ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

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SUMMARY REPORT
PRELIMINARY SITE ASSESSMENT

Westhampton Landfill
Town of Southampton
Suffolk County

Site No. 152060

Prepared for:

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PARSONS

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FINAL

SUMMARY REPORT

WESTHAMPTON LANDFILL SITE
NYSDEC SITE NO. 152060
TOWN OF SOUTHAMPTON
SUFFOLK COUNTY, NEW YORK

PRELIMINARY SITE ASSESSMENTS
WORK ASSIGNMENT NO. D002478-29
NEW YORK STATE SUPERFUND STANDBY CONTRACT

Prepared for

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

This Preliminary Site Assessment summary report about the Westhampton Landfill site, located in the Town of Southampton, Suffolk County, New York, was prepared for the New York State Department of Environmental Conservation (NYSDEC) under a Superfund Standby Contract (No. D002478, Work Assignment No. 29). The purpose of this report is to provide information necessary for NYSDEC to classify the site.

To achieve the investigation objectives stated in this report, Parsons Engineering Science, Inc. (Parsons ES) was required to base conclusions on the best information available during this investigation and within the limits prescribed by NYSDEC in the contract agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, Parsons ES cannot guarantee that the investigation completely defined the degree or extent of any contamination by hazardous or otherwise harmful substances described in the report or, if no such contamination was found, its absolute absence. Professional judgment was exercised in gathering and analyzing the information obtained, and Parsons ES is committed to the usual care, thoroughness, and competence of the engineering profession.

Conclusions in this report are based on limited record reviews, a site inspection, interviews, and limited sampling performed at the site. The health-based regulatory standards discussed in this report may change in the future. Levels of environmental contamination that are "acceptable" by current standards may not be so in the future.

Consistent with the objectives of the PSA investigation, this report includes an assessment of the presence of hazardous waste as defined by Title 6, Part 371 of the New York Codes, Rules, and Regulations (6NYCRR, Part 371) and "significant threat" to public health and environment as defined by 6NYCRR, Part 375. As such, the report does not include an evaluation of the presence of hazardous wastes regulated under federal law, except when federal and New York State regulations are identical. In particular, the presence of hazardous waste having the characteristic of toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP) under 40CFR, Part 261.24 is not formally evaluated in this report. The characteristic of toxicity in New York State, at the time of the site investigation, was determined by the Extraction Procedure Toxicity (EP Tox) test under 6NYCRR, Part 371. Therefore, with the concurrence of the NYSDEC, analysis for characteristics of toxicity was conducted using the EP Tox method.

Information contained in this report may not be suitable for any other use without adaptation for the specific purpose intended. Any such reuse of or reliance on the information, assessments, or conclusions in this report without adaptation will be at the sole risk and liability of the party undertaking the reuse.

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INTRODUCTION

This report presents the results of the preliminary site assessment (PSA) at the Westhampton Landfill site. The PSA was conducted by Parsons Engineering Science, Inc. (Parsons ES) under Work Assignment No. D002478-29 of a Superfund Standby Contract between the New York State Department of Environmental Conservation (NYSDEC) and Parsons ES.

The septic waste treatment basin (SWTB) portion of the Westhampton Landfill site is classified as a 2a site (temporary administrative listing for sites with insufficient information) and is under investigation because of onsite septic waste disposal. Other municipal septic waste treatment facilities in Suffolk County were found to contain hazardous substances resulting from disposal of septic wastes. A 1987 Phase I investigation conducted by EA Science and Technology did not identify on-site disposal of hazardous wastes, but recommended additional site studies.

This summary report consists of this introduction, objectives of the PSA process, site and site vicinity background information, a description of the scope of work for this PSA, an assessment of the presence of hazardous waste and associated significant threat to the environment, and recommendations for additional work. This report also includes an Appendix A presenting a listing of record search contacts, an Appendix B with laboratory analytical data in data base format, and Appendix C with copies of selected references.

PSA OBJECTIVE

The primary objective of the PSA is to determine whether or not the site should be listed on the New York State Registry of Inactive Hazardous Waste Disposal Sites, and, if so to assign the appropriate site classification provided by Title 6, Part 375 of the New York Codes, Rules and Regulations (6NYCRR, Part 375)(NYSDEC, 1992b). Site classification is based on a determination of:

1. The documented presence of hazardous waste, as defined by 6NYCRR, Part 371 (NYSDEC, 1995); and
2. The presence of significant threat to the environment posed by on-site hazardous waste, as defined by 6NYCRR, Part 375.

Recommendations for site classification are based on classifications provided by 6NYCRR, Part 375, and are as follows:

- Class 1 - Causes or presents an imminent danger of causing irreversible or irreparable damage to the environment.
- Class 2 - Significant threat to the environment - action required;
- Class 3 - Does not present a significant threat to the environment - action may be deferred;

- Class 4 - Site is properly closed - requires continued management; or
- Class 5 - Site is properly closed, no evidence of present or potential adverse impact - no further action is required.

Listed sites may be recommended for delisting if site data do not establish the presence, or indicate past disposal, of hazardous waste on-site. In the event that insufficient data are obtained for the determination of the presence or threat posed by hazardous waste at the site, recommendations for further work are made to obtain sufficient data. An administrative classification of 2a may be used for temporarily listing these sites.

BACKGROUND

Site Description

The Westhampton Landfill site (NYSDEC Site No. 152060) is an approximately 28-acre parcel located off of Old Country Road, Town of Southampton, Suffolk County, New York (Figure 1). The Town of Southampton owns and operates the site as a transfer station. Other site uses include limited mining (sand), yard waste composting, storage of sand and road salt, and as a firing range for the Town of Southampton Police Department (Parsons ES, 1994a). The site is rectangular in shape, and oriented in a north-south direction (Figure 2). Household waste transfer operations occur in the south portion of the site. Yard waste composting, storage of sand and road salt, and limited sand mining take place in the central portion of the site. The Town Police firing range is located adjacent to the north end of the site. The site is bordered by Old Country Road to the south, woods to the west and east, and woods north of the firing range. An intermittent stream also borders the west side of the site. The Village of Westhampton is located approximately one mile northwest of the site.

Site access to the transfer station portion of the site is restricted by a fence that is locked when the site is closed. The topography of the site is relatively flat, with a slight slope to the south in the southern portion and a slight slope to the north in the northern section of the site. Site elevation is approximately 45 to 50 feet above mean sea level. An inactive sand excavation pit exists along the east-central portion of the site and several soil mounds are located along the west-central portion of the site. The south portion of the site has paved roads and landscaped grass. The north portion of the site is sandy with spotty vegetation growth and a number of sand and soil mounds scattered throughout. The firing range consists of a finished concrete structure, an open-sided shelter area, and a U-shaped sand pile buffer.

Site History

Background documents indicate the site was "officially" used for landfilling only in 1968, with septic wastes disposed into on-site SWTBs from 1968 until 1985. The solid

wastes included household trash and landscaping debris. However [1], Mr. Gilbride (Town of Southampton Department of Sanitation Supervisor) stated (Parsons ES, 1995):

- the Westhampton Landfill site operated as a landfill and septic waste disposal area from 1970 to 1974, and was initially operated and used by the Highway Department;
- solid wastes were disposed in a sand pit where the transfer station is currently located, and septic wastes were disposed in SWTBs located in the northwest corner of the site;
- the Westhampton Landfill site was closed from 1974 to 1978 with wastes brought to the Quogue site during this time;
- the Quogue Landfill was closed in 1978; and
- the Westhampton Landfill site was reactivated to receive brush and septic wastes from 1978 until 1985, with solid wastes brought to the North Sea Landfill.

In general, Town of Southampton wastes generated east of the Shinnecock Canal (Shinnecock Canal bisects the Town in a north-south direction) were disposed at the North Sea Landfill, and wastes generated west of the canal were disposed at several locations west of the canal (Greenman-Pedersen, no date). These locations included the Westhampton, Quogue, Hampton Bays, Eastport, and Sag Harbor Landfills, suggesting wastes disposed on-site were generated from western portions of the Town of Southampton.

Septic wastes were disposed in eight SWTBs located in the northwest portion of the site (NUS, 1983). No landfill records were located identifying specific wastes disposed on-site. Sludges were periodically removed from the pits and spread across the site. Although no background information was located detailing septic waste treatment operations, Parsons ES assumes operations were similar to operations at the nearby Manorville Landfill site. The reasonableness of this assumption is supported by:

- the two facilities being in close proximity to each other,
- the two facilities handled septic wastes in approximately the same time period, and
- the Manorville operation appears to have been common practice on Long Island because of the permeable subsurface conditions.

Background information for the Manorville site indicates septic wastes were comprised of domestic sewage (household and commercial/industrial sanitary waste removed directly from subsurface sewage disposal systems) and sewage sludge from

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1 In several cases information was contradictory or unclear as to which location was being referred to (there were two landfills that were referred to as the Westhampton Landfill; the subject site and one located in Quogue).

Town sanitary waste treatment facilities (Dvirka and Bartilucci, 1981). The Manorville treatment system included settling basins, where solids were settled-out; infiltration basins, where liquids decanted from the settling basins would be allowed to drain to the subsurface; and drying basins where solids from the settling basins were placed for final dewatering prior to disposal as either fill material or landfill cover material. Analytical data collected from septic waste streams (i.e., SWTB sample, cesspool truck sample, and municipal sludge sample) at the Manorville site showed elevated concentrations of metals and low concentrations of organic compounds (Table 3) (Dvirka and Bartilucci, 1981). The Dvirka and Bartilucci report attributed the presence of these compounds to possible mixing of industrial discharge in wastes delivered to the site, as well as household cesspool additives and solvents.

Thirty 55-gallon drums of traffic paint, including some empty ones, were noted as being stored on-site during a 1982 site inspection by the Suffolk County Department of Health Services (SCDHS)(SCDHS, 1982a). Twenty-five drums were observed during a 1983 site inspection (NUS, 1983). Although no records were identified indicating final deposition of the drums, an anonymous source stated that the drums of traffic paint stored on-site in 1982 were buried at shallow depths on-site (Parsons ES, 1994). The drums were reportedly buried in proximity to sample location SB0408/GW04. Scanning of the area with a metal detector during the 1994 field investigation effort by Parsons ES indicated metal objects were present in the subsurface. A follow-up investigation was conducted by the NYSDEC, on March 24, 1995, to address the potential presence of buried drums. The follow-up effort included scanning of the area around sample location SB0408/GW04 with a metal detector and limited excavation (by use of a hand shovel) at locations were the metal detector indicated metal objects were buried. Although metal debris was identified at depths of 1 to 3 feet, no drums were found. A steel probe rod inserted to depths of 3 to 5 feet below the ground surface was used to supplement the excavation effort. The fact that no refusals were noted during use of the probe rods further confirms that buried drums are not present.

NUS Corporation, under contract to the USEPA, conducted an inspection of the site in May 1983 (EA, 1987). Although hazardous waste was not identified on-site, NUS recommended the collection of samples from the SWTBs. No SWTB sample data were identified in the background information on the site. Background information indicates that methylene chloride was a contaminant of concern for the site because of elevated concentrations detected at the East Hampton Scavenger Pit site (SCDHS, 1984).

EA Science and Technology, under contract to the NYSDEC, conducted a Phase I site inspection in January 1986. HNU readings from directly above the SWTBs (after agitating pit contents) ranged from 7 to 13 parts per million (ppm). SWTB closure activities were in progress at the time of the EA Science and Technology site inspection. No samples were collected from the site.

An application for a Solid Waste Management Facility Permit at the Westhampton site was filed by the Town of Southampton in 1989 (McLean Associates, 1989).

Site Vicinity

The vicinity of the Westhampton Landfill site is a mix of residential, commercial/industrial, and undeveloped areas. Long Island Railroad tracks and recently constructed residential developments are located further south of the site, across Old Country Road. A single residence, the former Bomarc Air Force Base, Suffolk County Sheriff facilities, and a race track are located further west of the site. With the exception of the Town firing range, areas north and east of the site are primarily undeveloped, with residential areas further out. Suffolk County Airport (also a former Air Force Base) is located approximately 1.5 miles east of the site.

The topography directly west of the site slopes approximately 2 percent west-southwest (in the vicinity of the intermittent stream bed). The regional topography is relatively flat with a gradual slope to the south. Elevations in the vicinity of the site range from 40 to 50 feet above mean sea level.

A joint investigation by the SCDHS and the USEPA, in the mid-1980s, was conducted in the vicinity of Jagger Lane, located approximately 4,000 feet southwest of the Westhampton Landfill site (SCDHS, 1986; USEPA, 1985[?]). The investigation was conducted in response to the detection of volatile organic compounds in private wells. Monitoring wells installed between Old Country Road and South Country Road identified a contaminant plume flowing in a north to south direction and approximately 700 feet wide. Highest concentrations were found primarily at depths of 50 to 70 feet below ground surface. Maximum concentrations included trichloroethylene at 3,300 parts per billion (ppb); tetrachloroethylene at 180 ppb; trichloroethane at 35 ppb; 1,2-dichloroethane at 43 ppb; 1,2-dichloropropane at 57 ppb; and cis-dichloroethylene at 420 ppb (SCDHS, 1986). Although a source for the contamination was not identified, the data indicates the plume originates northeast of the intermittent stream west of Jagger Lane. The Jagger Lane study concluded that the Westhampton Landfill site did not appear to be a potential source for the groundwater contamination. Twelve wells installed along the rail road tracks (south of the Westhampton Landfill) as part of the Jagger Lane study, had only low levels of chloroform detected in groundwater samples. Public water is reportedly now supplied to residences in the vicinity of Jagger Lane, south (downgradient) of the Westhampton Landfill site.

Nearest municipal wells are approximately 1,000 feet west of the site. Well depths range from 70 to 161 feet and draw water from the Upper Glacial aquifer (EA, 1987). The nearest perennial surface water body is a tributary to Beaverdam Pond located approximately 1,600 feet east (cross-gradient) of the site.

The nearest NYS-regulated wetland is E-4 located along a tributary to Beaverdam Pond, approximately 1,600 feet east of the site (NYSDEC, 1991). Two endangered vertebrates, three threatened plants, and one rare/unusual habitat were identified within three miles of the Westhampton Landfill site (NYSDEC, 1994).

Hyrdrogeologic Setting

Five major hydrogeologic units are present below Long Island: the Upper Glacial aquifer, the Gardiners Clay, the Magothy aquifer, the Raritan clay and the Lloyd aquifer. The properties (thicknesses, hydraulic conductivity, etc.) of these hydrogeologic units vary across Long Island. In the following discussion, the regional properties of the various units refer to reported average values within the Westhampton landfill vicinity.

The Westhampton landfill is located on a glacial-outwash plain, approximately 3.5 miles south of the Ronkonkoma terminal moraine. The outwash deposits are approximately 130 feet thick (McClymonds and Franke, 1972) and consist of brown and gray sand and gravel (Scorca, 1990). Site surficial soils are described as Carver and Plymoth sands (Warner et. al., 1975). Plymoth loamy sands, and Riverhead sands are found adjacent to the landfill. Carver and Plymoth sands are described as "deep, excessively drained, coarse-textured soils ... found on the side slopes of drainage channels on the outwash plains". Plymoth soils are described as "deep, excessively drained, coarse-textured soils that formed a mantle of loamy sand or sand over thick layers of stratified coarse sand and gravel". The description of Riverhead soils is similar, "deep, well-drained moderately coarse textured soils that formed a mantle of sandy loam or fine sandy loam over thick layers of coarse sand and gravel".

The lower 100 feet of the outwash deposits are saturated and constitute the Upper Glacial aquifer. The average hydraulic conductivity of the Upper Glacial aquifer is reported as approximately 270 ft/day, with a horizontal-to-vertical anisotropy ratio of 10:1 (McClymonds and Franke, 1972). Regional groundwater flow is generally to the south, towards Moriches Bay and the Atlantic Ocean. Based on groundwater flow data presented in the Jagger Lane study (south of the site) and a 1983 study conducted at the Suffolk County Airport (east of the site), groundwater flow beneath the site is assumed to be primarily to the south. The estimated depth to groundwater is 30 to 35 feet and the intermittent stream (losing) west of the site indicates the southwest sloping topography in the vicinity of the site has minimal, if any, impact on local groundwater flow direction. Regional groundwater flow rates are reported as ranging between 1.0 to 1.7 ft/day (Scorca, 1990).

The Magothy aquifer underlies the Upper Glacial aquifer at a depth of about 130 feet below ground level. The Magothy aquifer consists of greater than 900 feet of fine to medium sand and silty sand containing layers of clay and sandy clay. The average hydraulic conductivity of the Magothy aquifer is reported as 44 ft/day (McClymonds and Franke, 1972).

Regionally, the Upper Glacial aquifer is separated from the Magothy aquifer by a 10- to 20-foot thick confining unit, the Gardiners clay. The northern limit of the Gardiners clay is several hundred feet north of the site (Jensen and Soren, 1974). Therefore, at the Westhampton landfill, the Upper Glacial aquifer is not in hydraulic connection with the underlying Magothy aquifer.

The Magothy aquifer is underlain by the Raritan Clay, a 200-foot thick confining unit. The Raritan Clay separates the Magothy aquifer from the Lloyd aquifer. The Lloyd aquifer consists of 400 feet of fine to coarse sand and gravel. Nearly impermeable metamorphic bedrock underlies the Lloyd aquifer.

SCOPE OF WORK

A summary of the scope of work for the Westhampton Landfill PSA is presented in Table 1. Table 2 presents a summary of samples collected during the PSA investigation. The scope of this PSA investigation was limited to investigation of the former SWTBs. Specifically, the landfill portion of the site and the adjacent firing range were not addressed as part of this investigation.

Field investigation activities consisted of the collection of subsurface soil samples and groundwater samples. The environmental samples were collected by Zebra Environmental Corporation of Cedarhurst, New York using the *Geoprobe* ™ system. The *Geoprobe* ™ is a hydraulically-powered probe capable of exerting 15,000 pounds of down-pressure. The pressure is used to drive 1-inch outside diameter steel rods into the subsurface to desired sample depths. This technique allows subsurface sampling without drilling and installation of wells. The soil and groundwater sampling units of the probes remain sealed until the desired sampling depths are reached.

SWTB sample locations were selected based on background information (aerial photographs and historic site figures) and site conditions (lush vegetation growth surrounded by sandy areas void of vegetation). Figure 3 shows approximate areas where background data indicates SWTBs were located. Continuous samples were initially collected in an attempt to identify sludge layers remaining in the SWTBs. In general, up to three attempts (relocations) were made at each sample location in an attempt to identify lagoon sludge layers, if any. The lagoon subsurface soil samples were either collected from what appeared to be sludge or from native soils just below the fill zones of what was believed to be the former SWTB pit locations. As stated in the Project Work Plan, if sludge was not encountered, it was assumed that SWTB sludges had been removed from the lagoons prior to closure. A total of 31 subsurface soil samples were collected.

Seven groundwater samples and seven subsurface soil samples were submitted for laboratory analysis. All of the subsurface soil samples were analyzed for Target Compound List (TCL) organics, Target Analyte List (TAL) metals, and cyanide. Subsurface soil samples SB0108 through SB0603 were also analyzed for toxic characteristics using the EP Tox testing method. Groundwater samples were analyzed for TCL organics (volatile organic compounds [VOCs], semivolatile organic compounds [SVOCs], pesticides, and polychlorinated biphenyls [PCBs]), TAL metals, and cyanide. Environmental sample analyses were conducted by Energy and Environmental Engineering, Inc. (E^3I). All analyses were performed in accordance with NYSDEC Analytical Service Protocols (ASP) (September 1993) and the QAPP.

As directed by the NYSDEC, data validation was not conducted on analytical results for the Westhampton Landfill site. However, Parsons ES conducted sample tracking and contract compliance screening on all samples, and all support data necessary for conducting a full data validation were collected. Parsons ES conducted data validation on the Manorville Landfill (similar site assigned under this work assignment) data following guidelines in the most recent USEPA documents adapted to the QA/QC criteria in the NYSDEC ASP and in accordance with the QAPP. The Manorville data validation was performed by trained and experienced data validators who meet the NYSDEC approval criteria. The use of nonvalidated data for the Westhampton Landfill site is assumed to be adequate based on satisfactory results from validation of the Manorville Landfill data, because all analyses were conducted by the same laboratory, E^3I, within an approximately 30-day period. It is also assumed that within this period all quality assurance/quality control protocols were followed in a similar manner and with similar results for the Manorville site.

Sample locations were surveyed by Bosk Associates, a licensed surveyor. The surveyor measured the locations and elevations for all soil boring and groundwater sample locations.

SITE CONTAMINATION ASSESSMENT

The following subsections summarize the results of the field investigation effort. Whenever possible, samples were collected upgradient of the site to establish ambient or background conditions. These levels were compared to those found on-site, downstream, or downgradient of the site. Concentrations downstream or downgradient of the site in excess of three times the upgradient or upstream concentrations may indicate a release from an on-site contaminant source. This criterion has generally been recognized by the USEPA and the NYSDEC as constituting a "significantly higher" concentration for purposes of determining an observed release for a particular pathway.

Downgradient or downstream results may also be used to determine the threat to the environment posed by hazardous waste on-site. Extraction Procedure Toxicity (EP Tox) testing was also conducted where deemed appropriate to address visible, or otherwise suspected, on-site contamination for confirmation of on-site hazardous waste. Where appropriate aqueous analytical results have been compared to applicable NYSDEC ambient water quality standards and guidance values. Inorganic results for soil and sediment samples have been compared to published naturally-occurring ranges in New York State. VOC, SVOC, and pesticide/PCB results for soil samples have been compared to USEPA human health-based levels for carcinogens and systemic toxicants (NYSDEC, 1992a).

Assessment of analytical results included reviewing of sample holding times and evaluating laboratory blank samples. In most cases, concentrations in field samples which were less than five times the blank sample concentrations were considered to be attributable to laboratory contamination and were identified as such. For common laboratory contaminants (methylene chloride, acetone, toluene, 2-butanone, and

common phthalate esters) the criterion used was ten times the blank sample concentrations.

Analytical results are summarized in Tables 5 and 6. Only those compounds that were detected are presented in the tables. Complete laboratory analytical results can be found in Appendix B.

Subsurface Soil Samples

The subsurface soil samples indicate site soils consist primarily of fill and sand (outwash deposits) as presented in Table 4. A cross-section location map and cross section diagrams are presented in Figures 4 through 6. The fill was generally described as dark brown to black, fine to coarse sand and fine gravel, containing debris such as wood, paper, plastic and metal. The sand consisted of light brown fine to coarse sand with trace of silt, in agreement with the published descriptions of the outwash deposits.

Seven subsurface soil samples were collected on-site and submitted for laboratory analysis. Sample location SB0108 was selected based on review of a 1984 aerial photograph. Shallow soils at SB0108 were described as grey and black with a diesel-type odor. Several attempts were required because of refusals by wood and other debris. The soil sample was collected from the fill material.

Sample locations SB0208, SB0309, and SB0408 were based on the 1984 aerial photograph, previous site figures, and lack of vegetation. A sludge-like layer was identified in SB0208 at between 4.2 and 4.5 feet below ground surface. No visually apparent sludge layers were identified at sample locations SB0309 or SB0408. However, fill material was identified to 9 and 7.5 feet below ground surface, respectively. Samples were collected from the transition zone between fill and native soil.

Samples SB0503 and SB0603 were collected from soil piles suspected of being weathered sludges excavated from the SWTBs prior to closure activities. Sample SB0707 was collected as a background sample. Native soil was encountered for the full depth of the sample (12 feet).

All of the subsurface soil samples were analyzed for TCL organics, TAL metals, and cyanide. Soil samples SB0108 through SB0603 were also analyzed for toxic characteristics using the EP Tox method. Analytical results are summarized in Table 5.

Volatile Organic Compounds

Five VOCs were detected in the subsurface soil samples. The presence of acetone, 2-butanone, and methylene chloride are attributed to laboratory contamination. Low levels of toluene and total xylenes were detected at estimated concentrations. Toluene was detected at 2 μg/kg from soil samples SB0108 and SB0503. Total xylenes were detected in samples SB0108, SB0208, SB1208, SB0309, SB0408. and SB0503 at concentrations ranging from 0.8 μg/kg to 5 μg/kg. The presence of both compounds may be attributable to past septic waste disposal and/or Highway Department site activities.

Semi-Volatile Organic Compounds

Eighteen SVOCs were detected in one or more of the subsurface soil samples, consisting of PAHs, phthalates, and one amine. With the exception of three SVOC compounds detected in SB0603, all of the detected concentrations were estimated values below the quantitation limit. All of the concentrations were below the USEPA Health-Based Guidance values.

Thirteen of the SVOCs (including most of the PAHs detected) were only detected in sample SB0603. The presence of Di-n-butyl phthalate and Bis(2-ethylhexyl)phthalate was attributed to laboratory contamination. Butyl benzyl phthalate was detected in samples SB0108 at 240,000 µg/kg, SB0208 at 57 µg/kg, SB0503 at 31 µg/kg, and SB0603 at 1,600 µg/kg. 4-Chloroaniline was detected at 69 µg/kg in sample SB0208. Flouranthene was detected at 37 µg/kg in sample SB0408. Pyrene was detected in samples SB0408 at 110 µg/kg, SB0503 at 26 µg/kg, and SB0603 at 510 µg/kg. All 18 of the SVOCs detected were detected in sample SB0603 with concentrations ranging from 26 µg/kg to 1,600 µg/kg

The lack of detected compounds in the upgradient sample indicates past site activities are responsible for the SVOCs detected on-site. The presence of PAHs may be attributable to on-site burning. The presence of phthalates and the 4-chloroaniline may be attributable to on-site disposal of septic wastes from industrial sources.

Pesticides

Fourteen pesticides were detected at low concentrations in the subsurface samples. None of the detected concentrations exceeded the USEPA health-based values. A majority of the compounds detected were identified in the two shallow soil samples collected from the suspected sludge piles (SB0503 and SB0603) and the background sample (SB0707). Chlordane was the only pesticide detected in all of the soil samples, with concentrations ranging from 0.89 µg/kg to 38 µg/kg. Potential sources for the pesticides identified include direct use on-site for insect control, household septic wastes disposed on-site, and commercial/industrial septic waste disposed on-site.

EP Tox test results indicate pesticides are significantly below the regulatory level for classification as a hazardous waste as defined by 6NYCRR, Part 371.

Polychlorinated Biphenyls

No PCBs were detected in the subsurface samples.

Inorganics

Nineteen metals were detected in the subsurface soil samples. Only the concentration of mercury in one of the suspected sludge pile samples and cyanide in sample SB1208 exceeded the published naturally occurring ranges. However, with the exception of aluminum, cadmium, cobalt, cyanide, and selenium, use of the "three times the background" rule indicates on-site concentrations of all metals are a result of past site activities. A majority of maximum concentrations were detected in sample SB0108. Potential sources for the elevated inorganic concentrations include Highway

Department activities (i.e., road salt for cyanide), household septic waste disposal, and industrial/commercial septic waste disposal. EP Tox test results indicate metals are significantly below the regulatory level for classification as a hazardous waste as defined by 6NYCRR, Part 371.

Groundwater Samples

Seven shallow groundwater samples were collected from on-site locations. Samples GW01 through GW04 were collected from adjacent to corresponding samples SB0108 through SB0408 to assess direct impacts of septic wastes to groundwater. Samples GW05 and GW06 were collected from downgradient locations along the Old Country Road fence line to assess potential off-site impacts. Sample GW07 was collected from an upgradient location adjacent to SB0707. Groundwater samples were analyzed for TCL organics, TAL metals, and cyanide. Analytical results are summarized in Table 6.

Volatile Organic Compounds

Four VOCs were detected at concentrations below NYS Class GA standards and guidance values in the groundwater samples. The presence of methylene chloride in samples GW02 and GW07, 1 μg/l and 2 μg/l respectively, is likely attributable to laboratory contamination. Methylene chloride was detected in the wash blank sample at 40 μg/l. The presence of acetone in sample GW05, at 5 μg/l is most likely attributable to laboratory contamination. Acetone was detected in the laboratory blank for soils. Although detected in GW04 and GW07, at 1 μg/l, and not detected in laboratory blanks, chloroform is also a common laboratory contaminant. The presence of chlorobenzene in sample GW13, duplicate for sample GW03, may be attributable to solvents and septic system treatment chemicals in septic wastes. One unidentified tentatively identified compound (TIC) was detected at 8 μg/l in sample GW01.

Semi-Volatile Organic Compounds

Three SVOCs were detected at concentrations below NYS Class GA standards and guidance values in the groundwater samples. 1,2-Dichlorobenzene and 1,4-dichlorobenzene were detected at 1 μg/l and 0.8 μg/l in sample GW03 and its duplicate, GW13. The presence of dichlorobenzene compounds may be attributable to solvents and septic system treatment chemicals in septic wastes. Dichlorobenzene compounds were not detected in subsurface soil samples. Up to 13 SVOC TICs were detected in each of the groundwater samples.

Bis(2-ethylhexyl)phthalate was detected in samples GW01, GW03, GW04, GW05, GW06, and GW07 at concentrations ranging from 1 μg/l to 12 μg/l. The compound is a common laboratory contaminant, and was detected as such during site subsurface soil sample analysis.

Pesticides

Endosulfan sulfate was the only pesticide detected in the groundwater samples (sample GW01). Endosulfan sulfate was also detected in subsurface soil sample

SB0603, in close proximity to sample location GW01. The concentration of 0.087 µg/l is below the NYS Class GA standard.

Polychlorinated Biphenyls

No PCBs were detected in the groundwater samples.

Inorganics

Seventeen metals were detected in the groundwater samples. The concentrations of chromium, iron, lead, manganese, sodium, and zinc exceeded the Class GA groundwater standards in one or more samples. Maximum concentrations of iron, lead, and manganese, concentrations of 41,100 µg/l, 223 µg/l, and 645 µg/l respectively, were detected in the upgradient groundwater sample GW07. The elevated lead concentration (greater than three times the concentrations of downgradient results) may be partially attributable to the firing range located further upgradient. The maximum chromium and zinc concentrations, 168 µg/l and 1,110 µg/l were detected in downgradient sample GW06. The concentration of zinc was greater than three times the upgradient concentration, indicating a possible release from the site. The elevated sodium concentration in sample GW06 may be attributable to road salt storage on-site.

PRESENCE OF HAZARDOUS WASTE

6NYCRR, Part 371 regulations establish two categories of hazardous wastes: (1) listed hazardous wastes, and (2) characteristic hazardous wastes. Hazardous wastes are judged to have a substantial hazard or significant toxicity associated with them. Listed hazardous wastes are assigned USEPA hazardous waste numbers with the following prefixes: "F" (non-specific sources), "K" (specific sources), "P" (discarded commercial chemical products which are "acute hazardous wastes"), "U" (discarded commercial chemical products which are "toxic hazardous wastes", or "B" (PCB wastes containing at least 50 milligrams of PCBs per kilogram of dry weight solid or milligrams of PCBs per liter of liquid). Characteristic hazardous wastes are identified using analytical methods specified in 6NYCRR, Part 371, and are assigned "D" prefixes.

Background information and analytical data indicate industrial waste discharges may have been included with septic wastes disposed on-site. However, the presence of listed compounds on-site does not establish the presence of hazardous waste at the site because: (1) they cannot be directly attributed to specific or non-specific sources as required by 6NYCRR, Part 371.4(b) and (c), and (2) they cannot be directly attributed to the disposal of a "commercial chemical product, manufacturing chemical intermediates, or off-specification commercial chemical products" as required by 6NYCRR, Part 371.4(d). In addition, EP Tox concentrations of suspected SWTB sludges (or underlying soils) were significantly below regulatory thresholds for classification of hazardous waste.

Parsons ES anticipates that further work is unlikely to establish the presence of hazardous waste in regards to septic waste treatment activities at the Westhampton

Landfill site because the PSA investigation has primarily addressed areas identified as suspected hazardous waste sources in the background information.

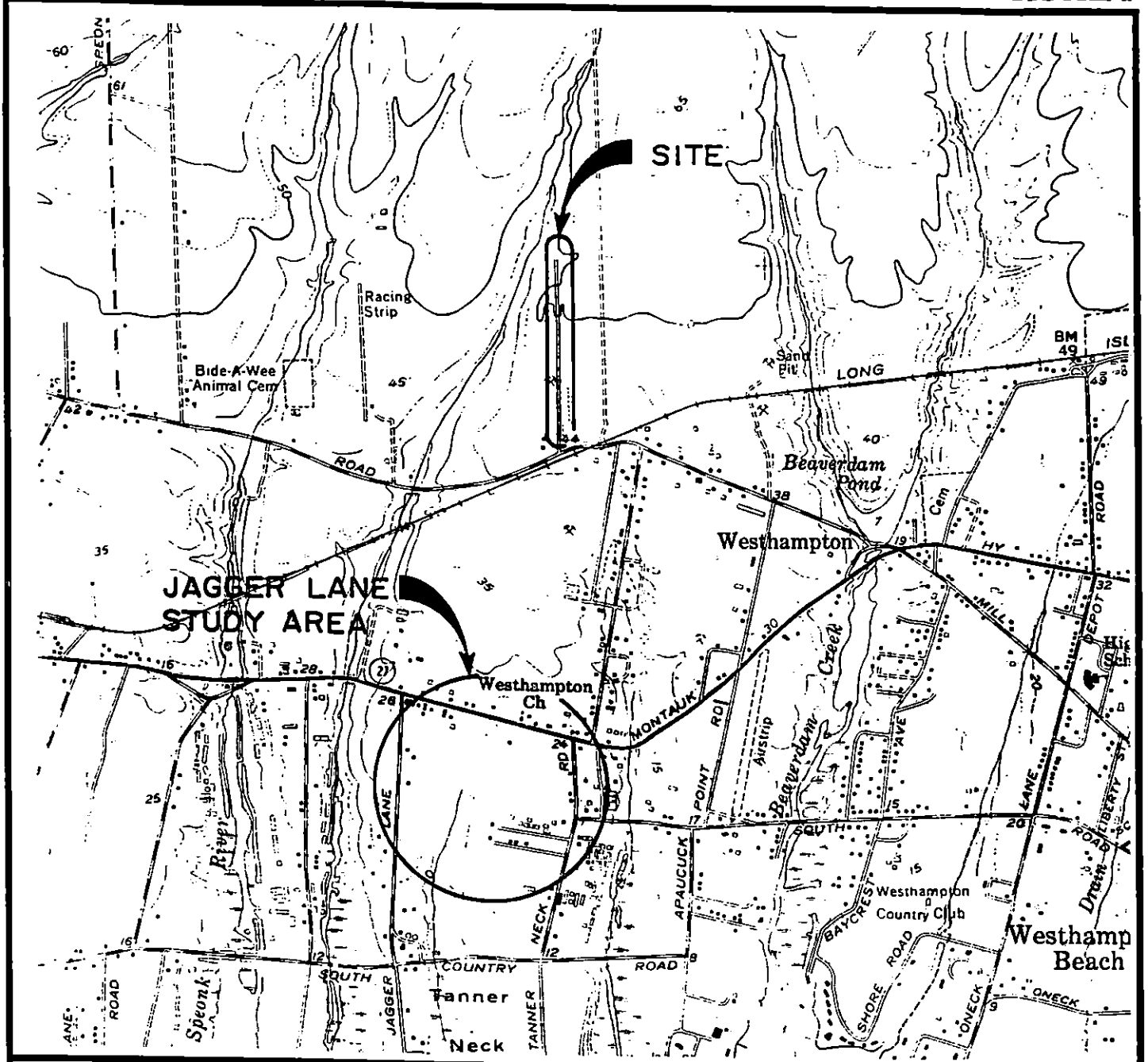
PRESENCE OF SIGNIFICANT THREAT

The presence of a "significant threat" to public health or the environment, as defined by 6NYCRR, Part 375, may be established by analytical data showing that hazardous substances: (1) have been released to environmental media from hazardous waste disposed at the site, and (2) are present in concentrations exceeding accepted health or environmental standards or guidance values. As discussed previously, the presence of hazardous waste at the site was not established. Therefore, available analytical data cannot establish a significant threat to the environment, as defined by 6NYCRR, Part 375. However, the elevated groundwater concentration of lead from sample location GW07 raises concern for a previously unidentified source of lead contamination upgradient of the SWTB locations. Background information indicates that firing ranges can be a significant source for lead contmaination (ASTDR, 1992).

RECOMMENDATIONS

Although analytical data collected during this investigation indicate that contamination from septic waste disposed on-site may warrant concern because of exceedances of groundwater standards, the background and analytical data do not establish the presence of hazardous waste as defined by 6NYCRR, Part 371, in regards to on-site septic waste treatment activities. Therefore, Parsons ES recommends the Westhampton Landfill site be removed from the listing of Inactive Hazardous Waste Sites.

FIGURE 1



SOURCE: U.S.G.S. 7.5 MINUTE SERIES TOPOGRAPHIC MAP; EASTPORT, N.Y. (1956).

QUADRANGLE LOCATION

LATITUDE: 40° 50' 00"
LONGITUDE: 72° 40' 35"

APPROXIMATE SCALE

0 2000 4000 FT.

2000FT.

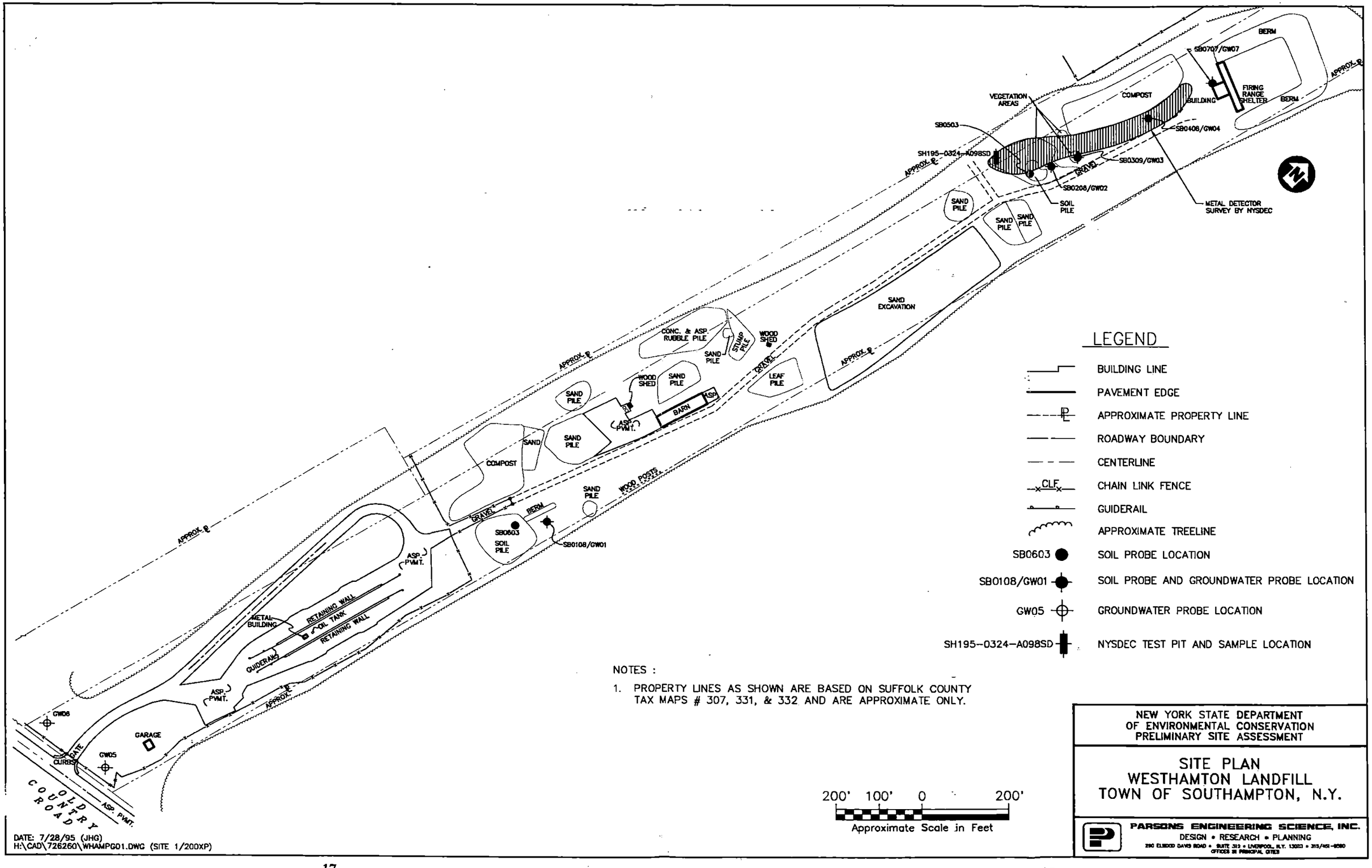
PARSONS ENGINEERING SCIENCE, INC.

