support Zone for communication with emergency support services/facilities. If a telephone is demobilized, the nearest public phones will be identified.

- Hand Signals - This communication method will be employed by members of the field team along with use of the buddy system. Signals become especially important

when in the vicinity of heavy moving equipment and when using Level B respiratory equipment. The signals shall become familiar to the entire field team before site operations commence and they will be reinforced and reviewed during site-specific training.

HAND SIGNALS FOR ON-SITE COMMUNICATION

Signal	Meaning
Hand gripping throat	Out of air, can't breathe
Grip partners' wrist	Leave area immediately; no debate
Hands on top of head	Need assistance
Thumbs up	OK, I'm all right; I understand
Thumbs down	No, negative, unable to understand you. I'm not all right

10.0 AIR MONITORING PLAN

10.1 General

Continuous air monitoring in the Exclusion Zone(s) during invasive tasks will accompany site operations, as indicated in this HASP or as required by the SSO. Monitoring will be performed to verify the adequacy of respiratory protection, to aid in site layout and to document work exposure. All monitoring instruments shall be operated by qualified personnel only and will be calibrated daily prior to use, or more often as necessary.

10.2 Real-Time Monitoring

10.2.1 Instrumentation

The following monitoring instruments will be available for use during field operations as necessary:

Photo ionization Detector (PID), Hun Model PI-101 with 10.2 EV probe or equivalent

Flame Ionization Detector (FID), Foxboro Model 128 or equivalent

Combustible Gas Indicator (CGI)/Oxygen (O2) Meter, MSA or equivalent.

A FID or PID shall be used to monitor the organic vapor concentrations in active work areas. Organic vapor concentrations shall be measured upwind of the work areas to determine background concentrations. The SSO will interpret monitoring results using professional judgment. The PPE utilized shall always be the most protective; thus the action level criteria are flexible guidelines.

A CGI/O_2 meter shall be used to monitor for combustible gases and oxygen content in the boreholes during drilling activities.

Calibration records shall be documented, and included in the health and safety logbook or instrument calibration logbook. All instruments shall be calibrated before and after each daily use in accordance with the manufacturers' procedures.

10.2.2 Action Levels

Action levels for upgrading of PPE in this HSP will apply to all site work during the duration of field activities at the site. Action levels are for unknown contaminants using direct reading in the Breathing Zone (BZ) for organic vapors and dusts, and at the source for combustible gases. The action levels to be utilized for the remediation system site are found in Table 10-1.

10.2.3 Monitoring During Field Activities

10.2.3.1 Real-Time Air Monitoring: Exclusion Zone

F&N shall perform real time air monitoring prior to the commencement of work to establish baseline conditions. Baseline conditions will be established at the approximate center of the site and at the perimeter of the site both upwind and downwind.

During all work activities real time monitoring will occur. F&N shall have at each applicable workstation a Photoionization Detector, explosimeter or oxygen deficiency meter. The real time monitoring for remedial activities will be conducted approximating the Breathing Zone of the workers. The monitoring will be continuous during working operations.

The air-monitoring instrument may indicate that personnel working in the exclusion zone increase their level of protection. All personnel will be trained in the action levels. When conditions warrant an increase in protection, all personnel will stop working and immediately leave the exclusion zone. They will then don the appropriate safety equipment necessary and return to their current workstation. The Site Safety Officer (SSO) will monitor all of this activity. The SSO will keep the F&N Project Manager aware of any extraordinary situations and conditions that may occur. Working conditions and monitoring levels will be noted in the Field Notebook along with the time, date, and page number. Verbal reports will be given to the Project Manager when there is a change in the PPE level.

The previous days results shall be reviewed each morning to determine what actions are necessary and the general conditions resulting from and around the site.

The record keeping will include:

- Date & Time of Monitoring
- Air Monitoring Location
- Instrument, Model #, Serial #
- Calibration/Background Levels
- Results of Monitoring
- SSO Signature
- Comments

Appendix B provides a generic community air-monitoring plan

Excavation Operations - Monitoring will be performed continuously during all excavation and demolition operations. A PID and/or FID shall be utilized to monitor the breathing zone, the excavated area and any material taken from the excavation. A CGI/O2 meter shall be used to monitor the excavation for the presence of combustible gases.

TABLE 10-1: ACTION LEVELS OF AIRBORNE CONTAMINANTS

Instrument	Action Level	Action to be Taken
FID/PID	10-100 ppm, for a 15 minute average	Stop work & initiate vapor control
	> 100 ppm, for a	Stop work & initiate evacuation

	15 minute average	procedure
CGI	10% LEL	Stop work, initiate ventilating
	50% LEL	Stop work, initiate evacuation procedure and contact fire dept.

