ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE 1 INVESTIGATION

Pine Road Ecology Site

Site No. 152049

Town of Brookhaven, Suffolk County

Final - June 1987

New York State
Department of
Environmental Conservation

50 Wolf Road, Albany, New York 12233
Henry G. Williams, Commissioner

Division of Solid and Hazardous Waste
Norman H. Nosenchuck, P.E., Director

Prepared by:

EA SCIENCE AND
TECHNOLOGY
A Division of EA Engineering, Science, and Technology, Inc.

EA REPORT DEC63A

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES IN THE STATE OF NEW YORK PHASE I INVESTIGATIONS

PINE ROAD ECOLOGY SITE
TOWN OF BROOKHAVEN, SUFFOLK COUNTY
NEW YORK I.D. NO. 152049

Prepared for

Division of Solid and Hazardous Waste
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-0001

Prepared by

EA Science and Technology
R.D. 2, Goshen Turnpike
Middletown, New York 10940

A Division of EA Engineering, Science, and Technology, Inc.

June 1987

CONTENTS

1. EXECUTIVE SUMMARY

The Pine Road Ecology site (New York I.D. No. 152049 and EPA I.D. No. New) is a 10-acre municipal dump (inactive) located at the intersection of Pine Road and Gibbs Road in the Hamlet of Coram, Town of Brookhaven, (Suffolk County) New York (Figures 1-1, 1-2, and Photos 1-1 through 1-8). The property is currently owned by the Town of Brookhaven, and is operated as a leaf composting facility.

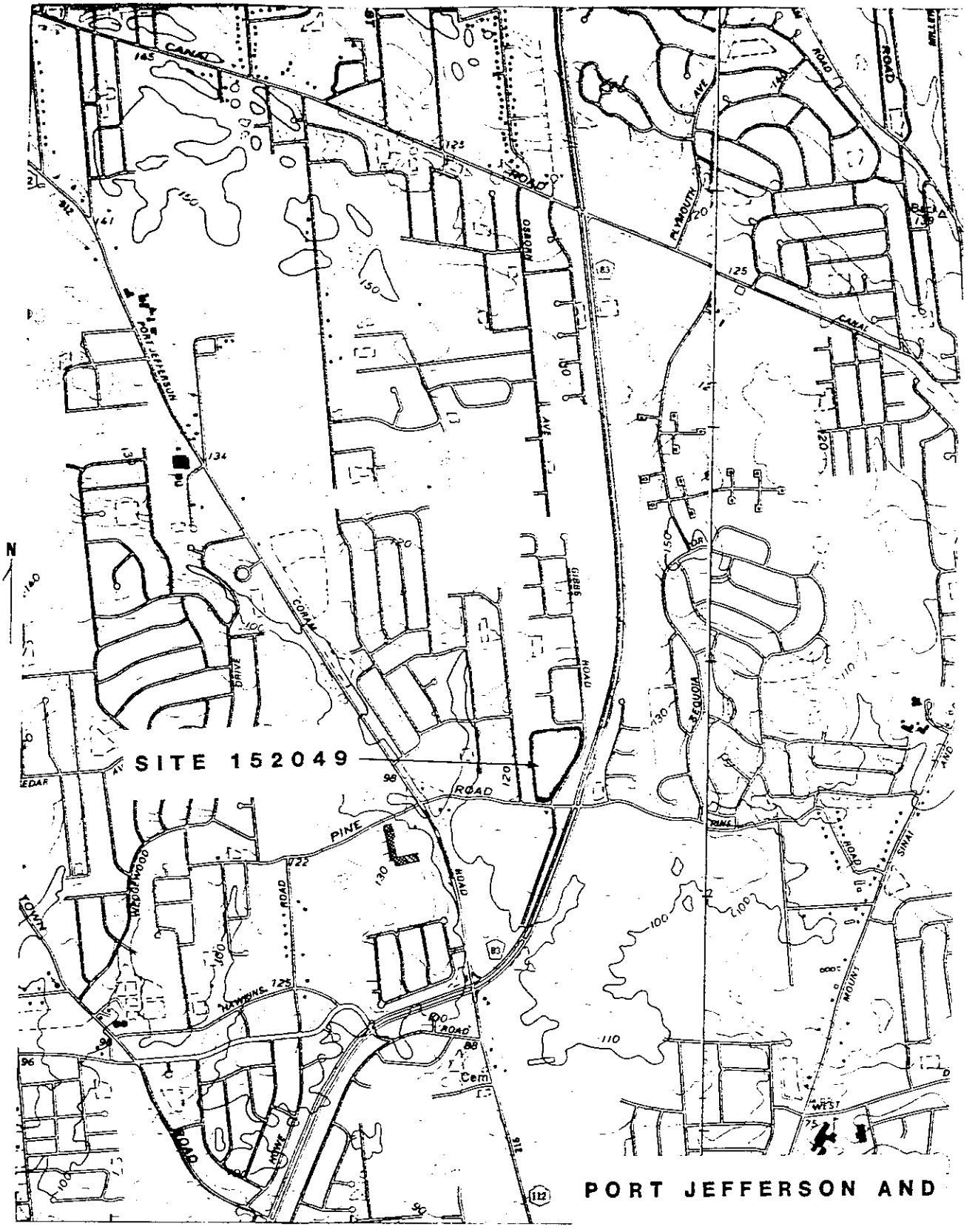
The site is believed to have originated as vacant property where the Town excavated for sand and fill and, subsequently, dumped and burned garbage in the early 1930s. The Town of Brookhaven purchased the property in 1940 and continued to operate it in this fashion until the dump was closed in 1965. Although the exact contents of the dump are unknown, household garbage and septage wastes are believed to be buried there. Excavation of part of the dump revealed only garbage. The site has been used for leaf composting since 1971. Suffolk County Department of Health Services (SCDHS) does not believe that this site ever received hazardous wastes.

EA has researched all pertinent agency files, interviewed the site owner and engineering representative, conducted a site inspection, and has found no documented hazardous waste or contamination at this site. Therefore, because the EPA Hazard Ranking System is designed to evaluate migration pathways of identified hazardous substances from a site, and because there is no documented hazardous waste or contamination in this case, it is not appropriate to provide a Hazard Ranking Score (or documentation) for this site.

In order to prepare a final HRS score for this site, analytical data regarding the quality of ground water, surface water, leachate, and sediment will be necessary, thus requiring performance of a Phase II investigation. The proposed Phase II study would include the installation of 3 test borings/observation wells, and the collection and analysis of ground-water, surface water, leachate, and sediment samples. The estimated total cost to complete a Phase II investigation of the Pine Road Ecology site is $73,700.

Site Coordinates:
Latitude: 40° 53' 34"
Longitude: 73° 00' 34"

PINE ROAD ECOLOGY SITE



PORT JEFFERSON AND MIDDLE ISLAND QUADS.

Scale 1:24,000

Figure 1-1.

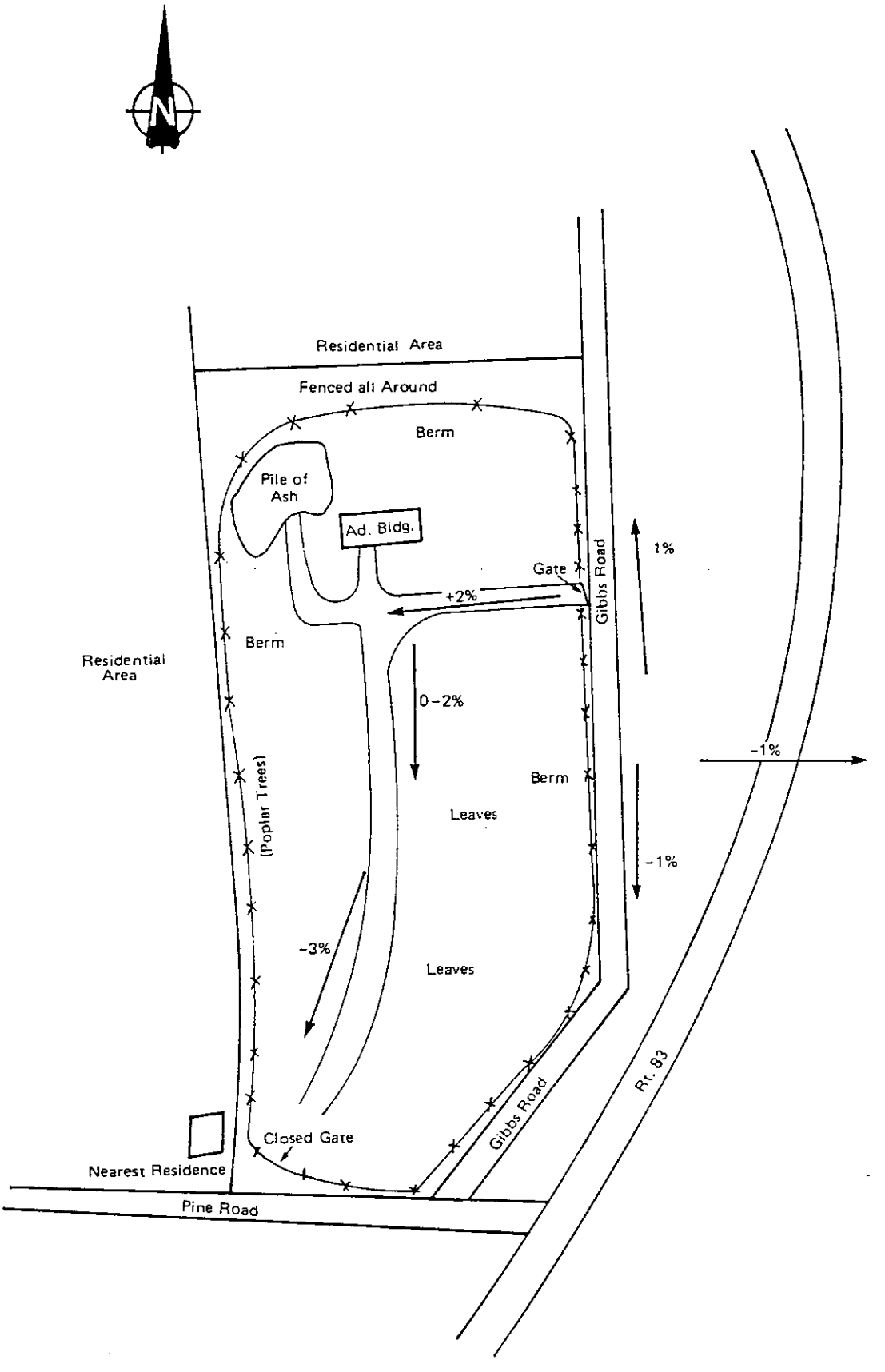
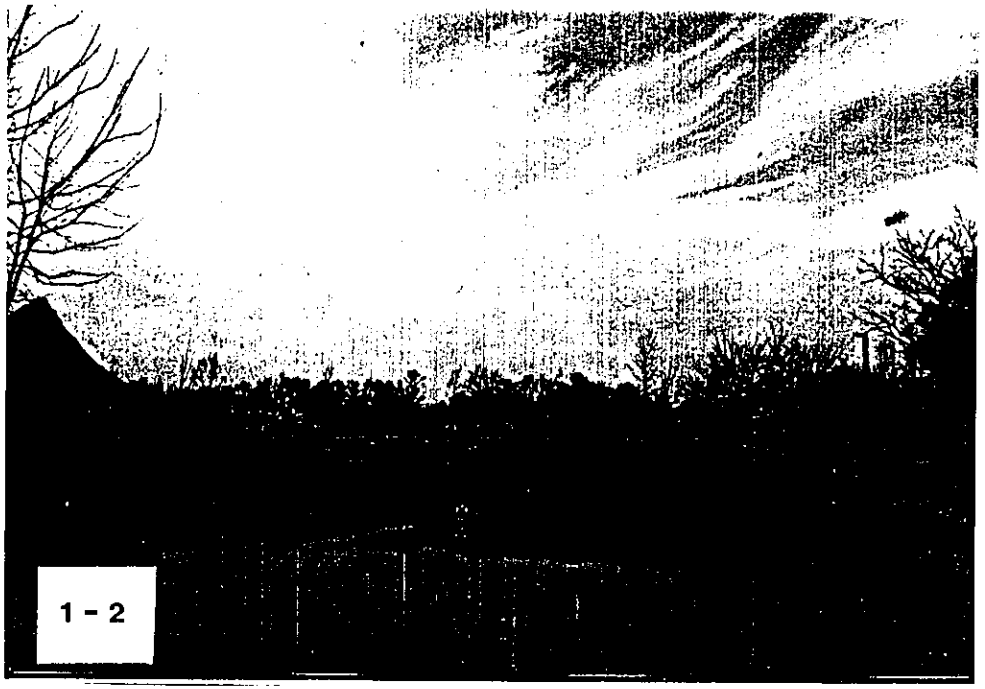


Figure 1-2. Site sketch. Pine Road Ecology Site, 23 January 1986. (Not to scale.)


1 - 1


1 - 2


1 - 3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1 - 7

1 - 8

PHOTO LOG - PINE ROAD ECOLOGY SITE

Photo	Description
1-1	This view is from Gibbs Road facing west. The entrance to the site is through a gate in a perimeter fence. The access road is paved.
1-2	The access road widens into a paved lot. The administration building can be seen on the right side of the photo along the northern perimeter of the site, and a windrow of leaves can be seen to the left.
1-3	A closer view of the building. An ash pile can be seen straight ahead in the northwest corner of the site.
1-4	A close up view of the northwest corner of the site. A corner of the ash pile can be seen. The perimeter fence shows in the background, and a nearby residence can be seen behind the fence.
1-5	Looking south from the administration building across the site, the recycleable wastes can be seen in the foreground and windrows of leaves are evident in the background.
1-6	A close up view of the windrows of leaves composting at the center of the site.
1-7	Composting leaves on a flat, sandy area at the southeast corner of the site. Recent rainfall is visible at ground surface. The perimeter is visible in the background.
1-8	Another nearby residence is visible at the southwest corner of the site. The site flattens out here and there is no perimeter berm.

2. PURPOSE

The Pine Road Ecology site was listed in the New York State Registry of Inactive Hazardous Wastes Sites because it is an inactive municipal dump, and there is little known about the wastes that were buried at the site.

The goal of the Phase I investigation of this site was to: (1) obtain available records on the site history from state, federal, county, and local agencies; (2) obtain information on site topography, geology, local surface water and ground-water use, previous contamination assessments, and local demographics; (3) interview site owners, operators, and other groups or individuals knowledgeable of site operations; (4) conduct a site inspection to observe current conditions; and (5) prepare a Phase I report. The Phase I report includes an assessment of the available information and a recommended work plan for Phase II studies.

3. SCOPE OF WORK

The Phase I investigation of the Pine Road Ecology site involved a site inspection by EA Science and Technology, as well as record searches and interviews. The following agencies or individuals were contacted:

Contact	Information Received
Ms. Elaine McKibbon Director of Sanitation Town of Brookhaven 20 Medford Avenue Patchogue, New York 11772 (516) 654-7954	Site file and interview
Mr. Elias S. Kalogeras, P.E. Louis K. McLean Associates Consulting Engineers 437 South Country Road Brookhaven, New York 11719 (516) 286-8668	Site interview
Mr. Harold Malkmas Superintendent of Highways Town of Brookhaven Old Town Road Coram, New York 11727 (516) 732-3571	Site history
Mr. Charles W. Barraud 650 Mt. Sinai-Coram Road Mt. Sinai, New York 11766 (516) 473-1422	Site history
Mr. Stanley Green Swezey Fuel Co. 51 Rider Avenue Patchogue, New York 11772 (516) 475-0270	Site history

Contact	Information Received
Mr. Anthony Candela, P.E. Senior Sanitary Engineer New York State Department of Environmental Conservation Division of Solid Waste SUNY Campus - Building 40 Stony Brook, New York 11794 (516) 751-7900	Site file
Mr. James H. Pim, P.E. Suffolk County Department of Health Services Hazardous Materials Management 15 Horseblock Place Farmingville, New York 11738 (516) 451-4634	Interview and site file
Mr. Steve Carey/Mr. Dennis Moran Suffolk County Department of Health Services Bureau of Water Resources 225 Rabro Drive East Hauppauge, New York 11788 (516) 438-2853/(516) 438-2891	Ground-water use; public water supplies and ground-water monitoring information
Mr. Dan Fricke Suffolk County Cooperative Extension Association 264 Griffing Avenue Riverhead, New York 11901 (516) 727-7850	Ground-water and surface water use for irrigation
Mr. William Schickler/Mr. Robert Bowen Suffolk County Water Authority Sunrise Highway and Pond Road Oakdale, New York 11769 (516) 589-5200	Public water supply and distribution
Mr. Doug Pica New York State Department of Environmental Conservation Division of Water SUNY Campus - Building 40 Stony Brook, New York 11794 (516) 751-7900	Ground-water use for irrigation
Mr. Allan S. Connell District Conservationist U.S. Department of Agriculture Soil Conservation Survey 127 East Main Street Riverhead, New York 11901	Ground-water use for irrigation

Contact	Information Received
Mr. Joe Sauerwein Chief Fire Inspector Town of Brookhaven 20 Medford Avenue Patchogue, New York 11772 (516) 654-7882	Information regarding the threat of fire and/or explosion at the site
Mr. Kevin Walter, P.E. New York State Department of Environmental Conservation Division of Hazardous Waste Enforcement 50 Wolf Road Albany, New York 12233-0001 (518) 457-4346	No file/information
Mr. John Iannotti, P.E. New York State Department of Environmental Conservation Bureau of Remedial Action 50 Wolf Road Albany, New York 12233-0001 (518) 457-5637	No file/information
Mr. Earl Barcomb, P.E. New York State Department of Environmental Conservation Bureau of Municipal Wastes Section of Landfill Operations Vatrano Road Albany, New York 12205 (518) 457-2051	No file/information
Mr. Peter Skinner, P.E. New York State Attorney General's Office Room 221 Justice Building Albany, New York 12224 (518) 474-2432	No file/information
Mr. Ron Tramontano/Mr. Charlie Hudson New York State Department of Health Bureau of Toxic Substances Assessment Nelson A. Rockefeller Empire State Plaza Corning Tower Building, Room 342 Albany, New York 12237 (518) 473-8427	Site file

Contact	Information Received
Mr. James Covey, P.E. New York State Department of Health Nelson A. Rockefeller Empire State Plaza Corning Tower Building Albany, New York 12237 (518) 473-4637	Community Water Supply Atlas
Mr. Rocky Paggione, P.E./ Mr. Louis A. Evans, Atty. New York State Department of Environmental Conservation Division of Environmental Enforcement 202 Mamaroneck Avenue White Plains, New York 10601-5381 (914) 761-6660	No file/information
Mr. Marsden Chen, P.E. New York State Department of Environmental Conservation Bureau of Site Control 50 Wolf Road Albany, New York 12233-0001 (518) 457-0639	Site file
Mr. John W. Ozard Senior Wildlife Biologist New York State Department of Environmental Conservation Wildlife Resources Center Significant Habitat Unit Delmar, New York 12054 (518) 439-7486	Significant habitats
Mr. Perry Katz U.S. Environmental Protection Agency Region II Room 757 26 Federal Plaza New York, New York 10278 (212) 264-4595	No file/information

4. SITE ASSESSMENT - PINE ROAD ECOLOGY SITE

4.1 SITE HISTORY

The Pine Road Ecology site is a 10-acre dump (inactive) located on the northwest corner of the intersection of Pine and Gibbs Road and west of County Road 83 in the Hamlet of Coram, Town of Brookhaven, Suffolk County. The site is believed to have originated as vacant property (Appendix 1.1-1) where the Town excavated for sand and fill and, subsequently, dumped and burned garbage in the early 1930s (Appendixes 1.1-2 and 1.1-3). The Town of Brookhaven purchased 16.8 acres of land at this location in 1940, but 7 acres were eventually used in the construction of County Road 83 (Appendix 1.1-1). After its purchase by the Town, 10 acres of the site were operated as an open burning refuse disposal area until its closing in 1965 (Appendix 1.1-2). The refuse fill area ranges from 18 ft below grade near the north property line to approximately 40 ft below grade on the south property line (Appendix 1.1-2). There was never a mound of garbage built up at the site. After the dump closed, ground surface was left flat, similar to the surrounding topography. Although exact contents are unknown, household garbage and septage wastes are believed to be buried there (Appendixes 1.1-1 and 1.1-3). A former Town employee recalls that a local fuel oil company may have dumped sludge (from the bottom of fuel tanks) at the site long ago, however this has not been substantiated (Appendixes 1.1-3 and 1.1-4). Excavation (by the Town) of part of the

dump revealed only garbage (Appendix 1.1-1). In 1971 the Town of Brookhaven developed an Ecology Site on the 10 acres to promote the composting of leaves and to educate the Town residents in various composting methods (Appendix 1.1-1).

4.2 SITE TOPOGRAPHY

The Pine Road Ecology Site is located at an elevation of 120 ft above mean sea level. The site slopes from north to south at approximately 0-3 percent, and the northern, eastern, and western property lines are bermed. The southern section of the Pine Road Ecology Site is not bermed but is very flat, and runoff percolates through the rich soil to ground water.

Currently the site operates as an extensive leaf composting facility. The majority of the property is given to the windrowing of leaves. These windrows extend 15 ft wide by 12 ft high, and 150 ft long. There is one building on the northern property line and an ash pile just west of that structure. The site is entirely fenced but the access road gate is left open during the daytime.

The area north of the site is occupied by the New York Garden Apartment Complex. A newly developed subdivision lies on the western border and Pine Road lies to the south. Gibbs Road abuts the eastern boundary of the Pine Road Ecology site. The nearest well to the Pine Road Ecology site is a Suffolk County Water Authority well at Strathmore Court, approximately 0.5 mi northeast of the site. The nearest residence is 0.01 mi to the southwest, and

the nearest commercial establishment lies 0.35 mi to the southwest (Appendix 1.2-1). There is no surface water migration route downgradient of the Pine Road Ecology site because the overland route is interrupted by a 2-acre recharge basin approximately two miles south of the site.

4.3 SITE HYDROGEOLOGY

The site is directly underlain by Pleistocene deposits of glacial origin. This deposit is then in turn underlain by Cretaceous Age Matawan Group-Magothy Formation (undifferentiated), the Clay Member and Lloyd Sand Member of the Raritan Formation and finally by Precambrian Age crystalline metamorphic and igneous rocks (Appendix 1.3-1). In the vicinity of the site the Pleistocene deposits are estimated to be 500 ft in thickness (Appendix 1.3-2). The Pleistocene deposits are generally comprised of sand and gravel with occasional clay and silt beds. In the vicinity of the site the Matawan Group-Magothy Formation (undifferentiated) is estimated to be 425 ft in thickness. The upper surface of this deposit is irregular because of considerable erosion during the Tertiary and Pleistocene times. Therefore, accurate prediction of formation thickness between control points (boreholes) is difficult. Lubke (Appendix 1.3-1) reports that for the Smithtown area (located about 6 miles west of the site) the upper portion of this formation is generally composed of interbedded clay, fine to medium sand, silt, and some lignite; while the lower portion is generally sand, gravel, and some clay. The clay and silt beds are often apparently discontinuous beds as indicated on the geologic logs (Appendix 1.3-3) for three nearby deep water supply wells: Well S-47310 (713-ft total borehole depth) located approximately 0.5 mi east-northeast of the site;

Well S-55502 (623-ft total borehole depth) located about 1 mi north-northwest of the site; and Well S-58761 (724-ft total borehole depth) located about 2 mi west-northwest of the site.

Based upon Jensen and Soren (Appendix 1.3-2), it is estimated that in the vicinity of the site the Clay Member of the Raritan Formation is 150 ft in thickness and the Lloyd Sand Member is about 225 ft in thickness. Lubke (Appendix 1.3-1) reports that the Raritan Clay is comprised of gray, white, and red clay and silt, and a few layers of sand. Lignite and pyrite concretions are common. Lubke (Appendix 1.3-1) also reports that the Lloyd Sand Member of the Raritan Formation is composed of white to pale yellow fine to coarse sand and gravel with some clay and layers of silt and clay.

Water pumped from aquifers underlying Suffolk County is the sole source of water for public supply, agriculture, and industry (Appendix 1.3-2). The upper glacial and Magothy aquifers act as a single hydrological unit and are the only aquifers reportedly developed by wells for water supply within 3 mi of the site. Therefore, both the upper glacial and Magothy aquifers are designated as the aquifer of concern. The Lloyd aquifer, though moderately permeable (165 gpd/ft^2 estimated horizontal permeability at Brookhaven National Laboratory about 8 mi east of the site), has not been developed for water supply because more permeable aquifers are present at shallower depths. Additionally, the Lloyd Aquifer is overlain by the extensive, thick, low permeability (confining) Raritan Clay (Appendixes 1.3-1, 1.3-4, and 1.3-5). Therefore, the Lloyd Aquifer will not be considered further by this Phase I investigation.

The aquifers of Long Island are hydraulically interconnected and although beds and discontinuous layers of silt and clay within and between aquifers serve to confine water below them, they do not completely prevent the vertical movement of water through and around them. Soren (Appendix 1.3-4) presents data which reflect the high degree of hydraulic interconnection between the upper glacial and Magothy aquifers in the vicinity: 1) for wells completed in the upper glacial and Magothy aquifers in nearby Brentwood and Hauppauge, the head in these two aquifers decrease at a fairly uniform rate with increasing depth, and 2) water-level fluctuation in the same well groups were very similar. Soren (1971) also reports that the estimated downward velocity of water through the Magothy aquifer in the vicinity of the ground-water divide in 1968 (along which the site is located) was 0.006 ft/day (approximately 2.2 ft/year).

Recharge to the upper glacial aquifer is derived entirely from precipitation. Recharge to the Magothy and Lloyd aquifers is derived entirely from the downward movement of water from each overlying aquifer (Appendix 1.3-1). In general, recharge to the lower aquifers occurs near the center of Long Island and discharge occurs along the edge of Long Island to the ocean and Long Island Sound. The average annual precipitation in the area is 49 in., of which 21 in. is estimated to infiltrate to the water table (Appendix 1.3-1). The remainder of the precipitation is returned to the atmosphere by evaporation and transpiration, except for a small amount of runoff to streams.