SITE LOCATION MAP

WESTHAMPTON LANDFILL
TOWN OF SOUTHAMPTON
NEW YORK

H:\GRAPHICS\726260\SITELOC.DS4

FIGURE 2


BERM
SB0707/GW07
VEGETATION AREAS
COMPOST
BUILDING
FIRING RANGE SHELTER
BERM
SB0503
SB0406/GW04
SH195-0324-A098SD
SB0309/GW03
GRAVEL
SB0208/GW02
SOIL PILE
METAL DETECTOR SURVEY BY NYSDEC
SAND PILE
SAND PILE
SAND PILE
APPROX. P
SAND EXCAVATION
CONC. & ASP. RUBBLE PILE
STUMP PILE
WOOD SHED
SAND PILE
GRAVEL
LEAF PILE
WOOD SHED
SAND PILE
ASP.
ASP. PVMT.
BARN
SAND
SAND PILE
COMPOST
SAND PILE
WOOD POSTS
GRAVEL
BERM
SB0603
SOIL PILE
SB0108/GW01
ASP. PVMT.
METAL BUILDING
RETAINING WALL
OIL TANK
RETAINING WALL
GUIDERAIL
ASP. PVMT.
APPROX. P
GW06
GARAGE
GATE
CURB
GW05
OLD COUNTRY ROAD
ASP. PVMT.
APPROX. P
LEGEND
BUILDING LINE
PAVEMENT EDGE
APPROXIMATE PROPERTY LINE
ROADWAY BOUNDARY
CENTERLINE
CLF CHAIN LINK FENCE
GUIDERAIL
APPROXIMATE TREELINE
SB0603 SOIL PROBE LOCATION
SB0108/GW01 SOIL PROBE AND GROUNDWATER PROBE LOCATION
GW05 GROUNDWATER PROBE LOCATION
SH195-0324-A098SD NYSDEC TEST PIT AND SAMPLE LOCATION
NOTES :
1. PROPERTY LINES AS SHOWN ARE BASED ON SUFFOLK COUNTY TAX MAPS # 307, 331, & 332 AND ARE APPROXIMATE ONLY.
200' 100' 0 200'
Approximate Scale in Feet
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT
SITE PLAN
WESTHAMTON LANDFILL
TOWN OF SOUTHAMPTON, N.Y.
PARSONS ENGINEERING SCIENCE, INC.
DESIGN • RESEARCH • PLANNING
DATE: 7/28/95 (JHG)
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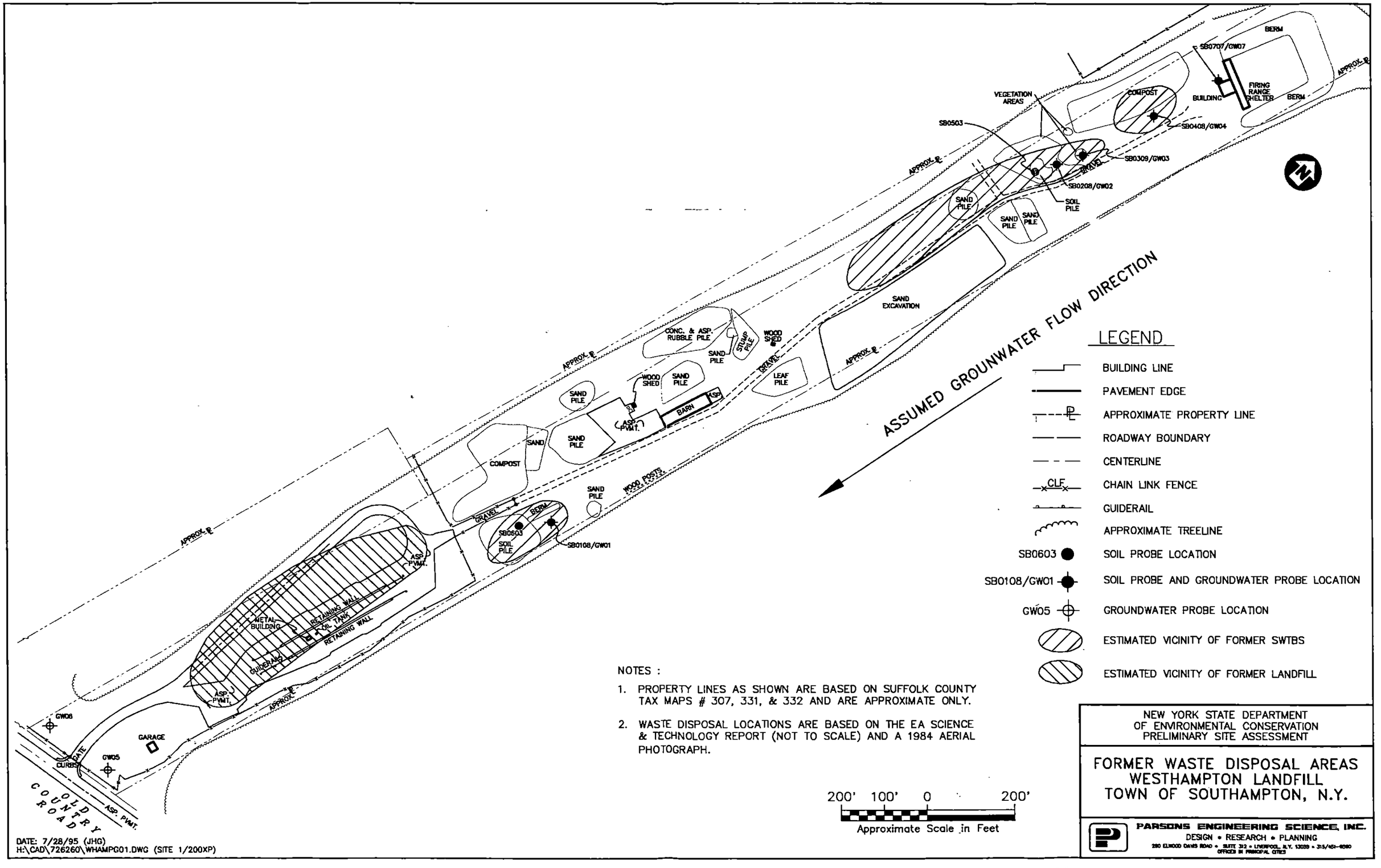

NOTES :

1. PROPERTY LINES AS SHOWN ARE BASED ON SUFFOLK COUNTY TAX MAPS # 307, 331, & 332 AND ARE APPROXIMATE ONLY.
2. WASTE DISPOSAL LOCATIONS ARE BASED ON THE EA SCIENCE & TECHNOLOGY REPORT (NOT TO SCALE) AND A 1984 AERIAL PHOTOGRAPH.

200' 100' 0 200'
Approximate Scale in Feet

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT

FORMER WASTE DISPOSAL AREAS
WESTHAMPTON LANDFILL
TOWN OF SOUTHAMPTON, N.Y.

PARSONS ENGINEERING SCIENCE, INC.
DESIGN • RESEARCH • PLANNING
290 ELWOOD DAVIS ROAD • SUITE 312 • LIVERPOOL, N.Y. 13088 • 315/451-9560
OFFICES IN PRINCIPAL CITIES

DATE: 7/28/95 (JHG)
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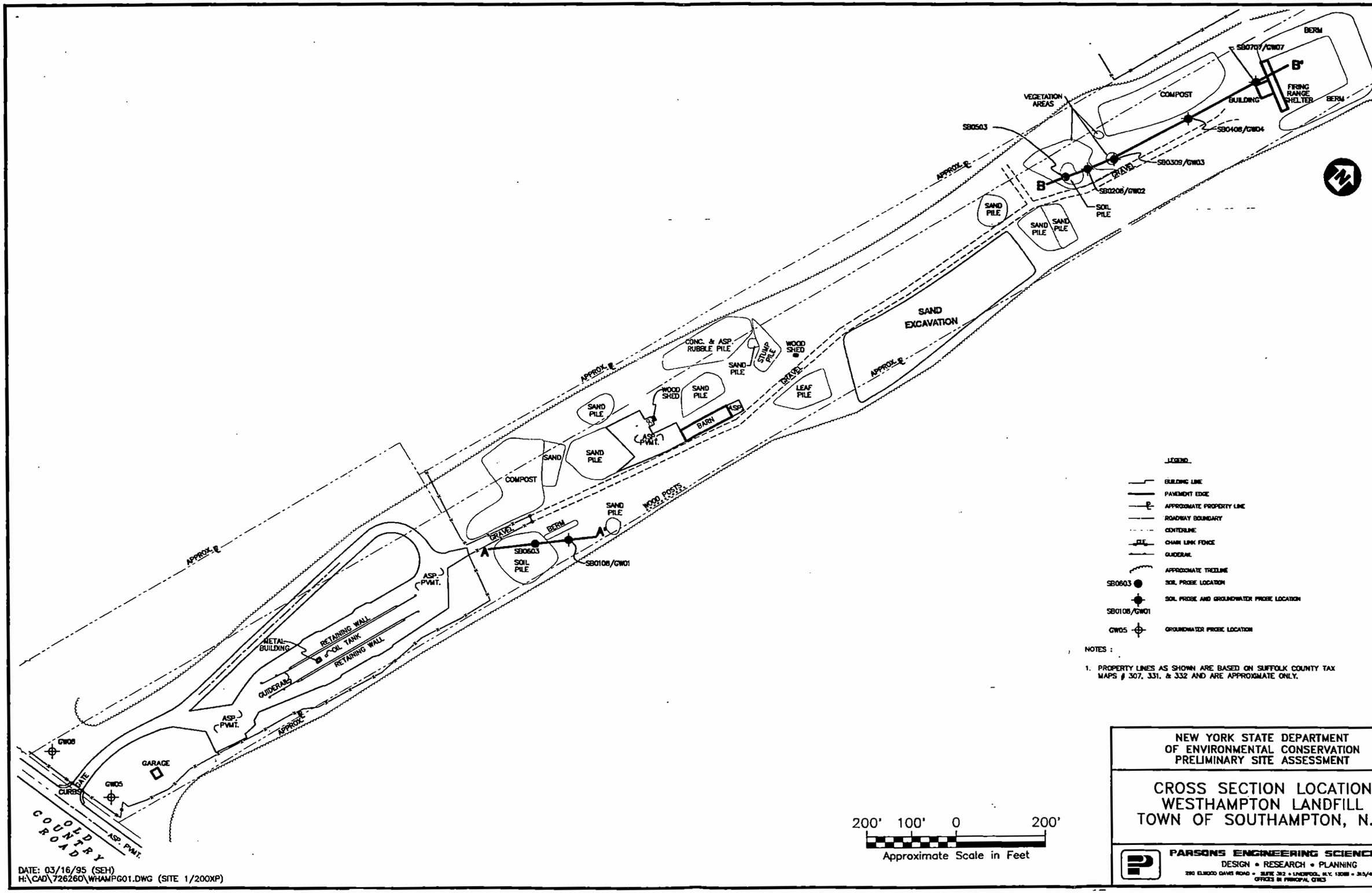
FIGURE 4


BERM
SB0707/GW07
B'
VEGETATION AREAS
COMPOST
FIRING RANGE SHELTER
BUILDING
BERM
SB0503
SB0408/GW04
SB0309/GW03
GRAVEL
B
SB0206/GW02
SOIL PILE
SAND PILE
SAND PILE
SAND PILE
APPROX. ℄
SAND EXCAVATION
CONC. & ASP. RUBBLE PILE
STUMP PILE
WOOD SHED
SAND PILE
WOOD SHED
LEAF PILE
SAND PILE
ASP. PVMT.
BARN
SAND PILE
SAND
COMPOST
SAND PILE
WOOD POSTS
GRAVEL
BERM
SB0603
SOIL PILE
SB0108/GW01
A
A'
ASP. PVMT.
METAL BUILDING
RETAINING WALL
OIL TANK
RETAINING WALL
GUIDERAIL
ASP. PVMT.
APPROX. ℄
GW06
GARAGE
GATE
CURBS
GW05
OLD COUNTRY ROAD
ASP. PVMT.
LEGEND
BUILDING LINE
PAVEMENT EDGE
APPROXIMATE PROPERTY LINE
ROADWAY BOUNDARY
CENTERLINE
CHAIN LINK FENCE
GUIDERAIL
APPROXIMATE TREELINE
SB0603 SOIL PROBE LOCATION
SOIL PROBE AND GROUNDWATER PROBE LOCATION
SB0108/GW01
GW05 GROUNDWATER PROBE LOCATION
NOTES :
1. PROPERTY LINES AS SHOWN ARE BASED ON SUFFOLK COUNTY TAX MAPS # 307, 331, & 332 AND ARE APPROXIMATE ONLY.
200' 100' 0 200'
Approximate Scale in Feet
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT
CROSS SECTION LOCATION
WESTHAMPTON LANDFILL
TOWN OF SOUTHAMPTON, N.Y.
PARSONS ENGINEERING SCIENCE, INC.
DESIGN • RESEARCH • PLANNING
DATE: 03/16/95 (SEH)
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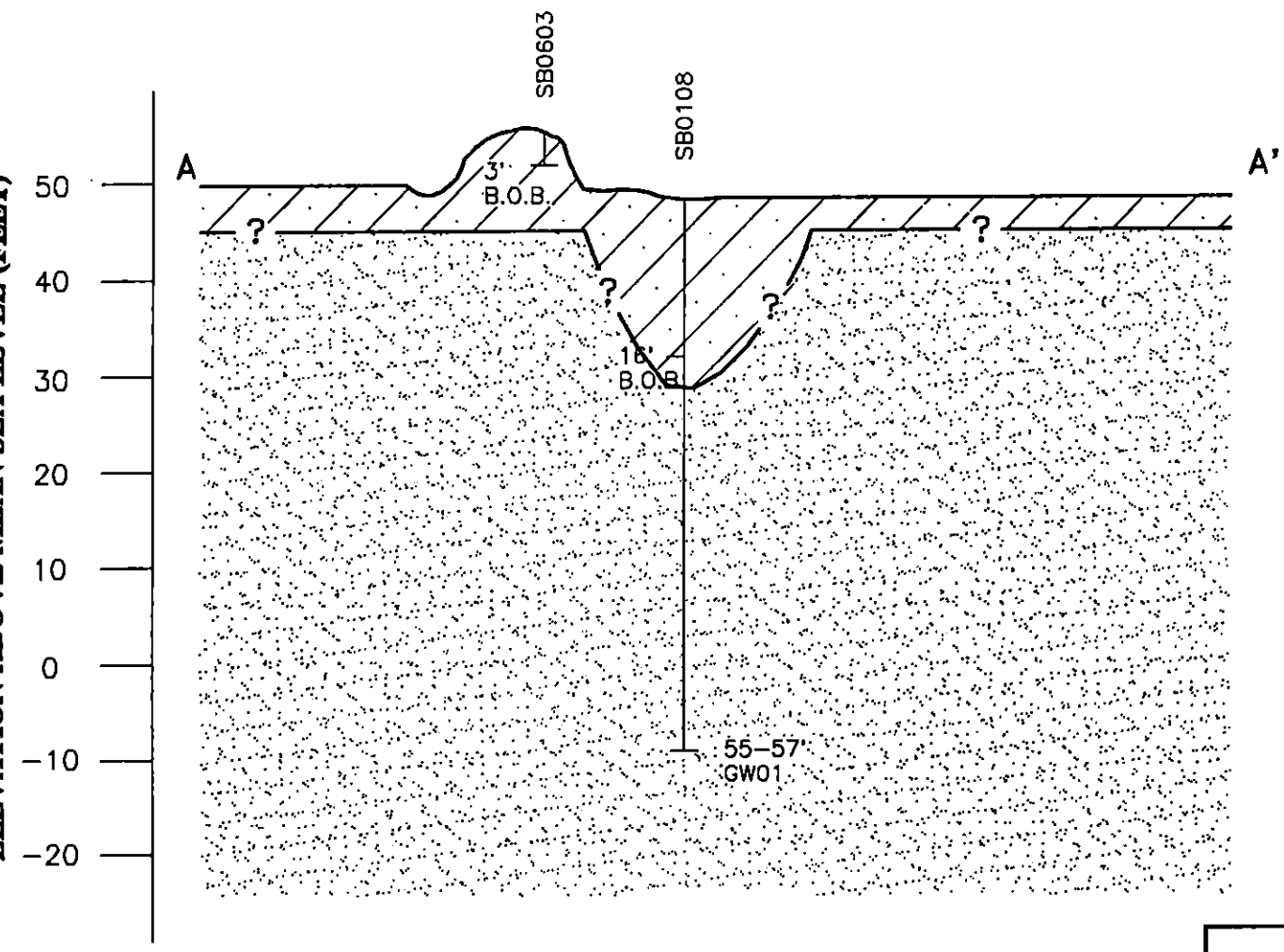

LEGEND

FILL

FINE–COARSE SAND

16' B.O.B. DEPTH TO BOTTOM OF BORING

VERTICAL EXAGERATION = 5x
VERTICAL SCALE 1" = 20'
HORIZONTAL SCALE 1" = 100'

100' 50' 0 100'

Approximate Scale in Feet

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT

CROSS SECTION A–A'
WESTHAMPTON LANDFILL
TOWN OF SOUTHAMPTON, N.Y.

PARSONS ENGINEERING SCIENCE, INC.
DESIGN • RESEARCH • PLANNING
250 ELWOOD DAVIS ROAD • SUITE 312 • LIVERPOOL, N.Y. 13088 • 315/451-9560
OFFICES IN PRINCIPAL CITIES

FIGURE 5

DATE: 03/15/95 (SEH)
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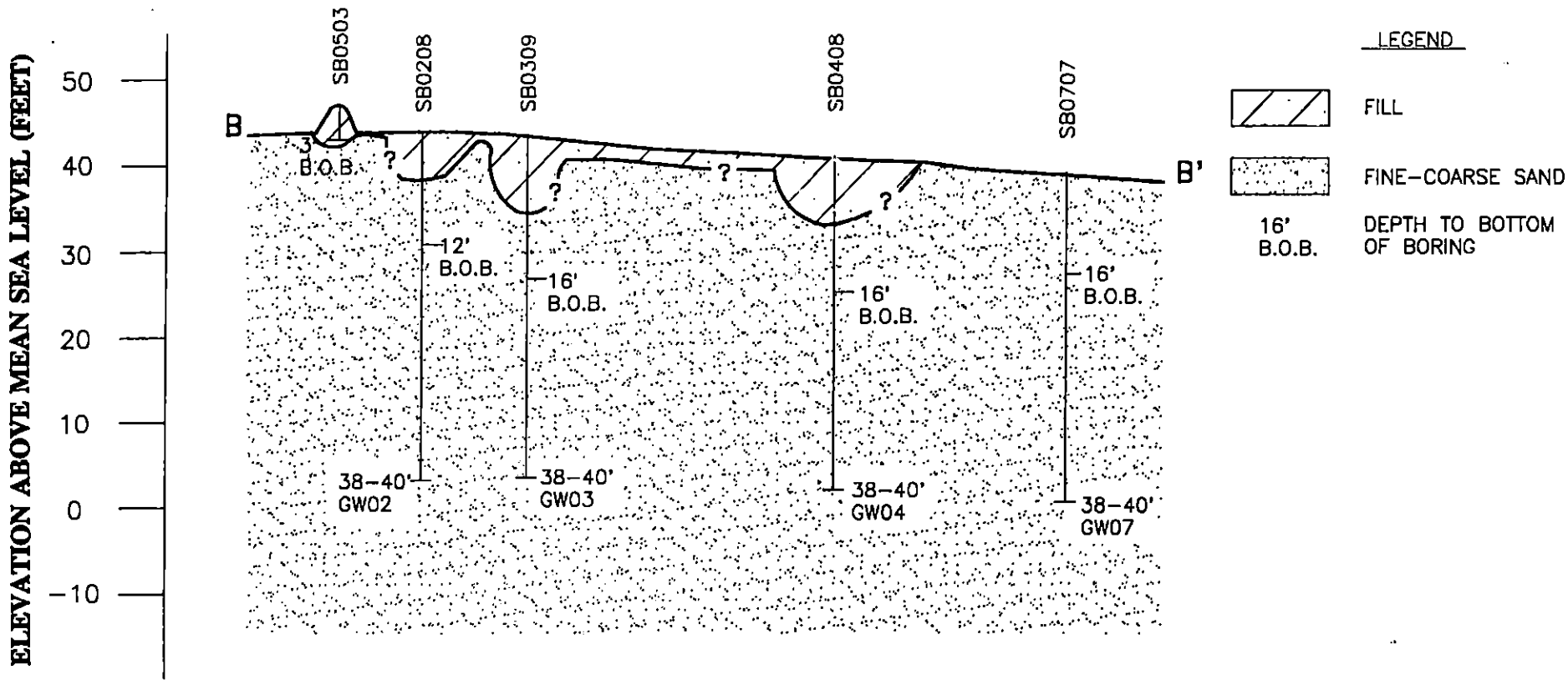

VERTICAL EXAGERATION = 5x
VERTICAL SCALE 1" = 20'
HORIZONTAL SCALE 1" = 100'

100' 50' 0 100'

Approximate Scale in Feet

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT

CROSS SECTION B-B'
WESTHAMPTON LANDFILL
TOWN OF SOUTHAMPTON, N.Y.

PARSONS ENGINEERING SCIENCE, INC.
DESIGN • RESEARCH • PLANNING
290 ELWOOD DAVIS ROAD • SUITE 312 • LIVERPOOL, N.Y. 13088 • 315/451-9560
OFFICES IN PRINCIPAL CITIES

FIGURE 6

DATE: 03/15/95 (SEH)
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TABLE 1

SUMMARY OF PSA TASKS
WESTHAMPTON LANDFILL
SUFFOLK COUNTY, NEW YORK

Task	Description of Task
Project Work Plan	Project work plan and budget sheets were prepared and submitted to NYSDEC on October 25, 1994 (revised budget sheets submitted January 13, 1995). Modifications were made to the NYSDEC site work plan based on discussions between Parsons ES and the NYSDEC during the initial site inspection.
Record Review	Available state and local DEC and DOH, USEPA, Suffolk County, and Town of Southampton files were reviewed as a supplement to the June 1987 Phase I report.
Site Inspection	A site inspection was conducted by Tom Abrams (Parsons ES), Jeff Poulson (Parsons ES), Sri Maddineni (NYSDEC-Albany), and Bob Stewart (NYSDEC-Region 1).
H&S Plan/QAPP	The Health and Safety Plan and Quality Assurance Project Plan were submitted to NYSDEC on October 26, 1994.

TABLE 1

SUMMARY OF PSA TASKS
WESTHAMPTON LANDFILL
SUFFOLK COUNTY, NEW YORK

Task	Description of Task
Subsurface Soil Samples	Seven subsurface soil samples were collected using the *Geoprobe* ™ sampling method, including four subsurface soil samples from suspected former SWTB locations; one background subsurface soil sample adjacent to the firing range; and two subsurface soil samples from soil mounds suspected of being sludge scrapings.
Groundwater Samples	Seven groundwater samples were collected using the *Geoprobe* ™ sampling method, including four groundwater samples from beneath the suspected former SWTB locations; two down gradient samples (along Old Country Road fence); and one upgradient groundwater sample (adjacent to the firing range).
Surveying	Surveying and site map preparation were conducted by Bosk Associates. All sample locations were surveyed relative to a fixed datum.

TABLE 1

SUMMARY OF PSA TASKS
WESTHAMPTON LANDFILL
SUFFOLK COUNTY, NEW YORK

Task	Description of Task
Data Review	Assessment of analytical results included review of sample holding times and evaluating laboratory blank samples. Full data validation was conducted on analytical results for the Manorville site.
Site Assessment	A preliminary site contamination assessment was conducted prior to report preparation for evaluation of background data and data from the field investigation.
Report Preparation	A report was prepared containing a summary of background information, field data, and a site assessment.

TABLE 2

LABORATORY SAMPLE SUMMARY
WESTHAMPTON LANDFILL

SAMPLE CATEGORY	SAMPLE ID	SAMPLE DEPTH (FT BGS)	SAMPLE DATE	ANALYSES *	PID READING (PPM)	MS/MSD (Y/--)	DESCRIPTION OF SAMPLE LOCATION
Soil	SB0108	8-13	12/15/94	1 - 7	14.8	--	North of transfer station.
Soil	SB0208	4-8	12/15/94	1 - 7	0.0	--	West side of access road, NW of sand pit, at edge of vegetated area.
Soil	SB1208	4-8	12/15/94	1 - 7	0.0	--	Duplicate for SB0208.
Soil	SB0309	8-12	12/15/94	1 - 7	0.0	Y	West side of access road, NW of sand pit, at edge of vegetated area.
Soil	SB0408	6-10	12/15/94	1 - 7	0.0	--	West side of access road, NW of sand pit, at edge of vegetated area.
Soil	SB0503	2-3	12/16/94	1 - 7	-	--	Downgradient sample; northeast corner of site.
Soil	SB0603	2-3	12/16/94	1 - 7	-	--	Downgradient sample; northwest corner of site.
Soil	SB0707	7-11	12/15/94	1 - 6	-	--	Upgradient sample; adjacent to firing range.
Groundwater	GW01	55-57	12/16/94	1 - 6	-	Y	North of transfer station.
Groundwater	GW02	40-42	12/16/94	1 - 6	-	--	West side of access road, NW of sand pit, at edge of vegetated area.
Groundwater	GW03	38-40	12/16/94	1 - 6	-	--	West side of access road, NW of sand pit, at edge of vegetated area.
Groundwater	GW13	38-40	12/16/94	1 - 6	-	--	Duplicate of GW03.
Groundwater	GW04	38-40	12/16/94	1 - 6	-	--	West side of access road, south of firing range, adjacent to large compost pile.
Groundwater	GW05	43-45	12/16/94	1 - 6	-	--	Downgradient sample; northeast corner of site.
Groundwater	GW06	43-45	12/16/94	1 - 6	-	--	Downgradient sample; northwest corner of site.
Groundwater	GW07	38-40	12/16/94	1 - 6	-	--	Upgradient sample; adjacent to firing range.

* ANALYSES:
1. TCL VOCs
2. TCL SVOCs
3. TCL PCBs
4. TCL PESTICIDES
5. TAL METALS
6. CYANIDE
7. EP Tox

TABLE 3

SUMMARY OF SEPTIC WASTE ANALYTICAL DATA FOR MANORVILLE LANDFILL (1)

Parameters	Units	Concentration Range	
Benzene	ug/L	2	
Toluene	ug/L	300	
O–xylene	ug/L	9	
M–xylene	ug/L	20	
P–xylene	ug/L	7	
Methylene Chloride	ug/L	11	
1,1,1–Trichloroehtane	ug/L	44	
Trichloroethylene	ug/L	14	
Tetrachloroethylene	ug/L	80	
Cis–1,2–dichloroethane	ug/L	60	
1,1–Dichloethane	ug/L	8	
Acenaphthene	ug/L	1–3	(2)
1,2,4–Trichlorobenzene	ug/L	1–3	(2)
1,2–Dichlorobenzene	ug/L	27	
Flouranthene	ug/L	1–3	(2)
Napthalene	ug/L	26	
Bis(2–ethylhexyl)phthalate	ug/L	12	
Butyl benzyl phthalate	ug/L	1–3	(2)
Di–n–butyl phthalate	ug/L	1–3	(2)
Di–n–actyl phthalate	ug/L	1–3	(2)
Anthracene	ug/L	1–3	(2)
Phenanthrene	ug/L	1–3	(2)
Pyrene	ug/L	1–3	(2)
Phenols	ug/L	260	
Cadmium	ug/L	20 – 170	
Chromium (total)	ug/L	200 – 1,600	
Copper	ug/L	4,200 – 36,000	
Iron	ug/L	49,000 – 81,000	
Lead	ug/L	700 – 8,000	
Manganese	ug/L	200 – 1,500	
Mercury	ug/L	3	
Nickel	ug/L	< 370 – 400	
Silver	ug/L	10 – 50	
Zinc	ug/L	5,600 – 60,000	

(1) Analytical data for sludge from one SWTB, a cesspool truck, and county sludge truck (Dvirka and Bartilucci, 1981).
(2) Estimated range for one sample.

TABLE 4

STRATIGRAPHIC SUMMARY
GEOPROBE SOIL SAMPLES
WESTHAMPTON LANDFILL

STRATIGRAPHIC UNIT	SB0108 (47.6) [1] (16) [2]	SB0208 (42.4) [1] (12.0) [1]	SB0309 (42.8) [1] (16) [2]	SB0408 (41.5) [1] (16) [2]	SB0503 (45.3) [1] (3) [2]	SB0603 (54.7) [1] (3) [2]	SB0707 (39.2) [1] (12) [2]
Fill	0 – 16'	0 – 4.0' 4.2 – 4.5'	0 – 9'	0 – 7.5'	–	–	–
Sludge [3]	–	4.0 – 4.2'	–	–	–	–	–
Sand	–	4.2 – 4.5'	9 – 12'	7.5 – 16'	0 – 3'	0 – 3'	0 – 12'

[1] Ground surface elevation in feet above mean sea level.

[2] Depth of boring in feet.

[3] Suspected septic sludge.

TABLE 5

SUBSURFACE SOIL ANALYTICAL DATA
DETECTED COMPOUND SUMMARY
WESTHAMPTON LANDFILL

CAS NO.	COMPOUND	USEPA (1) Health-Based Guidance Values	SAMPLE ID: DEPTH: SAMPLED: UNITS:	SB0108 08-13' 12/15/94	SB0208 04-08' 12/15/94	SB1208 (2) 04-08' 12/15/94	SB0309 08-12' 12/15/94	SB0408 06-10' 12/15/94	SB0503 00-03' 12/16/94	SB0603 00-03' 12/16/94	SB0707 07-11' 12/16/94
	VOLATILES										
67-64-1	Acetone	8,000,000	UG/KG	12 B	7 BJ	8 BJ	6 BJ	8 BJ	7 BJ	8 BJ	8 BJ
78-93-3	2-Butanone	4,000,000	UG/KG	3 BJ	3 BJ	11 U	11 U	11 U	2 BJ	2 BJ	11 U
75-09-2	Methylene chloride	93,000	UG/KG	3 BJ	2 BJ	2 BJ	1 J	3 BJ	3 BJ	3 BJ	3 BJ
108-88-3	Toluene	20,000,000	UG/KG	2 J	11 U	11 U	11 U	11 U	2 J	10 U	11 U
1330-20-7	Xylenes, Total	200,000,000	UG/KG	5 J	0.8 J	11 U	1 J	1 J	3 J	10 U	11 U
	SEMIVOLATILES										
208-96-8	Acenaphthylene	NS	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	36 J	360 U
120-12-7	Anthracene	20,000,000	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	64 J	360 U
56-55-3	Benzo(a)anthracene	220	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	260 J	360 U
50-32-8	Benzo(a)pyrene	61	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	260 J	360 U
205-99-2	Benzo(b)fluoranthene	NS	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	240 J	360 U
191-24-2	Benzo(ghi)perylene	NS	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	150 J	360 U
207-08-9	Benzo(k)fluoranthene	NS	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	190 J	360 U
85-68-7	Butyl benzyl phthalate	20,000,000	UG/KG	240,000 J	57 J	350 U	350 U	360 U	31 J	1600	360 U
106-47-8	4-Chloroaniline	200,000	UG/KG	19,000 U	69 J	350 U	350 U	360 U	350 U	340 U	360 U
218-01-9	Chrysene	NS	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	280 J	360 U
84-74-2	Di-n-butyl phthalate	8,000,000	UG/KG	4,400 BJ	470 B	140 BJ	260 BJ	210 BJ	230 BJ	260 BJ	710 B
53-70-3	Dibenz(a,h)anthracene	14	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	59 J	360 U
131-11-3	Dimethyl phthalate	60,000	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	28 J	360 U
206-44-0	Fluoranthene	3,000,000	UG/KG	19,000 U	350 U	350 U	350 U	37 J	350 U	540	360 U
193-39-5	Indeno(1,2,3-cd)pyrene	NS	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	140 J	360 U
85-01-8	Phenanthrene	NS	UG/KG	19,000 U	350 U	350 U	350 U	360 U	350 U	170 J	360 U
129-00-0	Pyrene	2,000,000	UG/KG	19,000 U	350 U	350 U	350 U	110 J	26 J	510	360 U
117-81-7	Bis(2-ethylhexyl)phthalate	50,000	UG/KG	95,000 B	300 BJ	51 BJ	220 BJ	360 U	23 BJ	31 BJ	21 BJ
	PESTICIDES/PCBs										
309-00-2	Aldrin	41	UG/KG	6 P	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	0.43 JP	1.8 U
72-54-8	4,4'-DDD	2,900	UG/KG	80	3 J	2.3 J	3.5 U	1.4 JP	4.5 P	5.3 P	1.8 JP
72-55-9	4,4'-DDE	2,100	UG/KG	32	3.3J	0.78 JP	3.5 U	1.9 J	9.2	1.1 JP	1.1 JP
50-29-3	4,4'-DDT	2,100	UG/KG	6.9 JP	3.5 U	1.6 JP	1.3 J	7.9	51P	16	1.5 JP
60-57-1	Dieldrin	440	UG/KG	9 P	2.4 JP	0.72 JP	3.5 U	1 J	1.8 J	1 JP	1.1 JP
33213-65-9	Endosulfan II	NS	UG/KG	7.6 U	3.5 U	3.5 U	3.5 U	3.6 U	2.4 JP	6.2 P	3.6 U
1031-07-8	Endosulfan sulfate	NS	UG/KG	7.6 U	3.5 U	3.5 U	3.5 U	3.6 U	4	8 P	3.6 U
72-20-8	Endrin	20,000	UG/KG	1.7 JP	3.5 U	3.5 U	3.5 U	1.2 J	1.1 J	2.5 JP	1.8 JP
53494-70-5	Endrin ketone	NS	UG/KG	7.6 U	3.5 U	3.5 U	3.5 U	3.6 U	0.91 JP	3.4 U	3.6 U
1024-57-3	Heptachlor epoxide	77	UG/KG	3.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	0.49 JP	0.57 J
72-43-5	Methoxychlor	400,000	UG/KG	38 U	18 U	18 U	18 U	18 U	0.64 JP	17 U	18 U
5103-71-9	alpha-Chlordane	540	UG/KG	35 P	5 P	1.2 JP	0.42 JP	2.4	1 JP	8 P	3.3 P
319-86-8	delta-BHC	NS	UG/KG	4.2 P	1.8 U	1.8 U	1.8 U	1.8 U	0.61 JP	1.8 P	1.8 U
5103-74-2	gamma-Chlordane	540	UG/KG	38 P	3.6 P	0.94 JP	1.8 U	1.8 U	0.89 JP	6.5 P	2.9 P

(1) NYSDEC – Memorandum (11/16/92) – Determination of soil cleanup objectives and cleanup levels
(2) Duplicate of SB0208.

Organic Data Qualifiers

U – Indicates a compound was analyzed for but not detected.
J – Indicates an estimated value.
B – Indicates the analyte is found in the associated blank as well as in the sample.
E – Indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument.
D – Indicates an analysis at a secondary dilution factor.
P – Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Arocior analytes.
R – Indicates unuseable results.

Indicates concentration exceeds applicable standard or guidance value.

Indicates concentration exceeds three times background sample SB0707.

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TABLE 5 (continued)

SUBSURFACE SOIL ANALYTICAL DATA
DETECTED COMPOUND SUMMARY
WESTHAMPTON LANDFILL

CAS NO.	COMPOUND	NATURAL (1) RANGE IN SOILS	SAMPLE ID: / DEPTH: / SAMPLED: / UNITS:	SB0108 08–13' 12/15/94	SB0208 04–08' 12/15/94	SB1208 (2) 04–08' 12/15/94	SB0309 08–12' 12/15/94	SB0408 06–10' 12/15/94	SB0503 00–03' 12/16/94	SB0603 00–03' 12/16/94	SB0707 07–11' 12/16/94
	INORGANICS										
7429–90–5	Aluminum	700–100,000	MG/KG	1750 *	402 *	461 *	448 *	709 *	776 *	1060 *	968 *
7440–38–2	Arsenic	0.1–100	MG/KG	5.3	0.31 UW	0.53 BW	0.51 BW	0.65 B	0.87 B	1.5B	0.38 B
7440–39–3	Barium	10–500	MG/KG	39.5 B	2.3 B	4.3 B	2.4 B	6.8B	1.1 B	9.7B	1.8 B
7440–41–7	Beryllium	<1–7	MG/KG	0.22 U	0.2 U	0.21 U	0.2 U	0.96	0.2 U	0.2 U	0.2 U
7440–43–9	Cadmium	0.01–7 *	MG/KG	1.4	0.89 U	0.94 U	0.91 U	0.92 U	0.9 U	0.9 U	0.89 U
7440–70–2	Calcium	130–333,000	MG/KG	14400	65.3 B	91.7 B	116 B	348B	279 B	17300	95.1 B
7440–47–3	Chromium	1–2000	MG/KG	10	2.9	5.5	2.5	7.1	3.6	3.8	2.7
7440–48–4	Cobalt	<3–70	MG/KG	1.9 U	1.7 U	2.6 B	1.7 U	3.6 B	1.7 U	2.7 B	1.7 B
7440–50–8	Copper	1–700	MG/KG	18	5.2	10.4	5.2	19.2	4.3 B	6.8	2.2 B
57–12–5	Cyanide	ND	MG/KG	0.57 U	0.51 U	0.79	0.51 U	0.53 U	0.52 U	0.53 U	0.5 U
7439–89–6	Iron	100–100,000	MG/KG	8930	757	1160	702	1830	2010	3750	1670
7439–92–1	Lead	<10–700	MG/KG	136 N*	10.7N*	7.1N*	2.1 N*	20.9N*	21.3N*	63.8N*	1.9 N*
7439–95–4	Magnesium	50–50,000	MG/KG	6730	48.7B	49.9 B	42.8 B	114 B	193B	2770	80.6 B
7439–96–5	Manganese	<2–7,000	MG/KG	65.3 *	3 *	5 *	4.7 *	21.4 *	19.7 *	46.9 *	16.7 *
7439–97–6	Mercury	0.02–0.5	MG/KG	0.16 N	0.15 N	0.08 UN	0.09 UN	0.09 BN	0.1 UN	0.62N	0.09 UI
7440–02–0	Nickel	<5–7,000	MG/KG	42.8	16.5	35.3	7.1 B	71.4	1.7 U	2.5 B	17.8
7782–49–2	Selenium	<0.1–3.9	MG/KG	0.49 BW	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
7440–62–2	Vanadium	20–500	MG/KG	7.6 B	3.8 B	2.6 U	2.5 U	2.7 B	8.1B	5.2 B	2.4 U
7440–66–6	Zinc	<5–3,500	MG/KG	1170 *	41*	206*	25.8*	113*	10.9 *	47.3*	5.9 *
	EPTOX METALS										
7440–39–3	Barium	100000	UG/L	77 B	100 B	130 B	71 B	316	44 B	55 B	
7440–43–9	Cadmium	1000	UG/L	5 U	23.2	19.3	5 U	5 U	5 U	5 U	
7439–92–1	Lead	5000	UG/L	55.9 U	55.9 U	55.9 U	55.9 U	55.9 U	55.9 U	55.9 U*	
7439–97–6	Mercury	200	UG/L	0.2 U*	0.2 U*	0.2 U*	0.23 *	0.2 U*	0.2 U*	0.2 U*	
7782–49–2	Selenium	1000	UG/L	86.5 *	51.8 U*	51.8 U*	94.6 *	51.8 U*	51.8 U*	51.8 U*	

(1) Schacklette and Boerngen, 1984.
* Booz, Allen, and Hamilton, 1983
** USEPA, 1983
(2) Duplicate of SB0208.

