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ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

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PHASE II INVESTIGATION

Hazardous Waste Disposal
Site No. 152113
Town of Babylon, Suffolk County
Final - December, 1991

Prepared for:
New York State
Department of
Environmental Conservation

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Division of Hazardous Waste Remediation
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317413

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

HAZARDOUS WASTE DISPOSAL SITE

SITE NO. 152113

TOWN OF BABYLON, SUFFOLK COUNTY, NEW YORK

FINAL - DECEMBER 1991

RECEIVED
DEC 31 1991

PREPARED FOR:

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
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I. EXECUTIVE SUMMARY

Gibbs & Hill, Inc. (G&H) has entered into a consulting services agreement with the New York State Department of Environmental Conservation (NYSDEC) Division of Hazardous Waste Remediation to conduct preliminary investigations (Phase I) and field investigations (Phase II) at inactive hazardous waste disposal sites in New York State. This report presents the results of the Phase II investigation of the Hazardous Waste Disposal (HWD) site (NYSDEC Site ID No. 152113) performed by G&H. A Phase I investigation of this site was completed in July 1988 by Roux Associates, Inc.

The HWD site is located in the Town of Babylon, Suffolk County, New York. The site is owned by Little Joseph Realty, Farmingdale, New York. The property was rented by the realty company to George Lawrence, who operated his company, HWD, Inc., from 1979 to 1982. The site was used to store, treat, and dispose of hazardous waste during this period. A large number of drums containing liquid waste were stored at the site.

During the inspection conducted by the EPA in 1981, approximately 1,900, 55-gallon drums of spent solvents and a

2,500-gallon acid tank were observed at the site. The majority of the drums were leaking. During the site visit conducted by the Suffolk County Department of Health Services in 1982, approximately 840 55-gallon drums containing waste and 420 empty 55-gallon drums were observed at the site. Spills were noted in the storage area.

A Phase II investigation of the site was conducted to gather information to classify the site and to calculate the final Hazard Ranking System (HRS) scores. Field investigations included a site reconnaissance; geophysical survey with a magnetometer; installation of four groundwater monitoring wells; and the collection of five groundwater samples, three surface water/sediment sample pairs, and six soil samples.

The results of the groundwater analysis show evidence of migration of seven chlorinated hydrocarbon contaminants from the site. Results of soil samples show the presence of three of these compound on site.

The final scores for the site based on the results of this Phase II investigation have been calculated as follows:

$S_M = 37.82$

$S_{gw} = 65.38$

$S_{sw} = 2.38$

$S_a = 0.00$

S_{FE} = Not applicable

$S_{DC} = 25.00$

The S_M score reflects the potential for harm due to migration of hazardous substances away from the facility. It is the composite of a score for groundwater (S_{gw}), surface water (S_{sw}), and air (S_a) transport routes. The S_{FE} score reflects the potential for harm from substances that can explode or cause fires, and the S_{DC} score reflects the potential for harm from direct contact with hazardous substances.

SITE LOCATION MAP

SITE: HAZARDOUS WASTE DISPOSAL **FIGURE: I-1**

MAP SOURCE: USGS MAP

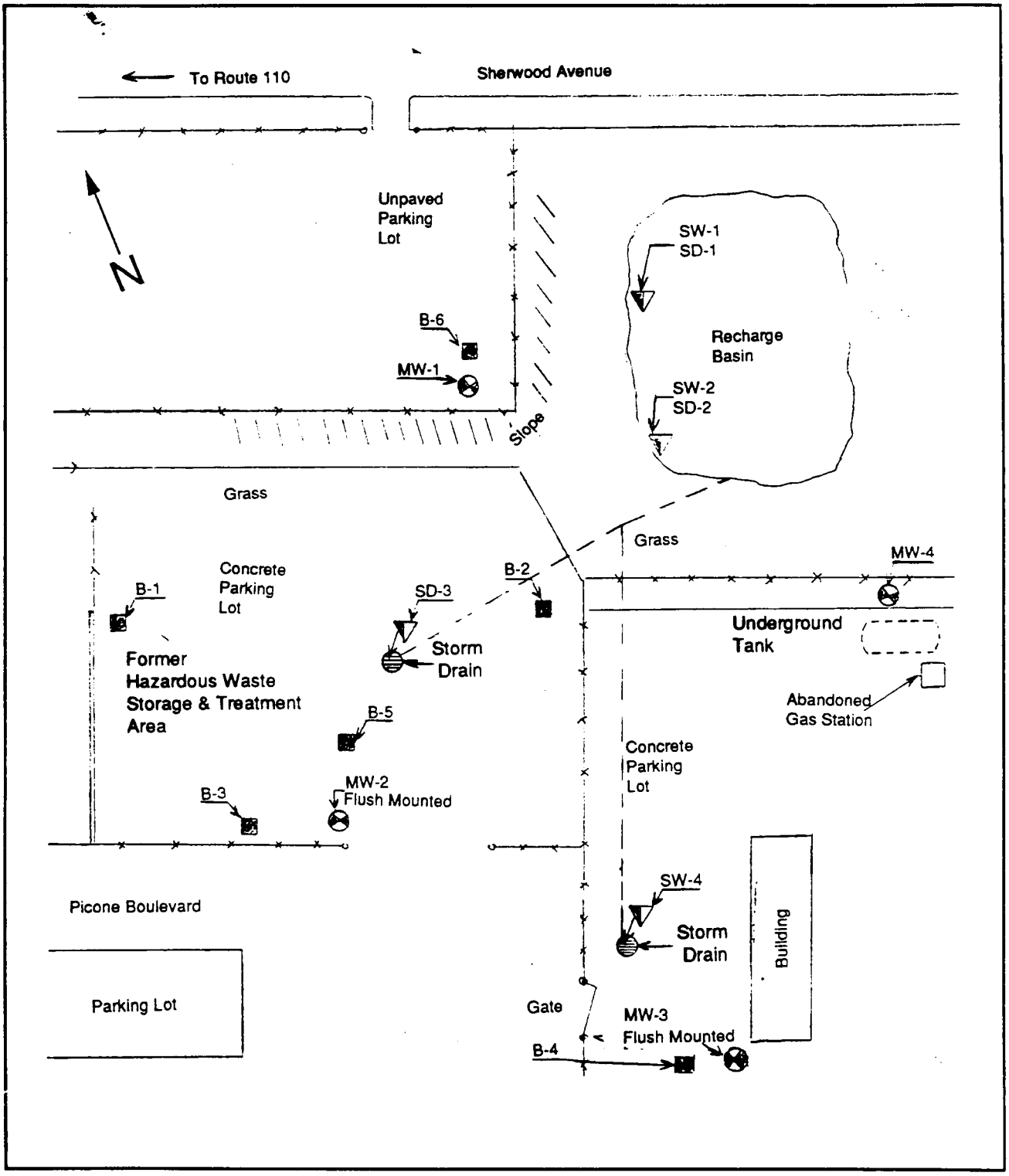
AMITYVILLE QUAD. (1979) **SCALE 1" = 2000'**
HUNTINGTON QUAD. (1979)
SUFFOLK COUNTY, NEW YORK
7.5 MINUTE SERIES (TOPOGRAPHIC)

COORDINATES:

LATITUDE: 40° 44' 32"
LONGITUDE: 73° 25' 13"

GIBBS & HILL, INC.

SITE SKETCH



Not To Scale

Site: Hazardous Waste Disposal

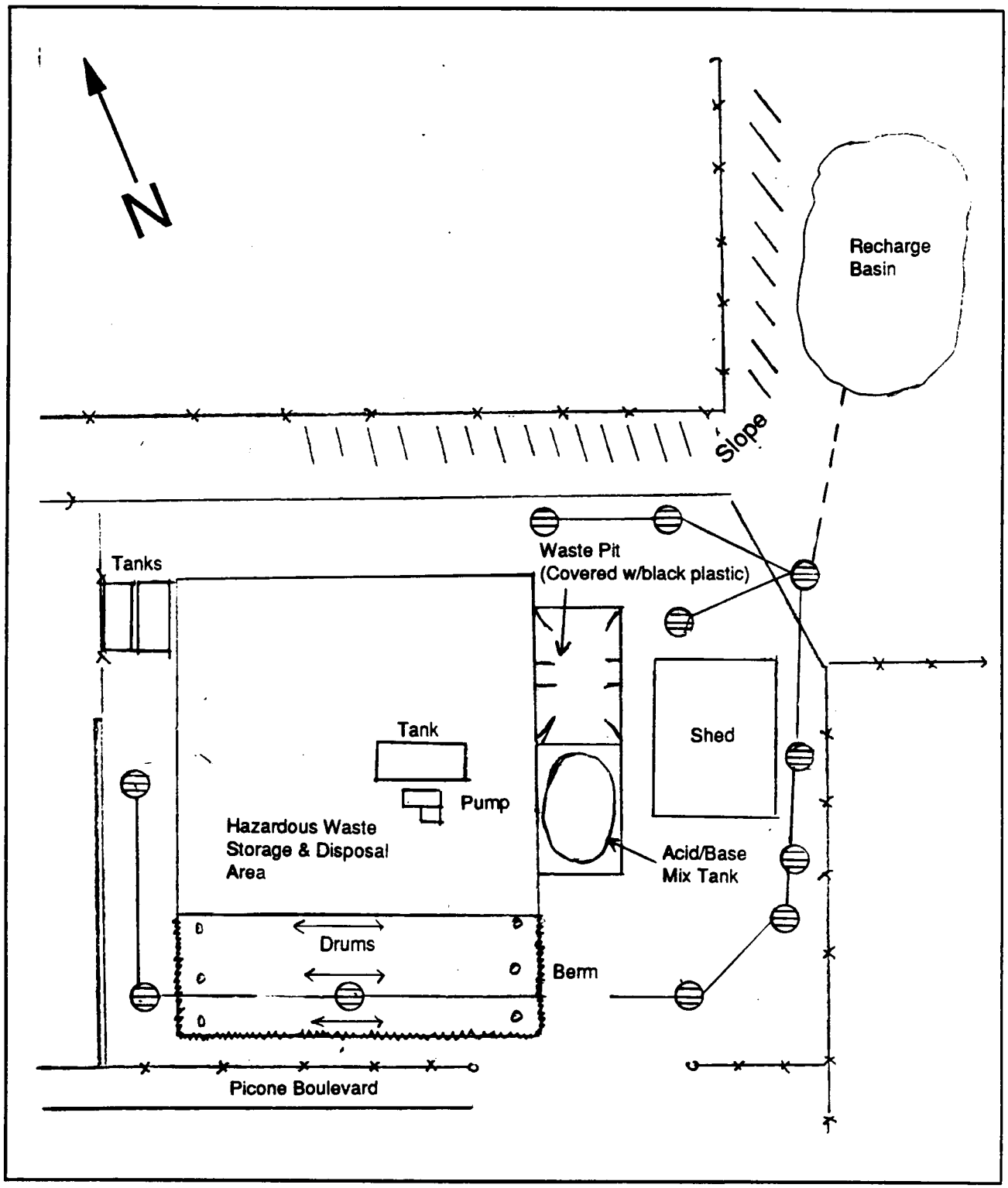
Figure I-2

LEGEND

- Storm Drain
- Monitoring well
- Soil Sample
- Surface Water and/or Sediment Samples

GIBBS & HILL, INC.

SITE SKETCH (Early 1980's)



Not To Scale

Site: Hazardous Waste Disposal

Figure I-3

LEGEND

⊖ Storm Drain

GIBBS & HILL, INC.

II. PURPOSE

The objective of a New York State Superfund Phase II investigation is to determine if contaminants are present at an inactive hazardous waste site with a resulting adverse impact on human population and/or the environment.

The goal of this investigation was to collect the information required to classify the site and to develop final HRS scores. This included collecting necessary field data to identify the occurrence and characteristics of contamination and to determine if a release of contaminants from the site has occurred. This information will be used by the NYSDEC to determine if any imminent and/or significant environmental or health hazards exist. These objectives were accomplished through the installation of groundwater monitoring wells and the sampling and analysis of groundwater, surface water, sediment, and soil in accordance with NYSDEC protocols and guidelines.

III. SCOPE OF WORK

A. INTRODUCTION

Gibbs & Hill, Inc. (G&H) entered into a consulting services agreement on October 16, 1986 with the New York State Department of Environmental Conservation (NYSDEC) Division of Hazardous Waste Remediation to conduct preliminary investigations (Phase I) and field investigations (Phase II) at inactive hazardous waste disposal sites in New York State. G&H and its subcontractors completed Phase I investigations of 30 sites and Phase II investigations of 25 sites under the provisions of this agreement.

The original agreement was amended March 20, 1990 to include an additional 20 sites to receive Phase II investigations. This report presents the results of the Phase II investigation of the Hazardous Waste Disposal (HWD) site (NYSDEC Site ID No. 152113) performed by G&H. A Phase I investigation of this site was completed in July 1988 by Roux Associates, Inc.

The Phase II field investigations at the HWD site began in May 1990 and were completed in December 1990. An updated work plan (Appendix A), approved by the NYSDEC, was prepared by G&H to define the scope of drilling and sampling activities at the site. The Phase II investigation consisted of a review of

relevant literature, field investigations, and the preparation of final HRS scores. Field activities included an initial site reconnaissance; a geophysical investigation; the installation of groundwater monitoring wells; groundwater, soil, surface water, and sediment sampling and analysis; and air quality monitoring. The scope of work of the investigation is summarized in Table III-1.

B. GEOPHYSICAL SURVEY

A geophysical survey was conducted at the site during site reconnaissance. A magnetometer was used at proposed monitoring well locations to detect ferromagnetic objects which might be encountered during drilling. Results of the magnetometer survey indicated that there were no buried ferromagnetic objects in the vicinity of the proposed monitoring wells. In order to verify that there are no non-ferromagnetic utility lines buried at the proposed monitoring well locations, the Underground Facilities Protection Organization (UFPO) was also notified about our drilling activities at the site. The UFPO responded that there were no buried lines in the vicinity of the drilling locations.

C. MONITORING WELL INSTALLATION

Four monitoring wells (MW-1 through MW-4) were installed to establish the groundwater quality, stratigraphy, and flow direction of the aquifer beneath the site. The locations of

these wells are shown in Figure I-2. Local flow direction places well MW-1 in the upgradient position; wells MW-2 and MW-3 in the downgradient positions; and well MW-4 in a sidegradient position. Upgradient well samples are designed to provide background water quality, and downgradient water samples to detect contaminants discharged from the landfill into the aquifer.

Monitoring well locations and specifications are shown in the table below.

MONITORING WELL LOCATIONS AND SPECIFICATIONS

Well No.	Location	Boring Depth, ft.	Well Type
MW-1	Upgradient	28.5	Overburden
MW-2	Downgradient	22.5	Overburden
MW-3	Downgradient	22.5	Overburden
MW-4	Sidegradient	22.3	Overburden

The four monitoring wells were installed by drilling with 6¼-inch internal diameter hollow-stem augers. Each well was logged during the drilling activities, and split spoon samples were taken at 5-foot intervals during drilling. Soil samples from the last split spoon sample and one other split spoon from each well were also analyzed for grain size distribution.

Aquifer hydraulic conductivity characteristics were evaluated by means of slug permeability tests. To determine flow direction

of the aquifer, all monitoring wells were surveyed for locations and elevations, and the depths to groundwater relative to an arbitrary datum were measured.

All field procedures, boring logs, well schematics, and grain size analyses are included in Appendix B.

D. SAMPLING AND ANALYSIS

G&H collected four groundwater samples and one duplicate, two surface water/sediment sample pairs, and six soil samples in September 1990. These samples were analyzed for Target Compound List (TCL) inorganics, volatiles, semi-volatiles, and pesticides/PCBs.

H2M Labs (Melville, New York) performed the analyses in accordance with NYSDEC September 1989 Analytical Services Protocols (ASP). Aquatec (South Burlington, Vermont) performed an independent data validation.

The chemical analytical results of the samples are discussed in Section IV and included in their entirety in Appendix C.2, Results. Gibbs & Hill's relevant procedures are outlined in Appendix C.1.

E. AIR SURVEY

In accordance with appropriate health and safety procedures, a photoionization detector (PID), organic vapor analyzer (OVA), and explosimeter were used to monitor the air in the working zone during site activities. In addition, split spoon samples were scanned with a PID immediately upon opening of the split spoon and the results recorded in the drilling log sheets (Appendix B.2).

F. SOURCES OF INFORMATION

Contact	Information Received
Lawrence Alden NYSDEC 50 Wolf Road, Room 220 Albany, NY 12233 518/457-0639	NYSDEC files
Map Information Unit New York State Department of Transportation State Campus, Bldg. 4, Room 105 Albany, NY 12232 518/457-3555	NYSDOT map
Hagstrom 57 West 43rd Street New York, NY 10036 212/398-1222	Updated USGS maps
Gary Litwin New York State Department of Health 2 University Place Albany, NY 12203 518/458-6306	NYSDOH files

Contact	Information Received
Burrell Buffington Community Ecologist NYSDEC Wildlife Resources Center 700 Troy-Schenectady Road Latham, NY 12210	Critical habitat of an endangered species or national wildlife refuge location
Debbie Kraybill National Park Register of Historic Places P. O. Box 37127 Washington, DC 20013-7127 202/343-9559	Historic landmarks
James R. Covey, P.E. Assoc. Sanitary Engineer NYSDOH Empire State Plaza Corning Tower Building Albany, NY 12237 518/458-6731	NYS safe water inventory printouts
Dian Goetke NYSDEC Bureau of Environmental Protection SUNY - Building #40 Stony Brook, NY 11790-2356 516/751-7900	Wetland information
Otto Reneberg Public Health Engineer Suffolk County Department of Health Services 225 Rabro Drive East Hauppauge, NY 11788 516/451-4647	Site files
George Schilpp NYSDEC, Region 1 SUNY - Building #40 Stony Brook, NY 11790-2356 516/751-7900	No information received
Victor Emanuelo, Attorney Little Joseph Realty 1637 Broad Hollow Road Farmingdale, NY 11735 516/249-3400	Site access

Contact	Information Received
John Ferarra East Farmingdale Water District 72 Gazza Boulevard East Farmingdale, NY 11735 516/249-4211	Potable water for site
Paul Tenyenhuis Suffolk County Soil and Conservation District 516/727-2315	Agricultural land info.

TABLE III-1

SCOPE OF WORK

Task	Description
Record search and data compilation	Collect and review available information.
Site reconnaissance	Note site changes since NYSDEC initial reconnaissance, assess access to monitoring well and sampling locations, and become familiar with the site.
Geophysical study	Conduct geophysical survey with a magnetometer. Based on the survey results, revise the location of monitoring wells if needed.
Updated work plan	Revise preliminary NYSDEC work plan based on results of record search, site reconnaissance, and geophysical study. Prepare health and safety plan and define drilling and sampling protocols and procedures.
Monitoring wells	Install four monitoring wells to depths ranging between 22.3 and 28.5 feet. Collect split spoon samples at 5-foot intervals. Perform grain size analysis on deepest split spoon samples for each well. Develop wells to at least a turbidity of 50 NTU or lowest possible, and perform permeability tests. Survey all monitoring wells for locations and elevations. Determine the relative depths to groundwater.
Sampling and analysis	
Groundwater	Collect groundwater samples from each well and one duplicate groundwater sample from a downgradient well. Analyze these samples for TCL inorganics, volatiles, semi-volatiles, and pesticides/ PCBs.

TABLE III-1 (Continued)

	Surface water/sediment	Collect two surface water/ sediment pair samples from the recharge basin and two surface water/sediment pair samples from parking lot storm drains. Analyze these samples for TCL inorganics, volatiles, semi-volatiles, and pesticides/ PCBs.
	Soil	Collect six soil samples from the site. Analyze these samples for TCL inorganics, volatiles, semi-volatiles, and pesticides/ PCBs.
Investigation Report		Prepare a report containing analytical results from groundwater, surface water, sediment, and soil samples; additional field data, final HRS scores; HRS documentation records; historic literature; and site assessments.

IV. SITE ASSESSMENT

A. SITE DESCRIPTION AND HISTORY

The Hazardous Waste Disposal site is located at 11-A Picone Boulevard, Town of Babylon, Suffolk County, New York. The site is owned by Little Joseph Realty, Farmingdale, New York. The property was rented by the realty company to George Lawrence (Glenwood Landing, New York) who operated his company, Hazardous Waste Disposal (HWD), Inc., from 1979 to 1982. The site was used to store, treat, and dispose of hazardous waste during this period [D.12 and 16].

HWD was in the industrial waste scavenger business which included the transportation and storage of hazardous wastes. These wastes were contained in 55-gallon drums and large holding tanks. HWD was operating an ammonium-hydroxide scrubbing process without a permit and most likely an acid/caustic neutralization process [D.3, D.18].

In March 1981, HWD, Inc. reported a vapor discharge accident to the Suffolk County Department of Health Services (SCDHS). Immediately after the accident, the representatives of SCDHS, accompanied by a representative of the Toxic Waste Handling Group, conducted an investigation of the HWD facilities. At the time of their inspection, there were no visible emissions. However, the East Farmingdale Fire District told them that the accident produced a visible plume 150 to 200 feet high. The

Pront Printing Company, located at 11-D Picone Boulevard, indicated that accidents had been occurring sporadically since September 1980 [D.8 and 9].

In 1981, it was determined by the NYSDEC that HWD, Inc. was operating without the required Part 360 permit and a Siting Board Permit. HWD, Inc. was therefore operating illegally and should have been closed until the permit was received. At the meeting held on April 23, 1981 between the NYSDEC and HWD, Inc., the owner of HWD, Inc. offered to correct any deficiencies of the process as soon as possible [D.11 and 14].

In September 1981, the U.S. Environmental Protection Agency (EPA) conducted a site inspection. During the inspection, HWD, Inc. admitted that the stored waste was hazardous; the waste material was listed in the regulations as a hazardous waste from a nonspecific source; and the facility generated, transported, and treated hazardous waste [D.7].

The inspector identified 1,900 55-gallon drums of spent solvents and a 2,500-gallon acid tank. The majority of the drums were leaking. Management of these stored drums was extremely poor. The whole area was contaminated with spent solvents due to leaks. The storage area was inadequately diked by a two-inch berm on top of which woodchips were placed. At least an inch of liquid wastes were contained by the berm. Liquid wastes were visible and leaving the bermed area. The drums were densely crowded together without aisle space. The storage area was a

potential fire hazard and the wastes were improperly stored [D.20].

In June 1982, the SCDHS revisited the site. A site visit report sketch shows a diked storage area, a neutralization tank and associated pump, and a waste sludge pit covered with plastic [D.18].

In September 1982, the SCDHS visited the site again. The inspector identified 840 55-gallon drums containing waste and 420 empty 55-gallon drums outside the diked area.

Spills were noted in the drum storage area. Neither one of the reports contained a description of the solvent recovery process or a list of stored chemicals [D.17].

HWD removed all wastes from the site and ceased operations in 1984. Waste from on-site drums were emptied into waste sludge pit and after the wastes solidified, they were removed from the pit and transported off-site. This was confirmed during a DEC site inspection, conducted in July 1985. However, during that inspection, several old battered drums were observed on the site and a strong, pungent odor of solvents was present. During the inspection conducted by Roux Associates in July 1987 in association with the Phase I investigation, the site did not show any signs of hazardous materials or conditions [D.19].

In May 1990, G&H conducted a site reconnaissance. At that time,

the site was being rented to J. S. Trucking Company and used as a parking lot. During the site visit, several trucks were parked at the site. The site was approximately 0.5 acre in size and paved by concrete. There was no sign of the previous waste treatment business. All waste storage and waste recovery equipment had been removed and the site was visually clean. In the middle of the parking lot there was a storm drain covered with grating. Drains were connected to a drainage system which was used to discharge water into the recharge basin located northeast of the site [D.10].

B. TOPOGRAPHY

The site is located at latitude 40°44'32"N, longitude 73°25'13"W, amid a commercial and industrial region. The investigated area is on a glacially deposited outwash plain which gently dips south to southeast at a slope of 20 feet per mile, or less than 1 percent.

To the north of the site, up an embankment, there is an unpaved parking area where several drums were observed. During site reconnaissance, the air in these drums was scanned with an OVA instrument, and in most cases, the readings ranged from 20 to 50 ppm. A recharge basin is northeast of the site. A fenced, paved parking lot is east of the site. An abandoned gas station is in the northeast corner of this lot and a building is located in the middle of this lot. To the south of the site across Picone Boulevard is the J. S. Trucking Company office and truck

maintenance facilities. To the west of the site is a fenced, paved parking lot.

C. HYDROGEOLOGY

The stratigraphy and waterbearing characteristics of the geologic units underlying the region of investigation are characterized as highly permeable outwash deposits (sand and gravel). These Pleistocene deposits lie unconformably on the unconsolidated seaward-dipping deposits of Cretaceous age, which in turn lie unconformably on the southeasterly-sloping bedrock. The combined thickness of the unconsolidated deposits is approximately 1,300 to 1,700 feet. Hence, the hydrostratigraphic units in the unconsolidated deposits overlying the bedrock consist of the Cretaceous and Pleistocene series. The Upper Cretaceous series is divided into the Raritan formation and overlying Magothy formation, both of which are composed of non-marine beds of sand, gravel, silt, and clay. The Raritan formation is divided into two members, the Lloyd sand member below (resting on the bedrock) and an overlying clay member. The Magothy formation is the uppermost of the Cretaceous formations on Long Island. It is in part doubtless the equivalent of the Magothy formation in New Jersey, but it may also contain correlatives of other formations. The Magothy overlies the Raritan formation and is in turn overlain by the outwash deposits of Pleistocene age [D.1].

The principal subdivisions of the Pleistocene series from oldest to youngest are the Jameco gravel, the Gardiner's clay, and the Upper Pleistocene outwash deposits. The outwash deposits immediately underlie the land surface of the study site. Based on the four wells installed, the material consists of mainly beds of brown, well-sorted, fine to coarse sand and gravel (Figure. IV-2).

The uppermost zone of the groundwater regime is the Upper Glacial aquifer in the Pleistocene deposits. This unconfined unit lies unconformably on the Magothy and consists of highly permeable upper Pleistocene deposits of sand and gravel. The lower boundary of the Upper Glacial aquifer is defined by the presence of low permeability lenses of silt and clay in the Magothy formation. The Upper Glacial aquifer and the underlying Magothy aquifer are considered hydraulically connected [D.1].

These two aquifers have been considered by this investigation to be the aquifers of concern [D.1].

The Upper Glacial aquifer has been known to yield as much as 1,500 gallons per minute (gpm) with specific capacities commonly 40 to 75 gpm per foot of drawdown. Wells screened in the impermeable to highly permeable Magothy aquifer yield as much as 1,500 gpm with specific capacities ranging from 1 to 49 gpm per foot of drawdown.

Located within a 3-mile radius of the site are over 20 public

supply wells and numerous observation wells. These wells are screened both in the Upper Glacial and Magothy aquifers. A pumping well (S66556) is located hydraulically downgradient, about 1¾ miles southeast of the site. Two public supply wells (NYSDEC Nos. 20041 and 20042) are located approximately 1,400 feet to the northwest (upgradient) of the site. In 1961, the depth to water recorded in both wells was 25 feet below land surface. Regional groundwater flow is south to southeast, away from the topographic and water table high to the north [D.2].

Based on the four wells installed, localized groundwater is flowing towards the south. This flow pattern places well MW-1 upgradient, wells MW-2 and MW-3 downgradient and well MW-4 sidegradient of the site.

D. SITE CONTAMINATION ASSESSMENT

Potential contamination of the environment was assessed by a review of the character of wastes suspected at the site and chemical analyses of the samples. The character of wastes suspected at the site was evaluated by a review of information from historic literature collected in Appendix D.

Tables IV-1 through IV-7 summarize the results of analyses performed at the site for every analyte in the samples if that analyte was detected in concentrations above the Contract Required Quantitation Limit (CRQL). However, an analyte detected below the CRQL in one sample is reported when it is

detected above the CRQL in another sample or is a contaminant of concern at the site.

Groundwater, surface water, and soil assessment, the process by which the analytical data was evaluated, was based on the criteria presented in Appendix C.1.

1. Waste Characteristics

There is no detailed information available for the stored wastes and HWD, Inc. waste recovery process. Historic literature shows that the wastes contained spent solvents, and acids. It is known that an "ammonium hydroxide scrubber" was utilized on site. However, it is not known whether this scrubber employed ammonium hydroxide to neutralize acidic off-gases or was used to remove ammonia vapors released from some wastes (water would have been used in the scrubber to form ammonium hydroxide). In either case the resultant products from the scrubbing process would not have been hazardous. In addition, HWD, Inc. admitted releasing NO_x and HCl vapors suggesting the presence of hydrochloric and nitric acids at the site.

Based on this information, the monitoring of the site would be expected to reveal the presence of methylene chloride (and other chlorinated hydrocarbons), toluene, benzene, methanol, ethanol, and acetone (D.3 and D.7).

If there was a leak from the underground gasoline tank located east of the site, samples collected downgradient in well MW-3 could reveal the presence of benzene, toluene, ethylbenzene, xylene, branch-chain paraffins, cycloparaffins, and aromatics.

2. Groundwater Contamination

Four groundwater samples (GW-1 through GW-4) and one duplicate sample (GW-5) were collected and analyzed for organic and inorganic compounds.

Twelve volatile organic compounds were detected in the samples collected. Of these compounds, the results of analysis indicate that ten compounds were present in significantly high concentrations in downgradient samples.

Toluene (2,300 ug/l), xylene (total)(200 ug/l), and ethylbenzene (440 ug/l) were detected in downgradient sample GW-3 at concentrations more than 80 times the concentrations in upgradient sample GW-1.

Seven chlorinated hydrocarbons were detected in significant concentrations downgradient. Tetrachloroethene (790 ug/l) was detected in downgradient samples GW-2 and GW-3 but not in the upgradient sample. 1,1,1-trichloroethane (150 ug/l), chloroethane (48 ug/l), 1,1-dichloroethane (32 ug/l), chlorobenzene (30 ug/l), methylene chloride

(55 ug/l), and 1,2-dichloroethene (200 ug/l) were detected in downgradient samples at concentrations more than three times the analytical detection limit. These compounds were not detected in upgradient sample GW-1 and are not constituents of gasoline. Therefore, the site can be considered the source of these contaminants migrating into the groundwater. One chlorinated hydrocarbon, vinyl chloride, was also present in downgradient samples, but at a concentration only slightly above the detection limit.

Concentrations of all these contaminants in the downgradient samples, excluding 1,1,1-trichloroethane, exceeded federal and New York State water standards (Table IV-8). Tetrachloroethene and 1,1,1-trichloroethane concentrations exceeded only New York State water quality standards. Trichloroethene, detected at approximately the same concentrations in downgradient and upgradient samples, also exceeded federal and New York State water standards (Table IV-8).

Semi-volatile organic compounds phenol (32 ug/l), naphthalene (65 ug/l), and 2-methylnaphthalene (32 ug/l) were detected in downgradient sample GW-3 at concentrations three or more times the analytical detection limit, but were not detected in the upgradient water sample. However, these contaminants are likely attributable to gasoline. Therefore, the site cannot be considered the sole source of these contaminants migrating into the groundwater

(Table IV-2). The naphthalene level in GW-3 exceeded New York State water quality standards (Table IV-8).

Between three and nineteen definable identified organic compounds (TIC's) were detected in the groundwater samples. Of the TIC's detected, almost all were gasoline constituents which could be attributed to the abandoned gas tank located east of the site. Three chlorinated compounds were detected in GW-3 only.

Inorganic compounds arsenic (125 ug/l) and lead (139.5 ug/l) were detected in downgradient sample GW-4 at concentrations more than 20 times the concentrations found in upgradient sample GW-1 (Table IV-3). Neither of these analytes are contaminants which were suspected of being disposed at the site. The presence of lead in this well could be the result of leaks in the nearby gas tank. Arsenic concentrations may be reflecting natural conditions and the high levels of suspended solids in the sample.

Concentrations of arsenic and lead in downgradient sample GW-4 and aluminum and manganese in the upgradient and downgradient samples exceeded federal and New York State water quality standards (Tables IV-3 and IV-8).

No pesticides or PCB's were detected in any groundwater samples analyzed.

3. Surface Water and Sediment

Surface Water

Three surface water samples (SW-1 and SW-2 from recharge basin and SW-4 from the storm drain located south of the site) were collected and analyzed for organic and inorganic compounds. Sample SW-3 was not collected because there was no water in the proposed sample location during sampling.

Tetrachloroethene (19 ug/l) at concentrations more than three times the detection limit and 1,2-dichloroethene (total)(8 ug/l) at concentrations less than three times the detection limit were detected in sample SW-4 only. Although both were found in sample GW-3, migration of these contaminants from the site appears not to be occurring because neither was detected in the recharge basin at the outfall of the storm drain systems (samples SW-1 and SW-2). No other volatile organic compound was detected in any surface water sample (Table IV-4). Concentrations of these contaminants did not exceed New York State water quality standards (Table IV-8).

No semi-volatile organic compounds, pesticides, or PCBs were detected in any surface water sample.

Inorganic compounds were detected in all surface water samples at the same relative concentrations (Table IV-5). Therefore the presence of these inorganic compounds in

surface water was not a result of activities at this site. Concentrations of iron in all the samples exceeded New York State surface water standards for human and aquatic life, while aluminum and zinc in all samples exceeded New York State surface water standards for aquatic life only (Table IV-8).

Sediment

Three sediment samples (SD-1 and SD-2 from the discharge basin, and SD-3 from the storm drain located on the parking area) were collected and analyzed for organic and inorganic compounds. Sample SD-4 was not collected because there was no access to the proposed sampling location.

Tetrachloroethene (94 ug/l) was detected in sample SD-3 only. No other volatile organic compound was detected in any sediment sample.

Semi-volatile organic compounds phenanthrene (6,000 ug/l), anthracene (1,200 ug/l), fluoranthene (7,900 ug/l), pyrene (6,600 ug/l), benzo(a)anthracene (3,400 ug/l), chrysene (3,800 ug/l), benzo(a)pyrene (2,600 ug/l), indeno(1,2,3-cd)pyrene (1,800 ug/l), and benzo(g,h,i)pyrene (1800 ug/l) were detected in sample SD-3 only (Table IV-4). In addition, six TIC's were detected in SD-3. However, these contaminants are commonly associated with paved parking areas.

Aldrin (67 ug/l) was detected in sample SD-3 only. However, the source of this contaminant in SD-3 is unknown. No other pesticides or PCBs were detected in any other sample.

Metals found in sediment samples did not exceed the typical ranges of concentrations of these metals in non-contaminated soil (Table IV-8).

4. Soil Contamination

Five soil samples and one background soil sample were collected and analyzed for organic and inorganic compounds. Samples B-1, B-2, B-3, and B-5 were collected from depths of two to ten feet beneath the concrete parking area, because hazardous waste was stored and treated in this area by HWD. Sample B-4 was collected at a depth of four to ten feet from adjacent to well MW-3 due to a strong smell present in this well during drilling activities. Sample B-6 was collected from a depth of 2-4 feet, and was the background soil sample.

Chemical analysis detected trichloroethene in two samples (B-1 and B-3), tetrachloroethene in four samples (B-1, B-2, B-3, and B-5), xylene in one sample (B-1), 1,2-dichloroethene in one sample (B-3), and acetone in one sample (B-4)(Table IV-6). None of these contaminants was detected in the background sample. With the exception of

acetone, all of the volatile organics present in the soil samples were also present in groundwater samples at significant levels [Tables IV-1 and IV-6].

Twenty organic TICs were detected in B-1 located on the western portion of the site. However, all the TICs are constituents of gasoline indicating a possible historic spill or former tank location.

Bis(2-ethylhexyl)phthalate, a common laboratory contaminant, was detected in all soil samples and the method blank (Table IV-6) at levels indicating that the laboratory was the source of the contaminant.

Metals found in soil samples were detected in the same range as in the background sample and did not exceed the typical ranges of concentrations of these metals in non-contaminated soil (Tables IV-7 and IV-8).

5. Air Survey

Air quality surveys were conducted with PID, OVA, and explosimeter air monitoring instruments during site reconnaissance and drilling activities. During site reconnaissance, the air in several drums located north of the site was scanned with an OVA instrument, and in most cases, the readings ranged from 20 to 50 ppm.

Diesel fuel smell was detected from wells MW-3 and MW-4 cuttings and holes during drilling events. Lower explosive limit level was 20 percent at well MW-4 and 30-50 percent at well MW-3. OVA and PID instruments indicated no readings above background in the breathing zone.

During soil sampling, PID readings above background were recorded at B-1, B-4 and B-5 holes in the range of 0.5 to 15 ppm. No readings above background were recorded in the breathing zone.

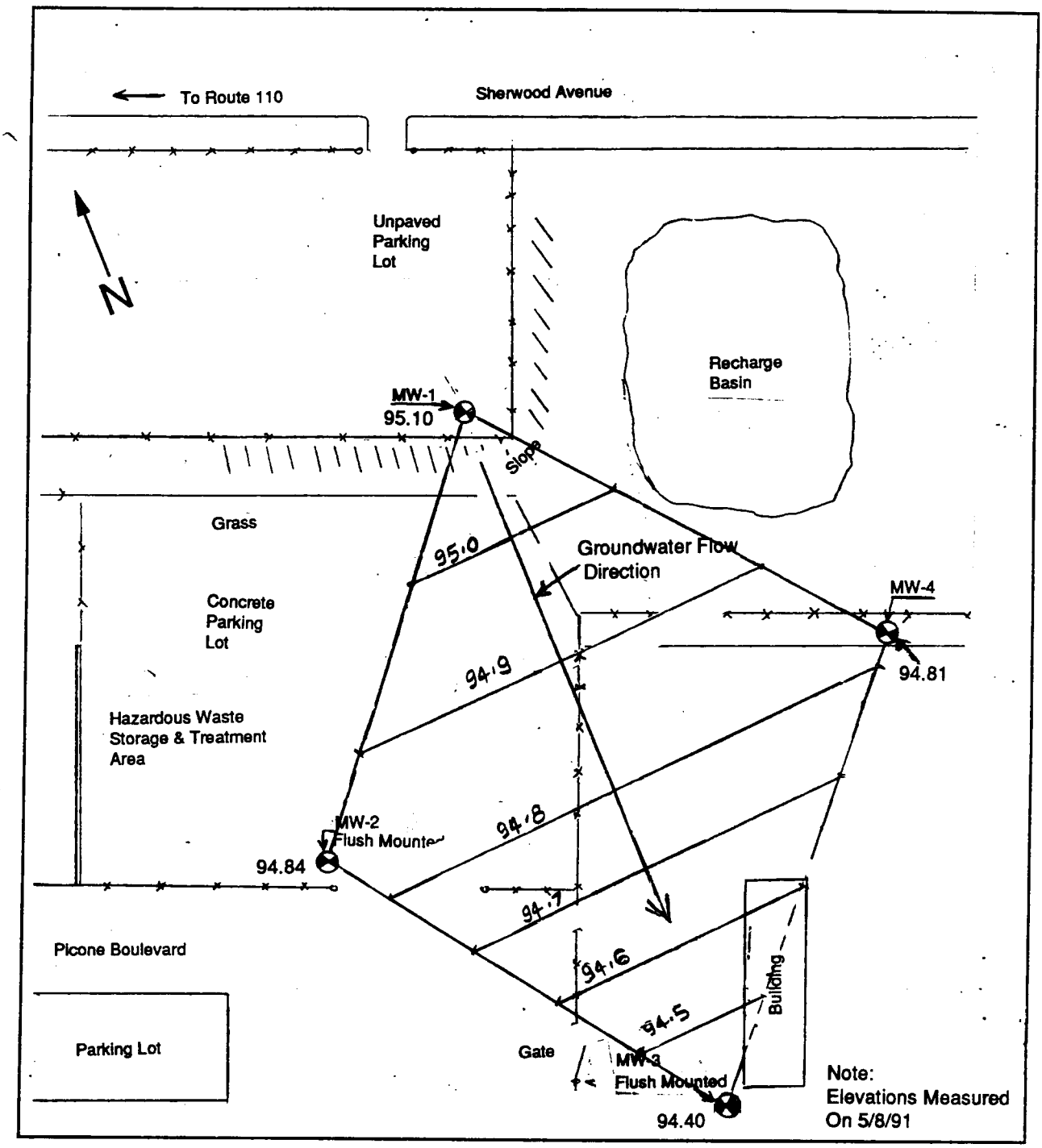
E. CONCLUSIONS

All tasks of the Phase II investigation for the Hazardous Waste Disposal site have been completed. Enough data has been collected to prepare a final HRS score.

The Phase II investigation shows evidence of soil contamination by three organic chlorinated hydrocarbon compounds (trichloroethene, tetrachloroethene and 1,2-dichloroethene) on site and migration of two of these contaminants, tetrachloroethene and 1,2-dichloroethene from the site into groundwater. Five other chlorinated hydrocarbons, although not detected in soil samples, were detected in the downgradient groundwater samples at concentrations suggesting migration from the site. There is no evidence of migration of contaminants from the site into the surface water.

Sample analysis results also showed a pervasive presence of gasoline related compounds in soil and groundwater. These results could be attributed to the abandoned gas station located east of the site. However, this does not mean that several of the compounds (toluene, ethylbenzene and xylene) did not also originate from the site itself.

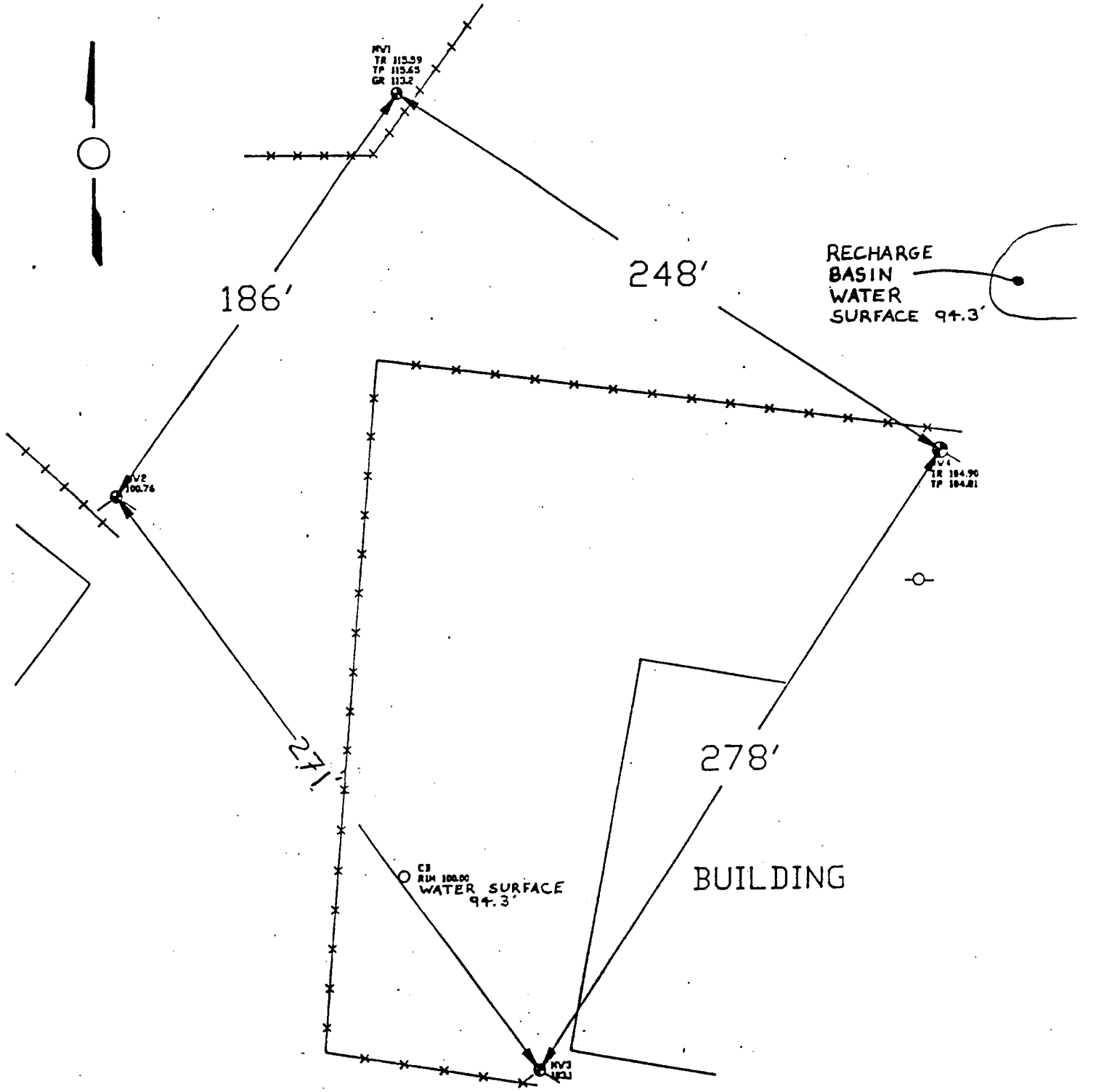
GROUNDWATER FLOW DIAGRAM



Site: Hazardous Waste Disposal

Figure: IV-1

GIBBS & HILL, INC.

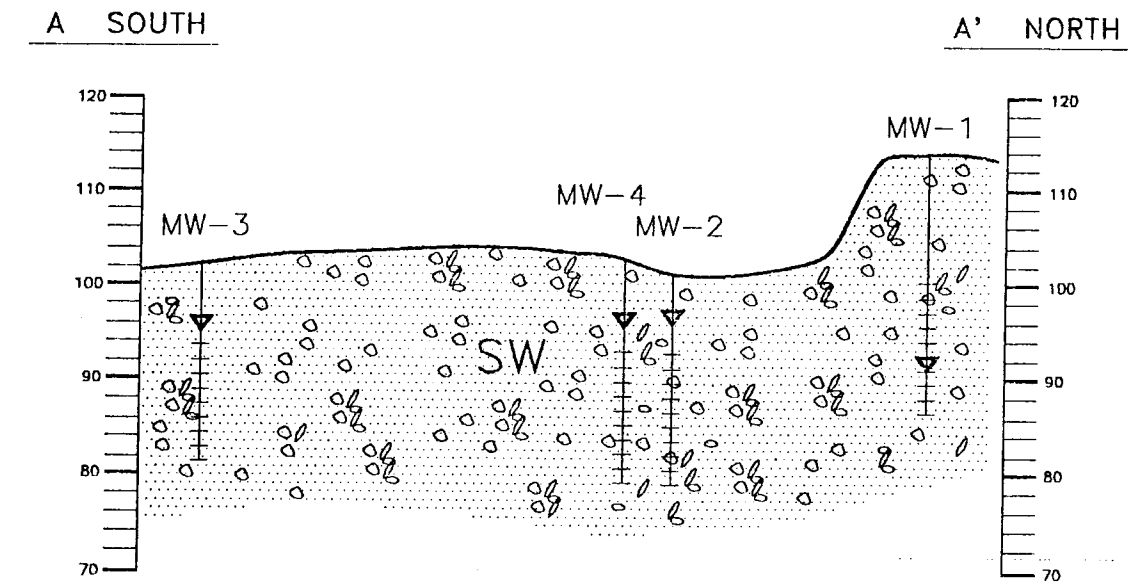


NOTE
1. ALL ELEVATIONS ARE IN ARBITRARY SYSTE
2. TP= TOP OF PIPE
3. GR=GROUND
4. TR= TOP OF RIM

NOT TO SCALE

DATE: JAN.10,91

HAZARDOUS WASTE DISPOSAL SITE



VERTICAL EXAGGERATION= 5X
HORIZONTAL SCALE IN FEET

0 25 50

LEGEND

SW POORLY SORTED SAND AND GRAVEL

DES. BY: JS DWN. BY: REF	SCALE: AS SHOWN	GIBBS & HILL, INC. ENGINEERS, DESIGNERS, CONSTRUCTORS NEW YORK	HAZARDOUS WASTE DISPOSAL SITE #152113	GEOLOGIC CROSS SECTION FIGURE IV-2	DATE: 9/18/91 SHEET 1 OF 1

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-1 - ANALYTICAL RESULTS OF GROUNDWATER SAMPLES FOR VOLATILE ORGANIC COMPOUNDS

(All data in micrograms/liter)

Analyte	GW-1 9/26	GW-2 9/26 9/27 DL	GW-3 9/26	GW-4 9/26	(Duplicate of GW-2) GW-5 9/26 9/27 DL	Method Blank 9/26	Method Blank 9/27
Trichloroethene	91	130	18	ND	89	ND	ND
Toluene	6	ND	2,300	ND	ND	ND	ND
Ethylbenzene	5	ND	440	ND	ND	ND	ND
Xylene (total)	10	ND	2,000	ND	ND	ND	ND
1,2-Dichloroethene (total)	ND	59	200	ND	30	ND	ND
1,1,1-Trichoroethane	ND	6	150	ND	6	ND	ND
Tetrachloroethene	ND	790 BD	29	ND	440 BD	ND	2 J
Vinyl chloride	ND	ND	11	ND	ND	ND	ND
Chloroethane	ND	ND	48	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	32	ND	2 J	ND	ND
Chlorobenzene	ND	ND	30	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	55	ND	ND	3 J
TIC's*							
Methoxy methyl propane isomer	80	ND	ND	ND	ND		
Ethyl dimethyl benzene isomer	9	ND	ND	ND	5		
Tetramethyl benzene isomer	10	ND	ND	ND	20		
Chlorotrifluoro ethene	ND	ND	19	ND	ND		
1,2-dichloro-1,1,2-triflouroethane	ND	ND	11	ND	ND		
1,1,2-trichloro-1,2,2-triflouroethane	ND	ND	44	ND	ND		
Hexane	ND	ND	6	ND	ND		
Methyl cyclopentane	ND	ND	9	ND	ND		
Heptane	ND	ND	11	ND	ND		
Methyl cyclohexane	ND	ND	11	ND	ND		
Ethyl methyl cyclohexane isomer(s)	ND	ND	ND	18 (2)	ND		
Dimethyl octane isomer	ND	ND	ND	9	ND		

ND - Not detected
B - Contaminant also detected in Method Blank
J - Estimated value detected below Contract Required Quantitation Limit
D - Diluted sample analysis
DL - Date diluted sample was analyzed
* - Estimated value with a 1:1 response; or total estimated value of all detected isomers (number of isomers detected shown in parentheses).

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-2 - ANALYTICAL RESULTS OF GROUNDWATER SAMPLES FOR SEMI-VOLATILE ORGANIC COMPOUNDS

(All data in micrograms/liter)

Analyte	GW-1	GW-2	GW-3	GW-4	(Duplicate of GW-2)d GW-5
Phenol	ND	ND	32	ND	ND
Naphthalene	ND	ND	65	ND	ND
2-Methylnaphthalene	ND	ND	32	ND	ND
TIC's*					
Ethyl-dimethylbenzene isomer(s)	ND	65 (4)	16	ND	39 (3)
Tetramethylbenzene isomer(s)	ND	62 (2)	ND	ND	46 (2)
Dihydro-methyl-1H-Indene isomer	ND	24	22	ND	18
Propyl-benzene	ND	ND	36	ND	ND
Ethylmethylbenzene isomer(s)	ND	ND	408 (5)	ND	ND
2,6-dimethyl-4-Heptanone	ND	ND	69	ND	ND
Methyl-methylethylbenzene isomer(s)	ND	ND	34 (2)	ND	ND
1-methyl-naphthalene	ND	ND	20	ND	ND
Unk. aliphatic hydrocarbon(s)	ND	ND	ND	67 (4)	ND
1-methylpropyl-cyclohexane	ND	ND	ND	15	ND
Trans-decoohydro-naphthalene	ND	ND	ND	15	ND

ND - Not detected
* - Estimated value with a 1:1 response; or total estimated value of all detected isomers (number of isomers detected shown in parentheses).

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HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-3 - ANALYTICAL RESULTS OF GROUNDWATER SAMPLES FOR INORGANIC COMPOUNDS

(All data in micrograms/liter)

Analyte	GW-1	GW-2	GW-3	GW-4	(Duplicate of GW-2) GW-5
Aluminum	3,450	438	2,740	13,900	4,230
Cadmium	ND	9.4	ND	5.4	9.1
Calcium	12,800	16,200	174,000	128,000	15,400
Chromium	ND	ND	ND	29.9 J	ND
Copper	17.3 B	77.6	25.0	58.2	17.7 B
Iron	5,720	1,030	1,050	49,500	6,740
Lead	6.0 U	5.9 U	8.1	139.5	18.6
Magnesium	2,610 B	2,240 B	1,290 B	9,530	2,560 B
Manganese	323	71.7	15.1	1,200	182
Mercury	0.3	ND	ND	ND	ND
Nickel	29.2 B	43.6	8.8 B	27.6 B	14.4 B
Potassium	1,980	5,710	32,600	6,780	4,380
Sodium	5,410	7,940	60,200	6,170	7,360
Zinc	40.0	130.0	70.0	210	90.0
Total Suspended Solids (mg/l)	330	40	108	660	53
Total Dissolved Solids (mg/l)	102	88	549	378	72

ND - Not detected
B - Detected below Contract Required Detection Limit
J - Estimated value due to deviation in Quality Control Limits
U - Not detected; qualified through the Method Blank

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-4 - ANALYTICAL RESULTS OF SURFACE WATER AND SEDIMENT SAMPLES FOR ORGANIC COMPOUNDS

(All surface water data in micrograms/liter)
(All sediment data in micrograms/kilogram)

Volatile Organics	Surface Water			Sediment		
Analyte	SW-1	SW-2	SW-4	SD-1	SD-2	SD-3
1,2-Dichloroethene (total)	ND	ND	8	ND	ND	ND
Tetrachloroethene	ND	ND	19	ND	ND	94
TICs*						
Ethyl Dimethyl Benzene isomer	ND	30	ND	ND	ND	ND
Tetramethyl Benzene isomer(s)	ND	50 (2)	ND	ND	ND	ND
Dihydro Methyl Indene isomer	ND	70	ND	ND	ND	ND
Semi-Volatile Organics						
Phenanthrene	ND	ND	ND	ND	ND	6,000
Anthracene	ND	ND	ND	ND	ND	1,200
Fluoranthene	ND	ND	ND	ND	ND	7,900
Pyrene	ND	ND	ND	ND	ND	6,600
Benzo(a)anthracene	ND	ND	ND	ND	ND	3,400
Chrysene	ND	ND	ND	ND	ND	3,800
Benzo(a)pyrene	ND	ND	ND	ND	ND	2,600
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	1,800
Benzo(g,h,i)pyrene	ND	ND	ND	ND	ND	1,800
bis(2-ethylhexyl)phthalate	ND	ND	53	70 U	140 U	13,000
TICs*						
9H-Carbazole	ND	ND	ND	ND	ND	290
Hexadecanoic acid	ND	ND	ND	ND	ND	290
11H-Benzo[b]fluorene	ND	ND	ND	ND	ND	360
Benzo[ghi]fluoranthene	ND	ND	ND	ND	ND	360
Benzo[j]fluoranthene	ND	ND	ND	ND	ND	2200
Benzo[e]pyrene	ND	ND	ND	ND	ND	1700

ND - Not detected
J - Estimated value detected below the Contract Required Quantitation Limit
U - Not detected; quantified through the Method Blank.
* - Estimated value with a 1:1 response; or total estimated value of all detected isomers number of isomers detected shown in parentheses).

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-5 - ANALYTICAL RESULTS OF SURFACE WATER AND SEDIMENT SAMPLES FOR INORGANIC COMPOUNDS

(All surface water concentrations in micrograms/liter)
(All sediment concentrations in milligrams/kilogram)

	Surface Water			Sediment		
Analyte	SW-1	SW-2	SW-4	SD-1	SD-2	SD-3
Aluminum	261	345	326	1,150	3,580	2,670
Arsenic	UJ	UJ	UJ	6.6	0.98 B	2.0 B
Barium	26.8 B	29.6 B	33.0 B	4.1 B	16.4 B	49.8
Cadmium	ND	ND	ND	ND	ND	6.2
Calcium	14,200	15,300	18,900	140 U	451 B	6,420
Chromium	ND	ND	ND	5.6	5.0	38.2
Copper	14.3 B	12.7 B	23.1 B	3.2 J	4.9 J	198 J
Iron	1,210	1,530	3,330	4,230	3,700	23,400
Lead	4.0 U	4.9 U	5.9 U	9.7	11.7	80.87
Magnesium	1,970 B	2,140 B	1,930 B	177 U	391 B	3,140
Manganese	92.9	104	110	26.7 J	42.6 J	195 J
Nickel	9.7 B	ND	77.3	6.0 J	4.5 J	68.9 J
Potassium	1,300 B	1,360 B	1,700 B	82.1	195	256
Sodium	37,700	3,960	3,450	ND	ND	ND
Silver	ND	ND	ND	2.4 UJ	ND	ND
Zinc	50.0	30.0	170.0	11.5 J	33.9 J	339 J
Total Suspended Solids (mg/l)	<5	<5	<5			
Total Dissolved Solids (mg/l)	72	65	69			

ND - Not detected
B - Detected below Contract Required Detection Limit
U - Not detected; quantified through the Method Blank
J - Estimated due to deviation in Quality Control Limit
UJ - Not detected; estimated value due to deviation in Quality Control Limits

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-6 - ANALYTICAL RESULTS OF SOIL SAMPLES FOR ORGANIC COMPOUNDS

(All data in micrograms/kilogram)

Volatile Organics

Analyte	B-1	B-2	B-3	B-4	B-5	B-6
Trichloroethene	15	ND	7	ND	ND	ND
Tetrachloroethene	580	64	240	5 J	16	ND
Xylene (total)	14	ND	ND	ND	ND	ND
1,2-Dichloroethene (total)	ND	ND	6	ND	ND	ND
Acetone	5 J	ND	8 J	32	ND	ND
TICs*						
Ethyl Methyl Benzene isomer(s)	80 (3)	ND	ND	ND	ND	ND
Ethyl Methyl Octane isomer	10	ND	ND	ND	ND	ND
Trimethyl Benzene isomer(s)	90 (2)	ND	ND	ND	ND	ND
Methyl Propyl Benzene isomer	200	ND	ND	ND	ND	ND
Ethyl Dimethyl Benzene isomer(s)	206 (2)	ND	ND	7	ND	ND
Ethyl Trimethyl Benzene isomer	ND	10	40	ND	ND	ND
Tetramethyl Benzene isomer	ND	ND	100	ND	ND	ND
3,6,6-Trimethyl-Bicyclo[3.1.1]hept-2-ene	ND	ND	ND	40	ND	ND
Dimethyl Methylene Bicyclo[2.].beta.-Pinene	ND	ND	ND	20	ND	ND

Semi-Volatile Organics

Analyte	B-1	B-2	B-3	B-4	B-5	B-6	Method Blank
bis(2-ethylhexyl)phthalate	560 JB	110 JB	480 JB	1,200 B	450 B	940 B	700 JB
TICs*							
Trimethyldecane isomer	4200	ND	ND	ND	ND	ND	
Ethyl-methylbenzene isomer(s)	5000 (2)	ND	ND	ND	ND	ND	
Unk. Aliphatic Hydrocarbon(s)	10600 (3)	ND	ND	1250 (3)	ND	ND	
Methyl-propylbenzene isomer	3400	ND	ND	ND	ND	ND	
Tetramethylbenzene isomer	6600	ND	ND	ND	ND	ND	
Dihydromethy-1H-indene isomer	2000	ND	ND	ND	ND	ND	
Ethyl-1,2,4-trimethyl-benzene	3600	ND	ND	ND	ND	ND	
2,3-dihydro-4,7-dimethyl-1H-indene	1900	ND	ND	ND	ND	ND	
2-Cyclohexen-1-one	ND	ND	960	740	ND	ND	
Benzaldehyde	ND	ND	ND	ND	ND	980	

ND - Not detected
B - Contaminant also detected in Method Blank
J - Estimated value, detected below Contract Required Quantification Limit
* - Estimated value witha 1:1 response; or total estimated value of all detected isomers (number of isomers detected shown in parentheses).

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-7 - ANALYTICAL RESULTS OF SOIL SAMPLES FOR INORGANIC COMPOUNDS

(All data in milligrams/kilogram)

Analyte	B-1	B-2	B-3	B-4	B-5	B-6
Aluminum	658	4,890	722	5,360	573	1,660
Arsenic	0.97 B	3.6	ND	5.2	0.76 B	1.4 B
Calcium	96.5 B	1,760	646 B	2,900	ND	103 B
Chromium	3.3 J	9.6 J	UJ	11.3 J	1.8 J	6.4 J
Cobalt	10.0 U	12.9 U	10.4 U	11.8 U	9.8 U	11.5 U
Copper	3.0 U	5.7 J	2.3 U	7.6 U	2.3 U	4.0 U
Iron	1,520	4,670	1,290	7,420	1,310	4,660
Lead	2.5 R	5.5 R	2.3 R	32.3 R	1.2 R	2.6 R
Magnesium	89.3 B	577 B	165 B	1,380	66.8 B	434 B
Manganese	12.6 J	87.8 J	14.4 J	83.6 J	13.3 J	40.6 J
Silver	4.1	2.3	ND	4.3	2.1	2.1
Vanadium	ND	7.1 B	ND	13.4	ND	3.2 B
Zinc	7.1 U	13.2 U	5.9 U	31.9	4.6 U	11.1 U

ND - Not detected
B - Detected below Contract Required Detection Limit
U - Not detected; quantified through the Method Blank
R - Unusable value due to deviation in Quality Control Limits
J - Estimated value; due to deviation in Quality Control Limits

Table IV-8

FEDERAL AND STATE STANDARDS AND GOALS

NOTES TO REGULATIONS

[A] Environmental Protection Agency National Primary Drinking Water Regulations (as of 7/17/89)

Applied to results of all water sample analyses.

[B] Chapter 1 of Title 10 of the Official Compilation of Codes, Rules and Regulations of the State of New York, Part 5, Drinking Water Supplies, Subpart 5-1, Public Water Supplies (as of 11/28/88)

Applied to results of drinking water sample analyses.

[C] Chapter 10 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, Division of Water Resources, Article 2, Part 702, Appendix 31, Ambient Water Quality Standards - "The standards adopted herein relate to the condition of waters as affected by the discharge of sewage, industrial wastes or other wastes." (as of 7/5/85)

For sources of water for drinking, culinary or food processing purposes and human life protection, unless otherwise noted.

Applied to results of surface water sample analyses for surface water that is not a source of drinking water.

[D] Chapter 10 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, Division of Water Resources, Article 2, Part 703.5(a)(2) and (3), Classes and quality standards for groundwaters - "The purpose of these classes, quality standards, and effluent standards and/or limitations is to prevent pollution of groundwaters and to protect the groundwaters for use as a potable water." (as of 7/5/85)

Applied to results of all groundwater sample analyses regardless of groundwater use.

[E] Environmental Protection Agency National Secondary Drinking Water Regulations (as of 9/26/88)

Applied to results of all water sample analyses.

[F] Source: "Review of In-Place Treatment Techniques for Contaminated Surface Soils," Volume 2, EPA-540/2-84-0036, November 1984, except as noted.

Applied to results of soil sample analyses.

[G] Chapter 360 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, Solid Waste Management Facilities, Section 360-4.4(a), "Sewage sludge and septage destined for land application" (as of 12/31/88)

Applied to results of soil and sediment sample analyses.

Table IV-8 cont.

FEDERAL AND STATE WATER STANDARDS AND GOALS

TCL VOLATILE ORGANICS		Contract Detection Limit	[A] EPA 40CFR141 MCL*	[A] EPA 40CFR141 MCLG**	[B] 10 NYCRR Subpart 5.1 MCL*	[C] 6 NYCRR 702 Standard	[D] 6 NYCRR 703 Standard
CAS Number	Compound	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]
74-87-3	Chloromethane	10			5	50	5
74-83-9	Bromomethane	10			5	50	5
75-01-4	Vinyl Chloride	10	2	0	2	50	2
75-00-3	Chloroethane	10			5	50	5
75-09-2	Methylene Chloride	5			5	50	5
67-64-1	Acetone	10			50	50	50
75-15-0	Carbon Disulfide	5			50	50	50
75-35-4	1,1-Dichloroethene	5	7	7	5	50	5
75-34-3	1,1-Dichloroethane	5			5	50	5
540-59-0	1,2-Dichloroethene (total)	5			5	50	5
67-66-3	Chloroform	5	[1]		[2]	0.2	[2]
107-06-2	1,2-Dichloroethane	5	5	0	5	0.8	5
78-93-3	2-Butanone	10			50	50	50
71-55-6	1,1,1-Trichloroethane	5	200	200	5	50	5
56-23-5	Carbon Tetrachloride	5	5	0	5	50	5
108-05-4	Vinyl Acetate	10			50	50	50
75-27-4	Bromodichloromethane	5	[1]		[2]	50	[2]
78-87-5	1,2-Dichloropropane	5			5	0.6	5
10061-01-5	cis-1,3-Dichloropropene	5			5	50	5
79-01-6	Trichloroethene	5	5	0	5	50	5
124-48-1	Dibromochloromethane	5	[1]		[2]	50	[2]
79-00-5	1,1,2-Trichloroethane	5			5	50	5
71-43-2	Benzene	5	5	0	5	50	ND[4]
10061-02-6	trans-1,3-Dichloropropene	5			5	50	5
75-25-2	Bromoform	5	[1]		[2]	50	[2]
108-10-1	4-Methyl-2-pentanone	10			5	50	5
591-78-6	2-Hexanone	10			5	50	5
127-18-4	Tetrachloroethene	5			5	50	5
79-34-5	1,1,2,2-Tetrachloroethane	5			5	50	5
108-88-3	Toluene	5			5	50	5
108-90-7	Chlorobenzene	5			5	20[3]	5
100-41-4	Ethylbenzene	5			5	50	5
100-42-5	Styrene	5			5	50	5
1330-20-7	Xylene (total)	5			5	50	5

[1] 100 ug/l for the total of these four compounds for community water systems serving greater than 10,000 persons and which add a disinfectant (oxidant) to the water.

[2] 100 ug/l for the total of these four compounds for community water systems.

[3] Sources of water for drinking, culinary or food processing purposes - aquatic life protection: 5 ug/l. Primary contact recreation: 5 ug/l.

[4] Not detectable by tests or analytical determinations referenced in 6 NYCRR 703.4.

* Maximum Contaminant Level - "maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water system."

** Maximum Contaminant Level Goal - "nonenforceable health goal."

Table IV-8 cont.

FEDERAL AND STATE WATER STANDARDS AND GOALS

TCL SEMI-VOLATILE ORGANICS

CAS Number	Compound	Contract Detection Limit [ug/l]	[A] EPA 40CFR141 MCL* [ug/l]	[A] EPA 40CFR141 MCLG** [ug/l]	[B] 10 NYCRR Subpart 5.1 MCL* [ug/l]	[C] 6 NYCRR 702 Standard [ug/l]	[D] 6 NYCRR 703 Standard [ug/l]
108-95-2	Phenol	10			50	1	50
111-44-4	bis(2-Chloroethyl)ether	10			50	50	1
95-57-8	2-Chlorophenol	10			50	50	50
541-73-1	1,3-Dichlorobenzene	10			5	20[1]	5
106-46-7	1,4-Dichlorobenzene	10	75	75	5	30[1]	4.7
100-51-6	Benzyl alcohol	10			50	50	50
95-50-1	1,2-Dichlorobenzene	10			5	50[1]	4.7
95-48-7	2-Methylphenol	10			50	50	50
39638-32-9	bis(2-Chloroisopropyl)ether	10			50	50	50
106-44-5	4-Methylphenol	10			50	50	50
621-64-7	N-Nitroso-di-n-propylamine	10			50	50	50
67-72-1	Hexachloroethane	10			50	50	50
98-95-3	Nitrobenzene	10			50	30	50
78-59-1	Isophorone	10			50	50	50
88-75-5	2-Nitrophenol	10			50	50	50
105-67-9	2,4-Dimethylphenol	10			50	50	50
65-85-0	Benzoic acid	50			50	50	50
111-91-1	bis(2-Chloroethoxy)methane	10			50	50	50
120-83-2	2,4-Dichlorophenol	10			50	0.3	50
120-82-1	1,2,4-Trichlorobenzene	10			5	10[1]	5
91-20-3	Naphthalene	10			50	10	50
106-47-8	4-Chloroaniline	10			50	50	50
87-68-3	Hexachlorobutadiene	10			5	0.5	5
59-50-7	4-Chloro-3-methylphenol	10			50	50	50
91-57-6	2-Methylnaphthalene	10			50	50	50
77-47-4	Hexachlorocyclopentadiene	10			50	1[2]	50
88-06-2	2,4,6-Trichlorophenol	10			50	50	50
95-95-4	2,4,5-Trichlorophenol	50			50	50	50
91-58-7	2-Chloronaphthalene	10			50	10	50
88-74-4	2-Nitroaniline	50			50	50	50
131-11-3	Dimethylphthalate	10			50	50	50
208-96-8	Acenaphthylene	10			50	50	50
606-20-2	2,6-Dinitrotoluene	10			50	50	50

[1] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 5 ug/l; primary contact recreation: 5 ug/l

[2] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 0.45 ug/l; primary contact recreation: 0.45 ug/l

[3] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 0.4 ug/l; primary contact recreation: 0.4 ug/l

* Maximum Contaminant Level - "maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water system."

** Maximum Contaminant Level Goal - "nonenforceable health goal."

Table IV-8 cont.

FEDERAL AND STATE WATER STANDARDS AND GOALS

TCL SEMI-VOLATILE ORGANICS

CAS Number	Compound	Contract Detection Limit [ug/l]	[A] EPA 40CFR141 MCL* [ug/l]	[A] EPA 40CFR141 MCLG** [ug/l]	[B] 10 NYCRR Subpart 5.1 MCL* [ug/l]	[C] 6 NYCRR 702 Standard [ug/l]	[D] 6 NYCRR 703 Standard [ug/l]
99-09-2	3-Nitroaniline	50			50	50	50
83-32-9	Acenaphthene	10			50	20	50
51-28-5	2,4-Dinitrophenol	50			50	50	50
100-02-7	4-Nitrophenol	50			50	50	50
132-64-9	Dibenzofuran	10			50	50	50
121-14-2	2,4-Dinitrotoluene	10			50	50	50
84-66-2	Diethylphthalate	10			50	50	50
7005-72-3	4-Chlorophenyl-phenylether	10			50	50	50
86-73-7	Fluorene	10			50	50	50
100-01-6	4-Nitroaniline	50			50	50	50
534-52-1	4,6-Dinitro-2-methylphenol	50			50	50	50
86-30-6	N-Nitroso-diphenylamine	10			50	50	50
101-55-3	4-Bromophenyl-phenylether	10			50	50	50
118-74-1	Hexachlorobenzene	10			50	50	0.35
87-86-5	Pentachlorophenol	50			50	1[3]	21
85-01-8	Phenanthrene	10			50	50	50
120-12-7	Anthracene	10			50	50	50
84-74-2	Di-n-butylphthalate	10			50	50	50
206-44-0	Fluoranthene	10			50	50	50
129-00-0	Pyrene	10			50	50	50
85-68-7	Butylbenzylphthalate	10			50	50	50
91-94-1	3,3'-Dichlorobenzidine	20			50	50	50
56-55-3	Benzo(a)anthracene	10			50	50	50
218-01-9	Chrysene	10			50	50	50
117-81-7	bis(2-Ethylhexyl)phthalate	10			50	0.6	4.2
117-84-0	Di-n-octylphthalate	10			50	50	50
205-99-2	Benzo(b)fluoranthene	10			50	50	50
207-08-9	Benzo(k)fluoranthene	10			50	50	50
50-32-8	Benzo(a)pyrene	10			50	50	50
193-39-5	Indeno(1,2,3-cd)pyrene	10			50	50	50
53-70-3	Dibenzo(a,h)anthracene	10			50	50	50
191-24-2	Benzo(g,h,i)perylene	10			50	50	50

[1] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 5 ug/l; primary contact recreation: 5 ug/l

[2] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 0.45 ug/l; primary contact recreation: 0.45 ug/l

[3] Sources of water for drinking, culinary or food processing purposes
- aquatic life protection: 0.4 ug/l; primary contact recreation: 0.4 ug/l

* Maximum Contaminant Level - "maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water system."

** Maximum Contaminant Level Goal - "nonenforceable health goal."

Table IV-8 cont.

FEDERAL AND STATE WATER STANDARDS

TCL INORGANICS

CAS Number	Analyte	Contract Detection Limit [ug/l]	[A] EPA 40CFR141 MCL* [ug/l]	[E] EPA 40CFR143 SMCL** [ug/l]	[B] 10 NYCRR Subpart 5.1 MCL* [ug/l]	[C] 6 NYCRR 702 Human [ug/l]	[C] 6 NYCRR 702 Aquatic [ug/l]	[C] 6 NYCRR 702 PCR*** [ug/l]	[D] 6 NYCRR 703 Standard [ug/l]
7429-90-5	Aluminum	200					100	100	
7440-36-0	Antimony	60							
7440-38-2	Arsenic	10	50		50	50	190	190	25
7440-39-3	Barium	200	1000		1000	1000			1000
7440-41-7	Beryllium	5					1100[2]	1100[2]	
7440-43-9	Cadmium	5	10		10	10	0.9[3]	0.9[3]	10
7440-70-2	Calcium	5000							
7440-47-3	Chromium	10	50		50	50	163[3]	163[3]	50
7440-48-4	Cobalt	50					5	5	
7440-50-8	Copper	25		1000	1000	200	9.2[3]	9.2[3]	1000
7439-89-6	Iron	100		300	300[1]	300	300	300	300[1]
7439-92-1	Lead	5	50		50	50	2.2[3]	2.2[3]	25
7439-95-4	Magnesium	5000				35000			
7439-96-5	Manganese	15		50	300[1]	300			300[1]
7439-97-6	Mercury	0.2	2		2	2			2
7440-02-0	Nickel	40					76.8[3]	76.8[3]	
7440-09-7	Potassium	5000							
7782-49-2	Selenium	5	10		10	10	1	1	10
7440-22-4	Silver	10	50		50	50	0.1	0.1	50
7440-23-5	Sodium	5000							
7440-28-0	Thallium	10					8	8	
7440-62-2	Vanadium	50					14	14	
7440-66-6	Zinc	20		5000	5000	300	30	30	5000
	Cyanide	10				100	5.2	5.2	

[1] If both are present, the total of both concentrations may not exceed 500 ug/l.

[2] For water with hardness greater than 75 ppm. Standard is 11 ug/l for water with hardness less than or equal to 75 ppm.

[3] For water with hardness of 75 ppm. See 6 NYCRR 702 for determination of standard for other hardnesses.

* Maximum Contaminant Level - "maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water system."

** Secondary Maximum Contaminant Level - same definition as MCL except "not Federally enforceable but intended as guidelines for the States."

*** Primary contact recreation and any other uses except as a source of water supply for drinking, culinary or food processing purposes.

Table IV-8 cont.

FEDERAL AND STATE WATER STANDARDS

TCL PESTICIDES AND PCB's		Contract Detection Limit [ug/l]	[A] EPA 40CFR141 MCL* [ug/l]	[B] 10 NYCRR Subpart 5.1 MCL* [ug/l]	[C] 6 NYCRR 702 Human [ug/l]	[C] 6 NYCRR 702 Aquatic [ug/l]	[C] 6 NYCRR 702 PCR** [ug/l]	[D] 6 NYCRR 703 Standard [ug/l]
CAS Number	Compound							
319-84-6	alpha-BHC	0.05			50	0.01	0.01	ND[2]
319-85-7	beta-BHC	0.05			50	0.01	0.01	ND[2]
319-86-8	delta-BHC	0.05			50	0.01	0.01	ND[2]
58-89-9	gamma-BHC (Lindane)	0.05	4	4	50	0.01	0.01	ND[2]
76-44-8	Heptachlor	0.05			0.009	0.001	0.001	ND[2]
309-00-2	Aldrin	0.05			0.001[1]	0.001[1]	0.001[1]	ND[2]
1024-57-3	Heptachlor epoxide	0.05			0.009	0.001	0.001	ND[2]
959-98-8	Endosulphan I	0.05			50	50	50	
60-57-1	Dieldrin	0.10			0.001[1]	0.001[1]	0.001[1]	ND[2]
72-55-9	4,4'-DDE	0.10			0.01	0.001	0.001	ND[2]
72-20-8	Endrin	0.10	0.2	0.2	0.2	0.002	0.002	ND[2]
33213-65-9	Endosulphan II	0.10			50	50	50	
72-54-8	4,4'-DDD	0.10			0.01	0.001	0.001	
1031-07-8	Endosulphan sulfate	0.10			50	50	50	
50-29-3	4,4'-DDT	0.10			0.01	0.001	0.001	ND[2]
53494-70-5	Endrin ketone	0.10			50	50	50	
72-43-5	Methoxychlor	0.5	100	50	35	0.03	0.03	35
5103-71-9	alpha-Chlordane	0.5			50	50	50	0.1
5103-74-2	gamma-Chlordane	0.5			50	50	50	0.1
8001-35-2	Toxaphene	1.0		5	50	50	50	ND[2]
12674-11-2	AROCLOR-1016	0.5			0.01	0.001	0.001	0.1
11104-28-2	AROCLOR-1221	0.5			0.01	0.001	0.001	0.1
11141-16-5	AROCLOR-1232	0.5			0.01	0.001	0.001	0.1
53469-21-9	AROCLOR-1242	0.5			0.01	0.001	0.001	0.1
12672-29-6	AROCLOR-1248	0.5			0.01	0.001	0.001	0.1
11097-69-1	AROCLOR-1254	1.0			0.01	0.001	0.001	0.1
11096-82-5	AROCLOR-1260	1.0			0.01	0.001	0.001	0.1

[1] 0.001 ug/l for the total of these two compounds.

[2] Not detectable by tests or analytical determinations referenced in 6 NYCRR 703.4.

* Maximum Contaminant Level - "maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water system."

** Primary contact recreation and any other uses except as a source of water supply for drinking, culinary or food processing purposes.

Table IV-8 cont.

FEDERAL AND STATE WATER STANDARDS

TCL INORGANICS

CAS Number	Analyte	Contract Detection Limit [ug/l]	[A] EPA 40CFR141 MCL* [ug/l]	[E] EPA 40CFR143 SMCL** [ug/l]	[B] 10 NYCRR Subpart 5.1 MCL* [ug/l]	[C] 6 NYCRR 702 Human [ug/l]	[C] 6 NYCRR 702 Aquatic [ug/l]	[C] 6 NYCRR 702 PCR*** [ug/l]	[D] 6 NYCRR 703 Standard [ug/l]
7429-90-5	Aluminum	200					100	100	
7440-36-0	Antimony	60							
7440-38-2	Arsenic	10	50		50	50	190	190	25
7440-39-3	Barium	200	1000		1000	1000			1000
7440-41-7	Beryllium	5					1100[2]	1100[2]	
7440-43-9	Cadmium	5	10		10	10	0.9[3]	0.9[3]	10
7440-70-2	Calcium	5000							
7440-47-3	Chromium	10	50		50	50	163[3]	163[3]	50
7440-48-4	Cobalt	50					5	5	
7440-50-8	Copper	25		1000	1000	200	9.2[3]	9.2[3]	1000
7439-89-6	Iron	100		300	300[1]	300	300	300	300[1]
7439-92-1	Lead	5	50		50	50	2.2[3]	2.2[3]	25
7439-95-4	Magnesium	5000				35000			
7439-96-5	Manganese	15		50	300[1]	300			300[1]
7439-97-6	Mercury	0.2	2		2	2			2
7440-02-0	Nickel	40					76.8[3]	76.8[3]	
7440-09-7	Potassium	5000							
7782-49-2	Selenium	5	10		10	10	1	1	10
7440-22-4	Silver	10	50		50	50	0.1	0.1	50
7440-23-5	Sodium	5000							
7440-28-0	Thallium	10					8	8	
7440-62-2	Vanadium	50					14	14	
7440-66-6	Zinc	20		5000	5000	300	30	30	5000
	Cyanide	10				100	5.2	5.2	

[1] If both are present, the total of both concentrations may not exceed 500 ug/l.

[2] For water with hardness greater than 75 ppm. Standard is 11 ug/l for water with hardness less than or equal to 75 ppm.

[3] For water with hardness of 75 ppm. See 6 NYCRR 702 for determination of standard for other hardnesses.

* Maximum Contaminant Level - "maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water system."

** Secondary Maximum Contaminant Level - same definition as MCL except "not Federally enforceable but intended as guidelines for the States."

*** Primary contact recreation and any other uses except as a source of water supply for drinking, culinary or food processing purposes.

Table IV-8 cont.

LAND APPLICATION OF SEWAGE SLUDGE AND SEPTAGE

TCL PESTICIDES AND PCB's		Contract Detection Limit [mg/kg]	[G] 6 NYCRR Part 360 4.4 MC* [mg/kg]
CAS Number	Compound		
319-84-6	alpha-BHC	0.008	
319-85-7	beta-BHC	0.008	
319-86-8	delta-BHC	0.008	
58-89-9	gamma-BHC (Lindane)	0.008	
76-44-8	Heptachlor	0.008	
309-00-2	Aldrin	0.008	
1024-57-3	Heptachlor epoxide	0.008	
959-98-8	Endosulphan I	0.008	
60-57-1	Dieldrin	0.016	
72-55-9	4,4'-DDE	0.016	
72-20-8	Endrin	0.016	
33213-65-9	Endosulphan II	0.016	
72-54-8	4,4'-DDD	0.016	
1031-07-8	Endosulphan sulfate	0.016	
50-29-3	4,4'-DDT	0.016	
53494-70-5	Endrin ketone	0.016	
72-43-5	Methoxychlor	0.08	
5103-71-9	alpha-Chlordane	0.08	
5103-74-2	gamma-Chlordane	0.08	
8001-35-2	Toxaphene	0.16	
12674-11-2	AROCLOR-1016	0.08	10[1]
11104-28-2	AROCLOR-1221	0.08	10[1]
11141-16-5	AROCLOR-1232	0.08	10[1]
53469-21-9	AROCLOR-1242	0.08	10[1]
12672-29-6	AROCLOR-1248	0.08	10[1]
11097-69-1	AROCLOR-1254	0.16	10[1]
11096-82-5	AROCLOR-1260	0.16	10[1]

[1] 10 mg/kg for "Total PCBs"

* "Maximum Concentration, ppm, dry weight basis."

Table IV-8 cont.

LAND APPLICATION OF SEWAGE SLUDGE AND SEPTAGE

TCL INORGANICS

CAS Number	Analyte	[F] Common Range in Soil [mg/kg]	[G] 6 NYCRR Part 360 4.4 MC* [mg/kg]
7429-90-5	Aluminum		
7440-36-0	Antimony	2 - 10	
7440-38-2	Arsenic	1 - 50	
7440-39-3	Barium	100 - 3000	
7440-41-7	Beryllium	0.1 - 40	
7440-43-9	Cadmium	0.01 - 7	25
7440-70-2	Calcium	700 - 36000[1]	
7440-47-3	Chromium	1 - 1000	1000
7440-48-4	Cobalt	1 - 40	
7440-50-8	Copper	2 - 100	1000
7439-89-6	Iron	5000 - 50000[1]	
7439-92-1	Lead	2 - 200	1000
7439-95-4	Magnesium	1200 - 15000[1]	
7439-96-5	Manganese	200 - 10000[1]	
7439-97-6	Mercury	0.01 - 0.3	10
7440-02-0	Nickel	5 - 500	200
7440-09-7	Potassium	1700 - 33000[1]	
7782-49-2	Selenium	0.1 - 2	
7440-22-4	Silver	0.01 - 5	
7440-23-5	Sodium		
7440-28-0	Thallium		
7440-62-2	Vanadium	20 - 500	
7440-66-6	Zinc	10 - 300	2500
	Cyanide		

[1] Source: "The Nature and Properties of Soils," Buckman, H., Brady, N., Macmillan Co., New York, New York, 1969.

* "Maximum Concentration, ppm, dry weight basis."

V. FINAL APPLICATION OF HAZARD RANKING SYSTEM

A. NARRATIVE SUMMARY

The Hazardous Waste Disposal site is located on 11-A Picone Boulevard, Town of Babylon, Suffolk County, New York. The site is owned by Little Joseph Realty, Farmingdale, New York. The property was rented by the realty company, to George Lawrence (Glenwood Landing, New York) who operated his company, Hazardous Waste Disposal, Inc., from 1979 to 1982.

The site was used to store, treat, and dispose of hazardous waste during this period. A large number of drums containing liquid wastes were stored at the site. Many drums were observed to be leaking.

The site is located in a mixed residential/industrial/commercial area. The nearest building is the office of the J. S. Trucking Co. located across Picone Boulevard. The nearest residence is approximately 1,300 feet west of the site. Village of Farmingdale wells are the nearest community wells, located within a 1/2-mile north of the site. All residences use the community water system. Nearest surface water other than recharge basin on the site is Massapequa Creek, located about 2 1/4 miles from the site.

B. SITE LOCATION MAP

SITE LOCATION MAP

SITE: HAZARDOUS WASTE DISPOSAL FIGURE V-1

MAP SOURCE: USGS MAP

AMITYVILLE QUAD. (1979) SCALE 1" = 2000'
HUNTINGTON QUAD. (1979)
SUFFOLK COUNTY, NEW YORK
7.5 MINUTE SERIES (TOPOGRAPHIC)

COORDINATES:

LATITUDE: 40° 44' 32"
LONGITUDE: 73° 25' 13"

GIBBS & HILL, INC.

C. UPDATED HRS WORKSHEETS

Facility name: Hazardous Waste Disposal Site

Location: 11-A Picone Boulevard, Farmingdale, New York 11735

EPA Region: II

Person(s) in charge of the facility: Little Joseph Realty
Vic Emanuelo, Attorney

Name of Reviewer: Alex Kostic Date: March 20, 1991

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 site is owned by Little Joseph Realty, Farmingdale, New York. The site was used to store, treat, and dispose of hazardous waste during 1979 to 1982. During the EPA inspection conducted in 1981, about 1,900 drums of spent solvents and a 2,500-gallon acid tank were observed at the site. The majority of the drums were leaking. During SCDOH inspection in 1982, 840 drums containing liquid waste and 420 empty 55-gallons drums were observed at the site.

Scores: S_M = 37.82 (S_{gw} = 65.38 S_{sw} = 2.38 S_a = 0.00)
S_{FE} = Not applicable
S_{DC} = 25.00

FIGURE 1
HRS COVER SHEET

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 (45)	1	45	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 (3)	2	6	6	
Net Precipitation	0 1 2 (3)	1	3	3	
Permeability of the Unsaturated Zone	0 1 2 (3)	1	3	3	
Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score		15	15	
3 Containment	0 1 2 (3)	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Hazardous Waste Quantity	0 1 2 3 4 (5) 6 7 8	1	5	8	
	Total Waste Characteristics Score		17	26	
5 Targets					3.5
Ground Water Use	0 1 2 (3)	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 30 32 35 (40)	1	40	40	
	Total Targets Score		49	49	
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			37485	57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} = 65.38			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	(0) 1 2 3	1	0	3	
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
Distance to Nearest Surface Water	(0) 1 2 3	2	0	6	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			5	15	
3 Containment	0 1 2 (3)	1	3	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Hazardous Waste Quantity	0 1 2 3 4 (5) 6 7 8	1	5	8	
Total Waste Characteristics Score			17	26	
5 Targets					4.5
Surface Water Use	0 1 (2) 3	3	6	9	
Distance to a Sensitive Environment	(0) 1 2 3	2	0	6	
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			6	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			1530	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	2.38		

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, the S_a = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	(0) 1 2 3	1	0	3	
Toxicity	0 1 2 (3)	3	9	9	
Hazardous Waste Quantity	0 1 2 3 4 (5) 6 7 8	1		8	
	Total Waste Characteristics Score			20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 / 21 (24) 27 30	1	24	30	
Distance to Sensitive Environment	(0) 1 2 3	2	0	6	
Land Use	0 1 2 (3)	1	3	3	
	Total Targets Score		27	39	
4 Multiply 1 x 2 x 3			0.00	35,100	
5 Divide line 4 by 35,100 and multiply by 100		S_a = 0.00			

FIGURE 9
AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	65.38	4274.54
Surface Water Route Score (S_{sw})	2.38	5.66
Air Route Score (S_a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		4280.21
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		65.42
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		37.82

FIGURE 10
WORKSHEET FOR COMPUTING S_M

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

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

*S_{FE} is scored only if a Fire Marshal has certified that the site is a fire and explosion threat or field observation documented a fire and explosion threat. Since neither of these is true, S_{FE} is not scored

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	0 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 (3)	1	3	3	8.2
3 Containment	0 (15)	1	15	15	8.3
4 Waste Characteristics Toxicity	0 1 2 (3)	5	15	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 (2) 3 4 5	4	8	20	
Distance to a Critical Habitat	(0) 1 2 3	4	0	12	
Total Targets Score			8	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			5,400	21,600	
7 Divide line 6 by 21,600 and multiply by 100		S_{DC} = 25.00			

FIGURE 12
DIRECT CONTACT WORK SHEET

D. UPDATED HRS DOCUMENTATION RECORDS

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: Hazardous Waste Disposal

LOCATION: 11-A Picone Boulevard, Village of Farmingdale, Town of Babylon, Suffolk County, New York

DATE SCORED: March 15, 1991

PERSON SCORING: Jayesh Sanghvi

PRIMARY SOURCE(S) OF INFORMATION (e.g., EPA Region, FIT, etc.):

Analytical data, site visit, NYSDEC file, Phase I investigation report

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

Sa - No air sampling data available.

COMMENTS OR QUALIFICATIONS:

None

GROUNDWATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

1,2-Dichloroethene (total), Tetrachloroethene, Chloroethene, 1,1-Dichloroethane, 1,1,1-Trichloroethene [1]

Rationale for attributing the contaminants to the facility:

Concentrations of these contaminants in downgradient water samples are either ten times or greater than concentrations in upgradient water sample, or greater than three times the detection limit and not detected in upgradient sample. Therefore, there is an observed release.

Score = 45 [2]

* * *

2 ROUTE CHARACTERISTICS

<u>Depth to Aquifer of Concern</u>

Name/description of aquifer(s) of concern:

Upper glacial aquifer consisting of fine to coarse sand and gravel [B.2] overlying the Magothy aquifer consisting mainly of fine and medium sand. Both aquifers are considered hydraulicaly connected. [D.1].

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

Depth to water ranging from 5.9 to 18.2 feet was measured in four monitoring wells installed at the site [B.2].

Depth from the ground surface to the lowest point of waste disposal/storage:

5.9 feet. Wastes were allegedly stored at or above land surface [D.16].

Score = 3

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

46 inches [2]

Mean annual lake or seasonal evaporation (list months for seasonal):

30 inches [2]

Net precipitation (subtract the above figures):

16 inches

Score = 3

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Outwash-plain deposits consisting of stratified sand and gravel [B.2][D.1].

Permeability associated with soil type:

Greater than $1x10^{-3}$ cm/sec [B.2][D.1]

Score = 3

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Liquid [D.7]

Score = 3

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

A large number of drums containing liquid waste were stored at the site. Many drums were observed to be leaking and spills were observed heading in the direction of dry well. Drainage system was connected to a nearby recharge basin.

Method with highest score:

Containers leaking and no liner [2].

Score = 3

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

1,1,1-trichloroethane, tetrachloroethene, ethylbenzene, chloroethane, 1,1-dichloroethane, chlorobenzene [1].

Compound with highest score:

1,1,1-trichloroethane (12), 1,1-dichloroethane (12).

Score = 12

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (give a reasonable estimate even if quantity is above maximum):

1045 drums

Score = 5

Basis of estimating and/or computing waste quantity:

During site inspection conducted by the EPA in 1981, approximately 1,900 55-gallon drums of waste material (spent solvents and acids) were observed at the site. A majority drums were observed to be leaking. However, the exact quantity of leaking material is unknown. Assuming 55 percent of the drums leaked and that each leaking drum released all its contents, 1045 drums of material could have been released. [D.7, D.20]

5 TARGETS

Groundwater Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Drinking water [D.1]

Score = 3

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

Two public supply wells are located north of the site [D.2].

Distance to above well or building:

Approximately 1,400 feet [4]

Score = 4

Population Served by Groundwater Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

Water District	Serving Population	
Suffolk County		
E. Farmingdale	5,700	
Bethpage	8,300	
Suffolk County Water District	208,593	[4]
Nassau County		
Farmingdale Village	8,446	
Plainview Water District	35,000	
South Farmingdale Water District	44,700	[4]
Total	310,739	
Population served by domestic wells	0	[11]

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and conversion to population (1.5 people per acre):

None

Total population served by groundwater within a 3-mile radius:

310,739 people [4]

Score = 5

Matrix Score = 40

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Tetrachloroethene [1]

Rationale for attributing the contaminants to the facility:

The above contaminant was detected in one surface water sample. However, migration of this contaminant from the site does not appear to be occurring because it was not detected in the recharge basin, the outfall of the storm drain systems.

Score = 0

* * *

2 ROUTE CHARACTERISTICS

<u>Facility Slope and Intervening Terrain</u>

Average slope of facility in percent:

Average slope = 0 [10]

Name/description of nearest downslope surface water:

Massapequa Creek, located 2 1/4 miles southwest of the site [10].

Score = 0

Average slope of terrain between facility and above-cited surface water body in percent:

Average slope = 0 [10]

Is the facility located either totally or partially in surface water?

No [10]

Score = 0

Is the facility completely surrounded by areas of higher elevation?

No [10]

1-Year, 24-Hour Rainfall in Inches

2.5 inches [2]

Score = 2

Distance to Nearest Downslope Surface Water

2 1/4 miles [10]

Score = 0

Physical State of Waste

Liquid [D.7]

Score = 3

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

A large number of drums containing liquid waste were stored at the site. Many drums were observed to be leaking and spills were observed heading in the direction of dry well. Drainage system was connected to nearby recharge basin. [D.15, D.20]

Method with highest score:

Containers leaking and containment structure potentially unsound.

Score = 3

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Tetrachloroethene

Compound with highest score:

Tetrachloroethene (12)[3]

Score = 12 [2]

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (give a reasonable estimate even if quantity is above maximum):

1045 drums

Score = 5

Basis of estimating and/or computing waste quantity:

During site inspection conducted by the EPA in 1981, approximately 1,900 55-gallon drums of waste material (spent solvents and acids) were observed at the site. A majority drums were observed to be leaking. However, the exact quantity of leaking material is unknown. Assuming 55 percent of the drums leaked and that each leaking drum released all of its contents, 1045 drums of material could have been released. [D.7, D,20]

* * *

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Recreational

Score = 2

Is there tidal influence?

N/A

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland if 2 miles or less:

None [5]

Score = 0

Distance to 5-acre (minimum) freshwater wetland if 1 mile or less:

None [5]

Score = 0

Distance to critical habitat of an endangered species or national wildlife refuge if 1 mile or less:

None, although an endangered taxon, sandplain gerardia, was last observed in 1921 in the vicinity of Babylon [7].

Score = 0

Population Served by Surface Water

Location(s) of water supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substances and population served by each intake:

None [4]

Score = 0

Computation of land area irrigated by above cited intake(s) and conversion of population (1.5 people per acre):

None [12].

Score = 0

Total population served:

None

Score = 0

Name/description of nearest of above water bodies:

N/A

Distance to above cited intakes measured in stream miles:

None

Score = 0

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

HWD, Inc. reported vapor release accident to SCDOH in March 1981. However, no vapor sample was collected for analysis.

Date and location of detection of contaminants:

N/A

Methods used to detect the contaminants:

N/A

Rationale for attributing the contaminants to the site:

N/A

Score = 0

* * *

2 WASTE CHARACTERISTICS

<u>Reactivity and Incompatibility</u>

Most reactive compound:

N/A

Most incompatible pair of compounds:

N/A

Score = 0

<u>Toxicity</u>

Most toxic compound:

Tetrachloroethene

Score = 3

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (give a reasonable estimate even if quantity is above maximum):

1045 drums

Score = 5

Basis of estimating and/or computing waste quantity:

During site inspection conducted by the EPA in 1981, approximately 1,900 55-gallon drums of waste material (spent solvents and acids) were observed at the site. A majority drums were observed to be leaking. However, the exact quantity of leaking material is unknown. Assuming 55 percent of the drums leaked and that each leaking drum released all of its contents, 1045 drums of material could have been released. [D.7, D.20]

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi. | 0 to 1 mi. | 0 to 1/2 mi. 0 to 1/4 mi.

10182 [9 and 10]

Score = 24

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland if 2 miles or less:

None [5]

Distance to 5-acre (minimal) freshwater wetland if 1 mile or less:

None [5]

Distance to critical habitat of an endangered species if 1 mile or less:

None, although an endangered taxon, sandplain gerardia, was last observed in 1921 in the vicinity of Babylon [7].

Score = 0

Land Use

Distance to commercial/industrial area if 1 mile or less:

Across the street from the site [10].

Score = 3

Distance to national or state park, forest, or wildlife reserve if 2 miles or less:

Bethpage State Park is about 3/4 mile west of the site.

Score = 2

Distance to a residential area if 2 miles or less:

Approximately 1,400 feet [10].

Score = 3

Distance to agricultural land in production within past 5 years if 1 mile or less:

None [8]

Score = 0

Distance to prime agricultural land in production within past 5 years if 2 miles or less:

None [8]

Score = 0

Is a historic or landmark site (National Register of Historic Places and National Natural Landmarks) within view of the site?

None [6]

Score = 0

FIRE AND EXPLOSION*

1 CONTAINMENT

Hazardous substances present:

Type of containment if applicable:

* * *

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

Ignitability

Compound used:

Reactivity

Most reactive compound:

---

*To score Fire and Explosion, either a State or local Marshal must have certified that the facility presents a significant fire or explosion threat to the public or to a sensitive environment, or there must be a demonstrated threat based on field observations. If neither one of these is true, the score cannot be completed.

Incompatibility

Most incompatible pair of compounds:

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

Basis of estimating and/or computing waste quantity:

* * *

3 TARGETS

Distance to Nearest Population

Distance to Nearest Building

Distance to Sensitive Environment

Distance to wetlands:

Distance to critical habitat:

Land Use

Distance to commercial/industrial area if 1 mile or less:

Distance to national or state park, forest, or wildlife reserve if 2 miles or less:

Distance to residential area if 2 miles or less:

Distance to agricultural land in production within past 5 years if 1 mile or less:

Distance to prime agricultural land in production within past 5 years if 2 miles or less:

Is a historic or landmark site (National Register of Historic Places and National Natural Landmarks) within view of the site?

Population Within 2-Mile Radius

Buildings Within 2-Mile Radius

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

No observed incident on record.

Score = 0

2 ACCESSIBILITY

Describe type of barrier(s):

None

Score = 3

* * *

3 CONTAINMENT

Type of containment if applicable:

A large number of drums containing liquid waste were stored at the site. Many drums were observed to be leaking and spills were conveyed to dry wells.

Score = 15

* * *

4 WASTE CHARACTERISTICS

<u>Toxicity</u>

Compounds evaluated:

Tetrachloroethene

Compound with highest score:

Tetrachloroethene

Score = 3

5 TARGETS

Population Within One-Mile Radius

742 people [9 and 10]

Score = 2

Distance to Critical Habitat (of endangered species)

None, although an endangered taxon, sandplain gerardia, was last observed in 1921 in the vicinity of Babylon [7].

Score = 0

HRS DOCUMENTATION REFERENCES

Ref. No.	Description of Reference	Page No.
[1]	Tabulated Lab Results for Groundwater, Surface Water, Sediment, and Soil Sampling Analysis	V-31
[2]	Uncontrolled Hazardous Waste Site Ranking System: A Users Manual, USEPA 1984	V-38
[3]	Listing of EPA Hazard Ranking System Waste Characteristics Values (toxicity/persistence, toxicity, and reactivity)	V-39
[4]	NYS Atlas of Community Water System Sources 1982	V-41
[5]	National Wetlands Inventory - U.S. Department of the Interior	V-47
[6]	Dept. of Interior, National Park Service/ National Registry of Natural Landmarks	V-48
[7]	NYSDEC Significant Habitat Report	V-56
[8]	Phone conversation between J. Sanghvi (G&H) and Suffolk County Soil and Conservation District	V-58
[9]	Population count within 4-mile radius of the site	V-59
[10]	USGS Map	V-63
[11]	Nassau/Suffolk County Aquifer Information by John Malleck, EPA	V-64
[12]	Phone conversation between J. Sanghvi (G&H) and Mr. Bill Sanok (Suffolk County Cooperative Extension).	V-65

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-1 - ANALYTICAL RESULTS OF GROUNDWATER SAMPLES FOR VOLATILE ORGANIC COMPOUNDS

(All data in micrograms/liter)

Analyte	GW-1 9/26	GW-2 9/26 9/27 DL	GW-3 9/26	GW-4 9/26	(Duplicate of GW-2) GW-5 9/26 9/27 DL	Method Blank 9/26	Method Blank 9/27
Trichloroethene	91	130	18	ND	89	ND	ND
Toluene	6	ND	2,300	ND	ND	ND	ND
Ethylbenzene	5	ND	440	ND	ND	ND	ND
Xylene (total)	10	ND	2,000	ND	ND	ND	ND
1,2-Dichloroethene (total)	ND	59	200	ND	30	ND	ND
1,1,1-Trichoroethane	ND	6	150	ND	6	ND	ND
Tetrachloroethene	ND	790 BD	29	ND	440 BD	ND	2 J
Vinyl chloride	ND	ND	11	ND	ND	ND	ND
Chloroethane	ND	ND	48	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	32	ND	2 J	ND	ND
Chlorobenzene	ND	ND	30	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	55	ND	ND	3 J
TIC's*							
Methoxy methyl propane isomer	80	ND	ND	ND	ND		
Ethyl dimethyl benzene isomer	9	ND	ND	ND	5		
Tetramethyl benzene isomer	10	ND	ND	ND	20		
Chlorotrifluoro ethene	ND	ND	19	ND	ND		
1,2-dichloro-1,1,2-triflouroethane	ND	ND	11	ND	ND		
1,1,2-trichloro-1,2,2-triflouroethane	ND	ND	44	ND	ND		
Hexane	ND	ND	6	ND	ND		
Methyl cyclopentane	ND	ND	9	ND	ND		
Heptane	ND	ND	11	ND	ND		
Methyl cyclohexane	ND	ND	11	ND	ND		
Ethyl methyl cyclohexane isomer(s)	ND	ND	ND	18 (2)	ND		
Dimethyl octane isomer	ND	ND	ND	9	ND		

ND - Not detected
B - Contaminant also detected in Method Blank
J - Estimated value detected below Contract Required Quantitation Limit
D - Diluted sample analysis
DL - Date diluted sample was analyzed
* - Estimated value with a 1:1 response; or total estimated value of all detected isomers (number of isomers detected shown in parentheses).

