SUMMARY REPORT OF

SUBSURFACE INVESTIGATION

performed on the property located at

98-116 SOUTH 4th STREET
BOROUGH OF BROOKLYN
KINGS COUNTY, NEW YORK

NYSDEC Spill Number: 9611887

April 7, 1997

ECOSYSTEMS STRATEGIES, INC.
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ESI File Number: PB96146.30

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April 7, 1997

Prepared By:

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The undersigned has reviewed this Report and certifies to El Puente that the information provided in this document is accurate as of the date of issuance by this office.

Any and all questions or comments, including requests for additional information, should be submitted to the undersigned.

Paul H. Ciminello
President

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1.0 Introduction

1.1 Purpose

This Summary Report of Subsurface Investigation ("Report") summarizes all environmental subsurface investigative services performed by Ecosystems Strategies, Inc. personnel on the property located at 98-116 South 4th Street in the Borough of Brooklyn, Kings County, New York (see Section 1.3, below). The work summarized in this Report was performed to address previously identified environmental concerns raised during the previous investigation performed by this office and summarized in the Summary Report of Phase II Environmental Services dated January 23, 1997. The field work performed by this office is consistent with the recommendations made in the previous Summary Report of Phase II Environmental Services dated January 23, 1997.

The specific objectives of this Report are as follows: to continue to document the presence or absence of petroleum contamination and/or hazardous substances in subsurface soils as a result of the past on-site storage, use, or disposal of these materials on the subject property; to document the lateral and vertical extent of identified contamination; and to provide cost estimates for further investigative and/or remedial work as they concern identified potential liabilities.

The conclusions and analytical data drawn from the environmental services summarized herein resulted in the need to develop a remediation strategy for the subject property in support of the ultimate closure of the spill file with the NYSDEC.

1.2 Limitations

This written analysis is an assessment of the investigative work conducted on the property located at 98-116 South 4th Street in the Borough of Brooklyn, Kings County, New York and is not relevant to other portions of this property or any other property. It is a representation of those portions of the property analyzed as of their respective dates of field work. This Report cannot be held accountable for activities or events resulting in contamination after the dates of field work.

Services summarized in this Report were performed in accordance with generally accepted practices and established NYSDEC protocols. Unless specifically noted, the findings and conclusions contained herein must be considered not as scientific certainties, but as probabilities based on professional judgement.

This Report is intended for the sole use of El Puente and must be used in its entirety.

1.3 General Site Location and Description

The subject property as defined in this Report is the property located at 98-116 South 4th Street in the Borough of Brooklyn, Kings County, New York (see the Site Location Map, Page 3). The subject property is comprised of a single tax lot (Tax Identification Number: Block 2443, Lot 13). The subject property is a rectangularly-shaped parcel located along the southern side of South 4th Street between Berry Street and Bedford Avenue. Occupying almost the entirety of the subject property is an abandoned multi-story structure comprised of a central seven-story structure flanked by two one-story structures. All three buildings were constructed in the early to mid 1900s and are currently in varying stages of deterioration. The on-site multi-story structure was formerly occupied with various manufacturing uses including an electroplating laboratory and a former glue/adhesives factory. Immediately south of the multi-story structure is a small paved courtyard area.

Based on available information all three of the on-site structures (the seven-story and the two one-story structures) are connected to the Borough of Brooklyn central water and sewer systems. The on-site one-story structure located on the eastern portion of the subject property is herein referred to as Building #1. The on-site seven-story structure formerly occupied by Camin Laboratories (see, below) is herein referred to as Building #2 and the on-site one-story building formerly occupied by a glue/adhesives factory (see, below) is herein referred to as Building #3. See the Field Work Map on Page 18 of this Report for the location of these buildings.

1.4 Previous Environmental Investigations

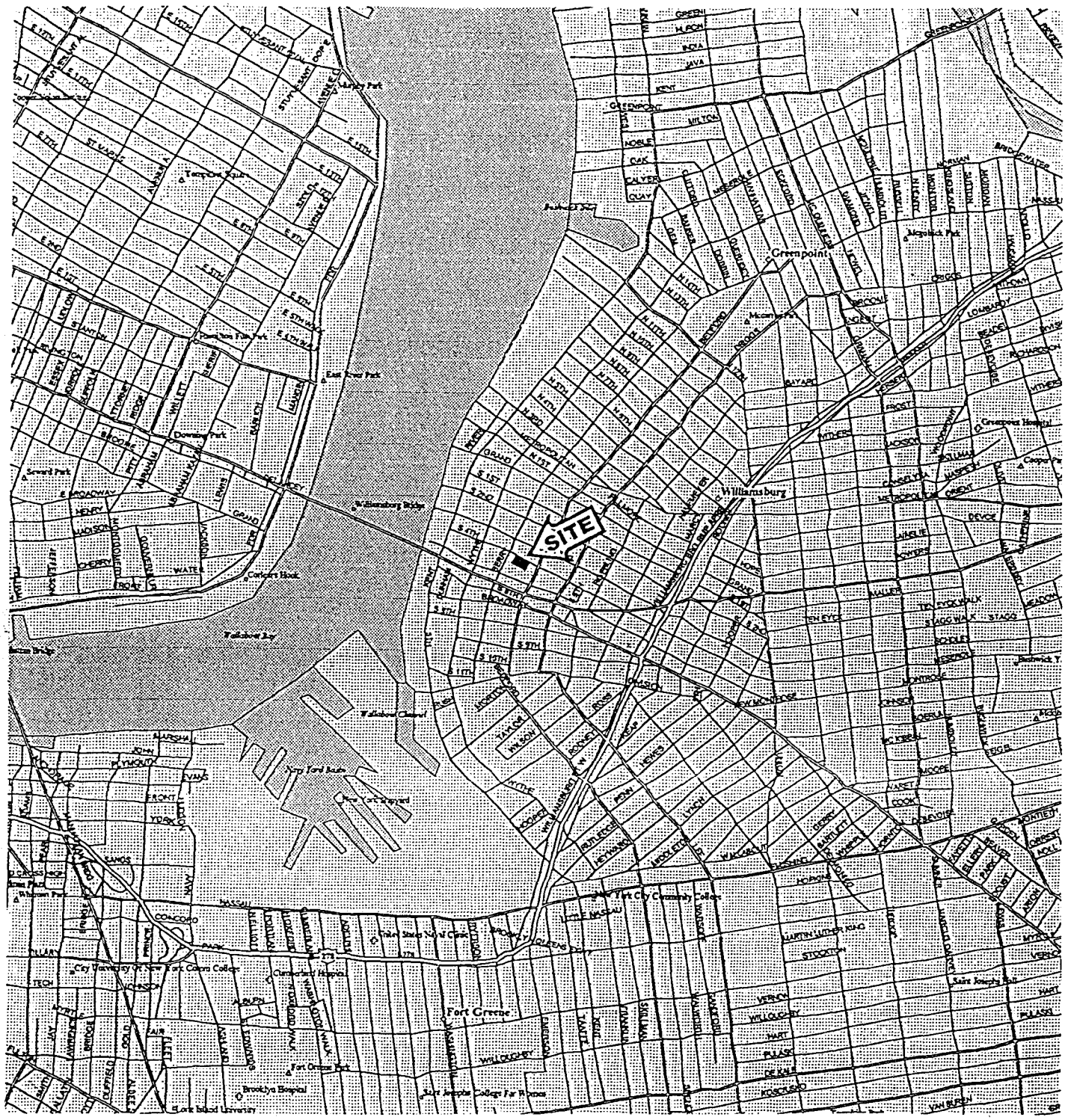
At least four (4) environmental investigations have been conducted on the subject property since 1992; an Order of Compliance and a Technical Report issued by the New York City Department of Environmental Protection (NYCDEP) for the Camin Laboratories, Inc. facility in 1991; an Environmental Site Assessment prepared on a portion of the subject property by Soil Mechanics Environmental Services in 1994; a Phase I Environmental Audit prepared on the subject property by Ecosystems Strategies, Inc. in 1996; and a Summary Report of Phase II Environmental Services prepared by Ecosystems Strategies, Inc. in the interior of the former glue/adhesives factory. Provided below is relevant information obtained from these available documents.

According to information provided to this office by Pratt Institute for Community and Environmental Development ("Pratt Institute"), the one-story structure located on the western portion of the subject property (98-102 South 4th Street) was most recently occupied by a glue and adhesives factory (Van-Man Adhesives) and the seven-story structure located on the central portion of the property (104-114 South 4th Street) was partially occupied by a former electroplating laboratory (Camin Laboratories, Inc.). No information regarding the most recent occupant of 116 South 4th Street was available.

NYCDEP Order of Compliance and Technical Report

Additional information provided by the Client indicates that in 1992 a Technical Report was prepared by the New York City Department of Environmental Protection Division of Hazardous Materials Management as a result of the identified presence of "... a release or substantial threat of a release of hazardous substances (abandoned electroplating solutions)" on the second floor of the seven-story structure previously occupied by Camin Laboratories, Inc. An Order of Compliance was issued by the New York City Department of Environmental Protection (NYCDEP) in 1992 that included provisions for the clean-up, treatment and disposal of all abandoned hazardous materials present within the Camin Laboratories, Inc. facility by February 14, 1992. Based on observations made during the November 1996 site inspection performed by Ecosystems Strategies, Inc., only a portion of this work has been completed.

A preliminary survey of the abandoned Camin facility including sampling of suspected hazardous substances was conducted by the NYCDEP as part of the 1992 Technical Report. This preliminary survey identified the presence of sixteen open chemical vessels and numerous bottles and boxes of chemicals; sampling of liquids within the reaction vessels identified the liquids to be acidic. An inventory of all hazardous substances present within this facility was conducted by the NYCDEP; this inventory was not included in documents provided by the Pratt Institute. The NYCDEP concluded in 1992 that the subject property should be considered a potential environmental and human health hazard



MAP FROM DELORME'S MAP EXPERT, FREEPORT, ME.

Site Location Map

98-116 South 4th Street

Borough of Brooklyn, Kings County, New York

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ESI File Number: PB96146.30

April 1997

Environmental Site Assessment

Provided to this office for review was an Environmental Site Assessment (Assessment) prepared on a portion of the subject property by Soil Mechanics Environmental Services ("Soil Mechanics") in September 1994. During the course of the site inspection performed by Soil Mechanics, the following conditions were noted with respect to the interior of the on-site seven-story building: miscellaneous debris (including household trash); an abandoned automobile and automobile parts; several unlabeled, empty 55 and 30 gallon drums and one cylinder of compressed gas; numerous 55 and 30 gallon metal and plastic drums, a one-gallon drum labeled "Sulfuric Acid"; large fiberglass and metal vats containing an unidentified liquid, and oil-like staining in the laboratory area; indications of major flooding; and evidence of peeling/flaking paint.

Due to identified on-site environmental conditions which have the potential to represent an potential liability, Soil Mechanics recommended that additional investigative and remedial action be conducted on the subject property including the installation of two monitoring wells. According to available information, no monitoring wells are known to have been installed on the subject property and none of the recommended investigative work is known to have been performed.

Phase I Environmental Audit

On November 26, 1996 Ecosystems Strategies, Inc. conducted an environmental investigation on the subject property as part of the preparation of a Phase I Environmental Audit ("Audit") dated December 2, 1996. This investigation involved the review of available maps and documents including an analysis of Sanborn Fire Insurance Company Maps; a review of federal and state computer databases and printed records for documentation of potential liabilities; and a visual inspection of the subject property ("site inspection").

HISTORIC DOCUMENTS AND REGULATORY AGENCY RECORDS

A review of available Sanborn Fire Insurance Company Maps indicated that the subject property has been occupied by manufacturing facilities since at least the early 1900s until the late 1980s. The currently existing on-site structures were constructed in the early 1900s (Buildings #1 and #2) and in approximately 1950 (Building #3). No on-site petroleum or chemical bulk storage tanks were noted in any of the Sanborn maps reviewed.

A review of regulatory agency records indicated that the subject property under Camin Industries, Inc. (a former occupant of Building #2) is registered with the United States Environmental Protection Agency (USEPA) as a large quantity generator (LQG) of the following hazardous wastes: undefined hazardous wastes, ignitable hazardous wastes, corrosive hazardous wastes, reactive hazardous wastes, chromium, lead and cyanides. A number of open containers, drums and vats containing potential hazardous materials were noted during the site inspection.

According to NYSDEC records, the subject property is not registered with the NYSDEC as a petroleum bulk storage facility. New York City Fire Department (NYCFD) records contain information regarding: the installation of two 10,000-gallon underground fuel oil storage tanks; a permit dated 1949 regarding an application for a fuel oil permit; an application dated 1949 regarding the plumbing and mechanical equipment associated with the installation of the tank; an application from 1973 regarding the approval for oil burning installation and the storage of fuel oil; and records regarding fuel oil specifications.

SITE INSPECTION

Due to the deteriorated condition of Building #1 (i.e., the roof had collapsed and the interior was filled with debris), the interior of this building could not be inspected during the November 1996 site inspection.

The visual inspection of the interior of Building #2 identified conditions similar to conditions previously identified by Soil Mechanics in 1994. Ecosystems Strategies, Inc. identified large quantities of debris materials in the basement and first floor of the building including materials and liquids which may require special handling, abandoned laboratory equipment including open drums, vats and containers of unknown liquids that may require special handling and the likely presence of asbestos containing materials and surfaces covered with lead-based paint. A faint sulphur odor was noted in the abandoned laboratory on the second floor of Building #2.

Observations made during the November 26, 1996 site inspection indicated the presence of two (2) vaulted fuel oil tanks estimated to be 10,000 gallons in capacity located in the basement of Building #2 and two (2) 275-gallon aboveground storage tanks (ASTs) located on the first floor of Building #3. The two 10,000-gallon tanks are likely to be the same two tanks identified in NYC Fire Department records. Observations (i.e., the removal of the fill, vent and feed lines) indicate that these two 10,000-gallon tanks may have been previously closed.

The visual inspection of Building #3 identified large quantities of debris in the basement some of which may require special handling, abandoned manufacturing equipment associated with the former usage of the building as a glue and adhesives factory (including glue mixing vats, a compressor and a boiler), and areas of standing water located on the first floor. Approximately 40 55-gallon drums containing unidentified materials were noted on the first floor of the former glue factory. These drums were contained within a spill containment area suggesting the possible presence of hazardous materials within these drums. Many of the drums viewed by this office were in varying stages of deterioration. Almost the entire floor of Building #3 is covered and stained with thick paste-like materials and a strong chemical odor permeates throughout the interior of the former factory.

Summary Report of Phase II Environmental Services

On December 11, 1996 Ecosystems Strategies, Inc. conducted a limited subsurface investigation within Building #3 to document the presence or absence of contaminants in the subsurface soils beneath the building. This investigation involved the extension of two (2) soil borings beneath the concrete floor; equipment limitations prevented the extension of any further borings.

Laboratory analysis of samples collected from the borings documented the presence of concentrations of trichloroethene and tetrachlorethene within the 0 to 2 foot depth; NYSDEC designated action levels for these compounds were exceeded in one of the borings from 0 to 2 feet below grade. No chlorinated solvents were detected in soils collected from between 12 and 17 feet below grade (the shallow groundwater interface is at approximately 15 feet below grade). Elevated levels of poly-nuclear aromatic hydrocarbons (PAHs) above NYSDEC-designated action levels were detected in samples collected from between 0 and 2 feet below grade in both borings. No PAHS were detected in soil collected from the groundwater interface.

Based upon these initial results, Ecosystems Strategies, Inc. considered the presence of petroleum hydrocarbons and chlorinated solvents to be evidence of a spill reportable to the NYSDEC. This spill event was reported to the NYSDEC and assigned Spill #9611887. Ecosystems Strategies, Inc. further recommended that a second series of borings be extended within the building to more fully document the lateral and vertical extent of subsurface contamination and determine the optimal remedial strategy for the property. This recommended work is summarized in this Report.

Additionally as part of this investigation, an asbestos survey and a lead-based paint survey were conducted on in Buildings #2 and #3 that identified the presence of asbestos-containing materials and lead-based paint in conditions that warranted remediation. The areas of standing water present within the former glue factory and in the vats present on the second floor of Building #2 were sampled and determined not to require any special handling.

1.5 Specified Objectives

Previous investigations performed by Ecosystems Strategies, Inc. on the subject property identified environmental conditions which have the potential to represent a financial liability (see, above). The objectives of the environmental services summarized herein were to determine the lateral and vertical extent of previously identified contaminated subsurface soil beneath the former glue factory and beneath the multi-story structure; determine the presence or absence of contaminated groundwater; and to provide further recommendations and cost estimates for site remediation (if appropriate).

Field work summarized in this Report was performed by Ecosystems Strategies, Inc. and designated subcontractors on December 11, 1996, March 31, 1997 and April 1, 1997. The subsurface investigation (boring extension) was performed by Soiltesting, Inc. ("Soiltesting") and Karl Mannain and Sons Excavators ("Mannain"). This Report documents all field work, field screening results, sample collection procedures, resulting analytical data from collected samples and conclusions and recommendations drawn from the field work and analytical data.

2.0 Summary of Field Work

2.1 Overview of Services

Field work documented in this Report was performed by Ecosystems Strategies, Inc. personnel and designated subcontractors on December 11, 1996, March 31, 1997 and April 1, 1997. Specifically, the following work was conducted by this office and designated subcontractors:

- coordinated and supervised the extension of five (5) borings within the former glue factory and documented through field screening, sampling and laboratory analyses the vertical and lateral extent of contaminated subsurface soils;
- coordinated and supervised the extension of five (5) borings in the basement of Building #2 and documented through field screening, sampling and laboratory analyses the vertical and lateral extent of contaminated subsurface soils;
- attempted to collect a shallow groundwater sample from the available borings within either Building #2 or Building #3 to document groundwater quality; no groundwater sample could be collected as the shallow groundwater depth could not be achieved;
- suggested (if appropriate) further investigative and/or remedial actions pertaining to the continued presence or absence of subsurface contamination; and
- prepared a Report documenting all field work procedures, resulting analytical data, current site conditions, related conclusions and recommendations; and cost estimates for remediation (if appropriate).

This Report is divided into individual sections documenting the: extension of borings within the former glue factory and in the basement of Building #2 (Section 2.2); and conclusions and recommendations (Section 3.0). Each referenced Section, where applicable, includes discussions on field observations, field screening results, sample collection procedures, analytical data and conclusions drawn from the field work and analytical results.

2.2 Extension of Borings

On March 31, 1997 Ecosystems Strategies, Inc. personnel supervised the extension of three (3) borings within the former glue factory (Building #3) to determine the continued presence or absence of subgrade soil contamination as a result of historic on-site operations and/or current conditions (two (2) borings had been previously extended in this building on December 11, 1996). On April 1, 1997, Ecosystems Strategies, Inc. personnel supervised the extension of five (5) borings within Building #3 to determine the lateral and vertical extent of subgrade soil contamination. The original extension of the two (2) borings within the former glue factory on December 11, 1996 is summarized in the Summary Report of Phase II Environmental Services. For the purpose of this current Report, all ten (10) borings extended on the subject property are described herein.

2.2.1 Field Work Methodology

Prior to initiation of field work, a request for a complete utility markout of the subject property was submitted by Ecosystems Strategies, Inc., as required by New York State Department of Labor regulations; confirmation of underground utility locations was secured and a field check of the utility markout was conducted prior to tank excavation.

A Thermal Instruments 580B photoionization detector (PID) calibrated to read parts per million gas equivalents of isobutylene (ppm-ge) was utilized by Ecosystems Strategies, Inc. personnel to screen all encountered material for the presence of any volatile organic vapors. The PID was also utilized to monitor the air within the building for any volatile organic vapors. The use of the PID as a screening device was impeded as a result of conditions within the buildings (i.e, spilled glues, exhaust fumes).

The December 11, 1996 extension of the borings was performed by Soiltesting, Inc. ("Soiltesting) using a trailer-mounted drilling rig equipped with a 4-inch inside diameter hallow stem auger. Split spoon sampling was conducted at each boring location at depths ranging from 2 to 17 feet below surface grade or to the groundwater interface. The March/April 1997 boring extension was performed by Soiltesting using either the direct push method (i.e., hand-hammered) or through the use of a tripod coring system as site constraints prohibited the continued effectiveness of a trailer mounted drilling rig. Portions of the concrete floor were broken up by Mannain using a jackhammer prior to the use of the coring devices.