Inorganic Data Qualifiers

B – Indicates a value greater than or equal to the instruments detection limit but less than the contract required detection limit.
U – Indicates element was analyzed for but not detected.
E – Indicates a value estimated or not reported due to the presence of interference.
S – Indicates a value determined by Method of Standard Addition.
N – indicates spike sample recovery is not within control limits.
* – Indicates duplicate analysis is not within control limits.
\+ – Indicates the correlation coefficient for method of standard addition is less than 0.995.
M – Indicates duplicate injection results exceeded control limits.
W – Post digestion spike for Furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
G – The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
L – The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
R – Indicates unuseable results.

Indicates concentration exceeds applicable standard or guidance value.

Indicates concentration exceeds three times background sample SB0707.

TABLE 6

GROUNDWATER ANALYTICAL DATA
DETECTED COMPOUND SUMMARY
WESTHAMPTON LANDFILL

CAS NO.	COMPOUND	NYSDEC Class GA Groundwater Standard/ Guidelines	SAMPLE ID: SAMPLED: UNITS:	GW01 12/15/94	GW02 12/16/94	GW03 12/16/94	GW13 (2) 12/16/94	GW04 12/16/94	GW05 12/16/94	GW06 12/16/94	GW07 12/16/94
	VOLATILES										
67-64-1	Acetone	50	UG/L	10 U	10 U	10 U	10 U	10 U	5 J	10 U	10 U
108-90-7	Chlorobenzene	5	UG/L	10 U	10 U	10 U	1 J	10 U	10 U	10 U	10 U
67-66-3	Chloroform	7	UG/L	10 U	10 U	10 U	10 U	1 J	10 U	10 U	1 J
75-09-2	Methylene chloride	5	UG/L	10 U	1 J	10 U	2 J	10 U	10 U	10 U	2 J
	SEMIVOLATILES										
84-74-2	Di-n-butyl phthalate	50	UG/L	2 BJ	2 BJ	3 BJ	2 BJ	5 BJ	10 U	2 BJ	3 BJ
106-46-7	1,4-Dichlorobenzene	4.7	UG/L	10 U	10 U	1 J	1 J	11 U	10 U	10 U	10 U
95-50-1	1,2-Dichlorobenzene	4.7	UG/L	10 U	10 U	0.8 J	0.8 J	11 U	10 U	10 U	10 U
117-81-7	bis(2-ethylhexyl) phthalate	50	UG/L	5 J	10 U	4J	10 U	12	1 J	7J	1 J
	PESTICIDES										
1031-07-8	Endosulfan sulfate	NS	UG/L	0.087 JP	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
	INORGANICS										
7429-90-5	Aluminum	NS	UG/L	754	7360	4370	2160	5790	3480	1610	5210
7440-38-2	Arsenic	25	UG/L	2.3 B	4.2 B	4.1 B	4.1 B	3.8 B	2.4 BW	2.1 B	2.3 B
7440-39-3	Barium	1000	UG/L	180 B	30 B	16 B	11 B	26 B	77 B	9 B	29 B
7440-70-2	Calcium	NS	UG/L	33000	14900	26300	25500	5800	22400	30900	2160 B
7440-47-3	Chromium	50	UG/L	57.2	125	104	42.9	65.4	72.5	168	142
7440-50-8	Copper	200	UG/L	11.6 B	41.1	22.9 B	12 B	19.6 B	15.9 B	23.2 B	31.1
7439-89-6	Iron	300	UG/L	14200	30900	16700	8710	19200	18200	25100	41100
7440-09-7	Potassium	NS	UG/L	28000	3430B	3910B	3710B	1480 B	4720B	1120 B	955 B
7439-92-1	Lead	25	UG/L	42.2 N	49.3N	26.4N	4.4 NW	10.8 N	47.9N	3.6 N	223N
7439-95-4	Magnesium	35000 (G)	UG/L	5260	4190 B	5750	5300	2520 B	7570	9900	1990 B
7439-96-5	Manganese	300	UG/L	2040	482	393	337	223	535	413	645
7439-97-6	Mercury	2	UG/L	0.2 UN	0.2 UN	0.2 UN	0.87 N	0.2 UN	0.2 UN	0.7N	0.2 UN
7440-02-0	Nickel	NS	UG/L	22 B	25.2 B	57.1	13.7 B	20 B	9.4 U	19.5 B	45.4
7440-23-5	Sodium	20000	UG/L	17400	3740 B	5660	5840	4350 B	85000	6720	5370
7440-28-0	Thallium	4 (G)	UG/L	2.1 BW	1.8 U	1.8 U	1.8 U	3 BW	1.8 UW	1.8 U	1.8 U
7440-62-2	Vanadium	NS	UG/L	13.7 U	30.6 B	15.8 B	13.7 U	24.6 B	13.7 U	13.7 U	17.4 B
7440-66-6	Zinc	300	UG/L	47.1	270	122	56.9	115	263	1110	238

(1) NYSDEC – Ambient Water Quality Standards and Guidance Values (11/22/93)
(S) – Standard
(G) – Guidance
* – Standard is Hardness Dependant (assume hardness of 150 ppm)
(2) Duplicate of GW03.

Indicates concentration exceeds applicable standard or guidance value.

Indicates concentration exceeds three times upgradient concentration in GW07.

Indicates concentration exceeds applicable standard or guidance value, and three times upgradient concentration in GW07.

Organic Data Qualifiers
U – Indicates a compound was analyzed for but not detected.
J – Indicates an estimated value.
B – Indicates the analyte is found in the associated blank as well as in the sample.
P – Indicates a greater than 25% difference for detected concentrations between two GC columns for pesticide/Aroclor analytes.

Inorganic Data Qualifiers
B – Indicates a value greater than or equal to the instruments detection limit but less than the contract required detection limit.
U – Indicates element was analyzed for but not detected.
N – Indicates spike sample recovery is not within control limits.
W – Post digestion spike for Furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.

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APPENDIX A

RECORD SEARCH CONTACTS

APPENDIX A

RECORD SEARCH CONTACTS
WESTHAMPTON LANDFILL SITE
SUFFOLK COUNTY, NEW YORK

Source	Information Provided
NYSDEC - Albany, Srikanth Maddineni, Project Manager, (518) 457-2377.	Division of Hazardous Waste Remediation site files.
NYSDEC - Albany, Stephen Malsan, Environmental Engineer, (518) 457-6072.	Division of Hazardous Substances Regulation site files.
NYSDEC - Albany, Robert Olazagasti, (518) 457-2553.	Division of Solid Waste - no information.
NYSDEC - Albany, William McGahay, (518) 457-7464.	Division of Water - no information.
NYSDEC - Albany, Tom Ryder, (518) 457-1148.	Division of Air; Division of Fish and Wildlife - no information.
NYSDEC - Latham, Nick Conrad, (518) 783-3932	New York Heritage Program Files.
NYSDEC-Region 1, Stony Brook, Sandra Boxenbaum, Regional Records Access Officer, (516) 444-0200.	Files from Division of Hazardous Waste Remediation and Natural Resources. No information from the following Divisions: Solid Waste, Water, Air, Spill Response, and Fish and Wildlife.
NYSDOH - Albany, Michael Kadlec, (518) 458-6305.	Bureau of Environmental Exposure Investigation files.

APPENDIX A (CONTINUED)

RECORD SEARCH CONTACTS
WESTHAMPTON LANDFILL SITE
SUFFOLK COUNTY, NEW YORK

Source	Information Provided
USEPA Region II - Manhattan, George Wilson, (212) 264-6012.	No information.
Suffolk County DHS - Hauppauge, Richard Sandstrom, (516)853-3055.	Files from the Division of Public Health.
Suffolk County DHS - Hauppauge, Martin Trent, (516)853-3076.	Files from the Division of Water Resources (Jagger Lane Study).
Suffolk County Real Property, Riverhead, (516) 852-1550.	Tax maps.
Suffolk County Planning Department, Hauppauge, Carl Lind, (516) 853-6044.	Reviewed in-house aerial photographs.
Federal Emergency Management Agency, (800) 358-9616	Flood insurance maps.
Ms. Barbara Ann Meyer, Town Clerk, Town of Southampton, (516) 283-3198.	Town files.
Mr. Brian Gilbride, Department of Sanitation Supervisor, Town of Southampton, (516) 283-6222.	Department of Sanitation files (tipping permit applications and log books).

APPENDIX B

LABORATORY ANALYTICAL DATA

NYSDEC WESTHAMPTON LANDFILL SOIL BORING DATA SDG: SB0108		SAMPLE ID: DEPTH: LAB ID: SDG: SAMPLED:	SB0108 08-13' 95053601 SB0108 12/15/94	SB0108RE 08-13' 95053601RE SB0108 12/15/94	SB0208 04-08' 95053602 SB0108 12/15/94	SB1208 04-08' 95053605 SB0108 12/15/94	SB0309 08-12' 95053606 SB0108 12/15/94	SB0408 06-10' 95053603 SB0108 12/15/94
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
74-87-3	Chloromethane	UG/KG	11 U		11 U	11 U	11 U	11 U
74-83-9	Bromomethane	UG/KG	11 U		11 U	11 U	11 U	11 U
75-01-4	Vinyl chloride	UG/KG	11 U		11 U	11 U	11 U	11 U
75-00-3	Chloroethane	UG/KG	11 U		11 U	11 U	11 U	11 U
75-09-2	Methylene chloride	UG/KG	3 BJ		2 BJ	2 BJ	1 J	3 BJ
67-64-1	Acetone	UG/KG	12 B		7 BJ	8 BJ	6 BJ	8 BJ
75-15-0	Carbon disulfide	UG/KG	11 U		11 U	11 U	11 U	11 U
75-35-4	1,1-Dichloroethene	UG/KG	11 U		11 U	11 U	11 U	11 U
75-34-3	1,1-Dichloroethane	UG/KG	11 U		11 U	11 U	11 U	11 U
544-59-2	1,2-Dichloroethene, Total	UG/KG	11 U		11 U	11 U	11 U	11 U
67-66-3	Chloroform	UG/KG	11 U		11 U	11 U	11 U	11 U
107-06-2	1,2-Dichloroethane	UG/KG	11 U		11 U	11 U	11 U	11 U
78-93-3	2-Butanone	UG/KG	3 BJ		3 BJ	11 U	11 U	11 U
71-55-6	1,1,1-Trichloroethane	UG/KG	11 U		11 U	11 U	11 U	11 U
56-23-5	Carbon tetrachloride	UG/KG	11 U		11 U	11 U	11 U	11 U
75-27-4	Bromodichloromethane	UG/KG	11 U		11 U	11 U	11 U	11 U
78-87-5	1,2-Dichloropropane	UG/KG	11 U		11 U	11 U	11 U	11 U
10061-01-5	cis-1,3-Dichloropropene	UG/KG	11 U		11 U	11 U	11 U	11 U
79-01-6	Trichloroethene	UG/KG	11 U		11 U	11 U	11 U	11 U
124-48-1	Chlorodibromomethane	UG/KG	11 U		11 U	11 U	11 U	11 U
79-00-5	1,1,2-Trichloroethane	UG/KG	11 U		11 U	11 U	11 U	11 U
71-43-2	Benzene	UG/KG	11 U		11 U	11 U	11 U	11 U
10061-02-6	trans-1,3-Dichloropropene	UG/KG	11 U		11 U	11 U	11 U	11 U
75-25-2	Bromoform	UG/KG	11 U		11 U	11 U	11 U	11 U
108-10-1	4-Methyl-2-pentanone	UG/KG	11 U		11 U	11 U	11 U	11 U
591-78-6	2-Hexanone	UG/KG	11 U		11 U	11 U	11 U	11 U
127-18-4	Tetrachloroethene	UG/KG	11 U		11 U	11 U	11 U	11 U
79-34-5	1,1,2,2-Tetrachloroethane	UG/KG	11 U		11 U	11 U	11 U	11 U
108-88-3	Toluene	UG/KG	2 J		11 U	11 U	11 U	11 U
108-90-7	Chlorobenzene	UG/KG	11 U		11 U	11 U	11 U	11 U
100-41-4	Ethylbenzene	UG/KG	11 U		11 U	11 U	11 U	11 U
100-42-5	Styrene	UG/KG	11 U		11 U	11 U	11 U	11 U
1330-20-7	Xylenes, Total	UG/KG	5 J		0.8 J	11 U	1 J	1 J

NYSDEC WESTHAMPTON LANDFILL SOIL BORING DATA SDG: SB0108		SAMPLE ID: DEPTH: LAB ID: SDG: SAMPLED:	SB0108 08-13' 95053601 SB0108 12/15/94	SB0108RE 08-13' 95053601RE SB0108 12/15/94	SB0208 04-08' 95053602 SB0108 12/15/94	SB1208 04-08' 95053605 SB0108 12/15/94	SB0309 08-12' 95053606 SB0108 12/15/94	SB0408 06-10' 95053603 SB0108 12/15/94
CAS NO.	COMPOUND	UNITS:						
	SEMIVOLATILES							
108-95-2	Phenol	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
111-44-4	bis(2-chloroethyl)ether	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
95-57-8	2-Chlorophenol	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
541-73-1	1,3-Dichlorobenzene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
106-46-7	1,4-Dichlorobenzene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
95-50-1	1,2-Dichlorobenzene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
95-48-7	2-Methylphenol	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
108-60-1	2,2'-oxybis (1-Chloro-propane)	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
106-44-5	4-Methylphenol	UG/KG	19000 U	55000 U	350 U	350 U	360 U	360 U
621-64-7	N-Nitrosodi-n-propylamine	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
67-72-1	Hexachloroethane	UG/KG	19000 U	55000 U	350 U	350 U	350 U	350 U
98-95-3	Nitrobenzene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	350 U
78-59-1	Isophorone	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
88-75-5	2-Nitrophenol	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
105-67-9	2,4-Dimethylphenol	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
111-91-1	bis(2-chloroethoxy)methane	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
120-83-2	2,4-Dichlorophenol	UG/KG	19000 U	55000 U	350 U	350 U	350 U	350 U
120-82-1	1,2,4-Trichlorobenzene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	350 U
91-20-3	Naphthalene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	350 U
106-47-8	4-Chloroaniline	UG/KG	19000 U	55000 U	69 J	350 U	350 U	350 U
87-68-3	Hexachlorobutadiene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
59-50-7	4-Chloro-3-methylphenol	UG/KG	19000 U	55000 U	350 U	350 U	350 U	350 U
91-57-6	2-Methylnaphthalene	UG/KG	19000 U	55000 U	350 U	350 U	360 U	360 U
77-47-4	Hexachlorocyclopentadiene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	350 U
88-06-2	2,4,6-Trichlorophenol	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
95-95-4	2,4,5-Trichlorophenol	UG/KG	47000 U	140000 U	880 U	880 U	880 U	900 U
91-58-7	2-Chloronaphthalene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
88-74-4	2-Nitroaniline	UG/KG	47000 U	140000 U	880 U	880 U	880 U	900 U
131-11-3	Dimethyl phthalate	UG/KG	19000 U	55000 U	350 U	360 U	360 U	360 U
208-96-8	Acenaphthylene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
606-20-2	2,6-Dinitrotoluene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	350 U
99-09-2	3-Nitroaniline	UG/KG	47000 U	140000 U	880 U	880 U	880 U	900 U
83-32-9	Acenaphthene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	350 U
51-28-5	2,4-Dinitrophenol	UG/KG	47000 U	140000 U	880 U	880 U	880 U	900 U
100-02-7	4-Nitrophenol	UG/KG	47000 U	140000 U	880 U	880 U	880 U	900 U
132-64-9	Dibenzofuran	UG/KG	19000 U	55000 U	350 U	350 U	350 U	350 U
121-14-2	2,4-Dinitrotoluene	UG/KG	19000 U	55000 U	350 U	350 U	360 U	360 U
84-66-2	Diethyl phthalate	UG/KG	19000 U	55000 U	350 U	360 U	350 U	360 U
7005-72-3	4-Chlorophenyl phenyl ether	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
86-73-7	Fluorene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
100-01-6	4-Nitroaniline	UG/KG	47000 U	140000 U	880 U	880 U	880 U	900 U
534-52-1	4,6-Dinitro-2-methylphenol	UG/KG	47000 U	140000 U	880 U	880 U	880 U	900 U
86-30-6	N-Nitrosodiphenylamine	UG/KG	19000 U	55000 U	350 U	350 U	360 U	360 U
101-55-3	4-Bromophenyl phenyl ether	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
118-74-1	Hexachlorobenzene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
87-86-5	Pentachlorophenol	UG/KG	47000 U	140000 U	880 U	880 U	880 U	900 U
85-01-8	Phenanthrene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
120-12-7	Anthracene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
86-74-8	Carbazole	UG/KG	19000 U	55000 U	360 U	350 U	350 U	360 U
84-74-2	Di-n-butyl phthalate	UG/KG	4400 BJ	55000 U	470 B	140 BJ	260 BJ	210 BJ
206-44-0	Fluoranthene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	37 J
129-00-0	Pyrene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	110 J
85-68-7	Butyl benzyl phthalate	UG/KG	240000 E	55000 U	57 J	350 U	350 U	360 U
91-94-1	3,3'-Dichlorobenzidine	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
56-55-3	Benzo(a)anthracene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
218-01-9	Chrysene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	350 U
117-81-7	bis(2-ethylhexyl)phthalate	UG/KG	95000 B	55000 U	300 BJ	51 BJ	220 BJ	360 U
117-84-0	Di-n-octyl phthalate	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
205-99-2	Benzo(b)fluoranthene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
207-08-9	Benzo(k)fluoranthene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
50-32-8	Benzo(a)pyrene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
193-39-5	Indeno(1,2,3-cd)pyrene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
53-70-3	Dibenz(a,h)anthracene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U
191-24-2	Benzo(ghi)perylene	UG/KG	19000 U	55000 U	350 U	350 U	350 U	360 U

NYSDEC WESTHAMPTON LANDFILL SOIL BORING DATA SDG: SB0108		SAMPLE ID: DEPTH: LAB ID: SDG: SAMPLED:	SB0108 08-13' 95053601 SB0108 12/15/94	SB0108RE 08-13' 95053601RE SB0108 12/15/94	SB0208 04-08' 95053602 SB0108 12/15/94	SB1208 04-08' 95053605 SB0108 12/15/94	SB0309 08-12' 95053606 SB0108 12/15/94	SB0408 06-10' 95053603 SB0108 12/15/94
CAS NO.	COMPOUND	UNITS:						
	PESTICIDES/PCBs							
319-84-6	alpha-BHC	UG/KG	3.8 U		1.8 U	1.8 U	1.8 U	1.8 U
319-85-7	beta-BHC	UG/KG	3.8 U		1.8 U	1.8 U	1.8 U	1.8 U
319-86-8	delta-BHC	UG/KG	4.2 P		1.8 U	1.8 U	1.8 U	1.8 U
58-89-9	Lindane	UG/KG	3.8 U		1.8 U	1.8 U	1.8 U	1.8 U
76-44-8	Heptachlor	UG/KG	3.8 U		1.8 U	1.8 U	1.8 U	1.8 U
309-00-2	Aldrin	UG/KG	6 P		1.8 U	1.8 U	1.8 U	1.8 U
1024-57-3	Heptachlor epoxide	UG/KG	3.8 U		1.8 U	1.8 U	1.8 U	1.8 U
959-98-8	Endosulfan I	UG/KG	3.8 U		1.8 U	1.8 U	1.8 U	1.8 U
60-57-1	Dieldrin	UG/KG	9 P		2.4 JP	0.72 JP	3.5 U	1 J
72-55-9	4,4'-DDE	UG/KG	32		3.3 J	0.76 JP	3.5 U	1.9 J
72-20-8	Endrin	UG/KG	1.7 JP		3.5 U	3.5 U	3.5 U	1.2 J
33213-65-9	Endosulfan II	UG/KG	7.6 U		3.5 U	3.5 U	3.5 U	3.6 U
72-54-8	4,4'-DDD	UG/KG	80		3 J	2.3 J	3.5 U	1.4 JP
1031-07-8	Endosulfan sulfate	UG/KG	7.6 U		3.5 U	3.5 U	3.5 U	3.6 U
50-29-3	4,4'-DDT	UG/KG	6.9 JP		3.5 U	1.6 JP	1.3 J	7.9
72-43-5	Methoxychlor	UG/KG	38 U		18 U	18 U	18 U	18 U
53494-70-5	Endrin ketone	UG/KG	7.6 U		3.5 U	3.5 U	3.5 U	3.6 U
7421-93-4	Endrin aldehyde	UG/KG	7.6 U		3.5 U	3.5 U	3.5 U	3.6 U
5103-71-9	alpha-Chlordane	UG/KG	35 P		5 P	1.2 JP	0.42 JP	2.4
5103-74-2	gamma-Chlordane	UG/KG	38 P		3.6 P	0.94 JP	1.8 U	1.8 U
8001-35-2	Toxaphene	UG/KG	380 U		180 U	180 U	180 U	180 U
12674-11-2	Aroclor 1016	UG/KG	76 U		35 U	35 U	35 U	36 U
11104-28-2	Aroclor 1221	UG/KG	150 U		70 U	70 U	70 U	72 U
11141-16-5	Aroclor 1232	UG/KG	76 U		35 U	35 U	35 U	36 U
53469-21-9	Aroclor 1242	UG/KG	76 U		35 U	35 U	35 U	36 U
12672-29-6	Aroclor 1248	UG/KG	76 U		35 U	35 U	35 U	38 U
11097-69-1	Aroclor 1254	UG/KG	76 U		35 U	35 U	35 U	36 U
11096-82-5	Aroclor 1260	UG/KG	76 U		35 U	35 U	35 U	38 U
	EPTOX HERBICIDES/PESTICIDES							
58-89-9E	gamma-BHC	UG/KG	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
72-20-8E	Endrin	UG/KG	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
72-43-5E	Methoxychlor	UG/KG	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
8001-35-2E	Toxaphene	UG/KG	5 U		5 U	5 U	5 U	5 U
94-75-1E	2,4-D	UG/KG	10 U		10 U	10 U	10 U	10 U
93-72-1E	2,4,5-TP (Silvex)	UG/KG	2 U		2 U	2 U	2 U	2 U
	INORGANICS							
7429-90-5	Aluminum	MG/KG	1750 *		402 *	461 *	448 *	709 *
7440-36-0	Antimony	MG/KG	11.8 U		10.4 U	10.9 U	10.5 U	10.7 U
7440-38-2	Arsenic	MG/KG	5.3		0.31 UW	0.53 BW	0.51 BW	0.65 B
7440-39-3	Barium	MG/KG	39.5 B		2.3 B	4.3 B	2.4 B	6.8 B
7440-41-7	Beryllium	MG/KG	0.22 U		0.2 U	0.21 U	0.2 U	0.96
7440-43-9	Cadmium	MG/KG	1.4		0.89 U	0.94 U	0.91 U	0.92 U
7440-70-2	Calcium	MG/KG	14400		65.3 B	91.7 B	116 B	348 B
7440-47-3	Chromium	MG/KG	10		2.9	5.5	2.5	7.1
7440-48-4	Cobalt	MG/KG	1.9 U		1.7 U	2.6 B	1.7 U	3.6 B
7440-50-8	Copper	MG/KG	18		5.2	10.4	5.2	19.2
7439-89-6	Iron	MG/KG	8930		757	1160	702	1830
7439-92-1	Lead	MG/KG	136 N*		10.7 N*	7.1 N*	2.1 N*	20.9 N*
7439-95-4	Magnesium	MG/KG	6730		48.7 B	49.9 B	42.8 B	114 B
7439-96-5	Manganese	MG/KG	65.3 *		3 *	5 *	4.7 *	21.4 *
7439-97-6	Mercury	MG/KG	0.16 N		0.15 N	0.08 UN	0.09 UN	0.09 BN
7440-02-0	Nickel	MG/KG	42.8		16.5	35.3	7.1 B	71.4
7440-09-7	Potassium	MG/KG	116 U		102 U	107 U	103 U	105 U
7782-49-2	Selenium	MG/KG	0.49 BW		0.22 U	0.22 U	0.22 U	0.22 U
7440-22-4	Silver	MG/KG	1.5 U		1.3 U	1.4 U	1.3 U	1.3 U
7440-23-5	Sodium	MG/KG	49.2 U		43.2 U	45.3 U	43.8 U	44.4 U
7440-28-0	Thallium	MG/KG	0.36 UW		0.33 U	0.33 U	0.33 U	0.33 U
7440-62-2	Vanadium	MG/KG	7.6 B		3.8 B	2.6 U	2.5 U	2.7 B
7440-66-6	Zinc	MG/KG	1170 *		41 *	206 *	25.8 *	113 *
57-12-5	Cyanide	MG/KG	0.57 U		0.51 U	0.79	0.51 U	0.53 U
	EPTOX METALS							
7440-38-2	Arsenic	UG/L	97.3 U		97.3 U	97.3 U	97.3 U	97.3 U
7440-39-3	Barium	UG/L	77 B		100 B	130 B	71 B	316
7440-43-9	Cadmium	UG/L	5 U		23.2	19.3	5 U	5 U
7440-47-3	Chromium	UG/L	6.7 U		6.7 U	6.7 U	6.7 U	6.7 U
7439-92-1	Lead	UG/L	55.9 U		55.9 U	55.9 U	55.9 U	55.9 U
7439-97-6	Mercury	UG/L	0.2 U*		0.2 U*	0.2 U*	0.23 *	0.2 U*
7782-49-2	Selenium	UG/L	86.5 *		51.8 U*	51.8 U*	94.6 *	51.8 U*
7440-22-4	Silver	UG/L	7.2 U		7.2 U	7.2 U	7.2 U	7.2 U

NYSDEC WESTHAMPTON LANDFILL SOIL BORING DATA SDG: SB0108		SAMPLE ID: DEPTH: LAB ID: SDG: SAMPLED:	SB0408DL 06–10' 95053603DL SB0108 12/15/94	SB0503 00–03' 95055501 SB0108 12/16/94	SB0503DL 00–03' 95055501DL SB0108 12/16/94	SB0603 00–03' 95055502 SB0108 12/16/94	SB0707 07–11' 95053604 SB0108 12/16/94
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
74–87–3	Chloromethane	UG/KG		11 U		10 U	11 U
74–83–9	Bromomethane	UG/KG		11 U		10 U	11 U
75–01–4	Vinyl chloride	UG/KG		11 U		10 U	11 U
75–00–3	Chloroethane	UG/KG		11 U		10 U	11 U
75–09–2	Methylene chloride	UG/KG		3 BJ		3 BJ	3 BJ
67–64–1	Acetone	UG/KG		7 BJ		8 BJ	8 BJ
75–15–0	Carbon disulfide	UG/KG		11 U		10 U	11 U
75–35–4	1,1–Dichloroethene	UG/KG		11 U		10 U	11 U
75–34–3	1,1–Dichloroethane	UG/KG		11 U		10 U	11 U
544–59–2	1,2–Dichloroethene, Total	UG/KG		11 U		10 U	11 U
67–66–3	Chloroform	UG/KG		11 U		10 U	11 U
107–06–2	1,2–Dichloroethane	UG/KG		11 U		10 U	11 U
78–93–3	2–Butanone	UG/KG		2 BJ		2 BJ	11 U
71–55–6	1,1,1–Trichloroethane	UG/KG		11 U		10 U	11 U
56–23–5	Carbon tetrachloride	UG/KG		11 U		10 U	11 U
75–27–4	Bromodichloromethane	UG/KG		11 U		10 U	11 U
78–87–5	1,2–Dichloropropane	UG/KG		11 U		10 U	11 U
10061–01–5	cis–1,3–Dichloropropene	UG/KG		11 U		10 U	11 U
79–01–6	Trichloroethene	UG/KG		11 U		10 U	11 U
124–48–1	Chlorodibromomethane	UG/KG		11 U		10 U	11 U
79–00–5	1,1,2–Trichloroethane	UG/KG		11 U		10 U	11 U
71–43–2	Benzene	UG/KG		11 U		10 U	11 U
10061–02–6	trans–1,3–Dichloropropene	UG/KG		11 U		10 U	11 U
75–25–2	Bromoform	UG/KG		11 U		10 U	11 U
108–10–1	4–Methyl–2–pentanone	UG/KG		11 U		10 U	11 U
591–78–6	2–Hexanone	UG/KG		11 U		10 U	11 U
127–18–4	Tetrachloroethene	UG/KG		11 U		10 U	11 U
79–34–5	1,1,2,2–Tetrachloroethane	UG/KG		11 U		10 U	11 U
108–88–3	Toluene	UG/KG		2 J		10 U	11 U
108–90–7	Chlorobenzene	UG/KG		11 U		10 U	11 U
100–41–4	Ethylbenzene	UG/KG		11 U		10 U	11 U
100–42–5	Styrene	UG/KG		11 U		10 U	11 U
1330–20–7	Xylenes, Total	UG/KG		3 J		10 U	11 U

NYSDEC WESTHAMPTON LANDFILL SOIL BORING DATA SDG: SB0108		SAMPLE ID: DEPTH: LAB ID: SDG: SAMPLED:	SB0408DL 06-10' 95053603DL SB0108 12/15/94	SB0503 00-03' 95055501 SB0108 12/16/94	SB0503DL 00-03' 95055501DL SB0108 12/16/94	SB0603 00-03' 95055502 SB0108 12/16/94	SB0707 07-11' 95053604 SB0108 12/16/94
CAS NO.	COMPOUND	UNITS:					
	SEMIVOLATILES						
108-95-2	Phenol	UG/KG	1800 U	350 U		340 U	360 U
111-44-4	bis(2-chloroethyl)ether	UG/KG	1800 U	350 U		340 U	360 U
95-57-8	2-Chlorophenol	UG/KG	1800 U	350 U		340 U	360 U
541-73-1	1,3-Dichlorobenzene	UG/KG	1800 U	350 U		340 U	360 U
106-46-7	1,4-Dichlorobenzene	UG/KG	1800 U	350 U		340 U	360 U
95-50-1	1,2-Dichlorobenzene	UG/KG	1800 U	350 U		340 U	360 U
95-48-7	2-Methylphenol	UG/KG	1800 U	350 U		340 U	360 U
108-60-1	2,2'-oxybis (1-Chloro-propane)	UG/KG	1800 U	350 U		340 U	360 U
106-44-5	4-Methylphenol	UG/KG	1800 U	350 U		340 U	360 U
621-64-7	N-Nitrosodi-n-propylamine	UG/KG	1800 U	350 U		340 U	360 U
67-72-1	Hexachloroethane	UG/KG	1800 U	350 U		340 U	360 U
98-95-3	Nitrobenzene	UG/KG	1800 U	350 U		340 U	360 U
78-59-1	Isophorone	UG/KG	1800 U	350 U		340 U	360 U
88-75-5	2-Nitrophenol	UG/KG	1800 U	350 U		340 U	360 U
105-67-9	2,4-Dimethylphenol	UG/KG	1800 U	350 U		340 U	360 U
111-91-1	bis(2-chloroethoxy)methane	UG/KG	1800 U	350 U		340 U	360 U
120-83-2	2,4-Dichlorophenol	UG/KG	1800 U	350 U		340 U	360 U
120-82-1	1,2,4-Trichlorobenzene	UG/KG	1800 U	350 U		340 U	360 U
91-20-3	Naphthalene	UG/KG	1800 U	350 U		340 U	360 U
106-47-8	4-Chloroaniline	UG/KG	1800 U	350 U		340 U	360 U
87-68-3	Hexachlorobutadiene	UG/KG	1800 U	350 U		340 U	360 U
59-50-7	4-Chloro-3-methylphenol	UG/KG	1800 U	350 U		340 U	360 U
91-57-6	2-Methylnaphthalene	UG/KG	1800 U	350 U		340 U	360 U
77-47-4	Hexachlorocyclopentadiene	UG/KG	1800 U	350 U		340 U	360 U
88-06-2	2,4,6-Trichlorophenol	UG/KG	1800 U	350 U		340 U	360 U
95-95-4	2,4,5-Trichlorophenol	UG/KG	4500 U	880 U		860 U	910 U
91-58-7	2-Chloronaphthalene	UG/KG	1800 U	350 U		340 U	360 U
88-74-4	2-Nitroaniline	UG/KG	4500 U	880 U		860 U	910 U
131-11-3	Dimethyl phthalate	UG/KG	1800 U	350 U		26 J	360 U
208-96-8	Acenaphthylene	UG/KG	1800 U	350 U		36 J	360 U
606-20-2	2,6-Dinitrotoluene	UG/KG	1800 U	350 U		340 U	360 U
99-09-2	3-Nitroaniline	UG/KG	4500 U	880 U		880 U	910 U
83-32-9	Acenaphthene	UG/KG	1800 U	350 U		340 U	360 U
51-28-5	2,4-Dinitrophenol	UG/KG	4500 U	880 U		880 U	910 U
100-02-7	4-Nitrophenol	UG/KG	4500 U	880 U		860 U	910 U
132-64-9	Dibenzofuran	UG/KG	1800 U	350 U		340 U	360 U
121-14-2	2,4-Dinitrotoluene	UG/KG	1800 U	350 U		340 U	360 U
84-66-2	Diethyl phthalate	UG/KG	1800 U	350 U		340 U	360 U
7005-72-3	4-Chlorophenyl phenyl ether	UG/KG	1800 U	350 U		340 U	360 U
86-73-7	Fluorene	UG/KG	1800 U	350 U		340 U	360 U
100-01-6	4-Nitroaniline	UG/KG	4500 U	880 U		860 U	910 U
534-52-1	4,6-Dinitro-2-methylphenol	UG/KG	4500 U	880 U		860 U	910 U
86-30-6	N-Nitrosodiphenylamine	UG/KG	1800 U	350 U		340 U	350 U
101-55-3	4-Bromophenyl phenyl ether	UG/KG	1800 U	350 U		340 U	360 U
118-74-1	Hexachlorobenzene	UG/KG	1800 U	350 U		340 U	360 U
87-86-5	Pentachlorophenol	UG/KG	4500 U	880 U		860 U	910 U
85-01-8	Phenanthrene	UG/KG	1800 U	350 U		170 J	360 U
120-12-7	Anthracene	UG/KG	1800 U	350 U		64 J	360 U
86-74-8	Carbazole	UG/KG	1800 U	350 U		340 U	360 U
84-74-2	Di-n-butyl phthalate	UG/KG	230 BJD	230 BJ		260 BJ	710 B
206-44-0	Fluoranthene	UG/KG	1800 U	350 U		540	360 U
129-00-0	Pyrene	UG/KG	1800 U	26 J		510	360 U
85-68-7	Butyl benzyl phthalate	UG/KG	1800 U	31 J		1600	360 U
91-94-1	3,3'-Dichlorobenzidine	UG/KG	1800 U	350 U		340 U	360 U
56-55-3	Benzo(a)anthracene	UG/KG	1800 U	350 U		260 J	360 U
218-01-9	Chrysene	UG/KG	1800 U	350 U		260 J	350 U
117-81-7	bis(2-ethylhexyl)phthalate	UG/KG	1800 U	23 BJ		31 BJ	21 BJ
117-84-0	Di-n-octyl phthalate	UG/KG	1800 U	350 U		340 U	360 U
205-99-2	Benzo(b)fluoranthene	UG/KG	1800 U	350 U		240 J	350 U
207-08-9	Benzo(k)fluoranthene	UG/KG	1800 U	350 U		190 J	360 U
50-32-8	Benzo(a)pyrene	UG/KG	1800 U	350 U		260 J	360 U
193-39-5	Indeno(1,2,3-cd)pyrene	UG/KG	1800 U	350 U		140 J	360 U
53-70-3	Dibenz(a,h)anthracene	UG/KG	1800 U	350 U		59 J	360 U
191-24-2	Benzo(ghi)perylene	UG/KG	1800 U	350 U		150 J	360 U