The upper glacial aquifer is the most permeable aquifer on Long Island with an estimated horizontal permeability of 750-1,500 gpd/ft2 (Appendixes 1.3-1 and 1.3-4). The site is located north of the center of Long Island in an area of recharge for the glacial aquifer; however, much of the recharge to the

underlying aquifers occurs near the center of Long Island. In 1968, it was estimated in the region that water in the upper glacial aquifer was moving horizontally at rates less than 0.5 ft/day in areas distant from centers of pumping and to hundreds of feet per day near the screens of pumping wells (Appendix 1.3-4). The permeability of the underlying Magothy aquifer ranges widely depending upon the presence and amount of clay and silt. In 1968, it was estimated in the region that water in the Magothy aquifer was moving horizontally at rates less than 0.2 ft/day in areas distance from pumping, and to hundreds of feet per day near screens of pumping wells.

Based upon the March 1985 ground-water table contour map (Suffolk County Department of Health Services), the depth to ground water is estimated to be approximately 60 feet below ground surface. The regional ground-water natural (unaffected by pumping) flow direction appears to be toward the northeast. Within three miles of the site, the upper glacial and Magothy aquifer of concern has been developed by 11 Suffolk County Water Authority well fields and the Sun Hill Water Company's one well field (Appendix 1.3-5 provides the list of wells and well fields). A large portion of the developed area within 3 mi of the site is served by the Suffolk County Water Authority and the Sun Hill Water Company. The remainder of the area is apparently served by private wells.

The Suffolk County Department of Health Services (SCDHS) has occasionally (since 1972) monitored a private well which is owned by the North Isle Apartments, located approximately 200-300 ft north of the site. The analytical data indicate that a variety of organic constituents including chloroform, 1,1,1-TCE, benzene, toluene, and xylene, among others, have been observed in

very low concentrations of from 1 to 8 ppb, which is near to the detection limit of the analytical equipment (Appendix 1.3-6). There are no other wells in the vicinity or on the site proper which are sampled, so there is no way of establishing whether or not the site is contributing to the level of organics in the ground water.

4.4 SITE CONTAMINATION

Waste Types and Quantities

Although exact contents are unknown, the Pine Road Ecology site reportedly received mixed municipal refuse and septage waste. In efforts to investigate the contents, part of the landfilled area was excavated to a depth of 8 ft. Municipal garbage was the only waste material found (Appendix 1.1-1). However, buried refuse ranges from 18 ft below grade near the northern boundary to approximately 40 ft on the southern boundary (Appendix 1.1-2). SCDHS does not believe that this site received hazardous wastes (Appendix 1.4-1).

Ground Water

No data available.

Surface Water

No data available.

Soil

No data available.

Air

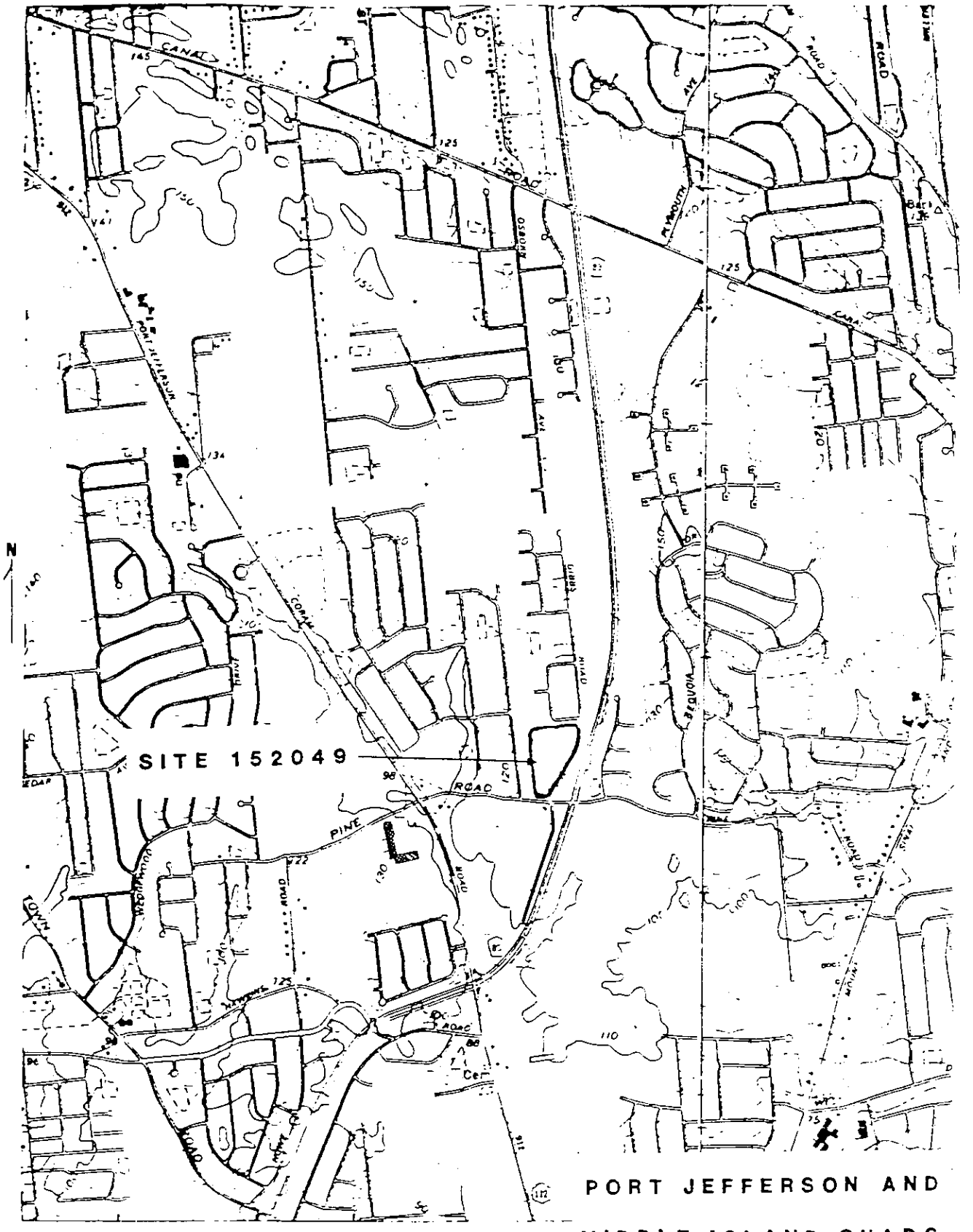
No data available.

PINE ROAD ECOLOGY SITE
TOWN OF BROOKHAVEN, SUFFOLK COUNTY

The Pine Road Ecology site is a 10-acre municipal dump (inactive) located at the intersection of Pine Road and Gibbs Road in the Hamlet of Coram, Town of Brookhaven (Suffolk County), New York. The site is believed to have originated as vacant property where the Town excavated for sand and fill and, subsequently, dumped and burned their garbage in the early 1930s. The Town of Brookhaven purchased the property in 1940 and continued to operate it in this fashion until the dump was closed in 1965. Although the exact contents of the dump are unknown, household garbage and septage waste are believed to be buried there. Excavations revealed only garbage. The site has been used for leaf composting since 1971. Suffolk County Department of Health Services does not suspect that the site ever received any hazardous wastes. EA has researched all pertinent agency files, interviewed the site owner and engineering representative, conducted a site inspection, and has found no documented hazardous waste or contamination at this site.

Site Coordinates:
Latitude: 40° 53' 34"
Longitude: 73° 00' 34"

PINE ROAD ECOLOGY SITE



PORT JEFFERSON AND

MIDDLE ISLAND QUADS.

Facility name: Pine Road Ecology Site

Location: Town of Brookhaven, Suffolk County

EPA Region: II

Person(s) in charge of the facility: Town of Brookhaven, Department of Sanitation

201 South Ocean Avenue

Patchogue, New York 11772

Name of Reviewer: EA Science and Technology Date: 2 April 1986

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.)

The Pine Road Ecology Site was owned and operated by the Town of Brookhaven and was used as an open burning, mixed municipal refuse disposal area from the early 1930s until its closing in 1965. In 1971 the site was developed as an Ecology Site to promote the composting of leaves and to educate the Town residents in various composting methods. EA has researched all pertinent agency files, interviewed the site owner and engineering representative, conducted a site inspection, and has found no documented hazardous waste or contamination at this site. Therefore, because the EPA Hazard Ranking System is designed to evaluate migration pathways of identified hazardous substances from a site, and because there is apparently no documented hazardous waste or contamination in this case, it is not appropriate to provide a Hazard Ranking Score (or documentation) for this site.

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

S_{FE} =

S_{DC} =

FIGURE 1
HRS COVER SHEET

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: As briefly as possible, summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference. Include the location of the document.

FACILITY NAME: Pine Road Ecology Site

LOCATION: Town of Brookhaven, Suffolk County

DATE SCORED: 20 May 1986

PERSON SCORING: EA Science and Technology

PRIMARY SOURCES(S) OF INFORMATION (e.g., EPA region, state, FIT, etc.)

Suffolk County Department of Health Services
Town of Brookhaven Department of Sanitation

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

COMMENTS OR QUALIFICATIONS:

EA has researched all pertinent agency files, interviewed the site owner and engineering representative, conducted a site inspection, and has found no documented hazardous waste or contamination at this site. Therefore, because the EPA Hazard Ranking System is designed to evaluate migration pathways of identified hazardous substances from a site, and because there is no documented hazardous waste or contamination in this case, it is not appropriate to provide a Hazard Ranking Score (or documentation) for this site.

United States
Environmental Protection
Agency

Office of Emergency and
Remedial Response
Washington, DC 20460

EPA Form 2070-12
July, 1981

EPA

Potential Hazardous Waste Site

Preliminary Assessment

EPA

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

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
Pine Road Ecology Site	Pine Road and Gibbs Road

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Coram (Town of Brookhaven)	NY	11727	Suffolk		

09 COORDINATES	LATITUDE	LONGITUDE
	40° 53' 34"	73° 00' 34"

10 DIRECTIONS TO SITE (Starting from nearest public road)

Site is located on the west side of Gibbs Road just north of the intersection of Gibbs Road and Pine Road in the Village of Coram.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
Town of Brookhaven	250 South Ocean Avenue

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Patchogue	NY	11772	516)654-7914

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

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 1 / 23 86 (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): EA Science and Technology

02 SITE STATUS (Check one)	03 YEARS OF OPERATION		
☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN	1940 (BEGINNING YEAR)	mid 1960s (ENDING YEAR)	☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

The site reportedly received mixed municipal refuse (quantities unknown). Little is known about this site.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Potential ground-water contamination.

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 required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspection time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency Organization)	03 TELEPHONE NUMBER
Rebecca Ligotino	EA Science and Technology	914) 692-6706

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Stephen Barry		EA	(914)692-6706	3 25 86 (MONTH DAY YEAR)

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)

- ☒ 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) Unknown

- ☐ 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
- ☐ M. NOT APPLICABLE

III. WASTE TYPE Unknown

CATEGORY	SUBSTANCE NAME	D1 GROSS AMOUNT	D2 UNIT OF MEASURE	D3 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
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) Unknown

D1 CATEGORY	D2 SUBSTANCE NAME	D3 CAS NUMBER	D4 STORAGE/DISPOSAL METHOD	D5 CONCENTRATION	D6 MEASURE OF CONCENTRATION

V. FEEDSTOCKS (See Appendix for CAS Numbers) Not applicable

CATEGORY	D1 FEEDSTOCK NAME	D2 CAS NUMBER	CATEGORY	D1 FEEDSTOCK NAME	D2 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

EA site inspection and interview, 23 January 1986.
New York State Department of Environmental Conservation Bureau of Hazardous Site Control files.
Town of Brookhaven, Dept. of Sanitation.

United States
Environmental Protection
Agency

Office of Emergency and
Remedial Response
Washington, DC 20460

EPA Form 2070-13
July, 1981

EPA

Potential Hazardous Waste Site

Site Inspection Report

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

EPA

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
Pine Road Ecology Site	Corner of Pine Road and Gibbs Road

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Coram (Town of Brookhaven)	NY	11772	Suffolk		

09 COORDINATES	10 TYPE OF OWNERSHIP (Check one)
LATITUDE 40° 53' 34.1" / LONGITUDE 73° 00' 34.1"	☐ 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
01 / 23 / 86 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1930s (BEGINNING YEAR) 1965 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR _____ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
☐ E. STATE ☒ F. STATE CONTRACTOR EA Science & Tech. (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
William Going	Environmental Scientist	EA	(914) 692-6706
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Ellen Bidwell	Geologist	EA	(914) 692-6706
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Elaine McKibbon	Director	Department of Sanitation	( ) 516 654-7954
		20 Medford Avenue	( )
		Patchogue, New York 11772	( )
Elias Kalogeras	Consult. Eng.	437 South Country Road	(516) 286-8668
		Brookhaven, New York	( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	1030 hours	Sunny; clear and cold

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Rebecca Ligotino	EA Science and Technology	(914) 692-6706

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
William Going		EA	914-692-6706	04, 01, 86 (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
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS
- ☐ D. OTHER _____ (Specify)

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

- TONS: Unknown
- CUBIC YARDS: _____
- 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
- ☒ M. NOT APPLICABLE

III. WASTE TYPE Mixed municipal garbage

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
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) Unknown

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) Not applicable

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)

EA Site Inspection
Appendixes 1.1-1, 1.1-2, 1.4-1.
Suffolk County Department of Health Services (SCDHS) files

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 None

01 ☐ A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

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

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

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

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

01 ☐ F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: _____ (Acres)
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

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

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

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 (Continued) None

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

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

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

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

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

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

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

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: Not applicable

IV. COMMENTS

No documented or alleged hazardous waste or contamination at the site.

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

EA Site Inpsection
Appendixes 1.1-1, 1.1-2, 1.4-1.
SCDHS files.

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		
☐ G. LANDFARM		
☒ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCINERATION
- ☐ 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

10 (Acres)

07 COMMENTS

No documented or alleged hazardous waste or contamination at the site.

IV. CONTAINMENT No known or alleged hazardous waste

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.

V. ACCESSIBILITY No known or alleged hazardous waste

01 WASTE EASILY ACCESSIBLE: ☐ YES ☐ NO

02 COMMENTS

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

EA Site Inspection
Appendixes 1.1-1, 1.1-2, 1.4-1.
SCDHS Files.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	New

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

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

02 STATUS: Unknown

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

03 DISTANCE TO SITE
A. 0.50 (mi)
B. 0.55 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)

02 POPULATION SERVED BY GROUND WATER: 134,442

03 DISTANCE TO NEAREST DRINKING WATER WELL: 0.5 (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
Approx. 60 (ft)	NE	Approx. 60 (ft)	Unknown (gpd)	☒ YES ☐ NO

09 DESCRIPTION OF WELLS (Including usage, depth, and location relative to population and buildings)

There are 11 SCWA well fields (24 wells) serving Port Jefferson district (pop. 130,872) and 1 Sun Hill Water Co. well field (2 wells) serving pop. 3,570. There are 20 SCDHS monitoring wells. All are located within a 3-mile radius, and penetrate the Magothy and/or Upper Glacial Aquifer.

10 RECHARGE AREA		11 DISCHARGE AREA	
☒ YES ☐ NO	COMMENTS	☐ YES ☒ NO	COMMENTS

IV. SURFACE WATER

Not applicable - overland route interrupted by recharge basin

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
_____	☐	_____ (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. 6,905 NO. OF PERSONS	B. 21,608 NO. OF PERSONS	C. 59,547 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 0.01 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: _____

04 DISTANCE TO NEAREST OFF-SITE BUILDING: 0.01 (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 surrounded by apartment houses and other types of residential dwellings.

EPA

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

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

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)

Unknown

☒ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ 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	
Approx. 1,300 (ft)	NA (ft)	Unknown	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
21 (in)	2.5-3.0 (in)	0-3 %	S	0-3 %

09 FLOOD POTENTIAL

SITE IS IN N/A YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. _____ (mi) OTHER: B. 4.0 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

_____ (mi)

ENDANGERED SPECIES: None

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. 0.35 (mi)	B. 0.01 (mi)	C. 0.9 (mi)	D. 0.9 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site is relatively flat and partially paved over. It is fenced and it is surrounded with a 3 foot earthen berm on the N, E, and W perimeters. The topography surrounding the site is flat with a gentle regional slope of 0-3 percent to the S.

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

EA Site Inspection. Section 4.3 Appendixes 1.1-1, 1.1-2, 1.3-1, 1.3-3, and 1.3-4.

NYSDOT. 1981. 7.5-Minute Planimetric Series. Port Jefferson, Patchogue, Bellport, and Middle Island Quads.

Ozard, J. 1986. NYSDEC. Personal communication. 6 March.

U.S. Dept. of Interior Geological Survey. 1967. Maps of Flood-Prone Areas.*

*7.5-Minute Series. Port Jefferson Quad.

LIRPB. 1982. Quantification and Analysis of Land Use for Nassau and Suffolk Counties. Plates 7, 8, and 10.

LIRPB. 1985. Population Survey 1985: Current Population Estimates for Nassau and Suffolk Counties. Hauppauge, New York.

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 None

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
Organic volatiles	Measured with a photoionization detection device; no levels above background were detected.
Slope	Estimated with Suunto clinometer.

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☒ AERIAL

02 IN CUSTODY OF EA Science and Technology
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS EA Science and Technology

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

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

EA Site Inspection.

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
Town of Brookhaven	

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

05 CITY	06 STATE	07 ZIP CODE
Patchogue	NY	11772

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 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

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 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

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

Town of Brookhaven, Department of Sanitation.

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
Department of Sanitation	

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

05 CITY	06 STATE	07 ZIP CODE
Patchogue	NY	11772

08 YEARS OF OPERATION	09 NAME OF OWNER
1940-1965	Town of Brookhaven

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

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)

Town of Brookhaven, Department of Sanitation.

EPA

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

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

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
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
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
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)

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 None

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

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

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

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

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

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

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

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

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

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
D4 DESCRIPTION

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

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

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

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

Section 3.

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)*

Section 3.

6. ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

6.1 ADEQUACY OF EXISTING DATA

The available data are considered insufficient to prepare a final HRS score for this site. There is no documentation of hazardous waste disposal and no records available related to specific waste types or quantities. Also, soil, ground-water, and surface water quality data are lacking.

6.2 RECOMMENDATIONS

In order to prepare a final HRS score for this site, analytical data regarding the quality of the ground water, surface water, leachate, and sediment will be necessary, thus requiring performance of a Phase II investigation. The proposed Phase II study would include the installation of 3 test borings/ observation wells, and the collection and analysis of ground-water, surface water, leachate, and sediment samples.

6.3 PHASE II WORK PLAN

6.3.1 Task 1 - Mobilization and Site Reconnaissance

Project mobilization includes review of the Phase I report and updating the site data base with any new information made available since completion of the Phase I report. Based on that review, a draft scope of work for this site will

be agreed to and a project schedule developed. At this time, a draft Quality Assurance/Quality Control (QA/QC) document will be prepared in accordance with the most up-to-date NYSDEC guidelines.

Site reconnaissance will be performed to examine general site access for Phase II studies. Site reconnaissance will familiarize key project personnel with the site, enable the project geologists to evaluate potential boring/well locations, and enable the project Health and Safety Officer to develop specific health and safety requirements for the field activities. Emergency, fire, and hospital services will be identified. Standard practice during site reconnaissance is an air survey with a photoionization detector (HNU or similar instrument). The air survey would be performed around the site perimeter and throughout the site for safety purposes. Detection of releases to air during site reconnaissance may warrant further confirmation studies. Based on the Phase I study, it is expected that field activities will require only Level D health and safety protective measures.

6.3.2 Task 2 - Geophysics

Multidepth EM and earth resistivity surveying will be performed around the site area perimeter to evaluate the potential presence of ground-water contaminant plumes and stratigraphic conditions. The number of stations and value of depth settings will be determined on the basis of field conditions. Results of the geophysics will be used to refine the specifications for locations, depths, and number of observation wells to be installed.

6.3.3 Task 3 - Preparation of Final Sampling Plan

All data collected during Tasks 1 and 2 will be evaluated to finalize sampling and boring/well locations. The final sampling plan will be developed and submitted to NYSDEC for approval. The plan will include final sampling locations, boring and well specifications, and reference pertinent portions of the QA/QC Plan. A final budget will be developed to complete the drilling and sampling program.

6.3.4 Task 4 - Test Borings and Observation Wells

Because there are hundreds of feet of unconsolidated sediment underlying the site, EA recommends that the subsurface investigation be confined, at this time, to the shallow glacial aquifer to confirm if ground-water contamination is present. If ground-water contamination is detected, then the investigations could be expanded to include the installation and sampling of monitoring wells completed to greater depths. Based upon currently available information, EA recommends the installation of 3 test borings/observation wells. This work would be performed under the fulltime supervision of a geologist. It is anticipated that the hollow-stem auger drilling method will be used. Prior to the drilling of each boring/well, and at the completion of the last boring/well, the drilling equipment which comes in contact with subsurface materials will be steam-cleaned, as well as the split-spoon sampler after obtaining each sample. Soil sampling will be performed using a split-spoon sampler at

approximately 5-ft intervals and at detected major stratigraphic changes. An HNU, or similar instrument, would be used to monitor the potential organic vapors emitted during drilling operations and from each soil sample. Samples of major soil/unconsolidated sediments will be collected for grain-size and/or Atterburg Limits analysis.

It is anticipated that the wells to be installed at this site will be completed in the unconsolidated sediment, approximately 10-20 ft below the ground-water table. Standard construction of such a well would include 10-20 ft of 2-in. diameter threaded-joint PVC screen and an appropriate length of PVC riser with a bottom plug cap, sand pack, bentonite seal, and protective surficial steel casing with a locking cap.

Upon completion and development of the wells by air surging/pumping, the vertical elevation of the upper rim of each well casing and the horizontal location will be surveyed in order to aid in evaluation of the ground-water flow direction. Depending upon the yield of each Phase II well, a short-term, low-yield pumping test will be performed in each well.

For cost estimating purposes, it is assumed that:

a. The depth of each of the 3 monitoring wells will be 80 ft below ground surface.

b. The 3 wells will require 10 days to install, develop, and test.

c. All drill sites are accessible by truck-mounted drilling rigs as determined by the driller.

d. There are no excessive amounts of cobbles/boulders which would increase drilling time.

e. Steam-cleaning of drilling/sampling equipment will be performed at each boring/well location. The fluids will be discharged to ground surface.

f. All drill cuttings, fluids, and development water will be left on, or discharged to, the ground surface in the immediate area of the activity.

g. That permission from appropriate land owners to drill borings/wells on their property will be a simple process (expedited by the NYSDEC, if necessary) so that delays during field operations are not incurred.

6.3.5 Task 5 - Sampling

All sampling and analysis will be conducted in accordance with the project QA/QC Plan. The analytical program for every water and sediment sample will include the 130 organic and 25 inorganic parameters listed in Statement of Work No. 784, New York State Department of Environmental Conservation Superfund and Contract Laboratory Protocol, January 1985. Also, all additional non-priority pollutant GC/MS major peaks will be identified and quantified. Major peaks

will be considered as those whose area is 10 percent or greater than the calibrating standard(s). Based upon the currently available information, collection and analysis of the following numbers and types of samples is recommended:

3 Ground-water samples (one from each Phase II well).

6.3.6 Task 6 - Contamination Assessment

EA will evaluate the data obtained during the records search and field investigation: prepare final HRS scores and documentation forms; complete EPA Form 2070-13; summarize site history, site characteristics, available sampling and analysis data; and determine the adequacy of the existing data to confirm release, and if there is a population at risk.

6.3.7 Task 7 - Remedial Cost Estimate

EA will evaluate remedial alternatives for the site and develop a list of potential options given the information available on the nature and extent of contamination. Approximate cost estimates for the selected potential remedial options will be computed. This work is not intended to be, or a substitute for, a formal cost effectiveness analysis of potential remedial actions.

6.3.8 Task 8 - Final Phase II Report

In accordance with current (January 1985) NYSDEC guidelines, the Phase II report will include:

a. The results of the Phase II investigation, complete with boring logs, photos, and sketches developed as part of the Phase II field work.

b. Final HRS scores with detailed documentation.

c. Selected potential remedial alternatives and associated cost estimates.

In addition to the final Phase II report, the following raw data and resulting reduction would be provided to NYSDEC:

a. geophysical
b. well logs
c. all sampling forms and data
d. all analytical data
e. chain-of-custody forms
f. other pertinent collected information.

6.3.9 Task 9 - Project Management/Quality Assurance

A Project Manager will be responsible for the supervision, direction, and review of the project activities on a day-to-day basis. A Quality Assurance Officer will ensure that the QA/QC Program protocols are maintained and that the resultant analytical data are accurate.

6.4 PHASE II COST ESTIMATE

Based on the scope of work and assumptions described above, the estimated costs to complete the Phase II investigation of the Pine Road Ecology site are as follows:

Consultant Costs (including labor, direct costs, fee)	$35,900
Drilling Contractor	31,800
Laboratory	6,000
Total	$73,700

Appendix 1.1-1

RECEIVED

1.1-2

INTERVIEW ACKNOWLEDGEMENT FORM

Site Name: Pine Road Ecology Site

I.D. Number: 152049

Person Contacted: Elias S. Kalogeras

Date: 23 January 1986

Title: Consulting Engineer

Affiliation: Consulting Engineer to the Town of Brookhaven

Phone No.: (516) 286-8668

Address: 437 South Country Road
Brookhaven, New York 11719

Persons Making Contact:
EA Representatives:

Type of Contact: In person

William Going
Ellen Bidwell

Interview Summary:

The Pine Road Ecology Site probably originated as vacant property that town people brought garbage to. The Town of Brookhaven purchased the 16.8 acres in 1940, but 7 acres were eventually used in the construction of County Road 83. The landfill operated from 1940 to the mid-1960s; exact contents of the landfill are unknown. Excavation of part of the landfilled area revealed garbage as deep as 8 feet below ground surface. There was never a mound of garbage built up. After the landfill closed, ground surface was left flat, similar to the surrounding topography. Currently the area is used for composting and gardening.

Acknowledgement:

I have read the above transcript and I agree that it is an accurate summary of the information verbally conveyed to EA Science and Technology interviewers, or as I have revised below, is an accurate account.

Revisions (please write in corrections to above transcript):

Signature: Elias S. Kalogeras
Louis K. McLean Assoc, P.C.