10.3 Personnel Monitoring Procedure

Assessment and evaluation of field personnel exposures to airborne contaminants may be performed by the site SSO concurrent with activities which may generate the contaminants in excess of OSHA PEL's.

Procedures to be followed include:

Selection of high-risk individuals, who may be subject to contaminant exposure, based on job assignment and observations of the SSO.

The Personal Sampling is being conducted to determine the proper levels of respiratory protection required, to document potential exposures to compounds, and to assure compliance with OSHA standards. Therefore it is important that the data collected be from "worst case" locations and personnel.

For example: when work is being conducted to excavate at an underground tank location, those persons closest to the excavation and most intimately involved with the work should be sampled. If a backhoe operator solely conducted the excavation, then that employee should be monitored. However, if there are additional workers who must enter the excavation and work with the freshly excavated soil, these persons would be closer to the potential contaminants and they should be sampled.

To meet the intent of the sampling will require sampling at periods of the most disturbances. To be accurate in determining potential exposures, as many tasks/trades shall be sampled as possible during the course of this project. At completion of the project, a goal of 20% of all workers who must perform their duties in or around the contaminated soil, tanks, and excavations is sought.

F&N must provide all sampling data in writing to the employees within three (3) days of receipt of results.

Air sampling pumps used to collect employee exposure samples shall be calibrated before and after use each day. Calibration shall be accomplished using a primary standard calibration system, e.g. the bubble tube method. Results of the calibrations shall be included in the health and safety field logbook and with the exposure report.

Chemical analysis of samples collected for assessment of employee exposures shall be performed in accordance with NIOSH or OSHA analytical methods only by laboratories accredited by the American Industrial Hygiene Association.

Results of the personal exposure assessment shall be provided to the individual, in writing within 15 working days after receipt of laboratory reports. Reports to field personnel shall provide calculated time-weighted average exposures and shall provide comparative information relative to established permissible exposure limits. The air sampling data sheet and laboratory report is considered a part of the employee exposure report. A copy of the employee personal exposure assessment report shall also be included in the project file, and the employees' medical record for F&N employees. Reports for subcontractor employees will be sent directly to the subcontractors' employer.

10.4 Air Monitoring Reports

Air Monitoring Reports will be completed by the SSO and/or CIH and submitted to the Project Manager in the daily safety logs and will include the following:

a. Date of monitoring
b. Equipment utilized for air monitoring
c. Real-time air monitoring results from each work location
d. Calibration method of equipment and results

11.0 SAFETY CONSIDERATIONS

11.1 General

In addition to the specific requirements of this HSP, common sense should be used at all times. The following general safety rules and practices will be in effect at the site.

The site will be suitably marked or barricaded as necessary to prevent unauthorized visitors but not hinder emergency services if needed.

All open holes, trenches, and obstacles will be properly barricaded in accordance with local site needs. The needs will be determined by proximity to traffic ways, both pedestrian and vehicular, and site of the hole, trench, or obstacle. If holes are required to be left open during non-working hours, they will be adequately decked over or barricaded and sufficiently lighted.

Before any digging or boring operations are conducted, underground utility locations will be identified. All boring, excavation, and other site work will be planned and performed with consideration for underground lines. Any excavation work will be performed in accordance with F&N's Standard Operating Procedures for Excavations.

Smoking and ignition sources in the vicinity of potentially flammable or contaminated material strictly prohibited.

Drilling, boring, and use of cranes and drilling rigs, erection of towers, movement of vehicles and equipment and other activities will be planned and performed with consideration for the location, height. In addition, the relative position of aboveground utilities and fixtures, including signs; canopies; building and other structures and construction; and natural features such as trees, boulders, bodies of water, and terrain will be taken into consideration.

When working in areas where flammable vapors may be present, particular care shall be exercised with tools and equipment that may be sources of ignition. All tools and equipment provided must be properly bonded and/or grounded. Metal buttons and zippers are prohibited on safety clothing for areas that may contain a flammable or explosive atmosphere.

Approved and appropriate safety equipment (as specified in this HSP), such as eye protection, hard hats, foot protection, and respirators, must be worn in areas where required. In addition, eye protection must be worn when sampling soil or water that may be contaminated.

Beards interfere with respirator fit and are not allowed within the site boundaries because all site personnel may be called upon to use respirator protection in some situations.

No smoking, eating, chewing tobacco, gum chewing, or drinking will be allowed in the contaminated areas.

Contaminated tools and hands must be kept away from the face.

Personnel must use personal hygiene safe guards (washing up) at the end of the shift or as soon as possible after leaving the site.

Each sample must be treated and handled as though it were contaminated.

Persons with long hair and/or loose fitting clothing that could become entangled in power equipment must take adequate precautions.

Horseplay is prohibited in the work area.

Work while under the influence of intoxicants, narcotics, or controlled substances, is Prohibited.