NYSDEC WESTHAMPTON LANDFILL SOIL BORING DATA SDG: SB0108		SAMPLE ID: DEPTH: LAB ID: SDG: SAMPLED:	SB0408DL 06-10' 95053603DL SB0108 12/15/94	SB0503 00-03' 95055501 SB0108 12/16/94	SB0503DL 00-03' 95055501DL SB0108 12/16/94	SB0603 00-03' 95055502 SB0108 12/16/94	SB0707 07-11' 95053604 SB0108 12/16/94
CAS NO.	COMPOUND	UNITS:					
	PESTICIDES/PCBs						
319-84-6	alpha-BHC	UG/KG		1.8 U	3.5 U	1.7 U	1.8 U
319-85-7	beta-BHC	UG/KG		1.8 U	3.5 U	1.7 U	1.8 U
319-86-8	delta-BHC	UG/KG		0.61 JP	3.5 U	1.8 P	1.8 U
58-89-9	Lindane	UG/KG		1.8 U	3.5 U	1.7 U	1.8 U
76-44-8	Heptachlor	UG/KG		1.8 U	3.5 U	1.7 U	1.8 U
309-00-2	Aldrin	UG/KG		1.8 U	3.5 U	0.43 JP	1.8 U
1024-57-3	Heptachlor epoxide	UG/KG		1.8 U	3.5 U	0.49 JP	0.57 J
959-98-8	Endosulfan I	UG/KG		1.8 U	3.5 U	1.7 U	1.8 U
60-57-1	Dieldrin	UG/KG		1.6 J	1.1 JP	1 JP	1.1 JP
72-55-9	4,4'-DDE	UG/KG		9.2	7 J	1.1 JP	1.1 JP
72-20-8	Endrin	UG/KG		1.1 J	7 U	2.5 JP	1.8 JP
33213-65-9	Endosulfan II	UG/KG		2.4 JP	1.8 JP	6.2 P	3.6 U
72-54-8	4,4'-DDD	UG/KG		4.5 P	3.4 JP	5.3 P	1.8 JP
1031-07-8	Endosulfan sulfate	UG/KG		4	3.2 J	8 P	3.6 U
50-29-3	4,4'-DDT	UG/KG		72 EP	51 P	16	1.5 JP
72-43-5	Methoxychlor	UG/KG		0.64 JP	35 U	17 U	18 U
53494-70-5	Endrin ketone	UG/KG		0.91 JP	7 U	3.4 U	3.6 U
7421-93-4	Endrin aldehyde	UG/KG		3.5 U	7 U	3.4 U	3.6 U
5103-71-9	alpha-Chlordane	UG/KG		1 JP	3.5 U	8 P	3.3 P
5103-74-2	gamma-Chlordane	UG/KG		0.89 JP	3.5 U	6.5 P	2.9 P
8001-35-2	Toxaphene	UG/KG		180 U	350 U	170 U	180 U
12674-11-2	Aroclor 1016	UG/KG		35 U	70 U	34 U	36 U
11104-28-2	Aroclor 1221	UG/KG		70 U	140 U	69 U	72 U
11141-16-5	Aroclor 1232	UG/KG		35 U	70 U	34 U	36 U
53469-21-9	Aroclor 1242	UG/KG		35 U	70 U	34 U	36 U
12672-29-6	Aroclor 1248	UG/KG		35 U	70 U	34 U	36 U
11097-69-1	Aroclor 1254	UG/KG		35 U	70 U	34 U	36 U
11096-82-5	Aroclor 1260	UG/KG		35 U	70 U	34 U	36 U
	EPTOX HERBICIDES/PESTICIDES						
58-89-9E	gamma-BHC	UG/KG		0.05 U		0.05 U	
72-20-8E	Endrin	UG/KG		0.1 U		0.1 U	
72-43-5E	Methoxychlor	UG/KG		0.5 U		0.5 U	
8001-35-2E	Toxaphene	UG/KG		5 U		5 U	
94-75-1E	2,4-D	UG/KG		10 U		10 U	
93-72-1E	2,4,5-TP (Silvex)	UG/KG		2 U		2 U	
	INORGANICS						
7429-90-5	Aluminum	MG/KG		776 *		1060 *	968 *
7440-36-0	Antimony	MG/KG		10.5 U		10.4 U	10.3 U
7440-38-2	Arsenic	MG/KG		0.87 B		1.5 B	0.38 B
7440-39-3	Barium	MG/KG		1.1 B		9.7 B	1.8 B
7440-41-7	Beryllium	MG/KG		0.2 U		0.2 U	0.2 U
7440-43-9	Cadmium	MG/KG		0.9 U		0.9 U	0.89 U
7440-70-2	Calcium	MG/KG		279 B		17300	95.1 B
7440-47-3	Chromium	MG/KG		3.6		3.8	2.7
7440-48-4	Cobalt	MG/KG		1.7 U		2.7 B	1.7 B
7440-50-8	Copper	MG/KG		4.3 B		6.8	2.2 B
7439-89-6	Iron	MG/KG		2010		3750	1670
7439-92-1	Lead	MG/KG		21.3 N*		63.8 N*	1.9 N*
7439-95-4	Magnesium	MG/KG		193 B		2770	80.6 B
7439-96-5	Manganese	MG/KG		19.7 *		46.9 *	16.7 *
7439-97-6	Mercury	MG/KG		0.1 UN		0.62 N	0.09 UN
7440-02-0	Nickel	MG/KG		1.7 U		2.5 B	17.8
7440-09-7	Potassium	MG/KG		103 U		102 U	101 U
7782-49-2	Selenium	MG/KG		0.22 U		0.22 U	0.22 U
7440-22-4	Silver	MG/KG		1.3 U		1.3 U	1.3 U
7440-23-5	Sodium	MG/KG		43.7 U		43.3 U	42.9 U
7440-28-0	Thallium	MG/KG		0.32 U		0.33 U	0.33 U
7440-62-2	Vanadium	MG/KG		8.1 B		5.2 B	2.4 U
7440-66-6	Zinc	MG/KG		10.9 *		47.3 *	5.9 *
57-12-5	Cyanide	MG/KG		0.52 U		0.53 U	0.5 U
	EPTOX METALS						
7440-38-2	Arsenic	UG/L		97.3 U		97.3 U	
7440-39-3	Barium	UG/L		44 B		55 B	
7440-43-9	Cadmium	UG/L		5 U		5 U	
7440-47-3	Chromium	UG/L		6.7 U		6.7 U	
7439-92-1	Lead	UG/L		55.9 U		55.9 U*	
7439-97-6	Mercury	UG/L		0.2 U*		0.2 U*	
7782-49-2	Selenium	UG/L		51.8 U*		51.8 U*	
7440-22-4	Silver	UG/L		7.2 U		7.2 U	

NYSDEC WESTHAMPTON LANDFILL GROUNDWATER ANALYTICAL DATA SDG: GW01		SAMPLE ID: LAB ID: SDG: SAMPLED:	GW01 95055001 GW01 12/15/94	GW01RE 95055001RE GW01 12/15/94	GW02 95055002 GW01 12/16/94	GW02RE 95055002RE GW01 12/16/94	GW03 95055003 GW01 12/16/94	GW13 95055008 GW01 12/16/94
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
74-87-3	Chloromethane	UG/L	10 U		10 U		10 U	10 U
74-83-9	Bromomethane	UG/L	10 U		10 U		10 U	10 U
75-01-4	Vinyl chloride	UG/L	10 U		10 U		10 U	10 U
75-00-3	Chloroethane	UG/L	10 U		10 U		10 U	10 U
75-09-2	Methylene chloride	UG/L	10 U		1 J		10 U	2 J
67-64-1	Acetone	UG/L	10 U		10 U		10 U	10 U
75-15-0	Carbon disulfide	UG/L	10 U		10 U		10 U	10 U
75-35-4	1,1-Dichloroethene	UG/L	10 U		10 U		10 U	10 U
75-34-3	1,1-Dichloroethane	UG/L	10 U		10 U		10 U	10 U
544-59-2	1,2-Dichloroethene, Total	UG/L	10 U		10 U		10 U	10 U
67-66-3	Chloroform	UG/L	10 U		10 U		10 U	10 U
107-06-2	1,2-Dichloroethane	UG/L	10 U		10 U		10 U	10 U
78-93-3	2-Butanone	UG/L	10 U		10 U		10 U	10 U
71-55-6	1,1,1-Trichloroethane	UG/L	10 U		10 U		10 U	10 U
56-23-5	Carbon tetrachloride	UG/L	10 U		10 U		10 U	10 U
75-27-4	Bromodichloromethane	UG/L	10 U		10 U		10 U	10 U
78-87-5	1,2-Dichloropropane	UG/L	10 U		10 U		10 U	10 U
10061-01-5	cis-1,3-Dichloropropene	UG/L	10 U		10 U		10 U	10 U
79-01-6	Trichloroethene	UG/L	10 U		10 U		10 U	10 U
124-48-1	Chlorodibromomethane	UG/L	10 U		10 U		10 U	10 U
79-00-5	1,1,2-Trichloroethane	UG/L	10 U		10 U		10 U	10 U
71-43-2	Benzene	UG/L	10 U		10 U		10 U	10 U
10061-02-6	trans-1,3-Dichloropropene	UG/L	10 U		10 U		10 U	10 U
75-25-2	Bromoform	UG/L	10 U		10 U		10 U	10 U
108-10-1	4-Methyl-2-pentanone	UG/L	10 U		10 U		10 U	10 U
591-78-6	2-Hexanone	UG/L	10 U		10 U		10 U	10 U
127-18-4	Tetrachloroethene	UG/L	10 U		10 U		10 U	10 U
79-34-5	1,1,2,2-Tetrachloroethane	UG/L	10 U		10 U		10 U	10 U
108-88-3	Toluene	UG/L	10 U		10 U		10 U	10 U
108-90-7	Chlorobenzene	UG/L	10 U		10 U		10 U	1 J
100-41-4	Ethylbenzene	UG/L	10 U		10 U		10 U	10 U
100-42-5	Styrene	UG/L	10 U		10 U		10 U	10 U
1330-20-7	Xylenes, Total	UG/L	10 U		10 U		10 U	10 U

NYSDEC WESTHAMPTON LANDFILL GROUNDWATER ANALYTICAL DATA SDG: GW01		SAMPLE ID: LAB ID: SDG: SAMPLED:	GW01 95055001 GW01 12/15/94	GW01RE 95055001RE GW01 12/15/94	GW02 95055002 GW01 12/16/94	GW02RE 95055002RE GW01 12/16/94	GW03 95055003 GW01 12/16/94	GW13 95055008 GW01 12/16/94
CAS NO.	COMPOUND	UNITS:						
	SEMIVOLATILES							
108-95-2	Phenol	UG/L	10 U	10 U	10 U		10 U	10 U
111-44-4	bis(2-chloroethyl)ether	UG/L	10 U	10 U	10 U		10 U	10 U
95-57-8	2-Chlorophenol	UG/L	10 U	10 U	10 U		10 U	10 U
541-73-1	1,3-Dichlorobenzene	UG/L	10 U	10 U	10 U		10 U	10 U
106-46-7	1,4-Dichlorobenzene	UG/L	10 U	10 U	10 U		1 J	1 J
95-50-1	1,2-Dichlorobenzene	UG/L	10 U	10 U	10 U		0.8 J	0.8 J
95-48-7	2-Methylphenol	UG/L	10 U	10 U	10 U		10 U	10 U
108-60-1	2,2'-oxybis (1-Chloro-propane)	UG/L	10 U	10 U	10 U		10 U	10 U
106-44-5	4-Methylphenol	UG/L	10 U	10 U	10 U		10 U	10 U
621-64-7	N-Nitrosodi-n-propylamine	UG/L	10 U	10 U	10 U		10 U	10 U
67-72-1	Hexachloroethane	UG/L	10 U	10 U	10 U		10 U	10 U
98-95-3	Nitrobenzene	UG/L	10 U	10 U	10 U		10 U	10 U
78-59-1	Isophorone	UG/L	10 U	10 U	10 U		10 U	10 U
88-75-5	2-Nitrophenol	UG/L	10 U	10 U	10 U		10 U	10 U
105-67-9	2,4-Dimethylphenol	UG/L	10 U	10 U	10 U		10 U	10 U
111-91-1	bis(2-chloroethoxy)methane	UG/L	10 U	10 U	10 U		10 U	10 U
120-83-2	2,4-Dichlorophenol	UG/L	10 U	10 U	10 U		10 U	10 U
120-82-1	1,2,4-Trichlorobenzene	UG/L	10 U	10 U	10 U		10 U	10 U
91-20-3	Naphthalene	UG/L	10 U	10 U	10 U		10 U	10 U
106-47-8	4-Chloroaniline	UG/L	10 U	10 U	10 U		10 U	10 U
87-68-3	Hexachlorobutadiene	UG/L	10 U	10 U	10 U		10 U	10 U
59-50-7	4-Chloro-3-methylphenol	UG/L	10 U	10 U	10 U		10 U	10 U
91-57-6	2-Methylnaphthalene	UG/L	10 U	10 U	10 U		10 U	10 U
77-47-4	Hexachlorocyclopentadiene	UG/L	10 U	10 U	10 U		10 U	10 U
88-06-2	2,4,6-Trichlorophenol	UG/L	10 U	10 U	10 U		10 U	10 U
95-95-4	2,4,5-Trichlorophenol	UG/L	25 U	25 U	25 U		25 U	25 U
91-58-7	2-Chloronaphthalene	UG/L	10 U	10 U	10 U		10 U	10 U
88-74-4	2-Nitroaniline	UG/L	25 U	25 U	25 U		25 U	25 U
131-11-3	Dimethyl phthalate	UG/L	10 U	10 U	10 U		10 U	10 U
208-96-8	Acenaphthylene	UG/L	10 U	10 U	10 U		10 U	10 U
606-20-2	2,6-Dinitrotoluene	UG/L	10 U	10 U	10 U		10 U	10 U
99-09-2	3-Nitroaniline	UG/L	25 U	25 U	25 U		25 U	25 U
83-32-9	Acenaphthene	UG/L	10 U	10 U	10 U		10 U	10 U
51-28-5	2,4-Dinitrophenol	UG/L	25 U	25 U	25 U		25 U	25 U
100-02-7	4-Nitrophenol	UG/L	25 U	25 U	25 U		25 U	25 U
132-64-9	Dibenzofuran	UG/L	10 U	10 U	10 U		10 U	10 U
121-14-2	2,4-Dinitrotoluene	UG/L	10 U	10 U	10 U		10 U	10 U
84-66-2	Diethyl phthalate	UG/L	10 U	10 U	10 U		10 U	10 U
7005-72-3	4-Chlorophenyl phenyl ether	UG/L	10 U	10 U	10 U		10 U	10 U
86-73-7	Fluorene	UG/L	10 U	10 U	10 U		10 U	10 U
100-01-6	4-Nitroaniline	UG/L	25 U	25 U	25 U		25 U	25 U
534-52-1	4,6-Dinitro-2-methylphenol	UG/L	25 U	25 U	25 U		25 U	25 U
86-30-6	N-Nitrosodiphenylamine	UG/L	10 U	10 U	10 U		10 U	10 U
101-55-3	4-Bromophenyl phenyl ether	UG/L	10 U	10 U	10 U		10 U	10 U
118-74-1	Hexachlorobenzene	UG/L	10 U	10 U	10 U		10 U	10 U
87-86-5	Pentachlorophenol	UG/L	25 U	25 U	25 U		25 U	25 U
85-01-8	Phenanthrene	UG/L	10 U	10 U	10 U		10 U	10 U
120-12-7	Anthracene	UG/L	10 U	10 U	10 U		10 U	10 U
86-74-8	Carbazole	UG/L	10 U	10 U	10 U		10 U	10 U
84-74-2	Di-n-butyl phthalate	UG/L	2 BJ	2 BJ	2 BJ		3 BJ	2 BJ
206-44-0	Fluoranthene	UG/L	10 U	10 U	10 U		10 U	10 U
129-00-0	Pyrene	UG/L	10 U	10 U	10 U		10 U	10 U
85-68-7	Butyl benzyl phthalate	UG/L	10 U	10 U	10 U		10 U	10 U
91-94-1	3,3'-Dichlorobenzidine	UG/L	10 U	10 U	10 U		10 U	10 U
56-55-3	Benzo(a)anthracene	UG/L	10 U	10 U	10 U		10 U	10 U
218-01-9	Chrysene	UG/L	10 U	10 U	10 U		10 U	10 U
117-81-7	bis(2-ethylhexyl)phthalate	UG/L	5 J	5 J	10 U		4 J	10 U
117-84-0	Di-n-octyl phthalate	UG/L	10 U	10 U	10 U		10 U	10 U
205-99-2	Benzo(b)fluoranthene	UG/L	10 U	10 U	10 U		10 U	10 U
207-08-9	Benzo(k)fluoranthene	UG/L	10 U	10 U	10 U		10 U	10 U
50-32-8	Benzo(a)pyrene	UG/L	10 U	10 U	10 U		10 U	10 U
193-39-5	Indeno(1,2,3-cd)pyrene	UG/L	10 U	10 U	10 U		10 U	10 U
53-70-3	Dibenz(a,h)anthracene	UG/L	10 U	10 U	10 U		10 U	10 U
191-24-2	Benzo(ghi)perylene	UG/L	10 U	10 U	10 U		10 U	10 U

NYSDEC WESTHAMPTON LANDFILL GROUNDWATER ANALYTICAL DATA SDG: GW01		SAMPLE ID: LAB ID: SDG: SAMPLED:	GW01 95055001 GW01 12/15/94	GW01RE 95055001RE GW01 12/15/94	GW02 95055002 GW01 12/16/94	GW02RE 95055002RE GW01 12/16/94	GW03 95055003 GW01 12/16/94	GW13 95055008 GW01 12/16/94
CAS NO.	COMPOUND	UNITS:						
	PESTICIDES/PCBs							
319-84-6	alpha-BHC	UG/L	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
319-85-7	beta-BHC	UG/L	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
319-86-8	delta-BHC	UG/L	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
58-89-9	Lindane	UG/L	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
76-44-8	Heptachlor	UG/L	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
309-00-2	Aldrin	UG/L	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
1024-57-3	Heptachlor epoxide	UG/L	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
959-98-8	Endosulfan I	UG/L	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
60-57-1	Dieldrin	UG/L	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
72-55-9	4,4'-DDE	UG/L	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
72-20-8	Endrin	UG/L	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
33213-65-9	Endosulfan II	UG/L	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
72-54-8	4,4'-DDD	UG/L	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
1031-07-8	Endosulfan sulfate	UG/L	0.087 JP		0.1 U	0.1 U	0.1 U	0.1 U
50-29-3	4,4'-DDT	UG/L	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
72-43-5	Methoxychlor	UG/L	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U
53494-70-5	Endrin ketone	UG/L	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
7421-93-4	Endrin aldehyde	UG/L	0.1 U		0.1 U	0.1 U	0.1 U	0.1 U
5103-71-9	alpha-Chlordane	UG/L	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
5103-74-2	gamma-Chlordane	UG/L	0.05 U		0.05 U	0.05 U	0.05 U	0.05 U
8001-35-2	Toxaphene	UG/L	5 U		5 U	5 U	5 U	5 U
12674-11-2	Aroclor 1016	UG/L	1 U		1 U	1 U	1 U	1 U
11104-28-2	Aroclor 1221	UG/L	2 U		2 U	2 U	2 U	2 U
11141-16-5	Aroclor 1232	UG/L	1 U		1 U	1 U	1 U	1 U
53469-21-9	Aroclor 1242	UG/L	1 U		1 U	1 U	1 U	1 U
12672-29-6	Aroclor 1248	UG/L	1 U		1 U	1 U	1 U	1 U
11097-69-1	Aroclor 1254	UG/L	1 U		1 U	1 U	1 U	1 U
11096-82-5	Aroclor 1260	UG/L	1 U		1 U	1 U	1 U	1 U
	INORGANICS							
7429-90-5	Aluminum	UG/L	754		7360		4370	2160
7440-36-0	Antimony	UG/L	58 U		58 U		58 U	58 U
7440-38-2	Arsenic	UG/L	2.3 B		4.2 B		4.1 B	4.1 B
7440-39-3	Barium	UG/L	180 B		30 B		16 B	11 B
7440-41-7	Beryllium	UG/L	1.1 U		1.1 U		1.1 U	1.1 U
7440-43-9	Cadmium	UG/L	5 U		5 U		5 U	5 U
7440-70-2	Calcium	UG/L	33000		14900		26300	25500
7440-47-3	Chromium	UG/L	57.2		125		104	42.9
7440-48-4	Cobalt	UG/L	9.3 U		9.3 U		9.3 U	9.3 U
7440-50-8	Copper	UG/L	11.6 B		41.1		22.9 B	12 B
7439-89-6	Iron	UG/L	14200		30900		16700	8710
7439-92-1	Lead	UG/L	42.2 N		49.3 N		26.4 N	4.4 NW
7439-95-4	Magnesium	UG/L	5260		4190 B		5750	5300
7439-96-5	Manganese	UG/L	2040		462		393	337
7439-97-6	Mercury	UG/L	0.2 UN		0.2 UN		0.2 UN	0.87 N
7440-02-0	Nickel	UG/L	22 B		25.2 B		57.1	13.7 B
7440-09-7	Potassium	UG/L	28000		3430 B		3910 B	3710 B
7782-49-2	Selenium	UG/L	1.2 UN		1.2 UN		1.2 UN	1.2 UN
7440-22-4	Silver	UG/L	7.2 U		7.2 U		7.2 U	7.2 U
7440-23-5	Sodium	UG/L	17400		3740 B		5660	5640
7440-28-0	Thallium	UG/L	2.1 BW		1.8 U		1.8 U	1.8 U
7440-62-2	Vanadium	UG/L	13.7 U		30.6 B		15.8 B	13.7 U
7440-66-6	Zinc	UG/L	47.1		270		122	56.9
57-12-5	Cyanide	UG/L	10 U		10 U		10 U	10 U

NYSDEC WESTHAMPTON LANDFILL GROUNDWATER ANALYTICAL DATA SDG: GW01		SAMPLE ID: LAB ID: SDG: SAMPLED:	GW04 95055004 GW01 12/16/94	GW05 95055005 GW01 12/16/94	GW06 95055006 GW01 12/16/94	GW07 95055007 GW01 12/16/94	WB01 95055009 GW01 12/16/94	TB02 95055010 GW01 12/16/94
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
74-87-3	Chloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
74-83-9	Bromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
75-01-4	Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
75-00-3	Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
75-09-2	Methylene chloride	UG/L	10 U	10 U	10 U	2 J	40	10 U
67-64-1	Acetone	UG/L	10 U	5 J	10 U	10 U	10 U	10 U
75-15-0	Carbon disulfide	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
75-35-4	1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
75-34-3	1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
544-59-2	1,2-Dichloroethene, Total	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
67-66-3	Chloroform	UG/L	1 J	10 U	10 U	1 J	10 U	10 U
107-06-2	1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
78-93-3	2-Butanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
71-55-6	1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
56-23-5	Carbon tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
75-27-4	Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
78-87-5	1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
10061-01-5	cis-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
79-01-6	Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
124-48-1	Chlorodibromomethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
79-00-5	1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
71-43-2	Benzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
10061-02-6	trans-1,3-Dichloropropene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
75-25-2	Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
108-10-1	4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
591-78-6	2-Hexanone	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
127-18-4	Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
79-34-5	1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
108-88-3	Toluene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
108-90-7	Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
100-41-4	Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
100-42-5	Styrene	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
1330-20-7	Xylenes, Total	UG/L	10 U	10 U	10 U	10 U	10 U	10 U

NYSDEC WESTHAMPTON LANDFILL GROUNDWATER ANALYTICAL DATA SDG: GW01		SAMPLE ID: LAB ID: SDG: SAMPLED:	GW04 95055004 GW01 12/16/94	GW05 95055005 GW01 12/16/94	GW06 95055006 GW01 12/16/94	GW07 95055007 GW01 12/16/94	WB01 95055009 GW01 12/16/94	TB02 95055010 GW01 12/16/94
CAS NO.	COMPOUND	UNITS:						
	SEMIVOLATILES							
108-95-2	Phenol	UG/L	11 U	10 U	10 U	10 U	10 U	
111-44-4	bis(2-chloroethyl)ether	UG/L	11 U	10 U	10 U	10 U	10 U	
95-57-8	2-Chlorophenol	UG/L	11 U	10 U	10 U	10 U	10 U	
541-73-1	1,3-Dichlorobenzene	UG/L	11 U	10 U	10 U	10 U	10 U	
106-46-7	1,4-Dichlorobenzene	UG/L	11 U	10 U	10 U	10 U	10 U	
95-50-1	1,2-Dichlorobenzene	UG/L	11 U	10 U	10 U	10 U	10 U	
95-48-7	2-Methylphenol	UG/L	11 U	10 U	10 U	10 U	10 U	
108-60-1	2,2'-oxybis (1-Chloro-propane)	UG/L	11 U	10 U	10 U	10 U	10 U	
106-44-5	4-Methylphenol	UG/L	11 U	10 U	10 U	10 U	10 U	
621-64-7	N-Nitrosodi-n-propylamine	UG/L	11 U	10 U	10 U	10 U	10 U	
67-72-1	Hexachloroethane	UG/L	11 U	10 U	10 U	10 U	10 U	
98-95-3	Nitrobenzene	UG/L	11 U	10 U	10 U	10 U	10 U	
78-59-1	Isophorone	UG/L	11 U	10 U	10 U	10 U	10 U	
88-75-5	2-Nitrophenol	UG/L	11 U	10 U	10 U	10 U	10 U	
105-67-9	2,4-Dimethylphenol	UG/L	11 U	10 U	10 U	10 U	10 U	
111-91-1	bis(2-chloroethoxy)methane	UG/L	11 U	10 U	10 U	10 U	10 U	
120-83-2	2,4-Dichlorophenol	UG/L	11 U	10 U	10 U	10 U	10 U	
120-82-1	1,2,4-Trichlorobenzene	UG/L	11 U	10 U	10 U	10 U	10 U	
91-20-3	Naphthalene	UG/L	11 U	10 U	10 U	10 U	2 J	
106-47-8	4-Chloroaniline	UG/L	11 U	10 U	10 U	10 U	10 U	
87-68-3	Hexachlorobutadiene	UG/L	11 U	10 U	10 U	10 U	10 U	
59-50-7	4-Chloro-3-methylphenol	UG/L	11 U	10 U	10 U	10 U	10 U	
91-57-6	2-Methylnaphthalene	UG/L	11 U	10 U	10 U	10 U	10 U	
77-47-4	Hexachlorocyclopentadiene	UG/L	11 U	10 U	10 U	10 U	10 U	
88-06-2	2,4,6-Trichlorophenol	UG/L	11 U	10 U	10 U	10 U	10 U	
95-95-4	2,4,5-Trichlorophenol	UG/L	28 U	25 U	25 U	25 U	25 U	
91-58-7	2-Chloronaphthalene	UG/L	11 U	10 U	10 U	10 U	10 U	
88-74-4	2-Nitroaniline	UG/L	28 U	25 U	25 U	25 U	25 U	
131-11-3	Dimethyl phthalate	UG/L	11 U	10 U	10 U	10 U	10 U	
208-96-8	Acenaphthylene	UG/L	11 U	10 U	10 U	10 U	10 U	
606-20-2	2,6-Dinitrotoluene	UG/L	11 U	10 U	10 U	10 U	10 U	
99-09-2	3-Nitroaniline	UG/L	28 U	25 U	25 U	25 U	25 U	
83-32-9	Acenaphthene	UG/L	11 U	10 U	10 U	10 U	10 U	
51-28-5	2,4-Dinitrophenol	UG/L	28 U	25 U	25 U	25 U	25 U	
100-02-7	4-Nitrophenol	UG/L	28 U	25 U	25 U	25 U	25 U	
132-64-9	Dibenzofuran	UG/L	11 U	10 U	10 U	10 U	10 U	
121-14-2	2,4-Dinitrotoluene	UG/L	11 U	10 U	10 U	10 U	10 U	
84-66-2	Diethyl phthalate	UG/L	11 U	10 U	10 U	10 U	10 U	
7005-72-3	4-Chlorophenyl phenyl ether	UG/L	11 U	10 U	10 U	10 U	10 U	
86-73-7	Fluorene	UG/L	11 U	10 U	10 U	10 U	10 U	
100-01-6	4-Nitroaniline	UG/L	28 U	25 U	25 U	25 U	25 U	
534-52-1	4,6-Dinitro-2-methylphenol	UG/L	28 U	25 U	25 U	25 U	25 U	
86-30-6	N-Nitrosodiphenylamine	UG/L	11 U	10 U	10 U	10 U	10 U	
101-55-3	4-Bromophenyl phenyl ether	UG/L	11 U	10 U	10 U	10 U	10 U	
118-74-1	Hexachlorobenzene	UG/L	11 U	10 U	10 U	10 U	10 U	
87-86-5	Pentachlorophenol	UG/L	28 U	25 U	25 U	25 U	25 U	
85-01-8	Phenanthrene	UG/L	11 U	10 U	10 U	10 U	10 U	
120-12-7	Anthracene	UG/L	11 U	10 U	10 U	10 U	10 U	
86-74-8	Carbazole	UG/L	11 U	10 U	10 U	10 U	10 U	
84-74-2	Di-n-butyl phthalate	UG/L	5 BJ	10 U	2 BJ	3 BJ	2 BJ	
206-44-0	Fluoranthene	UG/L	11 U	10 U	10 U	10 U	10 U	
129-00-0	Pyrene	UG/L	11 U	10 U	10 U	10 U	10 U	
85-68-7	Butyl benzyl phthalate	UG/L	11 U	10 U	10 U	10 U	10 U	
91-94-1	3,3'-Dichlorobenzidine	UG/L	11 U	10 U	10 U	10 U	10 U	
56-55-3	Benzo(a)anthracene	UG/L	11 U	10 U	10 U	10 U	10 U	
218-01-9	Chrysene	UG/L	11 U	10 U	10 U	10 U	10 U	
117-81-7	bis(2-ethylhexyl)phthalate	UG/L	12	1 J	7 J	1 J	10 U	
117-84-0	Di-n-octyl phthalate	UG/L	11 U	10 U	10 U	10 U	10 U	
205-99-2	Benzo(b)fluoranthene	UG/L	11 U	10 U	10 U	10 U	10 U	
207-08-9	Benzo(k)fluoranthene	UG/L	11 U	10 U	10 U	10 U	10 U	
50-32-8	Benzo(a)pyrene	UG/L	11 U	10 U	10 U	10 U	10 U	
193-39-5	Indeno(1,2,3-cd)pyrene	UG/L	11 U	10 U	10 U	10 U	10 U	
53-70-3	Dibenz(a,h)anthracene	UG/L	11 U	10 U	10 U	10 U	10 U	
191-24-2	Benzo(ghi)perylene	UG/L	11 U	10 U	10 U	10 U	10 U	

NYSDEC WESTHAMPTON LANDFILL GROUNDWATER ANALYTICAL DATA SDG: GW01		SAMPLE ID: LAB ID: SDG: SAMPLED:	GW04 95055004 GW01 12/16/94	GW05 95055005 GW01 12/16/94	GW06 95055006 GW01 12/16/94	GW07 95055007 GW01 12/16/94	WB01 95055009 GW01 12/16/94	TB02 95055010 GW01 12/16/94
CAS NO.	COMPOUND	UNITS:						
	PESTICIDES/PCBs							
319-84-6	alpha-BHC	UG/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
319-85-7	beta-BHC	UG/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
319-86-8	delta-BHC	UG/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
58-89-9	Lindane	UG/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
76-44-8	Heptachlor	UG/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
309-00-2	Aldrin	UG/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
1024-57-3	Heptachlor epoxide	UG/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
959-98-8	Endosulfan I	UG/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
60-57-1	Dieldrin	UG/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
72-55-9	4,4'-DDE	UG/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
72-20-8	Endrin	UG/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
33213-65-9	Endosulfan II	UG/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
72-54-8	4,4'-DDD	UG/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
1031-07-8	Endosulfan sulfate	UG/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
50-29-3	4,4'-DDT	UG/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
72-43-5	Methoxychlor	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
53494-70-5	Endrin ketone	UG/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
7421-93-4	Endrin aldehyde	UG/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
5103-71-9	alpha-Chlordane	UG/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
5103-74-2	gamma-Chlordane	UG/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
8001-35-2	Toxaphene	UG/L	5 U	5 U	5 U	5 U	5 U	
12674-11-2	Aroclor 1016	UG/L	1 U	1 U	1 U	1 U	1 U	
11104-28-2	Aroclor 1221	UG/L	2 U	2 U	2 U	2 U	2 U	
11141-16-5	Aroclor 1232	UG/L	1 U	1 U	1 U	1 U	1 U	
53469-21-9	Aroclor 1242	UG/L	1 U	1 U	1 U	1 U	1 U	
12672-29-6	Aroclor 1248	UG/L	1 U	1 U	1 U	1 U	1 U	
11097-69-1	Aroclor 1254	UG/L	1 U	1 U	1 U	1 U	1 U	
11096-82-5	Aroclor 1260	UG/L	1 U	1 U	1 U	1 U	1 U	
	INORGANICS							
7429-90-5	Aluminum	UG/L	5790	3480	1610	5210		
7440-36-0	Antimony	UG/L	58 U	58 U	58 U	58 U		
7440-38-2	Arsenic	UG/L	3.8 B	2.4 BW	2.1 B	2.3 B		
7440-39-3	Barium	UG/L	26 B	77 B	9 B	29 B		
7440-41-7	Beryllium	UG/L	1.1 U	1.1 U	1.1 U	1.1 U		
7440-43-9	Cadmium	UG/L	5 U	5 U	5 U	5 U		
7440-70-2	Calcium	UG/L	5800	22400	30900	2160 B		
7440-47-3	Chromium	UG/L	65.4	72.5	168	142		
7440-48-4	Cobalt	UG/L	9.3 U	9.3 U	9.3 U	9.3 U		
7440-50-8	Copper	UG/L	19.6 B	15.9 B	23.2 B	31.1		
7439-89-6	Iron	UG/L	19200	18200	25100	41100		
7439-92-1	Lead	UG/L	10.8 N	47.9 N	3.6 N	223 N		
7439-95-4	Magnesium	UG/L	2520 B	7570	9900	1990 B		
7439-96-5	Manganese	UG/L	223	535	413	645		
7439-97-6	Mercury	UG/L	0.2 UN	0.2 UN	0.7 N	0.2 UN		
7440-02-0	Nickel	UG/L	20 B	9.4 U	19.5 B	45.4		
7440-09-7	Potassium	UG/L	1480 B	4720 B	1120 B	955 B		
7782-49-2	Selenium	UG/L	1.2 UN	1.2 UN	1.2 UNW	1.2 UN		
7440-22-4	Silver	UG/L	7.2 U	7.2 U	7.2 U	7.2 U		
7440-23-5	Sodium	UG/L	4350 B	85000	6720	5370		
7440-28-0	Thallium	UG/L	3 BW	1.8 UW	1.8 U	1.8 U		
7440-62-2	Vanadium	UG/L	24.6 B	13.7 U	13.7 U	17.4 B		
7440-66-6	Zinc	UG/L	115	263	1110	238		
57-12-5	Cyanide	UG/L	10 U	10 U	10 U	10 U		

APPENDIX C

SELECTED REFERENCES

ASTDR, 1992.

UPDATE
UPDATE
UPDATE

Toxicological Profile for

LEAD

Draft
For Public Comment

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry

Comment Period Ends:

February 18, 1992

DRAFT

TOXICOLOGICAL PROFILE FOR LEAD

Prepared by:

Clement International Corporation
Under Contract No. 205-88-0608

Prepared for:

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry

October 1991

5.4.3 Soil

The natural lead content of soil derived from crustal rock, mostly as galena (PbS), typically ranges from <10 to 30 μg/g soil. However, the concentration of lead in the top layers of soil varies widely due to deposition and accumulation of atmospheric particulates from anthropogenic sources. The concentration of soil lead generally decreases as distance from contaminating sources increases. Next to roadways, it is estimated that the levels of lead in the upper layer of soil are typically 30–2,000 μg/g higher than natural levels, although these levels drop exponentially up to 25 m from the roadway (EPA 1986a). Soil adjacent to a smelter in Missouri had lead levels in excess of 60,000 μg/g (Palmer and Kucera 1980). Soils adjacent to houses with exterior lead-based paints may have lead levels of >10,000 μg/g (EPA 1986a). Extractable lead in surface soil samples (0–5 cm depth) from an agricultural area near a car battery manufacturing plant (taken at 0.3 km from the source) decreased from 117 μg/g to 1 μg/g within 1 year after the plant stopped operating (Schalscha et al. 1987).

Studies carried out in Maryland and Minnesota indicate that within large light-industrial urban settings such as Baltimore, the highest soil lead levels generally occur in inner-city areas, especially where high traffic flows have long prevailed (Mielke et al. 1983, 1984/85, 1989). In 1981, soil lead levels in the Minneapolis/St. Paul inner-city area were 60 times higher (423 μg/g) than levels found in rural Minnesota (6.7 μg/g), with almost all the increase (95%) resulting from the combustion of leaded gasoline. In 1985, Minnesota legislated the reduction of lead in gasoline used in the state. A study conducted in Minnesota after the lead abatement act was in effect found that median soil lead levels taken from the foundations of homes, in yards, and adjacent to the street were 700 μg/g, 210 μg/g, and 160 μg/g, respectively; comparable samples taken from the smaller city of Rochester, Minnesota did not exceed 100 μg/g for any location (Mielke et al. 1989). A second survey was conducted of similar residential Minnesota locations that focused on soils where children might be expected to play. The survey showed that average lead levels continued to be elevated in samples taken from the foundations of homes, but that lead levels were low in play areas (<50 μg/g) and residential soils (<300 μg/g) when the exterior of the dwelling was free of lead-based paint (Schmitt et al. 1988). Severely contaminated soils were found in foundation samples adjacent to private dwellings with exterior lead-based paint at levels up to 20,136 μg/g. Elevated soil lead concentrations were found in larger urban areas (St. Paul, Minneapolis, Duluth) and to a lesser extent in smaller urban areas (Rochester, St. Cloud) and in rural areas, although the concentrations in the latter areas were lower but equally widespread, possibly as a result of auto emissions (Schmitt et al. 1988).

In the state of Maine, soil samples taken from areas of high risk (within 1–2 feet of a foundation of a building more than 30 years old) indicated that 37% of the samples had high lead concentrations (>1,000 μg/g). Forty-four percent of the private dwellings had high lead levels in the soil adjacent to the foundation, whereas only 10% of the public locations (playgrounds, parks, etc.) did. In addition, the largest percentage (54%) of highly contaminated soil was found surrounding homes built prior to 1950, whereas homes built after 1978 did not have any lead contamination in the soil (Krueger and Duguay 1989). In the Cincinnati prospective lead study of public and private low- and moderate-income housing, the lead concentration ranges were: painted interior walls, 0.1–35 mg/cm^2; interior home surface dust, 0.04–39 mg/m^2 and 72–16,200 μg/g; interior home dustfall, 0.0040–60 $mg/m^2/30$ days; exterior dust scrapings, 20–108,000 μg/g; and dust on children's hands, 1–191 μg, with the lead levels in older, private, deteriorating or dilapidated housing being higher than the levels in newer, public and rehabilitated housing (Clark et al. 1985).

In 1972, household dust samples taken near nonferrous ore smelters in El Paso, Texas, that were known to emit 1,012 metric tons of lead per year, had lead levels of 22,191 μg/g (geometric mean) and 973 μg/g at distances from the smelter of 1.6 km and 6.4 km, respectively (Landrigan and Baker 1981).

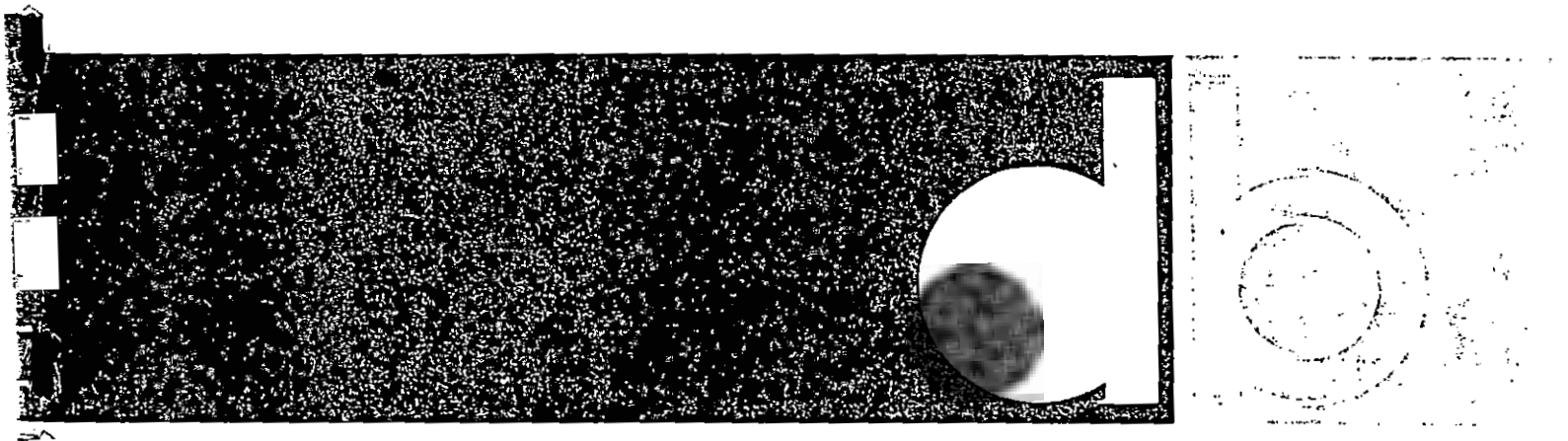
5.5 GENERAL POPULATION AND OCCUPATIONAL EXPOSURE

Information on occupational exposure to lead is obtained primarily from the National Occupational Exposure Survey (NOES) and industry surveys of workers. While occupational exposure is widespread, environmental monitoring data on levels of exposure in many occupations are not available. A permissible exposure limit (PEL) of 50 $\mu g/m^3$ for workplace air has been established for lead by the OSHA (29 CFR 1910.1025). The NIOSH has estimated that more than 1 million American workers were occupationally exposed to inorganic lead in greater than 100 occupations (NIOSH 1977a, 1978f). The NOES, conducted by NIOSH between 1980 and 1983, estimated that 25,169 employees were exposed to tetraethyl lead; approximately 57,000 employees were exposed to various lead oxides mostly in non-ferrous foundries, lead smelters, and battery plants; 3,902 employees were exposed to lead chloride; and 576,579 employees were exposed to some other form of lead in the workplace in 1980 (NIOSH 1990).