Date: Feb 21, 1986

EA SCIENCE AND TECHNOLOGY
A Division of EA Engineering, Science, and Technology, Inc.

7.2-13

COMMUNICATIONS RECORD FORM

Distribution: ( ) Pine Rd. Ecology Site ( ) _____
( ) _____, ( ) _____
( ) Author

Person Contacted: Elias Kalogeras, P.E. Date: 6-9-86

Phone Number: 516 286 8668 Title: Consulting Engineer

Affiliation: Dept Sanitation, Brookhaven Type of Contact: Phone

Address: _____ Person Making Contact: Going

Communications Summary: Q Can you tell us whether Pine Rd. Ecology Site was actually operated as an open burning dump and landfill?

A Actually the site was before his time, but hearsay is that it was an open burning dump.

(see over for additional space)

Signature: William Going

EA SCIENCE AND TECHNOLOGY
A Division of EA Engineering, Science, and Technology, Inc.

1 of 3

COMMUNICATIONS RECORD FORM

Distribution: (✓ Pine Rd. Ecology Site) ( )
( ) ( ) ( )
( ) Author

Person Contacted: Harold Walkman Date: 6-9-86

Phone Number: 5167323571 Title: Superintendent of Highways

Affiliation: Town of Brookhaven Type of Contact: Phone

Address: Person Making Contact: Gaig

Communications Summary: Q. Do you have any first hand recollection of how the Pine Rd. Ecology site was operated back in the 1940's-1965?

A. He became involved through the Highway Dpt. in 1972 after site was closed, and just covered part of the site and managed it as a compost operation. However, remembers the site in the 40's-50's as an open burning dump. Has no file on the site or any written information.

(see over for additional space)

Signature: William L. Gaig

Appendix 1.1-2

Received from:
Suffolk Co. Dept. of
Health

8/10/79

APPLICATION TO OPERATE A SOLID WASTE MANAGEMENT FACILITY

PINE ROAD ECOLOGY SITE

TOWN OF BROOKHAVEN
DEPARTMENT OF SANITATION

John Randolph, Supervisor

Karen Lutz, Councilwoman

Regina Seltzer, Councilwoman

Vincent Felice, Commissioner

Prepared by James Heil, P.E.

February 1978

Introduction

Part 360, 6 NYCRR requires the submission of an Application for Approval to Operate a Solid Waste Management Facility to the New York State Department of Environmental Conservation by February 28, 1978.

The following report on the Pine Road Ecology Site, operated by the Town of Brookhaven, Department of Sanitation, is to supplement the information provided on NYSDEC Form 47-19-4 (6/77)

Current Site Use

The current activities on the site are:

1) Leaf composting
2) Greenhouse and nursery operation
3) Ecology education center including organic garden
4) Senior citizen gardens
5) Recycling center

Site Location

The ten (10.75) acre site is located at the N/W/C of Pine Street and Gibbs Road (Parker Avenue) and west of C.R.83 Patchogue-Mt. Sinai Road in the hamlet of Coram, Town of Brookhaven (Figure 1,2).

Site History

The location was used as an open burning, refuse disposal area from the early 1930s, until its closing in 1965. The refuse fill area ranges from, eighteen (18) feet below grade near the north property line to approximately forty (40) feet on the south.

In 1971, the area was developed as a Ecology Site to promote the composting of leaves and to educate the Town residents in various composting methods and the uses of leaf compost.

Since this time, a greenhouse, classroom, office and storage buildings have been erected. The majority of the site area is given to windrowing of leaves and the shredding of the composted material. To illustrate the advantages of compost, plants and nursery stock are raise in the material for use at Town facilities including completed landfills and parks. Service organizations (scouts, 4-4 groups, garden clubs) tou the facility and work in the greenhouse to earn badges or certificates.

The composted material is made available to Town residents for

for their own use at no charge. In conjunction with this, bins are available at the site for newspaper and glass recycling.

The only solid waste entering the site is leaves and the aforementioned newsprint and glass.

Surface Water

The closest surface water to the Pine Road site is Pine Lake. The fresh water body is located approximately four and a half (4.5) mile from the site in a southeast direction.

Groundwater

The approximate elevation of ground water under the site is fifty (GW Elev. 50.) The average grade elevation at the site is 120 (max elev 124, min elev. 117).

The site and surrounding area are served by the Suffolk County Water Authority (SCWA), a public water supply.

The water supply wells in the area are presented in Table 1.

The direction of grcund water flow from the site is northeast.

Surrounding Area

The area north of the site is occupied by an apartment house complex (North Isle Garden Apartments). To the east is Gibbs Road (Parker Avenue), a dual lane road and a four lane divided highway (Count Road 83).

South of the site is wooded land zoned residential and the are to the west is also zoned residentiai with an active subdivision being built adjacent to the west property line.

Site Runoff

Runoff is contained on site. The highest site elevation is to the north with the elevation decreasing to the south. The east and west property lines are bermed (8'). Leaf windrows perpendicular to the runoff direction intercept overland flow. The south end of the site is the garden area and buffer which allows runoff to percolate into the ground.

Site Operations

Leaves are brought to the site by Town trucks, residents and landscapers. The leaves are placed in a windrow of an approximate size of fifteen (15) feet base; twelve (12) feet height and one hundred (100) to one hundred fifty (150) foot length. Once per month the windrows are

turned by a rubber tire loader to promote decomposition.

After a year of composting, the decomposed leaves are processed through a Royer Leaf Shredder Model 362 which screens and shreds the material. Rocks, sticks and plastic bags are removed by the screening process.

The processed compost is then stockpiled for use on Town facilities, in the greenhouse and for Town resident use.

The site equipment is:

1) Royer Leaf Shredder Model 362
2) Rubber Tire Loader - Allis Chalmers 545
3) Tractor with various attachments

The site personnel are:

1) 1 Ecology Project Supervisor - full time
2) 1 Horticultural Worker - full time
3) 4 Laborers - part time
4) night guards - part time

Noise Levels

The Brookhaven Town Department of Environmental Protection has performed a noise survey on the site for this report. The survey report is included in thisreport (Appendix A)

Site Particulars

The site is fenced (cyclone) with one (1) gate off Parker Avenue.

There are no monitoring wells on the site.

Attendants are on duty when site is opened.

A rodent control program is in effect through the use of a contract exterminator.

On site roads are blue stoned and are maintained.

Personnel facilities include a heated lunch room, separate toilet facilities with hot water, drinking water from a public supply and a telephone.

Machine repair and maintenance is performed at the Sanitation Department garage at the Brookhaven landfill site.

There is no open burning on site.

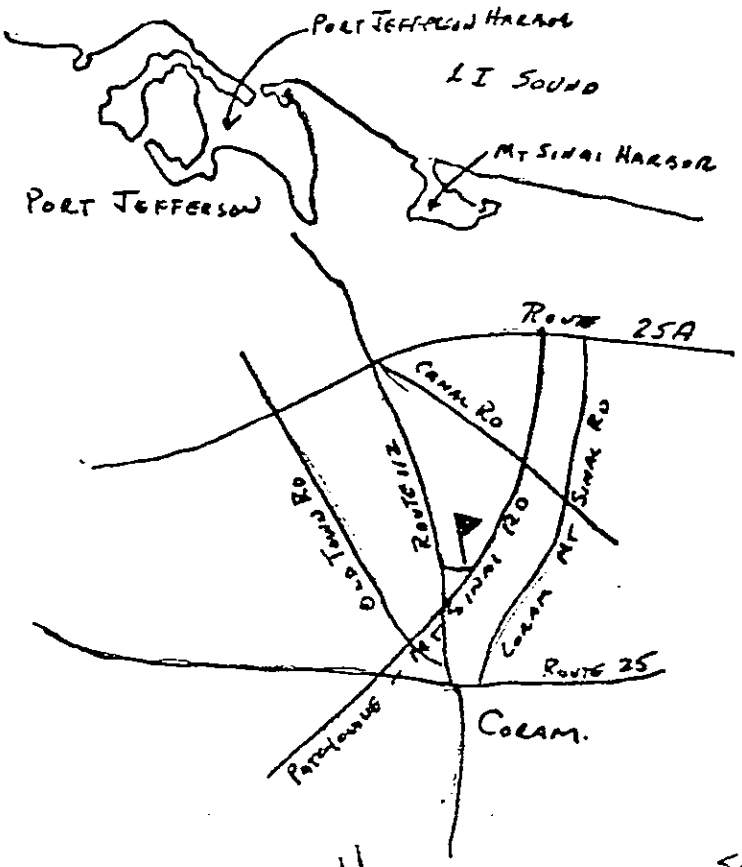
The site is not located on a flood plain.

TABLE 1

Water Supply Wells Located

In Proximity to Pine Road Ecology Site

S-Number	Location	Owner	Use	Total Depth (ft)	Rate (gpm)	Distance from Pine Road (mi)	Direction from Pine Road
7219	Viking Place Coram	SCWA	Public Supply	208	1421	1	NE
47310	Viking Place Coram	SCWA	Public Supply	698	1421	1	NE
52451	Viking Place Coram	SCWA	Public Supply	183	1455	1	NE
55502	Chestnut St. Coram	SCWA	Public Supply	595	1500	0.6	NW
23828	Coram	Eastern Suffolk Water Co.	Public Supply	150	1000	1.1	SE
23827	Coram	Eastern Suffolk Water Co.	Public Supply	150	1000	1.1	SE
34894	Radio Ave. Coram	SCDEC	Observation	746	-	3.5	NE



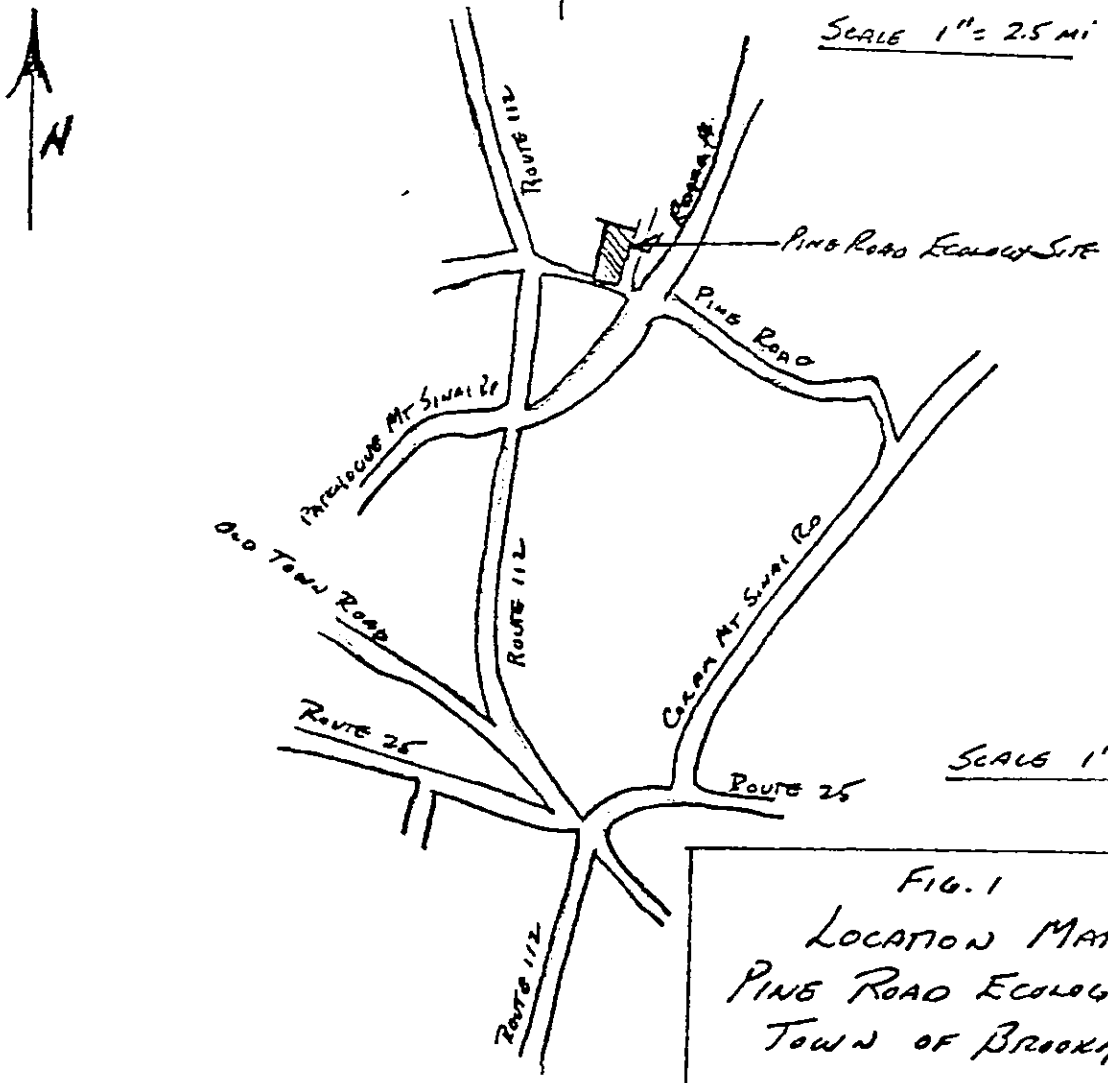
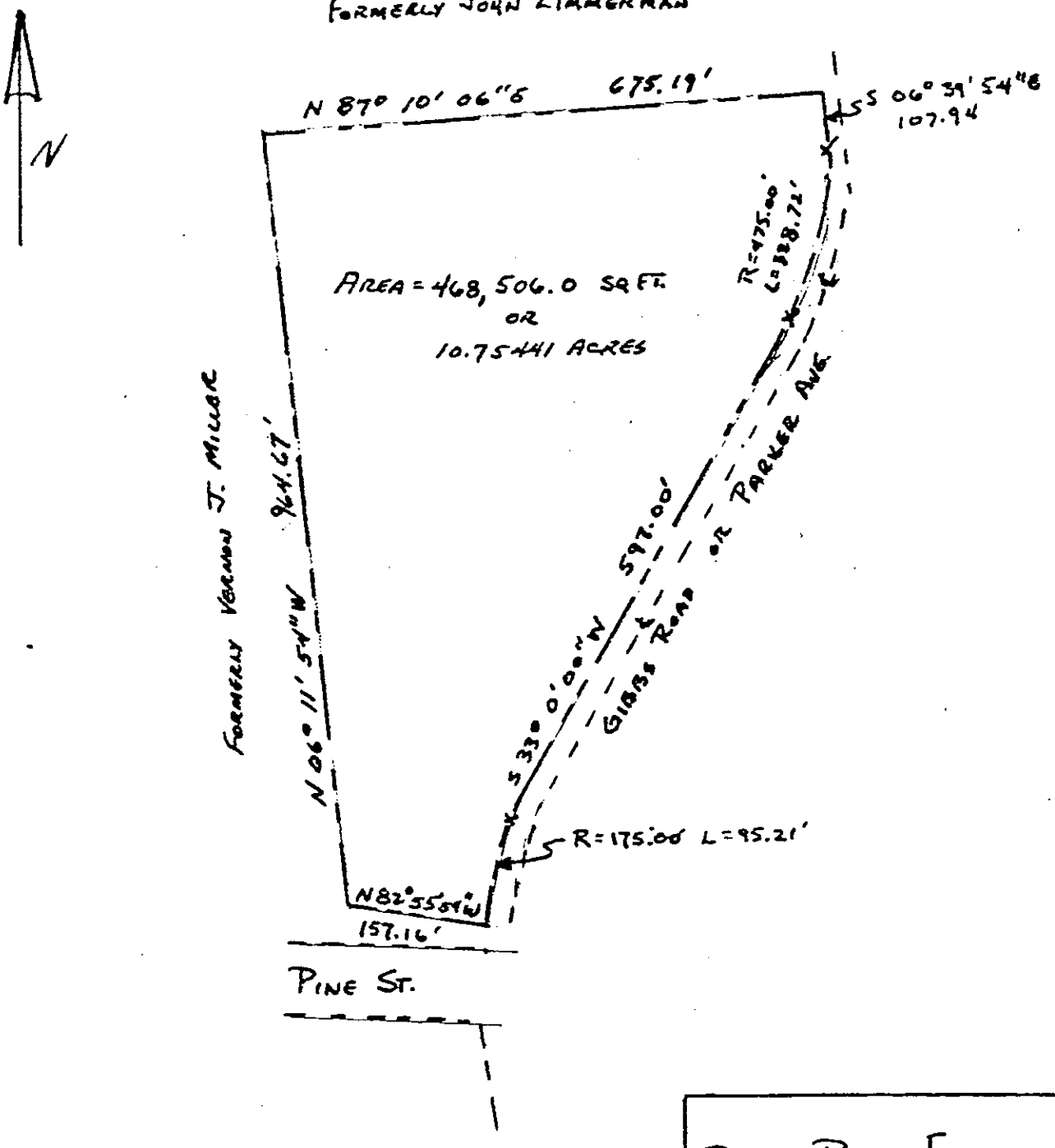


FIG. 1
LOCATION MAPS
PINE ROAD ECOLOGY SITE
TOWN OF BROOKHAVEN
SCALE: AS NOTED FEB. 1988

87-19

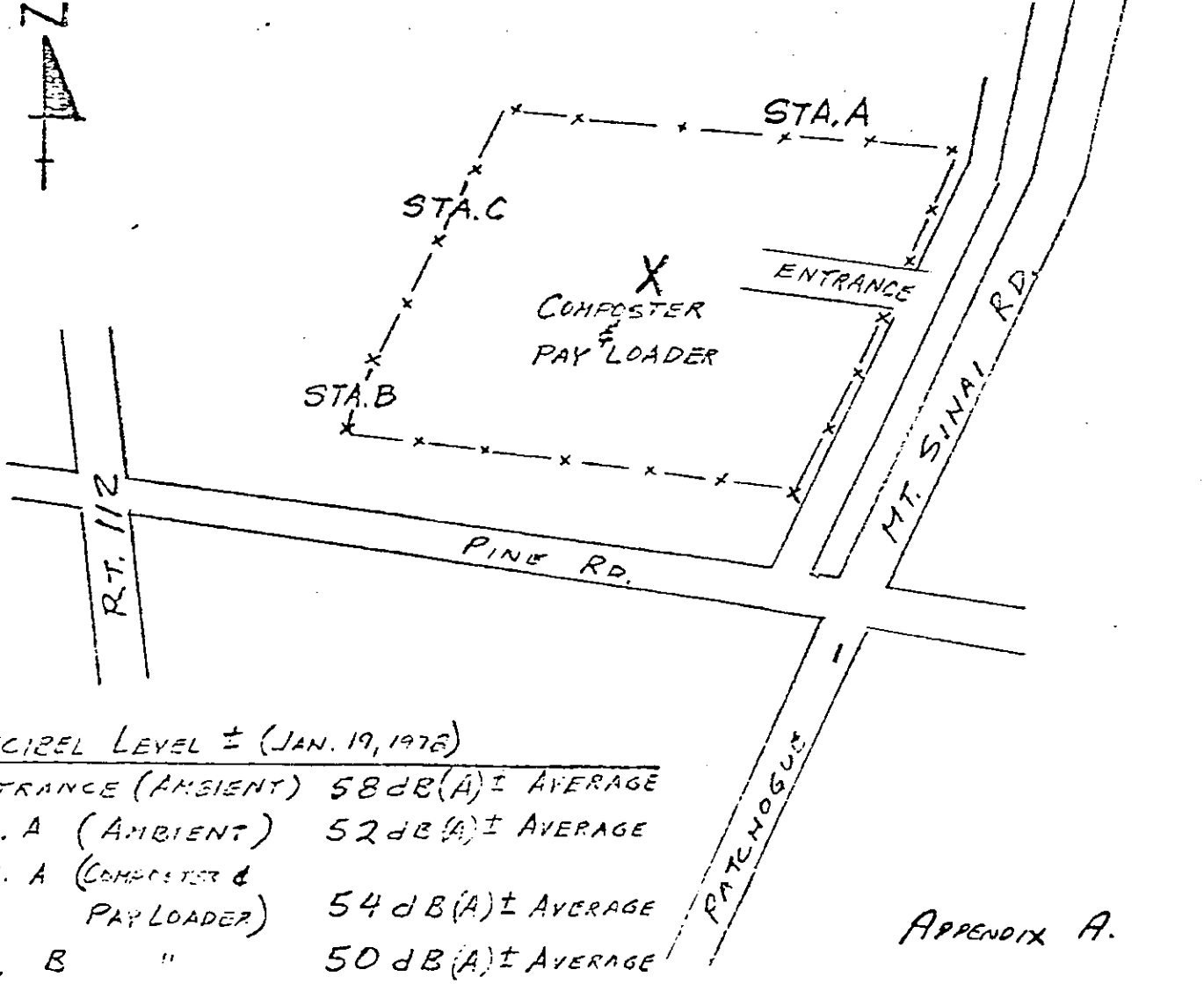


PINE ROAD ECOLOGY SITE.
TOWN OF BROOKHAVEN
DEPT. OF SANITATION
CORAM, NEW YORK.
SCALE 1"= 200' FEB 1978

TAKEN FROM THE SURVEY OF PROPERTY FOR THE TOWN OF BROOKHAVEN, SITUATED AT CORAM, TOWN OF BROOKHAVEN, SUFFOLK COUNTY, N.Y. MARCH 1971 SURVEYED BY LOUIS L. McLEAN PE, LS PATCHOGUE, NEW YORK.

BROOKHAVEN TOWN
COMPOST SITE
(CORAM N.Y.)

SOUND LEVEL READINGS AT THE ENTRANCE AND POSITION "A" WERE BACKGROUND WITHOUT COMPOSTER AND PAYLOADER RUNNING. POSITION "A, B & C" WERE WITH UNITS RUNNING TOGETHER.



DECIBEL LEVEL ± (JAN. 19, 1976)

ENTRANCE (AMBIENT)	58 dB(A) ± AVERAGE
POS. A (AMBIENT)	52 dB(A) ± AVERAGE
POS. A (COMPOSTER & PAY LOADER)	54 dB(A) ± AVERAGE
POS. B "	50 dB(A) ± AVERAGE
POS. C "	49 dB(A) ± AVERAGE
COMPOSTER @ 50 FT.	71 dB(A) ± AVERAGE

APPENDIX A.

SOUND LEVELS MEASURED ON "A" SCALE

APPLICATION FOR APPROVAL TO OPERATE A SOLID WASTE MANAGEMENT FACILITY

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

PROJECT NO.

DATE RECEIVED 9/6/

DEPARTMENT ACTION ☐ Approved ☐ Disapproved

DATE

1. OWNER'S NAME: TOWN OF BROOKHAVEN
2. ADDRESS (Street, City, State, Zip Code): 201 S. OCEAN AVE. PATCHOGUE NY 11772
3. Telephone No. 516 475 5500
4. OPERATOR'S NAME: DEPT. OF SANITATION
5. ADDRESS (Street, City, State, Zip Code): 201 S. OCEAN AVE PATCHOGUE NY 11772
6. Telephone No. 516 475 5500
7. ENGINEER'S NAME: JAMES H. HEILPE
8. ADDRESS (Street, City, State, Zip Code): 201 S. OCEAN AVE PATCHOGUE NY 11772
9. Telephone No. 475 5500
10. ON-SITE SUPERVISOR: KENNETH SCHWINDT
11. ADDRESS (Street, City, State, Zip Code): 201 S. OCEAN AVE PATCHOGUE NY 11772
12. Telephone No. 475 5500

13. HAS THE INDIVIDUAL NAMED IN ITEM 10 ATTENDED A DEPARTMENT SPONSORED OR APPROVED TRAINING COURSE?
☐ Yes Date Course Title Location ☐ No

NOT APPLICABLE - COMPOSTING SITE

14. PROJECT/FACILITY NAME: PINE ROAD ECOLOGY SITE
15. COUNTY IN WHICH FACILITY IS LOCATED: SUFFOLK
16. ENVIRONMENTAL CONSERVATION REGION: 1

17. TYPE OF PROJECT FACILITIES: ☒ Composting ☐ Transfer ☐ Shredding ☐ Baling ☐ Sanitary Landfill ☐ Incineration ☐ Pyrolysis
☐ Resource Recovery-Energy ☐ Resource Recovery-Materials ☐ Other

18. HAS THIS DEPARTMENT EVER APPROVED PLANS AND SPECIFICATIONS AND/OR ENGINEERING REPORTS FOR THIS FACILITY? ☐ Yes Date ☒ No

19. LIST WASTES NOT ACCEPTED

WASTES ACCEPTED: LEAVES
NEWSPRINT
GLASS.

20. BRIEFLY DESCRIBE OPERATION

SOLID WASTE OPERATION INVOLVES WINDROWING OF LEAVES, COMPOSTING AND SHREDING

RECYCLING CENTER FOR NEWSPRINT, GLASS AND METAL

21. IF FACILITY IS A SANITARY LANDFILL, PROVIDE THE FOLLOWING INFORMATION:
a. Total useable area: (Acres) Initially _____ Currently _____
b. Distance to nearest offsite, downgradient, water supply well _____ Feet
c. No. of groundwater monitoring wells Upgradient _____ Downgradient _____

22. INDICATE WHICH ATTACHMENTS, IF ANY, ARE INCLUDED WITH THIS APPLICATION:
☐ Form 47-19-2 or SW-7 ☒ Operations Plan & Report ☐ USGS Topographic Map ☐ Record Forms
☐ Construction Certificate ☐ Boring Logs ☐ Water Sample Analysis ☐ None ☐ Other

23. 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 knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

2/24/78
Date

Signature and Title

47-19-4 (6/77)
formerly SW-22

CENTRAL OFFICE COPY

Appendix 1.1-3

EA SCIENCE AND TECHNOLOGY
A Division of EA Engineering, Science, and Technology, Inc.

COMMUNICATIONS RECORD FORM

Distribution: (✓) Pine Rd. Ecology Site ( ) _____
( ) _____, ( ) _____
( ) Author

Person Contacted: Charles W. Barraud Date: 7-21-86 (7-23

Phone Number: 516 473 1422 Title: (Former) Superintendent, Highways

Affiliation: (Formerly) Town of Brookhaven Type of Contact: Phone

Address: 650 Mt Sinai-Coram Rd Person Making Contact: Gorny
Mt Sinai NY 11766

Communications Summary: I asked Mr Barraud if he recalled what kinds of wastes went in to the PRE landfill. He remembered that the site was an open dump which had gotten started when the town excavated for fill and sand. The cuts were filled with (commingled) household garbage of every kind. The pits were burned continually. Also, septage wastes were emptied into the pits. Also, there was one or two local kinds of businesses which occasionally might have brought sludge to the dump, when they cleaned out their tanks. Once in a while the pits were covered with fill and compacted with heavy equipment.