Boring logs documenting the physical characteristics of encountered soils were maintained by Soiltesting. Ecosystems Strategies, Inc. personnel maintained independent field logs documenting the physical characteristics, PID readings and any field indications of contamination for all encountered material at each boring location. Relevant information from Ecosystems Strategies, Inc. logs for each boring location is summarized in Section 2.4.2, below. Copies of the boring logs prepared by Soiltesting are included in Appendix B of this Report. A Field Work Map indicating the boring locations and associated selected site features is provided on Page 17 of this Report.

All soil samples were collected in a manner consistent with USEPA and NYSDEC sample collection protocols. Each of the soil samples were collected in sample jars sterilized at the laboratory. Dedicated gloves were used at each sample location to place the material into jars. After sample collection, the sample containers were placed in a cool (4°C), dry place prior to their transport to the laboratory. On the same days of sample collection, the soil samples were transported to Hampton-Clarke, Inc. Veritech Labs., a New York State Department of Health approved laboratory (ELAP Certification Number: 11408) for analyses. Appropriate chain of custody procedures were followed. All sample collection equipment was properly decontaminated prior to the initiation of sampling and between sample locations to avoid cross-contamination.

2.4.2 Field Work Observations

The entire floor of the former glue factory (Building #3) is covered with a variety of materials associated with the former operation of the structure as a glue factory (e.g., glues, resins, adhesives). The presence of these materials resulted in a strong odor that permeated throughout the interior of the glue factory thereby distorting natural senses. The floor of the basement of Building #2 is covered with a large quantity of debris that limited the placement of borings.

Borings designated as B-1 through B-5 were extended on the ground floor of the former glue factory and borings designated as B-6 through B-10 were extended in the basement of Building #2. Provided below is a description of each boring location. See the Field Work Map on Page 17 of this Report for the locations of the borings.

Boring B-1

Boring B-1 was extended in the southern end of the former glue factory approximately 15 feet north of the southern wall and approximately 15 feet east of the western wall. B-1 was extended to a depth of 17 feet below grade; shallow groundwater was encountered at a depth of approximately 15 feet 7 inches below grade. The initial recovery (0-2 feet below grade) consisted of gravel and fill material grading into a brown fine grained sand and silt. Recovery between 5 and 7 feet below grade consisted of a light brown fine grained sand and silt grading to a dark brown/black silt at 7 feet below grade. Recovery between 10 and 12 feet below grade consisted of a dark brown/black silt grading into a gray silt and clay. At the 12 foot depth the soil consisted of a reddish brown/gray silt and clay. The soil was moist at the 10 foot depth. Recovery between 15 and 17 feet below grade consisted of a fine grained brown sand with traces of medium grained sand and silt grading into a fine grained sand and silt with some rock fragments at the 17 foot depth.

No material exhibiting any field indications of contamination (e.g., stained discolored or odorous soils) was encountered during the extension of Boring B-1; however, site conditions prevented a definitive determination as to the presence of any odors specific to the samples. Only minimal instrument indications of contamination using the PID (less than 5 ppm-cge) were encountered throughout the boring.

Samples were collected at all intervals identified above; however, as no field or instrument indications of contamination were identified, only the sample from 0 to 2 feet below grade and the recovery between 15 and 17 feet below grade (the groundwater interface) were analyzed at the laboratory.

Boring B-2

Boring B-2 was extended in the northern end of the former glue factory approximately 9 feet south of the northern wall (roll-up garage door) and approximately 10 feet west of the drum storage area. B-2 was extended to a depth of approximately 14 feet below grade; site conditions prevented the extension of this boring to further depths. Shallow groundwater was not encountered during the extension of this boring. The initial recovery (0-2 feet below grade) consisted of fill material with brick fragments. Recovery between 5 and 7 feet below grade consisted of a combination of fill material and a red/brown silt and clay. Recovery between 10 and 12 feet below grade consisted of a uniform light brown/reddish brown fine grained sand and silt. Recovery between 12 and 14 feet below grade consisted of a brown fine grained sand and silt.

Material exhibiting a chemical odor resembling glue was noted in soils recovered between 0-2 feet below grade and 5-7 feet below grade; however, the soils did not appear to be stained or discolored. Instrument indications of contamination using the PID were encountered from 0 to 7 feet below grade with the maximum reading encountered from the recovery between 0 and 2 feet below grade (35 ppm-ge). These readings decreased to 16 ppm-ge in soils from 5-7 feet below grade, 3.7 ppm-ge in soils from 10-12 feet below grade and to 1.6 ppm-ge in soils from 12-14 feet below grade. The field and instrument indications of contamination noted within this boring may in fact be due to the seeping of glues into the borehole during extension.

Samples were collected at all intervals identified above; however, only the samples from 0 to 2 feet below grade, from 5 to 7 feet below grade, and from 12 to 14 feet below grade were sent for laboratory analyses.

Boring B-3

Boring B-3 was extended in the central portion of the former glue factory approximately 54 feet south of the northern wall and approximately 7 feet east of the western wall. B-3 was extended to a depth of 10 feet 6 inches below grade; shallow groundwater was not encountered. The initial recovery (6" to 2' 6") and the recovery between 2' 6" and 4' 6" consisted of fill material comprised of a brown fine to medium grained sand, silt and brick fragments. Recovery between 4' 6" and 6' 6" below grade consisted of fill material comprised of a light brown fine grained sand and silt grading into a darker silt with some fine grained sand. Recovery between 8' 6" and 10' 6" below grade consisted of a moist light to dark brown/black silt with some fine grained sand and clay.

No material exhibiting any field indications of contamination was encountered during the extension of Boring B-3 and only minimal instrument indications of contamination using the PID (less than 2 ppm-ge) were encountered from 6" to 4' 6" below grade.

Samples were collected from the following intervals: 6" to 2' 6", 4' 6" to 6' 6", and 8' 6" to 10' 6" below grade and analyzed at the laboratory.

Boring B-4

Boring B-4 was extended in the central portion of the former glue factory approximately 47 feet south of the northern wall and approximately 29 feet east of the western wall. B-4 was extended to a depth of 10 feet 6 inches below grade; shallow groundwater was not encountered. The initial recovery (6" to 2' 6") consisted of fill material comprised of a black fine to medium grained sand and brick fragments. Recovery between 4' 6" and 6' 6" below grade consisted of fill material comprised of a black fine to medium grained sand with brick and concrete rubble. Recovery between 8' 6" and 10' 6" below grade consisted of a moist black fill material with some silt.

No material exhibiting any field indications of contamination was encountered during the extension of Boring B-4 and only minimal instrument indications of contamination using the PID (less than 2 ppm-ge) were encountered from 6" to 4' 6" below grade.

Samples were collected from the following intervals: 6" to 2' 6", 4' 6" to 6' 6", and 8' 6" to 10' 6" below grade and analyzed at the laboratory.

Boring B-5

Boring B-5 was extended in the vicinity of the drum storage area approximately 29 feet south of the northern wall and approximately 31 feet east of the western wall. B-5 was extended to a depth of 10 feet 6 inches below grade; shallow groundwater was not encountered. The initial recovery (6" to 2' 6") consisted of fill material comprised of a black fine to medium grained sand and brick fragments. Recovery between 4' 6" and 6' 6" below grade consisted of fill material comprised of a brown/black fine to medium grained sand with brick and concrete rubble. Recovery between 8' 6" and 10' 6" below grade consisted of a moist fine to medium grained brown sand with some silt.

No material exhibiting any field indications of contamination was encountered during the extension of Boring B-5 and no instrument indications of contamination using the PID were encountered in the boring.

Samples were collected from the following intervals: 6" to 2' 6", 4' 6" to 6' 6", and 8' 6" to 10' 6" below grade and analyzed at the laboratory.

Boring B-6

Boring B-6 was extended in the western half of the basement of Building #2 approximately 28 feet south of the northern wall and approximately 10 feet east of the western interior wall. B-5 could only be extended to a depth of 3 feet 6 inches below grade; what is believed to be a subfloor was encountered at approximately 3 feet 6 inches below grade beneath the western half of the basement (refusal occurred throughout the borings extended in this basement). The initial recovery (6" to 2' 6") consisted of fill material comprised of a moist fine to medium grained brown sand with brick fragments, cinders and concrete.

No material exhibiting any field indications of contamination was encountered during the extension of Boring B-6 and no instrument indications of contamination using the PID were encountered in the boring. A sample of the material from the 6" to 2' 6" depth was collected and analyzed at the laboratory.

Boring B-7

Boring B-7 was extended in the western half of the basement of Building #2 approximately 58 feet south of the northern wall and approximately 35 feet east of the western interior wall. B-7 could only be extended to a depth of 3 feet 6 inches below grade (refusal occurred in the immediate vicinity of this boring). The initial recovery (6" to 2' 6") consisted of fill material comprised of a moist fine to medium grained brown sand with brick fragments, cinders and concrete.

No material exhibiting any field indications of contamination was encountered during the extension of Boring B-7 and no instrument indications of contamination using the PID were encountered in the boring. A sample of the material from the 6" to 2' 6" depth was collected and analyzed at the laboratory.

Boring B-8

Boring B-8 was extended in the western half of the basement of Building #2 approximately 28 feet south of the northern wall and approximately 35 feet east of the western interior wall. B-8 could only be extended to a depth of 3 feet 6 inches below grade (refusal occurred in the immediate vicinity of this boring). The initial recovery (6" to 2' 6") consisted of fill material comprised of a moist fine to medium grained brown sand with brick fragments, cinders and concrete.

No material exhibiting any field indications of contamination was encountered during the extension of Boring B-8 and no instrument indications of contamination using the PID were encountered in the boring. A sample of the material from the 6" to 2' 6" depth was collected and analyzed at the laboratory.

Boring B-9

Boring B-9 was extended in the eastern half of the basement of Building #2 approximately 42 feet south of the northern wall and approximately 10 feet east of the western interior wall. B-9 could only be extended to a depth of 6 feet below. The recovery between 6" and 6' below grade consisted of fill material comprised of a moist fine to coarse grained brown sand with brick fragments and concrete.

No material exhibiting any field indications of contamination was encountered during the extension of Boring B-9; however, 5 ppm-ge was recorded using the PID from 4' to 6' below grade. A sample of the material from the 4'6" to 6' 6" depth was collected and analyzed at the laboratory (recovery from 6" to 2' 6" was insufficient for sampling).

Boring B-10

Boring B-10 was extended in the eastern half of the basement of Building #2 approximately 56 feet south of the northern wall and approximately 20 feet west of the interior wall of Building #1. Due to equipment limitations, the concrete in this portion of the basement had to be loosened with a pick. Upon penetrating the concrete, it was determined that field conditions were unsafe and the boring was aborted. A white/yellow powdery substance was noted on the concrete floor at the point of impact that appeared to smoulder and then dissipated.

Due to these unsafe conditions, no further investigation in this area of the basement was conducted and no sample of soil could be obtained from this boring.

Groundwater Sampling

No shallow groundwater samples could be obtained from any of the borings extended in March/April 1997 as subsurface conditions prevented the extension of the borings to the necessary depth. Boring B-1 had been previously extended to the groundwater interface and a sample at the interface (15-17') was collected; no VOCs or PAHs were detected.

2.2.3 Comparative Data

Each sample for laboratory analysis was collected in a manner consistent with USEPA and NYSDEC sample collection protocols. All soil samples were collected in sample jars sterilized at the laboratory. Upon completion of sample collection, the soil samples were transported to Veritech Labs. Appropriate chain of custody procedures were followed.

All of the soil samples were analyzed for the presence of volatile organic compounds (VOCs) using USEPA Method 8240. The two samples from B-1, the 0-2 feet sample from B-2, and all of the samples collected from B-3 through B-9 were also analyzed for the presence of poly-nuclear aromatic hydrocarbons (PAHs) using USEPA Method 8270. All of the samples were also analyzed for the presence of poly chlorinated biphenolys (PCBs) using USEPA Method Methods 8081 and 8080.

Action Levels

The term "action level," as defined in this Report, is the concentration of a particular contaminant above which remedial actions are considered more likely. The overall objective of setting action levels is to assess the integrity of on-site soils and groundwater relative to conditions which are likely to present a threat to public health, given the existing and probable future uses of the site. On-site soils and groundwater with contaminant levels exceeding these action levels are considered more likely to warrant remediation.

The action levels identified in this Report for soils are determined based on the NYSDEC's Spill Technology and Remediation Series (STARS) Memo #1 Petroleum-Contaminated Soil Guidance Policy (July 1993) and on the NYSDEC's Division Technical and Administrative Guidance Memorandum (TAGM) on Determination of Soil Cleanup Objectives and Cleanup Levels (January 24, 1994). In accordance with standards set forth in the above-referenced documents, all compounds referenced in Section 2.4.4, below are presented with their respective action levels.

2.2.4 Analytical Results

Former Glue/Adhesives Factory (Building #3)

Analytical results of the soil samples collected from specified depths in five (5) borings (designated as B-1, B-2, B-3, B-4 and B-5) extended in the former glue/adhesives factory are provided in the paragraphs below and in Table 1, below. Complete laboratory results are provided in Appendix A of this Report.

VOLATILE ORGANIC COMPOUNDS (VOCs)

Laboratory analysis of the samples collected from the 0 to 2'6" interval identified the presence of the VOCs tetrachloroethene and trichloroethene in all of the borings at levels ranging from 8 ppb to 5,500 ppb. However, NYSDEC-designated action levels for tetrachloroethene (1,400 ppb) and trichloroethene (700 ppb) were only exceeded in two of the borings (B-2 and B-4). Specifically, laboratory analysis identified the presence of 5,500 ppb of tetrachloroethene in B-2 at 0 to 2' below grade and 1,100 ppb of trichloroethene in B-4 at 6" to 2'6" below grade.

Laboratory analysis of soil collected from the 4'6" to 6'6" interval and the 8'6" to 10'6" interval identified low levels of these two compounds at levels below NYSDEC-designated action levels. Specifically, levels of less than 59 ppb of tetrachloroethene and less than 150 ppb of trichloroethene were present from 4'6" to 6'6" below grade and levels less than 32 ppb of tetrachloroethene and less than 66 ppb of trichloroethene were present from 8'6" to 10'6" below grade. No detectable concentrations of these compounds were present in soil collected at depths greater than 12 feet below grade.

No BTEX compounds (benzene, toluene, ethylbenzene or xylene), with the exception of 1,400 ppb of toluene in B-2 at 5 to 7 feet below grade, were detected in the borings extended in the building.

POLY-NUCLEAR AROMATIC HYDROCARBONS (PAHs)

Laboratory analysis identified the presence of elevated levels of PAHs in the samples collected from 0 to 2'6" below grade in all five of the borings extended in the glue factory. A majority of the PAHs detected were present at levels exceeding NYSDEC-designated action levels; however, all of the identified compounds were present at levels less than 10,000 ppb with the exception of three compounds at levels above 20,000 ppb in soil collected from 0 to 2 feet below grade in B-2.

Elevated levels of PAHs were also detected in samples collected from the 4'6" to 6'6" interval and the 8'6" to 10'6" interval; all detected compounds were present at levels less than 6,000 ppb from 4'6" to 6'6" below grade and less than 2,000 ppb from 8'6" to 10'6" below grade. In general, it appears as if the concentrations of PAHs decrease with depth.

PCBs

No concentrations of PCBs were detected in any of the sample intervals in the borings extended within the former glue factory.

Building #2 Basement

Analytical results of the soil samples collected from specified depths in four (4) borings (designated as B-6, B-7, B-8 and B-9) extended in the basement of Building #2 are provided in the paragraphs below and in Table 2, below. No samples could be collected from depths greater than 3 feet below grade in the western half of the basement of Building #2 or from depths greater than 6 feet below grade in the eastern half of the basement due to the presence of either a subfloor or large rocks. Unsafe conditions encountered in the eastern half of the basement (see Section 2.4.2, above) prevented the extension of more than one (1) boring (B-9) in the eastern half of the basement. Complete laboratory results are provided in Appendix A of this Report.

VOLATILE ORGANIC COMPOUNDS (VOCs)

Laboratory analysis of the samples collected from the 6" to 2'6" interval identified the presence of the low levels of tetrachloroethene in B-8 and low levels of trichloroethene in B-6 and B-8. Specifically, 3 ppb and 24 ppb of trichloroethene were detected in B-6 and B-8, respectively and 6 ppb of tetrachloroethene was detected in B-8. None of these detected levels are above NYSDEC-designated action levels for tetrachloroethene (1,400 ppb) or trichloroethene (700 ppb). Laboratory analysis of the soil collected from B-9 at 4 to 6 feet below grade identified 3 ppb of trichloroethene; no other VOCs were detected in this boring. No BTEX compounds (benzene, toluene, ethylbenzene or xylene) were detected in any of the four (4) borings extended in the basement of Building #2.

POLY-NUCLEAR AROMATIC HYDROCARBONS (PAHs)

Laboratory analysis identified the presence of PAHs in B-6 and B-8; however, only the levels in B-8 were present at levels exceeding NYSDEC-designated action levels. Specifically, levels less than 1,400 ppb were recorded in B-8. The identified PAHs are present at levels less than the levels detected in samples collected within the former glue factory (the floor of the basement of Building #2 is approximately 10 feet below the floor of the former glue factory).

PCBs

No concentrations of PCBs were detected in any of the sample intervals in the borings extended in the basement of Building #2.

2.2.5 Discussion of Analytical Results

The source of the identified chlorinated solvents and polycyclic aromatic hydrocarbons present in the subgrade surface soils is unknown. Based on the generally low documented levels of PAHs and VOCs, it is likely that the compounds present in the subgrade soils are fill related and are not due to any gross release of contaminants. Based on the non-detectable levels of PAHs documented in soils from between 15 and 17 feet below grade in B-1 (likely to be either at or below the invert of the two on-site USTs), it is unlikely that the elevated levels of PAHs identified in the soils are the result of a release of product from either of the two on-site USTs.

Available laboratory data generated to date continue to suggest that the vertical extent of contamination extends along the surface soils beneath the concrete floor of the former glue factory to a depth of approximately 2'6" below grade; however, contaminated soils may extend to depths of 4 feet below grade. The lateral extent of contamination appears to be limited to surface soils present within the former glue factory as the data obtained from borings extended beneath the concrete floor of the basement of Building #2 suggest that the subgrade soils have not been adversely impacted. Low levels of PAHs were detected at B-8 and only trace levels of VOCs were identified under building #2.

The documented levels of VOCs and PAHs indicate that remediation or special handling of subsurface soils, other than the surface soils directly beneath the floor of the former glue factory (6" to approximately 3'6" below grade), is not warranted. No groundwater sample could be collected from beneath the building; however, the soil data support the conclusion that groundwater has not been impacted by on-site operations and/or conditions.

Table 1: Laboratory Analyses of Soil Samples for Building # 3 (Former Glue Factory)
(Results in **bold** exceed designated action levels. All results measured in μg/kg-ppb. For clarity, samples collected from 6"-2'6" are designated as 6"-2', from 4'6"-6'6" as 4'-6', from 8'6"-10'6" as 8'-10' below grade).