Potentially high levels of lead may occur in the following industries: lead smelting and refining industries, battery manufacturing plants, steel welding or cutting operations, construction, rubber products and plastics industries, printing industries, firing ranges, radiator repair shops and other industries requiring flame soldering of lead solder, and gas stations (EPA 1986a; Feldman 1978; Goldman et al. 1987; NIOSH 1978a). In these work areas, the major routes of lead exposure are inhalation and ingestion of lead-bearing dusts and fumes. Airborne dusts settle onto food, water, clothing, and other objects, and may subsequently be transferred to the mouth. Therefore, in these occupational areas, good house-keeping and good ventilation have a significant impact on the extent of worker exposure. Workers involved in the production of gasoline additives, tetraethyl lead and tetramethyl lead, are exposed to both inorganic lead and alkyl lead. The major potential hazard to these workers appears to be from dermal exposure since alkyl leads may be absorbed through the skin (EPA 1986a). Other occupations where exposure to lead may occur are artists and craftsmen who may be exposed to lead used in paints, ceramic glazes, and lead solder for sculpture and stained glass (Hart 1987) and welders where lead concentrations in the welding fumes generated by gas metal arc welding of carbon steel ranged from 1.0 to 17.6 $\mu g/m^3$, well below the established PEL for the workplace (Larson et al. 1989).

Lead exposure is frequently monitored by biological testing (e.g., determination of urinary lead levels, blood lead levels, urinary coproporphyrin levels, or ALA levels) rather than monitoring the workplace environment for lead concentrations (EPA 1986a; NIOSH 1978a). A recent employer survey of California industries that use lead indicated that 229,434 employees were potentially exposed to lead in the workplace; of these workers, 59,142 (25%) had received routine biological monitoring (i.e., determination of blood lead levels), and only 24,491 (10%) were in positions where environmental monitoring (workplace air lead levels) had ever been conducted. In addition, approximately 12% of the potentially exposed individuals were in the construction industry which does not require air or blood monitoring (Rudolph et al. 1990). Workers in an electronic components plant that makes ceramic-coated capacitors and resisters using leaded glass for the ceramic coating were found to be exposed to ambient lead levels ranging from 61 to 1,700 $\mu g/m^3$ and to have blood lead levels ranging from 16 to 135 μg/dL, with approximately 30% of the workforce on medical leave as a result of their blood lead levels exceeding 40 μg/dL. An analysis of blood lead levels among family members of the exposed workers gave mean levels of 10.2 μg/dL compared with 6.2 μg/dL for families of nonexposed workers (Kaye et al. 1987).

SCAVENGER WASTE LANDFILL LEACHATE STUDY FOR TOWN OF BROOKHAVEN



Dvirka and Bartilucci

Consulting Engineers

SCAVENGER WASTE

LANDFILL LEACHATE

STUDY

FOR

TOWN OF BROOKHAVEN

DVIRKA & BARTILUCCI
CONSULTING ENGINEERS

SEPTEMBER 1981

B. Septage and Sludge

Wastes brought to the Town of Brookhaven's present scavenger waste treatment plant, located in Manorville, New York, originate from two principal sources:

1. the pumpings of subsurface sewage disposal systems from private dwellings and commercial establishments;
2. the treated sludge from sewage treatment plants located within the Town.

An investigation conducted by the Town on sources of scavenger waste received at the Manorville site estimated septage wastes to constitute 62% of the total scavenger load, and treatment plant sludge the remaining 38%. One essential factor in the development of alternatives for the Town is the ultimate sizing of the proposed system to handle present and projected flows for scavenger wastes, as well as landfill leachate.

In order that a proper determination of present and future flows may be conducted, relevant data from various sources require review and evaluation. Actual flows were determined through a review of Town records for the Manorville site. Population estimates were based on Long Island Lighting Company and United States Census Data Reports.(6, 14) Utilizing this data, it was then possible to develop per capita generation values, from which future flows may be extrapolated. As stated in Table II-4, waste generation rates have averaged 0.15 gallons per capita per day. Maximum daily flows average 3.0 times

III WASTESTREAM CHARACTERISTICS

The three wastestreams addressed in this study - landfill leachate, cesspool septage and sewage sludge, required a thorough evaluation of their individual characteristics, so that a viable treatment/disposal alternative may be developed. The three wastes possess, in many ways, similar characteristics; while in others, the differences are distinct. The compatibility of these wastes required evaluation, since an optimal solution was required for processing all the wastes.

The first step in this evaluation encompassed a review of all analytical data provided by the Town, on each of the wastestreams involved. The data was initially screened, to determine possible gaps which might inhibit an effective evaluation of all the potential alternatives available to the Town. In order to fill these gaps, a series of samplings was conducted. The results of these samplings were tabulated and characteristic qualities developed; the summary of which is contained in Tables III-1 and III-2. A review of this data indicates the myriad of constituents found in these wastes, many of which will require reduction prior to discharge to the receiving environment.

TOWN OF BROOKHAVEN
WASTE STREAM QUALITIES
PRIORITY POLLUTANTS
TABLE III - 1

CONSTITUENT	LANDFILL LEACHATE	MANORVILLE #1 LAGOON (SEPTAGE/SLUDGE)	CESSPOOL TRUCKS (SEPTAGE)	COUNTY TRUCKS (SLUDGE)
pH	6.4	6.0	6.0	6.1
Total Alkalinity	5,125	428		
Hardness	3,892	186		
Chlorides	991	72	69	
Specific Conductance	12,929	793	1,173	
Total Solids	9,185[a]	10,568[a]	10,880[a]	
Dissolved Solids	7,563[a]	1,216[a]	1,918[a]	
Biochemical Oxygen Demand	2,425	6,864	6,510	2,600[c]
Chemical Oxygen Demand	5,715	15,756	24,756	
Total Kjeldahl Nitrogen	530	135		
Total Nitrogen	717	265	280	82[c]
Total Phosphorus	0.2	24[b]		
Ortho Phosphate	0.2[c]	27[b]		
Sulfate	415	47		
Iron	611	49	81	52[c]
Manganese	26	1.5	0.2[c]	
Cadmium	0.007	0.02	0.17	0.05
Copper	0.07	4.2	36	8.3
Lead	.127	0.7	8.0	1.7
Nickel	0.23	0.4	< 0.37	0.2[c]
Total Chromium	0.66	0.2	1.6	0.3
Hexavalent Chromium	< 0.04	.02	0.5	
Potassium	572	27	25[c]	
Sodium	724	130	85	
Mercury	0.001	.003		
Calcium	938	42	64[c]	
Silver	0.02	0.05	0.01[c]	
Fluoride	0.2	0.3	1.2[c]	
Zinc	18	19	60	5.6[c]
Arsenic	.006	.007		
Cyanide	< 0.04[c]	<0.04		
Suspended Solids	175	17,810	9,242	5,000[c]
Phenols	0.066[c]	0.26		
Total Coliform	14	>2,400	> 2,400	
Fecal Coliform	< 3	>2,400	> 2,400	

a = Direct correlation cannot be drawn due to differing number of samples
b = Direct correlation cannot be drown due to differing number of samples
c = Limited analysis
Note: All values are mg/l except for pH units and fecal coliform (MPN/100ml) values

TOWN OF BROOKHAVEN
WASTE STREAM QUALITIES
PRIORITY POLLUTANTS
TABLE III-2 (Page 1 of 3)

ORGANIC CONSTITUENTS	LANDFILL LEACHATE	MANORVILLE I LAGOON (SEPTAGE/SLUDGE)
Lindane	<0.05 a	< 1 a
Heptachlor	< 0.05 a	< 0.4 a
Aldrin	0.05 a	< 0.2 a
Heptachlor epoxide	< 0.05 a	< 0.4 a
Dieldrin	< 0.05 a	< 0.05 a
Endrin, aldehyde	< 0.05 a	< 0.1 a
o,p-DDT	< 0.05 a	< 0.4 a
Methoxychlor	< 0.1 a	< 0.1 a
Toxapheme	< 1 a	< 4 a
Chlordane	< 1 a	< 2 a
a-Endosulfan	< 0.5 a	< 0.5 a
b-Endosulfan	< 0.5 a	< 0.5 a
o,p-DDE	< 0.05 a	< 0.4 a
p,p-DDE	< 0.05 a	< 0.4 a
o,p-DDD	< 0.05 a	< 0.05 a
p,p-DDD	< 0.05 a	< 0.4 a
a BHC	< 0.05 a	< 1 a
b BHC	< 0.05 a	< 1 a
g BHC	< 0.05 a	< 1 a
w BHC	< 0.05 a	< 1 a
Arochlor 1016	< 1 a	< 5 a
Arochlor 1221	< 1 a	< 5 a
Arochlor 1232	< 1 a	< 40 a
Arochlor 1242	< 1 a	< 40 a
Arochlor 1248	< 1 a	< 10 a
Arochlor 1254	< 1 a	< 2 a
Arochlor 1260	< 1 a	< 1 a
C5 to C10 Aliphatic hydrocarbons	< 12 a	10 a
Pentane	- b	- b
Hexane	- b	- b
Heptane	- b	- b
Octane	- b	- b
Nonane	- b	- b

Note: All values in micrograms per liter.
a = Based on one sample
b = Included in C5 to C10 Aliphatic hydrocarbon value.

TOWN OF BROOKHAVEN
WASTE STREAM QUALITIES
PRIORITY POLLUTANTS
TABLE III-2 (Page 2 of 3)

ORGANIC CONSTITUENTS	LANDFILL LEACHATE	MANORVILLE #1 LAGOON (SEPTAGE / SLUDGE)
Decane	– b	– b
Benzene	25 a	2 a
Toluene	13 a	300 a
O-xylene	38 a	9 a
M-xylene	92 a	20 a
P-xylene	21 a	7 a
Methylene chloride	40	11
1,1,2 Trichloro-1,2,2 trifluoroethane	<3	<1
Chloroform	<3	<2
1,1,1-Trichloroethane	<3	44
Carbon tetrachloride	<3	<1
1,2-Dichloroethane	<8	<5
Trichloroethylene	6	14
Bromodichloromethane	<3	<1
Tetrachloroethylene	<6	80
Chlorodibromomethane	<3	<1
Bromoform	<6	<1 a
Trans-1,2-dichloroethene	<8	<5 a
Cis-1,2-dichloroethene	<8	60 a
1,2-Dichloropane	<8	<5 a
1,1-Dichloroethane	<8	8 a
1,1 Dichloroethylene	<8	<5 a
1,1,2 Trichloroethane	<8	<5 a
Vinyl Chloride	– c	– c
Acenaphthene	<5 a	* a
Benzidine	<5 a	<5 a
1,2,4- Trichlorobenzene	<5 a	* a
Hexachlorobenzene	<5 a	<5 a
Hexachloroethane	<5 a	<5 a
bis (2-chloroethyl) ether	<5 a	<5 a
2-Chloronaphthalene	<5 a	<5 a
1,2-Dichlorobenzene	<5 a	20 a
1,3-Dichlorobenzene	<5 a	<5 a
1,4- Dichlorobenzene	11 a	27 a
3,3'-Dichlorobenzidine	<5 a	<5 a

Note: All values in micrograms per liter.

* = Values of 1-3 ppb still giving a reasonable spectrum. c = Interferences precluded a viable analysis
a = Based on one sample.
b = Included in C5 to C10 Aliphatic hyrocarbon value

TOWN OF BROOKHAVEN
WASTE STREAM QUALITIES
PRIORITY POLLUTANTS
TABLE III-2 (Page 3 of 3)

ORGANIC CONSTITUENTS	LANDFILL LEACHATE	MANORVILLE ※1 LAGOON (SEPTAGE/SLUDGE)
2,4-Dinitrotoluene	<5 a	<5 a
2,6-Dinitrotoluene	<5 a	<5 a
1,2-Diphenylhydrazine	<5 a	<5 a
Fluoranthene	<5 a	※ a
4-Chlorophenyl phenyl ether	<5 a	<5 a
4-Bromophenyl phenyl ether	<5 a	<5 a
bis(2-chloroisopropyl) ether	<5 a	<5 a
bis(2-chloroethoxy) methane	<5 a	<5 a
Hexachlorobutadiene	<5 a	<5 a
Hexachlorocyclopentadiene	<5 a	<5 a
Isophorone	<5 a	<5 a
Napthalene	27 a	26 a
Nitrobenzene	<5 a	<5 a
N-nitrosodimethylamine	<5 a	<5 a
N-nitrosodiphenylamine	27 a	<5 a
N-nitrosodi-n-propylamine	<5 a	<5 a
2,3,7,8-Tetrachlorodibenzo-p-dioxin	<5 a	<5 a
bis(2-ethylhexyl) phthalate	<5 a	12 a
butyl benzyl phthalate	<5 a	※ a
di-n-butyl phthalate	<5 a	※ a
di-n-octyl phthalate	<5 a	※ a
Dimethyl phthalate	<5 a	<5 a
Benzo-(a) anthracene	<5 a	<5 a
Benzo-(a) pyrene	<5 a	<5 a
3,4-benzofluoroanthene	<5 a	<5 a
Benzo (k) fluoroanthene	<5 a	<5 a
Chrysene	<5 a	<5 a
Anthracene	<5 a	※ a
Benzo (ghi) peryline	<5 a	<5 a
Fluorene	<5 a	<5 a
Phenanthrene	<5 a	※ a
Bibenzo (a,h) Anthracene	<5 a	<5 a
Indeno (1,2,3-cd) pyrene	<5 a	<5 a
Pyrene	<5 a	※ a
p,p-DDT	<0.05 a	<0.4 a

Note: All values in micrograms per liter.

※ = Values of 1-3 ppb still giving a reasonable spectrum.
a = Based on one sample.

Septage/sludge qualitative data was derived essentially from three sources:

1. cesspool pumpout trucks
2. County sludge trucks
3. the No. 1 lagoon at the Manorville scavenger waste treatment plant (which received both septage and sludge wastes)

Samples collected out of the Manorville lagoon would be expected to possess somewhat lower concentrations for certain parameters than those collected from the trucks themselves, since wastes in the lagoon tend to settle with much of the constituents concentrating in the sediment. The data, for the most part, confirms this.

The scavenger wastes typically contain high amounts of suspended solids, both organic and inorganic, as well as significant BOD and COD values. Although heavy metals tend to accumulate in sewage sludge, and also in septic wastes, the values encountered at the Town's Manorville Scavenger Waste Treatment Plant are higher than normally found in domestic wastes. See Table III-1 for Manorville heavy metal concentrations. These relatively high mean concentrations are due to peaks in the data, indicative of industrial waste discharges. Considering the lack of effective monitoring and

control procedures at the Manorville facility, the receipt of periodic industrial waste loads is a distinct probability. The implementation of an effective surveillance program at the Town's future receiving station should substantially reduce septage heavy-metal concentrations.

The data also indicates the presence of certain synthetic, organic compounds in the septage waste, the sources of which are suspected to be cesspool additives and solvents (household, commercial and industrial). Solvent concentrations should also decline with the onset of an effective monitoring and surveillance program at the scavenger waste receiving facility.

The State's recently-enacted amendment to the Environmental Conservation Law entitled Article 39 prohibits the usage of sewage system cleaners and additives on Long Island. Once the full effects of this law are realized, concentrations of synthetic organic compounds in received septage wastes should commensurately diminish.

The integrated wastestreams which require treatment and disposal present a profile which is characterized by a slightly acidic pH, high solids concentrations (suspended and dissolved fractions), significant BOD, COD and nitrogen (primarily ammonia) loadings, substantial amounts of chlorides, iron and zinc, with somewhat lower quantities of heavy metals, and some small amounts of synthetic organics present.

REVISED

APPLICATION OF

TOWN OF SOUTHAMPTON

TO THE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FOR HOUSEHOLD REFUSE CONTAINER TRANSFER FACILITY

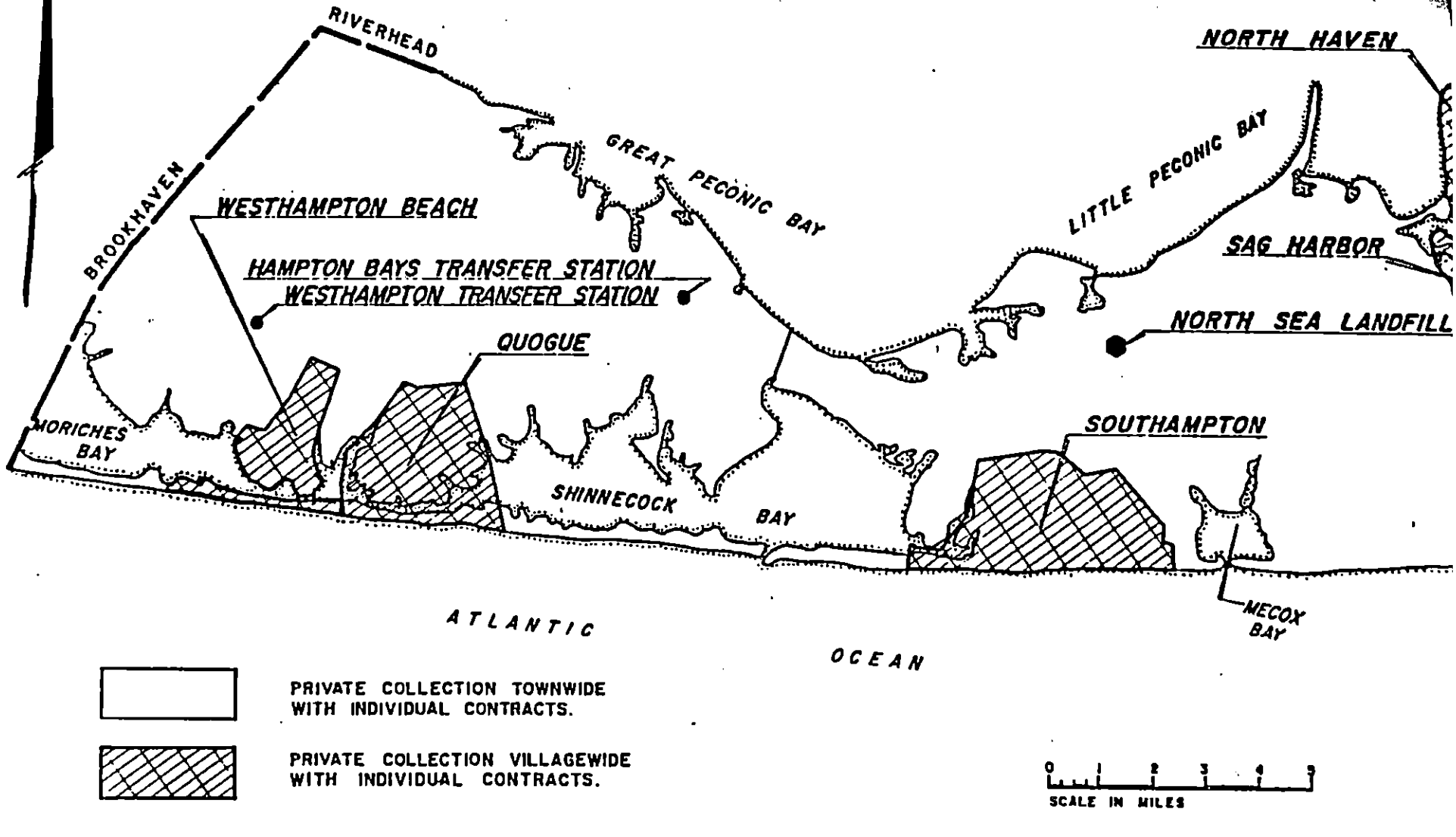
WESTHAMPTON

NYSDEC NO. 10-89-0030

Prepared By:

LOUIS K. MCLEAN ASSOCIATES, P.C.
Consulting Engineers
437 South Country Road
Brookhaven, NY 11719

September, 1989



TOWN OF SOUTHAMPTON · NORTH SEA LANDFILL

SOLID WASTE COLLECTION AREAS

LOUIS K. McLEAN ASSOCIATES, P.C.

FIGURE NO. 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

APPLICATION FOR APPROVAL TO CONSTRUCT A SOLID WASTE MANAGEMENT FACILITY

PROJECT NUMBER

DEPARTMENT ACTION ☐ Approved ☐ Disapproved | DATE

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

1. OWNER'S NAME	2. ADDRESS (Street, City, State, Zip Code)	3. TELEPHONE NUMBER
Town of Southampton	116 Hampton Rd., Southampton, N.Y. 11968	(516) 283-6000
4. OPERATOR'S NAME	5. ADDRESS (Street, City, State, Zip Code)	6. TELEPHONE NUMBER
Brian Gilbride, Superintendent Sanitation	116 Hampton Rd., Southampton, N.Y. 11968	(516) 283-5210
7A. ENGINEER'S NAME	8. ADDRESS (Street, City, State, Zip Code)	9. TELEPHONE NUMBER
Eugene F. Daly, P.E.	437 South Country Rd., Brookhaven NY	(516) 286-8668

7B. ENGINEER'S NYS LICENSE NUMBER: 51693

10. TYPE OF PROJECT FACILITY: ☐ Composting ☐ Transfer ☐ Shredding ☐ Baling ☐ Sanitary Landfill ☐ Incineration ☐ Pyrolysis ☐ Resource Recovery—Energy ☐ Resource Recovery—Materials ☒ Other: Household refuse container transfer facility

11. BRIEFLY DESCRIBE THE PROJECT INCLUDING THE BASIC PROCESS AND MAJOR COMPONENTS:

Project consist of a facility that enables Town residents to dispose of their household refuse into refuse container trailers. These container trailers contain self compactin features. When containers reach their capacity they are transported by conventional truck tractor for disposal at the Town's North Sea Landfill.

12. DESCRIBE LOCATION OF FACILITY. (Attach a USGS Topographic Map showing the exact location of the facility)

West Hampton Facility - Old Country Road, Westhampton, N.Y.

13. COUNTY IN WHICH FACILITY IS LOCATED	14. ENVIRONMENTAL CONSERVATION REGION IN WHICH FACILITY IS LOCAT
Suffolk	Stony Brook

15. MUNICIPALITIES SERVED BY FACILITY	COUNTY	NO. OF MUNICIPALITI.
Town of Southampton including the incorporated Villages within the Township (Westhampton Beach, Quogue, Southampton, Pine Valley, North Haven, Sag Harbor).	Suffolk	7

16. Describe briefly how the proposed facility relates to the Comprehensive Solid Waste Management Plan for the Municipality. Explain any deviation from that

This facility is located at the site of an inactive landfill. Town residents are able dispose of their household refuse at these neighborhood facilities. These facilities mechanically compact the refuse volume before transporting the refuse to the landfill.

17. If facility is other than a sanitary landfill, describe the residues in terms of quantities and types. Also indicate the methods and locations of residue disposal or, if recyclable, indicate markets.

Westhampton facility - 3990 tons/year household refuse

18. IF FACILITY IS A SANITARY LANDFILL, PROVIDE THE FOLLOWING INFORMATION:

a. Total useable area: _____ acre b. Distance to nearest surface water: _____ feet c. Depth to nearest groundwater: _____ feet
d. Depth to nearest rock: _____ feet e. Distance to nearest airport: _____ miles f. Expected life of site: _____ years
g. Is site on a flood plain? ☐ Yes _____ year flood ☐ No h. Predominant type of soil on site _____ (Use Unified Soil Classification Sys

19. ANTICIPATED CONSTRUCTION STARTING AND COMPLETION DATES	20. ESTIMATED POPULATION SERVED
From Westhampton Completed 1985	Current 50,000 Design N/A
21. ESTIMATED COST	22. ESTIMATED DAILY TONNAGES OF SOLID WASTE
Initial Annual	Current 3990 tons Design 12,499 tons
23. OPERATING HOURS PER DAY	24. Are attached plans and specifications in substantial conformance with "Solid Waste Management Facilities Guidelines" ☒ Yes ☐
7:00 AM to 4:45 PM	

25. CERTIFICATION

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowle and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Sept. 12, 1989 Date

Signature and Title

NYSDEC, 1994.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wildlife Resources Center
700 Troy-Schenectady Road
Latham, NY 12110-2400

(518) 783-3932
Fax: 783-3916

Langdon Marsh
Acting Commissioner

October 24, 1994

William L. Bradford
Engineering Sciences, Inc.
290 Elwood Davis Road, Suite 312
Liverpool, New York 13088

Dear Mr. Bradford:

We have reviewed the New York Heritage Program files with respect to your recent request for biological information concerning the four Suspected Inactive Hazardous site investigations, locations as indicated on your enclosed maps, located in the Counties of Nassau, Suffolk and Ulster, New York State.

Enclosed is a computer printout covering the area you requested to be reviewed by our staff. The information contained in this report is considered sensitive and may not be released to the public without permission from the New York Natural Heritage Program.

Our files are continually growing as new habitats and occurrences of rare species and communities are discovered. In most cases, site-specific or comprehensive surveys for plant and animal occurrences have not been conducted. For these reasons, we can only provide data which have been assembled from our files. We cannot provide a definitive statement on the presence or absence of species, habitats or natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

This response applies only to known occurrences of rare animals, plants and natural communities and/or significant wildlife habitats. You should contact our regional office, Division of Regulatory Affairs, at the address enclosed for information regarding any regulated areas or permits that may be required (e.g., regulated wetlands) under State Law.

If this proposed project is still active one year from now we recommend that you contact us again so that we can update this response.

Sincerely,
Information Services
New York Natural Heritage Program

Encs.
cc: Reg. 1 and 3, Wildlife Mgr.
Reg. 1 and 3, Fisheries Mgr.

USERS GUIDE TO NATURAL HERITAGE DATA

DATA SENSITIVITY: The data provided in these reports is sensitive and should be treated in a sensitive manner. The data is for your in-house use only and may not be released to the general public or incorporated in any public document without prior permission from the Natural Heritage Program.

BIOLOGICAL AND CONSERVATION DATA SYSTEM ELEMENT OCCURRENCE REPORTS:

COUNTY NAME: County where the element occurrence is located.
TOWN NAME: Town where the element occurrence is located.
USGS 7 1/2' TOPOGRAPHIC MAP: Name of 7.5 minute US Geological Survey (USGS) quadrangle map (scale 1:24,000).
LAT: Centrum latitude coordinates of the location of the occurrence. Important: latitude and longitude must be used with PRECISION (see below). For example, the location of an occurrence with M (minute) precision is not precisely known at this time and is thought to occur somewhere within a 1.5 mile radius of the given latitude/longitude coordinates.
LONG: Centrum longitude coordinates of the location of the occurrence. See also LAT above.
PRECISION: S - seconds: Location known precisely. (within a 300' or 1-second radius of the latitude and longitude given.
M - minutes: Location known only to within a 1.5 mile (1 minute) radius of the latitude and longitude given.
SIZE (acres): Approximate acres occupied by the element at this location.
SCIENTIFIC NAME: Scientific name of the element occurrence.
COMMON NAME: Common name of the element occurrence.
ELEMENT TYPE: Type of element (i.e. plant, community, other, etc.)
LAST SEEN: Year element occurrence last observed extant at this location.
EO RANK: Comparative evaluation summarizing the quality, condition, viability and defensibility of this occurrence. Use in combination with LAST SEEN and PRECISION.
A-E = Extant: A=excellent, B=good, C=marginal, D=poor, E=extant but with insufficiently data to assign a rank of A - D.
F = Failed to find. Did not locate species, but habitat is still there and further field work is justified.
H = Historic. Historic occurrence without any recent field information.
X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.

NYS STATUS - animals: Categories of Endangered and Threatened species are defined in New York State Environmental Conservation Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.
E = Endangered Species: any species which meet one of the following criteria:
1) Any native species in imminent danger of extirpation or extinction in New York.
2) Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.
T = Threatened Species: any species which meet one of the following criteria:
1) Any native species likely to become an endangered species within the foreseeable future in NY.
2) Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.
SC = Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Environmental Conservation Law section 11-0535 (Endangered and Threatened Species).
P = Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife.
U = Unprotected (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a license to take may be required.
G = Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

NYS STATUS - plants: The following categories are defined in regulation 6NYCRR part 193.3 and apply to New York State Environmental Conservation Law section 9-1503.
(blank) = no state status
E = Endangered Species: listed species are those with:
1) 5 or fewer extant sites, or
2) fewer than 1,000 individuals, or
3) restricted to fewer than 4 U.S.G.S. 7 1/2 minute topographical maps, or
4) species listed as endangered by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.
T = Threatened: listed species are those with:
1) 6 to fewer than 20 extant sites, or
2) 1,000 to fewer than 3,000 individuals, or
3) restricted to not less than 4 or more than 7 U.S.G.S. 7 and 1/2 minute topographical maps, or
4) listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.
R = Rare: listed species have:
1) 20 to 35 extant sites, or
2) 3,000 to 5,000 individuals statewide.
U = Unprotected
V = Exploitably vulnerable: listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the state if causal factors continue unchecked.

NYS STATUS - communities: At this time there are no categories defined for communities.

continued on next page

Waterfront Wetlands

BIOLOGICAL AND CONSERVATION DATA SYSTEM - ELEMENT OCCURRENCE REPORT, 20 OCT 1994
Prepared by N.Y.S.D.E.C NATURAL HERITAGE PROGRAM

(This report contains sensitive information which should be treated in a sensitive manner. Refer to the Users Guide for explanation of codes and ranks.)

COUNTY AND TOWN NAME	USGS 7 1/2' TOPOGRAPHIC MAP	LAT.	LONG.	PREC-ISION	SIZE (acres)	SCIENTIFIC NAME	COMMON NAME	ELEMENT TYPE	LAST SEEN	EO RANK	NYS STATUS	FED. STATUS	GLOBAL RANK	STATE RANK	OFFICE	USE
* SUFFOLK																
BROOKHAVEN	EASTPORT	404645	0724431	S	5	RYNCHOPS NIGER	BLACK SKIMMER	VERTEBRATE	1986	BC	P		G5	S2	4007276	11
BROOKHAVEN	EASTPORT	404645	0724431	S	5	STERNA DOUGALLII	ROSEATE TERN	VERTEBRATE	1986	D	E	LELT	G3	S1	4007276	11
BROOKHAVEN	EASTPORT	404645	0724431	S	5	STERNA HIRUNDO	COMMON TERN	VERTEBRATE	1985	A	T	C2NL	G5	S3	4007276	11
BROOKHAVEN SOUTHAMPTON	EASTPORT	404945	0724327	M	0	CAREX COLLINSII	COLLINS SEDGE	PLANT	1894	H	R		G4	S1S2	4007276	17
BROOKHAVEN	EASTPORT MORICHES	404607	0724443	S	1	POLYGONUM GLAUCUM	SEABEACH KNOTWEED	PLANT	1990	D	U		G3	S3	4007276	23
BROOKHAVEN	HOWELLS POINT PATTERSQUASH ISLAND	404417	0725233	M	0	AMARANTHUS PUMILUS	SEABEACH AMARANTH	PLANT	1918	F	U	LT	G2	S1	4007268	1
BROOKHAVEN	HOWELLS POINT PATTERSQUASH ISLAND	404434	0725240	M	0	GLYCERIA CANADENSIS VAR LAXA	RATTLESNAKE GRASS	PLANT	1967	H	U		G5TUQ	SH	4007268	5
BROOKHAVEN	HOWELLS POINT PATTERSQUASH ISLAND	404434	0725240	M	0	HELIANTHUS ANGUSTIFOLIUS	SWAMP SUNFLOWER	PLANT	1918	H	T		G5	S2	4007268	5
BROOKHAVEN	MORICHES	405104	0724903	S	5	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1983	C	E		G5	S3	4007277	8
BROOKHAVEN	MORICHES	405053	0724911	S	3	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	B	E		G5	S3	4007277	10
BROOKHAVEN	MORICHES	405203	0724858	S	5	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	B	E		G5	S3	4007277	11
BROOKHAVEN	MORICHES	405143	0724845	S	5	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	C	E		G5	S3	4007277	12

Endangered
Threatened

BIOLOGICAL AND CONSERVATION DATA SYSTEM - ELEMENT OCCURRENCE REPORT, 20 OCT 1994
Prepared by N.Y.S.D.E.C NATURAL HERITAGE PROGRAM

(This report contains sensitive information which should be treated in a sensitive manner. Refer to the Users Guide for explanation of codes and ranks.)