(7-23) Called again to verify his allegation that oil companies might have taken tank sludge to the landfill --- he said this was only his recollection and that he had no personal experience or observations or proof.

(see over for additional space)

Signature: William L. Gorny

Appendix 1.1-4

EA SCIENCE AND TECHNOLOGY
A Division of EA Engineering, Science, and Technology, Inc.

COMMUNICATIONS RECORD FORM

Distribution: (✓) Pine Road Ecology Site ( ) _____
( ) _____, ( ) _____
( ) Author

Person Contacted: Stanley Green Date: 7-23-86

Phone Number: 516 475 0270 Title: Employee (25 yrs)

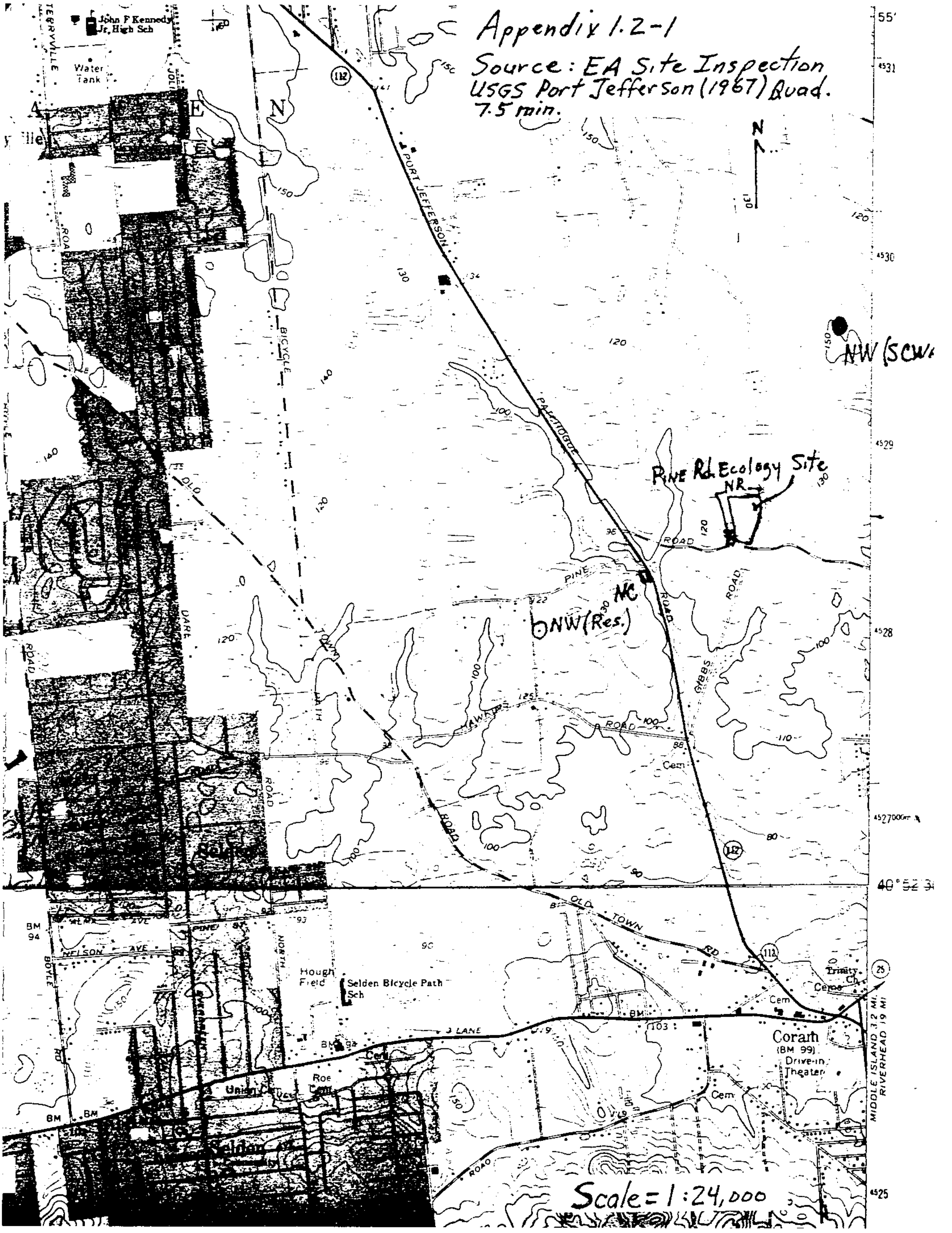
Affiliation: Sweeney Fuel Co. Type of Contact: Phone

Address: 51 Rider Ave Person Making Contact: Gary
Patchogue NY 11772

Communications Summary: I asked Mr Green if they had ever taken oil tank sludge or "bad" fuel oil out to Pine Rd Ecology site (as alleged by former Town of Brookhaven Hdq Superintendent) --- he said they never had as far as he could remember ... that their fuel oil supply turned over quickly enough that they never had sludge build ups --- but he said small "gypsy" oil suppliers might have taken the "bad" sludge (from bad loads of fuel) to any landfill nearby to their business dealings.

(see over for additional space)

Signature: William F. Gary


Appendix 1.2-1
Source: EA Site Inspection
USGS Port Jefferson (1967) Quad.
7.5 min.
N
NW (SCW
Pine Rd. Ecology Site
NR
NC
NW (Res.)
Scale = 1:24,000
John F Kennedy Jr. High Sch
Water Tank
PORT JEFFERSON
PATCHOGUE
BICYCLE
PATH
PINE
ROAD
GIBBS
ROAD
HAWKINS
ROAD
OLD TOWN RD
DARE ROAD
NORTH
NELSON AVE
BOYLE RD
Hough Field
Selden Bicycle Path Sch
Cem
Roe Cem
Coram
(BM 99)
Drive-in Theater
Trinity Ch
MIDDLE ISLAND 3.2 MI.
RIVERHEAD 19 MI.
4531
4530
4529
4528
4527000m N
4525
40°52'30"

Appendix 1.3-1
196

Hydrogeology of the Huntington-Smithtown area Suffolk County, New York

By E. R. LUBKE

CONTRIBUTIONS TO THE HYDROLOGY OF THE UNITED STATES

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1669-D

Prepared in cooperation with the Suffolk County Board of Supervisors, the Suffolk County Water Authority, and the New York Water Resources Commission

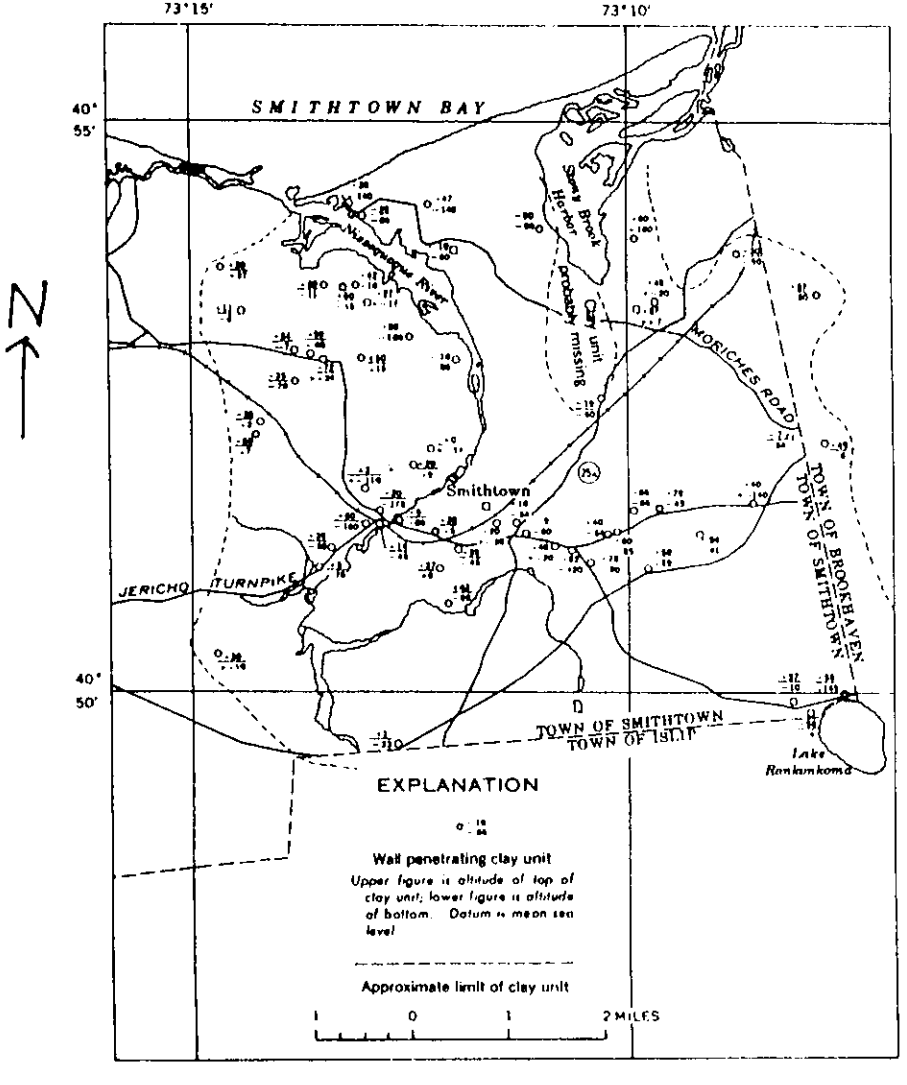
UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1964

TABLE 2.—*Summary of the stratigraphy and water-bearing properties of the deposits underlying the Huntington-Smithtown area, Suffolk County, N.Y.*

System	Series	Stratigraphic unit	Thickness (feet)	Character of deposits	Water-bearing properties
Quaternary	Recent	Recent deposits Artificial fill, marsh deposits, beach deposits, and surficial soil.	0–20±	Sand, gravel, silt, and clay; organic mud, peat, loam, and shells. Colors are brown, yellow and gray.	Sandy and gravelly beach deposits may locally yield small supplies of fresh to brackish water to wells. Marine silt and clay in north-shore harbors retard salt-water encroachment and confine underlying aquifers.
	Pleistocene	Upper Pleistocene deposits.	0–300±	Till composed of unassorted clay, sand, and boulders as ground moraine in area north of Harbor Hill terminal moraine and possibly as buried ground moraine of the Ronkonkoma ice. Outwash deposits of brown well-stratified sand and gravel—predominantly quartzose but containing biotite and other dark minerals and igneous and metamorphic rock fragments—including advance outwash, channel and valley-fill, and outwash-plain deposits. Ice-contact deposits of crudely stratified sand and gravel and isolated masses of till in the Ronkonkoma and Harbor Hill terminal moraines. Glaciolacustrine deposits of brown and gray silt and clay intercalated with outwash deposits in buried valleys.	Till, relatively impermeable; commonly causes perched-water bodies to form locally and impedes recharge from precipitation. Outwash and ice-contact deposits are moderately to highly permeable. Wells screened in outwash deposits generally at depths of less than 250 ft yield as much as 1,700 gpm. Specific capacities of public-supply wells range from 22 to 222 gpm per ft of drawdown. Water is generally fresh and unconfined. Chief source of water for domestic, public-supply, industrial, and irrigation wells in project area. Glaciolacustrine deposits of silt and clay are relatively impermeable and locally retard movement of water between adjacent water-bearing beds in Pleistocene and Cretaceous deposits.
		----Unconformity?----			
		Pleistocene deposits undifferentiated.	0–400±	Sand, gravel, clay, and silt. Lignite present in some silt or clay layers. Colors are brown and gray. These deposits are present in deep buried valleys and may include equivalents of the Gardiners clay and the Jameco gravel found elsewhere on Long Island. This unit may include some Pliocene(?) deposits, but evidence is scanty.	Coarser sand and gravel beds are permeable and would presumably yield moderate to large supplies to properly constructed wells. One well, S16,137, screened in these deposits yields 1,400 gpm, and has a specific capacity of 46 gpm per ft of drawdown. Silt and clay beds confine water in adjacent water-bearing beds.
		----Unconformity?----			
Tertiary(?)	Pliocene(?)	Mannetto gravel	0–300±	Stratified sand and gravel and scattered clay lenses; unit is predominantly quartzose; igneous and metamorphic rock fragments are scarce. Colors are pale to yellowish brown. Caps hills in western part of Huntington and locally present in buried valleys.	Deposits are moderately to highly permeable but generally lie above the zone of saturation. Locally, water supplies for domestic use are obtained from these deposits, such as at wells S4, S208 and S927. No large public-supply or industrial wells were screened in these deposits in 1960.
		----Unconformity----			
		Magothy(?) formation	0–800±	Sand, clayey, with silt, clay, and some gravel. Colors are white, gray, brown, yellow, and red. The upper part of the formation commonly includes interbedded clay, fine to medium sand, silt, and some lignite; the lower part is largely coarse sand, gravel, and some clay.	Generally ranges from moderately to highly permeable. The lower part of the formation is more permeable than the upper part. Several public-supply wells screened in the basal zone have yields ranging from 1,000 to 1,500 gpm and specific capacities from 30 to 90 gpm per ft of drawdown. Water is generally of excellent quality. Second most important source of water to wells. Unconfined conditions are common in uppermost part of formation, but confined conditions prevail in the lower part; some wells flow.
Cretaceous	Upper Cretaceous	----Unconformity----			
		Raritan formation: Clay member	0(?)–188±	Clay and silt, and a few layers of sand. Lignite and pyrite concretions are common. Colors are mostly gray, white, and red.	Relatively impermeable. Acts as a confining bed, which retards but does not prevent movement of water between the Magothy(?) formation and the Lloyd sand member.
		Raritan formation: Lloyd sand member	200–265±	Sand, fine to coarse, and gravel, mixed with some clay and some layers of silt and clay. Colors are white to pale yellow.	Moderately permeable. Not extensively developed. Several public-supply and industrial wells yield as much as 250 gpm in northern Huntington, but potential yields from properly constructed wells are much greater. Water is confined and some wells flow. Water is generally of excellent quality, but on Eaton Neck it is brackish.
Precambrian to lower Paleozoic		----Unconformity----			
		Bedrock		Crystalline metamorphic and igneous rocks.	Relatively impermeable. Forms the floor of the groundwater reservoir.

fig. 3). Locally, thick but discontinuous clay bodies of Pleistocene age also have been penetrated in wells in other parts of the project area. In general, they lie in the larger buried valleys, the floors of which are commonly below sea level. The clay unit of Smithtown and the other discontinuous clay bodies may include equivalents of the Gardiners clay, as well as glaciolacustrine deposits laid down during the Wisconsin glacial stage. All these clay deposits are intercalated with coarse sand and gravel.

The saturated sand and gravel beds in the Pleistocene deposits yield moderate to large supplies of water to properly constructed



wells, but the clay bodies act as local confining beds for water-bearing zones in Pleistocene sand and gravel and also in places for water in the Cretaceous deposits. The Pleistocene deposits constitute the most important source of water in the project area for numerous small domestic wells and also for industrial and public-supply wells in and near the villages of Centerport, Dix Hills, Greenlawn Manor, Hauppauge, Huntington Station, Northport, and South Huntington. In these localities, individual public-supply wells screened in water-bearing sand and gravel beds of Pleistocene age at depths ranging from 100 to 602 feet yield from 1,000 to 1,700 gpm. Specific capacities of these wells range from 31 to 221 gpm per foot of drawdown and on the average are higher than those of wells tapping the Cretaceous deposits. Transmissibilities of Pleistocene water-bearing materials tapped by typical public-supply wells were computed from specific capacities (Theis and others, 1954). By the use of these values and the estimated thickness of the aquifer, permeabilities ranging from 750 to 1,500 gpd per sq ft (table 3) were computed. In 1957, ground-water withdrawals from wells screened in water-bearing sand and gravel of Pleistocene age accounted for 53 percent of the total pumpage for public supply and industrial use in the Huntington-Smithtown area.

UNDIFFERENTIATED DEPOSITS OF PLEISTOCENE AND PLIOCENE(?) AGE

In some of the deeper buried valleys of the project area, wells have penetrated sections of sand and gravel associated with bodies of silt and clay that may include equivalents of the Gardiners clay and the Jameco gravel of Pleistocene age and possibly the Mannetto gravel of Pliocene(?) age. As these deposits cannot be identified or defined areally on the basis of available faunal and lithologic evidence, they are grouped in undifferentiated deposits of Pleistocene age.

At well S16137T (see following log) in the South Huntington well field, an unusually thick section of these undifferentiated deposits was penetrated between depths of 202 and 604 feet (47 to 449 ft below sea level). The fine lignitic sand, silty clay, and clay between 202 and 407 feet may be an equivalent of the Gardiners clay. The remainder of the sand, gravel, silt, and clay sequence between 407 and 604 feet may include the Jameco gravel and possibly the Mannetto gravel.

At present (1960), well S16137 (pl. 4) is the only well known to tap the undifferentiated deposits. This well, screened from 540 to 602 feet in fine to coarse sand containing some gravel and clay, yields 1,400 gpm and has a specific capacity of 46 gpm per foot of drawdown.

presence or absence of extensive confining beds or aquicludes. In this report the aquifers are designated as shallow, intermediate, and deep. The shallow and intermediate aquifers are separated only imperfectly by discontinuous silt and clay bodies. The intermediate and deep aquifers are separated much more effectively by a silt and clay aquiclude, which is relatively thick and areally extensive. Consequently, water is interchanged much more readily between the shallow and intermediate aquifers than between the intermediate and deep aquifers. The characteristics and limits of the perched ground-water bodies, the three aquifers and their related water-table and piezometric surfaces, and the nature of water-level fluctuations in wells tapping these aquifers are described and discussed in following sections.

PERCHED GROUND-WATER BODIES

Discontinuous bodies of perched water are fairly common in the Huntington-Smithtown area. These generally lie on relatively thick layers of impermeable glacial till or on clay of Pleistocene age or on the Magothy(?) formation above the regional or main water table. The most extensive perched ground-water body occurs in the Harbor Hill end moraine in the northern part of the West Hills. Other perched bodies have been noted during the drilling of wells S16276 at Northport, S16880 at San Remo, and S16873 at Deer Park (pl. 1). Several wells that have tapped perched water bodies at altitudes as much as 200 feet above the main water table also are described by Veatch and others (1906, pl. 12). Wells S229 and S16876, both in West Neck, probably penetrate perched water bodies.

Domestic wells are generally not finished in perched water bodies, because yields are small and relatively undependable.

SHALLOW AQUIFER

The shallow aquifer generally includes saturated coarse sand and gravel in the upper Pleistocene deposits and, in some areas, hydraulically connected finer grained sand and gravel beds in the upper part of the Magothy(?) formation. Locally, saturated Manetto gravel may also form part of the shallow aquifer. The shallow aquifer extends beneath the land area of the project, and it terminates at or near Long Island Sound. Fresh-water lenses in the shallow aquifer also occur on Lloyd Neck, Eatons Neck, and Little Neck. The aquifer extends from about 90 feet above to about 80 feet below sea level. Through this range, water in the aquifer is generally unconfined.

The upper limit of the aquifer is the regional or main water table (pl. 5). The lower limit is marked by discontinuous clay bodies, mostly in the upper Pleistocene deposits but in places in the Magothy(?) formation. In much of Smithtown a relatively extensive glaciolacustrine clay unit in the upper Pleistocene sequence forms the lower limit of the aquifer at levels ranging from about 70 feet above to 80 feet below sea level. In some parts of the project area, specifically where the buried Cretaceous surface (pl. 3) lies at altitudes above 100 feet, the Magothy(?) formation forms the entire shallow aquifer. Because of differences in permeability—lower in the Magothy(?) and higher in the Pleistocene—the hydraulic gradient within the aquifer may change markedly near the contacts of these two stratigraphic units.

Local ground-water bodies, which may be considered to represent detached segments of the shallow aquifer, are present on Lloyd Neck, Little Neck, and Eatons Neck. These bodies, shown by closed 5- and 10-foot contours (pl. 5), are sustained very largely by local recharge, and possibly also on Lloyd Neck and Little Neck by upward leakage from the intermediate and deep aquifers.

The configuration of the main water table in May 1959, shown in plate 5, is based on water-level measurements in 51 observation wells and on water-surface altitudes observed in effluent streams and ponds that intersect the water table. Two prominent mounds on the main water-table divide of Long Island are present in the project area. The western mound includes all the broad area above the 70-foot contour in south-central Huntington, but only a small part of the eastern mound, above the 70-foot contour, is included in the easternmost part of Smithtown (pl. 5). Between these two mounds is a pronounced low, or trough, in the water table, which coincides roughly with the valley of the Nissequogue River. Two ground-water mounds represented by the closed 80- and 90-foot contours are present on the eastern high. The eastern mound (80-ft closed contour mostly north of well S16873) is apparently related to material of low permeability in the Magothy(?) formation which constitutes the shallow aquifer in this area. On the other hand, the western mound (90-ft closed contour) appears to be related to material of low permeability in the Pleistocene deposits.

North of the western mound, the water table slopes generally north toward Long Island Sound at gradients of about 15 to 30 feet per mile. However, southward deflections and reentrants in the 10- and 20-foot contours and local steepening of gradients are indicated near Cold Spring, Huntington, Centerport, and Northport Harbors (pl. 5). Between the western and eastern mounds the water table slopes generally toward the Nissequogue River at 20 to 30 feet per mile. North of the eastern mound the water table also slopes north toward the

foot, and are commonly masked by fluctuations of larger amplitude. Cyclical fluctuations in pressure also result from ocean tides, particularly in wells screened in the intermediate and deep aquifers near Long Island Sound. For example, at well S2020 located on a promontory between Duck Island Harbor and Northport Bay and screened in the deep aquifer, water-level fluctuations caused by tidal loading have a daily amplitude of as much as 3 feet between high and low tide. Tidal changes in Lloyd and Cold Spring Harbors also influence the water levels of wells S9 and S4466, both of which are screened in the deep aquifer.

RECHARGE

All the fresh water in the ground-water reservoir of the project area, as well as the rest of Long Island, is derived from precipitation. However, only a part of the total precipitation that falls reaches the water table. The amount which percolates down to the water table and recharges the reservoir is the residual of the total precipitation not returned to the atmosphere by evapotranspiration or lost to the sea by overland runoff. Owing to the highly pervious nature of the soil and the substrata and to the gentle slopes of the land surface, infiltration is relatively high. Of an average annual precipitation on the project area of 49 inches, 21 inches, or about 43 percent, is estimated to reach the water table.

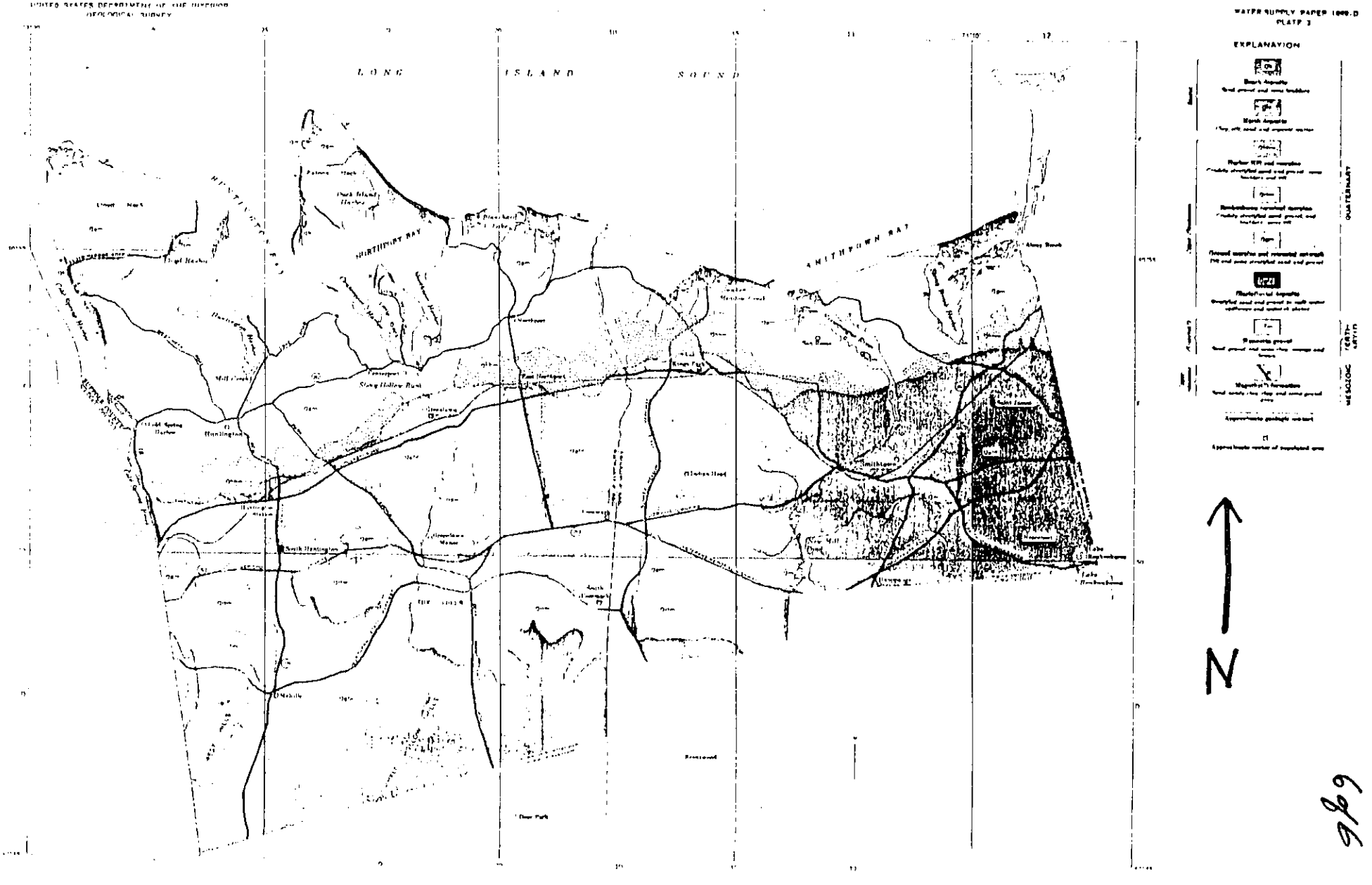
The catchment surface on which recharge presumably takes place includes most of the land area of the project, or about 146 square miles. This catchment includes Lloyd and Eatons Necks but does not include an additional 7 square miles of high water table and tidal marshes which fringe the northern shoreline. A considerable part of the catchment area, however, is made impervious by buildings and pavements, but much of the runoff from such covered areas is recovered in storm water disposal (recharge) basins or large-diameter diffusion wells. The natural recharge from precipitation on the project area, exclusive of the high water-table areas, the tidal marshes and of Lloyd and Eatons Necks, is estimated to average about 140 mgd (million gallons per day). In addition, the recharge on Lloyd Neck is estimated to average about 5 mgd and on Eatons Neck about 2 mgd. The total for the project area then would be about 147 mgd. The rate of natural recharge varies greatly from season to season and from year to year depending on such factors as evapotranspiration, air and soil temperatures, soil-moisture conditions, and the nature and seasonal distribution of precipitation. During dry years, recharge is substantially less than average, and conversely in wet years it is more.