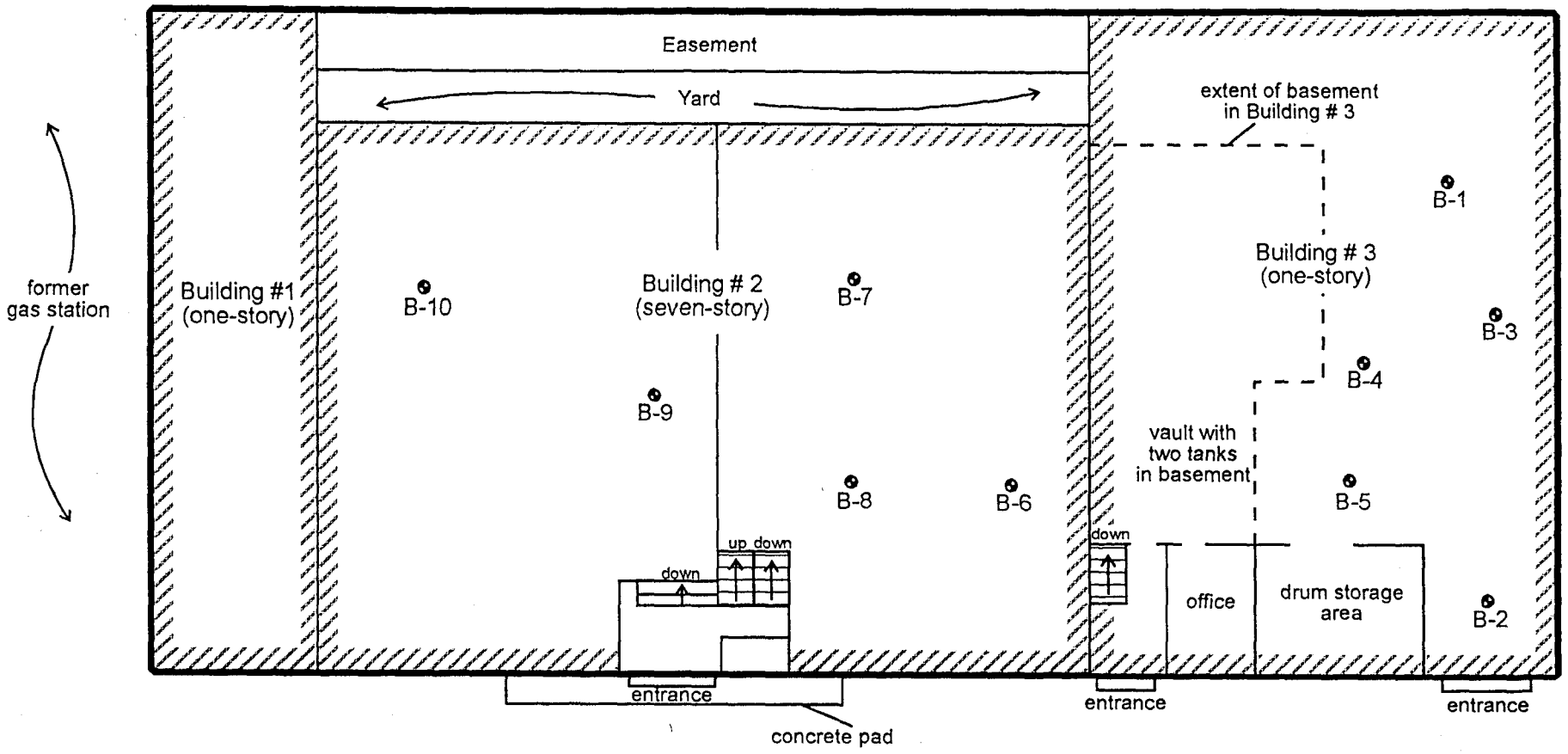
	Compound	Action Level[1,2]	B-1		B-2			B-3			B-4			B-5		
			0-2'	15'-17'	0-2'	5'-7'	12'-14'	6"-2'	4'-6'	8'-10'	6"-2'	4'-6'	8'-10'	6"-2'	4'-6'	8-10'
VOCs	Acetone	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	35	37	46	ND	ND
	Toluene	100	ND[3]	ND	ND	**1,400**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Tetrachloroethene	1,400	170	ND	**5,500**	ND	ND	8	55	4	370	59	32	63	2	4
	1,1,1-Trichloroethane	800	ND	ND	ND	71	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trichloroethene	700	170	ND	**3,700**	ND	ND	3	28	3	**1,100**	150	66	100	5	7
PAHs	Acenaphthene	400	**1,400**	ND	ND	NA	NA	**790**	ND	ND	**1,200**	**480**	**1,000**	**1,100**	ND	ND
	Acenaphthylene	100	ND	ND	ND	NA	NA	ND	ND	ND	ND	**1,000**	**680**	ND	ND	ND
	Anthracene	1,000	**3,000**	ND	**1,200**	NA	NA	**1,600**	ND	820	380	890	380	**1,600**	ND	ND
	Benzo (a) Anthracene	.04	**7,900**	ND	**3,300**	NA	NA	**3,100**	ND	**2,000**	**1,200**	**2,400**	**870**	**4,300**	**780**	ND
	Benzo (a) Pyrene	.04	**6,000**	ND	**2,900**	NA	NA	**2,600**	ND	**1,600**	**1,100**	**2,100**	**880**	**3,800**	ND	ND
	Benzo (b) Fluoranthene	.04	**7,100**	ND	**4,000**	NA	NA	**3,300**	ND	**210**	**1,400**	**2,700**	**1,200**	**5,700**	ND	ND
	Benzo (k) Fluoranthene	.04	**2,500**	ND	**1,500**	NA	NA	**1,200**	ND	**80**	**560**	**890**	**410**	**1,800**	ND	ND
	Benzo (g,h,i) Perylene	.04	**2,300**	ND	**1,500**	NA	NA	**1,200**	ND	ND	**350**	**860**	**340**	**1,500**	ND	ND
	Chrysene	.04	**9,000**	ND	**3,500**	NA	NA	**3,000**	ND	**2,000**	**1,200**	**2,600**	**850**	**4,500**	**780**	ND
	Fluoranthene	1,000	**14,000**	ND	**7,300**	NA	NA	**6,900**	950	480	**2,400**	**5,200**	**2,000**	**9,700**	**1,600**	ND
	Indeno (1,2,3-cd) Pyrene	.04	**1,900**	ND	**1,300**	NA	NA	**1,200**	ND	ND	**3,500**	**820**	**300**	**1,500**	ND	ND
	Naphthalene	200	**3,400**	ND	ND	NA	NA	**5,600**	ND	ND	ND	**550**	**1,300**	**1,000**	ND	ND
	Phenanthrene	1,000	**19,000**	ND	**6,100**	NA	NA	**7,100**	990	400	**1,700**	**6,000**	**1,700**	**9,000**	**1,300**	ND
	Pyrene	1,000	**19,000**	ND	**6,100**	NA	NA	**5,900**	820	380	**2,200**	**5,100**	**2,600**	**8,000**	**1,400**	ND
	Dibenzo (a,h) Anthracene	1,000	ND	ND	ND	NA	NA	**3,200**	ND	ND	**1,100**	270	770	**5,100**	**ND**	ND

Notes:
1. Source: NYSDEC STARS Memo #1 (July 1993)
2. Source: NYSDEC TAGM (January 24, 1994)
3. ND = Not Detected
4. NA = Not Analyzed

Table 2: Laboratory Analyses of Soil Samples (Basement of Building #2)
(Results in **bold** exceed designated action levels. All results measured in μg/kg-ppb.)

	Compound	Action Level[1&2]	B-6 6"-2'6"	B-7 6"-2'6"	B-8 6"-2'6"	B-9 4'-6'
BTEX	Acetone	200 μg/kg	ND[3]	ND	ND	ND
	Toluene	100 μg/kg	ND	ND	ND	ND
	Tetrachloroethene	1,400 μg/kg	ND	ND	6	ND
	1,1,1-Trichloroethane	800 μg/kg	ND	ND	ND	ND
	Trichloroethene	700 μg/kg	3	ND	24	3
PAHs	Acenaphthene	400 μg/kg	ND	ND	ND	ND
	Acenaphthylene	100 μg/kg	ND	ND	ND	ND
	Anthracene	1,000 μg/kg	ND	ND	ND	ND
	Benzo (a) Anthracene	.04 μg/kg	ND	ND	**1,300**	ND
	Benzo (a) Pyrene	.04 μg/kg	ND	ND	ND	ND
	Benzo (b) Fluoranthene	.04 μg/kg	ND	ND	**1,400**	ND
	Benzo (k) Fluoranthene	.04 μg/kg	ND	ND	**510**	ND
	Benzo (g,h,i) Perylene	.04 μg/kg	ND	ND	ND	ND
	Chrysene	.04 μg/kg	ND	ND	**1,300**	ND
	Fluoranthene	1,000 μg/kg	560	ND	210	ND
	Indeno (1,2,3-cd) Pyrene	.04 μg/kg	ND	ND	ND	ND
	Naphthalene	200 μg/kg	ND	ND	ND	ND
	Phenanthrene	1,000 μg/kg	ND	ND	**1,100**	ND
	Pyrene	1,000 μg/kg	520	ND	200	ND
	Dibenzo (a,h) Anthracene	1,000 μg/kg	ND	ND	ND	ND

Notes:
1. Source: NYSDEC STARS Memo #1 (July 1993)
2. Source: NYSDEC TAGM (January 24, 1994)
3. ND = Not Detected
4. NA = Not Analyzed



Legend

- subject property
- boring location

Notes

Borings B-1 through B-5 extended on first floor of former glue factory.

Borings B-6 through B-10 extended in basement of Building # 2.

Feature locations are approximate.

Field Work Map

98-116 South 4th Street
Borough of Brooklyn, Kings County, New York

N

ESI File Number: PB96146.30

April 1997

Scale: 1" ≃ 25'

3.0 Conclusions and Recommendations

This office has completed the services summarized in Section 2.1 on the property located at 98-116 South 4th Street in the Borough of Brooklyn, Kings County, New York. Based on the services provided and data generated to date, the following conclusions and recommendations (in **bold**) are made regarding the subject property. Cost estimates for proposed remedial work are provided in *italics*.

1. Five (5) borings were extended within the former glue factory (Building #3) and four (4) borings were extended in the basement of Building #2 to determine the presence or absence of subgrade soil contamination and the vertical and lateral extent of contamination as a result of historic on-site operations and current conditions.

   Field observations did not indicate overt subsurface contamination at any of the borings; the presence of a surface powdery material in the vicinity of B-10 may be indicative of former chemical storage. No discolored subsurface soils or PID readings were noted in B-10.

   Laboratory analysis identified the presence of low levels of chlorinated solvents in samples collected from between 6" and 10'6" below grade. The only detected levels of chlorinated solvents above NYSDEC-designated action levels were present in soil collected from between 0 and 2'6" below grade in the former glue factory. Elevated levels of PAHs above NYSDEC-designated action levels were detected in a majority of the borings extended within the former glue factory and Building #2 at depths ranging from 6" to 10'6" below grade. No PCBs were detected in any of the samples analyzed.

   The generally low documented levels of petroleum hydrocarbons and volatile organic compounds in the on-site soils suggest that their presence is likely to be fill related and not evidence of any gross release of contaminants. Based on the non-detectable levels of PAHs documented in soils from between 15 and 17 feet below grade in B-1 (likely to be either at or below the invert of the two on-site USTs), it is unlikely that the elevated levels of PAHs identified in the soils are the result of a release of product from either of the two on-site USTs.

   Laboratory data generated to date continue to suggest that the vertical extent of contamination does not exceed four feet below surface grade. The lateral extent of contamination appears to be limited to surface soils present within the former glue factory as the data obtained from borings extended beneath the concrete floor of the basement of Building #2 suggest that the subgrade soils have not been adversely impacted.

   The documented levels of VOCs and PAHs indicate that remediation and special handling of subsurface soils, other than the surface soils directly beneath the floor of the former glue factory (6" to approximately 3'6" below grade), is not warranted. No groundwater sample could be collected from beneath the building; however, the soil data support the conclusion that groundwater has not been impacted by former on-site operations and/or conditions. The estimated maximum volume of on-site contaminated soil that requires remediation is 500 cubic yards.

   Upon demolition of Building #3 (former glue factory), it is recommended that the subgrade soils beneath the concrete floor of the former glue factory to a depth of three feet below grade be excavated and transported off-site to a licenced disposal facility. Soils may require handling as a hazardous waste.

   The estimated cost for subgrade soil remediation is between $60,000 and $70,000.

It is further recommended that soils at greater depths be monitored for any indications of overt contamination during the construction process. Consideration should be given to the installation of a vapor barrier to prevent the migration of VOCs into the building from deeper soils.

Estimated Cost: $10,000 - $15,000

2. No levels of VOCs warranting remediation were detected at three borings under Building #2. Low levels of PAHs were detected; given their location (under a building) and given the absece of any vertical extent of contamination (i.e., no VOCs or PAHs were detected at depth greater than the 0-2'6" depth), the presence of these compounds is not considered evidence of contamination warranting remediation.

No further subsurface investigation is recommended.

Material present on a portion of the basement floor of Building #2 may be reative, given the conditions existing during the aborted installation of B-10. Special handling procedures for the clean-up of Building #2 may be required.

It is recommended that material in the basement be analyzed for waste characteristics so that disposal options and procedures can be determined.

Estimated cost: $1,000 - $2,000 for material testing

3. No groundwater samples could be collected due to site constraints and subsurface conditions. Sample data document the absence of elevated levels of VOCs and PAHs at the 8-10 foot depth and previous sampling at the groundwater interface (15-17') support the conclusion that no impact to groundwater quality has resulted from on-site activities.

No further investigation is recommended.

4. Based on the initial presence of petroleum hydrocarbons and chlorinated solvents at levels above NYSDEC-designated action levels this contaminated soil was considered to be evidence of a release reportable to the NYSDEC as specified in 6 NYCRR, Part 613. This spill event was reported to the NYSDEC and assigned Spill Number: 9611887.

It is recommended that a workplan outlining proposed remedial services be prepared and submitted to the NYSDEC.

Upon completion of proposed remedial action, it is recommended that the spill file for the subject property (#9611887) be closed by the NYSDEC.

5. Due to unsafe conditions, no borings were extended within the footprint of Building #1. The absence of significant contamination under Building #2 (presumed to be down-gradient of Building #1) and the absence of known historic activities within Building #1 which would be considered possible sources of subsurface contamination support the conclusion that no significant volume of contaminated soil is likely to be present under Building #1.

No further investigation is recommended. Monitoring of on-site construction activities is recommended to ensure that any materials requiring special handling (including but not limited to contaminated soil under the building) are properly handled and managed.

6. A number of environmental conditions that have not as of yet been addressed but may represent a financial liability remain on the subject property. Provided below is a brief discussion of these remaining potential liabilities and associated recommendations:

- Both Buildings #2 and #3 contain multiple open drums and containers of unknown products and materials that may require special handling prior to their disposal. A preliminary estimate of containers is between 35 and 40 55-gallon drums containing materials used in adhesive manufacturing; a more comprehensive assessment could not be conducted at this time. A majority of the floor in Building #3 is covered with a variety of products associated with the operation of the building as a glue factory (i.e., glues, adhesives, resins); these products may require special handling.

  It is recommended that an inventory of all on-site drums and containers be completed to document the presence of any hazardous materials that may require special handling. Any suspect material (including all liquids contained in the drums and products spilled on the floor of Building #3) should be appropriately disposed of in accordance with local and state regulations. Proper documentation of the removal of all hazardous materials from the subject property should be maintained.

  It is estimated that the costs associated with the characterization of the material contained in the drums and products spilled onto the floor will be between $4,000 and $7,000. Current Estimate of Removal Costs: $18,000 - $30,000.

- Observations made during the November 1996 site inspection indicate the presence two (2) 10,000-gallon vaulted tanks within a vaulted are located beneath Building #3 and two (2) 275-gallon aboveground storage tanks (ASTs) located within Building #3. Observations indicate that the two 10,000-gallon tanks may have been previously closed and that the two 275-gallon ASTs are not in use. Borings conducted on the site do not document any evidence of petroleum release from the two vaulted tanks.

  It is recommended that all on-site tanks be permanently closed in accordance with the requirements of 6 NYCRR, parts 612-614.

  It is estimated that the costs associated with the proper closure of the on-site tanks will be between $15,000 and $20,000.

- Observations made during the site inspections indicate the presence of large quantities of debris within all three on-site structures. Among the materials noted by this office were building materials, wood, metal items, automotive parts, laboratory and mechanical equipment, office equipment and materials and storage containers.

  It is recommended that all on-site debris be segregated into that which can be disposed of as solid waste and that which requires special handling. This work should be coordinated with work recommended in the Paragraphs above.

  No cost estimate for debris removal can be provided at this time.

APPENDIX A

Laboratory Results

MATRIX

ANALYTICAL DATA SUMMARY

Report Date: 12/20/96

Account: Ecosystems Strategies
Address: 60 Worrall Ave.
Poughkeepsie, NY 12603
914-452-1658

Project Manager: Brad Fisher
Project Name: PB96146.20 (12-13-96)
Project No.: PB96146.20

Sample Information:

Laboratory ID	Client/Field ID
63486660-001	B-1(0-2')
63486660-002	B-1(15-17')
63486660-003	B-2(0-2')
63486660-004	B-2(5-7')
63486660-005	B-2(12-14')
63486660-006	SW-1
63486660-007	SW-2
63486660-008	VAT #1
63486660-009	VAT #2
63486660-010	QC Report-Soil
63486660-011	QC Report-Water

Reviewed by

Christine A. Larkin
Laboratory Manager

Lab Certifications

EPA ID: No. MA059
Massachusetts: No. M-MA059
Maine: Reciprocity
Rhode Island: No. 87
South Carolina: No. 88011
Florida(DEP): QA Plan No. 900437G
Florida(HRS): No. E87290
Connecticut: No. PH0515
New York: ELAP No. 11116
New Hampshire: No. 2041

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748-2295
1 (800) 362-8749

FINAL REPORT

Client Information

Account:	Ecosystems Strategies	Project Name:	PB96146.20 (12-13-96)
Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-001	Date Sampled:	12/11/96 14:00
Client ID:	B-1(0-2')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Acetone	ND	ug/kg	100	8240A	db	12/14/96
Benzene	ND	ug/kg	1	8240A	db	12/14/96
Bromodichloromethane	ND	ug/kg	5	8240A	db	12/14/96
Bromoform	ND	ug/kg	5	8240A	db	12/14/96
Bromomethane	ND	ug/kg	5	8240A	db	12/14/96
Carbon Tetrachloride	ND	ug/kg	5	8240A	db	12/14/96
Chlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
Chloroethane	ND	ug/kg	5	8240A	db	12/14/96
Chloroform	ND	ug/kg	5	8240A	db	12/14/96
Chloromethane	ND	ug/kg	5	8240A	db	12/14/96
Dibromochloromethane	ND	ug/kg	5	8240A	db	12/14/96
1,2-Dichlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
1,3-Dichlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
1,4-Dichlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
1,1-Dichloroethane	ND	ug/kg	5	8240A	db	12/14/96
1,2-Dichloroethane	ND	ug/kg	5	8240A	db	12/14/96
1,1-Dichloroethene	ND	ug/kg	5	8240A	db	12/14/96
cis-1,2-Dichloroethene	120	ug/kg	5	8240A	db	12/14/96
trans-1,2-Dichloroethene	ND	ug/kg	5	8240A	db	12/14/96
1,2-Dichloropropane	ND	ug/kg	5	8240A	db	12/14/96
cis-1,3-Dichloropropene	ND	ug/kg	5	8240A	db	12/14/96
trans-1,3-Dichloropropene	ND	ug/kg	5	8240A	db	12/14/96
Ethylbenzene	ND	ug/kg	5	8240A	db	12/14/96
Methylene Chloride	ND	ug/kg	5	8240A	db	12/14/96
Methyl Ethyl Ketone	ND	ug/kg	100	8240A	db	12/14/96

Matrix Analytical, Inc.
106 South Street
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FINAL REPORT

Client Information

Account:	Ecosystems Strategies	Project Name:	PB96146.20 (12-13-96)
Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-001	Date Sampled:	12/11/96 14:00
Client ID:	B-1(0-2')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
MIBK	ND	ug/kg	50	8240A	db	12/14/96
MTBE	ND	ug/kg	5	8240A	db	12/14/96
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	8240A	db	12/14/96
Tetrachloroethene	170	ug/kg	5	8240A	db	12/14/96
Toluene	ND	ug/kg	5	8240A	db	12/14/96
1,1,1-Trichloroethane	ND	ug/kg	5	8240A	db	12/14/96
1,1,2-Trichloroethane	ND	ug/kg	5	8240A	db	12/14/96
Trichloroethene	170	ug/kg	5	8240A	db	12/14/96
Trichlorofluoromethane	ND	ug/kg	5	8240A	db	12/14/96
Vinyl Chloride	ND	ug/kg	2	8240A	db	12/14/96
Xylene	ND	ug/kg	5	8240A	db	12/14/96
SURROGATE STUDIES - VOLATILES						
Bromofluorobenzene	86	Percent			db	12/14/96
1,2-Dichloroethane-D	95	Percent			db	12/14/96
Toluene-D	96	Percent			db	12/14/96
PAH's						
Extraction Date:	12/13/96				dr	
Acenaphthene	1,400	ug/kg	1000	8270A	jp	12/15/96
Acenaphthylene	ND	ug/kg	1000	8270A	jp	12/15/96
Anthracene	3,000	ug/kg	1000	8270A	jp	12/15/96
Benzo (a) Anthracene	7,900	ug/kg	1000	8270A	jp	12/15/96
Benzo (a) Pyrene	6,000	ug/kg	1000	8270A	jp	12/15/96
Benzo (b) Fluoranthene	7,100	ug/kg	1000	8270A	jp	12/15/96