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-2 - ANALYTICAL RESULTS OF GROUNDWATER SAMPLES FOR SEMI-VOLATILE ORGANIC COMPOUNDS

(All data in micrograms/liter)

Analyte	GW-1	GW-2	GW-3	GW-4	(Duplicate of GW-2)d GW-5
Phenol	ND	ND	32	ND	ND
Naphthalene	ND	ND	65	ND	ND
2-Methylnaphthalene	ND	ND	32	ND	ND
TIC's*					
Ethyl-dimethylbenzene isomer(s)	ND	65 (4)	16	ND	39 (3)
Tetramethylbenzene isomer(s)	ND	62 (2)	ND	ND	46 (2)
Dihydro-methyl-1H-Indene isomer	ND	24	22	ND	18
Propyl-benzene	ND	ND	36	ND	ND
Ethylmethylbenzene isomer(s)	ND	ND	408 (5)	ND	ND
2,6-dimethyl-4-Heptanone	ND	ND	69	ND	ND
Methyl-methylethylbenzene isomer(s)	ND	ND	34 (2)	ND	ND
1-methyl-naphthalene	ND	ND	20	ND	ND
Unk. aliphatic hydrocarbon(s)	ND	ND	ND	67 (4)	ND
1-methylpropyl-cyclohexane	ND	ND	ND	15	ND
Trans-decoohydro-naphthalene	ND	ND	ND	15	ND

ND - Not detected

* - Estimated value with a 1:1 response; or total estimated value of all detected isomers (number of isomers detected shown in parentheses).

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HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-3 - ANALYTICAL RESULTS OF GROUNDWATER SAMPLES FOR INORGANIC COMPOUNDS

(All data in micrograms/liter)

Analyte	GW-1	GW-2	GW-3	GW-4	(Duplicate of GW-2) GW-5
Aluminum	3,450	438	2,740	13,900	4,230
Cadmium	ND	9.4	ND	5.4	9.1
Calcium	12,800	16,200	174,000	128,000	15,400
Chromium	ND	ND	ND	29.9 J	ND
Copper	17.3 B	77.6	25.0	58.2	17.7 B
Iron	5,720	1,030	1,050	49,500	6,740
Lead	6.0 U	5.9 U	8.1	139.5	18.6
Magnesium	2,610 B	2,240 B	1,290 B	9,530	2,560 B
Manganese	323	71.7	15.1	1,200	182
Mercury	0.3	ND	ND	ND	ND
Nickel	29.2 B	43.6	8.8 B	27.6 B	14.4 B
Potassium	1,980	5,710	32,600	6,780	4,380
Sodium	5,410	7,940	60,200	6,170	7,360
Zinc	40.0	130.0	70.0	210	90.0
Total Suspended Solids (mg/l)	330	40	108	660	53
Total Dissolved Solids (mg/l)	102	88	549	378	72

ND - Not detected
B - Detected below Contract Required Detection Limit
J - Estimated value due to deviation in Quality Control Limits
U - Not detected; qualified through the Method Blank

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-4 - ANALYTICAL RESULTS OF SURFACE WATER AND SEDIMENT SAMPLES FOR ORGANIC COMPOUNDS

(All surface water data in micrograms/liter)
(All sediment data in micrograms/kilogram)

Volatile Organics	Surface Water			Sediment		
Analyte	SW-1	SW-2	SW-4	SD-1	SD-2	SD-3
1,2-Dichloroethene (total)	ND	ND	8	ND	ND	ND
Tetrachloroethene	ND	ND	19	ND	ND	94
TICs*						
Ethyl Dimethyl Benzene isomer	ND	30	ND	ND	ND	ND
Tetramethyl Benzene isomer(s)	ND	50 (2)	ND	ND	ND	ND
Dihydro Methyl Indene isomer	ND	70	ND	ND	ND	ND
Semi-Volatile Organics						
Phenanthrene	ND	ND	ND	ND	ND	6,000
Anthracene	ND	ND	ND	ND	ND	1,200
Fluoranthene	ND	ND	ND	ND	ND	7,900
Pyrene	ND	ND	ND	ND	ND	6,600
Benzo(a)anthracene	ND	ND	ND	ND	ND	3,400
Chrysene	ND	ND	ND	ND	ND	3,800
Benzo(a)pyrene	ND	ND	ND	ND	ND	2,600
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	1,800
Benzo(g,h,i)pyrene	ND	ND	ND	ND	ND	1,800
bis(2-ethylhexyl)phthalate	ND	ND	53	70 U	140 U	13,000
TICs*						
9H-Carbazole	ND	ND	ND	ND	ND	290
Hexadecanoic acid	ND	ND	ND	ND	ND	290
11H-Benzo[b]fluorene	ND	ND	ND	ND	ND	360
Benzo[ghi]fluoranthene	ND	ND	ND	ND	ND	360
Benzo[j]fluoranthene	ND	ND	ND	ND	ND	2200
Benzo[e]pyrene	ND	ND	ND	ND	ND	1700

ND - Not detected
J - Estimated value detected below the Contract Required Quantitation Limit
U - Not detected; quantified through the Method Blank.
* - Estimated value with a 1:1 response; or total estimated value of all detected isomers number of isomers detected shown in parentheses).

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-5 - ANALYTICAL RESULTS OF SURFACE WATER AND SEDIMENT SAMPLES FOR INORGANIC COMPOUNDS

(All surface water concentrations in micrograms/liter)
(All sediment concentrations in milligrams/kilogram)

	Surface Water			Sediment		
Analyte	SW-1	SW-2	SW-4	SD-1	SD-2	SD-3
Aluminum	261	345	326	1,150	3,580	2,670
Arsenic	UJ	UJ	UJ	6.6	0.98 B	2.0 B
Barium	26.8 B	29.6 B	33.0 B	4.1 B	16.4 B	49.8
Cadmium	ND	ND	ND	ND	ND	6.2
Calcium	14,200	15,300	18,900	140 U	451 B	6,420
Chromium	ND	ND	ND	5.6	5.0	38.2
Copper	14.3 B	12.7 B	23.1 B	3.2 J	4.9 J	198 J
Iron	1,210	1,530	3,330	4,230	3,700	23,400
Lead	4.0 U	4.9 U	5.9 U	9.7	11.7	80.87
Magnesium	1,970 B	2,140 B	1,930 B	177 U	391 B	3,140
Manganese	92.9	104	110	26.7 J	42.6 J	195 J
Nickel	9.7 B	ND	77.3	6.0 J	4.5 J	68.9 J
Potassium	1,300 B	1,360 B	1,700 B	82.1	195	256
Sodium	37,700	3,960	3,450	ND	ND	ND
Silver	ND	ND	ND	2.4 UJ	ND	ND
Zinc	50.0	30.0	170.0	11.5 J	33.9 J	339 J
Total Suspended Solids (mg/l)	<5	<5	<5			
Total Dissolved Solids (mg/l)	72	65	69			

ND - Not detected
B - Detected below Contract Required Detection Limit
U - Not detected; quantified through the Method Blank
J - Estimated due to deviation in Quality Control Limit
UJ - Not detected; estimated value due to deviation in Quality Control Limits

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-6 - ANALYTICAL RESULTS OF SOIL SAMPLES FOR ORGANIC COMPOUNDS

(All data in micrograms/kilogram)

Volatile Organics

Analyte	B-1	B-2	B-3	B-4	B-5	B-6
Trichloroethene	15	ND	7	ND	ND	ND
Tetrachloroethene	580	64	240	5 J	16	ND
Xylene (total)	14	ND	ND	ND	ND	ND
1,2-Dichloroethene (total)	ND	ND	6	ND	ND	ND
Acetone	5 J	ND	8 J	32	ND	ND
TICs*						
Ethyl Methyl Benzene isomer(s)	80 (3)	ND	ND	ND	ND	ND
Ethyl Methyl Octane isomer	10	ND	ND	ND	ND	ND
Trimethyl Benzene isomer(s)	90 (2)	ND	ND	ND	ND	ND
Methyl Propyl Benzene isomer	200	ND	ND	ND	ND	ND
Ethyl Dimethyl Benzene isomer(s)	206 (2)	ND	ND	7	ND	ND
Ethyl Trimethyl Benzene isomer	ND	10	40	ND	ND	ND
Tetramethyl Benzene isomer	ND	ND	100	ND	ND	ND
3,6,6-Trimethyl-Bicyclo[3.1.1]hept-2-ene	ND	ND	ND	40	ND	ND
Dimethyl Methylene Bicyclo[2.].beta.-Pinene	ND	ND	ND	20	ND	ND

Semi-Volatile Organics

Analyte	B-1	B-2	B-3	B-4	B-5	B-6	Method Blank
bis(2-ethylhexyl)phthalate	560 JB	110 JB	480 JB	1,200 B	450 B	940 B	700 JB
TICs*							
Trimethyldecane isomer	4200	ND	ND	ND	ND	ND	
Ethyl-methylbenzene isomer(s)	5000 (2)	ND	ND	ND	ND	ND	
Unk. Aliphatic Hydrocarbon(s)	10600 (3)	ND	ND	1250 (3)	ND	ND	
Methyl-propylbenzene isomer	3400	ND	ND	ND	ND	ND	
Tetramethylbenzene isomer	6600	ND	ND	ND	ND	ND	
Dihydromethy-1H-indene isomer	2000	ND	ND	ND	ND	ND	
Ethyl-1,2,4-trimethyl-benzene	3600	ND	ND	ND	ND	ND	
2,3-dihydro-4,7-dimethyl-1H-indene	1900	ND	ND	ND	ND	ND	
2-Cyclohexen-1-one	ND	ND	960	740	ND	ND	
Benzaldehyde	ND	ND	ND	ND	ND	980	

ND - Not detected
B - Contaminant also detected in Method Blank
J - Estimated value, detected below Contract Required Quantification Limit
* - Estimated value witha 1:1 response; or total estimated value of all detected isomers (number of isomers detected shown in parentheses).

HAZARDOUS WASTE DISPOSAL SITE

TABLE IV-7 - ANALYTICAL RESULTS OF SOIL SAMPLES FOR INORGANIC COMPOUNDS

(All data in milligrams/kilogram)

Analyte	B-1	B-2	B-3	B-4	B-5	B-6
Aluminum	658	4,890	722	5,360	573	1,660
Arsenic	0.97 B	3.6	ND	5.2	0.76 B	1.4 B
Calcium	96.5 B	1,760	646 B	2,900	ND	103 B
Chromium	3.3 J	9.6 J	UJ	11.3 J	1.8 J	6.4 J
Cobalt	10.0 U	12.9 U	10.4 U	11.8 U	9.8 U	11.5 U
Copper	3.0 U	5.7 J	2.3 U	7.6 U	2.3 U	4.0 U
Iron	1,520	4,670	1,290	7,420	1,310	4,660
Lead	2.5 R	5.5 R	2.3 R	32.3 R	1.2 R	2.6 R
Magnesium	89.3 B	577 B	165 B	1,380	66.8 B	434 B
Manganese	12.6 J	87.8 J	14.4 J	83.6 J	13.3 J	40.6 J
Silver	4.1	2.3	ND	4.3	2.1	2.1
Vanadium	ND	7.1 B	ND	13.4	ND	3.2 B
Zinc	7.1 U	13.2 U	5.9 U	31.9	4.6 U	11.1 U

ND - Not detected
B - Detected below Contract Required Detection Limit
U - Not detected; quantified through the Method Blank
R - Unusable value due to deviation in Quality Control Limits
J - Estimated value; due to deviation in Quality Control Limits

Uncontrolled Hazardous Waste Site Ranking System

A Users Manual
(HW-10)

Originally Published in
the July 16, 1982, *Federal Register*

United States
Environmental Protection
Agency

1984

DRAFT

MAR 4 1985

Table I is the listing of EPA Hazard Ranking System (HRS) Waste Characteristics Values (Toxicity/Persistence matrix) used by the NPL quality assurance team. These rating factor values are based on the criteria specified in the HRS (toxicity rating assigned to each substance in Sax, Dangerous Properties of Industrial Chemicals, 4th, 5th and 6th editions). The listing shows the matrix values for ground water and surface water and the toxicity value for air. The values shown are "post multiplier" for use on the HRS worksheets. Changes to this list are made, albeit infrequently, as a result of response to public comment and changes in the reference material. Questions should be directed to the NPL quality assurance team via Mr. Steve Caldwell, EPA Headquarters, (202) 475-8103.

Note: As stated in Mitre Course on Apr. 2 & 3 1986

Zn = 12
Mn = 12
Ni ≠ 18 (undecided at this time)
Se ≠ 18 (" " " ") } Try to use other constituents

Di-N-butyl phthalate ≠ 18 (undecided)
will be 12

Table I (cont.)

Chemical/Compound	Ground Water and Surface Water Pathway Values	Air Pathway Values
Naphthalene	9	6
Nickel & Compounds, NOS	~~18~~	9
Nitric Acid	9	9
Nitroaniline, NOS	18	9
Nitrogen Compounds, NOS	12	0
Nitroguanidine	12	9
Nitrophenol, NOS	15	9
m-Nitrophenol	15	
o-Nitrophenol	12	
p-Nitrophenol	15	
Nitrosodiphenylamine	12	6
Parathion	9	9
Pentachlorophenol (PCP)	18	9
Pesticides, NOS	18	9
Phenanthrene	15	9
Phenol	12	9
Phosgene	9	9
Polybrominated Biphenyl (PBB), NOS	18	9
Polychlorinated Biphenyls (PCB), NOS	18	9
Potassium Chromate	18	9
Radium & Compounds, NOS	18	9
Radon & Compounds, NOS	15	9
RDX (Cyclonite)	15	
2, 4-D, Salts & Esters	18	9
Selenium	15 ?	9
Sevin (Carbaryl)	18	9
Sodium Cyanide	12	9
Styrene	9	6
Sulfate	9	0
Sulfuric Acid	9	9
2, 4, 5-T	18	9
1, 1, 2, 2-Tetrachloroethane	18	9
Tetrachloroethane, NOS	18	9
1, 1, 2, 2-Tetrachloroethene	12	6

LOCATION OF COMMUNITY WATER SYSTEM SOURCES-1982 (SUFFOLK)

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

SCALE 1:250,000

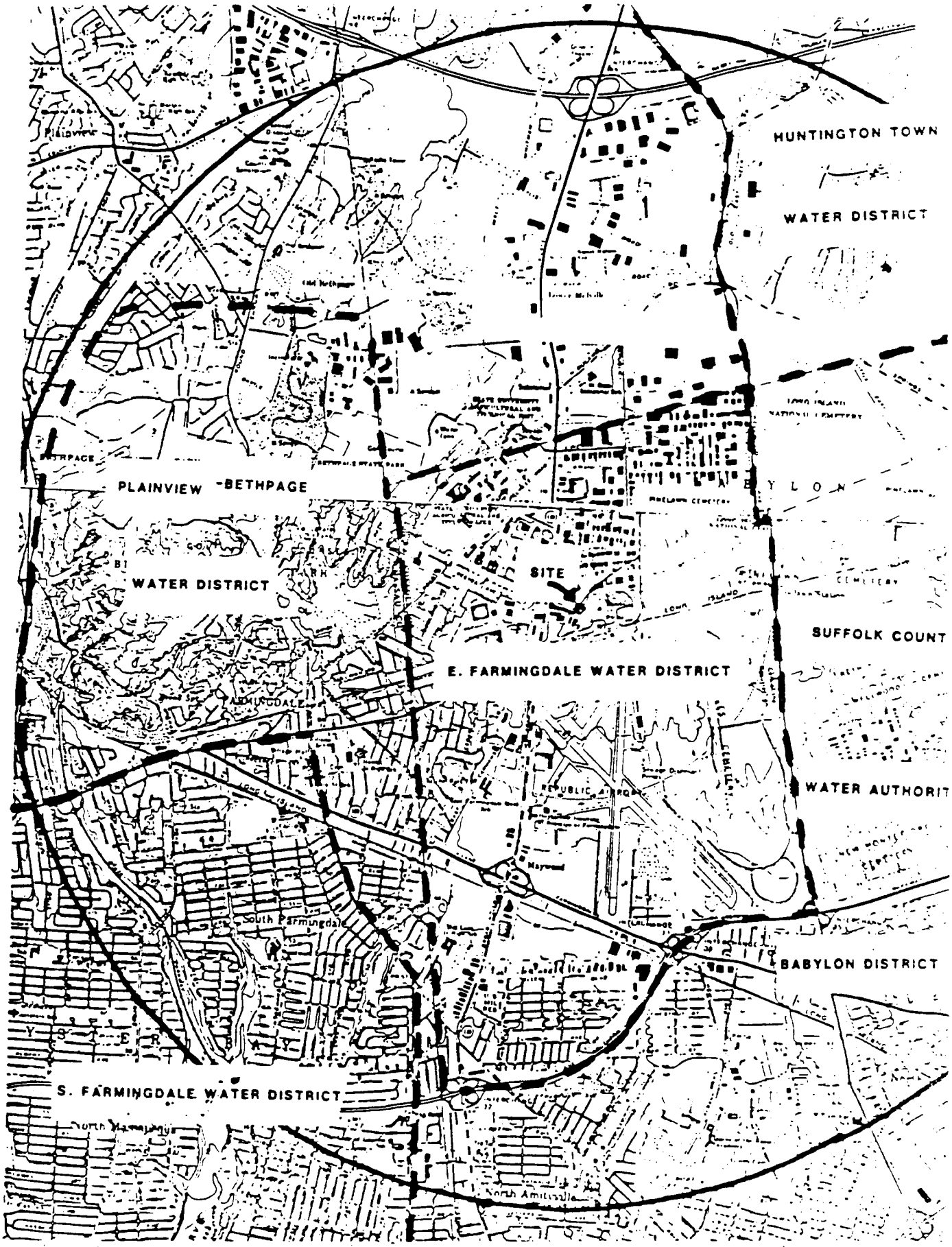
5 0 5 MILES

NORTH

Suffolk County

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
	Municipal Community		
1	Bevon Water Corporation	1150	Wells
2	Brentwood Water District	25812	Wells
3	Bridgehampton Water Company	1916	Wells
4	Captain Kidd Water Company	580	Wells
5	Crab Meadow Beach	50	Wells
6	Culross Corporation (Culross Beach)	104	Wells
7	Dering Harbor Village	130	Wells
8	Dix Hills Water District	30000	Wells
9	East Farmingdale Water District	7850	Wells — 5700
10	Fishers Island Water Works Corporation	250	Barlow,
11	Greenlawn Water District	40000	Wells
12	Greenport Village	6851	Wells
13	Hampton Bays Water District	9500	Wells
14	Hawthorne - Maple Civic Association	50	Wells
15	Herod Point Association	80	Wells
16	North Shores Water Company	5000	Wells
17	Ocean Beach Village	155	Wells
18	Reeves Beach Water Company	650	Wells
19	Riverhead Water District	9300	Wells
20	Roanoke Water Corporation	201	Wells
21	Saltaire Village	35	Wells
22	Scott's Beach Water Company	342	Wells
23	Shelter Island Heights Association	498	Wells
24	Shirley Water Works	3400	Wells
25	Shorewood Water Corporation	10000	Wells
26	Soundview Association	236	Wells
27	South Huntington Water District	51260	Wells
28	Suffolk County Water Authority	900000	Wells — 941000
29	Sunhill Water Corporation	3959	Wells
30	Swan Lake Water Corporation	1485	Wells
31	Terrace-on-the-Sound	400	Wells
32	Woodbury Triangle Corporation	800	Wells
	Non-Municipal Community		
33	Aquebogue Mobile Home Court	120	Wells
34	Brookhaven National Labs	3373	Wells
35	Calverton Hills Owners Association	897	Wells
36	Cedar Lodge Nursing Home	100	Wells
37	Central Islip Psychiatric Center	4525	Wells
38	Crest Hall Health Related Facility	120	Wells
39	East Quogue Mobile Estates	160	Wells
40	Good Samaritan Hospital	NA	Wells
41	Greis Mobile Park	70	Wells
42	Hampton Gateway Apartments	304	Wells
43	Kings Park Psychiatric Center	3100	Wells
44	Knox School	NA	Wells
45	Lake Hurst Lodge Adult Home	57	Wells
46	Leier's Mobile Park	350	Wells
47	Little Flower Children's Services	150	Wells
48	Montauk Air Force Station	10	Wells
49	Napeague Trailer Park	78	Wells
50	Northport VA Hospital	3000	Wells
51	Oak Park Trailer Park	50	Wells
52	Oakland Ridge Mobile Park	74	Wells
53	Park Lake Rest Home	46	Wells
54	Peacock Alley	35	Wells
55	Peconic River Trailer Park	90	Wells
56	Peconic View Adult Mobile Home Park	70	Wells
57	Pinecrest Garden Apartments	392	Wells
58	Ramblewood Mobile Homes	210	Wells
59	Ridge Rest Home	58	Wells
60	Rocky Point Family Housing	55	Wells
61	Rollin Mobile Homes	220	Wells
62	St Joseph Convent - Long Island University	1177	Wells
63	Sam A Lewison Start Center	40	Wells
64	South Bay Adult Home	40	Wells
65	Southampton College	1000	Wells
66	Speonk Mobile Home Park	50	Wells
67	Suffolk Developmental Center	3500	Wells
68	Three Mile Harbor Trailer Park	40	Wells
69	Thurm's Mobile Estates	450	Wells
70	USCG Station - Moriches	23	Wells
71	Wes Dubicki Apartments	NA	Wells

Per NY State Dept. of Health, Public Water System Inventory


HUNTINGTON TOWN
WATER DISTRICT
PLAINVIEW -BETHPAGE
WATER DISTRICT
SITE
SUFFOLK COUNT
E. FARMINGDALE WATER DISTRICT
WATER AUTHORIT
BABYLON DISTRICT
S. FARMINGDALE WATER DISTRICT

LOCATION OF COMMUNITY WATER SYSTEM SOURCES-1982 (NASSAU)

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

SCALE 1:250,000

5 0 5 MILES

NORTH

NASSAU COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
1	Albertson Water District	13500	Wells
2	Bayville Village	7500	Wells
3	Bethpage Water District	32000	Wells
4	Bowling Green Water District	12000	Wells
5	Carle Place Water District	11000	Wells
6	Citizens Water Supply Company	30000	Wells
7	Deforest Drive Association	25	Wells
8	East Meadow Water District	52000	Wells
9	Farmingdale Village	7946	Wells - 8446
10	Franklin Square Water District	20000	Wells
11	Freeport Village	38272	Wells
12	Garden City Park Water District	22596	Wells
13	Garden City Village	22927	Wells
14	Glen Cove City	24618	Wells
15	Hempstead Village	40404	Wells
16	Hicksville Water District	58000	Wells
17	Jamaica Water Supply Company	128448	Wells
18	Jericho Water District	64000	Wells
19	Levittown Water District	50000	Wells
20	Lido-Point Lookout Water District	10000	Wells
21	Locust Valley Water District	8500	Wells
22	Long Beach City	34073	Wells
23	Long Island Water Corporation	258936	Wells
24	Manhasset-Lakeville Water District	44730	Wells
25	Massapequa Water District	52000	Wells
26	Mill Neck Estates Water Supply	240	Wells
27	Mineola Village	20600	Wells
28	New York Water Service	172180	Wells
29	Old Westbury Village	3100	Wells
30	Oyster Bay Water District	10225	Wells
31	Plainview Water District	40000	Wells - 35,000
32	Plandome Village	2616	Wells
33	Port Washington Water District	35000	Wells
34	Rockville Centre Village	25405	Wells
35	Roosevelt Field Water District	1640	Wells
36	Roslyn Water District	27500	Wells
37	Sands Point Village	3002	Wells
38	Sea Cliff Water Company	17850	Wells
39	Sel-Bra Acres Water Supply	80	Wells
40	South Farmingdale Water District	49900	Wells - 44,700
41	Split Rock Water Supply	25	Wells
42	Uniondale Water District	25000	Wells
43	West Hempstead-Hempstead Garden Water District	32000	Wells
44	Westbury Water District	20050	Wells
45	Williston Park Village	8216	Wells
Non-Municipal Community			
46	Community Hospital at Glen Cove	1350	Wells
47	Planting Fields Arboretum	90	Wells
48	Stuart, Walker, Zimmer Water Supply	41	Wells

Per NY State Dept. of Health, Public Water System Inventory

Public Water Supply

Community Water System District	Serving Population	
Suffolk County:		
1. E. Farmingdale	5,700	
2. Bethpage	8,300	
3. Suffolk County	208,593	[1]
Nassau County:		
1. Farmingdale Village	8,446	
2. Plainview Water District	35,000	
3. South Farmingdale Water District	44,700	
Total:	310,739	

[1] Suffolk County Water Authority serves 54,893 customers in Babylon District.

Therefore Population Served by SCWA = 54,893 x 3.8

= 208,593

Suffolk County Water Authority
(1986 Annual Report)

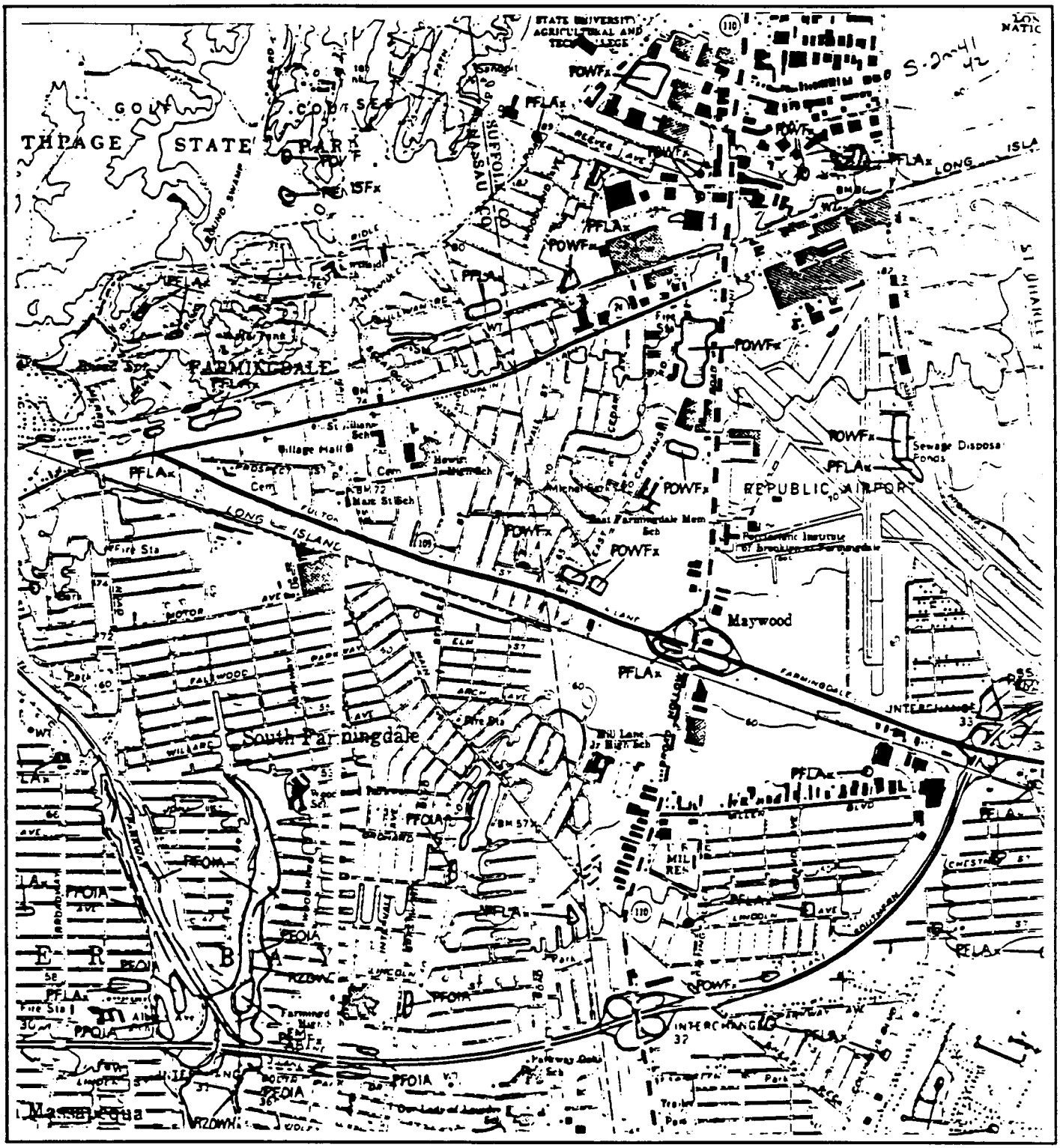
Plant Facilities

AS OF MAY 31, 1985 ☐ AS OF MAY 31, 1986 ☐

Service Areas or Plants	Wells Active		Wells Inactive		Pumping Plants No.		Pumping Plants Capacity-1000 Gals. Daily*		Storage Facilities No.		Storage Facilities Capacity in 1000 Gallons		Active Services	
BABYLON	48	48	8	8	19	19	82,102	82,102	9	8	7,815	7,515	54,311	54,893
BAY SHORE	47	49	14	13	20	20	81,274	83,722	7	7	6,012	6,012	47,485	48,024
EAST HAMPTON	33	32	1	2	18	18	23,652	22,860	4	5	3,720	5,720	10,675	10,948
HUNTINGTON	52	53	3	3	21	21	63,878	64,886	11	11	11,842	11,842	28,676	28,880
PATCHOGUE	65	66	8	7	27	27	108,792	110,592	11	11	11,465	11,465	53,377	52,131
PORT JEFFERSON	67	69	2	1	28	28	107,741	109,901	7	7	7,404	7,404	33,885	34,860
SMITHTOWN	48	48	3	3	21	21	83,578	83,578	6	6	6,100	6,100	23,398	23,772
WESTHAMPTON	23	23	—	—	7	7	16,524	16,524	3	4	2,350	3,350	4,724	9,301
TOTALS	383	388	39	37	161	161	567,541	574,165	58	59	56,708	59,408	256,531	262,829

*Based on 24-hour operation and on actual capacity of pumping equipment for active wells.

NATIONAL WETLANDS INVENTORY



Source:
United State Department of Interior

Site: Hazardous Waste Disposal

N

GIBBS & HILL, INC.

[6]

WASO-34
(May 1987)

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
TRANSMITTAL STATEMENT

From: *(In reply refer to)* **413**	National Register of Historic Places National Park Service, P.O. Box 37127 Department of the Interior Washington, D.C. 20013-7127	**Date** 31 March 1989

To:

Amin Kazemi, Environmental Dept.
Gibbs and Hill
11 Penn Plaza, 5th floor
New York, NY 10001

☐ We are enclosing:

☐ We are sending under separate cover:

NUMBER	ITEM	DESCRIPTION
2	Print-outs, Properties listed and determined eligible for listing in New York	

COMMENTS

If we can be of further assistance, please call us at 202-343-9559.

NAME AND TITLE	SIGNATURE
Debbie Kraybill	Debbie Kraybill

NEW YORK

Schenectady County

Barney's Department Store
217-229 State St.
Schenectady
Determined Eligible/Doe Process 7/02/82

Franklin School
Shenectady
Determined Eligible/Doe Process 5/21/82

State Theater
238-244 Liberty St.
Schenectady
Determined Eligible/Doe Process 11/12/82

Schoharie County

Valley between the villages of Breakabeen and North Blenheim
Breakabeen Pumped Storage Project FPC No. 2729
City unavailable
Determined Eligible/Doe Process 4/23/75

Steuben County

Veterans Administraation Medical Center
Bath
Determined Eligible/Doe Process 5/23/80

Suffolk County

Cold Spring Harbor Historic District
Contains properties on HARBOR-MAIN-HILL between Saw Mill Rd. and Huntington Rd. and along Shore Rd.-Spring St.
Huntington
Determined Eligible/Certified District 9/05/84

East End Site
Address Restricted
Jamesport
Determined Eligible/Doe Process 10/09/75

East Moriches Schoolhouse
East Moriches, L.I. 11940
Brookhaven
Determined Eligible/Doe Process 5/28/82

Hallock's Pond Site
Address Restricted
Jamesport
Determined Eligible/Doe Process 10/09/75

Hubbs-Burr House
303 Burr Rd.
City unavailable
Determined Eligible/Doe Process 2/05/87

Lloyd Harbor Lighthouse
City unavailable
Determined Eligible/Doe Process 9/05/85

NEW YORK Suffolk County

Northville Historic District
Houses along Sound Ave.
Jamesport
Determined Eligible/Doe Process 10/09/75

Old Babylon Town Hall
47 W. Main St.
Babylon
Determined Eligible/Doe Process 4/06/79

Old Bethel A.M.E. Church
Albany Ave.
North Amityville
Determined Eligible/Doe Process 4/06/79

Presbyterian Church of the Moriches
263 Main St.
Brookhaven
Determined Eligible/Doe Process 4/16/82

Smith Estate
Brookhaven
Determined Eligible/Doe Process 8/26/81

Southold Library
Main Rd.
Southold
Determined Eligible/Doe Process 12/16/80

The Church Site
City unavailable
Determined Eligible/Doe Process 11/16/81

Veteran's Administration Medical Center
Middleville Rd.
Northport
Determined Eligible/Doe Process 6/25/81

WW I Training Trenches
Upton
Determined Eligible/Doe Process 5/23/79

Sullivan County

Stirna Site (Narrowsburg-North)
Located w. of Narrowsburg
Project No. C-36-1191-02
Narrowsburg
Determined Eligible/Doe Process 6/18/82

Van Schoick Site (Narrowsburg-South)
Located W. of Narrowsburg
Project No. C-36-1191-02
Narrowsburg
Determined Eligible/Doe Process 6/18/82

Tioga County

SUBI 672 Site
Oswego
Determined Eligible/Doe Process 1/17/78

federal register

Tuesday
March 1, 1983

Part III

Department of the Interior

National Park Service

National Registry of Natural Landmarks

Great Plains natural region. A variety of successional stages from active dunes to a climax shinnery oak-sand prairie community is represented. (May 1982) Owner: Federal, State, Private

Dona Ana County

KILBOURNE HOLE—26 miles southwest of Las Cruces. An uncommon volcanic feature known as a maar, which is a depression caused by volcanic explosion that emits little volcanic material except gas. (May 1975) Owner: Federal, Private

Harding County

*BUEYEROS SHORTGRASS PLAINS—17 miles east of Bueyeros. An example of the blue grama-buffalograss prairie of the Great Plains considered to be typical of the pre-cattle-grazing era. Two of the three dominant natural grazing animals (antelope and prairie dogs) are still in the area. (February 1980) Owner: Private

Lincoln County

BORDER HILLS STRUCTURAL ZONE—24 miles west of Roswell. One of the several buckles on the Pecos slope located in otherwise gently dipping Permian strata. (February 1980) Owner: Federal, Private

*FORT STANTON CAVE—Seven miles west of Lincoln. The cave is characterized by very long and large open passages containing distinctive examples of selenite needles, starbursts, and velvet flowstone. (May 1974) Owner: Federal

*TORGAC CAVE—20 miles southeast of Corona. Significant because of its abundant and intricate gypsum speleothems. The branching stalactite and helictite are so distinctive that the cave lends its name to the type: Torgac stalactites. (May 1974) Owner: Federal

Rio Arriba County

*GHOST RANCH—South of Canjilon. The tract is predominantly shale and sandstone, and has yielded fossils, including many well-preserved skeletons of *Coelophsis*, the oldest and most primitive carnivorous dinosaur. (January 1976) Owner: Private

VALLES CALDERA (extends into Sandoval County)—30 miles northwest of Santa Fe. A large circular depression, 12 to 15 miles in diameter, with scalloped walls rising from a few hundred, to more than 2,000, feet above the present floor. It is one of the largest calderas in the world. (May 1975) Owner: Private

Sandoval County

VALLES CALDERA (see *Rio Arriba County*)

San Juan County

*SHIP ROCK—35 miles west of Farmington. Ship Rock is an outstanding example of an exposed volcanic neck accompanied by radiating dikes; it towers 1400 feet above the surrounding plain. (May 1975) Owner: Indian trust (Navajo Tribe)

Valencia County

GRANTS LAVA FLOW—Extends 25 miles south from Grants—A classic example of recent extrusive volcanism. It contains lava flows that appear very fresh and unweathered. Its gigantic pressure ridges, collapse depressions and lava tubes are outstanding. (July 1969) Owner: Federal, State, Private

NEW YORK (26)

Albany County

*BEAR SWAMP—Three miles south of Westerlo. A low, swampy woodland consisting of red maple, yellow birch, black ash, white elm, white pine, and hemlock. Its most outstanding feature is the great laurel covering 60 acres of the swamp. (May 1973) Owner: Private

Allegany County

*MOSS LAKE BOG—Two miles southwest of Houghton. The site is a classic example of a postglacial sphagnum bog invading and filling a small kettle lake, with the various stages of bog succession well illustrated. (May 1973) Owner: Private

Cattaraugus County

*DEER LICK NATURE SANCTUARY—Four miles southeast of Gowanda. The area includes a gorge that clearly illustrates exposed stratifications of the Onondaga Escarpment, and supports a mature northern hardwood forest. (November 1967) Owner: Private

Dutchess County

*THOMPSON POND—20 miles east of Kingston. The 75-acre, glacially created pond is not more than four feet deep, fringed by cattail marshes, with reeds and water lillies in deeper water. Well-developed ecosystems from the open pond to the mountain cliffs illustrate great ecological diversity. (May 1973) Owner: Private

Genesee County

*BERGEN-BYRON SWAMP—Between Bergen and Byron, 25 miles west of Rochester. This landmark consists of an area of some 2,000 acres that is unusually rich in plant and animal life. (March 1964) Owner: Private

*FOSSIL CORAL REEF—Four miles northwest of Le Roy. An exposed fossil site in an abandoned limestone quarry surrounded by woodland. It is extremely rich in fossil coral specimens. (November 1967) Owner: Private

*OAK ORCHARD CREEK MARSH (extends into Orleans County)—Iroquois National Wildlife Refuge, seven miles southeast of Medina. The area is a relatively undisturbed marsh that is rare for this part of New York State. (May 1973) Owner: Federal

Herkimer County

MOSS ISLAND—Within the city limits of Little Falls. The island is part of an uplifted fault block of ancient crystalline rock. It contains the best exposure of glacial age potholes eroded by meltwater floods in the eastern United States. (May 1976) Owner: State

Jefferson County

*DEXTER MARSH—Two miles southwest of Dexter. The site is a relatively undisturbed, extensive example of a large bay-head marsh complex at the eastern end of Lake Ontario. (May 1973) Owner: State

*IRONSIDES ISLAND (extends into St. Lawrence County)—In the St. Lawrence River, eight miles northeast of Alexandria Bay. A glacier-scoured granite knoll; the most significant feature is the breeding colony of great blue herons. (April 1967) Owner: Private

LAKEVIEW MARSH AND BARRIER BEACH—20 miles southwest of Watertown. One of the best and most extensive marshlands that lie in protected bays and behind barrier beaches along eastern Lake Ontario. The marsh-swamp-pond complex demonstrates great wetlands diversity. (May 1973) Owner: State

Livingston County

*FALL BROOK GORGE—One and one-half miles south of Geneseo. One of America's finest exposures of Upper and Middle Devonian age strata. Significant fossil remains are found at this site. (January 1970) Owner: Private

Monroe County

*HARTS WOODS—Ten miles southeast of Rochester. A rare remnant of the original beech-maple forest that once occupied a large glaciated area extending from southeastern Wisconsin to north-central New York. (June 1972) Owner: Municipal

*MENDON PONDS PARK—11 miles south of Rochester. A unique complex of glacial features including kames, eskers, esker fans, kettle holes, erratics, bogs, and ponds. (November 1967) Owner: County

Onondaga County

*ROUND LAKE—Green Lakes State Park, two miles northeast of Fayetteville. The site contains one of 11 meromictic lakes reported in the United States, and about 20 acres of outstanding virgin mesophytic forest that adjoin the lake. (May 1973) Owner: State

Orleans County

*OAK ORCHARD CREEK MARSH (see *Genesee County*)

Rockland County

*HOOK MOUNTAIN AND NYACK BEACH STATE PARK—One mile north of Nyack. The area contains a portion of the Palisade Sill. The geological features are deposits characterstic of the filling of basins that developed during rifting and opening of the North Atlantic Basin 180-200 million years ago. (April 1980) Owner: State

*IONA ISLAND MARSH—Two miles south of Fort Montgomery. A brackish estuarine marsh in a near natural state that fringes the Hudson River. Many rare plants are found here. (May 1974) Owner: State

St. Lawrence County

*IRONSIDES ISLAND (see *Jefferson County*)

Saratoga County

*PETRIFIED GARDENS—Four miles west of Saratoga Springs. The area includes the best exposure of fossil reefs made up of calcareous algae, known as cryptozoon,

which constitute a milestone in the evolution of plant life. (April 1967) Owner: Private

Seneca County

*MONTEZUMA MARSHES—Montezuma National Wildlife Refuge, four miles northeast of Seneca Falls. A marsh dominated by broadleaved cattail. A small 100-acre area within the site is one of the best examples of undisturbed swamp woodlands in New York or New England. (May 1973) Owner: Federal

Suffolk County

*BIG REED POND—Three miles west of Montauk Point. The freshwater pond supports a herd of whitetail deer and other wildlife, and has no extensive man-made development along its shoreline. (May 1973) Owner: County

GARDINER'S ISLAND—100 miles east of New York City, in Block Island Sound off Long Island. The island is a breeding ground for osprey and is an important habitat of other fauna, particularly waterfowl and shore birds. (April 1967) Owner: Private

*LONG BEACH, ORIENT STATE PARK—One mile south of Orient. One of the finest remaining examples in New York of a sandgravel spit illustrating succession from salt marsh to maritime forest. The area contains a breeding colony of common and roseate terns, species which are becoming scarce in other North Atlantic breeding grounds. (April 1980) Owner: State

Tompkins County

*McLEAN BOGS—One and one-half miles east-southeast of McLean. The bogs contain rare plant species and one of the best examples of a northern deciduous forest in New York. (May 1973) Owner: Private

Ulster County

*ELLENVILLE FAULT-ICE CAVES—Five miles southeast of Ellenville. The largest known exposed fault system in the United States, along with a series of ice caves formed from fault debris. (November 1967) Owner: Municipal

Wayne County

*ZURICH BOG—Nine miles north of Newark. A good example of northern bog and bog forest vegetation that is uncommon in north-central New York State. (May 1973) Owner: Private

Westchester County

*MIANUS RIVER GORGE—Two miles south of Bedford. An exceptional illustration of piedmont physiography and geomorphology. It contains an excellent climax hemlock forest. (March 1964) Owner: Private

NORTH CAROLINA (11)

Alleghany County

*STONE MOUNTAIN (extends into Wilkes County)—Stone Mountain State Park, nine miles southeast of Sparta. The best example of a monadnock in massive granite in North Carolina. Unique, endemic plants persist on the granite outcrops. (May 1974) Owner: State

Ashe County

LONG HOPE CREEK SPRUCE BOG (extends into Watauga County)—Ten miles north-northeast of Boone. One of the rarest plant communities of North Carolina and the Southeast, including American yew and buckbean. (May 1974) Owner: Private

*MOUNT JEFFERSON STATE PARK—One mile east of West Jefferson. The mountain's uppermost forest is virtually undisturbed northern red oak and represents one of the finest remaining examples of oak-chestnut forest in the Southeast. (May 1974) Owner: State

Beaufort County

GOOSE CREEK STATE PARK NATURAL AREA—Ten miles east of Washington. An excellent example of a gently sloping mainland undergoing rapid ocean transgression. Contains the following diverse ecological units: brackish creeks and marshes, marsh transition areas, river swamp forest, and low pine forests. (April 1980) Owner: State

Brunswick County

GREEN SWAMP—Nine miles north of Supply. The largest and most unique mosaic of wetland communities in the Carolinas. The site is also a refuge for rare animal species. (May 1974) Owner: Private

Dare County

NAGS HEAD WOODS AND JOCKEY RIDGE—One and one-half miles northwest of Nags Head on Bodie Island. The site illustrates the entire series of dune development and plant succession from shifting open dunes to forested stabilized dunes. (May 1974) Owner: State, County, Municipal, Private

Davie County

*ORBICULAR DIORITE—An unusual plutonic igneous rock consisting of hornblende, pyroxene, and feldspars. (August 1980) Owner: Private

Onslow County

BEAR ISLAND—Hammocks Beach State Park, 4 miles south-southeast of Swansboro. The area contains one of the largest and best examples of coastal aeolian landforms in the Atlantic Coastal Plain. Dune movement has created a dynamic landscape of outstanding scenic beauty. (April 1980) Owner: State

Surry County

*PILOT MOUNTAIN—Pilot Mountain State Park, 3 miles south of Pilot Mountain. A classic monadnock that harbors disjunct Blue Ridge Mountain vegetation. (May 1974) Owner: State

Wake County

*PIEDMONT BEECH NATURAL AREA—William B. Umstead State Park, 7 miles northwest of Raleigh. Perhaps the finest example of mixed mesophytic forest in the eastern Piedmont of North Carolina, with unusually fine climax stands of beech in portions of the site. (May 1974) Owner: State

Watauga County

LONG HOPE CREEK SPRUCE BOG (see *Ashe County*)

Wilkes County

*STONE MOUNTAIN (see *Alleghany County*)

Yancey County

*MOUNT MITCHELL STATE PARK—20 miles northeast of Asheville. Mount Mitchell (6,684 feet above sea level) is the highest mountain in the eastern half of the United States. The park has the most extensive stand of Fraser's fir remaining in America. (May 1974) Owner: State

NORTH DAKOTA (4)

Billings County

*TWO-TOP MESA AND BIG TOP MESA—14 miles northwest of Fairfield. Both mesas, one mile apart, are in a badlands terrain of sandstones, siltstones and clay. The mesas are characterized by an unbroken cover of grass on flat relief. (October 1965) Owner: Federal

Cavalier County

*RUSH LAKE—Five miles south of Hannah. A large, shallow, essentially undisturbed prairie pothole lake that is an important staging area for waterfowl. (May 1975) Owner: Private

Kidder County

SIBLEY LAKE—five miles north of Dawson. A large, permanent alkaline lake, it provides a breeding and resting area for one of the largest and most diverse waterbird populations found in pothole lakes in the State. (May 1975) Owner: State, Private

Stutsman County

FISCHER LAKE—25 miles northwest of Jamestown. Highly representative of the glacial moraine and pitted outwash plain surface of North Dakota. The area contains relatively undisturbed grasslands and lush prairie woodlands. (April 1980) Owner: State, Private

OHIO (23)

Adams County

*BUZZARDROOST ROCK-LYNX PRAIRIE-THE WILDERNESS—25 miles west of Portsmouth. The site contains a number of different plant associations, including many rare or uncommon species. Has an almost 50-year history of scientific observations. (April 1967, December 1974, February 1980) Owner: Private

SERPENT MOUND CRYPTOEXPLOSIVE STRUCTURE (extends into Highland and Pike Counties)—31 miles southwest of Chillicothe. A structure of undertermined origin exposed by differential erosion. It is the smaller of two such outstanding cryptoexplosive structures in the Interior Low Plateaus and is the classic American example. (February 1980) Owner: Private

Ashland County

*CLEAR FORK GORGE—Mohican State Park, four miles south of Loudenville. A

federal register

Tuesday
February 7, 1984

Part III

Department of the Interior

National Park Service

National Registry of Natural Landmarks; Annual Supplemental Listing of Natural Landmarks; Notice

V-54

DEPARTMENT OF THE INTERIOR

National Park Service

National Registry of Natural Landmarks

AGENCY: National Park Service, Interior.

ACTION: Public notice.

SUMMARY: This notice lists all natural landmarks designated by the Secretary of the Interior between March 1, 1983 and September 30, 1983, and included on the National Registry of Natural Landmarks. The listing published in the **Federal Register** on March 1, 1983 (48 FR 8682) contains all natural landmarks designated prior to that date and should be retained for reference purposes. Both listings provide information on each landmark's location, natural values, designation date, ownership, and owner agreement status. Federal agencies should consider the existence and location of natural landmarks when assessing the impact of their actions on the environment under Section 102(2)(c) of the National Environmental Policy Act of 1969 (83 Stat. 852; 42 U.S.C. 4321).

FOR FURTHER INFORMATION CONTACT: Mr. Arthur L. Stewart, Acting Chief, Natural Landmarks Branch, Interagency Resources Division, National Park Service, Washington, D.C. 20240, (202) 343-9525.

SUPPLEMENTARY INFORMATION: The Secretary of the Interior established the National Natural Landmarks Program in 1962 to identify and encourage the preservation of the full range of ecological and geological features that are nationally significant examples of the Nation's natural heritage. Potential natural landmarks are identified through studies conducted by the National Park Service (NPS), evaluated by expert natural scientists, and, if judged nationally significant, designated as natural landmarks by the Secretary of the Interior. Once a natural landmark is designated, it is included on the National Registry of Natural Landmarks, which currently lists 548 natural landmarks.

The National Natural Landmarks Program has been administered by NPS since May 18, 1962 with the exception of the period from January 25, 1978 to May 31, 1981 when it was administered by the former Heritage Conservation and Recreation Service.

The act designating an area as a natural landmark is not a land withdrawal and in no way affects the ownership of the site. It does not dictate the type or intensity of activity that may be undertaken in a natural landmark. Natural landmark preservation is often made possible only through the long-term commitment of public and private owners to protect an area's outstanding natural values. The Department of the Interior encourages owners and managers to protect the nationally significant values of their natural landmarks. This cooperation is voluntary and does not restrict the uses to which the land may be put. An owner who enters into a voluntary nonbinding agreement with NPS to protect a natural landmark is eligible to receive a certificate which recognizes the special status of the area. A bronze plaque may also be presented for appropriate display on the site.

Federal agencies should consider the existence and location of natural landmarks when they assess the effects of their actions on the environment under Section 102(2)(c) of the National Environmental Policy Act of 1969 (83 Stat. 852; 42 U.S.C. 4321).

NPS prepares an annual report for the Secretary of the Interior to transmit to the Congress which identifies all natural landmarks with known or anticipated damage or threats to the integrity of their resources (90 Stat. 1940; 16 U.S.C. 1a-5).

National Registry of Natural Landmarks

The National Registry of Natural Landmarks recognizes nationally significant ecological and geological features in 48 States, American Samoa, Guam, Puerto Rico, and the Virgin Islands. Of the 548 landmarks listed on the National Registry of Natural Landmarks, over one-half are administered solely by public agencies, e.g., Federal, State, county, or municipal governments. Almost one-third are owned entirely by private parties. The remaining natural landmarks are owned or administered by a mixture of public and private owners.

The following list contains all natural landmarks added to the National Registry of Natural Landmarks between March 1, 1983 and September 30, 1983. The natural landmarks are arranged alphabetically by State and county. A description of each landmark's location, natural values, designation date and ownership is provided. Each natural landmark's designation date is enclosed in parentheses. Ownership data are arranged in the following arbitrary order and do not reflect the relative amount of land owned by any party: Federal, State, County, Municipal, Private. An asterisk (*) indicates that the owner(s) of a landmark have entered into a voluntary agreement to protect the area's natural values.

Because many natural landmarks are privately owned and/or not managed for public access, landowner permission must be obtained before visits are made to these landmarks. The specific locations of some landmarks are not provided because of owner requests for minimum publicity and/or because of the fragility of the landmark's natural features.

Dated: November 22, 1983.

Russell E. Dickenson,

Director, National Park Service.

CALIFORNIA

Inyo County

*Eureka Dunes—Southern part of Eureka Valley, northwest of Death Valley National Monument. Excellent example of aeolian geological processes. Tallest dune complex in the Great Basin Natural Region of the United States. Contains grass genus listed as an endangered species and the only species capable of surviving on and stabilizing the steep dune slopes. (June 1983) Owner: Federal

NEW JERSEY

Bergen County

*Palisades of the Hudson (see New York)

NEW YORK

Rockland County

*Palisades of the Hudson—Along western bank of Hudson River from Sparkill, New York south 13 miles to below the George Washington Bridge in New Jersey. This is the best example of a thick diabase sill formation known in the United States. Columnar jointing, an olivine zone and thermal metamorphic effects are attributes found in rare combination at this site. The glaciated crest provides impressive evidence of the Pleistocene glacier. (June 1983) Owner: State

NORTH CAROLINA

Hyde County

Salyer's Ridge Natural Area—On western end of Mattamuskeet National Wildlife Refuge, 5 miles north of Swanquarter. Rare example of mature loblolly pine forest in process of succeeding to a deciduous forest. (June 1983) Owner: Federal

OKLAHOMA

Alfalfa County

*Salt Plains National Wildlife Refuge—Four miles east of Cherokee. Largest inland saline basin in the Central Lowlands Natural Region of the United States. Area is used as natural habitat by 75 percent of Nation's whooping cranes. Also one of few remaining habitats for inland least tern, snowy plover, Canadian geese and avocets in southern Central Lowlands. Important area for study of selenite crystal formation. (June 1983) Owner: Federal

TEXAS

Anderson County

Catfish Creek—20 miles northwest of Palestine. Best example of the few remaining undisturbed riparian habitats in the Western Gulf Coastal Plains. The site supports several wildlife species rarely found elsewhere in Texas. (June 1983) Owner: State

[FR Doc. 84-3135 Filed 2-6-84; 8:45 am]

BILLING CODE 4310-70-M

HILL

December 12, 1990

Gibbs & Hill, Inc.
11 Penn Plaza
New York, NY 10001
Tel (212) 216-6000
FAX (212) 216-6476
Telex 177199

Mr. Burrell Buffington
Information Services
Wildlife Resources Center
700 Troy-Schenectady Road
Latham, N.Y. 12110

Dear Mr. Buffington:

Gibbs & Hill, Inc. has been contracted by the New York State Department of Environmental Conservation to do Phase II Investigations of the following inactive hazardous waste disposal sites:

1. Constantine site, ID #546016 - Troy North, NY Quad.
2. Quaker Road, Mt. Ivy Swamp, ID #344024 - Thellis, NY Quad.
3. Schodack Landfill, ID #442023 - East Greenbush, NY Quad.
4. Ron Lyn, Inc. ID #152112 - Bay Shore West, Amityville, Greenlawn & Huntington, NY Quads.
5. Jack The Stripper, ID #401035 - Niskayuna, NY, Quad.
6. Route 146A Barrel site, ID #546024 - Plattsburgh, NY Quad.
7. Plattsburgh Municipal Lighting Dept., ID #510002 - Plattsburgh, NY, Quad.
8. Rotterdam Town Landfill, ID #447010 - Rotterdam, NY Quad.
9. Durham-Greenville Landfill, ID #420001 - Durham, NY & Greenville, NY Quads.
10. Mattituck Airbase, ID #152038 - Mattituck, NY Quad.
11. NTU Circuits, ID #152086 - Amityville, NY Quad.
12. Hazardous Waste Disposal, ID #152113 - Amityville, NY Quad.

Part of our investigations concern the potentially effected critical habitats and endangered species within a three mile radius of the sites. We need this information in order to rank the sites in the hazardous ranking system.

Included are copies of USGS Quad maps showing the exact locations of the 12 sites we are working on. For our purposes we need to know of any state or federally listed critical habitats, and any endangered species located within a three mile radius of the sites.

It would be appreciated greatly if you could send the information as soon as possible.

Thank you.

Very truly yours,

Dori Davidson

Dori Davidson
Hydrogeologist

Offices Worldwide

WPENVR1-3156

New York State Department of Environmental Conservation

Information Services
Wildlife Resources Center
700 Troy-Schenectady Road
Latham, New York 12110-2400

Thomas C. Jorling
Commissioner

January 11, 1991

Dori Davidson
Gibbs & Hill, Inc.
11 Penn Plaza
New York, New York 10001

Dear Ms. Davidson:

We have reviewed the Significant Habitat Unit and the NY Natural Heritage Program files with respect to your request for biological information concerning several Phase II investigations of inactive hazardous waste disposal sites throughout New York State.

Enclosed you will find a computer printout covering the area you requested to be reviewed by our staff. The information contained in this report is confidential and may not be released to the public without permission from the Significant Habitat Unit.

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

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

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

Sincerely,

Burrell Buffington

Burrell Buffington
Significant Habitat Unit

Encs.
cc: Regions 1, 3, 4, & 5, Regional Wildlife Mgrs.

V-57

New York Heritage Program is supported in part by The Nature Conservancy

[8]

Telephone Conversation Record

Date: 3/13/91

Time: 10:40 AM

Call by: J. Sanghvi (Name) of Gibbs & Hill (Company)

Answer by: Paul Tenynhuis (Name) of Suffolk Cty Soil & Conservation District (Company)

Contract No: 5066-112

Subject discussed: Agricultural & Prime Agricultural Land in Production within the site.

SUMMARY OF DISCUSSION, DECISIONS AND COMMITMENTS.

Received the following information

(1) There is no agriculture land in production within one mile radius of the site.

(2) There is no prime agriculture land in production within two mile radius of the site.

F-424, 10-68

Population Within a 4-Mile Radius

Place	Population	Mile^2	Population / Mile^2
Bethpage	16,840	3.6	4,678
E. Farmingdale	5,522	5.8	952
S. Farmingdale	16,439	2.2	7,472
Huntington	21,727	8.4	2,587
Babylon	12,388	2.5	4,955
	72,916	22.5	

Radius, mi	Area, mi^2	Population(1)	Note	
0.25	0.196	187	2	(score = 21)
0.5	0.785	748	2	(score = 18)
1.0	3.140	10,182	3	(score = 24)
2.0	12.570	40,728	3	
3.0	28.274	91,637	3	
4.0	50.265	162,910	3	(score = 21)

Note

1. Population = Area x Density
2. Density of E. Farmingdale applied
3. Average density applied
   (Total Population/Total Area = 72,916/22.5 = 3,241)
4. Data for Babylon Village used in calculation

1980 Census of Population

VOLUME 1
CHARACTERISTICS OF THE POPULATION

CHAPTER A

Number of Inhabitants

PART 34

NEW YORK

PC80-1-A34

Issued February 1982

U.S. Department of Commerce
Malcolm Baldrige, Secretary
Joseph R. Wright, Jr.,
Deputy Secretary
Robert G. Dederick,
Assistant Secretary for
Economic Affairs

BUREAU OF THE CENSUS
Bruce Chapman,
Director

Data Index

This index provides a summary listing of the tables in which the particular data are presented. For a listing of the individual tables and their page numbers, see page 1.

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Table 25. **Population, 1960 to 1980, and Land Area and Population Density for 1980 for Places of 2,500 or More—Con.**

[For meaning of symbols, see Introduction]

Places	Population 1980	Population 1970	Population 1960	1980 land area Square miles	1980 land area Square kilometers	Population per— Square mile	Population per— Square kilometer
NEW JERSEY—Con.							
River Edge borough	11 111	12 850	13 264	1.9	4.9	5 848	2 268
Riverside (CDP)	7 941	...	...	1.5	3.9	5 294	2 036
Riverton borough	3 068	3 412	3 324	0.7	1.8	4 383	1 704
River Vale (CDP)	9 489	...	...	4.3	11.2	2 207	847
Robertsville (CDP)	8 461	...	...	5.9	15.3	1 434	553
Rochelle Park (CDP)	5 603	...	...	1.1	2.8	5 094	2 001
Rockaway borough	6 852	6 383	5 413	2.1	5.4	3 263	1 269
Roseland borough	5 330	4 453	2 804	3.7	9.6	1 441	555
Roselle borough	20 641	22 585	21 032	2.6	6.7	7 939	3 081
Roselle Park borough	13 377	14 277	12 546	1.2	3.1	11 148	4 315
Rumson borough	7 623	7 421	6 405	5.2	13.5	1 466	565
Runnemede borough	9 461	10 475	8 396	2.1	5.4	4 505	1 752
Rutherford borough	19 068	20 802	20 473	2.8	7.3	6 810	2 612
Saddle Brook (CDP)	14 084	...	...	2.8	7.2	5 030	1 956
Saddle River borough	2 763	2 437	1 776	5.1	13.2	542	209
Salem city	6 959	7 648	8 941	2.6	6.8	2 677	1 023
Sayreville borough	29 969	32 508	22 553	15.2	39.3	1 972	763
Scotch Plains (CDP)	20 774	...	...	9.2	23.9	2 258	869
Sea Girt borough	2 650	2 207	1 798	1.1	2.8	2 409	946
Sea Isle City city	2 644	1 712	1 393	2.5	6.5	1 058	407
Secaucus town	13 719	13 228	12 154	6.1	15.8	2 249	868
Shrewsbury borough	2 962	3 315	3 222	2.0	5.2	1 481	570
Silverton (CDP)	7 236	...	...	4.4	11.3	1 645	640
Somerdale borough	5 900	6 510	4 839	1.4	3.5	4 214	1 686
Somerset (CDP)	21 731	...	...	5.2	13.5	4 179	1 610
Somers Point city	10 330	7 919	4 504	4.1	10.6	2 520	975
Somerville borough	11 973	13 652	12 458	2.3	6.0	5 206	1 996
South Amboy city	8 322	9 338	8 422	1.7	4.5	4 895	1 849
South Bound Brook borough	4 331	4 525	3 626	0.7	1.8	6 187	2 406
South Orange (CDP)	15 864	...	...	2.8	7.3	5 666	2 173
South Plainfield borough	20 521	21 142	17 879	8.2	21.2	2 503	968
South River borough	14 361	15 428	13 397	2.8	7.3	5 129	1 967
South Toms River borough	3 954	3 981	1 603	1.2	3.1	3 295	1 275
Spotswood borough	7 840	7 891	5 788	2.3	6.0	3 409	1 307
Springfield (CDP)	13 955	...	...	5.2	13.5	2 684	1 034
Spring Lake borough	4 215	3 896	2 922	1.1	2.8	3 832	1 505
Spring Lake Heights borough	5 424	4 602	3 309	1.5	3.9	3 616	1 391
Stanhope borough	3 638	3 040	1 814	1.8	4.7	2 021	774
Stratford borough	8 005	9 801	4 308	1.5	3.8	5 337	2 107
Succasunna–Kenvil (CDP)	10 931	...	...	6.7	17.3	1 631	632
Summit city	21 071	23 620	23 677	6.1	15.8	3 454	1 334
Teaneck (CDP)	39 007	...	...	6.1	15.7	6 395	2 485
Tenafly borough	13 552	14 827	14 264	4.6	11.9	2 946	1 139
Tinton Falls borough	7 740	[illegible]8 395	7 313	15.2	39.4	509	196
Toms River (CDP)	7 465	7 303	6 062	3.0	7.7	2 488	969
Totowa borough	11 448	11 580	10 897	4.0	10.4	2 862	1 101
Trenton city	92 124	[illegible]104 786	114 167	7.0	18.1	13 161	5 090
Twin Rivers (CDP)	7 742	...	...	1.3	3.4	5 955	2 277
Union (CDP)	50 184	...	...	9.0	23.4	5 576	2 145
Union Beach borough	6 354	6 472	5 862	1.8	4.7	3 530	1 352
Union City city	55 593	[illegible]57 305	52 180	1.4	3.6	39 709	15 443
Upper Greenwood Lake (CDP)	2 734	1 505	...	4.0	10.4	684	263
Upper Saddle River borough	7 958	7 949	3 570	5.0	13.0	1 592	612
Ventnor City city	11 704	10 385	8 688	2.0	5.2	5 852	2 251
Verona borough	14 166	15 067	13 782	2.9	7.5	4 885	1 889
Villas (CDP)	5 909	3 155	2 085	3.3	8.6	1 791	687
Vineland city	53 753	47 399	37 685	67.8	175.6	793	306
Waldwick borough	10 802	12 313	10 495	2.0	5.3	5 401	2 038
Wallington borough	10 741	10 284	9 261	1.0	2.5	10 741	4 296
Wanaque borough	10 025	8 636	7 126	8.3	21.5	1 208	466
Washington borough	6 429	5 943	5 723	1.8	4.7	3 572	1 368
Washington Township (CDP)	9 550	...	...	3.2	8.3	2 984	1 151
Watchung borough	5 290	4 750	3 312	6.2	16.1	853	329
Wayne (CDP)	46 474	...	...	23.4	60.5	1 986	768
Weehawken (CDP)	13 168	...	...	0.9	2.4	14 631	5 487
West Caldwell borough	11 407	[illegible]11 913	8 314	5.3	13.7	2 152	833
Westfield town	30 447	33 720	31 447	6.4	16.6	4 757	1 834
West Freehold (CDP)	9 929	...	...	5.9	15.4	1 683	645
West Long Branch borough	7 380	6 845	5 337	2.8	7.3	2 636	1 011
West New York town	39 194	40 627	35 547	1.0	2.7	39 194	14 516
West Orange town	39 510	43 715	39 895	11.1	28.7	3 559	1 377
West Paterson borough	11 293	11 692	7 602	2.9	7.6	3 894	1 486
Westville borough	4 786	5 170	4 951	1.1	2.8	4 351	1 709
Westwood borough	10 714	11 105	9 046	2.4	6.2	4 464	1 728
Wharton borough	5 485	5 535	5 006	1.9	5.0	2 887	1 097
White Horse (CDP)	10 098	18 680	...	2.9	7.6	3 482	1 329
White Meadow Lake (CDP)	8 429	8 499	...	4.6	12.0	1 832	702
Wildwood city	4 913	4 110	4 690	1.1	2.8	4 466	1 755
Wildwood Crest borough	4 149	3 483	3 011	1.2	3.1	3 458	1 338
Williamstown (CDP)	5 768	4 075	2 722	1.7	4.5	3 393	1 282
Willingboro (CDP)	39 912	...	...	7.5	19.5	5 322	2 047
Woodbine borough	2 809	2 625	2 823	8.0	20.7	351	136
Woodbridge Township (CDP)	90 074	...	...	23.7	61.3	3 801	1 469
Woodbury city	10 353	12 408	12 453	2.0	5.2	5 177	1 991
Woodbury Heights borough	3 460	3 621	1 723	1.2	3.2	2 883	1 081
Woodcliff Lake borough	5 644	5 506	2 742	3.2	8.3	[illegible]1 764	680
Woodlynne borough	2 578	3 101	3 128	0.2	0.6	12 890	4 297
Wood–Ridge borough	7 929	8 311	7 964	1.1	2.8	7 208	2 832
Woodstown borough	3 250	3 137	2 942	1.4	3.6	2 321	903
Wrightstown borough	3 031	2 719	4 846	1.9	4.9	1 595	619
Wyckoff (CDP)	15 500	...	...	6.9	17.9	2 246	866
Yardville–Groveville (CDP)	9 414	...	...	3.4	8.9	2 769	1 058
Yorketown (CDP)	5 330	...	...	2.4	6.2	2 221	860
NEW MEXICO							
Alamogordo city	24 024	23 035	21 723	14.5	37.5	1 657	641
Albuquerque city	331 767	[illegible]244 501	201 189	95.3	246.7	3 481	1 345
Anthony (CDP)	3 285	1 728	...	1.0	2.6	3 285	1 263
Artesia city	10 385	10 315	12 000	4.1	10.6	2 533	980
Aztec city	5 512	3 354	4 197	3.6	9.3	1 531	593
Bayard village	3 036	2 908	2 327	0.8	2.2	3 795	1 380
Belen city	5 617	4 823	5 031	4.0	10.4	1 404	540
Bernalillo town	3 012	2 016	2 574	1.5	4.0	2 008	753
Bloomfield city	4 881	1 574	1 292	3.8	9.9	1 284	493
Bosque Farms village	3 353	...	...	3.0	7.8	1 118	430
Cannon AFB (CDP)	3 798	5 461	...	2.1	5.4	1 809	703
Carlsbad city	25 496	21 297	25 541	21.7	56.2	1 175	454
Clayton town	2 968	2 931	3 314	3.1	8.0	957	371
Clovis city	31 194	28 495	23 713	13.5	35.0	2 311	891
Corrales village	2 791	...	...	5.3	13.6	527	205
Deming city	9 964	8 343	6 764	4.7	12.2	2 120	817
Espanola city	6 803	4 528	1 976	4.7	12.2	1 447	558
Eunice city	2 970	2 641	3 531	1.4	3.7	2 121	803
Farmington city	31 222	21 979	23 786	21.5	55.7	1 452	561
Gallup city	18 161	14 596	14 089	11.6	30.0	1 566	605
Grants city	11 439	8 768	10 274	14.0	36.3	817	315
Hobbs city	29 153	26 025	26 275	15.1	39.2	1 931	744
Holloman AFB (CDP)	7 245	8 001	...	8.7	22.6	833	321
Jal city	2 675	2 602	3 051	5.1	13.2	525	203
Las Cruces city	45 086	37 857	29 367	22.5	58.2	2 004	775
Las Vegas city	14 322	7 528	7 790	6.0	15.5	2 387	924
Lordsburg city	3 195	3 429	3 436	8.3	21.5	385	149
Los Alamos (CDP)	11 039	11 310	12 584	19.2	49.7	575	222
Los Lunas village	3 525	973	1 186	4.2	11.0	839	320
Los Ranchos de Albuquerque village	2 702	1 900	(NA)	2.5	6.6	1 081	409
Lovington city	9 727	8 915	9 660	4.6	11.9	2 115	817
Meadow Vista (CDP)	3 377	1 402	...	2.1	5.4	1 608	625
Milan village	3 747	[illegible]2 222	2 658	2.7	7.1	1 388	528
North Valley (CDP)	13 006	10 366	...	10.6	27.5	1 227	473
Paradise Hills (CDP)	5 096	...	...	4.1	10.5	1 243	485
Portales city	9 940	10 554	9 695	4.6	11.9	2 161	835
Raton city	8 225	6 962	8 146	5.8	15.0	1 418	548
Rio Rancho Estates (CDP)	9 985	...	...	7.1	18.5	1 406	540
Roswell city	39 676	33 908	39 593	26.5	68.6	1 497	578
Ruidoso village	4 260	2 216	[illegible]557	12.0	31.1	355	137
Sandia (CDP)	5 288	6 867	...	2.4	6.2	2 203	853
Santa Fe city	48 953	41 167	33 394	31.5	81.6	1 554	600
Shiprock (CDP)	7 237	...	...	15.4	40.0	470	181
Silver City town	9 887	[illegible]8 557	6 972	6.2	16.1	1 595	614
Socorro city	7 173	[illegible]5 849	5 271	11.0	28.5	652	252
South Valley (CDP)	38 916	29 389	...	25.4	65.9	1 532	591
Taos town	3 369	2 475	2 163	3.0	7.8	1 123	432
Truth or Consequences city	5 219	4 656	4 269	9.3	24.1	561	217
Tucumcari city	6 765	7 189	8 143	6.2	16.1	1 091	420
Tularosa village	2 536	2 851	3 200	2.5	6.5	1 014	390
University Park (CDP)	4 353	...	...	1.6	4.2	2 721	1 036
White Rock (CDP)	6 560	3 861	...	5.6	14.5	1 171	452
White Sands (CDP)	3 120	4 167	...	1.7	4.4	1 835	709
Zuni Pueblo (CDP)	5 551	3 958	3 585	7.3	18.8	760	295
NEW YORK							
Akron village	2 971	2 863	2 821	2.0	5.2	1 486	571
Albany city	101 727	115 781	129 726	21.6	56.0	4 710	1 817
Albertson (CDP)	5 561	6 825	...	1.1	2.9	5 055	1 918
Albion village	4 897	5 122	5 182	2.5	6.5	1 959	753
Alfred village	4 967	3 804	2 807	1.2	3.1	4 139	1 602
Amityville village	9 076	9 794	8 318	2.2	5.7	4 125	1 592
Amsterdam city	21 872	25 524	28 772	6.0	15.5	3 645	1 411
Ardsley village	4 183	4 470	3 991	1.3	3.4	3 218	1 230
Arlington (CDP)	11 305	11 203	8 317	5.0	13.0	2 261	870
Attica village	2 659	2 911	2 758	1.0	2.6	2 659	1 023
Auburn city	32 548	34 599	35 2[illegible]	8.5	22.0	3 829	1 479
Avon village	3 006	3 260	2 772	3.0	7.8	1 002	385
Babylon village	12 388	12 897	11 062	2.5	6.5	4 955	1 906
Baldwin (CDP)	31 630	34 525	30 204	4.3	11.1	7 356	2 850
Baldwinsville village	6 446	6 298	5 985	2.7	7.1	2 387	908
Ballston Spa village	4 711	4 968	4 991	1.5	4.0	3 141	1 178
Balmville (CDP)	2 919	3 214	1 538	2.2	5.6	1 327	521
Batavia city	16 703	17 338	18 210	5.2	13.5	3 212	1 237
Bath village	6 042	6 053	6 166	2.8	7.3	2 158	828
Bayberry–Lynville Meadows (CDP)	14 813	...	...	3.2	8.3	4 629	1 785
Bayport (CDP)	9 282	8 232	...	4.3	11.2	2 159	829
Bay Shore (CDP)	10 784	11 119	...	3.0	7.7	3 595	1 401
Bayville village	7 034	6 147	3 962	1.4	3.6	5 024	1 954
Beacon city	12 937	13 255	13 922	4.9	12.6	2 640	1 027
Bellmore (CDP)	18 106	18 431	12 784	2.5	6.4	7 242	2 829
Bellport village	2 809	3 046	2 461	1.4	3.6	2 006	780
Bethpage (CDP)	16 840	18 555	...	3.6	9.2	4 678	1 830

Table 25. **Population, 1960 to 1980, and Land Area and Population Density for 1980 for Places of 2,500 or More**—Con.

(For meaning of symbols, see introduction.)

Places	Population 1980	Population 1970	Population 1960	1980 land area Square miles	1980 land area Square kilometers	Population per— Square mile	Population per— Square kilometer
NEW YORK—Con.							
Big Flats (CDP)	2 892	2 509	...	3.7	9.6	782	301
Binghamton city	55 860	64 123	75 941	10.4	26.9	5 371	2 077
Blasdell village	3 288	3 910	3 909	1.0	2.6	3 288	1 265
Bohemia (CDP)	9 308	8 926	...	8.6	22.2	1 082	419
Brentwood (CDP)	44 321	'28 327	15 387	9.8	25.5	4 523	1 738
Briarcliff Manor village	7 115	6 521	5 105	5.8	15.0	1 227	474
Brighton (CDP)	35 776	...	...	15.1	39.2	2 369	913
Brightwaters village	3 286	3 808	3 193	1.0	2.6	3 286	1 264
Brinckerhoff (CDP)	3 030	2 094	...	1.2	3.1	2 525	977
Brockport village	9 776	7 878	5 256	2.0	5.3	4 888	1 845
Bronxville village	6 267	6 674	6 744	1.0	2.6	6 267	2 410
Brookville village	3 290	3 212	1 468	4.2	10.8	783	305
Buffalo city	357 870	462 768	532 759	41.8	108.3	8 561	3 304
Calverton—Roanoke (CDP)	4 952	...	...	30.9	80.1	160	62
Camden village	2 667	2 936	2 694	2.3	6.0	1 160	445
Canandaigua city	10 419	10 488	9 370	4.7	12.2	2 217	854
Canastota village	4 773	5 033	4 896	3.2	8.4	1 492	568
Canisteo village	2 679	2 772	2 731	1.1	2.8	2 435	957
Canton village	7 055	6 398	5 046	2.2	5.8	3 207	1 216
Carle Place (CDP)	5 470	6 326	...	0.9	2.3	6 078	2 378
Carthage village	3 6[illegible]	3 889	4 216	1.9	4.9	1 917	743
Catskill village	4 718	5 317	5 825	2.9	7.4	1 627	638
Cayuga Heights village	3 170	3 130	2 788	1.8	4.7	1 761	674
Cazenovia village	2 599	3 031	2 584	2.2	5.7	1 181	456
Cedarhurst village	6 16[illegible]	6 941	6 954	1.0	2.6	6 162	2 370
Centereach (CDP)	30 13[illegible]	9 427	8 524	8.8	22.7	3 425	1 328
Center Moriches (CDP)	5 703	3 802	2 521	5.6	14.5	1 018	393
Centerport (CDP)	6 576	...	...	3.4	8.7	1 934	756
Central Islip (CDP)	19 734	36 391	...	12.2	31.5	1 618	626
Cheektowaga (CDP)	92 145	...	...	24.9	64.6	3 701	1 426
Chittenango village	4 290	3 605	3 180	2.1	5.5	2 043	780
Clifton Knolls (CDP)	5 636	5 771	...	2.9	7.5	1 943	751
Cobleskill village	5 278	4 368	3 471	2.9	7.4	1 818	712
Cohoes city	18 144	18 653	20 129	3.8	9.8	4 775	1 851
Cold Spring Harbor (CDP)	5 336	'5 450	1 705	3.7	9.7	1 442	550
Colonie village	8 869	8 701	6 992	3.5	9.1	2 534	975
Commack (CDP)	34 719	'24 138	9 613	10.6	27.5	3 275	1 263
Congers (CDP)	7 123	5 928	...	3.2	8.3	2 226	858
Copiague (CDP)	20 132	19 632	14 081	3.2	8.2	6 291	2 455
Coram (CDP)	24 752	...	...	13.6	35.2	1 820	703
Corinth village	2 702	3 267	3 193	2.8	7.3	965	370
Corning city	12 953	15 792	17 085	3.2	8.3	4 048	1 561
Cornwall on Hudson village	3 16[illegible]	3 131	2 785	2.3	6.0	1 376	527
Cortland city	20 13[illegible]	19 621	19 181	4.1	10.6	4 912	1 900
Coxsackie village	2 78[illegible]	2 399	2 849	2.5	6.6	1 114	422
Croton-on-Hudson village	6 86[illegible]	7 523	6 812	4.8	12.4	1 435	556
Crown Heights (CDP)	3 225	3 292	...	1.1	2.9	2 932	1 112
Cutchogue—New Suffolk (CDP)	2 786	...	...	9.3	24.1	300	116
Dannemora village	3 770	3 735	4 835	1.2	3.1	3 142	1 216
Dansville village	4 979	5 436	5 460	2.5	6.5	1 992	766
Deer Park (CDP)	30 394	'32 274	16 726	6.1	15.9	4 983	1 912
Delhi village	3 374	3 017	2 307	1.5	3.9	2 249	865
Delmar (CDP)	8 423	...	...	3.6	9.2	2 340	916
Depew village	19 819	22 158	13 580	5.1	13.2	3 886	1 501
De Witt (CDP)	9 024	10 032	...	3.2	8.2	2 820	1 100
Dix Hills (CDP)	26 693	10 050	...	15.8	40.8	1 689	654
Dobbs Ferry village	10 053	10 353	9 260	2.2	5.8	4 570	1 733
Dolgeville village	2 602	2 872	3 058	1.8	4.7	1 446	554
Dunkirk city	15 310	16 855	18 205	4.6	11.9	3 328	1 287
East Aurora village	6 803	7 033	6 791	2.5	6.5	2 721	1 047
East Cayuga Heights (CDP)	2 630	2 611	...	1.1	2.9	2 391	907
Eastchester (CDP)	20 305	23 750	...	3.3	8.5	6 153	2 389
East Farmingdale (CDP)	5 522	...	...	5.8	15.0	952	368
East Glenville (CDP)	6 537	5 898	...	7.4	19.2	883	340
East Hills village	7 160	'8 624	7 184	2.1	5.4	3 410	1 326
East Islip (CDP)	13 852	6 861	...	4.0	10.4	3 463	1 332
East Massapequa (CDP)	13 987	15 926	14 779	2.4	6.1	5 828	2 293
East Meadow (CDP)	39 317	46 290	46 036	6.6	17.2	5 957	2 286
East Middletown (CDP)	4 330	2 640	1 752	3.4	8.9	1 274	487
East Northport (CDP)	20 187	12 392	8 381	4.2	11.0	4 806	1 835
East Patchogue (CDP)	18 139	8 092	...	8.5	21.9	2 134	828
East Quogue (CDP)	3 668	1 143	...	3.5	9.0	1 048	408
East Rochester village	7 596	8 347	8 152	1.5	4.0	5 064	1 899
East Rockaway village	10 917	'11 795	10 721	1.0	2.6	10 917	4 199
East Syracuse village	3 412	4 333	4 708	1.5	3.9	2 275	875
East Williston village	2 708	2 808	2 940	0.7	1.8	3 869	1 504
Eden (CDP)	3 000	2 962	2 366	5.3	13.6	566	221
Ellenville village	4 405	4 482	5 003	2.0	5.2	2 203	847
Elmira city	35 327	39 945	46 517	7.1	18.4	4 976	1 920
Elmira Heights village	4 279	4 906	5 157	1.1	2.8	3 890	1 528
Elmira Heights North (CDP)	2 659	2 906	2 528	1.3	3.4	2 045	782
Elmont (CDP)	27 592	29 363	30 138	3.4	8.7	8 115	3 171
Elmsford village	3 361	3 911	3 795	1.0	2.6	3 361	1 293
Elwood (CDP)	11 847	15 031	...	4.8	12.4	2 468	955
Endicott village	14 457	16 556	18 775	3.1	8.0	4 664	1 807
Endwell (CDP)	13 745	15 999	...	3.9	10.0	3 524	1 375
Fairmount (CDP)	13 415	15 317	...	3.6	9.4	3 726	1 427
Fairport village	5 970	6 474	5 507	1.5	3.9	3 980	1 531
Fairview (CDP)	5 852	8 517	8 626	3.6	9.4	1 626	623
Falconer village	2 778	2 983	3 343	1.3	3.3	2 137	842
Farmingdale village	7 946	9 297	6 128	1.1	2.8	7 224	2 838
Farmingville (CDP)	13 398	...	...	4.5	11.6	2 977	1 [illegible]
Fayetteville village	4 709	4 996	4 311	1.7	4.4	2 770	1 [illegible]
Fernwood (CDP)	3 640	3 659	2 108	4.0	10.4	910	[illegible]
Fishkill (CDP)	4 430	4 025	2 874	2.9	7.6	1 528	583
Floral Park village	16 805	18 466	17 499	1.4	3.6	12 004	4 668
Flower Hill village	4 558	4 486	4 594	1.6	4.1	2 849	1 1[illegible]
Fort Edward village	3 561	3 733	3 737	1.8	4.7	1 978	[illegible]
Fort Plain village	2 555	2 809	2 809	1.4	3.6	1 825	[illegible]
Fort Salonga (CDP)	9 550	...	...	8.6	22.2	1 110	[illegible]
Frankfort village	2 995	3 305	3 872	1.0	2.6	2 995	1 152
Franklin Square (CDP)	29 051	32 156	32 483	2.9	7.5	10 018	3 873
Fredonia village	11 126	10 326	8 477	5.1	13.2	2 182	[illegible]
Freeport village	38 272	40 374	34 419	4.6	11.9	8 320	3 [illegible]
Fulton city	13 312	14 003	14 261	3.5	9.1	3 803	1 [illegible]
Garden City village	22 927	25 373	23 948	5.3	13.7	4 326	1 [illegible]
Garden City Park (CDP)	7 712	7 488	...	1.0	2.5	7 712	3 085
Gardnertown (CDP)	4 238	4 614	...	4.9	12.8	865	331
Gates—North Gates (CDP)	15 244	...	...	1.2	3.0	12 703	5 081
Geneseo village	6 746	5 714	3 284	2.4	6.2	2 811	1 [illegible]
Geneva city	15 133	'16 793	17 286	3.6	9.3	4 204	1 [illegible]
Glen Cove city	24 618	25 770	23 817	6.4	16.7	3 847	1 [illegible]
Glenham (CDP)	2 832	2 720	...	1.2	3.1	2 360	914
Glens Falls city	15 897	17 222	18 580	3.8	9.9	4 183	1 606
Glens Falls North (CDP)	6 956	...	...	8.3	21.4	838	325
Gloversville city	17 836	19 677	21 741	4.6	11.9	3 877	1 [illegible]
Goshen village	4 874	4 342	3 906	3.3	8.5	1 477	[illegible]
Gouverneur village	4 285	4 574	4 946	1.9	4.9	2 255	[illegible]
Gowanda village	2 713	3 110	3 352	1.5	3.9	1 809	[illegible]
Granville village	2 696	2 784	2 715	1.5	3.9	1 797	691
Great Neck village	9 168	'10 798	10 171	1.4	3.6	6 549	2 547
Great Neck Estates village	2 936	3 131	3 262	0.8	2.1	3 670	1 [illegible]
Great Neck Plaza village	5 604	'6 043	4 948	0.3	0.8	18 680	7 [illegible]
Greece (CDP)	16 177	...	...	1.1	2.8	14 706	5 [illegible]
Green Island village	2 696	3 297	3 533	0.9	2.4	2 996	1 [illegible]
Greenlawn (CDP)	13 869	'8 493	5 422	3.8	9.9	3 650	1 401
Greenville (CDP)	8 706	...	...	3.0	7.7	2 902	1 131
Greenwood Lake village	2 809	2 262	1 236	1.7	4.4	1 652	638
Hamburg village	10 582	10 215	9 145	2.4	6.2	4 409	1 [illegible]
Hamilton village	3 725	3 636	3 348	1.9	4.9	1 961	[illegible]
Hampton Bays (CDP)	7 256	1 862	1 431	10.6	27.5	685	[illegible]
Harris Hill (CDP)	5 087	...	...	4.9	12.6	1 038	404
Harrison village	23 046	...	...	16.0	41.5	1 440	555
Hartsdale (CDP)	10 216	12 226	...	2.5	6.5	4 086	1 57[illegible]
Hastings-on-Hudson village	8 573	9 479	8 979	2.0	5.2	4 287	1 6[illegible]
Hauppauge (CDP)	20 960	13 957	...	10.2	26.5	2 055	79[illegible]
Haverstraw village	8 800	8 198	5 771	1.9	4.9	4 632	1 79[illegible]
Haviland (CDP)	3 578	3 447	...	3.7	9.7	967	369
Hawthorne (CDP)	5 010	...	...	1.7	4.3	2 947	1 165
Hempstead village	40 404	39 411	34 641	3.8	9.8	10 633	4 123
Herkimer village	8 383	8 960	9 396	2.7	7.0	3 105	1 19[illegible]
Hernicks (CDP)	8 123	9 112	...	1.2	3.0	6 769	2 70[illegible]
Hewlett (CDP)	6 986	6 796	...	0.9	2.3	7 762	3 03[illegible]
Hicksville (CDP)	43 245	'49 820	50 405	6.6	17.2	6 552	2 514
Highland (CDP)	3 967	2 184	2 931	4.6	11.9	862	332
Highland Falls village	4 187	4 636	4 469	1.1	2.8	3 806	1 49[illegible]
Hillcrest (CDP)	5 733	5 357	...	1.5	3.9	3 822	1 47[illegible]
Hills (CDP)	2 591	2 750	...	1.6	4.2	1 619	61[illegible]
Hilton village	4 151	2 440	1 334	1.0	2.7	4 151	1 53[illegible]
Holbrook (CDP)	24 382	...	...	6.7	17.3	3 639	1 40[illegible]
Holtsville (CDP)	13 515	...	...	0.8	2.2	16 894	6 143
Homer village	3 635	4 143	3 622	1.6	4.1	2 272	88[illegible]
Hoosick Falls village	3 609	3 897	4 023	1.6	4.2	2 256	85[illegible]
Hornell city	10 234	12 144	13 907	10.3	26.6	994	38[illegible]
Horseheads village	7 348	7 989	7 207	3.7	9.6	1 966	76[illegible]
Horseheads North (CDP)	3 081	2 753	...	10.2	26.4	302	117
Hudson city	7 986	8 940	11 075	2.3	6.0	3 472	1 331
Hudson Falls village	7 419	7 917	7 752	1.9	4.8	3 905	1 546
Huntington (CDP)	21 727	'12 601	11 255	8.4	21.7	2 587	1 00[illegible]
Huntington Station (CDP)	28 769	28 817	23 438	5.4	14.0	5 328	2 055
Hurley (CDP)	4 892	4 081	...	5.4	14.1	906	347
Hyde Park (CDP)	2 550	2 805	1 979	2.0	5.3	1 275	481
Ilion village	9 450	9 808	10 199	2.4	6.2	3 936	1 524
Inwood (CDP)	8 228	8 433	10 362	1.7	4.4	4 840	1 870
Irondequoit (CDP)	57 648	...	...	15.9	41.1	3 626	1 403
Irvington village	5 774	5 878	5 494	3.3	8.5	1 750	679
Island Park village	4 847	5 396	3 846	0.4	1.0	12 118	4 647
Islip (CDP)	13 438	7 692	...	3.9	10.2	3 446	1 317
Islip Terrace (CDP)	5 588	...	...	1.3	3.4	4 298	1 644
Ithaca city	28 732	26 226	28 799	5.6	14.5	5 131	1 982
Jamestown city	35 775	39 795	41 818	9.0	23.3	3 975	1 535
Jamestown West (CDP)	2 680	2 491	...	2.5	6.5	1 072	412
Jefferson Valley—Yorktown (CDP)	13 380	9 008	...	7.0	18.2	1 911	735
Jericho (CDP)	12 739	14 010	10 795	4.2	10.9	3 033	1 169
Johnson City village	17 126	18 025	19 118	4.5	11.7	3 806	1 464
Johnstown city	9 360	10 045	10 390	3.4	8.8	2 753	1 064
Kenmore village	18 474	20 980	21 261	1.4	3.6	13 196	5 132
Kings Park (CDP)	16 131	5 555	4 949	6.2	16.1	2 602	1 00[illegible]
Kings Point village	5 234	'5 614	5 410	3.6	9.3	1 454	56[illegible]
Kingston city	24 481	25 544	29 260	7.4	19.2	3 308	1 275
Lackawanna city	22 701	28 657	29 564	5.7	14.8	3 983	1 534

SITE LOCATION MAP

SITE: HAZARDOUS WASTE DISPOSAL **FIGURE: I-1**

MAP SOURCE: USGS MAP

AMITYVILLE QUAD. (1979)
HUNTINGTON QUAD. (1979)
SUFFOLK COUNTY, NEW YORK
7.5 MINUTE SERIES (TOPOGRAPHIC)

SCALE 1" = 2000'

COORDINATES:

LATITUDE: 40° 44' 32"
LONGITUDE: 73° 25' 13"

GIBBS & HILL, INC.

FACT SHEET
NASSAU/SUFFOLK AQUIFER SYSTEM

In response to a petition the Environmental Protection Agency (EPA) has designated the Nassau/Suffolk Aquifer System as a Sole Source Aquifer pursuant to Section 1424(e) of the Safe Drinking Water Act. As such, no commitment for Federal financial assistance may be entered into for any project which EPA determines may contaminate such aquifer through the recharge zone so as to create a significant hazard to public health.

- Petition Date:	January 21, 1975
- Petitioner:	James T.B. Tripp, Counsel Environmental Defense Fund, Inc. 162 Old Town Road East Setauket, NY 11733
- Location:	The aquifers that underlie the estern end of Long Island, New York, to include all of Nassau and Suffolk Counties.
- Aquifer Description:	Three aquifers composed of Pleistocene deposits of glaciofluvial origin (Upper Glacial) above cretaceous rocks (Magothy, and Lloyd).
- Ground Water Depth:	Depending upon location the aquifer depth will vary.
- Population:	Approximately 1.45 million persons.
- Drinking Water:	100% from Ground Water
- Population Served:	100% by PWS / 0% by Domestic Wells
- Quality:	With the exception of the Lloyd aquifer, water quality has declined, Nitrate exceeds 10 mg/l for some wells of the upper glacial aquifer.
- Vulnerability:	Vulnerability is high due to population density of the area, leaking sewer pipes, past farming practices and present lawn fertilization practices, and possible salt water encroachment.
- Designation Date:	June 21, 1978
- Citation:	43 FR 26611

FOR MORE INFORMATION CONTACT

U.S. ENVIRONMENTAL PROTECTION AGENCY
JOHN MALLECK, CHIEF
GROUND WATER MANAGEMENT SECTION
ROOM 842 - 26 FEDERAL PLAZA
NEW YORK, N.Y. 10278
212-264-5635

Telephone Conversation Record

Date: 10/28/91

Time: 3:05 PM

Call by: J. Sanghvi (Name) of Gibbs & Hill, Inc. (Company)

Answer by: Bill Sanok (Name) of Cooperative Extension of Suffolk County (Company)

Contract No: 5066-112

Subject discussed: The source of irrigated water

SUMMARY OF DISCUSSION, DECISIONS AND COMMITMENTS

I asked Mr. Sanok about the source of water for irrigation within 3 miles of the site.

Mr. Sanok informed me that surface water is not being used within 3 mile radius of the Hazardous Waste Disposal Site.

E. EPA SITE INSPECTION REPORT

Site Inspection Report

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	037056132

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Hazardous Waste Disposal Site	11-A Picone Boulevard

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Farmingdale	NY	11735	Suffolk		

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
40° 44' 32"	73° 25' 13"	☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
5 / 31 / 90 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1979 (BEGINNING YEAR) 1982 (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 Gibbs & Hill, Inc. (Name of firm) ☐ G. OTHER ___ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
A. Kostic	Env. Engineer	Gibbs & Hill	(212) 216-6630
C. Grande	Geologist	Gibbs & Hill	(212) 216-6366
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Mr. V. Emanuelo	Attorney	Farmingdale, New York	(516) 249-3400
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	10 AM	Clean, sunny, 75°F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
N. Hinsey	Gibbs & Hill	(212) 216-7839

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
N. Hinsey		Gibbs & Hill	212/216-7839	6 / 1 / 90 (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
NYD	037056132

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 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

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	Unknown		
OLW	OILY WASTE	Unknown		
SOL	SOLVENTS	Unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS	Unknown		
BAS	BASES	Unknown		
MES	HEAVY METALS			

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

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

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

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

NYSDEC site file
SCDHS site file

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NYD	037056132

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 310739
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Groundwater is source of water sypply for an estimated 310739 people within the three mile radius.

01 ☒ B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 0
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Massapequa creek is the nearest surface water which is used for the recreational purposes.

01 ☒ C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: None
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Vapor discharge incident at the site producing a visible plume 150 to 200 feet high was reported to SCDHS.

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: None
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None noted during site reconnaissance.

01 ☒ E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: None
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None expected. Site is covered by concrete.

01 ☒ F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 0.5 (Acres)
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Some drums containing waste were reportedly leaking during operation of HVD facilities. In addition, anlytical results showed evidence of soil contamination by organic compounds.

01 ☒ G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 310739
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Population using groundwater within the 3-mile radius.

01 ☒ H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: None
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None known or reported.

01 ☒ I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: None
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None known or reported.

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NYD	037056132

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

None noted or reported.

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

None noted or reported.

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

None noted or reported.

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

Drums containing waste were reportedly leaking during operation of HWD facilities.

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

Note noted or reported.

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

There were two storm drains on-site when HWD was in operation. Drains were connected to a drainage system which discharged water into a nearby recharge basin.

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

Facility operated without permit in 1981.

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: 310739

IV. COMMENTS

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

Gibbs & Hill site reconnaissance
NYSDEC files
New York State water atlas map

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	037056132

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

05 OTHER

☐ A. BUILDINGS ON SITE

None

06 AREA OF SITE

0.5 (Acres)

07 COMMENTS

1. Drums containing waste were leaking.
2. Wastes are no longer at the site.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

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

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

Some drums containing waste were not contained at a diked area.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

No security barrier but site has been paved over.

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

Gibbs & Hill site reconnaissance
NYSDEC files

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	037056132

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

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

02 STATUS

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

03 DISTANCE TO SITE

A. 0.3 (mi)

B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER 310739

03 DISTANCE TO NEAREST DRINKING WATER WELL _____ (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
6.5 (ft)	South	6.5-14.5 (ft)	_____ (gpd)	☒ YES ☐ NO

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

Wells are located in the upper glacial aquifer.

10 RECHARGE AREA		11 DISCHARGE AREA	
☒ YES ☐ NO	COMMENTS Recharge basin is located on the site.	☒ YES ☐ NO	COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Massapequa Creek	☐	2.25 (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. 10182 NO OF PERSONS	B. 40728 NO OF PERSONS	C. 91637 NO OF PERSONS

02 DISTANCE TO NEAREST POPULATION Adjacent (mi)

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

04 DISTANCE TO NEAREST OFF-SITE BUILDING Adjacent (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)

- Site is located in a mixed industrial/commercial area.
- 310739people are known to be using groundwater, drawing from wells located within a 3-mile radius.

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION
01 STATE: NYD
02 SITE NUMBER: 037056132

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

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

02 PERMEABILITY OF BEDROCK (Check one)

☒ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ 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
1,200 (ft)	(ft)	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
46 (in)	3.0 (in)	0.0 %		1.0 %

09 FLOOD POTENTIAL
SITE IS IN -- YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (5 acre minimum)
ESTUARINE: A. 3 (mi)
OTHER: B. 6 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)
None (mi)
ENDANGERED SPECIES:

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. Adjacent (mi)	B. 1300ft (mi)	C. >2.0 (mi)	D. >1.0 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is located on an outwash plain which slopes gently to the south.

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

Gibbs & Hill site reconnaissance
USGS map, Amityville Quad
EPA, HWS Ranking System-Manual

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NYD	37056132

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	5	H2M Lab	Available
SURFACE WATER	3	H2M Lab	Available
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	6	H2M Lab	Available
VEGETATION			
OTHER Sediment	3	H2M Lab	

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Temperature	Groundwater
pH	Groundwater
Conductivity	Groundwater
Air monitoring instruments	PID, OVA, and explosimeter used to monitor presence of OV in the ambient air. No readings above background in the breathing zone.

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☐ GROUND ☐ AERIAL

02 IN CUSTODY OF _____ (Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS Gibbs & Hill

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

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

Gibbs & Hill drilling and sampling logs

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
NYD	037056132

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
Little Joseph Realty	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1637 Broad Hollow Road	

05 CITY	06 STATE	07 ZIP CODE
Farmingdale	NY	11735

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
Joseph Picone	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1637 Broad Hollow Road	

05 CITY	06 STATE	07 ZIP CODE
Farmingdale	NY	11735

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

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)

NYSDEC files
Gibbs & Hill site reconnaissance

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NYD	037056132

II. CURRENT OPERATOR (Provide if different from owner)			OPERATOR'S PARENT COMPANY (If applicable)		
01 NAME: None	02 D+B NUMBER		10 NAME	11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER				

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)			PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)		
01 NAME: George Lawrence	02 D+B NUMBER		10 NAME	11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.): 1 Shore Road	04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	
05 CITY: Glenwood Landing	06 STATE: NY	07 ZIP CODE: 11747	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION: 3	09 NAME OF OWNER DURING THIS PERIOD: Joseph Picone				
01 NAME	02 D+B NUMBER		10 NAME	11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD				
01 NAME	02 D+B NUMBER		10 NAME	11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD				

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

Gibbs & Hill site reconnaissance
NYSDEC files

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NYD	037056132

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 FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NYD	037056132

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
HWD allegedly removed all wastes from the site in 1982

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☒ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
HWD allegedly removed all wastes from the site and disposed of wastes elsewhere.

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NYD	037056132

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No dovementation of any action found

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No documentation of any action found

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
No

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)

NYSDEC files

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NYD	037056132

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

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

Facility was constructed and operated without a permit. No documentation of any federal, state, or local enforcement action found.

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

NYSDEC files

EPA FORM 2070-13 (7-81)

APPENDIX A

WORK PLAN UPDATE

Work Plan Update	**Phase II Investigation**	
	Hazardous Waste Disposal Site No. 152113	
Submitted to	**NYSDEC**	**July, 1990**

Gibbs & Hill, Inc.

A-

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RECEIVED JUN 16 1990

Phase II Work Plan

Hazardous Waste Disposal, I.D. No. 152113

Village of Farmingdale, Suffolk County

June, 1990

General:

Based on this work plan, a costing sheet is to be developed and attached by our consultant. The work plan and associated costs will be made part of this cost plus fixed fee contract with a limiting upset figure. Unless otherwise stated in this work plan, the work shall conform to the concepts of the Generic Work Plan -- State Superfund Program -- Phase II Investigations (Schedule 4, Exhibit 1) and Schedule 4, Exhibit 3, both of the contract document. As these latter documents are crucial to the proper field implementation of New York State Department of Environmental Conservation (NYSDEC) protocols, a copy of this work plan attached to Exhibits 1 and 3 of the contract must be taken to the field by the consultant's representative during the Phase II field activities. The representative must display, through his actions, thorough familiarity with the provisions of the work plan and exhibits. Failure by the consultant's representative to present these documents upon NYSDEC request or demonstration of inadequate knowledge of their contents are both sufficient ground for NYSDEC to halt the Phase II field operations.