COUNTY AND TOWN NAME	USGS 7 1/2' TOPOGRAPHIC MAP	LAT.	LONG.	PREC-ISION	SIZE (acres)	SCIENTIFIC NAME	COMMON NAME	ELEMENT TYPE	LAST SEEN	EO RANK	NYS STATUS	FED. STATUS	GLOBAL RANK	STATE RANK	OFFICE	USE
BROOKHAVEN	MORICHES	405213	0724808	S	4	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	A	E		G5	S3	4007277	13
BROOKHAVEN	MORICHES	405115	0724738	S	3	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1983	A	E		G5	S3	4007277	14
BROOKHAVEN	MORICHES	405105	0724722	S	3	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	A	E		G5	S3	4007277	15
BROOKHAVEN	MORICHES	405140	0724619	S	3	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	A	E		G5	S3	4007277	16
BROOKHAVEN	MORICHES	405141	0724642	S	10	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	B	E		G5	S3	4007277	17
BROOKHAVEN	MORICHES	405149	0724539	S	1	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	C	E		G5	S3	4007277	18
BROOKHAVEN	MORICHES	405146	0724921	S	18	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	A	E		G5	S3	4007277	28
BROOKHAVEN	MORICHES	405204	0724832	S	13	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	A	E		G5	S3	4007277	29
BROOKHAVEN	MORICHES	405107	0724742	S	1	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1982	E	E		G5	S3	4007277	30
BROOKHAVEN	MORICHES	404553	0724858	S	0	PANDION HALIAETUS	OSPREY	VERTEBRATE	1988	E	T		G5	S4	4007277	31
BROOKHAVEN	MORICHES	404701	0724619	S	0	PANDION HALIAETUS	OSPREY	VERTEBRATE	1988	E	T		G5	S4	4007277	33
BROOKHAVEN	MORICHES	404551	0724746	S	1	STERNA HIRUNDO	COMMON TERN	VERTEBRATE	1986	A	T	C2NL	G5	S3	4007277	4
BROOKHAVEN	MORICHES	404523	0724821	S	2	STERNA HIRUNDO	COMMON TERN	VERTEBRATE	1986	D	T	C2NL	G5	S3	4007277	5
BROOKHAVEN	MORICHES WADING RIVER	405226	0724821	H	0	CAREX HORMATHODES	SEDGE	PLANT		H	R		G4G5	S2	4007277	26
BROOKHAVEN	MORICHES	404542	0724923	S	1	CAREX VENUSTA VAR MINOR	A SEDGE	PLANT	1985	E	R		G4T3T4	S1	4007277	36

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BROOKHAVEN	MORICHES WADING RIVER	405217	0724822	M	0	DESMODIUM GLABELLUM	TALL TICK-CLOVER	PLANT	1873	H	T		G5	S1S2	4007277	23
BROOKHAVEN	MORICHES WADING RIVER	405218	0724740	M	0	DESMODIUM LAEVIGATUM	SMOOTH TICK-CLOVER	PLANT	1914	H	U		G5	SH	4007277	37
BROOKHAVEN	MORICHES	404824	0724520	M	0	DIGITARIA FILIFORMIS	SLENDER CRABGRASS	PLANT	1955	H	R		G5	S1S2	4007277	27
BROOKHAVEN	MORICHES WADING RIVER	405213	0724848	M	0	GLYCERIA CANADENSIS VAR LAXA	RATTLESNAKE GRASS	PLANT	1929	H	U		G5TUQ	SH	4007277	38
BROOKHAVEN	MORICHES	404742	0724634	M	0	GLYCERIA CANADENSIS VAR LAXA	RATTLESNAKE GRASS	PLANT	1975	H	U		G5TUQ	SH	4007277	39
BROOKHAVEN	MORICHES	404552	0724909	S	1	HELIANTHUS ANGUSTIFOLIUS	SWAMP SUNFLOWER	PLANT	1990	BC	T		G5	S2	4007277	19
BROOKHAVEN	MORICHES	405217	0724853	S	1	LOBELIA NUTTALLII	NUTTALL'S LOBELIA	PLANT	1985	A	R		G4G5	S3	4007277	21
BROOKHAVEN	MORICHES WADING RIVER	405213	0724848	M	0	POLYGONUM OPELOUSANUM	OPELOUSA SMARTWEED	PLANT	1914	H	U		G5	S2S3	4007277	38
BROOKHAVEN	MORICHES	405213	0724810	S	1	ROTALA RAMOSIOR	TOOTH-CUP	PLANT	1985	AB	R		G5	S2	4007277	13
SOUTHAMPTON	EASTPORT QUOGUE	405140	0723859	S	2450	DWARF PINE PLAINS	DWARF PINE PLAINS	COMMUNITY	1994	A	U		G1G2	S1	4007276	6
SOUTHAMPTON	EASTPORT	405007	0723908	S	1110	PITCH PINE-OAK-HEATH WOODLAND	PITCH PINE-OAK-HEATH WOODLAND	COMMUNITY	1994	AB	U		G3G4	S2S3	4007276	19

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SOUTHAMPTON	EASTPORT RIVERHEAD	405210	0724016	S	700	PITCH PINE-OAK-HEATH WOODLAND	PITCH PINE-OAK-HEATH WOODLAND	COMMUNITY	1994	A	U		G3G4	S2S3	4007276	21
SOUTHAMPTON	EASTPORT QUOGUE	405140	0723859	S	4000	ATRYTONOPSIS HIANNA	DUSTED SKIPPER	INVERTEBRATE	1989	A	U		G4	S3	4007276	6
SOUTHAMPTON	EASTPORT QUOGUE	405140	0723854	S	4000	CATOCALA HERODIAS GERHARDI	HERODIAS UNDERWING	INVERTEBRATE	1987	A	U		G3T3	S2S3	4007276	6
SOUTHAMPTON	EASTPORT QUOGUE	405140	0723859	S	4000	CATOCALA JAIR SSP 2	JAIR UNDERWING	INVERTEBRATE	1987	B	U		G4T4	S1S2	4007276	6
SOUTHAMPTON	EASTPORT QUOGUE	405140	0723859	S	4000	CHAETAGLAEA CERATA	A NOCTUID MOTH	INVERTEBRATE	1986	AB	U		G3G4	S1S2	4007276	6
SOUTHAMPTON	EASTPORT	404718	0723953	S	130	CHARADRIUS MELODUS	PIPING PLOVER	VERTEBRATE	1993	AB	E	LELT	G3	S2	4007276	13
SOUTHAMPTON	EASTPORT	404858	0724215	M	0	CISTOTHORUS PLATENSIS	SEDGE WREN	VERTEBRATE	1932	H	P SC		G5	S2	4007276	5
SOUTHAMPTON	EASTPORT QUOGUE	405140	0723859	S	4000	EUXOA VIOLARIS	VIOLET DART	INVERTEBRATE	1987	B	U		G4	SU	4007276	6
SOUTHAMPTON	EASTPORT QUOGUE	405140	0723855	S	1800	HEMILEUCA MAIA MAIA	COASTAL BARRENS BUCKMOTH	INVERTEBRATE	1987	A	U SC		G4T2T3	S2	4007276	6
SOUTHAMPTON	EASTPORT QUOGUE	405140	0723855	S	1800	HETEROCAMPA VARIA	A NOCTUID MOTH	INVERTEBRATE	1986	A	U		G3G4	S1S2	4007276	6
SOUTHAMPTON	EASTPORT QUOGUE	405140	0723859	S	4000	PSECTRAGLAEA CARNOSA	PINK SALLOW	INVERTEBRATE	1987	B	U		G3G4	S2	4007276	6
SOUTHAMPTON	EASTPORT	404718	0723953	S	130	STERNA ANTILLARUM	LEAST TERN	VERTEBRATE	1993	A	E		G4	S3	4007276	13

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SOUTHAMPTON	EASTPORT QUOGUE	405140	0723859	S	4000	ZALE SP 1	(NEAR Z. LUNIFERA)	INVERTEBRATE	1989	A	U		G3Q	SU	4007276	6
SOUTHAMPTON	EASTPORT	405128	0724238	S	1	ALETRIS FARINOSA	STARGRASS	PLANT	1991	C	U		G5	S2	4007276	32
SOUTHAMPTON	EASTPORT QUOGUE	404737	0723845	S	2	AMARANTHUS PUMILUS	SEABEACH AMARANTH	PLANT	1993	B	U	LT	G2	S1	4007276	31
SOUTHAMPTON	EASTPORT	404902	0724208	M	0	ASCLEPIAS VARIEGATA	WHITE MILKWEED	PLANT	1945	H	T		G5	S1	4007276	3
SOUTHAMPTON	EASTPORT	404919	0723954	M	0	ASTER SOLIDAGINEUS	FLAX-LEAF WHITETOP	PLANT		H	U		G5	S1S3	4007276	4
SOUTHAMPTON	EASTPORT	404856	0724208	M	0	CAREX COLLINSII	COLLINS SEDGE	PLANT	1927	H	R		G4	S1S2	4007276	16
SOUTHAMPTON	EASTPORT	405027	0723928	S	1	CYPERUS HOUGHTONII	HOUGHTON UMBRELLA-SEDGE	PLANT	1990	A	R		G3G4	S2	4007276	28
SOUTHAMPTON	EASTPORT	405122	0723850	S	1	CYPERUS HOUGHTONII	HOUGHTON UMBRELLA-SEOGE	PLANT	1991	D	R		G3G4	S2	4007276	25
SOUTHAMPTON	EASTPORT	405158	0723849	S	0	CYPERUS HOUGHTONII	HOUGHTON UMBRELLA-SEDGE	PLANT	1990	D	R		G3G4	S2	4007276	33
SOUTHAMPTON	EASTPORT	404948	0723939	S	1	DESMODIUM CILIARE	TICK-TREFOIL	PLANT	1990	D	T		G5	S2S3	4007276	26
SOUTHAMPTON	EASTPORT	405120	0723905	M	1	DESMODIUM CILIARE	TICK-TREFOIL	PLANT	1991	E	T		G5	S2S3	4007276	1
SOUTHAMPTON	EASTPORT	404857	0724340	M	0	HELIANTHUS ANGUSTIFOLIUS	SWAMP SUNFLOWER	PLANT	1894	H	T		G5	S2	4007276	12
SOUTHAMPTON	EASTPORT	404827	0723944	M	0	HELIANTHUS ANGUSTIFOLIUS	SWAMP SUNFLOWER	PLANT	1926	H	T		G5	S2	4007276	20

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SOUTHAMPTON	EASTPORT	404919	0723954	M	0	LESPEDEZA STUEVEI	VELVETY LESPEDEZA	PLANT	1952	H	R		G4?	S2S3	4007276	4
SOUTHAMPTON	EASTPORT	404915	0724128	S	1	MAGNOLIA VIRGINIANA	SWEET-BAY	PLANT	1991	BC	U		G5	S1	4007276	18
SOUTHAMPTON	EASTPORT QUOGUE	404737	0723845	S	1	POLYGONUM GLAUCUM	SEABEACH KNOTWEED	PLANT	1991	D	U		G3	S3	4007276	31
SOUTHAMPTON	EASTPORT	405057	0723848	S	1	PRUNUS PUMILA VAR DEPRESSA	SAND-CHERRY	PLANT	1990	C	R		G5T5	S2	4007276	29
SOUTHAMPTON	QUOGUE	405030	0723654	S	1	ASTER NEMORALIS	BOG ASTER	PLANT	1985	A	R		G5	S3	4007275	22
SOUTHAMPTON	QUOGUE	404958	0723702	S	1	CAREX BULLATA	BUTTON SEDGE	PLANT	1985	B	T		G5	S1	4007275	25
SOUTHAMPTON	QUOGUE	404848	0723653	M	0	HELIANTHUS ANGUSTIFOLIUS	SWAMP SUNFLOWER	PLANT	1893	H	T		G5	S2	4007275	8
SOUTHAMPTON	QUOGUE	405030	0723654	S	1	HYPERICUM DISSIMULATUM	ST. JOHN'S-WORT	PLANT	1991	B	U		G5Q	S2S3	4007275	22
SOUTHAMPTON	QUOGUE	405030	0723654	S	1	LOBELIA NUTTALLII	NUTTALL'S LOBELIA	PLANT	1991	A	R		G4G5	S3	4007275	22
SOUTHAMPTON	QUOGUE	404911	0723643	M	0	OENOTHERA LACINIATA	CUT-LEAVED EVENING-PRIMROSE	PLANT	1977	H	U		G5	S1	4007275	28
SOUTHAMPTON	QUOGUE	405030	0723654	S	1	SCLERIA RETICULARIS VAR RETICULARIS	RETICULATED NUTRUSH	PLANT	1985	C	R		G5T3T5	S3	4007275	22
SOUTHAMPTON BROOKHAVEN	RIVERHEAD EASTPORT WADING RIVER MORICHES	405313	0724349	S	5600	HEMILEUCA MAIA MAIA	COASTAL BARRENS BUCKMOTH	INVERTEBRATE	1984	D	U	SC	G4T2T3	S2	4007286	6

75 Records Processed

SIGNIFICANT HABITATS

DATE : 10/20/94

REPORT ID#	NAME OF AREA	TYPE OF AREA	COUNTY	TOWN OR CITY	QUADRANGLE	LATITUDE (DEG MIN SEC)	LONGITUDE
SB 52-029	Long Island Dwarf Pine Plains	Rare/Unusual Plant Habitat	Suffolk	Southampton	Eastport	40 51 30	72 38 46
SW 52-501	Great South Bay	Protected Coastal Bay	Suffolk	Brookhaven	Bay Shore East	40 43 29	72 57 06
SW 52-502	Moriches Bay	Protected Coastal Bay	Suffolk	Brookhaven	Moriches	40 46 31	72 46 20
SW 52-511	West Pond (Seatuck Creek)	Waterfowl Wintering Area	Suffolk	Brookhaven	Eastport	40 49 39	72 43 27
SW 52-512	Quontuck Creek Quogue Refuge	Tidal Creek	Suffolk	Southampton	Quogue	40 50 23	72 36 49
SW 52-561	Manorville-Riverhead Pine Barrens	Pine Barrens	Suffolk	Brookhaven	Eastport	40 52 59	72 44 42
SW 52-575	South Manor Ponds	Tiger Salamander Ponds	Suffolk	Brookhaven	Moriches	40 51 04	72 49 06

New York State Department of Environmental Conservation
Building 40 - SUNY, Stony Brook, New York 11790-2356
Division of Hazardous Waste Remediation
Telephone: (516) 444-0240
Facsimile: (516) 444-0373

Michael D. Zagata
Commissioner

MEMORANDUM

TO: Srikanth Maddineni, Eastern Investigation Section
FROM: Robert Stewart, Region 1
SUBJECT: 3/24/95 Site Inspection
Westhampton Landfill; Site ID #152060

DATE: March 27, 1995

As requested, the regional staff went to the Westhampton Landfill site on 3/24/95 to look for the buried drums of highway paint reported by a confidential informant.

The drums were reportedly buried in the shallow surface soils in front of the pile of compost in the rear of the site. The consultant said that they were allegedly near to sample location SB0408/GW04.

To check for the buried drums, a Schonstedt Magnetic Locator was used to check for buried metal. The entire area between the large mound of compost and the dirt road was checked with the metal detector. The metal detector indicated that there were some subsurface metal in this area. The strongest readings were investigated by first digging with a shovel to about one foot below the surface. A slam bar was then inserted at the bottom of the test pits to about 3' below land surface to feel for buried drums. About ten shallow test pits were dug this way. The soils were compacted and difficult to dig. Various C & D materials, primarily scrap wood, were present in the surface soils. A water heater, a metal sign, various scrap metal, and nails in wood boards were found. No drums were discovered in this area.

The general area south of the compost pile was also investigated. The metal detector had numerous strong hits in one vegetated area. The ground was uneven throughout this area. One test pit to about 3' deep was dug in this area. A piece of black sheet metal was found. This may have been a drum at one time, however, the metal was so deformed that it was impossible to tell for sure. The slam bar was forced through the sheet metal to look for stained soils or paint. The soils beneath the sheet metal were moist but there was no odor or color to the liquid on the slam bar. A 5' long soil probe was then inserted besides the sheet metal to the capability of the instrument. A black layer

of soil with a slight sewage-like odor was found at about 5' below land surface. I concluded that this was a former lagoon and that the black soils were the sludge at the former bottom of the lagoon. This sludge layer was only about 2" thick. The sludge was dark black and had an oily appearance. I filled a 2 ounce jar with the sludge. As we discussed by telephone, it was decided to analyze these soils. The sample parameters for this sample were limited by the quantity of sample material. I choose to analyze for total metals and semi-volatiles. The sample will be analyzed using SW-846 protocols with the report by category B. There was not enough sample material for a matrix spike or matrix spike duplicate.

For your records, I have enclosed the following information: 1) a copy of my field notes, 2) a copy of the sample sheet, and 3) a copy of the Chain of Custody sheet, and 4) a copy of Figure 3 from the draft PSA Report with the location of the sample I collected indicated on it. Two photographs were taken to document the sample collected. I will send you a copy of these photos when they are available.

If you have any questions, please do not hesitate to call me at (516) 444-0244.

cc: A. Shah

3/24/95 Walthampton Landfill

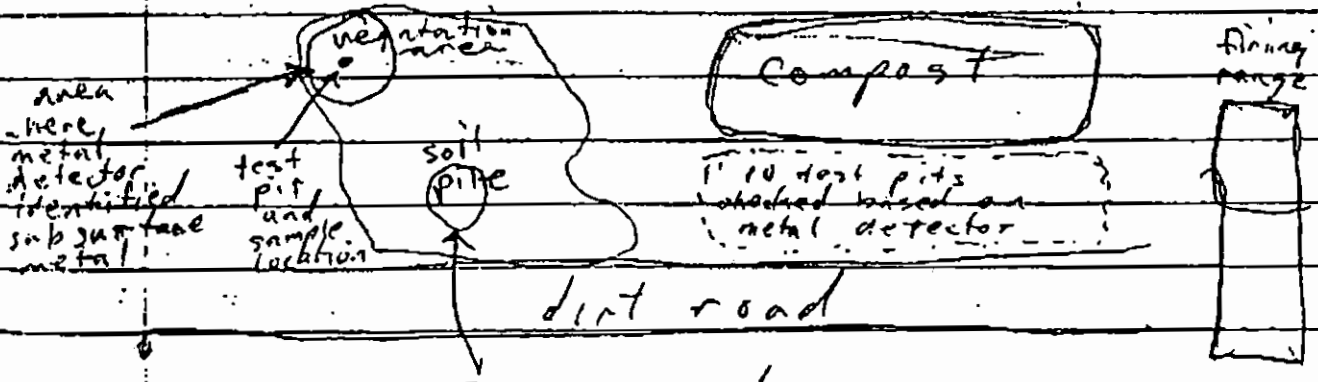
10:15 Arrived on-site with John Conover to look for buried drums
Equipment:
1) Metal detector - Schonstedt Magnetic Locator
2) shovel
3) soil trier with 5' capability
4) soil probe (slam bar)

10:30 Walked the area in front of the compost pile in the rear of the site (near the firing range) Many hits on the metal detector. About 10 holes to about one foot deep were dug. Then the slam bar was inserted in most of the holes to see if any drums were deeper.
One metal sign, one water tank for a water heater, and a large number of nails and small piece of scrap metal were found. No drums located

Robert Stewart

11:30 Moved south to the vegetated area (grass and weeds) Nd soils were uneven here. Metal detector had many hits. Dug one hole about 3' diameter to about 2½ ft deep. Some distorted metal was discovered at 2' deep. This may have been a drum at one time. The metal was so severely distorted that it was impossible to tell. It was rusted and crushed. I took the slam bar and probed through the metal. The soils at about 4'-5' deep were moist. I decided to try the soil tier. A ~~hole~~ place beside the metal was picked. The soil tier was checked every 1' from the bottom of the hole to 5' below land surface (b/s) A layer of black soils was discovered at about 5' b/s. A slight

sewage odor was noticed. A sample was taken of the black soils. This is probably a sludge layer from a former lagoon. The sample was collect at 12:30
Sample number SH195-0324-A098SD
I only have 2oz of sample due to the size of the probe. I'll see what the lab can analyze
1250 left the site.



Checked old stream bed on Old Country Rd. west of the site, there was no water nor has there been any water for a long time.

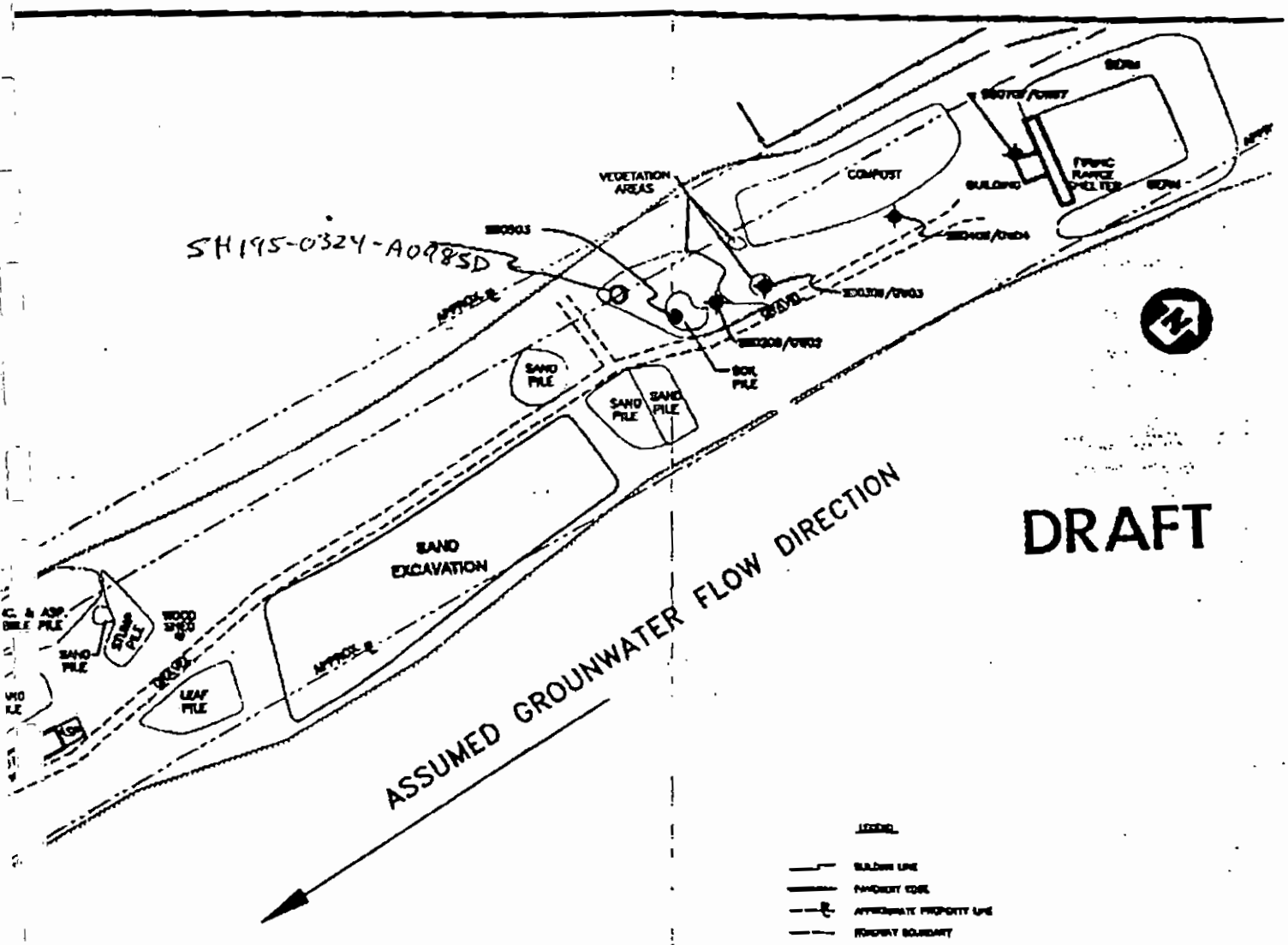
Robert Stewart

Went back to the office and called Sri.
Took sample to H.M Labs by state truck
15:22 Signed Chain of Custody

Talked to chemist at H.M
Based on the amount of sample, I chose to only analyze the sample for metals and BNA's
I picked metals since lead based paint was suspected.
I picked BNA since old lagoons usually have high levels of BNAs in the sludge and because solvent based paint (old based) contains petroleum related semi-volatiles

Robert Stroud

FIGURE 2



DRAFT

Area checked with metal detector

LEGEND

- BUILDING LINE
- PAVEMENT EDGE
- APPROXIMATE PROPERTY LINE
- TREELINE BOUNDARY
- CONTOURS
- CHAIN LINK FENCE
- GUIDERAIL
- APPROXIMATE SHORELINE
- SB0803 — SOIL PROBE LOCATION
- SB0108/GW01 — SOIL PROBE AND GROUNDWATER PROBE LOCATION
- GW04 — GROUNDWATER PROBE LOCATION

NOTES :

1. PROPERTY LINES AS SHOWN ARE BASED ON SUFFOLK COUNTY TAX MAPS # 307, 331, & 332 AND ARE APPROXIMATE ONLY.

200' 100' 0 200'

Approximate Scale in Feet

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION
PRELIMINARY SITE ASSESSMENT

SITE PLAN
WESTHAMPTON LANDFILL
TOWN OF SOUTHAMPTON, N.Y.

PARSONS ENGINEERING SCIENCE, INC.
DESIGN • RESEARCH • PLANNING

152660

NUS, 1983.

NUS CORPORATION

POTENTIAL HAZARDOUS WASTE SITE

EXECUTIVE SUMMARY

WESTHAMPTON LANDFILL	NY New Site
Site Name	EPA Site ID Number
Westhampton, NY	02-8303-18
Address	TDD Number

Date of Site Visit: 5/18/83

SITE DESCRIPTION

The Westhampton Landfill is an active 28 acre site located on Long Island's east end. The site serves as a Transfer station for household refuse and as a landfill for white goods, landscape waste and cess-pool waste. The household refuse is transferred to the Old North Sea landfill, Southampton, NY. Six to eight leaching pools are present on Site and are used for the disposal of cesspool waste.

PRIORITY FOR FURTHER ACTION: High___ Medium X Low___

RECOMMENDATIONS

Since the site is unlined and located in a recharge area for the Upper Glacial Lloyd and Magothy aquifers, the sole sources for drinking water in the area, the potential for cesspool waste contamination exists. It is recommended that the leaching liquid be sampled for presence of hazardous contaminants.

Prepared by: Arthur J. Clarke of NUS Corporation Date: 5/27/83

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	New Site

II. SITE NAME AND LOCATION

01 SITE NAME	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Westhampton Landfill	Old Country Road

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Westhampton	NY	11977	Suffolk	103	1

09 COORDINATES LATITUDE	LONGITUDE
40° 49' 45"N	072° 39' 30"W

10 DIRECTIONS TO SITE (Starting from nearest public road)
Long Island Expressway to Flander's Road to Montauk Highway West to Old Country Road. Site is just North of LIRR Tracks.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
Town of Southampton	20 Jackson Ave

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Hampton Bays	NY	11946	(516) 728-3600

07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
			( )

13 TYPE OF OWNERSHIP (Check one)
☐ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☒ E. MUNICIPAL
☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (Month Day Year) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___/___/___ (Month Day Year) ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES ☐ NO DATE 5/17/83 (Month Day Year)

BY (Check all that apply)
☐ A. EPA ☒ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): NUS Corporation

02 SITE STATUS (Check one)	03 YEARS OF OPERATION
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN	1968 (Beginning Year) _____ (Ending Year) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Cesspool waste in leaching pools present on site.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
The site is in a recharge area for the sole source aquifer. The potential for cesspool waste contaminating the drinking water exists.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☐ A. HIGH (Inspection must be completed) ☒ B. MEDIUM (Inspection must be completed) ☐ C. LOW (Inspection may be completed as time and resources become available) ☐ D. NONE (No further action needed, complete current disposition block)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Mark Haulenbeek	Environmental Protection Agency, Environmental Services Division	(201) 321- 6685

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Arthur J. Clarke	EPA	NUS FIT II	(201) 225-6160	5/18/83 (Month Day Year)

EPA FORM 2070-12 (7-81)

HAZARDOUS WASTE SITE
PHASE I REPORT
REVIEW
REGION I

SITE NAME: WESTHAMPTON LANDFILL

EPA NUMBER: NO #

CONSULTANT: NUS

REVIEW:

Page	Comments
	WESTHAMPTON IS NOT A TOWN - IT IS A HAMLET
	STATUS OF 25 DRUMS SHOULD BE NOTED -
	(FULL, POSSIBLE CONTENTS ETC)
	MAP SHOULD SHOW SCATTERED WASTE
	STORING MORE EXTENSIVE AREA.

FEB 1 -

Facility name: WESTHAMPTON LANDFILL (Westhampton) OLD WA... DEC

Location: OLD COUNTRY ROAD, WESTHAMPTON, N. Y. 11977

EPA Region: II NY - NEW SERE

Person(s) in charge of the facility: TOWN OF SOUTHAMPTON

MIKE ZARAO - DEPUTY SUPT HIGHWAYS

THOMAS LAVELLE - COMMISSIONER PUBLIC WORKS

Name of Reviewer: LEONARD - NUS Date: 11/25/83

General description of the facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

SEE NUS REPORT

Scores: S_M = (S_{gw} = 3.00 S_{sw} = 0.26 S_a = 0)

S_{FE} =

S_{DC} =

FIGURE 1
HRS COVER SHEET

NEEDS LEACHATE AND GROUNDWATER SAMPLING.

POSSIBLE PHASE II REQUIRED

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	(0) 45	1		45	3.1	
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.						
2 Route Characteristics					3.2	
Depth to Aquifer of Concern	0 1 2 (3)	2	6	6		
Net Precipitation	0 1 2 (3)	1	3	3		
Permeability of the Unsaturated Zone	0 1 (2) 3	1	2	3		
Physical State	0 1 2 (3)	1	3	3		
Total Route Characteristics Score			14	15		
3 Containment	0 1 2 (3)	1	3	3	3.3	
4 Waste Characteristics					3.4	
Toxicity/Persistence	(0) 3 6 9 12 15 18	1		18		
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8	1		8		
Total Waste Characteristics Score			1	26		
5 Targets					3.5	
Ground Water Use	0 1 2 (3)	3	9	9		
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 (32) 35 40	1	32	40		
Total Targets Score			41	49		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			1722	57,330		
7 Divide line 6 by 57,330 and multiply by 100			S_{gw} = 3.00			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max.. Score	Ref. (Section)
1 Observed Release	(0) 45	1		45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	0 (1) 2 3	1	1	3	
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
Distance to Nearest Surface Water	0 (1) 2 3	2	2	6	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			8	15	
3 Containment	0 1 2 (3)	1	3	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	(0) 3 6 9 12 15 18	1		18	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score			1	26	
5 Targets					4.5
Surface Water Use	0 (1) 2 3	3	3	9	
Distance to a Sensitive Environment	0 1 (2) 3	2	4	6	
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 15 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			7	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			168	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{SW} =	0.26		

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Greenman-Pedersen, no date.

A REPORT ON
SOLID WASTE DISPOSAL MANAGEMENT
TOWN OF SOUTHAMPTON
SUFFOLK COUNTY, NEW YORK

OFFICE COPY

Greenman-Pedersen, Associates, P.C.
100 West Main Street
Babylon, New York 11702

II. METHODS OF SOLID WASTE DISPOSAL

The Town of Southampton presently uses the sanitary landfill method for solid waste disposal. Other methods customarily employed in other communities are high and low temperature incineration, pyrolytic incineration, shredding, low and high density baling and sanitary landfill super compaction. Comparisons of the above methods purely in terms of overall average volume reductions for all types of refuse, beginning at the collection point, are as follows:

(A) Density of ordinary refuse at the collection point will vary depending upon where and when collected because refuse densities are correlated to source and seoson. In general, overall combined refuse typical to Southampton should average 125 # /CY and shall be so assumed in order to establish a basis of comparison in volume reductions.

(B) Collection trucks compact the refuse to a density averaging 400 # /CY or a reduction of 32 ± % of its original volume.

(C) Sanitary landfills with normal compaction and standard 6" earth cover achieves an average in place density of 700 # /CY. (Super compaction may increase densities by 150 ± # /CY, but is not practical to achieve without special equipment). The refuse is reduced to 18% of its original volume by normal compaction in the sanitary landfill method.

(D) By incineration of refuse and residue burial, the refuse is reduced to 5% ± of its original volume. Most residue is non-burnable material, but residue can increase substantially if the incinerator is not operating efficiently or properly.

(E) Shredding of refuse prior to compaction at a sanitary landfill generally reduces landfill volumes by an additional 20% ±. Therefore, shredding with

IV. THE SOLID WASTE SITUATION IN SOUTHAMPTON

(A) Introduction

The Town of Southampton is 27 ± miles long between its easterly and westerly boundary. The Shinnecock canal divides its length roughly in half. In general, solid waste is collected by the residents themselves or by private carting firms and disposed at Town owned and operated landfills. Because of the Town's length, refuse collected east of the Shinnecock Canal is normally disposed at sites east of the canal, primarily at the North Sea sanitary landfill. Similarily, refuse collected west of the canal is disposed of at sites west of the canal, primarily at the Westhampton landfill. All presently available landfill sites are nearly exhausted with the exception of the 126 acre North Sea disposal area which is 70% ± undeveloped.

The North Sea site is moderate in size, according to landfill standards, for Southampton's present and future population. In fact, the 1970 Master Plan adopted by the Town of Southampton, recommended the purchase of 700 additional acres for solid waste disposal, evenly split east and west of the canal in order to meet the Town's needs to the year 1990. The master plan also recommended that the Town explore methods of improving upon its present practice of solid waste disposal so that landfill sites might be used more efficiently and thereby increase the life of disposal sites. The implementation of these recommendations has brought mixed results.

Unless prompt, positive action is taken by the Town to provide for solid waste disposal, a solid waste disposal problem can be anticipated within the next few years. In order to meet Southampton's future solid waste disposal

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)		Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0)	45	1		45	5.1
Date and Location:						
Sampling Protocol:						
If line 1 is 0, the S_a = 0. Enter on line 5 If line 1 is 45, then proceed to line 2						
2 Waste Characteristics						5.2
Reactivity and Incompatibility	0 1 2 3		1		3	
Toxicity	0 1 2 3		3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8		1		8	
	Total Waste Characteristics Score				20	
3 Targets						5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30		1		30	
Distance to Sensitive Environment	0 1 2 3		2		6	
Land Use	0 1 2 3		1		3	
	Total Targets Score				39	
4 Multiply 1 x 2 x 3				0	35,100	
5 Divide line 4 by 35,100 and multiply by 100			S_a =	0		

FIGURE 9
AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	3.00	9.00
Surface Water Route Score (S_{sw})	0.26	.067
Air Route Score (S_a)	—	—
$S_{gw}^2 + S_{sw}^2 + S_a^2$		9.07
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \,/\, 1.73 = S_M =$		

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)	
1 Containment	1 3	1		3	7.1	
2 Waste Characteristics					7.2	
Direct Evidence	0 3	1		3		
Ignitability	0 1 2 3	1		3		
Reactivity	0 1 2 3	1		3		
Incompatibility	0 1 2 3	1		3		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8		
Total Waste Characteristics Score				20		
3 Targets					7.3	
Distance to Nearest Population	0 1 2 3 4 5	1		5		
Distance to Nearest Building	0 1 2 3	1		3		
Distance to Sensitive Environment	0 1 2 3	1		3		
Land Use	0 1 2 3	1		3		
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5		
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5		
Total Targets Score				24		
4 Multiply 1 x 2 x 3				1,440		
5 Divide line 4 by 1,440 and multiply by 100		S_{FE} =				

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	[illegible]
[1] Observed Incident	0 45	1		45	
If line [1] is 45, proceed to line [4] If line [1] is 0, proceed to line [2]					
[2] Accessibility	0 1 2 3	1		3	
[3] Containment	0 15	1		15	
[4] Waste Characteristics Toxicity	0 1 2 3	5		15	
[5] Targets					
Population Within a 1-Mile Radius	0 1 2 3 4 5	4		20	
Distance to a Critical Habitat	0 1 2 3	4		12	
Total Targets Score				32	
[6] If line [1] is 45, multiply [1] x [4] x [5] If line [1] is 0, multiply [2] x [3] x [4] x [5]				21,600	
[7] Divide line [6] by 21,600 and multiply by 100	S_{DC} =				

FIGURE 12
DIRECT CONTACT WORK SHEET

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	New

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] A. SOLID
- [ ] B. POWDER, FINES
- [X] C. SLUDGE
- [ ] D. OTHER _____ (Specify)
- [ ] E. SLURRY
- [ ] F. LIQUID
- [ ] G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

- TONS _____
- CUBIC YARDS unknown
- NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- [ ] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [ ] D. PERSISTENT
- [ ] E. SOLUBLE
- [ ] F. INFECTIOUS
- [ ] G. FLAMMABLE
- [ ] H. IGNITABLE
- [ ] I. HIGHLY VOLATILE
- [ ] J. EXPLOSIVE
- [ ] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [X] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	unknown		Cesspool scavenger waste is
OLW	OILY WASTE			present on site in open leaching
SOL	SOLVENTS			pools.
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

None suspected

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	-		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Site Inspection (5/18/83)
Interview Mike Zarro, Deputy Superintendent of Highways, Town of Southampton,
(516) 728-3600

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: New

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION | 02 ☐ OBSERVED (DATE: 5/18/83) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 6000
04 NARRATIVE DESCRIPTION
Cesspool scavenger waste is dumped in leaching pools on site. Since the site is an aquifer recharge area, the potential for groundwater contamination exists.

01 ☐ B. SURFACE WATER CONTAMINATION | 02 ☐ OBSERVED (DATE:) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION
No potential exists.

01 ☐ C. CONTAMINATION OF AIR | 02 ☐ OBSERVED (DATE:) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION
No potential exists.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS | 02 ☐ OBSERVED (DATE:) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION
No potential exists.

01 ☐ E. DIRECT CONTACT | 02 ☐ OBSERVED (DATE:) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION
No potential exists.

01 ☒ F. CONTAMINATION OF SOIL | 02 ☒ OBSERVED (DATE: 5/18/83) | ☐ POTENTIAL | ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 28 (acres)
04 NARRATIVE DESCRIPTION
Leaching pools on site are periodically cleaned out by bulldozers and the sludge is spread over open areas on site.

01 ☒ G. DRINKING WATER CONTAMINATION | 02 ☒ OBSERVED (DATE: 5/18/83) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 6000
04 NARRATIVE DESCRIPTION
The site lies in a recharge area for a sole source aquifer. There is a great potential for contaminants such as untreated cesspool waste reaching the aquifer and contaminating the drinking water.

01 ☒ H. WORKER EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE:) | ☒ POTENTIAL | ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION
A potential for workers being exposed to untreated cesspool waste exists.

01 ☐ I. POPULATION EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE:) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION
No potential exists.

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: New

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None observed

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include common name(s) of species)

None observed

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None observed

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☒ OBSERVED (DATE: 5/ 8/83) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 6,000 — 04 NARRATIVE DESCRIPTION
Untreated cesspool waste and refuse are dumped on site in sand leaching pools. The sand areas are part of the sole source aquifer recharge area.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No potential exists.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No potential exists.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

no potential exists.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None

III. TOTAL POPULATION POTENTIALLY AFFECTED: 6,000

IV. COMMENTS

The site serves as a transfer station for household refuse and a landfill for cesspool waste, white goods and brush. The household refuse is transfered to the Old North Sea Landfill, Southampton, NY. via 8 yard containers.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Site-Inspection: -5/18/83
Interview Mike Zarro, (516) 728-3600

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	New

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
West Hampton Landfill	Old Country Road				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Westhampton	NY	11977	Suffolk	103	1

09 COORDINATES	10 TYPE OF OWNERSHIP (Check one)
LATITUDE 40° 49' 45".N / LONGITUDE 072° 39' 30"W	☐ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☒ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
5 / 18 / 83 (MONTH DAY YEAR)	☒ ACTIVE ☐ INACTIVE	1968 (BEGINNING YEAR) / present (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☒ B. EPA CONTRACTOR NUS Corporation (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ___ (Name of firm)
☐ E. STATE ☐ F. STATE CONTRACTOR ___ (Name of firm) ☐ G. OTHER ___ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Arthur J. Clarke	Chemist	NUS FIT II	(201) 225-6160
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO.**
John Grelis	Geologist	NUS FIT II	(201) 225-6160
Edward McTiernan	Ecologist	NUS FIT II	(201) 225-6160
Patrick Sorensen, Ph.D	Biochemist	NUS FIT II	(201) 225-6160
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Mike Zarro	Deputy Super. of Highways	Town of Southampton 20 Jackson Ave. Hampton Bays, NY 11946	(516) 728-3600
Thomas Lavelle	Commissioner of Public Works	Town of Southampton 20 Jackson Ave. Hampton Bays, NY 11946	(516) 728-3600
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	9:45A.M.-10:45A.M.	Sunny, 65°F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Mark Haulenbeek	Environmental Protection Agency Environmental Services Division	(201) 321-6685

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Arthur J. Clarke	EPA	NUS FIT II	(201) 225-6160	5 / 27 / 83 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	New

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☒ A. SOLID
- ☐ B. POWDER, FINES
- ☒ C. SLUDGE
- ☐ D. OTHER (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

- TONS
- CUBIC YARDS: unknown
- NO. OF DRUMS

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- XXM. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	unknown		Cesspool scavenger waste is
OLW	OILY WASTE			present on site in open leaching
SOL	SOLVENTS			pools.
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers) None suspected

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Site Inspection (5/18/83)
Interview Mike Zarro, Deputy Superintendent of Highways, Town of Southampton, (516) 728-3600

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: New

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None observed

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include number(s) of species)

None observed

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None observed

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☒ OBSERVED (DATE: 5/18/83) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 6,000 — 04 NARRATIVE DESCRIPTION
Untreated cesspool waste and refuse are dumped on site in sand leaching pools. The sand areas are part of the sole source aquifer recharge area.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No potential exists.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

No potential exists.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

no potential exists.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None

III. TOTAL POPULATION POTENTIALLY AFFECTED: 6,000

IV. COMMENTS

The site serves as a transfer station for household refuse and a landfill for cesspool waste, white goods and brush. The household refuse is transfered to the Old North Sea Landfill, Southampton, NY. via 8 yard containers.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Site Inspection: 5/18/83
Interview Mike Zarro, (516) 728-3600

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	New

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION — 02 ☒ OBSERVED (DATE: 5/18/83) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 6000
04 NARRATIVE DESCRIPTION

Cesspool scavenger waste is dumped in leaching pools on site. Since the site is an aquifer recharge area, the potential for groundwater contamination exists.

01 ☐ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE:) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

No potential exists.

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE:) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

No potential exists.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE:) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

No potential exists.

01 ☐ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE:) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

No potential exists.

01 ☒ F. CONTAMINATION OF SOIL — 02 ☒ OBSERVED (DATE: 5/18/83) — ☐ POTENTIAL — ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 28
04 NARRATIVE DESCRIPTION

Leaching pools on site are periodically cleaned out by bulldozers and the sludge is spread over open areas on site.

01 ☒ G. DRINKING WATER CONTAMINATION — 02 ☒ OBSERVED (DATE: 5/18/83) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 6000
04 NARRATIVE DESCRIPTION

The site lies in a recharge area for a sole source aquifer. There is a great potentia for contaminants such as untreated cesspool waste reaching the aquifer and contaminatin the drinking water.

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE:) — ☒ POTENTIAL — ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

A potential for workers being exposed to untreated cesspool waste exists.

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE:) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED:
04 NARRATIVE DESCRIPTION

No potential exists.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	New

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☑ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☒ F. LANDFILL	unknown	
☐ G. LANDFARM		
☒ H. OPEN DUMP	unknown	
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER

- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE

28-30 (Acres)

07 COMMENTS

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☒ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

Approximately Twenty Five drums are present on site.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO

02 COMMENTS

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

Site Inspection: 5/18/83
Interview Mike Zarro, (516) 728-3600

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: New

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

	SURFACE	WELL
COMMUNITY	A. ☐	B. ☒
NON-COMMUNITY	C. ☐	D. ☒

02 STATUS

	ENDANGERED	AFFECTED	MONITORED
	A. ☐	B. ☐	C. ☐
	D. ☐	E. ☐	F. ☐

03 DISTANCE TO SITE
A. 0.8 (mi)
B. unknown (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)
☒ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER: 6000
03 DISTANCE TO NEAREST DRINKING WATER WELL: 0.8 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
10-20 (ft)	south	0.0 (ft)	4.5×10^6 (gpd)	☒ YES ☐ NO

09 DESCRIPTION OF WELLS (Including usage, depth, and location relative to population and buildings)
Within one mile of the site there are 12 wells used for the public water supply. Ten of these wells are located 0.8 miles southwest of the site.