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748-2295
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FINAL REPORT

Client Information

Account:	Ecosystems Strategies	Project Name:	PB96146.20 (12-13-96)
Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-001	Date Sampled:	12/11/96 14:00
Client ID:	B-1(0-2')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
PAH's						
Benzo (k) Fluoranthene	2,500	ug/kg	1000	8270A	jp	12/15/96
Benzo (g,h,i) Perylene	2,300	ug/kg	1000	8270A	jp	12/15/96
Chrysene	9,000	ug/kg	1000	8270A	jp	12/15/96
Dibenzo (a,h) Acridine	ND	ug/kg	1000	8270A	jp	12/15/96
Dibenzo (a,j) Acridine	ND	ug/kg	1000	8270A	jp	12/15/96
Dibenzo (a,h) Anthracene	ND	ug/kg	1000	8270A	jp	12/15/96
7H-Dibenzo (c,g) Carbazole	ND	ug/kg	1000	8270A	jp	12/15/96
Dibenzo (a,e) Pyrene	ND	ug/kg	2500	8270A	jp	12/15/96
Dibenzo (a,i) Pyrene	ND	ug/kg	2500	8270A	jp	12/15/96
Dibenzo (a,h) Pyrene	ND	ug/kg	2500	8270A	jp	12/15/96
Fluoranthene	14,000	ug/kg	1000	8270A	jp	12/15/96
Fluorene	ND	ug/kg	1000	8270A	jp	12/15/96
Indeno (1,2,3-cd) Pyrene	1,900	ug/kg	1000	8270A	jp	12/15/96
2-Methyl Naphthalene	ND	ug/kg	1000	8270A	jp	12/15/96
3-Methylcholanthrene	ND	ug/kg	1000	8270A	jp	12/15/96
1-Methyl Naphthalene	ND	ug/kg	1000	8270A	jp	12/15/96
Naphthalene	3,400	ug/kg	1000	8270A	jp	12/15/96
Phenanthrene	19,000	ug/kg	1000	8270A	jp	12/15/96
Pyrene	19,000	ug/kg	1000	8270A	jp	12/15/96
The detection limit reported is based on a X10 dilution of the sample.						
SURROGATE STUDIES - BASE NEUTRALS						
2-Fluorobiphenyl	81	Percent			jp	12/15/96

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FINAL REPORT

Client Information

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Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-001	Date Sampled:	12/11/96 14:00
Client ID:	B-1(0-2')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
SURROGATE STUDIES - BASE NEUTRALS						
Nitrobenzene-D5	74	Percent			jp	12/15/96
p-Terphenyl-D14	94	Percent			jp	12/15/96
MISCELLANEOUS TESTING						
Percent Moisture	22.6	Percent			rw	12/16/96

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FINAL REPORT

Client Information

Account:	Ecosystems Strategies	Project Name:	PB96146.20 (12-13-96)
Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-002	Date Sampled:	12/11/96 14:30
Client ID:	B-1(15-17')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Acetone	ND	ug/kg	100	8240A	db	12/14/96
Benzene	ND	ug/kg	1	8240A	db	12/14/96
Bromodichloromethane	ND	ug/kg	5	8240A	db	12/14/96
Bromoform	ND	ug/kg	5	8240A	db	12/14/96
Bromomethane	ND	ug/kg	5	8240A	db	12/14/96
Carbon Tetrachloride	ND	ug/kg	5	8240A	db	12/14/96
Chlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
Chloroethane	ND	ug/kg	5	8240A	db	12/14/96
Chloroform	ND	ug/kg	5	8240A	db	12/14/96
Chloromethane	ND	ug/kg	5	8240A	db	12/14/96
Dibromochloromethane	ND	ug/kg	5	8240A	db	12/14/96
1,2-Dichlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
1,3-Dichlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
1,4-Dichlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
1,1-Dichloroethane	ND	ug/kg	5	8240A	db	12/14/96
1,2-Dichloroethane	ND	ug/kg	5	8240A	db	12/14/96
1,1-Dichloroethene	ND	ug/kg	5	8240A	db	12/14/96
cis-1,2-Dichloroethene	ND	ug/kg	5	8240A	db	12/14/96
trans-1,2-Dichloroethene	ND	ug/kg	5	8240A	db	12/14/96
1,2-Dichloropropane	ND	ug/kg	5	8240A	db	12/14/96
cis-1,3-Dichloropropene	ND	ug/kg	5	8240A	db	12/14/96
trans-1,3-Dichloropropene	ND	ug/kg	5	8240A	db	12/14/96
Ethylbenzene	ND	ug/kg	5	8240A	db	12/14/96
Methylene Chloride	ND	ug/kg	5	8240A	db	12/14/96
Methyl Ethyl Ketone	ND	ug/kg	100	8240A	db	12/14/96

Matrix Analytical, Inc.
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FINAL REPORT

Client Information

Account:	Ecosystems Strategies	Project Name:	PB96146.20 (12-13-96)
Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-002	Date Sampled:	12/11/96 14:30
Client ID:	B-1(15-17')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
MIBK	ND	ug/kg	50	8240A	db	12/14/96
MTBE	ND	ug/kg	5	8240A	db	12/14/96
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	8240A	db	12/14/96
Tetrachloroethene	ND	ug/kg	5	8240A	db	12/14/96
Toluene	ND	ug/kg	5	8240A	db	12/14/96
1,1,1-Trichloroethane	ND	ug/kg	5	8240A	db	12/14/96
1,1,2-Trichloroethane	ND	ug/kg	5	8240A	db	12/14/96
Trichloroethene	ND	ug/kg	5	8240A	db	12/14/96
Trichlorofluoromethane	ND	ug/kg	5	8240A	db	12/14/96
Vinyl Chloride	ND	ug/kg	2	8240A	db	12/14/96
Xylene	ND	ug/kg	5	8240A	db	12/14/96
SURROGATE STUDIES - VOLATILES						
Bromofluorobenzene	94	Percent			db	12/14/96
1,2-Dichloroethane-D	96	Percent			db	12/14/96
Toluene-D	97	Percent			db	12/14/96
PAH's						
Extraction Date:	12/13/96				dr	
Acenaphthene	ND	ug/kg	100	8270A	jp	12/15/96
Acenaphthylene	ND	ug/kg	100	8270A	jp	12/15/96
Anthracene	ND	ug/kg	100	8270A	jp	12/15/96
Benzo (a) Anthracene	ND	ug/kg	100	8270A	jp	12/15/96
Benzo (a) Pyrene	ND	ug/kg	100	8270A	jp	12/15/96
Benzo (b) Fluoranthene	ND	ug/kg	100	8270A	jp	12/15/96

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FINAL REPORT

Client Information

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Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-002	Date Sampled:	12/11/96 14:30
Client ID:	B-1(15-17')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
PAH's						
Benzo (k) Fluoranthene	ND	ug/kg	100	8270A	jp	12/15/96
Benzo (g,h,i) Perylene	ND	ug/kg	100	8270A	jp	12/15/96
Chrysene	ND	ug/kg	100	8270A	jp	12/15/96
Dibenzo (a,h) Acridine	ND	ug/kg	100	8270A	jp	12/15/96
Dibenzo (a,j) Acridine	ND	ug/kg	100	8270A	jp	12/15/96
Dibenzo (a,h) Anthracene	ND	ug/kg	100	8270A	jp	12/15/96
7H-Dibenzo (c,g) Carbazole	ND	ug/kg	100	8270A	jp	12/15/96
Dibenzo (a,e) Pyrene	ND	ug/kg	250	8270A	jp	12/15/96
Dibenzo (a,i) Pyrene	ND	ug/kg	250	8270A	jp	12/15/96
Dibenzo (a,h) Pyrene	ND	ug/kg	250	8270A	jp	12/15/96
Fluoranthene	ND	ug/kg	100	8270A	jp	12/15/96
Fluorene	ND	ug/kg	100	8270A	jp	12/15/96
Indeno (1,2,3-cd) Pyrene	ND	ug/kg	100	8270A	jp	12/15/96
2-Methyl Naphthalene	ND	ug/kg	100	8270A	jp	12/15/96
3-Methylcholanthrene	ND	ug/kg	100	8270A	jp	12/15/96
1-Methyl Naphthalene	ND	ug/kg	100	8270A	jp	12/15/96
Naphthalene	ND	ug/kg	100	8270A	jp	12/15/96
Phenanthrene	ND	ug/kg	100	8270A	jp	12/15/96
Pyrene	ND	ug/kg	100	8270A	jp	12/15/96
SURROGATE STUDIES - BASE NEUTRALS						
2-Fluorobiphenyl	53	Percent			jp	12/15/96
Nitrobenzene-D5	52	Percent			jp	12/15/96
p-Terphenyl-D14	93	Percent			jp	12/15/96
MISCELLANEOUS TESTING						
Percent Moisture	13.3	Percent			rw	12/16/96

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FINAL REPORT

Client Information

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Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-003	Date Sampled:	12/11/96 15:30
Client ID:	B-2(0-2')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Acetone	ND	ug/kg	10000	8240A	db	12/14/96
Benzene	ND	ug/kg	100	8240A	db	12/14/96
Bromodichloromethane	ND	ug/kg	500	8240A	db	12/14/96
Bromoform	ND	ug/kg	500	8240A	db	12/14/96
Bromomethane	ND	ug/kg	500	8240A	db	12/14/96
Carbon Tetrachloride	ND	ug/kg	500	8240A	db	12/14/96
Chlorobenzene	ND	ug/kg	500	8240A	db	12/14/96
Chloroethane	ND	ug/kg	500	8240A	db	12/14/96
Chloroform	ND	ug/kg	500	8240A	db	12/14/96
Chloromethane	ND	ug/kg	500	8240A	db	12/14/96
Dibromochloromethane	ND	ug/kg	500	8240A	db	12/14/96
1,2-Dichlorobenzene	ND	ug/kg	500	8240A	db	12/14/96
1,3-Dichlorobenzene	ND	ug/kg	500	8240A	db	12/14/96
1,4-Dichlorobenzene	ND	ug/kg	500	8240A	db	12/14/96
1,1-Dichloroethane	ND	ug/kg	500	8240A	db	12/14/96
1,2-Dichloroethane	ND	ug/kg	500	8240A	db	12/14/96
1,1-Dichloroethene	ND	ug/kg	500	8240A	db	12/14/96
cis-1,2-Dichloroethene	ND	ug/kg	500	8240A	db	12/14/96
trans-1,2-Dichloroethene	ND	ug/kg	500	8240A	db	12/14/96
1,2-Dichloropropane	ND	ug/kg	500	8240A	db	12/14/96
cis-1,3-Dichloropropene	ND	ug/kg	500	8240A	db	12/14/96
trans-1,3-Dichloropropene	ND	ug/kg	500	8240A	db	12/14/96
Ethylbenzene	ND	ug/kg	500	8240A	db	12/14/96
Methylene Chloride	ND	ug/kg	500	8240A	db	12/14/96
Methyl Ethyl Ketone	ND	ug/kg	10000	8240A	db	12/14/96

Matrix Analytical, Inc.
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FINAL REPORT

Client Information

Account:	Ecosystems Strategies	Project Name:	PB96146.20 (12-13-96)
Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-003	Date Sampled:	12/11/96 15:30
Client ID:	B-2(0-2')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
MIBK	ND	ug/kg	5000	8240A	db	12/14/96
MTBE	ND	ug/kg	500	8240A	db	12/14/96
1,1,2,2-Tetrachloroethane	ND	ug/kg	500	8240A	db	12/14/96
Tetrachloroethene	5,500	ug/kg	500	8240A	db	12/14/96
Toluene	ND	ug/kg	500	8240A	db	12/14/96
1,1,1-Trichloroethane	ND	ug/kg	500	8240A	db	12/14/96
1,1,2-Trichloroethane	ND	ug/kg	500	8240A	db	12/14/96
Trichloroethene	3,700	ug/kg	500	8240A	db	12/14/96
Trichlorofluoromethane	ND	ug/kg	500	8240A	db	12/14/96
Vinyl Chloride	ND	ug/kg	200	8240A	db	12/14/96
Xylene	ND	ug/kg	500	8240A	db	12/14/96
The detection limit reported is based on a X100 dilution of the sample.						
SURROGATE STUDIES - VOLATILES						
Bromofluorobenzene	102	Percent			db	12/14/96
1,2-Dichloroethane-D	92	Percent			db	12/14/96
Toluene-D	98	Percent			db	12/14/96
PAH's						
Extraction Date:	12/13/96				dr	
Acenaphthene	ND	ug/kg	1000	8270A	jp	12/15/96
Acenaphthylene	ND	ug/kg	1000	8270A	jp	12/15/96
Anthracene	1,200	ug/kg	1000	8270A	jp	12/15/96

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FINAL REPORT

Client Information

Account:	Ecosystems Strategies	Project Name:	PB96146.20 (12-13-96)
Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-003	Date Sampled:	12/11/96 15:30
Client ID:	B-2(0-2')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
PAH's						
Benzo (a) Anthracene	3,300	ug/kg	1000	8270A	jp	12/15/96
Benzo (a) Pyrene	2,900	ug/kg	1000	8270A	jp	12/15/96
Benzo (b) Fluoranthene	4,000	ug/kg	1000	8270A	jp	12/15/96
Benzo (k) Fluoranthene	1,500	ug/kg	1000	8270A	jp	12/15/96
Benzo (g,h,i) Perylene	1,500	ug/kg	1000	8270A	jp	12/15/96
Chrysene	3,500	ug/kg	1000	8270A	jp	12/15/96
Dibenzo (a,h) Acridine	ND	ug/kg	1000	8270A	jp	12/15/96
Dibenzo (a,j) Acridine	ND	ug/kg	1000	8270A	jp	12/15/96
Dibenzo (a,h) Anthracene	ND	ug/kg	1000	8270A	jp	12/15/96
7H-Dibenzo (c,g) Carbazole	ND	ug/kg	1000	8270A	jp	12/15/96
Dibenzo (a,e) Pyrene	ND	ug/kg	2500	8270A	jp	12/15/96
Dibenzo (a,i) Pyrene	ND	ug/kg	2500	8270A	jp	12/15/96
Dibenzo (a,h) Pyrene	ND	ug/kg	2500	8270A	jp	12/15/96
Fluoranthene	7,300	ug/kg	1000	8270A	jp	12/15/96
Fluorene	ND	ug/kg	1000	8270A	jp	12/15/96
Indeno (1,2,3-cd) Pyrene	1,300	ug/kg	1000	8270A	jp	12/15/96
2-Methyl Naphthalene	ND	ug/kg	1000	8270A	jp	12/15/96
3-Methylcholanthrene	ND	ug/kg	1000	8270A	jp	12/15/96
1-Methyl Naphthalene	ND	ug/kg	1000	8270A	jp	12/15/96
Naphthalene	ND	ug/kg	1000	8270A	jp	12/15/96
Phenanthrene	6,100	ug/kg	1000	8270A	jp	12/15/96
Pyrene	6,100	ug/kg	1000	8270A	jp	12/15/96

The detection limit reported is based on a X10 dilution of the sample.

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FINAL REPORT

Client Information

Account:	Ecosystems Strategies	Project Name:	PB96146.20 (12-13-96)
Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-003	Date Sampled:	12/11/96 15:30
Client ID:	B-2(0-2')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
SURROGATE STUDIES - BASE NEUTRALS						
2-Fluorobiphenyl	72	Percent			jp	12/15/96
Nitrobenzene-D5	78	Percent			jp	12/15/96
p-Terphenyl-D14	82	Percent			jp	12/15/96
MISCELLANEOUS TESTING						
Percent Moisture	10.3	Percent			rw	12/16/96

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FINAL REPORT

Client Information

Account:	Ecosystems Strategies	Project Name:	PB96146.20 (12-13-96)
Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-004	Date Sampled:	12/11/96 15:40
Client ID:	B-2(5-7')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Acetone	ND	ug/kg	1000	8240A	db	12/16/96
Benzene	ND	ug/kg	10	8240A	db	12/16/96
Bromodichloromethane	ND	ug/kg	50	8240A	db	12/16/96
Bromoform	ND	ug/kg	50	8240A	db	12/16/96
Bromomethane	ND	ug/kg	50	8240A	db	12/16/96
Carbon Tetrachloride	ND	ug/kg	50	8240A	db	12/16/96
Chlorobenzene	ND	ug/kg	50	8240A	db	12/16/96
Chloroethane	ND	ug/kg	50	8240A	db	12/16/96
Chloroform	ND	ug/kg	50	8240A	db	12/16/96
Chloromethane	ND	ug/kg	50	8240A	db	12/16/96
Dibromochloromethane	ND	ug/kg	50	8240A	db	12/16/96
1,2-Dichlorobenzene	ND	ug/kg	50	8240A	db	12/16/96
1,3-Dichlorobenzene	ND	ug/kg	50	8240A	db	12/16/96
1,4-Dichlorobenzene	ND	ug/kg	50	8240A	db	12/16/96
1,1-Dichloroethane	ND	ug/kg	50	8240A	db	12/16/96
1,2-Dichloroethane	ND	ug/kg	50	8240A	db	12/16/96
1,1-Dichloroethene	ND	ug/kg	50	8240A	db	12/16/96
cis-1,2-Dichloroethene	ND	ug/kg	50	8240A	db	12/16/96
trans-1,2-Dichloroethene	ND	ug/kg	50	8240A	db	12/16/96
1,2-Dichloropropane	ND	ug/kg	50	8240A	db	12/16/96
cis-1,3-Dichloropropene	ND	ug/kg	50	8240A	db	12/16/96
trans-1,3-Dichloropropene	ND	ug/kg	50	8240A	db	12/16/96
Ethylbenzene	ND	ug/kg	50	8240A	db	12/16/96
Methylene Chloride	ND	ug/kg	50	8240A	db	12/16/96
Methyl Ethyl Ketone	ND	ug/kg	1000	8240A	db	12/16/96

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FINAL REPORT

Client Information

Account:	Ecosystems Strategies	Project Name:	PB96146.20 (12-13-96)
Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-004	Date Sampled:	12/11/96 15:40
Client ID:	B-2(5-7')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
MIBK	ND	ug/kg	500	8240A	db	12/16/96
MTBE	ND	ug/kg	50	8240A	db	12/16/96
1,1,2,2-Tetrachloroethane	ND	ug/kg	50	8240A	db	12/16/96
Tetrachloroethene	ND	ug/kg	50	8240A	db	12/16/96
Toluene	1,400	ug/kg	50	8240A	db	12/16/96
1,1,1-Trichloroethane	71	ug/kg	50	8240A	db	12/16/96
1,1,2-Trichloroethane	ND	ug/kg	50	8240A	db	12/16/96
Trichloroethene	ND	ug/kg	50	8240A	db	12/16/96
Trichlorofluoromethane	ND	ug/kg	50	8240A	db	12/16/96
Vinyl Chloride	ND	ug/kg	20	8240A	db	12/16/96
Xylene	ND	ug/kg	50	8240A	db	12/16/96
The detection limit reported is based on a X10 dilution of the sample.						
SURROGATE STUDIES - VOLATILES						
Bromofluorobenzene	101	Percent			db	12/16/96
1,2-Dichloroethane-D	105	Percent			db	12/16/96
Toluene-D	100	Percent			db	12/16/96
MISCELLANEOUS TESTING						
Percent Moisture	13.4	Percent			rw	12/16/96

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748-2295
1 (800) 362-8749

FINAL REPORT

Client Information

Account:	Ecosystems Strategies	Project Name:	PB96146.20 (12-13-96)
Address:	60 Worrall Ave.	Project Number:	PB96146.20
	Poughkeepsie, NY 12603	Project Manager:	Brad Fisher
		Sampler Name:	Brad Fisher