Introduction:

The Hazardous Waste Disposal (HWD) site is a partly paved 1/2 acre lot located in the Village of Farmingdale, Suffolk County. The site is located in an industrial park, the site is surrounded by various commercial and industrial facilities. The site is owned by Little Joseph Realty, Farmingdale, New York. The previous tenant, Mr. George Lawrence of Glenwood Landing, New York, operated his company, HWD, at the site for a period of about three years. HWD was in the industrial waste scavenger business which included the transportation and storage of hazardous wastes. These wastes were contained in 55-gallon drums, large holding tanks and a sludge pit. A detailed industrial survey indicated that the HWD was operating an ammonium-hydroxide scrubbing process on an acid storage tank without a permit. The USEPA conducted a site inspection in September 1981 and identified 1900 55-gallon drums and a 2500-gallon acid tank on-site. Subsequently, HWD removed the above mentioned wastes. Two drywells/storm drains are located on the site. Since poor conditions (leaky drums and spills) has been reported, it is possible that runoff containing spilled wastes were collected by the onsite drywells and emptied into a nearby recharge basin or sump along with wastes from other areas of the industrial sites.

The site is characterized by a relatively flat topography. The HWD site is underlain by approximately 1300 feet of unconsolidated glacial deposits of Pleistocene age and coastal-plain deposits of continental and marine origin of late Cretaceous age. These deposits made up of gravel, sand, silt and clay are underlain by Paleozoic and/or Precambrian bedrock composed mostly of schist and gneiss. Bedrock, due to its low permeability, is considered the base of the ground-water reservoir on Long Island (Pluhowski, et.al 1964 and Jensen, et.al. 1974). The Lloyd aquifer, the Raritan clay, the Magothy aquifer and the Upper Glacial aquifer are the four hydrostratigraphic units which comprise the unconsolidated deposits overlying bedrock. The Lloyd aquifer lies directly on the bedrock surface and is the lowermost water-bearing zone in the ground-water reservoir. This deep artesian aquifer is composed of light-colored sand and gravel with lenses of clay and silty clay. The altitude of the top of the Lloyd in the area of study is approximately 900 feet below sea level (Jensen, 1974 and Pluhowski, et.al. 1964). The Raritan clay consists predominately of clay with varying amounts of silt and sand, and acts as an effective confining unit for the underlying Lloyd aquifer (Pluhowski, et.al. 1964). In the study area (within a 3-mile radius of the site) the Raritan is about 100 feet in thickness with the upper surface of the unit about 800 feet below sea level (Jensen, et.al. 1974). Situated above the Raritan clay is an upper Cretaceous unit composed of permeable lenticular deposits of sand, gravel and clay referred to as the Magothy aquifer. Below the site area the thickness of the Magothy is approximately 900 feet (Jensen, et.al. 1974). The uppermost zone of the ground-water reservoir is the Upper Glacial aquifer. This unconfined unit lies unconformably on the Magothy and consists of highly permeable upper Pleistocene deposits of sand and gravel. The lower boundary of the Upper Glacial aquifer depends on the presence of low permeable lenses of silt and clay in the Magothy aquifer. However, where the upper Magothy consists of permeable deposits, the Upper Glacial and the Magothy aquifers are considered hydraulically connected (Pluhowski, et.al. 1964).

Highly permeable outwash deposits of sand and gravel in the upper part of the principal aquifer (Upper Glacial deposits) yield as much as as 1,500 gallons per minute (gpm) with specific capacities commonly 40 to 75 gpm per foot of drawdown. Wells screened in the impermeable to highly permeable Magothy aquifer yield as much as 1,500 gpm with specific capacities ranging from 1 to 49 gpm per foot of drawdown (Pluhowski, et.al. 1964). Regional ground-water flow is south to southeast, away from the topographic and water-table high to the north. Lateral movement of groundwater within the principal aquifer in the study area will mimic the regional flow direction (Donaldson, et.al. 1979). Located within a 3-mile radius of the site are over 20 public-supply wells and numerous observation wells. These wells are screened both in the Upper Glacial and Magothy aquifers. Downgradient (direction of ground-water movement), about 1-3/4 miles southeast of the site, a pumping well (S66556) is located. Two public-supply wells (NYSDEC #20041 and 20042) are located approximately 1400 feet to the northwest (upgradient) of the site. In 1961, the depth to water recorded in both wells was 25 feet below land surface (Krulikas, R.K. 1981).

Plukowski, J.J. "Hydrology of the Bablyon-Islip Area, Suffolk Co., LI, NY" USGS Water Supply Paper No. 1978 (1964)
Jensen, H.M. and Soren, J., "Hydrologic Investigations Atlas", USGS Atlas HA-501 (1974)
Krulikas,-R.K., "Hydrogeologic Data from selected wells & Test Holes in Suffolk Co, LI, NY, 1972-80", USGS Open-file report81-500 (1981)

Objectives:

The objective of this Phase II investigation is to collect essential field information required to adequately document the disposal of hazardous waste as defined by 6 NYCRR, Part 371 by direct and indirect evidence and determine whether a significant threat to human health or environment exists, to prepare final Hazard Ranking System (HRS) scores and make recommendations for future actions at the site. Specifically, this will be accomplished by a thorough geophysical investigation, drilling of test borings, installation of groundwater monitoring wells and sampling and analysis of groundwater, surface water, soil, wastes and sediments (where any or all of these media are applicable).

For the purpose of report preparation, the consultant is to compile all data available from the NY State Department of Environmental Conservation and various other agencies including the Phase I report data, which contains a record search of the data sources of various other agencies.

Site Reconnaissance:

A site investigation was conducted by NYSDEC personnel on March 28, 1990. The purpose of the site inspection was to locate the proposed wells and sampling locations. Based on the inspection, a site sketch was prepared showing the proposed boring, wells and sampling locations (Figure 2). Careful examination of the site was made to identify possible access problems for the drilling, sampling activities, preliminary siting of groundwater monitoring wells, and tentative locations for surface water, soil, leachate or waste samples. No access problem for a drilling rig is anticipated. Exact location of all buried power lines, underground gaslines, water mains, sewer lines and storm water pipes, if any, must be obtained by the consultant from the appropriate utility and/or municipal department prior to the arrival of the drill rig and commencement of drilling.

Field Investigation:

The project has been subdivided into specific tasks. Table 1 briefly summarizes each task. Field efforts required to complete this investigation are described as follows:

1. Geophysical Survey:

   The use of geophysical surveys has been established in the Bureau of Hazardous Site Control's Generic Phase II Workplan. The broad considerations are:

   a. location of buried materials
   b. determination of the presence of contaminant plumes
   c. characterization of subsurface conditions.

There are complexities involved in detecting contaminants at a given site and the Bureau's staff should determine if a geophysical survey is needed. Where a survey is needed, the consultant must determine the best geophysical method for meeting the goals of the investigation, and submit a workplan for the Bureau's review.

Generally, the goals of a geophysical survey are:

- to determine existence of contaminant plumes
- to optimize location and number of monitoring wells
- to reduce risks associated with drilling into unknown terrain and waste
- to reduce overall project time and cost, and to improve accuracy of and confidence in the project
- to determine the thickness of and depth to layers of soil and rock
- to determine the depth to water table
- to determine the existence of buried waste and its vertical and horizontal boundaries
- to determine of lateral and vertical anomalies
- to determine direction of groundwater flow

If geophysics is to be performed at the site, the exact method must be specified by the consultant and a workplan prepared by the consultant and submitted to NYSDEC for review. At this site, NYSDEC does not recommend a geophysical survey, but recommends that proposed well locations be screened with magnetometer.

2. Soil gas survey: Due to the size of the site, nature of operation and number of soil borings and monitoring wells planned, it is determined that soil gas survey is not needed for this site.

3. Test Boring and Well Installation:

   Monitoring wells will be installed to provide data pertinent to both water chemistry and characterization of the stratigraphy and groundwater regime at the site. It is anticipatd that four two-inch diameter monitoring wells will be installed at the approximate locations shown in Figure 2. In addition, five on-site test borings will be done up to a depth of 10 feet at the suspected disposal area and five soil samples will be collected for a chemical analysis at a depth of 10 feet or at a point of visible soil contamination, whichever is reached first.

   Based on what is presently known, it appears that the test borings and wells will be completed in overburden. It is anticipated that a 6-1/4" I.D. hollow stem auger will be used in the unconsolidated material.

   A PID (Photoionization detector, e.g. an HNu), an explosimeter to measure lower explosive level and oxygen level, and a dosimeter must be used during all boring activity. A magnetometer must be used to screen for metallic objects at each boring location.

Bolt-on centralizers, one per well, with stainless steel bolts must be used at the base of each screen. This should aid in obtaining plumb alignment for the wells and assure that the sand pack is of uniform radial thickness.

All drill cuttings should be drumed and disposed appropriately.

Installation of the bentonite seal above the groundwater table during monitoring well construction shall be done in accordance with the following. After installation of the filter pack, a slurry of bentonite powder and water mixed to the consistency of pudding (approximately 5 lbs. bentonite powder per 4 gallons of water) shall be pumped into the working space of the well with side discharge tremie pipe. The working space of the well is defined as the space between the outside diameter of the riser pipe and the inside diameter of the casing or augers. A quantity of slurry sufficient to fill the annular space of the boring to one foot above the filter pack is needed. Bentonite pellets should then be added to complete the seal to two feet above the filter pack with continuous measurements of the level. The bentonite pellets must be hydrated before adding grout. The amount of water added to hydrate the pellets and time allowed for hydration shall be determined from the manufacturers recommendations or a slow flowing stream of water should be introduced for one hour. In any event the water should be added continuously during the period of hydration. When the pellets have been given sufficient time to hydrate, a measurement of the thickness of bentonite seal should be taken. Then the grout may be pumped into the working space of the well using a side discharge tremie pipe. Periodic measurement of the grout level should be made during the addition of bentonite grout for every 10 feet rise in the grout level. Well construction should adhere to the NYSDEC protocols enumerated in Exhibit 3 of the consultant contract and also in the Phase II investigation Generic Work Plan. These protocols govern not only well installation and development, but also the proper procedures in regard to decontamination of drilling equipment, split spoon samples, and all downhole materials. The consultant will provide an experienced geologist, engineer or adequately experienced technical staff to be on-site at all times to ensure that these procedures are carried out. The well logs shall be completed by the consultant and submitted with the report. After the development of the well and during sampling, the turbidity of the water from the well shall not exceed 50 NTU's for entire water column in the well.

Each well will be developed as soon as its recovery is complete, but no sooner than 24 hours after construction is finished. The development method used should be powerful enough in pumping rate and pressure to dislodge and remove all fine particles from the

sandpack to achieve the desired low turbidity water. After the development of the well and during sampling, the turbidity of the water from the well shall not exceed 50 NTU's (Nephelometric Turbidity Units) for the entire water column in the well. If the above criteria is not met within two hours, well development must cease and the NYSDEC representative contacted to determine how to proceed. For costing purposes, allow four hours of development per well.

The consultant shall provide cost for additional work associated with performing a downhole geophysical analysis of one down gradient monitoring well location.

The goal is to screen the wells in an area of contamination (e.g. a plume) as evidenced by the downhole geophysical data. The consultant shall provide a contingency cost for additional work associated with performing this survey which will include the following. The drill rig will be set up a minimum of 5 ft. and a maximum of 10 ft. from one of the proposed downgradient monitoring well locations. A borehole will then be advanced to a maximum of 75 feet or a confining layer which ever comes first, with split spoon samples taken at 5 ft. intervals unless otherwise specified by the NYSDEC on-site representative. Two-inch threaded flush joint PVC will then be installed to the full depth of the hole, and the annular space will be pressure-grouted to the surface as the augers are removed. NYSDEC personnel will then log the hole through the PVC casing (approximately 1/2 hour). A steel protective casing with locking cap shall then be placed at the surface to secure the borehole for possible future use. Split spoon samples at the adjacent well site will not be necessary, and split spoon sampling intervals for the remaining well sites will be determined from the lithologies encountered in this trial hole. Well depth estimates given in Table 2 are in accordance with the maximum footage applied to the trial hole for downhole geophysics and thus may be overestimations. Should the downhole geophysical survey reveal nothing, the wells are to be screened so as to sample the upper 10 ft. of groundwater.

It will be the responsibility of the consultant to arrange for the appropriate drilling equipment to be present at the site. Standby time to arrange for additional equipment or a water supply will not be allowed unless caused by unexpected site conditions.

Prior to initiating drilling activities, the drilling rig, augers, split spoons, pertinent equipment, well pipe and screens will be steam cleaned. This cleaning procedure will also be used between each boring. These activities will be performed in a designated on-site decontamination area.

Throughout and after the cleaning processes, direct contact between the equipment and the ground surface will not be permitted. Clean support structures, such as wooden pallets or sawhorses, will be used for the staging of equipment. The drill rig and all equipment will be steam cleaned upon completion of the investigation and prior to leaving the site.

If the borings are not completed as wells the same day they are drilled a mechanism to safeguard their integrity must be devised. The consultant will provide NYSDEC with their plan for this contingency.

During the drilling, a photoionization detector (PID), e.g. HNu or Flame Ionization detector, e.g. OVA will be used to monitor the gases exiting the borehole. Cuttings will be contained if PID meter readings are greater than 5 ppm or the cuttings show visible evidence of contamination. The drilling operation must also be concurrently monitored with an explosimeter/oxygen meter. Soil samples will be collected using a two-inch outside diameter split-spoon sampler advanced in accordance with the standard penetration test procedure (ASTM D-1585). The split spoon sampler will be cleaned prior to each use by one of the following procedures:

- initially cleaned of all foreign matter
- sanitized with a steam cleaner
- rinsed with deionized water (if sample is to be collected for chemical analysis)

OR

- initially cleaned of all foreign matters
- washed with a detergent and water mixture
- rinsed with potable water
- rinsed with 10 percent nitric acid (only if the split spoon sampler is made of stainless steel)
- rinsed with methanol (pesticide grade)
- rinsed with hexane (pesticide grade)
- rinsed with distilled water
- allowed to air dry

A photoionization detector will be used to monitor the gases from each sample as the split spoon sampler is opened. Samples for chemical analysis will be secured should the PID read 5 ppm or greater for any sample. All samples will be placed in precleaned, teflon-lined screw cap glass jars. Samples will be delivered, under chain of custody control, to the designated NYSDEC technically acceptable laboratory.

The split spoon soil samples will normally be taken at five foot intervals. The sampling device will be decontaminated by the above described procedure prior to each sample. Additional samples will be collected where major changes in lithology occur or as deemed necessary by the supervising geologist or engineer. Additional samples can also be requested by the NYSDEC onsite representative at a pre-agreed upon cost per sample basis. A grainsize analysis for non-cohesive materials and an Atterberg limits analysis for cohesive materials will be conducted for each separte soil unit in each well and within the screen interval. If a mixture of cohesive and non-cohesive materials is encountered, only a grain size analysis will be performed. Hydrometer analysis will also be performed on soils if twenty (20) or more percent of the sample passes the No. 200 sieve size. For costing purposes, two grain size analyses should be assumed per boring, depending upon the lithlogy encountered.

All drilling oprations shall be documented by the consultant's on-site representative in accordance with Schedule 4, Exhibit 3, Section II, C9.

Well development will be performed using air surge, a pump, or bottom discharge bailer at each well no sooner than twenty-four (24) hours after the well grouting has been completed or after its recovery is completed (whichever is later). Care must be taken that the device used does not cause cross-contamination of the wells. Where air is used, the compressor must have a recently installed and effective high efficiency carbon filter. Other methods of development will be allowed only if included in the consultant's QA/QC manual and approved by the DEC.

Prior to water and sediment evacuation, static water level and well bottom measurements will be recorded at each well using an electric level sounder or chalked fibreglass or steel tape. These tools will be cleaned prior to and after each use with a steam cleaner or wash procedure as outlined for the split spoons. The well water/sediment volume will also be calculated. Well evacuation will be supplemented by:

- Temperature, pH, and specific conductance measurements
- Evacuation volume measurements
- Measure of water clarity (goal of 50 NTU's) and visual observation of color
- Visual identification of the physical characteristics of removed sediments

The development process will continue until a stabilization of pH, specific conductance, temperature, and clarity of the discharge is achieved. Water levels will be recorded at the completion of development. If a Department representative is not present when the measurements are taken, a signed statement will be provided to the Department that the turbidity was equal to or less than 50 Nephelometric Turbidity Units (NTU) for each well immediately after development.

Permeability testing of the newly installed monitoring wells will be conducted following development. Initial static water level measurements will be made in each well followed by the introduction of a weighted slug of specific volume. An instantaneous head displacement associated with the slug volume will be created and the subsequent decline in water level will be measured with an electronic water level sounder. Once head conditions reach a static state, the slug will be removed and a negative head condition will result relative to the initial state water level. The subsequent rise in water level will be measured with an electronic water level sounder. Data analysis will involve the determination of the coefficient of permeability.

The testing will provide data to be used in the final HRS scoring. This data will be useful in estimating the rate of groundwater flow in the vicinity of the monitoring wells and in evaluating potential migration pathways, potential targets and conceptual remedial activities.

A temporary staff gauge or other surface water elevation measuring device will be established on any nearby surface water body, if any, which may significantly influence groundwater movement. The surface elevation of these water bodies will be checked whenever groundwater elevations are measured.

Surveying and Mapping:

To facilitate accurate water level measurements, a licensed professional land surveyor will be used to establish the locations and elevations of each of the monitoring wells as follows:

- Vertical Control: Elevation measurements will be made to the top of the well casing to the nearest 0.01 foot and the ground surface adjacent to the well to the nearest 0.01 foot. Preliminary measurements will also be made when necessary to assist in placement of downgradient wells. Elevation will be determined relative to a USGS benchmark, or to a permanent immovable site-specific datum if a bench mark is not available within 200 ft.

- Horizontal Control: Wells will be located by ties (location and distance) to at least two nearby permanent objects. The distance between wells will be measured to a foot accuracy. All suficial sampling points and significant site features must be shown on the final site map. USGS benchmarks will be used whenever available. All sampling points will be surveyed to determine relative location.

4. Sampling and analysis:

Four groundwater samples, four surface water samples, four sediment samples and six soil samples should be collected at the locations and depths described in Table 2. Analysis should be performed as detailed in Table 3. If the total metals concentration in the onsite soil and sediment samples are higher than twenty times the maximum concentration for characteristic of EP Toxicity for that metal then it may be necessary to run EP Tox test for that sample. So the soil samples should be preserved for future EP Tox analysis. NYSDEC should be consulted to discuss the need for EP Tox analysis once the total metals results are known.

Sampling and chemical analyses will be performed by the consultant. Field QA/QC Protocol for sample collection and for sample integrity from the field to the laboratory shall be submitted by the consultant. This includes split spoon samples for chemical analysis when it is known or observed that soils are contaminated. When sampling is requested, the consultant must follow the QA/QC and chain-of-custody protocols as referred to in the Generic Wrok Plan and as described in the New York State Services Protocol (ASP) September 1989.

Where determined by NYSDEC or the consultant's field representative that chemical analysis are required for soil samples from well drilling activities, the consultant must be prepared to obtain such samples for shipment to a laboratory. Pricing for this activity must be included. For costing purposes, assume one sample per well for analysis.

All samples for chemical analyses shall be delivered to the laboratory within 24 hours of their collection. Express courier service shall be used to transport the samples, unless the laboratory is close enough to the site for the consultant to make direct delivery.

Where dilution of any Phase II sample is to be done by the chemical analytical laboratory prior to analysis, NYSDEC is to be advised immediately. The concern is that a component of low concentration, but of significant environmental impact, could become so diluted that its presence in the final extract will not be detected.

During this contract, the NYSDEC chemist will discuss alternatives with the laboratory's chemist on how best to conduct the analysis. NYSDEC's chemist is Mr. John Rankin, telephone (518) 457-3252.

Although a method or extra work may be agreed upon by both chemists, clearance for any extra cost must be obtained by the consultant from the NYSDEC contract manager. Such cost will be paid from the contingency amount in the contract, and clearance must be confirmed by NYSDEC in writing.

The consultant shall provide an estimate of the cost for sub-contracting the task of reviewing the CLP QA/QC documents by an independent laboratory not involved with the Phase II investigations under this contract.

Air monitoring, consisting of a perimeter survey with a photoionization instrument such as HNU or OVA shall occur upon arrival at the site. A survey within the boundary of the site shall follow the perimeter survey. The air samples should be taken in the ambient air and in the "breathing zone," normally 4-6 feet above the ground surface. Continuous readings or individual readings at nodal points on a grid pattern throughout the site will be made. This air monitoring is separate from monitoring that is part of the health and safety plan. If a source of air contamination is identified, the air should be sampled using the appropriate equipment to determine the nature and concentration of the contaminant. Upwind air samples must also be analyzed at the same time. Wind direction must be continuously monitored and documented during any sampling and on-site analysis of air samples.

Health and Safety Plan

A site-specific Health and Safety Plan must be developed and followed for each site. A copy of the Health and Safety Plan shall be submitted to NYSDEC.

Health and safety apparel and equipment are expected to be required during the major field activities - initial site investigation, geophysical study, drilling and monitoring well installation, and sampling. For the purpose of costing the investigation, Level D protection is assumed with Level C as back up. The health and safety precautions and procedures will conform to the consultant's generalized Health and Safety Plan. Should protective levels higher than Level D be required for any activity, the consultant shall prepare a site-specific health and safety plan appropriate for the level of protection required.

Report Preparation

Report preparation will involve analysis of the data as well as preparation of the text. Included in this task are the compilation and organization of the data, editing of boring logs, reduction of hydrologic data, preparation of graphical representations, analysis, and calculations, and updating the HRS score for the site. The report shall follow the format detailed in the Generic Phase II Work Plan. Four copies of the draft report shall be submitted. A revised draft will be submitted to the NYSDEC within five weeks of the receipt of the Department's comments on the draft report. Fourteen copies of the final report will be submitted once the revised report is considered acceptable. Draft and final reports must bear the stamp of a professional engineer in accordance with Article 49.

Quality Assurance/Quality Control

The QA requirements for the Phase II investigation must be addressed. Sample control forms attached to the contract amendment as Exhibit 1 must be supplied to the analytical laboratory for completion and inclusion with the data package. The Quality Assurance/Quality Control Plan will be submitted as a separate document.

Table 1
Phase II Work Plan - Task Description
Hazardous Waste Disposal, I.D. No. 152113

Tasks	Description
Task	
II-A Prepare and update work plan	Will be done by NYSDEC
II-B Conduct records search/data compilation	Review all available information.
II-C Site reconnaissance	Collaborate NYSDEC information regarding locations of proposed monitoring wells and test borings, terrain for accessibility by drill rigs, suitability for geophysical surveys and appropriate locations of sampling points.
II-D Conduct geophysical studies	Based on the study (where applicable) revise the location of monitoring wells, if needed which shall be approved by NYSDEC.
II-E Soil Gas Survey	Conduct soil gas analysis (when specified in the text). Based on the soil gas and geophysical studies, revise the location of monitoring wells and test borings, if needed, for approval by NYSDEC.
II-F 1. Install monitoring wells	Install four wells. Wells will be constructed of two-inch PVC pipe.
2. Soil samples during drilling	During drilling, soil samples collected at five-foot intervals, and at changes in lithologies. Perform grain size analysis and Atterberg limits. Where determined by NYSDEC or the consultant's field representative that chemical analyses are required for soil samples from well drilling activities, collect soil sample for chemical analyses. For costing purpose, assume one

	analyses per well. In addition, five soil samples from five borings at the suspected disposal area should be collected at an approximate depth of 10 feet or at a point of visible soil contamination, whichever is reached first.
II-G Surveying	Surveying of the site including monitoring well locations will be done in accordance with Section C.10 of Exhibit 3.
II-H Perform sampling and analysis	Refer to Table 3 and "Sampling and Analysis".
ASP QA/QC documentation	To be reviewed by a sub-contracting laboratory not involved with this contract.
II-I Report preparation	A site contamination assessment will be conducted to complete the final HRS and HRS documentation records. Prepare final reports containing significant Phase I information, additional field data, final HRS and HRS documentation records and site assessments.
II-J Project Management	Project coordination, administration and reporting.

Table 2

Phase II Work Plan - Sampling Summaries

Hazardous Waste Disposal, Site I.D. No. 152113

Designation	Location	Aquifer Screened	Approximate Boring Depth (ft.)
Groundwater			
MW-1	Upgradient	Overburden	75+ (or as determined by downhole geophysical survey)
MW-2	Downgradient	Overburden	75+
MW-3	Downgradient	Overburden	75+
MW-4	Downgradient	Overburden	75+
Surface Water			
SW-1	As shown on site map (Figure 2.)		
SW-2	As shown on site map (Figure 2.)		
SW-3	As shown on site map (Figure 2.)		
SW-4	As shown on site map (Figure 2.)		
Sediment			
SD-1	Shown on site map (Figure 2.)		
SD-2	Shown on site map (Figure 2.)		
SD-3	Shown on site map (Figure 2.)		
SD-4	Shown on site map (Figure 2.)		
Well Borings			
As determined by field conditions/PID screening.			
On Site Borings			
B1	As shown on site map (Fig. 2)		10±
B2	As shown on site map (Fig. 2)		10±
B3	As shown on site map (Fig. 2)		10±
B4	As shown on site map (Fig. 2)		10±
B5	As shown on site map (Fig. 2)		10±
B6	Background sample (Fig. 2)		2±
Air			
As per section 4 of the Work Plan.			

NOTE: Locations, aquifer screened, approximate boring depth listed are based on existing data. These criteria may change based on the results of the geophysical surveys and/or field conditions.

Table 3

Analyses - Hazardous Waste Disposal, I.D. #152113

	Type of Analysis(1)						
	TCL(2) Metals	TCL(2) Volatiles	TCL(4) Semi-Volatiles	TCL(5) Pesticides/ PCBs	EP TOX	REACT-IVITY	Mat/Spike Dup.(6)
Groundwater(7)	5	5	5	5	--	--	1/1
Surface Water	4	4	4	4	--	--	1/1
Sediment	4	4	4	4	--	--	1/1
Soil (well borings)	4	4	4	4	--	--	---
Soil (borings)	5	5	5	5	5*	5*	1/1
Field Blank	1	1	1	1	--	--	---
Trip Blank	---	1	---	---	--	--	---
Background Soil	1	1	1	1	--	--	---

(1) Complete identification per NYSDEC Generic Work Plan, Section 3(b)(ii)(B). Field pH, conductivity temperature measurements will be conducted on all water samples. Also, pH, specific conductance, Chemical Oxygen Demand (COD), Total Dissolved Solids (TDS), and Total Suspended Solids (TSS) measurements will be made at the laboratory for all water samples.

(2) TCL (Target Compound List, formerly known as Hazardous Substances List) Inorganics - preparation and analysis of the 15 Task 1 and 9 Task 2 inorganic compounds using the specified ASP methods.

(3) TCL Volatiles - Preparation and analysis using the ASP specified GC/MS method for TCL purgeable organics plus a library search for and the quantification of any additional non-TCL compounds (the ASP requires the library search only for the 10 non-TCL compounds of largest apparent concentration).

(4) TCL Semi-Volatiles - Preparation and Analysis using the ASP specified GC/MS method for TCL Extractable Base/Neutral and Acid Organic ompounds plus a library search for and the quantification of any additional non-TCL compounds (the ASP requires the library search only for the 20 non-TCL compounds of largest apparent concentration).

(5) TCL Pesticides/PCBs - Preparation and pre-extraction of the TCL organochloride pesticides and polychlorinated biphenyls using the ASP specified GC-ECD method.

(6) Superfund and Analytical Services Protocol, September 1989, requires at least one spiked sample analysis and one duplicate sample analysis from each group of samples of a similar matrix type for each case of samples or for each 20 samples received, whichever is more frequent.

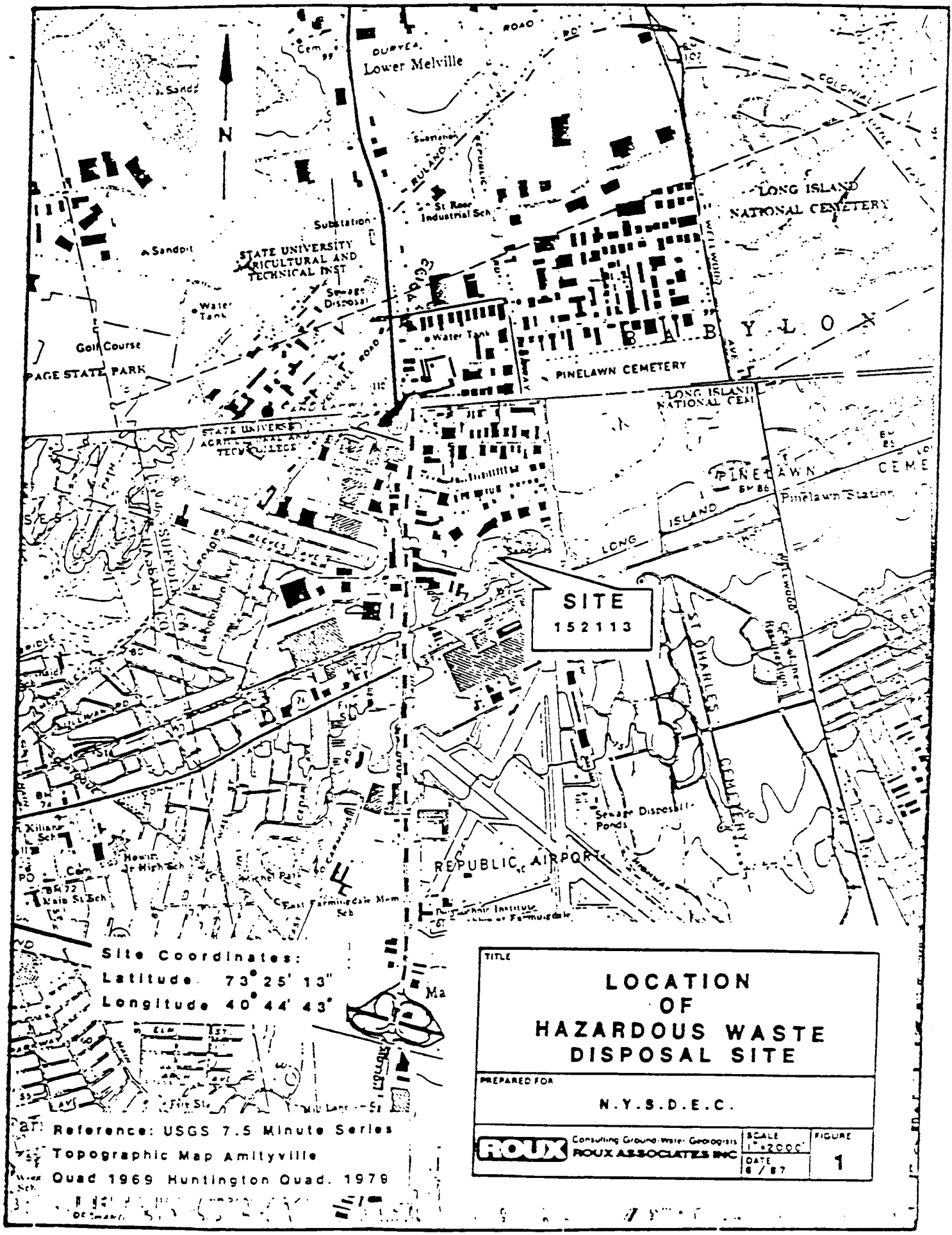
(7) A duplicate groundwater sample must be obtained from a monitoring well chosen at random (or some other medium if wells are not available). That duplicate sample must not be identified as a duplicate to the laboratory, but must be assigned an identifier similar to other groundwater samples.

The Bureau requires the blind analysis of a duplicate sample for each site by the laboratory, to confirm the integrity of all sampling and analytical activities.

(8) Where applicable samples will also be analyzed for EP (Toxicity), corrosivity (pH), ignitability and reactivity to determine whether they are characteristic hazardous waste.

--- Designates that samples are not to be analyzed for that parameter.

* Analysis will be done for the soil sample collected from the on site borings.



Lower Melville
N
LONG ISLAND NATIONAL CEMETERY
STATE UNIVERSITY AGRICULTURAL AND TECHNICAL INST
Sandpit
Substation
Sewage Disposal
Water Tank
Golf Course
PAGE STATE PARK
PINELAWN CEMETERY
LONG ISLAND NATIONAL CEM
PINELAWN CEME
Pinelawn Station
LONG ISLAND
SITE
152113
ST CHARLES CEMETERY
Sewage Disposal Ponds
REPUBLIC AIRPORT
Site Coordinates:
Latitude 73° 25' 13"
Longitude 40° 44' 43"
Reference: USGS 7.5 Minute Series
Topographic Map Amityville
Quad 1969 Huntington Quad. 1979
TITLE
LOCATION OF HAZARDOUS WASTE DISPOSAL SITE
PREPARED FOR
N.Y.S.D.E.C.
ROUX
Consulting Ground-Water Geologists
ROUX ASSOCIATES INC
SCALE 1"=2000'
DATE 6/87
FIGURE 1

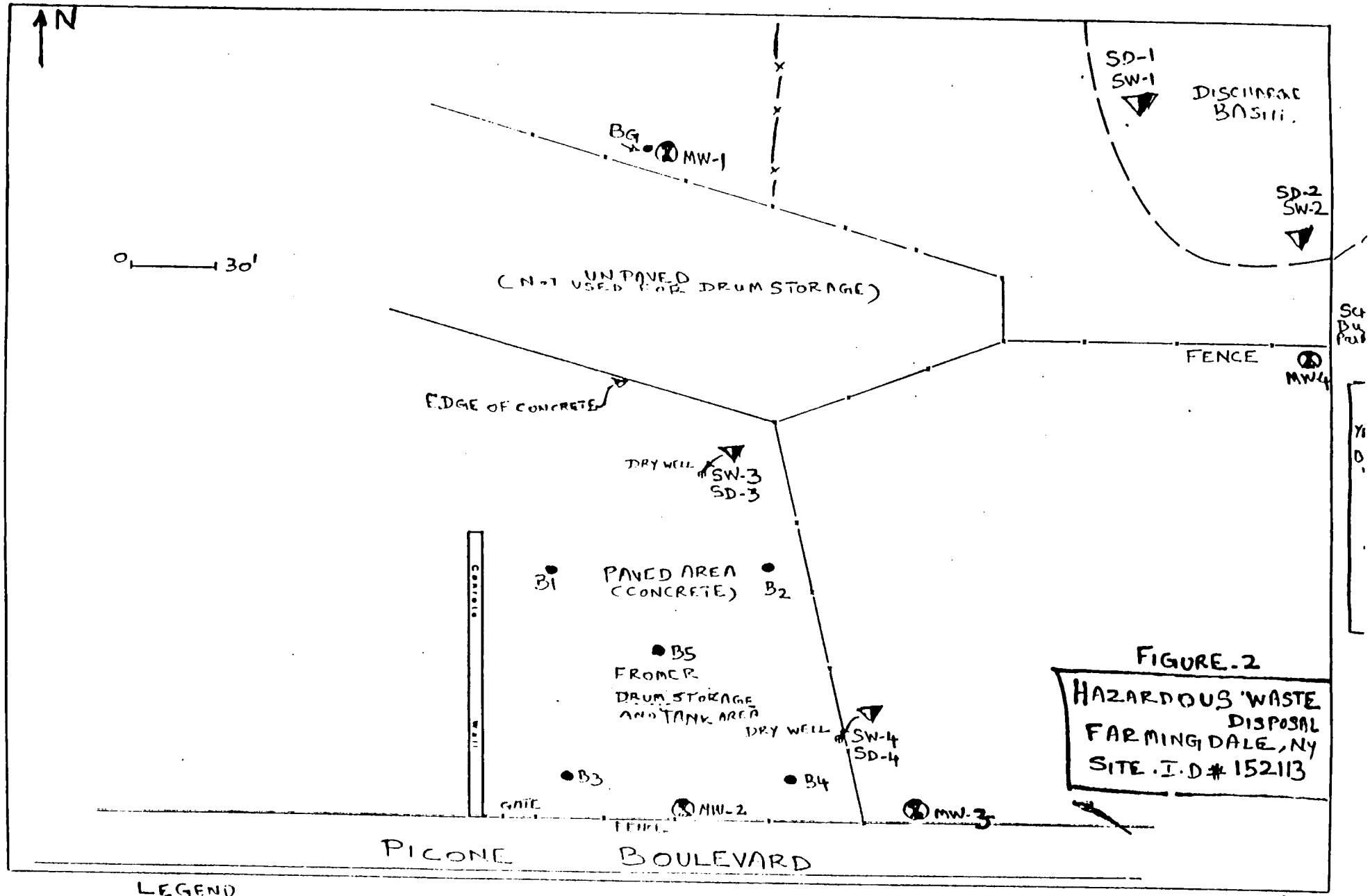


FIGURE. 2
HAZARDOUS WASTE DISPOSAL
FARMINGDALE, NY
SITE. I.D # 152113

LEGEND
BG - BACKGROUND

A-22

II. SITE RECONNAISSANCE REPORT

SITE RECONNAISSANCE REPORT: HAZARDOUS WASTE DISPOSAL

DATE: May 31, 1990

PRESENT: Christopher Grande — Geologist (G&H)
Alexsandar Kostic — Engineer (G&H)

OWNER: Mr. Joseph Picone Jr.
Little Joseph Realty
1637 Broad Hollow Road
Farmingdale, NY 11735
516/249-3400

Contact Person(s):

Mr. Victor Emanuelo — Attorney
Little Joseph Realty
1637 Broad Hollow Road
Farmingdale, NY 11735
(516) 249-3400

Mr. Joseph Picone Jr.
Little Joseph Realty
1637 Borad Hollow Road
Farmingdale, NY 11735
516/249-3400

Directions to Site

Take LIE to Exit 49S, Rt. 110 South
Proceed to Hempstead Turnpike and make a U-turn.
Head North 1 block and make a right at Picone Boulevard.
Continue to the end of road, site is on left side.

Adjoining Site Owners

N/A

Site Changes Since DEC Site Reconnaissance

None.

Recommended Relocation of Monitoring Well(s)

MW-1	No Change
MW-4	Recommended relocation of MW-4 northward. See site sketch.

Based on a telephone conversation with Mr. Dave Obrig, SCDHS, the discharge basin north of the site is a suspected area of contamination. Well MW-4 has been located to intercept the groundwater exiting the discharge basin area. Based on the topography and regional groundwater flow patterns, local groundwater flow is expected to be south-southeast.

MW-2	No Change
MW-3	No Change

Recommended Relocation of Soil Samples

B-1 through B-6: No Change

Note: Borings are located in a concrete paved area. Concrete must be broken in order to perform sampling.

Recommended Relocation of Sampling

SW-1/SD-1	No Change
SW-2/SD-2	No Change
SW-3/SD-3	No Change
SW-4/SD-4	No Change

No water observed in dry wells. If water is present in wells during time of sampling, then samples SW-3 and SW-4 will be taken.

Drilling Rig Access to Well Locations

Drilling rig can access all well locations by Picone Boulevard and Sherwood Avenue.

Usable Potable Water Source

There is a hydrant located next to the site on Picone Boulevard. In order to use this hydrant, a permit must be acquired from East Farmingdale Water District.

On the day drilling commences, a $25.00 check must be hand-delivered and made out to the aforementioned district. Other items which must be presented to the Water District are as follows:

A reduced pressure valve

A current test taken on a pressure valve.

The water district is located two blocks north of the site on Gazza Boulevard.

Contact Person: John Ferrari
East Farmingdale Water District
72 Gazza Boulevard
East Farmingdale, NY 11735
516/249-4211

Placement of Drilled Cuttings

It is not recommended that well cuttings and water from monitoring well installation and development be drummed.

Changes to Site Sketch

Addition of telephone and electrical lines and buildings.

Survey with H&S Monitoring Instruments

No meter readings above background level recorded.

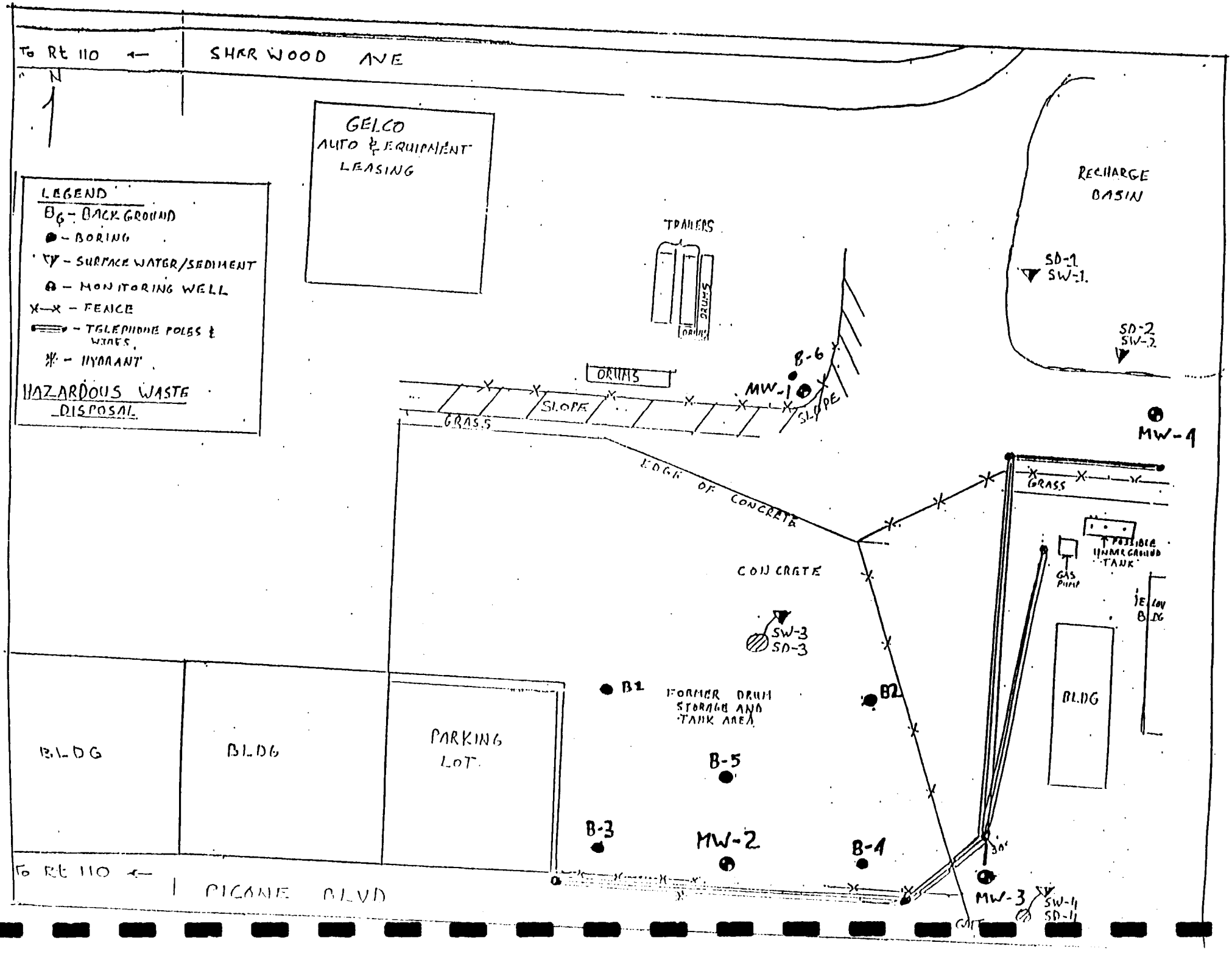
Magnetometer Survey

Results of survey were inconclusive due to the presence of stored metal materials, trucks and presumed metal reinforced concrete pavement.

Other Relevant Information

Owner is not cooperative.

III. SITE SKETCH


To Rt 110
SHERWOOD AVE
N
GELCO
AUTO & EQUIPMENT
LEASING
LEGEND
BG - BACKGROUND
- BORING
- SURFACE WATER/SEDIMENT
- MONITORING WELL
- FENCE
- TELEPHONE POLES & WIRES
- HYDRANT
HAZARDOUS WASTE
DISPOSAL
TRAILERS
DRUMS
RECHARGE
BASIN
SD-1
SW-1
SD-2
SW-2
B-6
MW-1
SLOPE
GRASS
MW-4
EDGE OF CONCRETE
CONCRETE
POSSIBLE UNDERGROUND TANK
GAS PUMP
SW-3
SD-3
B1
FORMER DRUM
STORAGE AND
TANK AREA
B2
BLDG
B-5
B-3
MW-2
B-4
MW-3
SW-4
SD-4
BLDG
BLDG
PARKING
LOT
To Rt 110
PICANE BLVD

IV. DRILLING PROTOCOLS

DRILLING SUMMARIES

- **Well Data**

Well No.	Aquifer Screened	Approximate Boring Depth, ft.	Notes
MW-1	Overburden	75+	
MW-2	Overburden	75+	
MW-3	Overburden	75+	
MW-4	Overburden	75+	

Remarks: (1) Screen Length: ft. 10

See Attachment I

- **Soil Samples During Drilling**

Split Spoon Sample: At 5-foot intervals from each well.

Grain Size Analysis: Two per well (see attached).

Atterberg Limits: Two per well (see attached).

- **Bedrock Core Sample:**

Drilling Cutting Samples: See attached.

- **Drumming of Cuttings and Fluids:** Not recommended.

ATTACHMENT

DRILLING SAMPLES

SPLIT SPOON SAMPLES

A maximum of one split spoon sample will be taken from each monitoring well for chemical analysis. The selection of each sample will be determined as follows:

1. A PID reading shall be recorded for each split spoon sample from each well. Measurements will be taken as close as possible to the sample.

2. If the PID reading of the sample is less than 5.0 units, then the sample shall be discarded in the same manner as the drilling cuttings.

   If the PID reading of the sample is greater than or equal to 5.0 units, then the sample shall be placed in an appropriate container for possible chemical analysis.

3. If all samples obtained from the installation of a well have PID readings less than 5.0 units, then no sample from that well shall be submitted to the laboratory for chemical analysis.

   If one sample obtained from the installation of a well has a PID reading greater than or equal to 5.0 units, then that sample from that well shall be submitted to the laboratory for chemical analysis.

   If more than one sample obtained from the installation of a well has a PID reading greater than or equal to 5.0 units, then that sample from that well that had the greatest reading shall be submitted to the laboratory for chemical analysis. All other samples shall be discarded in the same manner as the drilling cuttings.

Those samples sent to the laboratory for analysis shall not be accompanied by a trip or field blank. The laboratory analysis of these samples shall not include a matrix spike or duplicate.

GRAIN SIZE SAMPLES

Two soil samples shall be collected from each monitoring well to be analyzed for grain size distribution and Atterberg limits (if applicable). These samples shall be taken from the last split spoon sample of each well and from a depth representative of the lithology.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ROUND 5 PHASE II SITE INVESTIGATIONS

GIBBS & HILL JOB NO. 5066

MINUTES OF MEETING

DATE: April 13, 1990

PLACE: Gibbs & Hill, New York City Office

PRESENT:

NYSDEC - John Swartwout
Larry Alden
(518)457-0639

ROUX - Jim Worrall
(203)798-6969

AAC - Doug Harm
Perry Refolo
(201)290-7800

ADC - George Carabetta, Jr.
(203)630-1073

EMPIRE - Rich Donnelly
(518)783-1555

G&H - Norman Hinsey
Chris Grande
Alex Kostic
Jayesh Sanghvi
(212)216-7839

YEC - Ed Chen
(914)268-3203

GRB - Rose Barbour
((516)754-5231

SUBJECT: Kickoff meeting to discuss project objectives and clarify project procedures.

Mr. Hinsey described the project organization as follows:

Prime Consultant:	Gibbs & Hill
Subconsultant/Team Memeber:	Roux Associates
Subconsultants(M/WBE):	Aguilar Associates and Consultants
	GRB Environmental Services
	YEC, Inc.
Subcontractors:	Drilling
	Associated Drilling Co., Inc.
	Empire Soils Investigations, Inc.
	Soil Gas Survey
	Layne Geosciences, Inc.
	Surveyor
	Storch Associates
	Grain Size Analysis
	Empire Soils Investigations, Inc.
	Sample Analysis
	H2M Labs, Inc.
	Data Validation
	Aquatec
	Drilling Cuttings Disposal
	Chemical Management Inc.

The M/WBE Subconsultants are free to select their own subcontractors as long as NYSDEC procedures are followed (solicit three written quotes for work less than $10,000 and five written quotes for work greater than $10,000). NYSDEC permits subconsultants to utilize the prime consultant subcontractors as long as the same prices and scope are maintained. Gibbs & Hill will make available to each subconsultant the subcontractor agreements for reference.

Mr. Alden made the following points concerning what NYSDEC expects to accomplish with a Phase II Investigation:

identification of hazardous wastes (RCRA defined) present at the site,

identification of contravened standards for determination of the risk to human health and the environment.

Mr. Alden also clarified the following items:

The assessment of site contamination should be made utilizing the RCRA definition of hazardous waste (the definition recognized by NYSDEC). However, the HRS score should be prepared based on the CERCLA definition of a hazardous substance (the definition recognized by EPA for scoring purposes). In most instances, contaminants fall under both definitions but several metals, notably iron and manganese, are hazardous under CERCLA but not under RCRA.

Conclusions provided in the final report for each site should indicate:

whether enough data have been collected to prepare the final HRS score, and if not, what remains to be determined,

whether contaminants are determined to be present at the site and/or are found to be migrating into the groundwater, surface water and air, and if so

whether further investigations are recommended.

The NYSDEC is responsible for determining whether the site will be delisted or reclassified. The conclusions presented in the report should not be specific concerning methods or techniques or employ terms such as RI or FS which infer a decision concerning the status of the site.

Phase I reports should not be considered infallible and any errors should be corrected in the Phase II report. The Phase I report should not be used as a reference, the original reference cited in the Phase I report should be included in the Phase II report.

The most recent maps and data should be used when preparing the Phase II report. Sources of information identified in the Phase I report should be contacted to determine if any new information has become available since the Phase I investigation was completed.

Work plans prepared by NYSDEC, that formed the basis of the cost estimates prepared for each site, should be updated and/or corrected to reflect any site changes or new information.

The cost estimates for each individual task are considered firm unless extraordinary site conditions are encountered.

The most recent allowable maximum overnight travel rates issued by the NYS Comptroller are as listed in Exhibit F of the NYSDEC-G&H contract, Schedule B of Bulletin 137A.

Concerning drilling procedures and guidelines, the following items were agreed to by the attendees:

Water used for steam cleaning and drilling activities must be obtained from a public potable water source but need not be analyzed for contamination before use.

Drilling equipment decontamination with a steam cleaner should be preceded by mechanical cleaning and washing. The NYSDEC will reimburse the driller for the time required to perform both these operations provided this time is reasonable and effectively spent.

Time required to clean equipment contaminated by the driller (i.e. hydraulic oils spills, etc.) is not a reimbursable item.

If action levels are encountered that necessitate an increase in PPE from level D, work will stop and NYSDEC will be contacted to approve any further activities. Standby time in this instance will be reimbursable to the driller.

Riser and screens must be steam cleaned prior to use regardless of the manner in which they may have been packaged.

Split spoon samplers need only be rinsed with potable water between samples collected from each well. However, these items must be steam cleaned before being used on the next well.

As long as the driller can insure that a bentonite seal can be properly placed above the sand pack without being compromised by bridging, a slurry layer of bentonite need not be placed in the well.

The present decontamination procedure, when steam cleaning is not possible or practical, approved by NYSDEC is as follows:

1. detergent wash
2. potable water rinse
3. menthanol rinse
4. hexane rinse
5. deionized water rinse
6. air dry

The recipe for cement-bentonite grout is 94 lb cement (one bag), 5 lb bentonite powder, 6 1/2 gal water.

Equipment should be decontaminated above the ground, preferably on saw horses. Clean equipment should be placed apart from the cleaning area on clean pallets. Clean equipment should be moved in such a manner as to avoid contamination (e.g. handled with clean hands or wrapped in plastic and transported in a clean truck).

Submersible centrifugal pumps are permitted for downhole development provided it can be demonstrated that the decontamination of the pump will prohibit cross contamination between wells.

ATTACHMENT 1

The installation of monitoring wells shall adhere to the procedures of this attachment. Deviation from these procedures shall be permitted only after prior approval has been granted by the New York State Department of Environmental Conservation (NYSDEC). The provisions of NYSDEC "Division Technical/Administrative Guidance Memorandum: Phase II Investigation Oversight Guidance," (TAGM), dated May 9, 1988 and NYSDEC "Exhibit 3; Guidelines for Exploratory Boring, Monitoring Wells Installation, and Documentation of these Activities," (Exhibit 3), shall also apply to the installation of monitoring wells. In cases of conflict, this Attachment shall have precedence over the TAGM and Exhibit 3, and the TAGM shall have precedence over Exhibit 3.

ALL WELLS AND BORINGS

1. The Engineer, during the initial site reconnaissance, determines the the owner or owner's representativeof the nearest source of potable water suitable for drilling activities. The driller is responsible for contacting the appropriate person to arrange for obtaining water required during drilling. The driller is responsible for obtaining all required permits and providing all required hoses, valves and connections. Charges for permits or for water are considered reimbursable costs.

2. The Engineer, during the initial site reconnaissance, evaluates drilling rig accessibility to each well and boring location. The driller is provided with this evaluation, however the driller is solely responsible for assessing and providing equipment suitable for each location. In cases where special equipment (bulldozers, etc.) is required to provide access to drilling locations, the driller shall be responsible for obtaining this equipment. Well locations will not be changed due to inappropriate drilling equipment. Charges for special equipment are considered reimbursable costs.

3. Prior to initiating drilling activities, and between each well, all drilling and sampling equipment must be properly steam cleaned and/or dedicated (see TAGM 9.b and 13 for specific cleaning procedures). These activities shall be performed in a designated on-site decontamination areas located apart from the area where cleaned equipment is stored. Throughout and after the cleaning processes, direct contact between the equipment and the ground surface shall not be permitted and persons handling equipment shall have clean hands or clean gloves. Clean support structures, such as wooden pallets or sawhorses, shall be used for the staging of equipment. The drill rig and all equipment shall

be cleaned upon completion of the investigation and prior to leaving the site.

4. If a well cannot be completed the same day that it is drilled, a mechanism to safeguard its integrity must be devised. The driller must provide their plan for this contingency for NYSDEC approval prior to starting drilling at the site.

5. Well development shall be performed for each well with air surge, a pump, or bottom discharge bailer no sooner than 24 hours after grouting or recovery has been completed (whichever is later). Submersible pumps are not permitted. Development of the well will continue until a stabilization of pH, specific conductance, temperature and clarity (goal of less than 50 NTU) of the discharge is achieved. If, after two hours, the above criteria are not met, a NYSDEC representative must be contacted to determine how to proceed.

OVERBURDEN WELLS

1. A surface split spoon sample shall be obtained (0-2 feet). This, and all subsequent split spoon samples, shall be obtained in accordance with ASTM D-1585 test procedures and placed in precleaned, teflon-lined screw cap, glass jars.

2. Augers or cable tools (minimum 6 1/4-in ID) are advanced to a depth up to 50 feet below the water table (depths greater than 10 feet below the water table are possible at sites where NYSDEC performs geophysical testing on an exploratory boring). Split spoon samples shall be taken every 5 feet and at every major change in lithology. Split spoon samples from wells adjacent to Exploratory borings (see below) need not be collected except from depths where possible contamination was detected.

3. Slotted screen (5 to 15 feet; usually 10 feet) and riser are placed in the hole. Screen and riser shall be 2-in ID flush-joint threaded PVC for wells shallower than 75 feet and 4-in ID for deeper wells. One PVC well casing centralizer with stainless steel bolts shall be used on each well at the bottom of the hole. The riser shall stick up 2 feet above the ground surface and be fitted with a vented cap.

4. Sand packing shall be placed to a depth two feet above the top of the screen. Sand shall be either tremied or packed in accordance with NYSDEC 11/9/88 L.J. Alden Memorandum. Sand pack and screen size shall be determined in accordance with NYSDEC 9/16/1988 M. Chen letter.

5. A slurry of pure bentonite powder and water, mixed to the

the procedures for the installation of overburden wells. The driller may employ any method to accomplish the following:

> The drill rig shall be set up a minimum of five feet and a maximum of ten feet from one of the downgradient monitoring well locations. A borehole will then be advanced to a maximum depth 50 feet below the water table or to a confining layer, whichever is shallower. Split spoon samples shall be collected at five-foot intervals and changes in lithology, unless otherwise specified by the NYSDEC on-site representative or the work plan (cleaning of the split spoon sampler and downhole equipment, tools and materials is not required). Two-inch threaded flush joint PVC shall be installed to the full depth of the hole with at least 2 1/2 feet of stick up, and the annular space will be pressure-grouted to the surface as the augers are removed. NYSDEC personnel will log the hole through the PVC riser. After being logged, a steel protective casing with locking cap shall be cemented at the surface.

BEDROCK WELLS

Two varieties of bedrock wells will be encountered: wells completed in bedrock formations that are either overlain by an unconsolidated layer ("overburden/bedrock") or not ("bedrock outcrop").

Overburden/Bedrock

1. A surface split spoon sample shall be obtained (0-2 feet). This, and all subsequent split spoon samples, shall be obtained in accordance with ASTM D-1585 test procedures and placed in precleaned, teflon-lined screw cap, glass jars.

2. Augers or cable tools (minimum 6 1/4-in ID) are advanced to refusal. Split spoon samples shall be taken every 5 feet and at every major change in lithology.

3. Successive 5-foot NX-sized cores are taken until the NYSDEC on-site representative determines that the hole has been advanced at least five feet into competent bedrock.

4. The hole is reamed out with a 6-in. roller bit and all rock chips are removed. This shall be accomplished with water-rotary techniques. Air-rotary is acceptable only with oil-free compressed air.

5. Bentonite pellets (1/4-in.) are introduced into the bottom of the hole and water added. The amount of water added to the pellets and time allowed for hydration must follow the manufacturer's recommendations. If these are not available, water shall be introduced on the pellets in a manner to

insure proper hydration (e.g. a continuous stream) for at least one hour. A 4-in. threaded-joint PVC riser with a plug is set into the wet pellets to the bottom of the hole to form at least a two foot bentonite seal. The riser shall stick up 2 feet above the ground surface and be fitted with a vented cap.

6. Bentonite-cement grout (50 lb cement, 5 lb bentonite powder, 5 gal water) shall be pumped into the working space of the well with a side-discharge tremie pipe. The top of the grout layer shall be 2 1/2 feet from ground surface.

7. A cement-gravel (1/4-in.) mix shall be used to set a 5-foot protective casing (6-in. square) into the well so that it sits 2 1/2 feet below and above the ground surface. The protective casing shall be steel and equipped with a hinged, lockable top. The top, if not an integral part of the casing, shall be welded into place. Tops that are fastened with set screws only are not permitted.

8. After the grout has been given time to set (minimum of 24 hours), NX-sized coring is advanced through the bottom of the 4-in. riser to a depth that results in 10 feet of standing water in the well (at least 10 feet of NX-sized core hole). If water-rotary methods are employed, the hole must be pumped dry every ten feet, and sufficient time allowed to determine if the water table has been reached. (Pumping equipment requirements are the same as for well development.)

9. A cement-gravel pad shall be constructed around the wellhead at least 18 inches square and 4 inches thick. The material for the pad and the cement-gravel seal shall be Portland Cement concrete consisting of a mixture of two and one-half bage of Portland Cement per cubic yard, with gravel in equal proportions by volume. Water shall be added in the amount required to obtain a slump of seven to nine inches.

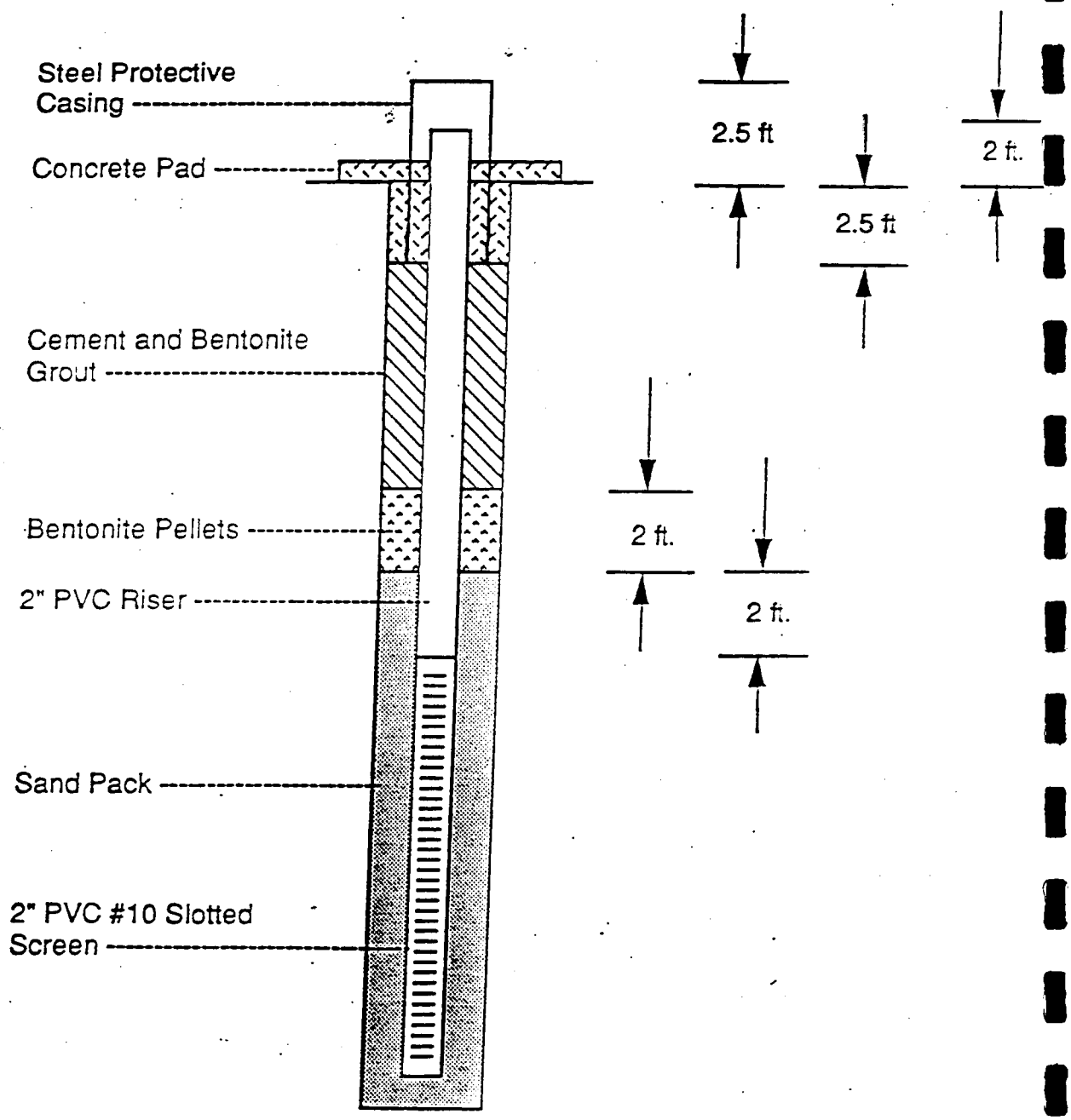
Bedrock Outcrop

1. NX-sized coring is advanced from the ground surface until the NYSDEC on-site representative or the Engineer determines that the hole has been advanced at least five feet into competent bedrock (minimum depth of seven feet).

2. The hole is reamed out with an 8-in. roller bit and all rock chips are removed. This shall be accomplished with water-rotary techniques. Air-rotary is acceptable only with oil-free compressed air.

3. Well completion follows the same procedures as Overburden/Bedrock wells as described in items 5. through 9.

OVERBURDEN WELL CONSTRUCTION SCHEMATIC



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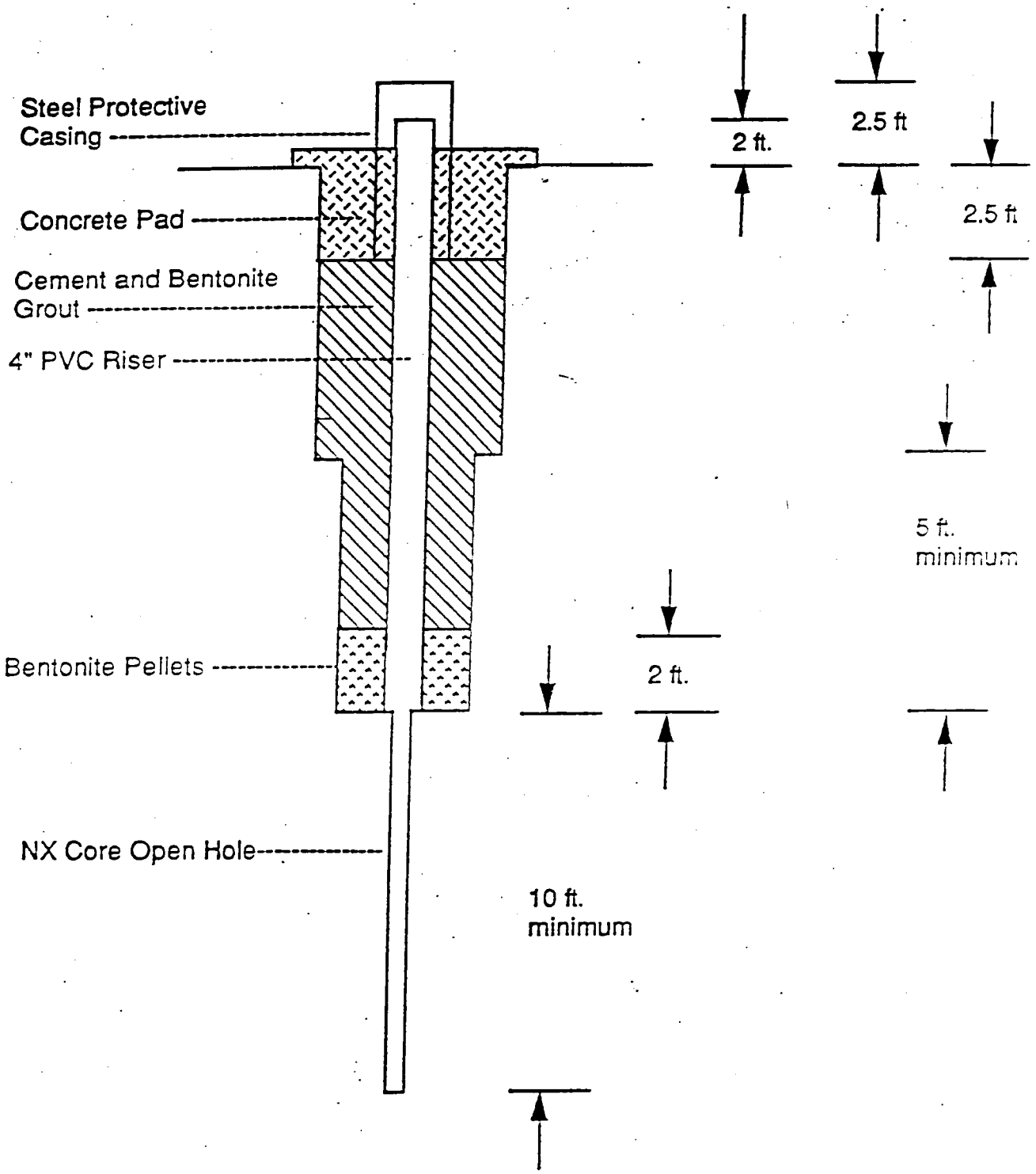
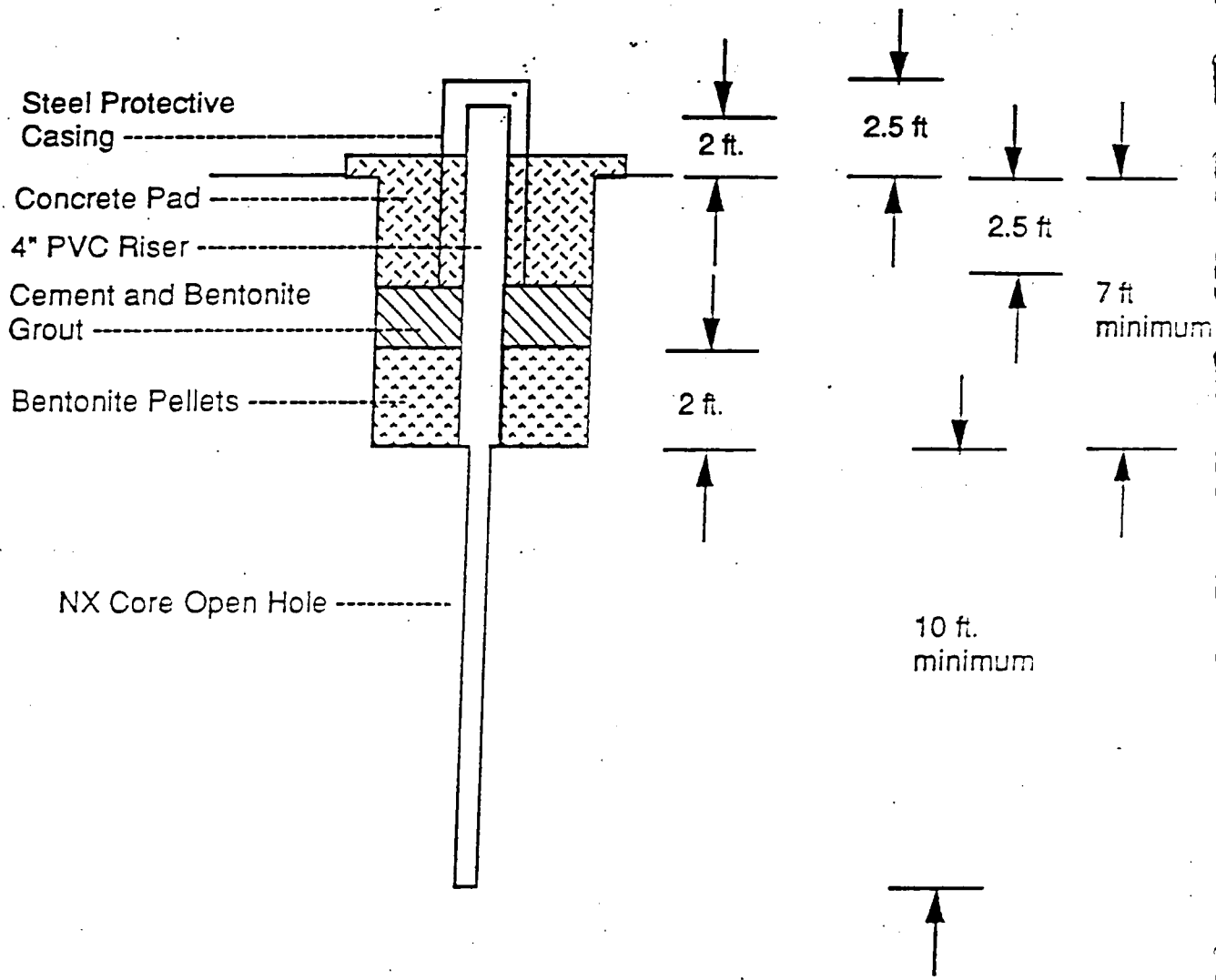
OVERBURDEN/BEDROCK WELL CONSTRUCTION SCHEMATIC



Gibbs & Hill, Inc.

BEDROCK WELL CONSTRUCTION SCHEMATIC



Gibbs & Hill, Inc.

V. SAMPLING PROTOCOLS

SITE SPECIFIC SAMPLING ORDER
FIELD DATA SHEET

Site Name: Hazardous Waste Disposal Sampling Team Members:

Date:

Weather:

Temperature: Humidity: Precipitation:

Sample Order	SS	Remarks
B-1	X	If the total metal concentrations in the on-site soil samples are higher than 20 times the maximum concentrations for characteristics of EP Toxicity for that metal, then it may be necessary to run an EP Toxicity test for that sample. So the soil sample should be preserved for future EP Toxicity analysis. 10± feet with drilling rig. Exact depth based on OVA and PID readings and visual observations.
B-2	X	
B-3	X	
B-4	X	
B-5	X	
B-6 Background	X	
MS/MSD From B-5	X	

Symbols

TP - Trip Blank GW - Groundwater SS - Soil SW - Surface Water D - Duplicate FB - Field Blank
SD - Sediment L - Leachate MS - Matrix Spike A - Air SG - Soil Gas

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SITE SPECIFIC SAMPLING ORDER
FIELD DATA SHEET

Site Name: Hazardous Waste Disposal Sampling Team Members:

Date:

Weather:

Temperature: Humidity: Precipitation: Wind Speed/Direction:

Sample Order	Type of Sample								Remarks
	GW	SW	SD	L	SS	A	SG		
SW-1		X							
SD-1			X						
SW-2		X							
MS/MSD		X							From SW-2
SD-2			X						
MS/MSD			X						From SD-2
SW-3		X							
SD-3			X						
SW-4		X							
SD-4			X						

Symbols
TP - Trip Blank GW - Groundwater SS - Soil SW - Surface Water D - Duplicate FB - Field Blank
SD - Sediment L - Leachate MS - Matrix Spike A - Air SG - Soil Gas

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SITE SPECIFIC SAMPLING ORDER
FIELD DATA SHEET

Site Name: Hazardous Waste Disposal Sampling Team Members:

Date:

Weather:

Temperature: Humidity: Precipitation: Wind Speed/Direction:

Sample Order	Type of Sample								Remarks
	GW	SW	SD	L	SS	A	SG		
GW-1	X								
GW-2	X								
GW-3	X								
MS/MSD	X								From MW-3
GW-4	X								
GW-5	X								Duplicate of MW-4
FB									See revised sampling procedure
Trip Blank									For volatiles only

Symbols
TP - Trip Blank GW - Groundwater SS - Soil SW - Surface Water D - Duplicate FB - Field Blank
SD - Sediment L - Leachate MS - Matrix Spike A - Air SG - Soil Gas

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REVISED SAMPLING PROCEDURES

Analyses of unfiltered groundwater samples from previous site investigations indicated concentrations of metals which suggested that sediment material had a significant impact on reported results. In order to clarify this impact, an additional sample will be collected in the field to be filtered at the laboratory and in certain instances, analyzed for TCL inorganics. The specific procedure for groundwater sampling is as follows:

- Immediately upon arrival at the site for sampling, or, if possible, the day prior to sampling, all groundwater levels will be measured and wells will be purged. Each dedicated disposable bailer will be tied off in the well above the static water level and the well secured.

- All other samples (soil, leachate, waste, surface water and sediment), if any, will be collected, and any other required site activities performed, to allow time for groundwater in purged wells to recover and for any solids to settle into the bottom of the well.

- Sampling of wells will proceed in the order in which they were purged. The first several bailers of groundwater will be obtained from the uppermost portion of standing water in the well so as to obtain the least turbid groundwater possible for samples analyzed for volatiles and inorganics.

- Volatile sample bottles will be filled first. Sample bottles for unfiltered inorganics analysis will be filled second and sample bottles for filtered inorganic analysis will be filled third. The remaining sample bottles need not be filled in any particular order.

- Filled sample bottles will be either delivered to the lab the morning after sampling by overnight mail or dropped off the same day by the consultant performing the sampling.

- The lab will filter the appropriate samples and place them in storage. The unfiltered inorganic samples will be analyzed for TCL inorganics with full CLP deliverables.

- Upon receipt and review of the results summary for the site (including TSS and TDS), the consultant will request the lab to analyze the filtered samples if sediment material may have effected the results. The lab will perform the analyses per CLP but will report the results as "informational" without CLP deliverables. These results will be sent directly to the consultant be used to assess the unfiltered sample results and will not be validated.

Field blank samples for each groundwater matrix of each site will be replaced by one blank from a disposable bailer from each lot of bailers. This "bailer blank" analysis for each lot will be reported, with full deliverables, with each appropriate site package. G&H will provide the laboratory with one bailer from each lot and the lab will produce and analyze the blanks for full TCL. The consultant collecting samples will note on all chain-of-custody forms the lot number from which the bailers were obtained.

VI. HEALTH & SAFETY PLAN

SITE SPECIFIC HEALTH AND SAFETY PLAN

A. GENERAL INFORMATION

SITE NAME: Hazardous Waste Disposal NY ID. NO.: 152113

LOCATION: Farmingdale, Suffolk County

CONTACT (name, address, phone no.):

Victor Emanuelo, Attorney
1637 Broad Hollow Road, Farmingdale, NY 11735
516/249-3400

G&H's PROJECT MANAGER:

Name: Norman Hinsey
Phone No.: (212) 216-7839

NYSDEC CONTACT:

Name: Lawrence Alden
Phone No. (518) 457-0639

B. SITE CHARACTERISTICS

FACILITY FUNCTION: Industrial waste scavenger business included transportation and storage of hazardous waste.

PHASE I COMPLETED: YES X NO _____

STATUS: Active _____ Inactive __X__ Unknown: _____

POSSIBLE CONTAMINANTS/HAZARDS:

Ammonium hydroxide, hydrochloric acid and other unknown hazardous wastes.

RECOMMENDED LEVEL OF PROTECTION: Level A _____ Level B _____
Level C _____ Level D __X__

WORKING ZONE: 20 ft around monitoring wells

Site Secured Yes __X__ No _____

SITE SPECIFIC CONCERNS: (buried lines, radioactive waste, etc.)

Possibly buried lines.

MONITORING EQUIPMENT REQUIRED

Instrument	Model	Note
Photoionization Detector (PID)	HNU-PI101	1
Flame Ionization Detector (FID)	OVA-128	1
Combustible Gas Indicator (CGI)	MSA-260	3
Radiation Detector	RM 750	2

NOTES

1) In the event air monitoring results in the breathing zone indicate a steady state increase of 5 units for HNu and 20 ppm for OVA above background of total organic vapor, all work activities will cease, the NYSDEC will be notified, and a joint decision will be made on the altering of the SOP.

2) A walkover survey with a radiation instrument (to measure gamma and beta radiation) will be conducted in the vicinity (20-foot radius) of each boring and sampling location prior to activity. In the event steady state readings indicate greater than 1.5 millirem/hr, all work activities will cease, the NYSDEC will be notified, and a joint decision will be made on the altering of the SOP.

3) Continue on site monitoring with extreme caution if the measurement level is 10% to 25% LEL (lower explosive limit). Withdraw from the area immediately if the level is higher than 25% LEL. Withdraw from the area when the O_2 level falls below 19.5%. Withdraw from the area when the O_2 level is higher than 25% (fire hazard potential).

   Note: Explosion hazard - the gas indicator alarms at 50% LEL.

C. GIBBS & HILL STANDARD HEALTH AND SAFETY PLAN

G&H'S STANDARD HEALTH AND SAFETY PLAN IS A PART OF THE HEALTH AND SAFETY PLAN FOR THIS PHASE II INVESTIGATION. A COPY OF THE G&H's STANDARD HSP IS REQUIRED DURING THE FIELD ACTIVITIES.

D. EMERGENCY INFORMATION

Emergency Response Agencies:

- Hospital: Brunswick Hospital

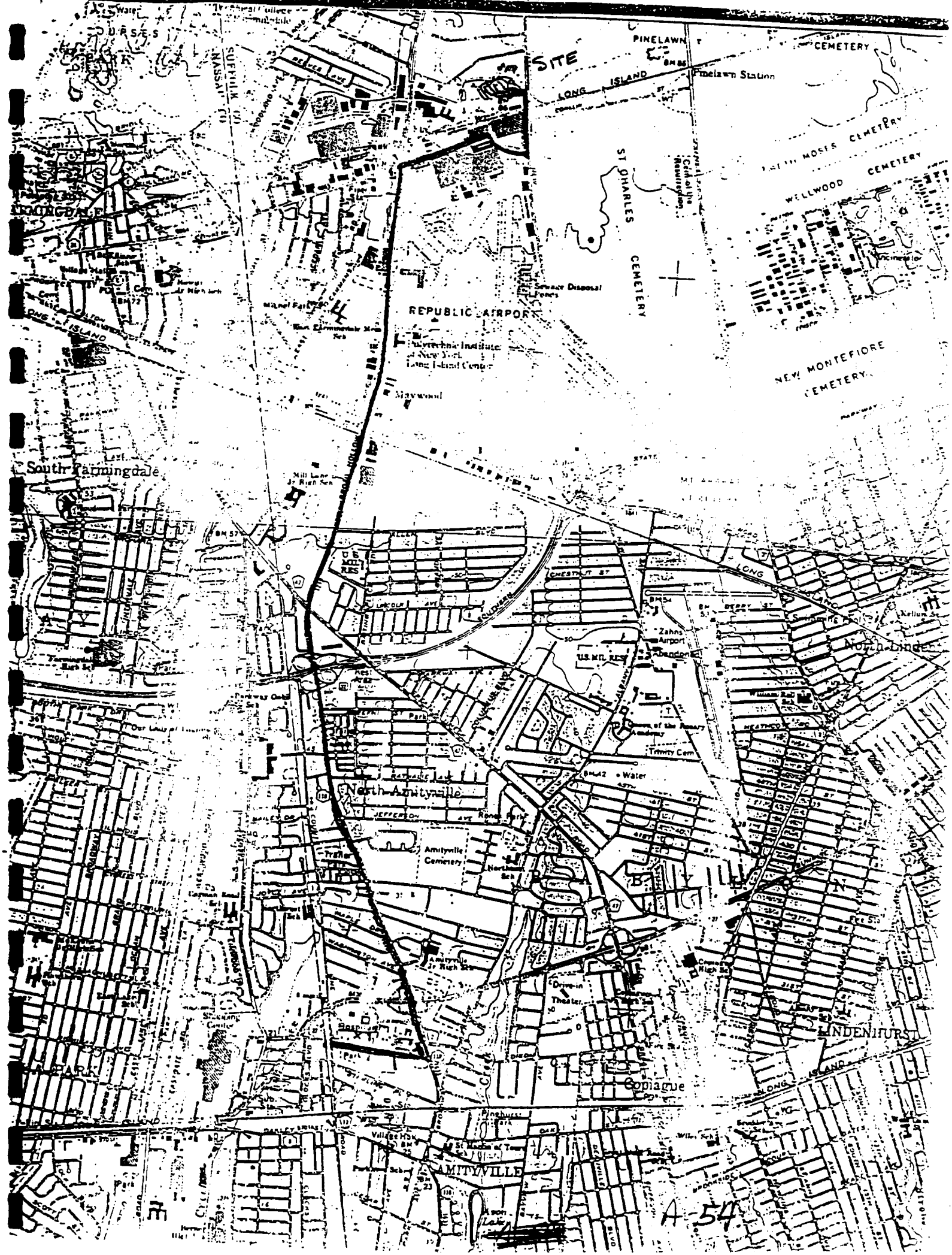
Has the hospital been contacted? Yes X No ____
Do they handle chemical accidents? Yes X No ____
Do they have an emergency room? Yes X No ____
General telephone: 516/789-7000
Emergency room telephone: 516/789-7258
Location: Amityville, NY

Site to hospital route: From site head South on Rt. 110. Go half a block South of Sunrise Highway and hospital is on right side.

Is the route map attached: Yes X No ____
Nearest Site Phone Location: J&S Trucking across the street from site.
Phone Number: 516/249-6350
Phone Direction/Map Attached: Yes ____ No X

	Phone No.
• Ambulance	264-0400
• Police	264-0400
• Fire Department	264-0400
• Poison Control Center	1-800-535-0525
• CHEMTREC	1-800-424-9300
• USCG/DOT National Response Center:	1-800-424-8802

Emergency Contact		Phone No.
• NYCDEC Project Manager:	Lawrence Alden	1-518-457-0639
• NYCDEC Project Engineer:	John Swartwout	1-518-457-0639
• G&H Project Manager:	Norman Hinsey	1-800-866-9191
• G&H Corporate Health & Safety Officer:	Jou Hwang	1-800-866-9191


SITE
PINELAWN
CEMETERY
Pinelawn Station
LONG ISLAND
ST CHARLES CEMETERY
WELLWOOD CEMETERY
REPUBLIC AIRPORT
Sewage Disposal Ponds
Polytechnic Institute of New York Long Island Center
Maywood
NEW MONTEFIORE CEMETERY
South Farmingdale
Mill Lane Jr High Sch
U S MIL RES
CHESTNUT ST
Zahns Airport
Abandoned
U.S. MIL RES
North Linden
Trinity Cem
Water
North Amityville
Amityville Cemetery
Northeast Sch
Amityville Jr High Sch
Drive-in Theater
LINDENHURST
Copiague
Village Hall
AMITYVILLE
Aston Lake
A-54

APPENDIX B

TEST BORINGS AND MONITORING WELLS

B.1 PROCEDURES

1. Drilling and Well Installation

Monitoring wells were drilled and installed to provide data pertinent to both water chemistry and characterization of the stratigraphy and groundwater regime at the site. Drilling was performed by Empire Soils Investigations. One upgradient well was drilled to provide representative samples of the groundwater flowing into the area. Three additional monitoring wells were drilled to monitor flow direction and water quality.

The overburden monitoring wells were installed by drilling with 6¼-inch I.D. hollow-stem augers. A 10-foot section of #10 slotted PVC well screen (2-inch I.D.) was installed at the bottom of wells MW-2 and MW-3, and a 15-foot section of #10 slotted PVC screen was installed at the bottom of wells MW-1 and MW-4 and were connected to the surface with a 2-inch, flush joint, Sch. 40 PVC riser. A sand pack was extended to approximately 2 feet above the screen. A 2-foot bentonite pellet seal was placed on top of the sand pack. The remaining annular space was filled with a cement/bentonite grout. Steel protective casings (with locking covers) were set over MW-1 and MW-4 monitoring well risers and secured into the ground with concrete. Wells MW-2 and MW-3 were installed flush with the ground (see Appendix B for schematic diagrams).

Split spoon samples were collected at 5-foot intervals for the purpose of soil characterization. Soil sample descriptions, sampler blow counts, and soil recovery records for all wells are shown in the boring logs (B.2).

Well Development

Each well was developed by pumping water to remove the maximum practical quantity of sediment and other fine materials from the screen pack in order to produce a satisfactory amount of sediment-free water. Wells were developed for less than 1 hour each. A nephelometer was employed to measure the clarity of groundwater during development. The recommended turbidity of 50 NTU was reached for all wells.

2. Slug Test

A slug test was performed to measure in situ saturated hydraulic conductivity (K) characteristics of the aquifer in the vicinity of the screen or otherwise open portion of the well. A standard method of performing a slug test consists of quickly lowering the water level in the well and measuring its subsequent rate of rise over time as it approaches equilibrium. A dedicated polyethylene bailer with a polypropylene suspension cord was used to remove a bailer's volume of water from the well.

The rate of the groundwater level change was recorded by measuring the depth to the water below the top of the casing as a function of time after the start of the test until the original level of the water table was restored.

Groundwater elevation was measured and recorded prior to any testing. All water elevation measurements were obtained with an electronic water level indicator.

The Hvorslev method was used to calculate the permeability, K (cm/sec.):

$K = [r^2 \ln L/R]/[2LTo]$

Where:

r= radius of a PVC riser, cm

L= length of screen beneath static water level, cm

R= radius of sand pack, cm

To= elapsed time, t, at (H-h)/(H-Ho) = 0.37, sec.

H= reference datum, cm

Ho= water level at instantaneous displacement, cm

H= water level at equilibrium, cm

h= water level at time, t, cm

t= elapsed time, sec.

(R. Allan Freeze and J.A. Cherry, Groundwater, Prentice Hall Inc., pg. 339)

3. Grain Size Analysis

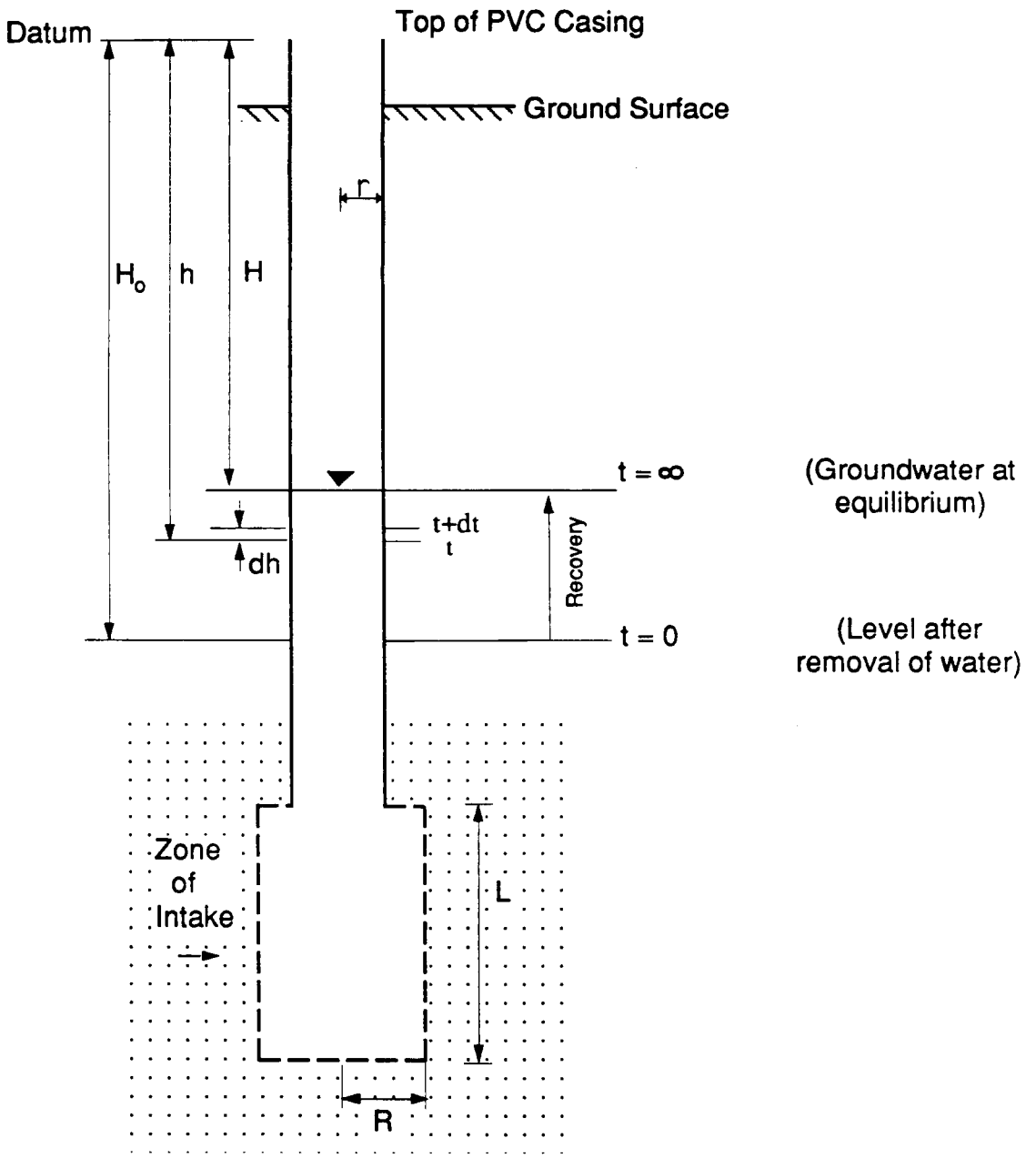
Grain size distribution analyses were performed by Geo-Tech Associates (Fanwood, New Jersey). Analyses were conducted on the last split spoon samples collected from each overburden well. All analyses were performed in accordance with ASTM Method Number D422. The percentage of each grain size component was determined. Results of these analyses were plotted on a particle size distribution graph.

As the samples have less than 20 percent silts and clays (i.e., material passing through a No. 200 sieve), hydrometer analyses were not performed.

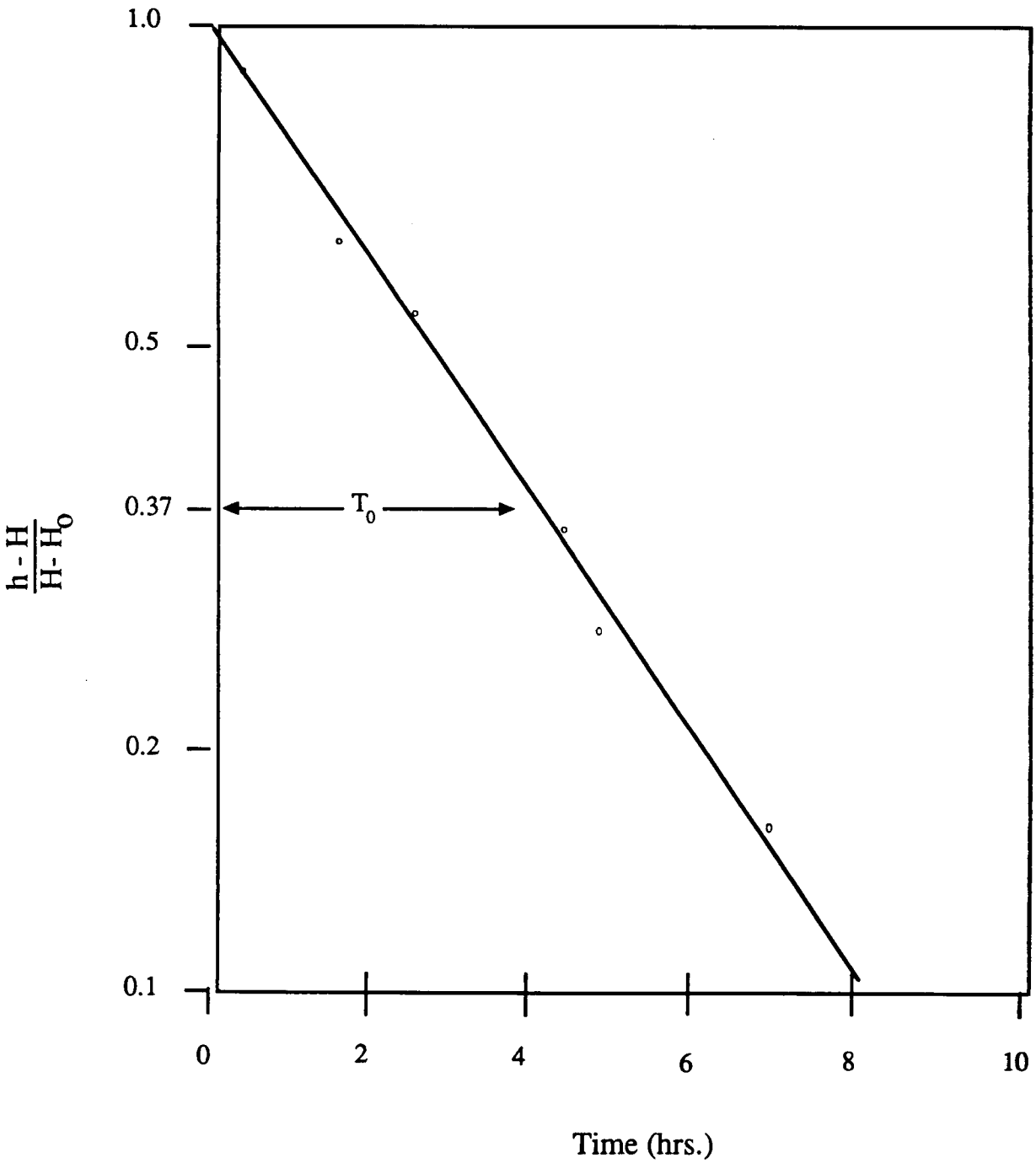
Because direct permeability data is sparse, the interrelationship between grain size and hydraulic conductivity can prove to be useful for the estimation of conductivity values. An empirical relation based upon Masch and Dennis (1966) "Determination of Saturated Hydraulic Conductivity from Grain Size Gradation Curves for Unconsolidated Sands" and Morris and Johnson's (1967) "Representative Values of Hydraulic Conductivity" was used to estimate conductivity values and correlate them to observed values in the field.

HVORSLEV PIEZOMETER TEST GEOMETRY

(RISING HEAD)



HVORSLEV HYDRAULIC CONDUCTIVITY METHOD OF ANALYSIS



B.2 RESULTS

DRILLING SUMMARY REPORT

Site Name: Hazardous Waste Disposal Site

Site No.: 152113

Date: 9/5/90 to 9/14/90

Site Personnel: A. Kostic (G&H)

Driller: Empire Soils

WELL DATA

Well No.	Boring Depth, ft	Depth to Water, ft
MW-1	28.5	20.49*
MW-2	22.5	5.92*
MW-3	22.5	8.70*
MW-4	22.3	10.00*

Depth to water refers to feet from top of casing.

*Measurements made 5/8/91 by J. Sanghvi and C. Grande.

WELL DEVELOPMENT

Well No.	NTU Readings
MW-1	3.33
MW-2	6.00
MW-3	10.50
MW-4	16.00

IN SITU CONDUCTIVITY TEST

Immediate recovery (less than 5 sec) recorded. Conductivity greater than $1x10^{-3}$ cm/sec.

Notes:

1. Diesel fuel smell was detected from wells MW-3 and MW-4 cuttings and holes during drilling events.

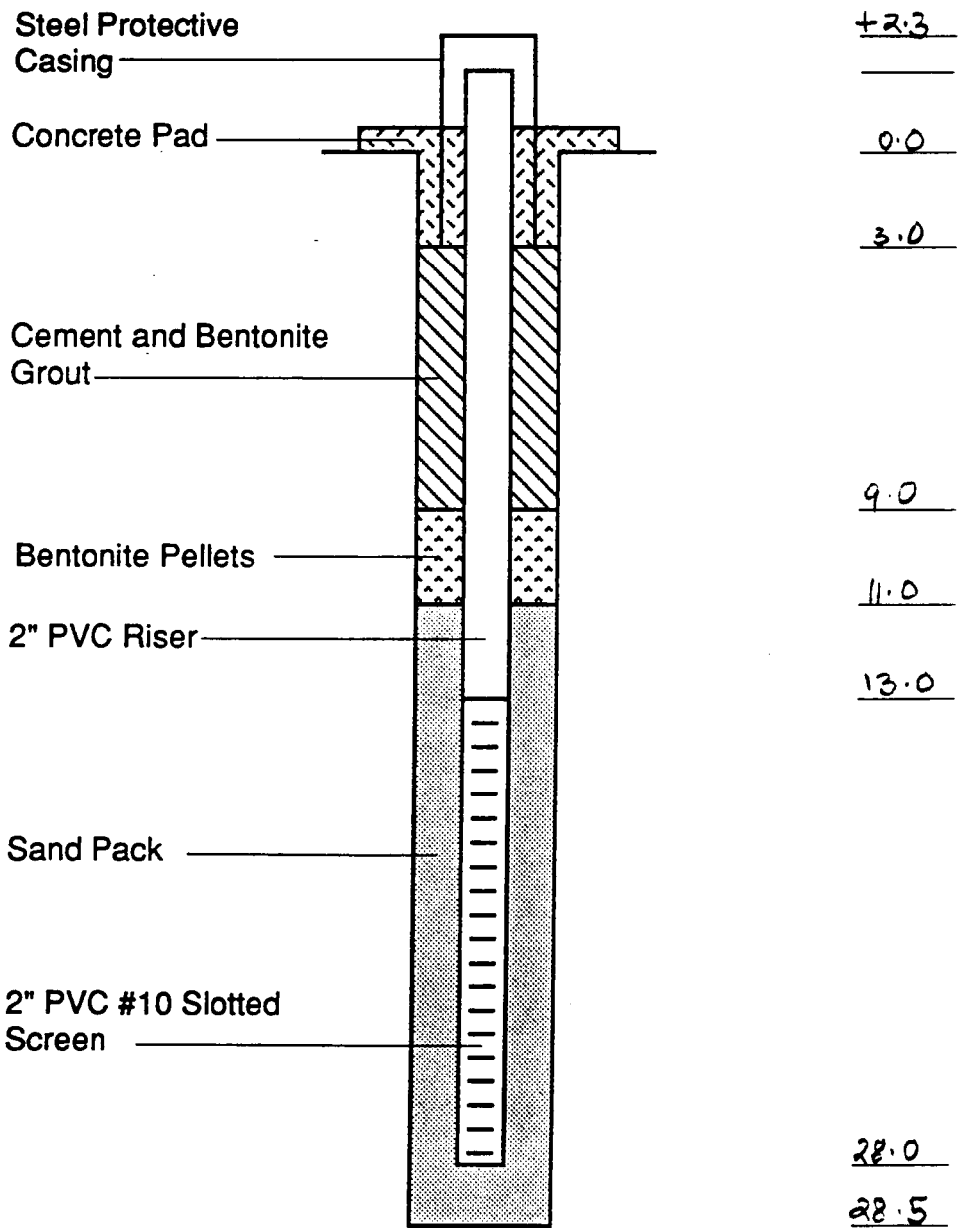
2. LEL (lower explosive limit) level was 20 percent at well MW-4 hole (depth of 8 ft) and 30-50 percent at well MW-3 hole (depth of 5-10 ft). No readings in the H_2S instruments were recorded in the breathing zone.