11.2 Posted Signs

Posted danger signs will be used where an immediate hazard exists. Caution signs will be posted to warn against potential hazards and to caution against unsafe practices. Traffic control methods and barricades will be used as needed. Wooden stakes and flagging tape or equally effective material will be used to demarcate all restricted areas.

Other postings will include an OSHA poster emergency hospital route and a telephone numbers of contact personnel posting.

11.3 Invasive Operations

The SSO will be present on-site during all invasive work (e.g. demolition, excavations). The SSO will ensure that appropriate monitoring, levels of protection and safety procedures are followed. No personnel will enter any excavations for any reasons. All personnel will stay at least 10 feet back from the edge of the excavation and out of the swing radius of the backhoe.

No drums or other potential sources will be sampled or removed during this phase without further additions to the HSP.

The proximity of water, sewer, and electrical lines will be identified prior to invasive operations.

The possibility of the presence of underground conduits or vessels containing materials under pressure will also be investigated prior to invasive operations. Properly sized

containment systems will be utilized and consideration of the potential volume of liquid or waste released during operations will be discussed with members of the field team to minimize the potential for spills and provide a method for collection of waste materials. Emergency evacuation procedures and the location of safety equipment will be established prior to start up operations.

The use of protective clothing, especially hard hats, boots, and gloves will be required during drilling and other heavy equipment work.

11.4 Soil, Groundwater and Liquid Waste Sampling

Personnel must wear prescribed protective clothing and equipment including eye protection, chemical resistant gloves and splash aprons (where appropriate) when sampling solids and liquids. Sample bottles are to be bagged prior to sampling to ease decontamination. Personnel must be aware of the location of emergency equipment, including spill containment materials prior to sampling. Personnel are to practice contamination avoidance at all times, as well as to utilize the buddy system and maintain communications with the Command Post. In some situations, such as sampling groundwater wells, additional monitoring may be needed to confirm or establish the proper level of protection before the sampling team can proceed.

11.5 Sample Handling

Personnel responsible for the handling of samples will wear the prescribed level of protection. Samples are to be identified as to their hazard and packaged as to prevent spillage or breakage.

Any unusual sample conditions shall be noted. Laboratory personnel and all field personnel shall be advised of sample hazard levels and the potential contaminants present. This can be accomplished by a phone call to the lab coordinator and/or including a written statement with the samples reviewing lab safety procedures in handling in order to assure that the practices are appropriate for the suspected contaminants in the sample.

11.6 Heavy Equipment Decontamination

Personnel steam cleaning heavy equipment shall use the prescribed level of protection and adhere to the buddy system. Initially this task usually employs level C. The heavy equipment decon shall be restricted to authorized personnel only. Special consideration will be given to wind speed and direction. Downwind areas are to be

kept free of personnel to avoid unnecessary exposure to potential airborne contamination.

11.7 Additional Safety Considerations

There are no additional safety considerations.

12.0 DECONTAMINATION AND DISPOSAL PROCEDURES

All decontamination will be performed, at a minimum, in accordance with applicable industry standards.

12.1 Contamination Prevention

One of the most important aspects of decontamination is the prevention of contamination. Good contamination prevention should minimize worker exposure and help ensure valid sample results by precluding cross-contamination. Procedures for contamination avoidance include:

Personnel
Do not walk through areas of obvious or known contamination
Do not directly handle or touch contaminated materials
Make sure that there are no cuts or tears on PPE.
Fasten all closures in suits; cover with tape if necessary
Particular care should be taken to prevent any skin injuries
Stay upwind of airborne contaminants
Do not carry cigarettes, cosmetics, gum, etc. into contaminated areas.

Sampling and Monitoring
When required by the SSO, cover instruments with clear plastic, leaving openings for sampling ports. Bag sample containers prior to emplacement of sample material.

Heavy Equipment
Care should be taken to limit the amount of contamination that comes in contact with heavy equipment (tires, contaminated augers). Dust control measures may be needed on roads inside the site boundaries.

12.2 Personnel Decontamination

All personnel shall pass through an outlined decontamination procedure when exiting the hot zone at each location. A field wash for equipment and PPE shall be set up at each drilling location. The system will include a gross wash and rinse for all disposable clothing and boots worn in the EZ. Upon exiting the EZ, all personnel will wash their hands, arms, neck, and face before entering the Support Zone.

12.3 Equipment Decontamination

Equipment used at the remediation system site that is potentially contaminated shall be decontaminated to prevent hazardous materials from leaving the site. All heavy equipment will be decontaminated at the decontamination pad and inspected by the SSO and Project Manager before it leaves the site. The decontamination area will provide for the containment of all wastewater from the decontamination process. Respirators, airline and any other personnel equipment that comes in contact with contaminated soils shall pass through a field wash.