Sample Information

Lab ID:	63486660-005	Date Sampled:	12/11/96 16:20
Client ID:	B-2(12-14')	Date Received:	12/13/96 : 0
Matrix:	Soil	Date Reported:	12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
Acetone	ND	ug/kg	100	8240A	db	12/14/96
Benzene	ND	ug/kg	1	8240A	db	12/14/96
Bromodichloromethane	ND	ug/kg	5	8240A	db	12/14/96
Bromoform	ND	ug/kg	5	8240A	db	12/14/96
Bromomethane	ND	ug/kg	5	8240A	db	12/14/96
Carbon Tetrachloride	ND	ug/kg	5	8240A	db	12/14/96
Chlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
Chloroethane	ND	ug/kg	5	8240A	db	12/14/96
Chloroform	ND	ug/kg	5	8240A	db	12/14/96
Chloromethane	ND	ug/kg	5	8240A	db	12/14/96
Dibromochloromethane	ND	ug/kg	5	8240A	db	12/14/96
1,2-Dichlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
1,3-Dichlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
1,4-Dichlorobenzene	ND	ug/kg	5	8240A	db	12/14/96
1,1-Dichloroethane	ND	ug/kg	5	8240A	db	12/14/96
1,2-Dichloroethane	ND	ug/kg	5	8240A	db	12/14/96
1,1-Dichloroethene	ND	ug/kg	5	8240A	db	12/14/96
cis-1,2-Dichloroethene	ND	ug/kg	5	8240A	db	12/14/96
trans-1,2-Dichloroethene	ND	ug/kg	5	8240A	db	12/14/96
1,2-Dichloropropane	ND	ug/kg	5	8240A	db	12/14/96
cis-1,3-Dichloropropene	ND	ug/kg	5	8240A	db	12/14/96
trans-1,3-Dichloropropene	ND	ug/kg	5	8240A	db	12/14/96
Ethylbenzene	ND	ug/kg	5	8240A	db	12/14/96
Methylene Chloride	ND	ug/kg	5	8240A	db	12/14/96
Methyl Ethyl Ketone	ND	ug/kg	100	8240A	db	12/14/96

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748-2295
1 (800) 362-8749

FINAL REPORT

Client Information

Account: Ecosystems Strategies
Address: 60 Worrall Ave.
Poughkeepsie, NY 12603

Project Name: PB96146.20 (12-13-96)
Project Number: PB96146.20
Project Manager: Brad Fisher
Sampler Name: Brad Fisher

Sample Information

Lab ID: 63486660-005
Client ID: B-2(12-14')
Matrix: Soil

Date Sampled: 12/11/96 16:20
Date Received: 12/13/96 : 0
Date Reported: 12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
VOLATILE ORGANICS						
MIBK	ND	ug/kg	50	8240A	db	12/14/96
MTBE	ND	ug/kg	5	8240A	db	12/14/96
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	8240A	db	12/14/96
Tetrachloroethene	ND	ug/kg	5	8240A	db	12/14/96
Toluene	ND	ug/kg	5	8240A	db	12/14/96
1,1,1-Trichloroethane	ND	ug/kg	5	8240A	db	12/14/96
1,1,2-Trichloroethane	ND	ug/kg	5	8240A	db	12/14/96
Trichloroethene	ND	ug/kg	5	8240A	db	12/14/96
Trichlorofluoromethane	ND	ug/kg	5	8240A	db	12/14/96
Vinyl Chloride	ND	ug/kg	2	8240A	db	12/14/96
Xylene	ND	ug/kg	5	8240A	db	12/14/96
SURROGATE STUDIES - VOLATILES						
Bromofluorobenzene	95	Percent			db	12/14/96
1,2-Dichloroethane-D	96	Percent			db	12/14/96
Toluene-D	97	Percent			db	12/14/96
MISCELLANEOUS TESTING						
Percent Moisture	3.8	Percent			rw	12/16/96

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748-2295
1 (800) 362-8749

FINAL REPORT

Client Information

Account: Ecosystems Strategies
Address: 60 Worrall Ave.
Poughkeepsie, NY 12603

Project Name: PB96146.20 (12-13-96)
Project Number: PB96146.20
Project Manager: Brad Fisher
Sampler Name:

Sample Information

Lab ID: 63486660-010
Client ID: QC Report-Soil
Matrix: Soil

Date Sampled: / / :
Date Received: 12/13/96 : 0
Date Reported: 12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed
METHOD BLANKS						
Method Blank - Semi Volatile	ND	ug/l		625/8270A		
Method Blank - Volatile	ND	ug/l		8240A		
MATRIX SPIKE STUDIES - VOLATILES						
Sample ID:	6589-002					
Benzene	104	Percent				
Chlorobenzene	102	Percent				
1,1-Dichloroethene	93	Percent				
Toluene	98	Percent				
Trichloroethene	100	Percent				

METHOD SUMMARIES

Acid/Base Neutral analysis is performed using H/P 5970 GC/MS systems with autosampler. Analysis is performed with J&W megabore column. Tuning is based on DFTPP criteria. Procedural guidelines described in SW846 are used for all analysis. Data reduction is accomplished using H/P RTE 1000 computer systems.

NOTE: Analytical results have been corrected and are reported on a dry weight basis. If required, detection limits can also be corrected to dry weight using the percent moisture data included in this report.

Volatile organic analysis is performed using H/P 5995 or 5970 GC/MS, Tekmar purge and trap, and ALS autosampler. Chromatography incorporates packed and megabore columns. Data reduction is performed on RTE 1000 and ChemStation systems. Tuning is based on BFB standards. Procedural guidelines follow EPA or SW846 for all analyses.

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748-2295
1 (800) 362-8749

FINAL REPORT

Client Information

Account: Ecosystems Strategies
Address: 60 Worrall Ave.
Poughkeepsie, NY 12603

Project Name: PB96146.20 (12-13-96)
Project Number: PB96146.20
Project Manager: Brad Fisher
Sampler Name:

Sample Information

Lab ID: 63486660-010
Client ID: QC Report-Soil
Matrix: Soil

Date Sampled: / / :
Date Received: 12/13/96 : 0
Date Reported: 12/20/96

Analytical Parameter	Result	Unit	Detection Limit	Method No.	Analyst	Date Analyzed

METHOD REFERENCES

1. Test Methods For Evaluating Solid Waste: Physical Chemical Methods. EPA SW 846. November 1986.
2. Methods For Chemical Analysis of Water and Wastes. EPA 600/4-79-200. Revised March 1983.
3. Standard Methods For Examination of Water and Wastewater. APHA-AWWA-WACF., 18th Edition. 1992.
4. EPA Methods For The Determination of Organic Compounds in Drinking Water.

Project Information	Client Information
Project Name: PR96146.20	Send Reports to: BRAD FISHER
Project No.: PR96146.20	Company: BIOSYSTEM STRATEGIES
Project Location: —	Address: 60 MORRALL AV
Project Manager: BRAD FISHER	POUGHKEEPSIE, NY 12603
Sampler(s): BRAD FISHER	Phone: 914 452-1658
	Fax: 914 485-7083
PO #: Lab Quote #:	Account # (Lab Use Only)
Turn-Around: ☐ Standard 10 business days ☑ Other (specify): RUSH FOR SOILS	Final Report: ☑ Mail ☐ Overnight ☑ Fax ☐ EDT Diskette (If checked, call for pricing) Disk format:
Note: Less than 10 days must be pre-approved!	

Form No. | Page: 1

FILTRATION (0.45 um) & PRESERVATION INFORMATION

FILTRATION	PRESERVATION
☐ DONE	☐ DONE
☐ NOT NEEDED	☐ NOT NEEDED
☐ LAB TO DO*	☐ LAB TO DO*

**Please specify which samples need to be filtered and/or preserved by the lab.*

IF SPECIAL OR NON-ROUTINE DETECTION LIMITS ARE REQUIRED, PLEASE CALL THE LAB.

Lab ID (Lab Use Only)	Client/Field Sample ID	Collection Date	Collection Time	Sample Source / Matrix	8240	PAH's	PH	RCRA METALS + NICKEL							Sample Remarks (below)	TOTAL # OF BOTTLES
	B-1 (0-2')	12/11/96	2:00	SOIL	X	X									RUSH	2
	B-1 (15-17')	12/11/96	2:30	SOIL	X	X									RUSH	2
	B-2 (0-2')	12/11/96	3:30	SOIL	X	X									RUSH	2
	B-2 (5-7')	12/11/96	~~3:30~~ 3:40	SOIL	X										RUSH	1
	B-2 (12-14')	12/11/96	4:20	SOIL	X										RUSH	1
	SW-1	12/11/96	11:00	WATER	X											2
	SW-2	12/11/96	11:15	WATER	X											2
	VAT #1	12/11/96	11:30	WATER			X	X								1
	VAT #2	12/11/96	11:40	WATER			X	X								1

Analyses (write test methods above & "x's" below for each sample to be tested)

Matrix Analytical, Inc.
106 South Street
Hopkinton, MA 01748
Phone: (800) 362-8749
Fax: (508) 435-2497

NOTES:

CHAIN-OF-CUSTODY RECORD

Relinquished By:	Date/Time	Received By:	Date/Time
	12/12/96 3:00		12-13-96/8:00

Condition of Samples Upon Arrival
☐ Okay ☐ Problem(s)

Distribution of Copies
White-Lab Yellow-Report Pink-Client

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : D-1 8'-8'6" SOIL
Date Rcvd/Extd: 03/31/97-N/A
Sample Matrix : Soil
Percent Solid : 84
Column : J&W DB-624 76M .53mm ID column

Lab Sample No. : AA44642
GAD File ID : >G1791
Date Analyzed : 04/02/97
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC
74873	Chloroethane	12	U
74839	Bromomethane	12	U
75014	Vinyl Chloride	6	U
75003	Chloroethane	12	U
75092	Methylene Chloride	13	U
67641	Acetone	24	U
75150	Carbon Disulfide	6	U
75694	Trichlorofluoromethane	6	U
75354	1,1-Dichloroethene	2	U
75343	1,1-Dichloroethane	2	U
156605	Trans-1,2-Dichloroethene	6	U
67663	Chloroform	6	U
107062	1,2-Dichloroethane	2	U
78933	2-Butanone	30	U
71556	1,1,1-Trichloroethane	6	U
56235	Carbon Tetrachloride	2	U
108054	Vinyl Acetate	12	U
75274	Bromodichloromethane	1	U
78875	1,2-Dichloropropane	1	U
10061015	cis-1,3-Dichloropropene	6	U
79016	Trichloroethene	1	B

CAS NO.	COMPOUND	PQL	CONC
124481	Dibromochloromethane	6	U
79005	1,1,2-Trichloroethane	4	U
71432	Benzene	1	U
10061026	Trans-1,3-Dichloropropene	6	U
110758	2-Chloroethylvinylether	12	U
75252	Bromoform	5	U
108101	4-Methyl-2-Pentanone	30	U
591786	2-Hexanone	24	U
127184	Tetrachloroethene	1	B
79345	1,1,2,2-Tetrachloroethane	2	U
108883	Toluene	6	U
108907	Chlorobenzene	5	U
100414	Ethylbenzene	6	U
100425	Styrene	6	U
108383	m&p-Xylenes	6	U
95476	o-Xylene	6	U
541731	1,3-Dichlorobenzene	6	U
95501	1,2-Dichlorobenzene	6	U
106467	1,4-Dichlorobenzene	6	U
1634044	Methyl t butyl ether	6	U
108203	Di-isopropyl-ether	6	U
75650	t-Butyl Alcohol	120	U

TARGET COMPOUND SUMMARY: 11

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-3 6".9'6" SOIL
Date Rcvd/Extd: 03/31/97-04/02/97
Sample Matrix : Soil
Percent Solid : 84
Column : SUPELCO PTE-5 30m .25mm ID Column

Lab Sample No. : AA44642(
Lab File ID : >F8645
Date Analyzed : 04/03/97
Dilution Factor: 3
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
91203	Naphthalene	600	5600	56553	Benzo(a)Anthracene	600	3100
208968	Acenaphthylene	600	U	218019	Chrysene	600	3000
83329	Acenaphthene	600	790	205992	Benzo(b)Fluoranthene	600	3300
86737	Fluorene	600	630	207089	Benzo(k)Fluoranthene	240	1200
85018	Phenanthrene	600	7100	50328	Benzo(a)Pyrene	600	2600
120127	Anthracene	600	1600	193395	Indeno(1,2,3-cd)Pyrene	600	1200
206440	Fluoranthene	600	6900	53703	Dibenzo(a,h)Anthracene	600	3203
129000	Pyrene	600	5900	191242	Benzo(g,h,i)Perylene	600	1200

TARGET COMPOUND SUMMARY: 38720

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id	:B-2 6"-2'6"	Lab Sample No	:AA44642
Sample Matrix	:Soil	Initial wght/vol	:30.0g
Date Analyzed	:04-02-1997	Final Volume	:10ml
Column(s)	:DB-608/1701	Percent Solid	:84
Data File(s)	:CFG55 :DFG55	Dilution Factor	:1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	120	U
11104-28-2	Aroclor-1221	120	U
11141-16-5	Aroclor-1232	120	U
53469-21-9	Aroclor-1242	120	U
12672-29-6	Aroclor-1248	120	U
11097-69-1	Aroclor-1254	120	U
11096-82-5	Aroclor-1260	120	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

HAMPTON-CLARKE VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-3 4'6"-6'6" SOIL
Date Rcvd/Exld : 03/31/97-NA
Sample Matrix : Soil
Percent Solid : 87
Column : [illegible]

Lab Sample No. : AA44643
Lab File ID : mG1770
Date Analyzed : 04/02/97
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
74873	Chloromethane	11	U	124481	Dibromochloromethane	6	U
74839	Bromomethane	11	U	79005	1,1,2-Trichloroethane	3	U
75014	Vinyl Chloride	6	U	71432	Benzene	1	U
75003	Chloroethane	11	U	10061026	Trans-1,3-Dichloropropene	6	U
75092	Methylene Chloride	17	U	110758	2-Chloroethylvinylether	11	U
67641	Acetone	23	U	75252	Bromoform	5	U
75150	Carbon Disulfide	6	U	108101	4-Methyl-2-Pentanone	29	U
75694	Trichlorofluoromethane	6	U	591786	2-Hexanone	23	U
75354	1,1-Dichloroethene	1	J	127184	Tetrachloroethene	1	55
75343	1,1-Dichloroethane	6	U	79345	1,1,2,2-Tetrachloroethane	2	U
156605	Trans-1,2-Dichloroethene	6	U	108883	Toluene	6	U
67663	Chloroform	6	U	108907	Chlorobenzene	5	U
107062	1,2-Dichloroethane	2	U	100414	Ethylbenzene	6	U
78933	2-Butanone	29	U	100425	Styrene	6	U
71556	1,1,1-Trichloroethane	6	U	108383	m&p-Xylenes	6	U
56235	Carbon Tetrachloride	2	U	95476	o-Xylene	6	U
108054	Vinyl Acetate	11	U	541731	1,3-Dichlorobenzene	6	U
75274	Bromodichloromethane	1	U	95501	1,2-Dichlorobenzene	6	U
78875	1,2-Dichloropropane	1	U	106467	1,4-Dichlorobenzene	6	U
10061015	cis-1,3-Dichloropropene	6	U	1634044	Methyl-t-butyl ether	6	U
79016	Trichloroethene	1	19	108203	Di-isopropyl-ether	6	U
				75650	t-Butyl Alcohol	110	U

TARGET COMPOUND SUMMARY: 73

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-3-4'6"-6'6" SOIL
Date Rcvd/Extd: 03/31/97-04/02/97
Sample Matrix : Soil
Percent Solid : 87
Column : SUPELCO RTE-5 30m .25mm .10 Column

Lab Sample No. : AA44643
Lab File ID : >F8625
Date Analyzed : 04/02/97
Dilution Factor: 1
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
91203	Naphthalene	190	U	56553	Benzo(a)Anthracene	190	U
208968	Acenaphthylene	190	U	218019	Chrysene	190	U
83329	Acenaphthene	190	U	205992	Benzo(b)Fluoranthene	190	U
86737	Fluorene	190	U	207089	Benzo(k)Fluoranthene	77	U
85018	Phenanthrene	190	99J	50328	Benzo(a)Pyrene	190	U
120127	Anthracene	190	U	193395	Indeno(1,2,3-cd)Pyrene	190	U
206440	Fluoranthene	190	95J	53703	Dibenzo(a,h)Anthracene	190	U
129000	Pyrene	190	82J	191242	Benzo(g,h,i)Perylene	190	U

TARGET COMPOUND SUMMARY: 0

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id	:B-2 4'6"-6'6"	Lab Sample No	:AA44643
Sample Matrix	:Soil	Initial wght/vol	:30.0g
Date Analyzed	:04-02-1997	Final Volume	:10ml
Column(s)	:DB-608/1701	Percent Solid	:87
Data File(s)	:CFG28 :DFG28	Dilution Factor	:1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	110	U
11104-28-2	Aroclor-1221	110	U
11141-16-5	Aroclor-1232	110	U
53469-21-9	Aroclor-1242	110	U
12672-29-6	Aroclor-1248	110	U
11097-69-1	Aroclor-1254	110	U
11096-82-5	Aroclor-1260	110	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected

B - Indicates the compound was found in the blank as well as in the sample

E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-3 8'6"-10'6" SOIL
Date Rcvd/Extd: 03/31/97-N/A
Sample Matrix : Soil
Percent Solid : 84
Column : J&W DB-624 75M .5mm ID 2.55UM

Lab Sample No. : AA46644
Lab File ID : pG1771
Date Analyzed : 04/02/97
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
74873	Chloromethane	12	U	124481	Dibromochloromethane	6	U
74839	Bromomethane	11	U	79005	1,1,2-Trichloroethane	4	U
75014	Vinyl Chloride	6	U	71432	Benzene	1	U
75003	Chloroethane	12	U	10061026	Trans-1,3-Dichloropropene	6	U
75092	Methylene Chloride	18	U	110758	2-Chloroethylvinylether	12	U
67641	Acetone	21	U	75252	Bromoform	5	U
75150	Carbon Disulfide	6	U	108101	4-Methyl-2-Pentanone	30	U
75694	Trichlorofluoromethane	6	U	591786	2-Hexanone	24	U
75354	1,1-Dichloroethene	3	U	127184	Tetrachloroethene	1	4
75343	1,1-Dichloroethane	6	U	79345	1,1,2,2-Tetrachloroethane	2	U
156605	Trans-1,2-Dichloroethene	5	U	108883	Toluene	6	U
67663	Chloroform	6	U	108907	Chlorobenzene	5	U
107062	1,2-Dichloroethane	2	U	100414	Ethylbenzene	6	U
78933	2-Butanone	30	U	100425	Styrene	6	U
71556	1,1,1-Trichloroethane	6	U	108383	m&p-Xylenes	6	U
56235	Carbon Tetrachloride	2	U	95476	o-Xylene	6	U
108054	Vinyl Acetate	12	U	541731	1,3-Dichlorobenzene	6	U
75274	Bromodichloromethane	1	U	95501	1,2-Dichlorobenzene	6	U
78875	1,2-Dichloropropane	1	U	106467	1,4-Dichlorobenzene	6	U
10061015	cis-1,3-Dichloropropene	6	U	1634044	Methyl-t-butyl ether	6	U
79016	Trichloroethene	1	3	108203	Di-isopropyl-ether	6	U
				75650	t-Butyl Alcohol	120	U

TARGET COMPOUND SUMMARY: 7

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-3-8'6"-10'6" SOIL
Date Rcvd/Extd: 03/31/97-04/02/97
Sample Matrix : Soil
Percent Solid : 84
Column : SUPELCO PTE-5 30m .25mm ID Column

Lab Sample No. : AA44644
Lab File ID : >F8626
Date Analyzed : 04/02/97
Dilution Factor: 1
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
91203	Naphthalene	200	U	56553	Benzo(a)Anthracene	200	200J
208968	Acenaphthylene	200	U	218019	Chrysene	200	200J
83329	Acenaphthene	200	U	205992	Benzo(b)Fluoranthene	200	210
86737	Fluorene	200	U	207089	Benzo(k)Fluoranthene	79	80
85018	Phenanthrene	200	400	50328	Benzo(a)Pyrene	200	160J
120127	Anthracene	200	823	193395	Indeno(1,2,3-cd)Pyrene	200	U
206440	Fluoranthene	200	480	53703	Dibenzo(a,h)Anthracene	200	U
129000	Pyrene	200	380	191242	Benzo(g,h,i)Perylene	200	U

TARGET COMPOUND SUMMARY: 1560

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id	:B-3 6'6"-10'6"	Lab Sample No	:AA44644
Sample Matrix	:Soil	Initial wght/vol	:30.0g
Date Analyzed	:04-03-1997	Final Volume	:10ml
Column(s)	:DB-608/1701	Percent Solid	:84
Data File(s)	:CFG56 :DFG56	Dilution Factor	:1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	120	U
11104-28-2	Aroclor-1221	120	U
11141-16-5	Aroclor-1232	120	U
53469-21-9	Aroclor-1242	120	U
12672-29-6	Aroclor-1248	120	U
11097-69-1	Aroclor-1254	120	U
11096-82-5	Aroclor-1260	120	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