3. OVA and HNU instruments indicated no readings above background in the breathing zone.

OVERBURDEN WELL CONSTRUCTION SCHEMATIC

Site Hazardous Waste Disposal
Well No. MW-1
Date Installed Sept 4, 90

Water Level from
Top of Casing 20.49 (ft)
Date May 8, 91 Time 1:30 PM



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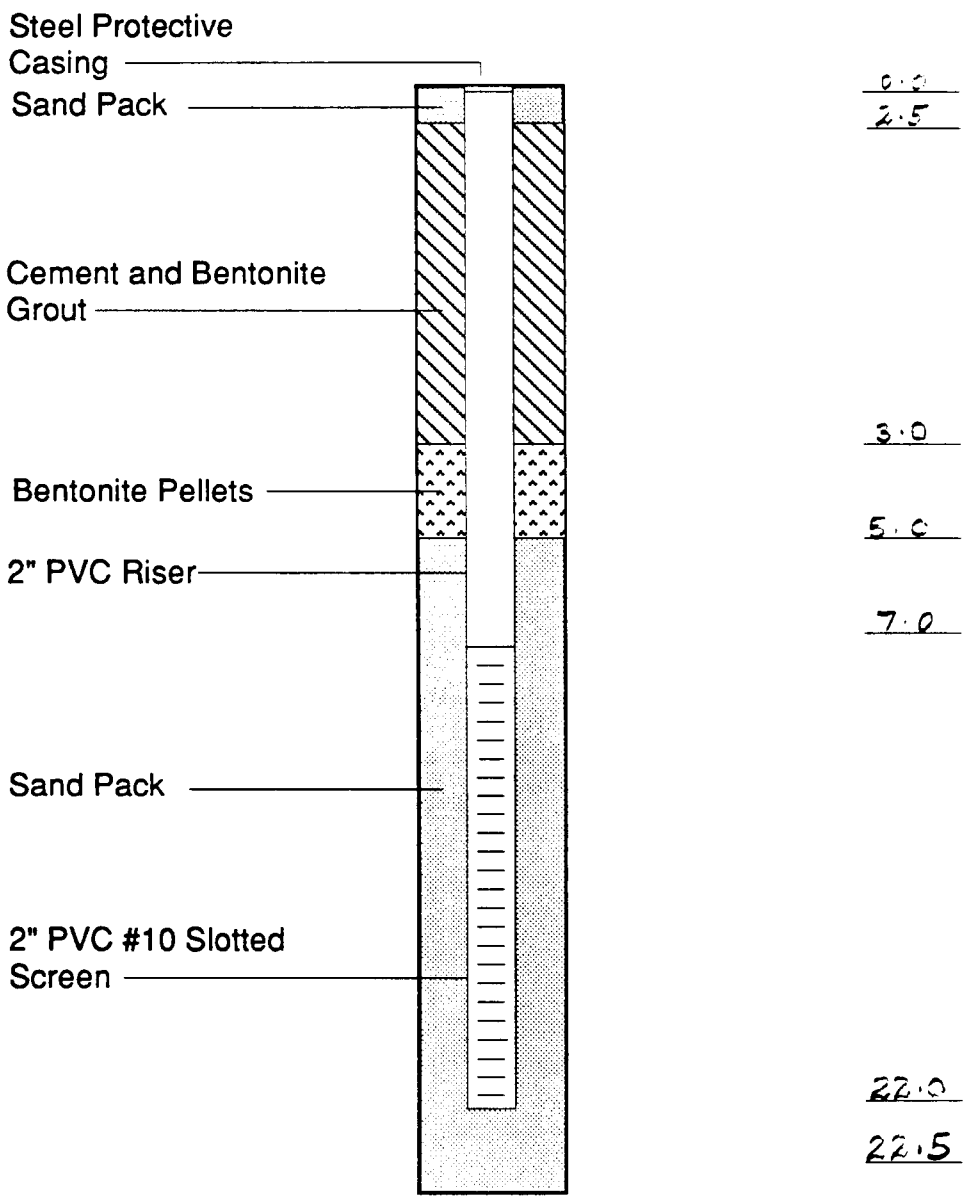
FLUSH MOUNTED WELL CONSTRUCTION SCHEMATIC

Site Hardin Waste Disposal
Well No. MW-2
Date Installed Sept 6, 90

Water Level from
Top of Casing 5.92 (ft)
Date May 8, 91 Time 11:45 PM

Elevations (ft)



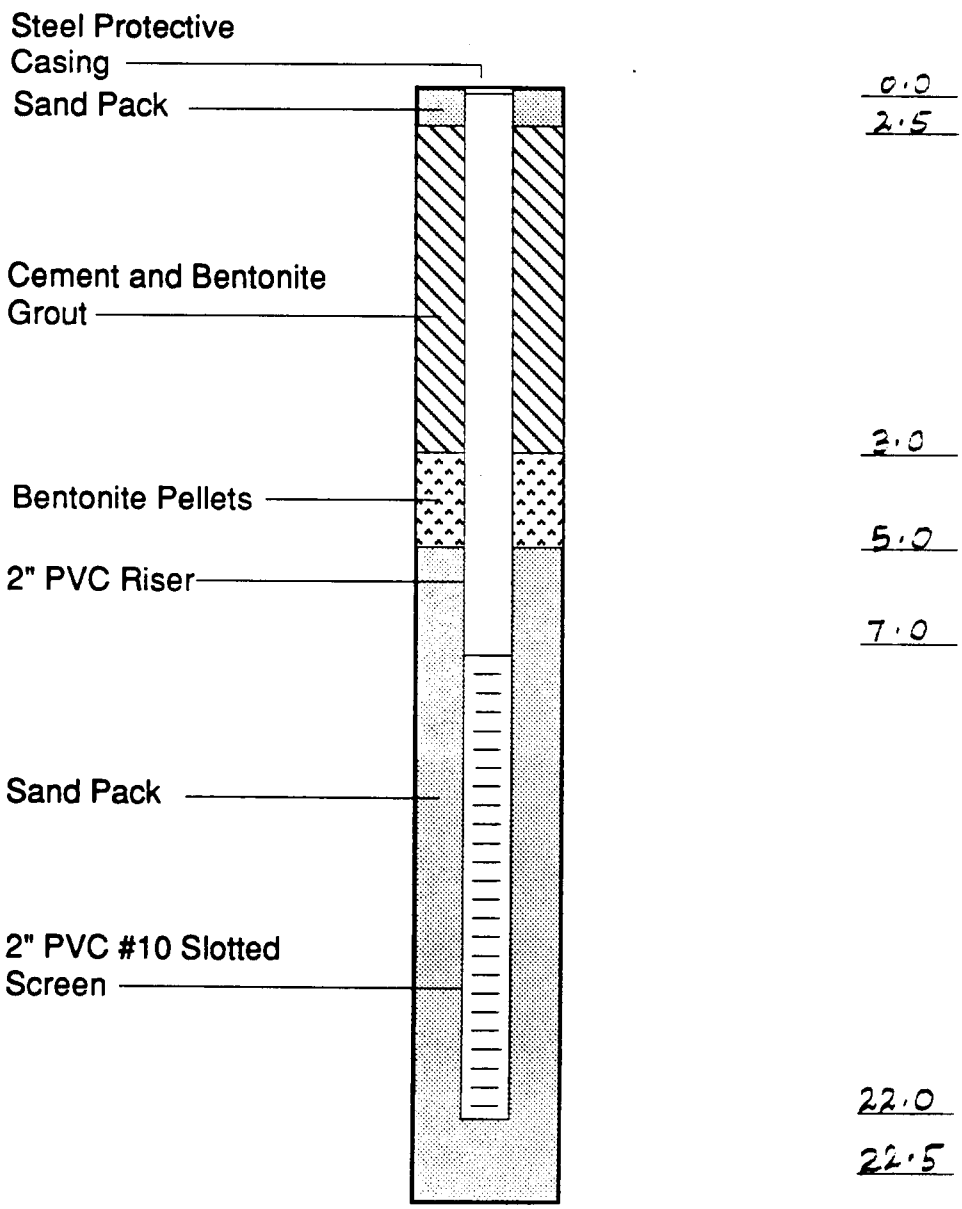
Gibbs & Hill, Inc.

FLUSH MOUNTED WELL CONSTRUCTION SCHEMATIC

Site Hazardous Waste Disposal
Well No. MW-3
Date Installed Sept 5, 90

Water Level from
Top of Casing 8.70 (ft)
Date May 8, 91 Time 2:00 PM

Elevations (ft)

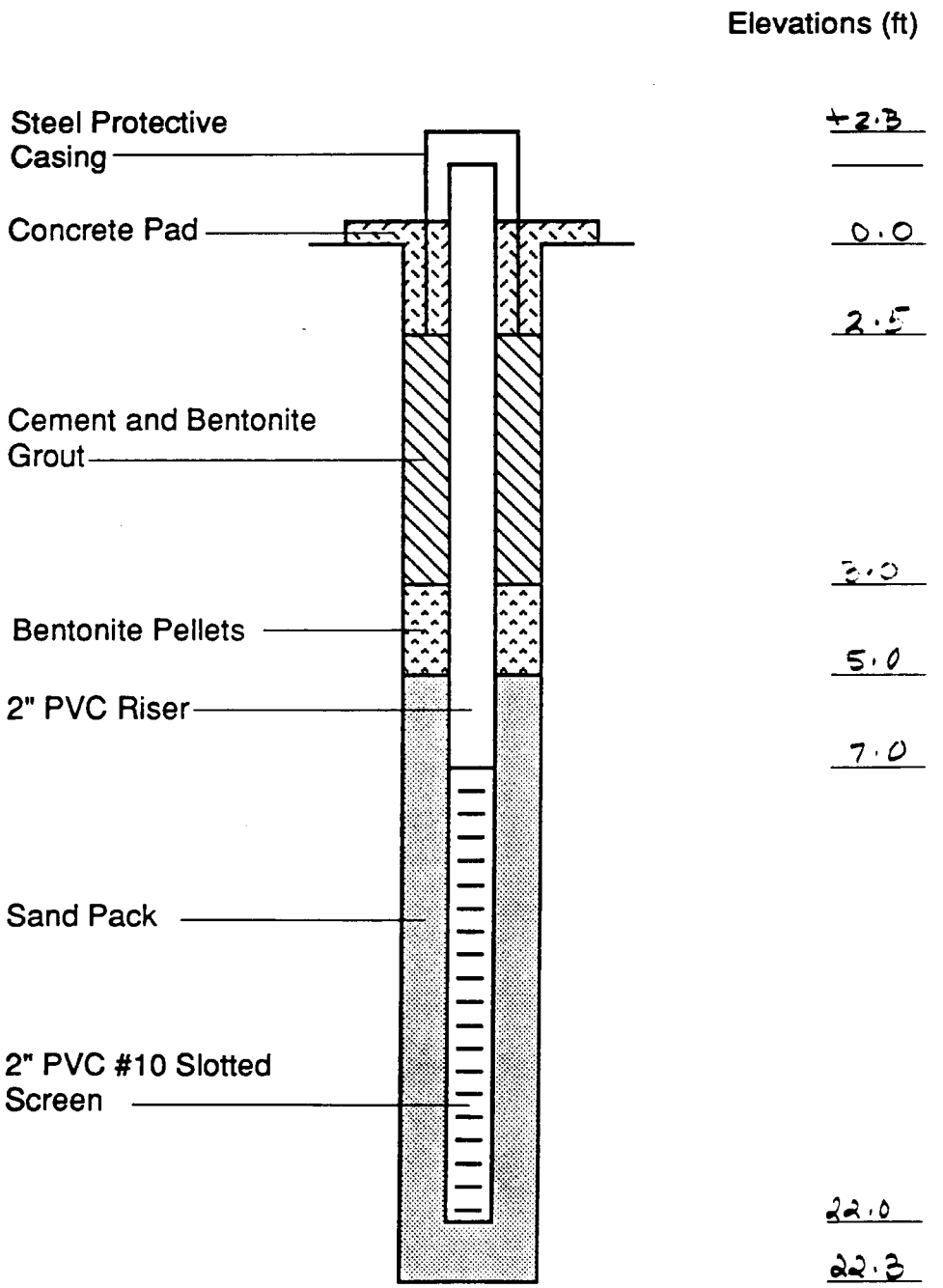


Gibbs & Hill, Inc.

OVERBURDEN WELL CONSTRUCTION SCHEMATIC

Site Hazardous Waste Disposal
Well No. MW-4
Date Installed Sept. 5, 90

Water Level from
Top of Casing 10.00 (ft)
Date May 8, 91 Time 2:15 PM



Gibbs & Hill, Inc.

BORING LOG

Sheet of

PROJECT: Hazardous Waste PROJECT NO. BORING NO. MW-1

Location: Coord: Ground Elev:

Contractor: Date Started: 9/4/90 G.W.L. 18'-7" Hour: Date:

Inspector: A. Kostic Date Completed: 9/4/90 G.W.L. Hour: Date:

Notes:

Depth Ft.	Elev. Ft.	Sample Type & No.	Test Type & No.	Blows Casing Per Ft.	Blows Sampler 6"	Blows Sampler 6"	Recovery %	RQD %	Drilling Rate Min./Ft.	Graphic Symbol	Description and Remarks
0					5	5	12"				VERY COARSE - GRAVELLY SAND LIGHT BROWN.
					6	7					
5					5	4	10"				SAME AS ABOVE
					6	6					
10					4	4	10"				SAME AS ABOVE
					4	5					
15					4	4	8"				SAME AS ABOVE
					5	7					
20					5	7	12"				SAME AS ABOVE
					4	4					
25											
28.5											
29 C											
0											
5											
0											

I.D. Casing	Wgt. Hammer on Casing	Material Notations
I.D. Spoon	Wgt. Hammer on Spoon	
Type Core Drill	Drop Hammer on Casing	
Core Dia.	Drop Hammer on Spoon	
Sample & Test Notations		

Gibbs & Hill, Inc

BORING LOG

Sheet of

PROJECT: HAZARDOUS WASTE | PROJECT NO. | BORING NO. NW-2

Location: | Coord: | Ground Elev:

Contractor: | Date Started: | G.W.L. | Hour: | Date:

Inspector: A. LONGORIA | Date Completed: | G.W.L. | Hour: | Date:

Notes:

Depth Ft.	Elev. Ft.	Sample Type & No.	Test Type & No.	Blows Casing Per Ft.	Blows Sampler 6"	Blows Sampler 6"	Recovery %	RQD %	Drilling Rate Min./Ft.	Graphic Symbol	Description and Remarks
0					4	5	15"				PAVEMENT AT THE TOP
					7	8					COARSE TO GRAVELLY SAND
											LIGHT BROWN
5					5	5	12"				SAME AS ABOVE
					7	7					
0					5	4	10"				SAME AS ABOVE
					6	7					
15					4	4	12				SAME AS ABOVE
					5	8					
20											
5											
0											
5											
0											

I.D. Casing	Wgt. Hammer on Casing	Material Notations
I.D. Spoon	Wgt. Hammer on Spoon	
Type Core Drill	Drop Hammer on Casing	
Core Dia.	Drop Hammer on Spoon	
Sample & Test Notations		

Gibbs & Hill, Inc.

BORING LOG

Sheet of

PROJECT: HAZARDOUS WASTE | PROJECT NO. | BORING NO. MW-3

Location: | Coord: | Ground Elev:

Contractor: | Date Started: 9/5/91 | G.W.L. | Hour: | Date:

Inspector: A. KOSTIC | Date Completed: | G.W.L. | Hour: | Date:

Notes:

Depth Ft.	Elev. Ft.	Sample Type & No.	Test Type & No.	Blows Casing Per Ft.	Blows Sampler 6"	Blows Sampler 6"	Recovery %	RQD %	Drilling Rate Min./Ft.	Graphic Symbol	Description and Remarks
0											- PAVEMENT AT THE TOP
					7	4	10"				- VERY COARSE/ GRAVELLY SAND MIXED W/ ORGANICS.
					5	4					FROM 2.5 FT. VERY COARSE GRAVELLY SAND ONLY
5					4	8	12"				VERY COARSE/ GRAVELLY SAND
					3	5					STRONG ODOR
											OVA - NO READINGS
											HNU - NO READINGS
											GYP - 30% VEL
											COLOR - DARK BROWN / BLACK
10					8	3	12"				VERY COARSE/GRAVELLY SAND
					4	3					NO READINGS
											DARK BROWN
15					3	5	8"				SAME AS ABOVE
					4	7					COLOR - DARK BROWN
0											
5											
0											
5											
0											

I.D. Casing	Wgt. Hammer on Casing	Material Notations
I.D. Spoon	Wgt. Hammer on Spoon	
Type Core Drill	Drop Hammer on Casing	
Core Dia.	Drop Hammer on Spoon	
Sample & Test Notations		

Gibbs & Hill, Inc

BORING LOG

Sheet of

PROJECT: HAZARDOUS WASTE | PROJECT NO. | BORING NO. MW-4

Location: | Coord: | Ground Elev:

Contractor: | Date Started: | G.W.L. 8'-0" | Hour: | Date:

Inspector: A. KUSTIC | Date Completed: | G.W.L. | Hour: | Date:

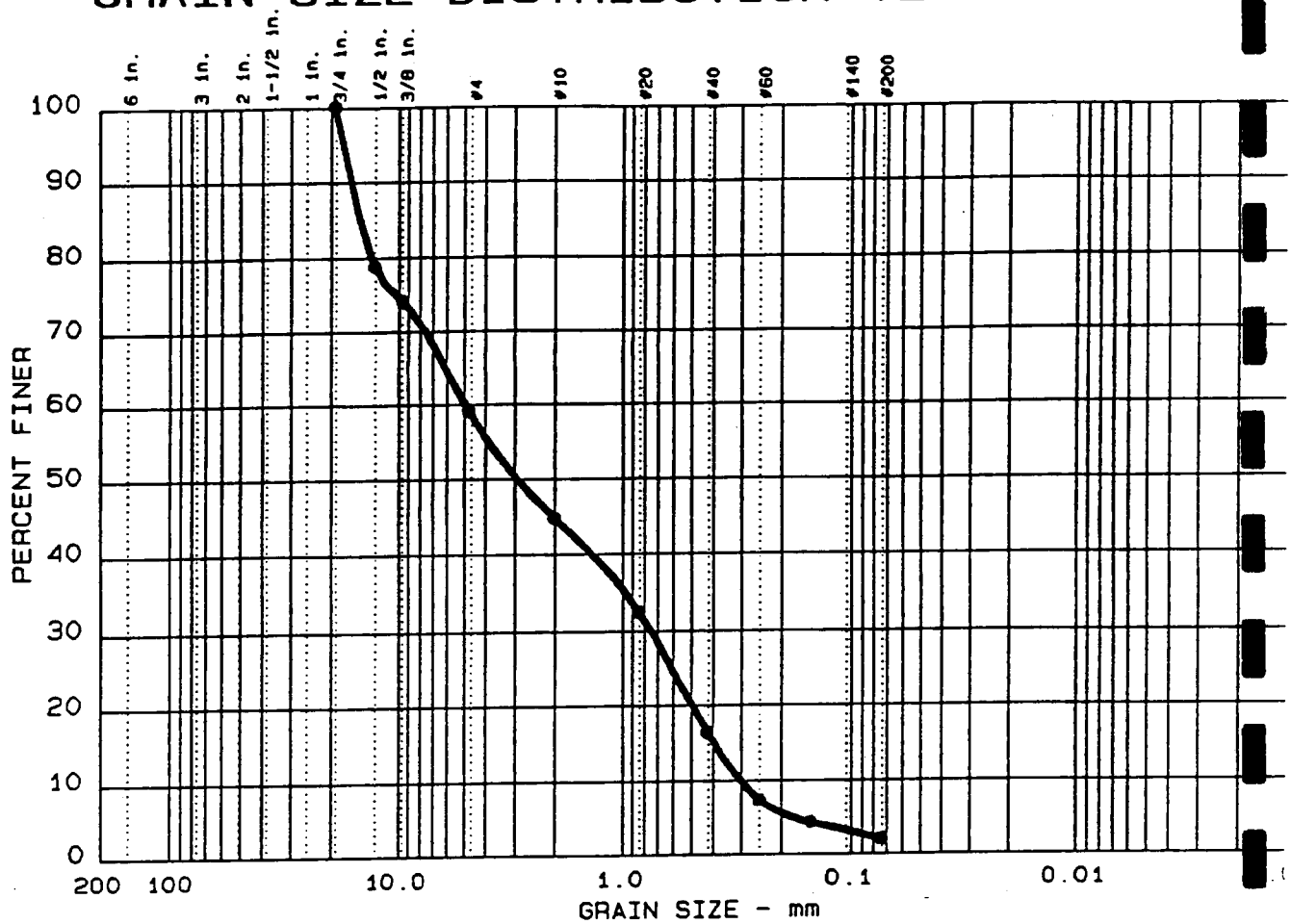
Notes:

Depth FL	Elev. FL	Sample Type & No.	Test Type & No.	Blows Casing Per Ft.	Blows Sampler 6"	Blows Sampler 6"	Recovery %	RQD %	Drilling Rate Min./Ft.	Graphic Symbol	Description and Remarks
0					4	5	10"				Organics (topo)
					5	8	"				Very coarse - GRAVELLY SAND
5					4	2	8"				VERY COARSE - GRAVELLY SAND COLOR: DARK BROWN / BLACK WOOD, ORGANICS BETWEEN 8 AND 10 FT. STRONG ODOR EXPL. READING: 20% LEL
					4	3					
10					2	1	8"				VERY COARSE - GRAVELLY SAND - ORGANICS, COLOR: DARK BROWN EXP. READING ~ 2.0% LEL
					2	2					
15					8	4	6"				VERY COARSE/GRAVELLY SAND LIGHT BROWN
					4	5					
20											NOTE: • NO EXPL. READING AT BREATHING ZONE • ALL CUTTINGS WERE DRUMMED (2 DRUMS)
22											
22.3											
5											
0											
5											
0											

I.D. Casing	Wgt. Hammer on Casing	Material Notations
I.D. Spoon	Wgt. Hammer on Spoon	
Type Core Drill	Drop Hammer on Casing	
Core Dia.	Drop Hammer on Spoon	
Sample & Test Notations		

Gibbs & Hill, Inc.

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	% +3"	% GRAVEL	% SAND	% SILT	% CL
●	1	0.0	40.9	57.1	2.0	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	
●			14.77	4.94	2.91	0.747	0.3922	0.3010	0.38	1

MATERIAL DESCRIPTION	USCS	AASHTO
● TAN SAND And Gravel, trace fines		

Project No.: G035.001
Project: HAZ. WASTE DISPOSAL, TOWN OF BABYLON
● Location: MW-1 / SS-3 / 9-11'

Date: NOVEMBER 19, 1990

Remarks:
CLIENT: GIBBS & HILL

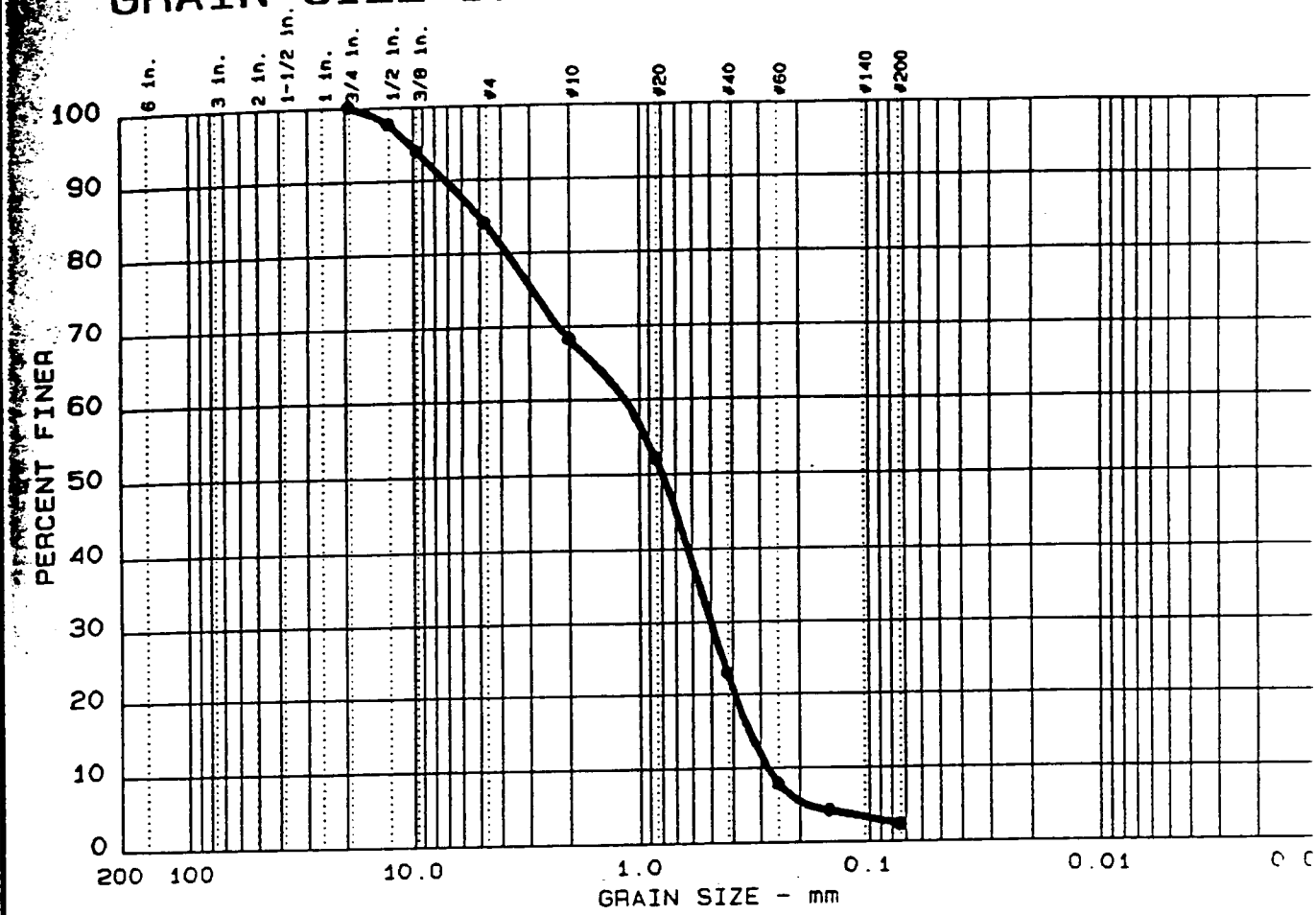
LAB NO. 543.001

GRAIN SIZE DISTRIBUTION TEST REPORT

EMPIRE SOILS INVESTIGATIONS, INC

Figure No. 1

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	% +3"	% GRAVEL	% SAND	% SILT	% CLAY
●	2	0.0	15.8	82.0	2.2	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			4.95	1.15	0.79	0.496	0.3354	0.2786	0.77	4.1

MATERIAL DESCRIPTION	USCS	AASHTO
● TAN SAND, Little Gravel, trace fines		

Project No.: G035.001
Project: HAZ. WASTE DISPOSAL, TOWN OF BABYLON
● Location: MW-1 / SS-4 / 14-16'

Date: NOVEMBER 19, 1990

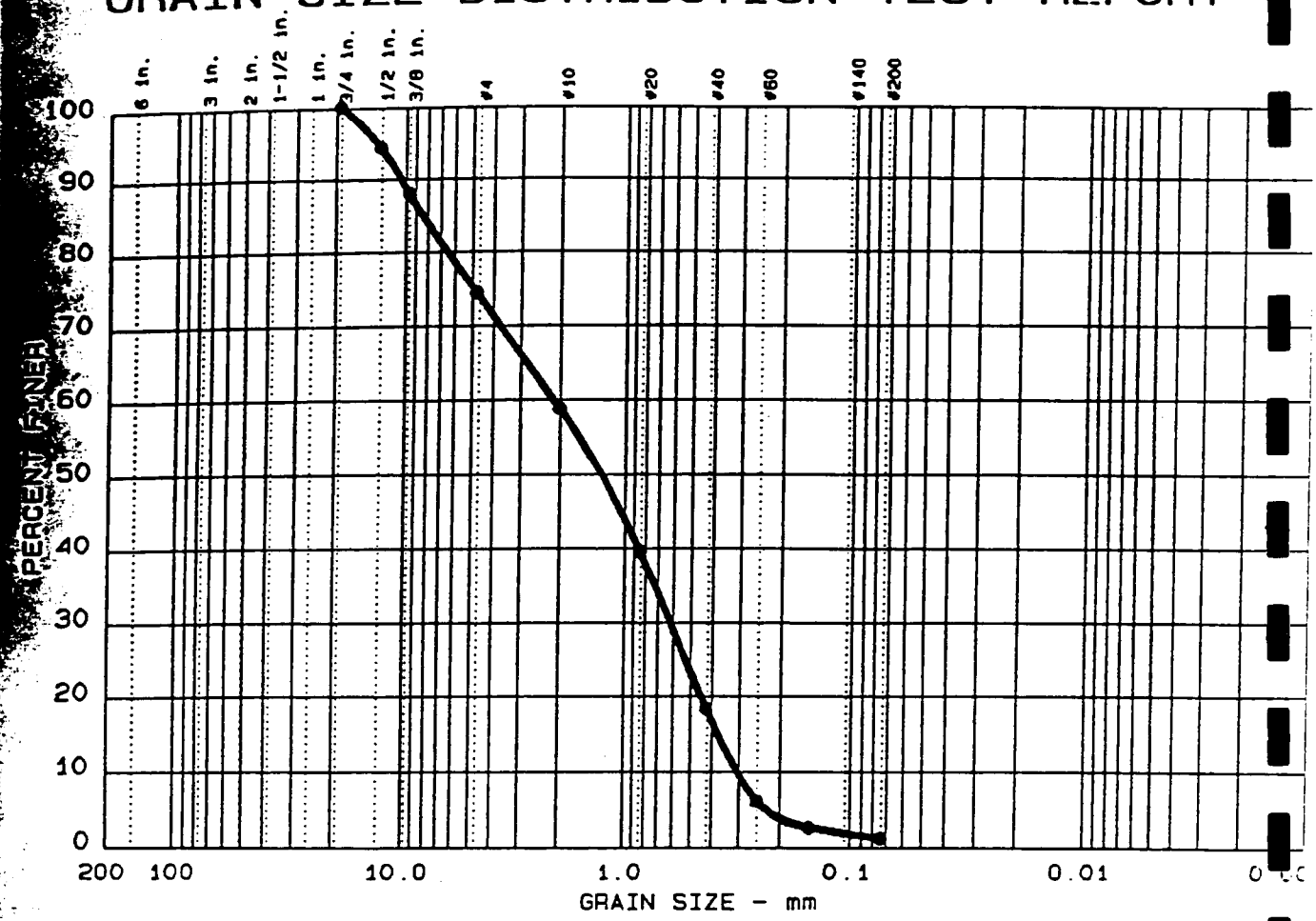
Remarks:
CLIENT: GIBBS & HILL

LAB NO. 543.002

GRAIN SIZE DISTRIBUTION TEST REPORT
EMPIRE SOILS INVESTIGATIONS, INC

Figure No. 1

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	% +3"	% GRAVEL	% SAND	% SILT	% CLAY
●	3	0.0	25.6	73.1	1.3	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			8.31	2.14	1.29	0.612	0.3733	0.3069	0.57	7.0

MATERIAL DESCRIPTION	USCS	AASHTO
● TAN SAND, Some Gravel, trace fines		

Project No.: G035.001
Project: HAZ. WASTE DISPOSAL, TOWN OF BABYLON
● Location: MW-2 / SS-2 / 4-6'

Date: NOVEMBER 19, 1990

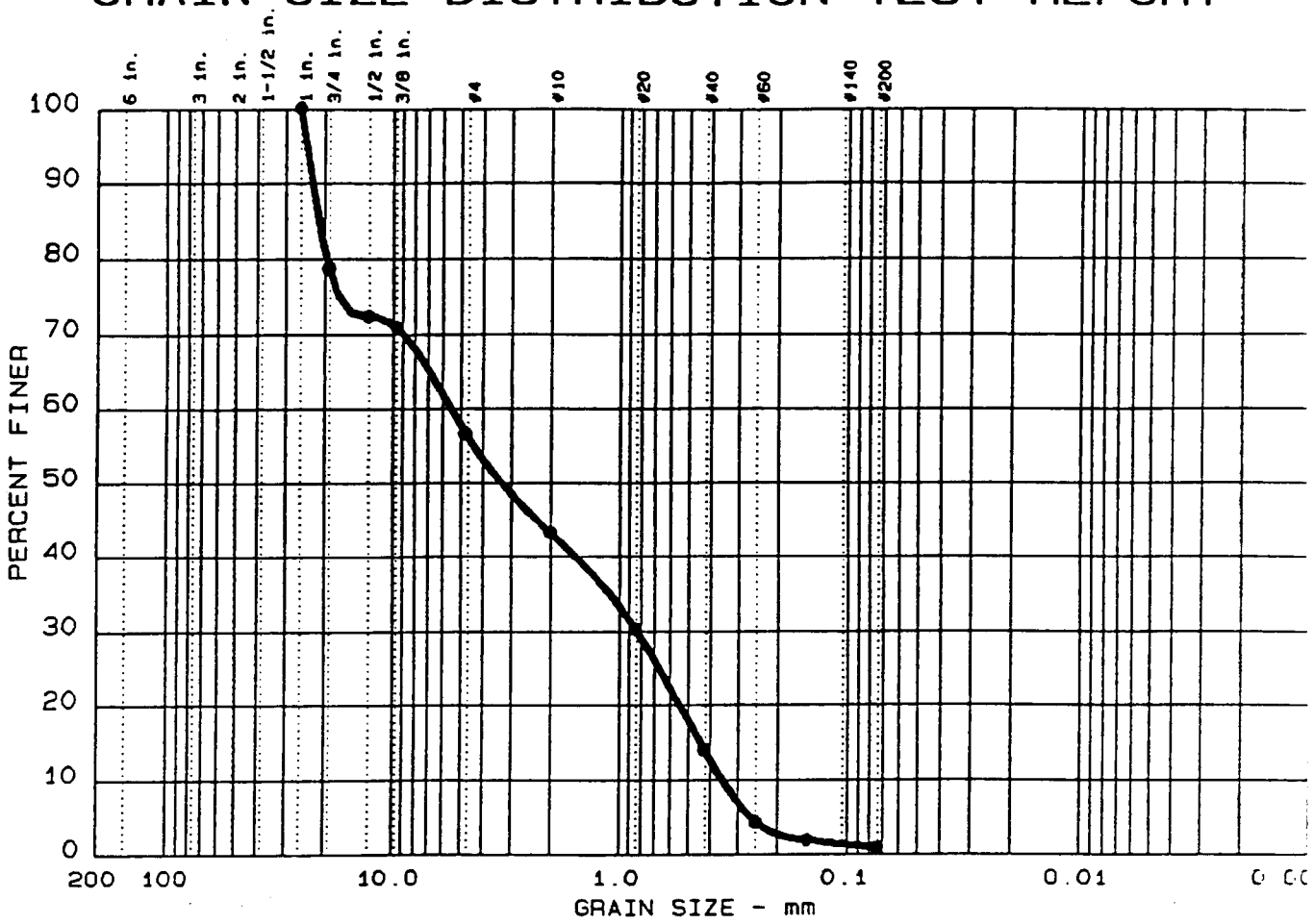
Remarks:
CLIENT: GIBBS & HILL

LAB NO. 543.003

GRAIN SIZE DISTRIBUTION TEST REPORT
EMPIRE SOILS INVESTIGATIONS, INC

Figure No. 1

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	% +3"	% GRAVEL	% SAND	% SILT	% CLAY
●	4	0.0	43.3	55.8	0.9	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			21.11	5.49	3.31	0.831	0.4360	0.3503	0.36	15.7

MATERIAL DESCRIPTION	USCS	AASHTO
● TAN SAND And Gravel, trace fines		

Project No.: G035.001
Project: HAZ. WASTE DISPOSAL, TOWN OF BABYLON
● Location: MW-2 / SS-3 / 9-11'

Date: NOVEMBER 19, 1990

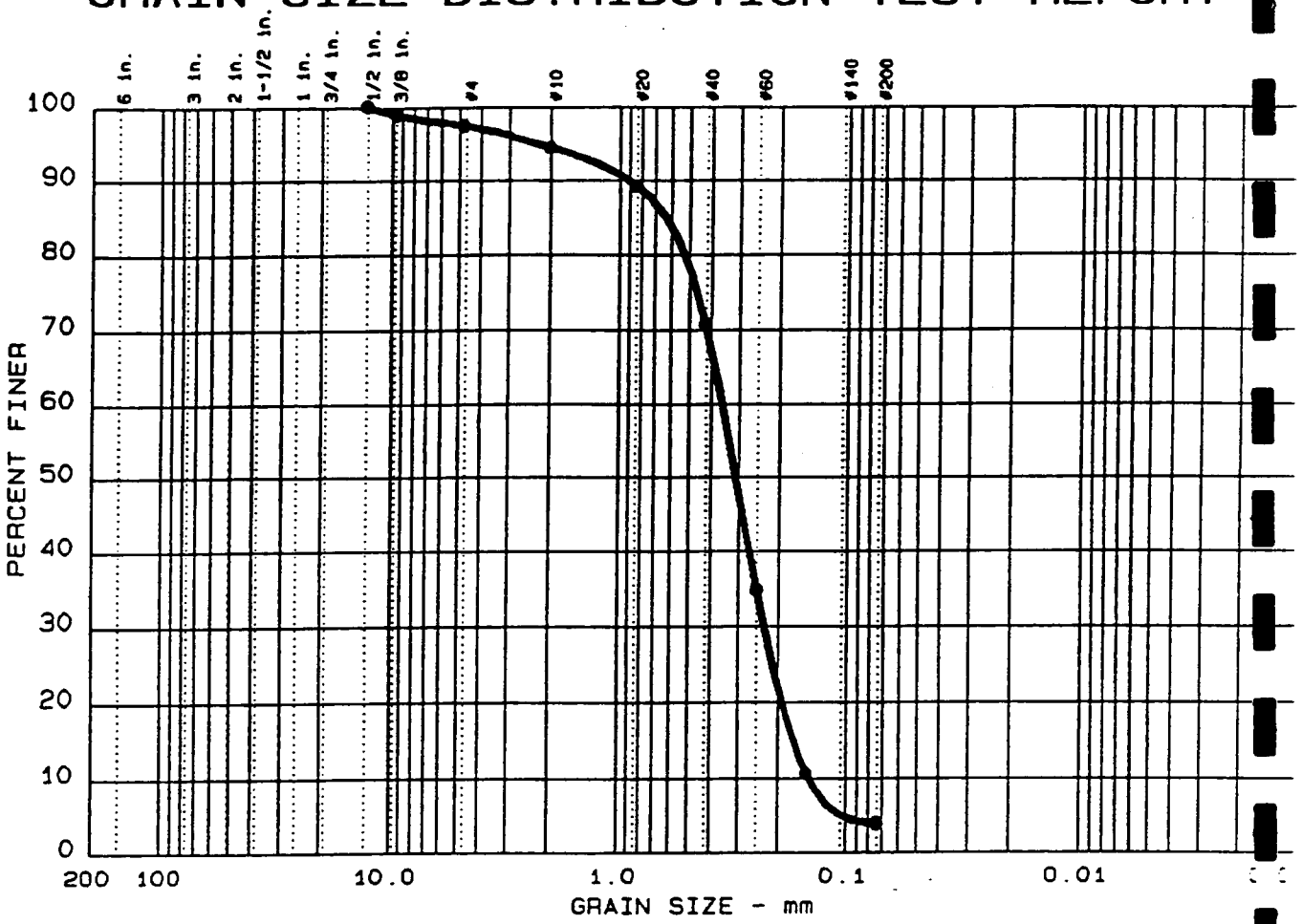
Remarks:
CLIENT: GIBBS & HILL

LAB NO. 543.004

GRAIN SIZE DISTRIBUTION TEST REPORT
EMPIRE SOILS INVESTIGATIONS, INC

Figure No. 1

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	% +3"	% GRAVEL	% SAND	% SILT	% CL
●	5	0.0	2.6	93.5	3.9	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	
●			0.62	0.35	0.31	0.231	0.1696	0.1444	1.05	2.5

MATERIAL DESCRIPTION	USCS	AASHTO
● TAN SAND, Trace Fines and gravel		

Project No.: G035.001
Project: HAZ. WASTE DISPOSAL, TOWN OF BABYLON
● Location: MW-3 / SS-2 / 4-6'

Date: NOVEMBER 19, 1990

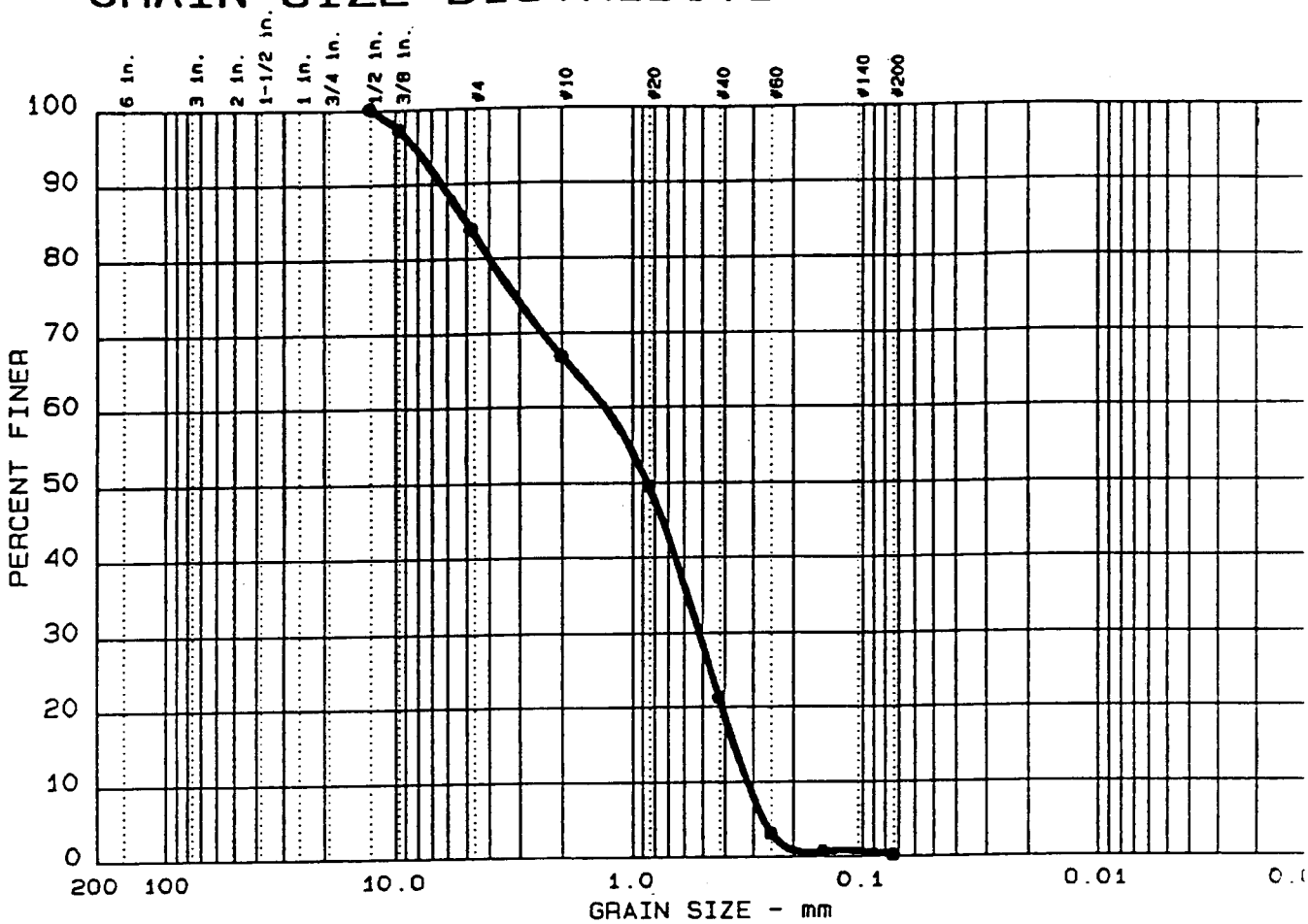
Remarks:
CLIENT: GIBBS & HILL

LAB NO. 543.005

GRAIN SIZE DISTRIBUTION TEST REPORT
EMPIRE SOILS INVESTIGATIONS, INC

Figure No. 1

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	% +3"	% GRAVEL	% SAND	% SILT	% CLAY
●	6	0.0	16.1	83.7	0.2	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			5.01	1.30	0.86	0.512	0.3627	0.3188	0.63	4.1

MATERIAL DESCRIPTION	USCS	AASHTO
● TAN SAND, Little Gravel, trace fines		

Project No.: G035.001
Project: HAZ. WASTE DISPOSAL, TOWN OF BABYLON
● Location: MW-3 / S-4 / 14-16'

Date: NOVEMBER 19, 1990

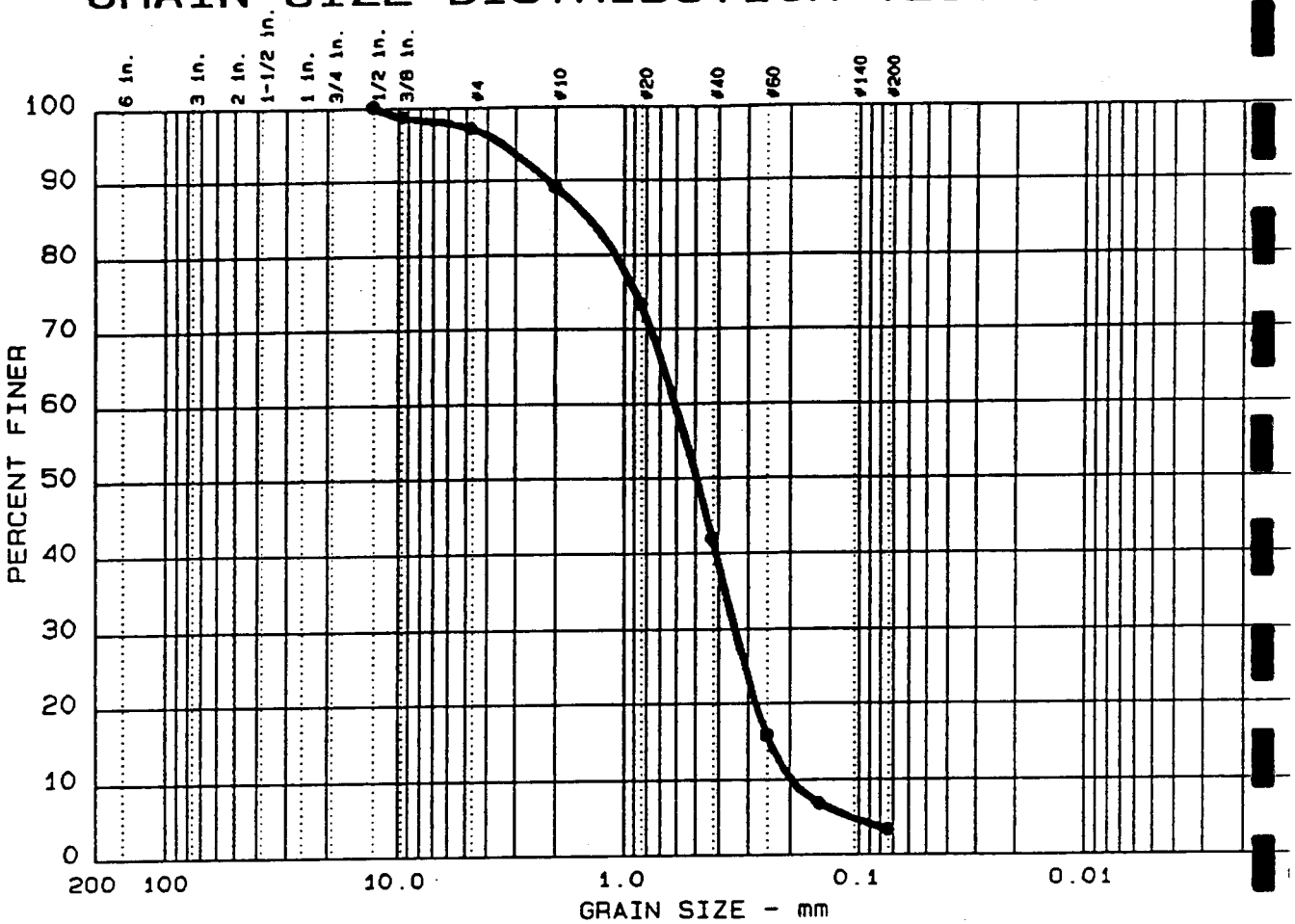
Remarks:
CLIENT: GIBBS & HILL

LAB NO. 543.006

GRAIN SIZE DISTRIBUTION TEST REPORT
EMPIRE SOILS INVESTIGATIONS, INC

Figure No. 1

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	% +3"	% GRAVEL	% SAND	% SILT	% CL
●	7	0.0	2.9	93.7	3.4	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			1.41	0.60	0.49	0.339	0.2429	0.1975	0.97	3.[illegible]

MATERIAL DESCRIPTION	USCS	AASHTO
● TAN SAND, Trace Fines and gravel		

Project No.: G035.001
Project: HAZ. WASTE DISPOSAL, TOWN OF BABYLON
● Location: MW-4 / S-2 / 4-6'

Date: NOVEMBER 19, 1990

Remarks:
CLIENT: GIBBS & HILL

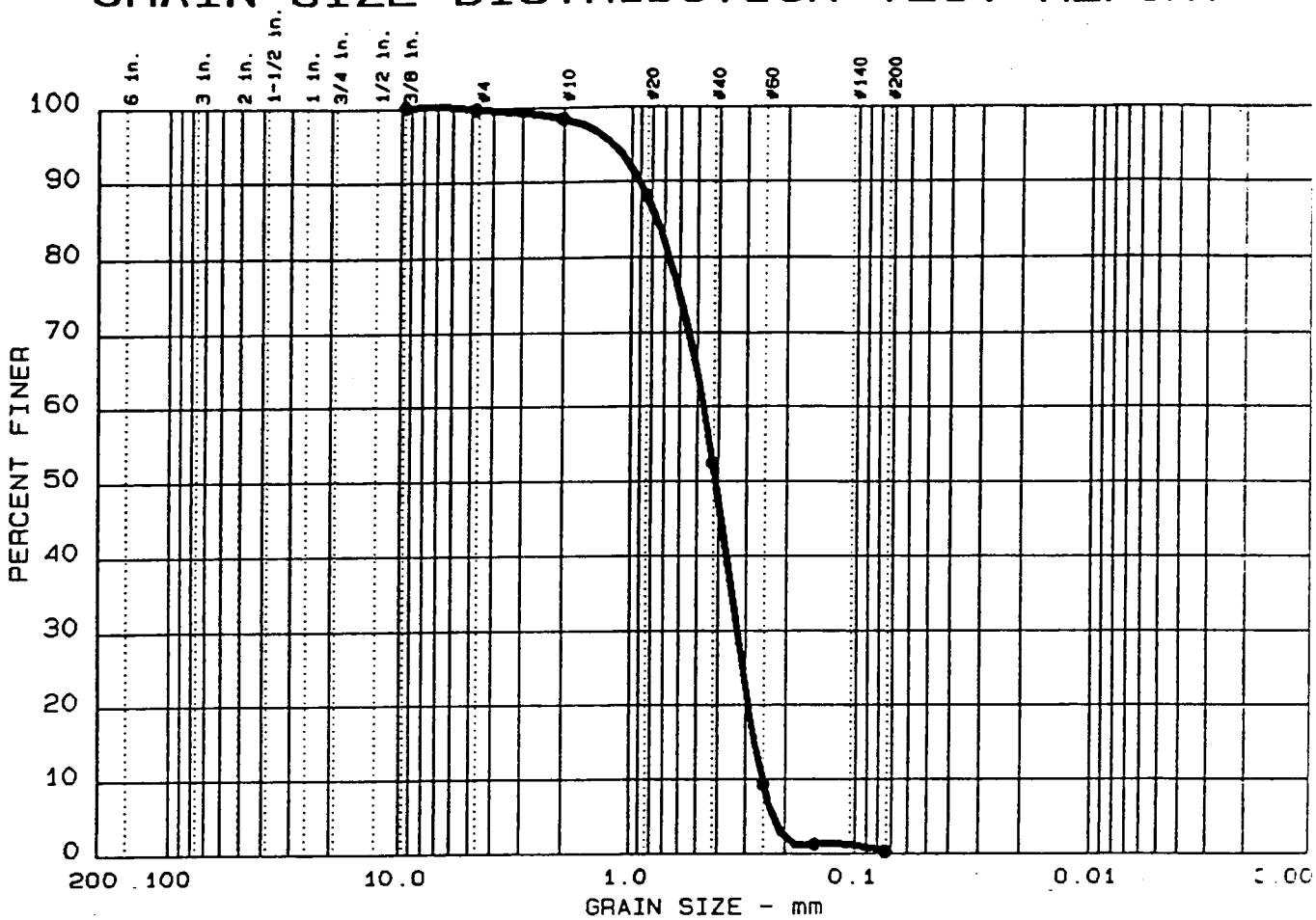
LAB NO. 543.007

GRAIN SIZE DISTRIBUTION TEST REPORT

EMPIRE SOILS INVESTIGATIONS, INC

Figure No. 1

GRAIN SIZE DISTRIBUTION TEST REPORT



	Test	% +3"	% GRAVEL	% SAND	% SILT	% CLAY
●	8	0.0	0.3	99.4	0.3	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			0.76	0.46	0.41	0.327	0.2735	0.2523	0.92	1.8

MATERIAL DESCRIPTION	USCS	AASHTO
● TAN SAND, Trace Fines and gravel		

Project No.: G035.001
Project: HAZ. WASTE DISPOSAL, TOWN OF BABYLON
● Location: MW-4 / SS-4 / 14-16'

Date: NOVEMBER 19, 1990

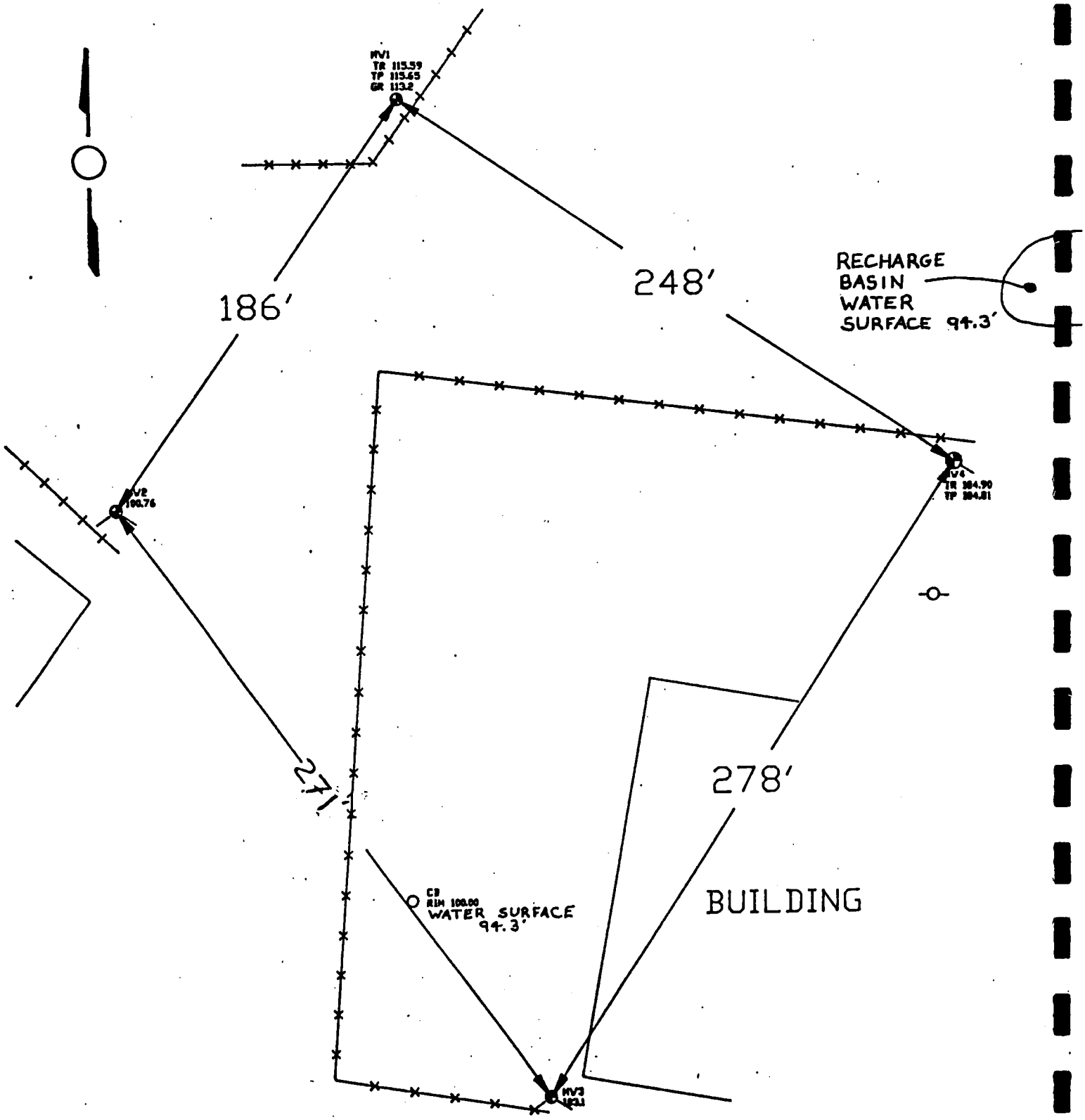
Remarks:
CLIENT: GIBBS & HILL

LAB NO. 561.001

GRAIN SIZE DISTRIBUTION TEST REPORT

EMPIRE SOILS INVESTIGATIONS, INC

Figure No. 1

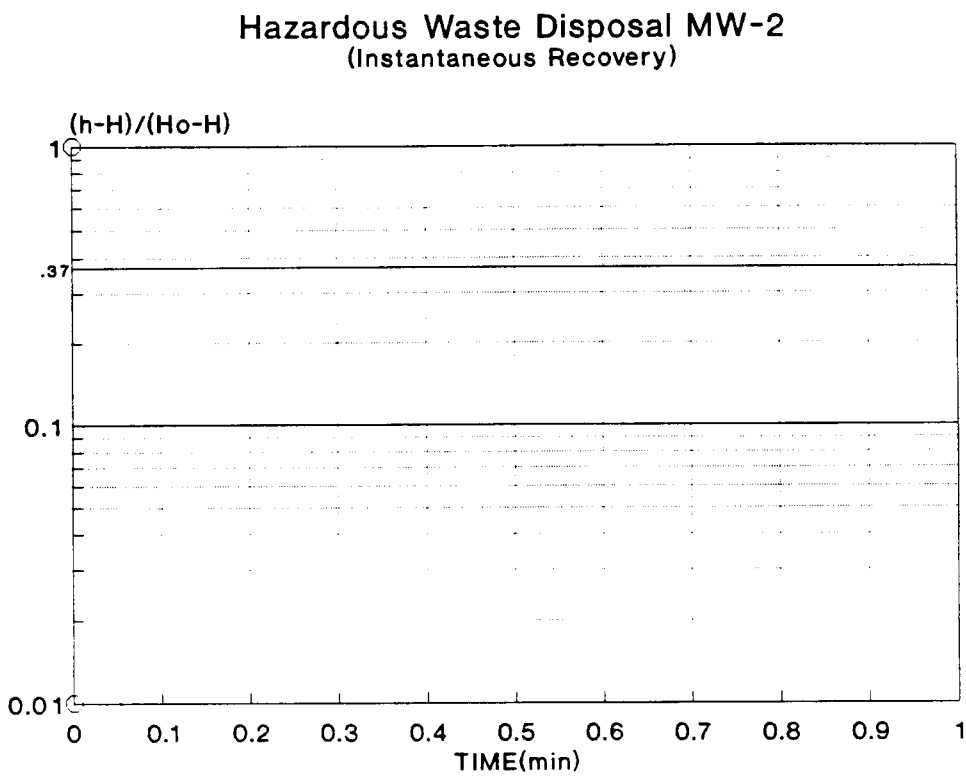


NOTE
1. ALL ELEVATIONS ARE IN ARBITRARY SYSTE
2. TP= TOP OF PIPE
3. GR=GROUND
4. TR= TOP OF RIM

NOT TO SCALE

DATE: JAN.10,91

HAZARDOUS WASTE DISPOSAL SITE



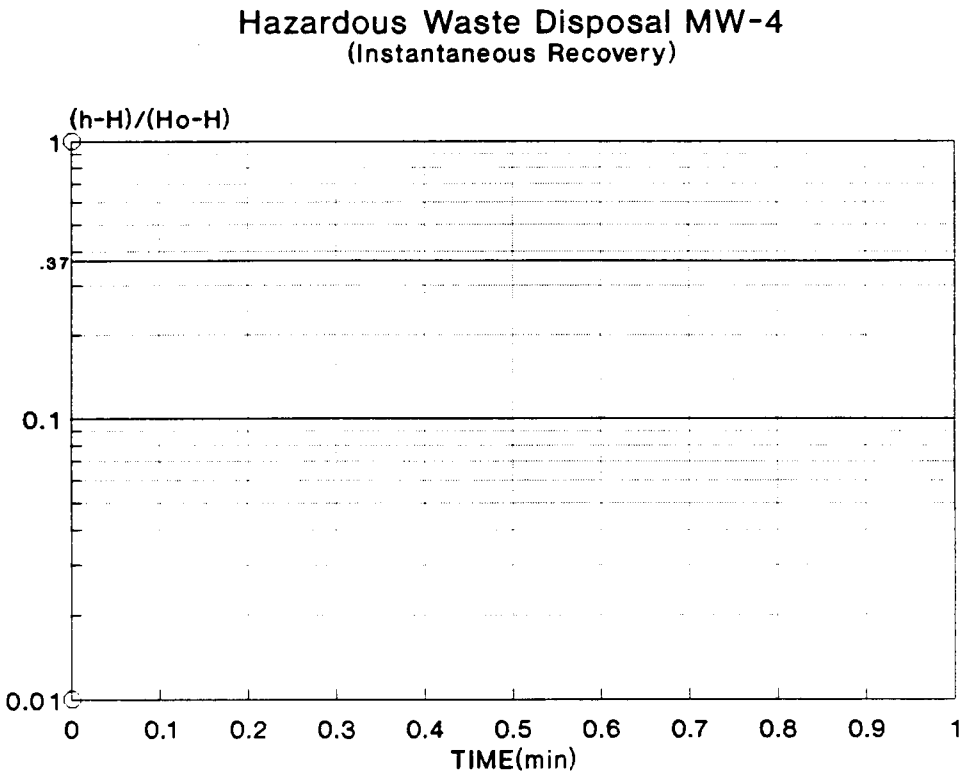
HAZARDOUS WASTE DISPOSAL MW-2

TIME (seconds)	WATER LEVEL (feets)	DRAWDOWN (feet)	H/h_o
0	8.08	1.60	1
60	6.49	0.01	6.249882E-03

UNCONFINED AQUIFER

K = 0.2E-02 cm/sec
= 44.1 gpd/ft2
= 0.7E-04 ft/sec
= 5.9 ft/day

REGRESSION COEFFICIENT = -1



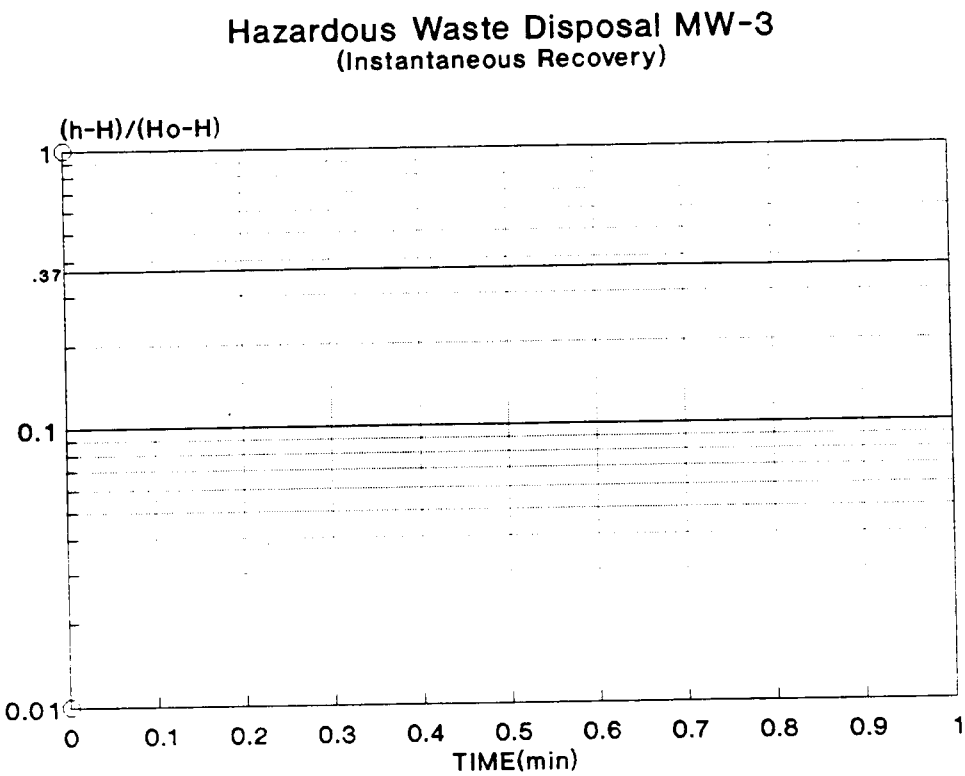
HAZARDOUS WASTE DISPOSAL MW-4

TIME (seconds)	WATER LEVEL (feets)	DRAWDOWN (feet)	H/ho
0	12.23	1.60	1
60	10.64	0.01	6.249887E-03

UNCONFINED AQUIFER

K = 0.2E-02 cm/sec
= 44.1 gpd/ft2
= 0.7E-04 ft/sec
= 5.9 ft/day

REGRESSION COEFFICIENT = -1



HAZARDOUS WASTE DISPOSAL MW-3

TIME (seconds)	WATER LEVEL (feets)	DRAWDOWN (feet)	H/ho
0	10.34	1.60	1
60	8.75	0.01	6.25037E-03

UNCONFINED AQUIFER

K = 0.2E-02 cm/sec
= 44.1 gpd/ft2
= 0.7E-04 ft/sec
= 5.9 ft/day

REGRESSION COEFFICIENT = -1

APPENDIX C

SAMPLING AND ANALYSIS

C.1 PROCEDURES

1. Sampling Methodology

The sampling plan was prepared by G&H as a part of the updated work plan. It identifies the number of each sample type to be collected and describes collection methods to be utilized. The sampling plan specifies each sampling location and gives a sketch with roughly indicated sampling locations for illustrative purposes. The sampling locations were given code numbers for identification.

In order to ensure a smooth and proper sampling process in the field, the following preparations and steps were taken:

- Coordination with the laboratory to ensure an adequate number of laboratory cleaned containers were provided with the necessary preservatives according to appropriate protocols.

- All instruments to be used in the field were checked to ensure they were in working order. All instruments were calibrated before going to the site.

- Sampling equipment was cleaned in accordance with the cleaning procedure outlined at the end of this paragraph.

During the sampling events, the following elements were implemented:

- Chain of custody procedures were followed.
- An accurate sampling log was maintained.
- No sampling containers other than those provided by the laboratory were used.
- Disposable polyethylene bailers and polypropylene suspension cords were used to collect groundwater samples.
- A trip blank accompanied the samples.
- Well purging was performed. Three well volumes of water were evacuated or purged dry, whichever occurred first.
- Each groundwater sample was analyzed for temperature, specific conductance, and pH.
- Groundwater samples were collected from the well that had been purged first and had the longest time to settle out any suspended solids. Subsequent wells were sampled in decreasing order based on the time since purging.
- Volatile sample bottles were filled first. Care was taken to minimize the potential for volatilization during transfer of the sample from the bailer to the bottle. No headspace or air bubbles were allowed in the samples for VOA.

- Inorganic sample bottles (first the unfiltered samples if the well was not developed to less than 50 NTU) were filled next. Other sample bottles were filled in no particular order.
- Samples were capped, labeled (well no., site location, type of sample, collection date, and time), and placed in ice filled coolers.
- All samples were stored and maintained at a temperature less than 4°C and delivered to the laboratory within 24 hours.

Cleaning Procedure

When steam cleaning was not possible or practical, all sampling equipment was thoroughly cleaned before use in accordance with the following procedures:

1. Non-phosphate detergent and tap water wash
2. Potable water rinse
3. Methanol rinse
4. Deionized water rinse
5. Air dry

After this procedure was accomplished, the sampling equipment was wrapped in aluminum foil, placed in a plastic bag, and kept in its wrapping until use.

2. Chemical Analysis

A quality assurance program was developed in the Work Plan to ensure that the precision and accuracy of the groundwater sample analyses were not impacted by sampling, sample handling, and equipment decontamination procedures. This program was based on the collection of field blank samples for laboratory analysis and the maintenance of a trip blank.

A trip blank determines if sample bottles (empty or full) have been exposed to airborne contaminants in transit or on-site. A trip blank (an aliquot of deionized, analyte-free water which was placed in a container and sealed at the laboratory) accompanied the sampler to each sampling site and was transported in the same manner as the other groundwater samples. The trip blanks were handled as routine samples in the laboratory and analyzed for volatile organic parameters.

The field blank sample typically prepared for each groundwater matrix of each site was replaced by one blank from a disposable bailer from each lot of bailers. G&H provided the laboratory with one bailer from each lot, and the laboratory analyzed the blank for full TCL. The "bailer blank" analysis for each lot was reported with full deliverables with each appropriate site package.

All sample analyses were performed by H2M Laboratories following the procedures outlined in the NYSDEC Analytical Service Protocol (ASP) of September 1989. The analyses included are the following:

- TCL (Target Compound List) Inorganics - Preparation and analysis of inorganic compounds using the specified ASP methods.

  In order to clarify the impact of sediment in the samples on reported results of inorganics, two samples for inorganic analysis were collected from each well that could not be developed to less than 50 NTU. The laboratory filtered and stored one of these samples and analyzed the unfiltered samples for TCL with full ASP deliverables. Results of the analyses were reported as total metals and were validated. Upon receipt and review of the results (including TSS and TDS), G&H did not request the laboratory to analyze the filtered samples.

- TCL Volatiles - Preparation and analysis using the ASP specified Gas Chromatograph/Mass Spectrometer (GC/MS) method for TCL purgeable organics plus a library search for and the quantification of any additional non-TCL compounds (the ASP requires the library search only for the ten non-TCL compounds of largest apparent concentration).

- TCL Semi-Volatiles - Preparation and analysis using the ASP specified GC/MS method for TCL extractable base/neutral and acid organic compounds plus a library search for the quantification of any additional non-TCL compounds (the ASP requires the library search only for the 20 non-TCL compounds of largest apparent concentration).

- TCL Pesticides/PCBs - Preparation and pre-extraction of the TCL organo-chloride pesticides and polychlorinated biphenyls using the ASP specified Gas Chromatograph/ Electron Capture Detection (GC/ECD) method.

The following quality control measures were employed:

- A duplicate sample was obtained from a monitoring well chosen at random. That sample was not identified as a duplicate to the laboratory, but was assigned an identifier similar to other groundwater samples. The Bureau of Hazardous Site Control requires the blind analyses of a duplicate sample for each site by the laboratory to confirm the integrity of all sampling and analytical activities.

- ASP requires at least one spiked sample analysis and one spiked duplicate sample analysis from each group of

samples of a similar matrix type for each case of samples or for each 20 samples received, whichever is more frequent.

- A method blank for each matrix was used to assess the level of possible laboratory background contamination. A method blank must contain no greater than five times the CRQL of the following common pollutants: methylene chloride, acetone, toluene, and 2-butanone (for volatile analysis) and the phthalate esters (for semi-volatile analysis). For all other pollutants not listed above, the method blank must contain less than the CRQL of any single organic pollutant and less than the Instrument Detection Limit (IDL) of any single inorganic pollutant. If a method blank exceeds this criterion, the analytical system is "out-of-control." All samples processed with an "out-of-control" method blank were reanalyzed by the laboratory.

- Aquatec performed the validation of data submitted by H2M Laboratories. For validation of analytical data, the ASP guidelines for validation of laboratory data were followed. Data quality met the established validation criteria, and therefore they were accepted. Aquatec validated sample results with full ASP deliverables. Results of soil samples collected during drilling

("informational soil samples") were not reported with ASP and therefore were not validated by Aquatec.

3. Guidelines for Evaluating Chemical Analyses

The assessment of a chemical analysis is made to determine the existence and magnitude of contamination problems.

To determine whether or not quantitative evidence exists of an "observed release," a sample must indicate a significant increase in the hazardous substance concentration relative to the background concentration. The concentration of a hazardous substance is considered to be significantly above background levels under the conditions presented in the following table:

CONDITIONS NECESSARY TO QUANTIFY AN OBSERVED RELEASE

(No Contamination in Trip and/or Field Blanks)

If Background Concentration is:	Observed Release Quantified If Detected Concentration is:
Below CRQL	Greater than or equal to three times the CRQL
Greater than or equal to the CRQL	Greater than or equal to ten times the applicable background concentration

Trip and field blanks (disposal bailer blank) are evaluated as if they are "true" samples. If the field (bailer) or trip blank concentration is greater than the CRQL, the concentration of a

hazardous substance detected in a water sample is considered to be significantly above the blank or background sample if the detected concentration of a contaminant is:

- Greater than or equal to ten times the applicable blank or background concentration, whichever is greater. This criterion was employed for common laboratory contaminants: methylene chloride, acetone, toluene, and 2-butanone for volatile analysis and the phthalate esters for semi-volatile analysis. This criterion was also applied to a method blank containing acceptable levels of these contaminants.

- Greater than or equal to five times the applicable blank concentration or greater than or equal to ten times the background concentration, whichever is greater. This criterion is applied for all other contaminants not listed above.

To determine the relative impact on the environment and/or human population of groundwater or surface water contamination problem, sample results are compared to the following federal and New York State water quality standards or guidelines:

- Environmental Protection Agency National Primary Drinking Water Regulations (as of 7/17/89).

Applied to results of all water samples analyses.

- Chapter 1 of Title 10 of the Official Compilation of Codes, Rules, and Regulations of the State of New York, Part 5, Drinking Water Supplies, Subpart 5-1, Public Water Supplies (as of 11/28/88).

  Applied to results of drinking water sample analyses.

- Chapter 10 of Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York, Division of Water Resources, Article 2, Part 702, Appendix 31, Ambient Water Quality Standards - "The standards adopted herein relate to the condition of waters as affected by the discharge of sewage, industrial wastes, or other wastes" (as of 7/5/85).

  Applied to results of surface water sample analyses for surface water that is not a source of drinking water.

- Chapter 10 of Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York, Division of Water Resources, Article 2, Part 703.5(a)(2) and (3), Classes and Quality Standards for Groundwaters - "The purpose of these classes, quality standards, and effluent standards and/or limitations is to prevent

pollution of groundwaters and to protect the groundwaters for use as a potable water" (as of 7/5/85).

Applied to results of all groundwater sample analyses regardless of groundwater use.

To determine the relative impact of soil and sediment contamination, analysis results are compared to the common range of inorganics in uncontaminated soils as listed in the USEPA publication, Review of In-Place Treatment Techniques for Contaminated Surface Soils (EPA-5400/2-84-0036, November 1984, p. 79).

- Chapter 360 of Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York, Solid Waste Management Facilities, Section 360-4.4(a), "Sewage sludge and septage destined for land application" (as of 12/31/88).

  Applied to results of soil and sediment sample analyses.

4. <u>Air Survey</u>

Air monitoring instruments (PID, OVA, and explosimeter) were used to monitor the presence of volatile organic contaminants in the ambient air during field activities at the site. The

measurements were evaluated to determine the proper health and safety requirements to be implemented during site reconnaissance and drilling activities.

All split spoon samples were scanned with a PID to assess the potential for high levels of volatile organic contamination. The results of these readings are included in the boring log of each well. An explosimeter has been used during the installation of monitoring wells primarily to monitor the accumulation of explosive gases in the hole.

The air monitoring instruments were calibrated before each day in accordance with the manufacturer's procedures. Organic vapor emanating from the surface was determined by holding the probe 6 to 12 inches above the surface for 30 seconds. During the drilling procedure, each split spoon soil sample was tested by holding the probe at approximately 1 inch from the soil sample. Readings were registered when the instrument stabilized.

C.2 RESULTS

SAMPLING SUMMARY REPORT

Site Name: Hazardous Waste Disposal Site

Site No.: 152113

Samplers: N. Hinsey, A. Kostic (G&H)
Paul (Eastern Chemical Disposal)

Date: 9/24/90

Weather: Partly cloudy, 60-70°F

Groundwater Field Test Data

Sample No.	Spec. Cond., umho/cm	pH	Temp.°C
GW-1	130	7.4	18.5
GW-2	130	5.6	20.0
GW-3	6,000	10.4	19.0
GW-4	2,000	6.3	19.0

Dedicated disposal bailers (Lot No. 3) were used to collect groundwater samples.

Designation Numbers of Samples

GW-1, GW-2, GW-3, GW-4, and GW-5 (duplicate of GW-2), SW-1, SW-2, SW-4, SD-1, SD-2, and SD-4

Notes:

1. Soil samples (B-1 through B-6) were collected during drilling activities.

2. See site sketch (Figure I-2) for sampling locations.

3. Diesel smell was detected from wells MW-3 and MW-4 during sampling events.

4. Representative of Eastern Chemical Disposal Co. collected groundwater and surface water (from the basin only) samples immediately after Gibbs & Hill, Inc. had finished collection of samples from each sampling point.

SOIL SAMPLING

Six split spoon soil samples (including background sample, G-6) were taken during drilling activities from the depth of 2 to 10 ft. HNU readings above background were recorded at B-1, B-4, and B-5 holes in the range of 0.5 to 15 units. No readings above background were recorded in the breathing zones. See Figure I-2 for locations of samples.

rec'd 12/7

Analytical Data Package For

GIBBS & HILL PROJECT
GIBBS & HILL, INC.
HAZARDOUS WASTE DISPOSAL SITE

Groundwater, Surface Water, Sediments &
Surficial Soil Samples
Received September 24, 1990

SAMPLE DATA
SUMMARY PACKAGE

September 1990

H2M LABS, INC.
Environmental Testing Laboratories
575 Broad Hollow Road, Melville, N.Y. 11747

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

3. CASE NARRATIVES

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

NARRATIVE FOR VOA
GIB055

DATE REC'D: 12/03/90

FOR SAMPLES:
GW-1
GW-2 (GW-2DL)
GW-3 (GW-3DL)
GW-4 (MS & MSD)
GW-5 (GW-5DL)
SW-1
SW-2 (MS & MSD)
SW-4
SD-1 (MS & MSD)
SD-2
SD-3
TRIP BLANK

All quality control and calibration criteria were met for this data package with the following exceptions:

Some compounds in the matrix spike blanks were outside the allowable percent recoveries however these same analytes were within for the MS/MSD's of the samples.

The matrix spike of sample GW-4 and SW-2 had high percent recoveries for several compounds. The RPD's for these samples were outside the limits for several compounds (All RPD's outside for GW-4).

The percent recoveries and RPD's were all within the allowable limits for SD-1.

Samples GW-2, GW-3 and GW-5 were re-analyzed at a dilution since one or more targeted compounds exceeded the highest calibration standard. Both sets of data are included for your review.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 12-03-90

Joann Slavin
Quality Assurance Manager

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR BASE NEUTRAL ACID EXTRACTABLES
GIB055
DATE RECEIVED: 12/03/90

FOR SAMPLES:	GW-1	SW-1
	GW-2	SW-2 MS/MSD
	GW-3	SW-4
	GW-4 MS/MSD	SD-1 MS/MSD
	GW-5	SD-2
		SD-3

QC DATA

Surrogate recoveries were not in compliance for samples SW-1 and SW-2 and its spike duplicates. The samples were re-extracted but not enough sample material was available to repeat the matrix spike samples.

Recoveries for two compounds were under 75% for the MSB for water and ten compounds were under the limit for the MSB for soil.

Matrix spike accuracy and precision data were acceptable for the spiked soil samples. Six of eleven recoveries for the spiked water sample exceeded the advisory limits. It appears that one of the fractions had lost solvent before analysis.

CALIBRATION AND TUNING

All criteria for tuning and calibration were met with the following exceptions:
3-Nitroaniline on 9/27/90 slightly exceeded 35% RSD.

The continuous calibration on 10/6/90 and 10/30/90 did not meet the limit of 25% D for several polar compounds. None exceeded a % D of 50 and these compounds were also not found in the samples analyzed.

SAMPLE ANALYSIS

Holding times for all first extractions were within the specified limits. Two samples had to be re-extracted due to low phenol surrogate recoveries.

H2M LABS, INC.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 12-03-90

****
* *
* *
****

Ursula Middel
Technical Manager

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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR PESTICIDES/PCB's
GIB055

For Samples: GW-1
GW-2
GW-3
GW-4
GW-5
SW-1
SW-2
SW-2
SW-4
SD-1
SD-2
SD-3

QC DATA

Even though the recovery limits for DBC are not mandatory, sample GW-1, with a DBC recovery of zero, was re-extracted and re-analyzed. (It is suspected that the surrogate spike was not added for the original extract.) Both reports are submitted.

Acceptable accuracy and precision data were obtained for all spiked samples and blanks. Data met QC limits with the following exceptions: The recovery for the water spiked blank was low for two compounds.

An interference, coeluting with Aldrin, caused results to be above QC limits for Aldrin. The high recoveries for the soil spikes are suspected to be due to some solvent evaporation of the extracts.

CALIBRATION AND SYSTEM PERFORMANCE

All system performance and calibration criteria were met for the primary column sequence from 10/08/90 and 10/16/90 as well as for the secondary column sequences from 10/15/90.

A problem was encountered with the confirmatory sequence starting 10/17/90. Remedial action had to be taken on 10/19/90 for breakdown. A subsequent run of EVAL B satisfied the requirements but the following continuous calibration no longer met the limits for RPD. No data are submitted for the runs after the last compliant standard.

The re-extract of GW-1 was analyzed in the sequence of 11/06/90, which was not in compliance for the last continuous calibration of IND A for 4,4-DDT. The sample affected by this deviation (not from this group), was re-analyzed.

H2M LABS, INC.

SAMPLE ANALYSIS

Sample GW-4 contained technical chlordane. The g and a-isomers were under CRQL. Some chlordane isomers were identified as single pesticides. The peak areas were corrected for the contribution of the chlordane, and then were under reporting limit.

The data system applies a 1 % window for tentative identification. The data are reviewed by the analyst and the following codes are used to indicate reasons for rejections of identifications:

- L1 smaller than the contract required reporting limit on primary column
- L2 smaller than the contract required reporting limit on the secondary column
- W1 outside the actual retention time window established on primary column
- W2 outside the actual retention time window on secondary column
- I PCB isomer interfering with pesticides. (Raise reporting limit for pesticide)
- Q2 Quantification on secondary column due to interference coeluting on primary column

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 12-05-90

****
* *
* *
****

Joann Slavin
Quality Assurance Manager

H2M LABS, INC.

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4. SAMPLE REPORTS
   - 4.1 VOLATILES
   - 4.2 BASE/NEUTRAL/ACIDS
   - 4.3 PESTICIDE/PCBs
   - 4.4 METALS AND CYANIDE
   - 4.5 INORGANIC ANALYSIS

H2M LABS, INC.
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QUALIFIERS FOR REPORTING ORGANICS DATA

Value - If the result is a value greater than or equal to the quantification limit, report the value.

U - Indicates compound was analyzed for but not detected. Report the minimum quantification limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable quantification limit for the sample.

J - Indicates as estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified quantification limit but greater than zero (e.g.: If limit of quantification is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J).

C - This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides >= 10 ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E - This flag identifies compounds whose concentrations are outside the calibration range of the analysis. If one or more compounds have a response greater than full scale, the extract must be diluted and reanalyzed, according to the specifications in Exhibit D. All compounds with a response greater than full scale should be flagged with an "E" on the original report of analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: for total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered seperately.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag.

X - This flag indicates compounds with spectra that do not meet identification criteria as detailed in Exhibit(E)E-61 section 6.1.3 but are believed to be present.

Z - Indicates analyte was present at the reported concentration in the pre-screening analysis.

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QUALIFIERS FOR METALS ANALYSIS

E - The reported value is estimated because of the presence of interference. An explanatory note is included in the case narrative.

M - Duplicate injection precision not met.

N - Matrix spiked sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions.

+ - Correlation coefficient for the MSA is less than 0.995.

W - Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

Concentration Qualifiers

B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

U - Entered if the analyte was analyzed for but not detected, less than the IDL.

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-1

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010268

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4184

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	91.	
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	6.	
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	

John J. Molloy, P.E.
Laboratory Director

DATE REPORTED: NOV 28 1990

S00036

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: GW-1

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010268

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4184

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	5.17	8.	J
2.	- -	METHOXY METHYL PROPANE ISOME	5.89	80.	J
3.	- -	ETHYL DIMETHYL BENZENE ISOME	10.46	9.	J
4.	- -	TETRAMETHYL BENZENE ISOMER	10.78	10.	J
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

DATE REPORTED: NOV 28 1990

John J. Morris, P.E.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

S00037

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010268

Sample wt/vol: 860 (g/mL) ML Lab File ID: >E2936

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	12.	U
111-44-4	bis(2-Chloroethyl)Ether	12.	U
95-57-8	2-Chlorophenol	12.	U
541-73-1	1,3-Dichlorobenzene	12.	U
106-46-7	1,4-Dichlorobenzene	12.	U
100-51-6	Benzyl alcohol	12.	U
95-50-1	1,2-Dichlorobenzene	12.	U
95-48-7	2-Methylphenol	12.	U
39638-32-9	bis(2-chloroisopropyl)ether	12.	U
106-44-5	4-Methylphenol	12.	U
621-64-7	N-Nitroso-Di-n-propylamine	12.	U
67-72-1	Hexachloroethane	12.	U
98-95-3	Nitrobenzene	12.	U
78-59-1	Isophorone	12.	U
88-75-5	2-Nitrophenol	12.	U
105-67-9	2,4-Dimethylphenol	12.	U
65-85-0	Benzoic acid	58.	U
111-91-1	bis(2-Chloroethoxy)methane	12.	U
120-83-2	2,4-Dichlorophenol	12.	U
120-82-1	1,2,4-Trichlorobenzene	12.	U
91-20-3	Naphthalene	12.	U
106-47-8	4-Chloroaniline	12.	U
87-68-3	Hexachlorobutadiene	12.	U
59-50-7	4-Chloro-3-methylphenol	12.	U
91-57-6	2-Methylnaphthalene	12.	U
77-47-4	Hexachlorocyclopentadiene	12.	U
88-06-2	2,4,6-Trichlorophenol	12.	U
95-95-4	2,4,5-Trichlorophenol	58.	U
91-58-7	2-Chloronaphthalene	12.	U
88-74-4	2-Nitroaniline	58.	U
131-11-3	Dimethylphthalate	12.	U
208-96-8	Acenaphthylene	12.	U
606-20-2	2,6-Dinitrotoluene	12.	U

Middle

S00035

H2M LABS, INC.

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010268

Sample wt/vol: 860 (g/mL) ML Lab File ID: >E2936

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	58.	U
83-32-9	Acenaphthene	12.	U
51-28-5	2,4-Dinitrophenol	58.	U
100-02-7	4-Nitrophenol	58.	U
132-64-9	Dibenzofuran	12.	U
121-14-2	2,4-Dinitrotoluene	12.	U
84-66-2	Diethylphthalate	12.	U
7005-72-3	4-Chlorophenyl-phenylether	12.	U
86-73-7	Fluorene	12.	U
100-01-6	4-Nitroaniline	58.	U
534-52-1	4,6-Dinitro-2-methylphenol	58.	U
86-30-6	N-Nitrosodiphenylamine (1)	12.	U
101-55-3	4-Bromophenyl-phenylether	12.	U
118-74-1	Hexachlorobenzene	12.	U
87-86-5	Pentachlorophenol	58.	U
85-01-8	Phenanthrene	12.	U
120-12-7	Anthracene	12.	U
84-74-2	Di-n-butylphthalate	12.	U
206-44-0	Fluoranthene	12.	U
129-00-0	Pyrene	12.	U
85-68-7	Butylbenzylphthalate	12.	U
91-94-1	3,3'-Dichlorobenzidine	23.	U
56-55-3	Benzo(a)anthracene	12.	U
218-01-9	Chrysene	12.	U
117-81-7	bis(2-Ethylhexyl)phthalate	12.	U
117-84-0	Di-n-octylphthalate	12.	U
205-99-2	Benzo(b)fluoranthene	12.	U
207-08-9	Benzo(k)fluoranthene	12.	U
50-32-8	Benzo(a)pyrene	12.	U
193-39-5	Indeno(1,2,3-cd)pyrene	12.	U
53-70-3	Dibenz(a,h)anthracene	12.	U
191-24-2	Benzo(g,h,i)perylene	12.	U

DATE REPORTED

(1) - Cannot be separated from Diphenylamine

S00035

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GW-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010268

Sample wt/vol: 860 (g/mL) ML Lab File ID: >E2936

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. -- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	40.08	23.	J
2.				
3.				
4.				
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DATE REPORTED: NOV - 1 1990

S00040

ID
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-1

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9010268

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. __ dec. __ Date Extracted: 09/25/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	Lindane	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DATE REPORTED: NOV 15 1990

Jo... ...E
Laboratory Director

FORM 1 PEST 1/87 Rev.

S00041

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-1RE

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9010268RE

Sample wt/vol: 820.0 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. __ dec. __ Date Extracted: 11/01/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/07/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	0	
319-84-6	alpha-BHC	0.061	U
319-85-7	beta-BHC	0.061	U
319-86-8	delta-BHC	0.061	U
58-89-9	Lindane	0.061	U
76-44-8	Heptachlor	0.061	U
309-00-2	Aldrin	0.061	U
1024-57-3	Heptachlor epoxide	0.061	U
959-98-8	Endosulfan I	0.061	U
60-57-1	Dieldrin	0.12	U
72-55-9	4,4'-DDE	0.12	U
72-20-8	Endrin	0.12	U
33213-65-9	Endosulfan II	0.12	U
72-54-8	4,4'-DDD	0.12	U
1031-07-8	Endosulfan sulfate	0.12	U
50-29-3	4,4'-DDT	0.12	U
72-43-5	Methoxychlor	0.61	U
53494-70-5	Endrin ketone	0.12	U
5103-71-9	alpha-Chlordane	0.61	U
5103-74-2	gamma-Chlordane	0.61	U
8001-35-2	Toxaphene	1.2	U
12674-11-2	Aroclor-1016	0.61	U
11104-28-2	Aroclor-1221	0.61	U
11141-16-5	Aroclor-1232	0.61	U
53469-21-9	Aroclor-1242	0.61	U
12672-29-6	Aroclor-1248	0.61	U
11097-69-1	Aroclor-1254	1.2	U
11096-82-5	Aroclor-1260	1.2	U

DATE REPORTED NOV 15 1990

John J. Molloy, P.E.
Laboratory Director

FORM 1 PEST

1/87 Rev.

S0004

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

REV. 6/89

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXGW1

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB055

Matrix (soil/water): WATER Lab Sample ID: 9010265

Level (low/med): LOW Date Received: 09/24/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3450			P
7440-36-0	Antimony	43.9	U		P
7440-38-2	Arsenic	2.5	B	N	F
7440-39-3	Barium	52.8	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.6	U		P
7440-70-2	Calcium	12800			P
7440-47-3	Chromium	9.2	U		P
7440-48-4	Cobalt	12.4	B		P
7440-50-8	Copper	17.3	B		P
7439-89-6	Iron	5720			P
7439-92-1	Lead	6.0			F
7439-95-4	Magnesium	2610	B		P
7439-96-5	Manganese	323			P
7439-97-6	Mercury	0.3			CV
7440-02-0	Nickel	29.2	B		P
7440-09-7	Potassium	1980	B		P
7782-49-2	Selenium	1.2	U	N	F
7440-22-4	Silver	10.0	U		A
7440-23-5	Sodium	5410			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	10.3	B		P
7440-66-6	Zinc	40.0			A
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: NOVEMBER 6, 1990

S00043

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)694-4122

LAB NO: 9010268

GIBBS & HILL, INC.
NORM HINSEY
11 PENN PLAZA
NEW YORK, NY 10001

TYPE..... MISCELLANEOUS LIQUID
SPECIAL

DATE COLLECTED. 09/24/90
DATE RECEIVED.. 09/24/90
COLLECTED BY... CL99
PROJECT NO..... 5066

POINT NO:
LOCATION: GW-1

REMARKS:
HAZ. WASTE DIS. SITE

PARAMETER (S)	RESULTS	UNITS
COD	30	mg/l
SPECIFIC CONDUCTIVITY	125	umhos
PH	6.4	units
SUSPENDED SOLIDS	330	mg/l
TOTAL DISSOLVED SOLIDS	102	mg/l

COPIES TO:

DATE ISSUED 11/13/9

Stanley Isaacson
LABORATORY DIRECTO

ORIGINAL

S00044

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-2

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010269

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4185

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	59.	
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	6.	
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	130.	
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	900.	E
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

John J. [illegible], P.E.
Laboratory Director

DATE REPORTED: Nov 2 0 1990

S00045

FORM I VOA 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GW-2

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010269

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4185

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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~~DATE REPORTED~~: NOV [illegible]

[illegible] Laboratory Director

FORM I VOA-TIC 1/87 Rev.

S00046

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-2 DL

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010269DL

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4197

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/27/90

Column: (pack/cap) CAP Dilution Factor: ~~10.00~~ 0.10 gmo 11/29/90

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100.	U
74-83-9	Bromomethane	100.	U
75-01-4	Vinyl Chloride	100.	U
75-00-3	Chloroethane	100.	U
75-09-2	Methylene Chloride	50.	U
67-64-1	Acetone	100.	U
75-15-0	Carbon Disulfide	50.	U
75-35-4	1,1-Dichloroethene	50.	U
75-34-3	1,1-Dichloroethane	50.	U
540-59-0	1,2-Dichloroethene (total)	48.	J D
67-66-3	Chloroform	50.	U
107-06-2	1,2-Dichloroethane	50.	U
78-93-3	2-Butanone	100.	U
71-55-6	1,1,1-Trichloroethane	50.	U
56-23-5	Carbon Tetrachloride	50.	U
108-05-4	Vinyl Acetate	100.	U
75-27-4	Bromodichloromethane	50.	U
78-87-5	1,2-Dichloropropane	50.	U
10061-01-5	cis-1,3-Dichloropropene	50.	U
79-01-6	Trichloroethene	95.	D
124-48-1	Dibromochloromethane	50.	U
79-00-5	1,1,2-Trichloroethane	50.	U
71-43-2	Benzene	50.	U
10061-02-6	trans-1,3-Dichloropropene	50.	U
75-25-2	Bromoform	50.	U
108-10-1	4-Methyl-2-Pentanone	100.	U
591-78-6	2-Hexanone	100.	U
127-18-4	Tetrachloroethene	790.	B D
79-34-5	1,1,2,2-Tetrachloroethane	50.	U
108-88-3	Toluene	50.	U
108-90-7	Chlorobenzene	50.	U
100-41-4	Ethylbenzene	50.	U
100-42-5	Styrene	50.	U
1330-20-7	Xylene (total)	50.	U

Joseph E. Gallo
Laboratory Director

DATE REPORTED

S00047

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: GW-2 DL

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010269DL

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4197

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/27/90

Column: (pack/cap) CAP Dilution Factor: ~~10.00~~ 0.10 Jms 11/29/90

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: NOV 2 [illegible] 1990

Joint Laboratory Director

FORM I VOA-TIC 1/87 Rev.

S00045

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010269

Sample wt/vol: 890 (g/mL) ML Lab File ID: >E2957

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	11.	U
111-44-4	bis(2-Chloroethyl)Ether	11.	U
95-57-8	2-Chlorophenol	11.	U
541-73-1	1,3-Dichlorobenzene	11.	U
106-46-7	1,4-Dichlorobenzene	11.	U
100-51-6	Benzyl alcohol	11.	U
95-50-1	1,2-Dichlorobenzene	11.	U
95-48-7	2-Methylphenol	11.	U
39638-32-9	bis(2-chloroisopropyl)ether	11.	U
106-44-5	4-Methylphenol	11.	U
621-64-7	N-Nitroso-Di-n-propylamine	11.	U
67-72-1	Hexachloroethane	11.	U
98-95-3	Nitrobenzene	11.	U
78-59-1	Isophorone	11.	U
88-75-5	2-Nitrophenol	11.	U
105-67-9	2,4-Dimethylphenol	11.	U
65-85-0	Benzoic acid	56.	U
111-91-1	bis(2-Chloroethoxy)methane	11.	U
120-83-2	2,4-Dichlorophenol	11.	U
120-82-1	1,2,4-Trichlorobenzene	11.	U
91-20-3	Naphthalene	11.	U
106-47-8	4-Chloroaniline	11.	U
87-68-3	Hexachlorobutadiene	11.	U
59-50-7	4-Chloro-3-methylphenol	11.	U
91-57-6	2-Methylnaphthalene	11.	U
77-47-4	Hexachlorocyclopentadiene	11.	U
88-06-2	2,4,6-Trichlorophenol	11.	U
95-95-4	2,4,5-Trichlorophenol	56.	U
91-58-7	2-Chloronaphthalene	11.	U
88-74-4	2-Nitroaniline	****56.	U
131-11-3	Dimethylphthalate	*11.	U
208-96-8	Acenaphthylene	11.	U
606-20-2	2,6-Dinitrotoluene	**11.	U

Acid def

DATE RECEIVED: ... Laboratory Director

S00043

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
GW-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010269

Sample wt/vol: 890 (g/mL) ML Lab File ID: >E2957

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	56.	U
83-32-9	Acenaphthene	11.	U
51-28-5	2,4-Dinitrophenol	56.	U
100-02-7	4-Nitrophenol	56.	U
132-64-9	Dibenzofuran	11.	U
121-14-2	2,4-Dinitrotoluene	11.	U
84-66-2	Diethylphthalate	11.	U
7005-72-3	4-Chlorophenyl-phenylether	11.	U
86-73-7	Fluorene	11.	U
100-01-6	4-Nitroaniline	56.	U
534-52-1	4,6-Dinitro-2-methylphenol	56.	U
86-30-6	N-Nitrosodiphenylamine (1)	11.	U
101-55-3	4-Bromophenyl-phenylether	11.	U
118-74-1	Hexachlorobenzene	11.	U
87-86-5	Pentachlorophenol	56.	U
85-01-8	Phenanthrene	11.	U
120-12-7	Anthracene	11.	U
84-74-2	Di-n-butylphthalate	11.	U
206-44-0	Fluoranthene	11.	U
129-00-0	Pyrene	11.	U
85-68-7	Butylbenzylphthalate	11.	U
91-94-1	3,3'-Dichlorobenzidine	22.	U
56-55-3	Benzo(a)anthracene	11.	U
218-01-9	Chrysene	11.	U
117-81-7	bis(2-Ethylhexyl)phthalate	11.	U
117-84-0	Di-n-octylphthalate	11.	U
205-99-2	Benzo(b)fluoranthene	11.	U
207-08-9	Benzo(k)fluoranthene	11.	U
50-32-8	Benzo(a)pyrene	11.	U
193-39-5	Indeno(1,2,3-cd)pyrene	11.	U
53-70-3	Dibenz(a,h)anthracene	11.	U
191-24-2	Benzo(g,h,i)perylene	P.E. 11.	U

(1) - Cannot be separated from Diphenylamine

DATE REPORTED: 500030

FORM I SV-2 1/87 Rev

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GW-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010269

Sample wt/vol: 890 (g/mL) ML Lab File ID: >E2957

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. -- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Ethyl-dimethylbenzene isomer	11.65	20.	J
2.	Ethyl-dimethylbenzene isomer	12.03	9.	J
3.	Ethyl-dimethylbenzene isomer	12.10	14.	J
4.	Ethyl-dimethylbenzene isomer	12.63	22.	J
5.	Tetramethylbenzene isomer	12.91	21.	J
6.	Tetramethylbenzene isomer	12.99	41.	J
7.	Dihydro-methyl-1H-Indene iso	13.56	24.	J
8.	Ethyl-dimethylbenzene isomer	13.63	18.	J
9.	Unknown	23.64	30.	J
10.				
11.				
12.				
13.				
14.				
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S00051

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-2

Lab Name: HZM LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9010269

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. __ dec. __ Date Extracted: 09/25/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	Lindane	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DATE REPORTED: NOV 15 1990

John J. Mikay, P.E.
Laboratory Director

FORM I PEST 1/87 Rev.