10 RECHARGE AREA		11 DISCHARGE AREA	
☒ YES ☐ NO	COMMENTS: Recharges both shallow and deep aquifers.	☐ YES ☒ NO	COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)
☐ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☒ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Shinnecock Bay	☐	1.5 (mi)
	☐	(mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 1200 (est.) NO. OF PERSONS	B. 2,500 (est) NO. OF PERSONS	C. 6,000 (est) NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 0.25 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: 500
04 DISTANCE TO NEAREST OFF-SITE BUILDING: 0.1 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)
The site is located in the seasonally populated beach communities of Westhampton and Westhampton Beach.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: New Site

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. 10^{-6} – 10^{-8} cm/sec ☐ B. 10^{-4} – 10^{-6} cm/sec ☒ C. 10^{-4} – 10^{-3} cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE (10^{-2} – 10^{-6} cm/sec) ☒ C. RELATIVELY PERMEABLE (10^{-2} – 10^{-4} cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
1,600 (ft)	unknown (ft)	unknown	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
20+ (in)	2.8 (in)	0-5 %	South	0-5 %

09 FLOOD POTENTIAL
SITE IS IN 100 YEAR FLOODPLAIN

10
☒ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)
ESTUARINE: A. 1.0 (mi) OTHER: B. _____ (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)
5.0 (mi)
ENDANGERED SPECIES: Osprey

13 LAND USE IN VICINITY

DISTANCE TO COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AG LAND
A. 0.25 (mi)	B. 0.50 (mi)	C. 5.0 (mi)	D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is located on the South Shore of Long Island's east end. The site lies in a recharge area for the Upper Glacial, Lloyd and Magothy aquifers. The Atlantic Ocean and Shinnecock Bay are within 2 miles of the site.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Site Inspection 5/18/83
U.S.G.S. 7.5 Topographic Series
NY State Dept. of Transportation map, "Gazetteer" 1983.
NY State Dept of Health, "Atlas of Community Water System Sources," 1982
H. M. Jensen, "Hydrogeology of Suffolk County N.Y., 1974.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	New

II. SAMPLES TAKEN No samples were taken.

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Air Quality	No readings above background were recorded by the HNU
	Photoionizer or MSA O_2 meter/Explosimeter

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF EPA Edison, N.J./NUS Corp. Edison, N.J.
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS Attached as Appendix A

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

None

VI. SOURCES OF INFORMATION (Cite specific references, e.g., State files, sample analysis, reports)

Site Inspection: 5/18/83

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	New

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
Town of Southampton		20 Jackson Ave		Hampton Bays	NY	11946

PARENT COMPANY (if applicable)

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE

IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Interview Mike Zarro, (516) 728-3600

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	New

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER
None	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Interview Mike Zarro, (516) 728-3600

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	New

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
none	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Town of Westhampton			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Unknown			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Interview Mike Zarro, (516) 728-3600

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	New

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

01 ☐ O. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No previous history.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	New

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

No previous history.

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

No previous history.

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

No previous history.

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

No previous history.

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

No previous history.

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

No previous history.

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

No previous history.

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

No previous history.

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

No previous history.

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

No previous history.

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

No previous history.

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Interview Mike Zarro, (516) 728-3600

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	New

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Interview Mike Zarro, (516) 728-3600

APPENDIX A

MAPS AND PHOTOS

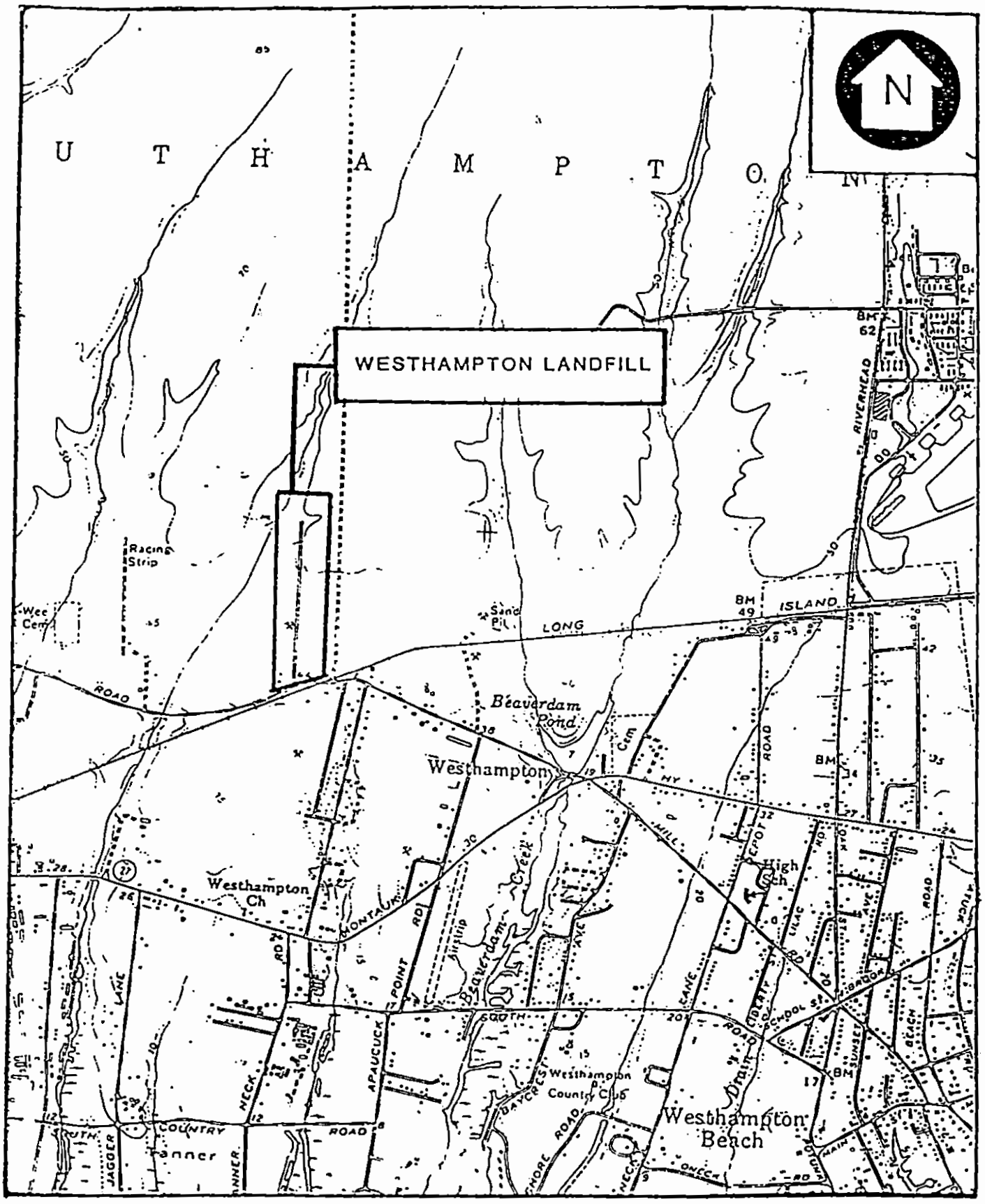
MAPS AND PHOTOS

Figure A-1 provides a Site Location Map.

Figure A-2 provides a Site Map.

Figure A-3 provides a Photo Location Map.

Exhibit A-1 provides photographs of the site.



WESTHAMPTON LANDFILL

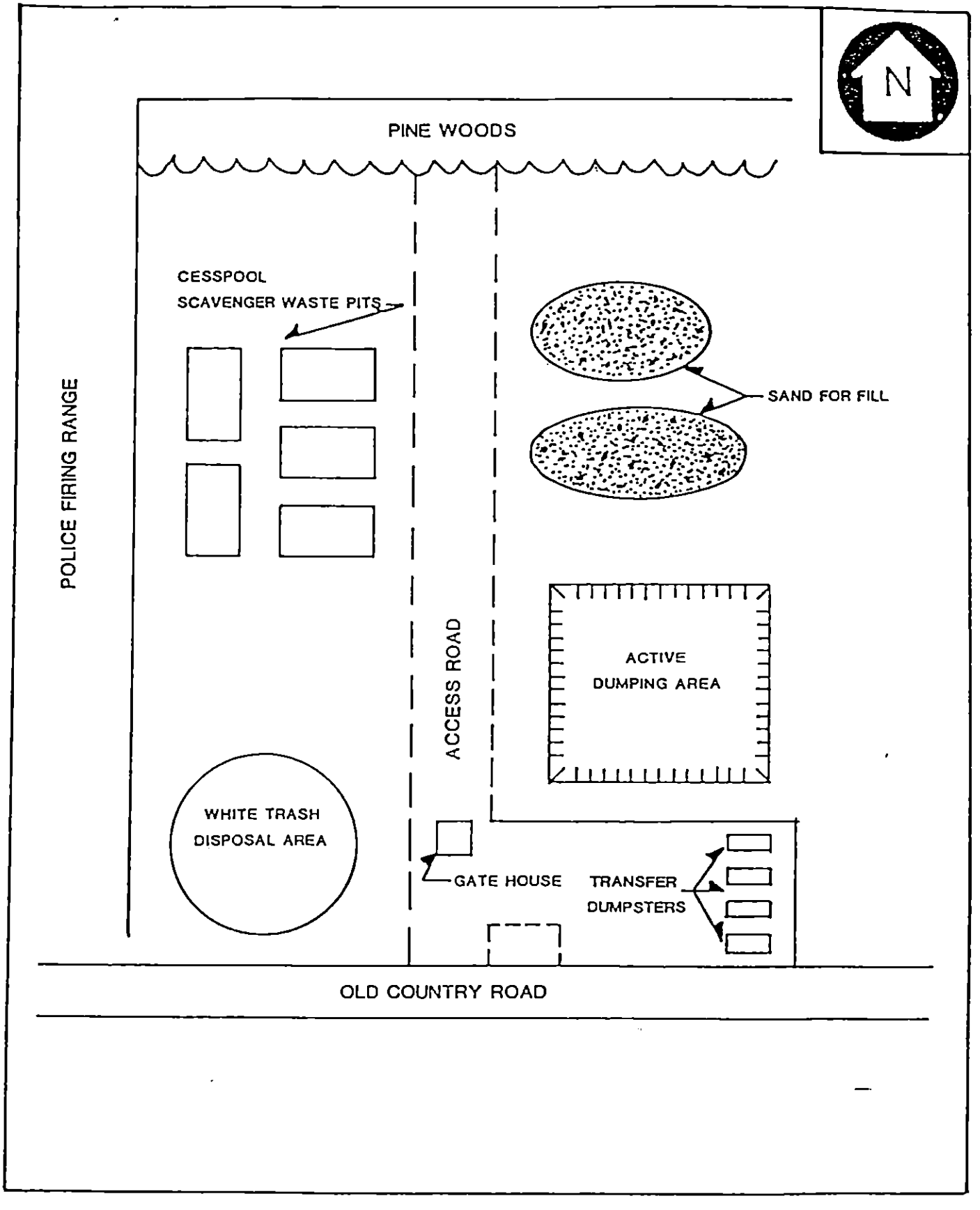
WESTHAMPTON , N.Y.

SITE LOCATION MAP

1000 0 1000 2000 ft

FIGURE A-1

NUS CORPORATION



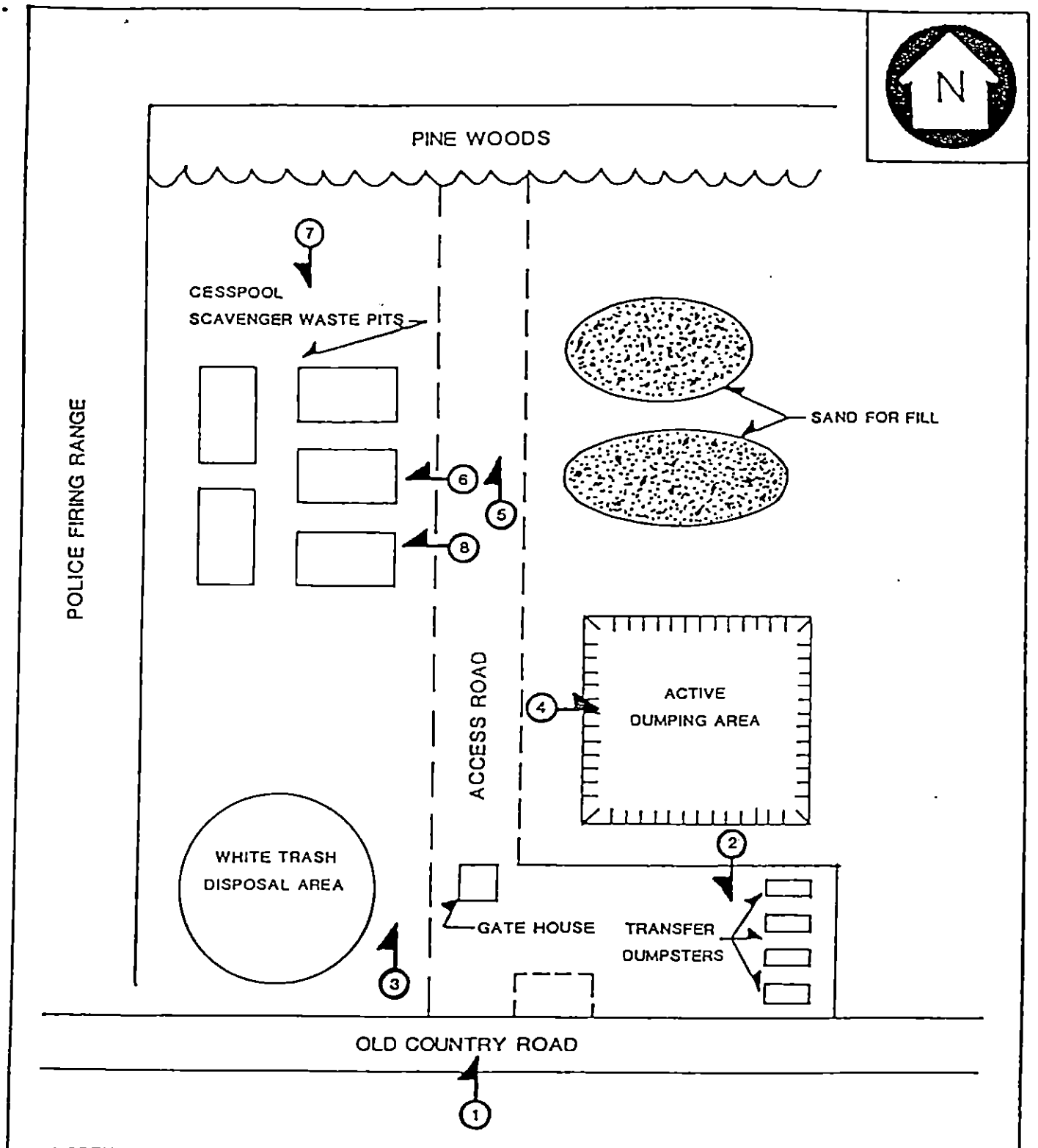
WESTHAMPTON LANDFILL

WESTHAMPTON, N.Y.

SITE MAP

FIGURE A-2

NUS CORPORATION



WESTHAMPTON LANDFILL

WESTHAMPTON, N.Y.

PHOTO LOCATION MAP

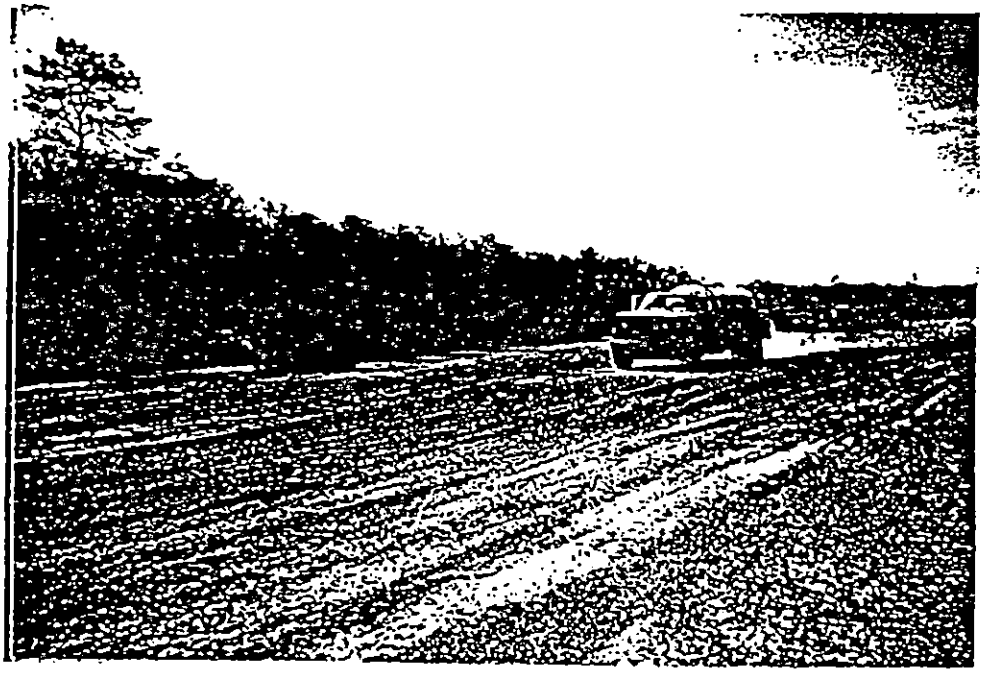
FIGURE A-3

NUS CORPORATION

Exhibit A-1
Photograph Index
Westhampton Landfill

1. View north of entrance gate to site.
2. View south of transfer containers and cesspool waste truck.
3. View north of white goods, brush, and construction debris.
4. View east of active face of Landfill.
5. North view of leaf dump area.
6. View west of cesspool waste leaching pools.
7. View south of cesspool leaching pool field.
8. Close up facing west of leaching pool.

1. View north of entrance gate to site.



2. View south of transfer containers and cesspool waste truck.

Westhampton Landfill
Westhampton, NY

3. View north of white goods, brush, and construction debris.

4. View east of active face of landfill.

Westhampton Landfill
Westhampton, NY

5. North view of leaf dump area.

6. View west of cesspool waste leaching pools.

Westhampton Landfill
Westhampton, NY

7. View south of cesspool leaching pool fields.

8. Close up facing west of leaching pool.

Westhampton Landfill
Westhampton, NY

ES ENGINEERING-SCIENCE COMPANIES

MEMORANDUM TO FILE

Parsons ES, 1995.

JOB NO. 726260.03

FILE DESIGNATION Westhampton

DATE 1/23 TIME

PHONE CALL FROM PHONE NO.

PHONE CALL TO Brian Gilbride PHONE NO (516) 283-5210

CONFERENCE WITH

PLACE

SUBJECT Brian summarized Landfill history as follows:

- Landfilling started on-site 1970-71 and continued until 1974, along with septic waste disposal
- Solid wastes were disposed into a sand pit that had been excavated by the Town Highway Department (where the transfer station is now located. Septic wastes were disposed in Northwest portion of landfill.
- From 1974 to 1978 all wastes were brought to Quiogue Landfill (also referred to as Westhampton Landfill).
- Quiogue Landfill was closed in 1978; brush and ~~sp~~ septic waste were again disposed at Westhampton; all other wastes were brought to North Sea.
- Septic waste disposal at Westhampton was stopped in 1978.

SIGNED

CONTINUED: INSPECTORS OBSERVATIONS OR INTERVIEWS

10/14/82 West Hampton Disposal and Transfer Site

Complaint by Mr. John Bardowski (anonymous)
55 Old Country Road
West Hampton, NY phone 288-1736

Assigned Violation of Article 10 part 1014
(Smoke and odor leaving disposal site creating a detriment To the Health, Safety, and comfort of people and property in area.)

Arrived at Landfill area at 2:45PM area in the vicinity of fire was very smoky with Heavy odor of wood burning. Large percentage of smoke leaving fire area — Smoke and moderately strong odor noted as far away as 3/10 of a mile (wind Direction Southeasterly) Fly ash noted on Vehicles and ground of #55 Old Country Road - Note House is approximately 500' from Disposal area entrance.

Spoke with Mr Mike Zanna of the Town Highway Unit by phone. Mr Zanna via Radio contacted Mr. Richard Ligia (foreman) and instructed Him to put fire out.

Note: Caretaker Mr. Irving Wheeler in charge of disposal area but according to Him Not the fire.

Non burning permit in effect 10/14/82

Copy of Report given To JCM for his disposition
DG

SCDHS, 1982a.

Westhampton Trans Fer Landfill	OWNER/ OFFICER Irving Whale NY	PAGE 1 OF
Southampton Town Land Fills	CONTACT Tom Leberle	TEL. 728-3600
County Rd	VILLAGE Westhampton TOWN Southampton	ZIP 119
Southampton Town Offices, Southampton NY		

1/21	TIME 3:40	ORIG. / PERIODIC / RE.	WASTE	NO WASTE	HBH	SEWAGE SYSTEM	PUBLIC / PRIVATE

LAND FILL Trans Fer (Hability)

YES	NO	PERMIT NO.	360 PERMIT? YES	NO	PERMIT NO.

None TEL.

YES	NO	PICK UP RECORDS AVAILABLE YES	NO	RECORDS CONSISTENT WITH EXPECTED WASTE GENERATION YES	NO		

M-MFG. NAME	FUEL TYPE	FIRING RATE
N/A		
	WASTE BURNED	RATE

AGE	YES / NO	NUMBER OF DRUMS STORED ~30	TYPE OF MATERIAL STORED	WASTE	RAW	BOTH		
	YES / NO	ABOVE GROUND / UNDER GROUND / BOTH	TYPE OF MATERIAL STORED	WASTE	RAW	BOTH		
STERED	YES	NO	CONDITION OF ABOVEGROUND TANKS	GOOD	FAIR	POOR	ANY ART. XII VIOLATIONS YES	NO

There are about 30 - 55 gal Drums OF A Yellow Dry
stance being stored on the ground at the south
est corner OF this land Fill site. The Drums are
ly Full, Some even empty of the Dry Yellow
rance, All the Drums state on them - A301 Batch
7, 55 gal Yellow Traffic Paint, MFG G 77
495 T50 - N 645.

GRANTED BY THIS FACILITY TO THE SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES TO CONDUCT ROUTINE SAMPLING OF STORMDRAINS, AND OTHER DISCHARGE POINTS AT THE FACILITY.

SCHEDULED ON OR AFTER _____. FAILURE TO CORRECT UNSATISFACTORY CONDITIONS BY REINSPECTION DATE MAY N A HEARING AND/OR FINE.

SON D. Whalen	TITLE Guard	INSPECTOR I Dotoski

5/81 TJK

SUPER FUND SITE REPORT REVIEW COMMENTS

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES

HAZARDOUS MATERIALS MANAGEMENT SECTION

(W. Hampton)

Site Name: Westhampton Landfill N.Y.I.D. # 152060

Report Type: I Contractor NUS EPA ✓ State ____

Date of Report 5/27/83 Date of Review 9/24/84 Reviewer C. Pinn
for

Comments: Since high levels of methylene chloride were found in the East Hampton and Southampton scavenger pits at the landfills, this facility should also be sampled. It should also be checked for agricultural chemicals and observation wells installed to define the leachate plume.

SCDHS, 1986. rm

JAGGER LANE INVESTIGATION

From January to August 1985, the Groundwater Resources and Reclamation Section of SCDHS defined a plume of contaminated groundwater in a residential area of Westhampton near Jagger Lane, between the Village of Westhampton Beach and the community of Remsenburg. The plume, whose origin is uncertain, contains high concentrations of trichloroethylene (TCE), tetrachloroethylene (TET), dichloropropane (DCP) and cis dichloroethylene (CIS).

The point of origin has not been precisely defined, but based on the interpretation of data collected from the groundwater profile wells installed, the contamination extends in a northeasterly direction from its discharge boundary along a small stream just west of Jagger Lane for approximately 1/2 mile. The plume is approximately 700 ft. wide.

Sixty-two homes in the area were sampled by the department's Drinking Water Supply Section to determine the impact of the contamination on residential wells. Nine of these wells located within the contaminated plume of groundwater were found to exceed the recommended New York State Department of Health (NYSDOH) guidelines. Two of these wells also exceeded the EPA 10-day Suggested No Adverse Response Levels (SNARLs), and one well had a concentration of trichloroethylene as high as 3300 ppb. In addition, 15 wells were found to have lower traces of trichloroethylene and 1,2 dichloropropane, ranging from 3 to 49 ppb--falling within acceptable limits for these compounds at the time of sampling.

In January 1985, the SCDHS requested to have public water extended to the residences of the affected area. The U.S. Environmental Protection Agency (EPA) was contacted to fund the extension of public water mains to the affected area under the provisions of the Comprehensive Environmental and Liability Act (Superfund).

Concurrently with these activities, the SCDHS continued the test well drilling program and the residential well sampling program. Forty-six groundwater profile test wells were installed and sampled at various levels. The actual source of the contamination was not pinpointed. However, a row of 12 test wells installed sufficiently upstream of the main bulk of the contamination ruled out a source further upgradient than Old Country Road.

In May of 1985, the EPA announced that this project met all the requirements for Superfund funding, and construction of public water mains began in June 1985. The mains were completed in August 1985; 63 homeowners have been hooked up to public water supply to date (altogether, 81 homes are ultimately scheduled to be hooked up to public water supply).

The SCDHS, the Town of Southampton and the EPA worked together to effectuate the speedy delivery of public water to the impacted residences. The EPA has issued requests to four private parties potentially responsible for contaminating the local water supply to step forward and assume the costs of the cleanup operation and water main extensions if they caused the contamination. Additionally, administratiave mechanisms for on-site cleanup and groundwater reclamation are being pursued by the SCDHS and EPA.

1/10/86

15 RSEBLOCK PLACE, FARMINGVILLE, N.Y. 1[illegible]
(516) 451-4633

I.D. Nº SCDHS, 1987

OF ITY Westhampton Transfer Station (Highway Dept.) | OWNER/ OFFICER Tom Lavelle | VIOLATIONS NOTED (YES) NO

ANY Southampton Town | CONTACT Mr. Lavelle | TEL. 728-3600

T ESS Old Country Rd. | VILLAGE Westhampton TOWN Southampton | ZIP

NG ESS Jackson Ave. Hampton Bays NY | INSP. 2 | HYDRO. | MAP COORD.

ERTY R Southampton Town

6/4/87 | TIME 1:30 PM | ORIG (PER.) RE SAMPLE | ART. 7 (YES) NO | ART. 10 Nº | ART. 12 Nº | H B

TRY Garbage Transfer + Highway Dept. Yard | SPDES OR NPDES PERMIT YES (NO) PERMIT NO.

ING SYSTEM – MFG NAME None | FUEL TYPE | FIRING RATE | TANK SIZE

ER OF DRUMS IRS 0 OUTDOORS 1 | NUMBER OF TANKS ABOVEGROUND UNDERGROUND | NUMBER OF OPEN PROCESS TANKS | SEWAGE PUBLIC SYSTEM PRIVATE

ENGER Steebles Waste Oil TEL. — | PICK UP RECORDS AVAILABLE YES (NO) | VOLUME GENERATED 200 gal/2-3mo

1) 1 Drum of unknown fluid waste noted on the ground near the salt storage pile. If it is waste oil it should be put into the waste oil tank, if it is water it can be dumped into the salt water storage tank.

2) If any drums of waste chemicals are found or generated they must be held for a certified Industrial Waste Scavenger.

DUSTRIAL WASTES MUST NOT BE DISCHARGED TO THE GROUND OR DISPOSED O
A DUMPSTER, BUT MAY ONLY BE TRANSPORTED AND DISPOSED OF BY A LICENSE
DUSTRIAL WASTE SCAVENGER FOR AN APPROVED LIST CONTACT THE
.Y.S. D.E.C. AT 751 - 7900

SPECTION SCHEDULED ON OR AFTER _____. FAILURE TO CORRECT UNSATISFACTORY CONDITIONS BY REINSPECTION DATE MAY
ILT IN A HEARING AND OR FINE.

MISSION IS GRANTED BY THIS FACILITY TO THE SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES TO CONDUCT ROUTINE SAMPLING
ESSPOOLS, STORMDRAINS, AND OTHER DISCHARGE POINTS AT THE FACILITY.

X
N. OF PERSON REPORT Henry J. McC[illegible] | X Dump attendant TITLE | INSPECTOR T. DeLosh[illegible]

TJK 12/86

PROCESS	MATERIALS USED AND APPROXIMATE QUANTITY	LIQUID	AIR	
			CONTROL TYPE	EP
1- Above gr. 275 gal. TANK	Waste oil	H+H		
1- ~1000 gal. Above gr. TANK	Calcium chloride liquid	Put onto SAND		
old CessPool Scavenger Waste lagoon	discontinued 2 years ago covered over	NONE		
Garbage Transfer STATION	4 Compacting Trailers use for holding garbage	RUNOFF goes into Storm drains		
Sand removal Pit + Screening use Sand.	Sand + Put leaves into Pit	rain drainage		
Cold Patch Storage	Piles of Asphalt	USE on roads		
Open burning Area	Brush debris (Permitted		None	1
	have H2O Truck on site + Heavy equipment			
old Machinery Storage	Scrap Metal from old Equipment			
Salt Storage - Bermed Pad	Salt + Salt Sand	runoff		
Pad Pitched to underground TANK				
large underground TANK	Salt runoff Water	pump back onto SAND Piles		
—				
Storage building	None			
1- 550 Above gr. TANK	Diesel	USE		
1- 275 Above gr. TANK.	Diesel or Gasoline	USE		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region II

DATE:

SUBJECT: Immediate Removal Funding Request for Jagger Lane Groundwater Contamination Site, Westhampton, Suffolk County, Long Island, New York - ACTION MEMORANDUM

FROM: W. Gad Tawadros, On-Scene Coordinator
Response and Prevention Branch

TO: Christopher J. Daggett
Regional Administrator

THRU: William J. Librizzi, Director
Emergency and Remedial Response Division

I. PURPOSE:

A request for an EPA Removal Action at Jagger Lane, Westhampton, Suffolk County, Long Island, has been received from the New York State Department of Environmental Conservation. The request, dated April 19, 1985, was signed by Mr. Norman Nosenchuck, Director, Division of Solid and Hazardous Wastes. Sampling of 30 private wells was conducted in 1982 by the Suffolk County Department of Health Services (SCDHS). In addition, one private well was resampled in August, 1984. Subsequent sampling of 33 private wells at the site area was also conducted by the SCDHS, from January through April, 1985. Table 1 presents a summary of groundwater sample analytical results obtained for each contaminated private well sampled to date.

The data set which was utilized to prepare this request for immediate removal funding includes the 1985 data obtained from the 33 sampled private wells, the 1984 data from the one private well and the 1982 data obtained from 9 private wells which were not resampled in 1985. In addition, analytical results obtained from groundwater sampling of test wells completed at the site by SCDHS are presented to document the high levels of contaminants present in the contaminant plume (Table 2).

Table 1

Jagger Lane, West Hampton, New York
Summary of Reported Concentrations of
Six Volatile Organic Contaminants
Found In Residential Wells[1]

Resi-dential Well[2]	Sample Date	1,2-Dichloro-ethane	1,1,1-Trichloro-ethane	1,1,2-Trichloro-ethylene	Cis-Dichloro-ethylene	Tetrachloro-ethylene	1,1-Dichloro-propane	Total Con. of VOC's
Duprez	3/8/82	4	-	-	-	-	550*	554*
	3/11/85	-	-	-	-	-	-	-
Schneider	5/6/82	-	-	4	-	-	37	41
Hallinan	11/17/81	-	-	10	-	-	-	10
	2/27/85	-	-	-	-	-	3	3
Bartko	3/16/82	-	-	9	-	-	-	9
Smith	3/8/82	-	-	17	-	2	-	19
	4/-/85	-	-	69*	-	2	25	96
Plank	2/10/82	-	-	500*,**	-	47	-	547*
	3/11/85	-	-	35	-	-	-	35
Bengualid	6/7/82	43	35	3300*,**	-	180*,**	-	3558*
	8/-/84	-	-	140*	-	-	-	140*
Hopkins	12/12/83	-	-	3	4	-	-	7
Leveen	3/8/82	-	5	-	-	-	-	5
Glasky	6/29/82	10	-	560*,**	59*	20	-	649*
	3/11/85	-	-	140*	3	4	47	197*
Hadlock	3/12/82	-	-	240*,**	-	3	-	243*
	2/27/85	-	-	-	-	-	-	-
Scammell	8/17/82	-	-	540*,**	-	-	-	540*
	3/11/85	-	-	22	-	-	-	22
Fugelsang	10/18/82	-	-	42	-	-	-	42
Barnet	6/29/82	-	-	41	-	-	-	41
Sposato	2/27/85	-	-	2000*,**	420*,**	21	9	2472*
	1/28/85	-	-	-	-	-	49	49
Wolff	2/20/85	-	-	10	-	-	3	13
Abbate	2/27/85	-	-	5	-	-	26	31
Nowak	2/20/85	-	-	6	-	-	-	6
Stasse	3/11/85	-	-	-	-	-	7	7
Finkelstn	3/11/85	-	-	46	-	-	26	72
Kempster	4/-/85	-	-	12	-	-	57*	77
Rogers	4/-/85	-	-	54*	-	-	19	77

[1] Sampling and analysis conducted by Suffolk County Department of Health Services. All values are in ppb; - = Not detected.

[2] Residences to receive bottled water indicated by underlined names.

* Concentration exceeds NYSDOH guideline for determining water unfit for drinking or cooking.

** Concentration exceeds 10-Day EPA SNARLS.

TABLE 2
Summary of Groundwater Sampling Well Water Quality Data

Well No.[1]	Sample Depth (Feet)	1-1-2 Tri-chloroethylene	Cis-Dichloroethylene	Tetrachloro-ethylene	1-2 Dichloro-propane	Total Con of VOC's
SL-1A	21	16	-	-		16
	42	15	-	-	6	21
	63	680	-	66	-	746
	84	320	-	30	-	350
	105	-	-	-	-	-
	125	-	-	-	-	-
SL-2	24	-	-	-	-	-
	45	-	-	-	57	57
	65	-	-	-	-	
	75	-	-	-	-	-
JA-3	23	-	-	-	-	-
	44	-	-	-	-	-
	65	26	-	8	26	60
	82	-	-	-	-	-
JA-4	23	-	-	-	-	-
	44	-	-	-	-	-
	65	250	3	10	6	269
	75	1300	190	66	34	1590
JA-6	23	10	-	-	-	10
	44	3	-	-	-	3
	65	710	-	12	-	722
	75	110	-	-	-	110
	96	-	-	-	-	-
	107	-	-	-	-	-
JA-13	28	-	-	-	-	-
	44	-	-	-	-	-
	65	66	-	-	32	98
	86	3	-	-	-	3
	96	-	-	-	-	-
JA-17	28	-	-	-	-	-
	44	-	-	-	-	-
	65	-	-	-	-	-
	86	6	-	-	-	6
	96	33	-	-	-	33

- = Not Detected.
[1]All samples collected by Suffolk County Department of Health Services, January through April, 1985.

TABLE 2 - (CONTINUED)
Summary of Groundwater Sampling Well Water Quality Data

Well No.[1]	Sample Depth (Feet)	1-1-2 Tri-chloroethylene	Cis-Dichloroethylene	Tetrachloro-ethylene	1-2 Dichloro-propane	Total Con of VOC's
JA-18	26	-	-	-	-	
	44	-	-	-	-	
	65	4	-	-	-	8
	86	7	-	-	-	7
	96	2	-	-	-	2
JA-19	29	-	-	-	-	
	46	-	-	-	-	-
	66	3	-	-	-	3
	86	24	-	-	-	24
	96	-	-	-	-	
JA-23	49	-	-	-	-	-
	70	3	-	-	-	3
	91	4	-	-	-	4
	112	8	-	-	-	8
	124	-	-	-	-	-
JA-24	33	-	-	-	-	-
	56	-	-	-	13	13
	76	-	-	-	100	100
JA-25	26					
	44	-	-	-	-	-
	65	-	-	-	-	-
	86	910	-	13	-	923
JA-26	22	-	-	-	-	-
	44	-	-	-	-	-
	65	9	-	-	-	9
	86	1200	-	-	-	1200
	107	12	-	-	-	12
FW-1*	Unknown	-	-	-	3	3
FW-2*	Unknown	-	-	-	-	-
FW-4*	Unknown	-	-	-	-	-

- = Not Detected.
[1]All samples collected by Suffolk County Department of Health Services, January through April, 1985.
*Existing Fire Well.

From the above-described data set a total of 22 homes have shown contamination at one time or another at the tap with toxic organic chemicals (Table 1). EPA's 10-Day SNARLS (Suggested No Adverse Response Levels) were exceeded in 6 of the 18 affected residential wells at one time or another, although 1985 sampling indicated only one supply well exceeded the 10-Day SNARL. Based on the latest sampling for each residence a total of six (6) wells show contamination by volatile organic compounds (VOC) at or above the State Department of Health (NYSDOH) limits for potable water.

The resident population at risk currently relies on their wells as their sole source of potable water and, as a result, this groundwater contamination poses an immediate and significant threat to human health. An immediate removal action under the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) is recommended to provide protection to affected and threatened residents.