HAMPTON-CLARKE/VERITECH

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-4 6'-8'3" SOIL
Date Rcvd/Extd: 03/31/97-N/A
Sample Matrix : Soil
Percent Solid : 86
Column : J&W DB-624 75M .53MM ID 3UM(M)

Lab Sample No : AA44645
Lab File ID : >G1796
Date Analyzed : 04/02/97
Dilution Factor: 5
Sample Wt/Vol : 1.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
74873	Chloromethane	58	U	124481	Dibromochloromethane	29	U
74839	Bromomethane	58	U	79005	1,1,2-Trichloroethane	17	U
75014	Vinyl Chloride	29	U	71432	Benzene	6	U
75003	Chloroethane	58	U	10061026	Trans-1,3-Dichloropropene	29	U
75092	Methylene Chloride	87	U	110758	2-Chloroethylvinylether	58	U
67641	Acetone	120	U	75252	Bromoform	23	U
75150	Carbon Disulfide	29	U	108101	4-Methyl-2-Pentanone	150	U
75694	Trichlorofluoromethane	29	U	591786	2-Hexanone	120	U
75354	1,1-Dichloroethene	11	U	127184	Tetrachloroethene	6	370
75343	1,1-Dichloroethane	20	U	79345	1,1,2,2-Tetrachloroethane	12	U
156605	Trans-1,2-Dichloroethene	29	U	108883	Toluene	29	U
67663	Chloroform	29	U	108907	Chlorobenzene	23	U
107062	1,2-Dichloroethane	12	U	100414	Ethylbenzene	29	U
78933	2 Butanone	150	U	100425	Styrene	29	U
71556	1,1,1-Trichloroethane	29	U	108383	m&p-Xylenes	29	U
56235	Carbon Tetrachloride	12	U	95476	o-Xylene	29	U
108054	Vinyl Acetate	58	U	541731	1,3-Dichlorobenzene	29	U
75274	Bromodichloromethane	6	U	95501	1,2-Dichlorobenzene	29	U
78875	1,2-Dichloropropane	6	U	106467	1,4-Dichlorobenzene	29	U
10061015	cis-1,3-Dichloropropene	29	U	1634044	Methyl-t-butyl ether	29	U
79016	Trichloroethene	6	1100	108203	Di-isopropyl-ether	29	U
				75650	t-Butyl Alcohol	580	U

TARGET COMPOUND SUMMARY: 1470

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-4-6"-2'6" SOIL
Date Rcvd/Extd: 03/31/97-04/02/97
Sample Matrix : Soil
Percent Solid : 8%
Column : SUPELCO PTE-5 30m .25mm ID Column

Lab Sample No. : AA44645
Lab File ID : >F8627
Date Analyzed : 04/02/97
Dilution Factor: 1
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
91203	Naphthalene	190	U	56553	Benzo(a)Anthracene	190	1200
208968	Acenaphthylene	190	U	218019	Chrysene	190	1200
83329	Acenaphthene	190	1200	205992	Benzo(b)Fluoranthene	190	1400
86737	Fluorene	190	U	207089	Benzo(k)Fluoranthene	78	560
85018	Phenanthrene	190	1700	50328	Benzo(a)Pyrene	190	1100
120127	Anthracene	190	380	193395	Indeno(1,2,3-cd)Pyrene	190	350
206440	Fluoranthene	190	2400	53703	Dibenzo(a,h)Anthracene	190	110J
129000	Pyrene	190	2200	191242	Benzo(g,h,i)Perylene	190	350

TARGET COMPOUND SUMMARY: 12840

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id	:B-4 6"-2'6"	Lab Sample No	:AA44645
Sample Matrix	:Soil	Initial wght/vol	:30.0g
Date Analyzed	:04-03-1997	Final Volume	:10ml
Column(s)	:DB-608/1701	Percent Solid	:86
Data File(s)	:CFG57 :DFG57	Dilution Factor	:1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	120	U
11104-28-2	Aroclor-1221	120	U
11141-16-5	Aroclor-1232	120	U
53469-21-9	Aroclor-1242	120	U
12672-29-6	Aroclor-1248	120	U
11097-69-1	Aroclor-1254	120	U
11096-82-5	Aroclor-1260	120	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

HAMPTON-CLARKE/VERITECH

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : [illegible] Soil

Date Rcvd/Extd : [illegible]

Sample Matrix : Soil

Percent Solid : 85

Column : [illegible] column

Lab Sample No. : AA44646

Lab File ID : AG1273

Date Analyzed : 04/02/97

Dilution Factor : 1

Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC
74873	Chloromethane	11	U
74839	Bromomethane	11	U
75014	Vinyl Chloride	6	U
75003	Chloroethane	11	U
75092	Methylene Chloride	13	U
67641	Acetone	24	55
75150	Carbon Disulfide	6	U
75694	Trichlorofluoromethane	6	U
75354	1,1-Dichloroethene	1	U
75343	1,1 Dichloroethane	5	U
156605	Trans-1,2-Dichloroethene	5	U
67663	Chloroform	6	U
107062	1,2-Dichloroethane	2	U
78933	2-Butanone	29	U
71556	1,1,1-Trichloroethane	5	U
56235	Carbon Tetrachloride	2	U
108054	Vinyl Acetate	12	U
75274	Bromodichloromethane	[illegible]	U
78875	1,2-Dichloropropane	1	U
10061015	cis-1,3-Dichloropropene	6	U
79016	Trichloroethene	1	[illegible]

CAS NO.	COMPOUND	PQL	CONC
124481	Dibromochloromethane	6	U
79005	1,1,2-Trichloroethane	4	U
71432	Benzene	1	U
10061026	Trans-1,3-Dichloropropene	6	U
110758	2-Chloroethylvinylether	12	U
75252	Bromoform	5	U
108101	4-Methyl-2-Pentanone	29	U
591786	2-Hexanone	24	U
127184	Tetrachloroethene	1	59
79345	1,1,2,2-Tetrachloroethane	2	U
108883	Toluene	6	U
108907	Chlorobenzene	5	U
100414	Ethylbenzene	6	U
100425	Styrene	6	U
108383	m&p-Xylenes	6	U
95476	o-Xylene	6	U
541731	1,3-Dichlorobenzene	6	U
95501	1,2-Dichlorobenzene	6	U
106467	1,4-Dichlorobenzene	6	U
1634044	Methyl-t-butyl ether	6	U
108203	Di-isopropyl-ether	6	U
75650	t-Butyl Alcohol	120	U

TARGET COMPOUND SUMMARY: 265

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.

J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : D-6-6'6"-6'8" SOIL
Date Rcvd/Extd: 03/31/97-04/02/97
Sample Matrix : Soil
Percent Solid : 85
Column : SUPELCO PTE-5 30m .25mm ID Column

Lab Sample No. : AA44646
Lab File ID : >F8628
Date Analyzed : 04/02/97
Dilution Factor: 1
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

MS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
1203	Naphthalene	200	550	56553	Benzo(a)Anthracene	200	2400
08968	Acenaphthylene	200	1000	218019	Chrysene	200	2600
3529	Acenaphthene	200	480	205992	Benzo(b)Fluoranthene	200	2700
6737	Fluorene	200	430	207089	Benzo(k)Fluoranthene	78	890
5018	Phenanthrene	200	6000	50328	Benzo(a)Pyrene	200	2100
20127	Anthracene	200	890	193395	Indeno(1,2,3-cd)Pyrene	200	820
06440	Fluoranthene	200	5200	53703	Dibenzo(a,h)Anthracene	200	270
29000	Pyrene	200	5100	191242	Benzo(g,h,i)Perylene	200	860

TARGET COMPOUND SUMMARY: 31290

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id	:B-4 4'6"-6'6"	Lab Sample No	:AA44646
Sample Matrix	:Soil	Initial wght/vol	:30.0g
Date Analyzed	:04-03-1997	Final Volume	:10ml
Column(s)	:DB-608/1701	Percent Solid	:85
Data File(s)	:CFG58 :DFG58	Dilution Factor	:1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	120	U
11104-28-2	Aroclor-1221	120	U
11141-16-5	Aroclor-1232	120	U
53469-21-9	Aroclor-1242	120	U
12672-29-6	Aroclor-1248	120	U
11097-69-1	Aroclor-1254	120	U
11096-82-5	Aroclor-1260	120	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

HAMPTON-CLARKE/VERITECH

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-4 8'6"-10'6" SOIL
Date Rcvd/Extd: 03/31/97-W/B
Sample Matrix : Soil
Percent Solid : 81
Column : J&W DB-624 TEM .53mm ID column

Lab Sample No. : AA44647
Lab File ID : >C1752
Date Analyzed : 04/02/97
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	POL	CONC
74873	Chloromethane	12	U
74839	Bromomethane	12	U
75014	Vinyl Chloride	6	U
75003	Chloroethane	12	U
75092	Methylene Chloride	19	U
67641	Acetone	25	37
75150	Carbon Disulfide	6	U
75694	Trichlorofluoromethane	6	U
75354	1,1-Dichloroethene	6	U
75343	1,1-Dichloroethane	6	U
156605	Trans-1,2-Dichloroethene	6	U
67663	Chloroform	6	U
107062	1,2-Dichloroethane	2	U
78933	2-Butanone	31	U
71556	1,1,1-Trichloroethane	6	U
56235	Carbon Tetrachloride	6	U
108054	Vinyl Acetate	12	U
75274	Bromodichloromethane	1	J
78875	1,2-Dichloropropane	1	U
10061015	cis-1,3-Dichloropropene	6	U
79016	Trichloroethene	1	66
124481	Dibromochloromethane	6	U
79005	1,1,2-Trichloroethane	6	U
71432	Benzene	1	U
10061026	Trans-1,3-Dichloropropene	6	U
110758	2-Chloroethylvinylether	12	U
75252	Bromoform	6	U
108101	4-Methyl-2-Pentanone	31	U
591786	2 Hexanone	25	U
127184	Tetrachloroethene	1	32
79345	1,1,2,2-Tetrachloroethane	2	U
108883	Toluene	6	U
108907	Chlorobenzene	5	U
100414	Ethylbenzene	6	U
100425	Styrene	6	U
108383	m&p-Xylenes	6	U
95476	o-Xylene	6	U
541731	1,3-Dichlorobenzene	6	U
95501	1,2-Dichlorobenzene	6	U
106467	1,4-Dichlorobenzene	6	U
1634044	Methyl-t-butyl ether	6	U
108203	Di-isopropyl-ether	6	U
75650	t-Butyl Alcohol	120	U

TARGET COMPOUND SUMMARY: 135

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : S-4-9'6"-10'6" SOIL
Date Rcvd/Extd: 03/31/97-04/02/97
Sample Matrix : Soil
Percent Solid : 81
Column : SUPELCO PTE-5 30m .25mm ID Column

Lab Sample No. : AA44647
Lab File ID : >F8629
Date Analyzed : 04/02/97
Dilution Factor: 1
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

AS No.	COMPOUND	PQL	CONC
1283	Naphthalene	210	130J
08968	Acenaphthylene	210	68J
3329	Acenaphthene	210	100J
6737	Fluorene	210	U
5018	Phenanthrene	210	1700
20127	Anthracene	210	380
06440	Fluoranthene	210	2000
29000	Pyrene	210	2600

CAS NO.	COMPOUND	PQL	CONC
56553	Benzo(a)Anthracene	210	870
218019	Chrysene	210	850
205992	Benzo(b)Fluoranthene	210	1200
207089	Benzo(k)Fluoranthene	82	410
50328	Benzo(a)Pyrene	210	880
193395	Indeno(1,2,3-cd)Pyrene	210	300
53703	Dibenzo(a,h)Anthracene	210	77J
191242	Benzo(g,h,i)Perylene	210	340

TARGET COMPOUND SUMMARY: 11530

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id	:B-4 8'6"-10'6"	Lab Sample No	:AA44647
Sample Matrix	:Soil	Initial wght/vol	:30.0g
Date Analyzed	:04-03-1997	Final Volume	:10ml
Column(s)	:DB-608/1701	Percent Solid	:81
Data File(s)	:CFG60 :DF360	Dilution Factor	:1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	120	U
11104-28-2	Aroclor-1221	120	U
11141-16-5	Aroclor-1232	120	U
53469-21-9	Aroclor-1242	120	U
12672-29-6	Aroclor-1248	120	U
11097-69-1	Aroclor-1254	120	U
11096-82-5	Aroclor-1260	120	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

HAMPTON-CLARKE/VERITECH

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-5 6"-2'6" SOIL
Date Rcvd/Sampled : 03/21/97-N/A
Sample Matrix : Soil
Percent Solid : 57
Column : J&W DB-624 75M .53mm 3U column

Lab Sample No. : PA44648
Lab File ID : VG1805
Date Analyzed : 04/03/97
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC
74873	Chloromethane	11	U
74839	Bromomethane	11	U
75014	Vinyl Chloride	4	U
75003	Chloroethane	11	U
75092	Methylene Chloride	17	U
67641	Acetone	23	46
75150	Carbon Disulfide	4	U
75694	Trichlorofluoromethane	6	U
75354	1,1-Dichloroethene	2	U
75343	1,1-Dichloroethane	6	U
156605	Trans-1,2-Dichloroethene	6	U
67663	Chloroform	6	U
107062	1,2-Dichloroethane	2	U
78933	2-Butanone	29	U
71556	1,1,1-Trichloroethane	6	U
56235	Carbon Tetrachloride	2	U
108054	Vinyl Acetate	11	U
75274	Bromodichloromethane	2	U
78875	1,2-Dichloropropane	2	U
10061015	cis-1,3-Dichloropropene	6	U
79016	Trichloroethene	2	190

CAS NO.	COMPOUND	PQL	CONC
124481	Dibromochloromethane	6	U
79005	1,1,2-Trichloroethane	3	U
71432	Benzene	1	U
10061026	Trans-1,3-Dichloropropene	6	U
110758	2-Chloroethylvinylether	11	U
75252	Bromoform	5	U
108101	4-Methyl-2-Pentanone	29	U
591786	2-Hexanone	23	U
127184	Tetrachloroethene	1	63
79345	1,1,2,2-Tetrachloroethane	2	U
108883	Toluene	6	U
108907	Chlorobenzene	5	U
100414	Ethylbenzene	6	U
100425	Styrene	6	U
108383	m&p-Xylenes	6	U
95476	o-Xylene	6	U
541731	1,3-Dichlorobenzene	6	U
95501	1,2-Dichlorobenzene	6	U
106467	1,4-Dichlorobenzene	6	U
1634044	Methyl t butyl ether	6	U
108203	Di-isopropyl-ether	6	U
75650	t-Butyl Alcohol	110	U

TARGET COMPOUND SUMMARY: 209

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-5-6"-2'6" SOIL
Date Rcvd/Extd: 03/31/97-04/02/97
Sample Matrix : Soil
Percent Solid : 87
Column : SUPELCO RTE-5 30m .25mm ID Column

Lab Sample No. : AA44648(
Lab File ID : >F8646
Date Analyzed : 04/03/97
Dilution Factor: 3
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
91203	Naphthalene	570	1000	56553	Benzo(a)Anthracene	570	4300
208968	Acenaphthylene	570	U	218019	Chrysene	570	4500
83329	Acenaphthene	570	1100	205992	Benzo(b)Fluoranthene	570	5700
86737	Fluorene	570	600	207089	Benzo(k)Fluoranthene	230	1800
85018	Phenanthrene	570	9000	50328	Benzo(a)Pyrene	570	3800
120127	Anthracene	570	1600	193395	Indeno(1,2,3-cd)Pyrene	570	1500
206440	Fluoranthene	570	9700	53703	Dibenzo(a,h)Anthracene	570	510J
129000	Pyrene	570	8000	191242	Benzo(g,h,i)Perylene	570	1500

TARGET COMPOUND SUMMARY: 54100

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id	:B-5 6"-2'6"	Lab Sample No	:AA44648
Sample Matrix	:Soil	Initial wght/vol	:30.0g
Date Analyzed	:04-08-1997	Final Volume	:10ml
Column(s)	:DB-608/1701	Percent Solid	:87
Data File(s)	:CFG61 :DFG61	Dilution Factor	:1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	110	U
11104-28-2	Aroclor-1221	110	U
11141-16-5	Aroclor-1232	110	U
53469-21-9	Aroclor-1242	110	U
12672-29-6	Aroclor-1248	110	U
11097-69-1	Aroclor-1254	110	U
11096-82-5	Aroclor-1260	110	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

HAMPTON-CLARKE/VERITECH

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-3 4'6-6'6" SOIL
Date Rcvd/Extd: 03/31/97-N/A
Sample Matrix : Soil
Percent Solid : 83
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : AA44649
Lab File ID : 5G1794
Date Analyzed : 04/02/97
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC
74873	Chloromethane	11	U
74839	Bromomethane	11	U
75014	Vinyl Chloride	6	U
75003	Chloroethane	11	U
75092	Methylene Chloride	15	U
67641	Acetone	24	U
75150	Carbon Disulfide	6	U
75694	Trichlorofluoromethane	6	U
75354	1,1-Dichloroethene	2	U
75343	1,1-Dichloroethane	6	U
156605	Trans-1,2-Dichloroethene	6	U
67663	Chloroform	6	U
107062	1,2-Dichloroethane	2	U
78933	2-Butanone	30	U
71556	1,1,1-Trichloroethane	6	U
56235	Carbon Tetrachloride	2	U
108054	Vinyl Acetate	12	U
75274	Bromodichloromethane	1	U
78875	1,2-Dichloropropane	1	U
10061015	cis-1,3-Dichloropropene	6	U
79016	Trichloroethene	1	5
124481	Dibromochloromethane	6	U
79005	1,1,2-Trichloroethane	4	U
71432	Benzene	1	U
10061026	Trans-1,3-Dichloropropene	6	U
110758	2-Chloroethylvinylether	12	U
75252	Bromoform	5	U
108101	4-Methyl-2-Pentanone	30	U
591786	2-Hexanone	24	U
127184	Tetrachloroethene	1	2
79345	1,1,2,2-Tetrachloroethane	2	U
108883	Toluene	6	U
108907	Chlorobenzene	5	U
100414	Ethylbenzene	6	U
100425	Styrene	6	U
108383	m&p-Xylenes	6	U
95476	o-Xylene	6	U
541731	1,3-Dichlorobenzene	6	U
95501	1,2-Dichlorobenzene	6	U
106467	1,4-Dichlorobenzene	6	U
1634044	Methyl-t-butyl ether	6	U
108203	Di-isopropyl ether	6	U
75650	t-Butyl Alcohol	120	U

TARGET COMPOUND SUMMARY: 7

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-6-9'6"-6'6" SOIL
Date Rcvd/Extd: 03/31/97-04/02/97
Sample Matrix : Soil
Percent Solid : 83
Column : SUPELCO PTE-5 30m .25mm ID Column

Lab Sample No. : AA44649
Lab File ID : >F8631
Date Analyzed : 04/02/97
Dilution Factor: 1
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
91203	Naphthalene	200	U	56553	Benzo(a)Anthracene	200	78J
208968	Acenaphthylene	200	U	218019	Chrysene	200	78J
83329	Acenaphthene	200	U	205992	Benzo(b)Fluoranthene	200	U
86737	Fluorene	200	U	207089	Benzo(k)Fluoranthene	80	U
85018	Phenanthrene	200	130J	50328	Benzo(a)Pyrene	200	U
120127	Anthracene	200	U	193395	Indeno(1,2,3-cd)Pyrene	200	U
206440	Fluoranthene	200	160J	53703	Dibenzo(a,h)Anthracene	200	U
129000	Pyrene	200	140J	191242	Benzo(g,h,i)Perylene	200	U

TARGET COMPOUND SUMMARY: 0

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id	:B-5 4'6"-6'6"	Lab Sample No	:AA44649
Sample Matrix	:Soil	Initial wght/vol	:30.0g
Date Analyzed	:04-03-1997	Final Volume	:10ml
Column(s)	:DB-608/1701	Percent Solid	:83
Data File(s)	:CFG62 :DFG62	Dilution Factor	:1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	120	U
11104-28-2	Aroclor-1221	120	U
11141-16-5	Aroclor-1232	120	U
53469-21-9	Aroclor-1242	120	U
12672-29-6	Aroclor-1248	120	U
11097-69-1	Aroclor-1254	120	U
11096-82-5	Aroclor-1260	120	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

RADIAN-CLARKE/VERITECH

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID	: S-5 8'6"-10'6" SOIL	Lab Sample No.	: AA44650
Date Revd/Extd	: 03/31/97-N/A	Lab File ID	: >G1795
Sample Matrix	: Soil	Date Analyzed	: 04/02/97
Percent Solid	: 88	Dilution Factor	: 1
Column	: J&W DB-624 75M ,53mm ID column	Sample Wt/Vol	: 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
74873	Chloromethane	11	U	124481	Dibromochloromethane	6	U
74839	Bromomethane	11	U	79005	1,1,2-Trichloroethane	3	U
75014	Vinyl Chloride	6	U	71432	Benzene	1	U
75003	Chloroethane	11	U	10061026	Trans-1,3-Dichloropropene	6	U
75092	Methylene Chloride	17	U	110758	2-Chloroethylvinylether	11	U
67641	Acetone	23	U	75252	Bromoform	5	U
75150	Carbon Disulfide	6	U	108101	4-Methyl-2-Pentanone	23	U
75694	Trichlorofluoromethane	6	U	591786	2-Hexanone	23	U
75354	1,1-Dichloroethene	3	U	127184	Tetrachloroethene	1	4
75343	1,1-Dichloroethane	6	U	79345	1,1,2,2-Tetrachloroethane	2	U
156605	Trans-1,2-Dichloroethene	6	U	108883	Toluene	6	U
67663	Chloroform	6	U	108907	Chlorobenzene	5	U
107062	1,2-Dichloroethane	3	U	100414	Ethylbenzene	6	U
78933	2-Butanone	28	U	100425	Styrene	6	U
71556	1,1,1-Trichloroethane	6	U	108383	m/p-Xylenes	6	U
56235	Carbon Tetrachloride	3	U	95476	o-Xylene	6	U
108054	Vinyl Acetate	11	U	541731	1,3-Dichlorobenzene	6	U
75274	Bromodichloromethane	1	U	95501	1,2-Dichlorobenzene	6	U
78875	1,2-Dichloropropane	1	U	106467	1,4-Dichlorobenzene	6	U
10061015	cis-1,3-Dichloropropene	6	U	1634044	Methyl-t-butyl ether	6	U
79016	Trichloroethene	1	7	108203	Di-isopropyl-ether	6	U
				75650	t-Butyl Alcohol	110	U

TARGET COMPOUND SUMMARY: 11

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.