SC0052

FORM I - IN

7/88

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXGW2

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB055

Matrix (soil/water): WATER Lab Sample ID: 9010269

Level (low/med): LOW Date Received: 09/24/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	438			P
7440-36-0	Antimony	43.9	U		P
7440-38-2	Arsenic	1.8	B	N	F
7440-39-3	Barium	31.9	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	9.4			P
7440-70-2	Calcium	16200			P
7440-47-3	Chromium	9.2	U		P
7440-48-4	Cobalt	11.6	B		P
7440-50-8	Copper	77.6			P
7439-89-6	Iron	1030			P
7439-92-1	Lead	5.9			F
7439-95-4	Magnesium	2240	B		P
7439-96-5	Manganese	71.7			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	43.6			P
7440-09-7	Potassium	5710			P
7782-49-2	Selenium	1.2	U	N	F
7440-22-4	Silver	10.0	U		A
7440-23-5	Sodium	7940			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	5.1	B		P
7440-66-6	Zinc	130.0			A
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: NOVEMBER 6, 1990

John J. Molloy, P.E.
Laboratory Director

S00056

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)694-4122

LAB NO: 9010269

GIBBS & HILL, INC.
NORM HINSEY
11 PENN PLAZA
NEW YORK, NY 10001

TYPE..... MISCELLANEOUS LIQUID
SPECIAL

DATE COLLECTED. 09/24/90
DATE RECEIVED.. 09/24/90
COLLECTED BY... CL99
PROJECT NO..... 5066

POINT NO:
LOCATION: GW-2

REMARKS:
HAZ. WASTE DIS. SITE

PARAMETER (S)	RESULTS	UNITS
COD	30	mg/l
SPECIFIC CONDUCTIVITY	128	umhos
PH	6.3	units
SUSPENDED SOLIDS	40	mg/l
TOTAL DISSOLVED SOLIDS	88	mg/l

COPIES TO:

DATE ISSUED 11/13/90

Stanley Teacher
LABORATORY DIRECTOR

ORIGINAL

560054

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-3

Lab Name: H2M LABS INC. Contract: G&H

Lab Code: . Case No.: . SAS No.: . SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010267

Sample wt/vol: 5 (g/mL) ML Lab File ID: >P4183

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/ML	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	11.	
75-00-3	Chloroethane	48.	
75-09-2	Methylene_Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	32.	
540-59-0	1,2-Dichloroethene_(total)	250.	E
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	150.	
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	22.	
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	18.	
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	29.	
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	1700.	E
108-90-7	Chlorobenzene	30.	
100-41-4	Ethylbenzene	460.	E
100-42-5	Styrene	5.	U
133-02-7	Xylene (total)	1700.	E

DATE REPORTED: NOV 2 6 1990

John J. Molloy, P.E.
Laboratory Director

S00055

FORM I VOA 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GW-3

Lab Name: H2M LABS INC. Contract: G&H

Lab Code:. Case No.:. SAS No.:. SDG No.:.

Matrix: (soil/water) WATER Lab Sample ID: 9010267

Sample wt/vol: 5 (g/mL) ML . Lab File ID: >P4183

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 0 Date Analyzed: 9/26/90

Column: CAP Dilution Factor: 1.00000

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	79399	Ethene, chlorotrifluoro-	2.77	19.	J
2.	354234	Ethane, 1,2-dichloro-1,1,2-t	4.40	11.	J
3.	76131	Ethane, 1,1,2-trichloro-1,2,	5.37	44.	J
4.	110543	Hexane (DOT)(8CI9CI)	6.40	6.	J
5.	96377	Cyclopentane, methyl- (8CI9C	7.14	9.	J
6.	142825	Heptane (DOT) (8CI9CI)	8.39	11.	J
7.	108872	Cyclohexane, methyl- (8CI9CI	9.18	11.	J
8.		Unknown	13.89	9.	J
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DATE REPORTED: NOV 2 0 1990

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-3 DL

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010267DL

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4192

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: ~~25.00~~ 0.25

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	250.	U
74-83-9	Bromomethane	250.	U
75-01-4	Vinyl Chloride	250.	U
75-00-3	Chloroethane	250.	U
75-09-2	Methylene Chloride	180.	U J B
67-64-1	Acetone	250.	U
75-15-0	Carbon Disulfide	120.	U
75-35-4	1,1-Dichloroethene	120.	U
75-34-3	1,1-Dichloroethane	120.	U
540-59-0	1,2-Dichloroethene (total)	200.	D
67-66-3	Chloroform	120.	U
107-06-2	1,2-Dichloroethane	120.	U
78-93-3	2-Butanone	250.	U
71-55-6	1,1,1-Trichloroethane	120.	J D
56-23-5	Carbon Tetrachloride	120.	U
108-05-4	Vinyl Acetate	250.	U
75-27-4	Bromodichloromethane	120.	U
78-87-5	1,2-Dichloropropane	120.	U
10061-01-5	cis-1,3-Dichloropropene	120.	U
79-01-6	Trichloroethene	120.	U
124-48-1	Dibromochloromethane	120.	U
79-00-5	1,1,2-Trichloroethane	120.	U
71-43-2	Benzene	120.	U
10061-02-6	trans-1,3-Dichloropropene	120.	U
75-25-2	Bromoform	120.	U
108-10-1	4-Methyl-2-Pentanone	250.	U
591-78-6	2-Hexanone	250.	U
127-18-4	Tetrachloroethene	120.	U
79-34-5	1,1,2,2-Tetrachloroethane	120.	U
108-88-3	Toluene	2300.	D
108-90-7	Chlorobenzene	120.	U
100-41-4	Ethylbenzene	440.	D
100-42-5	Styrene	120.	U
1330-20-7	Xylene (total)	2000.	D

REPORTED [illegible]

John J. Molloy, P.E.
Laboratory Director

SC0057

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: GW-3 DL

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010267DL

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4192

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: ~~25.00~~ 0.25

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	76-13-1	Ethane, 1,1,2-trichloro-1,2,	5.33	300.	J
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DATE REPORTED: NOV 2 0 1990

John I. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 117[illegible]
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
GW-3

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010267

Sample wt/vol: 900 (g/mL) ML Lab File ID: >E2935

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	32.	
111-44-4	bis(2-Chloroethyl)Ether	11.	U
95-57-8	2-Chlorophenol	11.	U
541-73-1	1,3-Dichlorobenzene	11.	U
106-46-7	1,4-Dichlorobenzene	7.	J
100-51-6	Benzyl alcohol	11.	U
95-50-1	1,2-Dichlorobenzene	5.	J
95-48-7	2-Methylphenol	11.	U
39638-32-9	bis(2-chloroisopropyl)ether	11.	U
106-44-5	4-Methylphenol	11.	U
621-64-7	N-Nitroso-Di-n-propylamine	11.	U
67-72-1	Hexachloroethane	11.	U
98-95-3	Nitrobenzene	11.	U
78-59-1	Isophorone	11.	U
88-75-5	2-Nitrophenol	11.	U
105-67-9	2,4-Dimethylphenol	7.	J
65-85-0	Benzoic acid	56.	U
111-91-1	bis(2-Chloroethoxy)methane	11.	U
120-83-2	2,4-Dichlorophenol	11.	U
120-82-1	1,2,4-Trichlorobenzene	11.	U
91-20-3	Naphthalene	65.	
106-47-8	4-Chloroaniline	11.	U
87-68-3	Hexachlorobutadiene	11.	U
59-50-7	4-Chloro-3-methylphenol	11.	U
91-57-6	2-Methylnaphthalene	32.	
77-47-4	Hexachlorocyclopentadiene	11.	U
88-06-2	2,4,6-Trichlorophenol	11.	U
95-95-4	2,4,5-Trichlorophenol	56.	U
91-58-7	2-Chloronaphthalene	11.	U
88-74-4	2-Nitroaniline	56.	U
131-11-3	Dimethylphthalate	11.	U
208-96-8	Acenaphthylene	11.	U
606-20-2	2,6-Dinitrotoluene	11.	U

Mod dil

S00059

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-3

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010267

Sample wt/vol: 900 (g/mL) ML Lab File ID: >E2935

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	56.	U
83-32-9	Acenaphthene	11.	U
51-28-5	2,4-Dinitrophenol	56.	U
100-02-7	4-Nitrophenol	56.	U
132-64-9	Dibenzofuran	11.	U
121-14-2	2,4-Dinitrotoluene	11.	U
84-66-2	Diethylphthalate	11.	U
7005-72-3	4-Chlorophenyl-phenylether	11.	U
86-73-7	Fluorene	11.	U
100-01-6	4-Nitroaniline	56.	U
534-52-1	4,6-Dinitro-2-methylphenol	56.	U
86-30-6	N-Nitrosodiphenylamine (1)	11.	U
101-55-3	4-Bromophenyl-phenylether	11.	U
118-74-1	Hexachlorobenzene	11.	U
87-86-5	Pentachlorophenol	56.	U
85-01-8	Phenanthrene	11.	U
120-12-7	Anthracene	11.	U
84-74-2	Di-n-butylphthalate	11.	U
206-44-0	Fluoranthene	11.	U
129-00-0	Pyrene	11.	U
85-68-7	Butylbenzylphthalate	11.	U
91-94-1	3,3'-Dichlorobenzidine	22.	U
56-55-3	Benzo(a)anthracene	11.	U
218-01-9	Chrysene	11.	U
117-81-7	bis(2-Ethylhexyl)phthalate	11.	U
117-84-0	Di-n-octylphthalate	11.	U
205-99-2	Benzo(b)fluoranthene	11.	U
207-08-9	Benzo(k)fluoranthene	11.	U
50-32-8	Benzo(a)pyrene	11.	U
193-39-5	Indeno(1,2,3-cd)pyrene	11.	U
53-70-3	Dibenz(a,h)anthracene	11.	U
191-24-2	Benzo(g,h,i)perylene	11.	U

(1) - Cannot be separated from Diphenylamine

Mid def

DATE REPORTED: [illegible]

FORM I SV-2

S00060

1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 117
(516) 694-3040 FAX: (516) 694-4122

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
GW-3

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010267

Sample wt/vol: 900 (g/mL) ML Lab File ID: >E2935

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. -- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 14

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	103651	Benzene, propyl- (8CI9CI)	9.29	36.	J
2.		Ethylmethylbenzene isomer	9.51	110.	J
3.		Ethylmethylbenzene isomer	9.58	58.	J
4.		Ethylmethylbenzene isomer	9.72	71.	J
5.	108838	4-Heptanone, 2,6-dimethyl- (	9.83	69.	J
6.		Ethylmethylbenzene isomer	9.91	69.	J
7.		Ethylmethylbenzene isomer	10.95	100.	J
8.		Methyl-methylethylbenzene is	11.06	18.	J
9.		Unknown	11.24	29.	J
10.		Methyl-methylethylbenzene is	12.77	16.	J
11.		Dihydro-methyl-1H-indene iso	13.71	22.	J
12.		Ethyldimethylbenzene isomer	13.77	16.	J
13.	90120	Naphthalene, 1-methyl- (8CI9	16.90	20.	J
14.		Unknown	25.62	100.	J
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DATE REPORTED: NOV 21 1990

SC0061

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-3

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9010267

Sample wt/vol: 920.0 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. __ dec. __ Date Extracted: 09/25/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/90

GPC Cleanup: (Y/N) N pH: 9.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.054	U
319-85-7	beta-BHC	0.054	U
319-86-8	delta-BHC	0.054	U
58-89-9	Lindane	0.054	U
76-44-8	Heptachlor	0.054	U
309-00-2	Aldrin	0.054	U
1024-57-3	Heptachlor epoxide	0.054	U
959-98-8	Endosulfan I	0.054	U
60-57-1	Dieldrin	0.11	U
72-55-9	4,4'-DDE	0.11	U
72-20-8	Endrin	0.11	U
33213-65-9	Endosulfan II	0.11	U
72-54-8	4,4'-DDD	0.11	U
1031-07-8	Endosulfan sulfate	0.11	U
50-29-3	4,4'-DDT	0.11	U
72-43-5	Methoxychlor	0.54	U
53494-70-5	Endrin ketone	0.11	U
5103-71-9	alpha-Chlordane	0.54	U
5103-74-2	gamma-Chlordane	0.54	U
8001-35-2	Toxaphene	1.1	U
12674-11-2	Aroclor-1016	0.54	U
11104-28-2	Aroclor-1221	0.54	U
11141-16-5	Aroclor-1232	0.54	U
53469-21-9	Aroclor-1242	0.54	U
12672-29-6	Aroclor-1248	0.54	U
11097-69-1	Aroclor-1254	1.1	U
11096-82-5	Aroclor-1260	1.1	U

DATE REPORTED: NOV 15 1990

Middel

J[illegible]

Labor[illegible]

FORM I PEST

1/87 Rev.

SC0062

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.
XXXGW3

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB055

Matrix (soil/water): WATER Lab Sample ID: 9010267

Level (low/med): LOW Date Received: 09/24/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2740			P
7440-36-0	Antimony	43.9	U		P
7440-38-2	Arsenic	6.4	B	N	F
7440-39-3	Barium	99.4	B		P
7440-41-7	Beryllium	2.9	B		P
7440-43-9	Cadmium	3.6	U		P
7440-70-2	Calcium	174000			P
7440-47-3	Chromium	9.2	U		P
7440-48-4	Cobalt	8.6	B		P
7440-50-8	Copper	25.0			P
7439-89-6	Iron	1050			P
7439-92-1	Lead	8.1			F
7439-95-4	Magnesium	1290	B		P
7439-96-5	Manganese	15.1			P
7439-97-6	Mercury	0.20	U		A
7440-02-0	Nickel	8.8	B		P
7440-09-7	Potassium	32600			P
7782-49-2	Selenium	1.2	U	N	F
7440-22-4	Silver	10.0	U		A
7440-23-5	Sodium	60200			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	9.9	B		P
7440-66-6	Zinc	70.0			A
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: NOVEMBER 6, 1990

S00063

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)694-4122

LAB NO: 9010267

GIBBS & HILL, INC.
NORM HINSEY
11 PENN PLAZA
NEW YORK, NY 10001

TYPE..... MISCELLANEOUS LIQUID
SPECIAL

DATE COLLECTED. 09/24/90
DATE RECEIVED.. 09/24/90
COLLECTED BY... CL99
PROJECT NO..... 5066

POINT NO:
LOCATION: GW-3

REMARKS:
HAZ. WASTE DIS. SITE

PARAMETER (S)	RESULTS	UNITS
COD	130	mg/l
SPECIFIC CONDUCTIVITY	1320	umhos
PH	11.8	units
SUSPENDED SOLIDS	108	mg/l
TOTAL DISSOLVED SOLIDS	549	mg/l

COPIES TO:

DATE ISSUED 11/13/90

Stanley Isaacson
LABORATORY DIRECTOR

ORIGINAL

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-4

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010266

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4180

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	55.	
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

DATE REPORTED: NOV 26 1990

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GW-4

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010266

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4180

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	ETHYL METHYL CYCLOHEXANE ISO	12.58	8.	J
2. - -	ETHYL METHYL CYCLOHEXANE ISO	12.98	10.	J
3. - -	DIMETHYL OCTANE ISOMER	13.09	9.	J
4. - -	UNKNOWN	13.97	6.	J
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DATE REPORTED: NOV 28 1990

John J. Molloy, Ph.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

S00065

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-4

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010266

Sample wt/vol: 810 (g/mL) ML Lab File ID: >E2932

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	12.	U
111-44-4	bis(2-Chloroethyl)Ether	12.	U
95-57-8	2-Chlorophenol	12.	U
541-73-1	1,3-Dichlorobenzene	12.	U
106-46-7	1,4-Dichlorobenzene	12.	U
100-51-6	Benzyl alcohol	12.	U
95-50-1	1,2-Dichlorobenzene	12.	U
95-48-7	2-Methylphenol	12.	U
39638-32-9	bis(2-chloroisopropyl)ether	12.	U
106-44-5	4-Methylphenol	12.	U
621-64-7	N-Nitroso-Di-n-propylamine	12.	U
67-72-1	Hexachloroethane	12.	U
98-95-3	Nitrobenzene	12.	U
78-59-1	Isophorone	12.	U
88-75-5	2-Nitrophenol	12.	U
105-67-9	2,4-Dimethylphenol	12.	U
65-85-0	Benzoic acid	62.	U
111-91-1	bis(2-Chloroethoxy)methane	12.	U
120-83-2	2,4-Dichlorophenol	12.	U
120-82-1	1,2,4-Trichlorobenzene	12.	U
91-20-3	Naphthalene	12.	U
106-47-8	4-Chloroaniline	12.	U
87-68-3	Hexachlorobutadiene	12.	U
59-50-7	4-Chloro-3-methylphenol	12.	U
91-57-6	2-Methylnaphthalene	12.	U
77-47-4	Hexachlorocyclopentadiene	12.	U
88-06-2	2,4,6-Trichlorophenol	12.	U
95-95-4	2,4,5-Trichlorophenol	62.	U
91-58-7	2-Chloronaphthalene	12.	U
88-74-4	2-Nitroaniline	62.	U
131-11-3	Dimethylphthalate	12.	U
208-96-8	Acenaphthylene	12.	U
606-20-2	2,6-Dinitrotoluene	12.	U

Moddie
Roy, P.E.
Director

S00066

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
GW-4

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010266

Sample wt/vol: 810 (g/mL) ML Lab File ID: >E2932

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	62.	U
83-32-9	Acenaphthene	12.	U
51-28-5	2,4-Dinitrophenol	62.	U
100-02-7	4-Nitrophenol	62.	U
132-64-9	Dibenzofuran	12.	U
121-14-2	2,4-Dinitrotoluene	12.	U
84-66-2	Diethylphthalate	12.	U
7005-72-3	4-Chlorophenyl-phenylether	12.	U
86-73-7	Fluorene	12.	U
100-01-6	4-Nitroaniline	62.	U
534-52-1	4,6-Dinitro-2-methylphenol	62.	U
86-30-6	N-Nitrosodiphenylamine (1)	12.	U
101-55-3	4-Bromophenyl-phenylether	12.	U
118-74-1	Hexachlorobenzene	12.	U
87-86-5	Pentachlorophenol	62.	U
85-01-8	Phenanthrene	12.	U
120-12-7	Anthracene	12.	U
84-74-2	Di-n-butylphthalate	12.	U
206-44-0	Fluoranthene	12.	U
129-00-0	Pyrene	12.	U
85-68-7	Butylbenzylphthalate	12.	U
91-94-1	3,3'-Dichlorobenzidine	25.	U
56-55-3	Benzo(a)anthracene	12.	U
218-01-9	Chrysene	12.	U
117-81-7	bis(2-Ethylhexyl)phthalate	12.	U
117-84-0	Di-n-octylphthalate	12.	U
205-99-2	Benzo(b)fluoranthene	12.	U
207-08-9	Benzo(k)fluoranthene	12.	U
50-32-8	Benzo(a)pyrene	12.	U
193-39-5	Indeno(1,2,3-cd)pyrene	12.	U
53-70-3	Dibenz(a,h)anthracene	12.	U
191-24-2	Benzo(g,h,i)perylene	12.	U

(1) - Cannot be separated from Diphenylamine

DATE RECEIVED NOV 21 1990

FORM I SV-2 S00067 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GW-4

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010266

Sample wt/vol: 810 (g/mL) ML Lab File ID: >E2932

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. -- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unk. Aliphatic Hydrocarbon	9.37	12.	J
2.	Unk. Aliphatic Hydrocarbon	11.03	35.	J
3. 7058017	Cyclohexane, (1-methylpropyl	11.22	15.	J
4.	Unk. Aliphatic Hydrocarbon	11.32	10.	J
5.	Unk. Aliphatic Hydrocarbon	11.39	10.	J
6. 493027	Naphthalene, decahydro-, tra	11.76	15.	J
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John J. Kelly, P.E.
Laboratory Director

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-4

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9010260

Sample wt/vol: 960.0 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. __ dec. __ Date Extracted: 09/25/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.052	U
319-85-7	beta-BHC	0.052	U
319-86-8	delta-BHC	0.052	U
58-89-9	Lindane	0.052	U
76-44-8	Heptachlor	0.052	U
309-00-2	Aldrin	0.052	U
1024-57-3	Heptachlor epoxide	0.052	U
959-98-8	Endosulfan I	0.052	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.52	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.52	U
5103-74-2	gamma-Chlordane	0.52	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.52	U
11104-28-2	Aroclor-1221	0.52	U
11141-16-5	Aroclor-1232	0.52	U
53469-21-9	Aroclor-1242	0.52	U
12672-29-6	Aroclor-1248	0.52	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DATE REPORTED: 1 5 1990

P.E.
Laboratory Director

FORM I PEST

S00069

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXGW4

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB055

Matrix (soil/water): WATER Lab Sample ID: 9010266

Level (low/med): LOW Date Received: 09/24/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13900			P
7440-36-0	Antimony	43.9	U		P
7440-38-2	Arsenic	125		N	F
7440-39-3	Barium	200	B		P
7440-41-7	Beryllium	3.2	B		P
7440-43-9	Cadmium	5.4			P
7440-70-2	Calcium	128000			P
7440-47-3	Chromium	29.9			P
7440-48-4	Cobalt	16.1	B		P
7440-50-8	Copper	58.2			P
7439-89-6	Iron	49500			P
7439-92-1	Lead	139.5			F
7439-95-4	Magnesium	9530			P
7439-96-5	Manganese	1200			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	27.6	B		P
7440-09-7	Potassium	6780			P
7782-49-2	Selenium	1.3	B	WN	F
7440-22-4	Silver	10.0	U		A
7440-23-5	Sodium	6170			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	37.1	B		P
7440-66-6	Zinc	210			A
	Cyanide	10.0	U		C

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: NOVEMBER 6, 1990

S00076

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)694-4122

LAB NO: 9010266

GIBBS & HILL, INC.
NORM HINSEY
11 PENN PLAZA
NEW YORK, NY 10001

TYPE..... MISCELLANEOUS LIQUID
SPECIAL

DATE COLLECTED. 09/24/90
DATE RECEIVED.. 09/24/90
COLLECTED BY... CL99
PROJECT NO..... 5066

POINT NO:
LOCATION: GW-4
MS/MSD ALSO
REMARKS:
HAZ. WASTE DIS. SITE

PARAMETER (S)	RESULTS	UNITS
COD	90	mg/l
SPECIFIC CONDUCTIVITY	546	umhos
PH	7.0	units
SUSPENDED SOLIDS	660	mg/l
TOTAL DISSOLVED SOLIDS	378	mg/l

COPIES TO:

DATE ISSUED 11/13/90

Stanley Isaacson
LABORATORY DIRECTOR

ORIGINAL

S00071

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 117
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-5

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010270

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4186

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	2.	J
540-59-0	1,2-Dichloroethene (total)	30.	
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	6.	
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	89.	
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	460.	E
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

DATE REPORTED: NOV 2 1990

John J. Molloy, P.E.
Laboratory Director

S00072

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: GW-5

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010270

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4186

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	ETHYL DIMETHYL BENZENE ISOME	9.18	5.	J
2.	- -	TERAMETHYL BENZENE ISOMER	10.20	20.	J
3.	- -	UNKNOWN	12.40	40.	J
4.	- -	UNKNOWN	14.00	6.	J
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27.		DATE REPORTED NOV 26 1990			
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John J. [illegible], P.E.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

S00073

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-5 DL

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010270DL

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4198

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/27/90

Column: (pack/cap) CAP Dilution Factor: ~~5.00~~

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	50.	U
74-83-9	Bromomethane	50.	U
75-01-4	Vinyl Chloride	50.	U
75-00-3	Chloroethane	50.	U
75-09-2	Methylene Chloride	25.	U
67-64-1	Acetone	50.	U
75-15-0	Carbon Disulfide	25.	U
75-35-4	1,1-Dichloroethene	25.	U
75-34-3	1,1-Dichloroethane	25.	U
540-59-0	1,2-Dichloroethene (total)	25.	D
67-66-3	Chloroform	25.	U
107-06-2	1,2-Dichloroethane	25.	U
78-93-3	2-Butanone	50.	U
71-55-6	1,1,1-Trichloroethane	25.	U
56-23-5	Carbon Tetrachloride	25.	U
108-05-4	Vinyl Acetate	50.	U
75-27-4	Bromodichloromethane	25.	U
78-87-5	1,2-Dichloropropane	25.	U
10061-01-5	cis-1,3-Dichloropropene	25.	U
79-01-6	Trichloroethene	74.	D
124-48-1	Dibromochloromethane	25.	U
79-00-5	1,1,2-Trichloroethane	25.	U
71-43-2	Benzene	5.	J D
10061-02-6	trans-1,3-Dichloropropene	25.	U
75-25-2	Bromoform	25.	U
108-10-1	4-Methyl-2-Pentanone	50.	U
591-78-6	2-Hexanone	50.	U
127-18-4	Tetrachloroethene	440.	B D
79-34-5	1,1,2,2-Tetrachloroethane	25.	U
108-88-3	Toluene	25.	U
108-90-7	Chlorobenzene	5.	J D
100-41-4	Ethylbenzene	25.	U
100-42-5	Styrene	25.	U
1330-20-7	Xylene (total)	25.	U

DATE REPORTED: NOV 2 0 1990

John J. Mo[illegible]
Laboratory Director

S00074

FORM I VOA 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GW-5 DL

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010270DL

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4198

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/27/90

Column: (pack/cap) CAP Dilution Factor: ~~5.00~~

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: NOV 28 1990

FORM I VOA-TIC 1/87 Rev.

S00075

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-5

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010270

Sample wt/vol: 940 (g/mL) ML Lab File ID: >E2958

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	11.	U
111-44-4	bis(2-Chloroethyl)Ether	11.	U
95-57-8	2-Chlorophenol	11.	U
541-73-1	1,3-Dichlorobenzene	11.	U
106-46-7	1,4-Dichlorobenzene	11.	U
100-51-6	Benzyl alcohol	11.	U
95-50-1	1,2-Dichlorobenzene	11.	U
95-48-7	2-Methylphenol	11.	U
39638-32-9	bis(2-chloroisopropyl)ether	11.	U
106-44-5	4-Methylphenol	11.	U
621-64-7	N-Nitroso-Di-n-propylamine	11.	U
67-72-1	Hexachloroethane	11.	U
98-95-3	Nitrobenzene	11.	U
78-59-1	Isophorone	11.	U
88-75-5	2-Nitrophenol	11.	U
105-67-9	2,4-Dimethylphenol	11.	U
65-85-0	Benzoic acid	53.	U
111-91-1	bis(2-Chloroethoxy)methane	11.	U
120-83-2	2,4-Dichlorophenol	11.	U
120-82-1	1,2,4-Trichlorobenzene	11.	U
91-20-3	Naphthalene	11.	U
106-47-8	4-Chloroaniline	11.	U
87-68-3	Hexachlorobutadiene	11.	U
59-50-7	4-Chloro-3-methylphenol	11.	U
91-57-6	2-Methylnaphthalene	11.	U
77-47-4	Hexachlorocyclopentadiene	11.	U
88-06-2	2,4,6-Trichlorophenol	11.	U
95-95-4	2,4,5-Trichlorophenol	53.	U
91-58-7	2-Chloronaphthalene	11.	U
88-74-4	2-Nitroaniline	53.	U
131-11-3	Dimethylphthalate	11.	U
208-96-8	Acenaphthylene	11.	U
606-20-2	2,6-Dinitrotoluene	11.	U

Hodd

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-5

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010270

Sample wt/vol: 940 (g/mL) ML Lab File ID: >E2958

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	53.	U
83-32-9	Acenaphthene	11.	U
51-28-5	2,4-Dinitrophenol	53.	U
100-02-7	4-Nitrophenol	53.	U
132-64-9	Dibenzofuran	11.	U
121-14-2	2,4-Dinitrotoluene	11.	U
84-66-2	Diethylphthalate	11.	U
7005-72-3	4-Chlorophenyl-phenylether	11.	U
86-73-7	Fluorene	11.	U
100-01-6	4-Nitroaniline	53.	U
534-52-1	4,6-Dinitro-2-methylphenol	53.	U
86-30-6	N-Nitrosodiphenylamine (1)	11.	U
101-55-3	4-Bromophenyl-phenylether	11.	U
118-74-1	Hexachlorobenzene	11.	U
87-86-5	Pentachlorophenol	53.	U
85-01-8	Phenanthrene	11.	U
120-12-7	Anthracene	11.	U
84-74-2	Di-n-butylphthalate	11.	U
206-44-0	Fluoranthene	11.	U
129-00-0	Pyrene	11.	U
85-68-7	Butylbenzylphthalate	11.	U
91-94-1	3,3'-Dichlorobenzidine	21.	U
56-55-3	Benzo(a)anthracene	11.	U
218-01-9	Chrysene	11.	U
117-81-7	bis(2-Ethylhexyl)phthalate	11.	U
117-84-0	Di-n-octylphthalate	11.	U
205-99-2	Benzo(b)fluoranthene	11.	U
207-08-9	Benzo(k)fluoranthene	11.	U
50-32-8	Benzo(a)pyrene	11.	U
193-39-5	Indeno(1,2,3-cd)pyrene	11.	U
53-70-3	Dibenz(a,h)anthracene	11.	U
191-24-2	Benzo(g,h,i)perylene	11.	U

(1) - Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GW-5

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010270

Sample wt/vol: 940 (g/mL) ML Lab File ID: >E2958

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. -- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Ethyl-dimethylbenzene isomer	11.64	14.	J
2.	Ethyl-dimethylbenzene isomer	12.10	9.	J
3.	Ethyl-dimethylbenzene isomer	12.63	16.	J
4.	Tetramethylbenzene isomer	12.91	15.	J
5.	Tetramethylbenzene isomer	12.99	31.	J
6.	Dihydro-methyl-1H-Indene iso	13.56	18.	J
7.	Tetramethylbenzene isomer	13.62	12.	J
8.	Unknown	23.63	27.	J
9.	Unknown	39.54	35.	J
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DATE REPORTED Nov 21 1990

Joh[illegible] P.E.
Laboratory Director

500075

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW-5

Lab Name: H2M LABS,INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9010270

Sample wt/vol: 960.0 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. __ dec. __ Date Extracted: 09/25/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/18/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.052	U
319-85-7	beta-BHC	0.052	U
319-86-8	delta-BHC	0.052	U
58-89-9	Lindane	0.052	U
76-44-8	Heptachlor	0.052	U
309-00-2	Aldrin	0.052	U
1024-57-3	Heptachlor epoxide	0.052	U
959-98-8	Endosulfan I	0.052	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.52	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.52	U
5103-74-2	gamma-Chlordane	0.52	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.52	U
11104-28-2	Aroclor-1221	0.52	U
11141-16-5	Aroclor-1232	0.52	U
53469-21-9	Aroclor-1242	0.52	U
12672-29-6	Aroclor-1248	0.52	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DATE REPORTED: NOV 15 1990

John J. Molloy, P.E.
Laboratory Director

S00079

FORM I - IN

7/88

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXGW5

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB055

Matrix (soil/water): WATER Lab Sample ID: 9010270

Level (low/med): LOW Date Received: 09/24/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4230			P
7440-36-0	Antimony	43.9	U		P
7440-38-2	Arsenic	4.6	B	NW	F
7440-39-3	Barium	52.4	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	9.1			P
7440-70-2	Calcium	15400			P
7440-47-3	Chromium	9.2	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	17.7	B		P
7439-89-6	Iron	6740			P
7439-92-1	Lead	18.6			F
7439-95-4	Magnesium	2560	B		P
7439-96-5	Manganese	182			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	14.4	B		P
7440-09-7	Potassium	4380	B		P
7782-49-2	Selenium	1.2	U	N	F
7440-22-4	Silver	10.0	U		A
7440-23-5	Sodium	7360			P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	7.3	B		P
7440-66-6	Zinc	90.0			A
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: NOVEMBER 6, 1990

S00050

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)694-4122

LAB NO: 9010270

GIBBS & HILL, INC.
NORM HINSEY
11 PENN PLAZA
NEW YORK, NY 10001

TYPE..... MISCELLANEOUS LIQUID
SPECIAL

DATE COLLECTED. 09/24/90
DATE RECEIVED.. 09/24/90
COLLECTED BY... CL99
PROJECT NO..... 5066

POINT NO:
LOCATION: GW-5

REMARKS:
HAZ. WASTE DIS. SITE

PARAMETER (S)	RESULTS	UNITS
COD	<15	mg/l
SPECIFIC CONDUCTIVITY	116	umhos
PH	6.2	units
SUSPENDED SOLIDS	53	mg/l
TOTAL DISSOLVED SOLIDS	72	mg/l

COPIES TO:

DATE ISSUED 11/13/9

Stanley Pearson
LABORATORY DIRECTOR

ORIGINAL

500051

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-1

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010272

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4190

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	3.	J
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

John J. Molloy, P.E.
Laboratory Director

S00052

FORM I VOA 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE No.: SW-1

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010272

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4190

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN	5.18	5.	J
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DATE REPORTED: NOV 2 0 1990

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010272

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E3104

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 10/18/90 (RE) 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/01/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

DATE REPORTED: NOV 21 1990

John J. Molloy, P.E.
Laboratory Director

S00054

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SW-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010272

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E3104

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 10/18/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/01/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

DATE REPORTED NOV 21 1990

(1) - Cannot be separated from Diphenylamine

John J. Molloy, P.E.
Laboratory Director

FORM I SV-2 1/87 Rev

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SW-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010272

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E3104

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. -- dec. -- Date Extracted: 10/18/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/01/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No non-targeted compounds were found.			
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DATE REPORTED: NOV 21 1990

John J. Molloy, P.E.
Laboratory Director

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-1

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9010272

Sample wt/vol: 970.0 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. __ dec. __ Date Extracted: 09/25/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/18/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.052	U
319-85-7	beta-BHC	0.052	U
319-86-8	delta-BHC	0.052	U
58-89-9	Lindane	0.052	U
76-44-8	Heptachlor	0.052	U
309-00-2	Aldrin	0.052	U
1024-57-3	Heptachlor epoxide	0.052	U
959-98-8	Endosulfan I	0.052	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.52	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.52	U
5103-74-2	gamma-Chlordane	0.52	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.52	U
11104-28-2	Aroclor-1221	0.52	U
11141-16-5	Aroclor-1232	0.52	U
53469-21-9	Aroclor-1242	0.52	U
12672-29-6	Aroclor-1248	0.52	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DATE REPORTED NOV 15 1990

John J. [illegible] P.E.
Laboratory Director

FORM I PEST 1/87 Rev.

SC0057

FORM I - IN

7/

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXSW1

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB055

Matrix (soil/water): WATER Lab Sample ID: 9010272

Level (low/med): LOW Date Received: 09/24/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	261			P
7440-36-0	Antimony	43.9	U		P
7440-38-2	Arsenic	3.4	U	W	F
7440-39-3	Barium	26.8	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.6	U		P
7440-70-2	Calcium	14200			P
7440-47-3	Chromium	9.2	U		P
7440-48-4	Cobalt	9.7	B		P
7440-50-8	Copper	14.3	B		P
7439-89-6	Iron	1210			P
7439-92-1	Lead	4.0	B		F
7439-95-4	Magnesium	1970	B		P
7439-96-5	Manganese	92.9			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	9.7	B		P
7440-09-7	Potassium	1300	B		P
7782-49-2	Selenium	1.2	U	W	F
7440-22-4	Silver	10.0	U		A
7440-23-5	Sodium	3770	B		P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	4.8	U		P
7440-66-6	Zinc	50.0			A
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: 6, 1990

S00055

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)694-4122

LAB NO: 9010272

GIBBS & HILL, INC.
NORM HINSEY
11 PENN PLAZA
NEW YORK, NY 10001

TYPE..... MISCELLANEOUS LIQUID
SPECIAL

DATE COLLECTED. 09/24/90
DATE RECEIVED.. 09/24/90
COLLECTED BY... CL99
PROJECT NO..... 5066

POINT NO:
LOCATION: SW-1

REMARKS:
HAZ. WASTE DIS. SITE

PARAMETER (S)	RESULTS	UNITS
COD	45	mg/l
SPECIFIC CONDUCTIVITY	101	umhos
PH	6.9	units
SUSPENDED SOLIDS	<5	mg/l
TOTAL DISSOLVED SOLIDS	72	mg/l

COPIES TO:

DATE ISSUED 11/13/9

Stanley Isaacson
LABORATORY DIRECTO

ORIGINAL

S00055

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-2

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010271

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4187

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

John J. Malloy, P.E.
Laboratory Director

DATE REPORTED: NOV 26 1990

FORM I VOA

S00090

1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: SW-2

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010271

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4187

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	5.15	7.	J
2.	- -	ETHYL DIMETHYL BENZENE ISOME	9.69	30.	J
3.	- -	TETRAMETHYL BENZENE ISOMER	10.28	20.	J
4.	- -	TETRAMETHYL BENZENE ISOMER	10.60	30.	J
5.	- -	DIHYDRO METHYL INDENEISOMER	12.64	70.	J
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DATE REPORTED: NOV 28 1990

John J. Molloy, P.E.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

S00091

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER. Lab Sample ID: 9010271

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E3103

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 10/18/90 (RE) / 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/01/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

DATE REPORTED: NOV 5 1990

John J. Molloy, P.E.
Laboratory Director

FORM I SV-1 S00092 1/87 Re

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010271

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E3103

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 10/18/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/01/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

DATE REPORTED: NOV 2 1 1990

(1) - Cannot be separated from Diphenylamine

John J. Molloy, P.E.
Laboratory Director

S00093

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: SW-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010271

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E3103

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. -- dec. -- Date Extracted: 10/18/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/01/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No non-targeted compounds were found.			
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DATE REPORTED: NOV 21 1990

John J. Molloy, P.E.
Laboratory Director

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-2

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9010272

Sample wt/vol: 970.0 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. __ dec. __ Date Extracted: 09/25/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/18/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.052	U
319-85-7	beta-BHC	0.052	U
319-86-8	delta-BHC	0.052	U
58-89-9	Lindane	0.052	U
76-44-8	Heptachlor	0.052	U
309-00-2	Aldrin	0.052	U
1024-57-3	Heptachlor epoxide	0.052	U
959-98-8	Endosulfan I	0.052	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.52	U
53494-70-5	Endrin ketone	0.10	U
5103-7-9	alpha-Chlordane	0.52	U
5103-74-2	gamma-Chlordane	0.52	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.52	U
11104-28-2	Aroclor-1221	0.52	U
11141-16-5	Aroclor-1232	0.52	U
53469-21-9	Aroclor-1242	0.52	U
12672-29-6	Aroclor-1248	0.52	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DATE REPORTED NOV 15 1990

John J. [illegible], P.E.
Laboratory Director

FORM I PEST

S000095

FORM I - IN

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXSW2

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB055

Matrix (soil/water): WATER Lab Sample ID: 9010271

Level (low/med): LOW Date Received: 09/24/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	345			P
7440-36-0	Antimony	43.9	U		P
7440-38-2	Arsenic	3.4	U		F
7440-39-3	Barium	29.6	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.6	U		P
7440-70-2	Calcium	15300			P
7440-47-3	Chromium	9.2	U		P
7440-48-4	Cobalt	9.2	B		P
7440-50-8	Copper	12.7	B		P
7439-89-6	Iron	1530			P
7439-92-1	Lead	4.9	B		F
7439-95-4	Magnesium	2140	B		P
7439-96-5	Manganese	104			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	8.7	U		P
7440-09-7	Potassium	1360	B		P
7782-49-2	Selenium	1.2	U		F
7440-22-4	Silver	10.0	U		A
7440-23-5	Sodium	3960	B		P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	4.8	U		P
7440-66-6	Zinc	30.0			A
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: December 6, 1990

S00096

John J. Molloy, P.I.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)694-4122

LAB NO: 9010271

GIBBS & HILL, INC.
NORM HINSEY
11 PENN PLAZA
NEW YORK, NY 10001

TYPE..... MISCELLANEOUS LIQUID
SPECIAL

DATE COLLECTED. 09/24/90
DATE RECEIVED.. 09/24/90
COLLECTED BY... CL99
PROJECT NO..... 5066

POINT NO:
LOCATION: SW-2
MS/MSD ALSO
REMARKS:
HAZ. WASTE DIS. SITE

PARAMETER (S)	RESULTS	UNITS
COD	30	mg/l
SPECIFIC CONDUCTIVITY	97	umhos
PH	6.9	units
SUSPENDED SOLIDS	<5	mg/l
TOTAL DISSOLVED SOLIDS	65	mg/l

COPIES TO:

DATE ISSUED 11/13/9

Stanley Isaacson
LABORATORY DIRECTO

ORIGINAL S00097

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-4

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010273

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4191

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	8.	
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	4.	J
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	19.	
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

DATE REPORTED: NOV 2 [illegible] 1990

John [illegible], Ph.D.
Laboratory Director

FORM I VOA S00095 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: SW-4

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010273

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4191

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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DATE REPORTED: NOV 28 1990

John J. Molloy, P.E.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-4

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010273

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E2963

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

DATE REPORTED: NOV 2 1 1990

John J. Mellay, P.E.
Laboratory Director

FORM I SV-1 S00106 1/87 Rev

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-4

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010273

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E2963

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.	J
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

DATE REPORTED: NOV 1 1 1990

John J. Melly, P.E.
Laboratory Director

S00101

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: SW-4

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: 9010273

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E2963

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. -- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No non-targeted compounds were found.			
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30.				

DATE REPORTED: NOV 21 1990

John J. Molloy, P.E.
Laboratory Director

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-4

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9010273

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. __ dec. __ Date Extracted: 09/25/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/18/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	0	
319-84-6	alpha-BHC	0.051	U
319-85-7	beta-BHC	0.051	U
319-86-8	delta-BHC	0.051	U
58-89-9	Lindane	0.051	U
76-44-8	Heptachlor	0.051	U
309-00-2	Aldrin	0.051	U
1024-57-3	Heptachlor epoxide	0.051	U
959-98-8	Endosulfan I	0.051	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.51	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.51	U
5103-74-2	gamma-Chlordane	0.51	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.51	U
11104-28-2	Aroclor-1221	0.51	U
11141-16-5	Aroclor-1232	0.51	U
53469-21-9	Aroclor-1242	0.51	U
12672-29-6	Aroclor-1248	0.51	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

DATE REPORTED: NOV 1 3 1990

John [illegible], P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.
XXXSW4

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB055

Matrix (soil/water): WATER Lab Sample ID: 9010273

Level (low/med): LOW Date Received: 09/24/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	326			P
7440-36-0	Antimony	43.9	U		P
7440-38-2	Arsenic	3.4	U	W	F
7440-39-3	Barium	33.0	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.6	U		P
7440-70-2	Calcium	18900			P
7440-47-3	Chromium	9.2	U		P
7440-48-4	Cobalt	12.2	B		P
7440-50-8	Copper	23.1	B		P
7439-89-6	Iron	3330			P
7439-92-1	Lead	5.9			F
7439-95-4	Magnesium	1930	B		P
7439-96-5	Manganese	110			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	77.3			P
7440-09-7	Potassium	1700	B		P
7782-49-2	Selenium	1.2	U	W	F
7440-22-4	Silver	10.0	U		A
7440-23-5	Sodium	3450	B		P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	4.8	U		P
7440-66-6	Zinc	170.0			A
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: DECEMBER 6, 1990

S00104

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)694-4122

LAB NO: 9010273

GIBBS & HILL, INC.
NORM HINSEY
11 PENN PLAZA
NEW YORK, NY 10001

TYPE..... MISCELLANEOUS LIQUID
SPECIAL

DATE COLLECTED. 09/24/90
DATE RECEIVED.. 09/24/90
COLLECTED BY... CL99
PROJECT NO..... 5066

POINT NO:
LOCATION: SW-4

REMARKS:
HAZ. WASTE DIS. SITE

PARAMETER (S)	RESULTS	UNITS
COD	30	mg/l
SPECIFIC CONDUCTIVITY	105	umhos
PH	6.8	units
SUSPENDED SOLIDS	<5	mg/l
TOTAL DISSOLVED SOLIDS	69	mg/l

COPIES TO:

DATE ISSUED 11/13/9[illegible]

Stanley Isaacson
LABORATORY DIRECTO[illegible]

ORIGINAL

S00105

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 1174
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-1

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010274

Sample wt/vol: 5.450 (g/mL) G Lab File ID: P4219

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 15. Date Analyzed: 9/28/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	11.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	11.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	11.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	11.	U
591-78-6	2-Hexanone	11.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

John [illegible], P.E.
Laboratory Director

DATE REPORTED: NOV 2 8 1990

S00108

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD-1

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010274

Sample wt/vol: 5.450 (g/mL) G Lab File ID: P4219

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 15. Date Analyzed: 9/28/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: NOV 2 8 1990

John J. Molloy, P.E.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

SC207

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010274

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2979

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 15.1 dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) N pH: 6.5 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	390.	U
111-44-4	bis(2-Chloroethyl)Ether	390.	U
95-57-8	2-Chlorophenol	390.	U
541-73-1	1,3-Dichlorobenzene	390.	U
106-46-7	1,4-Dichlorobenzene	390.	U
100-51-6	Benzyl alcohol	390.	U
95-50-1	1,2-Dichlorobenzene	390.	U
95-48-7	2-Methylphenol	390.	U
39638-32-9	bis(2-chloroisopropyl)ether	390.	U
106-44-5	4-Methylphenol	390.	U
621-64-7	N-Nitroso-Di-n-propylamine	390.	U
67-72-1	Hexachloroethane	390.	U
98-95-3	Nitrobenzene	390.	U
78-59-1	Isophorone	390.	U
88-75-5	2-Nitrophenol	390.	U
105-67-9	2,4-Dimethylphenol	390.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	390.	U
120-83-2	2,4-Dichlorophenol	390.	U
120-82-1	1,2,4-Trichlorobenzene	390.	U
91-20-3	Naphthalene	390.	U
106-47-8	4-Chloroaniline	390.	U
87-68-3	Hexachlorobutadiene	390.	U
59-50-7	4-Chloro-3-methylphenol	390.	U
91-57-6	2-Methylnaphthalene	390.	U
77-47-4	Hexachlorocyclopentadiene	390.	U
88-06-2	2,4,6-Trichlorophenol	390.	U
95-95-4	2,4,5-Trichlorophenol	1900.	U
91-58-7	2-Chloronaphthalene	390.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	390.	U
208-96-8	Acenaphthylene	390.	U
606-20-2	2,6-Dinitrotoluene	390.	U

DATE REPORTED: NOV 21 1990 John J. [illegible] P.E. Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010274

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2979

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 15.1 dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) N pH: 6.5 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	390.	U
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	390.	U
121-14-2	2,4-Dinitrotoluene	390.	U
84-66-2	Diethylphthalate	390.	U
7005-72-3	4-Chlorophenyl-phenylether	390.	U
86-73-7	Fluorene	390.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine (1)	390.	U
101-55-3	4-Bromophenyl-phenylether	390.	U
118-74-1	Hexachlorobenzene	390.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	390.	U
120-12-7	Anthracene	390.	U
84-74-2	Di-n-butylphthalate	390.	U
206-44-0	Fluoranthene	390.	U
129-00-0	Pyrene	390.	U
85-68-7	Butylbenzylphthalate	390.	U
91-94-1	3,3'-Dichlorobenzidine	780.	U
56-55-3	Benzo(a)anthracene	390.	U
218-01-9	Chrysene	390.	U
117-81-7	bis(2-Ethylhexyl)phthalate	70.	38 J
117-84-0	Di-n-octylphthalate	390.	U
205-99-2	Benzo(b)fluoranthene	390.	U
207-08-9	Benzo(k)fluoranthene	390.	U
50-32-8	Benzo(a)pyrene	390.	U
193-39-5	Indeno(1,2,3-cd)pyrene	390.	U
53-70-3	Dibenz(a,h)anthracene	390.	U
191-24-2	Benzo(g,h,i)perylene	390.	U

John J. Molloy, P.E.
Laboratory Director

DATE REPORTED: Nov 21 1990

(1) - Cannot be separated from Diphenylamine

S00109

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SD-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010274

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2979

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 15.1 dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) N pH: 6.5 Dilution Factor: 1.00000

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	32.11	350.	J
2.				
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22.	DATE REPORTED: NOV 21 1990			
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30.				

John I. Molloy, P.E.
Laboratory Director

SC0116

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-1

Lab Name: M2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9010274

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. 15 dec. __ Date Extracted: 09/27/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.4	U
319-85-7	beta-BHC	9.4	U
319-86-8	delta-BHC	9.4	U
58-89-9	Lindane	9.4	U
76-44-8	Heptachlor	9.4	U
309-00-2	Aldrin	9.4	U
1024-57-3	Heptachlor epoxide	9.4	U
959-98-8	Endosulfan I	9.4	U
60-57-1	Dieldrin	19	U
72-55-9	4,4'-DDE	19	U
72-20-8	Endrin	19	U
33213-65-9	Endosulfan II	19	U
72-54-8	4,4'-DDD	19	U
1031-07-8	Endosulfan sulfate	19	U
50-29-3	4,4'-DDT	19	U
72-43-5	Methoxychlor	94	U
53494-70-5	Endrin ketone	19	U
5103-71-9	alpha-Chlordane	94	U
5103-74-2	gamma-Chlordane	94	U
8001-35-2	Toxaphene	190	U
12674-11-2	Aroclor-1016	94	U
11104-28-2	Aroclor-1221	94	U
11141-16-5	Aroclor-1232	94	U
53469-21-9	Aroclor-1242	94	U
12672-29-6	Aroclor-1248	94	U
11097-69-1	Aroclor-1254	190	U
11096-82-5	Aroclor-1260	190	U

DATE REPORTED: NOV 15 1990

John J. Mooney, P.E.
Laboratory Director

S00111

FORM I - IN

7/88

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXSD1

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB055

Matrix (soil/water): SOIL Lab Sample ID: 9010274

Level (low/med): LOW Date Received: 09/24/90

% Solids: 84.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1150		*	P
7440-36-0	Antimony	10.3	U		P
7440-38-2	Arsenic	6.6			F
7440-39-3	Barium	4.1	B		P
7440-41-7	Beryllium	0.24	U		P
7440-43-9	Cadmium	0.85	U	*	P
7440-70-2	Calcium	140	B	E	P
7440-47-3	Chromium	5.6			P
7440-48-4	Cobalt	1.2	U		P
7440-50-8	Copper	3.2	B	*	P
7439-89-6	Iron	4230		*	P
7439-92-1	Lead	9.7		S	F
7439-95-4	Magnesium	177	B		P
7439-96-5	Manganese	26.7		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	6.0	B	*	P
7440-09-7	Potassium	82.1	B		P
7782-49-2	Selenium	0.28	U	N	F
7440-22-4	Silver	2.4			A
7440-23-5	Sodium	22.4	B		P
7440-28-0	Thallium	0.31	B		F
7440-62-2	Vanadium	1.8	B		P
7440-66-6	Zinc	11.5		*	P
	Cyanide	1.2	U		C

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: ORANGE Clarity After: CLEAR Artifacts: YES

Comments:
ARTIFACTS: ROCKS
DATE REPORTED: DECEMBER 6, 1990

John J. Molloy, P.E.
Laboratory Director

S00112

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-2

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010275

Sample wt/vol: 3.750 (g/mL) G Lab File ID: P4235

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 20. Date Analyzed: 9/28/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	17.	U
74-83-9	Bromomethane	17.	U
75-01-4	Vinyl Chloride	17.	U
75-00-3	Chloroethane	17.	U
75-09-2	Methylene Chloride	8.	U
67-64-1	Acetone	17.	U
75-15-0	Carbon Disulfide	8.	U
75-35-4	1,1-Dichloroethene	8.	U
75-34-3	1,1-Dichloroethane	8.	U
540-59-0	1,2-Dichloroethene (total)	8.	U
67-66-3	Chloroform	8.	U
107-06-2	1,2-Dichloroethane	8.	U
78-93-3	2-Butanone	17.	U
71-55-6	1,1,1-Trichloroethane	8.	U
56-23-5	Carbon Tetrachloride	8.	U
108-05-4	Vinyl Acetate	17.	U
75-27-4	Bromodichloromethane	8.	U
78-87-5	1,2-Dichloropropane	8.	U
10061-01-5	cis-1,3-Dichloropropene	8.	U
79-01-6	Trichloroethene	8.	U
124-48-1	Dibromochloromethane	8.	U
79-00-5	1,1,2-Trichloroethane	8.	U
71-43-2	Benzene	8.	U
10061-02-6	trans-1,3-Dichloropropene	8.	U
75-25-2	Bromoform	8.	U
108-10-1	4-Methyl-2-Pentanone	17.	U
591-78-6	2-Hexanone	17.	U
127-18-4	Tetrachloroethene	8.	U
79-34-5	1,1,2,2-Tetrachloroethane	8.	U
108-88-3	Toluene	8.	U
108-90-7	Chlorobenzene	8.	U
100-41-4	Ethylbenzene	8.	U
100-42-5	Styrene	8.	U
1330-20-7	Xylene (total)	8.	U

DATE REPORTED: NOV 28 1990 Laboratory Director

S00116

FORM I VOA 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD-2

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010275

Sample wt/vol: 3.750 (g/mL) G Lab File ID: P4235

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 20. Date Analyzed: 9/28/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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DATE REPORTED: NOV 28 1990

John J. Manby, P.E.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

S00114

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010275

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2982

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 20.1 dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	410.	U
111-44-4	bis(2-Chloroethyl)Ether	410.	U
95-57-8	2-Chlorophenol	410.	U
541-73-1	1,3-Dichlorobenzene	410.	U
106-46-7	1,4-Dichlorobenzene	410.	U
100-51-6	Benzyl alcohol	410.	U
95-50-1	1,2-Dichlorobenzene	410.	U
95-48-7	2-Methylphenol	410.	U
39638-32-9	bis(2-chloroisopropyl)ether	410.	U
106-44-5	4-Methylphenol	410.	U
621-64-7	N-Nitroso-Di-n-propylamine	410.	U
67-72-1	Hexachloroethane	410.	U
98-95-3	Nitrobenzene	410.	U
78-59-1	Isophorone	410.	U
88-75-5	2-Nitrophenol	410.	U
105-67-9	2,4-Dimethylphenol	410.	U
65-85-0	Benzoic acid	110.	J
111-91-1	bis(2-Chloroethoxy)methane	410.	U
120-83-2	2,4-Dichlorophenol	410.	U
120-82-1	1,2,4-Trichlorobenzene	410.	U
91-20-3	Naphthalene	410.	U
106-47-8	4-Chloroaniline	410.	U
87-68-3	Hexachlorobutadiene	410.	U
59-50-7	4-Chloro-3-methylphenol	410.	U
91-57-6	2-Methylnaphthalene	410.	U
77-47-4	Hexachlorocyclopentadiene	410.	U
88-06-2	2,4,6-Trichlorophenol	410.	U
95-95-4	2,4,5-Trichlorophenol	2100.	U
91-58-7	2-Chloronaphthalene	410.	U
88-74-4	2-Nitroaniline	2100.	U
131-11-3	Dimethylphthalate	410.	U
208-96-8	Acenaphthylene	410.	U
606-20-2	2,6-Dinitrotoluene	410.	U

John J. Molloy, P.E.
Laboratory Director

~~DATE REPORTED: NOV 21 1990~~

S00215

FORM I SV-1 1/87 Rev

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SD-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010275

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2982

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.20.1 dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	2100.	U
83-32-9	Acenaphthene	410.	U
51-28-5	2,4-Dinitrophenol	2100.	U
100-02-7	4-Nitrophenol	2100.	U
132-64-9	Dibenzofuran	410.	U
121-14-2	2,4-Dinitrotoluene	410.	U
84-66-2	Diethylphthalate	410.	U
7005-72-3	4-Chlorophenyl-phenylether	410.	U
86-73-7	Fluorene	410.	U
100-01-6	4-Nitroaniline	2100.	U
534-52-1	4,6-Dinitro-2-methylphenol	2100.	U
86-30-6	N-Nitrosodiphenylamine (1)	410.	U
101-55-3	4-Bromophenyl-phenylether	410.	U
118-74-1	Hexachlorobenzene	410.	U
87-86-5	Pentachlorophenol	2100.	U
85-01-8	Phenanthrene	410.	U
120-12-7	Anthracene	410.	U
84-74-2	Di-n-butylphthalate	410.	U
206-44-0	Fluoranthene	410.	U
129-00-0	Pyrene	410.	U
85-68-7	Butylbenzylphthalate	410.	U
91-94-1	3,3'-Dichlorobenzidine	830.	U
56-55-3	Benzo(a)anthracene	410.	U
218-01-9	Chrysene	410.	U
117-81-7	bis(2-Ethylhexyl)phthalate	140.	JB
117-84-0	Di-n-octylphthalate	410.	U
205-99-2	Benzo(b)fluoranthene	410.	U
207-08-9	Benzo(k)fluoranthene	410.	U
50-32-8	Benzo(a)pyrene	410.	U
193-39-5	Indeno(1,2,3-cd)pyrene	410.	U
53-70-3	Dibenz(a,h)anthracene	410.	U
191-24-2	Benzo(g,h,i)perylene	410.	U

DATE REPORTED: NOV 21 1990

John J. Molloy, P.E.
Laboratory Director

S0011b

(1) - Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SD-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010275

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2982

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 20.1 dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00000

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	35.06	380.	J
2.				
3.				
4.				
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DATE REPORTED: NOV 21 1990

John J. [illegible]
Laboratory Director

S00117

FORM I SV-TIC 1/87 Rev.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-2

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9010275

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. 20 dec. __ Date Extracted: 09/27/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	10	U
319-85-7	beta-BHC	10	U
319-86-8	delta-BHC	10	U
58-89-9	Lindane	10	U
76-44-8	Heptachlor	10	U
309-00-2	Aldrin	10	U
1024-57-3	Heptachlor epoxide	10	U
959-98-8	Endosulfan I	10	U
60-57-1	Dieldrin	20	U
72-55-9	4,4'-DDE	20	U
72-20-8	Endrin	20	U
33213-65-9	Endosulfan II	20	U
72-54-8	4,4'-DDD	20	U
1031-07-8	Endosulfan sulfate	20	U
50-29-3	4,4'-DDT	20	U
72-43-5	Methoxychlor	100	U
53494-70-5	Endrin ketone	20	U
5103-71-9	alpha-Chlordane	100	U
5103-74-2	gamma-Chlordane	100	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	100	U
11104-28-2	Aroclor-1221	100	U
11141-16-5	Aroclor-1232	100	U
53469-21-9	Aroclor-1242	100	U
12672-29-6	Aroclor-1248	100	U
11097-69-1	Aroclor-1254	200	U
11096-82-5	Aroclor-1260	200	U

DATE REPORTED: NOV 15 1990

John J. [illegible], P.E.
Laboratory Director

FORM I PEST 1/87 Rev.

SC0115

FORM I - IN 7/88

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXSD2

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB055

Matrix (soil/water): SOIL Lab Sample ID: 9010275

Level (low/med): LOW Date Received: 09/24/90

% Solids: 79.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3580		*	P
7440-36-0	Antimony	11.0	U		P
7440-38-2	Arsenic	0.98	B		F
7440-39-3	Barium	16.4	B		P
7440-41-7	Beryllium	0.25	U		P
7440-43-9	Cadmium	0.90	U	*	P
7440-70-2	Calcium	451	B	E	P
7440-47-3	Chromium	5.0			P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	4.9	B	*	P
7439-89-6	Iron	3700		*	P
7439-92-1	Lead	11.7		S	F
7439-95-4	Magnesium	391	B		P
7439-96-5	Manganese	42.6		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	4.5	B	*	P
7440-09-7	Potassium	195	B		P
7782-49-2	Selenium	0.30	U	NW	F
7440-22-4	Silver	2.5	U		A
7440-23-5	Sodium	23.5	B		P
7440-28-0	Thallium	0.28	U		F
7440-62-2	Vanadium	5.8	B		P
7440-66-6	Zinc	33.9		*	P
	Cyanide	1.3	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

DATE REPORTED: December 6, 1990

S00115

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 117[illegible]
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-3

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010276

Sample wt/vol: 3.560 (g/mL) G Lab File ID: P4236

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 8. Date Analyzed: 9/28/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	15.	U
74-83-9	Bromomethane	15.	U
75-01-4	Vinyl Chloride	15.	U
75-00-3	Chloroethane	15.	U
75-09-2	Methylene Chloride	8.	U
67-64-1	Acetone	15.	U
75-15-0	Carbon Disulfide	8.	U
75-35-4	1,1-Dichloroethene	8.	U
75-34-3	1,1-Dichloroethane	8.	U
540-59-0	1,2-Dichloroethene (total)	8.	U
67-66-3	Chloroform	8.	U
107-06-2	1,2-Dichloroethane	8.	U
78-93-3	2-Butanone	15.	U
71-55-6	1,1,1-Trichloroethane	8.	U
56-23-5	Carbon Tetrachloride	8.	U
108-05-4	Vinyl Acetate	15.	U
75-27-4	Bromodichloromethane	8.	U
78-87-5	1,2-Dichloropropane	8.	U
10061-01-5	cis-1,3-Dichloropropene	8.	U
79-01-6	Trichloroethene	8.	U
124-48-1	Dibromochloromethane	8.	U
79-00-5	1,1,2-Trichloroethane	8.	U
71-43-2	Benzene	8.	U
10061-02-6	trans-1,3-Dichloropropene	8.	U
75-25-2	Bromoform	8.	U
108-10-1	4-Methyl-2-Pentanone	15.	U
591-78-6	2-Hexanone	15.	U
127-18-4	Tetrachloroethene	94.	
79-34-5	1,1,2,2-Tetrachloroethane	8.	U
108-88-3	Toluene	8.	U
108-90-7	Chlorobenzene	8.	U
100-41-4	Ethylbenzene	8.	U
100-42-5	Styrene	8.	U
1330-20-7	Xylene (total)	8.	U

John J. [illegible], P.E.
Laboratory Director

DATE REPORTED: [illegible]

S00120

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD-3

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010276

Sample wt/vol: 3.560 (g/mL) G Lab File ID: P4236

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 8. Date Analyzed: 9/28/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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30.					

DATE REPORTED: NOV 2 , 1990

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-3

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010276

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2983

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec.8.0 dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) Y pH:7.5 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	720.	U
111-44-4	bis(2-Chloroethyl)Ether	720.	U
95-57-8	2-Chlorophenol	720.	U
541-73-1	1,3-Dichlorobenzene	720.	U
106-46-7	1,4-Dichlorobenzene	720.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	720.	U
95-48-7	2-Methylphenol	720.	U
39638-32-9	bis(2-chloroisopropyl)ether	720.	U
106-44-5	4-Methylphenol	720.	U
621-64-7	N-Nitroso-Di-n-propylamine	720.	U
67-72-1	Hexachloroethane	720.	U
98-95-3	Nitrobenzene	720.	U
78-59-1	Isophorone	720.	U
88-75-5	2-Nitrophenol	720.	U
105-67-9	2,4-Dimethylphenol	720.	U
65-85-0	Benzoic acid	3600.	U
111-91-1	bis(2-Chloroethoxy)methane	720.	U
120-83-2	2,4-Dichlorophenol	720.	U
120-82-1	1,2,4-Trichlorobenzene	720.	U
91-20-3	Naphthalene	240	J
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	720.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	720.	U
77-47-4	Hexachlorocyclopentadiene	720.	U
88-06-2	2,4,6-Trichlorophenol	720.	U
95-95-4	2,4,5-Trichlorophenol	3600.	U
91-58-7	2-Chloronaphthalene	720.	U
88-74-4	2-Nitroaniline	3600.	U
131-11-3	Dimethylphthalate	720.	U
208-96-8	Acenaphthylene	720.	U
606-20-2	2,6-Dinitrotoluene	720.	U

John J. [illegible], P.E.
Laboratory Director

DATE REPORTED [illegible] 1990

S00122

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SD-3

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010276

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2983

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 8.0 dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) Y pH: 7.5 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	3600.	U
83-32-9	Acenaphthene	600	J
51-28-5	2,4-Dinitrophenol	3600.	U
100-02-7	4-Nitrophenol	3600.	U
132-64-9	Dibenzofuran	290	J
121-14-2	2,4-Dinitrotoluene	720.	U
84-66-2	Diethylphthalate	720.	U
7005-72-3	4-Chlorophenyl-phenylether	720.	U
86-73-7	Fluorene	580	J
100-01-6	4-Nitroaniline	3600.	U
534-52-1	4,6-Dinitro-2-methylphenol	3600.	U
86-30-6	N-Nitrosodiphenylamine (1)	720.	U
101-55-3	4-Bromophenyl-phenylether	720.	U
118-74-1	Hexachlorobenzene	720.	U
87-86-5	Pentachlorophenol	3600.	U
85-01-8	Phenanthrene	6000	
120-12-7	Anthracene	1200	
84-74-2	Di-n-butylphthalate	320	J
206-44-0	Fluoranthene	7900	
129-00-0	Pyrene	6600	
85-68-7	Butylbenzylphthalate	560	J
91-94-1	3,3'-Dichlorobenzidine	1400.	U
56-55-3	Benzo(a)anthracene	3400	
218-01-9	Chrysene	3800	
117-81-7	bis(2-Ethylhexyl)phthalate	13000.	B
117-84-0	Di-n-octylphthalate	720.	U
205-99-2	Benzo(b)fluoranthene	720.	U
207-08-9	Benzo(k)fluoranthene	720.	U
50-32-8	Benzo(a)pyrene	2600	
193-39-5	Indeno(1,2,3-cd)pyrene	1800	
53-70-3	Dibenz(a,h)anthracene	500	J
191-24-2	Benzo(g,h,i)perylene	1800.	

DATE REPORTED: NOV - 1 1990 John J. [illegible] P.E.
Laboratory Director

(1) - Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SD-3

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: 9010276

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2983

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 8.0 dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) Y pH: 7.5 Dilution Factor: 1.00000

Number TICs found: 12

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	3.82	360.	J
2.	86748	9H-Carbazole (9CI)	25.06	290.	J
3.	57103	Hexadecanoic acid (9CI)	26.58	290.	J
4.		Unknown	26.78	510.	J
5.		Unknown	29.04	580.	J
6.	243174	11H-Benzo[b]fluorene (8CI9CI	29.71	360.	J
7.		Unknown	31.58	360.	J
8.	203123	Benzo[ghi]fluoranthene (8CI9	31.71	360.	J
9.	205823	Benzo[j]fluoranthene (8CI9CI	35.51	2200.	J
10.	192972	Benzo[e]pyrene (8CI9CI)	36.20	1700.	J
11.		Unknown	38.01	1200.	J
12.		Unknown	38.79	1000.	J
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DATE REPORTED: NOV 21 1990

Director

500124

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-3

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH55 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 901027s

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 09/24/90

% Moisture: not dec. 8 dec. __ Date Extracted: 09/27/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.7	U
319-85-7	beta-BHC	8.7	U
319-86-8	delta-BHC	8.7	U
58-89-9	Lindane	8.7	U
76-44-8	Heptachlor	8.7	U
309-00-2	Aldrin	67	
1024-57-3	Heptachlor epoxide	8.7	U
959-98-8	Endosulfan I	8.7	U
60-57-1	Dieldrin	17	U
72-55-9	4,4'-DDE	17	U
72-20-8	Endrin	17	U
33213-65-9	Endosulfan II	17	U
72-54-8	4,4'-DDD	17	U
1031-07-8	Endosulfan sulfate	17	U
50-29-3	4,4'-DDT	17	U
72-43-5	Methoxychlor	87	U
53494-70-5	Endrin ketone	17	U
5103-71-9	alpha-Chlordane	87	U
5103-74-2	gamma-Chlordane	87	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	87	U
11104-28-2	Aroclor-1221	87	U
11141-16-5	Aroclor-1232	87	U
53469-21-9	Aroclor-1242	87	U
12672-29-6	Aroclor-1248	87	U
11097-69-1	Aroclor-1254	170	U
11096-82-5	Aroclor-1260	170	U

DATE REPORTED: NOV 15 1990

John J. Mooney, P.E.
Laboratory Director

FORM I PEST

S00125

FORM I - IN

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.
XXXSD3

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB055

Matrix (soil/water): SOIL Lab Sample ID: 9010276

Level (low/med): LOW Date Received: 09/24/90

% Solids: 92.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2670		*	P
7440-36-0	Antimony	9.5	U		P
7440-38-2	Arsenic	2.0	B		F
7440-39-3	Barium	49.8			P
7440-41-7	Beryllium	0.26	B		P
7440-43-9	Cadmium	6.2		*	P
7440-70-2	Calcium	6420		E	P
7440-47-3	Chromium	38.2			P
7440-48-4	Cobalt	2.5	B		P
7440-50-8	Copper	198		*	P
7439-89-6	Iron	23400		*	P
7439-92-1	Lead	80.87			F
7439-95-4	Magnesium	3140			P
7439-96-5	Manganese	195		*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	68.9		*	P
7440-09-7	Potassium	256	B		P
7782-49-2	Selenium	0.26	U	NW	F
7440-22-4	Silver	2.2	U		A
7440-23-5	Sodium	103	B		P
7440-28-0	Thallium	0.24	U		F
7440-62-2	Vanadium	13.8			P
7440-66-6	Zinc	339		*	P
	Cyanide	1.1	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: DECEMBER 6, 1990

S00126

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPVBLK

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010277

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4179

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	J
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

DATE REPORTED NOV 2 1990

John J. Molloy, P.E.
Laboratory Director

S00127

FORM I VOA 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

EPA SAMPLE NO.

TRIPVBLK

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: 9010277

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4179

Level: (low/med) LOW Date Received: 9/24/90

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: NOV 2 [illegible]

John J. Molloy, P.E.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

S00125

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK92

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: BLANK926

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4177

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

John J. T... P.E.
Laboratory Director

S00167

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: VBLK92

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: BLANK926

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4177

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 100. Date Analyzed: 9/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: DEC 03 1990

John J. Molloy, P.E.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

S00165

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK92

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: BLANK927

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4195

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 100. Date Analyzed: 9/27/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	3.	J
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	2.	J
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

DATE REPORTED: DEC 03 1990

John J. Mallow, P.E.
Laboratory Director

S00169

FORM I VOA 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK92

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: BLANK927

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4195

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 100. Date Analyzed: 9/27/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: DEC 03 1990

John L. Molloy, PhD
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

S00170

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK92

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) SOIL Lab Sample ID: BLANK928

Sample wt/vol: 5.000 (g/mL) G Lab File ID: P4216

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 9/28/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	9.	J
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

John J. [illegible] P.E.
Laboratory Director

S00171

DATE REPORTED: DEC 0 - 1990

FORM I VOA 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK92

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 55

Matrix: (soil/water) SOIL Lab Sample ID: BLANK928

Sample wt/vol: 5.000 (g/mL) G Lab File ID: P4216

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 9/28/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: DEC 03 1990

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SBLK 978

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: SBLK 978

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E2931

Level: (low/med) LOW Date Received: -----

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

DATE REPORTED: NOV 21 1990

John J. Molloy, P.E.
Laboratory Director

SU175

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 117-
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 978

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: SBLK 978

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E2931

Level: (low/med) LOW Date Received: -----

% Moisture: not dec.-- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

John J. [illegible], P.E.
Laboratory Director

DATE REPORTED: NOV 21 1990

FORM I SU-2 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK 978

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: SBLK 978

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E2931

Level: (low/med) LOW Date Received: -------

% Moisture: not dec. -- dec. -- Date Extracted: 9/26/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/06/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No non-targeted compounds			
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DATE REPORTED: NOV 21 1990

Middel

John J. M[illegible], P.E.
Laboratory Director

S00181

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 980

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 980

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2977

Level: (low/med) LOW Date Received: -------

% Moisture: not dec.-- dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	330.	U
111-44-4	bis(2-Chloroethyl)Ether	330.	U
95-57-8	2-Chlorophenol	330.	U
541-73-1	1,3-Dichlorobenzene	330.	U
106-46-7	1,4-Dichlorobenzene	330.	U
100-51-6	Benzyl alcohol	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
39638-32-9	bis(2-chloroisopropyl)ether	330.	U
106-44-5	4-Methylphenol	330.	U
621-64-7	N-Nitroso-Di-n-propylamine	330.	U
67-72-1	Hexachloroethane	330.	U
98-95-3	Nitrobenzene	330.	U
78-59-1	Isophorone	330.	U
88-75-5	2-Nitrophenol	330.	U
105-67-9	2,4-Dimethylphenol	330.	U
65-85-0	Benzoic acid	1600.	U
111-91-1	bis(2-Chloroethoxy)methane	330.	U
120-83-2	2,4-Dichlorophenol	330.	U
120-82-1	1,2,4-Trichlorobenzene	330.	U
91-20-3	Naphthalene	330.	U
106-47-8	4-Chloroaniline	330.	U
87-68-3	Hexachlorobutadiene	330.	U
59-50-7	4-Chloro-3-methylphenol	330.	U
91-57-6	2-Methylnaphthalene	330.	U
77-47-4	Hexachlorocyclopentadiene	330.	U
88-06-2	2,4,6-Trichlorophenol	330.	U
95-95-4	2,4,5-Trichlorophenol	1600.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1600.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

John J. [illegible] Laboratory Director

DATE REPORTED: NOV 21 1990

500182

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 980

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 980

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2977

Level: (low/med) LOW Date Received: -------

% Moisture: not dec.-- dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1600.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1600.	U
100-02-7	4-Nitrophenol	1600.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-Dinitrotoluene	330.	U
84-66-2	Diethylphthalate	330.	U
7005-72-3	4-Chlorophenyl-phenylether	330.	U
86-73-7	Fluorene	330.	U
100-01-6	4-Nitroaniline	1600.	U
534-52-1	4,6-Dinitro-2-methylphenol	1600.	U
86-30-6	N-Nitrosodiphenylamine (1)	330.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	1600.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
84-74-2	Di-n-butylphthalate	330.	U
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	330.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	660.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	330.	U
117-84-0	Di-n-octylphthalate	330.	U
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	330.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

DATE REPORTED: NOV 21 1990

John J. [illegible], Ph.D.
Laboratory Director

(1) - Cannot be separated from Diphenylamine

S00158

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: SBLK 980

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 980

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2977

Level: (low/med) LOW Date Received: -------

% Moisture: not dec. -- dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No non-targeted compounds			
2.	were found.			
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John J. [illegible], P.E.
Laboratory Director

S00184

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 982

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 982

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2978

Level: (low/med) LOW Date Received: -------

% Moisture: not dec.-- dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) Y pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	660.	U
111-44-4	bis(2-Chloroethyl)Ether	660.	U
95-57-8	2-Chlorophenol	660.	U
541-73-1	1,3-Dichlorobenzene	660.	U
106-46-7	1,4-Dichlorobenzene	660.	U
100-51-6	Benzyl alcohol	660.	U
95-50-1	1,2-Dichlorobenzene	660.	U
95-48-7	2-Methylphenol	660.	U
39638-32-9	bis(2-chloroisopropyl)ether	660.	U
106-44-5	4-Methylphenol	660.	U
621-64-7	N-Nitroso-Di-n-propylamine	660.	U
67-72-1	Hexachloroethane	660.	U
98-95-3	Nitrobenzene	660.	U
78-59-1	Isophorone	660.	U
88-75-5	2-Nitrophenol	660.	U
105-67-9	2,4-Dimethylphenol	660.	U
65-85-0	Benzoic acid	3300.	U
111-91-1	bis(2-Chloroethoxy)methane	660.	U
120-83-2	2,4-Dichlorophenol	660.	U
120-82-1	1,2,4-Trichlorobenzene	660.	U
91-20-3	Naphthalene	660.	U
106-47-8	4-Chloroaniline	660.	U
87-68-3	Hexachlorobutadiene	660.	U
59-50-7	4-Chloro-3-methylphenol	660.	U
91-57-6	2-Methylnaphthalene	660.	U
77-47-4	Hexachlorocyclopentadiene	660.	U
88-06-2	2,4,6-Trichlorophenol	660.	U
95-95-4	2,4,5-Trichlorophenol	3300.	U
91-58-7	2-Chloronaphthalene	660.	U
88-74-4	2-Nitroaniline	3300.	U
131-11-3	Dimethylphthalate	660.	U
208-96-8	Acenaphthylene	660.	U
606-20-2	2,6-Dinitrotoluene	660.	U

DATE REPORTED: Nov 21 1990

Laboratory Director

S00256

FORM I SV-1 1/87 Rev

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11[illegible]7
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 982

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 982

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2978

Level: (low/med) LOW Date Received: -------

% Moisture: not dec.-- dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) Y pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	3300.	U
83-32-9	Acenaphthene	660.	U
51-28-5	2,4-Dinitrophenol	3300.	U
100-02-7	4-Nitrophenol	3300.	U
132-64-9	Dibenzofuran	660.	U
121-14-2	2,4-Dinitrotoluene	660.	U
84-66-2	Diethylphthalate	660.	U
7005-72-3	4-Chlorophenyl-phenylether	660.	U
86-73-7	Fluorene	660.	U
100-01-6	4-Nitroaniline	3300.	U
534-52-1	4,6-Dinitro-2-methylphenol	3300.	U
86-30-6	N-Nitrosodiphenylamine (1)	660.	U
101-55-3	4-Bromophenyl-phenylether	660.	U
118-74-1	Hexachlorobenzene	660.	U
87-86-5	Pentachlorophenol	3300.	U
85-01-8	Phenanthrene	660.	U
120-12-7	Anthracene	660.	U
84-74-2	Di-n-butylphthalate	660.	U
206-44-0	Fluoranthene	660.	U
129-00-0	Pyrene	660.	U
85-68-7	Butylbenzylphthalate	660.	U
91-94-1	3,3'-Dichlorobenzidine	1300.	U
56-55-3	Benzo(a)anthracene	660.	U
218-01-9	Chrysene	660.	U
117-81-7	bis(2-Ethylhexyl)phthalate	220.	JB
117-84-0	Di-n-octylphthalate	660.	U
205-99-2	Benzo(b)fluoranthene	660.	U
207-08-9	Benzo(k)fluoranthene	660.	U
50-32-8	Benzo(a)pyrene	660.	U
193-39-5	Indeno(1,2,3-cd)pyrene	660.	U
53-70-3	Dibenz(a,h)anthracene	660.	U
191-24-2	Benzo(g,h,i)perylene	660.	U

DATE REPORTED: [illegible]90

P.E.
Laboratory Director

(1) - Cannot be separated from Diphenylamine

S00186

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK 982

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 982

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2978

Level: (low/med) LOW Date Received: -------

% Moisture: not dec. -- dec. -- Date Extracted: 9/27/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/11/90

GPC Cleanup: (Y/N) Y pH: -- Dilution Factor: 1.00000

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No non-targeted compounds			
2.	were found.			
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DATE REPORTED: NOV 21 1990

Middel
[illegible], P.E.
Laboratory Director

S00187

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 046

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: SBLK 046

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E3102

Level: (low/med) LOW Date Received: --------

% Moisture: not dec.-- dec. -- Date Extracted: 10/18/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/01/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
39638-32-9	bis(2-chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

DATE REPORTED: NOV 21 1990

John J. [illegible]ay, P.E.
Laboratory Director

S00285

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 046

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: 55

Matrix: (soil/water) WATER Lab Sample ID: SBLK 046

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E3102

Level: (low/med) LOW Date Received: --------

% Moisture: not dec.-- dec. -- Date Extracted: 10/18/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/01/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	10.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	10.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

John P.E.
Laboratory Director

S00189

DATE REPORTED: ... 21 1990

FORM I SV-2

1/87 Rev

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK 046

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 55

Matrix: (soil/water) WATER Lab Sample ID: SBLK 046

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >E3102

Level: (low/med) LOW Date Received: --------

% Moisture: not dec. -- dec. -- Date Extracted: 10/18/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/01/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No non-targeted compounds			
2.	were found.			
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DATE REPORTED: NOV 21 1990

Jo[illegible], P.E.
Laboratory Director

S00190

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX (516) 694-4122

3. CASE NARRATIVES

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Case Narrative for Volatile Organics
Gibbs & Hill 50 & 51
Rec'd: 9/7/90 and 9/10/90

For Samples:	B-1	B-6
	B-2	
	B-3	Trip Blank 9/7/90 9008247
	B-4	Trip Blank 9/7/90 9008250
	B-5	Trip Blank 9/10/90 9008547

QC Data

All quality control and calibration criteria were met for the above data. The matrix spike and matrix spike duplicate of sample B-3 was re-analyzed at a lesser amount of sample since tetrachloroethylene was above the calibration range in the initial analysis. Both sets of data are included.

Sample Analysis

Several samples were re-analyzed at a lesser amount of sample since tetrachloroethylene was above the calibration range in the initial analysis. Both sets of data are included for your review.

Sample B-2 was analyzed after sample B-1 which had a high concentration of tetrachloroethylene. 64 ug/kg of tetrachloroethylene was detected in sample B-2. To confirm its presence in the sample (not carryover from previous run) the sample was re-analyzed. 56 ug/kg of tetrachloroethylene was detected in the re-analysis. Both sets of data are included for your review.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date reported: October 26, 1990

****
* *
* *
****
Joann Slavin
Quality Assurance Manager

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Case Narrative for Base Neutral/Acid Extractables
Gibbs & Hill 50 & 51
Rec'd.: 9/7/90 & 9/10/90

For Samples:	B-1	B-4
	B-2	B-5
	B-3 MS & MSD	B-6

QC Data

All quality control and calibration criteria were met for the above samples with the following exceptions. The matrix spike blank recoveries were not within the 75-125 % limits however, they were all within the allowable range for sample recoveries and all sample B-3 MS and MSD percent recoveries and RPD's were within the allowable ranges.

Low levels of bis 2 ethyl hexyl phthalate were detected in the method blank. This compound was flagged with the "B" qualifier when detected in the samples.

Tuning Criteria/Calibration

All initial and continuous calibration SPCC and CCC criteria was met. One compound, 3-nitroaniline was above the 35 percent RSD in the initial calibration of 9/27/90. This compound was not detected in any samples.

Several compounds had percent D's above 20 percent in the continuing calibrations. All percent D's were below 50 percent and none of these analytes were detected in any samples.

Sample Analysis

Samples B-3; B-3 MS & MSD; B-4 and B-5 were originally extracted on 9/10/90. One or more surrogate standards were outside the allowable limits. These samples were re-extracted and all surrogates were within the allowable limits. Only the re-extracted samples are included in this data package.

H2M LABS, INC.
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(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Case Narrative for Base Neutral/Acid Extractables
Gibbs & Hill 50 & 51
Rec'd.: 9/7/90 & 9/10/90

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date reported: October 26, 1990

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****
Joann Slavin
Quality Assurance Manager

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR PESTICIDES/PCB's
Gibbs & Hill 50
Received 9/7/90

For Samples: B-1
B-2
B-6

QC Data

The surrogate standard DBC was very low in two of the five extracts. The areas are not recorded because they were under the area reject. The cause of the problem appears to have been a spiking error.

This group of samples did not include a sample to be analyzed for the matrix spike duplicates.

Two blanks were analyzed with this group of samples, one underwent GPC cleanup (B-938) and the other (B-936) was not subject to GPC cleanup. No compounds interfering with any of the targeted analytes were observed in either of the two blanks.

Calibration and System Performance

The primary sequence, started on 9/26/90, was only acceptable up to run AC11579 (Ind A injected at 06:16 9/29/90), because the next EVAL B standard showed breakdown problems. This EVAL B standard and the previous five samples were not included in the sequence.

The secondary sequence, started on 9/26/90, is only valid up to run BC11567 (Ind B injected at 22:01 on 9/28/90) because the next standard run, an EVAL B, had breakdown of DDT greater than 20%.

The linearity requirements were not met for the confirmatory column sequence of 9/26/90. No compounds had to be qualified from the secondary column.

The reextract of B-1 were analyzed in sequences started on 10/24/90. The confirmatory sequence did not meet criteria for the continuous calibration for INDA. The sequence is only acceptable up to the last standard that met QC criteria, EVALB. The samples before the INDA were reanalyzed.

Sample Analyses

All samples were extracted and analyzed within their holding times. Two of the samples B-6 and B-1 and one of the blanks

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CASE NARRATIVE FOR PESTICIDES/PCB's
Gibbs & Hill 50
Received 9/7/90

B-938 were GPC cleaned. The reporting limit for these 3 extracts was raised by a factor of two.

A low level PCB was found in B-1, but the concentration was under contract required reporting limits and therefore not reported (protocol D-IV-47, 6.2.1)

Because the surrogate standard for B-1 was not recovered (or not spiked) the sample was reextracted. The reextract was not subject to GPC cleanups reesulting in lowere reporting limits. The quantities found for the aroclor match the level found in the original extract. Both sets of data are submitted.

The data system applies a 1% window for tentative identification. The data are reviewed by the analyst and the following codes are used to indicate reasons for rejections of identifications:

L1 smaller than the contract required reporting limit on primary column

L2 smaller than the contract required reporting limit on the secondary column

M1 outside the actual retention time window established on primary column

M2 outside the actual retention time window on secondary column

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date reported: October 30, 1990

****
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*
****
Ursula Middel
Technical Manager

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Case Narrative for Pesticides/PCB's
Gibbs & Hill 51
Received 9/10/90

For Samples:	B-3 MS/MSD	9008544 MS/MSD
	B-4	9008545
	B-5	9008546

QC DATA

The recoveries for the surrogate standard DBC were all within the advisory QC limits. Good accuracy and precision data were achieved for the spiked sample and blank. The QC limits were met for all compounds in the MS, MSD and MSB.

Two blanks were extracted with Group Gibbs and Hill 51. One of the two blanks, blank 942 was subjected to GPC cleanup. No compounds interfering with any of the targeted analytes were observed in either of the two blanks.

Calibration and System Performance

The primary sequence, started on 9/26/90, was only acceptable up to run AC11579 (Ind A injected at 06:16, 9/29/90), because the next EVAL B standard showed breakdown problems. This EVAL B standard and the previous five samples were not included in the sequence.

The secondary sequence, started on 9/26/90, is only valid up to run AC11567 (Ind B injected at 22:01 on 9/28/90) because the next standard run, an EVAL B had breakdown of DDT greater than 20 percent.

The linearity requirements were not met for the confirmatory column sequence of 9/26/90. No compounds had to be qualified from the secondary column.

Sample Analyses

All samples were extracted and analyzed within their holding times. All extracts, except for the MSB and blank B-940, were GPC cleaned. Because of the aliquot taken, the reporting limits were raised by a factor of 2.

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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

Case Narrative for Pesticides/PCB's
Gibbs & Hill 51
Received 9/10/90

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date reported: October 24, 1990

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*
****
Ursula Middel
Technical Manager

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR INORGANICS ANALYSIS
GIB 50, 51

DATE REC'D: 9/07/90

For Samples: B-6
B-2
B-3 MS/MSD
B-4
B-5

The instruments used for metals analysis include a Perkin-Elmer 5100/HGA-600 and a Varian Spectra-30/GTA-96 for furnace AA technique. A Perkin-Elmer 2380 was used for flame AA and mercury cold vapor techniques. ICP analysis was performed using an ARL 3560.

The lead and manganese matrix spike recoveries for sample B-3 are not within 75-125%. Lead and manganese data are reported flagged with an "N" on Forms I and VIII for all samples associated with sample B-3.

The arsenic post digestion spike recovery for sample B-3 and the selenium post digestion spike recoveries for samples B-3 and B-3 duplicate are not within 85-115%. Arsenic and selenium data are flagged with a "W" on the B-3 data sheet.

The iron and aluminum duplicate analyses of sample B-3 have RPD's that exceed 20% while the results are greater than 5X CRDL. The silver, manganese and chromium duplicate analyses of sample B-3 have absolute differences that exceed their CRDL's while the results are less than 5X CRDL.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 10-29-90

Joann Slavin
Quality Assurance Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

4. SAMPLE REPORTS
   - 4.1 VOLATILES
   - 4.2 BASE/NEUTRAL/ACIDS
   - 4.3 PESTICIDE/PCBs
   - 4.4 METALS AND CYANIDE

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

QUALIFIERS FOR REPORTING ORGANICS DATA

Value - If the result is a value greater than or equal to the quantification limit, report the value.

U - Indicates compound was analyzed for but not detected. Report the minimum quantification limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable quantification limit for the sample.

J - Indicates as estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified quantification limit but greater than zero (e.g.: If limit of quantification is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J).

C - This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides >= 10 ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E - This flag identifies compounds whose concentrations are outside the calibration range of the analysis. If one or more compounds have a response greater than full scale, the extract must be diluted and reanalyzed, according to the specifications in Exhibit D. All compounds with a response greater than full scale should be flagged with an "E" on the original report of analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: for total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered seperately.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag.

X - This flag indicates compounds with spectra that do not meet identification criteria as detailed in Exhibit(E)E-61 section 6.1.3 but are believed to be present.

Z - Indicates analyte was present at the reported concentration in the pre-screening analysis.

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QUALIFIERS FOR METALS ANALYSIS

E - The reported value is estimated because of the presence of interference. An explanatory note is included in the case narrative.

M - Duplicate injection precision not met.

N - Matrix spiked sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions.

+ - Correlation coefficient for the MSA is less than 0.995.

W - Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

D - Matrix spiked sample required dilution beyond the instrument detection limit due to background interference. An analytical spike was performed and recovery is within 85-115%.

P - Matrix spiked sample required dilution beyond the instrument detection limit due to background interference. An analytical spike was performed and recovery is not within 85-115%.

Concentration Qualifiers

B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

U - Entered if the analyte was analyzed for but not detected, less than the IDL.

H2M LABS, INC.

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPVBLK

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) WATER Lab Sample ID: 9008247

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4093

Level: (low/med) LOW Date Received: 9/ 7/90

% Moisture: not dec. 100. Date Analyzed: 9/14/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

DATE REPORTED OCT 25 1990 John J. Molloy, P.E.
Laboratory Director

S00039

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIPVBLK

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) WATER Lab Sample ID: 9008247

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4093

Level: (low/med) LOW Date Received: 9/ 7/90

Moisture: not dec. 100. Date Analyzed: 9/14/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: [illegible] 1990

Laboratory Director

S00040

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKTRIP

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) WATER Lab Sample ID: 9008250

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4094

Level: (low/med) LOW Date Received: 9/ 7/90

% Moisture: not dec. 100. Date Analyzed: 9/14/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

**** **** **** **** ****

DATE REPORTED: OCT 25 1990

John J. Malay, P.E.
Laboratory Director

S000-11

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKTRIP

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) WATER Lab Sample ID: 9008250

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4094

Level: (low/med) LOW Date Received: 9/ 7/90

Moisture: not dec. 100. Date Analyzed: 9/14/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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DATE REPORTED: OCT 25 1990

John J. Molloy, P.E.
Laboratory Director

S000-12

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLK

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) WATER Lab Sample ID: 9008547

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4098

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec. 100. Date Analyzed: 9/14/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

DATE REPORTED OCT 25 1990

S00043

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIPBLK

Lab Name: H2M Contract: NYSDEC

ab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) WATER Lab Sample ID: 9008547

ample wt/vol: 5.000 (g/mL) ML Lab File ID: P4098

Level: (low/med) LOW Date Received: 9/10/90

Moisture: not dec. 100. Date Analyzed: 9/14/90

olumn: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: OCT 25 1990

John [illegible], P.E.
Laboratory Director

SC004

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-1

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008248

Sample wt/vol: 5.040 (g/mL) G Lab File ID: P4057

Level: (low/med) LOW Date Received: 9/ 7/90

Moisture: not dec. 3.3 Date Analyzed: 9/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	5.	J
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	15.	
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	710.	E
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	2.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	14.	

John J. Molloy, P.E.
Laboratory Director

DATE REPORTED

S00045

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-1

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008248

Sample wt/vol: 5.040 (g/mL) G Lab File ID: P4057

Level: (low/med) LOW Date Received: 9/ 7/90

Moisture: not dec. 3.3 Date Analyzed: 9/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	ETHYL METHYL BENZENE ISOMER	14.16	20.	J
2. - -	TRIMETYHL BENZENE ISOMER	14.23	20.	J
3. 124-18-5	Decane (8CI9CI)	14.41	7.	J
4. - -	ETHYL METHYL BENZENE ISOMER	14.55	20.	J
5. - -	ETHYL METHYL BENZENE ISOMER	14.79	40.	J
6. - -	ETHYL DIMETHYL BENZENE ISOME	15.19	6.	J
7. - -	ETHYL METHYL OCTANE ISOMER	15.29	10.	J
8. - -	TRIMETHYL BENZENE ISOMER	15.41	70.	J
9. - -	METHYL PROPYL BENZENE ISOMER	15.75	200.	J
10. - -	ETHYL DIMETHYL BENZENE ISOME	15.84	200.	J
11.				
12.				
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29.				
30.	DATE REPORTED: OCT 25 1990			

John J. [illegible], P.E.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-1 RE

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008246 DL

Sample wt/vol: 1.010 (g/mL) G Lab File ID: P4070

Level: (low/med) LOW Date Received: 9/ 7/90

% Moisture: not dec. 5. Date Analyzed: 9/13/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	52.	U
74-83-9	Bromomethane	52.	U
75-01-4	Vinyl Chloride	52.	U
75-00-3	Chloroethane	52.	U
75-09-2	Methylene Chloride	26.	U
67-64-1	Acetone	52.	U
75-15-0	Carbon Disulfide	26.	U
75-35-4	1,1-Dichloroethene	26.	U
75-34-3	1,1-Dichloroethane	26.	U
540-59-0	1,2-Dichloroethene (total)	26.	U
67-66-3	Chloroform	26.	U
107-06-2	1,2-Dichloroethane	26.	U
78-93-3	2-Butanone	52.	U
71-55-6	1,1,1-Trichloroethane	26.	U
56-23-5	Carbon Tetrachloride	26.	U
108-05-4	Vinyl Acetate	52.	U
75-27-4	Bromodichloromethane	26.	U
78-87-5	1,2-Dichloropropane	26.	U
10061-01-5	cis-1,3-Dichloropropene	26.	U
79-01-6	Trichloroethene	26.	U
124-48-1	Dibromochloromethane	26.	U
79-00-5	1,1,2-Trichloroethane	26.	U
71-43-2	Benzene	26.	U
10061-02-6	trans-1,3-Dichloropropene	26.	U
75-25-2	Bromoform	26.	U
108-10-1	4-Methyl-2-Pentanone	52.	U
591-78-6	2-Hexanone	52.	U
127-18-4	Tetrachloroethene	580.	
79-34-5	1,1,2,2-Tetrachloroethane	26.	U
108-88-3	Toluene	26.	U
108-90-7	Chlorobenzene	26.	U
100-41-4	Ethylbenzene	26.	U
100-42-5	Styrene	26.	U
1330-20-7	Xylene (total)	26.	U

S00047

DATE REPORTED OCT 2 1990

Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-1	RE

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008248 DL

Sample wt/vol: 1.010 (g/mL) G Lab File ID: P4070

Level: (low/med) LOW Date Received: 9/ 7/90

Moisture: not dec. 5. Date Analyzed: 9/13/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	TRIMETHYL BENZENE ISOMER	15.55	40.	J
2.					
3.					
4.					
5.					
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27.			*	*	
28.			*	*	
29.		DATE REPORTED: OCT 2 , 1990	**********	**********	
30.					

Laboratory Director

S00015

FORM I VOA-TIC 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: 9008248

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2842

Level: (low/med) LOW Date Received: 9/07/90

% Moisture: not dec.3.3 dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) Y pH: 9.8 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	680.	U
111-44-4	bis(2-Chloroethyl)Ether	680.	U
95-57-8	2-Chlorophenol	680.	U
541-73-1	1,3-Dichlorobenzene	680.	U
106-46-7	1,4-Dichlorobenzene	680.	U
100-51-6	Benzyl alcohol	680.	U
95-50-1	1,2-Dichlorobenzene	680.	U
95-48-7	2-Methylphenol	680.	U
39638-32-9	bis(2-chloroisopropyl)ether	680.	U
106-44-5	4-Methylphenol	680.	U
621-64-7	N-Nitroso-Di-n-propylamine	680.	U
67-72-1	Hexachloroethane	680.	U
98-95-3	Nitrobenzene	680.	U
78-59-1	Isophorone	680.	U
88-75-5	2-Nitrophenol	680.	U
105-67-9	2,4-Dimethylphenol	680.	U
65-85-0	Benzoic acid	3400.	U
111-91-1	bis(2-Chloroethoxy)methane	680.	U
120-83-2	2,4-Dichlorophenol	680.	U
120-82-1	1,2,4-Trichlorobenzene	680.	U
91-20-3	Naphthalene	680.	U
106-47-8	4-Chloroaniline	680.	U
87-68-3	Hexachlorobutadiene	680.	U
59-50-7	4-Chloro-3-methylphenol	680.	U
91-57-6	2-Methylnaphthalene	330.	J
77-47-4	Hexachlorocyclopentadiene	680.	U
88-06-2	2,4,6-Trichlorophenol	680.	U
95-95-4	2,4,5-Trichlorophenol	3400.	U
91-58-7	2-Chloronaphthalene	680.	U
88-74-4	2-Nitroaniline	3400.	U
131-11-3	Dimethylphthalate	680.	U
208-96-8	Acenaphthylene	680.	U
606-20-2	2,6-Dinitrotoluene	680.	U

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: 9008248

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2842

Level: (low/med) LOW Date Received: 9/07/90

% Moisture: not dec.3.3 dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) Y pH: 9.8 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	3400.	U
83-32-9	Acenaphthene	680.	U
51-28-5	2,4-Dinitrophenol	3400.	U
100-02-7	4-Nitrophenol	3400.	U
132-64-9	Dibenzofuran	680.	U
121-14-2	2,4-Dinitrotoluene	680.	U
84-66-2	Diethylphthalate	680.	U
7005-72-3	4-Chlorophenyl-phenylether	680.	U
86-73-7	Fluorene	680.	U
100-01-6	4-Nitroaniline	3400.	U
534-52-1	4,6-Dinitro-2-methylphenol	3400.	U
86-30-6	N-Nitrosodiphenylamine (1)	680.	U
101-55-3	4-Bromophenyl-phenylether	680.	U
118-74-1	Hexachlorobenzene	680.	U
87-86-5	Pentachlorophenol	3400.	U
85-01-8	Phenanthrene	680.	U
120-12-7	Anthracene	680.	U
84-74-2	Di-n-butylphthalate	680.	U
206-44-0	Fluoranthene	680.	U
129-00-0	Pyrene	680.	U
85-68-7	Butylbenzylphthalate	680.	U
91-94-1	3,3'-Dichlorobenzidine	1400.	U
56-55-3	Benzo(a)anthracene	680.	U
218-01-9	Chrysene	680.	U
117-81-7	bis(2-Ethylhexyl)phthalate	560.	JB
117-84-0	Di-n-octylphthalate	680.	U
205-99-2	Benzo(b)fluoranthene	680.	U
207-08-9	Benzo(k)fluoranthene	680.	U
50-32-8	Benzo(a)pyrene	680.	U
193-39-5	Indeno(1,2,3-cd)pyrene	680.	U
53-70-3	Dibenz(a,h)anthracene	680.	U
191-24-2	Benzo(g,h,i)perylene	680.	U

(1) - Cannot be separated from Diphenylamine

John J. Molloy, P.E.
Laboratory Director

DATE REPORTED:

S00050

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-1

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: 9008248

Sample wt/vol: 30.00 (g/mL) g Lab File ID: >E2842

Level: (low/med) LOW Date Received: 9/07/90

% Moisture: not dec. 3.3 dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) Y pH: 9.8 Dilution Factor: 1.00000

Number TICs found: 19

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Trimethyldecane isomer	9.87	4200.	J
2.	Ethyl-methylbenzene isomer	10.13	3600.	J
3.	Ethyl-methylbenzene isomer	10.30	1400.	J
4.	Unk. Aliphatic Hydrocarbon	11.39	2200.	J
5.	Unk. Aliphatic Hydrocarbon	11.61	1400.	J
6.	Unk. Aliphatic Hydrocarbon	11.68	7000.	J
7.	Methyl-propylbenzene isomer	12.04	3400.	J
8.	Tetramethylbenzene isomer	13.63	6600.	J
9.	Unknown	14.07	1400.	J
10.	Dihydromethyl-indene isomer	14.15	2000.	J
11.	Unknown	14.54	1700.	J
12.	Unknown	14.62	1500.	J
13.	Unknown	14.82	4800.	J
14. 54120626	Benzene, ethyl-1,2,4-trimeth	15.42	3600.	J
15.	Unknown	15.53	1100.	J
16.	Unknown	15.70	1800.	J
17.	Unknown	15.86	3000.	J
18. 6682719	1H-Indene, 2,3-dihydro-4,7-d	16.18	1900.	J
19.	Unknown	16.72	2600.	J
20.				
21.				
22.				
23.				
24.				
25.				
26.				
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28.	DATE REPORTED: OCT [illegible]			
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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-1

Lab Name: H2M LABS,INC. Contract: _____

Lab Code: _____ Case No.: GH50 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9008248

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 09/07/90

% Moisture: not dec. 3 dec. __ Date Extracted: 09/07/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/27/90

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	16	U
319-85-7	beta-BHC	16	U
319-86-8	delta-BHC	16	U
58-89-9	Lindane	16	U
76-44-8	Heptachlor	16	U
309-00-2	Aldrin	16	U
1024-57-3	Heptachlor epoxide	16	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	33	U
72-55-9	4,4'-DDE	33	U
72-20-8	Endrin	33	U
33213-65-9	Endosulfan II	33	U
72-54-8	4,4'-DDD	33	U
1031-07-8	Endosulfan sulfate	33	U
50-29-3	4,4'-DDT	33	U
72-43-5	Methoxychlor	160	U
53494-70-5	Endrin ketone	33	U
5103-71-9	alpha-Chlordane	160	U
5103-74-2	gamma-Chlordane	160	U
8001-35-2	Toxaphene	330	U
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	330	U
11096-82-5	Aroclor-1260	330	U

DATE REPORTED: OCT 22 1990

John J. Molloy, P.E.
Laboratory Director

FORM 1 PES

S00052

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-1RE

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH50 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9008248RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 09/07/90

% Moisture: not dec. 3 dec. __ Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/25/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.2	U
319-85-7	beta-BHC	8.2	U
319-86-8	delta-BHC	8.2	U
58-89-9	Lindane	8.2	U
76-44-8	Heptachlor	8.2	U
309-00-2	Aldrin	8.2	U
1024-57-3	Heptachlor epoxide	8.2	U
959-98-8	Endosulfan I	8.2	U
60-57-1	Dieldrin	16	U
72-55-9	4,4'-DDE	16	U
72-20-8	Endrin	16	U
33213-65-9	Endosulfan II	16	U
72-54-8	4,4'-DDD	16	U
1031-07-8	Endosulfan sulfate	16	U
50-29-3	4,4'-DDT	16	U
72-43-5	Methoxychlor	82	U
53494-70-5	Endrin ketone	16	U
5103-71-9	alpha-Chlordane	82	U
5103-74-2	gamma-Chlordane	82	U
8001-35-2	Toxaphene	160	U
12674-11-2	Aroclor-1016	82	U
11104-28-2	Aroclor-1221	82	U
11141-16-5	Aroclor-1232	82	U
53469-21-9	Aroclor-1242	82	U
12672-29-6	Aroclor-1248	82	U
11097-69-1	Aroclor-1254	260	
11096-82-5	Aroclor-1260	160	U

S00053

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REV 6/89

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXXB1

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB050

Matrix (soil/water): SOIL Lab Sample ID: 9008248

Level (low/med): LOW Date Received: 09/07/90

% Solids: 96.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	658		*	P
7440-36-0	Antimony	7.9	U		P
7440-38-2	Arsenic	0.97	B		F
7440-39-3	Barium	3.4	B		P
7440-41-7	Beryllium	0.12	U		P
7440-43-9	Cadmium	0.81	U		P
7440-70-2	Calcium	96.5	B		P
7440-47-3	Chromium	3.3		*	P
7440-48-4	Cobalt	10.0	B		P
7440-50-8	Copper	3.0	B		P
7439-89-6	Iron	1520		*	P
7439-92-1	Lead	2.5		N	F
7439-95-4	Magnesium	89.3	B		P
7439-96-5	Manganese	12.6		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	1.7	U		P
7440-09-7	Potassium	94.9	U		P
7782-49-2	Selenium	0.23	U		F
7440-22-4	Silver	4.1		*	A
7440-23-5	Sodium	121	U		P
7440-28-0	Thallium	0.21	U		F
7440-62-2	Vanadium	0.93	U		P
7440-66-6	Zinc	7.1			P
	Cyanide	1.0	U		C

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: OCTOBER 24, 1990

John J. Molloy, P.E.
Laboratory Director

SC005-1

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-2

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008249

Sample wt/vol: 5.250 (g/mL) G Lab File ID: P4058

Level: (low/med) LOW Date Received: 9/ 7/90

% Moisture: not dec. 12.7 Date Analyzed: 9/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	11.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	11.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	11.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	11.	U
591-78-6	2-Hexanone	11.	U
127-18-4	Tetrachloroethene	64.	
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

John J. Malloy, P.E.
Laboratory Director

DATE REPORTED: OCT 8 ...