Natural replenishment of the intermediate and deep aquifers takes place entirely by downward movement of water from the shallow aquifer through discontinuities in clayey and silty beds and probably directly by slow movement through these aquicludes. Recharge of the intermediate aquifer probably occurs chiefly in the areas where the water table lies above an altitude of about 60 feet (pl. 5). The deep aquifer, in turn, receives recharge by downward leakage from the intermediate aquifer through an extensive aquiclude formed chiefly by the clay member of the Raritan formation. This recharge, which probably proceeds at a very slow rate, occurs chiefly where the piezometric surface of the intermediate aquifer lies above an altitude of about 60 feet (fig. 6).

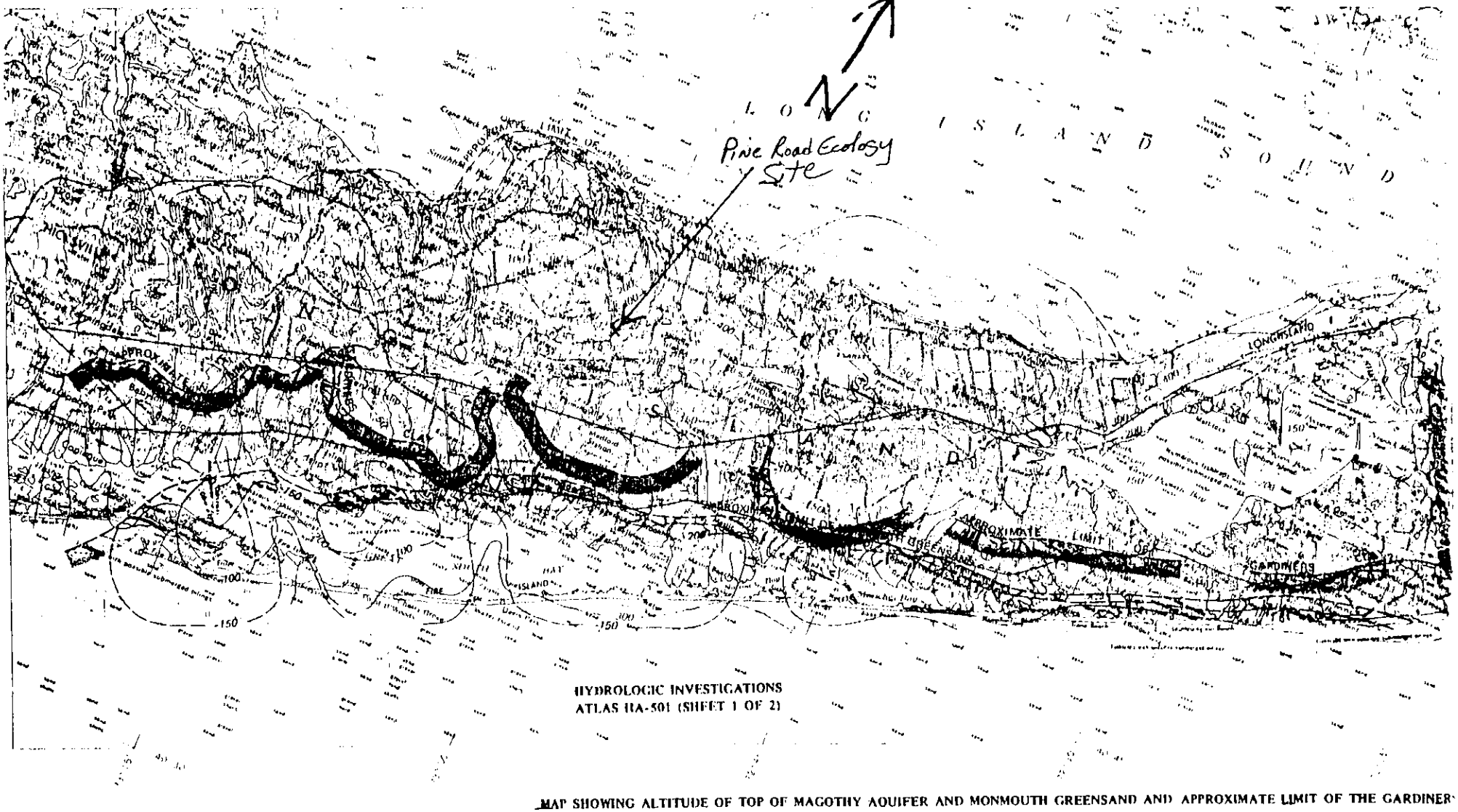
Artificial recharge of the ground-water reservoir is effected by means of cesspools and septic tanks, which ultimately receive most of the water pumped from public-supply and domestic wells. For example, during 1957 an estimated average of about 9.8 mgd was returned to the ground by this means in the project area, and at the same time about 2.5 mgd was discharged directly into Long Island Sound through sewage disposal systems at the villages of Huntington and Northport and at Kings Park State Hospital. Also, as required by law, an average of about 0.7 mgd of water pumped from privately owned wells for industrial and cooling purposes during 1957 was returned to the ground through sumps and diffusion wells.

MOVEMENT

In the ground-water reservoir, water moves vertically and laterally from points of high head to points of low head along flow lines whose direction is normal to the contour lines shown for the water table (pl. 5) and the piezometric surfaces (figs. 6 and 9). Water in the shallow aquifer flows away from the two major highs on the main watertable divide of Long Island, represented by areas above the 70-foot watertable contour in south-central Huntington and eastern Smithtown (pl. 5). The general directions of ground-water flow are north toward the Long Island Sound, south toward the Atlantic Ocean, and also a pronounced lateral movement toward the trough in the valley of the Nissequogue River. Local directions of flow, which may deviate substantially from these general directions, are indicated by arrows on the water-table contours (pl. 5). Also, the peninsulas of Lloyd, Eatons, and Little Neriks each contain a groundwater mound in the shallow aquifer and from the crests of these mounds the shallow ground water moves laterally outward to bounding salt-water bodies. Within the area circumscribed by the 60-foot water-table contour (pl. 5), a downward head differential generally exists between the shallow and intermediate



GEOLOGIC MAP OF THE HUNTINGTON-SMITHTOWN AREA, SUFFOLK COUNTY, NEW YORK
SHOWING AREAL EXTENT OF SURFICIAL DEPOSITS



HYDROLOGIC INVESTIGATIONS
ATLAS HA-501 (SHEET 1 OF 2)

MAP SHOWING ALTITUDE OF TOP OF MAGOTHY AQUIFER AND MONMOUTH GREENSAND AND APPROXIMATE LIMIT OF THE GARDINERS

SCALE 1:250,000

5 0 5 10 15 20 25 MILES

5 0 5 10 15 20 25 30 35 KILOMETERS

CONTOUR INTERVALS 25, 50, AND 100 FEET
DATUM IS MEAN SEA LEVEL

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY
and
SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENTAL CONTROL

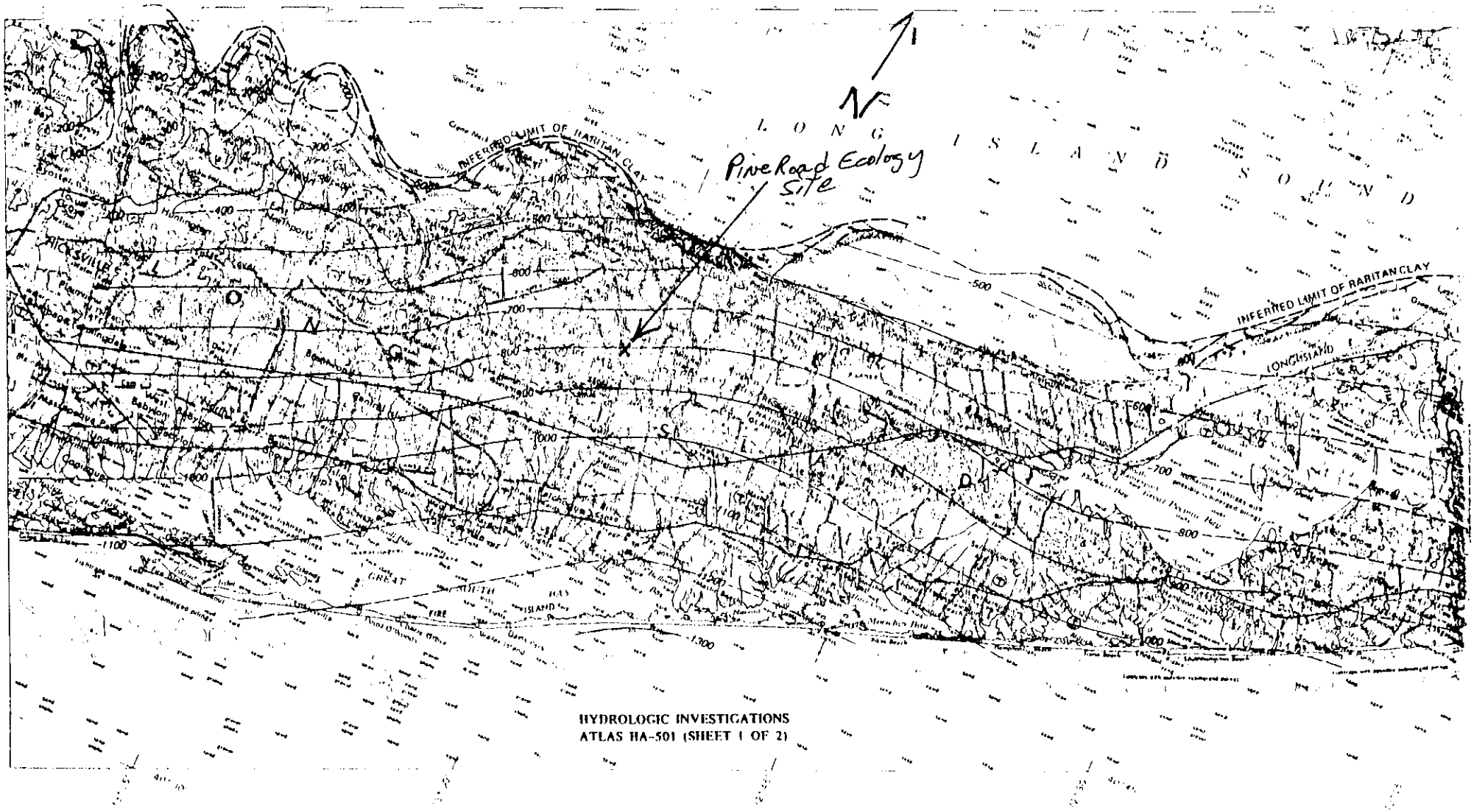
HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

By

H. M. Jensen and Julian Soren

1974

Appendix 1.3-
165



MAP SHOWING ALTITUDE OF TOP OF RARITAN CLAY

SCALE 1:250 000

5 0 5 10 15 20 25 MILES

5 0 5 10 15 20 25 30 35 KILOMETERS

CONTOUR INTERVALS 25, 50, AND 100 FEET
DATUM IS MEAN SEA LEVEL

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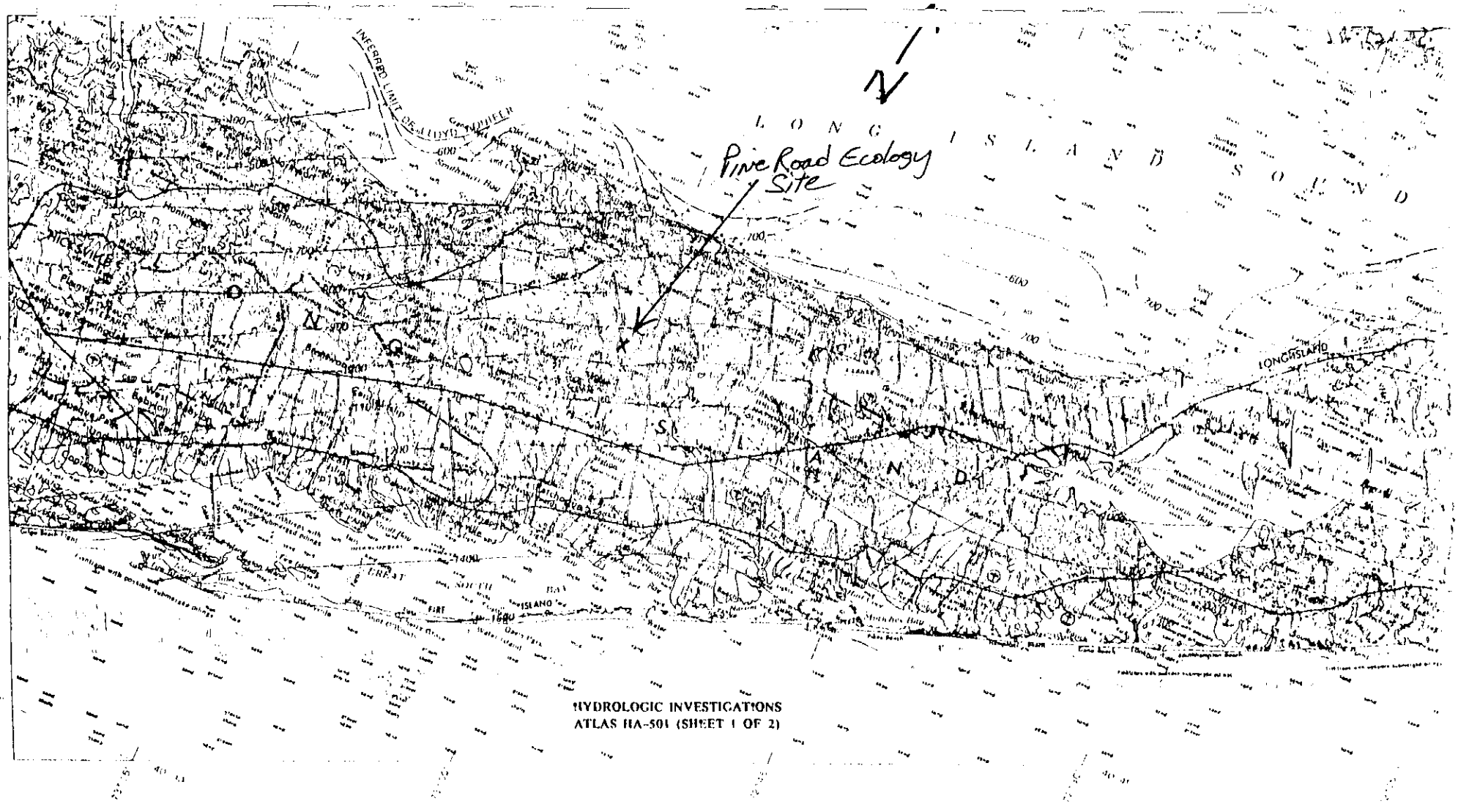

HYDROLOGIC INVESTIGATIONS
ATLAS HA-501 (SHEET 1 OF 2)

MAP SHOWING ALTITUDE OF TOP OF LLOYD AQUIFER

SCALE 1:250 000

5 0 5 10 15 20 25 MILES

5 0 5 10 15 20 25 30 35 KILOMETERS

CONTOUR INTERVALS 25, 50, AND 100 FEET
DATUM IS MEAN SEA LEVEL

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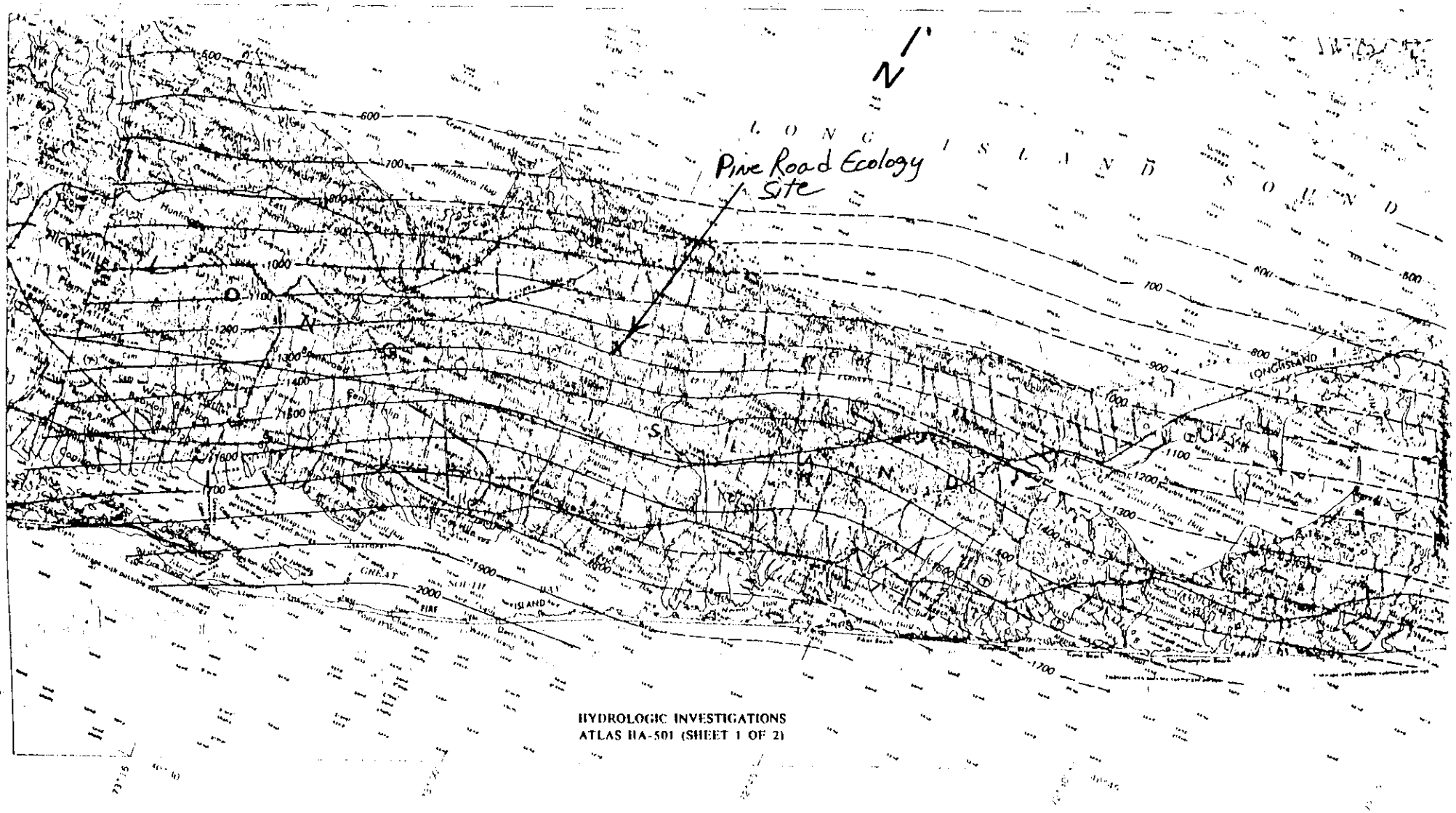

HYDROLOGIC INVESTIGATIONS
ATLAS HA-501 (SHEET 1 OF 2)

MAP SHOWING CONFIGURATION OF THE BEDROCK SURFACE

SCALE 1:250,000

5 0 5 10 15 20 25 MILES

5 0 5 10 15 20 25 30 35 KILOMETERS

CONTOUR INTERVALS 25, 50, AND 100 FEET
DATUM IS MEAN SEA LEVEL

Prepared in cooperation with the
SUFFOLK COUNTY WATER AUTHORITY
and
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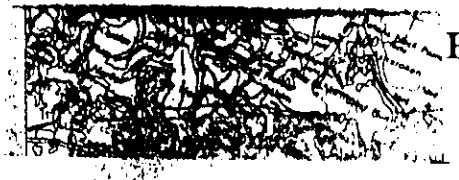


HYDROGEOLOGY OF SUFFOLK, COUNTY, LONG ISLAND, NEW YORK

By

H. M. Jensen and Julian Soren

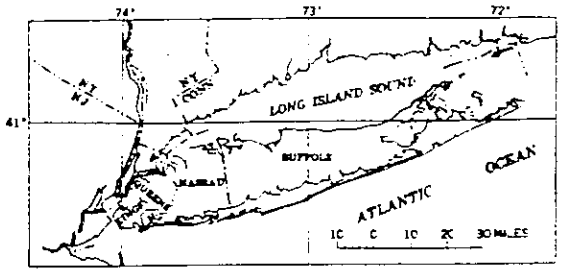
1974

5 of 5

INTRODUCTION

WATER NEEDS OF SUFFOLK COUNTY

Water pumped from aquifers underlying Suffolk County (index map) is the sole source of water used for public supply, agriculture, and industry. The county's population grew from less than 200,000 in 1940 to 1.1 million in 1970. Most of the growth occurred after 1950. Ground-water pumpage increased from 40 mgd (million gallons per day) in 1950 to 155 mgd in 1970 (New York State Department of Environmental Conservation, written commun., June 1, 1971). The projected ground-water use for an anticipated population of 2 million in the county by 1990 is 300 mgd (New York State Conservation Department, 1970, p. 26–27).



INDEX MAP SHOWING LOCATION (SHADED) OF SUFFOLK COUNTY

PURPOSE AND SCOPE

The large and growing demand for ground water in Suffolk County has created a need for a detailed knowledge of the geometry and the hydrologic characteristics of the ground-water reservoir. Mapping of subsurface geology and hydraulic heads in the aquifers are important prerequisites to obtaining this information. Maps of the subsurface geologic units of Long Island were first shown in a report by Suter and others (1949, pls. VIII to XXI). But those maps were highly generalized, because there were few data on deep borings and wells in the county when the report was prepared. Since 1949, additional data from many deep borings and wells in the county have been collected.

In 1968, as part of a continuing cooperative program of water-resources studies with the Suffolk County Water Authority and Suffolk County Department of Environmental Control, the U.S. Geological Survey began an updating of the hydrogeologic and hydrologic maps of all the county. The basic data in Jensen and Soren (1971), the first product of the program, are the basis for the hydrologic maps in this report.

ACKNOWLEDGMENTS

The authors appreciate the cooperation of well-drilling companies, their employees, and the many officials of public and private water companies who furnished geologic and hydrologic data for use in this report.

GEOLOGIC AND HYDROGEOLOGIC UNITS

Pleistocene glacial drift generally mantles the county's surface. Pleistocene deposits overlie unconsolidated deposits of Late Cretaceous age. The Cretaceous strata lie on a peneplain that was developed on Precambrian(?) crystalline rocks.

Major landforms include ridges, valleys, and plains. These landforms are roughly oriented in belts parallel to the county's length. The northern and the central parts are traversed by irregular sandy and gravelly ridges of terminal moraine. The crest of the northern ridge ranges in height from 100 to 300 feet above sea level and the crest of the central ridge from 150 to 400 feet. The highest altitudes in the inter-ridge area range from 100 to 200 feet. Irregular plains and rolling hills, formed from sandy and gravelly ground moraine and outwash deposits of sand and gravel lie in the area between the ridges. An outwash plain slopes at a near-uniform gradient from the southern base of the central ridge, which is about 100 feet above sea level, southward to Great South Bay and the ocean. Along the north shore, steep bluffs as high as 100 feet and generally narrow sandy and gravelly beaches face Long Island Sound. The barrier-bar system at the southernmost side of the county is composed of sandy beach and dune deposits. The highest altitudes of the barrier bars generally range from 10 to 45 feet.

The ground-water reservoir system of Suffolk County is composed of hydrogeologic units that include lenses and layers of clay, silt, clayey and silty sand, sand, and gravel. A hydrogeologic unit consists of a geologic unit or a group of contiguous geologic units classified by hydraulic characteristics. These units include aquifers, which are principal water sources, and confining layers, which separate the aquifers. The aquifers are, from the land surface downward, the upper glacial aquifer, the Magothy aquifer, and the Lloyd aquifer. The major areal confining layers are, in descending order, the Gardiners Clay, the Monmouth greensand, and the Raritan clay. The base of the ground-water reservoir is the crystalline bedrock. Characteristics of the geologic and the hydrogeologic units are summarized in the table, and the following data of hydrologic significance are shown on the maps: base of ground-water reservoir, altitudes of aquifers, altitudes and limits of confining layers, and distribution of surficial deposits. The hydrogeologic sections show the vertical relations of the units to each other.

The sharp angular shapes of some of the contours reflect the fact that in places the contours are drawn on stratigraphic tops of the hydrogeologic units and in places the contours are drawn on erosional surfaces. The sharp angles result from the juncture of a stratigraphic top and an eroded surface.

Appendix 1.3-3

1611

ORIGINAL—TO COMMISSION

County Suffolk

Well No. S-47.

(on preliminary

NSA C/C7

State of New York
Department of Conservation
Division of Water Resources

LOG
Ground Surf., El..........ft. above

^
..........ft.
v
Top of Well

Strathmore Ct

COMPLETION REPORT—LONG ISLAND WELL

SEE ATTACHE

Owner SCWA

Address Pond Rd, Oakdale, New York

Location of well Viking Place, Coram

Depth of well below surface 698' 2" feet

Depth to ground water from surface 80± feet

CASINGS:

Diameter 20" in. ...in. ...in. ...in.

Length 608 ft. ...ft. ...ft. ...ft.

Sealing 50' cement

Casings removed none

SCREENS: Make Cook 316 SS Openings 60 slot

Diameter 10 I.D. in. ...in. ...in. ...in.

Length 70' ft. net slot ft. ...ft. ...ft.

Depth to top from slot top of casing 623' ft.

PUMPING TEST: Date 7/19/73 Test or permanent pump? test

Duration of Test ...days 8 hours

Maximum Discharge 1421 gallons per minute

Static level prior to test 80 ft. ...in. below top of casing

Level during Max. Pumping 130 ft. ...in. below top of casing

Maximum Drawdown 50' ft.

Approx. time of return to normal level after cessation of pumping ...hours ...minutes

PUMP INSTALLED:

Type DWT Make By Layne others Model No. TLC

Motive power Elec Make U.S H.P. 150

Capacity 1400 g.p.m. against ...ft. of discharge head

No. bowls or stages 7 ...ft. of total head 336' TDH

Pump data submitted by driller 4/23/74

DROP LINE:

Diameter 10 in.

Length 130 ft.

SUCTION LINE:

Diameter 10 in.

Length 9'9" ft.

Method of Drilling (Rotary, cable tool, etc.) Reverse Rotary

Use of Water Public Supply

Work started 3/7/73 7/3/73 Completed 8/3/73 10/30/73

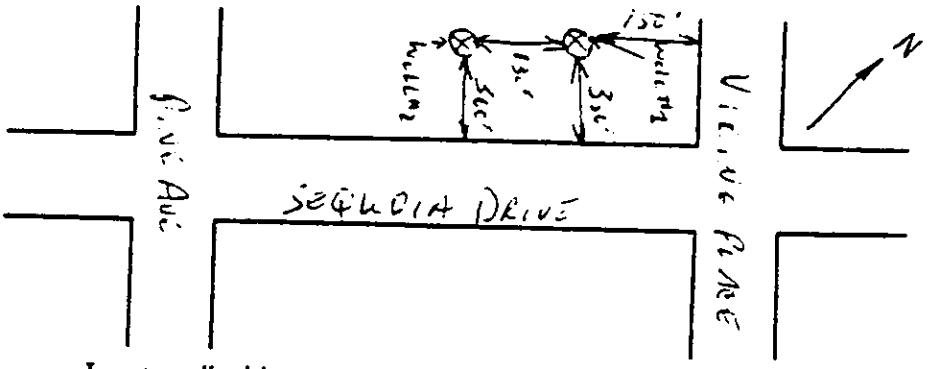
Date 8/6/73 4/23/74 Driller Strata Well Corp. Layne-NY

License No. 1000 5

NOTE: Show log of well—materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job.

See Instructions as to Well Drillers' Licenses and Reports—pp. 5-7.

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.

Show North Point

STRATA WELL CORP.

2 Beech St.
ISLIP, N. Y. 11751
Phone 516 581-7100

WELL LOG Strathmore Ct.

JOB NAME SCWA - VIKING PARK WELL #2

LOCATION CORAM W.R.C. WELL NO. S-47310

REFERENCE PT. GRADE S. W. L. 80' ±

DATE STARTED 3/7/73 COMPLETED 3/16/73 DRILLER BAKER, KLUNDER & Co.

SAMPLE Actual Depth	SAMPLE No.	Lgth	Blows	Formation	Thickness	Depth	Remarks
				TOP SOIL & LOAM	3	3	
				CSE BR SAND & GRAVEL W/LARGE STONES + ROCKS	37	40	
				CSE BR SAND & GRAVEL W/LARGE STONES + ROCKS	25	65	
				F.-MED BR SAND (SOME STONES)	35	100	
				CSE/VCSE BR SAND) + GRAVEL W/LARGE STONES	35	135	
				F. BR. SAND	2	137	
				MED/CSE BR. SD. W/SMALL STONES	58	195	
				CLAY - STONES - STKS CSE GR SD	6	201	
				F GR SD	30	231	
				F GR SD W/WHICH & STKS of WHITE SD CLAY	27	258	
				F GREY SD W/IRON OXIDE	72	330	
				F GREY SD	35	365	
				MULTI COLORED CLAY W/STKS of LT BR. SD & IRON OXIDE	13	378	
				MED/CSE BR SAND) BITS of WH. CLY & GR CLAY	17	325	
				MULTI COLORED CLAY (SANDY)	3	328	
				F GREY SAND W/BITS of CLAY & SMALL PEBBLES (MICA)	16	344	
				(MED/CSE BR. SAND) (VERY DIRTY)	11	355	
				F GREY SAND) W/LAYERS of CLAY & IRON OXIDE	40	395	
				F BR SD	6	401	
				SANDY GR CLAY	17	418	
				F LT BR SAND - STKS of IRON OXIDE	7	425	
				SANDY GR CLAY	70	495	
				F GREY SAND & STKS of SANDY GR CLAY	18	513	
				LT GREY CLAY & STKS of IRON OXIDE (TRACES of GR SD)	5	518	
				F/CSE GR SD. & LAYERS of SANDY GR. CLAY	16	534	
				GR CLAY - STKS of IRON OXIDE	14	548	
				GR SAND & CLAY	12	560	
				F. GREY SAND	31	591	

4811

STRATA WELL CORP.

2 Beech St.
ISLIP, N. Y. 11751
Phone 516 581-7100

WELL LOG

3 NAME SCWA - WILLIS PLACE WELL #2

ATION CORAM W.R.C. WELL NO. S-47310

FERENCE PT. GRADE S. W. L. 80' ±

E STARTED 3/7/73 COMPLETED 3/18/73 DRILLER BANGER, KLEINBERG & BUTLER

SAMPLE No.	SAMPLE Actual Depth	Lgth	Blows	Formation	Thickness	Depth	Remarks
				MED/VCSE GREY SAND & STKS of GR CLAY & IRON OXIDE	7	670	
				F. GREY SAND (CLAYEY)	5	625	623
				CS BR SD	7	632	
				CS CLAYEY GR SD. SMALL STONES - IRON OXIDE	3	635	Screen
				F GR SD	23	658	
				F to MED LT BR. SAND	17	675	
				MED/CSE GREY SD. & LAYERS of GREY CLAY	16	691	
				F GREY SAND (CLAYEY)	10	701	693
				CS GR SAND STKS of GR CLAY	5	706	
				F GR SD & SM STONES	7	713	

5 of 11

ORIGINAL—TO COMMISSION

County SUFFOLK

Well No. S-55502 (on preliminary re

State of New York
Department of Conservation
Division of Water Resources

LOG

Ground Surf., El.....ft. abov

^
.....ft.
v

Top of Well

COMPLETION REPORT—LONG ISLAND WELL

Owner SUFFOLK COUNTY WATER AUTHORITY — SEE ATTACHED

Address POND ROAD, OAKDALE, N.Y.

Location of well CHESTNUT ST., CORAM

Depth of well below surface 595' feet

Depth to ground water from surface 71'5" feet

CASINGS:

Diameter	20" in.	in.	in.	in.
Length	507' ft.	ft.	ft.	ft.
Sealing	50' CONCRETE			
Casings removed	NONE			

SCREENS: Make COOK 316 SS Openings #70 SLOT

Diameter	10" in.	I.D in.	in.	in.
Length	60' ft.	ft.	ft.	ft.
Depth to top from top of casing	522'-557', 10' BLANK 567'-592' ft.			

PUMPING TEST: Date 11/24/75 Test or permanent pump? TEST

Duration of Test days 8 hours

Maximum Discharge 1500 gallons per minute

Static level prior to test 71' ft. 5" in. below top of casing

Level during Max. Pumping 172' ft. in. below top of casing

Maximum Drawdown 100'-7" ft.

Approx. time of return to normal level after cessation of pumping hours 5 minutes

PUMP INSTALLED:

Type DN'T Make BY OTHERS LAYNE Model No. TLC

Motive power ELEC Make U.S. H.P. 150

Capacity 1400 g.p.m. against 303 ft. of discharge head

No. bowls or stages 7 303 ft. of total head

Pump data submitted by Driller 12/10/75

DROP LINE: SUCTION LINE:

Diameter	10 in.	10 in.
Length	189'5" ft.	9'11" ft.

Method of Drilling (Rotary, cable tool, etc.) REVERSE ROTARY

Use of Water PUBLIC SUPPLY

Work started 10/9/75 6/29/75 Completed 10/27/75 11/24/75

Date 12/2/75 11/5/75 Driller STRATH WELL CORP.

License No. 1000

D. E. C. REGION 1 ENVIRONMENTAL ANALYSIS

DEC 22 1975

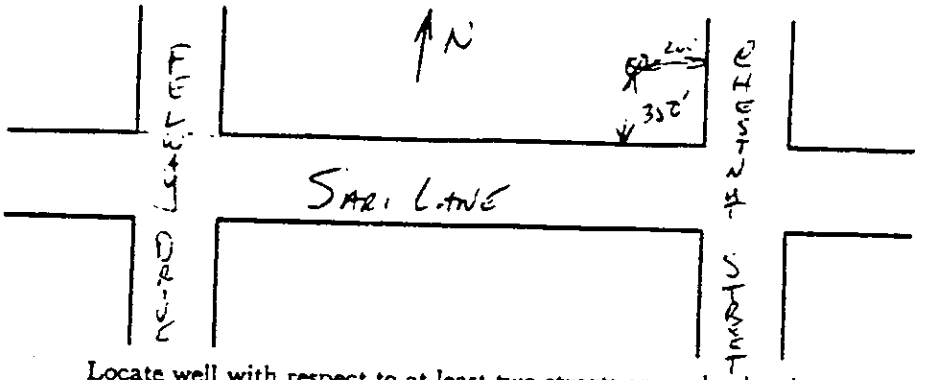
RECEIVED

NOTE: Show log of well—materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job.

22222

6811

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.

Show North Point

STRATA WELL CORP.

7 of 11

2 Beech St.
ISLIP, N. Y. 11751
Phone 516 581-710

DEC 22 1975

RECEIVE

WELL LOG

JOB NAME CHESTNUT STREET #2 216W

TION CORAM, NEW YORK W.R.C. WELL NO. S-55502

REFERENCE PT. GRADE S. W. L. 71'-5"

STARTED 6/29/75 COMPLETED 11/24/75 DRILLER BANKER, TIMMINS, BU

SAMPLE No.	SAMPLE Actual Depth	Lgth	Blows	Formation	Thickness	Depth	Remark
				TOP SOIL & LOAM	2'	2'	
				CLEAN, COARSE SAND, GRAVEL	65'	67'	
				BROWN CLAY, STREAKS, SAND	7'	74'	
				COURSE BROWN SAND, GRAVEL, STKS CLAY	16'	90'	
				CRSE BROWN SAND W/ LARGE STONES, BOULDERS	40'	130'	
				CRSE TO VERY CRSE BR. SAND W/ HEAVY GRAVEL	15'	145'	
				CRSE BROWN SAND, GRAVEL, STONES	81'	226	TAKE
				SOLID GRAY SANDY CLAY, STONES & SAND STREAKS	26'	252	
				MEDIUM TO VERY COURSE BROWN SAND	18'	270'	
				MULTI-COLORED CLAY	8'	278'	
				MEDIUM TO COARSE BROWN SAND, GRAVEL	2'	280'	
				SOLID BROWN CLAY	10'	290'	
				MED TO CRSE BROWN SAND, HEAVY GRAVEL, STONES	8'	298'	
				SANDY STKS MULTI-COLORED CLAY, LAYERS SAND & GRAVEL	27'	325	
				MEDIUM BROWN SAND	3'	328'	
				VERY FINE DIRTY BROWN SAND, STKS. BROWN CLAY	7'	335'	
				MEDIUM BROWN SAND	38'	373	GOOD
				CRSE BR SAND W/ LARGE GRAVEL & STONES	11'	384	
				FINE TO MEDIUM BROWN SAND	51'	435	
				CRSE BROWN SAND & GRAVEL	15'	450	
				CRSE BROWN SAND, GRAVEL & LARGE STONES	25'	475	
				SOLID BROWN CLAY	3'	478	V HARD
				VERY FINE BROWN SAND & MICA, OCCASIONAL STONE	6'	484	
				MED. BROWN SAND, STKS BROWN CLAY, & STONES	9'	493	
				CLAYEY COARSE WHITE SAND & SMALL GRAVEL	28'	521	
				LARGE STONES, STREAKS BLUE CLAY	1'	522	522
				FINE TO MEDIUM BROWN SAND (SOME GRAVEL)	1'	523	SOME
				COARSE BROWN SAND & GRAVEL	20'	543	
							555

STRATA WELL CORP.

8611

WELL LOG

2 Beech St.
ISLIP, N. Y. 11751
Phone 516 581-7108

O. NAME _____

O TION _____ W.R.C. WELL NO. _____ DEC 22 1975

E. RENCE PT. _____ S. W. L. _____ RECEIVED

A STARTED _____ COMPLETED _____ DRILLER _____

SAMPLE No.	Actual Depth	Lgth	Blows	Formation	Thickness	Depth	Remarks
				CASE TO MED. GRAY SAND W/ STKS. WHITE CLAY	7'	550	↓ SCREEN
				SANDY WHITE CLAY W/ STKS COARSE GRAY SAND	14'	564	557
				FINE TO MEDIUM GRAY SAND (CLEAN)	10'	574	↑ 567 SCREEN ↓ 592
				FINE TO MEDIUM GRAY SAND, STKS. WHITE CLAY			
				25" ϕ HOLE TERMINATED AT 623'			

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Suffolk County

WSA 66 55

4611 S-58761 Well No.

COMPLETION REPORT – LONG ISLAND WELL

OWNER
Suffolk County Water Authority

ADDRESS
~~Pond Road & Sunrise Highway, Oakdale, N.Y.~~

LOCATION OF WELL
575' E/O Boyle Rd. 2343' S/O Old Town Rd. Terryville

* LOG
Ground Surface
El. _____ ft. above
A _____ f
V
TOP OF WELL

SEE ATTACHED

DEPTH OF WELL BELOW SURFACE	DEPTH TO GROUND WATER FROM SURFACE
~~723~~ ft.	~~32~~ ft.

CASINGS

DIAMETER	20 in.	16 in.	in.	in.
LENGTH	536 ft.	70 ft.	ft.	ft.

SEALING: 50' of Gravel
CASINGS REMOVED: None

SCREENS

MAKE: Cook
OPENINGS: #50

DIAMETER	16 in.	16 in.	in.	in.
LENGTH	20 ft.	40 ft.	ft.	ft.

DEPTH TO TOP FROM TOP OF CASING
652' split screen with 70' of 16" riser-screen set from 652 to 692' & 700' to ~~722~~

PUMPING TEST

DATE: 2/15/77
TEST OR PERMANENT PUMP: Test
DURATION OF TEST: days 3 hours
MAXIMUM DISCHARGE: 1500 gallons per min.
STATIC LEVEL PRIOR TO TEST: 32 ft. in. below top of casing
LEVEL DURING MAXIMUM PUMPING: 143 ft. in. below top of casing
MAXIMUM DRAWDOWN: 51 ft.
Approximate time of return to normal level after cessation of pumping: hrs. min.

PUMP INSTALLED By Others

TYPE	MAKE	MODEL NO.
MOTIVE POWER	MAKE	H.P.

CAPACITY: g.p.m. against ft. of discharge head
NUMBER BOWLS OR STAGES: ft. of total head

DROP LINE	SUCTION LINE
DIAMETER By Others in.	DIAMETER in.
LENGTH ft.	LENGTH ft.

METHOD OF DRILLING: ☒ rotary ☐ cable tool ☐ other _____
USE OF WATER

WORK STARTED: October 12, 1976
COMPLETED: February 25, 1977

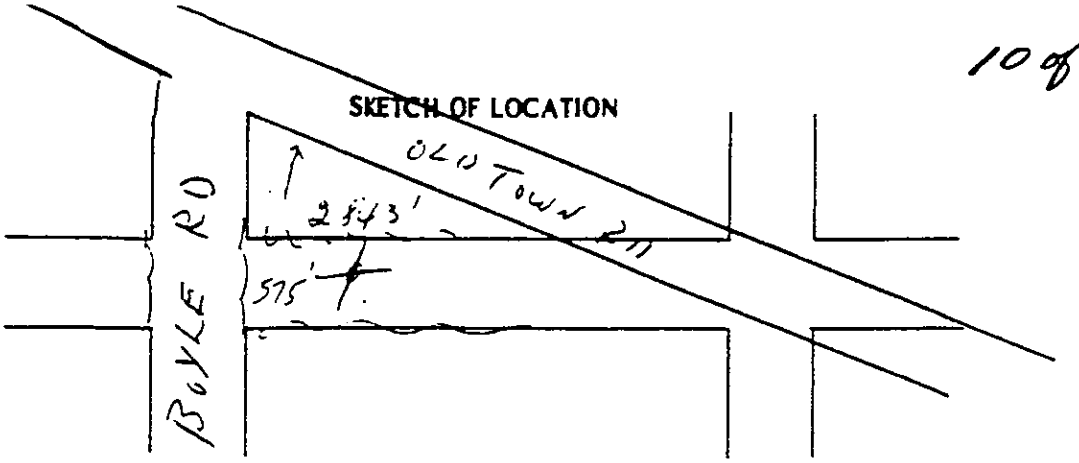
DATE	DRILLER	LICENSE NO.
5/31/77	Delta Well Co., Inc.	1299

RECEIVED
JUN 6 1977
N.Y.S.D.E.C.
ENVIRONMENTAL ANALYSIS UNIT

*NOTE: Show log of well - materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job. See Instructions as to Well Drillers' Licenses and Reports. Pages 5 - 7.

ORIGINAL – Environmental Conservation Copy

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.

Show North Point

Check the Town in which the project is located:

Nassau County:

- ☐ Hempstead
- ☐ North Hempstead
- ☐ Oyster Bay

Suffolk County:

- ☐ Babylon
- ☐ Brookhaven
- ☐ East Hampton
- ☐ Huntington
- ☐ Islip
- ☐ Riverhead
- ☐ Shelter Island
- ☐ Smithtown
- ☐ Southampton
- ☐ Southold

Suffolk County Water Authority
Boyle Road
S-58761

Boyle Rd

FORMATION LOG

0 - 3' Loam and clay.
3 - 69' Fine to coarse brown sand and gravel
69' - 172' Fine to coarse brown sand, gravel stones and rocks
172' - 180' Fine to coarse brown sand grits and gravel
180' - 196' Multi colored clay and layers of hardpan
196' - 212' Layers of multi colored and brown clay, hardpan
212' - 233' Fine gray sand & mica, some lumps of sandy clay and some Hdp
233' - 236' Dark gray clay & layers of hard pan
236' 247' Medium to coarse brown sand.
247' - 254' Milti colored clay & hardpan & multi colored sandy clay
254' - 295' Medium to coarse white sand some multi-colored clay and hdpa
295' - 345' Fine to medium gray sand & mica
345' - 380' Fine to medium sand, hardpan and mica
380' - 438' Medium to coarse white sand, layers of sandy multi colored clay and hardpan
438' - 487' Coarse sand, grits, multi colored clay
487' 606' Medium to coarse white sand, layers of multi colored clay & hardpan
606' - 724' Medium to coarse white sand gravel, somesandy clay & hardpan.

652' screen
692'
700' screen
720'

Appendix 1.3-4
1 of 7

LONG ISLAND WATER RESOURCES
BULLETIN NUMBER 1

RESULTS OF SUBSURFACE EXPLORATION IN THE MID-ISLAND AREA OF WESTERN SUFFOLK COUNTY, LONG ISLAND, NEW YORK

BY
JULIAN SOREN
U. S. GEOLOGICAL SURVEY

WITH A SECTION ON
POTENTIAL DEVELOPMENT OF GROUNDWATER
IN THE MID-ISLAND AREA

BY
PHILIP COHEN
U. S. GEOLOGICAL SURVEY

PREPARED BY

U. S. GEOLOGICAL SURVEY

IN COOPERATION WITH

SUFFOLK COUNTY LEGISLATURE
SUFFOLK COUNTY WATER AUTHORITY

PUBLISHED BY

SUFFOLK COUNTY WATER AUTHORITY

1971

UPPER CRETACEOUS SERIES

Raritan Formation

Lloyd Sand Member

The Lloyd Sand Member of the Raritan Formation comprises the Lloyd aquifer on Long Island. This unit consists mostly of beds and lenses of light- to medium-gray sand and gravelly sand, commonly containing small to large amounts of interstitial clay and silt, that are intercalated with beds and lenses of light- to dark-gray clay, silt, and clayey and silty sand.

Only two drill holes are known to have penetrated the Lloyd in the mid-island area. One hole partly penetrated the unit at the Pilgrim State Hospital, in Brentwood. The second hole, which is in the village of Lake Ronkonkoma, and which was one of the test holes drilled as part of this study, fully penetrated the unit. A log of the test hole describing lithology of the Lloyd is shown in table 1, S33379.

The surface of the Lloyd is roughly parallel to the bedrock surface. The Lloyd surface dips from an altitude of about 550 feet below sea level in the northwestern part of the area, to an altitude of about 1,250 feet below sea level in the southeastern part (pl. 2), and the unit's thickness ranges from about 260 feet to 360 feet from northwest to southeast, respectively. Plate 2 shows contours on the Lloyd surface. Plate 2 also shows contours on the bedrock surface; therefore, the Lloyd's thickness, in any part of the area, can be estimated by computing the local difference between the altitudes of the bedrock and Lloyd surfaces.

The Lloyd aquifer is moderately permeable. Its average horizontal permeability has been estimated by Lusczynski and Swarzenski (1966, p. 19), Isbister (1966, p. 20), and Soren (in press) to range between 400 and 500 gpd per sq ft (gallons per day per square foot) in Queens and Nassau Counties, west of the mid-island area. Warren and others (1968, p. 102) estimated the Lloyd's horizontal permeability to be 165 gpd per sq ft at the Brookhaven National Laboratory, about 12 miles east of the mid-island area. The section of Lloyd penetrated by the test well near Lake Ronkonkoma was fairly sandy and gravelly (table 1, S33379), and at this site the average horizontal permeability of the Lloyd probably is considerably more than 500 gpd per sq ft. Wells tapping the Lloyd in other parts of Long Island have been pumped at rates of as much as 1,600 gpm (gallons per minute), and the specific capacities of these wells (pumpage, in gallons per minute, divided by drawdown, in feet) have been reported to range from 3 to 40 gpm per foot of drawdown.

At present, there is no pumpage from the Lloyd aquifer in the mid-island area, mainly because of the great depth of the aquifer, and because more permeable aquifers are found at shallower depths. In addition to being at a greater depth, the water from the Lloyd commonly has undesirably high concentrations of iron.

source of the rock materials in the outwash deposits is manifold. As the glaciers moved southward to Long Island, they plucked the bedrock and soils of the surfaces they slid over. Rock materials were incorporated into the ice in contact zones and were also pushed along the glacial front. As the ice melted in late Pleistocene time, the various rock materials were carried away by broad coalescing streams and sheets of water. Consequently, the outwash deposits are stratified, and because of the varied materials carried by the glacier, these deposits consist of a heterogeneous suite of rock types. The great diversity of rock and mineral suites in the Pleistocene deposits, along with the chemically unstable (easily decomposed) rocks and minerals, commonly facilitates differentiation of glacial from the Cretaceous deposits on Long Island.

Outwash deposits underlie the plain in the mid-island area south of the Ronkonkoma terminal moraine, where the major source of glacial deposition was material from the Ronkonkoma ice advance. A readvance of the glacial front followed recession of the Ronkonkoma ice front and resulted in the formation of the Harbor Hill terminal moraine. Lakes were formed in depressions and valleys between the Ronkonkoma and Harbor Hill terminal moraines, and clayey materials were deposited in these lakes. The intermorainal areas also contain recessional deposits of outwash and ground moraine (see the following section, "Ground-Moraine Deposits") from the Ronkonkoma and Harbor Hill deglaciations, and these materials buried the clayey lake deposits.

The outwash deposits are thickest in the buried valleys and thinnest where the Cretaceous surface is closest to land surface (pl. 5). These deposits generally extend below the water table, and are a major source of ground water. Outwash deposits comprise most of the so-called upper glacial aquifer of Long Island, and because these deposits of sand and gravel contain virtually no interstitial clay and silt, the upper glacial aquifer is the most permeable aquifer on Long Island. The estimated average horizontal permeability of the outwash deposits is about 1,000 to 1,500 gpd per sq ft (Lusczynski and Swarzenski, 1966, p. 17; and Soren, in press). Warren and others (1968, p. 75) computed the horizontal permeability of outwash to be about 1,300 gpd per sq ft at the Brookhaven National Laboratory, east of the mid-island area. A horizontal permeability for outwash as high as about 2,500 gpd per sq ft has been reported in Nassau County, west of the project area (Isbister, 1966, p. 29).

Public-supply and other high-capacity wells screened in glacial outwash on Long Island have yielded as much as 1,700 gpm, and reported specific capacities of such wells range from less than 10 gpm per foot of drawdown to as much as about 200 gpm per foot of drawdown; however, the specific capacities range mostly from 50 to 100 gpm per foot of drawdown. (See section "Yields of Individual Wells.")

the shorelines, the direction of flow is reversed, and ground-water movement is upward from the deeper aquifers toward the surface. Thus, because of the character of the flow system, under natural conditions virtually all the recharge to the Magothy and Lloyd aquifers in western Suffolk County originated in the mid-island area, and all of that recharge ultimately discharged from the ground-water system near the shorelines.

The movement of ground water through Long Island's aquifers in the horizontal direction is generally more rapid than movement in the vertical direction because of the occurrence of interbedded fine- and coarse-grained layers, and because the largest dimensions of unevenly shaped particles in the individual layers tend to be oriented horizontally. Approximate rates of ground-water movement can be computed from hydraulic gradients and estimated coefficients of permeability and porosities of the aquifers. In 1968, water in the upper glacial aquifers in the project area was moving horizontally at rates from less than 0.5 foot per day at points distant from centers of pumping, to hundreds of feet per day near the screens of pumping wells. At the same time, water in the Magothy aquifer was moving horizontally at rates from less than 0.2 foot per day at points distant from pumping, to hundreds of feet per day near the screens of pumping wells.

HYDRAULIC INTERCONNECTION OF AQUIFERS

The aquifers of Long Island are hydraulically interconnected. Layers of clay and silt within an aquifer or between aquifers serve to confine water below them, but they do not completely prevent the vertical movement of water through them. Ground water moves downward readily through coarse outwash deposits in the upper glacial aquifer. Vertical movement of water through the Magothy aquifer is impeded by beds and lenses of clay and silt. Because the clay and silt strata in the Magothy are not continuous, some water may move around lenses of this material in addition to moving slowly through the fine-grained strata.