12.4 Decontamination During Medical Emergencies

If emergency life-saving first aid and/or medical treatment is required, normal decontamination procedures may need to be abbreviated or omitted. The site SSO or designee will accompany contaminated victims to the medical facility to advise on matters involving decontamination, when necessary. The outer garments can be removed if they do not cause delays, interfere with treatment, or aggravate the problem. Respiratory equipment must always be removed. Protective clothing can be cut away. If the outer contaminated garments cannot be safely removed a plastic barrier between the individual and clean surfaces should be used to help prevent contaminating the inside of ambulances and /or medical personnel. Outer garments are then removed at the medical facility. No attempt will be made to wash or rinse the victim, unless it is known that the individual has been contaminated with an extremely toxic or corrosive material that could also cause severe injury or loss of life to emergency response personnel. For minor medical problems or injuries, the normal decontamination procedures will be followed.

Note that heat stroke requires prompt treatment to prevent irreversible damage or death. Protective clothing must be promptly removed. Less serious forms of heat stress also require prompt attention and removal of protective clothing immediately. Unless the victim is obviously contaminated, decontamination should be omitted or minimized and treatment begun immediately.

12.5 Disposal Procedures

The SSO and PM will develop a segregating system of non-hazardous waste and hazardous waste. All discarded material, waste materials, or other objects shall be handled in such a way as to preclude the potential for spreading contamination, creating sanitary hazards, or causing litter to be left on site. All potentially contaminated materials, e.g. clothing, gloves, etc., will be bagged or drummed as necessary, labeled and segregated for disposal. All non-contaminated materials shall be collected and bagged for appropriate disposal as normal domestic waste.

13.0 EMERGENCY PLAN

The potential for the development of an emergency situation is low considering the low concentrations of hazardous substances at the work site. Nevertheless, an emergency situation could occur. All F&N members and subcontractor field team will know the emergency plan, outlined in this section, prior to the start of work. The emergency plan will be available for use at all times during site work.

Various individual site characteristics will determine preliminary actions taken to assure that this emergency plan is successfully implemented in the event of a site emergency. Careful consideration must be given to the proximity of neighborhood housing or places of employment and to the relative possibility of site fire, explosion or release of vapors or gases that could affect the surrounding community.

The Project Manager shall make contact with local fire, police, and other emergency units prior to beginning work on site. In these contacts, the Project Manager will inform the emergency units about the nature and duration of work expected to the site and the type of contaminants and the possible health or safety effects of emergencies involving these contaminates. At this time, the Project Manager and the emergency response units shall make the necessary arrangements to be prepared for any emergencies that could occur.

The Project Manager shall implement the contingency plan whenever conditions at the site warrant such action. The Project Manager will be responsible for coordination of the evacuation emergency treatment, and transportation of site personnel as necessary, and notification of emergency response units and the appropriate management staff.

The cases where the PM is not available, the SSO shall serve as the alternate emergency coordinator.

13.1 Evacuation

In the event of an emergency situation, such as fire, explosion, or significant release of toxic gases, an air horn or other appropriate device will be sounded for approximately 10-second intervals indicating the initiation of evacuation procedures. All personnel will evacuate and assemble near the entrance to the site. The location shall be upwind of the site where possible.

For efficient and safe site evacuation and assessment of the emergency situation, the Project Manager will have authority to initiate action if outside services are required. Under no circumstances will incoming personnel or visitors be allowed to proceed into the area once the emergency signal has been given. The SSO or designated SSO must ensure that access for emergency equipment is provided and that all combustion apparatuses have been shut down once the alarm has been sounded. Once the safety of all personnel is established, the Fire Department and other emergency response groups as necessary will be notified by telephone of the emergency.

13.2 Potential or Actual Fire or Explosion

Immediately evacuate the site, notify the local fire and police departments, and other appropriate emergency response groups if an actual fire or explosion has taken place.

13.3 Personnel Injury

Emergency first aid shall be applied on site as deemed necessary. If necessary, the individual shall be decontaminated and transported to the nearest medical facility.

The ambulance/rescue squad shall be contacted for transport as necessary in an emergency. However, since some situations may require transport of an injured party by other means, the hospital route is identified below.

Directions to Hospitals:
From the Subject Site:
Make a left out of the site and go south on Deer Park Avenue. Continue south on Deer Park Avenue and a left (toward the east) onto Montauk Highway (a.k.a. Route 27A). Continue east on Montauk Highway for eleven (11) blocks. Good Samaritan Hospital is on the left (north) side of Montauk Highway.