S00055

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-2

ab Name: H2M Contract: NYSDEC

ab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

atrix: (soil/water) SOIL Lab Sample ID: 9008249

ample wt/vol: 5.250 (g/mL) G Lab File ID: P4058

Level: (low/med) LOW Date Received: 9/ 7/90

Moisture: not dec. 12.7 Date Analyzed: 9/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	ETHYL TRIMETHYL BENZENE ISOM	10.60	10.	J
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DATE REPORTED: OCT 2 5 1990

John J. [illegible], P.E.
Laboratory Director

S00056

FORM I VOA-TIC 1/87 Rev.

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-2 RE

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008249 RE

Sample wt/vol: 4.810 (g/mL) G Lab File ID: P4069

Level: (low/med) LOW Date Received: 9/ 7/90

% Moisture: not dec. 13. Date Analyzed: 9/13/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	6.	U
67-64-1	Acetone	12.	U
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	12.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	56.	
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	6.	U
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U

John J. Molloy, P.E.
Laboratory Director

DATE REPORTED: OCT 25 1990

S00057

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-2 RE

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008249 RE

Sample wt/vol: 4.810 (g/mL) G Lab File ID: P4069

Level: (low/med) LOW Date Received: 9/ 7/90

% Moisture: not dec. 13. Date Analyzed: 9/13/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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30.					

DATE REPORTED: OCT 25 1990

John J. Molloy, P.E.
Laboratory Director

S00055

FORM I VOA-TIC 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: 9008249

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2843

Level: (low/med) LOW Date Received: 9/07/90

% Moisture: not dec.12.7 dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) N pH:7.4 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	380.	U
111-44-4	bis(2-Chloroethyl)Ether	380.	U
95-57-8	2-Chlorophenol	380.	U
541-73-1	1,3-Dichlorobenzene	380.	U
106-46-7	1,4-Dichlorobenzene	380.	U
100-51-6	Benzyl alcohol	380.	U
95-50-1	1,2-Dichlorobenzene	380.	U
95-48-7	2-Methylphenol	380.	U
39638-32-9	bis(2-chloroisopropyl)ether	380.	U
106-44-5	4-Methylphenol	380.	U
621-64-7	N-Nitroso-Di-n-propylamine	380.	U
67-72-1	Hexachloroethane	380.	U
98-95-3	Nitrobenzene	380.	U
78-59-1	Isophorone	380.	U
88-75-5	2-Nitrophenol	380.	U
105-67-9	2,4-Dimethylphenol	380.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	380.	U
120-83-2	2,4-Dichlorophenol	380.	U
120-82-1	1,2,4-Trichlorobenzene	380.	U
91-20-3	Naphthalene	380.	U
106-47-8	4-Chloroaniline	380.	U
87-68-3	Hexachlorobutadiene	380.	U
59-50-7	4-Chloro-3-methylphenol	380.	U
91-57-6	2-Methylnaphthalene	380.	U
77-47-4	Hexachlorocyclopentadiene	380.	U
88-06-2	2,4,6-Trichlorophenol	380.	U
95-95-4	2,4,5-Trichlorophenol	1900.	U
91-58-7	2-Chloronaphthalene	380.	U
88-74-4	2-Nitroaniline	*1900.	U
131-11-3	Dimethylphthalate	* 380.	U
208-96-8	Acenaphthylene	380.	U
606-20-2	2,6-Dinitrotoluene	380.	U

John J. Munoy, P.E.
Laboratory Director

S00059

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: 9008249

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2843

Level: (low/med) LOW Date Received: 9/07/90

% Moisture: not dec.12.7 dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	380.	U
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	380.	U
121-14-2	2,4-Dinitrotoluene	380.	U
84-66-2	Diethylphthalate	380.	U
7005-72-3	4-Chlorophenyl-phenylether	380.	U
86-73-7	Fluorene	380.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine (1)	380.	U
101-55-3	4-Bromophenyl-phenylether	380.	U
118-74-1	Hexachlorobenzene	380.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	380.	U
120-12-7	Anthracene	380.	U
84-74-2	Di-n-butylphthalate	380.	U
206-44-0	Fluoranthene	380.	U
129-00-0	Pyrene	380.	U
85-68-7	Butylbenzylphthalate	380.	U
91-94-1	3,3'-Dichlorobenzidine	760.	U
56-55-3	Benzo(a)anthracene	380.	U
218-01-9	Chrysene	380.	U
117-81-7	bis(2-Ethylhexyl)phthalate	110.	JB
117-84-0	Di-n-octylphthalate	380.	U
205-99-2	Benzo(b)fluoranthene	380.	U
207-08-9	Benzo(k)fluoranthene	380.	U
50-32-8	Benzo(a)pyrene	380.	U
193-39-5	Indeno(1,2,3-cd)pyrene	380.	U
53-70-3	Dibenz(a,h)anthracene	380.	U
191-24-2	Benzo(g,h,i)perylene	380.	U

(1) - Cannot be separated from Diphenylamine

DATE RECEIVED: 9/07/90

Joseph J. Mahony, Jr.
Laboratory Director

FORM I SV-2 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-2

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: 9008249

Sample wt/vol: 30.00 (g/mL) G Lab File ID: >E2843

Level: (low/med) LOW Date Received: 9/07/90

% Moisture: not dec. 12.7 dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00000

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No non-targeted compounds were found.			
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DATE REPORTED: OCT 2 5 1990

S00061

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-2

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: 6H50 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9008248

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 09/07/90

% Moisture: not dec. 13 dec. __ Date Extracted: 09/07/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/27/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.2	U
319-85-7	beta-BHC	9.2	U
319-86-8	delta-BHC	9.2	U
58-89-9	Lindane	9.2	U
76-44-8	Heptachlor	9.2	U
309-00-2	Aldrin	9.2	U
1024-57-3	Heptachlor epoxide	9.2	U
959-98-8	Endosulfan I	9.2	U
60-57-1	Dieldrin	18	U
72-55-9	4,4'-DDE	18	U
72-20-8	Endrin	18	U
33213-65-9	Endosulfan II	18	U
72-54-8	4,4'-DDD	18	U
1031-07-8	Endosulfan sulfate	18	U
50-29-3	4,4'-DDT	18	U
72-43-5	Methoxychlor	92	U
53494-70-5	Endrin ketone	18	U
5103-71-9	alpha-Chlordane	92	U
5103-74-2	gamma-Chlordane	92	U
8001-35-2	Toxaphene	180	U
12674-11-2	Aroclor-1016	92	U
11104-28-2	Aroclor-1221	92	U
11141-16-5	Aroclor-1232	92	U
53469-21-9	Aroclor-1242	92	U
12672-29-6	Aroclor-1248	92	U
11097-69-1	Aroclor-1254	180	U
11096-82-5	Aroclor-1260	180	U

DATE REPORTED: OCT 22 1990

John J. [illegible], P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXXB2

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB050

Matrix (soil/water): SOIL Lab Sample ID: 9008249

Level (low/med): LOW Date Received: 09/07/90

% Solids: 87.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4890		*	P
7440-36-0	Antimony	8.7	U		P
7440-38-2	Arsenic	3.6			F
7440-39-3	Barium	14.4	B		P
7440-41-7	Beryllium	0.23	B		P
7440-43-9	Cadmium	0.89	U		P
7440-70-2	Calcium	1760			P
7440-47-3	Chromium	9.6		*	P
7440-48-4	Cobalt	12.9			P
7440-50-8	Copper	5.7	B		P
7439-89-6	Iron	4670		*	P
7439-92-1	Lead	5.5		N	F
7439-95-4	Magnesium	577	B		P
7439-96-5	Manganese	87.8		N*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	2.9	B		P
7440-09-7	Potassium	345	B		P
7782-49-2	Selenium	0.25	U		F
7440-22-4	Silver	2.3		*	A
7440-23-5	Sodium	134	U		P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	7.1	B		P
7440-66-6	Zinc	13.2			P
	Cyanide	1.1	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: OCTOBER 24, 1990

John J. Molloy, P.E.
Laboratory Director

S00000

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-3

Lab Name: H2M Contract: NYSDEC

ab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008544

ample wt/vol: 5.320 (g/mL) G Lab File ID: P4059

evel: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec. 8.9 Date Analyzed: 9/12/90

olumn: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	8.	J
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	6.	
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	7.	
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	360.	E
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

Joh[illegible]oy, P.E.
Laboratory Director

DATE REPORTED: OCT 25 1990

S0006-1

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-3

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008544

Sample wt/vol: 5.320 (g/mL) G Lab File ID: P4059

Level: (low/med) LOW Date Received: 9/10/90

Moisture: not dec. 8.9 Date Analyzed: 9/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: OCT 25 1990

John J. Mellon, P.E.
Laboratory Director

S00065

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-3 RE

Lab Name: H2M Contract: NYSDEC

ab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008544 DL

ample wt/vol: 1.000 (g/mL) G Lab File ID: P4071

evel: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec. 9. Date Analyzed: 9/13/90

olumn: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	55.	U
74-83-9	Bromomethane	55.	U
75-01-4	Vinyl Chloride	55.	U
75-00-3	Chloroethane	55.	U
75-09-2	Methylene Chloride	27.	U
67-64-1	Acetone	33.	J
75-15-0	Carbon Disulfide	27.	U
75-35-4	1,1-Dichloroethene	27.	U
75-34-3	1,1-Dichloroethane	27.	U
540-59-0	1,2-Dichloroethene (total)	27.	U
67-66-3	Chloroform	27.	U
107-06-2	1,2-Dichloroethane	27.	U
78-93-3	2-Butanone	55.	U
71-55-6	1,1,1-Trichloroethane	27.	U
56-23-5	Carbon Tetrachloride	27.	U
108-05-4	Vinyl Acetate	55.	U
75-27-4	Bromodichloromethane	27.	U
78-87-5	1,2-Dichloropropane	27.	U
10061-01-5	cis-1,3-Dichloropropene	27.	U
79-01-6	Trichloroethene	27.	U
124-48-1	Dibromochloromethane	27.	U
79-00-5	1,1,2-Trichloroethane	27.	U
71-43-2	Benzene	27.	U
10061-02-6	trans-1,3-Dichloropropene	27.	U
75-25-2	Bromoform	27.	U
108-10-1	4-Methyl-2-Pentanone	55.	U
591-78-6	2-Hexanone	55.	U
127-18-4	Tetrachloroethene	240.	
79-34-5	1,1,2,2-Tetrachloroethane	27.	U
108-88-3	Toluene	27.	U
108-90-7	Chlorobenzene	27.	U
100-41-4	Ethylbenzene	27.	U
100-42-5	Styrene	27.	U
1330-20-7	Xylene (total)	27.	U

John J. Mooy, P.E.
Laboratory Director

DATE REPORTED: OCT 25 1990

S00066

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-3 RE

ab Name: H2M Contract: NYSDEC

ab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008544 DL

ample wt/vol: 1.000 (g/mL) G Lab File ID: P4071

evel: (low/med) LOW Date Received: 9/10/90

Moisture: not dec. 9. Date Analyzed: 9/13/90

olumn: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	TETRAMETHYL BENZENE ISOMER	10.70	100.	J
2. - -	ETHYL TRIMETHYL BENZENE ISOM	13.10	40.	J
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DATE REPORTED: OCT 2 5 1990

Money, Ph.
Laboratory Director

S00067

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-3

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: 9008544

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2991

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec.8.9 dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/12/90

GPC Cleanup: (Y/N) Y pH: 11.0 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	730.	U
111-44-4	bis(2-Chloroethyl)Ether	730.	U
95-57-8	2-Chlorophenol	730.	U
541-73-1	1,3-Dichlorobenzene	730.	U
106-46-7	1,4-Dichlorobenzene	730.	U
100-51-6	Benzyl alcohol	730.	U
95-50-1	1,2-Dichlorobenzene	730.	U
95-48-7	2-Methylphenol	730.	U
39638-32-9	bis(2-chloroisopropyl)ether	730.	U
106-44-5	4-Methylphenol	730.	U
621-64-7	N-Nitroso-Di-n-propylamine	730.	U
67-72-1	Hexachloroethane	730.	U
98-95-3	Nitrobenzene	730.	U
78-59-1	Isophorone	730.	U
88-75-5	2-Nitrophenol	730.	U
105-67-9	2,4-Dimethylphenol	730.	U
65-85-0	Benzoic acid	3600.	U
111-91-1	bis(2-Chloroethoxy)methane	730.	U
120-83-2	2,4-Dichlorophenol	730.	U
120-82-1	1,2,4-Trichlorobenzene	730.	U
91-20-3	Naphthalene	730.	U
106-47-8	4-Chloroaniline	730.	U
87-68-3	Hexachlorobutadiene	730.	U
59-50-7	4-Chloro-3-methylphenol	730.	U
91-57-6	2-Methylnaphthalene	730.	U
77-47-4	Hexachlorocyclopentadiene	730.	U
88-06-2	2,4,6-Trichlorophenol	730.	U
95-95-4	2,4,5-Trichlorophenol	3600.	U
91-58-7	2-Chloronaphthalene	730.	U
88-74-4	2-Nitroaniline	3600.	U
131-11-3	Dimethylphthalate	730.	U
208-96-8	Acenaphthylene	730.	U
606-20-2	2,6-Dinitrotoluene	730.	U

DATE REPORTED: OCT 25 1990

John J. Malloy, P.E.
Laboratory Director

FORM I SV-1

1/87 Rev.

S0006

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
B-3

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: 9008544

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2991

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec.8.9 dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/12/90

GPC Cleanup: (Y/N) Y pH: 11.0 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	3600.	U
83-32-9	Acenaphthene	730.	U
51-28-5	2,4-Dinitrophenol	3600.	U
100-02-7	4-Nitrophenol	3600.	U
132-64-9	Dibenzofuran	730.	U
121-14-2	2,4-Dinitrotoluene	730.	U
84-66-2	Diethylphthalate	730.	U
7005-72-3	4-Chlorophenyl-phenylether	730.	U
86-73-7	Fluorene	730.	U
100-01-6	4-Nitroaniline	3600.	U
534-52-1	4,6-Dinitro-2-methylphenol	3600.	U
86-30-6	N-Nitrosodiphenylamine (1)	730.	U
101-55-3	4-Bromophenyl-phenylether	730.	U
118-74-1	Hexachlorobenzene	730.	U
87-86-5	Pentachlorophenol	3600.	U
85-01-8	Phenanthrene	730.	U
120-12-7	Anthracene	730.	U
84-74-2	Di-n-butylphthalate	730.	U
206-44-0	Fluoranthene	730.	U
129-00-0	Pyrene	730.	U
85-68-7	Butylbenzylphthalate	730.	U
91-94-1	3,3'-Dichlorobenzidine	1500.	U
56-55-3	Benzo(a)anthracene	730.	U
218-01-9	Chrysene	730.	U
117-81-7	bis(2-Ethylhexyl)phthalate	480.	JB
117-84-0	Di-n-octylphthalate	730.	U
205-99-2	Benzo(b)fluoranthene	730.	U
207-08-9	Benzo(k)fluoranthene	730.	U
50-32-8	Benzo(a)pyrene	730.	U
193-39-5	Indeno(1,2,3-cd)pyrene	730.	U
53-70-3	Dibenz(a,h)anthracene	730.	U
191-24-2	Benzo(g,h,i)perylene	730.	U

(1) - Cannot be separated from Diphenylamine

500069

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-3

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: 9008544

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2991

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec. 8.9 dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/12/90

GPC Cleanup: (Y/N) Y pH: 11.0 Dilution Factor: 1.00000

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	7.48	460.	J
2. 930687	2-Cyclohexen-1-one (8CI9CI)	8.57	960.	J
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DATE REPORTED

S00070

1B

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-5

Lab Name: H2M LABS,INC. Contract: _____

Lab Code: _____ Case No.: 6851 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9008504

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 09/10/90

% Moisture: not dec. 9 dec. __ Date Extracted: 09/11/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/27/90

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	18	U
319-85-7	beta-BHC	18	U
319-86-8	delta-BHC	18	U
58-89-9	Lindane	18	U
76-44-8	Heptachlor	18	U
309-00-2	Aldrin	18	U
1024-57-3	Heptachlor epoxide	18	U
959-98-8	Endosulfan I	18	U
60-57-1	Dieldrin	35	U
72-55-9	4,4'-DDE	35	U
72-20-8	Endrin	35	U
33213-65-9	Endosulfan II	35	U
72-54-8	4,4'-DDD	35	U
1031-07-8	Endosulfan sulfate	35	U
50-29-3	4,4'-DDT	35	U
72-43-5	Methoxychlor	180	U
53494-70-5	Endrin ketone	35	U
5103-71-9	alpha-Chlordane	180	U
5103-74-2	gamma-Chlordane	180	U
8001-35-2	Toxaphene	350	U
12674-11-2	Aroclor-1016	180	U
11104-28-2	Aroclor-1221	180	U
11141-16-5	Aroclor-1232	180	U
53469-21-9	Aroclor-1242	180	U
12672-29-6	Aroclor-1248	180	U
11097-69-1	Aroclor-1254	350	U
11096-82-5	Aroclor-1260	350	U

DATE REPORTED: OCT 23 1990

John J. Molloy, P.E.
Laboratory Director

FORM I PES

S00071

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.
XXXXB3

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB050

Matrix (soil/water): SOIL Lab Sample ID: 9008544

Level (low/med): LOW Date Received: 09/10/90

% Solids: 91.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	722		*	P
7440-36-0	Antimony	8.4	U		P
7440-38-2	Arsenic	0.66	U	W	F
7440-39-3	Barium	2.9	B		P
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	0.86	U		P
7440-70-2	Calcium	646	B		P
7440-47-3	Chromium	1.7	U	*	P
7440-48-4	Cobalt	10.4	B		P
7440-50-8	Copper	2.3	B		P
7439-89-6	Iron	1290		*	P
7439-92-1	Lead	2.3		N	F
7439-95-4	Magnesium	165	B		P
7439-96-5	Manganese	14.4		N*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.8	U		P
7440-09-7	Potassium	101	U		P
7782-49-2	Selenium	0.24	U		F
7440-22-4	Silver	2.2	U	*	A
7440-23-5	Sodium	129	U		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	0.99	U		P
7440-66-6	Zinc	5.9			P
	Cyanide	1.1	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments:
ROCKS PRESENT IN SAMPLE MATRIX
DATE REPORTED: OCTOBER 24, 1990

John J. Molloy, P.E.
Laboratory Director

S00072

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-4

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008545

Sample wt/vol: 4.790 (g/mL) G Lab File ID: P4062

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec. 7.3 Date Analyzed: 9/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	6.	U
67-64-1	Acetone	32.	
75-15-0	Carbon Disulfide	4.	J
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	~~11.~~ 6	~~U~~ J gms 10/25/90
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	11.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	11.	U
591-78-6	2-Hexanone	11.	U
127-18-4	Tetrachloroethene	5.	J
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	6.	U
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U

John J. P.E.
Laboratory Director

DATE REPORTED: OCT 25 1990

S00073

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-4

ab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

atrix: (soil/water) SOIL Lab Sample ID: 9008545

ample wt/vol: 4.790 (g/mL) G Lab File ID: P4062

Level: (low/med) LOW Date Received: 9/10/90

Moisture: not dec. 7.3 Date Analyzed: 9/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	4889-83-2	Bicyclo[3.1.1]hept-2-ene, 3,	13.64	40.	J
2.	- -	DIMETHYL METHYLENE BICYCLO[2	14.33	20.	J
3.	127-91-3	.beta.-Pinene	14.57	20.	J
4.	- -	ETHYL DIMETHYL BENZENE ISOME	15.24	7.	J
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DATE REPORTED: OCT 25 1990

John J. Molloy, P.E.
Laboratory Director

S00007-1

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-4

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: 9008545

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2994

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec.7.3 dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/12/90

GPC Cleanup: (Y/N) Y pH: 11.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	710.	U
111-44-4	bis(2-Chloroethyl)Ether	710.	U
95-57-8	2-Chlorophenol	710.	U
541-73-1	1,3-Dichlorobenzene	710.	U
106-46-7	1,4-Dichlorobenzene	710.	U
100-51-6	Benzyl alcohol	710.	U
95-50-1	1,2-Dichlorobenzene	710.	U
95-48-7	2-Methylphenol	710.	U
39638-32-9	bis(2-chloroisopropyl)ether	710.	U
106-44-5	4-Methylphenol	710.	U
621-64-7	N-Nitroso-Di-n-propylamine	710.	U
67-72-1	Hexachloroethane	710.	U
98-95-3	Nitrobenzene	710.	U
78-59-1	Isophorone	710.	U
88-75-5	2-Nitrophenol	710.	U
105-67-9	2,4-Dimethylphenol	710.	U
65-85-0	Benzoic acid	3600.	U
111-91-1	bis(2-Chloroethoxy)methane	710.	U
120-83-2	2,4-Dichlorophenol	710.	U
120-82-1	1,2,4-Trichlorobenzene	710.	U
91-20-3	Naphthalene	710.	U
106-47-8	4-Chloroaniline	710.	U
87-68-3	Hexachlorobutadiene	710.	U
59-50-7	4-Chloro-3-methylphenol	710.	U
91-57-6	2-Methylnaphthalene	710.	U
77-47-4	Hexachlorocyclopentadiene	710.	U
88-06-2	2,4,6-Trichlorophenol	710.	U
95-95-4	2,4,5-Trichlorophenol	3600.	U
91-58-7	2-Chloronaphthalene	710.	U
88-74-4	2-Nitroaniline	3600.	U
131-11-3	Dimethylphthalate	710.	U
208-96-8	Acenaphthylene	710.	U
606-20-2	2,6-Dinitrotoluene	710.	U

John J. Molloy, P.E.
Laboratory Director

S00075

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-4

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: 9008545

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2994

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec. 7.3 dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/12/90

GPC Cleanup: (Y/N) Y pH: 11.2 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	3600.	U
83-32-9	Acenaphthene	710.	U
51-28-5	2,4-Dinitrophenol	3600.	U
100-02-7	4-Nitrophenol	3600.	U
132-64-9	Dibenzofuran	710.	U
121-14-2	2,4-Dinitrotoluene	710.	U
84-66-2	Diethylphthalate	710.	U
7005-72-3	4-Chlorophenyl-phenylether	710.	U
86-73-7	Fluorene	710.	U
100-01-6	4-Nitroaniline	3600.	U
534-52-1	4,6-Dinitro-2-methylphenol	3600.	U
86-30-6	N-Nitrosodiphenylamine (1)	710.	U
101-55-3	4-Bromophenyl-phenylether	710.	U
118-74-1	Hexachlorobenzene	710.	U
87-86-5	Pentachlorophenol	260.	J
85-01-8	Phenanthrene	710.	U
120-12-7	Anthracene	710.	U
84-74-2	Di-n-butylphthalate	710.	U
206-44-0	Fluoranthene	710.	U
129-00-0	Pyrene	130.	J
85-68-7	Butylbenzylphthalate	710.	U
91-94-1	3,3'-Dichlorobenzidine	1400.	U
56-55-3	Benzo(a)anthracene	710.	U
218-01-9	Chrysene	710.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200.	B
117-84-0	Di-n-octylphthalate	710.	U
205-99-2	Benzo(b)fluoranthene	710.	U
207-08-9	Benzo(k)fluoranthene	710.	U
50-32-8	Benzo(a)pyrene	710.	U
193-39-5	Indeno(1,2,3-cd)pyrene	710.	U
53-70-3	Dibenz(a,h)anthracene	710.	U
191-24-2	Benzo(g,h,i)perylene	710.	U

(1) - Cannot be separated from Diphenylamine

Director

S0007

FORM I SV-2 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-4

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: 9008545

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2994

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec. 7.3 dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/12/90

GPC Cleanup: (Y/N) Y pH: 11.2 Dilution Factor: 1.00000

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 930687	2-Cyclohexen-1-one (8CI9CI)	8.59	740.	J
2.	Unknown	27.88	670.	J
3.	Unk. Aliphatic Hydrocarbon	33.76	320.	J
4.	Unk. Aliphatic Hydrocarbon	34.73	550.	J
5.	Unk. Aliphatic Hydrocarbon	35.67	380.	J
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DATE REPORTED: OCT 30 1990

S00077

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-4

Lab Name: H2M LABS,INC. Contract: _____

Lab Code: _____ Case No.: GM51 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9008545

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 09/10/90

Moisture: not dec. 7 dec. __ Date Extracted: 09/11/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/22/90

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	17	U
319-85-7	beta-BHC	17	U
319-86-8	delta-BHC	17	U
58-89-9	Lindane	17	U
76-44-8	Heptachlor	17	U
309-00-2	Aldrin	17	U
1024-57-3	Heptachlor epoxide	17	U
959-98-8	Endosulfan I	17	U
60-57-1	Dieldrin	34	U
72-55-9	4,4'-DDE	34	U
72-20-8	Endrin	34	U
33213-65-9	Endosulfan II	34	U
72-54-8	4,4'-DDD	34	U
1031-07-8	Endosulfan sulfate	34	U
50-29-3	4,4'-DDT	34	U
72-43-5	Methoxychlor	170	U
53494-70-5	Endrin ketone	34	U
5103-71-9	alpha-Chlordane	170	U
5103-74-2	gamma-Chlordane	170	U
8001-35-2	Toxaphene	340	U
12674-11-2	Aroclor-1016	170	U
11104-28-2	Aroclor-1221	170	U
11141-16-5	Aroclor-1232	170	U
53469-21-9	Aroclor-1242	170	U
12672-29-6	Aroclor-1248	170	U
11097-69-1	Aroclor-1254	340	U
11096-82-5	Aroclor-1260	340	U

DATE REPORTED: OCT 23 1990

John J. Molloy, P.E.
Laboratory Director

FORM I PES

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXXB4

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB050

Matrix (soil/water): SOIL Lab Sample ID: 9008545

Level (low/med): LOW Date Received: 09/10/90

% Solids: 92.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5360		*	P
7440-36-0	Antimony	8.2	U		P
7440-38-2	Arsenic	5.2			F
7440-39-3	Barium	33.1	B		P
7440-41-7	Beryllium	0.24	B		P
7440-43-9	Cadmium	0.97	B		P
7440-70-2	Calcium	2900			P
7440-47-3	Chromium	11.3		*	P
7440-48-4	Cobalt	11.8			P
7440-50-8	Copper	7.6			P
7439-89-6	Iron	7420		*	P
7439-92-1	Lead	32.3		N	F
7439-95-4	Magnesium	1380			P
7439-96-5	Manganese	83.6		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	4.6	B		P
7440-09-7	Potassium	1070	B		P
7782-49-2	Selenium	0.26	U		F
7440-22-4	Silver	4.3		*	A
7440-23-5	Sodium	127	U		P
7440-28-0	Thallium	0.37	B		F
7440-62-2	Vanadium	13.4			P
7440-66-6	Zinc	31.9			P
	Cyanide	1.1	U		C

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: OCTOBER 24, 1990

John J. Molloy, P.E.
Laboratory Director

S00079

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-5

Lab Name: H2M Contract: NYSDEC

ab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008546

ample wt/vol: 5.070 (g/mL) G Lab File ID: P4074

evel: (low/med) LOW Date Received: 9/10/90

Moisture: not dec. 3. Date Analyzed: 9/13/90

olumn: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	16.	
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

John J. Molloy, P.E.
Laboratory Director

DATE REPORTED: OCT 2 5 1990

S00050

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-5

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008546

Sample wt/vol: 5.070 (g/mL) G Lab File ID: P4074

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec. 3. Date Analyzed: 9/13/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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DATE REPORTED: OCT 2 0 1990

John J. Molloy, P.E.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

S00051

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-5

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: 9008546

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E3000

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec.2.5 dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/13/90

GPC Cleanup: (Y/N) N pH: 9.4 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	340.	U
111-44-4	bis(2-Chloroethyl)Ether	340.	U
95-57-8	2-Chlorophenol	340.	U
541-73-1	1,3-Dichlorobenzene	340.	U
106-46-7	1,4-Dichlorobenzene	340.	U
100-51-6	Benzyl alcohol	340.	U
95-50-1	1,2-Dichlorobenzene	340.	U
95-48-7	2-Methylphenol	340.	U
39638-32-9	bis(2-chloroisopropyl)ether	340.	U
106-44-5	4-Methylphenol	340.	U
621-64-7	N-Nitroso-Di-n-propylamine	340.	U
67-72-1	Hexachloroethane	340.	U
98-95-3	Nitrobenzene	340.	U
78-59-1	Isophorone	340.	U
88-75-5	2-Nitrophenol	340.	U
105-67-9	2,4-Dimethylphenol	340.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	340.	U
120-83-2	2,4-Dichlorophenol	340.	U
120-82-1	1,2,4-Trichlorobenzene	340.	U
91-20-3	Naphthalene	340.	U
106-47-8	4-Chloroaniline	340.	U
87-68-3	Hexachlorobutadiene	340.	U
59-50-7	4-Chloro-3-methylphenol	340.	U
91-57-6	2-Methylnaphthalene	340.	U
77-47-4	Hexachlorocyclopentadiene	340.	U
88-06-2	2,4,6-Trichlorophenol	340.	U
95-95-4	2,4,5-Trichlorophenol	1700.	U
91-58-7	2-Chloronaphthalene	340.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	340.	U
208-96-8	Acenaphthylene	340.	U
606-20-2	2,6-Dinitrotoluene	340.	U

John J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-5

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: 9008546

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E3000

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec.2.5 dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/13/90

GPC Cleanup: (Y/N) N pH: 9.4 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	340.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	340.	U
121-14-2	2,4-Dinitrotoluene	340.	U
84-66-2	Diethylphthalate	340.	U
7005-72-3	4-Chlorophenyl-phenylether	340.	U
86-73-7	Fluorene	340.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine (1)	340.	U
101-55-3	4-Bromophenyl-phenylether	340.	U
118-74-1	Hexachlorobenzene	340.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	340.	U
120-12-7	Anthracene	340.	U
84-74-2	Di-n-butylphthalate	340.	U
206-44-0	Fluoranthene	340.	U
129-00-0	Pyrene	340.	U
85-68-7	Butylbenzylphthalate	340.	U
91-94-1	3,3'-Dichlorobenzidine	680.	U
56-55-3	Benzo(a)anthracene	340.	U
218-01-9	Chrysene	340.	U
117-81-7	bis(2-Ethylhexyl)phthalate	450.	B
117-84-0	Di-n-octylphthalate	340.	U
205-99-2	Benzo(b)fluoranthene	340.	U
207-08-9	Benzo(k)fluoranthene	340.	U
50-32-8	Benzo(a)pyrene	340.	U
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U
53-70-3	Dibenz(a,h)anthracene	340.	U
191-24-2	Benzo(g,h,i)perylene	340.	U

(1) - Cannot be separated from Diphenylamine

DATE REPORTED: [illegible]

[illegible] P.E.
Laboratory Director

S00053

FORM I SV-2

1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

EPA SAMPLE NO.

B-5

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: 9008546

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E3000

Level: (low/med) LOW Date Received: 9/10/90

% Moisture: not dec. 2.5 dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/13/90

GPC Cleanup: (Y/N) N pH: 9.4 Dilution Factor: 1.00000

Number TICs found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No non-targeted compounds were found.			
2.				
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DATE REPORTED: OCT 25 1990

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-5

Lab Name: M2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH51 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9008546

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 09/10/90

Moisture: not dec. 3 dec. __ Date Extracted: 09/11/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/27/90

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	16	U
319-85-7	beta-BHC	16	U
319-86-8	delta-BHC	16	U
58-89-9	Lindane	16	U
76-44-8	Heptachlor	16	U
309-00-2	Aldrin	16	U
1024-57-3	Heptachlor epoxide	16	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	33	U
72-55-9	4,4'-DDE	33	U
72-20-8	Endrin	33	U
33213-65-9	Endosulfan II	33	U
72-54-8	4,4'-DDD	33	U
1031-07-8	Endosulfan sulfate	33	U
50-29-3	4,4'-DDT	33	U
72-43-5	Methoxychlor	160	U
53494-70-5	Endrin ketone	33	U
5103-71-9	alpha-Chlordane	160	U
5103-74-2	gamma-Chlordane	160	U
8001-35-2	Toxaphene	330	U
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	330	U
11096-82-5	Aroclor-1260	330	U

DATE REPORTED: OCT 23 1990

John J. Molloy, P.E.
Laboratory Director

FORM I PEST

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.
XXXXB5

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB050

Matrix (soil/water): SOIL Lab Sample ID: 9008546

Level (low/med): LOW Date Received: 09/10/90

% Solids: 97.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	573		*	P
7440-36-0	Antimony	7.8	U		P
7440-38-2	Arsenic	0.76	B		F
7440-39-3	Barium	2.2	B		P
7440-41-7	Beryllium	0.12	U		P
7440-43-9	Cadmium	0.80	U		P
7440-70-2	Calcium	47.8	U		P
7440-47-3	Chromium	1.8	B	*	P
7440-48-4	Cobalt	9.8	B		P
7440-50-8	Copper	2.3	B		P
7439-89-6	Iron	1310		*	P
7439-92-1	Lead	1.2		N	F
7439-95-4	Magnesium	66.8	B		P
7439-96-5	Manganese	13.3		N*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	1.7	U		P
7440-09-7	Potassium	94.2	U		P
7782-49-2	Selenium	0.22	U		F
7440-22-4	Silver	2.1		*	A
7440-23-5	Sodium	120	U		P
7440-28-0	Thallium	0.21	U		F
7440-62-2	Vanadium	0.92	U		P
7440-66-6	Zinc	4.6			P
	Cyanide	1.0	U		C

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: OCTOBER 24, 1990

John J. Molloy, P.E.
Laboratory Director

S00056

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-6

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: 9008246

Sample wt/vol: 5.220 (g/mL) G Lab File ID: P4056

Level: (low/med) LOW Date Received: 9/ 7/90

% Moisture: not dec. 4.6 Date Analyzed: 9/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

John J. Molloy, P.E.
Laboratory Director

DATE REPORTED: OCT 2 0 1990

S00037

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-6

ab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

matrix: (soil/water) SOIL Lab Sample ID: 9008246

ample wt/vol: 5.220 (g/mL) G Lab File ID: P4056

Level: (low/med) LOW Date Received: 9/ 7/90

Moisture: not dec. 9.6 Date Analyzed: 9/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: OCT 25 1990

John J. [illegible], P.E.
Laboratory Director

FORM I VOA-TIC

S00035

1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXXB6

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB050

Matrix (soil/water): SOIL Lab Sample ID: 9008246

Level (low/med): LOW Date Received: 09/07/90

% Solids: 95.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1660		*	P
7440-36-0	Antimony	8.0	U		P
7440-38-2	Arsenic	1.4	B		F
7440-39-3	Barium	2.9	B		P
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	0.82	U		P
7440-70-2	Calcium	103	B		P
7440-47-3	Chromium	6.4		*	P
7440-48-4	Cobalt	11.5			P
7440-50-8	Copper	4.0	B		P
7439-89-6	Iron	4660		*	P
7439-92-1	Lead	2.6		N	F
7439-95-4	Magnesium	434	B		P
7439-96-5	Manganese	40.6		N*	P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	1.9	B		P
7440-09-7	Potassium	114	B		P
7782-49-2	Selenium	0.23	U		F
7440-22-4	Silver	2.1		*	A
7440-23-5	Sodium	123	U		P
7440-28-0	Thallium	0.21	U		F
7440-62-2	Vanadium	3.2	B		P
7440-66-6	Zinc	11.1			P
	Cyanide	1.0	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: OCTOBER 24, 1990

John J. Mahoney
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-6

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: 9008246

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2841

Level: (low/med) LOW Date Received: 9/07/90

% Moisture: not dec. 4.6 dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) Y pH: 7.7 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	3500.	U
83-32-9	Acenaphthene	690.	U
51-28-5	2,4-Dinitrophenol	3500.	U
100-02-7	4-Nitrophenol	3500.	U
132-64-9	Dibenzofuran	690.	U
121-14-2	2,4-Dinitrotoluene	690.	U
84-66-2	Diethylphthalate	690.	U
7005-72-3	4-Chlorophenyl-phenylether	690.	U
86-73-7	Fluorene	690.	U
100-01-6	4-Nitroaniline	3500.	U
534-52-1	4,6-Dinitro-2-methylphenol	3500.	U
86-30-6	N-Nitrosodiphenylamine (1)	690.	U
101-55-3	4-Bromophenyl-phenylether	690.	U
118-74-1	Hexachlorobenzene	690.	U
87-86-5	Pentachlorophenol	3500.	U
85-01-8	Phenanthrene	690.	U
120-12-7	Anthracene	690.	U
84-74-2	Di-n-butylphthalate	690.	U
206-44-0	Fluoranthene	690.	U
129-00-0	Pyrene	690.	U
85-68-7	Butylbenzylphthalate	690.	U
91-94-1	3,3'-Dichlorobenzidine	1400.	U
56-55-3	Benzo(a)anthracene	690.	U
218-01-9	Chrysene	690.	U
117-81-7	bis(2-Ethylhexyl)phthalate	940.	B
117-84-0	Di-n-octylphthalate	690.	U
205-99-2	Benzo(b)fluoranthene	690.	U
207-08-9	Benzo(k)fluoranthene	690.	U
50-32-8	Benzo(a)pyrene	690.	U
193-39-5	Indeno(1,2,3-cd)pyrene	690.	U
53-70-3	Dibenz(a,h)anthracene	690.	U
191-24-2	Benzo(g,h,i)perylene	690.	U

(1) - Cannot be separated from Diphenylamine

Laboratory Director

DATE REPORTED

FORM I SV-2

1/87 Rev.

500030

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-6

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: 9008246

Sample wt/vol: 30.00 (g/mL) g Lab File ID: >E2841

Level: (low/med) LOW Date Received: 9/07/90

% Moisture: not dec. 4.6 dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) Y pH: 7.7 Dilution Factor: 1.00000

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	4.37	500.	J
2.	100527	Benzaldehyde (ACN)(DOT)(8CI9	9.89	980.	J
3.		Unknown	23.46	400.	J
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DATE REPORTED: OCT 28 1990

S00032

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

JB

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-6

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: 9008246

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2841

Level: (low/med) LOW Date Received: 9/07/90

% Moisture: not dec.4.6 dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) Y pH: 7.7 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	690.	U
111-44-4	bis(2-Chloroethyl)Ether	690.	U
95-57-8	2-Chlorophenol	690.	U
541-73-1	1,3-Dichlorobenzene	690.	U
106-46-7	1,4-Dichlorobenzene	690.	U
100-51-6	Benzyl alcohol	690.	U
95-50-1	1,2-Dichlorobenzene	690.	U
95-48-7	2-Methylphenol	690.	U
39638-32-9	bis(2-chloroisopropyl)ether	690.	U
106-44-5	4-Methylphenol	690.	U
621-64-7	N-Nitroso-Di-n-propylamine	690.	U
67-72-1	Hexachloroethane	690.	U
98-95-3	Nitrobenzene	690.	U
78-59-1	Isophorone	690.	U
88-75-5	2-Nitrophenol	690.	U
105-67-9	2,4-Dimethylphenol	690.	U
65-85-0	Benzoic acid	430.	J
111-91-1	bis(2-Chloroethoxy)methane	690.	U
120-83-2	2,4-Dichlorophenol	690.	U
120-82-1	1,2,4-Trichlorobenzene	690.	U
91-20-3	Naphthalene	690.	U
106-47-8	4-Chloroaniline	690.	U
87-68-3	Hexachlorobutadiene	690.	U
59-50-7	4-Chloro-3-methylphenol	690.	U
91-57-6	2-Methylnaphthalene	690.	U
77-47-4	Hexachlorocyclopentadiene	690.	U
88-06-2	2,4,6-Trichlorophenol	690.	U
95-95-4	2,4,5-Trichlorophenol	3500.	U
91-58-7	2-Chloronaphthalene	690.	U
88-74-4	2-Nitroaniline	3500.	U
131-11-3	Dimethylphthalate	690.	U
208-96-8	Acenaphthylene	690.	U
606-20-2	2,6-Dinitrotoluene	690.	U

John J. Malloy, P.E.
Laboratory Director

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-6

Lab Name: H2M LABS,INC. Contract: _____

Lab Code: _____ Case No.: GH50 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9008244

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 09/07/90

% Moisture: not dec. 5 dec. __ Date Extracted: 09/07/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 9/27/90

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	17	U
319-85-7	beta-BHC	17	U
319-86-8	delta-BHC	17	U
58-89-9	Lindane	17	U
76-44-8	Heptachlor	17	U
309-00-2	Aldrin	17	U
1024-57-3	Heptachlor epoxide	17	U
959-98-8	Endosulfan I	17	U
60-57-1	Dieldrin	34	U
72-55-9	4,4'-DDE	34	U
72-20-8	Endrin	34	U
33213-65-9	Endosulfan II	34	U
72-54-8	4,4'-DDD	34	U
1031-07-8	Endosulfan sulfate	34	U
50-29-3	4,4'-DDT	34	U
72-43-5	Methoxychlor	170	U
53494-70-5	Endrin ketone	34	U
5103-71-9	alpha-Chlordane	170	U
5103-74-2	gamma-Chlordane	170	U
8001-35-2	Toxaphene	340	U
12674-11-2	Aroclor-1016	170	U
11104-28-2	Aroclor-1221	170	U
11141-16-5	Aroclor-1232	170	U
53469-21-9	Aroclor-1242	170	U
12672-29-6	Aroclor-1248	170	U
11097-69-1	Aroclor-1254	340	U
11096-82-5	Aroclor-1260	340	U

DATE REPORTED: OCT 22 1990

John J. [illegible], P.E.
Laboratory Director

FORM I PES

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 1174
(516) 694-3040 FAX: (516) 694-4122

9. BLANK SUMMARY DATA AND RESULTS
   9.1 VOLATILES
   9.2 BASE/NEUTRAL/ACIDS
   9.3 PESTICIDE/PCBs
   9.4 METALS AND CYANIDE

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: H2M LABS INC. Contract: G&H

Lab Code: . Case No.: . SAS No.: . SDG No.:

Lab File ID: >P4091 Lab Sample ID: VBLK

Date Analyzed: 9/14/90 Time Analyzed: 14:53

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: 70 3

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	HOLD VBLK	BLANK9/7/90	>P4092	15:20
02	TRIP BLANK	9008247	>P4093	15:55
03	TRIP BLANK	9008250	>P4094	16:26
04	HOLD VBLK	BLANK9/10	>P4097	17:52
05	TRIP VBLK	9008547	>P4098	18:26
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COMMENTS: _____

S00116

FORM IV VOA 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK 9/14

Lab Name: H2M LABS INC. Contract: CD&M

Lab Code: . Case No.: . SAS No.: . SDG No.: B-6

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 5 (g/mL) ML Lab File ID: >P4091

Level: (low/med) LOW Date Received: -------

% Moisture: not dec._ Date Analyzed: 9/14/90

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
133-02-7	Xylene (total)	5.	U

John J. Molloy, P.E.
Laboratory Director

DATE REPORTED: Oct 2, 1990

S0017

FORM I VOA

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK 9

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: VBLK 912

Sample wt/vol: 5.000 (g/mL) G Lab File ID: P4054

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 9/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

DATE REPORTED: OCT 25 1990

John J. Molloy, P.E.
Laboratory Director

S00125

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK 9

ab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: VBLK 912

ample wt/vol: 5.000 (g/mL) G Lab File ID: P4054

Level: (low/med) LOW Date Received: 0/ 0/ 0

Moisture: not dec. 0. Date Analyzed: 9/12/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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DATE REPORTED: OCT 2, 1990

John J. [illegible] P.E.
Laboratory Director

S1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK9/

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: VBLK9/13

Sample wt/vol: 5.000 (g/mL) G Lab File ID: P4067

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 9/13/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

DATE REPORTED: OCT 25 1990

John J. Mollow, P.E.
Laboratory

S00127

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK9/

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 50

Matrix: (soil/water) SOIL Lab Sample ID: VBLK9/13

Sample wt/vol: 5.000 (g/mL) G Lab File ID: P4067

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 0. Date Analyzed: 9/13/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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John J. [illegible]
Laboratory Director

S00128

DATE REPORTED: [illegible]

FORM I VOA-TIC

1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Lab File ID: >E2990 Lab Sample ID: SBLK 028

Date Extracted 10/10/90 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 10/12/90 Time Analyzed: 13:00

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: 70 2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	B-3	9008544	>E2991	10/12/90
02	B-3 MS	9008544 MS	>E2992	10/12/90
03	B-3 MSD	9008544 MSD	>E2993	10/12/90
04	B-4	9008545	>E2994	10/12/90
05	B-5	9008546	>E3000	10/13/90
06	MSB (10-10)	MSB (10-10)	>E3001	10/13/90
07				
08				
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COMMENTS:

S00129

FORM IV SV 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Lab File ID: >E2840 Lab Sample ID: SBLK 938

Date Extracted 9/07/90 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 9/28/90 Time Analyzed: 19:23

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: 70 2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	B-6	9008246	>E2841	9/28/90
02	B-1	9008248	>E2842	9/28/90
03				
04				
05				
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COMMENTS:

S00130

FORM IV SV 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Lab File ID: >E2839 Lab Sample ID: SBLK 936

Date Extracted 9/07/90 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 9/28/90 Time Analyzed: 18:29

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: 70 2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	B-2	9008249	>E2843	9/28/90
02				
03				
04				
05				
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07				
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COMMENTS:

S00131

FORM IV SV 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 028

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 028

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2990

Level: (low/med) LOW Date Received: -----

% Moisture: not dec.-- dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/12/90

GPC Cleanup: (Y/N) Y pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	660.	U
111-44-4	bis(2-Chloroethyl)Ether	660.	U
95-57-8	2-Chlorophenol	660.	U
541-73-1	1,3-Dichlorobenzene	660.	U
106-46-7	1,4-Dichlorobenzene	660.	U
100-51-6	Benzyl alcohol	660.	U
95-50-1	1,2-Dichlorobenzene	660.	U
95-48-7	2-Methylphenol	660.	U
39638-32-9	bis(2-chloroisopropyl)ether	660.	U
106-44-5	4-Methylphenol	660.	U
621-64-7	N-Nitroso-Di-n-propylamine	660.	U
67-72-1	Hexachloroethane	660.	U
98-95-3	Nitrobenzene	660.	U
78-59-1	Isophorone	660.	U
88-75-5	2-Nitrophenol	660.	U
105-67-9	2,4-Dimethylphenol	660.	U
65-85-0	Benzoic acid	3300.	U
111-91-1	bis(2-Chloroethoxy)methane	660.	U
120-83-2	2,4-Dichlorophenol	660.	U
120-82-1	1,2,4-Trichlorobenzene	660.	U
91-20-3	Naphthalene	660.	U
106-47-8	4-Chloroaniline	660.	U
87-68-3	Hexachlorobutadiene	660.	U
59-50-7	4-Chloro-3-methylphenol	660.	U
91-57-6	2-Methylnaphthalene	660.	U
77-47-4	Hexachlorocyclopentadiene	660.	U
88-06-2	2,4,6-Trichlorophenol	660.	U
95-95-4	2,4,5-Trichlorophenol	3300.	U
91-58-7	2-Chloronaphthalene	660.	U
88-74-4	2-Nitroaniline	3300.	U
131-11-3	Dimethylphthalate	660.	U
208-96-8	Acenaphthylene	660.	U
606-20-2	2,6-Dinitrotoluene	660.	U

S00132

John J. Molloy, P.E.
Laboratory Director

FORM I SV-1 1/87 Rev

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 028

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 028

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2990

Level: (low/med) LOW Date Received: -----

% Moisture: not dec.-- dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/12/90

GPC Cleanup: (Y/N) Y pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	3300.	U
83-32-9	Acenaphthene	660.	U
51-28-5	2,4-Dinitrophenol	3300.	U
100-02-7	4-Nitrophenol	3300.	U
132-64-9	Dibenzofuran	660.	U
121-14-2	2,4-Dinitrotoluene	660.	U
84-66-2	Diethylphthalate	660.	U
7005-72-3	4-Chlorophenyl-phenylether	660.	U
86-73-7	Fluorene	660.	U
100-01-6	4-Nitroaniline	3300.	U
534-52-1	4,6-Dinitro-2-methylphenol	3300.	U
86-30-6	N-Nitrosodiphenylamine (1)	660.	U
101-55-3	4-Bromophenyl-phenylether	660.	U
118-74-1	Hexachlorobenzene	660.	U
87-86-5	Pentachlorophenol	3300.	U
85-01-8	Phenanthrene	660.	U
120-12-7	Anthracene	660.	U
84-74-2	Di-n-butylphthalate	660.	U
206-44-0	Fluoranthene	660.	U
129-00-0	Pyrene	660.	U
85-68-7	Butylbenzylphthalate	660.	U
91-94-1	3,3'-Dichlorobenzidine	1300.	U
56-55-3	Benzo(a)anthracene	660.	U
218-01-9	Chrysene	660.	U
117-81-7	bis(2-Ethylhexyl)phthalate	250.	JB
117-84-0	Di-n-octylphthalate	660.	U
205-99-2	Benzo(b)fluoranthene	660.	U
207-08-9	Benzo(k)fluoranthene	660.	U
50-32-8	Benzo(a)pyrene	660.	U
193-39-5	Indeno(1,2,3-cd)pyrene	660.	U
53-70-3	Dibenz(a,h)anthracene	660.	U
191-24-2	Benzo(g,h,i)perylene	660.	U

(1) Cannot be separated from Diphenylamine

DATE REPORTED: OCT 25 1990

Laboratory Director

S00133

FORM I SV-2

1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK 028

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 51

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 028

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2990

Level: (low/med) LOW Date Received: -------

% Moisture: not dec. -- dec. -- Date Extracted: 10/10/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 10/12/90

GPC Cleanup: (Y/N) Y pH: -- Dilution Factor: 1.00000

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	No non-targeted compounds			
2.	were found.			
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DATE REPORTED: OCT 2 5 1990

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 936

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 936

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2839

Level: (low/med) LOW Date Received: -----

% Moisture: not dec.-- dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	330.	U
111-44-4	bis(2-Chloroethyl)Ether	330.	U
95-57-8	2-Chlorophenol	330.	U
541-73-1	1,3-Dichlorobenzene	330.	U
106-46-7	1,4-Dichlorobenzene	330.	U
100-51-6	Benzyl alcohol	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
39638-32-9	bis(2-chloroisopropyl)ether	330.	U
106-44-5	4-Methylphenol	330.	U
621-64-7	N-Nitroso-Di-n-propylamine	330.	U
67-72-1	Hexachloroethane	330.	U
98-95-3	Nitrobenzene	330.	U
78-59-1	Isophorone	330.	U
88-75-5	2-Nitrophenol	330.	U
105-67-9	2,4-Dimethylphenol	330.	U
65-85-0	Benzoic acid	1600.	U
111-91-1	bis(2-Chloroethoxy)methane	330.	U
120-83-2	2,4-Dichlorophenol	330.	U
120-82-1	1,2,4-Trichlorobenzene	330.	U
91-20-3	Naphthalene	330.	U
106-47-8	4-Chloroaniline	330.	U
87-68-3	Hexachlorobutadiene	330.	U
59-50-7	4-Chloro-3-methylphenol	330.	U
91-57-6	2-Methylnaphthalene	330.	U
77-47-4	Hexachlorocyclopentadiene	330.	U
88-06-2	2,4,6-Trichlorophenol	330.	U
95-95-4	2,4,5-Trichlorophenol	1600.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1600.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

DATE REPORTED: OCT 25 1990

S00135

FORM I SV-1

1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 936

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 936

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2839

Level: (low/med) LOW Date Received: -----

% Moisture: not dec.-- dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1600.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1600.	U
100-02-7	4-Nitrophenol	1600.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-Dinitrotoluene	330.	U
84-66-2	Diethylphthalate	330.	U
7005-72-3	4-Chlorophenyl-phenylether	330.	U
86-73-7	Fluorene	330.	U
100-01-6	4-Nitroaniline	1600.	U
534-52-1	4,6-Dinitro-2-methylphenol	1600.	U
86-30-6	N-Nitrosodiphenylamine (1)	330.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	1600.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
84-74-2	Di-n-butylphthalate	330.	U
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	330.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	660.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	70.	JB
117-84-0	Di-n-octylphthalate	330.	U
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	330.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from Diphenylamine

S00136

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK 936

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 936

Sample wt/vol: 30.00 (g/mL) g Lab File ID: >E2839

Level: (low/med) LOW Date Received: -------

% Moisture: not dec. -- dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) N pH: -- Dilution Factor: 1.00000

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	19.83	190.	J
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27.		*	*	
28.		*	*	
29.		**** ****	**** **** ****	
30.				

DATE REPORTED: OCT 2 5 1990

John J. Molloy, P.E.
Laboratory Director

S00137

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 938

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 938

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2840

Level: (low/med) LOW Date Received: -----

% Moisture: not dec.-- dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) Y pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	660.	U
111-44-4	bis(2-Chloroethyl)Ether	660.	U
95-57-8	2-Chlorophenol	660.	U
541-73-1	1,3-Dichlorobenzene	660.	U
106-46-7	1,4-Dichlorobenzene	660.	U
100-51-6	Benzyl alcohol	660.	U
95-50-1	1,2-Dichlorobenzene	660.	U
95-48-7	2-Methylphenol	660.	U
39638-32-9	bis(2-chloroisopropyl)ether	660.	U
106-44-5	4-Methylphenol	660.	U
621-64-7	N-Nitroso-Di-n-propylamine	660.	U
67-72-1	Hexachloroethane	660.	U
98-95-3	Nitrobenzene	660.	U
78-59-1	Isophorone	660.	U
88-75-5	2-Nitrophenol	660.	U
105-67-9	2,4-Dimethylphenol	660.	U
65-85-0	Benzoic acid	3300.	U
111-91-1	bis(2-Chloroethoxy)methane	660.	U
120-83-2	2,4-Dichlorophenol	660.	U
120-82-1	1,2,4-Trichlorobenzene	660.	U
91-20-3	Naphthalene	660.	U
106-47-8	4-Chloroaniline	660.	U
87-68-3	Hexachlorobutadiene	660.	U
59-50-7	4-Chloro-3-methylphenol	660.	U
91-57-6	2-Methylnaphthalene	660.	U
77-47-4	Hexachlorocyclopentadiene	660.	U
88-06-2	2,4,6-Trichlorophenol	660.	U
95-95-4	2,4,5-Trichlorophenol	3300.	U
91-58-7	2-Chloronaphthalene	660.	U
88-74-4	2-Nitroaniline	3300.	U
131-11-3	Dimethylphthalate	660.	U
208-96-8	Acenaphthylene	660.	U
606-20-2	2,6-Dinitrotoluene	660.	U

S00135

J. Molloy, P.E.
Laboratory Director

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK 938

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 938

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >E2840

Level: (low/med) LOW Date Received: -----

% Moisture: not dec.-- dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) Y pH:-- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	3300.	U
83-32-9	Acenaphthene	660.	U
51-28-5	2,4-Dinitrophenol	3300.	U
100-02-7	4-Nitrophenol	3300.	U
132-64-9	Dibenzofuran	660.	U
121-14-2	2,4-Dinitrotoluene	660.	U
84-66-2	Diethylphthalate	660.	U
7005-72-3	4-Chlorophenyl-phenylether	660.	U
86-73-7	Fluorene	660.	U
100-01-6	4-Nitroaniline	3300.	U
534-52-1	4,6-Dinitro-2-methylphenol	3300.	U
86-30-6	N-Nitrosodiphenylamine (1)	660.	U
101-55-3	4-Bromophenyl-phenylether	660.	U
118-74-1	Hexachlorobenzene	660.	U
87-86-5	Pentachlorophenol	3300.	U
85-01-8	Phenanthrene	660.	U
120-12-7	Anthracene	660.	U
84-74-2	Di-n-butylphthalate	660.	U
206-44-0	Fluoranthene	660.	U
129-00-0	Pyrene	660.	U
85-68-7	Butylbenzylphthalate	660.	U
91-94-1	3,3'-Dichlorobenzidine	1300.	U
56-55-3	Benzo(a)anthracene	660.	U
218-01-9	Chrysene	660.	U
117-81-7	bis(2-Ethylhexyl)phthalate	700.	B
117-84-0	Di-n-octylphthalate	660.	U
205-99-2	Benzo(b)fluoranthene	660.	U
207-08-9	Benzo(k)fluoranthene	660.	U
50-32-8	Benzo(a)pyrene	660.	U
193-39-5	Indeno(1,2,3-cd)pyrene	660.	U
53-70-3	Dibenz(a,h)anthracene	660.	U
191-24-2	Benzo(g,h,i)perylene	660.	U

(1) - Cannot be separated from Diphenylamine

DATE REPORTED

S00139

H2M LABS, INC.

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK 938

Lab Name: H2M LABS INC. Contract: GIBBS & HILL

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: G&H 50/51

Matrix: (soil/water) SOIL Lab Sample ID: SBLK 938

Sample wt/vol: 30.00 (g/mL) g Lab File ID: >E2840

Level: (low/med) LOW Date Received: -------

% Moisture: not dec. -- dec. -- Date Extracted: 9/07/90

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/28/90

GPC Cleanup: (Y/N) Y pH: -- Dilution Factor: 1.00000

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	5.73	280.	J
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DATE REPORTED: Oct 4 5 1990

Analytical Data Package For

GIBBS & HILL PROJECT
GIBBS & HILL, INC.
BAILER BLANKS

Water Samples
Received September 19, 1990

SAMPLE DATA
SUMMARY PACKAGE

September 1990

H2M LABS, INC.
Environmental Testing Laboratories
575 Broad Hollow Road, Melville, N.Y. 11747

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

3. CASE NARRATIVES

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR VOLATILE ORGANICS
GIB054

FOR SAMPLE NO'S.: BAILER 1 (9009470) BAILER 5 (9009474)
BAILER 2 (9009471) BAILER 6 (9009475)
BAILER 3 (9009472) BAILER 7 (9009476)
BAILER 4 (9009473)

QC DATA

All QC requirements were met for this data package.

TUNING CRITERIA/CALIBRATION

All tuning criteria were met for this data package. All QC requirements were met for the initial calibration performed 09/13/90. Two continuing calibration check standards were analyzed on 09/14/90 to meet the initial calibration. The CCC analyte vinyl chloride still failed to meet required QC limits of < 25% D. This analyte was not detected in any analyzed samples and this deviation is not believed to effect the quality of the data submitted.

SAMPLE ANALYSIS

All samples were analyzed within the contract specified holding time.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 1/09/90

Glenn Bochicchio
GC/MS Supervisor

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122
ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR SEMI VOLATILE ORGANICS
GIB054

FOR SAMPLE NO'S.: BAILER 1 (9009470) BAILER 5 (9009474)
BAILER 2 (9009471) BAILER 6 (9009475)
BAILER 3 (9009472) BAILER 7 (9009476)
BAILER 4 (9009473)

QC DATA

Phenol-d6 exceeded surrogate recovery limits for samples Bailer 1,3,6,7. Six spiked analytes failed QC recovery limits for the MSB extracted 10/18/90.

TUNING CRITERIA/CALIBRATION

All tuning requirements for this data package were met. All QC requirements for the initial calibration performed 10/23/90 were met. Ten analytes exceeded a % difference of 20% for the calibration standard analyzed 1024/90.

The response factors from the calibration standard analyzed 10/24/90 were not updated in the ID file. All calculated valves reflect the response factors from this standard.

The quantitation ion of 4-Nitrophenol was changed from 139 to 65 due to interference from Dibenzofuran.

SAMPLE ANALYSIS

All samples originally extracted 9/19/90 were re-extracted 10/18/90 due to the extracts being contaminated with toluene. It is suspected that the batch of solvent was the source of contamination. There was insufficient sample volume to repeat the MS/MSD extraction.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 1/21/90

Glenn Bochicchio
GC/MS Supervisor

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
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ENVIRONMENTAL and INDUSTRIAL ANALYTICAL LABORATORY

CASE NARRATIVE FOR PESTICIDES/PCB's
GIB054

FOR SAMPLES:	Bailer-1 MS/MSD	9009470 MS/MSD
	Bailer-2	9009471
	Bailer-3	9009472
	Bailer-4	9009473
	Bailer-5	9009474
	Bailer-6	9009475
	Bailer-7	9009476

QC DATA

Surrogate recoveries for DBC was exceeded in one of the eleven extracts. recovery data for matrix spike and matrix spike duplicate met the QC limits. In the matrix spike blank three of the six spiked compound recoveries were under 75%. One blank was extracted and analyzed with this group of samples; no compounds interfering with the targeted analytes were observed.

CALIBRATION

System performance checks and continuous calibration for primary sequence, started on 10/08/90, were in compliance with the protocol. Response for 4,4-DDT was not linear, but none of the sample contained DDT.

The confirmatory sequence, started on 10/09/90, was valid up to the EVAL B standard injected on 10/12/90 at 00:41. The next standard injected, an individual STD A did not meet the continuous calibration criteria. All samples analyzed after the last compliant standard were reanalyzed in a different confirmatory sequence, started on 10/15/90. In this sequence all system performance checks were in compliance with the protocol.

SAMPLE ANALYSIS

All samples were extracted and analyzed within holding times. None contained targeted analytes.

The data system applies a 1 % window for tentative identification. The data are reviewed by the analyst and the following codes are used to indicate reasons for rejections of identifications:

H2M LABS, INC.

L smaller than the contract required reporting limit on primary column

M outside the actual retention time window established

N PCB isomer interfering with pesticide (Raise reporting limit for pesticide)

Q2 Quantification on secondary column due to interference coeluting on primary column

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: 1-18-91

****
* *
* Middel *
****

Ursula Middel
Technical Manager

H2M LABS, INC.
575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

QUALIFIERS FOR REPORTING ORGANICS DATA

Value - If the result is a value greater than or equal to the quantification limit, report the value.

U - Indicates compound was analyzed for but not detected. Report the minimum quantification limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable quantification limit for the sample.

J - Indicates as estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified quantification limit but greater than zero (e.g.: If limit of quantification is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J).

C - This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides >= 10 ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E - This flag identifies compounds whose concentrations are outside the calibration range of the analysis. If one or more compounds have a response greater than full scale, the extract must be diluted and reanalyzed, according to the specifications in Exhibit D. All compounds with a response greater than full scale should be flagged with an "E" on the original report of analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: for total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered seperately.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag.

X - This flag indicates compounds with spectra that do not meet identification criteria as detailed in Exhibit(E)E-61 section 6.1.3 but are believed to be present.

Z - Indicates analyte was present at the reported concentration in the pre-screening analysis.

H2M LABS, INC.

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QUALIFIERS FOR METALS ANALYSIS

E - The reported value is estimated because of the presence of interference. An explanatory note is included in the case narrative.

M - Duplicate injection precision is not met.

N - Matrix spiked sample recovery is not within control limits.

S - The reported value was determined by the Method of Standard Additions.

+ - Correlation coefficient for the MSA is less than 0.995.

W - Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

Concentration Qualifiers

B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

U - Entered if the analyte was analyzed for but not detected, less than the IDL.

H2M LABS, INC.

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BAILER#3

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 54

Matrix: (soil/water) WATER Lab Sample ID: 9009472

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4169

Level: (low/med) LOW Date Received: 9/19/90

% Moisture: not dec. 100. Date Analyzed: 9/24/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	U
67-64-1	Acetone	15.	
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

John J. Molloy, P.E.
Laboratory Director

DATE REPORTED: JAN 17 1991

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BAILER#3

Lab Name: H2M Contract: NYSDEC

Lab Code: H2M Case No.: G&H SAS No.: SDG No.: 54

Matrix: (soil/water) WATER Lab Sample ID: 9009472

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: P4169

Level: (low/med) LOW Date Received: 9/19/90

% Moisture: not dec. 100. Date Analyzed: 9/24/90

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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30.				

DATE REPORTED: JAN 17 1991

John J. Molloy, P.E.
Laboratory Director

FORM I VOA-TIC 1/87 Rev.

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BAILER3

Lab Name: H2M LA Contract: NYSDEC

Lab Code: H2M LA Case No.: G&H 54 SAS No.: SDG No.: 54

Matrix: (soil/water) WATER Lab Sample ID: 9009472

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: H0072

Level: (low/med) LOW Date Received: 9/19/90

% Moisture: not dec. 100. dec._____ Date Extracted: 10/18/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
100-51-6	Benzyl alcohol	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	bis(2-Chloroisopropyl)ether	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
65-85-0	Benzoic acid	50.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U

DATE REPORTED: JAN 17 1991 John J. Molloy, P.E. Laboratory Director

S 0048

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BAILER3

Lab Name: H2M LA Contract: NYSDEC

Lab Code: H2M LA Case No.: G&H 54 SAS No.: SDG No.: 54

Matrix: (soil/water) WATER Lab Sample ID: 9009472

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: H0072

Level: (low/med) LOW Date Received: 9/19/90

% Moisture: not dec. 100. dec._____ Date Extracted: 10/18/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	4,6-Dinitro-2-methylphenol	50.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	20.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

DATE REPORTED: JAN 17 1991

John J. Molloy, P.E.
Laboratory Director

(1) - Cannot be separated from diphenylamine

S 0049

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BAILER3

Lab Name: H2M LA Contract: NYSDEC

Lab Code: H2M LA Case No.: G&H 54 SAS No.: SDG No.: 54

Matrix: (soil/water) WATER Lab Sample ID: 9009472

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: H0072

Level: (low/med) LOW Date Received: 9/19/90

% Moisture: not dec. 100. dec._____ Date Extracted: 10/18/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

DATE REPORTED: JAN 17 1991

John J. Molloy, P.E.
Laboratory Director

S 0050

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BAILER-3

Lab Name: H2M LABS.INC. Contract: _____

Lab Code: _____ Case No.: GH54 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9009472

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 09/19/90

% Moisture: not dec. __ dec. __ Date Extracted: 09/20/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/10/90

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.10	U
319-85-7	beta-BHC	0.10	U
319-86-8	delta-BHC	0.10	U
58-89-9	Lindane	0.10	U
76-44-8	Heptachlor	0.10	U
309-00-2	Aldrin	0.10	U
1024-57-3	Heptachlor epoxide	0.10	U
959-98-8	Endosulfan I	0.10	U
60-57-1	Dieldrin	0.20	U
72-55-9	4,4'-DDE	0.20	U
72-20-8	Endrin	0.20	U
33213-65-9	Endosulfan II	0.20	U
72-54-8	4,4'-DDD	0.20	U
1031-07-8	Endosulfan sulfate	0.20	U
50-29-3	4,4'-DDT	0.20	U
72-43-5	Methoxychlor	1.0	U
53494-70-5	Endrin ketone	0.20	U
5103-71-9	alpha-Chlordane	1.0	U
5103-74-2	gamma-Chlordane	1.0	U
8001-35-2	Toxaphene	2.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	2.0	U
11096-82-5	Aroclor-1260	2.0	U

DATE REPORTED: NOV 21 1990

John J. Mulloy, P.E.
Laboratory Director

FORM I PEST

1/87 Rev.

S 0051

FORM I - IN 7/88

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516) 694-3040 FAX: (516) 694-4122

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

XXXXX3

Lab Name: H2M LABS, INC. Contract: GIBBS&HILL

Lab Code: H2MLAB Case No.: SAS No.: SDG No.: GIB054

Matrix (soil/water): WATER Lab Sample ID: 9009472

Level (low/med): LOW Date Received: 09/19/90

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.6	B		P
7440-36-0	Antimony	43.9	U		P
7440-38-2	Arsenic	3.4	U		F
7440-39-3	Barium	3.4	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.6	U		P
7440-70-2	Calcium	84.7	B		P
7440-47-3	Chromium	9.2	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	43.1	B		P
7439-92-1	Lead	1.4	U		F
7439-95-4	Magnesium	32.4	B		P
7439-96-5	Manganese	1.6	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	8.7	U		P
7440-09-7	Potassium	49.8	U		P
7782-49-2	Selenium	1.2	U		F
7440-22-4	Silver	4.1	U	N*	P
7440-23-5	Sodium	152	B		P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	4.8	U		P
7440-66-6	Zinc	4.6	B		P
	Cyanide	10.0	U		C

John J. Molloy, P.E.
Laboratory Director

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

DATE REPORTED: NOVEMBER 9, 1990

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)694-4122

LAB NO: 9009472

GIBBS & HILL, INC.
NORM HINSEY
11 PENN PLAZA
NEW YORK, NY 10001

TYPE..... MISCELLANEOUS LIQUID
SPECIAL

DATE COLLECTED. 09/19/90
DATE RECEIVED.. 09/19/90
COLLECTED BY... HMM03

POINT NO:
LOCATION: BAILER #3

REMARKS: BAILER BLANKS

PARAMETER (S)	RESULTS	UNITS
COD	15	mg/l
SPECIFIC CONDUCTIVITY	2	umhos
PH	6.7	units
SUSPENDED SOLIDS	<5	mg/l
TOTAL DISSOLVED SOLIDS	<5	mg/l

COPIES TO:

DATE ISSUED 01/15/91

Stanley Pearson
LABORATORY DIRECTOR

ORIGINAL

S 0053

APPENDIX D
HISTORIC LITERATURE

HISTORIC LITERATURE

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ROLIX ASSOCIATES

Hydrology of the Babylon-Islip Area Suffolk County Long Island, New York

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1768

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

D-3

INTRODUCTION

PURPOSE

The rapid expansion of population and industry in southwestern Suffolk County, particularly since 1950 (fig. 2), has resulted in sharply increased withdrawals from the ground-water reservoir which, at present, supplies all water used in the area. However, the fact that there is substantial streamflow from the area indicates that additional development of the water resources is possible. Because an adequate water supply is essential to the continued growth of the area, knowledge of the occurrence, quality, and availability of water, both underground and in streams, is required by industry and the public. Because the source of all water on Long Island is precipitation, evaluation of the water potential of the area requires following the path of water from its inception as precipitation to its ultimate return to the atmosphere.

The objectives of the investigation were (a) to evaluate and summarize present data on quantity, quality, and availability of both ground water and surface water; (b) to determine the interrelation of ground water and surface water; (c) to evaluate the water balance for the ground-water reservoir, and (d) to evaluate any existing or potential water-supply problems.

This report is part of a continuing cooperative program sponsored jointly by the U.S. Geological Survey, the Suffolk County Water Authority, the Suffolk County Board of Supervisors, and the New York State Water Resources Commission.

LOCATION AND EXTENT OF AREA

The report area includes the Town of Babylon, virtually all of the Town of Islip, and small parts of the Towns of Huntington, Smithtown, and Brookhaven in southwestern Suffolk County, and a small area in the southeastern part of Nassau County (fig. 1). The area comprises about 270 square miles, of which 190 square miles are on the main part of Long Island; the barrier beaches, islands, and Great South Bay comprise the remainder. The area is roughly rectangular in shape; it is about 20 miles long and from 11 to 13 miles wide. The western boundary is mainly along the interstream ground-water divide west of Carman Creek near Amityville (pl. 7). The eastern boundary is mainly along the interstream ground-water divide east of Tuthills Creek near Patchogue (pl. 7). Both eastern and western boundaries extend south to the barrier beaches. The northern boundary is along the main ground-water divide that traverses Long Island and the southern boundary is the Atlantic Ocean.

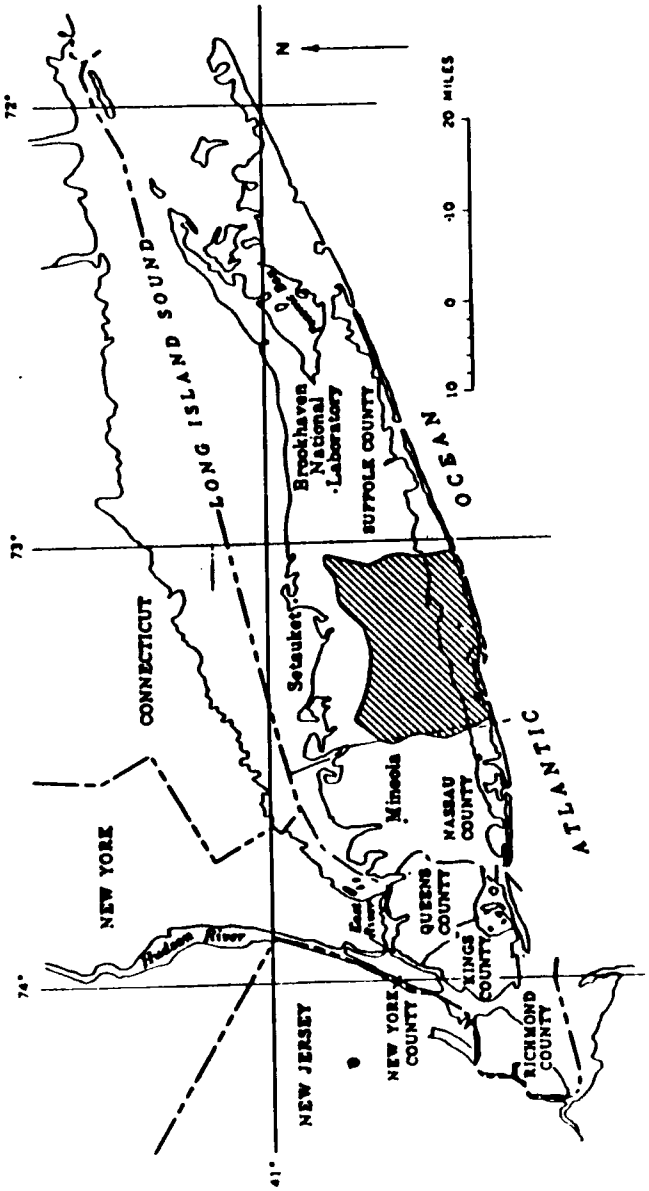

FIGURE 1.—Map of Long Island, New York, showing area of investigation.

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METHODS OF INVESTIGATION

Fieldwork began in July 1958 and was completed in March 1961. Well and geologic data were obtained from the files of the New York State Water Resources Commission and from records collected in the field. During the summer of 1958, 44 water-table observation wells were driven in areas where data were scanty. Water-level measurements were obtained at all available observation wells and at several public, industrial, and institutional supply wells. Water samples were collected from the observation wells and analyzed for selected constituents. In October 1958, a water-temperature and water-stage recorder was installed at Champlin Creek at Islip. In November 1958, four temporary recorders were placed in operation on streams for which continuous records of stage were not previously available. The partial-record stream-gaging program in Suffolk County was expanded to include several streams that had never been measured. Three streams, Santapogue River at Lindenhurst, Sampawams Creek at Babylon, and Champlin Creek at Islip, were selected for seepage studies, and discharge measurements were obtained bimonthly at selected sites. In December 1958, a three-element thermograph was placed in operation at Sampawams Creek at Babylon to obtain stream, air, and ground-water temperatures simultaneously.

During May 1959, three lines of shallow observation wells, each line consisting of four wells, were driven adjacent to Champlin Creek to study the relation of ground water to surface water. In addition, three wells were driven directly into the streambed at selected sites to study vertical changes in hydraulic head below the stream. Another line of four wells was driven, in October 1960, just upstream from the gaging station to aid in preparation of a water-table map and to provide additional sampling points for obtaining data on quality of water. To study the effect of ground-water evapotranspiration, a shallow water-table well was dug in August 1960 adjacent to Sampawams Creek, and a recorder was installed to detect water-level fluctuations.

Water samples were collected from selected wells and streams in August 1959, March 1960, September 1960, and March 1961 for determination of synthetic-detergent content. Water samples from four selected wells tapping different aquifers were collected for chemical analysis.

To facilitate office computations of streamflow data, the records of six primary gaging stations in the area and the records for Massapequa Creek at Massapequa in Nassau County were processed by an electronic computer. The processed data included duration tables of daily flow by water years and minimum mean discharge [illegible]

PREVIOUS INVESTIGATIONS

A study of the water resources of Long Island by Veatch and others (1906), contains some descriptive data on ground water and surface water in the Babylon-Islip area. Maps of the water table of Long Island including the report area have been prepared by Burr and others (1904), Veatch (1906), Suter (1937), Jacob (1945), and Lusczynski and Johnson (1952). A map of the surficial geology of Long Island (Fuller, 1914) and contour maps of the subsurface formations (Suter, deLaguna, and Perlmutter, 1949) contain geologic data on the report area. A report on the geology and hydrology of the nearby Towns of Huntington and Smithtown (Lubke, 1961) has been freely drawn upon for data in the parts of those towns included in the area covered by this report. Perlmutter and Crandell (1959) have described geologic conditions and the occurrence of ground water beneath the barrier beaches. Many of the well logs utilized in the subsurface mapping of geologic units are included in publications of the New York State Water Resources Commission (Leggette and others, 1938; Roberts and Brashears, 1945; and Johnson and others, 1952). Water-level measurements for some observation wells, records of daily discharge for gaging stations, and results of discharge measurements made at partial-record sites, are published in annual water-supply papers and open-file reports of the U.S. Geological Survey.

ACKNOWLEDGMENTS

The writers acknowledge the assistance of well drillers, the New York State Department of Public Works, and the Suffolk County Water Authority, in furnishing hydrologic and geologic data. The New York State Department of Health, the Suffolk County Department of Health, the Suffolk County Water Authority, and several privately owned laboratories furnished much of the chemical data included in the report. R. L. Barnell, formerly of the U.S. Geological Survey, supervised the construction of observation wells, and prepared a preliminary map of the water table.

GEOGRAPHY

TOPOGRAPHY

The Babylon-Islip area lies within the Atlantic Coastal Plain physiographic province and may be subdivided into a small northern region of irregular hills and a large southern region composed of a broad gently sloping plain. These topographic features are mostly [illegible]

1.3.12

geologic units mapped as Ronkonkoma terminal moraine and Mannetto Gravel (pl. 1). The highest land surface altitude on Long Island, about 400 feet above sea level, is on the Ronkonkoma terminal moraine, about 3 miles southwest of Huntington Station. Summit altitudes on the terminal moraine and adjacent hills are commonly as much as 150 feet or more above the outwash plain, which abuts the hills at an altitude of about 120 feet above sea level. The outwash plain is characterized by a gently rolling land surface, which slopes southward at about 20 feet per mile.

Marshlands, at or slightly above mean sea level, fringe the south shore of the area, adjacent to Great South Bay. The bay, which separates the main part of Long Island from the narrow low-lying barrier beaches, is generally less than 3 feet deep in the western part of the area and less than 10 feet deep in the eastern part. In boat channels the depth may be as much as 30 feet.

POPULATION

The substantial population upsurge in Suffolk County since 1950 is primarily the result of migration from New York City. Figure 2 illustrates the rate of population growth in the Towns of Babylon and Islip. The combined population of both towns was 117,021 in 1950, and 315,268 in 1960, an increase of nearly 170 percent. The Town of Babylon had a slightly greater rate of growth than the Town of Islip between 1950 and 1960, which was probably due to its closer location to New York City. The major factor contributing to urbanization of western Suffolk County is the improved rail and highway transportation.

With the exception of the northwestern part which is largely an area of cemeteries, population density in the Town of Babylon is fairly uniform (pl. 6). Centers of greatest population are near the south shore and in eastern parts of the town. In the Town of Islip, population density is greatest west of Connetquot River. Pilgrim State Hospital, the largest hospital in the world, is in the extreme northwestern part of the Town of Islip. Another center of high population density is Central Islip State Hospital, northeast of the headwaters of Champlin Creek. Large areas adjacent to and east of Connetquot River are still in their natural state. The extensive construction activity in western Suffolk County has just begun to reach the eastern part of the Town of Islip, which is still predominantly rural (1961).

INDUSTRY

Industrial growth in the Towns of Babylon and Islip has paralleled population growth. Industrialization of the area has resulted in large measure from decentralization of New York City's industrial core.

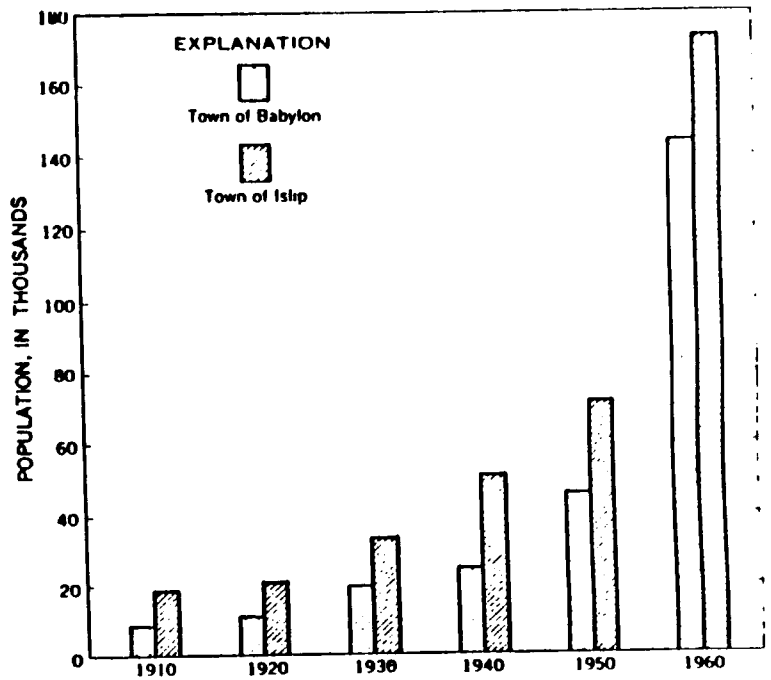

FIGURE 2.—Population of the Towns of Babylon and Islip, 1910-60.

Nearly two-thirds of the companies in the area have been established since the end of World War II. Most concerns are small, employing fewer than 100 people; however, two large plants, Republic Aviation Corp. and Fairchild Engine and Aircraft Co., each employ several thousand. Republic Aviation Corp., which is in the northwestern part of the Town of Babylon, is the largest industrial concern in Suffolk County, and employed 16,000 persons in 1958. Of the 625 industrial plants in Suffolk County in June 1956, nearly 60 percent were in the Towns of Babylon and Islip (Leonard and Stonier, 1956, p. 51).

The major industries in Suffolk County are aviation, instruments, electronics, and fabrication of metals; smaller industries include furniture, printing and publishing, textiles, and apparel. The aviation industry has been well established on Long Island since the end of World War I. Production of scientific and professional instruments came as a natural adjunct to the aviation industry. Similarly

the development of the all-metal airplane created a need for metal-fabricating shops. The post-World War II boom in electronics and electrical equipment found Suffolk County well prepared for the new industry owing to its established aviation firms, and the presence of the required skilled personnel.

AGRICULTURE AND VEGETATION

Although the value of crops produced and marketed in Suffolk County ranks highest of all the counties in New York State, agricultural production in the Babylon-Islip area is relatively small. The soils in the southern and eastern parts of the area have been classified by Lounsberry and others (1928, p. 13) as Sassafras Sandy Loam and Dukes Loamy Sand. These soils are not as productive as the soils in the northern and eastern parts of the county. The Sassafras Loam soils in the northwestern and north-central parts of the area are fairly productive. Proximity of this area to metropolitan markets spurred the development of numerous truck farms. The major crops produced by these farms are tomatoes, cauliflower, corn, string beans, peas, and cucumbers. Intensive urbanization, however, has reduced farm acreage so sharply that only a few farms remained in 1961.

Extensive tracts of natural vegetation are limited principally to the northern and eastern parts of the area. Much of the hilly area of the Ronkonkoma terminal moraine is forested with well-developed stands of deciduous trees. Low moisture retention characterizes the sandy, well-drained soils of the eastern part of the area and thereby precludes extensive forest development. Stands of scrub oak or pitch pine are common here in conjunction with an undergrowth of huckleberry, sweetfern, and wintergreen.

GEOLOGY

The composition, thickness, and geologic history of the deposits underlying the Babylon-Islip area determine the water-bearing characteristics, and the lateral and vertical extent of aquifers and aquicludes that form the hydrologic environment. The stratigraphy of the geologic formations is known almost exclusively from well records and samples, as outcrops, especially those of Cretaceous age, are rare.

STRATIGRAPHY

The Babylon-Islip area is underlain by unconsolidated sediments of Cretaceous, Tertiary, and Quaternary age, which lie on crystalline

member. Above the Raritan Formation is a thick sequence of deposits of late Cretaceous age which is in part, correlative with the Magothy Formation of New Jersey, but also includes some formations that are younger than the Magothy (Perlmutter and Crandell, 1959, p. 1066). Pending a more specific identification, these beds are referred to as the Magothy(?) Formation. Deposits of Quaternary, and possibly Tertiary age overlie the Cretaceous deposits. These consist, from oldest to youngest, of the Mannetto Gravel of doubtful Tertiary (Pliocene ?) age, the Gardiners Clay, and the upper Pleistocene and Recent deposits.

TABLE 1.—*Summary of stratigraphy of the Babylon-Islip area*

Era	Period	Epoch	Geologic unit		Remarks
Cenozoic	Quaternary	Recent	Recent deposits		Stream, beach, and marsh deposits; small areal extent
		Pleistocene	Upper Pleistocene deposits		Till and outwash deposits of the Wisconsin Glaciation
			Gardiners Clay		Fossiliferous marine clay of probable Sangamon age
	Tertiary(?)	Pliocene(?)	Mannetto Gravel		Formerly believed to be an outwash deposit but now regarded as a stream terrace deposit; small areal extent
Mesozoic	Cretaceous	Late Cretaceous	Magothy(?) Formation		Interbedded sand, silt, and clay
			Raritan Formation	Clay member	Dominantly clay but may contain some silty and sandy zones locally
				Lloyd Sand Member	Sand, gravel, and interbedded clay and silt
Precambrian and early Paleozoic(?)			Bedrock		Schist and gneiss containing some granitic intrusions

THE BEDROCK

No wells in the Babylon-Islip area have reached bedrock. However, information obtained from wells in nearby parts of Long Island (Suter and others, 1949, p. 30–32, pls. 8 and 9) suggests that the bedrock in the area consists chiefly of schist and gneiss and contains some granitic intrusions. The bedrock is probably correlative in part with igneous and metamorphic rocks of Connecticut.

The bedrock surface dips southeastward at a rate of approximately 50 to 100 feet per mile. The altitude of the surface ranges from about 1,200 feet below sea level in the northwestern part of the area to about 1,800 feet below sea level in the extreme southeastern part. This bedrock surface represents the lower limit of the ground-water

RARITAN FORMATION

The Raritan Formation of Late Cretaceous age directly overlies the bedrock. It is divided into the Lloyd Sand Member below and an unnamed clay member above, and has been correlated with the Raritan Formation of New Jersey on the basis of lithology and stratigraphic position. Because the Raritan Formation has been penetrated by only one test well in the area, its lithology, thickness, and altitude are inferred from data obtained in adjacent areas.

LLOYD SAND MEMBER

The Lloyd Sand Member of the Raritan Formation lies directly on the bedrock surface. It has an estimated thickness of 150 to 300 feet, and is thickest in the southern part of the area. The altitude of the top of the Lloyd is estimated to be approximately 800 to 1,500 feet below sea level, being lowest in the southeast, under Fire Island. It is inferred from examination of cores from wells N3355 [1] and S6409 (1½ miles northwest of the northwest corner of the Town of Babylon, and approximately 15 miles east of Lake Ronkonkoma, respectively), and the log of well S42 (pl. 1) that the Lloyd Sand Member underlying the area is probably composed of light-colored sand and gravel and lenses of clay and silty clay. Logs of several wells in eastern Suffolk County, indicate that the Lloyd Sand Member may be more clayey in that area, possibly because of a facies change along the northeasterly strike of the formation.

CLAY MEMBER

On the basis of descriptions of samples from wells in other parts of Long Island and the log of well S42 in the area, the clay member of the Raritan Formation probably consists of 170 to 300 feet of gray, blue, black, red and white clay, silt, and some very fine to fine sand. The altitude of the top of the clay member at well S42 in the northwest corner of the Town of Islip is 670 feet below sea level, and under Fire Island the clay member may be as much as 1,300 feet below sea level.

MAGOTHY(?) FORMATION

The Magothy(?) Formation of Late Cretaceous age has been completely penetrated by only one well (S42) in the area; therefore, its thickness and the nature of its contact with the underlying clay member of the Raritan Formation is known only approximately. The Magothy(?) is about 600 to 700 feet thick in the northern part of the area, and 1,000 to 1,200 feet thick in the southern part. The

[1] Wells in each county on Long Island are numbered serially by the New York State Water Resources Commission. The well number is prefixed by the initial letter of the county in which the well is located. Thus, well N3355 is in Nassau County and well S6409 is in Suffolk County.

altitude of the top of the formation ranges from 200 feet above to more than 100 feet below sea level. Relief on the Magothy(?) surface is due to stream erosion, mostly during late Pliocene and Pleistocene time. Contour lines on the Magothy(?) surface are shown on plate 2.

The Magothy(?) Formation consists mostly of nonfossiliferous beds and lenses of gray and white fine quartz sand, clayey and silty sand, and clay. However, the upper 50 to 200 feet of the formation beneath the barrier beaches consists of beds of fossiliferous green and gray glauconitic clay and sandy clay, which have been tentatively correlated with the Monmouth Group of New Jersey (Perlmutter and Crandell, 1959, p. 1066). Layers of lignite, pyrite, and iron-oxide concretions are common. Medium to coarse sand occurs in lenses irregularly throughout the formation, particularly in the upper and lower zones. West and north of the Babylon-Islip area, where the formation has been more fully explored, a gravel-bearing zone as much as 200 feet thick is found in the lower (basal) zone of the Magothy(?). Records of a few wells suggest that the gravelly zone occurs also in the area.

MANNETTO GRAVEL

The Mannetto Gravel, which consists of stratified and crossbedded quartz gravel, containing some highly weathered erratic material, was considered by Veatch (1906) and Fuller (1914) to represent the earliest deposit of Pleistocene age on Long Island. Currently it is considered to be of doubtful Tertiary (Pliocene(?)) age (Suter and other, 1949, p. 9) and probably correlative with the Bryn Mawr terrace-gravel deposits of Pennsylvania (Cooke, Gardiner, and Woodring, 1943).

The Mannetto Gravel has been recognized only in the northwestern part of the Babylon-Islip area where it crops out in the West and the Half Hollow Hills. It is difficult to distinguish the Mannetto in drillers' logs from the overlying glacial deposits, and its subsurface distribution is not well known.

PLEISTOCENE DEPOSITS

Deposits of Pleistocene age comprise the uppermost 50 to 150 feet of sediments in most of the area. The Jameco Gravel, a major aquifer in western Long Island, is not found in the Babylon-Islip area. The oldest formation of Pleistocene age is the Gardiners Clay, an interglacial deposit. The Gardiners Clay is overlain by upper Pleistocene deposits of Wisconsin age.

GARDINERS CLAY

The Gardiners Clay is a marine interglacial deposit of probable Sangamon age and has been recognized in wells along the south shore

of the area (pl. 2). Generally it is not found more than a mile north of Great South Bay, although it occurs in the middle of Long Island, at Brookhaven National Laboratory (Weiss, 1954), 11 miles east of the Babylon-Islip area. The Gardiners Clay is overlain by upper Pleistocene deposits of Wisconsin age. It is difficult to determine the lower boundary of the Gardiners Clay from drillers' logs in some places because the underlying Magothy(?) Formation contains beds of similar lithology. The abundance of biotite and chlorite and the presence of foraminifers are used to differentiate the Gardiners from the Magothy(?) Formation where samples are available.

The Gardiners Clay is generally 20 to 40 feet thick, and the altitude of the top of the formation ranges from about 50 to 110 feet below sea level (p. 2). The formation consists of dark-colored clay, lenses of green silt and very fine sand, and thin layers of fine gravel. The layers of clay and silt are generally fossiliferous.

UPPER PLEISTOCENE DEPOSITS

The upper Pleistocene deposits include (a) outwash deposits of stratified medium to coarse sand and gravel, (b) terminal moraine deposits consisting of till and ice-contact deposits of stratified sand and gravel, (c) till, composed of unstratified clay, sand, gravel, and boulders in the form of ground moraine (not exposed), and (d) glacio-lacustrine deposits of clay and silt (not exposed). The surficial distribution of the till and outwash deposits is shown on Plate 1.

Outwash is the most extensive upper Pleistocene deposit in the area. The outwash is underlain by the Gardiners Clay and Magothy(?) Formation, and is partly overlain by younger glacial and Recent deposits. The thickness of the outwash ranges from zero where it abuts Cretaceous and Tertiary sediments in the northwestern part of the area, to more than 100 feet in the eastern part. In parts of the area as much as 120 feet of poorly to well stratified ice-contact deposits are found above the outwash. These deposits form the bulk of the Ronkonkoma terminal moraine, a discontinuous ridge marking the maximum advance of a continental glacier. Quartz is by far the most abundant mineral in the outwash and ice-contact deposits; however, igneous and metamorphic rock particles, muscovite, biotite, and some heavy minerals are common in many beds.

A buried till sheet probably underlies the outwash deposits north of the Ronkonkoma moraine, but the till has not been definitely identified (Lubke, 1961, p. 38). A glacial clay, which underlies much of the Town of Smithtown (Lubke, 1961, p. 39), extends into the northeastern part of the area, but the data are too scanty to define the southern limit.

RECENT DEPOSITS

Deposits of Recent age are found along stream channels, in marshes and ponds, on the barrier beaches, and under Great South Bay. Stream channel deposits consist of a veneer of discontinuous reworked outwash deposits. Beds of very fine sand, silt, and clay are accumulating in marshes and ponds, and under Great South Bay. The barrier beaches consist of beach and dune sands as much as 50 feet thick. The Recent deposits commonly contain shells of mollusks.

GEOLOGIC HISTORY

A knowledge of the geologic history is important in understanding the nature and distribution of the geologic formations. The following summary is adapted largely from a report by Suter, and others (1949, p. 29–46).

During the Cretaceous Period, sediments derived from highlands in northeastern North America were deposited on a relatively flat bedrock surface sloping in a general southeasterly direction. The sediments thus deposited form a part of the present-day coastal plain extending from Long Island to the Gulf of Mexico. Long Island, which was approximately at the strand line of the Cretaceous sea, received mostly continental deposits. The great thickness of sediments deposited near sea level suggest concurrent depression of the bedrock surface during deposition. The variable and lenticular nature of the Cretaceous sediments indicates that deposition took place in shifting river channels, flood plains, swamps, and marshes.

The apparent absence of deposits of Tertiary age on Long Island, except for the nonmarine Mannetto Gravel, suggests either nondeposition or deposition followed by extensive erosion. The present distribution of the Mannetto Gravel is a remnant of the formerly extensive stream deposit.

Large continental glaciers, which were formed at the beginning of the Pleistocene Epoch, resulted in a general lowering of sea level. This lowering, in turn, caused stream rejuvenation and widespread erosion of pre-Pleistocene sediments and deepening of existing valleys. The area was drained then, as now, primarily by southward flowing streams, which cut partly into the Magothy(?) deposits but probably nowhere removed them completely. The eroded surface of the Magothy(?) is shown by contours on plate 2. The high area on the Cretaceous surface in the northwestern part of the area is a remnant of a dissected former divide between northward- and southward-flowing streams.

It is generally believed that the Pleistocene Epoch included four major glaciations, and therefore four cycles of eustatic sea level changes. The first three glacial advances did not reach Long Island

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The only evidence of their presence near Long Island is the Jameco Gravel, an outwash deposit found in some parts of the island, but not in the Babylon-Islip area. The Gardiners Clay was deposited in shallow water during an interglaciation (Sangamon) when sea level was relatively high, but about 50 feet below its present altitude. The final, or Wisconsin glaciation of the Pleistocene Epoch, consisted of the Ronkonkoma and Harbor Hill stades. During the first Wisconsin ice advance, meltwater deposited outwash, which was partially overridden by the ice until stagnation occurred. During this stagnation period, stratified sand and gravel in the form of outwash was deposited south of the glacier by meltwater streams, and stratified ice-contact deposits were deposited along the southern terminus of the glacier to form the Ronkonkoma terminal moraine. Melting of the ice left a thin sheet of unstratified ground moraine, which was subsequently buried by younger outwash. The second Wisconsin ice advance did not move as far south as the first. Meltwater streams from the second advance deposited stratified sand and gravel north of the Ronkonkoma terminal moraine and, in places, breached the moraine so that Harbor Hill outwash may be found above the outwash of the Ronkonkoma Stade from which it cannot be distinguished readily.

Some of the large streams in the area did not erode their present valleys, but occupy valleys eroded by streams which issued from glaciers during the Pleistocene Epoch. The largest valleys in the area, those of Carlls River, Connetquot River, and Sampawams Creek, can be traced northward to breaches in the Ronkonkoma moraine (pl. 1).

Melting of the continental glaciers was accompanied by a rise in sea level to its present position. Erosion by stream and wave action is presently occurring simultaneously with deposition by these same agents.

HYDROLOGY

HYDROLOGIC ENVIRONMENT

Water in the Babylon-Islip area occurs in the interstices of unconsolidated sediments and in streams and ponds. The ground-water reservoir consists of saturated unconsolidated deposits ranging in thickness from 1,300 to 1,800 feet. The water table, which forms the boundary between the zone of saturation and the overlying zone of aeration (unsaturated zone), is the upper limit of the reservoir, and the impervious bedrock is the lower limit. Water in marshes, ponds, or streams in the Babylon-Islip area is nearly always hydraulically connected with the water table. The availability of ground water and surface water for man's use is controlled to a large extent by the physical characteristics of the aquifers, streams, and ponds. These characteristics include the capacity of ponds, size and gradient of streams, and the extent, nature of boundaries, and water-bearing properties of aquifers.

AQUIFERS

Three aquifers of wide areal extent are recognized in the deposits underlying the Babylon-Islip area: (a) a shallow water-table aquifer, (b) an intermediate artesian aquifer, and (c) a deep artesian aquifer. Perched water may occur locally in the northern part of the area in lenses of sand and gravel separated from the main water table by deposits of clay or glacial till. The hydrologic environment of perched-water bodies is similar to that of the water-table aquifer, except that perched-water bodies are small and localized and generally are not a dependable source of supply.

WATER-TABLE AQUIFER

The water-table aquifer is composed almost entirely of highly permeable upper Pleistocene deposits that constitute the uppermost zone of the ground-water reservoir. The upper surface of this aquifer is the water table, or top of the zone of saturation. The configuration of the water table (pl. 3) is controlled by the topography, and by the thickness, water-bearing properties, and quantity of recharge to and discharge from the aquifer.