The contact between the upper glacial and Magothy aquifers is not regular either in attitude or in composition of the contact surfaces. Glacial deposits in buried valleys are in lateral contact with truncated sandy beds in the Magothy. In the buried valleys water can laterally enter the Magothy at great depth directly from the glacial deposits, rather than the water having to move vertically to the same depth through less permeable Magothy beds. In the Huntington buried valley, glacial deposits extend completely through the Magothy aquifer to the underlying Raritan clay. (See plate 4.) In addition to the good hydraulic continuity between the upper glacial and Magothy aquifers in the buried valleys, good hydraulic continuity occurs between the aquifers outside the buried valleys where glacial sand and gravel deposits lie directly on Magothy sand beds. Thus, a fairly good hydraulic connection exists between the upper glacial and Magothy aquifers over large parts of the mid-island area, and the configuration of the piezometric surface of the Magothy aquifer is generally similar to that of the water table. However, in the mid-island area hydraulic heads in the Magothy are lower than those in the upper glacial aquifer because of the downward component of ground-water movement in the area.

The thick areally persistent Raritan clay that lies between the Magothy and Lloyd aquifers impedes but does not prevent downward movement of ground water into the Lloyd aquifer, and water in the Lloyd is tightly confined between the Raritan clay and bedrock. Downward leakage into the bedrock is negligible.

Figures 2 and 3 show hydrographs of wells screened in the upper glacial aquifer and the Magothy aquifer at the test-drilling sites in Brentwood and Hauppauge. At both sites, the heads in the deepest wells in the Magothy aquifer are about 2.5 to 3 feet lower than the heads in the shallowest wells in the upper glacial aquifer. The loss of head downward reflects the downward movement of ground water in the mid-island area. The hydrographs in figures 2 and 3 show that the heads in these two aquifers in the project area decrease at a fairly uniform rate with increasing depth. In addition, water-level fluctuations in the two groups of wells were very similar. Both of these facts, the uniform decrease in head and the similar water-level fluctuations, reflect the high degree of hydraulic interconnection between the upper glacial and Magothy aquifers.

The average vertical permeability of the Magothy aquifer is only poorly known. Estimates range from less than 1 to about 30 gpd per sq ft. Assuming that it averages about 5 gpd per sq ft in the mid-island area, the computed amount of downward ground-water movement through the Magothy aquifer in the vicinity of the ground-water divide in 1968 was about 0.4 mgd (million gallons per day) per square mile, and the estimated velocity of the downward movement was about 0.006 foot per day.

Because of the low permeability of the Raritan clay, the hydraulic-head loss across this unit is very much larger than the head loss across a comparable thickness of the Magothy and upper glacial aquifers. At the easternmost test site in the village of Lake Ronkonkoma, wells were screened near the base of the Magothy and near the top of the Lloyd aquifers (pl. 5, section A-A', S33379-80). In 1968, the head near the base of the Magothy aquifer (about 45.5 feet above sea level) was about 11.5 feet higher than the head in the Lloyd aquifer (about 34 feet above sea level). Head losses across the Raritan clay at localities east and west of the Lake Ronkonkoma area differ considerably. At Upton, about 12 miles east of the mid-island area, the head loss across the clay was about 6 feet in 1968; and at Plainview (in Nassau County), about 3 miles southwest of Melville, the head loss across the clay was about 42 feet. The differences in head loss from place to place are largely a result of differences in the vertical permeability and thickness of the Raritan clay.

The head in the Lloyd aquifer at Lake Ronkonkoma in 1968 (about 34 feet above sea level) was higher than either of the heads in the Lloyd at Upton (about 30.5 feet above sea level) and at the Suffolk-Nassau boundary (about 27.5 feet above sea level). The head in the Lloyd at Terryville, about 7 miles northeast of the Ronkonkoma area was about 21 feet above sea level in 1968, and it was 19 feet above sea level at Fire Island State Park in 1968, about 13 miles to the southwest. These data suggest that water in the Lloyd aquifer is moving radially from the Lake Ronkonkoma area. The estimated rate of horizontal movement of water in the Lloyd aquifer in the project area in 1968, was on the order of 0.1 foot per day.

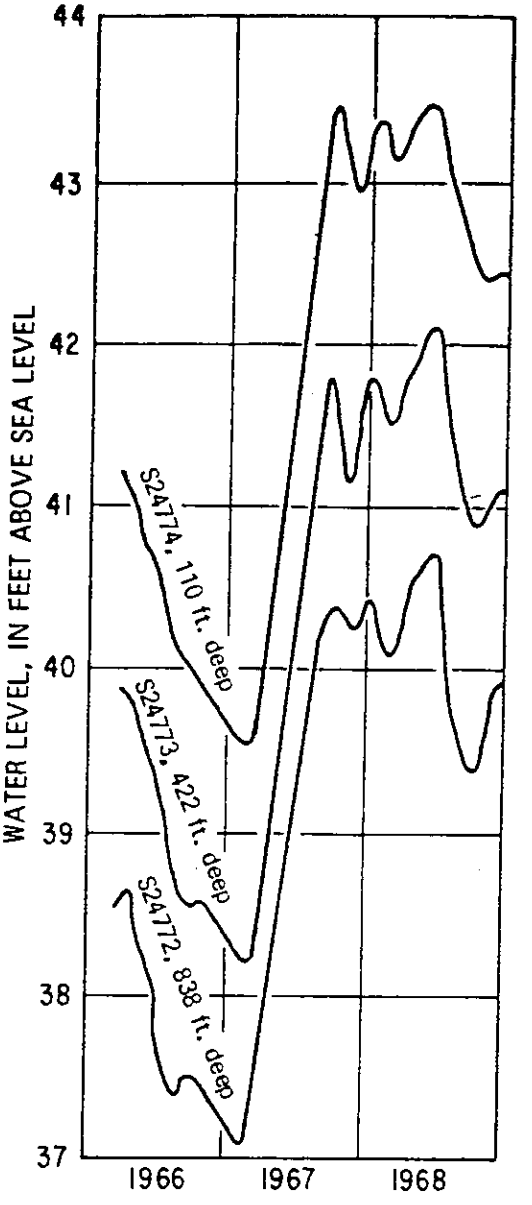


Figure 2.--Fluctuations of water levels in wells screened in the upper glacial aquifer and the Magothy aquifer at Brentwood, N. Y.

FLUCTUATIONS OF GROUND-WATER LEVELS

Fluctuations of water levels in the wells of the mid-island area reflect local variations in recharge to and discharge from the aquifers tapped by the wells. Therefore, changes in ground-water levels afford an insight into many aspects of the ground-water system. Furthermore, the information on water-level fluctuations can be used to help assess the impact of urbanization on the natural hydrologic system.

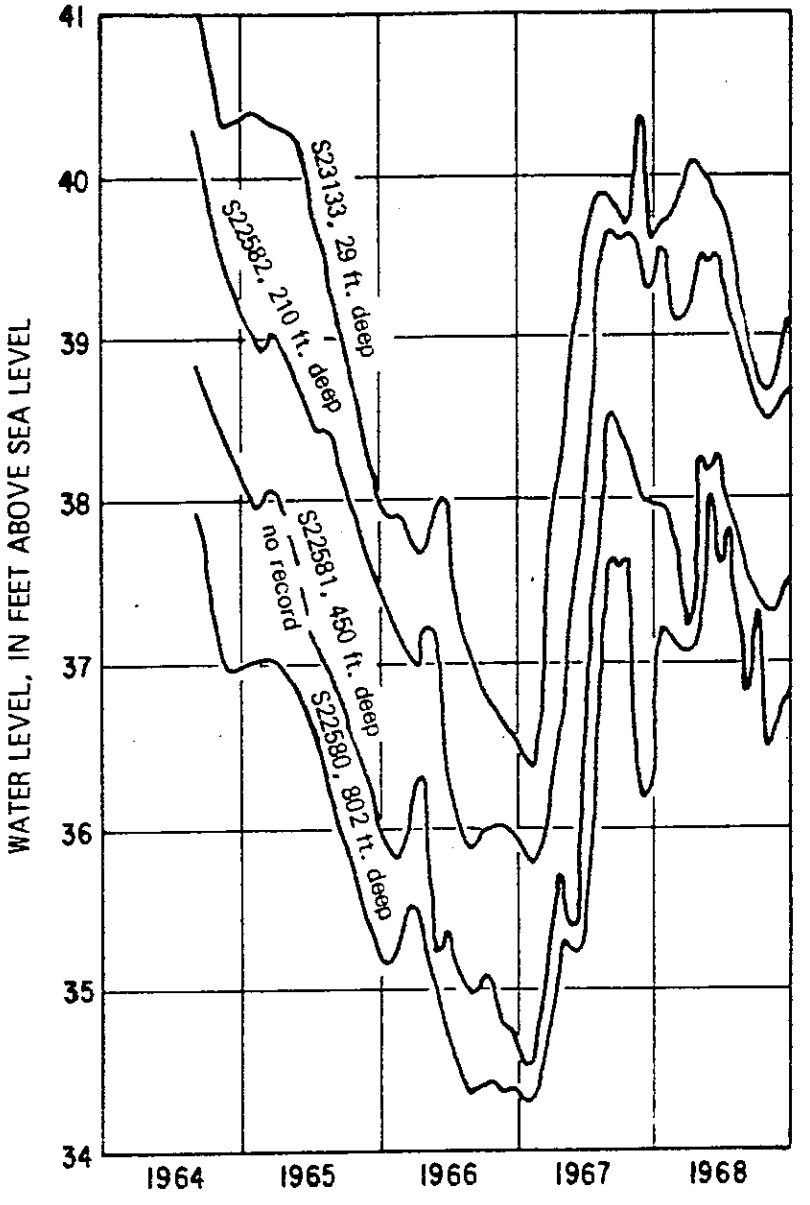


Figure 3.--Fluctuations of water levels in wells screened in the upper glacial aquifer and the Magothy aquifer at Hauppauge, N. Y.

Under natural conditions and in relatively undeveloped areas of Long Island, the water table fluctuates over a range of several feet during the year. Under such conditions, the water table has a rhythmic seasonal pattern; the lowest levels are in late autumn and highest levels are in early spring. This pattern of decline and recovery of the water table reflects the greatest losses of water through evapotranspiration during the growing season and the least such losses between growing seasons. The hydrologic systems in such undeveloped areas are in equilibrium, with inflow balancing outflow. However, if large amounts of water are continually pumped out of a ground-water system, the water table declines until equilibrium is reestablished at a lower level, reflecting a loss of ground water from storage and decreased subsurface and stream outflow from the system.

WORKSHEET: COMMUNITY WATER SUPPLIES AND MONITORING WELLS WITHIN A 3-mi RADIUS OF THE SITE Pine Rd Ecology

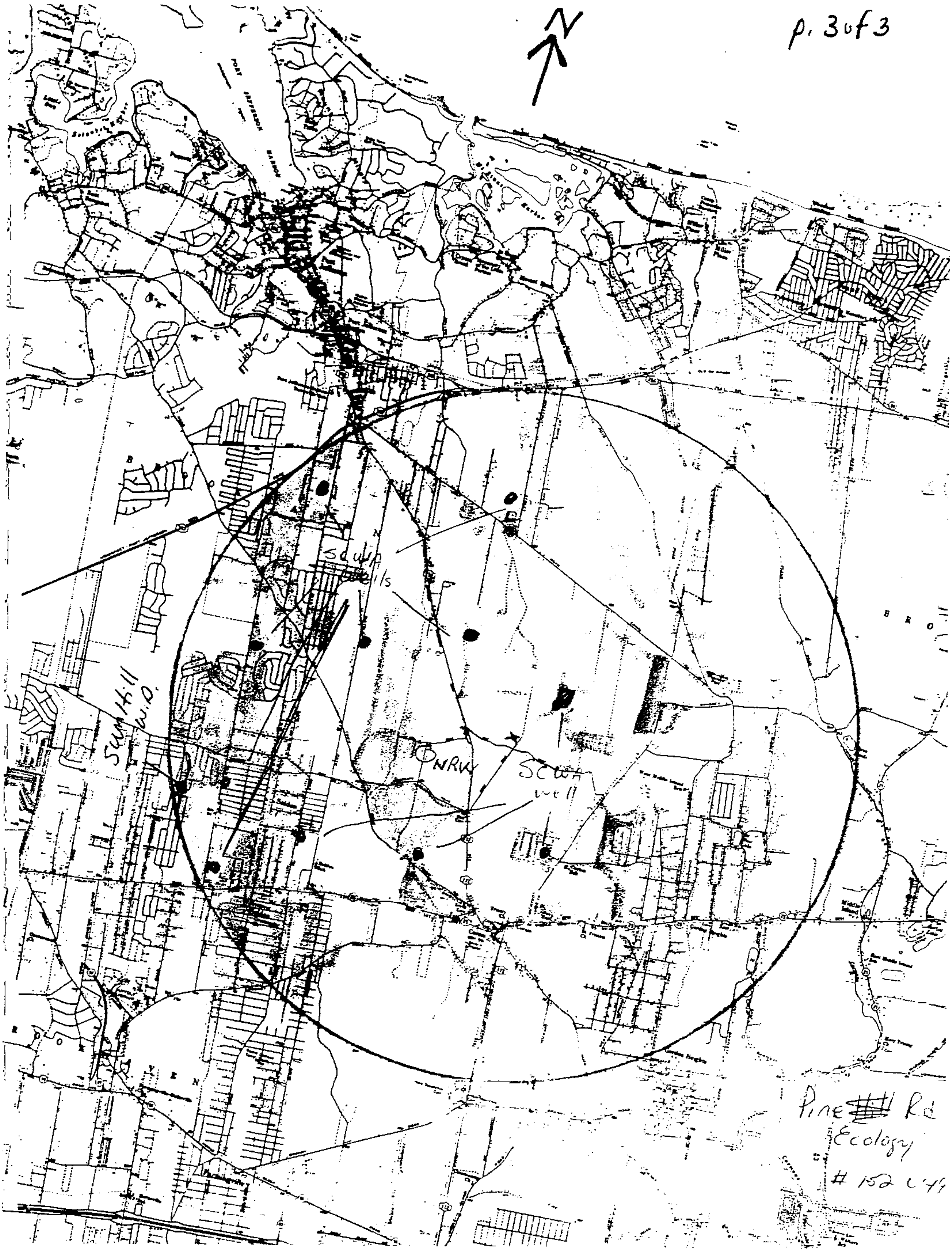
Community Water Supply	Water District	Well Field	Well	Depth (ft)	Aquifer
SunHill		Roland Rd	1S-17438	250	
			2S-20179	250	
SCWA	Port Jefferson	Mt. Skagit-Comm Rd	1S-68230	600	Glacial
		Wheat Path	1S-32180	348	Magoth
			2S-31007	344	Magoth
		Jayne Blvd	1S-14792	453	Magoth
			2S-17689	543	Magoth
			3S-23255	487	Magoth
			4S-46928	649	Magoth
		Dare Rd	1S-40331	457	Glacial
			2S-40704	484	Glacial
			3S-70451	415	Glacial
		Bicycle Path	1S-32326	150	Glacial
			2S-32325	551	Glacial
			3S-58170	551	Magoth
		Boyle Rd	1S-58761	723	Magoth
		Christian St	1S-51046	594	Glacial
			2S-55502	596	Glacial
		Boyle Rd North	1S-16309	251	Glacial
		Pine [illegible]	1S-23827	150	Glacial
			2S-23828	150	Glacial
		Flint Ln	1S-42504	232	Glacial
			2S-42505	232	Glacial
		Strathmore Ct	1S-47219	208	Glacial
			2S-47310	648	Magothy
			3S-52451	182	Glacial

WORKSHEET (cont.)

Community Water Supply	Water District	Well Field	Well	Depth (ft)	Aquifer

Sources:

SCDHS Water Resources Division. Supply and Monitoring Well Location Maps.
SCWA. 1984. Well Descriptions.
SCWA. 1985. Distribution System Plates.
SCWA. 1986. Active Services Estimates and Service Area Map.


N
PORT JEFFERSON HARBOR
SCWA
SCWA well
Ecology

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
MONITOR WELL DATA BASE
PHYSICAL WELL DATA

NYS WELL NO. S-45346 CORAM TOWN OF BROOKHAVEN

LAT. 405339 LONG. 0730030 SITE SEQ.NO.

WELL DIAMETER 06.00 IN TOTAL DEPTH 0090.00 FT

LAND SURFACE ELEVATION 125.40 FT

AQUIFIER UPPER GLACIAL
DEPTH TO WATER 070.FT

CASING LENGTH 0074.42 FT.
CASING MATERIAL STEEL
SCREENED INTERVAL 74.42-79.42
SCREEN SLOT SIZE
SCREEN INSIDE DIA. 4'N.
SCREEN MATERIAL STEEL

WELL TYPE WSTP OBS
DATE COMPLETED
WELL YIELD(GPM)

INSTALLATION METHOD CABLE TOOL
DRAWDOWN FT

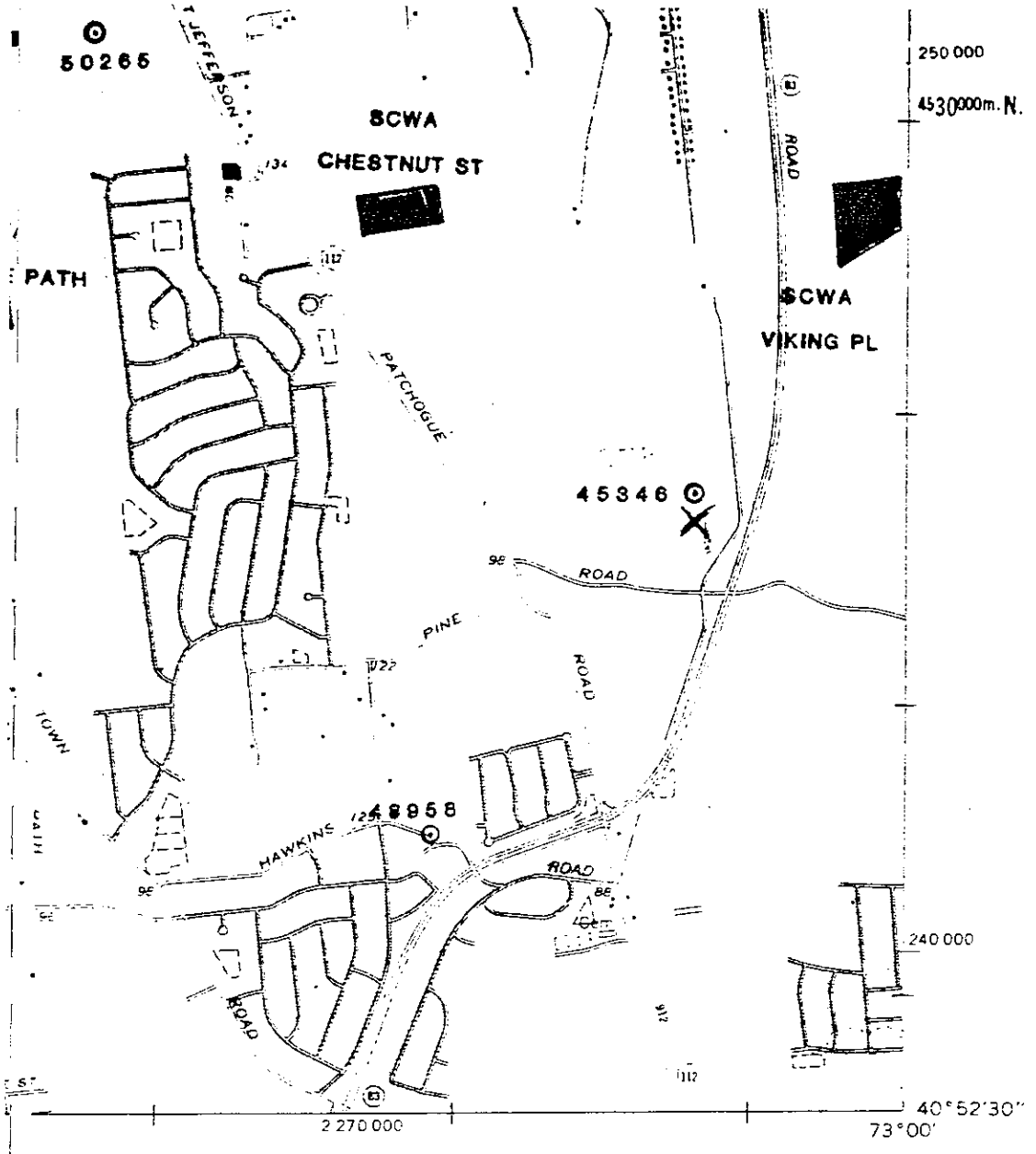
M P ELEVATION 128.00 FT
M P DESCRIPTION 4# PLUG HOLE IN 6# ADAPTER

OWNER NORTH ISLE APTS.
DRILLER STRATA WELL CORP.

WELL SUMP DIA. 4"

MAP COORDINATES 14-19,H

Appendix 1.3-6
p1 of 10



SCWA
BICYCLE PATH
1 S-32326 (160)
2 S-32325 (354)
3 S-52490 (559)

SCWA
BOYLE RD
1 S-58761 (723)

SCWA
CHESTNUT ST
1 S-51266 (594)
2 S-55502 (596)

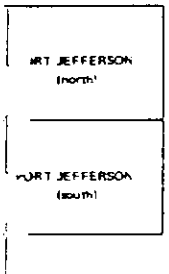
SCWA
BOYLE RD-NORTH
1 S-16308 (251)

BOUNDARIES:
State
County
Town or City
Incorporated Village
Federal-Aid Urban Area

ROADS
Touring Route markers:
Interstate
U. S.
State
State Highway number and limit
County road
Interchange number

Divided highways and streets:
Wide mall
Narrow mall or barrier
Undivided highways and streets:
4 or more lanes
Less than 4 lanes
One-way ramp; alley
Vehicle track; trail

NDEX TO
..00 (1"= 800')
IAP COVERAGE



PORT JEFFERSON QUADRANGLE
SECOND EDITION - 1972

4(ANS DICI PRO		
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419=1 3 5 TRIMETHYLBENZEN	- 3.	- 3.
428=PHENOLS MG/L		
429=1 3 DICHLORORPROPANE		
430=1 2 2 3 TETRACHLORORP		
431=1 1 1 2 TETRACHLORORP		
432=P-DIETHYLBENZENE	- 3.	- 3.
433=1 2 3 TRICHLOROPROPAN		
434=P-ETHYLTOLUENE		
435=1 2 4 5 TETRAMETHYLBE	- 3.	- 3.
436=DICHLORODIFLUOROMETHE		
437=1 2 4 TRICHLOROBENZEN	- 4.	- 4.
438=1 2 3 TRICHLOROBENZEN	- 5.	- 5.
439=TRICHLOROFLUOROMETHAN		
440=PYRENE		
441=ANTHRACENE		
ALL ORGANICS IN UG/L		
EXCEPT AS NOTED		

* *

SCDHS- TEST WELL DATA				
WELL NO.	S-45346	S-45346	S-45346	S-45346
DATE	09/14/72	03/07/75	09/12/77	05/09/80
TIME	1400	1345	1540	1400
DTW(FT)		69.840	71.660	
ION BALANCE			- 1.270	
DISCHARGE(GPM)	20.000			
	FIELD DATA	FIELD DATA	FIELD DATA	FIELD DATA
H2O TEMP(C)	13.300	16.500	13.000	
CONDUCT(UMHO)	250.000	295.000	355.000	
PH		5.700	4.800	
DO		0.900	2.600	
TOT ALK		14.000	7.500	
	===CHEMICALS===	===CHEMICALS===	===CHEMICALS===	===CHEMICALS===
LABORATORY	HEALTH DEPT.	SCDEC	SCDEC	SCDHS
SAMPLE #	21	411	1107	0
CONDUCT(UMHO)			354.0	
PH	5.900			
DO				
TOT ALK	23.000			
NO3-N	6.900	10.200	22.000	
NO2-N	0.035	0.040	0.001	
NH4-N	0.260	0.100	0.090	
KJEL TOT N				
TOT-N				
ORG N				
DIS O PHOS		0.010	0.032	
TOT D PHOS				
CL	17.000	33.000	28.000	
FL				
SO4		32.000	18.000	
CU	- 0.100	- 0.020		
FE	- 0.100	0.300	0.200	
MN	0.400	1.300	3.300	
CR				
NI				
ZN	0.110	0.050		
MG		4.700	4.500	
CA		5.500	15.000	
PB				
CD				
NA		33.000	31.000	
K		9.000	7.300	
BA				
MBAS	- 0.100		0.030	
TOC			14.000	
BOD				
COD	11.700			
TOT SOLIDS	214.000			
SUS SOLIDS				
DISS SOLIDS				
ALL VALUES MG/L EXCEPT AS NOTED				
	ORGANICS	***ORGANICS***	***ORGANICS***	***ORGANICS***
BENZENE				
TOLUENE				
O-XYLENE				
M-XYLENE				
P-XYLENE				

TOTAL KYLENE	
CHLOROBENZENE	
ETHYLBENZENE	
BROMOOENZENE	
O-CHLOROTUENE	
M-CHLORDTUENE	
P-CHLORDTUENE	
CHLOROTUENE	
META-DICHLOROBENZENE	
ORTHO-DICHLOROBENZENE	
PARA-DICHLOROBENZENE	
1 2 4 TRIMETHYLBENZENE	
2 3-DICHLOROPROPENE	
1 1 2TRICHLOROETHANE	
1 1 1 2TETRACHLOROETHANE	
METHYLENE CHLORIDE	
BROMOCHLOROMETHANE	
1 1DICHLOROETHANE	
TRAN1 2DICHLOROETHYLENE	
CHLOROFORM	- 5.
1 2DICHLOROETHANE	
1 1 1TRICHLOROETHANE	4.
CARBON TETRACHLORIDE	- 1.
1BROMO-2CHLOROETHANE	
1 2-DICHLOROPROPANE	
1 1 2TRICHLOROETHYLENE	- 5.
CHLORODIBROMOMETHANE	- 2.
1 2DIBROMOETHANE	
2BROMO 1CHLOROPROPANE	
BROMOFORM	
TETRACHLOROETHYLENE	- 5.
CIS 1 2DICHLOROETHYLENE	- 2.
TRIFLUROTRICHLOROETHANE	- 4.
DIBROMOMETHANE	
1 1DICHLOROETHYLENE	
BROMODICHLOROMETHANE	- 3.
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407=TRANS 1 3-DICHLOROPRO	
408=CIS 1 3-DICHLOROPROPA	
419=1 3 5 TRIMETHYLBENZEN	
428=PHENOLS MG/L	
429=1 3 DICHLORORPROPANE	
430=1 2 2 3 TETRACHLORORP	
431=1 1 1 2 TETRACHLORORP	
432=P-DIETHYLBENZENE	
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434=P-ETHYLTOLUENE	
435=1 2 4 5 TETRAMETHYLBE	
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437=1 2 4 TRICHLOROBENZEN	
438=1 2 3 TRICHLOROBENZEN	
439=TRICHLOROFLUOROMETHAN	
440=PYRENE	
441=ANTHRACENE	