13.4 Accident/Incident Reporting

As soon as first aid and/or emergency response needs have been met, the following parties are to be contacted by telephone:

1. Thomas Hudson, Safety Officer (631) 586-4900 ext. 139
2. David Oloke, Project Geologist (631) 586-4900 ext. 144
3. The employer of any injured worker if not an F&N employee

Written confirmation of verbal reports are to be submitted within 24 hours. The report form entitled "Accident Data Report" is to be used for this purpose. All F&N representatives contacted by telephone are to receive a copy of this report. If the employee involved is not an F&N employee, his employer shall receive a copy of this report.

For reporting purposes, the term accident refers to fatalities, lost time injuries, spill, or exposure to hazardous materials (toxic materials, explosive or flammable materials).

Any information released from the health care provider, which is not deemed confidential patient information, is to be attached to the appropriate form. Any medical information that is released by patient consent is to be filed in the individuals' medical records and treated as confidential.

See Appendix C for a copy of the Accident Report.

13.5 Overt Personnel Exposure

SKIN CONTACT:	Use copious amounts of soap and water. Wash/rinse affected area thoroughly, and then provide appropriate medical attention. Eyes should be rinsed for 15 minutes upon chemical contamination.
INHALATION:	Move to fresh air and/or decontaminate/transport to hospital.
INGESTION:	Decontamination and transport to emergency medical facility.

PUNCTURE WOUND
OR LACERATION: Decontaminate and transport to emergency medical facility.

13.6 Adverse Weather Conditions

In the event of adverse weather conditions, the SSO or designee will determine if work can continue without sacrificing the health and safety of all field workers. Some of the items to be considered prior to determining if work should continue are:

- Potential for heat stress and heat-related injuries
- Potential for cold stress and cold-related injuries
- Treacherous weather-related conditions
- Limited visibility
- Potential for electrical storms

Site activities will be limited to daylight hours and acceptable weather conditions. Inclement working conditions include heavy rain, fog, high winds, and lighting. Observe daily weather reports and evacuate if necessary in case of inclement weather conditions.

13.7 Emergency Response Equipment List

The following items will be on-site for use:

- 55 Gallon Drums
- Absorbent Pads
- Plastic Sheeting

The following items will be available for use if required and will be stored at the offices of F&N:

- Absorbent Booms
- Speedi-Dry
- Hay Bales
- Pneumatic Nibbler
- Back Hoe
- Pressure Washer
- Air Compressor
- Wilden Pumps
- Equipment Storage Trailer

- Submersible Pumps
  Miscellaneous Hand Tools
- Portable Lighting
- 85 Gallon Drums

13.8 Large Equipment

F&N owns and can mobilize the following large equipment:

- Large Vacuum Truck
- Super Sucker
- Dump Trucks
- Drill Rig
- Utility Vehicle
  Excavator (Rubber Tire)

14.0 LOGS, REPORTS AND RECORDKEEPING

14.1 Medical and Training Records

The employer keeps medical and training records. Verification of training and medical qualifications must be provided to the SSO by the subcontractor employer of F&N record coordinator. The SSO will keep a log of personnel meeting appropriate training and medical qualifications for site work. The log will be kept in the project file. Medical records will be maintained in accordance with 29 CFR 1910.20.

14.2 On-Site Log

A log of personnel on-site each day will be kept by the SSO or designee. A copy of these logs will be sent to the F&N record coordinator for data entry. Originals will be kept in the project file.

14.3 Exposure Records

Any personal monitoring results, laboratory reports, calculations and air sampling data sheets are part of an employee exposure record. These records will be kept in accordance with 29 CFR 1910.20. For F&N employees, the originals will be sent to the F&N record coordinator. For subcontractor employees, the original will be sent to the subcontractor employer and a copy kept in the project file.

14.4 Accident/Incident Reports

An accident/incident report must be completed for all accidents and incidents. The originals will be sent to the appropriate F&N record coordinator for maintenance by F&N. Copies will be distributed as stated. A copy of the forms will be kept in the project file.

14.5 OSHA Form 200

An OSHA Form 200 (Log of Occupational Injuries and Illnesses) will be kept at the project site. All recordable injuries or illnesses will be recorded on this form. At the end of the project, the original will be sent to the F&N corporate records administrator for maintenance. Subcontractor employers must also meet the requirements of maintaining an OSHA 200 form. The F&N accident/incident report meets the requirements of the OSHA Form 101 (Supplemental Record) and must be maintained with the OSHA Form 200 for all recordable injuries or illnesses.

14.6 Health and Safety Field Log Book

The SSO or designee will maintain the logbook in accordance with standard F&N procedures. Daily site conditions, activities, personnel, calibration records, monitoring results and significant events will be recorded. The original logbooks will become part of the exposure records file.

15.0 SANITATION AT TEMPORARY WORK STATIONS

If sanitary sewers are not provided at the site, provisions shall be made for access to sanitary systems by using nearby public facilities or on-site facilities consistent with provisions of governing local ordinance codes. In the latter case, provisions are required for the removal of accumulated waste products within those units.

If a commercial/industrial laundry is used to clean or launder clothing that is potentially contaminated, they shall be informed of the potential harmful effects of exposure to hazardous substances related to the affected clothing.

Personnel and subcontractors assigned to the project shall follow decontamination procedures described in the HSP, or as directed by the SSO. This will generally include at a minimum site-specific training in shower usage and cleanup, personal hygiene requirements and the donning of protective equipment/clothing.

Appendix A
Directions to Hospital / Hospital Route Map

Directions to Hospital

From the Subject Site:

Make a left out the site and go south on Deer Park Avenue. Continue south on Deer Park Avenue and a left (toward the east) onto Montauk Highway (a.k.a Route 27A). Continue east on Montauk Highway for eleven (11) blocks. Good Samaritan Hospital is on the right (south) side of Montauk Highway.

FOR ADJOINING AREA SEE MAP NO. 3

4 5 6

M N O P

BABYLON

FOR ADJOINING AREA SEE MAP NO.5

Appendix B
Generic Community Air-Monitoring Plan

New York State Department of Health
Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical-specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a **continuous** basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored **continuously** at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

June 20, 2000

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Appendix C
Accident Report Form

ACCIDENT, LOSS OR DAMAGE

date _____ truck number _____

name _____ position _____

damage _____

date occurred _____ time _____

location _____

description of accident or loss: _____

_____

_____

vehicles involved or equipment (list those belonging to F&N or others)