The water table is a subdued replica of the topography. A conspicuous "high" on the water table occurs under the West Hills, south of Huntington Station, where the land surface reaches altitudes as high as 400 feet. Another "high" northeast of Lake Ronkonkoma is coincident in part with the Ronkonkoma terminal moraine where the land surface altitude is commonly as high as 300 feet. The saddle in the ground-water divide south of Hauppauge is probably largely the result of substantial quantities of ground-water discharge into the relatively deep valleys of the Nissequogue and Connetquot rivers situated north and south of the divide, respectively.

Depth of the water table below land surface is shown on plate 4. In general, the depth to water increases northward from zero along Great South Bay and stream channels to as much as 200 to 300 feet beneath parts of the Ronkonkoma terminal moraine, West Hills, and Half Hollow Hills. The southern half of the area is drained by many effluent streams and depths to water are commonly 25 feet or less.

The lower boundary of the water-table aquifer is defined in most of the area by the occurrence of beds of predominantly low permeability in the upper part of the Magothy(?) Formation. Where the upper part of the Magothy(?) is composed of permeable material, these beds form a part of the water-table aquifer, and the lower surface of the

aquifer is at the first impermeable zone below the top of the Magothy(?). In the extreme southern part of the area, the Gardiners Clay forms the lower boundary of the water-table aquifer.

The water-table aquifer is present everywhere in the Babylon-Islip area, but it very thin in some places and contains salt water in others. In the northwestern part of the area, the water table is mainly in the Magothy(?) Formation rather than in upper Pleistocene deposits. As a result, the water-table aquifer is thin, owing to the clayey nature of most of the saturated beds. The Recent and upper Pleistocene deposits which compose the water-table aquifer beneath Great South Bay contain only salt water. Beneath the barrier beaches, fresh water in the water-table aquifer occurs in small discontinuous lenses in beach and dune deposits of Recent age. These fresh-water lenses are underlain by salt water.

The approximate thickness of the water-table aquifer may be determined by subtracting algebraically the altitude of the top of the Magothy(?) Formation, or Gardiners Clay where it is present (pl. 2), from that of the water table (pl. 3). The thickness of the water-table aquifer ranges from almost zero in the northwestern part of the Babylon-Islip area to more than 100 feet in the eastern part. The average thickness is about 75 feet. Wells screened in the outwash deposits yield as much as 1,500 gpm (gallons per minute). Specific capacities may be as high as 135 gpm per foot of drawdown, but are commonly 40 to 75 in thoroughly developed, large-diameter wells. The specific capacity of a well is a useful parameter for estimating water-bearing properties of an aquifer. Coefficients of transmissibility estimated from specific capacities (Theis and others, 1954) were used to compute the approximate coefficients of permeability of the outwash deposits given in the following table:

Estimated permeabilities of outwash deposits in the water-table aquifer

Well	Screened zone (ft below land)	Yield (gpm)	Specific capacity (gpm per ft)	Approximate thickness of aquifer (feet)	Field coefficient of permeability (gpd per sq ft)
S10,769T	80-81	600	37	73	800
S11,151	50-61	60	20	84	300
S12,016	80-86	1,625	98	67	2,200
S12,421	54-75	300	45	70	1,000
S12,710	40-70	1,500	100	75	1,600
S12,873	78-103	1,212	76	91	1,100
S13,478	35-60	830	42	70	900
S16,176	91-117	1,570	71	86	1,200
S16,608	110-140	1,000	77	88	1,200

The hydraulic coefficients of the water-table aquifer at one well near Central Islip State Hospital are given below:

Hydraulic coefficients of outwash deposits in the water-table aquifer

[Determination by the Hydrologic Laboratory, U.S. Geol. Survey]

Well	Depth (feet)	Specific retention (percent)	Specific yield (percent)	Porosity (percent)	Coefficient of permeability (gpd per sq ft)
S16,608	27-32	2.2	25	27.2	700

Because of the high permeability of the beds and generally shallow depth to the water table, wells are both productive and economical in most of the area underlain by outwash deposits (pl. 1). The water-table aquifer presently (1961) supplies approximately 84 percent of the total pumpage of ground water in the Babylon-Islip area.

INTERMEDIATE ARTESIAN AQUIFER

The intermediate artesian aquifer is composed of lenticular permeable deposits of the Magothy(?) Formation. The upper surface of the clay member of the Raritan Formation defines the lower boundary of the aquifer. Clayey and silty lenses in the upper part of the Magothy(?) Formation and the Gardiners Clay, where present, constitute the upper boundary. Unlike the top of the water-table aquifer, the upper boundary of the intermediate artesian aquifer generally is not a sharply defined surface such as the water table, but is a transitional zone of relatively low permeability. Where clayey confining beds are replaced by sandy zones, hydraulic continuity exists between the water-table and intermediate artesian aquifers.

Because permeable zones in the Magothy(?) Formation are lenticular, it is difficult to predict their occurrence and thickness, except for a basal zone. As in many parts of western Long Island, an extensive zone of sand and gravel about 100 feet thick probably lies immediately above the clay member of the Raritan Formation in the Babylon-Islip area but the data are too scanty to permit mapping the zone as a separate unit. (See well S42, pl. 1.) Test drilling is generally necessary to locate permeable zones which can yield as much as 1,500 gpm to individual wells. Specific capacities of wells range from 1 to 49 gpm per foot of drawdown. Those wells tapping zones composed chiefly of sand and gravel commonly have specific capacities ranging from 20 to 40 gpm per ft. The method of computing transmissibilities

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from specific capacities (Theis and others, 1954) yields only approximate values for the intermediate artesian aquifer because of the unknown effects of partial penetration and the heterogeneous nature of the aquifer. However, in the absence of other laboratory or field determinations, the specific capacity is used as a means of estimating the coefficients of transmissibility of the aquifer. Coefficients of transmissibility estimated from specific capacities of four wells screened in various zones of the aquifer were used to compute the coefficients of permeability listed in the following table:

Estimated permeabilities of water-bearing zones in the intermediate artesian aquifer

[Thickness of water-bearing zone determined from well log]

Well	Screened zone (feet below mean sea level)	Thickness of water-bearing zone (feet)	Specific capacity (gpm per ft)	Field coefficient of permeability (gpd per sq ft)
S11279	276-[illegible]	[illegible]	9.8	400
S14583	[illegible]-132	[illegible]	13.0	400
S15775	180-220	[illegible]	31.7	800
S16256	500-[illegible]	76	35.7	1,200

Wells S15775 and S16256 are screened in coarse sand and gravel whereas wells S11279 and S14583 are screened in fine to medium sand. Hence on the basis of data in the above table, approximate coefficients of permeability of 1,000 gpd (gallons per day) per square foot and 400 gpd per sq ft may be assumed for coarse sand and gravel and for fine to medium sand, respectively. The aquifer also consists of lenses of very fine to fine sand, silt, and clay, for which an average permeability of 20 gpd per sq ft may be assumed (Wenzel, 1942, p. 13). Based on the geologist's log of well S42 (Leggette and others, 1938, p. 30–32) 29 percent of the intermediate aquifer is sand and gravel, 52 percent is predominantly sand, and 19 percent is fine sand, silt, and clay. On the basis of these data, the average coefficient of permeability of the intermediate aquifer is estimated to be about 500 gpd per sq ft.

DEEP ARTESIAN AQUIFER

The deep artesian aquifer is the lowermost water-bearing zone in the ground-water reservoir. Its boundaries coincide with those of the Lloyd Sand Member of the Raritan Formation. Although no wells penetrate the deep artesian aquifer, it probably underlies the entire area. The bedrock, which contains only small quantities of water, marks the lower limit of the deep aquifer. The upper limit is at the base of the clay member of the Raritan Formation which acts as an effective confining unit for the deep artesian aquifer.

Specific capacities of 10 to 20 gpm per ft of drawdown are commonly reported for wells tapping the Lloyd Sand Member in Nassau

County. Test wells screened in the Lloyd in central Suffolk County at Brookhaven National Laboratory had specific capacities of only 2.0 and 2.5 gpm per ft. If the Lloyd becomes increasingly clayey to the east (as the scanty data suggest), specific capacities of wells may range from about 10 to 20 gpm per ft in the western part of the area and 5 to 15 gpm per ft in the eastern part.

STREAMS AND PONDS

Surface-water resources have played a significant role in the growth of Long Island since its original settlement. Early industrial requirements focused on a need for power to operate sawmills and gristmills. The first gristmill in the Babylon-Islip area was constructed about 1860 on Connetquot River (Sander, 1954, p. 64). Artificial ponds were developed on many streams to supply the head required to drive water wheels. When steam and electric power came into use, gristmills and sawmills were abandoned, and now the principal use of streams and ponds is for recreation.

To meet demands for water by New York City, the surface-water resources of Nassau County were intensively developed in the early 1900's. A plan was proposed shortly thereafter to tap about 10 large streams in Suffolk County for additional supplies. The plan was abandoned only after strong protests were voiced throughout the county, especially by officials who envisioned the day when this invaluable resource might be required for local use. A county-wide plan is now in effect to purchase and preserve, in its natural state, land bordering on the few remaining undeveloped streams to be used for recreation and conservation.

All major streams in the area flow in a southerly direction, and, in general, are less than 3 miles long. The largest streams are Carlls River in the Town of Babylon, and Connetquot River in the Town of Islip. Both streams have fairly well developed tributary systems, and extend approximately 5 miles above the head of tidewater. All streams have gentle gradients that average about 2 feet per 1,000 feet.

With the exception of Lake Ronkonkoma, almost all ponds in the area are manmade. In the late 1800's ponds were utilized for industrial purposes; however, most are used only for recreation at present. Lake Ronkonkoma occupies a kettle hole whose bottom extends about 60 feet below the water table. The lake has a surface area of about 220 acres. The total area of all ponds and lakes is about 1.1 square miles or 0.7 percent of the total Babylon Islip area.

HYDROLOGIC CYCLE

The term "hydrologic cycle" denotes the general circulation of water in its various states (liquid, solid, or gaseous) from ocean to

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atmosphere, from the atmosphere over and through the ground, and back to the ocean again.

Atmospheric water vapor will, if favorable conditions exist, condense into tiny droplets which increase in size until they can no longer be supported by air currents. If temperatures are above freezing, water vapor will precipitate as rain. If temperatures are at or below freezing during the condensation process, water vapor will precipitate as snow, sleet, or hail.

The time required for precipitation to return to the atmosphere depends principally upon the nature of the incident surface. Impervious or water-saturated surficial deposits cause precipitation to flow overland into streams or ponds. Precipitation falling upon and retained by vegetal surfaces will evaporate and return directly to the atmosphere. Some of the precipitation reaching the land surface will also evaporate; however, a substantial part will infiltrate into the ground if the soil is permeable. The first demand the infiltrating water must satisfy is that of the soil. Soil moisture is depleted primarily by vegetation and direct-surface evaporation. After soil-moisture requirements are fulfilled, residual water percolates slowly downward through interstices in the earth materials underlying the soil zone until it reaches the ground-water reservoir. While in the ground-water reservoir, the water moves slowly down gradient and is discharged into streams, bays, and the ocean. After discharge into the ocean, water completes the hydrologic cycle by eventually returning to the atmosphere by evaporation.

QUANTITATIVE HYDROLOGY

One of the principal objectives of this report was to evaluate the water balance for the ground-water reservoir. The accomplishment of this objective requires the collection and interpretation of data on precipitation, ground-water levels, and streamflow. These data are [illegible] of the hydrologic year.

In evaluating the water balance, the inflow or recharge to the ground-water reservoir is equated to the outflow or discharge, plus or minus changes in the reservoir storage. Recharge is essentially equal to discharge if the period of study selected is long enough to minimize the effect of changes in ground-water storage. The hydrologic factors affecting the water balance include precipitation, ground-water runoff, direct runoff, evapotranspiration, and underflow.

Precipitation, the largest factor, is fortunately the easiest to measure. Five U.S. Weather Bureau cooperative stations in or near the area have records of sufficient length to be of value in determining average precipitation. The average streamflow of the area was computed

from the existing network of primary, secondary, and partial-record gaging stations. That part of total streamflow which reflects direct runoff was computed from an anlaysis of the discharge hydrographs of the primary gaging stations; the remainder of the streamflow represents ground-water runoff. Precipitation and streamflow are the factors most amenable to quantitative analysis. Estimates of evapotranspiration losses are much more difficult to obtain. These estimates depend on studies made in nearby areas where geologic conditions do not preclude computing evapotranspiration indirectly. Ground-water evapotranspiration was computed from an analysis of water-table fluctuations in a part of the area where such losses are significant. The only unknown factor in the water-balance equation for the area is underflow at the north shore of Great South Bay (submarine outflow) which, therefore, may be computed from the equation.

To evaluate the various hydrologic factors, it is desirable to compute data for a period common to all. Too, as previously noted, it is essential to choose a period of sufficient length to eliminate the effect of change in storage in the ground-water reservoir. The period selected for study was the 1944–59 water years which corresponds to the length of the longest streamflow record in the Babylon-Islip area. Hence, all computations represent the averages for this period and may be assumed to be approximately equivalent to the true long-term averages.

PRECIPITATION

Precipitation in its various forms is the source of all water on Long Island. A favorable geographic location with respect to available sources of moisture provides Long Island with an abundant and fairly uniform supply of precipitation throughout the year. The two principal meteorological factors which produce precipitation [illegible] Island are the active extra-tropical cyclonic disturbances [illegible] prevalent from November through April, and local convective summer storms. A secondary source of precipitation is tropical cyclones, often of spectacular size, but fortunately of infrequent occurrence. The primary sources of moisture for all storms affecting Long Island are the Gulf of Mexico and the southwestern part of the North Atlantic Ocean.

There are no long-term rainfall stations within the Babylon-Islip area; however, the records for Farmingdale, Babylon, and Brentwood (pl. 7), are of sufficient length to be of value in computing the mean annual precipitation for the base period. In addition, the rainfall stations at Patchogue (pl. 7) and Setauket (fig. 1), although outside the area, are considered to be sufficiently close that their records may be given same weight in determination of mean annual precipitation. With the

exception of the records for Setauket, which data back to 1886, the records of these stations go back less than 25 years.

Precipitation is heaviest in the south-central part of the Babylon-Islip area, as comparison of the mean annual precipitation at Babylon with other stations in or near the area shows (table 2). Somewhat heavier precipitation than that recorded at Babylon may occur in the hilly region of the northern part of the area; however, owing to lack of data, the orographic influence is not known. The apparent heavier rainfall at Babylon may be due to any one, or to a combination of, the following reasons: (a) proximity to the ocean, (b) local effects such as rain-gage exposure, or (c) to chance. A comparison of the mean annual precipitation at New York City and Setauket for the base period (1944–59 water years) with the long-term averages in table 2 indicates only slight variations. For example, average preciptation during the base period was about three-quarters of an inch greater than that for the long-term period at New York City, and less than a quarter of an inch lower than at Setauket. It may be inferred, therefore, that a water balance computed for the base period will be representative of the long-term averages. For the Babylon-Islip area, the mean annual precipitation for the base period was computed to be 46.3 inches by the Thiessen method (Williams, 1950, p. 276–278). Only slight weight was given to the Setauket record in the computations and none at all to that of New York City, which is too distant from the area.

TABLE 2.—*Mean, maximum, and minimum annual precipitation, in inches, for selected stations*

Station	Period of record	Mean	Maximum	Minimum	Mean for base period (1944–59)
New York City	1820–1960	42.2	80.7	28.8	43.0
Setauket	1886–1960	43.8	69.3	33.6	44.8
Farmingdale	(1)	45.9	68.0	29.4	[2] 46.3
Babylon	1939–59	46.6	64.7	36.7	46.7
Brentwood	1942–59	46.8	60.8	34.4	46.9
Patchogue	1938–59	43.0	58.8	36.0	46.0

[1] 1921–22, 1928–33, 1940–56.
[2] Adjusted to base period.

On the basis of the records for Setauket and New York City for the period 1886–1960, annual precipitation may be expected to range from 30 to 60 inches in the area (fig. 3). If the 74-year record at Setauket is considered representative of average precipitation in the area, the curve in figure 3 may be used to predict future rainfall. For example, the probability is about three chances in five that annual precipitation in any one year will be between 40 and 50 inches.

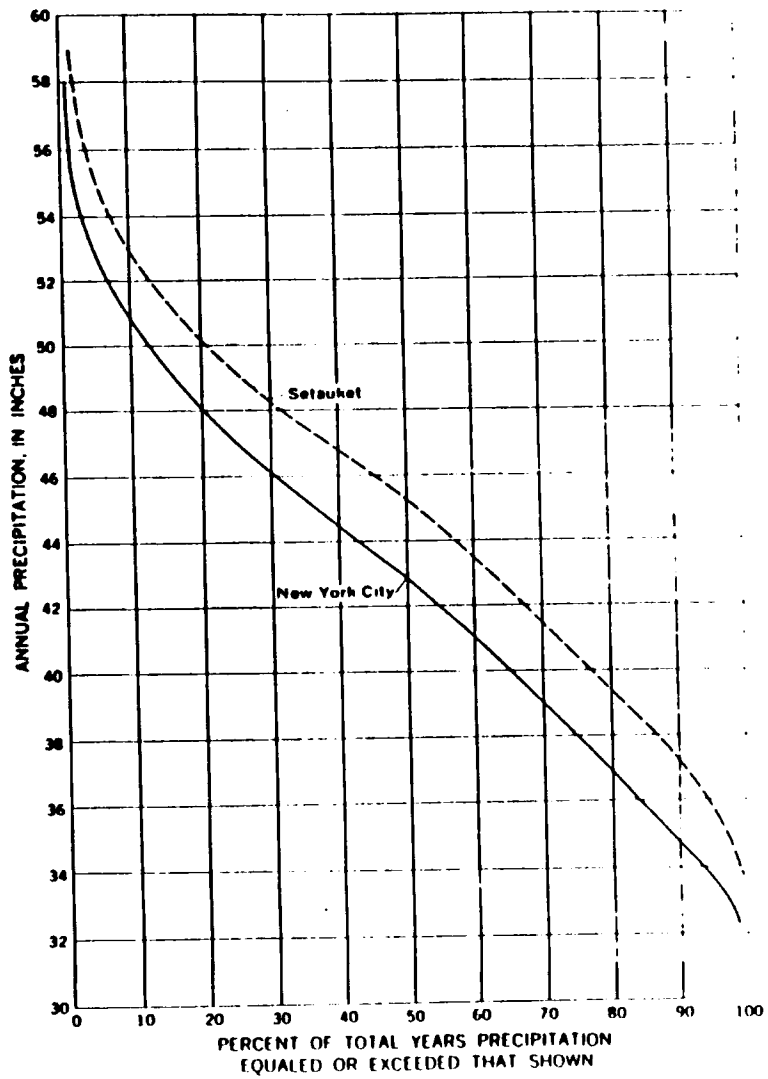

FIGURE 3.—Annual precipitation duration curves for New York City and Setauket, 1886–1960.

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Hydrogeologic Data from Selected Wells and Test Holes in Suffolk County, Long Island, New York, 1972-80

U.S. GEOLOGICAL SURVEY
Open-File Report 81-500

Prepared in cooperation with
SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
SUFFOLK COUNTY WATER AUTHORITY

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HYDROGEOLOGIC DATA FROM SELECTED WELLS AND TEST HOLES IN SUFFOLK COUNTY, LONG ISLAND, NEW YORK, 1972-80

By Richard K. Krulikas

U.S. GEOLOGICAL SURVEY

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Syosset, New York

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Table 2. Hydrogeologic units and well completion data from selected wells and test holes in Suffolk County, New York.

EXPLANATION OF COLUMNAR DATA AND ABBREVIATIONS

Well Number

Well numbers are assigned by the New York State Department of Environmental Conservation. A prefix letter S, which designates Suffolk County, is omitted from the well number; thus, the official number of well 40161, for example, is S 40161. Wells are listed in numerical order.

Location of Well

Locations of wells are given by map coordinates, based on latitude and longitude, as shown on plate 1. Map coordinates are based on a latitude and longitude grid system established for Long Island (Veatch and others, 1906; Jensen and Soren, 1971). In this system, 5-minute intervals of latitude are lettered consecutively from south to north, and 5-minute intervals of longitude are numbered consecutively from west to east. The grid coordinates for Suffolk County are shown along the margins of plate 1. Thus, a well whose map coordinates are D15 is in the grid square bounded by lat 40°45' and 40°50'N and long 72°55' and 72°50'W.

Wells are also numbered according to the national well-numbering system of the U.S. Geological Survey. This system locates wells to the nearest second of latitude and longitude and gives a sequence number to the well to denote the chronological order in which wells within a 1-second quadrangle were recorded. For example, in well number 404707N0731905.01 (S 18075), the first six numbers indicate latitude 40°47'07" North; the remaining numbers before the period indicate longitude 073°19'05". The 01 after the period is the sequence number. Thus this well was the first one recorded in the 1-second quadrangle defined by the latitude and the longitude.

Well depth

The figures give well depth or total depth of the drilled test hole, in feet below land surface.

Hydrogeologic Unit Penetrated and Elevation of Unit Surface

Elevations of the tops of the hydrogeologic units penetrated by wells are given in feet above or below National Geodetic Vertical Datum of 1929. A minus (-) sign preceding the elevation figure indicates that the elevation is below National Geodetic Vertical Datum of 1929. The number in the "upper glacial aquifer" column is the elevation of the land surface at the well site. Absence of an elevation figure indicates that the test hole did not penetrate the unit.

Table 2.--Explanation (continued)

Year Completed

Year completed refers to the year in which the well was reported to have been completed or accepted by the original well owner. It may not always be the year in which the well was actually drilled.

Elevation of Land-Surface Datum (LSD) (feet above National Geodetic Vertical Datum of 1929)

The elevation of land surface at the well was estimated from U.S. Geological Survey 7-1/2-minute quadrangle topographic maps.

Use of Water

The following abbreviations indicate the primary purpose in 1977 for which the water from the well was reported to be used.

ARCD	air conditioning	IND	industrial
COM	commercial	IRR	irrigation
DOM	domestic	OTHR	other
FRPT	fire protection	P.S.	public supply
INST	institutional		

Use of Well

The following abbreviations indicate the principal use of the well or the purpose for which the well or hole was drilled.

DEST	well destroyed	TEST	test hole
OBS	observation well	UNSD	well unused
RECH	recharge water	WTDR	withdrawal of water

Screen Setting and Total Screen Length

The elevations of the top and bottom of the screened interval are given in feet above or below (-) National Geodetic Vertical Datum of 1929. The total length of screen or perforated pipe in that interval is given in feet. In some wells, screen was set at two or more intervals; in such cases the difference between the elevations of the two screen settings is different from the total screen length.

Diameter of Well

The diameter of the well is the inside diameter of the smallest casing at land surface, in inches.

Table 2.--Explanation (continued)

Water Level (feet below land-surface datum)

The water level given is the reported original static water level, in feet above or below land surface, when the well was completed.

Date of Measurement

The date of water-level measurement is given by month (M), day (D), and year (Y).

Lift Type

The following abbreviations indicate the type of pump or other conveyance known or assumed to have been used in 1977 to bring water to the surface.

CENT	centrifugal	TURB	turbine
JET	jet	NONE	no pump in well
SUBM	submersible	OTHR	some other type of lift

Aquifer Developed

The following abbreviations indicate the hydrogeologic unit that yields water to the well. Where two or more units yield water to the well, the probable principal unit is given.

UPGLAC	Upper glacial aquifer
GARD	Gardiners Clay
MONMOUTH	Monmouth greensand
MAGOTHY	Magothy aquifer
RARITAN	Raritan clay
LLOYD	Lloyd aquifer

Table 2.--Explanation (continued)

Specific Capacity

The value in this column is the number of gallons per minute pumped from the well per foot of drawdown in the well, as reported by drillers.

Abbreviations

COORD	coordinates
D	day
DIAM	diameter
FT	feet
GPM/FT	gallons per minute pumped per foot of drawdown in the well
IN	inches
LSD	land surface datum
M	month
MEAS	measurement
NGVD	National Geodetic Vertical Datum of 1929.
Y	year

2.7.1

Table [illegible]—Hydrology, [illegible] and [illegible] [illegible]

Location of well			HYDROLOGIC UNIT PENETRATED AND ELEVATION OF UNIT SURFACE, IN FEET ABOVE OR BELOW NATIONAL GEODETIC VERTICAL DATUM OF 1929							
Well number	Map coord	Latitude and Longitude	Well depth (ft)	Upper glacial aquifer	Gardiners Clay	Monmouth greensand	Magothy aquifer	Raritan clay	Lloyd aquifer	Bedrock
18075	D10	404707 0731905.01	627	110						
18261	D10	404707 0731904.01	388	110			-155			
18621	D10	404704 0731904.01	201	110						
19767	F10	405506 0731[illegible]	28	15						
20041	C 8	404444 0732511.01	268	80						
							-280			
20042	C 8	404444 0732511.02	585	80						
21736	F 8	405519 0732939.01	453	64			-298			
22301	B10	403621 0731[illegible].01	285	10	- 62					
22546	D11	404705 0731907.01	415	114			-145			
22823	D11	404918 0731328.01	400	125			-151			
23433	D18	404841 0723935.01	321	15						
23462	D11	404813 0731328.01	400	125			-103			
23524	E13	405158 0730300.01	446	110						
23609	E12	405319 0730829.01	484	125						
26247	E 9	405058 0732338.01	447	178			-324			
26490	D11	404505 0731317.01	110	40						
26600	E12	405200 0730555.01	323	123						
26681	E 8	405246 0732523.01	600	10	-113					
29743	F24	405356 0720639.01	302	50				-390	-470	
29823	D 9	404521 0732252.01	622	76		-120	-239			
							- 6			
30008	E 9	405058 0732338.01	488	185						
30114	B 9	408800 0732034.01	327	10	-100					
30118	D12	404914 0730956.03	192	58			-133			
30421	D 9	404718 0732453.01	272	125						
30506	D 9	404515 0732255.01	621	75						
							1			
31269	F13	405512 0730105.03	337	138						
31711	E11	405143 0731100.01	600	125			- 94			
31734	E13	405455 0730258.02	1125	165						
31976	F18	405936 0723542.01	112	65			- 55	-573	-730	
32821	F12	405614 0730610.01	600	75						
							3	-495		
33060	E12	405157 0730740.01	410	95						
33203	E12	405149 0730756.01	580	95						
33204	E12	405149 0730752.01	517	95						
33205	E12	405150 0730748.01	436	93						
33206	E12	405154 0730801.01	581	93						
33991	D11	404511 0731127.01	696	35	-68					
34016	E13	405156 0730451.01	712	95			- 93			
34651	E12	405147 0730740.01	417	94						
34652	E12	405148 0730755.01	102	94						
34653	E12	405149 0730801.01	700	93						
34893	F14	405517 0725749.01	840	125						
36448	F15	405627 0725407.01	404	132			-555	-719		
36711	E14	405333 0725629.01	143	81						
36965	F22	405639 0721811.01	161	52			- 83			
37140	D11	404510 0731123.01	330	35	-69					
							- 86			
37276	D11	404918 0731330.01	400	40						
37494	D14	404717 0725956.03	622	60						
37991	E15	405456 0725327.01	141	102			-300			
38035	D 9	404723 0732453.01	450	130						
38194	F14	405652 0725900.02	775	157						
								-593		
38320	D13	404756 0730255.02	173	75						
38321	D13	404756 0730255.03	303	63						
38595	E12	405257 0730501.01	605	108			-133			
38784	E13	405256 0730456.02	603	105			-200			
38785	E 9	405135 0732355.01	701	202			-200			

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2.8.16

from selected wells and test holes in Suffolk County, New York.

WELL-COMPLETION DATA												
Well Number	Year Com-pleted	Elevation of LSD (ft above or below NGVD)	Use of Water	Use of Well	Screen Setting (ft above or below NGVD)	Total Screen Length (ft)	Diam of Well (in)	Water level (ft below LSD)	Date of Meas-urement	Diff Tube	[illegible]	[illegible]
18075	1959	110	UNSD	TEST							[illegible]	
18261	1960	110	P.S.	WTDR	-180 TO -263	83	16	67	01-13-[illegible]		MA[illegible]	
18621	1960	110	P.S.	WTDR	- 34 TO - 91	57	36	51	05-23-[illegible]		[illegible]	[illegible]
19767	1961	15	IRR	WTDR							[illegible]	[illegible]
20041	1962	80	P.S	WTDR	-110 TO -188	78	12	25	09-[illegible]-6[illegible]	TURB	[illegible]	
20042	1962	80	P.S.	WTDR	-444 TO -505	61	20	25	07-15-6[illegible]	TURB	[illegible]	-
21734	1962	6[illegible]	DOM	WTDR	-377 TO -389	12	6				[illegible]	
22303	1963	10	COM	WTDR	-263 TO -275	12	-				[illegible]	
22548	1964	114	UNSD	UNSD	-233 TO -289	56	42				[illegible]	
22823	1964	125	IND	WTDR	-224 TO -275	51	12				[illegible]	
23433	1965	15	IRR	WTDR	-255 TO -306	51	10	4	03-02-65		[illegible]	
23462	1965	125	UNSD	UNSD	-249 TO -275	26	12				[illegible]	
23524	1965	110	P.S.	WTDR	-210 TO -326	116	16	46	08-25-65	TURB	[illegible]	[illegible]
23659	1965	125	FRPT	WTDR	-329 TO -359	30	10	9[illegible]	05-[illegible]-65	TURB	[illegible]	[illegible]
26247	1965	178	P.S.	WTDR	- 86 TO -269	183	20	133	12-[illegible]-65	TURB	[illegible]	[illegible]
26490	1965	40	P.S.	WTDR	- 32 TO - 67	35	30	17	06-[illegible]-65	TURB	[illegible]	[illegible]
26620	1966	123	UNSD	TEST	-167 TO -167	[illegible]	8	82	03-[illegible]-66		[illegible]	[illegible]
26681	1966	10	P.S.	WTDR	-315 TO -587	72	14	7	[illegible]		[illegible]	[illegible]
29743	1967	50	UNSD	OBS	- 69 TO -100	11	4	45	01-[illegible]-67		[illegible]	[illegible]
29823	1967	76	UNSD	TEST							[illegible]	
30026	1967	165	P.S.	WTDR	-228 TO -288	6[illegible]	20	137	03-[illegible]-67	[illegible]	[illegible]	[illegible]
30114	1967	10	IRR	WTDR	[illegible] TO -200	66	10	8	05-[illegible]-67	TURB	[illegible]	[illegible]
30118	1967	58	P.S.	WTDR	- 93 TO -134	51	16				[illegible]	
30421	1967	125	ARCD	WTDR				67	07-07-67	TURB	[illegible]	[illegible]
30506	1967	75	P.S.	WTDR	-471 TO -543	62		26	07-25-67		MACOTH	[illegible]
31269	1967	138	UNSD	TEST			6				MACOTH	
31711	1967	125	UNSD	TEST							MACOTH	20
31734	1967	165	UNSD	TEST							MACOTH	
31976	1967	65	IND	WTDR	- 16 TO - 47	31	12			TURB	UPCLAC	
32821	1968	75	UNSD	TEST							MACOTH	
33060	1968	95	ARCD	WTDR	-262 TO -315	53	16				UPCLAC	
33203	1968	95	OTHR	RECH	-425 TO -485	60	16	50	08-29-68		UPCLAC	75
33204	1968	95	OTHR	RECH	-361 TO -422	61	16	53	09-17-68		UPCLAC	37
33205	1968	93	ARCD	WTDR	-282 TO -343	61	16	50	09-20-68	TURB	UPCLAC	36
33206	1968	93	OTHR	RECH	-428 TO -488	60	16	53	08-13-68		UPCLAC	40
33991	1968	35	UNSD	TEST							MACOTH	
34016	1968	95	UNSD	OBS			8				MACOTH	
34651	1969	9[illegible]	ARCD	WTDR	-258 TO -318	60	16	46	04-10-69	TURB	UPCLAC	27
34652	1969	9[illegible]	ARCD	WTDR	- 45 TO - 76	31	16	32	03-12-69	TURB	UPCLAC	52
34653	1969	93	UNSD	OBS	-505 TO -607	102	8	69	03-13-69		UPCLAC	54
34893	1969	125	UNSD	OBS							MACOTH	
36448	1969	132	UNSD	OBS			10				UPCLAC	
36711	1970	8[illegible]	UNSD	OBS	- 28 TO - 58	30	12	55			UPCLAC	239
36965	1970	52	P.S.	WTDR	- 71 TO -101	30	12	36	04-15-70	TURB	UPCLAC	
37140	1970	35	P.S.	WTDR	-225 TO -295	70	20	18	05-13-70		MACOTH	39
37276	1970	40	ARCD	WTDR	-309 TO -359	50	36	13	05-01-70	TURB	UPCLAC	40
37494	1970	60	UNSD	UNSD			42				MACOTH	
37991	1970	102	P.S.	WTDR	- 13 TO - 39	26	16	45	09-14-70	TURB	UPCLAC	49
38035	1970	130	UNSD	UNSD			38				UPCLAC	
38194	1970	157	P.S.	WTDR	-313 TO -573	60	20	133	12-10-70		UPCLAC	21
38320	1970	75	P.S.	WTDR	- 35 TO - 82	47	20	39	11-18-70		UPCLAC	54
38321	1971	63	P.S.	WTDR	-176 TO -237	61	20	38	01-08-71		MACOTH	40
38595	1970	105	UNSD	TEST							MACOTH	
38784	1970	105	P.S.	WTDR	-422 TO -492	70	20	44	09-23-71	TURB	MACOTH	
38785	1971	202	P.S.	WTDR	-370 TO -461	91	20	157	03-30-71		UPCLA	67

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2.9.16

Table 2.--Hydrologic units and well-completion data

Location of well				HYDROLOGIC UNIT PENETRATED AND ELEVATION OF UNIT SURFACE, IN FEET ABOVE OR BELOW NATIONAL GEODETIC VERTICAL DATUM OF 1929							
Well number	Map coord	Latitude and Longitude		Well depth (ft)	Upper glacial aquifer	Gardiners Clay	Monmouth greensand	Magothy aquifer	Raritan clay	Lloyd aquifer	Bedrock
38916	E12	405418	0730649.02	845	227			- 27	-563		
39184	E12	405147	0730804.01	700	93						
39185	E12	405147	0730805.02	619	93						
39186	E12	405147	0730803.03	683	93						
39187	E12	405147	0730804.04	698	95						
39333	E11	405208	0731314.01	658	64			-422			
39347	E12	405054	0730509.01	176	128						
39518	E11	405118	0731238.01	725	76			- 64	-684		
39531	D11	404614	0731230.01	289	53			-105			
39535	B11	403819	0731117.01	461	5	- 92	- 98	-313			
39536	E 9	405345	0732038.01	615	173						
39709	C 8	404556	0732522.01	705	85			-268			
40057	E12	405016	0730903.01	623	110			-154			
40161	E14	405335	0725629.02	138	80						
40331	E13	405221	0730212.01	694	87			-408			
40333	E10	405236	0731709.01	525	110						
40407	F19	405636	0723448.01	140	10						
40497	D10	404604	0731746.02	284	74	- 50		- 64			
40498	C 9	404230	0732041.01	748	24	- 54		- 60			
40709	E13	405223	0730219.01	485	90						
40710	E11	405207	0731314.01	463	70			-295			
40711	E11	405209	0731314.01	273	70						
40818	D12	404610	0730507.01	754	55	-101		-113			
40837	F13	405510	0730453.02	810	195			- 81	-573		
40838	F13	405510	0730453.02	294	195			- 81			
40980	E12	405418	0730649.01	578	225			1			
40981	D12	404820	0730735.01	694	100			-124			
41341	D14	404817	0725907.01	703	73			-127			
41342	E12	405021	0730624.01	663	130			-384			
41343	E13	405217	0730116.01	650	110			-184			
41344	D11	404919	0731428.01	693	79			- 47			
41345	E10	405249	0731928.01	807	237						
41358	B10	403817	0731633.02	290	10	- 73		-280			
41513	E12	405120	0730824.01	719	108			-149			
42053	E11	405032	0731407.01	713	50			- 56			
42054	E11	405043	0731229.01	723	60			-240			
42225	E 9	405015	0732342.01	790	110						
42226	E12	405015	0730902.01	270	110						
42227	E12	405016	0730903.01	253	110						
42270	E11	405119	0731237.00	649	76			- 64			
42473	E11	405119	0731237.02	649	76			- 64			
42504	E13	405215	0730115.01	223	110						
42505	E13	405213	0720113.02	233	110						
42760	E12	405054	0730509.02	173	130						
42761	D13	404756	0730255.01	333	75			-115			
42762	C10	404305	0731614.01	714	26	- 56		- 64			
42827	D11	404511	0731123.01	663	35	- 62		- 92			
43001	E 8	405113	0732609.01	590	230				-337		
43010	D16	404804	0724838.01	700	20	- 76	- 94	-144			
43088	D10	404640	0731521.01	902	90			- 80	-772		
43101	E13	405140	0730240.01	703	40			-116			
43117	E13	405256	0730454.03	552	102			-305			
43516	D13	404618	0730356.01	803	55			-101			
43808	C 8	404323	0732534.01	59	66						
43810	C 9	404124	0732416.02	76	30						

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from selected wells and test holes in Suffolk County, New York.

WELL-COMPLETION DATA

Well Number	Year Completed	Elevation of LSD (ft above or below NGVD)	Use of Water	Use of Well	Screen Setting (ft above or below NGVD)	Total Screen Length (ft)	Diam of Well (in)	Water level (ft below LSD)	Date of Meas. (M-D-Y)	Lift Type	Aquifer Developed	Specific Capacity (GPM/ft)
38916	1971	227	UNSD	TEST							MACOTHS	
39184	1971	93	ARCD	RECH	-507 TO -607	100	10				UPGLAC	
39185	1971	93	ARCD	RECH	-426 TO -526	100	10				UPGLAC	
39186	1971	93	ARCD	RECH	-490 TO -590	100	10				UPGLAC	
39187	1971	95	ARCD	RECH	-503 TO -603	100	10				UPGLAC	
39333	1971	64	UNSD	TEST	-546 TO -568	22	16	33	04-09-71		MACOTHS	
39347	1971	128	P.S.	WTDR	- 8 TO - 48	40	10	69	07-06-71		UPGLAC	109
39518	1971	76	UNSD	TEST	-514 TO -614	100	8	47			MACOTHS	
39531	1971	53	P.S.	WTDR	-149 TO -219	70	20	23	10-01-71	TURB	MACOTHS	37
39535	1971	5	P.S.	WTDR	-313 TO -456	143	12	FLOWING	12-20-72	TURB	MACOTHS	
39536	1971	173	P.S.	WTDR	-362 TO -442	80	20	155	09-01-71	TURB	UPGLAC	30
39709	1971	85	P.S.	WTDR	-565 TO -620	55	20	56	07-21-71	TURB	MACOTHS	3
40057	1971	110	UNSD	TEST							MACOTHS	
40161	1971	80	P.S.	WTDR	- 14 TO - 54	40	20	43	07-28-71	TURB	UPGLAC	35
40331	1971	87	P.S.	WTDR							UPGLAC	
40332	1972	110	UNSD	WTDR	-405 TO -415	10	6	74	08-27-72	SUBM	UPGLAC	7
40407	1971	10	FRPT	WTDR	-109 TO -129	20	16	4	09-13-71		UPGLAC	
40497	1971	74	P.S.	WTDR	-150 TO -210	60	10	32		TURB	MACOTHS	[illegible]
40498	1972	24	P.S.	WTDR	-648 TO 718	70	20	4	05-10-72	TURB	MACOTHS	54
40709	1971	90	P.S.	WTDR	-330 TO -390	60	20	37	10-12-71		UPGLAC	87
40710	1971	70	P.S.	WTDR	-297 TO -387	90	20	33	10-28-71		MACOTHS	126
40711	1971	70	P.S.	WTDR	-153 TO -203	50	20	37	09-08-71		UPGLAC	80
40818	1971	55	UNSD	TEST			6				MACOTHS	
40837	1972	195	P.S.	WTDR	- 38 TO - 92	54	20	160	01-10-72	TURB	MACOTHS	9
40838	1972	195	P.S.	WTDR	- 64 TO - 99	35	20	162	04-04-72	TURB	UPGLAC	10
40980	1972	225	P.S.	WTDR	-279 TO -348	69	20	191	02-10-72	SUBM	MACOTHS	30
40981	1971	100	UNSD	TEST	-535 TO -575	20	8	58	11-02-71		MACOTHS	7
41341	1972	73	UNSD	TEST							MACOTHS	
41342	1972	130	UNSD	TEST							MACOTHS	
41343	1971	110	UNSD	TEST							MACOTHS	
41344	1971	79	UNSD	TEST							MACOTHS	
41345	1972	237	UNSD	TEST							UPGLAC	
41358	1972	10	UNSD	UNSD							MACOTHS	
41513	1972	108	UNSD	TEST			14				MACOTHS	
42053	1972	50	UNSD	TEST							MACOTHS	
42054	1972	40	UNSD	TEST			18				MACOTHS	
42225	1972	110	P.S.	WTDR	-580 TO -680	100	20	114	04-21-72	SUBM	MACOTHS	68
42226	1972	110	P.S.	WTDR	- 95 TO -157	62	20	65	04-10-72		UPGLAC	73
42227	1972	110	P.S.	WTDR	- 78 TO -140	62	20	65	01-31-72		UPGLAC	54
42270	1972	76	UNSD	UNSD	-499 TO -573	74	20	47	01-31-72		MACOTHS	23
42473	1972	76	UNSD	UNSD	-503 TO -573	70	20	45	02-08-72	TURB	MACOTHS	24
42504	1972	110	P.S.	WTDR	- 31 TO -117	84	20	53	06-28-72		UPGLAC	
42505	1972	110	P.S.	WTDR	- 63 TO -123	60	60	68	06-26-72		UPGLAC	
42760	1972	130	P.S.	WTDR	- 7 TO - 43	36	20	72	08-28-72	TURB	UPGLAC	102
42761	1972	75	P.S.	WTDR	- 91 TO -258	167	20	50	05-23-72	TURB	MACOTHS	46
42762	1972	26	P.S.	WTDR	-624 TO -684	60	20	8	06-10-72		MACOTHS	43
42827	1972	35	P.S.	WTDR	-563 TO -625	62	20			TURB	MACOTHS	
43001	1972	230	P.S.	WTDR	-216 TO -296	80	20	189	09-07-72	TURB	UPGLAC	95
43010	1972	20	UNSD	TEST	-660 TO -680	20				SUBM	MACOTHS	
43088	1972	90	UNSD	TEST							MACOTHS	
43101	1972	40	UNSD	TEST							MACOTHS	
43117	1972	102	P.S.	WTDR	-366 TO -431	85	20	49	05-08-72	TURB	MACOTHS	55
43516	1972	55	UNSD	TEST							MACOTHS	
43808	1972	66	UNSD	OBS	22 TO 12	10	6	5			UPGLAC	
43810	1972	30	UNSD	OBS	- 31 TO - 41	10	6				UPGLAC	

2.11.16

Table 2.--Hydrologic units and [illegible]

Location of well				HYDROLOGIC UNIT PENETRATED AND ELEVATION OF UNIT SURFACE, IN FEET ABOVE OR BELOW NATIONAL GEODETIC VERTICAL DATUM OF 1929							
Well number	Map coord	Latitude and Longitude	Well depth (ft)	Upper glacial aquifer	Gardiners Clay	Monmouth greensand	Magothy aquifer	Raritan clay	Lloyd aquifer	Bedrock
43811	D 9	404530 0732411.01	90	102						
43813	C 9	404158 0732258.02	78	35						
43814	C 9	404455 0732150.01	50	60						
43816	C 9	404237 0732206.02	80	40						
43817	D 9	404618 0732050.01	56	70						
43819	C 9	404250 0732023.02	78	30						
43820	D10	404649 0731840.01	98	110						
43822	C10	404312 0731855.02	74	20						
44032	E12	405147 0730649.01	753	118			-136			
44137	C10	404432 0731513.01	720	39	- 46		- 75			
44186	E13	405004 0730227.01	673	180			- 88			
44378	E 9	405322 0732114.01	467	27						
44467	E15	405122 0725407.00	713	105			-107			
44640	F14	405710 0725713.01	205	155						
44774	D11	404920 0731428.01	293	79						
44775	E13	405407 0730009.01	755	150						
44914	E 9	405254 0732142.01	25	30						
44918	D13	404812 0730412.01	85	85						
45053	E 9	405330 0732424.01	125	185						
45207	E10	405132 0731814.01	146	165						
45208	E 9	405005 0732337.01	137	150						
45210	D10	404943 0731745.01	109	125						
45212	E10	405356 0731920.01	114	120						
45220	C12	404305 0730853.00	724	10	- 76	-104	-202			
45347	D10	404726 0731626.01	643	130			-200			
45348	D10	404729 0731628.01	650	130			-200			
45402	E10	405259 0731622.01	170	180						
45446	C10	404400 0731544.02	41	38						
45447	D12	404606 0730500.01	82	52						
45594	D10	404920 0731509.01	85	105						
45610	E 9	405322 0732114.04	313	15						
45637	D12	404508 0730809.01	82	13						
45638	D 9	404804 0732037.01	725	170						
45639	D 9	404804 0732037.02	740	170						
45717	D10	404618 0731645.01	75	93						
45719	D11	404635 0731016.01	82	26						
45720	D11	404716 0731316.02	81	90						
45722	D11	404516 0731228.01	91	37						
45808	E15	405201 0725442.00	707	93			-105			
45839	D11	404503 0731312.01	726	40			-105			
45935	D10	404851 0731851.01	605	285			-344			
46165	F11	405521 0731003.01	481	15						
46235	C10	404432 0731513.01	713	39	- 46		- 75			
46281	E 8	405237 0732505.00	51	34						
46283	D 9	404823 0732118.00	239	275						
46284	D12	404848 0730736.01	108	110						
46286	D11	404836 0731109.01	107	120						
46400	E13	405002 0730226.00	266	180			- 84			
46509	C12	404317 0730859.01	315	15	- 75	-115	-201			
46712	D16	404803 0724840.01	100	20						
46713	D16	404804 0724841.01	444	20	- 76	- 95	-144			
46830	D10	404606 0731746.01	655	76	- 46		- 60			
46871	E 8	405041 0732515.01	836	196				-428		
46911	D16	404920 0724845.02	34	41						
46912	D16	404919 0724845.01	32	42						

D-25

2.12.10

Table 2.--Hydrologic units and well-completion data

Location of well				HYDROLOGIC UNIT PENETRATED AND ELEVATION OF UNIT SURFACE, IN FEET ABOVE OR BELOW NATIONAL GEODETIC VERTICAL DATUM OF 1929							
Well number	Map coord	Latitude and Longitude	Well depth (ft)	Upper glacial aquifer	Gardiners Clay	Monmouth greensand	Magothy aquifer	Raritan clay	Lloyd aquifer	Bedrock
46928	E13	405455 0730258.01	656	166			- 35			
46963	E12	405226 0730957.01	133	147						
46964	E10	405225 0731522.00	114	123						
46965	E10	405230 0731644.00	152	166						
46966	D16	404952 0724705.01	86	89						
47002	E19	405300 0723052.01	163	90						
47024	D17	404628 0724308.04	377	10		-210	-321			
47157	D11	404933 0731342.01	25	105						
47218	E14	405335 0725629.00	703	71			-307			
47222	C10	404200 0731636.01	28	75						
47223	C12	404351 0730541.01	30	55						
47224	D15	404817 0725325.00	33	20						
47225	E14	405218 0725611.01	31	51						
47227	E16	405240 0724914.01	100	40						
47228	E16	405306 0724827.01	101	40						
47231	F18	405541 0723753.00	40	40						
47233	Q20	410348 0722729.00	51	11						
47234	G21	410213 0722327.00	27	7						
47235	G23	410037 0721651.01	22	5						
47236	G23	410156 0721336.01	60	35						
47281	E17	405349 0724415.02	275	140	- 78		- 90			
47282	E17	405849 0724415.03	283	140	- 87		- 95			
47436	E15	405124 0725408.01	196	105						
47437	E15	405124 0725408.02	179	105						
47438	E15	405124 0725408.03	269	105			-103			
47439	D14	404739 0725627.02	707	71			-114			
47453	D12	404804 0730513.00	443	100	- 86		-102			
47672	D11	404810 0731132.00	734	100			-341			
47673	E11	405142 0731058.01	279	109						
47675	E12	405111 0730458.01	90	80						
47698	E12	405307 0730609.01	104	133						
47711	C 9	404119 0732219.01	221	25	- 47		- 68			
47718	D12	404941 0730454.01	51	68						
47741	E 8	405211 0732507.00	359	70						
47743	D13	404642 0730058.01	100	35						
47745	E14	405417 0725727.01	32	62						
47746	D14	404847 0725713.00	84	90						
47747	D15	404740 0725452.00	35	31						
47748	F15	405438 0725147.00	36	110						
47750	E15	405004 0725154.00	95	95						
47752	D14	404607 0725947.01	100	23						
47755	E16	405136 0724443.00	58	63						
47756	D14	404922 0725950.01	69	89						
47757	E13	405008 0730253.01	138	160						
47758	D12	404852 0730504.01	102	121						
47886	C 9	404204 0732420.01	509	43			- 47			
47887	C 8	404046 0732521.02	648	26	- 56		- 64			
47945	F14	405648 0725551.01	142	143						
47973	F12	405604 0730443.01	90	94						
47974	F13	405532 0730257.01	150	149						
47975	E14	405050 0725953.01	129	153						
47976	F14	405605 0725915.01	138	150						
47977	D15	404711 0725150.00	55	38						
48014	E12	405203 0730855.01	343	124			-109			
48193	D 9	404513 0732255.02	534	80						

2.13.16

Table 2.--Hydrologic units and well-completion data

Location of well				HYDROLOGIC UNIT PENETRATED AND ELEVATION OF UNIT SURFACE, IN FEET ABOVE OR BELOW NATIONAL GEODETIC VERTICAL DATUM OF 1929							
Well number	Map record	Latitude and Longitude		Well depth (ft)	Upper glacial aquifer	Gardiners Clay	Monmouth greensand	Magothy aquifer	Raritan clay	Lloyd aquifer	Bedrock
53326	G20	410229	0722957.01	92	60						
53327	G20	410022	0722936.01	44	24						
53328	G21	410234	0722436.01	41	20						
53329	G20	410140	0722816.01	71	30						
53330	H21	410706	0722032.01	52	15						
53331	H21	410753	0722055.01	70	47						
53332	F19	405843	0723243.01	45	25						
53333	F19	405924	0723423.01	74	51						
53334	F19	405959	0723039.01	53	32						
53335	G20	410304	0722627.01	37	16						
53336	G19	410017	0723155.01	42	18						
53337	H22	410906	0721713.01	52	20						
53338	G20	410412	0722613.01	65	39						
53339	G20	404722	0730305.01	798	50	-122		-140			
53360	E10	405032	0731628.02	703	141			- 88			
53361	E10	405133	0731559.01	521	148			- 75			
53497	D12	404950	0730850.01	173	90						
53498	D12	404950	0730850.02	721	90			-180			
53522	E17	405230	0724300.01	137	167	- 69		- 81			
53593	E18	405124	0723536.03	161	47						
53747	E10	405140	0731910.01	453	171			-117			
53851	E17	405230	0724300.02	291	167	- 69		- 81			
54099	E13	405029	0730321.01	703	170			- 90			
54155	C10	404326	0731735.01	721	38			- 97			
54162	E10	405359	0731828.01	543	151						
54305	D12	404805	0730515.02	313	100	- 78		- 96			
54308	D11	404759	0731225.01	797	109			-106			
54377	B12	403936	0730525.01	630	5			-329			
54473	E13	405030	0730321.03	312	170	- 69		-130			
54478	F18	405906	0723528.01	125	65			-481			
54479	F18	405837	0723538.01	667	65			-481			
54568	C 8	404210	0732502.02	623	45	- 38		- 53			
54731	B10	403822	0731550.01	750	8			-117			
54957	D11	404618	0731233.01	378	50			- 74			
55028	E25	405332	0722420.01	161	50			-158			
55076	F18	405856	0723540.01	343	68						
55094	E 9	405122	0732327.01	180	185						
55733	C10	404326	0731741.01	233	38			- 97			
56133	E10	405434	0731942.02	333	70						
56423	C10	404618	0731718.01	800	50	- 50		- 75			
56508	D13	404542	0730133.01	709	6	-116	-135	-184			
56674	D13	404950	0730015.01	179	107	- 71					
56980	F18	405935	0723548.01	1104	35			-285	-715	-875	-1015
57008	D10	404658	0731642.01	635	111			-160			
57354	E 8	405126	0732737.01	257	50						
57357	G26	410249	0713545.01	93	32		-110				
57644	D 9	404604	0732458.01	270	105						
57723	C13	404322	0730450.01	807	38			-152			
57748	F 8	405520	0732939.01	418	82				-282	-300	
57979	F12	405614	0730513.01	582	100			- 55			
57980	F13	405510	0730452.01	703	187			- 98	-573		
58708	B10	404936	0731525.01	623	132			- 16			
58755	E13	405052	0730205.01	252	240						
58761	E13	405342	0730307.01	723	130			-165			
58921	G25	410040	0720025.01	75	68						

L.07

2.14.k

from selected wells and town wells in Suffolk County, New York.

Well Number	Year Completed	Elevation of land (ft above or below MSL)	Use of Water	Use of Well	Screen Setting (ft above or below MSVD)	Total Screen Length (ft)	Diam of Well (in)	Water level (ft below LSD)	Date of Meas. (M-D-Y)	Lift Type	Aquifer Developed	Specific Capacity (GPM/ft)
					WELL-COMPLETION DATA							
53326	1974	[illegible]	UNSD	OBS	- 19 TO - 29	10	4				UPGLAC	
53327	1974	[illegible]	UNSD	OBS	- 8 TO - 18	10	4				UPGLAC	
53328	1974	[illegible]	UNSD	OBS	- 9 TO - 19	10	4				UPGLAC	
53329	1975	[illegible]	UNSD	OBS	- 26 TO - 41	15	8				UPGLAC	
53330	1975	[illegible]	UNSD	OBS	- 17 TO - 37	20	4				UPGLAC	
53331	1974	[illegible]	UNSD	OBS	- 11 TO - 21	10	4				UPGLAC	
53332	1974	[illegible]	UNSD	OBS	- 8 TO - 18	10	4				UPGLAC	
53333	1974	[illegible]	UNSD	OBS	- 11 TO - 21	10	4				UPGLAC	
53334	1974	[illegible]	UNSD	OBS	- 9 TO - 19	10	4				UPGLAC	
53335	1974	[illegible]	UNSD	OBS	- 9 TO - 19	10	4				UPGLAC	
53336	1974	[illegible]	UNSD	OBS	- 12 TO - 22	10	4				UPGLAC	
53337	1975	[illegible]	UNSD	OBS	- 12 TO - 32	20	4				UPGLAC	
53338	1974	[illegible]	UNSD	OBS	- 14 TO - 24	10	4				UPGLAC	
53339	1974	[illegible]	UNSD	TEST							MACOTHY	
53360	1975	[illegible]	P.S.	WTDR	-407 TO -526	119	20	80	02-27-75	TURB	MACOTHY	76
53361	1975	[illegible]	P.S.	WTDR	-289 TO -369	80	20	111	05-15-75	TURB	MACOTHY	[illegible]
53497	1975	[illegible]	P.S.	WTDR	- 25 TO - 80	55	42			TURB	UPGLAC	
53498	1975	[illegible]	P.S.	WTDR	-573 TO -628	55	42			TURB	MACOTHY	
53522	1976	[illegible]	P.S.	WTDR						TURB	MACOTHY	
53593	1974	[illegible]	P.S.	WTDR	- 71 TO -111	40	20	38	12-17-74		UPGLAC	
53747	1975	[illegible]	P.S.	WTDR	-199 TO -277	78	20	111	10-03-75	TURB	MACOTHY	51
53851	1975	[illegible]	P.S.	WTDR						TURB	MACOTHY	
54099	1975	[illegible]	UNSD	TEST				114	02-27-75		MACOTHY	
54155	1975	[illegible]	UNSD	TEST							MACOTHY	
54162	1975	[illegible]	P.S.	WTDR	-304 TO -374	70	20	130	03-18-75		UPGLAC	82
54305	1975	[illegible]	P.S.	WTDR	-149 TO -210	61	20	55	06-02-75		MACOTHY	26
54308	1975	[illegible]	P.S.	WTDR	-613 TO -683	70	20	72	05-06-75	TURB	MACOTHY	50
54377	1975	[illegible]	P.S.	WTDR	-575 TO -625	50	12	10	04-03-75	TURB	MACOTHY	20
54473	1975	[illegible]	P.S.	WTDR	- 78 TO -139	61	20	115	07-16-75	TURB	MACOTHY	44
54478	1975	[illegible]	UNSD	TEST	- 29 TO - 60	31	12	36	03-31-75		MACOTHY	66
54479	1975	[illegible]	UNSD	OBS	-392 TO -402	10	6				MACOTHY	
54568	1975	[illegible]	P.S.	WTDR	-293 TO -376	83	20	23	05-12-75	TURB	MACOTHY	41
54731	1975	[illegible]	P.S.	WTDR	-691 TO -742	51	14	4	07-21-75		MACOTHY	21
54957	1976	[illegible]	P.S.	WTDR	-268 TO -323	55	20	19			MACOTHY	10
55028	1975	[illegible]	P.S.	WTDR	- 75 TO -110	35	10	43	08-01-75		UPGLAC	175
55076	1975	[illegible]	UNSD	UNSD							UPGLAC	
55094	1975	[illegible]	UNSD	UNSD							UPGLAC	
55733	1975	[illegible]	P.S.	WTDR	-142 TO -192	50	20	14	09-25-75	TURB	MACOTHY	56
56133	1976	[illegible]	UNSD	TEST	-157 TO -261	104	20	23	05-12-76		UPGLAC	108
56423	1975	[illegible]	UNSD	TEST		0		21			MACOTHY	13
56508	1976	[illegible]	UNSD	TEST		0					MACOTHY	
56674	1975	[illegible]	P.S.	WTDR	- 15 TO - 65	50	20	56	12-26-75		UPGLAC	88
56980	1976	[illegible]	UNSD	TEST							LLOYD	
57008	1976	[illegible]	P.S.	WTDR	-418 TO -521	103	20	62	02-23-76	TURB	MACOTHY	50
57354	1976	[illegible]	P.S.	WTDR	-163 TO -204	41	12	19	04-29-76	TURB	UPGLAC	48
57357	1976	[illegible]	UNSD	UNSD	- 26 TO - 57	31	10	29	03-18-76		UPGLAC	152
57666	1976	[illegible]	ABCD	WTDR	-135 TO -165	30	8	43	08-10-76	TURB	UPGLAC	13
57723	1976	[illegible]	UNSD	TEST			16				MACOTHY	
57748	1977	[illegible]	BOM	WTDR	-331 TO -336	5	4	78	05-15-76	SUBM	LLOYD	2
57979	1976	[illegible]	P.S.	WTDR	-389 TO -479	90	20	59	05-26-76	TURB	MACOTHY	56
57980	1977	[illegible]	P.S.	WTDR	-463 TO -513	70	20	144	01-03-77	TURB	MACOTHY	24
58708	1976	[illegible]	P.S.	WTDR	-197 TO -257	60	20	81	09-28-76	TURB	MACOTHY	50
58755	1976	[illegible]	BOM	WTDR	- 6 TO - 12	6	4			SUBM	UPGLAC	
58761	1977	[illegible]	UNSD	UNSD	-522 TO -593	71	20	82	02-15-77		MACOTHY	22
58921	1976	[illegible]	UNSD	OBS	- 19 TO - 24	5	4				UPGLAC	

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2.15.16

Table 2.--Hydrologic units and well-completion data

Location of well				HYDROLOGIC UNIT PENETRATED AND ELEVATION OF UNIT SURFACE, IN FEET ABOVE OR BELOW NATIONAL GEODETIC VERTICAL DATUM OF 1929							
Well number	Map coord	Latitude and Longitude	Well depth (ft)	Upper glacial aquifer	Gardiners Clay	Monmouth greensand	Magothy aquifer	Raritan clay	Lloyd aquifer	Bedrock
64847	D11	404505 0731320.01	634	40			-114			
64927	E 9	405306 0732331.01	621	95						
64928	D11	404651 0731203.01	742	65	- 58		- 71			
65196	D10	404529 0731719.01	124	69	- 39		- 48			
65321	E17	405243 0724117.01	304	259	- 35					
65340	D12	404636 0730709.01	804	70			-282			
65505	C 9	404352 0732158.01	650	54			-132			
65766	D11	404759 0731228.01	796	100			-110			
66132	D 9	404605 0732417.01	140	100			60			
66133	C 9	404330 0732441.01	161	66			- 30			
66134	C 9	404235 0732411.01	150	51			- 53			
66135	C11	404430 0731233.01	168	34	- 56		- 59			
66136	B 9	403935 0732350.01	143	7	- 57		- 69			
66137	D 9	404618 0732121.01	143	140			70			
66138	C 9	404430 0732156.01	150	63	- 27		- 41			
66139	C 9	404332 0732122.01	153	42			- 64			
66140	C 9	404205 0732100.01	112	21			- 54			
66141	C 9	404058 0732025.01	133	5	- 53		-105			
66142	D10	404815 0731632.01	203	140	- 15		- 33			
66143	D10	404541 0731803.01	185	70	- 36		- 45			
66144	C10	404448 0731641.01	143	59	- 51		- 59			
66145	C10	404435 0731712.01	175	42			- 58			
66146	C10	404201 0731638.01	143	12	- 39		- 63			
66147	C12	404251 0730959.01	184	12	- 87	-104	-143			
66148	D11	404614 0731336.01	153	66			- 53			
66149	D11	404524 0731234.01	183	38			- 76			
66150	C11	404630 0731233.01	163	26	- 58		- 77			
66151	C11	404308 0731318.01	150	7	- 68		- 98			
66152	D11	404810 0731219.01	193	107			- 57			
66153	D11	404645 0731053.01	163	50			- 68			
66154	D11	404548 0731010.01	153	31	- 64		- 91			
66155	C11	404647 0731041.01	155	28	- 73		- 91			
66156	C12	404334 0730935.01	173	18	- 92		-112			
66183	D13	404722 0730305.03	543	71	-139		-159			
66366	E 9	405158 0732548.01	679	170						
66496	E12	405058 0730509.01	793	127	- 53		- 78			
66556	C 9	404308 0732431.01	753	50			- 48			
66733	F23	405814 0721008.01	607	45			-485			
66823	F13	405623 0730052.01	646	160						
66825	E21	405335 0722417.01	385	50			-162			
66880	E19	405031 0722850.01	216	5		-124	-239			
67074	D12	404632 0730706.01	832	70			-374			
67081	B11	403301 0731227.01	125	4	- 87	-102				
67082	B11	403739 0731432.01	234	12	- 73	-100	-206			
67083	B10	403729 0731701.01	125	12	- 80	- 97				
67084	B10	403825 0731823.01	205	9	- 73	- 91	-147			
67085	B 9	403813 0732007.01	122	10	- 70					
67086	B 9	403739 0732201.01	125	10	- 74					
67087	B 9	403657 0732421.01	205	10	- 74	- 95	-140			
67088	B 8	403640 0732527.01	225	10	- 74	- 95	-151			
67197	D11	404652 0731203.01	763	65	- 58		- 71			
67974	D14	404552 0725617.01	790	30		- 98	-130			

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2.16.16

from selected wells and test holes in Suffolk County, New York.

WELL-COMPLETION DATA

Well Number	Year Completed	Elevation of LSD (ft above or below NGVD)	Use of Water	Use of Well	Screen Setting (ft above or below NGVD)	Total Screen Length (ft)	Diam of Well (in)	Water level (ft below LSD)	Date of Meas. (M-D-Y)	Lift Type	Aquifer Devel-oped	Specific Capacity (GPM [illegible])
64847	1979	40	P.S.	WTDR	-488 TO -590	112	20	14	01-08-79		MADTHY	39
64927	1978	95	UNSD	TEST							UPCLAC	
64928	1978	65	UNSD	TEST							MADTHY	
65196	1978	69	UNSD	TEST							MADTHY	
65321	1978	259	UNSD	UNSD	2 TO - 8	10	4				UPCLAC	
65340	1978	70	UNSD	TEST							MADTHY	
65505	1979	54	P.S.	WTDR	-521 TO -591	70	20	21			MADTHY	[illegible]
65766	1978	100	UNSD	UNSD							MADTHY	
66132	1978	100	UNSD	OBS	10 TO 0	10	6	73	07-11-79		MADTHY	
66133	1979	66	UNSD	OBS	- 66 TO - 76	10	6	47	07-11-79		MADTHY	
66134	1979	51	UNSD	OBS	- 83 TO - 93	10	6	34	07-11-79		MADTHY	
66135	1979	34	UNSD	OBS	- 93 TO -103	10	6	21	07-11-79		MADTHY	
66136	1979	7	UNSD	OBS	-118 TO -128	10	6	4	07-11-79		MADTHY	
66137	1979	140	UNSD	OBS	20 TO 10	10	6	71	07-11-79		MADTHY	
66138	1979	63	UNSD	OBS	- 56 TO - 66	10	6	41	07-11-79		MADTHY	
66139	1979	42	UNSD	OBS	- 76 TO - 86	10	6	34	07-11-79		MADTHY	
66140	1979	21	UNSD	OBS	- 62 TO - 72	10	6	16	07-11-79		MADTHY	
66141	1979	5	UNSD	OBS	-105 TO -115	10	6	4	07-11-79		MADTHY	
66142	1979	140	UNSD	OBS	- 32 TO - 42	10	6	60	07-11-79		MADTHY	
66143	1979	70	UNSD	OBS	- 96 TO -106	10	6	47	07-11-79		MADTHY	
66144	1979	59	UNSD	OBS	- 67 TO - 77	10	6	41	07-11-79		MADTHY	
66145	1979	42	UNSD	OBS	-105 TO -115	10	6	27	07-11-79		MADTHY	
66146	1979	12	UNSD	OBS	-101 TO -111	10	6	8	07-11-79		MADTHY	
66147	1979	12	UNSD	OBS	-145 TO -155	10	6	11	07-11-79		MADTHY	
66148	1979	66	UNSD	OBS	- 69 TO - 79	10	6	42	07-11-79		MADTHY	
66149	1979	38	UNSD	OBS	-119 TO -129	10	6	23	07-11-79		MADTHY	
66150	1979	26	UNSD	OBS	- 84 TO - 94	10	6	17	07-11-79		MADTHY	
66151	1979	7	UNSD	OBS	-117 TO -127	10	6	9	07-11-79		MADTHY	
66152	1979	107	UNSD	OBS	- 68 TO - 78	10	6	45	07-11-79		MADTHY	
66153	1979	50	UNSD	OBS	- 98 TO -108	10	6	31	07-11-79		MADTHY	
66154	1979	31	UNSD	OBS	- 97 TO -107	10	6	21	07-11-79		MADTHY	
66155	1979	28	UNSD	OBS	-107 TO -115	10	6	16	07-11-79		MADTHY	
66156	1979	18	UNSD	OBS	-134 TO -144	10	6	12	07-11-79		MADTHY	
66183	1979	71	UNSD	UNSD							UPCLAC	59
66366	1979	170	P.S.	WTDR	-230 TO -290	60	20	133	04-04-79		MADTHY	
66496	1979	127	UNSD	UNSD							MADTHY	
66556	1979	50	UNSD	UNSD							MADTHY	
66733	1979	45	UNSD	UNSD							UPCLAC	
66823	1979	160	UNSD	TEST							MADTHY	
66825	1979	50	UNSD	OBS							MADTHY	
66880	1979	5	UNSD	OBS	-201 TO -211	10	2				MADTHY	
67074	1979	70	UNSD	OBS							UPCLAC	
67081	1979	4	UNSD	TEST	-208 TO -218	10	6				MADTHY	
67082	1979	12	UNSD	OBS							UPCLAC	
67083	1979	12	UNSD	TEST							MADTHY	
67084	1979	9	UNSD	OBS	-158 TO -168	10	6				UPCLAC	
67085	1979	10	UNSD	TEST							UPCLAC	
67086	1979	10	UNSD	TEST							MADTHY	
67087	1979	10	UNSD	OBS							MADTHY	
67088	1979	10	UNSD	TEST							MADTHY	
67197	1979	65	UNSD	OBS							MADTHY	
67974	1980	30	UNSD	OBS								

D-30

Continued Recorded Existing Conditions Noted by Inspector 3/17/81

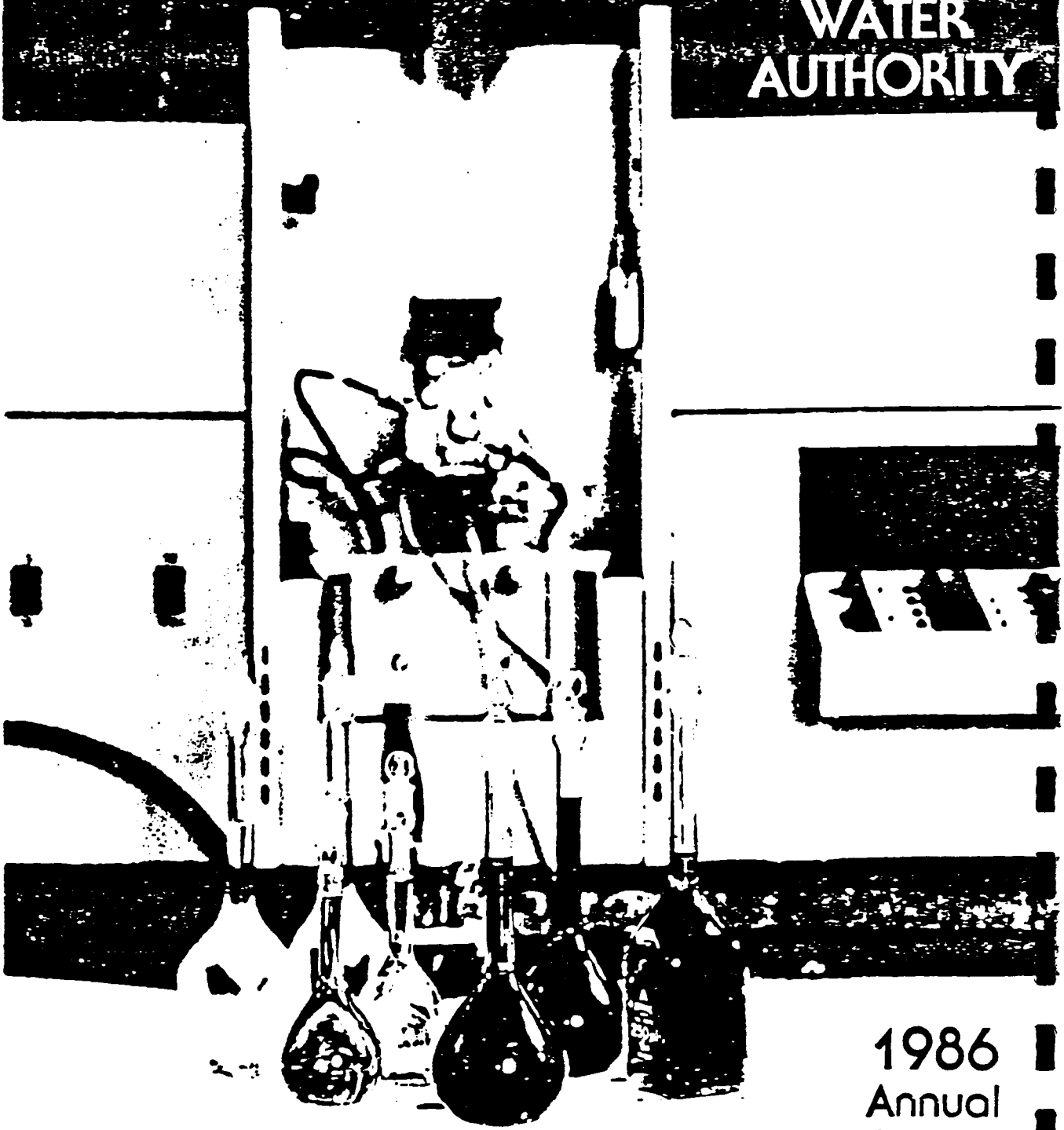
Visited HWD and spoke with Andrew Conley Gen'l. Manager, who was very cooperative in supplying information on the plant. It was determined that there exists an Ammonium-Hydroxide scrubbing process on an acid storage tank that is operating without a certificate to operate. A violation was issued to Mr. Conley for operating without that permit.

A tour of the grounds further disclosed that only 3 of the 6-10 large steel cylinder tanks mentioned refused to by D. O'Brien in his report of 3/11/81 were remaining at the location indicated by Mr. O'Brien. None of the 55 gal. drums were there. There was liquid waste in one of the tanks and sludge waste in the other 2. The liquid + sludge waste were going to be transferred to 55 gal. drums for further transfer to a waste treatment plant in New Jersey via the yard foreman.

Kevin Dunn

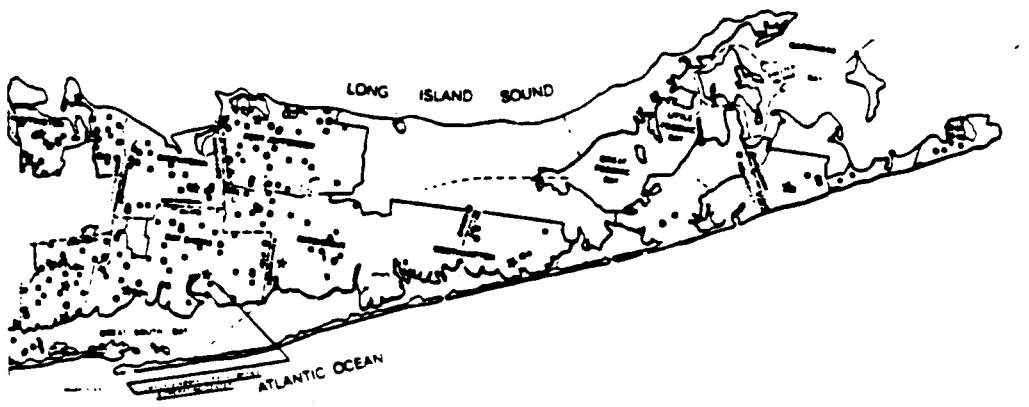
D.4

SUFFOLK COUNTY WATER AUTHORITY



1986 Annual Report

Communities Served



□ SCWA SERVICE AREAS ■ WELL FIELD & PUMP STATIONS ★ COMMERCIAL OFFICES ○ STORAGE FACILITY

BABYLON DISTRICT
Amity Harbor
Amityville
Babylon
Copiague
Deer Park
Dix Hills
Lindenhurst
North Amityville
North Babylon
North Lindenhurst
Pinelawn
West Babylon
Wheatley Heights
Wyandanch

BAY SHORE DISTRICT
Bay Shore
Brentwood
Brightwaters
Central Islip
East Islip
Edgewood
Great River
Islip
Islip Terrace
North Bay Shore
North Great River
Oakdale
West Bay Shore
West Islip

HUNTINGTON DISTRICT
Asharoken
Centerport
Cold Spring Harbor
Commack
Crab Meadow
East Huntington
East Neck
East Northport
Eatons Neck
Fort Salonga
Halesite
Huntington
Huntington Bay
Huntington Station
Lloyd Harbor
Northport

EAST HAMPTON DISTRICT
Amagansett
East Hampton
Freetown
Montauk
North Sea
Sag Harbor
Southampton

PATCHOGUE DISTRICT
Bayport
Bellport
Blue Point
Bohemia
Brookhaven
Coram
East Holbrook
East Patchogue
Farmingville
Gordon Heights
Holbrook
Holtsville
Lakeland
Lake Ronkonkoma
Mastic
Mastic Beach
Medford
North Bellport
North Patchogue
Patchogue
Ronkonkoma
Sayville
Selden
Shirley
South Centereach
South Holbrook
South Yaphank
West Bellport
West Ronkonkoma
West Sayville
Yaphank

PORT JEFFERSON DISTRICT
Belle Terre
Centereach
Coram
East Setauket
Lake Grove
Middle Island
Miller Place
Mount Sinai
North Centereach
North Selden
Poquott
Port Jefferson
Port Jefferson Station
Ridge
Rocky Point
Setauket
South Setauket
Sound Beach
South Stony Brook
Stony Brook*
Strongs Neck
Terryville

SMITHTOWN DISTRICT
East Commack
Flowerfield*
Hauppauge
Kings Park
Nesconset
Saint James*
San Remo*
Smithtown
South Hauppauge
West St. James
West Smithtown*
Village of Head of The Harbor
Village of The Branch

WESTHAMPTON DISTRICT
Center Moriches
East Moriches
Eastport
East Quogue
Moriches
South Manor
Quiogue
Quogue
Westhampton
Westhampton Beach

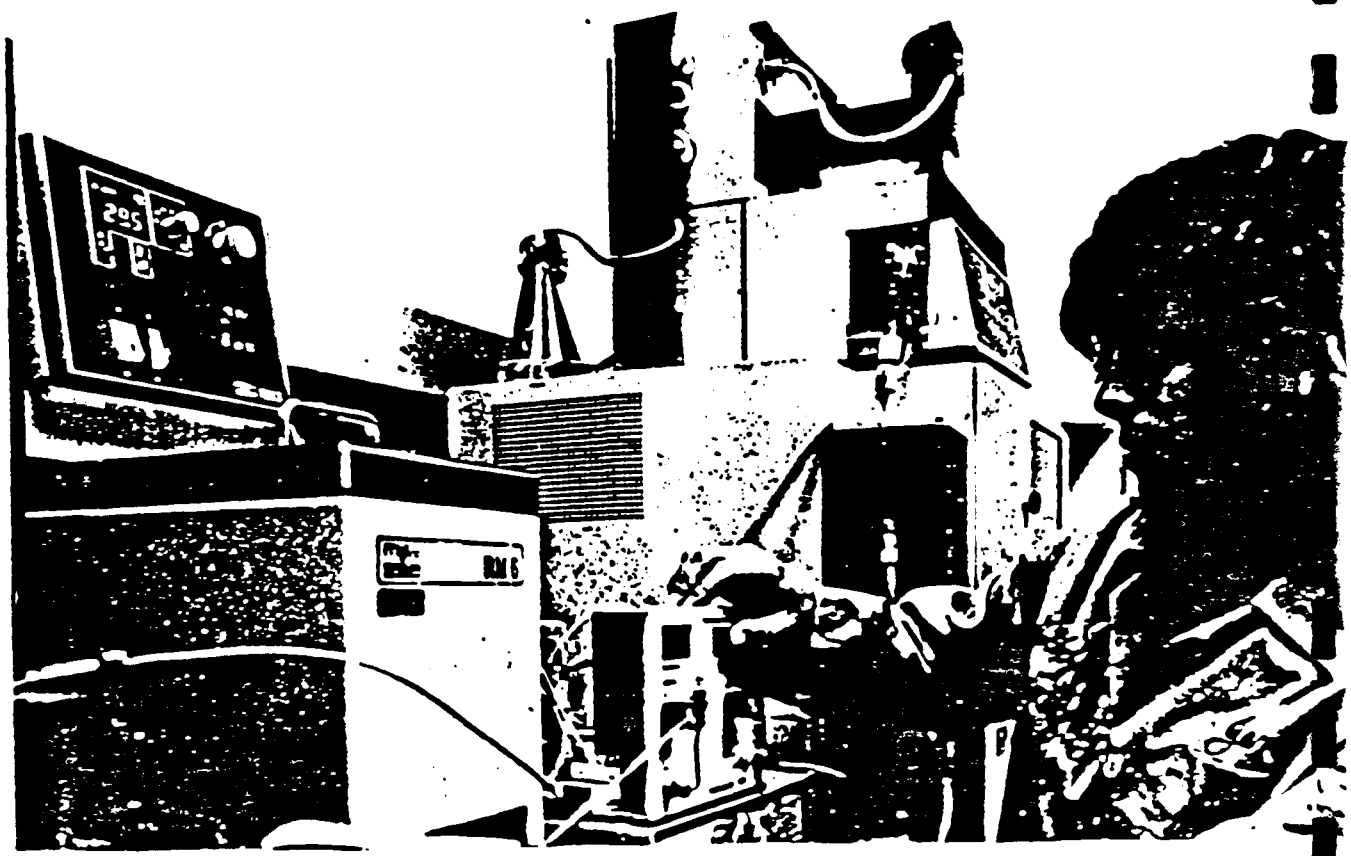
* Included in Wholesale Water District

Plant Facilities

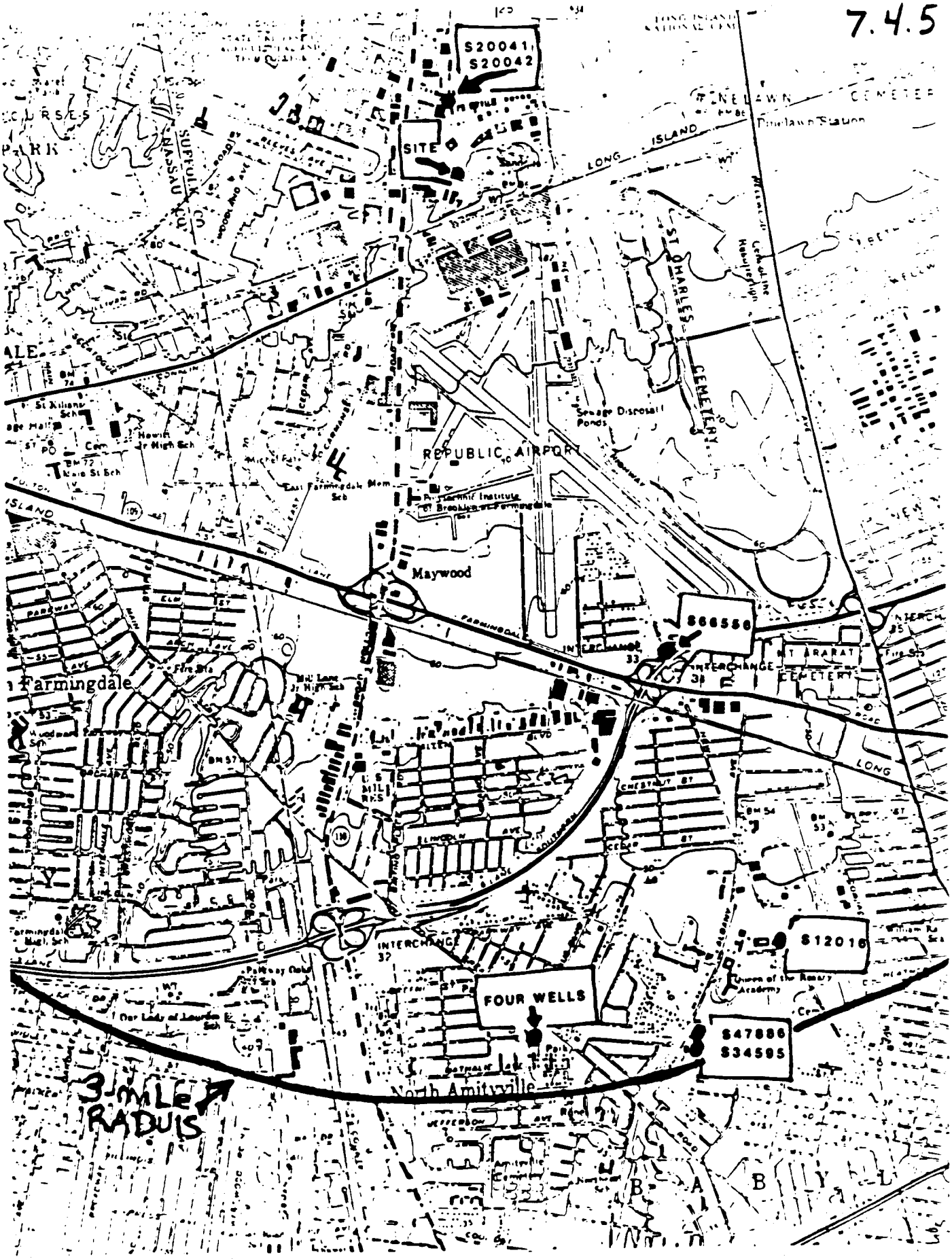
AS OF MAY 31, 1985 ☐ AS OF MAY 31, 1986 ☐

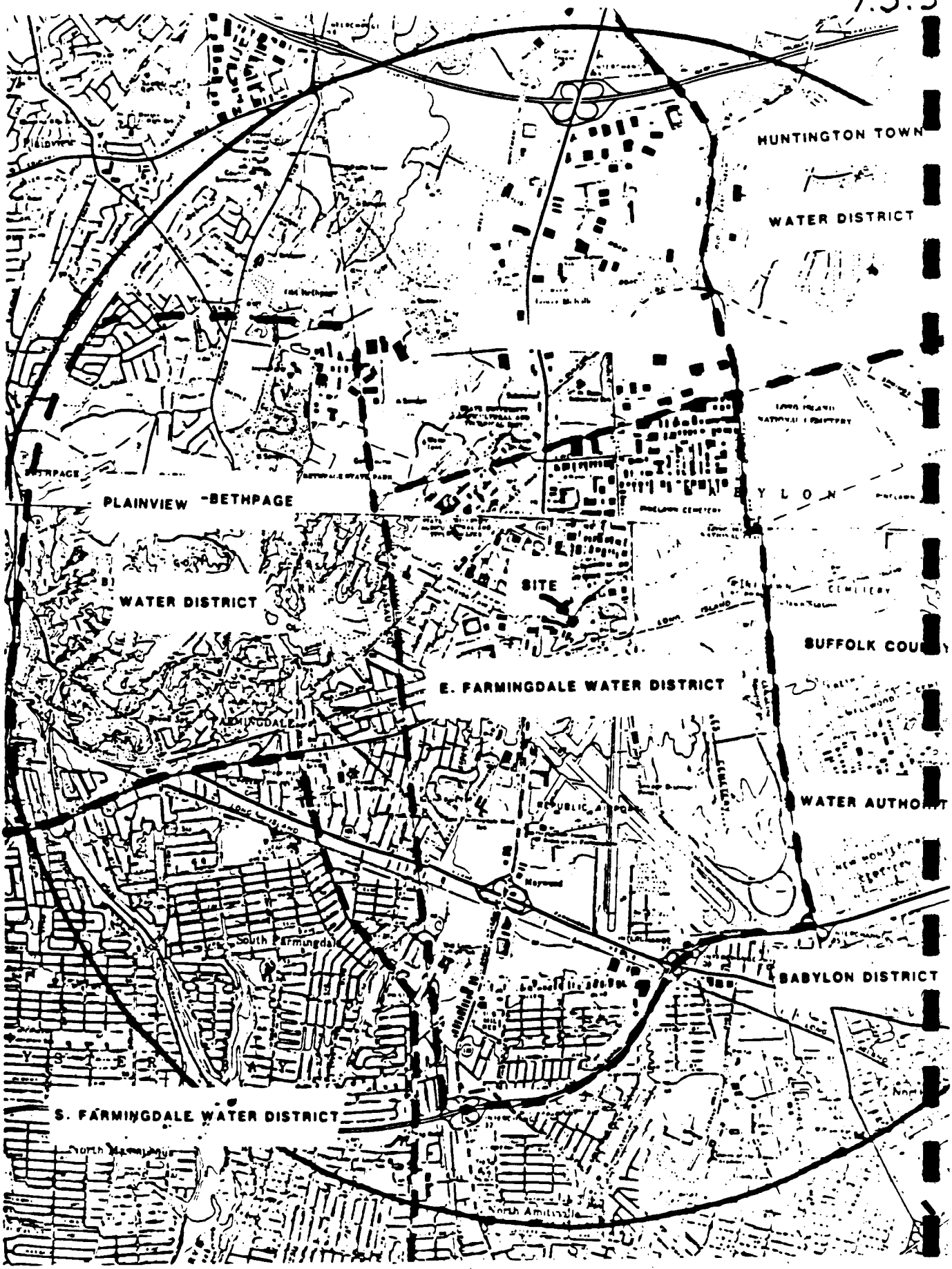
Service Areas or Plants	Wells Active		Wells Inactive		Pumping Plants No.		Pumping Plants Capacity-1000 Gals. Daily*		Storage Facilities No.		Storage Facilities Capacity in 1000 Gallons		Active Services	
BABYLON	48	48	8	8	19	19	82,102	82,102	9	8	7,815	7,515	54,311	54,893
BAY SHORE	47	49	14	13	20	20	81,274	83,722	7	7	6,012	6,012	47,485	48,024
EAST HAMPTON	33	32	1	2	18	18	23,652	22,860	4	5	3,720	5,720	10,675	10,948
HUNTINGTON	52	53	3	3	21	21	63,878	64,886	11	11	11,842	11,842	28,676	28,880
PATCHOGUE	65	66	8	7	27	27	108,792	110,592	11	11	11,465	11,465	53,377	52,131
PORT JEFFERSON	67	69	2	1	28	28	107,741	109,901	7	7	7,404	7,404	33,885	34,880
SMITHTOWN	48	48	3	3	21	21	83,578	83,578	6	6	6,100	6,100	23,398	23,772
WESTHAMPTON	23	23	—	—	7	7	16,524	16,524	3	4	2,350	3,350	4,724	9,301
TOTALS	383	388	39	37	161	161	567,541	574,165	58	59	56,708	59,408	256,531	262,829

*Based on 24-hour operation and on actual capacity of pumping equipment for active wells



7.4.5


S20041
S20042
SITE
LONG ISLAND
Pinelawn Station
ST CHARLES CEMETERY
Sewage Disposal Ponds
REPUBLIC AIRPORT
Maywood
S66556
INTERCHANGE 33
INTERCHANGE 34
MT ARARAT CEMETERY
Farmingdale
INTERCHANGE 32
S12016
FOUR WELLS
S47886
S34595
North Amityville
3-MILE RADIUS
B A B Y L


HUNTINGTON TOWN
WATER DISTRICT
PLAINVIEW -BETHPAGE
WATER DISTRICT
SITE
SUFFOLK COU
E. FARMINGDALE WATER DISTRICT
WATER AUTHO
BABYLON DISTRICT
S. FARMINGDALE WATER DISTRICT

D.5

USGS HEADER FILE 1987

Public-Supply and Observation Well Data

USGS
5 Aerial Way
Syosset, New York

S	1328.	4040470732520050	4040470732520		7	SO	194	4156	3	00	46	000	0	0	004
S	1329.	4040470732520060	4040470732520		7	SO	194	4156	3	00	60	000	0	0	005
S	1330.	4040470732520020	4040470732520	211MGTY	7	SO	194	4156	3	260	60	000	0	0	002
S	1601.	4041560732123001	4041560732126	211MGTY	7	SO	452	0	0	0	00	0	000	0	0	001
S	1602.	4041560732123002	4041560732125	211MGTY	7	SO	452	0	0	0	00	0	000	0	0	001
S	3572.	4050050732710001	4050050732710		7	SF	318	7	0	0	00	26010470	0	0	001
S	3574.	4050050732710002	4050050732710		7	SF	318	7	0	0	00	24310559	0	0	002
S	6251.	4048340732431001	4048340732431	211MGTY	7	SH	435	7151	01440	202	000	149	0	20701
S	9771.	4050430731615001	4050430731615	112GLCLU7		SH	963	11169	01400	147	000	126	146	15101
S	10641.	4042200731905001	4042190731905	112GLCLU7		SO	594	4157	0	190	60	000	37	58	6001
S	11891.	4050540731510001	4050540731510	112GLCLU7		SH	1024	11162	0	700	119	6814	86	108	32801
S	12016.	4042020732422001	4042030732422	112GLCLU7		SN	296	0	0	0	00	0	000	0	0	001
S	12072.	4047500732415001	4047500732415	211MGTY	7	SJ	431T	7148	01410	445	000	364	444	60201
S	12130.	4051260732736002	4051260732736	112GLCLU7		SE	326	7131	0	700	307	000	266	305	30802
S	13175.	4050150732343002	4050150732343	112GLCLU7		SG	513T	7151	01780	263	000	169	263	41802
S	13534.	4045310731504001	4045290731504	112GLCLU7		SM	907T	8187	0	620	126	000	89	119	12601
S	13776.	4050150732639001	4050150732639	211MGTY	7	SF	358	7151	01200	298	000	246	298	44801
S	14213.	4042010732424001	4042030732424	112GLCLU7		SN	296	4156	0	350	85	000	54	84	8701
S	14521.	4051430732019001	4051430732019	112GLCLU7		SF	758	7137	02000	552	000	459	552	55201
S	14829.	4051140732605001	4051140732605	112GLCLU7		SF	401	7144	02220	508	000	355	440	59501
S	15472.	4042030732422001	4042030732419	112GLCLU7		SN	296	4166	0	420	87	000	53	87	8901
S	15776.	4051150732608001	4051150732608	112GLCLU7		SF	401	7144	02300	5042309	8	440	500		001
S	15898.	4045360731633001	4045370731634	112GLCLU7		SM	823	8190	0	700	128	7841	95	128	13301
S	15923.	4051340731559001	4051450731554	112GLCLU7		SG	1006	11169	01400	264	000	148	263	36201
S	16042.	4046320732207001	4048320732207	112GLCLU7		SH	579	7133	02100	326	000	266	319	40001
S	16157.	4050270732503001	4050270732503	112GLCLU7		SF	449	7151	01600	604	000	540	602	60401
S	16175.	4045340731631001	4045340731631	112GLCLU7		SM	823	8190	0	700	130	7314	95	130	13001
S	16176.	4045280731506001	4045280731506	112GLCLU7		SM	907	8202	0	620	117	000	81	117	12101
S	16526.	4047070732521001	4047070732521	211MGTY	7	SJ	355T	7148	01200	301	000	0	0	001
S	16603.	4047330731536001	4047330731536		7	SK	929	8189	01100	140	000	110	140	16801
S	16606.	4045280731505001	4045290731505	211MGTY	7	SM	907	4187	0	620	383	000	322	383	65301
S	17049.	4043010731617001	4043040731617	211MGTY	7	SO	773	8198	0	250	727	000	663	726	73501
S	17554.	4042400732256001	4042350732256	112GLCLU7		SN	385	4165	0	450	100	4129	65	100	10501
S	17565.	4045220732222501	4045230732222		7	SM	439	4161	0	00	93	4649	63	0	9801
S	20041.	4044440732511001	4044440732511	112GLCLU7		SL	303	4	0	0	800	268	000	190	264	001
S	20057.	4045190732251010	4045200732245	211MGTY	7	SL	453	4167	0	790	200	8101	170	200	20001
S	20300.	4045160732251010	4045210732243	211MGTY	7	SL	453	4167	0	750	232	6664	201	232	23201
S	20318.	4047330731531001	4047330731531	211MGTY	7	SL	920T	8189	01100	436	000	370	430	60501
S	20369.	4049360731525001	4049360731525	211MGTY	7	SJ	984	11169	01200	312	000	260	310	31201
S	20403.	4042400732250020	4042350732256	211MGTY	7	SN	385T	4165	0	470	499	4356	424	494	76902
S	20565.	4045170731536001	4045400731541	211MGTY	7	SO	320	8187	0	260	755	2964	710	772	75501
S	20755.	4041560732123001	4041550732123	211MGTY	7	SO	453	4166	0	220	630	2299	557	627	63001
S	21006.	4046090731913001	4046090731913	112GLCLU7		SJ	728	7	0	01430	376	000	310	372	40201
S	21121.	4051340732357002	4051340732357	112GLCLU7		SF	532	7146	02200	6002180	0	490	555	62102
S	21154.	4051060731742001	4051060731742	211MGTY	7	SG	887	7169	01600	547	000	489	540	68001
S	21244.	4043040731620001	4043040731615	211MGTY	7	SO	773	8137	0	230	602	2750	465	595	73001
S	21365.	4043570731816001	4043570731816	211MGTY	7	SN	683	8209	0	430	470	4652	414	454	47001
S	21375.	4042200731903002	4042220731904	211MGTY	7	SO	593	4157	0	180	501	2030	445	495	50302
S	21467.	4043200732240104	4043200732224	211MGTY	7	SM	439	4166	0	430	340	000	262	340	34001
S	22[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	SR	[redacted]	[redacted]	[redacted]	[redacted]	28[redacted]	[redacted]	[redacted]	28[redacted]	00[redacted]

9.2.9

N	7407.	2404092073333213	4040920733332	211MGTY	7	NG1298	1	0	0	240	648	2394	480	645	013	
N	7414.	1404056073261101	2404054073261 3	211MGTY	7	NL1282	3	0	0	220	533	000	373	530	001	
N	7421.	1404557073270502	2404554073270 6	211MGTY	7	NL 837	3	0	01800		564	000	482	559	001	
N	7444.	1404648073344301	4048480733443	211MGTY	7	NG 637	3	0	02220		498	000	443	493	001	
N	7500.	1404418073345401	4044190733450	211MGTY	7	NG 928	1	0	3	920	458	000	405	458	001	
N	7515.	1404337073271101	2404337073270 7	211MGTY	7	NL1033	3	0	0	630	352	000	299	347	002	
N	7516.	1404337073271102	2404337073270 5	211MGTY	7	NL1033	3	0	0	630	589	000	495	584	58901	
N	7523.	1404311073302501	4043090733026	211MGTY	7	NJ1066	1	0	0	810	684	8046	589	684	002	
N	7525.	1404703073280101	2404703073280 1	211MGTY	7	NK 789	3	0	02280		691	000	570	688	69401	
N	7534.	2404504073301105	4045050733011	211MGTY	7	NJ 973	3	0	01200		366	000	288	366	002	
N	7535.	2404519073295905	4045190732958	211MGTY	7	NJ 981	3	0	01220		357	000	281	357	005	
N	7549.	1404736073353201	4047360733531	211MGTY	7	NF 785	3	0	01930		50420234		449	499	001	
N	7561.	1404455073324902	4044550733246	211MGTY	7	NH 934	3	0	01170		55111890		463	550	003	
N	7562.	1404634073311103	4046340733111	211MGTY	7	NJ 813	3	0	01630		550	000	458	545	002	
N	7563.	1404531073415401	4050450732830	211MGTY	7	NK 553	3	0	02530		47325442		408	468	001	
N	7565.	1404500073300401	4045000733004	211MGTY	7	NJ 973	3	0	01200		394	000	314	394	002	
N	7566.	1404517073294301	4045170732949	211MGTY	7	NJ 991	3	0	01250		373	000	312	373	002	
N	7567.	1404516073293502	4045170732942	211MGTY	7	NJ 991	3	0	01260		490	000	429	490	003	
N	7565.	1405204073345401	4052030733500	112GLCLU	7	NG 414	3	0	02180		37522249		320	370	001	
N	7772.	1405012073305501	4050120733102	211MGTY	7	NJ 527	3	0	02580		568	000	503	563	001	
N	7773.	1405010073305901	4050100733059	211MGTY	7	NJ 527	3	0	02300		56524540		500	560	001	
N	7781.	1404751073322001	4047510733220	211MGTY	7	NH 754	3	0	02170		459	000	394	454	001	
N	7785.	1404526073353401	4045260733534	211MGTY	7	NF 981	2	0	31080		404	000	330	400	001	
N	7796.	1403950073341201	4039490733417	211MGTY	7	NG1350	1	0	0	110	700	000	525	585	004	
N	7796.	2403949073341206	4039490733417	211MGTY	7	NG1350	1	0	0	110	590	000	525	585	006	
N	7797.	1404310073331502	4043080733321	211MGTY	7	NH1007	1	0	0	800	550	8514	485	545	001	
N	7831.	1404025073371301	4040220733713	211MGTY	78	NF1206	1	0	0	400	590	000	515	585	001	
N	7852.	1404410073261612	2404410073261 6	211MGTY	7	NL 989	3	99	3	770	457	000	399	450	61505	
N	7852.	2404411073261801	2404410073261 6	211MGTY	7	NL 989	3	99	3	770	457	000	400	450	007	
N	7857.	1404420073353201	4044200733531	211MGTY	7	NF 998	1	0	3	960	523	9889	433	519	001	
N	6004.	1404343073284301	4043440732840	211MGTY	7	NK1052	3	0	0	870	745	9528	679	740	001	
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N	6031.	2404046073305903	4040460733058	211MGTY	7	NJ1233	1	0	0	230	513	000	389	510	51303	
N	6043.	1404757073283301	4047540732831	211MGTY	7	NK 763	3	0	02220		68822216		515	686	001	
N	6054.	1404557073270503	4045570732705	211MGTY	7	NL 837	3	0	01780		585	000	510	580	001	
N	6124.	1404500073295501	4044460733000	211MGTY	7	NJ 935	3	0	01160		543	000	483	543	001	
N	6183.	1405146073313401	4051460733134	112GLCLU	7	NH 496	3	0	0	900	230	000	181	230	48702	
N	6196.	2403952073361607	4039520733616	211MGTY	7	NF1350	1	0	0	240	625	2813	560	620	007	
N	6214.	2404156073262006	4040415607326 2 0	211MGTY	7	NL1175	3	0	0	370	686	4078	605	686	004	
N	6216.	1404000073371001	4040000733710	211MGTY	7	NF1209	1	0	0	340	665	000	600	660	001	
N	6217.	2404034073371004	4040040733710	211MGTY	7	NF1208	1	0	0	360	508	000	0	0	004	
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N	6250.	3404106073371605	4041060733716	211MGTY	7	NE1291	1	0	0	480	485	4906	420	480	005	
N	6253.	1404002073333301	4040030733334	211MGTY	7	NG1298	1	0	0	240	699	000	563	695	001	
N	6272.	1404309073302901	4043090733026	211MGTY	7	NJ1066	1	0	0	810	547	8053	389	547	003	
N	6321.	1404401073315103	4044000733147	211MGTY	7	NH1081	1	0	0	970	674	000	574	674	004	
N	6326.	2405116073372903	4051160733729	112GLCLU	7	NE 580	3100	0	530	168	5438	120	165		003	
N	6327.	2405113073372607	4051130733726	112GLCLU	7	NE 580	3100	0	530	168	5452	118	168		007	
N	6415.	2404226073293307	4042260732933	211MGTY	7	NK1101	1	0	0	580	625	000	609	625	007	
N	570.	1404912073292501	4049190732931	211MGTY	7	NK 603	3126	02380		600	000	550	600	61001		
N	6457.	1404652073276	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