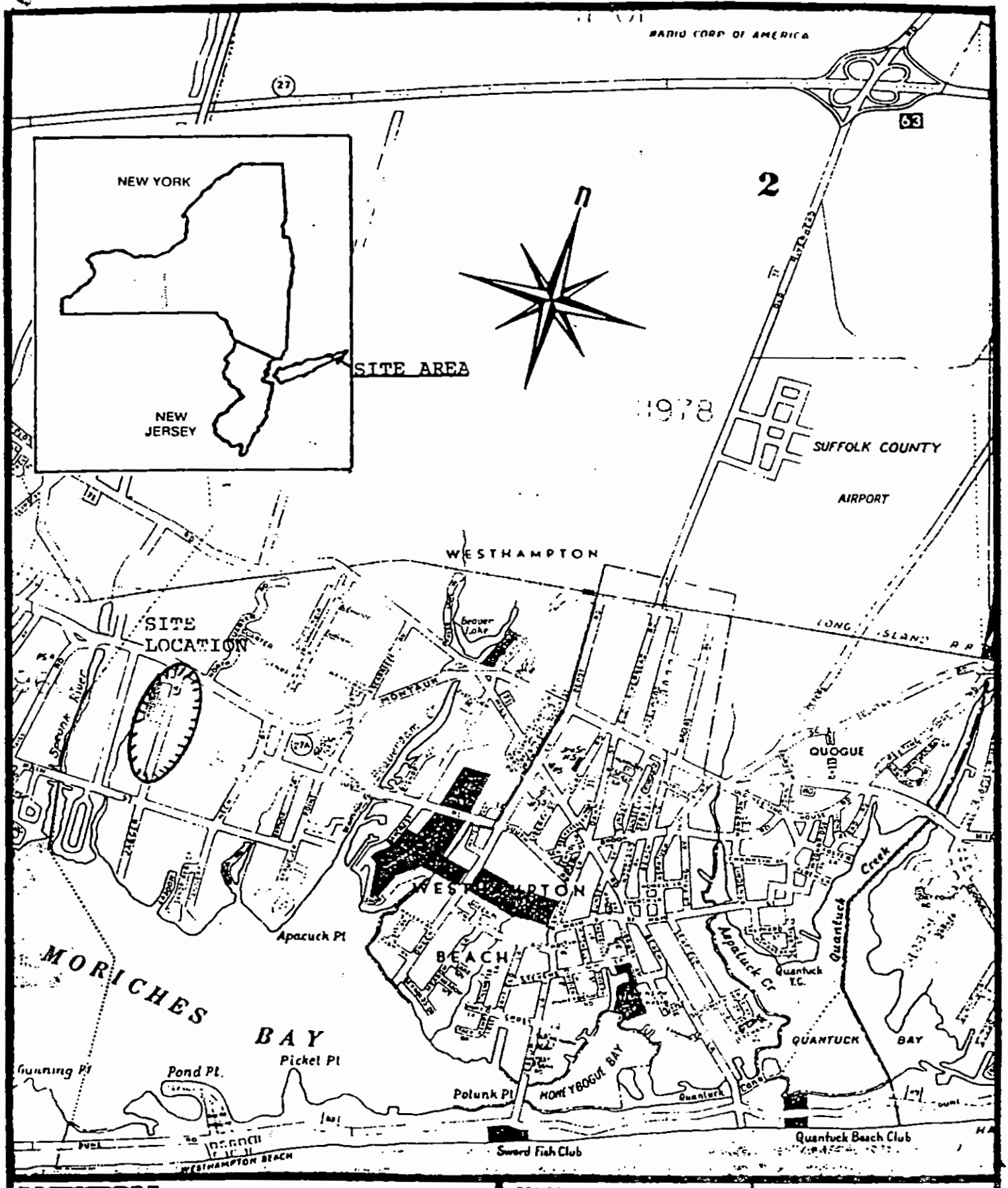
II. BACKGROUND:

A. Site Setting/Description:

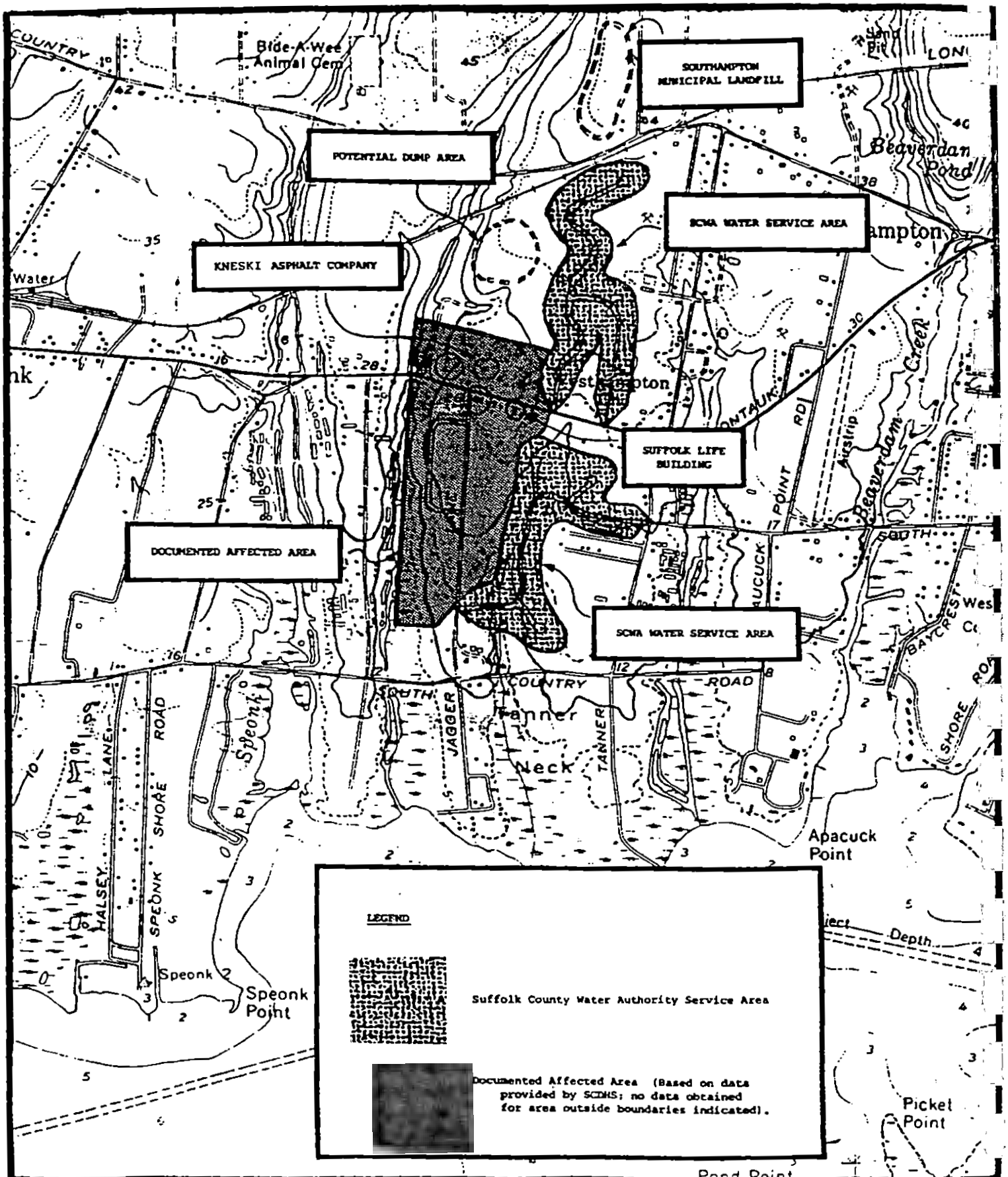
The area of groundwater contamination includes portions of Jagger Lane (between Montauk Highway and South Country Road), Windwood Court, and Montauk Highway (near Jagger Lane) in the Village of Westhampton, located in the Township of Southampton, Suffolk County, New York (Figure 1). The area is suburban residential with some commercial facilities located along Montauk Highway. The Suffolk County Water Authority (SCWA), an autonomous subunit of county government, owns and operates the public water supply distribution system which services Suffolk County. At this time, the affected area is not serviced by the public water supply. The nearest water mains are located approximately 1,000 feet east of Jagger Lane at the intersection of Montauk Highway and approximately 1,000 feet east of Jagger Lane at the intersection of Sweetgrass Road (Figure 2).

B. Quantity and Types of Substances Present:

Six major designated hazardous substances have been identified in the affected wellwater. These are:



WESTON	SPILL PREVENTION & EMERGENCY RESPONSE DIVISION	EPA PM W. Gad Tawadros	Figure 1
In association with ICF Inc., Jacobs Engineering, Inc., & Tetra Tech, Inc.		TAT PM N. De Rose	Site Location Map



WESTON — SPILL PREVENTION & EMERGENCY RESPONSE DIVISION	EPA PM: W. G. Tawadros	Figure 2: Location of Documented Affected Area and Nearby Water Service Areas
In association with ICF, Inc., Jacobs Engineering, Inc., & Tetra Tech, Inc.	TAT PM: N. Dekose	

Contaminant	Maximum Concentration Found (ppb)	Statutory Source for Designation Under CERCLA
1,2-Dichloropropane	57	Clean Water Act, Sec. 307(a)
Trichloroethylene	3,300	Clean Water Act, Sec. 311(b)(4)
Tetrachloroethylene	180	Clean Water Act, Sec. 307(a)
1,2-Dichloroethane	43	Clean Water Act, Sec. 311(b)(4)
Trichloroethane	35	Clean Water Act, Sec. 307(a)
Cis-dichloroethylene	420	Clean Water Act, Sec. 307(a)

Concentrations of total volatile organics in samples of contaminated wellwater, at the tap, ranged from a low of 3 ppb to a high of 3,558 ppb and averaged about 465 ppb. Table 3 preaents a listing of the 6 major compounds and a summary of selected water quality standards for each compound. Table 4 summarizes the toxic properties associated with each of these compounds.

C. This site is not on the National Priorities List (NPL).

III. THREAT:

A. Threat of Public Exposure:

Sampling of 30 private wells, at the tap, was conducted during 1981, 1982, and 1983 by the Suffolk County Department of Health Services (SCDHS). Twenty-eight of the wells were sampled during 1982. The SCDHS analyzed the collected samples to detect the presence of volatile organic chemicals commonly found contaminating Long Island groundwater. This analysis includes testing for the presence of 52 volatile organic compounds. Analytical work was completed by

Table 3

Summary Of Maximum Reported Contaminant Concentration
At Jagger Lane - West Hampton Site and Drinking Water Quality Standards[1]

Volatile Organic Contaminant (SYNONYM)	Maximum Reported Concentration[2]	EPA SNARLS[3] 1 Day	10 Day	Chron	Proposed Water Quality Criteria[4] Cancer Risk	Tox.	NYSDOH Guideline[5]
1,2-Dichloroethane (Ethylene Chloride)[8]	43	N/A[6]	N/A	N/A	0.94	N/A	50
1,1,1-Trichloroethane (Methyl Chloroform)[8]	35	N/A	N/A	1000	N/A	18,400	50
1,1,2-Trichloroethylene[8]	3,300	2,000	200	75	2.7	N/A	50
Tetrachloroethylene (Perchloroethylene)[7]	180	2,300	175	20	.8	N/A	50
Cis-Dichloroethylene (1,2-Dichloroethylene)[8]	420	4,000	400	N/A	N/A	N/A	50
1,1-Dichloropropane[9]	57	N/A	N/A	N/A	N/A	200	50

[1] All values (concentrations) are in ppb.
[2] Based upon results of residential well sampling conducted by Suffolk County Department of Health Services.
[3] Suggested No Adverse Response Levels (SNARLS) developed by the EPA's Office of Drinking Water based on exposure to a 10 Kg child.
[4] Proposed Water Quality Criteria from EPA's Office of Water Planning and Standards, Division of Criteria and Standards. If levels are maintained below these criteria, it is predicted that the result will be (a) less than 1 extra cancer per one million exposed population or (b) no adverse non-cancerous health effects. Both cancer risk and adverse non-cancerous health effects (TOX) values assume consumption of fish as contributing to uptake of a chemial.

[5] New York State Department Of Health (NYSDOH) Guideline for determining water unfit for drinking, or cooking. NYSDOH Gudelines for any single organic contaminants uses 50 ppb as a value not to be exceeded.

[6] NA=Not Available.

[7] Sample Date - 6/7/82.

[8] Sample Date - 2/27/85.

[9] Sample Date - 3/11/85.

Table 4

Summary Of Toxicological Characteristics Of
Six Volatile Organic Contaminants At The Jagger
Lane - West Hampton Site, New York

Contaminant	Toxic Properties[1]
1,1,1-Trichloro-ethane	Skin absorption presents a limited health hazard. May cause irritation or burning of skin as a result of prolonged or frequent exposure. May cause cardiac arrest when massively inhaled. Fatty degeneration of liver has occurred after chronic exposures to 1000 ppm.
1,2-Dichloro-ethane	Moderately toxic when inhaled or by absorption. Mild skin irritant.
1,1,2-Trichloro-ethylene	Highly toxic when inhaled at high concentrations. Moderately toxic by other routes. Chronic inhalation or skin absorption are only slightly hazardous. Potentially carcinogenic and mutagenic.
Tetrachloro-ethylene	Highly toxic by ingestion at high levels. Moderately toxic by other routes at high levels. Moderately toxic from chronic exposure by all routes. Potentially carcinogenic and mutagenic.
Cis-Dichloro-ethylene	At acute levels, moderately toxic via inhalation, ingestion, or skin contact. Chronic or repeated exposures are hazardous. May release explosive chloroacetylene by contact with copper or copper alloys. A mutagenic agent in animals.
1,1-Dichloro-propane	Moderately toxic by ingestion, inhalation and skin absorption.

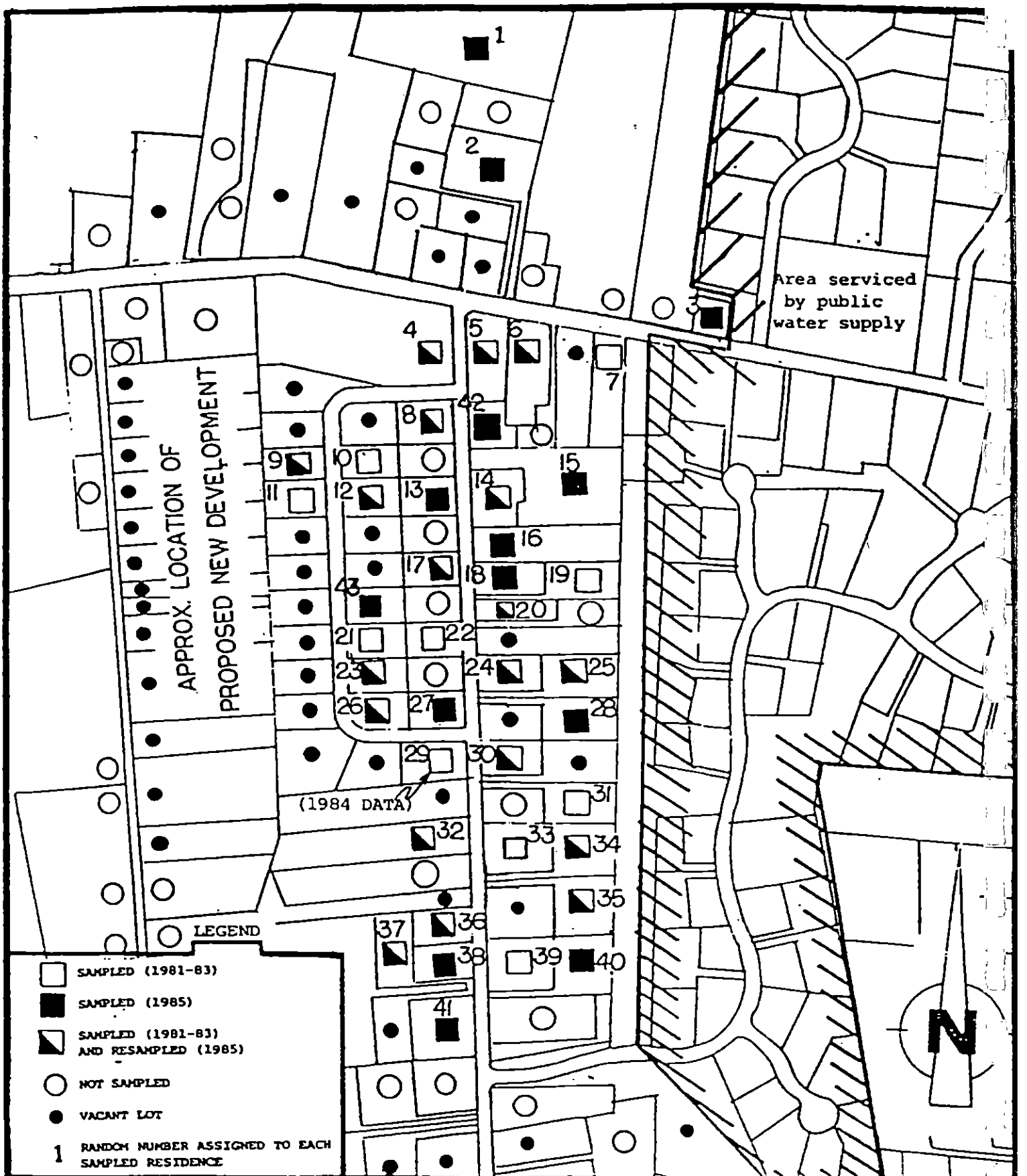
[1]Based upon information obtained from the "Chemical Information System" data base as provided by CIS, Inc.

SCDHS' Laboratory which is certified by the New York State Department of Health. The results showed 14 private wells contaminated by toxic organic compounds. The well which was reportedly contaminated at the highest level was resampled in August, 1984 and found to decrease in contaminant strength (Table 1).

In January 1985, a well installed at a newly constructed residence was also sampled and analyzed by SCDHS and found to be contaminated. During February through April, 1985, 32 private wells were sampled by SCDHS. Twenty (20) of these wells were previously sampled during 1981, 1982, and 1983. Table 1 presents concentrations of the major volatile organic compounds found in the residential wells. Figure 3 shows the locations of the sampled residential wells, and Figure 4 summarizes the levels of contamination reported for each well based upon results obtained from the 33 wells sampled in 1985, the one well sampled in 1984 and the 9 wells sampled in 1982 which have not been resampled to date. Appendix A presents a list of each residence sampled and includes the resident's name and address as well as a summary of the water quality analytical results.

Comparison of the recent data for the twenty re-sampled homes with the previous sampling and analytical results, shows significant variations in levels and locations of contaminants. These variations may be the result of deeper vertical migration of the contaminants, changes in the lateral direction of groundwater flow, or the episodic release of contaminant pulses from the source(s). Present data, summarized in this report, does indicate levels of volatile organic compounds at the site area in excess of the EPA 10-Day SNARLS, detected at 5 test drilling sites sampled by SCDHS and in one residential well.

In addition to the potential for exposure through drinking the water or eating food prepared with the water, tests have been conducted at Pomona Oaks, New Jersey which showed that when showering with water contaminated with volatile organics the levels of the contaminants in the air becomes significantly elevated.



WESTON

SPILL PREVENTION & EMERGENCY RESPONSE DIVISION

In association with

ICF Inc. Jacobs Engineering Inc. & [illegible]

EPA PM

W. Gad Tawadros

TAT PM

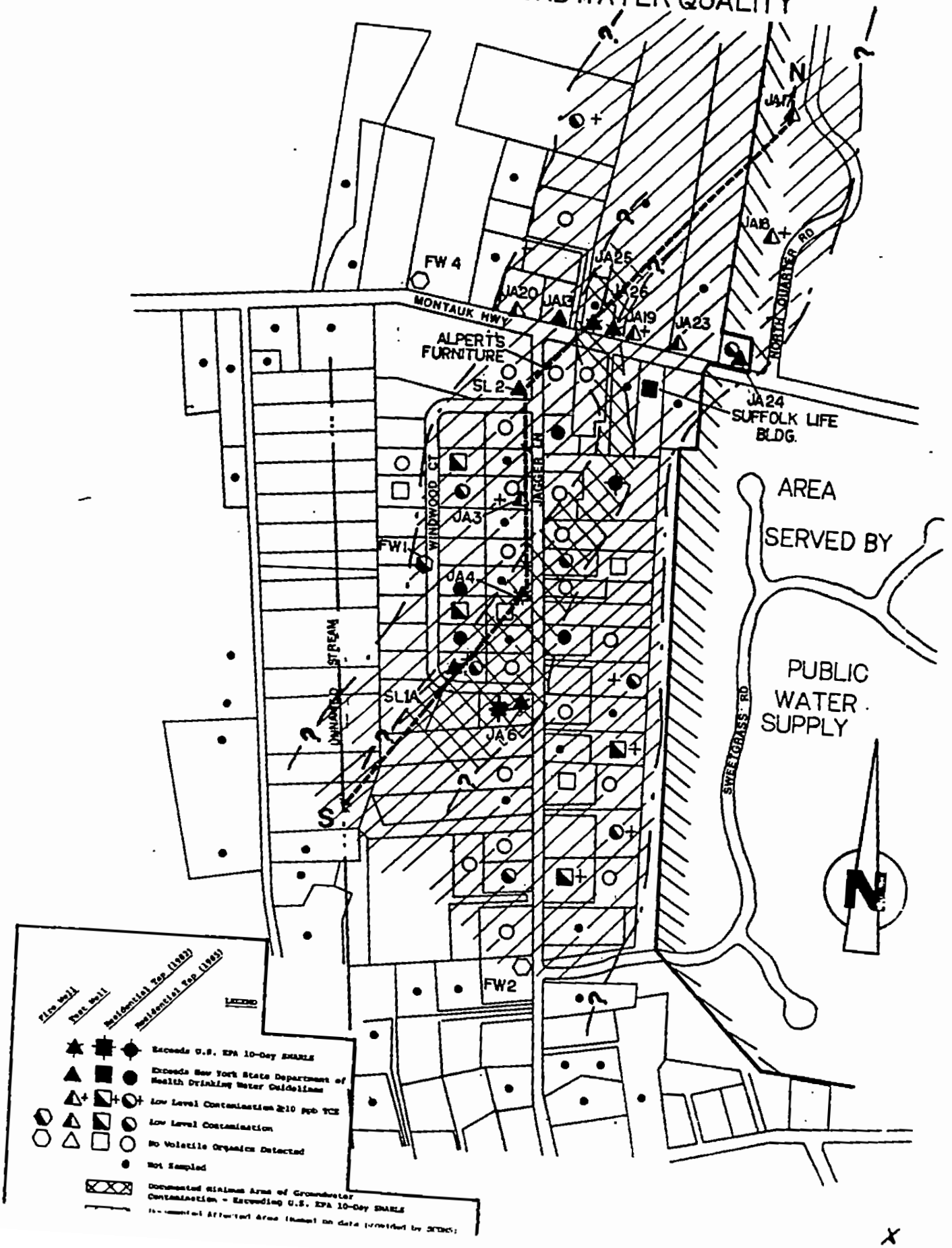
N. DeRose

Figure 3

Residential Well

FIGURE 4

SUMMARY OF GROUNDWATER QUALITY



The presence of several chlorinated hydrocarbons chemicals within the groundwater also poses a potential for synergistic toxic effects resulting from exposure to a combination of these compounds.

B. Evidence of Extent of Release:

Sampling and analyses of residential wells by SCDHS has identified a plume of contaminated groundwater as described in Section III-A. In addition, approximately 15 groundwater sampling wells were installed by SCDHS during March and April, 1985, at the site area. Additional sampling wells may be installed as part of thia investigation. The intent of installing these wells is to define the extent of groundwater contamination and to possibly locate the source(s) which are believed to be located north of the contamination area. Most recent sampling results obtained from the test wells indicate that the source of contamination is located north of Montauk Highway. Potential sources may include a local asphalt company, the Southampton Municipal Landfill and unreported illegal dumping or waste disposal (Figure 2).

Preliminary review of groundwater quality data from samples obtained at the well locations appears to correlate with the lateral distribution of contaminants indicated by the 1985 residential well sampling and analysis. Locations of the groundwater sampling wells are shown on Figure 4. Additional wells are located north of the site area. Water quality data obtained from sampling of the wells is presented in Table 2.

Five (5) of the test wells are contaminated by volatile organic compounds to levels in excess of the EPA 10-Day SNARLS. Highest contaminated strengths were encountered at depths generally between 50 and 90 feet below the ground surface. Figure 4 also presents an approximate outline of the minimum site area characterized by contamination in excess of the EPA 10-Day SNARLS as determined from residential well water sample analysis and/ or samples obtained from groundwater sampling wells. The lateral extent of this area has not

been defined due to the limited number of sampling points located outside of this area.

C. Previous Actions to Abate Threat:

SCDHS has advised residents with contaminated wellwater in excess of the NYSDOH guideline limits for potable water, not to use it for drinking or cooking and to limit its use for bathing to short tepid showers, pending resolution of the contamination problem. However, it has been reported by SCDHS that some of these residents may not, in fact, be obtaining bottled water for drinking and cooking. A number of the affected residents have deepened their wells in attempts to obtain uncontaminated potable water. SCDHS reporta that some of these residents have again encountered contaminated water after deepening the wells. Specific records of this data have not yet been obtained.

D. Current Actiona to Abate Threat:

On May 3, 1985, the Regional Administrator verbally authorized the provision of bottled water as an interim measure to those homes exceeding NYSDOH standards.

IV. ENFORCEMENT:

ERRD-SIC Branch and the Office of Regional Counsel were notified verbally on March 11, 1985. Based upon the Agency's authority under CERCLA and the Resource Conservation and Recovery Act (RCRA), Information Request letters have been sent to three parties by ERRD-SIC. These parties are: Kneski Asphalt and Paving Company, of Westhampton, New York; Suffolk Life Newspaper of Riverhead, New York; and Southampton Municipal Sanitary Landfill, operated by the Town of Southampton, New York. Should a responsible party or parties be identified and be willing to undertake this action, all or part of the funds requested herein may not be spent, assuming that the responsible party or parties are willing to act promptly.

V. PROPOSED PROJECT AND COSTS:

A. Objective of the Project:

The primary objective of the proposed action is mitigation of the threat to public health by provision of an alternate potable water supply to the affected homes. To reach this objective in a timely manner, an initial action is underway which will allocate and deliver bottled water for drinking and cooking to the residents whose wells exceed New York State Department of Health Guidelines for Potable Water. This initial, temporary action will be followed by the installation of a permanent reliable alternative water supply to the residents whose drinking water wells are at risk from the contamination found.

Based upon a review of available data, 6 residential wells will receive bottled water (Table 1).

The SCDHS recommends initially one gallon of water per day should be allocated for each resident which the EPA will supply. Using an average household size of 6 people (to account for summer vacation guests), the weekly water usage at each household is estimated to be forty-two (42) gallons per week. For estimating purposes it is assumed that the bottled water will be provided for a period of 20 weeks, until a more permanent solution is implemented.

Figures 4 and 5 and the supporting data collected by SCDHS, document the existence of a potentially toxic contaminant plume which occurs within a potable water supply aquifer. As presented on Figure 4, a continuous plume of contamination, characterized by contaminant strengths in excess of the EPA 10-Day SNARLS, has been identified. Figure 5 presents a subsurface profile (cross-section) which is oriented generally northeast to southwest or parallel to the apparent trend of the contamnant plume. The location of this subsurface profile graphically illustrates the two dimensional vertical distribution of contaminants within the plume.

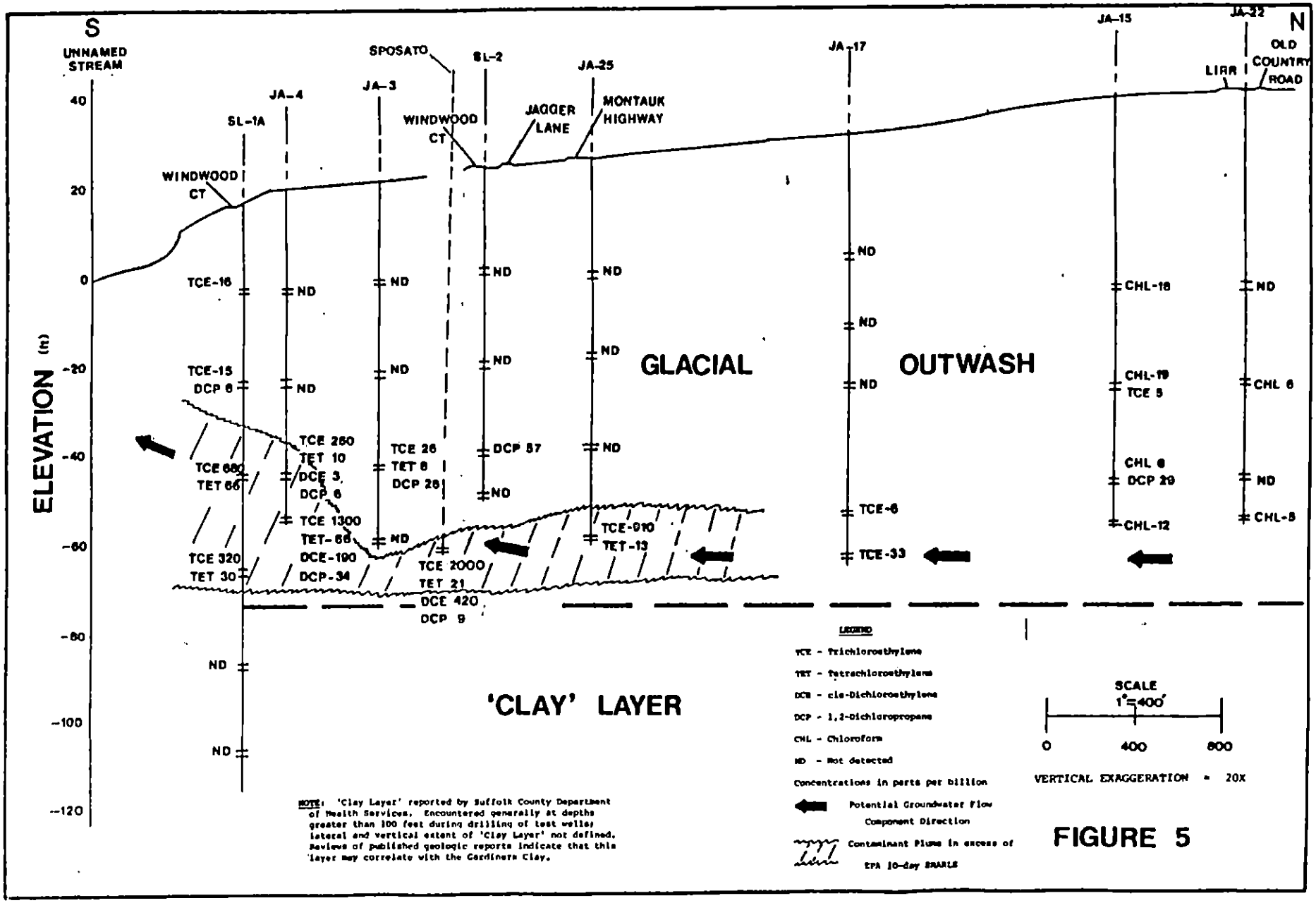

S
N
UNNAMED STREAM
SPOSATO
SL-2
JA-25
JA-17
JA-15
JA-22
JA-4
JA-3
SL-1A
WINDWOOD CT
JAGGER LANE
MONTAUK HIGHWAY
LIRR
OLD COUNTRY ROAD
ELEVATION (ft)
40
20
0
-20
-40
-60
-80
-100
-120
GLACIAL OUTWASH
'CLAY' LAYER
TCE-16
ND
TCE-15
DCP 6
TCE 680
TET 66
TCE 320
TET 30
TCE 250
TET 10
DCE 3
DCP 6
TCE 1300
TET-66
DCE-190
DCP-34
TCE 26
TET 8
DCP 26
TCE 2000
TET 21
DCE 420
DCP 9
DCP 57
TCE-910
TET-13
TCE-6
TCE-33
CHL-18
CHL-19
TCE 5
CHL 6
DCP 29
CHL-12
CHL 6
NOTE: 'Clay Layer' reported by Suffolk County Department of Health Services. Encountered generally at depths greater than 100 feet during drilling of test wells; lateral and vertical extent of 'Clay Layer' not defined. Reviews of published geologic reports indicate that this layer may correlate with the Gardiners Clay.
LEGEND
TCE - Trichloroethylene
TET - Tetrachloroethylene
DCE - cis-Dichloroethylene
DCP - 1,2-Dichloropropane
CHL - Chloroform
ND - Not detected
Concentrations in parts per billion
Potential Groundwater Flow Component Direction
Contaminant Plume in excess of EPA 10-day SMCLS
SCALE 1"=400'
0
400
800
VERTICAL EXAGGERATION = 20X

FIGURE 5

The contamination strength within the aquifer is greatest in the deepest portions of the aquifer, however as a result of the close proximity of the Jagger Lane site area to surface water streams, there is a potential for a localized upward groundwater flow component which may redistribute contaminants to shallower depths. The extent to which this redistribution of contaminants might occur is dependent upon seasonal and yearly rainfall, evaporation and transpiration fluctuations, and seasonal variations in water use from the private wells located at the site. The potential for contamination at each private well is expected to be related to the depth of the well.

As a result of the potential for lateral and for vertical migration of the high strength contaminant plume the supply of an alternative water supply will be completed to service the entire documented affected area. This action will eliminate the risks for the affected population and minimize the likelihood of future emergency actions at this site. This objective of the immediate removal action will be best accomplished by installing a water main and hookups to the documented affected area. The water main and hookups are expected to be provided to 50 homes located in this area. Additional homes may be hooked up outside of this area based upon additional sampling and analytical results obtained during/or after the water main installation.

Consideration was given to providing activated carbon treatment systems instead of a water main distribution system. As this is not presently an NPL site, remedial action would occur several years from now if the site ranked adequately high, if at all. It has been determined that these systems would be ineffective in providing an adequate degree of health and safety protection to the affected residents. Neither the state nor the county have agreed to maintain and operate the proposed activated carbon treatment systems over an extended period of time. Without a proper maintenance and operation program, it is likely that, over an extended period of time,

some of the homes would again show excessive contamination. Prior experience with long term state and county maintenance and operation of such systems has been unsatisfactory. In addition, the cost of associated monitoring programs together with the cost of the carbon units, will eventually exceed the cost of the tie-in to the public supply.

Installation of the water main and distribution system might be best reached by Letter Contract (1900-56) with the Suffolk County Water Authority (SCWA), under a special exemption to competitive requirements, if possible. The SCWA has a yearly low cost contractor in place. Sampling and analysis for continued monitoring of drinking water quality might be arranged through the Suffolk County Department of Health Services.

B. Project Estimated Costs:

The estimated quantity and consequent cost of providing bottled water to 6 residences is based upon delivering 42 gallons of water per household per week for a period of 20 weeks. The estimated costs for water main installation and hookups are stated below and include main, taps, meters and hookups to 50 affected homes.

Estimated project costs are as follows:

1. 5,040 Gallons Bottled Water Delivered @ $1.00/Gal.	$ 5,040
2. 5,000 Linear Ft. Force Mains in Place	218,000
3. 50 Taps and Meters at $300/Ea.	15,000
4. 50 Residential Hookups @ $2,000/Ea.	100,000
5. 15% Contingency of Items #2, #3, and #4	50,706
6. Extramural (TAT) Costs	30,000
7. 15% TAT Contingency	4,500
8. Intramural EPA Costs	30,000
TOTAL ESTIMATED PROJECT COST	$453,246

C. Project Schedule:

Further project initiation can occur immediately upon approval of additional fund authorization.

Mobilization of equipment and materials and completion of required surveys for the installation of the water main is expected to take 3 to 4 weeks. Excavation, placement of piping and backfill is estimated to require an additional 14 weeks for completion. Household connections may be installed within the same time period, however, disinfection and water quality testing of the main, tapping and meter installations are estimated to require an additional 4 to 6 weeks for completion.

A prerequisite for successful completion of the above work will be prior agreement by each homeowner to pay for their own water consumption following installation of the water main.

VI. RECOMMENDATIONS:

Conditions at the Jagger Lane, West Hampton site meet the NCP Section 300.65 criteria for an immediate removal because they present an immediate and significant risk of harm to human health due to the potential for direct human exposure to hazardous substances, and due to the documented contamination of a drinking water supply.

Therefore, I recommend your approval of this Immediate Removal Request. The estimated cost of this project is $453,200 of which $388,700 are for mitigation contracting.

Your authority to authorize these funds is pursuant to Deputy Administrator Alvin Alm's April 16, 1984 memorandum, Delegation Number 14-1-A.

Please indicate your approval or disapproval of this action by signing below and returning this memorandum to me.

Approval: Christopher J. Daggett Date: MAY 14, 1985

Disapproval: _____ Date: _____

Upon Approval:
cc: W. Librizzi, 2ERR
F. Rubel, 2ERR-RP
R. Ogg, 2ERR-SIC
G. Pavlou, 2ERR-NYCRA
J. Marshall, 20EP
W. Mugdan, 20RC-WTS
R. Gherardi, 20PM-FIN
P. Flynn, WH-548B (EXPRESS MAIL)
T. Fields, WH-548B
W. Hedeman, WH-548
N. Nosenchuck, NYSDEC

APPENDIX A

LIST OF RESIDENCES SAMPLED AND SUMMARY OF WATER QUALITY ANALYTICAL DATA

SAMPLE LOCATION NUMBER	RESIDENT NAME AND ADDRESS		SCDHS SAMPLE RESULTS 1982	1985
1	Wolff	134C Montauk Hwy.	Not Sampled	Greater Than 10 ppb TCE
2	Fitzsimon	Montauk Hwy.	Not Sampled	Not Detected
3	Abbate	122 Montauk Hwy.	Not Sampled	Trace Contamination
4	Eagle	Montauk Hwy.	Not Detected	Not Detected
5	Alpert's Furniture	Montauk Hwy.	Not Detected	Not Detected
6	Alpert	71 Montauk Hwy.	Not Detected	Not Detected
7	Suffolk Life Newspapers	Montauk Hwy.	Greater Than NYSDOH Guideline	Not Sampled
8	Calkin	Jagger Lane	Not Detected	Not Detected
9	Duprez	Windwood Court	Greater Than NYSDOH Guideline	Not Detected
10	Schneider	18 Windwood Court	Trace Contamination	Not Detected
11	Eagle	15 Windwood Court	Not Detected	Not Sampled
12	Hallinan	16 Windwood Court	Greater Than 10 ppb TCE	Trace Contamination
13	Burger	Jagger Lane	Not Sampled	Not Detected
14	Cusack	84 Jagger Lane	Not Detected	Not Detected

11/81.

EPA DESIGNATED SAMPLE LOCATION NUMBER	RESIDENT NAME AND ADDRESS		SCDHS SAMPLE RESULTS 1982	SCDHS SAMPLE RESULTS 1985
15	Sposato	86 Jagger Lane	Not Sampled	Greater Than EPA 10-Day SNARL
16	Smith	Jagger Lane	Not Sampled	Not Detected
17	Van Rees	Jagger Lane	Not Detected	Not Detected
18	Stasse	76 Jagger Lane	Not Sampled	Trace Contamination
19	Pearson	427 Jagger Lane	Not Detected	Not Sampled
20	Leveen	Jagger Lane	Not Detected	Not Detected
21	Bartko	Windwood Court	Trace Contamination	Not Sampled
22	Fitzgerald	Jagger Lane	Not Detected	Not Sampled
23	Smith	Windwood Court	Greater Than 10 ppb TCE	Greater Than NYSDOH Guideline
24	Glasky	Jagger Lane	Greater Than EPA 10-Day SNARL	Greater Than NYSDOH Guideline
25	Reden	Jagger Lane	Not Detected	Not Detected
26	Plank	4 Windwood Court	Greater Than EPA 10-Day SNARL	Greater Than 10 ppb TCE
27	Alpert, J.	71 Jagger Lane	Not Sampled	Not Detected

EPA DESIGNATED SAMPLE LOCATION NUMBER	RESIDENT NAME AND ADDRESS		SCDHS SAMPLE RESULTS 1982	1985
28	Finkelstein	66 Jagger Lane	Not Sampled	Greater Than 10 ppb TCE
29	Bengualid	32 Jagger Lane	Greater Than EPA 10-Day SNARL	Greater Than NYSDOH Guidelines (1984)
30	Hadlock	Jagger Lane	Greater Than EPA 10-Day SNARL	Not Detected
31	Fugelsang	Jagger Lane	Greater Than 10 ppb TCE	Not Sampled
32	O'Hara	65 Jagger Lane	Not Detected	Not Detected
33	Rubio	54 Jagger Lane	Not Detected	Not Sampled
34	Capozzola	62 Jagger Lane	Not Detected	Not Detected
35	Scammell	35 Jagger Lane	Greater Than EPA 10-Day SNARL	Greater Than 10 ppb TCE
36	Libri	59 Jagger Lane	Not Detected	Not Detected
37**	Hopkins	37 Jagger Lane	Trace Contamination	Not Detected
38	Nowak	59 Jagger Lane	Not Sampled	Trace Contamination
39	Barnet	Jagger Lane	Greater Than 10 ppb TCE	Not Sampled
40	Helfant	44 Jagger Lane	Not Sampled	Not Detected
41	Martin	49 Jagger Lane	Not Detected	Not Detected

42	Unknown	Jagger Lane	Not Sampled	Greater Than NYSDOH Guideline
43	Smith	Windwood Court	Not Sampled	Greater Than NYSDOH Guideline

**Sampled 12/83.