J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

APPENDIX B

Boring Logs (Soiltesting)

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-5-8'6"-10'6" SOIL
Date Rcvd/Extd: 03/31/97-04/02/97
Sample Matrix : Soil
Percent Solid : 88
Column : SUPELCO PTE-5 30m .25mm ID Column

Lab Sample No. : AA44650
Lab File ID : >F8632
Date Analyzed : 04/03/97
Dilution Factor: 1
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
1203	Naphthalene	190	U	56553	Benzo(a)Anthracene	190	U
08968	Acenaphthylene	190	U	218019	Chrysene	190	U
5329	Acenaphthene	190	U	205992	Benzo(b)Fluoranthene	190	U
6737	Fluorene	190	U	207089	Benzo(k)Fluoranthene	76	U
6018	Phenanthrene	190	U	50328	Benzo(a)Pyrene	190	U
20127	Anthracene	190	U	193395	Indeno(1,2,3-cd)Pyrene	190	U
06440	Fluoranthene	190	U	53703	Dibenzo(a,h)Anthracene	190	U
29000	Pyrene	190	U	191242	Benzo(g,h,i)Perylene	190	U

TARGET COMPOUND SUMMARY: 0

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id	:B-5 8'6"-10'6"	Lab Sample No	:AA44650
Sample Matrix	:Soil	Initial wght/vol	:30.0g
Date Analyzed	:04-03-1997	Final Volume	:10ml
Column(s)	:DB-608/1701	Percent Solid	:88
Data File(s)	:CFG63 :DFG63	Dilution Factor	:1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	110	U
11104-28-2	Aroclor-1221	110	U
11141-16-5	Aroclor-1232	110	U
53469-21-9	Aroclor-1242	110	U
12672-29-6	Aroclor-1248	110	U
11097-69-1	Aroclor-1254	110	U
11096-82-5	Aroclor-1260	110	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

HAMPTON-CLARKE/VERITECH

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-6 6"-2'6" SOIL
Date Rcvd/Extd: 04/01/97-N/A
Sample Matrix : Soil
Percent Solid : 80
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : AA44680
Lab File ID : p01830
Date Analyzed : 04/03/97
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS NO.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
74873	Chloromethane	13	U	124481	Dibromochloromethane	6	U
74839	Bromomethane	13	U	79005	1,1,2-Trichloroethane	4	U
75014	Vinyl Chloride	6	U	71432	Benzene	1	U
75003	Chloroethane	13	U	10061026	Trans-1,3-Dichloropropene	6	U
75092	Methylene Chloride	19	U	110758	2-Chloroethylvinylether	13	U
67641	Acetone	25	U	75252	Bromoform	5	U
75150	Carbon Disulfide	6	U	108101	4-Methyl-2-Pentanone	31	U
75694	Trichlorofluoromethane	6	U	591786	2-Hexanone	25	U
75354	1,1-Dichloroethene	3	U	127184	Tetrachloroethene	1	U
75343	1,1-Dichloroethane	6	U	79345	1,1,2,2-Tetrachloroethane	3	U
156605	Trans-1,2-Dichloroethene	6	U	108883	Toluene	6	U
67663	Chloroform	6	U	108907	Chlorobenzene	5	U
107062	1,2-Dichloroethane	3	U	100414	Ethylbenzene	6	U
78933	2-Butanone	31	U	100425	Styrene	6	U
71556	1,1,1-Trichloroethane	6	U	108383	m&p-Xylenes	6	U
56235	Carbon Tetrachloride	3	U	95476	o-Xylene	6	U
108054	Vinyl Acetate	13	U	541731	1,3-Dichlorobenzene	6	U
75274	Bromodichloromethane	1	U	95501	1,2-Dichlorobenzene	6	U
78875	1,2-Dichloropropane	1	U	106467	1,4-Dichlorobenzene	6	U
10061015	cis-1,3-Dichloropropene	6	U	1634044	Methyl-t-butyl ether	6	U
79016	Trichloroethene	1	3	108203	Di-isopropyl-ether	6	U
				75650	t-Butyl Alcohol	130	U

TARGET COMPOUND SUMMARY: 3

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-6-6"-2'6" SOIL
Date Rcvd/Extd: 04/01/97-04/02/97
Sample Matrix : Soil
Percent Solid : 80
Column : SUPELCO PTE-5 30m .25mm ID Column

Lab Sample No. : AA44680
Lab File ID : >F8637
Date Analyzed : 04/03/97
Dilution Factor: 1
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
91203	Naphthalene	210	U	56553	Benzo(a)Anthracene	210	U
208968	Acenaphthylene	210	U	218019	Chrysene	210	U
83329	Acenaphthene	210	U	205992	Benzo(b)Fluoranthene	210	U
86737	Fluorene	210	U	207089	Benzo(k)Fluoranthene	83	U
85018	Phenanthrene	210	U	50328	Benzo(a)Pyrene	210	U
120127	Anthracene	210	U	193395	Indeno(1,2,3-cd)Pyrene	210	U
206440	Fluoranthene	210	56J	53703	Dibenzo(a,h)Anthracene	210	U
129000	Pyrene	210	52J	191242	Benzo(g,h,i)Perylene	210	U

TARGET COMPOUND SUMMARY: 0

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client id : B-6 6"-2'6"
Sample Matrix: Soil
Date Analyzed: 04-03-1997
Column(s) : DB-608/1701
Data File(s) : CFH49 :DFH49

Lab Sample No : AA44680
Initial wght/vol: 30.0g
Final Volume : 10ml
Percent Solid : 80
Dilution Factor : 1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	42	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	42	U
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254	42	U
11096-82-5	Aroclor-1260	42	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

HAMPTON-CLARKE/VERITECH

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-7 6"-2'6" SOIL
Date Rcvd/Smpd: 04/01/97-N/A
Sample Matrix : Soil
Percent Solid : 87
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : AA44681
Lab File ID : >G1821
Date Analyzed : 04/03/97
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC
74873	Chloromethane	11	U
74839	Bromomethane	11	U
75014	Vinyl Chloride	6	U
75003	Chloroethane	11	U
75092	Methylene Chloride	17	U
67641	Acetone	23	U
75150	Carbon Disulfide	6	U
75694	Trichlorofluoromethane	6	U
75354	1,1-Dichloroethene	2	U
75343	1,1-Dichloroethane	6	U
156605	Trans-1,2-Dichloroethene	6	U
67663	Chloroform	3	U
107062	1,2-Dichloroethane	2	U
78933	2-Butanone	29	U
71556	1,1,1-Trichloroethane	6	U
56235	Carbon Tetrachloride	2	U
108054	Vinyl Acetate	11	U
75274	Bromodichloromethane	1	U
78875	1,2-Dichloropropane	1	U
10061015	cis-1,3-Dichloropropene	6	U
79016	Trichloroethene	1	U

CAS NO.	COMPOUND	PQL	CONC
124481	Dibromochloromethane	6	U
79005	1,1,2-Trichloroethane	3	U
71432	Benzene	1	U
10061026	Trans-1,3-Dichloropropene	6	U
110758	2-Chloroethylvinylether	11	U
75252	Bromoform	5	U
108101	4-Methyl-2-Pentanone	29	U
591786	2-Hexanone	23	U
127184	Tetrachloroethene	1	U
79345	1,1,2,2-Tetrachloroethane	2	U
108883	Toluene	6	U
108907	Chlorobenzene	5	U
100414	Ethylbenzene	6	U
100425	Styrene	6	U
108383	m&p-Xylenes	6	U
95476	o-Xylene	6	U
541731	1,3-Dichlorobenzene	6	U
95501	1,2-Dichlorobenzene	6	U
106467	1,4-Dichlorobenzene	6	U
1634044	Methyl-t-butyl ether	6	U
108203	Di-isopropyl-ether	6	U
75650	t-Butyl Alcohol	110	U

TARGET COMPOUND SUMMARY: 0

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-7-6"-2'6" SOIL
Date Rcvd/Extd: 04/01/97-04/02/97
Sample Matrix : Soil
Percent Solid : 87
Column : SUPELCO PTE-5 30m .25mm ID Column

Lab Sample No. : AA44681
Lab File ID : >F8638
Date Analyzed : 04/03/97
Dilution Factor: 1
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
91203	Naphthalene	190	U	56553	Benzo(a)Anthracene	190	U
208968	Acenaphthylene	190	U	218019	Chrysene	190	U
83329	Acenaphthene	190	U	205992	Benzo(b)Fluoranthene	190	U
86737	Fluorene	190	U	207089	Benzo(k)Fluoranthene	77	U
85018	Phenanthrene	190	U	50328	Benzo(a)Pyrene	190	U
120127	Anthracene	190	U	193395	Indeno(1,2,3-cd)Pyrene	190	U
206440	Fluoranthene	190	U	53703	Dibenzo(a,h)Anthracene	190	U
129000	Pyrene	190	U	191242	Benzo(g,h,i)Perylene	190	U

TARGET COMPOUND SUMMARY: 0

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id	:B-7 6"-2'6"	Lab Sample No	:AA44681
Sample Matrix	:Soil	Initial wght/vol	:30.0g
Date Analyzed	:04-03-1997	Final Volume	:10ml
Column(s)	:DB-608/1701	Percent Solid	:87
Data File(s)	:CFH50 :DFH50	Dilution Factor	:1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	38	U
11141 16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	38	U
11097-69-1	Aroclor-1254	38	U
11096-82-5	Aroclor-1260	38	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

HAMPTON-CLARKE/VERITECH

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-8 4'-2'6" SOIL
Date Rcvd/Extd: 04/01/97-N/A
Sample Matrix : Soil
Percent Solid : 88
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : AA44682
Lab File ID : >G1803
Date Analyzed : 04/03/97
Dilution Factor: 1
Sample Wt/vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
74873	Chloromethane	11	U	124481	Dibromochloromethane	6	U
74839	Bromomethane	11	U	79005	1,1,2-Trichloroethane	3	U
75014	Vinyl Chloride	6	U	71432	Benzene	1	U
75003	Chloroethane	11	U	10061026	Trans-1,3-Dichloropropene	6	U
75092	Methylene Chloride	17	U	110758	2-Chloroethylvinylether	11	U
67641	Acetone	23	U	75252	Bromoform	5	U
75150	Carbon Disulfide	6	U	108101	4-Methyl-2-Pentanone	28	U
75694	Trichlorofluoromethane	6	U	591786	2-Hexanone	23	U
75354	1,1-Dichloroethene	2	U	127184	Tetrachloroethene	1	6
75343	1,1-Dichloroethane	6	U	79345	1,1,2,2-Tetrachloroethane	2	U
156605	Trans-1,2-Dichloroethene	6	U	108883	Toluene	6	U
67663	Chloroform	6	U	108907	Chlorobenzene	5	U
107062	1,2-Dichloroethane	2	U	100414	Ethylbenzene	6	U
78933	2-Butanone	28	U	100425	Styrene	6	U
71556	1,1,1-Trichloroethane	6	U	108383	m&p-Xylenes	6	U
56235	Carbon Tetrachloride	2	U	95476	o-Xylene	6	U
108054	Vinyl Acetate	11	U	541731	1,3-Dichlorobenzene	6	U
75274	Bromodichloromethane	1	U	95501	1,2-Dichlorobenzene	6	U
78875	1,2-Dichloropropane	1	U	106467	1,4-Dichlorobenzene	6	U
10061015	cis-1,3-Dichloropropene	6	U	1634044	Methyl-t-butyl ether	6	U
79016	Trichloroethene	1	21	108203	Di-isopropyl-Ether	6	U
				75650	t-Butyl Alcohol	110	U

TARGET COMPOUND SUMMARY: 30

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-8-6"-2'6" SOIL
Date Rcvd/Extd: 04/01/97-04/02/97
Sample Matrix : Soil
Percent Solid : 88
Column : SUPELCO PTE-5 30m ,25mm ID Column

Lab Sample No. : AA44682
Lab File ID : >F8639
Date Analyzed : 04/03/97
Dilution Factor: 1
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
91203	Naphthalene	190	U	56553	Benzo(a)Anthracene	190	130J
208968	Acenaphthylene	190	U	218019	Chrysene	190	130J
83329	Acenaphthene	190	U	205992	Benzo(b)Fluoranthene	190	140J
86737	Fluorene	190	U	207089	Benzo(k)Fluoranthene	76	51J
85018	Phenanthrene	190	110J	50328	Benzo(a)Pyrene	190	U
120127	Anthracene	190	U	193395	Indeno(1,2,3-cd)Pyrene	190	U
206440	Fluoranthene	190	210	53703	Dibenzo(a,h)Anthracene	190	U
129000	Pyrene	190	200	191242	Benzo(g,h,i)Perylene	190	U

TARGET COMPOUND SUMMARY: 410

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id : B-8 6"-2'6"
Sample Matrix: Soil
Date Analyzed: 04-03-1997
Column(s) : DB-608/1701
Data File(s) : CFH51 :DFH51

Lab Sample No : AA44682
Initial wght/vol: 30.0g
Final Volume : 10ml
Percent Solid : 88
Dilution Factor : 1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	38	U
11141-16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	38	U
11097-69-1	Aroclor-1254	38	U
11096-82-5	Aroclor-1260	38	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

HAMPTON-CLARKE/VERITECH

VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : B-9 4-6' SOIL
Date Rcvd/Smtd: 04/01/97 N/A
Sample Matrix : Soil
Percent Solid : 84
Column : J&W DB-624 75M .53mm ID Column

Lab Sample No. : AA44683
Lab File ID : >G1804
Date Analyzed : 04/03/97
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC
74873	Chloromethane	12	U
74839	Bromomethane	12	U
75014	Vinyl Chloride	6	U
75003	Chloroethane	12	U
75092	Methylene Chloride	13	U
67641	Acetone	24	U
75150	Carbon Disulfide	6	U
75694	Trichlorofluoromethane	6	U
75354	1,1-Dichloroethene	2	U
75343	1,1-Dichloroethane	6	U
156605	Trans-1,2-Dichloroethene	6	U
67663	Chloroform	6	U
107062	1,2-Dichloroethane	2	U
78933	2-Butanone	30	U
71556	1,1,1-Trichloroethane	6	U
56235	Carbon Tetrachloride	2	U
108054	Vinyl Acetate	12	U
75274	Bromodichloromethane	1	U
78875	1,2-Dichloropropane	1	U
10061015	cis-1,3-Dichloropropene	6	U
79016	Trichloroethene	1	3

CAS NO.	COMPOUND	PQL	CONC
124481	Dibromochloromethane	6	U
79005	1,1,2-Trichloroethane	4	U
71432	Benzene	1	U
10061026	Trans-1,3-Dichloropropene	6	U
110758	2-Chloroethylvinylether	12	U
75252	Bromoform	5	U
108101	4-Methyl-2-Pentanone	30	U
591786	2-Hexanone	24	U
127184	Tetrachloroethene	1	U
79345	1,1,2,2-Tetrachloroethane	2	U
108883	Toluene	6	U
108907	Chlorobenzene	5	U
100414	Ethylbenzene	6	U
100425	Styrene	6	U
108383	m&p-Xylenes	6	U
95476	o-Xylene	6	U
541731	1,3-Dichlorobenzene	6	U
95501	1,2-Dichlorobenzene	6	U
106467	1,4-Dichlorobenzene	6	U
1634044	Methyl-t-butyl ether	6	U
108203	Di-isopropyl-ether	6	U
75650	t-Butyl Alcohol	120	U

TARGET COMPOUND SUMMARY: 3

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : 8-9-4-6' SOIL
Date Rcvd/Extd: 04/01/97-04/02/97
Sample Matrix : Soil
Percent Solid : 84
Column : SUPELCO PTE-5 30m .25mm ID Column

Lab Sample No. : AA44683
Lab File ID : >F8640
Date Analyzed : 04/03/97
Dilution Factor: 1
Sample Wt/Vol : 30g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
91203	Naphthalene	200	U	56553	Benzo(a)Anthracene	200	U
208968	Acenaphthylene	200	U	218019	Chrysene	200	U
83329	Acenaphthene	200	U	205992	Benzo(b)Fluoranthene	200	U
86737	Fluorene	200	U	207089	Benzo(k)Fluoranthene	79	U
85018	Phenanthrene	200	U	50328	Benzo(a)Pyrene	200	U
120127	Anthracene	200	U	193395	Indeno(1,2,3-cd)Pyrene	200	U
206440	Fluoranthene	200	U	53703	Dibenzo(a,h)Anthracene	200	U
129000	Pyrene	200	U	191242	Benzo(g,h,i)Perylene	200	U

TARGET COMPOUND SUMMARY: 0

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

HAMPTON-CLARKE/VERITECH
FORM1

Client Id	:B-9 4-'6"	Lab Sample No	:AA44683
Sample Matrix	:Soil	Initial wght/vol	:30.0g
Date Analyzed	:04-03-1997	Final Volume	:10ml
Column(s)	:DB-608/1701	Percent Solid	:84
Data File(s)	:CFH52 :DFH52	Dilution Factor	:1

Concentration units ug/Kg

CAS No.	Compound	PQL	Conc
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	40	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U

Data Reporting Qualifiers

U - Indicates the compound was analyzed for but not detected
B - Indicates the compound was found in the blank as well as in the sample
E - Indicates the analyte concentration exceeds the calibration range of the instrument for that specific analyte

03312042

Veritech 175 Route 46 West, Fairfield, NJ 07004
A Division of HAMPTON-CLARKE, Inc. NJDEPE #14622

CHAIN OF CUSTODY RECORD

PHONE (201) 244-9770
FAX (201) 244-9787

CUSTOMER INFORMATION

CUSTOMER: Ecosystems Strategies
ADDRESS: 60 Worrall Av Poughkeepsie
TELEPHONE: 914 452-1658
PROJECT: PB9414630
PROJECT MANAGER: Brad Fisher
PROJECT LOCATION:
STATE:
PO NUMBER:

REPORT INFORMATION

SEND REPORT TO:
Brad Fisher
Ecosystems Strategies
60 Worrall Av
Poughkeepsie, NY 12603
SEND INVOICE TO: Ecosystems Strat