_____

_____

name of person at fault _____

preventative measures taken _____

_____

corrective measures _____

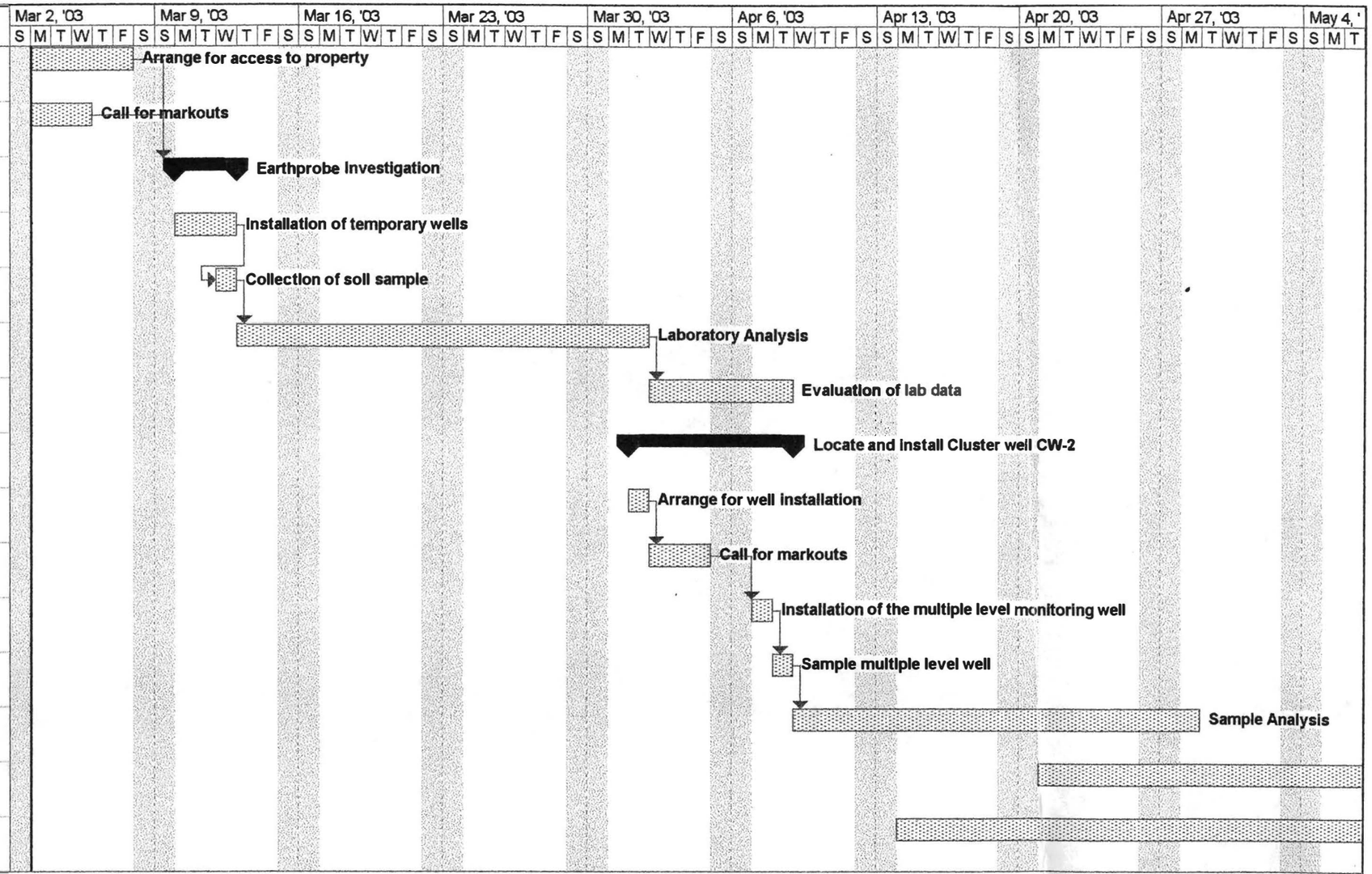
_____

estimate of damage or loss _____

_____

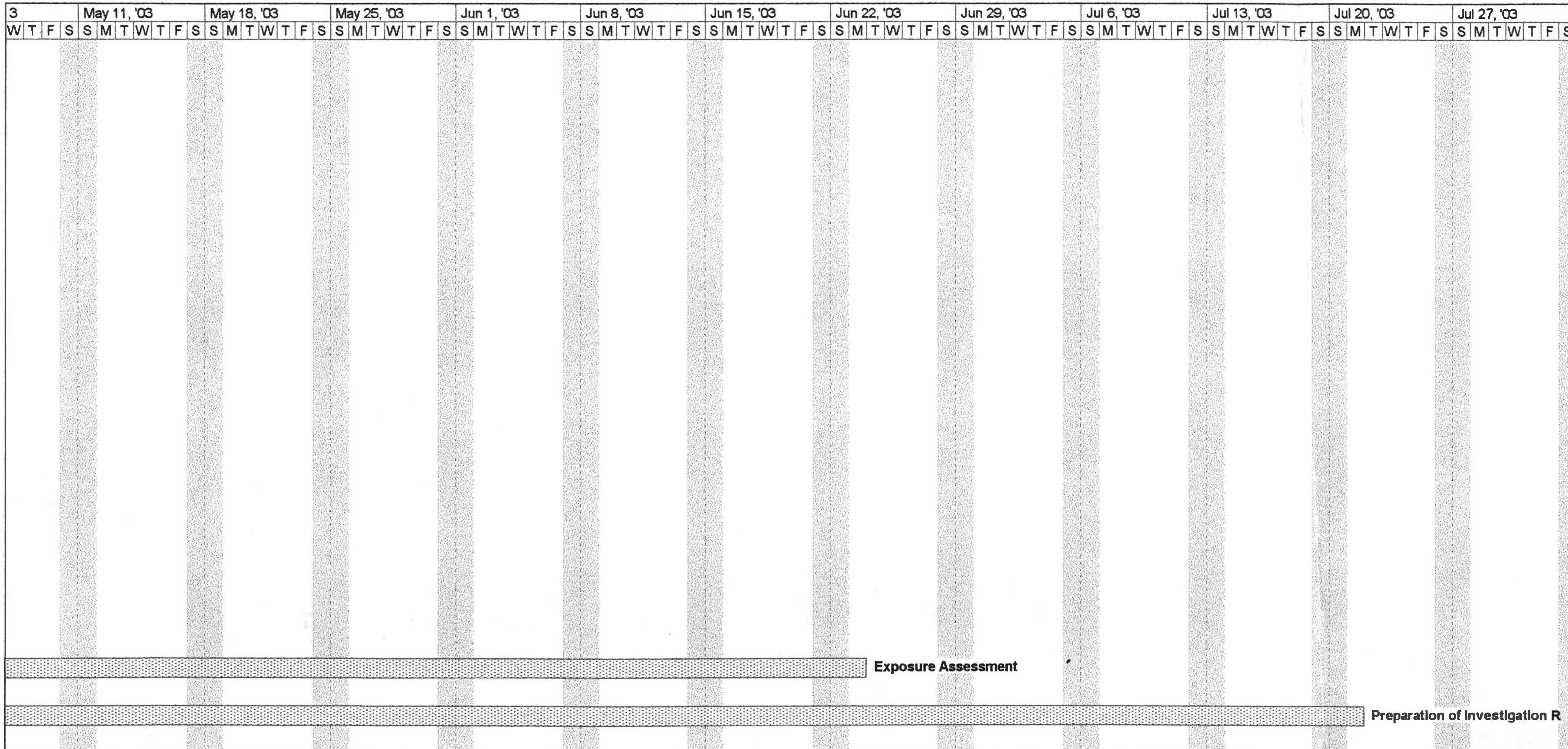
Appendix C
Proposed Project Schedule

ID	Task Name
1	Arrange for access to property
2	Call for markouts
3	**Earthprobe Investigation**
4	Installation of temporary wells
5	Collection of soil sample
6	Laboratory Analysis
7	Evaluation of lab data
8	**Locate and install Cluster well CW-2**
9	Arrange for well installation
10	Call for markouts
11	Installation of the multiple level monitoring well
12	Sample multiple level well
13	Sample Analysis
14	Exposure Assessment
15	Preparation of investigation Report