ALL ORGANICS IN UG/L
EXCEPT AS NOTED

= =

SCDHS=
TEST WELL DATA

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DTW(FT)	66.860		67.790	
ION BALANCE	1.800		2.900	
DISCHARGE(GPM)				
	FIELD DATA	FIELD DATA	FIELD DATA	FIELD DATA
H2O TEMP(C)	13.000		14.000	
CONDUCT(UMHO)	265.000		230.000	
PH	5.100		5.100	
DO	0.550		2.300	
TOT ALK	13.200		10.800	
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LABORATORY	SCDEC	SCPH	SCDEC	SCPH
SAMPLE #	0580AEG 2289	9	0980208 2668	482160 6
CONDUCT(UMHO)	290.		245.	
PH				
DO				

p4 of 10

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108=[illegible]
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428=PHENOLS MG/L
429=1 3 DICHLORDRPROPANE
430=1 2 2 3 TETRACHLORDRP
431=1 1 1 2 TETRACHLORDRP
432=P-DIETHYLBENIENE
433=1 2 3 TRICHLOROPROPAN
434=P-ETHYLTOLUENE
435=1 2 4 5 TETRAMEIHYLBE
436=DICHLORODIFLUOROMETHE
437=1 2 4 TRICHLOROBENZEN
438=1 2 3 TRICHLOROBENZEN
439=TRICHLOROFLUOROMETHAN
440=PYRENE
441=ANTHRACENE
ALL ORGANICS IN UG/L
EXCEPT AS NOTED

SCDHS=

TEST WELL DATA				
WELL NO.	S-45346	S-45346	S-45346	S-45346
DATE	05/09/80	09/29/80	09/29/80	04/14/82
TIME	1400		1500	1430
DTW(FT)	66.860		67.790	
ION BALANCE	1.800		2.900	
DISCHARGE(GPM)				
	FIELD DATA	FIELD DATA	FIELD DATA	FIELD DATA
H2O TEMP(C)	13.000		14.000	
CONDUCT(UMHO)	265.000		230.000	
PH	5.100		5.100	
DO	0.550		2.300	
TOT ALK	13.200		10.800	
	===CHEMICALS===	===CHEMICALS===	***CHEMICALS***	***CHEMICALS***
LABORATORY	SCDEC	SCPH	SCDEC	SCPH
SAMPLE #	0580AEG 2289	9	0980208 2668	482160 6
CONDUCT(UMHO)	290.		245.	
PH				
DO				
TOT ALK				
NO3-N	10.000		7.300	
NO2-N	0.308		0.002	
NH4-N	0.050		0.070	
KJEL TOT N				
TOT-N				
ORG N				
DIS O PHOS	0.014		0.009	
TOT O PHOS				
CL	27.000		27.000	
FL				
SO4	27.000		21.000	
CU				
FE	0.240		0.400	
MN	0.400		0.260	
CR				
NI				
ZN				
MG	3.500		1.500	
CA	17.000		6.500	
PB				
CD				
NA	24.000		32.000	
K	6.500		6.400	
OA				
MBAS	0.070		0.020	
TOC	32.000			
BOD				
COD				
TOT SOLIDS				
SUS SOLIDS				
DISS SOLIDS				
ALL VALUES MG/L				
EXCEPT AS NOTED				
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BENZENE				5.
TOLUENE				5.
O-XYLENE				5.
M-XYLENE				5.
P-XYLENE				5.

P5 of 10

p 6 of 10

TOTAL XYLENE				
CHLOROBENZENE				- 7.
ETHYLBENZENE				- 5.
BROMOBENZENE				- 8.
O-CHLOROTUENE				- 6.
M-CHLOROTUENE				- 6.
P-CHLOROTUENE				- 6.
CHLOROTUENE				
META-DICHLOROBENZENE				- 7.
ORTHO-DICHLOROBENZENE				- 7.
PARA-DICHLOROBENZENE				
1 2 4 TRIMETHYLBENZENE				- 5.
2 3-DICHLOROPROPENE				
1 1 2TRICHLOROETHANE				
1 1 1 2TETRACHLOROETHANE				
METHYLENE CHLORIDE				
BROMOCHLOROMETHANE				
1 1DICHLOROETHANE				
TRAN1 2DICHLOROETHYLENE				
CHLOROFORM		- 5.		- 5.
1 2DICHLOROETHANE				
1 1 1TRICHLOROETHANE		- 2.		- 2.
CARBON TETRACHLORIDE		- 1.		- 1.
1BROMO-2CHLOROETHANE				
1 2-DICHLOROPROPANE				
1 1 2TRICHLOROETHYLENE		- 5.		- 5.
CHLORODIBROMOMETHANE		- 2.		- 1.
1 2DIBROMOETHANE				
2BROMO 1CHLOROPROPANE				
BROMOFORM		- 5.		- 5.
TETRACHLOROETHYLENE		- 2.		- 2.
CIS 1 2DICHLOROETHYLENE				
TRIFLUROTRICHLOROETHANE		- 4.		- 4.
DIBROMOMETHANE				
1 1DICHLOROETHYLENE				
BROMODICHLOROMETHANE		- 3.		- 3.
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407=TRANS 1 3-DICHLOROPRO				
408=CIS 1 3-DICHLOROPROPA				
419=1 3 5 TRIMETHYLBENZEN				- 5.
428=PHENOLS MG/L				
429=1 3 DICHLORORPROPANE				
430=1 2 2 3 TETRACHLORORP				
431=1 1 1 2 TETRACHLORORP				
432=P-DIETHYLBENZENE				
433=1 2 3 TRICHLOROPROPAN				
434=P-ETHYLTOLUENE				
435=1 2 4 5 TETRAMETHYLBE				
436=DICHLORODIFLUOROMETHE				
437=1 2 4 TRICHLOROBENZEN				
438=1 2 3 TRICHLOROBENZEN				
439=TRICHLOROFLUOROMETHAN				
440=PYRENE				
441=ANTHRACENE				
ALL ORGANICS IN UG/L				
EXCEPT AS NOTED				

= =

SCDHS=				
TEST WELL DATA				
WELL NO,	S-45346	S-45346	S-45346	S-45346
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TIME	1430		1300	1300
DTW(FT)	72.720		70.790	72.740
ION BALANCE	3.900		5.100	
DISCHARGE(GPM)				
	FIELD DATA	FIELD DATA	FIELD DATA	FIELD DATA
H2O TEMP(C)	14.000		13.000	12.000
CONDUCT(UMHO)			260.000	220.000
PH	5.300		5.400	5.100
DO			5.200	7.300
TOT ALK	14.800		17.300	8.100
	===CHEMICALS===	===CHEMICALS===	===CHEMICALS===	===CHEMICALS===
LABORATORY	SCPH	SCPH	SCPH	SCDHS
SAMPLE #	257	8	1082137 250	583491 - 7
CONDUCT(UMHO)	268.		410.	
PH				
DO				

407=... S 1 ... CHLC... O
408=CIS 1 3-DICHLOROPROPA
419=1 3 5 TRIMETHYLBENZEN
428=PHENOLS MG/L
429=1 3 DICHLOROPROPANE
430=1 2 2 3 TETRACHLORORP
431=1 1 1 2 TETRACHLORORP
432=P-DIETHYLBENZENE
433=1 2 3 TRICHLOROPROPAN
434=P-ETHYLTOLUENE
435=1 2 4 5 TETRAMETHYLBE
436=DICHLORODIFLUORDMETHE
437=1 2 4 TRICHLOROBENZEN
438=1 2 3 TRICHLOROBENZEN
439=TRICHLOROFLUOROMETHAN
440=PYRENE
441=ANTHRACENE
ALL ORGANICS IN UG/L
EXCEPT AS NOTED

- 5.

* *

SCDMS= TEST WELL DATA				
WELL NO.	S-45346	S-45346	S-45346	S-45346
DATE	04/14/82	05/09/82	10/12/82	05/24/83
TIME	1430		1300	1300
DTW(FT)	72.720		70.790	72.740
ION BALANCE	3.900		5.100	
DISCHARGE(GPM)				
	FIELD DATA	FIELD DATA	FIELD DATA	FIELD DATA
H2O TEMP(C)	14.000		13.000	12.000
CONDUCT(UMHO)			260.000	220.000
PH	5.300		5.400	5.100
DO			5.200	7.800
TOT ALK	14.800		17.300	8.100
	===CHEMICALS===	===CHEMICALS===	***CHEMICALS***	***CHEMICALS***
LABORATORY	SCPH	SCPH	SCPH	SCDHS
SAMPLE #	257	8	1092137 250	583491 - 7
CONDUCT(UMHO)	288.		410.	
PH				
DO				
TOT ALK				
NO3-N	10.000		24.000	7.900
NO2-N	- 0.002		0.008	
NH4-N	0.100		- 0.100	0.100
KJEL TOT N				
TOT-N				
ORG N				
DIS O PHOS	0.000		0.035	
TOT O PHOS				
CL	25.000		24.000	21.000
FL				
SO4	26.000		21.000	24.000
CU				- 0.100
FE	0.400		0.700	0.760
MN	0.240		0.530	0.200
CR				
NI				
ZN				- 0.400
MG	4.400		7.000	
CA	17.000		30.000	
PB				
CD				
NA	22.000		24.000	19.800
K	8.200		13.000	
BA				
MBAS				- 0.100
TOC				
OOD				
COD				
TOT SOLIDS				
SUS SOLIDS				
DISS SOLIDS				
ALL VALUES MG/L EXCEPT AS NOTED	===ORGANICS===	===ORGANICS===	***ORGANICS***	***ORGANICS***
BENZENE			- 5.	- 3.
TOLUENE			- 5.	- 3.
O-XYLENE			- 5.	- 3.
M-XYLENE			- 5.	- 3.
P-XYLENE			- 5.	- 3.

p7.f10

TOTAL XYLENE			
CHLOROBENZENE		- 6.	- 3.
ETHYLBENZENE		- 5.	- 3.
BROMOBENZENE		- 8.	- 4.
O-CHLOROTUENE		- 6.	- 3.
M-CHLOROTUENE		- 6.	- 3.
P-CHLOROTUENE		- 6.	- 3.
CHLOROTUENE			
META-DICHLOROBENZENE		- 7.	- 4.
ORTHO-DICHLOROBENZENE		- 7.	- 4.
PARA-DICHLOROBENZENE			- 3.
1 2 4 TRIMETHYLBENZENE		- 5.	- 3.
2 3-DICHLOROPROPENE			
1 1 2TRICHLOROETHANE		- 5.	- 5.
1 1 1 2TETRACHLOROETHANE			
METHYLENE CHLORIDE			
BROMOCHLOROMETHANE			
1 1DICHLOROETHANE			
TRANS 2DECHLOROETHYLENE			
CHLOROFORM	- 5.	- 5.	- 5.
1 2DICHLOROETHANE			
1 1 1TRICHLOROETHANE	4.	- 2.	- 2.
CARBON TETRACHLORIDE	- 1.	- 1.	- 1.
1BROMO-2CHLOROETHANE			
1 2-DICHLOROPROPANE			
1 1 2TRICHLOROETHYLENE	- 5.	- 5.	- 5.
CHLORODIBROMOMETHANE	- 2.	- 2.	- 2.
1 2DIBROMOETHANE			
2BROMO 1CHLOROPROPANE			
BROMOFORM	- 5.	- 5.	- 5.
TETRACHLOROETHYLENE	- 2.	- 2.	- 2.
CIS 1 2DICHLOROETHYLENE			
TRIFLUROTRICHLOROETHANE	- 4.	- 5.	- 4.
DIBROMOMETHANE			
1 1DICHLOROETHYLENE			
BROMODICHLOROMETHANE	- 3.	- 3.	- 3.
295=1 1 2 2 TETRACHLOROET		- 3.	- 3.
407=TRANS 1 3-DICHLOROPRO			
408=CIS 1 3-DICHLOROPROPA			
419=1 3 5 TRIMETHYLBENZEN		- 5.	- 3.
428=PHENOLS MG/L			
429=1 3 DICHLORORPROPANE			
430=1 2 2 3 TETRACHLORORP			
431=1 1 1 2 TETRACHLORORP			
432=P-DIETHYLBENZENE		- 5.	
433=1 2 3 TRICHLOROPROPAN			
434=P-ETHYLTOLUENE			
435=1 2 4 5 TETRAMETHYLBE			- 3.
436=DICHLORODIFLUOROMETHE			
437=1 2 4 TRICHLOROBENZEN			
438=1 2 3 TRICHLOROBENZEN			
439=TRICHLOROFLUOROMETHAN			
440=PYRENE			
441=ANTHRACENE			

ALL ORGANICS IN UG/L
EXCEPT AS NOTED

= =

SCDHS=			
TEST WELL DATA			
WELL NO.	S-45346	S-45346	S-45346
DATE	09/26/83	09/28/83	04/08/85
TIME	1400	1400	1000
DTW(FT)	69.140		66.690
ION BALANCE			
DISCHARGE(GPM)			
	FIELD DATA	FIELD DATA	FIELD DATA
H2O TEMP(C)	13.000		14.000
CONDUCT(UMHO)	220.000		215.000
PH			
DO	6.600		5.100
TOT ALK			87.000
	CHEMICALS	***CHEMICALS***	***CHEMICALS***
LABORATORY	SCDHS	SCDHS	D2
SAMPLE #	- 13	983477 0	485190
CONDUCT(UMHO)			
PH			
DO			

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419=1 3 5 TRIMETHYLBENZEN	- 5.		- 3.
428=PHENOLS MG/L			
429=1 3 DICHLOROPROPANE			
430=1 1 2 2 TETRACHLORDRP			
431=1 1 1 2 TETRACHLORDRP			
432=P-DIETHYLBENZENE	- 5.		
433=1 2 3 TRICHLOROPROPAN			
434=P-ETHYLTOLUENE			
435=1 2 4 5 TETRAMETHYLBE			- 3.
436=DICHLORODIFLUOROMETHE			
437=1 2 4 TRICHLOROBENZEN			
438=1 2 3 TRICHLOROBENZEN			
439=TRICHLOROFLUOROMETHAN			
440=PYRENE			
441=ANTHRACENE			
ALL ORGANICS IN UG/L EXCEPT AS NOTED			

SCDHS=			
TEST WELL DATA			
WELL NO.	S-45346	S-45346	S-45346
DATE	09/26/83	09/28/83	04/08/85
TIME	1400	1400	1000
DTW(FT)	69.140		66.690
ION BALANCE			
DISCHARGE(GPM)			
	FIELD DATA	FIELD DATA	FIELD DATA
H2O TEMP(C)	13.000		14.000
CONDUCT(UMHO)	220.000		215.000
PH			
DO	6.600		5.100
TOT ALK			87.000
	CHEMICALS	***CHEMICALS***	***CHEMICALS***
LABORATORY	SCDHS	SCDHS	OZ
SAMPLE #	- 13	983477 0	485190
CONDUCT(UMHO)			
PH			
DO			
TOT ALK			
NO3-N	19.000		- 0.200
NO2-N	0.003		0.008
NH4-N	- 0.050		0.200
KJEL TOT N			
TOT-N			
ORG N			
DIS O PHOS			
TOT O PHOS			
CL	21.000		20.000
FL			
SO4			12.000
CU			
FE	0.300		0.200
MN	0.340		0.060
CR			
NI			
ZN			
MG			3.400
CA			15.000
PB			
CD			
NA			33.000
K	8.000		12.000
BA			
MBAS			
TOC			
BOD			
COD			
TOT SOLIDS			
SUS SOLIDS			
DISS SOLIDS			
ALL VALUES MG/L EXCEPT AS NOTED			
	ORGANICS	***ORGANICS***	***ORGANICS***
BENZENE		- 3.	- 3.
TOLUENE		- 3.	- 3.
O-XYLENE		- 3.	- 3.
M-XYLENE		- 3.	- 3.
P-XYLENE		- 3.	- 3.

TOTAL XYLENE		
CHLOROBENZENE	- 3.	- 3.
ETHYLBENZENE	- 3.	- 3.
BROMOBENZENE	- 4.	- 4.
O-CHLOROTUENE	- 3.	- 3.
M-CHLOROTUENE	- 3.	- 3.
P-CHLOROTUENE	- 3.	- 3.
CHLOROTUENE		
META-DICHLOROBENZENE	- 4.	- 4.
ORTHO-DICHLOROBENZENE	- 4.	- 4.
PARA-DICHLOROBENZENE		
1 2 4 TRIMETHYLBENZENE	- 3.	- 3.
2 3-DICHLOROPROPENE		
1 1 2TRICHLOROETHANE	- 5.	- 5.
1 1 1 2TETRACHLOROETHANE		
METHYLENE CHLORIDE		
BROMOCHLOROMETHANE		
1 1DICHLOROETHANE		
TRAN1 2DICHLOROETHYLENE		
CHLOROFORM	- 5.	- 5.
1 2DICHLOROETHANE		
1 1 1TRICHLOROETHANE	- 2.	- 2.
CARBON TETRACHLORIDE	- 1.	- 1.
1BROMO-2CHLOROETHANE		
1 2-DICHLOROPROPANE		
1 1 2TRICHLOROETHYLENE	- 5.	- 5.
CHLORODIBROMOMETHANE	- 2.	- 2.
1 2DIBROMOETHANE		
2BROMO 1CHLOROPROPANE		
BROMOFORM	- 5.	- 5.
TETRACHLOROETHYLENE	- 2.	- 2.
CIS 1 2DICHLOROETHYLENE	- 4.	- 4.
TRIFLUROTRICHLOROETHANE	- 4.	- 4.
DIBROMOMETHANE		
1 1DICHLOROETHYLENE		
BROMODICHLOROMETHANE	- 3.	- 3.
295=1 1 2 2 TETRACHLOROET	- 3.	- 3.
407=TRANS 1 3-DICHLOROPRO		
408=CIS 1 3-DICHLOROPROPA		
419=1 3 5 TRIMETHYLBENZEN	- 3.	- 3.
428=PHENOLS MG/L		
429=1 3 DICHLORORPROPANE		
430=1 2 2 3 TETRACHLORORP		
431=1 1 1 2 TETRACHLORORP		
432=P-DIETHYLBENZENE	- 3.	- 3.
433=1 2 3 TRICHLOROPROPAN		
434=P-ETHYLTOLUENE		
435=1 2 4 5 TETRAMETHYLBE	- 3.	- 3.
436=DICHLORODIFLUDROMETHE		
437=1 2 4 TRICHLOROBENZEN	- 2.	- 4.
438=1 2 3 TRICHLOROBENZEN	- 3.	- 5.
439=TRICHLOROFLUORDMETHAN		
440=PYRENE		
441=ANTHRACENE		
ALL ORGANICS IN UG/L		
EXCEPT AS NOTED		

= =

SCDHS- TEST WELL DATA				
WELL NO.	S-46965	S-46965	S-46965	S-46965
DATE	02/23/73	11/07/74	05/09/75	03/15/76
TIME		1303	1120	1445
DTW(FT)		118.170	119.100	116.870
ION BALANCE	0.530			
DISCHARGE(GPM)	30.000			
	FIELD DATA	FIELD DATA	FIELD DATA	FIELD DATA
H2O TEMP(C)	10.500	11.000	11.500	11.000
CONDUCT(UMHO)	225.000	340.000	315.000	310.000
PH		6.000	6.100	5.800
DO			9.600	9.100
TOT ALK			15.200	15.000
	===CHEMICALS===	===CHEMICALS===	===CHEMICALS===	===CHEMICALS===
LABORATORY	USGS	SCDEC	SCDEC	SCDEC
SAMPLE #	55	117443 310	0575186 497	737
CONDUCT(UMHO)	216.0			
PH	6.000			
DO	6.850			

Appendix 1.4-1

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EA SCIENCE AND TECHNOLOGY
A Division of EA Engineering, Science, and Technology, Inc.

COMMUNICATIONS RECORD FORM

Distribution: ( ) File 15204/9, ( ) _____
( ) _____, ( ) _____
( ) Author

Person Contacted: Mr. James H. Pim Date: 12/10/85

Phone Number: (516) 451-4634 Title: P.E.

Affiliation: SCDHS Type of Contact: In person

Address: 15 Horseblock Pl. Person Making Contact: Going/Ligotino
Farmingville, NY 11738

Communications Summary: Re: Pine Road Ecology Site

Mr. Pim stated that this site probably didn't receive hazardous wastes. He provided the attached informational status sheet for Suffolk Co. landfills.

(see over for additional space)

Signature: William L. Going

LANDFILL LOCATION MAP NOS. 1 & 2

INFORMATIONAL STATUS SHEET

A - Active
C - Closed
T - Transfer
B - Brush
S - Scavenger
L - Compost
W - Waste Oil
R - Resource Recovery

	LOCATION	STATUS
	Babylon - Gleam St., W. Babylon	A S
	Huntington - Old Deposit Rd., E. Northport	A, R, W
3	Smithtown - Baler & Landfill, Old Northport Rd., Kings Park	A, R, W, B
	Smithtown Landfill - Old Northport Rd., Kings Park	C
	Islip - Sonja Rd., Deer Park	C S
6	Saltaire Incineration - Fire Island, NY	A
	Fire Island Pines - Utilizing Barges	C
	Montclair Avenue, Smithtown	C
	S. Montclair Avenue, Rear Highway Dept.	C
	Islip Landfill, Blydenburgh Rd., Hauppauge	A S
	Islip Landfill, Lincoln Avenue, Sayville	A, B, W, R S
	Brookhaven Landfill, Holtsville	C
	Pine Road Ecology, Coram	A, L
	Brookhaven Landfill, Horseblock Rd., Yaphank	A, B, R, W
	Brookhaven National Laboratory	A
	Brookhaven Landfill, Paper Mill Rd., Manorville	A, T, L S
	Brookhaven Landfill, Yaphank Rd., Center Moriches	C
	Riverhead Landfill, N/S Youngs Rd., Riverhead	C S
	Riverhead Landfill, S/S Youngs Rd., Riverhead	A, R, N S
	Eastport Landfill, Rte. 27, Eastport	C
	Westhampton, Old Country Rd., Westhampton Beach	A, C, T, S
	Westhampton Landfill, S. Country Road, Quogue	C S
	Old Quogue Landfill, S. Country Road, Quogue	C
	Hampton Bays, Jackson Ave., Hampton Bays	A, T, B, C
	Southold Landfill, Sound Ave., Cutchogue	A, S, R, W
	Old North Sea Landfill	C S
	North Sea Landfill, Major Path	A, S
8	Shelter Island Landfill	A, R, S
	Sag Harbor Landfill, Sag Harbor Tpke., Bridgehampton	A, B, T S
	Bulls Path Landfill	A, B C
1	East Hampton Landfill, Springs, East Hampton	A, R, S
2	Hither Hills Landfill, Main Rd., Montauk	A, R, S
	Fishers Island Landfill	A S

Landfills which may have received hazardous wastes

(47-15-11 (10/83)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF SOLID AND HAZARDOUS WASTE

INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

PRIORITY CODE: _____ SITE CODE: 152049

NAME OF SITE: Pine Road Ecology Site REGION: 1

STREET ADDRESS: Pine Road and Gibbs Road

TOWN/CITY: Town of Brookhaven COUNTY: Suffolk

NAME OF CURRENT OWNER OF SITE: Town of Brookhaven

ADDRESS OF CURRENT OWNER OF SITE: 201 South Ocean Avenue

TYPE OF SITE: OPEN DUMP [X] STRUCTURE [ ] LAGOON [ ]
LANDFILL [ ] TREATMENT POND [ ]

ESTIMATED SIZE: 10 ACRES

SITE DESCRIPTION:

The Pine Road Ecology site was owned and operated by the Town of Brookhaven and was used as an open burning, mixed municipal refuse disposal area from the early 1930's till its closing in 1965. In 1971 the site was developed as an Ecology Site to promote the composting of leaves and to educate the Town residents in various composting methods.

HAZARDDUS WASTE DISPOSED: CONFIRMED [ ] SUSPECTED [ ]

TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
None documented	None documented

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

_____, 19___ TO _____, 19___

OWNER(S) DURING PERIOD OF USE: Town of Brookhaven

SITE OPERATOR DURING PERIOD OF USE: Same

ADDRESS OF SITE OPERATOR: 201 South Ocean Avenue, Patchogue, New York 11772

ANALYTICAL DATA AVAILABLE: AIR ☐ SURFACE WATER ☐ GROUNDWATER ☐
SOIL ☐ SEDIMENT ☐ NONE ☒

CONTRAVENTION OF STANDARDS: GROUNDWATER ☐ DRINKING WATER ☐
SURFACE WATER ☐ AIR ☐

SOIL TYPE: Sand

DEPTH TO GROUNDWATER TABLE: Approximately 60 feet

LEGAL ACTION: TYPE: _____ STATE ☐ FEDERAL ☐
STATUS: IN PROGRESS ☐ COMPLETED ☐
REMEDIAL ACTION: PROPOSED ☐ UNDER DESIGN ☐
IN PROGRESS ☐ COMPLETED ☐

NATURE OF ACTION: _____

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

None known.

ASSESSMENT OF HEALTH PROBLEMS:

None known.

PERSON(S) COMPLETING THIS FORM:

FOR NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NAME EA Science and Technology
TITLE _____
NAME _____
TITLE _____
DATE: 20 May 1986

NEW YORK STATE DEPARTMENT OF HEALTH

NAME _____
TITLE _____
NAME _____
TITLE _____
DATE: _____