PROJECT INFORMATION

TURNAROUND (CONFIRM RUSH TAT'S WITH LAB)
STANDARD ____ RUSH X
DELIVERABLES (PLEASE CIRCLE):
(STANDARD) ISRA BUST
WASTE REGULATORY
OTHER (Specify) ____

ANALYTICAL REQUESTS

LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE: COMPOSITE	SAMPLE TYPE: GRAB	SAMPLE MATRIX	H2SO4	HNO3	HCL	NaOH	ZnAc+NaOH	Ascorbic	NONE	OTHER	ANALYSIS
AA44642	B-3 (6"-2'6")	~~3/31/97~~ 4/1/97	11:20	X		S							2		8240 BN/PCBs
44643	B-3 (4'6"-6'6")	4/1/97	11:45	X		S							2		8240 BN/PCBs
44644	B-3 (8'6"-10'6")	4/1/97	12:20	X		S							2		8240 BN/PCBs
44645	B-4 (6"-2'6")	4/1/97	1:5*	X		S							2		8240 BN/PCBs
44646	B-4 (4'6"-6'6")	4/1/97	2:31	X		S							2		8240 BN/PCBs
44647	B-4 (8'6"-10'6")	4/1/97	2:35	X		S							1		8240 BN/PCBs * not enough sample
44648	B-5 (6"-2'6")	4/1/97	3:00	X		S							2		8240 BN/PCBs
44649	B-5 (4'6"-6'6")	4/1/97	3:10	X		S							2		8240 BN/PCBs
44650	B-5 (8'6"-10'6")	4/1/97	3:25	X		S							2		8240 BN/PCBs

SAMPLER CERTIFIES THAT EACH SAMPLE RECEIVED PROPER FIELD PRESERVATION (IF REQUIRED) (INITIALS) ____

SAMPLE HAZARDS: ☐ FLAMMABLE ☐ SKIN IRRITANT ☐ NON-HAZARD ☒ UNKNOWN ☐ NOXIOUS FUMES

SPECIAL INSTRUCTIONS:

TEMPERATURE UPON RECEIPT:

Relinquished by / Agent of	DATE/TIME	Received by / Agent of	DATE/TIME
Relinquished by: Brad Fisher (signature) Brad Fisher Agent of: Ecosystems Strategies	~~3/31/97~~ 4/1/97 4:10	Received by: [signature] Agent of: [illegible]	3/31 16:15
Relinquished by: [signature] Agent of: [illegible]	3/31 17:50	Received by: J. [illegible] (signature) Agent of: Veritech	3/31 17:5[illegible]

Veritech, 175 Route 46 West, Fairfield, NJ 07004
A Division of HAMPTON-CLARKE, Inc. NJDEPE #14612

CHAIN OF CUSTODY RECORD

PHONE (201) 244-9770
FAX (201) 244-9787

CUSTOMER INFORMATION

CUSTOMER: ECOSYSTEMS STRATEGIES
ADDRESS: 6 WALL ST POUGHKEEPSIE
TELEPHONE: 914 452-1656
PROJECT: PB 96146.3
PROJECT MANAGER: BRAD FISHER
PROJECT LOCATION:
STATE:
PO NUMBER:

REPORT INFORMATION

SEND REPORT TO:
BRAD FISHER
ECOSYSTEMS STRATEGIES, INC.
6 WALL ST
POUGHKEEPSIE, NY 12603
SEND INVOICE TO: SAME

PROJECT INFORMATION

TURNAROUND (CONFIRM RUSH TAT'S WITH LA
STANDARD ____ RUSH X by Fri
DELIVERABLES (PLEASE CIRCLE):
(STANDARD) ISRA BUST
WASTE REGULATORY
OTHER (Specify) ____

ANALYTICAL REQUESTS

LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE: COMPOSITE (C)	SAMPLE TYPE: GRAB (G)	SAMPLE MATRIX	NO. OF BOTTLES: H2SO4	HNO3	HCL	NaOH	ZnAc + NaOH	Ascorbic	NONE	OTHER	ANALYSIS
AA44680	B-6 (6"-2'6")	4/1/97	1110	X		S									8240, PAHs/PCBs
44681	B-7 (6"-2'6")	4/1/97	1120	X		S									8240, PAHs/PCBs
44682	B-8 (6"-2'6")	4/1/97	1130	X		S									8240, PAHs/PCBs
44683	B-9 (4-6')	4/1/97	1230	X		S									8240, PAHs/PCBs

Post-it® Fax Note 7671
To Brad Fisher
Co./Dept. Ecosystems
Phone #
Fax #
From Traci
Co. Veritech
Phone #
Fax #
Date 4/4/97
# of pages ▶ 14

SAMPLER CERTIFIES THAT EACH SAMPLE RECEIVED PROPER FIELD PRESERVAT (INITIALS) ____

SAMPLE HAZARDS: ☐ FLAMMABLE ☐ SKIN IRRITANT ☐ NON-HAZARD ☐ U

SPECIAL INSTRUCTIONS:

TEMPERATURE UPON RECEIPT: 9.6°C

Relinquished by: [signature] DATE/TIME 4/1/97 1825
Agent of: ____
Received by: [signature] DATE/TIME 4/1/97 1825
Agent of: Veritech

Relinquished by: [signature] DATE/TIME 4/1/97 1825
Agent of: ____
Received by: [signature] DATE/TIME 4/1/97 1825
Agent of: ____

APPENDIX B

Boring Logs (Soiltesting)

SOILTESTING, INC.
140 OXFORD RD.
OXFORD, CT 06478
CT (203) 888-4531
N.Y. (914) 946-4850

FOREMAN - DRILLER: KB/rc

INSPECTOR:

GROUND WATER OBSERVATIONS
AT 15' FT AFTER 0 HOURS
AT ____ FT AFTER ____ HOURS

CLIENT: Ecosystems Strategies Inc.

PROJECT NO.: E214-4674-96

PROJECT NAME: 98-116 South 4th Street

LOCATION: Brooklyn, New York

	CASING	SAMPLER	CORE BAR
TYPE	HSA	SS	
SIZE I.D.	2¼"	1 3/8"	
HAMMER WT.		140#	BIT
HAMMER FALL		30"	

SHEET 1 OF 1
HOLE NO. B-1

BORING LOCATIONS: as directed

OFFSET:

DATE START 12-11-96 DATE FIN. 12-11-96
SURFACE ELEV.:
GROUND WATER ELEV.:

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE TYPE	SAMPLE PEN	SAMPLE REC	SAMPLE DEPTH @ BOT	BLOWS PER 6 IN. ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORING TIME PER FT (MIN)	DENSITY OR CONSIST MOIST	STRATA CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
												6"	CONCRETE
		1	ss	24"	12"	3'0"	8	9			dry		BRICK,CONCRETE,COBBLES,Brn F-SAND,(fill)
							10	10			compact		tr silt
5		2	ss	24"	16"	7'0"	10	12					
							12	11					
												10'0"	
10		3	ss	24"	12"	12'0"	9	13			moist		Gry SILT,tr clay,tr F-sand
							10	12			v-dense		
15												15'0"	
		4	ss	24"	12"	17'0"	12	13			wet		Brn F-SAND
							20	15			dense	17'0"	E.O.B.
20													
25													
30													
35													E.O.B. 17'0"
40													

GROUND SURFACE TO ____ FT. USED ____ CASING THEN ____ CASING TO ____ FT

HOLE NO. B-1

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST
WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS
SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER
C = COARSE M = MEDIUM F = FINE
PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

SOILTESTING, INC.
140 OXFORD RD.
OXFORD, CT 06478
CT (203) 888-4531
N.Y. (914) 946-4850

FOREMAN - DRILLER: KB/rc
INSPECTOR:

GROUND WATER OBSERVATIONS
AT none FT AFTER 0 HOURS
AT ____ FT AFTER ____ HOURS

CLIENT: Ecosystems Strategies Inc.
PROJECT NO.: E214-4674-96
PROJECT NAME: 98-116 South 4th Street
LOCATION: Brooklyn, New York

	CASING	SAMPLER	CORE BAR
TYPE	HSA	SS	
SIZE I.D.	2¼"	1 3/8"	
HAMMER WT.		140#	BIT
HAMMER FALL		30"	

SHEET 1 OF 1
HOLE NO. B-2

BORING LOCATIONS: as directed
OFFSET:

DATE START 12-11-96 DATE FIN. 12-11-96
SURFACE ELEV.:
GROUND WATER ELEV.:

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE TYPE	SAMPLE PEN	SAMPLE REC	SAMPLE DEPTH @ BOT	BLOWS PER 6 IN. ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORING TIME PER FT (MIN)	DENSITY OR CONSIST MOIST	STRATA CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
												6"	CONCRETE
		1	ss	24"	18"	3'0"	5	9			dry compact		BRICK,CONCRETE,COBBLES,Brn SAND (fill)
							10	12					
5		2	ss	24"	12"	7'0"	10	10					
							9	10					
												10'0"	
10		3	ss	24"	12"	12'0"	13	12			dry compact		Brn F-SAND
							13	15					
		4	ss	24"	15"	15'0"	7	12			dry compact	15'0"	SAME E.O.B.
15							12	12					
20													
25													
30													
35													E.O.B. 15'0"
40													

GROUND SURFACE TO ____ FT. USED ____ CASING THEN ____ CASING TO ____ FT
A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST
WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS C = COARSE
SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER M = MEDIUM
PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50% F = FINE

HOLE NO. B-2

SOILTESTING, INC.
140 OXFORD RD.
OXFORD, CT 06478
CT (203) 888-4531
N.Y. (914) 946-4850

FOREMAN - DRILLER: EK/jc
INSPECTOR:

GROUND WATER OBSERVATIONS
AT none FT AFTER 0 HOURS
AT ____ FT AFTER ____ HOURS

CLIENT: Ecosystem Strategies Inc.
PROJECT NO.: E68-4782-97
PROJECT NAME: 98-116 South 4th Street
LOCATION: Brooklyn, New York

	CASING	SAMPLER	CORE BAR
TYPE	FW	SS	
SIZE I.D.	2 1/2"	1 3/8"	
HAMMER WT.	140	140#	BIT
HAMMER FALL	30"	30"	

SHEET 1 OF 1
HOLE NO. ~~B-4~~ B-3

BORING LOCATIONS: as directed
OFFSET:

DATE START 3-31-97 DATE FIN. 3-31-97
SURFACE ELEV.:
GROUND WATER ELEV.:

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE TYPE	SAMPLE PEN	SAMPLE REC	SAMPLE DEPTH @ BOT	BLOWS PER 6 IN. ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORING TIME PER FT (MIN)	DENSITY OR CONSIST MOIST	STRATA CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
												6"	CONCRETE
		1		24"		2'0"					dry-moist		Brn F-M SAND, sm F-M gravel, cobbles,
													boulders
5		2		24"		4'0"							
		3		24"		6'0"							
		4		24"		8'0"							
		5		24"		10'0"							
10		6		12"		11'0"						11'0"	SAME E.O.B.
15													
20													
25													
30													
35													E.O.B. 11'0"
40													

GROUND SURFACE TO ____ FT. USED ____ CASING THEN ____ CASING TO ____ FT

HOLE NO. B-1

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST
WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS C = COARSE
SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER M = MEDIUM
PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50% F = FINE

SOILTESTING, INC.
140 OXFORD RD.
OXFORD, CT 06478
CT (203) 888-4531
N.Y. (914) 946-4850

FOREMAN - DRILLER: EK/jc
INSPECTOR:

GROUND WATER OBSERVATIONS
AT none FT AFTER 0 HOURS
AT ____ FT AFTER ____ HOURS

CLIENT: Ecosystem Strategies Inc.
PROJECT NO.: E68-4782-97
PROJECT NAME: 98-116 South 4th Street
LOCATION: Brooklyn, New York

	CASING	SAMPLER	CORE BAR
TYPE	FW	SS	
SIZE I.D.	2 1/2"	1 3/8"	
HAMMER WT.	140	140#	BIT
HAMMER FALL	30"	30"	

SHEET 1 OF 1
HOLE NO. ~~B-2~~ B-4

BORING LOCATIONS: as directed
OFFSET:

DATE START 3-31-97 DATE FIN. 3-31-97
SURFACE ELEV.:
GROUND WATER ELEV.:

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE TYPE	SAMPLE PEN	SAMPLE REC	SAMPLE DEPTH @ BOT	BLOWS PER 6 IN. ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORING TIME PER FT (MIN)	DENSITY OR CONSIST MOIST	STRATA CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
													B-2
												6"	CONCRETE
												1'0"	REFUSAL-RUBBLE FILL E.O.B.
													B-2A 2 spoons
											dry-moist		RUBBLE FILL
												3'6"	E.O.B.
													B-2B 5 spoons
													Brn F-M SAND, sm F-C gravel, lit silt, brick frags, cinders
												10'0"	E.O.B.

GROUND SURFACE TO ____ FT. USED ____ CASING THEN ____ CASING TO ____ FT

HOLE NO. B-2

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST
WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS
SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER
PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%
C = COARSE M = MEDIUM F = FINE

SOILTESTING, INC.
140 OXFORD RD.
OXFORD, CT 06478
CT (203) 888-4531
N.Y. (914) 946-4850

FOREMAN - DRILLER: EK/jc
INSPECTOR:

GROUND WATER OBSERVATIONS
AT none FT AFTER 0 HOURS
AT ____ FT AFTER ____ HOURS

CLIENT: Ecosystem Strategies Inc.
PROJECT NO.: E68-4782-97
PROJECT NAME: 98-116 South 4th Street
LOCATION: Brooklyn, New York

	CASING	SAMPLER	CORE BAR
TYPE	FW	SS	
SIZE I.D.	2 1/2"	1 3/8"	
HAMMER WT.	140#	140#	BIT
HAMMER FALL	30"	30"	

SHEET 1 OF 1
HOLE NO. ~~B-9~~ B-5

BORING LOCATIONS: as directed

OFFSET:

DATE START 3-31-97 DATE FIN. 3-31-97
SURFACE ELEV.:
GROUND WATER ELEV.:

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE TYPE	SAMPLE PEN	SAMPLE REC	SAMPLE DEPTH @ BOT	BLOWS PER 6 IN. ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORING TIME PER FT (MIN)	DENSITY OR CONSIST MOIST	STRATA CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
												6"	CONCRETE
		1		24"		2'0"					dry-moist		Brn F-M SAND, lit silt & F-M gravel, brick frags, cinders
		2		24"		4'0"							
5		3		24"		6'0"							
		4		24"		8'0"							
		5		24"		10'0"							
10		6		24"		11'0"						11'0"	SAME E.O.B.
15													
20													
25													
30													
35													E.O.B. 11'0"
40													

GROUND SURFACE TO ____ FT. USED ____ CASING THEN ____ CASING TO ____ FT

HOLE NO. B-3

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST
WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS
SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER
C = COARSE M = MEDIUM F = FINE
PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

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OXFORD, CT 06478
CT (203) 888-4531
N.Y. (914) 946-4850

FOREMAN - DRILLER: EK/jc
INSPECTOR:

GROUND WATER OBSERVATIONS
AT none FT AFTER 0 HOURS
AT ____ FT AFTER ____ HOURS

CLIENT: Ecosystem Strategies Inc.
PROJECT NO.: E68-4782-97
PROJECT NAME: 98-116 South 4th Street
LOCATION: Brooklyn, New York

	CASING	SAMPLER	CORE BAR
TYPE	FW	SS	
SIZE I.D.	2 1/2"	1 3/8"	
HAMMER WT.	140#	140#	BIT
HAMMER FALL	30"	30"	

SHEET 1 OF 1
HOLE NO. B-6

BORING LOCATIONS: as directed
OFFSET:

DATE START 4-1-97 DATE FIN. 4-1-97
SURFACE ELEV.:
GROUND WATER ELEV.:

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE TYPE	SAMPLE PEN	SAMPLE REC	SAMPLE DEPTH @ BOT	BLOWS PER 6 IN. ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORING TIME PER FT (MIN)	DENSITY OR CONSIST MOIST	STRATA CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
													B-6 1 spoon
												4"	CONCRETE
													Brn F-M SAND,sm F-C gravel,tr silt,brick frags,cinders
												2'0"	REFUSAL E.O.B.
													B-6A 1 spoon
												4"	CONCRETE
													Brn F-M SAND,sm F-C gravel,tr silt,brick frags,cinders
												2'0"	REFUSAL E.O.B.
													B-6B 1 spoon
												4"	CONCRETE
													Brn F-M SAND,sm F-C gravel,tr silt,brick frags,cinders
												2'0"	REFUSAL E.O.B.

GROUND SURFACE TO ____ FT. USED ____ CASING THEN ____ CASING TO ____ FT
HOLE NO. B-6

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST
WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS C = COARSE
SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER M = MEDIUM
PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50% F = FINE

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FOREMAN - DRILLER: EK/jc
INSPECTOR:

GROUND WATER OBSERVATIONS
AT none FT AFTER 0 HOURS
AT ____ FT AFTER ____ HOURS

CLIENT: Ecosystem Strategies Inc.
PROJECT NO.: E68-4782-97
PROJECT NAME: 98-116 South 4th Street
LOCATION: Brooklyn, New York

	CASING	SAMPLER	CORE BAR
TYPE	FW	SS	
SIZE I.D.	2 1/2"	1 3/8"	
HAMMER WT.	140#	140#	BIT
HAMMER FALL	30"	30"	

SHEET 1 OF 1
HOLE NO. B-7,8,~~9,10~~

BORING LOCATIONS: as directed
OFFSET:

DATE START 4-1-97 DATE FIN. 4-1-97
SURFACE ELEV.:
GROUND WATER ELEV.:

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE TYPE	SAMPLE PEN	SAMPLE REC	SAMPLE DEPTH @ BOT	BLOWS PER 6 IN. ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORING TIME PER FT (MIN)	DENSITY OR CONSIST MOIST	STRATA CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
													B-7 2 spoons
												4"	CONCRETE
													Brn F-M SAND,sm F-C gravel,tr silt, brick frags,cinders
												4'0"	REFUSAL E.O.B.
													B-8 2 spoons
												4"	CONCRETE
													Brn F-M SAND,sm F-C gravel,tr silt, brick frags,cinders
												6'0"	REFUSAL E.O.B.
													B-9 2 spoons
												4"	CONCRETE
													Brn F-M SAND,sm F-C gravel,tr silt, brick frags,cinders
												6'0"	REFUSAL E.O.B.
													B-10
												4"	CONCRETE
													Brn F-M SAND,sm F-C gravel,tr silt, brick frags,cinders (strong odor)
												6'0"	REFUSAL E.O.B.

GROUND SURFACE TO ____ FT. USED ____ CASING THEN ____ CASING TO ____ FT

HOLE NO. B-7,8-9

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST
WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS C = COARSE
SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER M = MEDIUM
PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50% F = FINE

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FOREMAN - DRILLER: EK/jc
INSPECTOR:

GROUND WATER OBSERVATIONS
AT none FT AFTER 0 HOURS
AT ____ FT AFTER ____ HOURS

CLIENT: Ecosystem Strategies Inc.
PROJECT NO.: E68-4782-97
PROJECT NAME: 98-116 South 4th Street
LOCATION: Brooklyn, New York

	CASING	SAMPLER	CORE BAR
TYPE	FW	SS	
SIZE I.D.	2 1/2"	1 3/8"	
HAMMER WT.	140#	140#	BIT
HAMMER FALL	30"	30"	

SHEET 1 OF 1
HOLE NO. ~~B-11~~ B-9

BORING LOCATIONS: as directed
OFFSET:

DATE START 4-1-97 DATE FIN. 4-1-97
SURFACE ELEV.:
GROUND WATER ELEV.:

DEPTH	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE TYPE	SAMPLE PEN	SAMPLE REC	SAMPLE DEPTH @ BOT	BLOWS PER 6 IN. ON SAMPLER (FORCE ON TUBE) 0 - 6	6 - 12	12 - 18	CORING TIME PER FT (MIN)	DENSITY OR CONSIST MOIST	STRATA CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
												4"	CONCRETE
													Brn F-M SAND, sm F-C gravel, tr silt, brick frags, cinders
5												6'0"	REFUSAL E.O.B.
10													
15													
20													
25													
30													
35													
40													

GROUND SURFACE TO ____ FT. USED ____ CASING THEN ____ CASING TO ____ FT
A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST
WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS
SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER
PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%
C = COARSE M = MEDIUM F = FINE

HOLE NO. B-11