Project: Villa Cleaners - V-00335-1
1899 Deer Park Avenue, Deer Park, NY
Manager: David Oloke Date: Wed 1/8/03

Task Progress Summary



Project: Villa Cleaners - V-00335-1
1899 Deer Park Avenue, Deer Park, NY
Manager: David Oloke Date: Wed 1/8/03

Task Progress Summary

Appendix D
Personnel Resumes

Tom Hudson
Director of Waste Management

➢ **RESPONSIBLE FOR OVERSEEING F&N'S WASTE MANAGEMENT PROGRAM**

- Site Remediation
- Non-Hazardous and Hazardous Waste Removal and Disposal
- Emergency Spill Response
- Staff Hiring, Marketing
- Budget Management, Project Management

➢ **RESPONSIBLE FOR MAINTAINING F&N'S SAFETY MANAGEMENT PROGRAM**

- Right to Know-OSHA
- Health & Safety
- Hazwhopper – PPE
- Fire Protection – CPR
- Confined Space Entry
- Lock-Out Tagout

➢ **QUALIFICATIONS:**

Mr. Hudson has over twelve – years experience in Environmental Management, Health and Safety. Over twenty-five years experience in Facility Management involving OSHA and other regulatory agency interaction.

1990 – 1999: Safety Kleen Systems – Operations Manager Health & Safety Officer

1980 – 1990: Facility/Service Manager – Mercedes Benz of North America

Suffolk County Community College

➢ **CERTIFICATIONS:**

- Instructor for Hazardous Waste Operations and Emergency Response (RCRA)
- 3M Certified Respirator Training Instructor
- OSHA Certified Trainer CFR 29
- Certified Trainer Dept. of Transportation CFR 49
- Certified Facility Manager for Hazardous Materials and Waste Management

Brian McCabe

Assistant Director

Responsibilities:

- *Project Manager - NYSDEC & Private Sector*
- *Phase I & Phase II Environmental Site Assessments*
- *Monitoring Well Installation & Development*
- *Soil & Groundwater Sampling / Field Screening of Soils*
- *Well Logging*
- *Evaluate Effectiveness of Remediation Systems*
- *Evaluation & Interpretation of Data*
- *Tank Abandonments*
- *Tank Closure Reports*
- *Drywell Closures*
- *Status / Quarterly Reporting*
- *Vacuum Enhanced Fluid Recovery (EFR)*

Qualifications:

1997 *Fenley & Nicol Environmental, Inc.*
Staff Geologist

1990 *Professional Service Industries, Farmingdale, New York*
Field Technician / Laboratory Supervisor

1989 *United States Geological Survey, Columbus, Ohio*
Ground Water Resource Division
Hydrologist

State University of New York at Stony Brook
Masters of Science, Hydrology (pending)

1991 *Bachelor of Science, Geology / Marine Science*

Affiliations / Certifications:

Long Island Geologist Organization
PADI Certified Open Water Diver
National Institute of Occupational Safety & Health (NIOSH 582)
40 Hour OSHA - Right to Know
Princeton Groundwater Remediation Course
Waterloo Groundwater Modeling I

Dave Oloke
Project Geologist

Responsibilities:

- *Soil & Groundwater Sampling*
- *Field Screening of Soils*
- *Soil Gas Surveys*
- *Well Logging*
- *Evaluation & Interpretation of Data*
- *Tank Abandonments*
- *Vacuum Enhanced Fluid Recovery*
- *Phase I & Phase II Environmental site assessments*

Qualifications:

1998 *Fenley & Nicol Environmental, Inc.*
Project Geologist

1990 *Ahmadu Bello University, Zaire*
B.S., Geology

Affiliations / Certifications:

Long Island Geologist Organization
40 Hour OSHA - Right to Know

Brian McDaniel
Project Geologist

Responsibilities:

- *Soil & Groundwater Sampling / Field Screening of Soils*
- *Soil Gas Surveys*
- *Well Logging*
- *Groundwater Sampling*
- *Evaluation & Interpretation of Data*
- *Tank Abandonment's*
- *Vacuum Enhanced Fluid Recovery*
- *Phase I & Phase II Environmental site assessments.*

Qualifications:

2000 - BS Geology SUNY Oneonta

2000 - Fenley & Nicol Environmental, Inc.
Project Geologist

Affiliations / Certifications:

Long Island Geologist Organization
40 Hour OSHA - Right to Know