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S	74285.	1404750073225304	4047500732253	211MGTY	1	SJ	514	0	0	01546	11515407	107	112	004	
S	74586.	1404433073244903	4044330732449	211MGTY	1	SL	316	4	99	0 860	441 8575	433	436	003	
S	74587.	1404433073244904	4044330732449	211MGTY	1	SL	316	4	99	0 860	196 8576	188	193	004	
S	75033.	1404433073244905	4044330732449	112GLCLU1		SL	316	4	99	0 865	62 8599	47	52	005	
S	75034.	1404433073244901	4044330732449	211MGTY	1	SL	316	4	99	0 865	698 8624	688	693	84001	
S	75034.	2404433073244902	4044330732449	211MGTY	1	SL	316	0	0	0 865	698 8624	688	693	002	
S	75454.	1404659073194001	4048590731940	211MGTY	1	SJ	721	7133	02307	74023056	730	735	85501		
S	75454.	2404659073194002	4048590731940	211MGTY	1	SJ	721	0	0	02307	74023056	730	735	002	
S	75455.	1404659073194003	4048590731940	211MGTY	1	SJ	721	0	0	02302	50822988	500	505	003	
S	75456.	1404659073194004	4048590731940	112GLCLU1		SJ	721	7133	02305	20322952	195	200	004		
S	76016.	2404530073181102	4045300731811	211MGTY	1	SM	721	0	0	0 635	762 6317	752	757	002	
S	76017.	1404530073181103	4045300731811	211MGTY	1	SM	721	0	0	0 632	503 6285	495	500	003	
S	76018.	1404530073181104	4045300731811	211MGTY	1	SM	721	0	0	0 700	194 6276	186	191	004	
S	76019.	1404530073181105	4045300731811	112GLCLU1		SM	721	0	0	0 700	62 6286	57	62	005	
S	76673.	1404942073175501	4049420731755	211MGTY	1	SH	843	7169	01300	63312867	625	630	74201		
S	76673.	2404942073175502	4049420731755	211MGTY	1	SH	843	0	0	01300	63312867	625	630	002	
S	76674.	1404942073175503	4049420731755	211MGTY	1	SH	848	0	0	01300	46312908	455	460	003	
S	76675.	1404942073175504	4049420731755	211MGTY	1	SH	848	0	0	01300	25312928	245	250	004	
S	79407.	1403935073235203	4039370732350	211LLYD	1	SP	256	4158	3	781219	74211921214124003				
S	79408.	1403935073235204	4039370732350	211MGTY	1	SP	256	4158	3	78 680	722 670	675	70204		
Sb	1.	1404354073225901	4043540732259	112GLCLU1		SM	4049	4	0	0 599	30 000	0	0	001	
Sb	1.	2404354073225902	4043540732259	112GLCLU1		SM	4049	4	0	0 598	50 000	0	0	002	
Sb	1.	3404354073225903	4043540732259	112GLCLU1		SM	4049	4	0	0 580	69 000	0	0	001	
Sb	1.	4404354073225903	4043540732259	112GLCLU1		SM	404C	4	0	0 596	70 000	0	0	003	
Sb	4.	1404322073230401	4043220732304	112GLCLU1		SM	398A	4	0	0 531	24 000	0	0	001	
Sb	4.	2404322073230402	4043220732304	112GLCLU1		SM	398B	4	0	0 531	49 000	0	0	002	
Sb	4.	3404322073230403	4043220732304	112GLCLU1		SM	398C	4	0	0 532	90 000	0	0	003	
Sb	5.	1404326073223901	4043260732238	112GLCLU1		SM	418A	4	0	0 537	26 000	0	0	001	
Sb	5.	2404326073223902	4043260732238	112GLCLU1		SM	418B	4	0	0 539	46 000	0	0	002	
Sb	5.	3404326073223903	4043260732238	112GLCLU1		SM	418C	4	0	0 538	77 000	0	0	003	
Sb	12.	1404312073221501	4043120732215	112GLCLU1		SN	431A	4	0	0 398	25 000	0	0	001	
Sb	12.	2404312073221502	4043120732215	112GLCLU1		SN	431B	4	0	0 397	46 000	0	0	002	
Sb	12.	3404312073221503	4043120732215	112GLCLU1		SN	431C	4	0	0 398	70 000	0	0	003	
Sb	12.	4404312073221504	4043120732215	112GLCLU1		SN	431B	4	0	0 00	54 000	0	0	004	
Sb	12.	5404312073221505	4043120732215	112GLCLU1		SN	431C	4	0	0 400	84 000	0	0	005	
Sb	100.	1404350073231401	4043500732314		1	SM	394	4	0	0 00	205 000	0	0	001	
Sb	125.	1404354073225301	4043540732253	112GLCLU1		SM	4149	4	0	0 00	44 000	0	0	001	
N	107.	1404732073352401	4047330733524	211MGTY	7	NF	796	311	0	02110	49520259	455	495	001	
N	108.	2403531073431902	4048190733531		7	NF	790	0	89	02450	298 000	275	298	002	
N	131.	2403949073341705	4039490733417	211MGTY	7	NG	1350	1	13	0 110	530 000	467	523	005	
N	132.	1403952073342001	4039510733419	211MGTY	7	NG	1350	1	13	0 200	515 000	466	507	001	
N	133.	1403952073342002	4039530733420	211MGTY	7	NG	1259	1	13	0 200	529 000	471	512	001	
N	134.	1403951073341601	4039500733415	211MGTY	7	NG	1360	1	13	0 200	528 000	467	517	001	
N	149.	1404444073321001	4044410733207	211MGTY	7	NH	976	3104	01150	15911617	128	153	001		
N	149.	1404627073311201	4046260733112	112GLCLU7		NJ	813	3104	01620	15316306	130	150	001		
N	150.	1404627073311202	4046290733111	112GLCLU7		NJ	813	3104	01620	149 000	122	142	001		
N	157.	1404631073345101	4046420733449	211MGTY	7	NG	628	3	0	02180	36021841	335	360	001	
N	189.	2404449073264901	4044490732649	211MGTY	7	NL	955	3	92	31450	184 000	149	184	19002	
N	192.	2404432073290102	4044320732901	211MGTY	7	NK	937	3	92	01045	176 000	112	173	17602	
N	1402	[redacted]	[redacted]	[redacted]		[redacted]		[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
N	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]		[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	

"	5167.	2404041073343302	4040410733438	211MGTY	7	NG1234	1	0	0	370	501	000	445	495	002
"	5259.	2404120073322501	4041190733227	211MGTY	7	NH1159	1	0	0	390	317	000	241	312	002
"	5302.	1404246073314301	4042460733143	211MGTY	7	NJ1009	1	25	3	660	489	000	431	484	001
"	5305.	1404320073293501	4043240732944	211MGTY	7	NJ 991	3	0	01290	167	000	115	167	001
"	5318.	1404155073345001	4041540733453	211MGTY	7	NG1125	1	0	0	580	315	000	260	310	001
"	5320.	1404155073344901	4041550733447	211MGTY	7	NG1135	1	0	0	600	384	000	319	379	001
"	5321.	1404245073320201	4042420733157	211MGTY	7	NH1180	1	0	0	710	514	7048	449	509	001
"	5322.	1404245073315302	4042450733202	211MGTY	7	NH1170	1	0	0	700	515	000	470	510	001
"	5336.	2404441073320901	4044410733207	211MGTY	7	NH 976	3	0	01140	528	000	472	523	003
"	5404.	3404419073364304	4044200733644	211MGTY	7	NF 928	1	0	3	900	575	9130	500	572	004
"	5405.	3404423073365503	4044230733655	211MGTY	7	NF 918	1	0	3	920	557	9449	473	553	003
"	5545.	1404453073372501	4044540733726	211MGTY	7	NE 994	2	0	21060	46810652			403	463	001
"	5554.	1404451073352601	4044510733526	211MGTY	7	NF 995	2	0	3	980	340	9959	275	335	001
"	5595.	1403923073354301	4039220733543	211MGTY	7	NF1383	1	0	0	240	529	2533	466	526	001
"	5596.	2403946073341501	4039450733415	211MGTY	7	NG1360	1	0	0	200	523	000	463	518	002
"	5703.	1404154073261903	4041560732620	211MGTY	7	NL1175	3	0	0	370	459	000	384	459	001
"	5707.	1404054073294901	4040540732948	211MGTY	7	NJ1292	1	0	0	260	384	000	305	384	001
"	5803.	1404032073280003	4040320732800	211MGTY	7	NK1295	3	0	0	90	143	000	0	0	003
"	5804.	1404032073280025	4040320732800	211MGTY	7	NK1295	3	0	0	90	127	000	0	0	025
"	5994.	1405211073371901	4052110733718	211MGTY	7	NE 493	3	0	01300	226	000	173	226	001
"	6045.	2404432073365602	4044320733656	211MGTY	7	NF 917	1	0	3	970	328	8721	277	328	002
"	6046.	2404419073354501	4044160733548	211MGTY	7	NF 979	1	0	31010	175	9060	145	175	002
"	6076.	2404650073291102	4046500732911	211MGTY	7	NK 821	3	0	01580	358	000	296	358	002
"	6077.	2404651073291301	4046490732910	211MGTY	7	NK 821	3	0	01580	465	000	398	460	002
"	6078.	1404537073284901	4045350732848	211MGTY	7	NK 849	3	0	01230	28012970		225	275	001
"	6092.	1404906073275101	4049120732751	211MGTY	7	NK 694	3	0	02410	637	000	561	631	001
"	6093.	1404906073275102	4049060732751	211MGTY	7	NK 694	3	0	02590	612	000	546	606	001
"	6149.	2404216073273301	4042160732733	211MGTY	7	NL1112	3	0	0	510	566	000	462	561	002
"	6149.	2404215073262203	4042150732622	211MGTY	7	NL1173	3	0	0	420	640	000	585	640	003
"	6150.	2404246073290301	4042450732903	211MGTY	7	NK1039	3	0	0	610	612	000	545	607	002
"	6191.	2404720073303701	4047070733049	211MGTY	7	NJ 739	3	0	01760	555	000	489	550	002
"	6215.	1404526073362602	4045260733626	211MGTY	7	NF 941	2	0	31070	35310436		298	348	001
"	6442.	1404123073285003	4041230732852	211MGTY	7	NK1149	3	0	0	310	612	000	524	612	002
"	6443.	1404123073285002	4041230732852	211MGTY	7	NK1149	3	0	0	310	268	000	190	268	003
"	6567.	2404603073293901	4046030732938	211MGTY	7	NK 803	3	0	01580	60116003		523	596	002
"	6644.	1404407073271301	4044060732713	211MGTY	7	NL 939	3	0	31010	227	000	175	222	23801
"	6766.	1404041073283401	4040390732835	211MGTY	7	NK1264	3	0	0	260	626	2739	566	626	001
"	6767.	1404043073283601	4040390732835	211MGTY	7	NK1264	3	0	0	260	492	2746	414	492	002
"	6793.	1404046073354501	4040490733544	211MGTY	7	NF1283	1	0	0	420	565	000	500	560	003
"	6815.	1404407073283201	4044010732831	211MGTY	7	NK1060	3	0	0	950	516	9445	558	606	001
"	6816.	2404356073283102	4043560732831	211MGTY	7	NK1061	3	0	0	950	613	9433	561	611	002
"	6854.	1404357073270501	4045560732705	211MGTY	7	NL 837	3	0	01760	602	000	514	597	002
"	7050.	1404035073331701	4040350733311	211MGTY	7	NH 812	3	0	01580	53116280		480	530	001
"	7076.	1404339073304401	4043390733040	211MGTY	7	NJ1043	1	0	0	910	674	9239	569	674	002
"	7293.	1404305073371201	4043050733714	211MGTY	7	NE1097	1	0	0	610	587	000	394	444	002
"	7293.	2404305073371403	4043050733714	211MGTY	7	NE1097	1	0	2	610	444	000	394	444	003
"	7377.	1404312073274301	4043130732750	211MGTY	7	NK1096	3	0	0	670	758	000	608	758	001
"	7407.	1404002073333203	4040020733332	211MGTY	7	NG1298	1	0	0	240	0	2394	378	530	003
"	7407.	2404002073333213	4040020733332	211MGTY	7	NG1298	1	0	0	240	649	2394	480	645	013
"	7414.	1404054073261101	4040540732613	211MGTY	7	NL1282	1	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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N	199.	4049170732929	4049170732929	211MGTY 7	NK 603	3	126	02370	616	000	566	616	002
N	190.	4049220732931	4049220732924	211MGTY 7	NK 613	3	126	02330	61123	351	544	599	001
N	1605.	4044540732951	4044550732955	211MGTY 7	NJ 984	3	0	01200	109	000	66	101	001
N	1606.	4044410732952	4045000732956	211MGTY 7	NJ 983	3	0	01220	108	000	81	108	001
N	1799.	4045160732953	4045180732953	211MGTY 7	NJ 981	3	0	01250	105	000	80	105	004
N	1959.	4045150732950	4045170732942	211MGTY 7	NJ 991	3	0	01260	175	000	135	165	002
N	1963.	4044410732952	4044420732953	211MGTY 7	NJ 986	3	0	01140	359	000	293	348	001
N	1937.	4044090732711	4044090732711	211MGTY 7	NL 939	3	99	31060	150	000	121	146	001
N	2072.	4046340733111	4046340733111	112GLCLU7	NJ 813	3	0	01620	159	000	138	159	001
N	2715.	4051060733725	4051070733723	112GLCLU7	NE 581	3	0	01570	170	000	0	170	001
N	2528.	4050100733432	4050010733432	211MGTY 7	NG 538	3	0	0 930	328	9396	278	282	002
N	2580.	4043230733145	4043230733145	211MGTY 7	NH1095	1	0	0 750	357	000	321	357	004
N	2603.	4040560732605	4040560732605	112GLCLU7	NL1292	3	0	0 240	71	000	34	66	001
N	2747.	4044460733650	4044460733650	211MGTY 7	NF 925	2	52	3 920	333	9297	278	328	002
N	2743.	4044450733651	4044450733651	211MGTY 7	NF 915	2	52	3 940	515	9306	460	510	003
N	3456.	4043020733325	4043020733325	211MGTY 7	NH1007	1	0	0 770	560	000	494	555	004
N	3457.	4043080733320	4043080733320	211MGTY 7	NH1007	1	0	0 800	325	000	280	320	001
N	3463.	4041320733114	4041320733114	211MGTY 7	NJ1118	1	0	0 300	303	000	247	299	30301
N	3465.	4043050733331	4043050733331	211MGTY 7	NG1097	1	0	0 770	585	000	519	580	004
N	3466.	4051130733727	4051130733727	112GLCLU7	NE 580	3	100	0 530	177	4940	148	173	002
N	3468.	4044450733104	4044450733104	211MGTY 7	NJ 925	3	0	01170	169	000	116	169	002
N	3552.	4044540733203	4044540733203	211MGTY 7	NH 974	3	0	01190	169	000	116	169	002
N	3553.	4044530733246	4044530733246	211MGTY 7	NH 934	3	0	01170	152	000	99	152	002
N	3613.	4043060733046	4043060733046	211MGTY 7	NJ1043	1	0	0 890	420	7850	377	418	004
N	3760.	4042280732935	4042280732935	112GLCLU7	NK1101	1	0	0 580	142	000	89	142	002
N	3376.	4043520732911	4043520732911	211MGTY 7	NK1021	3	0	0 910	386	000	328	386	001
N	3393.	4042280732933	4042280732933	211MGTY 7	NK1101	1	0	0 580	150	000	98	151	005
N	3395.	4041190733231	4041190733231	211MGTY 7	NH1159	1	0	0 410	349	000	312	349	50302
N	3934.	4044020733708	4044020733708	211MGTY 7	NF1001	1	14	2 860	422	8834	377	417	001
N	3935.	4044000733705	4044000733705	211MGTY 7	NF1001	1	14	2 840	415	8625	370	410	001
N	4042.	4043090732745	4043090732745	112GLCLU7	NL1006	3	0	0 520	154	000	96	154	001
N	4063.	4045320732849	4045320732849	211MGTY 7	NK 940	3	0	01240	233	000	145	233	004
N	4097.	4046310732939	4046310732939	211MGTY 7	NK 803	3	0	01580	470	000	413	463	001
N	4153.	4048090733034	4048090733034	211MGTY 7	NJ 751	3	0	01920	445	000	400	450	001
N	4164.	4045330732849	4045330732849	211MGTY 7	NK 940	3	0	01240	235	000	153	235	004
N	440.	4040110733105	4040110733105	7	NJ1227	1	46	0 90	80	000	0	0	8036
N	4206.	4045240733632	4045240733632	211MGTY 7	NF 931	2	0	01060	36010	869	305	355	001
N	4246.	4048020733128	4048020733128	211MGTY 7	NJ 702	3	0	02000	459	000	403	453	001
N	4265.	4047550733724	4047550733724	211MGTY 7	NE 783	2	0	02150	49019	961	435	485	001
N	4403.	4051540732958	4051540732958	211MGTY 7	NJ 485	3	0	0 360	302	3590	214	302	002
N	4425.	4042590733715	4042590733715	211MGTY 7	NE1098	1	0	2 580	365	000	325	365	001
N	4443.	4043070733328	4043070733328	211MGTY 7	NG1097	1	0	0 790	555	8514	500	550	001
N	4450.	4043230733136	4043230733136	211MGTY 7	NH1095	1	0	0 810	472	000	415	466	001
N	4451.	4044290733055	4044290733055	211MGTY 7	NJ 937	1	0	01100	40810	923	353	403	005
N	4503.	4041540732620	4041540732620	211MGTY 7	NL1175	3	0	0 370	184	000	113	184	002
N	4703.	4045180733018	4045180733018	211MGTY 7	NJ 961	3	0	01220	169	000	149	169	001
N	4756.	4042060733452	4042060733452	211MGTY 7	NG1124	1	0	0 610	312	000	245	307	002
N	4757.	4042100733454	4042100733454	211MGTY 7	NG1124	1	0	0 590	324	000	257	319	002
N	4759.	4042090733448	4042090733448	211MGTY 7	NG1124	1	0	0 550	446	000	363	441	002
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

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57551.	1405141073191901	4051380731905	211MGTY	7		SG 821	7149	01710	60916576	515	605	66301			
57551.	1404230073235101	4042320732256	211MGTY	7		SN 375	4165	0	420	583	3636	0	574	58301	
58192.	1404320073150402	4045310731501	211MGTY	7		SM 906	8189	0	659	306	000	0	0	60502	
58705.	1405130073235501	4051350732400	211MGTY	7		SF 532	7146	51050	66620157	572	663	70201			
59724.	1404350073191301	4043570731315	211MGTY	7		SN 633	8198	0	450	623	000	0	623	65501	
59709.	1404450073252201	4044560732522	211MGTY	7		SL 292	4	0	3	850	712	000	650	705	72301
60330.	1404321073226101	4043240732222	211MGTY	7		SM 439	4166	0	430	328	000	262	328	33701	
60497.	1404020073174402	4040040731752	211MGTY	7		SL 757	4	0	0	740	283	7429	220	280	70802
61353.	1403617073163301	4036170731633	211MGTY	7	9	SS 640	0	0	0	100	290	000	0	0	001
62725.	1405015073234201	4050150732343	211MGTY	7		SG 513	7	0	01100	79018000		690	785	79001	
62762.	1404305073161401	4043050731615	211MGTY	7		SO 793	8167	0	260	714	2102	650	710	73901	
63701.	1405113073260901	4051140732609	112GLCLU	7		SF 401	7146	02300	53323000			446	526	59701	
63633.	1404804073204401	4048040732044	211MGTY	7		SJ 636	7133	01636	72516434			658	720	75001	
63639.	1404805073203701	4048040732047	211MGTY	7		SJ 636	7133	01545	74515600			660	735	74801	
63740.	1404218073190400	4042180731904	211MGTY	7		SO 594	0	0	0	00	315	000	251	311	38401
63935.	1404851073185101	4048510731851	112GLCLU	7		SJ 763	4159	02850	60528500			539	599	66001	
63935.	1404432073151302	4044320731513	211MGTY	7		SN 374	4167	0	390	713	3740	649	710	002	
63939.	1404807073174601	4048070731746	211MGTY	7		SL 747	0	0	0	760	655	6775	550	651	66301
67866.	1404204073242001	4042040732420	211MGTY	7		SN 286	0	0	0	430	509	3669	428	505	52301
67907.	1404047073252101	4040470732521	211MGTY	7		SO 194	0	0	0	260	648	1732	554	645	65702
68197.	1404519073225202	4045190732245	211MGTY	7		SL 453	0	0	0	900	534	7311	470	530	53402
69542.	1404206073245301	4042060732458	211MGTY	7		SN 254T	0	0	0	450	560	000	540	560	001
69542.	1404206073245902	4042060732458	045.00	7		T	0	0	0	450	0	000	0	0	002
50545.	1404432073151303	4044320731513	211MGTY	7		SN 874	0	0	0	390	669	3645	604	665	003
51214.	1404210073250201	4042100732502	211MGTY	7		SN 244	0	0	0	450	395	000	330	390	39501
51457.	1404321073226202	4043230732222	211MGTY	7		SM 439	4157	0	00	623	3241	0	623	002	
51673.	1404225073193001	4042250731930	211MGTY	7		SO 572	0	0	0	00	763	2227	669	760	77201
40492.	1404230073204101	4042320732041	211MGTY	7		SN 519	4	0	0	240	746	2366	671	743	78001
53360.	1405034073162802	4050340731618	211MGTY	7		SH 954	0	0	01410	70313790		551	667	002	
53361.	1405143073155201	4051430731556	211MGTY	7		SG1006	0169	01480	52114307			437	517	001	
53747.	1405140073191201	4051360731902	211MGTY	7		SG 821	0	0	01710	453	000	370	448	001	
54563.	1404210073250202	4042100732502	211MGTY	7		SN 244	0	0	0	450	423	000	338	421	002
54731.	1403622073155001	4036220731550	211MGTY	7	9	SS 691	8	0	0	80	750	000	699	750	001
9527.	1405144073131501	4051440731315	112PGWF	7		NH 496	3	0	0	900	517	000	451	512	55601
55734.	1404326073174102	4043260731741	211MGTY	7		SN 708	0	0	0	00	0	000	0	0	002
57734.	1405126073273301	4051260732737	112GLCLU	7		SE 326	7	0	0	500	257	000	213	254	27303
58701.	1404936073152701	4049360731525	211MGTY	7		SJ 984	0	0	01320	42312470		329	389	001	
59147.	1404419073171601	4044190731716	211MGTY	7		SN 752	0	0	0	510	463	000	388	458	51501
65906.	1405053073150901	4050530731509	211MGTY	7		SH1034	11169	0	790	653	6903	560	650	001	
65505.	1404352073215801	4043520732158	211MGTY	7		SM 466	4167	0	540	650	000	575	645	001	
63.	1403921073353201	4039220733532	211MGTY	7		NE1393	1	13	0	200	510	000	450	500	002
66306.	1405156073254901	4051560732548	112GLCLU	7		SE 446	7146	01700	479	000	400	460	001		
66429.	1404326073174103	4043260731741	211MGTY	7		SN 708	8209	0	00	718	2988	0	718	003	
66556.	1404308073243101	4043080732431	211MGTY	7		SM 307	4	0	3	500	728	000	647	707	75301
67064.	1403825073192301	4038250731923	211MGTY	7	9	SR 546	4	0	0	90	205	000	167	172	001
71063.	1404328073150701	4045280731507	211MGTY	7		SM 907	8137	0	619	798	5643	0	798	001	
73.	1404259073371901	4042590733716	211MGTY	7		NE1098	1	16	0	590	135	000	82	131	001
73.	2404259073371609	4042590733716	211MGTY	7		NE1098	1	16	0	590	361	000	336	375	009
73.	2404252073370901	4042520733714	211MGTY	7		NE1099	1	16	2	619	430	000	338	428	002
82.	1404256073371501	4042560733712	211MGTY	7		NE1098	1	16	2	550	483	5724	426	475	001
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

9.7.9

2269.	1404357073181502	404357073181 4	211MGTY	7		SN	683	8209	0	449	466	000	0	465	50302
2471.	1404922073162901	404922073162 9	211MGTY	7		SJ	914	7169	01650	383	000	312	381	60201
2543.	1404706073190701	404706073190 2	211MGTY	7		SK	716	7159	01140	41511668		347	403	54101
3145.	1405226073231701	405225073231 7	112GLCLU	7		SE	597	7141	01950	600	000	520	600	60501
3445.	1404659073164101	404659073164 2	211MGTY	7		SL	842	8189	01100	61011356		541	605	61001
3562.	1404806073191301	404806073191 3	112GLCLU	7		SJ	728	7133	01450	424	000	358	420	42401
3563.	1404750073215001	404750073215 0	112GLCLU	7		SJ	576	7133	01900	445	000	327	440	45601
3715.	1404955073170402	404955073170 4	112GLCLU	7		SH	898	11169	01550	340	000	238	310	34002
3952.	1404922073162701	404922073162 8	211MGTY	7		SJ	914	7169	01650	40517000		313	402	40901
3963.	1404430073211301	404430073211 3	211MGTY	7		SM	523	4167	0 500	634	5234	558	631	66901
3997.	1405050073214501	405044073214 7	211MGTY	7		SG	643	7141	02000	62519250		540	621	70501
3993.	1405140073222101	405140073222 1	211MGTY	7		SF	635	7141	02200	60122670		525	597	66601
4346.	1404639073151401	404639073151 4	211MGTY	7		SL	927	8189	0 900	597	000	461	517	59701
5574.	1404431073211401	404431073211 5	211MGTY	7		SM	523	4167	0 500	625	5330	550	625	65401
6071.	1404720073261002	404720073261 0	211MGTY	7		SJ	301	7 0	02600	334	000	293	334	33402
6247.	1405059073233701	405059073233 7	211MGTY	7		SF	548	7146	01780	447	000	264	447	50101
6248.	1404607073253001	404607073253 0		7		SK	312	7 0	51000	552	000	512	552	54701
6555.	1404318073153801	404338073154 0	211MGTY	7		SO	620	8187	0 260	776	2925	710	773	78201
6770.	1405134073235602	405134073235 8	112GLCLU	7		SF	532	7151	02090	560	000	494	557	61202
6554.	1404047073252301	404047073252 1	112GLCLU	7		SO	194	4156	3 250	79	000	53	78	8501
6555.	1404047073252104	404047073252 1		7		SO	194	4156	3 250	78	000	0	0	7804
7491.	1404120073221601	404121073224 6	211MGTY	7		SO	364	4161	0 250	499	2451	390	493	65201
7952.	1405042073195501	405042073195 7	211MGTY	7		SG	747	7139	01900	607	000	530	601	69001
8952.	1404632073220702	404632073220 7	112GLCLU	7		SH	579	7133	02080	675	000	485	546	67702
9007.	1404607073253002	404607073253 0	211MGTY	7		SK	312	7148	01010	595	000	510	590	002
9008.	1405058073233901	405058073233 9	211MGTY	7		SF	548	7146	01850	488	000	423	483	48501
9505.	1404519073225501	404519073224 4	211MGTY	7		SL	453	4167	0 750	614	7746	546	618	63001
9109.	1404155073212205	404156073212 5	211MGTY	7		SO	452	4166	0 190	528	000	424	525	55505
9104.	1404703073164401	404703073164 1	211MGTY	7		SL	842	8189	01100	65810547		592	655	66501
9412.	1404736073153201	404736073153 2	-	7		SK	929	8189	01100	900	000	0	0	90001
9501.	1404046073252101	404047073252 1	211MGTY	7		SO	194	4156	3 260	632	1967	560	630	66301
9506.	1405132073155901	405143073155 4	211MGTY	7		SG	1006	11169	01470	50414194		436	503	51201
9561.	1403826073173201	403826073173 2		7	B	SR	597	4 0	0 110	306	000	295	305	30601
9021.	1404703073231301	404703073231 3	211MGTY	7		SJ	479	7133	02600	710	000	615	705	71001
9030.	1404536073210301	404536073210 8	211MGTY	7		SL	554	4167	0 540	538	5845	0	538	56301
9031.	1404534073210301	404534073210 8	211MGTY	7		SL	555	4167	0 541	521	000	0	521	56301
9032.	1404606073191201	404606073191 2	112GLCLU	7		SJ	738	7133	01500	441	000	369	436	44101
9037.	1404635073214001	404635073214 0	211MGTY	7		SK	556	7148	02000	736	000	656	736	74201
9054.	1404635073214002	404635073214 0	211MGTY	7		SK	556	7148	02000	632	000	0	0	66402
9595.	1404203073242202	404204073242 2	211MGTY	7		SN	286	4156	0 436	482	3765	412	482	51302
9701.	1403735073182001	403820073173 5		7		SR	588	4157	0 00	310	000	300	310	31002
9707.	1404916073253201	404916073253 2	211MGTY	7		SG	397	7144	02320	66023250		575	660	70101
9999.	1405140073190301	405139073190 4	211MGTY	7		SG	821	7149	01710	53317541		468	530	62201
9714.	1404456073182502	404456073182 4	211MGTY	7		SM	704	4159	0 630	308	000	244	304	35402
9743.	1404219073190401	404219073190 4	211MGTY	7		SO	594	4157	0 140	336	1400	272	336	38301
9791.	1405047073161401	405047073161 5	211MGTY	7		SH	963	7169	01400	67413752		534	670	68001
9976.	1404923073162901	404923073162 8	211MGTY	7		SJ	913	0169	01600	418	000	331	418	45801
7102.	1405116073205701	405116073205 7		7		SG	700	7141	0 00	688	000	542	688	68801
7351.	1405141073191001	405136073191 5	211MGTY	7		SG	821	7149	01710	60916576		515	605	66301
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

D-44

4.8.1

Well I.D. #	Latitude/ Longitude coord.		Aquifer screened GLCLU-Upper Glacial MGTY-Magothy	Well Use *										
[illegible]	1404126073243701	404126073243 7		1	SO	250	0	0	0	00	15	2659	10	15	001
S 64317.	1404900073242701	4049000732428	112GLCLU	1	SH	441	0	0	0	1496	83	14957	78	83	001
S 64318.	1404737073251601	4047370732516	112GLCLU	1	SJ	361	0	0	0	00	60	000	55	60	001
S 64319.	1404623073253901	4046230732539		1	SK	310	0	0	0	00	45	000	40	45	001
S 64320.	1404545073254501	4045450732545		1	SK	294	4	0	3	00	27	9773	25	27	001
S 64563.	1404538073211001	4045380732110		1	SL	554	0	0	0	00	13	5712	11	13	001
S 64564.	1404048073224401	4040480732244		1	SO	349	0	0	0	00	10	1376	8	10	001
S 64565.	1404050073225401	4040500732254		1	SO	348	0	0	0	00	10	1649	8	10	001
S 64566.	1404039073232601	4040390732326		1	SO	309	0	0	0	00	10	1589	8	10	001
S 64567.	1404035073233601	4040350732336		1	SO	299	0	0	0	00	15	2030	13	15	001
S 64568.	1404029073242301	4040290732423		1	SO	248	0	0	0	00	8	1120	6	8	001
S 64569.	1404026073242701	4040260732427		1	SO	246	0	0	0	00	15	1316	13	15	001
S 64570.	1404010073244801	4040100732448		1	SP	210	0	0	0	00	6	408	4	6	001
S 64571.	1404017073244301	4040170732443		1	SO	229	0	0	0	00	13	1683	11	13	001
S 64572.	1404032073244901	4040320732449		1	SO	227	0	0	0	00	10	1209	8	10	001
S 64573.	1404044073244501	4040440732445		1	SO	236	0	0	0	00	9	1651	6	9	001
S 64574.	1404045073245401	4040450732454		1	SO	225	0	0	0	00	15	2008	13	15	001
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

9.9.9

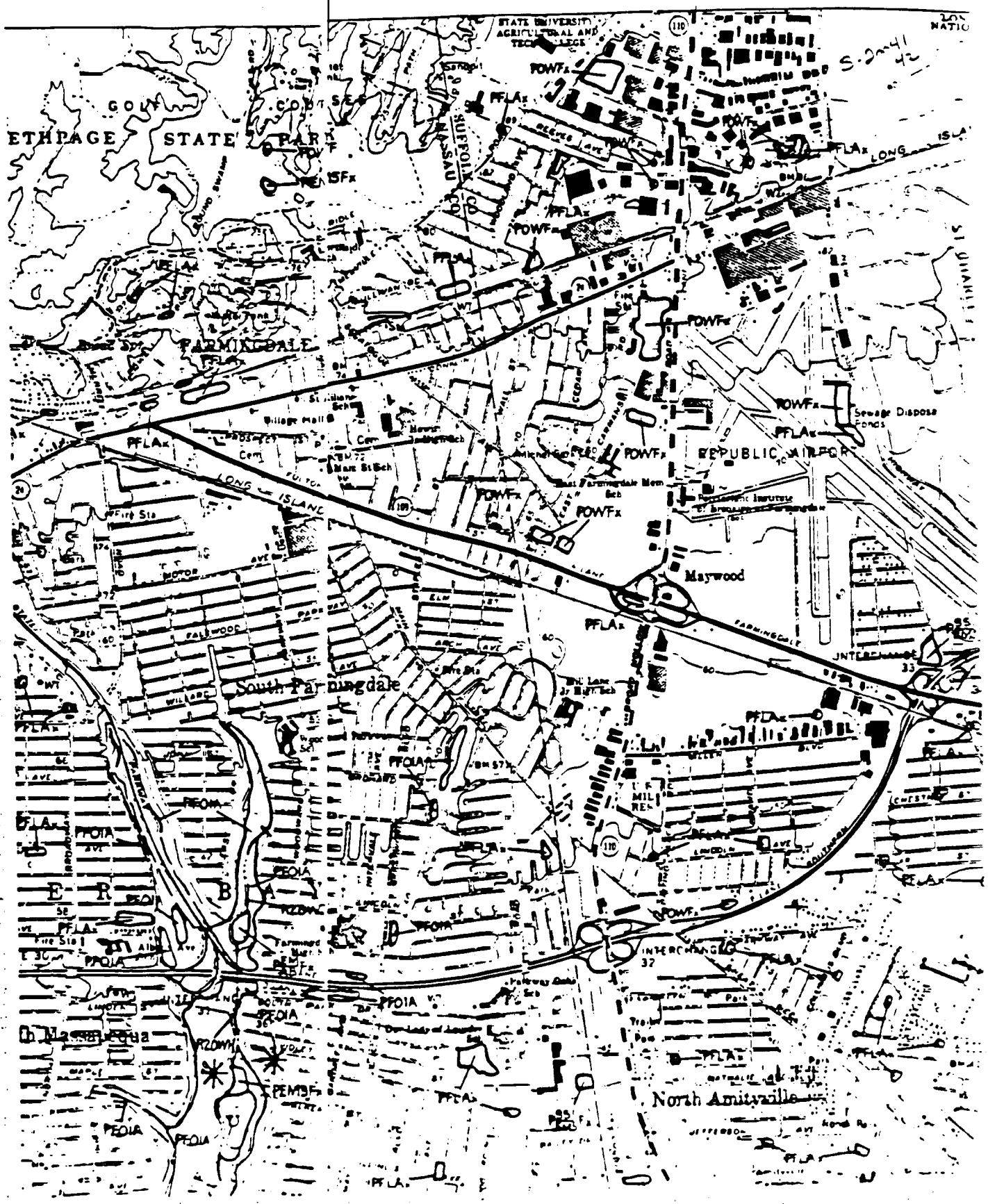
*Well Use: #1 = Observation well
#7 = Public-Supply Well

10.1.
Old Bethpage
Lower Melville
Incinerator
Sandpit
Substation
STATE UNIVERSITY AGRICULTURAL AND TECHNICAL INST
Water Tank
Sewage Disposal
Golf Course
BETHPAGE STATE PARK
PINELAWN CEMETERY
LONG ISLAND NATIONAL CEM
STATE PARK
FARMINGDALE
LONG ISLAND
ST CHARLES CEMETERY
REPUBLIC AIRPORT
Sewage Disposal Ponds
Maywood
INTERCHANGE
South Farmingdale

NATIONAL WETLANDS INVENTORY

UNITED STATES DEPARTMENT OF THE INTERIOR

12.1.1



D.6

ROUX ASSOCIATES, INC.

Telephone Conversation Sheet

Caller J. B. Grace

Company E. Farmingdale Water District

Contact Mr. John Ferrera Telephone # (516) 249 4211

DATE	COMMENTS
7/8/87	Mr. Ferrera informed me that presently 4 public supply-wells are in operation supplying ground water to 5200 people.
	four wells: #21 & 22 - 72 Gazza Blvd
	#31 - 1000 ft North of Daniel St. on Rt 110.
	#41 - Intersection of New Highway and South State Pkwy.
	Boundaries of District:
	West - Suffolk - Nassau Co. line
	East - Wellwood Ave
	North - Babylon - Oyster Bay town line
	South - Southern State Pkwy

ROUX ASSOCIATES, INC.

Telephone Conversation Sheet

Caller J. Byrnes

Company S. Farmingdale Water District

Contact Mr. Limblade Telephone # (516) 249-3330

DATE	COMMENTS
7/8/87	Mr. Limblade informed me that the district has 11-supply-wells in operation serving from 45-48,000 people
	Boundaries of District:
	West - Hicksville Rd
	East - Carmens Rd
	North - Hempstead Tpke
	South - Jerusalem Ave

ROUX ASSOCIATES, INC.

Telephone Conversation Sheet

Caller J. Byrnes

Company Plainview - Bethbage Water District

Contact Telephone # (516) 931-0093

Huntington Town Water District (516) 427-03

Mr. K. Bonneau

DATE	COMMENTS
7/13 Plainview-Bethbage Water Dist	8,300 Served by supply-wells
	Boundaries: West - Seaford Oyster Bay Exp. St. James Sch
	North - Miriam & Lark
	South - Larkspur
	East - Boarder - Suffolk & Nass
7/13 Huntington Water District	~~[illegible]~~ Has 9000 accounts in District.
	9000 x 3.8 (# of people per household) = 34,200
	Boundaries: W - Pinelawn Rd
	E - Commack Rd
	N - Old Country Rd
	S - Bagatelle Ave (Babylon - Huntington Boarder)

RCRA TREATMENT, STORAGE AND DISPOSAL FACILITY INSPECTION FORM
FOR TSD FACILITIES ONLY

COMPANY NAME: HAZARDOUS WASTE DISPOSAL, INC.

EPA I.D. Number: NYT 0000 0 2874

COMPANY ADDRESS: 11A PILONE BLVD. FARMINGDALE, N.Y. 11735

COMPANY CONTACT OR OFFICIAL: MR. GEORGE R. LAWRENCE

OTHER ENVIRONMENTAL PERMITS HELD BY FACILITY: ☐ NPDES ☐ AIR ☑ OTHER NYS 360 PERMIT HALLERS PERMIT

TITLE: PRESIDENT

INSPECTOR'S NAME: GEORGE PALLOU/ROBERT GARRITY

DATE OF INSPECTION: 9-2-81

BRANCH/ORGANIZATION: SOLID WASTE

TIME OF DAY INSPECTION TOOK PLACE: 2:15 P.M.

RECEIVE
OCT 26 1981
DIRECTOR'S OFFICE
DIVISION OF SOLID WA

OCT 17 3 16 PM '81
ENVIRONMENTAL PROTECTION AGENCY
NEW YORK, N.Y. 10007

(1) Is there reason to believe that the facility has hazardous waste on site?

a. If yes, what leads you to believe it is hazardous waste? Check appropriate box:

☑ Company admits that its waste is hazardous during the inspection.

☑ Company admitted the waste is hazardous in its RCRA notification and/or Part A Permit Application.

☑ The waste material is listed in the regulations as a hazardous waste from a nonspecific source (§261.31)

☐ The waste material is listed in the regulations as a hazardous waste from a specific source (§261.32)

☐ The material or product is listed in the regulations as a discarded commercial chemical product (§261.33)

☐ EPA testing has shown characteristics of ignitability, corrosivity, reactivity or extraction procedure toxicity, or has revealed hazardous constituents (please attach analysis report)

☐ Company is unsure but there is reason to believe that waste materials are hazardous. (Explain)

	YES	NO	DON'T KNOW
b. Is there reason to believe that there are hazardous wastes on-site which the company claims are merely products or raw materials?	✓		

Please explain:
COMPANY CLAIMS THAT A LOT OF THE SOLVENT IS USED AS AN ALTERNATE FUEL SUPPLIES.

c. Identify the hazardous wastes that are on-site, and estimate approximate quantities of each.
SPENT SOLVENTS AND ACIDS.
1900 DRUMS. PLUS A 2500 GAL. ACID TANK.

	YES	NO	DON'T KNOW
(2) Does the facility generate hazardous waste?	✓		
(3) Does the facility transport hazardous waste?	✓		
(4) Does the facility treat, store or dispose of hazardous waste?	✓		

4.2.22

VISUAL OBSERVATIONS

	YES	NO	DON'T KNOW
(5) SITE SECURITY (§265.14)			
a. Is there a 24-hour surveillance system? 24-HOUR SECURITY GUARDS - 7 DAYS PER WEEK.	✓		
b. Is there a suitable barrier which completely surrounds the active portion of the facility? FENCE	✓		
c. Are there "Danger-Unauthorized Personnel Keep Out" signs posted at each entrance to the facility? THERE IS A WARNING SIGN, BUT IS NOT THE ONE REQUIRED BY THE REGULATIONS.		✓	
(6) Are there ignitable, reactive or incompatible wastes on site? (§265.27)	✓		
a. If "YES", what are the approximate quantities? 1900 DRUMS COMPOSED OF NOTABLE AND NONNOTABLE WASTE.			
b. If "YES", have precautions been taken to prevent accidential ignition or reaction of ignitable or reactive waste? ALTHOUGH BONDING WIRES AND EXPLOSION-PROOF WIRES ARE USED, THE STORED DRUMS ARE LEAKING AND EXPOSED TO THE ELEMENTS.		✓	
c. If "YES", explain			
d. In your opinion, are proper precautions taken so that these wastes do not:			
- generate extreme heat or pressure, fire or explosion, or violent reaction?		✓	
- produce uncontrolled toxic mists, fumes, dusts, or gases in sufficent quantities to threaten human health?		✓	
- produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions?		✓	
- damage the structural integrity of the device or facility containing the waste?		✓	
- threaten human health or the environment?		✓	

Please explain your answers, and comment if necessary.

e. Are there any additional precautions which you would recommend to improve hazardous waste handling procedures at the facility? YES, A COMPLETE RENOVATION OF THE STORAGE AREA. THE IMPRESSION IS THAT THE OWNER OF THE FACILITY SIMPLY PUTS THE DRUMS WHEREVER THERE IS AVAILABLE SPACE, WITH MINIMAL ATTEMPTS TO SAFEGUARD HIS EMPLOYEES' SAFETY, PUBLIC HEALTH AND THE ENVIRONMENT.

(7) Does the facility comply with preparedness and prevention requirements including maintaining: (§265.32)

4.3.22

	YES	NO	DON'T KNOW
- an internal communications or alarm system?	✓		
- a telephone or other device to summon emergency assistance from local authorities?	✓		
- portable fire equipment?	✓		
- adequate aisle space?		✓	
- in your opinion, do the types of wastes on site require all of the above procedures, or are some not needed? Explain.	✓		

ALL OF THE ABOVE PROCEDURES ARE NEEDED.

In your opinion, do the types of wastes on site require all of the above procedures, or are some not needed? Explain.

ALL OF THE ABOVE PROCEDURES ARE NEEDED

*(8) Have you inspected to verify that the groundwater monitoring wells (if any) mentioned in the facility's groundwater monitoring plan (see no. 19 below) are properly installed?		✓	
N/A. FACILITY IS NOT A LANDFILL. HOWEVER, A DRY WELL IS LOCATED WITHIN 30 FEET OF THE STORAGE AREA. If you have, please comment, as appropriate.		✓	
(9) a. Is there any reason to believe that groundwater contamination already exists from this facility? If "YES", explain.		✓	
b. Do you believe that operation of this facility may affect groundwater quality?	✓		

c. If "YES", explain. THE LOCATION OF THE DRYWELL IS SUCH THAT MODERATE (OR HEAVY) PRECIPITATION WILL RESULT IN GROUNDWATER CONTAMINATION ASSUMING GROUND WATER TO EXIST UNDER THE FACILITY. ADDITIONALLY, THE SPACE BETWEEN THE STORAGE AREA AND THE DRY WELL IS SIMPLY UNCOVERED GROUND.

RECORDS INSPECTION

(10) Has the facility received hazardous waste from an off-site source since Nov. 19, 1980 (effective date of the regulations)?	✓		
a. If "YES", does it appear that the facility has a copy of a manifest for each hazardous waste load received?	✓		
b. How many post-November 19 manifests does it have? (If the number is large, you may estimate) COMPANY RECEIVES WASTES A FEW TIMES PER WEEK.			
c. Does each manifest (or a representative sample) have the following information?			
- a manifest document number	✓		

* [illegible]

4.4.22

	YES	NO	DON'T KNOW
(13) PERSONNEL TRAINING (§265.16)			
a. Is there written documentation of the following:			
- job title for each position at the facility related to hazardous waste management and the name of the employee filling each job?			
- type and amount of training to be given to personnel in jobs related to hazardous waste management?			
- actual training or experience received by personnel?			
(14) Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosion or any unplanned release of hazardous waste? (§265.51)			
a. Does the plan describe arrangements made with local authorities?	✓		
b. Has the contingency plan been submitted to local authorities?	✓		
How do you know?			
c. Does the plan list names, addresses, and phone numbers of Emergency Coordinators?	✓		
d. Does the plan have a list of what emergency equipment is available?	✓		
e. Is there a provision for evacuating facility personnel?	✓		
f. Was an Emergency Coordinator present or on call at the time of the inspection?	✓		
(15) Does the owner/operator keep a written operating record with: (§265.73)			
- a description of wastes received with methods and dates of treatment, storage or disposal?	✓		
- location and quantity of each waste?	✓		
- detailed records and results of waste analysis and treatability tests performed on wastes coming into the facility? NOT AT THIS PLANT. A SECOND FACILITY (APPLIED ENVIRONMENTAL SERVICES) KEEPS DETAILED RECORDS OF ALL WAS. ANALYSIS, LAB IS LOCATED THERE.			
- detailed operating summary reports and description of all emergency incidents that required the implementation of the facility contingency plan?	✓		
*(16) Does the facility have written closure and post-closure plans? (§265.110) FACILITY IS UNDER BOURT ORDER TO SHUT DOWN, PARTIALLY SATISFYING CLOSURE REQUIREMENTS.		✓	
a. Does the written closure plan include: (SEE ATTACHED COURT ORDER)			
- a description of how and when the facility will be partially (if applicable) and ultimately closed?			

INADVERTENTLY NOT OBTAINED

* Effective date for this requirement is May 19, 1981.

4.5.22

	YES	NO	DON'T KNOW
- an estimate of the maximum inventory of wastes in storage or treatment at any time during the life of the facility?	—	—	—
- a description of the steps necessary to decontaminate facility equipment during closure?	—	—	—
- a schedule for final closure including the anticipated date when wastes will no longer be received and when final closure will be completed?	—	—	—
b. What is the anticipated date for final closure?	—	—	—
†c. Does the owner/operator have a written post-closure plan identifying the activities which will be carried on after closure and the frequency of these activities?	—	—	—
d. Does the written post-closure plan include:			
- a description of planned groundwater monitoring activities and their frequencies during post-closure?	—	—	—
- a description of planned maintenance activities and frequencies to ensure integrity of final cover during post-closure?	—	—	—
- the name, address and phone number of a person or office to contact during post-closure?	—	—	—
*(17) Does the owner/operator have a written estimate of the cost of closing the facility? (§265.142) What is it? ORAL ESTIMATE BY MR. LAWRENCE IS $200,000	—	✓	—
*(18) Does the owner/operator have a written estimate of the cost for post-closure monitoring and maintenance? What is it? (§265.144)	—	—	—
*(19) Has a groundwater monitoring plan been submitted to the Regional Administrator for facilities containing a surface impoundment, landfill or land treatment process? (This requirement does not apply to recycling facilities.) (§265.90) N/A	—	—	—
a. Does the plan indicate that at least one monitoring well has been installed hydraulically upgradient from the limit of the waste mangement area? N/A	—	—	—
b. Does the plan indicate that there are at least three monitoring wells installed hydraulically downgradient at the limit of the waste management area? N/A	—	—	—

SEE CLOSURE ORDER

† This section applies only to disposal facilities.

* Effective date for this requirement is May 19, 1981.

4.6.2

SITE-SPECIFIC

Please circle all appropriate activities and answer questions on indicated pages for all activities circled. When you submit your report, include only those site-specific pages that you have used.

STORAGE	TREATMENT	DISPOSAL
Waste Pile p. 9	Tank p. 8	Landfill pp. 10-1
Surface Impoundment p. 8	Surface Impoundment pp. 8-9	Land Treatment pp. 9, 10
Container p. 7	Incineration pp. 12-13	Surface Impoundment p. 8
Tank, above ground p. 8	Thermal Treatment pp. 12-13	Other _____
Tank, below ground p. 8	Land Treatment pp. 9-10	
Other _____	Chemical, Physical p. 13 and Biological Treatment (other than in tanks, surface impoundment or land treatment facilities)	
	Other _____	

CONTAINERS (§265.170)

	YES	NO	DON'T KNOW
1. Are there any leaking containers? If "YES", explain.			
MAJORITY OF CONTAINERS WERE LEAKING (SEE COMMENTS IN GENERATOR INSPECTION FORM, P. 4.)			
2. Are there any containers which appear in danger of leaking? If "YES", explain.	✓		
3. Do wastes appear compatible with container materials?		✓	
4. Are all containers closed except those in use?		✓	
5. Do containers appear to be opened, handled or stored in a manner which may rupture the containers or cause them to leak?	✓		
6. How often does the plant manager claim to inspect container storage areas?			
7. Does it appear that incompatible wastes are being stored in close proximity to one another? If "YES", explain.			✓
8. Are containers holding ignitable or reactive wastes located at least 15 meters (50 feet) from the facility's property line?	✓		

9. What is the approximate number and size of containers with hazardous wastes?

1900

TANKS (§265.190)	YES	NO	DON'T KNOW
1. Are there any leaking tanks? If "YES", explain.		✓	
2. Are there any tanks which appear in danger of leaking. If "YES", explain.		✓	
3. Are wastes or treatment reagents being placed in tanks which could cause them to rupture, leak, corrode or otherwise fail? If "YES", explain.			✓
4. Do uncovered tanks have at least 2 feet of freeboard or an adequate containment structure?	N/A		
5. Where hazardous waste is continuously fed into a tank, is the tank equipped with a means to stop this inflow?	✓		
6. Does it appear that incompatible wastes are being stored in close proximity to one another, or in the same tank? If "YES", explain.	✓		
7. How often does the plant manager claim to inspect container storage areas? DAILY			
8. Are ignitable or reactive wastes stored in a manner which protects them from a source of ignition or reaction? If "YES", explain.		N/A	

9. What is the approximate number and size of tanks containing hazardous wastes?
ONE 2500 GALLON ACID TANK.

SURFACE IMPOUNDMENTS (§265.220) N/A			
1. Is there at least 2 feet of freeboard in the impoundment?			
2. Do all earthen dikes have a protective cover to preserve their structural integrity? If "YES", specify type of covering.			
3. Is there reason to believe that incompatible wastes are being placed in the same surface impoundment? If "YES", explain.			

4.8.2

	YES	NO	DON'T KNOW
4. Are ignitable or reactive wastes being placed in surface impoundments without being treated to remove these characteristics? If "YES", explain.	___	___	___
5. Are there any leaks, failures or is there any deteriorization in the impoundments? If "YES", explain.	___	___	___
6. Give the approximate size of surface impoundments (gallons or cubic feet).			

WASTE PILES (§265.250) N/A

1. Is the waste pile protected from wind erosion?	___	___	___
a. Does it appear to need such protection?	___	___	___
b. Explain what type of protection exists.			
2. Does it appear that incompatible wastes are being stored in the same waste pile? If "YES", explain.	___	___	___
3. Is leachate run-off from a pile a hazardous waste? If "YES", explain this determination and answer (a) and (b) below.	___	___	___
a. Is the pile placed on an impermeable base that is compatible with the waste?	___	___	___
b. Is the pile protected from precipitation and run-on?	___	___	___
4. In your judgment, are ignitable or reactive wastes managed in such a way that they are protected from any material or conditions which may cause them to ignite? Please explain or indicate if no such wastes are present.	___	___	___
Are they placed on an existing pile so that they no longer meet the definition of ignitable or reactive waste? Please explain.	___	___	___
5. How many waste piles are on site, and approximately how large are they?			

LAND TREATMENT (§265.270) N/A

1. Can the facility operator demonstrate that the hazardous waste has been made less or non-hazardous by biological degradation or chemical reactions occurring in or on the soil? Please explain.	___	___	___

4.9.22

	YES	NO	DON'T KNOW
*2. Is run-on diverted away from the active portions of the land treatment facility?	—	—	—
*3. Is run-off collected?	—	—	—
4. Are food chain crops being grown on the facility property?	—	—	—
a. If "YES", can the facility operator document that arsenic, lead and mercury:			
- will not be transferred to the crop or ingested by food chain animals or	—	—	—
- will not occur in greater concentrations in the crops grown on the land treatment facility than in the same crops grown on untreated soils.	—	—	—
b. Has notification of the growing of the food chain crops been made to the Regional Administrator?	—	—	—
5. Is there a written and implemented plan for unsaturated zone monitoring?	—	—	—
6. Are there records of the application dates, application rates, quantities and location of each hazardous waste placed in the facility?	—	—	—
7. Do the closure and post-closure plans address:			
a. control of migration of hazardous wastes into the groundwater?	—	—	—
b. control of run-off, release of airborne particulate contaminants?	—	—	—
c. compliance with requirements for the growth of food-chain crops (if they are present)?	—	—	—
8. Is ignitable or reactive waste immediately incorporated into the soil so the resulting waste no longer meets that definition? If "YES", explain.	—	—	—
9. Are incompatible wastes placed in the same land treatment area? If "YES", explain.	—	—	—
10. What is the area of the land receiving hazardous waste treatment?	—	—	—

LANDFILLS (§265.300) N/A

†1. Is run-on diverted away from the active portions of the landfill?	—	—	—
†2. Is run-off from active portions of the landfill collected?	—	—	—

* Effective date for these requirements is May 19, 1981.

† These requirements are effective November 19, 1981.

4.10.2

	YES	NO	DON'T KNOW
3. Is waste which is subject to wind dispersal controlled? Explain.	___	___	___
4. Does the owner/operator maintain a map with:			
- the exact location and dimensions of each cell	___	___	___
- the contents of each cell and approximate location of each hazardous waste type	___	___	___
5. Do the closure and post-closure plans address:			
- control of pollutant migration via ground water?	___	___	___
- control of surface water infiltration?	___	___	___
- prevention of erosion?	___	___	___
6. Is ignitable or reactive waste treated before being placed in the landfill? Explain how you know.	___	___	___
7. Are precautions taken to insure that incompatible wastes are not placed in the same landfill cell? If "NO", explain.	___	___	___
8. Are bulk or non-containerized wastes containing free liquids placed in the landfill? If "YES",	___	___	___
a. Does the landfill have a liner which is chemically and physically resistant to the added liquid?	___	___	___
b. Is the waste treated and stabilized so that free liquids are no longer present?	___	___	___
*9. Are containers holding liquid waste or waste containing free liquids placed in the landfill?	___	___	___
10. Are empty containers (e.g. those containing less than 1/2 inch of liquid) placed in the landfills?	___	___	___
If so, are they crushed flat, shredded or similarly reduced in volume before they are buried?	___	___	___

11. What is the approximate area of the hazardous waste landfill?

_____

* Effective date for this requirement is November 19, 1981.

4.11.22

INCINERATORS AND THERMAL TREATMENT (§§265.340 and 265.379)

N/A

	YES	NO	DON'T KNOW
1. What type of incinerator or thermal treatment is at the site (e.g. waterwall incinerator, boiler, fluidized bed, etc.)?			
2. Was hazardous waste being incinerated or thermally treated during your inspection? If "YES", answer all following questions. If "NO", answer only questions 3 and 7.	—	—	—
3. Has waste analysis been performed (and written records kept) to include:			
- heating value of the waste	—	—	—
- halogen content	—	—	—
- sulfur content	—	—	—
- concentration of lead	—	—	—
- concentration of mercury	—	—	—

NOTE: Waste analysis need not be performed on each waste load if if there are documented data available to show waste characteristics that do not vary. If there are such documented data available, check here [ ].

4. Does it appear that the owner/operator brings his thermal treatment process to steady state (normal) conditions of operation before introducing hazardous wastes?	—	—	—
5. Did it appear during your inspection that there was adequate monitoring and inspection by owner/operator every 15 minutes during hazardous waste incineration for:			
- waste feed	—	—	—
- auxiliary fuel feed	—	—	—
- air flow	—	—	—
- incinerator temperature	—	—	—
- scrubber flow	—	—	—
- scrubber pH	—	—	—
- relevant level controls	—	—	—
Every hour for:			
- stack plume (color and opacity)	—	—	—
5. Is there open burning of hazardous waste?	—	—	—

4.12.22

a. If "YES", what is being burned? (only burning or detonation of explosives is permitted)

b. If open burning or detonation of explosives is taking place, approximately what is the distance from the open burning or detonation to the property of others?

	YES	NO	DON'T KNOW
6. Does the incinerator appear to be operating properly? (Do emergency shutdown controls and system alarms seem to be in good working order?) Please explain.			
a. Is there any evidence of fugitive emissions?			
7. Is the residue from the incinerator treated by the owner as a hazardous waste? Please explain.			
8. What types of air pollution control devices (if any) are installed on the incinerator?			

CHEMICAL, PHYSICAL AND BIOLOGICAL TREATMENT (§265.400) N/A

	YES	NO	DON'T KNOW
1. Does the treatment process system show any signs of ruptures, leaks, or corrosion? Please explain.			
2. Is there a means to stop the inflow of continuously-fed hazardous wastes?			
3. Is there ignitable or reactive waste fed into the treatment system?			
If "YES", has it been treated or protected from any material or conditions which may cause it to ignite or react? If so, explain how.			
Are the incompatible wastes placed in the same treatment process? If "YES", explain.			

5. Describe the treatment system at this facility.

MEMORANDUM

TO: James C. Maloney, P.E.

FROM: John V. Soderberg, P.E.

DATE: March 12, 1981

RE: Hazardous Waste Disposal (H.W.D.)

On March 11, 1981 the writer was requested to accompany representatives of the Toxic Waste Handling Group in their investigation of the above premises.

At the time of my inspection there were no visible emissions occurring from the process tank in question. However, the East Farmingdale Fire District indicated a visible plume of from 150 to 200' in vertical height on or about noon of that date.

As part of my inspection, I spoke with representatives of Pront Printing (110 Picone Boulevard, Farmingdale). They indicated that the situation has been occurring sporadically since last September and was particularly severe last Summer. Concerning the specific incident, they were unsure about specifics and reported no property damage or lost time that they can contribute directly to the incident.

I recommend first that a detailed industrial survey be made of the premises and secondly that the firm be placed under routine surveillance for at least three months.

JVS:mew

D.9

MEMORANDUM

TO: JAMES C. MALONEY

FROM: JOHN V SODERBERG

DATE: MARCH 16, 1981

RE: H W D.

In follow up to my memo concerning the March 11, 1981 investigation of the above firm, an air pollution emission inspection was not performed at that time (due to inclement weather and potential safety hazard).

The water pollution file contains no information either confirming of denying the presence of such sources (only the H. W. D. environmental check-list submitted by them to Babylon Town indicating no process emissions).

I have therefore requested that such a survey be performed.

JVS:ets

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
INDUSTRIAL WASTE AND HAZARDOUS MATERIALS CONTROL
65 Jetson Lane, P.O. Box G, Central Islip, NY 11722
(516) 234-2622, 2260

D.10

OF ...ITY		OWNER/ OFFICER	PAGE 1 OF
COMPANY NAME		CONTACT	TEL.
PLANT ADDRESS	VILLAGE	TOWN	ZIP
MAILING ADDRESS			

DATE 12 MAY 81 | TIME | ORIG. | PERIODIC | RE. | WASTE | NO WASTE | H & H | SEWAGE SYSTEM | PUBLIC PRIVATE

INDUSTRY

SPDES OR SPDES PERMIT? YES NO PERMIT NO. | 360 PERMIT? YES NO PERMIT NO.

INDUSTRIAL PROCESSES

NO.	PROCESS	CHEMICALS USED AND APPROXIMATE QUANTITY	IND. LIQUID WASTE DISCHARGE	DISCHARGED TO	AIR POL. SOURCE
	MR. JOSEPH PICONE →				
		Pipe ended immediately North of Bryers			
	property. End of pipe was covered up approx.			6-7 years	
	ago. Storm drain in question may not be				
	covered				

SCAVENGER | TEL.

SCAVENGER APPROVED YES NO | PICK UP RECORDS AVAILABLE YES NO | RECORDS CONSISTENT WITH EXPECTED WASTE GENERATION YES NO

AIR POLLUTION SOURCES

NO.	PROCESS	AIR POL. SOURCE DESCRIPTION	EMISSION POINTS	TYPE OF EMISSION	AMT. OF EMISSION/CONSUMP.	HOURS/ OP.	CONTROL TYPE

HEATING SYSTEM FUEL TYPE	MFG. NAME	FIRING RATE
INCIN. TYPE	WASTE BURNED	CHARGING RATE

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

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

SIGN. OF PERSON SEC. REPORT	TITLE	INSPECTOR

INFORMATION OBTAINED FROM MR. JOSEPH PICONE, OF JOSEPH PICONE + SON INC. AT #1637 BROAD HALLOW RD. FARMINGDALE.

I INTERVIEWED MR JOSEPH PICONE ON MAY 5, 1981, between 1^05 - 3^45 IN THE AFTERNOON AT HIS OFFICE ~~AT~~ ON BROAD HALLOW RD. FARMINGDALE.

THE INFORMATION REQUESTED ~~THE~~ WAS THE CONSTRUCTION DETAILS CONCERNING THE STREET STORM ~~DRAIN~~ DRAIN SYSTEM LOCATED ON PICONE BLVD, FARMINGDALE.

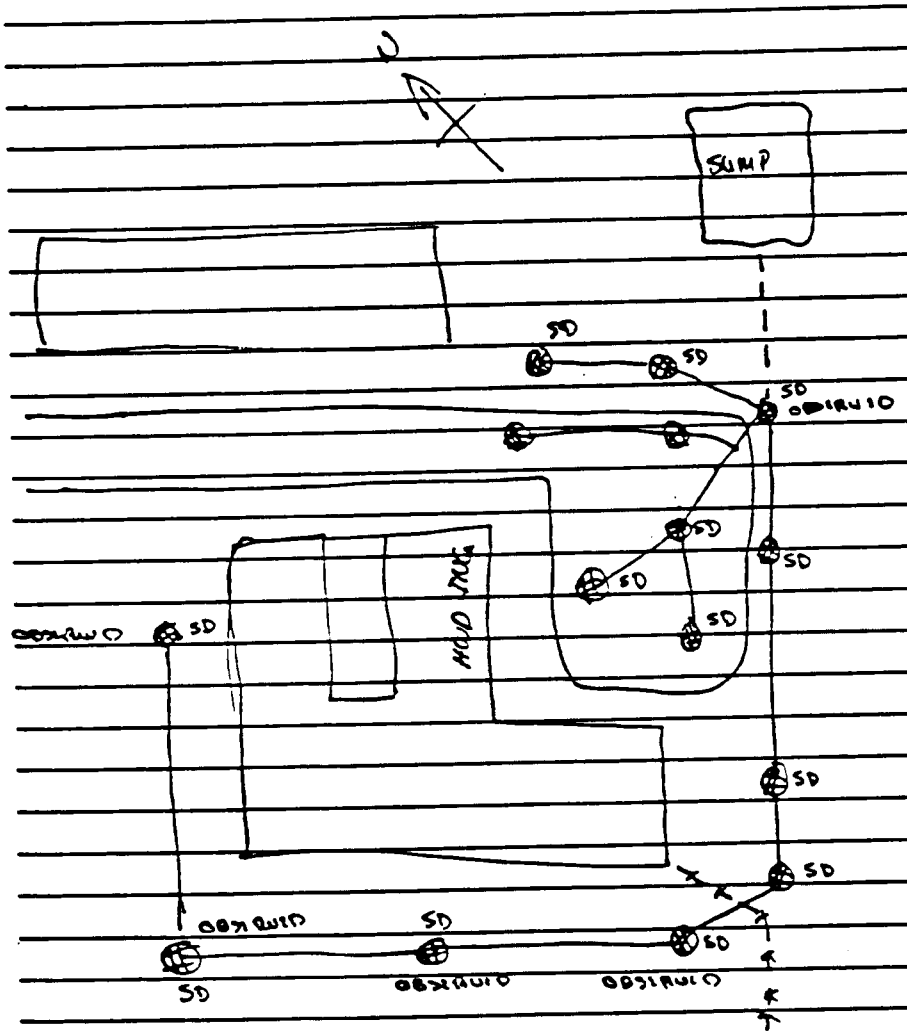
MR. PICONE TOLD ME THAT HE INSTALLED THE STORM DRAIN SYSTEM HIMSELF. WE THEN LEFT MR PICONE'S OFFICE AND BY CAR INSPECTED THE AREA IN QUESTION. WE DID NOT GO TO THE IMMEDIATE VICINITY OF HWD INC BECAUSE THE ROAD WAS BLOCKED BY TRUCKS. HOWEVER MR. PICONE STATED THAT ALL THE STORM DRAINS IN THAT VICINITY DO RUN INTO A COMMON PIPE WHICH RUNS INTO THE SMALL SUMP LOCATED TO THE NORTH EAST OF HWD INC. ~~[illegible]~~. AT ONE TIME THE PIPE ACTUALLY ENTERED THE SUMP, BUT HAS BEEN FILLED IN AND THE END OF THE PIPE COVERED. MR. PICONE SAID THAT THE DRAINAGE SYSTEM STILL WORKS BECAUSE ONLY DURING THE HEAVIEST OF RAIN DO THEY HAVE ANY RUN-OFF PROBLEMS.

MR. PICONE ALSO STATED THAT THERE HAS LAWYERS. HE HAS ASKED HWD. INC. TO VACATE THEIR ESTABLISHMENT BY JUNE 1, 1981

CONTINUED: INSPECTORS OBSERVATIONS OR INTERVIEWS

4.21.22

(2)



FILE UNDER HWD INC.

4.22.22

CONTINUED: INSPECTORS OBSERVATIONS OR INTERVIEWS

5 MAY 81 JOSEPH PICONE + SON INC. 249-5800 1:05pm - 3:05pm

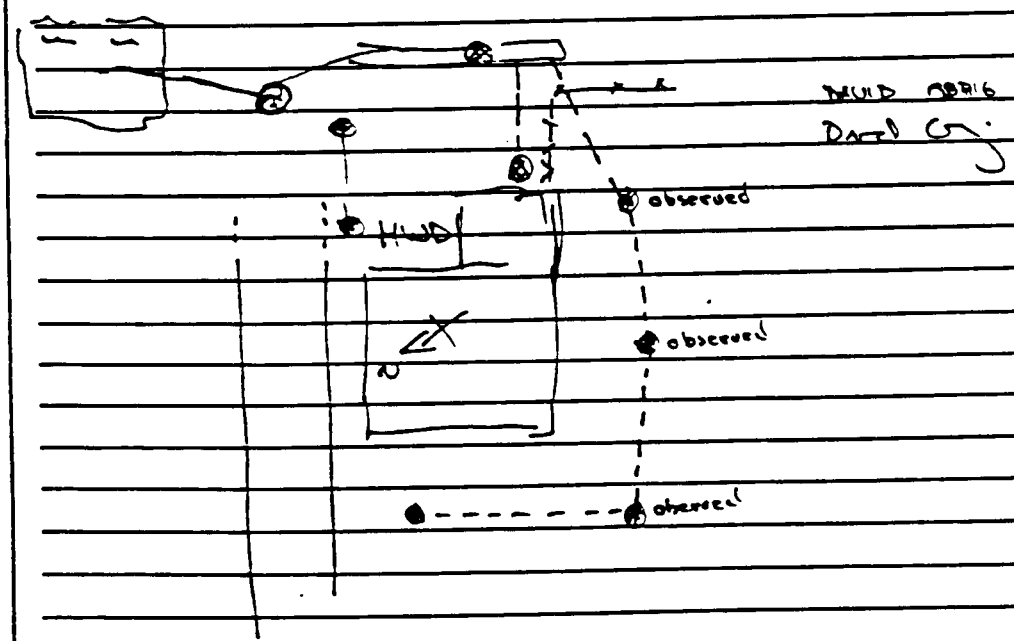
Information obtained from interview with Mr. Joseph Picone, of the Picone Realty Inc. located at Rt 110, Farmingdale. 1637 Broadhollow Rd.

The storm drain system was installed by Mr. Picone himself on Picone Blvd. in the vicinity of HWD Inc.

I accompanied Mr. Picone to the location and he pointed out the various drains and how they ran. We did not go to the immediate vicinity of HWD Inc. because the road was blocked by trucks. However Mr. Picone stated that all the storm drains in that vicinity do ~~drain~~ run into a common pipe which runs towards the small sump located to the North East of the HWD Inc. property.

At one time the pipe actually entered the sump, but the sump has been filled in and the end of the pipe has been covered. Mr. Picone said the the system still ~~[illegible]~~ works because only during the heaviest of rain do they have any run off problems.

Mr. Picone also stated that ~~they~~ ~~he~~ thru his ~~lawyer~~ lawyer he has asked HWD Inc. to ~~[illegible]~~ vacate their establishment by June 1, 1981.



New York State Department of Environmental Conservation

MEMORANDUM

TO: D. Middleton
FROM: A. Machlin
SUBJECT: Monthly Report - Environmental Quality, April 1981

DATE: April 28, 1981

A. Accomplishments

1. Town of Oyster Bay - Solid Waste

A meeting was held with the Town and representatives of DEC, NCDH, and USEPA on the Town's proposed resource-recovery facility to expedite necessary permits including the PSD permit being handled by USEPA.

In addition, the Town has submitted a report on wastewater management for the proposed resource-recovery project, as well as landfill leachate and incinerator discharges, which were reviewed at a meeting with the Town, its consultants (Lockwood, Kessler & Bartlett), and NCDH.

2. Town of North Hempstead/PASNY/Resource Recovery

PASNY is preparing a proposal to build a resource-recovery facility which will be presented to the Town on or about June 1, 1981. This Department has been involved in meetings with PASNY, USEPA, NCDH, and the Town to expedite necessary permits, including the PSD permit presently being handled by USEPA.

3. Groundwater Management Program

Continued progress was made towards completion of early work tasks of the project and initiation of intermediate technical tasks. The final draft report of Criteria for Defining Groundwater/Water Supply Problems was transmitted to USEPA.

4. 208 Projects

Meetings were held on 4/23/81 with USEPA Consultants and Region staff, local agencies, and DEC staff to initiate Consumer Products, Spill Response, and Fertilizer/Pesticides projects in terms of contract preparations, work plans, etc., and to determine the nature and extent of involvement of USEPA consultants in the projects.

5. Beach Erosion & Hurricane Protection Program

The Tidal Wetlands permit was issued for the Moriches Inlet breach repair revetment project.

6. Air Resources - Agreements with NCDH and SCDHS

Memoranda of Agreement for carrying out DEC programs by NCDH and SCDHS have been completed.

A9-2

2. Applied Environmental Services-(AES) and Hazardous Waste Disposal (HWD) Corp.

On 4/14/81, a meeting was held between representatives of the Bureau of Hazardous Waste and this Region concerning the carrying out of that program in this Region. It was indicated that Region 1 had the most commercial hazardous waste facilities in the State. Also, a major part of the discussion related to HWD in Farmingdale and AES in Glenwood Landing. Since HWD was not a pre-existing facility and commenced operation in July of 1979 without a Part 360 Permit, it was determined that it was operating illegally and should be closed until a permit is received. On the other hand, AES was a pre-existing facility but does not yet have a completed Part 360 application which would allow it to operate legally. It was determined that an Order on Consent would be utilized to allow the continued operation of AES, with a three-month milestone to allow for completion of the application and continued cleanup. If the application is completed at that time, the Order on Consent would continue to be utilized to allow the operation until the permit process was completed.

On 4/23/81, a meeting was held with representatives of AES and HWD to inform them of this Department's determinations. The owner of the firm indicated that, if HWD was closed, the firm could not afford to keep AES open since the operations were interdependent. The owner offered to correct any deficiencies on HWD as soon as possible if DEC would allow continued operation. The Division of Solid Waste attorney stated that he would bring this matter to the attention of this Department's Executive Staff for a review and determination within the week.

3. Water Quality Accidents

There were forty-four new spills reported: twenty-eight in Nassau County and sixteen in Suffolk County

4. Sheridan Industrial Waste Oil Corp.

Nassau County Department of Public Works has indicated that it cannot temporarily accept the oil-contaminated water that is removed from Sheridan's waste oil collection operation, as originally hoped, because it is considered a hazardous waste by USEPA and would need an extensive effort on their part to meet USEPA regulatory requirements. Since Sheridan presently has no disposal point for this material, it is not picking up this material which will probably result in increased illegal disposal.

5. [illegible] - Solid Waste

[illegible] and a conference has been scheduled for 5/6/81 on this matter.

6. [illegible] - Solid Waste

[illegible] to the Town calls for involvement in resource recovery.

ROUX ASSOCIATES, INC.

Telephone Conversation Sheet

Caller Joanne Yeary

Company Little Joseph Realty Inc.

Contact Vic Emanuelo Telephone # 689-3400

in Reference to Hazardous Waste Disposal

DATE	COMMENTS
June 10th	Asked to speak to owner of HWD, Joseph Pierce. He (Vic Emanuelo) told me that HWD is owned by Little Joseph Realty Inc. He wants me to mail him letters of authorization before he lets me set up a visit to the site. He wanted to know if I was in contact with the DEC, and who at the DEC. He says he will call back after recieving the letters.
	Mailed letter w/ authorization letters June 10th. (12
	Little Joseph Realty Inc 1637 Broad Hollow Rd. Farmingdale, NY 11735

D. 13

ROUX ASSOCIATES, INC.

Telephone Conversation Sheet

Caller Joanne Yeary

Company Environmental Services Inc.

Contact George Lawrence Office Telephone # 273-3150

in Reference to Hazardous Waste Disposal.

DATE	COMMENTS
June 10th	Lawrence said that Hazardous Waste Disposal has been closed by the Suffolk County Health Dept. He said that if we wanted to visit the site we would have to get in touch with the owner - Joseph Picone CH9-3400.

D.14

New York State Department of Environmental Conservation
Building 40 - State University of New York
Stony Brook, New York 11794
(516) 751-7900

Robert F. Flacke
Commissioner

May 29, 1981

Mr. William R. Southard
Assistant Regional Director
Interstate Commerce Commission
Suite 501
150 Causeway Street
Boston, Massachusetts 02114

Dear Mr. Southard:

Please be advised that Hazardous Waste Disposal, Inc. has been operating without the required Part 360 Permit, pursuant to Article 27, Title 7, of the New York State Environmental Conservation Law. They have also been operating without a Siting Board Permit, as required under Section 27-1105.

They are, therefore, operating illegally and I am attaching hereto, a copy of the Department's Notice of Hearing and Complaint. I would suggest that you consider these facts in reviewing their temporary Permit to Operate.

Very truly yours,

JOAN B. SCHERB
Regional Attorney

JBS:cm
Attachment
cc: Town of North Hempstead
bc: Morris Bruckman

ROUX ASSOCIATES, INC.

Telephone Conversation Sheet

Caller J. BYRNES

Company Suffolk County Department of Health Service

Contact Mr. David Obrig Telephone # (516) 451-463

DATE	COMMENTS
7/15	In refrence to the alledge sludge pit. Mr. Obrig informed me that the cement lined pit was used during clean-up operations. Wastes from on-site drums were emptied into this pit and after wastes solidified they were removed from pit and transported off site.
	Storm drains — the 2 storm drains empty into the nearby sump. This was proven when a dye test was performed by Mr. Obrig and the local fire department.
	Mr. Obrig also stated that very early samples were taken from the on-site storm drains and high concentrations of Styrene found.

(47-15-11 (10/83)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF SOLID AND HAZARDOUS WASTE

INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

SITE CODE: 152113

PRIORITY CODE: _____ REGION: I

NAME OF SITE: Hazardous Waste Disposal

STREET ADDRESS: 11 A Picone Blvd.

TOWN/CITY: Farmingdale COUNTY: Suffolk

NAME OF CURRENT OWNER OF SITE: Little Joseph Realty, Inc.

ADDRESS OF CURRENT OWNER OF SITE: 1637 Broad Hollow Rd., Farmingdale, NY

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

ESTIMATED SIZE: 0.5 ACRES

SITE DESCRIPTION: Located in an industrial park, the site is a paved and fenced in lot. the site was used for the temporary storage of hazardous wastes. Wastes were stored in 55-gallon drums, sludge pit and tanks. The DEC conducted a site inspection in July 1985 and observed several poorly conditioned drums and a strong solvent odor.

As of Roux Associates' site inspection on June 25, 2987, the site shows no signs of any hazardous materials or conditions.

HAZARDOUS WASTE DISPOSED: CONFIRMED [x] SUSPECTED [ ]

TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
chlorinated and non-chlorinated solvents	unknown
paint sludge	unknown
waste oils	unknown
waste resins	unknown

PAGE

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

_____, 19 79 TO _____, 19 84

OWNER(S) DURING PERIOD OF USE: George Lawrence

SITE OPERATOR DURING PERIOD OF USE: George Lawrence

ADDRESS OF SITE OPERATOR: 1 Shore Rd., Glenwood Landing, NY

ANALYTICAL DATA AVAILABLE: AIR [ ] SURFACE WATER [ ] GROUNDWATER [ ]
SOIL [ ] SEDIMENT [ ] NONE [x]

CONTRAVENTION OF STANDARDS: GROUNDWATER [x] DRINKING WATER [ ]
SURFACE WATER [ ] AIR [ ]

SOIL TYPE: unconsolidated sand and gravel

DEPTH TO GROUNDWATER TABLE: 25 - 30 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:

Potential soil and ground-water contamination

ASSESSMENT OF HEALTH PROBLEMS:

N/A

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NAME J. Patrick Byrnes
TITLE Geologist
NAME Roux Associates, Inc.
TITLE _____
DATE: _____

NEW YORK STATE DEPARTMENT OF HEALTH

NAME _____
TITLE _____
NAME _____
TITLE _____
DATE: _____

PAGE

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
INDUSTRIAL WASTE AND HAZARDOUS MATERIALS CONTROL
65 JETSON LA., PO BOX G, CENTRAL ISLIP, NY 11722
(516) 234-2622

GW
D.17

NAME OF FACILITY	OWNER/OFFICER George Lawrence.	PAGE 1 OF
COMPANY NAME HWD INC.	CONTACT	TEL.
PLANT ADDRESS PICONE BLVD.	VILLAGE Farmingdale TOWN Bab.	ZIP
MAILING ADDRESS		

DATE 14 Sept. 82	TIME 9:00 AM	ORIG. PERIODIC (RE)	WASTE NO WASTE (H&H)	SEWAGE SYSTEM PUBLIC PRIVATE

INDUSTRY Industrial Waste Scavenger.

SPDES OR NPDES PERMIT? YES NO PERMIT NO.	360 PERMIT? YES NO PERMIT NO

SCAVENGER		TEL.
SCAVENGER APPROVED YES NO	PICK UP RECORDS AVAILABLE YES NO	RECORDS CONSISTENT WITH EXPECTED WASTE GENERATION YES NO

HEATING SYSTEM-MFG NAME	FUEL TYPE	FIRING RATE
INCIN. NAME	WASTE BURNED	RATE

DRUM STORAGE (YES) NO	NUMBER OF DRUMS STORED 840-CONTAIN MATERIAL 420-EMPTY	TYPE OF MATERIAL STORED WASTE RAW (BOTH)
TANK STORAGE (YES) NO	ABOVE GROUND X UNDER GROUND BOTH	TYPE OF MATERIAL STORED (WASTE) RAW BOTH
HAVE TANKS BEEN REGISTERED YES (NO)	CONDITION OF ABOVEGROUND TANKS GOOD FAIR (POOR)	ANY ART. XII VIOLATIONS (YES) NO

(1) Spills noted in drum storage area were cleaned up with absorbent material.

(2) Empty drums outside dyked area had material within them.

(3) Drums Containing material 840x55gal.
Drums empty - 420x55gal.

(4) Article 12 Violations → Outside, unsecured, pad not impervious.

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

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

DAVID OBRIG

SIGN OF PERSON REC REPORT	TITLE	INSPECTOR [signature]

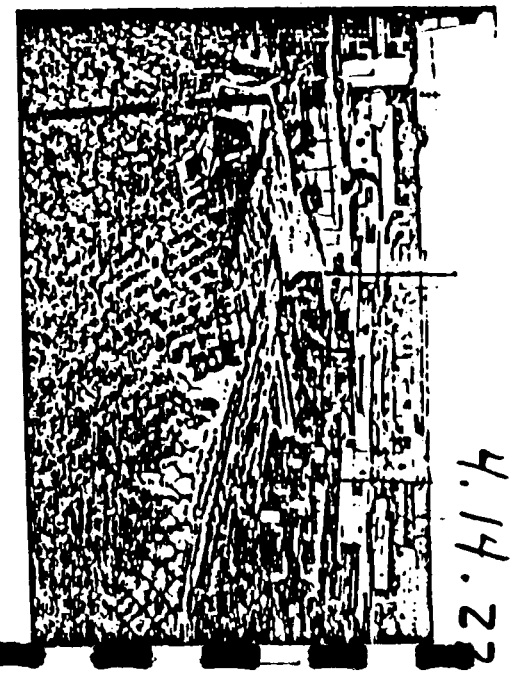
18155 6/81 5/81 TJK

INDUSTRIAL WASTE PROCESS

NO.	PROCESS	CHEMICALS USED AND APPROXIMATE QUANTITY	DISCHARGE	DISCHARGE TO
	(5) (a) Furthest West blue sludge	tank, 8-12" MATERIAL.		
	(b) Next to furthest West,	8-12" LIQUID (BLACK) 8-12" MATERIAL (SLUDGE)		
	(c) Blue tank middle of drums,	1/2 full As per Geo. Lawrence.		
	(7) Pit, covered with black plastic	full to top sludge.		
	(8) 2x blue dumpsters, each 1/2	full, by inspection.		

NO.	PROCESS

HWD INC.
PICONE BLVD. FARMINGDALE, N.Y.
14 Sept 82



4.14.22

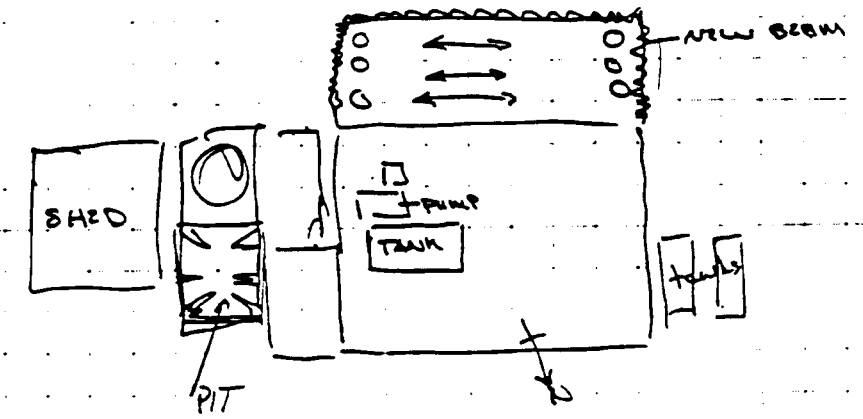
D-78

SUFFOLK COUNTY
DEP'T OF
HEALTH SERVICES

JOB: HWD INC — D.18
SHEET NO: PICONS BLVD. FARMINGDALE — OF
CALCULATED BY: — DATE
CHECKED BY: — DATE
SCALE

30 JUNE 82 - 1150 AM.

Log ✓ Reinsp
New Letter
Art XII ✓ Sample
Air File
Alex S. ✓



① OBSTRUCTED NO WORK AT SITE DURING INSPECTION.
② OBSTRUCTED NO OBVIOUS SPILLS
③ Drums were uncovered + exposed to weather.

④ New pad area has been constructed to the South of the old drum storage.
Drums two (2) high have been stored between the berm + the transfer pump.

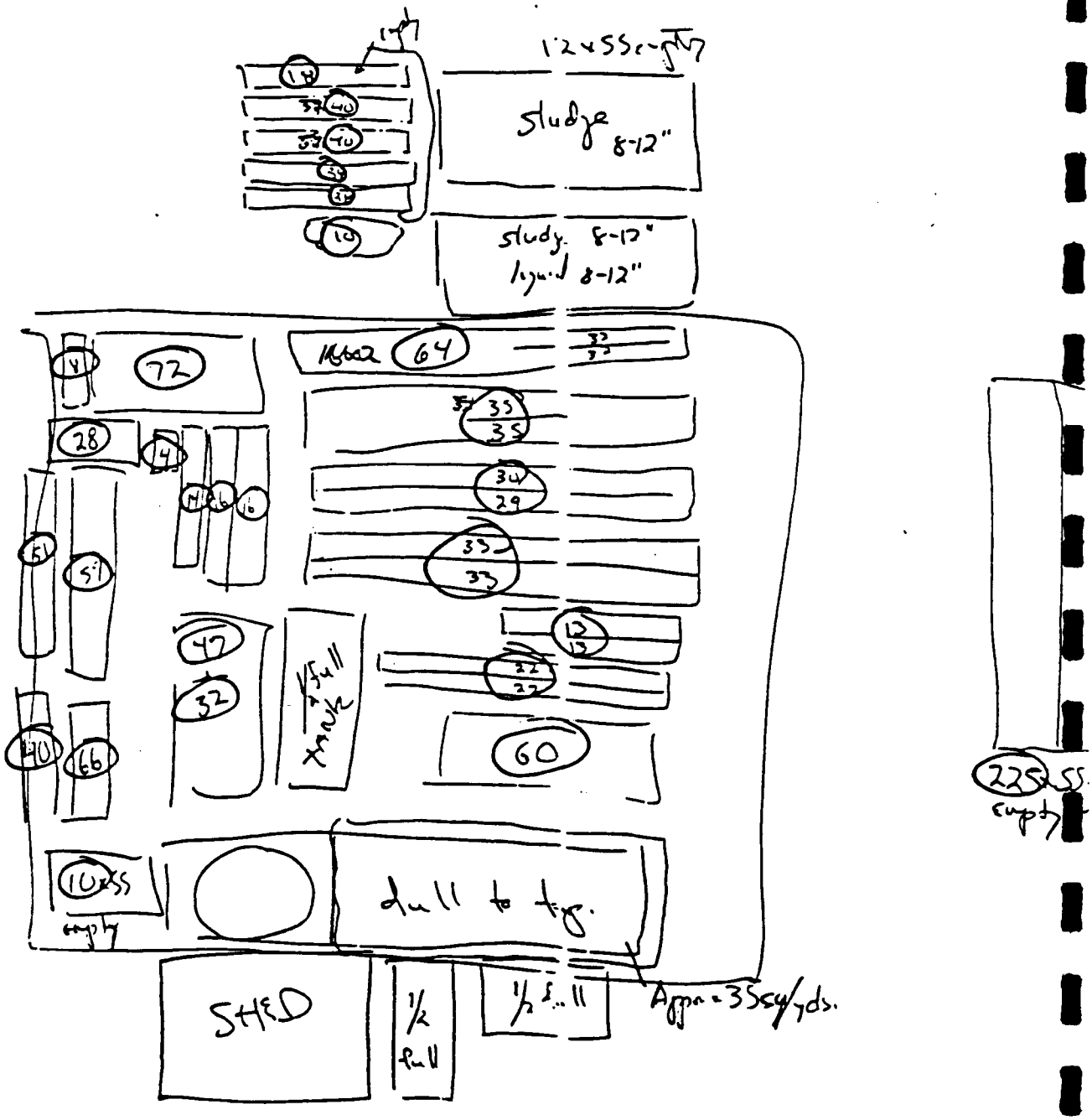
⑤ Waste pit North of Acid/Base mix tank covered with black plastic.

D. Oberg

FORM HMM-IE

16-193 9/81

4.16.22



15 Sept - Acid tank to be pumped

Spill in drum area had absorbent material on them

Empty drums cut side dyke area had residue in some.

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

CLASSIFICATION CODE: 2a REGION: 1 SITE CODE: 152113
EPA ID:

NAME OF SITE: Hazardous Waste Disposal
STREET ADDRESS: 11A Picone Blvd.
TOWN/CITY: Farmingdale COUNTY: Suffolk ZIP:

SITE TYPE: Open Dump- Structure- Lagoon-X Landfill- Treatment Pond-
ESTIMATED SIZE: 0.5 Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: Little Joseph Realty
CURRENT OWNER ADDRESS.: 1637 Broad Hollow Rd.
OWNER(S) DURING USE...: George Lawrence
OPERATOR DURING USE...: 1 Shore Rd., Glenwood Landing, NY 11547
OPERATOR ADDRESS.....: 1 Shore Road, Glenwood Landing
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From about 1979 To 1983

SITE DESCRIPTION:
A paved and fenced in lot in a small industrial park. Site was used as a temporary storage facility for hazardous wastes picked up by a formerly permitted transporter. Site inspection was done by DEC July 1985. Several old battered drums were observed on site and a strong pungent odor of solvents was present.

In 1984 the site owner removed all wastes from site and ceased operations. A DEC site inspection in July 1985 confirmed this. The site is currently used as a parking lot.

HAZARDOUS WASTE DISPOSED: Confirmed-X Suspected-

TYPE	QUANTITY (units)
paint lacquer	
ink thinners	
chlorinated solvents	
non-chlorinated solvents	
waste oils	
waste resins	
acids	

[D-20]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

RCRA TRANSPORTER INSPECTION CHECKLIST

ENVIRONMENTAL PROTECTION AGENCY NEW YORK, N.Y. 10007 OCT 19 3 6 PM '81

nsporter Name: HAZARDOUS WASTE DISPOSAL, INC. EPA I.D.: NYT 000603844

nsporter Address: 11 A PICONE BLVD. FARMINGDALE, N.Y. Driver:

CONTACT PERSON: MR. GEORGE R. LAWRENCE
TITLE: PRESIDENT

	Yes	No
Does the transporter have an EPA I.D. number?	(X)	( )
Is the transporter carrying hazardous waste?	(X)	( )
Does the transporter have a manifest?	(X)	( )
Does the manifest show the following information:		
a. Name, address, I.D. of generator	(X)	( )
b. Name, address, I.D. of transporter	(X)	( )
c. Name, address, I.D. of designated facility	(X)	( )
d. Name of alternative facility	( )	(X)
e. DOT waste description	(X)	( )
f. Quantity of waste-volume, weight, number of containers	(X)	( )
g. Signed certification statement	(X)	( )
Does the manifest information confirm vehicle load?	(X)	( )
Is the vehicle placarded for hazardous waste?	(X)	( )

General comments:

THIS WAS NOT A HIGHWAY STOP OF A TRUCK BUT RATHER AN OFFICE TYPE INSPECTION.

RECEIVED

OCT 26 1981

DIRECTOR'S OFFICE
DIVISION OF SOLID WASTE [D-82]

Inspected by: [signature]
Date: Sept 2, 1981

DATE OF INSPECTION

RCRA GENERATOR INSPECTION FORM

COMPANY NAME: HAZARDOUS WASTE DISPOSAL, INC.

EPA I.D. NUMBER: NYT [illegible]

COMPANY ADDRESS: 11 A PICONE BLVD. FARMINGDALE, N.Y. 11735

COMPANY CONTACT OR OFFICIAL: MR. GEORGE R. LAWRENCE

INSPECTOR'S NAME: [illegible]

TITLE: PRESIDENT

BRANCH/ORGANIZATION: SOLID WASTE

CHECK IF FACILITY IS ALSO A TSD FACILITY /✓/

DATE OF INSPECTION: 9-2-81

	YES	NO	DON KNO
(1) Is there reason to believe that the facility has hazardous waste on site?	✓		

a. If yes, what leads you to believe it is hazardous waste? Check appropriate box:

/✓/ Company admits that its waste is hazardous during the inspection.

/✓/ Company admitted the waste is hazardous in its RCRA notification and/or Part A Permit Application.

/✓/ The waste material is listed in the regulations as a hazardous waste from a nonspecific source (§261.31)

/ / The waste material is listed in the regulations as a hazardous waste from a specific source (§261.32)

/ / The material or product is listed in the regulations as a discarded commercial chemical product (§261.33)

/ / EPA testing has shown characteristics of ignitability, corrosivity, reactivity or extraction procedure toxicity, or has revealed hazardous constituents (please attach analysis report)

/ / Company is unsure but there is reason to believe that waste materials are hazardous. (Explain)

RECEIVED

OCT 26 1981

DIRECTOR'S OFFICE
DIVISION OF SOLID WASTE

[D-83]

OCT [illegible] 81

ENVIRONMENTAL PROTECTION AGENCY
NEW YORK, N.Y. 10007

	YES	NO	DON'T KNOW
b. Is there reason to believe that there are hazardous wastes on-site which the company claims are merely products or raw materials?	✓		

Please explain: ALTERNATE FUEL SUPPLIERS FROM WASTE OILS AND SOLVENTS.

c. Identity the hazardous wastes that are on-site, and estimate approximate quantities of each.
1900 DRUMS (55-GAL) CONTAINING IGNITABLES AND NON-IGNITABLE; PLUS ONE 2500 GALLON ACID TANK.

d. Describe the activities that result in the generation of hazardous waste.
RESIDUES FROM THE RECOVERY OF ALTERNATE FUEL.

	YES	NO	DON'T KNOW
(2) Is hazardous waste stored on site?	✓		
a. What is the longest period that it has been accumulated? USUALLY 72 HOURS.			
b. Is the date when drums were placed in storage marked on each drum? NOT ALL OF THEM. DRUMS ARE STORED UNPROTECTED FROM ELEMENTS, WITHOUT AISLE SPACING. MOST DRUMS ARE CORRODED AND LEAKED. HOWEVER, THIS IS ALSO A STORAGE FACILI	✓	✓	
(3) Has hazardous ~~waste been shipped from~~ this facility since November 19, 1980?	✓		
a. If "yes," approximately how many shipments were made? A FEW TIMES PER WEEK			
(4) Approximately how many hazardous waste shipments off site have been made since November 19, 1980?			
a. Does it appear from the available information that there is a manifest copy available for each hazardous waste shipment that has been made?	✓		
b. If "no" or "don't know," please elaborate.			

	YES	NO	DON'T KNOW
c. Does each manifest (or a representative sample) have the following information?			
- a manifest document number	✓		
- the generator's name, mailing address, telephone number, and EPA identification number	✓		
- the name, and EPA identification number of each transporter	✓		
- the name, address and EPA identification number of the designated facility and an alternate facility, if any:	✓		
- a description of the wastes (DOT)	✓		
- the total quantity of each hazardous waste by units of weight or volume, and the type and number of containers as loaded into or onto the transport vehicle	✓		
- a certification that the materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation under regulations of the Department of Transportation and the EPA	✓		
(5) Were there any hazardous wastes stored on site at the time of the inspection?	✓		
a. If "yes," do they appear properly packaged (if in containers) or, if in tanks, are the tanks secure?			

NO. DRUMS ARE CORRODED AND THEY LEAK. THERE IS AN INADEQUATE BERM AND INADEQUATE CONTAINMENT. RUNOFF IS VISIBLE LEADING TOWARD (BUT NOT ENTERING) DRY WELL. POTENTIAL TO ENTER & SEEMS TO EXIT IF HEAVY PRECIPITATION OCCURS.

SEEDED STORAGE ...ITIES

b. If not properly packaged or in secure tanks, please explain.

c. Are containers clearly marked and labelled? NOT ALL OF THEM.	✓	✓	

SOME LABELS ARE INDISTINCT DUE TO LEAKS (SOLVENTS WASHED AWAY PAINT.

d. Do any containers appear to be leaking?	✓		

MAJORITY OF CONTAINERS ARE LEAKING

e. If "yes," approximately how many?

MAJORITY OF VISIBLE CONTAINERS WERE LEAKING

*(6) Has the generator submitted an annual report to EPA covering the previous calendar year? N/A

a. How do you know?

(7) Has the generator received signed copies (from the TSD facility) of all manifests for wastes shipped off site more than 35 days ago? ✓

a. If "no," have Exception Reports been submitted to EPA covering these shipments?

(8) General comments.

MANAGEMENT OF STORED DRUMS IS EXTREMELY POOR. CAN BE DESCRIBED AS A DISASTER AREA. THE WHOLE AREA IS CONTAMINATED WITH SOLVENTS AND OTHER CHEMICALS STORED IN DRUMS (DUE TO LEAKS). YOU CAN SEE ALL THE COLORS OF THE RAINBOW IN THE POOL OF LEAKED SOLVENTS THAT HAD ACCUMULATED ON THE GROUND. THE STORAGE AREA IS INADEQUATELY DIKED BY A TWO-INCH BERM ON TOP OF WHICH WOODCHIPS WERE PLACED. AT LEAST AN INCH OF LIQUID WASTES WERE CONTAINED BY THE BERM. LIQUID WASTES WERE VISIBLE AND WERE ESCAPING THE BERMED AREA AND HEADING IN THE DIRECTION OF A DRY WELL. THE OPENING OF THE DRY WELL WAS PROTECTED BY AN OIL RETAINING COLLAR. DRUMS WERE EXPOSED TO THE ELEMENTS, DENSELY CROWDED TOGETHER WITHOUT AISLE SPACE. THE STORAGE AREA IS A POTENTIAL FIRE HAZARD AND THE WASTES ARE IMPROPERLY STORED.

* The effective date for this requirement is March 1, 1982.

APPENDIX E
UPDATED REGISTRY FORM

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

CLASSIFICATION CODE: 2a REGION: 2 SITE CODE: 152113

NAME OF SITE: Hazardous Waste Disposal Site
STREET ADDRESS: 11-A Picone Boulevard
TOWN/CITY: Farmingdale COUNTY: Suffolk ZIP: 11735

SITE TYPE: Open Dump _X_ Structure ___ Lagoon ___

Landfill ___ Treatment Pond ___

ESTIMATED SIZE: 0.5 acre

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME: Little Joseph Realty, Inc.
CURRENT OWNER ADDRESS: 1637 Broad Hollow Road, Farmingdale, NY 11735
OWNER(S) DURING USE: Little Joseph Realtor, Inc.
OPERATOR DURING USE: George Lawrence, Hazardous Waste Disposal, Inc.
OPERATOR ADDRESS: 1 Shore Road, Glenwood Landing, NY 11747
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: 1979 through 1982

SITE DESCRIPTION:

The site was used to store, treat, and dispose of hazardous waste during 1979 through 1982. It was determined by the NYSDEC in 1981 that the site was operating illegally without Part 360 permit and sitting board permit. 1,900 55-gallon drums of spent solvents and a 2,500-gallon acid tank were observed at the site during an EPA conducted inspection in 1981. 840 55-gallon drums containing waste and 420 55-gallon empty drums were identified by the SCDHS inspector in 1982. Spills were noted in the drum storage area.

HAZARDOUS WASTE DISPOSED: Confirmed _X_ Suspected ___

TYPE	QUANTITY (units)
Spent solvents	1,900 drums

ANALYTICAL DATA AVAILABLE:

Air ___ Surface Water _X_ Groundwater _X_ Sediment _X_

Soil _X_ None ___

CONTRAVENTION OF STANDARDS:

Groundwater _X_ Drinking Water ___ Surface Water _X_ Air ___

LEGAL ACTION:

TYPE: State ___ Federal ___
STATUS: In Progress ___ Order Signed ___

REMEDIAL ACTION:

Proposed ___ Under Design ___ In Progress Completed ___

NATURE OF ACTION:

GEOTECHNICAL INFORMATION:
SOIL TYPE: Fine to coarse sand and gravel
GROUNDWATER DEPTH: 6.5 to 14.5 ft

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

The Phase II investigation shows migration of chlorinated hydrocarbon organic compounds into the groundwater. Soil samples indicated the presence of several organic compounds.

ASSESSMENT OF HEALTH PROBLEMS: